WKE

FEB 2014

PROJECT ID: 2010-10-70
WITH: NA

COUNTY: MILWAUKEE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control Plans)
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 752

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

APPLETON AVENUE - CITY MILWAUKEE

W CAPITOL DRIVE TO N 107TH STREET

USH 41
MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2010-10-70	WISC 2013460	1

STATE PROJECT NUMBER
2010-10-70

DESIGN DESIGNATION		STH 190 TO GRANTOSA DR.	GRANTOSA DR. TO STA. 340+00	STA. 340+00 TO N. PROJECT LIMITS
A.A.D.T. (2013)	=	18,300	15,100	9,450
A.A.D.T. (2033)	=	20,800	17,100	11,150
D.H.V.	=	2,200	1,850	1,200
D.D.	=	58/42	58/42	58/42
T.	=	4.3%	4.3%	4.3%
DESIGN SPEED	=	40 MPH	45 MPH	50 MPH
ESALS	=	2,766,700	2,766,700	2,766,700

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- FENCE LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- ABANDONED GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

END PROJECT
STA. 364+00.00

STRUCTURE
B-40-325
B-40-326

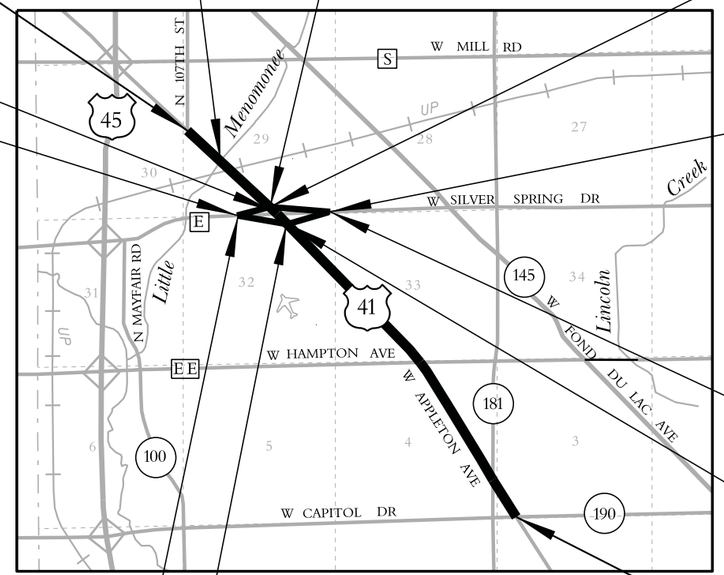
END CONSTRUCTION
STA. 427NW+07.5

BEGIN CONSTRUCTION
STA. 528NE+17.9

STRUCTURE
B-40-328

BEGIN CONSTRUCTION
STA. 421NW+66.3

END CONSTRUCTION
STA. 533NE+85.7



T-8-N
T-7-N

R-20-E | R-21-E

END CONSTRUCTION
STA. 734SE+30.4

BEGIN CONSTRUCTION
STA. 730SE+63.1

BEGIN PROJECT
STA. 188+90.00
Y=318,591.66
X=580,532.75

BEGIN CONSTRUCTION
STA. 623SW+65.0

END CONSTRUCTION
STA. 629SW+42.9

LAYOUT
SCALE 0 0.5 MI.

TOTAL NET LENGTH OF CENTERLINE = 3.316 MI. USH 41
TOTAL NET LENGTH OF CENTERLINE = 0.389 MI. CTH E RAMPS
TOTAL NET LENGTH OF CENTERLINE = 3.705 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY, 83 (97)

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF NAVD 88 (91).

ORIGINAL PLANS PREPARED BY
BLOOM COMPANIES, LLC
Infrastructure Innovation and Ingenuity

WISCONSIN PROFESSIONAL ENGINEER
LISA L. VERSLUYS
E-34384
MENOMONEE FALLS, WI
12/3/13 (Date) (Signature)

ORIGINAL PLANS PREPARED BY
STRAND ASSOCIATES

WISCONSIN PROFESSIONAL ENGINEER
ERIC D. HANSON
E-38350
MADISON, WI
12/5/13 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	BLOOM COMPANIES, LLC/WISDOT
Designer	BLOOM COMPANIES, LLC
Project Manager	ASAD KHAN
Regional Examiner	
Regional Supervisor	BENEDICT ERUCHALU
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 12/5/13 (Signature)

E

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

UTILITY CONTACTS

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

ATC
MR. MICHAEL OLSEN
P.O. BOX 47
WAUKESHA, WI 53187-0047
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CELL: (920) 660-2390

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435 S. 95TH STREET
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CELL: (414) 469-1335
dj5352@att.com

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FOND DU LAC, WI 54937
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dennis.miller@milwaukee.gov

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zafar.yousuf@milwaukee.gov

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FAX: (414) 221-2336
dan.sande@we-energies.com

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or (414) 803-7392

FIRE STATION ENGINE 4
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MILWAUKEE, WI 53225
COMPANY OFFICER
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INCIDENT SAFETY OFFICERS
PHONE: (414) 286-8988

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gary.dikkers@dot.wi.gov

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLANS
EROSION CONTROL PLANS
STORM SEWER PLANS
PERMANENT SIGNING PLANS
TRAFFIC SIGNAL PLANS
PAVEMENT MARKING PLANS
TRAFFIC CONTROL PLANS
DETOUR PLANS
ALIGNMENT PLANS

GENERAL NOTES

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

A SAWED JOINT IS REQUIRED WHERE NEW PAVEMENT SURFACE MEETS EXISTING PAVEMENT SURFACE.

PAVEMENT AND DRIVEWAYS SHALL BE SAWCUT AT THE MATCHLINE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

EXISTING FEATURES SHOWN WERE NOT SURVEYED. PROPOSED CURB AND GUTTER AND SIDEWALK REPAIRS SHALL BE REPLACED AT THE CURRENT LOCATION.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE FILLED WITH GRANULAR BACKFILL., WHICH SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE ABANDONMENT OR REMOVAL ITEM.

EXISTING DRIVEWAYS AND FIELD ENTRANCES SHALL BE RESTORED IN KIND AS DIRECTED BY THE ENGINEER IN THE FIELD AND AT THE LOCATION DETERMINED BY THE ENGINEER.

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE. CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE.

CURB HEIGHTS AT THE END OF CURB AND GUTTER SHALL BE TAPERED FROM 0 TO 4 INCHES OR 0 TO 6 INCHES IN 6 FEET. SEE CONSTRUCTION DETAIL.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLANS AND PROVIDE DOCUMENTATION TO ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

THE EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

REMOVAL OF EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.

DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE TOPSOILED, FERTILIZED AND SEEDED AS DIRECTED BY THE ENGINEER.

TOPSOIL SHALL NOT BE EXPOSED FOR MORE THAN 5 CALENDAR DAYS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

MANHOLES, VALVES, TRANSVERSE JOINTS, OR OTHER ABOVE GROUND OBSTRUCTIONS EXTENDING 1-INCH OR MORE ABOVE THE MILLED SURFACE SHALL HAVE ASPHALTIC SURFACE TEMPORARY RAMPING PLACED AS SHOWN IN THE CONSTRUCTION DETAIL. AN UNDISTRIBUTED QUANTITY OF ASPHALTIC SURFACE TEMPORARY HAS BEEN ADDED TO THE MISCELLANEOUS QUANTITIES. ASPHALTIC SURFACE TEMPORARY RAMPING IS TO BE REMOVED PRIOR TO CONSTRUCTION OF THE NEXT LAYER OF HMA PAVEMENT.

ALL TYPES OF HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

TOTAL LAYER PAVEMENT THICKNESS	LAYERS	NOMINAL MAXIMUM SIZE GRADATION	AC
4"	1 3/4 UPPER LAYER 2 1/4 LOWER LAYER	12.5 mm 19.0 mm	PG 64-28 PG 64-22
6 1/2"	1 3/4 UPPER LAYER 2 1/4 UPPER-LOWER LAYER 2 1/2 LOWER-LOWER LAYER	12.5 mm 19.0 mm 19.0 mm	PG 64-28 PG 64-22 PG 64-22

STRAND PREPARED THE CONSTRUCTION DETAILS FOR THE NORTHERN CROSSOVER, CONCRETE CURB AND GUTTER 30-INCH TYPE A 1 3/4-INCH, AND ROADSIDE BARRIER. STRAND COMPLETED THE STRUCTURE PLANS FOR B-40-325/326. STRAND ALSO COMPLETED EROSION CONTROL PLANS, STORM SEWER PLANS, PAVEMENT MARKING PLANS, TRAFFIC CONTROL STAGING PLANS, AND PLAN SHEETS FOR THE PORTION OF THE PROJECT BETWEEN CARMEN AVENUE AND THE NORTHERN PROJECT LIMIT. FINALLY, STRAND COMPLETED THE MISCELLANEOUS QUANTITIES FOR THESE SECTIONS OF THE PLANS.

STANDARD ABBREVATIONS

AC	ACRE
AGG	AGGREGATE
AH	AHEAD
ASPH	ASPHALTIC
BK	BACK
BM	BENCH MAK
CL OR C/L	CENTER OR CONSTUCTION LINE
Δ	CENTRAL ANGLE OR DELTA
CE	COMMERCIAL ENTRANCE
CONC	CONCRETE
CP	CULVERT PIPE
CY	CUBIC-YARD
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPT	CULVERT PIPE TEMPORARY
D	DEGREE OF CURVE
DIA	DIAMETER
DISCH	DISCHARGE
EL OR ELEV	ELEVATION
EW	END WALL
EBS	EXCAVATION BELOW SUBGRADE
FF	FACE TO FACE
FT	FOOT
HES	HIGH EARLY STRENGTH
INV	INVERT
LT	LEFT
LHF	LEFT HAND FORWARD
L	LENGTH OF CURVE
LF	LINEAR FOOT
MIN	MINIMUM
ML OR M/L	MATCHLINE
NC	NORMAL CROWN
PAVT	PAVEMENT
PLE	PERMANENT LIMITED EASMENT
PCC	POINT OF COMPOUND CURVE
PC	POINT-OF CURVE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
PE	PRIVATE ENTRANCE
PL	PROPERTY LINE
R	RADIUS OF CURVE
RL OR R/L	REFERENCE LINE
REINF	REINFORCED
REQD	REQUIRED
RC	REVERSE CROWN
RT	RIGHT
RHF	RIGHT HAND FORWARD
R/W	RIGHT OF WAY
SALV	SALVAGED
SF	SQUARE FOOT
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWING
SHES	SPECIAL HIGH EARLY STREGNTH
STA	STATION
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SSPRCHE	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
SE	SUPER ELEVATION
T	TANGENT
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
VPC	VERTICAL POINT OF CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY

2

N

END PROJECT
STA 364+00.00

USH 45 STH 175

USH 41

USH 41

APPLETON AVE

N. 107TH ST

OAK LEAF TRAIL ALONG PARKWAY

LITTLE MENOMONEE RIVER PKWY

B-40-325 (NB)

B-40-326 (SB)

B-40-328

NE RAMP

OAK LEAF TRAIL

W. SILVER SPRING DR

SW RAMP

SE RAMP

TIMMERMAN AIRPORT

W. CARMEN AVE

UP RR

CTH E

W. HAMPTON AVE

USH 41 / APPLETON AVENUE

W. CAPITOL DRIVE

STH 181

USH 41

APPLETON AVENUE

STH 190

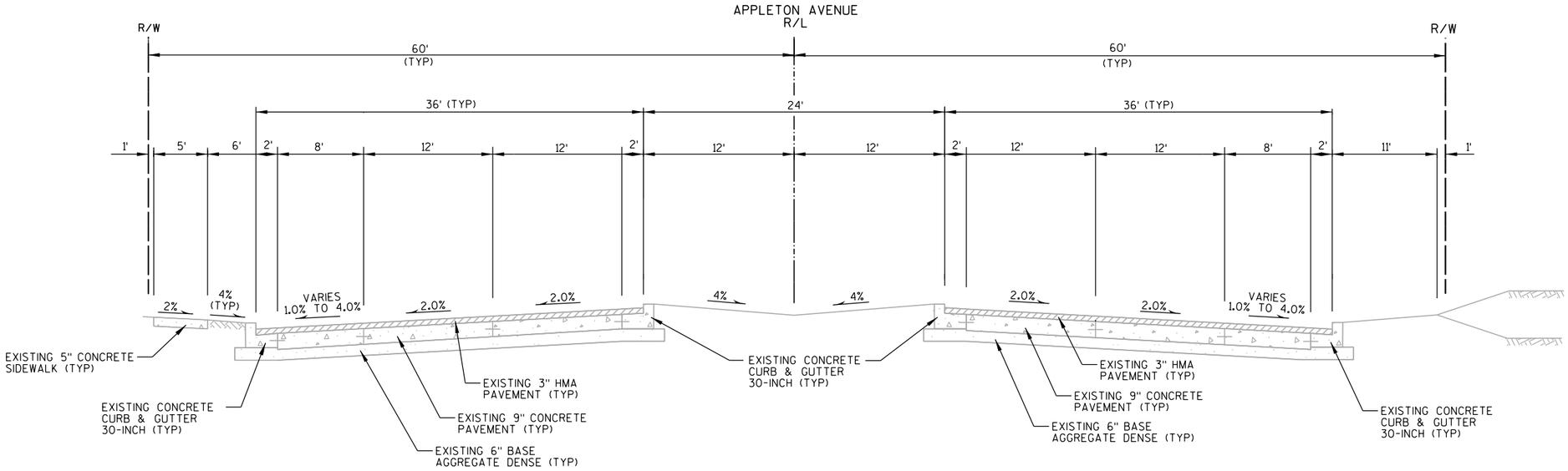
N. 76TH ST

W. CONGRESS ST

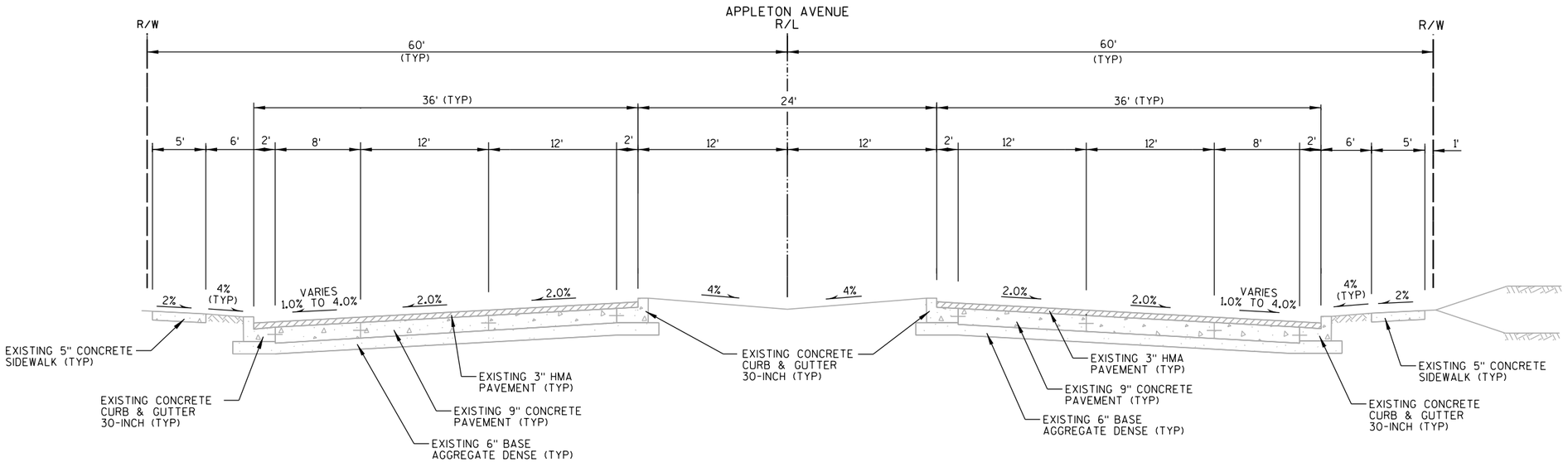
CTH EE

BEGIN PROJECT
STA 188+90.00

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 4	E

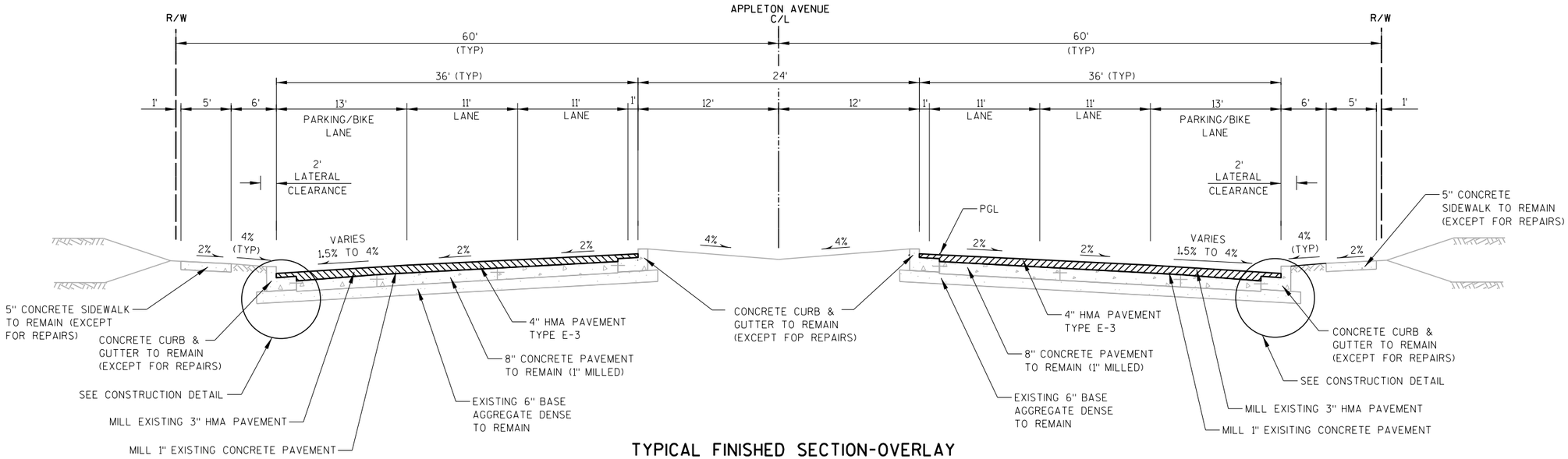


TYPICAL EXISTING SECTION
APPLETON AVENUE
STA 334+00 TO STA 364+00



TYPICAL EXISTING SECTION
APPLETON AVENUE
STA 188+90 TO STA 334+00

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTION	SHEET 5	E

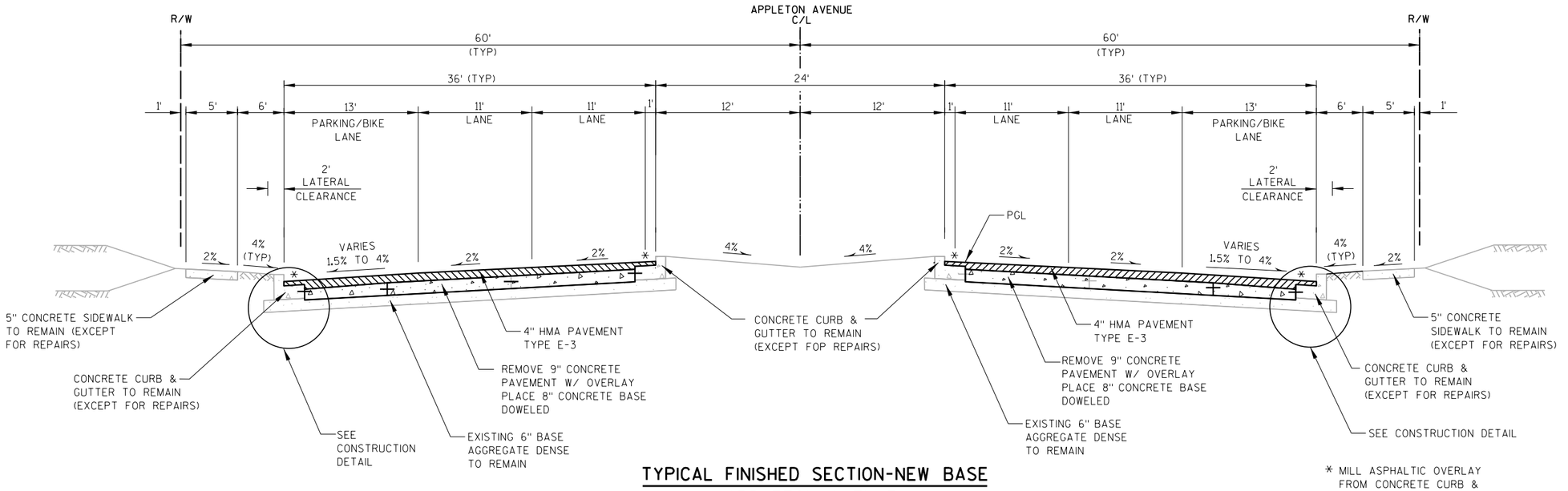


TYPICAL FINISHED SECTION-OVERLAY

APPLETON AVENUE

STA 203+64 NB TO STA 318+30 NB**
STA 202+94 SB TO STA 318+30 SB**
STA 326+00 TO STA 340+00

** NO OVERLAY FROM STA 198+38 NB TO 203+64 NB (N. 76TH STREET)
NO OVERLAY FROM STA 198+61 SB TO 202+94 SB (N. 76TH STREET)



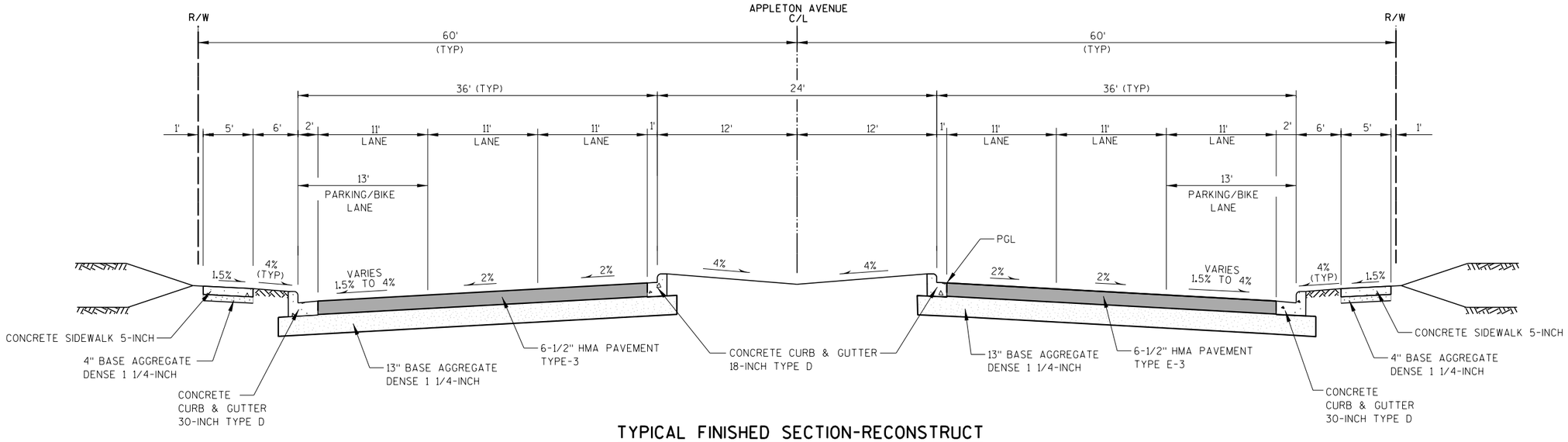
TYPICAL FINISHED SECTION-NEW BASE

APPLETON AVENUE

STA 188+90 TO STA 198+38 NB**
STA 188+90 TO STA 198+61 SB**

* MILL ASPHALTIC OVERLAY
FROM CONCRETE CURB &
GUTTER FLANGES (TO REMAIN)

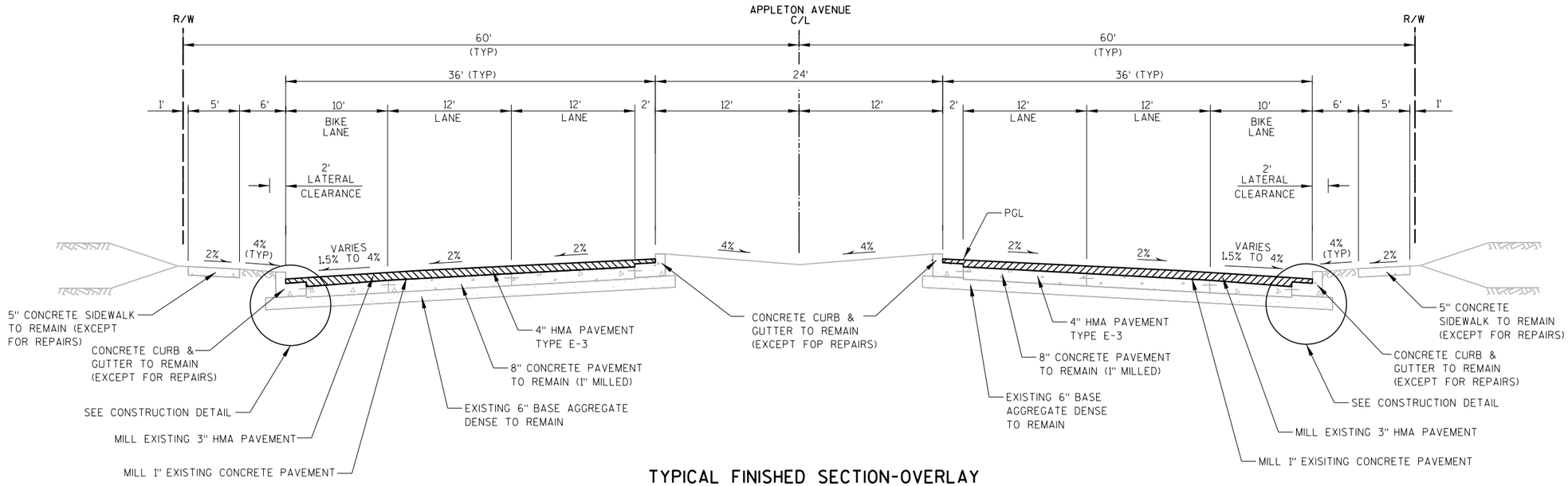
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	FINISHED TYPICAL SECTION	SHEET 6	E



TYPICAL FINISHED SECTION-RECONSTRUCT

APPLETON AVENUE

STA 318+30 TO STA 326+00

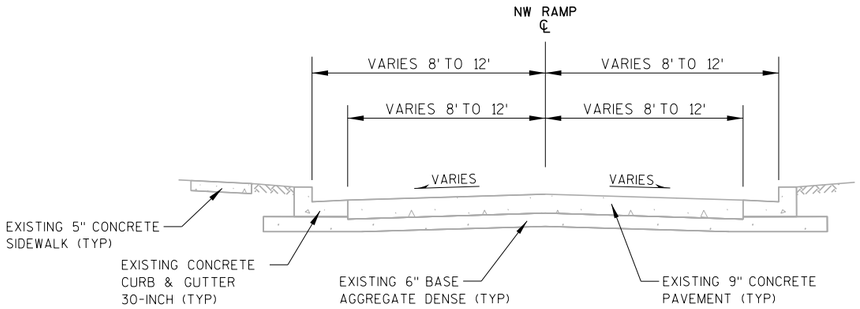


TYPICAL FINISHED SECTION-OVERLAY

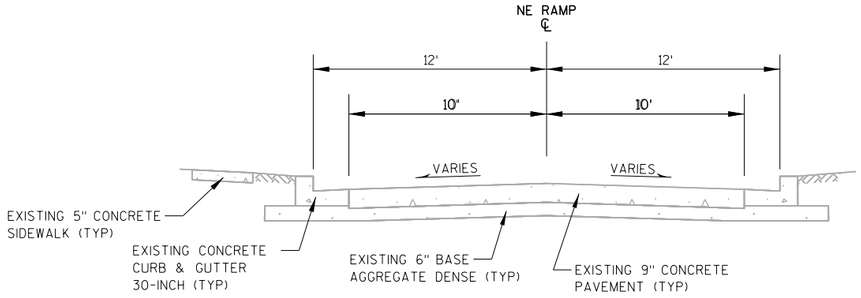
APPLETON AVENUE

STA 340+00 TO STA 342+00
STA 348+00 TO STA 364+00

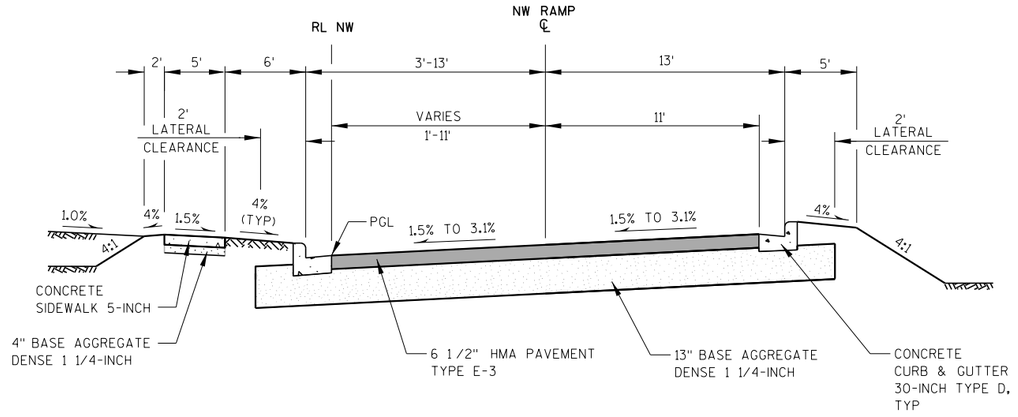
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	FINISHED TYPICAL SECTION	SHEET 7	E



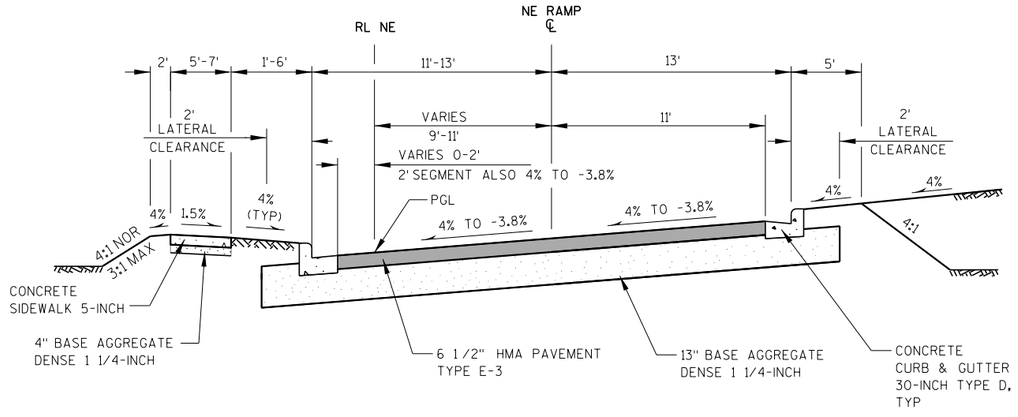
TYPICAL EXISTING SECTION
RAMP NW
STA 421NW+66 TO STA 427NW+08



TYPICAL EXISTING SECTION
RAMP NE
STA 528NE+18 TO STA 533NE+86



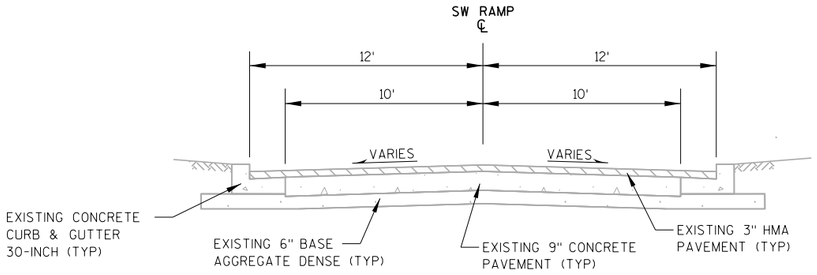
TYPICAL FINISHED SECTION
RAMP NW
STA 421NW+66 TO STA 427NW+08



TYPICAL FINISHED SECTION
RAMP NE
STA 528NE+18 TO STA 533NE+86

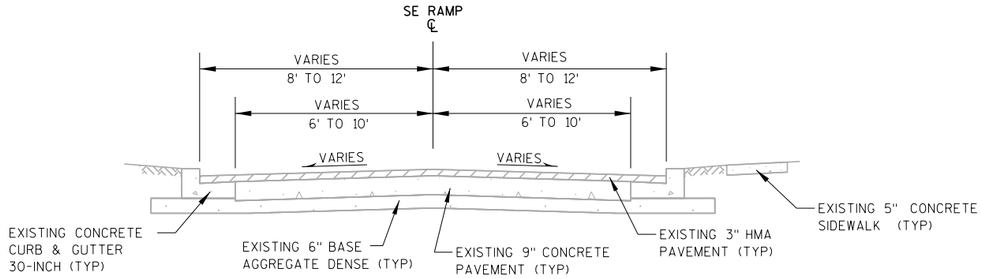
SEE PLAN SHEETS FOR SUPERELEVATION TRANSITION INFORMATION

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TYPICAL SECTIONS - NW AND NE RAMPS	SHEET 8	E



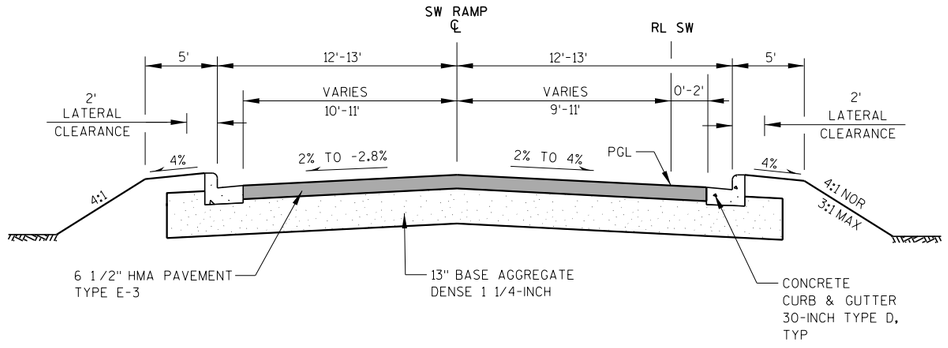
TYPICAL EXISTING SECTION
RAMP SW

STA 623SW+66 TO STA 629SW+43



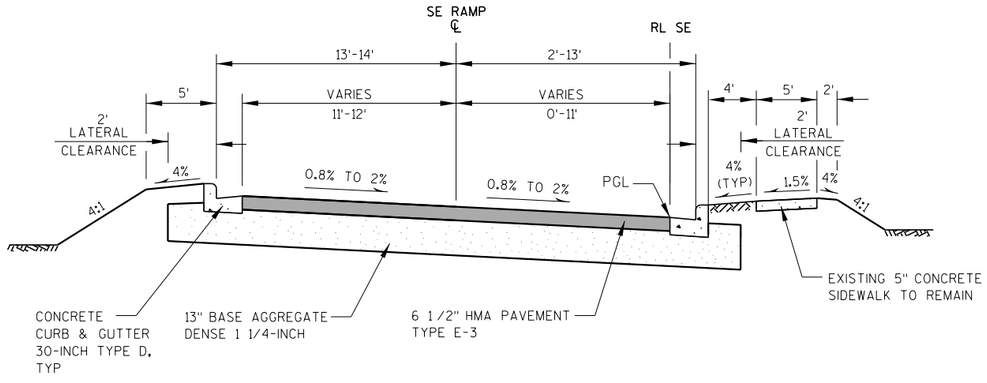
TYPICAL EXISTING SECTION
RAMP SE

STA 730SE+63 TO STA 734SE+30



TYPICAL FINISHED SECTION
RAMP SW

STA 623SW+66 TO STA 629SW+43

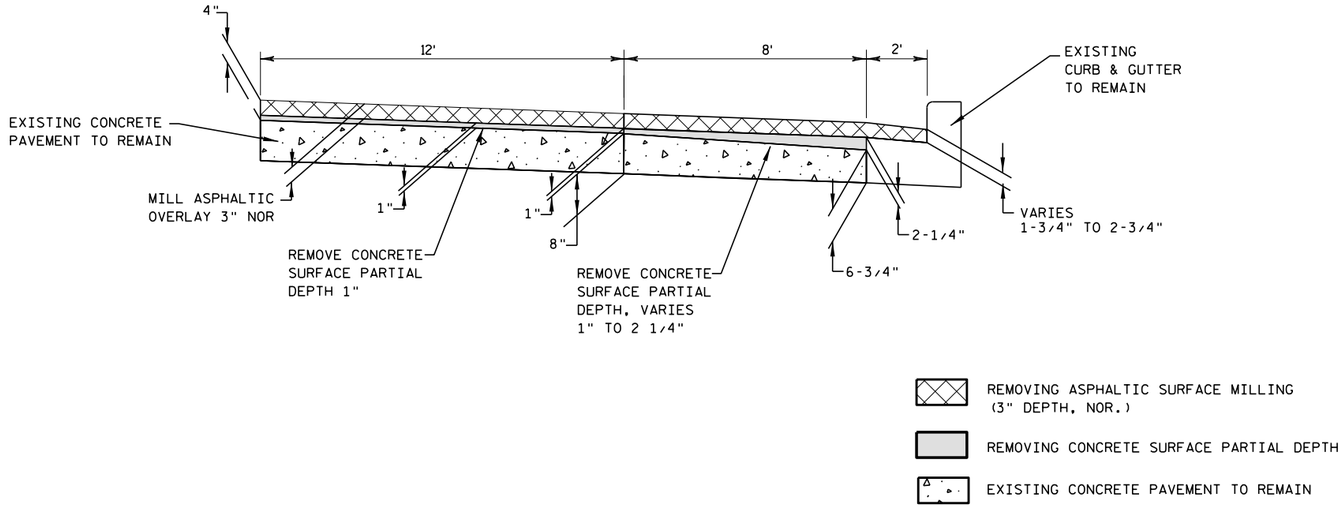


TYPICAL FINISHED SECTION
RAMP SE

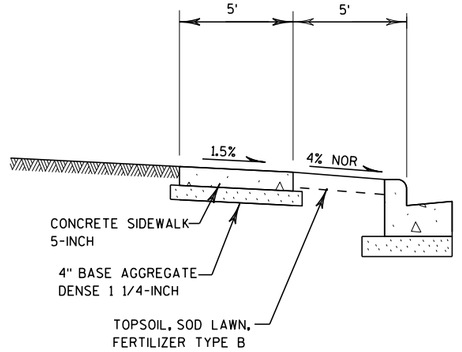
STA 730SE+63 TO STA 734SE+30

SEE PLAN SHEETS FOR SUPERELEVATION
TRANSITION INFORMATION

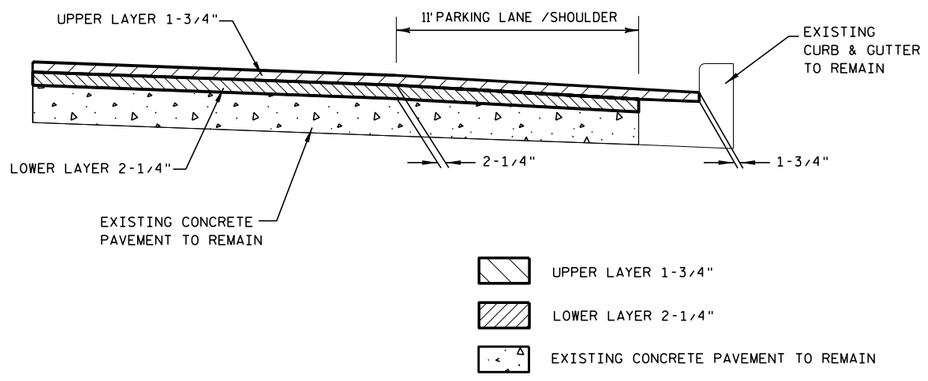
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TYPICAL SECTIONS - SW AND SE RAMPS	SHEET 9	E



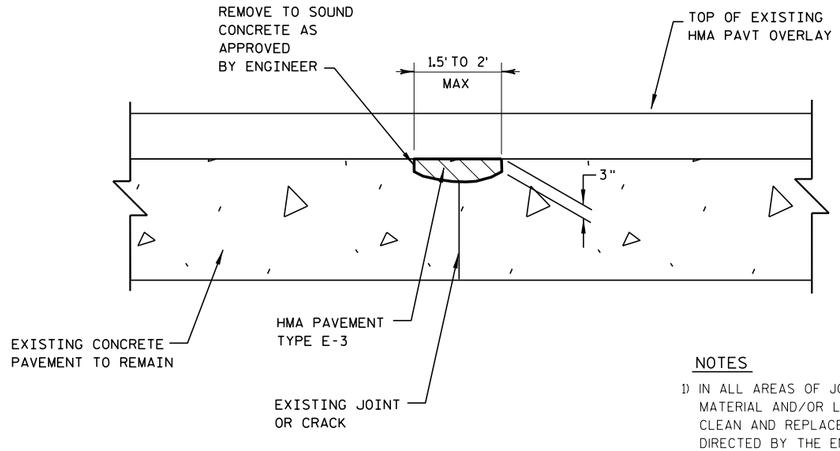
MILLING DETAIL



NEW SIDEWALK DETAIL



HMA LAYER DETAIL



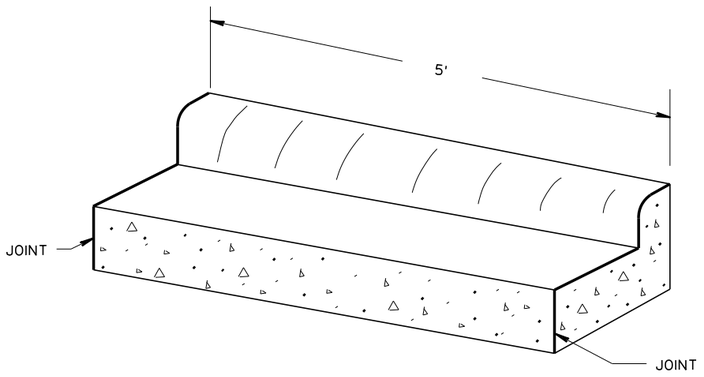
NOTES

1) IN ALL AREAS OF JOINT REPAIR, REMOVE ASPHALTIC MATERIAL AND/OR LOOSE, DETERIORATED CONCRETE. CLEAN AND REPLACE WITH HMA E-3 PAVEMENT AS DIRECTED BY THE ENGINEER.

2) REMOVAL OF GREATER THAN 3" TO BE PAID AS BASE PATCHING CONCRETE.

3) LOCATIONS FOR JOINT REPAIR TO BE APPROVED BY THE ENGINEER PRIOR TO THE START OF REPAIR WORK.

JOINT AND CRACK REPAIR DETAIL



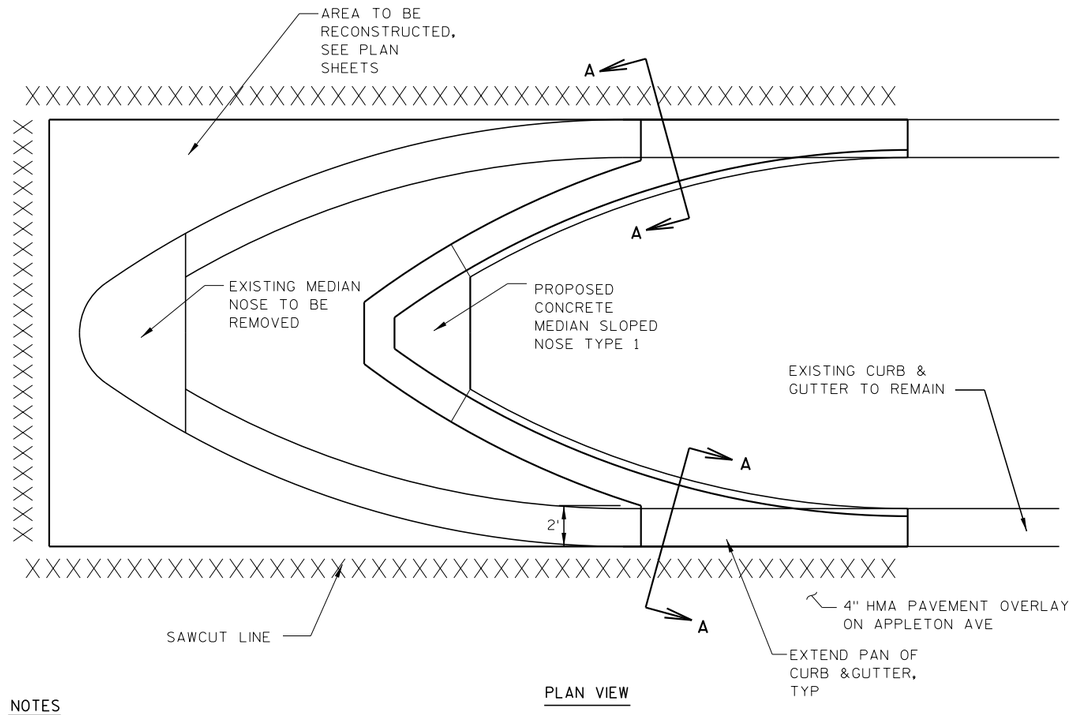
NOTES

1) ASPHALTIC OVERLAY ON EXISTING CONCRETE CURB & GUTTER 30-INCH TYPE A IS NOT SHOWN.

2) TRANSITION CURB HEIGHT AND MATCH FLOW LINE OF OVERLAID CONCRETE CURB & GUTTER 30-INCH.

CURB & GUTTER TRANSITION DETAIL

CONCRETE CURB & GUTTER 30-INCH TYPE D TO
EXISTING CONCRETE CURB & GUTTER 30-INCH TYPE A WITH FLANGE OVERLAID

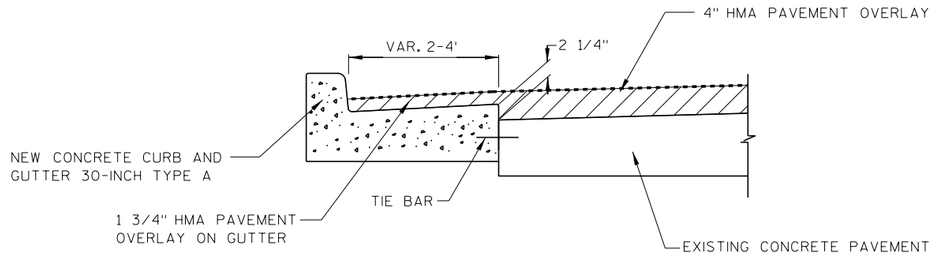


PLAN VIEW

NOTES

1) CONCRETE BASE 8-INCH TO BE POURED TO MATCH SURROUNDING CONCRETE SURFACE AFTER MILLING AND BEFORE 4" HMA OVERLAY IS PLACED.

2) STA 198+50 AND 203+25 (76TH ST INTERSECTION) THE RECONSTRUCTION AREA WILL PLACE 8-INCH CONCRETE PAVEMENT TO MATCH FINAL ROADWAY SURFACE ELEVATIONS (NO HMA OVERLAY).

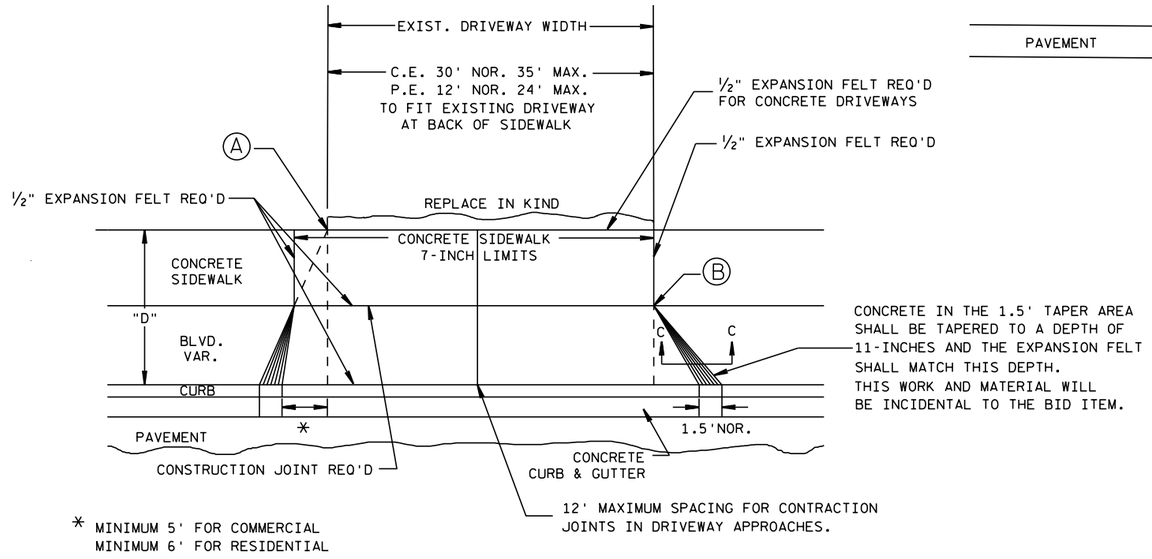


SECTION A-A

MEDIAN NOSE RECONSTRUCTION DETAIL

APPLETON AVE MEDIAN NOSE RECONSTRUCTION
OUTSIDE RECONSTRUCTION AREA

2

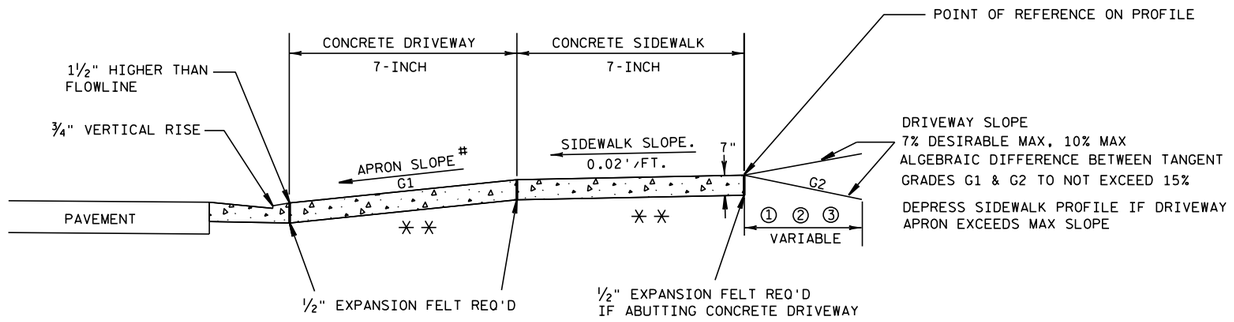


PLAN VIEW

Ⓐ WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK

Ⓑ WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK

CONCRETE IN THE 1.5' TAPER AREA SHALL BE TAPERED TO A DEPTH OF 11-INCHES AND THE EXPANSION FELT SHALL MATCH THIS DEPTH. THIS WORK AND MATERIAL WILL BE INCIDENTAL TO THE BID ITEM.



TYPICAL SIDEWALK SECTION

①—7" CONCRETE DRIVEWAY OR H.E.S. CONCRETE DRIVEWAY

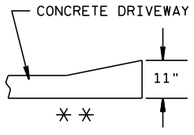
②— 6" BASE AGG. DENSE 1 1/4-INCH

③— 4" BASE AGG. DENSE 1 1/4-INCH BASE WITH 2" ASPHALTIC SURFACE

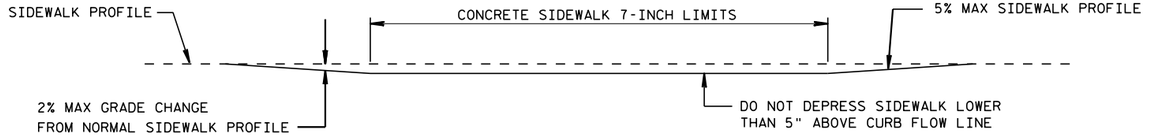
** = 6" BASE AGG. DENSE 1 1/4-INCH REQ'D UNDER CONCRETE DRWY

\#

TERRACE WIDTH	APRON SLOPE (G1) MIN %	DESIRABLE %	MAX %
3 FT	7.0	8.5	9.0
4 FT	5.0	7.0	9.0
5 FT	4.0	7.0	9.0
6 FT	4.0	7.0	9.0
7 FT	3.5	7.0	9.0
8 FT	3.0	7.0	9.0



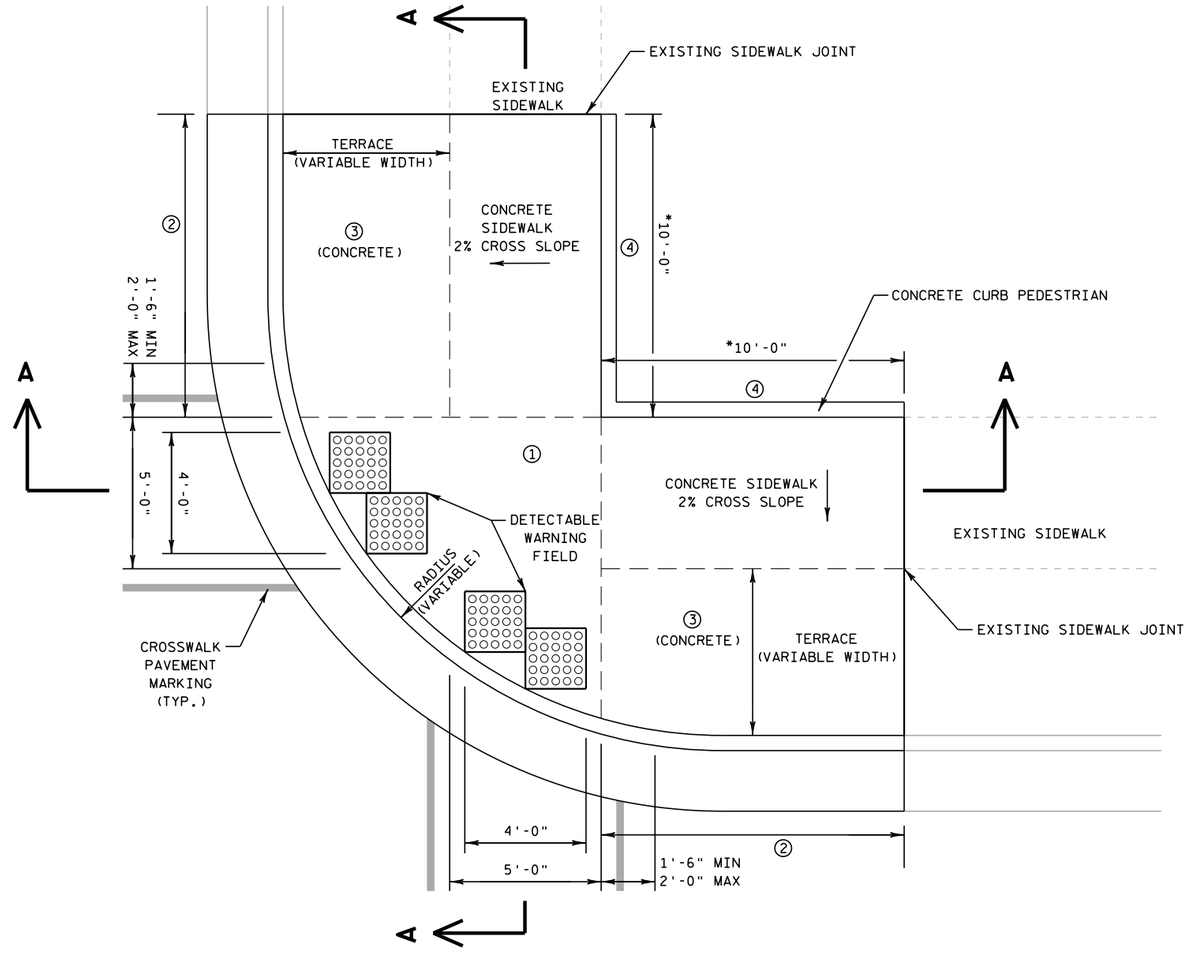
SECTION C-C



DEPRESSED SIDEWALK PROFILE

DRIVEWAY ENTRANCE DETAIL

2



PLAN VIEW

NOTES

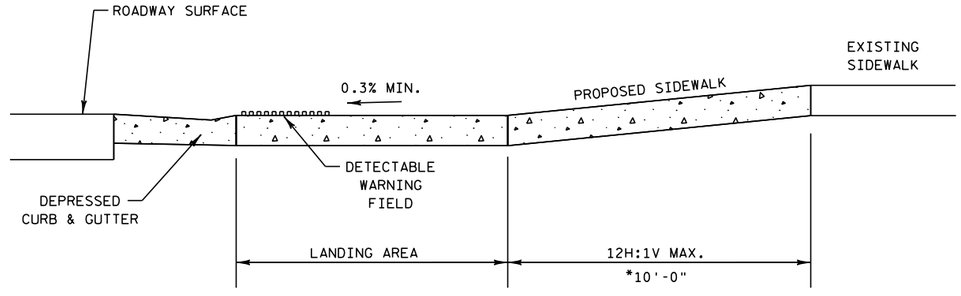
① LANDING CANNOT HAVE MORE THAN A 2% SLOPE IN ANY DIRECTION

② TAPER CURB HEIGHT FROM 0" TO 6" OVER THIS LENGTH

③ BOX OUT AREAS IN THE CONCRETE FOR SIGNS, LIGHT POLES, SIGNALS, AND HYDRANTS

④ MINIMUM DISTANCE BETWEEN CONCRETE CURB PEDESTRIAN AND PROPERTY LINE IS 0.5'

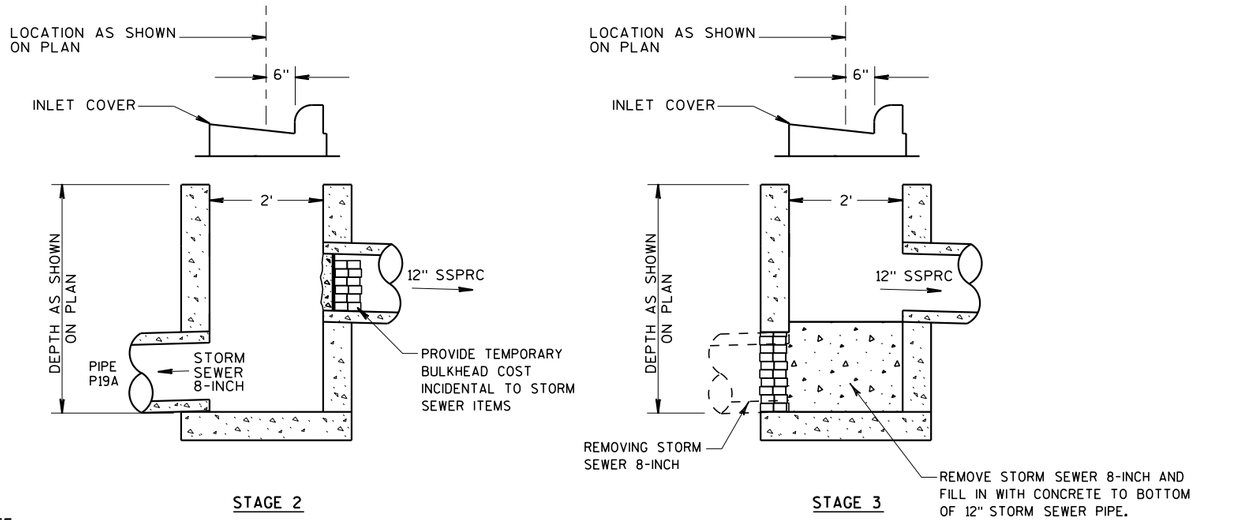
*OR NEAREST JOINT IN SIDEWALK



SECTION A-A

TYPE 2 MODIFIED CURB RAMP DETAIL

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 13	E

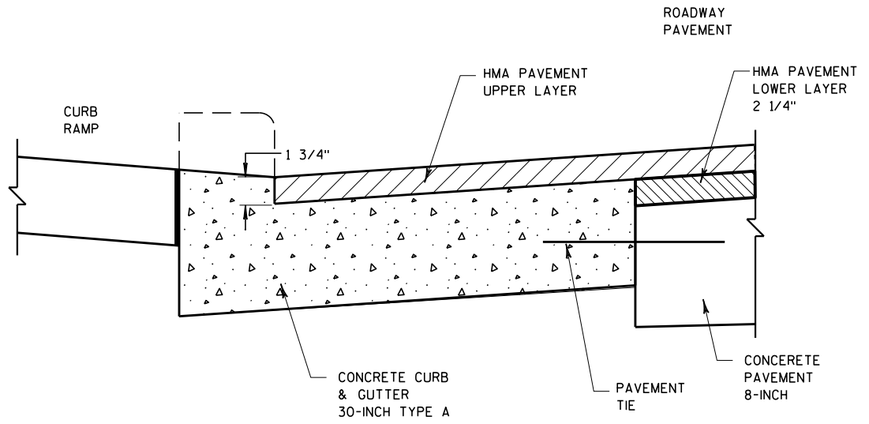


NOTE

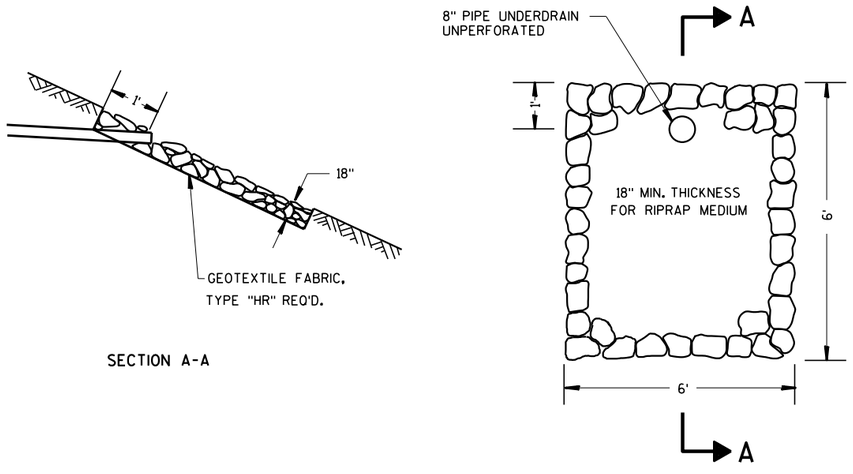
1) DETAILS NOT SHOWN SHALL CONFORM TO STANDARD DETAIL DRAWING FOR INLETS 2X3-FT.

REMOVING STORM SEWER 8-INCH DETAIL

STA 323+90. LT



CONCRETE CURB & GUTTER AT CURB RAMPS DETAIL

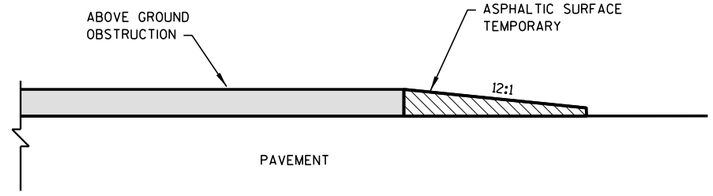


RIPRAP MEDIUM TREATMENT AT END OF STORM SEWER DETAIL

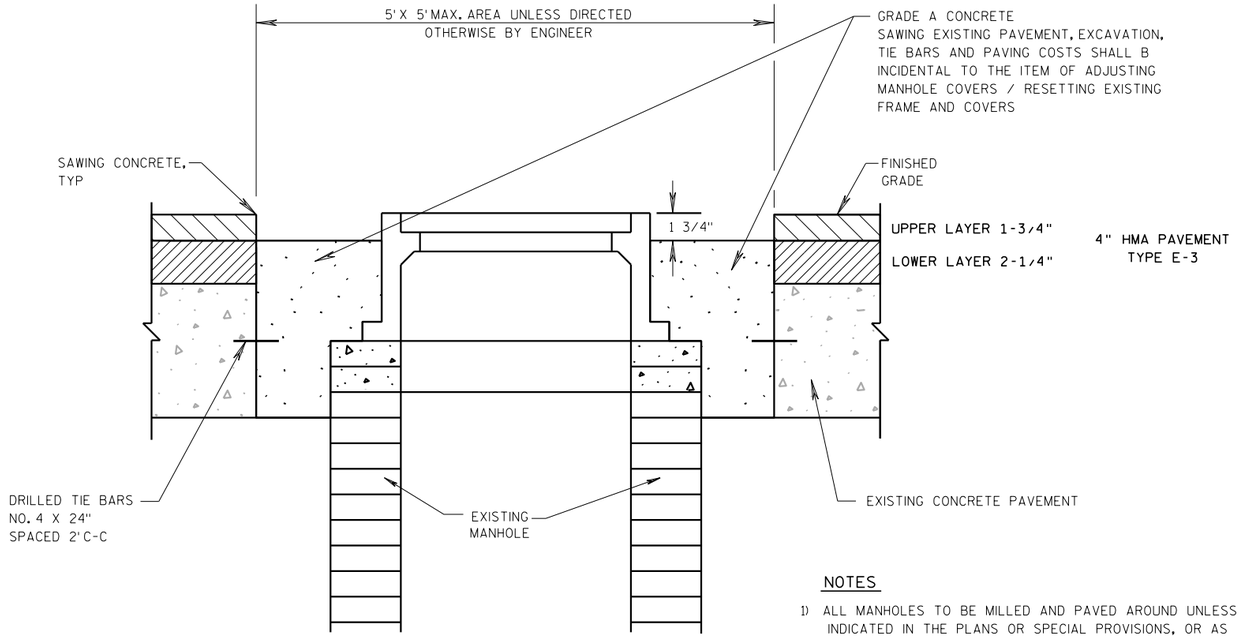
NOTES

1) ASPHALTIC SURFACE TEMPORARY RAMPING TO BE REMOVED PRIOR TO PLACING UPPER LAYER OF HMA PAVEMENT.

2) AN UNDISTRIBUTED AMOUNT OF ASPHALTIC SURFACE TEMPORARY HAS BEEN ADDED TO THE MISCELLANEOUS QUANTITIES.



ASPHALTIC SURFACE TEMPORARY RAMPING DETAIL



NOTES

1) ALL MANHOLES TO BE MILLED AND PAVED AROUND UNLESS INDICATED IN THE PLANS OR SPECIAL PROVISIONS, OR AS DIRECTED BY THE ENGINEER.

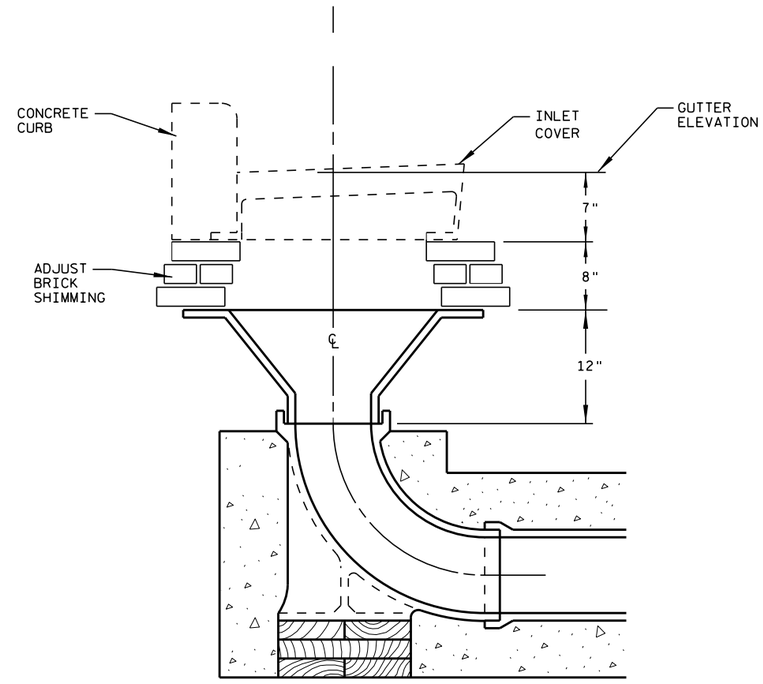
2) IF ADJUSTMENT IS NEEDED, EXCAVATE AND ADJUST MANHOLE COVER TO FINISHED GRADE. BACKFILL AND OTHER WORK TO BE DONE IN ACCORDANCE WITH ITEM-ADJUSTING MANHOLE COVERS. ALL WORK MAY BE DONE BY OTHERS (UTILITY, CO. OR MUNICIPALITY).

3) STAGE ADJUSTING MANHOLES AS FOLLOWS:
REMOVE CASTING,
PLACE COVER PLATE TEMPORARY,
PLACE LOWER LAYER OF HMA,
ADJUST CASTING TO FINISHED GRADE,

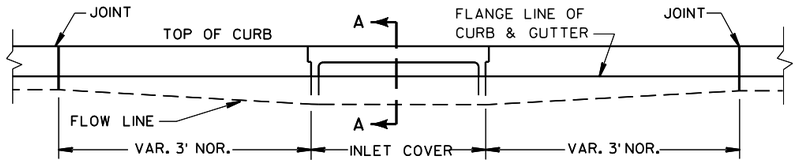
GRADE A CONCRETE AROUND MANHOLE TO MATCH TOP OF LOWER LAYER OF HMA

4) SAWING CONCRETE AROUND MANHOLES TO BE PAID FOR UNDER THE ADJUSTING MANHOLE BID ITEMS.

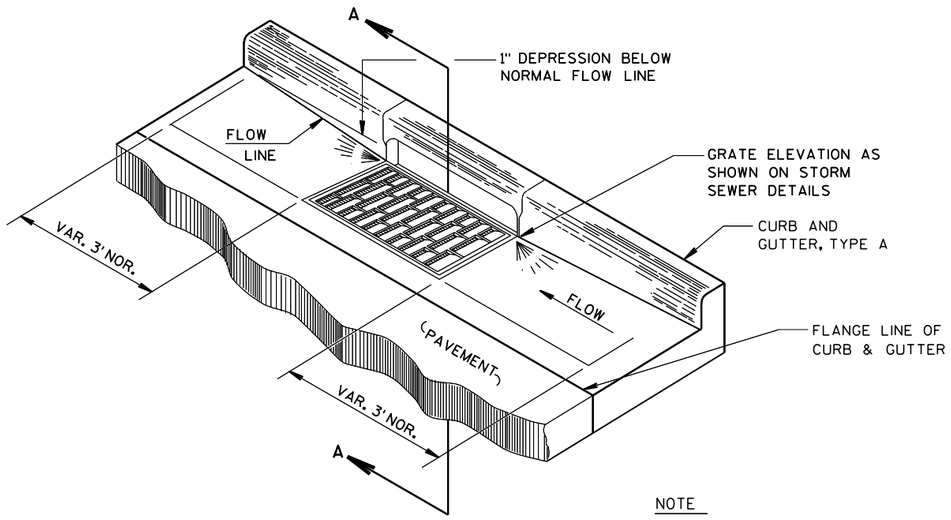
ADJUSTING MANHOLE COVERS / RESETTING EXISTING FRAME AND COVERS DETAIL



ADJUSTING MILWAUKEE INLET - TYPE 30A DETAIL

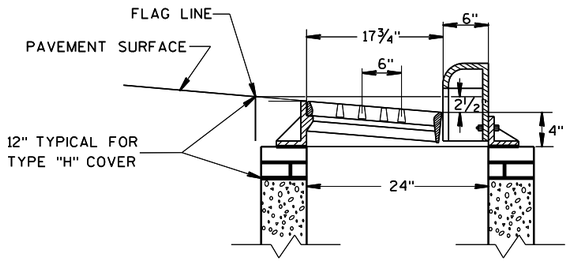


ELEVATION



NOTE

1) HMA OVERLAY NOT SHOWN ON DETAIL

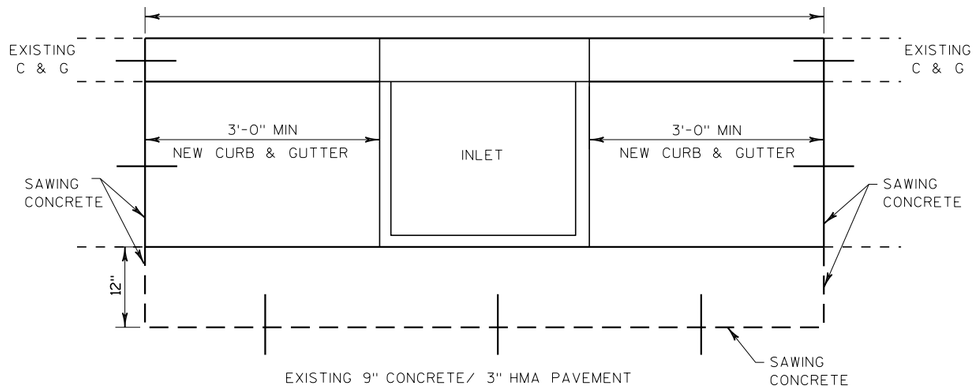


SECTION A-A

INLET CURB & GUTTER DEPRESSION DETAIL

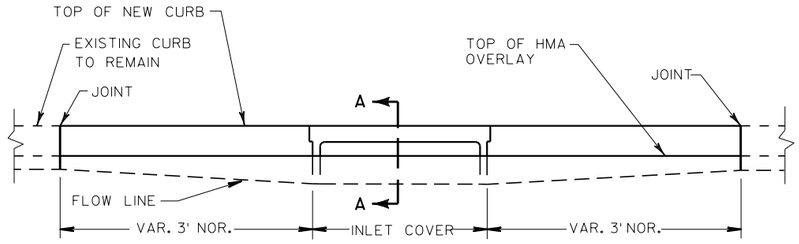
(TYPE 3-H INLET SHOWN)

REMOVE 3'-0" CURB & GUTTER MIN. OR TO THE NEAREST JOINT 6'-0" MAX. UNLESS OTHERWISE DIRECTED BY THE ENGINEER

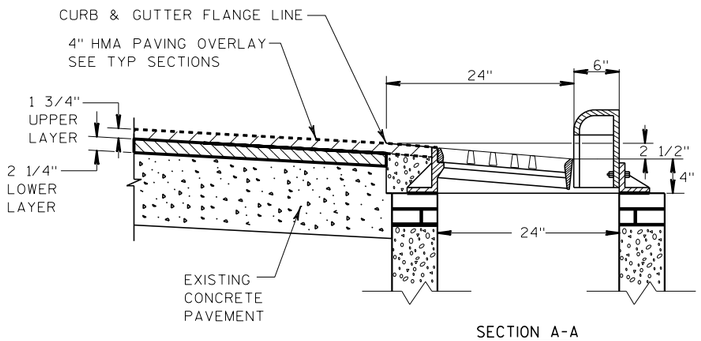


EXISTING 9" CONCRETE/ 3" HMA PAVEMENT

PLAN



ELEVATION



SECTION A-A

NOTES

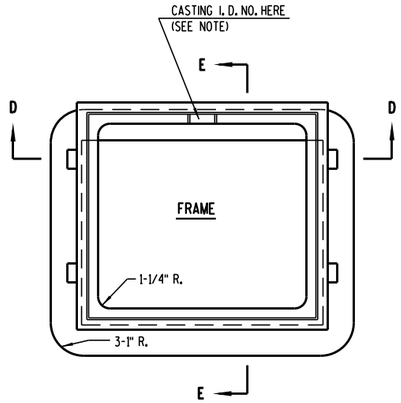
1) SAWCUT EDGE OF PAVEMENT AND CURB SECTION AS SHOWN ABOVE; COST TO BE INCLUDED IN THE RESPECTIVE BID ITEM FOR SAWING CONCRETE.

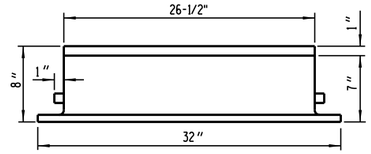
2) REMOVE AND REPLACE CURB & GUTTER; COST TO BE INCLUDED IN THE RESPECTIVE BID ITEM FOR REMOVING CURB & GUTTER.

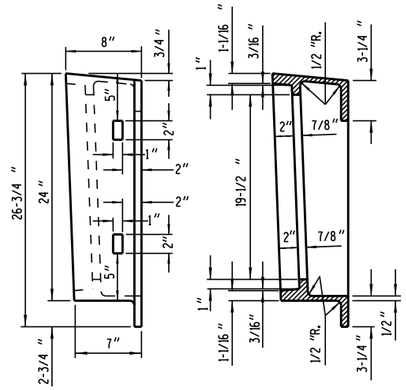
3) REMOVE AND REPLACE PAVEMENT; COSTS TO BE INCLUDED IN THEIR RESPECTIVE BID ITEM FOR ADJUSTING COVERS AND RECONSTRUCTING INLETS.

ADJUSTING INLETS FOR HMA OVERLAY DETAIL

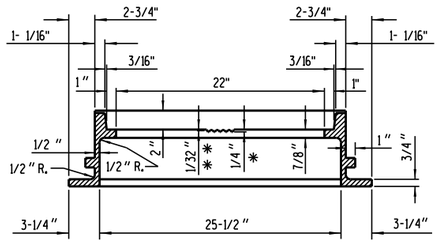
TYPICAL FOR ALL ADJUSTING
OR REPLACING INLETS







SECTION E-E



SECTION D-D

* DEPRESSION FOR LETTERS

* * CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT

GENERAL NOTES

ALL EDGES ARE TO BE GROUND

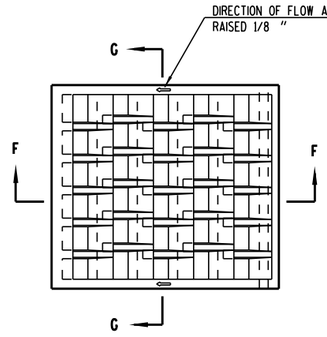
ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8

ON THE FRAME

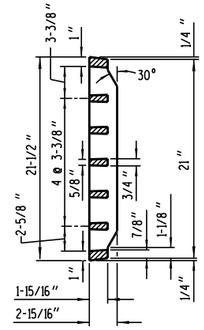
1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.
2. ON THE SEAT OF THE FRAME IN 1 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (51).

ON THE GRATE

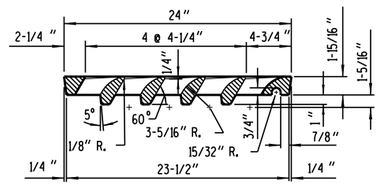
1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (57) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.



GRATE



SECTION G-G

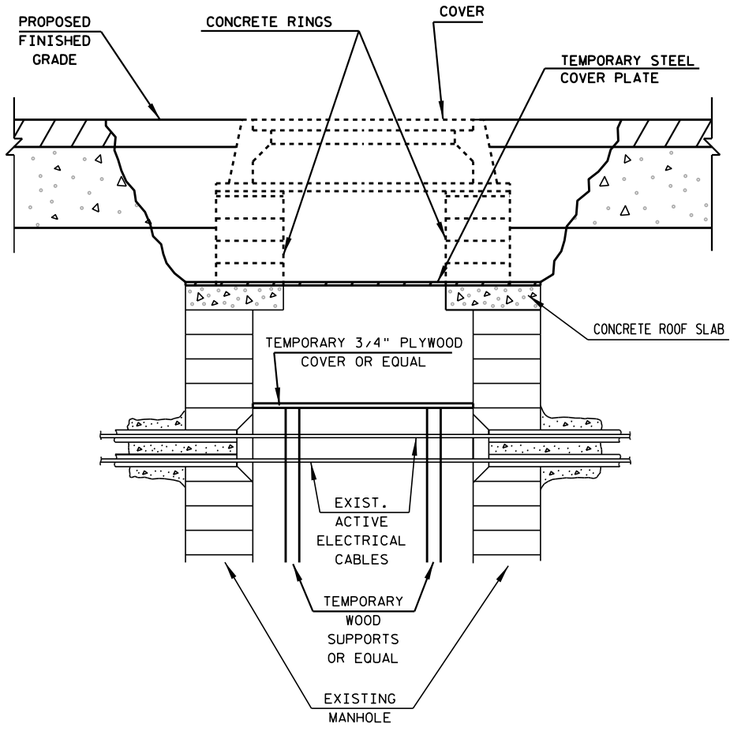


SECTION F-F

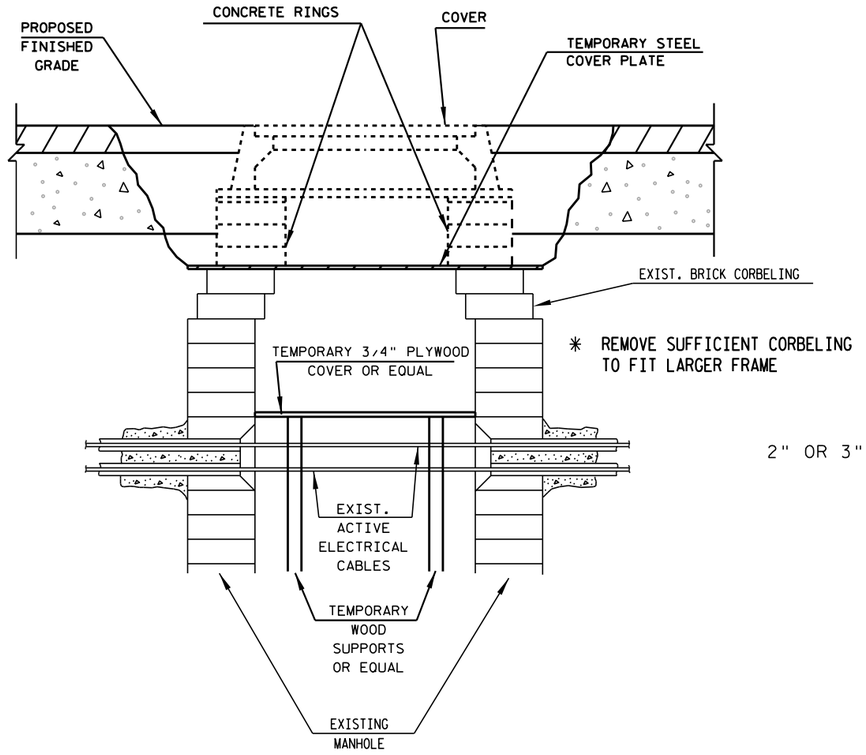
INLET COVER - TYPE 57 DETAIL

LID-145 LBS., FRAME-204 LBS.

2

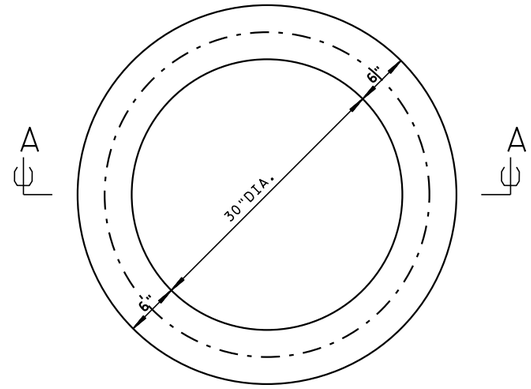


BLOCK OR PRECAST MANHOLE

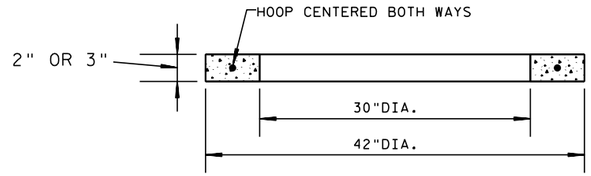


* REMOVE SUFFICIENT CORBELING TO FIT LARGER FRAME

BRICK ROUND MANHOLE



PLAN



SECTION A-A

THE ADJUSTING RING SHALL BE 2" OR 3" IN HEIGHT.

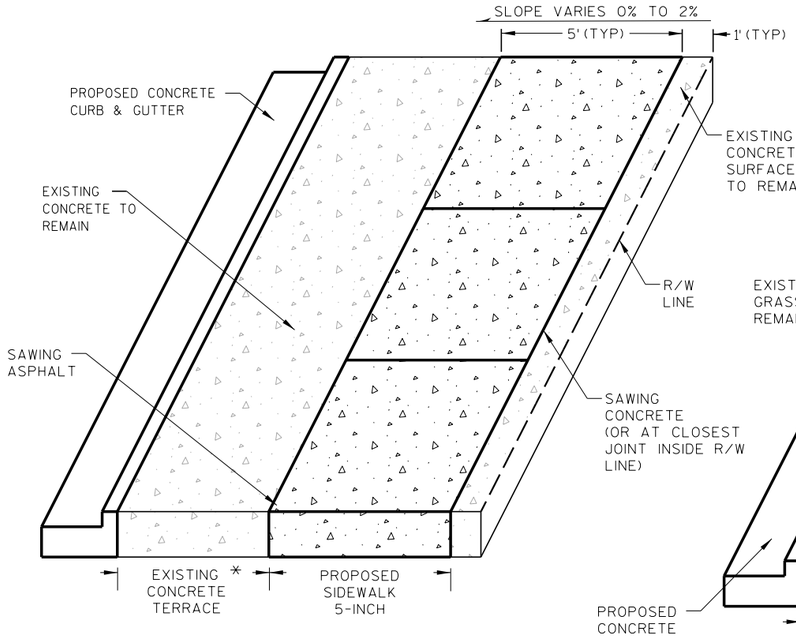
THE CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.

AREA OF CIRCUMFERENTIAL STEEL = 0.07 SQ. INCH PER VERTICAL FOOT WITH A MINIMUM OF .024 SQ. INCH IN ANY ONE RING.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE CORE SHALL BE 4000 P.S.I.

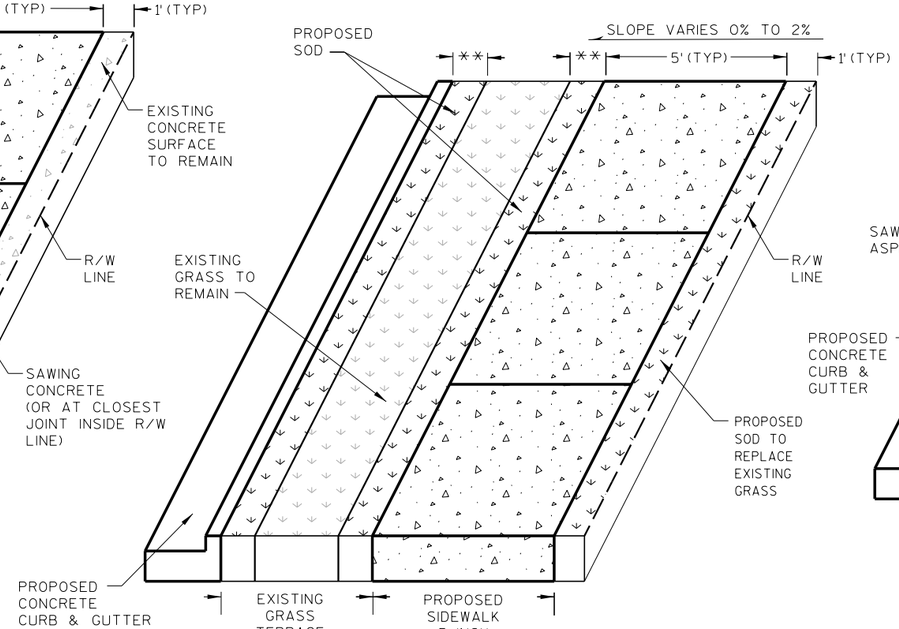
CONCRETE ADJUSTING RING

ADJUSTING TES MANHOLE COVERS DETAIL



* REPLACE IF NECCESARY TO ACHIEVE 2% SIDEWALK SLOPE

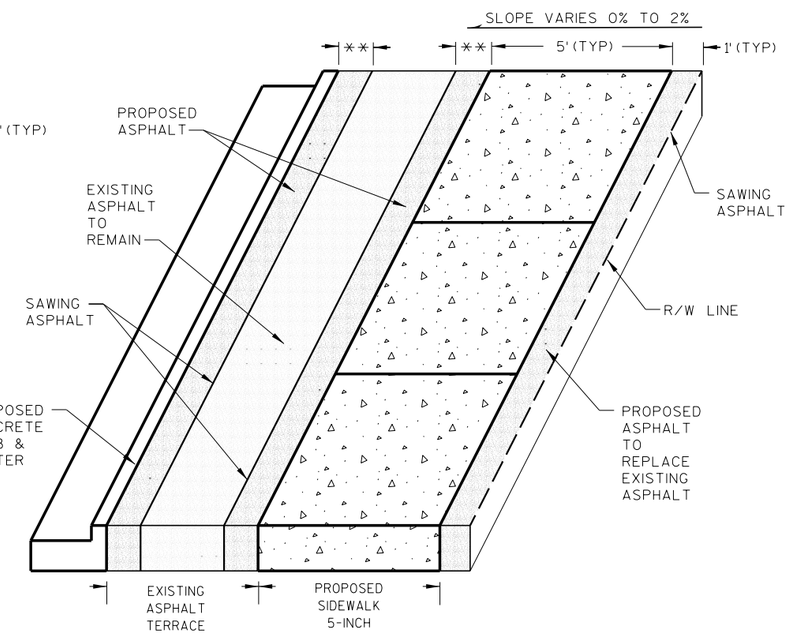
EXISTING CONCRETE TERRACE



** WIDTH NECCESARY TO ACHIEVE 2% SIDEWALK SLOPE, 18' MIN.

REPLACE FULL TERRACE WIDTH WHERE CURB & GUTTER AND SIDEWALK IS BEING REPLACED

EXISTING GRASS TERRACE



** WIDTH NECCESARY TO ACHIEVE 2% SIDEWALK SLOPE, 18' MIN.

REPLACE FULL TERRACE WIDTH WHERE CURB & GUTTER AND SIDEWALK IS BEING REPLACED

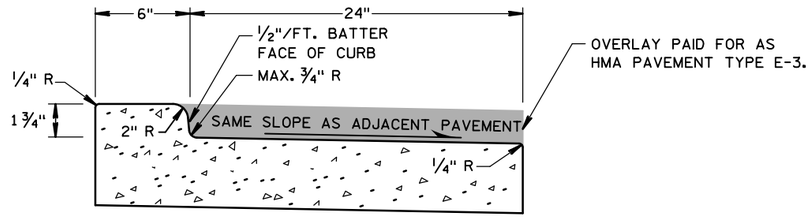
EXISTING ASPHALTIC TERRACE

NOTES

1) DETAIL APPLIES ALL LOCATIONS WHERE SIDEWALK AND/OR CURB & GUTTER ARE BEING REPLACED.

2) IF THE EXISTING TERRACE SURFACE AND SURFACE BEHIND THE SIDEWALK ARE NOT THE SAME, CONTRACTOR SHOULD USE THE APPROPRIATE COMBINATION OF TWO OF THE DETAILS SHOWN ABOVE.

TERRACE RESTORATION DETAIL



SEE S.D.D. "CONCRETE CURB, CONCRETE CURB & GUTTER AND PAVEMENT TIES" FOR ADDITIONAL INFORMATION.

CONCRETE CURB & GUTTER 30-INCH TYPE A 1 3/4-INCH

STA 340+46.1 TO 340+84.6 RT
STA 342+20.6 TO 342+64.2 RT
STA 344+13.9 TO 344+57.9 LT
STA 345+43.5 TO 345+86.0 LT
STA 346+44.4 TO 346+87.3RT
STA 346+87.7 TO 347+75 LT
STA 346+87.6 TO 347+75 RT
STA 349+20 TO 351+10 LT
STA 349+20 TO 350+75 RT

2

APPLETON AVENUE

POST 5

HAZARD
(BRIDGE PARAPET)

61.3'

OPPOSING SIDE

OFFSET DISTANCE TO
POST 5 = 5.5'

FIELD CUT REQ'D

+25

9°13'41"

1 2 3 4 5 6 7 8 9 10 11 12

STEEL THRIE BEAM
BULLNOSE TERMINAL

STEEL THRIE BEAM

INLET TO REMAIN

POST NUMBER (TYP.)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STEEL THRIE BEAM &
STEEL THRIE BEAM
STRUCTURE APPROACH

1 2 3 4 5 6 7 8 9 10 11 12

350

349

OFFSET DISTANCE TO
POST 5 = 3.5'

+25

CONCRETE CURB AND
GUTTER 30-INCH
TYPE A 1¾-INCH

APPROACH SIDE

61.5'

POST 5

HAZARD
(BRIDGE PARAPET)

APPLETON AVENUE

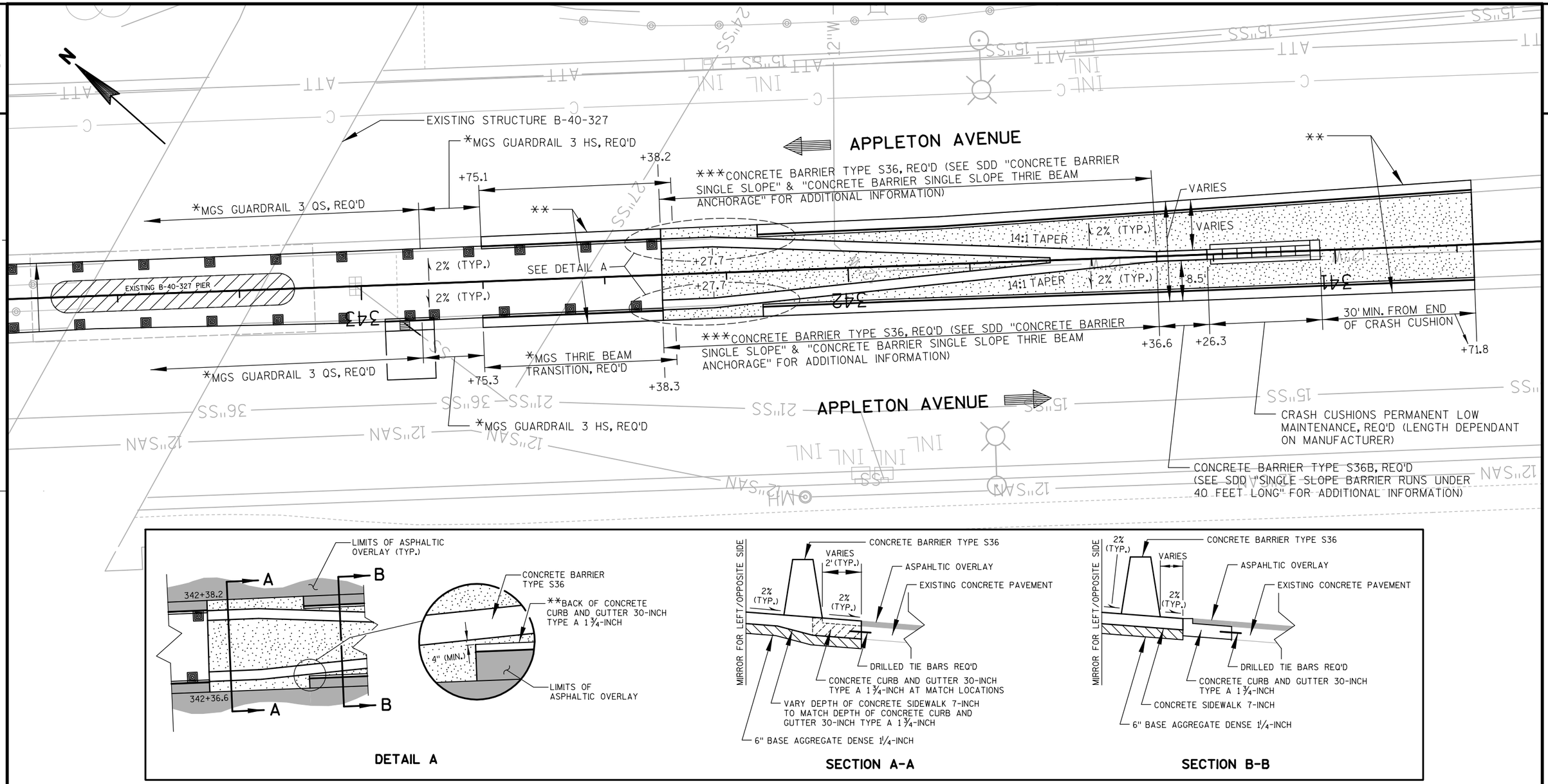
STEEL THRIE BEAM BULLNOSE

STA.349+29.4 - STA.349+95.0

(SEE SDD "STEEL THRIE BEAM BULLNOSE TERMINAL" FOR ADDITIONAL INFORMATION)

NOT TO SCALE

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 21	E



CONCRETE SIDEWALK 7-INCH, REQ'D (INCLUDES AREA UNDER CONCRETE BARRIER)

* SEE MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION.

** CONCRETE CURB AND GUTTER 30-INCH TYPE A 1¾-INCH, REQ'D (TOP OF CURB HEAD TO BE FLUSH WITH TOP OF ASPHALTIC OVERLAY.)

*** SEE SDD "CONCRETE BARRIER SINGLE SLOPE" CONCRETE BARRIER FIXED OBJECT PROTECTION TYPE S36 FOR ADDITIONAL INFORMATION ON TRANSITION TO DOUBLE FACE BARRIER.

ROADSIDE BARRIER LAYOUT

STA. 342+38 TO STA. 340+71

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 22	E

2

ASPHALTIC SURFACE TEMPORARY

ACG ASPHALTIC CURB & GUTTER

REMOVE FRAME AND GRATE FROM INLET. COVER WITH TEMPORARY STEEL PLATE FOR CROSSOVER PAVING.

REMOVE CURB AND GUTTER (TYP.)

REMOVE CONCRETE MEDIAN SLOPED NOSE

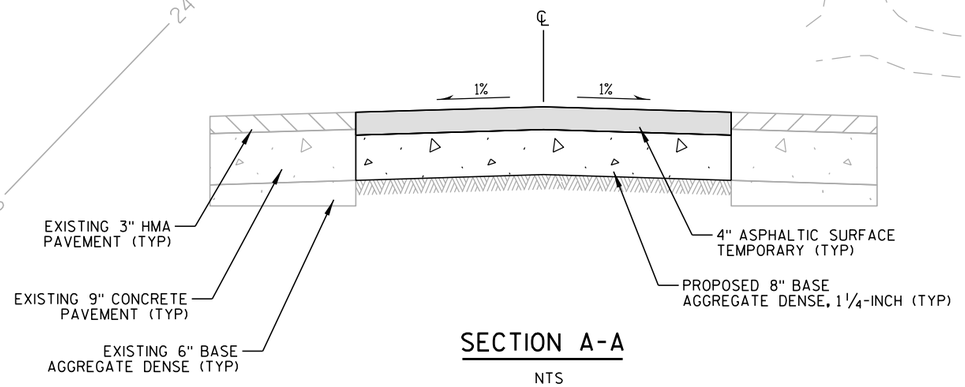
+07 300 301 +45 302 303 304 +71 +70 305 306

ACG

A

A

21"SS 15"SS 24"SS 36" SS ATT 27"SS 8"SAN 8"W 4"G



SECTION A-A

NTS

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSSOVER DETAIL	SHEET 23	E

2

STA.375+55, 1,026'LT

R=1,036.5'

STA.375+55, 1,026'LT

R=1,058.5'

W APPLETON LN

REMOVING CURB & GUTTER, REQ'D (TYP.) (REPLACE WITH CURB AND GUTTER 30-INCH TYPE A DURING STAGE 4)

ASPHALTIC SURFACE TEMPORARY

CONCRETE COLLARS FOR PIPE, REQ'D

CULVERT PIPE TEMPORARY 24-INCH, REQ'D (SEE MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION)

STA.379+83.4

A

B

A

USH 41 / APPLETON AVE

STA.375+23, 9.5'LT

375 376 377 378 379 380

STA.378+32.6

STA.376+51.6

STA.375+55, 10.5'RT

STA.379+90.0 ,4'RT

STA.379+93.1 ,14'RT

USH 41 / APPLETON AVE

A

B

A

REMOVING PAVEMENT, REQ'D (TYP.) (REPLACE WITH 3" HMA PAVEMENT TYPE E-3 OVER CONCRETE PAVEMENT 8-INCH DURING STAGE 4)

W MILL PL

℄

VARIES 6:1 (TYP.) 6:1 (TYP.) VARIES

EXISTING 3" HMA PAVEMENT (TYP.)

EXISTING 9" CONCRETE PAVEMENT (TYP.)

EXISTING 6" BASE AGGREGATE DENSE (TYP.)

4" ASPHALTIC SURFACE TEMPORARY (TYP.)

PROPOSED 8" BASE AGGREGATE DENSE, 1¼-INCH (TYP.)

SECTION A-A

NTS

℄

VARIES (0.5% TO 2.5% +/-)

EXISTING 3" HMA PAVEMENT (TYP.)

EXISTING 9" CONCRETE PAVEMENT (TYP.)

EXISTING 6" BASE AGGREGATE DENSE (TYP.)

4" ASPHALTIC SURFACE TEMPORARY (TYP.)

PROPOSED 8" BASE AGGREGATE DENSE, 1¼-INCH (TYP.)

SECTION B-B

NTS

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSSOVER DETAIL	SHEET 24	E

2

2

McDONALDS

BEGIN PROJECT
STA 188+90.00

R/L APPLETON AVE

USH 41 / APPLETON AVE

W PERKINS PL

W FIEBRANTZ AVE

POPEYE'S

CAUTION

CARRIAGE WALK TO REMAIN

MATCHLINE STA 194+75

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- REMOVING CURB & GUTTER
- JOINT AND CRACK REPAIR

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

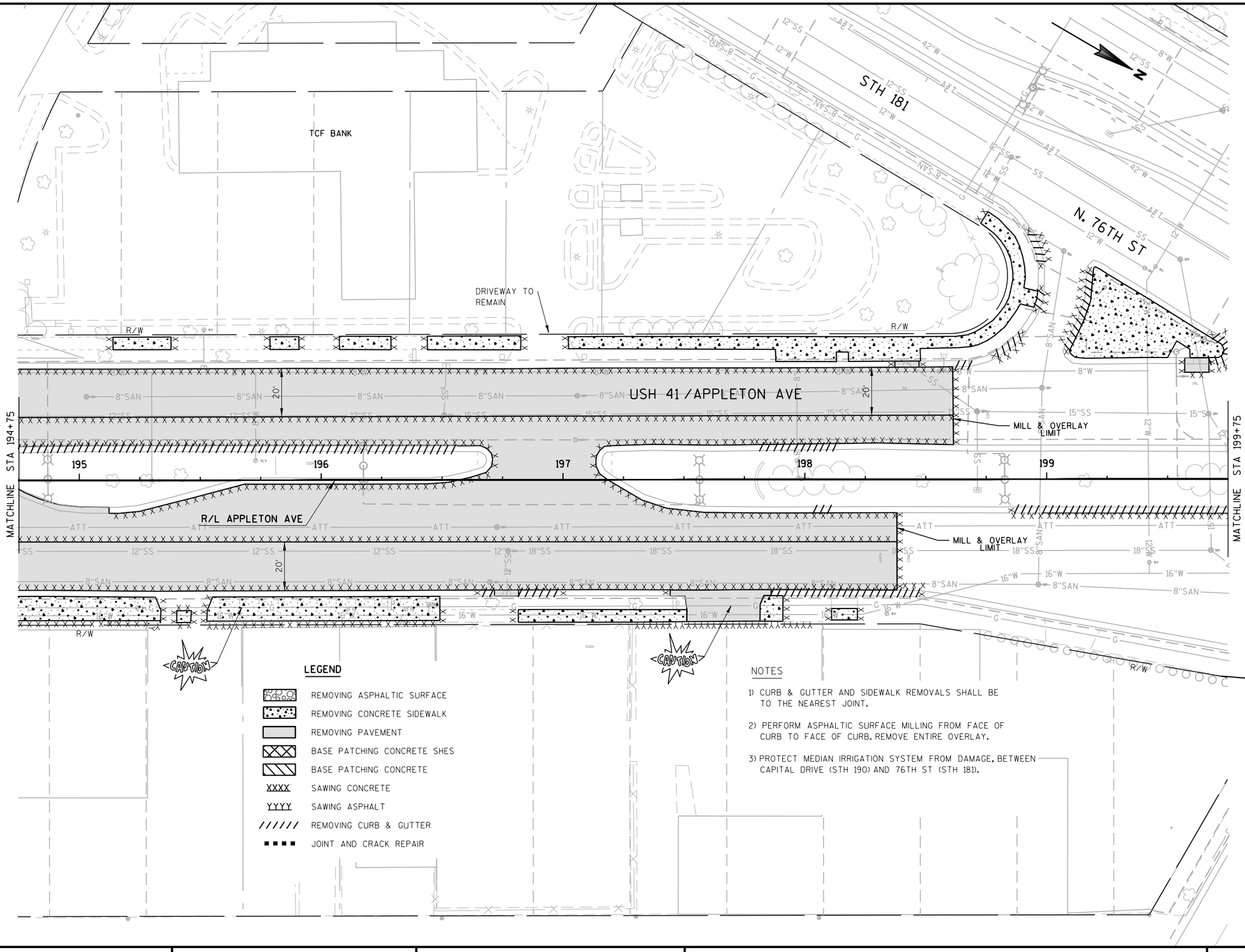
2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PROTECT MEDIAN IRRIGATION SYSTEM FROM DAMAGE, BETWEEN CAPITAL DRIVE (STH 190) AND 76TH ST (STH 181).

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 25	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap021201_rp.dgn PLOT DATE : 19-DEC-2013 09:58 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 26	E

2

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- ■■■■ JOINT AND CRACK REPAIR

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

4) PROTECT MEDIAN IRRIGATION SYSTEM FROM DAMAGE, BETWEEN CAPITAL DRIVE (STH 190) AND 76TH ST (STH 181).

STH 181

R/L APPLETON AVE

W. HOPE AVE

HOPE AVE

N. 76TH ST

USH 41/APPLETON AVE

MILL & OVERLAY LIMIT

MILL & OVERLAY LIMIT

CAUTION

CAUTION

MATCHLINE STA 199+75

MATCHLINE STA 205+75

200 201 202 203 204 205

R/W

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap021203_rp.dgn PLOT DATE : 19-DEC-2013 09:58 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

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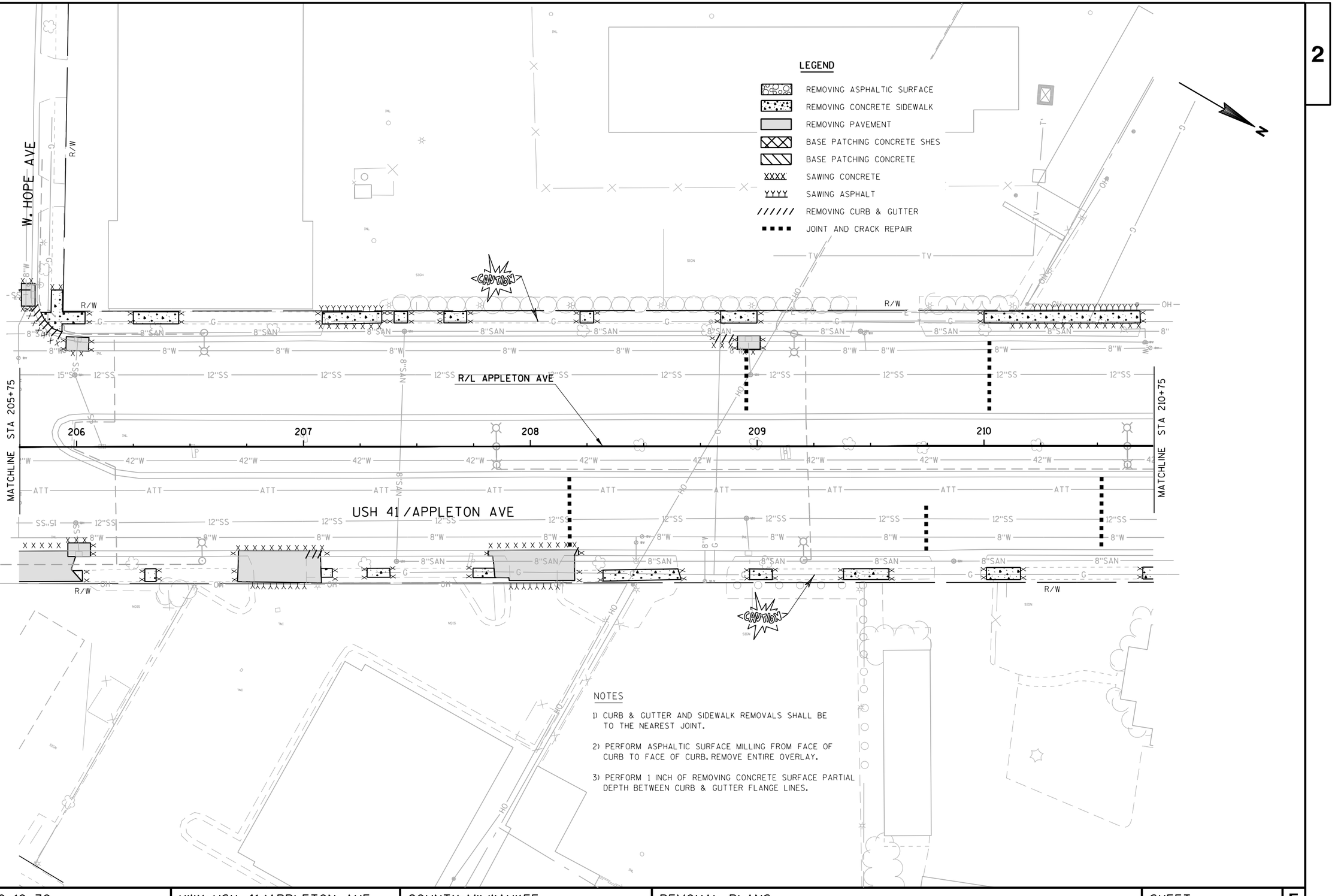

NOTES

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2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 28	E

2

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- JOINT AND CRACK REPAIR

N

W. CONGRESS ST

R/L APPLETON AVE

USH 41 / APPLETON AVE

W. CONGRESS ST

MATCHLINE STA 210+75

MATCHLINE STA 216+75

211 212 213 214 215 216

CAUTION

CAUTION

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 29	E

2

2

W. CONGRESS ST

W. RUBY AVE

R/L APPLETON AVE

USH 41/APPLETON AVE

MATCHLINE STA 216+75

MATCHLINE STA 222+75

CAUTION

R/W

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- REMOVING CURB & GUTTER
- JOINT AND CRACK REPAIR

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

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PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 30	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap021206_rp.dgn PLOT DATE : 19-DEC-2013 09:58 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

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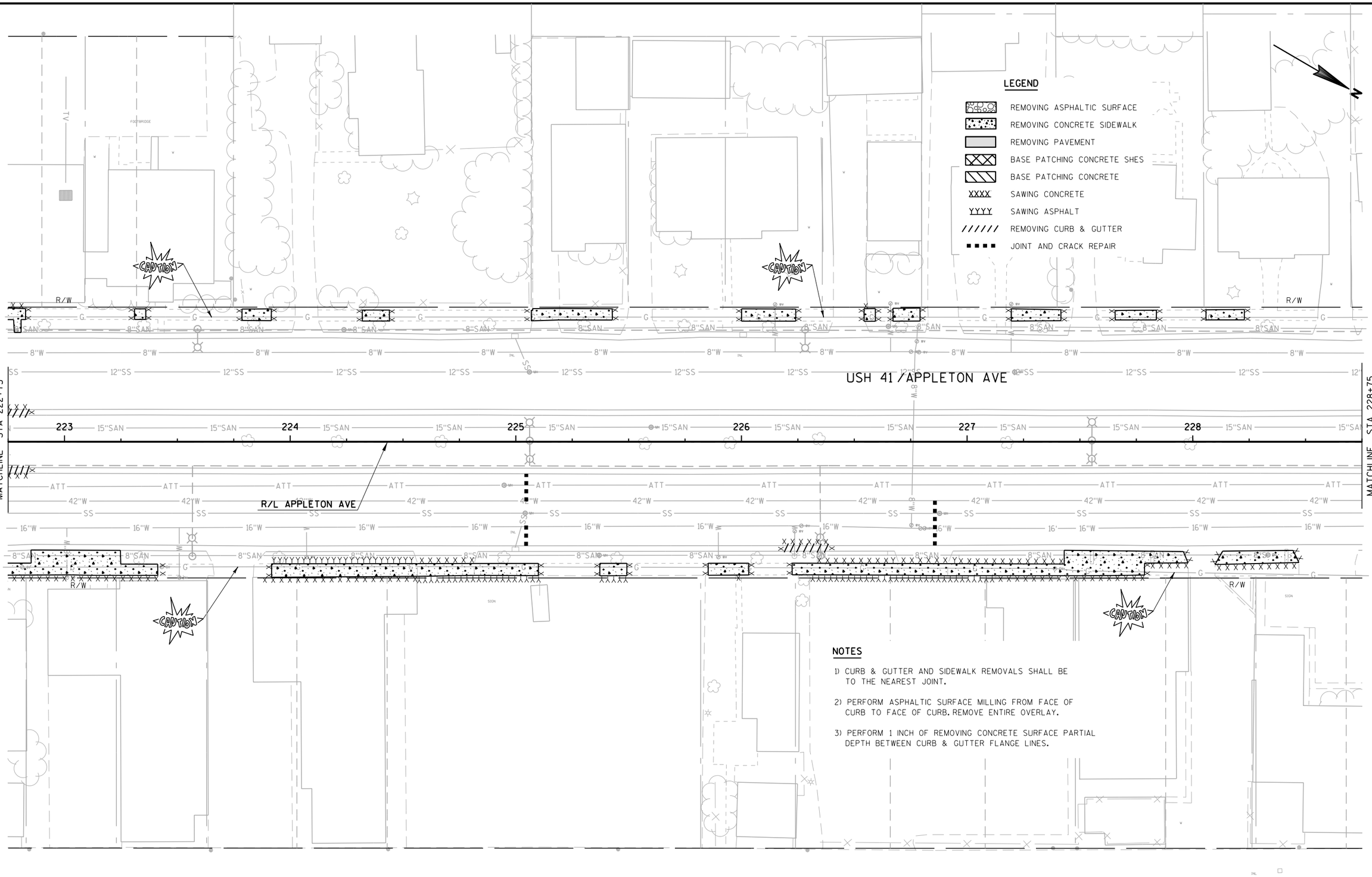

NOTES

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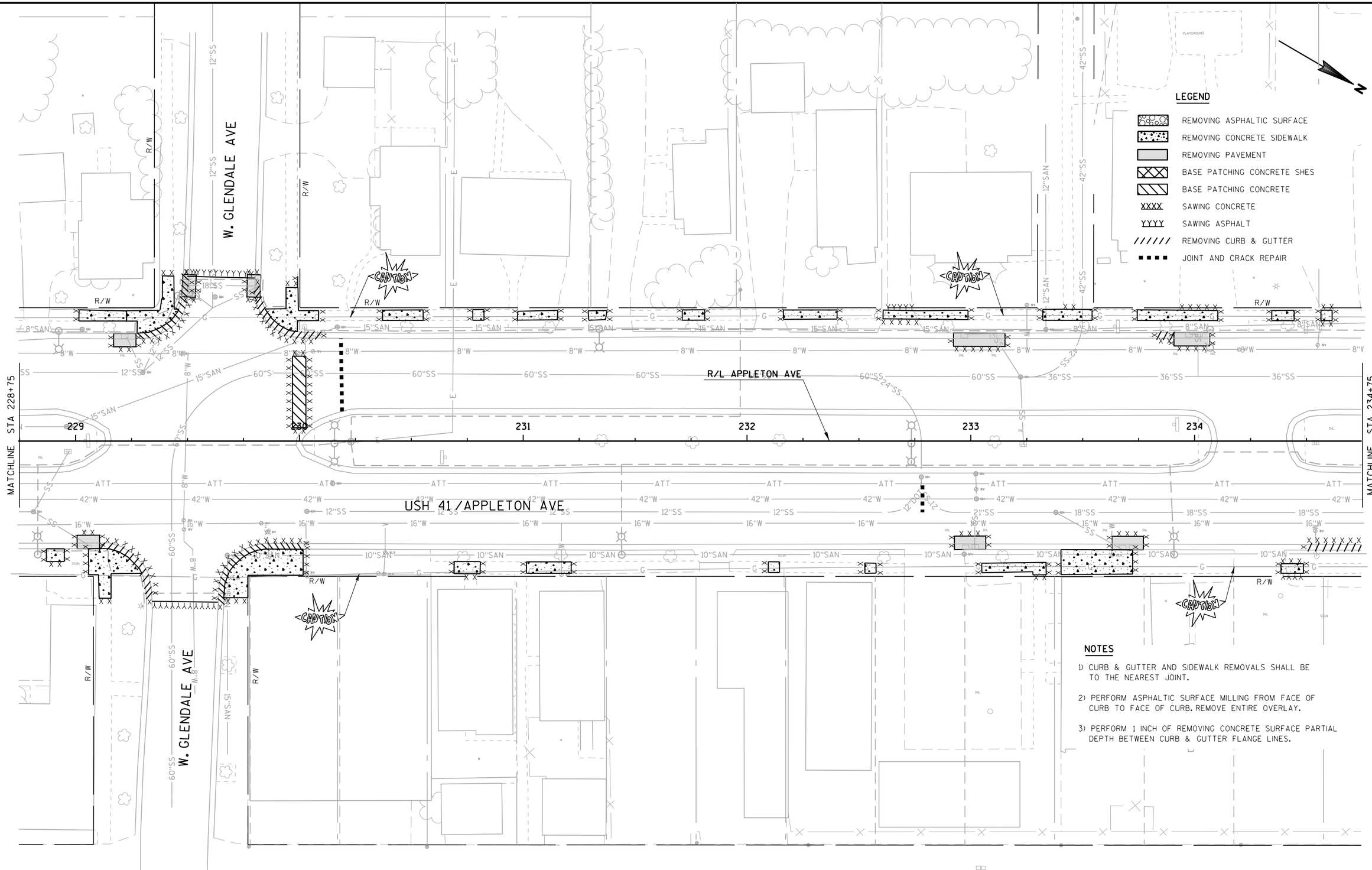
2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 31	E



NOTES

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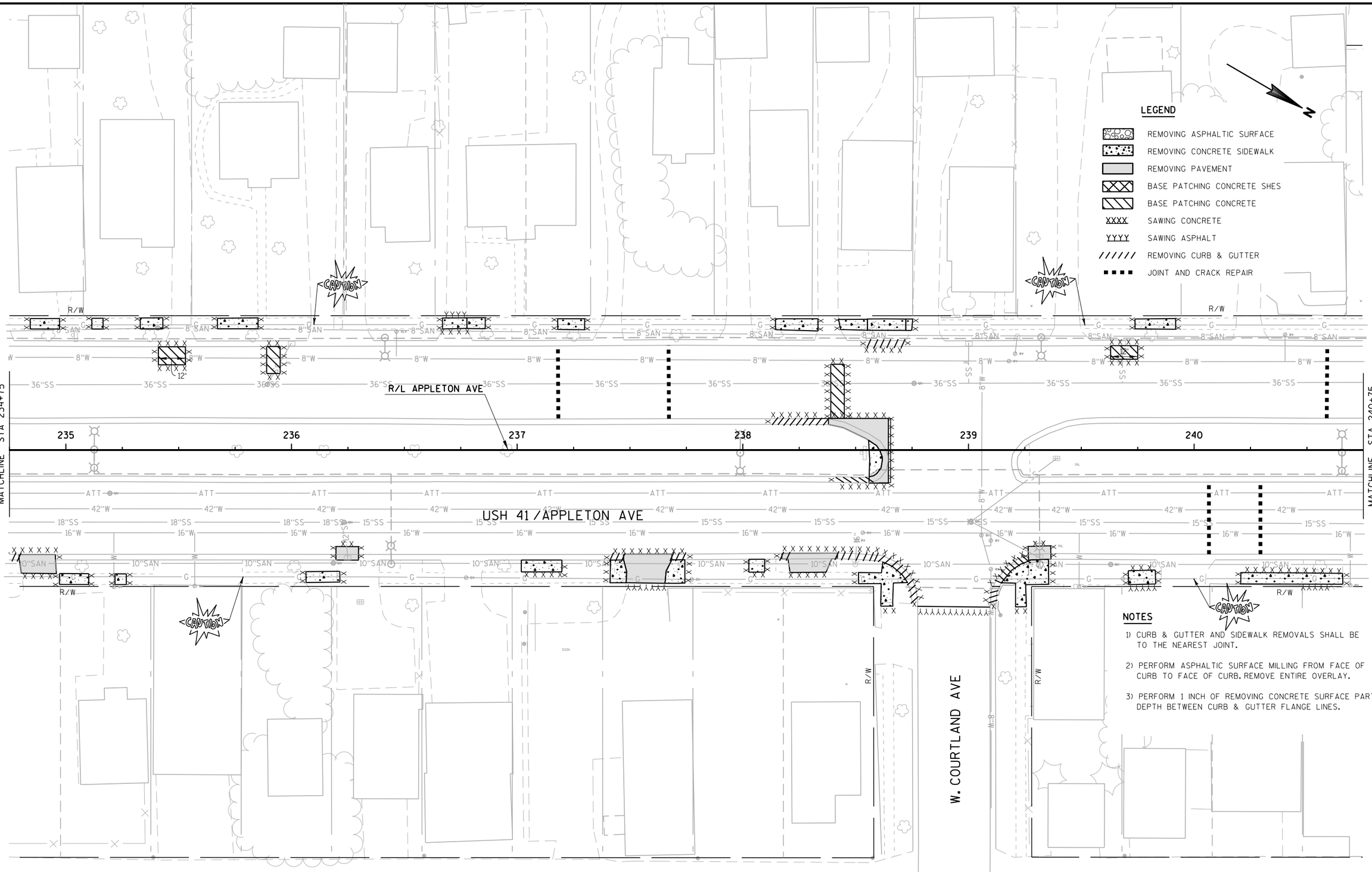
2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 32	E

2



NOTES

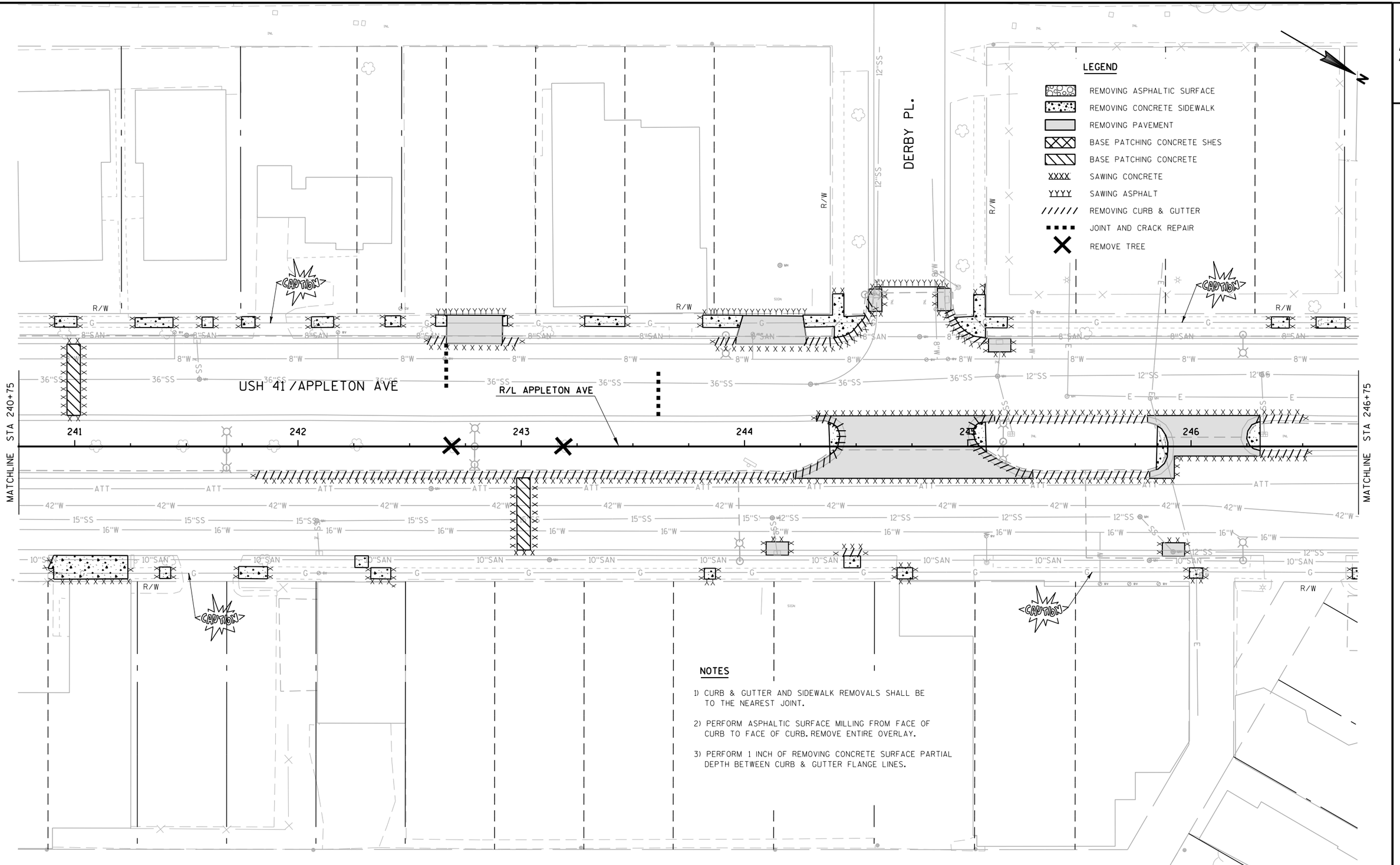
1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 33	E

2



NOTES

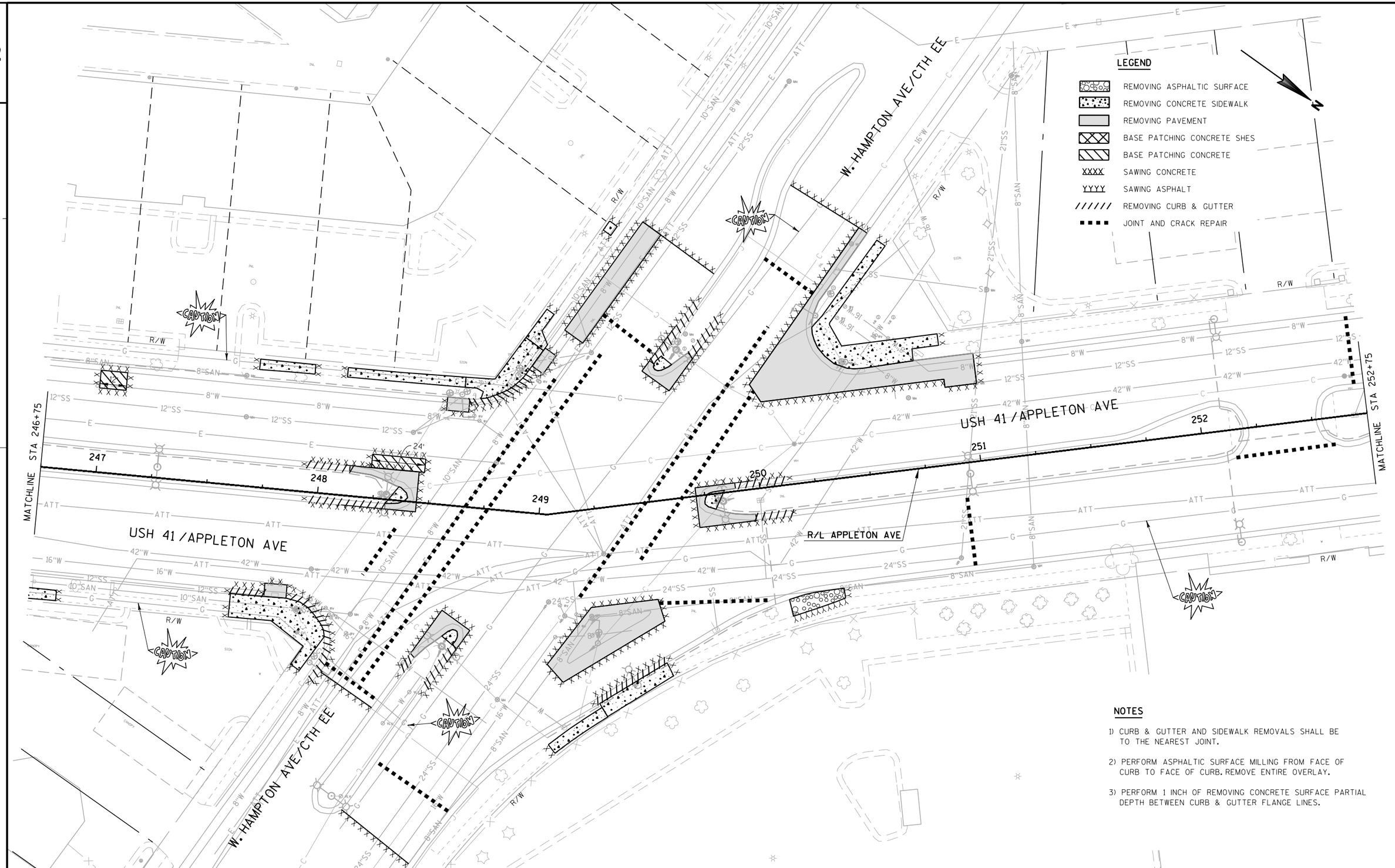
1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 34	E

2



NOTES

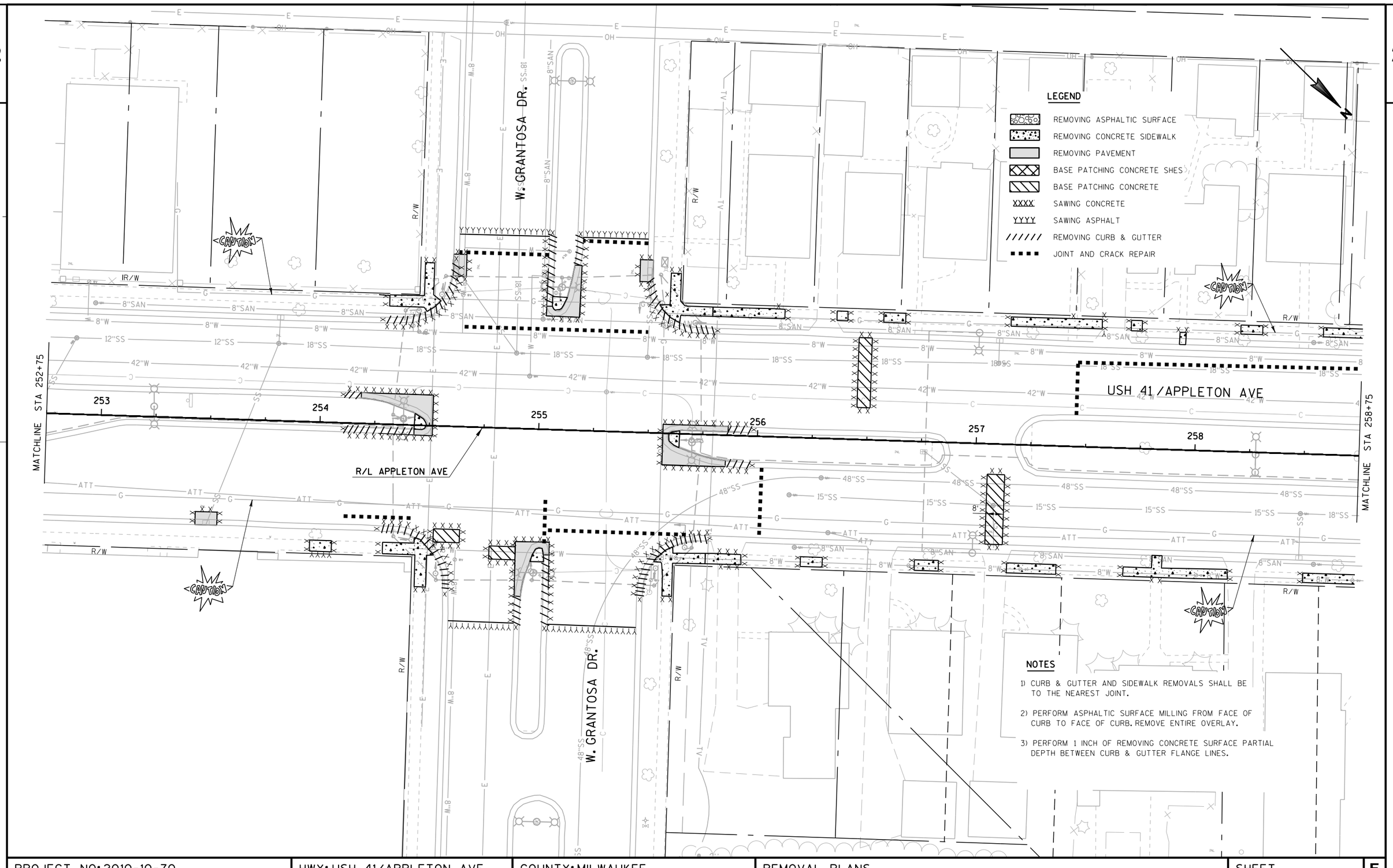
1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 35	E

2



NOTES

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2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

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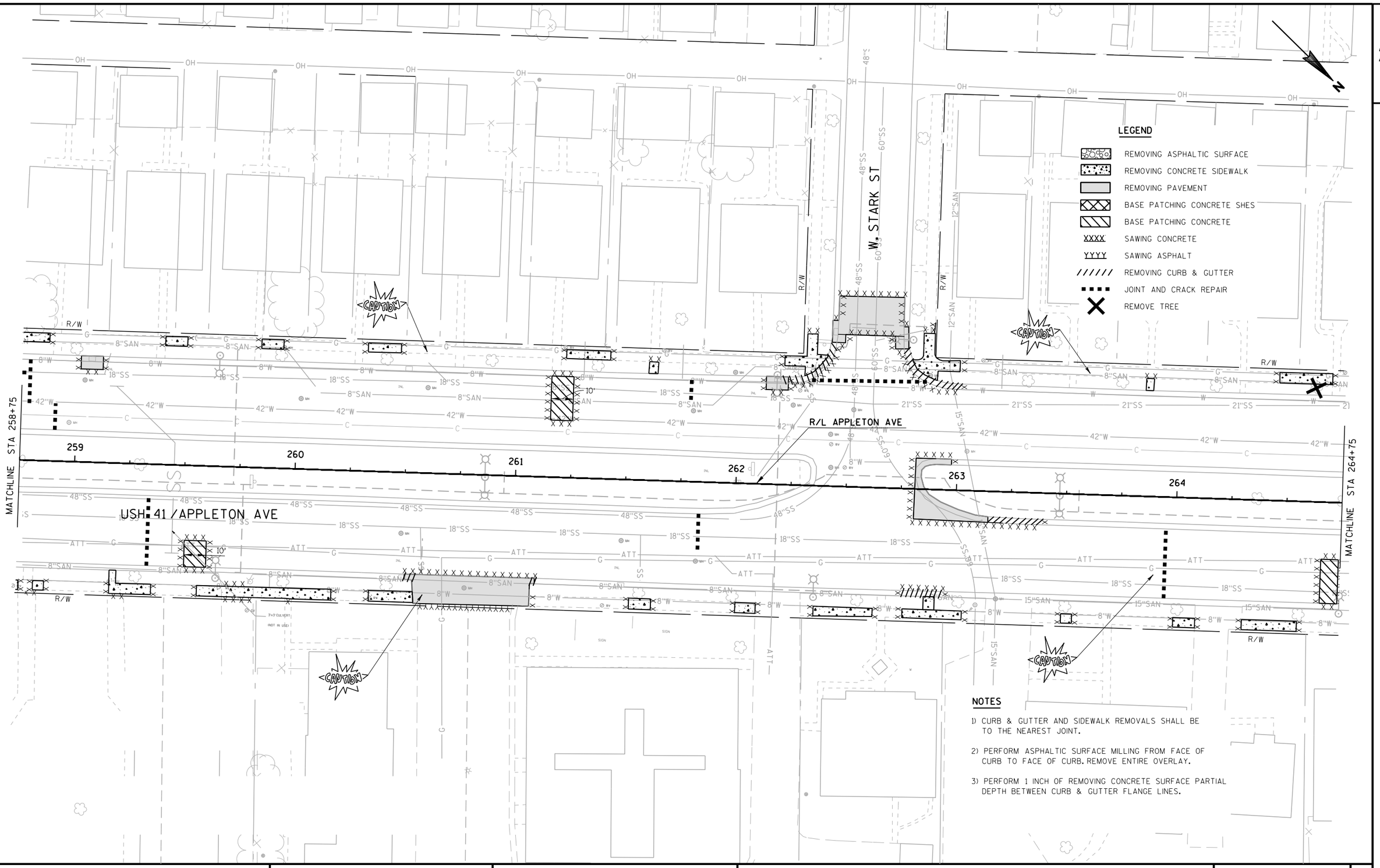
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 36	E

2



NOTES

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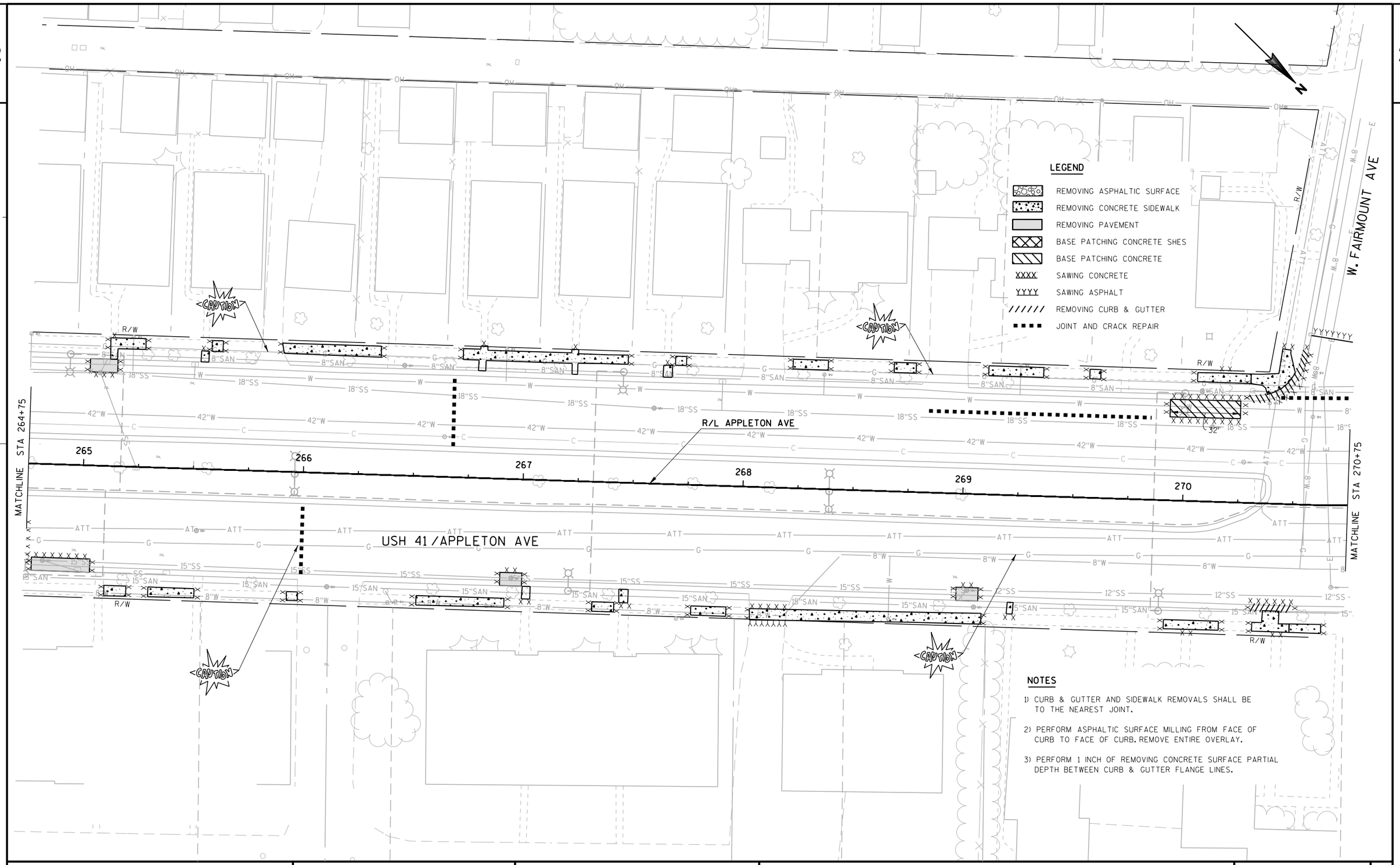
2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 37	E

2



NOTES

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2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

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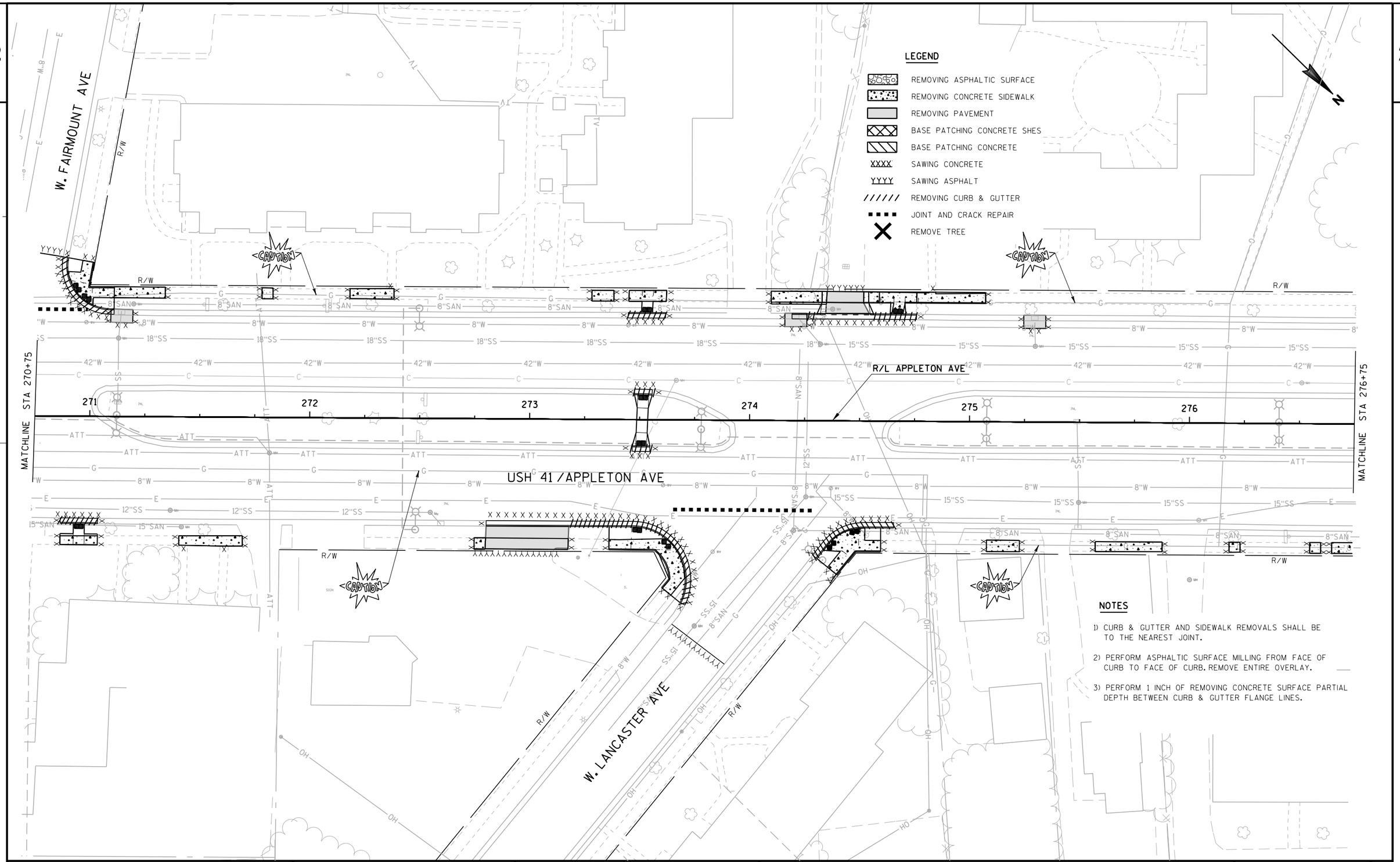
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 38	E

2



NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 39	E

2

2

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- ■■■■ JOINT AND CRACK REPAIR

MATCHLINE STA 276+75

MATCHLINE STA 282+80

R/L APPLETON AVE

USH 41 / APPLETON AVE

W. VILLARD AVE

CAUTION

CAUTION

NOTES

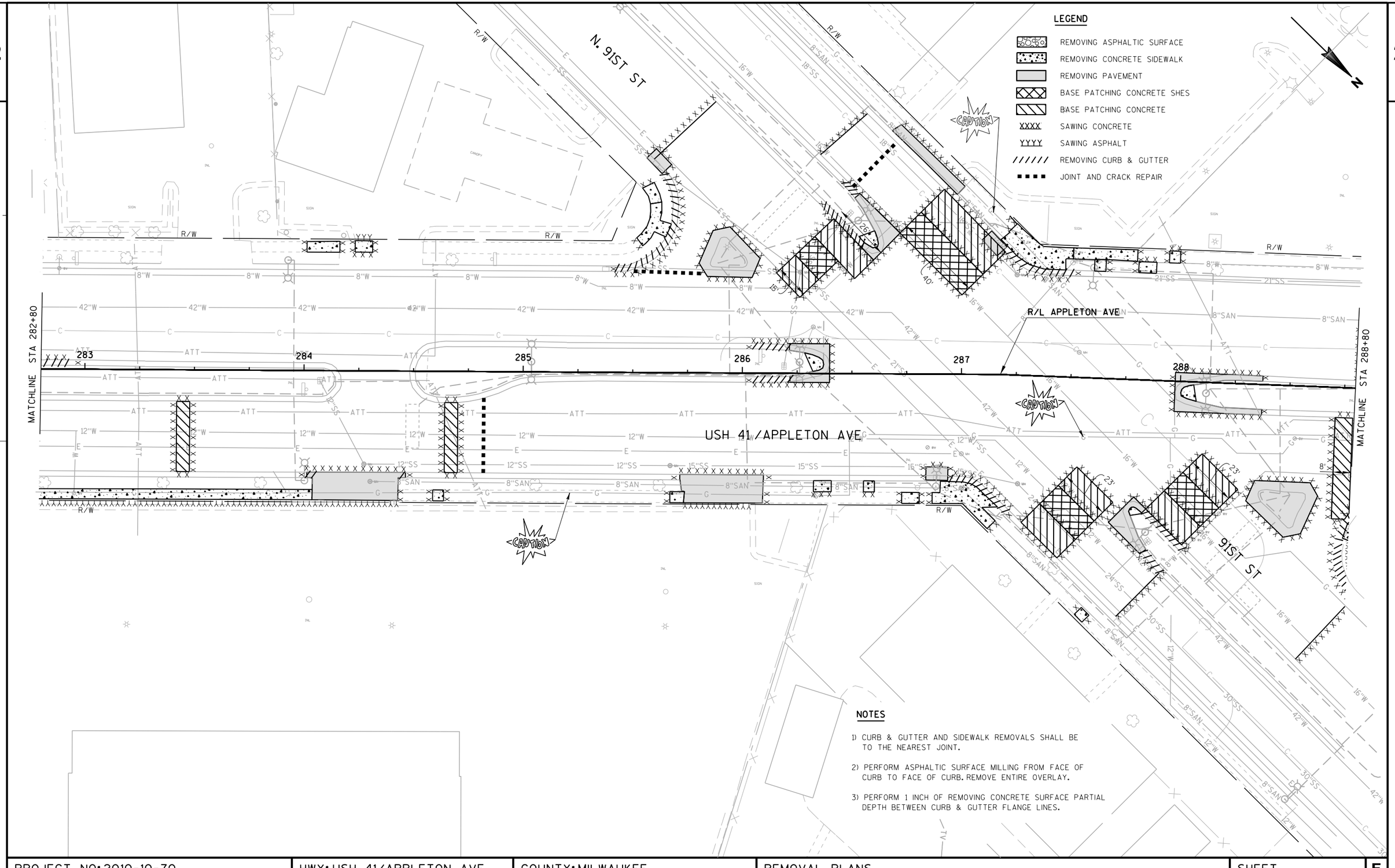
1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 40	E

2



NOTES

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PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 41	E

L. J. TIMMERMAN AIRPORT

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- JOINT AND CRACK REPAIR

R/L APPLETON AVE

USH 41/APPLETON AVE

MATCHLINE STA 288+80

MATCHLINE STA 294+75

N. 91ST ST

CAUTION

CAUTION

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 42	E

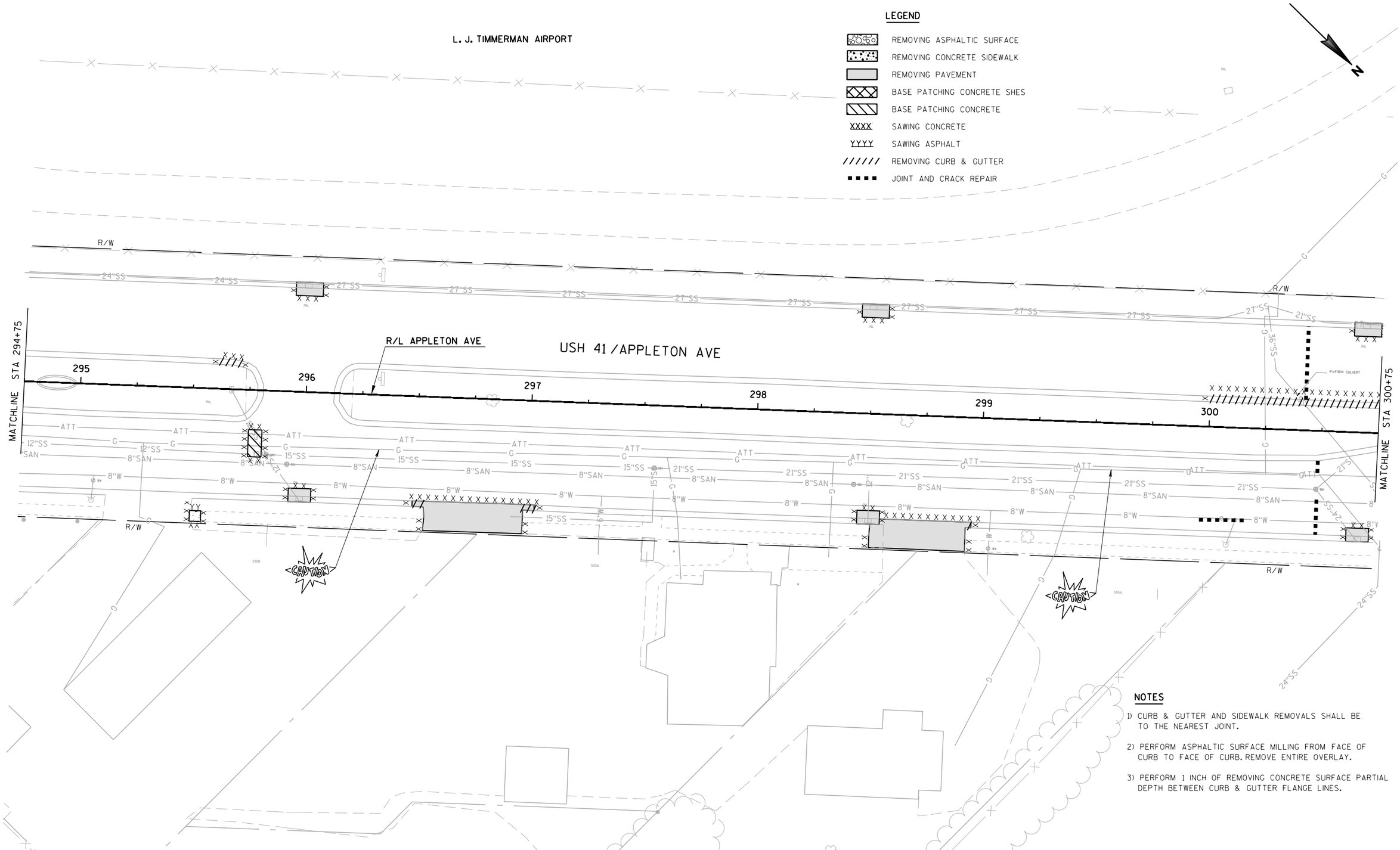
FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap021218_rp.dgn PLOT DATE : 19-DEC-2013 09:59 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

2

L. J. TIMMERMAN AIRPORT

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- ■■■■ JOINT AND CRACK REPAIR



NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 43	E

2

L. J. TIMMERMAN AIRPORT

N

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- ■■■■ JOINT AND CRACK REPAIR

R/W

21"SS 21"SS 21"SS 21"SS 21"SS 21"SS 21"SS 15"SS 15"SS 15"SS 12"SS 12"SS

MATCHLINE STA 300+75

301 302 303 304 305 306

284.724 sf

445.662 sf

R/L APPLETON AVE

USH 41/APPLETON AVE

ATT 27"SS 8"SAN 8"W 4"G

R/W

CAUTION

MATCHLINE STA 306+75

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 44	E

2

2

FIRE
STATION
NO. 4

PARK-N-RIDE LOT

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- ■■■■ JOINT AND CRACK REPAIR

N

R/W

R/W

USH 41/APPLETON AVE

MATCHLINE STA 306+75

307 308 309 310 311 312

MATCHLINE STA 312+75

R/L APPLETON AVE

R/W

R/W

R/W

BIRCH AVE

CAUTION

CAUTION

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 45	E

L. J. TIMMERMAN AIRPORT

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- ■■■■ JOINT AND CRACK REPAIR

W. SHERIDAN AVE

R/L APPLETON AVE

MILL & OVERLAY LIMIT BEGIN RECONSTRUCTION

MILL & OVERLAY LIMIT BEGIN RECONSTRUCTION

USH 41 / APPLETON AVE

MATCHLINE STA 312+75

MATCHLINE STA 318+75

313 314 315 316 317 318

CAUTION

CAUTION

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 46 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap021222_rp.dgn PLOT DATE : 19-DEC-2013 09:59 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- ■■■■ JOINT AND CRACK REPAIR

627SW

628SW SW RAMP

629SW

630SW

730SE

731SE SE RAMP

MATCHLINE STA 318+75

MATCHLINE STA 731SE+25

MATCHLINE STA 130+75

MATCHLINE STA 126+75

MATCHLINE STA 324+75

MATCHLINE STA 529NE+75

R/L SW RAMP

R/L SILVER SPRING DR

R/L NW RAMP

R/L APPLETON AVE

R/L SE RAMP

R/L NE RAMP

SILVER SPRING DR / CTH E

USH 41 / APPLETON AVE

NW RAMP

NE RAMP

427NW

528NE

529NE

STRUCTURE B-40-328

EXISTING B-40-328
REMOVE AND REPLACE DECK.
SEE STRUCTURAL DRAWINGS

CAUTION

R/W

TLE

ATT

96"SS CULVERT

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 47	E

2

2

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- ■■■■ JOINT AND CRACK REPAIR

USH 41 /APPLETON AVE

USH 41 /APPLETON AVE

N. 99TH ST

MATCHLINE STA 324+75

MATCHLINE STA 330+75

END RECONSTRUCTION LIMIT
MILL & OVERLAY LIMIT

R/L APPLETON AVE

83.253 sf

CAUTION

CAUTION

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 48	E

2

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- ■■■■ JOINT AND CRACK REPAIR

N

CAUTION

R/W

R/L APPLETON AVE

USH 41 / APPLETON AVE

W. CARMEN AVE

MATCH LINE STA 330+75

MATCH LINE STA 336+75

331 332 333 334 335 336

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 49	E

2

2

LEGEND

REMOVING ASPHALTIC SURFACE
REMOVING CONCRETE SIDEWALK
REMOVING PAVEMENT
BASE PATCHING CONCRETE SHES
BASE PATCHING CONCRETE
XXXX SAWING CONCRETE
YYYY SAWING ASPHALT
////// REMOVING CURB & GUTTER
JOINT AND CRACK REPAIR

N

CAUTION

R/W

USH 41 / APPLETON AVE

R/L APPLETON AVE

USH 41 / APPLETON AVE

MATCH LINE STA 336+75

MATCH LINE STA 341+75

337 338 339 340 341

REMOVING GUARDRAIL REQ'D

R/W

R/W

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 50	E

2

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- JOINT AND CRACK REPAIR
- REMOVING GUARDRAIL

UNION PACIFIC RAILROAD

MATCHLINE STA 341+75

MATCHLINE STA 347+25

R/L APPLETON AVE

USH 41 / APPLETON AVE

REMOVING GUARDRAIL REQ'D

REMOVING SAND BARRELS REQ'D

EXISTING STRUCTURE B-40-328

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 51	E

2

2

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- ■■■■ JOINT AND CRACK REPAIR

EXISTING STRUCTURE B-40-325
OVERLAY AND REPAIR EXISTING BRIDGE DECK
SEE STRUCTURAL DRAWINGS

REMOVING GUARDRAIL REQ'D

REMOVING GUARDRAIL REQ'D

REMOVING GUARDRAIL REQ'D

REMOVING SAND BARRELS REQ'D

REMOVING GUARDRAIL REQ'D

REMOVING GUARDRAIL REQ'D

EXISTING STRUCTURE B-40-326
OVERLAY AND REPAIR EXISTING BRIDGE DECK
SEE STRUCTURAL DRAWINGS

R/L APPLETON AVE

USH 41 / APPLETON AVE

USH 41 / APPLETON AVE

W. BOBOLINK AVE

MATCHLINE STA 347+25

MATCHLINE STA 352+75

348 349 350 351 352

CAUTION

YYYYYYYYYYYYY

LITTLE MENOMONEE RIVER

LITTLE MENOMONEE RIVER PKWY

R/W

ATT

SS

INL

SIGN

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

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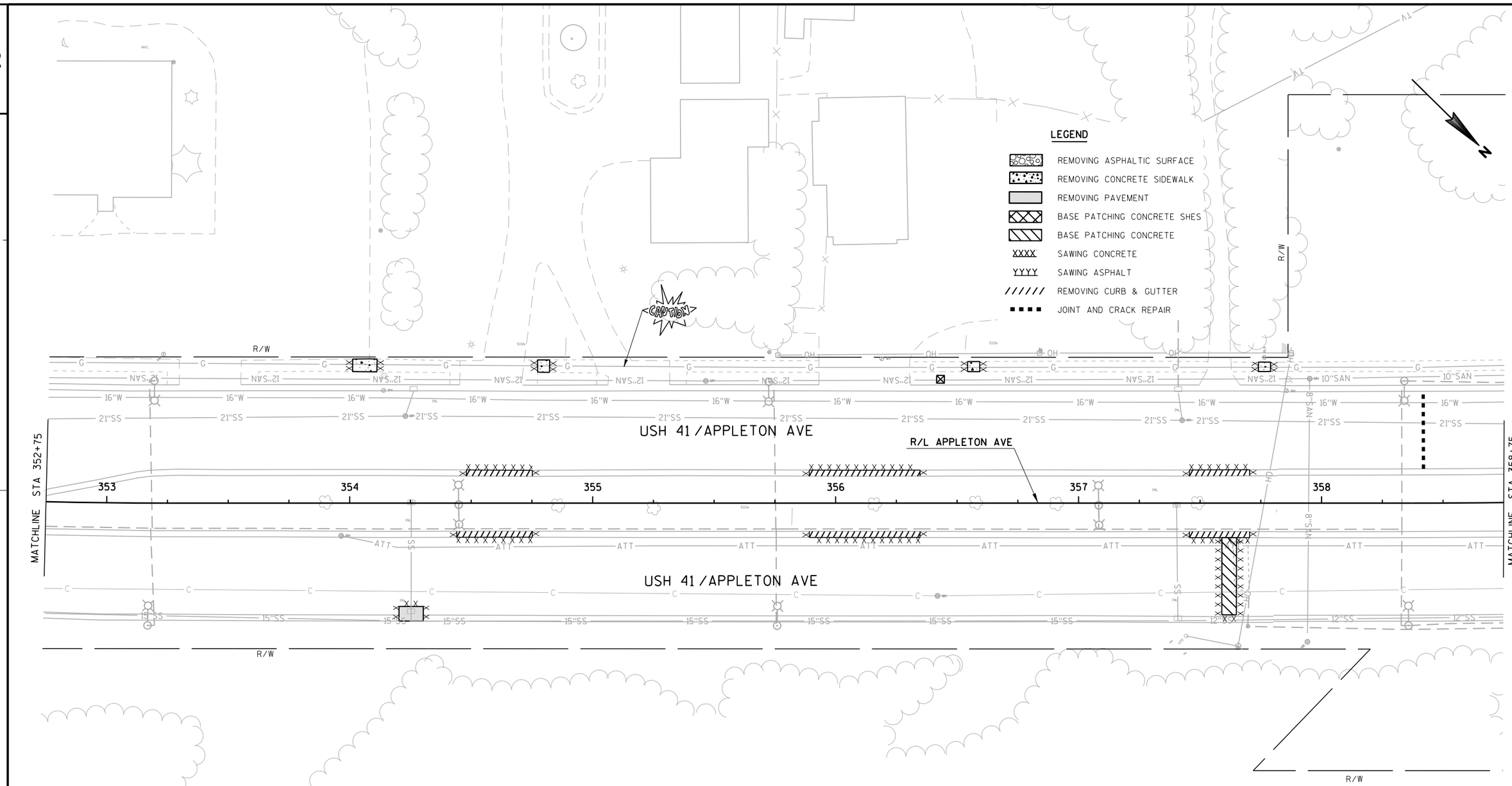
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 52	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap021228_rp.dgn PLOT DATE : 19-DEC-2013 09:59 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

2



NOTES

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3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 53	E

2

2

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER
- ■■■■ JOINT AND CRACK REPAIR

CAUTION

CAUTION

W. FLORIST AVE

R/W

R/W

STA 365+14
LOOP

END PROJECT
STA 364+00.00

USH 41 /APPLETON AVE

R/L APPLETON AVE

MATCHLINE STA 358+75

359 360 361 362 363 364

USH 41 /APPLETON AVE

N. 107TH ST

R/W

R/W

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 54	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap021230_rp.dgn PLOT DATE : 19-DEC-2013 09:59 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

2

N

CAUTION

BEGIN CONSTRUCTION
STA 421NW+66.3

422NW
423NW
424NW
425NW
426NW

NW RAMP

R/L NW RAMP

R/L SILVER SPRING DR

SILVER SPRING DR / CTH E

122
123
124
125
126

MATCHLINE STA 126+75

R/L SW RAMP

623SW
624SW
625SW
626SW

SW RAMP

SILVER SPRING DR / CTH E

BEGIN CONSTRUCTION
STA 623SW+65.0

R/W

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRTE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

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3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 55	E

2

2

N

MATCHLINE STA 529NE+75

530NE

531NE

532NE

533NE

534NE

535NE

NE RAMP

END CONSTRUCTION
STA 533NE+85.7

R/L NE RAMP

R/L SILVER SPRING DR

SILVER SPRING DR / CTH E

MATCHLINE STA 130+75

131

132

133

134

135

LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING CONCRETE SIDEWALK
- REMOVING PAVEMENT
- BASE PATCHING CONCRETE SHES
- BASE PATCHING CONCRETE
- XXXX SAWING CONCRETE
- YYYY SAWING ASPHALT
- ////// REMOVING CURB & GUTTER

R/L SE RAMP

MATCHLINE STA 731SE+25

732SE

733SE

734SE

735SE

SE RAMP

END CONSTRUCTION
STA 734SE+30.4

CAUTION

NOTES

1) CURB & GUTTER AND SIDEWALK REMOVALS SHALL BE TO THE NEAREST JOINT.

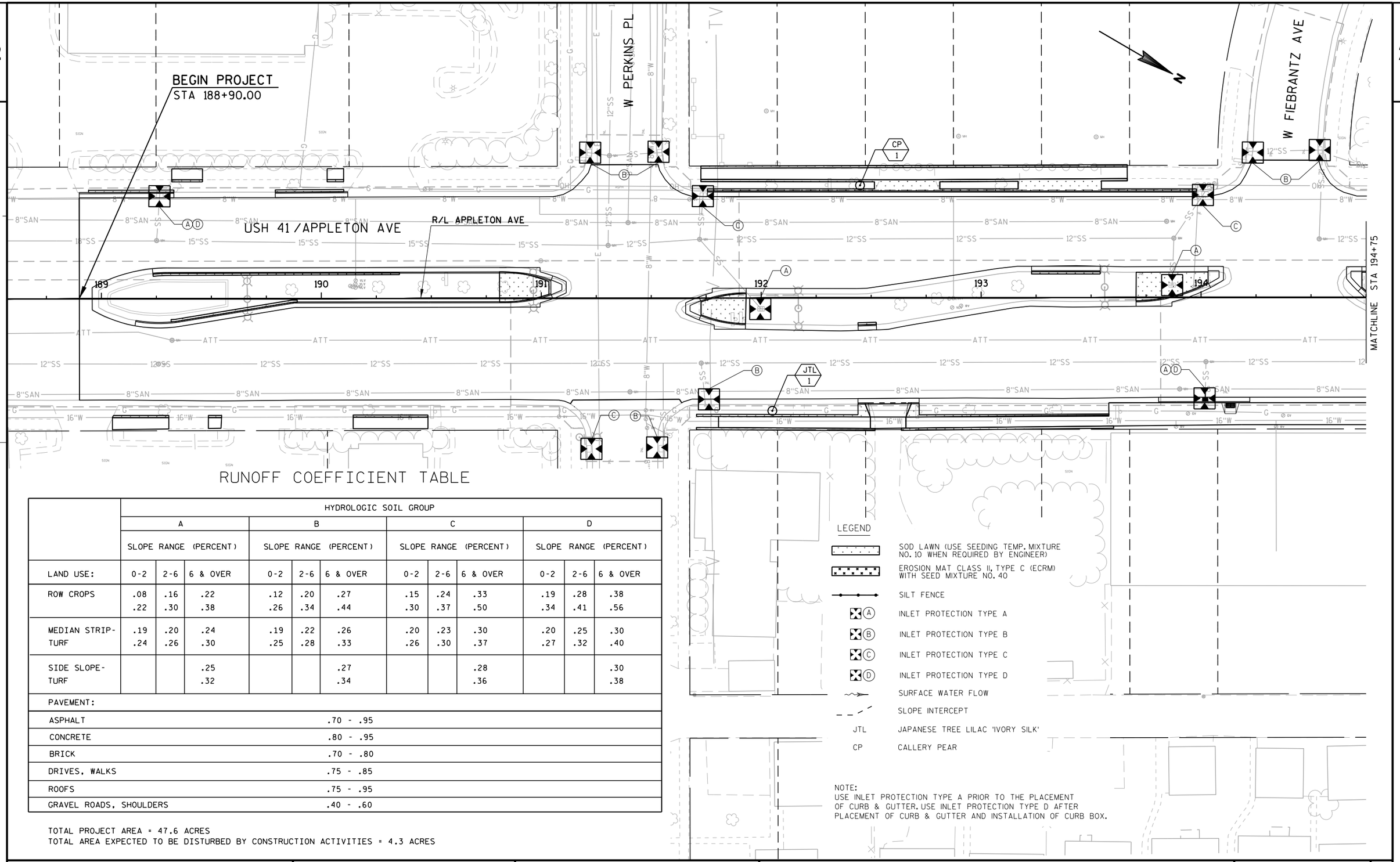
2) PERFORM ASPHALTIC SURFACE MILLING FROM FACE OF CURB TO FACE OF CURB. REMOVE ENTIRE OVERLAY.

3) PERFORM 1 INCH OF REMOVING CONCRETE SURFACE PARTIAL DEPTH BETWEEN CURB & GUTTER FLANGE LINES.

PROJECT NO: 2010-10-70	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 56	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap021232_rp.dgn PLOT DATE : 19-DEC-2013 09:59 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42



RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 47.6 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 4.3 ACRES

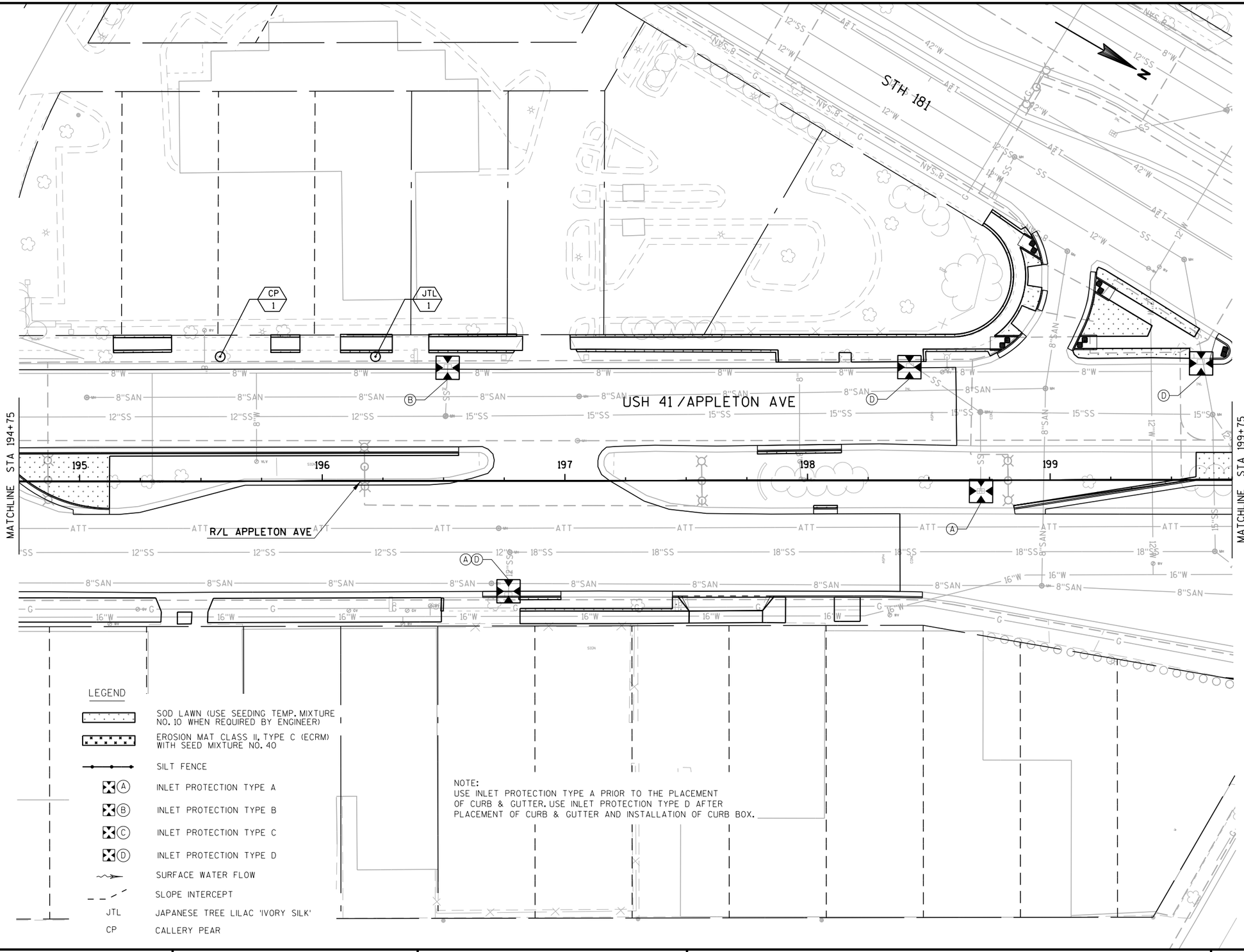
LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- JTL JAPANESE TREE LILAC 'IVORY SILK'
- CP CALLERY PEAR

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 57	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 58	E

2

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

STH 181

R/L APPLETON AVE

HOPE AVE.

HOPE AVE.

76TH ST

USH 41 / APPLETON AVE

MATCHLINE STA 199+75

MATCHLINE STA 205+75

200 201 202 203 204 205

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 59 E

2

R/L APPLETON AVE

USH 41 /APPLETON AVE

MATCHLINE STA 205+75

MATCHLINE STA 210+75

206 207 208 209 210

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 60	E

2

MATCHLINE STA 210+75

MATCHLINE STA 216+75

R/L APPLETON AVE

USH 41/APPLETON AVE

CONGRESS ST.

CONGRESS ST.

211 212 213 214 215 216

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 61	E

2

CONGRESS ST.

RUBY AVE.

R/L APPLETON AVE

USH 41/APPLETON AVE

MATCHLINE STA 216+75

MATCHLINE STA 222+75

217 218 219 220 221 222

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 62 E

2

USH 41/APPLETON AVE

MATCHLINE STA 222+75

MATCHLINE STA 228+75

R/L APPLETON AVE

223 224 225 226 227 228

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 63 E

2

2

MATCHLINE STA 228+75

MATCHLINE STA 234+75

R/L APPLETON AVE

USH 41/APPLETON AVE

GLENDALE AVE.

229 230 231 232 233 234

PLAYGROUND

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 64	E

2

MATCHLINE STA 234+75

R/L APPLETON AVE

235 236 237 238 239 240

JTL 1

MATCHLINE STA 240+75

USH 41/APPLETON AVE

COURTLAND AVE.

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- JTL JAPANESE TREE LILAC 'IVORY SILK'

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 65	E

2

DERBY PL.

USH 41/APPLETON AVE

MATCHLINE STA 240+75

MATCHLINE STA 246+75

241 242 243 244 245 246

JTL 1

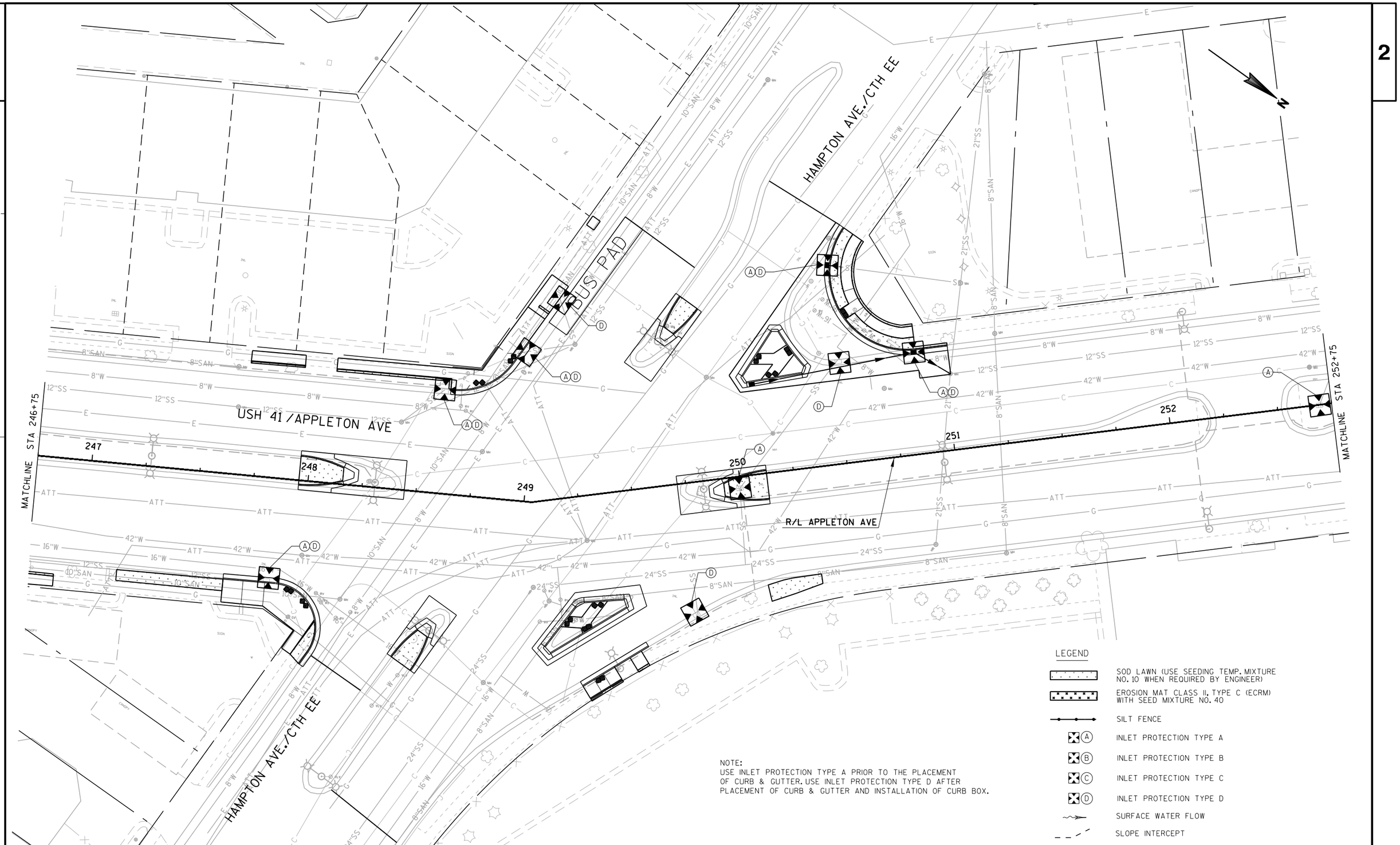
LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- JTL JAPANESE TREE LILAC 'IVORY SILK'

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 66	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 67	E

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

GRANTOSA DR.

USH 41/APPLETON AVE

R/L APPLETON AVE

MATCHLINE STA 252+75

MATCHLINE STA 258+75

253 254 255 256 257 258

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 68 E

2

STARK ST.

R/L APPLETON AVE

USH 41/APPLETON AVE

MATCHLINE STA 258+75

MATCHLINE STA 264+75

259 260 261 262 263 264

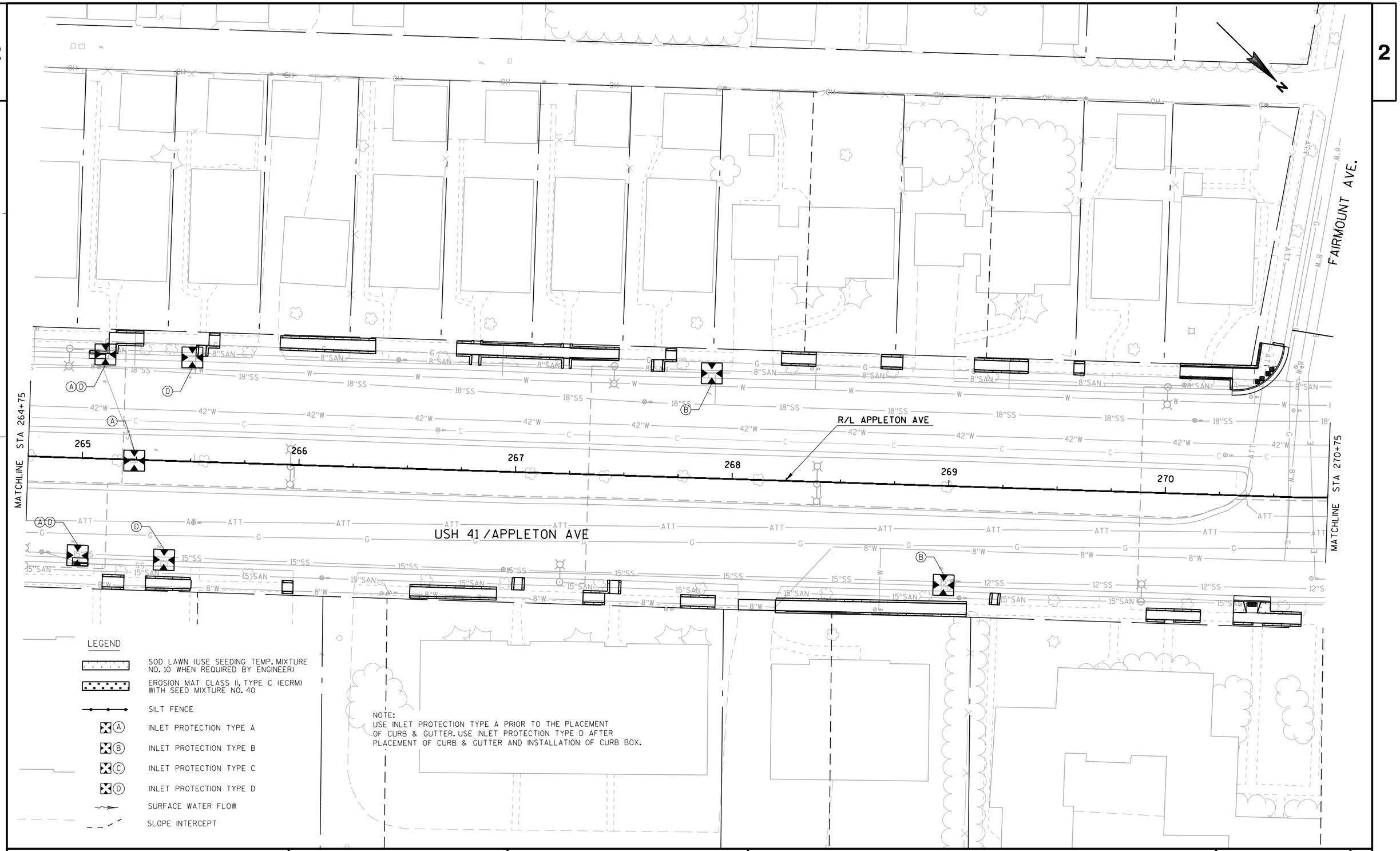
LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- EO CRIMSON SPIRE ENGLISH OAK

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 69	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 70 E

2

FAIRMOUNT AVE.

MATCHLINE STA 270+75

MATCHLINE STA 276+75

R/L APPLETON AVE

USH 41/APPLETON AVE

LANCASTER AVE.

271 272 273 274 275 276

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- EO CRIMSON SPIRE ENGLISH OAK

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 71	E

2

MATCHLINE STA 276+75

MATCHLINE STA 282+80

R/L APPLETON AVE

277 278 279 280 281 282

USH 41 / APPLETON AVE

VILLARD AVE.

LEGEND

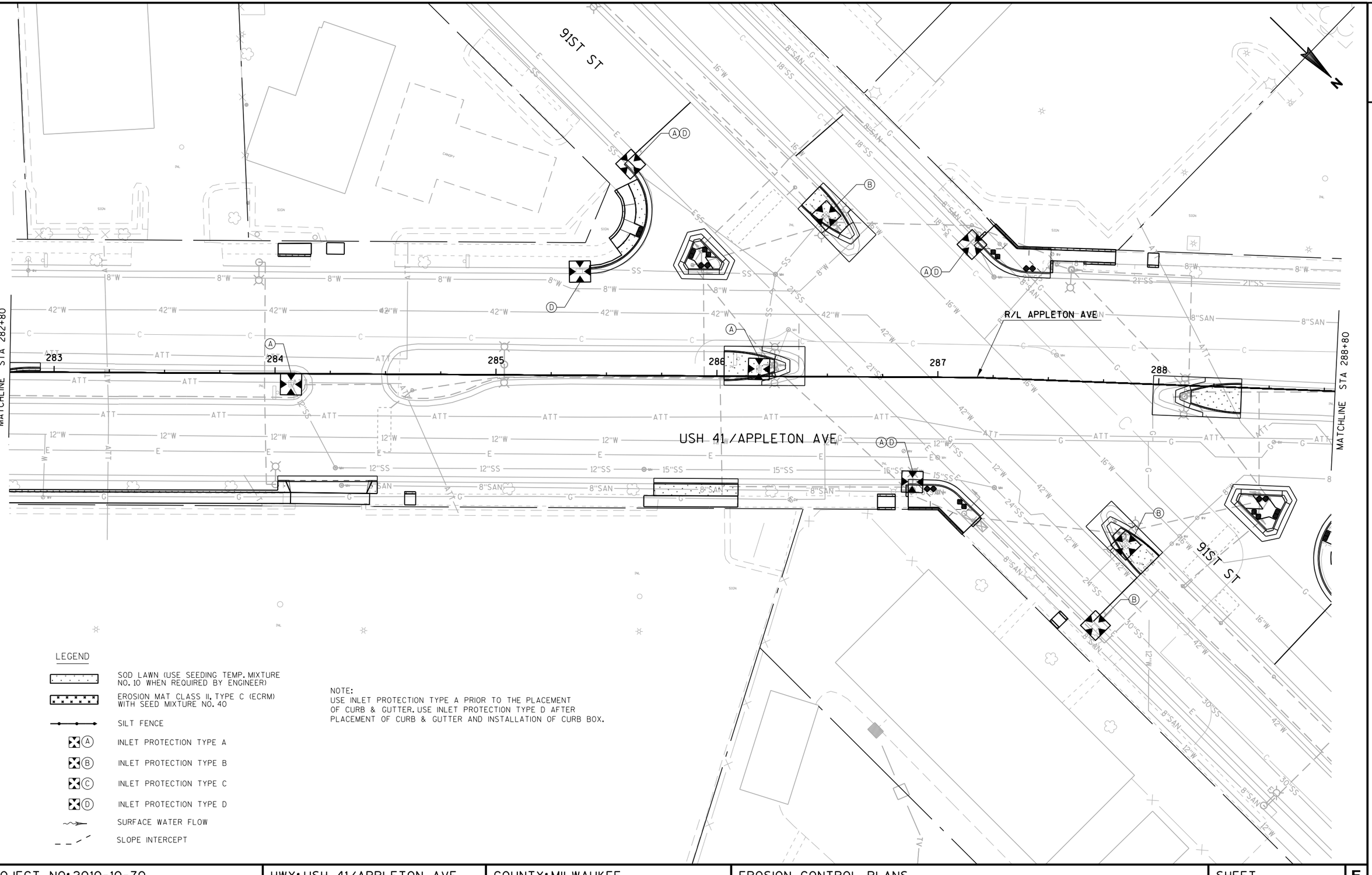
- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022016_ec.dgn PLOT DATE : 17-DEC-2013 15:29 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

2



LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 73	E

2

MATCHLINE STA 288+80

MATCHLINE STA 294+75

R/L APPLETON AVE

USH 41/APPLETON AVE

91ST ST

289 290 291 292 293 294

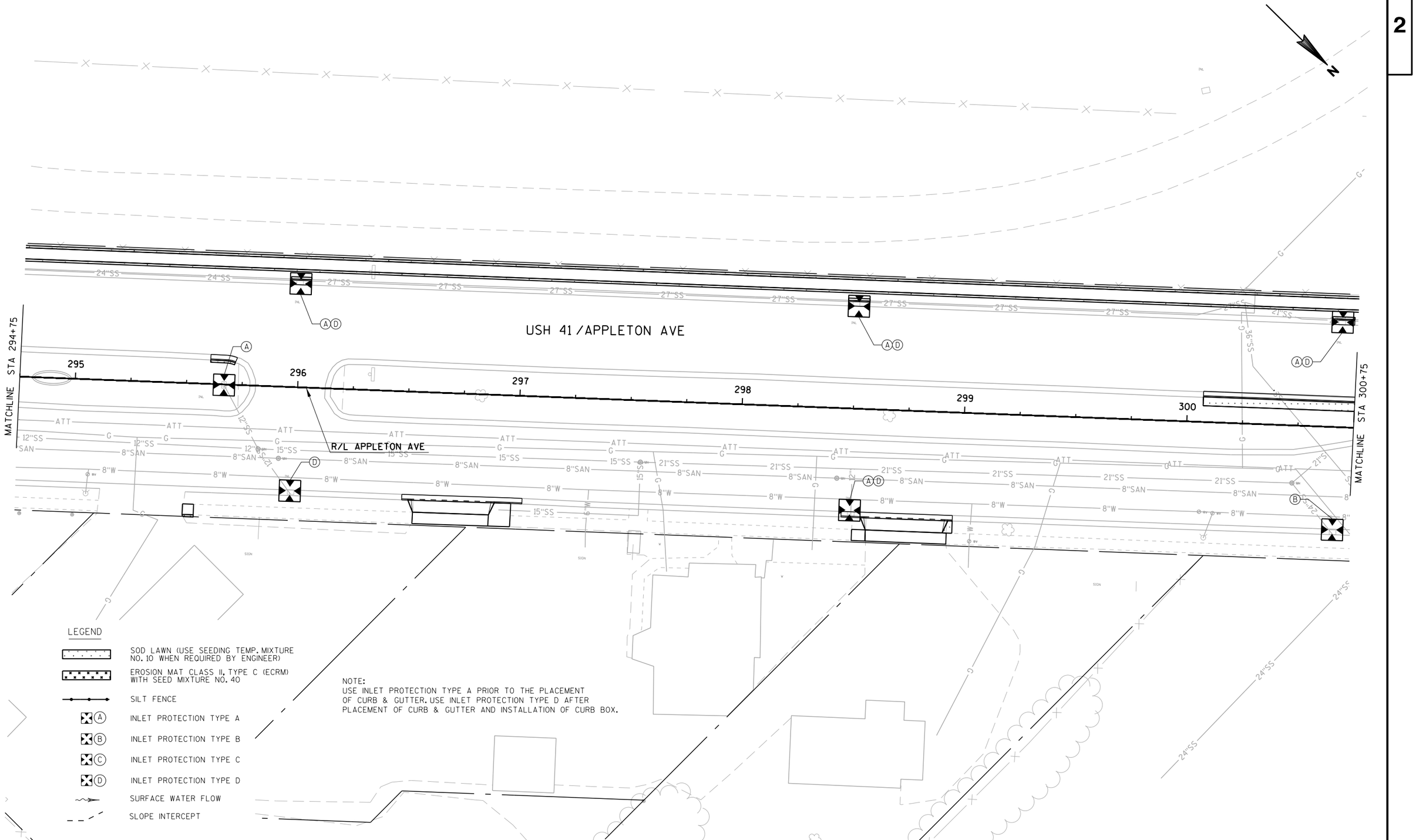
NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 74	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 75	E

2

MATCHLINE STA 300+75

MATCHLINE STA 306+75

USH 41/APPLETON AVE

R/L APPLETON AVE

INLET IS IN CROSSOVER
FRAME AND GRATE REMOVED
TEMPORARY STEEL PLATE
COVER PLACED

301 302 303 304 305 306

21"SS 15"SS 12"SS 27"SS ATT 8"SAN 8"W 4"G

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 76	E

2

USH 41 / APPLETON AVE

BUS PAD

R/L APPLETON AVE

BIRCH AVE.

MATCHLINE STA 306+75

MATCHLINE STA 312+75

307 308 309 310 311 312

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

LEGEND

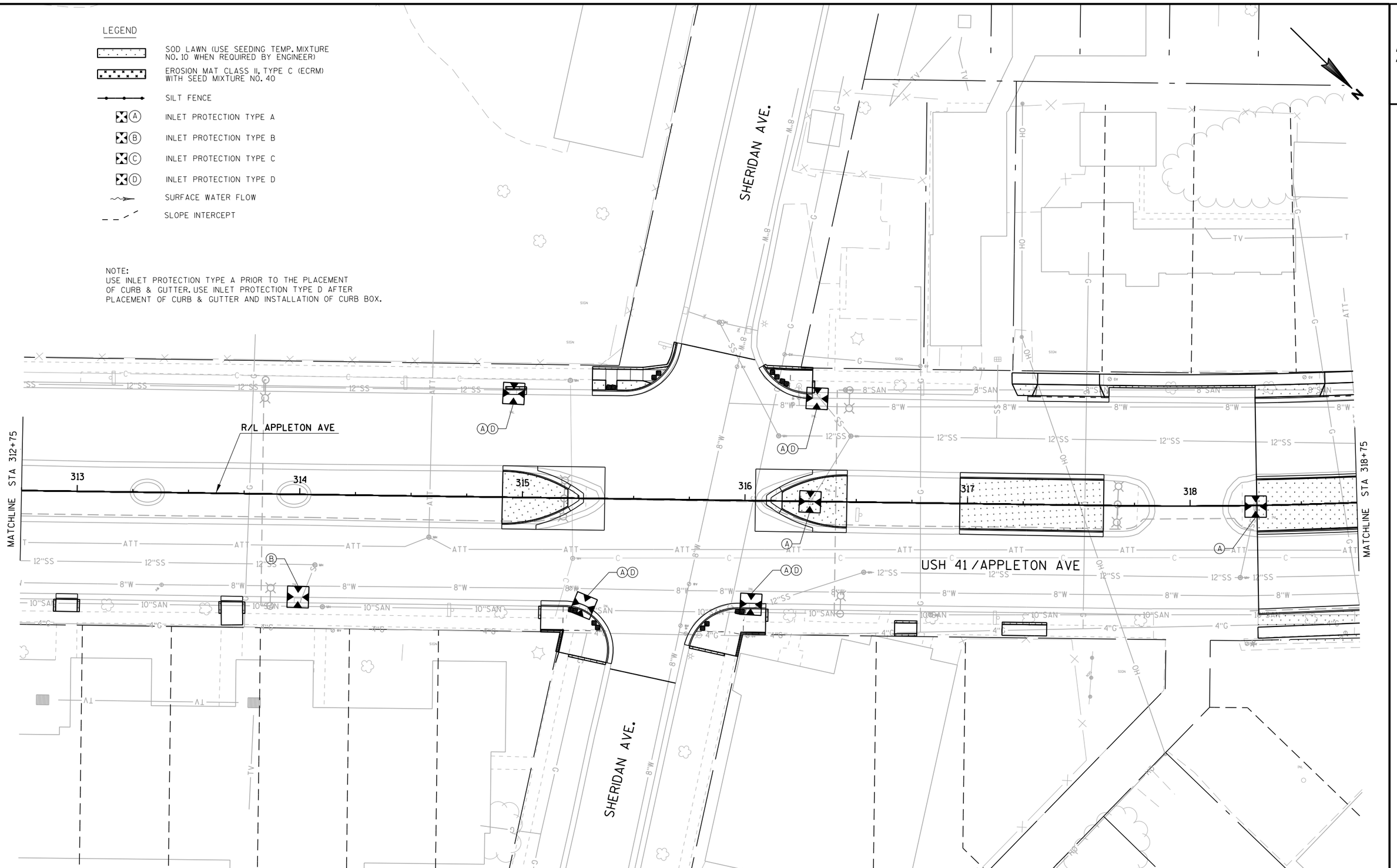
- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- CP CALLERY PEAR

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 77	E

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 78 E

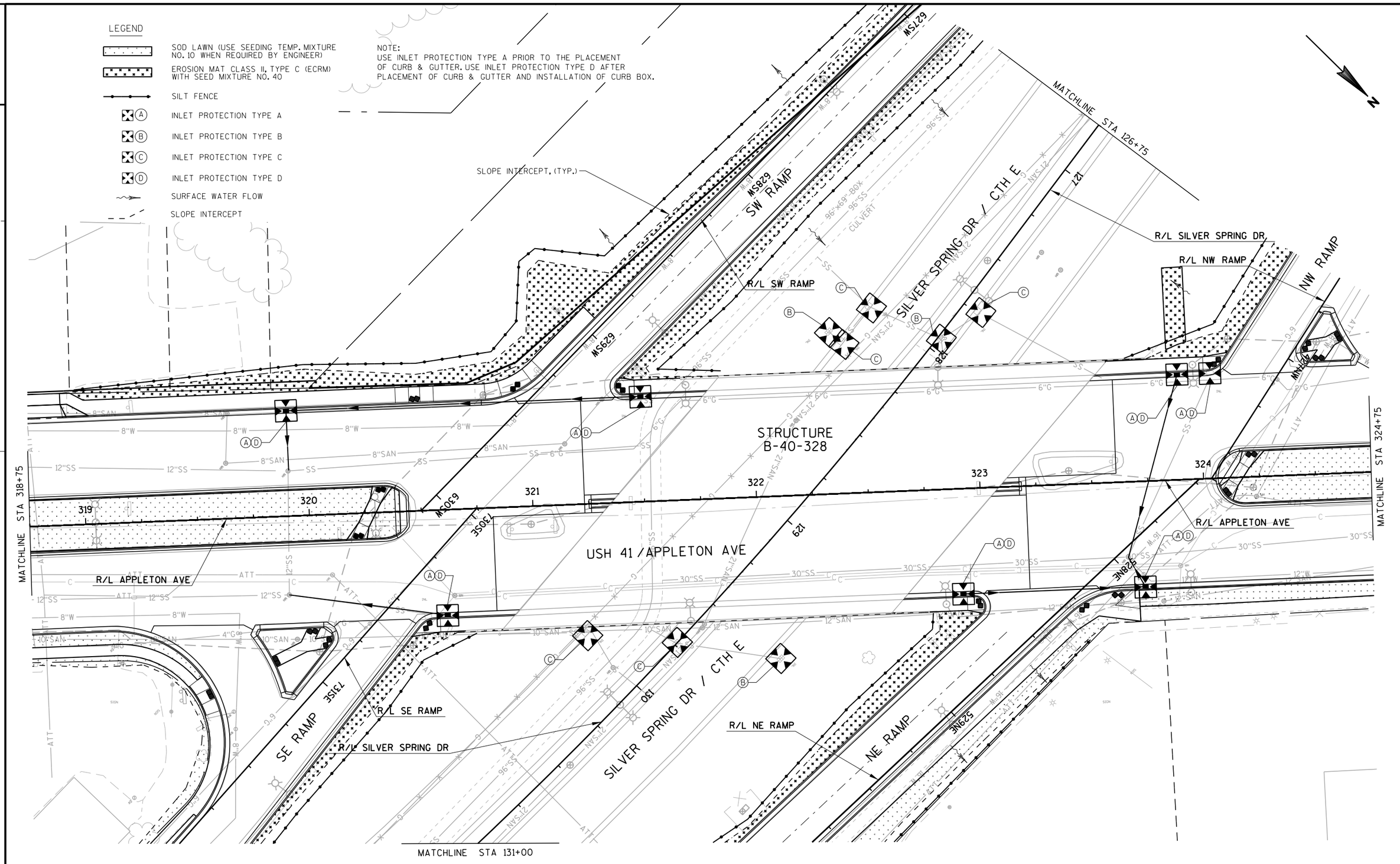
FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022022_ec.dgn PLOT DATE : 17-DEC-2013 15:29 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 79	E

2

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

NW RAMP

SLOPE INTERCEPT, (TYP.)

USH 41 / APPLETON AVE

R/L APPLETON AVE

99TH ST.

MATCHLINE STA 324+75

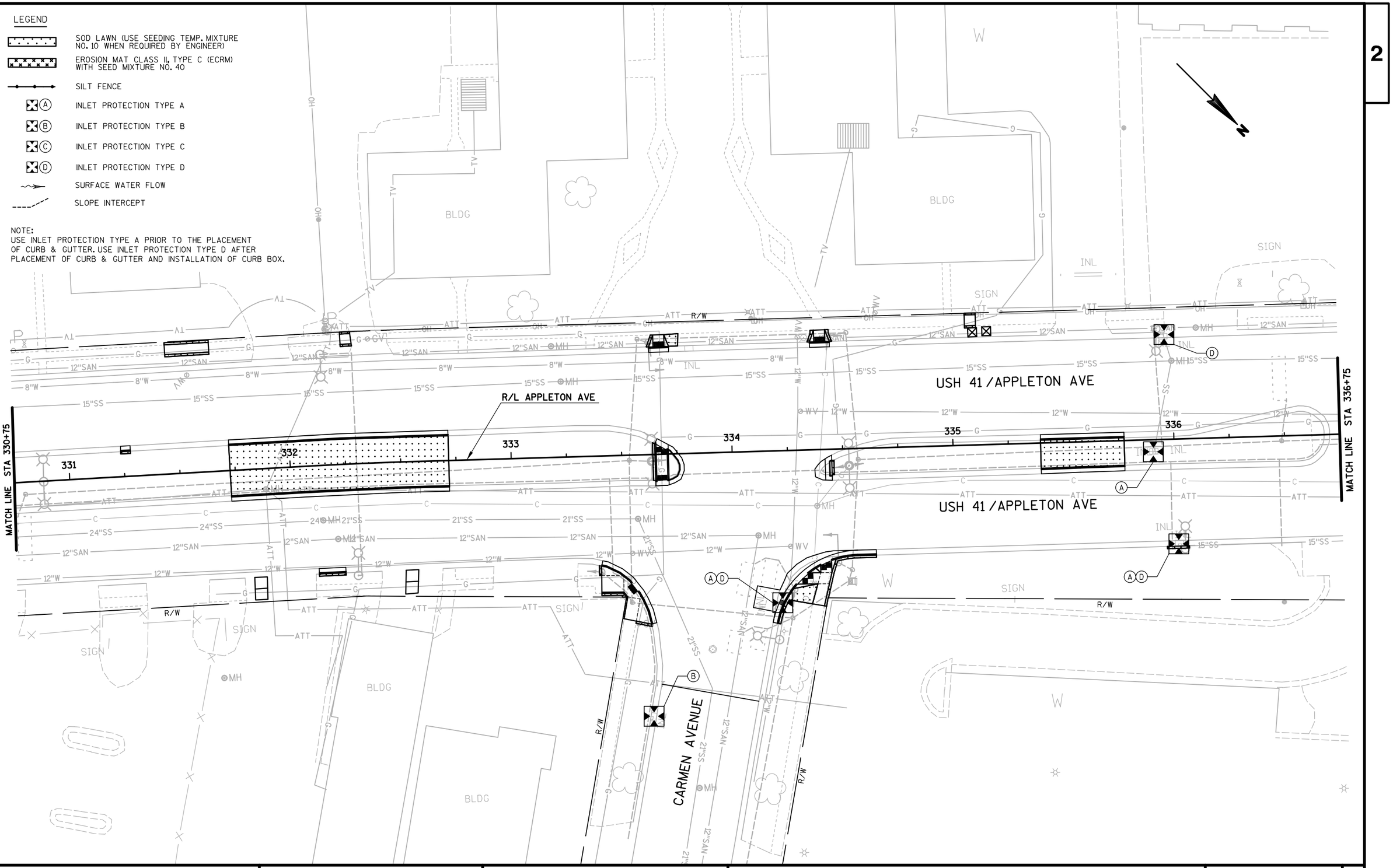
MATCHLINE STA 330+75

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 80	E

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET E

FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\022001_ec.dgn PLOT DATE : 12/16/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

N

BLDG

SIGN

SIGN

R/W

USH 41/APPLETON AVE

R/L APPLETON AVE

USH 41/APPLETON AVE

MATCH LINE STA 336+75

MATCH LINE STA 341+75

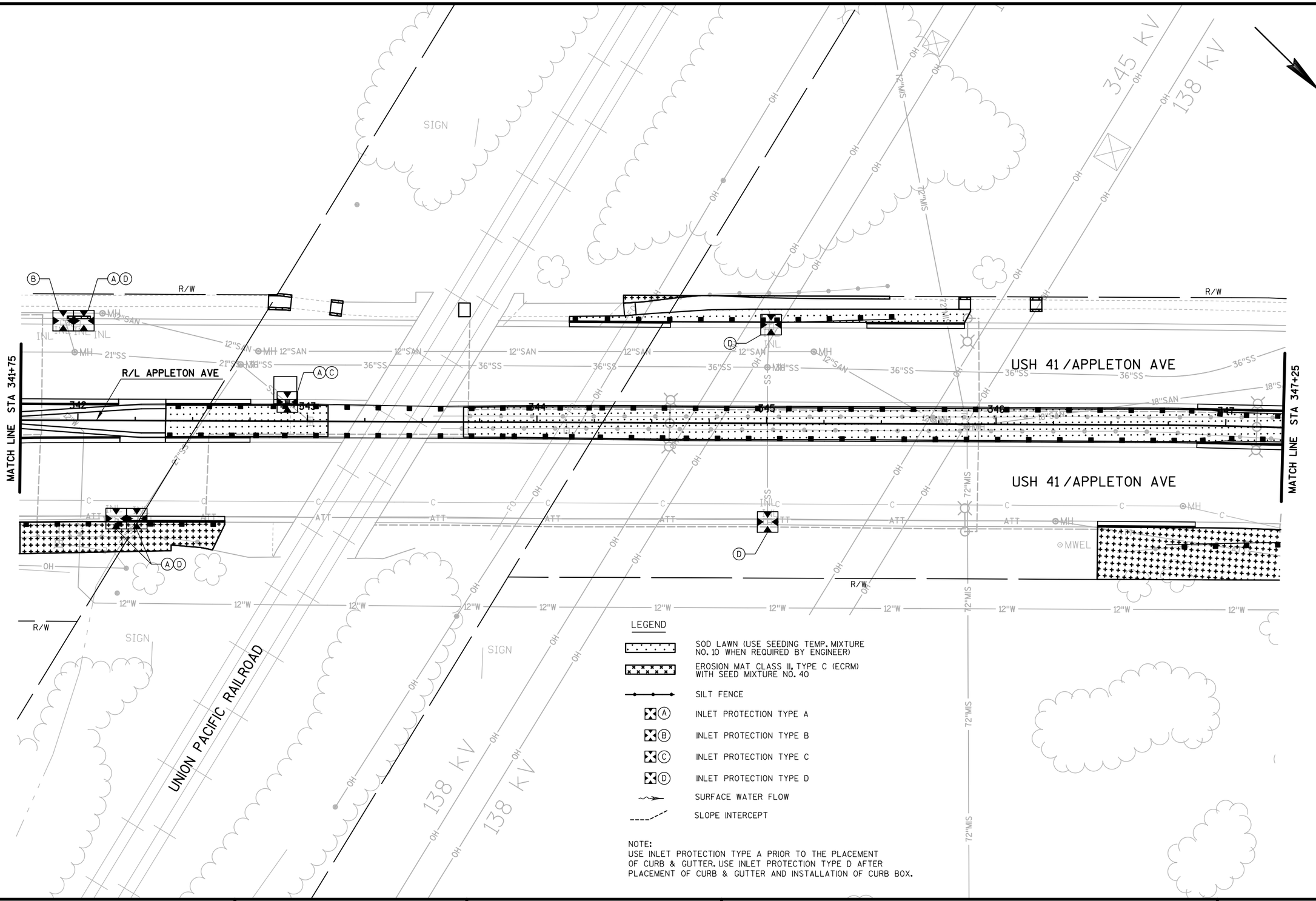
337 338 339 340 341

R/W

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 82	E

FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\022002_ec.dgn PLOT DATE : 10/14/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 83	E

2

MATCH LINE STA 347+25

R/L APPLETON AVE

USH 41 /APPLETON AVE

MMSD 240' REMOTE STORAGE

WEST BOBOLINK AVE

USH 41 /APPLETON AVE

MATCH LINE STA 352+75

LITTLE MENOMONEE RIVER

LITTLE MENOMONEE RIVER PKWY

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET	E

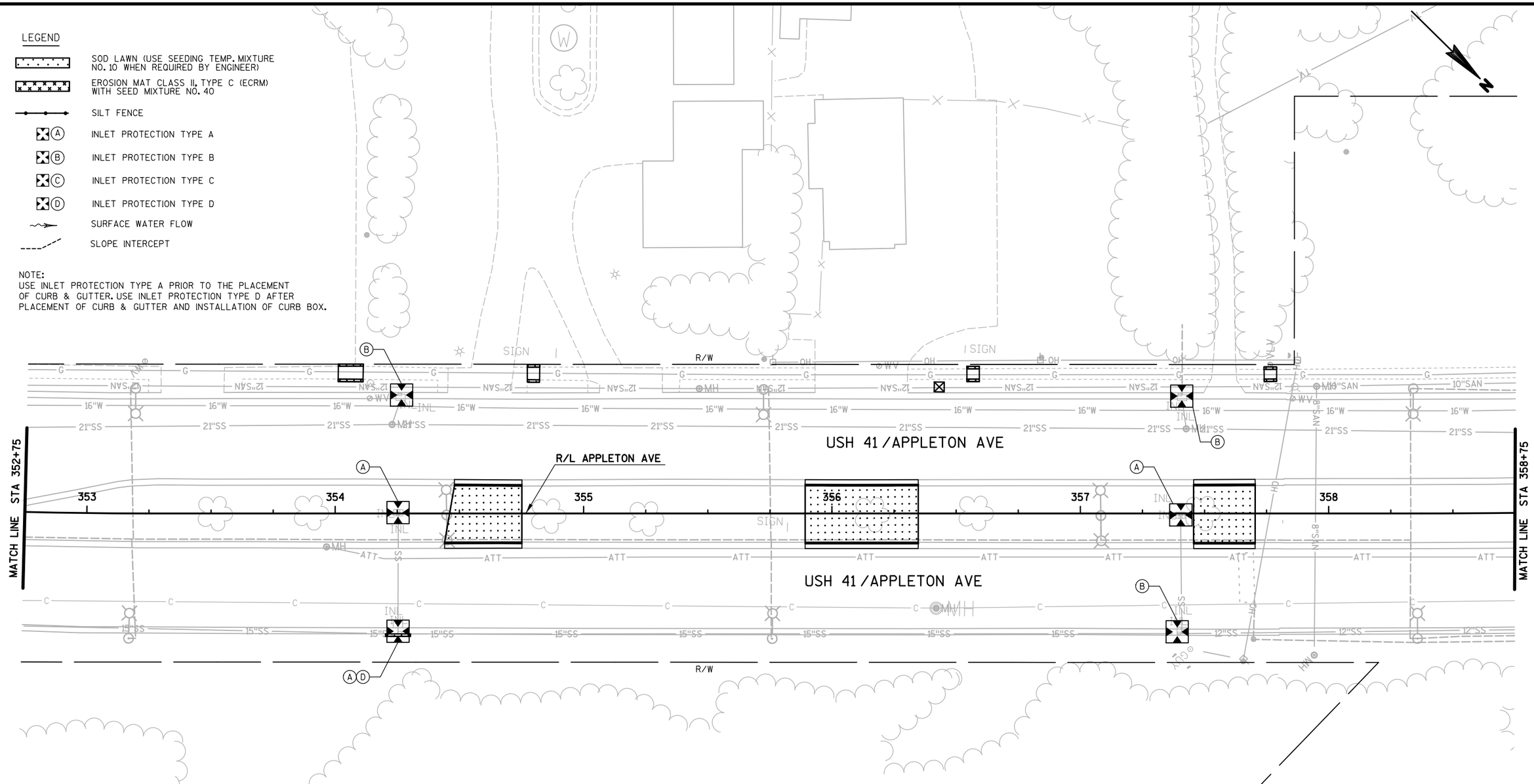
FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\022004_ec.dgn PLOT DATE : 4/18/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.



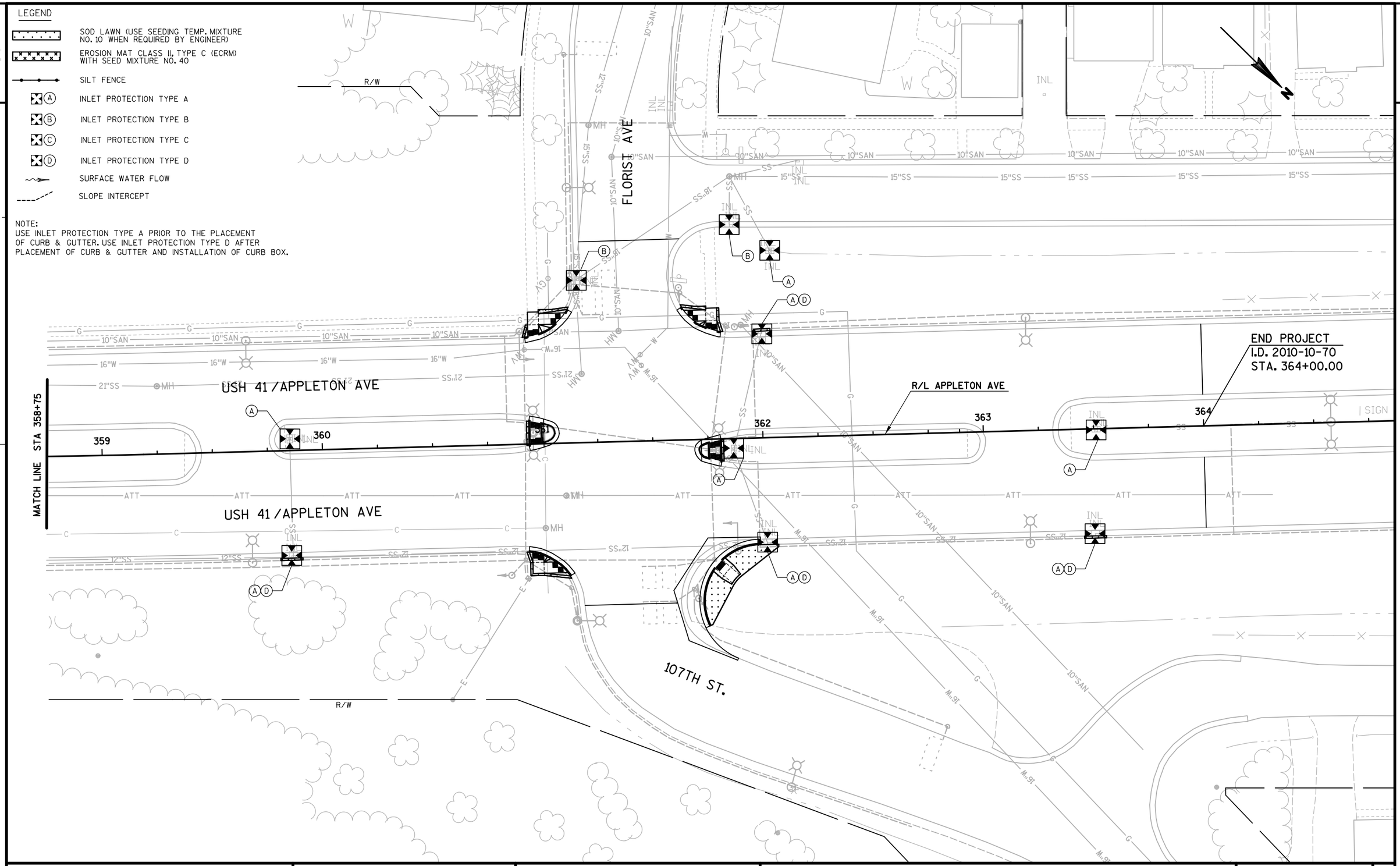
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET	E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\022005_ec.dgn PLOT DATE : 4/18/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 86	E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\022006_ec.dgn PLOT DATE : 4/18/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

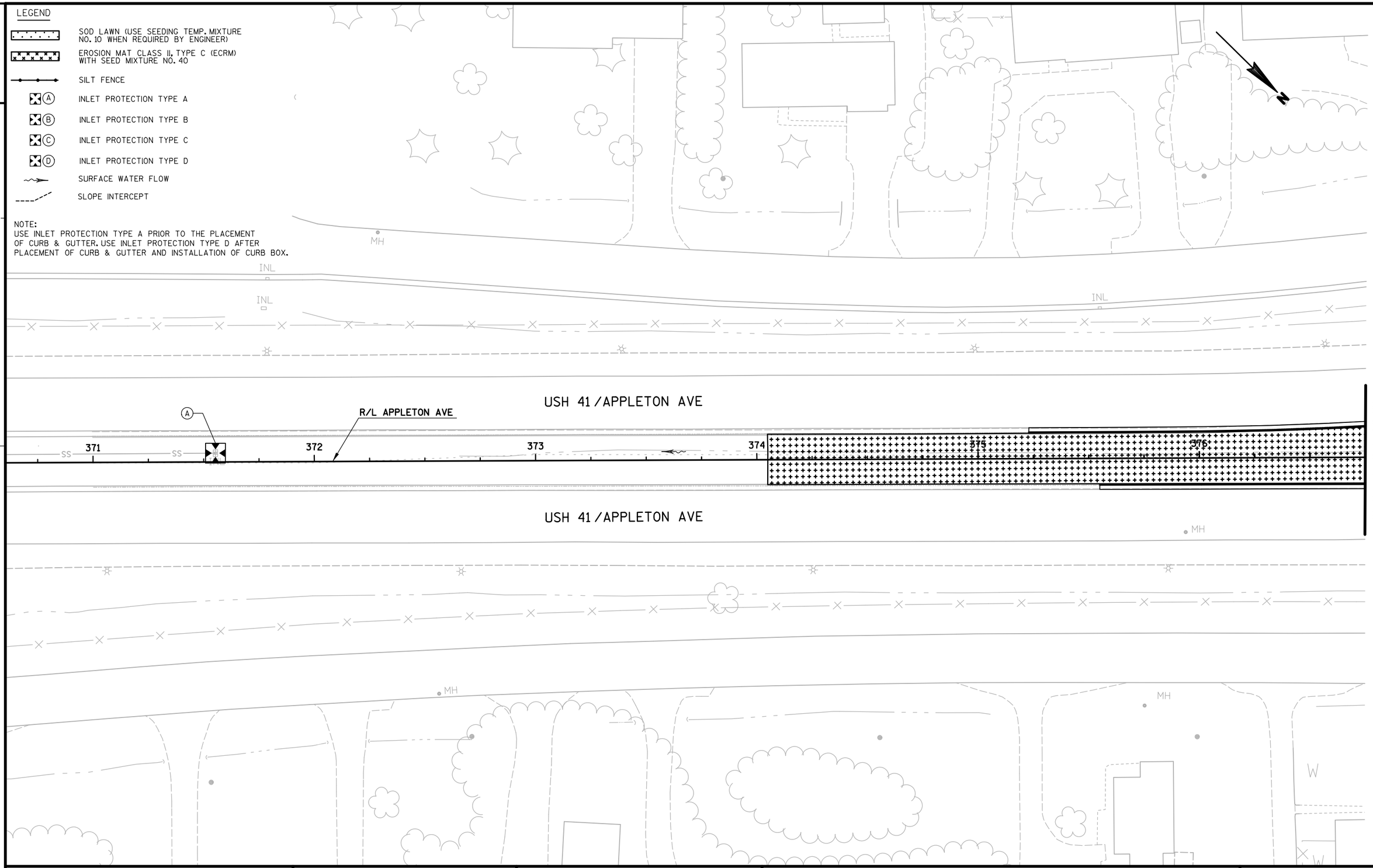
WISDOT/CADDS SHEET 42

2

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.



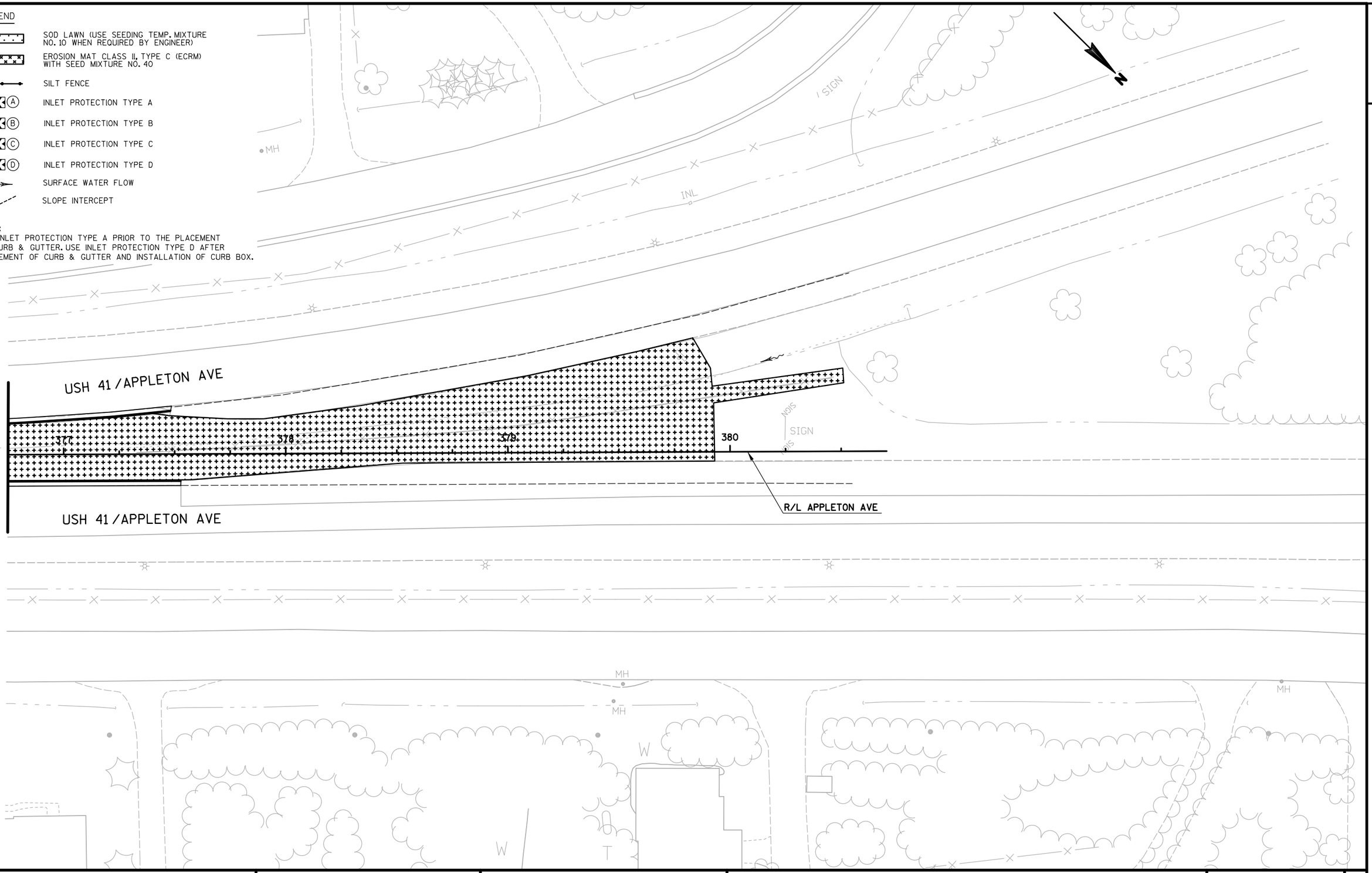
2

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET 87	E

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SHEET E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\022008_ec.dgn PLOT DATE : 8/12/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

BEGIN CONSTRUCTION
STA 421NW+66

422NW

423NW

424NW

425NW

426NW

NW RAMP

R/L NW RAMP

R/L SILVER SPRING DR

W. SILVER SPRING DR / CTH E

122

123

124

125

126

MATCHLINE STA 126+75

R/L SW RAMP

623SW

624SW

625SW

626SW

SW RAMP

BEGIN CONSTRUCTION
STA 623SW+65

SLOPE INTERCEPT (TYP.)

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 89 E

2

2

N

530NE

531NE

532NE

533NE

534NE

535NE

NE RAMP

SLOPE INTERCEPT, (TYP.)

END CONSTRUCTION
STA 533NE+86

MATCHLINE STA 131+00

131

132

133

134

135

R/L SILVER SPRING DR

R/L SE RAMP

732SE

733SE

734SE

735SE

SE RAMP

END CONSTRUCTION
STA 734SE+30

LEGEND

- SOD LAWN (USE SEEDING TEMP. MIXTURE NO. 10 WHEN REQUIRED BY ENGINEER)
- EROSION MAT CLASS II, TYPE C (ECRM) WITH SEED MIXTURE NO. 40
- SILT FENCE
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- SLOPE INTERCEPT

NOTE:
USE INLET PROTECTION TYPE A PRIOR TO THE PLACEMENT OF CURB & GUTTER. USE INLET PROTECTION TYPE D AFTER PLACEMENT OF CURB & GUTTER AND INSTALLATION OF CURB BOX.

PROJECT NO: 2010-10-70	HWY: SILVER SPRING DR	COUNTY: MILWAUKEE	EROSION CONTROL PLANS	SHEET 90	E

2

PLANTING DATA CHART

SYM	COMMON NAME	SCIENTIFIC NAME	SIZE @ PLANTING	ROOT ZONE MODE	BALL/POT DIA.	DEPTH	ROOT SPREAD	PLANT HOLE DIA.	DEPTH	BRACE OR GUY	FERT. UNITS REQUIRED	RODENT PROECT.	MULCH RING DIA.	REMARKS
	TREES													
JTL	JAPANESE TREE LILAC 'IVORY SILK'	SYRINGA RETICULATA 'IVORY SILK'	3" CAL.	B&B	24"	18"	INDEFINITE	48"	24"	BRACE	3 EACH	NONE	48"	SPECIMEN QUALITY
EO	CRIMSON SPIRE ENGLISH OAK	QUERCUS ROBUR 'FASTIGIATA'	3" CAL.	B&B	24"	18"	INDEFINITE	48"	24"	BRACE	3 EACH	NONE	48"	SPECIMEN QUALITY
CP	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	24"	18"	INDEFINITE	48"	24"	BRACE	3 EACH	NONE	48"	SPECIMEN QUALITY

2

LEGEND

- P-XX — STORM SEWER PIPE NUMBER
- (XX) — DRAINAGE STRUCTURE NUMBER
- [XXX] — EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- ⟨XXX⟩ — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- (XXX) — EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- (XX) — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

BEGIN PROJECT
I.D. 2010-10-70
STA 188+90.00

W PERKINS PL

W FIEBRANTZ AVE

R/L APPLETON AVE

USH 41 / APPLETON AVE

STA 189+26 201 46' LT

STA 189+25 202 26' LT

STA 189+26 203 28' RT

STA 191+30 204 24' LT

STA 191+72 205 27' LT

STA 191+73 207 30' RT

STA 193+88 208 27' LT

STA 194+02 209 29' RT

STA 194+54 210 27' LT

01 STA 194+01.82, 46.2' RT
3-FT CATCH BASIN WITH
TYPE 57 INLET COVER
P-01

STA 194+02 601 46' RT

MATCHLINE STA 194+75

189 190 191 192 193 194

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022501_ss.dgn PLOT DATE : 12-AUG-2013 17:17 PLOT BY : lversluys PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

P-XX STORM SEWER PIPE NUMBER

XX DRAINAGE STRUCTURE NUMBER

XXX EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED

XXX EXISTING DRAINAGE STRUCTURE TO BE REMOVED

XXX EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED

XX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED

—RM— EXISTING STORM SEWER PIPE TO BE REMOVED

STH 181

USH 41 / APPLETON AVE

214 STA 196+51 27' LT

215 STA 196+77 29' RT

216 STA 196+77 46' RT

217 STA 198+42 46' LT

218 STA 199+62 48' LT

R/L APPLETON AVE

MATCHLINE STA 194+75

MATCHLINE STA 199+75

195 196 197 198 199

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 93	E

2

LEGEND

- P-XX — STORM SEWER PIPE NUMBER
- XX — DRAINAGE STRUCTURE NUMBER
- XXX — EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

STH 181

R/L APPLETON AVE

HOPE AVE.

MATCHLINE STA 199+75

MATCHLINE STA 205+75

USH 41 / APPLETON AVE

76TH ST

STA 200+22, 0'LT
57 INLET COVER
101

STA 201+19
48'RT
103

STA 202+76
78'LT
104

STA 202+62
62'LT
105

STA 203+01, 0'LT
57 INLET COVER
106

STA 199+91
72'RT
222

STA 200+77
48'RT
223

STA 200+80
87'RT
224

STA 202+42
48'LT
226

STA 203+70
32'LT
227

STA 205+50
66'LT
228

STA 205+33
32'LT
229

STA 205+35
34'RT
230

STA 204+06
47'LT
602

STA 204+76
47'RT
603

STA 204+06.46, 47.6'LT
3-FT CATCH BASIN WITH
TYPE 57 INLET COVER
02

P-02

STA 204+75.95, 46.5'RT
3-FT CATCH BASIN WITH
TYPE 57 INLET COVER
03

P-03

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 94	E

2

LEGEND

- P-XX — STORM SEWER PIPE NUMBER
- XX — DRAINAGE STRUCTURE NUMBER
- XXX — EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

STA 205+81
67'LT
234

STA 206+00
47'LT
235

STA 206+00
32'LT
236

STA 206+00
33'RT
237

STA 206+01
47'RT
238

604
STA 208+96
47'LT

P-04

STA 208+96.27, 47.1'LT
3-FT CATCH BASIN WITH
TYPE 57 INLET COVER
04

239
STA 208+97
32'LT

240
STA 208+95
32'RT

R/L APPLETON AVE

USH 41/APPLETON AVE

MATCHLINE STA 205+75

MATCHLINE STA 210+75

206 207 208 209 210

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 95	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022504_ss.dgn PLOT DATE : 12-AUG-2013 17:17 PLOT BY : lversluys PLOT NAME : PLOT SCALE : 40:1

LEGEND

- P-XX STORM SEWER PIPE NUMBER
- (XX) DRAINAGE STRUCTURE NUMBER
- [XXX] EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- <XXX> EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- (XXX) EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- (XX) EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

CONGRESS ST.

R/L APPLETON AVE

USH 41 / APPLETON AVE

MATCHLINE STA 210+75

MATCHLINE STA 216+75

242 STA 211+99 31' LT

243 STA 211+50 33' RT

244 STA 214+09 33' LT

245 STA 216+09 32' LT

246 STA 215+17 46' RT

247 STA 215+33 45' RT

605 STA 215+75 47' LT

05 STA 215+77.0, 47' LT 3-FT CATCH BASIN WITH TYPE 57 INLET COVER

06 STA 215+37.5, 5.0' LT INLET MEDIAN, 1 GRATE-MS

501 STA 215+51, 5' LT

P-05

P-06

211 212 213 214 215 216

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 96	E

2

LEGEND

- P-XX STORM SEWER PIPE NUMBER
- XX DRAINAGE STRUCTURE NUMBER
- XXX EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

CONGRESS ST.

RUBY AVE.

R/L APPLETON AVE

USH 41/APPLETON AVE

MATCHLINE STA 216+75

MATCHLINE STA 222+75

250 STA 217+53 31'LT

251 STA 217+09 32'RT

252 STA 218+80 32'LT

253 STA 219+00 33'RT

254 STA 219+30 47'RT

255 STA 220+29 31'LT

256 STA 220+33 32'RT

257 STA 221+92 70'LT

258 STA 222+25 70'LT

259 STA 222+00 32'LT

260 STA 222+55 46'LT

261 STA 221+62 31'LT

262 STA 222+54 31'LT

263 STA 222+57 0'LT

264 STA 221+70 32'RT

265 STA 222+48 32'RT

266 STA 222+00 32'RT

267 STA 222+49 46'RT

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 97	E

2

LEGEND

- P-XX — STORM SEWER PIPE NUMBER
- XX — DRAINAGE STRUCTURE NUMBER
- XXX — EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

268 STA 225+06 31' LT

271 STA 227+21 31' LT

USH 41 / APPLETON AVE

MATCHLINE STA 222+75

MATCHLINE STA 228+75

223 224 225 226 227 228

R/L APPLETON AVE

269 STA 225+04 32' RT

270 STA 226+88 32' RT

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 98	E

2

LEGEND

P-XX STORM SEWER PIPE NUMBER

XX DRAINAGE STRUCTURE NUMBER

XXX EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED

XXX EXISTING DRAINAGE STRUCTURE TO BE REMOVED

XXX EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED

XX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED

—RM— EXISTING STORM SEWER PIPE TO BE REMOVED

GLENDALE AVE.

R/L APPLETON AVE

USH 41/APPLETON AVE

GLENDALE AVE.

MATCHLINE STA 228+75

MATCHLINE STA 234+75

275 STA 229+22 46'LT

276 STA 229+50 70'LT

277 STA 229+80 70'LT

278 STA 229+30 31'LT

279 STA 228+81 32'RT

280 STA 229+06 46'RT

281 STA 230+03 31'RT

606 STA 232+97 47'LT

07 232+97.0, 47.0'LT 3-FT CATCH BASIN WITH TYPE 57 INLET COVER

P-07

282 STA 233+22 29'LT

607 STA 233+98 47'LT

08 STA 233+93.0, 47.0'LT 3-FT CATCH BASIN WITH TYPE 57 INLET COVER

STA 233+10 46'LT 112

P-08

STA 234+02 46'LT 114

09 STA 232+97.73, 46.8'RT 3-FT CATCH BASIN WITH TYPE 57 INLET COVER

P-09

608 STA 232+98 47'RT

116 STA 233+02 46'RT

283 STA 233+38 32'RT

STA 233+68 46'RT 117

STA 233+72 46'RT 284

285 STA 234+54 0'RT

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 99 E

2

LEGEND

- P-XX — STORM SEWER PIPE NUMBER
- XX — DRAINAGE STRUCTURE NUMBER
- XXX — EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

288 STA 235+89 29' LT

289 STA 236+23 32' RT

290 STA 236+25 46' RT

291 STA 238+76 30' LT

292 STA 239+01 32' RT

293 STA 239+39 4' RT

294 STA 239+32 46' RT

R/L APPLETON AVE

USH 41 / APPLETON AVE

COURTLAND AVE.

MATCHLINE STA 234+75

MATCHLINE STA 240+75

235 236 237 238 239 240

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 100	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022509_ss.dgn PLOT DATE : 12-AUG-2013 17:17 PLOT BY : lversluys PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- P-XX STORM SEWER PIPE NUMBER
- XX DRAINAGE STRUCTURE NUMBER
- XXX EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

DERBY PL.

USH 41/APPLETON AVE

R/L APPLETON AVE

295 STA 241+56 30'LT

296 STA 242+08 33'RT

297 STA 244+57 65'LT

298 STA 244+30 28'LT

299 STA 244+12 32'RT

300 STA 244+15 47'RT

301 STA 244+90 66'LT

302 STA 245+15 46'LT

303 STA 245+13 32'LT

304 STA 245+19 6'LT

305 STA 245+77 32'RT

306 STA 245+92 47'RT

307 STA 246+32 32'LT

308 STA 246+33 5'LT

MATCHLINE STA 240+75

MATCHLINE STA 246+75

241 242 243 244 245 246

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 101	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022510_ss.dgn PLOT DATE : 12-AUG-2013 17:17 PLOT BY : lversluys PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

- P-XX STORM SEWER PIPE NUMBER
- XX DRAINAGE STRUCTURE NUMBER
- XXX EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

USH 41/APPLETON AVE

HAMPTON AVE./CTH EE

R/L APPLETON AVE

MATCHLINE STA 246+75

MATCHLINE STA 252+75

311 STA 247+65 31'LT

312 STA 248+40 31'LT

313 STA 248+60 47'LT

314 STA 248+95 69'LT

315 STA 249+32 70'LT

316 STA 249+04 39'RT

317 STA 250+00 5'RT

318 STA 251+02 35'LT

319 STA 250+86 42'RT

118 STA 247+85 46'RT

609 STA 250+46 93'LT

610 STA 250+52 46'LT

10 STA 250+52.0, 91.75'LT 3-FT CATCH BASIN WITH TYPE 57 INLET COVER

12 STA 250+86.63, 47.50'LT 2x3-FT - H INLET

13 STA 250+11.00, 42.05'LT 2x3-FT - H INLET

P-10 RM

P-12 RM

P-13 RM

247 248 249 250 251 252

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 102	E

2

GRANTOSA DR.

USH 41 / APPLETON AVE

R/L APPLETON AVE

MATCHLINE STA 252+75

MATCHLINE STA 258+75

323 STA 254+60 75'LT

325 STA 255+48 74'LT

321 STA 252+88 35'LT

322 STA 253+80 35'LT

324 STA 254+89 35'LT

326 STA 255+49 35'LT

329 STA 257+09 37'LT

120 STA 253+50 47'RT

327 STA 256+15 26'RT

328 STA 256+76 5'RT

330 STA 257+09 28'RT

331 STA 258+49 27'RT

253 254 255 256 257 258

LEGEND

P-XX	STORM SEWER PIPE NUMBER
XX	DRAINAGE STRUCTURE NUMBER
XXX	EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
XXX	EXISTING DRAINAGE STRUCTURE TO BE REMOVED
XXX	EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
XX	EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
—RM—	EXISTING STORM SEWER PIPE TO BE REMOVED

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 103 E

2

2

STARK ST.

R/L APPLETON AVE

USH 41/APPLETON AVE

MATCHLINE STA 258+75

MATCHLINE STA 264+75

STA 259+06 47'LT 333

STA 259+04 37'LT 334

STA 260+59 39'LT 335

STA 260+49 28'RT 336

STA 261+49 28'RT 337

STA 262+17 47'LT 338

STA 262+44 69'LT 339

STA 262+25 36'LT 340

STA 262+52 35'LT 341

STA 262+75 69'LT 342

259 260 261 262 263 264

LEGEND

- P-XX STORM SEWER PIPE NUMBER
- XX DRAINAGE STRUCTURE NUMBER
- XXX EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 104 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022513_ss.dgn PLOT DATE : 12-AUG-2013 17:17 PLOT BY : lversluys PLOT NAME : PLOT SCALE : 40:1

2

2

FAIRMOUNT AVE.

STA 265+09
46'LT
121

STA 265+06
42'LT
344

MATCHLINE STA 264+75

265

266

267

347 STA 267+58
34'LT

268

R/L APPLETON AVE

269

349 STA 270+13
34'LT

270

MATCHLINE STA 270+75

USH 41 /APPLETON AVE

STA 264+83
44'RT
345

STA 264+99
46'RT
122

346 STA 266+96
45'RT

348 STA 269+03
44'RT

LEGEND

P-XX	STORM SEWER PIPE NUMBER
XX	DRAINAGE STRUCTURE NUMBER
XXX	EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
XXX	EXISTING DRAINAGE STRUCTURE TO BE REMOVED
XXX	EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
XX	EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
—RM—	EXISTING STORM SEWER PIPE TO BE REMOVED

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 105 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022514_ss.dgn PLOT DATE : 12-AUG-2013 17:17 PLOT BY : lversluys PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

FAIRMOUNT AVE.

STA 271+14
47'LT
351

STA 271+13
36'LT
352

STA 271+37
42'RT
353

STA 272+55
43'RT
354

STA 273+75
94'RT
358

355
STA 274+21
47'LT

STA 274+32
35'LT
356

STA 274+26
35'LT
357

STA 275+30
47'LT
359

STA 275+30
34'LT
360

STA 275+50
36'RT
361

R/L APPLETON AVE

USH 41/APPLETON AVE

MATCHLINE STA 270+75

MATCHLINE STA 276+75

271 272 273 274 275 276

N

LEGEND

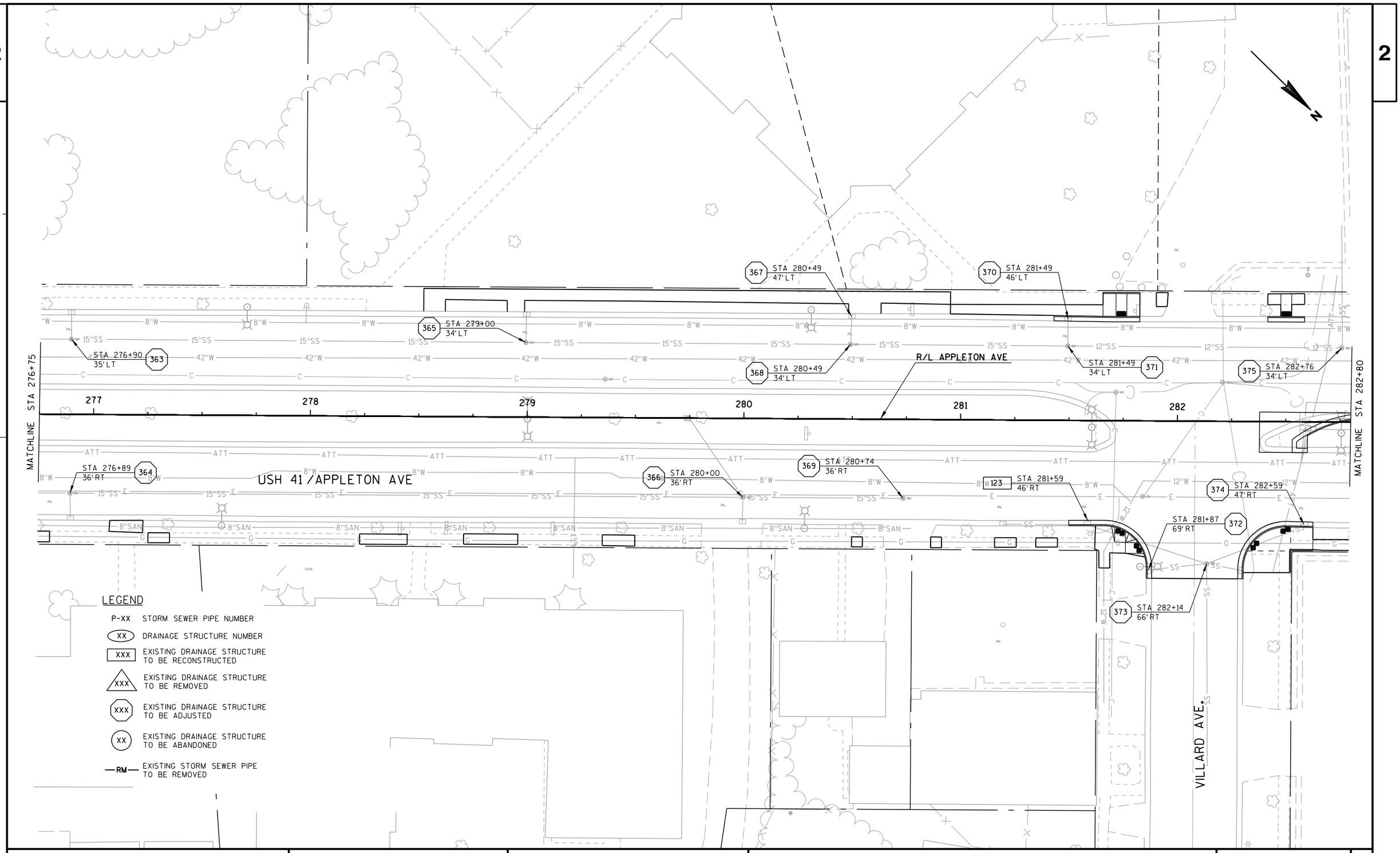
P-XX	STORM SEWER PIPE NUMBER
XX	DRAINAGE STRUCTURE NUMBER
XXX	EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
XXX	EXISTING DRAINAGE STRUCTURE TO BE REMOVED
XXX	EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
XX	EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
—RM—	EXISTING STORM SEWER PIPE TO BE REMOVED

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 106 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022515_ss.dgn PLOT DATE : 12-AUG-2013 17:17 PLOT BY : lversluys PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022516_ss.dgn PLOT DATE : 12-AUG-2013 17:17 PLOT BY : lversluys PLOT NAME : PLOT SCALE : 40:1

2

91ST ST

125 STA 285+60 95'LT

381 STA 286+49 73'LT

385 STA 287+16 61'LT

380 STA 286+26 46'LT

386 STA 287+24 46'LT

R/L APPLETON AVE

MATCHLINE STA 282+80

283 284 285 286 287 288

379 STA 286+19 3'LT

MATCHLINE STA 288+80

USH 41/APPLETON AVE

376 STA 284+28 43'RT

378 STA 285+67 42'RT

382 STA 286+90 42'RT

STA 287+27 50'RT 384

383 STA 286+89 47'RT

91ST ST

N

LEGEND

P-XX	STORM SEWER PIPE NUMBER
XX	DRAINAGE STRUCTURE NUMBER
XXX	EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
XXX	EXISTING DRAINAGE STRUCTURE TO BE REMOVED
XXX	EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
XX	EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
—RM—	EXISTING STORM SEWER PIPE TO BE REMOVED

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 108 E

2

N

STA 288+92
47' LT
126

127
STA 290+50
47' LT

128
STA 293+24
47' LT

MATCHLINE STA 288+80

289 290 291 292 293 294

R/L APPLETON AVE

389
STA 290+19
27' RT

STA 292+64
28' RT
390

391
STA 293+89
26' RT

MATCHLINE STA 294+75

USH 41/APPLETON AVE

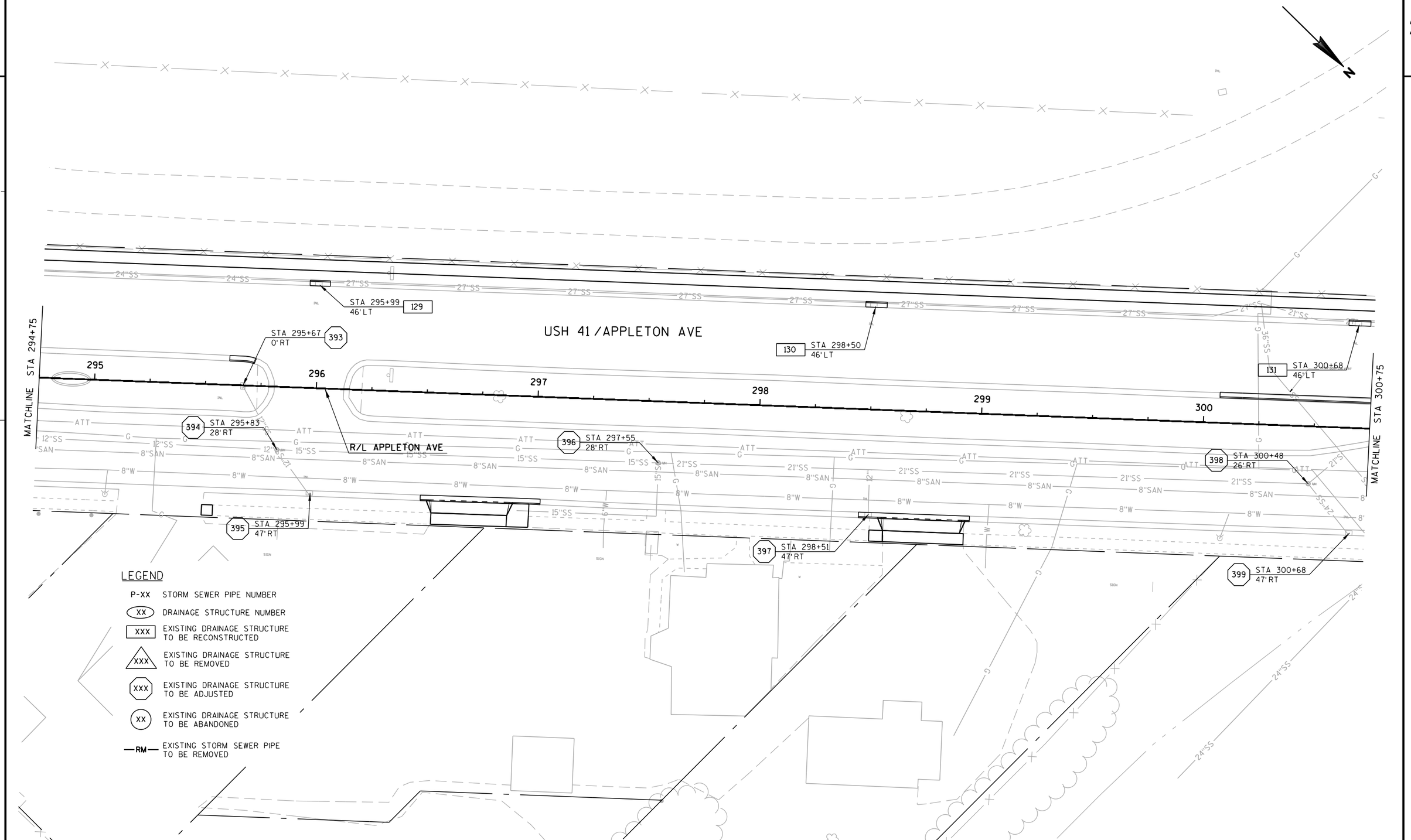
91ST ST

LEGEND

P-XX	STORM SEWER PIPE NUMBER
XX	DRAINAGE STRUCTURE NUMBER
XXX	EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
XXX	EXISTING DRAINAGE STRUCTURE TO BE REMOVED
XXX	EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
XX	EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
—RM—	EXISTING STORM SEWER PIPE TO BE REMOVED

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 109	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 110	E

2

N

132 STA 301+50 46'LT

STA 303+30 46'LT 133

134 STA 304+40 46'LT

R/L APPLETON AVE

135 STA 306+00 46'LT

MATCHLINE STA 300+75

301 302 303 304 305 306

STA 300+78 28'RT 400

403 STA 304+07 27'RT

MATCHLINE STA 306+75

USH 41/APPLETON AVE

STA 301+50 47'RT 401

402 STA 303+30 47'RT

404 STA 306+49 47'RT

21"SS 15"SS 12"SS ATT 27"SS 8"SAN 8"W 4"G

LEGEND

P-XX	STORM SEWER PIPE NUMBER
XX	DRAINAGE STRUCTURE NUMBER
XXX	EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
XXX	EXISTING DRAINAGE STRUCTURE TO BE REMOVED
XXX	EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
XX	EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
—RM—	EXISTING STORM SEWER PIPE TO BE REMOVED

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 111	E

2

LEGEND

- P-XX — STORM SEWER PIPE NUMBER
- XX — DRAINAGE STRUCTURE NUMBER
- XXX — EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

MATCHLINE STA 306+75

136 STA 308+02 47'LT

137 STA 309+00 46'LT

138 STA 309+44 46'LT

USH 41 / APPLETON AVE

139 STA 312+00 47'LT

411 STA 312+32 0'RT

MATCHLINE STA 312+75

406 STA 307+96 4'RT

407 STA 307+98 31'RT

405 STA 307+37 27'RT

408 STA 307+91 46'RT

R/L APPLETON AVE

STA 310+22 31'RT 410

409 STA 310+00 47'RT

412 STA 312+49 31'RT

BIRCH AVE.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022521_ss.dgn PLOT DATE : 12-AUG-2013 17:17 PLOT BY : lversluys PLOT NAME : PLOT SCALE : 40:1

2

2

LEGEND

P-XX STORM SEWER PIPE NUMBER

(XX) DRAINAGE STRUCTURE NUMBER

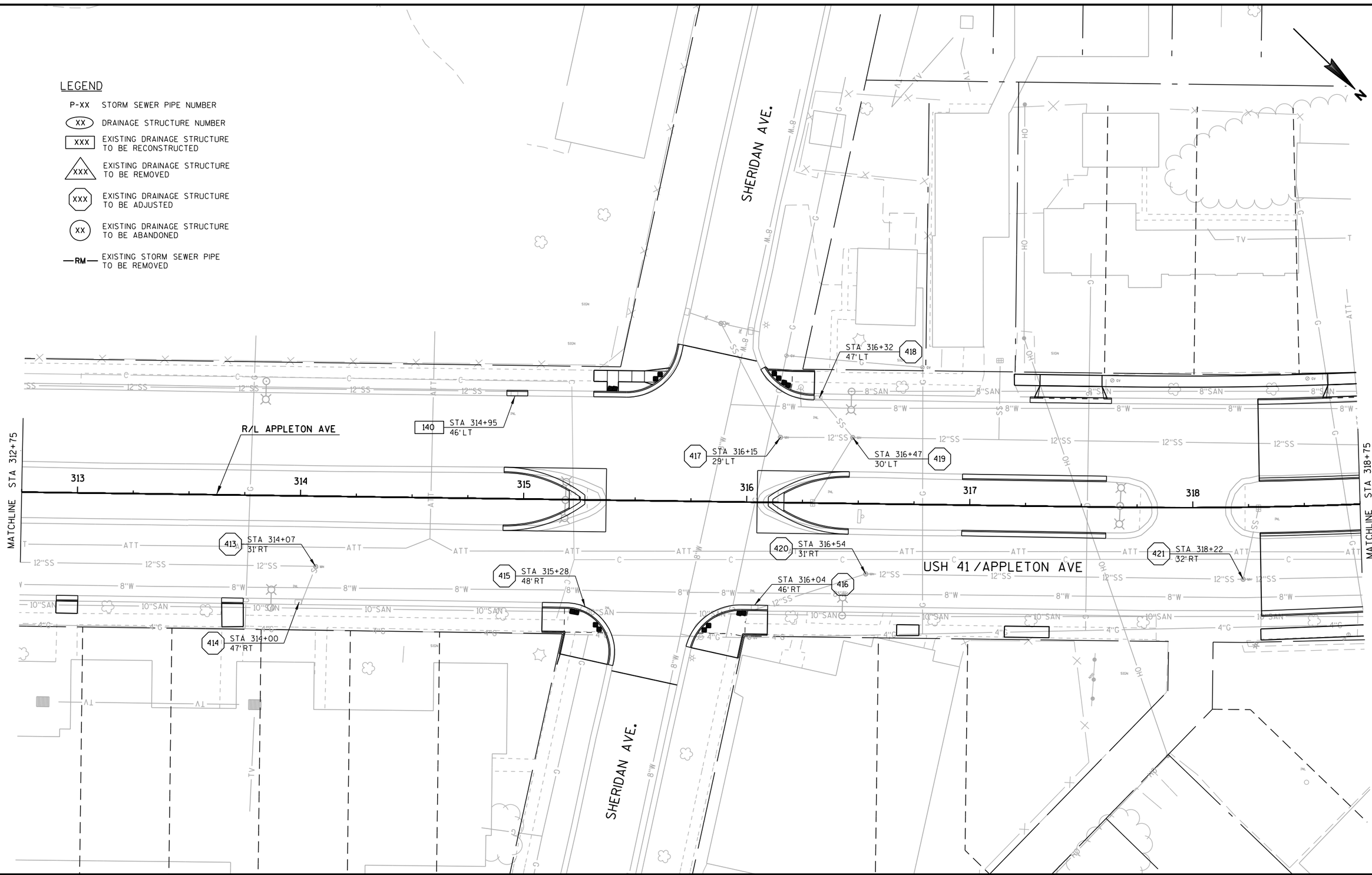
[XXX] EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED

EXISTING DRAINAGE STRUCTURE TO BE REMOVED

EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED

EXISTING DRAINAGE STRUCTURE TO BE ABANDONED

—RM— EXISTING STORM SEWER PIPE TO BE REMOVED



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 113	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022522_ss.dgn PLOT DATE : 12-AUG-2013 17:17 PLOT BY : lversluys PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

P-XX STORM SEWER PIPE NUMBER

XX DRAINAGE STRUCTURE NUMBER

XXX EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED

XXX EXISTING DRAINAGE STRUCTURE TO BE REMOVED

XXX EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED

XX EXISTING DRAINAGE STRUCTURE TO BE ABANDONED

—RM— EXISTING STORM SEWER PIPE TO BE REMOVED

USH 41/APPLETON AVE

R/L APPLETON AVE

R/L SILVER SPRING DR.

MATCHLINE STA 318+75

MATCHLINE STA 731SE+00

MATCHLINE STA 628SW+70

MATCHLINE STA 130+75

MATCHLINE STA 127+75

MATCHLINE STA 529NE+00

MATCHLINE STA 426NW+75

MATCHLINE STA 324+75

14 STA 319+91.46, 47.5'LT 2x3-FT - H INLET

141 STA 319+92 20'LT

142 STA 319+90, 35'RT

15 STA 321+50, 47.5'LT 2x3-FT - H INLET

16 STA 320+60, 47.5'RT 2x3-FT - H INLET

611 STA 320+52, 46'RT

613 STA 321+44, 46'LT

614 STA 322+93, 46'RT

17 STA 322+90.68, 47.5'RT 2x3-FT - H INLET

615 STA 324+05, 47'LT

19 STA 323+90, 47.5'LT 2x3-FT - H INLET

143 STA 323+88, 38'RT

18 STA 323+72.16, 47.5'RT 2x3-FT - H INLET

P-14 27'-12" @ 1.9%

P-15 158'-12" @ 2.2%

P-16 71'-12" @ 2.1%

P-17 81'-12" @ 2.0%

P-18 15'-12" @ 2.0%

P-19 84'-12" @ 2.4%

P-19A 40'-8" @ 1.0% THIS PIPE TO BE REMOVED IN STAGE 3

748.09 751.57 746.50 743.00 742.00 741.50 CONCRETE COLLAR

750.16 745.00 744.00 CONCRETE COLLAR

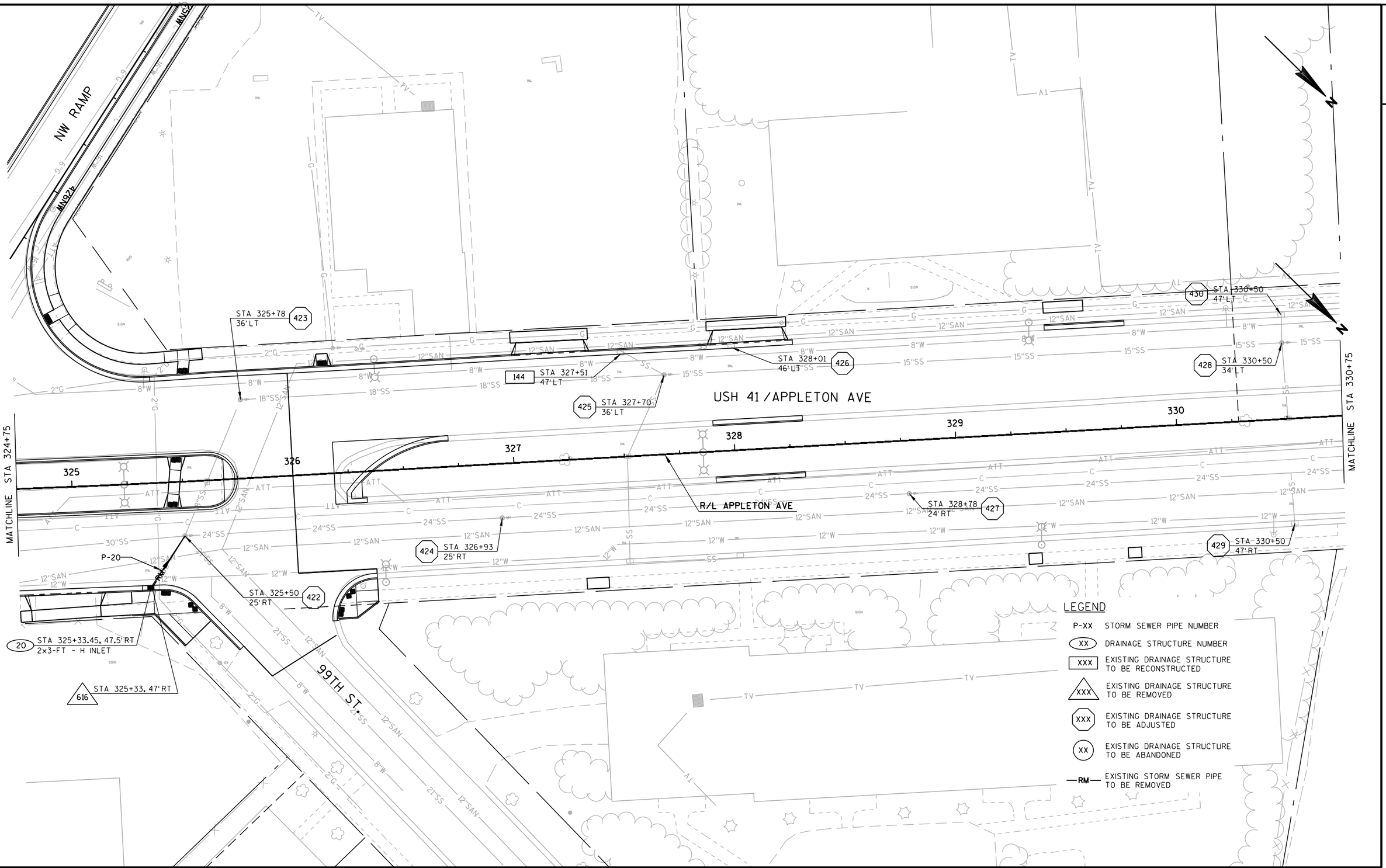
750.82 744.80

748.77 743.20 738.30 738.00 CONCRETE COLLAR

741.00 CONCRETE COLLAR

748.22 743.00 742.00

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 114 E



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLANS	SHEET 115 E

2

LEGEND

- P-XX — STORM SEWER PIPE NUMBER
- XX — DRAINAGE STRUCTURE NUMBER
- XXX — EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

441 STA 333+23 34'LT

443 STA 336+00 36'LT

R/L APPLETON AVE

USH 41 /APPLETON AVE

MATCH LINE STA 330+75

MATCH LINE STA 336+75

440 STA 332+13 25'RT

442 STA 333+56 29'RT

625 STA 334+20 68'RT

P-25

STA 334+21 68'RT 25

STA 336+01 47'RT 145

CARMEN AVENUE

BLDG

SIGN

R/W

INL

331 332 333 334 335 336

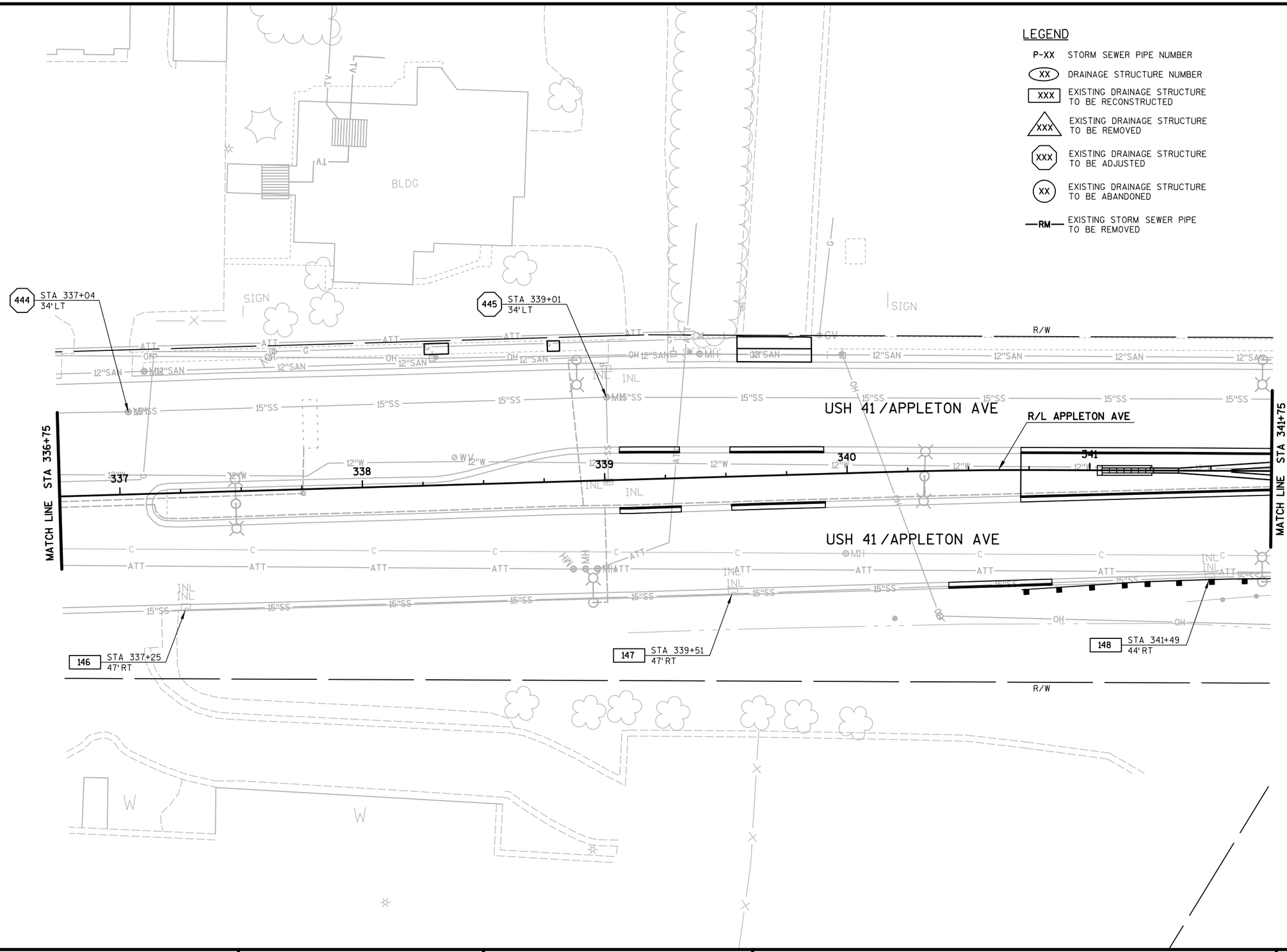
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET	E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\022501_ss.dgn PLOT DATE : 4/18/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

LEGEND

- P-XX — STORM SEWER PIPE NUMBER
- XX — DRAINAGE STRUCTURE NUMBER
- XXX — EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET	E

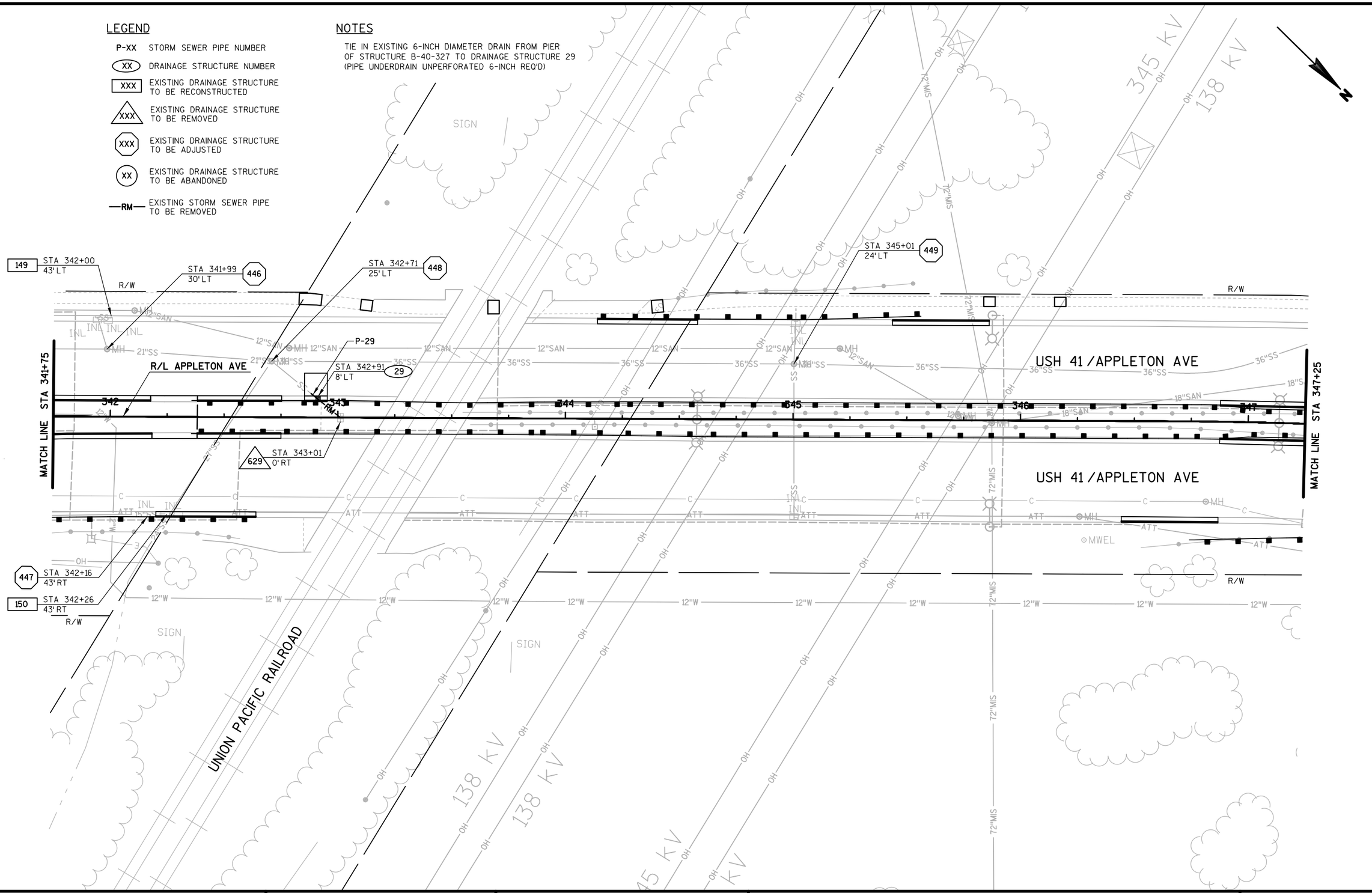
FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\022502_ss.dgn PLOT DATE : 10/14/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

LEGEND

- P-XX — STORM SEWER PIPE NUMBER
- (XX) — DRAINAGE STRUCTURE NUMBER
- [XXX] — EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- ⟨XXX⟩ — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- (XXX) — EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- (XX) — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

NOTES

TIE IN EXISTING 6-INCH DIAMETER DRAIN FROM PIER OF STRUCTURE B-40-327 TO DRAINAGE STRUCTURE 29 (PIPE UNDERDRAIN UNPERFORATED 6-INCH REQ'D)



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 118	E

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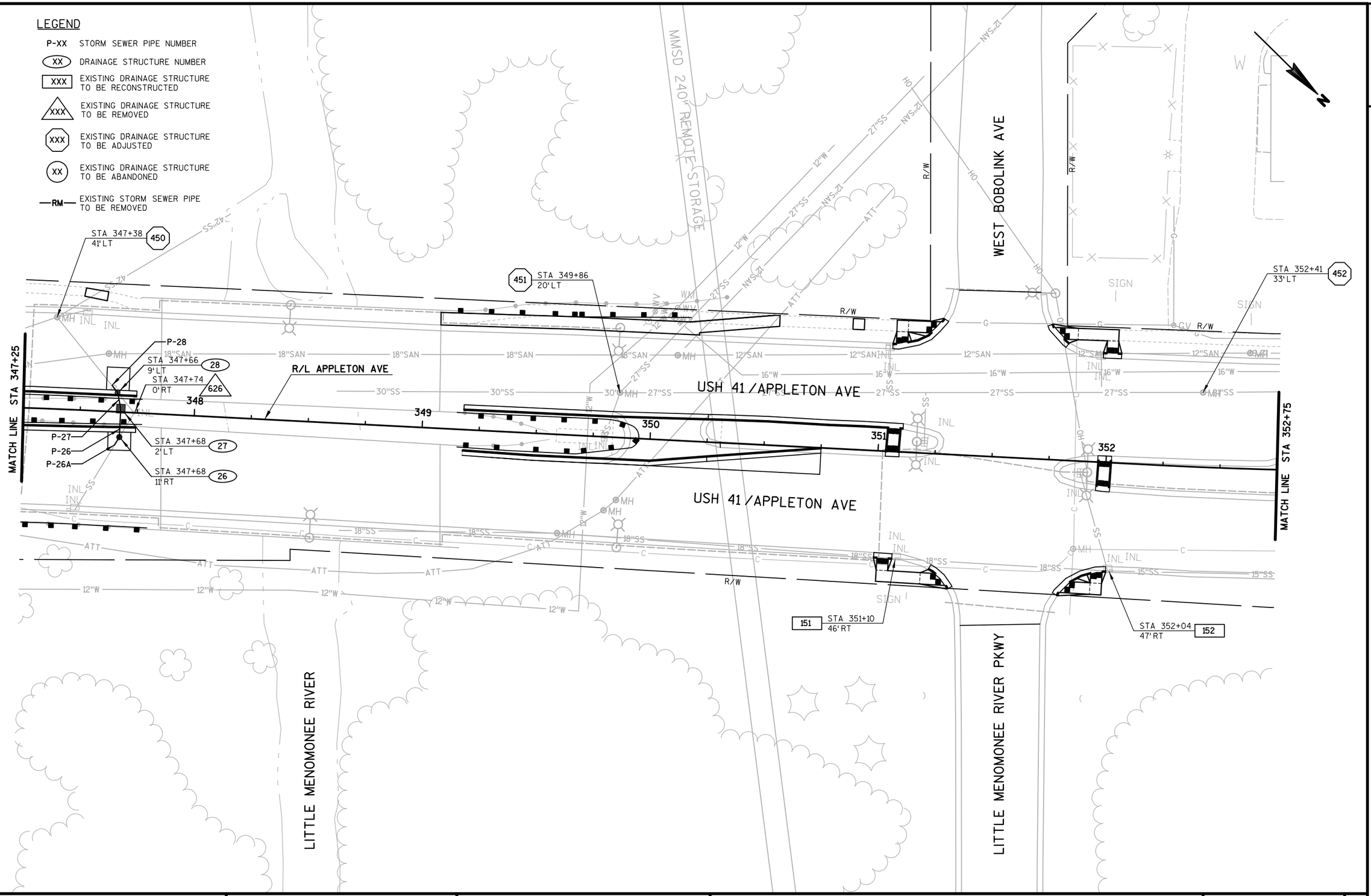
LEGEND

- P-XX STORM SEWER PIPE NUMBER
- (XX) DRAINAGE STRUCTURE NUMBER
- [XXX] EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- <XXX> EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- (XXX) EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- (XX) EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\022504_ss.dgn PLOT DATE : 4/18/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

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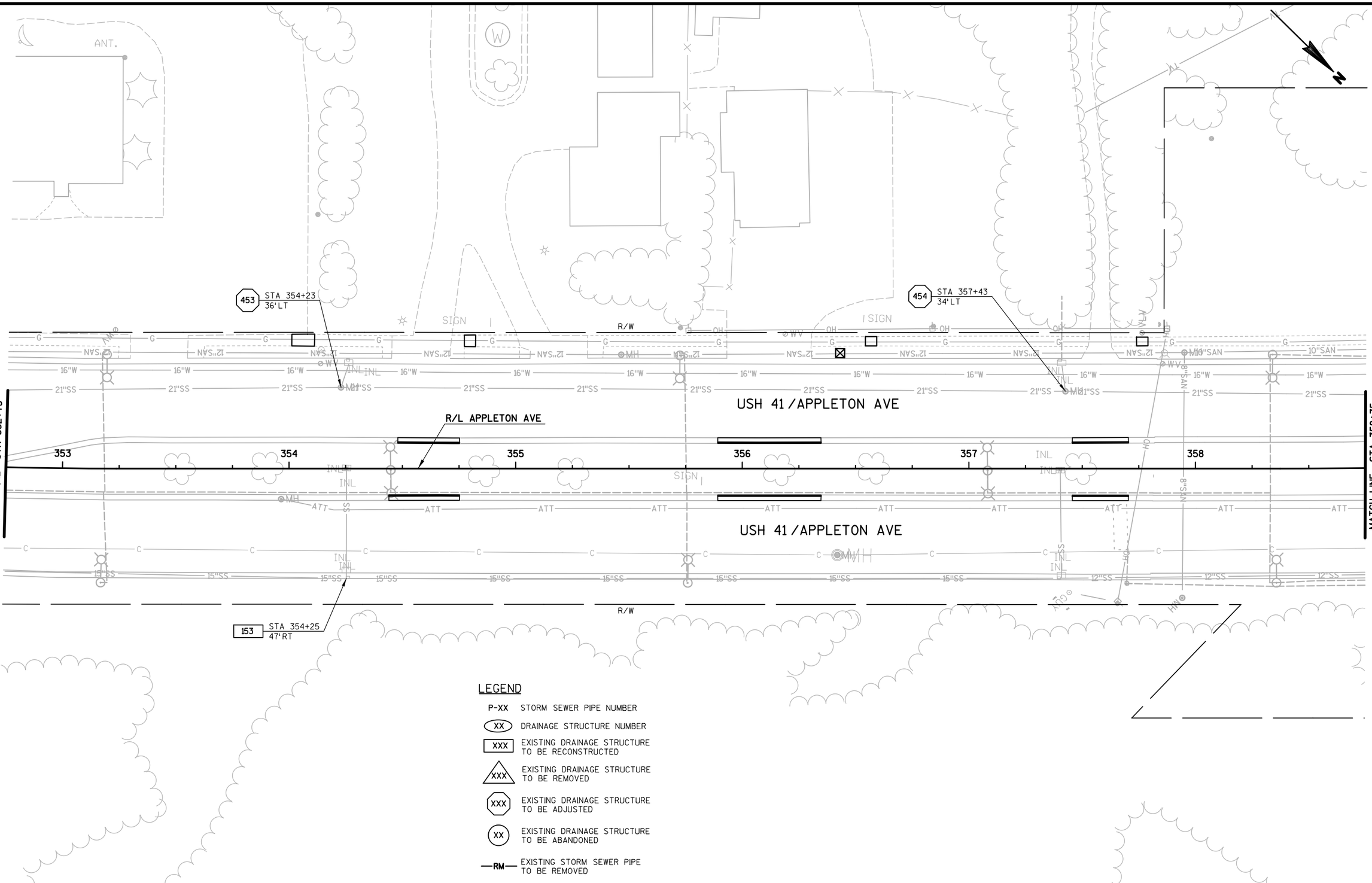


LEGEND

P-XX	STORM SEWER PIPE NUMBER
XX	DRAINAGE STRUCTURE NUMBER
XXX	EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
XXX	EXISTING DRAINAGE STRUCTURE TO BE REMOVED
XXX	EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
XX	EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
—RM—	EXISTING STORM SEWER PIPE TO BE REMOVED

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 120	E

LEGEND

- P-XX — STORM SEWER PIPE NUMBER
- XX — DRAINAGE STRUCTURE NUMBER
- XXX — EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

MATCH LINE STA 358+75

USH 41 / APPLETON AVE

FLORIST AVE

R/L APPLETON AVE

107TH ST.

END PROJECT
I.D. 2010-10-70
STA. 364+00.00

456 STA 361+19 31' LT

457 STA 362+01 47' LT

455 STA 359+25 31' LT

154 STA 359+85 47' RT

155 STA 362+01 47' RT

156 STA 363+50 47' RT

359 360 362 363 364

R/W

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 121 E

2

2

BEGIN CONSTRUCTION
I.D. 2010-10-70
STA 421NW+66

422NW

STA 422NW+71
1' LT
431

423NW

424NW

425NW

426NW

NW RAMP

STA 425NW+16
1' LT
432

R/L SILVER SPRING DR

R/L NW RAMP

NW RAMP

MATCHLINE STA 426NW+75

122

123

124

125

126

127

SILVER SPRING DR / CTH E

SILVER SPRING DR / CTH E

MATCHLINE STA 127+75

R/L SW RAMP

623SW

624SW

625SW

626SW

627SW

628SW

SW RAMP

BEGIN CONSTRUCTION
I.D. 2010-10-70
STA 623SW+65

433
STA 626SW+13
1' RT

MATCHLINE STA 628SW+70

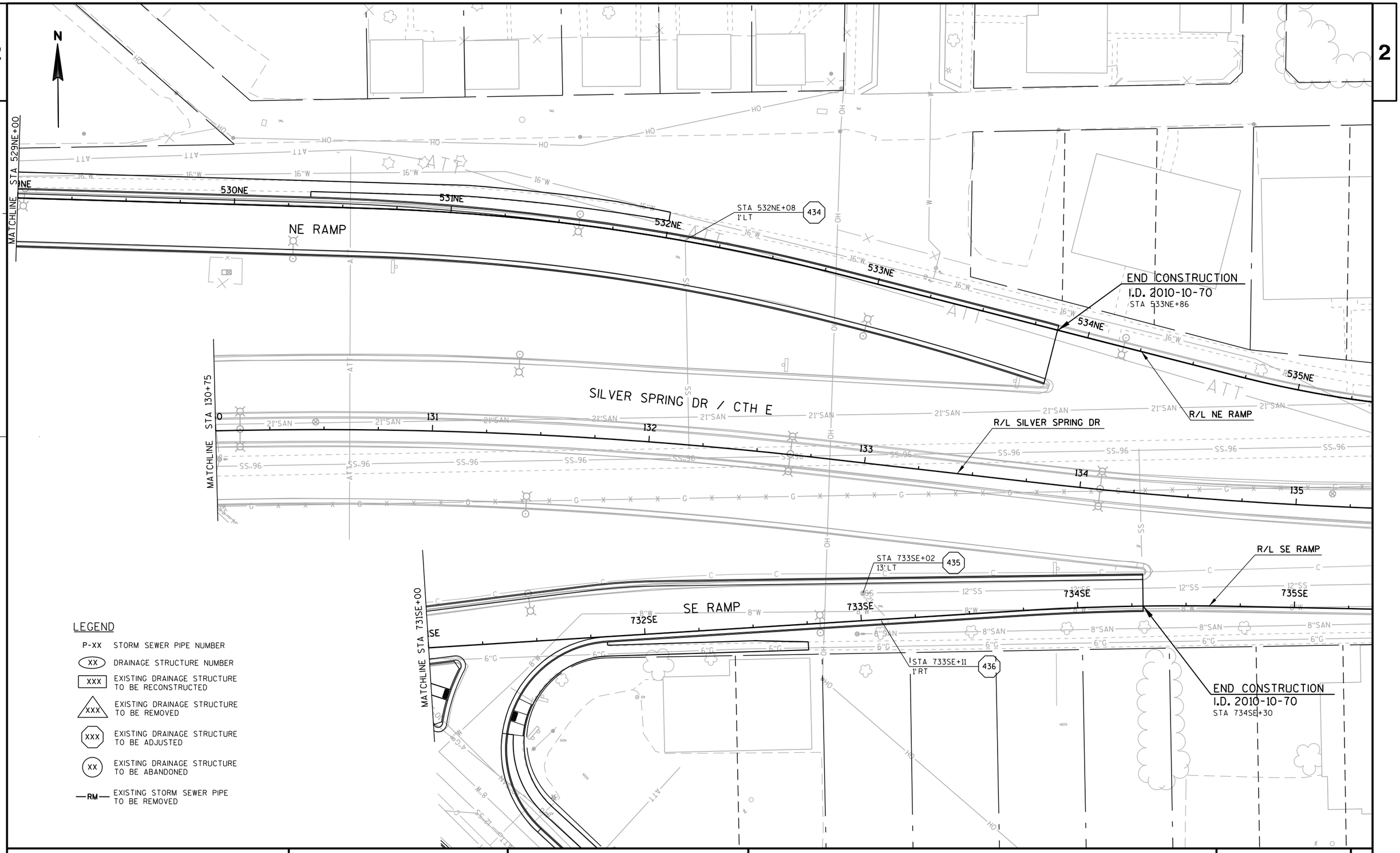
N

LEGEND

- P-XX — STORM SEWER PIPE NUMBER
- XX — DRAINAGE STRUCTURE NUMBER
- XXX — EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX — EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- XX — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET 122	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022525_ss.dgn PLOT DATE : 12-APR-2013 10:43 PLOT BY : lversluys PLOT NAME : PLOT SCALE : 40:1



LEGEND

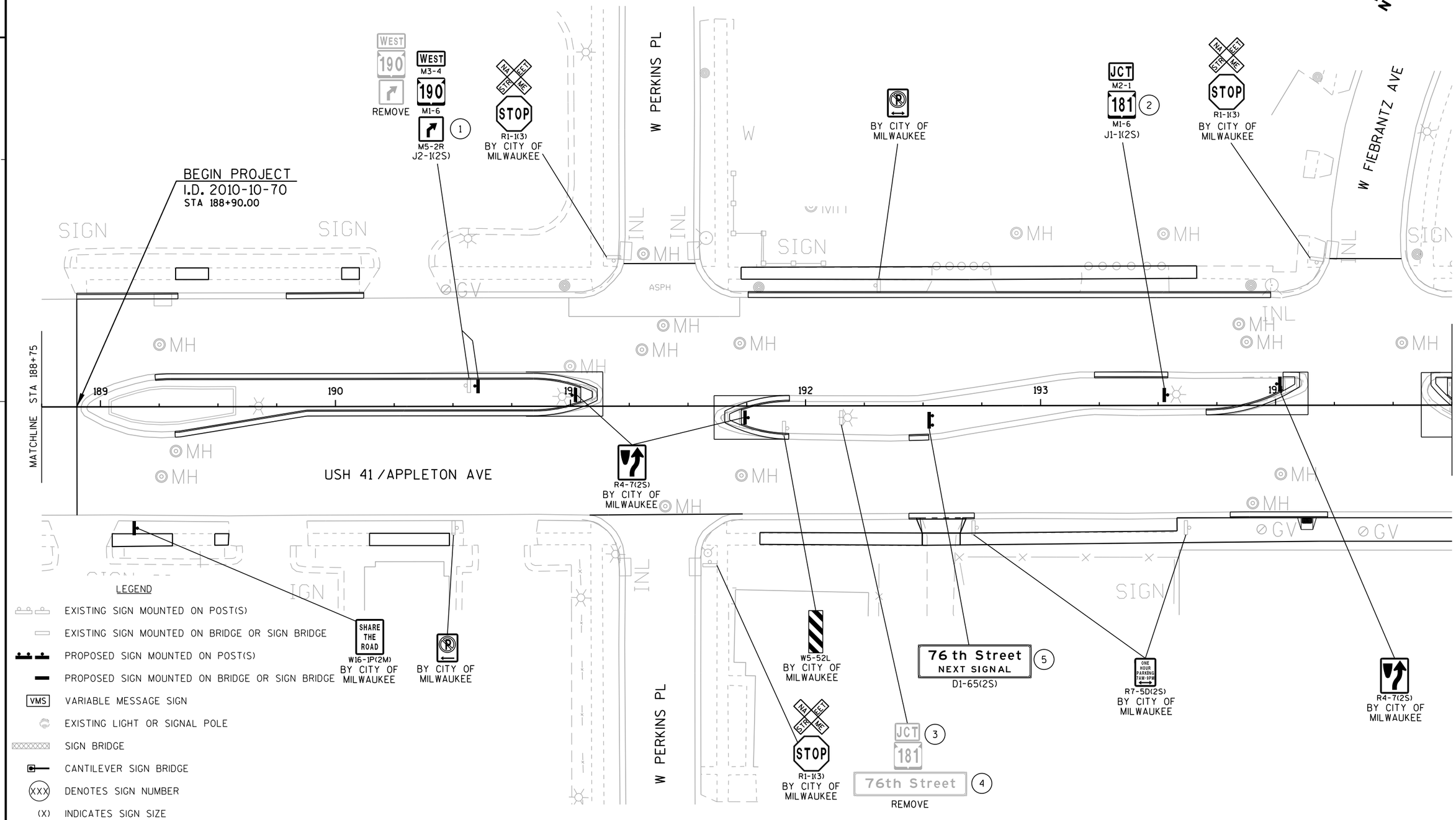
- P-XX — STORM SEWER PIPE NUMBER
- (XX) — DRAINAGE STRUCTURE NUMBER
- [XXX] — EXISTING DRAINAGE STRUCTURE TO BE RECONSTRUCTED
- ⟨XXX⟩ — EXISTING DRAINAGE STRUCTURE TO BE REMOVED
- XXX (octagon) — EXISTING DRAINAGE STRUCTURE TO BE ADJUSTED
- (XX) — EXISTING DRAINAGE STRUCTURE TO BE ABANDONED
- —RM— EXISTING STORM SEWER PIPE TO BE REMOVED

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN	SHEET	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap022526_ss.dgn PLOT DATE : 12-APR-2013 10:43 PLOT BY : lversluys PLOT NAME : PLOT SCALE : 40:1

NOTES:

1. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.



LEGEND

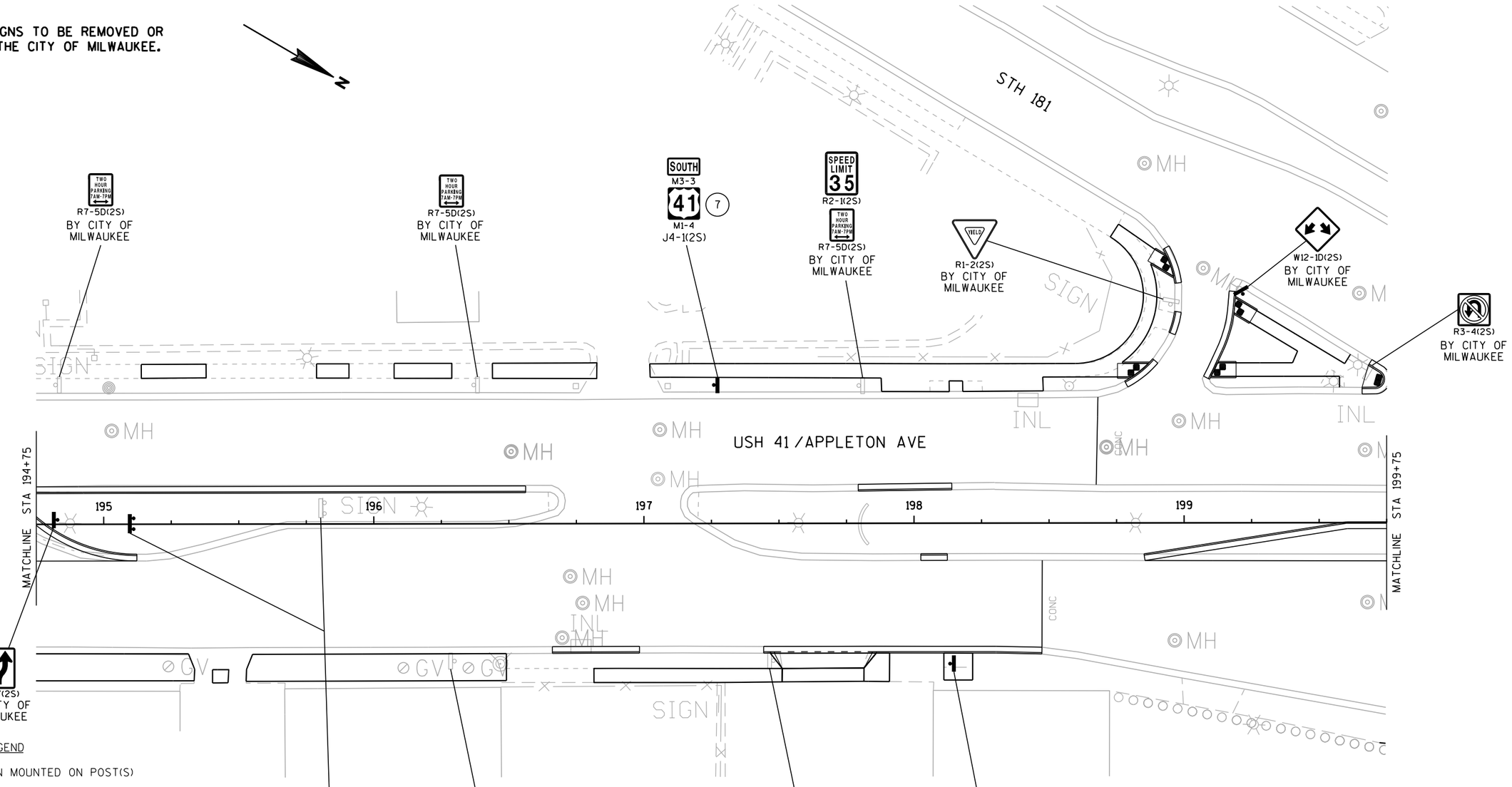
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 1 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 124 E

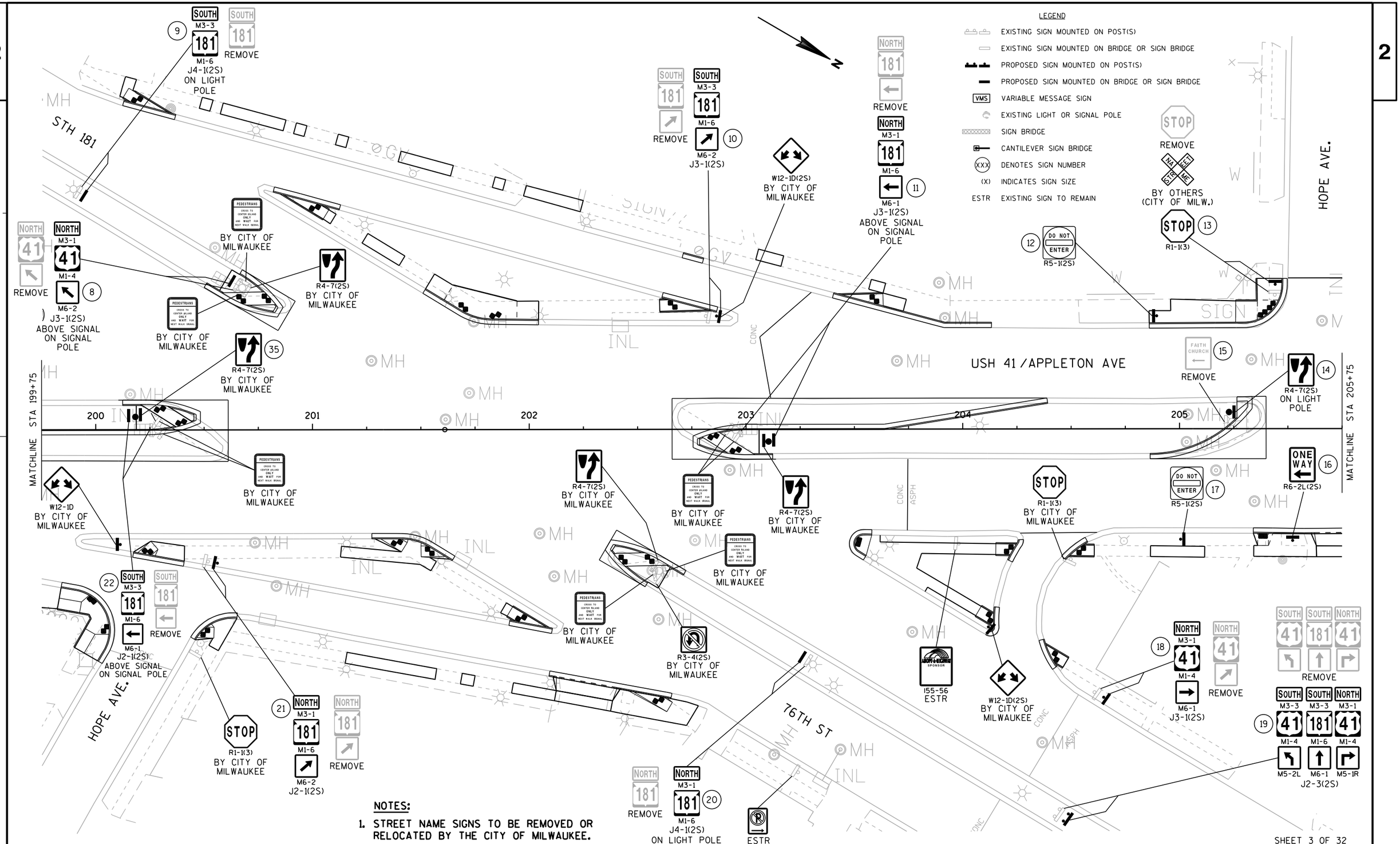
NOTES:

1. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.



LEGEND

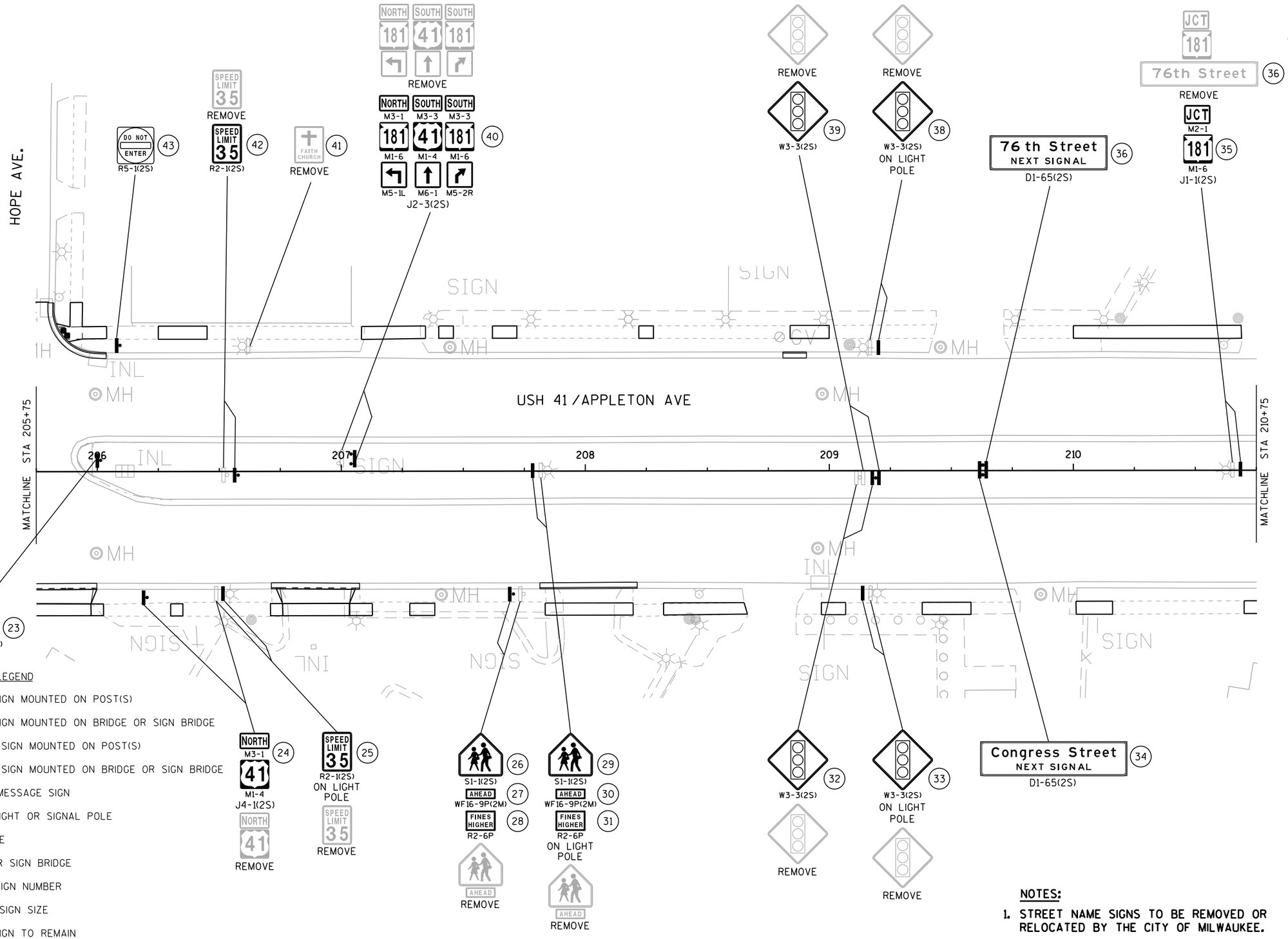
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 126 E

SHEET 3 OF 32

FILE NAME : J:\projects\D2_20101041\sign\023203_ps.dgn PLOT DATE : 28-JUN-2013 10:17 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1
WISDOT/CADDS SHEET 42



NOTES:

1. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.

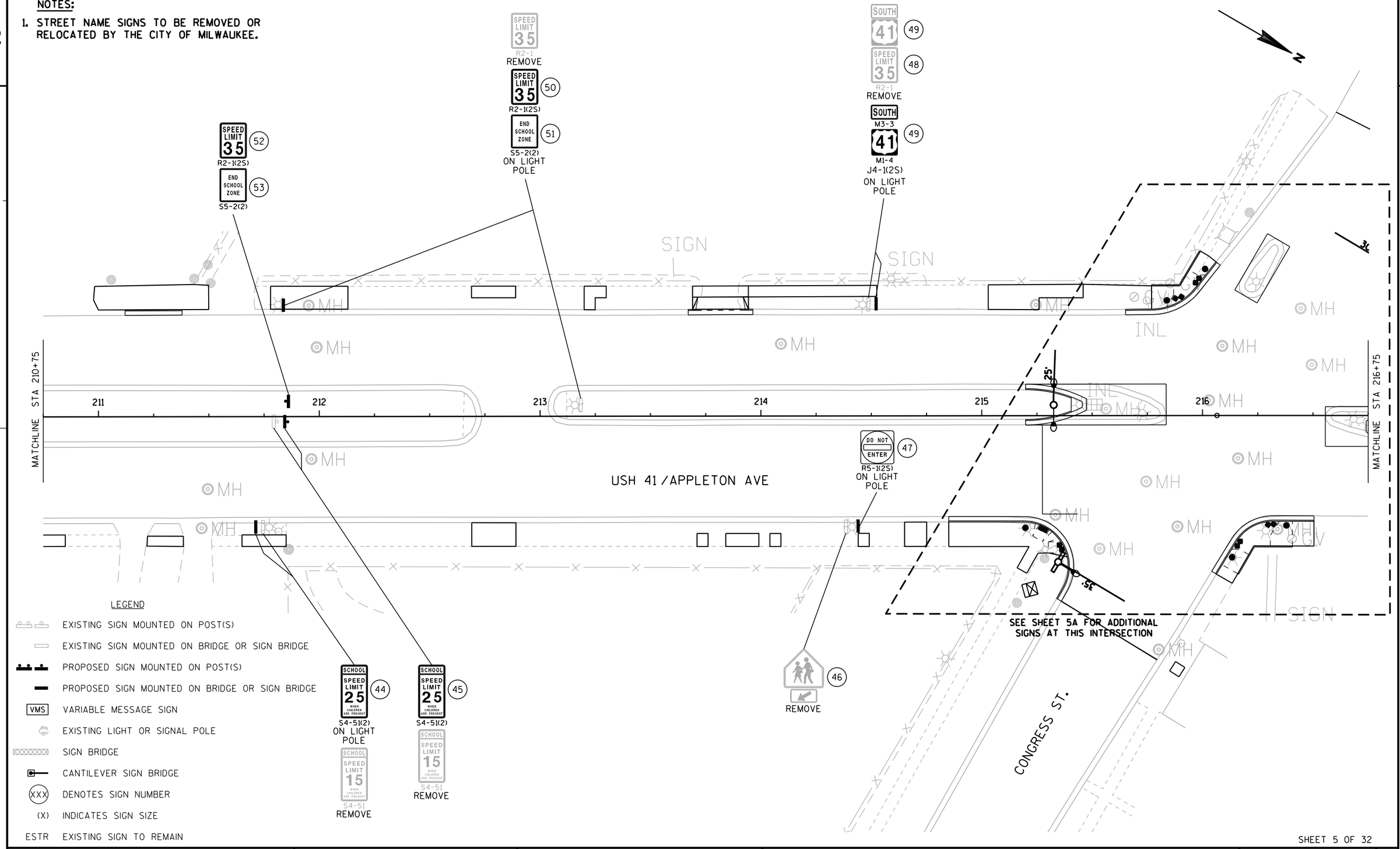
SHEET 4 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 127 E

NOTES:

1. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.

2



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
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USH 41 / APPLETON AVE

59 STOP REMOVE

60 STOP R1-1 REMOVE

406 SHARE THE ROAD W16-1P(2M)

LEFT LANE MUST TURN LEFT R3-7L(2S) BY CITY OF MILWAUKEE

1002 Appleton Ave M1-94H ON ARM

30'

SIGN

1003 Congress St M1-94H ON ARM

25'

R4-7(2S) BY CITY OF MILWAUKEE

115 116 REMOVE

215 216 217

61 62 REMOVE

54 55 STOP REMOVE

R4-7(2S) BY CITY OF MILWAUKEE

25'

1001 Congress St M1-94H ON ARM

1000 Appleton Ave M1-94H ON ARM

35'

NO TURN ON RED R10-11B(2S)
WHEN CHILDREN ARE PRESENT S4-2(2S)
BY CITY OF MILWAUKEE

3 TONS BY CITY OF MILWAUKEE

CONGRESS ST.

LEFT LANE MUST TURN LEFT R3-7L(2S) BY CITY OF MILWAUKEE

56 STOP REMOVE

MH GV INL

NOTES:

1. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.

SHEET 5A OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 129 E

2

CONGRESS ST.

RUBY AVE.

USH 41/APPLETON AVE

MATCHLINE STA 216+75

MATCHLINE STA 222+75

217 218 219 220 221 222

25'

REMOVE (85)

REMOVE (86)

DO NOT ENTER (87) R5-1(2S)

ONE HOUR PARKING 8AM-5PM (EXCEPT SUNDAY) BY CITY OF MILWAUKEE

SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT — REMOVE

SCHOOL SPEED LIMIT 25 WHEN CHILDREN ARE PRESENT (84) S4-51(2) ON LIGHT POLE

SCHOOL SPEED LIMIT 25 WHEN CHILDREN ARE PRESENT (83) S4-51(2)

Congress Street NEXT SIGNAL (82) D1-65(2S)

AHEAD — REMOVE

(79) S1-1(2S)

AHEAD WF16-9P(2S) (80)

FINES HIGHER (81) R2-6P(2S)

ONE HOUR PARKING 8AM-5PM (EXCEPT SUNDAY) BY CITY OF MILWAUKEE

AHEAD — REMOVE

(76) S1-1(2S)

AHEAD WF16-9P(2S) (77)

FINES HIGHER (78) R2-6P(2S) ON LIGHT POLE

STOP — REMOVE

STOP (75) R1-1(3)

REMOVE

(74) W3-3(2S)

REMOVE

(73) W3-3(2S) ON LIGHT POLE

DO NOT ENTER (72) R5-1(2S)

(71) R4-7(2S) ON LIGHT POLE

SHARE THE ROAD (407) W16-1P(2M)

ONE HOUR PARKING 8AM-5PM (EXCEPT SUNDAY) BY CITY OF MILWAUKEE

NORTH M3-1 (63) 41 M1-4 J4-1(2S)

SPEED LIMIT 35 (64) (66) R2-1(2S)

END SCHOOL ZONE (65) (67) S5-2(2S) ON LIGHT POLE

SPEED LIMIT 35 REMOVE

ONE HOUR PARKING 8AM-5PM (EXCEPT SUNDAY) BY CITY OF MILWAUKEE

(68) R4-7(2S)

DO NOT ENTER (69) R5-1(2S)

STOP (70) R1-1(3)

STOP REMOVE

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS. (CITY MAINTAINS STREET NAME SIGN AND DOT MAINTAINS STOP SIGN)
2. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.

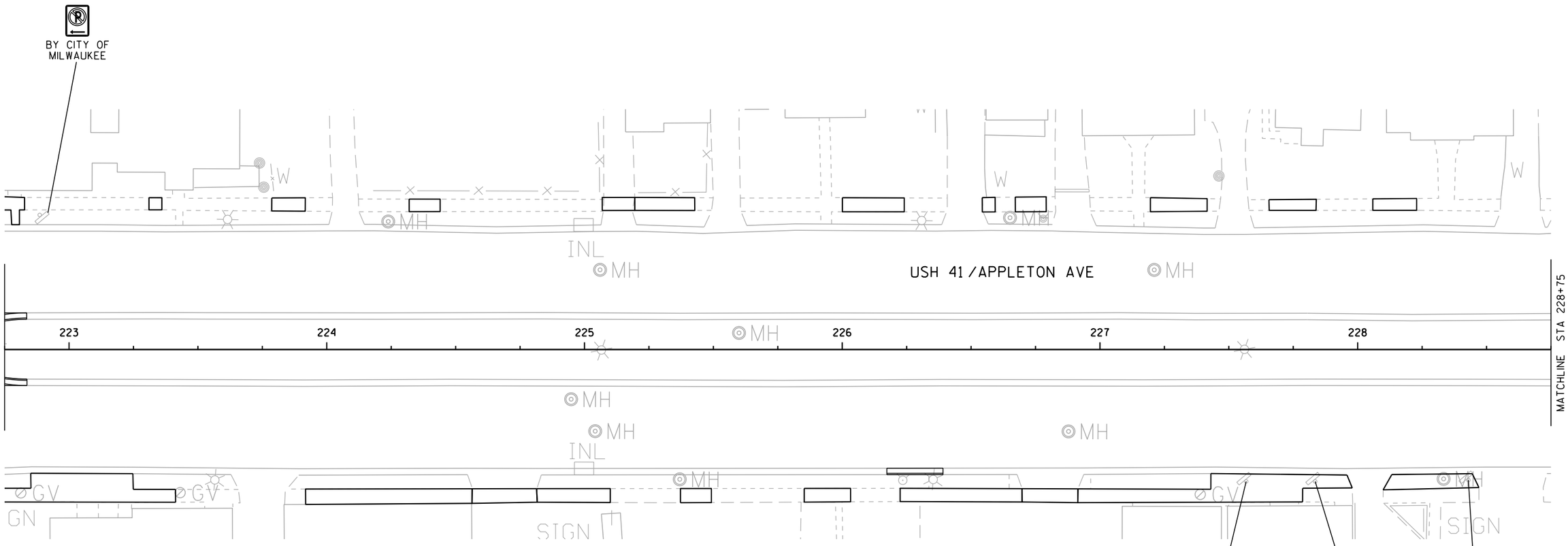
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

2

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS. (CITY MAINTAINS STREET NAME SIGN AND DOT MAINTAINS STOP SIGN)
2. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
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NOTES:

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2. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.

STOP
REMOVE

STOP (99)
R1-1(3)
ON LIGHT POLE

STREET NAME SIGN BY CITY OF MILWAUKEE

GLENDALE AVE.

DO NOT ENTER (96)
R5-1(2S)

SPEED LIMIT 35
REMOVE

BY CITY OF MILWAUKEE

SPEED LIMIT 35 (95)
R2-1(2S)
ON LIGHT POLE

BY CITY OF MILWAUKEE

MATCHLINE STA 228+75

(98)
R4-7(2S)

229 230 231 232 233 234

MATCHLINE STA 234+75

(97)
R4-7(2S)
ON LIGHT POLE

USH 41/APPLETON AVE

ON LIGHT POLE BY CITY OF MILWAUKEE

DO NOT ENTER (88)
R5-1(2S)
ON LIGHT POLE

STOP (89)
R1-1(3)

STOP
REMOVE

SPEED LIMIT 35 (90)
R2-1(2S)

SPEED LIMIT 35
REMOVE

SPEED LIMIT 35 (91)
R2-1(2S)
ON LIGHT POLE

SPEED LIMIT 35
REMOVE

SPEED LIMIT 35 (92)
R2-1(2S)

SPEED LIMIT 35
REMOVE

(93) (94)
R4-7(2S)

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
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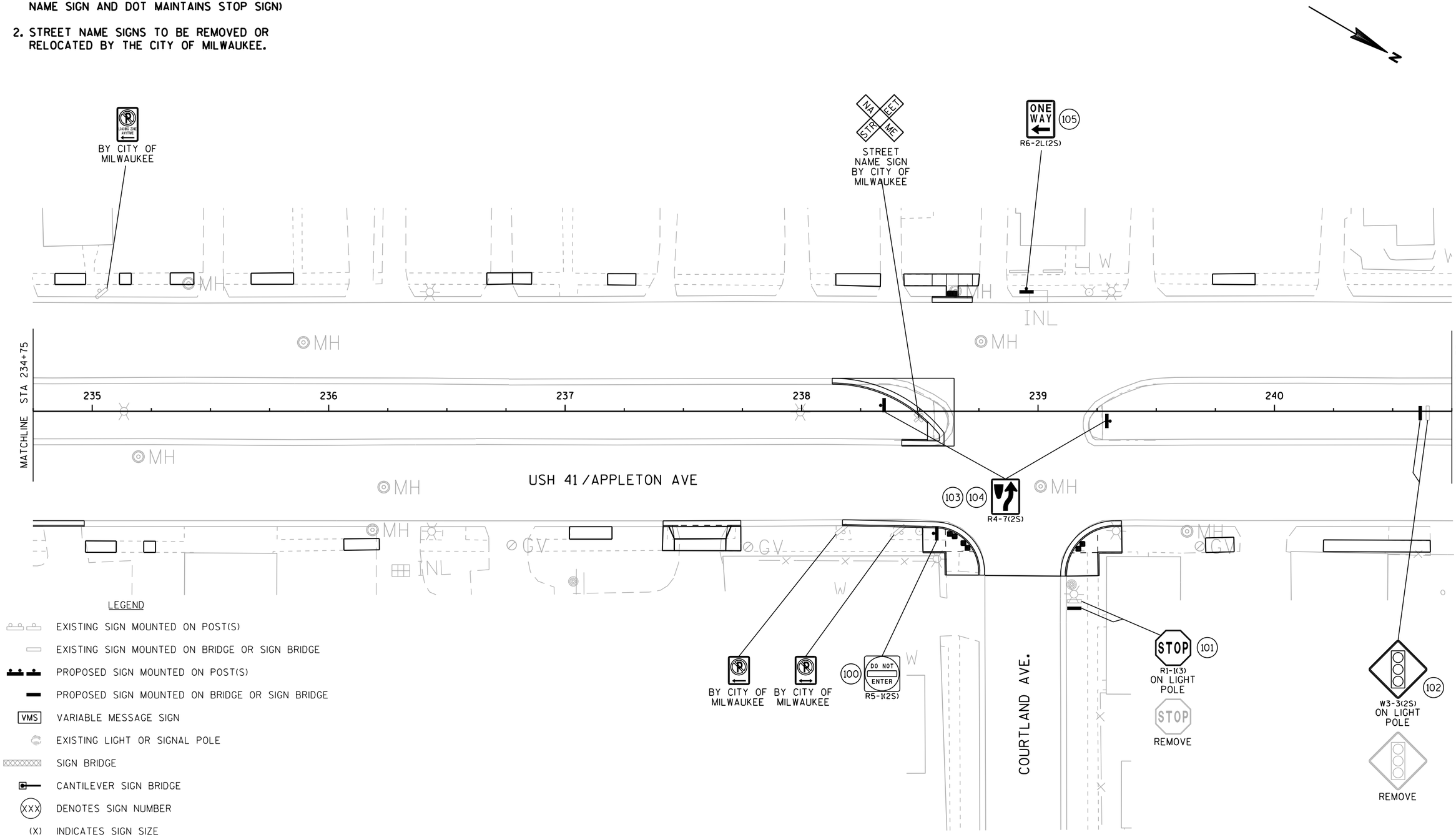
SHEET 8 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 132 E

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS. (CITY MAINTAINS STREET NAME SIGN AND DOT MAINTAINS STOP SIGN)
2. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
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- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
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- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 9 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 133 E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
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NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS. (CITY MAINTAINS STREET NAME SIGN AND DOT MAINTAINS STOP SIGN)
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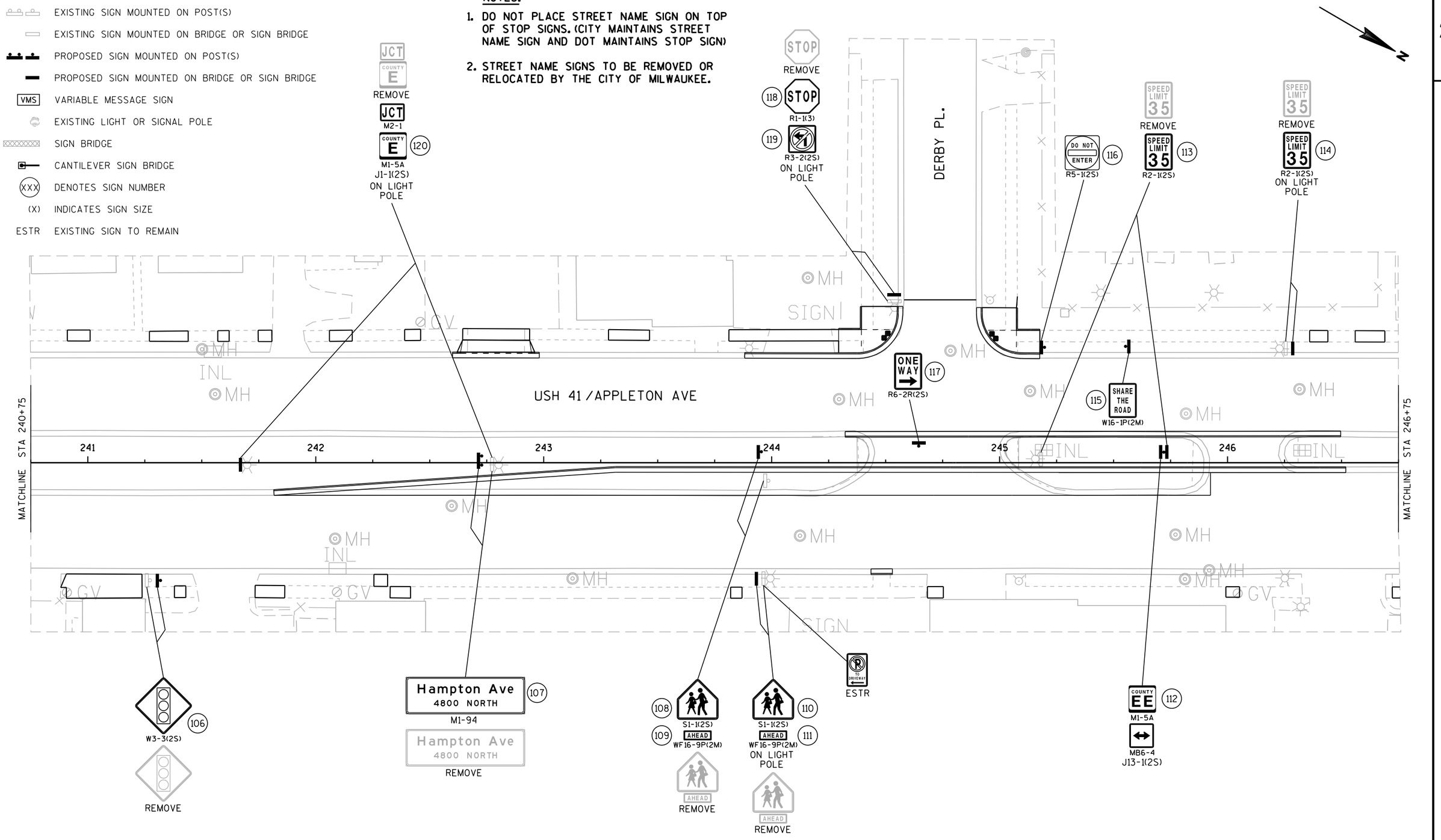

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
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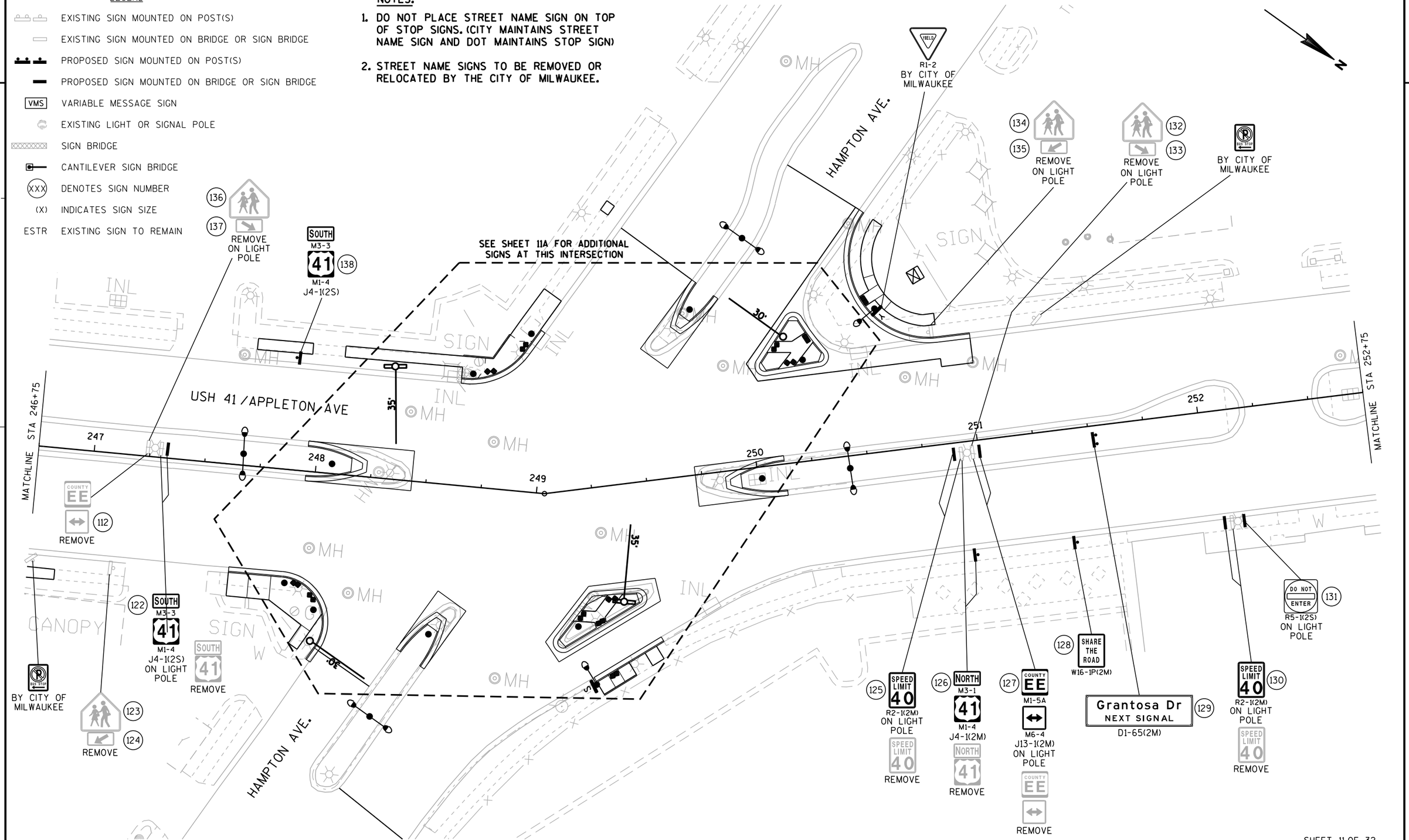


SHEET 11 OF 32

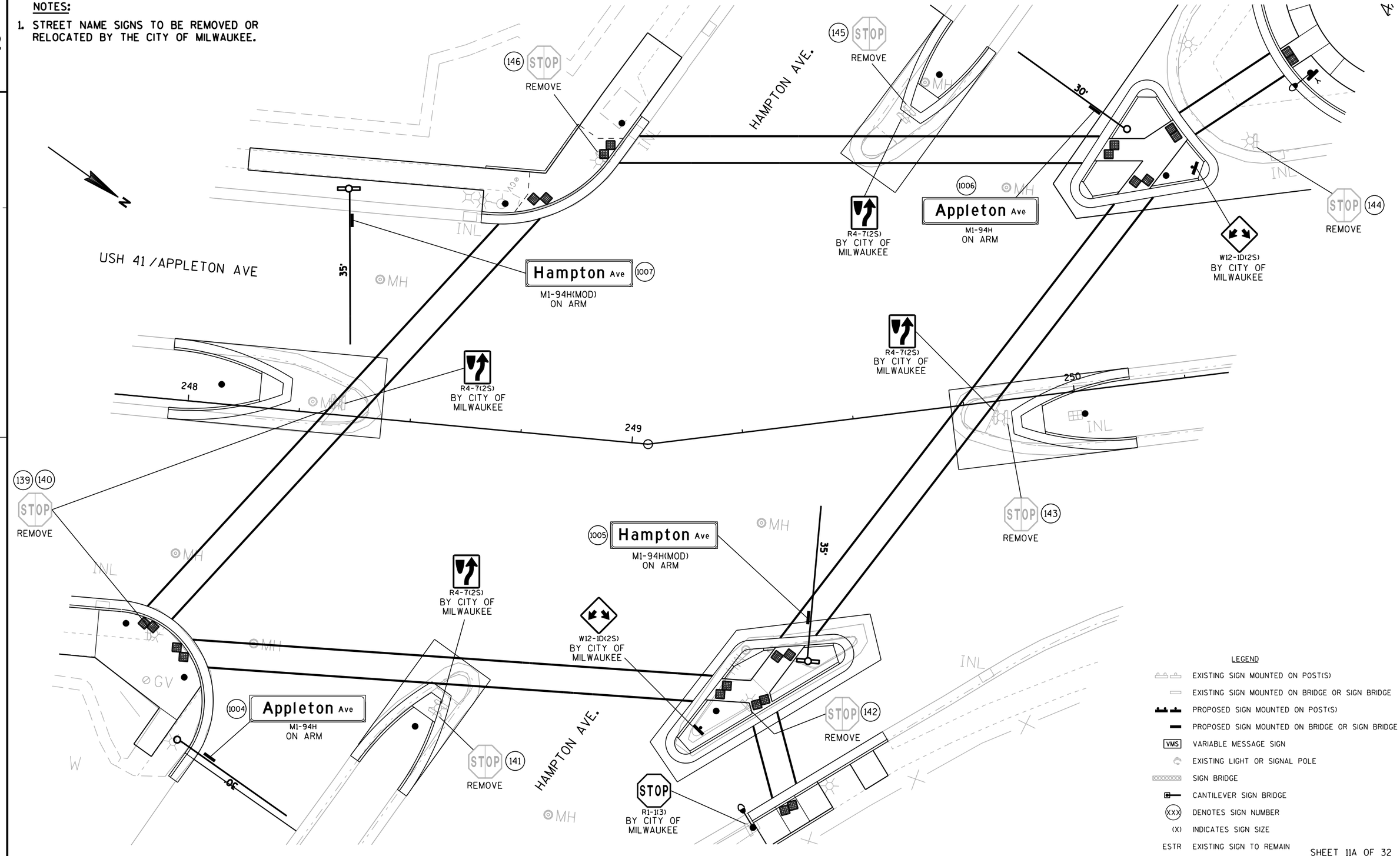
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 135 E

FILE NAME : J:\projects\D2_20101041\sign\023211_ps.dgn PLOT DATE : 28-JUN-2013 10:17 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTES:

1. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 11A OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 136 E

2

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS. (CITY MAINTAINS STREET NAME SIGN AND DOT MAINTAINS STOP SIGN)
2. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.

Hampton Ave
4800 NORTH
REMOVE

Hampton Ave
4800 NORTH
147
D1-65(MOD)

JCT
COUNTY EE
REMOVE

JCT
M2-1

COUNTY EE
148
M1-5A
J1-1(2M)
ON LIGHT POLE

AHEAD
REMOVE

149 151
S1-1(2M)
AHEAD
150 152
WF16-9P(2M)

GRANTOSA DR.

SEE SHEET 12A FOR ADDITIONAL SIGNS AT THIS INTERSECTION

DO NOT ENTER
157
R5-1(2S)

CHURCH
156
REMOVE

USH 41/APPLETON AVE

MATCHLINE STA 252+75

253 254 255 256 257 258

MATCHLINE STA 258+75

DO NOT ENTER
153
R5-1(2S)

154
SOUTH
M3-3
41
M1-4
J4-1(2M)

DO NOT ENTER
158
R5-1(2S)

NORTH
M3-1
155
41
M1-4
J4-1(2M)

GRANTOSA DR.

30'
30'
35'

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
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SHEET 12 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 137 E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
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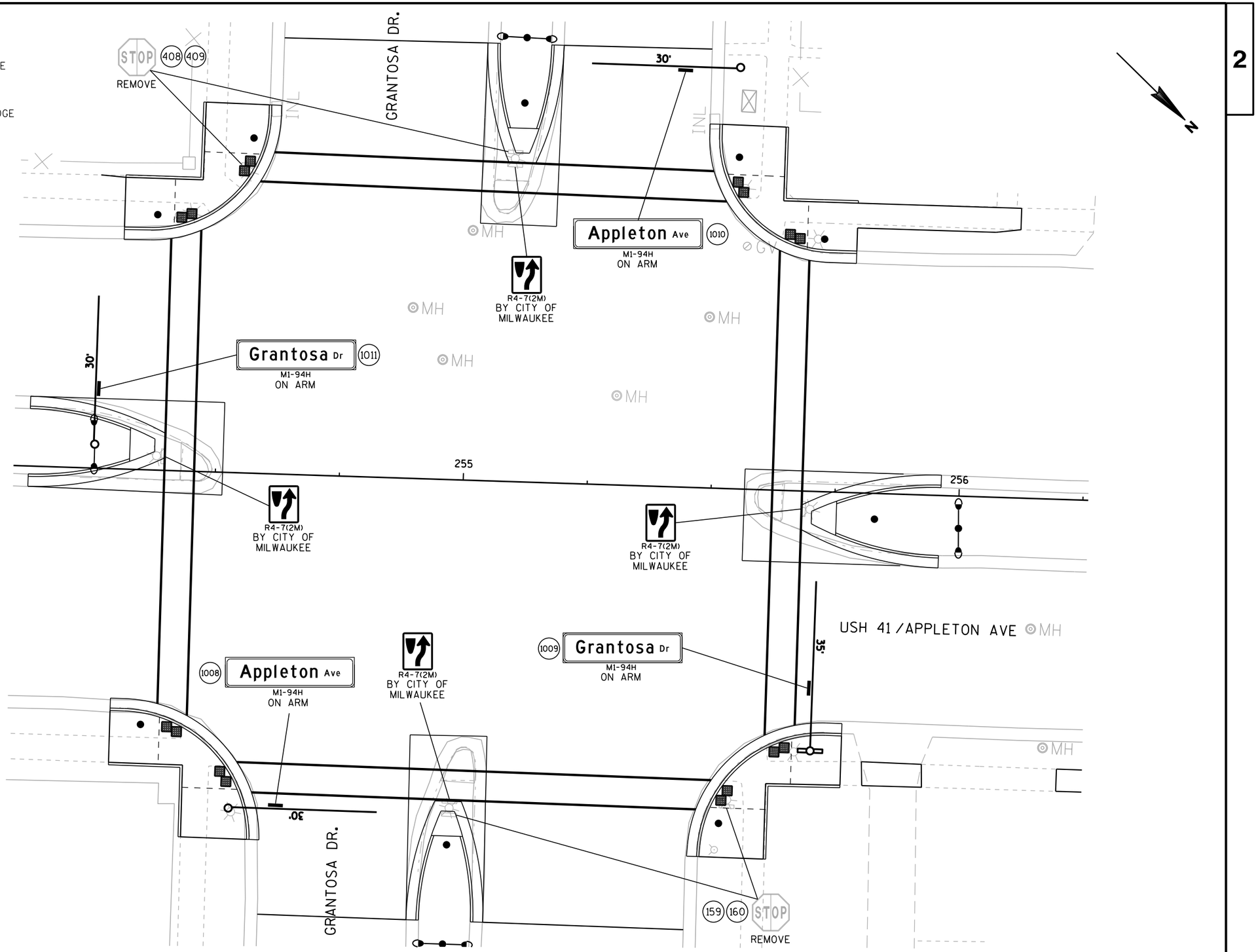

NOTES:

1. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
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NOTES:

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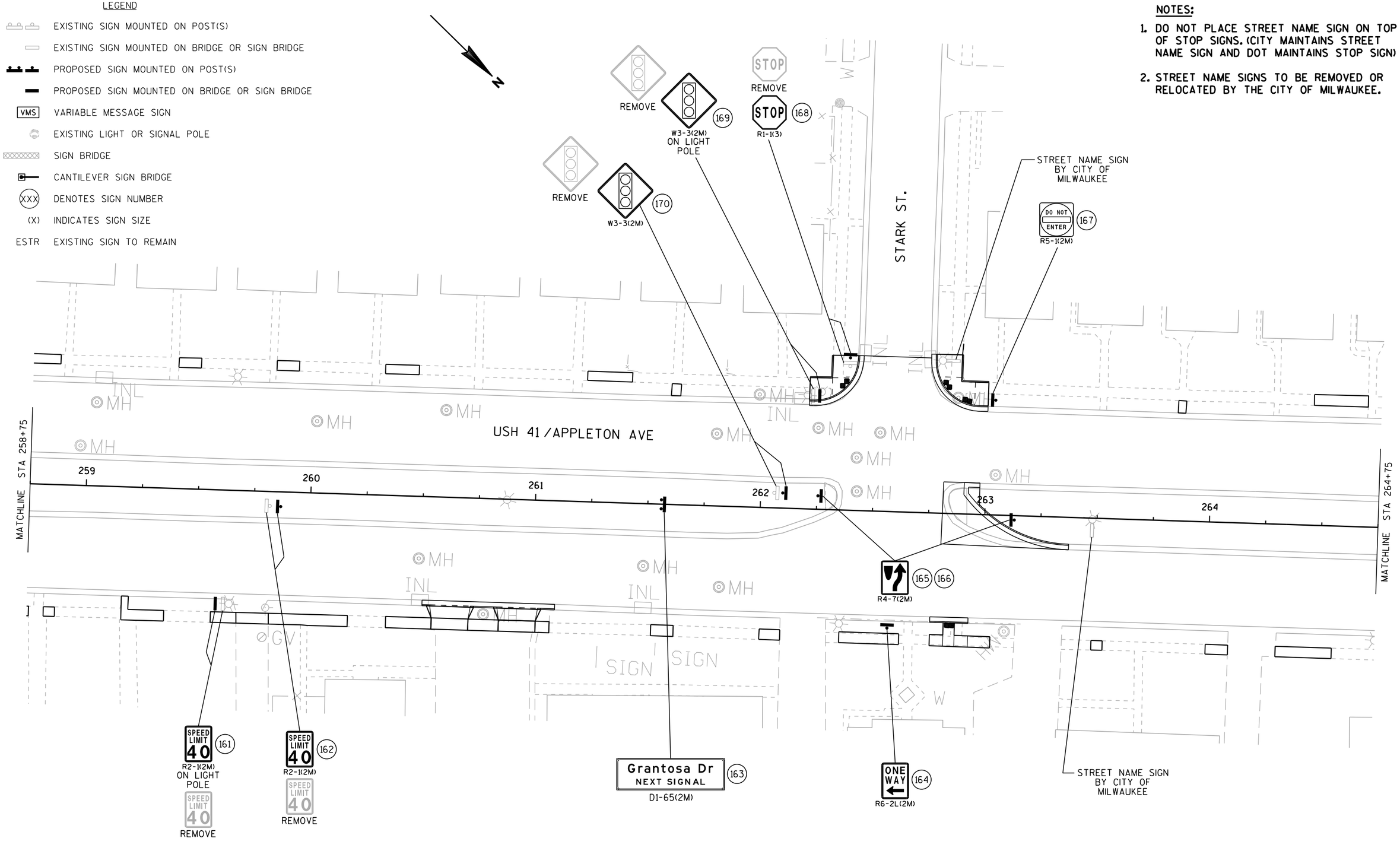
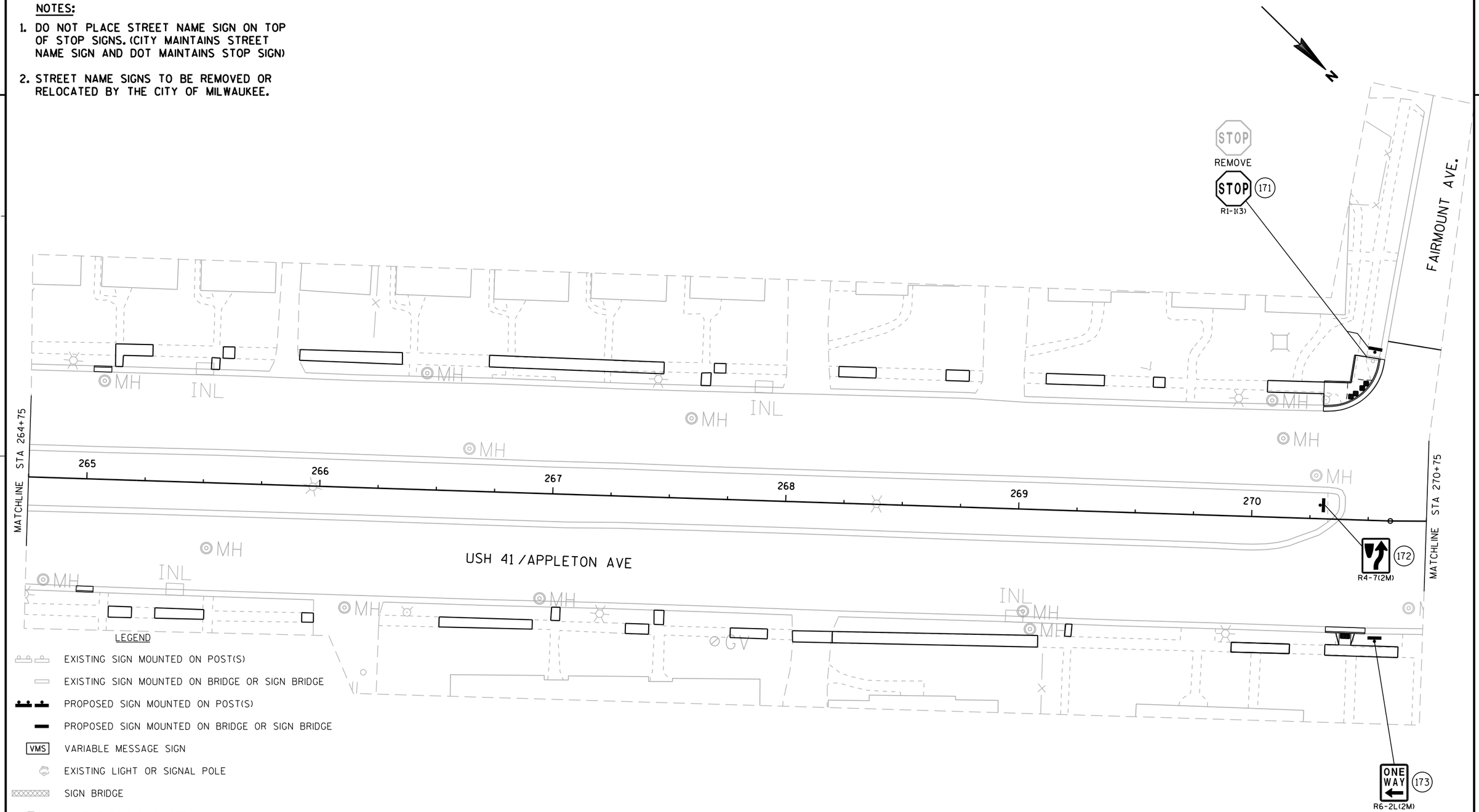


SHEET 13 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 139 E

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS. (CITY MAINTAINS STREET NAME SIGN AND DOT MAINTAINS STOP SIGN)
2. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
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FAIRMOUNT AVE.

DO NOT ENTER (195) R5-1(2M)

BY CITY OF MILWAUKEE

BY CITY OF MILWAUKEE

SPEED LIMIT 40 REMOVE

SPEED LIMIT 40 (194) R2-1(2M) ON LIGHT POLE

SPEED LIMIT 40 REMOVE

SPEED LIMIT 40 (193) R2-1(2M)

(192) R4-7(2M) ON LIGHT POLE

ONE WAY (191) R6-2L(2M)

DO NOT ENTER (190) R5-1(2M)

SPEED LIMIT 40 (186) (188) R2-1(2M)

END SCHOOL ZONE (187) (189) S5-2(2M)

N

MATCHLINE STA 270+75

271 272 273 274 275 276

MATCHLINE STA 276+75

(174) R4-7(2M) ON LIGHT POLE

USH 41/APPLETON AVE

DO NOT ENTER (177) R5-1(2M)

(178) R4-7(2M)

SPEED LIMIT 40 (175) R2-1(2M) ON LIGHT POLE

SPEED LIMIT 40 REMOVE

SPEED LIMIT 40 (176) R2-1(2M)

SPEED LIMIT 40 REMOVE

LANCASTER AVE.

(179) STOP R1-1(3) ON LIGHT POLE

STOP REMOVE

(180) S1-1(2M) AHEAD (181) WF16-9P(2M) FINES HIGHER (182) R2-6P(2M) ON LIGHT POLE

AHEAD REMOVE

(183) S1-1(2M) AHEAD (184) WF16-9P(2M) FINES HIGHER (185) R2-6P(2M)

AHEAD REMOVE

MH INL SIGN

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
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NOTES:

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2. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.

SHEET 15 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 141 E

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS. (CITY MAINTAINS STREET NAME SIGN AND DOT MAINTAINS STOP SIGN)
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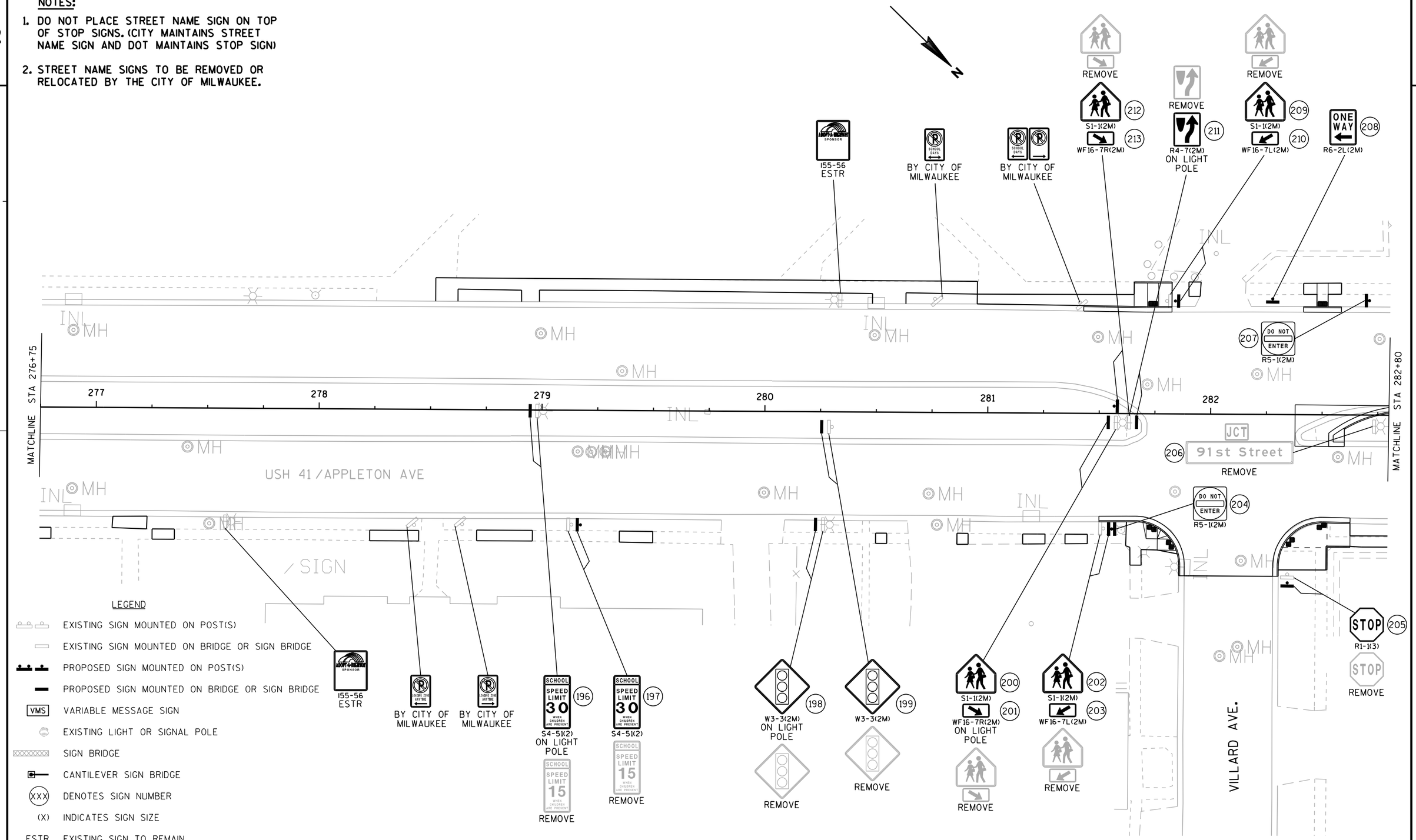

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
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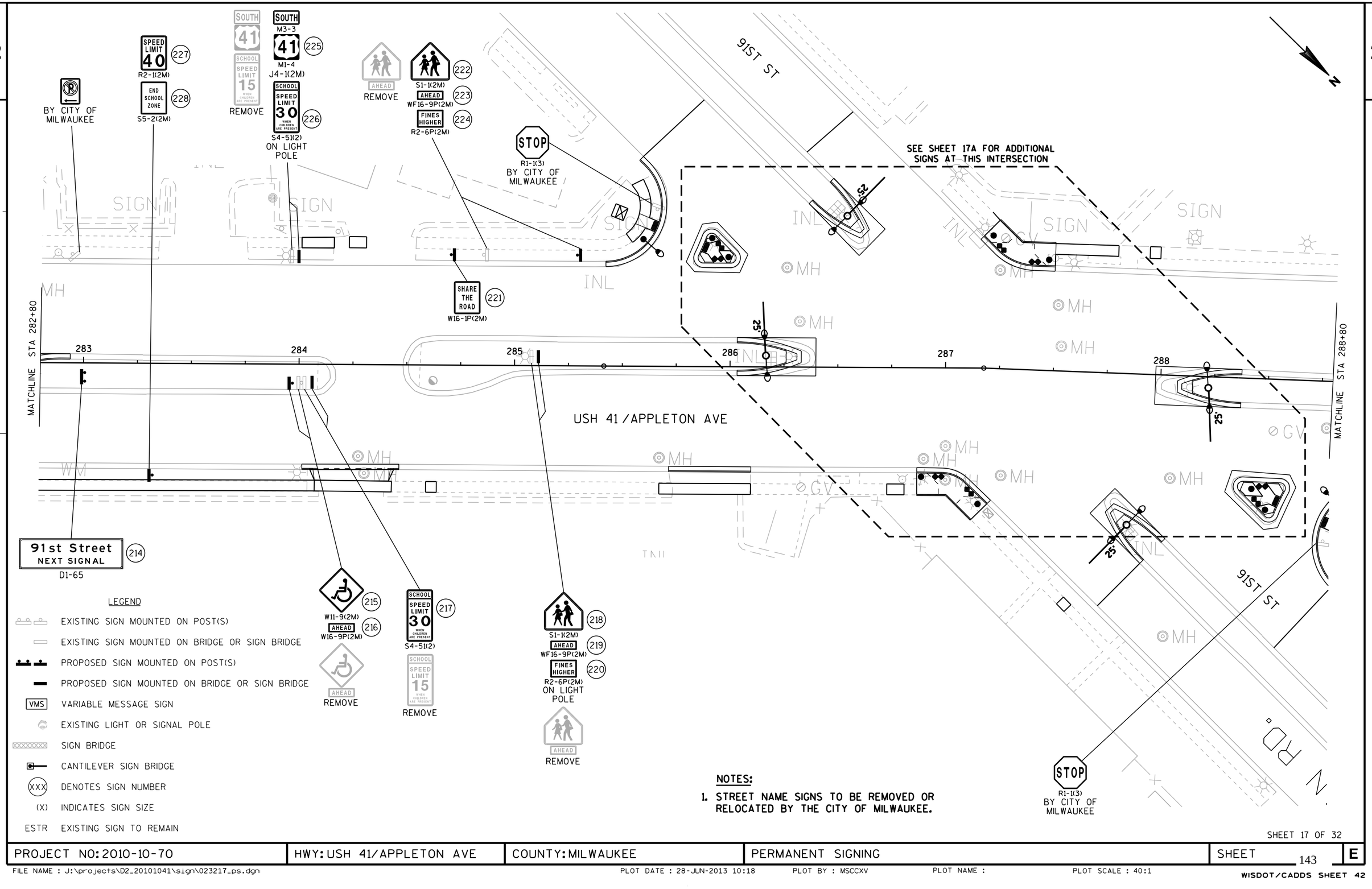
SHEET 16 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 142 E



SHEET 17 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 143 E

NOTES:

1. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.

W12-1D(2S) BY CITY OF MILWAUKEE

239 STOP REMOVE

238 STOP REMOVE

237 STOP REMOVE

91ST ST

1014 Appleton Ave
M1-94H
ON ARM

R4-7(2M) BY CITY OF MILWAUKEE

1015 91 st Street
M1-94H
ON ARM

R4-7(2M) BY CITY OF MILWAUKEE

DO NOT ENTER 236
R5-1(2M)

USH 41 / APPLETON AVE

235 STOP REMOVE

286 287 288

229 W11-9(2M)
230 W16-7R

REMOVE

231 STOP REMOVE

USH 41 / APPLETON AVE

R4-7(2M) BY CITY OF MILWAUKEE

1012 Appleton Ave
M1-94H
ON ARM

R4-7(2M) BY CITY OF MILWAUKEE

1013 91 st Street
M1-94H
ON ARM

DO NOT ENTER 232
R5-1(2M)

410 STOP REMOVE

91ST ST

233 234 STOP REMOVE

W12-1D(2S) BY CITY OF MILWAUKEE

MH GV INL 25'

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 17A OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 144 E

FILE NAME : J:\projects\D2_20101041\sign\023217a_ps.dgn PLOT DATE : 28-JUN-2013 10:18 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
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- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
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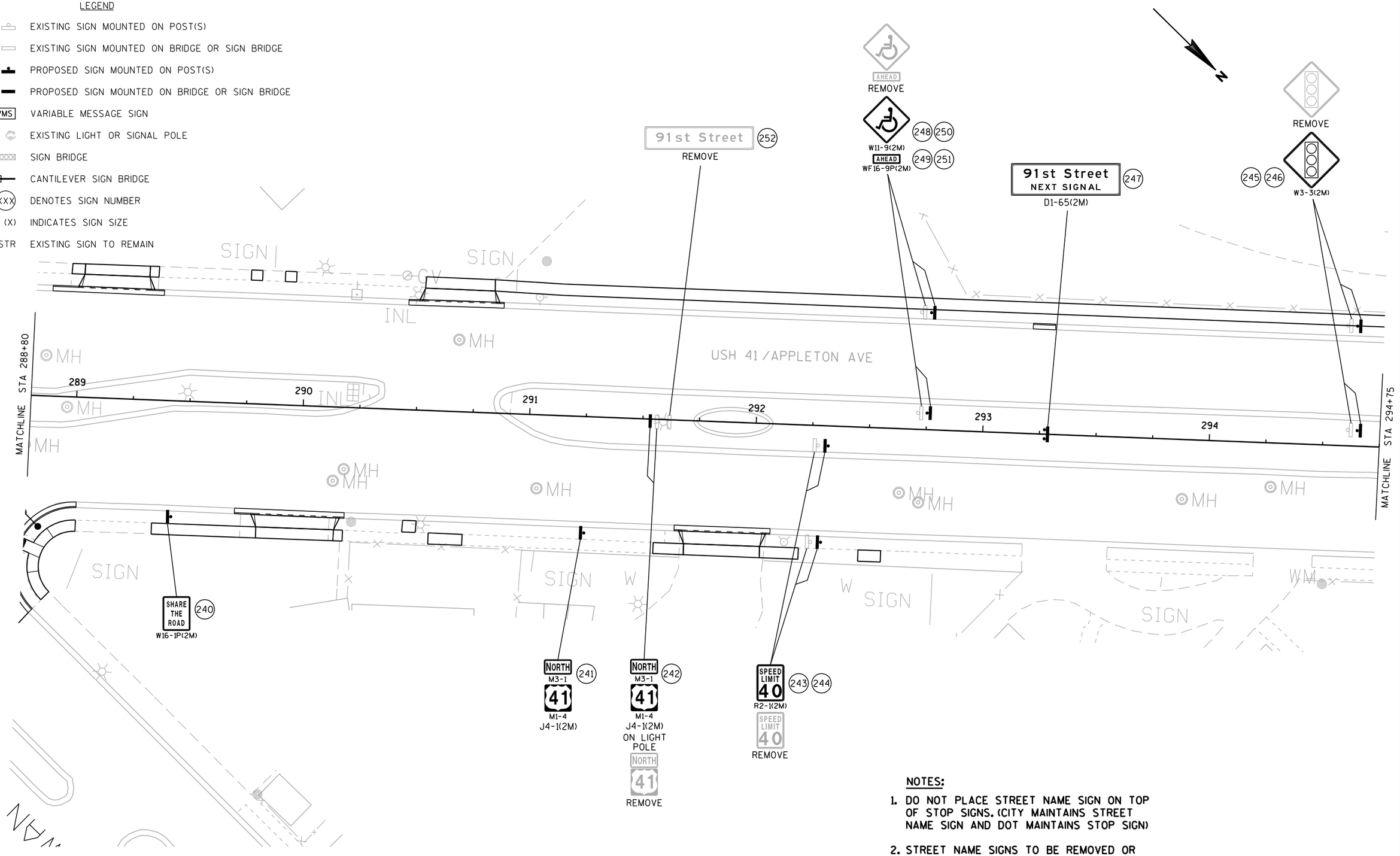
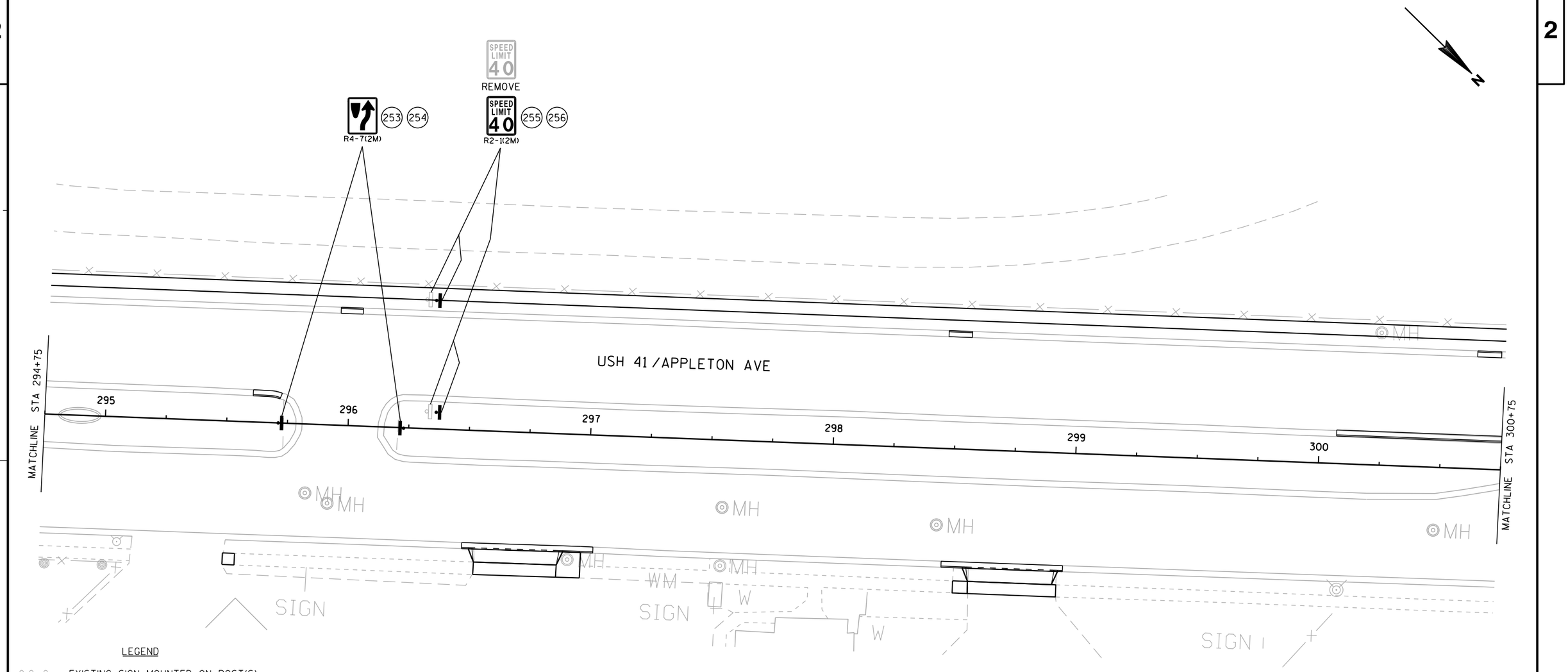


NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS. (CITY MAINTAINS STREET NAME SIGN AND DOT MAINTAINS STOP SIGN)
2. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.

2



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
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LEGEND

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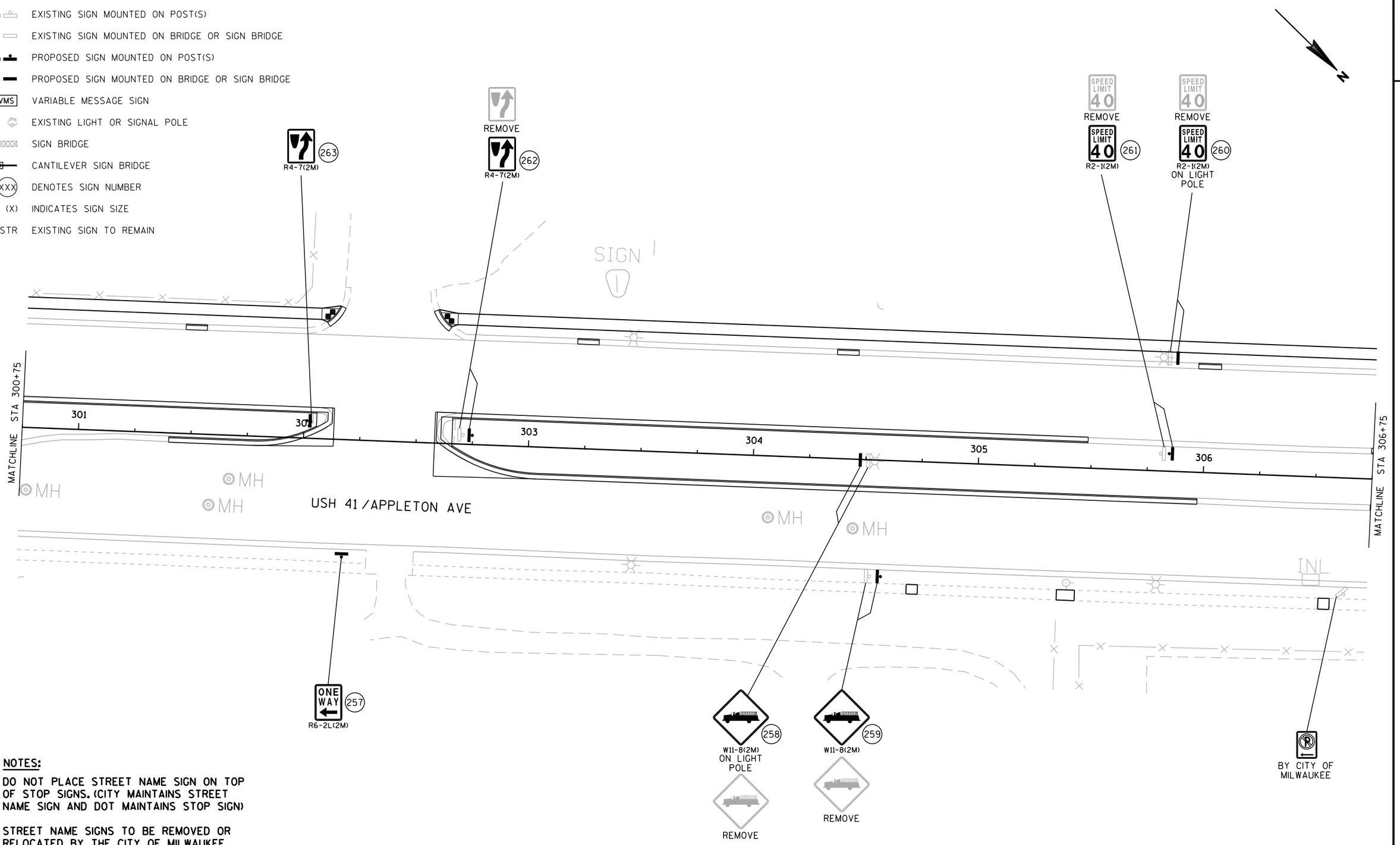

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SHEET 20 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 147 E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
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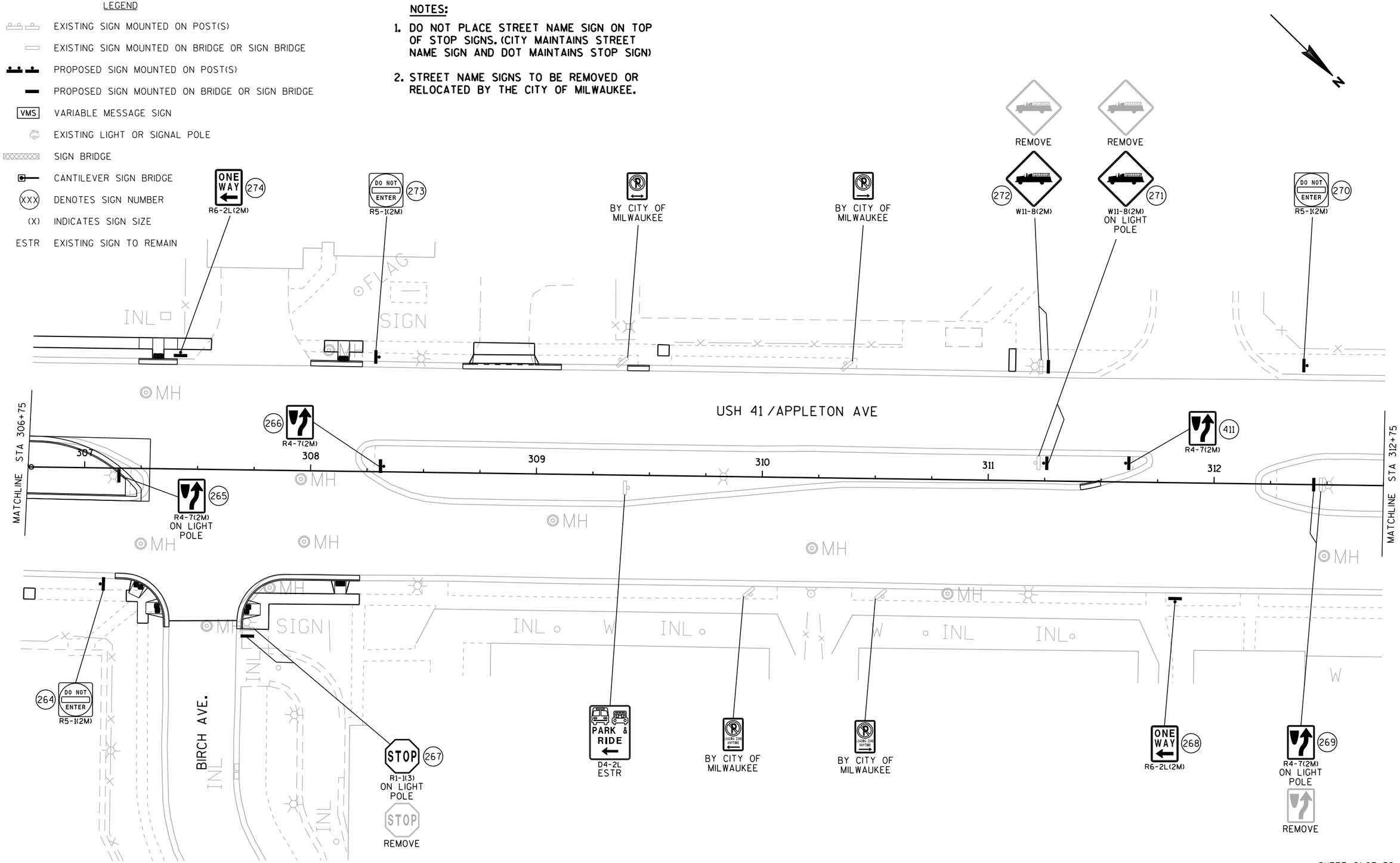

SHEET 21 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 148 E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

STOP
REMOVE

STOP 284
R1-1(3)

NO OUTLET
W14-2(2M)
BY CITY OF MILWAUKEE

PARK & RIDE
D4-2R
ESTR

Silver Spring Dr
5600 NORTH
REMOVE

Silver Spring Dr
5600 NORTH
285
M1-94

BY CITY OF MILWAUKEE

DO NOT ENTER 283
R5-1(2M)

BY CITY OF MILWAUKEE

BY CITY OF MILWAUKEE

SHERIDAN AVE.

SIGN

SIGN

SIGN

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
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2. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.

MATCHLINE STA 318+75
MATCHLINE STA 324+75
MATCHLINE STA 130+75 SEE SHEET 32
MATCHLINE STA 126+75 SEE SHEET 31

USH 41 / APPLETON AVE
SILVER SPRING DR / CTH E
STRUCTURE B-40-328
MS829 SW RAMP
SE RAMP
NW RAMP
NE RAMP

SHEET 23 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 150 E

NOTES:

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LEGEND

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NW RAMP

MN32

339 YIELD R1-2(2M)

REMOVE

338 WEST M3-4 / COUNTY E M1-5A / M6-2 J2-1(2M)

REMOVE

BY CITY OF MILWAUKEE

BEGIN RIGHT TURN LANE YIELD TO BIKES R4-4(2M)

BY CITY OF MILWAUKEE

SPEED LIMIT 40 REMOVE

337 SPEED LIMIT 40 R2-1(2M)

BY CITY OF MILWAUKEE

SPEED LIMIT 40 REMOVE

336 SPEED LIMIT 40 R2-1(2M) ON LIGHT POLE

JCT M2-1 / 334 COUNTY E 335 M1-5A J1-1(2M)

W SIGN

USH 41 / APPLETON AVE

MATCHLINE STA 324+75

MATCHLINE STA 330+75

325 326 327 328 329 330

TO 9700 W REICHERT PL BY OTHERS (CITY OF MILWAUKEE)

TO 9700 W REICHERT PL BY OTHERS (CITY OF MILWAUKEE)

ONE WAY R6-2L(2M) BY CITY OF MILWAUKEE

SPEED LIMIT 40 327 R2-1(2M) ON LIGHT POLE

SPEED LIMIT 40 REMOVE

SPEED LIMIT 40 328 R2-1(2M)

NORTH M3-1 / 41 M1-4 J4-1(2M) 329 330

W3-3(2M) 331 332

REMOVE

Carmen Ave NEXT SIGNAL 333 D1-65(2M)

R5-2 / 3 TONS OR OVER R5-2A BY CITY OF MILWAUKEE

99TH ST.

SIGN

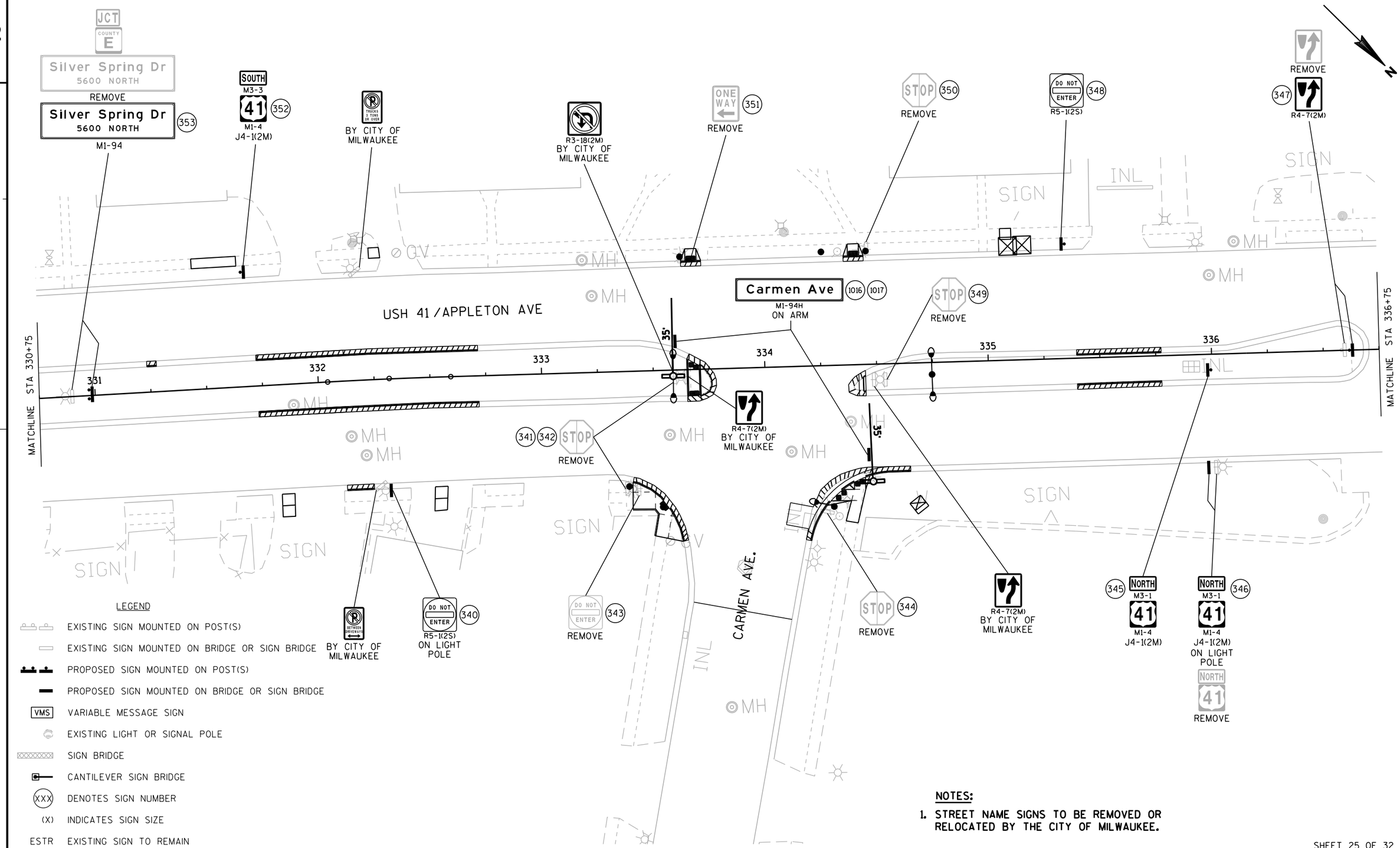
MH

INL

HWY

SHEET 24 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 151 E



LEGEND

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- PROPOSED SIGN MOUNTED ON POST(S)
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NOTES:

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SHEET 25 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 152	E

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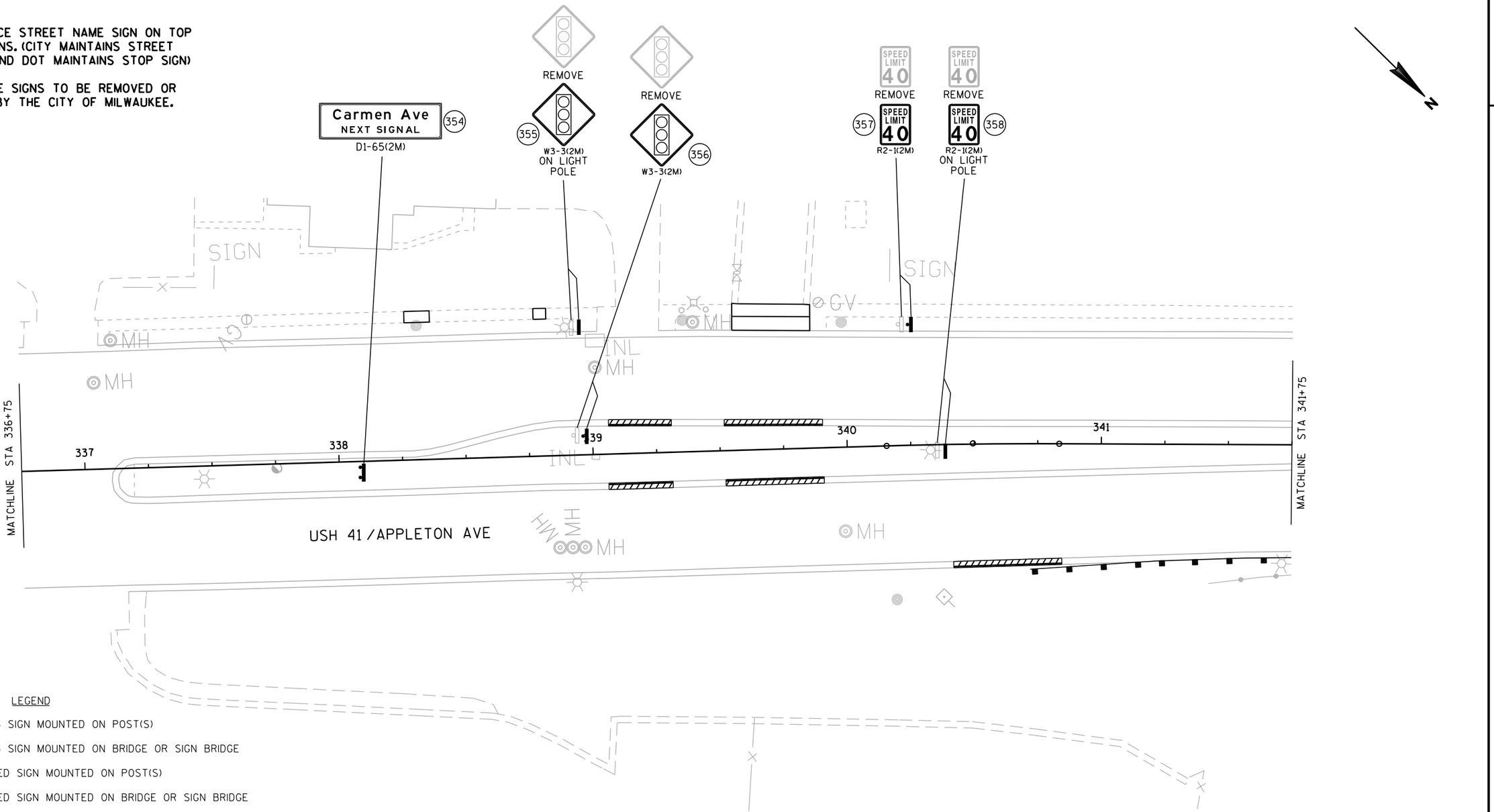

LEGEND

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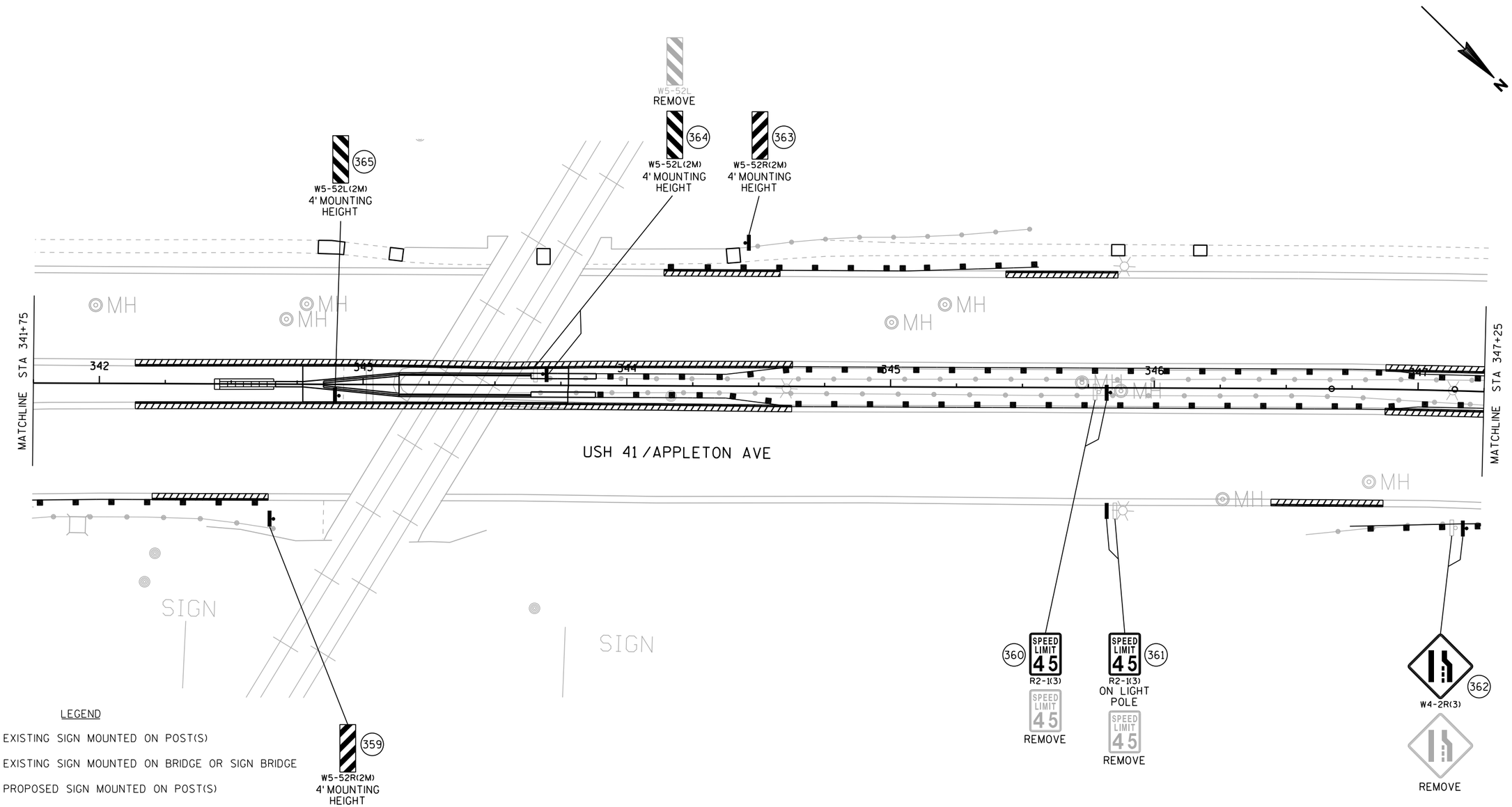
2



LEGEND

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- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
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2

REMOVE
377
W5-52L(3)
4' MOUNTING HEIGHT

REMOVE
376
W5-52R(3)
4' MOUNTING HEIGHT

REMOVE
375
W5-52L(3)
4' MOUNTING HEIGHT

REMOVE
STOP
373
R1-1(3)

374
ONE WAY
R6-2L(3)

REMOVE
371
372
R4-7(3)
ON LIGHT POLE

DO NOT PASS
R4-1(2M)
R5-2
3 TONS OR OVER
R5-2A
BY CITY OF MILWAUKEE

412
DO NOT ENTER
R5-1(3)

MATCHLINE STA 347+25

348
349
350
351
352

USH 41/APPLETON AVE

SEE MATCHLINE STA 358+75

368
ONE WAY
R6-2L(3)

366
W5-52R(3)
4' MOUNTING HEIGHT

367
DO NOT ENTER
R5-1(3)

LITTLE MENOMONEE RIVER PKWY

370
RIGHT LANE ENDS
W9-1R
REMOVE

369
STOP
R1-1(3)

STOP
REMOVE

LITTLE MENOMONEE RIVER PKWY W BOBOLINK AVE
BY OTHERS
(CITY OF MILWAUKEE)

LITTLE MENOMONEE RIVER PKWY W BOBOLINK AVE
BY OTHERS
(CITY OF MILWAUKEE)

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
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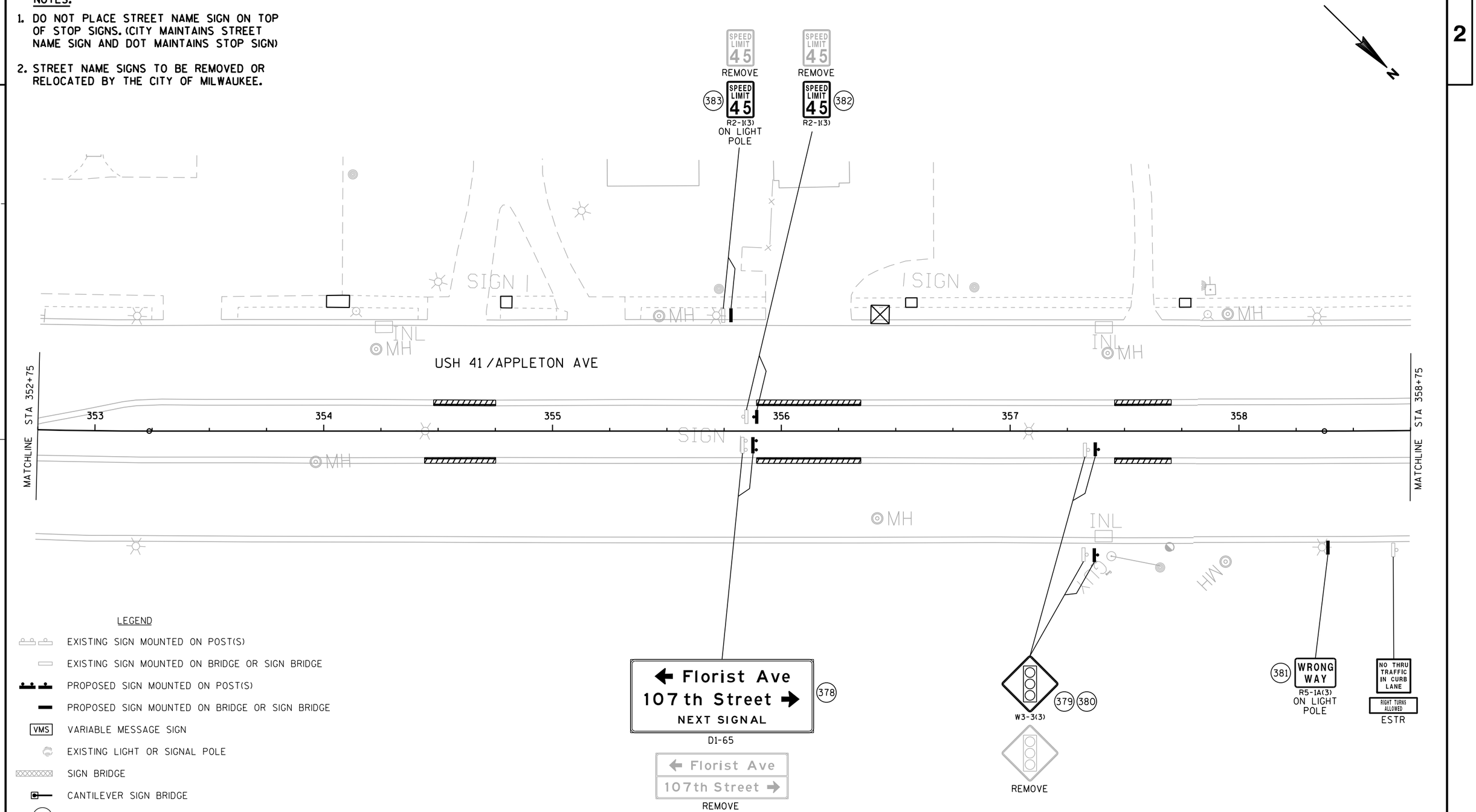

LEGEND

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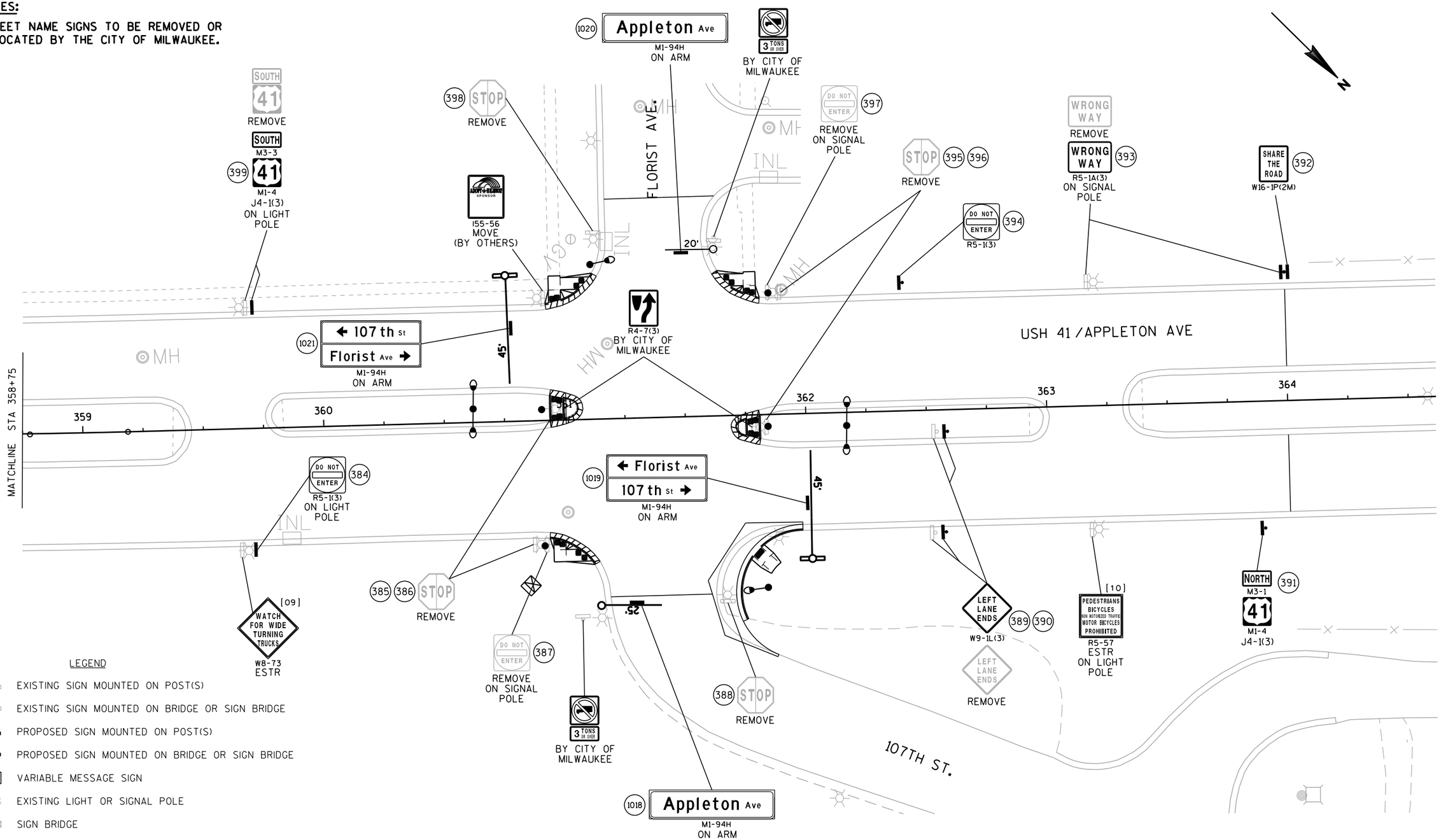
SHEET 29 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 156 E

NOTES:

1. STREET NAME SIGNS TO BE REMOVED OR RELOCATED BY THE CITY OF MILWAUKEE.



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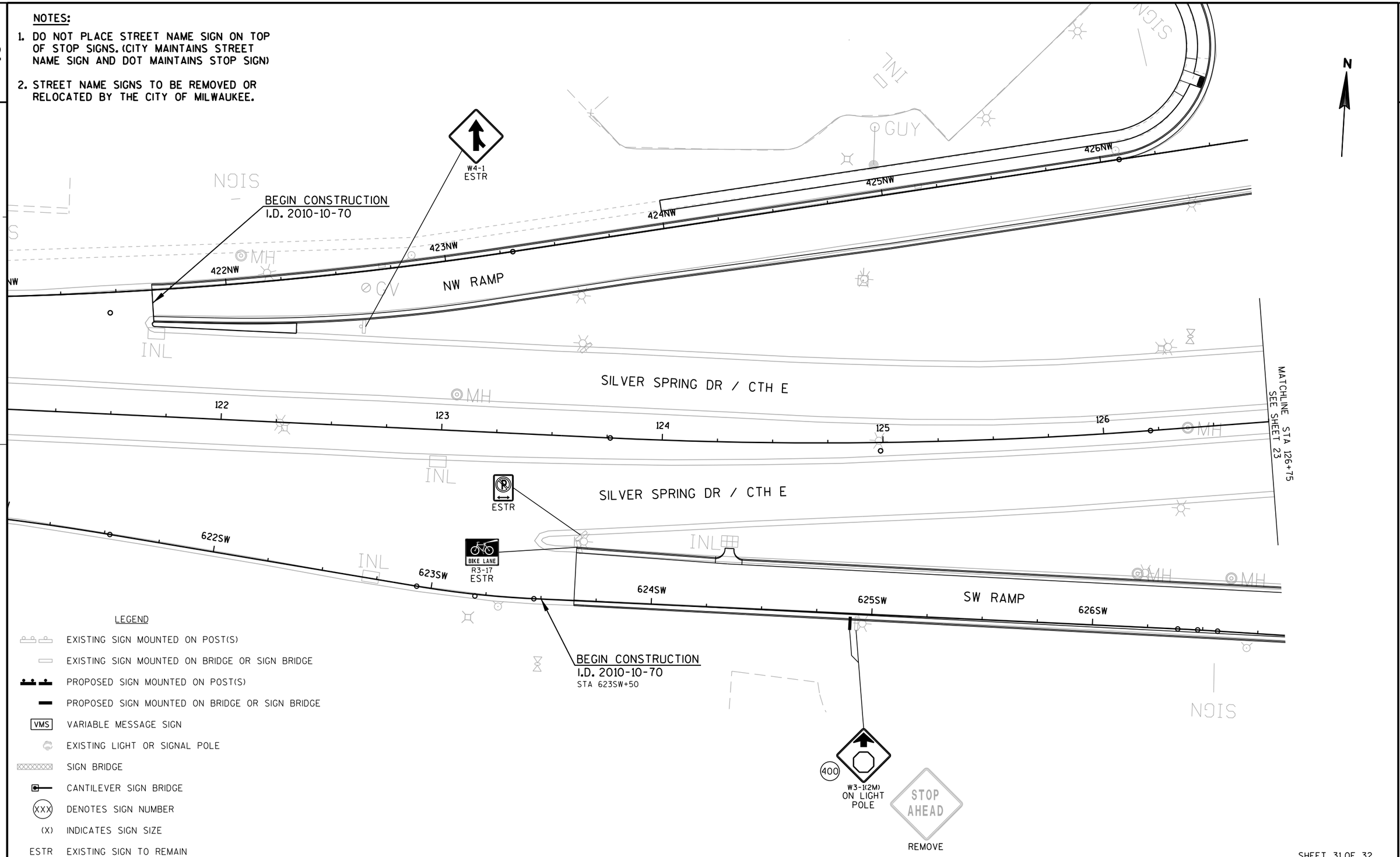

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SHEET 31 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 158 E

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
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- CANTILEVER SIGN BRIDGE
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- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

N

BY CITY OF MILWAUKEE

403 W3-1(2M) ON LIGHT POLE

STOP AHEAD
REMOVE

BIKE LANE
R3-17
BY CITY OF MILWAUKEE

END CONSTRUCTION
I.D. 2010-10-70
STA 533NE+86

3 TONS OR OVER
BY CITY OF MILWAUKEE

530NE
531NE
532NE
533NE
534NE
535NE
535

NE RAMP

404 405 ONLY
R3-8A(2S)

401 402 WRONG WAY
R5-1A(2M)

WRONG WAY
REMOVE

MATCHLINE STA 130+75
SEE SHEET 23

SILVER SPRING DR / CTH E

131 132 133 134 135

W12-1D
BY CITY OF MILWAUKEE

731SE
732SE
733SE
734SE
735SE
735SE

SE RAMP

END CONSTRUCTION
I.D. 2010-10-70
STA 734SE+30

W4-1
ESTR

NOTES:

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SHEET 32 OF 32

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 159	E

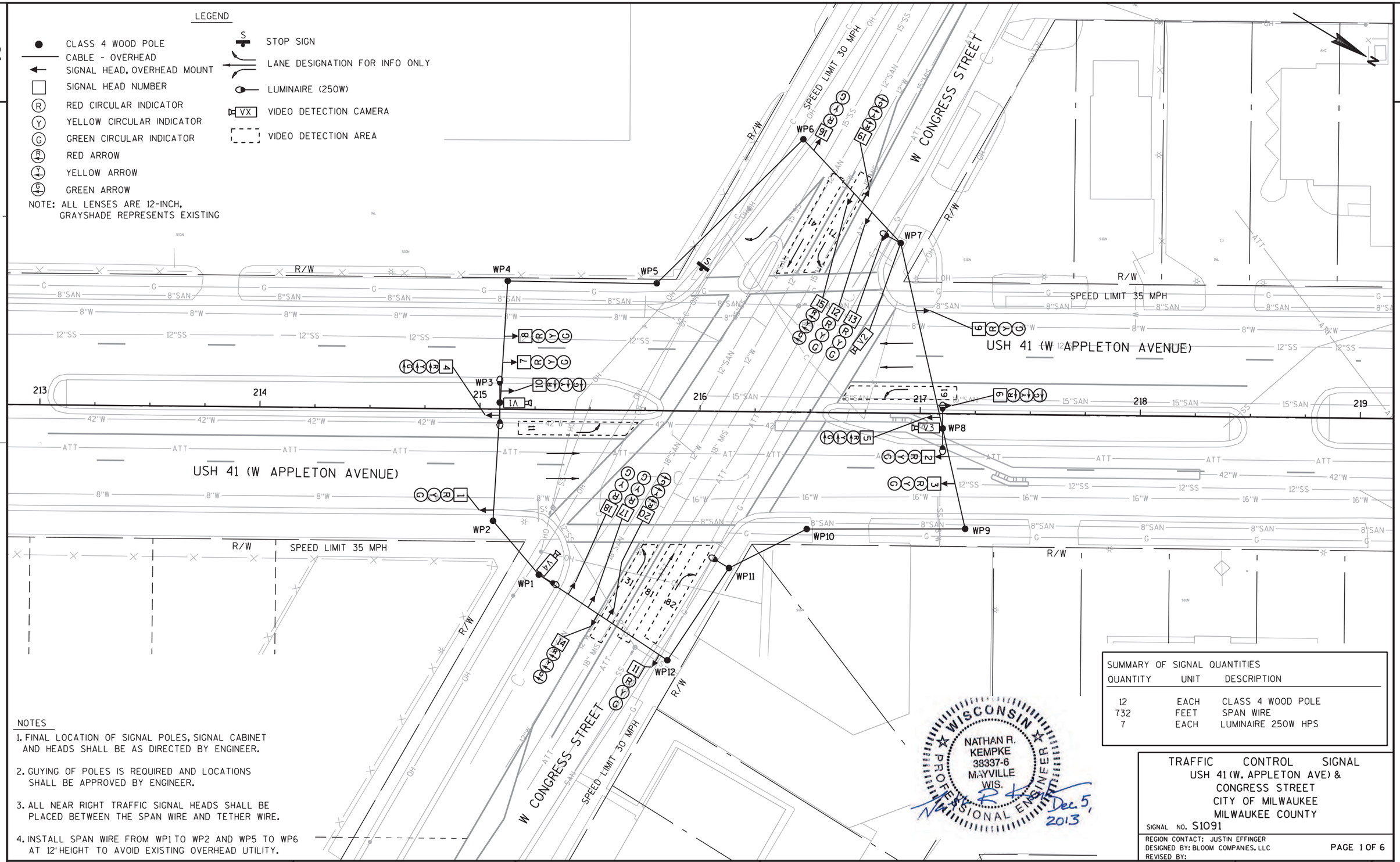
2

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- (S) STOP SIGN
- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA



NOTES

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINET AND HEADS SHALL BE AS DIRECTED BY ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY ENGINEER.
3. ALL NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.
4. INSTALL SPAN WIRE FROM WP1 TO WP2 AND WP5 TO WP6 AT 12' HEIGHT TO AVOID EXISTING OVERHEAD UTILITY.

SUMMARY OF SIGNAL QUANTITIES

QUANTITY	UNIT	DESCRIPTION
12	EACH	CLASS 4 WOOD POLE
732	FEET	SPAN WIRE
7	EACH	LUMINAIRE 250W HPS

WISCONSIN
NATHAN R. KEMPKE
38337-6
MAYVILLE
WIS.
PROFESSIONAL ENGINEER
Dec. 5, 2013

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
CONGRESS STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1091

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 1 OF 6

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - PRE-STAGE, STAGE 1A	SHEET 160	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024001_tsp1_stg0.dgn PLOT DATE : 05-DEC-2013 10:54 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

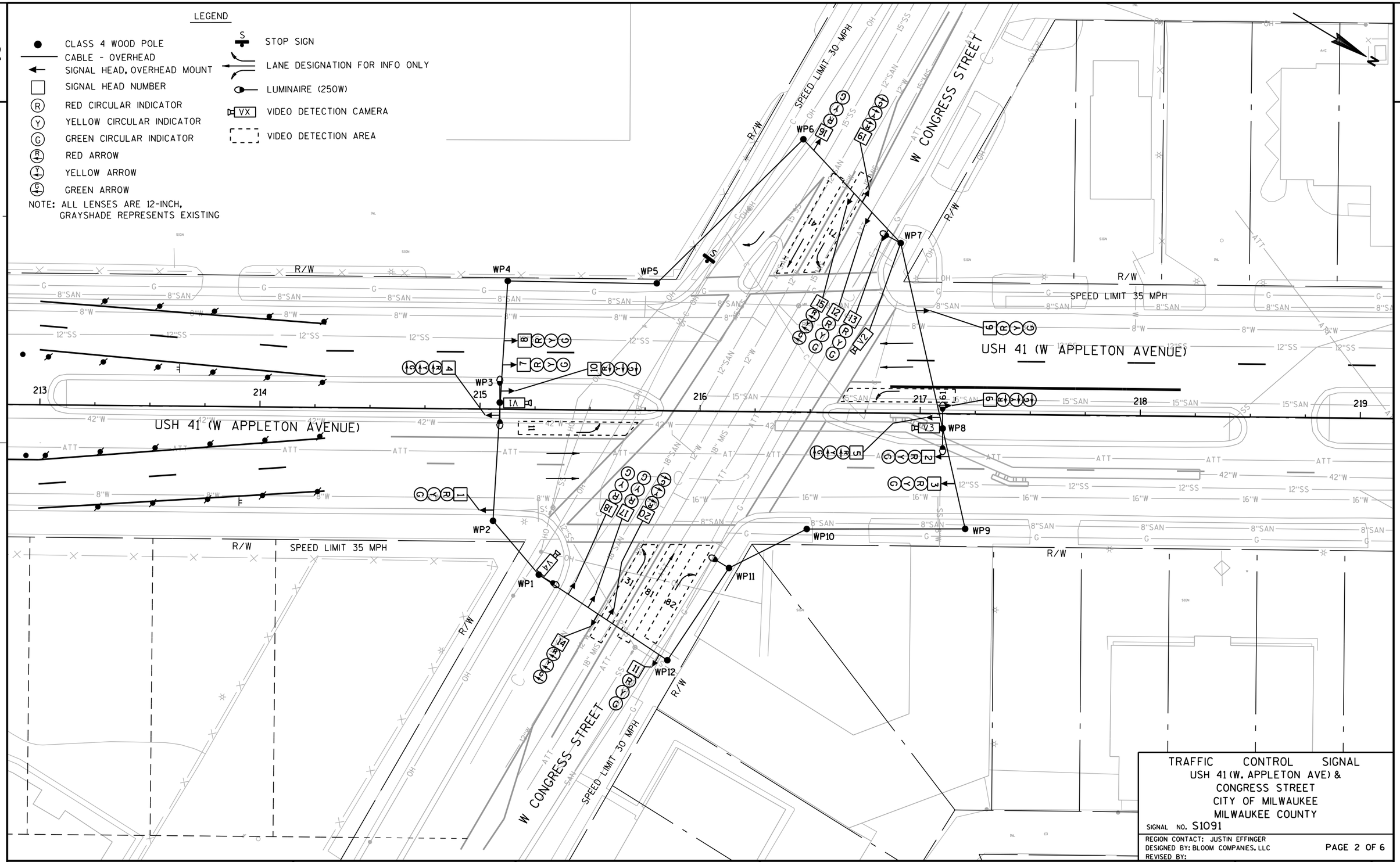
WISDOT/CADDS SHEET 42

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- STOP SIGN
- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA



TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
CONGRESS STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1091

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 2 OF 6

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 1B	SHEET 161 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024001_tsp1_stg1A.dgn PLOT DATE : 05-DEC-2013 10:54 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- S STOP SIGN
- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11 WP12

V1 V2 V3 V4

USH 41 (W APPLETON AVENUE)

W CONGRESS STREET

SPEED LIMIT 30 MPH

SPEED LIMIT 35 MPH

R/W

213 214 215 216 217 218 219

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
CONGRESS STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1091

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 3 OF 6

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 1C	SHEET E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024001_tsp1_stg1B.dgn PLOT DATE : 05-DEC-2013 10:54 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- STOP SIGN
- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- WORK AREA
- WORK AREA UNDER TRAFFIC

W CONGRESS STREET

SPEED LIMIT 30 MPH

SPEED LIMIT 35 MPH

USH 41 (W APPLETON AVENUE)

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11 WP12

213 214 215 216 217 218 219

R/W

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
CONGRESS STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1091

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 4 OF 6

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 2	SHEET E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024001_tsp1_stg2.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- S STOP SIGN
- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- WORK AREA
- WORK AREA UNDER TRAFFIC

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11 WP12

W CONGRESS STREET

SPEED LIMIT 30 MPH

SPEED LIMIT 35 MPH

USH 41 (W APPLETON AVENUE)

R/W

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
CONGRESS STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1091

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 5 OF 6

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 3	SHEET 164 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024001_tsp1_stg3.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 **	Ø1 CLEAR TO	Ø2 R/W	Ø2 **	Ø2 CLEAR TO	Ø3 R/W	Ø3 **	Ø3 CLEAR TO	Ø4 R/W	Ø4 **	Ø4 CLEAR TO	FLASH
Ø1	4, 5	G	Y R		R	R R		R	R R		R	R R		R
Ø2	6, 7, 8	R	R R		G	Y R		R	R R		R	R R		R
Ø3	14, 15	R	R R		R	R R		G	Y R		R	R R		R
Ø4	16, 17, 18	R	R R		R	R R		R	R R		G	Y R		R
Ø5	1, 2, 3	R	R R		R	R R		R	R R		R	R R		R
Ø6	9, 10	R	R R		R	R R		R	R R		R	R R		R
Ø7	19, 20	R	R R		R	R R		R	R R		R	R R		R
Ø8	11, 12, 13	R	R R		R	R R		R	R R		R	R R		R
Ø2P														
Ø4P														
Ø6P														
Ø8P														

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 **	Ø5 CLEAR TO	Ø6 R/W	Ø6 **	Ø6 CLEAR TO	Ø7 R/W	Ø7 **	Ø7 CLEAR TO	Ø8 R/W	Ø8 **	Ø8 CLEAR TO
Ø1	4, 5	R	R R		R	R R		R	R R		R	R R	
Ø2	6, 7, 8	R	R R		R	R R		R	R R		R	R R	
Ø3	14, 15	R	R R		R	R R		R	R R		R	R R	
Ø4	16, 17, 18	R	R R		R	R R		R	R R		R	R R	
Ø5	1, 2, 3	G	Y R		R	R R		R	R R		R	R R	
Ø6	9, 10	R	R R		G	Y R		R	R R		R	R R	
Ø7	19, 20	R	R R		R	R R		G	Y R		R	R R	
Ø8	11, 12, 13	R	R R		R	R R		R	R R		G	Y R	
Ø2P													
Ø4P													
Ø6P													
Ø8P													

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5	2, 3, 4, 6, 7, 8
2	5 OR 6	1, 3, 4, 7, 8
3	7 OR 8	1, 2, 4, 5, 6
4	7 OR 8	1, 2, 3, 5, 6
5	1 OR 2	3, 4, 6, 7, 8
6	2	1, 3, 4, 5, 7, 8
7	3 OR 4	1, 2, 5, 6, 8
8	3 OR 4	1, 2, 5, 6, 7

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF
11		X			1	1					VIDEO
31		X			3	3					VIDEO
41		X			4	4					VIDEO
61		X			6	6					VIDEO
71		X			7	7					VIDEO
81		X			8	8					VIDEO
82		X			8	8		X			VIDEO

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		5		X
2		5	MAX	X
3		8		X
4		8		X
5		2	MAX	X
6		2		X
7		4		X
8		4		X

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

N

TYPE OF INTERCONNECT COMMUNICATION	
NONE	x
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS- -

TYPE OF PRE-EMPT	
NONE	x
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

USH 41 (W. APPLETON AVE) &
CONGRESS STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1091

CONTROLLER TYPE:

DATE 04/13 PAGE NO. 6 OF 6

PROJECT NO: 2010-10-70 | HWY: USH 41 | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS - ALL STAGES | SHEET 165 | E

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- S STOP SIGN
- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

NOTES

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINET AND HEADS SHALL BE AS DIRECTED BY ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY ENGINEER.
3. ALL NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.

SUMMARY OF SIGNAL QUANTITIES

QUANTITY	UNIT	DESCRIPTION
12	EACH	CLASS 4 WOOD POLE
805	FEET	SPAN WIRE
11	EACH	LUMINAIRE 250W HPS

WISCONSIN NATHAN R. KEMPKE 33337-6 MAYVILLE WIS. PROFESSIONAL ENGINEER Dec. 5, 2013

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) & HAMPTON AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO. S1083

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 1 OF 4

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - PRE-STAGE, STAGES 1A, 1B, 1C	SHEET 166 E

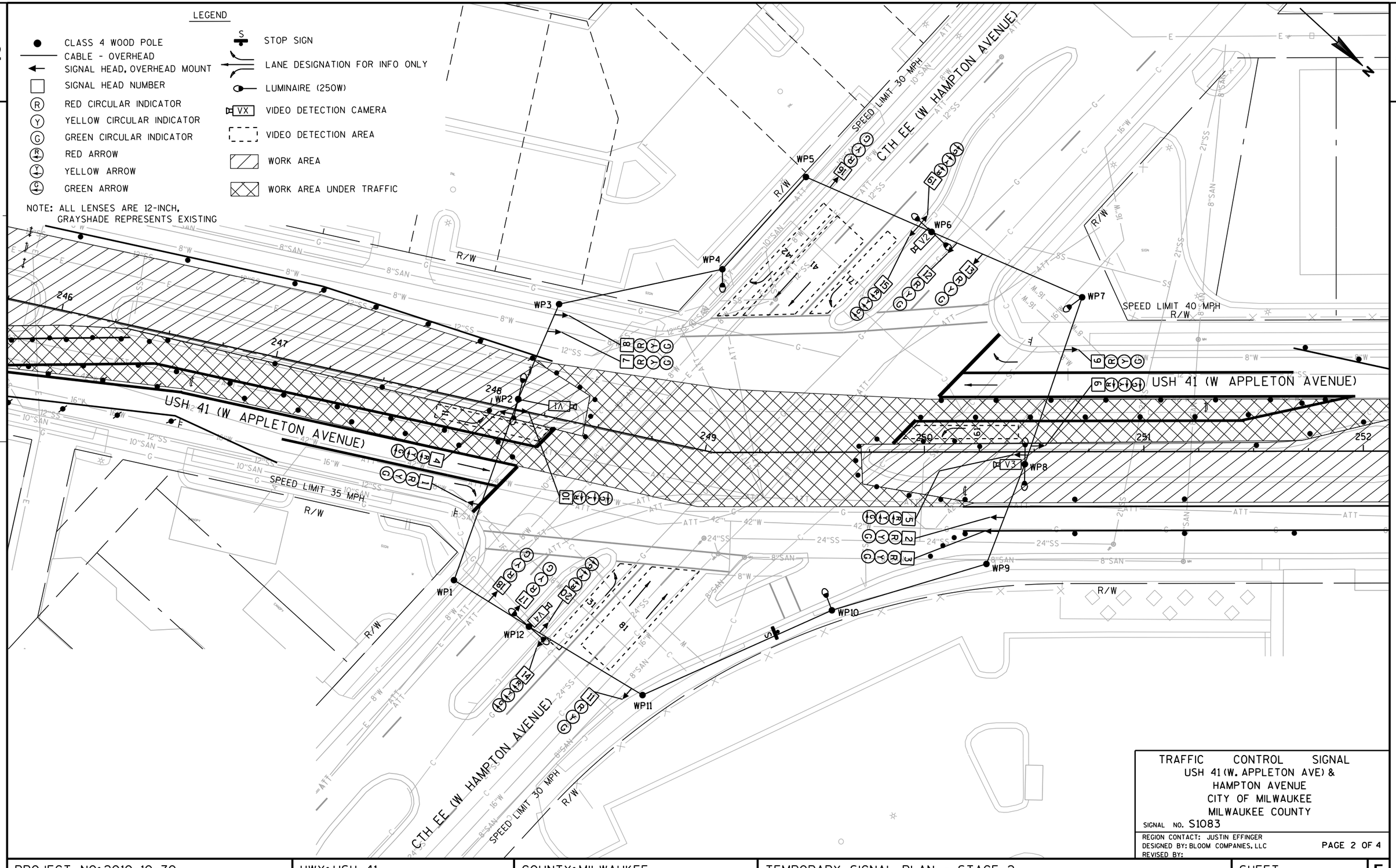
FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024002_tsp2_stg0.dgn PLOT DATE : 05-DEC-2013 10:54 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- S STOP SIGN
- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- WORK AREA
- WORK AREA UNDER TRAFFIC

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
HAMPTON AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO. S1083

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 2 OF 4

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 2	SHEET 167 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024002_tsp2_stg2.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- S STOP SIGN
- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- WORK AREA
- WORK AREA UNDER TRAFFIC

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

USH 41 (W APPLETON AVENUE)

CTH EE (W HAMPTON AVENUE)

SPEED LIMIT 35 MPH

SPEED LIMIT 30 MPH

SPEED LIMIT 40 MPH

R/W

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11 WP12

V1 V2 V3 V4

246 247 248 249 250 251 252

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
HAMPTON AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1083

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 3 OF 4

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 3	SHEET 168	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024002_tsp2_stg3.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **			Ø2 R/W	Ø2 CLEAR TO **			Ø3 R/W	Ø3 CLEAR TO **			Ø4 R/W	Ø4 CLEAR TO **			FLASH
Ø1	4, 5	G	Y	R		R	R	R		R	R	R		R	R	R		R
Ø2	6, 7, 8	R	R	R		G	Y	R		R	R	R		R	R	R		R
Ø3	14, 15	R	R	R		R	R	R		G	Y	R		R	R	R		R
Ø4	16, 17, 18	R	R	R		R	R	R		R	R	R		G	Y	R		R
Ø5	1, 2, 3	R	R	R		R	R	R		R	R	R		R	R	R		R
Ø6	9, 10	R	R	R		R	R	R		R	R	R		R	R	R		R
Ø7	19, 20	R	R	R		R	R	R		R	R	R		R	R	R		R
Ø8	11, 12, 13	R	R	R		R	R	R		R	R	R		R	R	R		R
Ø2P																		
Ø4P																		
Ø6P																		
Ø8P																		

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **			Ø6 R/W	Ø6 CLEAR TO **			Ø7 R/W	Ø7 CLEAR TO **			Ø8 R/W	Ø8 CLEAR TO **		
Ø1	4, 5	R	R	R		R	R	R		R	R	R		R	R	R	
Ø2	6, 7, 8	R	R	R		R	R	R		R	R	R		R	R	R	
Ø3	14, 15	R	R	R		R	R	R		R	R	R		R	R	R	
Ø4	16, 17, 18	R	R	R		R	R	R		R	R	R		R	R	R	
Ø5	1, 2, 3	G	Y	R		R	R	R		R	R	R		R	R	R	
Ø6	9, 10	R	R	R		G	Y	R		R	R	R		R	R	R	
Ø7	19, 20	R	R	R		R	R	R		G	Y	R		R	R	R	
Ø8	11, 12, 13	R	R	R		R	R	R		R	R	R		G	Y	R	
Ø2P																	
Ø4P																	
Ø6P																	
Ø8P																	

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5	2, 3, 4, 6, 7, 8
2	5 OR 6	1, 3, 4, 7, 8
3	7 OR 8	1, 2, 4, 5, 6
4	7 OR 8	1, 2, 3, 5, 6
5	1 OR 2	3, 4, 6, 7, 8
6	2	1, 3, 4, 5, 7, 8
7	3 OR 4	1, 2, 5, 6, 8
8	3 OR 4	1, 2, 5, 6, 7

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF
11		X			1	1					VIDEO
31		X			3	3					VIDEO
41		X			4	4					VIDEO
42		X			4	4		X			VIDEO
61		X			6	6					VIDEO
71		X			7	7					VIDEO
81		X			8	8					VIDEO

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		5		X
2		5	MAX	X
3		8		X
4		8		X
5		2	MAX	X
6		2		X
7		4		X
8		4		X

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

N

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	x
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS- -

TYPE OF PRE-EMPT	
NONE	x
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

USH 41 (W. APPLETON AVE) &
HAMPTON AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1083

CONTROLLER TYPE:

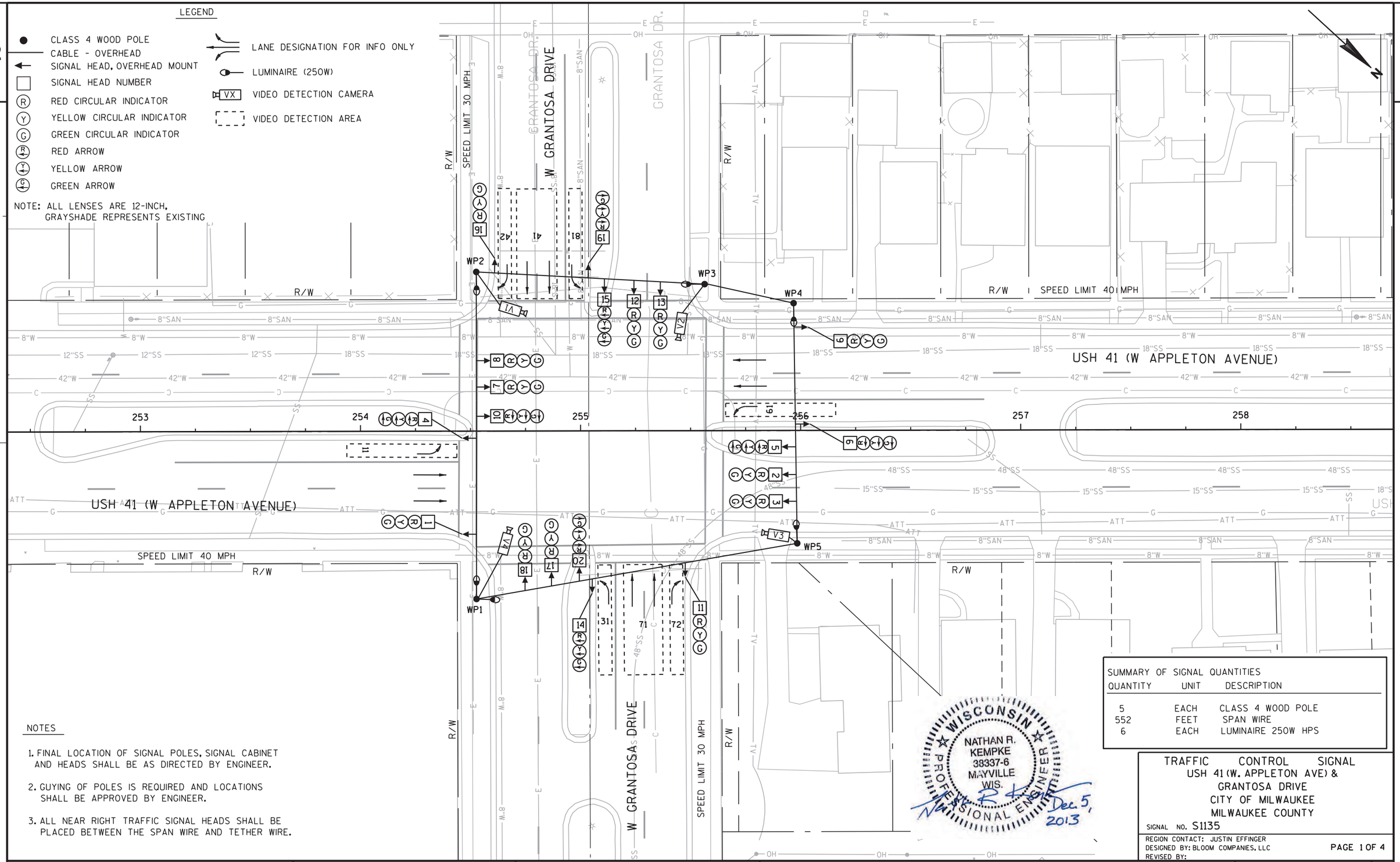
DATE 04/13 PAGE NO. 4 OF 4

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA



NOTES

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINET AND HEADS SHALL BE AS DIRECTED BY ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY ENGINEER.
3. ALL NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.

SUMMARY OF SIGNAL QUANTITIES

QUANTITY	UNIT	DESCRIPTION
5	EACH	CLASS 4 WOOD POLE
552	FEET	SPAN WIRE
6	EACH	LUMINAIRE 250W HPS

WISCONSIN
NATHAN R. KEMPKE
33337-6
MAYVILLE
WIS.
PROFESSIONAL ENGINEER
Dec. 5, 2013

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
GRANTOSA DRIVE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1135

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 1 OF 4

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - PRE-STAGE, STAGES 1A, 1B, 1C	SHEET 170	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024003_tsp3_stg0.dgn
PLOT DATE : 05-DEC-2013 10:54
PLOT BY : nkempke
PLOT NAME :
PLOT SCALE : 40:1
WISDOT/CADDS SHEET 42

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- WORK AREA
- WORK AREA UNDER TRAFFIC

2

2

N

W GRANTOSA DRIVE

GRANTOSA DR.

R/W

SPEED LIMIT 30 MPH

SPEED LIMIT 40 MPH

USH 41 (W APPLETON AVENUE)

WP1 WP2 WP3 WP4 WP5

V1 V2 V3 V4

253 254 255 256 257 258

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
GRANTOSA DRIVE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1135

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 2 OF 4

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 2	SHEET 171	E

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- WORK AREA
- WORK AREA UNDER TRAFFIC

2

2

N

W GRANTOSA DRIVE

GRANTOSA DR.

SPEED LIMIT 30 MPH

SPEED LIMIT 40 MPH

R/W

WP1 WP2 WP3 WP4 WP5

VX1 VX2 VX3 VX4

USH 41 (W APPLETON AVENUE)

253 254 255 256 257 258

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
GRANTOSA DRIVE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1135

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 3 OF 4

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 3	SHEET 172 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024003_tsp3_stg3.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **			Ø2 R/W	Ø2 CLEAR TO **			Ø3 R/W	Ø3 CLEAR TO **			Ø4 R/W	Ø4 CLEAR TO **			FLASH
Ø1	4, 5	G	Y	R		R	R	R		R	R	R		R	R	R		R
Ø2	6, 7, 8	R	R	R		G	Y	R		R	R	R		R	R	R		R
Ø3	14, 15	R	R	R		R	R	R		G	Y	R		R	R	R		R
Ø4	16, 17, 18	R	R	R		R	R	R		R	R	R		G	Y	R		R
Ø5	1, 2, 3	R	R	R		R	R	R		R	R	R		R	R	R		R
Ø6	9, 10	R	R	R		R	R	R		R	R	R		R	R	R		R
Ø7	11, 12, 13	R	R	R		R	R	R		R	R	R		R	R	R		R
Ø8	19, 20	R	R	R		R	R	R		R	R	R		R	R	R		R
Ø2P																		
Ø4P																		
Ø6P																		
Ø8P																		

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **			Ø6 R/W	Ø6 CLEAR TO **			Ø7 R/W	Ø7 CLEAR TO **			Ø8 R/W	Ø8 CLEAR TO **		
Ø1	4, 5	R	R	R		R	R	R		R	R	R		R	R	R	
Ø2	6, 7, 8	R	R	R		R	R	R		R	R	R		R	R	R	
Ø3	14, 15	R	R	R		R	R	R		R	R	R		R	R	R	
Ø4	16, 17, 18	R	R	R		R	R	R		R	R	R		R	R	R	
Ø5	1, 2, 3	G	Y	R		R	R	R		R	R	R		R	R	R	
Ø6	9, 10	R	R	R		G	Y	R		R	R	R		R	R	R	
Ø7	11, 12, 13	R	R	R		R	R	R		G	Y	R		R	R	R	
Ø8	19, 20	R	R	R		R	R	R		R	R	R		G	Y	R	
Ø2P																	
Ø4P																	
Ø6P																	
Ø8P																	

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5	2, 3, 4, 6, 7, 8
2	5 OR 6	1, 3, 4, 7, 8
3	7	1, 2, 4, 5, 6, 8
4	7 OR 8	1, 2, 3, 5, 6
5	1 OR 2	3, 4, 6, 7, 8
6	2	1, 3, 4, 5, 7, 8
7	3 OR 4	1, 2, 5, 6, 8
8	4	1, 2, 3, 5, 6, 7

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF
11		X			1	1					VIDEO
31		X			3	3					VIDEO
41		X			4	4					VIDEO
42		X			4	4		X			VIDEO
61		X			6	6					VIDEO
71		X			7	7					VIDEO
72		X			7	7		X			VIDEO
81		X			8	8					VIDEO

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		5		X
2		5	MAX	X
3		7		X
4		7		X
5		2	MAX	X
6		2		X
7		4		X
8		4		X

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

N

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	x
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS- -

TYPE OF PRE-EMPT	
NONE	x
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

USH 41 (W. APPLETON AVE) &
GRANTOSA DRIVE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

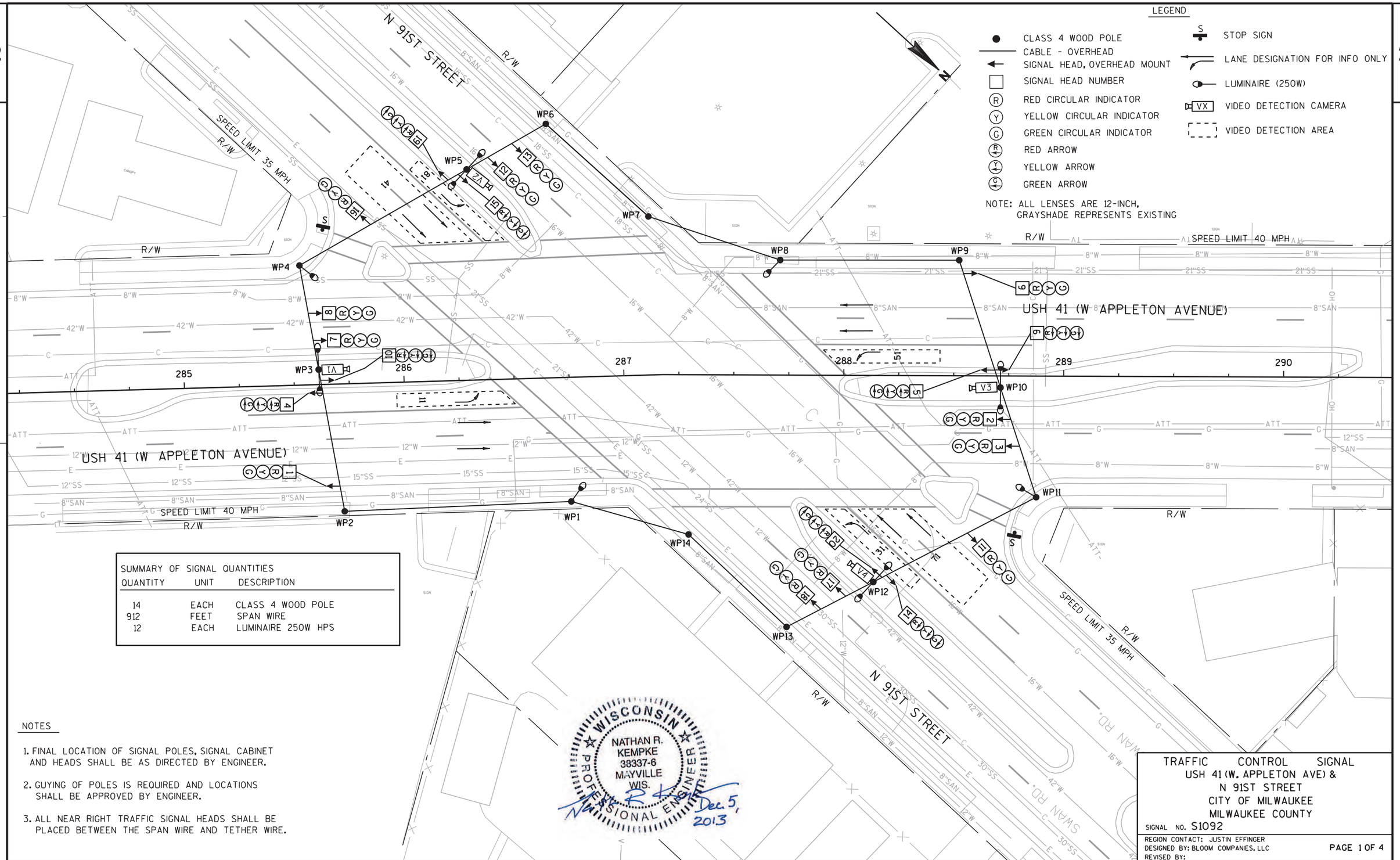
SIGNAL NO. S1135

CONTROLLER TYPE:

DATE 04/13

PAGE NO. 4 OF 4

PROJECT NO: 2010-10-70 | HWY: USH 41 | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS - ALL STAGES | SHEET 173 | E



SUMMARY OF SIGNAL QUANTITIES		
QUANTITY	UNIT	DESCRIPTION
14	EACH	CLASS 4 WOOD POLE
912	FEET	SPAN WIRE
12	EACH	LUMINAIRE 250W HPS

NOTES

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINET AND HEADS SHALL BE AS DIRECTED BY ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY ENGINEER.
3. ALL NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.

WISCONSIN
NATHAN R. KEMPKE
38337-6
MAYVILLE
WIS.
PROFESSIONAL ENGINEER
Dec. 5, 2013

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
N 91ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO. S1092
REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:
PAGE 1 OF 4

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - PRE-STAGE, STAGES 1A, 1B, 1C	SHEET 174 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024004_tsp4_stg0.dgn PLOT DATE : 05-DEC-2013 10:54 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING
- S STOP SIGN
- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- WORK AREA
- WORK AREA UNDER TRAFFIC

N 91ST STREET

R/W

SPEED LIMIT 35 MPH

SPEED LIMIT 40 MPH

USH 41 (W APPLETON AVENUE)

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11 WP12 WP13 WP14

V1 V2 V3 V4

285 286 287 288 289 290

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
N 91ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1092

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 2 OF 4

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 2	SHEET 175 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024004_tsp4_stg2.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R arrow) RED ARROW
- (Y arrow) YELLOW ARROW
- (G arrow) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- (S) STOP SIGN
- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- WORK AREA
- WORK AREA UNDER TRAFFIC

N 91ST STREET

R/W

SPEED LIMIT 35 MPH

SPEED LIMIT 40 MPH

USH 41 (W APPLETON AVENUE)

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11 WP12 WP13 WP14

V1 V2 V3 V4

285 286 287 288 289 290

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
N 91ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1092

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 3 OF 4

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 3	SHEET E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024004_tsp4_stg3.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **	Ø1 CLEAR TO	Ø1 CLEAR TO	Ø2 R/W	Ø2 CLEAR TO **	Ø2 CLEAR TO	Ø2 CLEAR TO	Ø3 R/W	Ø3 CLEAR TO **	Ø3 CLEAR TO	Ø3 CLEAR TO	Ø4 R/W	Ø4 CLEAR TO **	Ø4 CLEAR TO	Ø4 CLEAR TO	FLASH
Ø1	4, 5	G	Y R			R	R R			R	R R			R	R R			R
Ø2	6, 7, 8	R	R R			G	Y R			R	R R			R	R R			R
Ø3	14, 15	R	R R			R	R R			G	Y R			R	R R			R
Ø4	16, 17, 18	R	R R			R	R R			R	R R			G	Y R			R
Ø5	9, 10	R	R R			R	R R			R	R R			R	R R			R
Ø6	1, 2, 3	R	R R			R	R R			R	R R			R	R R			R
Ø7	11, 12, 13	R	R R			R	R R			R	R R			R	R R			R
Ø8	19, 20	R	R R			R	R R			R	R R			R	R R			R
Ø2P																		
Ø4P																		
Ø6P																		
Ø8P																		

BARRIER

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **	Ø5 CLEAR TO	Ø5 CLEAR TO	Ø6 R/W	Ø6 CLEAR TO **	Ø6 CLEAR TO	Ø6 CLEAR TO	Ø7 R/W	Ø7 CLEAR TO **	Ø7 CLEAR TO	Ø7 CLEAR TO	Ø8 R/W	Ø8 CLEAR TO **	Ø8 CLEAR TO	Ø8 CLEAR TO
Ø1	4, 5	R	R R			R	R R			R	R R			R	R R		
Ø2	6, 7, 8	R	R R			R	R R			R	R R			R	R R		
Ø3	14, 15	R	R R			R	R R			R	R R			R	R R		
Ø4	16, 17, 18	R	R R			R	R R			R	R R			R	R R		
Ø5	9, 10	G	Y R			R	R R			R	R R			R	R R		
Ø6	1, 2, 3	R	R R			G	Y R			R	R R			R	R R		
Ø7	11, 12, 13	R	R R			R	R R			G	Y R			R	R R		
Ø8	19, 20	R	R R			R	R R			R	R R			G	Y R		
Ø2P																	
Ø4P																	
Ø6P																	
Ø8P																	

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 3, 4, 7, 8
2	5 OR 6	1, 3, 4, 7, 8
3	7	1, 2, 4, 5, 6, 8
4	7 OR 8	1, 2, 3, 5, 6
5	1 OR 2	3, 4, 6, 7, 8
6	1 OR 2	3, 4, 5, 7, 8
7	3 OR 4	1, 2, 5, 6, 8
8	4	1, 2, 3, 5, 6, 7

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF
11		X			1	1					VIDEO
31		X			3	3					VIDEO
41		X			4	4					VIDEO
51		X			5	5					VIDEO
71		X			7	7					VIDEO
81		X			8	8					VIDEO

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2		6	MAX	X
3		7		X
4		7		X
5		2		X
6		2	MAX	X
7		4		X
8		4		X

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

N

TYPE OF INTERCONNECT COMMUNICATION	
NONE	x
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS- -

TYPE OF PRE-EMPT	
NONE	x
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

USH 41 (W. APPLETON AVE) &
N 91ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

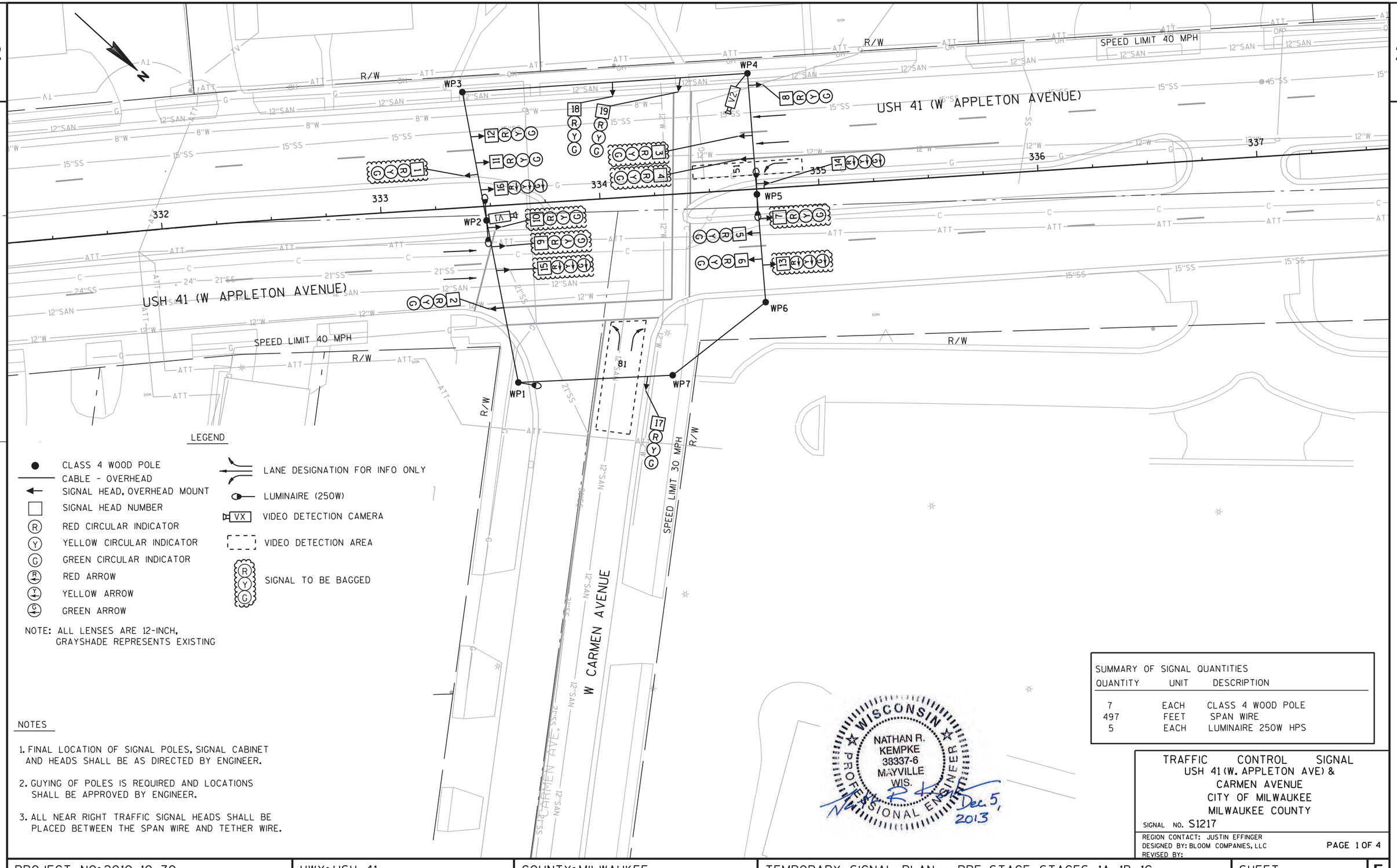
SIGNAL NO. S1092

CONTROLLER TYPE:

DATE 04/13

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS - ALL STAGES	SHEET 177	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024004_tsp4_stg_ph.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1
WISDOT/CADDS SHEET 42



NOTES

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINET AND HEADS SHALL BE AS DIRECTED BY ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY ENGINEER.
3. ALL NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.

SUMMARY OF SIGNAL QUANTITIES

QUANTITY	UNIT	DESCRIPTION
7	EACH	CLASS 4 WOOD POLE
497	FEET	SPAN WIRE
5	EACH	LUMINAIRE 250W HPS

WISCONSIN
NATHAN R. KEMPKE
38337-6
MAYVILLE
WIS.
PROFESSIONAL ENGINEER
Dec. 5, 2013

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) & CARMEN AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1217

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 1 OF 4

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - PRE-STAGE, STAGES 1A, 1B, 1C	SHEET 178 E

2

USH 41 (W APPLETON AVENUE)

USH 141 (W APPLETON AVENUE)

W CARMEN AVENUE

CARMEN AVE

SPEED LIMIT 40 MPH

SPEED LIMIT 30 MPH

R/W

WP1

WP2

WP3

WP4

WP5

WP6

WP7

332

333

334

335

336

337

81

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- SIGNAL TO BE BAGGED
- WORK AREA
- WORK AREA UNDER TRAFFIC

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
CARMEN AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1217

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 2 OF 4

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 2	SHEET	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024005_tsp5_stg2.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

2

USH 41 (W APPLETON AVENUE)

SPEED LIMIT 40 MPH

R/W

WP1

WP2

WP3

WP4

WP5

WP6

WP7

W CARMEN AVENUE

SPEED LIMIT 30 MPH

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- SIGNAL TO BE BAGGED
- WORK AREA
- WORK AREA UNDER TRAFFIC

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
CARMEN AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1217

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 3 OF 4

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 3	SHEET 180	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024005_tsp5_stg3.dgn

PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

2

SEQUENCE OF OPERATION

NOT USED | ⇦ | NOT USED | NOT USED

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **	Ø2 R/W	Ø2 CLEAR TO **	Ø3 R/W	Ø3 CLEAR TO **	Ø4 R/W	Ø4 CLEAR TO **	FLASH
Ø1										
Ø2	7, 8, 9, 10, 11, 12			G	Y R					R
Ø3										
Ø4										
Ø5	13, 14, 15, 16			R◄	R◄ R◄					R◄
Ø6	1, 2, 3, 4, 5, 6			R	R R					R
Ø7										
Ø8	17, 18, 19			R	R R					R
Ø2P										
Ø4P										
Ø6P										
Ø8P										

⇧ | ⇨ | NOT USED | ⇧

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **	Ø6 R/W	Ø6 CLEAR TO **	Ø7 R/W	Ø7 CLEAR TO **	Ø8 R/W	Ø8 CLEAR TO **
Ø1									
Ø2	7, 8, 9, 10, 11, 12	R	R R	R	R R			R	R R
Ø3									
Ø4									
Ø5	13, 14, 15, 16	G◄	Y◄ R◄	R◄	R◄ R◄			R◄	R◄ R◄
Ø6	1, 2, 3, 4, 5, 6	R	R R	G	Y R			R	R R
Ø7									
Ø8	17, 18, 19	R	R R	R	R R			G	Y R
Ø2P									
Ø4P									
Ø6P									
Ø8P									

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1		
2	5 OR 6	8
3		
4		
5	2	6, 8
6	2	5, 8
7		
8	NONE	2, 5, 6

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF
51		X			5	5					VIDEO
81		X			8	8					VIDEO

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2		6	MAX	X
3				
4				
5		2		X
6		2	MAX	X
7				
8				X

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

N

TYPE OF INTERCONNECT COMMUNICATION	
NONE	x
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS- -

TYPE OF PRE-EMPT	
NONE	x
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

USH 41 (W. APPLETON AVE) &
CARMEN AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1217

CONTROLLER TYPE:

DATE 04/13

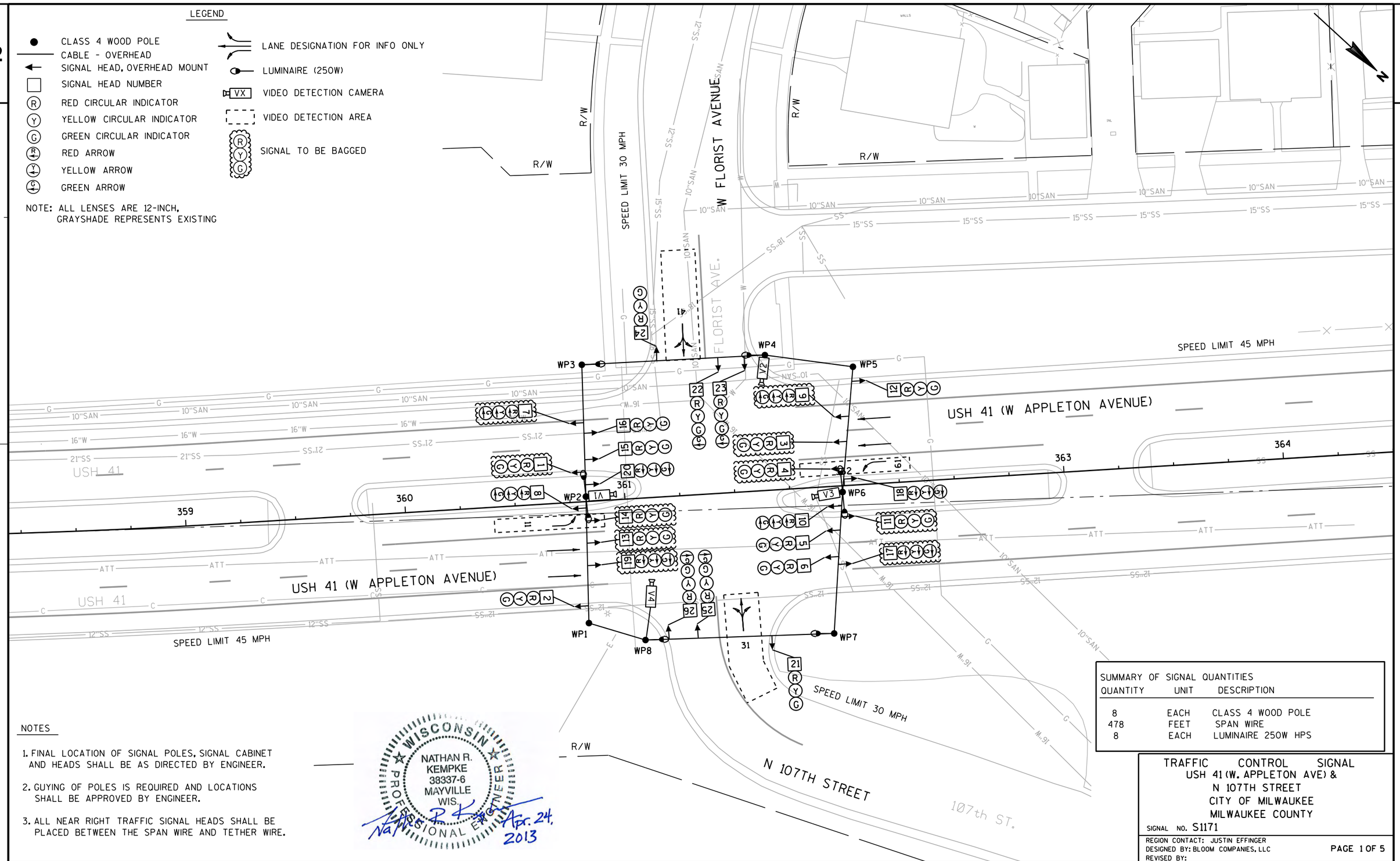
PAGE NO. 4 OF 4

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- (R)(Y)(G) SIGNAL TO BE BAGGED



NOTES

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINET AND HEADS SHALL BE AS DIRECTED BY ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY ENGINEER.
3. ALL NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.

WISCONSIN PROFESSIONAL ENGINEER
NATHAN R. KEMPKE
38337-6
MAYVILLE
WIS.
Apr. 24, 2013

SUMMARY OF SIGNAL QUANTITIES

QUANTITY	UNIT	DESCRIPTION
8	EACH	CLASS 4 WOOD POLE
478	FEET	SPAN WIRE
8	EACH	LUMINAIRE 250W HPS

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
N 107TH STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1171

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 1 OF 5

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - PRE-STAGE	SHEET 182 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024006_tsp6_stg0.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- (R)(Y)(G) SIGNAL TO BE BAGGED

2

2

N

W FLORIST AVENUE

FLORIST AVE.

SPEED LIMIT 30 MPH

SPEED LIMIT 45 MPH

USH 41 (W APPLETON AVENUE)

USH 41

N 107TH STREET

107th ST.

R/W

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8

V1 V2 V3 V4

359 360 361 363 364

31

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
N 107TH STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1171

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 2 OF 5

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 1A, STAGE 1B, STAGE 1C	SHEET 183	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024006_tsp6_stg1A.dgn PLOT DATE : 05-DEC-2013 10:54 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- (R)(Y)(G) SIGNAL TO BE BAGGED
- WORK AREA
- WORK AREA UNDER TRAFFIC

2

2

N

W FLORIST AVENUE

R/W

SPEED LIMIT 30 MPH

SPEED LIMIT 45 MPH

USH 41 (W APPLETON AVENUE)

SPEED LIMIT 45 MPH

SPEED LIMIT 30 MPH

N 107TH STREET

107th ST.

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8

359 360 361 362 363 364

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
N 107TH STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1171

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 3 OF 5

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 2	SHEET 184 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024006_tsp6_stg2.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

LEGEND

- CLASS 4 WOOD POLE
- CABLE - OVERHEAD
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH, GRAYSHADE REPRESENTS EXISTING

- LANE DESIGNATION FOR INFO ONLY
- LUMINAIRE (250W)
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- (R)(Y)(G) SIGNAL TO BE BAGGED
- WORK AREA
- WORK AREA UNDER TRAFFIC

2

2

N

R/W

SPEED LIMIT 30 MPH

W FLORIST AVENUE

FLORIST AVE.

R/W

R/W

SPEED LIMIT 45 MPH

WP3

WP4

WP5

WP2

WP6

WP1

WP8

WP7

USH 41 (W APPLETON AVENUE)

SPEED LIMIT 45 MPH

USH 41

USH 41 (W APPLETON AVENUE)

SPEED LIMIT 30 MPH

R/W

N 107TH STREET

107th ST.

359

360

363

364

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
N 107TH STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1171

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 4 OF 5

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNAL PLAN - STAGE 3	SHEET 185 E

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **			Ø2 R/W	Ø2 CLEAR TO **			Ø3 R/W	Ø3 CLEAR TO **			Ø4 R/W	Ø4 CLEAR TO **			FLASH
Ø1	7, 8, 9, 10	G	Y	R		R	R	R		R	R	R		R	R	R		R
Ø2	11, 12, 13, 14, 15, 16	R	R	R		G	Y	R		R	R	R		R	R	R		R
Ø3	21, 22, 23	R	R	R		R	R	R		G, G	Y	R		R	R	R		R
Ø4	24, 25, 26	R	R	R		R	R	R		R	R	R		G, G	Y	R		R
Ø5	1, 2, 3, 4, 5, 6	R	R	R		R	R	R		R	R	R		R	R	R		R
Ø6	17, 18, 19, 20	R	R	R		R	R	R		R	R	R		R	R	R		R
Ø7																		
Ø8																		
Ø2P																		
Ø4P																		
Ø6P																		
Ø8P																		

NOT USED

NOT USED

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **			Ø6 R/W	Ø6 CLEAR TO **			Ø7 R/W	Ø7 CLEAR TO **			Ø8 R/W	Ø8 CLEAR TO **		
Ø1	7, 8, 9, 10	R	R	R		R	R	R									
Ø2	11, 12, 13, 14, 15, 16	R	R	R		R	R	R									
Ø3	21, 22, 23	R	R	R		R	R	R									
Ø4	24, 25, 26	R	R	R		R	R	R									
Ø5	1, 2, 3, 4, 5, 6	G	Y	R		R	R	R									
Ø6	17, 18, 19, 20	R	R	R		G	Y	R									
Ø7																	
Ø8																	
Ø2P																	
Ø4P																	
Ø6P																	
Ø8P																	

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5	2, 3, 4, 6
2	5 OR 6	1, 3, 4
3	NONE	1, 2, 4, 5, 6
4	NONE	1, 2, 3, 5, 6
5	1 OR 2	3, 4, 6
6	2	1, 3, 4, 5
7		
8		

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF
11		X			1	1					VIDEO
31		X			3	3		X			VIDEO
41		X			4	4		X			VIDEO
61		X			5	5					VIDEO

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		5		X
2		5	MAX	X
3				X
4				X
5		2		X
6		2	MAX	X
7				
8				

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

N

TYPE OF INTERCONNECT COMMUNICATION	
NONE	x
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS- -

TYPE OF PRE-EMPT	
NONE	x
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

USH 41 (W. APPLETON AVE) &
N 107TH STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1171

CONTROLLER TYPE:

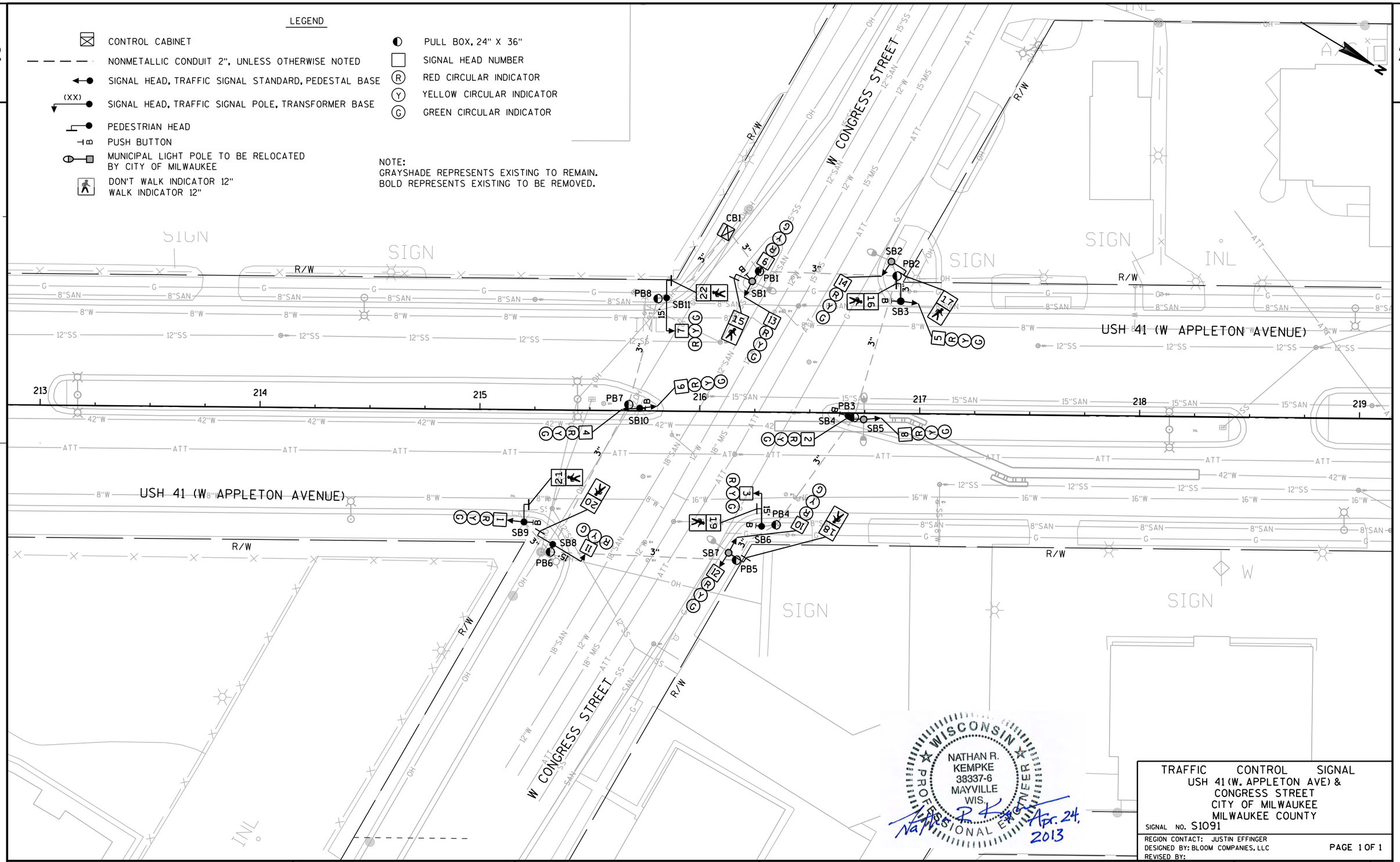
DATE 04/13

PAGE NO. 5 OF 5

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD
- PB PUSH BUTTON
- MUNICIPAL LIGHT POLE TO BE RELOCATED BY CITY OF MILWAUKEE
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"
- PULL BOX, 24" X 36"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR

NOTE:
GRAYSHADE REPRESENTS EXISTING TO REMAIN.
BOLD REPRESENTS EXISTING TO BE REMOVED.



WISCONSIN PROFESSIONAL ENGINEER
NATHAN R. KEMPKE
38337-6
MAYVILLE
WIS.
Apr. 24, 2013

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) & CONGRESS STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO. S1091

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 1 OF 1

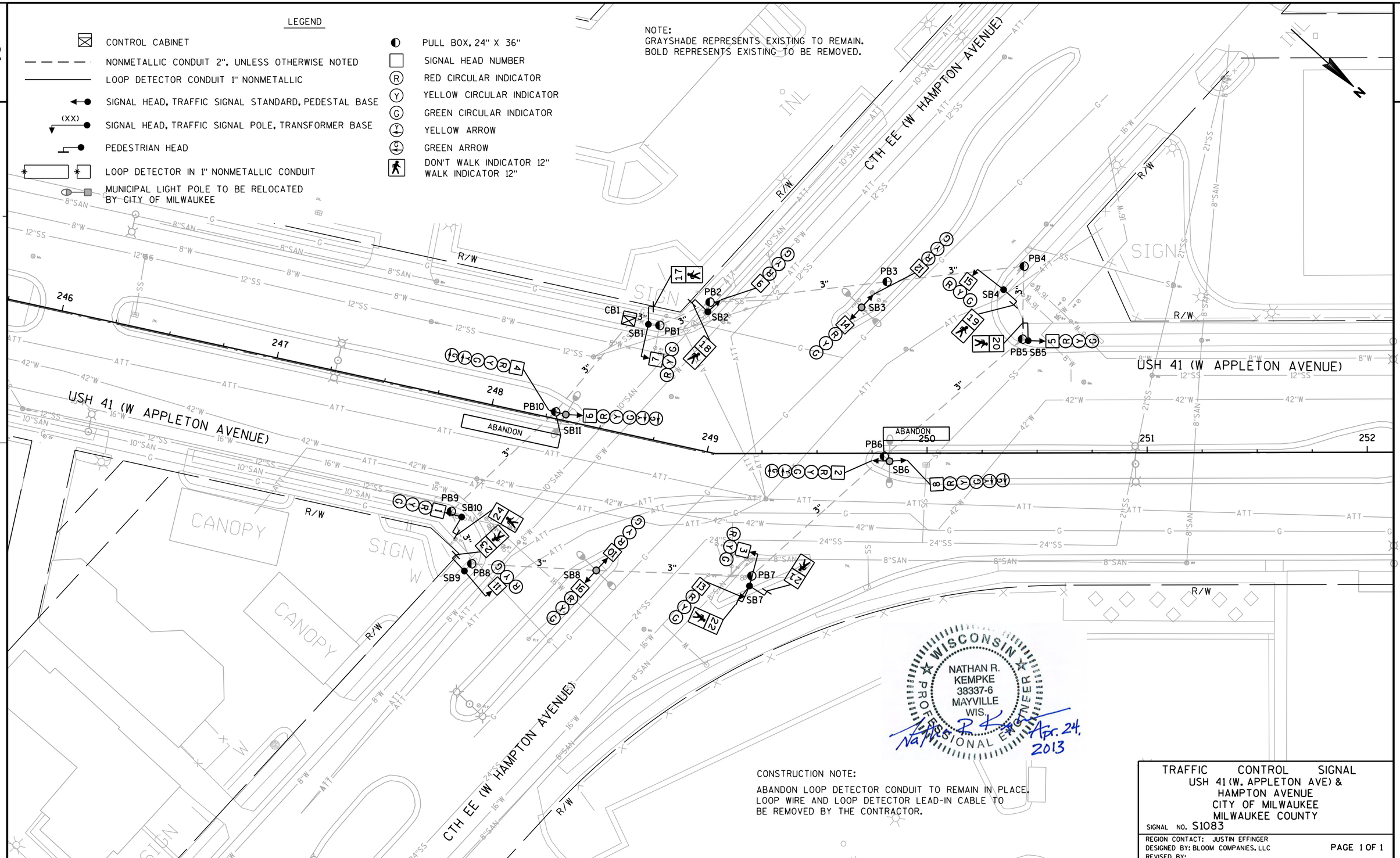
PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 187 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024001_sr.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- MUNICIPAL LIGHT POLE TO BE RELOCATED BY CITY OF MILWAUKEE
- PULL BOX, 24" X 36"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 12"
  WALK INDICATOR 12"

NOTE:
GRAYSHADE REPRESENTS EXISTING TO REMAIN.
BOLD REPRESENTS EXISTING TO BE REMOVED.



CONSTRUCTION NOTE:

ABANDON LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP WIRE AND LOOP DETECTOR LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.

WISCONSIN
NATHAN R. KEMPKE
38337-6
MAYVILLE
WIS.
PROFESSIONAL ENGINEER
Apr. 24, 2013

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) & HAMPTON AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO. S1083

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024002_sr.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD
- MUNICIPAL LIGHT POLE TO BE RELOCATED BY CITY OF MILWAUKEE
- PULL BOX, 24" X 36"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- DON'T WALK INDICATOR 12"
  WALK INDICATOR 12"

NOTE:
GRAYSHADE REPRESENTS EXISTING TO REMAIN.
BOLD REPRESENTS EXISTING TO BE REMOVED.

W GRANTOSA DRIVE

USH 41 (W APPLETON AVENUE)

R/W

CB1 PB1 SB1 PB2 SB2 PB3 SB3 PB4 SB4 PB5 SB5 PB6 SB6 PB7 SB7 PB8 SB8 PB9 SB9 PB10 SB10 PB11 SB11 PB12 SB12

253 254 255 256 257 258

WISCONSIN
NATHAN R. KEMPKE
38337-6
MAYVILLE
WIS.
PROFESSIONAL ENGINEER
Apr. 24, 2013

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
GRANTOSA DRIVE
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO. S1135

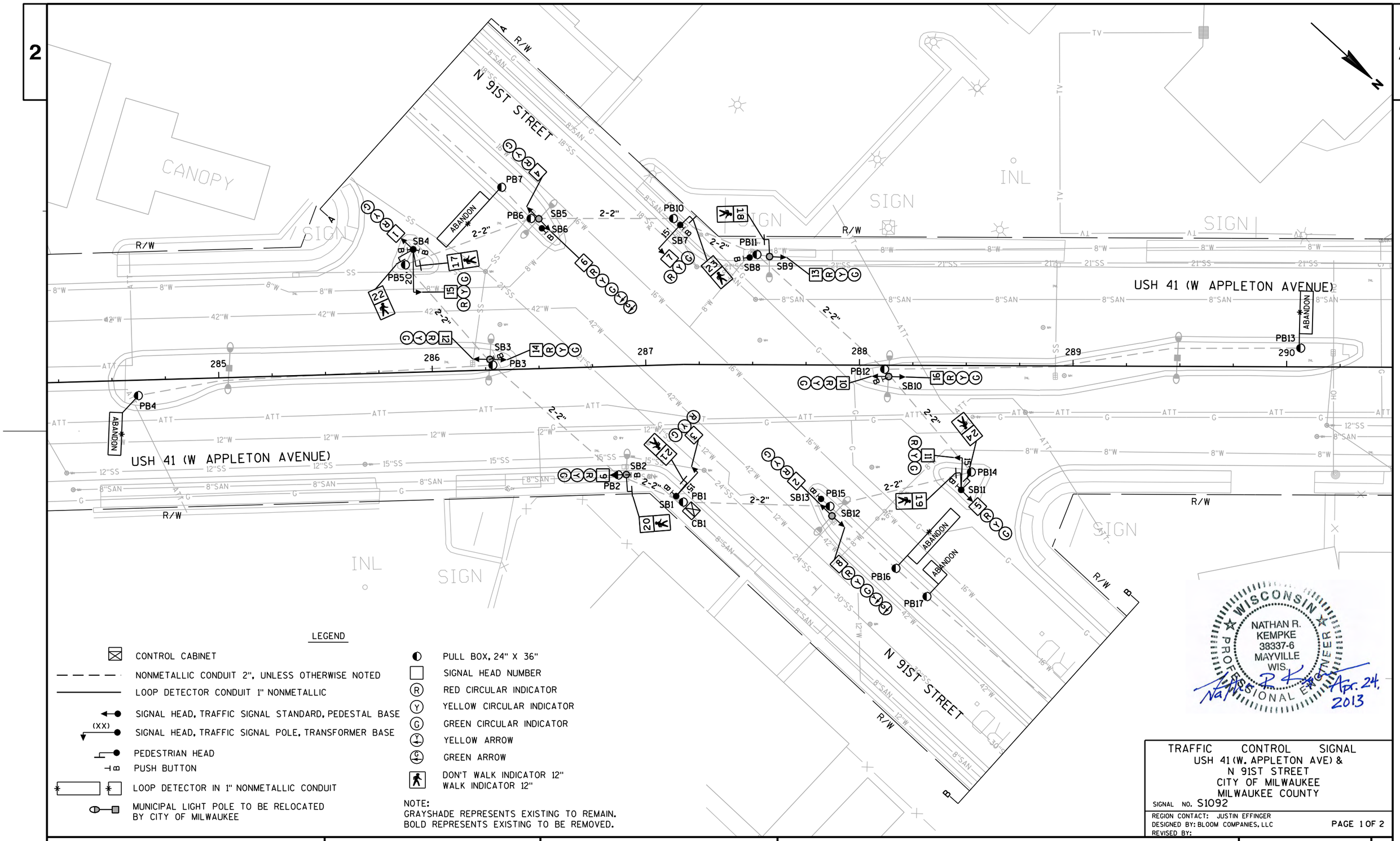
REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 189 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024003_sr.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD
- PUSH BUTTON
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- MUNICIPAL LIGHT POLE TO BE RELOCATED BY CITY OF MILWAUKEE
- PULL BOX, 24" X 36"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"

NOTE:
GRAYSHADE REPRESENTS EXISTING TO REMAIN.
BOLD REPRESENTS EXISTING TO BE REMOVED.

WISCONSIN PROFESSIONAL ENGINEER
NATHAN R. KEMPKE 38337-6 MAYVILLE WIS.
Apr. 24, 2013

TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
N 91ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO. S1092

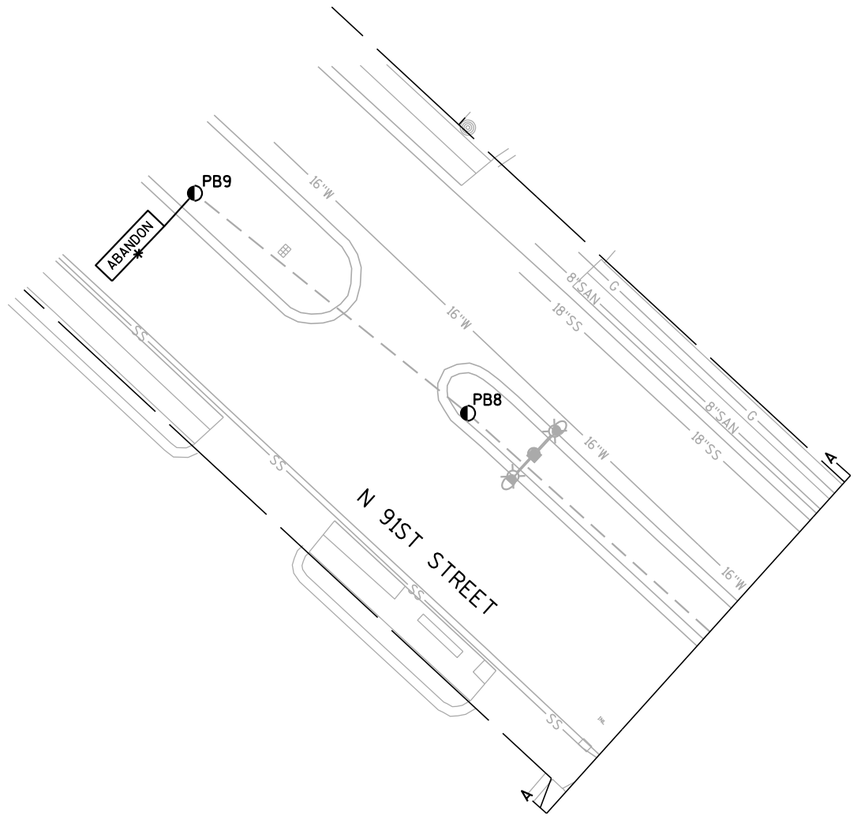
REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

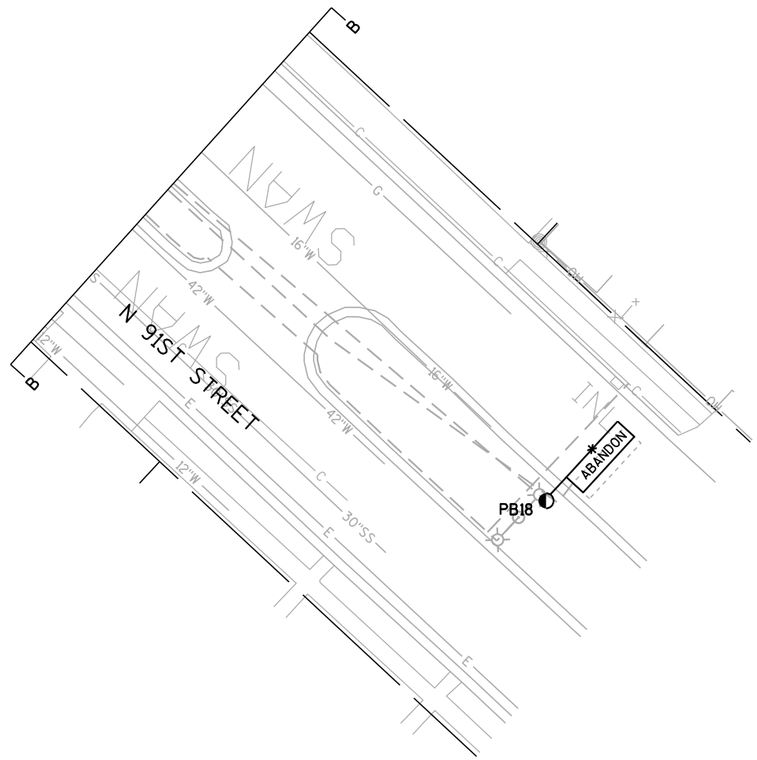
PAGE 1 OF 2

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 190	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024004_sr.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42





TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
N 91ST STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

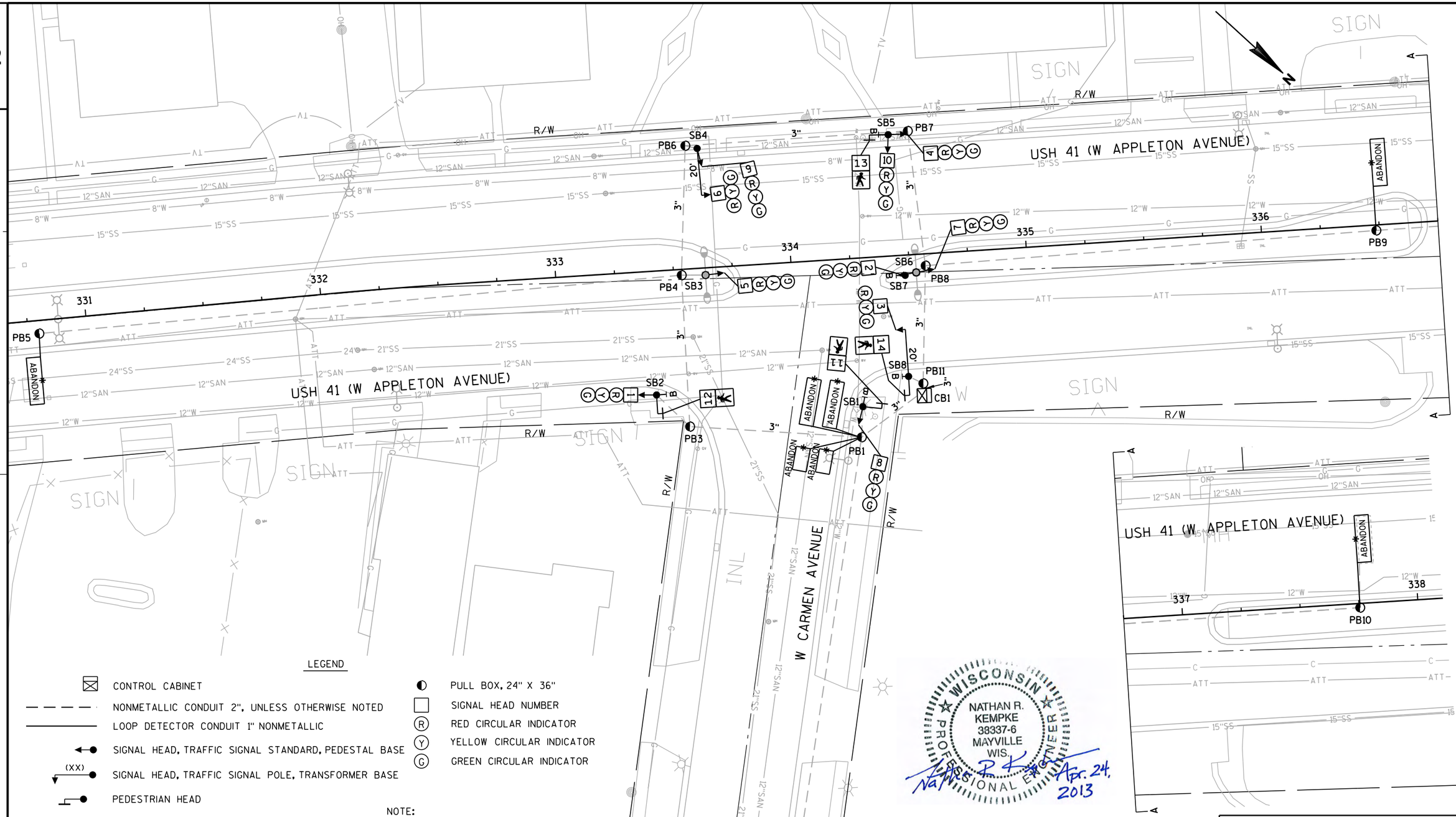
SIGNAL NO. S1092

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 2 OF 2

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 191 E

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- MUNICIPAL LIGHT POLE TO BE RELOCATED BY CITY OF MILWAUKEE
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"
- PULL BOX, 24" X 36"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR

NOTE:
GRAYSHADE REPRESENTS EXISTING TO REMAIN.
BOLD REPRESENTS EXISTING TO BE REMOVED.

CONSTRUCTION NOTE:

ABANDON LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP WIRE AND LOOP DETECTOR LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.

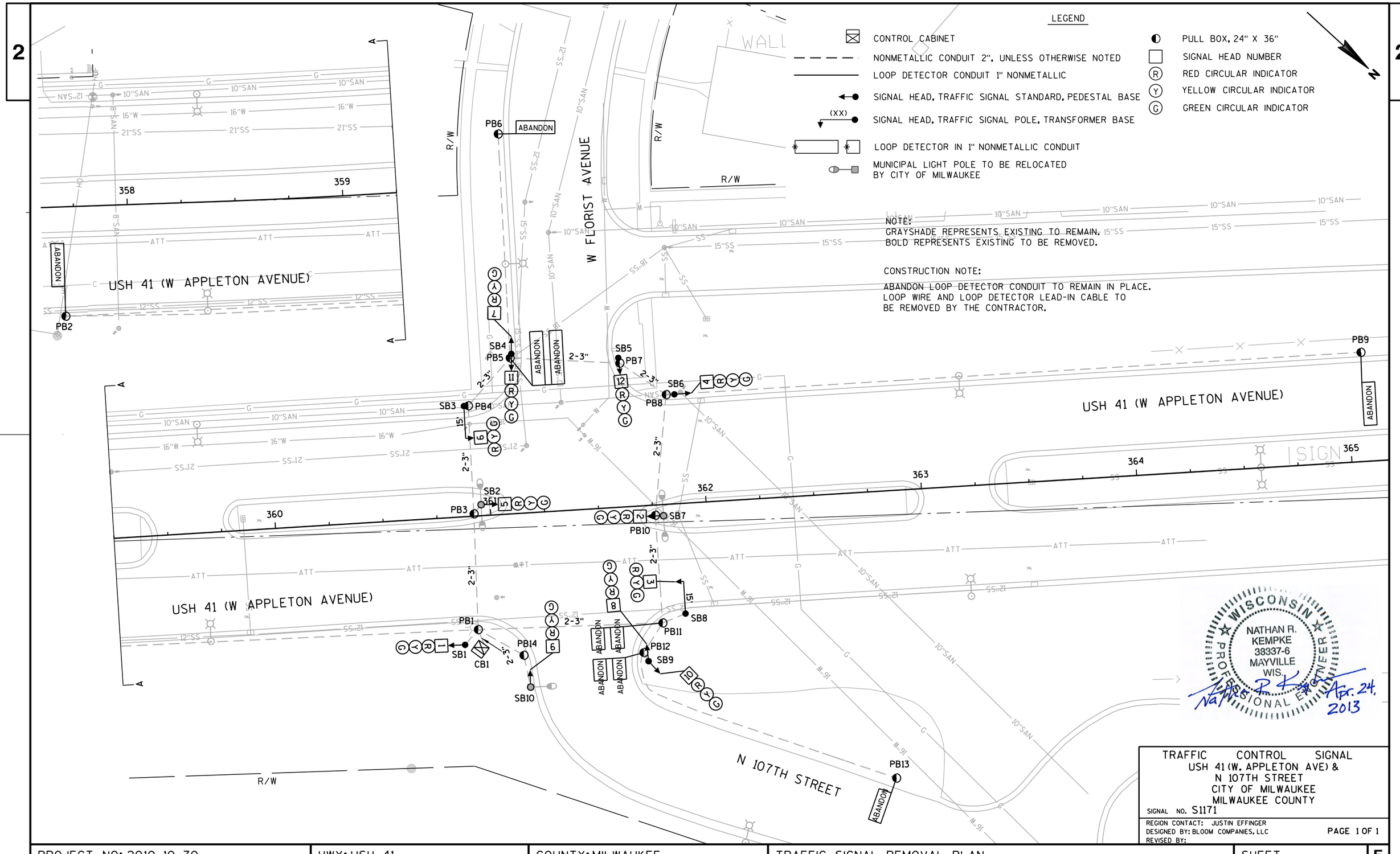
TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) & CARMEN AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1217

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 192 E



TRAFFIC CONTROL SIGNAL
USH 41 (W. APPLETON AVE) &
N 107TH STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1171

REGION CONTACT: JUSTIN EFFINGER
DESIGNED BY: BLOOM COMPANIES, LLC
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2010-10-70	HWY: USH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 193 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024006_sr.dgn PLOT DATE : 24-APR-2013 13:47 PLOT BY : nkempke PLOT NAME : PLOT SCALE : 40:1

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

PRIOR TO CONSTRUCTION, THE LOCATION OF UNDERGROUND UTILITIES SHALL BE DETERMINED IN THE FIELD BY CONTACTING "DIGGERS HOTLINE."

STREET LIGHTING & TRAFFIC SIGNALS SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 652 EXCEPT:

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING OR TRAFFIC SIGNAL FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING OR TRAFFIC SIGNAL DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

1 DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

2 LOCATIONS OF THE PVC CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED IN THE PRINTS. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. ANY RELOCATIONS MUST BE APPROVED BY THE ENGINEER. FIELD MARK EACH CONDUIT LOCATION BY STAMPING AND PAINTING WITH RED PAINT ON TOP AND BACKSIDE OF CURB.

3 TYPICAL CONDUIT INSTALLED UP TO DIRECT BURIED STREET LIGHT POLES IS AS FOLLOWS 3-INCH OR 2.5-INCH (AS NOTED) SCHEDULE 40 RIGID PVC TO STREET LIGHTING METAL HOUSING (PEDESTAL), THE 1.5-INCH SCHEDULE 40 RIGID PVC TO STREET LIGHT POLE CABLE SLOT, AND THE 2-INCH SCHEDULE 40 RIGID PVC TO SIGNAL STANDARD BASE AND RISER FOR TRAFFIC SIGNAL ON STREET LIGHT POLE.

4 DEPTH OF CONDUIT INSTALLED BELOW THE STREETS, HIGHWAYS, ROADS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE)

5 CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT THE BASE OF THE BACKSIDE OF THE CURB/GUTTER SECTION.

6 WHEN THERE IS MORE THAN ONE CONDUIT TO BE LAID BEHIND THE CURB, PLACE ALL CONDUITS IN THE SAME TRENCH.

7 ANY EXCEPTION TO THE MINIMUM OR MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

8 THE CONTRACTOR OR HIS SUBCONTRACTOR MUST MAKE SURE THE AREA BEHIND CURB AND/OR WITHIN TRENCH SHALL BE FREE OF DEBRIS AND OVERPOUR AND SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

9 BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

10 ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS. (SEE NEC 352.28 2008 CODE)

11 PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED IMMEDIATELY AFTER INSTALLATION WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

12 ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

13 CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX OR JUNCTION BOX OR BASE TO BASE, ETC.).

14 PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUIT.

15 ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS UNLESS OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

16 WHEN ENDS OF CONDUIT DO NOT CONNECT TO A VAULT AND WILL END UP UNDER CONCRETE WALK. THE CONTRACTOR IS REQUIRED TO LEAVE A 24" X 24" BOX FORM CENTERED OVER THE END OF CONDUIT AND FILL THE BOXFORM WITH CRUSHED GRAVEL. (PER WISDOT SPEC 209.2.1(1) GRANULAR BACKFILL)

17 ALL PIPE CROSSINGS AND VAULTS SHALL BE AT LEAST SIX (6) FEET AWAY FROM FIRE HYDRANTS, UNLESS NOTED OTHERWISE, OR APPROVED BY THE STREET LIGHTING ENGINEER.

18 ALL POLES AND TRAFFIC STANDARDS IN CONCRETE ARE REQUIRED TO HAVE A 30"X30" BOX SHAPED JOINT PLACED AROUND THEM USING AN EXPANSION JOINT FILLER. UNLESS NOTED OTHERWISE (SEE DETAIL 122)

19 TYPICAL RECTANGULAR VAULTS SHOULD BE INSTALLED AS SHOWN ON PLANS, BUT WHEN IT IS NOT POSSIBLE, A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS AND FIRE HYDRANTS SHOULD BE USED, OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

TRAFFIC & STREET LIGHTING GENERAL NOTES:

20 COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND VAULTS/ MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251 OR DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148 OR DISPATCHER @ 414-286-3687

21 IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL VAULT, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251
STREET LIGHTING - GEORGE BERDINE (OFFICE) 414-286-5943 (CELL) 414-708-4245
STREET LIGHTING - THOMAS HUGHES (OFFICE) 414-286-3457 (CELL) 414-708-3175
STREET LIGHTING - DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148
TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687

22 CONDUIT WILL ONLY BE INSTALLED AFTER THE CURB IS POURED, UNLESS APPROVED BY BOTH THE ENGINEER & STREET LIGHTING SHOP SUPERVISOR.

UTILITY LINE CODE

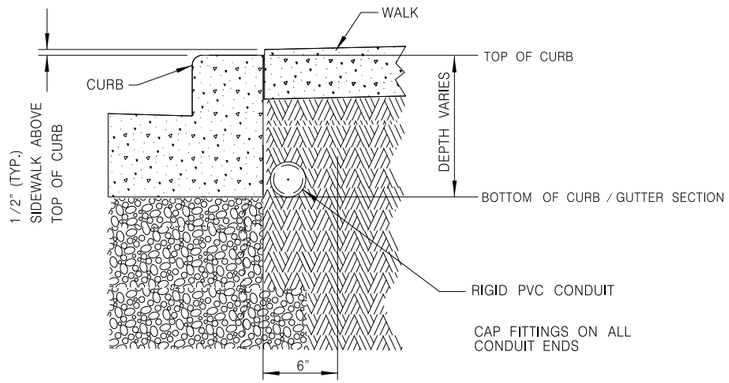
SAN	SANITARY SEWER
STO	STORM SEWER
W	WATER
G	GAS
G	PROPOSED GAS
E	ELECTRIC
TE&ES	TRAFFIC & STREET LIGHTING
	OVERHEAD LINE
CUC	PROPOSED CITY UNDERGROUND CONDUIT
T	TELEPHONE
TV	CABLE

SHEET 1 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 194	E

2

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



100 DETAIL "A"

TYPICAL CONDUIT INSTALLATION
BEHIND CURB

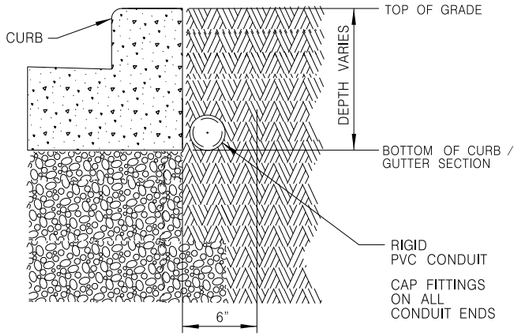
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

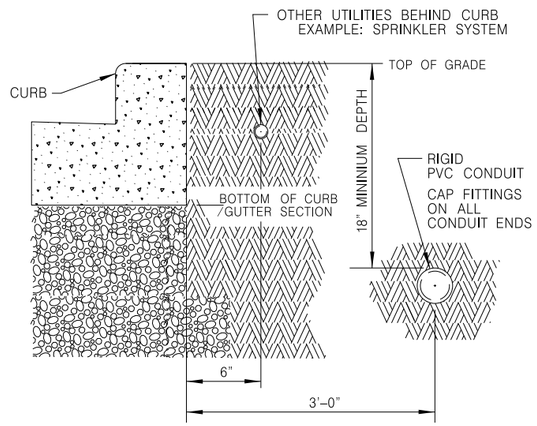
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB,
UNLESS NOTED OR APPROVED BY ENGINEER.



DETAIL "C"

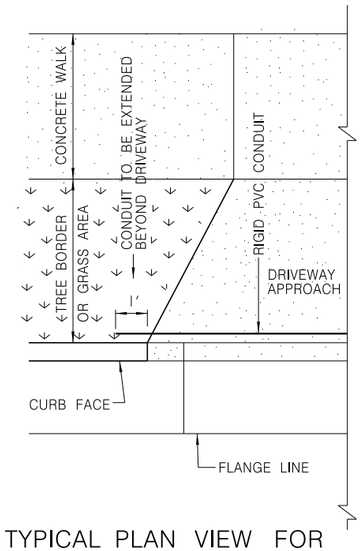


100 DETAIL "B" & "C"

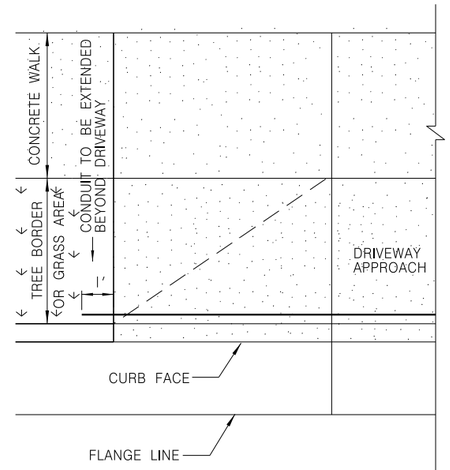
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



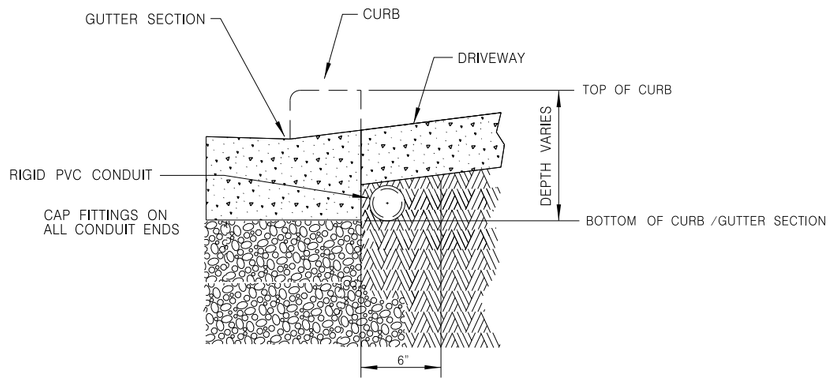
TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR
DEPRESSED DRIVEWAY

2

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



101 DETAIL

TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

NOT TO SCALE

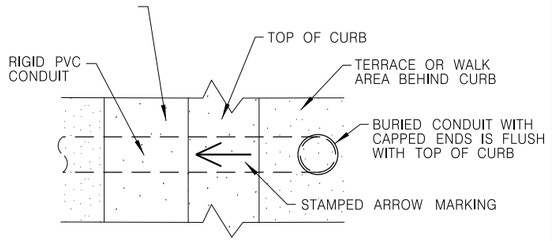
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 2 OF 22

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 195	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

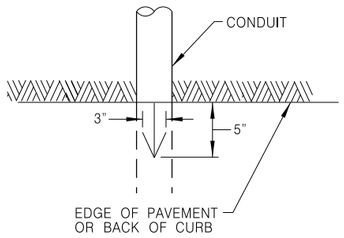
WISDOT/CADDS SHEET 42



TOP VIEW OF CURB STAMPING

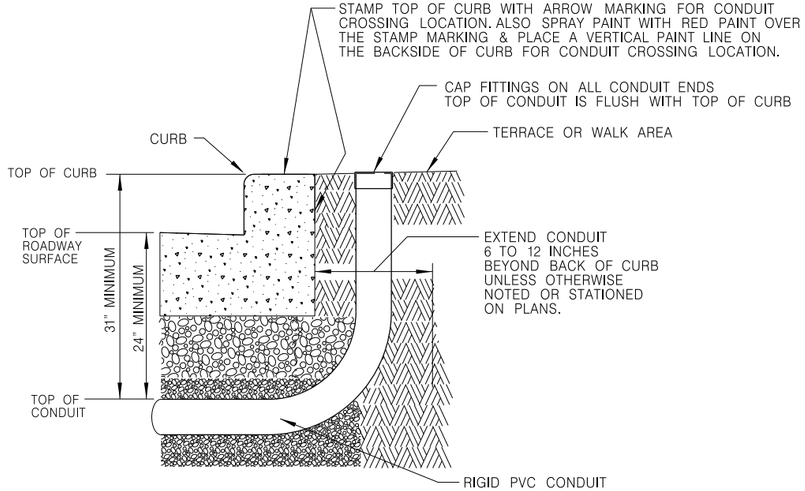
NOT TO SCALE

NOTE:
ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4–INCH TO 3/8–INCH DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER THE PAVEMENT.



ARROW MARK

NOT TO SCALE

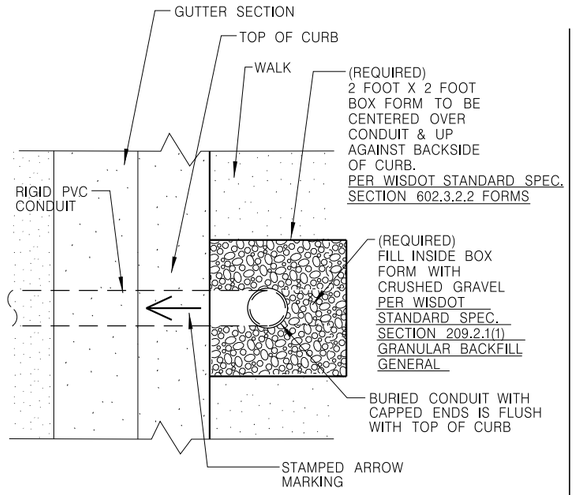


102 DETAIL VERSION #2

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS

NOT TO SCALE

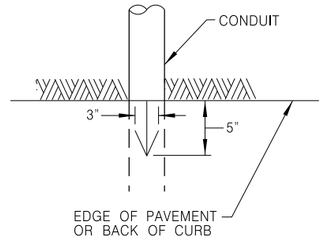
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



TOP VIEW OF CURB STAMPING

NOT TO SCALE

NOTE:
ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4–INCH TO 3/8–INCH DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER THE PAVEMENT.

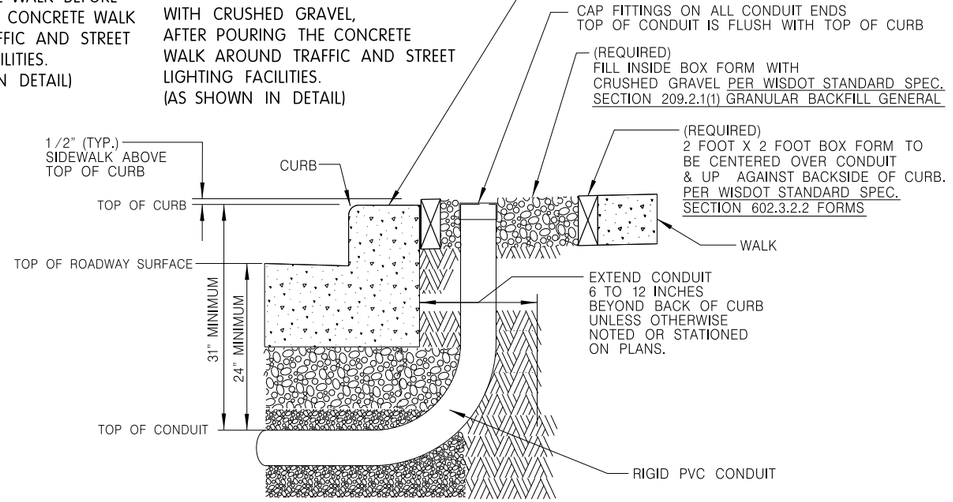


ARROW MARK

NOT TO SCALE

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES. (AS SHOWN IN DETAIL)

THE CONTRACTOR IS REQUIRED TO FILL IN THE FORMED OUT AREA OPENING IN THE CONCRETE WALK WITH CRUSHED GRAVEL, AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES. (AS SHOWN IN DETAIL)



103 DETAIL VERSION #2

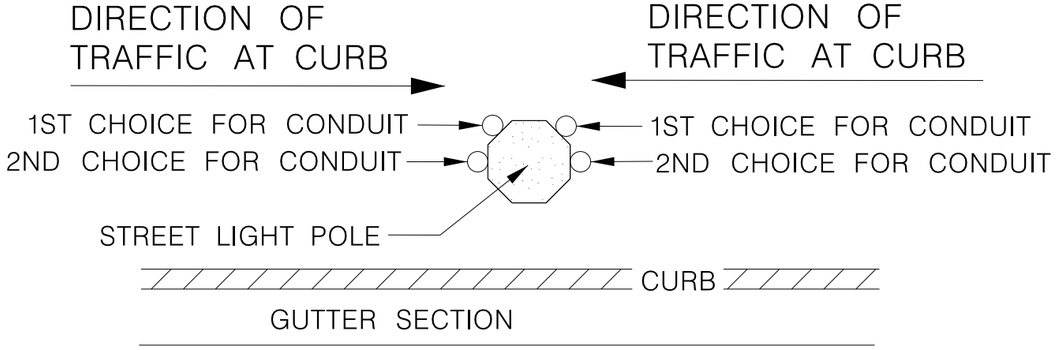
TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS FROM FULL WALK AREAS

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 3 OF 22

NOTE: CAP FITTINGS ON CONDUIT ENDS



104 DETAIL

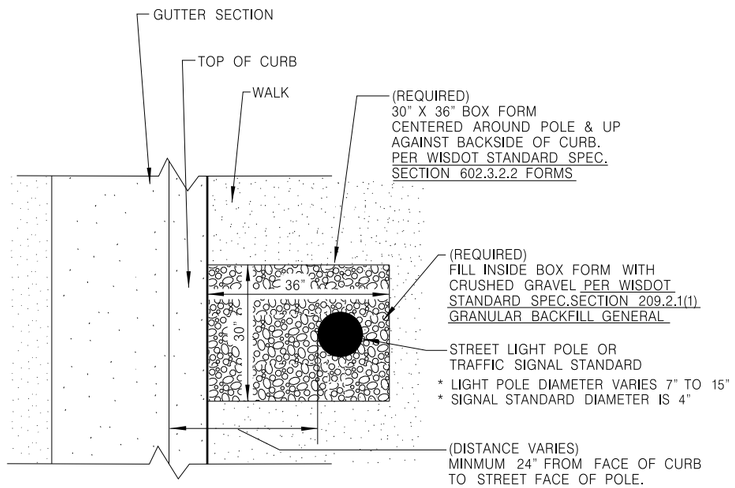
TYPICAL TRAFFIC SIGNAL RISER CONDUIT LOCATIONS ON STREET LIGHT POLE DEPENDING ON DIRECTION OF TRAFFIC AT CURB

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC / STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN ADJACENT DETAIL)

THE CONTRACTOR IS REQUIRED TO FILL IN THE FORMED OUT AREA OPENING IN THE CONCRETE WALK WITH CRUSHED GRAVEL, AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN ADJACENT DETAIL)

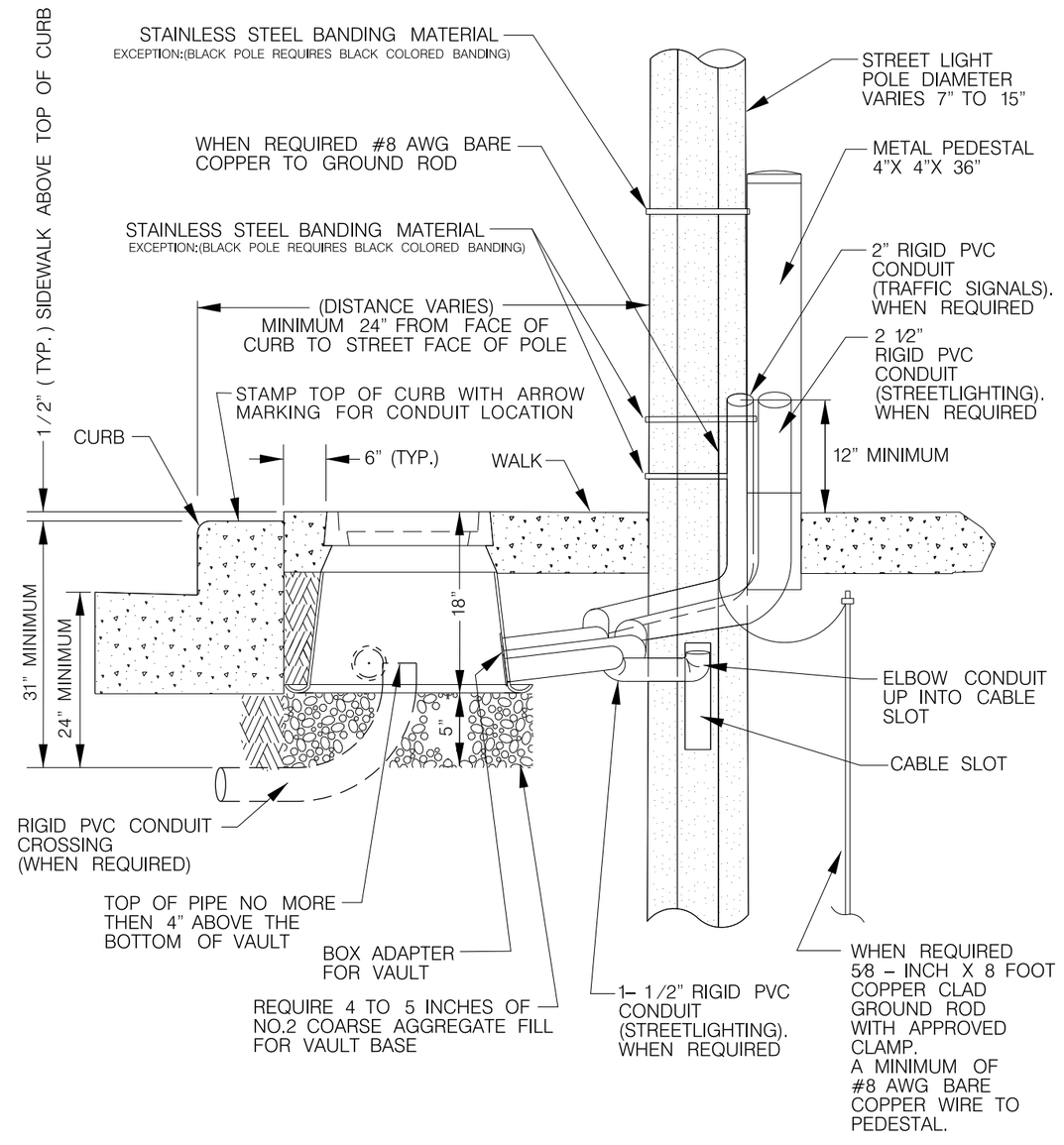


105 DETAIL

TYPICAL 30" X 36" BOX FORM AROUND STREET LIGHTING POLE OR TRAFFIC SIGNAL STANDARD

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



108 DETAIL

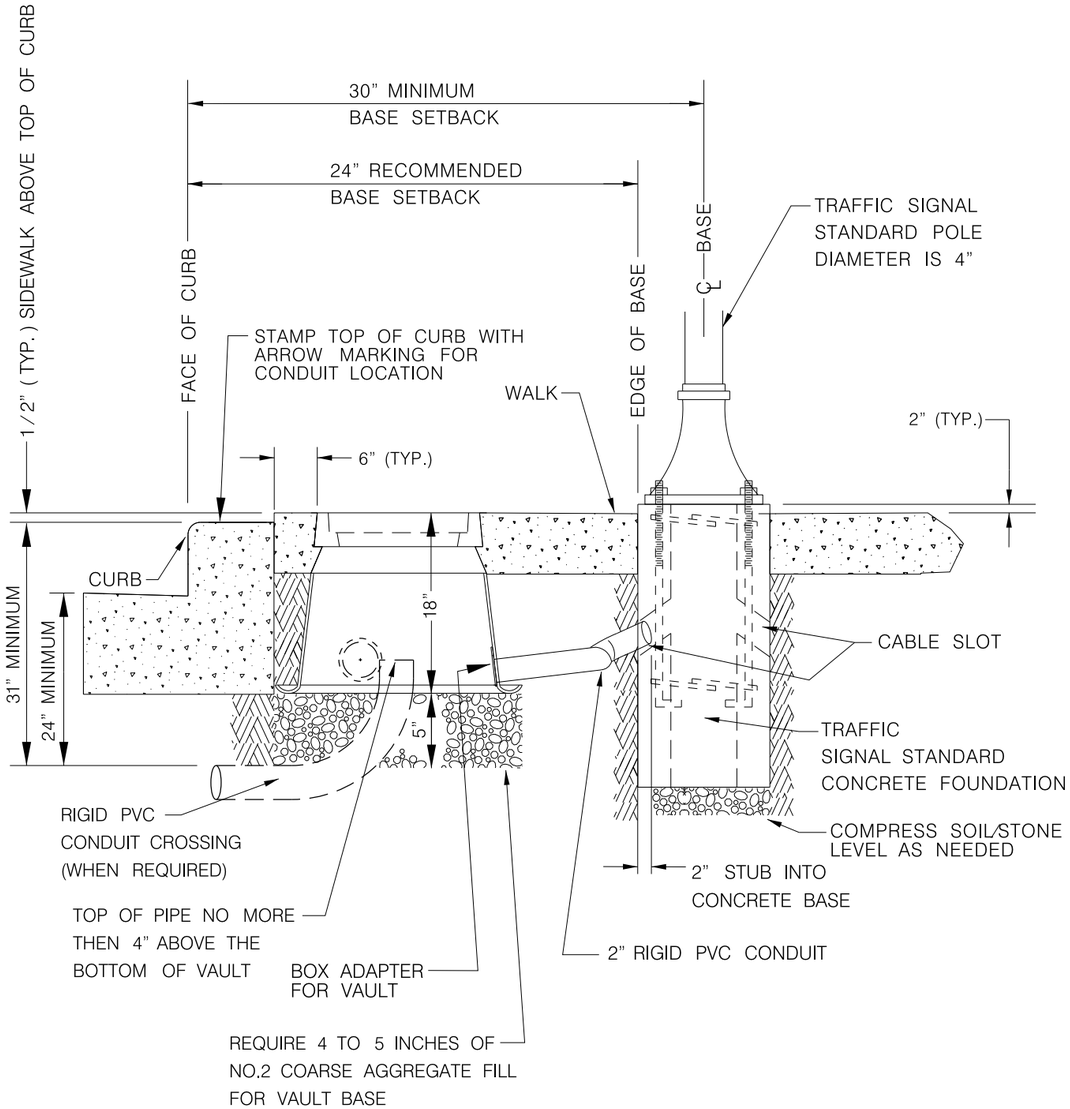
TYPICAL CONDUIT INSTALLATION FROM VAULT TO POLE

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 4 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 197	E

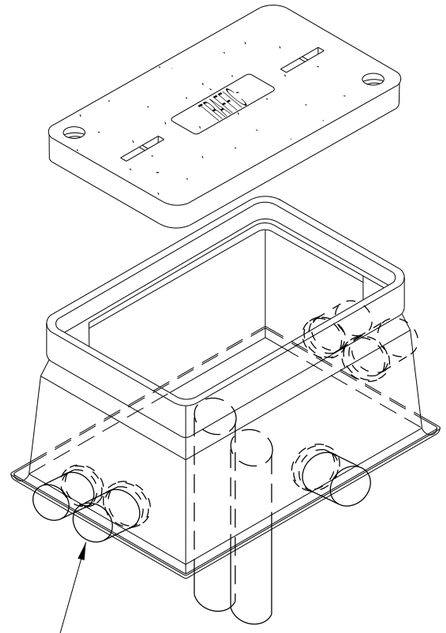


109 DETAIL

TYPICAL CONDUIT INSTALLATION
FROM VAULT TO SIGNAL STANDARD
AND TYPICAL BASE INSTALLATION

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC & LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



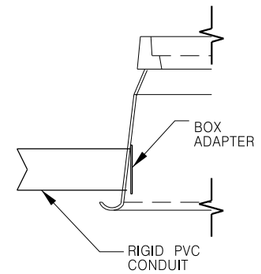
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W /2 BOLTS
COLOR: GRAY

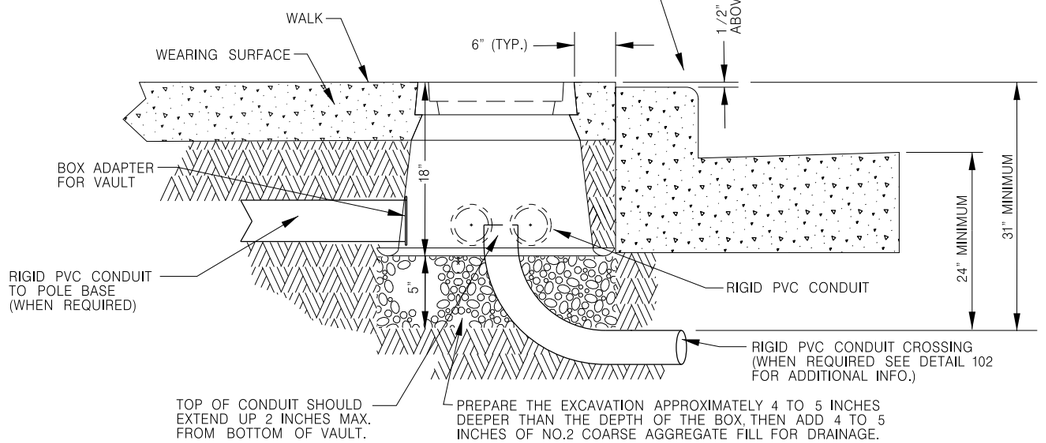
ELECTRICAL VAULT
FLARED WALL
BOX W /NO BASE
COLOR: GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS





112 DETAIL

TYPICAL VAULT INSTALLATION IN WALK

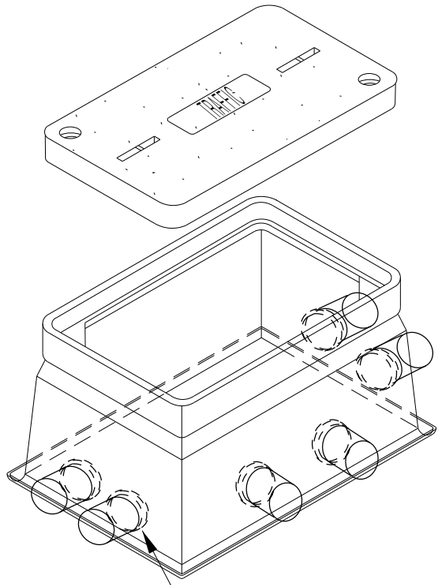
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

2

SHEET 5 OF 22

2

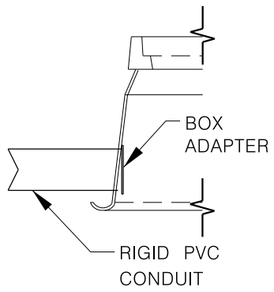


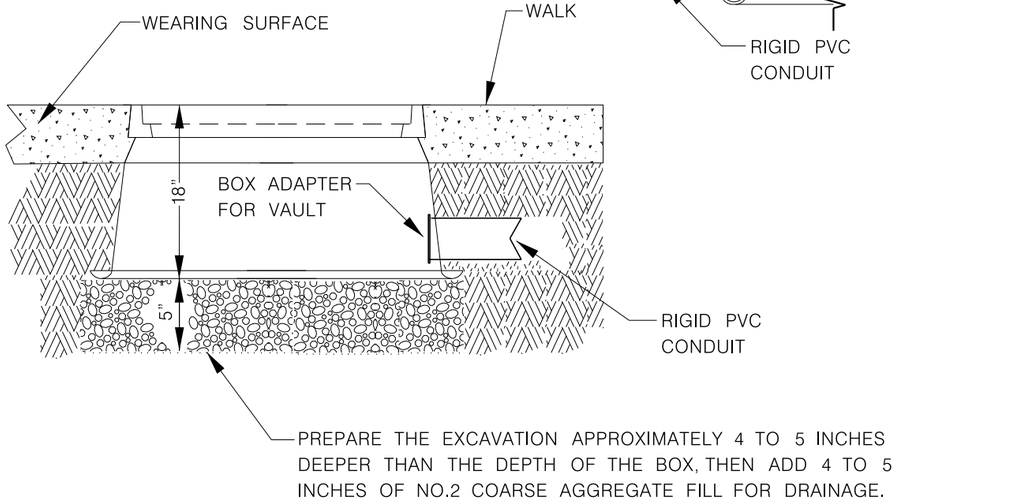
HEAVY DUTY COVER
W/ ELECTRIC LOGO
& W /2 BOLTS
COLOR: GRAY

ELECTRICAL VAULT
FLARED WALL
BOX W /NO BASE
COLOR: GRAY
(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS



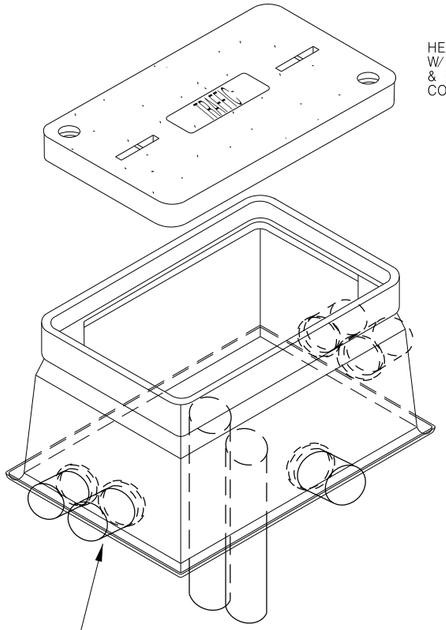


113 DETAIL

TYPICAL VAULT INSTALLATION
IN SIDEWALK

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



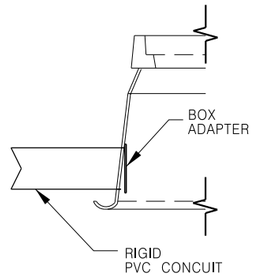
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W /2 BOLTS
COLOR: GRAY

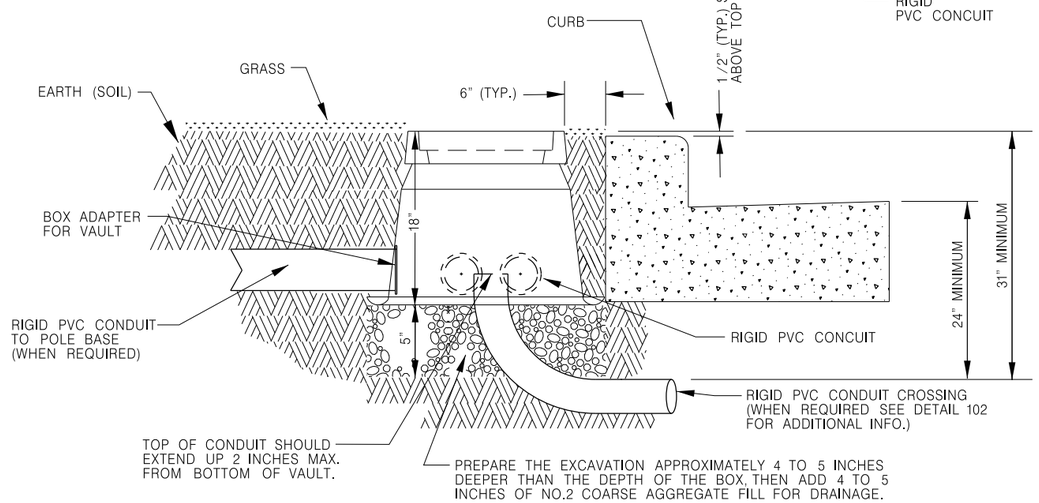
ELECTRICAL VAULT
FLARED WALL
BOX W /NO BASE
COLOR: GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL P.V.C. CONDUITS





121 DETAIL

TYPICAL VAULT INSTALLATION IN GRASS AREA

NOT TO SCALE

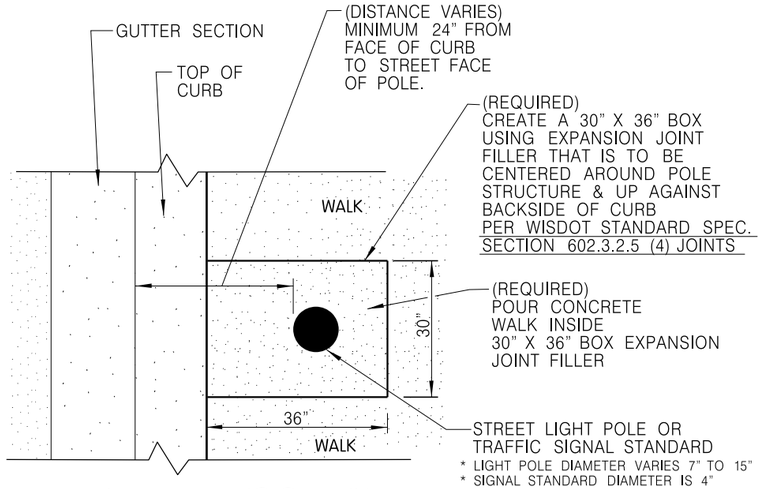
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 6 OF 22

2

THE CONTRACTOR IS REQUIRED TO INSTALL EXPANSION JOINT FILLER INTO THE CONCRETE WALK, WHICH SHALL BE 1/2" WIDE MINIMUM TO BE USED TO CREATE A SEPARATION BETWEEN A SMALL CONCRETE AREA AROUND THE TRAFFIC & STREET LIGHTING FACILITIES AND THE REST OF THE CONCRETE WALK.

THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.



122 DETAIL VERSION #1

NOT TO SCALE

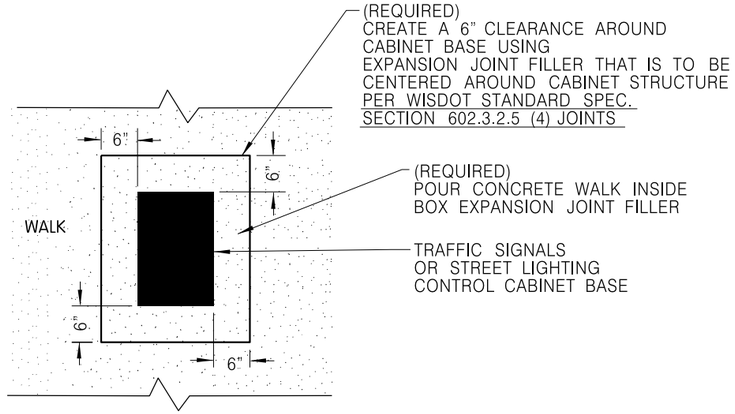
TYPICAL 30" X 36" BOX EXPANSION JOINT FILLER AROUND STREET LIGHTING POLE OR TRAFFIC SIGNAL STANDARD

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

PLOTDATE

THE CONTRACTOR IS REQUIRED TO INSTALL EXPANSION JOINT FILLER INTO THE CONCRETE WALK, WHICH SHALL BE 1/2" WIDE MINIMUM TO BE USED TO CREATE A SEPARATION BETWEEN A SMALL CONCRETE AREA AROUND THE TRAFFIC & STREET LIGHTING FACILITIES AND THE REST OF THE CONCRETE WALK.

THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.



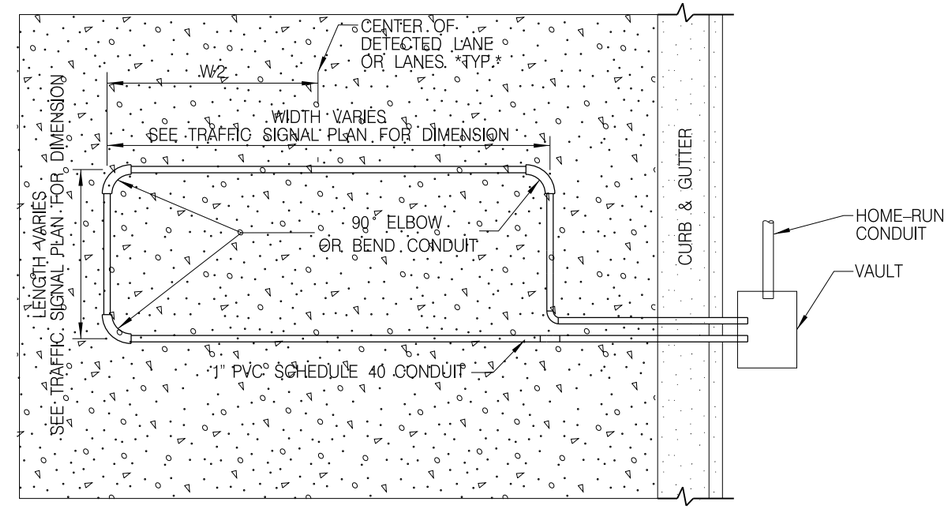
122 DETAIL VERSION #2

NOT TO SCALE

TYPICAL BOX EXPANSION JOINT FILLER AROUND TRAFFIC SIGNAL OR STREET LIGHTING CONTROL CABINET

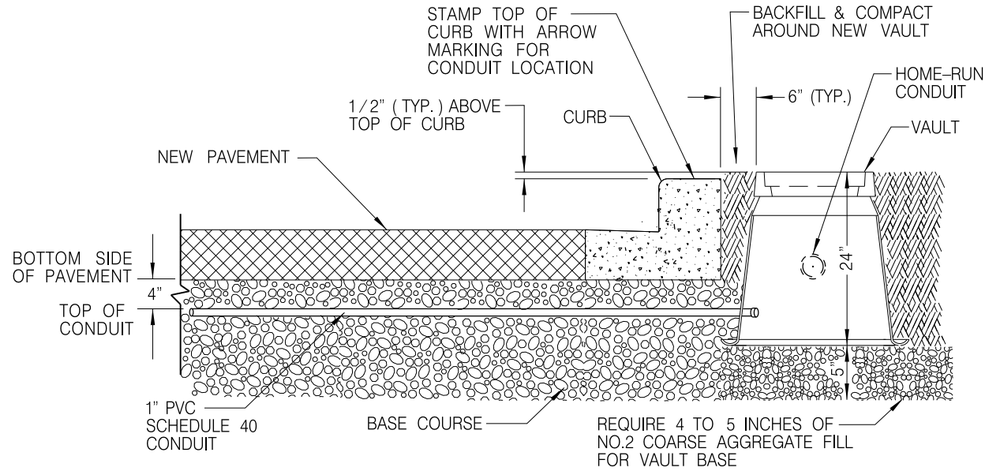
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

2



TYPICAL PLAN VIEW OF LOOP DETECTOR

NOT TO SCALE



127 DETAIL

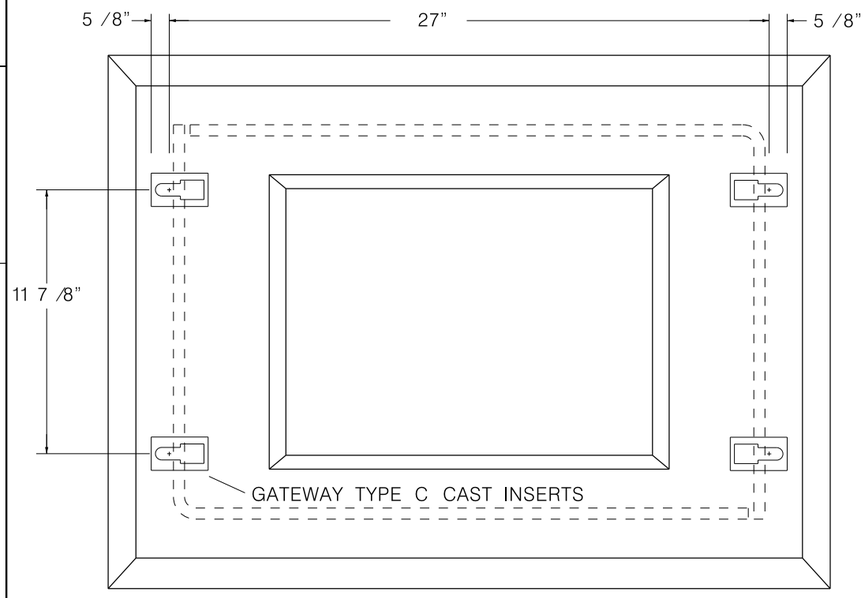
NOT TO SCALE

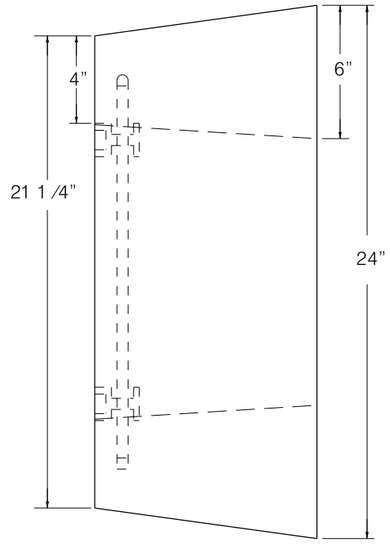
TYPICAL TRAFFIC SIGNAL LOOP DETECTOR INSTALLATION

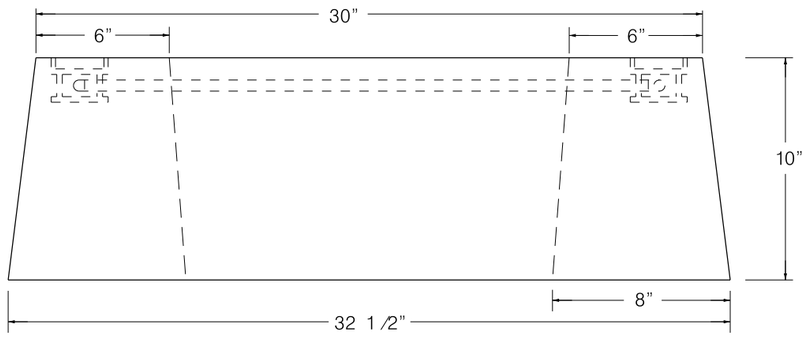
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC SIGNAL FORCES. CONTACT DISPATCHER AT (414) 286–3687 FOR SHOP SUPERVISOR.

SHEET 7 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 200	E



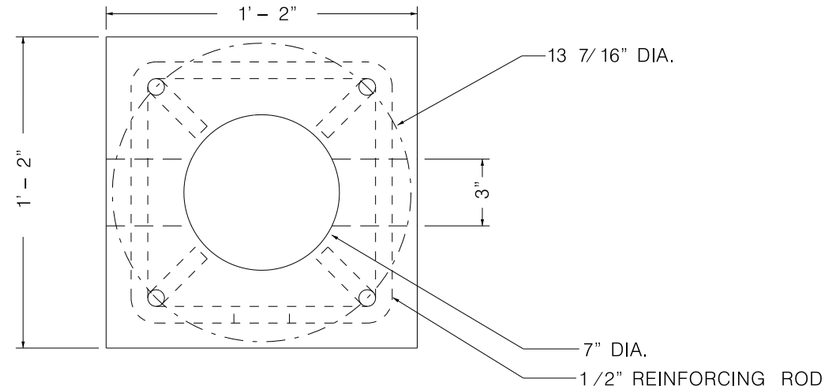


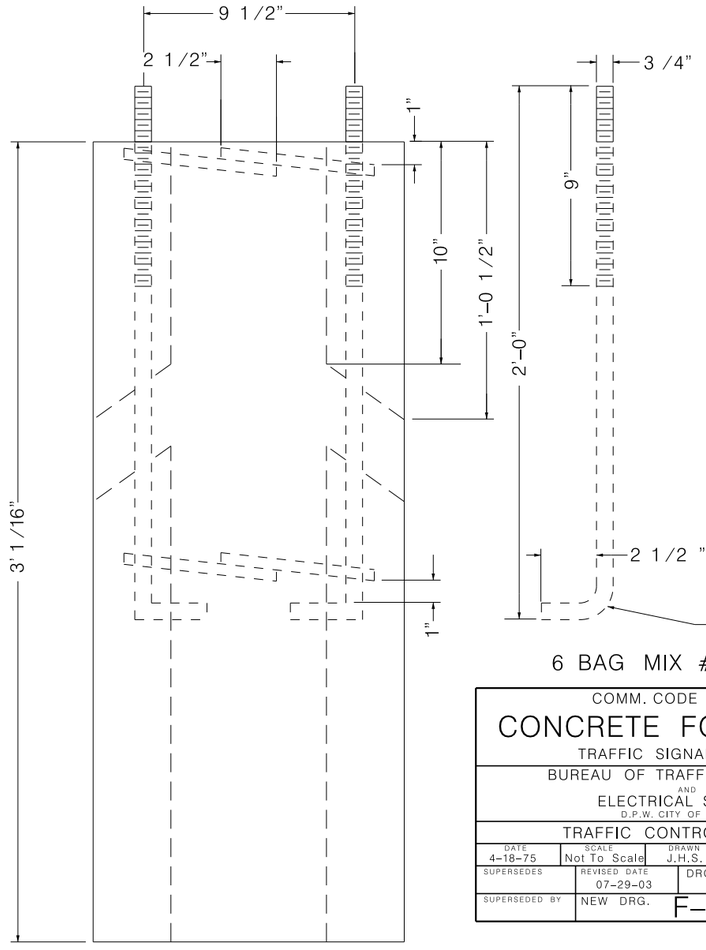


NOT TO SCALE

6 BAG MIX #1 STONE

COMM. CODE 1238-927				
CONCRETE FOUNDATION				
TRAFFIC SIGNAL CONTROL CABINET				
BUREAU OF TRAFFIC ENGINEERING AND ELECTRICAL SERVICES D.P.W. CITY OF MILWAUKEE				
TRAFFIC CONTROL MATERIAL				
DATE 4-22-75	SCALE 1/4"=1"	DRAWN J.H.S.	CHECKED B.J.T.	APPROVED R.J.B.
SUPERSEDES C-65-546-T	REVISED DATE 01-30-02	DRG. C-75-564-T		
SUPERSEDED BY	NEW DRG. F-82-536-T			





NOT TO SCALE

6 BAG MIX #1 STONE

COMM. CODE 1238-936				
CONCRETE FOUNDATION				
TRAFFIC SIGNAL STANDARD				
BUREAU OF TRAFFIC ENGINEERING AND ELECTRICAL SERVICES D.P.W. CITY OF MILWAUKEE				
TRAFFIC CONTROL MATERIAL				
DATE 4-18-75	SCALE Not To Scale	DRAWN J.H.S.	CHECKED B.J.T.	APPROVED R.J.B.
SUPERSEDES	REVISED DATE 07-29-03	DRG. C-75-563-T		
SUPERSEDED BY	NEW DRG. F-82-535-T			

SHEET 8 OF 22

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 201 E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER. CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

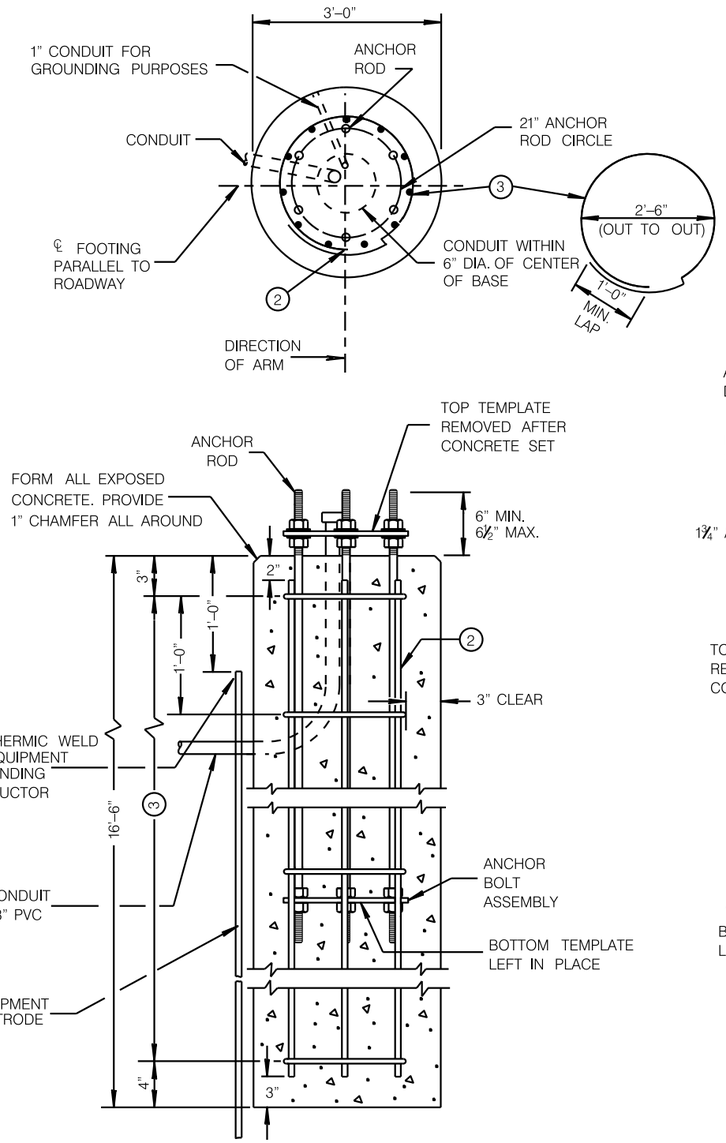
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER–RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

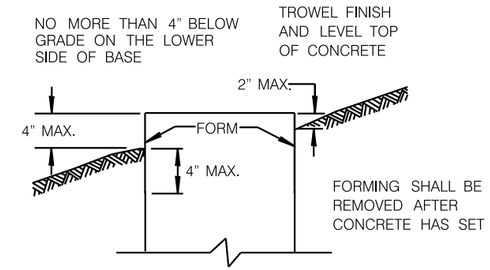
(2) (11) NO. 8 X 16'–1" BAR STEEL REINFORCEMENT.

(3) (17) NO. 4 X 9'–0" BAR STEEL REINFORCEMENT @ 1'–0" C–C.

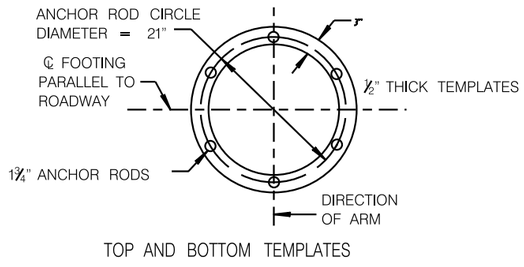
CONCRETE MASONRY	fc = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy = 55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy = 36,000 p.s.i.



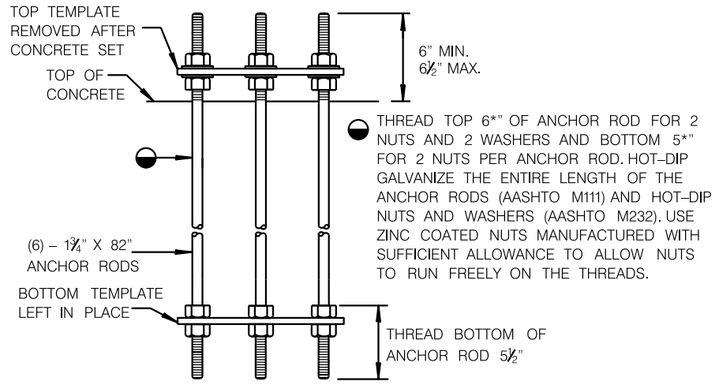
CONCRETE BASE TYPE 10 SPECIAL



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 SPECIAL

ANCHOR ASSEMBLY

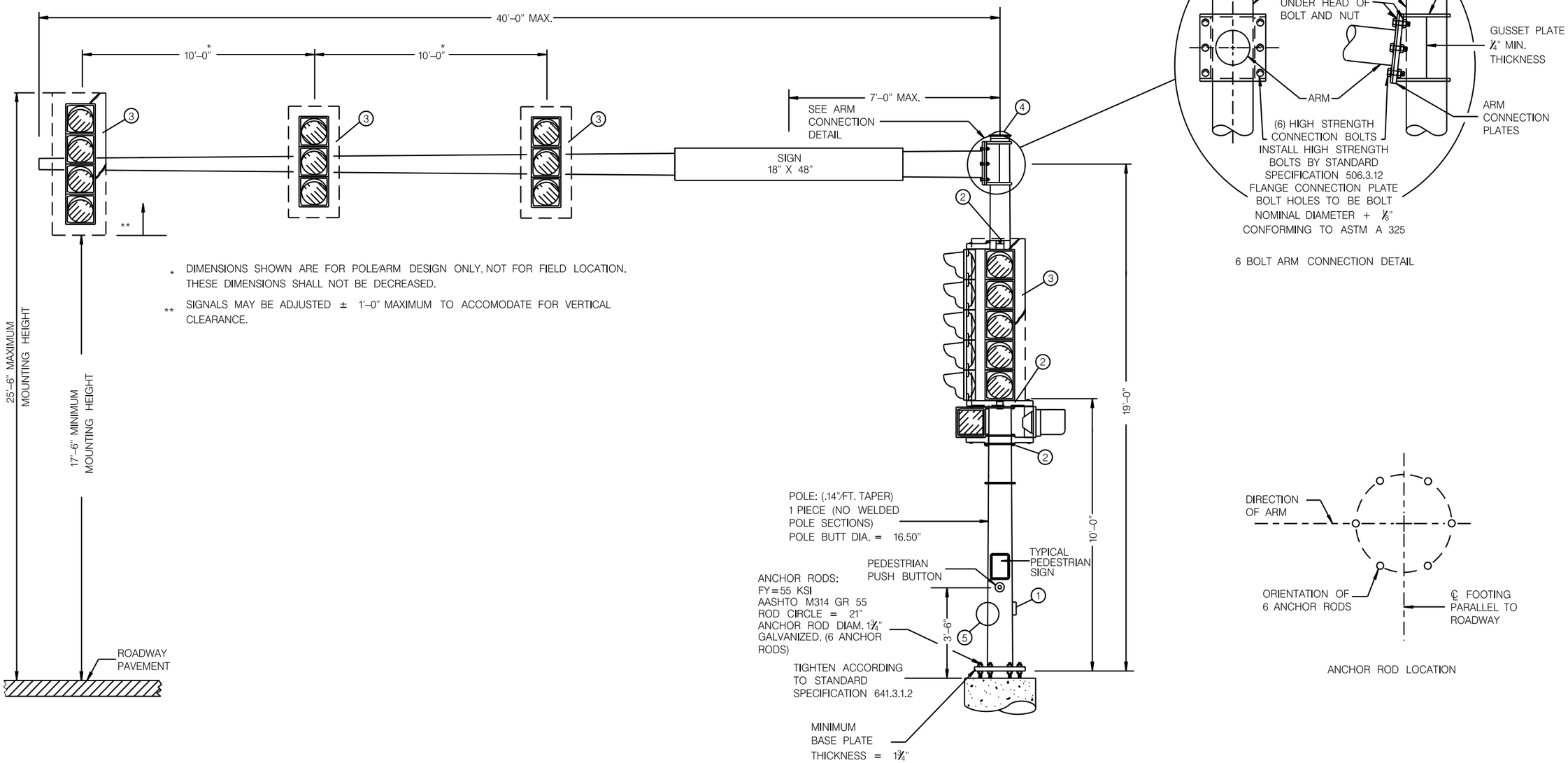
QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	4.32
LBS. OF HOOP BAR STEEL	103
LBS. OF VERTICAL BAR STEEL	473

CONCRETE BASE TYPE 10 SPECIAL

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

SHEET 9 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 202	E



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'–0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

6 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

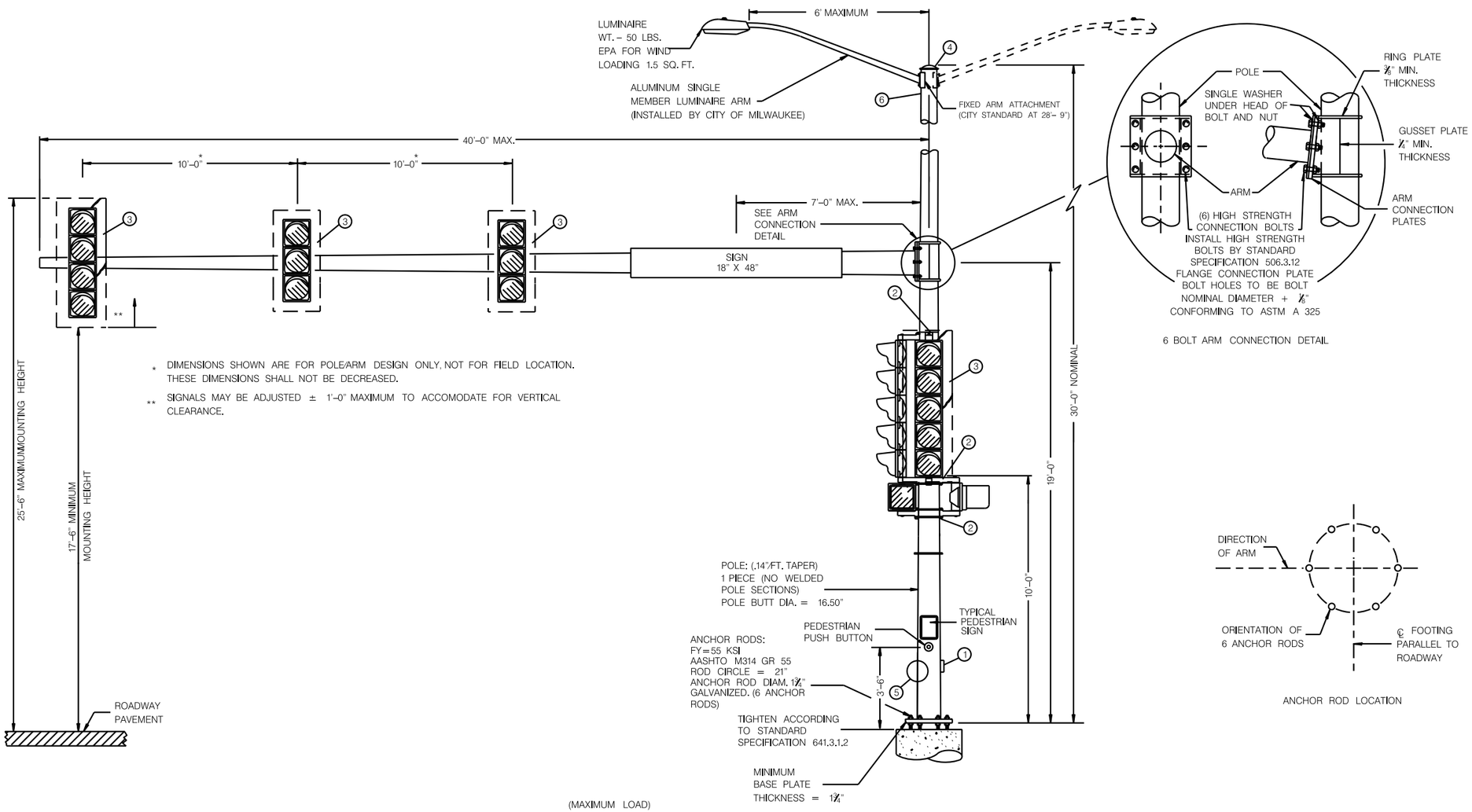
TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

SHEET 10 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 203	E



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'–0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

6 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

SHEET 11 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 204	E

LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

—X— LOCATION IS TO FRONT CENTER OF DETECTION LOOP

SCALE, FEET 0 30

SHEET 12 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 205	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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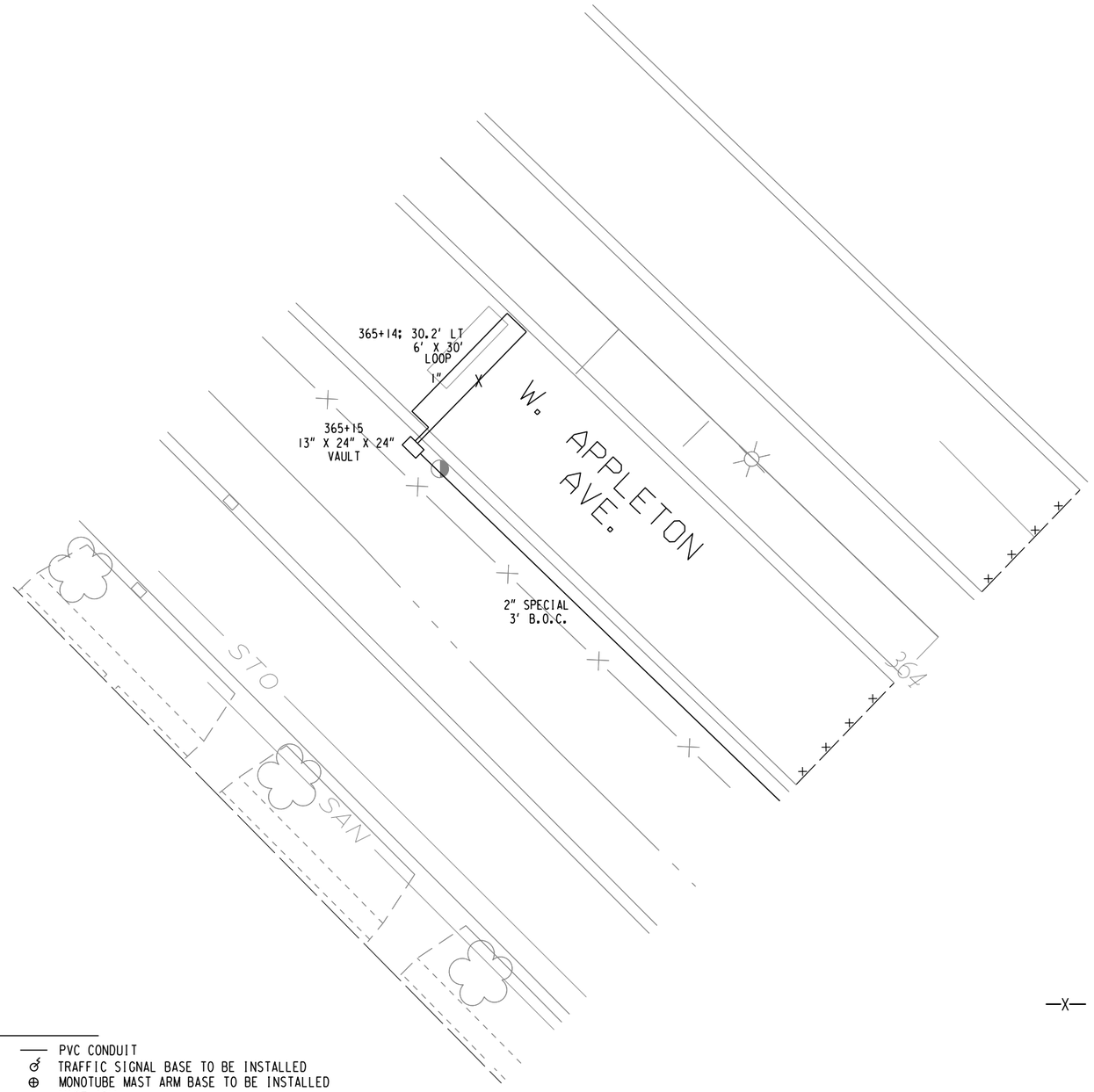
ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

—X— LOCATION IS TO FRONT CENTER OF DETECTION LOOP

SCALE, FEET 0 30

SHEET 13 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 206	E

2

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

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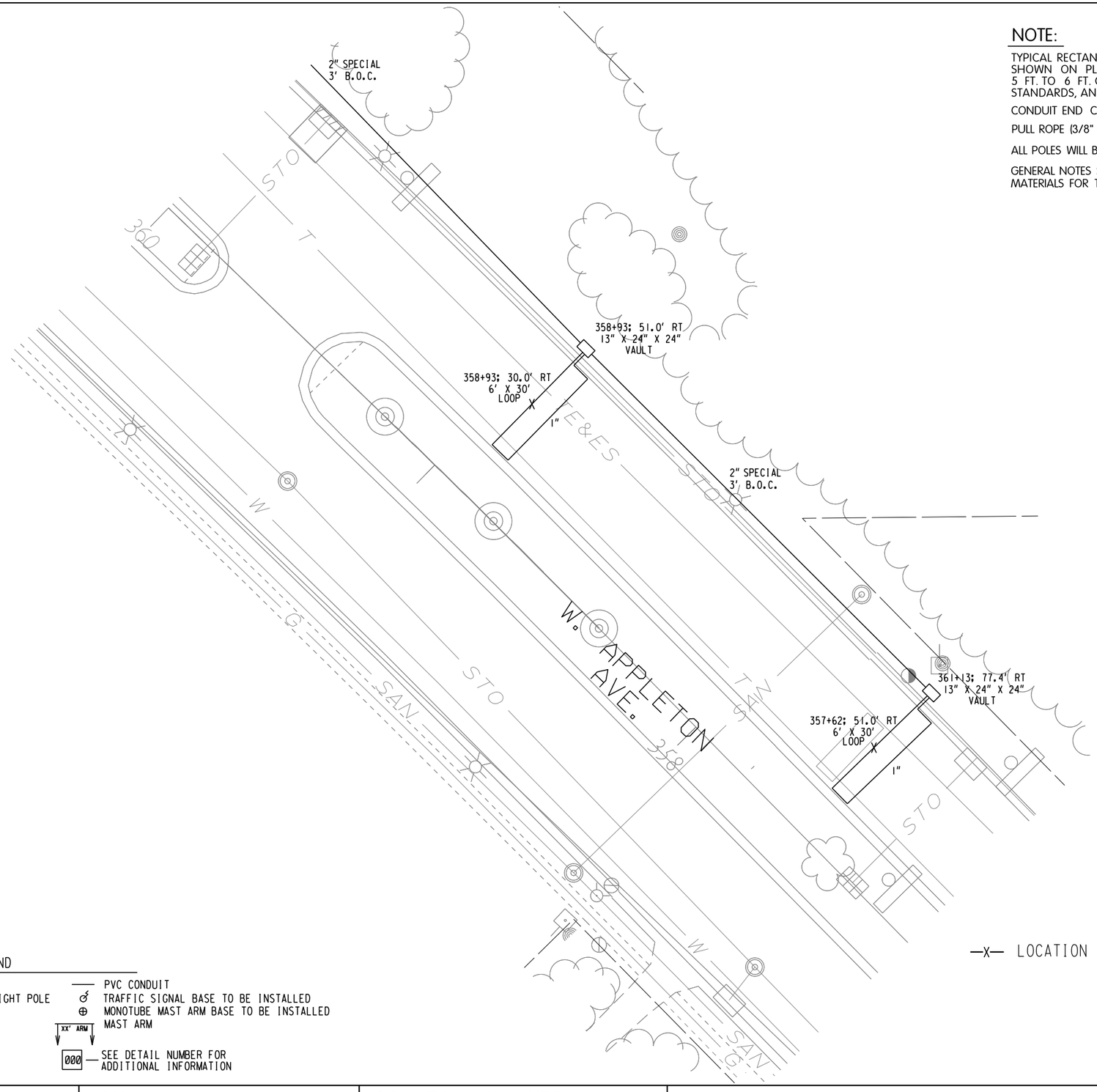
GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



—X— LOCATION IS TO FRONT CENTER OF DETECTION LOOP

LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- xx' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 30

SHEET 14 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 207	E

2

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

N

W. APPLETON

W. CARMEN AVE.

S. 76TH ST.

2" SPECIAL

334+64; 53.2' RT
17" X 30" X 18"
VAULT

334+44; 63.0' RT
CONTROL CABINET BASE

2-3"

3"

2"

17" X 30" X 18"
VAULT
334+27; 80.4' RT

SIGNAL BASE
334+31; 63.2' RT

SPECIAL
2-3"

35' ARM

334+64; 6.8' RT
17" X 30" X 18"
VAULT

2-3"
SPECIAL

EXISTING
STREET LIGHT
POLE

TYPE 10 CONCRETE BASE SPECIAL
TYPE 12 POLE SPECIAL
334+47; 52.3' RT

SIGNAL BASE
334+46; 8.6' RT

17" X 30" X 18"
VAULT
334+64; 52.0' LT

334+46; 50.6' LT
SIGNAL BASE

334+27; 50.6' LT
SIGNAL BASE

333+59; 2.7' RT
TYPE 10 CONCRETE BASE SPECIAL
TYPE 13 POLE SPECIAL

SIGNAL BASE
333+63; 4.3' RT

SIGNAL BASE
333+38; 52.3' RT

STREET LIGHT
INSTALLED BY CITY

17" X 30" X 18"
VAULT
334+20; 52.0' LT

STREET LIGHT
INSTALLED BY CITY

2-3"
SPECIAL

333+38; 1.7' RT
17" X 30" X 18"
VAULT

333+62; 50.6' LT
SIGNAL BASE

35' ARM

2-3"
SPECIAL

17" X 30" X 18"
VAULT
333+41; 52.0' LT

2-3"
SPECIAL

SIGNAL BASE
333+57; 72.8' RT

333+53; 65.4' RT
13" X 24" X 18"
VAULT

333+31; 50.2' RT
17" X 30" X 18"
VAULT

2" SPECIAL

—X— LOCATION IS TO FRONT CENTER OF DETECTION LOOP

LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 30

SHEET 15 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 208	E

2

NOTE:

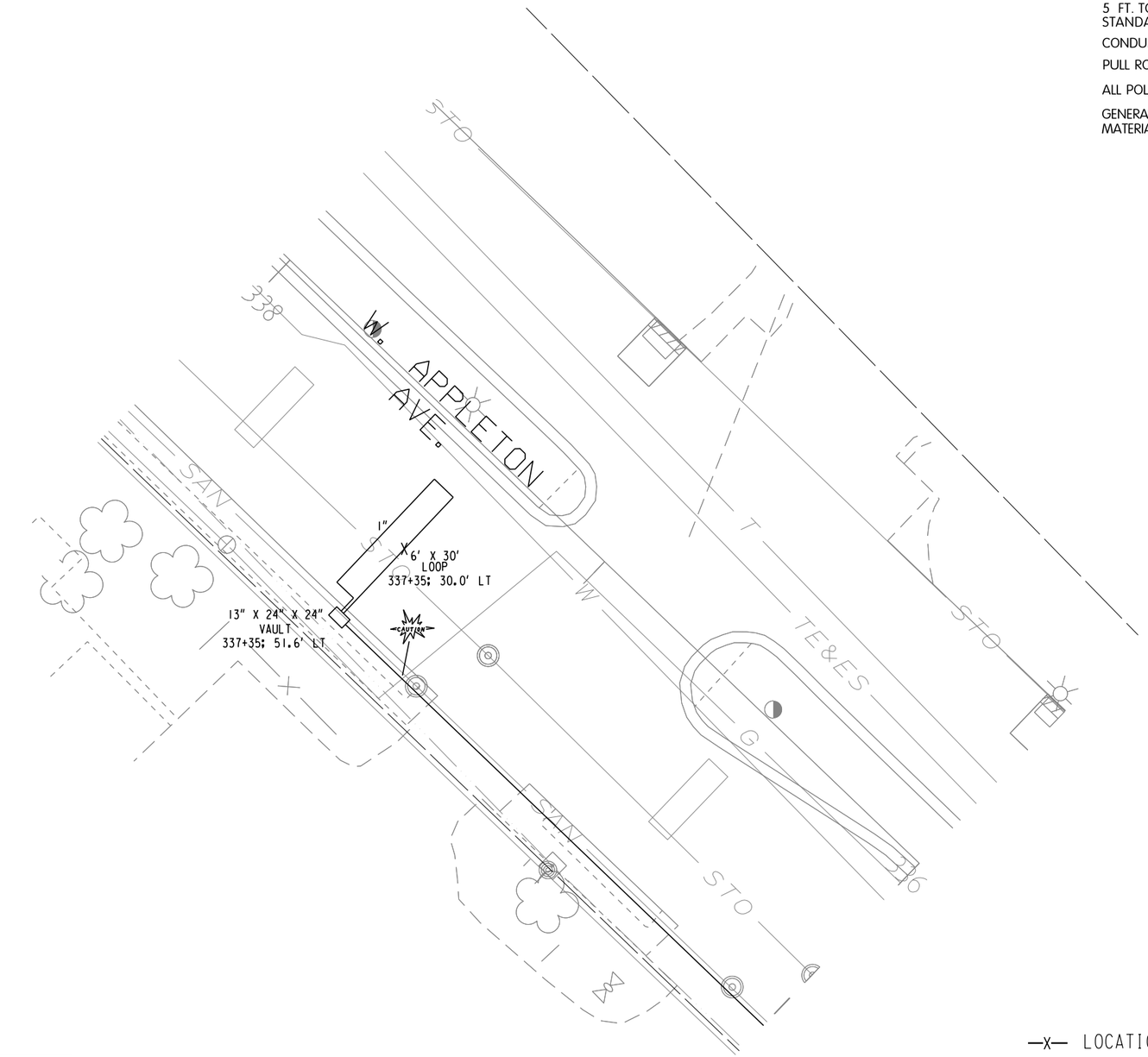
TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

—X— LOCATION IS TO FRONT CENTER OF DETECTION LOOP

SCALE, FEET 0 30

SHEET 16 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 209	E

2

NOTE:

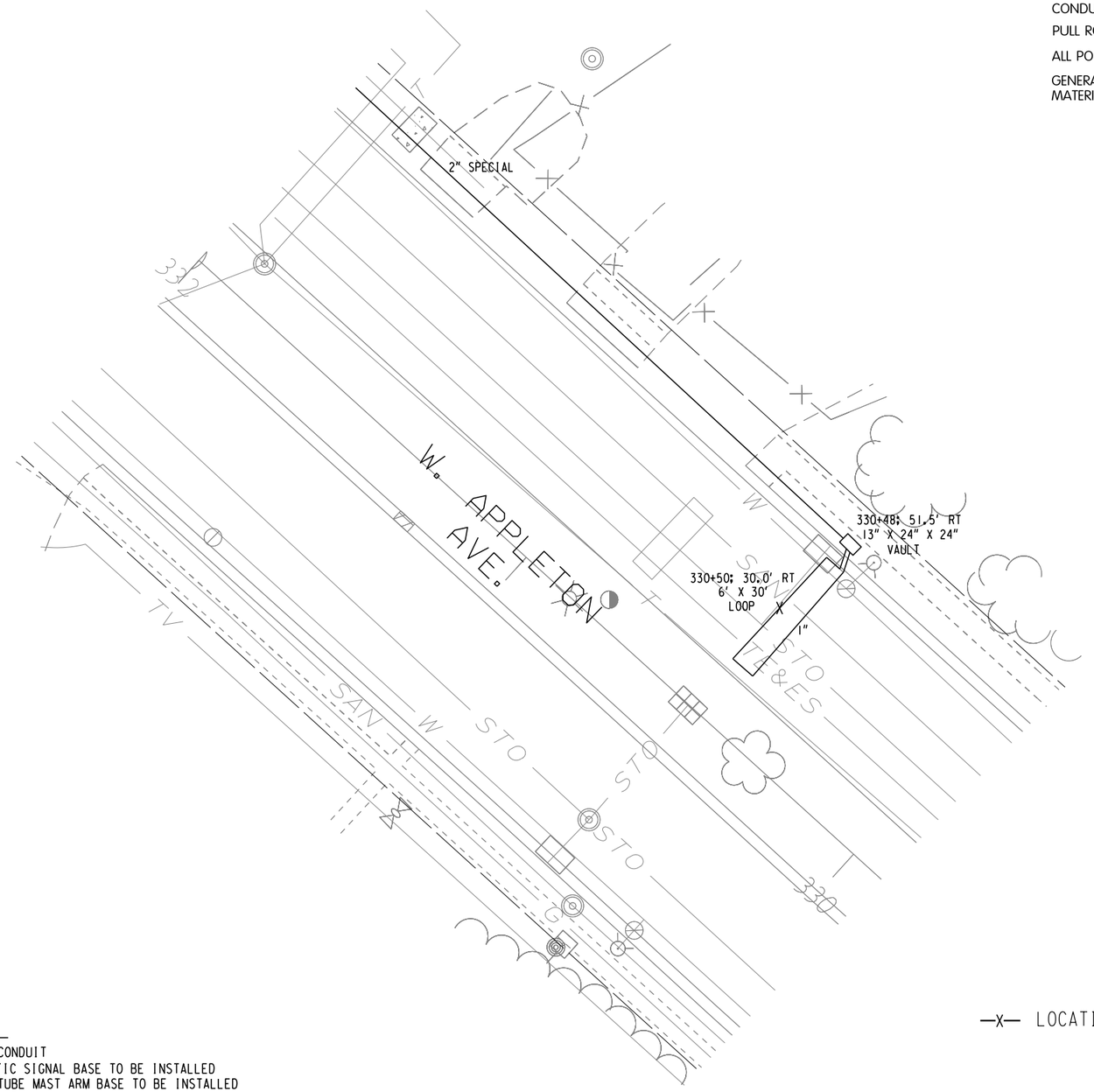
TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

—X— LOCATION IS TO FRONT CENTER OF DETECTION LOOP

SCALE, FEET 0 30

SHEET 17 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 210	E

2

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

N

N. 9th ST

W. APPLETON AVE.

288+36; 113.9' RT 17" X 30" X 18" VAULT

288+01; 80.1' RT 17" X 30" X 18" VAULT

288+43; 111.6' RT 17" X 30" X 18" VAULT

288+51; 64.1' RT SIGNAL BASE

288+44; 56.1' RT 13" X 24" X 18" VAULT

288+80; 66.6' RT 17" X 30" X 18" VAULT

288+55; 55.5' RT SIGNAL BASE

288+81; 14.3' RT 17" X 30" X 18" VAULT

288+22; 8.4' RT TYPE 10 CONCRETE BASE TYPE 10 POLE

288+83; 47.6' LT 17" X 30" VAULT

287+46; 50.2' LT SIGNAL BASE

287+22; 59.9' LT SIGNAL BASE

287+58; 51.2' LT 17" X 30" X 18" VAULT

287+18; 96.7' LT 17" X 30" X 18" VAULT

286+64; 19.4' LT 17" X 30" X 18" VAULT

287+19; 68.3' RT 17" X 30" X 18" VAULT

286+78; 52.4' RT 17" X 30" X 18" VAULT

287+14; 61.4' RT SIGNAL BASE

286+92; 51.0' RT SIGNAL BASE

287+84; 72.2' RT TYPE 10 CONCRETE BASE TYPE 10 POLE

285+52; 52.2' RT 17" X 30" X 18" VAULT

285+54; 9.4' LT 17" X 30" X 18" VAULT

286+16; 5.3' LT TYPE 10 CONCRETE BASE TYPE 10 POLE

285+98; 51.2' LT 13" X 24" X 18" VAULT

285+88; 50.6' LT SIGNAL BASE

285+91; 59.7' LT SIGNAL BASE

285+57; 57.8' LT 17" X 30" X 18" VAULT

285+51; 70.8' LT CONTROL CABINET BASE

286+54; 70.4' LT TYPE 10 CONCRETE BASE TYPE 10 POLE

286+37; 92.1' LT 17" X 30" X 18" VAULT

286+05; 122.6' LT 17" X 30" X 18" VAULT

STREET LIGHT INSTALLED BY CITY

25' ARM

SPECIAL 2-3"

2-3"

2"

3" SPECIAL

288 286

LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 30

SHEET 18 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 211	E

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

- N -

W. APPLETON AVE.

W. GRANTOSA DR.

AVE. P

255+71; 52.3' RT
TYPE 10 CONCRETE BASE SPECIAL
TYPE 12 POLE SPECIAL

17" X 30" X 18" VAULT
255+51; 81.6' RT

255+76; 51.5' RT
17" X 30" X 18" VAULT

SPECIAL 2-3"

35' ARM

SIGNAL BASE
255+54; 65.8' RT

255+82; 5.1' RT
17" X 30" X 18" VAULT

LIGHT POLE RELOCATED BY CITY

2-3" SPECIAL

254+98; 79.6' RT
17" X 30" X 18" VAULT

LIGHT POLE RELOCATED BY CITY

SPECIAL 2-3"

2-3" SPECIAL

30' ARM

254+57; 77.7' RT
17" X 30" X 18" VAULT

17" X 30" X 18" VAULT
255+82; 50.2' LT

SIGNAL BASE
255+69; 53.3' LT

255+54; 64.8' LT
SIGNAL BASE

254+54; 67.6' RT
TYPE 10 CONCRETE BASE
TYPE 9 POLE

17" X 30" X 18" VAULT
255+54; 80.0' LT

254+39; 51.9' RT
SIGNAL BASE

17" X 30" X 18" VAULT
254+32; 50.2' RT

LIGHT POLE RELOCATED BY CITY

CONTROL CABINET BASE
255+55; 99.0' LT

SPECIAL 2-3"

30' ARM

TYPE 10 CONCRETE BASE
TYPE 9 POLE
255+53; 84.9' LT

254+31; 5.0' LT
SIGNAL BASE

254+26; 4.8' LT
TYPE 10 CONCRETE BASE
TYPE 10 POLE

2-3" SPECIAL

STREET LIGHT INSTALLED BY CITY

17" X 30" X 18" VAULT
255+07; 81.8' LT

254+55; 67.5' LT
SIGNAL BASE

STREET LIGHT INSTALLED BY CITY

254+20; 5.0' LT
17" X 30" X 18" VAULT

SPECIAL 2-3"

30' ARM

17" X 30" X 18" VAULT
254+57; 82.7' LT

SIGNAL BASE
254+39; 52.0' LT

17" X 30" X 18" VAULT
254+32; 50.3' LT

LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 30

SHEET 19 OF 22

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 212	E

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

N

W. APPLETON AVE.

W. HAMPTON AVE.

250+75; 52.4' RT
17" X 30" X 18"
VAULT

250+76; 3.1' LT
17" X 30" X 18"
VAULT

2-3"
SPECIAL

250+75; 54.9' LT
13" X 24" X 18"
VAULT

CONTROL CABINET BASE
250+79; 76.0' LT

250+58; 74.6' LT
13" X 24" X 18"
VAULT

250+27; 45.6' LT
SIGNAL BASE

LIGHT POLE
RELOCATED BY CITY

2-3"
SPECIAL
17" X 30" X 18"
VAULT
250+23; 58.8' LT

TYPE 10 CONCRETE BASE
TYPE 9 POLE
250+19; 56.9' LT

2-3"
SPECIAL
30' ARM

LIGHT POLE
RELOCATED BY CITY

17" X 30" X 18"
VAULT
249+67; 83.0' LT

249+79; 67.5' RT
13" X 24" X 18"
VAULT

TYPE 10 CONCRETE BASE SPECIAL
TYPE 12 POLE SPECIAL
249+44; 52.7' RT

SPECIAL
2"

249+40; 55.4' RT
13" X 24" X 18"
VAULT

40' ARM
41 DEGREES

INSTALL BASE ROTATED

SIGNAL BASE
249+24; 61.2' RT

17" X 30" X 18"
VAULT
248+85; 132.0' RT

LIGHT POLE
RELOCATED BY CITY

2-3"
SPECIAL

17" X 30" X 18"
VAULT
248+35; 100.6' RT

30' ARM

TYPE 10 CONCRETE BASE
TYPE 9 POLE
248+04; 75.9' RT

SIGNAL BASE
248+05; 61.8' RT

248+01; 80.1' RT
17" X 30" X 18"
VAULT

SIGNAL BASE
247+90; 51.5' RT

17" X 30" X 18"
VAULT
247+78; 50.2' RT

248+91; 70.9' LT
SIGNAL BASE

248+67; 50.7' LT
SIGNAL BASE

249+13; 107.8' LT
17" X 30" X 18"
VAULT

248+59; 51.5' LT
13" X 24" X 18"
VAULT

13" X 24" X 18"
VAULT
248+93; 76.8' LT

35' ARM

TYPE 10 CONCRETE BASE SPECIAL
TYPE 12 POLE SPECIAL
248+31; 50.7' LT

17" X 30" X 18"
VAULT
248+10; 51.5' LT

17" X 30" X 18"
VAULT
247+96; 9.6' LT

LIGHT POLE
RELOCATED BY CITY

LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 30

SHEET 20 OF 22

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 213	E

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

N

W. CONGRESS ST.

W. APPLETON AVE.

217+15; 52.2' RT
17" X 30" X 18"
VAULT

217+14; 5.0' RT
17" X 30" X 18"
VAULT

SPECIAL
2-3"

25' ARM

STREET LIGHT
INSTALLED BY CITY

2-3"
SPECIAL

TYPE 10 CONCRETE BASE
TYPE 10 POLE
217+07; 5.1' RT

217+13; 53.1' LT
17" X 30" X 18"
VAULT

SIGNAL BASE
217+00; 50.2' LT

216+90; 72.4' LT
17" X 30" X 18"
VAULT

216+86; 67.6' LT
TYPE 10 CONCRETE BASE
TYPE 10 POLE

30' ARM

2-3"
SPECIAL

216+38; 51.7' RT
17" X 30" X 18"
VAULT

216+35; 51.5' RT
SIGNAL BASE

EXISTING POLE

17" X 30" X 18"
VAULT
216+12; 67.8' RT

215+72; 134.8' RT
17" X 30" X 18"
VAULT

40' ARM

215+19; 102.5' RT
17" X 30" X 18"
VAULT

215+33; 78.1' RT
17" X 30" X 18"
VAULT

TYPE 10 CONCRETE BASE SPECIAL
TYPE 12 POLE SPECIAL
215+34; 66.2' RT

216+01; 66.3' LT
SIGNAL BASE

215+84; 52.1' LT
SIGNAL BASE

4-3"

3"

STREET LIGHT
INSTALLED BY CITY

215+22; 50.7' RT
SIGNAL BASE

CONTROL CABINET BASE
215+21; 78.9' RT

17" X 30" X 18"
VAULT
216+25; 107.3' LT

17" X 30" X 18"
VAULT
216+03; 71.7' LT

TYPE 10 CONCRETE BASE
TYPE 10 POLE
215+32; 4.9' LT

STREET LIGHT
INSTALLED BY CITY

25' ARM

17" X 30" X 18"
VAULT
215+79; 52.6' LT

17" X 30" X 18"
VAULT
215+12; 52.6' RT

SPECIAL
2-3"

17" X 30" X 18"
VAULT
215+10; 5.2' LT

17" X 30" X 18"
VAULT
215+09; 52.4' LT

HWY. 41

AVE.

LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 30

SHEET 21 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 214	E

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WISDOT/CADDS SHEET 42

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

17" X 30" X 18" VAULT 203+16; 50.9' RT

203+69; 52.8' RT TYPE 10 CONCRETE BASE SPECIAL TYPE 12 POLE SPECIAL

30' ARM

CONC

2.5"

2" B.O.C.

202+55; 64.6' RT TYPE 10 CONCRETE BASE TYPE 10 POLE

STREET LIGHT INSTALLED BY CITY

17" X 30" X 18" VAULT 202+51; 66.1' RT

N. 76TH

W. APPLETON

204

202

100-0

240

2-2.5"

40-8

28D

2.5"

17-6

54-0

20-8

21D

2.5" 2-2.5"TR

HOPE AVE.

N. 75TH ST.

17" X 30" X 18" VAULT 199+91; 6.0' LT

199+83; 5.9' LT TYPE 10 CONCRETE BASE TYPE 9 POLE

200

25' ARM

17" X 30" X 18" VAULT 200+47; 71.1' LT

30' ARM

TYPE 10 CONCRETE BASE TYPE 9 POLE 200+52; 74.1' LT

LEGEND

- STREET LIGHT POLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

SCALE, FEET 0 30

SHEET 22 OF 22

PROJECT NO: 2010–10–70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 215	E

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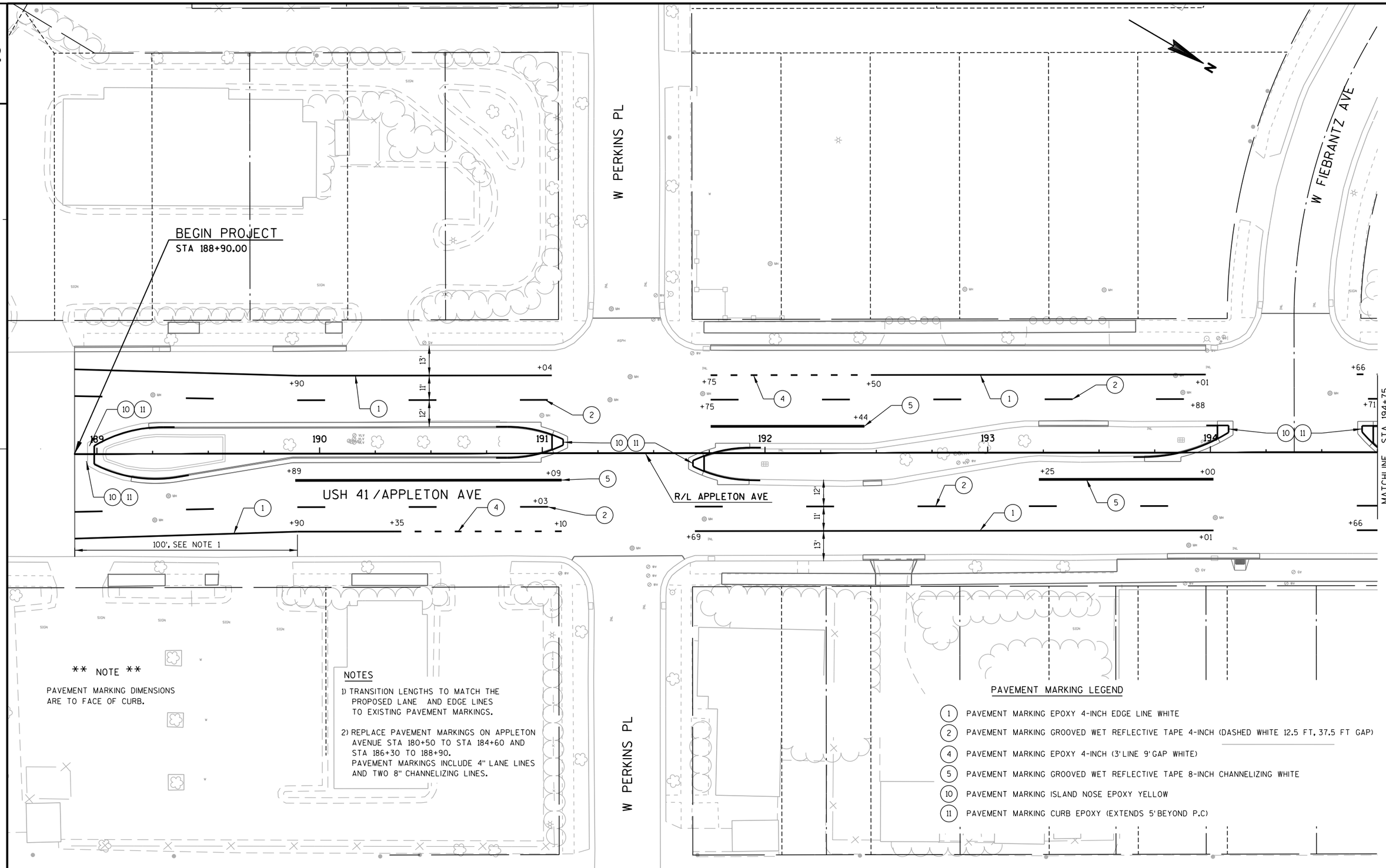
WISDOT/CADDS SHEET 42

2



** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

NOTES

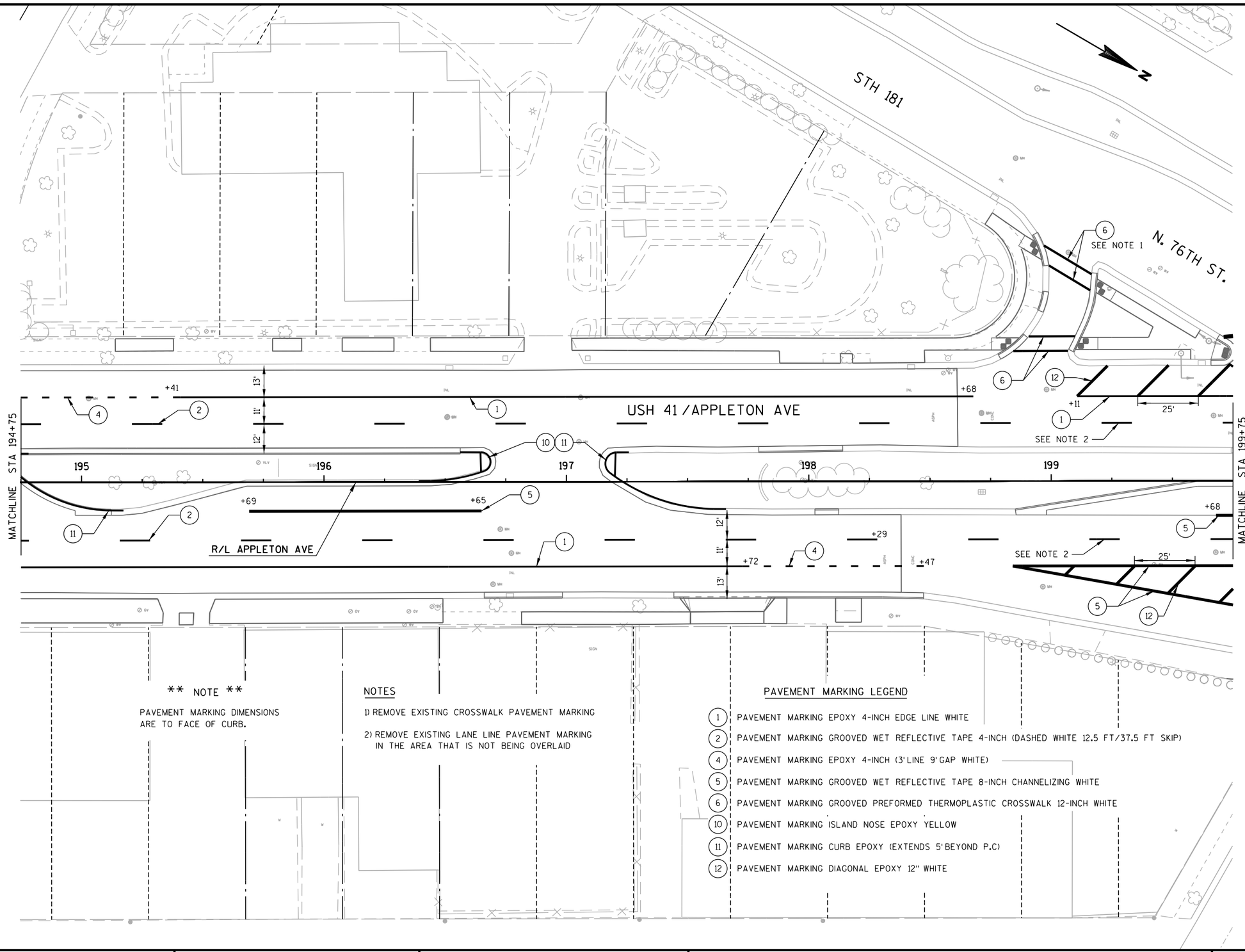
1) TRANSITION LENGTHS TO MATCH THE PROPOSED LANE AND EDGE LINES TO EXISTING PAVEMENT MARKINGS.

2) REPLACE PAVEMENT MARKINGS ON APPLETON AVENUE STA 180+50 TO STA 184+60 AND STA 186+30 TO 188+90. PAVEMENT MARKINGS INCLUDE 4" LANE LINES AND TWO 8" CHANNELIZING LINES.

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT, 37.5 FT GAP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 216	E



** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

NOTES

1) REMOVE EXISTING CROSSWALK PAVEMENT MARKING

2) REMOVE EXISTING LANE LINE PAVEMENT MARKING IN THE AREA THAT IS NOT BEING OVERLAID

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 12-INCH WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)
12. PAVEMENT MARKING DIAGONAL EPOXY 12" WHITE

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 217 E

2

** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

NOTES

1) REMOVE EXISTING CROSSWALK PAVEMENT MARKING

2) REMOVE EXISTING LANE LINE PAVEMENT MARKING IN THE AREA THAT IS NOT BEING OVERLAID

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 12-INCH WHITE
7. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 24-INCH WHITE
9. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)
12. PAVEMENT MARKING DIAGONAL EPOXY 12" WHITE

STH 181

HOPE AVE.

R/L APPLETON AVE

USH 41 /APPLETON AVE

N. 76TH ST.

MATCHLINE STA 199+75

MATCHLINE STA 205+75

SEE NOTE 1

SEE NOTE 2

200 201 202 203 204 205

+93 +92 +67 +33 +59 +36 +94 +25 +21 +71

25'

13' 11' 12'

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 218	E

2

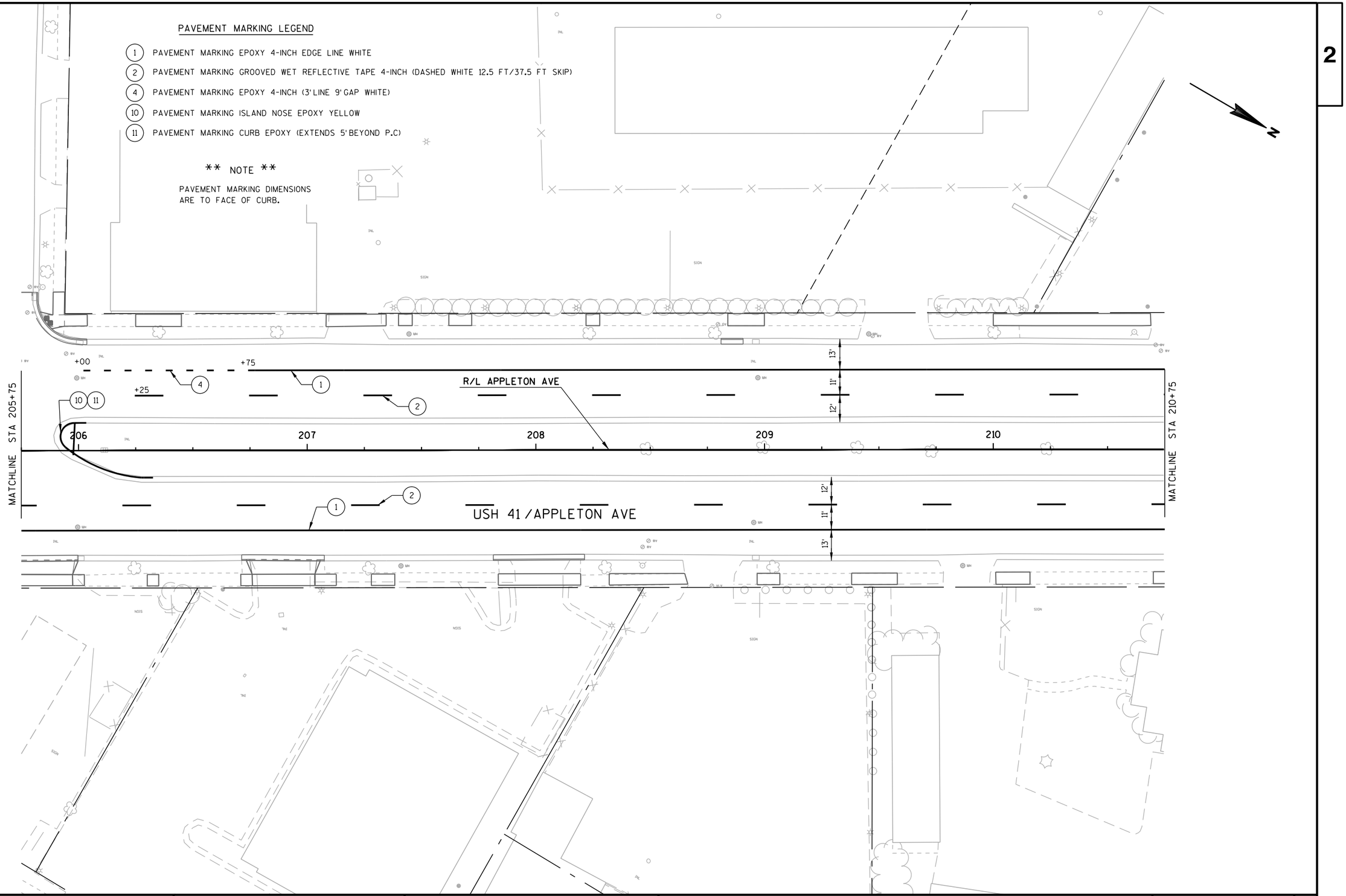
2

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 219 E

NOTES

1) PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

2) MATCH EXISTING PAVEMENT MARKINGS ON W. CONGRESS STREET.

W. CONGRESS ST.

50 LF

R/L APPLETON AVE

USH 41 / APPLETON AVE

MATCHLINE STA 210+75

MATCHLINE STA 216+75

13'
11'
12'

211 212 213 214 215 216

+27 +56

W. CONGRESS ST.

95 LF

PAVEMENT MARKING LEGEND

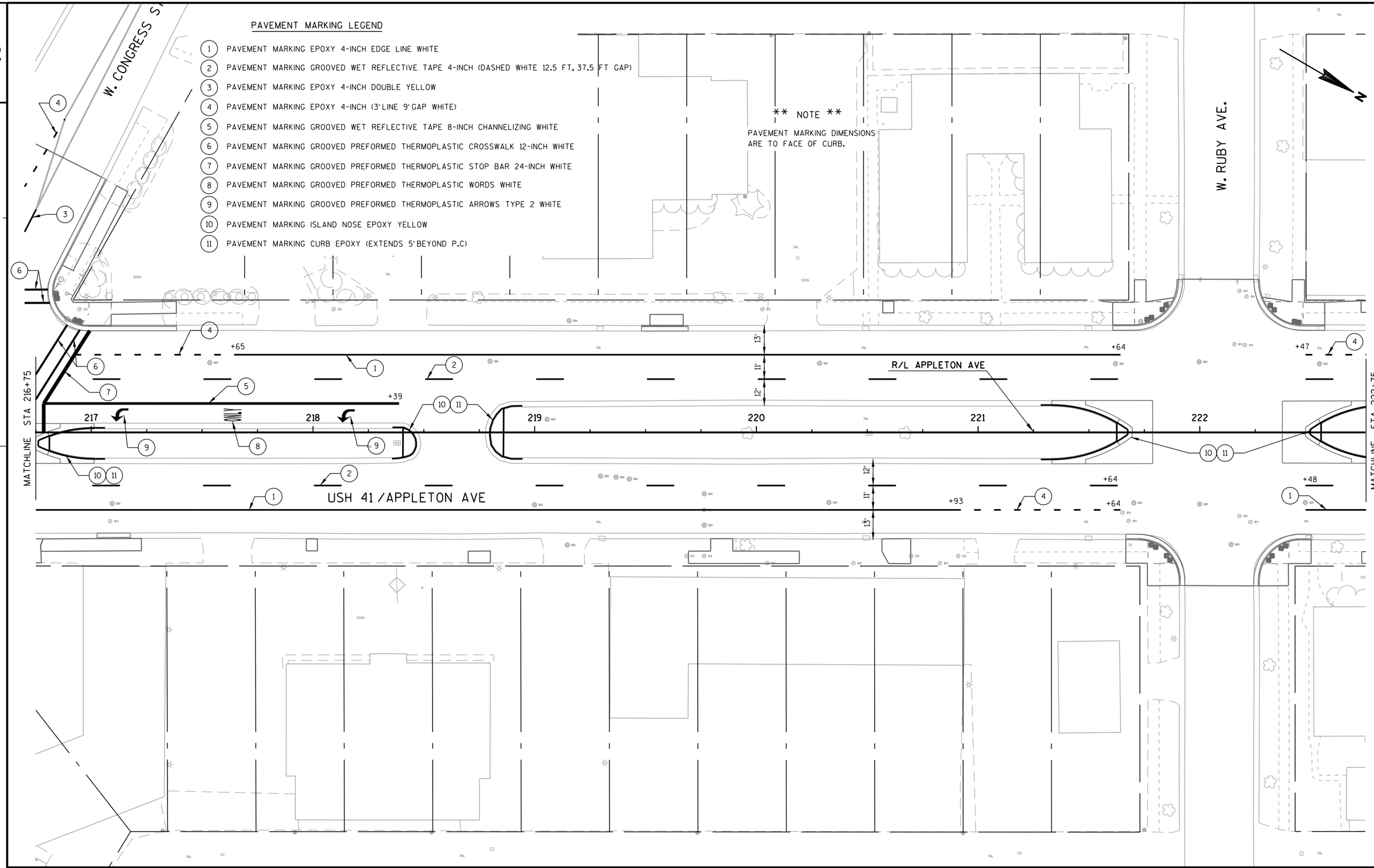
1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT LINE 37.5 FT SKIP)
3. PAVEMENT MARKING EPOXY 4-INCH DOUBLE YELLOW
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 12-INCH WHITE
7. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 24-INCH WHITE
8. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS WHITE
9. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 220	E

PAVEMENT MARKING LEGEND

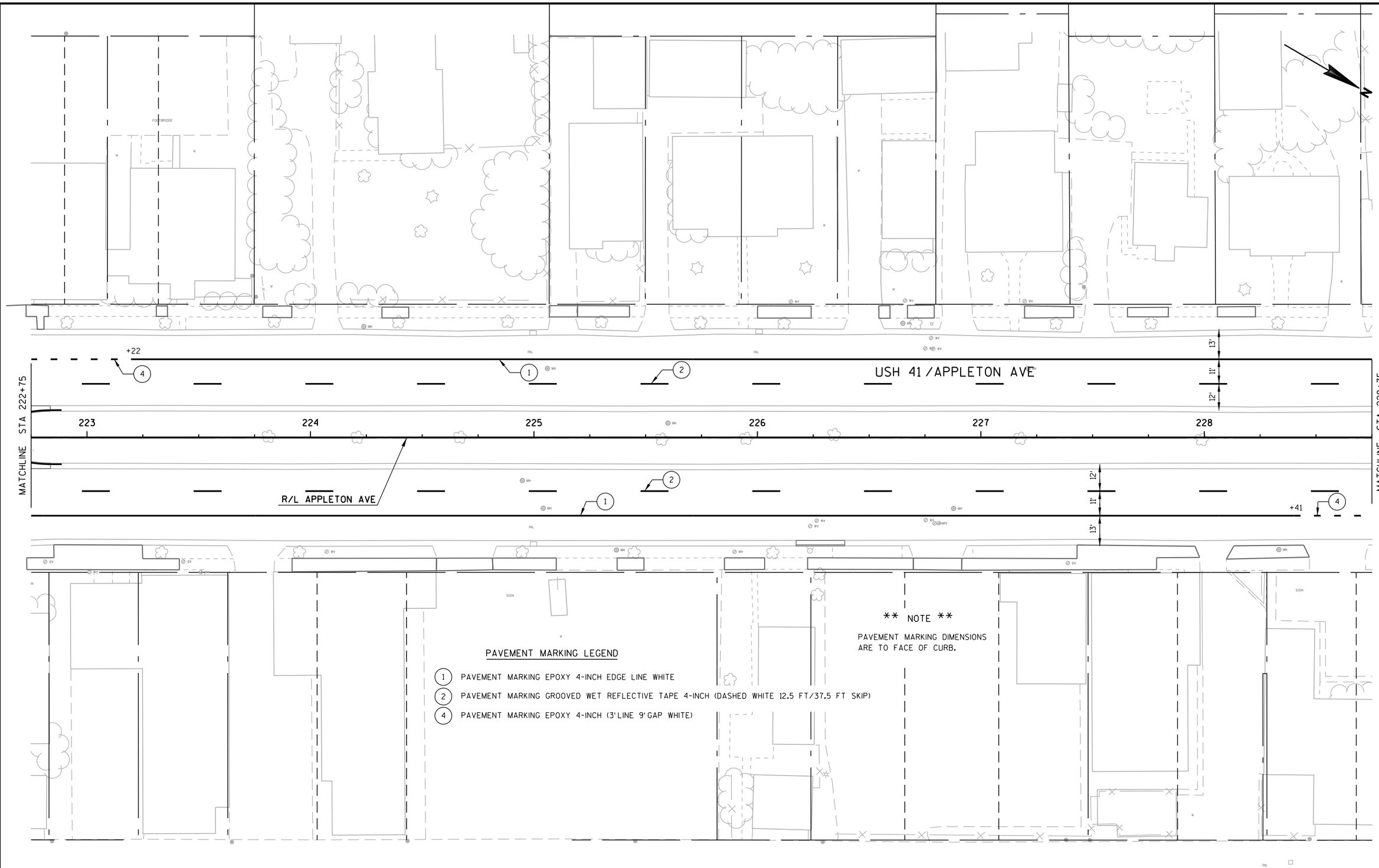
1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT, 37.5 FT GAP)
3. PAVEMENT MARKING EPOXY 4-INCH DOUBLE YELLOW
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 12-INCH WHITE
7. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 24-INCH WHITE
8. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS WHITE
9. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **
PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 221	E

2



PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)

** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 222 E

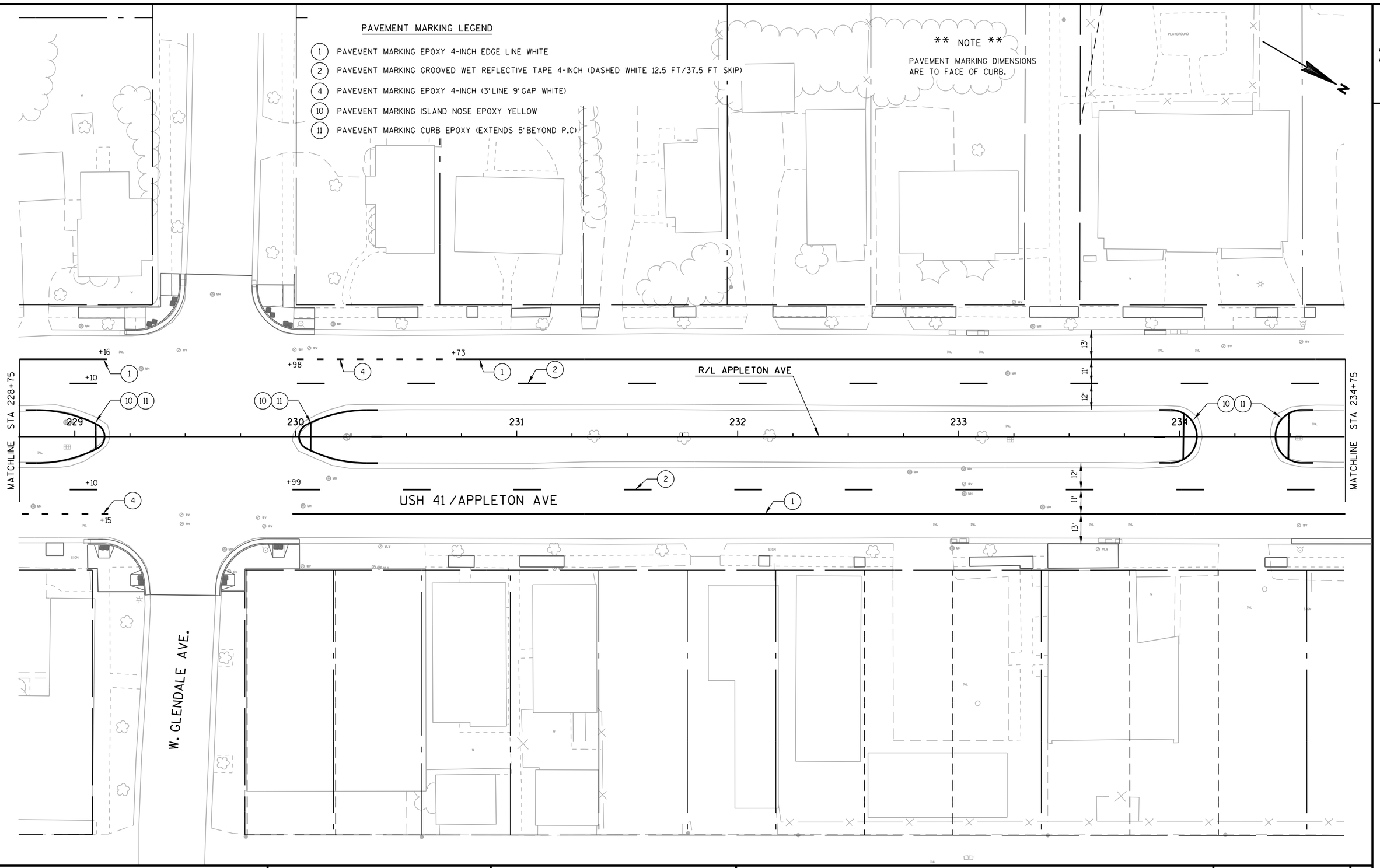
2

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

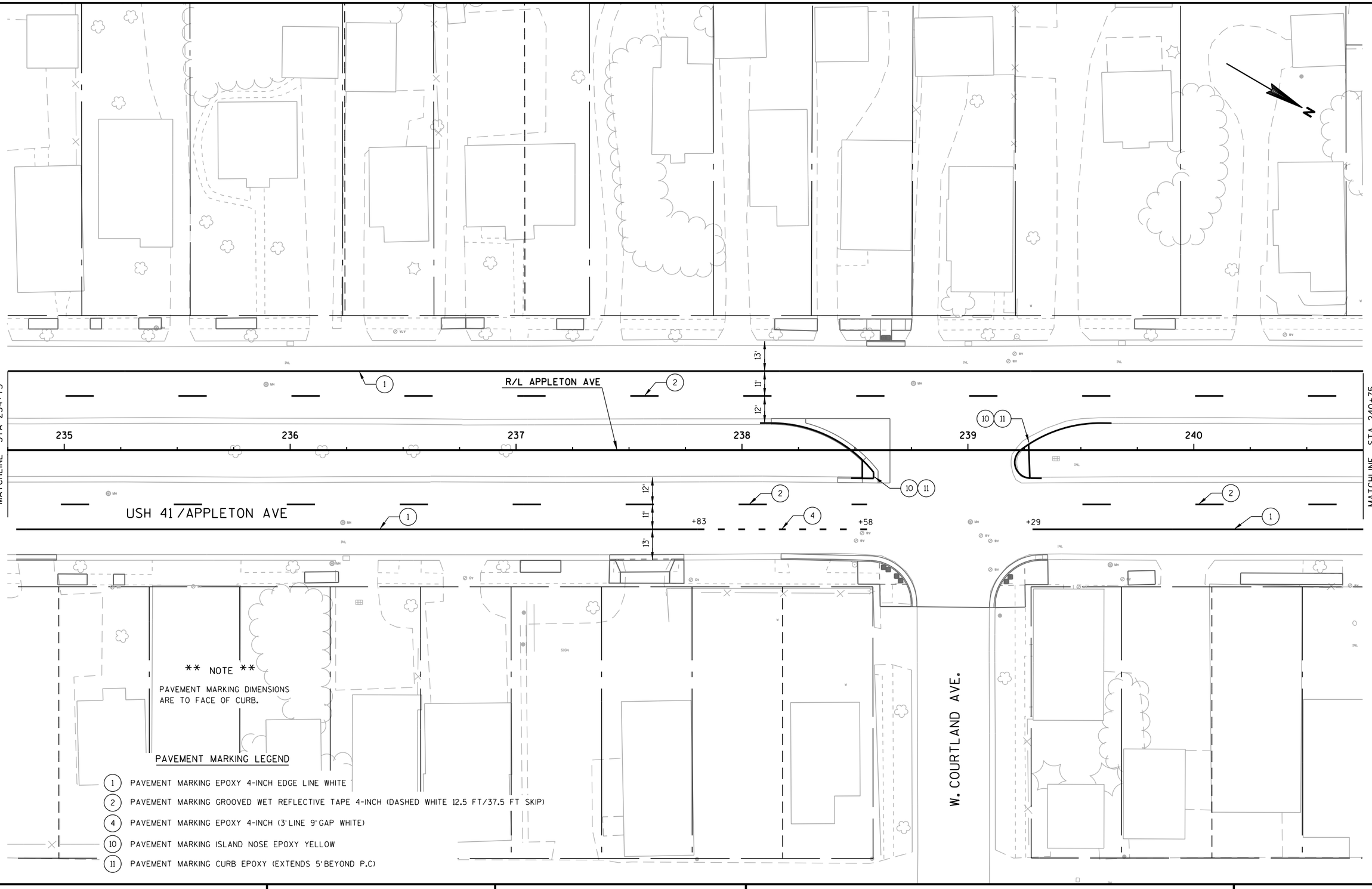


PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 223	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024508_pm.dgn PLOT DATE : 19-DEC-2013 10:35 PLOT BY : tlegear PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 224	E

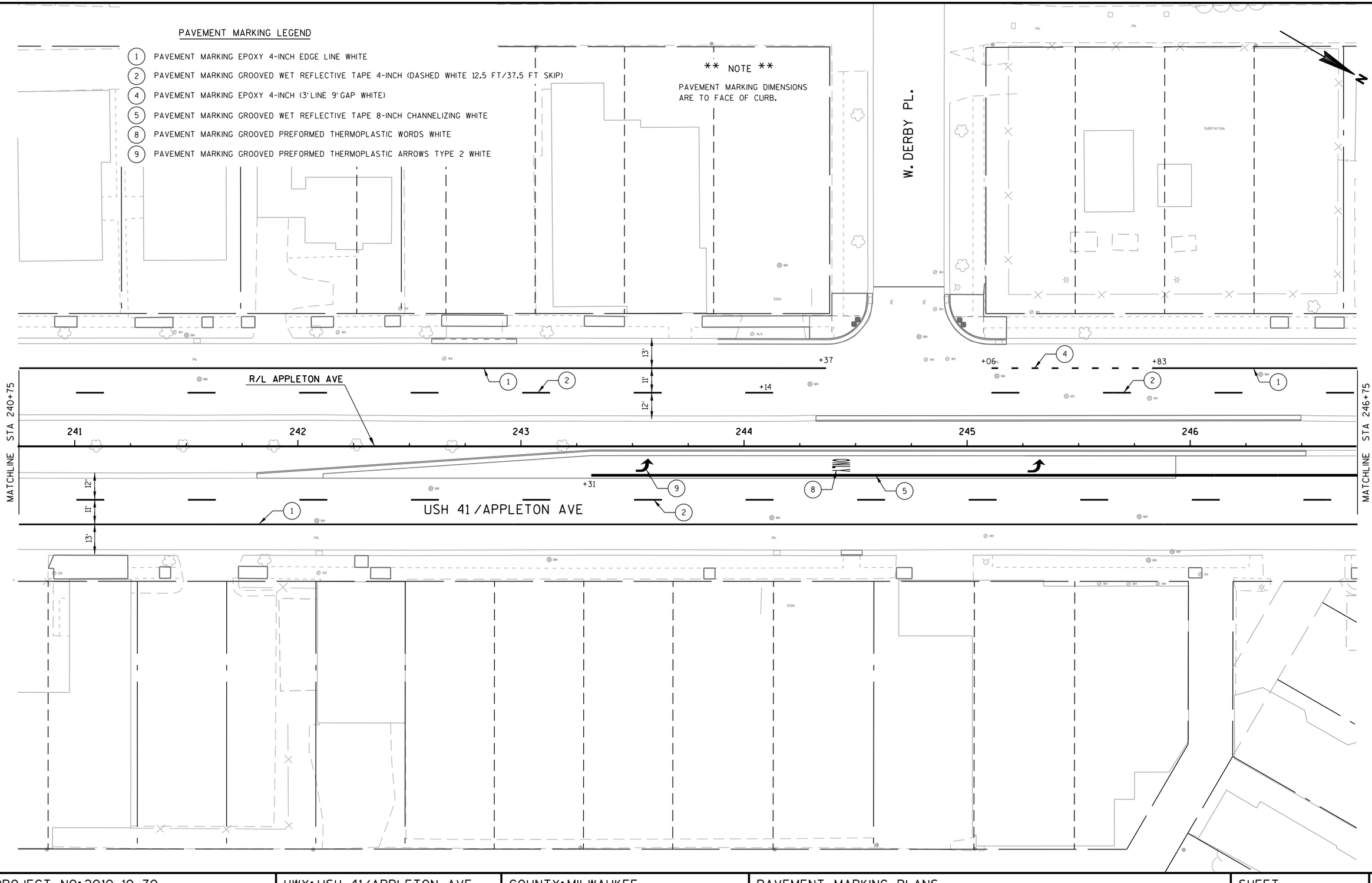
2

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
8. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS WHITE
9. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 WHITE

** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.



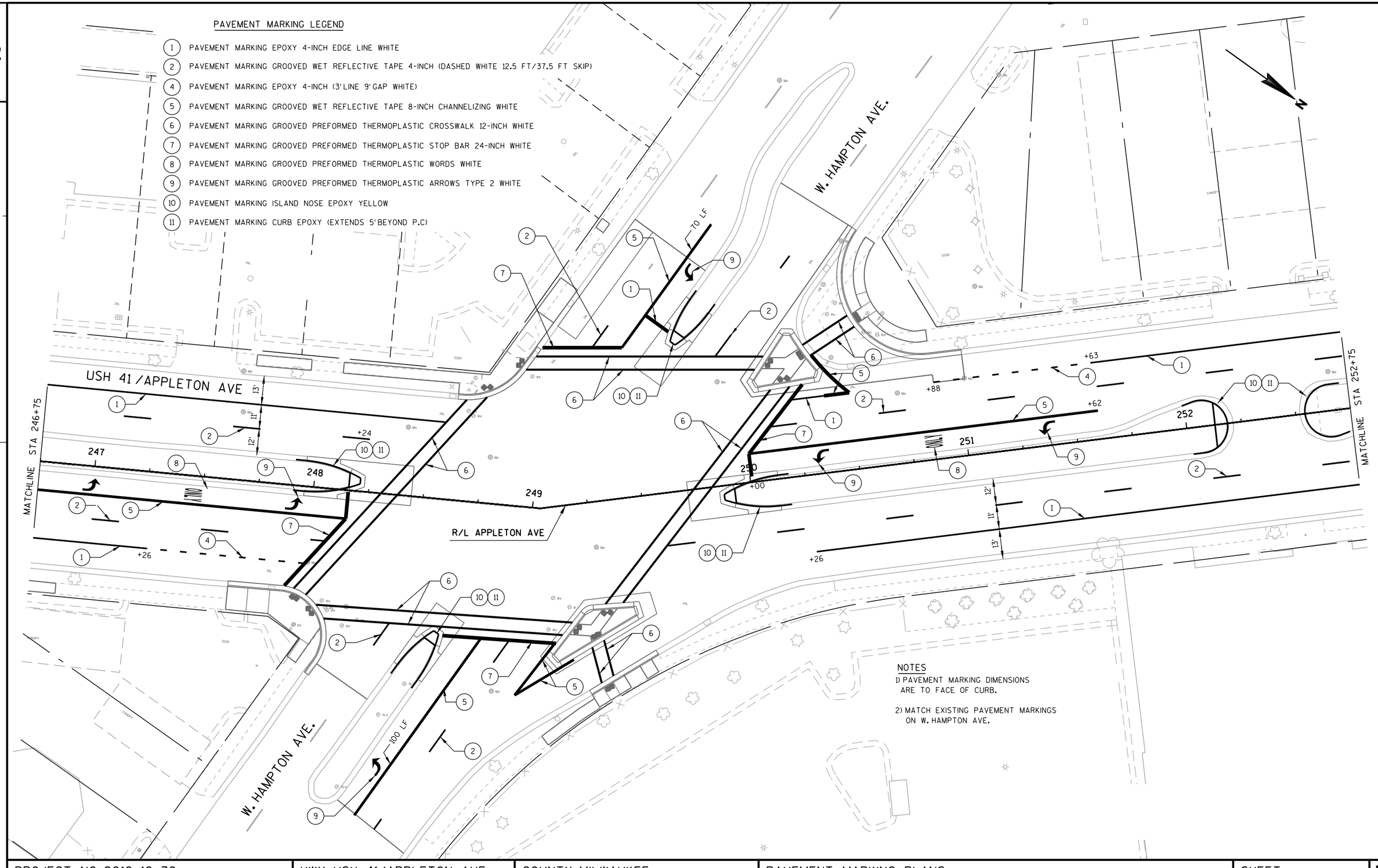
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 225	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024510_pm.dgn PLOT DATE : 19-DEC-2013 10:35 PLOT BY : tlegear PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 12-INCH WHITE
7. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 24-INCH WHITE
8. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS WHITE
9. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)



NOTES

1) PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

2) MATCH EXISTING PAVEMENT MARKINGS ON W. HAMPTON AVE.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 226	E

2

2

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 12-INCH WHITE
7. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 24-INCH WHITE
8. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS WHITE
9. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

W. GRANTOSA DR.

103 LF

MATCHLINE STA 252+75

253 254 255 256 257 258

+11 +24 +44 +63 +73 +80

USH 41/APPLETON AVE

R/L APPLETON AVE

MATCHLINE STA 258+75

MATCHLINE

13' 11' 12'

67 LF

W. GRANTOSA DR.

NOTES

1) PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

2) MATCH EXISTING PAVEMENT MARKINGS ON W. GRANTOSA DR.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 227	E

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

W. STARK ST.

MATCHLINE STA 258+75

259 260 261 262 +22 +85

13' 11' 12' 12' 11' 13'

R/L APPLETON AVE +00 +18 +75

263 264

MATCHLINE STA 264+75

USH 41 / APPLETON AVE

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 228	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024513_pm.dgn PLOT DATE : 19-DEC-2013 10:35 PLOT BY : tlegear PLOT NAME : PLOT SCALE : 40:1

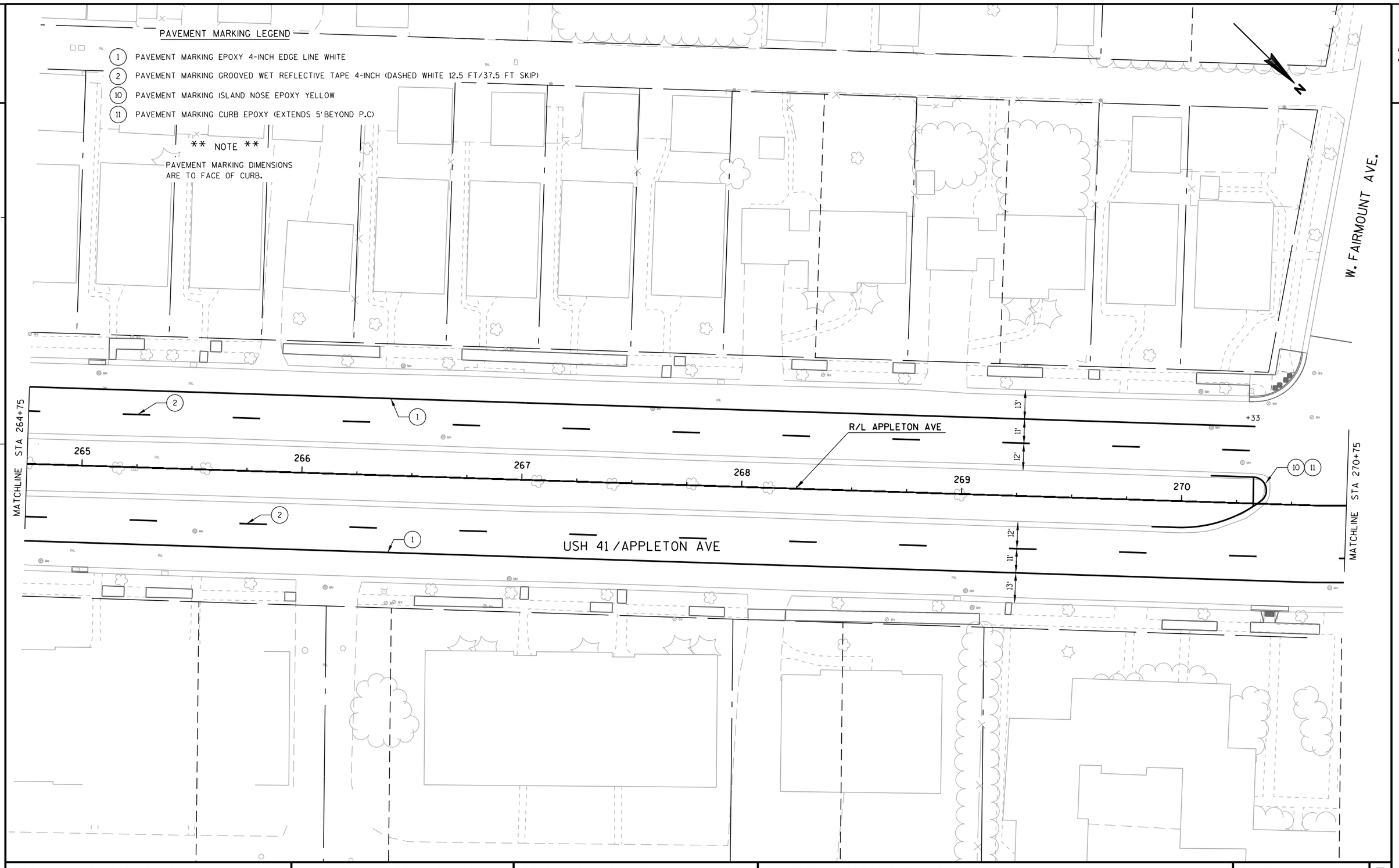
WISDOT/CADDS SHEET 42

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 229 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024514_pm.dgn PLOT DATE : 19-DEC-2013 10:36 PLOT BY : tlegear PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

W. FAIRMOUNT AVE.

N

MATCHLINE STA 270+75

+10 +83 +18 +34 +71 +46

271 272 273 274 275 276

R/L APPLETON AVE

USH 41 / APPLETON AVE

+67 +71

13' 11' 12'

MATCHLINE STA 276+75

W. LANCASTER AVE.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 230	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024515_pm.dgn PLOT DATE : 19-DEC-2013 10:36 PLOT BY : tlegear PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE

(2) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)

(4) PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)

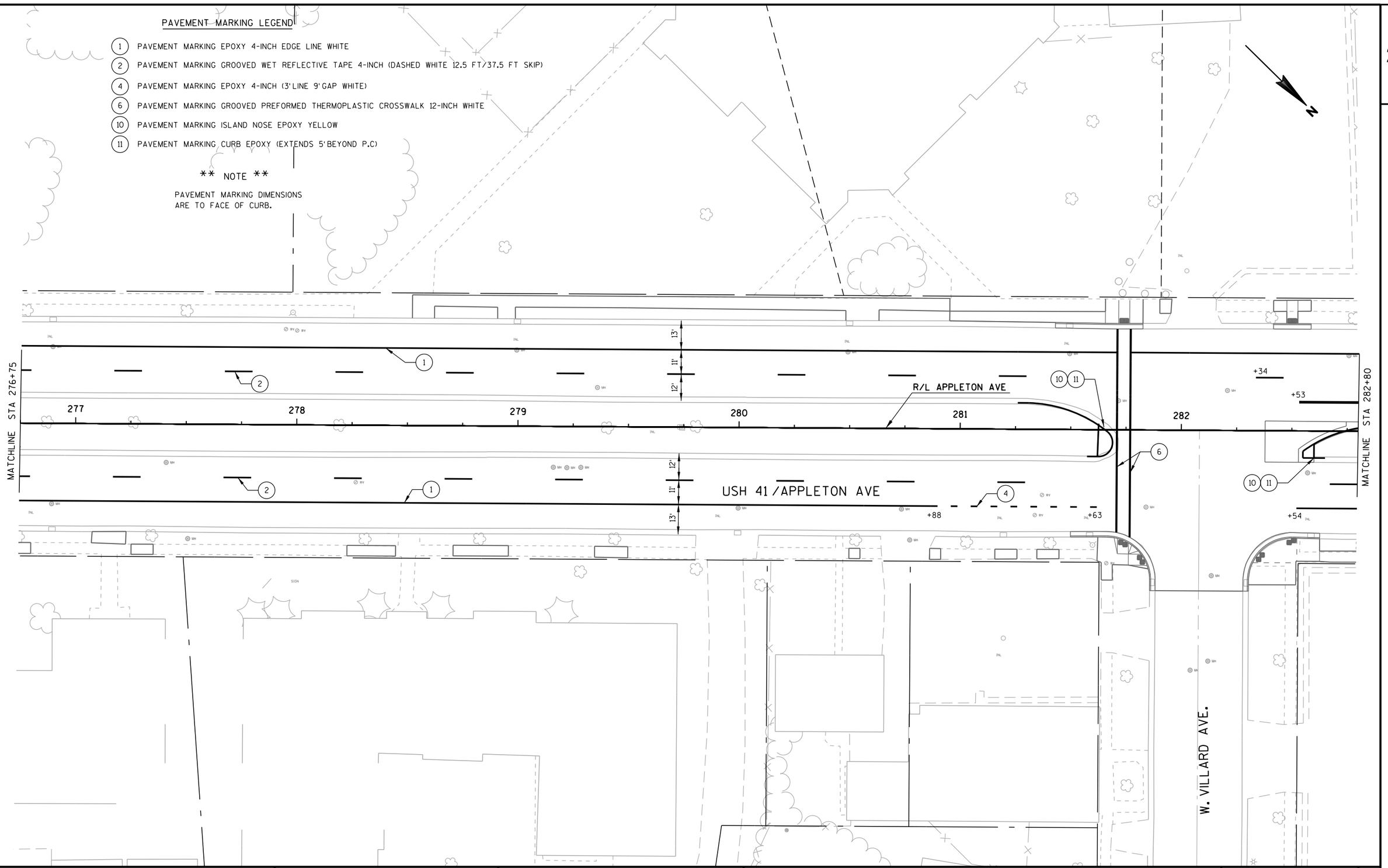
(6) PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 12-INCH WHITE

(10) PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW

(11) PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **

PAVEMENT MARKING DIMENSIONS
ARE TO FACE OF CURB.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 231 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024516_pm.dgn PLOT DATE : 19-DEC-2013 10:36 PLOT BY : tlegear PLOT NAME : PLOT SCALE : 40:1

2

NOTES

1) PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

2) MATCH EXISTING PAVEMENT MARKINGS ON N. 91ST ST.

N 91ST ST

152' TO STOP BAR

R/L APPLETON AVE

USH 41 / APPLETON AVE

MATCHLINE STA 282+80

MATCHLINE STA 288+80

283 284 285 286 287 288

+10 +13 +42 +98 +39

13' 11' 12'

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 12-INCH WHITE
7. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 24-INCH WHITE
8. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS WHITE
9. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 232	E

2

2

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

N

MATCHLINE STA 288+80

+90

289

290

291

292

293

294

R/L APPLETON AVE

+45

+35

+00

USH 41/APPLETON AVE

13'

11'

12'

12'

11'

13'

MATCHLINE STA 294+75

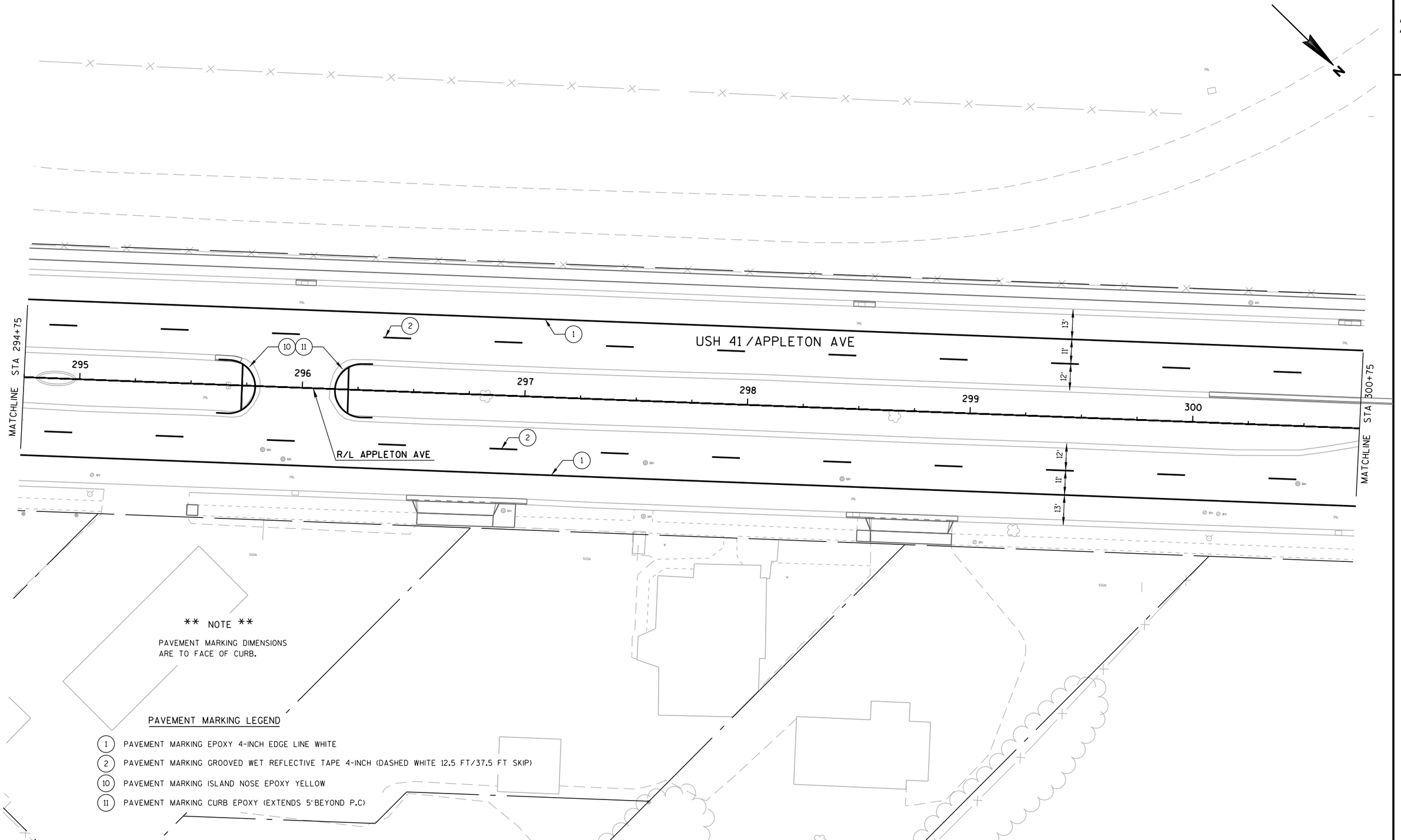
MATCHLINE

N 91ST ST

137' TO STOP BAR

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 233	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 234	E

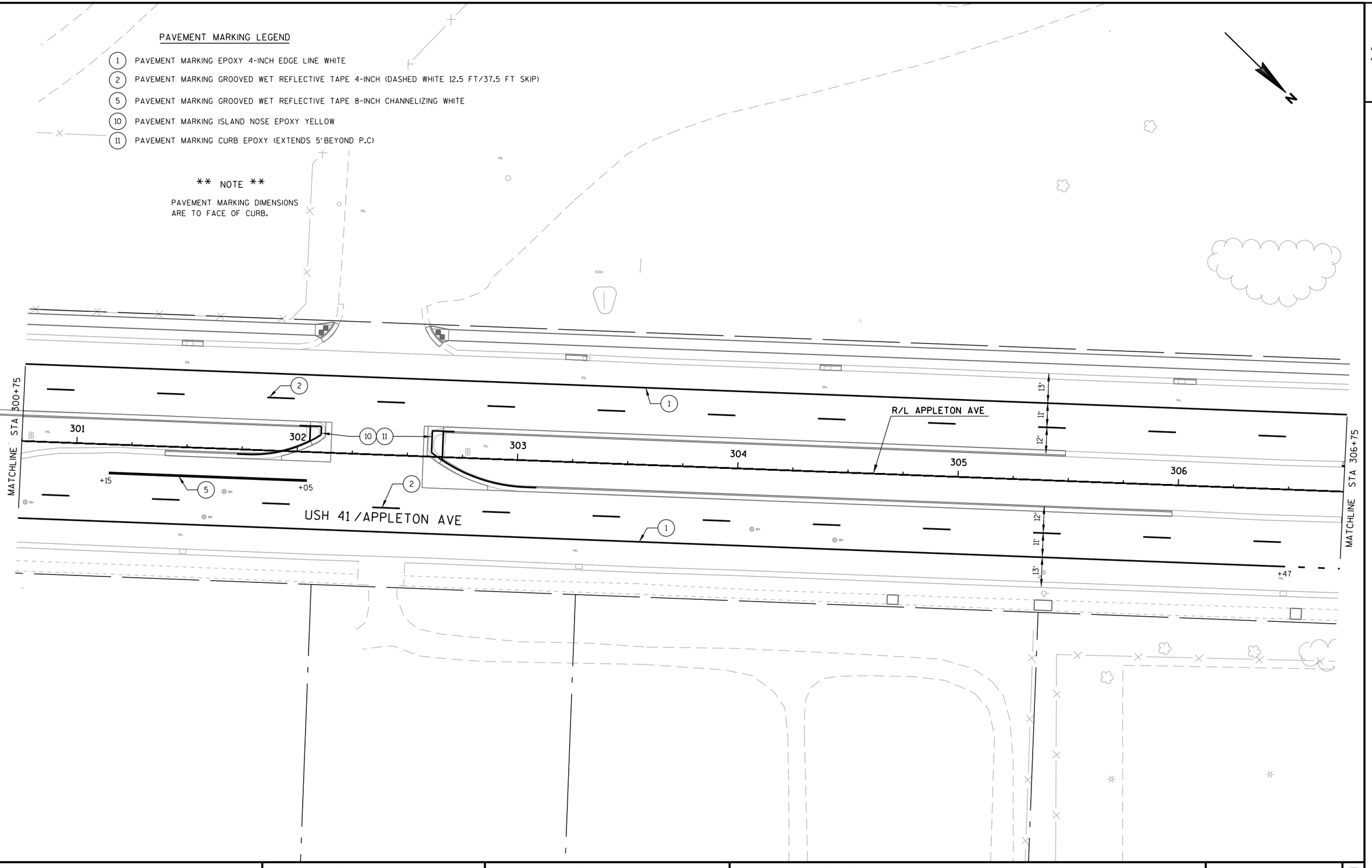
2

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5' BEYOND P.C)

** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 235	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap024520_pm.dgn PLOT DATE : 19-DEC-2013 10:36 PLOT BY : tlegear PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)
13. PAVEMENT MARKING CURB EPOXY 6-INCH DASHED (2'LINE, 6'SKIP)

** NOTE **

PAVEMENT MARKING DIMENSIONS
ARE TO FACE OF CURB.

N

MATCHLINE STA 306+75

MATCHLINE STA 312+75

R/L APPLETON AVE

USH 41 / APPLETON AVE

W. BIRCH AVE.

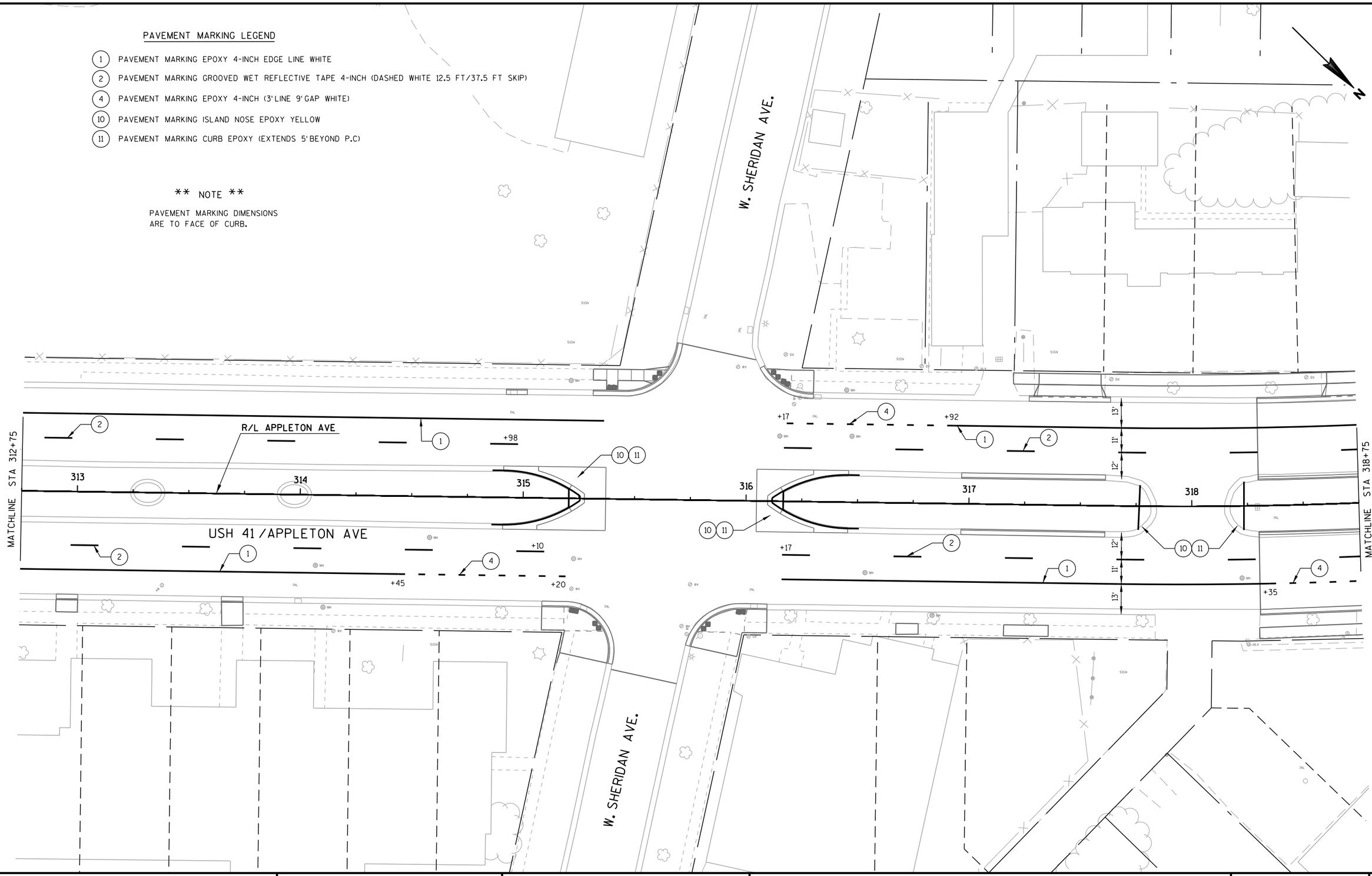
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 236 E

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **

PAVEMENT MARKING DIMENSIONS
ARE TO FACE OF CURB.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 237 E

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 12-INCH WHITE
7. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 24-INCH WHITE
8. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS WHITE
9. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 238 E

2

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE 12.5 FT/37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP WHITE)
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **

PAVEMENT MARKING DIMENSIONS ARE TO FACE OF CURB.

NW RAMP

MN426W

USH 41/APPLETON AVE

R/L APPLETON AVE

N. 99TH STREET

MATCHLINE STA 324+75

MATCHLINE STA 330+75

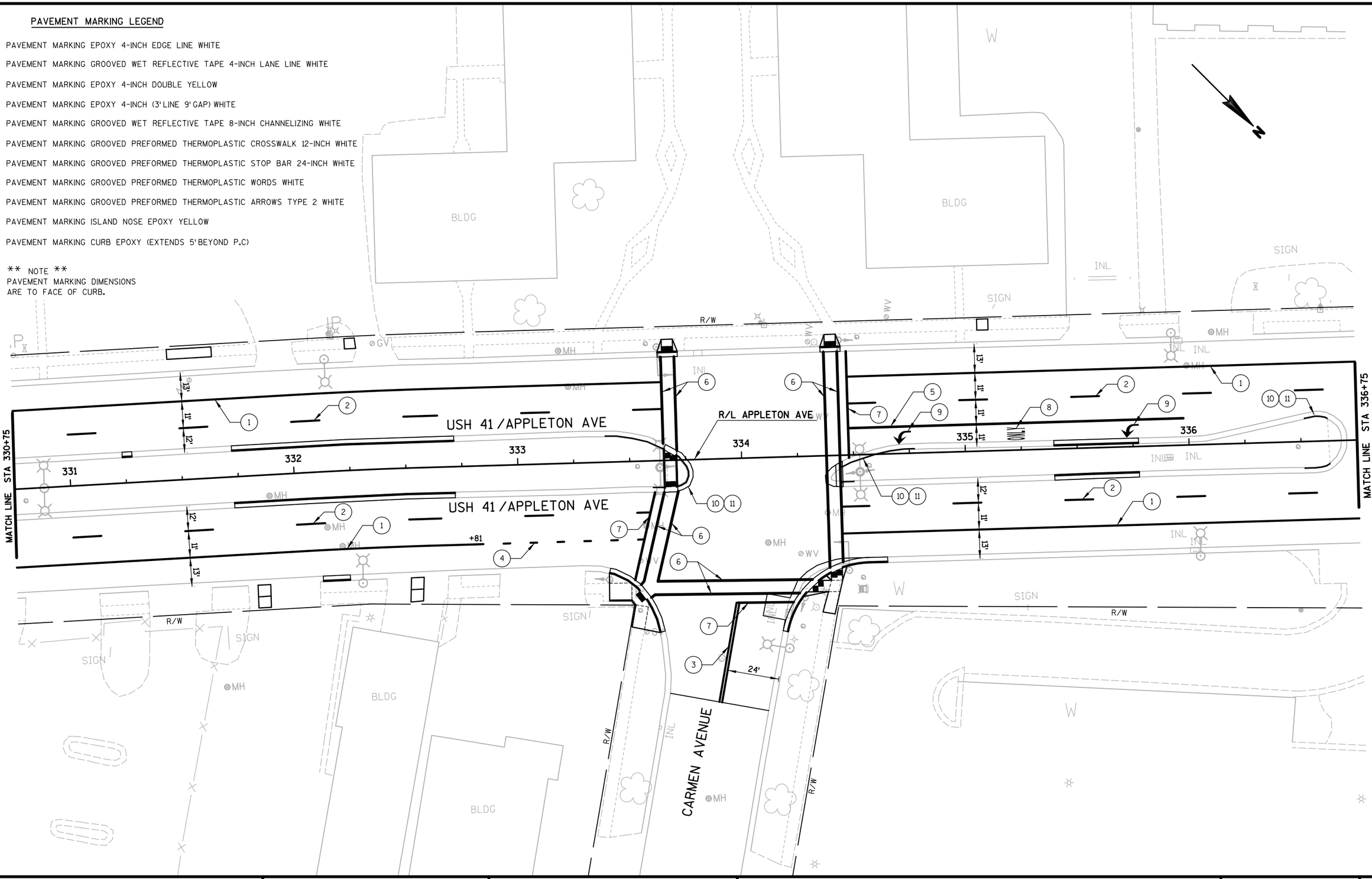
13'
11'
12'

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLANS	SHEET 239	E

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH LANE LINE WHITE
3. PAVEMENT MARKING EPOXY 4-INCH DOUBLE YELLOW
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP) WHITE
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 12-INCH WHITE
7. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 24-INCH WHITE
8. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS WHITE
9. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **
PAVEMENT MARKING DIMENSIONS
ARE TO FACE OF CURB.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 240	E

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2

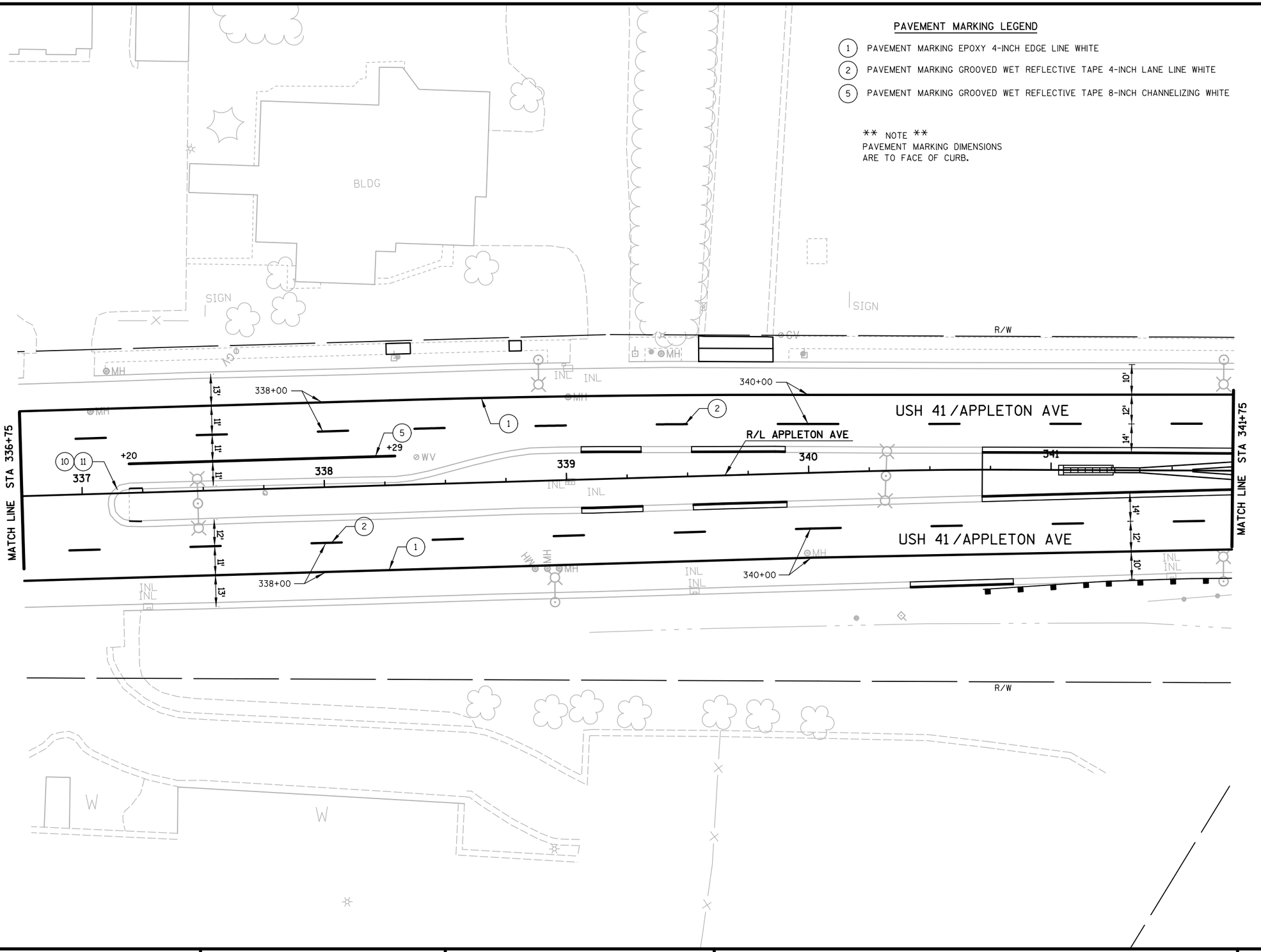
PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE

(2) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH LANE LINE WHITE

(5) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE

** NOTE **
PAVEMENT MARKING DIMENSIONS
ARE TO FACE OF CURB.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

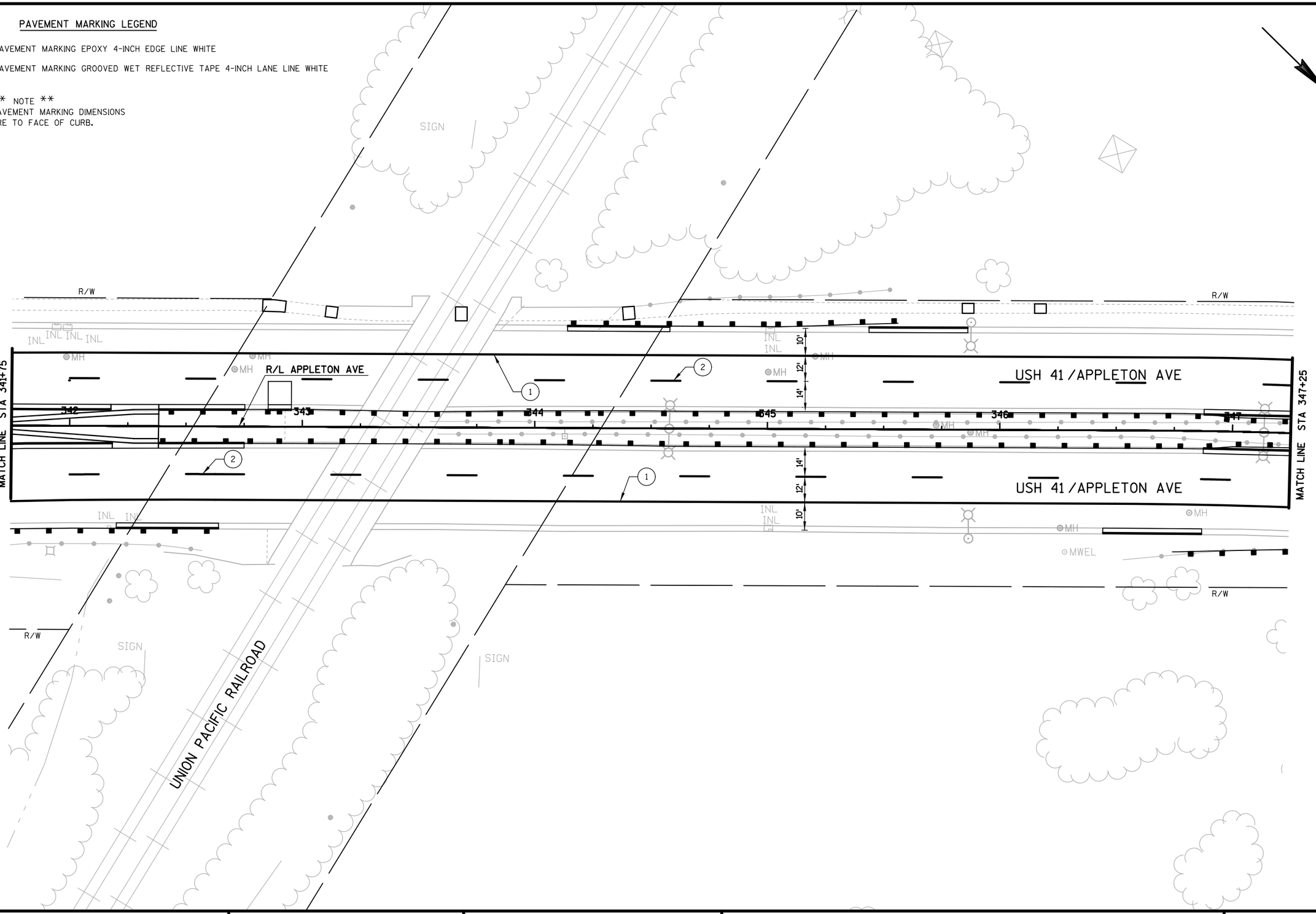
FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\024502_pm.dgn PLOT DATE : 10/14/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE

(2) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH LANE LINE WHITE

** NOTE **
PAVEMENT MARKING DIMENSIONS
ARE TO FACE OF CURB.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

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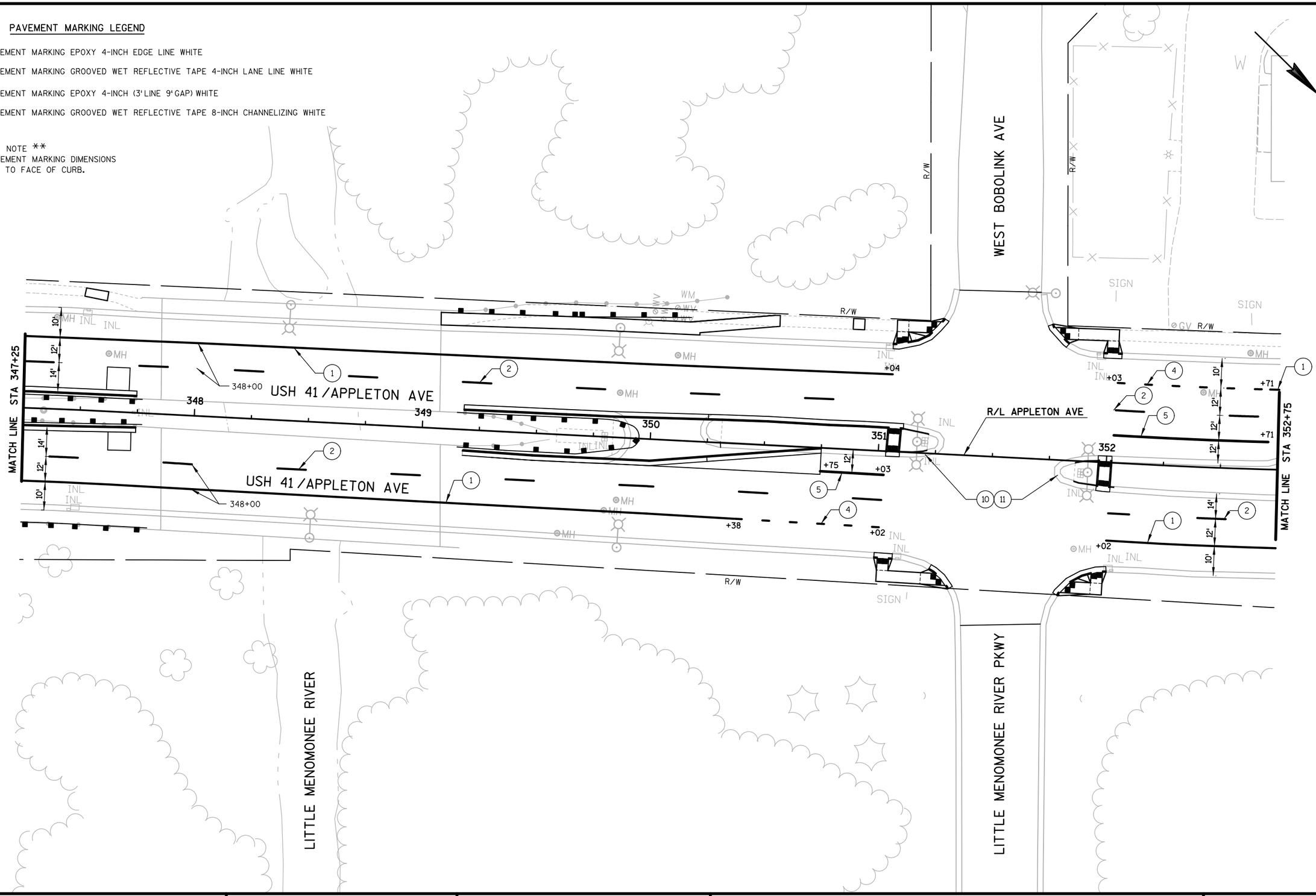
PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH LANE LINE WHITE
4. PAVEMENT MARKING EPOXY 4-INCH (3' LINE 9' GAP) WHITE
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE

** NOTE **
PAVEMENT MARKING DIMENSIONS
ARE TO FACE OF CURB.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

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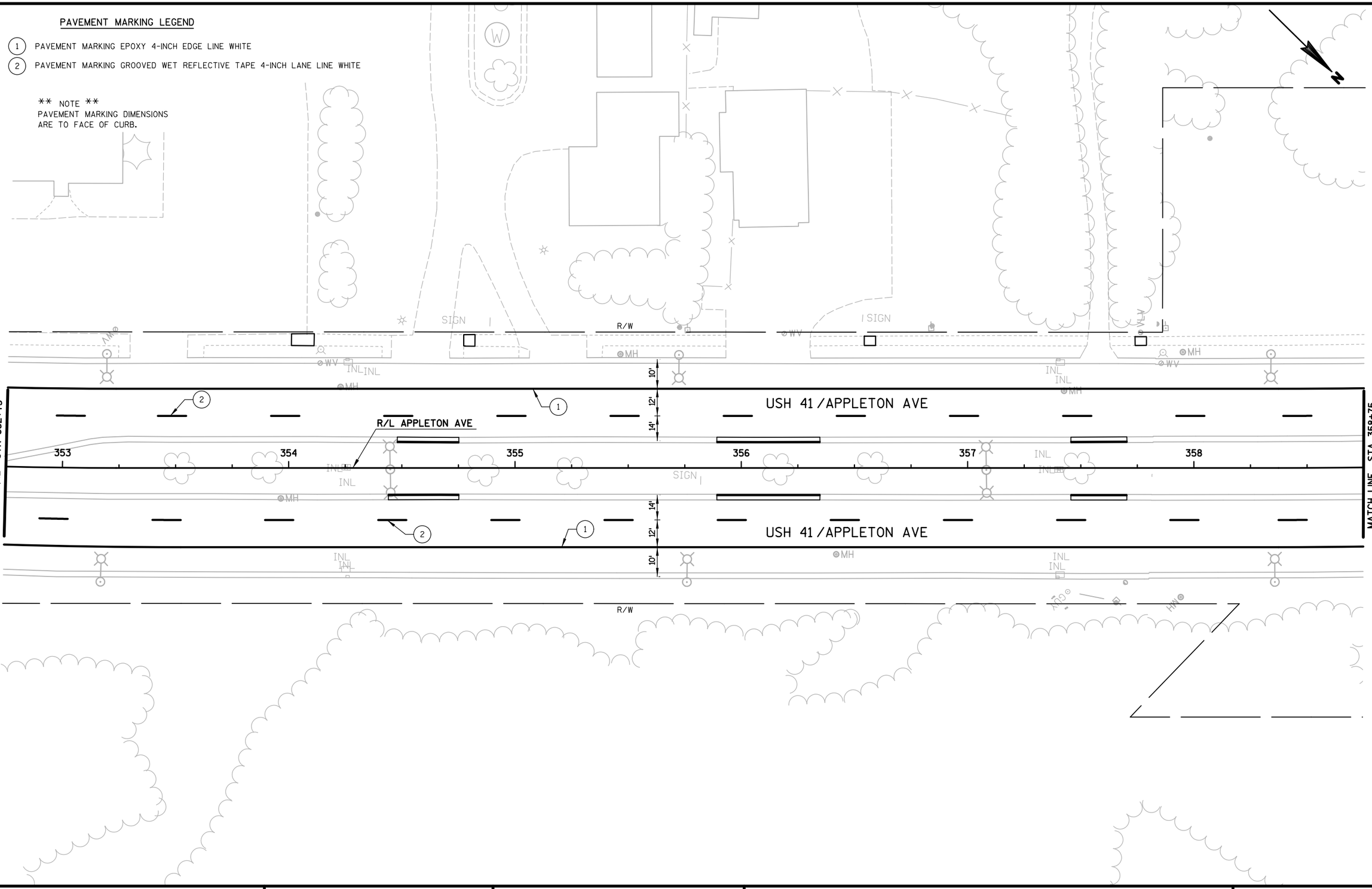
PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE

(2) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH LANE LINE WHITE

** NOTE **
PAVEMENT MARKING DIMENSIONS
ARE TO FACE OF CURB.

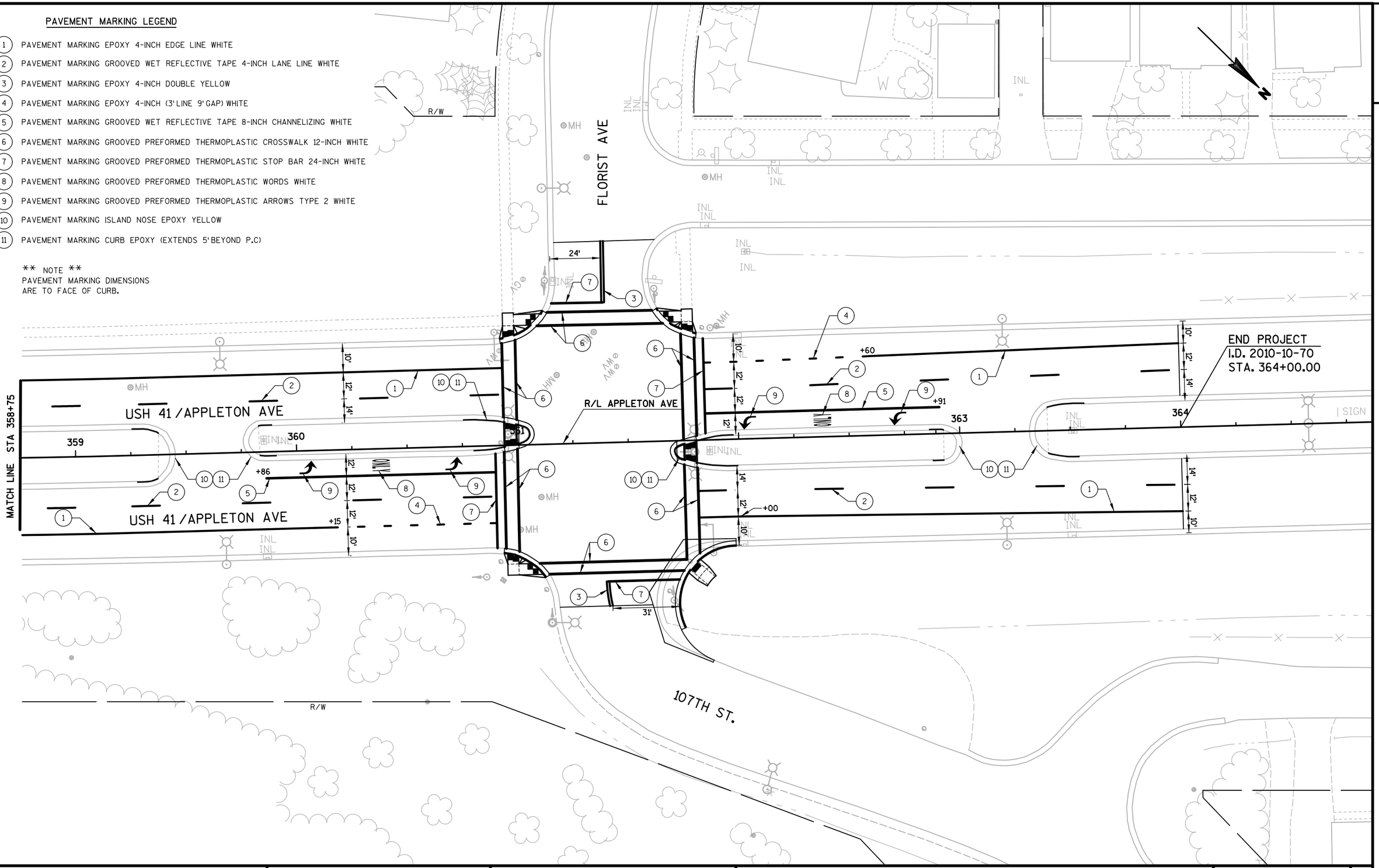


PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 244	E

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH EDGE LINE WHITE
2. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH LANE LINE WHITE
3. PAVEMENT MARKING EPOXY 4-INCH DOUBLE YELLOW
4. PAVEMENT MARKING EPOXY 4-INCH (3'LINE 9'GAP) WHITE
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH CHANNELIZING WHITE
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 12-INCH WHITE
7. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 24-INCH WHITE
8. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS WHITE
9. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 WHITE
10. PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW
11. PAVEMENT MARKING CURB EPOXY (EXTENDS 5'BEYOND P.C)

** NOTE **
PAVEMENT MARKING DIMENSIONS
ARE TO FACE OF CURB.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 245	E

APPLICABLE TO ALL TRAFFIC CONTROL SHEETS IN THIS PLAN SET.

2

TEMPORARY PAVEMENT MARKING LEGEND

1	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
1A	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (CONTINUOUS DOUBLE YELLOW)
2	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
3	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (DASHED) (WHITE)
4	TEMPORARY PAVEMENT MARKING STOP LINE 12-INCH (WHITE)
5	TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)
6	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
6A	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (CONTINUOUS DOUBLE YELLOW)
7	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DASHED WHITE)
9	TEMPORARY PAVEMENT MARKING STOP LINE REMOVAL TAPE 12-INCH
10	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
11	TEMPORARY PAVEMENT MARKING DIAGONAL 12-INCH (YELLOW)
12	TEMPORARY PAVEMENT MARKING DIAGONAL REMOVABLE TAPE 12-INCH (YELLOW)
13	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (DASHED YELLOW)
14	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DASHED YELLOW)

TRAFFIC CONTROL LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	TUBULAR MARKERS AND BASES
Ⓐ	TYPE A WARNING LIGHT (FLASHING)
Ⓑ	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
Ⓒ	TYPE C WARNING LIGHT (STEADY BURN)
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	WORK AREA UNDER TRAFFIC
	4" ASPHALTIC SURFACE TEMPORARY ON 8" BASE AGGREGATE DENSE 1 1/4-INCH
	FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
	DIRECTION OF TRAFFIC
MB	PORTABLE CHANGEABLE MESSAGE BOARD
FMS	FIXED MESSAGE SIGN
CC	CRASH CUSHIONS TEMPORARY

GENERAL NOTES FOR CONSTRUCTION STAGING AND TRAFFIC CONTROL

1.) ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

2.) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.

3. TRAFFIC CONTROL DRUMS IN TAPERS, SHALL BE EQUIPPED WITH TRAFFIC CONTROL WARNING LIGHTS, TYPE "C", ONE WAY LIGHTS IN TAPERS ONLY, UNLESS OTHERWISE SHOWN, DRUMS SHALL BE SPACED AT 25-FT OC IN TAPERS AND 50-FT OC ON TANGENTS OR AS OTHERWISE SHOWN.

4. SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION SPACING MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO MEET FIELD CONDITIONS.

5. ALL SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS NEEDED AND/OR AS DIRECTED BY THE ENGINEER. COVERING WILL BE PAID FOR AS 643.0920 TRAFFIC CONTROL COVERING SIGNS.

6.) ALL POSTING OF PARKING RESTRICTIONS REQUIRED TO FACILITATE CONSTRUCTION OPERATIONS WILL BE PROVIDED BY THE CITY OF MILWAUKEE, TRAFFIC AND LIGHTING DESIGN SECTION, ONLY AS DIRECTED BY THE ENGINEER. CONTACT JAMES BROWN AT (414) 286-3276 FIVE DAYS PRIOR TO START OF CONSTRUCTION OPERATIONS.

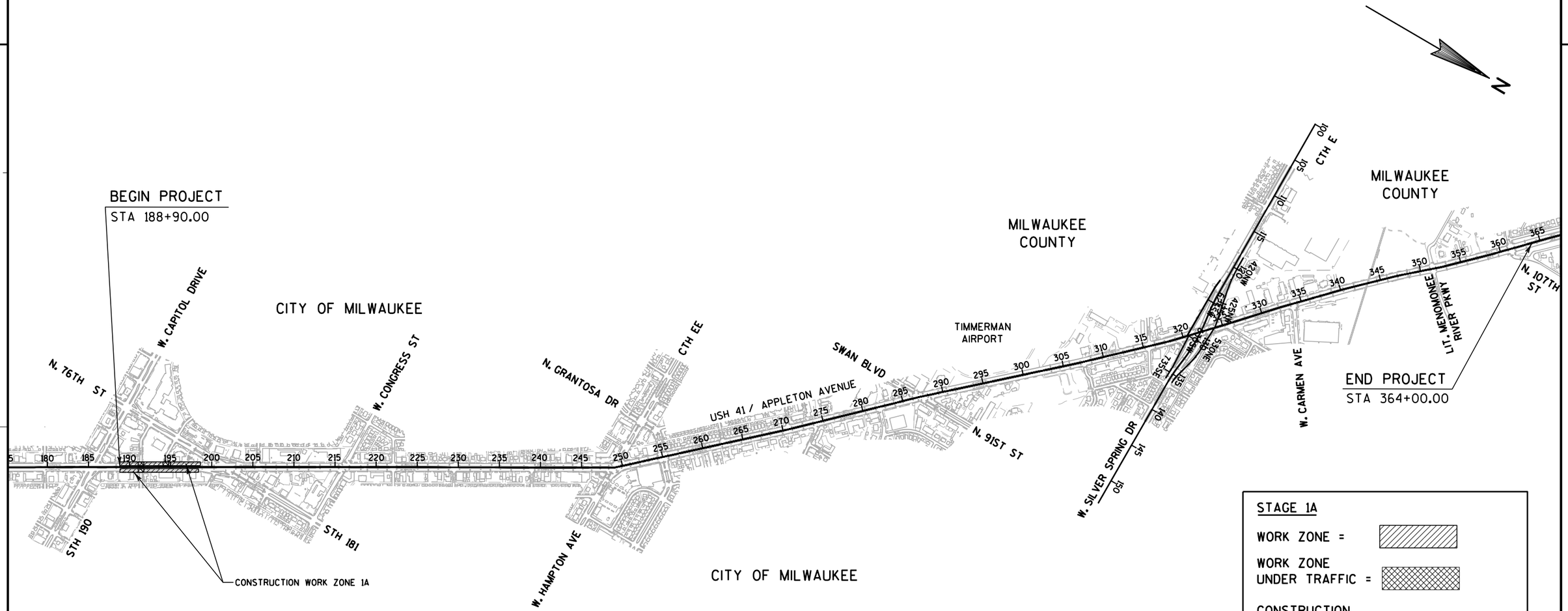
7.) ALL EXISTING CONFLICTING PAVEMENT MARKING SHALL BE REMOVED OR COVERED.

8.) CONTRACTOR SHALL INSTALL PERMANENT SIGNS AND PERMANENT PAVEMENT MARKING WHEN APPROPRIATE DURING CONSTRUCTION STAGING AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER

9.) BARRICADE STRIPES ARE TO BE SLOPED DOWNWARD IN THE DIRECTION OF TRAFFIC FLOW.

10.) ALL SUBSEQUENT MOVING SIGNS AFTER INITIAL INSTALLATION, INCLUDING ALL ASSOCIATED LABOR AND MATERIALS, SHALL BE INCLUDED IN THE COST OF THE "TRAFFIC CONTROL (2010-10-70)" ITEM.

2



STAGE 1A

WORK ZONE =

WORK ZONE UNDER TRAFFIC =

CONSTRUCTION

-REPLACE OUTSIDE LANE AND SHOULDER NB AND SB BETWEEN CAPTIOL DRIVE AND 76TH STREET (STA 188+90 TO STA 200+70)

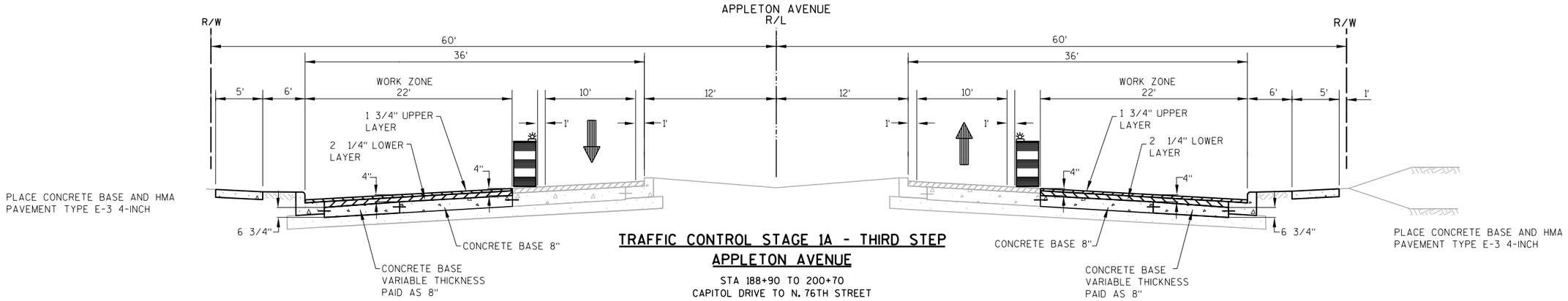
-PLACE PERMANENT PAVEMENT MARKINGS ON THE PERMANENT SURFACES IN STAGE 1A (STA 188+90 TO STA 200+70)

TRAFFIC

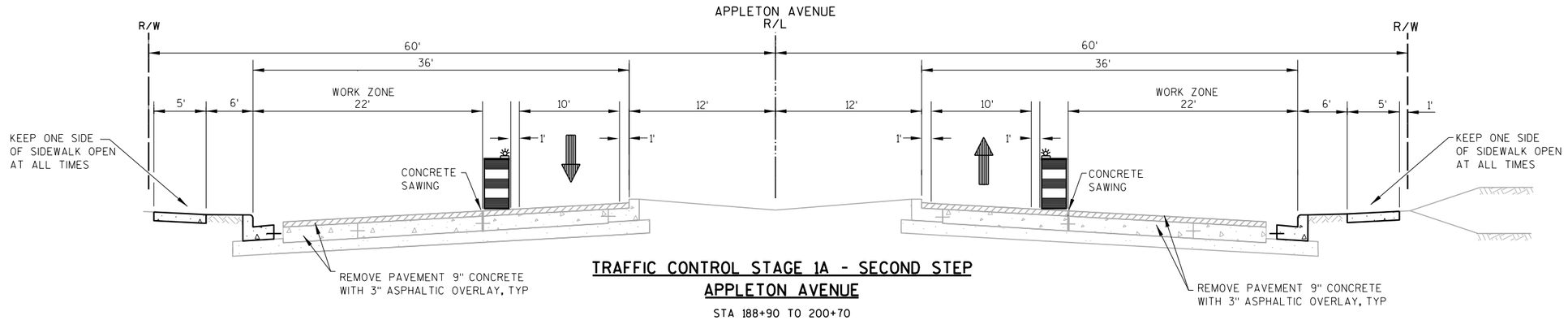
-OUTSIDE LANE 2 AND OUTER SHOULDER CLOSURE, (STA 188+90 TO STA 199+00)

-TRAFFIC WILL BE SHIFTED TO THE ONE MEDIAN LANE WITH TEMPORARY NO PARKING IN BOTH DIRECTIONS FROM STA 188+90 TO STA 199+00

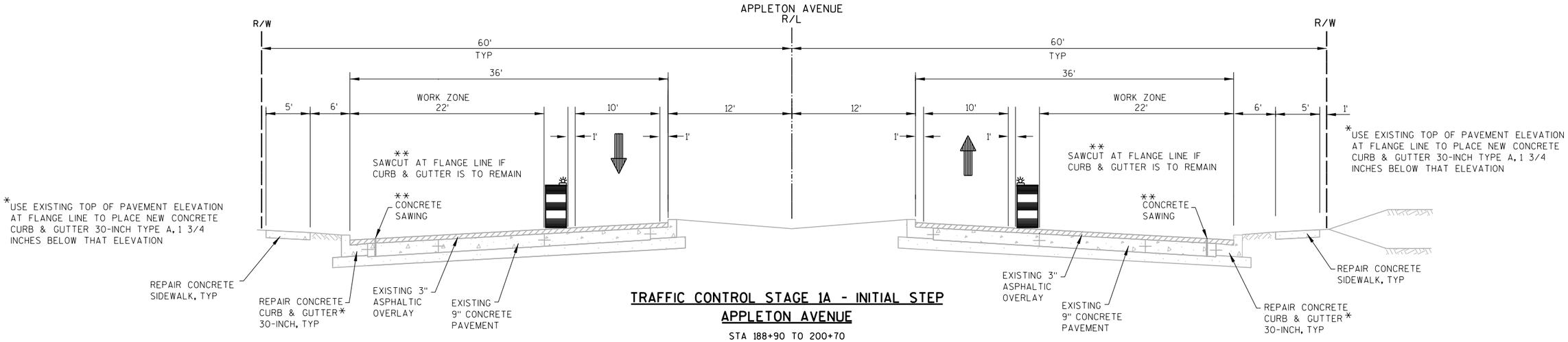
PROJECT NO: 2010-10-70	HWY: APPLETON AVENUE	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW- STAGE 1A	SHEET 247	E



TRAFFIC CONTROL STAGE 1A - THIRD STEP
APPLETON AVENUE
STA 188+90 TO 200+70
CAPITOL DRIVE TO N. 76TH STREET



TRAFFIC CONTROL STAGE 1A - SECOND STEP
APPLETON AVENUE
STA 188+90 TO 200+70
CAPITOL DRIVE TO N. 76TH STREET



TRAFFIC CONTROL STAGE 1A - INITIAL STEP
APPLETON AVENUE
STA 188+90 TO 200+70
W. CAPITOL DRIVE TO N. 76TH STREET

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CONSTRUCTION STAGE 1A	SHEET 248	E

2

2

W. CHAPMAN PL.

NOTE

1) EXISTING PAVEMENT MARKINGS SHOWN

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

200'

USH 41/APPLETON AVE

177 178 179 180 181 182 183

183+00

+25
36' RT

25'

210' TAPER

+35
24' RT

7

LANE CLOSED
R11-2(MOD)
48" X 30"

W4-2R

25 M.P.H.
W13-1

ROAD WORK AHEAD
W20-1

PLACE TWO SIGNS (ONE ON EACH SIDE OF NB TRAFFIC) 400' IN ADVANCE OF THE W20-5 SIGN

RIGHT LANE CLOSED AHEAD
W20-5

PLACE TWO SIGNS (ONE ON EACH SIDE OF NB TRAFFIC) 400' IN ADVANCE OF THE W04-2R SIGN

ROAD WORK AHEAD
W20-1

200'

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SHEET 249	E

2

NOTE

1) EXISTING PAVEMENT MARKINGS SHOWN

74TH ST.

ROAD WORK AHEAD W20-1

350'

CAPITOL DR.

END ROAD WORK G20-2A 48" X 24"

USH 41/APPLETON AVE

MATCHLINE STA 183+00

MATCHLINE STA 188+75

183

184

185

186

187

188

50' TYP

7

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1

CAPITOL DR.

350'

W01-6 48" X 24"

LANE CLOSED R11-2(MOD) 48" X 30"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SHEET 250	E

2

ROAD WORK AHEAD W20-1

200'

W PERKINS PL

ROAD WORK AHEAD W20-1

200'

W FIEBRANTZ AVE

N

BEGIN PROJECT
STA 188+90.00

R/L APPLETON AVE

189 190 191 192 193 194

MATCHLINE STA 188+75

MATCHLINE STA 194+75

USH 41 / APPLETON AVE

50' TYP

LANE CLOSED
R11-2(MOD)
48" X 30"

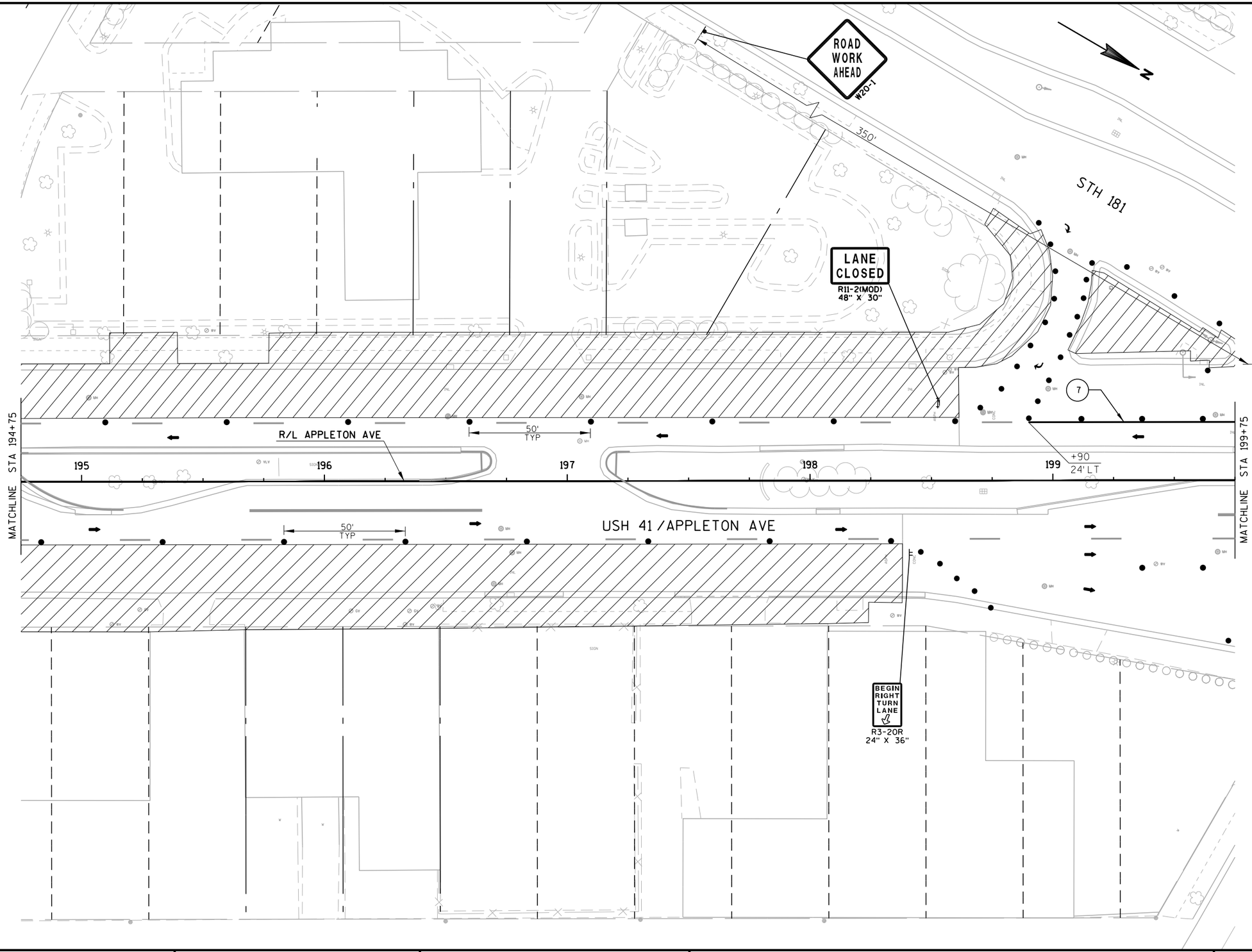
W PERKINS PL

200'

ROAD WORK AHEAD W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SHEET 251	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SHEET 252	E

2

STH 181

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

ROAD WORK AHEAD
W20-1

HOPE AVE.

200'

R/L APPLETON AVE

6

7

130' TAPER

+20
36' LT

+90
24' LT

MATCHLINE STA 199+75

200

201

202

203

204

205

MATCHLINE STA 205+75

USH 41/APPLETON AVE

76TH ST

350'

ROAD WORK AHEAD
W20-1

HOPE AVE.

200'

ROAD WORK AHEAD
W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SHEET 253	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap025995_S1A.dgn PLOT DATE : 18-DEC-2013 09:38 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

2

HOPE AVE.

400'

400'

W4-2R

25 M.P.H.
W13-1

RIGHT LANE CLOSED AHEAD
W20-5

ROAD WORK AHEAD
W20-1

R/L APPLETON AVE

206 207 208 209 210

MATCHLINE STA 205+75

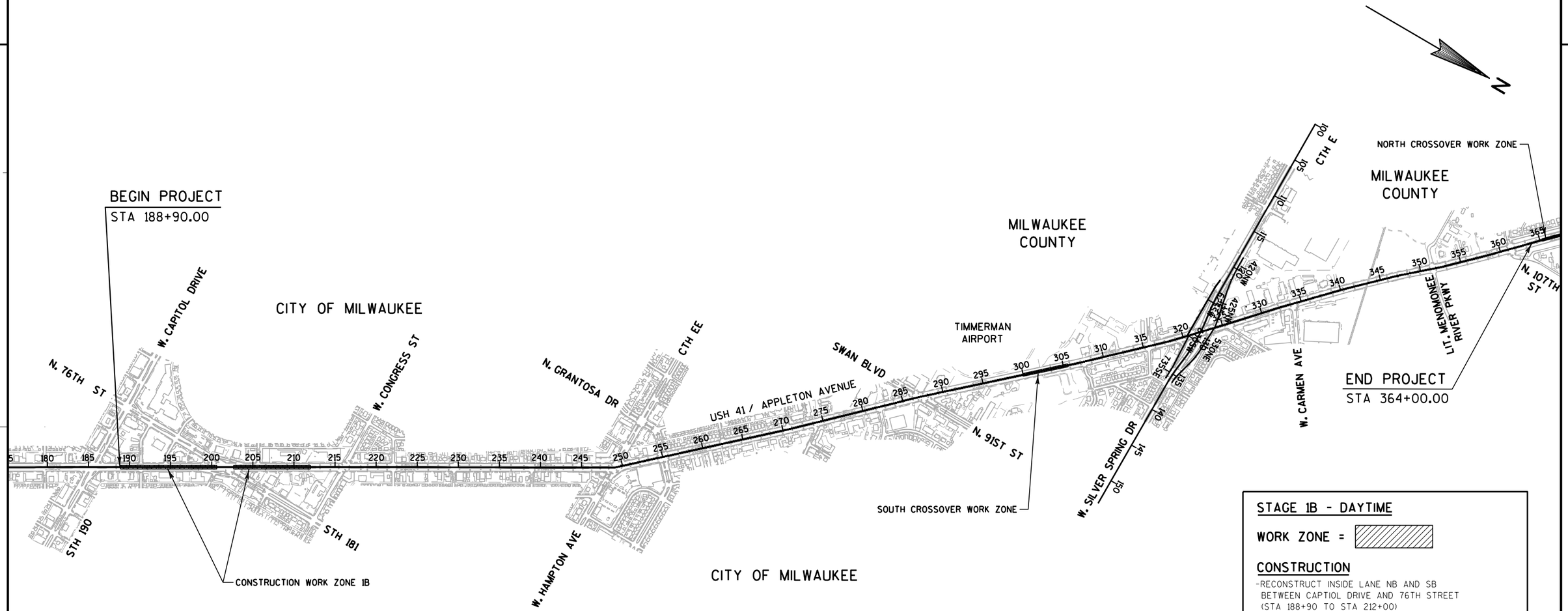
MATCHLINE STA 210+75

USH 41/APPLETON AVE

N

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1A	SHEET 254	E

2



STAGE 1B - DAYTIME

WORK ZONE =

CONSTRUCTION

-RECONSTRUCT INSIDE LANE NB AND SB BETWEEN CAPTIOL DRIVE AND 76TH STREET (STA 188+90 TO STA 212+00)

-CONSTRUCT MEDIAN CROSSOVERS SOUTH OF THE SILVER SPRING DRIVE INTERCHANGE (STA 300+00 TO STA 305+50) AND NORTH OF 107TH STREET (STA 365+30 TO STA 371+50)

-PLACE PERMANENT PAVEMENT MARKINGS ON THE PERMANENT SURFACES IN STAGE 1B (STA 188+90 TO STA 200+70)

TRAFFIC

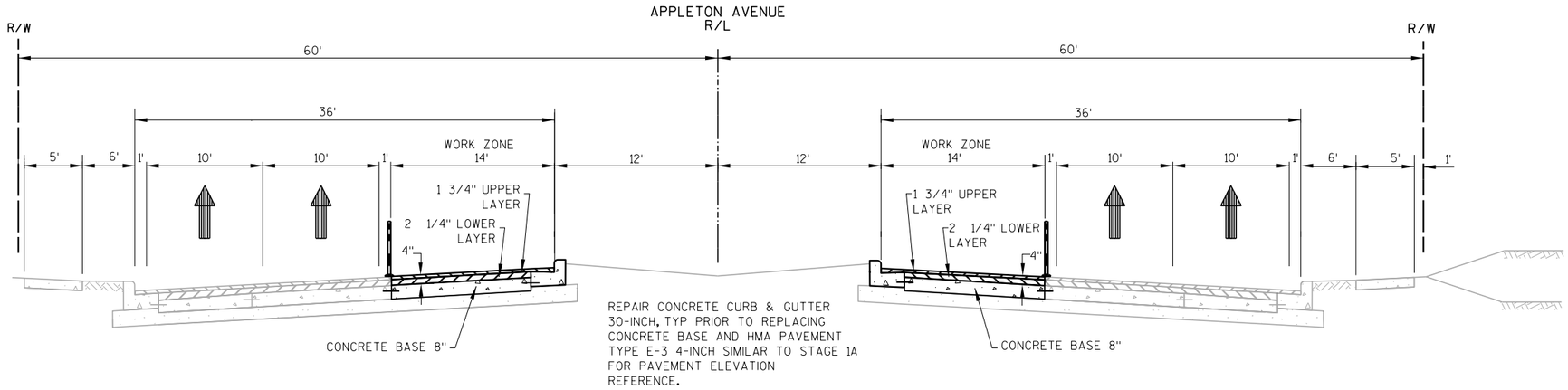
-INSIDE LANE 1 CLOSURE 188+90 TO STA 212+00. WITH, WITH OPENINGS AT ALL MEDIANS DURING DAYTIME HOURS FROM STA 203+00 TO STA. 212+00.

-TRAFFIC WILL BE SHIFTED TO THE TWO OUTSIDE LANES WITH TEMPORARY NO PARKING IN BOTH DIRECTIONS FROM STA 188+90 TO STA 212+00 AND FROM STA 300+00 TO STA 305+50.

-TRAFFIC WILL BE SHIFTED TO THE ONE OUTSIDE LANE IN BOTH DIRECTIONS FROM STA 365+30 TO STA 371+50.

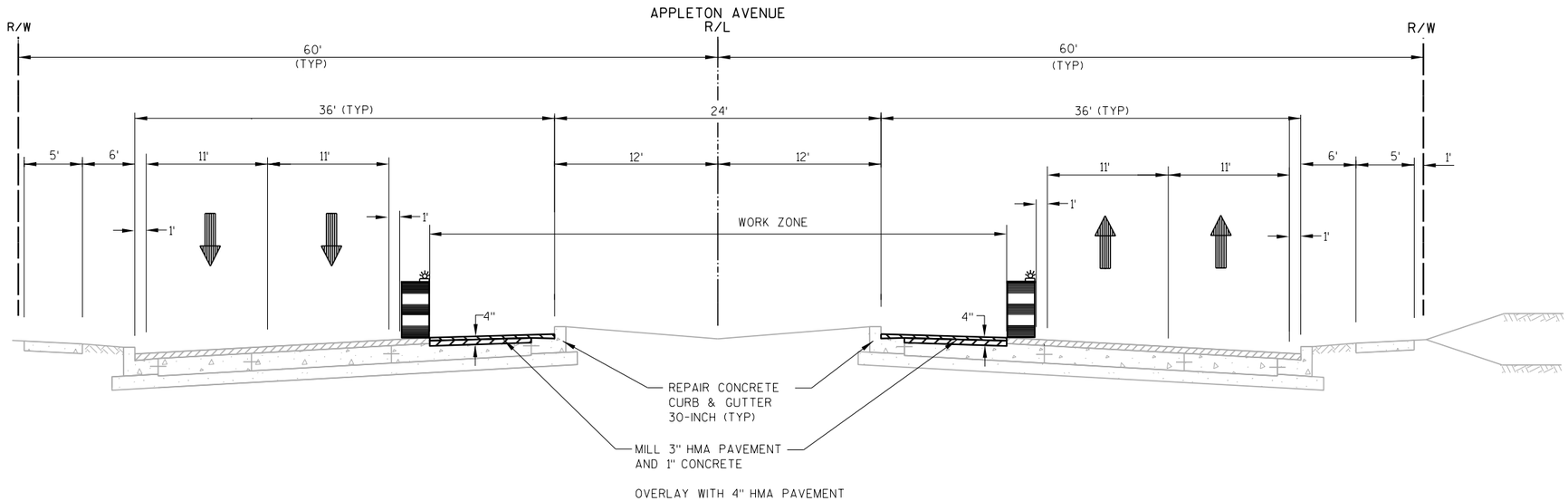
PROJECT NO: 2010-10-70	HWY: APPLETON AVENUE	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW- STAGE 1B DAYTIME	SHEET 255	E

2



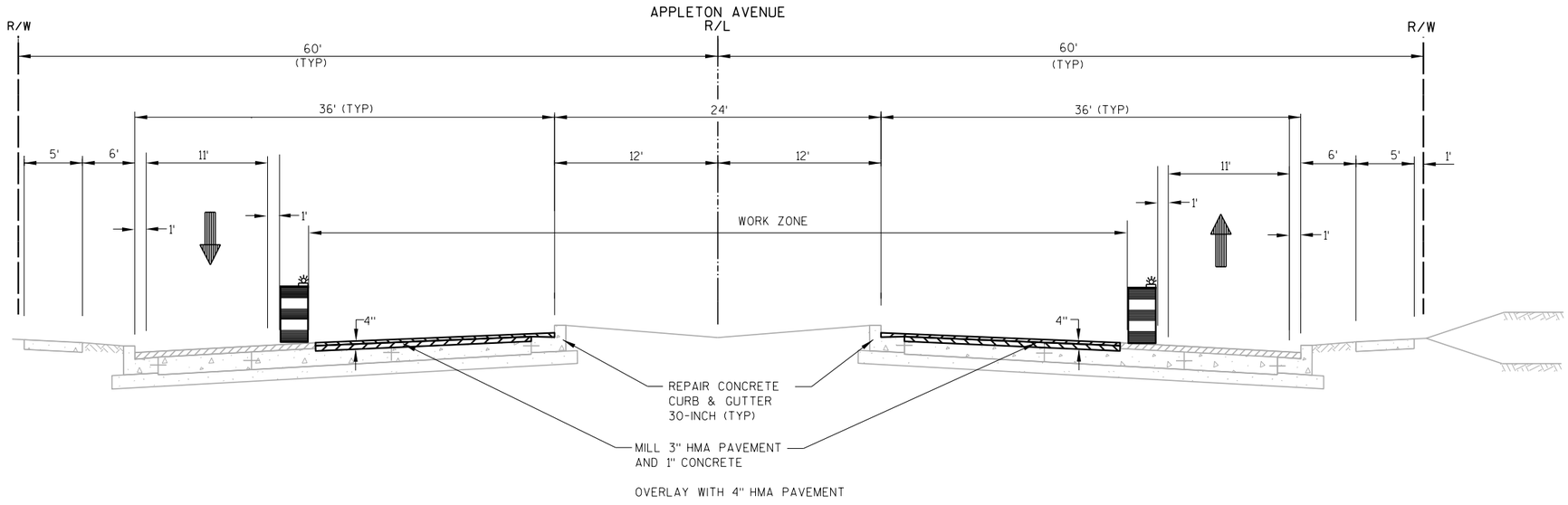
TRAFFIC CONTROL STAGE 1B - DAYTIME & NIGHTTIME
APPLETON AVENUE

STA 188+90 TO 200+70
CAPITOL DRIVE TO N. 76TH STREET



TRAFFIC CONTROL STAGE 1B - DAYTIME
APPLETON AVENUE

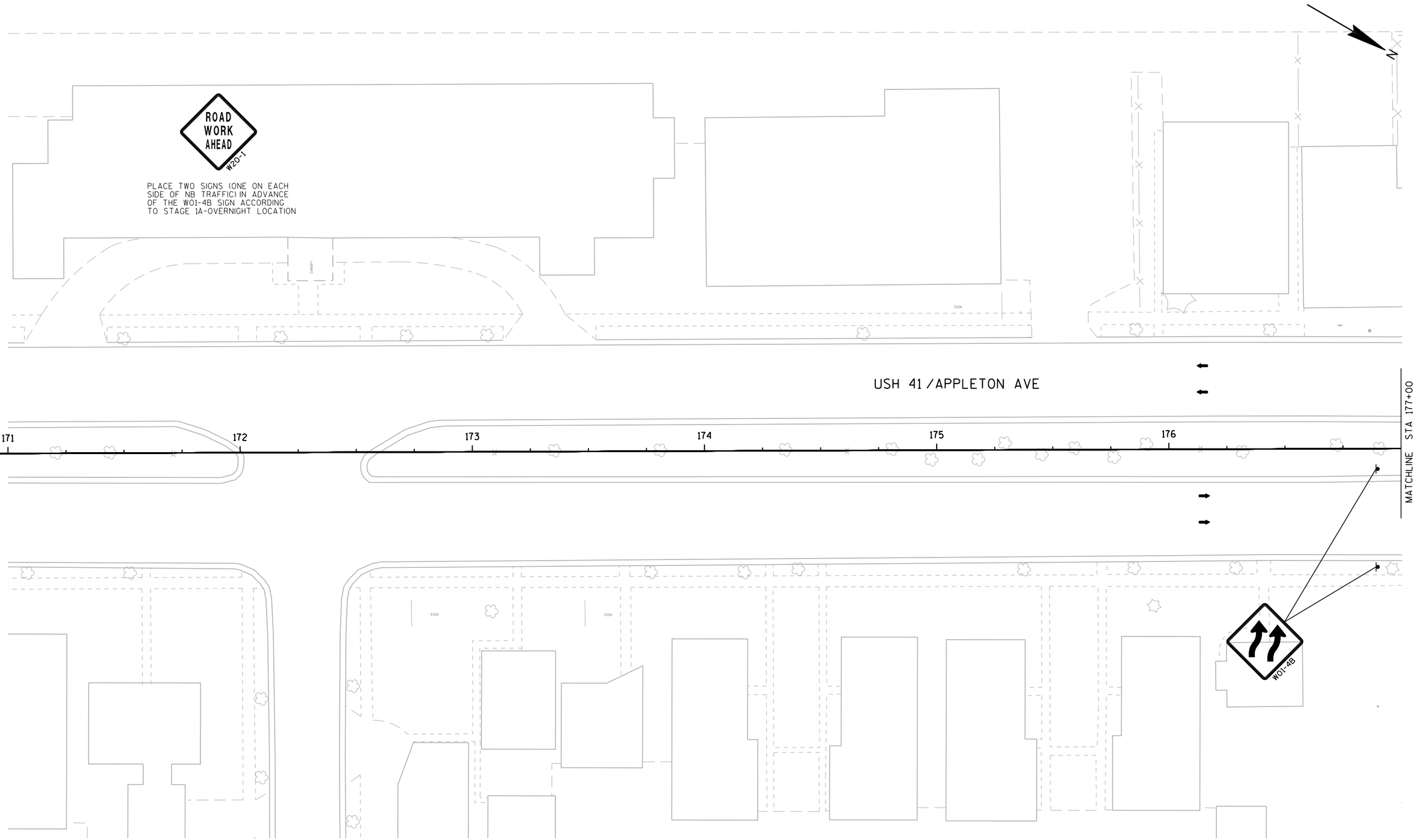
STA 202+60 TO 212+00
N. 76TH STREET TO W. CONGRESS



TRAFFIC CONTROL STAGE 1B - NIGHTTIME
APPLETON AVENUE

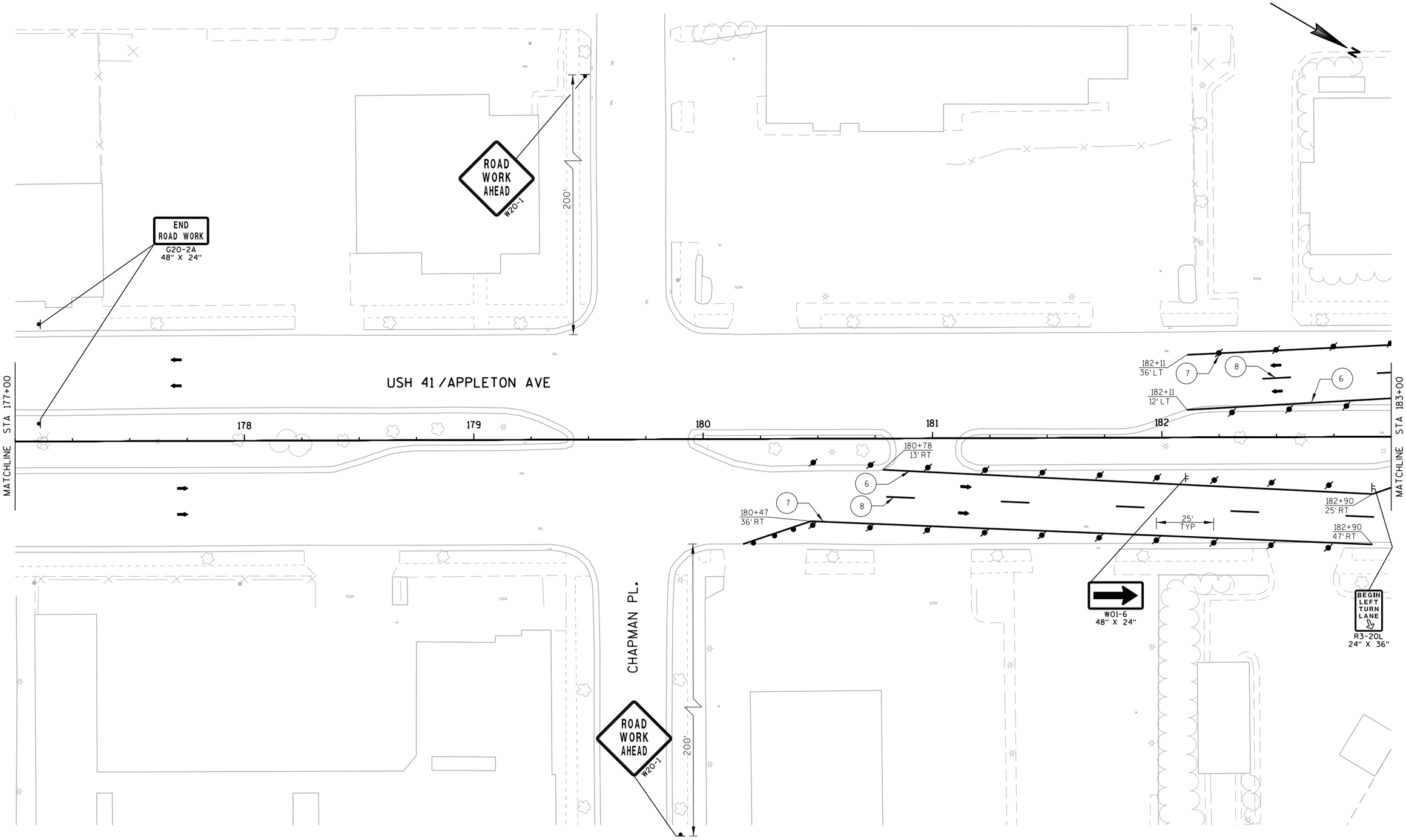
STA 202+60 TO 212+00
N. 76TH STREET TO W. CONGRESS

2



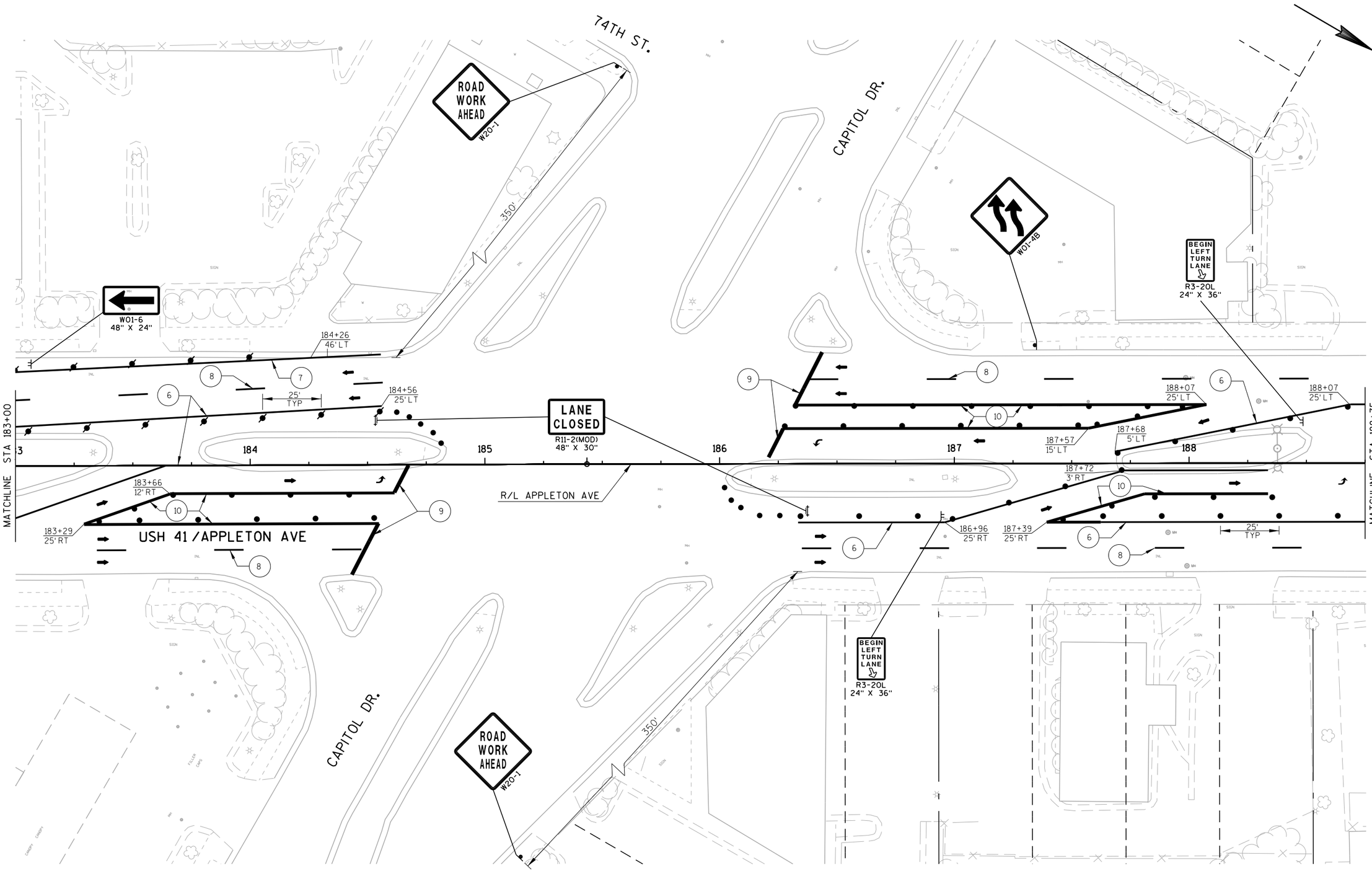
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - DAYTIME	SHEET 258	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - DAYTIME	SHEET 259 E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - DAYTIME	SHEET 260	E

2

ROAD WORK AHEAD
W20-1

W PERKINS PL

200'

BEGIN PROJECT
STA 188+90.00

LANE CLOSED
R11-2(MOD)
48" X 30"

W FIEBRANTZ AVE

LANE CLOSED
R11-2(MOD)
48" X 30"

ROAD WORK AHEAD
W20-1

N

6

8

R/L APPLETON AVE

188+90
23' LT

MATCHLINE STA 188+75

189 190 191 192 193 194

MATCHLINE STA 194+75

188+90
23' RT

8

25'
TYP

USH 41 / APPLETON AVE

6

LANE CLOSED
R11-2(MOD)
48" X 30"

W PERKINS PL

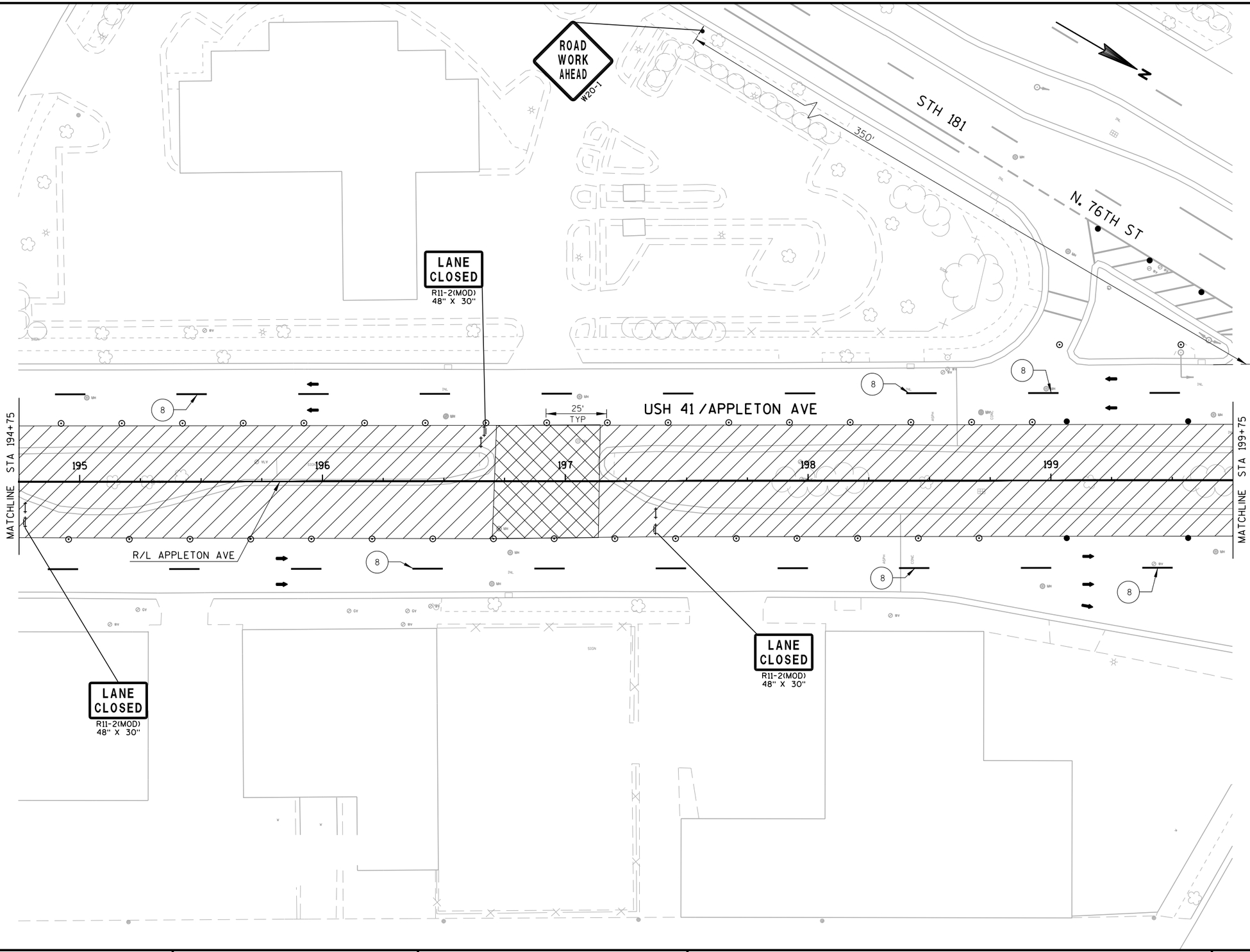
200'

LANE CLOSED
R11-2(MOD)
48" X 30"

ROAD WORK AHEAD
W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - DAYTIME	SHEET 261	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - DAYTIME	SHEET 262	E

2

STH 181

W. HOPE AVE.

ROAD WORK AHEAD W20-1

LANE CLOSED R11-2(MOD) 48" X 30"

200'

LANE CLOSED R11-2(MOD) 48" X 30"

W01-6 48" X 24"

R/L APPLETON AVE

50' TYP

STA 199+75

MATCHLINE

200

201

202

203

204

205

STA 205+75

MATCHLINE

9

8

3

W01-6 48" X 24"

USH 41 / APPLETON AVE

12'

25'

350'

N. 76TH ST

W. HOPE AVE.

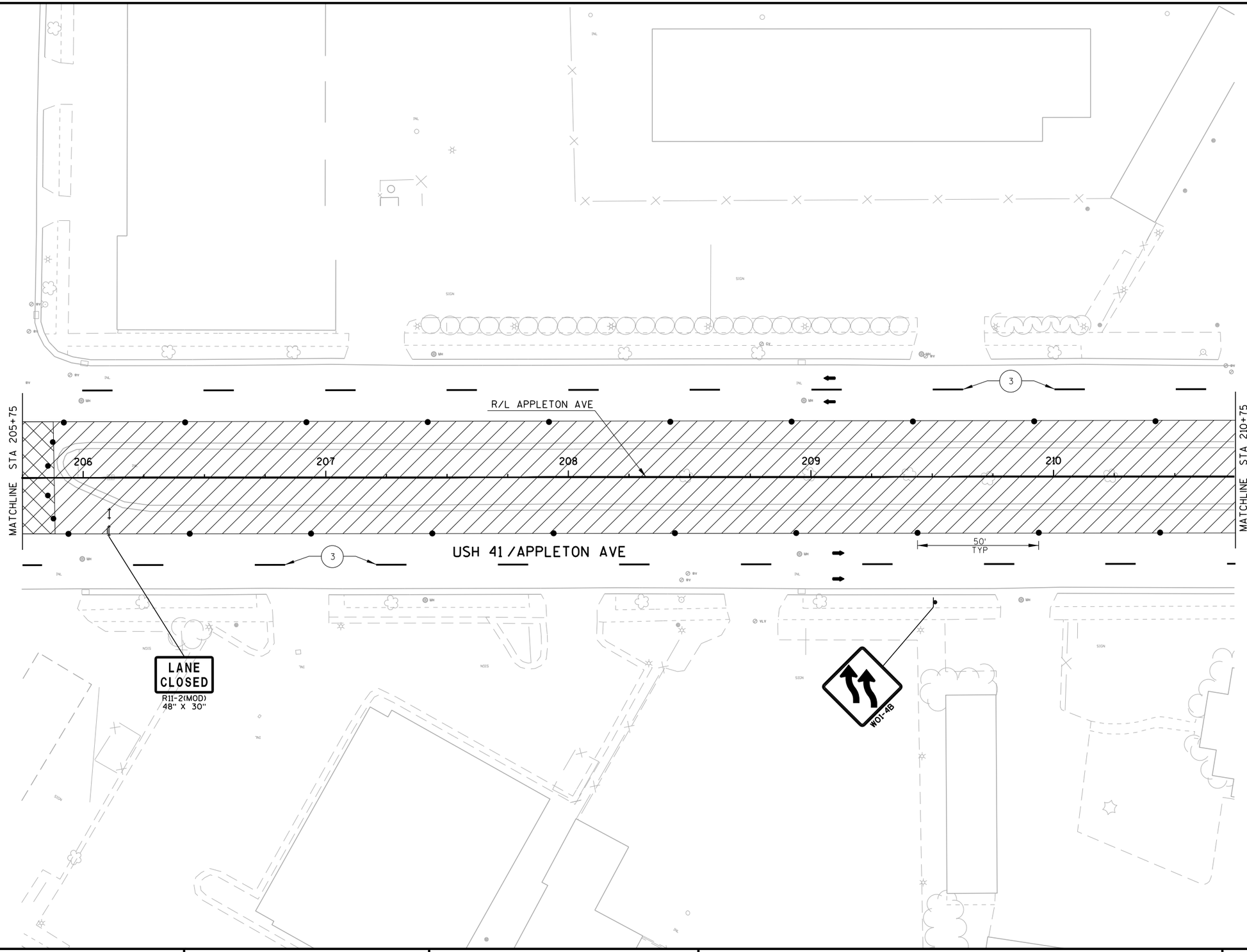
200'

ROAD WORK AHEAD W20-1

ROAD WORK AHEAD W20-1

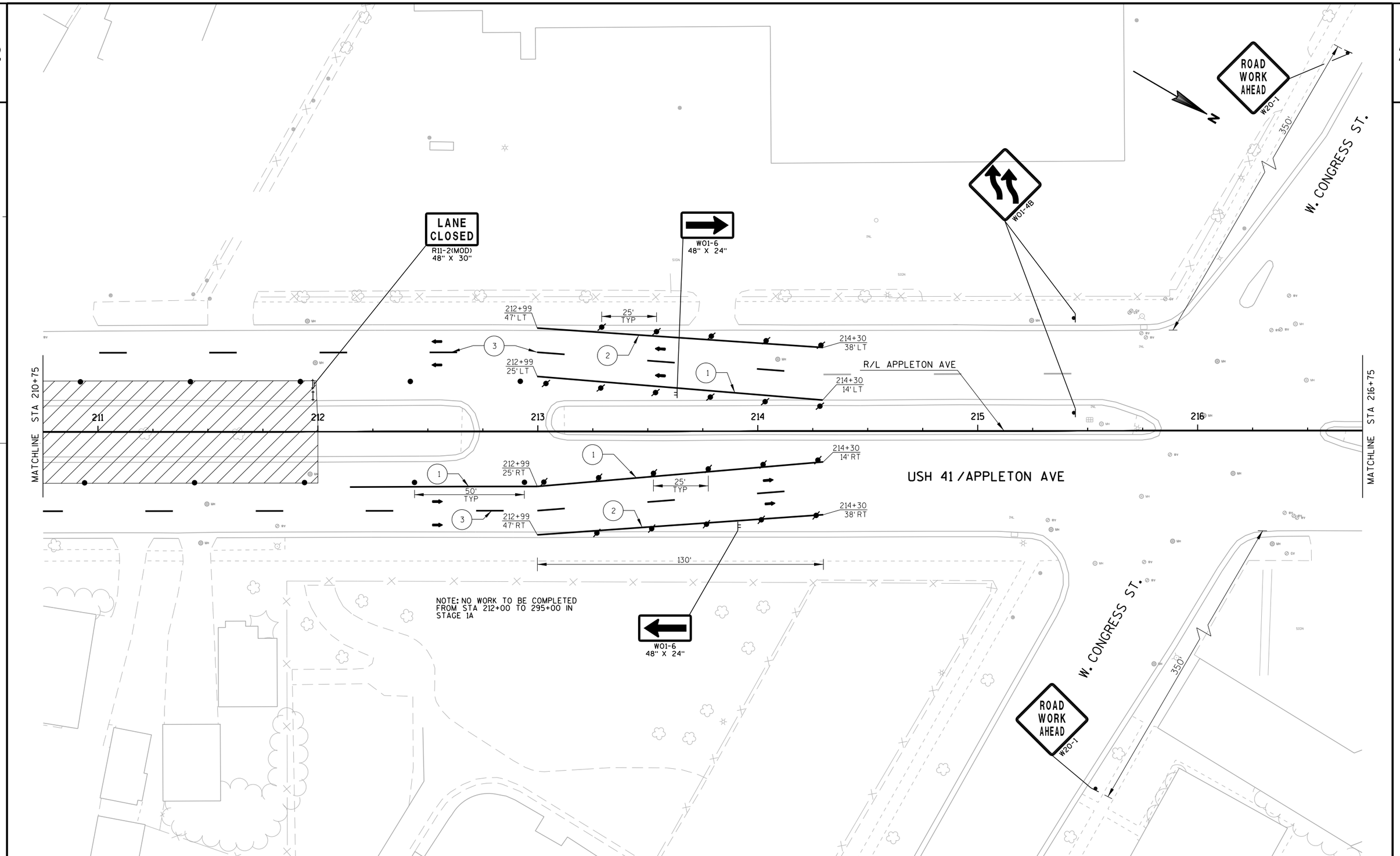
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - DAYTIME	SHEET 263	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - DAYTIME	SHEET 264	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - DAYTIME	SHEET 265	E

W. CONGRESS ST.

ROAD WORK AHEAD W20-1

PLACE TWO SIGNS (ONE ON EACH SIDE OF SB TRAFFIC) IN ADVANCE OF THE W01-4B SIGN ACCORDING TO STAGE 1A-OVERNIGHT LOCATION

W01-4B

ROAD WORK AHEAD W20-1

200'

W. RUBY AVE.

N

R/L APPLETON AVE

MATCHLINE STA 216+75

217 218 219 220 221 222

USH 41 /APPLETON AVE

END ROAD WORK
G20-2A
48" X 24"

NOTE

1) NO WORK TO BE COMPLETED STA 212+00 TO 295+00 IN STAGE 1A.

ROAD WORK AHEAD W20-1

200'

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - DAYTIME	SHEET 266 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026009_S1A_D.dgn PLOT DATE : 18-DEC-2013 13:27 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

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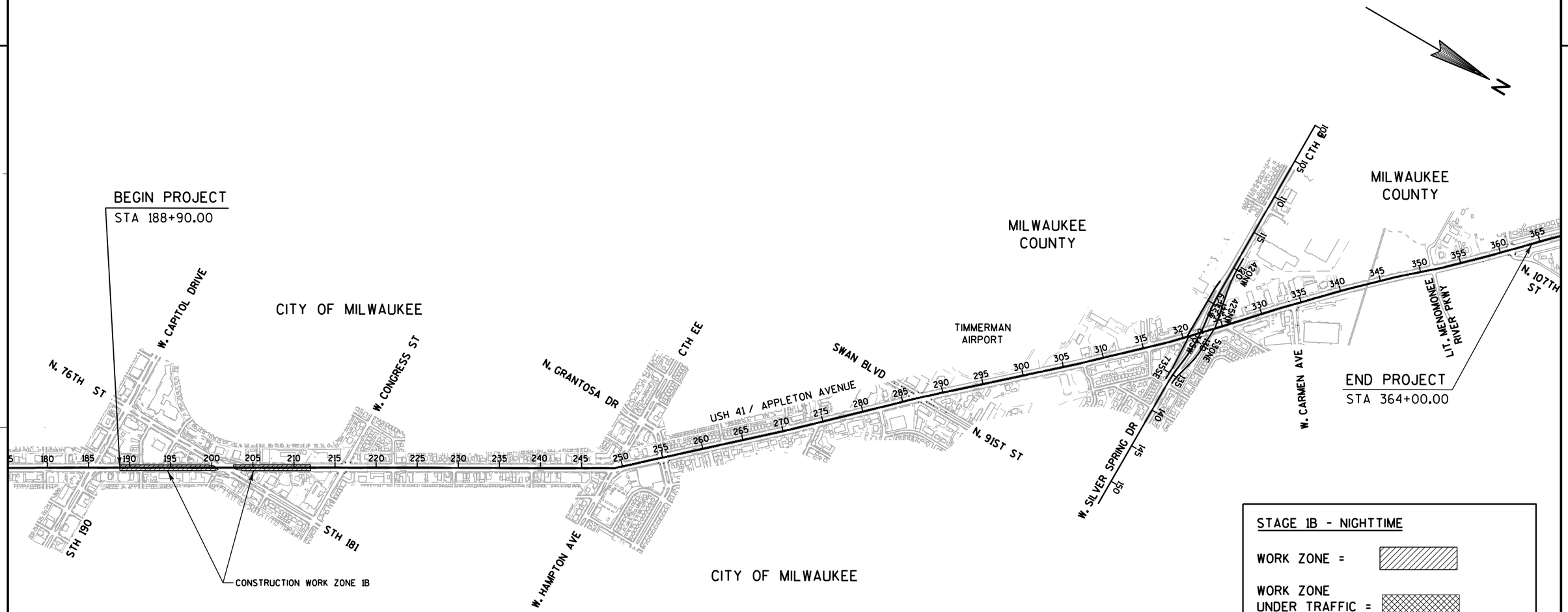


STAGE 1B - NIGHTTIME

WORK ZONE =

WORK ZONE UNDER TRAFFIC =

CONSTRUCTION

-NIGHTTIME RESURFACING OF INSIDE LANES NB AND SB BETWEEN CAPTIOL DRIVE AND 76TH STREET (STA 188+90 TO STA 212+00)

TRAFFIC

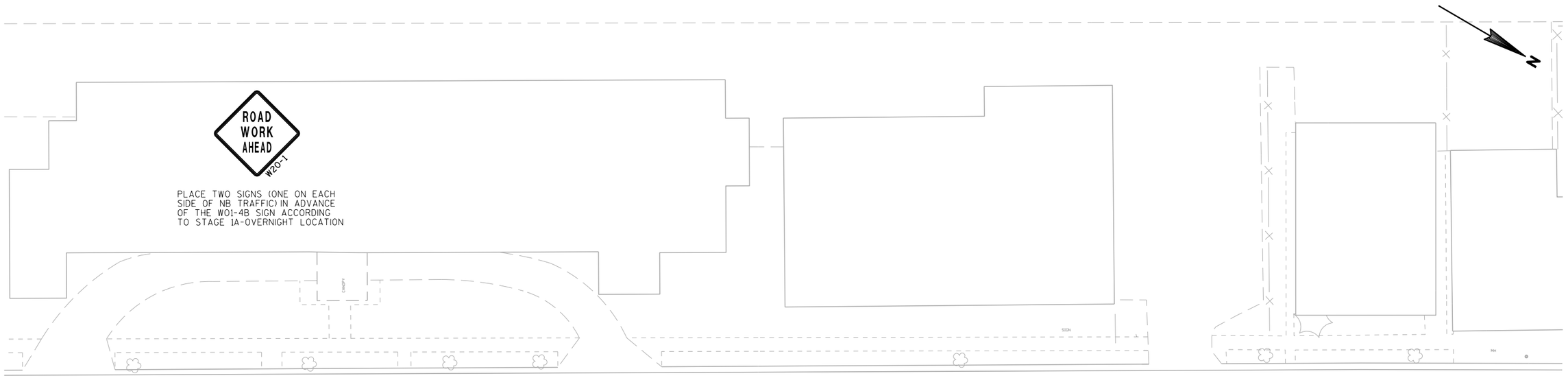
-INSIDE LANE 1 CLOSURE FROM STA 188+90 TO STA 203+00, WITH LEFT TURN LANE CLOSURES AT MEDIAN OPENINGS WHERE WORK IS OCCURING DURING NIGHTTIME HOURS FROM STA 203+00 TO STA 212+00.

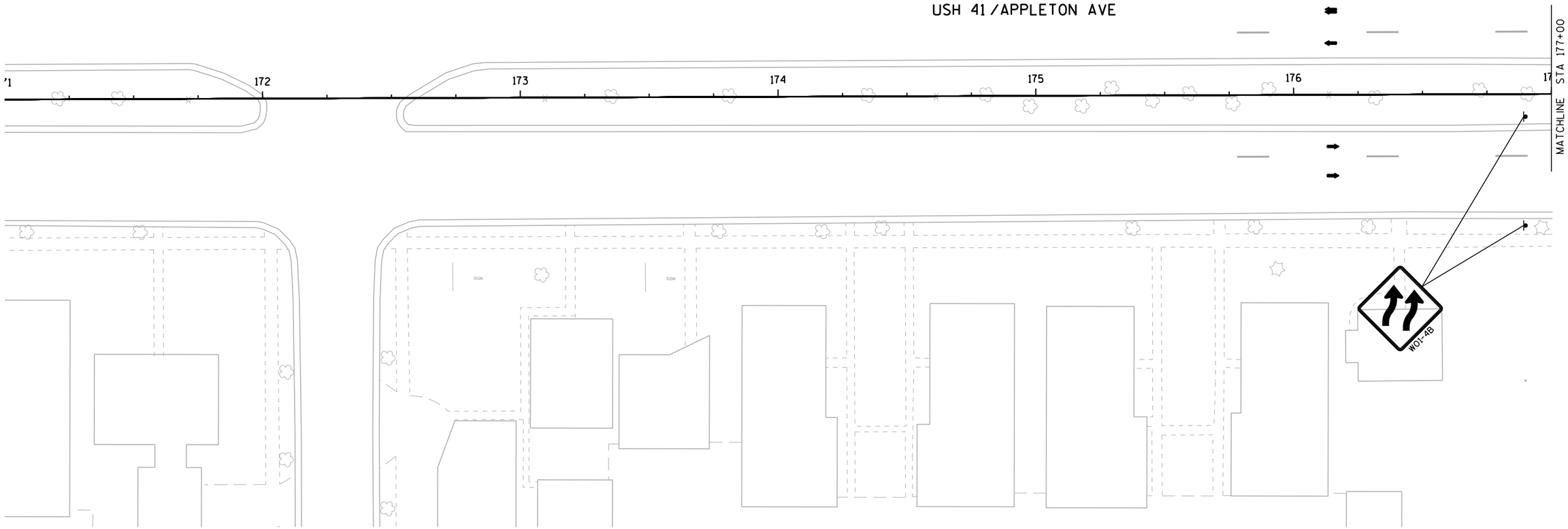
-TRAFFIC WILL BE SHIFTED TO THE TWO OUTSIDE LANES WITH TEMPORARY NO PARKING IN BOTH DIRECTIONS FROM STA 188+90 TO STA 200+70.

-TRAFFIC WILL BE SHIFTED TO OUTSIDE LANE, LANE 3, WITH TEMPORARY NO PARKING IN BOTH DIRECTIONS FROM STA 203+00 TO STA 212+00.

PROJECT NO: 2010-10-70	HWY: APPLETON AVENUE	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW- STAGE 1B NIGHTTIME	SHEET 267	E

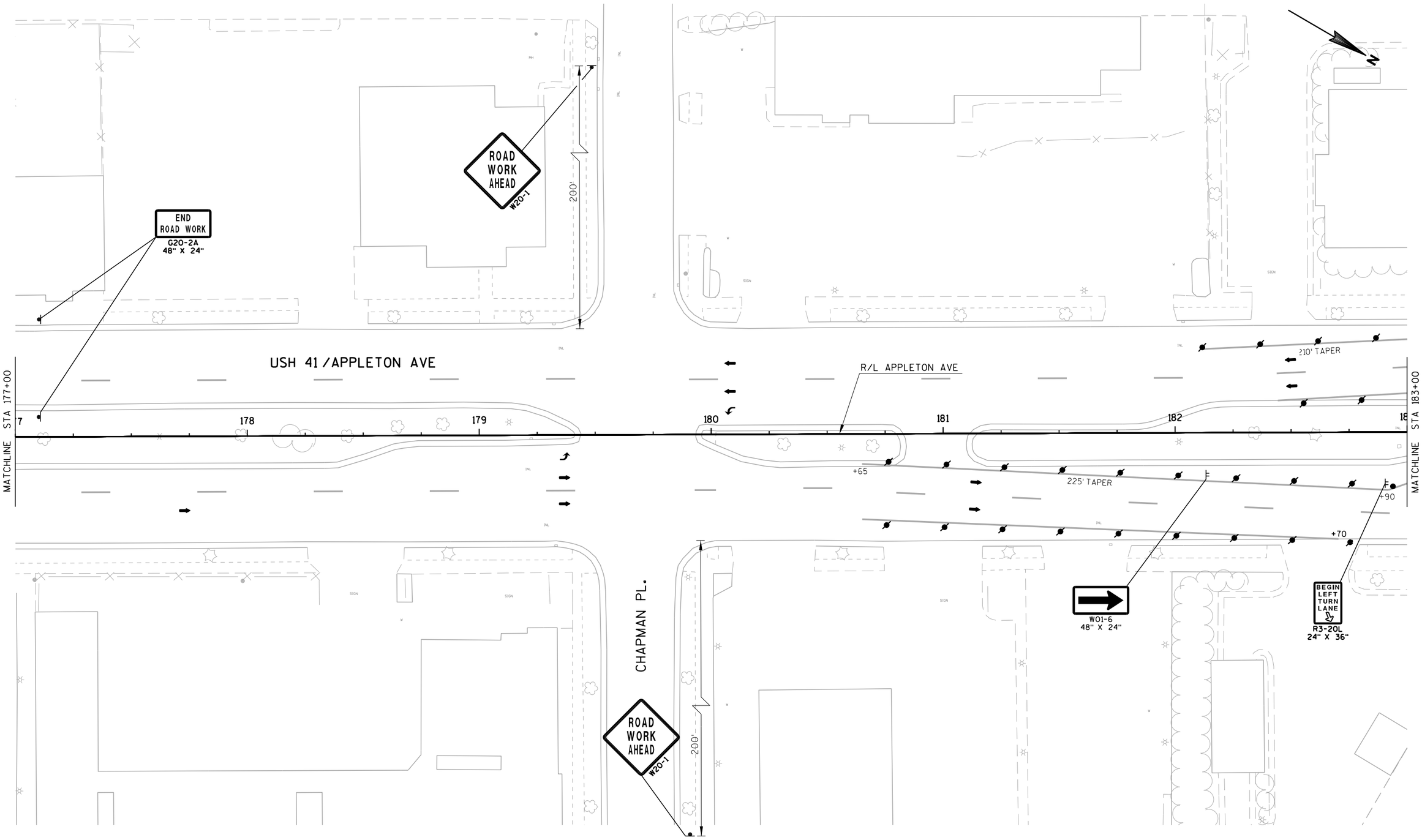
2



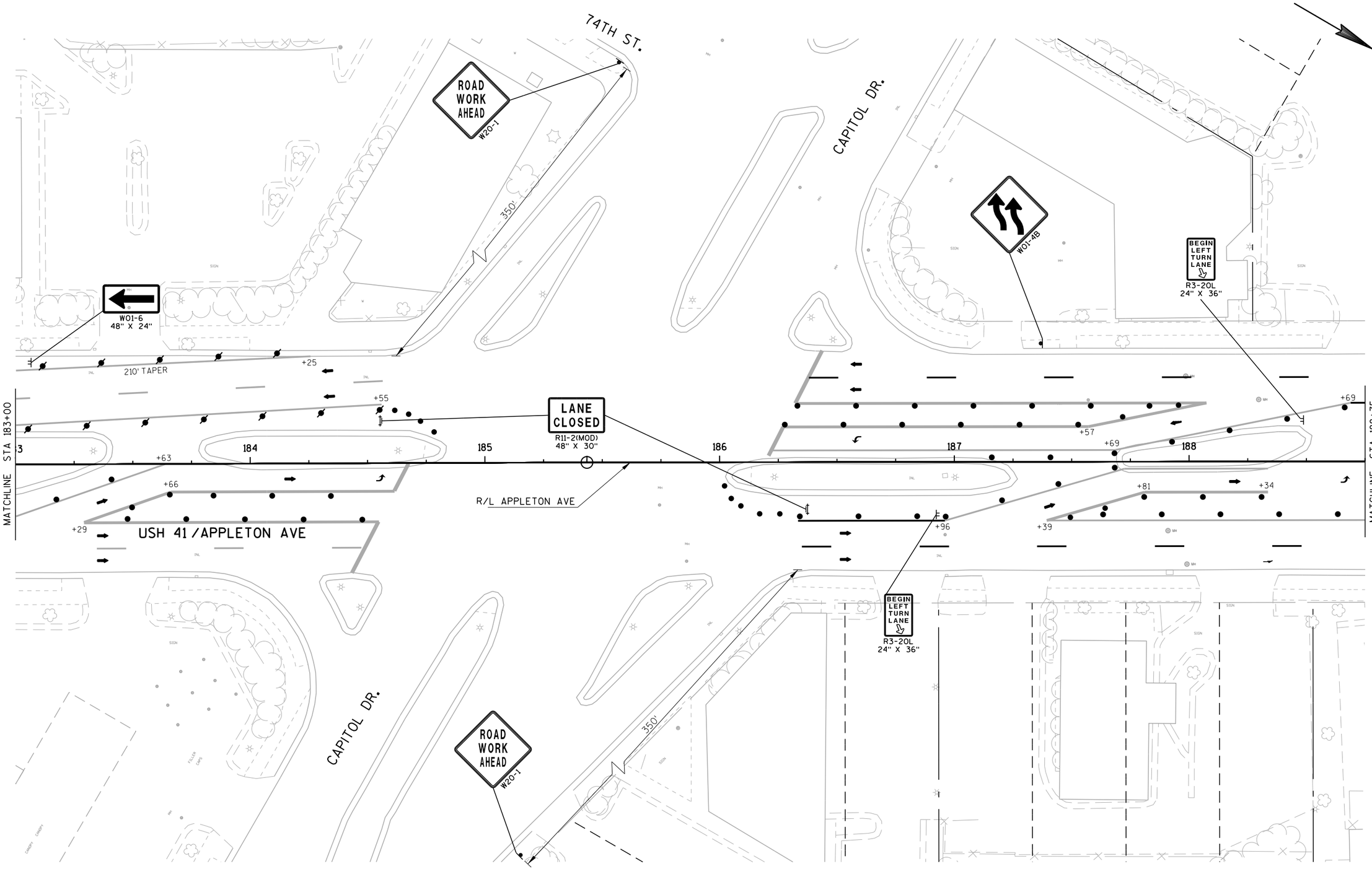


PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - OVERNIGHT	SHEET 268	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - OVERNIGHT	SHEET 269 E



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - OVERNIGHT	SHEET 270 E

2

ROAD WORK AHEAD W20-1

200'

W PERKINS PL

ROAD WORK AHEAD W20-1

200'

W FIEBRANTZ AVE

N

BEGIN PROJECT
STA 188+90.00

LANE CLOSED
R11-2(MOD)
48" X 30"

W01-6
48" X 24"

R3-2
24" X 24"

W01-6
48" X 24"

LANE CLOSED
R11-2(MOD)
48" X 30"

R/L APPLETON AVE

MATCHLINE STA 188+75

189 190 191 192 193 194

MATCHLINE STA 194+75

25'
TYP

USH 41 / APPLETON AVE

LANE CLOSED
R11-2(MOD)
48" X 30"

R3-2
24" X 24"

W01-6
48" X 24"

W PERKINS PL

LANE CLOSED
R11-2(MOD)
48" X 30"

W04-2L

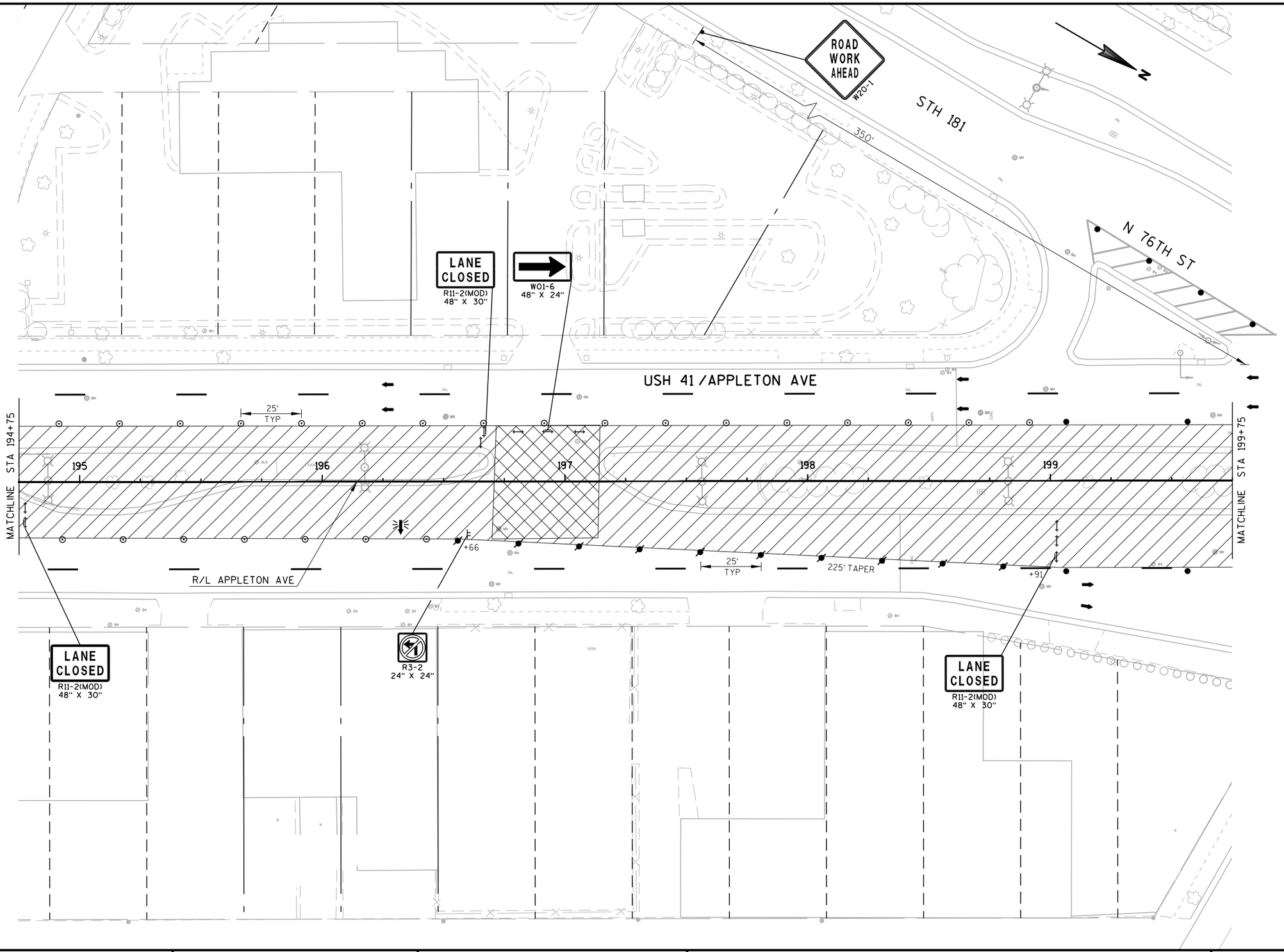
R3-2
24" X 24"

200'

ROAD WORK AHEAD W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - OVERNIGHT	SHEET 271 E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - OVERNIGHT	SHEET 272	E

2

STH 181

W. HOPE AVE.

ROAD WORK AHEAD W20-1

LANE CLOSED R11-2(MOD) 48" X 30"

200'

LANE CLOSED R11-2(MOD) 48" X 30"

R/L APPLETON AVE

W01-6 48" X 24"

50' TYP

MATCHLINE STA 199+75

200

201

202

203

204

205

MATCHLINE STA 205+75

50' TYP

W01-6 48" X 24"

USH 41 /APPLETON AVE

350'

N. 76TH ST

W. HOPE AVE.

200'

ROAD WORK AHEAD W20-1

ROAD WORK AHEAD W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - OVERNIGHT	SHEET 273	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026025_S1A_N.dgn PLOT DATE : 18-DEC-2013 13:28 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

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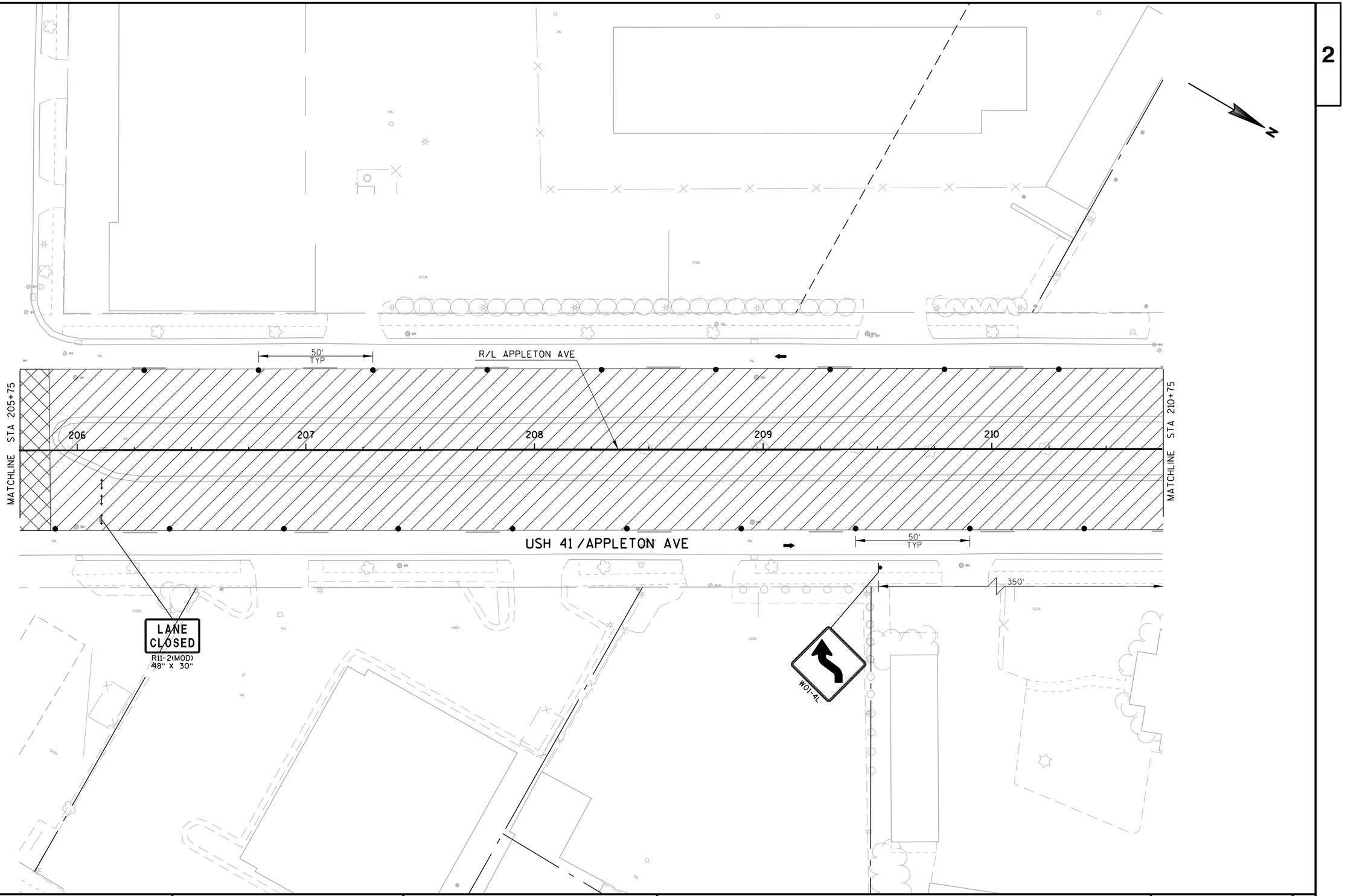


PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - OVERNIGHT	SHEET 274 E

2

LANE CLOSED
R11-2(MOD)
48" X 30"

W01-4R

W01-6
48" X 24"

ROAD WORK AHEAD
W20-1

N

350'

W. CONGRESS ST.

25' TYP

+18

110' TAPER

+28

+00

R/L APPLETON AVE

MATCHLINE STA 210+75

211

212

213

214

215

216

MATCHLINE STA 216+75

+15

+00

130' TAPER

+30

+19

USH 41/APPLETON AVE

350'

130'

NOTE: NO WORK TO BE COMPLETED FROM STA 212+00 TO 295+00 IN STAGE 1A

W. CONGRESS ST.

350'

ROAD WORK AHEAD
W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - OVERNIGHT	SHEET 275	E

2

W. CONGRESS ST.

W. RUBY AVE.

N

W01-4R

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

ROAD WORK AHEAD
W20-1

200'

W01-6
48" X 24"

25' TYP

50' TYP

+22

+61

+18

+38

217

218

219

220

221

222

R/L APPLETON AVE

MATCHLINE STA 216+75

MATCHLINE STA 222+75

USH 41/APPLETON AVE

END ROAD WORK
G20-2A
48" X 24"

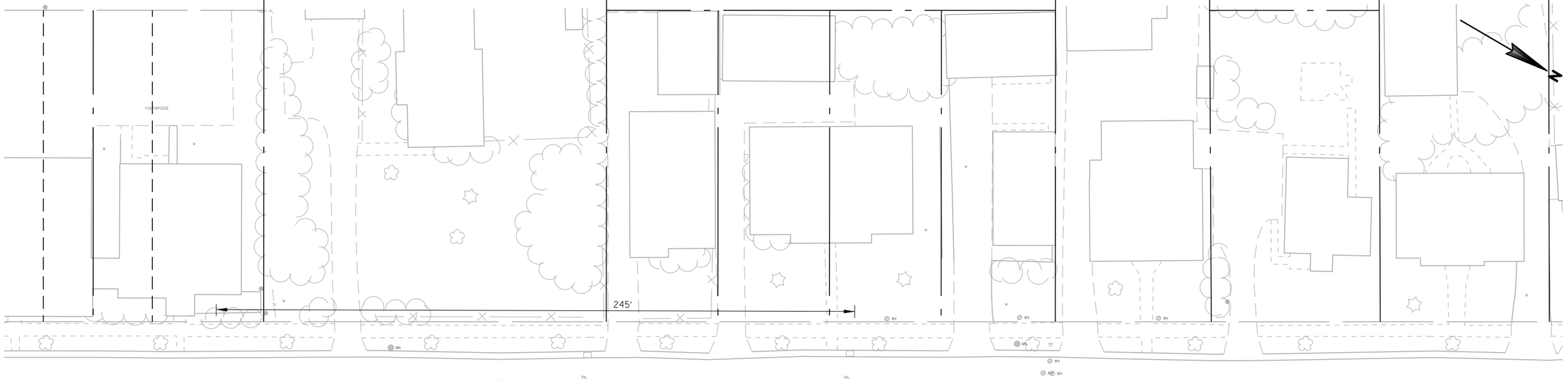
NOTE: NO WORK TO BE COMPLETED FROM STA 212+00 TO 295+00 IN STAGE 1A

ROAD WORK AHEAD
W20-1

200'

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - OVERNIGHT	SHEET 276 E

2



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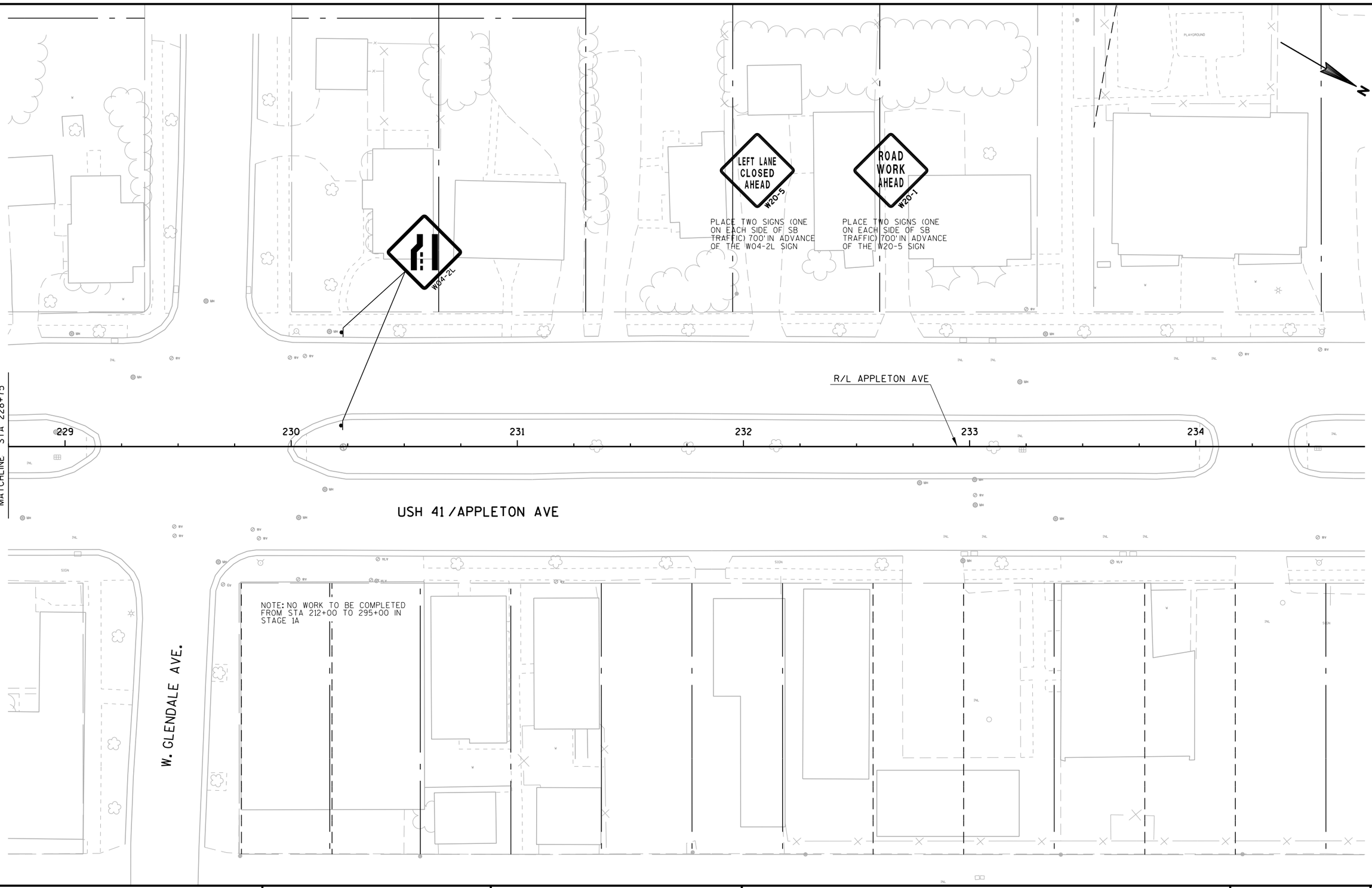
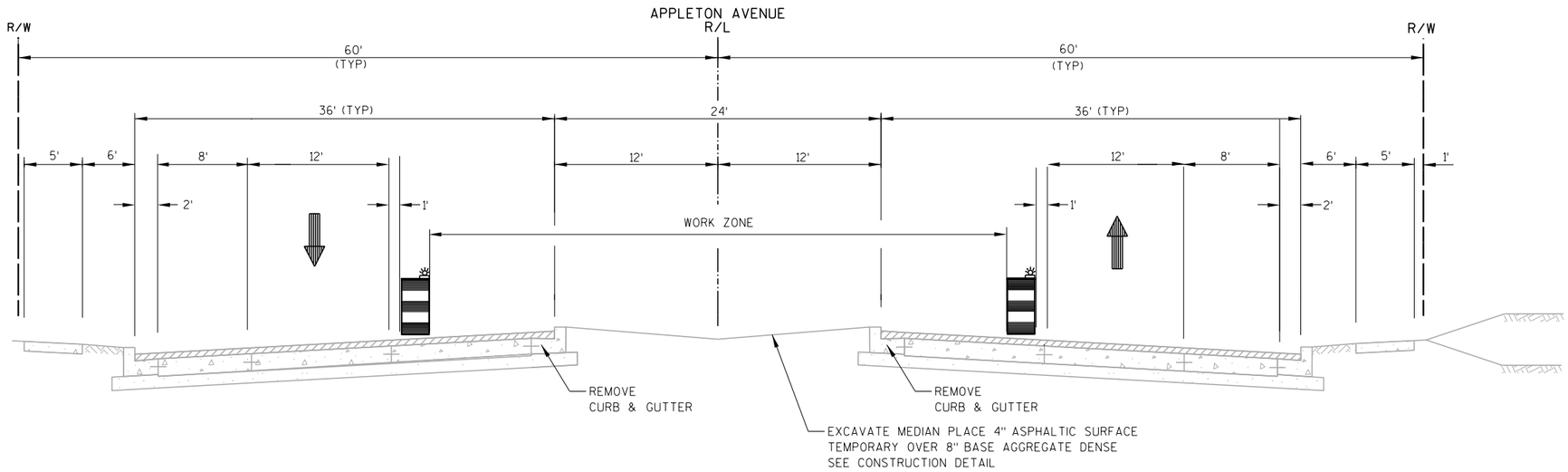
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - OVERNIGHT	SHEET 277	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B - OVERNIGHT	SHEET 278	E

2



CROSSOVER TRAFFIC CONTROL STAGE 1B AND 1C

APPLETON AVENUE

STA 295+00 TO 375+00
N. 91ST STREET TO US 45

2

2

N

END
ROAD WORK
G20-2A
48" X 24"

289 290 291 292 293 294

MATCHLINE STA 294+75

N. 91ST ST

200'

W04-2L

ROAD
WORK
AHEAD
W20-1

ROAD
WORK
AHEAD
W20-1

PLACE TWO SIGNS (ONE ON EACH SIDE OF NB TRAFFIC) 700' IN ADVANCE OF W20-5 SIGN

LEFT LANE
CLOSED
AHEAD
W20-5

PLACE TWO SIGNS (ONE ON EACH SIDE OF NB TRAFFIC) 700' IN ADVANCE OF W04-2L SIGN

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B AND 1C MEDIAN CROSSOVER	SHEET 280	E

2

N

USH 41/APPLETON AVE

MATCHLINE STA 294+75

295

296

297

298

299

300

+05

+25

R/L APPLETON AVE

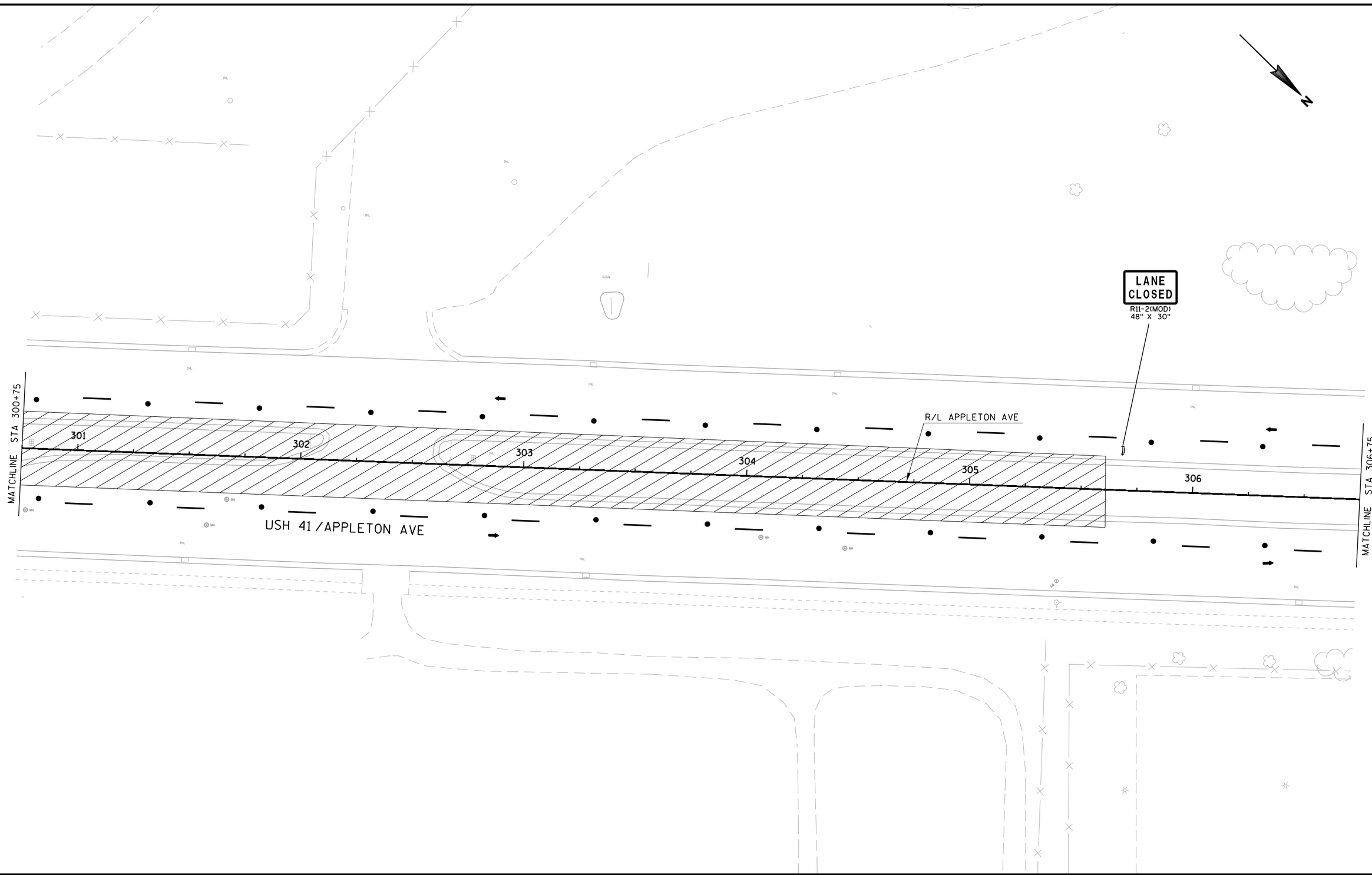
320'

MATCHLINE STA 300+75

LANE CLOSED
R11-2(MOD)
48" X 30"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B AND 1C MEDIAN CROSSOVER	SHEET 281	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B AND 1C MEDIAN CROSSOVER	SHEET 282	E

2

N

W01-6
48" X 24"

W01-6
48" X 24"

R/L APPLETON AVE

USH 41/APPLETON AVE

MATCHLINE STA 306+75

307

308

309

310

311

312

MATCHLINE STA 312+75

W. BIRCH AVE.

200'

BEGIN LEFT TURN LANE

R3-20L
24" X 36"

W01-6
48" X 24"

W01-6
48" X 24"

ROAD WORK AHEAD

W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B AND 1C MEDIAN CROSSOVER	SHEET 283	E

2

2

ROAD WORK AHEAD W20-1

200'

W. SHERIDAN AVE.

W01-6
48" X 24"

LANE CLOSED
R11-2(MOD)
48" X 30"

N

R/L APPLETON AVE

MATCHLINE STA 312+75

313 314 315 316 317 318

MATCHLINE STA 318+75

W. SHERIDAN AVE.

200'

W01-6
48" X 24"

LANE CLOSED
R11-2(MOD)
48" X 30"

ROAD WORK AHEAD W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B AND 1C MEDIAN CROSSOVER	SHEET 284	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026043_S1A_CRSOVR.dgn PLOT DATE : 18-DEC-2013 16:06 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE STA 126+75

ROAD WORK AHEAD W20-1

350'

MS829 SW RAMP

MS627S

MS629

R/L SW RAMP

W. SILVER SPRING DR / CTH E

121

R/L SILVER SPRING DR

R/L NW RAMP

NW RAMP

BEGIN LEFT TURN LANE R3-20L 24" X 36"

128

MS627NW

LANE CLOSED R11-2(MOD) 48" X 30"

STRUCTURE B-40-328

MATCHLINE STA 324+75

MATCHLINE STA 318+75

319

320

321

322

323

324

630W

730SE

129

MS825NE

R/L APPLETON AVE

USH 41 / APPLETON AVE

BEGIN LEFT TURN LANE R3-20L 24" X 36"

LANE CLOSED R11-2(MOD) 48" X 30"

731SE

R/L SE RAMP

SE RAMP

130

W. SILVER SPRING DR / CTH E

R/L NE RAMP

NE RAMP

MS629NE

350'

R/L SILVER SPRING DR

MATCHLINE STA 130+75

ROAD WORK AHEAD W20-1

MS625SE

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B AND 1C MEDIAN CROSSOVER	SHEET 285	E

2

2

NW RAMP

MNSOW

425NW

LANE CLOSED
R11-2(MOD)
48" X 30"

USH 41/APPLETON AVE

MATCHLINE STA 324+75

325

326

327

328

329

330

R/L APPLETON AVE

MATCHLINE STA 330+75

LANE CLOSED
R11-2(MOD)
48" X 30"

N. 99TH ST.

350'

ROAD WORK AHEAD
W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B AND 1C MEDIAN CROSSOVER	SHEET 286	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026045_s1A_CRSOVR.dgn PLOT DATE : 18-DEC-2013 16:06 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

2

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

LANE CLOSED
R11-2(MOD)
48" X 30"

ROAD WORK AHEAD
W20-1

MATCH LINE STA 330+75

MATCH LINE STA 336+75

US 41 / APPLETON AVE

US 41 / APPLETON AVE

CARMEN AVENUE

BLDG

BLDG

BLDG

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B & 1C MEDIAN CROSSOVER	SHEET E

FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\026001_s1.dgn PLOT DATE : 12/9/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

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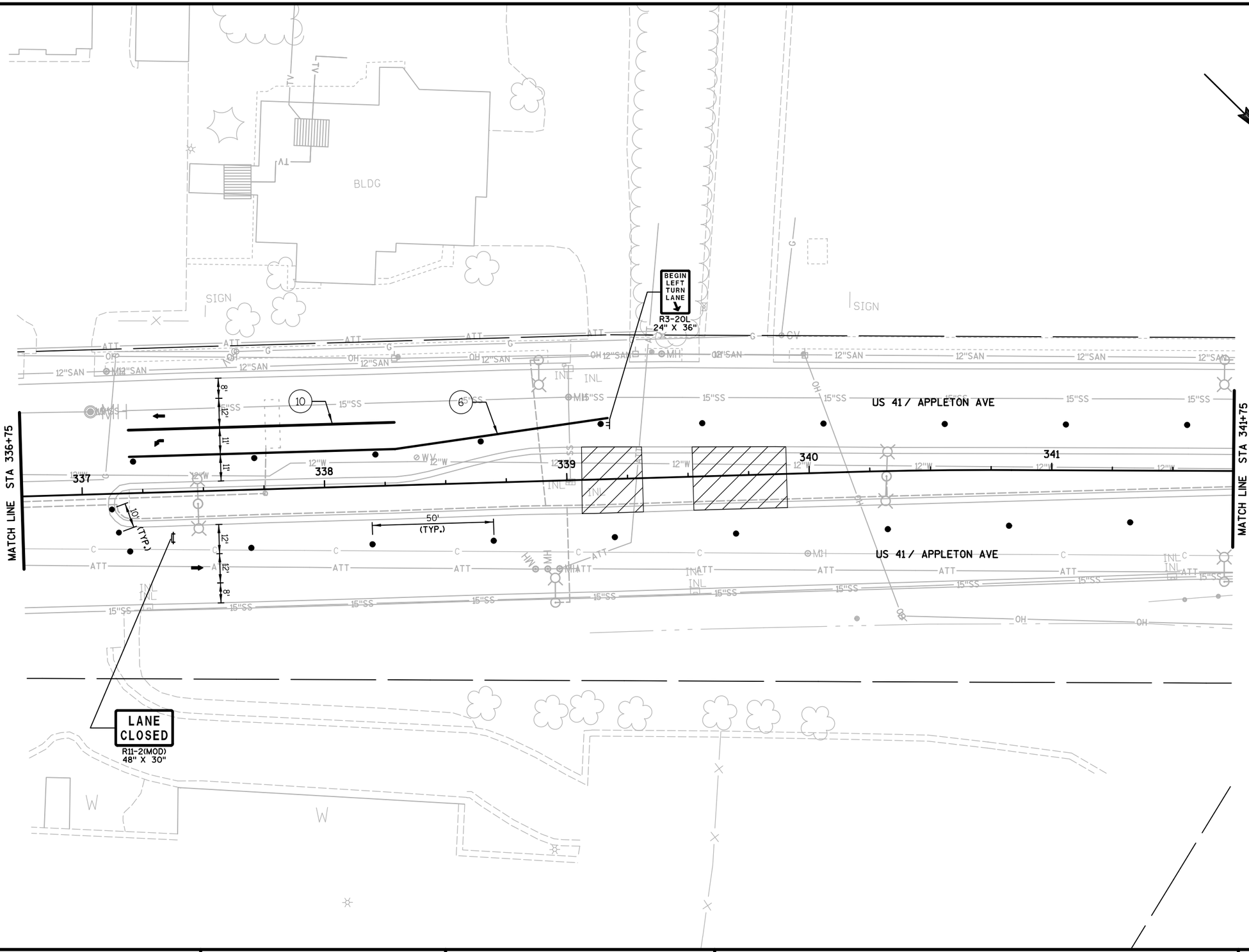
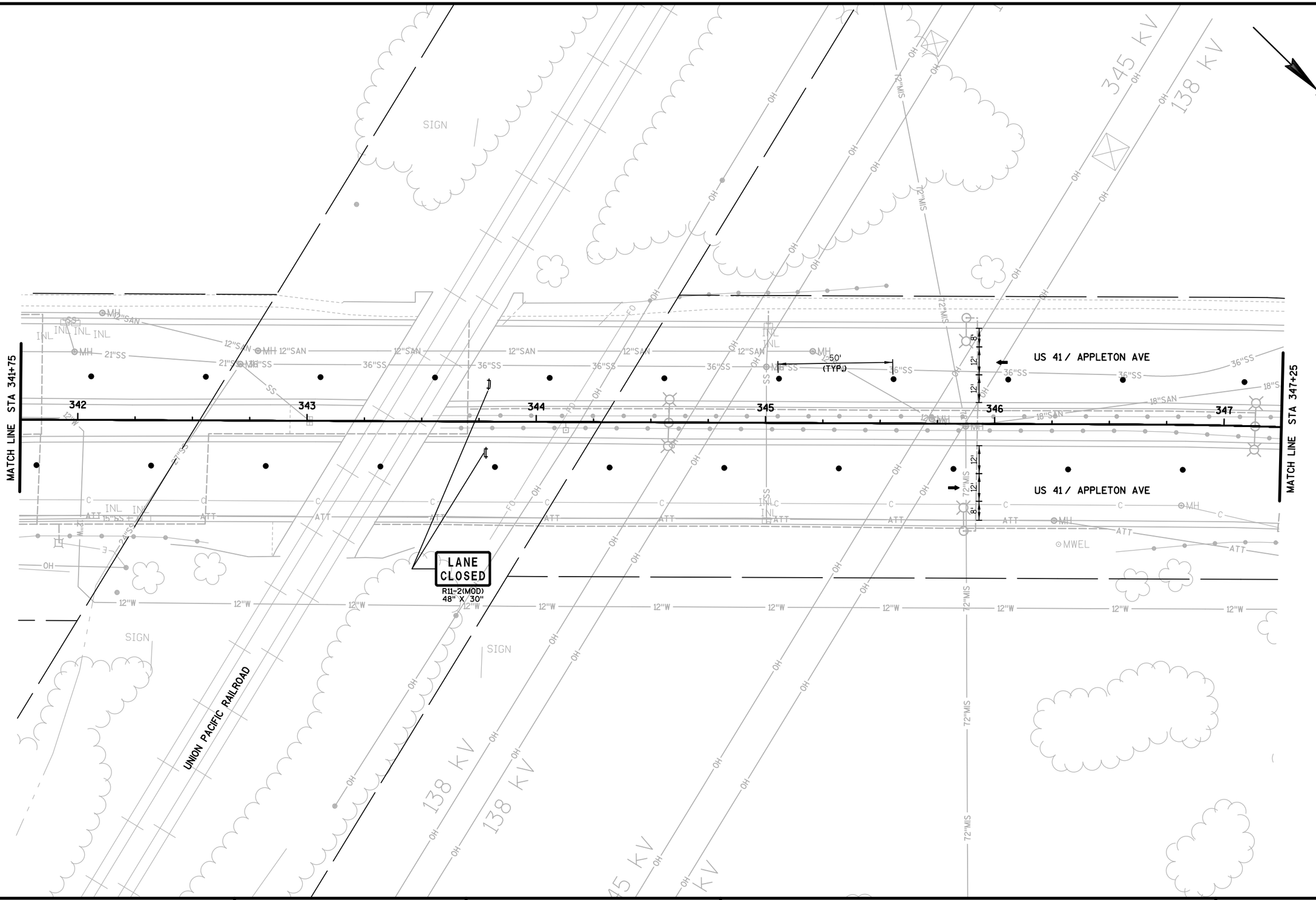


PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B & 1C MEDIAN CROSSOVER	SHEET	E

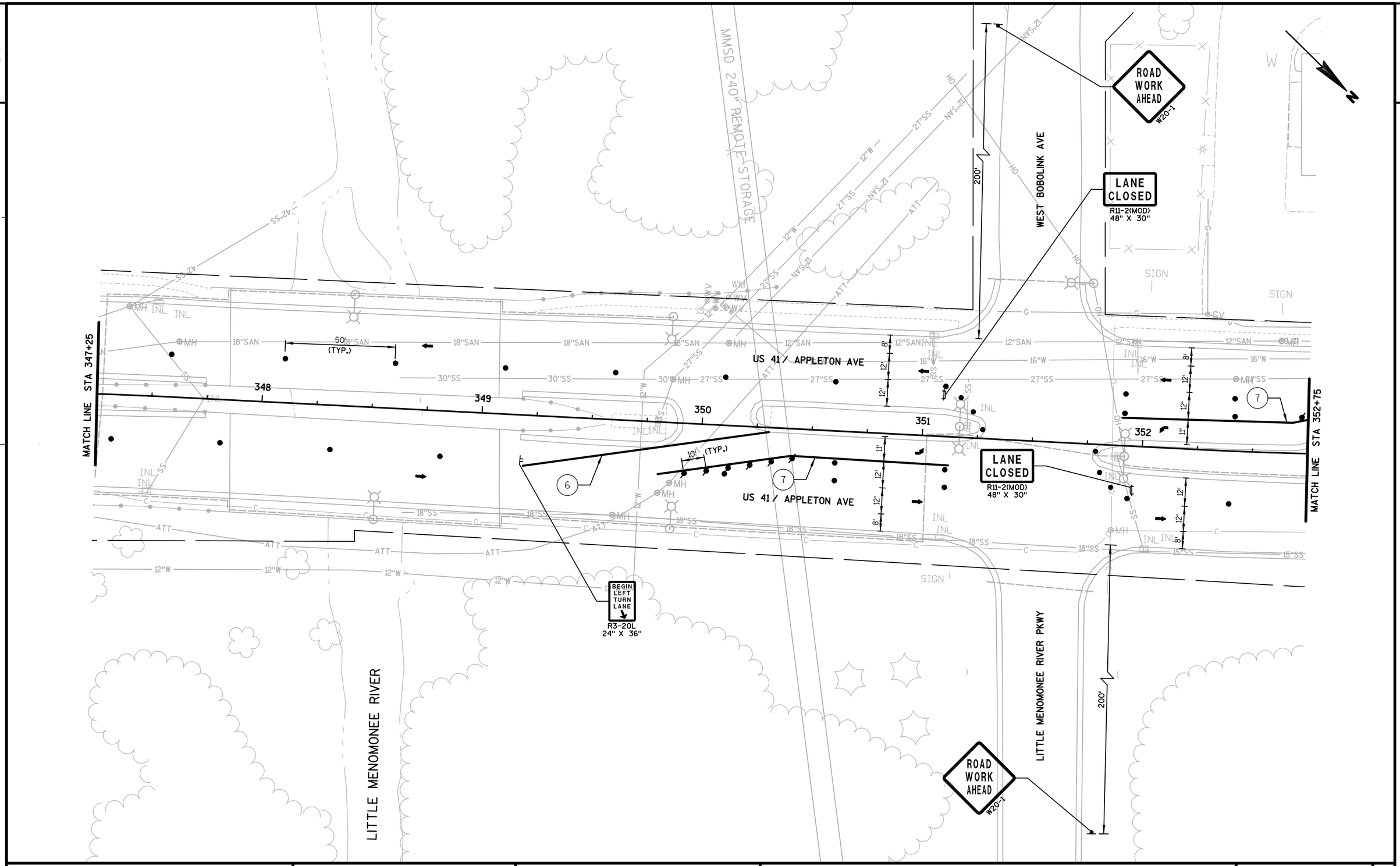
FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\026002_s1.dgn PLOT DATE : 12/9/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B & 1C MEDIAN CROSSOVER	SHEET 289	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B & 1C MEDIAN CROSSOVER	SHEET	E

FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\026004_s1.dgn PLOT DATE : 12/9/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

ANT.

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

SIGN

US 41 / APPLETON AVE

MATCH LINE STA 352+75

MATCH LINE STA 358+75

353 354 355 356 357 358

10' (TYP.)

6

7

12'

12'

8'

50'
(TYP.)

US 41 / APPLETON AVE

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B & 1C MEDIAN CROSSOVER	SHEET 291	E

2

2

ROAD WORK AHEAD
W20-1

FLORIST AVE

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

US 41 / APPLETON AVE

END PROJECT
I.D. 2010-10-70
STA. 364+00.00

MATCH LINE STA 358+75

MATCH LINE STA 364+75

107th ST

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B & 1C MEDIAN CROSSOVER	SHEET 292	E

2

2

10"SAN
15"SS
INL
MH
INL
INL
INL
INL
INL
MH
MH
US 41 / APPLETON AVE
12'
12'
MATCH LINE STA 364+75
365
366
367
368
369
370
IGN
SS
INL
MATCH LINE STA 370+75
MH
50'
(TYP.)
US 41 / APPLETON AVE
12'
12'
MH
MH
U/C

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B & 1C MEDIAN CROSSOVER	SHEET 293	E

2

2

LANE CLOSED
R11-2(MOD)
48" X 30"

US 41 / APPLETON AVE

12'
12'

MATCH LINE STA 370+75

371 372 373 374 375 376

MATCH LINE STA 376+75

50'
(TYP.)

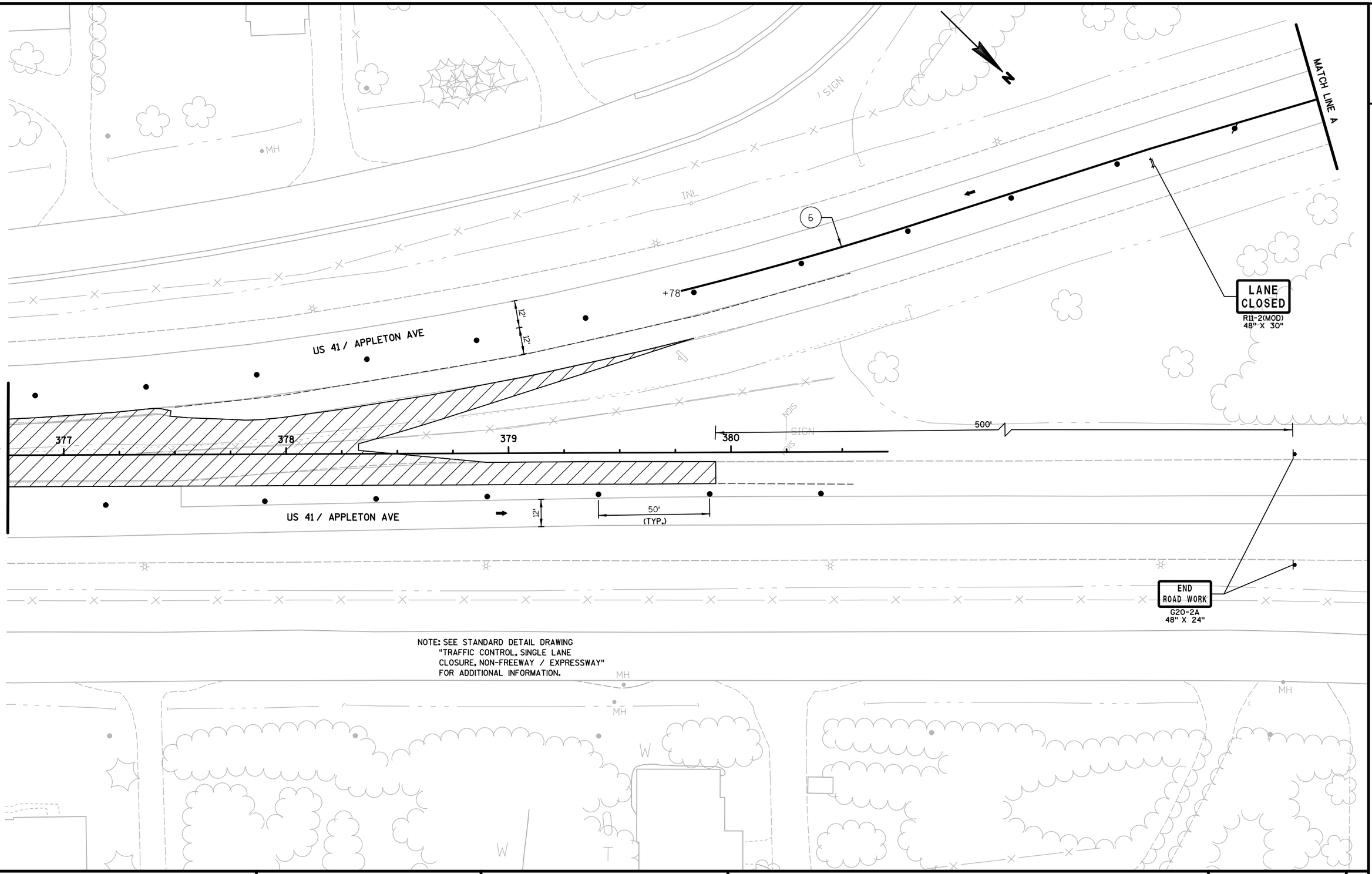
US 41 / APPLETON AVE

LANE CLOSED
R11-2(MOD)
48" X 30"

SS
INL
MH
W

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B & 1C MEDIAN CROSSOVER	SHEET 294	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B & 1C MEDIAN CROSSOVER	SHEET	E

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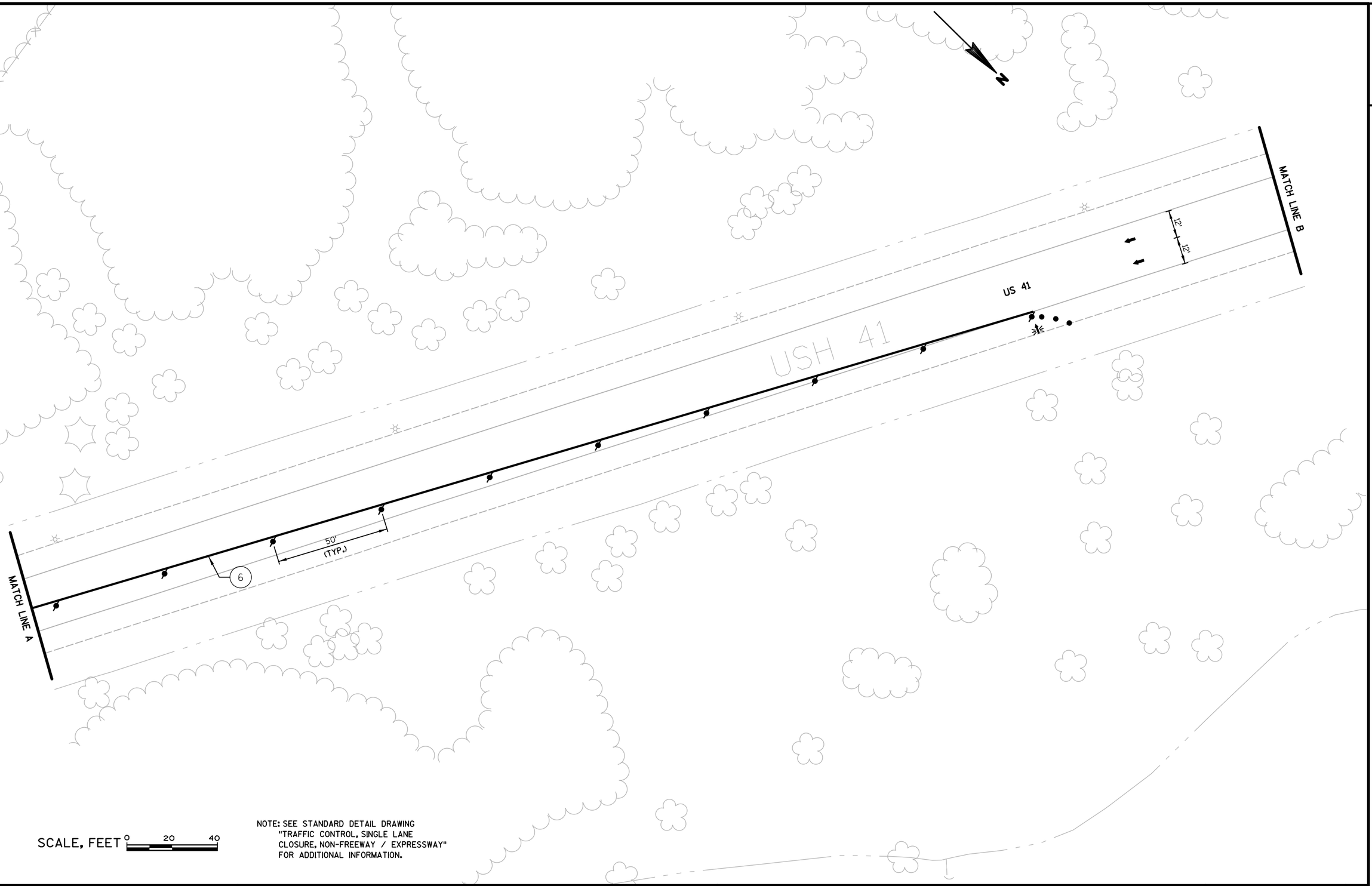
2



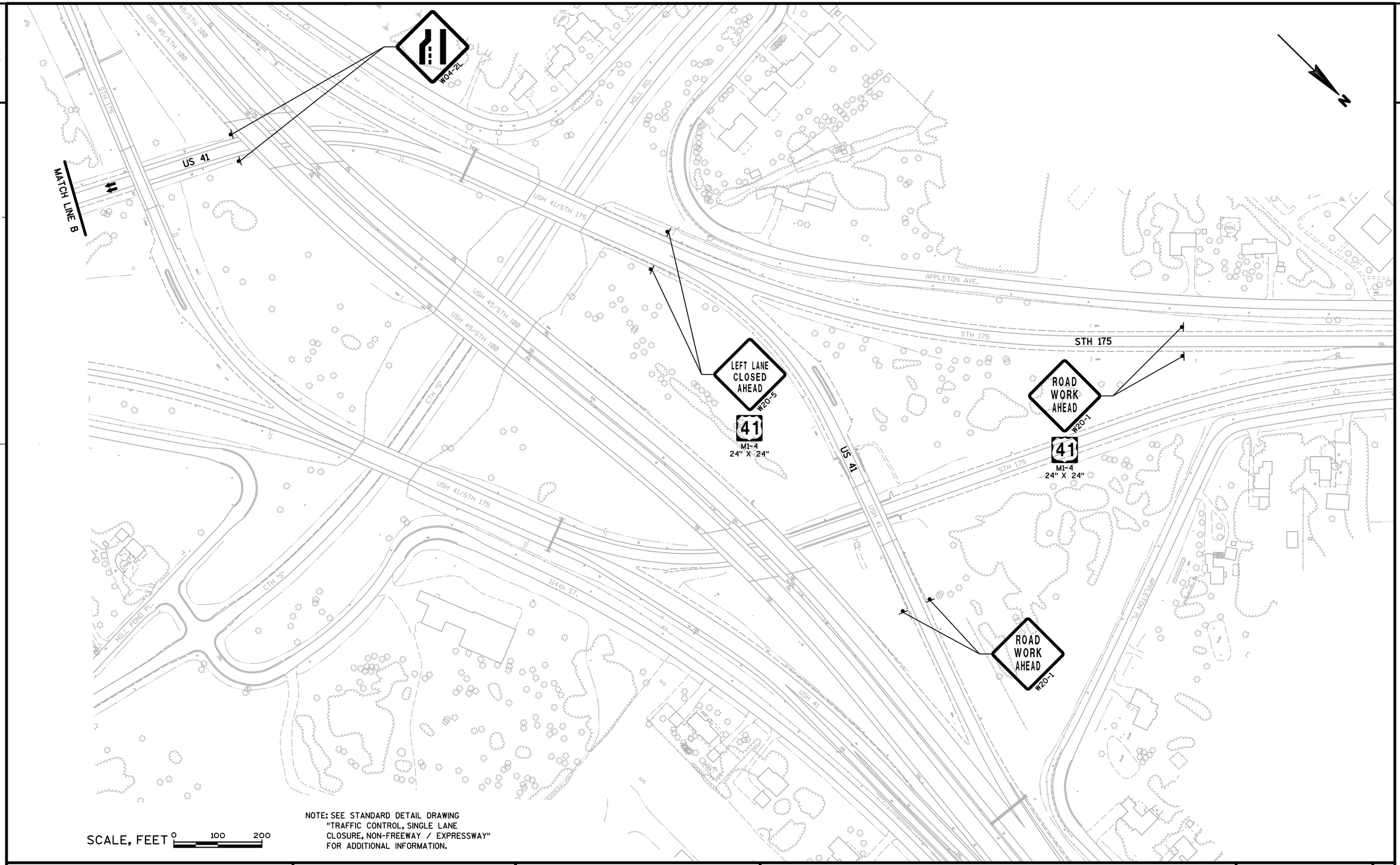
SCALE, FEET 0 20 40

NOTE: SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY / EXPRESSWAY" FOR ADDITIONAL INFORMATION.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B & 1C MEDIAN CROSSOVER	SHEET 296	E

2

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1B & 1C MEDIAN CROSSOVER	SHEET	E

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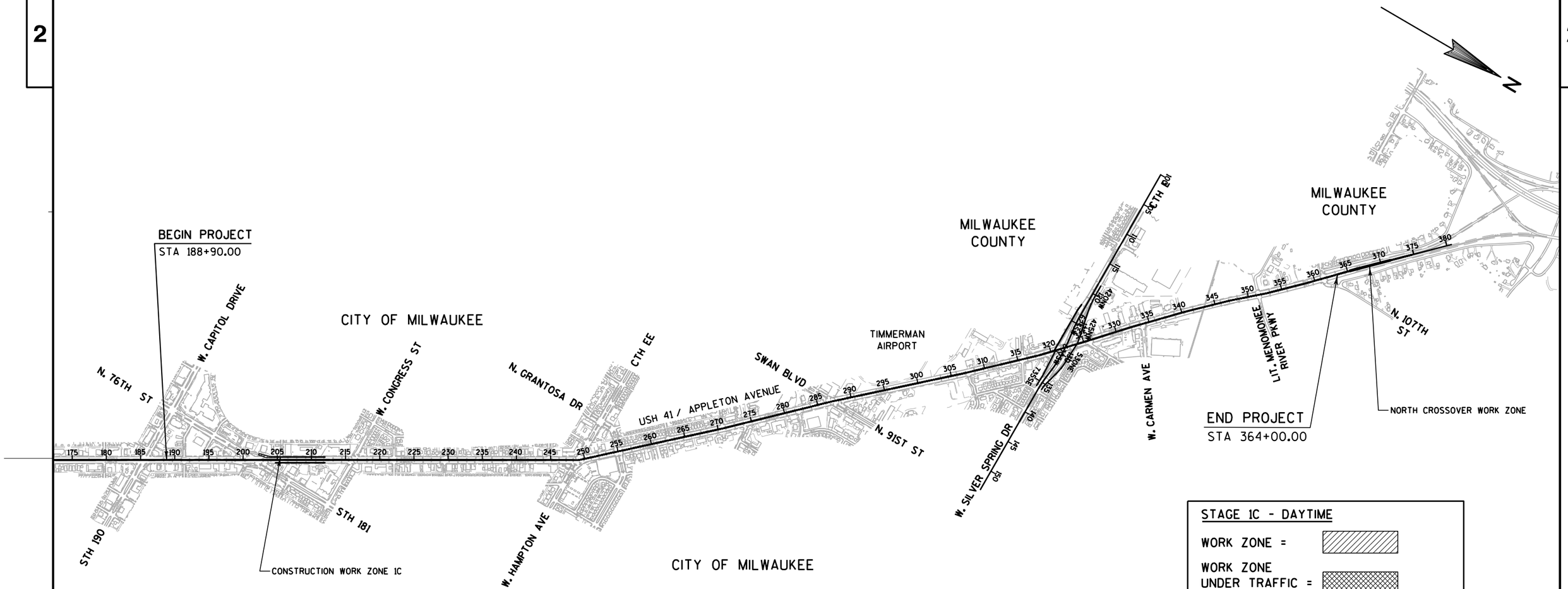


STAGE 1C - DAYTIME

WORK ZONE =

WORK ZONE UNDER TRAFFIC =

CONSTRUCTION

-RESURFACE OUTSIDE LANES NB AND SB BETWEEN 76TH STREET AND CONGRESS ST. (STA 202+60 TO STA 212+00).

-CONSTRUCT MEDIAN CROSSOVERS SOUTH OF THE SILVER SPRING DRIVE INTERCHANGE (STA 300+00 TO STA 305+50) AND NORTH OF 107TH STREET (STA 365+30 TO STA 371+50).

PERMANENT PAVEMENT MARKINGS ON THE PERMANENT SURFACES PLACED IN STAGE 1B (STA 188+90 TO STA 206+50)

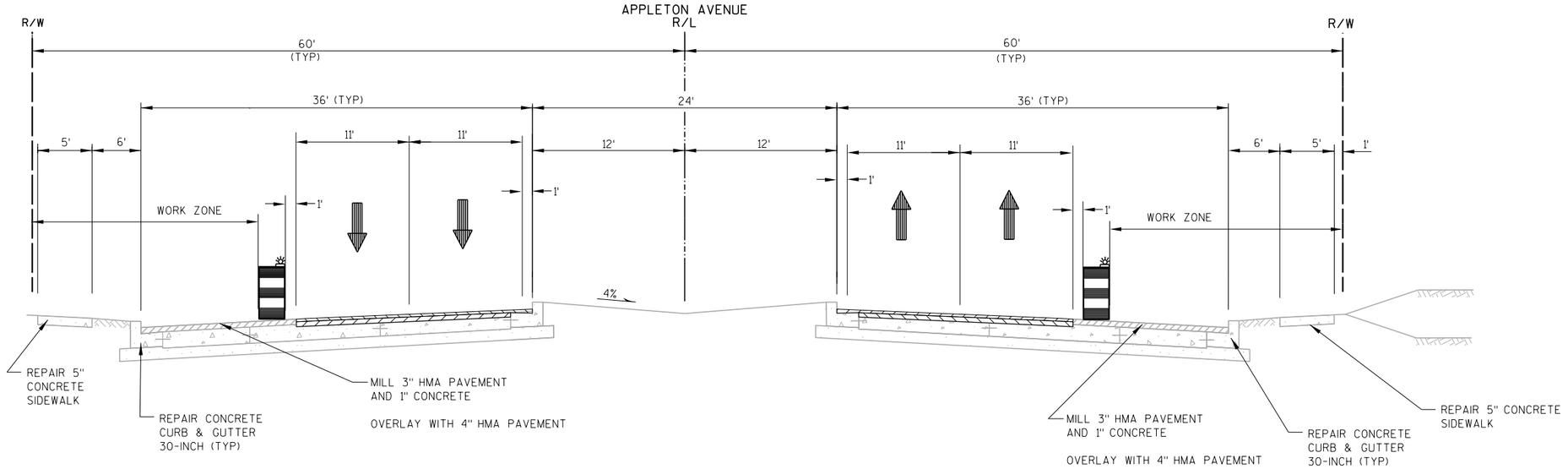
TRAFFIC

-OUTSIDE LANE 3 CLOSURE, WITH RIGHT TURN LANES AT SIGNALIZED INTERSECTIONS FROM STA 188+90 TO STA 212+00.

-TRAFFIC WILL USE THE TWO INSIDE LANES WITH TEMPORARY NO PARKING IN BOTH DIRECTIONS FROM STA 188+90 TO STA 212+00 AND FROM STA 300+00 TO STA 305+50.

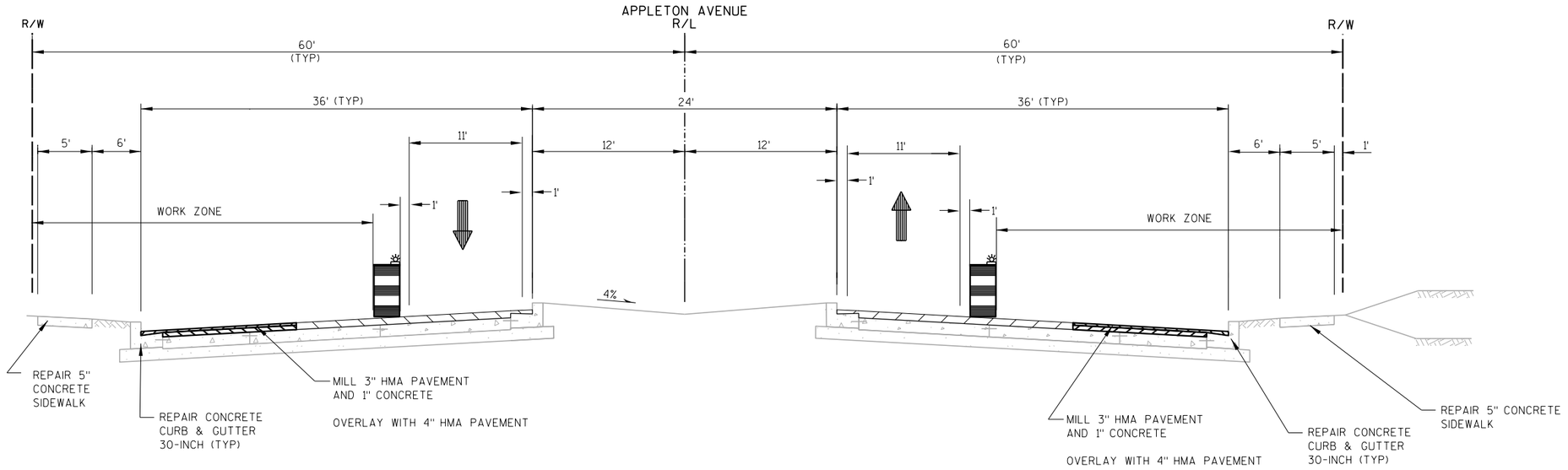
-TRAFFIC WILL BE SHIFTED TO THE ONE OUTSIDE LANE IN BOTH DIRECTIONS FROM STA 365+30 TO STA 371+50.

PROJECT NO: 2010-10-70	HWY: APPLETON AVENUE	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW- STAGE 1C - DAYTIME	SHEET 298 E



TRAFFIC CONTROL STAGE 1C - DAYTIME
APPLETON AVENUE

STA 202+60 TO STA. 212+00
N. 76TH STREET TO W. CONGRESS STREET



TRAFFIC CONTROL STAGE 1C - NIGHTTIME
APPLETON AVENUE

STA 202+60 TO STA. 212+00
N. 76TH STREET TO W. CONGRESS STREET

2

74TH ST.

ROAD WORK AHEAD W20-1

350'

W. CAPITOL DR.

NOTE

1) REPLACE LANE LINE PAVEMENT MARKINGS ON APPLETON AVE. STA 180+50 TO STA 188+90 AT THE END OF STAGE 1B.

183 184 185 186 187 188

USH 41 / APPLETON AVE

MATCHLINE STA 188+75

50' TYP

W. CAPITOL DR.

350'

ROAD WORK AHEAD W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - DAYTIME	SHEET 300 E

2

ROAD WORK AHEAD W20-1

200'

W PERKINS PL

BEGIN PROJECT
STA 188+90.00

END ROAD WORK
G20-2A
48" X 24"

NOTE

1) FINAL PAVEMENT MARKINGS SHOWN:
STA 188+90 TO 200+70
PLACED AT END OF STAGE 1B.
SEE PAVEMENT MARKING PLANS

N

ROAD WORK AHEAD W20-1

200'

W FIEBRANTZ AVE

2

MATCHLINE STA 188+75

R/L APPLETON AVE

189 190 191 192 193 194

USH 41 / APPLETON AVE

MATCHLINE STA 194+75

ROAD WORK AHEAD W20-1

PLACE TWO SIGNS (ONE ON EACH SIDE OF NB TRAFFIC) 700' IN ADVANCE OF THE W21-5B SIGN

RIGHT SHOULDER CLOSED AHEAD W21-5B

PLACE TWO SIGNS (ONE ON EACH SIDE OF NB TRAFFIC) 700' IN ADVANCE OF THE W21-5A SIGN

W PERKINS PL

200'

ROAD WORK AHEAD W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - DAYTIME	SHEET 301	E

2

NOTE

1) FINAL PAVEMENT MARKINGS SHOWN:
STA 188+90 TO 200+70
PLACED AT END OF STAGE 1B.
SEE PAVEMENT MARKING PLANS

ROAD WORK AHEAD W20-1

350'

STH 181

N. 76TH ST

R/L APPLETON AVE

MATCHLINE STA 194+75

195

196

197

198

199

MATCHLINE STA 199+75

USH 41/APPLETON AVE

RIGHT SHOULDER CLOSED W21-5A

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - DAYTIME	SHEET 302	E

NOTES

1) FINAL PAVEMENT MARKINGS SHOWN;
STA 188+90 TO 200+70
PLACED AT END OF STAGE 1B.
SEE PAVEMENT MARKING PLANS

2. TEMPORARY PAVEMENT MARKINGS SHOWN
STA 202+60 TO STA 214+35.

STH 181

R/L APPLETON AVE

W. HOPE AVE.

200'

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

ROAD WORK AHEAD
W20-1

MATCHLINE STA 199+75

200 201 202 203 204 205

MATCHLINE STA 205+75

USH 41/APPLETON AVE

50' TYP

RIGHT SHOULDER CLOSED
W21-5A

ROAD WORK AHEAD
W20-1

W. HOPE AVE.

200'

N. 76TH ST

350'

RIGHT SHOULDER CLOSED
W21-5A

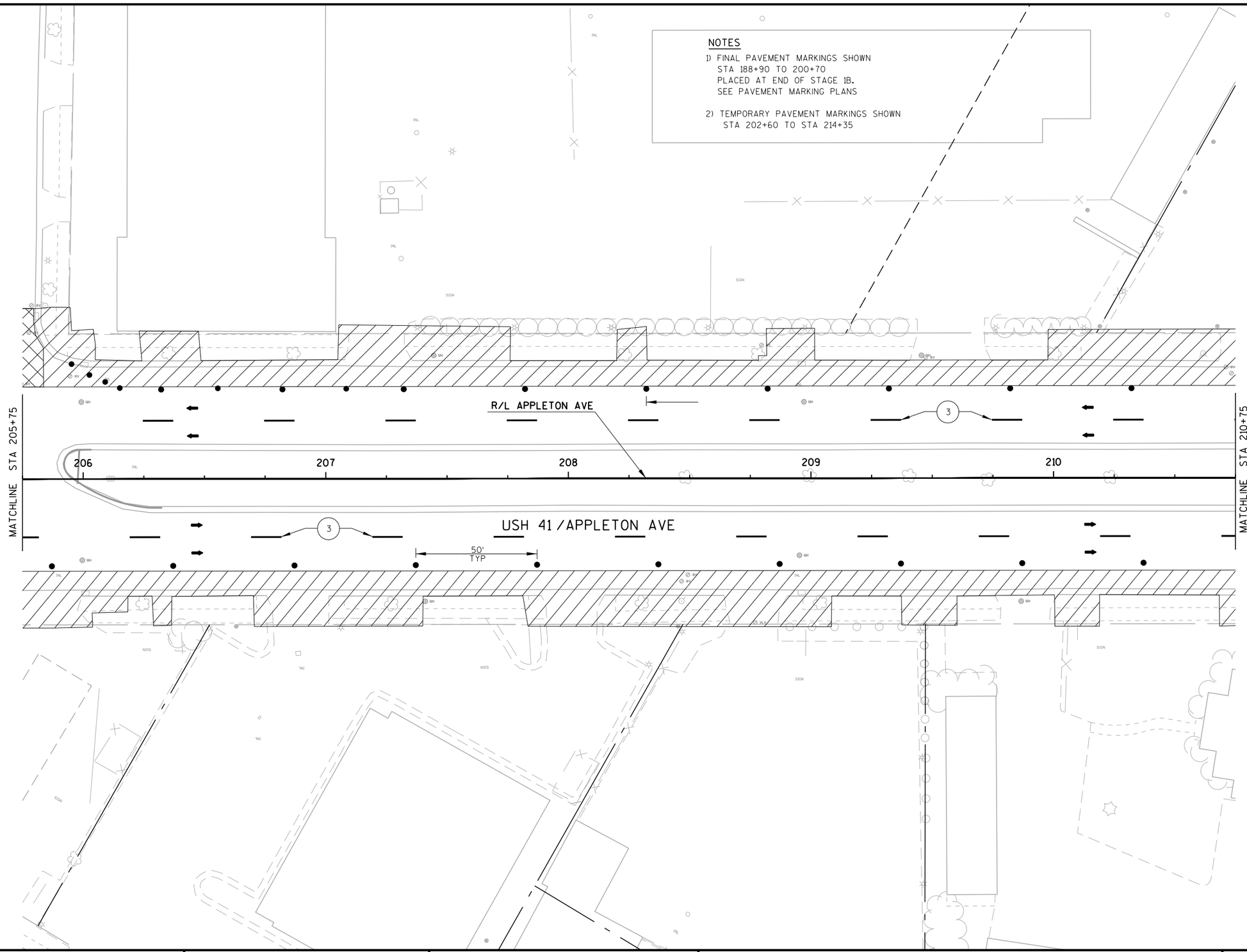
ROAD WORK AHEAD
W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - DAYTIME	SHEET 303 E

NOTES

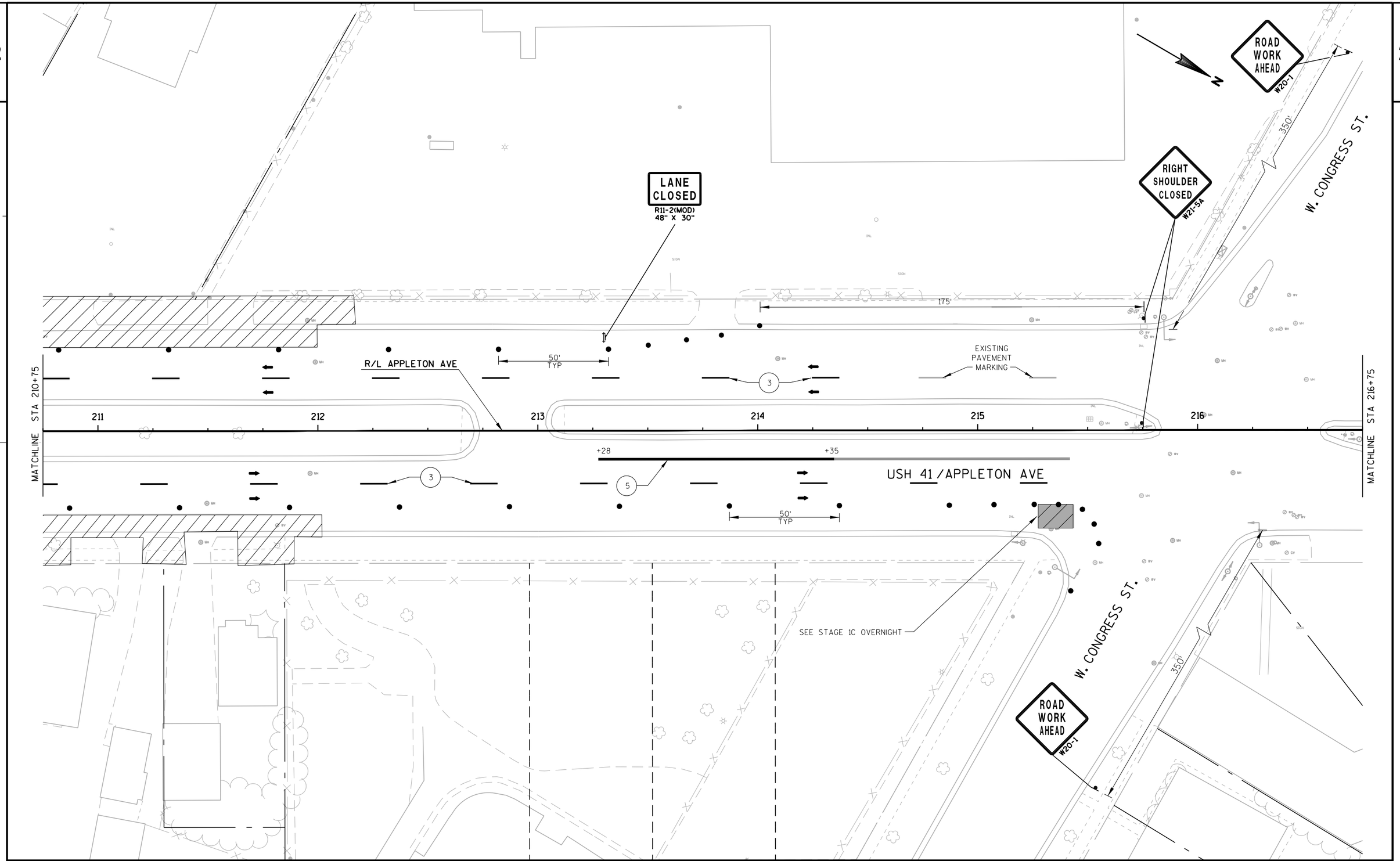
1) FINAL PAVEMENT MARKINGS SHOWN
STA 188+90 TO 200+70
PLACED AT END OF STAGE 1B.
SEE PAVEMENT MARKING PLANS

2) TEMPORARY PAVEMENT MARKINGS SHOWN
STA 202+60 TO STA 214+35



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - DAYTIME	SHEET 304 E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - DAYTIME	SHEET 305	E

2

W. CONGRESS ST.

W. RUBY AVE.

RUBY AVE

N

ROAD WORK AHEAD W20-1

200'

ROAD WORK AHEAD W20-1

EXISTING PAVEMENT MARKING

R/L APPLETON AVE

MATCHLINE STA 216+75

217

218

219

220

221

222

USH 41 / APPLETON AVE

END ROAD WORK G20-2A 48" X 24"

RIGHT SHOULDER CLOSED AHEAD W21-5B

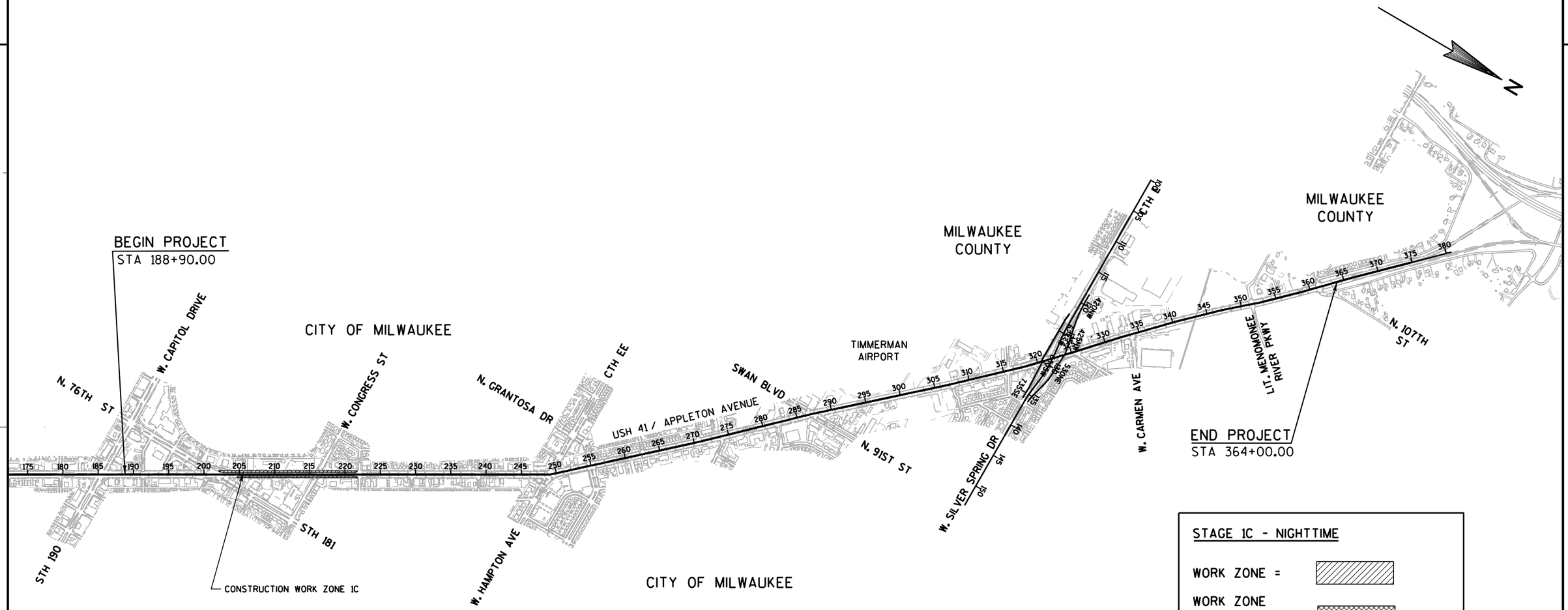
ROAD WORK AHEAD W20-1

200'

2

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - DAYTIME	SHEET 306 E

2



STAGE 1C - NIGHTTIME

WORK ZONE =

WORK ZONE
UNDER TRAFFIC =

CONSTRUCTION

-RESURFACING OF OUTSIDE LANES NB AND SB BETWEEN 76TH STREET AND CONGRESS STREET (STA 202+60 TO STA 212+00).

-PLACE PERMANENT PAVEMENT MARKINGS ON THE PERMANENT SURFACES AT THE END OF STAGE 1C STA 202+60 TO STA 206+50

TRAFFIC

-OUTSIDE LANE 2 AND 3 CLOSURES, WITH CLOSURES OF RIGHT TURN LANES AND DRIVEWAYS WHERE WORK IS OCCURING DURING NIGHTTIME HOURS FROM STA 202+60 TO STA 212+00.

-TRAFFIC WILL USE ONE INSIDE LANE; LANE 1, WITH TEMPORARY NO PARKING IN BOTH DIRECTIONS FROM STA 202+60 TO STA 212+00.

PROJECT NO: 2010-10-70	HWY: APPLETON AVENUE	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW- STAGE 1C - NIGHTTIME	SHEET 307	E

2

74TH ST.

ROAD WORK AHEAD W20-1

350'

W. CAPITOL DR.

8"W

8"SAN

MH 18"SS

18"SS

21"SS

8"SAN

MATCHLINE STA 183+00

183

184

185

186

187

188

MATCHLINE STA 188+75

25' TYP

USH 41/APPLETON AVE

EXIST. PAVT. MARKING

21"SS

MH 15"SS

8"SAN

8"SAN

8"SAN

G

16"W

G

16"W

W. CAPITOL DR.

350'

ROAD WORK AHEAD W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - OVERNIGHT	SHEET 308 E

2

ROAD WORK AHEAD W20-1

200'

W PERKINS PL

BEGIN PROJECT
STA 188+90.00

END ROAD WORK
G20-2A
48" X 24"

NOTE

1) FINAL PAVEMENT MARKINGS SHOWN:
STA 188+90 TO 200+70
PLACED AT END OF STAGE 1B.
SEE PAVEMENT MARKING PLANS

N

ROAD WORK AHEAD W20-1

200'

W FIEBRANTZ AVE

MATCHLINE STA 188+75

R/L APPLETON AVE

189 190 191 192 193 194

USH 41 / APPLETON AVE

MATCHLINE STA 194+75

ROAD WORK AHEAD W20-1

PLACE TWO SIGNS (ONE ON EACH SIDE OF NB TRAFFIC) 700' IN ADVANCE OF THE W21-5B SIGN

RIGHT LANE CLOSED AHEAD W21-5B

PLACE TWO SIGNS (ONE ON EACH SIDE OF NB TRAFFIC) 700' IN ADVANCE OF THE W21-5A SIGN

W PERKINS PL

200'

ROAD WORK AHEAD W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - OVERNIGHT	SHEET 309	E

2

1) FINAL PAVEMENT MARKINGS SHOWN
STA 188+90 TO 206+50
PLACED AT END OF STAGE 1B.
SEE PAVEMENT MARKING PLANS

ROAD WORK AHEAD
W20-1

350'

STH 181

N

MATCHLINE STA 194+75

50' TYP

195

196

197

USH 41 / APPLETON AVE

198

199

MATCHLINE STA 199+75

R/L APPLETON AVE

F

W04-2R

RIGHT LANE CLOSED
W21-5A

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - OVERNIGHT	SHEET 310	E

NOTE

1) FINAL PAVEMENT MARKINGS SHOWN:
STA 188+90 TO 200+70
PLACED AT END OF STAGE 1B.
SEE PAVEMENT MARKING PLANS

2) TEMPORARY PAVEMENT MARKINGS
SHOWN STA 202+60 TO STA 214+35
PLACED IN STAGE 1C DAYTIME.

STH 181

R/L APPLETON AVE

25' TYP

MATCHLINE STA 199+75

200 201 202 203 204 205

MATCHLINE STA 205+75

W. HOPE AVE.

200'

ROAD WORK AHEAD W20-1

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

LANE CLOSED R11-2(MOD) 48" X 30"

USH 41 / APPLETON AVE

+70 +95 125' TAPER

W01-6 48" X 24"

LANE CLOSED R11-2(MOD) 48" X 30"

LANE CLOSED R11-2(MOD) 48" X 30"

350'

N. 76TH ST

W04-2R

ROAD WORK AHEAD W20-1

ROAD WORK AHEAD W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - OVERNIGHT	SHEET 311 E

2

NOTES

1) FINAL PAVEMENT MARKINGS SHOWN STA 188+90 TO 200+70 TO BE PLACED AT END OF STAGE 1B. SEE PAVEMENT MARKING PLANS

2) TEMPORARY PAVEMENT MARKINGS SHOWN STA 202+60 TO STA 214+35 PLACED IN STAGE 1C DAYTIME.

N

MATCHLINE STA 205+75

R/L APPLETON AVE

206 207 208 209 210

TEMPORARY PAVEMENT MARKING PLACED IN STAGE 1C DAYTIME

50' TYP

TEMPORARY PAVEMENT MARKING PLACED IN STAGE 1C DAYTIME

50' TYP

USH 41 /APPLETON AVE

MATCHLINE STA 210+75

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - OVERNIGHT	SHEET 312	E

NOTE

1) TEMPORARY PAVEMENT MARKINGS SHOWN STARTS AT STA 202+60; PLACED IN STAGE 1C DAYTIME

ROAD WORK AHEAD
W20-1

350'

W. CONGRESS ST.

LANE CLOSED
R11-2(MOD)
48" X 30"

W01-6
48" X 24"

TEMPORARY PAVEMENT MARKING PLACED IN STAGE 1B DAYTIME

50' TYP

R/L APPLETON AVE

MATCHLINE STA 210+75

211 212 213 214 215 216

MATCHLINE STA 216+75

TEMPORARY PAVEMENT MARKING PLACED IN STAGE 1B DAYTIME

USH 41 /APPLETON AVE

50' TYP

LANE CLOSED
R11-2(MOD)
48" X 30"

PLACE PART OF 12" STORM SEWER PIPE. SEE STORM SEWER PLANS.

BLOCK END OF PIPE WITH COVER PLATE TO PREVENT INFILTRATION BEFORE REMAINDER OF PIPE IS PLACED IN STAGE 2.

PLACE 4" ASPHALTIC SURFACE TEMPORARY TO ALLOW FOR TRAFFIC IN STAGE 2.

W. CONGRESS ST.

350'

ROAD WORK AHEAD
W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - OVERNIGHT	SHEET 313	E

2

W. CONGRESS ST.

W. RUBY AVE.

N

RIGHT TURN ONLY
R3-53R
24" X 30"

BEGIN RIGHT TURN LANE
R3-20RR
24" X 36"

LANE CLOSED
R11-2(MOD)
48" X 30"

ROAD WORK AHEAD
W20-1

200'

+30 +49 +46 +83 +37 +74 +62

25' TYP

EXISTING LANE LINE

225'

R/L APPLETON AVE

MATCHLINE STA 216+75

217 218 219 220 221 222

MATCHLINE STA 222+75

USH 41 / APPLETON AVE

LEFT TURN ONLY
R3-53L
24" X 30"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

200'

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - OVERNIGHT	SHEET 314	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026067_S1B_N.dgn PLOT DATE : 18-DEC-2013 17:00 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

NOTE: EXISTING PAVEMENT MARKINGS SHOWN

W04-2R

RIGHT LANE CLOSED AHEAD W20-5

PLACE TWO SIGNS (ONE ON EACH SIDE OF SB TRAFFIC) 700' IN ADVANCE OF THE W04-2R SIGN

ROAD WORK AHEAD W20-1

PLACE TWO SIGNS (ONE ON EACH SIDE OF SB TRAFFIC) 700' IN ADVANCE OF THE W20-5 SIGN

USH 41/APPLETON AVE

223 224 225 226 227 228

MATCHLINE STA 222+75

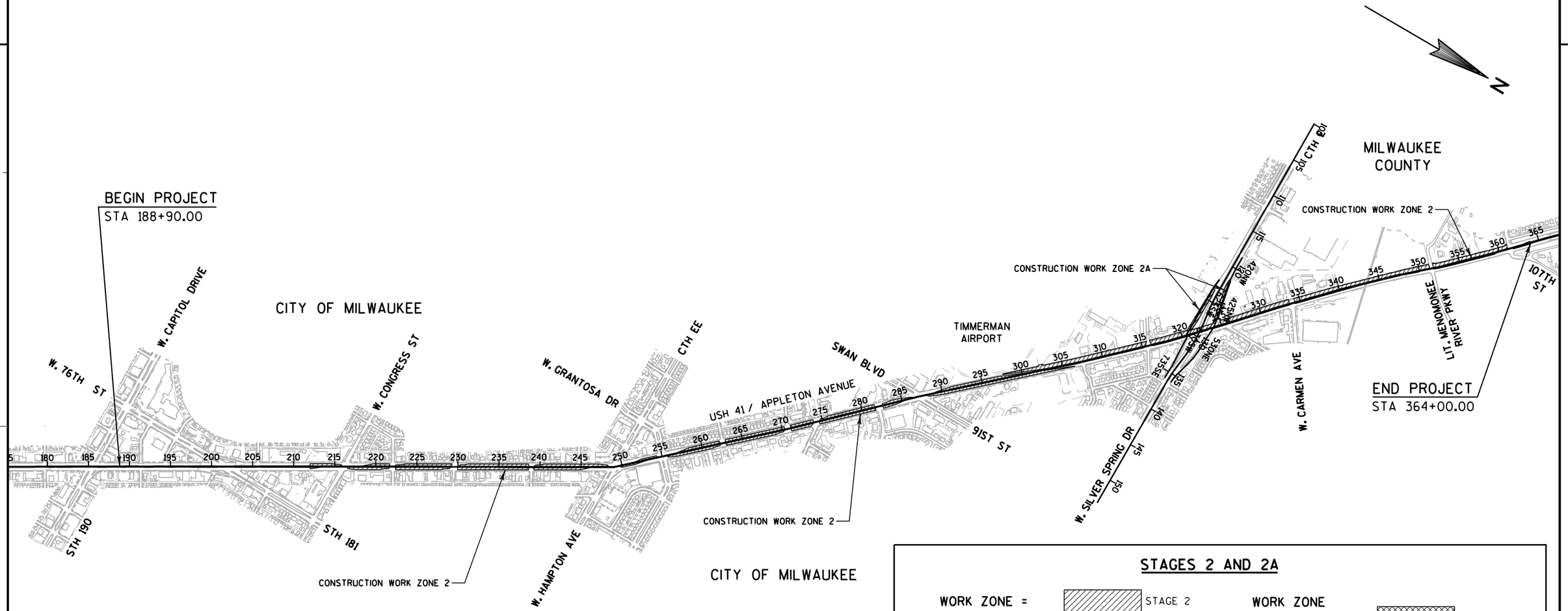
R/L APPLETON AVE

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1C - OVERNIGHT	SHEET 315 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026068_S1B_N.dgn PLOT DATE : 18-DEC-2013 17:00 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2



STAGES 2 AND 2A

WORK ZONE = STAGE 2

STAGE 2A

WORK ZONE UNDER TRAFFIC =

CONSTRUCTION

-MILL AND OVERLAY LANES 1 AND 2 NB AND SB BETWEEN 76TH STREET TO NORTH OF 91ST STREET (STA 212+00 TO STA 297+20).

-MILL AND OVERLAY SB LANES AND CONSTRUCT SIDEWALK BETWEEN 91ST STREET AND NORTH PROJECT LIMIT (STA 305+00 TO STA 364+00)

-BEGIN WORK ON THE SB BRIDGE OVER SILVER SPRING DRIVE. ON AND OFF RAMP RECONSTRUCTION WITH DETOURS IN STAGE 2A.

-PLACE PERMANENT PAVEMENT MARKINGS FOR CHANNELIZED LEFT TURN LANES IN STAGE 2 (STA 212+00 TO STA 290+00)

TRAFFIC

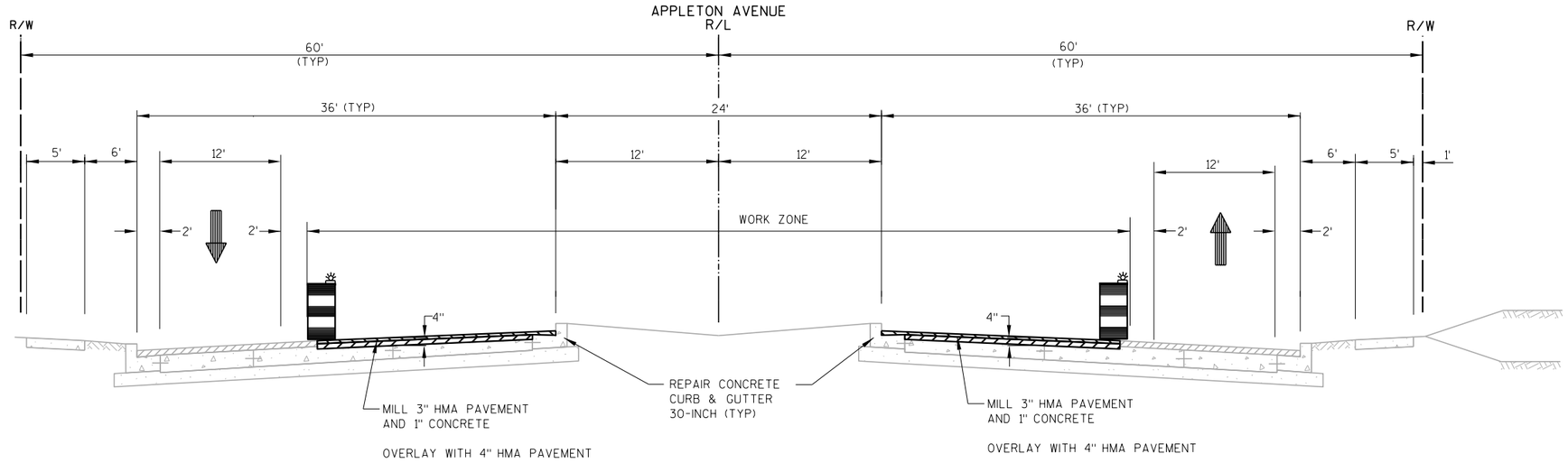
-NW RAMP AND SW RAMP ARE CLOSED AND DETOURED FOR 2 WEEKS IN STAGE 2A

-LANE 1 AND 2 CLOSURES, WITH LEFT TURN LANES AT MEDIAN OPENINGS AT ALL INTERSECTIONS DURING DAYTIME HOURS FROM STA 212+00 TO 297+20.

-TRAFFIC WILL BE SHIFTED TO THE OUTSIDE LANE, LANE 3, WITH TEMPORARY NO PARKING IN BOTH DIRECTIONS FROM STA 212+00 TO STA 297+20.

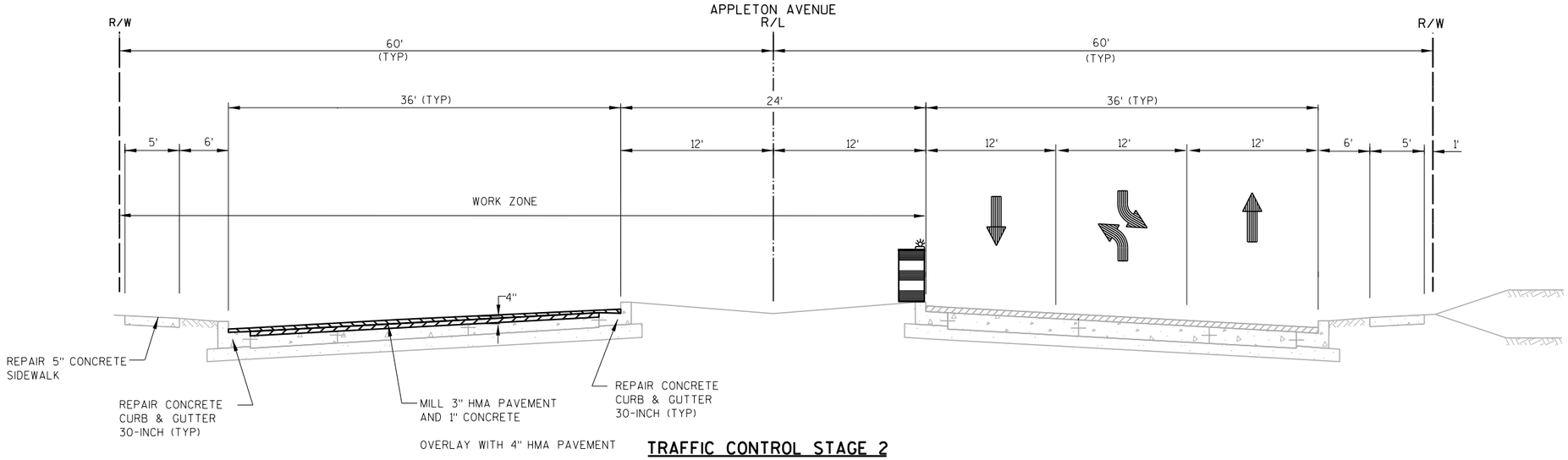
-TRAFFIC WILL BE ONE LANE IN EACH DIRECTION AND WILL BE LOCATED ON THE NB ROADWAY WITH LEFT TURN LANES AT INTERSECTIONS FROM STA 305+00 TO STA 364+00.

PROJECT NO: 2010-10-70	HWY: APPLETON AVENUE	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW- STAGE 2	SHEET 316	E



TRAFFIC CONTROL STAGE 2
APPLETON AVENUE

STA 212+00 TO 297+20
N. 76TH STREET TO N. 91ST STREET



TRAFFIC CONTROL STAGE 2
APPLETON AVENUE

STA 305+60 TO 364+00
N. 91ST STREET TO N. 107TH STREET

2

W PERKINS PL

W FIEBRANTZ AVE

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN, PLACED AT THE END OF STAGE 1B CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

BEGIN PROJECT
STA 188+90.00

R/L APPLETON AVE

189 190 191 192 193 194

MATCHLINE STA 194+75

USH 41 / APPLETON AVE

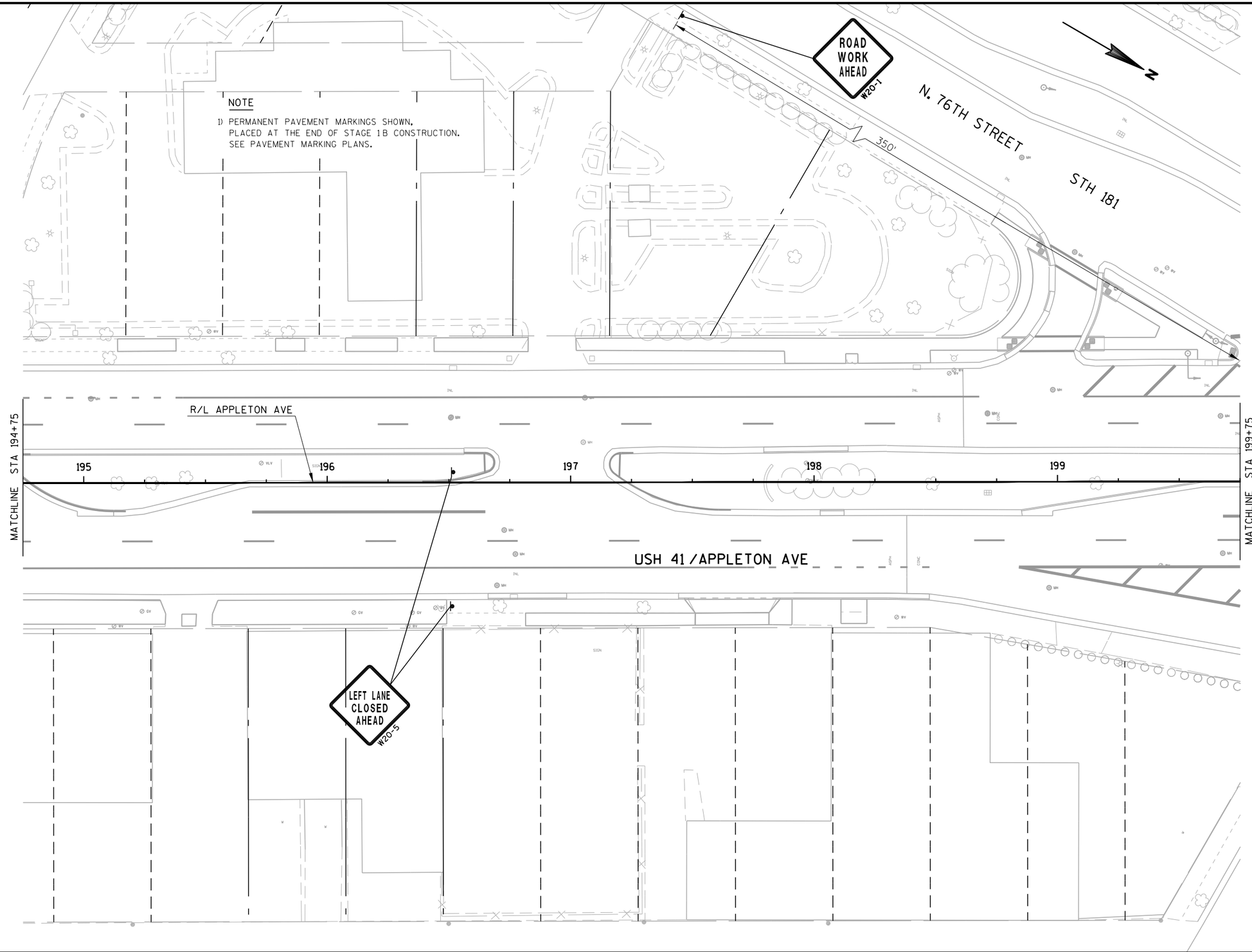
ROAD WORK AHEAD W20-1

W PERKINS PL

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 318 E

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN, PLACED AT THE END OF STAGE 1B CONSTRUCTION. SEE PAVEMENT MARKING PLANS.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 319 E

2

NOTES

1) PERMANENT PAVEMENT MARKINGS SHOWN SOUTH OF STA 200+70, PLACED IN STAGE 1B CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

2) PERMANENT PAVEMENT MARKINGS SHOWN NORTH OF STA 202+60 TO STA 212+00, PLACED IN STAGE 1C CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

STH 181

R/L APPLETON AVE

USH 41/APPLETON AVE

W. HOPE AVE.

N. 76TH ST

MATCHLINE STA 199+75

MATCHLINE STA 205+75

200 201 202 203 204 205

ROAD WORK AHEAD W20-1

END ROAD WORK G20-2A 48" X 24"

200'

ROAD WORK NEXT 3 MILES G20-1 60" X 24"

W04-2L

350'

ROAD WORK AHEAD W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 320	E

2

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN NORTH OF STA 202+60 TO STA 212+00, PLACED IN STAGE 1C CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

N

W01-6
48" X 24"

R/L APPLETON AVE

MATCHLINE STA 205+75

206 207 208 209 210

206+50
12' RT

209+00
12' RT

209+98
35' LT

25'
TYP

6

7

USH 41 / APPLETON AVE

209+00
24' RT

MATCHLINE STA 210+75

LANE
CLOSED
R11-2(MOD)
48" X 30"

W01-4R

W01-6
48" X 24"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 321 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026073_S2.dgn PLOT DATE : 18-DEC-2013 13:21 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

N

ROAD WORK AHEAD W20-1

350'

W. CONGRESS ST.

W01-4L

LANE CLOSED R11-2(MOD) 48" X 30"

MATCHLINE STA 210+75

USH 41 / APPLETON AVE

25' TYP

R/L APPLETON AVE

210+90 46' LT

214+52 36' LT

215+62 25' LT

MATCHLINE STA 216+75

211 212 213 214 215 216

211+34 36' RT

211+34 47' RT

212+10 36' RT

212+39 36' RT

212+39 47' RT

213+35 14' RT

213+49 25&36 RT

213+77 36' RT

214+21 46' RT

216+55 25' RT

BEGIN LEFT TURN LANE R3-20L 24" X 36"

LANE CLOSED R11-2(MOD) 48" X 30"

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

PLACE REMAINDER OF 12" STORM SEWER PIPE

RIGHT TURN ONLY R3-53R 24" X 30"

ROAD WORK AHEAD W20-1

W. CONGRESS ST.

350'

LANE CLOSED R11-2(MOD) 48" X 30"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 322 E

W. CONGRESS ST.

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

W. RUBY AVE.

ROAD WORK AHEAD W20-1

LANE CLOSED R11-2(MOD) 48" X 30"

RIGHT TURN ONLY R3-53R 24" X 30"

LANE CLOSED R11-2(MOD) 48" X 30"

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

BEGIN LEFT TURN LANE R3-20L 24" X 36"

200'

217+88 47'LT

218+38 36'LT

219+48 47'LT

217+88 14'LT

218+52 26'LT

50' TYP

R/L APPLETON AVE

MATCHLINE STA 216+75

217 218 219 220 221 222

220+49 26'RT

MATCHLINE STA 222+75

25' TYP

50' TYP

USH 41 / APPLETON AVE

220+00 36'RT

217+65 36'RT

BEGIN LEFT TURN LANE R3-20L 24" X 36"

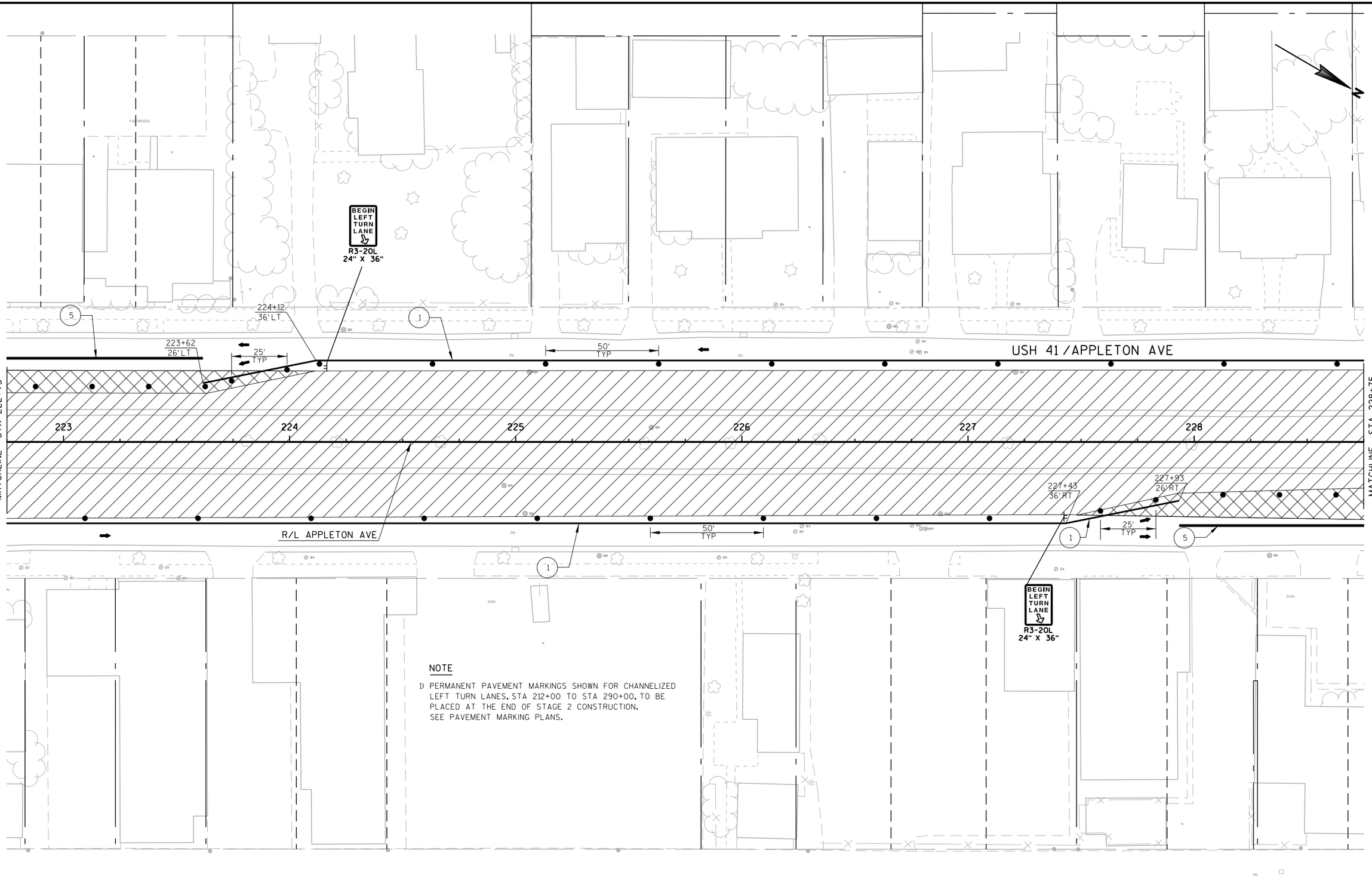
LANE CLOSED R11-2(MOD) 48" X 30"

ROAD WORK AHEAD W20-1

200'

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 323 E

2



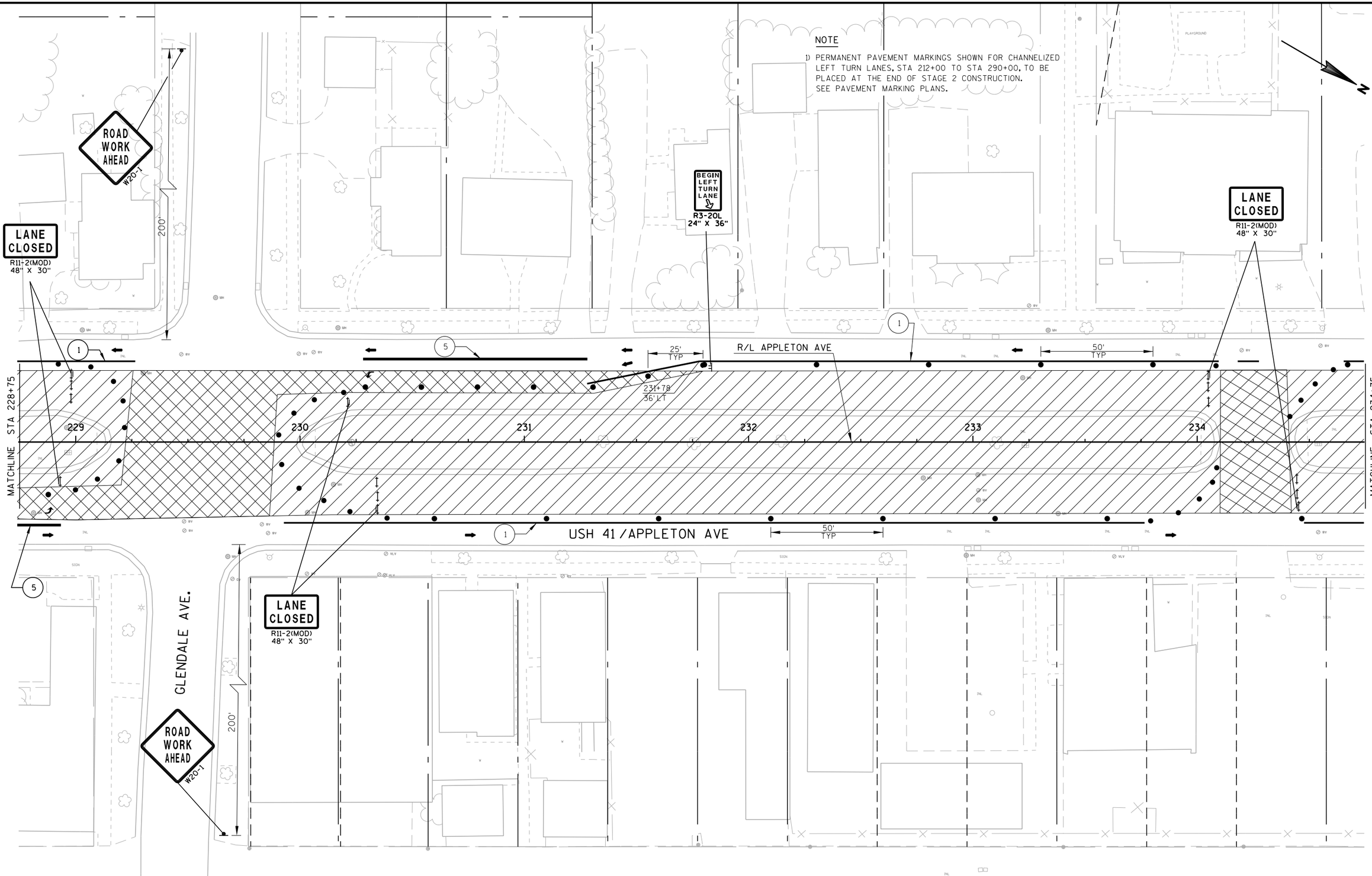
NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 324	E

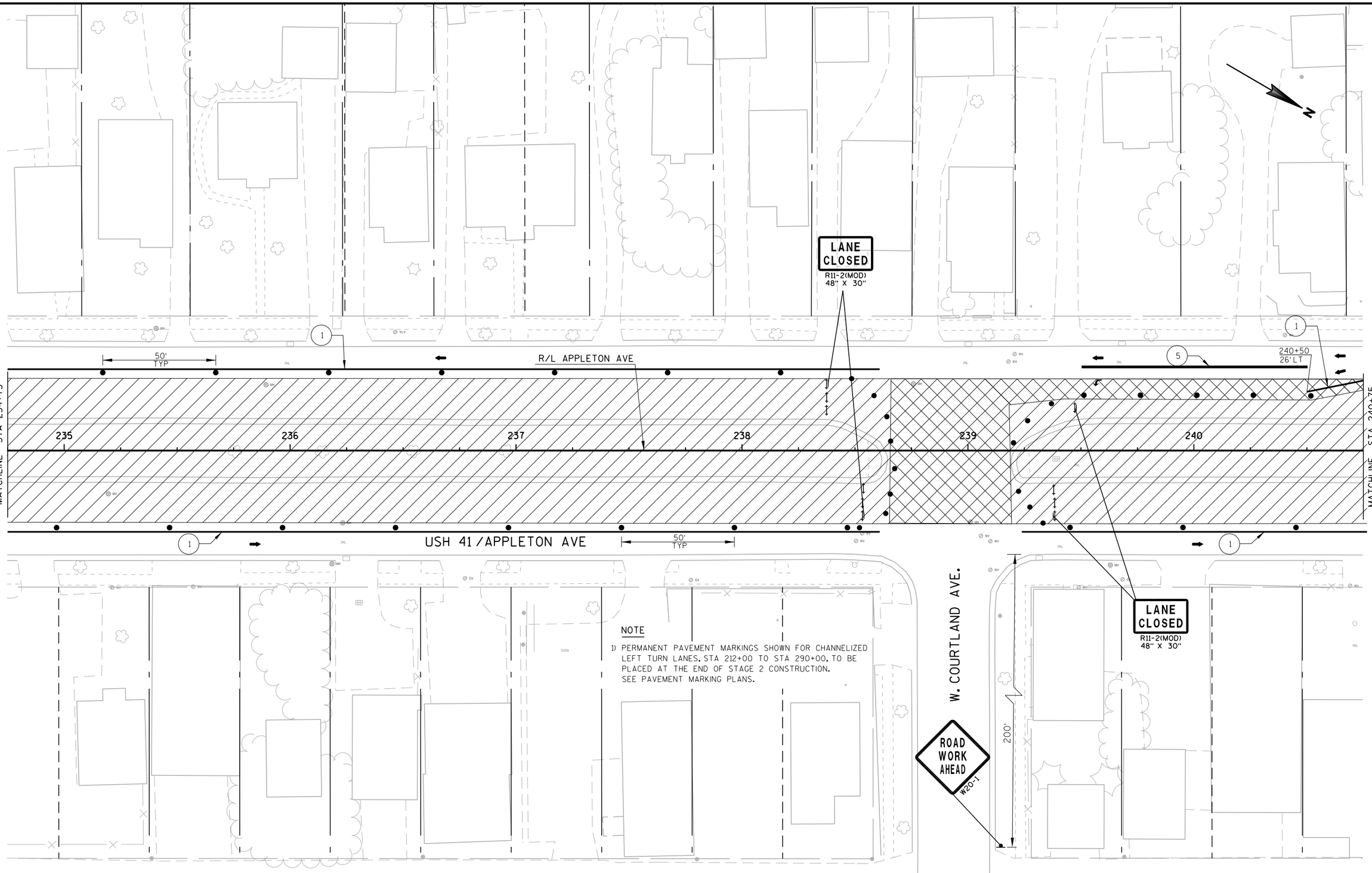
NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 325 E

2



NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 326	E

2

2

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

ROAD WORK AHEAD
W20-1

RIGHT TURN ONLY
R3-53R
24" X 30"

200'

W. DERBY PL.

LANE CLOSED
R11-2(MOD)
48" X 30"

W01-6
48" X 24"

LANE CLOSED
R11-2(MOD)
48" X 30"

1

50' TYP

MATCHLINE STA 240+75

241 242 243 244 245 246

246+33
5' RT

246+46
15' RT

MATCHLINE STA 246+75

USH 41 / APPLETON AVE

50' TYP

245+00
36' RT

25' TYP

245+57
35' RT

245+50
47' RT

245+57
25' & 36' RT

25' TYP

W01-4L

R3-2
24" X 24"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 327	E

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

ROAD WORK AHEAD W20-1

350'

LANE CLOSED R11-2(MOD) 48" X 30"

W. HAMPTON AVE.

RIGHT TURN ONLY R3-53R 24" X 30"

LANE CLOSED R11-2(MOD) 48" X 30"

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

BEGIN LEFT TURN LANE R3-20L 24" X 36"

MATCHLINE STA 246+75

247+14 36' LT

25' TYP

USH 41 /APPLETON AVE

248+23 25' LT

247

248

249

250

251

252

251+68 47' LT

251+95 25' LT

251+44 41' LT

MATCHLINE STA 252+75

252+36 36' RT

50' TYP

247+10 47' RT

R/L APPLETON AVE

BEGIN LEFT TURN LANE R3-20L 24" X 36"

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

LANE CLOSED R11-2(MOD) 48" X 30"

RIGHT TURN ONLY R3-53R 24" X 30"

350'

ROAD WORK AHEAD W20-1

W. HAMPTON AVE.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 328 E

2

ROAD WORK AHEAD W20-1

LANE CLOSED R11-2(MOD) 48" X 30"

200'

W. GRANTOSA DR.

RIGHT TURN ONLY R3-53R 24" X 30"

LANE CLOSED R11-2(MOD) 48" X 30"

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

BEGIN LEFT TURN LANE R3-20L 24" X 36"

50' TYP

MATCHLINE STA 252+75

USH 41/APPLETON AVE

253

254

255

256

257

258

253+12 14' RT

256+68 47' LT

256+88 35' LT

257+18 35' LT

257+25 25' LT

258+68 47' LT

R/L APPLETON AVE

MATCHLINE STA 258+75

252+86 47' RT

LANE CLOSED R11-2(MOD) 48" X 30"

RIGHT TURN ONLY R3-53R 24" X 30"

EOT

LANE CLOSED R11-2(MOD) 48" X 30"

LANE CLOSED R11-2(MOD) 48" X 30"

W. GRANTOSA DR.

200'

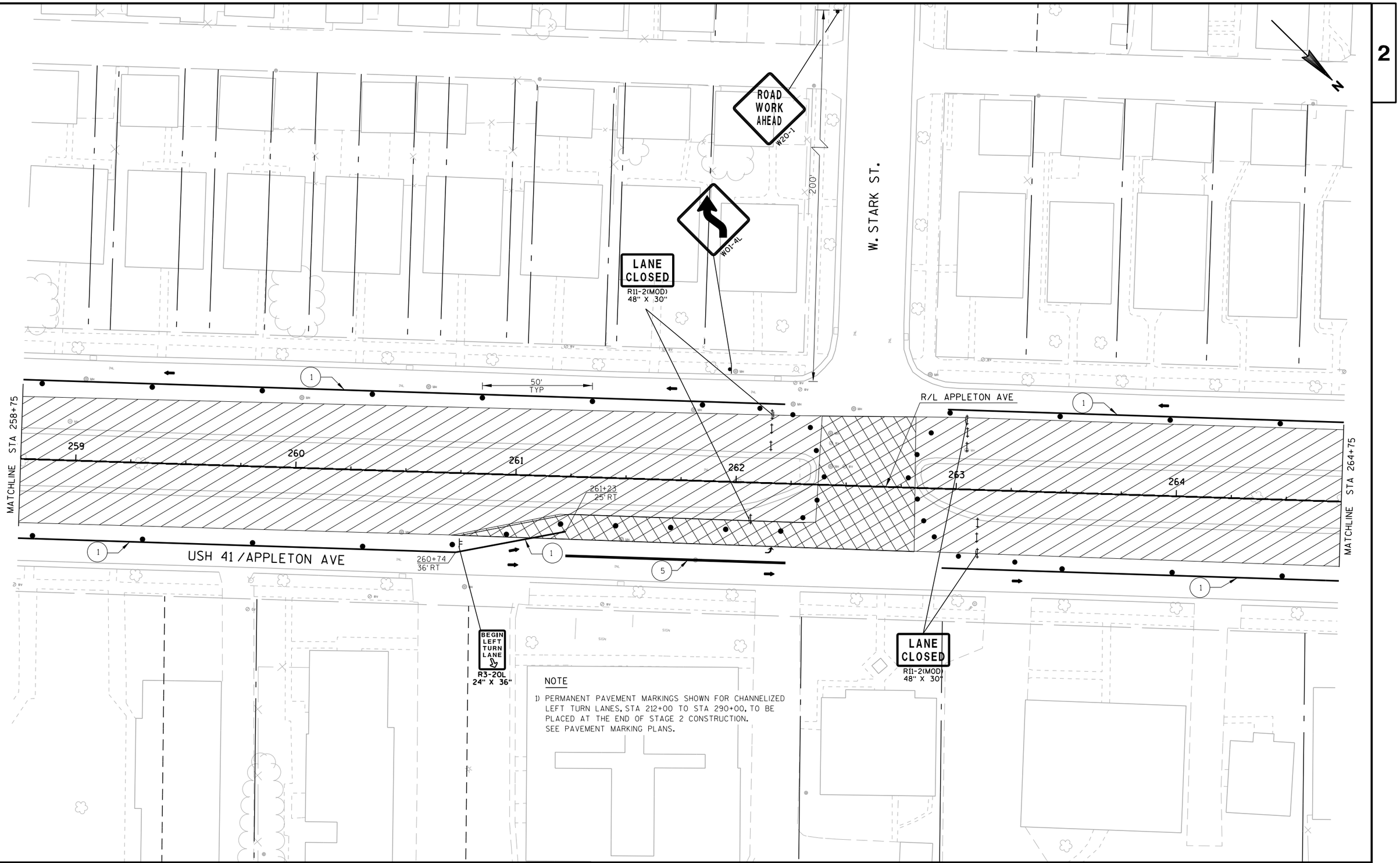
ROAD WORK AHEAD W20-1

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 329 E

2



NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 330	E

2

2

N

W. FAIRMOUNT AVE.

ROAD WORK AHEAD
W20-1

200'

LANE CLOSED
R11-2(MOD)
48" X 30"

R/L APPLETON AVE

MATCHLINE STA 264+75

265 266 267 268 269 270

MATCHLINE STA 270+75

USH 41 /APPLETON AVE

1 50' TYP

1 50' TYP

268+60
36' RT

1 269+10
25' RT

5

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 331	E

2

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

W. FAIRMOUNT AVE.

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

1

50'
TYP

R/L APPLETON AVE

5

275+80
25' LT

276+30
36' LT

MATCHLINE STA 270+75

271

272

273

274

275

276

MATCHLINE STA 276+75

USH 41 / APPLETON AVE

1

50'
TYP

1

LANE CLOSED
R11-2(MOD)
48" X 30"

W. LANCASTER AVE.

200'

ROAD WORK AHEAD
W20-1

LANE CLOSED
R11-2(MOD)
48" X 30"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 332	E

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

LANE CLOSED
R11-2(MOD)
48" X 30"

R/L APPLETON AVE

50' TYP

MATCHLINE STA 276+75

MATCHLINE STA 282+80

277 278 279 280 281 282

W. VILLARD AVE.

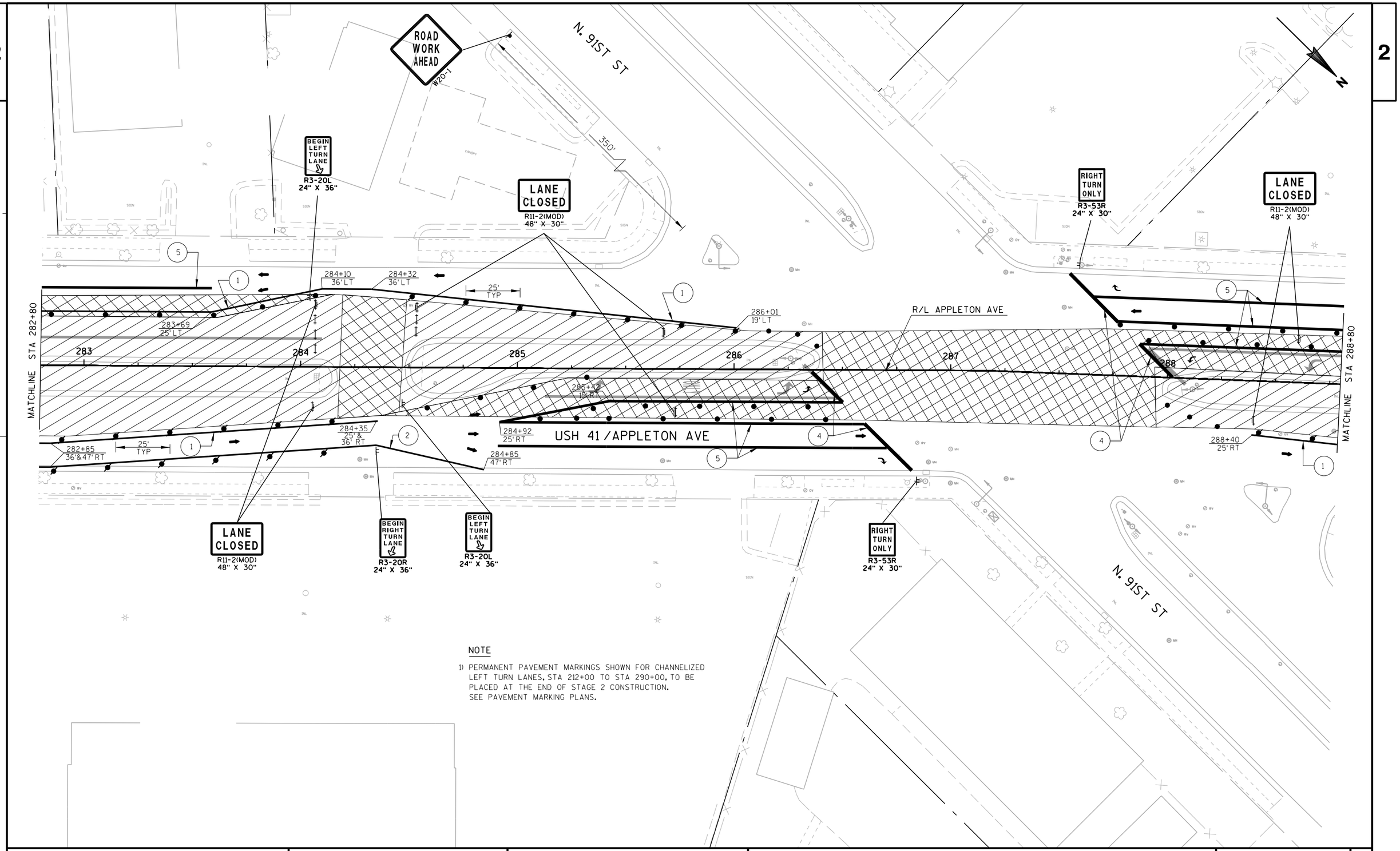
W01-4L

ROAD WORK AHEAD
W20-1

200'

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 333 E

2



NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 334 E

2

N

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN FOR CHANNELIZED LEFT TURN LANES, STA 212+00 TO STA 290+00, TO BE PLACED AT THE END OF STAGE 2 CONSTRUCTION. SEE PAVEMENT MARKING PLANS.

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

LANE CLOSED
R11-2(MOD)
48" X 30"

289+52
47'LT

289+42
25'LT

288+89
15'LT

290+02
36'LT

291+52
47'LT

R/L APPLETON AVE

50'
TYP

MATCHLINE STA 288+80

MATCHLINE STA 294+75

289

290

291

292

293

294

25'
TYP

USH 41 / APPLETON AVE

LANE CLOSED
R11-2(MOD)
48" X 30"

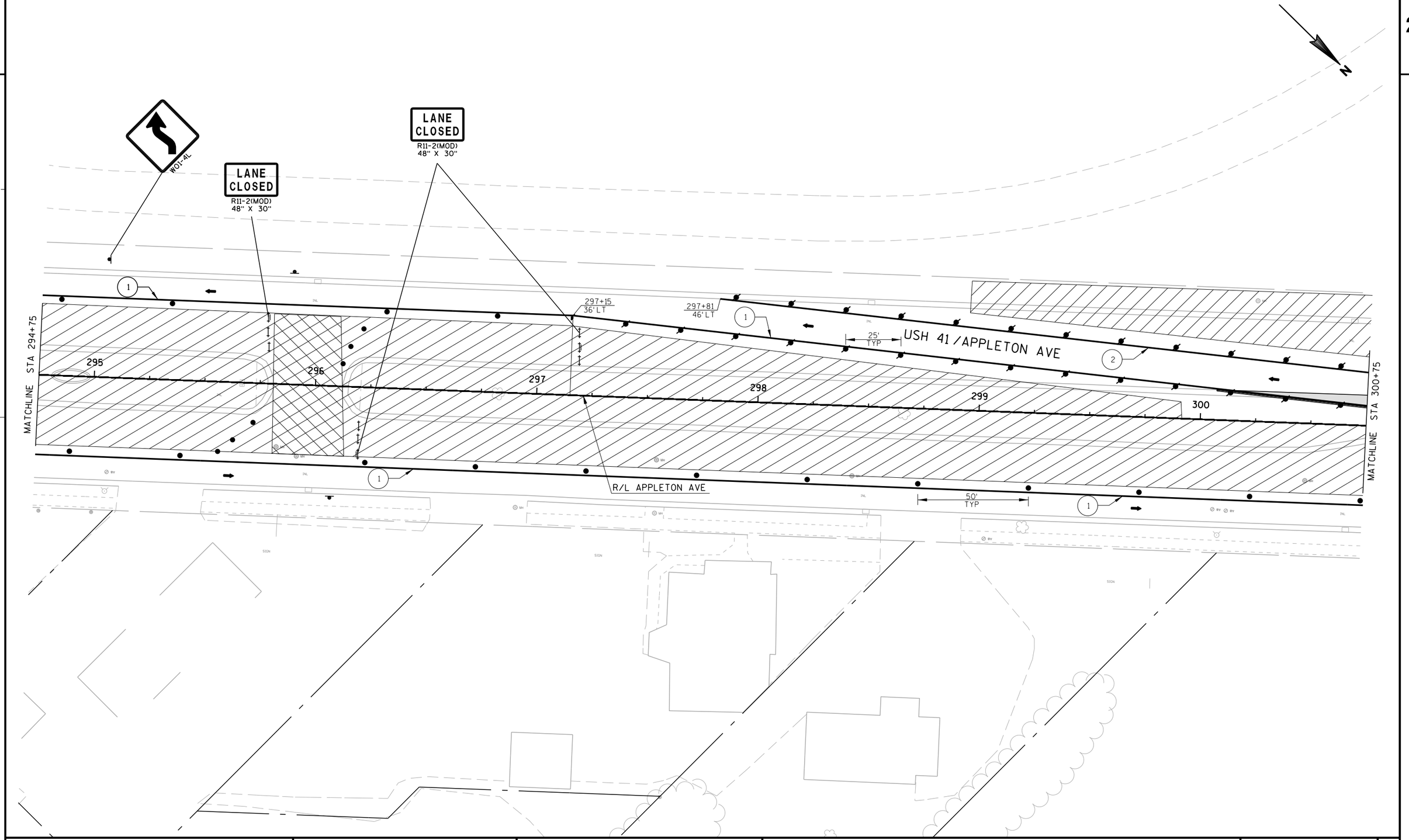
N. 91ST ST

350'

ROAD WORK AHEAD
W20-1

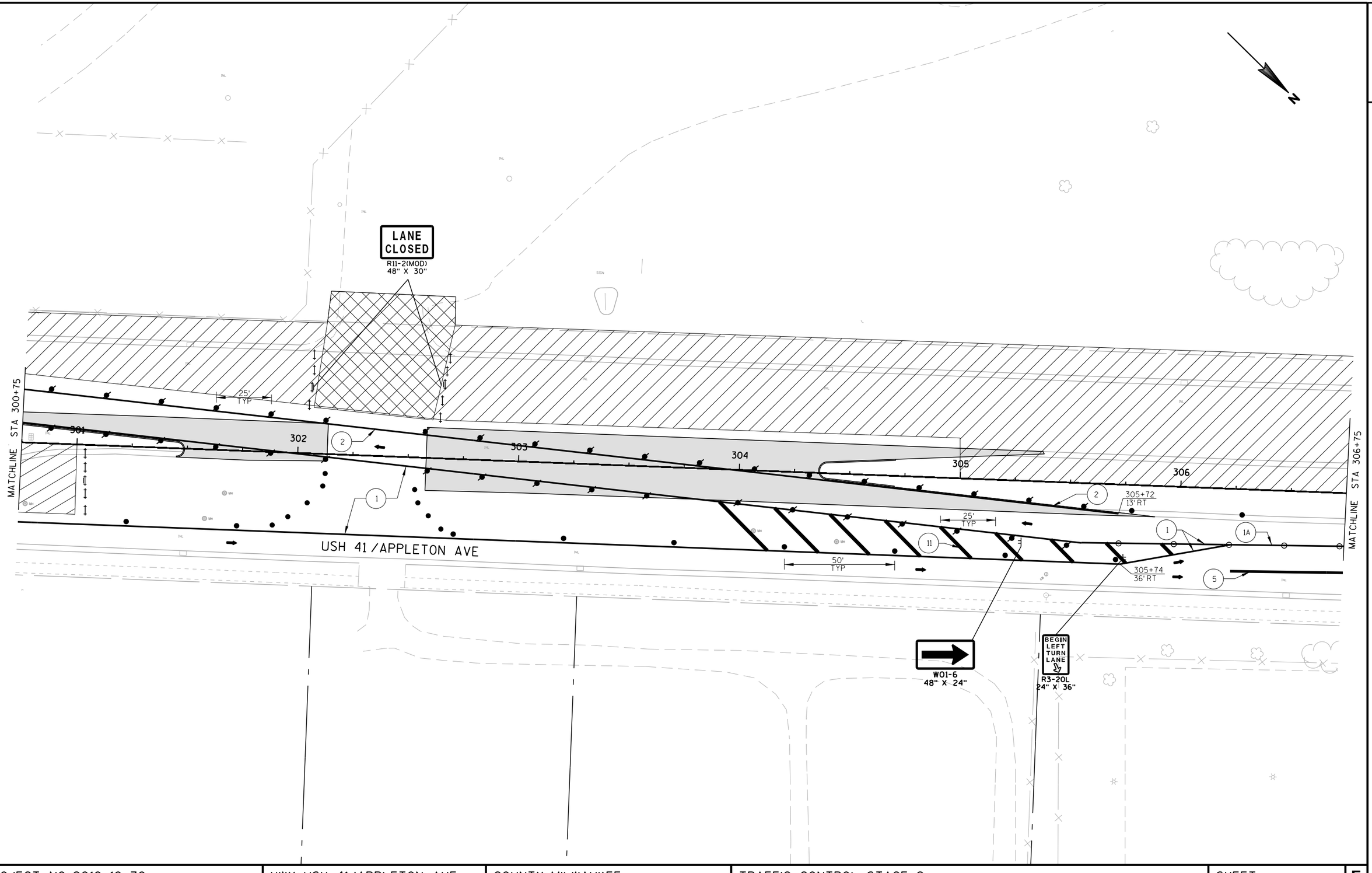
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 335	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 336	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 337	E

2

MAINTAIN ACCESS TO
FIRE STATION AT ALL TIMES

REMOVE NO PARKING RESTRICTIONS ON BIRCH AVENUE

N

ROAD CLOSED
R11-2
48" X 30"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

ROAD CLOSED
R11-2
48" X 30"

STOP
R1-1
30" X 30"

MATCHLINE STA 306+75

307 308 309 310 311 312

MATCHLINE STA 312+75

STOP
R1-1
30" X 30"

W01-4R

W24-1L

W. BIRCH AVE.

200'

ROAD WORK AHEAD
W20-1

25' TYP

308+89
36' RT

309+39
24' RT

50' TYP

R/L APPLETON AVE

USH 41/APPLETON AVE

LEAVE LANE OPEN FOR EMERGENCY VEHICLES

W01-6
48" X 24"

W01-6
48" X 24"

1A 2 5 11

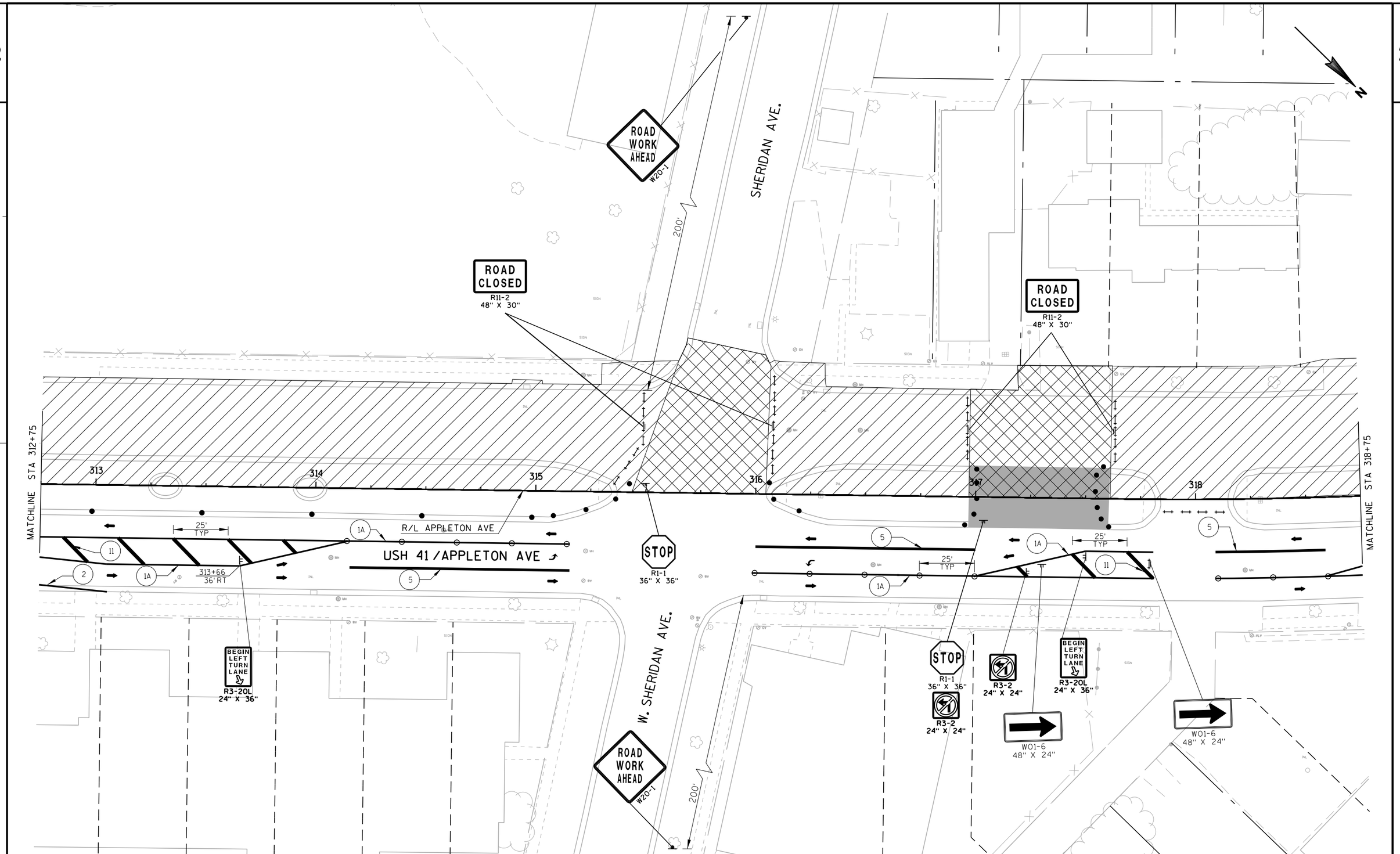
2

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 338 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026090_S2.dgn PLOT DATE : 18-DEC-2013 13:21 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 339 E

NOTE

1) NW RAMP AND SW RAMP ARE CLOSED AND DETOURED FOR 2 WEEKS IN STAGE 2A.

STAGE 2A

R/L SW RAMP

STAGE 2A

DO NOT CONSTRUCT ISLAND UNTIL STAGE 4

R/L SILVER SPRING DR

6'x6' RIPRAP MEDIUM

R/L NW RAMP

STAGE 2 ONLY

ROAD CLOSED R11-2 48" X 30"

STOP R1-1 36" X 36"

BRIDGE OUT R11-2B 48" X 30"

ROAD CLOSED R11-2 48" X 30"

DO NOT CONSTRUCT MEDIAN CURB AND GUTTER STA 319+90 TO 320+50

MS629

MS829 SW RAMP

W. SILVER SPRING DR / CTH E

NW RAMP

STRUCTURE B-40-328

MATCHLINE STA 318+75

MATCHLINE STA 324+75

R/L APPLETON AVE

USH 41 / APPLETON AVE

STAGE 2A ONLY

STAGE 2A ONLY

STAGE 2A ONLY

STAGE 2A ONLY

STAGE 2A ONLY

STAGE 2A ONLY

STAGE 2A ONLY

RAMP CLOSED R11-2R 48" X 30"

LANE CLOSED R11-2(MOD) 48" X 30"

RAMP CLOSED R11-2R 48" X 30"

W01-6 48" X 24"

W01-6 48" X 24"

BEGIN LEFT TURN LANE R3-20L 24" X 36"

SE RAMP

R/L SE RAMP

R/L SILVER SPRING DR

R/L NE RAMP

NE RAMP

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2 AND 2A	SHEET 340 E

2

STAGES 2 AND 2A

END ROAD WORK
G20-2A
48" X 24"

BEGIN CONSTRUCTION
STA 421NW+66.4

422NW
423NW
424NW
425NW
426NW
427NW

NW RAMP

STAGE 2

STAGE 2A

R/L NW RAMP

R/L SILVER SPRING DR

W. SILVER SPRING DR / CTH E

122
123
124
125
126
127

R/L SW RAMP

50'
TYP.

623SW
624SW
625SW
626SW
627SW

SW RAMP

400'

ROAD WORK AHEAD
W20-1

STAGES 2 AND 2A

RAMP CLOSED
R11-2R
48" X 30"

BEGIN CONSTRUCTION
STA 623SW+50.0

STAGE 2A

NOTE

1) NW RAMP AND SW RAMP ARE CLOSED AND DETOURED FOR 2 WEEKS IN STAGE 2A.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2 AND 2A	SHEET 341 E

2

STAGE 2A

NW RAMP

MATCHLINE STA 324+75

MATCHLINE STA 330+75

ROAD CLOSED
R11-2
48" X 30"

END
R3-9D
24" X 6"

CENTER LANE
ONLY

R3-9B
24" X 36"

ROAD CLOSED
R11-2
48" X 30"

325

326

327

328

329

330

USH 41/APPLETON AVE.

R/L APPLETON AVE

327+80
24'RT

327+28
36'RT

25'
TYP

1A

5

11

13

1

WO1-6
48" X 24"

STOP
R1-1
36" X 36"

BEGIN
R3-9C
24" X 6"

CENTER LANE
ONLY

R3-9B
24" X 36"

N. 99TH ST.

350'

ROAD WORK AHEAD
W20-1

USH 41/APPLETON AVE

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 342 E

2

MATCH LINE STA 330+75

MATCH LINE STA 336+75

ROAD CLOSED
R11-2
48" X 30"

R3-9D
24" X 6"
END
CENTER LANE
ONLY
R3-9B
24" X 36"

R3-9C
24" X 6"
BEGIN
CENTER LANE
ONLY
R3-9B
24" X 36"

STOP
R1-1
36" X 36"

W01-6
48" X 24"

R3-2
24" X 24"

ROAD WORK AHEAD
W20-1

US 41 / APPLETON AVE

CARMEN AVENUE

25' (TYP.)

10' (TYP.)

5' (TYP.)

90'

200'

30'

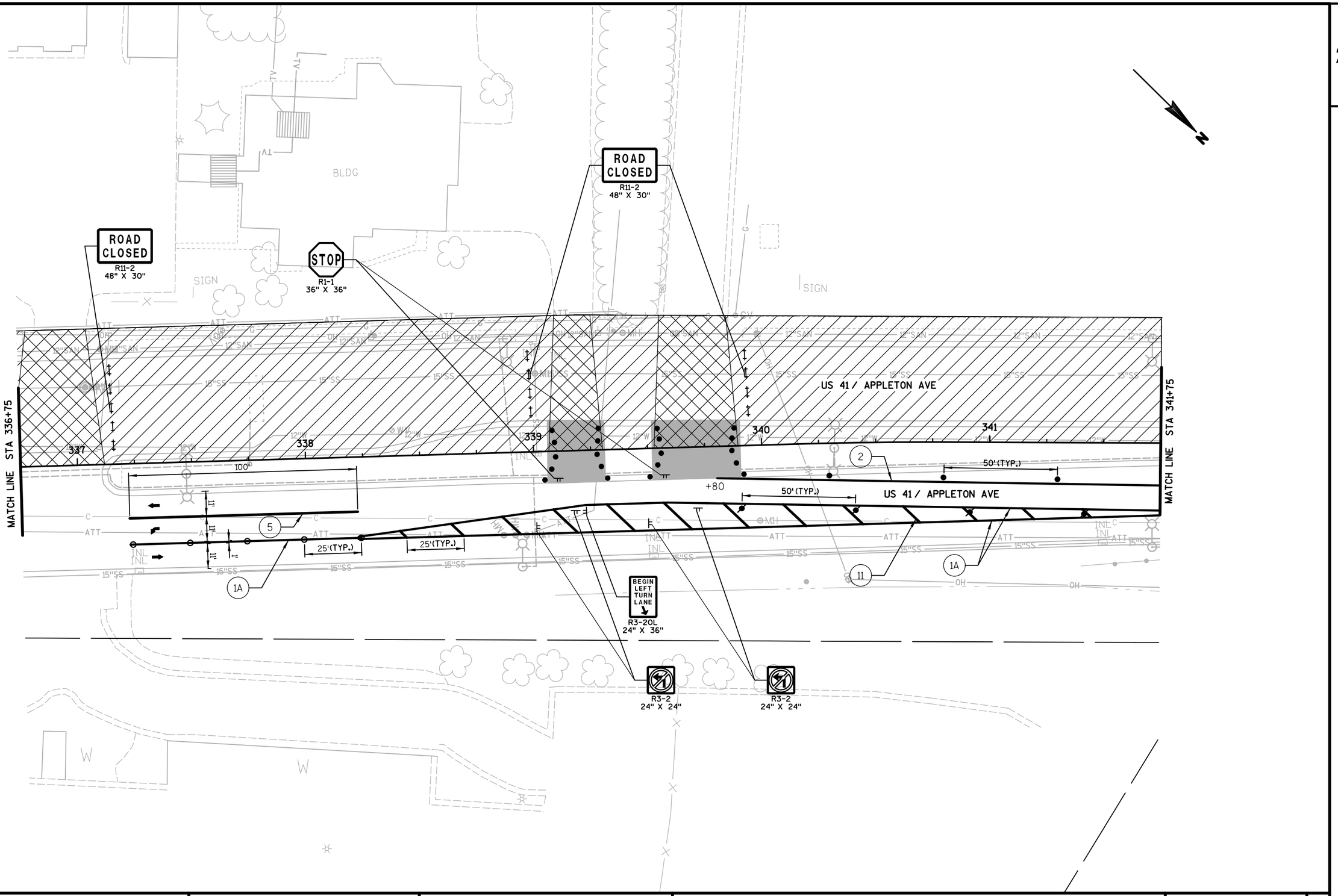
331 332 333 334 335 336

BLDG

SIGN

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 343	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET	E

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2

2

MATCH LINE STA 341+75

MATCH LINE STA 347+25

US 41 / APPLETON AVE

US 41 / APPLETON AVE

342 343 344 345 346 347

+16

50' (TYP.)

25' (TYP.)

11'

11'

2

1A

SIGN

SIGN

SIGN

UNION PACIFIC RAILROAD

345 KV

138 KV

138 KV

138 KV

345 KV

72"MIS

12"W

12"SAN

36"SS

OH

ATT

INL

MWEL

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET	E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\026014_s2.dgn PLOT DATE : 4/17/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

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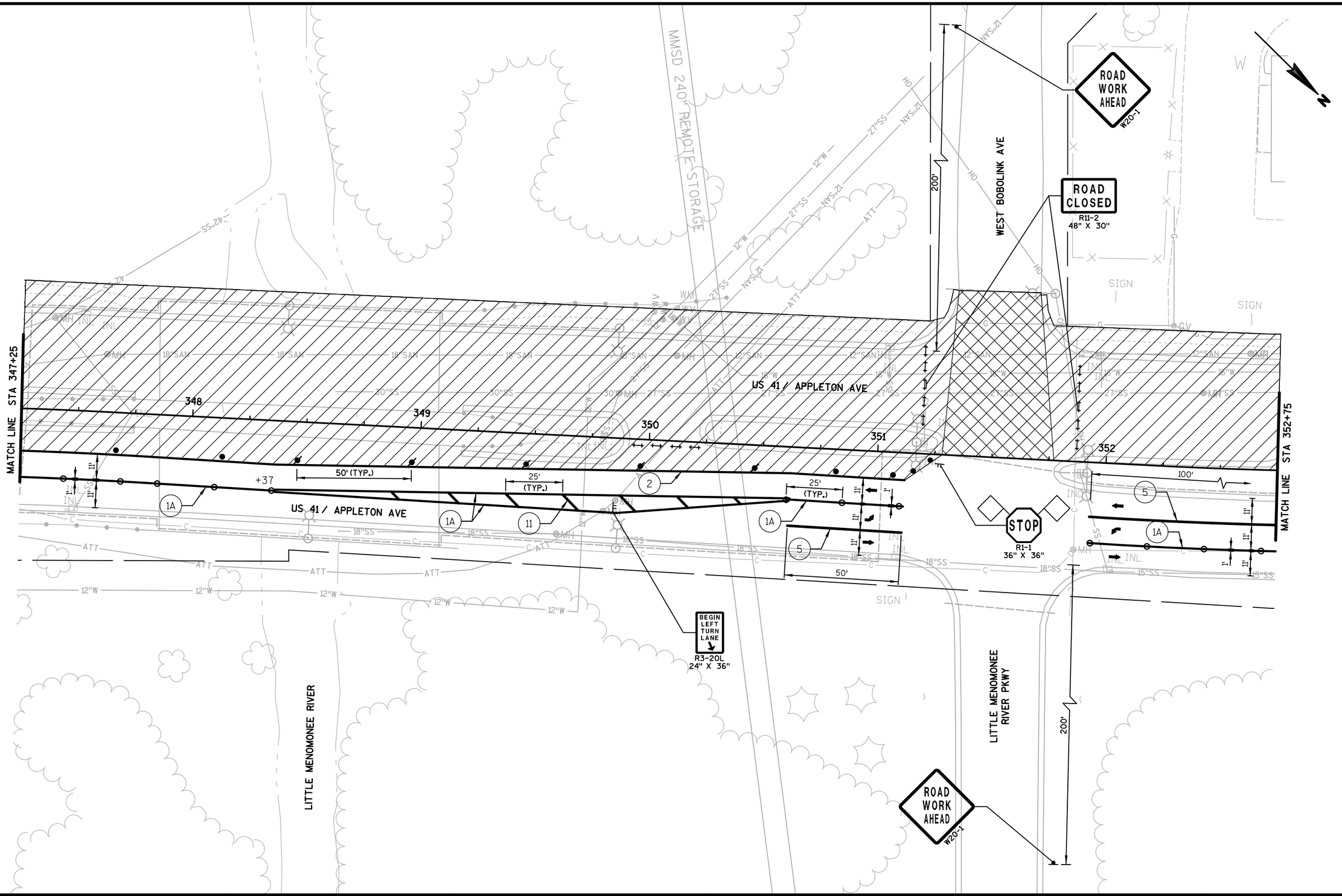
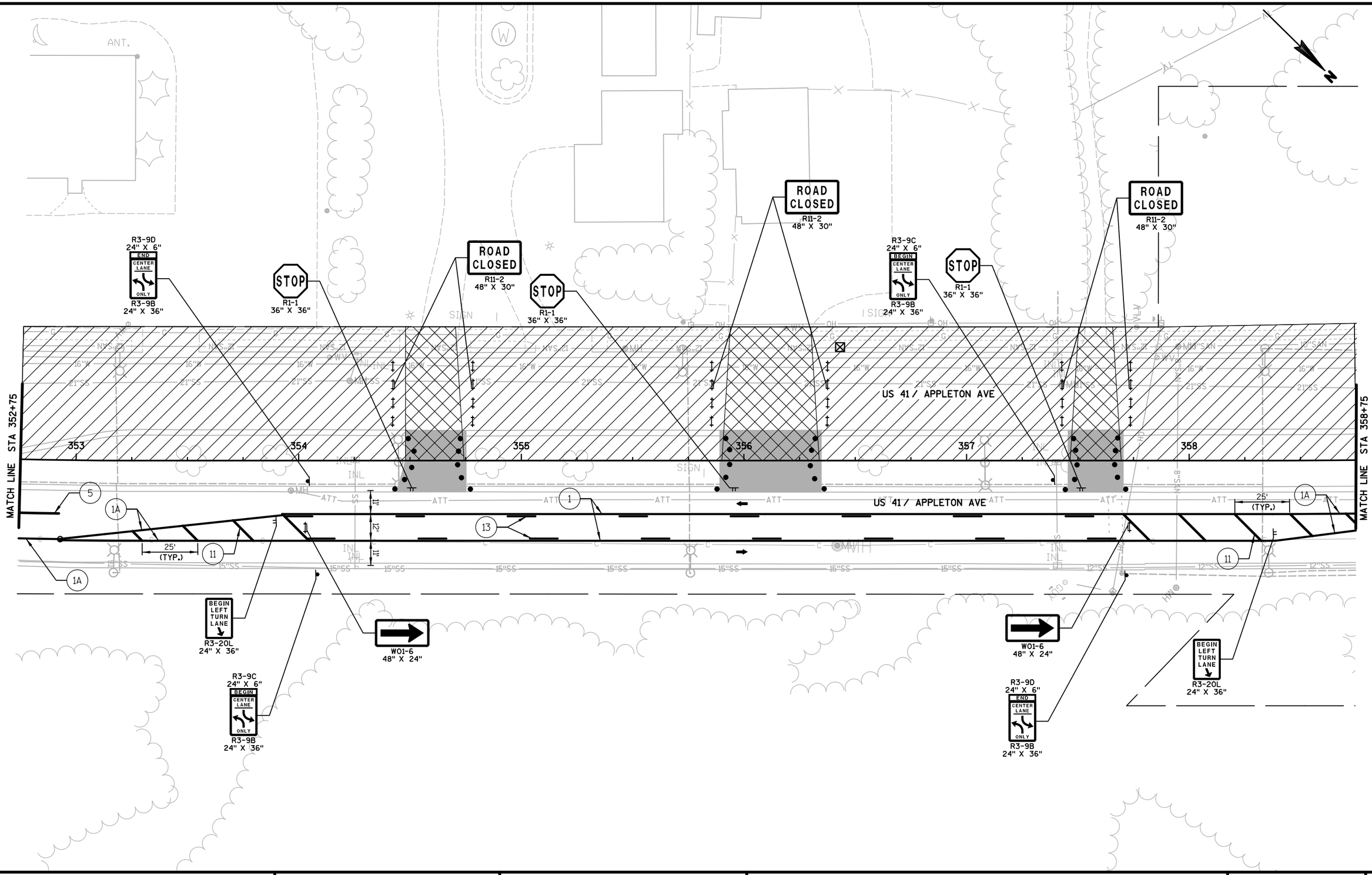


PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET	E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\026015_s2.dgn PLOT DATE : 4/17/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 347	E

2

ROAD WORK AHEAD W20-1

ROAD CLOSED R11-2 48" X 30"

FLORIST AVE

200'

US 41 / APPLETON AVE

359 360 361 362 363 364

25' (TYP.)

10' (TYP.)

150'

MATCH LINE STA 358+75

END PROJECT I.D. 2010-10-70 STA. 364+00.00

MATCH LINE STA 364+75

BEGIN LEFT TURN LANE R3-20L 24" X 36"

ROAD WORK AHEAD W20-1

107th ST

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 348	E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\026017_s2.dgn PLOT DATE : 4/17/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

2

INL

10"SAN

15"SS

MH

INL

MH

INL

INL

INL

INL

MH

US 41 / APPLETON AVE

MATCH LINE STA 364+75

MATCH LINE STA 370+75

IGN

365

366

INL

367

368

369

370

SS

25'
(TYP.)

11'

6A

12

7

US 41 / APPLETON AVE

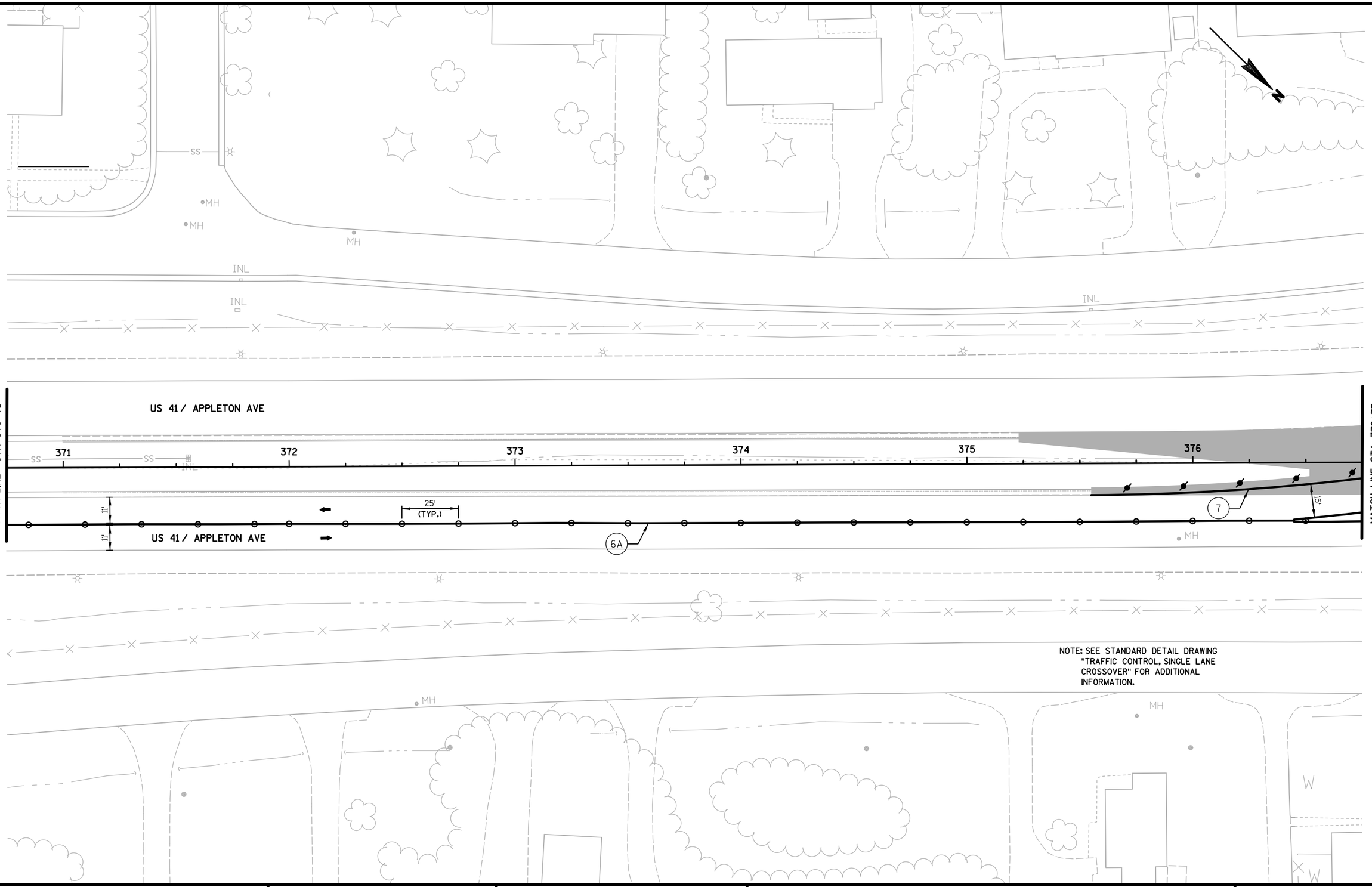
MH

U/C

MH

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 349	E

2



NOTE: SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CROSSOVER" FOR ADDITIONAL INFORMATION.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 350	E

2

2

MATCH LINE A

N

LANE CLOSED
R11-2(MOD)
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

US 41 / APPLETON AVE

50'
(TYP.)

25'
(TYP.)

12'

7

MATCH LINE STA 376+75

377

378

379

380

500'

15'

6

US 41 / APPLETON AVE

12'

END
ROAD WORK
G20-2A
48" X 24"

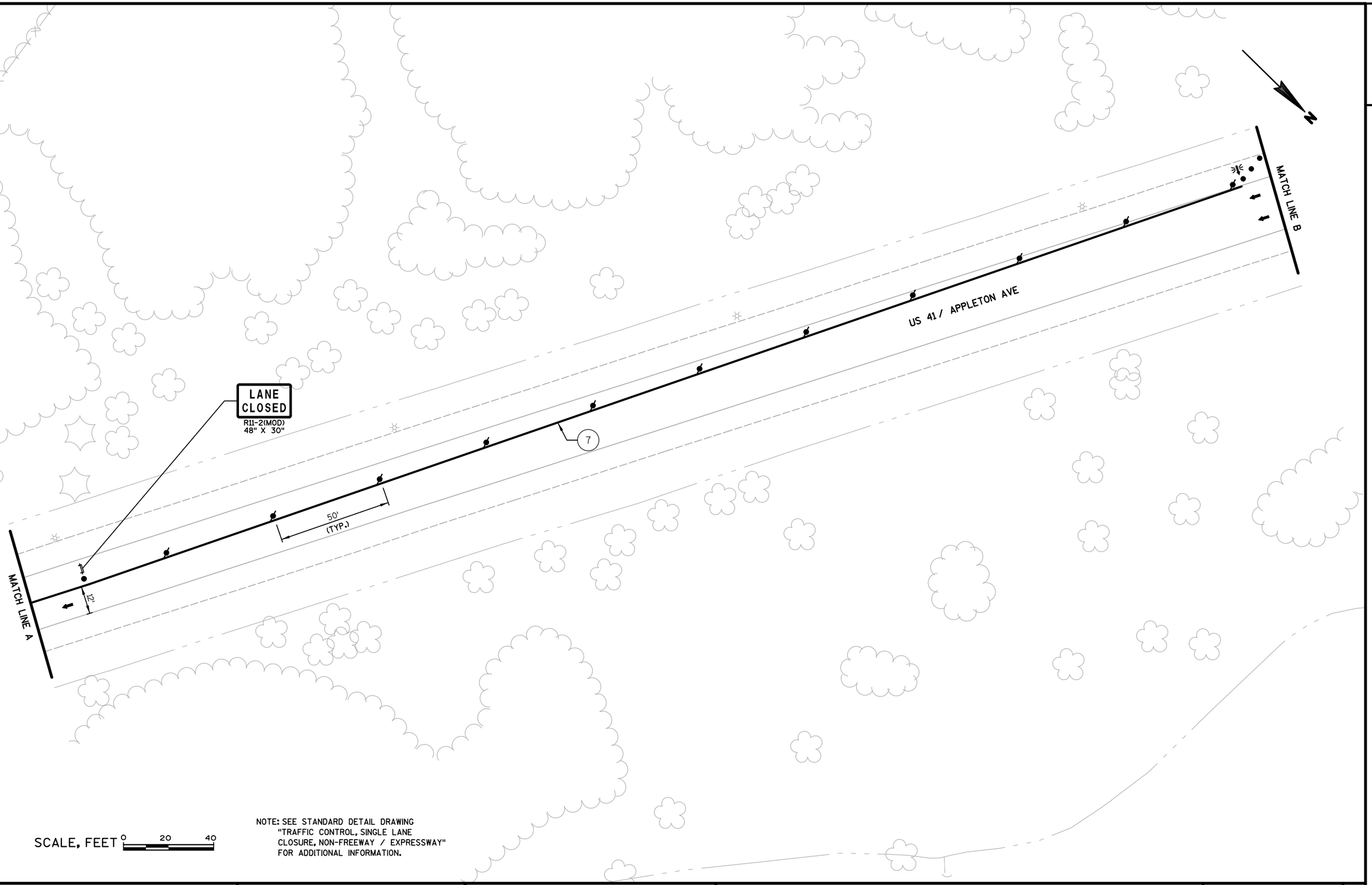
NOTE: SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CROSSOVER" FOR ADDITIONAL INFORMATION.

NOTE: SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY / EXPRESSWAY" FOR ADDITIONAL INFORMATION.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET	E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\026020_s2.dgn PLOT DATE : 4/17/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

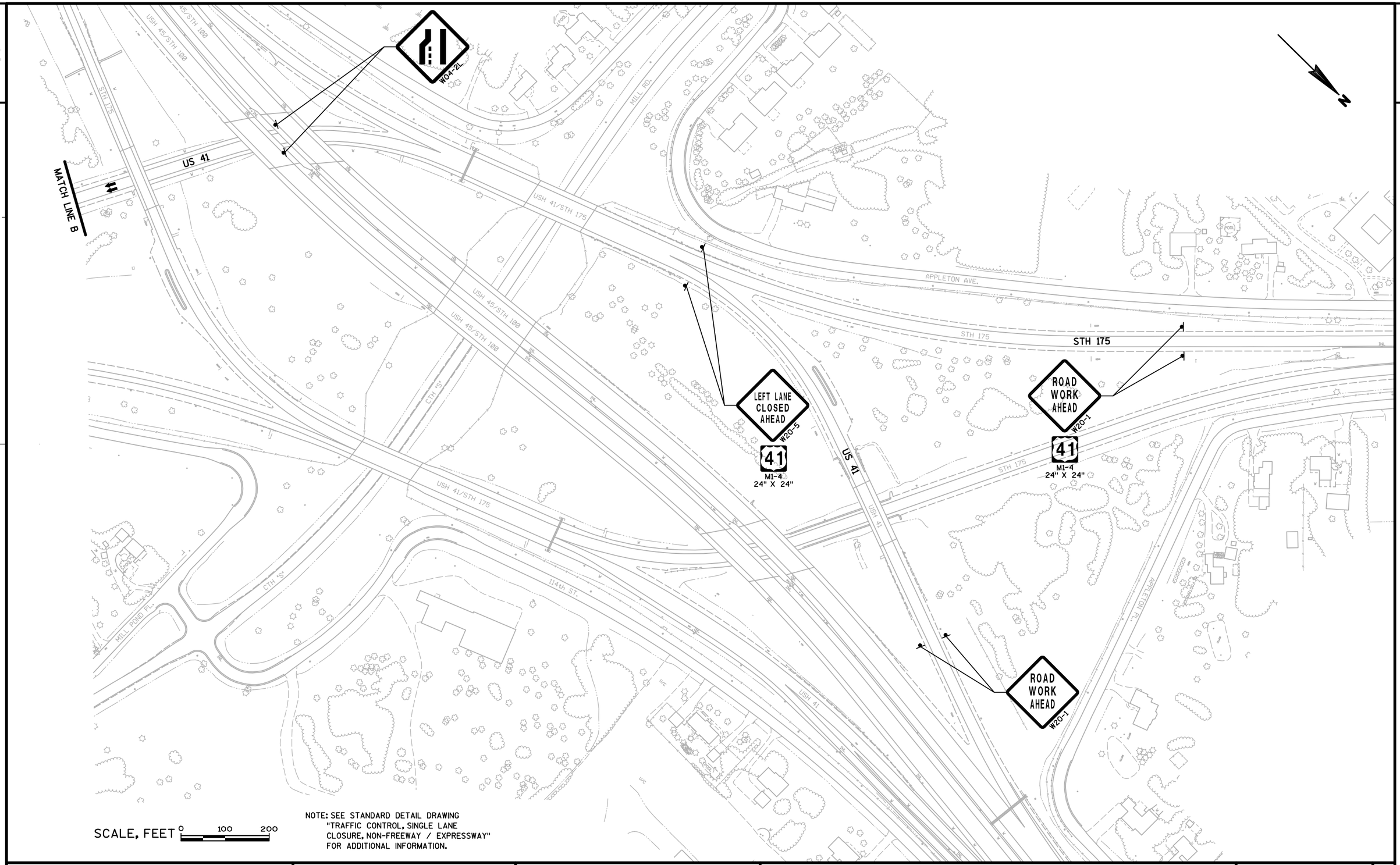
2



NOTE: SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY / EXPRESSWAY" FOR ADDITIONAL INFORMATION.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 352	E

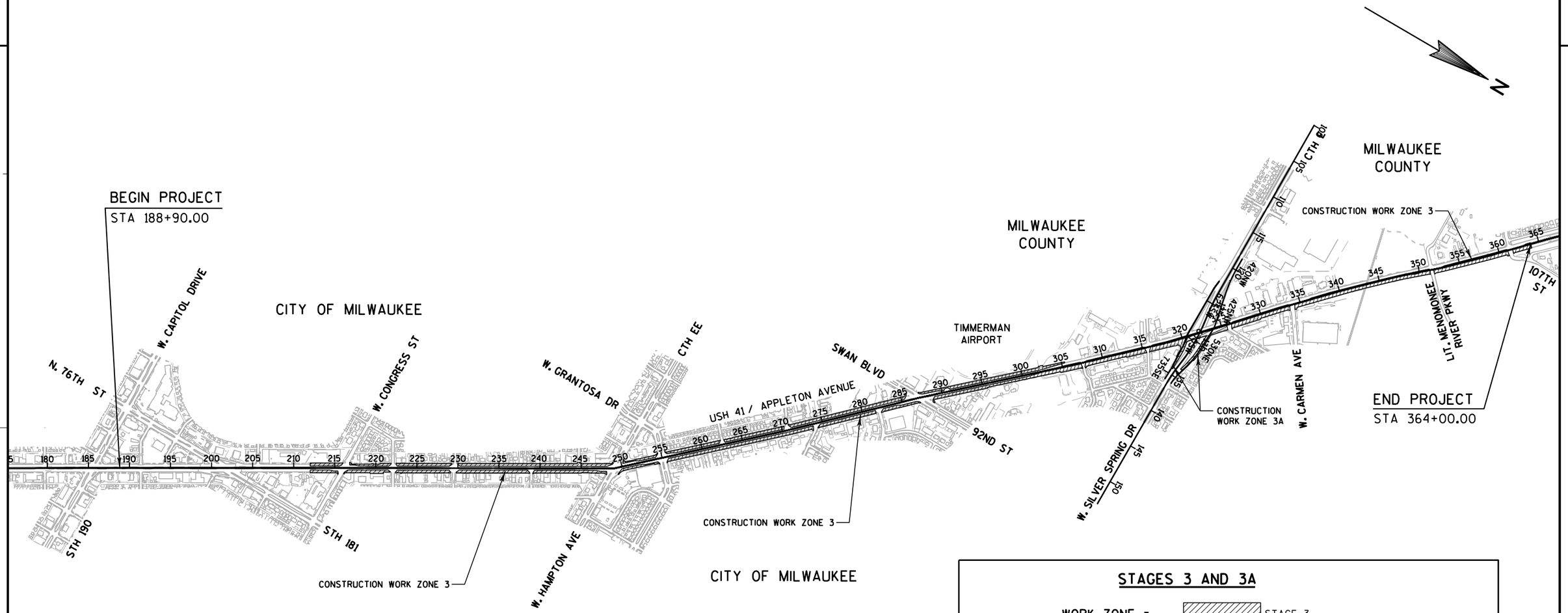
2



NOTE: SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY / EXPRESSWAY" FOR ADDITIONAL INFORMATION.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 353	E

2



STAGES 3 AND 3A

WORK ZONE = STAGE 3

STAGE 3A

WORK ZONE UNDER TRAFFIC =

CONSTRUCTION

-MILL AND OVERLAY LANES 2 AND 3 AND REPAIR SIDEWALK NB AND SB BETWEEN 76TH STREET AND NORTH OF 91ST STREET (STA 212+00 TO STA 300+25).

-MILL AND OVERLAY NB LANES AND REPAIR SIDEWALK BETWEEN 91ST STREET AND NORTH PROJECT LIMIT (STA 305+35 TO STA 364+00).

-BEGIN WORK ON THE NB BRIDGE OVER SILVER SPRING DRIVE. ON AND OFF RAMP RECONSTRUCTION WITH DETOURS IN STAGE 3A.

-PLACE PERMANENT PAVEMENT MARKINGS ON THE PERMANENT SURFACES IN STAGE 3 (STA 212+00 TO STA 364+00)

TRAFFIC

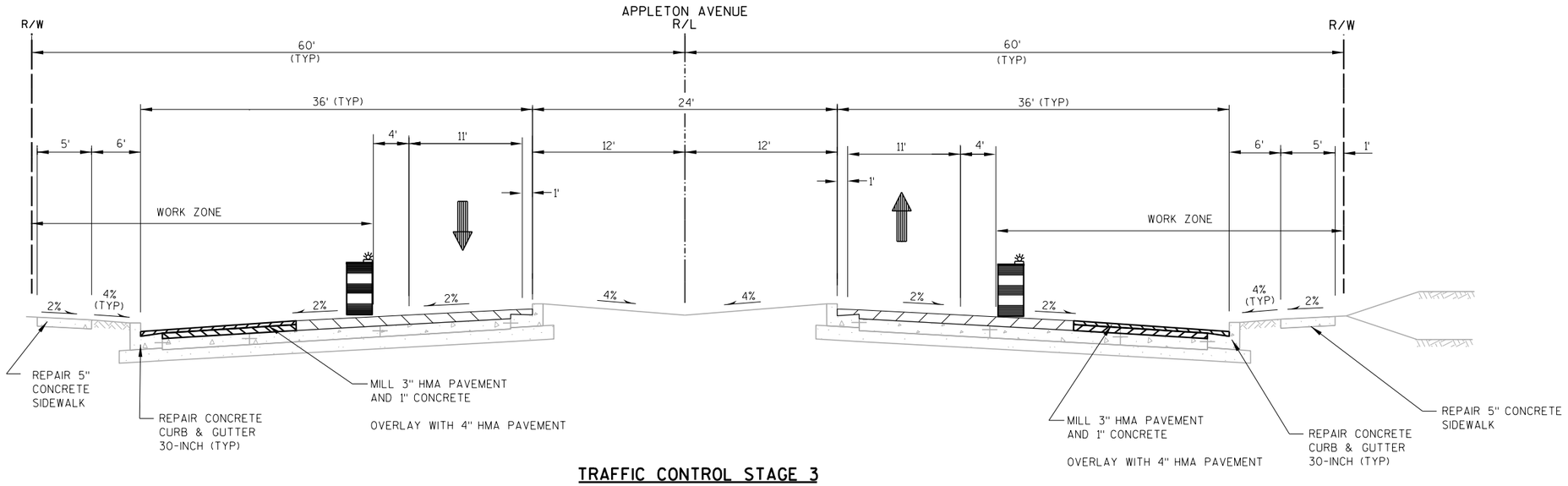
-NE RAMP AND SE RAMP ARE CLOSED AND DETOURED FOR 2 WEEKS IN STAGE 3A.

-LANE 2 AND 3 CLOSURES, WITH LEFT AND RIGHT TURN LANES AT ALL SIGNALIZED AT INTERSECTIONS DURING DAYTIME HOURS FROM STA 212+00 TO STA 300+25.

-TRAFFIC WILL BE SHIFTED TO THE INSIDE LANE 1 WITH TEMPORARY NO PARKING IN BOTH DIRECTIONS FROM STA 212+00 TO 300+25.

-TRAFFIC WILL BE ONE LANE IN EACH DIRECTION AND WILL BE LOCATED ON THE SB ROADWAY WITH LEFT TURN LANES AT INTERSECTIONS FROM STA 305+35 TO STA 364+00.

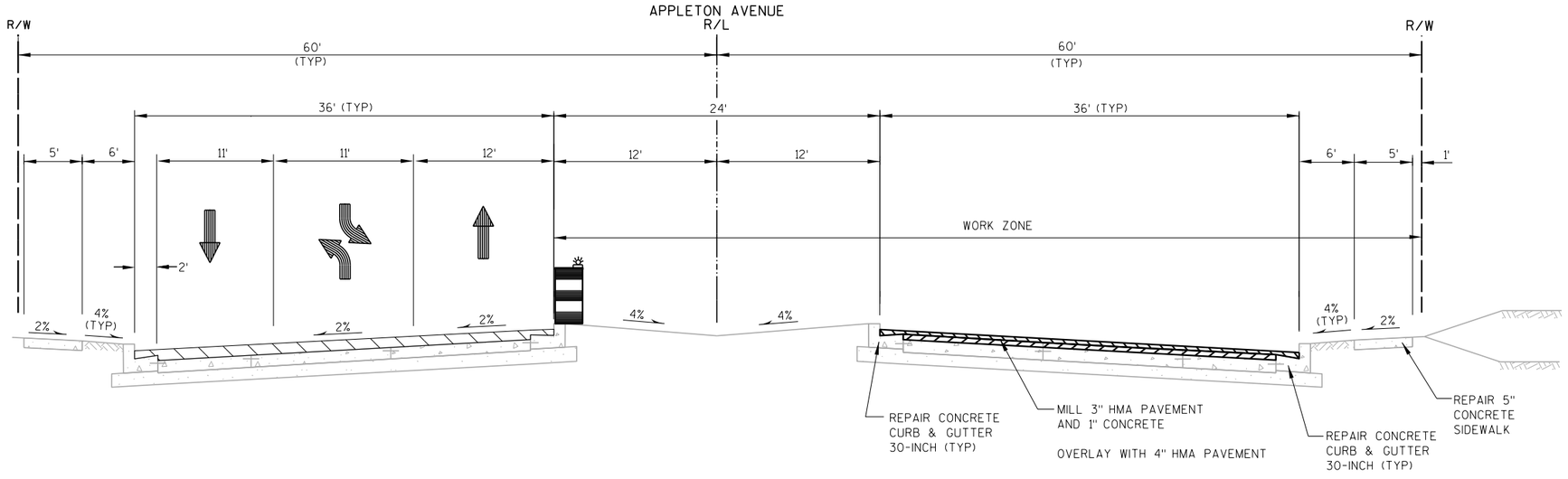
PROJECT NO: 2010-10-70	HWY: APPLETON AVENUE	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW- STAGE 3	SHEET 354	E



TRAFFIC CONTROL STAGE 3

APPLETON AVENUE

STA 188+90 TO 300+25
N. 76TH STREET TO N. 91ST STREET



TRAFFIC CONTROL STAGE 3

APPLETON AVENUE

STA 305+35 TO 364+00
N. 91ST STREET TO N. 107TH STREET

2

2

BEGIN PROJECT
STA 188+90.00

R/L APPLETON AVE

USH 41 / APPLETON AVE

W PERKINS PL

W PERKINS PL

W FIEBRANTZ AVE

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN IN GRAY

MATCHLINE STA 194+75

189 190 191 192 193 194

ROAD WORK AHEAD W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 356	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026096_S3.dgn PLOT DATE : 18-DEC-2013 14:43 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN IN GRAY

ROAD WORK AHEAD W20-1

350'

STH 181

N. 76TH ST

USH 41/APPLETON AVE

MATCHLINE STA 194+75

195

196

197

198

199

MATCHLINE STA 199+75

R/L APPLETON AVE

RIGHT LANE CLOSED AHEAD W20-5

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 357 E

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN IN GRAY

STH 181

R/L APPLETON AVE

MATCHLINE STA 199+75

200 201 202 203 204 205

MATCHLINE STA 205+75

ROAD WORK NEXT 3 MILES
G20-1
60" X 24"

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

200'

W. HOPE AVE.

USH 41/APPLETON AVE

W4-2R

350'

ROAD WORK AHEAD
W20-1

W. HOPE AVE.

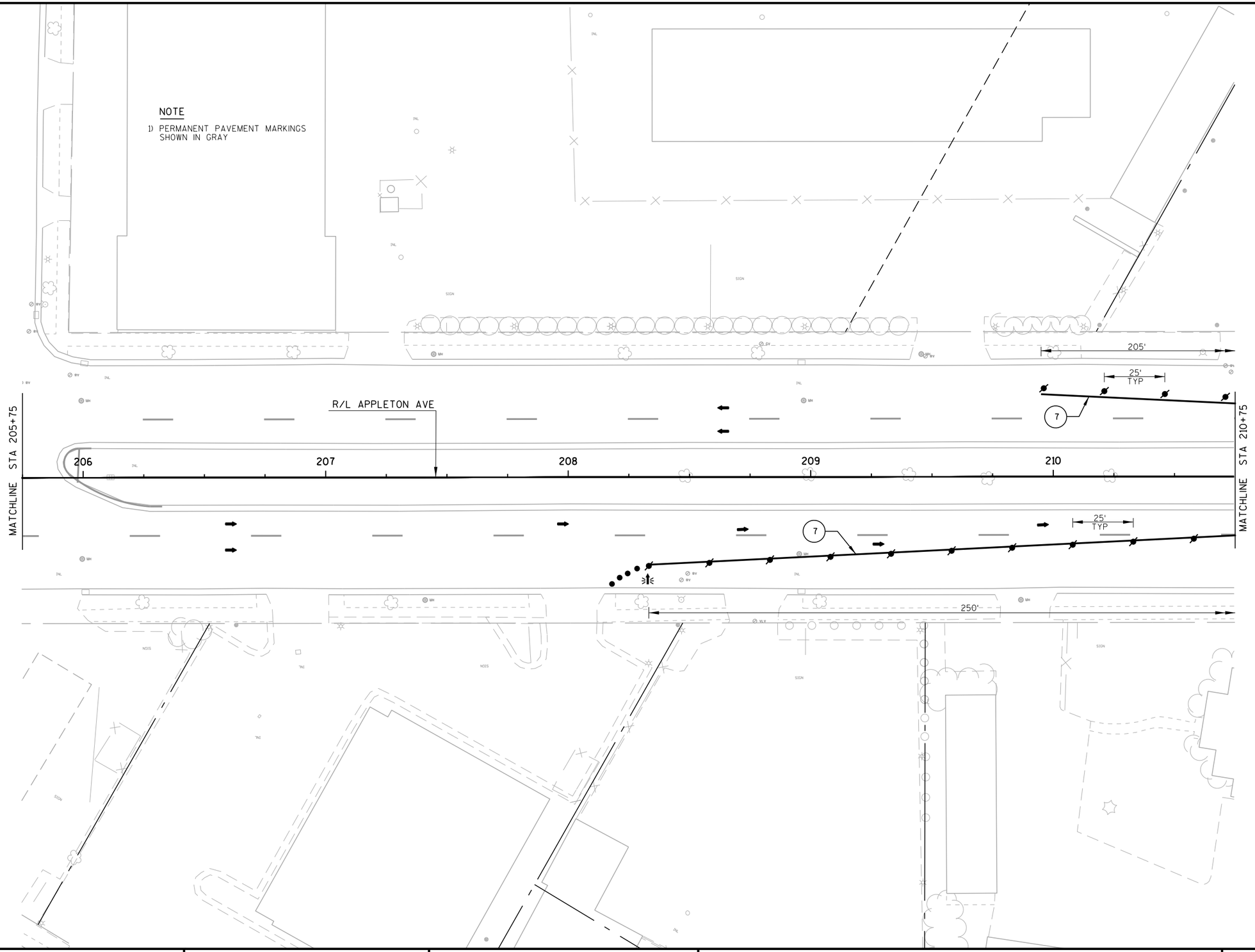
N. 76TH ST

STH 181

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 358	E

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN IN GRAY



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 359	E

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN IN GRAY

ROAD WORK AHEAD W20-1

350'

W. CONGRESS ST.

LANE CLOSED R11-2(MOD) 48" X 30"

205'

25' TYP

USH 41 / APPLETON AVE

50' TYP

R/L APPLETON AVE

MATCHLINE STA 210+75

211 212 213 214 215 216

MATCHLINE STA 216+75

7 7 9 10

LANE CLOSED R11-2(MOD) 48" X 30"

BEGIN LEFT TURN LANE R3-20L 24" X 36"

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

LANE CLOSED R11-2(MOD) 48" X 30"

ROAD WORK AHEAD W20-1

W. CONGRESS ST.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 360	E

W. CONGRESS ST.

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN IN GRAY

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN RIGHT TURN LANE
R3-20RR
24" X 36"

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

ROAD WORK AHEAD
W20-1

LANE CLOSED
R11-2(MOD)
48" X 30"

200'

W. RUBY AVE.

N

MATCHLINE STA 216+75

9

10

7

50' TYP

R/L APPLETON AVE

217

218

219

220

221

222

USH 41 / APPLETON AVE

MATCHLINE STA 222+75

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

ROAD WORK AHEAD
W20-1

200'

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 361	E

2

2

MATCHLINE STA 222+75

MATCHLINE STA 228+75

USH 41/APPLETON AVE

R/L APPLETON AVE

7

50'
TYP

223 224 225 226 227 228

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 362 E

2

2

ROAD WORK AHEAD W20-1

200'

W. GLENDALE AVE.

LANE CLOSED R11-2(MOD) 48" X 30"

LANE CLOSED R11-2(MOD) 48" X 30"

7

50' TYP

R/L APPLETON AVE

MATCHLINE STA 228+75

229 230 231 232 233 234

MATCHLINE STA 234+75

USH 41 / APPLETON AVE

LANE CLOSED R11-2(MOD) 48" X 30"

LANE CLOSED R11-2(MOD) 48" X 30"

W. GLENDALE AVE.

200'

ROAD WORK AHEAD W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 363 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026103_S3.dgn PLOT DATE : 18-DEC-2013 14:43 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

2

2

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

MATCHLINE STA 234+75

7

R/L APPLETON AVE

50' TYP

235 236 237 238 239 240

MATCHLINE STA 240+75

50' TYP

7

USH 41 /APPLETON AVE

7

LANE CLOSED
R11-2(MOD)
48" X 30"

W. COURTLAND AVE.

200'

ROAD WORK AHEAD
W20-1

LANE CLOSED
R11-2(MOD)
48" X 30"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 364	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026104_S3.dgn PLOT DATE : 18-DEC-2013 14:43 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN IN GRAY

ROAD WORK AHEAD W20-1

W. DERBY PL.

200'

W01-6 48" X 24"

LANE CLOSED R11-2(MOD) 48" X 30"

LANE CLOSED R11-2(MOD) 48" X 30"

RIGHT TURN ONLY R3-53R 24" X 30"

MATCHLINE STA 240+75

R/L APPLETON AVE

50' TYP

7

241 242 243 244 245 246

MATCHLINE STA 246+75

USH 41 / APPLETON AVE

50' TYP

BEGIN LEFT TURN LANE R3-20L 24" X 36"

LANE CLOSED R11-2(MOD) 48" X 30"

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

LANE CLOSED R11-2(MOD) 48" X 30"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 365 E

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN IN GRAY

ROAD WORK AHEAD W20-1

350'

W. HAMPTON AVE.

LANE CLOSED R11-2(MOD) 48" X 30"

BEGIN LEFT TURN LANE R3-20L 24" X 36"

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

N

MATCHLINE STA 246+75

MATCHLINE STA 252+75

247 248 249 250 251 252

50' TYP

R/L APPLETON AVE

USH 41 / APPLETON AVE

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 366	E

2

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN IN GRAY

ROAD WORK AHEAD W20-1

LANE CLOSED R11-2(MOD) 48" X 30"

200'

W. GRANTOSA DR.

LANE CLOSED R11-2(MOD) 48" X 30"

BEGIN LEFT TURN LANE R3-20L 24" X 36"

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

MATCHLINE STA 252+75

7

50' TYP

253

254

255

256

257

258

9

10

R/L APPLETON AVE

USH 41/APPLETON AVE

MATCHLINE STA 258+75

LANE CLOSED R11-2(MOD) 48" X 30"

W. GRANTOSA DR.

200'

ROAD WORK AHEAD W20-1

LANE CLOSED R11-2(MOD) 48" X 30"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 367 E

2

ROAD WORK AHEAD
W20-1

200'

W. STARK ST.

LANE CLOSED
R11-2(MOD)
48" X 30"

7

R/L APPLETON AVE

50' TYP

MATCHLINE STA 258+75

259

260

261

262

263

264

MATCHLINE STA 264+75

USH 41/APPLETON AVE

LANE CLOSED
R11-2(MOD)
48" X 30"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 368 E

2

2

N

W. FAIRMOUNT AVE.

ROAD WORK AHEAD
W20-1

200'

LANE CLOSED
R11-2(MOD)
48" X 30"

50' TYP

7

R/L APPLETON AVE

MATCHLINE STA 264+75

265

266

267

268

269

270

MATCHLINE STA 270+75

USH 41 /APPLETON AVE

7

50' TYP

LANE CLOSED
R11-2(MOD)
48" X 30"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 369	E

2

W. FAIRMOUNT AVE.

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

N

7

50'
TYP

R/L APPLETON AVE

7

MATCHLINE STA 270+75

271 272 273 274 275 276

MATCHLINE STA 276+75

USH 41/APPLETON AVE

7

50'
TYP

7

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

ROAD WORK AHEAD
W20-1

W. LANCASTER AVE.

200'

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 370 E

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN IN GRAY

MATCHLINE STA 276+75

277 278 279 280 281 282

R/L APPLETON AVE

MATCHLINE STA 282+80

USH 41 / APPLETON AVE

7 50' TYP

LANE CLOSED
R11-2(MOD)
48" X 30"

W. VILLARD AVE.

ROAD WORK AHEAD
W20-1

200'

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 371	E

2

ROAD WORK AHEAD
W20-1

N. 91ST ST

350'

LANE CLOSED
R11-2(MOD)
48" X 30"

MATCHLINE STA 282+80

50' TYP

283 284 285 286 287 288

R/L APPLETON AVE

USH 41 / APPLETON AVE

7 9 10

MATCHLINE STA 288+80

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

N. 91ST ST

N

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 372	E

NOTE

1) PERMANENT PAVEMENT MARKINGS SHOWN IN GRAY

N

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

LANE CLOSED
R11-2(MOD)
48" X 30"

MATCHLINE STA 288+80

289 290 291 292 293 294

R/L APPLETON AVE

50' TYP

MATCHLINE STA 294+75

USH 41 /APPLETON AVE

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

MOVE SIGN TO STAGE 3 FROM STAGE 2 LOCATION

N. 91ST ST

350'

ROAD WORK AHEAD
W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 373	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026113_S3.dgn PLOT DATE : 18-DEC-2013 14:43 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

N

LANE CLOSED
R11-2(MOD)
48" X 30"

MATCHLINE STA 294+75

295

296

297

298

299

300

MATCHLINE STA 300+75

7

50'
TYP

USH 41/APPLETON AVE

R/L APPLETON AVE

300+36
13'&24' RT

6

500'

LANE CLOSED
R11-2(MOD)
48" X 30"

W01-4L

MOVE SIGN TO STAGE 3
FROM STAGE 2 LOCATION

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 374 E

2

N

LANE CLOSED
R11-2(MOD)
48" X 30"

W01-6
48" X 24"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

280'

MATCHLINE STA 300+75

301

302

303

304

305

306

305+38
13'&24' LT

6 7 10 12

50' TYP

25' TYP

USH 41 /APPLETON AVE

MATCHLINE STA 306+75

500'

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 375 E

2

N

W01-4L

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

STOP
R1-1
36" X 36"

USH 41/APPLETON AVE

R/L APPLETON AVE

25' TYP

6
7
10
12

MATCHLINE STA 306+75

307
308
309
310
311
312

MATCHLINE STA 312+75

W. BIRCH AVE.

200'

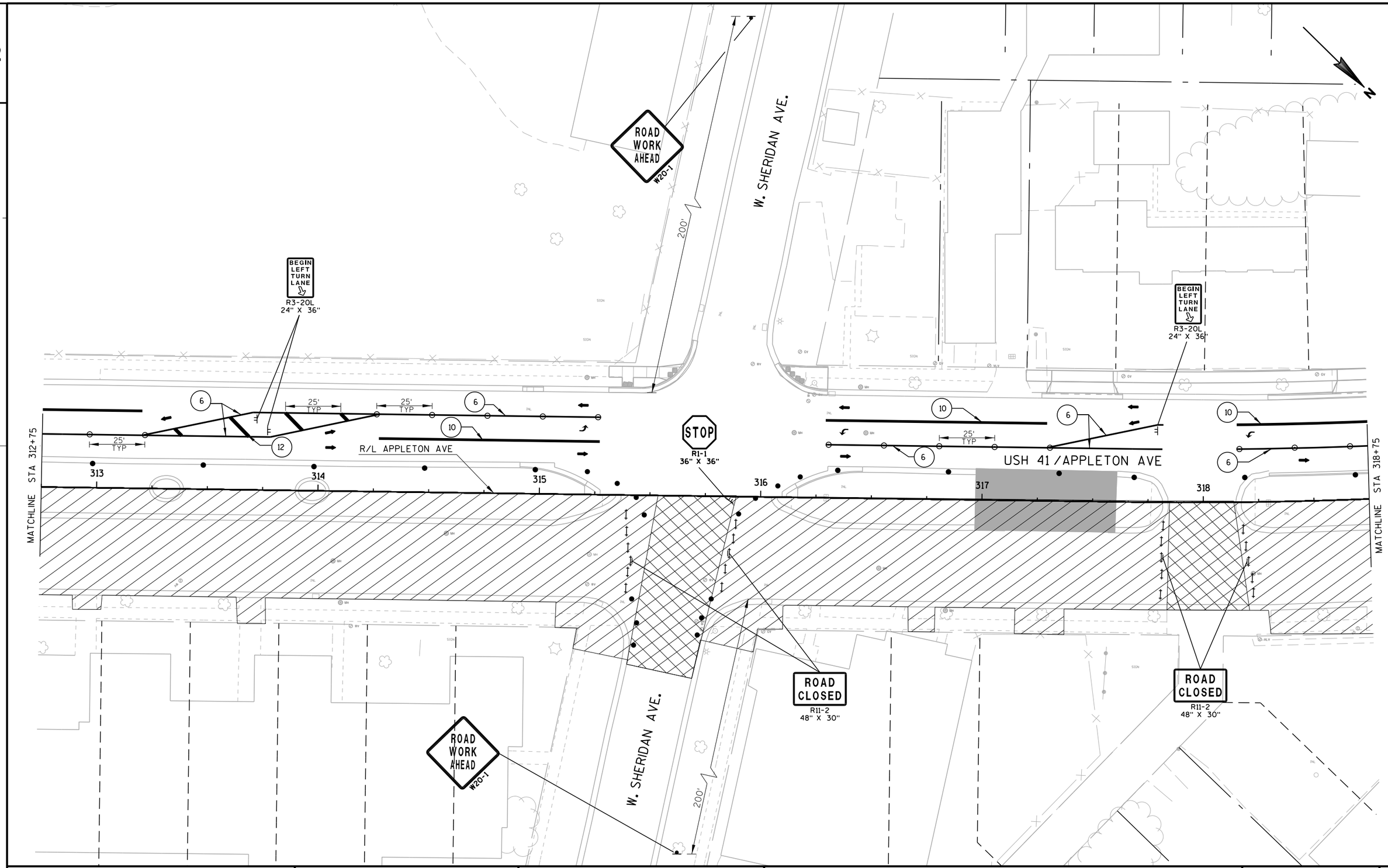
ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

ROAD WORK AHEAD
W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 376 E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 377 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026117_S3.dgn PLOT DATE : 18-DEC-2013 14:43 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

2

N

W01-6
48" X 24"

MS829
SW RAMP

MS629

MS627

R/L SW RAMP

W. SILVER SPRING DR / CTH E

121

R/L SILVER SPRING DR

W01-6
48" X 24"

R/L NW RAMP

TO BE REMOVED ONCE REMAINDER OF PIPE IS PLACED. SEE REMOVING PIPE UNDERDRAIN DETAIL.

STAGE 3A ONLY
RAMP CLOSED
R11-2R
48" X 30"

STAGE 3A ONLY
LANE CLOSED
R11-2(MOD)
48" X 30"

STAGE 3A ONLY

123

USH 41 / APPLETON AVE

STAGE 3 ONLY

NW RAMP

MN627

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

10 +67 6 +68 12

10 +38 +28 6 +28 25' TYP 7

10 +76 +78 6 +84 50' TYP

STOP
R1-1
36" X 36"

12 6

STA 324+75

MATCHLINE STA 318+75

R/L APPLETON AVE

319 320 321 322 323 324

MS630

MS627

MS625

MS626

STRUCTURE B-40-328

129

9

STAGE 3

STAGE 3A ONLY

STOP
R1-1
36" X 36"
STAGE 3 ONLY

ROAD CLOSED
R11-2
48" X 30"

DO NOT CONSTRUCT MEDIAN CURB AND GUTTER STA 320+10 TO 320+50

DO NOT CONSTRUCT ISLAND UNTIL STAGE 4

SE RAMP

R/L SE RAMP

R/L SILVER SPRING DR

W. SILVER SPRING DR / CTH E

130

131

STAGE 3A

R/L NE RAMP

NE RAMP

STAGE 3A ONLY
RAMP CLOSED
R11-2R
48" X 30"

BRIDGE OUT
R11-2B
48" X 30"

NOTE

1) NE RAMP AND SE RAMP ARE CLOSED AND DETOURED FOR 2 WEEKS DURING STAGE 3A.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3 AND 3A	SHEET 378	E

2

2

N

NOTE

1) NE RAMP AND SE RAMP ARE CLOSED AND DETOURED FOR 2 WEEKS IN STAGE 3A.

530NE

531NE

532NE

533NE

534NE

535NE

NE RAMP

STAGE 3A

END CONSTRUCTION
STA 533NE+85.60

STAGES 3 AND 3A

RAMP CLOSED
R11-2R
48" X 30"

ROAD WORK AHEAD
W20-1

400'

R/L NE RAMP

50'
TYP.

W. SILVER SPRING DR / CTH E

130

131

132

133

134

135

R/L SILVER SPRING DR

STAGE 3A

730SE

731SE

732SE

733SE

734SE

735SE

SE RAMP

STAGES 3 AND 3A

R/L SE RAMP

END ROAD WORK
C20-2A
48" X 24"

END CONSTRUCTION
STA 734SE+30.20

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3A	SHEET 379 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026120_S3.dgn PLOT DATE : 18-DEC-2013 14:43 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

NW RAMP

MNSC

426NW

BEGIN
R3-9C
24" X 6"
CENTER LANE ONLY
R3-9B
24" X 36"

END
R3-9D
24" X 6"
CENTER LANE ONLY
R3-9B
24" X 36"

W01-6
48" X 24"

STOP
R1-1
36" X 36"

USH 41 / APPLETON AVE

R/L APPLETON AVE

MATCHLINE STA 324+75

MATCHLINE STA 330+75

25' TYP

6

10

12

14

325

326

327

328

329

330

ROAD CLOSED
R11-2
48" X 30"

350'

ROAD WORK AHEAD
W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 380	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026119_S3.dgn PLOT DATE : 18-DEC-2013 14:43 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

R3-9D
24" X 6"
END
CENTER LANE
ONLY
R3-9B
24" X 36"

W01-6
48" X 24"

STOP
R1-1
36" X 36"

W01-6
48" X 24"

R3-9C
24" X 6"
BEGIN
CENTER LANE
ONLY
R3-9B
24" X 36"

W01-6
48" X 24"

MATCH LINE STA 330+75

331

332

333

334

335

336

MATCH LINE STA 336+75

US 41 / APPLETON AVE

100'

30'

10'
(TYP.)

25'
(TYP.)

US 41 / APPLETON AVE

R3-9C
24" X 6"
BEGIN
CENTER LANE
ONLY
R3-9B
24" X 36"

ROAD
CLOSED
R11-2
48" X 30"

R3-9D
24" X 6"
END
CENTER LANE
ONLY
R3-9B
24" X 36"

ROAD
WORK
AHEAD
W20-1

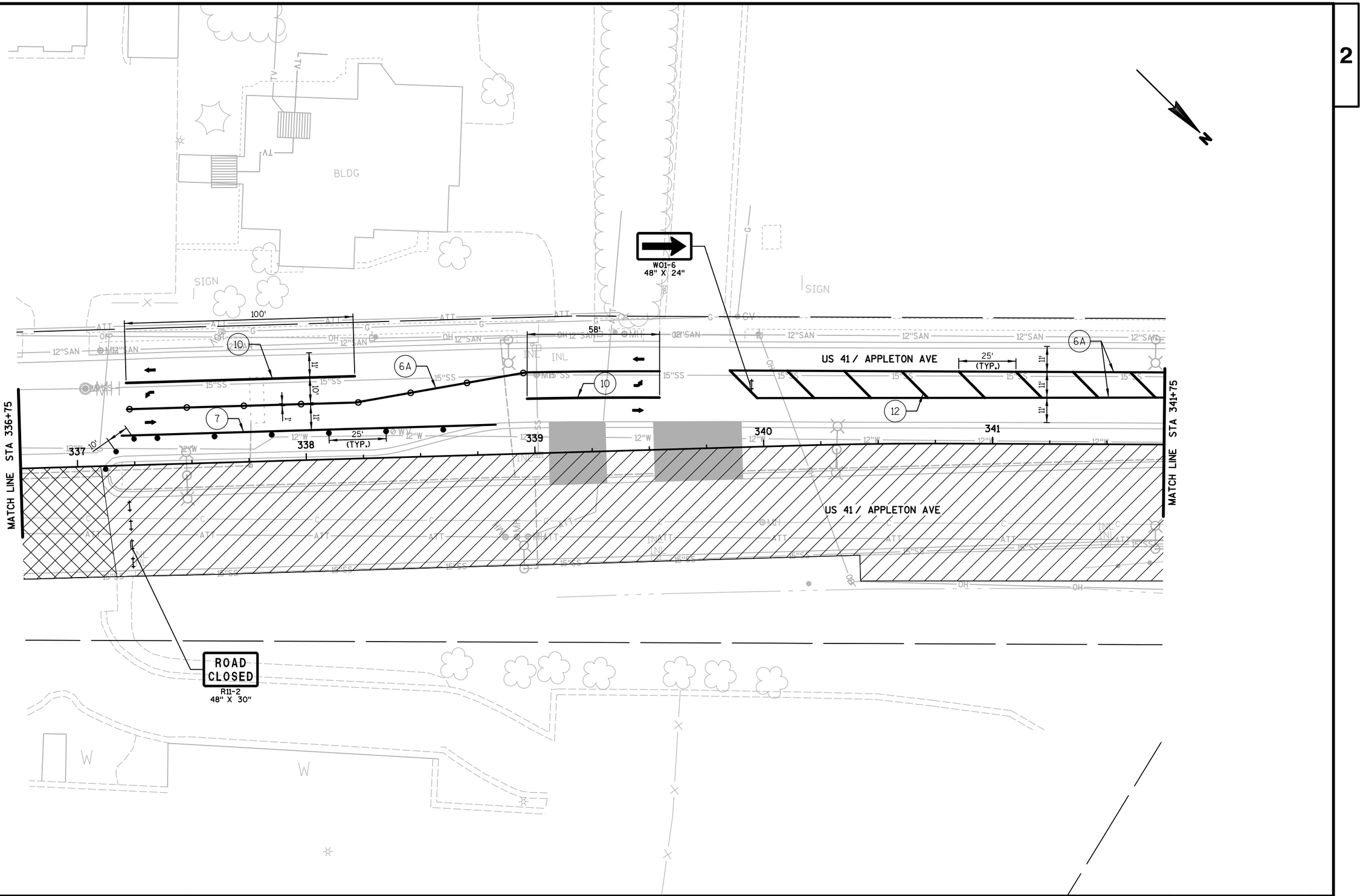
CARMEN AVENUE

200'

ROAD
CLOSED
R11-2
48" X 30"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 381	E

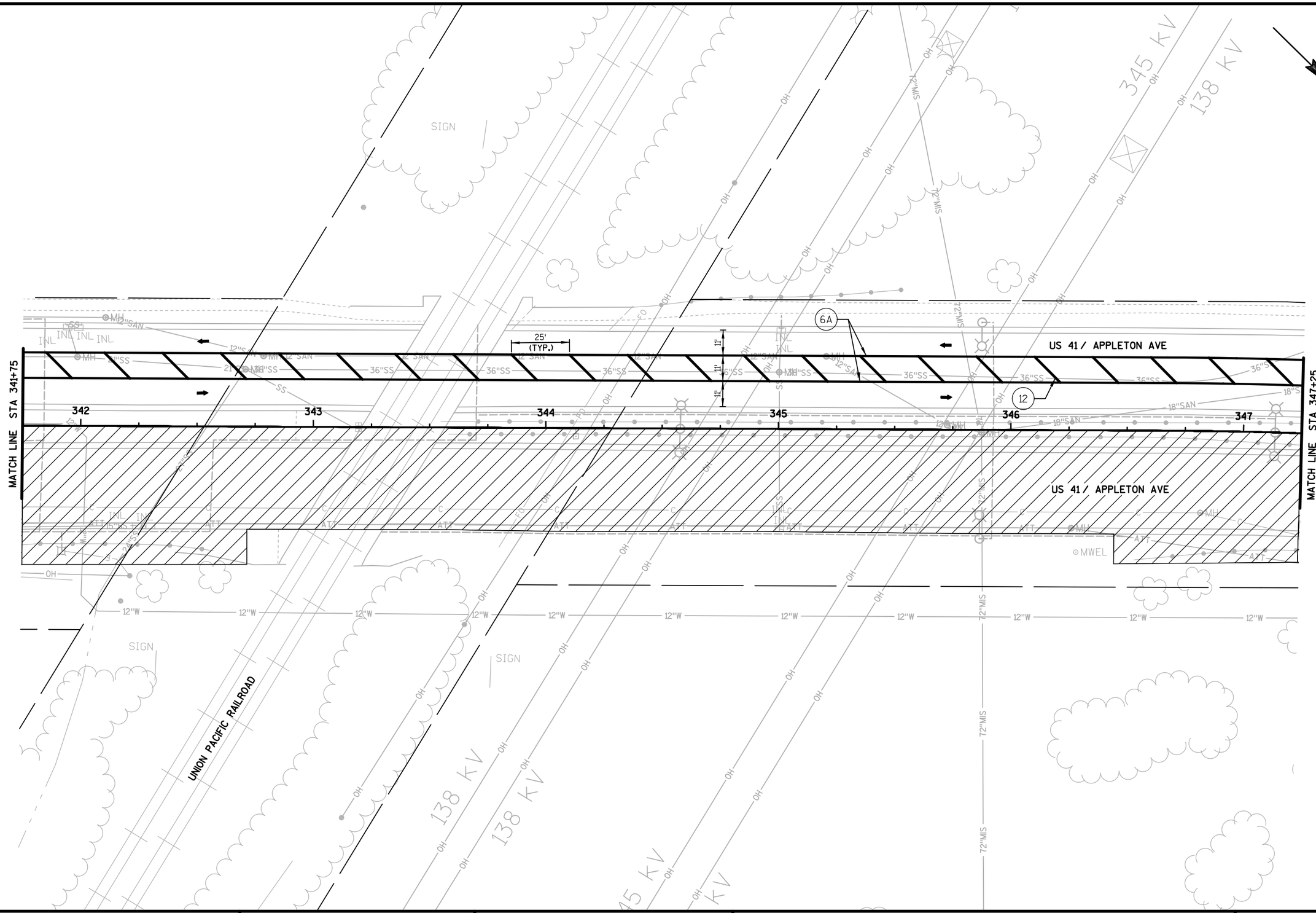
2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET	E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\026024_s3.dgn PLOT DATE : 4/17/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

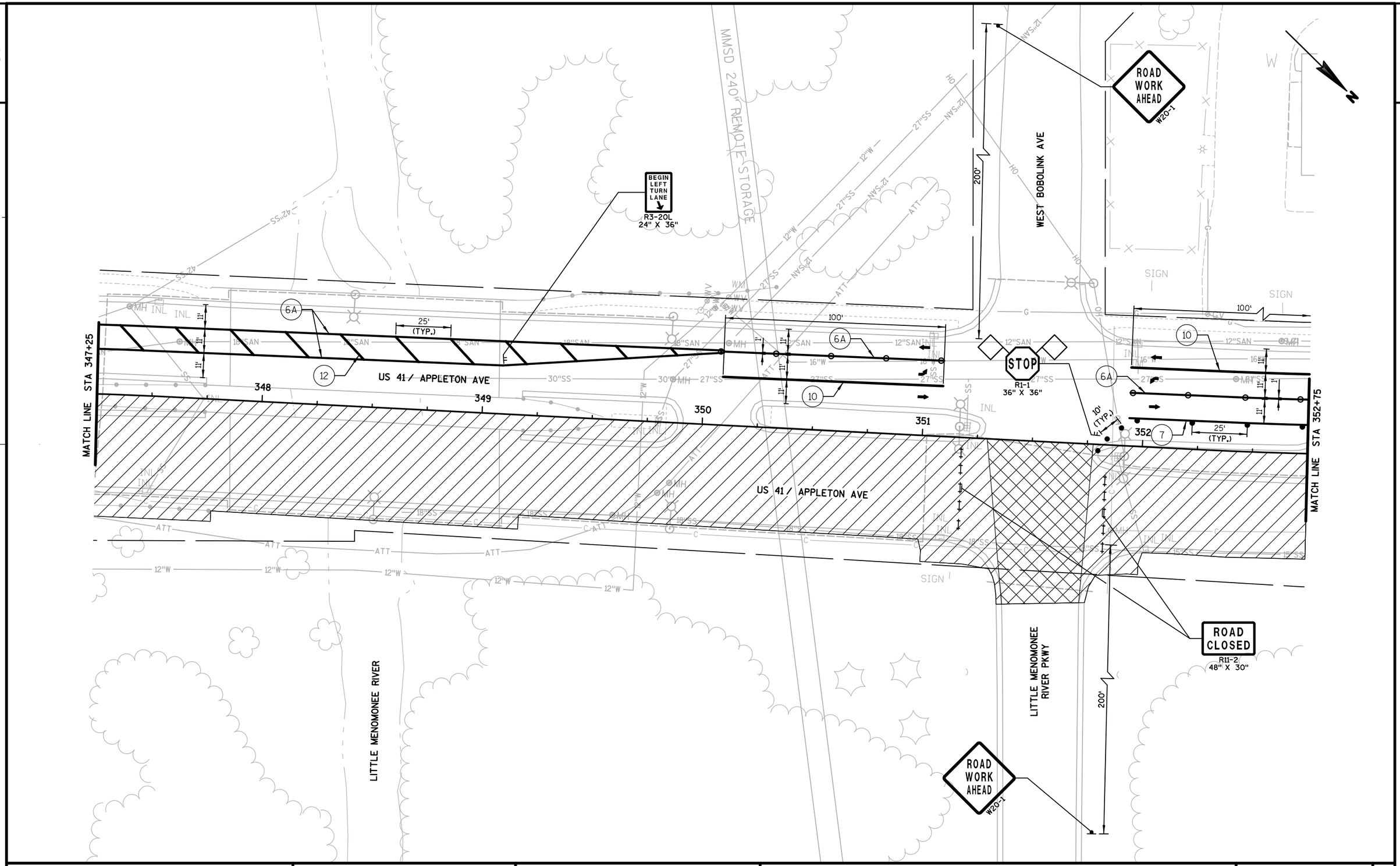
2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET	E

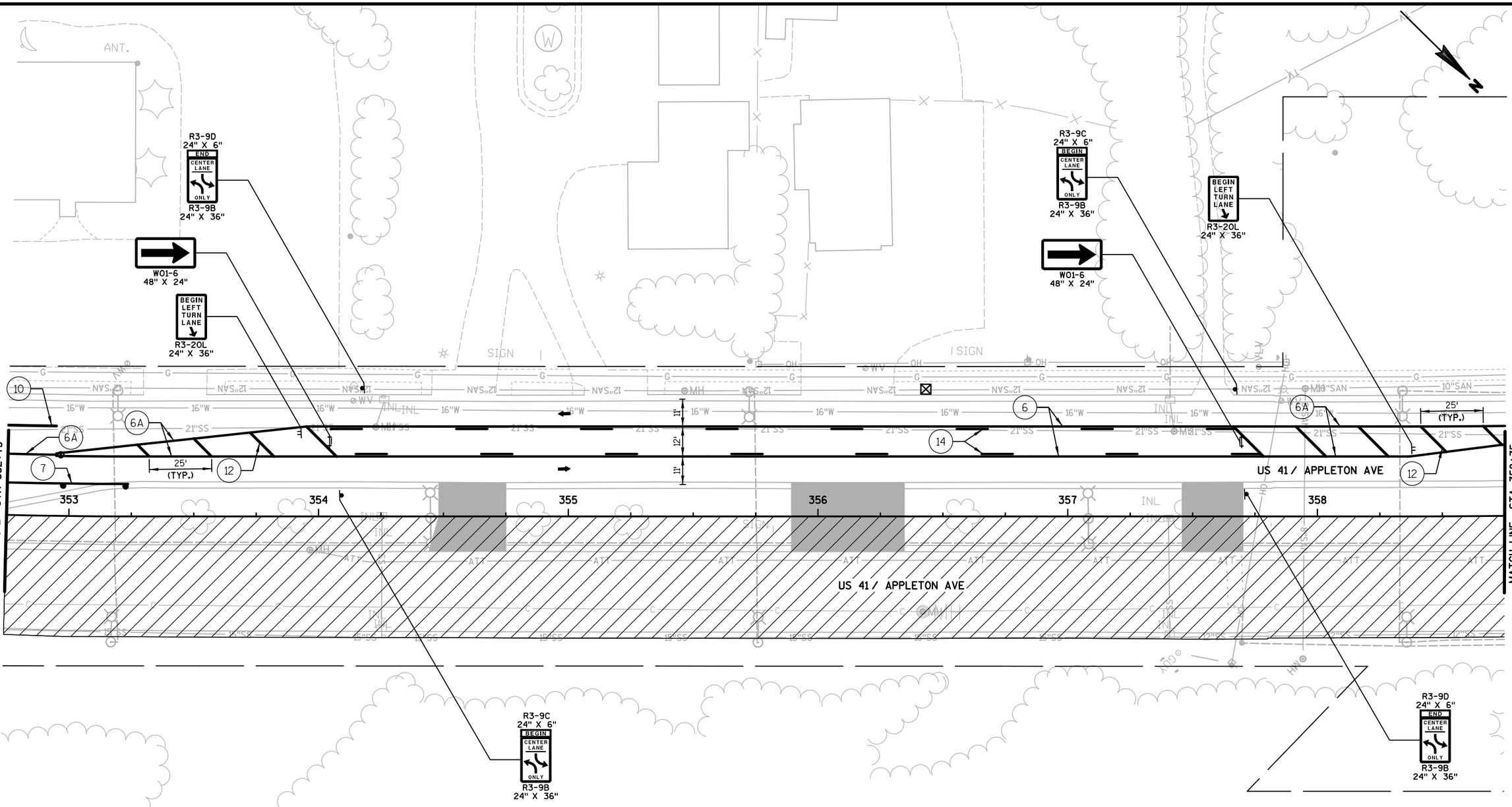
FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\026025_s3.dgn PLOT DATE : 4/17/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\026026_s3.dgn PLOT DATE : 4/17/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\026027_s3.dgn PLOT DATE : 4/17/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

ROAD WORK AHEAD W20-1

FLORIST AVE

200'

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

150'

25' (TYP.)

10' (TYP.)

US 41 / APPLETON AVE

MATCH LINE STA 358+75

MATCH LINE STA 364+75

359 360 361 362 363 364

END PROJECT
I.D. 2010-10-70
STA. 364+00.00

ROAD CLOSED
R11-2
48" X 30"

ROAD WORK AHEAD W20-1

107th ST

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 386	E

2

2

10"SAN
15"SS
MH
INL

INL
INL
INL
INL

MH
7
25'
(TYP.)
11'
12
25'
(TYP.)
11'
6A
US 41 / APPLETON AVE
6A
25'
(TYP.)
12'
1'
11'

MATCH LINE STA 364+75

IGN
365
366
367
368
369
370
SS
INL

MATCH LINE STA 370+75

US 41 / APPLETON AVE

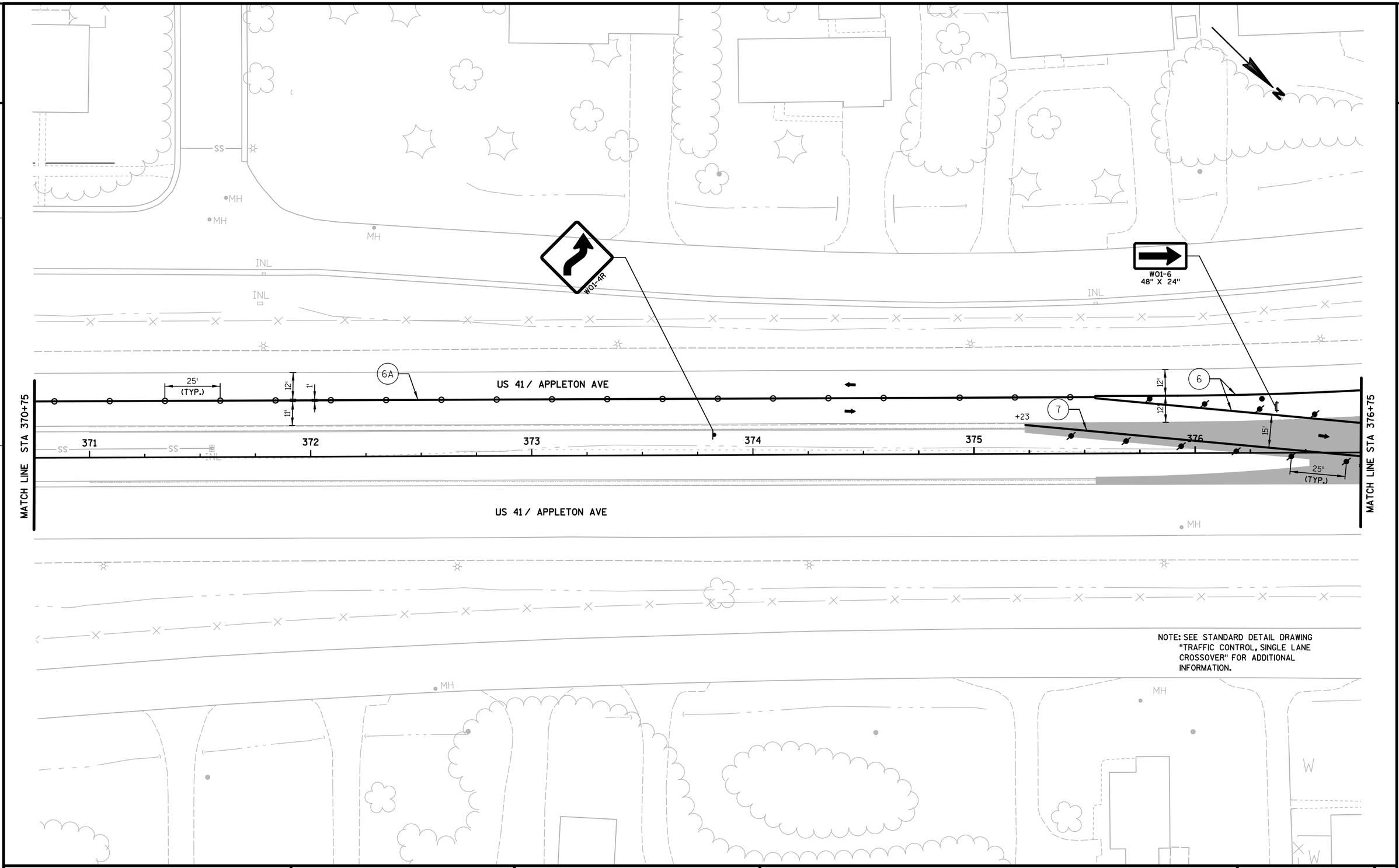
MH
MH
MH
U/C

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 387	E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\026029_s3.dgn PLOT DATE : 4/17/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 388	E

2

MATCH LINE A

N

LANE CLOSED
R11-2(MOD)
48" X 30"

50'
(TYP.)

12'

US 41 / APPLETON AVE

6

MATCH LINE STA 376+75

377

378

379

380

500'

15'

7

25'
(TYP.)

+93

12'

US 41 / APPLETON AVE

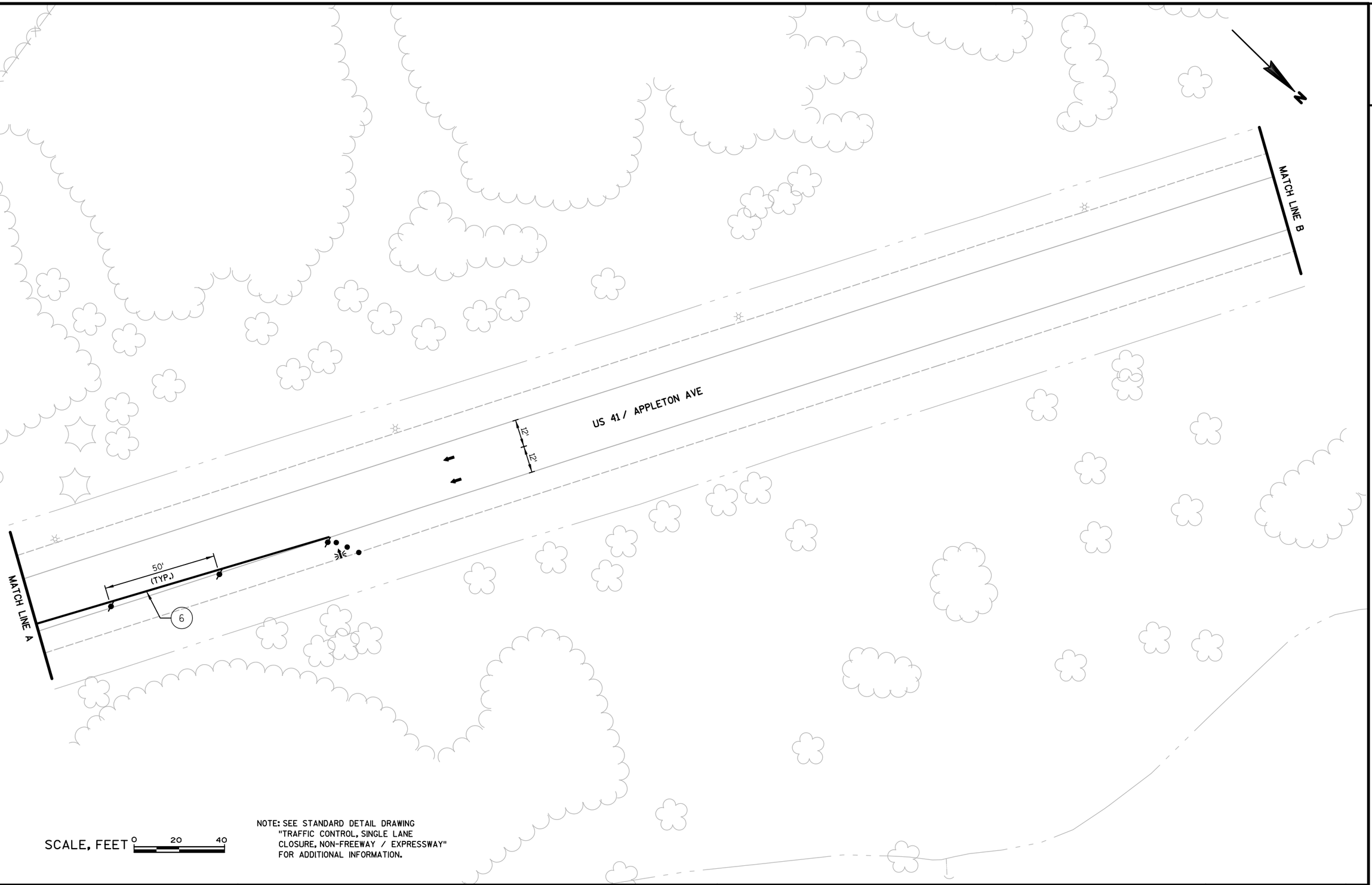
END ROAD WORK
G20-2A
48" X 24"

NOTE: SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CROSSOVER" FOR ADDITIONAL INFORMATION.

NOTE: SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY / EXPRESSWAY" FOR ADDITIONAL INFORMATION.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 389	E

2



NOTE: SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY / EXPRESSWAY" FOR ADDITIONAL INFORMATION.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 390	E

2

2

MATCH LINE B

W04-2L

US 41

USH 45/STH 100

STH 175

MILL RD.

USH 41/STH 175

APPLETON AVE.

LEFT LANE CLOSED AHEAD
W20-5

41
M1-4
24" X 24"

ROAD WORK AHEAD
W20-1

41
M1-4
24" X 24"

ROAD WORK AHEAD
W20-1

CTH "S"

114th ST.

MILL POND PL.

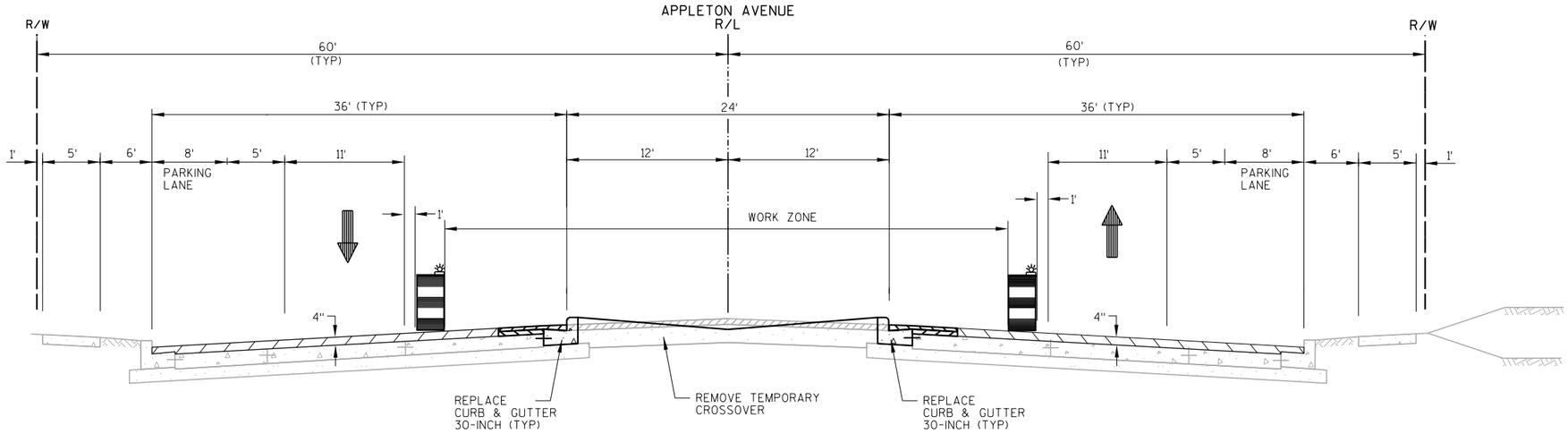
APPLETON PL.

SCALE, FEET 0 100 200

NOTE: SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY / EXPRESSWAY" FOR ADDITIONAL INFORMATION.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET 391	E

2



TRAFFIC CONTROL STAGE 4
APPLETON AVENUE
STA 300+00 TO 306+00

NOTE
1) ALL PAVEMENT MARKING SHOWN IN STAGE 4 TRAFFIC CONTROL IS PERMANENT.

2

2

R/L APPLETON AVE

277 278 279 280 281 282

MATCHLINE STA 282+80

USH 41/APPLETON AVE

ROAD WORK AHEAD W20-1

W. VILLARD AVE.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 393 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026201_s4.dgn PLOT DATE : 18-DEC-2013 17:10 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

N. 91ST ST

MATCHLINE STA 282+80

283

284

285

286

R/L APPLETON AVE

287

288

MATCHLINE STA 288+80

USH 41/APPLETON AVE

LEFT LANE CLOSED AHEAD W20-5

N. 91ST ST

N

2

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 394	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026202_s4.dgn PLOT DATE : 18-DEC-2013 17:10 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE STA 288+80

289

290

291

R/L APPLETON AVE

292

293

294

MATCHLINE STA 294+75

USH 41/APPLETON AVE

W04-2L

N. 91ST ST

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 395	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026203_s4.dgn PLOT DATE : 18-DEC-2013 17:10 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

END
ROAD WORK
G20-2A
48" X 24"

MATCHLINE STA 294+75

295

296

297

R/L APPLETON AVE

USH 41/APPLETON AVE

298

299

300

25'
TYP

25'
TYP

50'
TYP

50'
TYP

MATCHLINE STA 300+75

320'

LANE
CLOSED
R11-2(MOD)
48" X 30"

BEGIN
LEFT
TURN
LANE
R3-20L
24" X 36"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 396	E

2

N

LANE CLOSED
R11-2(MOD)
48" X 30"

MATCHLINE STA 300+75

301 302 303 304 305 306

50' TYP

50' TYP

MATCHLINE STA 306+75

USH 41 / APPLETON AVE

LANE CLOSED
R11-2(MOD)
48" X 30"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 397 E

2

N

USH 41/APPLETON AVE

MATCHLINE STA 306+75

MATCHLINE STA 312+75

R/L APPLETON AVE

307 308 309 310 311 312

50' TYP

50' TYP

25' TYP

W. BIRCH AVE.

200'

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

ROAD WORK AHEAD
W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026206_s4.dgn PLOT DATE : 18-DEC-2013 17:10 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

2

2

ROAD WORK AHEAD W20-1

200'

LANE CLOSED R11-2(MOD) 48" X 30"

W. SHERIDAN AVE.

N

R/L APPLETON AVE

USH 41 /APPLETON AVE

50' TYP

MATCHLINE STA 312+75

MATCHLINE STA 318+75

313 314 315 316 317 318

LANE CLOSED R11-2(MOD) 48" X 30"

LANE CLOSED R11-2(MOD) 48" X 30"

ROAD WORK AHEAD W20-1

W. SHERIDAN AVE.

200'

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 399 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026207_s4.dgn PLOT DATE : 18-DEC-2013 17:10 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

2

N

ROAD WORK AHEAD
W20-1

350'

MS629

MS829
SW RAMP

R/L SW RAMP

W. SILVER SPRING DR / CTH E

121

R/L SILVER SPRING DR

R/L NW RAMP

LANE CLOSED
R11-2(MOD)
48" X 30"

MS629

128

LEFT TURN LANE
R3-55L(MOD)
24" X 30"

NW RAMP

MS629

USH 41 / APPLETON AVE

STRUCTURE
B-40-328

R/L APPLETON AVE

MATCHLINE STA 318+75

319

320

630SW

321

730SE

322

129

323

324

MATCHLINE STA 324+75

50'
TYP

528NE

50'
TYP

LEFT TURN LANE
R3-55L(MOD)
24" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

SE RAMP

735SE

R/L SE RAMP

R/L SILVER SPRING DR

W. SILVER SPRING DR / CTH E

130

R/L NE RAMP

NE RAMP

529NE

350'

ROAD WORK AHEAD
W20-1

131

732SE

530

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 400 E

2

NW RAMP

MN52

MN26W

LANE CLOSED
R11-2(MOD)
48" X 30"

50' TYP

R/L APPLETON AVE

MATCHLINE STA 324+75

325

326

327

328

329

330

MATCHLINE STA 330+75

USH 41/APPLETON AVE

LANE CLOSED
R11-2(MOD)
48" X 30"

N. 99TH ST.

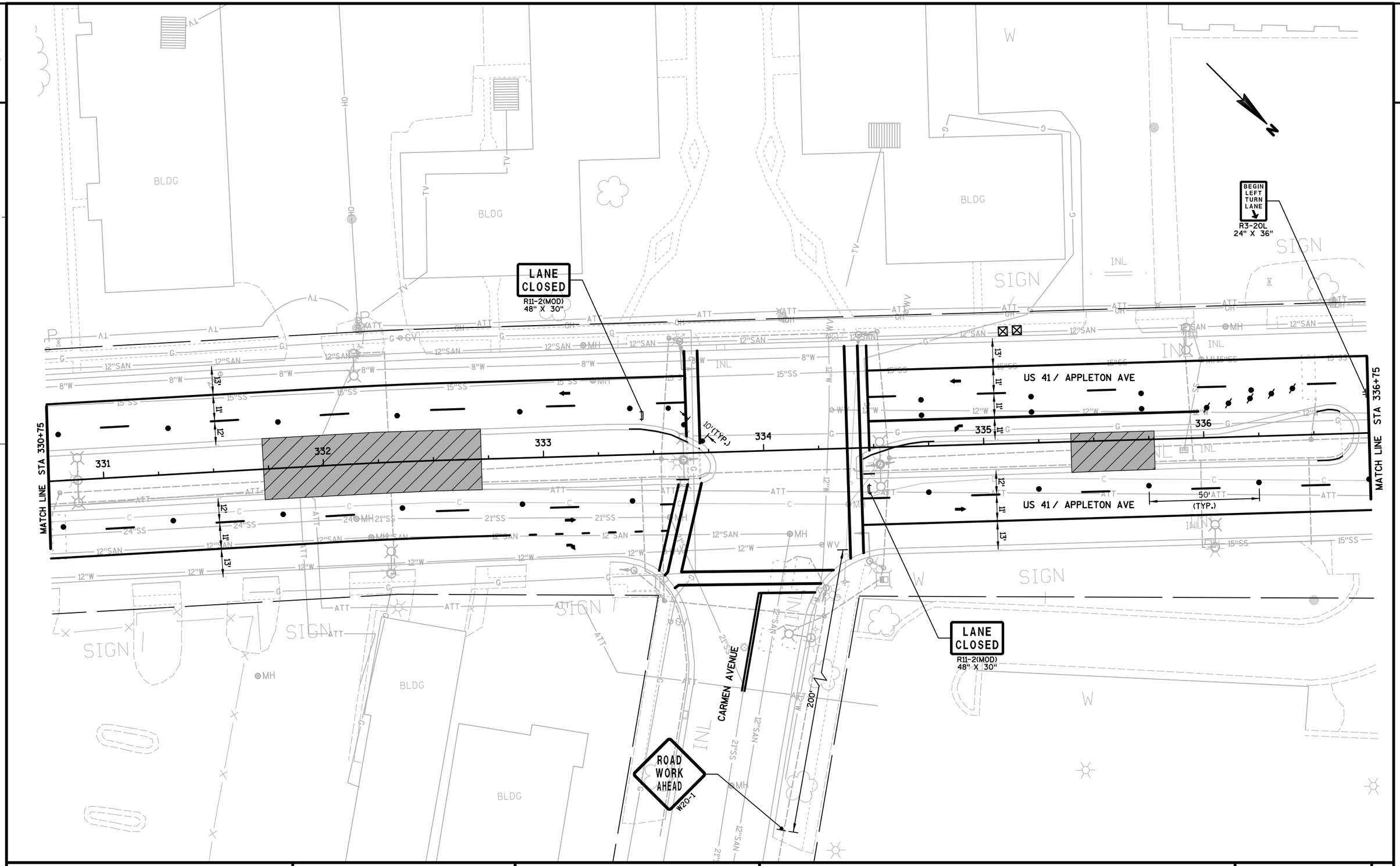
350'

ROAD WORK AHEAD
W20-1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 401	E

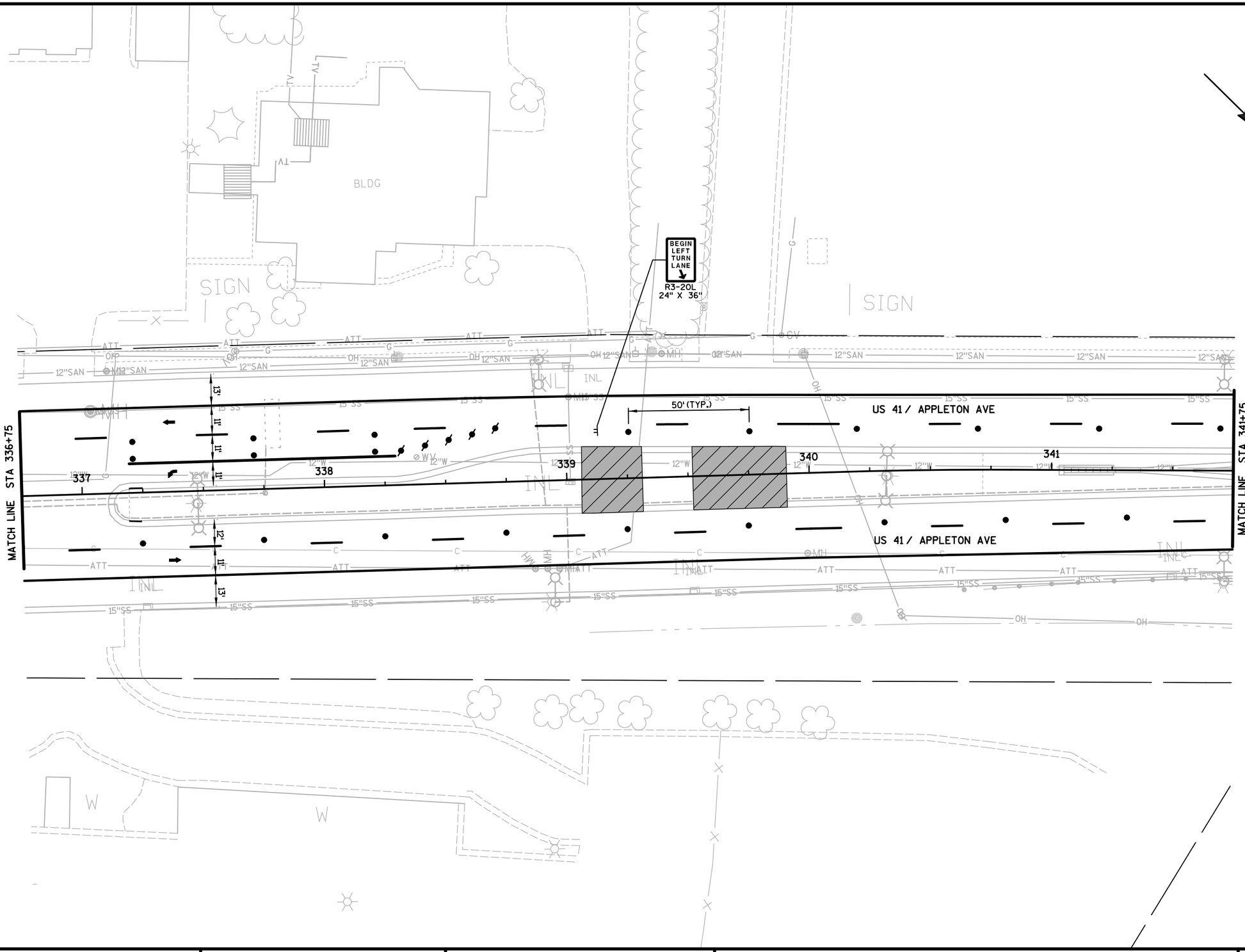
FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap026209_s4.dgn PLOT DATE : 18-DEC-2013 17:10 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

2

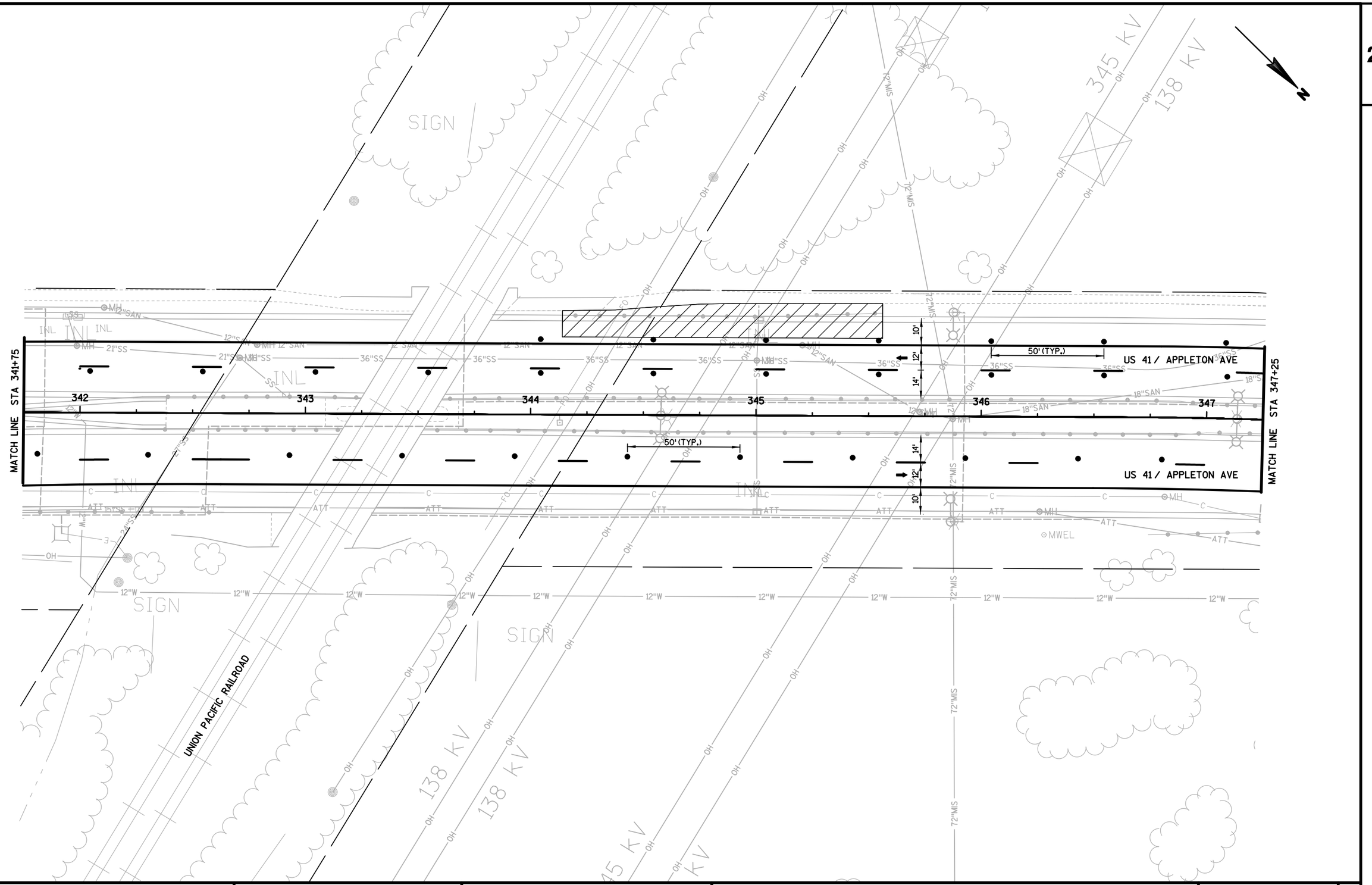


PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 402	E

2



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 403	E



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 404	E

FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\026036_s4.dgn PLOT DATE : 10/14/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

MMSD 240" REMOTE STORAGE

WEST BOBOLINK AVE

ROAD WORK AHEAD W20-1

LANE CLOSED R11-2(MOD) 48" X 30"

SIGN

MATCH LINE STA 347+25

US 41 / APPLETON AVE

348

349

350

351

352

50' (TYP.)

40'(TYP.)

MATCH LINE STA 352+75

BEGIN LEFT TURN LANE R3-20L 24" X 36"

LITTLE MENOMONEE RIVER

LITTLE MENOMONEE RIVER PKWY

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\026037_s4.dgn PLOT DATE : 6/18/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

RIGHT SHOULDER CLOSED
W21-5A

US 41 / APPLETON AVE

50'
(TYP.)

MATCH LINE STA 352+75

MATCH LINE STA 358+75

353 354 355 356 357 358

12'
14'
10'

US 41 / APPLETON AVE

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 406	E

2

2

ROAD WORK AHEAD
W20-1

FLORIST AVE

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

END PROJECT
I.D. 2010-10-70
STA. 364+00.00

MATCH LINE STA 358+75

US 41 / APPLETON AVE

359 360 361 362 363 364

50' (TYP.)

10' (TYP.)

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

ROAD WORK AHEAD
W20-1

107th ST

MATCH LINE STA 364+75

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 407 E

2

2

RIGHT SHOULDER CLOSED AHEAD W21-5B

10"SAN
15"SS
INL
MH

US 41 / APPLETON AVE

50' (TYP.)

10'
12'
14'

12'

MATCH LINE STA 364+75

365 366 367 368 369 370

SS

SIGN

MATCH LINE STA 370+75

U/C

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 408	E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\026040_s4.dgn PLOT DATE : 6/18/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

2

MATCH LINE STA 370+75

MATCH LINE STA 376+75

LANE CLOSED
R11-2(MOD)
48" X 30"

US 41 / APPLETON AVE

12'

50'
(TYP.)

371 372 373 374 375 376

SS

MH

INL

W

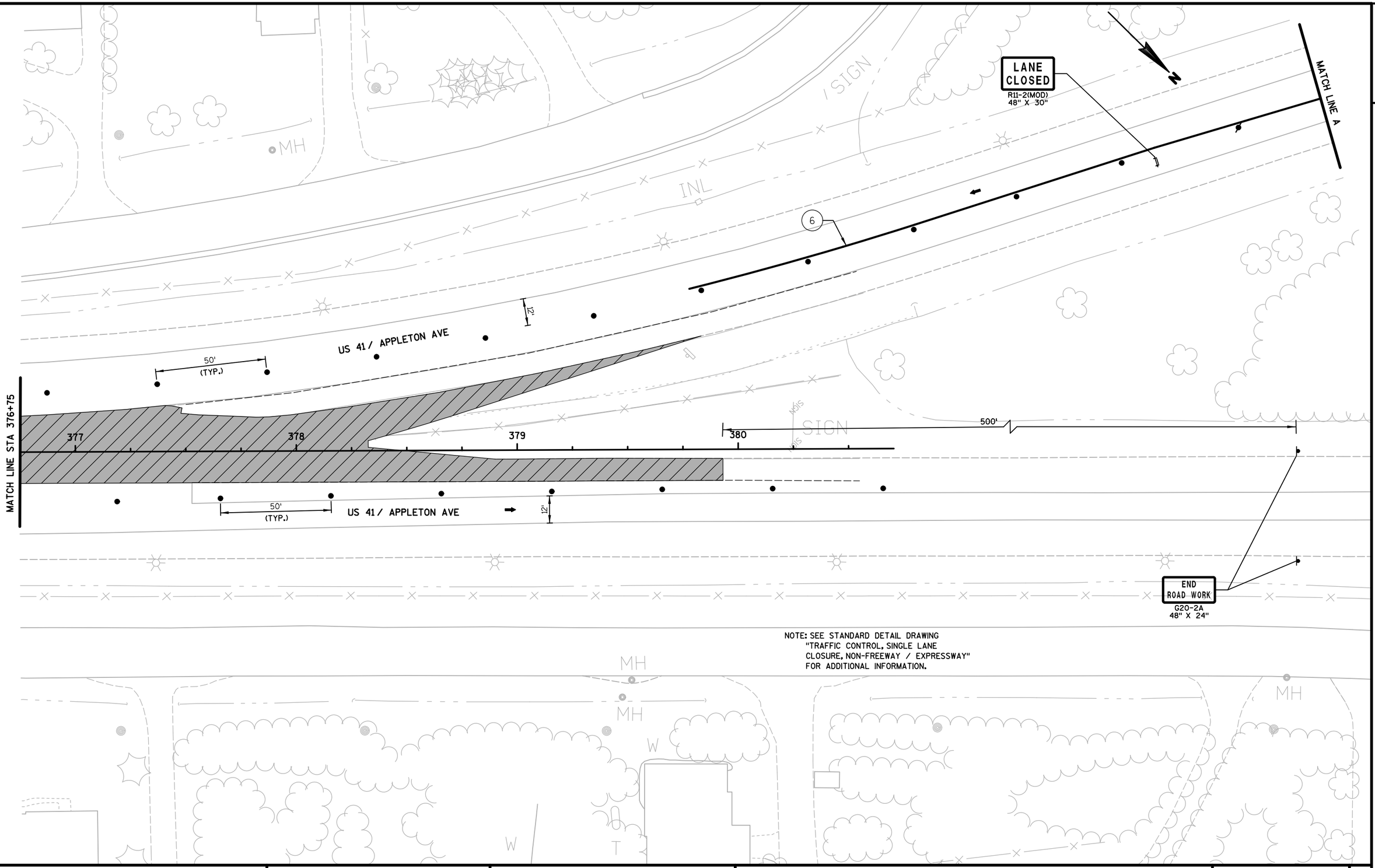
LANE CLOSED
R11-2(MOD)
48" X 30"

US 41 / APPLETON AVE

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET	E

FILE NAME : s:\mad\1000--1099\1084\002\micros\design\Plan\026041_s4.dgn PLOT DATE : 6/18/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

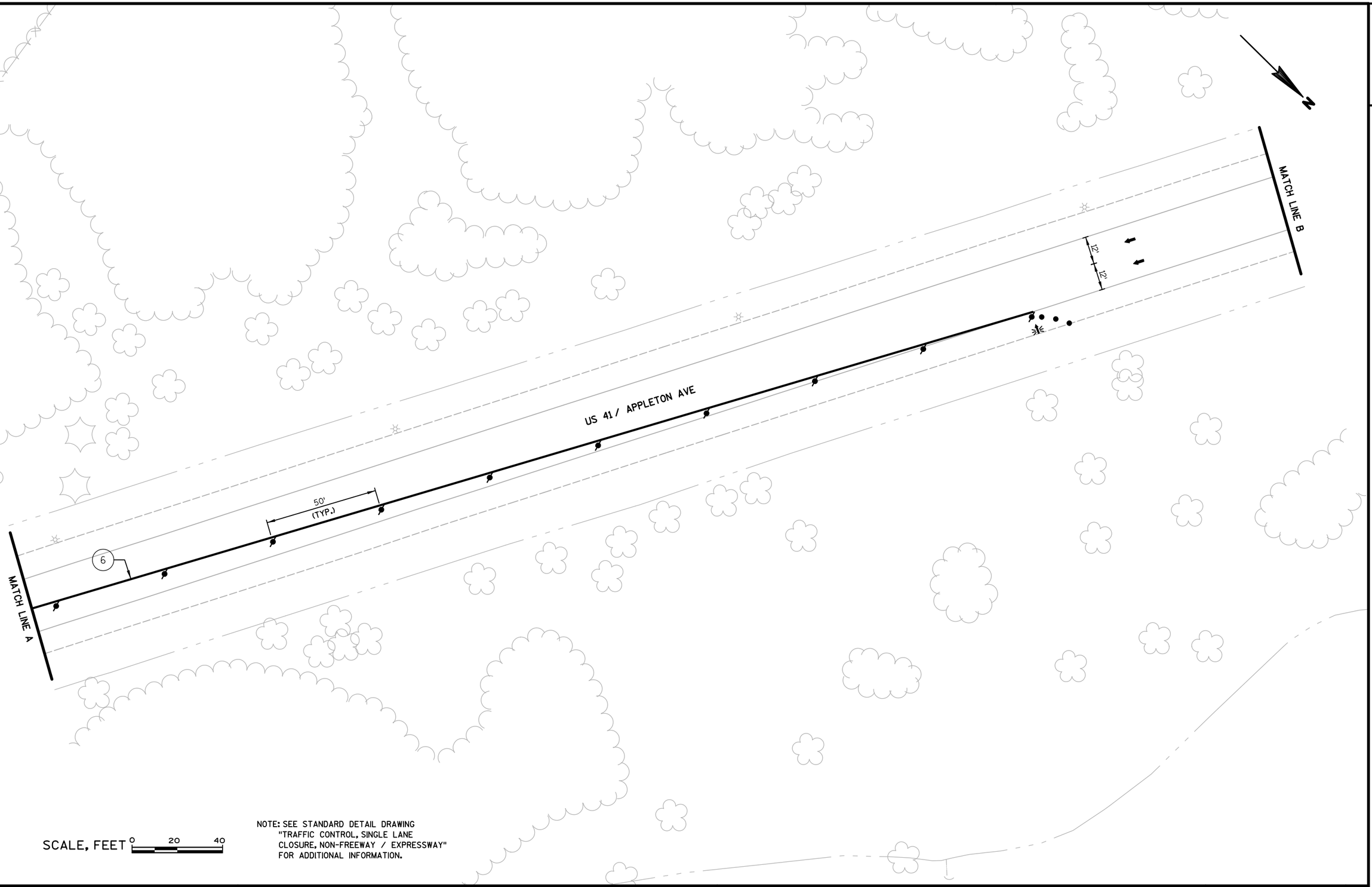
2



NOTE: SEE STANDARD DETAIL DRAWING
"TRAFFIC CONTROL, SINGLE LANE
CLOSURE, NON-FREEWAY / EXPRESSWAY"
FOR ADDITIONAL INFORMATION.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 410	E

2

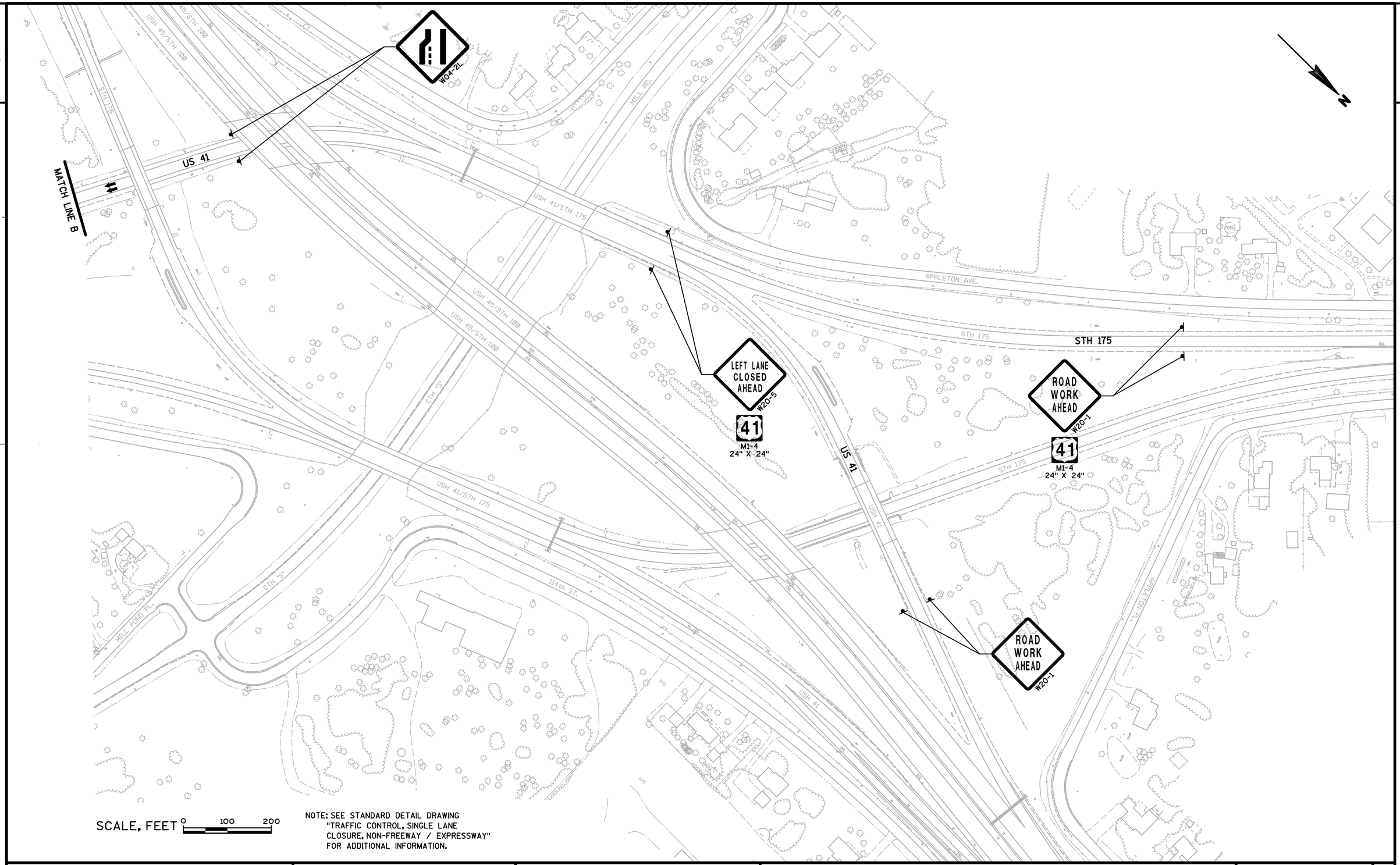


NOTE: SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY / EXPRESSWAY" FOR ADDITIONAL INFORMATION.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 411	E

2

2



SCALE, FEET 0 100 200

NOTE: SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY / EXPRESSWAY" FOR ADDITIONAL INFORMATION.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4	SHEET 412	E

NOTES

1) CONTRACTOR SHALL COVER, AS DIRECTED BY THE ENGINEER, ALL CONFLICTING ROUTE MARKING PERTAINING TO THIS PLAN. THIS WORK TO BE PAID UNDER THE BID ITEM "TRAFFIC CONTROL DETOUR".

2) THE EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

3) SIGN SIZES SHALL BE AS FOLLOWS:
ON LOCAL STREETS M1 SERIES 24" X 24"
M3 SERIES 24" X 12"
M4 SERIES 24" X 12"
W20 SERIES 36" X 36"

LEGEND

- WORK AREA
- PROPOSED SIGN MOUNTED ON POST(S)
- DETOUR ROUTE
- DIRECTION OF TRAFFIC
- FMS FIXED MESSAGE SIGN
- CMS PORTABLE CHANGEABLE MESSAGE SIGN

RAMP TO 41 CLOSED AHEAD USE DETOUR

RAMPS CLOSED

OFF RAMP CLOSED TO TRUCKS

RAMP TO E CLOSED AHEAD USE DETOUR

RAMP TO E CLOSED AHEAD USE DETOUR

RAMP TO 41 CLOSED AHEAD USE DETOUR

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	DETOUR - SILVER SPRING RAMPS - STAGE 2A RAMPS CLOSED	SHEET 413 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap027001_dt.dgn PLOT DATE : 19-AUG-2013 16:23 PLOT BY : scook PLOT NAME : PLOT SCALE : 1200:1

NOTES

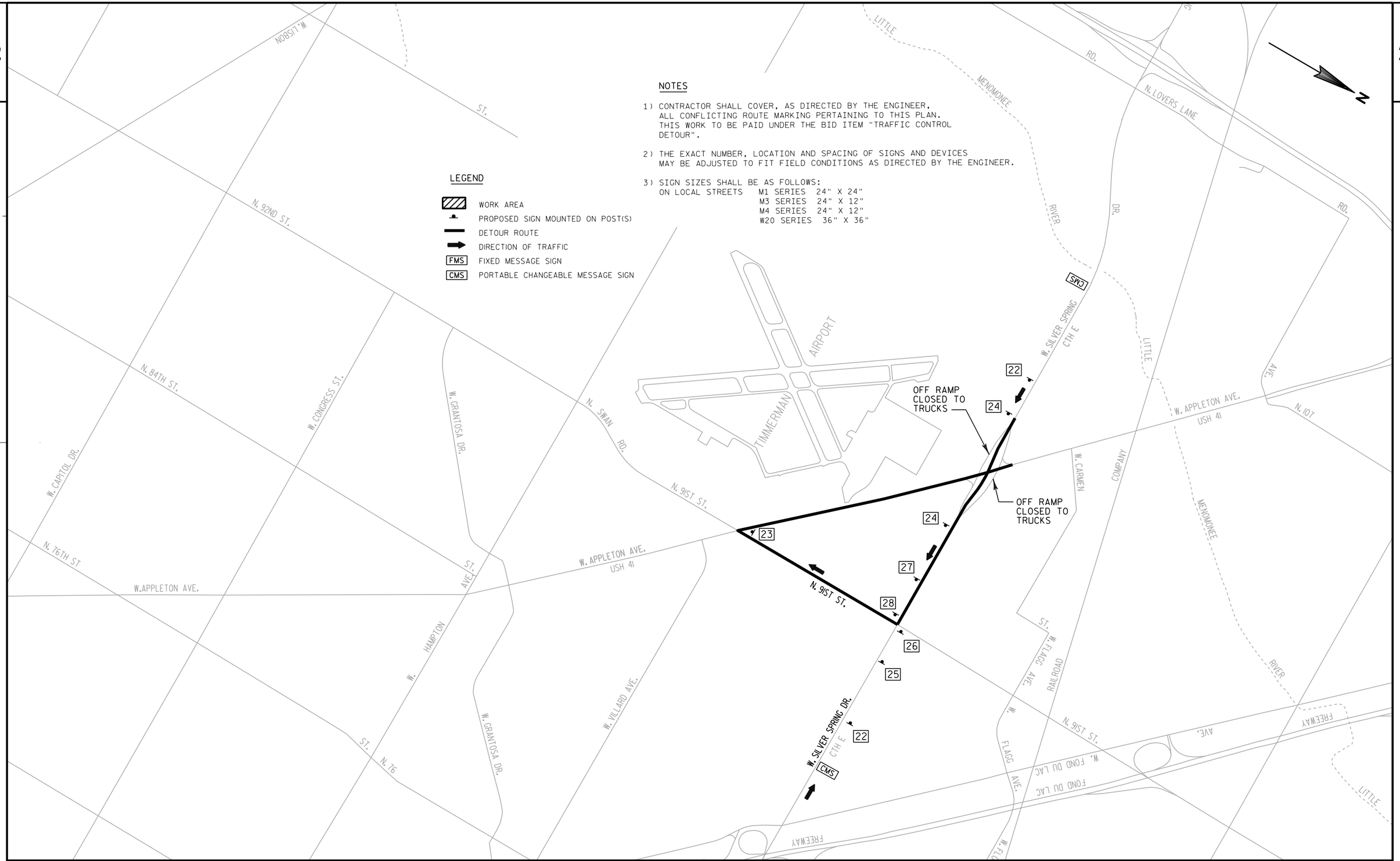
1) CONTRACTOR SHALL COVER, AS DIRECTED BY THE ENGINEER, ALL CONFLICTING ROUTE MARKING PERTAINING TO THIS PLAN. THIS WORK TO BE PAID UNDER THE BID ITEM "TRAFFIC CONTROL DETOUR".

2) THE EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

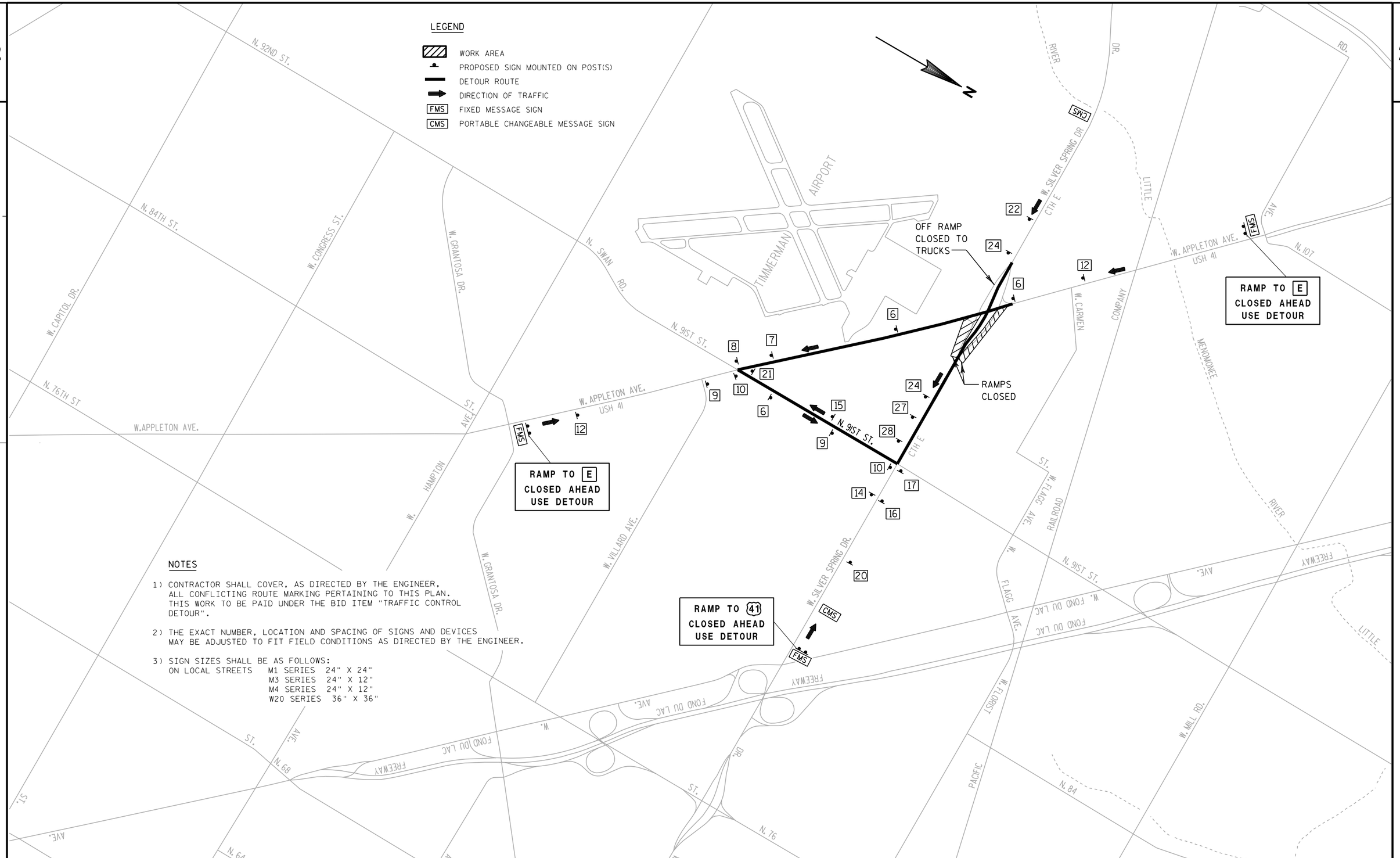
3) SIGN SIZES SHALL BE AS FOLLOWS:
ON LOCAL STREETS M1 SERIES 24" X 24"
M3 SERIES 24" X 12"
M4 SERIES 24" X 12"
W20 SERIES 36" X 36"

LEGEND

- WORK AREA
- PROPOSED SIGN MOUNTED ON POST(S)
- DETOUR ROUTE
- DIRECTION OF TRAFFIC
- FMS — FIXED MESSAGE SIGN
- CMS — PORTABLE CHANGEABLE MESSAGE SIGN



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	DETOUR - SILVER SPRING RAMPS - STAGE 2	SHEET 414 E



NOTES

1) CONTRACTOR SHALL COVER, AS DIRECTED BY THE ENGINEER, ALL CONFLICTING ROUTE MARKING PERTAINING TO THIS PLAN. THIS WORK TO BE PAID UNDER THE BID ITEM "TRAFFIC CONTROL DETOUR".

2) THE EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

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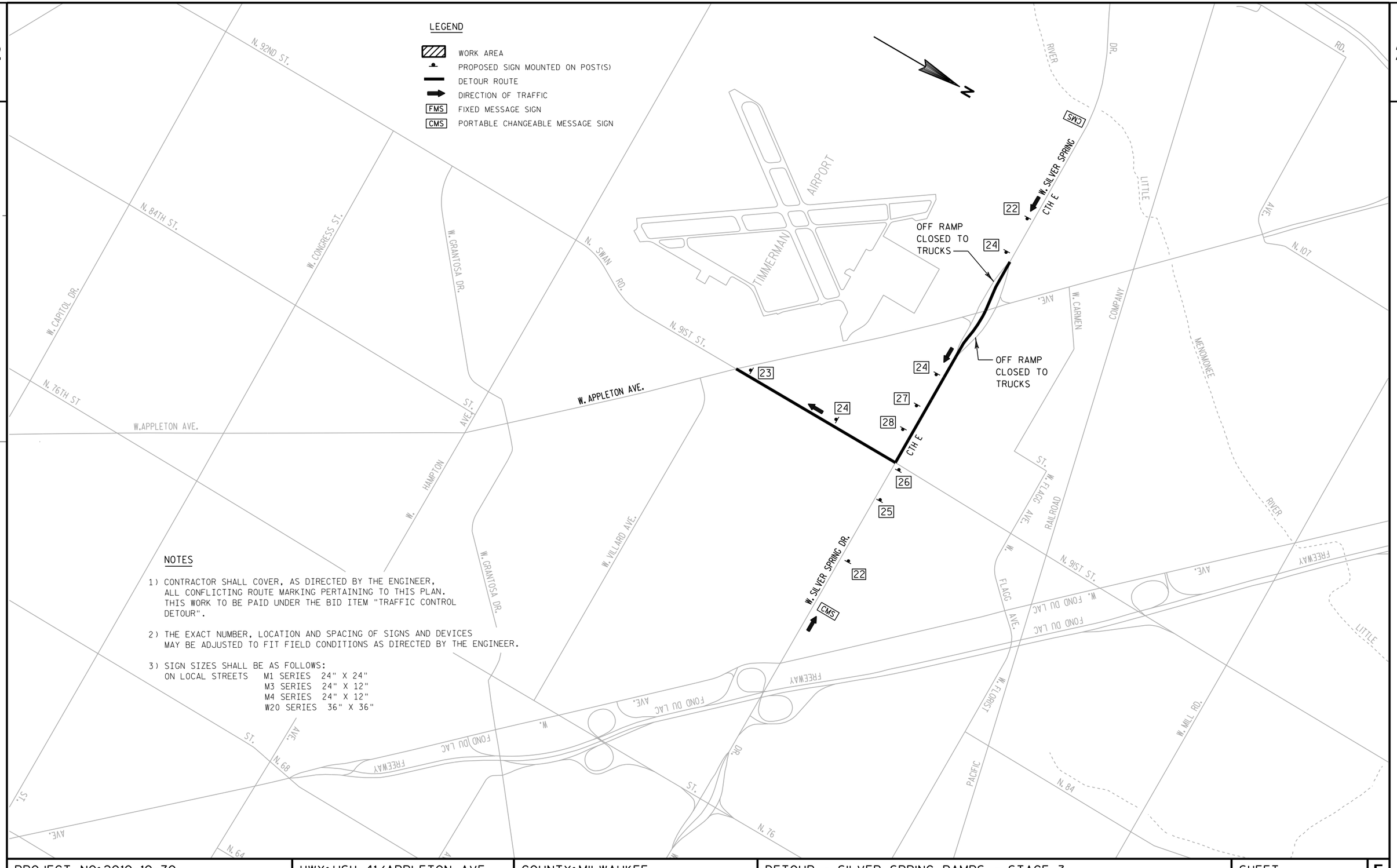
ON LOCAL STREETS M1 SERIES 24" X 24"
M3 SERIES 24" X 12"
M4 SERIES 24" X 12"
W20 SERIES 36" X 36"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	DETOUR - SILVER SPRING RAMPS - STAGE 3A RAMPS CLOSED	SHEET 415	E



NOTES

1) CONTRACTOR SHALL COVER, AS DIRECTED BY THE ENGINEER, ALL CONFLICTING ROUTE MARKING PERTAINING TO THIS PLAN. THIS WORK TO BE PAID UNDER THE BID ITEM "TRAFFIC CONTROL DETOUR".

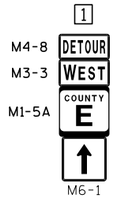
2) THE EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

3) SIGN SIZES SHALL BE AS FOLLOWS:
ON LOCAL STREETS M1 SERIES 24" X 24"
M3 SERIES 24" X 12"
M4 SERIES 24" X 12"
W20 SERIES 36" X 36"

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	DETOUR - SILVER SPRING RAMPS - STAGE 3	SHEET 416 E

2

1



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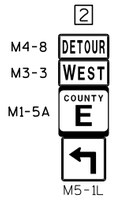

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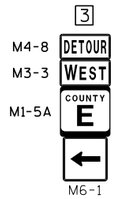

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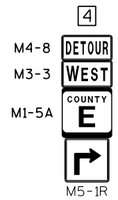

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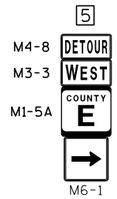

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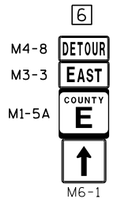

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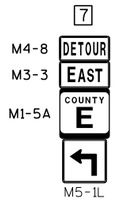

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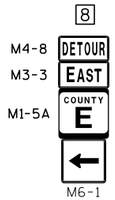

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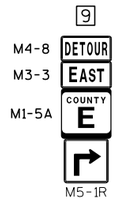

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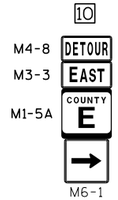

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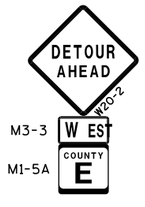

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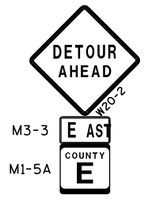

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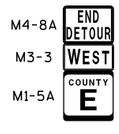

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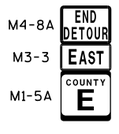

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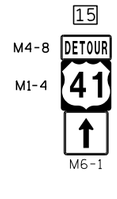

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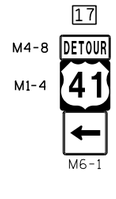

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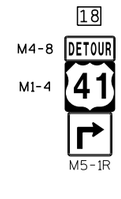

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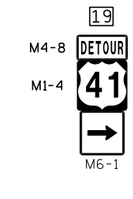

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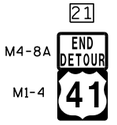

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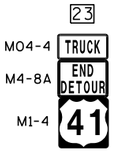

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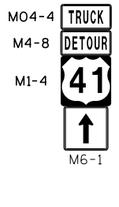

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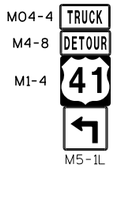

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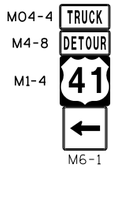

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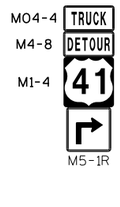

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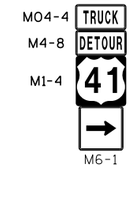


PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	DETOUR SIGNS	SHEET 417	E

STAGE 2

CMS ON WB CTH E

FRAME 1: RAMP CLOSED TO TRUCKS

FRAME 2: TRUCKS FOLLOW DETOUR

ALL OF STAGE 2

CMS EB CTH E

FRAME 1: RAMP CLOSED AHEAD

FRAME 2: FOLLOW DETOUR ROUTE

2 WKS IN STAGE 2
(RAMPS CLOSED)

CMS EB CTH E

FRAME 1: RAMP CLOSED TO TRUCKS

FRAME 2: TRUCKS FOLLOW DETOUR

REMAINDER OF STAGE 2
(RAMPS OPEN)

STAGE 3

CMS ON WB CTH E

FRAME 1: RAMP CLOSED TO TRUCKS

FRAME 2: TRUCKS FOLLOW DETOUR

REMAINDER OF STAGE 3
(RAMPS OPEN)

CMS ON WB CTH E

FRAME 1: RAMP CLOSED AHEAD

FRAME 2: FOLLOW DETOUR ROUTE

2 WKS IN STAGE 3
(RAMPS OPEN)

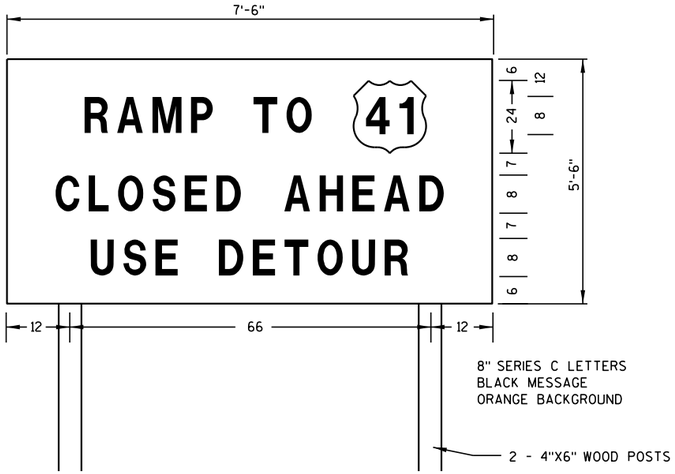
CMS ON EB CTH E

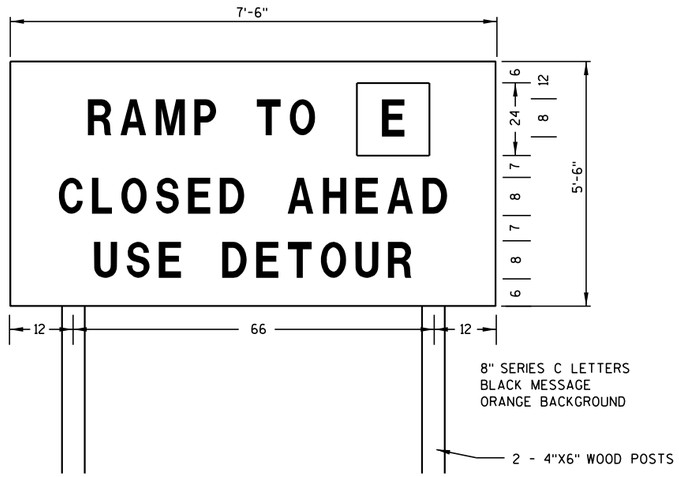
FRAME 1: RAMP CLOSED TO TRUCKS

FRAME 2: TRUCKS FOLLOW DETOUR

ALL OF STAGE 3

PORTABLE CHANGEABLE MESSAGE SIGNS





GENERAL NOTES:

1. ALL SIGNS TO HAVE FLUORESCENT REFLECTIVE SHEETING - REFERENCE: "WISDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION.
2. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.
3. ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"X6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN.
4. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "TRAFFIC CONTROL SIGNS FIXED MESSAGE".
5. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.
6. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS:
   8" CAPS SHALL BE SERIES "C"
7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.
8. SIGN BASE MATERIAL SHALL IN ACCORDANCE WITH SECTION 643 OF THE STANDARD SPECIFICATIONS.

2

2

BEGIN PROJECT
2010-10-70
STA 188+90.0
Y= 318591.66
X= 580532.75

POB STA 185+43.47
Y=318292.39
X=580707.45

℄ APPLETON AVE - USH 41

PI STA 201+61.06
Y = 319689.03
X = 579891.37

PI STA 216+06.55
Y = 320937.17
X = 579162.28

MATCHLINE STA 232+00

MON #1016
Y=320908.57
X=577157.23

MON #1017
Y= 318290.28
X= 579869.15

MON #1015
Y=320947.86
X=579911.31

MON #1018
Y= 318297.04
X= 582585.89

MON #1013
Y=323783.27
X=579969.58

T 7 N
R 21 E
04
09 04
10 03
03

838.30'
N89°51'27"E

1398.92'
N0°54'32"E

1878.45'
N89°51'27"E

2664.41'
N0°55'06"E

2764.23'
N89°14'51"E

1258.99'
N0°54'27"E

2005.26'
N89°10'58"E

749.10'
N89°10'58"E

2717.32'
N89°43'14"E

N01°10'38"E

2836.02'

190
200
210
220
230

N30°17'54"W
1617.59'
N30°17'27"W
1445.49'
N30°13'21"W
3297.10'

SECTION LINE
1/4 LINE
N

PROJECT NO: 2010-10-70	HWY: APPLETON AVENUE	COUNTY: MILWAUKEE	ALIGNMENT PLANS	SHEET 420 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap027201_ad.dgn
PLOT DATE : 12-AUG-2013 13:56 PLOT BY : kdew PLOT NAME : PLOT SCALE : 400:1
WISDOT/CADDS SHEET 42

2

N

MON ▪1016
Y=320908.57
X=577157.23

T 7 N
04
R 21 E

1/4 LINE

N1°11'10"E

2877.62'

SEC ▪7006
250+96.97,210.57' LT
Y= 323785.58
X= 577216.80

T 07 N
04
04
R 21 E

TOWNSHIP LINE

2343.61'

N89°53'35"E

2343.61'

SEC ▪8161
Y= 323781.20
X= 574873.19

T 08 N
33
32
R 21 E

SECTION LINE

N0°15'44"E

2626.99'

SEC ▪8148
STA 286+27.78
88.68' RT, ℄
Y= 326434.47
X= 574885.33

T 8 N
32
33
33
R21 E

MATCHLINE STA 232+00

N30°13'21"W

240

3294.40'

PI 249+03.65
Y = 323786.12
X = 577502.65

305.71'
N89°53'30"E

℄ APPLETON AVE - USH 41

PI STA 270+59.53
Y = 325371.46
X = 576041.66

PI STA 285+41.41
Y = 326434.40
X = 575009.12

123.79'
126.31'
176.31'
N44°12'37"

MATCHLINE STA 288+00

250
260
270
280

N42°39'46"W
2155.88'
N44°10'07"W
1481.89'

PI STA 287+17.72
Y = 326560.78
X = 574886.18

SEC ▪8162
248+93.69,17.17' RT
Y= 323786.16
X= 577522.50

T 08 N
33
33
R 21 E

1/4 LINE

N0°32'19"E

2646.94'

2538.27'

S89°58'04"E

1/4 LINE

2447.08'

S89°55'57"E

TOWNSHIP LINE

265.18'

MON ▪1013
Y= 323783.27
X= 579969.58

T 07 N
03
04
R 21 E

SEC ▪8149
Y=326432.98
X=577547.39

T 8 N
33
R21 E

PROJECT NO: 2010-10-70	HWY: APPLETON AVENUE	COUNTY: MILWAUKEE	ALIGNMENT PLANS	SHEET 421	E

2

MATCHLINE STA 288+00

N89°37'33"E 2654.43' 1/4 LINE

N00°17'34"E 2648.94' 1/4 LINE

USH 41
CURVE 1
PI = 318+22.25
Y = 328837.06
X = 572775.43
△ = 3°07'44"
D = 2°51'53"
R = 2000.00
T = 54.63
L = 109.22
E = 0.75
PC = 317+67.62
Y = 328797.58
X = 572813.19
PT = 318+76.84
Y = 328874.42
X = 572735.57

CTH E
CURVE 11
PI = 130+20.14
Y = 329133.35
X = 572616.07
△ = 14°41'32"
D = 2°49'01"
R = 2034.00
T = 262.23
L = 521.58
E = 16.83
PC = 127+57.91
Y = 329098.79
X = 572356.13
PT = 132+79.49
Y = 329100.84
X = 572876.28

CTH E
CURVE 10
PI = 124+99.01
Y = 329064.64
X = 572099.18
△ = 7°00'53"
D = 2°51'53"
R = 2000.00
T = 122.58
L = 244.86
E = 3.75
PC = 123+76.43
Y = 329063.44
X = 571976.61
PT = 126+21.28
Y = 329080.79
X = 572220.70

MON #1000
POB STA 99+97.93
℄ CTH E
Y= 329040.27
X= 569598.23

T 8 N R 21 E (31, 30, 32, 29)

2637.09' N00°28'31"E

100 SECTION LINE

290 N42°19'13"W 1958.66' 300 N43°43'34"W 1091.24' 310

℄ APPLETON AVE - USH 41

PI STA 306+76.38
Y = 328009.00
X = 573567.46

STA 322+23.67, ℄ USH 41 =
STA 128+84.97, ℄ CTH E
Y= 329111.59
X= 572482.52

PI CURVE 1
PC CURVE 1
PT CURVE 1
CURVE 1
320 S32°05'W 622.99'

PC CURVE 11
PT CURVE 11
CURVE 11
S46°51'18"E 2658.68'
S82°52'47"E 735.54'
102.16
0130

PC CURVE 10
624.15'W
PI CURVE 10
PT CURVE 10
C 10
C 2
420 N32°05'E 622.99'
N46°51'18"W

℄ RAMP SW
℄ RAMP NW
℄ RAMP SE
℄ RAMP NE

PI CURVE 12
PT CURVE 12
PC CURVE 12
PI CURVE 11
PT CURVE 2
PI CURVE 2
PC CURVE 2

SEC #8134
STA 126+42.93
17.75' RT
Y= 329066.05
X= 572244.49

T 8 N R 21 E (32, 29, 32, 29)

SECTION LINE 2646.39' N89°26'31"E 110 2378.50'

N47°47'17"W 330 622.99'

USH 41
CURVE 3
PI = 332+31.78
Y = 329792.71
X = 571739.34
△ = 1°34'47"
D = 2°51'53"
R = 2000.00
T = 27.58
L = 55.15
E = 0.19
PC = 332+04.21
Y = 329774.18
X = 571759.77
PT = 332+59.36
Y = 329811.79
X = 571719.44

PC CURVE 3
PI CURVE 3
PT CURVE 3
CURVE 3
N46°12'30"W 756.18'

USH 41
CURVE 4
PI = 340+49.48
Y = 330358.59
X = 571149.08
△ = 1°56'42"
D = 2°51'53"
R = 2000.00
T = 33.95
L = 67.89
E = 0.29
PC = 340+15.53
Y = 330335.10
X = 571173.58
PT = 340+83.42
Y = 330382.90
X = 571125.38

PC CURVE 4
PI CURVE 4
PT CURVE 4
CURVE 4
340 583.82' N44°15'48"W

MATCHLINE STA 344+00

USH 41
CURVE 2
PI = 325+40.51
Y = 329328.26
X = 572251.35
△ = 0°55'59"
D = 1°08'45"
R = 5000.00
T = 40.71
L = 81.42
E = 0.17
PC = 324+99.80
Y = 329300.42
X = 572281.05
PT = 325+81.21
Y = 329355.61
X = 572221.20

SECTION LINE 2523.38' N0°23'5"E

℄ W SILVER SPRING DRIVE - CTH E

SECTION LINE 140 1664.00' N89°36'39"E 150

SEC #8135
POE STA 153+07.78
℄ CTH E
Y= 329084.10
X= 574903.10

T 8 N R 21 E (33, 28, 32, 29)

CTH E
CURVE 12
PI = 135+12.90
Y = 329071.91
X = 573107.89
△ = 7°30'33"
D = 2°51'53"
R = 2000.00
T = 131.25
L = 262.12
E = 4.30
PC = 133+81.65
Y = 329088.18
X = 572977.65
PT = 136+43.77
Y = 329072.80
X = 573239.14

NOTE:
FOR RAMP ALIGNMENT DATA
SEE SIVLER SPRING RAMPS

N01°29'52"E 1/4 LINE 2642.48'

MON #1020
Y= 331707.63
X= 572313.56

T 8 N R 21 E (29)

PROJECT NO: 2010-10-70	HWY: APPLETON AVENUE	COUNTY: MILWAUKEE	ALIGNMENT PLANS	SHEET 422	E

2

2

MON #1000
Y= 329040.27
X= 569598.23

T 8 N
31 30
32 29
R 21 E

N01°15'55"E
2642.03'
SECTION LINE

MON #1010
STA 360+44.51
163.62' LT
Y= 331681.69
X= 569656.56

T 8 N
30 30
29 29
R 21 E

1/4 LINE
S88°57'42"W
2638.08'

N

END PROJECT
2010-10-70
STA 364+00.0

POE STA 380+70.50
Y = 333229.07
X = 568334.61

PI STA 366+13.49
Y = 332194.30
X = 569360.34

MATCHLINE STA 344+00

PC CURVE 5
PI CURVE 5
PT CURVE 5
583.82'
N44°15'48"W
C 5
350
N41°35'17"W
460.83'
PC CURVE 6
PI CURVE 6
CURVE 6
PT CURVE 6
N44°31'04"W
513.64'
PC CURVE 7
PI CURVE 7
CURVE 7
PT CURVE 7
233.08'
220.81'
360
N46°03'56"W
694.75'
370
N44°44'55"W
1457.01'

℄ APPLETON AVE - USH 41

STA 361+92.78, ℄
STA 358+78.25, ℄

2424.04'
N89°26'26"E
1/4 LINE

SECTION LINE
N01°45'06"E
2425.05'

MON #1020
Y= 331707.63
X= 572313.56

T 8 N
29
R 21 E

SEC #8107
Y= 334326.31
X= 569737.44

T 8 N
30 19
29 20
R 21 E

USH 41 CURVE 5

PI = 347+13.95
Y = 330834.45
X = 570685.30
△ = 2°40'31"
D = 2°51'53"
R = 2000.00
T = 46.70
L = 93.39
E = 0.55
PC = 346+67.25
Y = 330801.00
X = 570717.90
PT = 347+60.63
Y = 330869.38
X = 570654.30

USH 41 CURVE 6

PI = 352+72.61
Y = 331252.30
X = 570314.47
△ = 2°55'47"
D = 2°51'53"
R = 2000.00
T = 51.15
L = 102.27
E = 0.65
PC = 352+21.46
Y = 331214.05
X = 570348.42
PT = 353+23.73
Y = 331288.77
X = 570278.61

USH 41 CURVE 7

PI = 358+78.06
Y = 331684.03
X = 569889.95
△ = 1°32'52"
D = 1°54'08"
R = 3012.00
T = 40.69
L = 81.37
E = 0.27
PC = 358+37.37
Y = 331655.02
X = 569918.48
PT = 359+18.74
Y = 331712.26
X = 569860.65

PROJECT NO: 2010-10-70	HWY: APPLETON AVENUE	COUNTY: MILWAUKEE	ALIGNMENT PLANS	SHEET 423	E

2

N

℄ APPLETON AVE - USH 41

335

330

325

320

315

310

2642.48'

1/4 LINE

N01°29'52"E

RAMP NW
CURVE 13

PI = 421+47.57
Y = 329107.06
X = 571747.31
△ = 11°27'42"
D = 3°07'05"
R = 1837.49
T = 184.41
L = 367.58
E = 9.23
PC = 419+63.17
Y = 329105.57
X = 571562.92
PT = 423+30.75
Y = 329145.17
X = 571927.74

POB 418+47.56, ℄ RAMP NW=
STA 118+47.56, 46.33'LT, ℄ CTH E
Y= 329104.63
X= 571447.31

POE 427+63.60, ℄ RAMP NW=
STA 323+03.58, ℄ USH 41
Y= 329234.62
X= 572351.25

PC CURVE 13
PI CURVE 13
PT CURVE 13
℄ RAMP NW
425NW
N78°04'25"E
432.86'
420NW
115.61'
N89°32'07"E
CURVE 13

RAMP NE
CURVE 17

PI = 531+73.02
Y = 329213.77
X = 572780.07
△ = 12°38'30"
D = 5°43'46"
R = 1000.00
T = 110.77
L = 220.64
E = 6.12
PC = 530+62.25
Y = 329218.23
X = 572669.39
PT = 532+82.90
Y = 329185.20
X = 572887.09

POB 527+47.84, ℄ RAMP NE=
STA 323+98.14, ℄ USH 41
Y= 329230.90
X= 572355.22

℄ RAMP NE
PC CURVE 17
PI CURVE 17
PT CURVE 17
S87°41'30"E 314.42'
CURVE 17
S75°02'59"E
189.30'

RAMP NE
CURVE 18

PI = 535+31.46
Y = 329121.07
X = 573127.24
△ = 13°17'36"
D = 11°15'59"
R = 508.56
T = 59.26
L = 117.99
E = 3.44
PC = 534+72.20
Y = 329136.36
X = 573069.98
PT = 535+90.19
Y = 329119.36
X = 573186.48

PC CURVE 18
PI CURVE 18
CURVE 18

PT CURVE 18/POE 527+47.84, ℄ RAMP NE=
STA 135+90.19, 46.21'LT, ℄ CTH E
Y= 329119.36
X= 573186.48

℄ W SILVER SPRING DRIVE - CTH E

115
SECTION LINE
N89°26'31"E
120
125
2646.39'
130
284.56'
STA 321+59.90, ℄ USH 41
N89°36'39"E
135
140
2658.68'
SECTION LINE

S83°43'31"E
68.04'
CURVE 15
625SW
N89°40'29"E
667.55'
729SE
N87°01'54"E
377.21'
CURVE 19
735SE
106.34'
S88°13'11"E

PT CURVE 19/POE 735+79.05, ℄ RAMP SE=
STA 135+79.05, 46.36'RT ℄ CTH E
Y= 329027.06
X= 573173.23

POB 622+22.95, ℄ RAMP SW=
STA 122+22.11, 62.83'RT, ℄ CTH E
Y= 328999.11
X= 571822.91

PC CURVE 15
PI CURVE 15
PT CURVE 15
℄ RAMP SW

630SW

PC CURVE 19
PI CURVE 19
PT CURVE 19

RAMP SE
CURVE 19

PI = 734+23.16
Y = 329031.91
X = 573017.36
△ = 4°44'55"
D = 4°47'20"
R = 1196.40
T = 49.61
L = 99.13
E = 1.03
PC = 733+73.56
Y = 329029.34
X = 572697.82
PT = 734+72.71
Y = 329030.36
X = 572066.94

STA 322+23.67, ℄ USH 41 =
STA 128+84.97, ℄ CTH E
Y= 329111.59
X= 572482.52

POE 729+96.35, ℄ RAMP SE=
STA 320+74.83, ℄ USH 41
Y= 329009.80
X= 572591.12

POE 630+13.76, ℄ RAMP SW=
STA 323+23.67, ℄ USH 41
Y= 328989.12
X= 572613.19

SEC #8134
STA 126+42.93
17.75'RT
Y= 329066.05
X= 572244.49

T 8 N
29 29
32 32
R 21 E

RAMP SW
CURVE 15

PI = 623.16.66
Y = 328988.87
X = 571916.06
△ = 6°36'00"
D = 12°52'13"
R = 445.18
T = 25.67
L = 51.28
E = 0.74
PC = 622+90.99
Y = 328991.67
X = 571890.54
PT = 623+42.27
Y = 328989.01
X = 571941.73

N00°17'34"E
1/4 LINE
2648.94'

PROJECT NO: 2010-10-70	HWY: APPLETON AVENUE	COUNTY: MILWAUKEE	ALIGNMENT PLANS - SILVER SPRING RAMPS	SHEET 424	E

DATE 02JAN14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2010-10-70 QUANTITY
0010	201.0120	CLEARING	ID	48.000	48.000
0020	201.0220	GRUBBING	ID	48.000	48.000
0030	203.0200	REMOVING OLD STRUCTURE (STATION) 01. 322+23.18	LS	1.000	1.000
0040	203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 01. B-40-325	LS	1.000	1.000
0050	203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 02. B-40-326	LS	1.000	1.000
0060	203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 03. B-40-328	LS	1.000	1.000
0070	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 01. B-40-328	LS	1.000	1.000
0080	204.0100	REMOVING PAVEMENT	SY	23,160.000	23,160.000
0090	204.0109.S	REMOVING CONCRETE SURFACE PARTIAL DEPTH	SF	1,143,860.000	1,143,860.000
0100	204.0110	REMOVING ASPHALTIC SURFACE	SY	60.000	60.000
0110	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	139,290.000	139,290.000
0120	204.0150	REMOVING CURB & GUTTER	LF	9,750.000	9,750.000
0130	204.0155	REMOVING CONCRETE SIDEWALK	SY	7,580.000	7,580.000
0140	204.0165	REMOVING GUARDRAIL	LF	1,400.000	1,400.000
0150	204.0170	REMOVING FENCE	LF	315.000	315.000
0160	204.0195	REMOVING CONCRETE BASES	EACH	49.000	49.000
0170	204.0220	REMOVING INLETS	EACH	18.000	18.000
0180	204.0245	REMOVING STORM SEWER (SIZE) 01. 6-INCH	LF	38.000	38.000
0190	204.0245	REMOVING STORM SEWER (SIZE) 02. 8-INCH	LF	290.000	290.000
0200	204.0245	REMOVING STORM SEWER (SIZE) 03. 12-INCH	LF	52.000	52.000
0210	204.0260	ABANDONING INLETS	EACH	1.000	1.000
0220	204.9060.S	REMOVING (ITEM DESCRIPTION) 01. SAND BARRELS	EACH	26.000	26.000
0230	205.0100	EXCAVATION COMMON	CY	9,265.000	9,265.000
0240	205.0501.S	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	TON	34.000	34.000
0250	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-40-325	LS	1.000	1.000
0260	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 02. B-40-328	LS	1.000	1.000
0270	210.0100	BACKFILL STRUCTURE	CY	92.000	92.000
0280	213.0100	FINISHING ROADWAY (PROJECT) 01. 2010-10-70	EACH	1.000	1.000
0290	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	18,460.000	18,460.000
0300	320.0145	CONCRETE BASE 8-INCH	SY	10,200.000	10,200.000
0310	320.0345	CONCRETE BASE HES 8-INCH	SY	750.000	750.000
0320	390.0303	BASE PATCHING CONCRETE	SY	1,950.000	1,950.000
0330	390.0403	BASE PATCHING CONCRETE SHES	SY	210.000	210.000
0340	415.0090	CONCRETE PAVEMENT 9-INCH	SY	310.000	310.000
0350	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	860.000	860.000
0360	416.0170	CONCRETE DRIVEWAY 7-INCH	SY	500.000	500.000
0370	416.0610	DRILLED TIE BARS	EACH	7,900.000	7,900.000
0380	416.0620	DRILLED DOWEL BARS	EACH	3,100.000	3,100.000
0390	416.1010	CONCRETE SURFACE DRAINS	CY	5.000	5.000
0400	440.4410.S	INCENTIVE IRI RIDE	DOL	56,660.000	56,660.000
0410	455.0115	ASPHALTIC MATERIAL PG64-22	TON	1,300.000	1,300.000
0420	455.0120	ASPHALTIC MATERIAL PG64-28	TON	940.000	940.000
0430	455.0605	TACK COAT	GAL	8,225.000	8,225.000
0440	460.1103	HMA PAVEMENT TYPE E-3	TON	37,190.000	37,190.000
0450	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	23,870.000	23,870.000

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DATE 02JAN14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2010-10-70 QUANTITY
0460	465.0105	ASPHALTIC SURFACE	TON	1.000	1.000
0470	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	1,200.000	1,200.000
0480	465.0310	ASPHALTIC CURB	LF	225.000	225.000
0490	502.0100	CONCRETE MASONRY BRIDGES	CY	668.000	668.000
0500	502.0717.S	CRACK SEALING EPOXY	LF	470.000	470.000
0510	502.2000	COMPRESSION JOINT SEALER PREFORMED ELASTOMERIC (WIDTH) 01. 2 1/2-INCH	LF	174.000	174.000
0520	502.3100	EXPANSION DEVICE (STRUCTURE) 01. B-40-328	LS	1.000	1.000
0530	502.3200	PROTECTIVE SURFACE TREATMENT	SY	3,634.000	3,634.000
0540	502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	736.000	736.000
0550	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	146,510.000	146,510.000
0560	506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	28.000	28.000
0570	506.5000	BEARING ASSEMBLIES FIXED (STRUCTURE) 01. B-40-328	EACH	14.000	14.000
0580	506.7050.S	REMOVING BEARINGS (STRUCTURE) 01. B-40-328	EACH	42.000	42.000
0590	506.7060.S	BRIDGE JACKING (STRUCTURE) 01. B-40-328	LS	1.000	1.000
0600	509.0301	PREPARATION DECKS TYPE 1	SY	211.000	211.000
0610	509.0302	PREPARATION DECKS TYPE 2	SY	85.000	85.000
0620	509.1200	CURB REPAIR	LF	35.000	35.000
0630	509.1500	CONCRETE SURFACE REPAIR	SF	870.000	870.000
0640	509.2000	FULL-DEPTH DECK REPAIR	SY	16.000	16.000
0650	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	69.000	69.000
0660	509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY (STRUCTURE) 01. B-40-325	SY	487.000	487.000
0670	509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY (STRUCTURE) 02. B-40-326	SY	487.000	487.000
0680	509.9020.S	EPOXY CRACK SEALING	LF	340.000	340.000
0690	513.9005.S	REMOVING AND RESETTING TUBULAR RAILING (STRUCTURE) 01. B-40-325	LS	1.000	1.000
0700	513.9005.S	REMOVING AND RESETTING TUBULAR RAILING (STRUCTURE) 02. B-40-326	LS	1.000	1.000
0710	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	62.000	62.000
0720	517.0900.S	PREPARATION AND COATING OF TOP FLANGES (STRUCTURE) 01. B-40-328	LS	1.000	1.000
0730	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 01. B-40-328	LS	1.000	1.000
0740	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 01. B-40-328	LS	1.000	1.000
0750	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1.000	1.000
0760	520.1024	APRON ENDWALLS FOR CULVERT PIPE 24-INCH	EACH	2.000	2.000
0770	520.4024	CULVERT PIPE TEMPORARY 24-INCH	LF	589.000	589.000
0780	520.8000	CONCRETE COLLARS FOR PIPE	EACH	13.000	13.000
0790	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	1.000	1.000
0800	601.0407	CONCRETE CURB & GUTTER 18-INCH TYPE D	LF	800.000	800.000
0810	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A	LF	11,100.000	11,100.000
0820	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	5,030.000	5,030.000
0830	601.0600	CONCRETE CURB PEDESTRIAN	LF	1,400.000	1,400.000
0840	602.0410	CONCRETE SIDEWALK 5-INCH	SF	79,600.000	79,600.000
0850	602.0420	CONCRETE SIDEWALK 7-INCH	SF	10,300.000	10,300.000
0860	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	1,576.000	1,576.000

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DATE 02JAN14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2010-10-70 QUANTITY
0870	603.1136	CONCRETE BARRIER TYPE S36	LF	204.000	204.000
0880	603.1336	CONCRETE BARRIER TYPE S36B	LF	11.000	11.000
0890	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	300.000	300.000
0900	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	600.000	600.000
0910	606.0100	RIPRAP LIGHT	CY	50.000	50.000
0920	606.0200	RIPRAP MEDIUM	CY	2.000	2.000
0930	607.0406	STORM SEWER PIPE COMPOSITE 6-INCH	LF	8.000	8.000
0940	607.0408	STORM SEWER PIPE COMPOSITE 8-INCH	LF	40.000	40.000
0950	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	621.000	621.000
0960	609.0124	RELAID STORM SEWER 24-INCH	LF	22.000	22.000
0970	611.0420	RECONSTRUCTING MANHOLES	EACH	4.000	4.000
0980	611.0430	RECONSTRUCTING INLETS	EACH	42.000	42.000
0990	611.0530	MANHOLE COVERS TYPE J	EACH	1.000	1.000
1000	611.0624	INLET COVERS TYPE H	EACH	10.000	10.000
1010	611.0642	INLET COVERS TYPE MS	EACH	2.000	2.000
1020	611.1003	CATCH BASINS 3-FT DIAMETER	EACH	12.000	12.000
1030	611.3230	INLETS 2X3-FT	EACH	10.000	10.000
1040	611.3901	INLETS MEDIAN 1 GRATE	EACH	2.000	2.000
1050	611.8110	ADJUSTING MANHOLE COVERS	EACH	145.000	145.000
1060	611.8115	ADJUSTING INLET COVERS	EACH	79.000	79.000
1070	611.8120.S	COVER PLATES TEMPORARY	EACH	184.000	184.000
1080	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	70.000	70.000
1090	612.0208	PIPE UNDERDRAIN UNPERFORATED 8-INCH	LF	40.000	40.000
1100	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	6.000	6.000
1110	614.0200	STEEL THRIE BEAM STRUCTURE APPROACH	LF	15.000	15.000
1120	614.0220	STEEL THRIE BEAM BULLNOSE TERMINAL	EACH	1.000	1.000
1130	614.0230	STEEL THRIE BEAM	LF	40.000	40.000
1140	614.0395	GUARDRAIL MOW STRIP CONCRETE	SY	51.000	51.000
1150	614.0805	CRASH CUSHIONS PERMANENT LOW MAINTENANCE	EACH	1.000	1.000
1160	614.0905	CRASH CUSHIONS TEMPORARY	EACH	4.000	4.000
1170	614.2300	MGS GUARDRAIL 3	LF	900.000	900.000
1180	614.2310	MGS GUARDRAIL 3 HS	LF	75.000	75.000
1190	614.2320	MGS GUARDRAIL 3 QS	LF	200.000	200.000
1200	614.2500	MGS THRIE BEAM TRANSITION	LF	240.000	240.000
1210	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	4.000	4.000
1220	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	2.000	2.000
1230	616.0208	FENCE CHAIN LINK 8-FT	LF	423.000	423.000
1240	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 2010-10-70	EACH	1.000	1.000
1250	619.1000	MOBILIZATION	EACH	1.000	1.000
1260	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	2,650.000	2,650.000
1270	624.0100	WATER	MGAL	230.000	230.000
1280	625.0100	TOPSOIL	SY	16,400.000	16,400.000
1290	628.1104	EROSION BALES	EACH	50.000	50.000
1300	628.1504	SILT FENCE	LF	3,200.000	3,200.000
1310	628.1520	SILT FENCE MAINTENANCE	LF	3,200.000	3,200.000
1320	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	9.000	9.000
1330	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	7.000	7.000
1340	628.2027	EROSION MAT CLASS II TYPE C	SY	5,000.000	5,000.000
1350	628.7005	INLET PROTECTION TYPE A	EACH	160.000	160.000
1360	628.7010	INLET PROTECTION TYPE B	EACH	74.000	74.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2010-10-70 QUANTITY
1370	628.7015	INLET PROTECTION TYPE C	EACH	13.000	13.000
1380	628.7020	INLET PROTECTION TYPE D	EACH	136.000	136.000
1390	628.7560	TRACKING PADS	EACH	8.000	8.000
1400	629.0210	FERTILIZER TYPE B	CWT	9.000	9.000
1410	630.0140	SEEDING MIXTURE NO. 40	LB	150.000	150.000
1420	630.0200	SEEDING TEMPORARY	LB	120.000	120.000
1430	631.0300	SOD WATER	MGAL	1,600.000	1,600.000
1440	631.1000	SOD LAWN	SY	10,850.000	10,850.000
1450	632.0101	TREES (SPECIES, ROOT, SIZE) 01. JAPANESE TREE LILAC IVORY SILK B&B, 3" CAL	EACH	4.000	4.000
1460	632.0101	TREES (SPECIES, ROOT, SIZE) 02. CRIMSON SPIRE ENGLISH OAK B&B, 3" CAL	EACH	2.000	2.000
1470	632.0101	TREES (SPECIES, ROOT, SIZE) 03. CALLERY PEAR B&B, 3" CAL	EACH	4.000	4.000
1480	632.9101	LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	EACH	12.000	12.000
1490	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	224.000	224.000
1500	637.2210	SIGNS TYPE II REFLECTIVE H	SF	2,194.450	2,194.450
1510	637.2230	SIGNS TYPE II REFLECTIVE F	SF	525.250	525.250
1520	638.2602	REMOVING SIGNS TYPE II	EACH	270.000	270.000
1530	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	110.000	110.000
1540	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
1550	643.0100	TRAFFIC CONTROL (PROJECT) 01. 2010-10-70	EACH	1.000	1.000
1560	643.0300	TRAFFIC CONTROL DRUMS	DAY	130,000.000	130,000.000
1570	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	34,300.000	34,300.000
1580	643.0500	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	EACH	220.000	220.000
1590	643.0600	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	EACH	220.000	220.000
1600	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	68,300.000	68,300.000
1610	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	18,500.000	18,500.000
1620	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	310.000	310.000
1630	643.0900	TRAFFIC CONTROL SIGNS	DAY	26,300.000	26,300.000
1640	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	25.000	25.000
1650	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	330.000	330.000
1660	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	300.000	300.000
1670	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 2010-10-70	EACH	1.000	1.000
1680	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	6,000.000	6,000.000
1690	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	20.000	20.000
1700	645.0130	GEOTEXTILE FABRIC TYPE R	SY	111.000	111.000
1710	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	29,310.000	29,310.000
1720	646.0600	REMOVING PAVEMENT MARKINGS	LF	3,350.000	3,350.000
1730	646.0881.S	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH	LF	8,030.000	8,030.000
1740	646.0883.S	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH	LF	5,150.000	5,150.000
1750	647.0456	PAVEMENT MARKING CURB EPOXY	LF	3,380.000	3,380.000
1760	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	85.000	85.000
1770	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	310.000	310.000
1780	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	23,700.000	23,700.000
1790	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	28,300.000	28,300.000
1800	649.0701	TEMPORARY PAVEMENT MARKING 8-INCH	LF	6,120.000	6,120.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2010-10-70 QUANTITY
1810	649.0801	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH	LF	2,810.000	2,810.000
1820	649.0900	TEMPORARY PAVEMENT MARKING STOP LINE 12-INCH	LF	350.000	350.000
1830	649.1000	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 12-INCH	LF	480.000	480.000
1840	649.1500	TEMPORARY PAVEMENT MARKING DIAGONAL 12-INCH	LF	570.000	570.000
1850	649.1600	TEMPORARY PAVEMENT MARKING DIAGONAL REMOVABLE TAPE 12-INCH	LF	480.000	480.000
1860	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	24.000	24.000
1870	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	3,600.000	3,600.000
1880	650.5000	CONSTRUCTION STAKING BASE	LF	3,600.000	3,600.000
1890	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	14,550.000	14,550.000
1900	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-40-328	LS	1.000	1.000
1910	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	2,365.000	2,365.000
1920	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	17,510.000	17,510.000
1930	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 2010-10-70	LS	1.000	1.000
1940	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 2010-10-70	LS	1.000	1.000
1950	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	5,660.000	5,660.000
1960	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	216.000	216.000
1970	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	1,629.000	1,629.000
1980	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	3,825.000	3,825.000
1990	652.0605	CONDUIT SPECIAL 2-INCH	LF	885.000	885.000
2000	652.0615	CONDUIT SPECIAL 3-INCH	LF	4,610.000	4,610.000
2010	652.0800	CONDUIT LOOP DETECTOR	LF	550.000	550.000
2020	652.0900	LOOP DETECTOR SLOTS	LF	504.000	504.000
2030	653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	2.000	2.000
2040	653.0905	REMOVING PULL BOXES	EACH	72.000	72.000
2050	654.0110	CONCRETE BASES TYPE 10	EACH	17.000	17.000
2060	654.0113	CONCRETE BASES TYPE 13	EACH	2.000	2.000
2070	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	2.000	2.000
2080	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 01. USH 41 & CONGRESS ST	LS	1.000	1.000
2090	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 02. USH 41 & HAMPTON AVE	LS	1.000	1.000
2100	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 03. USH 41 & GRANTOSA DR	LS	1.000	1.000
2110	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 04. USH 41 & 91ST ST	LS	1.000	1.000
2120	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 05. USH 41 & CARMEN AVE	LS	1.000	1.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2010-10-70 QUANTITY
2130	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 06. USH 41 & 107TH ST	LS	1.000	1.000
2140	661.0300	GENERATORS	DAY	12.000	12.000
2150	690.0150	SAWING ASPHALT	LF	2,700.000	2,700.000
2160	690.0250	SAWING CONCRETE	LF	35,200.000	35,200.000
2170	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	4,000.000	4,000.000
2180	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	3,000.000	3,000.000
2190	SPV.0035	SPECIAL 01. CONCRETE SURFACE REPAIR CORROSION INHIBITING ADMIXTURE	CY	8.600	8.600
2200	SPV.0060	SPECIAL 01. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS	EACH	17.000	17.000
2210	SPV.0060	SPECIAL 02. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2	EACH	43.000	43.000
2220	SPV.0060	SPECIAL 03. INLET COVERS TYPE 57	EACH	13.000	13.000
2230	SPV.0060	SPECIAL 04. RAILING ANCHOR ASSEMBLY	EACH	9.000	9.000
2240	SPV.0060	SPECIAL 05. STORM SEWER PIPE COUPLINGS 6-INCH	EACH	2.000	2.000
2250	SPV.0060	SPECIAL 06. STORM SEWER PIPE COUPLINGS 8-INCH	EACH	7.000	7.000
2260	SPV.0060	SPECIAL 07. CONCRETE BASE TYPE 10 SPECIAL	EACH	7.000	7.000
2270	SPV.0060	SPECIAL 08. PRE-CAST TRAFFIC SIGNAL BASES	EACH	44.000	44.000
2280	SPV.0060	SPECIAL 09. PRE-CAST TRAFFIC CONTROL CABINET BASES	EACH	6.000	6.000
2290	SPV.0060	SPECIAL 10. RECTANGULAR VAULT 13"X24"X18"	EACH	10.000	10.000
2300	SPV.0060	SPECIAL 11. RECTANGULAR VAULT 13"X24"X24"	EACH	6.000	6.000
2310	SPV.0060	SPECIAL 12. RECTANGULAR VAULT 17"X30"X18"	EACH	76.000	76.000
2320	SPV.0060	SPECIAL 13. POLES TYPE 9	EACH	8.000	8.000
2330	SPV.0060	SPECIAL 14. POLES TYPE 10	EACH	9.000	9.000
2340	SPV.0060	SPECIAL 15. POLES TYPE 12	EACH	2.000	2.000
2350	SPV.0060	SPECIAL 16. POLES TYPE 12 SPECIAL	EACH	6.000	6.000
2360	SPV.0060	SPECIAL 17. POLES TYPE 13 SPECIAL	EACH	1.000	1.000
2370	SPV.0060	SPECIAL 18. MONOTUBE ARMS 20-FT	EACH	2.000	2.000
2380	SPV.0060	SPECIAL 19. MONOTUBE ARMS 25-FT	EACH	7.000	7.000
2390	SPV.0060	SPECIAL 20. MONOTUBE ARMS 30-FT	EACH	8.000	8.000
2400	SPV.0060	SPECIAL 21. MONOTUBE ARMS 35-FT	EACH	5.000	5.000
2410	SPV.0060	SPECIAL 22. MONOTUBE ARMS 40-FT	EACH	2.000	2.000
2420	SPV.0060	SPECIAL 23. MONOTUBE ARMS 45-FT	EACH	2.000	2.000
2430	SPV.0060	SPECIAL 24. ADJUSTING WATER BOXES	EACH	222.000	222.000
2440	SPV.0060	SPECIAL 25. ADJUSTING WATER MANHOLES	EACH	7.000	7.000
2450	SPV.0060	SPECIAL 26. EMBEDDED GALVANIC ANODES	EACH	100.000	100.000
2460	SPV.0060	SPECIAL 27. STEEL DIAPHRAGM SPECIAL B-40-328	EACH	9.000	9.000
2470	SPV.0060	SPECIAL 28. ADJUSTING SANITARY MANHOLE COVERS	EACH	79.000	79.000
2480	SPV.0060	SPECIAL 29. RECONSTRUCTING SANITARY MANHOLES	EACH	8.000	8.000
2490	SPV.0060	SPECIAL 30. REPLACING SANITARY MANHOLE COVERS	EACH	8.000	8.000
2500	SPV.0060	SPECIAL 31. INTERNAL MANHOLE CHIMNEY SEALS	EACH	79.000	79.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2010-10-70 QUANTITY
2510	SPV.0060	SPECIAL 32. ADJUSTING TES MANHOLE COVERS	EACH	39.000	39.000
2520	SPV.0070	SPECIAL 01. CORROSION INHIBITING PROTECTIVE COATING	GAL	20.000	20.000
2530	SPV.0090	SPECIAL 01. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 12-INCH	LF	7,460.000	7,460.000
2540	SPV.0090	SPECIAL 02. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 24-INCH	LF	1,520.000	1,520.000
2550	SPV.0090	SPECIAL 03. CONCRETE CURB & GUTTER 30-INCH TYPE A 1 3/4-INCH	LF	970.000	970.000
2560	SPV.0090	SPECIAL 04. REMOVING OLD PARAPET OVER WATERWAY WITH MINIMAL DEBRIS STRUCTURE B-40-326	LF	62.000	62.000
2570	SPV.0090	SPECIAL 05. RELAPPING STEEL PLATE BEAM GAURD	LF	620.000	620.000
2580	SPV.0105	SPECIAL 01. REMOVE TRAFFIC SIGNALS (INTERSECT OF USH 41 & CONGRESS ST)	LS	1.000	1.000
2590	SPV.0105	SPECIAL 02. REMOVE TRAFFIC SIGNALS (INTERSECT OF USH 41 & HAMPTON AVE)	LS	1.000	1.000
2600	SPV.0105	SPECIAL 03. REMOVE TRAFFIC SIGNALS (INTERSECT OF USH 41 & GRANTOSA DR)	LS	1.000	1.000
2610	SPV.0105	SPECIAL 04. REMOVE TRAFFIC SIGNALS (INTERSECT OF USH 41 & 91ST ST)	LS	1.000	1.000
2620	SPV.0105	SPECIAL 05. REMOVE TRAFFIC SIGNALS (INTERSECT OF USH 41 & CARMEN AVE)	LS	1.000	1.000
2630	SPV.0105	SPECIAL 06. REMOVE TRAFFIC SIGNALS (INTERSECT OF USH 41 & 107TH ST)	LS	1.000	1.000
2640	SPV.0105	SPECIAL 07. UNDERDECK UTILITY STRUCTURE B-40-328, CITY OF MILWAUKEE CONDUIT	LS	1.000	1.000
2650	SPV.0195	SPECIAL 01. CRACK AND JOINT REPAIR	TON	210.000	210.000

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CLEARING AND GRUBBING ITEMS

CATEGORY	LOCATION	201.0120 CLEARING ID	201.0220 GRUBBING ID
0010	USH 41 / APPLETON AVE		
	STA 242+70	5	5
	STA 243+20	7	7
	STA 264+62, 50' LT	19	19
	STA 271+53, 50' RT	17	17
	TOTALS	48	48

REMOVING PAVEMENT

CATEGORY	LOCATION	STA	TO	STA	OFFSET	204.0100 SY
0010	USH 41 / APPLETON AVE					
		188+90	-	199+75	LT / RT	8,224
		199+75	-	210+75		422
		210+75	-	222+75		336
		222+75	-	234+75		71
		234+75	-	246+75		540
		246+75	-	258+75		596
		258+75	-	270+75		228
		270+75	-	282+80		151
		282+80	-	294+75		604
		294+75	-	306+75		309
		306+75	-	318+30		365
		318+30	-	326+00	LT / RT	5,755
		326+00	-	330+75		164
		330+75	-	341+75		83
		341+75	-	352+75		243
		352+75	-	364+00	LT / RT	61
0010	SILVER SPRING DR / CTH E					
	NW RAMP				LT / RT	1,425
	SW RAMP				LT / RT	1,304
	NE RAMP				LT / RT	1,314
	SE RAMP				LT / RT	965
	TOTAL					23,160

REMOVING CONCRETE SURFACE PARTIAL DEPTH

CATEGORY	LOCATION	STA	TO	STA	204.0109.S SF
0050	USH 41 / APPLETON AVE				
		188+90	-	199+75	--
		199+75	-	210+75	51,880
		210+75	-	222+75	97,671
		222+75	-	234+75	81,809
		234+75	-	246+75	84,112
		246+75	-	258+75	115,891
		258+75	-	270+75	81,122
		270+75	-	282+80	87,743
		282+80	-	294+75	104,177
		294+75	-	306+75	81,675
		306+75	-	318+30	87,557
		326+00	-	330+75	38,308
		330+75	-	341+75	80,960
		341+75	-	352+75	68,487
		352+75	-	364+00	82,468
	TOTAL				1,143,860

REMOVING ASPHALTIC SURFACE

CATEGORY	LOCATION	STA	TO	STA	204.0110 SY
0010	USH 41 / APPLETON AVE				
		199+75	-	210+75	40
		246+75	-	258+75	20
	TOTAL				60

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	LOCATION	STA	TO	STA	204.0120 SY
0050	USH 41 / APPLETON AVE				
		188+90	-	199+75	500
		199+75	-	210+75	6,400
		210+75	-	222+75	11,870
		222+75	-	234+75	10,120
		234+75	-	246+75	10,370
		246+75	-	258+75	13,959
		258+75	-	270+75	10,050
		270+75	-	282+80	10,770
		282+80	-	294+75	12,587
		294+75	-	306+75	10,100
		306+75	-	318+30	10,650
		326+00	-	330+75	3,890
		330+75	-	341+75	9,760
		341+75	-	352+75	8,227
		352+75	-	364+00	10,037
	TOTAL				139,290

REMOVING CURB & GUTTER

CATEGORY	LOCATION	STA	TO	STA	204.0150 LF
0010	USH 41 / APPLETON AVE				
		188+90	-	199+75	1,640
		199+75	-	210+75	880
		210+75	-	222+75	621
		222+75	-	234+75	328
		234+75	-	246+75	616
		246+75	-	258+75	557
		258+75	-	270+75	187
		270+75	-	282+80	408
		282+80	-	294+75	326
		294+75	-	306+75	917
		306+75	-	318+30	567
		326+00	-	330+75	275
		330+75	-	341+75	631
		341+75	-	352+75	1,456
		352+75	-	380+70.5	341
	TOTAL				9,750

REMOVING CONCRETE SIDEWALK

CATEGORY	LOCATION	STA	TO	STA	OFFSET	204.0155 SY
0010	USH 41 / APPLETON AVE					
		341+75	-	352+75		75
		318+30	-	326+00		341
	SILVER SPRING DR / CTH E					
	ALL RAMPS					680
	CATEGORY 0010 SUBTOTAL					1,096
0060	USH 41 / APPLETON AVE					
		188+90	-	199+75	RT	305
		199+75	-	210+75		459
		210+75	-	222+75		252
		222+75	-	234+75		127
		234+75	-	246+75		136
		246+75	-	258+75		327
		258+75	-	270+75		84
		270+75	-	282+80		203
		282+80	-	294+75		130
		294+75	-	306+75		8
		306+75	-	318+30		171
		326+00	-	330+75		28
		330+75	-	341+75		58
		341+75	-	352+75		127
		352+75	-	364+00		18
	CATEGORY 0060 SUBTOTAL					2,433
0070	USH 41 / APPLETON AVE					
		188+90	-	199+75	RT	807
		199+75	-	210+75		357
		210+75	-	222+75		547
		222+75	-	234+75		593
		234+75	-	246+75		283
		246+75	-	258+75		225
		258+75	-	270+75		406
		270+75	-	282+80		392
		282+80	-	294+75		196
		294+75	-	306+75		12
		306+75	-	318+30		41
		326+00	-	330+75		22
		330+75	-	341+75		46
		341+75	-	352+75		111
		352+75	-	364+00		13
	CATEGORY 0070 SUBTOTAL					4,051
	TOTAL					7,580

REMOVING GUARDRAIL

CATEGORY	LOCATION	STA	TO	STA	204.0165 LF
0010	USH 41 / APPLETON AVE				
		341+40	-	350+41	1,400
	TOTAL				1,400

REMOVING FENCE

CATEGORY	LOCATION	STA	TO	STA	204.0170 LF
0010	USH 41 / APPLETON AVE				
		377+33	-	380+47	315
	TOTAL				315

REMOVING STORM SEWER ITEMS

CATEGORY	STRUCTURE NO.	STA OFFSET	204.0220 REMOVING INLETS EACH	* 204.0245.01 REMOVING STORM SEWER 6-INCH LF	204.0245.02 REMOVING STORM SEWER 8-INCH LF	204.0245.03 REMOVING STORM SEWER 12-INCH LF
0010	601	194+02, 46' RT	1	4	--	--
	602	204+06, 47' LT	1	4	--	--
	603	204+76, 47' RT	1	--	4	--
	604	208+96, 47' LT	1	--	4	--
	605	215+75, 47' LT	1	--	4	--
	606	232+97, 47' LT	1	--	4	--
	607	233+98, 47' LT	1	--	4	--
	608	232+98, 47' RT	1	--	4	--
	609	250+46, 93' LT	1	--	4	7
	610	250+52, 46' LT	1	--	14	--
	611	320+52, 46' RT	1	--	63	--
	613	321+44, 46' LT	1	--	12	--
	614	322+93, 46' RT	1	--	13	--
	P19A	323+90, 48' LT	--	--	40	--
	615	324+05, 47' LT	1	--	90	--
	616	325+33, 47' RT	1	--	30	--
	625	334+20, 68' RT	1	--	--	--
	626	347+74, 0' RT	1	--	--	32
	629	343+00, 0' RT	1	--	--	13
	TOTALS		18	8	290	52

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ABANDONING INLETS

CATEGORY	STRUCTURE NUMBER	STA OFFSET	204.0260 ABANDONING INLETS EACH	* 204.0245.01 REMOVING STORM SEWER 6-INCH LF
0010	501	215+51, 5' LT	1	30
	TOTALS		1	30

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING SAND BARRELS

CATEGORY	LOCATION	STA	TO	STA	204.9060.S.01 EACH
0010	USH 41 / APPLETON AVE				
		342+93	-	349+79	26
	TOTAL				26

EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL

CATEGORY	LOCATION	STA	TO	STA	LOC	205.0501.S TONS
0010	USH 41 / APPLETON AVE					
		248+00	-	249+50	LT	34
	TOTAL					34

FINISHING ROADWAY PROJECT ID 2010-10-70

CATEGORY	STAGE		213.0100 EACH
0010	ALL	PROJECT	1
	TOTAL		1

EARTHWORK SUMMARY

Stage	From / To Station	Location	Common Excavation (1) Cut (2) CY	Available Material (5)	Unexpanded Fill	Expanded Fill (13) Factor 1.25	Mass Ordinate + / - (14)	Waste	Comment:
1A/B/C	188+90 - 212+00	Appleton Ave	195	195	0	0	195		
	300+75 - 379+93	Appleton Ave	875	875	0	0	875		
Stage 1A/1B/1C Subtotal			1,070	1,070	0	0	1,070	1,070	
2	212+00 - 318+30	Appleton Ave	603	603	0	0	603		
	318+30 - 326+00	Appleton Ave @ Silver Spring Int.	945	228	493	616	-388		
	326+00 - 374+75	Appleton Ave	527	527	17	21	506		
	623SW+65 - 629SW+20	SW Ramp	887	417	235	294	123		
	421NW+66 - 427NW+00	NW Ramp	695	318	232	290	28		
Stage 2 Subtotal			3,657	2,093	977	1,221	872	872	
3	212+00 - 318+30	Appleton Ave	90	90	0	0	90		
	318+30 - 326+00	Appleton Ave @ Silver Spring Int.	988	253	484	605	-352		
	326+00 - 374+75	Appleton Ave	490	490	27	34	456		
	731SE+00 - 734SE+30	SE Ramp	529	226	148	185	41		
	528NE+60 - 533NE+86	NE Ramp	996	613	227	284	329		
Stage 3 Subtotal			3,093	1,672	886	1,108	565	565	
4	300+00 - 306+00	Appleton Ave Median	310	0	255	319	-319		
	316+96 - 317+61	Appleton Ave Median	70	0	55	69	-69		USE WASTE MATERIAL
	319+90 - 320+50	Appleton Ave Median	40	0	30	38	-38		FROM PREVIOUS STAGES
	324+00 - 325+10	Appleton Ave Median	85	0	70	88	-88		IN STAGE 4
	327+90 - 328+31	Appleton Ave Median	40	0	35	44	-44		
	330+75 - 379+93	Appleton Ave	900	0	876	1,095	-1,095		
Stage 4 Subtotal			1,445	0	1,321	1,651	-1,651	0	
Grand Total			9,265	4,835	3,184	3,980	855	855	
	Total Common Exc (205.0100) CATEGORY 0010			8,840					
	Total Common Exc (205.0100) CATEGORY 0060			425					

1) Common Excavation is the sum of the Cut column. Item number 205.0100
2) Salvaged/Unusable Pavement Material has already been removed.
5) Available Material = Cut - Salvaged/Unusuable Pavement Material (Calculations have already removed unusable pavement)
13) Expanded Fill. Factor = 1.25
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

BASE AGGREGATE ITEM

BASE AGGREGATE ITEM

CATEGORY	LOCATION	STA	TO	STA	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
0010	USH 41 / APPLETON AVE				
		188+90	-	199+75	1,746
		199+75	-	210+75	239
		210+75	-	222+75	205
		222+75	-	234+75	18
		234+75	-	246+75	301
		246+75	-	258+75	345
		258+75	-	270+75	51
		270+75	-	282+80	47
		282+80	-	294+75	234
		294+75	-	306+75	190
		306+75	-	318+30	235
		318+30	-	326+00	4,937
		326+00	-	330+75	123
		330+75	-	341+75	338
		341+75	-	352+75	110
		352+75	-	374+75	51
	SILVER SPRING DR / CTH E				
		NW	-	RAMP	1,671
		SW	-	RAMP	1,486
		NE	-	RAMP	1,552
		SE	-	RAMP	1,170
	APPLETON AVE CROSSOVER				
		300+00	-	306+00	412
		375+00	-	380+70	659
	CATEGORY 0010 SUBTOTAL				16,120
0060	USH 41 / APPLETON AVE				
		188+90	-	199+75	33
		199+75	-	210+75	208
		210+75	-	222+75	102
		222+75	-	234+75	54
		234+75	-	246+75	74
		246+75	-	258+75	112
		258+75	-	270+75	52
		270+75	-	282+80	112
		282+80	-	294+75	105
		294+75	-	306+75	34
		306+75	-	318+30	107
		326+00	-	330+75	29
		330+75	-	341+75	24
		341+75	-	352+75	32
		352+75	-	374+75	22
	CATEGORY 0060 SUBTOTAL				1,100
0070	USH 41 / APPLETON AVE				
		188+90	-	199+75	240
		199+75	-	210+75	137
		210+75	-	222+75	144
		222+75	-	234+75	159
		234+75	-	246+75	84
		246+75	-	258+75	68
		258+75	-	270+75	119
		270+75	-	282+80	114
		282+80	-	294+75	90
		294+75	-	306+75	17
		306+75	-	318+30	31
		326+00	-	330+75	15
		330+75	-	341+75	12
		341+75	-	352+75	7
		352+75	-	374+75	3
	CATEGORY 0070 SUBTOTAL				1,240
	PROJECT TOTAL				18,460

ASPHALTIC ITEMS

CATEGORY	LOCATION	STA	TO	STA	440.4410.S INCENTIVE IRI RIDE DOL	455.0115 ASPHALTIC MATERIAL PG64-22 TON	455.0120 ASPHALTIC MATERIAL PG64-28 TON	455.0605 TACK COAT GAL	460.1103 HMA PAVEMENT TYPE E-3 TON	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	465.0105 ASPHALTIC SURFACE TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0310 ASPHALTIC CURB LF
0010	USH 41 / APPLETON AVE												
		188+90	-	199+75	3,255	--	--	--	--	1,260	--	--	--
		199+75	-	210+75	1,780	--	--	--	--	930	--	--	--
		210+75	-	222+75	3,600	--	--	--	--	1,750	--	9	--
		222+75	-	234+75	3,600	--	--	--	--	1,650	--	--	--
		234+75	-	246+75	3,600	--	--	--	--	1,470	--	--	--
		246+75	-	258+75	3,600	--	--	--	--	2,060	--	--	--
		258+75	-	270+75	3,600	--	--	--	--	1,410	1	--	--
		270+75	-	282+80	3,615	--	--	--	--	1,520	--	--	--
		282+80	-	294+75	3,585	--	--	--	--	1,800	--	--	--
		294+75	-	306+75	3,600	--	--	--	--	1,450	--	--	--
		306+75	-	318+30	3,465	--	--	--	--	1,510	--	48	--
		318+30	-	321+37	921					610		53	
		323+09		326+00	873					660		73	
		326+00	-	330+75	1,425	--	--	--	--	550	--	29	--
		330+75	-	364+00	9,979	--	--	--	--	4,030	--	136	--
	SILVER SPRING DR / CTH E												
		ALL RAMPS			6,162	--	--	--	--	1,210	--	13	--
	APPLETON AVE CROSSOVER												
		300+00	-	306+00	--	--	--	--	--	--	--	221	225
		375+00	-	380+70	--	--	--	--	--	--	--	495	--
		UNDISTRIBUTED RAMPING			--	--	--	--	--	--	--	123	--
	CATEGORY 0010 SUBTOTALS				56,660	0	0	0	0	23,870	1	1,200	225
CATEGORY													
0050	USH 41 / APPLETON AVE												
		188+90	-	199+75	--	66	52	450	1,968	--	--	--	--
		199+75	-	210+75	--	49	38	335	1,451	--	--	--	--
		210+75	-	222+75	--	92	72	623	2,728	--	--	--	--
		222+75	-	234+75	--	87	68	622	2,569	--	--	--	--
		234+75	-	246+75	--	78	60	532	2,297	--	--	--	--
		246+75	-	258+75	--	109	84	730	3,211	--	--	--	--
		258+75	-	270+75	--	74	58	511	2,200	--	--	--	--
		270+75	-	282+80	--	80	62	547	2,366	--	--	--	--
		282+80	-	294+75	--	95	74	642	2,800	--	--	--	--
		294+75	-	306+75	--	76	60	526	2,265	--	--	--	--
		306+75	-	318+30	--	80	62	543	2,358	--	--	--	--
		318+30	-	321+37	--	41	15	126	942				
		323+09		326+00	--	45	17	137	1,022				
		326+00	-	330+75	--	29	22	199	855	--	--	--	--
		330+75	-	364+00	--	218	166	1,452	6,283	--	--	--	--
	SILVER SPRING DR / CTH E												
		ALL RAMPS			--	82	30	250	1,875	--	--	--	--
	CATEGORY 0050 SUBTOTALS				0	1,300	940	8,225	37,190	0	0	0	0
	PROJECT TOTALS				56,660	1,300	940	8,225	37,190	23,870	1	1,200	225

CONCRETE ITEMS

CATEGORY	LOCATION	STA	TO	STA	320.0145 CONCRETE BASE 8-INCH SY	320.0345 CONCRETE BASE HES 8-INCH SY	390.0303 BASE PATCHING CONCRETE SY	390.0403 BASE PATCHING CONCRETE SHES SY	415.0090 CONCRETE PAVEMENT 9-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0170 CONCRETE DRIVEWAY 7-INCH SY	416.1010 CONCRETE SURFACE DRAINS CY	601.0407 CONCRETE CURB & GUTTER 18-INCH TYPE D LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	SPV.0090.03 CONCRETE CURB & GUTTER 30-INCH TYPE A 1 3 4-INCH LF	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0420 CONCRETE SIDEWALK 7-INCH SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	SPV.0195.01 CRACK AND JOINT REPAIR TON
0010	USH 41 / APPLETON AVE																				
		188+90	-	199+75	7,520	740	--	--	--	--	34	--	--	1,374	--	--	--	--	--	227	--
		199+75	-	210+75	429	--	--	--	170	--	62	--	--	793	--	--	--	--	--	131	6
		210+75	-	222+75	363	--	70	30	--	--	16	--	--	561	--	--	--	--	--	228	16
		222+75	-	234+75	--	--	22	--	--	--	--	--	--	172	--	--	--	--	--	--	4
		234+75	-	246+75	422	--	86	--	--	--	32	--	--	984	--	--	--	--	--	63	8
		246+75	-	258+75	525	--	94	--	70	--	--	--	--	642	--	--	--	--	--	550	52
		258+75	-	270+75	62	--	83	--	--	--	22	--	--	162	--	--	--	--	--	64	13
		270+75	-	282+80	46	--	46	--	--	--	13	--	--	265	--	--	--	--	--	56	7
		282+80	-	294+75	137	--	418	142	--	--	102	--	--	641	--	--	--	--	--	320	9
		294+75	-	306+75	39	--	37	--	--	--	44	--	--	1,069	--	--	--	--	--	165	10
		306+75	-	318+30	148	--	71	--	70	--	29	--	--	606	--	--	--	--	--	180	--
		318+30	-	326+00	--	--	--	--	--	860	42	--	780	--	847	--	45	4,194	320	271	--
		326+00	-	330+75	51	--	42	--	--	--	41	--	--	390	--	--	--	--	--	62	2
		330+75	-	341+75	28	--	94	--	--	--	25	--	--	418	--	249	--	--	1,565	123	31
		341+75	-	352+75	70	--	72	--	--	--	--	--	--	139	--	721	--	--	982	--	13
		352+75	-	374+75	261	--	137	--	--	--	--	--	--	622	--	--	--	--	--	86	1
	SILVER SPRING DR / CTH E																				
		ALL 4 RAMPS			--	--	--	--	--	--	--	1	--	--	4,163	--	--	6,979	303	116	--
		UNDISTRIBUTED			98	10	678	38	--	--	38	4	20	32	20	--	5	77	40	8	39
	CATEGORY 0010 SUBTOTALS				10,200	750	1,950	210	310	860	500	5	800	8,870	5,030	970	50	11,250	3,210	2,650	210
CATEGORY	LOCATION	STA	TO	STA																	
0060	USH 41 / APPLETON AVE																				
		188+90	-	199+75	--	--	--	--	--	--	--	--	--	62	--	--	67	308	--	--	--
		199+75	-	210+75	--	--	--	--	--	--	--	--	--	466	--	--	275	3,674	--	--	--
		210+75	-	222+75	--	--	--	--	--	--	--	--	--	203	--	--	178	2,492	--	--	--
		222+75	-	234+75	--	--	--	--	--	--	--	--	--	94	--	--	50	1,462	--	--	--
		234+75	-	246+75	--	--	--	--	--	--	--	--	--	106	--	--	80	1,392	--	--	--
		246+75	-	258+75	--	--	--	--	--	--	--	--	--	244	--	--	152	4,066	--	--	--
		258+75	-	270+75	--	--	--	--	--	--	--	--	--	100	--	--	67	1,253	--	--	--
		270+75	-	282+80	--	--	--	--	--	--	--	--	--	221	--	--	126	2,779	--	--	--
		282+80	-	294+75	--	--	--	--	--	--	--	--	--	105	--	--	55	3,220	--	--	--
		294+75	-	306+75	--	--	--	--	--	--	--	--	--	20	--	--	--	5,772	--	--	--
		306+75	-	318+30	--	--	--	--	--	--	--	--	--	180	--	--	63	2,359	--	--	--
		318+30	-	326+00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		326+00	-	330+75	--	--	--	--	--	--	--	--	--	31	--	--	21	250	--	--	--
		330+75	-	341+75	--	--	--	--	--	--	--	--	--	128	--	--	105	548	--	--	--
		341+75	-	352+75	--	--	--	--	--	--	--	--	--	116	--	--	40	712	1,960	--	--
		352+75	-	374+75	--	--	--	--	--	--	--	--	--	154	--	--	71	493	--	--	--
	CATEGORY 0060 SUBTOTALS				0	0	0	0	0	0	0	0	0	2,230	0	0	1,350	30,780	1,960	0	0

CONCRETE ITEMS CONTINUED ON NEXT SHEET

CONCRETE ITEMS

CONCRETE ITEMS CONTINUED

CATEGORY	LOCATION	STA	TO	STA	320.0145 CONCRETE BASE 8-INCH SY	320.0345 CONCRETE BASE HES 8-INCH SY	390.0303 BASE PATCHING CONCRETE SY	390.0403 BASE PATCHING CONCRETE SHES SY	415.0090 CONCRETE PAVEMENT 9-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0170 CONCRETE DRIVEWAY 7-INCH SY	416.1010 CONCRETE SURFACE DRAINS CY	601.0407 CONCRETE CURB & GUTTER 18-INCH TYPE D LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	SPV.0090.03 CONCRETE CURB & GUTTER 30-INCH TYPE A 1 3 4-INCH LF	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0420 CONCRETE SIDEWALK 7-INCH SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	SPV.0195.01 CRACK AND JOINT REPAIR TON
0070	USH 41 / APPLETON AVE																				
		188+90	-	199+75	--	--	--	--	--	--	--	--	--	--	--	--	--	8,093	262	--	--
		199+75	-	210+75	--	--	--	--	--	--	--	--	--	--	--	--	--	4,131	571	--	--
		210+75	-	222+75	--	--	--	--	--	--	--	--	--	--	--	--	--	4,798	530	--	--
		222+75	-	234+75	--	--	--	--	--	--	--	--	--	--	--	--	--	5,024	387	--	--
		234+75	-	246+75	--	--	--	--	--	--	--	--	--	--	--	--	--	2,584	256	--	--
		246+75	-	258+75	--	--	--	--	--	--	--	--	--	--	--	--	--	1,620	57	--	--
		258+75	-	270+75	--	--	--	--	--	--	--	--	--	--	--	--	--	3,525	315	--	--
		270+75	-	282+80	--	--	--	--	--	--	--	--	--	--	--	--	--	3,262	320	--	--
		282+80	-	294+75	--	--	--	--	--	--	--	--	--	--	--	--	--	1,889	1,256	--	--
		294+75	-	306+75	--	--	--	--	--	--	--	--	--	--	--	--	--	234	356	--	--
		306+75	-	318+30	--	--	--	--	--	--	--	--	--	--	--	--	--	861	281	--	--
		326+00	-	330+75	--	--	--	--	--	--	--	--	--	--	--	--	--	195	330	--	--
		330+75	-	341+75	--	--	--	--	--	--	--	--	--	--	--	--	--	202	209	--	--
		341+75	-	352+75	--	--	--	--	--	--	--	--	--	--	--	--	--	1,034	--	--	--
		352+75	-	364+00	--	--	--	--	--	--	--	--	--	--	--	--	--	118	--	--	--
	CATEGORY 0070 SUBTOTALS				0	0	0	0	0	0	0	0	0	0	0	0	0	37,570	5,130	0	0
	PROJECT TOTALS				10,200	750	1,950	210	310	860	500	5	800	11,100	5,030	970	1,400	79,600	10,300	2,650	210

DRILLED BAR ITEMS

CATEGORY	LOCATION	STA	TO	STA	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
0010	USH 41 / APPLETON AVE					
		188+90	-	199+75	1055	152
		199+75	-	210+75	719	92
		210+75	-	222+75	519	198
		222+75	-	234+75	183	32
		234+75	-	246+75	551	202
		246+75	-	258+75	692	270
		258+75	-	270+75	271	138
		270+75	-	282+80	308	86
		282+80	-	294+75	669	524
		294+75	-	306+75	583	108
		306+75	-	318+30	497	188
		326+00	-	330+75	216	106
		330+75	-	341+75	445	226
		341+75	-	352+75	668	200
		352+75	-	380+71	148	256
	UNDISTRIBUTED				376	322
	TOTALS				7,900	3,100

TEMPORARY STORM SEWER ITEMS

CATEGORY	STA	TO	STA	OFFSET	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	520.4024 CULVERT PIPE TEMPORARY 24-INCH LF	* 520.8000 CONCRETE COLLARS FOR PIPE EACH	SLOPE	APPROXIMATE INVERT ELEVATIONS INLET	APPROXIMATE INVERT ELEVATIONS DISCH.
0010	374+05	-	375+00.	4' LT	1	95	--	0.5%	---	757.1
	375+00	-	377+80.	4' LT	--	280	1	3.0%	---	---
	377+80	-	379+91.5	34' LT	1	214	--	3.0%	772.6	---
								(1)	(1)	(1)
	TOTALS				2	589	1			

FOOTNOTE

(1) FIELD VERIFY.

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

CURB RAMP DETECTABLE WARNING FIELD

CATEGORY	LOCATION	STA	TO	STA	602.0505 YELLOW SF
0010	USH 41 / APPLETON AVE				
		318+30	-	326+00	200
	CATEGORY 0010 SUBTOTAL				200
CATEGORY	LOCATION	STA	TO	STA	
0060	USH 41 / APPLETON AVE				
		188+90	-	199+75	48
		199+75	-	210+75	248
		210+75	-	222+75	128
		222+75	-	234+75	64
		234+75	-	246+75	48
		246+75	-	258+75	160
		258+75	-	270+75	56
		270+75	-	282+80	136
		282+80	-	294+75	96
		294+75	-	306+75	16
		306+75	-	318+30	112
		326+00	-	330+75	24
		330+75	-	341+75	56
		341+75	-	352+75	96
		352+75	-	364+00	88
	CATEGORY 0060 SUBTOTAL				1,376
	TOTAL				1,576

MAINTENANCE AND REPAIR OF HAUL ROADS ID 2010-10-70

CATEGORY	STAGE		618.0100 EACH
0010	ALL	PROJECT	1
	TOTAL		1

CONCRETE BARRIER ITEMS

CATEGORY	LOCATION	STA	TO	STA	RT / LT	603.1136 CONCRETE BARRIER TYPE S36 LF	603.1336 CONCRETE BARRIER TYPE S36B LF	614.0805 CRASH CUSHIONS PERMANENT LOW MAINTENANCE EACH	REMARKS
0010	USH 41 / APPLETON AVE								
		341+26.3	-	341+26.3	MEDIAN	--	--	1	50 MPH DESIGN SPEED, 2-FOOT WIDE HAZARD
		341+26.3	-	341+36.6	MEDIAN	--	11	--	
		342+77.1	-	343+63.7	MEDIAN	--	--	--	
		343+63.7	-	343+88.4	MEDIAN LT	102	--	--	
		343+63.7	-	343+88.1	MEDIAN RT	102	--	--	
	TOTALS					204	11	1	

RECONSTRUCTING MANHOLE AND INLET ITEMS

CATEGORY	STRUCTURE NUMBER	STATION, OFFSET	611.0420 RECONSTRUCTING MANHOLES EACH	611.0430 RECONSTRUCTING INLETS EACH	* SPV.0060.03 INLET COVERS TYPE 57 EACH
0010	101	200+22, 0' LT	--	1	1
	103	201+19, 48' RT	--	1	--
	104	202+76, 78' LT	--	1	--
	105	202+62, 62' LT	--	1	--
	106	203+01, 0' LT	--	1	1
	112	233+10, 46' LT	--	1	--
	114	234+02, 46' LT	--	1	--
	116	233+02, 46' RT	--	1	--
	117	233+68, 46' RT	--	1	--
	118	247+85, 46' RT	--	1	--
	120	253+50, 47' RT	--	1	--
	121	265+09, 46' LT	--	1	--
	122	264+99, 46' RT	--	1	--
	123	281+59, 46' RT	--	1	--
	125	285+60, 95' LT	--	1	--
	126	288+92, 47' LT	--	1	--
	127	290+50, 47' LT	--	1	--
	128	293+24, 47' LT	--	1	--
	129	295+99, 46' LT	--	1	--
	130	298+50, 46' LT	--	1	--
	131	300+68, 46' LT	--	1	--
	132	301+50, 46' LT	--	1	--
	133	303+30, 46' LT	--	1	--
	134	304+40, 46' LT	--	1	--
	135	306+00, 46' LT	--	1	--
	136	308+02, 47' LT	--	1	--
	137	309+00, 46' LT	--	1	--
	138	309+44, 46' LT	--	1	--
	139	312+00, 47' LT	--	1	--
	140	314+95, 46' LT	--	1	--
	141	319+92, 20' LT	1	--	--
	142	319+90, 35' RT	1	--	--
	143	323+88, 38' RT	1	--	--
	144	327+51, 47' LT	1	--	--
	145	336+01, 47' RT	--	1	--
	146	337+25, 47' RT	--	1	--
	147	339+51, 47' RT	--	1	--
	148	341+49, 44' RT	--	1	--
	149	342+00, 43' LT	--	1	--
	150	342+26, 43' RT	--	1	--
	151	351+10, 46' RT	--	1	--
	152	352+04, 47' RT	--	1	--
	153	354+25, 47' RT	--	1	--
	154	359+85, 47' RT	--	1	--
	155	362+01, 47' RT	--	1	--
	156	363+50, 47' RT	--	1	--
	TOTALS		4	42	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

STORM SEWER STRUCTURE ITEMS

CATEGORY	STRUCTURE NO.	(1) STATION	STRUCTURE OFFSET	(2) GRATE ELEVATION	INVERT ELEVATION	(4) STRUCTURE DEPTH	611.0530 MANHOLE COVERS TYPE J EACH	(1) 611.0624 INLET COVERS TYPE H EACH	(1) 611.0642 INLET COVERS TYPE MS EACH	* SPV.0060.03 INLET COVERS TYPE 57 EACH	611.1003 CATCH BASINS 3-FT DIAMETER EACH	611.3230 INLETS 2x3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	* 520.8000 CONCRETE COLLARS FOR PIPE EACH
0010	01	194+01.8	46.2' RT	(5)	(5)	6.0 (5)	--	--	--	1	1	--	--	--
	02	204+06.5	47.6' LT	(5)	(5)	6.0 (5)	--	--	--	1	1	--	--	--
	03	204+78.0	47.0' RT	(5)	(5)	6.0 (5)	--	--	--	1	1	--	--	--
	04	208+96.3	47.1' LT	(5)	(5)	6.0 (5)	--	--	--	1	1	--	--	--
	05	215+77.0	47.0' LT	(5)	(5)	6.0 (5)	--	--	--	1	1	--	--	--
	06	215+37.5	5.0' LT	730.35	725.50	4.85	--	--	1	--	--	--	1	1
	07	232+97.0	47.0' LT	(5)	(5)	6.0 (5)	--	--	--	1	1	--	--	--
	08	233+93.0	47.0 LT	(5)	(5)	6.0 (5)	--	--	--	1	1	--	--	--
	09	232+97.7	46.8' RT	(5)	(5)	6.0 (5)	--	--	--	1	1	--	--	--
	10	250+52.0	91.8' LT	747.20	(5)	6.0 (5)	--	--	--	1	1	--	--	1
	12	250+86.6	47.5' LT	747.44	741.5	5.94	--	1	--	--	--	1	--	1
	13	250+11.0	42.05' LT	747.38	743.3	4.08	--	1	--	--	--	1	--	--
	14	319+91.5	47.5' LT	748.09	742.00	6.1	--	1	--	--	--	1	--	1
	15	321+50.0	47.5' LT	751.57	746.60	5.0	--	1	--	--	--	1	--	--
	16	320+60.0	47.5' RT	750.16	744.00	6.2	--	1	--	--	--	1	--	1
	17	322+90.7	47.5' RT	750.82	744.80	6.0	--	1	--	--	--	1	--	--
	18	323+72.2	47.5' RT	748.77	738.30	10.5	--	1	--	--	--	1	--	1
	19	323+90.0	47.5' LT	748.22	742.00	6.2	--	1	--	--	--	1	--	1
	20	325+33.5	47.5' RT	743.63	738.3	5.3	--	1	--	--	--	1	--	1
	25	334+20.5	68.7' RT	(5)	(5)	4.0 (5)	--	--	--	1	1	--	--	1
	26	347+67.7	11.0' RT	(5)	(5)	(5)	1	--	--	--	1	--	--	--
		347+65.8	14.5' RT	--	--	--	--	--	--	--	--	--	--	1
	27	347+67.7	1.5' LT	(5)	(5)	(5)	--	--	1	--	--	--	1	--
	28	347+66.0	8.5' LT	(5)	(5)	(5)	--	--	--	1	1	--	--	1
	29	342+91.3	8.0' LT	(5)	(5)	(5)	--	1	--	--	--	1	--	1
	--	343+52	3.0' RT	--	--	--	--	--	--	--	--	--	--	--
TOTALS							1	10	2	11	12	10	2	12

FOOTNOTES

(1) STRUCTURE LOCATIONS ARE SPECIFIED TO THE CENTER OF STRUCTURE.
(2) GRATE ELEVATION IS AT THE FLANGE LINE FOR INLETS AND TO CENTER OF COVER FOR MANHOLES.
(3) PIPE LENGTH IS MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
(4) STRUCTURE DEPTH IS EQUAL TO GRATE ELEVATION MINUS THE LOWEST INVERT ELEVATION.
(5) FIELD VERIFY.

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PIPE INFORMATION CONTINUED ON NEXT PAGE

STORM SEWER PIPE ITEMS

CATEGORY	PIPE NO.	(3) SLOPE	INVERT ELEVATIONS INLET	INVERT ELEVATIONS DISCH.	STRUCTURE FROM	STRUCTURE TO	607.0406 STORM SEWER PIPE COMPOSITE 6-INCH LF	607.0408 STORM SEWER PIPE COMPOSITE 8-INCH LF	(3) 608.0312 STORM SEWER PIPE REINF. CONC. CLASS III 12-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6- INCH LF	612.0208 PIPE UNDERDRAIN UNPERFORATED 8- INCH LF	SPV.0060.05 STORM SEWER PIPE COUPLINGS 6-INCH EACH	SPV.0060.06 STORM SEWER PIPE COUPLINGS 8-INCH EACH
0010	01	(5)	(5)	(5)	01	EXISTING	4	--	--	--	--	1	--
	02	(5)	(5)	(5)	02	EXISTING	4	--	--	--	--	1	--
	03	(5)	(5)	(5)	03	EXISTING	--	8	--	--	--	--	1
	04	(5)	(5)	(5)	04	EXISTING	--	4	--	--	--	--	1
	05	(5)	(5)	(5)	05	EXISTING	--	8	--	--	--	--	1
	06	2.0%	725.50	724.50	06	247	--	--	50	--	--	--	--
	07	(5)	(5)	(5)	07	EXISTING	--	4	--	--	--	--	1
	08	(5)	(5)	(5)	08	EXISTING	--	8	--	--	--	--	1
	09	(5)	(5)	(5)	09	EXISTING	--	4	--	--	--	--	1
	10	(5)	(5)	(5)	10	EXISTING	--	--	4	--	--	--	--
	12	2.0%	741.50	741.10	12	318	--	--	20	--	--	--	--
	13	1.7%	743.30	742.00	13	12	--	--	76	--	--	--	--
	14	1.9%	742.00	741.50	14	141	--	--	27	--	--	--	--
	15	1.2%	746.60	745.00	15	14	--	--	130	--	--	--	--
	16	2.1%	744.00	742.50	16	142	--	--	71	--	--	--	--
	17	2.0%	744.80	743.20	17	18	--	--	81	--	--	--	--
	18	2.0%	738.30	738.00	18	143	--	--	15	--	--	--	--
	19	2.4%	743.00	741.00	19	143	--	--	84	--	--	--	--
	19A	1.0%	742.00	741.60	19	OUT	--	--	0	--	40	--	--
	20	2.1%	738.30	737.70	20	422	--	--	28	--	--	--	--
	25	(5)	(5)	(5)	25	EXISTING	--	4	--	--	--	--	1
	26	(5)	(5)	(5)	26	27	--	--	12	--	--	--	--
	26A	(5)	(5)	(5)	EXISTING	26	--	--	4	--	--	--	--
	27	(5)	(5)	(5)	27	28	--	--	7	--	--	--	--
	28	(5)	(5)	(5)	28	EXISTING	--	--	4	--	--	--	--
	29	(5)	(5)	(5)	29	EXISTING	--	--	4	--	--	--	--
	--	(5)	(5)	(5)	B-40-327	29	--	--	4	70	--	--	--
TOTALS							8	40	621	70	40	2	7

FOOTNOTES

(1) STRUCTURE LOCATIONS ARE SPECIFIED TO THE CENTER OF STRUCTURE.

(2) GRATE ELEVATION IS AT THE FLANGE LINE FOR INLETS AND TO CENTER OF COVER FOR MANHOLES.

(3) PIPE LENGTH IS MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

(4) STRUCTURE DEPTH IS EQUAL TO GRATE ELEVATION MINUS THE LOWEST INVERT ELEVATION.

(5) FIELD VERIFY.

ADJUSTING MANHOLE AND INLET ITEMS

CATEGORY	STRUCTURE NUMBER	STA OFFSET	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	* 611.8120.S COVER PLATES TEMPORARY EACH
0010	201	189+26, 46' LT	--	1	--
	202	189+25, 26' LT	1	--	1
	203	189+26, 28' RT	1	--	1
	204	191+30, 24' LT	1	--	1
	205	191+72, 27' LT	1	--	1
	207	191+73, 30' RT	1	--	1
	208	193+88, 27' LT	1	--	1
	209	194+02, 29' RT	1	--	1
	210	194+54, 27' LT	1	--	1
	214	196+51, 27' LT	1	--	1
	215	196+77, 29' RT	1	--	1
	216	196+77, 46' RT	--	1	--
	217	198+42, 46' LT	--	1	--
	218	199+62, 48' LT	--	1	--
	222	199+91, 72' RT	--	1	--
	223	200+77, 48' RT	--	1	--
	224	200+80, 87' RT	--	1	--
	226	202+42, 48' LT	--	1	--
	227	203+70, 32' LT	1	--	1
	228	205+50, 66' LT	--	1	--
	229	205+33, 32' LT	1	--	1
	230	205+35, 34' RT	1	--	1
	234	205+81, 67' LT	--	1	--
	235	206+00, 47' LT	--	1	--
	236	206+00, 32' LT	1	--	1
	237	206+00, 33' RT	1	--	1
	238	206+01, 47' RT	--	1	--
	239	208+97, 32' LT	1	--	1
	240	208+95, 32' RT	1	--	1
	242	211+99, 31' LT	1	--	1
	243	211+50, 33' RT	1	--	1
	244	214+09, 33' LT	1	--	1
	245	216+09, 32' LT	1	--	1
	246	215+17, 46' RT	--	1	--
	247	215+33, 45' RT	1	--	1
	250	217+53, 31' LT	1	--	1
	251	217+09, 32' RT	1	--	1
	252	218+80, 32' LT	1	--	1
	253	219+00, 33' RT	1	--	1
	254	219+30, 47' RT	--	1	--
	255	220+29, 31' LT	1	--	1
	256	220+33, 32' RT	1	--	1
	257	221+92, 70' LT	--	1	--
	258	222+25, 70' LT	--	1	--
	259	222+00, 32' LT	1	--	1
	260	222+55, 46' LT	--	1	--
	261	221+62, 31' LT	1	--	1
	262	222+54, 31' LT	1	--	1
	263	222+57, 0' LT	--	1	--
	264	221+70, 32' RT	1	--	1
	265	222+48, 32' RT	1	--	1
	266	222+00, 32' RT	1	--	1

ADJUSTING MANHOLE AND INLET ITEMS CONTINUED ON NEXT SHEET

ADJUSTING MANHOLE AND INLET ITEMS CONTINUED

CATEGORY	STRUCTURE NUMBER	STA OFFSET	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	* 611.8120.S COVER PLATES TEMPORARY EACH
		ADJUSTING MANHOLE AND INLET ITEMS CONTINUED ON NEXT SHEET			
0010	267	222+49, 46' RT	--	1	--
	268	225+06, 31' LT	1	--	1
	269	225+04, 32' RT	1	--	1
	270	226+88, 32' RT	1	--	1
	271	227+21, 31' LT	1	--	1
	275	229+22, 46' LT	--	1	--
	276	229+50, 70' LT	--	1	--
	277	229+80, 70' LT	--	1	--
	278	229+30, 31' LT	1	--	1
	279	228+81, 32' RT	1	--	1
	280	229+06, 46' RT	--	1	--
	281	230+03, 31' RT	1	--	1
	282	233+22, 29' LT	1	--	1
	283	233+38, 32' RT	1	--	1
	284	233+72, 46' RT	--	1	--
	285	234+54, 0' RT	--	1	--
	288	235+89, 29' LT	1	--	1
	289	236+23, 32' RT	1	--	1
	290	236+25, 46' RT	--	1	--
	291	238+76, 30' LT	1	--	1
	292	239+01, 32' RT	1	--	1
	293	239+39, 4' RT	--	1	--
	294	239+32, 46' RT	--	1	--
	295	241+56, 30' LT	1	--	1
	296	242+08, 33' RT	1	--	1
	297	244+57, 65' LT	--	1	--
	298	244+30, 28' LT	1	--	1
	299	244+12, 32' RT	1	--	1
	300	244+15, 47' RT	--	1	--
	301	244+90, 66' LT	--	1	--
	302	245+15, 46' LT	--	1	--
	303	245+13, 32' LT	1	--	1
	304	245+19, 6' LT	--	1	--
	305	245+77, 32' RT	1	--	1
	306	245+92, 47' RT	1	--	1
	307	246+32, 32' LT	1	--	1
	308	246+33, 5' LT	--	1	--
	311	247+65, 31' LT	1	--	1
	312	248+40, 31' LT	1	--	1
	313	248+60, 47' LT	--	1	--
	314	248+95, 69' LT	--	1	--
	315	249+32, 70' LT	1	--	1
	316	249+04, 39' RT	1	--	1
	317	250+00, 5' RT	--	1	--
	318	251+02, 35' LT	1	--	1
	319	250+86, 42' RT	1	--	1
	321	252+88, 35' LT	1	--	1
	322	253+80, 35' LT	1	--	1
	323	254+60, 75' LT	--	1	--
	324	254+89, 35' LT	1	--	1
	325	255+48, 74' LT	--	1	--
	326	255+49, 35' LT	1	--	1

ADJUSTING MANHOLE AND INLET ITEMS CONTINUED ON TOP OF SHEET

CATEGORY	STRUCTURE NUMBER	STA OFFSET	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	* 611.8120.S COVER PLATES TEMPORARY EACH
0010	327	256+15, 26' RT	1	--	1
	328	256+76, 5' RT	--	1	--
	329	257+09, 37' LT	1	--	1
	330	257+09, 28' RT	1	--	1
	331	258+49, 27' RT	1	--	1
	333	259+06, 47' LT	--	1	--
	334	259+04, 37' LT	1	--	1
	335	260+59, 39' LT	1	--	1
	336	260+49, 28' RT	1	--	1
	337	261+49, 28' RT	1	--	1
	338	262+17, 47' LT	--	1	--
	339	262+44, 69' LT	--	1	--
	340	262+25, 36' LT	1	--	1
	341	262+52, 35' LT	1	--	1
	342	262+75, 69' LT	--	1	--
	344	265+06, 42' LT	1	--	1
	345	264+83, 44' RT	1	--	1
	346	266+96, 45' RT	1	--	1
	347	267+58, 34' LT	1	--	1
	348	269+03, 44' RT	1	--	1
	349	270+13, 34' LT	1	--	1
	351	271+14, 47' LT	--	1	--
	352	271+13, 36' LT	1	--	1
	353	271+37, 42' RT	1	--	1
	354	272+55, 43' RT	1	--	1
	355	274+21, 47' LT	--	1	--
	356	274+32, 35' LT	1	--	1
	357	274+26, 35' LT	1	--	1
	358	273+75, 94' RT	1	--	1
	359	275+30, 47' LT	--	1	--
	360	275+30, 34' LT	1	--	1
	361	275+50,36' RT	1	--	1
	363	276+90, 35' LT	1	--	1
	364	276+89, 36' RT	1	--	1
	365	279+00, 34' LT	1	--	1
	366	280+00, 36' RT	1	--	1
	367	280+49, 47' LT	--	1	--
	368	280+49,34' LT	1	--	1
	369	280+74, 36' RT	1	--	1
	370	281+49, 46' LT	--	1	--
	371	281+49, 34' LT	1	--	1
	372	281+87, 69' RT	--	1	--
	373	282+14, 66' RT	1	--	1
	374	282+59, 47' RT	--	1	--
	375	282+76, 34' LT	1	--	1
	376	284+28, 43' RT	1	--	1
	378	285+67, 42' RT	1	--	1
	379	286+19, 3' LT	--	1	--
	380	286+26, 46' LT	1	--	1
	381	286+49, 73' LT	--	1	--
	382	286+90, 42' RT	1	--	1
	383	286+89, 47' RT	--	1	--

ADJUSTING MANHOLE AND INLET ITEMS CONTINUED ON NEXT SHEET

ADJUSTING MANHOLE AND INLET ITEMS CONTINUED

CATEGORY	STRUCTURE NUMBER	STA OFFSET	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	* 611.8120.S COVER PLATES TEMPORARY EACH
0010	384	287+27, 50' RT	1	--	1
	385	287+16, 61' LT	--	1	--
	386	287+24, 46' LT	1	--	1
	389	290+19, 27' RT	1	--	1
	390	292+64, 28' RT	1	--	1
	391	293+89, 26' RT	1	--	1
	393	295+67, 0' RT	--	1	--
	394	295+83, 28' RT	1	--	1
	395	295+99, 47' RT	--	1	--
	396	297+55, 28' RT	1	--	1
	397	298+51, 47' RT	--	1	--
	398	300+48, 26' RT	1	--	1
	399	300+68,47' RT	--	1	--
	400	300+78, 28' RT	1	--	1
	401	301+50, 47' RT	--	1	--
	402	303+30, 47' RT	--	1	--
	403	304+07, 27' RT	1	--	1
	404	306+49, 47' RT	--	1	--
	405	307+37, 27' RT	1	--	1
	406	307+96, 4' RT	1	--	1
	407	307+98, 31' RT	1	--	1
	408	307+91, 46' RT	--	1	--
	409	310+00, 47' RT	--	1	--
	410	310+22, 31' RT	1	--	1
	411	312+32, 0' RT	--	1	--
	412	312+49, 31' RT	1	--	1
	413	314+07, 31' RT	1	--	1
	414	314+00, 47' RT	--	1	--
	415	315+28, 48' RT	--	1	--
	416	316+04, 46' RT	--	1	--
	417	316+15, 29' LT	1	--	1
	418	316+32, 47' LT	--	1	--
	419	316+47, 30' LT	1	--	1
	420	316+54, 31' RT	1	--	1
	421	318+22, 32' RT	1	--	1
	422	325+50, 25' RT	1	--	1
	423	325+78, 36' LT	1	--	1
	424	326+93, 25' RT	1	--	1
	425	327+70, 36' LT	1	--	1
	426	328+01, 46' LT	--	1	--
	427	328+78, 24' RT	1	--	1
	428	330+50, 34' LT	1	--	1
	429	330+50, 47' RT	--	1	--
	430	330+50, 47' LT	--	1	--
	431	422NW+71, 1' LT	--	1	--
	432	425NW+16, 1' LT	--	1	--
	433	626SW+13, 1' RT	--	1	--
	434	532NE+08, 1' LT	--	1	--
	435	733SE+02, 13' LT	1	--	1
	436	733SE+11, 1' RT	--	1	--
	440	332+13, 25' RT	1	--	1
	441	333+23, 34' LT	1	--	1
	442	333+56, 29' RT	1	--	1
	443	336+00, 36' LT	1	--	1
	444	337+04, 34' LT	1	--	1
	445	339+01, 34' LT	1	--	1
	446	341+99, 30' LT	1	--	1
	447	342+16, 43' RT	--	1	--
	448	342+71, 25' LT	1	--	1
	449	345+01, 24' LT	1	--	1
	450	347+38, 41' LT	1	--	1
	451	349+86, 20' LT	1	--	1
	452	352+41, 33' LT	1	--	1
	453	354+23, 36' LT	1	--	1
	454	357+43, 34' LT	1	--	1
	455	359+25, 31' LT	1	--	1
	456	361+19, 31' LT	1	--	1
	457	362+01, 47' LT	--	1	--
	TOTALS		145	79	145

ADJUSTING MANHOLE AND INLET ITEMS CONTINUED ON TOP OF SHEET

GUARDRAIL ITEMS

CATEGORY	LOCATION	STA	TO	STA	RT / LT	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	614.2300 MGS GUARDRAIL 3 LF	614.2310 MGS GUARDRAIL 3 HS LF	614.2320 MGS GUARDRAIL 3 QS LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH	SPV.0090.05 RELAPPING STEEL PLATE BEAM GUARD LF	REMARKS
0010	USH 41 / APPLETON AVE																*RELAP BEAM GUARD DURING STAGE 4
		340+71.96	-	341+25.24	RT	1	--	--	--	--	--	--	--	1	--	--	
		341+25.24	-	342+64.21	RT	1	--	--	--	137.5	--	--	--	--	1	--	OFFSET RAIL 4-INCHES FROM FACE OF CURB
		342+35.68	-	342+75.08	MEDIAN RT	--	--	--	--	--	--	--	40	--	--	--	
		342+35.77	-	342+75.17	MEDIAN LT	--	--	--	--	--	--	--	40	--	--	40	LAP GUARDRAIL IN STAGE 3 TRAFFIC, RELAP FOR FINAL CONDITION
		342+75.08	-	342+87.58	MEDIAN RT	--	--	--	--	--	12.5	--	--	--	--	---	
		342+75.17	-	342+87.77	MEDIAN LT	--	--	--	--	--	12.5	--	--	--	--	12.5	LAP GUARDRAIL IN STAGE 3 TRAFFIC, RELAP FOR FINAL CONDITION
		342+87.58	-	343+87.52	MEDIAN RT	--	--	--	--	--	--	100	--	--	--	--	
		342+87.77	-	343+87.67	MEDIAN LT	--	--	--	--	--	--	100	--	--	--	100	LAP GUARDRAIL IN STAGE 3 TRAFFIC, RELAP FOR FINAL CONDITION
		343+87.52	-	344+12.58	MEDIAN RT	--	--	--	--	--	25	--	--	--	--	--	
		343+87.67	-	344+12.67	MEDIAN LT	--	--	--	--	--	25	--	--	--	--	25	LAP GUARDRAIL IN STAGE 3 TRAFFIC, RELAP FOR FINAL CONDITION
		344+12.58	-	347+37.77	MEDIAN RT	--	--	--	--	325	--	--	--	--	--	---	
		344+12.67	-	347+37.56	MEDIAN LT	--	--	--	--	325	--	--	--	--	--	325	LAP GUARDRAIL IN STAGE 3 TRAFFIC, RELAP FOR FINAL CONDITION
		347+37.77	-	347+77.23	MEDIAN RT	--	--	--	--	--	--	--	40	--	--	--	
		347+37.56	-	347+76.88	MEDIAN LT	--	--	--	--	--	--	--	40	--	--	40	LAP GUARDRAIL IN STAGE 3 TRAFFIC, RELAP FOR FINAL CONDITION
		344+13.92	-	345+02.92	LT	--	--	--	--	87.5	--	--	--	--	1	--	OFFSET RAIL 4-INCHES FROM FACE OF CURB; CONSTRUCT IN STAGE 4
		345+02.92	-	345+56.02	LT	1	--	--	--	--	--	--	--	1	--	--	CONSTRUCT IN STAGE 4
		346+74.56	-	347+29.03	RT	1	--	--	--	--	--	--	--	1	--	--	
		347+29.03	-	347+41.85	RT	--	--	--	--	12.5	--	--	--	--	--	--	
		347+41.85	-	347+81.72	RT	--	--	--	--	---	--	--	40	--	--	--	
		349+10.37	-	349+49.76	LT	--	--	--	--	---	--	--	40	--	--	--	
		349+49.76	-	349+62.25	LT	--	--	--	--	12.5	--	--	--	--	--	--	
		349+62.25	-	350+15.36	LT	1	--	--	--	--	--	--	--	1	--	--	
		349+14.98	-	349+29.38	MEDIAN LT	--	15	--	--	--	--	--	--	--	--	15	LAP GUARDRAIL IN STAGE 3 TRAFFIC, RELAP FOR FINAL CONDITION
		349+29.38	-	349+41.88	MEDIAN LT	--	--	--	13	--	--	--	--	--	--	12.5	LAP GUARDRAIL IN STAGE 3 TRAFFIC, RELAP FOR FINAL CONDITION
		349+15.60	-	349+42.50	MEDIAN RT	--	--	--	27	--	--	--	--	--	--	---	
		349+41.88	-	349+95.01	MEDIAN	1	--	1	--	--	--	--	--	--	--	50	LAP GUARDRAIL IN STAGE 3 TRAFFIC, RELAP FOR FINAL CONDITION
TOTALS						6	15	1	40	900	75	200	240	4	2	620	

GUARDRAIL MOW STRIP CONCRETE

CATEGORY	LOCATION	STA	TO	STA	RT / LT	614.0395 SY
0010	USH 41 / APPLETON AVE					
		343+09	-	343+68	MEDIAN	51
	TOTAL					51

TREE ITEMS

CATEGORY	LOCATION	632.0101.01 TREES JAPANESE TREE LILAC IVORY SILK' B&B, 3" CAL EACH	632.0101.02 TREES CRIMSON SPIRE ENGLISH OAK B&B, 3" CAL EACH	632.0101.03 TREES CALLERY PEAR B&B, 3" CAL EACH
0010	USH 41 / APPLETON AVE			
	STA 192+05, 51' RT	1	--	--
	STA 192+45, 51' LT	--	--	1
	STA 195+58, 51' LT	--	--	1
	STA 196+22, 51' LT	1	--	--
	STA 240+40, 0' LT	1	--	--
	STA 242+55, 0' LT	1	--	--
	STA 264+60, 51' LT	--	1	--
	STA 271+55, 51' RT	--	1	--
	STA 309+05, 51' RT	--	--	1
	STA 309+55, 51' RT	--	--	1
	TOTALS	4	2	4

LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES

CATEGORY		632.9101 EACH
0010	CARE CYCLES	12
	TOTAL	12

EROSION CONTROL ITEMS

CATEGORY	LOCATION STA	TO	STA	606.0200 RIPRAP MEDIUM CY	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2027 EROSION MAT CLASS II TYPE C SY	628.701 INLET PROTECT TYPE A EACH	628.7010 INLET PROTECT TYPE B EACH	628.7015 INLET PROTECT TYPE C EACH	628.7020 INLET PROTECT TYPE D EACH	628.7560 TRACKING PADS EACH	630.0200 SEEDING TEMPORARY LB	645.0120 GEOTEXTILE FABRIC TYPE HR SY
0010	USH 41 / APPLETON AVE																
	188+90	-	199+75	--	--	--	--	--	--	--	6	5	3	5	--	--	--
	199+75	-	210+75	--	--	--	--	--	--	--	11	5	--	15	--	--	--
	210+75	-	222+75	--	--	--	--	--	--	--	10	8	--	7	--	--	--
	222+75	-	234+75	--	--	--	--	--	--	--	14	3	--	12	--	--	--
	234+75	-	246+75	--	--	--	--	--	--	--	7	7	--	4	--	--	--
	246+75	-	258+75	--	--	--	--	--	--	--	10	5	--	11	--	--	--
	258+75	-	270+75	--	--	--	--	--	--	--	8	4	--	9	--	--	--
	270+75	-	282+80	--	--	--	--	--	--	--	10	9	--	7	--	--	--
	282+80	-	294+75	--	--	--	--	--	--	--	10	3	--	9	--	--	--
	294+75	-	306+75	--	--	--	--	--	--	--	10	3	--	10	--	--	--
	306+75	-	318+30	--	--	--	--	--	--	--	12	3	--	8	2	--	--
	318+30	-	326+00	--	--	--	--	--	--	--	9	--	--	8	--	--	--
	326+00		330+75	--	--	--	--	--	--	--	4	--	--	6	--	--	--
	330+75	-	341+75	--	--	--	--	--	--	167	7	2	--	6	--	5	--
	341+75	-	352+75	--	--	--	--	--	--	535	12	6	1	7	--	14	--
	352+75	-	380+71	--	--	--	--	--	--	1,932	13	5	--	5	--	52	--
USH 41 SUBTOTALS				0	0	0	0	0	0	2,634	153	68	4	129	2	71	0
	SILVER SPRING DR / CTH E																
	ALL RAMPS			2	20	2,790	2,790	7	5	1,978	6	4	7	6	4	18	10
	UNDISTRIBUTED			0	30	410	410	2	2	388	1	2	2	1	2	31	10
SILVER SPRING DR SUBTOTALS				2	50	3,200	3,200	9	7	2,366	7	6	9	7	6	49	20
TOTALS				2	50	3,200	3,200	9	7	5,000	160	74	13	136	8	120	20

RESTORATION ITEMS

CATEGORY	LOCATION	STA	TO	STA	624.0100 WATER MGAL	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIX NO. 40 LB	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
0010	USH 41 / APPLETON AVE									
		188+90	-	199+75	--	1,050	0.66	--	141	1,050
		199+75	-	210+75	--	630	0.40	--	85	630
		210+75	-	222+75	--	250	0.16	--	33	250
		222+75	-	234+75	--	140	0.09	--	19	140
		234+75	-	246+75	--	510	0.32	--	69	510
		246+75	-	258+75	--	360	0.23	--	49	360
		258+75	-	270+75	--	210	0.13	--	29	210
		270+75	-	282+80	--	210	0.13	--	28	210
		282+80	-	294+75	--	300	0.19	--	40	300
		294+75	-	306+75	--	1,200	0.78	--	167	1,200
		306+75	-	318+30	--	460	0.29	--	63	460
		326+00	-	330+75	--	250	0.16	--	34	250
		330+75	-	341+75	--	654	0.41	5	66	486

CATEGORY	LOCATION	STA	TO	STA	624.0100 WATER MGAL	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIX NO. 40 LB	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
0010	USH 41 / APPLETON AVE									
		341+75	-	352+75	--	1,599	1.01	14	144	1,065
		352+75	-	380+71	--	2,241	1.41	52	42	309
	UNDISTRIBUTED				130	936	0.64	29	132	469
USH 41 SUBTOTALS					130	11,000	7	100	1,140	7,900
	SILVER SPRING DR / CTH E									
		318+30	-	326+00	--	4,500	1.23	35	338	2,505
	UNDISTRIBUTED				100	900	0.77	15	122	445
SILVER SPRING DR SUBTOTALS					100	5,400	2.00	50	460	2,950
TOTALS					230	16,400	9.00	150	1,600	10,850

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	STAGE DURATION DAYS	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	643.0300 TRAFFIC CONTROL DRUMS EACH*	DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH*	DAYS	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH*	DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH*	DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH*	DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH*	DAYS
0010	STAGE 1A	30																	
	US 41/APPLETON AVE		--	--	--	275	8,250	17	510	--	--	29	870	37	1,110	2	60	48	1,440
	STAGE 1A SUBTOTALS		0	0	0		8,250		510	0	0		870		1,110		60		1,440
	STAGE 1B	31																	
	US 41 / APPLETON AVE		--	--	--	271	8,401	44	1,364	81	81	87	2,697	78	2,418	2	62	66	2,046
	STAGE 1B SUBTOTALS		0	0	0		8,401		1,364	81	81		2,697		2,418		62		2,046
	STAGE 1B & 1C CROSSOVER	18																	
	US 41 / APPLETON AVE		--	--	--	252	4,536	16	288	--	--	32	576	14	252	1	18	34	612
	STAGE 1B & 1C X-OVER SUBTOTALS		0	0	0		4,536		288	0	0		576		252		18		612
	STAGE 1C	25																	
	US 41 / APPLETON AVE		--	--	--	238	5,950	21	525	--	--	42	1,050	16	400	1	25	44	1,100
	STAGE 1B SUBTOTALS		0	0	0		5,950		525	0	0		1,050		400		25		1,100
	STAGE 2A	14																	
	NW RAMP AND SW RAMP		--	--	--	17	238	13	182	--	--	26	364	--	--	--	--	4	56
	STAGE 2A SUBTOTALS		0	0	0		238		182	0	0		364		0		0		56
	STAGE 2	58																	
	US 41 / APPLETON AVE		300	300	2	957	55,506	247	14,326	52	52	494	28,652	169	9,802	1	58	184	10,674
	STAGE 2 SUBTOTALS		300	300	2		55,506		14,326	52	52		28,652		9,802		58		10,674
	STAGE 3A	14																	
	NE RAMP AND SE RAMP		--	--	--	13	182	17	238	--	--	34	476	--	--	--	--	4	56
	STAGE 3A SUBTOTALS		0	0	0		182		238	0	0		476		0		0		56
	STAGE 3	57																	
	US 41 / APPLETON AVE		--	300	2	741	42,237	288	16,416	49	49	576	32,832	71	4,048	1	58	164	9,348
	STAGE 3 SUBTOTALS		0	300	2		42,237		16,416	49	49		32,832		4,048		58		9,348
	STAGE 4	16																	
	US 41 / APPLETON AVE		--	--	--	215	3,440	17	272	--	--	34	544	18	288	1	16	35	560
	STAGE 4 SUBTOTALS		0	0	0		3,440		272	0	0		544		288		16		560
	UNDISTRIBUTED		--	--			1,260		179	38	38		239		182		13		408
	TOTALS		300	600	4		130,000		34,300	220	220		68,300		18,500		310		26,300

* FOR INFORMATION ONLY

TRAFFIC CONTROL COVERING SIGNS

CATEGORY	LOCATION	643.0920 TYPE II EACH
0010	UNDISTRIBUTED	25
	TOTAL	25

TRAFFIC CONTROL 2010-10-70

CATEGORY	LOCATION	643.0100 EACH
0010	PROJECT I.D. 2010-10-70	1
	TOTAL	1

TRAFFIC CONTROL DETOUR ITEMS

CATEGORY	STAGE	DURATION/ INSTANCE DAYS	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SIGN NO.	SIZE W X H FT X FT	# OF SIGNS*	SF	643.2000 TRAFFIC CONTROL DETOUR 2010-10-70 EACH	643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH*	DAYS
0010	2A	14	FMS	7.5' x 5.5'	5	206.25	0.10	80	1,120
	STAGE 2a SUBTOTAL					206.25	0.10		1,120
	2	63	--		--	--	0.44	29	1,827
	STAGE 2 SUBTOTAL					0	0.44		1,827
	3A	14	FMS	7.5' x 5.5'	3	123.75	0.10	75	1,050
	STAGE 2 SUBTOTAL					123.75	0.10		1,050
	3	51	--		--	--	0.36	37	1,887
	STAGE 3 SUBTOTAL					0	0.36		1,887
	UNDISTRIBUTED		--		--	--	--	--	116
	TOTALS					330	1		6,000

* FOR INFORMATION ONLY

TRAFFIC CONTROL SIGNS PCMS

CATEGORY	STAGE	DURATION/ DAYS	LOCATION	643.1050 EACH*	DAYS
0010	2A	14	W SILVER SPRING DR	2	28
	2	63	W SILVER SPRING DR	2	126
	3A	14	W SILVER SPRING DR	2	28
	3	51	W SILVER SPRING DR	2	102
			UNDISTRIBUTED	--	16
TOTAL					300

* FOR INFORMATION ONLY

PAVEMENT MARKING ITEMS

CATEGORY	LOCATION STA TO STA	646.0106 PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	WHITE LF	3'LINE , 9' GAP WHITE LF	646.0881.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH DASHED WHITE 12.5 ' LINE, 37.5' GAP LF	646.0883.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH LF	647.0456 PAVEMENT MARKING CURB EPOXY LF	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY EACH	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH LF	SPV.0060.01 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS EACH	SPV.0060.02 ARROWS TYPE 2 EACH	SPV.0090.01 CROSSWALK 12-INCH LF	SPV.0090.02 STOP BAR 24-INCH LF
0010	USH 41 / APPLETON AVE												
	180+50 - 188+90	--	340	--	--	220	--	--	--	--	--	--	--
	188+90 - 199+75	--	1,382	75	525	546	357	7	90	--	--	88	--
	199+75 - 210+75	--	1,366	48	438	353	317	6	220	--	2	1,778	348
	210+75 - 222+75	252	1,760	90	525	615	289	8	--	2	6	744	192
	222+75 - 234+75	--	2,040	63	574	0	157	4	--	--	--	--	--
	234+75 - 246+75	--	2,110	48	575	345	98	2	--	1	2	--	--
	246+75 - 258+75	--	1,405	96	538	976	458	12	--	4	12	1,763	375
	258+75 - 270+75	--	2,205	24	575	--	160	3	--	--	--	--	--
	270+75 - 282+80	--	1,940	72	538	27	205	5	--	--	--	186	--
	282+80 - 294+75	--	1,795	48	590	701	345	8	--	3	7	1,102	302
	294+75 - 306+75	--	2,400	7	600	90	130	4	0	--	--	--	--
	306+75 - 318+30	--	1,778	117	550	122	403	8	--	--	--	--	--
	326+00 - 330+75	--	981	24	288	--	55	1	--	--	--	--	--
	330+75 - 341+75	90	1,955	20	508	260	106	4	--	1	2	492	115
	341+75 - 352+75	--	1,875	33	500	95	50	2	--	--	--	--	--
	352+75 - 364+00	78	1,919	38	518	210	150	6	--	2	4	565	143
0010	SILVER SPRING DR / CTH E												
	318+30 - 326+00	--	824	12	188	810	100	5	--	4	8	742	45
	TOTALS		29,310		8,030	5,150	3,380	85	310	17	43	7,460	1,520

3

3

TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	LOCATION	646.0600 REMOVING PAVEMENT MARKINGS LF	649.0200 TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH LF			649.0400 PAVEMENT MARKING REMOVABLE TAPE 4-INCH LF					649.0701 TEMPORARY PAVEMENT MARKING 8-INCH LF	649.0801 REMOVABLE TAPE 8-INCH LF	649.0900 TEMPORARY PAVEMENT MARKING STOP LINE 12-INCH LF	649.1000 REMOVABLE TAPE 12-INCH LF	649.1500 TEMPORARY PAVEMENT MARKING DIAGONAL 12-INCH LF	649.1600 TEMPORARY PAVEMENT MARKING DIAGONAL REMOVABLE TAPE 12-INCH LF
			YELLOW	WHITE	WHITE DASH	YELLOW	YELLOW DASH	WHITE	WHITE DASH	BLACK						
0010	STAGE 1A/ APPLETON AVE	1,350	--	--	--	100	--	1,010	--	3,050	0	0	--	0	--	0
	STAGE 1A SUBTOTAL	1,350		0				4,160			0	0	0	0	0	0
	STAGE 1B / APPLETON AVE	--	350	260	510	920	--	520	810	--	0	740	--	150	--	--
	STAGE 1B SUBTOTAL	0		1120				2,250			0	740	0	150	0	0
	STAGE 1B & 1C - CROSSOVER	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	STAGE 1B & 1C - CROSSOVER SUBTO	0		0				0			--	0	0	0	0	0
	STAGE 1C / APPLETON AVE	--	--	--	590	--	--	90	--	--	110	--	--	97	--	--
	STAGE 1C SUBTOTAL	0		590				90			110	0	0	97	0	0
	STAGE 2 / APPLETON AVE	2,000	18,670	3,320	--	870	--	230	--	700	6,010	0	350	33	570	--
	STAGE 2 SUBTOTAL	2,000		21,990				1,800			6,010	0	350	33	570	0
	STAGE 3 / APPLETON AVE	--	--	0	--	4,080	150	15,770	--	--	--	2,070	--	200	--	480
	STAGE 3 SUBTOTAL	0		0				20,000			--	2,070	0	200	0	480
	STAGE 4 / APPLETON AVE	--	--	0	--	--	--	--		--	--	0	0	0	--	0
	STAGE 4 SUBTOTAL	0		0				0			--	0	0	0	0	0
	TOTALS	3,350		23,700				28,300			6,120	2,810	350	480	570	480

3

CONSTRUCTION STAKING ITEMS

CATEGORY	LOCATION	STA	TO	STA	650.4000 CONSTRUCTION STAKING STORM SEWI EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER CURB & GUTTER LF	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT B-40-328 LS	650.7000 CONCRETE PAVEMENT LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	USH 41 / APPLETON AVE												
		188+90	-	199+75	1	--	--	997	--	234	1,085	1	--
		199+75	-	210+75	3	--	--	949	--	305	1,100	--	--
		210+75	-	222+75	2	--	--	671	--	216	1,200	--	--
		222+75	-	234+75	3	--	--	183	--	--	1,200	--	--
		234+75	-	246+75	--	--	--	970	--	447	1,200	--	--
		246+75	-	258+75	3	--	--	841	--	420	1,200	--	--
		258+75	-	270+75	--	--	--	154	--	48	1,200	--	--
		270+75	-	282+80	--	--	--	321	--	54	1,205	--	--
		282+80	-	294+75	--	--	--	473	--	195	1,195	--	--
		294+75	-	306+75	--	--	--	900	--	64	1,200	--	--
		306+75	-	318+30	--	--	--	488	--	110	1,155	--	--
		318+30	-	326+00	7	1,540	1,540	1,630	1	0	770	--	1,540
		326+00	-	330+75	--	--	--	75	--	47	475	--	--
		330+75	-	341+75	1	--	--	354	--	--	1,100	--	--
		341+75	-	352+75	4	--	--	791	--	165	1,100	--	--
		352+75	-	364+00	--	--	--	165	--	60	1,125	--	--
	NORTH CROSSOVER												
		375+00	-	380+00	--	--	--	425	--	--	--	--	--
	SILVER SPRING DR /												
		421NW+66	-	427NW+06	--	540	540	1,152	--	--	--	--	1,080
		528NE+18	-	533NE+86	--	568	568	1,103	--	--	--	--	1,136
		623SW+65	-	629SW+43	--	578	578	1,125	--	--	--	--	1,156
		730SE+56	-	734SE+30	--	374	374	783	--	--	--	--	748
	TOTALS				24	3,600	3,600	14,550	1	2,365	17,510	1	5,660

SAWING ITEMS

CATEGORY	LOCATION	STA	TO	STA	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
0010	USH 41 / APPLETON AVE					
		188+90	-	199+75	--	5,780
		199+75	-	210+75	60	1,826
		210+75	-	222+75	235	1,564
		222+75	-	234+75	60	526
		234+75	-	246+75	64	1,574
		246+75	-	258+75	142	2,202
		258+75	-	270+75	30	856
		270+75	-	282+80	71	757
		282+80	-	294+75	--	2,466
		294+75	-	306+75	--	1,545
		306+75	-	318+30	126	1,666
		318+30	-	326+00	241	267
		326+00	-	330+75	36	734
		330+75	-	341+75	--	1,314
		341+75	-	352+75	71	2,446
		352+75	-	364+00	154	706
	NORTH CROSSOVER					
		375+00	-	380+00	--	420
	SILVER SPRING DR / CTH E					
	RAMPS				--	91
	UNDISTRIBUTED				30	2,760
	CATEGORY 0010 SUBTOTAL				1,320	29,500
0070	USH 41 / APPLETON AVE					
		188+90	-	199+75	93	484
		199+75	-	210+75	273	639
		210+75	-	222+75	153	719
		222+75	-	234+75	247	988
		234+75	-	246+75	120	617
		246+75	-	258+75	42	284
		258+75	-	270+75	18	536
		270+75	-	282+80	62	689
		282+80	-	294+75	360	255
		294+75	-	306+75	12	49
		306+75	-	318+30	--	170
		326+00	-	330+75	--	70
		330+75	-	341+75	--	76
		341+75	-	352+75	--	86
		352+75	-	364+00	--	38
	CATEGORY 0070 SUBTOTAL				1,380	5,700

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3

CITY UNDERGROUND CONDUIT ITEMS

CATEGORY	LOCATION		* 611.8120.S COVER PLATES TEMPORARY EACH	SPV.0060.32 ADJUSTING TES MANHOLE COVERS EACH	REMARKS
0070	USH 41 / APPLETON AVE				
	MANHOLE 700	STA 190 + 99.8, 17.1 LT	1	1	NEW COVER
	MANHOLE 701	STA 193 + 99.8, 17.0 LT	1	1	NEW COVER
	MANHOLE 702	STA 197 + 05.2, 16.5 LT	1	1	NEW COVER
	MANHOLE 703	STA. 215+53.3, 60.2' RT	1	1	NEW COVER
	MANHOLE 704	STA. 215+74.4, 29.8' RT	1	1	NEW COVER
	MANHOLE 705	STA. 216+49.5, 22.9' LT	1	1	NEW COVER
	MANHOLE 706	STA. 248+89.2, 84.9' RT	1	1	NEW COVER
	MANHOLE 707	STA. 249+90.5, 47.3' LT	1	1	NEW COVER
	MANHOLE 708	STA. 250+17.7, 17.9' LT	1	1	NEW COVER
	MANHOLE 709	STA. 252+66.9, 17.8' LT	1	1	NEW COVER
	MANHOLE 710	STA. 255+30.4, 18.0' LT	1	1	NEW COVER
	MANHOLE 711	STA. 258+96.8, 17.7' LT	1	1	NEW COVER
	MANHOLE 712	STA. 263+04.2, 17.9' LT	1	1	NEW COVER
	MANHOLE 713	STA. 266+63.6, 18.3' LT	1	1	NEW COVER
	MANHOLE 714	STA. 270+27.1, 18.5' LT	1	1	NEW COVER
	MANHOLE 715	STA. 273+66.3, 18.0' LT	1	1	NEW COVER
	MANHOLE 716	STA. 276+51.0, 18.5' LT	1	1	NEW COVER
	MANHOLE 717	STA. 279+35.5, 17.7' LT	1	1	NEW COVER
	MANHOLE 718	STA. 281+71.5, 13.1' LT	1	1	NEW COVER
	MANHOLE 719	STA. 282+21.2, 17.8' LT	1	1	NEW COVER
	MANHOLE 720	STA. 286+32.3, 21.2' LT	1	1	NEW COVER
	MANHOLE 721	STA. 287+12.2, 40.5' LT	1	1	(1)
	MANHOLE 722	STA. 287+53.7, 11.5' LT	1	1	NEW COVER
	MANHOLE 723	STA. 288+85.9, 18.0' LT	1	1	NEW COVER
	MANHOLE 724	STA. 292+40.0, 40.5' LT	1	1	(1)
	MANHOLE 725	STA. 297+65.0, 40.5' LT	1	1	(1)
	MANHOLE 726	STA. 302+90.0, 40.5' LT	1	1	(1)
	MANHOLE 727	STA. 308+07.3', 53.6' LT	1	1	NEW COVER
	MANHOLE 728	STA. 315+20.9, 52.9' LT	1	1	NEW COVER
	MANHOLE 729	STA. 315+23.1, 27.1' RT	1	1	NEW COVER
	MANHOLE 730	STA. 320+63.5, 38.5' RT	1	1	NEW COVER
	MANHOLE 731	STA. 323+88.2, 38.4' RT	1	1	NEW COVER
	MANHOLE 732	STA. 327+43.2, 19.6' RT	1	1	NEW COVER
	MANHOLE 733	STA. 334+37.8, 25.4' RT	1	1	NEW COVER
	MANHOLE 734	STA. 339+98.4, 33.1' RT	1	1	NEW COVER
	MANHOLE 735	STA. 346+81.5, 35.2' RT	1	1	NEW COVER
	MANHOLE 736	STA. 351+87.6, 38.5' RT	1	1	NEW COVER
	MANHOLE 737	STA. 356+42.0, 38.2' RT	1	1	NEW COVER
	MANHOLE 738	STA. 361+00.4, 38.3' RT	1	1	NEW COVER
	TOTALS		39	39	

(1) MANHOLES TO BE INSTALLED BY THE CITY PRIOR TO THE START OF CONSTRUCTION

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

WATER AND SANITARY NON-PARTICIPATING ITEMS

CATEGORY	LOCATION	STA	TO	STA	SPV.0060.24 ADJUSTING WATER BOXES EACH	SPV.0060.25 ADJUSTING WATER MANHOLES EACH	SPV.0060.28 ADJUSTING SANITARY MANHOLE COVERS EACH	SPV.0060.29 RECONSTRUCTING SANITARY MANHOLES EACH	SPV.0060.30 REPLACING SANITARY MANHOLE COVERS EACH	SPV.0060.31 INTERNAL MANHOLE CHIMNEY SEALS EACH
0070	USH 41 / APPLETON AVE									
		188+90	-	199+75	13	--	7	1	1	7
		199+75	-	210+75	20	--	4	--	--	4
		210+75	-	222+75	24	2	10	2	2	10
		222+75	-	234+75	28	1	3	--	--	3
		234+75	-	246+75	16	--	3	--	--	3
		246+75	-	258+75	32	2	4	--	--	4
		258+75	-	270+75	15	2	7	2	2	7
		270+75	-	282+80	12	--	4	--	--	4
		282+80	-	294+75	13	--	7	1	1	7
		294+75	-	306+75	4	--	4	--	--	4
		306+75	-	318+30	12	--	3	--	--	3
		326+00	-	330+75	6	--	4	--	--	4
		330+75	-	341+75	5	--	2	--	--	2
		341+75	-	352+75	4	--	6	1	1	6
		352+75	-	364+00	5	--	1	--	--	1
	SILVER SPRING DR / CTH E									
		318+30	-	326+00	4	--	6	1	1	6
		421NW+66	-	427NW+06	4	--	--	--	--	--
		528NE+18	-	533NE+86	2	--	--	--	--	--
		623SW+65	-	629SW+43	1	--	2	--	--	2
		730SE+56	-	734SE+30	2	--	2	--	--	2
	TOTALS				222	7	79	8	8	79

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	J2-1(2S)	--	24 x 57	9.500	--	1	1	1	--	--	--
	M3-4	--	24 x 12								
	M1-6	STH 190	24 x 24								
	M5-2R	--	21 x 21								
2	J1-1(2S)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M2-1	--	24 x 12								
	M1-6	STH 181	24 x 24								
3	J1-1	--	-- x --	--	--	1	--	--	--	--	--
4	D1-1	--	-- x --	--	--	1	--	--	--	--	--
5	D1-65(2S)	76TH STREET NEXT SIGNAL	72 x 21	10.500	--	--	--	2	--	--	--
6	J2-3(2S)	--	72 x 57	28.500	--	1	2	2	--	--	--
	M3-3	--	24 x 12								
	M1-6	STH 181	24 x 24								
	M5-1R	--	21 x 21								
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
	M6-1	--	21 x 21								
	M3-1	--	24 x 12								
	M1-6	STH 181	24 x 24								
	M5-2R	--	21 x 21								
7	J4-1(2S)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M3-3	--	24 x 12								
	M1-4	USH 41	24 x 24								
8	J3-1(2S)	--	24 x 57	9.500	--	1	--	--	--	--	MOUNT ON POLE ABOVE SIGNAL
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
	M6-2	--	21 x 21								
9	J4-1(2S)	--	24 x 36	6.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--
	M1-6	STH 181	24 x 24	--	--	--	--	--	--	--	--
10	J3-1(2S)	--	24 x 57	9.500	--	1	1	1	--	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--
	M1-6	STH 181	24 x 24	--	--	--	--	--	--	--	--
	M6-2	--	21 x 21	--	--	--	--	--	--	--	--
11	J3-1(2S)	--	24 x 57	9.500	--	--	--	--	--	--	MOUNT ON POLE ABOVE SIGNAL
	M3-1	--	24 x 12								
	M1-6	STH 181	24 x 24								
	M6-1	--	21 x 21								
12	R5-1(2S)	--	30 x 30	6.250	--	--	--	1	--	--	--
13	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
14	R4-7(2S)	--	24 x 30	5.000	--	--	--	--	--	--	MOUNT ON LIGHT POLE
15	--	FAITH CHURCH	-- x --	--	--	1	--	--	--	--	REMOVE ILLEGAL SIGN
16	R6-2L(2S)	--	24 x 30	5.000	--	--	--	1	--	--	--
17	R5-1(2S)	--	30 x 30	6.250	--	--	--	1	--	--	--
18	J3-1(2)	--	24 x 57	9.500	--	1	1	1	--	--	--
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
	M6-1	--	21 x 21								

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
19	J2-3(2)	--	72 x 57	28.500	--	1	2	2	--	--	--
	M3-3	--	24 x 12								
	M1-4	USH 41	24 x 24								
	M5-2L	--	21 x 21								
	M3-3	--	24 x 12								
	M1-6	STH 181	24 x 24								
	M6-1	--	21 x 21								
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
	M5-1R	--	21 x 21								
20	J4-1(2S)	--	24 x 36	6.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M3-1	--	24 x 12								
	M1-6	STH 181	24 x 24								
21	J2-1(2S)	--	24 x 57	9.500	--	1	1	1	--	--	--
	M3-1	--	24 x 12								
	M1-6	STH 181	24 x 24								
	M6-2	--	21 x 21								
22	J2-1(2S)	--	24 x 57	9.500	--	1	--	--	--	--	MOUNT ON POLE ABOVE SIGNAL
	M3-3	--	24 x 12								
	M1-6	STH 181	24 x 24								
	M6-1	--	21 x 21								
23	R4-7(2S)	--	24 x 30	5.000	--	--	--	1	--	--	--
24	J4-1(2S)	--	24 x 36	6.000	--	1	--	1	--	--	--
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
25	R2-1(2S)	SPEED LIMIT 35	24 x 30	5.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
26	S1-1(2S)	--	36 x 36	--	6.750	1	--	1	--	--	--
27	S16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#26	--
28	R2-6P(2S)	--	24 x 18	3.000	--	--	--	--	--	#26	--
29	S1-1(2S)	--	36 x 36	--	6.750	1	1	--	--	--	MOUNT ON LIGHT POLE
30	S16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#29	--
31	R2-6P(2S)	--	24 x 18	3.000	--	--	--	--	--	#29	--
32	W3-3(2S)	--	36 x 36	--	9.000	1	--	1	--	--	--
33	W3-3(2S)	--	36 x 36	--	9.000	1	1	--	--	--	MOUNT ON LIGHT POLE
34	D1-65(2S)	CONGRESS STREET NEXT SIGNAL	90 x 21	13.125	--	--	--	2	--	--	--
35	J1-1(2S)	--	24 x 36	6.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M2-1	--	24 x 12	--	--	--	--	--	--	--	--
	M1-6	STH 181	24 x 24	--	--	--	--	--	--	--	--
36	D1-65(2S)	76TH STREET NEXT SIGNAL	72 x 21	10.500	--	1	--	--	--	#34	BACK OF SIGN #34
37	NOT USED	--	-- x --	--	--	--	--	--	--	--	--
38	W3-3(2S)	--	36 x 36	--	9.000	1	--	--	--	--	MOUNT ON LIGHT POLE
39	W3-3(2S)	--	36 x 36	--	9.000	1	--	--	--	#32	BACK OF SIGN #32

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
40	J2-3(2S)	--	72 x 57	28.500	--	1	2	2	--	--	--
	M3-1	--	24 x 12								
	M1-6	STH 181	24 x 24								
	M5-1L	--	21 x 21								
	M3-3	--	24 x 12								
	M1-4	USH 41	24 x 24								
	M6-1	--	21 x 21								
	M3-3	--	24 x 12								
	M1-6	STH 181	24 x 24								
	M5-2R	--	21 x 21								
41	--	FAITH CHURCH	-- x --	--	--	1	1	--	--	--	REMOVE ILLEGAL SIGN
42	R2-1(2S)	SPEED LIMIT 35	24 x 30	5.000	--	1	1	1	--	--	--
43	R5-1(2S)	--	30 x 30	6.250	--	--	--	1	--	--	--
44	S4-51(2)	SPEED LIMIT 25	24 x 48	8.000	--	1	1	--	--	--	MOUNT ON LIGHT POLE
45	S4-51(2)	SPEED LIMIT 25	24 x 48	8.000	--	1	--	1	--	--	--
46	S1-1	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM LIGHT POLE
	WF16-7L	--	-- x --	--	--	1	--	--	--	--	--
47	R5-1(2S)	--	30 x 30	6.250	--	--	--	--	--	--	MOUNT ON LIGHT POLE
48	R2-1	--	-- x --	--	--	1	--	--	--	--	--
49	J4-1(2S)	--	24 x 36	6.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M3-3	--	24 x 12								
	M1-4	USH 41	24 x 24								
50	R2-1(2S)	SPEED LIMIT 35	24 x 30	5.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
51	S5-2(2)	--	24 x 30	5.000	--	--	--	--	--	#50	--
52	R2-1(2S)	SPEED LIMIT 35	24 x 30	5.000	--	--	--	1	--	--	--
53	S5-2(2)	--	24 x 30	5.000	--	--	--	--	--	#52	--
54	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
55	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
56	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
57	S1-1	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
58	WF16-7R	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
59	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
60	R1-1	--	-- x --	--	--	1	1	--	--	--	--
61	S1-1	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
62	WF16-7R	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
63	J4-1(2S)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
64	R2-1(2S)	SPEED LIMIT 35	24 x 30	5.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
65	S5-2(2S)	--	24 x 30	5.000	--	--	--	--	--	#64	MOUNT ON LIGHT POLE
66	R2-1(2S)	SPEED LIMIT 35	24 x 30	5.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
67	S5-2(2S)	--	24 x 30	5.000	--	--	--	--	--	#66	MOUNT ON LIGHT POLE
68	R4-7(2S)	--	24 x 30	5.000	--	--	--	1	--	--	--
69	R5-1(2S)	--	30 x 30	6.250	--	--	--	1	--	--	--
70	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
71	R4-7(2S)	--	24 x 30	5.000	--	--	--	--	--	--	MOUNT ON LIGHT POLE
72	R5-1(2S)	--	30 x 30	6.250	--	--	--	--	--	#74	BACK OF SIGN #74
73	W3-3(2S)	--	36 x 36	--	9.000	1	--	--	--	--	MOUNT ON LIGHT POLE

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
74	W3-3(2S)	--	36 x 36	9.000	--	1	1	1	--	#72	--
75	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
76	S1-1(2S)	--	36 x 36	--	6.750	1	--	--	--	--	MOUNT ON LIGHT POLE
77	S16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#76	--
78	R2-6P(2S)	--	24 x 18	3.000	--	--	--	--	--	#76	--
79	S1-1(2S)	--	36 x 36	--	6.750	1	1	1	--	--	--
80	S16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#79	--
81	R2-6P(2S)	--	24 x 18	3.000	--	--	--	--	--	#79	--
82	D1-65(2S)	CONGRESS STREET NEXT SIGNAL	90 x 21	13.125	--	--	--	2	--	--	--
83	S4-51(2)	SPEED LIMIT 25	24 x 48	8.000	--	1	1	1	--	--	--
84	S4-51(2)	SPEED LIMIT 25	24 x 48	8.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
85	S1-1	--	-- x --	--	--	1	1	--	--	--	--
86	WF16-7L	--	-- x --	--	--	1	--	--	--	--	--
87	R5-1(2S)	--	30 x 30	6.250	--	--	--	1	--	--	--
88	R5-1(2S)	--	30 x 30	6.250	--	--	--	--	--	--	MOUNT ON LIGHT POLE
89	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
90	R2-1(2S)	SPEED LIMIT 35	24 x 30	5.000	--	1	1	1	--	--	--
91	R2-1(2S)	SPEED LIMIT 35	24 x 30	5.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
92	R2-1(2S)	SPEED LIMIT 35	24 x 30	5.000	--	1	1	1	--	--	--
93	R4-7(2S)		24 x 30	5.000	--	--	--	1	--	--	--
94	R4-7(2S)		24 x 30	5.000	--	--	--	1	--	--	--
95	R2-1(2S)	SPEED LIMIT 35	24 x 30	5.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
96	R5-1(2S)	--	30 x 30	6.250	--	--	--	1	--	--	--
97	R4-7(2S)	--	24 x 30	5.000	--	--	--	--	--	--	MOUNT ON LIGHT POLE
98	R4-7(2S)	--	24 x 30	5.000	--	--	--	1	--	--	--
99	R1-1(3)	--	36 x 36	7.460	--	1	--	--	--	--	MOUNT ON LIGHT POLE
100	R5-1(2S)	--	30 x 30	6.250	--	--	--	1	--	--	--
101	R1-1(3)	--	36 x 36	7.460	--	1	--	--	--	--	MOUNT ON LIGHT POLE
102	W3-3(2S)	--	36 x 36	--	9.000	1	--	--	--	--	MOUNT ON LIGHT POLE
103	R4-7(2S)	--	24 x 30	5.000	--	--	--	1	--	--	--
104	R4-7(2S)	--	24 x 30	5.000	--	--	--	1	--	--	--
105	R6-2L(2S)	--	24 x 30	5.000	--	--	--	1	--	--	--
106	W3-3(2S)	--	36 x 36	--	9.000	1	1	1	--	--	--
107	M1-94	HAMPTON AVE 4800 NORTH	78 x 24	13.000	--	1	--	2	--	--	--
108	S1-1(2S)	--	36 x 36	--	6.750	1	1	1	--	--	--
109	S16-9P(2M)	--	30 x 18	--	3.750	--	--	--	--	#108	--
110	S1-1(2S)	--	36 x 36	--	6.750	1	--	--	--	--	MOUNT ON LIGHT POLE
111	S16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#110	--
112	J13-1(2S)	--	24 x 45	7.500	--	1	--	1	--	--	--
	M1-5A	CTH EE	24 x 24	--	--						
	M6-4	--	21 x 21	--	--						
113	R2-1(2S)	SPEED LIMIT 35	24 x 30	5.000	--	1	--	--	--	#112	BACK OF SIGN #112
114	R2-1(2S)	SPEED LIMIT 35	24 x 30	5.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
115	W16-1P(2M)	--	18 x 24	3.000	--	--	--	1	--	--	--
116	R5-1(2S)	--	30 x 30	6.250	--	--	--	1	--	--	--
117	R6-2R(2S)	--	24 x 30	5.000	--	--	--	1	--	--	--
118	R1-1(3)	--	36 x 36	7.460	--	1	--	1	--	--	--
119	R3-2(2S)	--	24 x 24	4.000	--	--	--	--	--	#118	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
120	J1-1(2S)	--	24 x 36	6.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M2-1	--	24 x 12								
	M1-5A	CTH EE	24 x 24								
121	NOT USED	--	-- x --	--	--	--	--	--	--	--	--
122	J4-1(2S)	--	24 x 36	6.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M3-3	--	24 x 12	--	--						
	M1-4	USH 41	24 x 24	--	--						
123	S1-1	--	-- x --	--	--	1	1	--	--	--	--
124	WF16-7L	--	-- x --	--	--	1	--	--	--	--	--
125	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
126	J4-1(2M)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
127	J13-1(2M)	--	24 x 36	6.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M1-5A	CTH EE	24 x 24								
	M6-4	--	24 x 12								
128	W16-1P(2M)	--	18 x 24	--	3.000	--	--	1	--	--	--
129	D1-65(2M)	GRANTOSA DR NEXT SIGNAL	72 x 21	10.500	--	--	--	2	--	--	--
130	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
131	R5-1(2S)	--	30 x 30	6.250	--	--	--	--	--	--	MOUNT ON LIGHT POLE
132	S1-1	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM LIGHT POLE
133	WF16-7R	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM LIGHT POLE
134	S1-1	--	-- x --	--	--	1	1	--	--	--	--
135	WF16-7L	--	-- x --	--	--	1	--	--	--	--	--
136	S1-1	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM LIGHT POLE
137	WF16-7L	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM LIGHT POLE
138	J4-1(2S)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M3-3	--	24 x 12								
	M1-4	USH 41	24 x 24								
139	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
140	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
141	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
142	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
143	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
144	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
145	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
146	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
147	D1-65(MOD)	HAMPTON AVE 4800 NORTH	78 x 24	13.000	--	1	--	2	--	--	--
148	J1-1(2M)	--	24 x 36	6.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M2-1	--	24 x 12								
	M1-5A	CTH EE	24 x 24								
149	S1-1(2M)	--	36 x 36	--	6.750	1	1	1	--	--	--
150	S16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#149	--
151	S1-1(2M)	--	36 x 36	--	6.750	1	1	1	--	--	--
152	S16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#151	--
153	R5-1(2S)	--	30 x 30	6.250	--	--	--	--	--	#149	BACK OF SIGN #149
154	J4-1(2M)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M3-3	--	24 x 12								
	M1-4	USH 41	24 x 24								

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
155	J4-1(2M)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
156	--	CHURCH	-- x --	--	--	1	--	--	--	--	REMOVE ILLEGAL SIGN
157	R5-1(2S)	--	30 x 30	6.250	--	--	--	1	--	--	--
158	R5-1(2S)	--	30 x 30	6.250	--	--	--	1	--	--	--
159	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
160	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
161	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
162	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
163	D1-65(2M)	GRANTOSA DR NEXT SIGNAL	72 x 21	10.500	--	--	--	2	--	--	--
164	R6-2L(2M)	--	30 x 36	7.500	--	--	--	1	--	--	--
165	R4-7(2M)	--	24 x 30	5.000	--	--	--	1	--	--	--
166	R4-7(2M)	--	24 x 30	5.000	--	--	--	1	--	--	--
167	R5-1(2M)	--	36 x 36	9.000	--	--	--	1	--	--	--
168	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
169	W3-3(2M)	--	36 x 36	--	9.000	1	--	--	--	--	MOUNT ON LIGHT POLE
170	W3-3(2M)	--	36 x 36	--	9.000	1	1	1	--	--	--
171	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
172	R4-7(2M)	--	24 x 30	5.000	--	--	--	1	--	--	--
173	R6-2L(2M)	--	30 x 36	7.500	--	--	--	1	--	--	--
174	R4-7(2M)	--	24 x 30	5.000	--	--	--	--	--	--	MOUNT ON LIGHT POLE
175	S2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
176	S2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
177	R5-1(2M)	--	36 x 36	9.000	--	--	--	1	--	--	--
178	R4-7(2M)	--	24 x 30	5.000	--	--	--	1	--	--	--
179	R1-1(3)	--	36 x 36	7.460	--	1	--	--	--	--	MOUNT ON LIGHT POLE
180	S1-1(2M)	--	36 x 36	--	6.750	1	--	--	--	--	MOUNT ON LIGHT POLE
181	S16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#180	--
182	R2-6P(2M)	--	24 x 18	3.000	--	--	--	--	--	#180	--
183	S1-1(2M)	--	36 x 36	--	6.750	1	1	1	--	--	--
184	S16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#183	--
185	R2-6P(2M)	--	24 x 18	3.000	--	--	--	--	--	#183	--
186	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	--	--	1	--	--	--
187	S5-2(2M)	--	24 x 30	5.000	--	--	--	--	--	#186	--
188	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	--	--	1	--	--	--
189	S5-2(2M)	--	24 x 30	5.000	--	--	--	--	--	#188	--
190	R5-1(2M)	--	36 x 36	9.000	--	--	--	1	--	--	--
191	R6-2L(2M)	--	30 x 36	7.500	--	--	--	1	--	--	--
192	R4-7(2M)	--	24 x 30	5.000	--	--	--	--	--	--	MOUNT ON LIGHT POLE
193	S2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
194	S2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
195	R5-1(2M)	--	36 x 36	9.000	--	--	--	1	--	--	--
196	S4-51(2)	SPEED LIMIT 30	24 x 48	8.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
197	S4-51(2)	SPEED LIMIT 30	24 x 48	8.000	--	1	1	1	--	--	--
198	W3-3(2M)	--	36 x 36	--	9.000	1	--	--	--	--	MOUNT ON LIGHT POLE

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
199	W3-3(2M)	--	36 x 36	--	9.000	1	1	1	--	--	--
200	S1-1(2M)	--	36 x 36	--	6.750	1	--	--	--	--	MOUNT ON LIGHT POLE
201	S16-7R(2M)	--	30 x 18	--	3.750	1	--	--	--	#200	--
202	S1-1(2M)	--	36 x 36	--	6.750	1	1	1	--	--	--
203	S16-7L(2M)	--	30 x 18	--	3.750	1	--	--	--	#202	--
204	R5-1(2M)	--	36 x 36	9.000	--	--	--	--	--	#202	BACK OF SIGN #202
205	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
206	M2-1	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM LIGHT POLE
	M1-94	91ST STREET	-- x --	--	--	1	--	--	--	--	REMOVE FROM LIGHT POLE
207	R5-1(2M)	--	36 x 36	9.000	--	--	--	1	--	--	--
208	R6-2L(2M)	--	30 x 36	7.500	--	--	--	1	--	--	--
209	S1-1(2M)	--	36 x 36	--	6.750	1	1	1	--	--	--
210	S16-7L(2M)	--	30 x 18	--	3.750	1	--	--	--	#209	--
211	R4-7(2M)	--	24 x 30	5.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
212	S1-1(2M)	--	36 x 36	--	6.750	1	--	1	--	--	--
213	S16-7R(2M)	--	30 x 18	--	3.750	1	--	--	--	#212	--
214	D1-65(2M)	91ST STREET NEXT SIGNAL	72 x 21	10.500	--	--	--	2	--	--	--
215	W11-9(2M)	--	30 x 30	--	6.250	1	1	1	--	--	--
216	W16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#215	--
217	S4-51(2)	--	24 x 48	8.000	--	1	--	--	--	#215	BACK OF SIGN #215
218	S1-1(2M)	--	36 x 36	--	6.750	1	--	--	--	--	MOUNT ON LIGHT POLE
219	S16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#218	--
220	R2-6P(2M)	--	24 x 18	3.000	--	--	--	--	--	#218	--
221	W16-1P(2M)	--	18 x 24	--	3.000	--	--	1	--	--	--
222	S1-1(2M)	--	36 x 36	--	6.750	1	1	1	--	--	--
223	S16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#222	--
224	R2-6P(2M)	--	24 x 18	3.000	--	--	--	--	--	#222	--
225	J4-1(2M)	--	24 x 36	6.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M3-3	--	24 x 12								
	M1-4	USH 41	24 x 24								
226	S4-51(2)	SPEED LIMIT 30	24 x 48	8.000	--	1	--	--	--	#225	MOUNT ON LIGHT POLE
227	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	--	--	1	--	--	--
228	S5-2(2M)	--	24 x 30	5.000	--	--	--	--	--	#227	--
229	W11-9(2M)	--	30 x 30	--	6.250	1	1	1	--	--	--
230	W16-7R(2M)	--	24 x 12	--	2.000	1	--	--	--	#229	--
231	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
232	R5-1(2M)	--	36 x 36	9.000	--	--	--	1	--	--	--
233	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
234	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
235	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
236	R5-1(2M)	--	36 x 36	9.000	--	--	--	1	--	--	--
237	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
238	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
239	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
240	W16-1P(2M)	--	18 x 24	--	3.000	--	--	1	--	--	--
241	J4-1(2M)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
242	J4-1(2M)	--	24 x 36	6.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
243	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
244	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
245	W3-3(2M)	--	36 x 36	--	9.000	1	1	1	--	--	--
246	W3-3(2M)	--	36 x 36	--	9.000	1	1	1	--	--	--
247	D1-65(2M)	91ST STREET NEXT SIGNAL	72 x 21	10.500	--	--	--	2	--	--	--
248	W11-9(2M)	--	30 x 30	--	6.250	1	1	1	--	--	--
249	W16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#248	--
250	W11-9(2M)	--	30 x 30	--	6.250	1	1	1	--	--	--
251	W16-9P(2M)	--	30 x 18	--	3.750	1	--	--	--	#250	--
252	M1-94	91ST STREET	-- x --	--	--	1	--	--	--	--	REMOVE FROM LIGHT POLE
253	R4-7(2M)	--	24 x 30	5.000	--	--	--	1	--	--	--
254	R4-7(2M)	--	24 x 30	5.000	--	--	--	1	--	--	--
255	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
256	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
257	R6-2L(2M)	--	30 x 36	7.500	--	--	--	1	--	--	--
258	W11-8(2M)	--	30 x 30	--	6.250	1	--	--	--	--	MOUNT ON LIGHT POLE
259	W11-8(2M)	--	30 x 30	--	6.250	1	1	1	--	--	--
260	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
261	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
262	R4-7(2M)	--	24 x 30	5.000	--	1	1	1	--	--	--
263	R4-7(2M)	--	24 x 30	5.000	--	--	--	1	--	--	--
264	R5-1(2M)	--	36 x 36	9.000	--	--	--	1	--	--	--
265	R4-7(2M)	--	24 x 30	5.000	--	--	--	1	--	--	MOUNT ON LIGHT POLE
266	R4-7(2M)	--	24 x 30	5.000	--	--	--	1	--	--	--
267	R1-1(3)	--	36 x 36	7.460	--	1	--	--	--	--	MOUNT ON LIGHT POLE
268	R6-2L(2M)	--	30 x 36	7.500	--	--	--	1	--	--	--
269	R4-7(2M)	--	24 x 30	5.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
270	R5-1(2M)	--	36 x 36	9.000	--	--	--	1	--	--	--
271	W11-8(2M)	--	30 x 30	--	6.250	1	--	--	--	--	MOUNT ON LIGHT POLE
272	W11-8(2M)	--	30 x 30	--	6.250	1	1	1	--	--	--
273	R5-1(2M)	--	36 x 36	9.000	--	--	--	1	--	--	--
274	R6-2L(2M)	--	30 x 36	7.500	--	--	--	1	--	--	--
275	NOT USED	--	-- x --	--	--	--	--	--	--	--	--
276	J1-1(2M)	--	24 x 36	6.000	--	1	--	1	--	--	--
	M2-1	--	24 x 12								
	M1-5A	CTH E	24 x 24								
277	R5-1(2M)	--	36 x 36	9.000	--	--	--	1	--	--	--
278	R4-7(2M)	--	24 x 30	5.000	--	--	--	--	--	--	MOUNT ON LIGHT POLE
279	R4-7(2M)	--	24 x 30	5.000	--	--	--	1	--	--	--
280	R1-1(3)	--	36 x 36	7.460	--	1	--	--	--	--	MOUNT ON LIGHT POLE
281	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
282	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
283	R5-1(2M)	--	36 x 36	9.000	--	--	--	1	--	--	--
284	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
285	M1-94	SILVER SPRING DR 5600 NORTH	90 x 24	15.000	--	1	--	2	--	--	--
286	J3-1(2M)	--	24 x 57	9.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M3-2	--	24 x 12								
	M1-5A	CTH E	24 x 24								
	M6-1	--	21 x 21								
287	R1-2(2M)	--	48 x 42	7.000	--	1	1	1	--	--	--
288	W12-1D(2M)	--	24 x 24	--	4.000	--	--	1	--	--	2' MOUNTING HEIGHT
289	R3-2(2M)	--	36 x 36	9.000	--	1	1	1	--	--	--
290	W5-52R(2M)	--	12 x 36	--	3.000	1	1	1	--	--	4' MOUNTING HEIGHT
291	W5-52	--	-- x --	--	--	1	1	--	--	--	--
292	W5-52L	--	-- x --	--	--	1	1	--	--	--	--
293	W5-52L	--	-- x --	--	--	1	1	--	--	--	--
294	J2-1(2M)	--	24 x 57	9.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M3-4	--	24 x 12								
	M1-5A	CTH E	24 x 24								
	M5-1L	--	21 x 21								
295	R3-1(2M)	--	36 x 36	9.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
296	R4-7(2M)	--	24 x 30	5.000	--	1	1	1	--	--	--
297	R5-1(2M)	--	36 x 36	9.000	--	1	1	1	--	--	--
298	R5-1(2M)	--	36 x 36	9.000	--	1	1	1	--	--	--
299	J3-2(2M)	--	48 x 57	19.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M3-3	--	24 x 12								
	M1-4	USH 41	24 x 24								
	M6-1	--	21 x 21								
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
	M6-1	--	21 x 21								
300	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
301	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
302	W16-1P(2M)	--	18 x 24	--	3.000	--	--	1	--	--	--
303	J3-1	--	-- x --	--	--	1	1	--	--	--	--
304	R4-7(2M)	--	24 x 30	5.000	--	--	--	1	--	--	--
305	R3-2(2M)	--	36 x 36	9.000	--	1	1	1	--	--	--
306	W12-1D(2M)	--	24 x 24	--	4.000	--	--	1	--	--	2' MOUNTING HEIGHT
307	J3-1(2M)	--	24 x 57	9.500	--	1	1	--	--	#296	BACK OF SIGN #296
	M3-4	--	24 x 12								
	M1-5A	CTH E	24 x 24								
	M6-1	--	21 x 21								
308	J2-1(2M)	--	24 x 57	9.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M3-2	--	24 x 12								
	M1-5A	CTH E	24 x 24								
	M5-1L	--	21 x 21								
309	W5-52	--	-- x --	--	--	1	1	--	--	--	--
310	W5-52R	--	-- x --	--	--	1	1	--	--	--	--
311	W5-52L	--	-- x --	--	--	1	1	--	--	--	--
312	W5-52L	--	-- x --	--	--	1	1	--	--	--	--
313	R3-8A(2S)	--	36 x 30	7.500	--	--	--	1	--	--	--

TYPE II PERMANENT SIGNING - CATEGORY CODE 0010

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
314	R3-8A(2S)	--	36 x 30	7.500	--	--	--	1	--	--	--
315	R5-1A(2M)	--	42 x 30	8.750	--	1	1	1	--	--	--
316	R5-1A(2M)	--	42 x 30	8.750	--	1	--	--	--	--	MOUNT ON LIGHT POLE
317	J3-2(2M)	--	48 x 57	19.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
	M6-1	--	21 x 21								
	M3-3	--	24 x 12								
	M1-4	USH 41	24 x 24								
	M6-1	--	21 x 21								
318	R3-1(2M)	--	36 x 36	9.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
319	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
320	R5-1(2M)	--	36 x 36	9.000	--	1	1	1	--	--	--
321	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
322	J3-1(2M)	--	24 x 57	9.500	--	--	--	1	--	--	--
	M3-2	--	24 x 12								
	M1-5A	CTH E	24 x 24								
	M6-1	--	21 x 21								
323	R4-7(2M)	--	24 x 30	5.000	--	--	--	--	--	--	MOUNT ON LIGHT POLE
324	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	--	--	1	--	--	--
325	J4-1(2M)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M3-3	--	24 x 12								
	M1-4	USH 41	24 x 24								
326	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
327	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
328	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
329	J4-1(2M)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
330	J4-1(2M)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
331	W3-3(2M)	--	36 x 36	--	9.000	1	1	1	--	--	--
332	W3-3(2M)	--	36 x 36	--	9.000	1	1	1	--	--	--
333	D1-65(2M)	CARMEN AVE NEXT SIGNAL	72 x 21	10.500	--	--	--	2	--	--	--
334	J1-1(2M)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M2-1	--	24 x 12								
	M1-5A	CTH E	24 x 24								
335	J1-1(2M)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M2-1	--	24 x 12								
	M1-5A	CTH E	24 x 24								
336	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
337	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
338	J2-1(2M)	--	24 x 57	9.500	--	1	1	1	--	--	--
	M3-4	--	24 x 12								
	M1-5A	CTH E	24 x 24								
	M6-2	--	21 x 21								

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
339	R1-2(2M)	--	48 x 42	7.000	--	1	1	1	--	--	--
340	R5-1(2S)		30 x 30	6.250	--	--	--	--	--	--	MOUNT ON LIGHT POLE
341	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
342	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
343	R5-1(2M)	--	36 x 36	9.000	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
344	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
345	J4-1(2M)	--	24 x 36	6.000	--	1	1	1	--	--	--
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
346	J4-1(2M)	--	24 x 36	6.000	--	--	--	1	--	--	MOUNT ON LIGHT POLE
	M3-1	--	24 x 12								
	M1-4	USH 41	24 x 24								
347	R4-7(2M)	--	24 x 30	5.000	--	1	--	1	--	--	--
348	R5-1(2S)	--	30 x 30	6.250	--	--	--	1	--	--	--
349	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
350	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
351	R6-2L	--	-- x --	--	--	1	--	--	--	--	--
352	J4-1(2M)	--	24 x 36	6.000	--	--	--	1	--	--	--
	M3-3	--	24 x 12								
	M1-4	USH 41	24 x 24								
353	M1-94	SILVER SPRING DR 5600 NORTH	90 x 24	15.000	--	1	--	2	--	--	--
354	D1-65(2M)	CARMEN AVE NEXT SIGNAL	72 x 21	10.500	--	--	--	2	--	--	--
355	W3-3(2M)	--	36 x 36	--	9.000	1	1	--	--	--	MOUNT ON LIGHT POLE
356	W3-3(2M)	--	36 x 36	--	9.000	1	--	1	--	--	--
357	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	1	1	--	--	--
358	R2-1(2M)	SPEED LIMIT 40	30 x 36	7.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
359	W5-52R(2M)	--	12 x 36	--	3.000	--	--	1	--	--	4' MOUNTING HEIGHT
360	R2-1(3)	SPEED LIMIT 45	36 x 48	12.000	--	1	1	1	--	--	--
361	R2-1(3)	SPEED LIMIT 45	36 x 48	12.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
362	W4-2R(3)	--	48 x 48	--	16.000	1	1	1	--	--	--
363	W5-52R(2M)	--	12 x 36	--	3.000	--	--	1	--	--	4' MOUNTING HEIGHT
364	W5-52L(2M)	--	12 x 36	--	3.000	1	1	1	--	--	4' MOUNTING HEIGHT
365	W5-52L(2M)	--	12 x 36	--	3.000	--	--	1	--	--	4' MOUNTING HEIGHT
366	W5-52R(3)	--	18 x 54	--	6.750	--	--	1	--	--	4' MOUNTING HEIGHT
367	R5-1(3)	--	36 x 36	9.000	--	--	--	1	--	--	--
368	R6-2L(3)	--	36 x 48	12.000	--	--	--	1	--	--	--
369	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
370	W9-1R	--	-- x --	--	--	1	--	--	--	--	--
371	R4-7(3)	--	36 x 48	12.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
372	R4-7(3)	--	36 x 48	12.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
373	R1-1(3)	--	36 x 36	7.460	--	1	1	1	--	--	--
374	R6-2L(3)	--	36 x 48	12.000	--	--	--	1	--	--	--
375	W5-52L(3)	--	18 x 54	--	6.750	1	1	1	--	--	4' MOUNTING HEIGHT
376	W5-52R(3)	--	18 x 54	--	6.750	--	--	1	--	--	4' MOUNTING HEIGHT
377	W5-52L(3)	--	18 x 54	--	6.750	1	1	1	--	--	4' MOUNTING HEIGHT
378	D1-65(MOD)	[A] FLORIST AVE 107TH STREET [A] NEXT SIGNAL	120 x 48	40.000	--	1	2	2	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
379	W3-3(3)	--	36 x 36	--	9.000	1	1	1	--	--	--
380	W3-3(3)	--	36 x 36	--	9.000	1	1	1	--	--	--
381	R5-1A(3)	--	42 x 30	8.750	--	--	--	--	--	--	MOUNT ON LIGHT POLE
382	R2-1(3)	SPEED LIMIT 45	36 x 48	12.000	--	1	1	1	--	--	--
383	R2-1(3)	SPEED LIMIT 45	36 x 48	12.000	--	1	--	--	--	--	MOUNT ON LIGHT POLE
384	R5-1(3)	--	36 x 36	9.000	--	--	--	--	--	--	MOUNT ON LIGHT POLE
385	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
386	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
387	R5-1	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
388	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
389	W9-1L(3)	--	36 x 36	--	9.000	1	1	1	--	--	--
390	W9-1L(3)	--	36 x 36	--	9.000	1	1	1	--	--	--
391	J4-1(3)	--	36 x 54	13.500	--	--	--	1	--	--	--
	M3-1	--	36 x 18								
	M1-4	USH 41	36 x 36								
392	W16-1P(2M)	--	18 x 24	--	3.000	--	--	1	--	--	--
393	R5-1A(3)	--	42 x 30	8.750	--	1	--	--	--	#392	BACK OF SIGN #392
394	R5-1(3)	--	36 x 36	9.000	--	--	--	1	--	--	--
395	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
396	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
397	R5-1(3)	--	36 x 36	9.000	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
398	R1-1F	--	-- x --	--	--	1	--	--	--	--	REMOVE FROM SIGNAL POLE
399	J4-1(3)	--	36 x 54	13.500	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M3-3	--	36 x 18								
	M1-4	USH 41	36 x 36								
400	W3-1(2M)	--	36 x 36	--	9.000	1	--	--	--	--	MOUNT ON LIGHT POLE
401	R5-1A(2M)	--	42 x 30	8.750	--	1	1	1	--	--	--
402	R5-1A(2M)	--	42 x 30	8.750	--	1	1	1	--	--	--
403	W3-1(2M)	--	36 x 36	--	9.000	1	1	--	--	--	MOUNT ON LIGHT POLE
404	R3-8A(2S)	--	36 x 30	7.500	--	--	--	--	--	#401	BACK OF SIGN #401
405	R3-8A(2S)	--	36 x 30	7.500	--	--	--	--	--	#402	BACK OF SIGN #402
406	W16-1P(2M)	--	18 x 24	--	3.000	--	--	1	--	--	SHEET 5A
407	W16-1P(2M)	--	18 x 24	--	3.000	--	--	1	--	--	SHEET 6
408	R1-1F	--	-- x --	--	--	1	--	--	--	--	SHEET 12A - REMOVE FROM SIGNAL POLE
409	R1-1F	--	-- x --	--	--	1	--	--	--	--	SHEET 12A - REMOVE FROM SIGNAL POLE
410	R1-1F	--	-- x --	--	--	1	--	--	--	--	SHEET 17A - REMOVE FROM SIGNAL POLE
411	R4-7(2M)	--	24 x 30	5.000	--	--	--	1	--	--	SHEET 21
412	R5-1(3)	--	36 x 36	9.000	--	--	--	1	--	--	SHEET 28
413	R5-1(2S)	--	30 x 30	6.250	--	--	--	1	--	--	SHEET 2
	TOTALS			1967.950	525.250	270	110	224	0		

TYPE II PERMANENT SIGNING - CATEGORY CODE 00XX 2010-10-70 USH 41

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	REMARKS / NEW SIGN LOCATION
1000	M1-94H	APPLETON AVE	78 x 18	9.750	MOUNT ON OVERHEAD MAST ARM
1001	M1-94H	CONGRESS ST	72 x 18	9.000	MOUNT ON OVERHEAD MAST ARM
1002	M1-94H	APPLETON AVE	78 x 18	9.750	MOUNT ON OVERHEAD MAST ARM
1003	M1-94H	CONGRESS ST	72 x 18	9.000	MOUNT ON OVERHEAD MAST ARM
1004	M1-94H	APPLETON AVE	78 x 18	9.750	MOUNT ON OVERHEAD MAST ARM
1005	M1-94H	HAMPTON AVE	72 x 18	9.000	MOUNT ON OVERHEAD MAST ARM
1006	M1-94H	W APPLETON AVE	78 x 18	9.750	MOUNT ON OVERHEAD MAST ARM
1007	M1-94H	HAMPTON AVE	72 x 18	9.000	MOUNT ON OVERHEAD MAST ARM
1008	M1-94H	APPLETON AVE	78 x 18	9.750	MOUNT ON OVERHEAD MAST ARM
1009	M1-94H	GRANTOSA DR	72 x 18	9.000	MOUNT ON OVERHEAD MAST ARM
1010	M1-94H	APPLETON AVE	78 x 18	9.750	MOUNT ON OVERHEAD MAST ARM
1011	M1-94H	GRANTOSA DR	72 x 18	9.000	MOUNT ON OVERHEAD MAST ARM
1012	M1-94H	APPLETON AVE	78 x 18	9.750	MOUNT ON OVERHEAD MAST ARM
1013	M1-94H	91ST STREET	78 x 18	9.750	MOUNT ON OVERHEAD MAST ARM
1014	M1-94H	APPLETON AVE	78 x 18	9.750	MOUNT ON OVERHEAD MAST ARM
1015	M1-94H	91ST STREET	78 x 18	9.750	MOUNT ON OVERHEAD MAST ARM
1016	M1-94H	CARMEN AVE	66 x 18	8.250	MOUNT ON OVERHEAD MAST ARM
1017	M1-94H	CARMEN AVE	66 x 18	8.250	MOUNT ON OVERHEAD MAST ARM
1018	M1-94H	APPLETON AVE	78 x 18	9.750	MOUNT ON OVERHEAD MAST ARM
1019	M1-94H(MOD)	[A] FLORIST AVE 107TH ST [A]	78 x 36	19.500	MOUNT ON OVERHEAD MAST ARM
1020	M1-94H(MOD)	APPLETON AVE	78 x 18	9.750	MOUNT ON OVERHEAD MAST ARM
1021	M1-94H(MOD)	[A] 107TH ST FLORIST AVE [A]	78 x 36	19.500	MOUNT ON OVERHEAD MAST ARM
	TOTALS			226.500	

SHEET 1 OF 1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PERMANENT SIGNING QUANTITIES	SHEET 462	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\base\030502_mq.dgn PLOT DATE : 19-DEC-2013 16:17 PLOT BY : scook PLOT NAME : PLOT SCALE : 300:1

WISDOT/CADDS SHEET 43

INTERSECTION OF USH 41 & CONGRESS ST

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

3

REMOVING CONCRETE BASES

EXISTING BASE NO.	STATION, OFFSET	* 204.0195 REMOVING CONCRETE BASES EACH
CB1	216+12.0, 81.2' LT	1
SB3	216+90.9, 51.0' LT	1
SB4	216+67.3, 1.2' RT	1
SB6	216+28.6, 52.1' RT	1
SB8	215+33.7, 61.1' RT	1
SB9	215+20.5, 51.0' RT	1
SB10	215+72.7, 1.1' LT	1
SB11	215+84.4, 51.5' LT	1
TOTAL		8

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY TRAFFIC SIGNALS (INTERSECTION OF USH 41 & CONGRESS STREET)

LOCATION	661.0200.01 LS	* 661.0300 GENERATORS DAYS
USH 41 & CONGRESS STREET	1	2
TOTAL	1	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

REMOVING PULL BOXES

PULLBOX NO.	STATION, OFFSET	* 653.0905 REMOVING PULL BOXES EACH
PB1	216+26.4, 64.0' LT	1
PB2	216+89.0, 62.5' LT	1
PB3	216+70.2, 2.0' RT	1
PB4	216+35.1, 52.3' RT	1
PB5	216+17.2, 67.5' RT	1
PB6	215+32.5, 64.6' RT	1
PB7	215+67.6, 2.7' LT	1
PB8	215+80.4, 51.1' LT	1
TOTAL		8

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVE TRAFFIC SIGNALS (INTERSECTION OF USH 41 & CONGRESS STREET)

LOCATION	SPV.0105.01 LS
USH 41 & CONGRESS STREET	1
TOTAL	1

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET NO: 463	E

INTERSECTION OF USH 41 & HAMPTON AVENUE

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

REMOVING CONCRETE BASES

EXISTING BASE NO.	STATION, OFFSET	* 204.0195 REMOVING CONCRETE BASES EACH
CB1	248+52.4, 50.6' LT	1
SB1	248+61.5, 50.9' LT	1
SB2	248+86.7, 62.3' RT	1
SB4	250+34.9, 74.2' LT	1
SB5	250+46.0, 51.1' LT	1
SB7	249+19.2, 60.2' RT	1
SB9	248+3.8, 76.5' RT	1
SB10	248+2.7, 52.7' RT	1
TOTAL		8

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING PULL BOXES

PULLBOX NO.	STATION, OFFSET	* 653.0905 REMOVING PULL BOXES EACH
PB1	248+66.6, 51.5' LT	1
PB2	248+86.7, 66.7' LT	1
PB3	249+81.9, 77.9' LT	1
PB4	250+44.2, 84.9' LT	1
PB5	250+43.3, 51.7' LT	1
PB6	249+80.5, 1.4' RT	1
PB7	249+20.1, 55.6' RT	1
PB8	248+6.2, 72.5' RT	1
PB9	247+92.1, 51.2' RT	1
PB10	248+28.8, 3.1' LT	1
TOTAL		10

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY TRAFFIC SIGNALS (INTERSECTION OF USH 41 & HAMPTON AVENUE)

LOCATION	661.0200.02 LS	* 661.0300 GENERATORS DAYS
USH 41 & HAMPTON AVENUE	1	2
TOTAL	1	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVE TRAFFIC SIGNALS (INTERSECTION OF USH 41 & HAMPTON AVENUE)

LOCATION	SPV.0105.02 LS
USH 41 & HAMPTON AVENUE	1
TOTAL	1

INTERSECTION OF USH 41 & GRANTOSA DRIVE

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

3

REMOVING CONCRETE BASES

EXISTING BASE NO.	STATION, OFFSET	* 204.0195 REMOVING CONCRETE BASES EACH
CB1	255+54.3, 78.3' LT	1
SB1	255+55.1, 60.6' LT	1
SB2	255+70.0, 50.9' LT	1
SB4	255+68.4, 52.6' RT	1
SB5	255+55.2, 67.2' RT	1
SB7	254+55.3, 68.4' RT	1
SB8	254+42.3, 52.2' RT	1
SB10	254+44.2, 52.8' LT	1
SB11	254+54.6, 60.9' LT	1
TOTAL		9

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING PULL BOXES

PULLBOX NO.	STATION, OFFSET	* 653.0905 REMOVING PULL BOXES EACH
PB1	255+53.6, 72.3' LT	1
PB2	255+74.3, 52.1' LT	1
PB3	255+76.0, 4.2' RT	1
PB4	255+74.9, 51.4' RT	1
PB5	255+55.2, 70.3' RT	1
PB6	254+99.3, 72.5' RT	1
PB7	254+55.7, 72.8' RT	1
PB8	254+36.2, 51.1' RT	1
PB9	254+33.5, 6.8' LT	1
PB10	254+36.1, 52.7' LT	1
PB11	254+54.6, 60.9' LT	1
PB12	255+8.4, 71.9' LT	1
TOTAL		12

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY TRAFFIC SIGNALS (INTERSECTION OF USH 41 & GRANTOSA DRIVE)

LOCATION	661.0200.03 LS	* 661.0300 GENERATORS DAYS
USH 41 & GRANTOSA DRIVE	1	2
TOTAL	1	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVE TRAFFIC SIGNALS (INTERSECTION OF USH 41 & GRANTOSA DRIVE)

LOCATION	SPV.0105.03 LS
USH 41 & GRANTOSA DRIVE	1
TOTAL	1

INTERSECTION OF USH 41 & 91ST STREET

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

3

REMOVING CONCRETE BASES

EXISTING BASE NO.	STATION, OFFSET	* 204.0195 REMOVING CONCRETE BASES EACH
CB1	287+22.3, 67.8' RT	1
SB1	287+12.4, 61.5' RT	1
SB4	285+92.6, 57.5' LT	1
SB6	286+53.2, 65.6' LT	1
SB7	287+18.0, 65.3' LT	1
SB8	287+48.4, 50.2' LT	1
SB9	287+57.7, 50.6' LT	1
SB11	288+47.9, 58.2' RT	1
SB13	287+82.3, 62.7' RT	1
TOTAL		9

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING PULL BOXES

PULLBOX NO.	STATION, OFFSET	* 653.0905 REMOVING PULL BOXES EACH
PB1	287+15.6, 64.4' RT	1
PB2	286+85.5, 50.8' RT	1
PB3	286+28.3, 2.3' LT	1
PB4	284+62.0, 7.2' RT	1
PB5	285+88.7, 50.4' LT	1
PB6	286+48.1, 70.4' LT	1
PB7	286+34.9, 85.4' LT	1
PB8	285+31.7, 183.9' LT	1
PB9	284+61.3, 244.0' LT	1
PB10	287+14.8, 68.4' LT	1
PB11	287+51.3, 51.6' LT	1
PB12	288+11.7, 1.9' RT	1
PB13	290+6.5, 8.8' LT	1
PB14	288+52.5, 49.8' RT	1
PB15	287+86.4, 66.1' RT	1
PB16	288+17.4, 95.1' RT	1
PB17	288+31.9, 108.2' RT	1
PB18	289+88.5, 240.5' RT	1
TOTAL		18

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY TRAFFIC SIGNALS (INTERSECTION OF USH 41 & 91ST STREET)

LOCATION	661.0200.04 LS	* 661.0300 GENERATORS DAYS
USH 41 & 91ST STREET	1	2
TOTAL	1	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

REMOVE TRAFFIC SIGNALS (INTERSECTION OF USH 41 & 91ST STREET)

LOCATION	SPV.0105.04 LS
USH 41 & 91ST STREET	1
TOTAL	1

WISCONSIN PROFESSIONAL ENGINEER
NATHAN R. KEMPKE
38337-6
MAYVILLE
WIS.
Apr. 24, 2013

INTERSECTION OF USH 41 & CARMEN AVENUE

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

3

REMOVING CONCRETE BASES

EXISTING BASE NO.	STATION, OFFSET	* 204.0195 REMOVING CONCRETE BASES EACH
CB1	334+51.9, 60.0' RT	1
SB1	334+26.6, 63.0' RT	1
SB2	333+39.5, 52.5' RT	1
SB4	333+63.4, 50.8' LT	1
SB5	334+44.6, 51.4' LT	1
SB7	334+48.0, 8.6' RT	1
SB8	334+46.7, 51.5' RT	1
TOTAL		7

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING PULL BOXES

PULLBOX NO.	STATION, OFFSET	* 653.0905 REMOVING PULL BOXES EACH
PB1	334+25.2, 75.9' RT	1
PB2	333+85.4, 258.7' RT	1
PB3	333+52.8, 66.8' RT	1
PB4	333+53.3, 2.4' RT	1
PB5	330+79.6, 5.6' RT	1
PB6	333+58.4, 52.3' LT	1
PB7	334+53.0, 52.5' LT	1
PB8	334+56.8, 5.0' RT	1
PB9	336+48.6, 2.3' RT	1
PB10	337+75.3, 1.8' RT	1
PB11	334+52.7, 54.8' RT	1
TOTAL		11

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY TRAFFIC SIGNALS (INTERSECTION OF USH 41 & CARMEN AVENUE)

LOCATION	661.0200.05 LS	* 661.0300 GENERATORS DAYS
USH 41 & CARMEN AVENUE	1	2
TOTAL	1	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVE TRAFFIC SIGNALS (INTERSECTION OF USH 41 & CARMEN AVENUE)

LOCATION	SPV.0105.05 LS
USH 41 & CARMEN AVENUE	1
TOTAL	1

SHEET 5 OF 6

INTERSECTION OF USH 41 & 107TH STREET

REMOVING CONCRETE BASES

EXISTING BASE NO.	STATION, OFFSET	* 204.0195 REMOVING CONCRETE BASES EACH
CB1	360+91.9, 61.0' RT	1
SB1	360+84.4, 59.3' RT	1
SB3	360+90.7, 51.3' LT	1
SB4	361+14.1, 74.0' LT	1
SB5	361+63.5, 69.2' LT	1
SB6	361+88.4, 50.7' LT	1
SB8	361+87.3, 51.1' RT	1
SB9	361+68.9, 72.1' RT	1
TOTAL		8

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING PULL BOXES

PULLBOX NO.	STATION, OFFSET	* 653.0905 REMOVING PULL BOXES EACH
PB1	360+90.9, 52.6' RT	1
PB2	357+69.7, 50.7' RT	1
PB3	360+92.2, 1.1' LT	1
PB4	360+92.6, 51.3' LT	1
PB5	361+13.4, 72.7' LT	1
PB6	361+14.2, 176.2' LT	1
PB7	361+64.0, 66.7' LT	1
PB8	361+84.5, 50.8' LT	1
PB9	365+7.2, 50.6' LT	1
PB10	361+76.1, 4.7' RT	1
PB11	361+76.5, 54.8' RT	1
PB12	361+66.8, 68.0' RT	1
PB13	362+80.2, 133.2' RT	1
TOTAL		13

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ON THIS PAGE ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

TEMPORARY TRAFFIC SIGNALS (INTERSECTION OF USH 41 & 107TH STREET)

LOCATION	661.0200.06 LS	* 661.0300 GENERATORS DAYS
USH 41 & 107TH STREET	1	2
TOTAL	1	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVE TRAFFIC SIGNALS (INTERSECTION OF USH 41 & 107TH STREET)

LOCATION	SPV.0105.06 LS
USH 41 & 107TH STREET	1
TOTAL	1

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MAYVILLE
WIS.
Apr. 24, 2013

SHEET 6 OF 6

CATEGORY 0010

ESTIMATE OF QUANTITIES-TRAFFIC SIGNALS

PROJECT ID. 2010-10-70

MILWAUKEE COUNTY

Std.Bid Item No.	Description	Unit	Quantity
650.8500	Construction Staking Electrical	LS	1
652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	975
652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	3,825
652.0605	Conduit Special 2-Inch	LF	885
652.0615	Conduit Special 3-Inch	LF	4,610
652.0800	Conduit Loop Detector	LF	550
652.0900	Loop Detector Slots	LF	504
654.0110	Concrete Bases Type 10	Each	17
654.0113	Concrete Bases Type 13	Each	2
SPV.0060.07	Concrete Bases Type 10 Special	Each	7
SPV.0060.08	Pre-Cast Traffic Signal Bases	Each	44
SPV.0060.09	Pre-Cast Traffic Control Cabinet Bases	Each	6
SPV.0060.10	Rectangular Vault 13"x24"x18"	Each	10
SPV.0060.11	Rectangular Vault 13"x24"x24"	Each	6
SPV.0060.12	Rectangular Vault 17"x30"x18"	Each	76
SPV.0060.13	Poles Type 9	Each	8
SPV.0060.14	Poles Type 10	Each	9
SPV.0060.15	Poles Type 12	Each	2
SPV.0060.16	Poles Type 12 Special	Each	6
SPV.0060.17	Poles Type 13 Special	Each	1
SPV.0060.18	Monotube Arms 20-FT	Each	2
SPV.0060.19	Monotube Arms 25-FT	Each	7
SPV.0060.20	Monotube Arms 30-FT	Each	8
SPV.0060.21	Monotube Arms 35-FT	Each	5
SPV.0060.22	Monotube Arms 40-FT	Each	2
SPV.0060.23	Monotube Arms 45-FT	Each	2

CONVENTIONAL SIGNS AND ABBREVIATIONS

ACCESS POINT	A.P.
ACCESS RIGHTS	A.R..
ACRES	AC.
AND OTHERS	ET. AL.
CENTERLINE	℄
CENTRAL ANGLE OR DELTA	△
CONVEYANCE	CONV.
CORNER	COR.
DEED	(D)
DIST.BETWEEN 1/4 CORNERS	(DIST.)
DOCUMENT	DOC.
EXCLUDING	EXCL.
LENGTH OF CURVE	L
LONG CHORD	L. CH.
MONUMENT	MON.
PERMANENT	PERM.
PROPERTY LINE	P.L.
RADIUS	R
REFERENCE LINE	℞
RELOCATED	RELOC.
REMAINING	REM.
RIGHT OF WAY	R/W
SECTION	SEC.
STATION	STA.
TANGENT	TAN.
TEMPORARY INTEREST	T.I.
TRANSIT LINE	℄

IRON PIPE I.P

R/W MONUMENT ●

R/W STANDARD ○

R/W BOUNDARY POINT RWB20

PARALLEL TO LINE 40'

SECTION CORNER

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
OLD CENTERLINE
PROPOSED OR NEW R/W LINE
EASEMENT LINE

PROPERTY LINE
LOT, TIE AND OTHER MINOR DASHED LINES
NO ACCESS (By Previous Acquisition)
NO ACCESS (By Acquisition)
NO ACCESS (By Statutory Authority)
LIMITED EASEMENT (Temporary or Permanent)

CONVENTIONAL UTILITY SYMBOLS

WATER	W	SANITARY SEWER	SAN	
GAS	G	STORM SEWER	SS	
TELEPHONE	T	POWER POLE	NON COMPENSABLE	COMPENSABLE
OVERHEAD TRANSMISSION LINES	OH	TELEPHONE POLE		
ELECTRIC	E	TELEPHONE PEDESTAL		
CABLE TELEVISION	TV	ELECTRIC TOWER		
FIBER OPTIC	FO			

(100) WE ENERGIES ELECTRIC
REEL 1432, IMAGE 1297
DOC. NO. 5529080 - PAR. 1
REEL 1838, IMAGE 263
DOC. NO. 5881337 - PAR. 2

(101) AT&T WISCONSIN
DEED 3443, PAGE 394
DOC. NO. 3400365 - PAR. 1

℞ W. APPLETON AVE/USH 41

T 08 N R 21 E
29 29
29 29

Y= 331,707.63
X= 572,313.56
CONC. MON. #1020
SEWRPC BRASS CAP

END RELOCATION ORDER

STA. 326+00.00
302.29' NORTH AND 45.11' WEST OF
SOUTH QUARTER CORNER OF SECTION 29
TOWNSHIP 08 NORTH, RANGE 21 EAST.
Y= 329368.23
X=572207.28

CTH E CURVE 2

PI = 130+20.14
Y = 329313.35
X = 572616.07
△ = 14°41'32"
D = 2°49'01"
R = 2034.00
T = 262.23
L = 521.58
E = 16.83
PC = 127+57.91
Y = 329098.79
X = 572356.13
PT = 132+79.49
Y = 329100.84
X = 572876.28

USH 41 CURVE 3

PI = 325+40.51
Y = 329328.26
X = 572251.35
△ = 0°55'59"
D = 1°08'45"
R = 5000.00
T = 40.71
L = 81.42
E = 0.17
PC = 324+99.80
Y = 329300.42
X = 572281.05
PT = 325+81.21
Y = 329355.61
X = 572221.20

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
2010-10-20		
FEDERAL PROJECT NUMBER	1.0	1

PLAT OF RIGHT OF WAY REQUIRED FOR
W. APPLETON AVENUE
CTH E ⊗ USH 41
USH 41 MILWAUKEE COUNTY

SE-SW SEC-29

SW-SE SEC-29

PROSPECT HEIGHTS

LOT 2 CSM 7715 DOC #9187535

BLDG 1

LOT 7, LOT 8, LOT 9, LOT 10, LOT 11, LOT 12, LOT 13, LOT 14

PT 325+81.21
PI 325+40.51
PC 324+99.80
CURVE 3

N47°45'54"E 100'
S47°44'44"E 240.13'
S47°44'44"E 40.02'
S47°55'30"E 250.18'
N89°36'39"E 177.79'
N09°47'43"E 72.90'
S09°47'43"W 10.76'
N78°05'23"E 319.51'
N78°05'23"W 317.54'
N00°33'29"W 137.36'
N00°33'29"W 10.20'
N84°52'51"E 160.55'
166.58'
196.20'
123.40'
88.06'
N01°29'52"E 29.27'
36.13'
29.40'
14.03'
6.73'
40.10'
46.10'
40.10'
40.10'
40.10'
35.60'
48.49'
54.51'
20.27'
25.15'

TLE SLOPES 5'
TLE SLOPES 10'
GUY
SIGN
NOIS
INL
MH
HWΦ

SCALE. FEET
0 50 100

TOTAL NET LENGTH OF CENTERLINE = 0.152 MI.

PROPOSED TLE CURVE TABLE

Curve Number	Radius	Arc Length	Chord Length	Chord Bearing	Central Angle/Delta
1	38.0	89.81'	70.32'	N21°54'23"E	135°24'33"
2	28.0	66.17'	51.81'	S21°54'23"W	135°24'33"

R-21-E
T-9-N
T-8-N
PROJECT LOCATION
SHEET LOCATION MAP
SCALE 0 0.03 MI.

EAST LIMIT
STA. 133+00.00
Y= 329098.30
X= 572896.63

℞ W. SILVER SPRING DR. CTH E

STA. 322+23.67 ℞ USH 41 =
STA. 128+84.97 ℞ CTH E

PI 130+20.14
CURVE 2
PC 127+57.91
PT 126+21.28
N01°29'52"E
N89°36'39"E 2658.37'
SECTION LINE
N45°47'54"W ℄ EXISTING USH 41
PT 134+79.49

WEST LIMIT
STA. 121+00.00
Y= 329060.75
X= 571700.19

PC 123+76.43
87.75'
360'
N89°26'31"E
CURVE 1
PT 124+99.01
N89°26'31"E 330.79'

STA. 321+59.9 ℞ USH 41 =
SECTION LINE

PROPOSED TLE CURVE 2
PROPOSED TLE CURVE 1
N89°36'39"E 92.96'
S83°28'15"W 93.49'
S45°47'54"E 43.61'
S44°12'06"W 10.00'
N45°47'54"W 49.95'
43.61'
43.61'
LOT 1
LOT 2
LOT 3
SGN
TLE SLOPES 10'

T 08 N R 21 E
29 28
32 33

Y= 329,084.10
X= 574,903.10
CONC. MON. #8135
SEWRPC BRASS CAP

CTH E CURVE 1

PI = 124+99.01
Y = 329064.64
X = 572099.18
△ = 7°00'53"
D = 2°51'53"
R = 2000.00
T = 122.58
L = 244.86
E = 3.75
PC = 123+76.43
Y = 329063.44
X = 571976.61
PT = 126+21.28
Y = 329080.79
X = 572220.70

T 08 N R 21 E
30 29
31 32

Y= 329,040.27
X= 569,598.23
CONC. MON. #1000
SEWRPC BRASS CAP

NE-NW SEC-32

T 08 N R 21 E
29 29
32 32

STA. 126+42.93, 17.75' RT =
Y= 329,066.05
X= 572,244.49
CONC. MON. #8134
SEWRPC BRASS CAP

2648.94'
NOIS
1/4 SECTION LINE
N00°17'34"E

T 08 N R 21 E
32 32
32 32

Y= 326,417.14
X= 572,230.96
CALCULATED

USH 41 CURVE 4

PI = 318+22.25
Y = 328837.06
X = 572775.43
△ = 3°07'44"
D = 2°51'53"
R = 2000.00
T = 54.63
L = 109.22
E = 0.75
PC = 317+67.62
Y = 328797.58
X = 572813.19
PT = 318+76.84
Y = 328874.42
X = 572735.57

PRW500 320+05 60'
S89°36'39"W 4.61'
N89°36'39"E 316.65'
N89°36'39"E 46.46'
S46°47'54"E 31.18'
N55°33'30"W 145.39'
S46°47'54"E 175.40'
N44°51'18"W 65.18'
S44°12'06"W 10.00'
N43°47'19"W 13.34'
PT 318+76.84
PI 318+22.25
PC 317+67.62
318+28 59.43' PRW501
184.73'
341.18'
172.09'
SLOPES 10'

LOT 17, LOT 18, LOT 19, LOT 20, LOT 21, LOT 16

BLOCK 7 PROSPECT HEIGHTS ANNEX

BLOCK 12 PROSPECT HEIGHTS ANNEX

BEGIN RELOCATION ORDER
STA. 318+00.00
245.3' SOUTH AND 541.4' EAST OF
NORTH QUARTER CORNER OF SECTION 32
TOWNSHIP 08 NORTH, RANGE 21 EAST.
Y= 328820.80
X= 572790.62

NW-NE SEC-32

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD83 (97) ADJUSTMENT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISDOT SE REGION.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

SCHEDULE OF LANDS & INTERESTS REQUIRED

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LAND OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	R/W ACRES OR (S.F.) REQUIRED NEW	EXISTING	TOTAL	TOTAL AREA REM.	T.L.E. AREA
1 (2)	BESSIE L. WILLIAMS	AR,TLE	1.359	------	------	------	1.359	0.073
2	GREAT LAKE REAL ESTATE CO LLC	TLE	0.613	------	------	------	0.613	0.018
3 (2)	PRECIOUS TRANSIT LLC	AR,TLE	0.312	------	------	------	0.312	0.039
4	UPESH & NIMISHA SHAH	FEE,TLE	1.139	0.006	------	0.006	1.133	0.072
UTILITY NUMBER								
100 (2)	WE ENERGIES ELECTRIC	ROR	------	------	------	------	------	------
101 (2)	AT & T WISCONSIN	ROR	------	------	------	------	------	------

ROAD NAME	BASIS OF EXISTING R/W	YEAR	WIDTH TO ℄
APPLETON AVE	PROSPECT HEIGHTS ANNEX	1927	60'
APPLETON AVE	PROSPECT HEIGHTS	1927	60'
APPLETON AVE	R265 I 1947 (2)	1965	VARIES
SILVER SPRING	CSM #3128	1977	VARIES
APPLETON AVE	T03-1 (52)	1963	60'
SILVER SPRING	T03-1 (52)	1963	VARIES

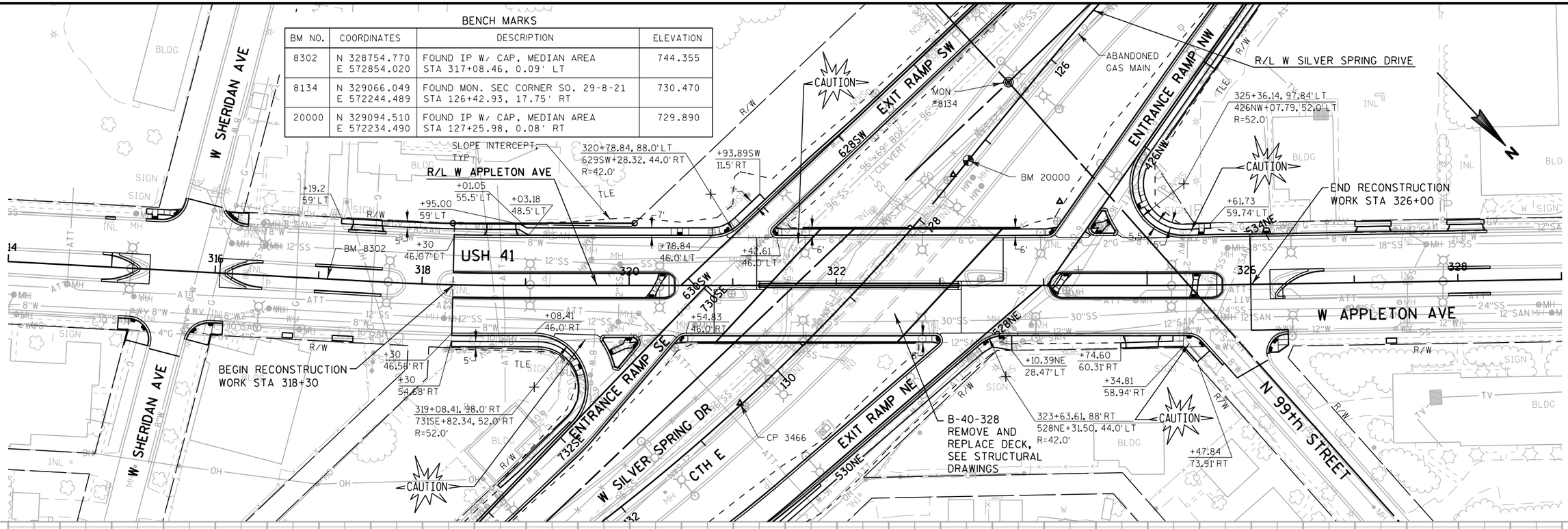
STATE OF WISCONSIN
TIMOTHY JOHNSON
NO. S-2466
EAST TROY
WI
REGISTERED LAND SURVEYOR

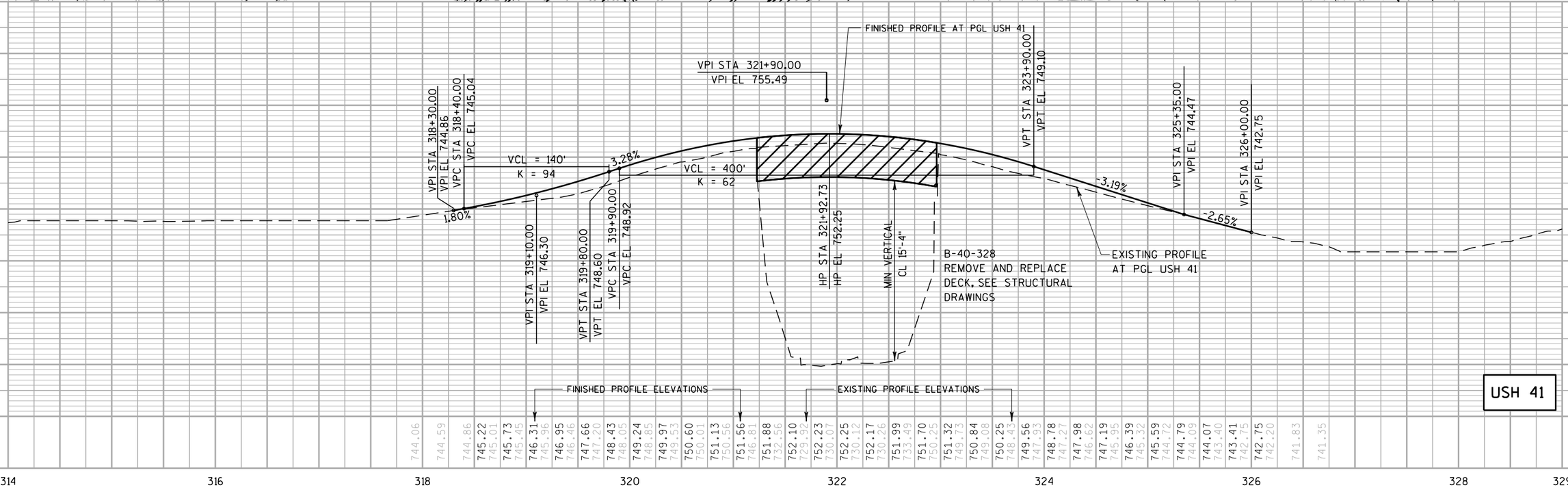
REVISION DATE	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
09/24/12	APPROVED: DATE: 04/09/12 REGION

FILE NAME : F:\BM1-1921A Appleton Ave\Plat\TRADITIONAL PLAT\ap040101_rw.dgn
PLOT DATE : 27-SEP-2012 17:14
PLOT BY : kdew
PLOT NAME :
PLOT SCALE : 50:1
CONST. 2010-10-70 W. APPLETON AVENUE R/W 2010-10-20 4.01

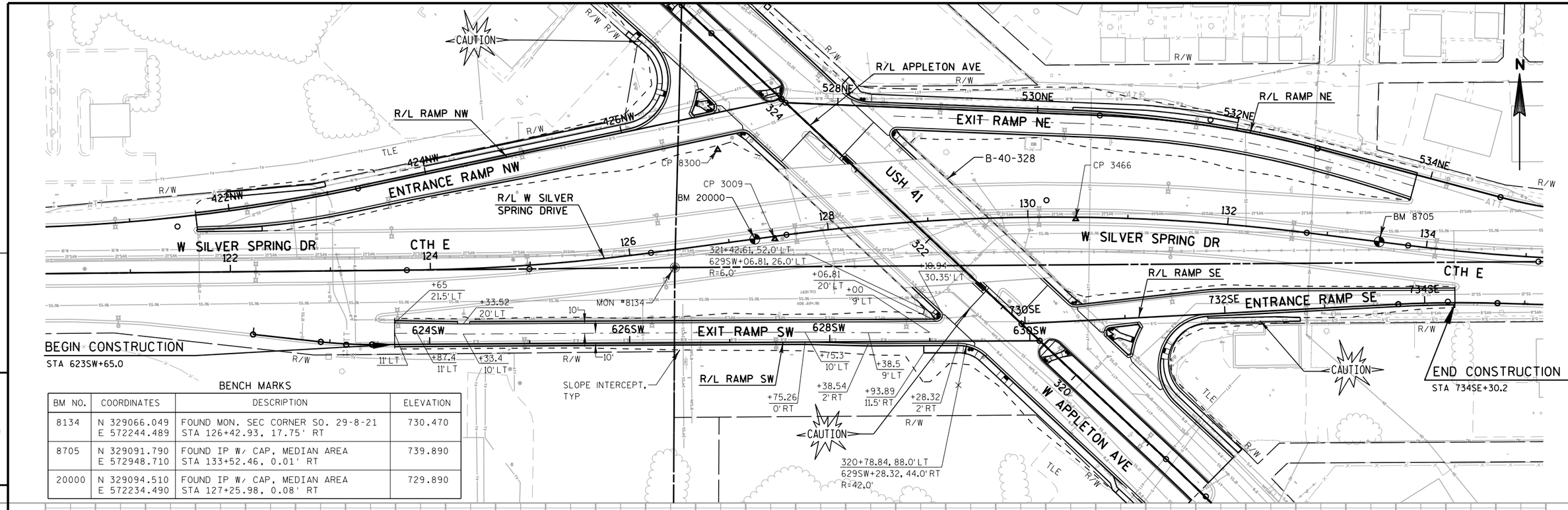
BENCH MARKS

BM NO.	COORDINATES	DESCRIPTION	ELEVATION
8302	N 328754.770 E 572854.020	FOUND IP W/ CAP, MEDIAN AREA STA 317+08.46, 0.09' LT	744.355
8134	N 329066.049 E 572244.489	FOUND MON. SEC CORNER SO. 29-8-21 STA 126+42.93, 17.75' RT	730.470
20000	N 329094.510 E 572234.490	FOUND IP W/ CAP, MEDIAN AREA STA 127+25.98, 0.08' RT	729.890



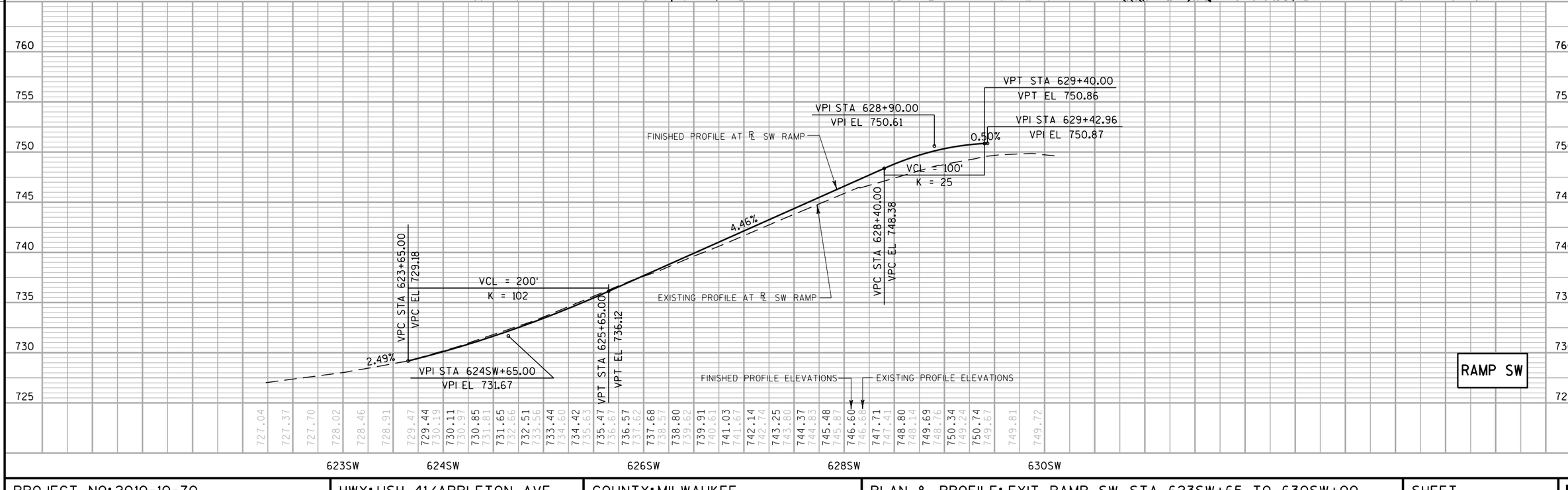


PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN & PROFILE: APPLETON AVE STA 314+00 TO 329+00	SHEET 471 E



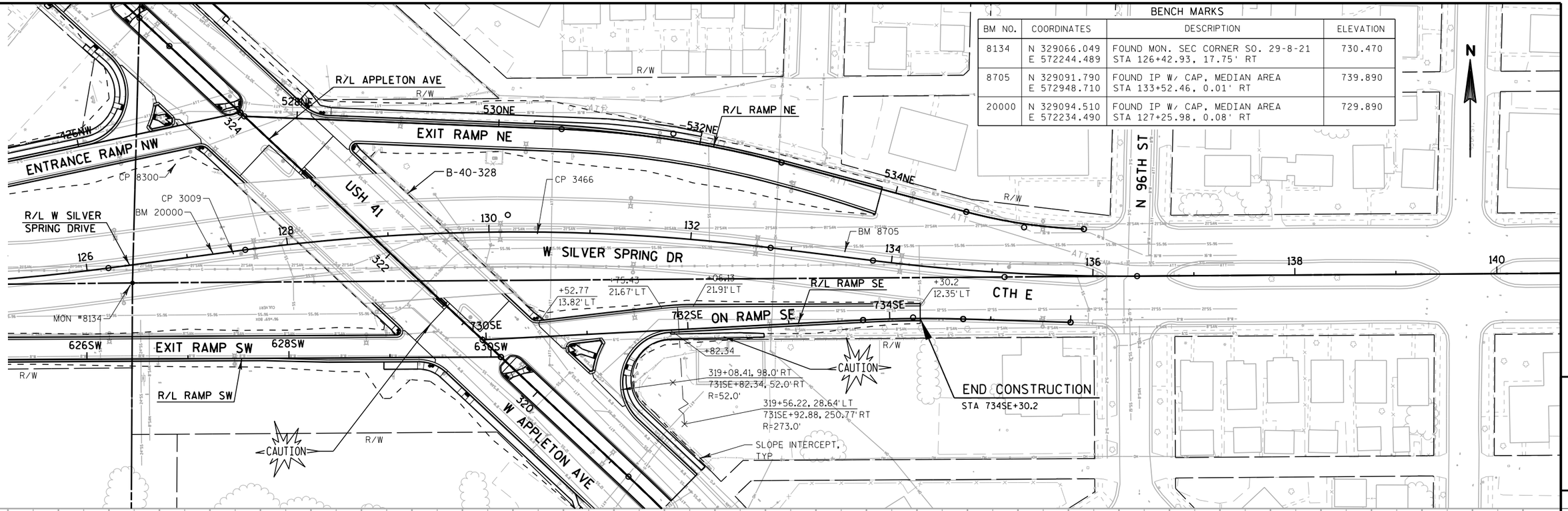
BENCH MARKS

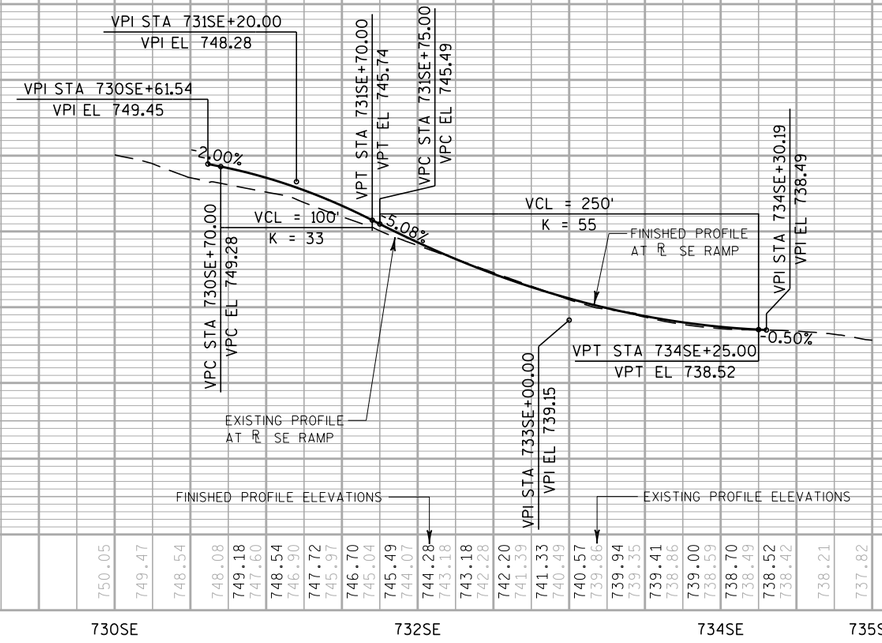
BM NO.	COORDINATES	DESCRIPTION	ELEVATION
8134	N 329066.049 E 572244.489	FOUND MON. SEC CORNER SO. 29-8-21 STA 126+42.93, 17.75' RT	730.470
8705	N 329091.790 E 572948.710	FOUND IP W/ CAP, MEDIAN AREA STA 133+52.46, 0.01' RT	739.890
20000	N 329094.510 E 572234.490	FOUND IP W/ CAP, MEDIAN AREA STA 127+25.98, 0.08' RT	729.890



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN & PROFILE: EXIT RAMP SW STA 623SW+65 TO 630SW+00	SHEET 472 E

BENCH MARKS			
BM NO.	COORDINATES	DESCRIPTION	ELEVATION
8134	N 329066.049 E 572244.489	FOUND MON. SEC CORNER SO. 29-8-21 STA 126+42.93, 17.75' RT	730.470
8705	N 329091.790 E 572948.710	FOUND IP W/ CAP, MEDIAN AREA STA 133+52.46, 0.01' RT	739.890
20000	N 329094.510 E 572234.490	FOUND IP W/ CAP, MEDIAN AREA STA 127+25.98, 0.08' RT	729.890

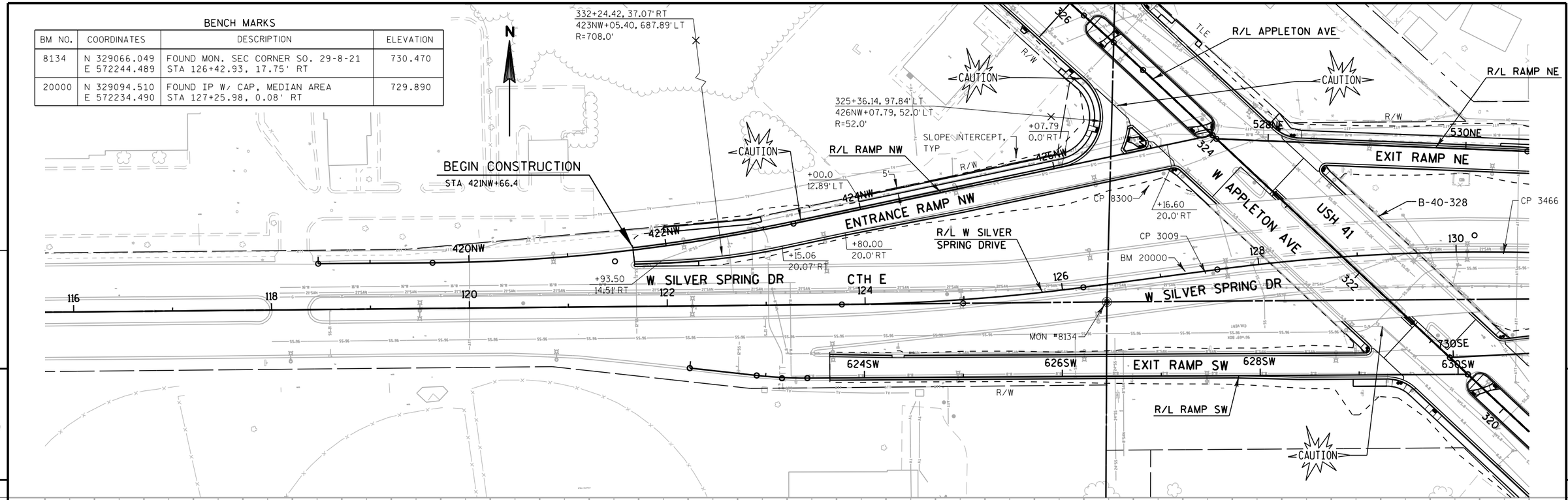


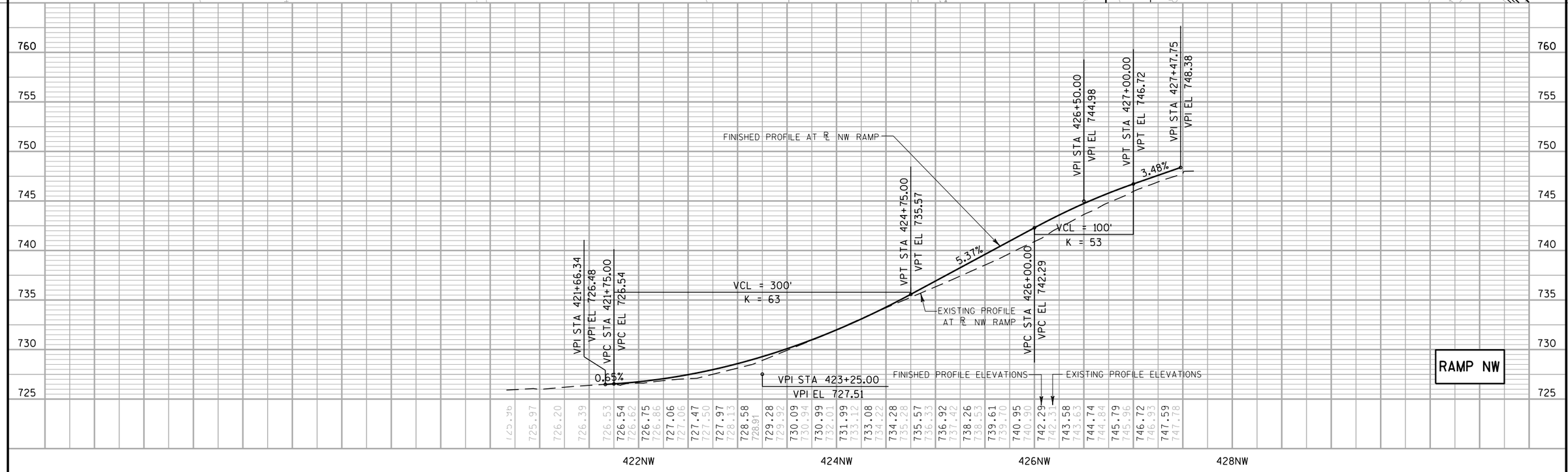


PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN & PROFILE: ENT. RAMP SE STA 730SE+00 TO 734SE+30	SHEET 473 E

BENCH MARKS

BM NO.	COORDINATES	DESCRIPTION	ELEVATION
8134	N 329066.049 E 572244.489	FOUND MON. SEC CORNER SO. 29-8-21 STA 126+42.93, 17.75' RT	730.470
20000	N 329094.510 E 572234.490	FOUND IP W/ CAP, MEDIAN AREA STA 127+25.98, 0.08' RT	729.890

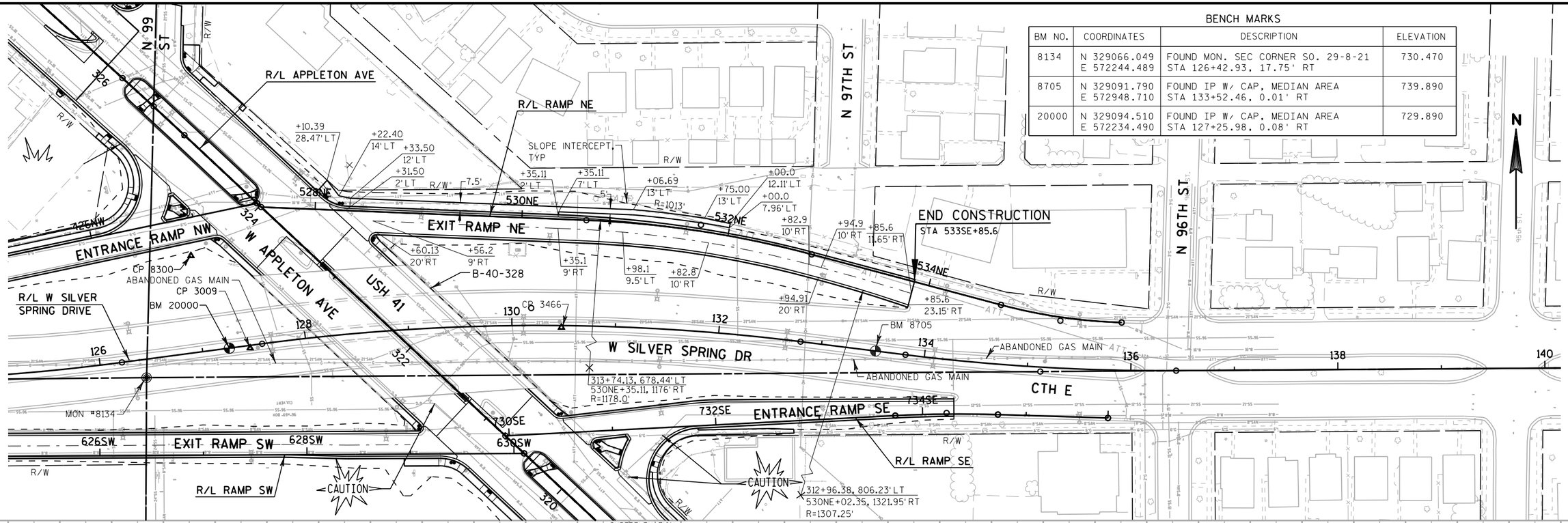


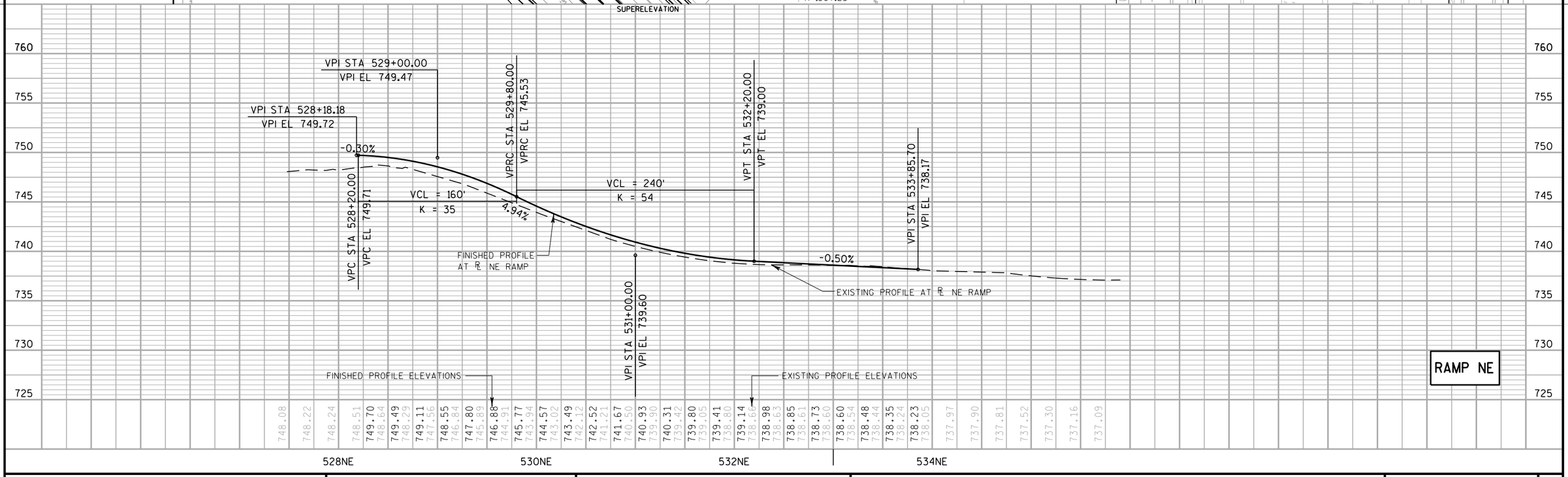


PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN & PROFILE: ENT. RAMP NW STA 421NW+66 TO 428NW+00	SHEET 474	E

BENCH MARKS

BM NO.	COORDINATES	DESCRIPTION	ELEVATION
8134	N 329066.049 E 572244.489	FOUND MON. SEC CORNER SO. 29-8-21 STA 126+42.93, 17.75' RT	730.470
8705	N 329091.790 E 572948.710	FOUND IP W/ CAP, MEDIAN AREA STA 133+52.46, 0.01' RT	739.890
20000	N 329094.510 E 572234.490	FOUND IP W/ CAP, MEDIAN AREA STA 127+25.98, 0.08' RT	729.890





PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN & PROFILE: EXIT RAMP NE STA 528NE+00 TO 533NE+86	SHEET 475 E

PAVEMENT DETAIL LEGEND

APO1	HMA PAVEMENT TYPE E-3, 4-INCH
APO2	HMA PAVEMENT TYPE E-3, 6 1/2-INCH
AGO1	BASE AGGREGATE DENSE 3/4-INCH
BGO1	STEEL THRIE BEAM STRUCTURE APPROACH
BGO2	STEEL PLATE BEAM GUARD CLASS A
BGO4	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
BGO6	STEEL PLATE BEAM GUARD OVER LOW-FILL CULVERTS CLASS A
CGO1	CONCRETE CURB PEDESTRIAN
CGO4	CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE J
CGO6	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CGO7	CONCRETE CURB AND GUTTER 30-INCH TYPE D
CG10	CONCRETE CURB AND GUTTER 30-INCH TYPE A 1 3/4-INCH
CG18	CONCRETE CURB AND GUTTER 18-INCH TYPE D
CMO1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CMO2	CONCRETE MEDIAN SLOPED NOSE TYPE 2
CMO4	MAINTENANCE OPENING
CMO5	CONCRETE SIDEWALK 5-INCH
CMO7	CONCRETE SIDEWALK 7-INCH
CPO2	CONCRETE BASE 8-INCH, DOWELED
CPO3	CONCRETE PAVEMENT 9-INCH, DOWELED AND TINED
CRO1	CURB RAMP TYPE 1
CRO2	CURB RAMP TYPE 2
CRO2M	CURB RAMP TYPE 2 MODIFIED
CRO4A	CURB RAMP TYPE 4A
CRO4B	CURB RAMP TYPE 4B
CRO7	CURB RAMP TYPE 7A
DRO1	CONCRETE DRIVEWAY 7-INCH
DRO3	ASPHALTIC SURFACE, 2-INCH
DRO4	AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 3/4-INCH, 6-INCH
LSO1	TOPSOIL, SOD LAWN, FERTILIZER TYPE B
PVO1	CONCRETE PAVEMENT APPROACH SLAB

McDONALDS

BEGIN PROJECT
STA 188+90.00

STA 189+26.30
46.7' LT
CTR 60'R

STA 189+88.00
4'RT

STA 189+29.88
56.0'RT
CTR 60'R

BEGIN NEW CONCRETE
BASE 8-INCH

STA 190+84.25
56'LT
CTR 60'R

STA 190+84.25
46'RT
CTR 60'R

R/L APPLETON AVE

USH 41 / APPLETON AVE

W PERKINS PL

POPEYE'S

STA 191+93.92
45.8'LT
CTR 60'R

STA 191+92.97
55.6'RT
CTR 60'R

STA 193+69.65
71.0'LT
CTR 75'R

W FIEBRANTZ AVE

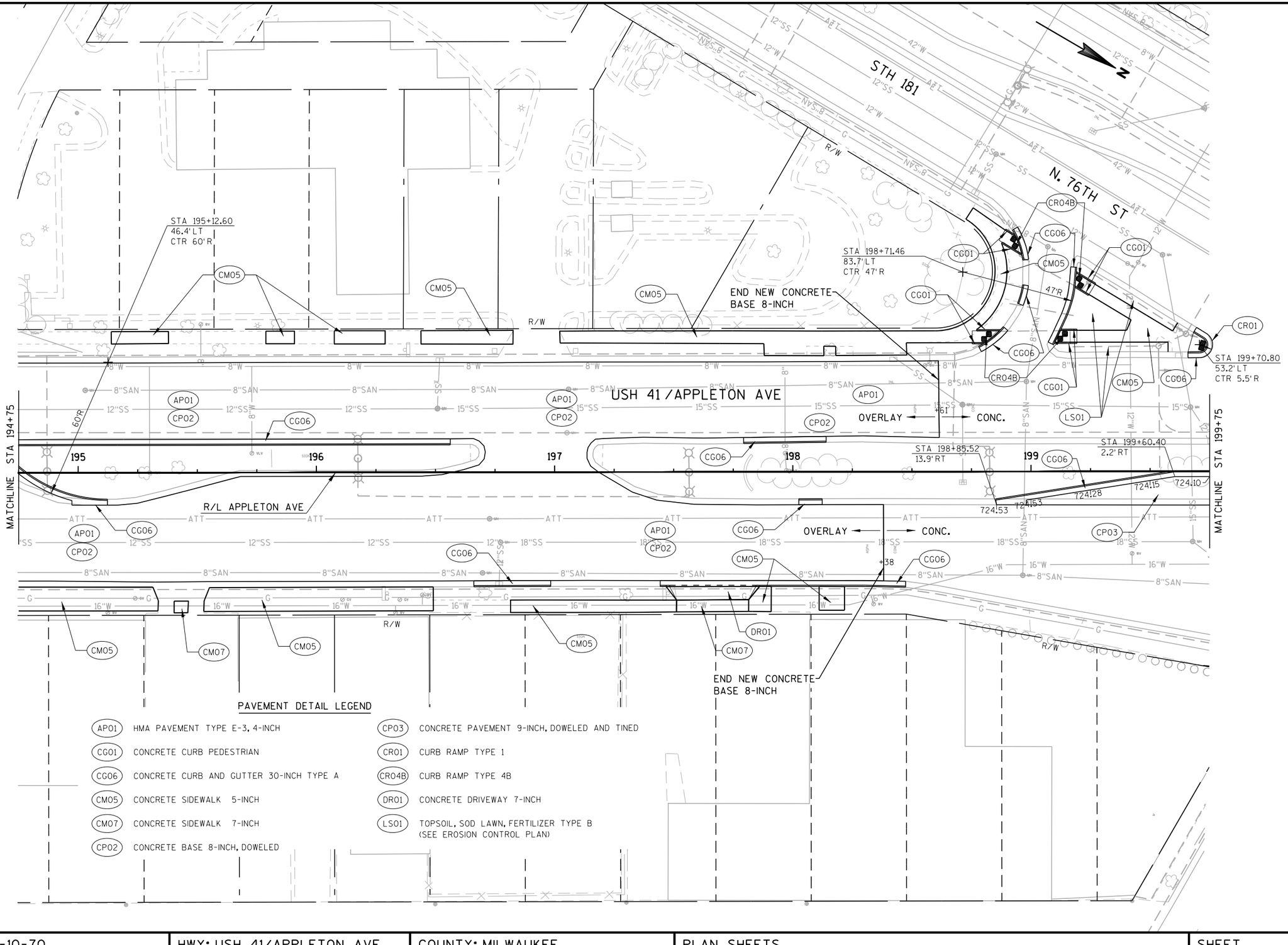
MATCHLINE STA 194+75

PAVEMENT DETAIL LEGEND

APO1	HMA PAVEMENT TYPE E-3, 4-INCH
CG06	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM05	CONCRETE SIDEWALK 5-INCH
CM07	CONCRETE SIDEWALK 7-INCH
CP02	CONCRETE BASE 8-INCH, DOWELED
CR02	CURB RAMP TYPE 2
DR01	CONCRETE DRIVEWAY 7-INCH
LS01	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 477	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050202_pn.dgn PLOT DATE : 17-DEC-2013 20:56 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 478 E

PAVEMENT DETAIL LEGEND

APO1	HMA PAVEMENT TYPE E-3, 4-INCH	CRO1	CURB RAMP TYPE 1
CGO1	CONCRETE CURB PEDESTRIAN	CRO2	CURB RAMP TYPE 2
CGO6	CONCRETE CURB AND GUTTER 30-INCH TYPE A	CRO2M	CURB RAMP TYPE 2 MODIFIED
CMO1	CONCRETE MEDIAN SLOPED NOSE TYPE 1	CRO4A	CURB RAMP TYPE 4A
CMO2	CONCRETE MEDIAN SLOPED NOSE TYPE 2	CRO4B	CURB RAMP TYPE 4B
CMO5	CONCRETE SIDEWALK 5-INCH	CRO5	CURB RAMP TYPE 5
CMO7	CONCRETE SIDEWALK 7-INCH	DRO1	CONCRETE DRIVEWAY 7-INCH
CPO2	CONCRETE BASE 8-INCH, DOWELED	LSO1	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)
CPO3	CONCRETE PAVEMENT 9-INCH, DOWELED AND TIED		

STH 181

W. HOPE AVE.

R/L APPLETON AVE

N. 76TH ST

+64 USH 41/APPLETON AVE

MATCHLINE STA 199+75

MATCHLINE STA 205+75

STA 200+90.23
111.6' LT
CTR 60' R

STA 201+83.02
78.5' LT
CTR 30' R

STA 201+64.94
66.56' LT

STA 201+94.44
59.15' LT

STA 200+23.53
57.8' LT
CTR 60' R

STA 200+37.45
22.0' LT
CTR 60' R

STA 203+00.36
46.3' LT
CTR 60' R

STA 205+29.76
66.7' LT
CTR 20' R

STA 204+86.14
46.1' LT
CTR 60' R

STA 205+25.99
58.92' LT

STA 204+38.83
14.3' LT

STA 200+23.54
46.2' RT
CTR 60' R

STA 199+87.64
92' RT
CTR 21' R

STA 201+40.77
75.9' RT
CTR 28' R

STA 202+31.30
110.6' RT
CTR 60' R

STA 202+84.01
20.9' RT
CTR 60' R

STA 203+12.28
13.7' RT

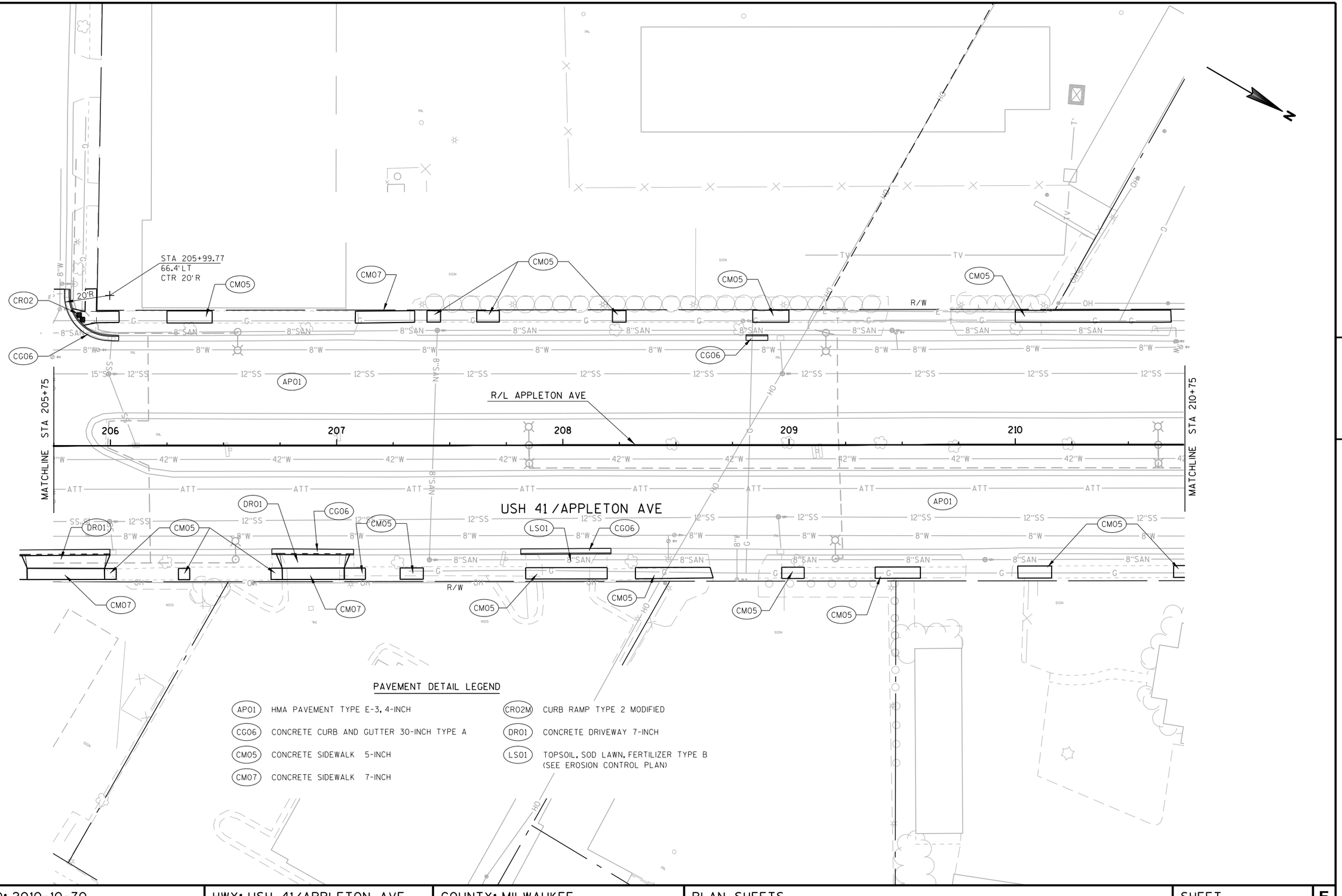
STA 203+63.83
2.3' LT

STA 203+00.36
57.7' RT
CTR 60' R

STA 203+54.17
52.8' RT
CTR 6.5' R

CONC. → OVERLAY

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 479 E



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 480	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050205_pn.dgn PLOT DATE : 17-DEC-2013 20:56 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 44

PAVEMENT DETAIL LEGEND

AP01	HMA PAVEMENT TYPE E-3, 4-INCH	CP02	CONCRETE BASE 8-INCH, DOWELED
CG01	CONCRETE CURB PEDESTRIAN	CR02	CURB RAMP TYPE 2
CG06	CONCRETE CURB AND GUTTER 30-INCH TYPE A	CR02M	CURB RAMP TYPE 2 MODIFIED
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1	DR01	CONCRETE DRIVEWAY 7-INCH
CM05	CONCRETE SIDEWALK 5-INCH	LS01	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)
CM07	CONCRETE SIDEWALK 7-INCH		

MATCHLINE STA 210+75

MATCHLINE STA 216+75

USH 41 / APPLETON AVE

R/L APPLETON AVE

W. CONGRESS ST.

W. CONGRESS ST.

STA 215+76.94
73.8' LT
CTR 28' R

STA 215+19.86
55.8' LT
CTR 60' R

STA 215+19.87
45.7' RT
CTR 60' R

STA 215+19.14
68.1' RT
CTR 23' R

STA 216+32.14
67.8' RT
CTR 23' R

28R

60R

+40.5

23R

33R

R/W

211 212 213 214 215 216

5

5

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 481 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050206_pn.dgn PLOT DATE : 17-DEC-2013 20:56 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 44

W. CONGRESS ST.

W. RUBY AVE.

R/W

STA 216+98.52
63.8' LT
CTR 18' R

STA 217+01.28
46.0' LT
CTR 60' R

STA 217+01.23
56.0' RT
CTR 60' R

STA 221+33.15
45.8' LT
CTR 60' R

STA 221+33.30
45.7' RT
CTR 60' R

STA 221+70.19
68.0' LT
CTR 22' R

STA 221+72.22
67' RT
CTR 21' R

STA 222+46.44
68.0' LT
CTR 22' R

PLACE PEDESTRIAN CURB UP AGAINST BUILDING

STA 222+83.79
46.0' LT
CTR 60' R
R/W

STA 222+45.36
67' RT
CTR 21' R

STA 222+83.77
45.8' RT
CTR 60' R

R/L APPLETON AVE

USH 41 / APPLETON AVE

MATCHLINE STA 216+75

MATCHLINE STA 222+75

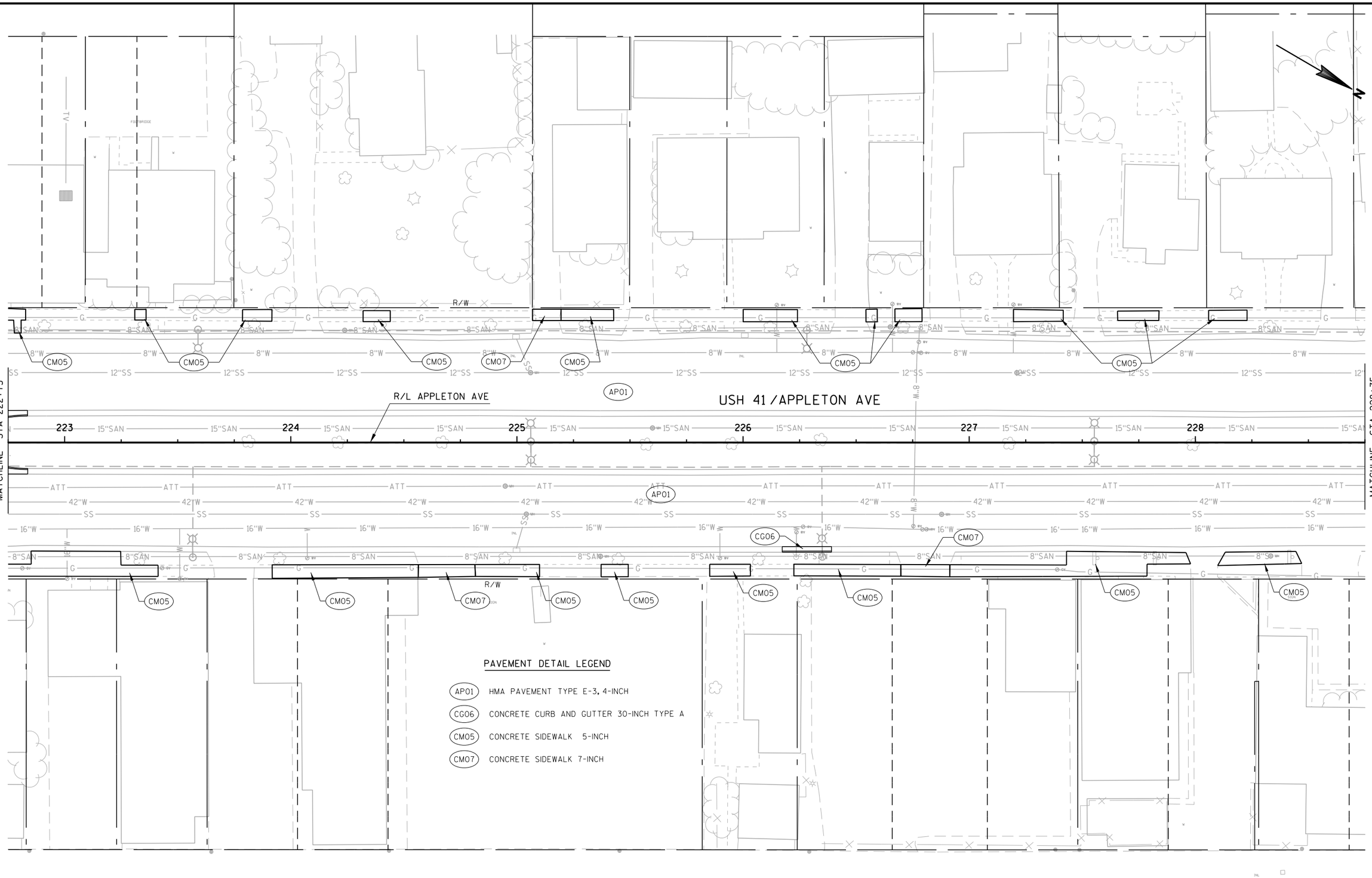
5

5

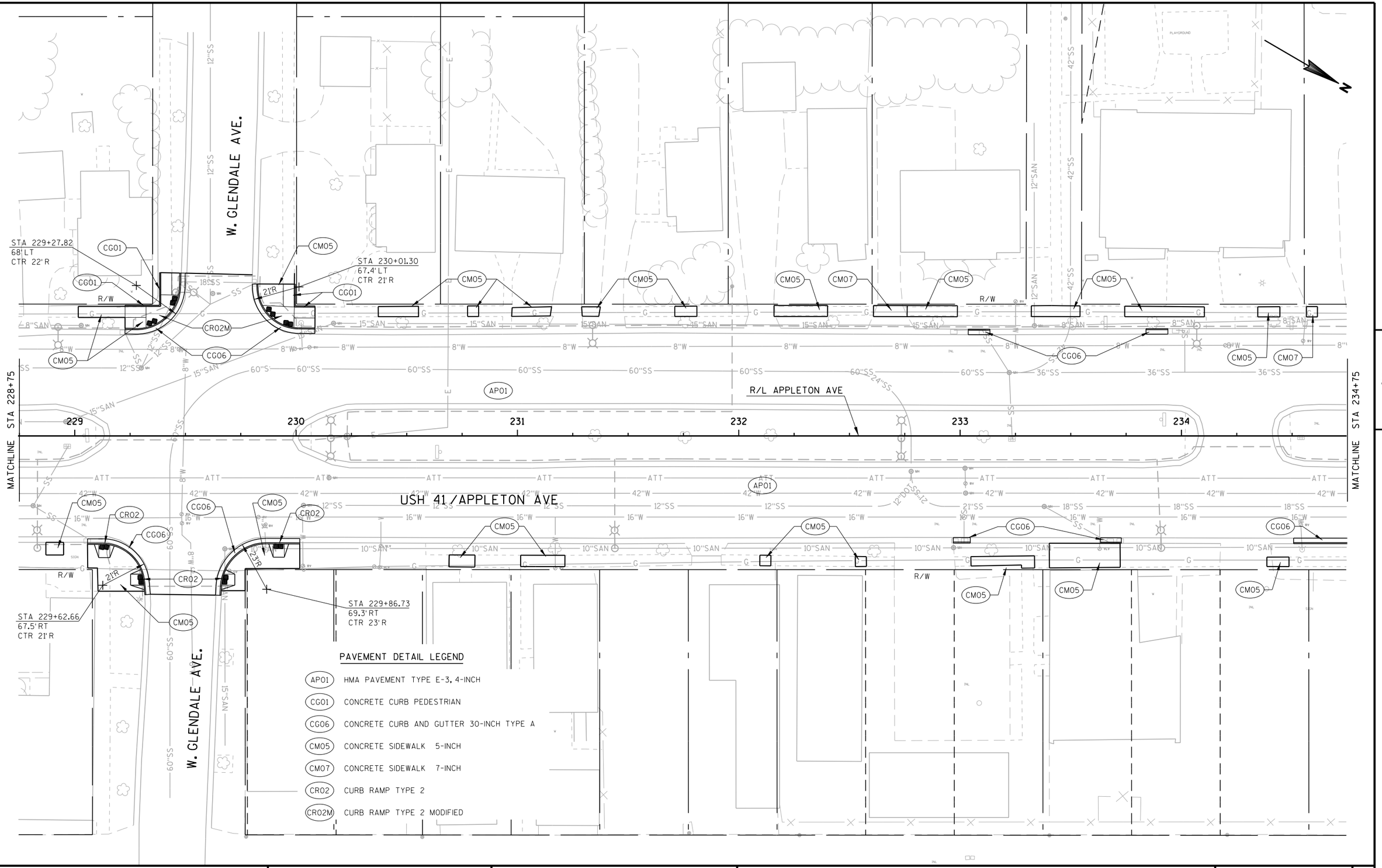
PAVEMENT DETAIL LEGEND

AP01	HMA PAVEMENT TYPE E-3, 4-INCH	CP02	CONCRETE BASE 8-INCH, DOWELED
CG01	CONCRETE CURB PEDESTRIAN	CR02M	CURB RAMP TYPE 2 MODIFIED
CG06	CONCRETE CURB AND GUTTER 30-INCH TYPE A	LS01	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1		
CM05	CONCRETE SIDEWALK 5-INCH		

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 482	E



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 483 E



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 484	E

R/L APPLETON AVE

USH 41 / APPLETON AVE

W. COURTLAND AVE.

MATCHLINE STA 234+75

MATCHLINE STA 240+75

STA 238+12.97
46.0' RT
CTR 60' R

STA 238+56.36
67.8' RT
CTR 21' R

STA 239+32.53
69.3' RT
CTR 23' R

+53.3

60' R

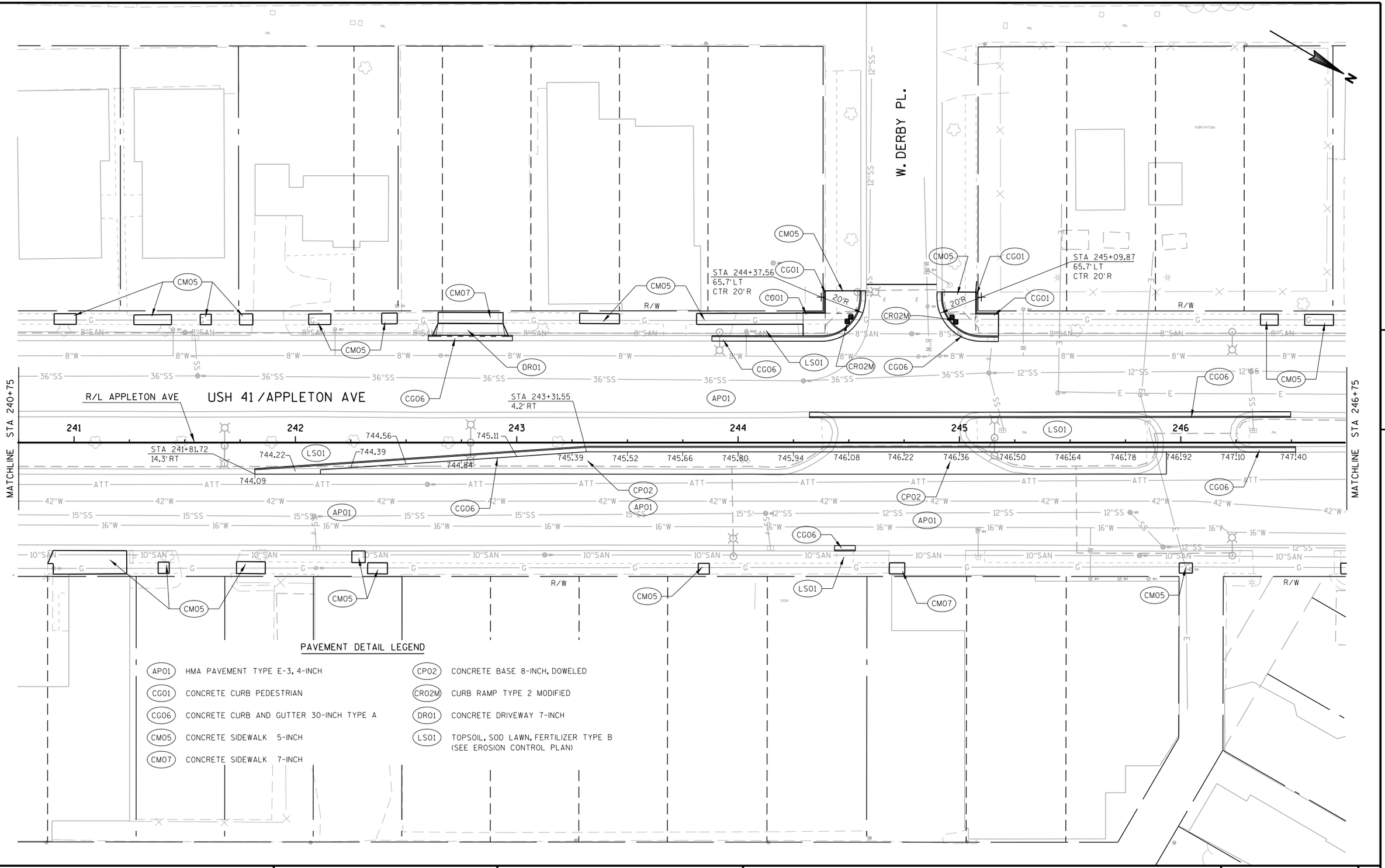
PAVEMENT DETAIL LEGEND

APO1	HMA PAVEMENT TYPE E-3, 4-INCH	CPO2	CONCRETE BASE 8-INCH, DOWELED
CGO1	CONCRETE CURB PEDESTRIAN	CRO2M	CURB RAMP TYPE 2 MODIFIED
CGO6	CONCRETE CURB AND GUTTER 30-INCH TYPE A	CRO7B	CURB RAMP TYPE 7B
CMO1	CONCRETE MEDIAN SLOPED NOSE TYPE 1	DRO1	CONCRETE DRIVEWAY 7-INCH
CMO5	CONCRETE SIDEWALK 5-INCH	LSO1	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)
CMO7	CONCRETE SIDEWALK 7-INCH		

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 485 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050210_pn.dgn PLOT DATE : 17-DEC-2013 20:56 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 44



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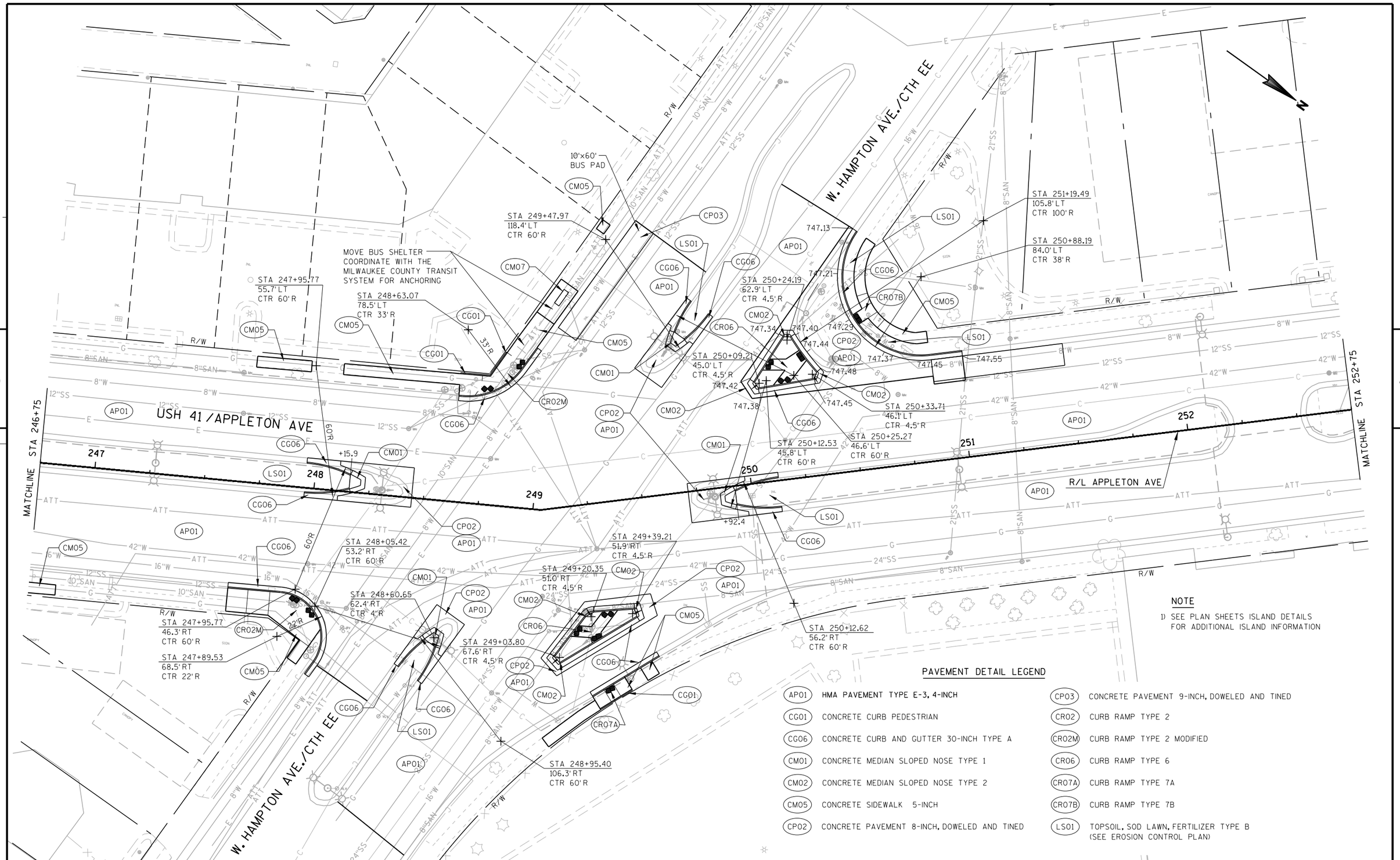
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 486	E



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 487	E

W. GRANTOSA DR.

USH 41 / APPLETON AVE

R/L APPLETON AVE

MATCHLINE STA 252+75

MATCHLINE STA 258+75

STA 254+57.51
88.2' LT
CTR 60' R

STA 254+34.98
72.4' LT
CTR 26' R

STA 254+12.31
55.9' LT
CTR 60' R

STA 254+12.31
45.9' RT
CTR 60' R

STA 254+33.19
74.2' RT
CTR 28' R

STA 254+46.82
89.0' RT
CTR 60' R

71.3' LT

71.8' RT

STA 255+62.15
88.3' LT
CTR 60' R

STA 255+72.42
71.2' LT
CTR 25' R

STA 255+96.25
45.4' LT
CTR 4' R

STA 255+96.34
55.9' RT
CTR 60' R

STA 255+74.53
73.6' RT
CTR 27' R

STA 255+51.32
88.9' RT
CTR 60' R

+32.6

+75.4

253 254 255 256 257 258

PAVEMENT DETAIL LEGEND

APO1	HMA PAVEMENT TYPE E-3, 4-INCH
CGO1	CONCRETE CURB PEDESTRIAN
CGO6	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CMO1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CMO5	CONCRETE SIDEWALK 5-INCH
CMO7	CONCRETE SIDEWALK 7-INCH
CPO2	CONCRETE PAVEMENT 8-INCH, DOWELED AND TINED
CRO2M	CURB RAMP TYPE 2 MODIFIED
LSO1	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 488 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050213_pn.dgn PLOT DATE : 17-DEC-2013 20:56 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

PAVEMENT DETAIL LEGEND

APO1	HMA PAVEMENT TYPE E-3, 4-INCH	CMO7	CONCRETE SIDEWALK 7-INCH
ASO1	ASPHALTIC SURFACE, 3-INCH	CPO2	CONCRETE BASE 8-INCH, DOWELED
CGO1	CONCRETE CURB PEDESTRIAN	CRO2M	CURB RAMP TYPE 2 MODIFIED
CGO6	CONCRETE CURB AND GUTTER 30-INCH TYPE A	CRO7B	CURB RAMP TYPE 7B
CMO1	CONCRETE MEDIAN SLOPED NOSE TYPE 1	DRO1	CONCRETE DRIVEWAY 7-INCH
CMO5	CONCRETE SIDEWALK 5-INCH		

W. STARK ST.

R/L APPLETON AVE

USH 41 / APPLETON AVE

STA 262+22.11
68' LT
CTR 22' R

STA 262+96.19
68' LT
CTR 22' R

STA 263+37.65
45.6' LT
CTR 60' R

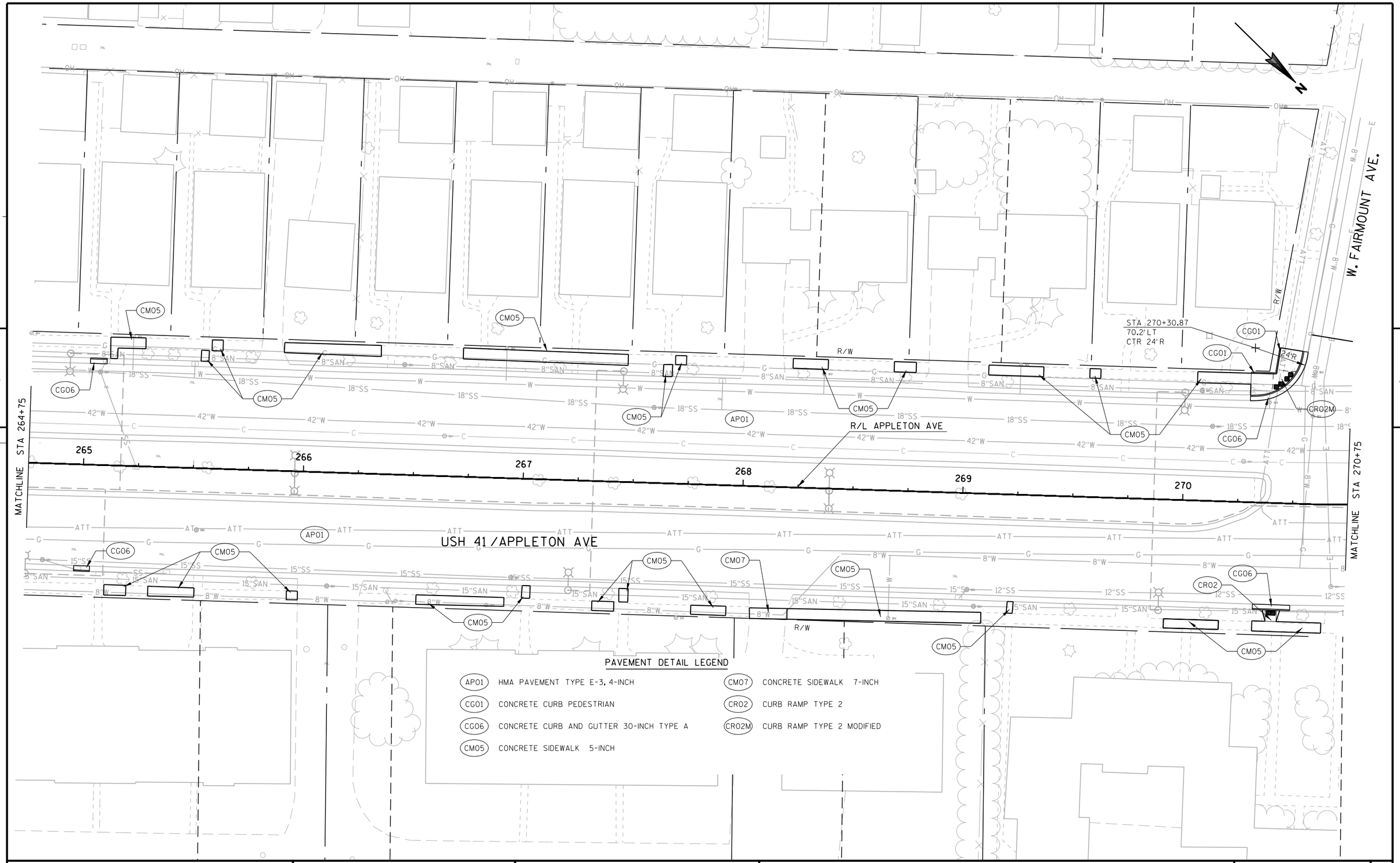
+97.4

MATCHLINE STA 258+75

MATCHLINE STA 264+75

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 489 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050214_pn.dgn PLOT DATE : 17-DEC-2013 20:56 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 490 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050215_pn.dgn PLOT DATE : 17-DEC-2013 20:56 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

PAVEMENT DETAIL LEGEND

AP01	HMA PAVEMENT TYPE E-3, 4-INCH	CR02	CURB RAMP TYPE 2
CG01	CONCRETE CURB PEDESTRIAN	CR02M	CURB RAMP TYPE 2 MODIFIED
CG06	CONCRETE CURB AND GUTTER 30-INCH TYPE A	CR07B	CURB RAMP TYPE 7B
CM05	CONCRETE SIDEWALK 5-INCH	DR01	CONCRETE DRIVEWAY 7-INCH
CM07	CONCRETE SIDEWALK 7-INCH	LS01	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)

W. FAIRMOUNT AVE.

STA 271+09.07
68.5' LT
CTR 22' R

USH 41 / APPLETON AVE

R/L APPLETON AVE

W. LANCASTER AVE.

STA 273+47.22
72.8' RT
CTR 26' R

STA 274+52.19
70' RT
CTR 24' R

+53.0
+51.6
+50.7

MATCHLINE STA 270+75

MATCHLINE STA 276+75

R/W

N

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PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 491	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050216_pn.dgn PLOT DATE : 17-DEC-2013 20:56 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

MATCHLINE STA 276+75

MATCHLINE STA 282+80

USH 41/APPLETON AVE

R/L APPLETON AVE

W. VILLARD AVE.

277 278 279 280 281 282

+60.0

60' R

R/W

STA 281+66.57
68' RT
CTR 22' R

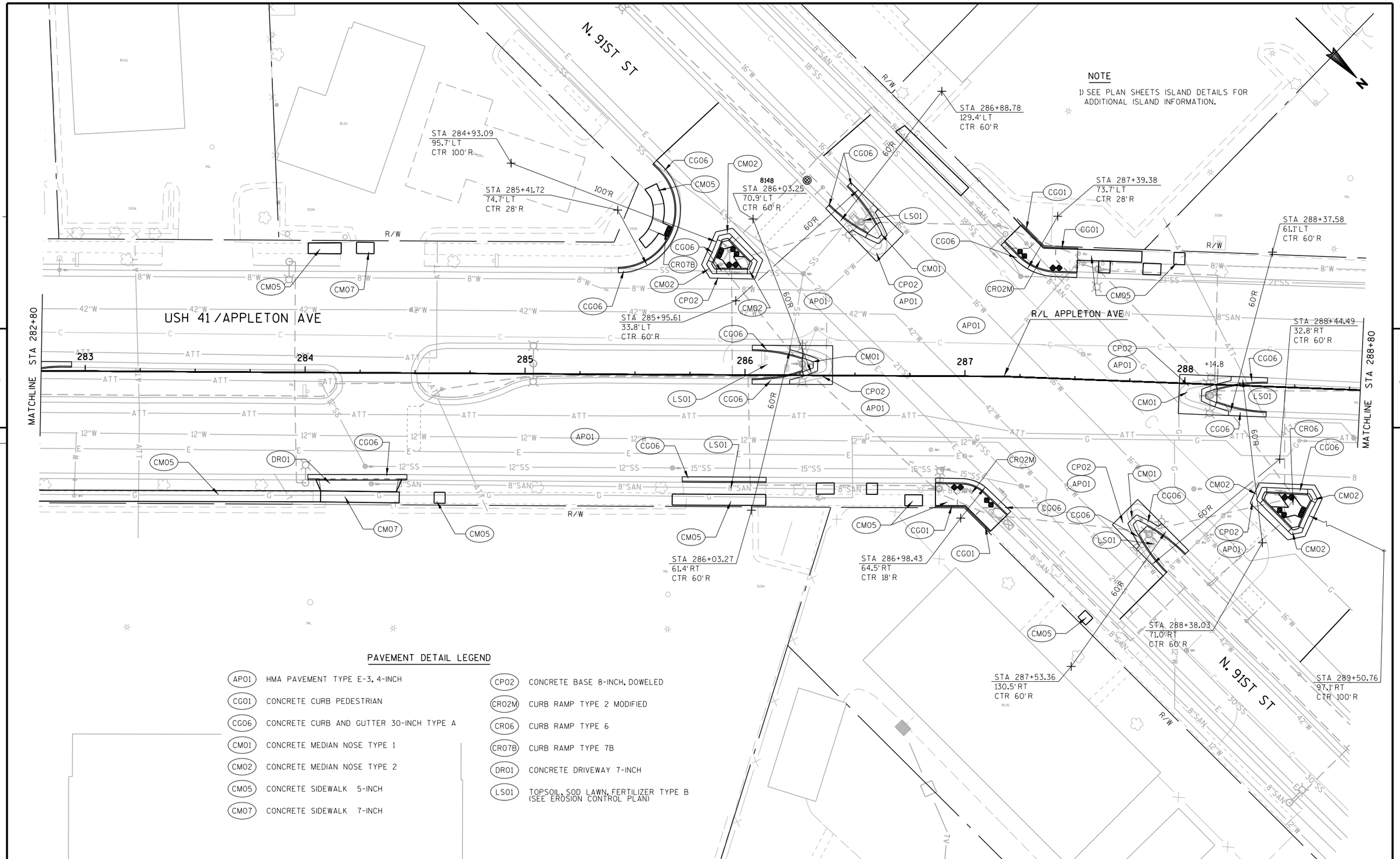
STA 282+89.59
55.8' RT
CTR 60' R

STA 282+50.25
68' RT
CTR 22' R

PAVEMENT DETAIL LEGEND

AP01	HMA PAVEMENT TYPE E-3, 4-INCH	CP02	CONCRETE BASE 8-INCH, DOWELED
CG01	CONCRETE CURB PEDESTRIAN	CR02	CURB RAMP TYPE 2
CG06	CONCRETE CURB AND GUTTER 30-INCH TYPE A	CR02M	CURB RAMP TYPE 2 MODIFIED
CM01	CONCRETE MEDIAN NOSE TYPE 1	CR07A	CURB RAMP TYPE 7A
CM05	CONCRETE SIDEWALK 5-INCH	CR07B	CURB RAMP TYPE 7B

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 492 E



NOTE

1) SEE PLAN SHEETS ISLAND DETAILS FOR ADDITIONAL ISLAND INFORMATION.

PAVEMENT DETAIL LEGEND

AP01	HMA PAVEMENT TYPE E-3, 4-INCH
CG01	CONCRETE CURB PEDESTRIAN
CG06	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CM01	CONCRETE MEDIAN NOSE TYPE 1
CM02	CONCRETE MEDIAN NOSE TYPE 2
CM05	CONCRETE SIDEWALK 5-INCH
CM07	CONCRETE SIDEWALK 7-INCH
CP02	CONCRETE BASE 8-INCH, DOWELED
CR02M	CURB RAMP TYPE 2 MODIFIED
CR06	CURB RAMP TYPE 6
CR07B	CURB RAMP TYPE 7B
DR01	CONCRETE DRIVEWAY 7-INCH
LS01	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 493	E

PAVEMENT DETAIL LEGEND

APO1	HMA PAVEMENT TYPE E-3, 4-INCH
CGO6	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CMO5	CONCRETE SIDEWALK 5-INCH
CMO7	CONCRETE SIDEWALK 7-INCH
CRO7B	CURB RAMP TYPE 7B
DRO1	CONCRETE DRIVEWAY 7-INCH

N

MATCHLINE STA 288+80

MATCHLINE STA 294+75

USH 41/APPLETON AVE

R/L APPLETON AVE

N. 91ST ST

SWAN RD.

STA 289+01.58
74.8' RT
CTR 28.5' R

STA 290+82.59
58.8' LT

STA 291+12.96
58.0' LT

R/W

289 290 291 292 293 294

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 494 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050219_pn.dgn PLOT DATE : 17-DEC-2013 20:57 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 44

PAVEMENT DETAIL LEGEND

APO1	HMA PAVEMENT TYPE E-3, 4-INCH
CG06	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CM05	CONCRETE SIDEWALK 5-INCH
CM07	CONCRETE SIDEWALK 7-INCH
DR01	CONCRETE DRIVEWAY 7-INCH

USH 41/APPLETON AVE

R/L APPLETON AVE

MATCHLINE STA 294+75

MATCHLINE STA 300+75

R/W

5

5

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 495	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050220_pn.dgn PLOT DATE : 17-DEC-2013 20:57 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

PAVEMENT DETAIL LEGEND

AP01	HMA PAVEMENT TYPE E-3, 4-INCH
CG06	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CM05	CONCRETE SIDEWALK 5-INCH
CP02	CONCRETE BASE 8-INCH, DOWELED
CR02	CURB RAMP TYPE 2

N

MATCHLINE STA 300+75

MATCHLINE STA 306+75

STA 301+77.75
55.8'LT
CTR 60'R

STA 303+04.07
60.77'LT
CTR 60'R

USH 41 /APPLETON AVE

R/L APPLETON AVE

R/W

60'R

+05.6

+65.9

301 302 303 304 305 306

CM05 CR02 CG06 AP01 CP02

21"SS 15"SS 12"SS 27"SS 8"SAN 8"W 4"G ATT

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 496	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050221_pn.dgn PLOT DATE : 17-DEC-2013 20:57 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 44

PAVEMENT DETAIL LEGEND

APO1	HMA PAVEMENT TYPE E-3, 4-INCH	CRO2	CURB RAMP TYPE 2
CGO1	CONCRETE CURB PEDESTRIAN	CRO2M	CURB RAMP TYPE 2 MODIFIED
CGO6	CONCRETE CURB AND GUTTER 30-INCH TYPE A	CRO7B	CURB RAMP TYPE 7B
CMO1	CONCRETE MEDIAN SLOPED NOSE TYPE 1	DRO1	CONCRETE DRIVEWAY 7-INCH
CMO5	CONCRETE SIDEWALK 5-INCH	DRO2	CONCRETE DRIVEWAY HES 7-INCH
CPO2	CONCRETE BASE 8-INCH, DOWELED	LSO1	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)
CPO3	CONCRETE PAVEMENT 9-INCH, DOWELED AND TINED		

FIRE STATION
ENGINE 4

USH 41 / APPLETON AVE

R/L APPLETON AVE

BIRCH AVE.

10' x 60'
BUS PAD

MATCHLINE STA 306+75

MATCHLINE STA 312+75

STA 306+78.21
46.4' RT
CTR 60' R

STA 307+17.29
67.5' RT
CTR 21' R

STA 307+89.31
67' RT
CTR 21' R

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 497 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050222_pn.dgn PLOT DATE : 17-DEC-2013 20:57 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 44

PAVEMENT DETAIL LEGEND

AP01	HMA PAVEMENT TYPE E-3, 4-INCH
AP02	HMA PAVEMENT TYPE E-3, 6 1/2-INCH
CG01	CONCRETE CURB PEDESTRIAN
CG06	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CG07	CONCRETE CURB AND GUTTER 30-INCH TYPE D
CG18	CONCRETE CURB AND GUTTER 18-INCH TYPE D
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM05	CONCRETE SIDEWALK 5-INCH
CM07	CONCRETE SIDEWALK 7-INCH
CP02	CONCRETE BASE 8-INCH, DOWELED
CR02	CURB RAMP TYPE 2
CR02M	CURB RAMP TYPE 2 MODIFIED
CR07B	CURB RAMP TYPE 7B
DR01	CONCRETE DRIVEWAY 7-INCH
DR03	ASPHALTIC SURFACE 2-INCH
LS01	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)

W. SHERIDAN AVE.

R/L APPLETON AVE

USH 41 / APPLETON AVE

MATCHLINE STA 312+75

MATCHLINE STA 318+75

STA 315+45.44
71.3' LT
CTR 25' R

STA 314+91.06
45.8' LT
CTR 60' R

STA 316+45.82
73.2' LT
CTR 27' R

STA 316+28.75
46.2' LT
CTR 60' R

STA 314+91.48
45.9' RT
CTR 60' R

STA 315+19.77
68.3' RT
CTR 22' R

STA 316+45.42
45.8' RT
CTR 60' R

STA 315+97.92
71.2' RT
CTR 25' R

BEGIN RECONSTRUCTION
STA 318+30.00

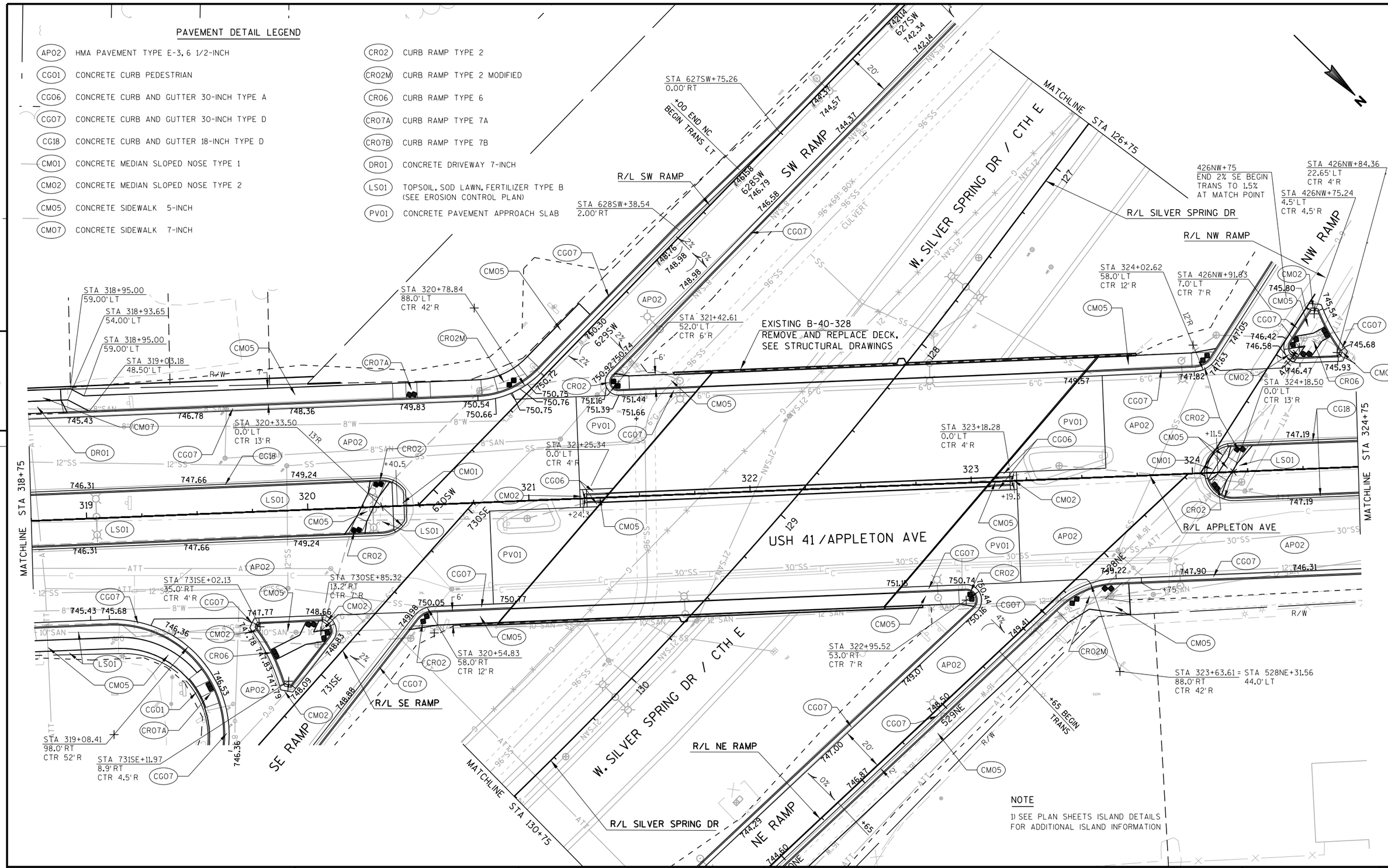
744.10
744.34
744.80
745.22
744.86
745.22
744.00
744.33

NOTE
1) TRANSITION CONCRETE CURB AND GUTTER CURB HEIGHTS MATCH EXISTING CURB AND GUTTER AT STA 318+30

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 498 E

PAVEMENT DETAIL LEGEND

APO2	HMA PAVEMENT TYPE E-3, 6 1/2-INCH
CGO1	CONCRETE CURB PEDESTRIAN
CGO6	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CGO7	CONCRETE CURB AND GUTTER 30-INCH TYPE D
CG18	CONCRETE CURB AND GUTTER 18-INCH TYPE D
CMO1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CMO2	CONCRETE MEDIAN SLOPED NOSE TYPE 2
CMO5	CONCRETE SIDEWALK 5-INCH
CMO7	CONCRETE SIDEWALK 7-INCH
CRO2	CURB RAMP TYPE 2
CRO2M	CURB RAMP TYPE 2 MODIFIED
CRO6	CURB RAMP TYPE 6
CRO7A	CURB RAMP TYPE 7A
CRO7B	CURB RAMP TYPE 7B
DRO1	CONCRETE DRIVEWAY 7-INCH
LSO1	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)
PVO1	CONCRETE PAVEMENT APPROACH SLAB



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 499 E

NW RAMP

NOTE

1) TRANSITION CONCRETE CURB AND GUTTER
CURB HEIGHTS MATCH EXISTING CURB AND GUTTER
AT STA 326+00 LT AND STA 326+34 RT

END RECONSTRUCTION
STA 326+00

STA 325+36.14
97.8' LT
CTR 52' R

STA 325+61.73
0.2' RT
CTR 13' R

STA 326+70.88
45.9' RT
CTR 60' R

STA 326+34.28
66.2' RT
CTR 20' R

STA 325+38.80
66.2' RT
CTR 20' R

USH 41 / APPLETON AVE

R/L APPLETON AVE

N. 99TH ST.

MATCHLINE STA 324+75

MATCHLINE STA 330+75

R/W

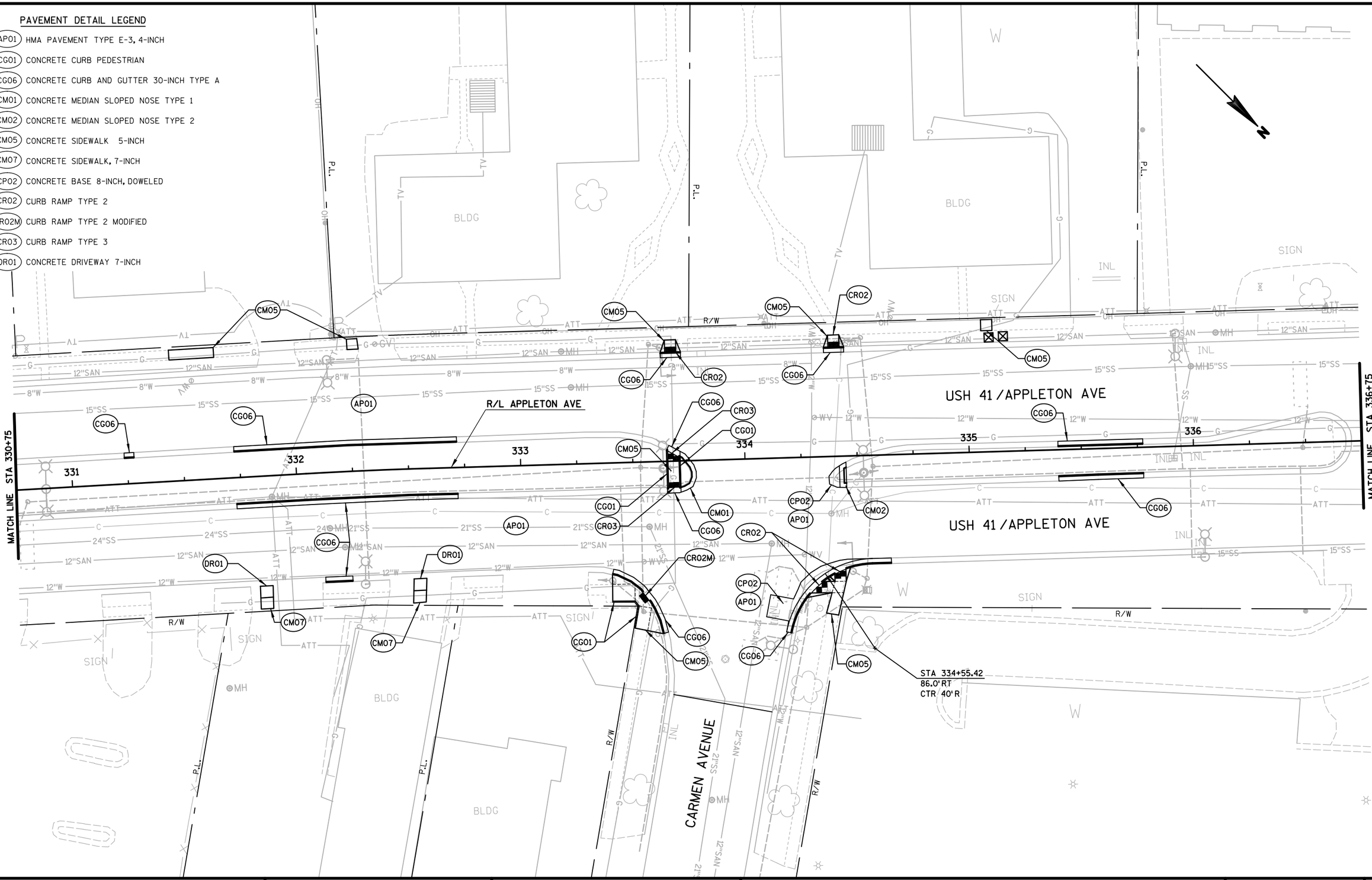
PAVEMENT DETAIL LEGEND

APO1	HMA PAVEMENT TYPE E-3, 4-INCH
APO2	HMA PAVEMENT TYPE E-3, 6 1/2-INCH
CGO1	CONCRETE CURB PEDESTRIAN
CGO4	CONCRETE CURB GUTTER 4-INCH SLOPED 30-INCH TYPE J
CGO6	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CGO7	CONCRETE CURB AND GUTTER 30-INCH TYPE D
CG18	CONCRETE CURB AND GUTTER 18-INCH TYPE D
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM05	CONCRETE SIDEWALK 5-INCH
CM07	CONCRETE SIDEWALK 7-INCH
CP02	CONCRETE BASE 8-INCH, DOWELED
CR02	CURB RAMP TYPE 2
CR02M	CURB RAMP TYPE 2 MODIFIED
CR07B	CURB RAMP TYPE 7B
DR01	CONCRETE DRIVEWAY 7-INCH
LS01	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 500	E

PAVEMENT DETAIL LEGEND

- (APO1) HMA PAVEMENT TYPE E-3, 4-INCH
- (CG01) CONCRETE CURB PEDESTRIAN
- (CG06) CONCRETE CURB AND GUTTER 30-INCH TYPE A
- (CM01) CONCRETE MEDIAN SLOPED NOSE TYPE 1
- (CM02) CONCRETE MEDIAN SLOPED NOSE TYPE 2
- (CM05) CONCRETE SIDEWALK 5-INCH
- (CM07) CONCRETE SIDEWALK, 7-INCH
- (CP02) CONCRETE BASE 8-INCH, DOWELED
- (CR02) CURB RAMP TYPE 2
- (CR02M) CURB RAMP TYPE 2 MODIFIED
- (CR03) CURB RAMP TYPE 3
- (DR01) CONCRETE DRIVEWAY 7-INCH



PAVEMENT DETAIL LEGEND

- APO1 HMA PAVEMENT TYPE E-3, 4-INCH
- CG06 CONCRETE CURB AND GUTTER 30-INCH TYPE A
- GG10 CONCRETE CURB AND GUTTER 30-INCH TYPE A 1¾-INCH
- CM05 CONCRETE SIDEWALK 5-INCH
- CM07 CONCRETE SIDEWALK, 7-INCH
- CP02 CONCRETE BASE 8-INCH, DOWELED
- DR01 CONCRETE DRIVEWAY 7-INCH

MATCH LINE STA 336+75

MATCH LINE STA 341+75

USH 41/APPLETON AVE

R/L APPLETON AVE

USH 41/APPLETON AVE

SEE CONSTRUCTION DETAILS FOR ADDITIONAL ROADSIDE BARRIER INFORMATION

STA. 340+59.1, 49.8' RT (MGS EAT POST 1)

+46.1

+84.6

+71.8

CG10 (TO ACCOMMODATE MGS EAT)

MGS GUARDRAIL 3, REQ'D

MGS GUARDRAIL TERMINAL EAT, REQ'D

BLDG

SIGN

SIGN

R/W

R/W

337 338 339 340 341

5

5

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET	E

FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\050202_pn.dgn PLOT DATE : 11/26/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 44

PAVEMENT DETAIL LEGEND

(AP01) HMA PAVEMENT TYPE E-3, 4-INCH

(CG10) CONCRETE CURB AND GUTTER 30-INCH TYPE A 1¾-INCH

(CM05) CONCRETE SIDEWALK 5-INCH

MATCH LINE STA 341+75

SEE CONSTRUCTION DETAILS FOR ADDITIONAL ROADSIDE BARRIER INFORMATION

MGS GUARDRAIL 3 HS, REQ'D

MGS GUARDRAIL TERMINAL TYPE 2, REQ'D CONSTRUCT IN STAGE 4

(CG10) (TO ACCOMMODATE MGS TYPE 2)

(CM05)

MGS GUARDRAIL 3, REQ'D CONSTRUCT IN STAGE 4

GUARDRAIL MOW STRIP CONCRETE, REQ'D

+13.9

+57.9

(AP01)

MGS GUARDRAIL TERMINAL EAT, REQ'D CONSTRUCT IN STAGE 4

STA. 345+56.0 45.6' LT (MGS EAT POST 1)

+43.5

+86.0

(CG10) (TO ACCOMMODATE MGS EAT)

MGS GUARDRAIL 3, REQ'D

USH 41 / APPLETON AVE

STA. 347+00.2, 6.0' LT

STA. 346+87.7, 7.4' LT

(CG10) (TO ACCOMMODATE MGS GUARDRAIL 3)

MATCH LINE STA 347+25

342 343 +09 +68 344 345 346 347

MGS THRIE BEAM TRANSITION, REQ'D

MGS GUARDRAIL 3 QS, REQ'D

MGS GUARDRAIL 3 HS, REQ'D

STRUCTURE B-40-327 TO REMAIN

(AP01)

R/L APPLETON AVE

USH 41 / APPLETON AVE

SEE SDD "MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL" FOR POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION.

STA. 346+87.6, 7.7' RT

STA. 347+00.1, 6.5' RT

MGS GUARDRAIL TERMINAL EAT, REQ'D

+44.4

+87.3

(CG10) (TO ACCOMMODATE MGS EAT)

STA. 346+74.6, 52.1' RT (MGS EAT POST 1)

(CG10) (TO ACCOMMODATE MGS TYPE 2)

+20.2

+64.2

MGS GUARDRAIL TERMINAL TYPE 2, REQ'D

MGS GUARDRAIL 3 QS, REQ'D

UNION PACIFIC RAILROAD

345 KV

138 KV

R/W

SIGN

5

5

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 503	E

PAVEMENT DETAIL LEGEND

- (AP01) HMA PAVEMENT TYPE E-3, 4-INCH
- (CG01) CONCRETE CURB PEDESTRIAN
- (CG06) CONCRETE CURB AND GUTTER 30-INCH TYPE A
- (CG10) CONCRETE CURB AND GUTTER 30-INCH TYPE A 1 ¾-INCH
- (CM05) CONCRETE SIDEWALK 5-INCH
- (CP02) CONCRETE BASE 8-INCH, DOWELED
- (CR02) CURB RAMP TYPE 2
- (CR05) CURB RAMP TYPE 5
- (LS01) SOD LAWN

MMSD 240" REMOTE STORAGE

WEST BOBOLINK AVE

OVERLAY AND REPAIR EXISTING BRIDGE DECK, SEE STRUCTURAL DRAWINGS

MGS GUARDRAIL TERMINAL EAT, REQ'D

MGS GUARDRAIL 3, REQ'D

STA. 350+15.4, 54.2' LT (MGS EAT POST 1)

MGS THRIE BEAM TRANSITION, REQ'D

(TO ACCOMMODATE STEEL THRIE BEAM BULLNOSE TERMINAL)

STA. 350+15.00 52.19', LT

STA. 350+54.14

STRUCTURE B-40-325

R/L APPLETON AVE

USH 41 / APPLETON AVE

MATCH LINE STA 347+25

MATCH LINE STA 352+75

STEEL THRIE BEAM STRUCTURE APPROACH REQ'D

STEEL THRIE BEAM, REQ'D

STEEL THRIE BEAM BULLNOSE TERMINAL, REQ'D (SEE CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION)

MGS THRIE BEAM TRANSITION, REQ'D

MGS GUARDRAIL 3, REQ'D

STRUCTURE B-40-326

OVERLAY AND REPAIR EXISTING BRIDGE DECK, SEE STRUCTURAL DRAWINGS

STA. 351+01.80 57.16', RT

STA. 352+00.72 58.07', RT

LITTLE MENOMONEE RIVER

LITTLE MENOMONEE RIVER PKWY

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET	E

FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\050204_pn.dgn PLOT DATE : 11/26/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 44

PAVEMENT DETAIL LEGEND

AP01 HMA PAVEMENT TYPE E-3, 4-INCH

CG06 CONCRETE CURB AND GUTTER 30-INCH TYPE A

CM05 CONCRETE SIDEWALK 5-INCH

5

5

MATCH LINE STA 352+75

MATCH LINE STA 358+75

R/L APPLETON AVE

USH 41 / APPLETON AVE

USH 41 / APPLETON AVE

R/W

R/W

P.L.

P.L.

P.L.

P.L.

CM05

CM05

CM05

CM05

AP01

AP01

CG06

CG06

CG06

CG06

CG06

353

354

355

356

357

358

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 505	E

PAVEMENT DETAIL LEGEND

- (AP01) HMA PAVEMENT TYPE E-3, 4-INCH
- (CG01) CONCRETE CURB PEDESTRIAN
- (CG06) CONCRETE CURB AND GUTTER 30-INCH TYPE A
- (CM01) CONCRETE MEDIAN SLOPED NOSE TYPE 1
- (CM02) CONCRETE MEDIAN SLOPED NOSE TYPE 2
- (CM05) CONCRETE SIDEWALK 5-INCH
- (CP02) CONCRETE BASE 8-INCH, DOWELED
- (CR01) CURB RAMP TYPE 1
- (CR02) CURB RAMP TYPE 2
- (CR05) CURB RAMP TYPE 5

FLORIST AVE

USH 41 / APPLETON AVE

R/L APPLETON AVE

107TH ST.

MATCH LINE STA 358+75

END PROJECT
I.D. 2010-10-70
STA. 364+00.00

STA. 360+94.09
58.75', RT

STA. 361+85.88
63.52', RT

STA 361+97.34
73.9' RT
CTR 28'R

R/W

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET E

FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\050206_pn.dgn PLOT DATE : 11/26/2013 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 44

PAVEMENT DETAIL LEGEND

APO2	HMA PAVEMENT TYPE E-3, 6 1/2-INCH
CGO7	CONCRETE CURB AND GUTTER 30-INCH TYPE D
CMO5	CONCRETE SIDEWALK 5-INCH
CRO7B	CURB RAMP TYPE 7B
CSD1	CONCRETE SURFACE DRAIN

N

5

5

NW RAMP

422NW

423NW

424NW

425NW

426NW

R/L NW RAMP

STA 423NW+80.00
20.00'RT

STA 423NW+15.06
20.07'RT

STA 421NW+93.50
14.51'RT

708'R

+66 BEGIN TRANS

+00 FULL SE

+00 END FULL SE

+40 END TRANS

CM05

AP02

CGO7

STA 425NW+00.00
22.00'RT

STA 426NW+07.79
52.00'LT
CTR 52'R

52'R

CRO7B

BEGIN CONSTRUCTION
STA 421NW+66.3

W. SILVER SPRING DR / CTH E

R/L SILVER SPRING DR

MATCHLINE STA 126+75

R/L SW RAMP

623SW

624SW

625SW

626SW

STA 624SW+33.52
20.0'LT

CSD1

+65 BEGIN TRANS

+27 NC

BEGIN CONSTRUCTION
STA 623SW+65.0

SW RAMP

NOTE

1) MATCH EXISTING CONCRETE CURB & GUTTERS AT RAMP TERMINI. MATCH TOP OF CURB ELEVATIONS AND FLOW LINES TRANSITION CURB HEIGHT WITHIN THE LAST 5 FEET PRIOR TO MATCH POINT.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 507 E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050226_pn.dgn PLOT DATE : 17-DEC-2013 20:57 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 44

PAVEMENT DETAIL LEGEND

APO2	HMA PAVEMENT TYPE E-3, 6 1/2-INCH
CG01	CONCRETE CURB PEDESTRIAN
CG07	CONCRETE CURB AND GUTTER 30-INCH TYPE D
CM02	CONCRETE MEDIAN SLOPED NOSE TYPE 2
CM05	CONCRETE SIDEWALK 5-INCH
CR06	CURB RAMP TYPE 6
CR07A	CURB RAMP TYPE 7A
LS01	TOPSOIL, SOD LAWN, FERTILIZER TYPE B (SEE EROSION CONTROL PLAN)

N

STA 530NE+35.11
2.0' LT

STA 531NE+06.69
13.0' LT

1178' R

STA 531NE+75.00
13.0' LT

STA 531NE+82.63
0.0' LT

531NE
532NE
533NE
534NE
535NE

742.58
740.97
739.81
739.14
738.85
738.60
738.35

3.8%
20'
2%
1.4%
3.4%
0.5%

+60 FULL SE

741.84
740.17
739.04
738.38
738.47
738.60
738.47

+05 END FULL SE
+50 END RT TRANS
+35 BEGIN RT TRANS
+86 END TRANS

NE RAMP

STA 532NE+94.91
20.0' RT

1307.25' R

STA 533NE+86
23.15' RT

END CONSTRUCTION
STA 533NE+85.7

R/L NE RAMP

W. SILVER SPRING DR / CTH E

MATCHLINE STA 130+75

131 132 133 134 135

R/L SILVER SPRING DR

STA 731SE+75.43
21.67' LT

273' R

STA 732SE+06.13
21.91' LT

744.72
742.59
740.91
739.71
738.87

731SE
732SE
733SE
734SE
735SE

747.10
745.12
744.28
742.20
740.57
739.41
738170

SE RAMP

STA 734SE+30
12.35' LT

R/L SE RAMP

STA 730SE+85.32
13.2' RT
CTR 7' R

748.88
748.09
748.83
746.36
746.53
747.78
747.83
747.79
747.71
746.66

STA 731SE+11.97
8.9' RT
CTR 4.5' R

STA 731SE+81.06
49.0' RT
CTR 40' R

40'R
52'R

STA 731SE+02.13
35.0' RT
CTR 4' R

STA 731SE+82.34
52.0' RT
CTR 78', 52' R

745.68

STA 731SE+82.47
4.0' RT

STA 732SE+50.13
6.2' RT

DO NOT DISTURB TREE ROOTS

CURB MUST BE INSTALLED WITH 0" CLEARANCE SLIP OR HAND FORM WITH 1/4" STEEL PLATE

+55 BEGIN TRANS

+30 END TRANS

END CONSTRUCTION
STA 734SE+30.4

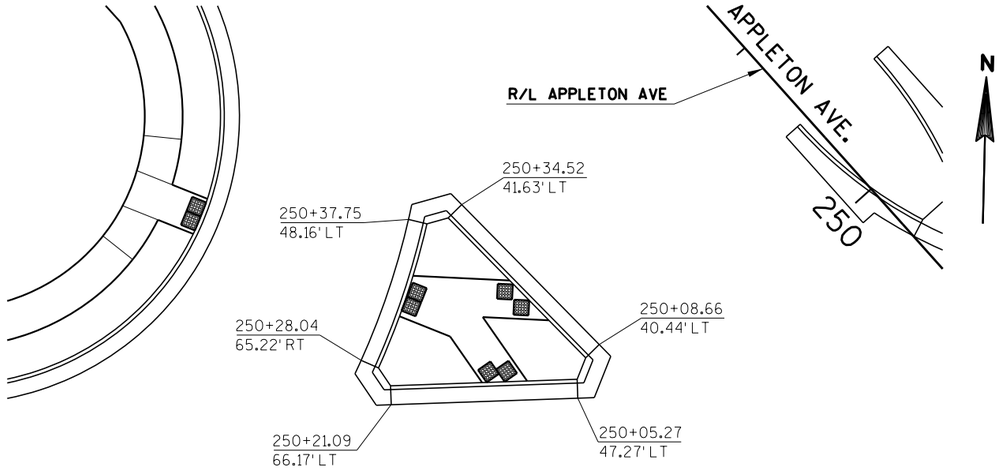
NOTES

1) MATCH EXISTING CONCRETE CURB & GUTTERS AT RAMP TERMINI. MATCH TOP OF CURB ELEVATIONS AND FLOW LINES TRANSITION CURB HEIGHT WITHIN THE LAST 5 FEET PRIOR TO MATCH POINT.

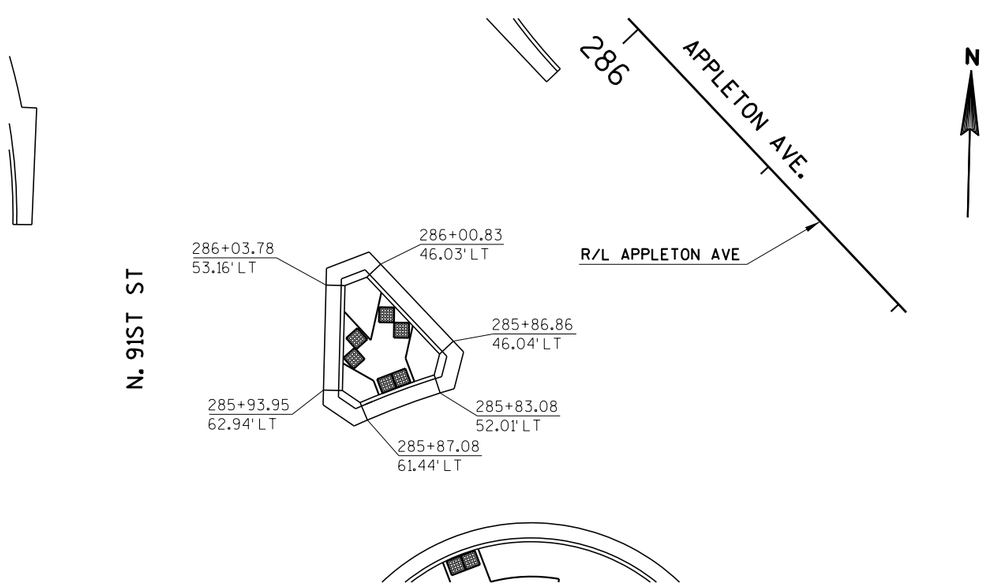
2) SEE PLAN SHEETS ISLAND DETAILS FOR ADDITIONAL ISLAND INFORMATION.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS	SHEET 508 E

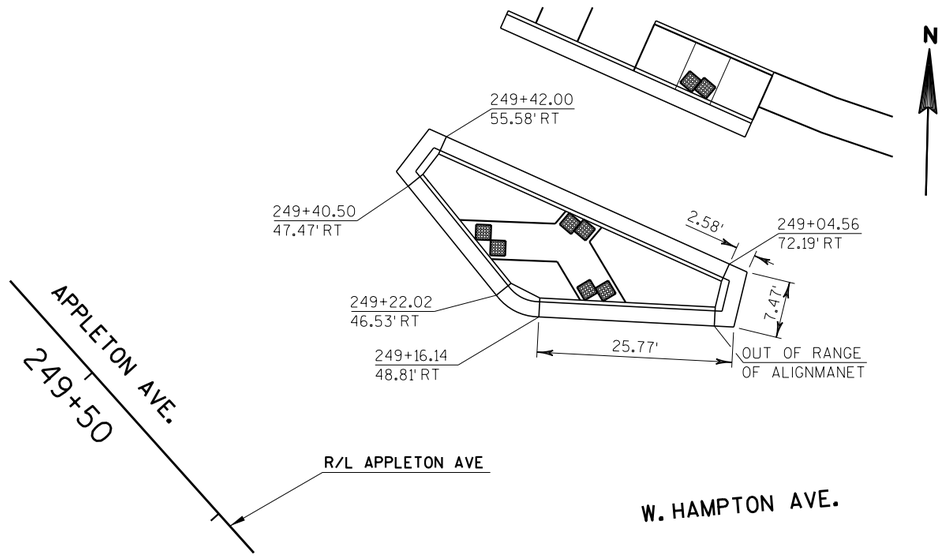
FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap050227_pn.dgn PLOT DATE : 17-DEC-2013 20:57 PLOT BY : scook PLOT NAME : PLOT SCALE : 40:1



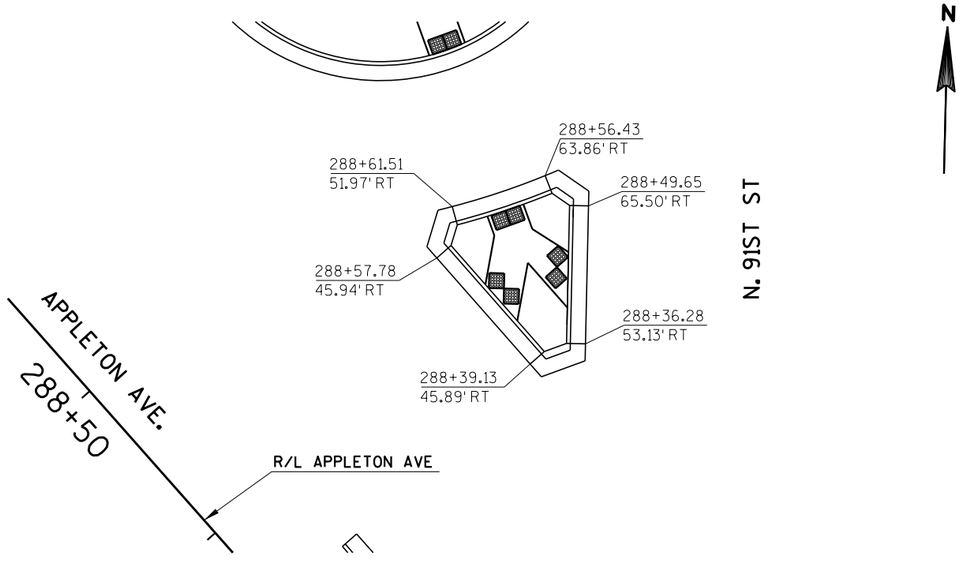
NW ISLAND AT APPLETON AVE & W. HAMPTON AVE.



SW ISLAND AT APPLETON AVE & N. 91ST ST

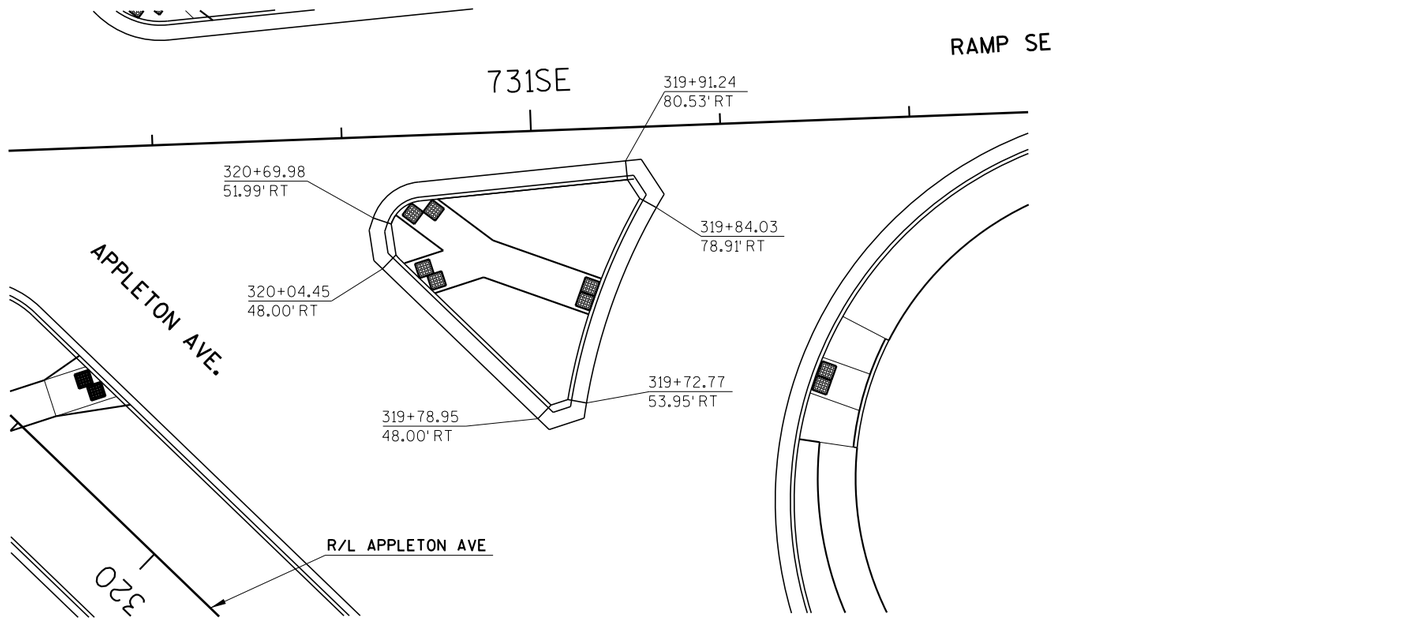


NW ISLAND AT APPLETON AVE & W. HAMPTON AVE.

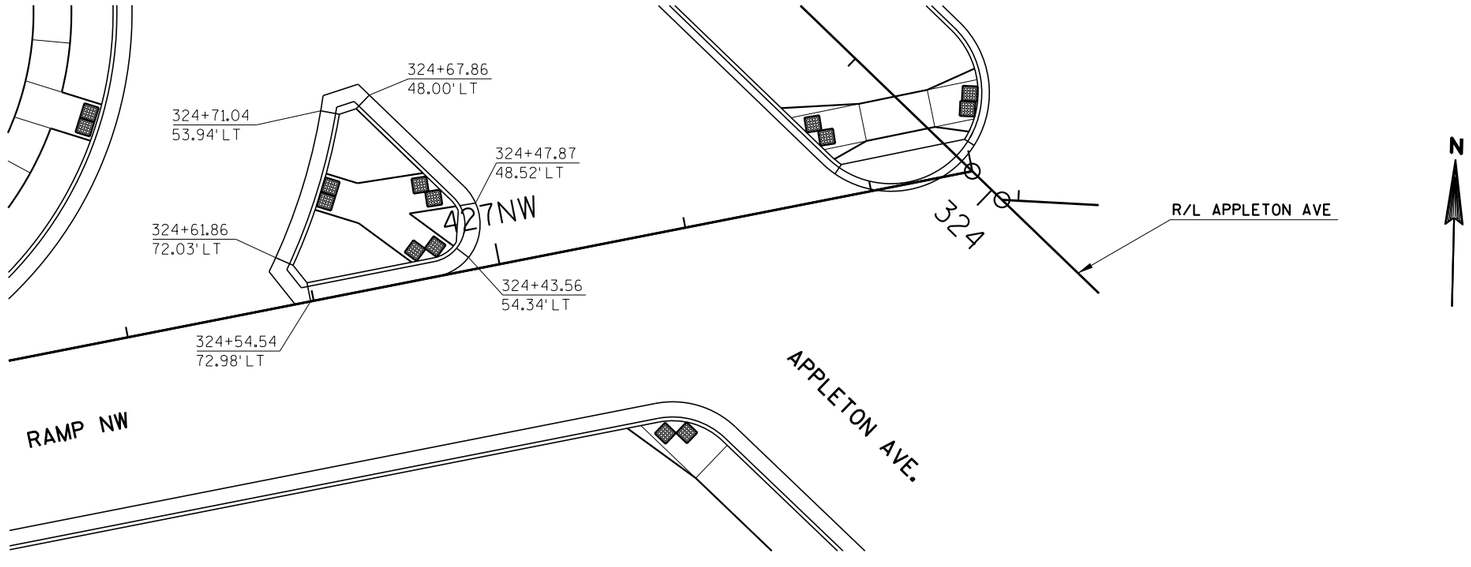


NE ISLAND AT APPLETON AVE & N. 91ST ST

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS ISLAND DETAILS	SHEET 509	E



SE ISLAND AT APPLETON AVE & RAMP SE



NW ISLAND AT APPLETON AVE & RAMP NW

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	PLAN SHEETS ISLAND DETAILS	SHEET 510 E

Standard Detail Drawing List

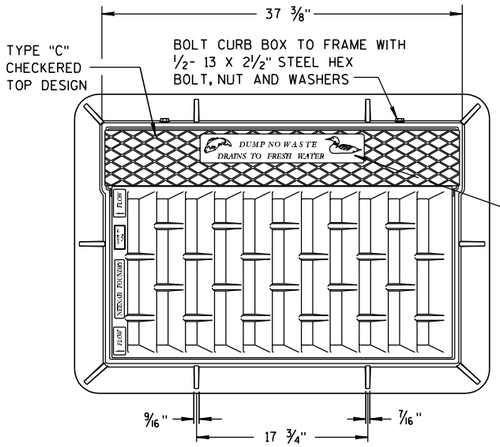
08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-01	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-07	CONDUIT
09C11-03	CONCRETE BASE TYPE 10
09C12-03A	CONCRETE BASE TYPE 13
09C12-03B	CONCRETE BASE TYPE 13
09C13-01	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
09E02-03	FREEWAY LIGHTING UNIT POLE WIRING
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E08-04A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-04B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-04C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-04D	TYPE 13 POLE 35'-55' MONOTBE ARM
09F10-03	LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY
09F11-03	LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY
09G01-03A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
13B02-06	CONCRETE PAVEMENT APPROACH SLAB
13C01-16	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C14-04A	BASE PATCHING CONCRETE
13C14-04B	BASE PATCHING CONCRETE
13C14-04C	BASE PATCHING CONCRETE
13C15-05A	CONCRETE BASE
13C15-05B	CONCRETE BASE
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-02B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-02C	CONCRETE PAVEMENT JOINT TIES
13C18-02D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14A02-01	TREE PLANTING DETAIL
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B26-02A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02E	STEEL THRIE BEAM BULLNOSE TERMINAL

6

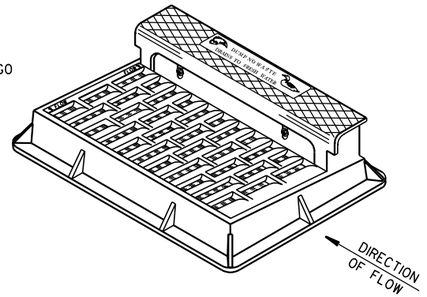
Standard Detail Drawing List

14B32-02A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B33-01D	CONCRETE BARRIER SINGLE SLOPE 36" THRIE BEAM ANCHOR
14B33-01E	CONCRETE BARRIER SINGLE SLOPE 36" THRIE BEAM ANCHOR
14B33-01F	CONCRETE BARRIER SINGLE SLOPE 36" THRIE BEAM ANCHOR
14B34-01A	32", 36" & 42" CONCRETE BARRIER SINGLE SLOPE CLASS B
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-01A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15B03-13A	FENCE CHAIN LINK
15B03-13B	FENCE CHAIN LINK
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C19-02C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D06-03	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D11-04	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D12-03	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-02	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-02	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-02	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE

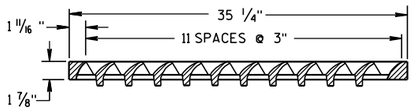
6

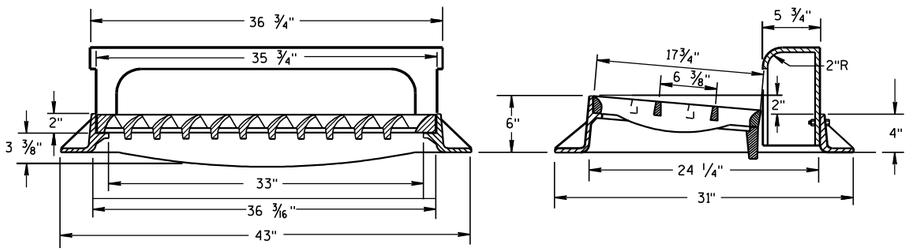


NOTE:
GRATE IS REVERSIBLE.



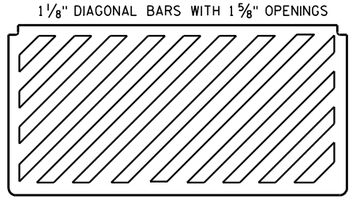
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"





TYPE "H"

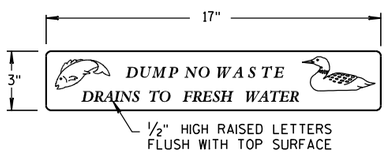
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 159 LBS.)
GRATE..... 159 LBS.

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL

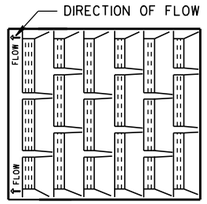
GENERAL NOTES

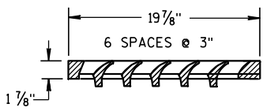
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

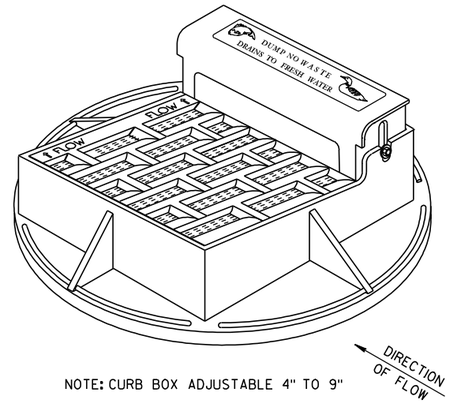
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

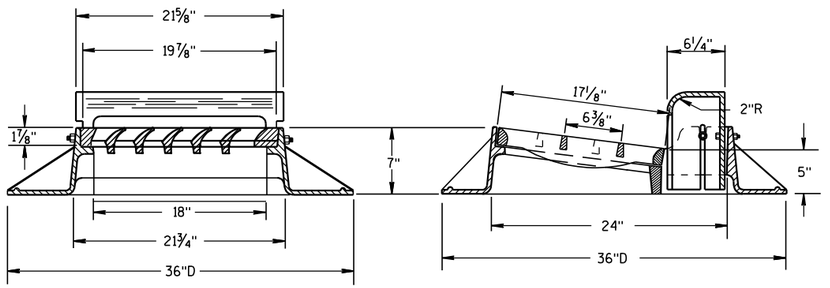
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





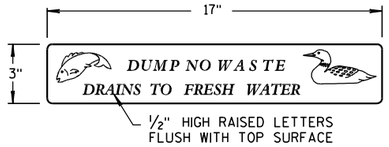


NOTE: CURB BOX ADJUSTABLE 4" TO 9"



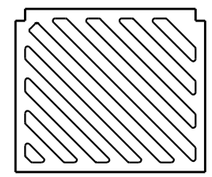
TYPE "A"

(APPROXIMATE WEIGHT 340 LBS.)
FRAME..... 185 LBS.
GRATE..... 71 LBS.
CURB BOX..... 84 LBS.



LOGO DETAIL

NOTE:
GRATE IS REVERSIBLE.



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8"
GRATE..... 84 LBS.

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

INLET COVERS TYPE A, H, A-S, & H-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

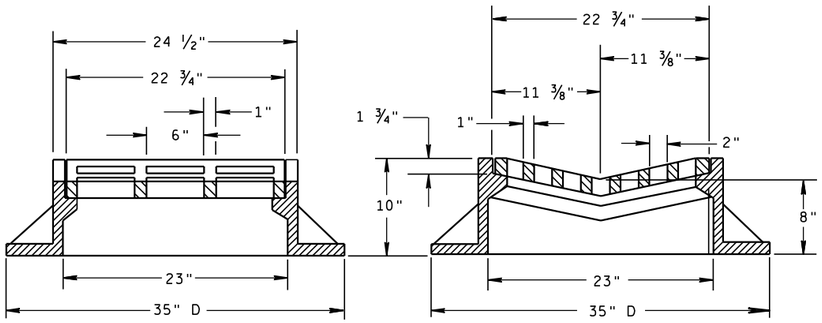
APPROVED
6/5/2012 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
513
FHWA

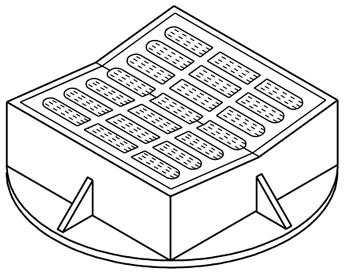
6

S.D.D. 8 A 5-18a

6

S.D.D. 8 A 5-18a

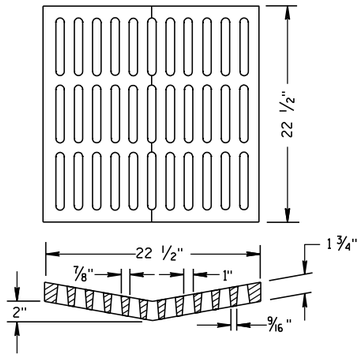




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

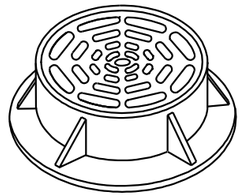


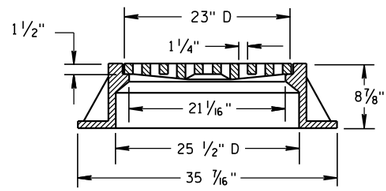
ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE





TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

FRAME..... 152 LBS.
GRATE..... 107 LBS.

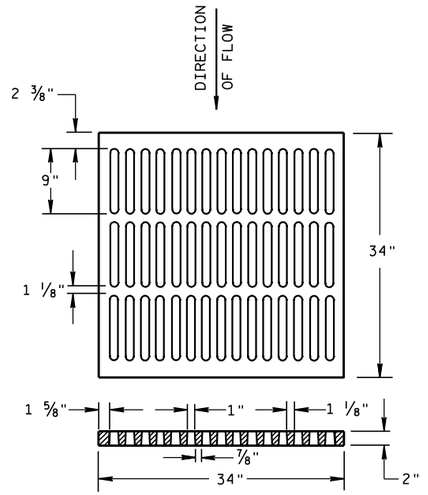
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

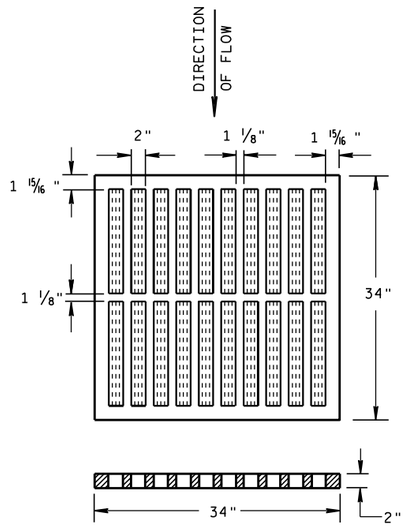


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

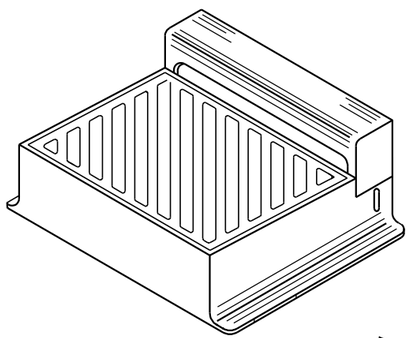


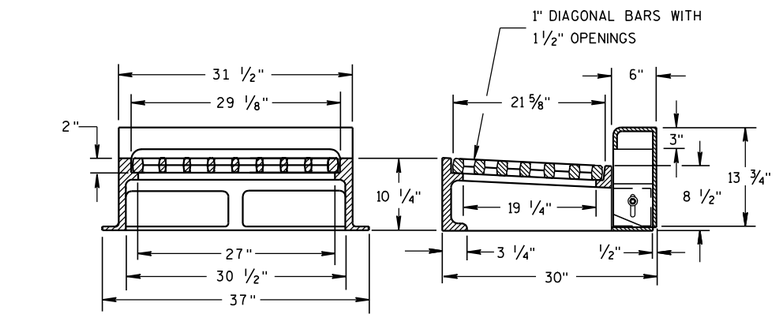
TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE





NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.

TYPE "WM"

(APPROXIMATE WEIGHT 648 LBS.)

FRAME..... 355 LBS.
GRATE..... 156 LBS.
CURB BOX..... 137 LBS.

INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012 DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

514

FHWA

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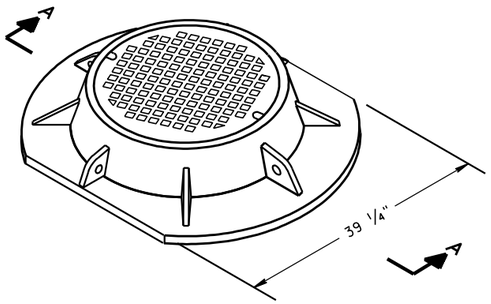
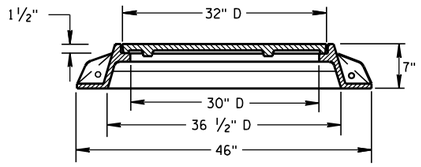
S.D.D. 8 A 5-18b

6

S.D.D. 8 A 5-18b



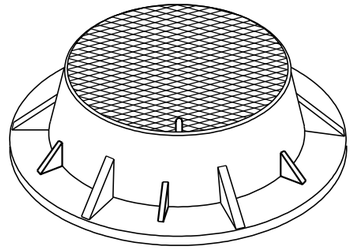


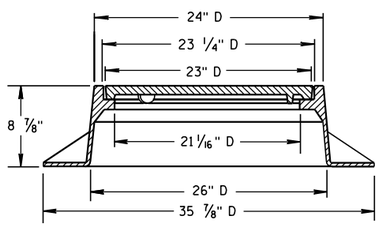
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

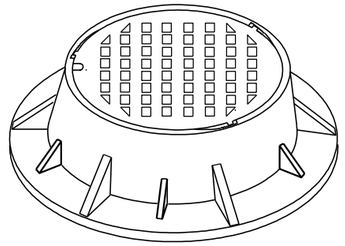


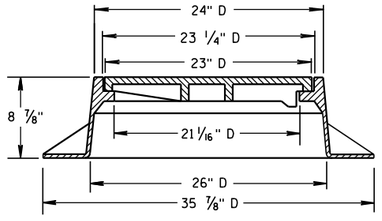


TYPE "J"

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....152 LBS.
LID.....115 LBS.





TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....158 LBS.
LID.....109 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

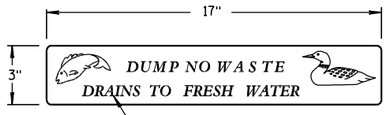
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

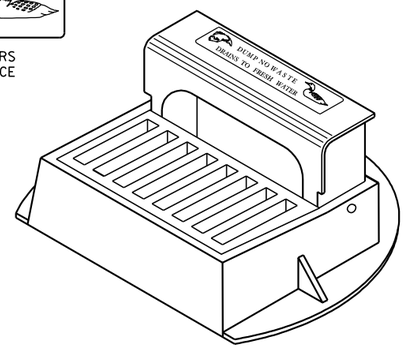
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

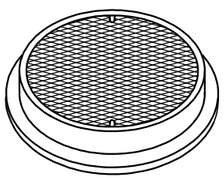
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

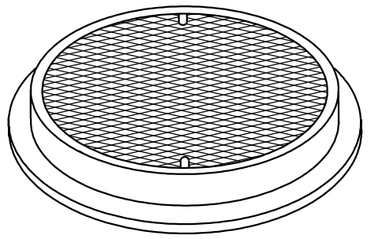
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

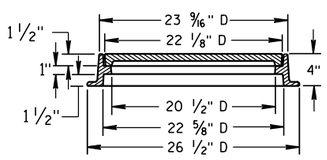


LOGO DETAIL





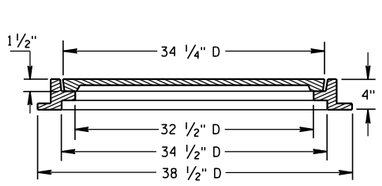




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

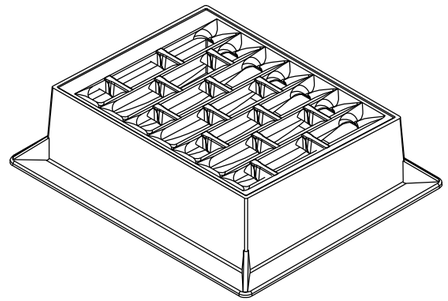
FRAME.....81 LBS.
LID.....77 LBS.

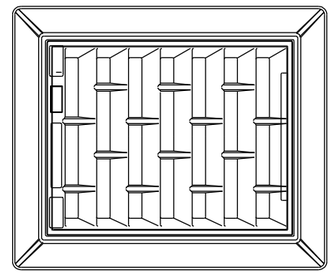


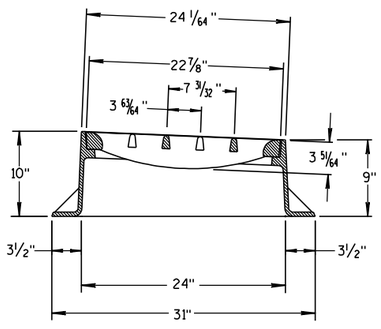
TYPE "M"

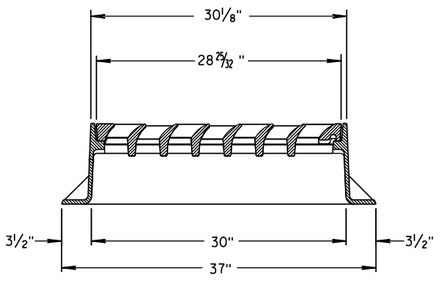
(APPROXIMATE WEIGHT 377 LBS.)

FRAME..... 125 LBS.
LID..... 252 LBS.

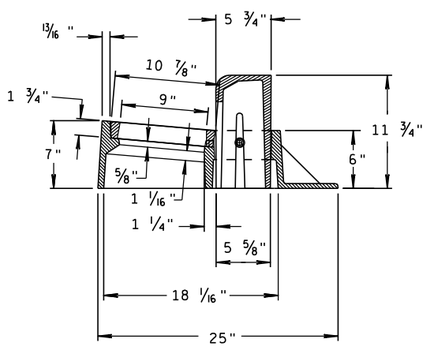


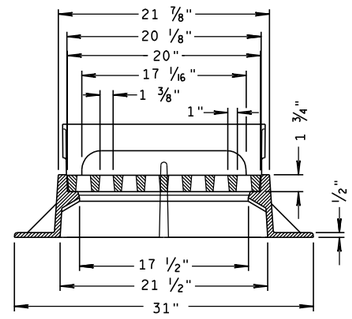






INLET COVER TYPE "BW"





INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

FRAME.....206 LBS.
GRATE..... 46 LBS.
CURB BOX..... 92 LBS.

INLET COVERS, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

FHWA

515 NT

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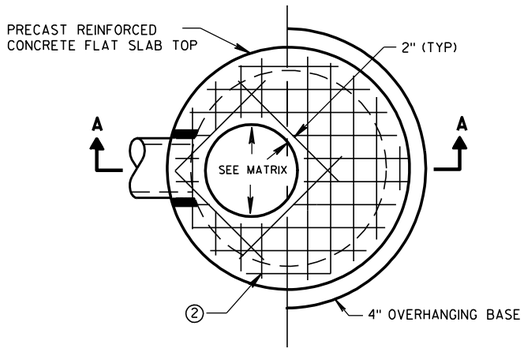
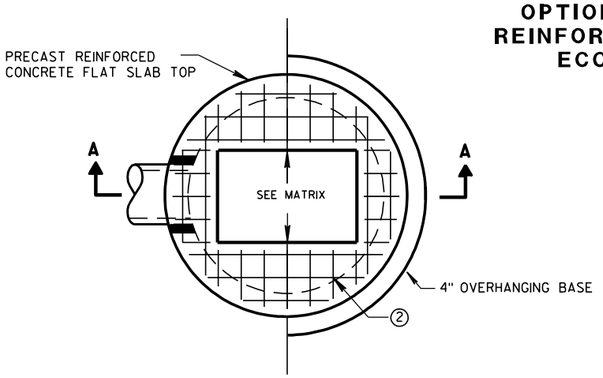
S.D.D. 8 A 5-18d

6

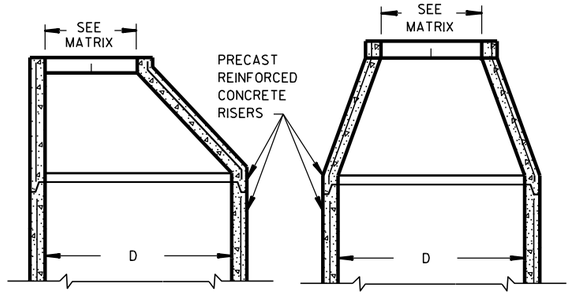
S.D.D. 8 A 5-18d



PLAN VIEW CIRCULAR OPENING

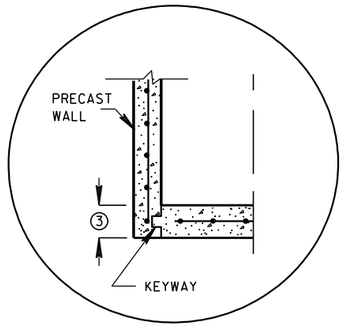


PLAN VIEW RECTANGULAR OPENING

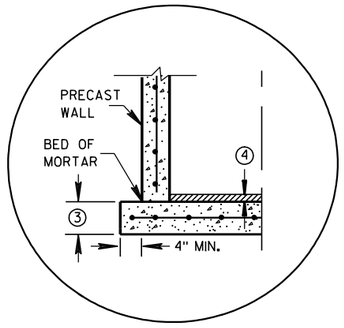


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

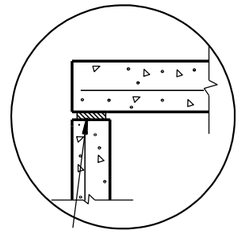


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



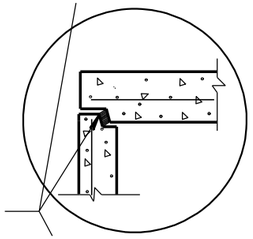
SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

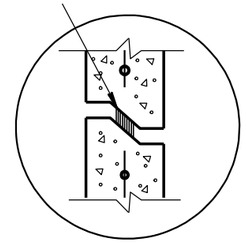


TOP WITH PLAIN END JOINT

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

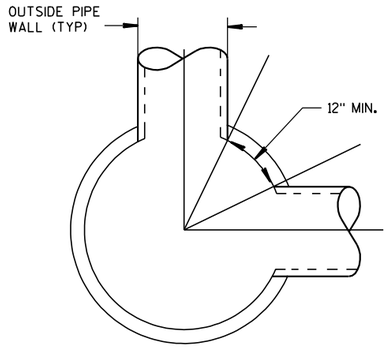


TOP WITH TONGUE AND GROOVE JOINT

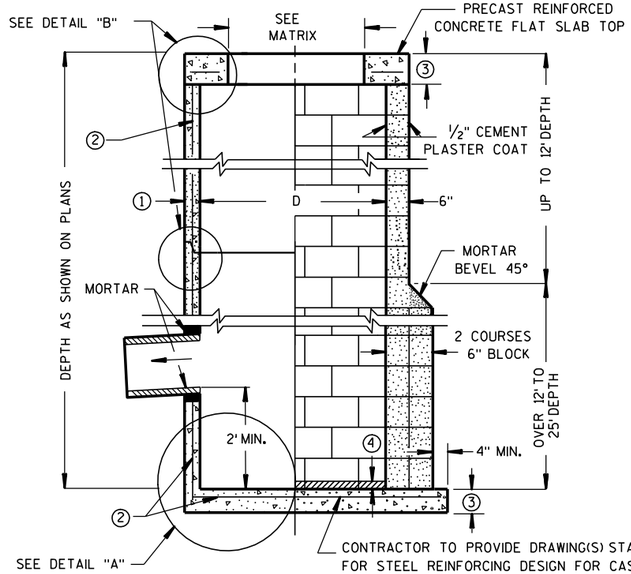


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

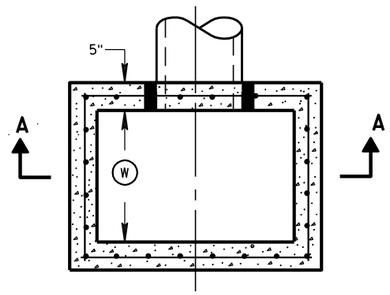
6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

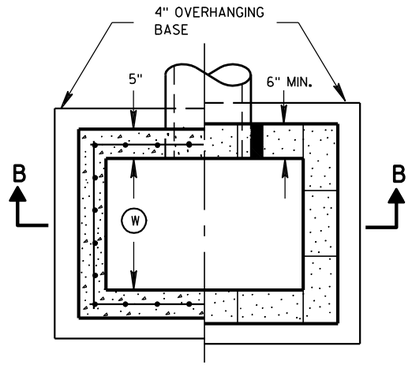
FHWA

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

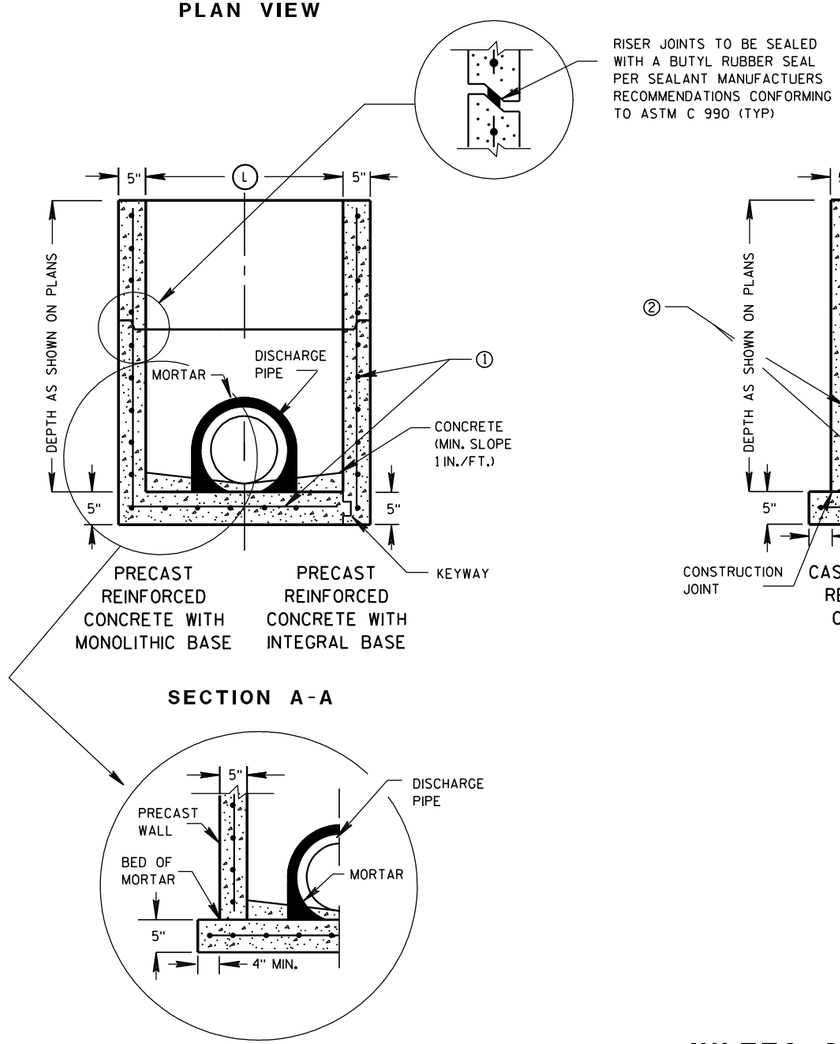
6
S.D.D. 8 A 8-1



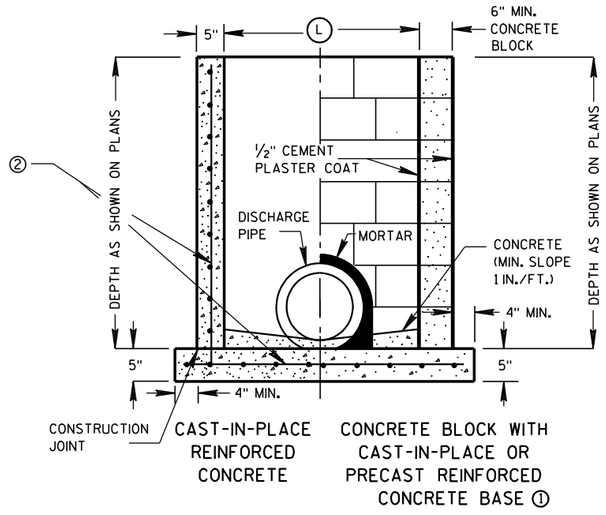
PLAN VIEW



PLAN VIEW



SECTION A-A



SECTION B-B

SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

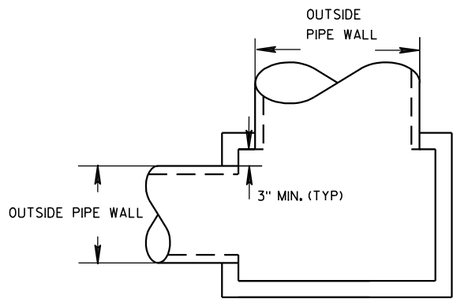
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

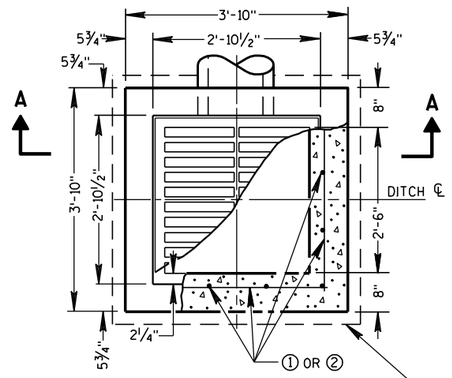
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS D 517 — ENGINEER
FHWA

6

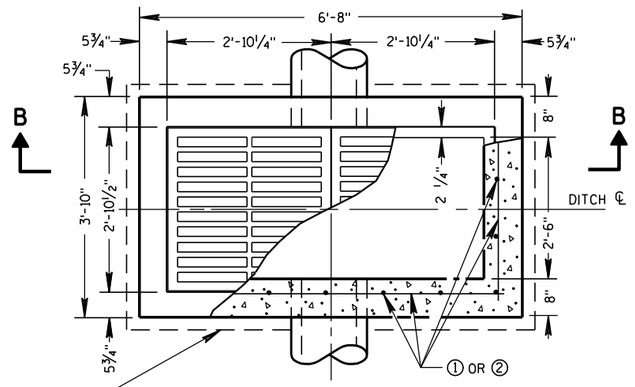
S.D.D. 8 C 7-1

6

S.D.D. 8 C 7-1

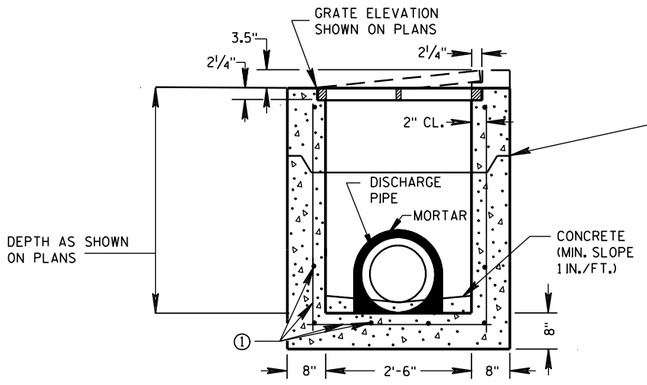


PLAN VIEW

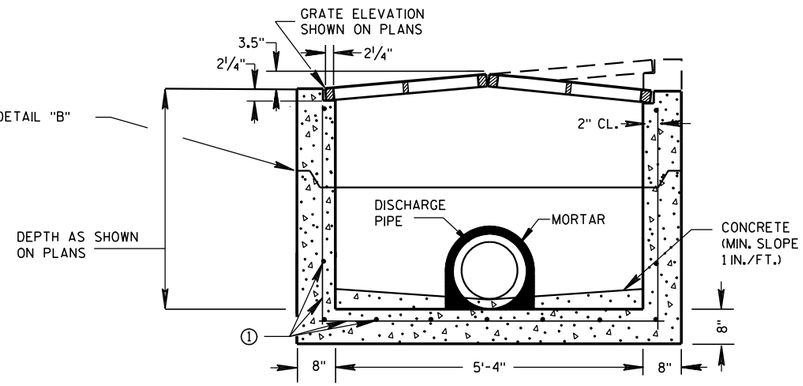


PLAN VIEW

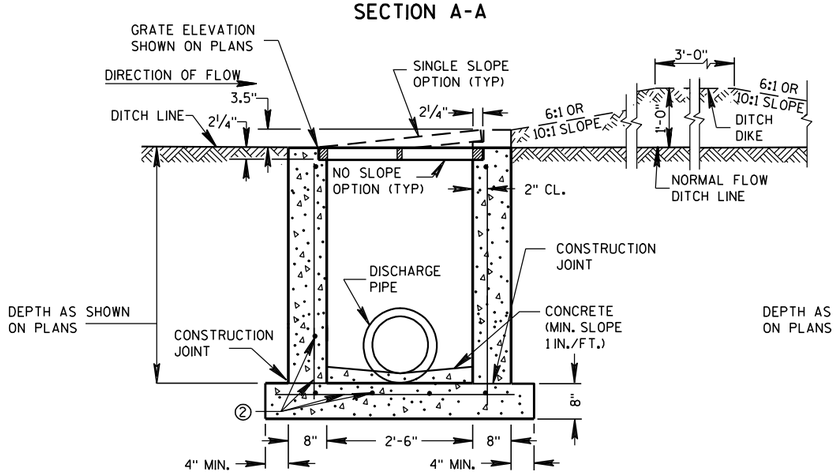
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



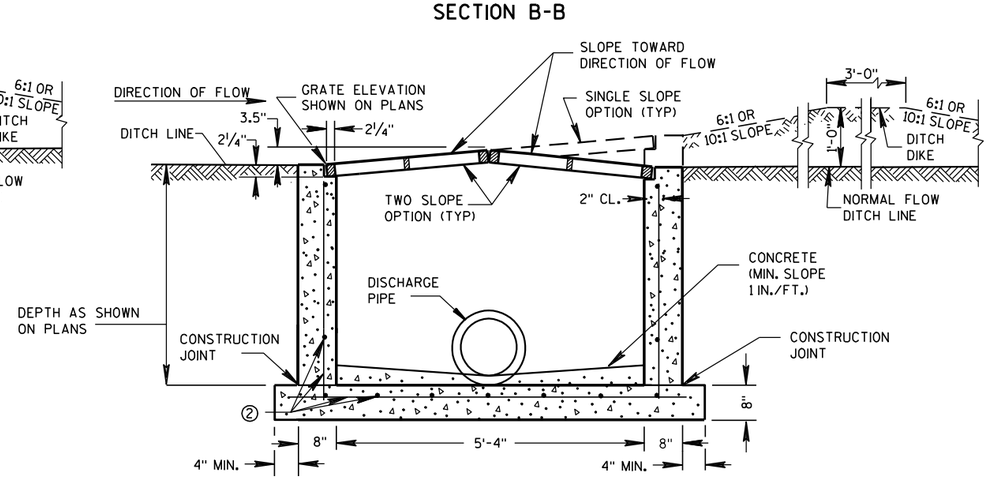
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

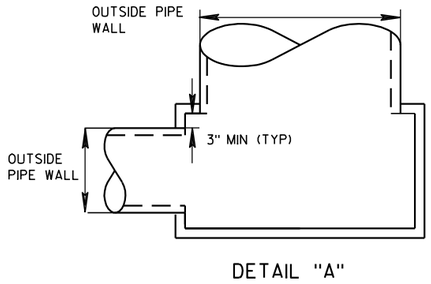
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

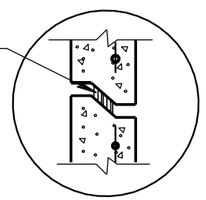
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

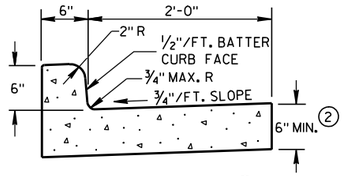


DETAIL "B"

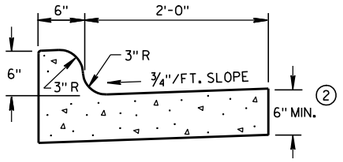
INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

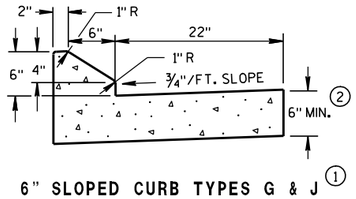
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



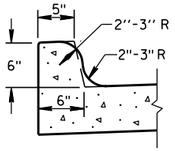
TYPES A & D (1)



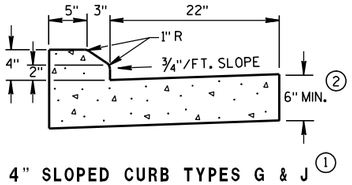
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

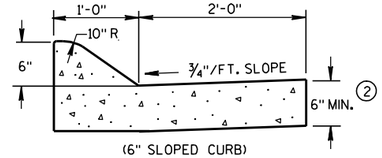


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

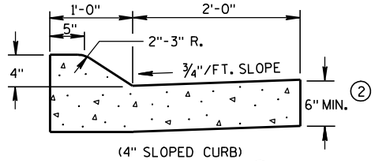


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

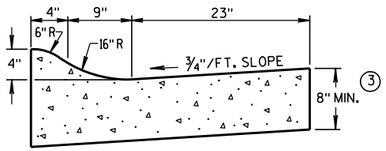


(6" SLOPED CURB)



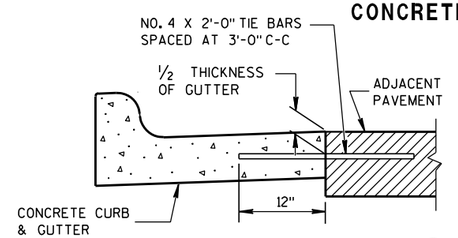
(4" SLOPED CURB)

TYPES A & D (1)

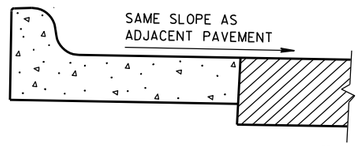


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

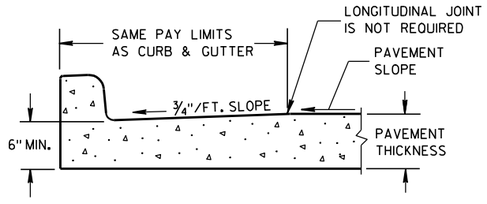
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

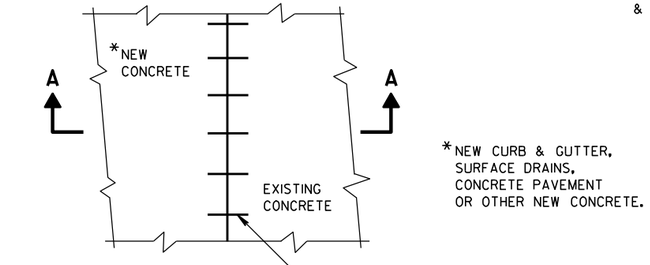
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



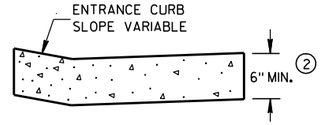
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



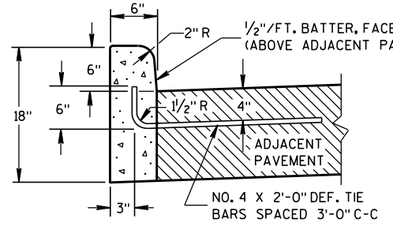
PLAN VIEW

SECTION A-A

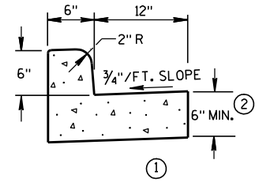
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

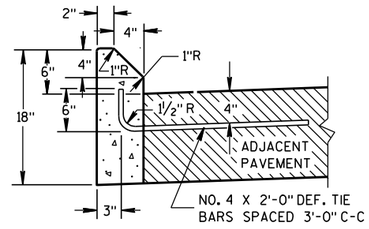


(1) TYPES A & D



(1) TYPES A & D

CONCRETE CURB & GUTTER 18"



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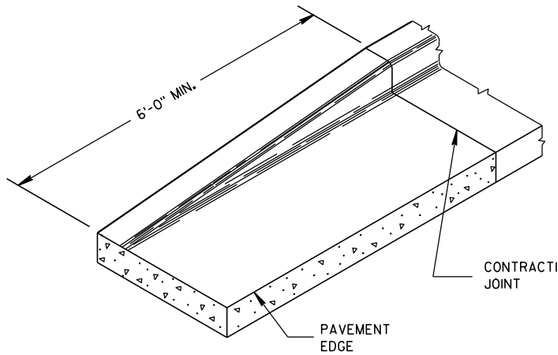

END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

519

ENT

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S.D.D. 8 D 1-17

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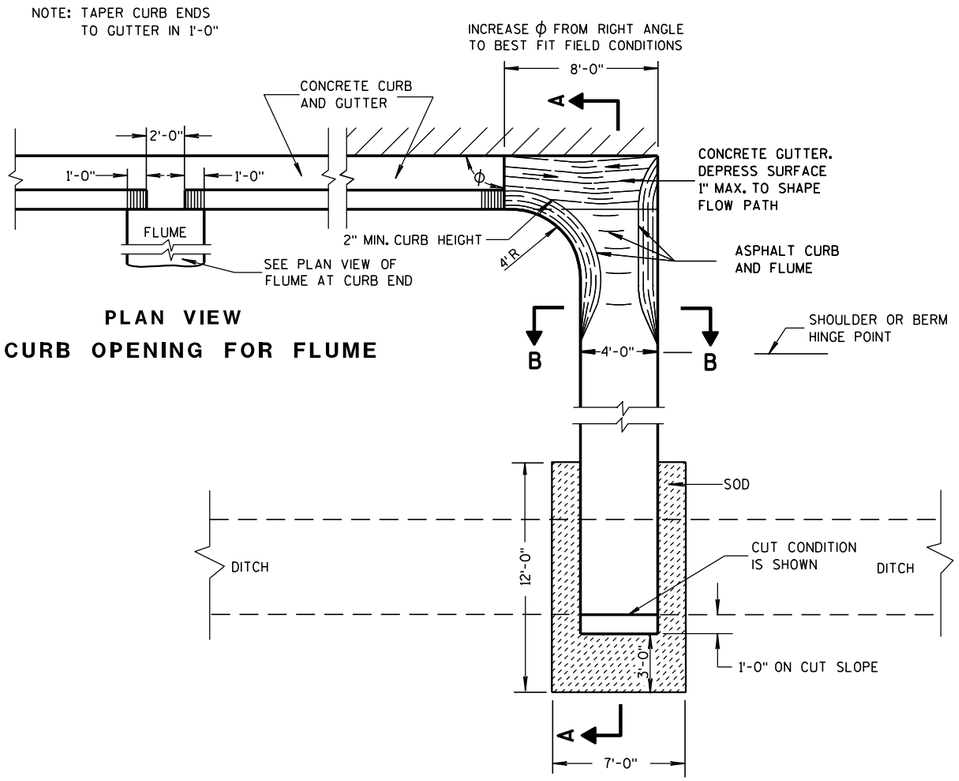
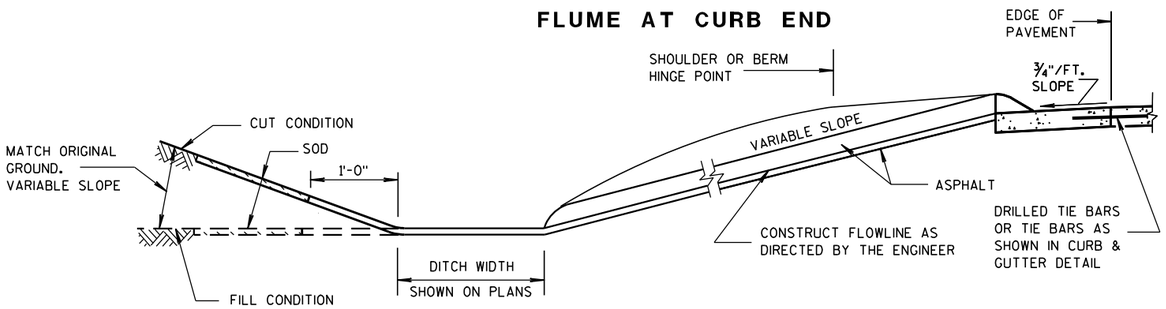
S.D.D. 8 D 1-17

ASPHALTIC FLUME

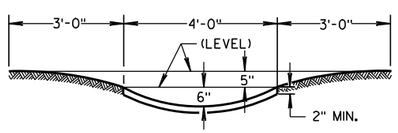


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

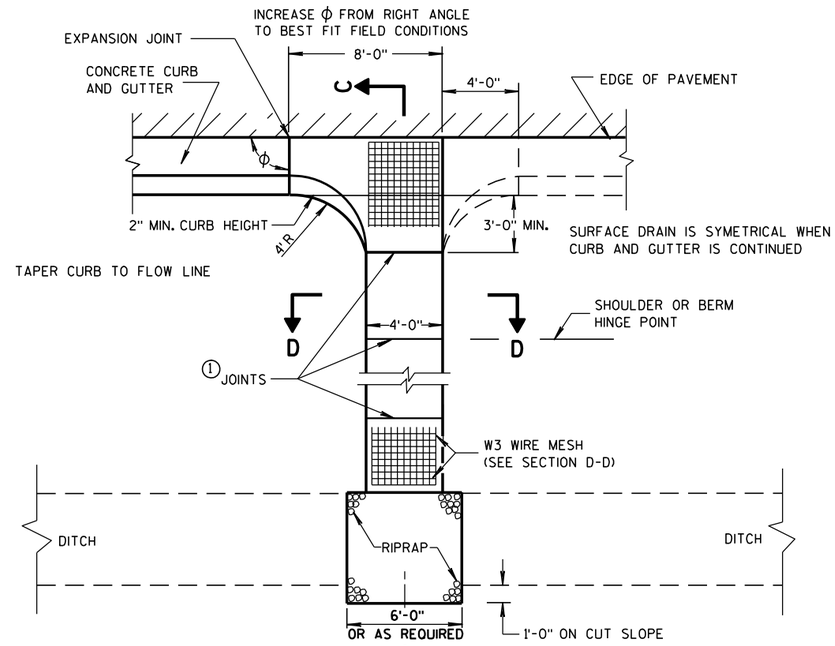
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

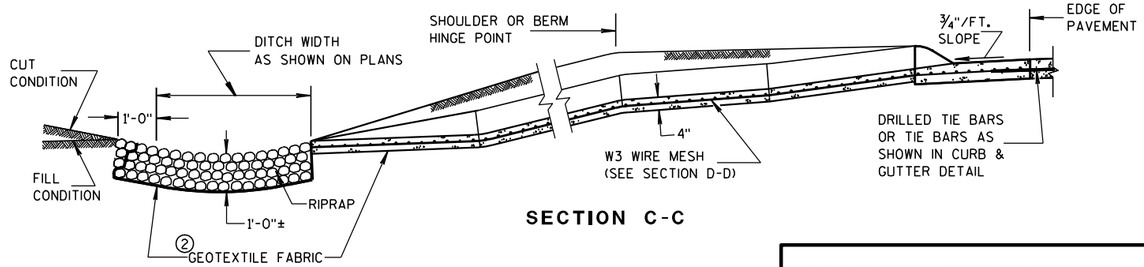
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

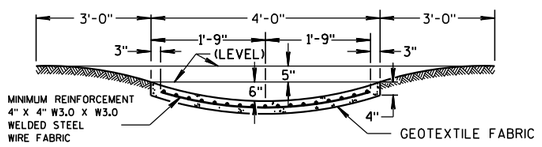
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-4-08 DATE — /S/ Jerry H. ... ROADWAY STANDARDS ENGINEER — MENT

FHWA

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S.D.D. 8 D 4-5

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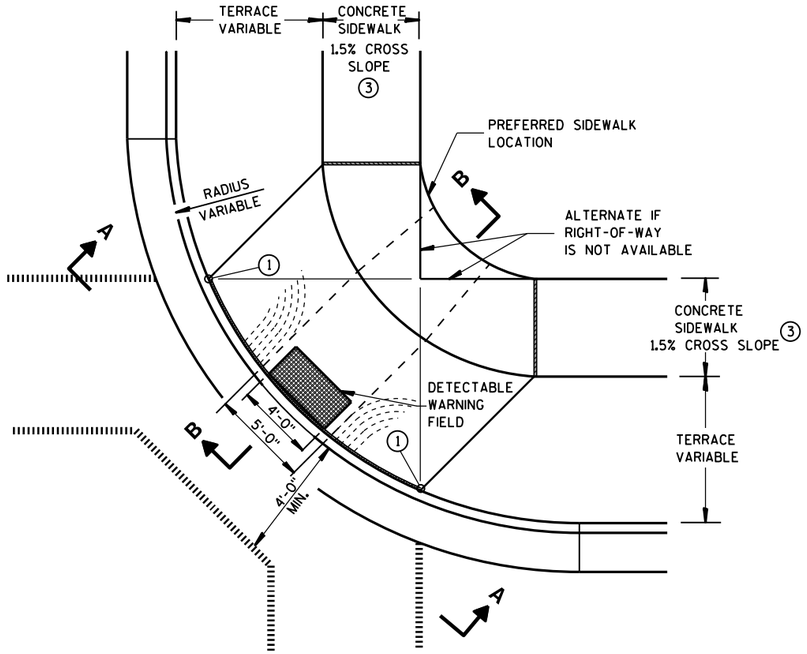
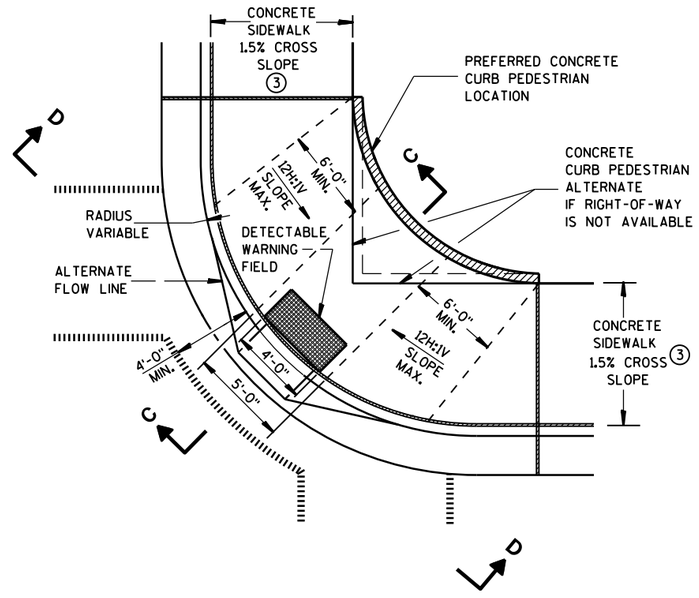
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

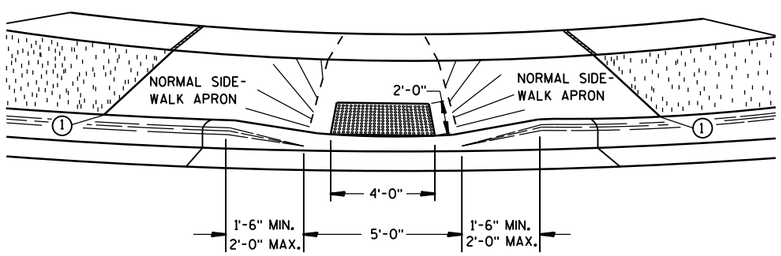
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

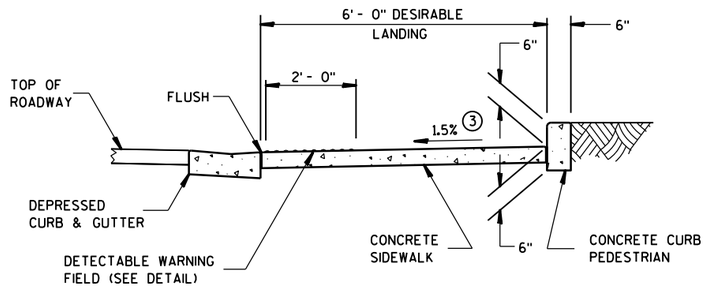
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

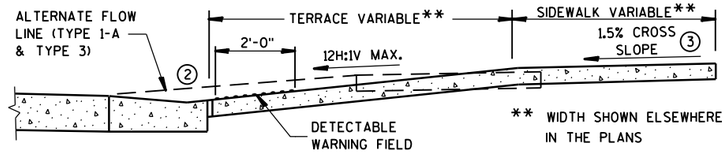
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



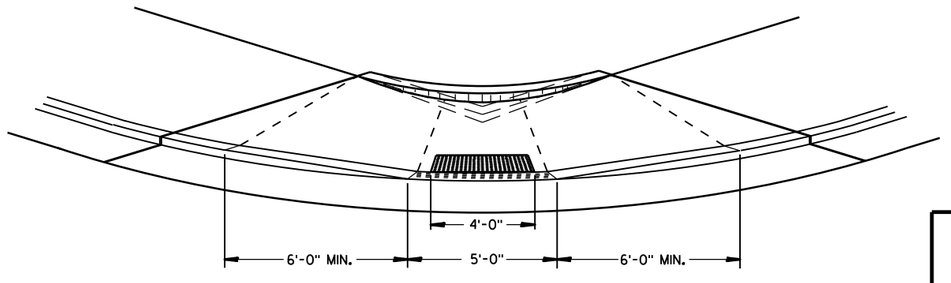
VIEW A-A



SECTION C-C



SECTION B-B



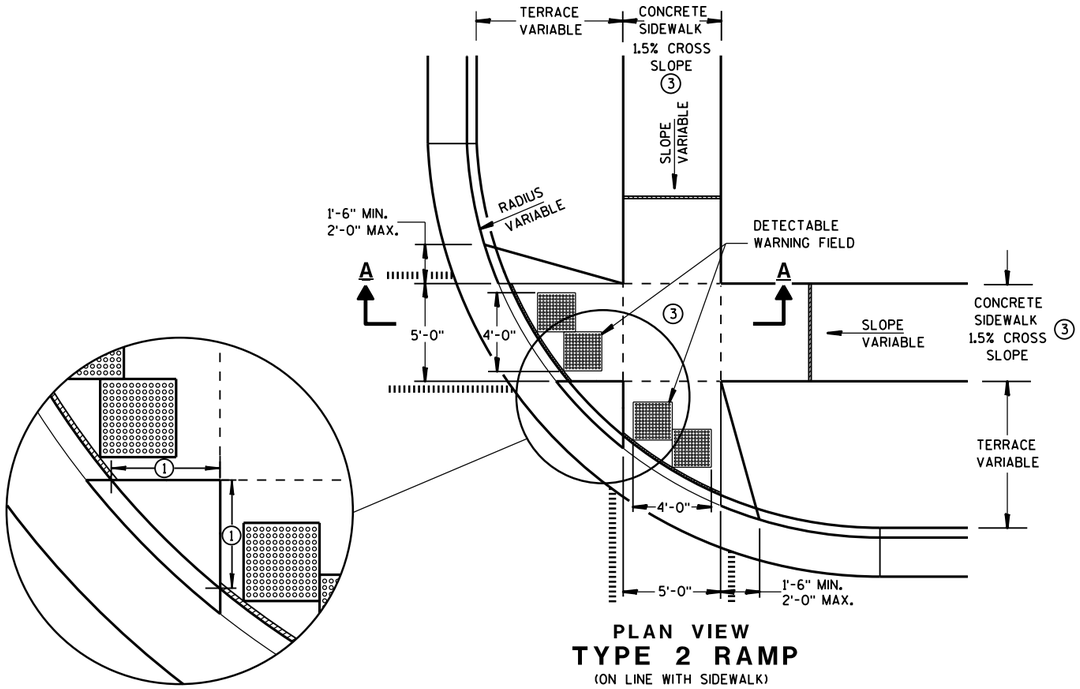
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

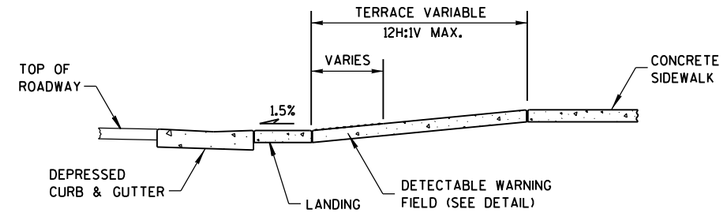
S.D.D. 8 D 5-15a



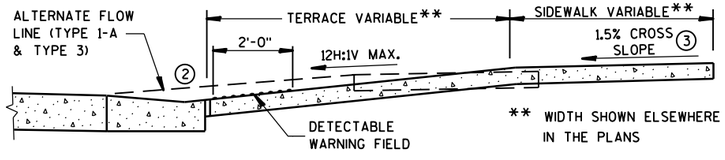
PLAN VIEW

TYPE 2 RAMP

(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

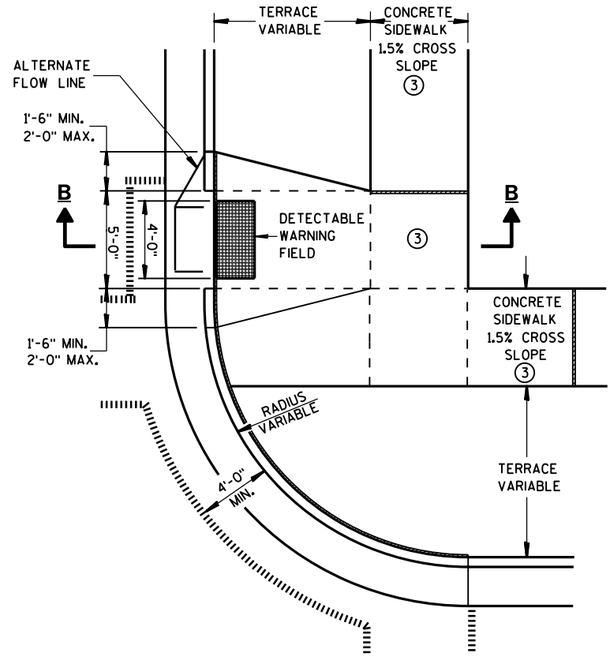
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

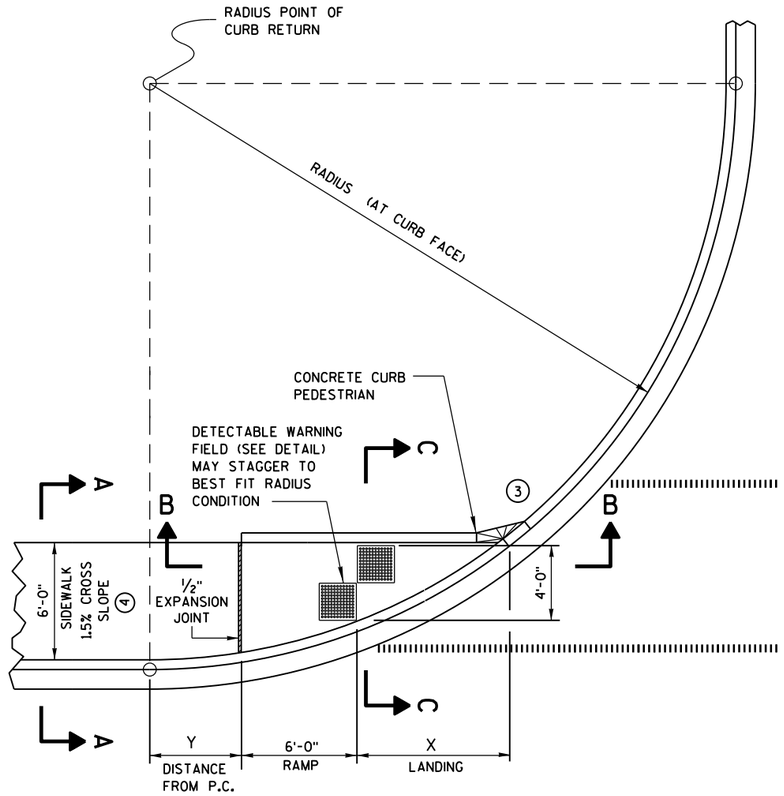
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

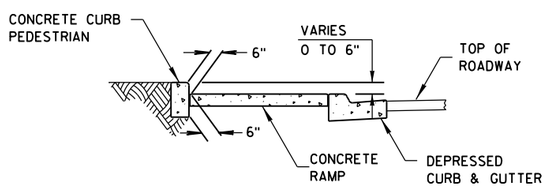
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

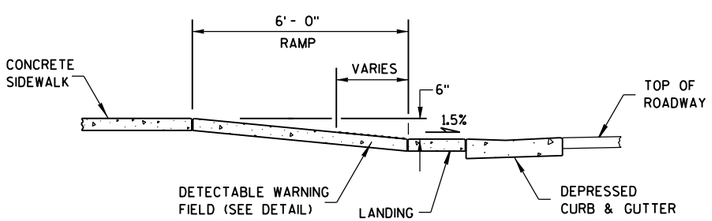
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



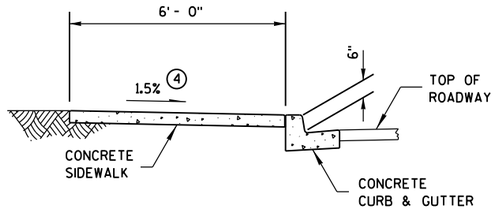
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

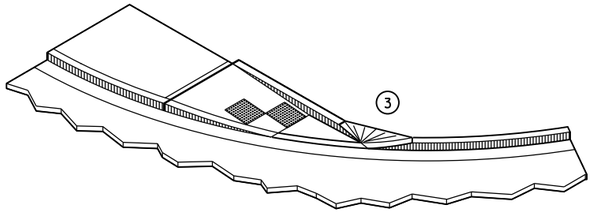
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

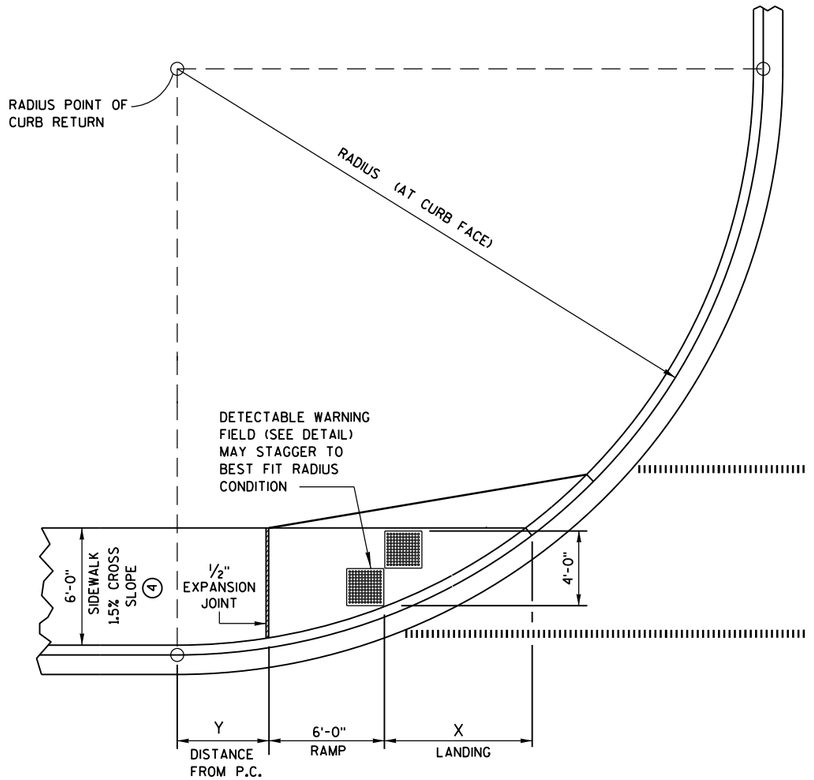
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

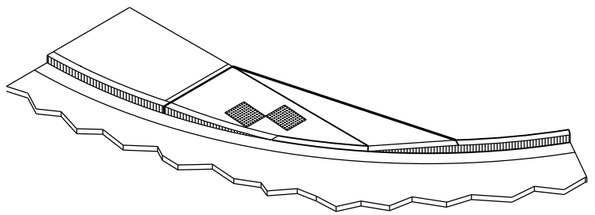
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

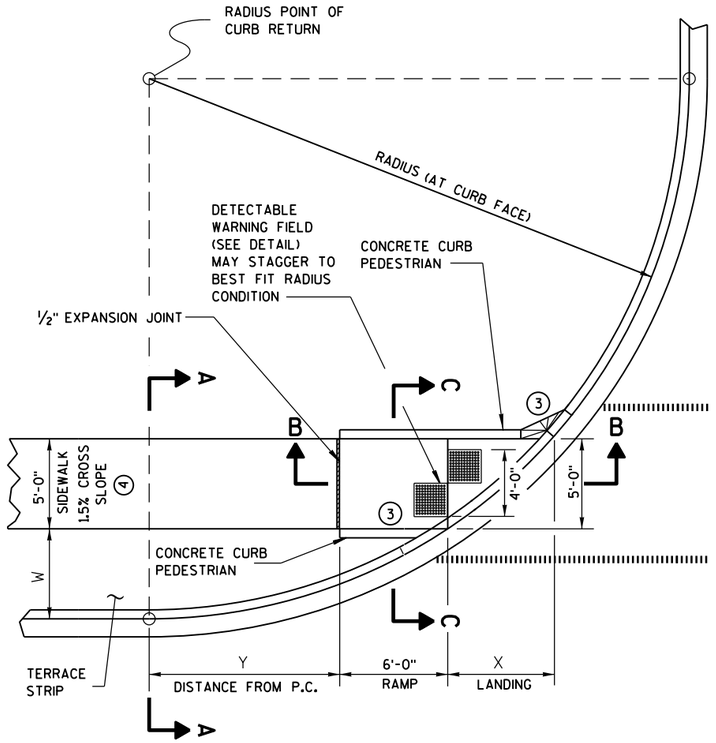
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

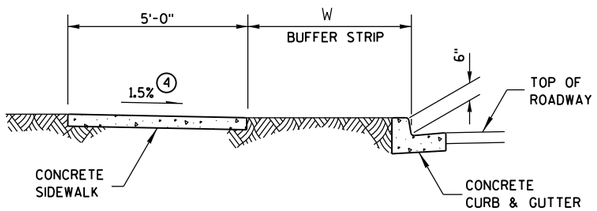
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

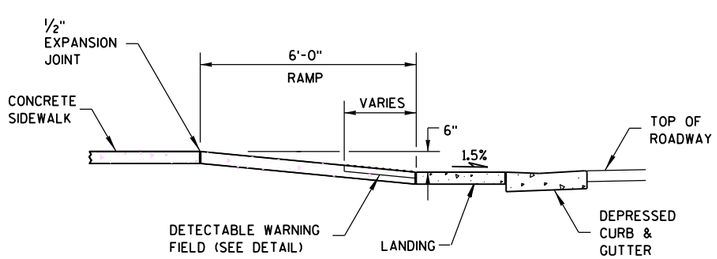
S.D.D. 8 D 5-15c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



SECTION B-B FOR TYPE 4B

LEGEND

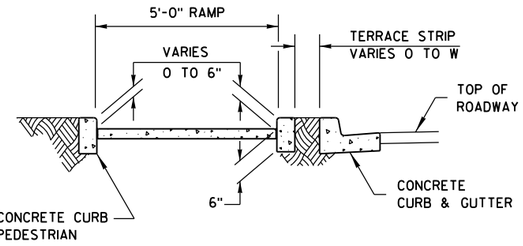
½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4B

GENERAL NOTES

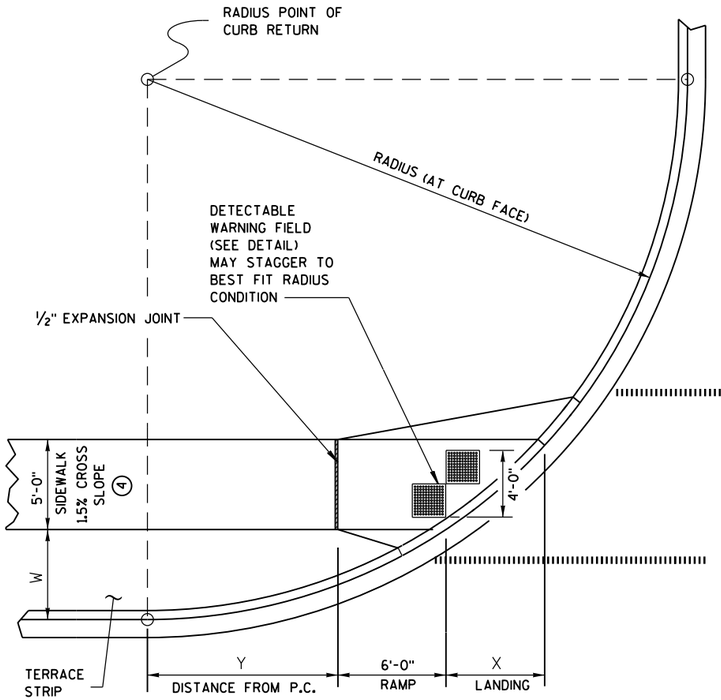
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

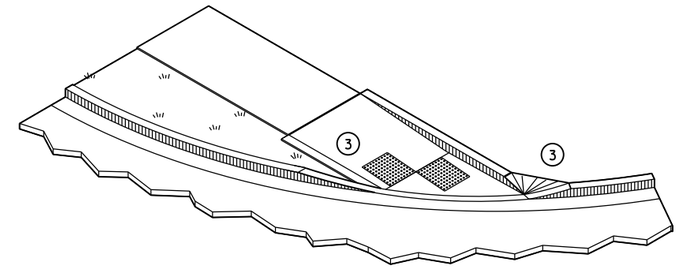
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

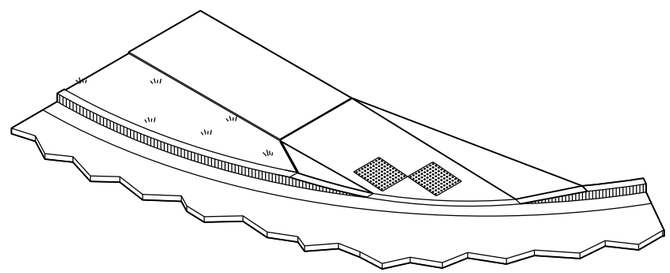
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



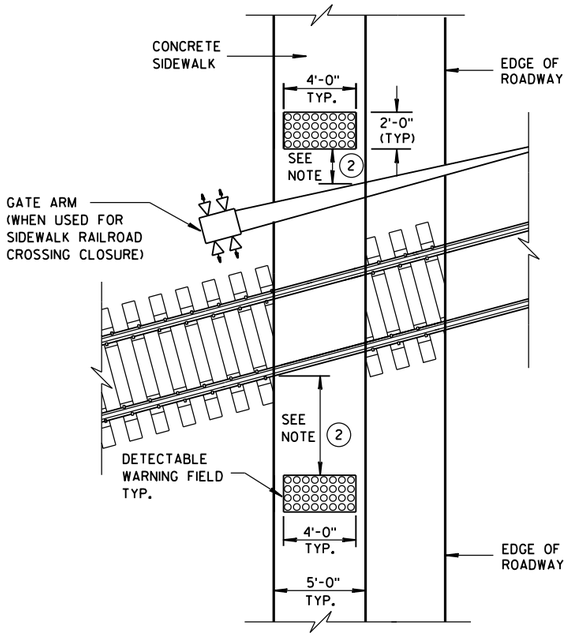
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

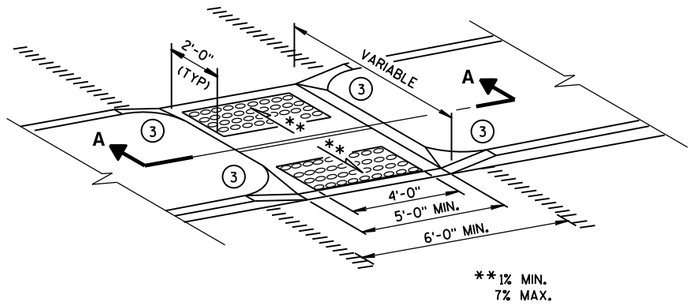
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

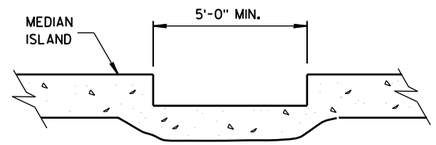
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

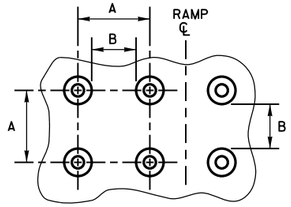
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



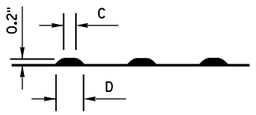
SECTION A-A



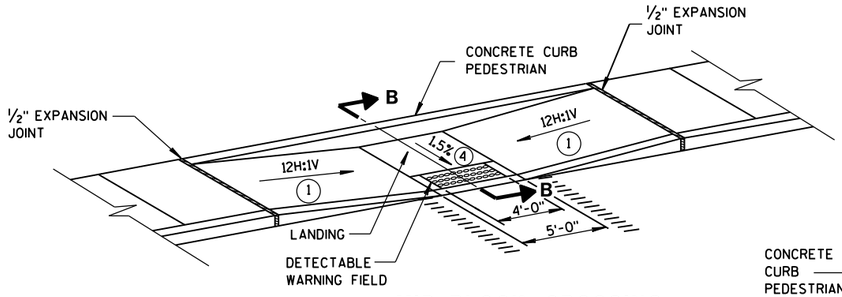
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

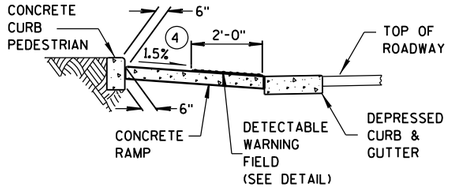
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

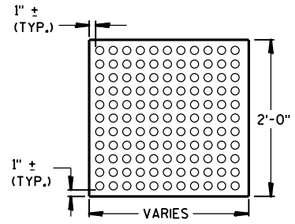


MID-BLOCK CROSSING
TYPE 7A



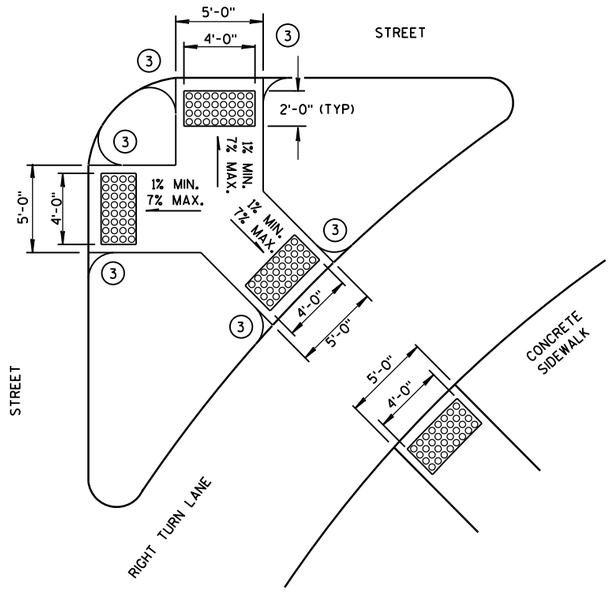
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

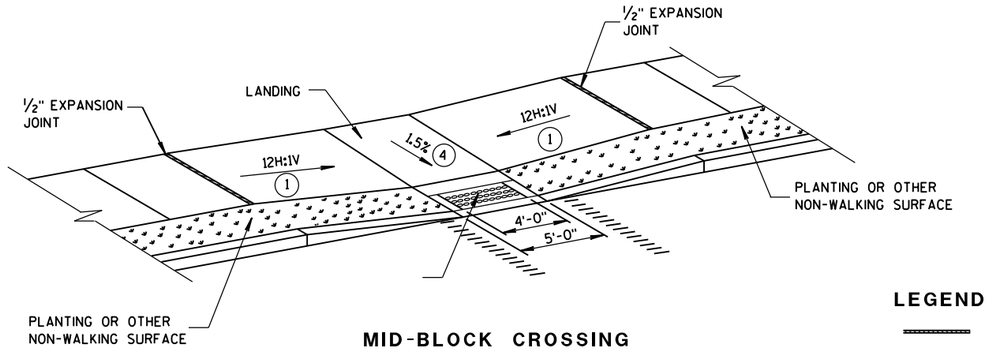


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

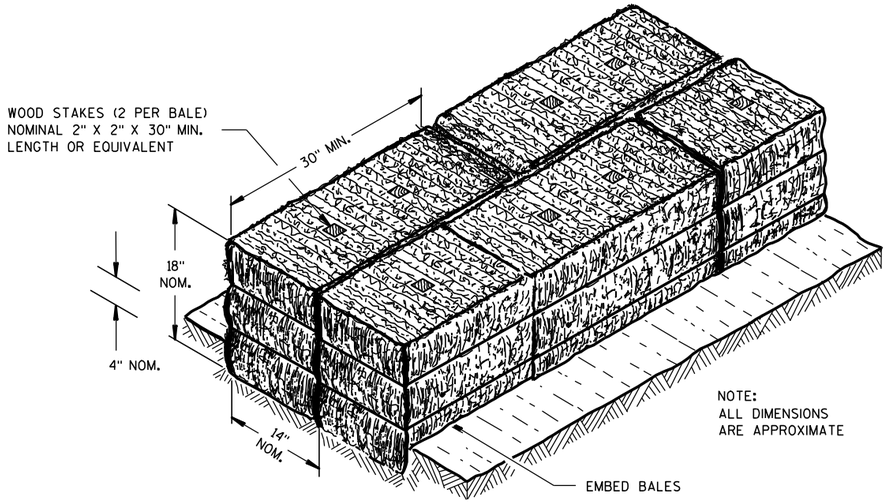
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

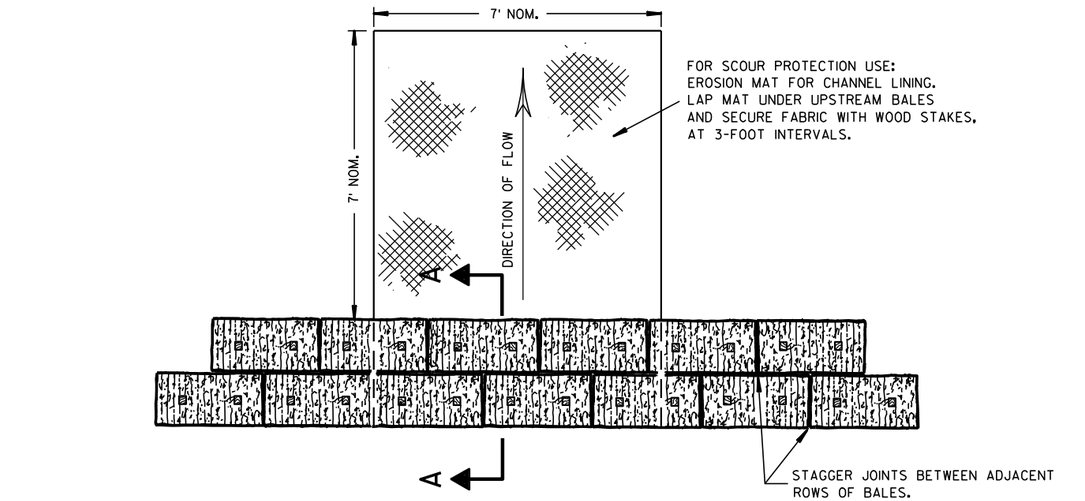
APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS [illegible] ENGINEER
FHWA

6

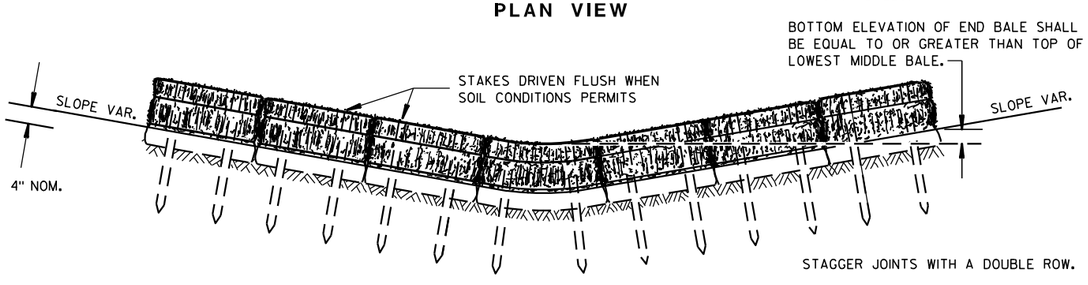
S.D.D. 8 D 5-15e



SECTION A-A



PLAN VIEW



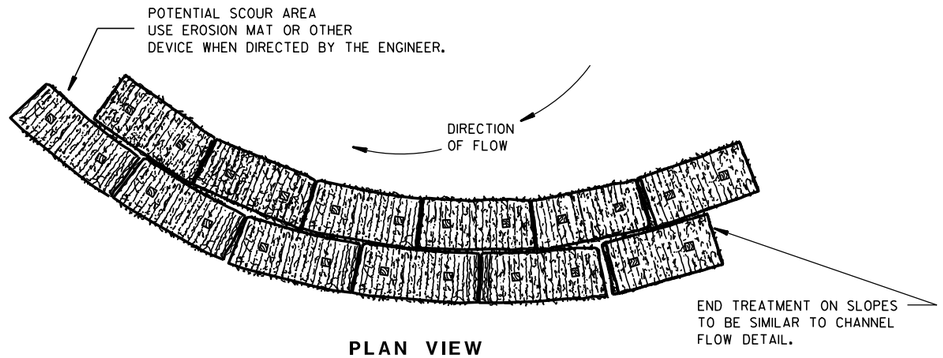
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

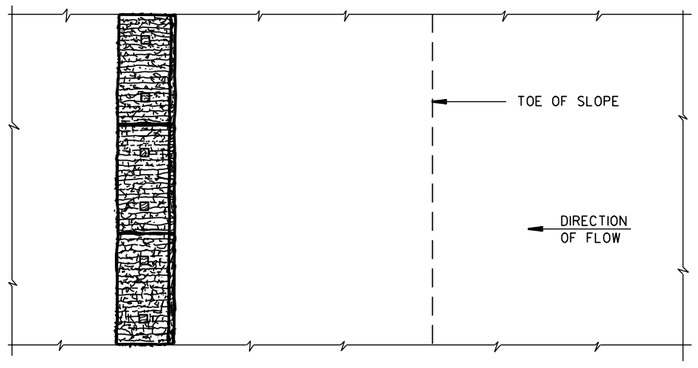
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

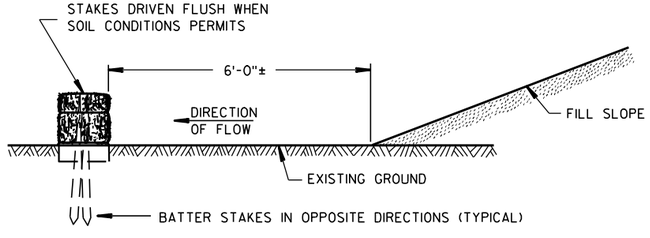


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

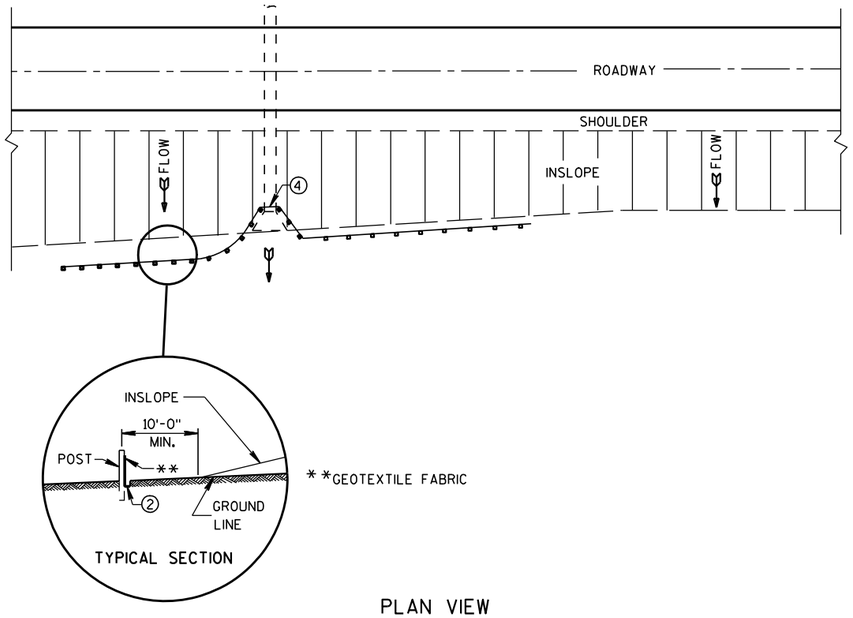
FHWA

6

S.D.D. 8 E 8-3

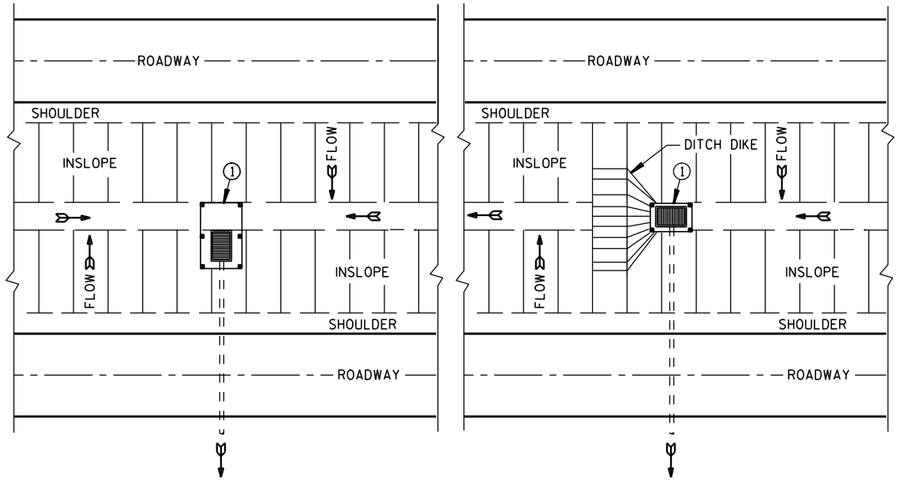
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



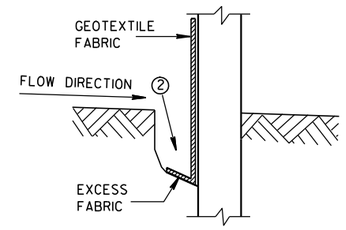
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

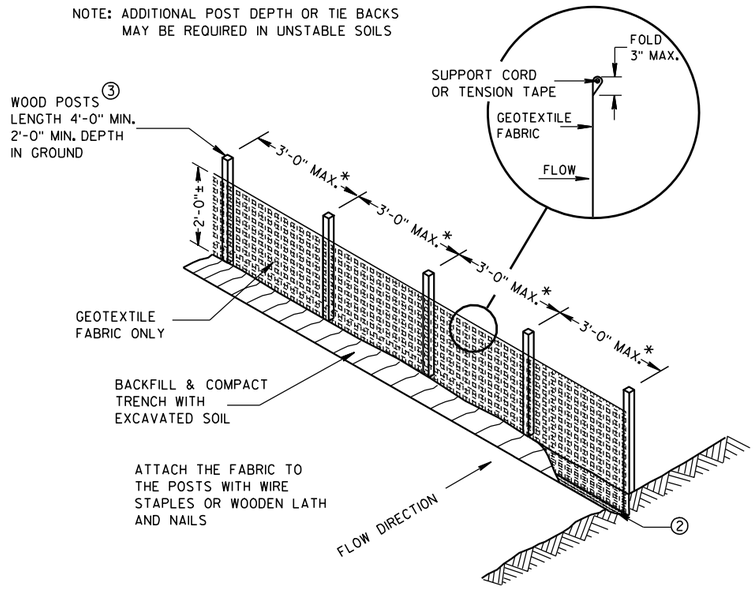
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

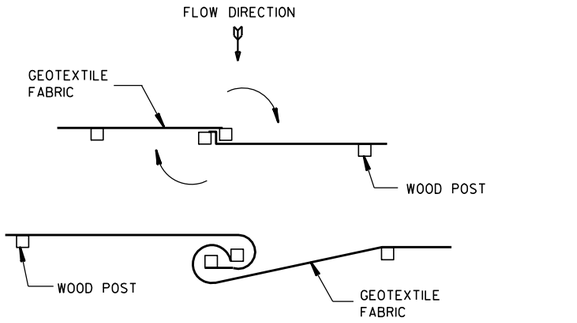
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



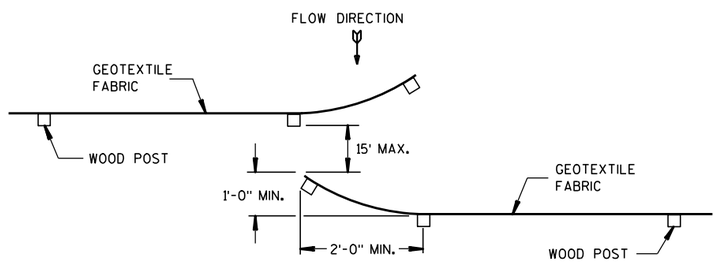
TRENCH DETAIL



SILT FENCE

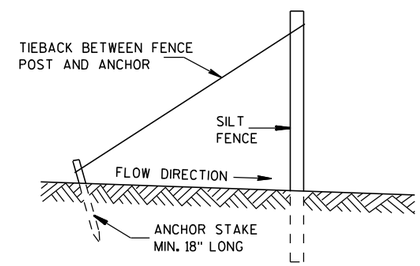


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

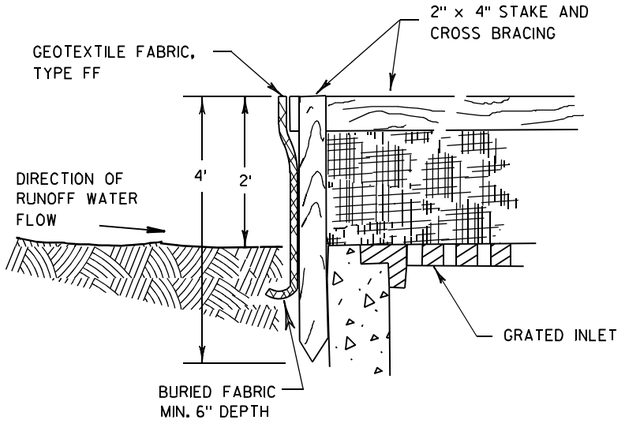
527

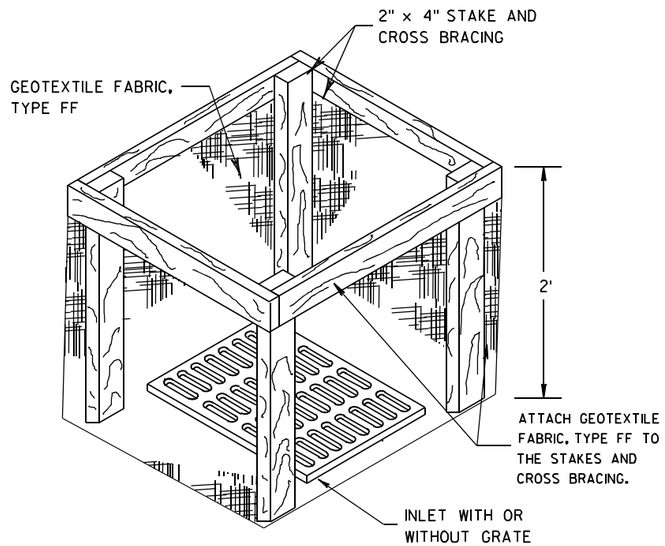
6

S.D.D. 8 E 9-6

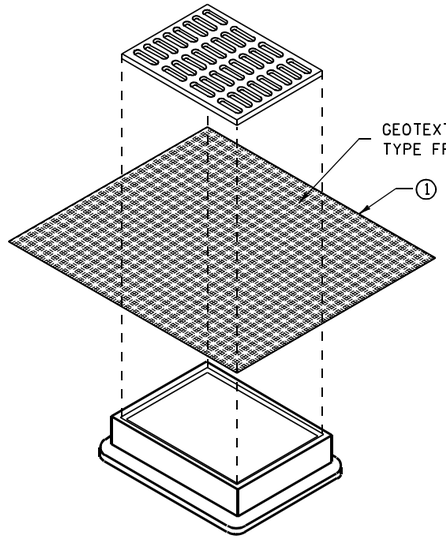
6

S.D.D. 8 E 9-6



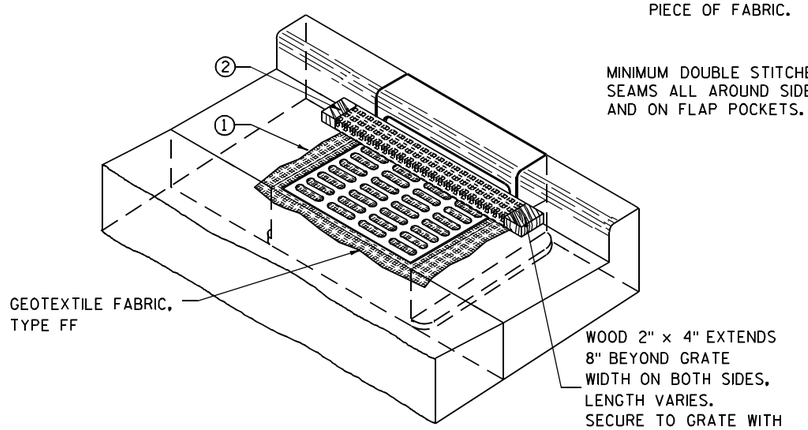


INLET PROTECTION, TYPE A

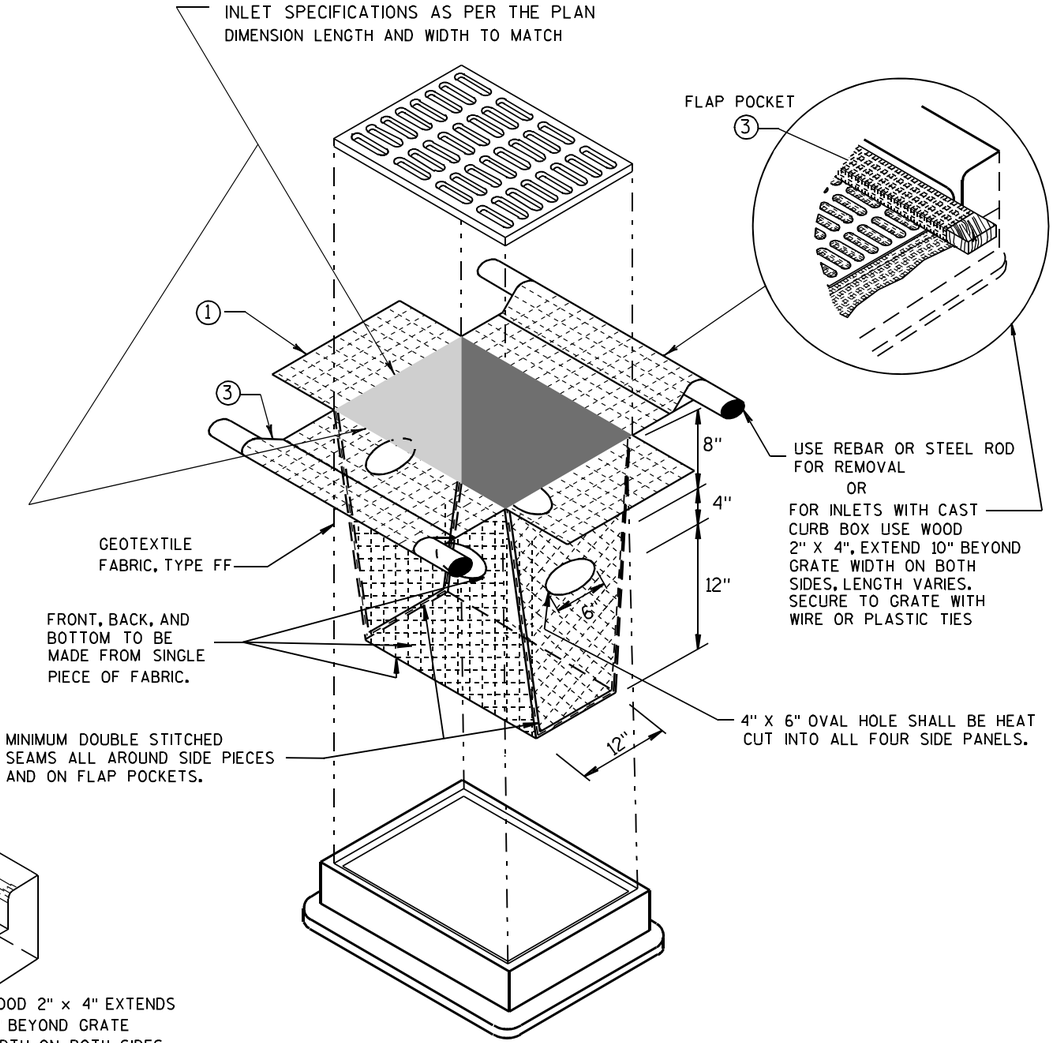


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

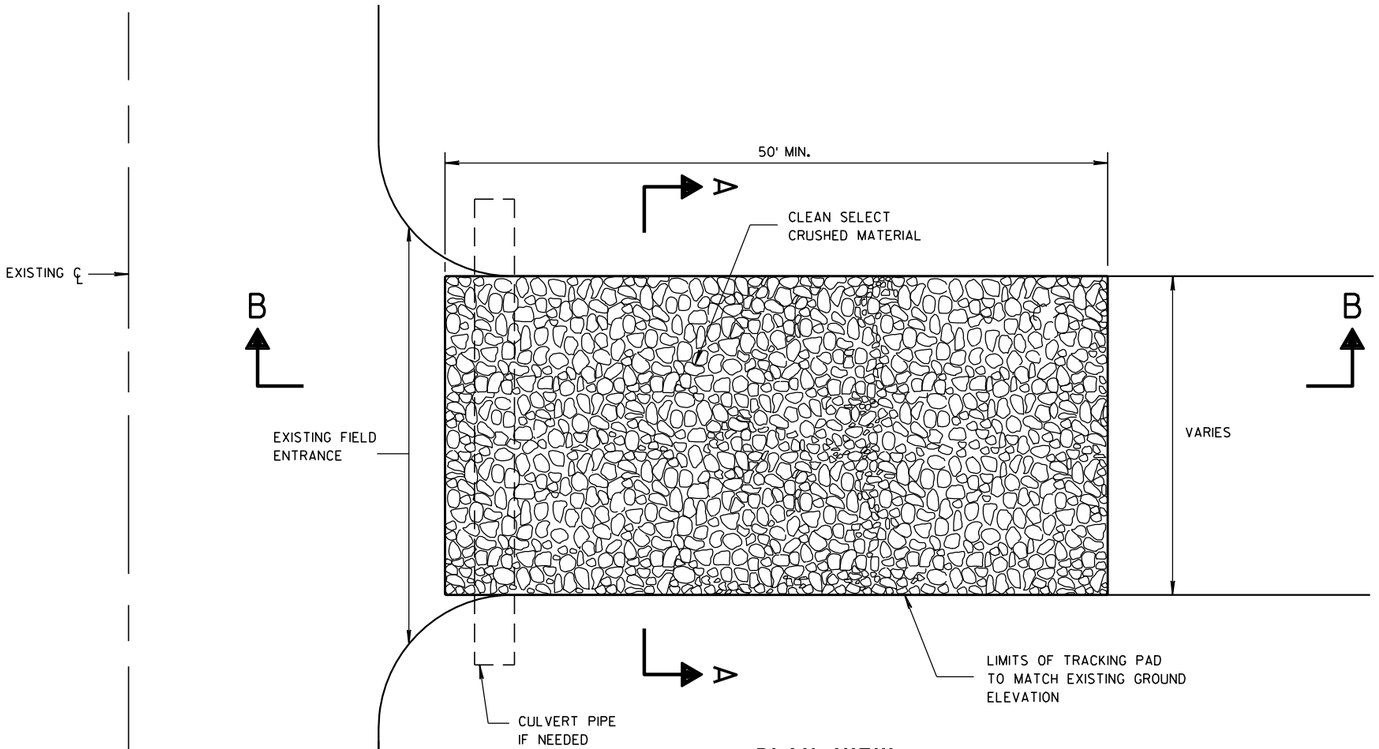
FHWA

6

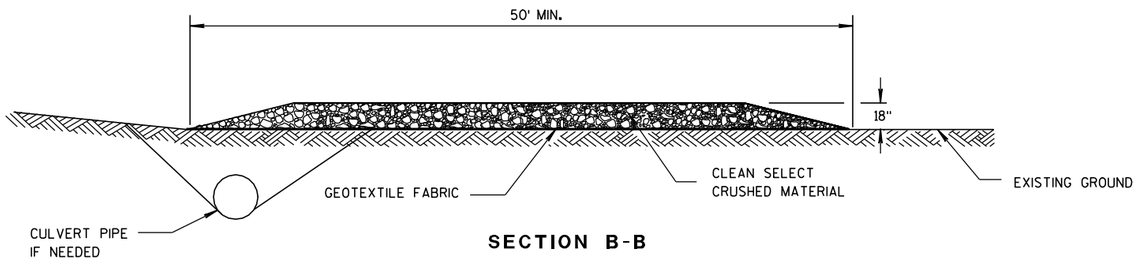
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



PLAN VIEW



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

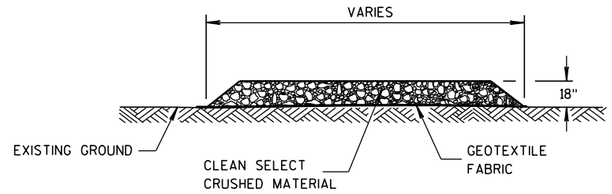
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 E 14-1

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

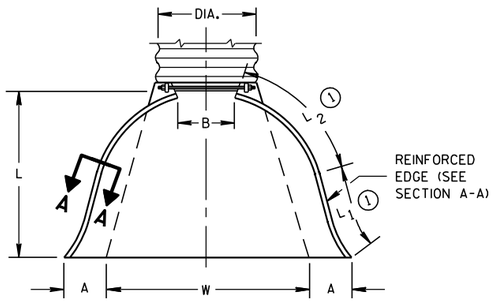
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

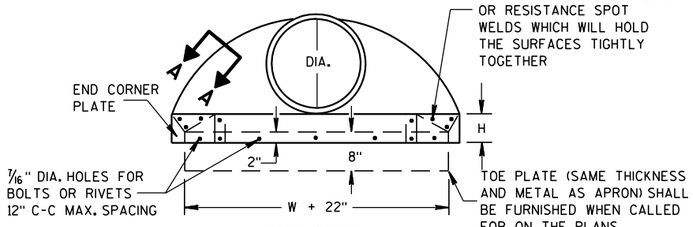
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

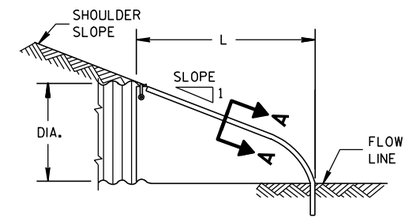
*MINIMUM
**MAXIMUM



PLAN VIEW

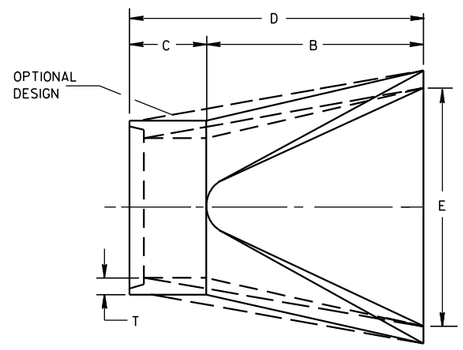


END VIEW

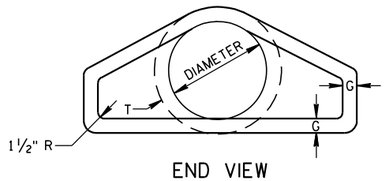


SIDE ELEVATION

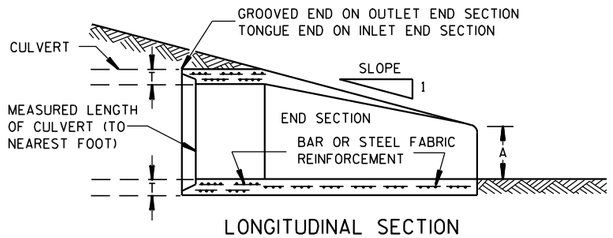
METAL ENDWALLS



PLAN

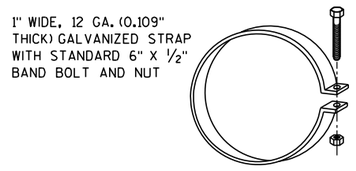


END VIEW



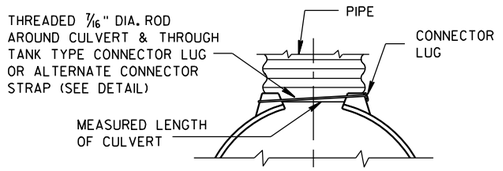
LONGITUDINAL SECTION

CONCRETE ENDWALLS

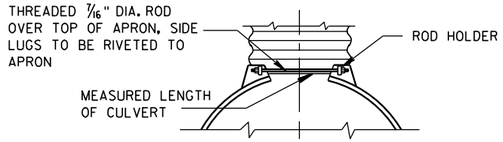


ALTERNATE FOR TYPE 1 CONNECTION

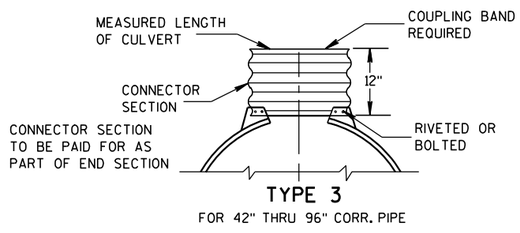
END SECTION CONNECTOR STRAP



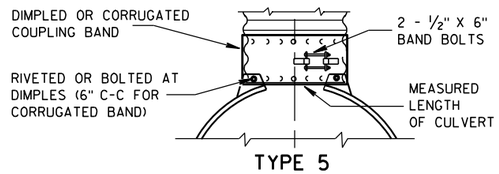
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

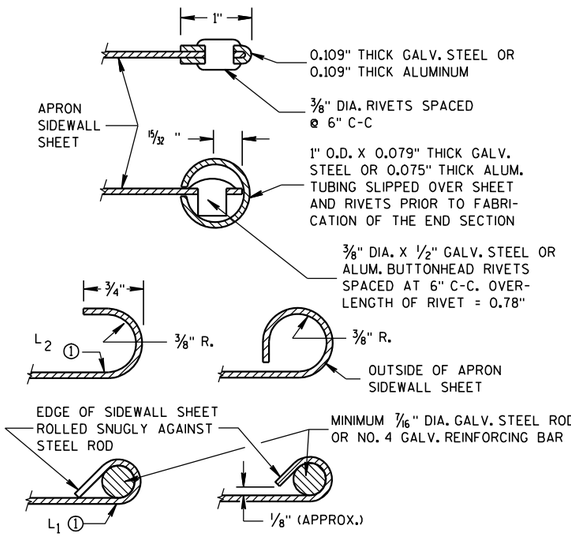
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

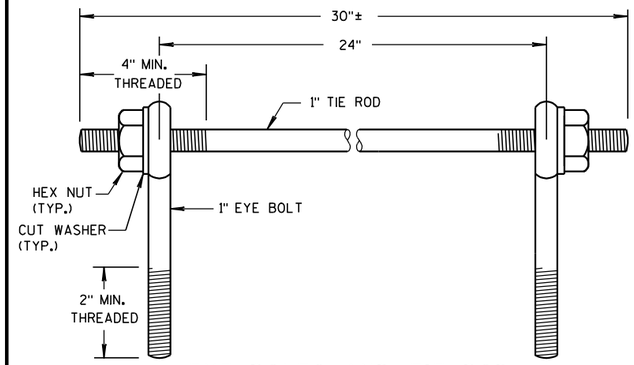
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

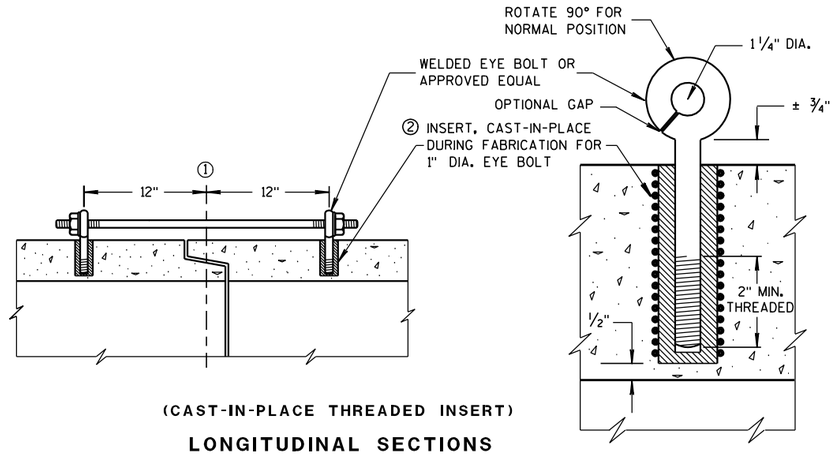
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOP 530 NEER
FHWA

6

S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

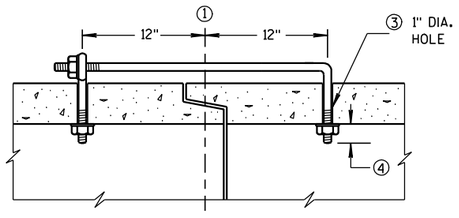
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

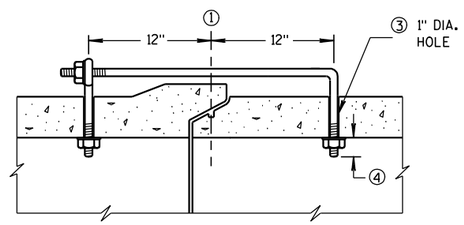
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

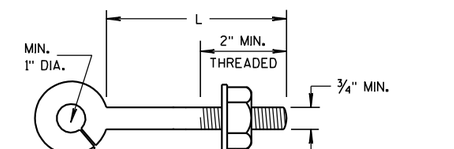


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

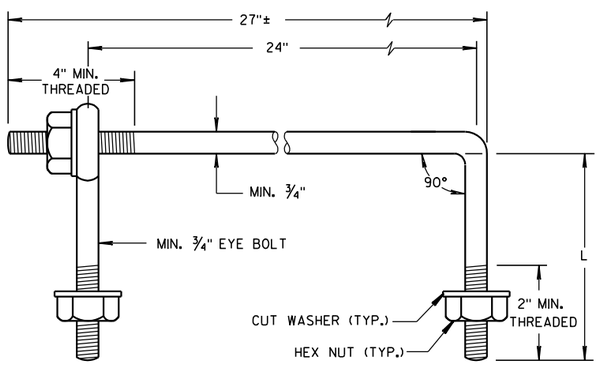
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

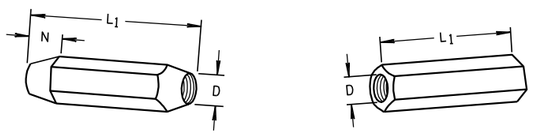
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

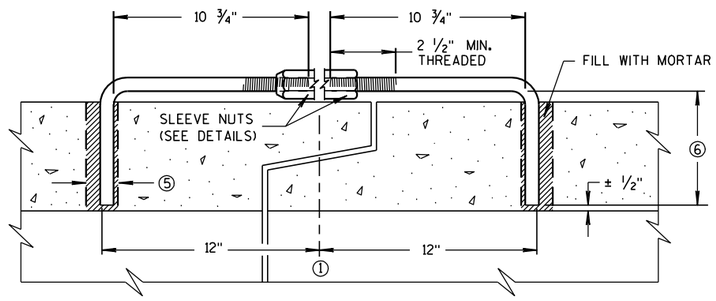
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

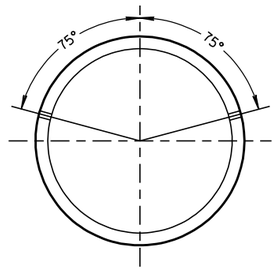
SLEEVE NUTS



LONGITUDINAL SECTION

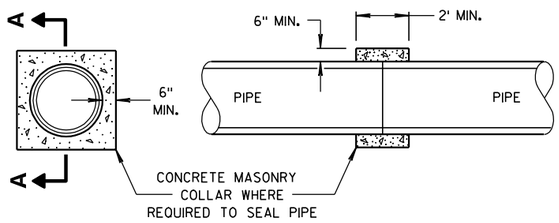
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

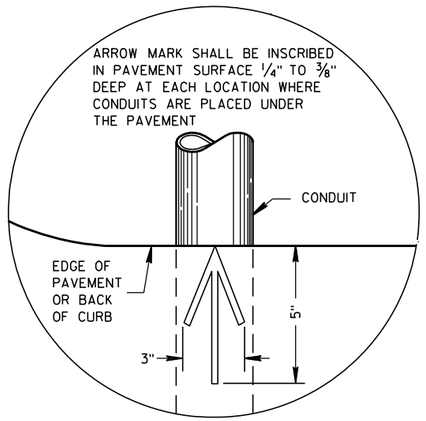
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
531
FHWA

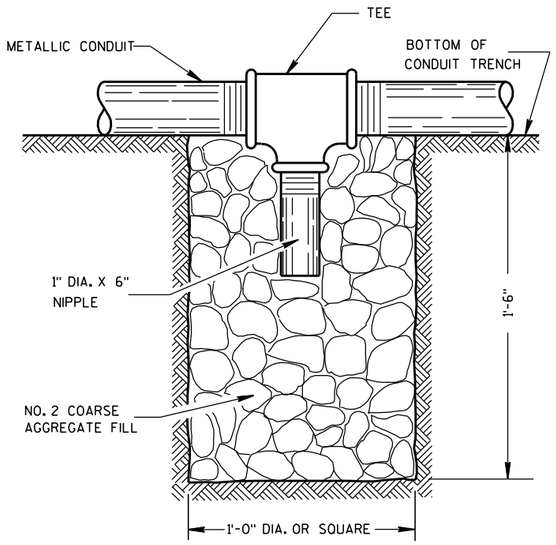
6

S.D.D. 8 F 4-7



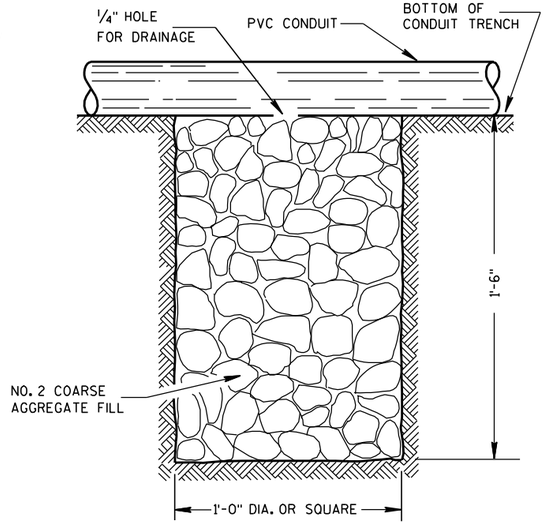
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

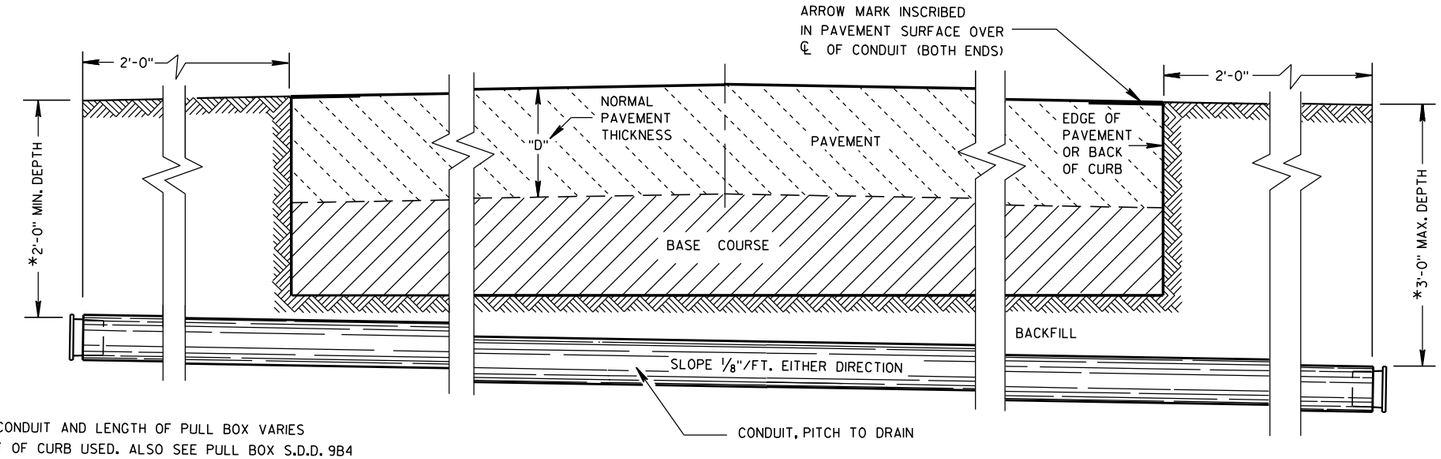
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 532 HWYS

FHWA

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

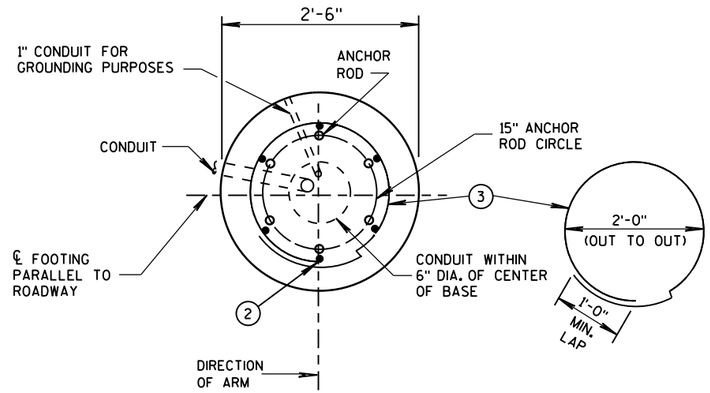
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

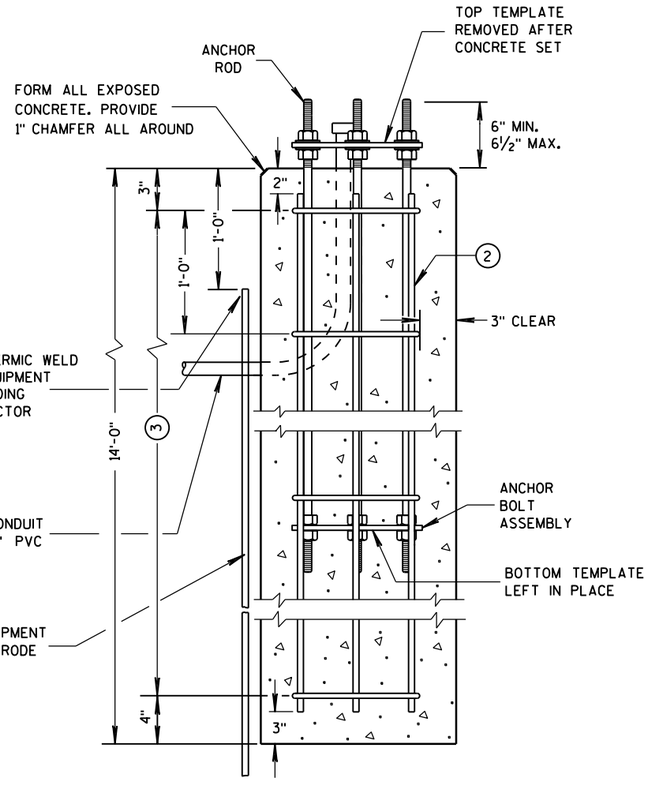
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

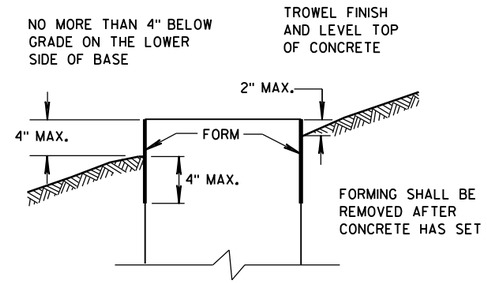
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



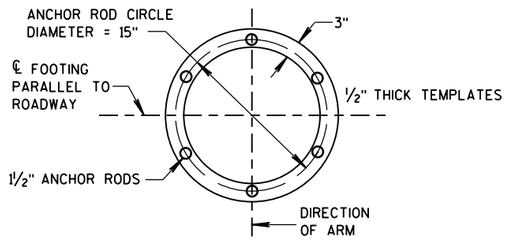


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

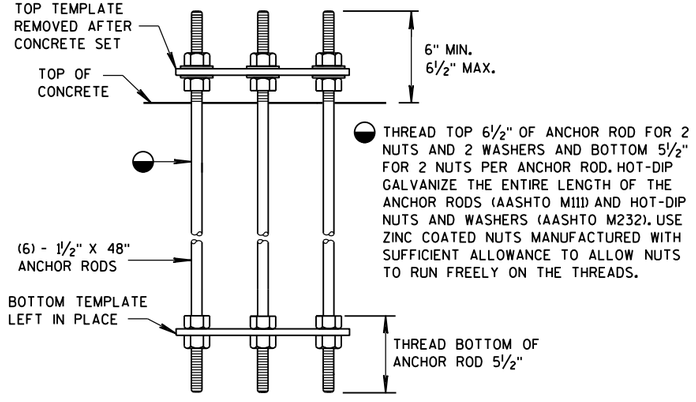
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1-16-2013 DATE

/S/ Ahmet Demirbilek STATE ELECTRICAL

FHWA

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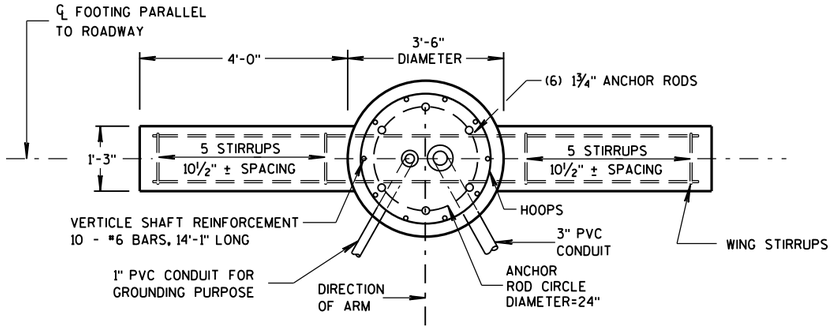
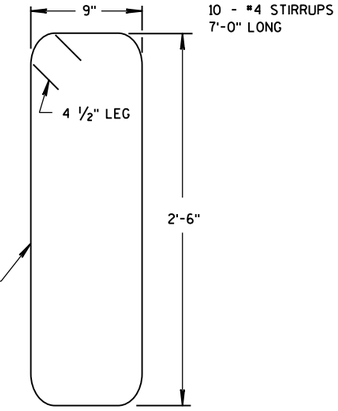
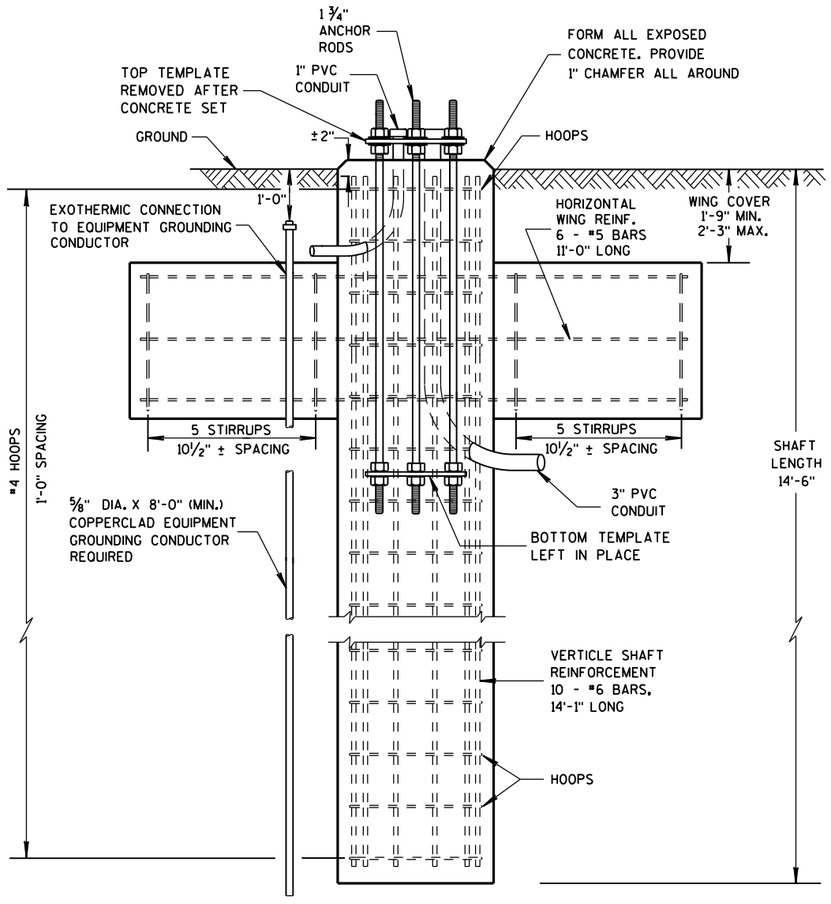
S.D.D. 9 C 11-3



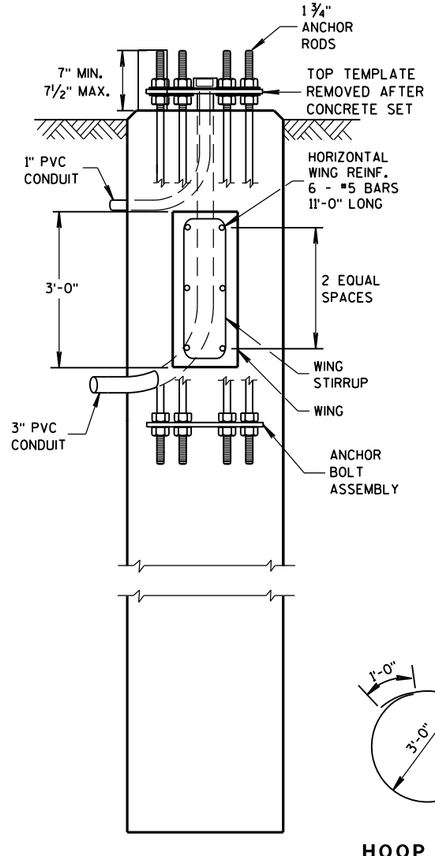
PLAN VIEW



WING STIRRUP

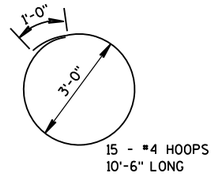


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



15 - #4 HOOPS 10'-6" LONG

HOOP DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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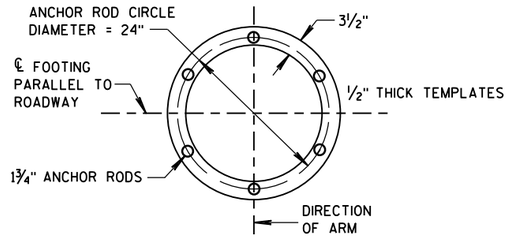
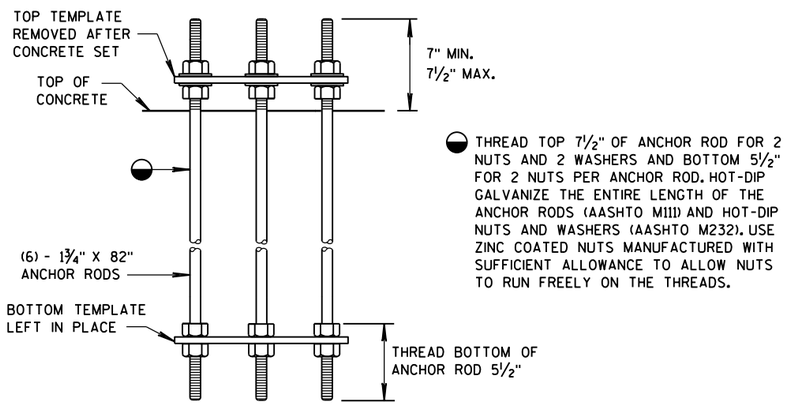
S.D.D. 9 C 12-3a

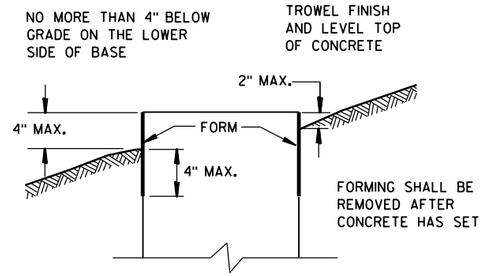


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
1-16-2013 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL 535
FHWA	

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S.D.D. 9 C 12-3b

6

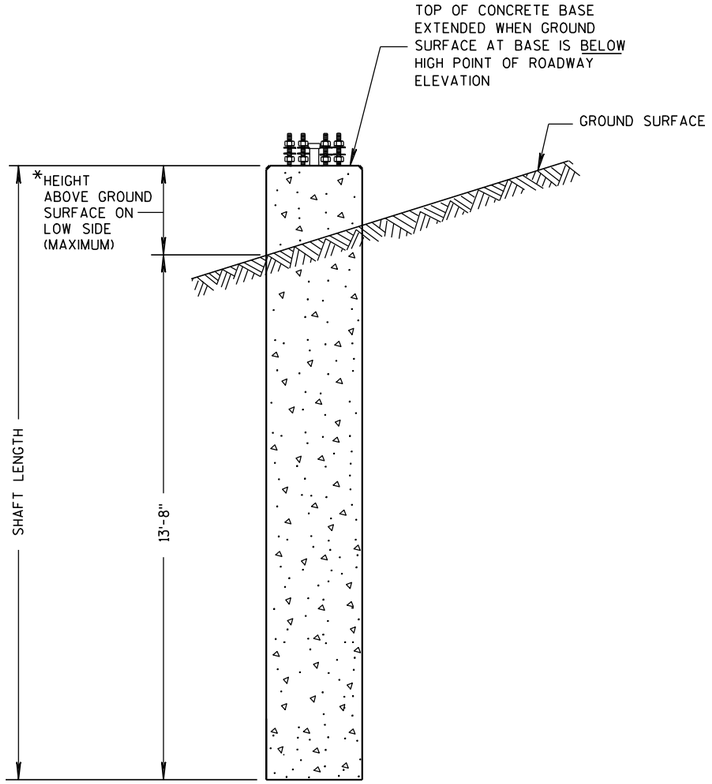
S.D.D. 9 C 12-3b

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

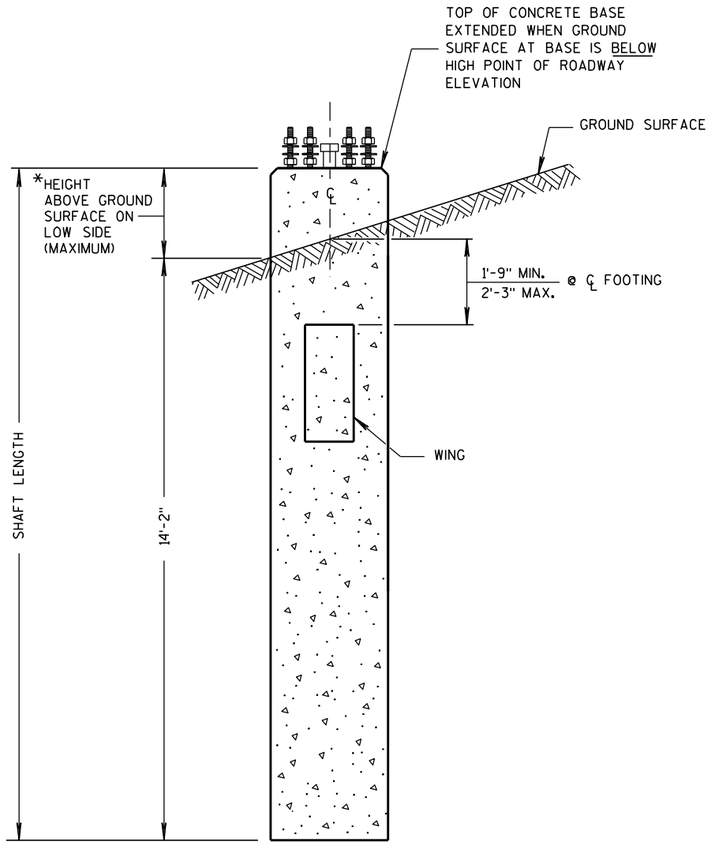
HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL BAR STEEL
>0" TO 6"	10"	14'-6"	14'-1"	16	2.6	78	127
>6" TO 1'-0"	1'-4"	15'-0"	14'-7"	16	2.7	78	131
>1'-0" TO 1'-6"	1'-10"	15'-6"	15'-1"	17	2.8	83	136
>1'-6" TO 2'-0"	2'-4"	16'-0"	15'-7"	17	2.9	83	141

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 13 CONCRETE BASE

HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF H.S. BAR STEEL
>0" TO 6"	10"	15'-0"	14'-7"	16	6.5	447
>6" TO 1'-0"	1'-4"	15'-6"	15'-1"	16	6.6	454
>1'-0" TO 1'-6"	1'-10"	16'-0"	15'-7"	17	6.8	469
>1'-6" TO 2'-0"	2'-4"	16'-6"	16'-1"	17	7.0	476



CONCRETE BASE TYPE 10 (EXTENDED)



CONCRETE BASE TYPE 13 (EXTENDED)

CONCRETE BASE
TYPE 10 & TYPE 13 EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3-3-10 DATE — /S/ Joanna L. Rush STATE ELECTRICAL ENGI — HWYS

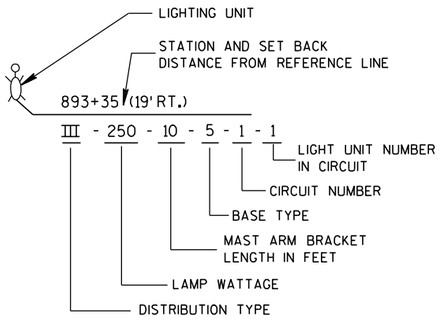
FHWA

6

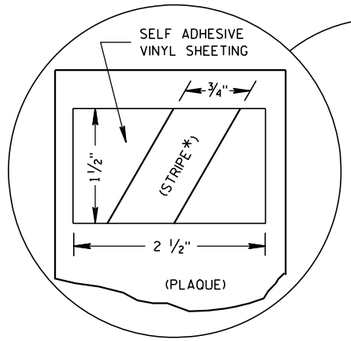
S.D.D. 9 C 13-1

6

S.D.D. 9 C 13-1



LIGHTING UNIT CODE
(TYPICAL)



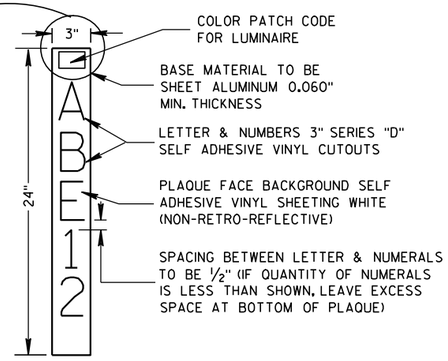
COLOR PATCH CODE FOR LUMINAIRES

(HIGH PRESSURE SODIUM)

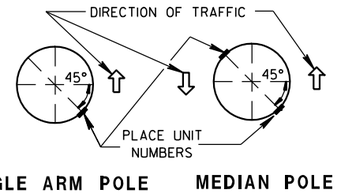
1000 WATT - NO PATCH
400 WATT - ORANGE
310 WATT - BLUE
250 WATT - ORANGE W/WHITE STRIPE*
200 WATT - RED
150 WATT - GREEN
100 WATT - BROWN

(MERCURY VAPOR)

400 WATT - (NO PATCH)
250 WATT - YELLOW



IDENTIFICATION PLAQUE



SINGLE ARM POLE MEDIAN POLE

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE WITH 3 ALUMINUM POP RIVETS (ALUM. POLES) OR STAINLESS STEEL POP RIVETS (STEEL POLES)

NOTES:

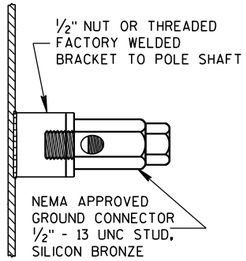
1) PLACE BOTTOM OF UNIT NUMBER PLAQUE 5'-0" ABOVE ELEVATION OF ADJACENT CURB OR SHOULDER.

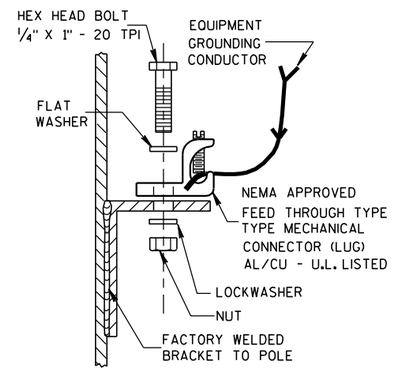
2) UNIT NUMBERS: ONE REQUIRED FOR SINGLE ARM POLES TWO REQUIRED FOR MEDIAN MOUNT POLES.

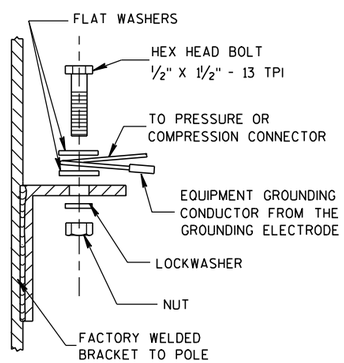
LIGHTING UNIT IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENT

(TYPICAL ALL LIGHTING UNITS)

FURNISH PLAQUE WHEN CALLED FOR BY SPECIAL PROVISIONS

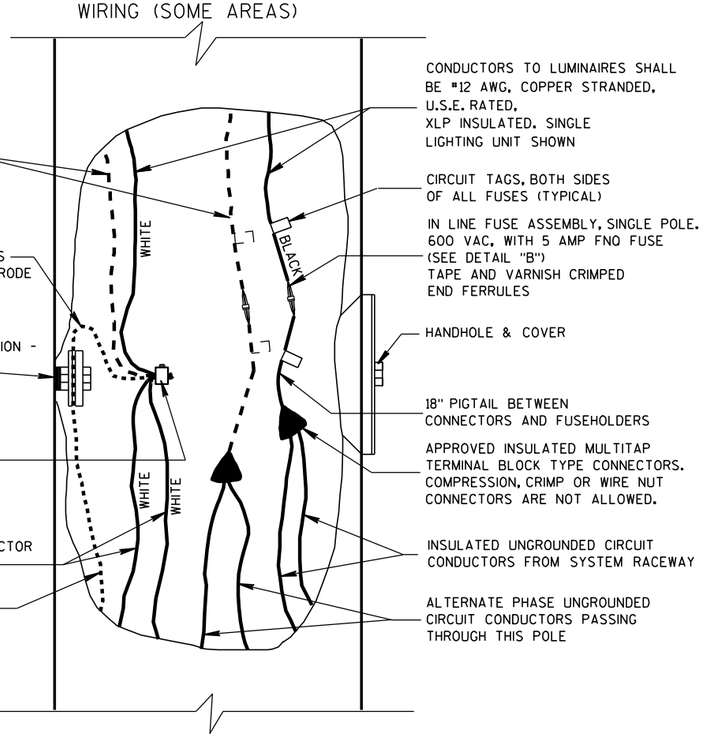




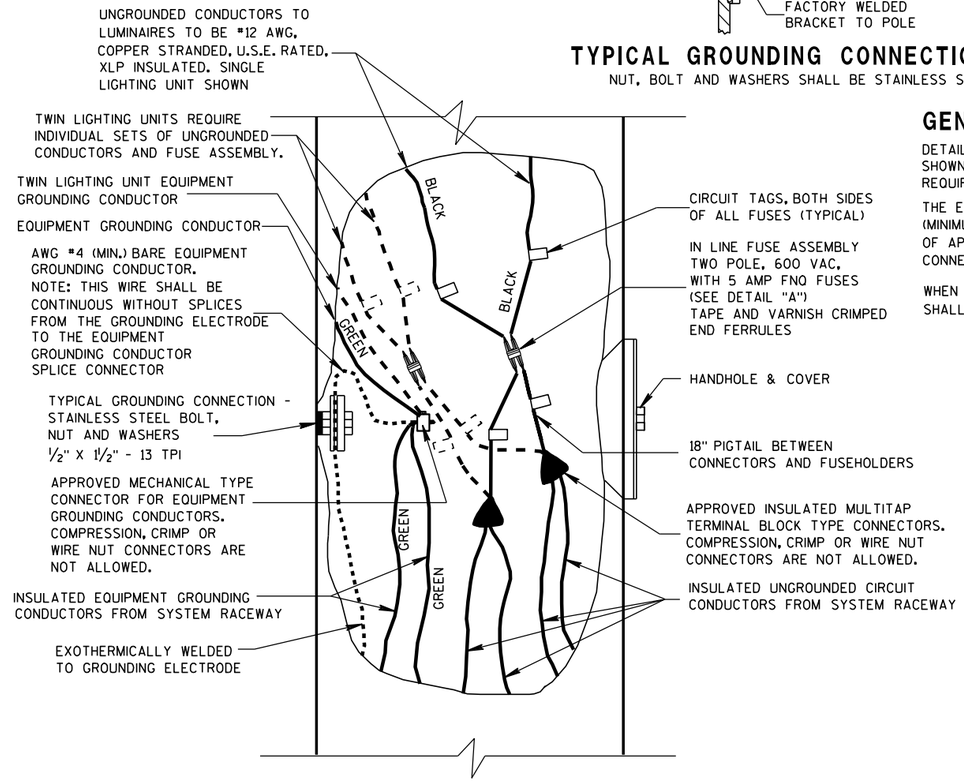


TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



2 WIRE - 120, 240 OR 480 VAC TO GROUND



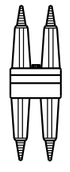
2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

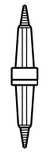
THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



DETAIL "A"

BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



DETAIL "B"

BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT

FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

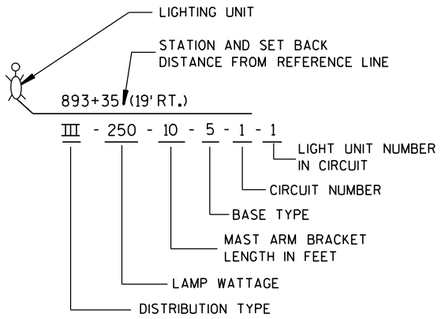
APPROVED
3/2/2011 DATE
/S/ Thomas J. Gordon
STATE ELECTRICAL ENGI 537 HWYS
FHWA

6

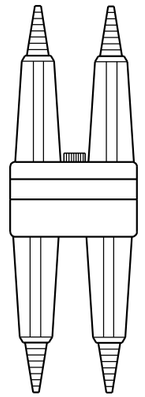
S.D.D. 9 E 2-3

6

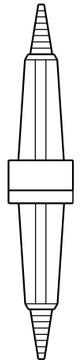
S.D.D. 9 E 2-3



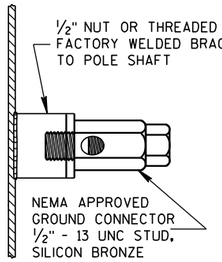
LIGHTING UNIT CODE
(TYPICAL)

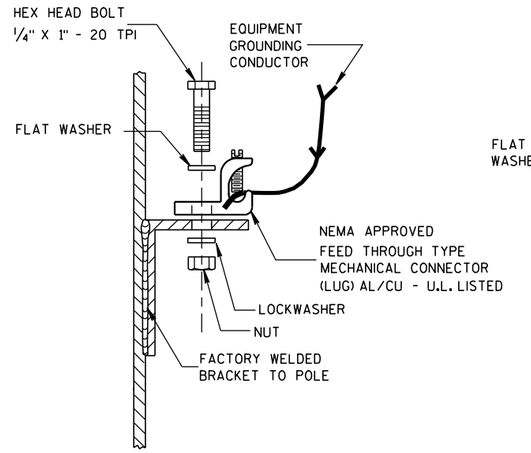


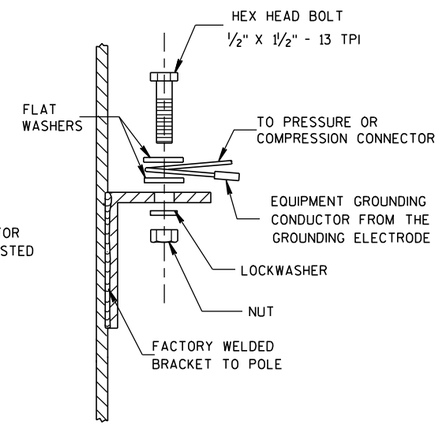
DETAIL "A"
BREAKAWAY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



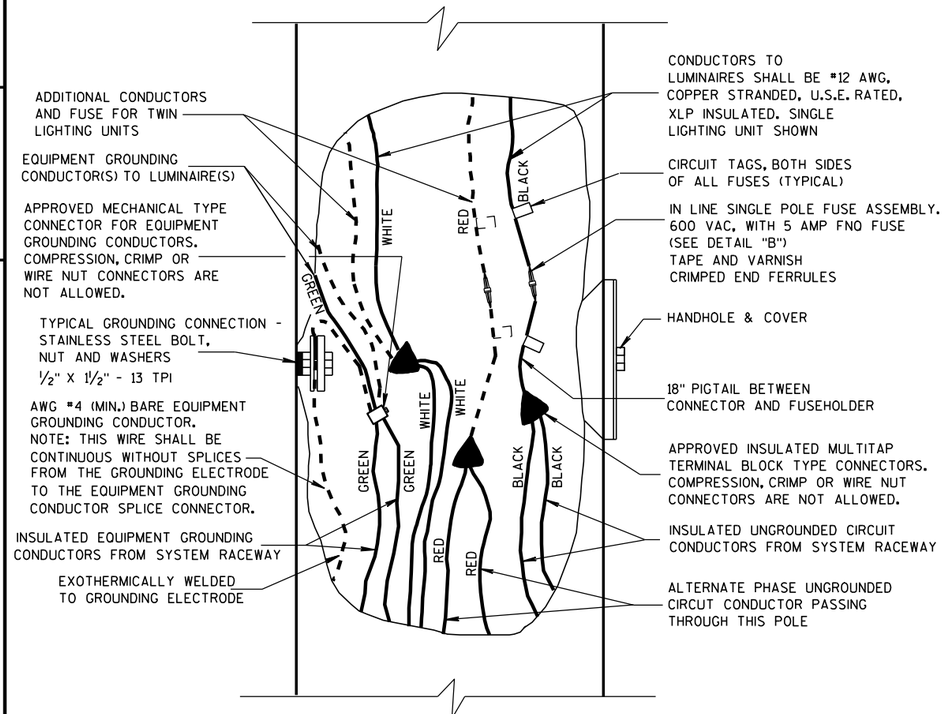
DETAIL "B"
BREAKAWAY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



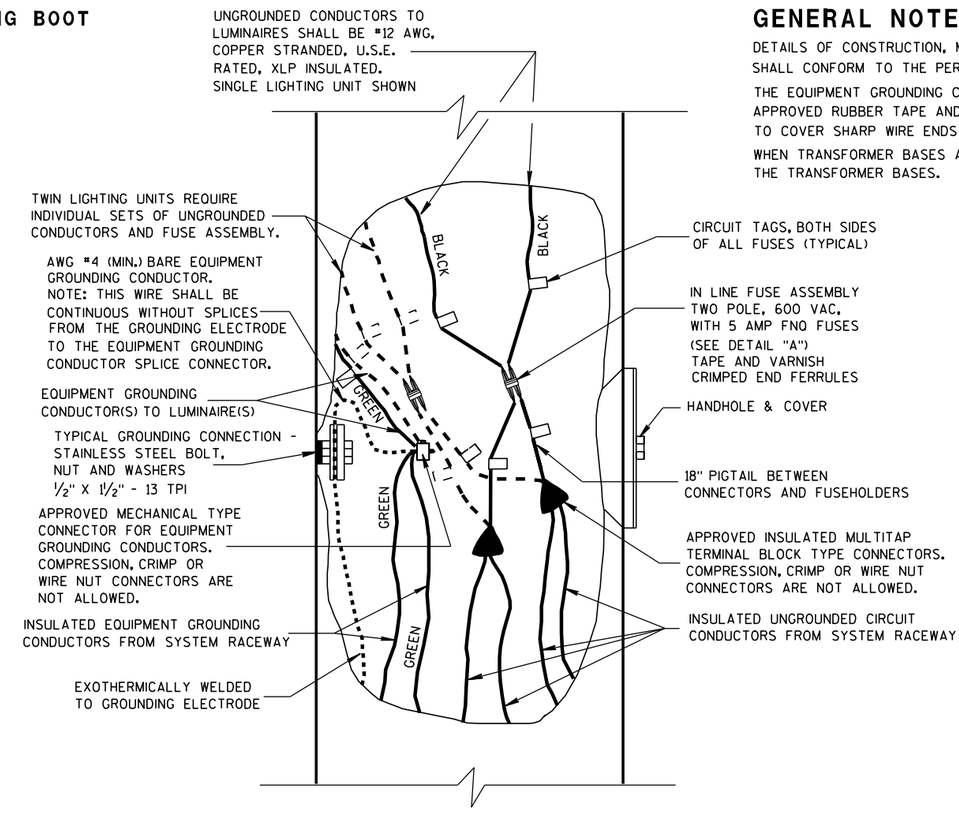




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011
DATE

/S/ Thomas J. Gosnell
STATE ELECTRICAL ENGI

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HWYS

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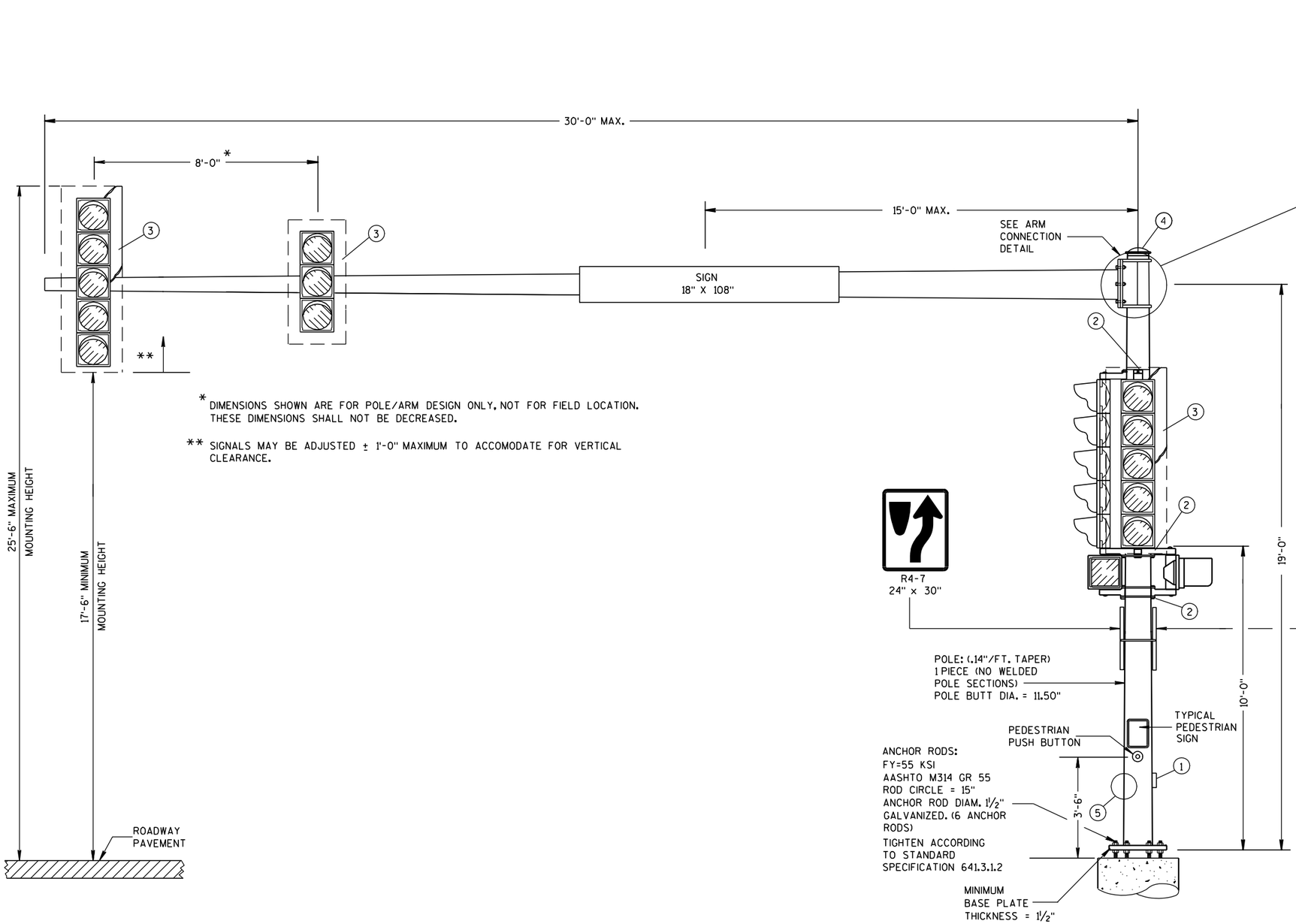
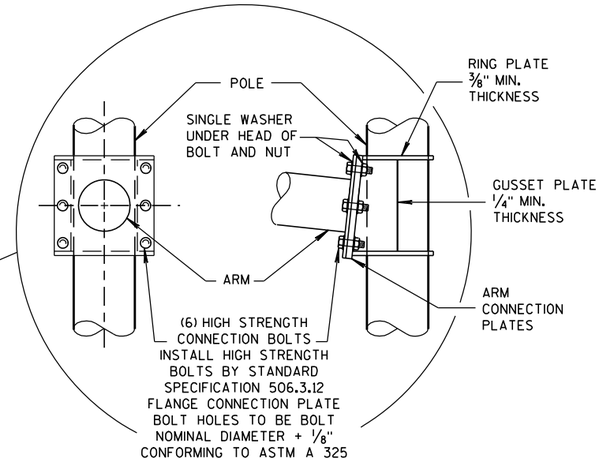


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY. NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/2/2011 DATE
/S/ Thomas J. Corrigan
STATE ELECTRICAL ENGI 539 HWYS
FHWA

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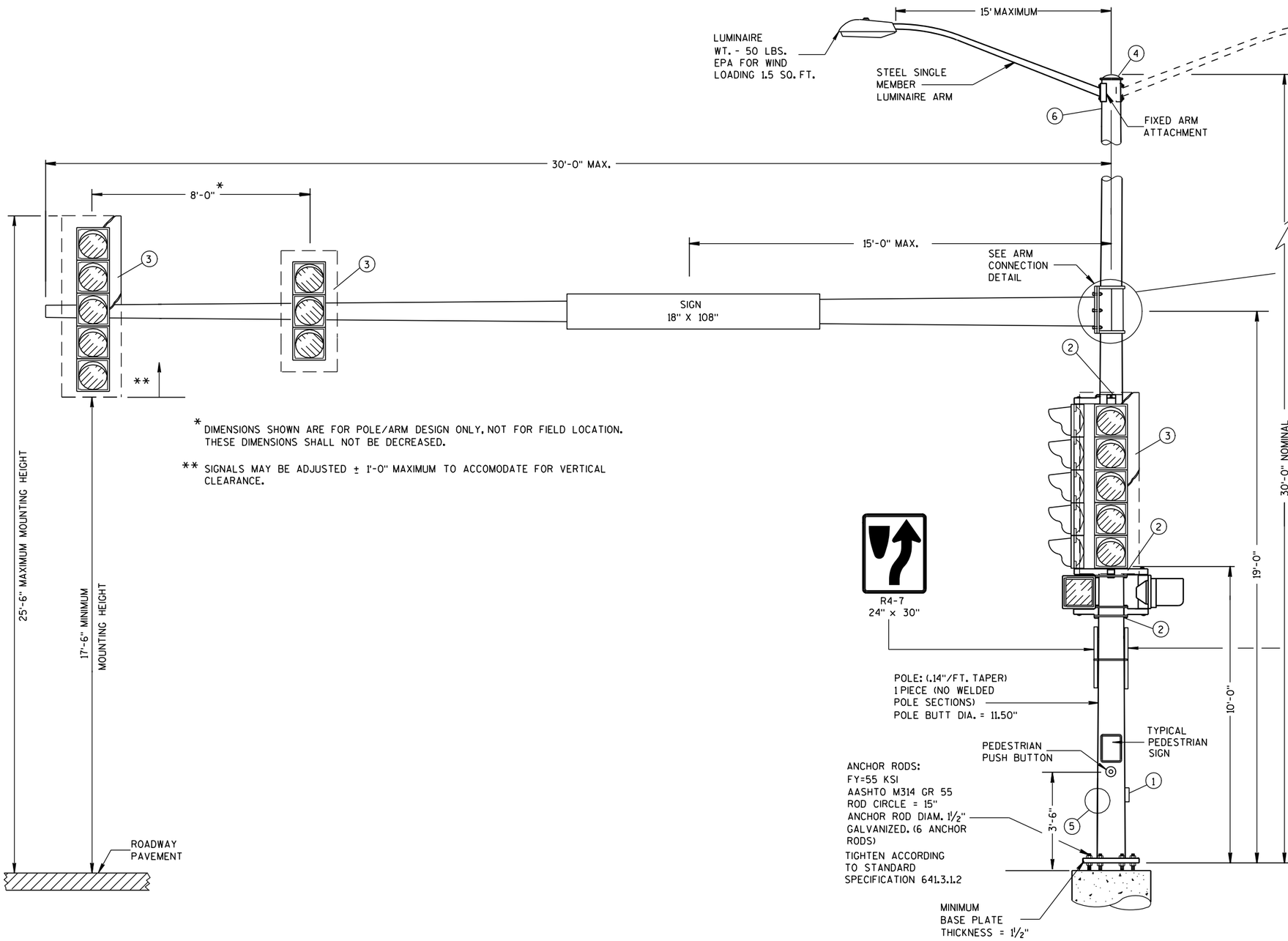

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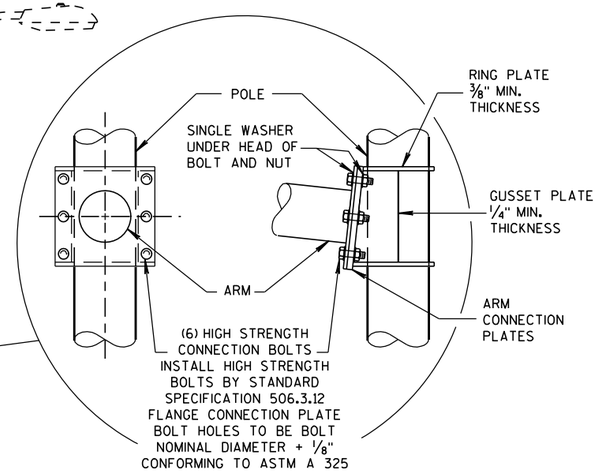
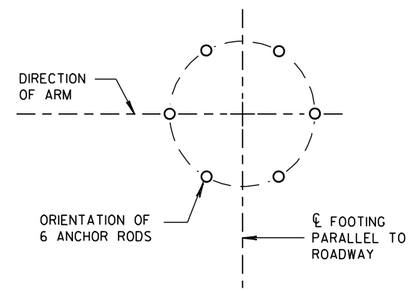


6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/2/2011 DATE	/S/ Thomas J. Corrigan STATE ELECTRICAL ENGI 540 HWYS
FHWA	

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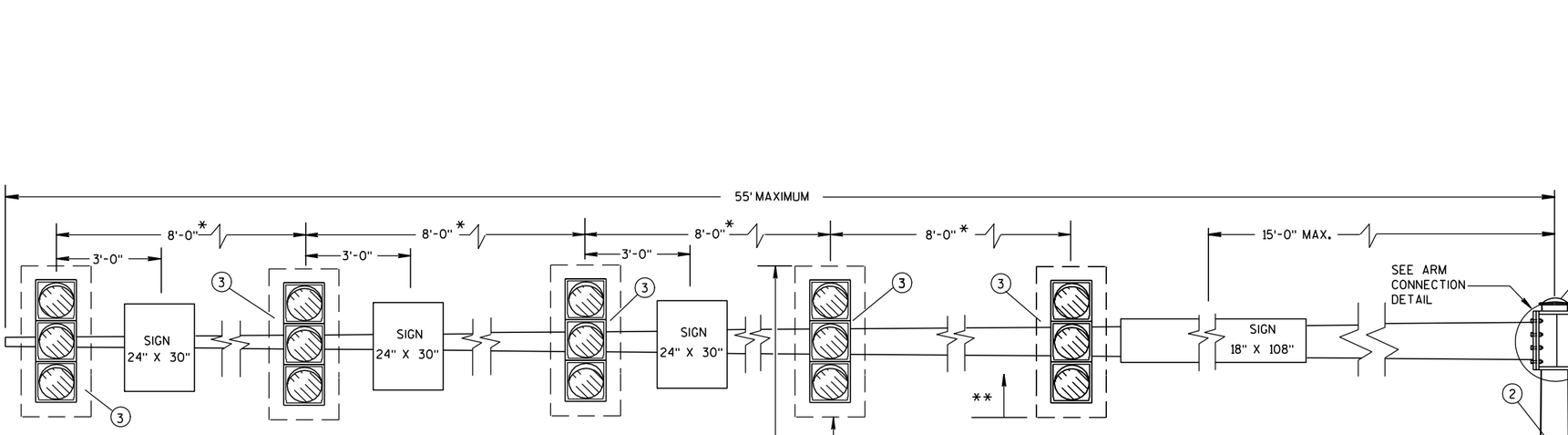

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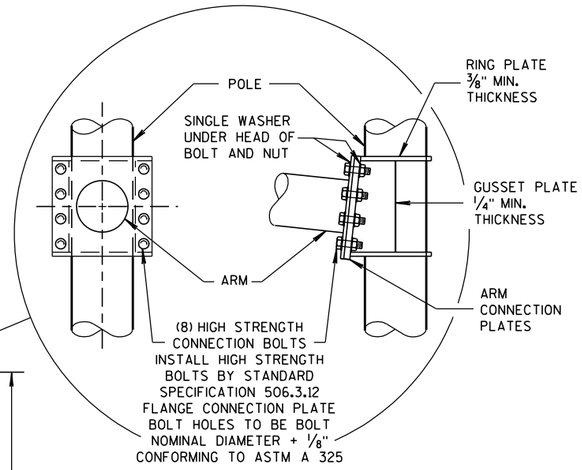
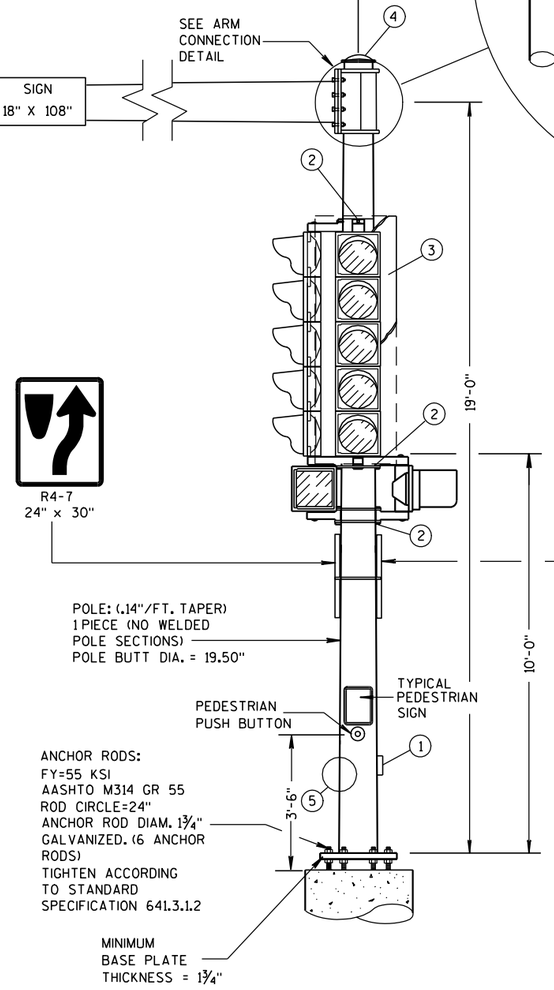
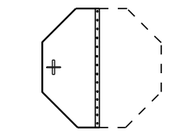
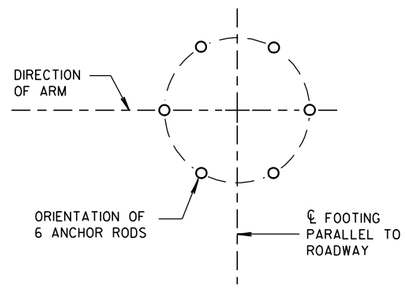
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



8 BOLT ARM CONNECTION DETAIL







ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/2/2011 DATE
/S/ Thomas J. Gorring
STATE ELECTRICAL ENGI 541 HWYS
FHWA

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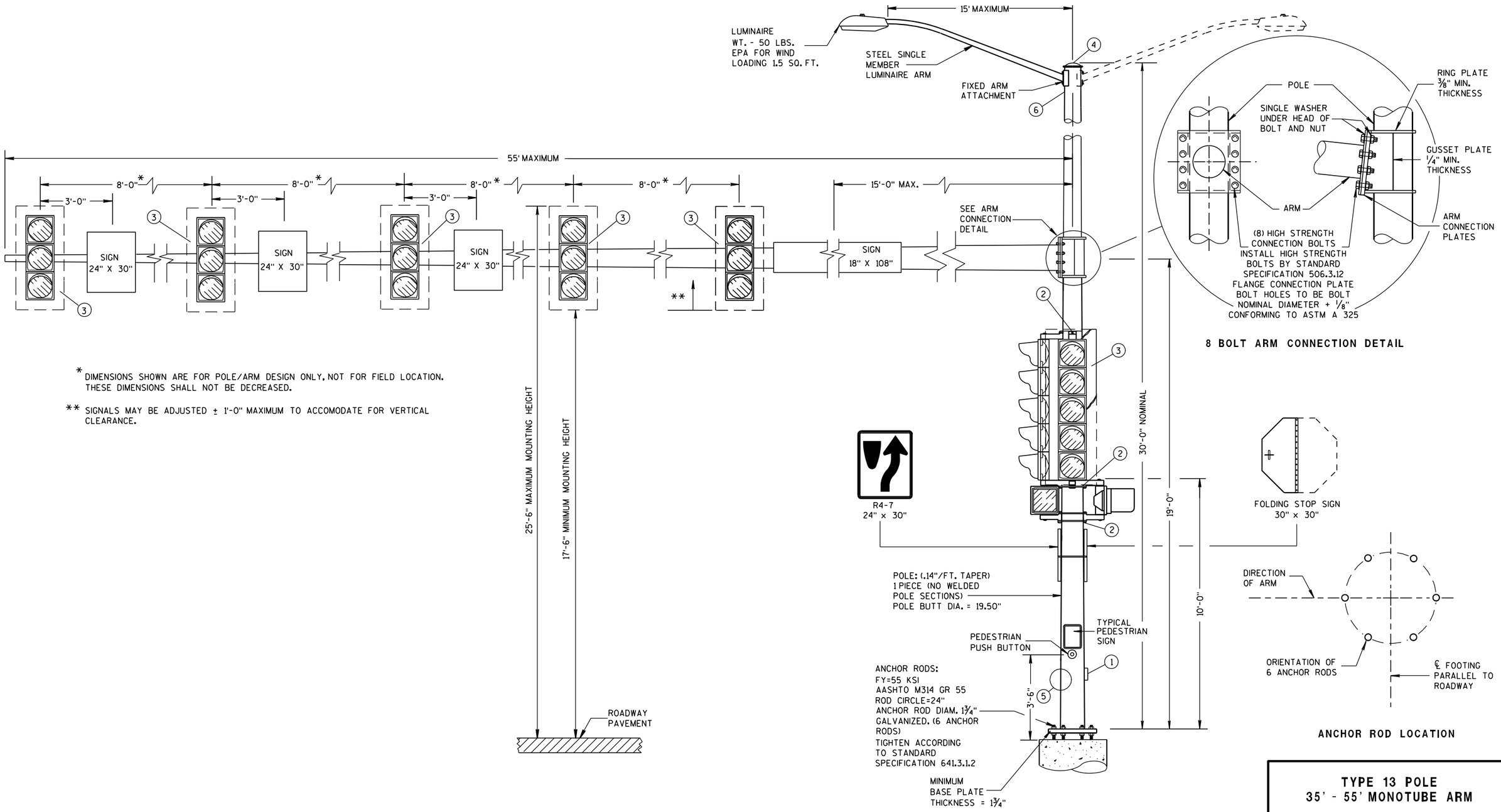

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** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

8 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 — DATE

/S/ Thomas J. Corrigan — STATE ELECTRICAL ENGI

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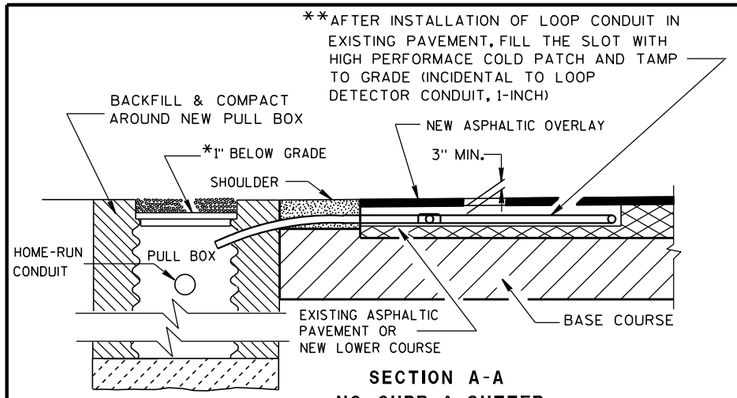
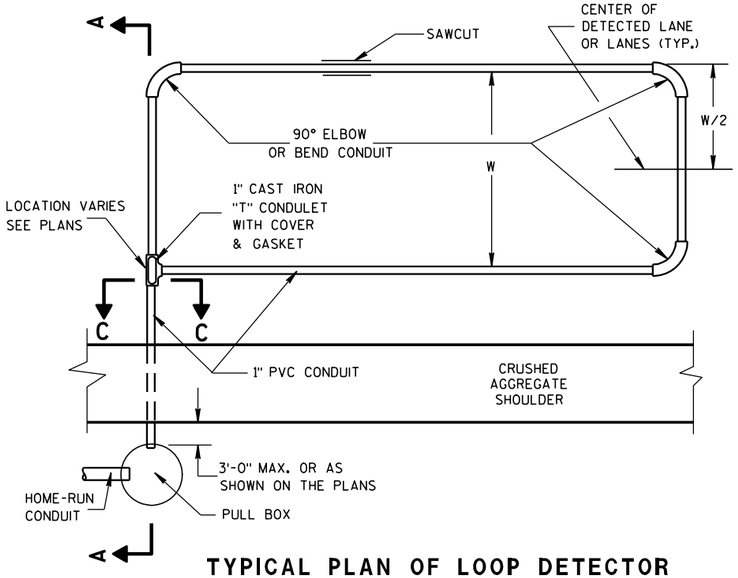


SECTION A-A

NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF LOOP DETECTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

BEFORE PLACING THE 1 INCH CONDUIT IN THE CLEANED OUT SLOT, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY ½ INCH. IF THE CONDUIT MUST BE PLACED IN THE BASE COURSE, DO NOT PLACE THE TAR OR EPOXY SEALANT IN THE SLOT.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES BEFORE INSTALLATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

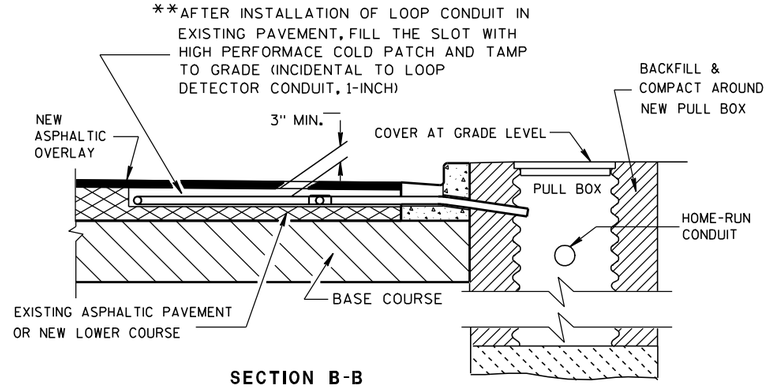
SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

DRIVE A 1½" MAX. PK NAIL INTO THE NEW ASPHALTIC OVERLAY AND ON TOP OF THE CONDULET AFTER THE NEW ASPHALTIC OVERLAY IS INSTALLED, IF REQUIRED BY THE DISTRICT TRAFFIC SECTION.

** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/ PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

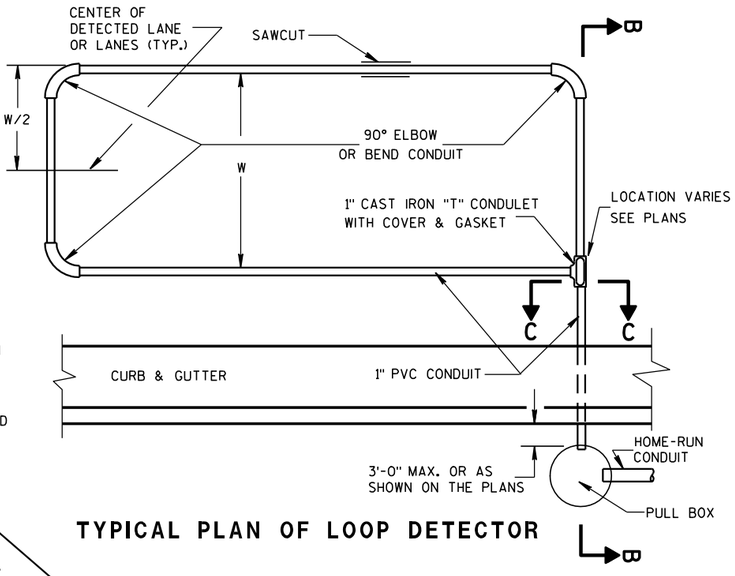
IN THE EVENT HIGH PERFORMANCE COLD PATCH IS NOT AVAILABLE, AND FLEXIBLE TYPE EPOXY IS USED AS A LOOP SLOT FILLER, THE 2 INCH SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED AFTER WRITTEN APPROVAL BY THE PROJECT ENGINEER.



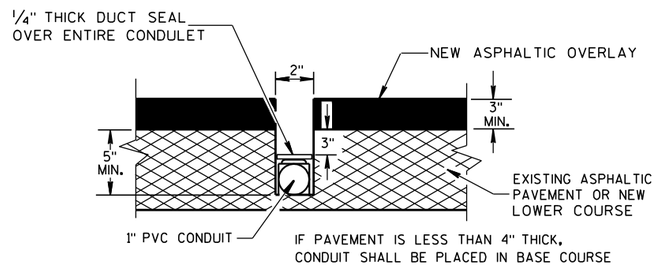
SECTION B-B

CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



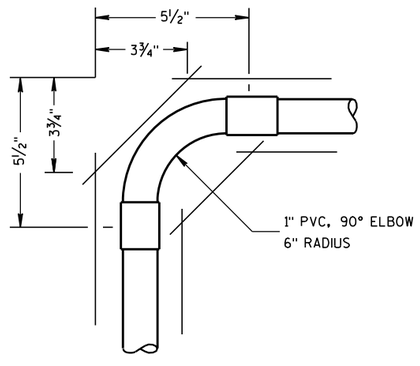
TYPICAL PLAN OF LOOP DETECTOR



SIDE VIEW

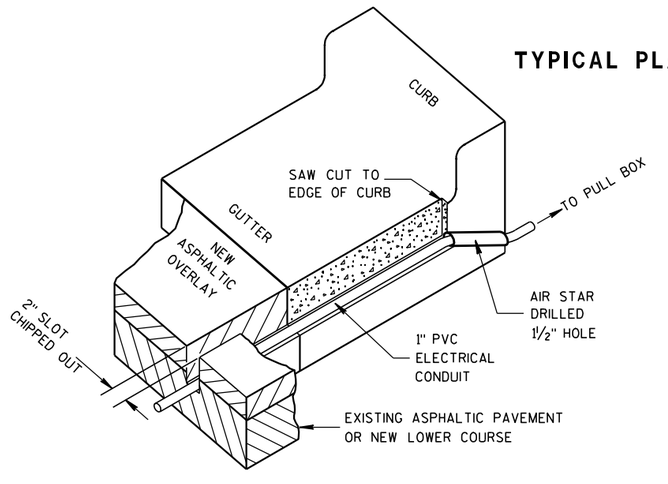
SECTION C-C

LOOP DETECTOR SLOT DETAIL



TOP VIEW

CORNER SAW SLOT DETAIL



ISOMETRIC VIEW

TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT

LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/7/06 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

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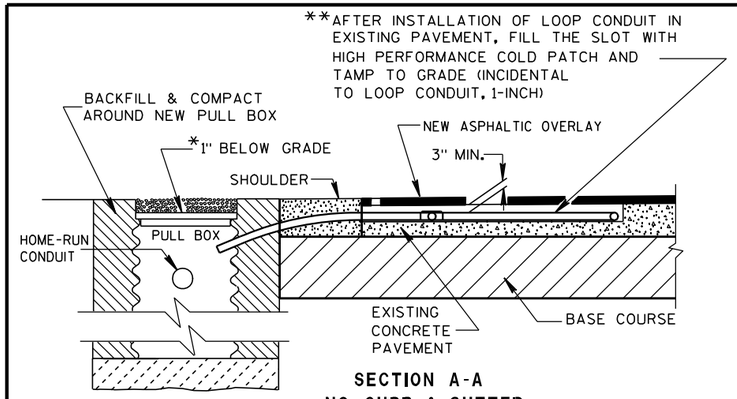
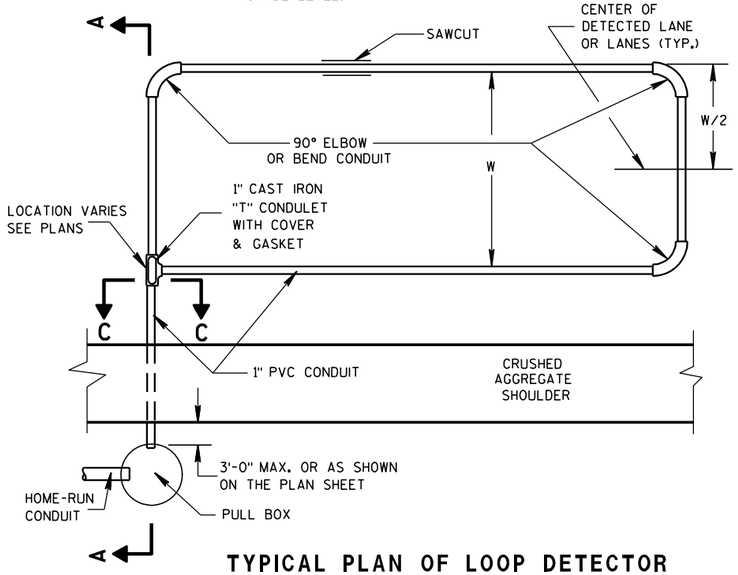


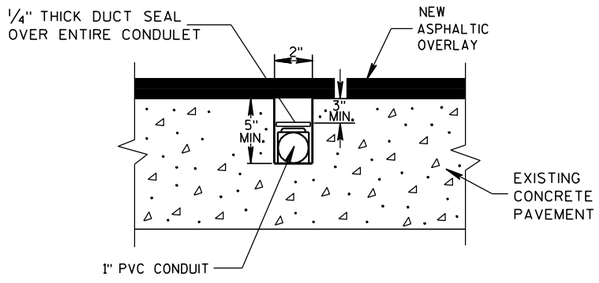
SECTION A-A
NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF LOOP DETECTOR



SIDE VIEW
SECTION C-C

LOOP DETECTOR SLOT DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

IN THE EVENT EPOXY IS USED AS A LOOP SLOT FILLER, THE SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION.

BEFORE PLACING THE 1 INCH CONDUIT IN THE CLEANED OUT SLOT, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY 1/2 INCH.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES BEFORE INSTALLATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

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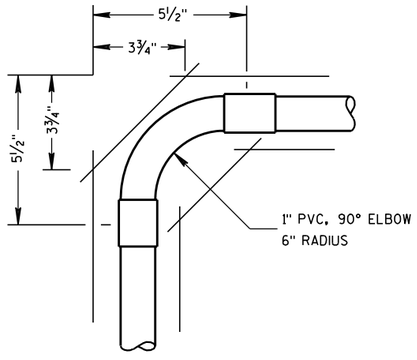
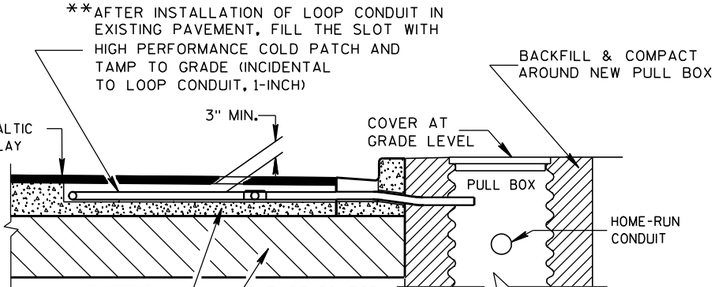
DRIVE A 1 1/2" MAX. PK NAIL INTO THE NEW ASPHALTIC OVERLAY AND ON TOP OF THE CONDULET AFTER THE NEW ASPHALTIC OVERLAY IS INSTALLED, IF REQUESTED BY THE DISTRICT TRAFFIC SECTION.

** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/ PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".



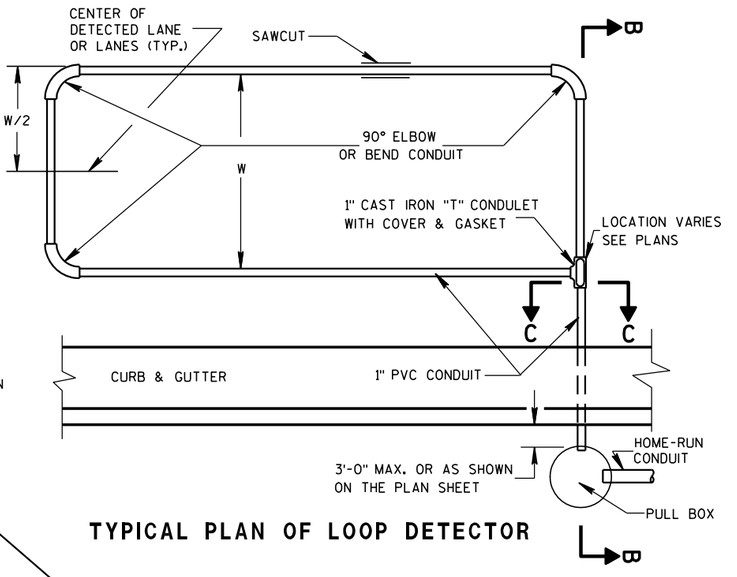
TOP VIEW

CORNER SAW SLOT DETAIL

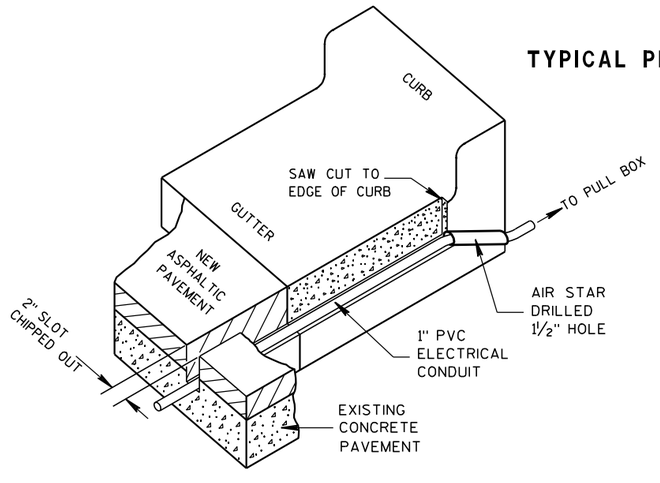


SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR



ISOMETRIC VIEW

TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT

LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/7/06 DATE
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI
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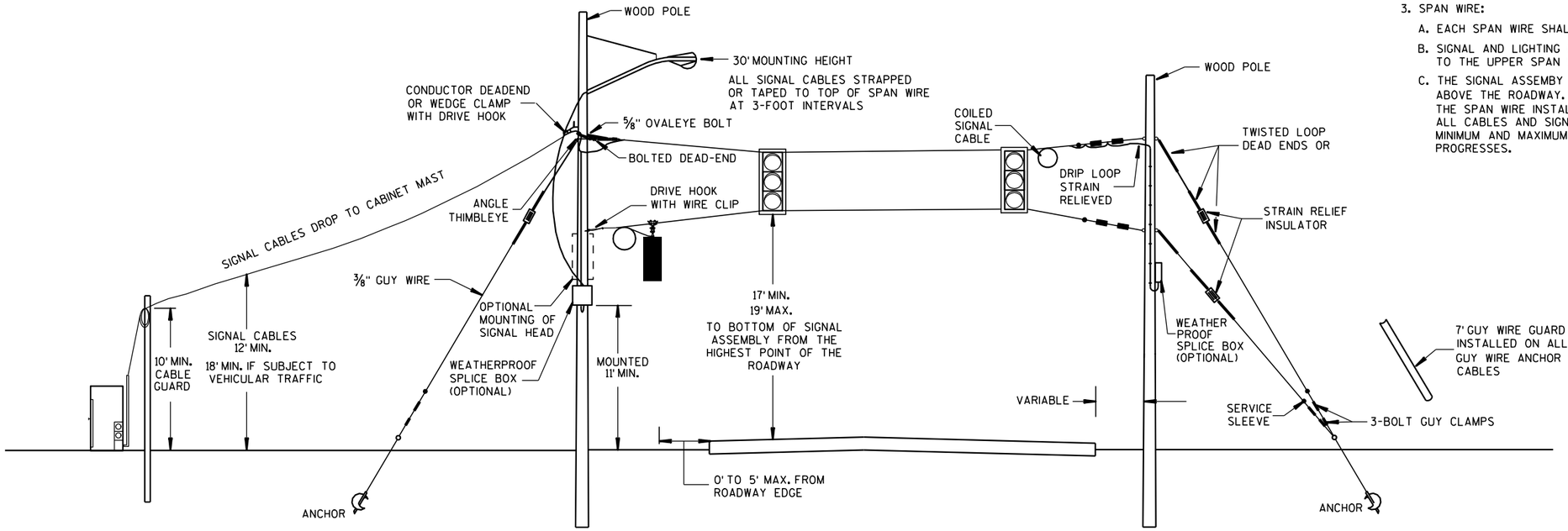
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 DATE
/S/ Balu Ananthar [illegible]n
STATE ELECTRICAL ENGI 545 HWYS
FHWA

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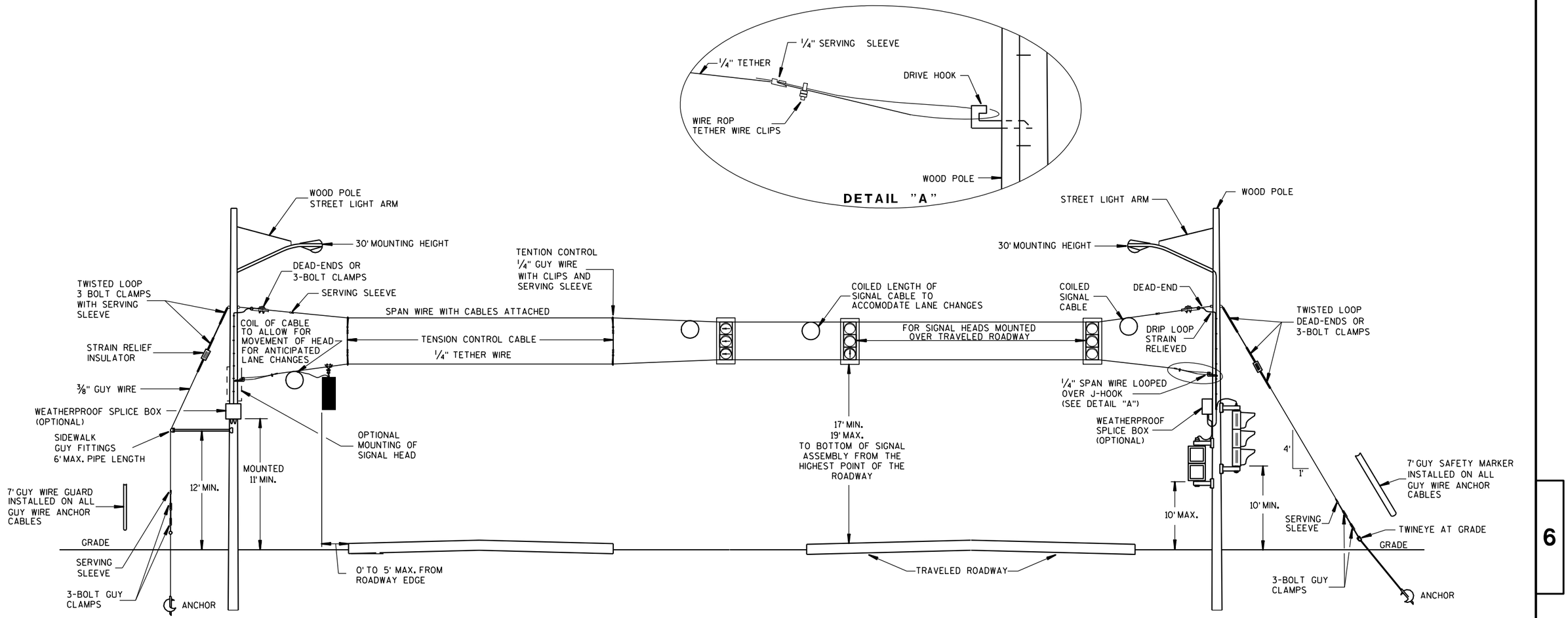
S.D.D. 9 G 1-3a



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 546 HWYS

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S.D.D. 9 G 1-3b

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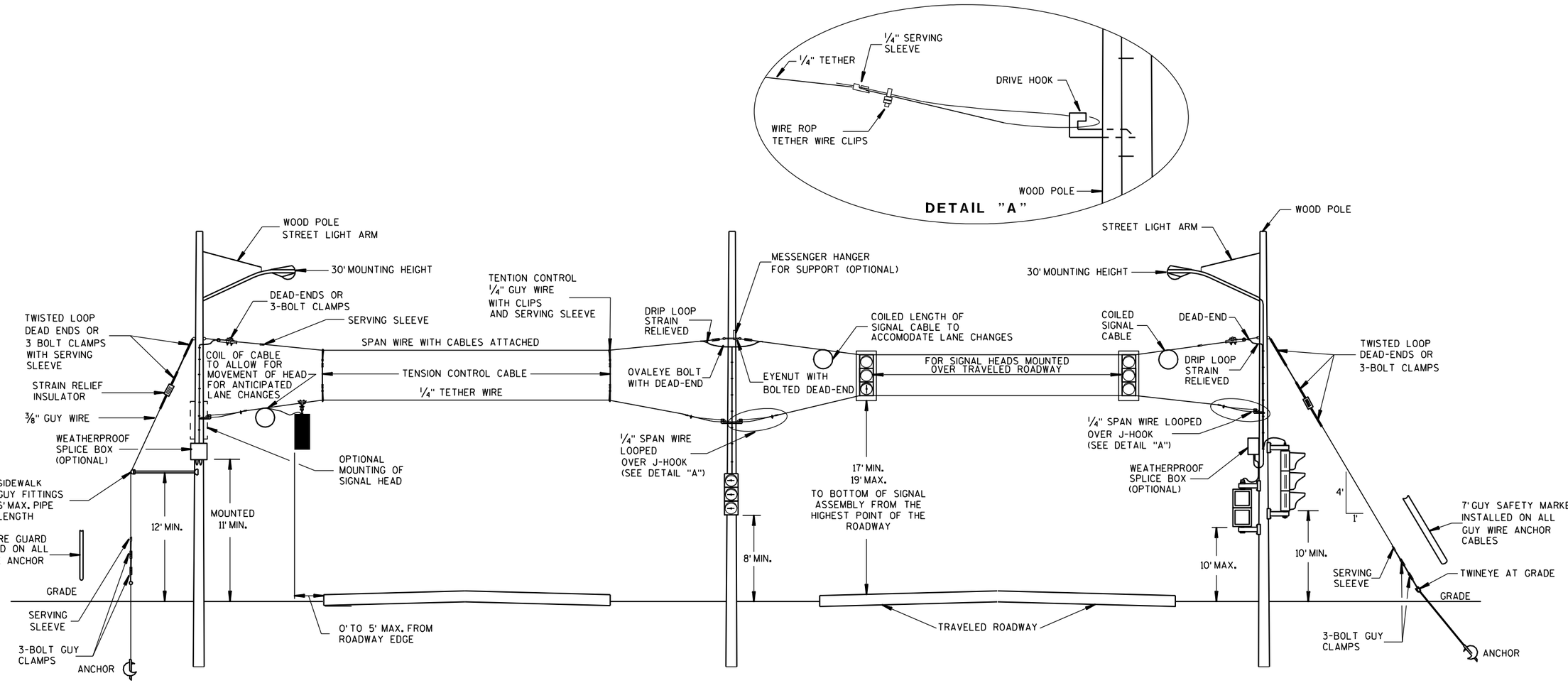
S.D.D. 9 G 1-3b



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

/S/ Balu Aganthanarayanan
STATE ELECTRICAL ENGI 547 HWYS

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S.D.D. 9 G 1-3c

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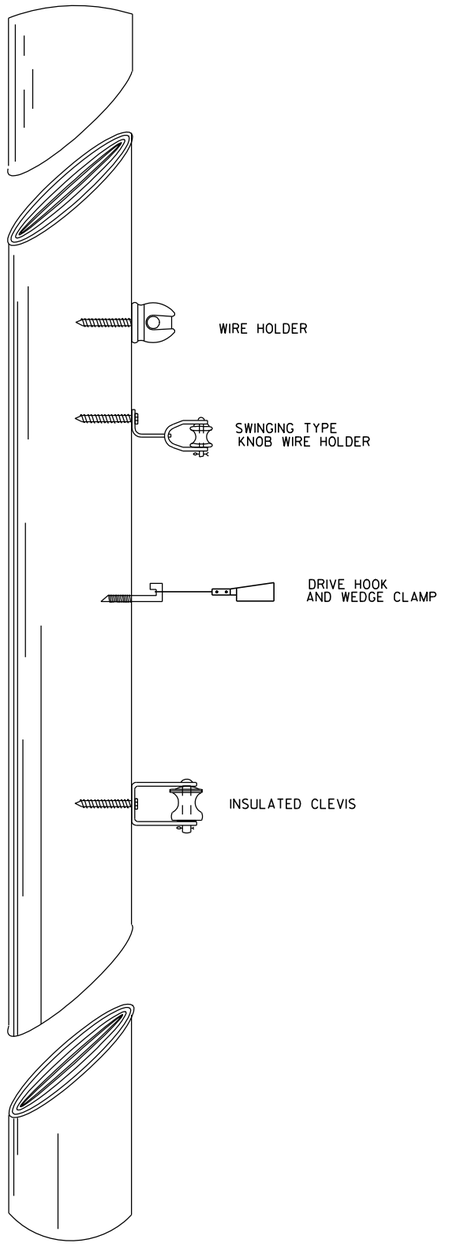
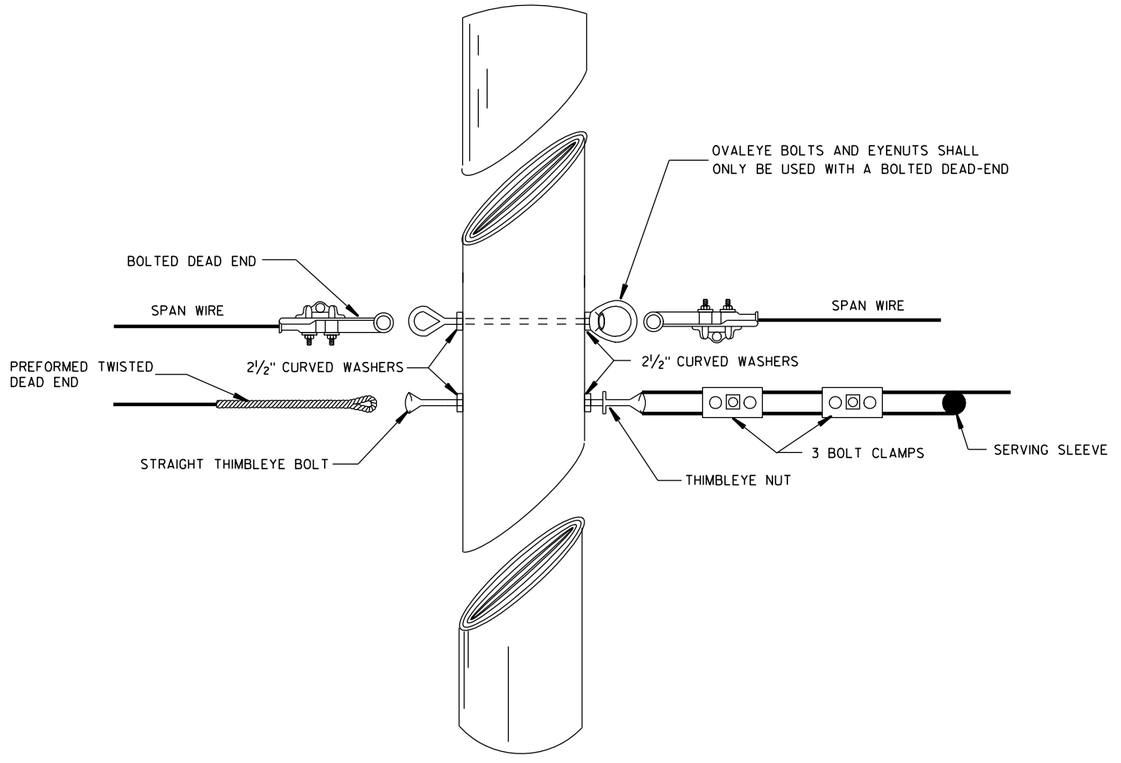
S.D.D. 9 G 1-3c



TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

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S.D.D. 9 G 1-3d

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

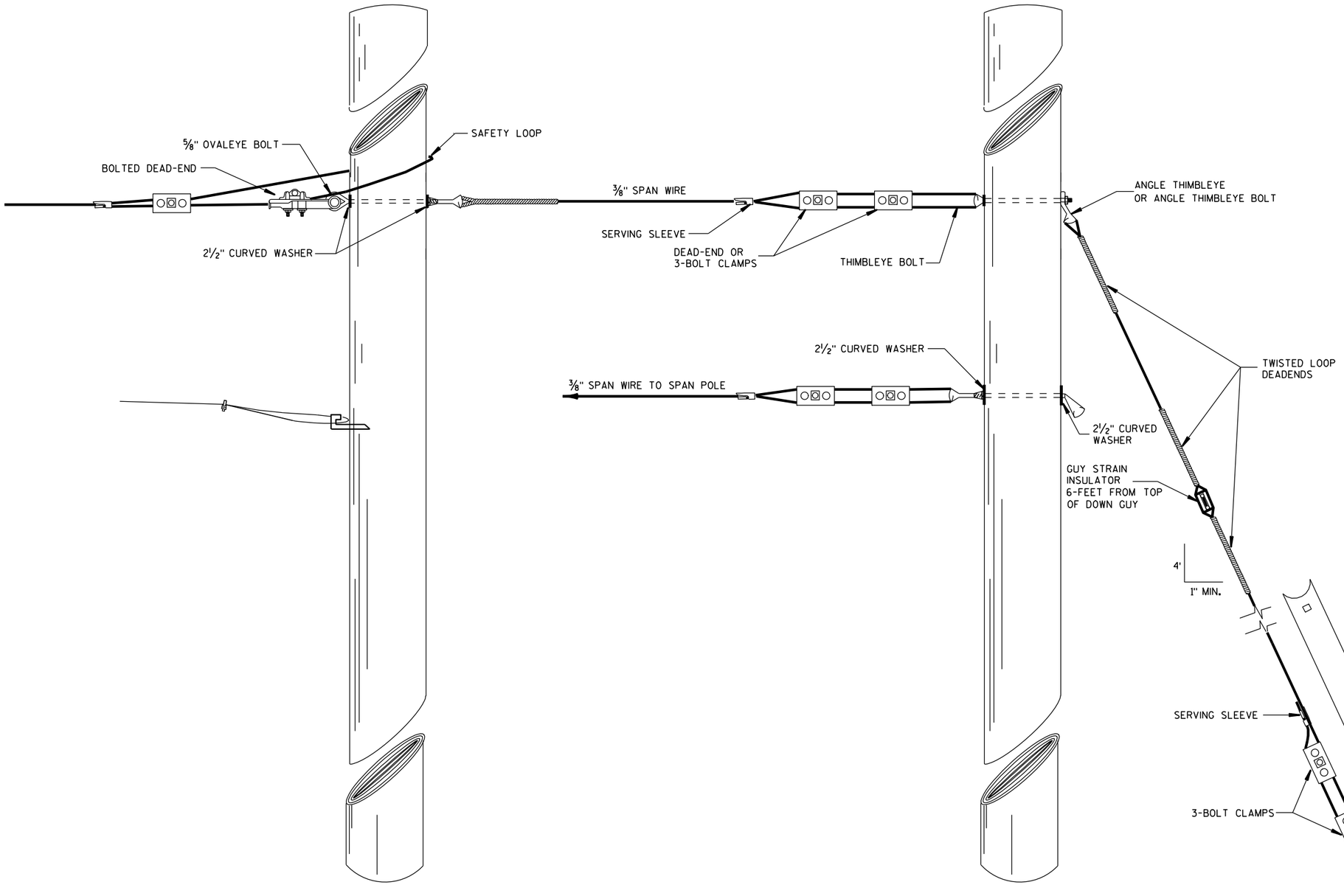
7-14-08
DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 548 HWYS

FHWA

GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE

GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 DATE
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 549 HWYS
FHWA

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S.D.D. 9 G 1-3e

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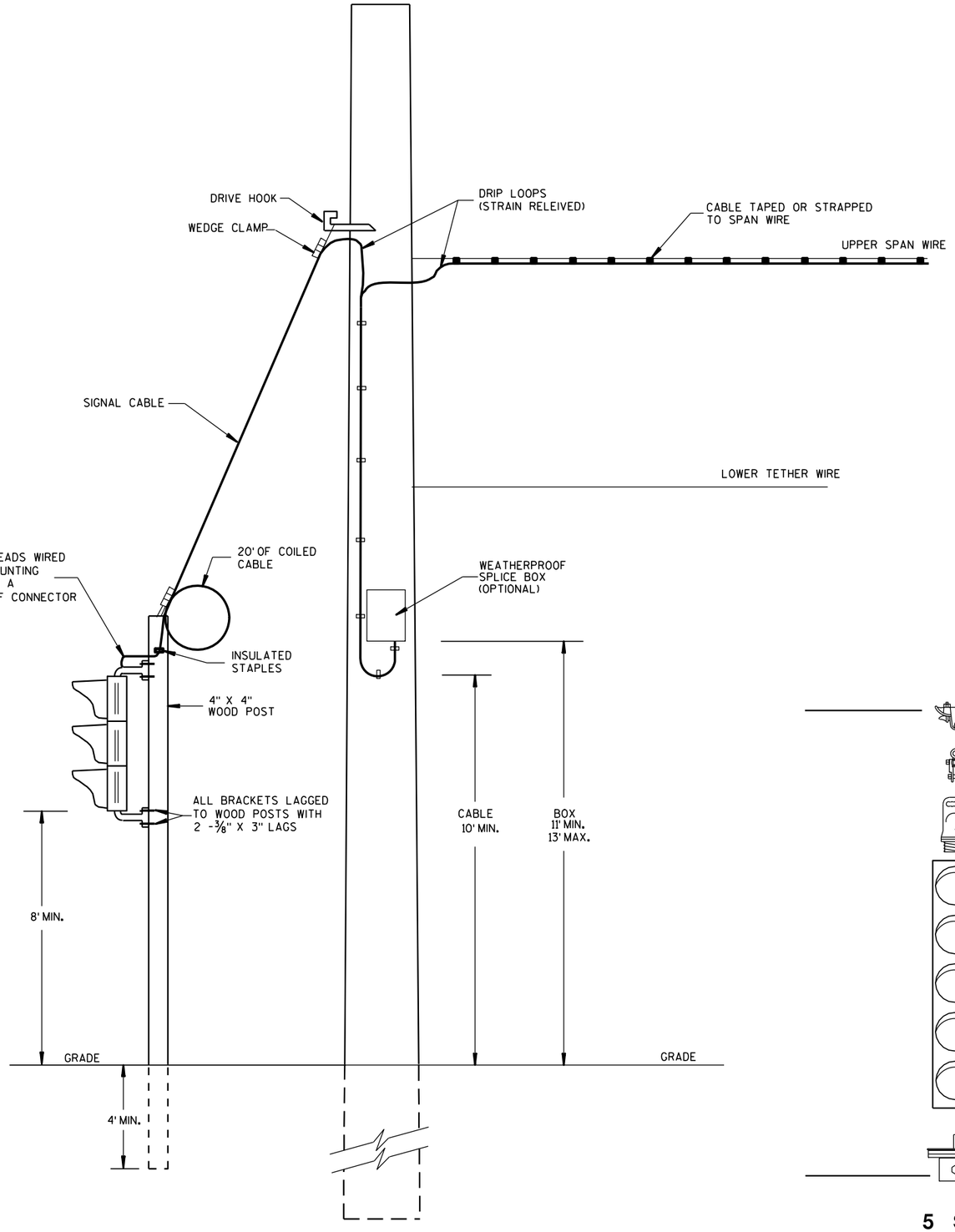
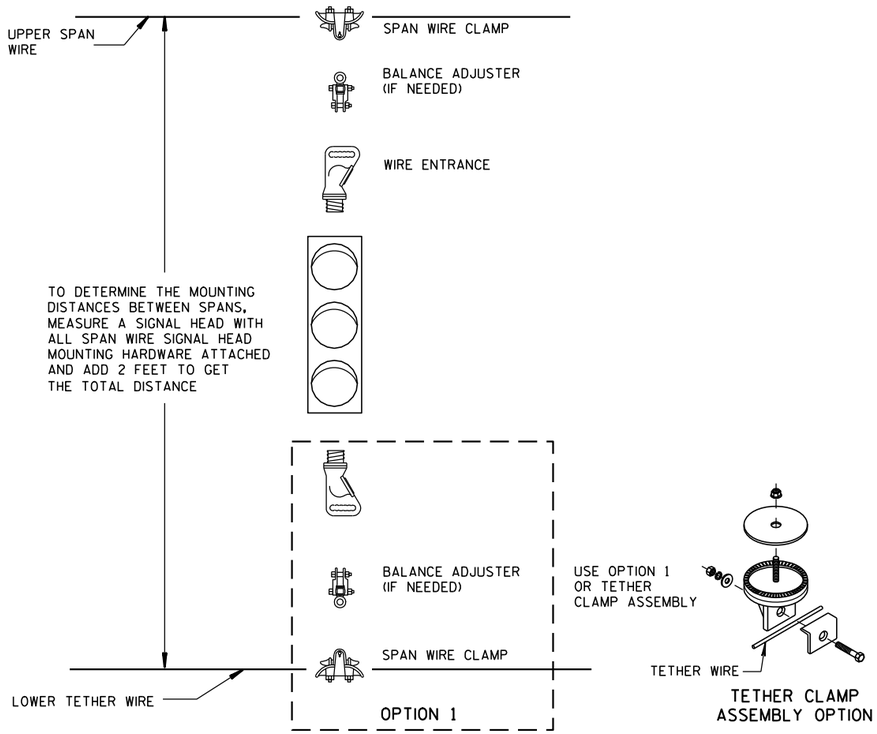
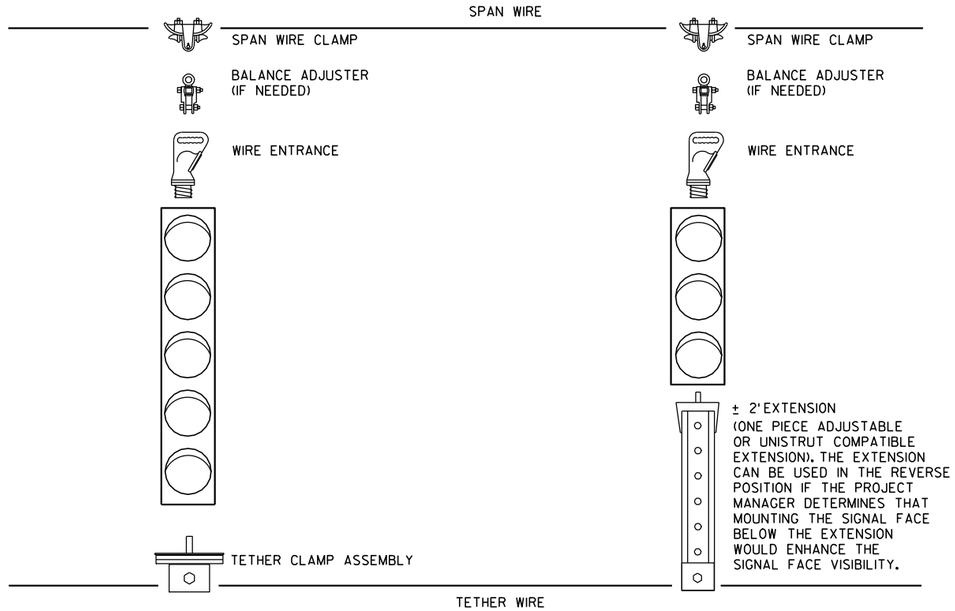
S.D.D. 9 G 1-3e



TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08
DATE

/S/ Balu Aganthangarayanan
STATE ELECTRICAL ENGI 550 HWYS

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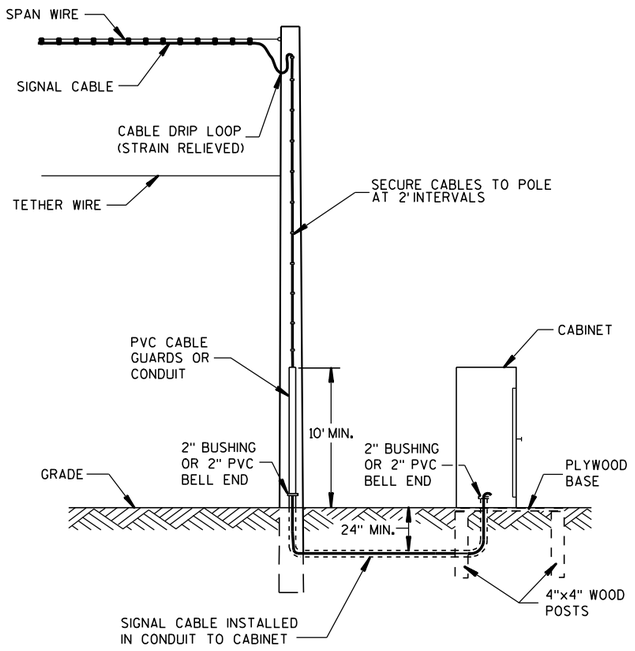
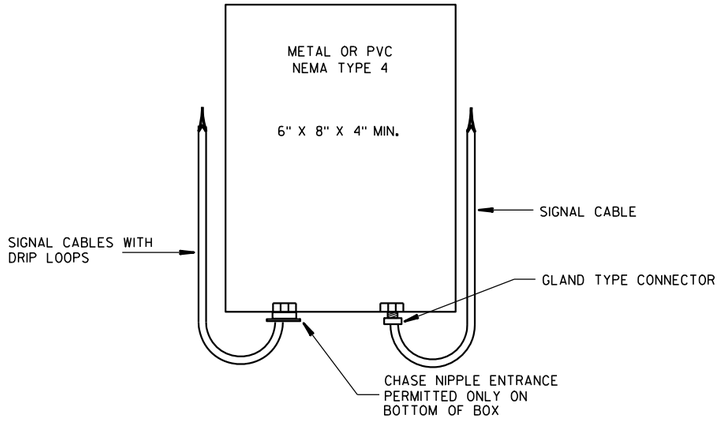
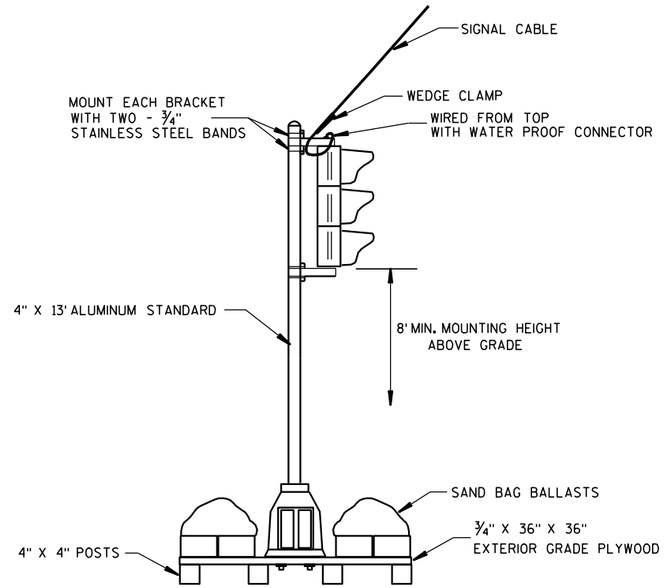
S.D.D. 9 G 1-3f

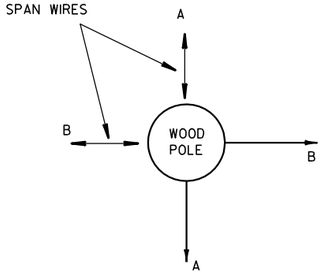




SPLICE BOX

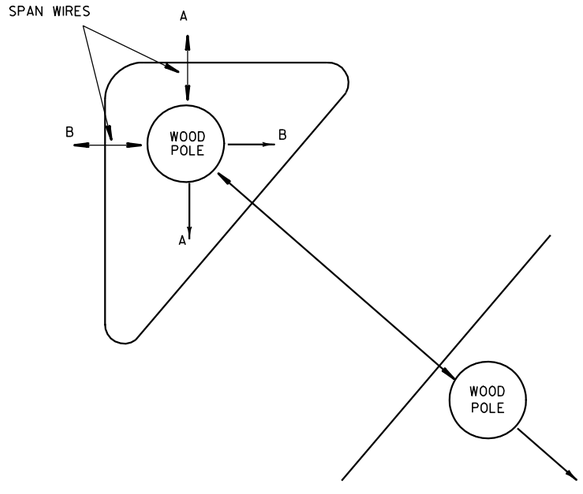


TYPICAL SKID TYPE TEMPORARY

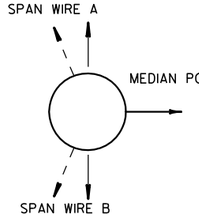


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF THE
SPAN LOADING

MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08
DATE

/S/ Balu Aganthangayagan
STATE ELECTRICAL ENGI 551 HWYS

FHWA

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S.D.D. 9 G 1-3g

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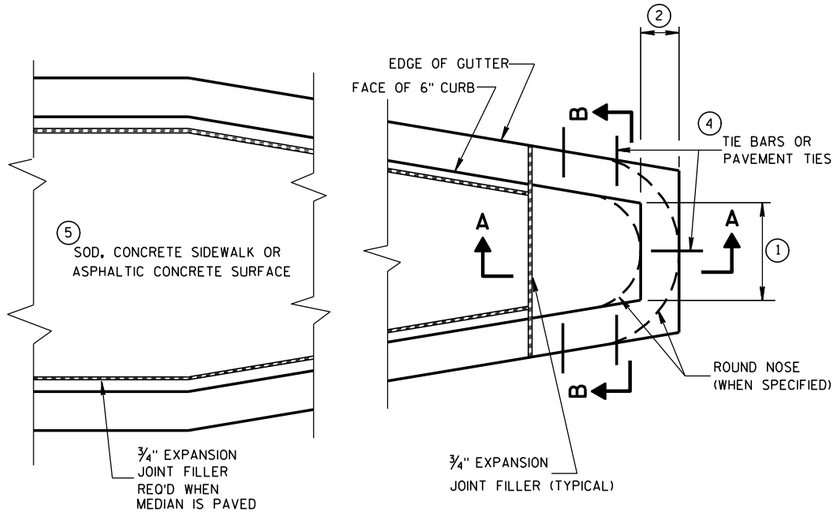
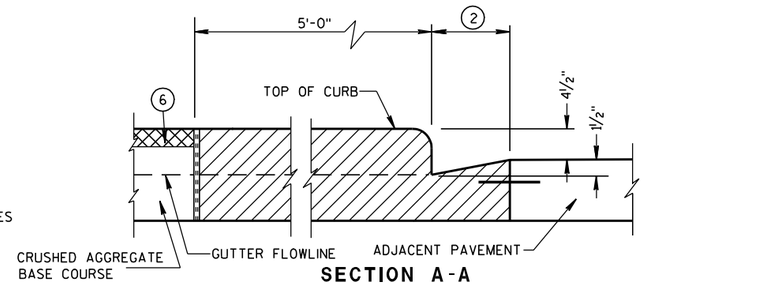




CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

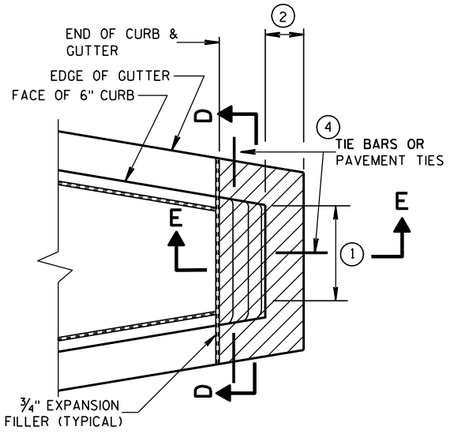
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

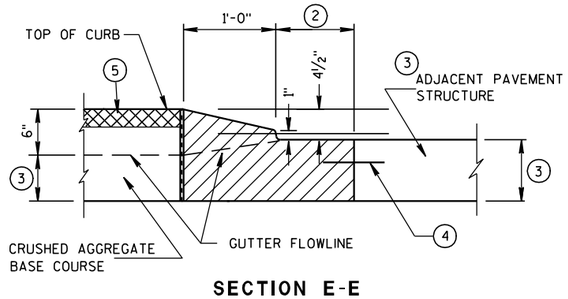
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

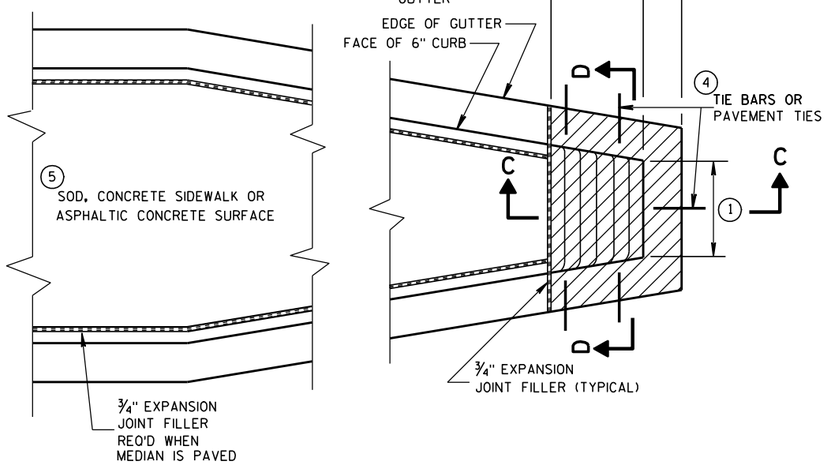
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

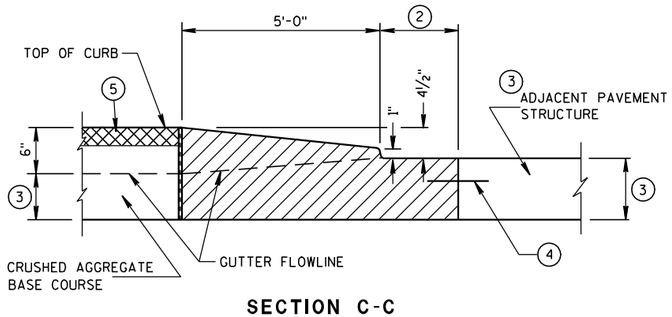




SECTION E-E

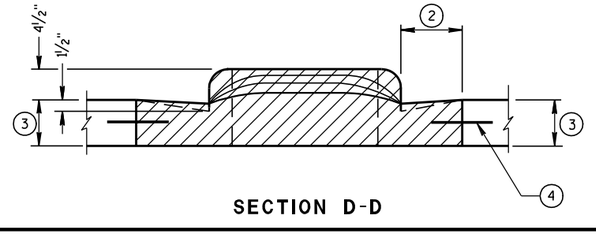
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS | 552 NT
ENGINEER

FHWA

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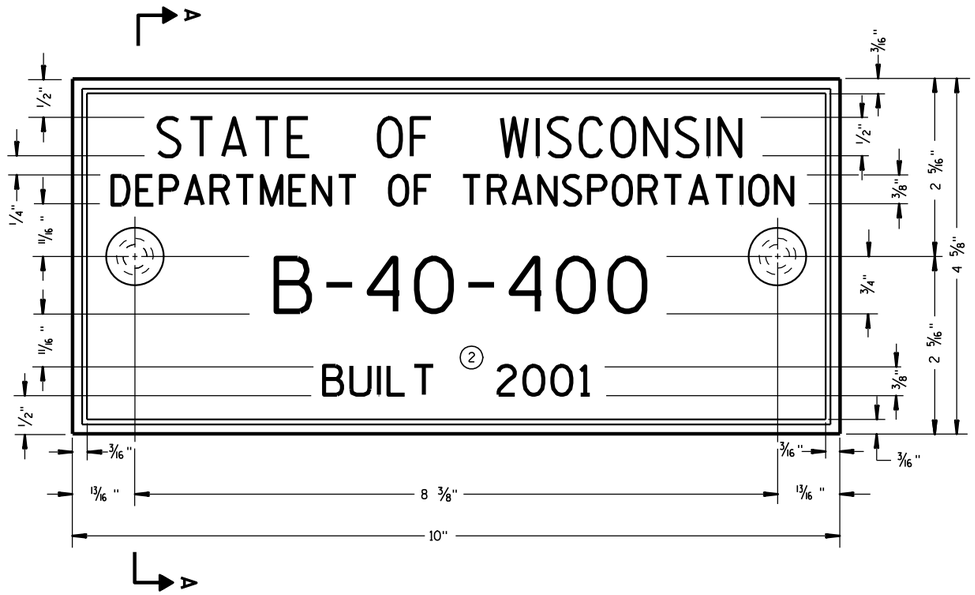
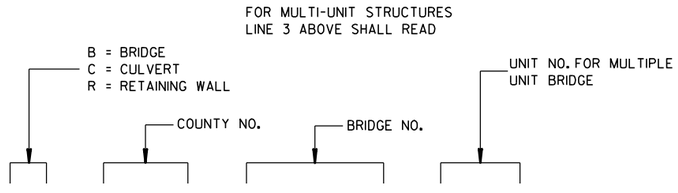


TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

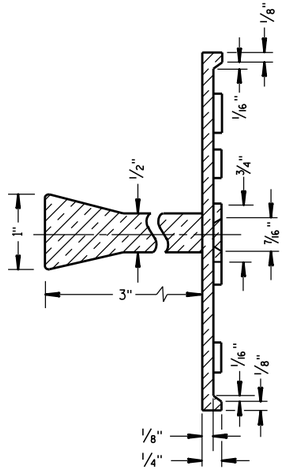
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

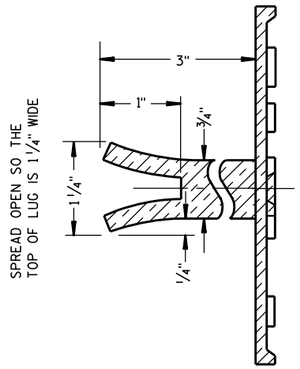
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

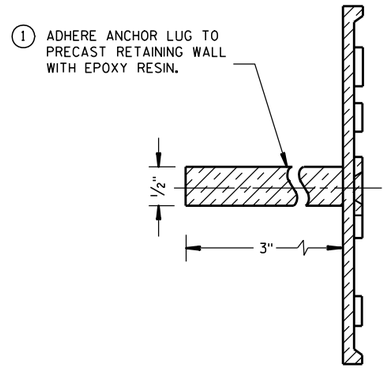
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

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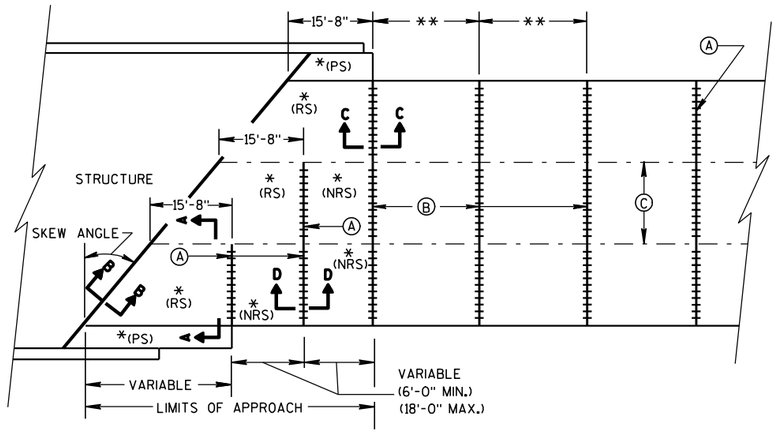
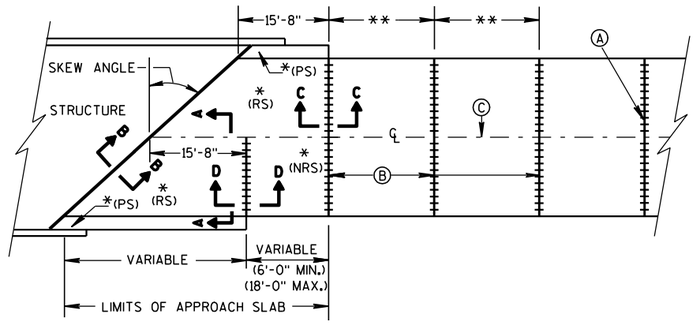
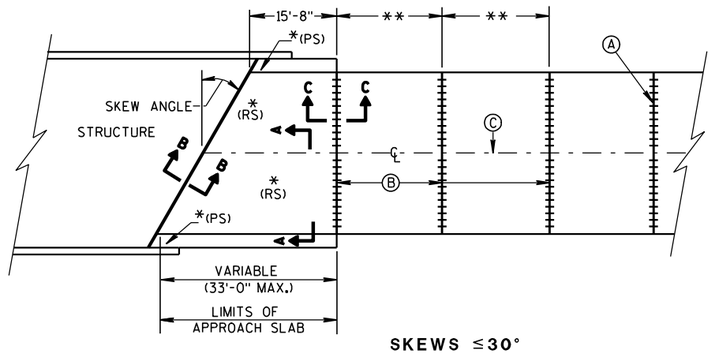


SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



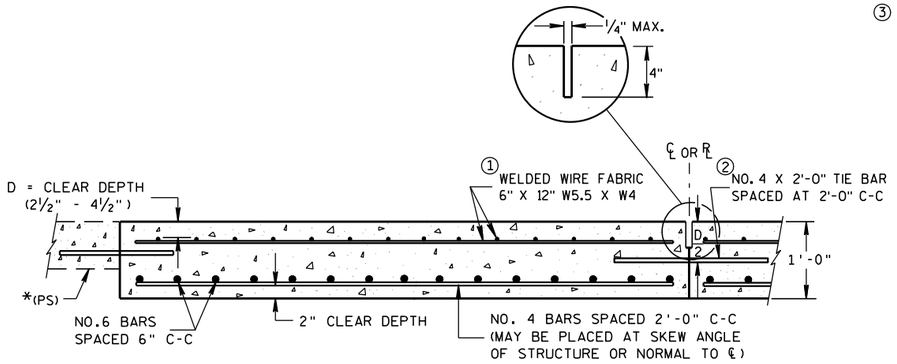
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

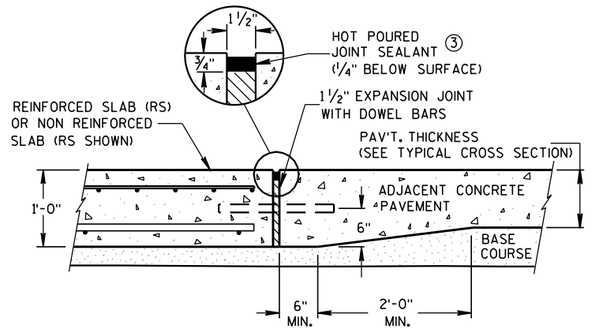
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C4, SDD 13C11, & SDD 13C13)

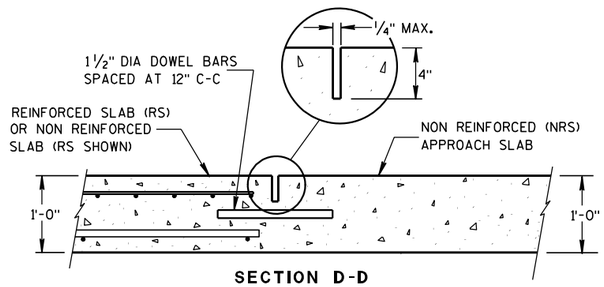
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

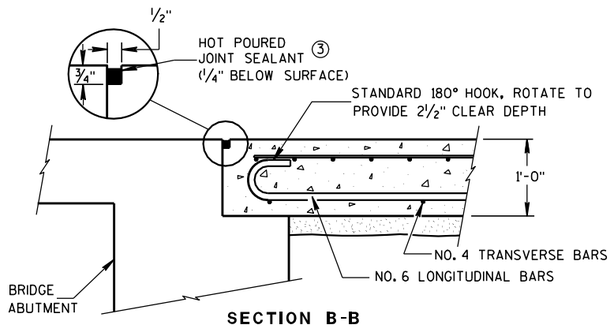
APPROACH SLABS ABUTTING AN HMA PAVEMENT OVER BASE COURSE DO NOT NEED TO BE DOWELED.

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

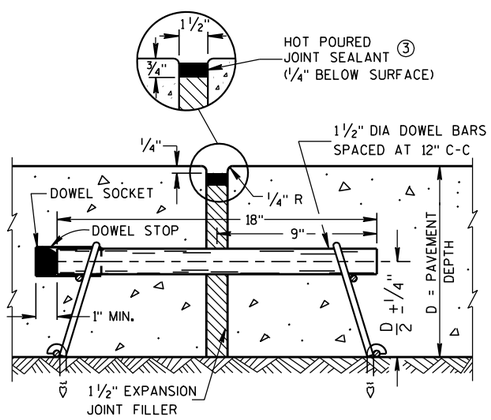
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

③ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



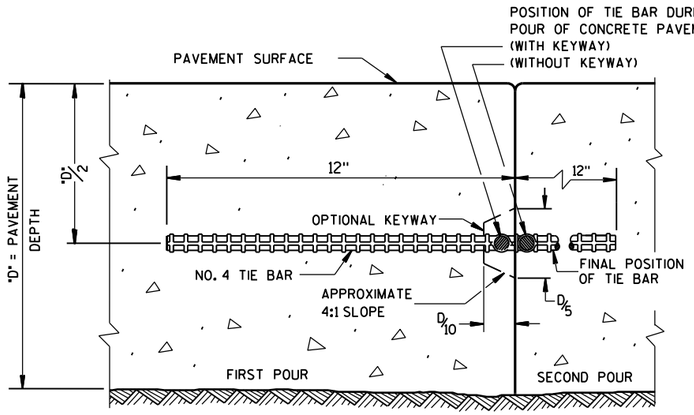
EXPANSION JOINT

CONCRETE PAVEMENT APPROACH SLAB

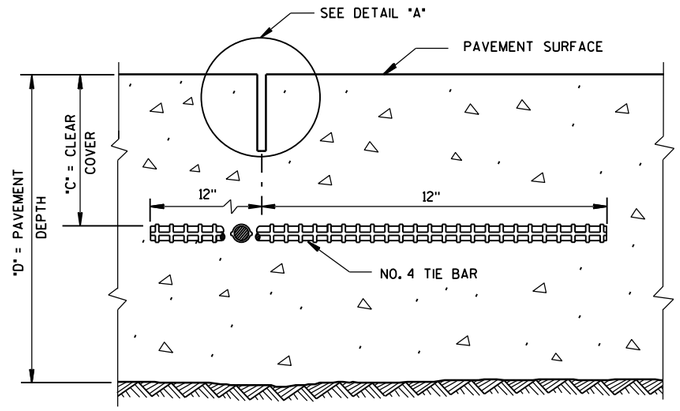
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/11/2009 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DESIGN ENGINEER
FHWA

6
S.D.D. 13 B 2-6



CONSTRUCTION JOINT



SAWED JOINT

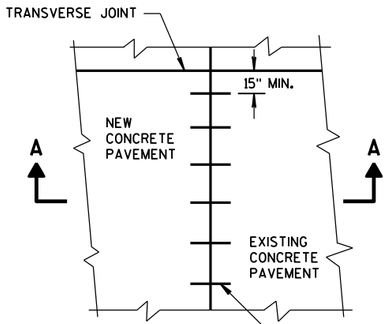
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

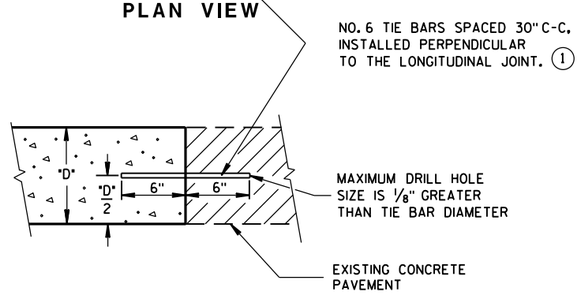
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

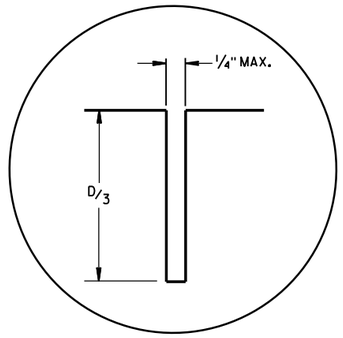


PLAN VIEW



SECTION A-A

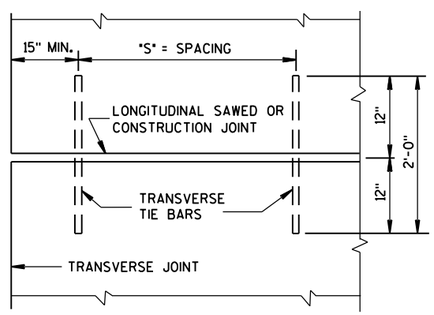
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-3-2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER

FHWA

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S.D.D. 13 C 1-16

6

S.D.D. 13 C 1-16

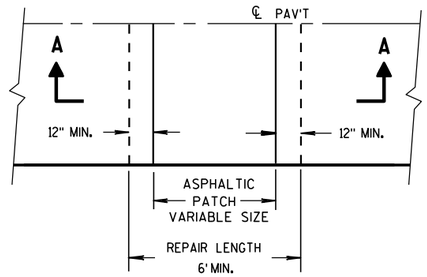
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

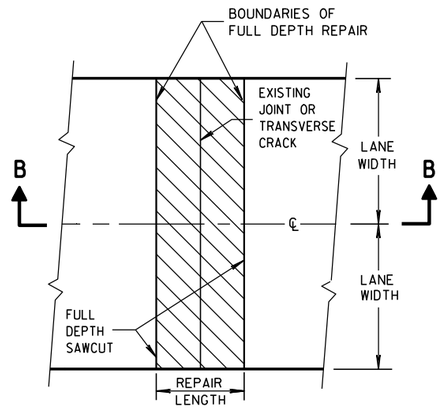
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

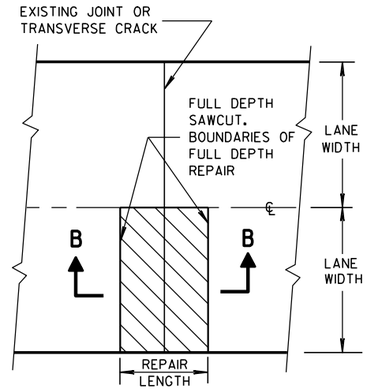
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW



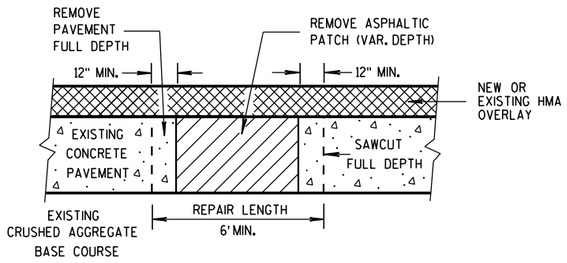
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

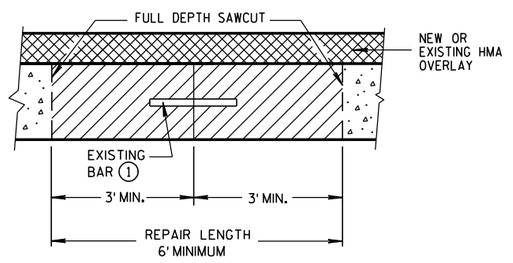
FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 14-4a

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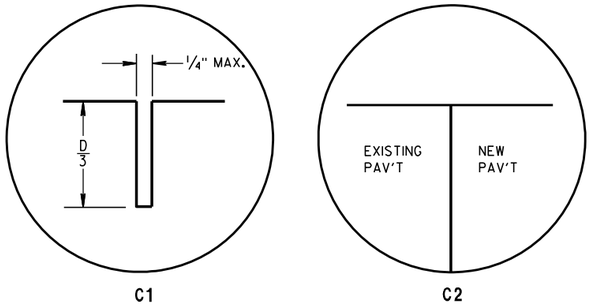
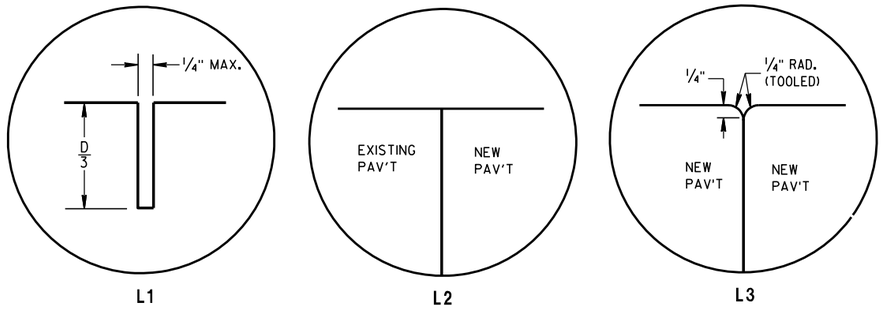
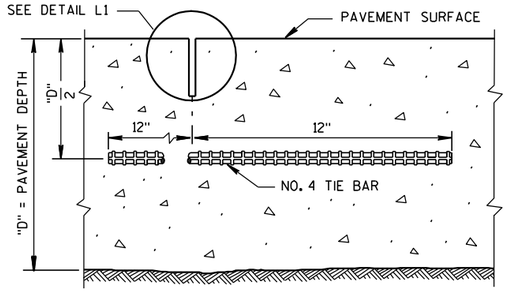
S.D.D. 13 C 14-4a



TRANSVERSE JOINTS

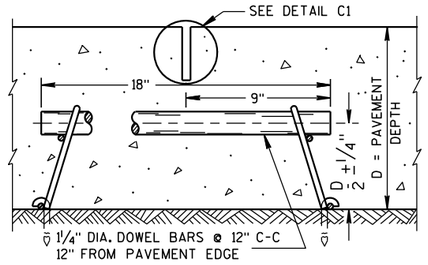


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

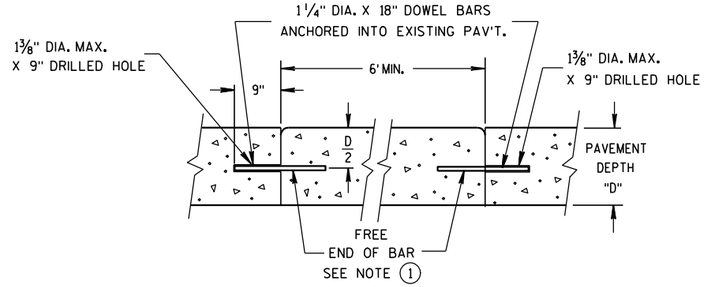
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

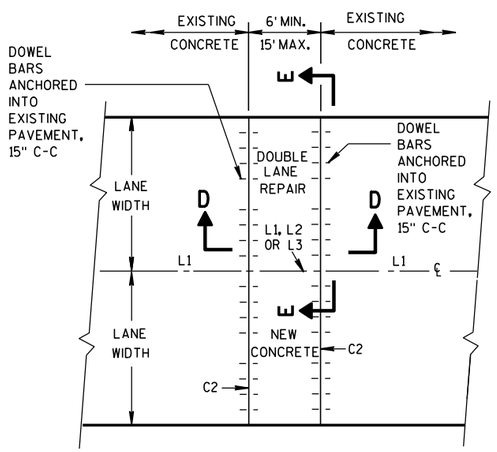
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

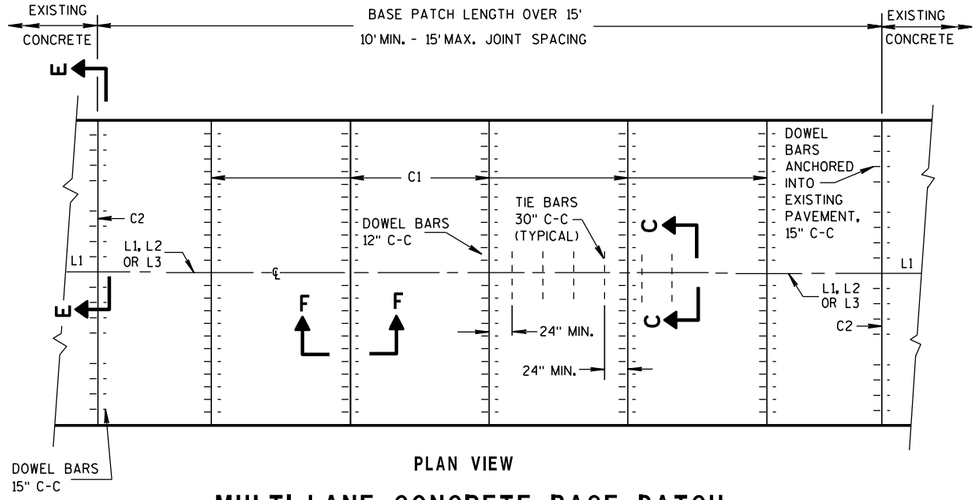


SECTION D-D



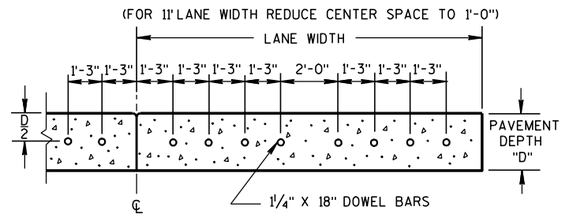
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH



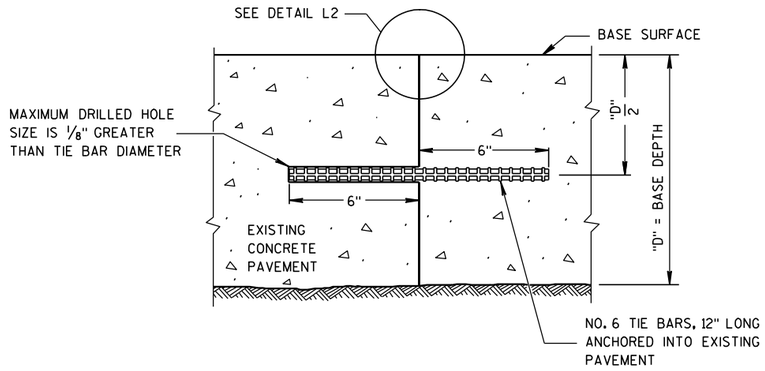
SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 13 C 14-4b



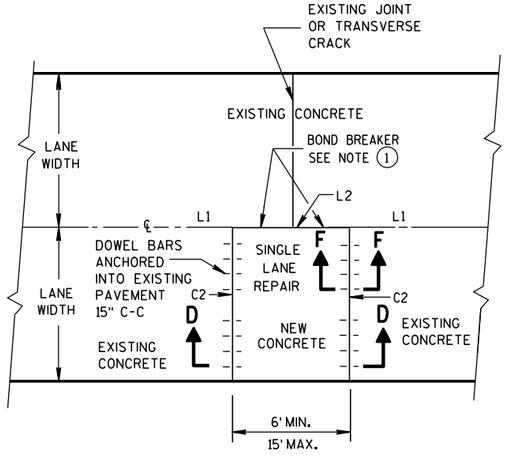
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

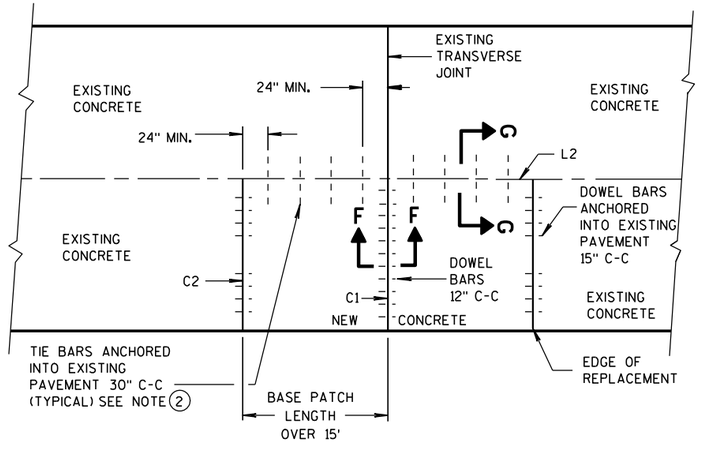
1. USE AN ENGINEER-APPROVED BOND BREAKER FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

2. WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12-11-2009 DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE 558 NEER

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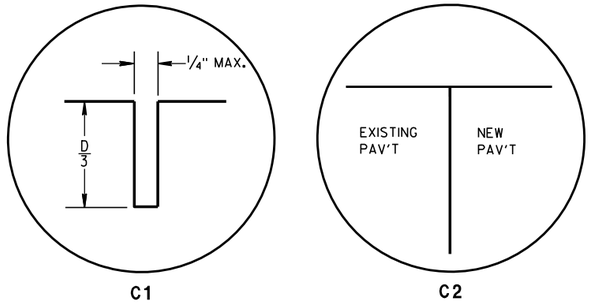
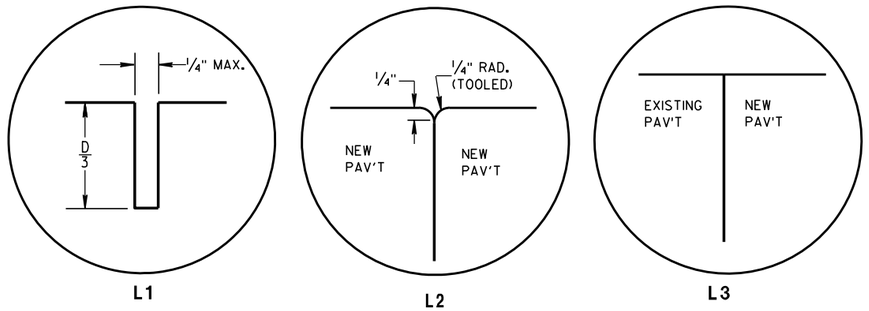
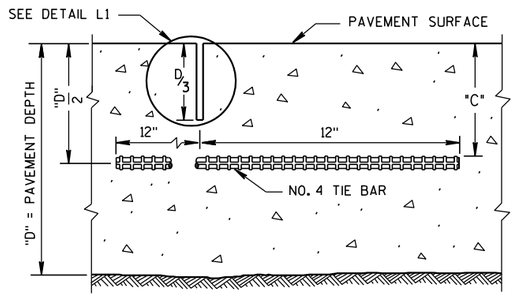
S.D.D. 13 C 14-4c



TRANSVERSE JOINTS

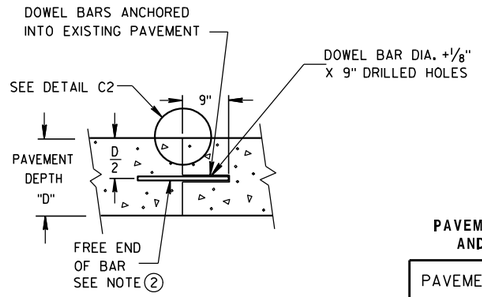


LONGITUDINAL JOINTS



SECTION C-C

SAWED JOINT



SECTION D-D

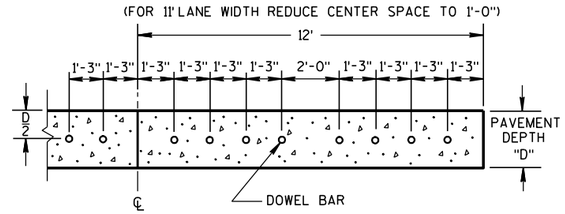
GENERAL NOTES

ANCHOR TIE BARS AND DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

(2) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION E-E

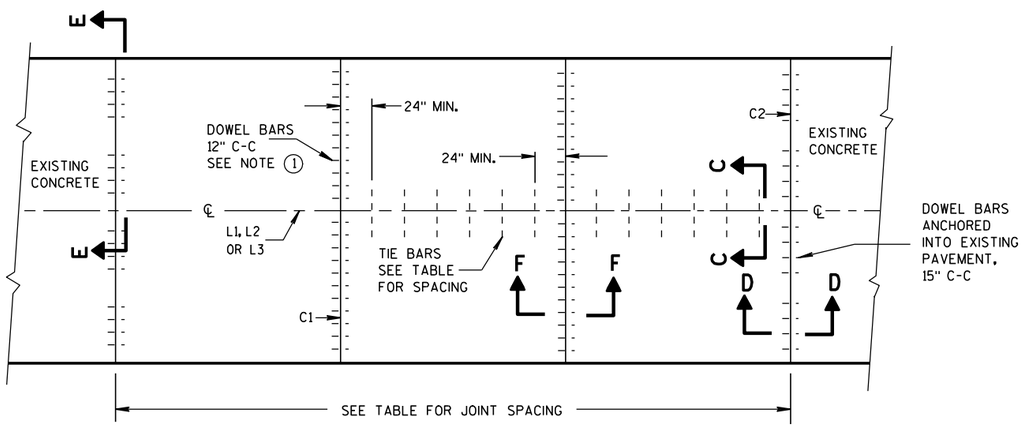
SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH "D"	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5½", 6, 6 ½"	NONE	12'
7, 7 ½"	1"	14'
8, 8 ½"	1 ¼"	15'
9, 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

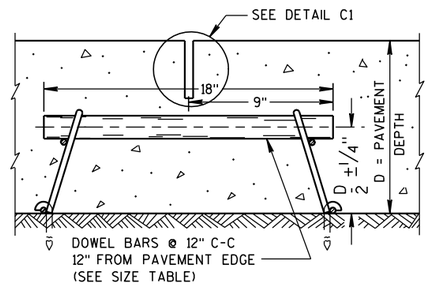
TIE BAR LOCATION TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING C-C	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 ½"	3"±½"	48"	42"
7, 7 ½"	3 ¼"±1"	45"	36"
8, 8 ½"	3 ¾"±1"	39"	30"
9, 9 ½"	4 ¼"±1"	33"	27"
10, 10 ½"	4 ¾"±1"	30"	24"
11, 11 ½"	5 ¼"±1"	27"	21"
12"	5 ¾"±1"	24"	21"



PLAN VIEW

CONCRETE BASE CONTRACTION JOINT LOCATIONS



SECTION F-F

CONTRACTION JOINT

CONCRETE BASE

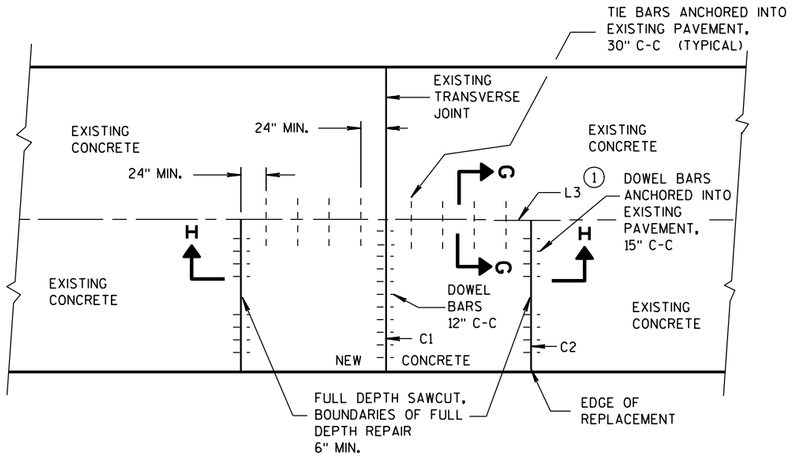
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 15-5a

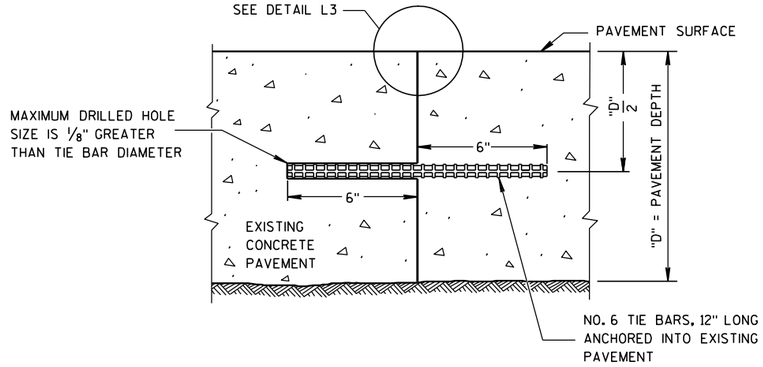
GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.



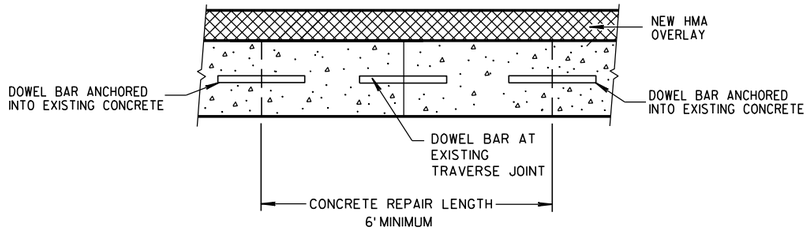
PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR



SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



SECTION H-H

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12-11-2009 DATE
/S/ Deb Bischoff PAVEMENT POLICY & D 560 INEER
FHWA

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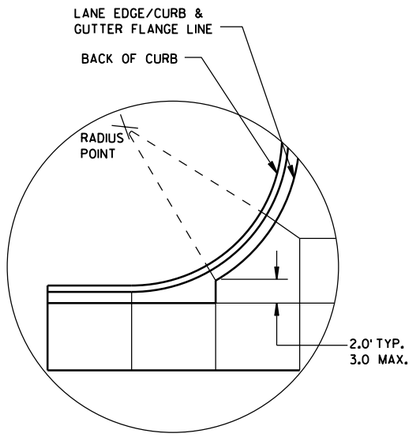
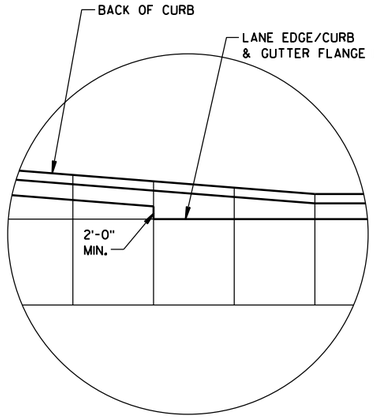
S.D.D. 13 C 15-5b



DETAIL "A"



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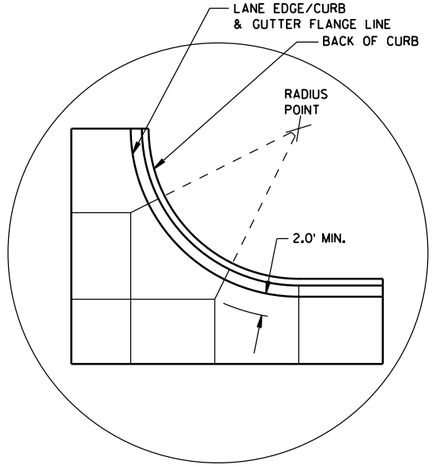

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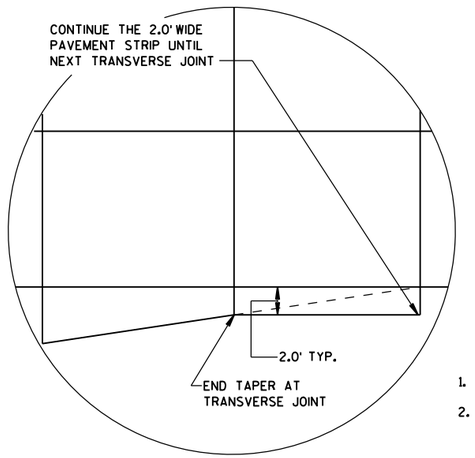


DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

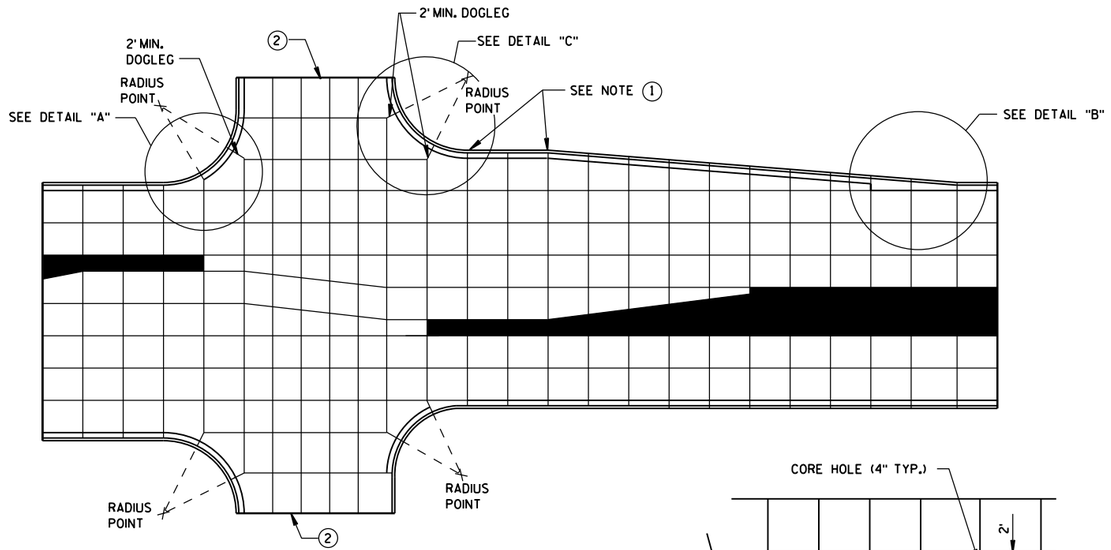
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

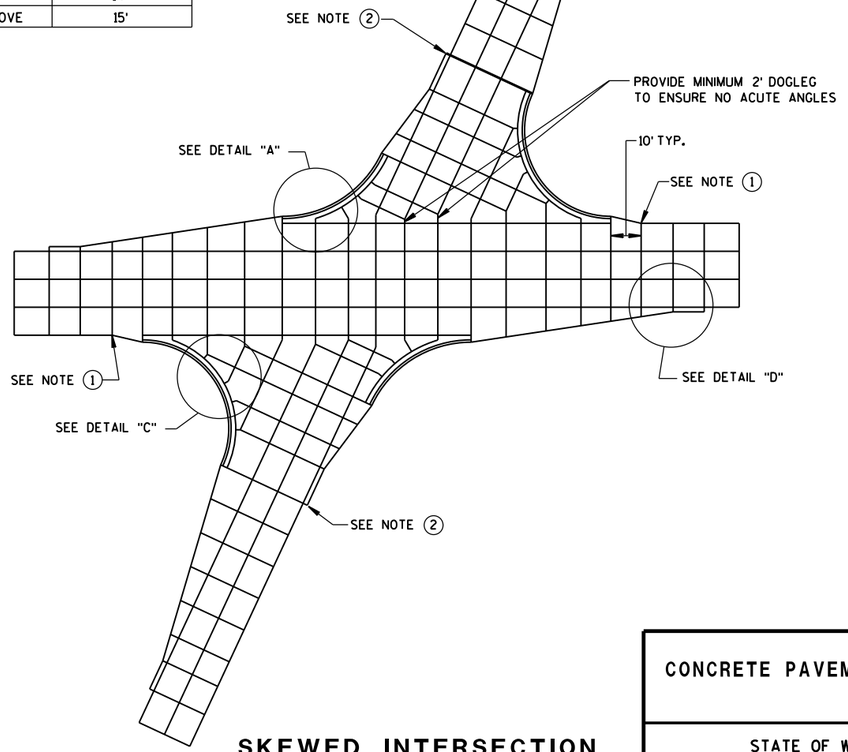
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



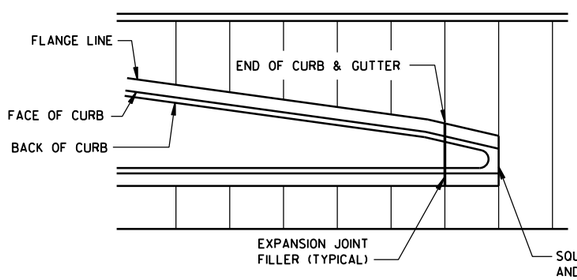
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

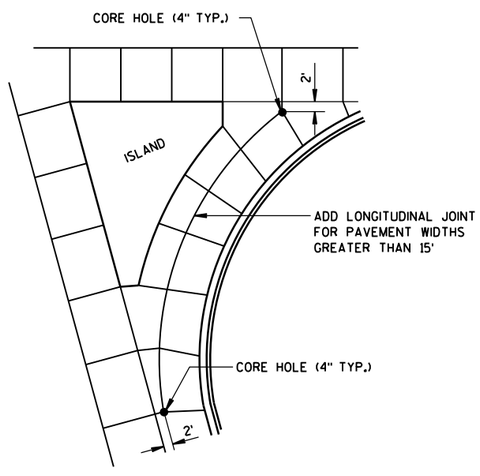
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

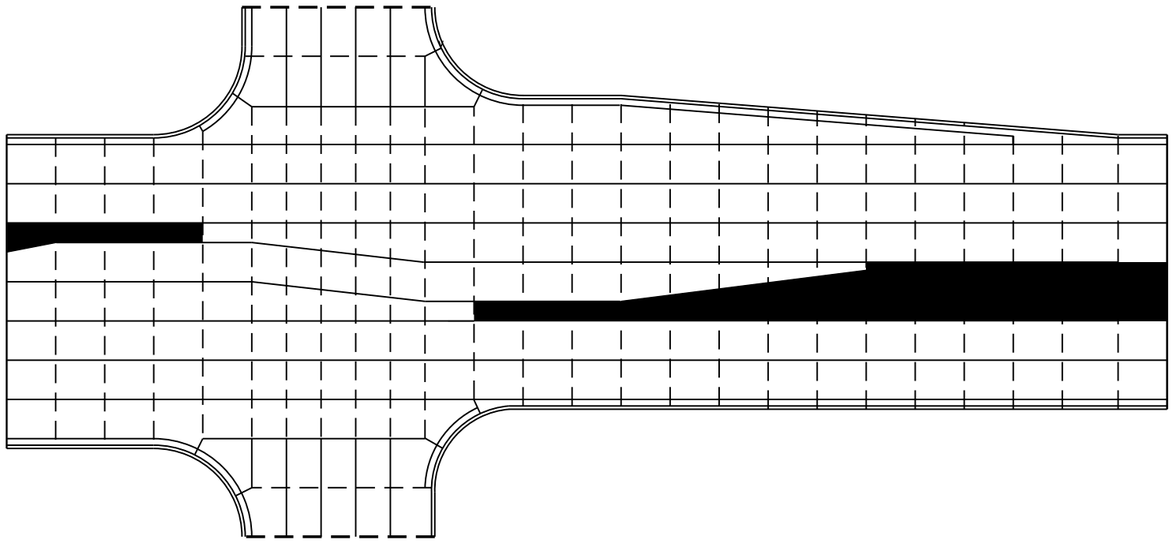
6
S.D.D. 13 C 18-2a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

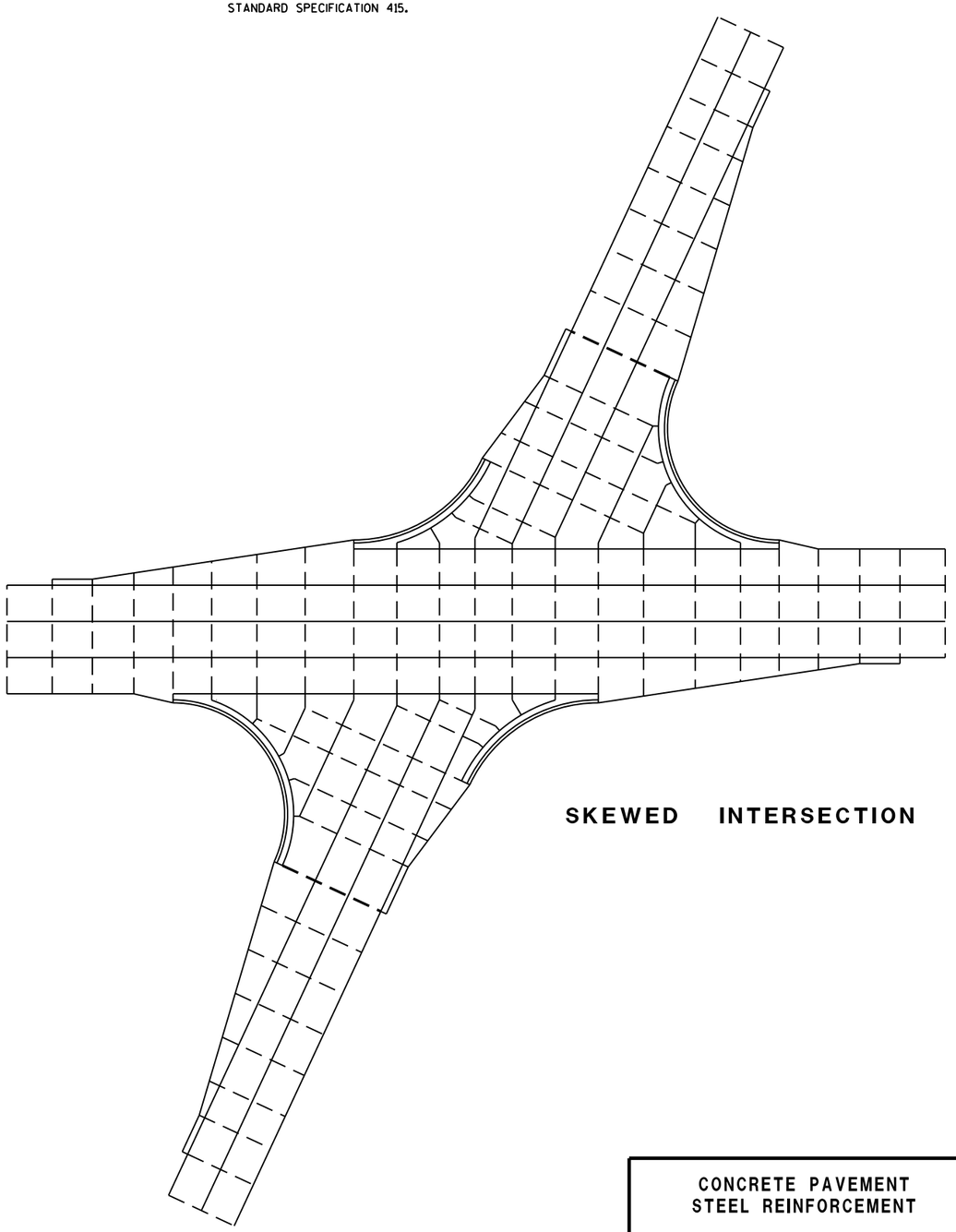
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

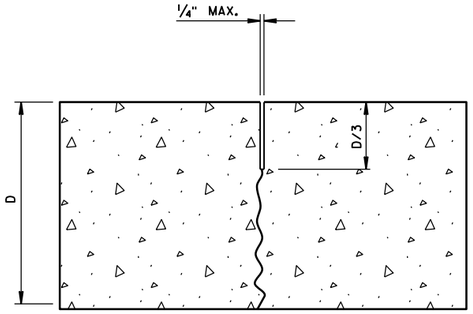
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

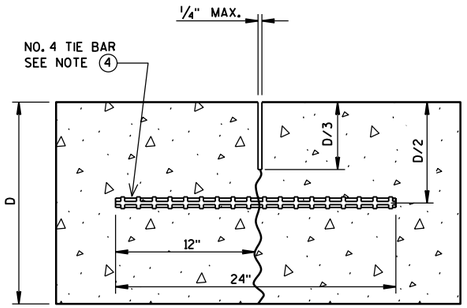
S.D.D. 13 C 18-2b

6

S.D.D. 13 C 18-2b



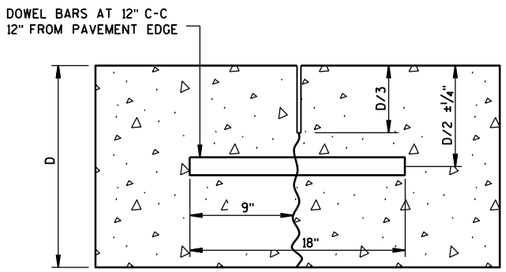
UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

GENERAL NOTES

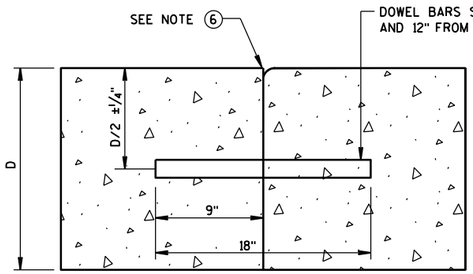
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



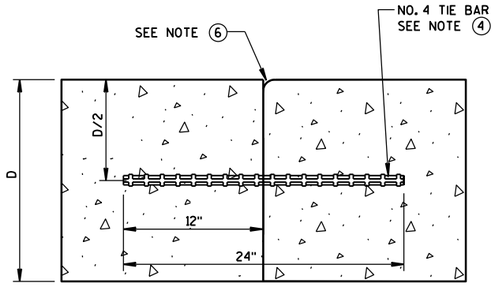
DOWELED-TRANSVERSE

CONTRACTION JOINTS

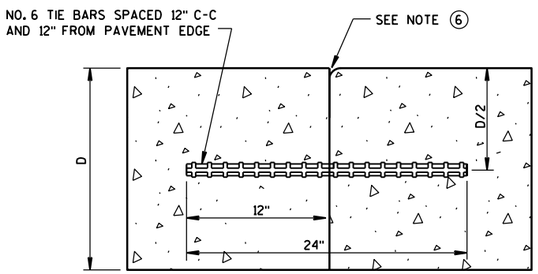
SEE NOTE (2)



DOWELED TRANSVERSE

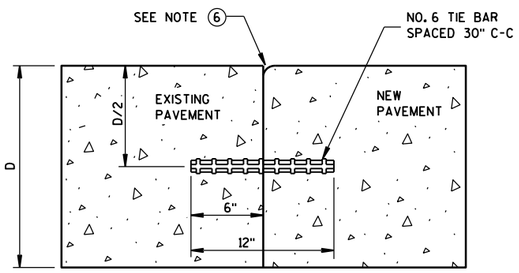


TIED LONGITUDINAL



TIED TRANSVERSE

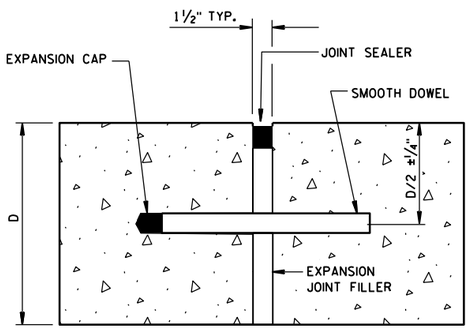
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

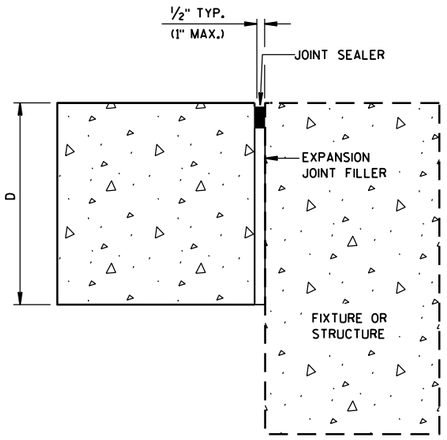
CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

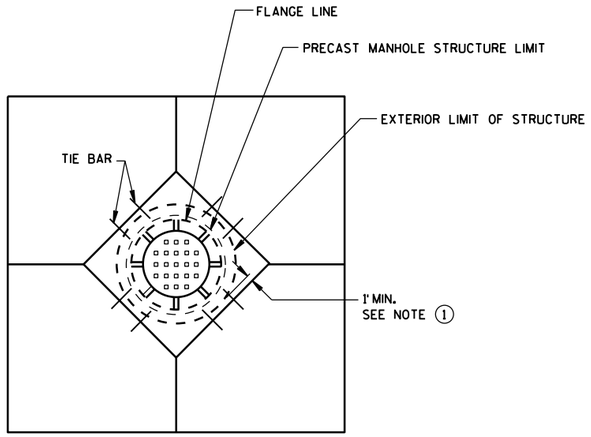
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

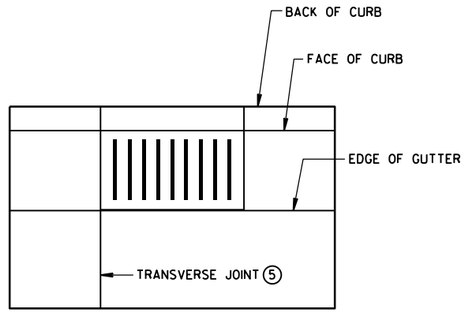
S.D.D. 13 C 18-2c

6

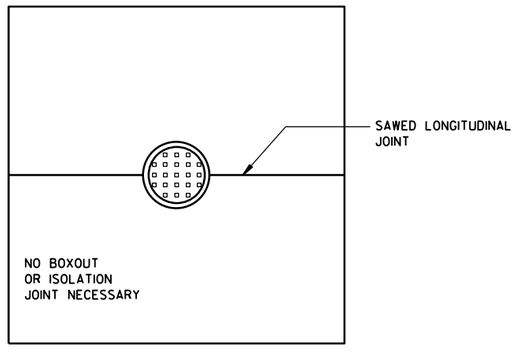
S.D.D. 13 C 18-2c



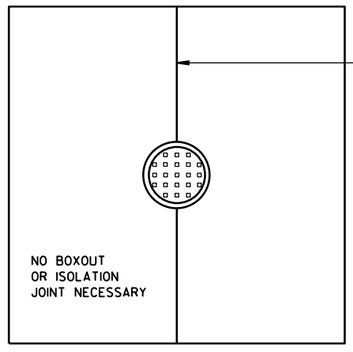
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



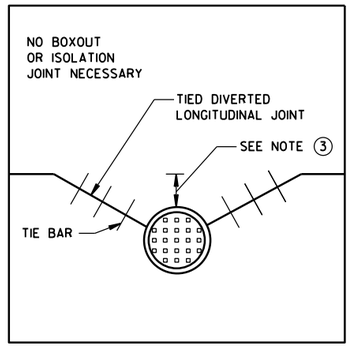
INLET WITH TRANSVERSE JOINT



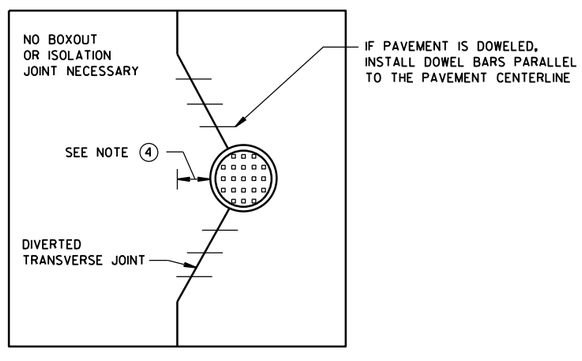
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-3-2013
DATE

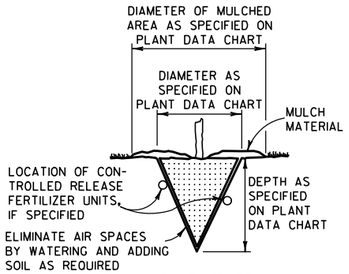
/S/ Deb Bischoff
PAVEMENT POLICY & DE

NEER

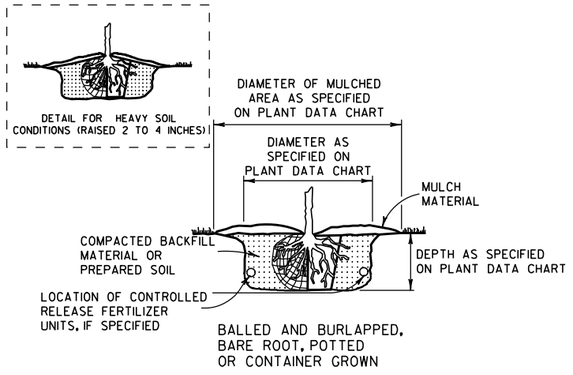
FHWA

6

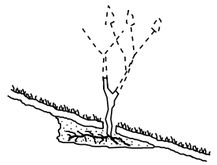
S.D.D. 13 C 18-2d



MACHINE MOVED

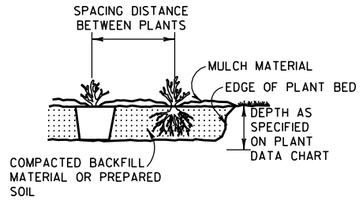


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



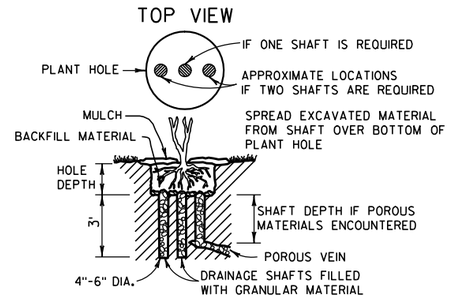
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



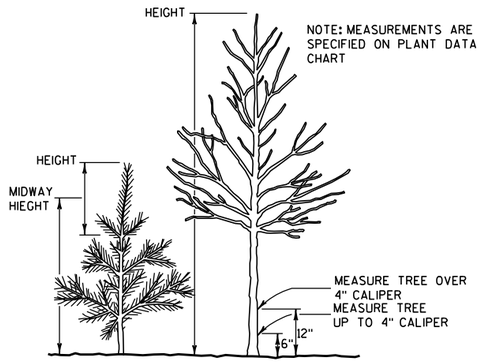
PREPARED BED (BARE ROOT AND POTTED)

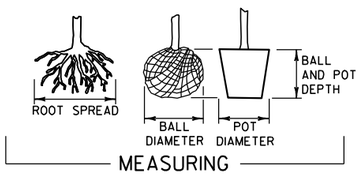
PLANTING



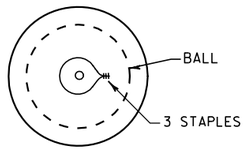
NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

DRAINING

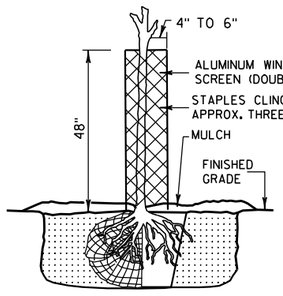




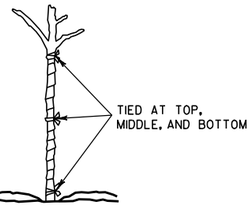
MEASURING



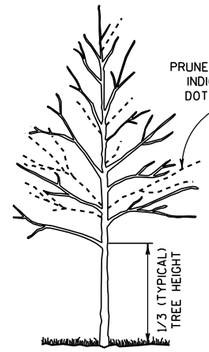
TOP VIEW



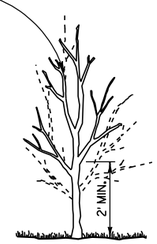
RODENT PROTECTION



WRAPPING



TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)



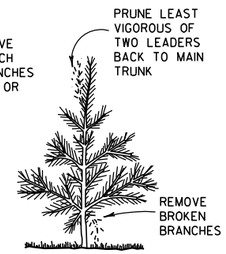
SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)

MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES

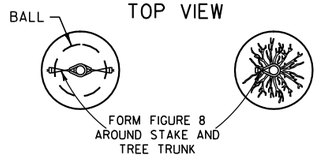
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

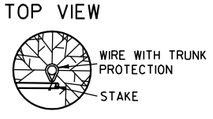
SUMAC

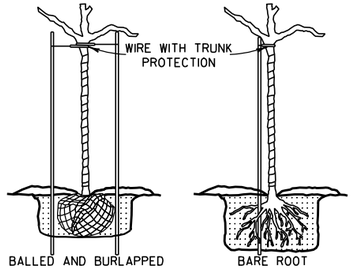


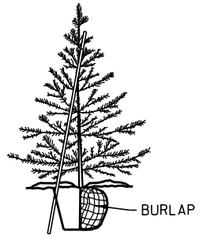
TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

PRUNING



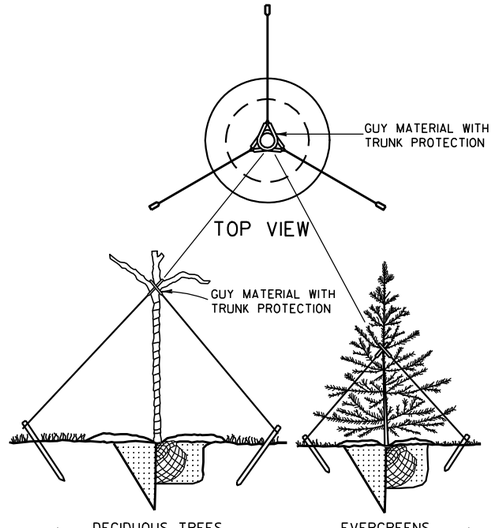






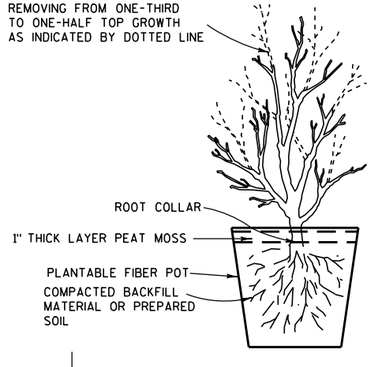
NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING

PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE



POTTING

NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

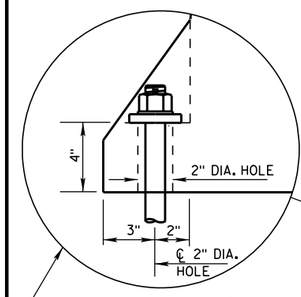
TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

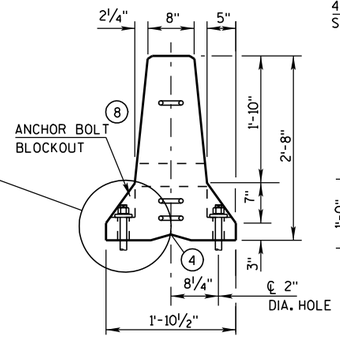
APPROVED
4/11/94
DATE
/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

6

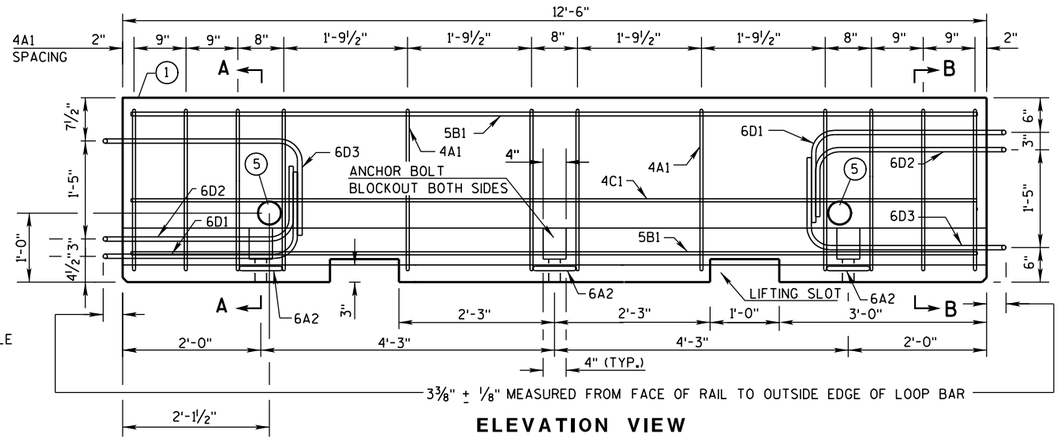
S.D.D. 14 A 2-1



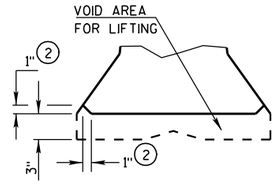
ANCHOR ON TRAFFIC SIDE (8) ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL)



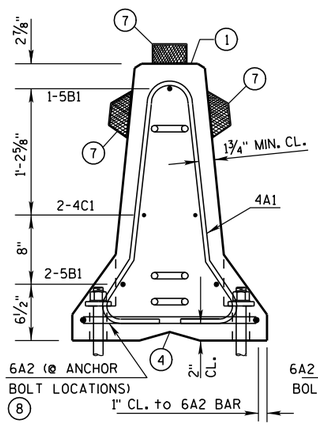
END VIEW



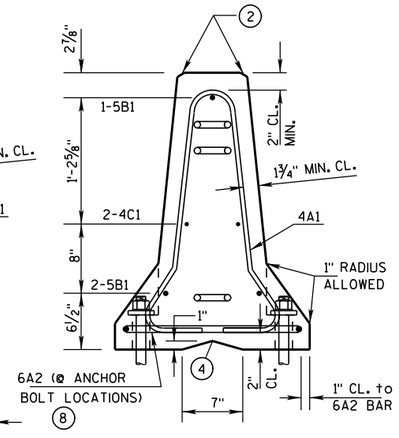
ELEVATION VIEW



DETAIL "B" LIFTING SLOT DETAIL



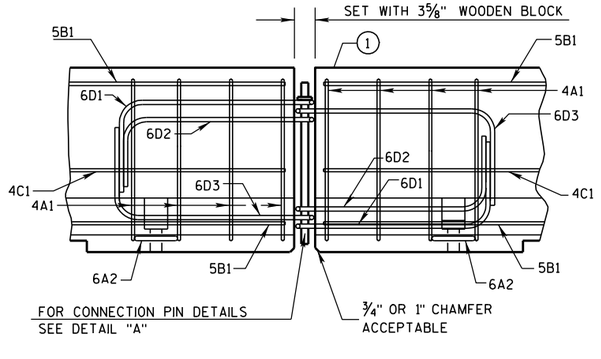
SECTION A-A
(STIRRUP PLACEMENT)



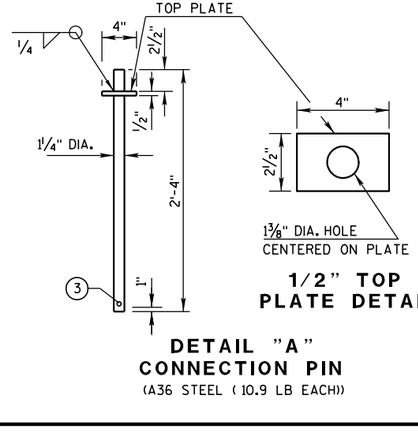
SECTION B-B
(STIRRUP PLACEMENT)

PLAN VIEW

DETAILS OF BARRIER SECTION

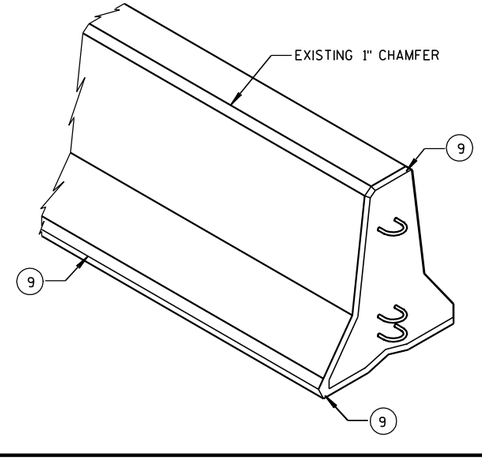


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A" CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WICBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

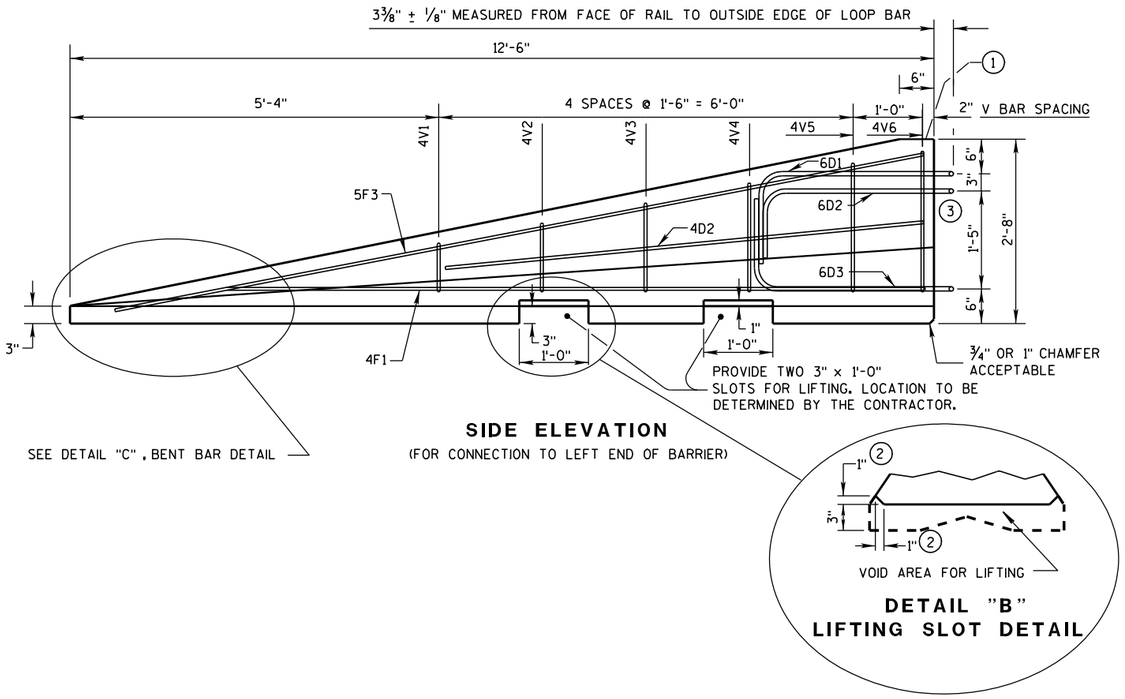
(8) SEE SHEET D FOR ANCHORING CRITERIA.

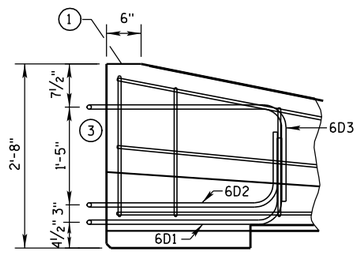
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6
S.D.D. 14 B 7-13a



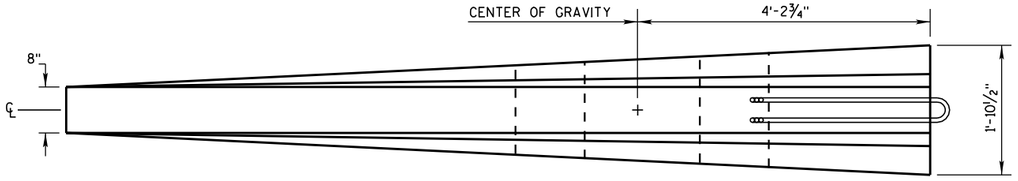


SIDE ELEVATION

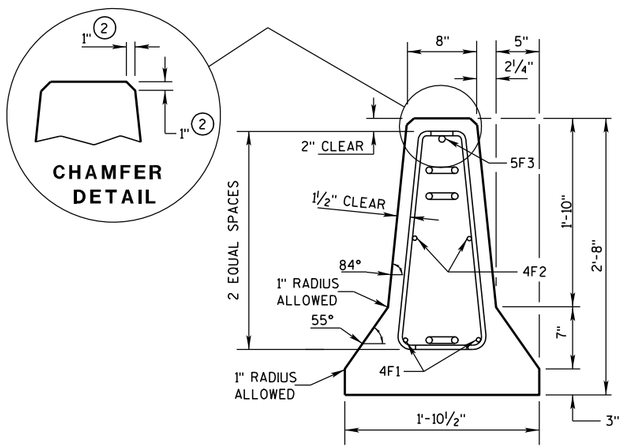
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

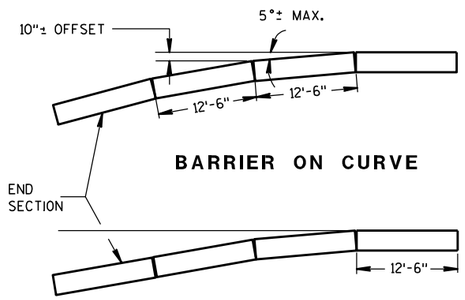
GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



PLAN VIEW





POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

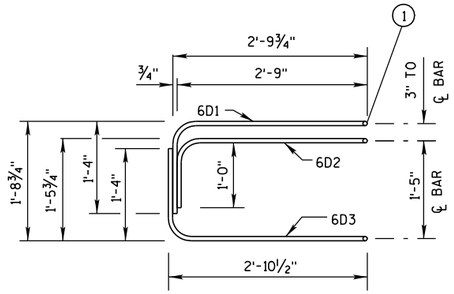
6

S.D.D. 14 B 7-13b

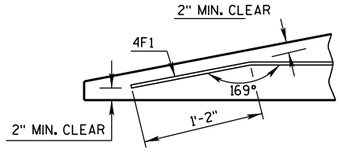
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

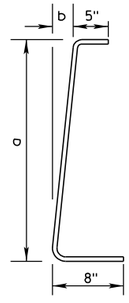
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

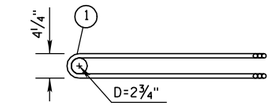
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

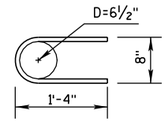
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

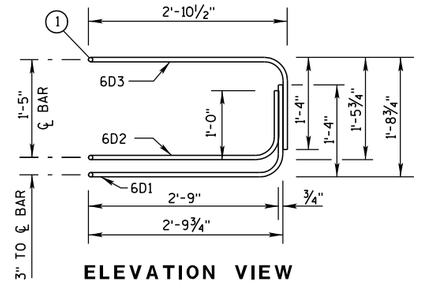
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



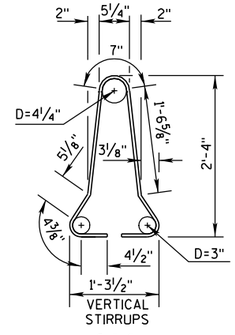
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



ELEVATION VIEW



4A1

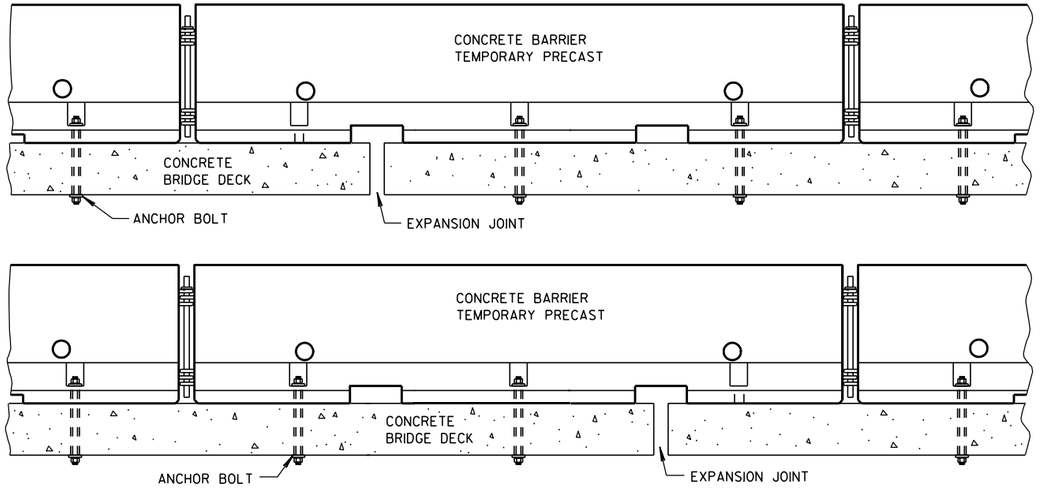
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

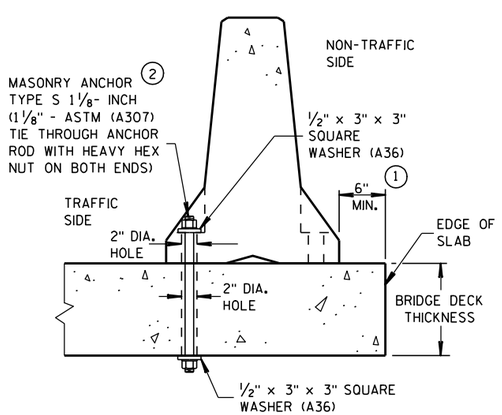
6

S.D.D. 14 B 7-13c



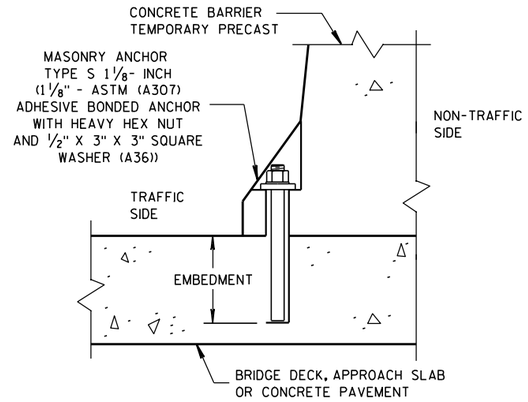
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR (2) INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

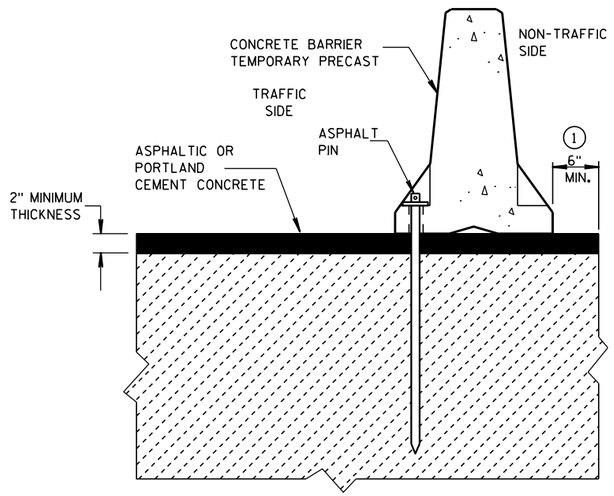
(1) CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

(2) ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

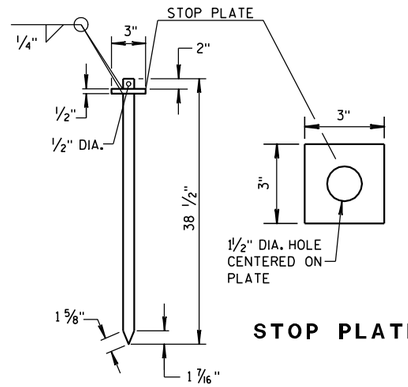
WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

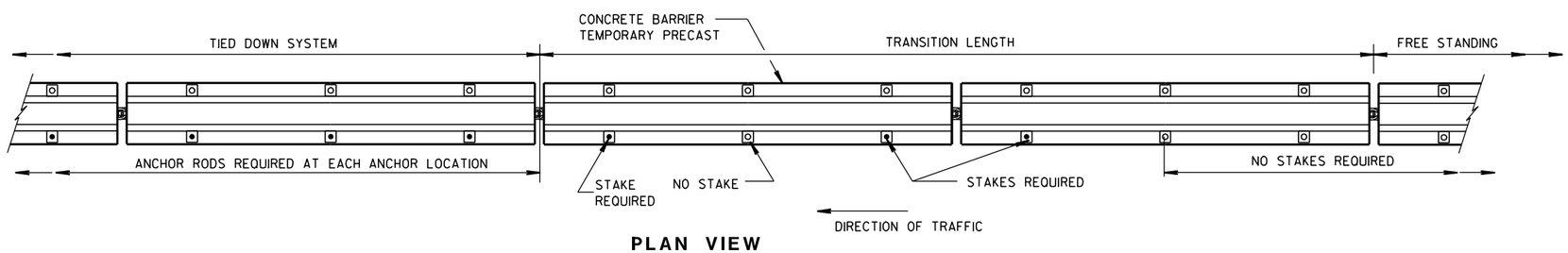
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



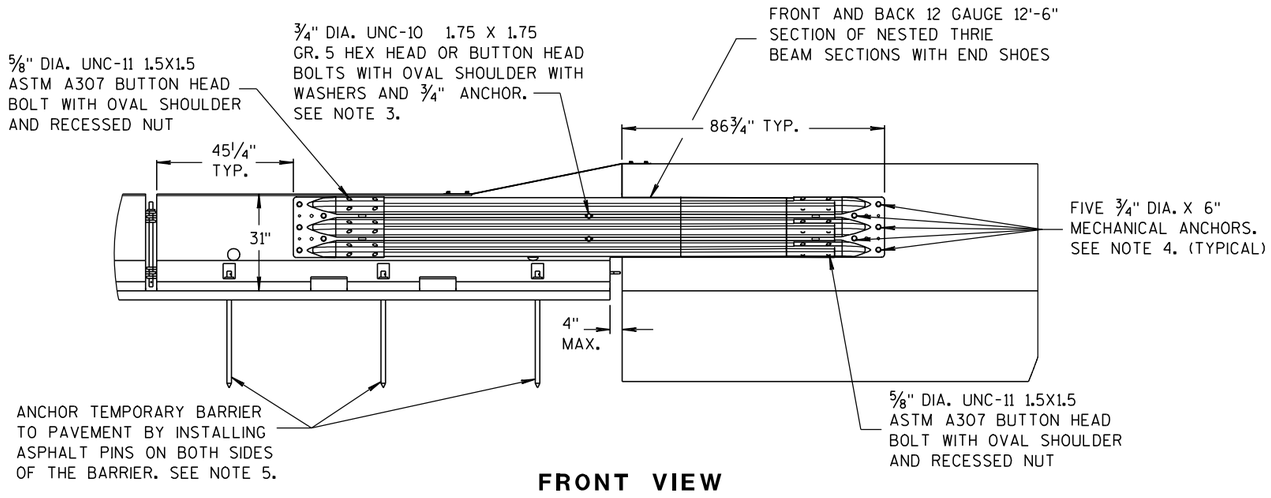
PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

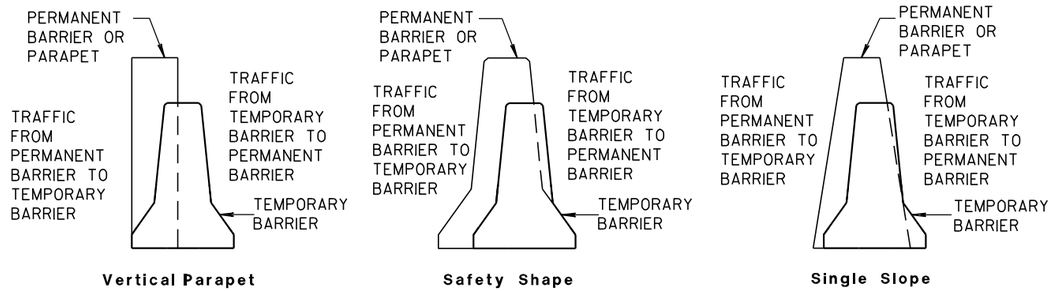
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

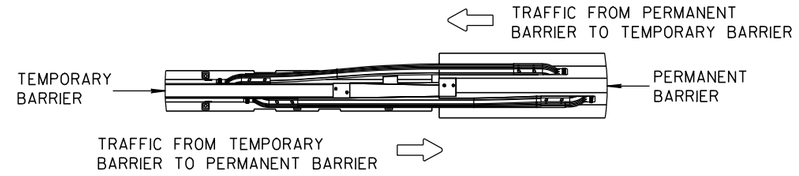


FRONT VIEW

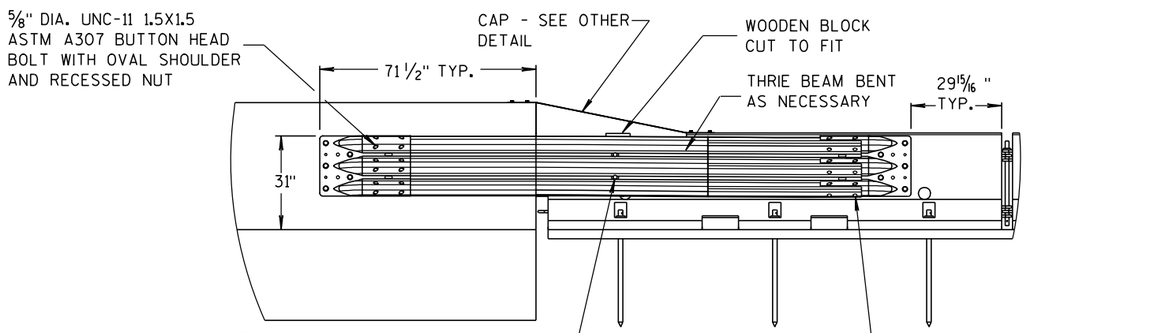
NOTES

1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

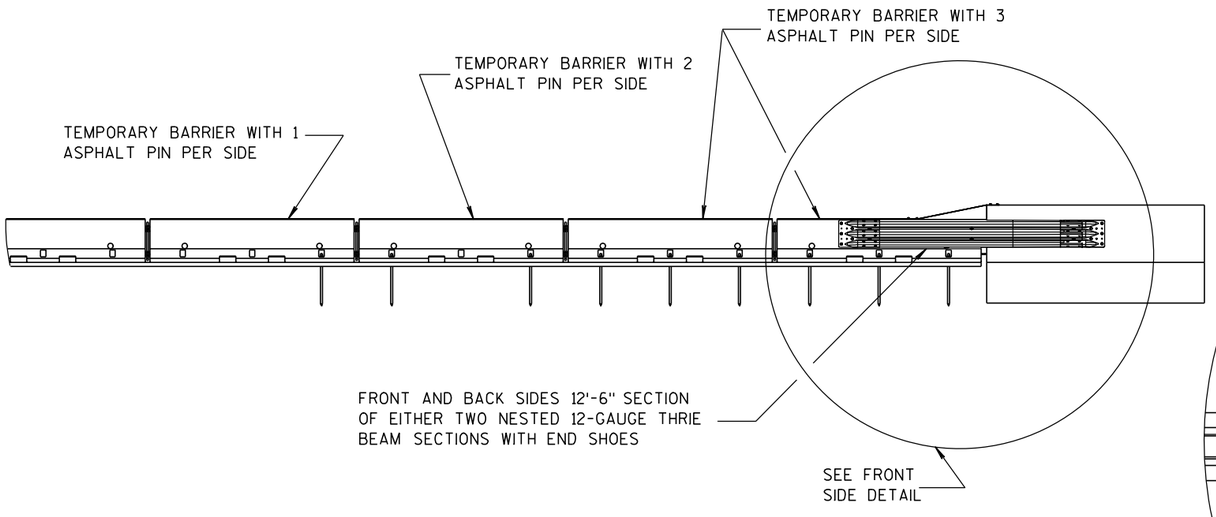




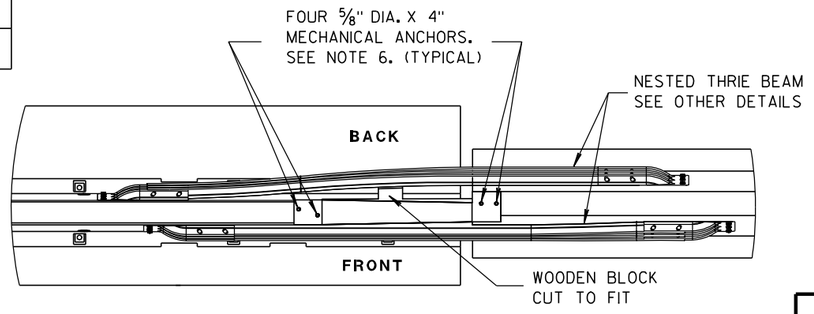
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



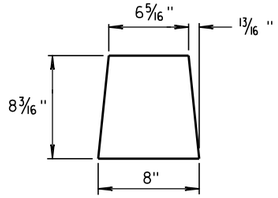
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

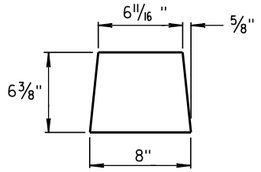
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-13e



GUSSET 1



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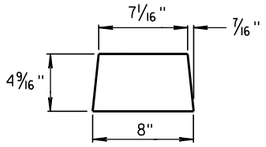

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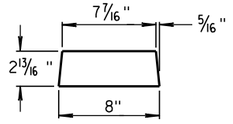
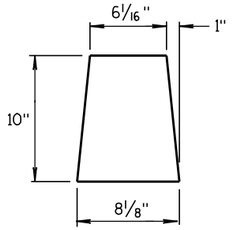
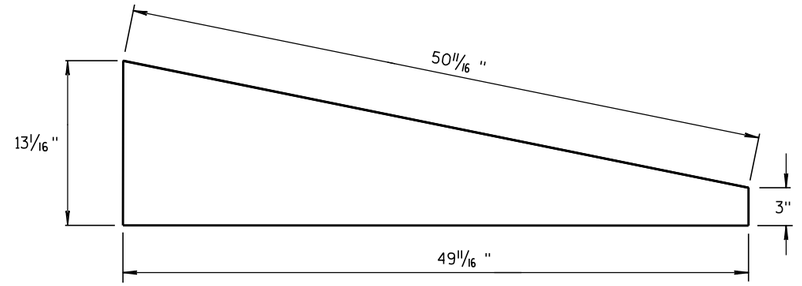


GUSSET 4

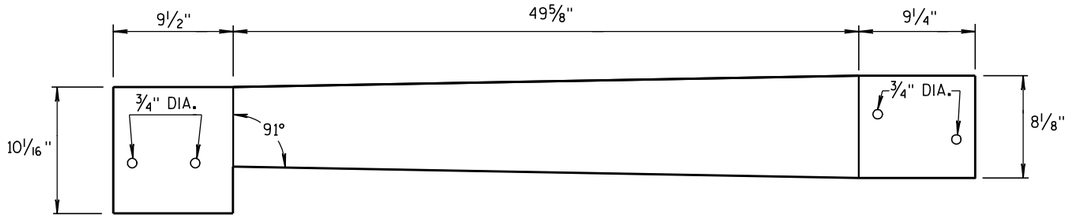
GUSSETS

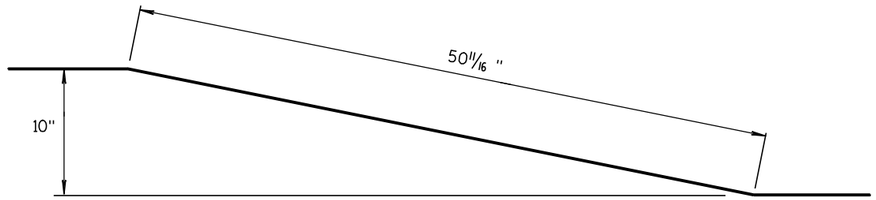


END PLATE

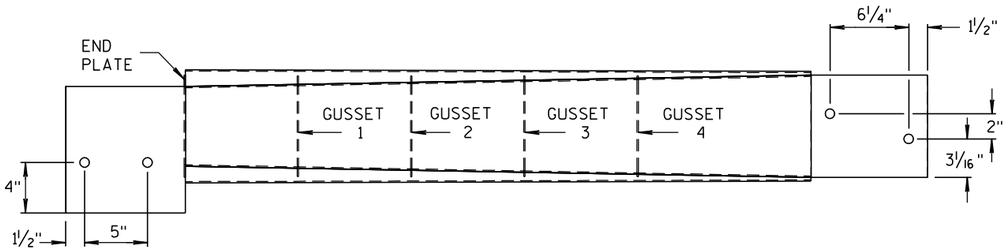


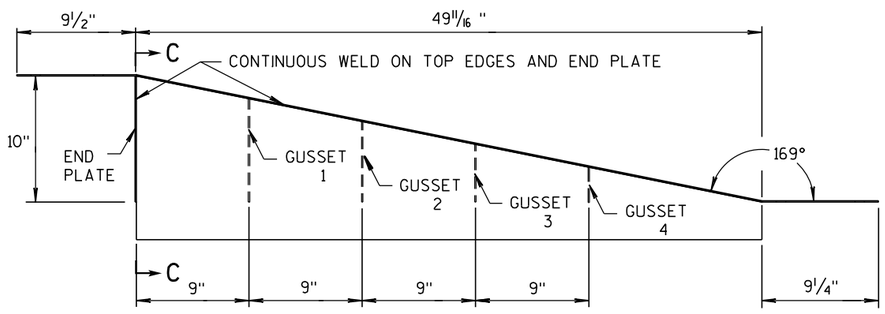
SIDE PLATE

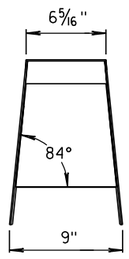




TOP PLATE







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
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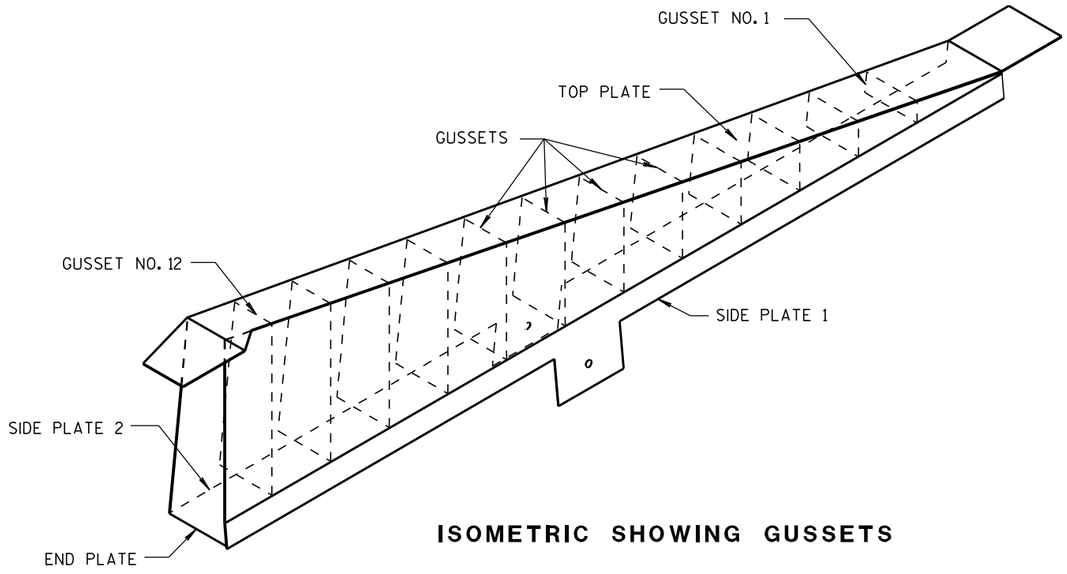
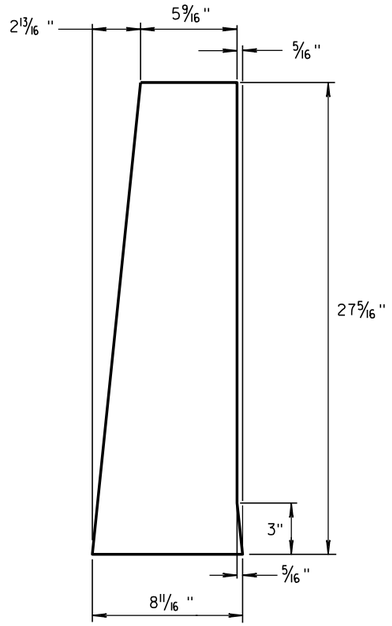
S.D.D. 14 B 7-13f

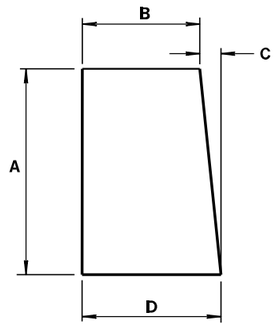


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



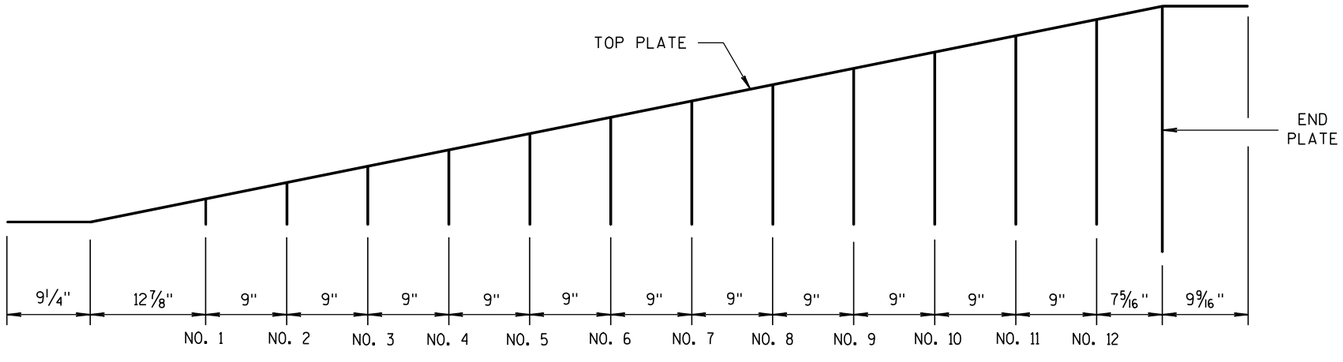
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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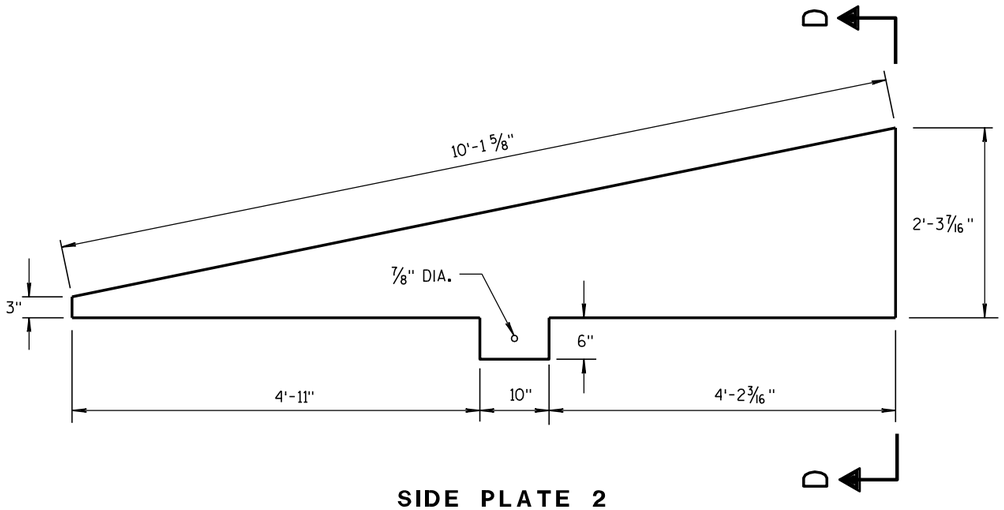
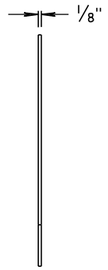
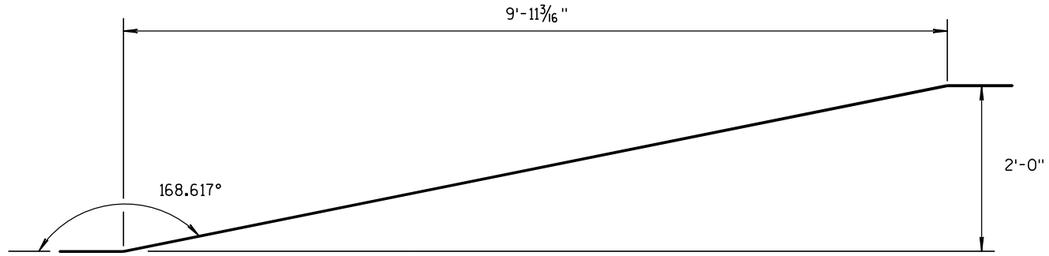
S.D.D. 14 B 7-13g



SIDE PLATE 2

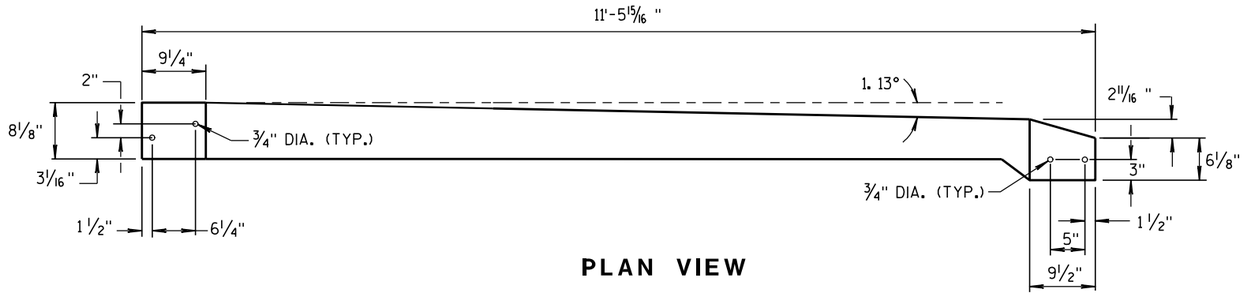


END VIEW



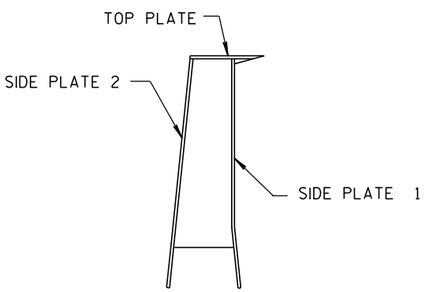
SIDE VIEW

TOP PLATE

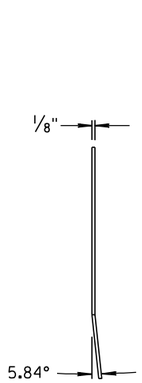


PLAN VIEW

TOP PLATE



SECTION D-D



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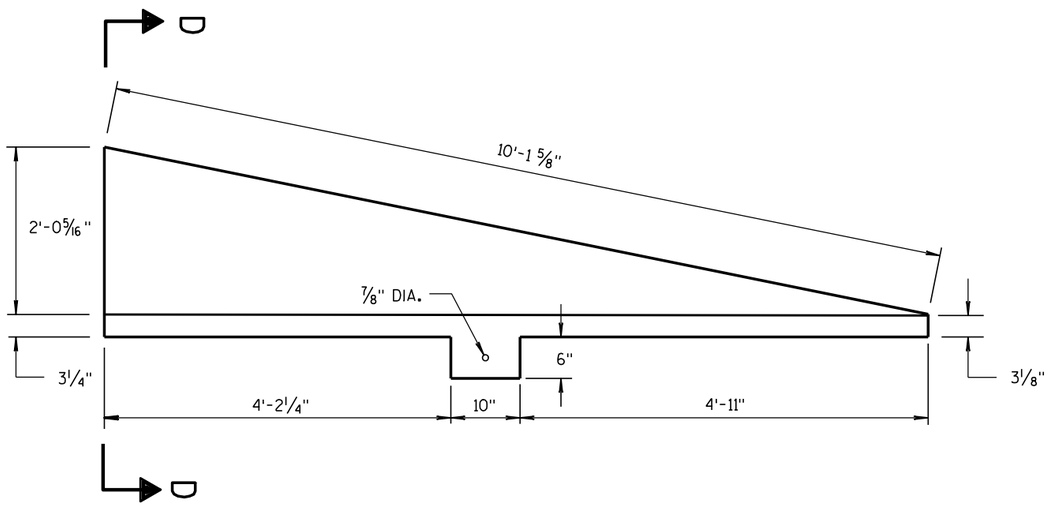

SIDE PLATE 1

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8/31/2012 DATE	/S/ Jerry H. ---- ROADWAY STANDARDS ENGINEER
FHWA	573 ENT

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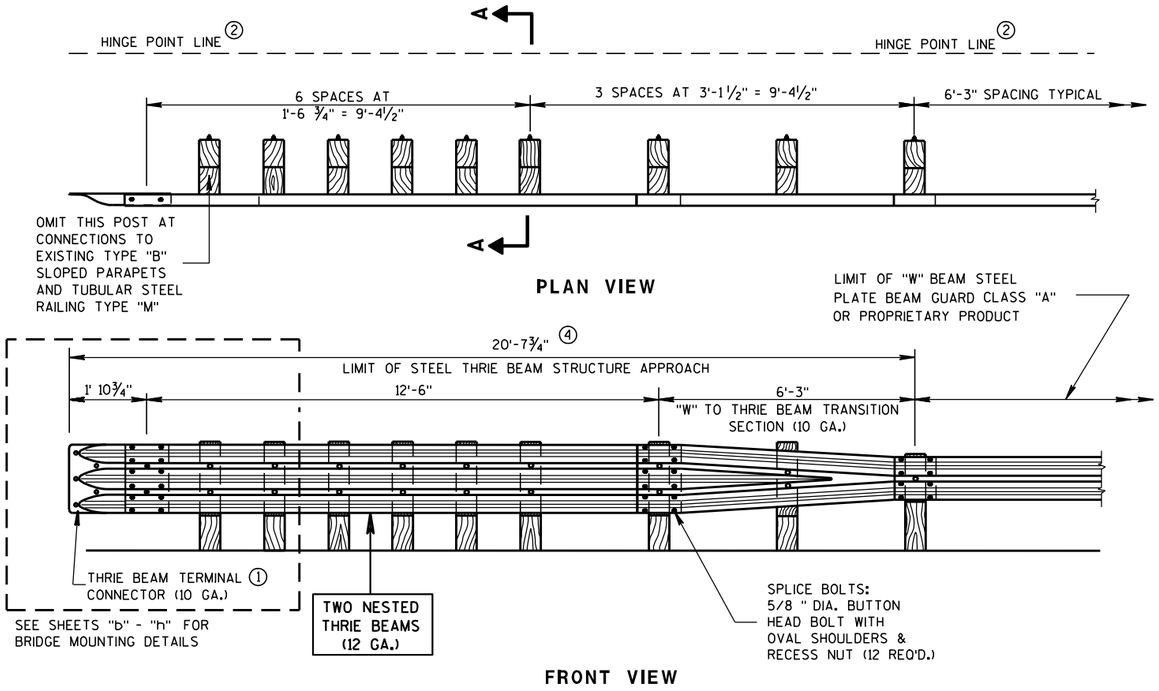


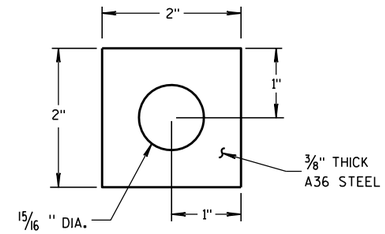


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

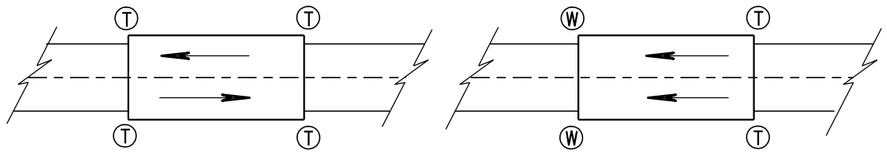
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



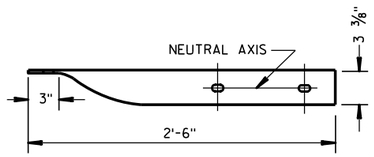
TWO WAY TRAFFIC

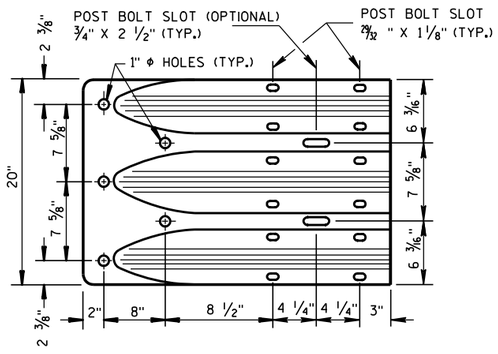
ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

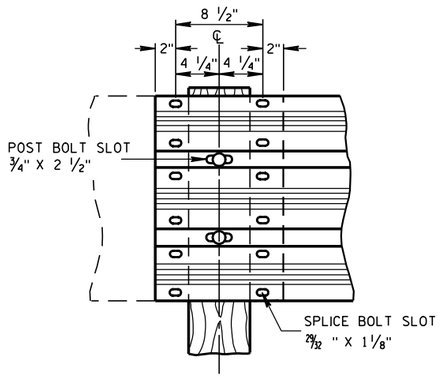
(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

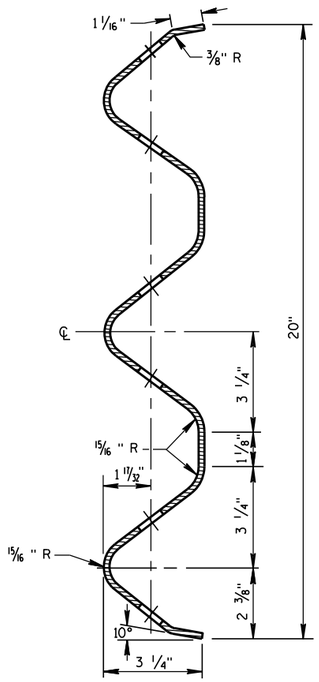




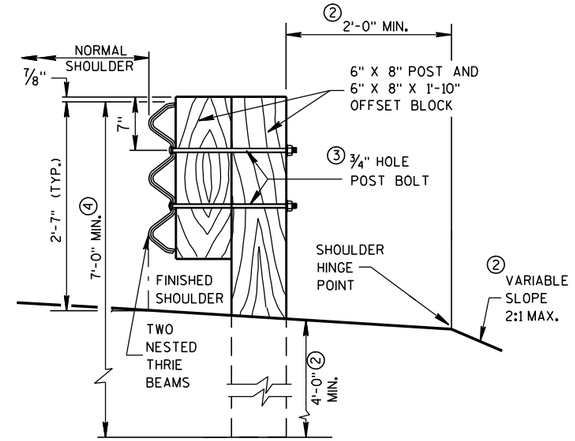
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS 1574
ENGINEER

FHWA

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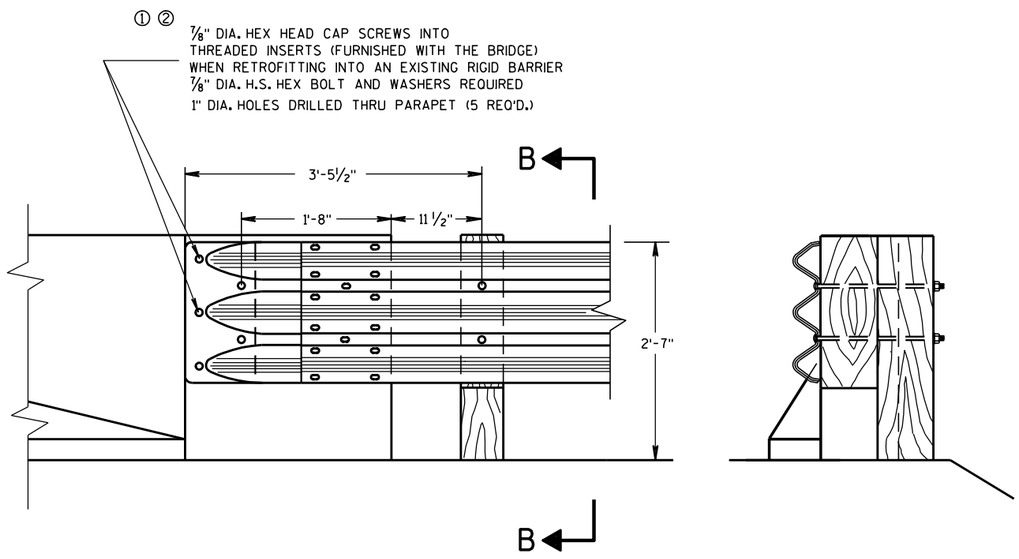


FRONT VIEW

SECTION B-B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

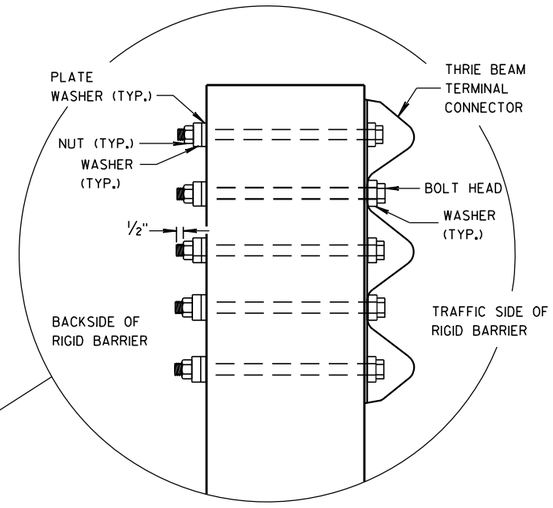
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

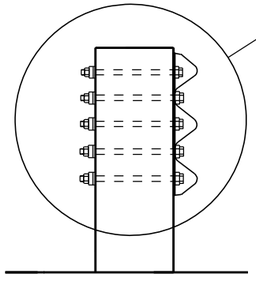
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

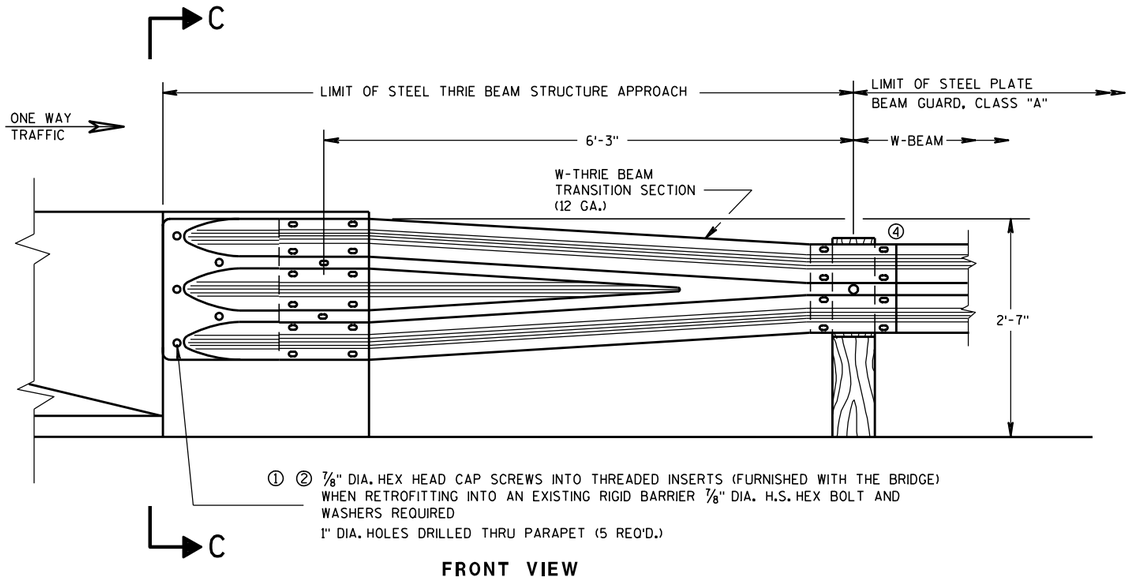
④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





SECTION C-C



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET (5 REQ'D.)

FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible]
ENGINEER

FHWA

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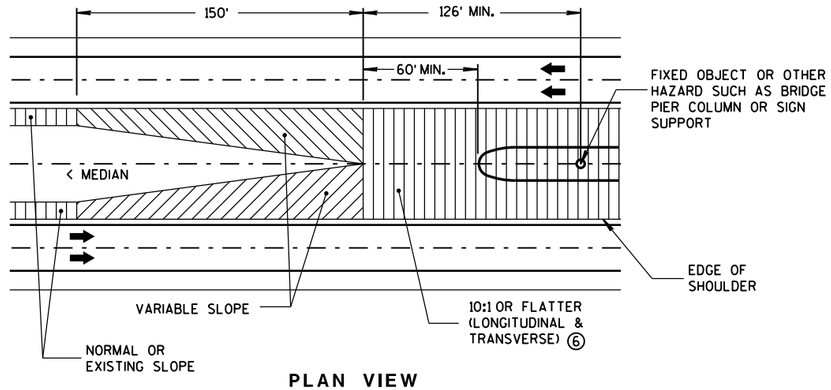
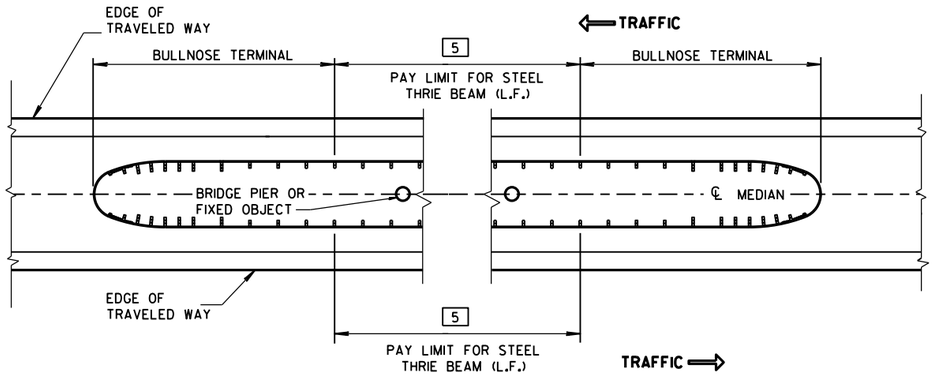
S.D.D. 14 B 20-11b

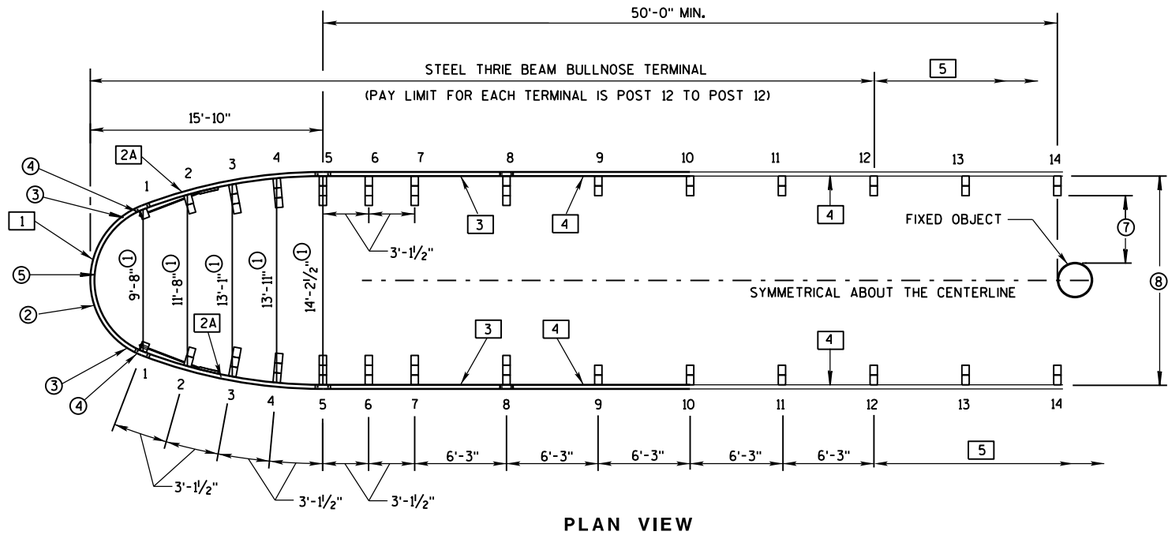


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

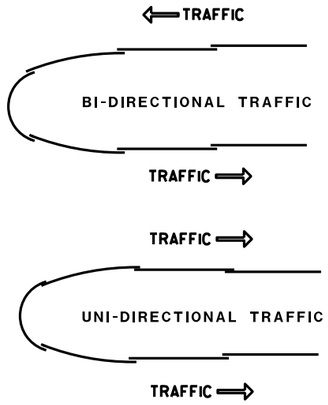


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

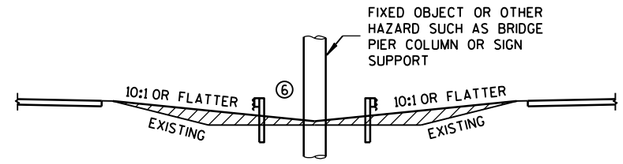
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

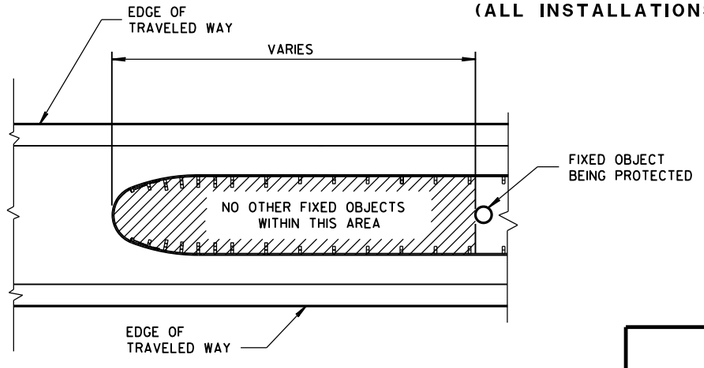
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)



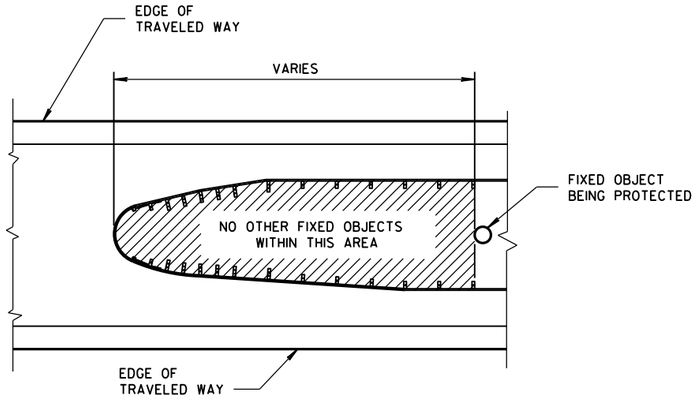
HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 26-2a



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

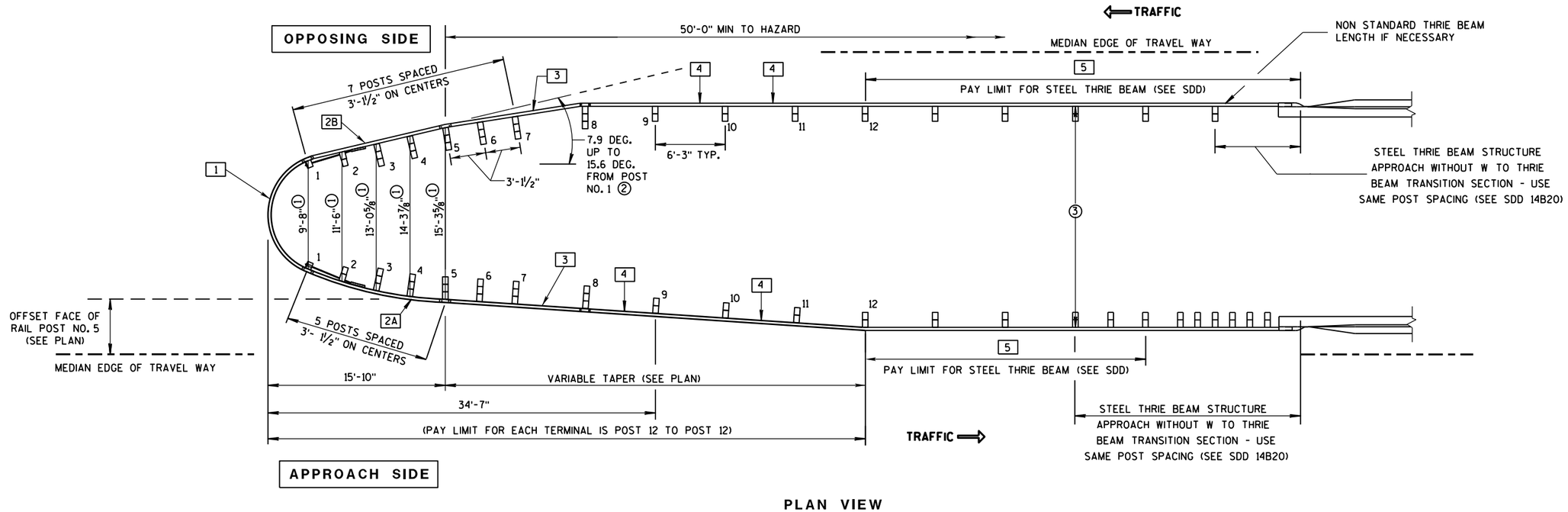
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

WIDENED BULLNOSE DESIGN

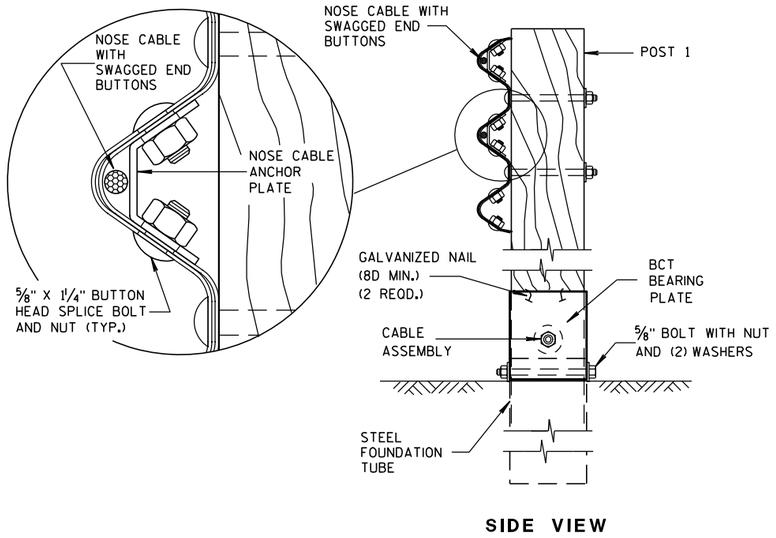
(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

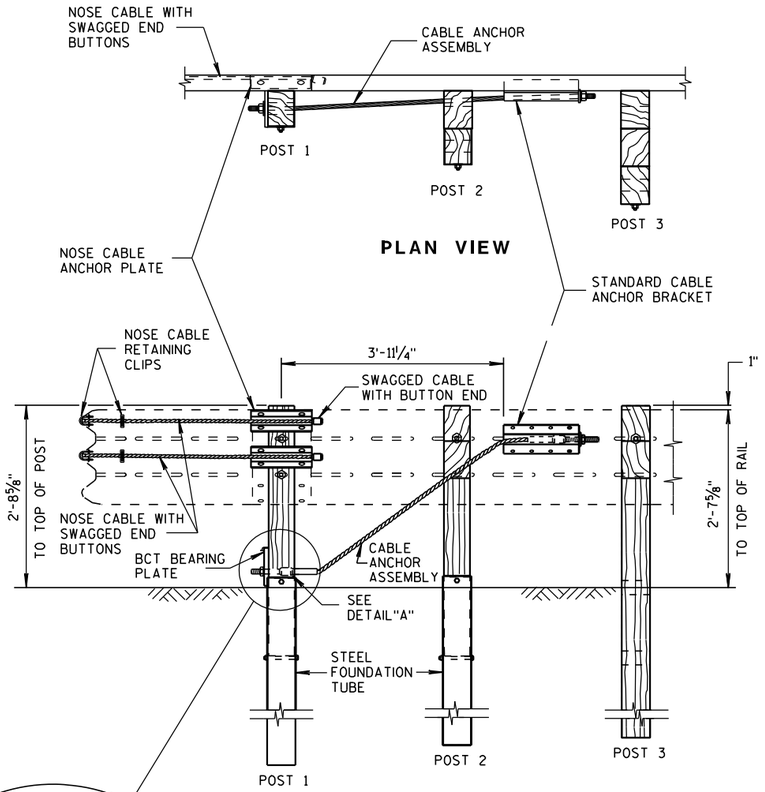
6

S.D.D. 14 B 26-2b



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



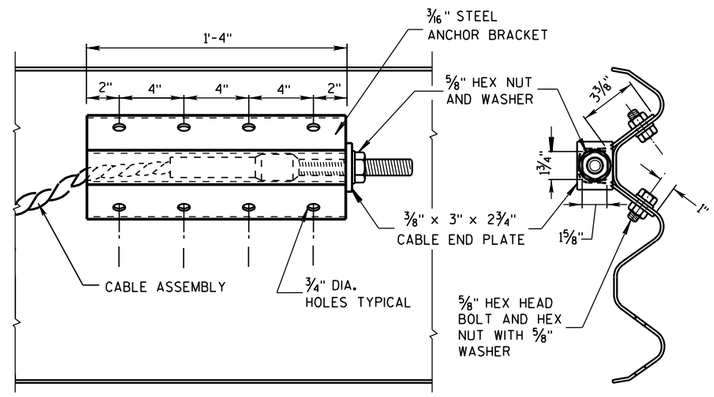
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

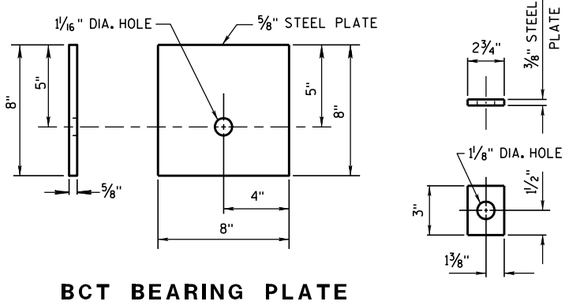
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



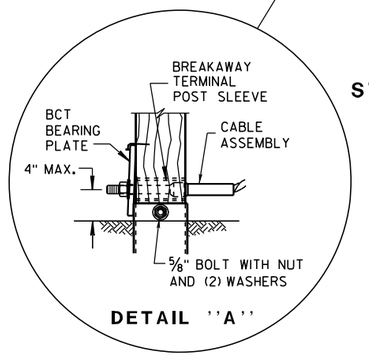
FRONT VIEW END VIEW

DETAILS OF CABLE ANCHOR BRACKET

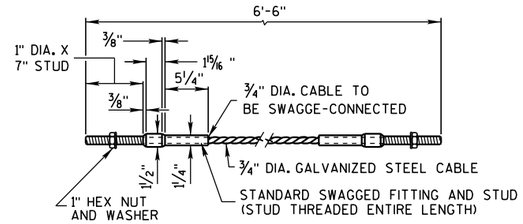


BCT BEARING PLATE

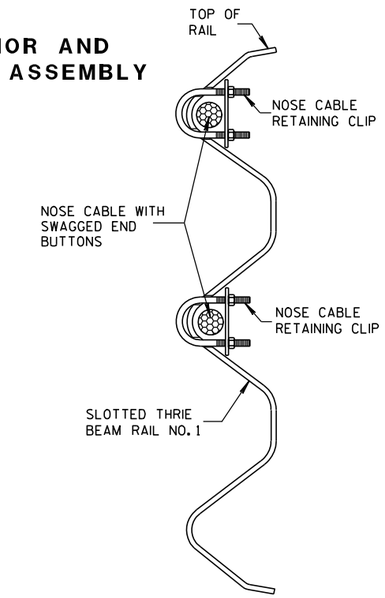
CABLE END PLATE



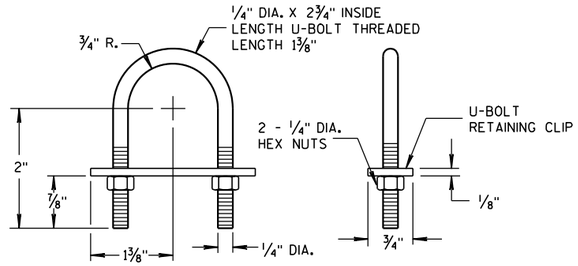
DETAIL ''A''



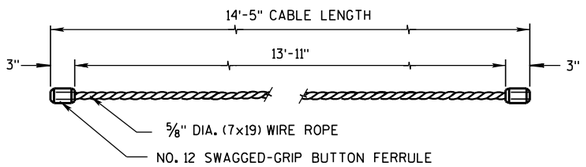
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP

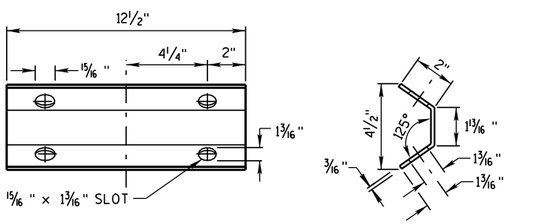


NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.



ELEVATION VIEW END VIEW

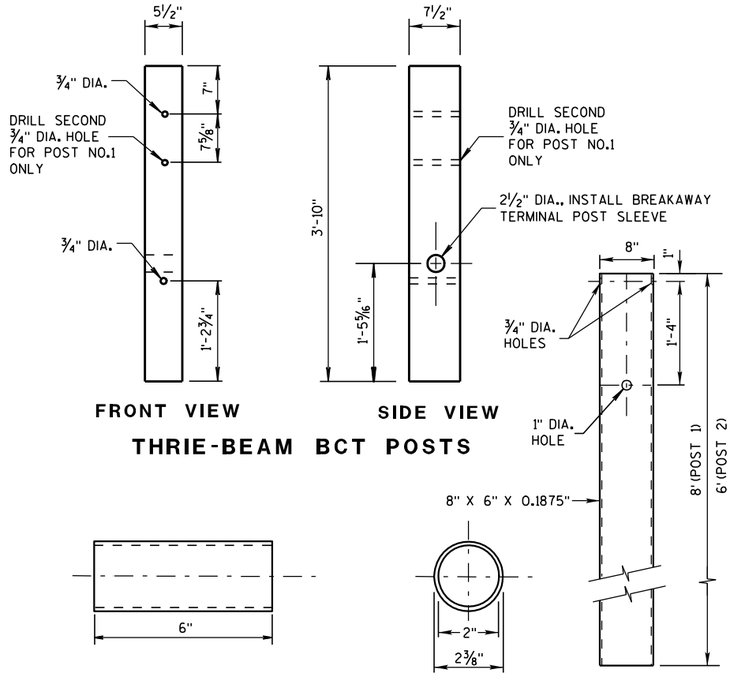
NOSE CABLE ANCHOR PLATE

NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

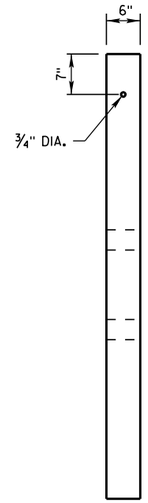
6
S.D.D. 14 B 26-2c

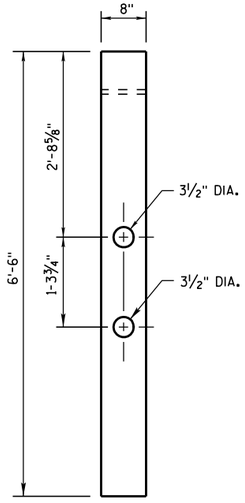


THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

STEEL FOUNDATION TUBE

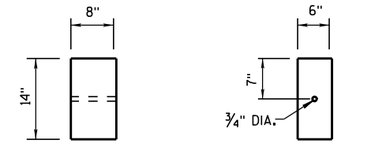




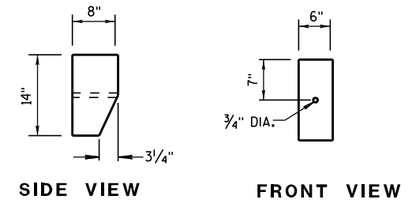
THRIE-BEAM CRT WOOD POSTS

GENERAL NOTES

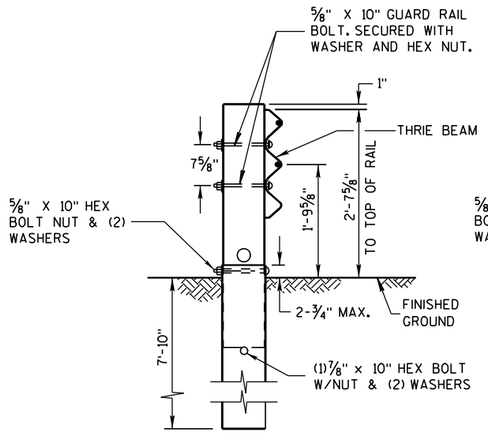
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



STANDARD WOOD BLOCK

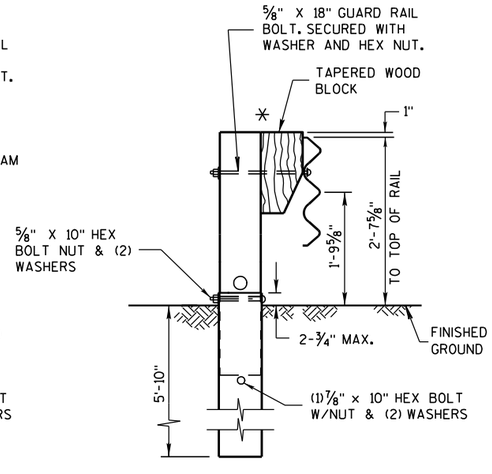


TAPERED WOOD BLOCK



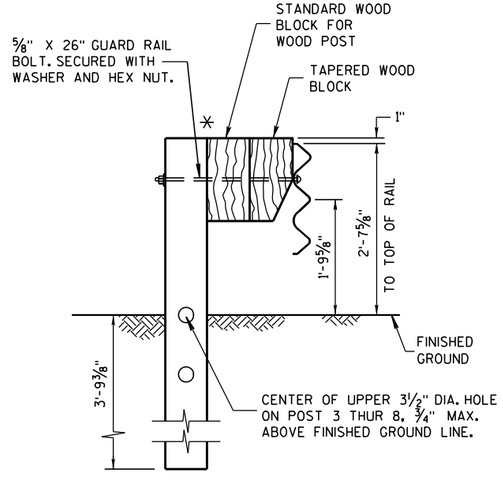
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



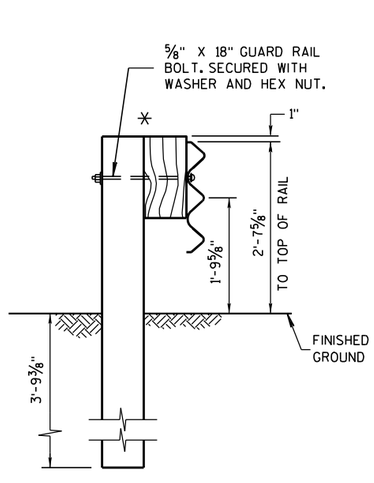
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12

(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

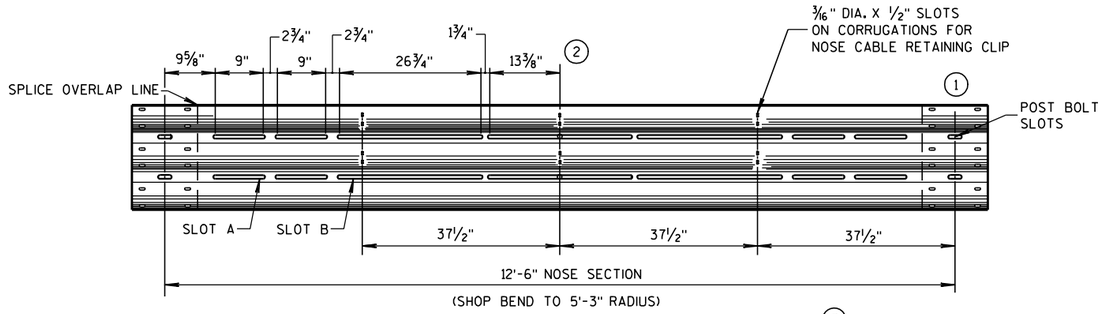
✳ IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

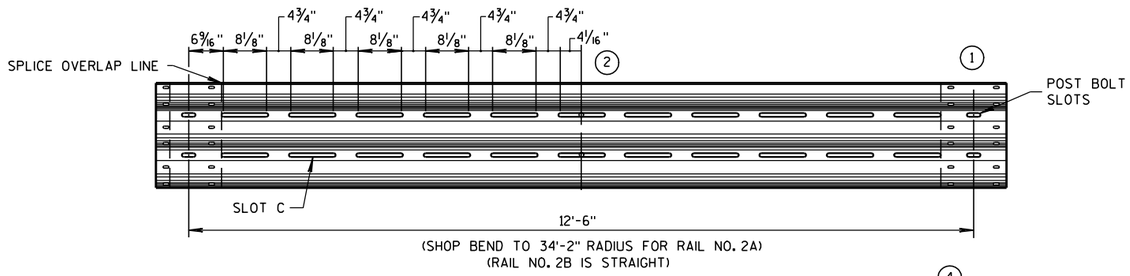
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

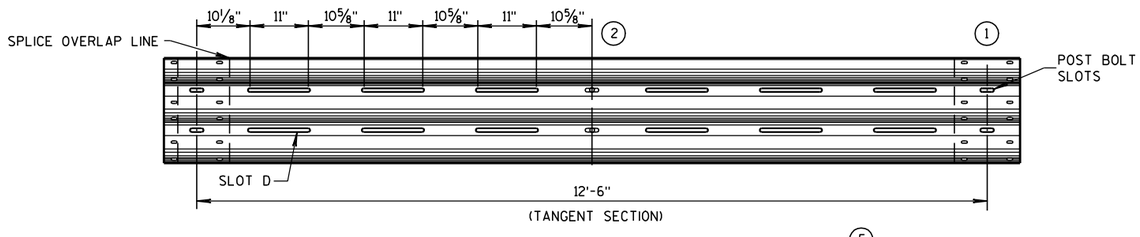
S.D.D. 14 B 26-2d



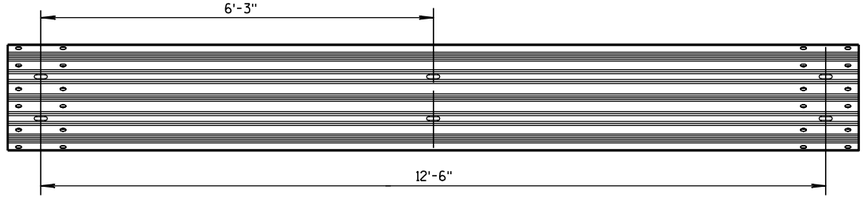
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

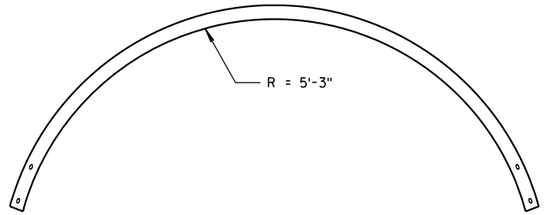
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

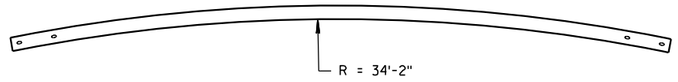
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



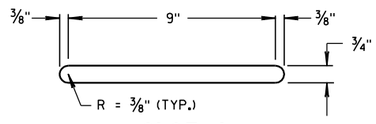
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

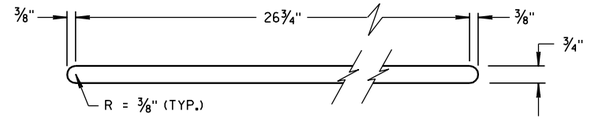


PLAN VIEW

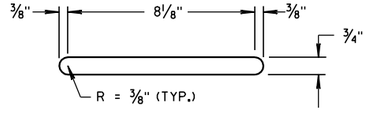
SLOTTED THRIE BEAM RAIL NO. 2A



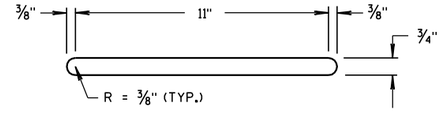
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-2010
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS DEVELOPMENT ENGINEER

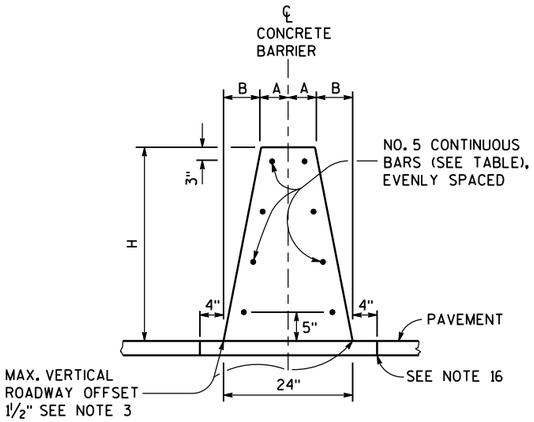
FHWA

6

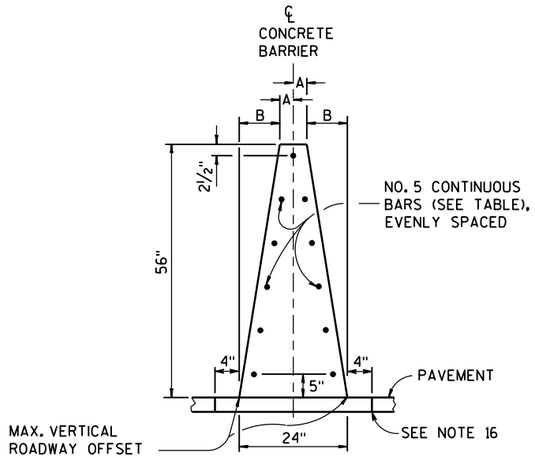
S.D.D. 14 B 26-2e

6

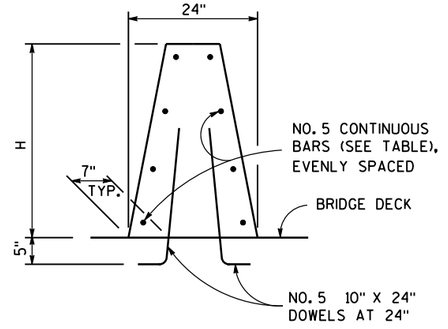
S.D.D. 14 B 26-2e



32-INCH, 36-INCH OR 42-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S32, TYPE S36, AND TYPE S42)



56-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S56)



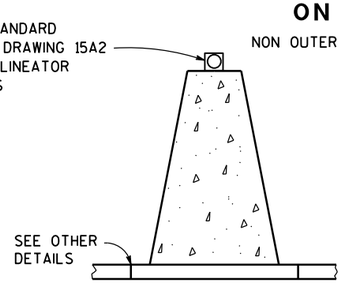
SINGLE SLOPE CONCRETE BARRIER ON BRIDGE

NON OUTER PARAPET APPLICATION

GENERAL NOTES

1. WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
2. EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK, PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OR ½" MINIMUM.
3. WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1½", USE TYPE A
4. PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
5. EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1'-0".
6. FOR TYPE S32, TYPE S36, TYPE S42, AND S56 MONOLITHIC FOOTING OR DOWELED FOOTING WITH 2-#8 x 8" @ 2'-0".
7. STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
8. 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
9. WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.
10. USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
11. 2" CLEAR COVER TYPICAL.
12. COLD-JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED.
13. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 NO ADDITIONAL VERTICAL STEEL NEEDED. IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A REQUIRES VERTICAL STEEL. SEE OTHER DETAIL.
14. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 DEPTH OF FOOTING 10". IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A MATCH TOTAL HEIGHT OF SINGLE SLOPE BARRIER RETAINING WALL.
15. FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON S.D.D. 14B33. ANCHORS INCIDENTAL TO CBSS.
16. CONCRETE PAD UNDER CBSS MAY BE PLACED INTEGRAL WITH BARRIER, PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED FULL DEPTH. SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCERET BARRIER BID ITEM. CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6¼	5¾	8
42	5¼	6¾	10
56	3	9	11



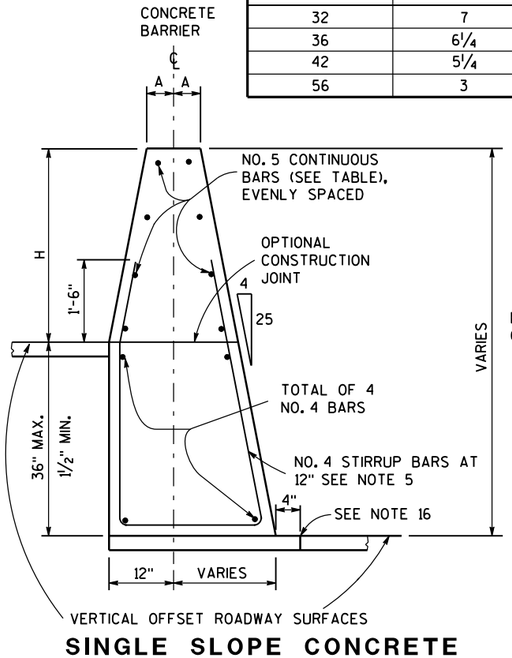
DELINEATION

DELINEATOR SPACING ON HORIZONTAL CURVES

RADIUS OF CURVE	APPROXIMATE SPACING ON CURVE
50 FEET	20 FEET
115 FEET	25 FEET
180 FEET	35 FEET
250 FEET	40 FEET
300 FEET	50 FEET
400 FEET	55 FEET
500 FEET	65 FEET
600 FEET	70 FEET
700 FEET	75 FEET
800 FEET	80 FEET
900 FEET	85 FEET
1000 FEET	90 FEET

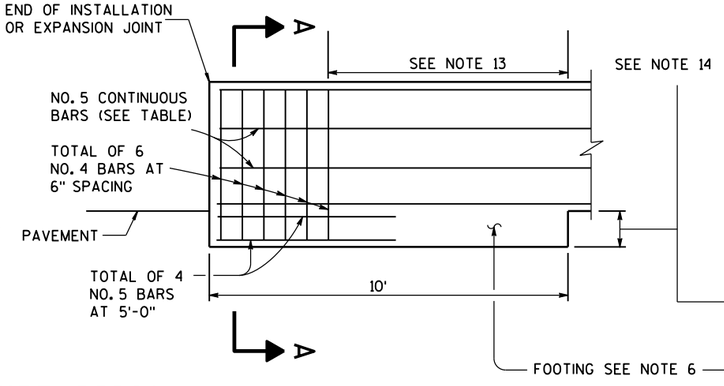
DELINEATOR SPACING ON RADIUS GREATER THAN 1000 FEET OR TANGENT SECTIONS

	LENGTH OF BARRIER	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2	



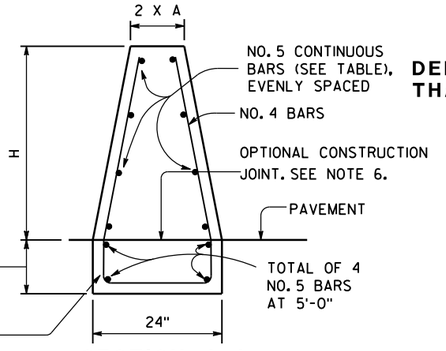
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)

(BETWEEN ADJACENT ROADWAYS)



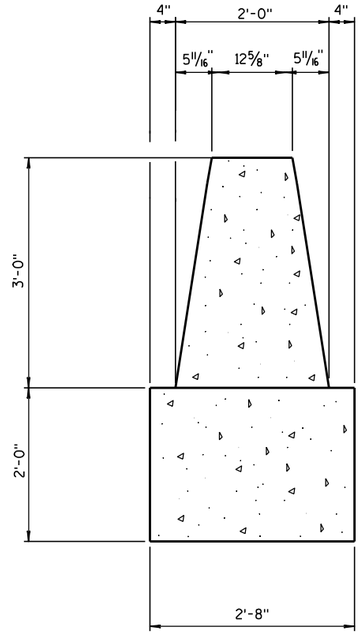
END ANCHOR SINGLE SLOPE CONCRETE BARRIER

AT CONSTRUCTION JOINT

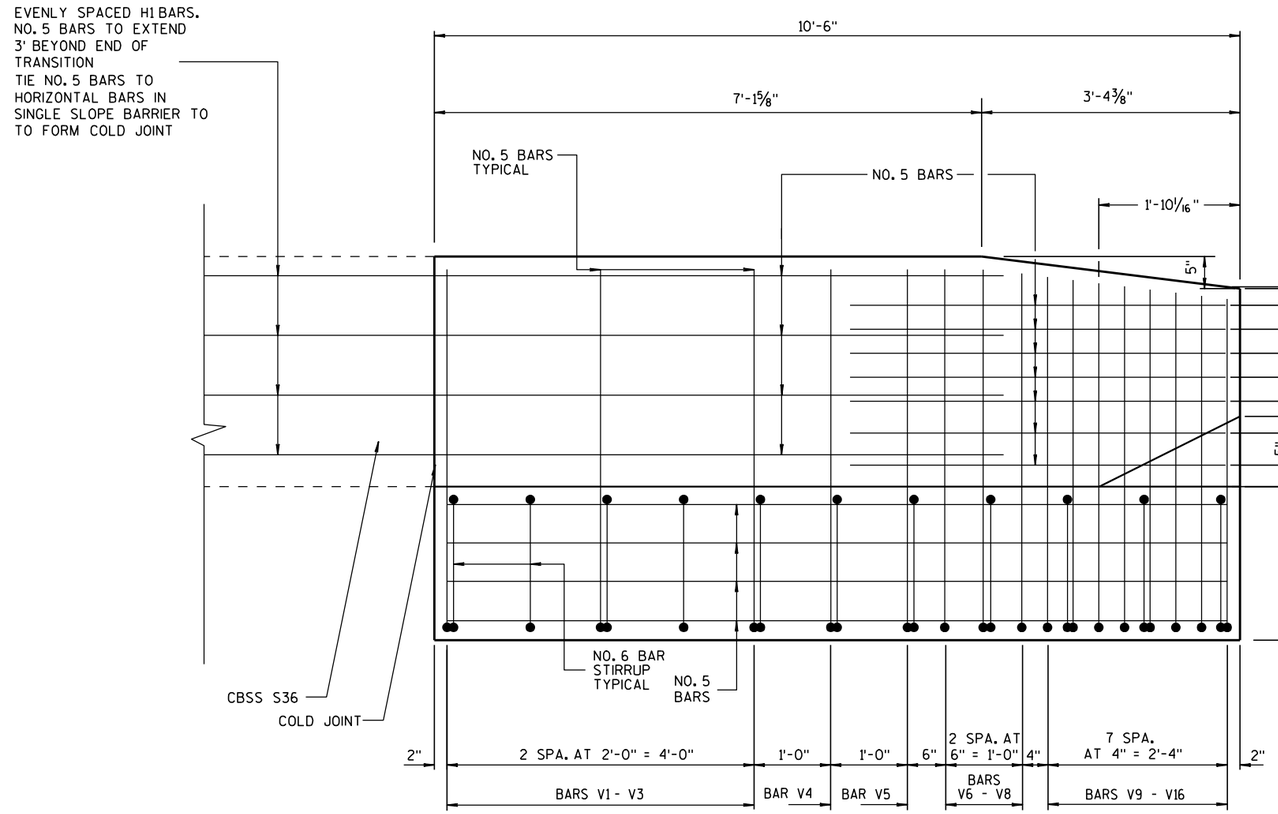


SECTION A-A

CONCRETE BARRIER (CBSS)
STATE OF WISCONSIN DEPARTMENT OF TRANSPO 581

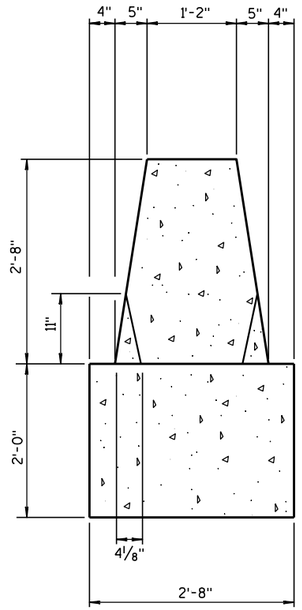


SECTION A-A

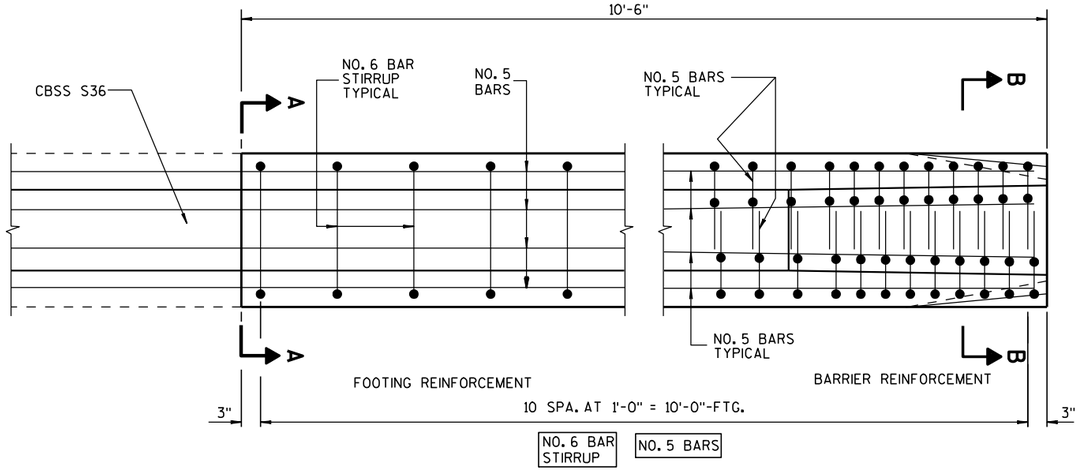


SEE SECTIONS (1) THRU (16)

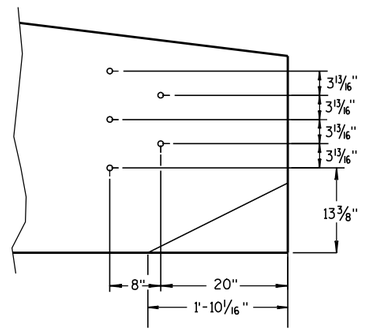
ELEVATION VIEW



SECTION B-B



PLAN VIEW



PVC PIPE LOCATIONS

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THRIE BEAM ANCHOR INCIDENTAL TO CONCRETE BARRIER ITEM.

INSTALL SCHEDULE 40 PVC PIPE 1" DIAMETER AT LOCATIONS INDICATED.

EXTEND PVC PIPE COMPLETELY THROUGH BARRIER.

CUT ENDS OF PVC PIPE FLUSH WITH FINISHED FACE of BARRIER.

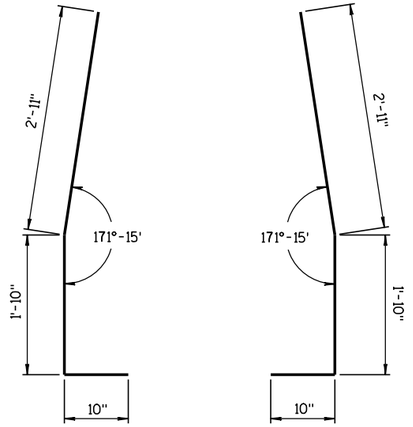
THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

CONCRETE BARRIER
SINGLE SLOPE 36"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

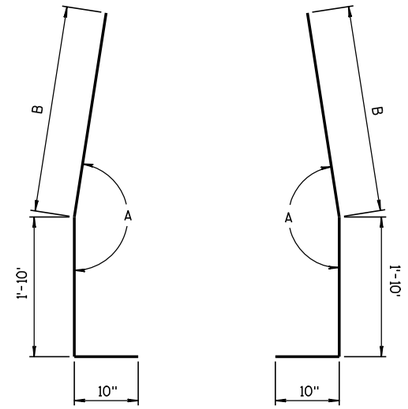
6
S.D.D. 14 B 33-1d



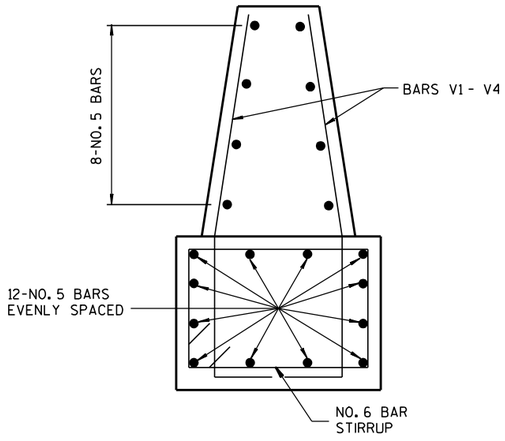
BAR BENDING DETAIL
FOR BARS V1 - V6

BAR CHART
SECTIONS V7 - V11

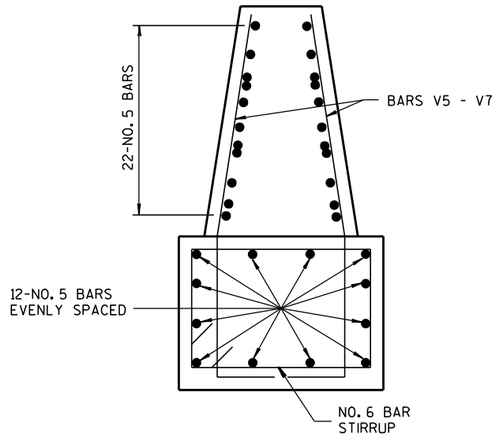
BAR	A	B
V7	171°-20'	2'-10½"
V8	171°-10'	2'-9½"
V9	171°-10'	2'-9"
V10	171°-05'	2'-8½"
V11	171°-10'	2'-8"



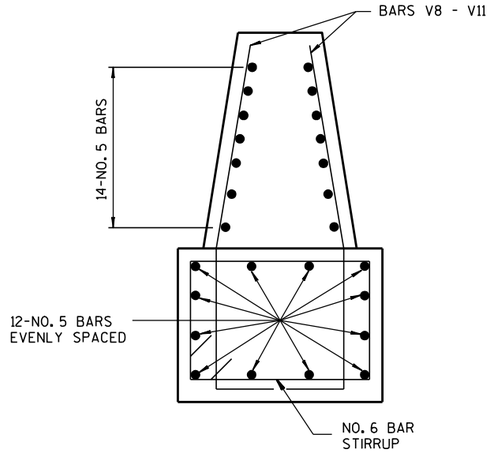
BAR BENDING DETAIL
FOR BARS V7 - V11



BAR DETAIL
SECTIONS 1 - 4



BAR DETAIL
SECTIONS 5 - 7



BAR DETAIL
SECTIONS 8 - 11

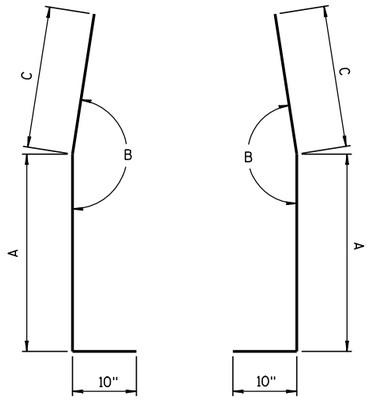
CONCRETE BARRIER
SINGLE SLOPE 36"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 33-1e

BAR CHART
SECTIONS V12 - V13

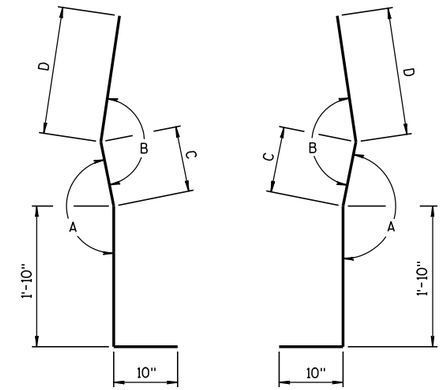
BAR	A	B	C
V12	2'-2"	171°-15'	2'-3½"
V13	2'-7"	171°-05'	1'-10"



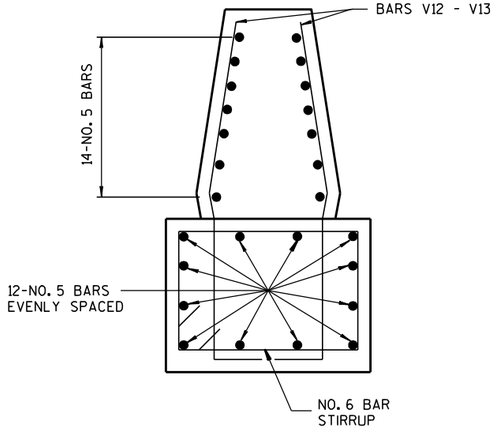
BAR BENDING DETAIL
FOR BARS V12 - V13

BAR CHART
SECTIONS V14 - V16

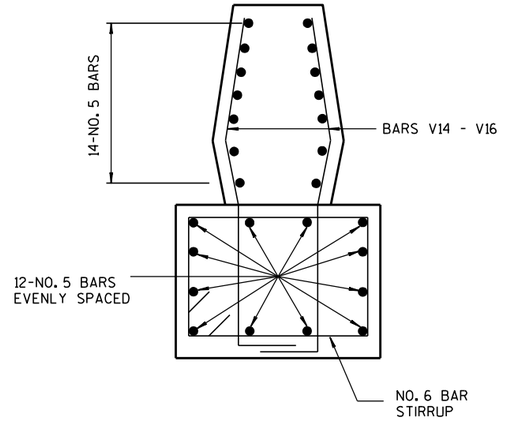
BAR	A	B	C	D
V14	168°-15'	159°-15'	6"	2'-0"
V15	169°-20'	161°-00'	8"	1'-10"
V16	168°-40'	160°-10'	10"	1'-8"



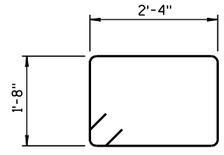
BAR BENDING DETAIL
FOR BARS V14 - V16



BAR DETAIL
SECTIONS 12 - 13



BAR DETAIL
SECTIONS 14 - 16



STIRRUP BAR
BENDING DETAIL

CONCRETE BARRIER
SINGLE SLOPE 36"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-3-2010
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

584

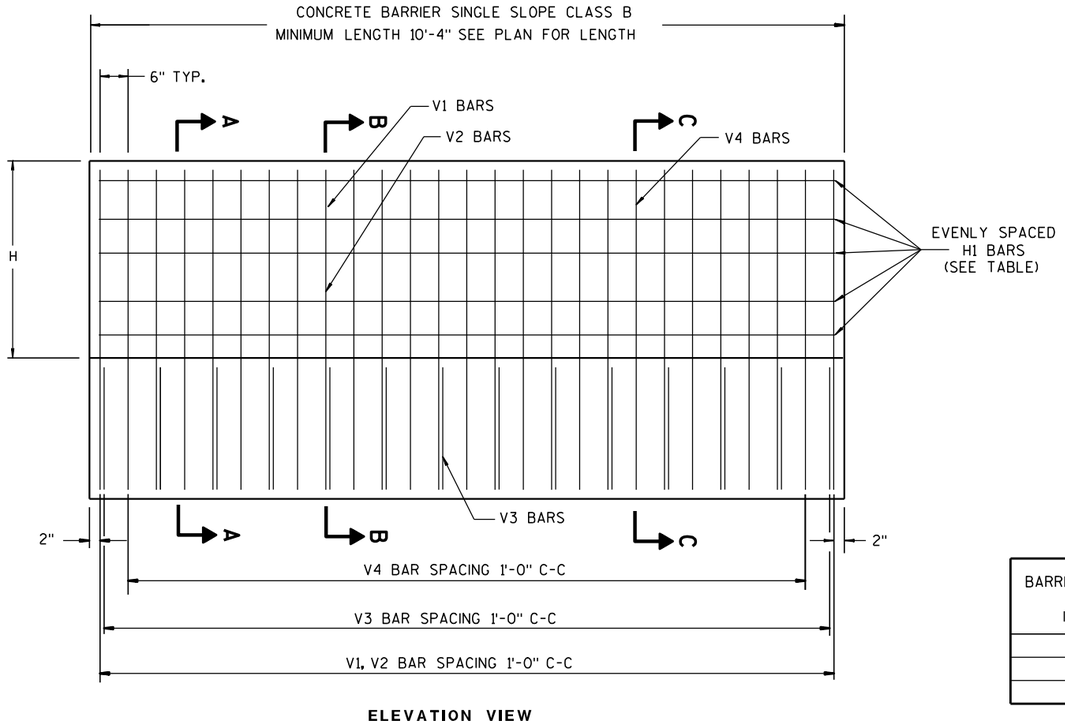
FHWA

6

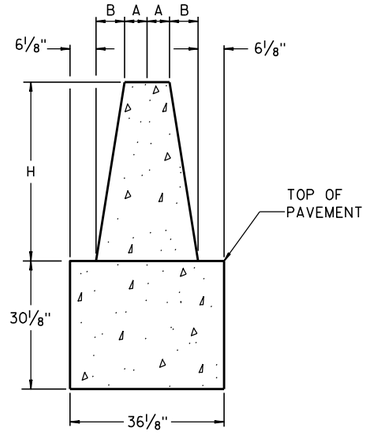
S.D.D. 14 B 33-1f

6

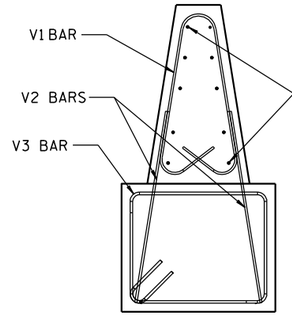
S.D.D. 14 B 33-1f



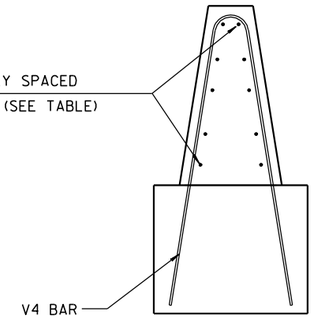
ELEVATION VIEW



SECTION A-A



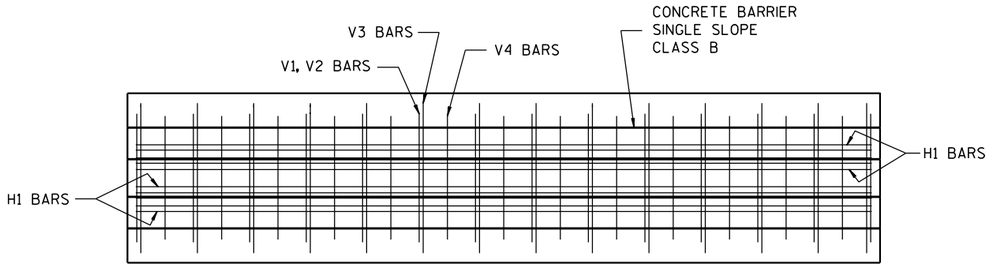
SECTION B-B



SECTION C-C

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF H1 BARS EACH
32	7	5	8
36	6 1/4	5 3/4	8
42	5 1/4	6 3/4	10

BARRIER HEIGHT H INCHES	V1 BAR		V4 BAR	
	C RAD. INCHES	D INCHES	E RAD. INCHES	F INCHES
32	5 5/8	18 3/4	5 1/2	53 3/4
36	4 3/4	23 3/4	4 7/8	58 3/8
42	3 5/8	30 1/2	3 5/8	65 3/8



PLAN VIEW

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2'LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

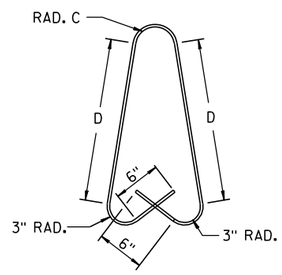
WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.

PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL

PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.

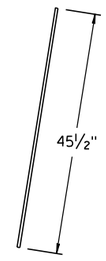
WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.

IF REQUIRED USE THRIE BEAM ANCHOR. NO OTHER ANCHOR REQUIRED.



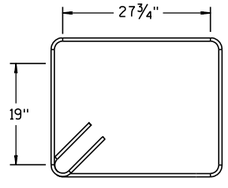
V1 BAR BENDING DETAIL

V1 BARS ARE NO. 4 BARS



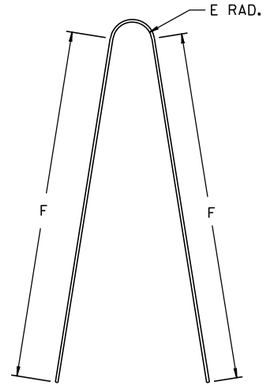
V2 BAR BENDING DETAIL

V2 BARS ARE NO. 5 BARS



V3 BAR BENDING DETAIL

V3 BARS ARE NO. 6 BARS



V4 BAR BENDING DETAIL

V4 BARS ARE NO. 6 BARS

32", 36" & 42"
CONCRETE BARRIER
SINGLE SLOPE CLASS B

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 34-1a

GENERAL NOTES

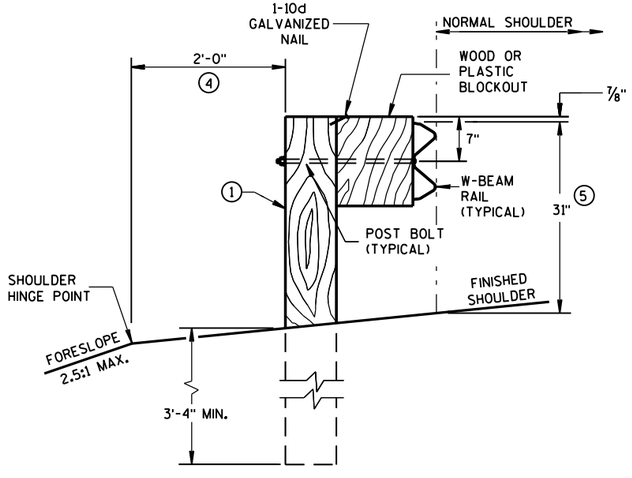
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

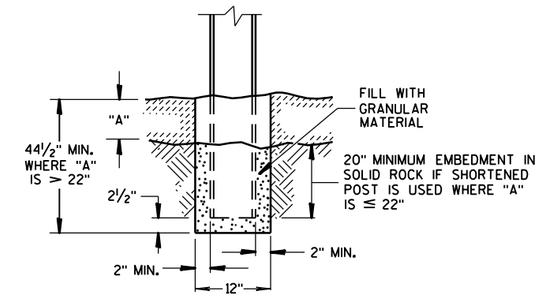
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".



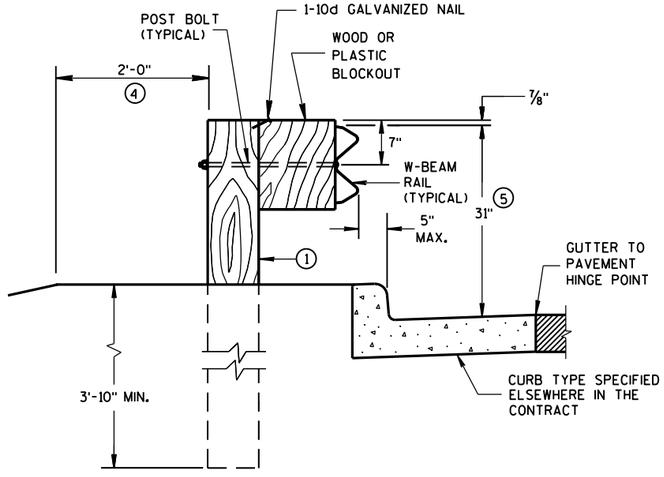
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



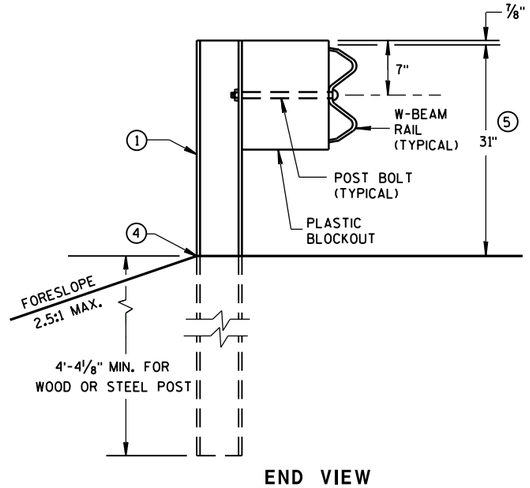
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



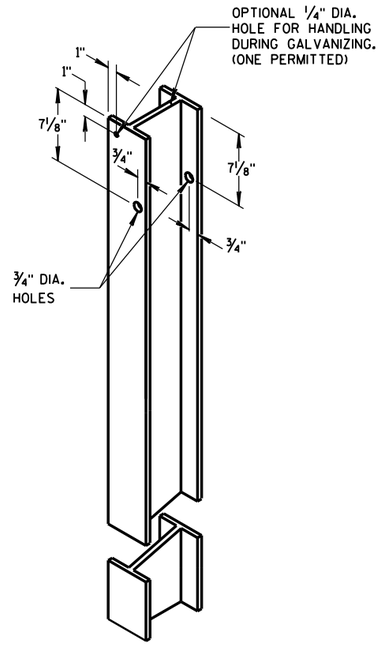
END VIEW

LOCATED ALONG A CURBED ROADWAY

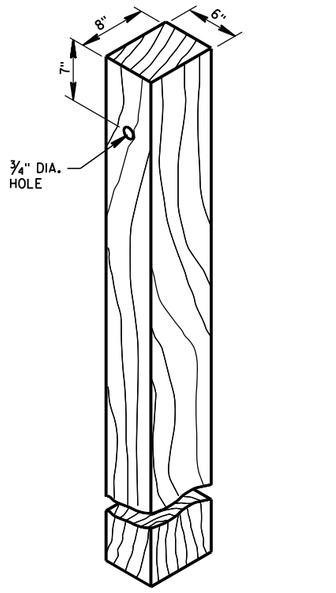


END VIEW

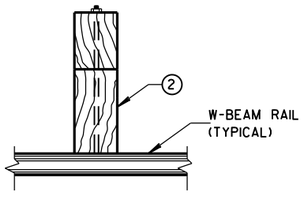
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



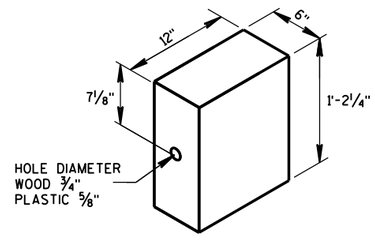
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



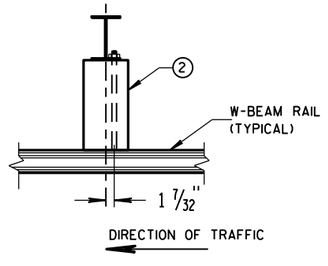
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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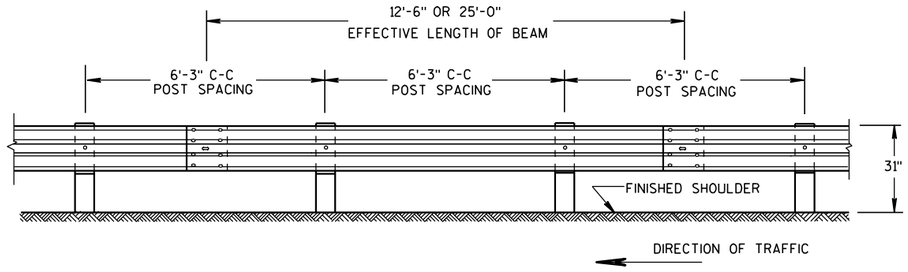
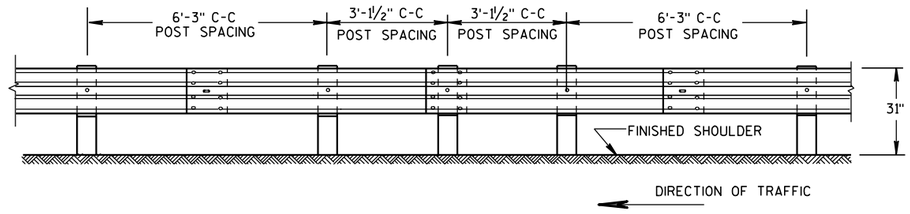
S.D.D. 14 B 42-2a



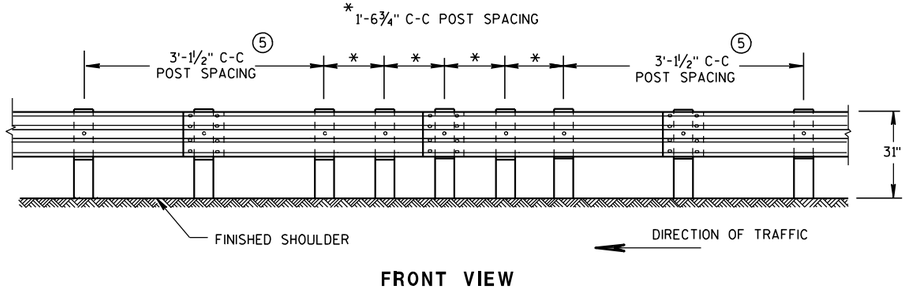
FRONT VIEW

POST SPACING STANDARD INSTALLATION



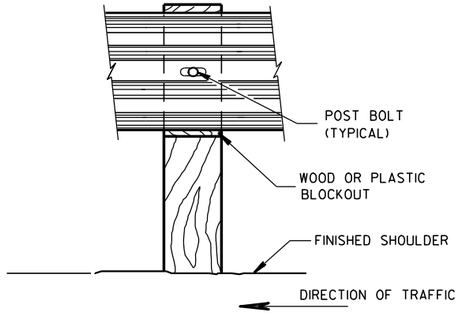
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

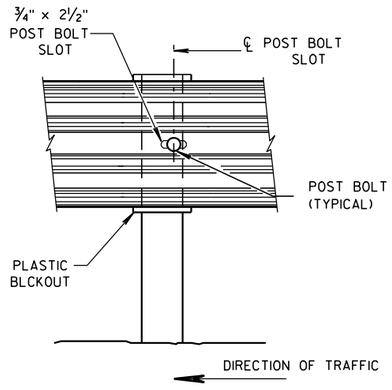


FRONT VIEW

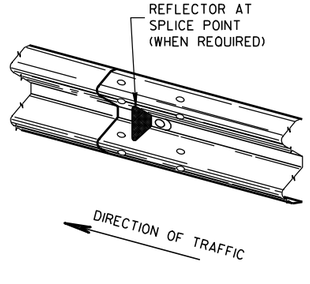
QUARTER POST SPACING (QS)

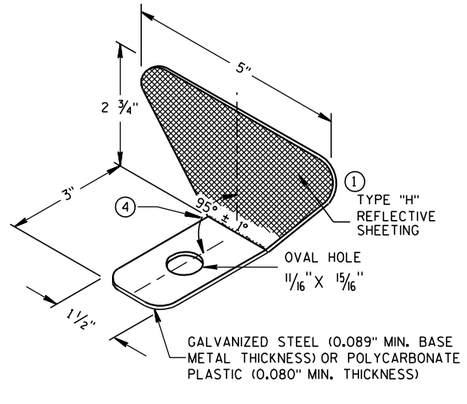


FRONT VIEW AT WOOD POST

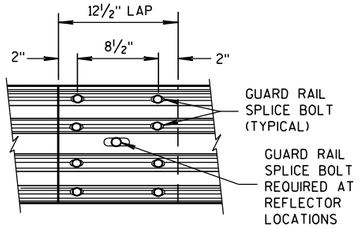


FRONT VIEW AT STEEL POST



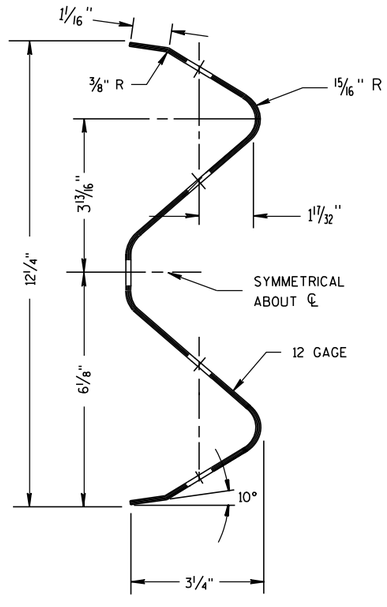


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①



FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL

GENERAL NOTES

① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.

② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

④ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑤ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ②

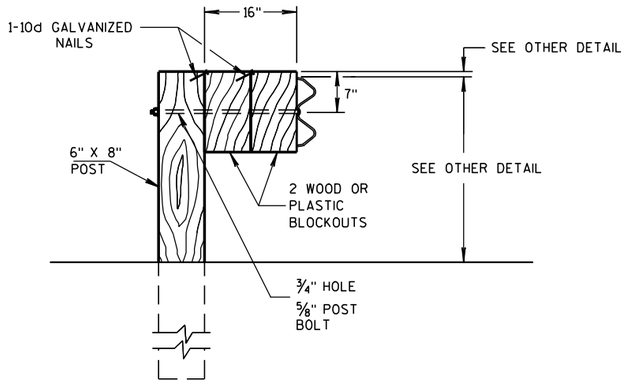
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ③ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 ④ 2	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

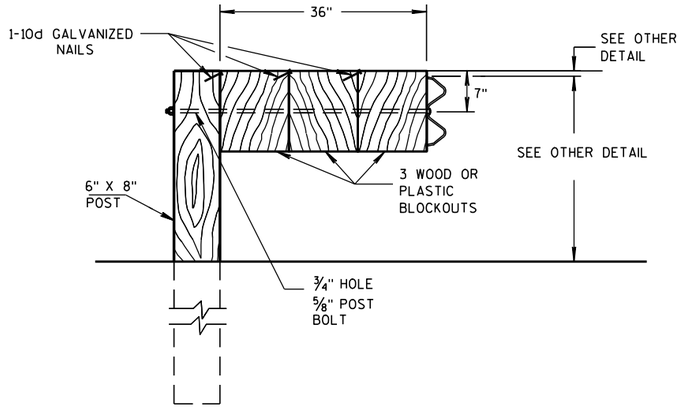
S.D.D. 14 B 42-2b

S.D.D. 14 B 42-2b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

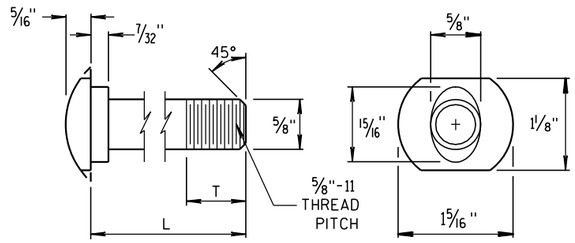


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

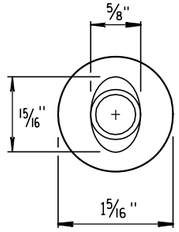
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

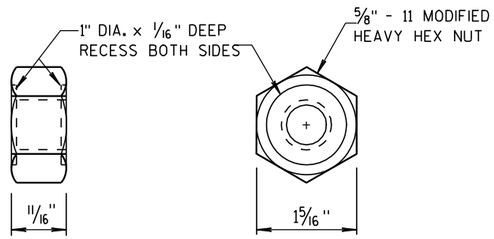


POST BOLT TABLE

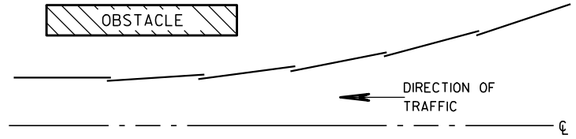
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

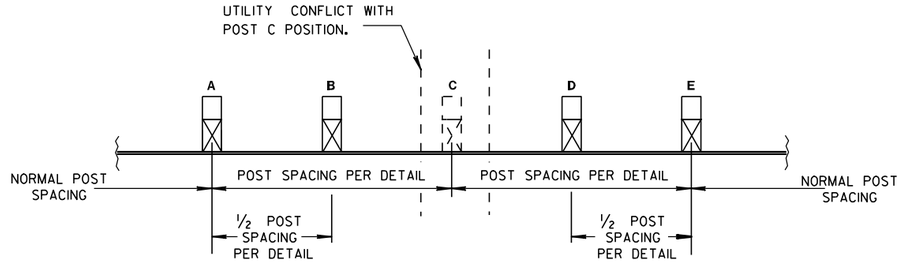


POST BOLT AND RECESS NUT

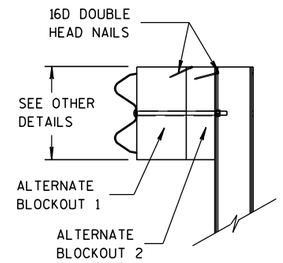


PLAN VIEW

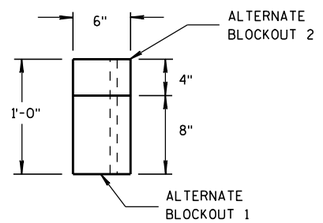
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

ENT

6

S.D.D. 14 B 42-2c

6

S.D.D. 14 B 42-2c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

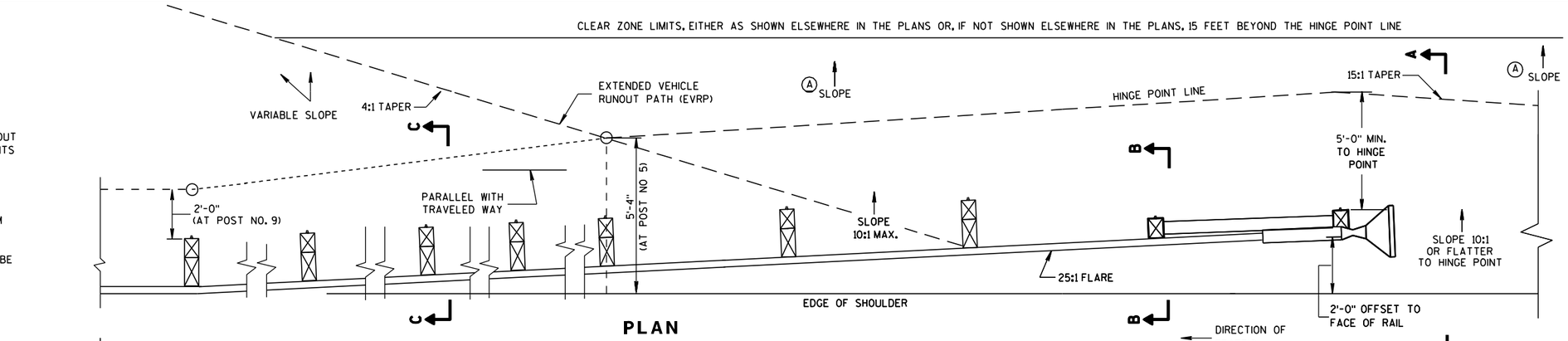
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

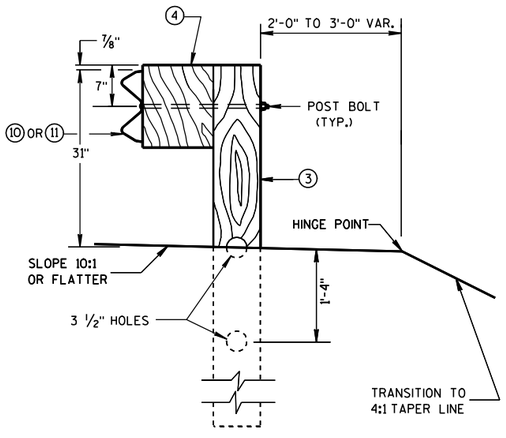
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

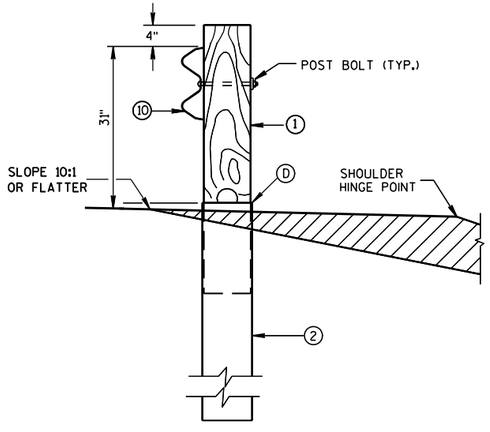
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

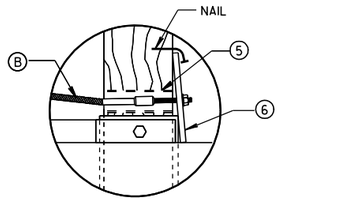


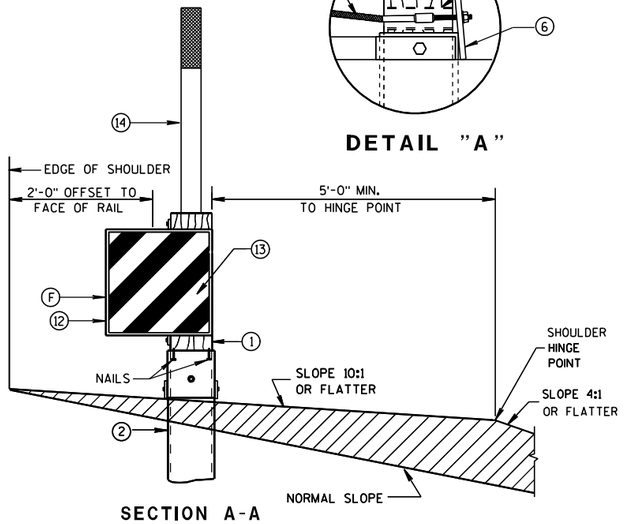


SECTION C-C
TYPICAL AT POST NOS. 3-9

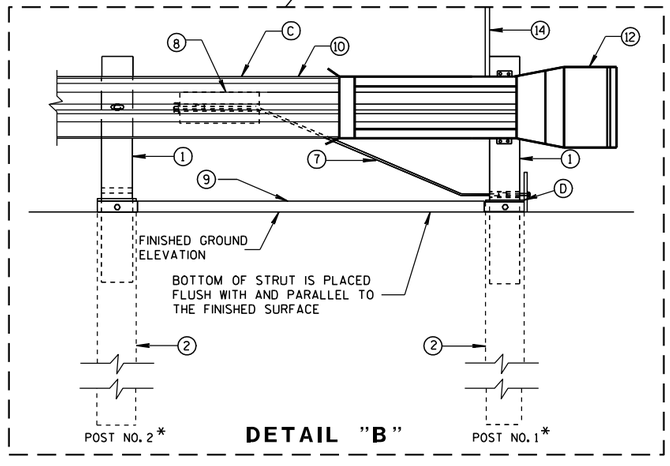


SECTION B-B
TYPICAL AT POST NO. 2*





SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

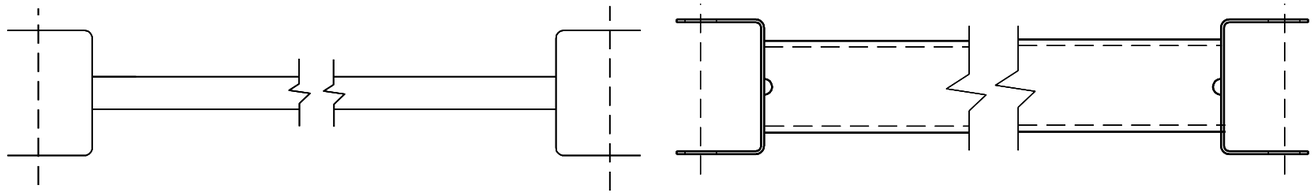
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1a

6

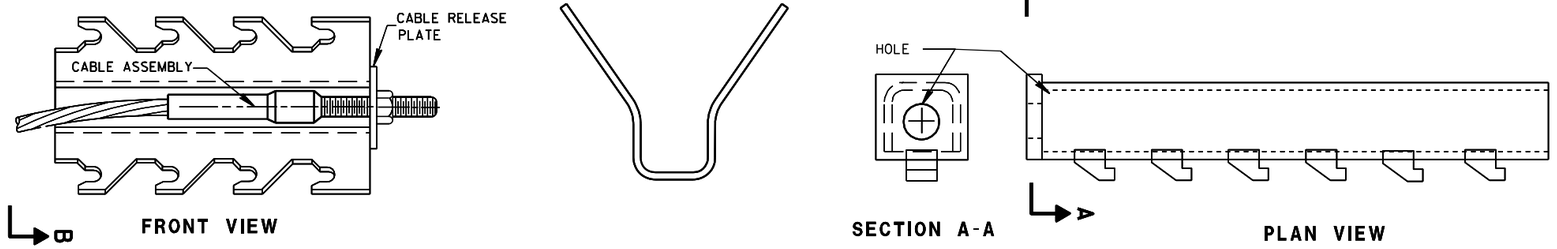
S.D.D. 14 B 44-1a



GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



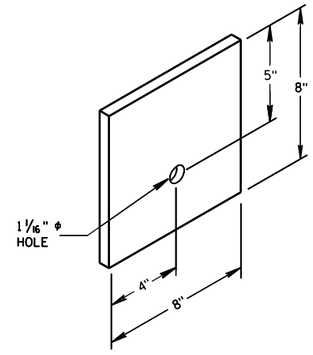
FRONT VIEW

SECTION B-B

SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



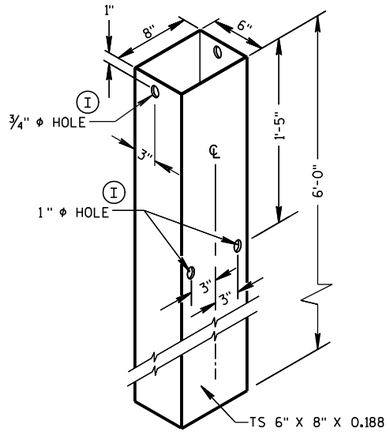
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

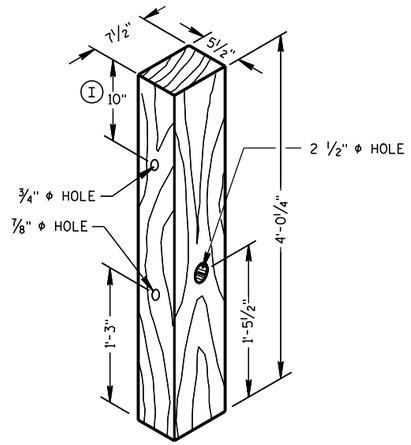
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

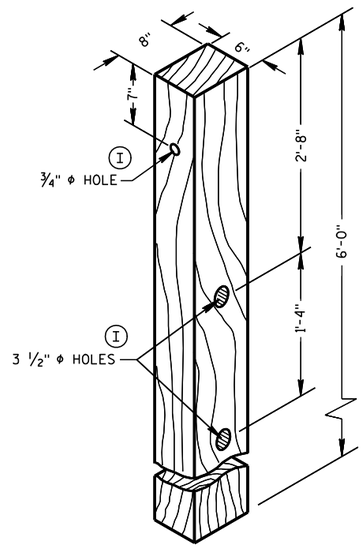


FOUNDATION TUBE (2)



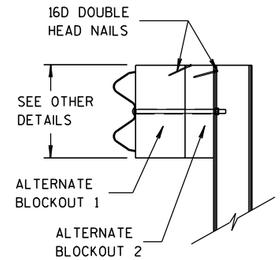
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

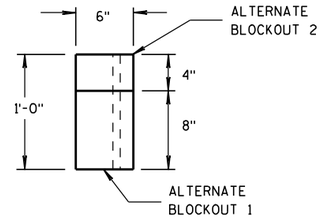


POSTS NUMBER 3-9

WOOD CRT POST (3)

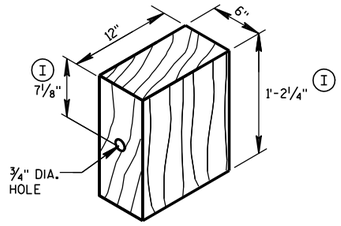


SIDE VIEW



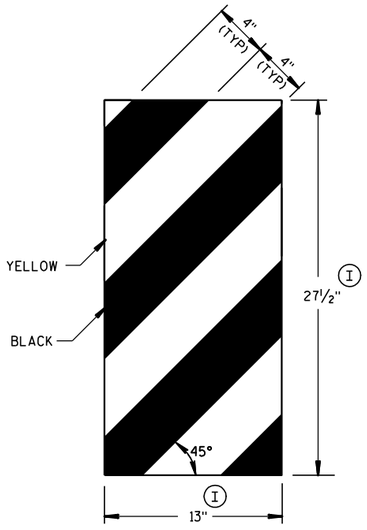
TOP VIEW

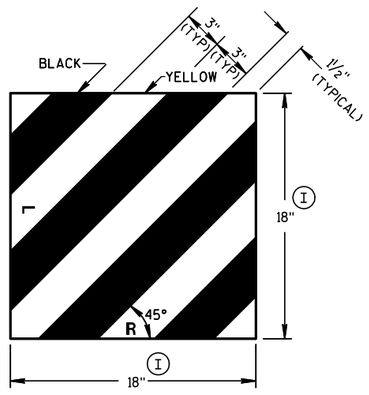
ALTERNATE WOOD BLOCKOUT DETAIL



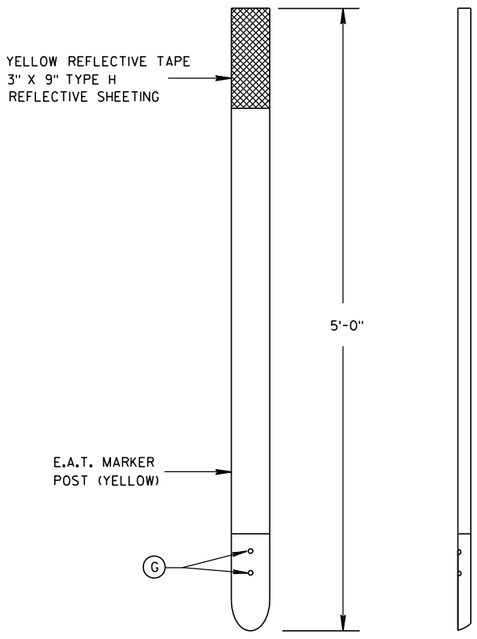
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





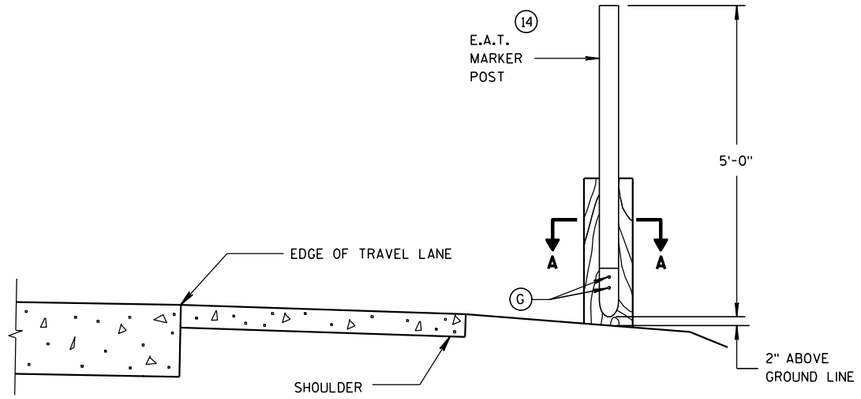
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

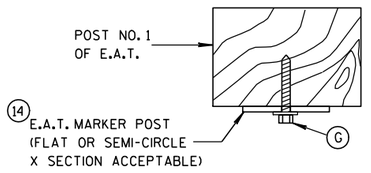
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

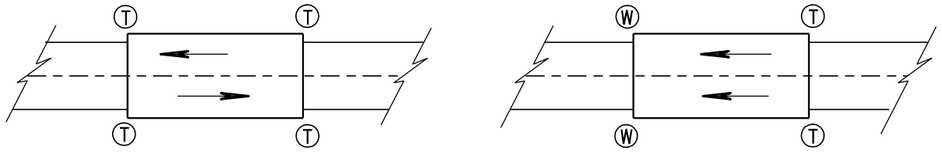
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS 591
ENGINEER
FHWA

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

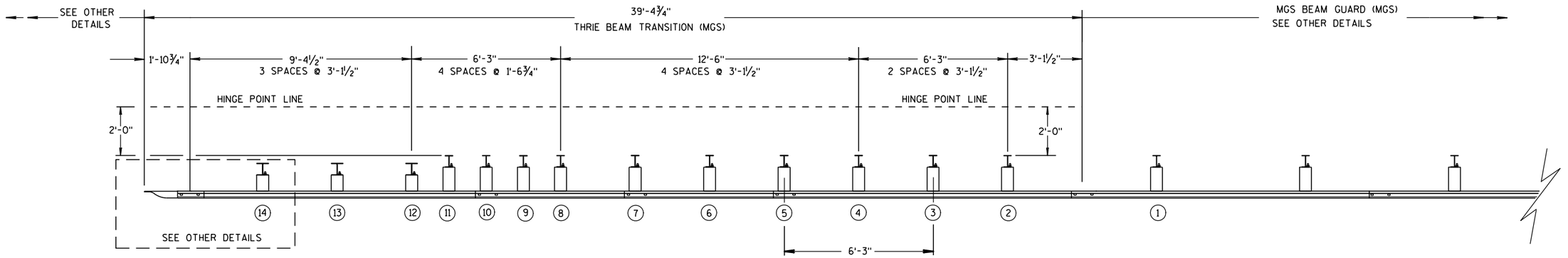
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

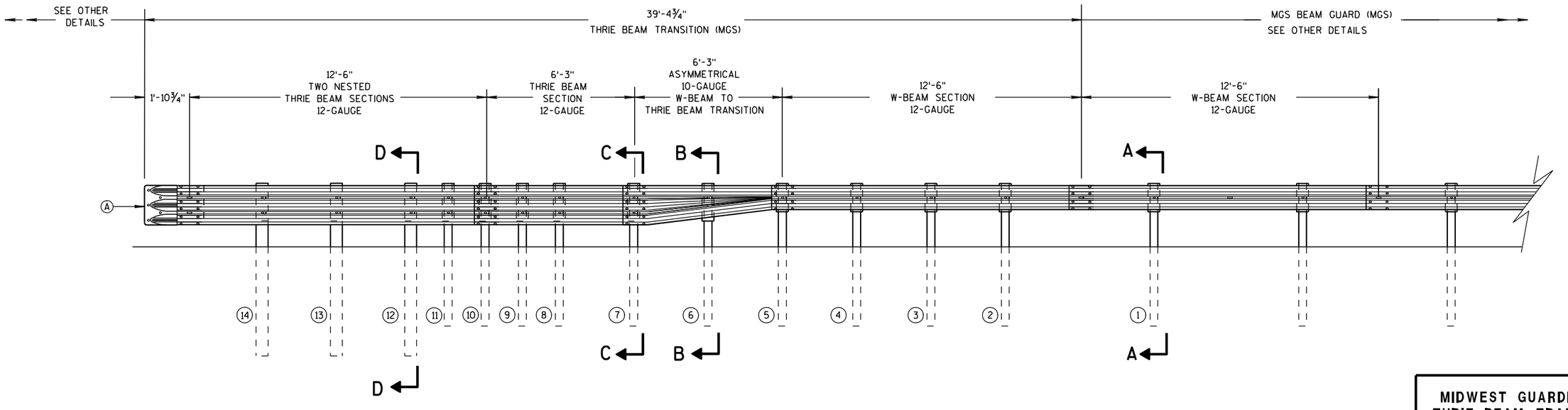
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

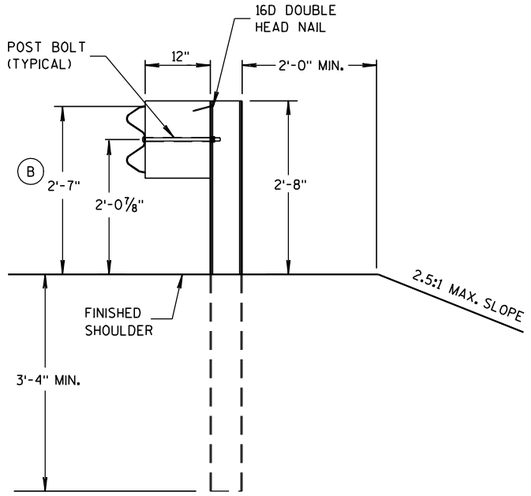
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3a

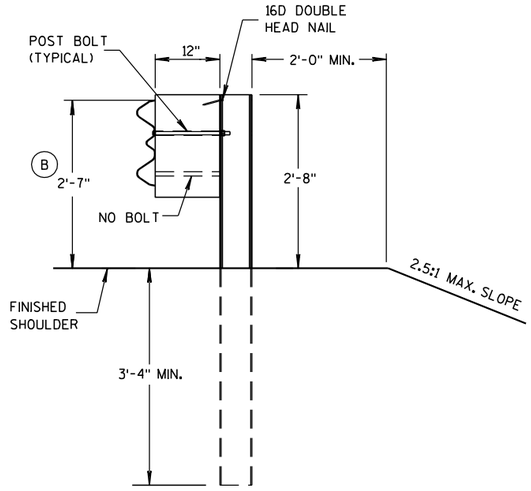
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



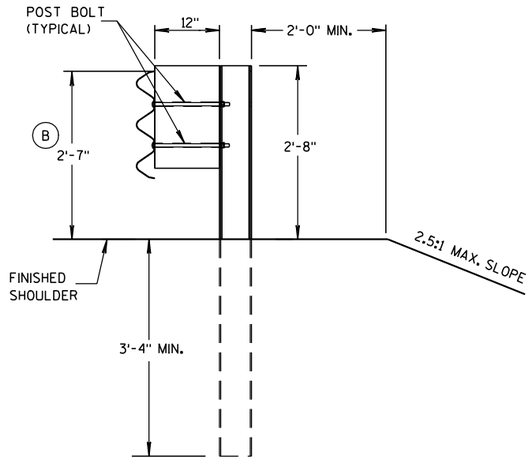
SECTION A-A

POSTS 1-5



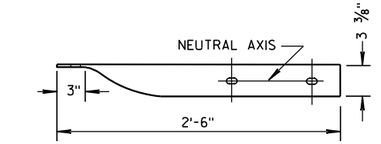
SECTION B-B

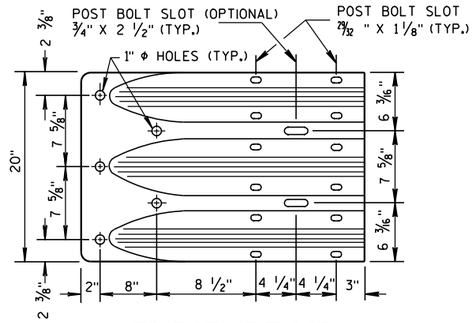
POST 6



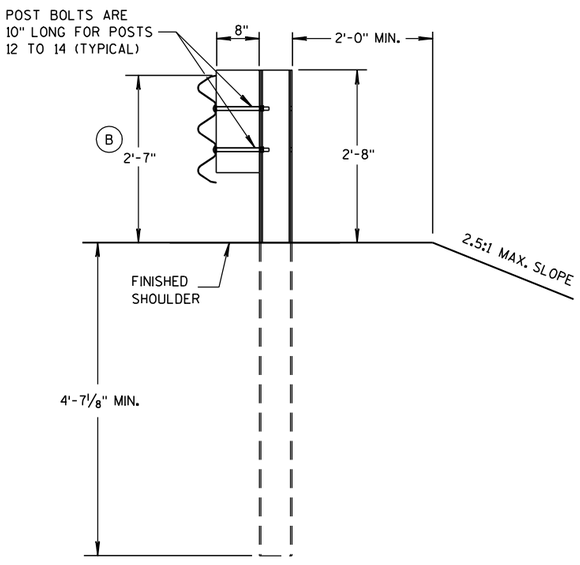
SECTION C-C

POSTS 7-11



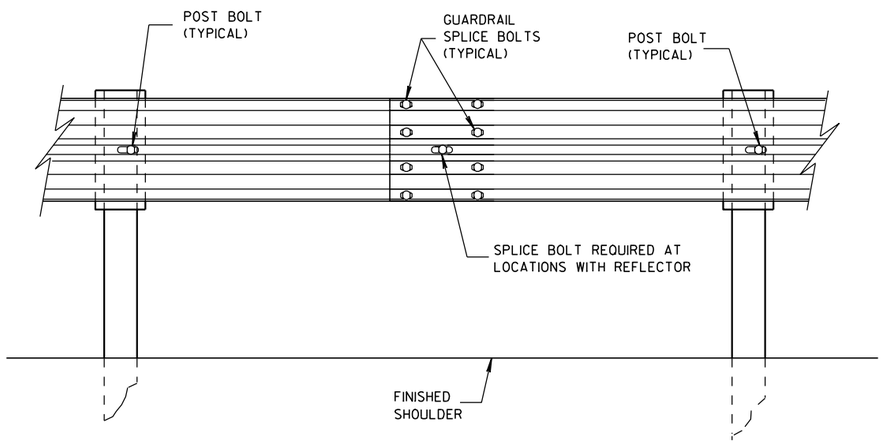


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14



SPLICE DETAIL

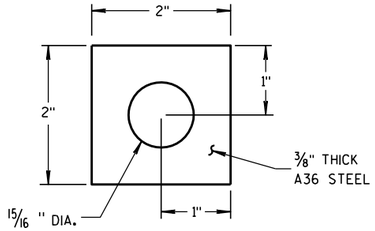
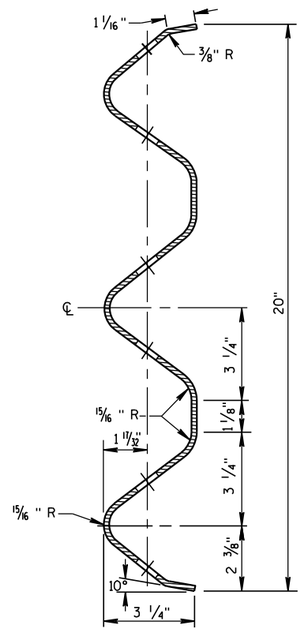


PLATE WASHER DETAIL

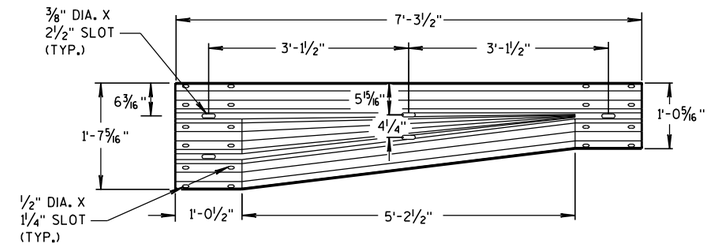


SECTION THRU THRIE BEAM RAIL ELEMENT

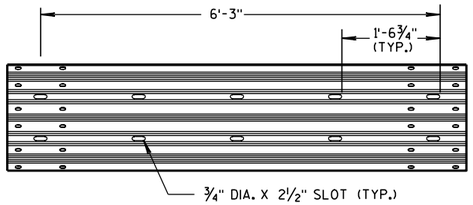
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

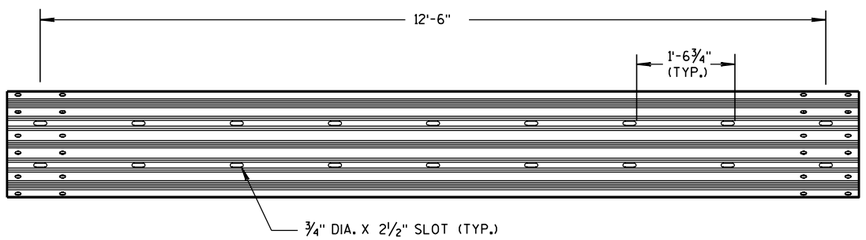
6
S.D.D. 14 B 45-3b



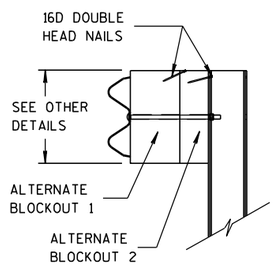
W-BEAM TO THRIE BEAM TRANSITION SECTION



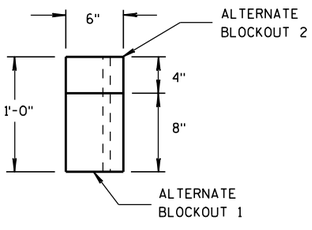
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

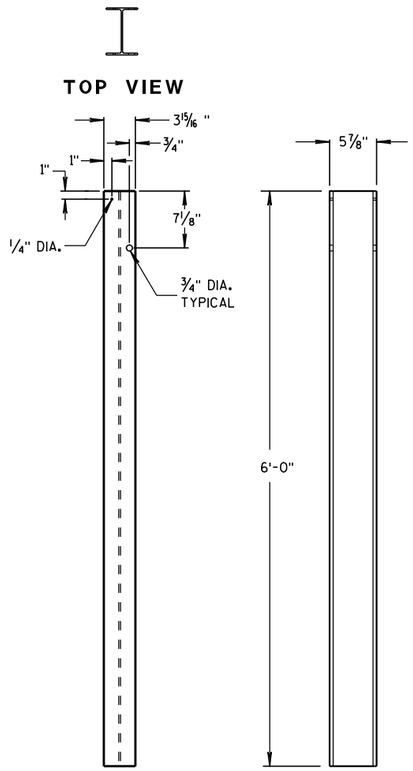


SIDE VIEW

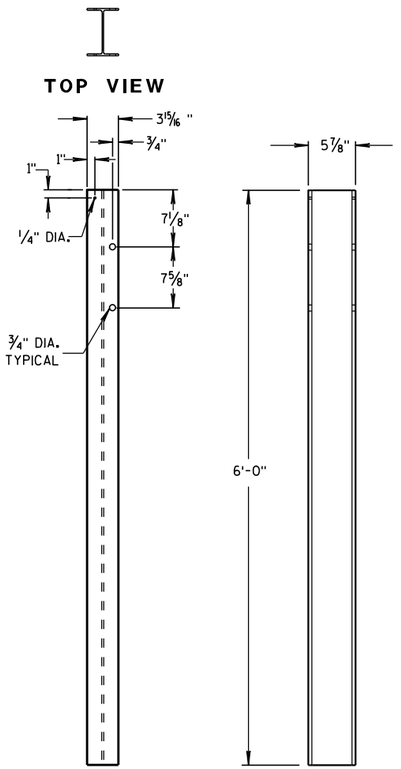


TOP VIEW

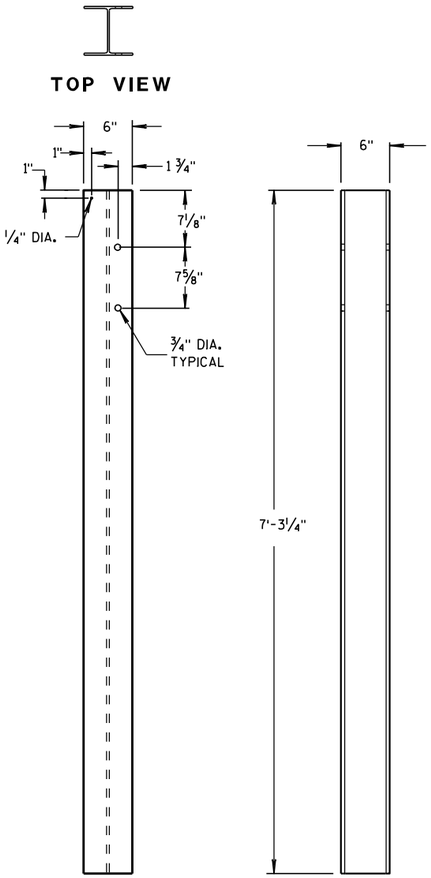
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

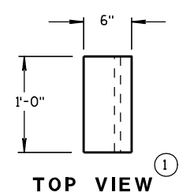


STEEL POSTS 6-11

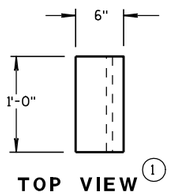


STEEL POSTS 12-14

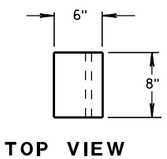
① WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



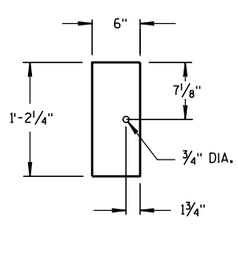
TOP VIEW ①



TOP VIEW ①

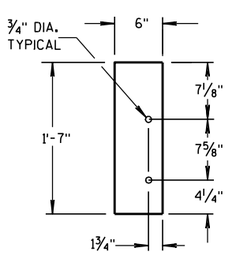


TOP VIEW



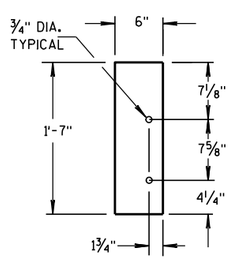
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

STEEL POST SIZES

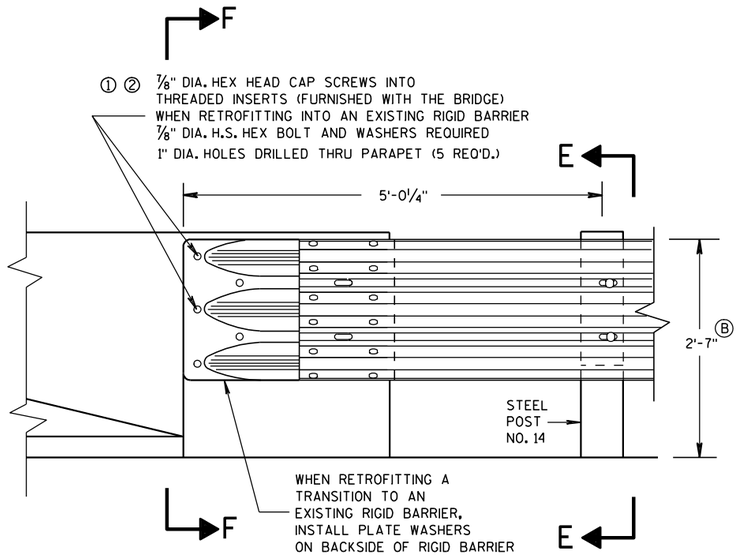
POST NUMBER	SECTION TYPE	LENGTH
①	W6x9	72"
②	W6x9	72"
③	W6x9	72"
④	W6x9	72"
⑤	W6x9	72"
⑥	W6x9	72"
⑦	W6x9	72"
⑧	W6x9	72"
⑨	W6x9	72"
⑩	W6x9	72"
⑪	W6x9	72"
⑫	W6x15	87 1/8"
⑬	W6x15	87 1/8"
⑭	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

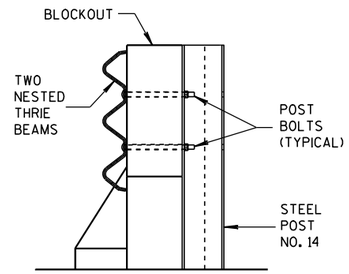
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

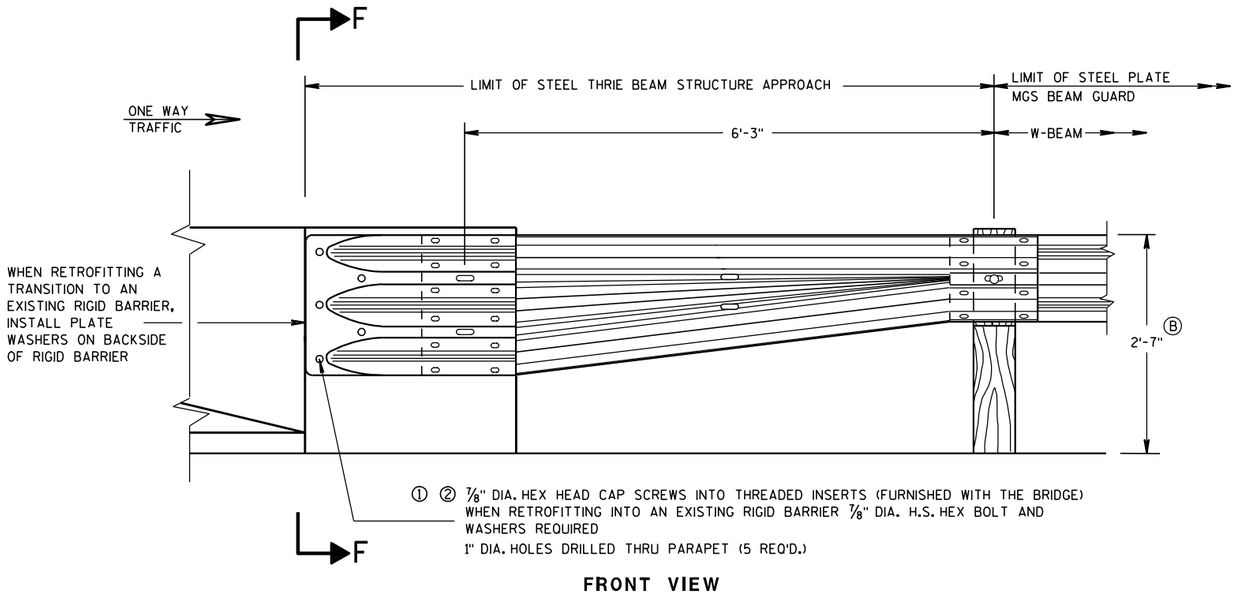
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

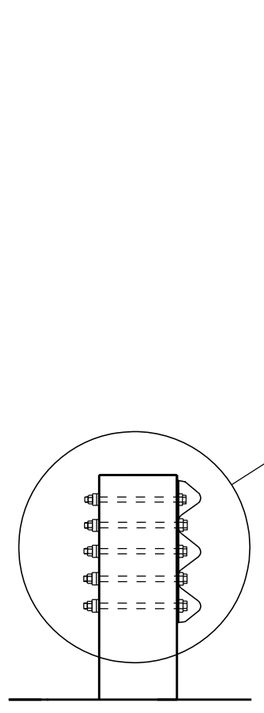
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

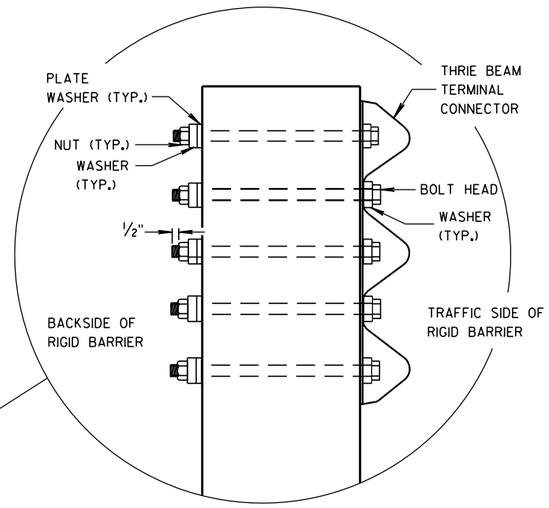
THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW



SECTION F-F



W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS (595
ENGINEER

FHWA

6

S.D.D. 14 B 45-3d

6

S.D.D. 14 B 45-3d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

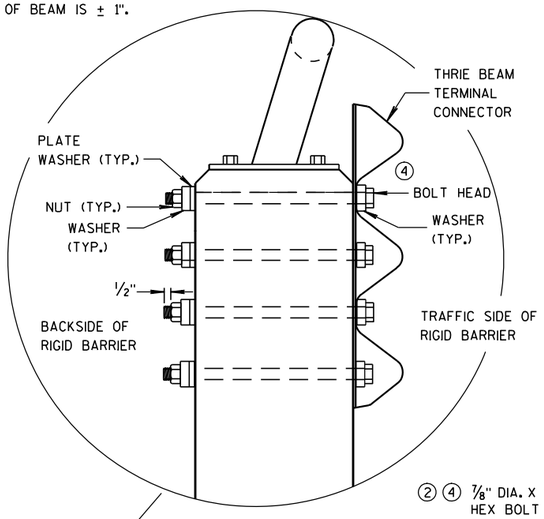
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

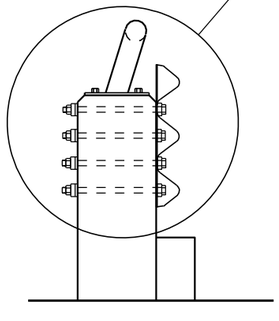
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2". BLOCK IS INCIDENTAL TO THE CONTRACT.

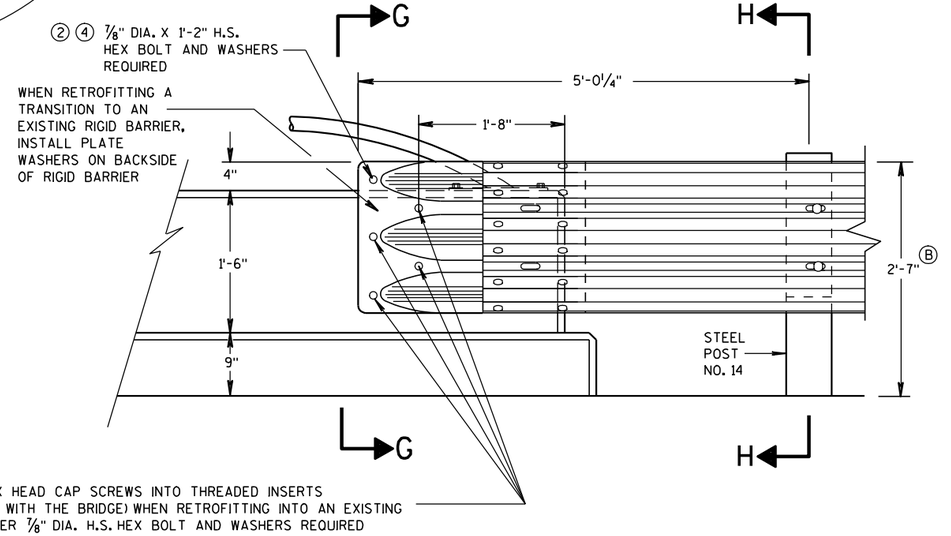
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

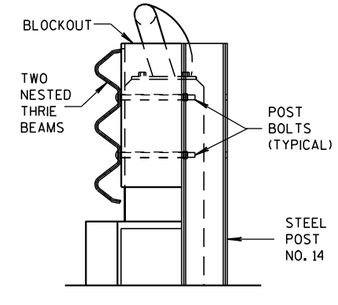




SECTION G-G

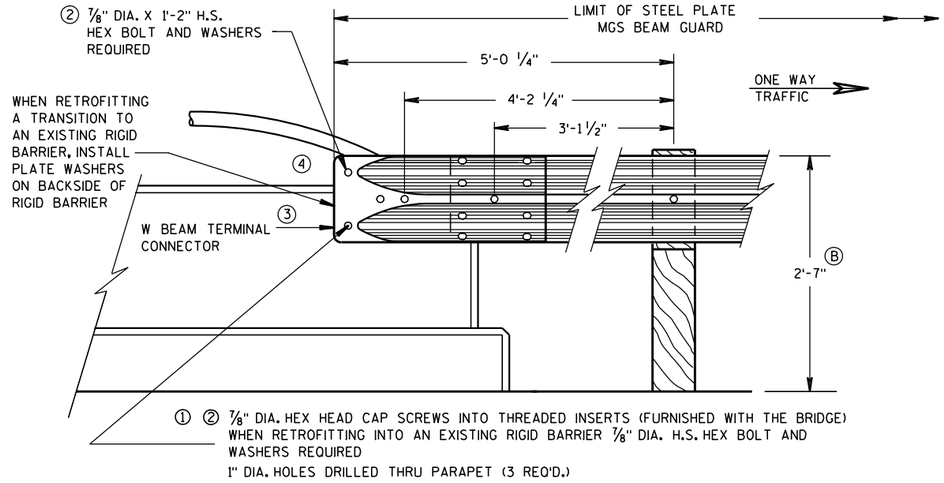


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

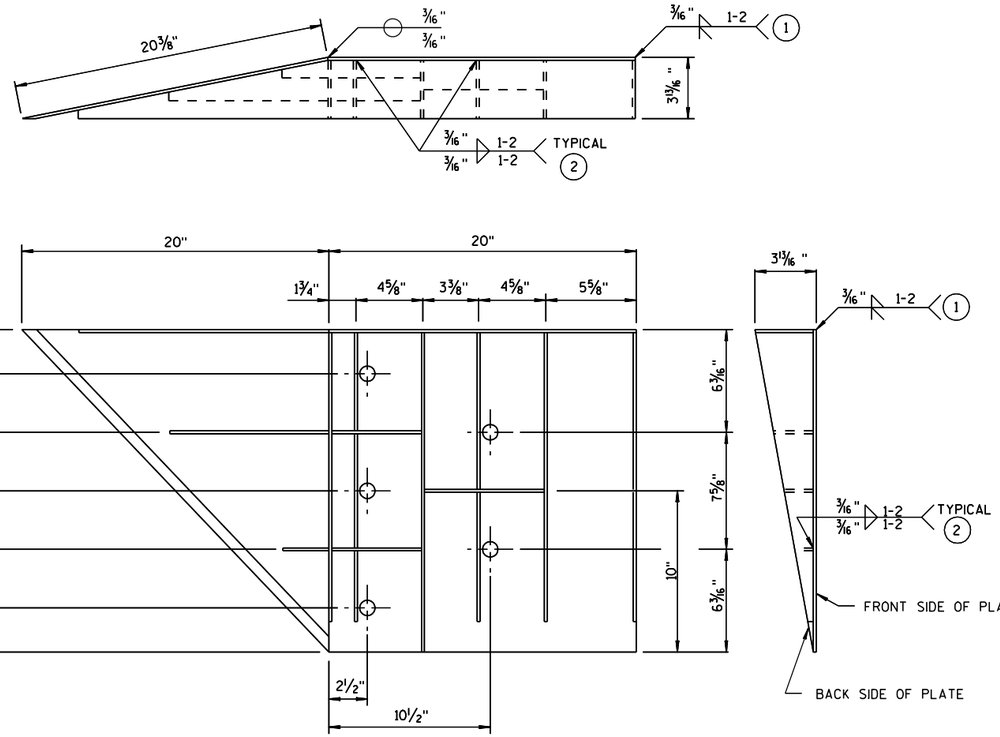
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

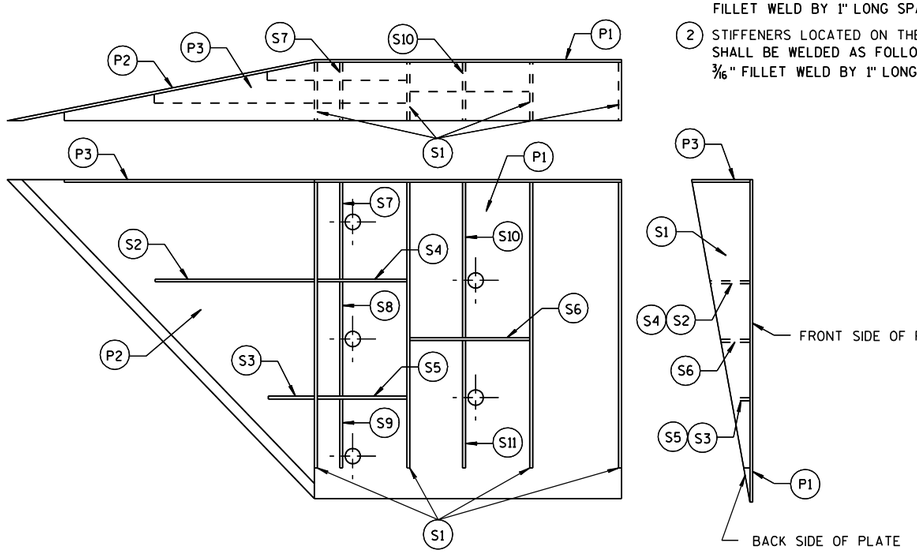


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE ⅜" THICK.

ALL STIFFENERS ARE ¼" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND ⅜" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
⅜" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	⅜"
P2	1		20" x 20" x 28⁹⁄₁₆"	⅜"
P3	1		39" x 3⅝" x 20" x 19⁵⁄₁₆"	⅜"
S1	4		18⁷⁄₁₆" x 3⅝" x 18¾"	¼"
S2	1		10¼" x 2⁷⁄₁₆" x 10⅜" x ½"	¼"
S3	1		3" x 1¹⁄₁₆" x 3⅛" x ½"	¼"
S4	1		6⅛" x 2⁷⁄₁₆"	¼"
S5	1		6⅛" x 1¹⁄₁₆"	¼"
S6	1		7¾" x 1¾"	¼"
S7	1		2⁹⁄₁₆" x 6" x 3⅝" x 5⅞"	¼"
S8	1		1³²⁄₃₂" x 7½" x 2½" x 7⅜"	¼"
S9	1		6¹⁄₁₆" x 6⅜" x 1³²⁄₃₂"	¼"
S10	1		1⅞" x 9⅞" x 3⅝" x 9¹¹⁄₁₆"	¼"
S11	1		8½" x 8¾" x 1¹³⁄₁₆"	¼"

SINGLE SLOPE CONNECTION PLATE

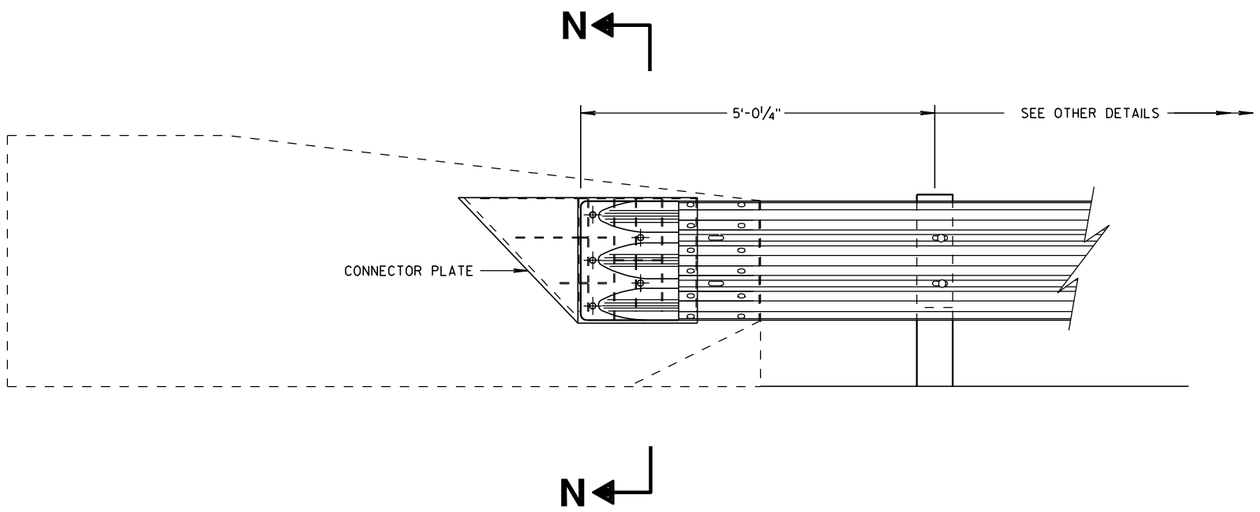
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

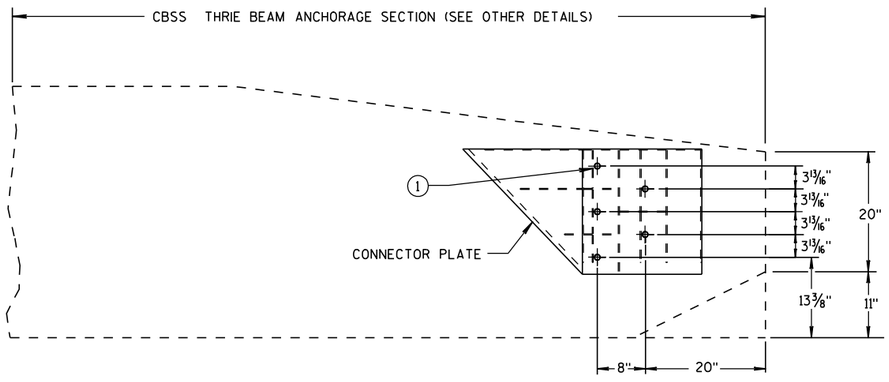
APPROVED
8/31/2012 DATE
/S/ Jerry H ---- ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

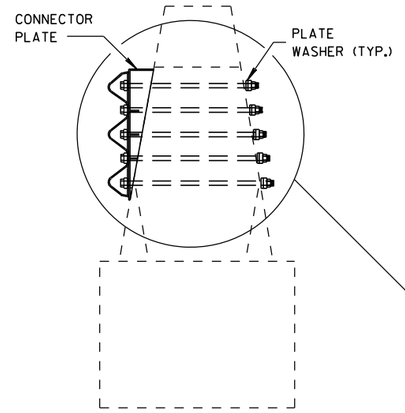


SINGLE SLOPE CONNECTION PLATE PLACEMENT

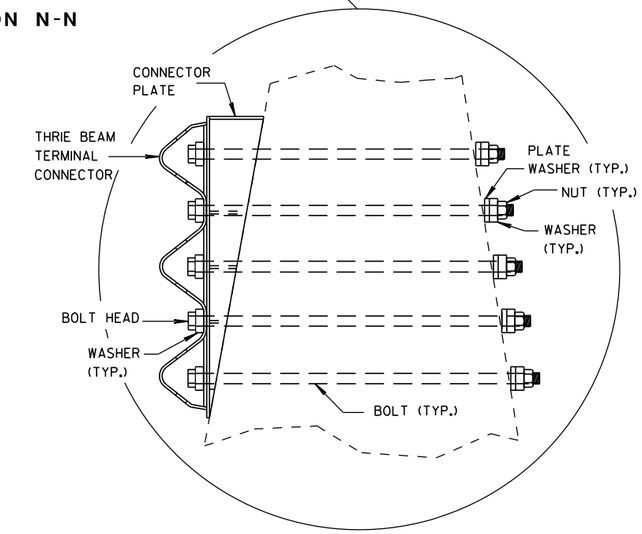
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible]598 [illegible]ENT
ENGINEER

FHWA

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S.D.D. 14 B 45-3j

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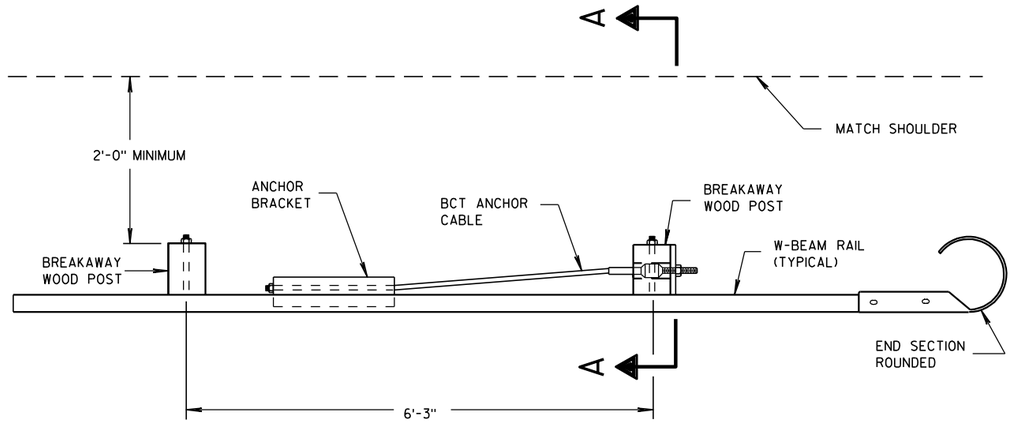
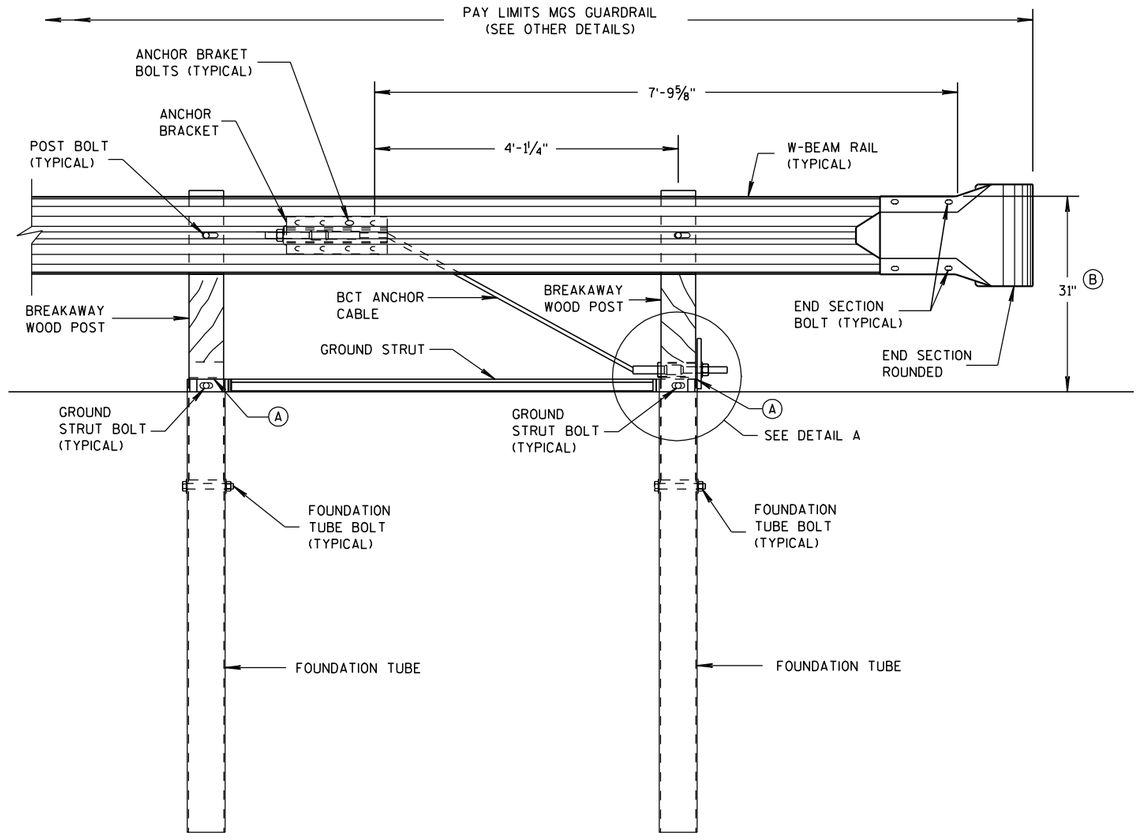
S.D.D. 14 B 45-3j

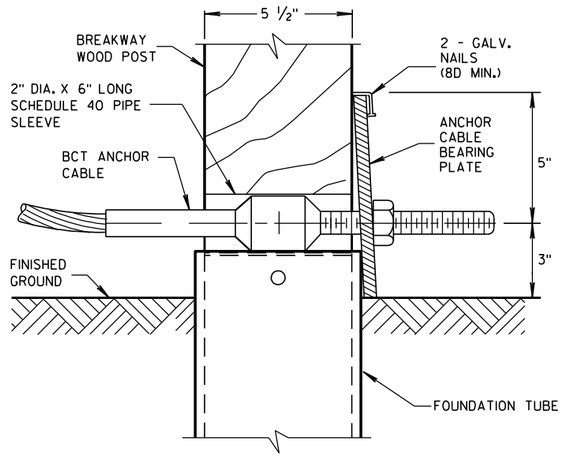


PLAN VIEW



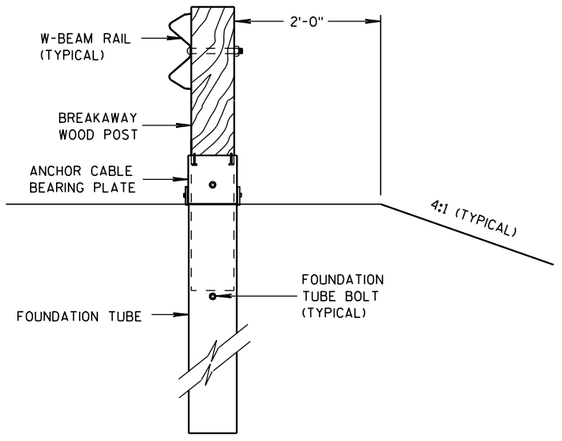
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

POST BOLTS ARE A ⅝" DIAMETER X 10" LONG GUARDRAIL BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER DH MODIFIED (RECESSED) HEAVY HEX NUT AND ⅝" DIAMETER FLAT WASHER.

FOUNDATION TUBE BOLTS ARE A ⅞" DIAMETER X 7½" LONG HEAVY HEX HEAD BOLT. A FOUNDATION TUBE BOLT REQUIRES A ⅞" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

GROUND STRUT BOLTS ARE A ⅝" DIAMETER X 10" LONG HEAVY HEX HEAD BOLT. A GROUND STRUT BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

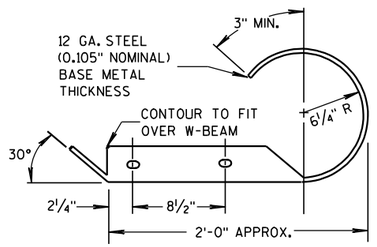
ANCHOR BRAKET BOLTS ARE A ⅝" DIAMETER X 1½" LONG HEAVY HEX HEAD BOLT. AN ANCHOR BRAKET BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A FLAT WASHER.

END SECTION BOLTS ARE A ⅝" DIAMETER X 1½" HEAVY HEX HEAD BOLT. AN END SECTION BOLT REQUIRES ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

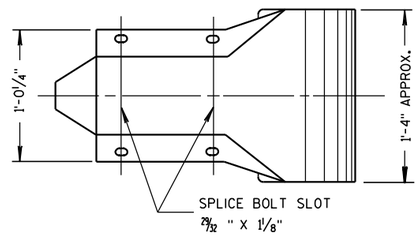
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 47-1a

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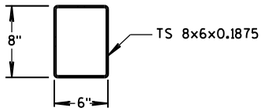
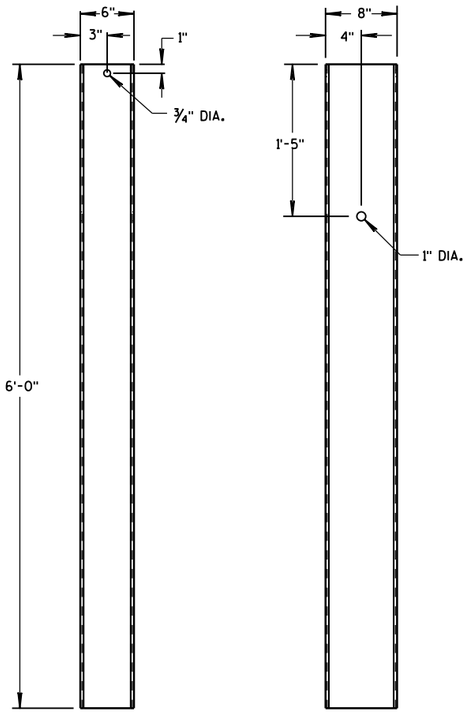
S.D.D. 14 B 47-1a

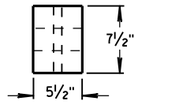


PLAN VIEW

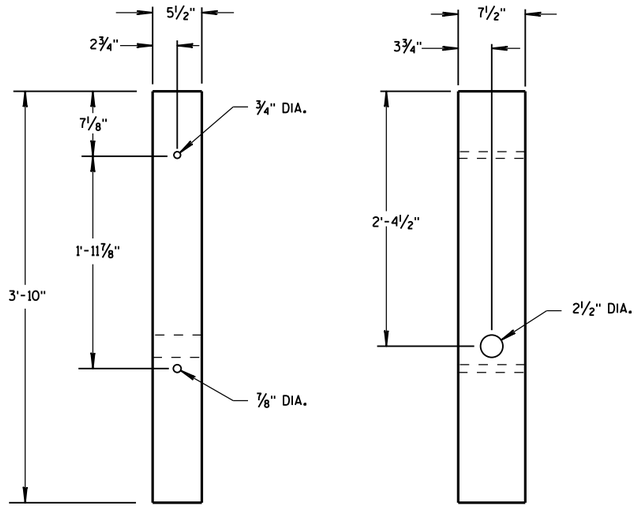


FRONT VIEW SIDE VIEW

FOUNDATION TUBE



PLAN VIEW



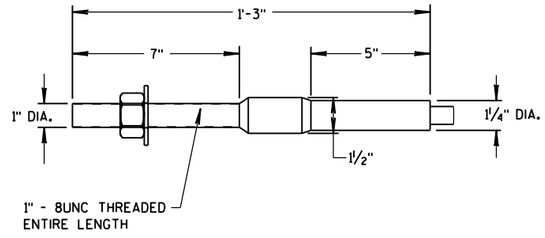
FRONT VIEW SIDE VIEW

BREAKAWAY WOOD POST

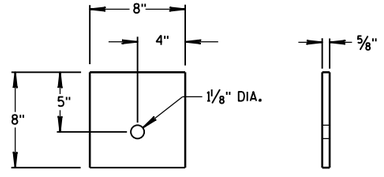
GENERAL NOTES

BCT ANCHOR CABLE IS A ⅜" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. THE END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. THE TREADED STUD SHOULD CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



SIDE VIEW FRONT VIEW

ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI 600

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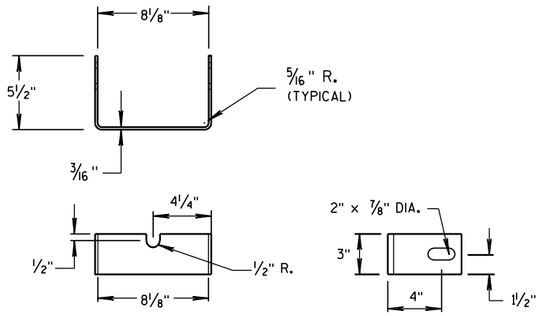
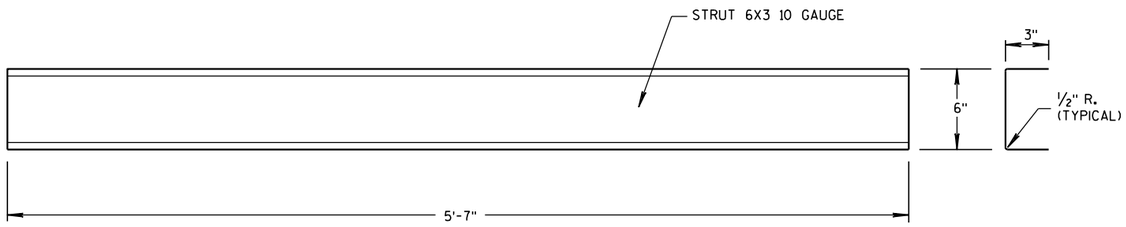
S.D.D. 14 B 47-1b

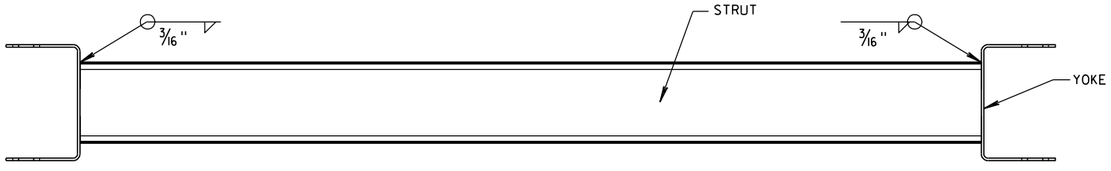
S.D.D. 14 B 47-1b



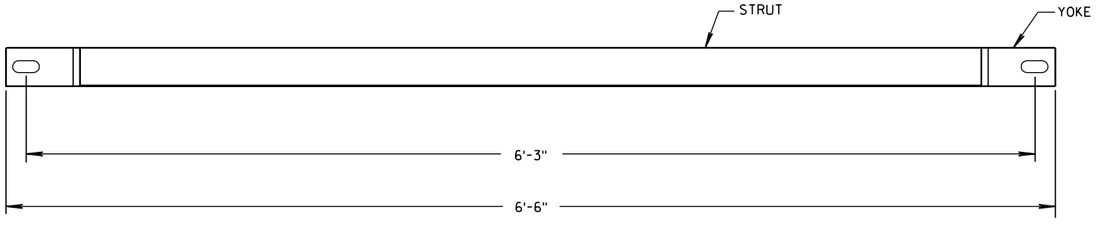
YOKE DETAIL



STRUT DETAIL

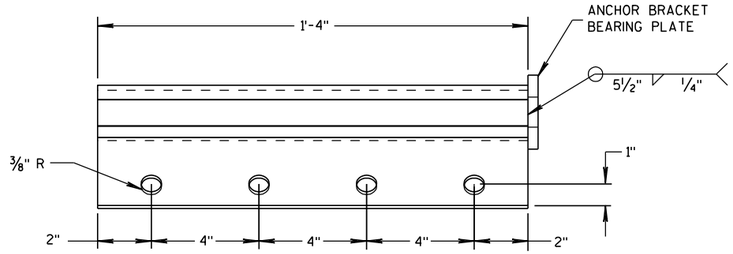


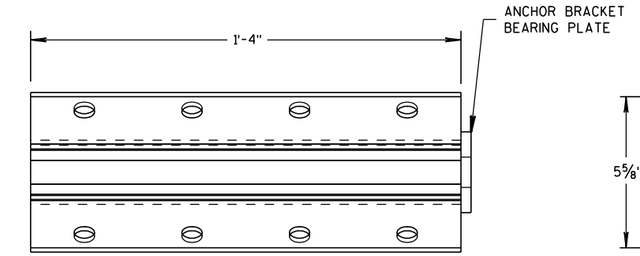
PLAN VIEW

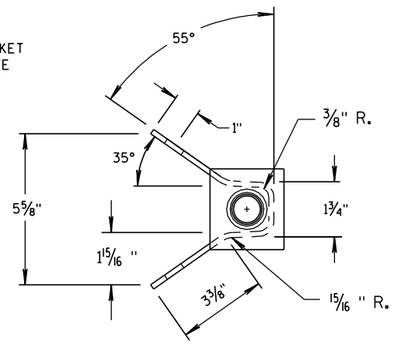


FRONT VIEW

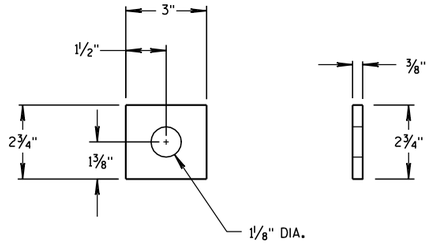
GROUND STRUT DETAIL







ANCHOR BRACKET



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
5/23/2011 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA	601 [illegible]ENT

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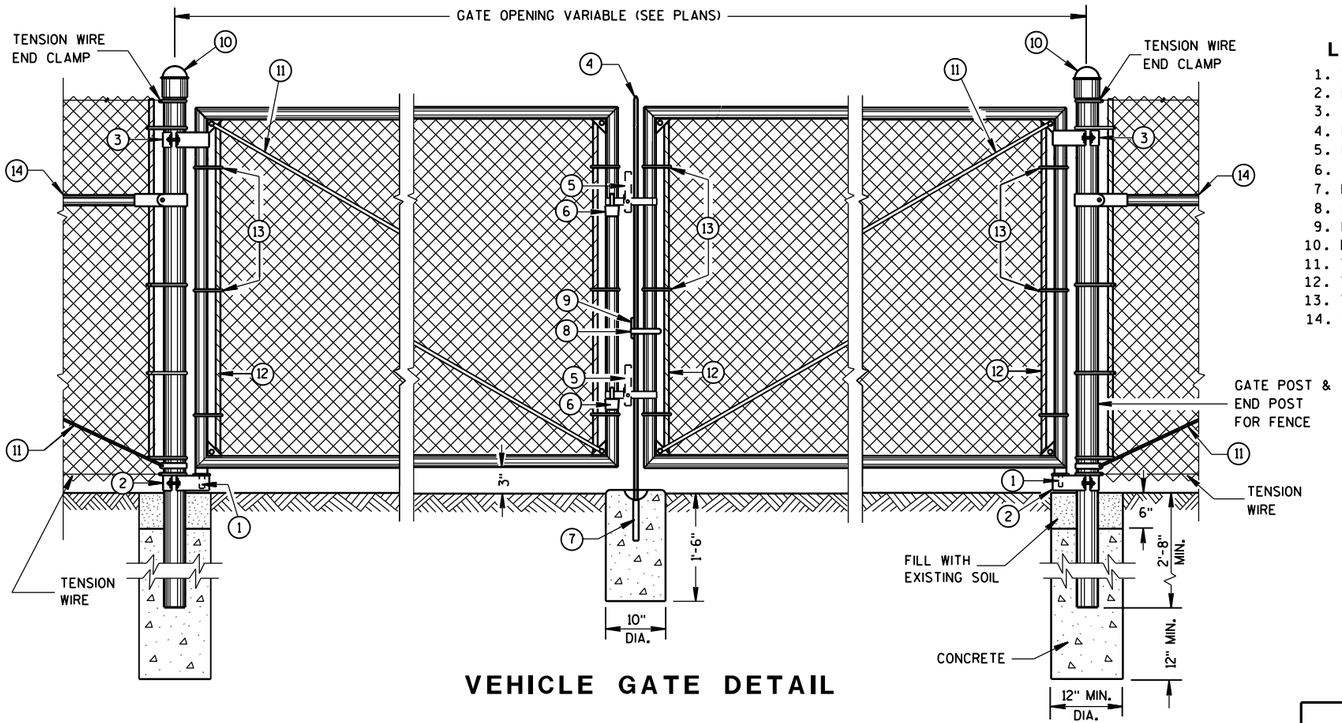
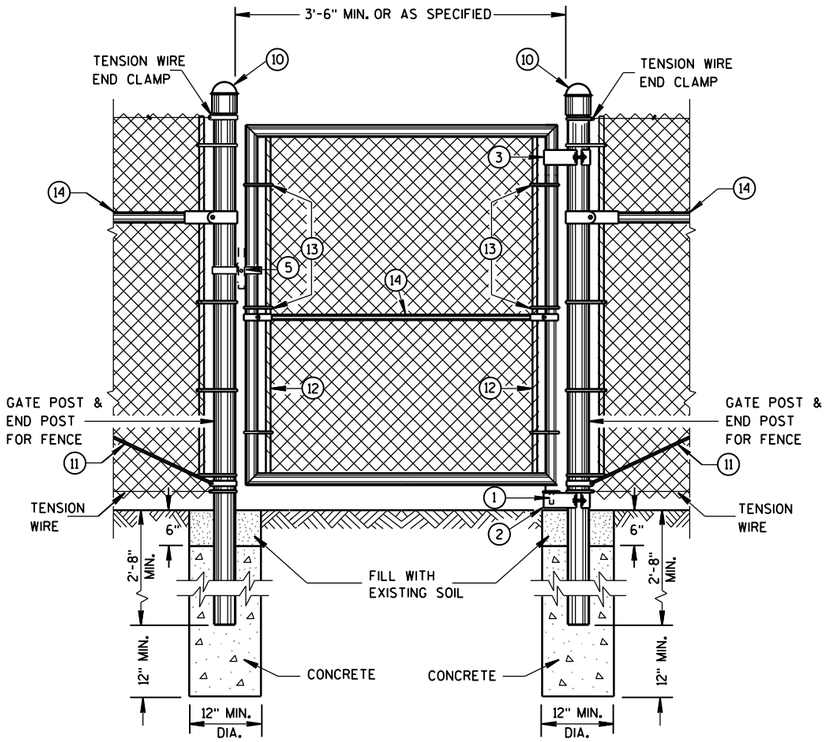
S.D.D. 14 B 47-1c



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

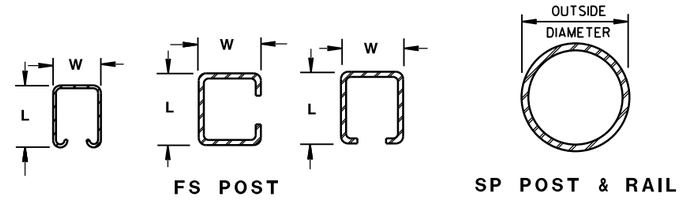
FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.



FS POST

SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR FORMED STEEL FENCE POST

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR ROUND STEEL FENCE POST

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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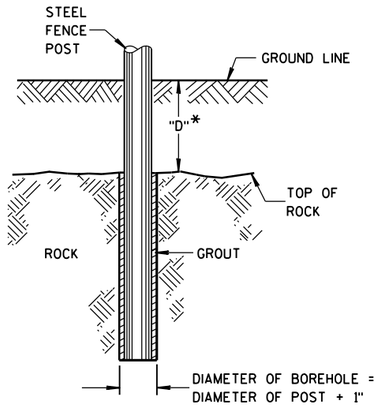
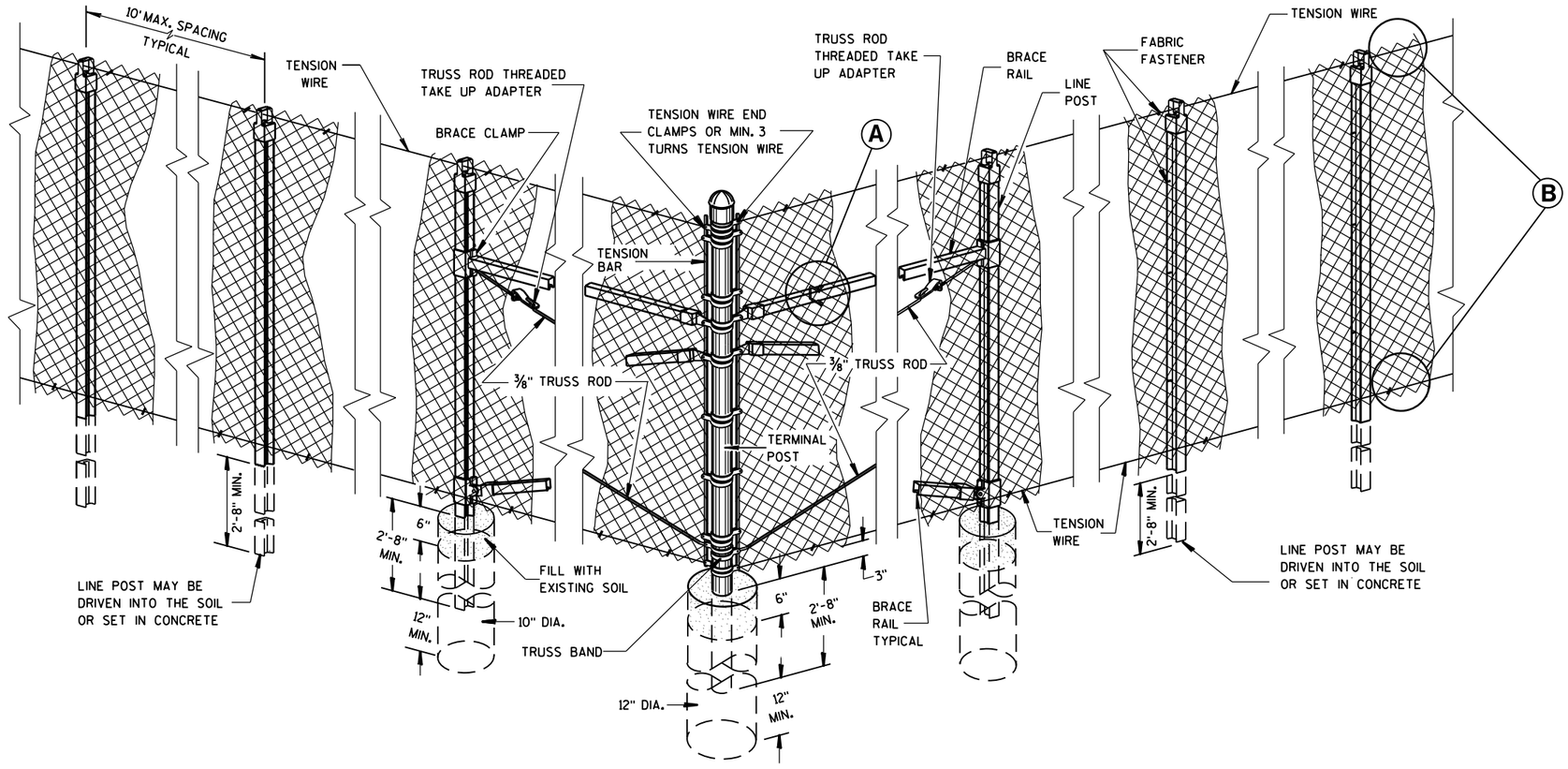
S.D.D. 15 B 3-13a
S.D.D. 15 B 3-13a

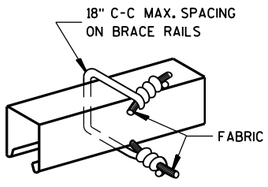


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



BRACE RAIL

FABRIC FASTENER

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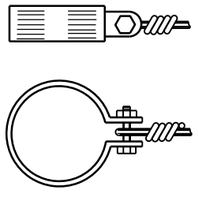
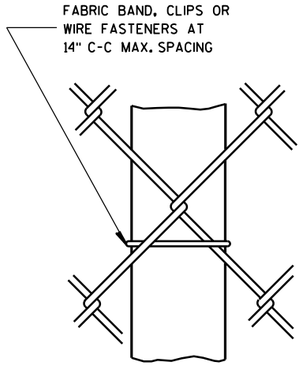


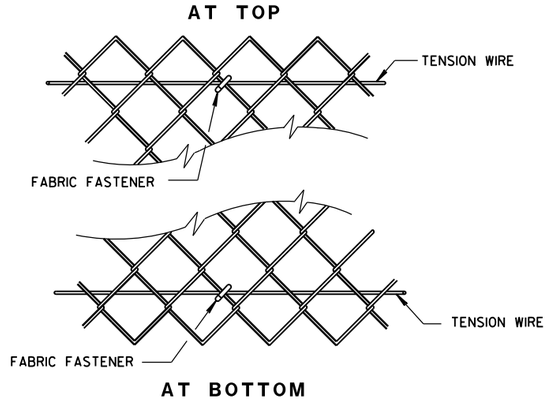
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

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FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/16/2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

603

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S.D.D. 15 B 3-13b

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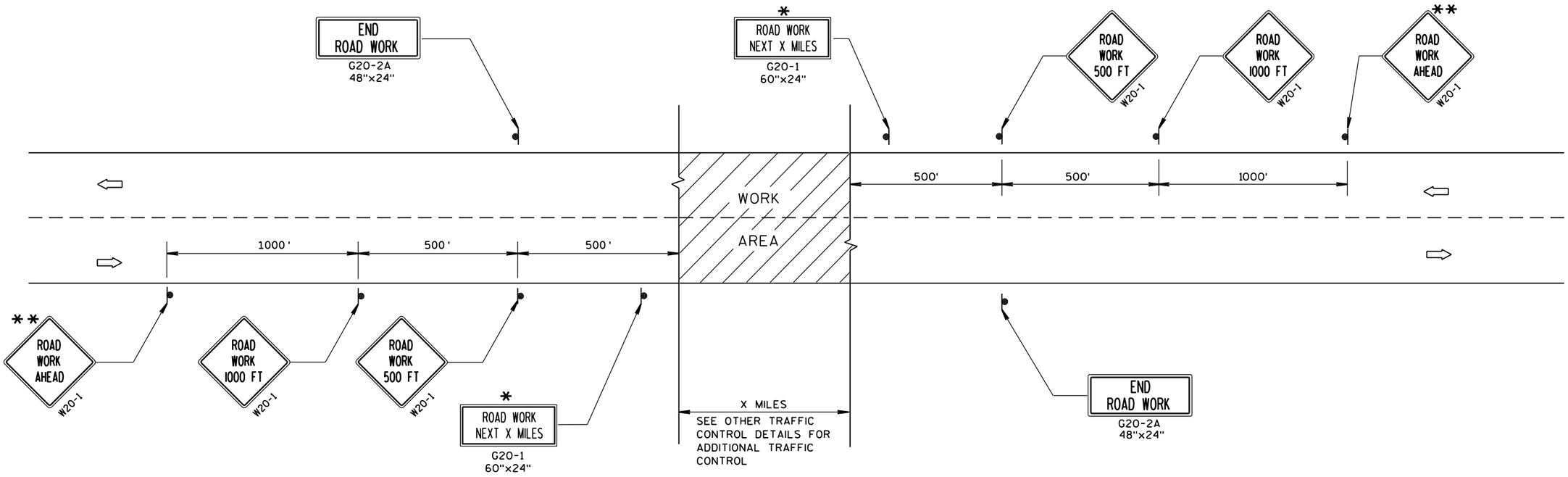
S.D.D. 15 B 3-13b



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

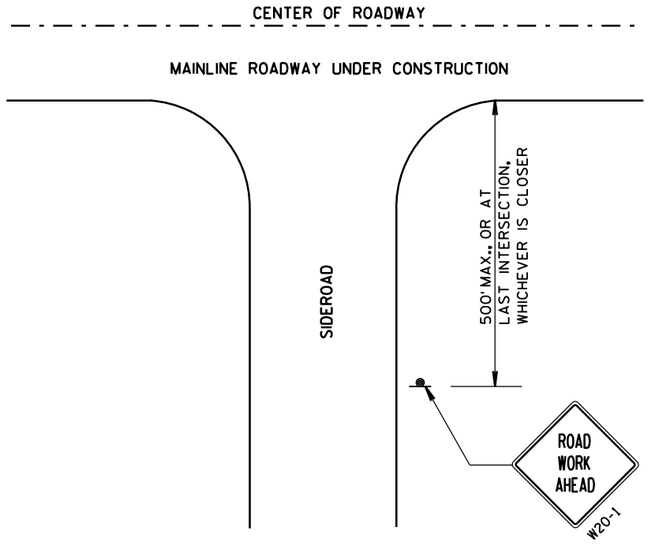
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

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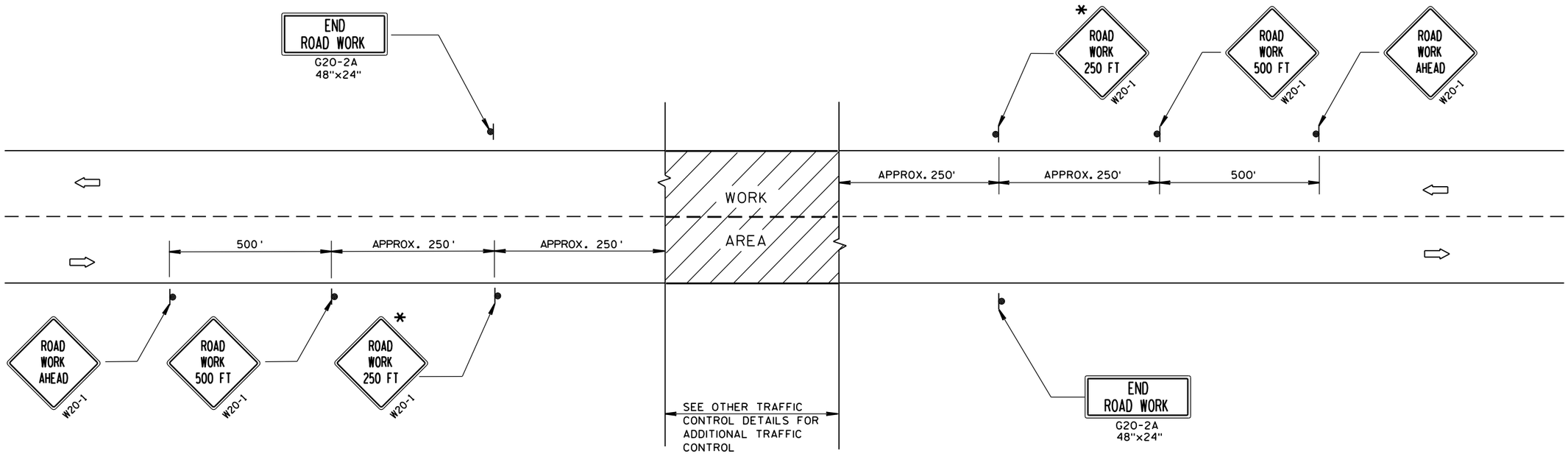
S.D.D. 15 C 4-2

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

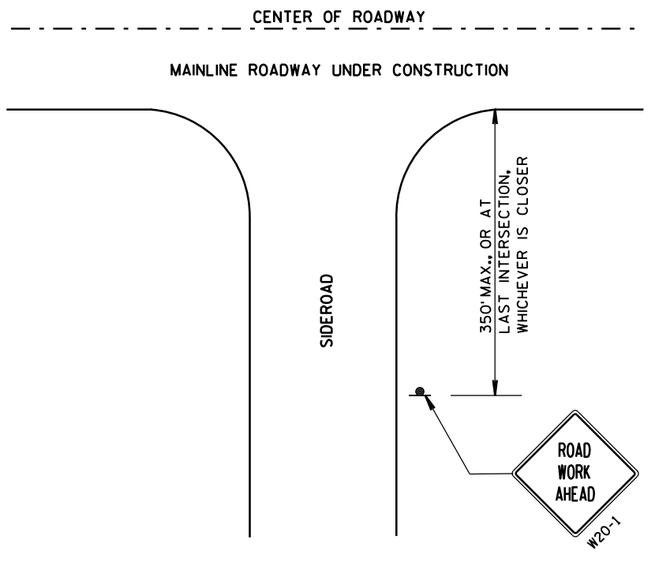
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

605

SIGN

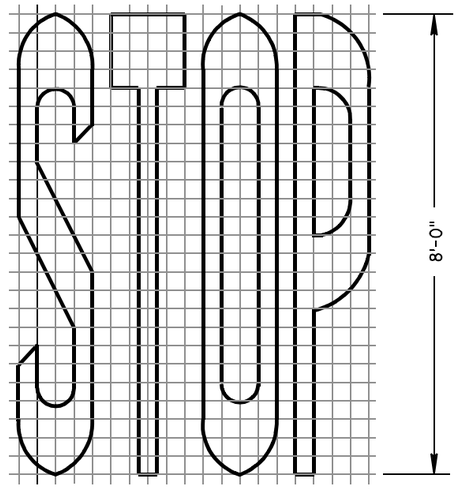
FHWA

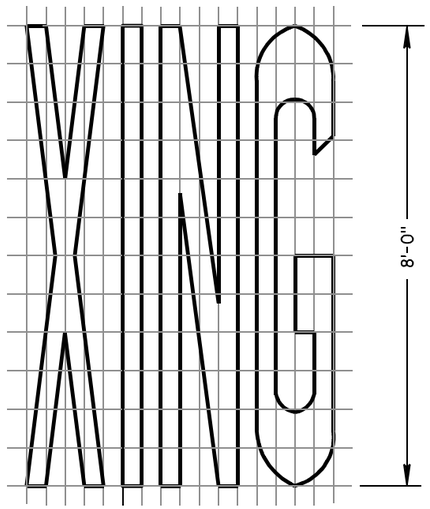
6
S.D.D. 15 C 5-2

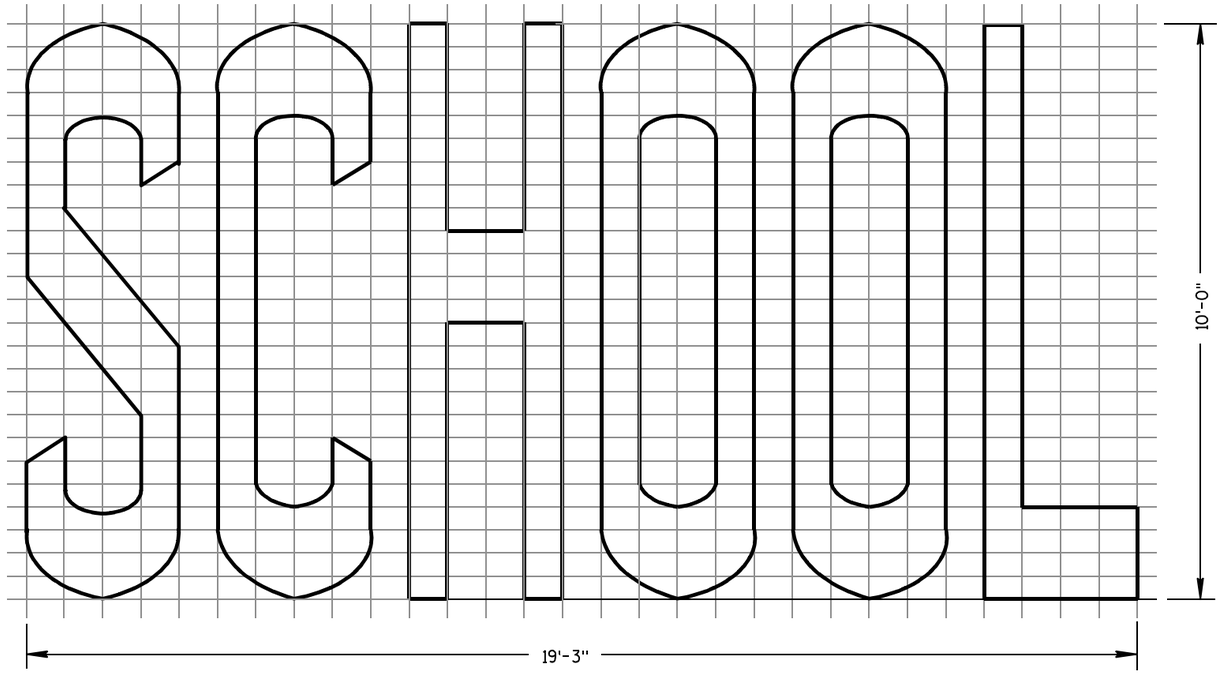
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

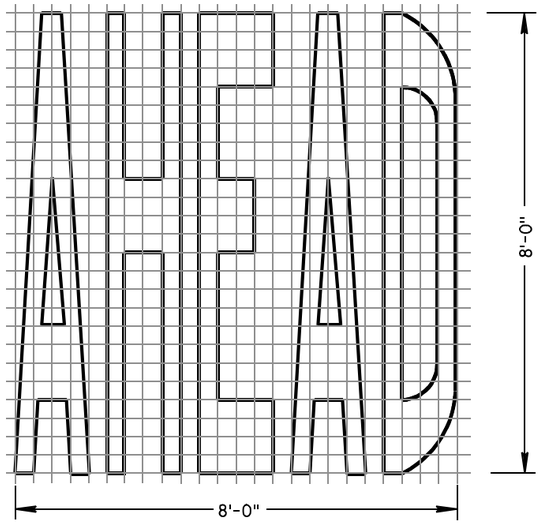
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

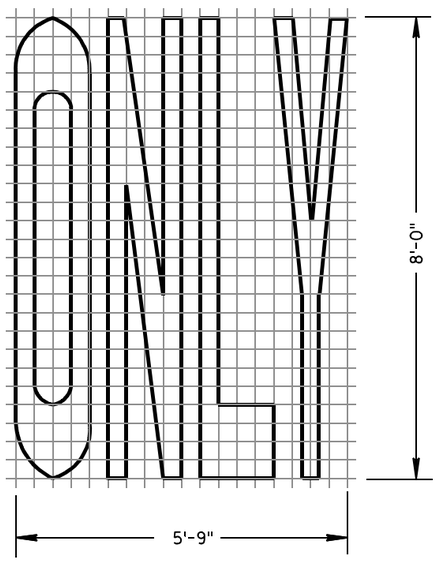


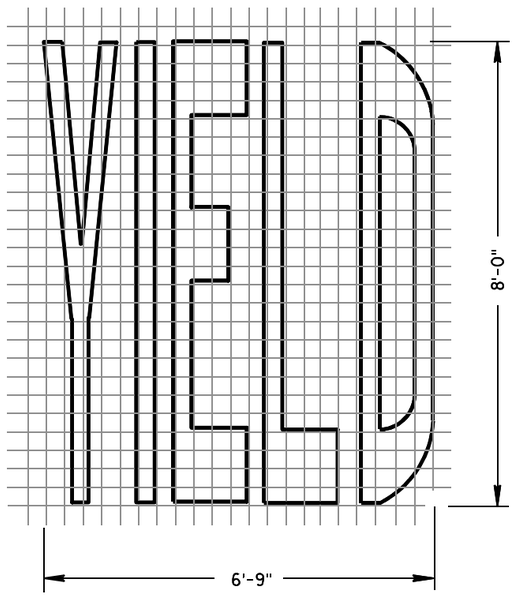


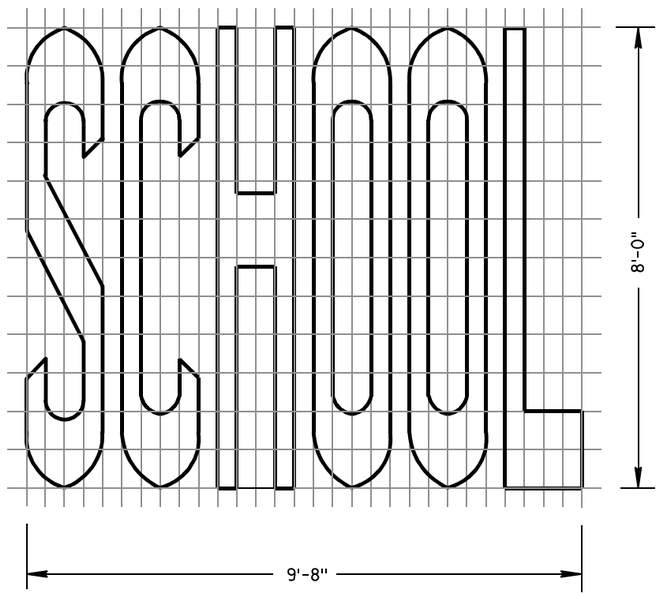


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

606

IGN

6

S.D.D. 15 C 7-12b

6

S.D.D. 15 C 7-12b

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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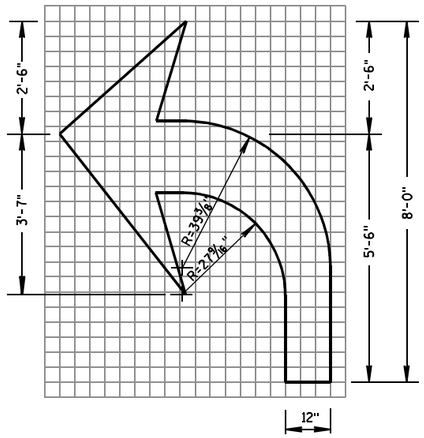
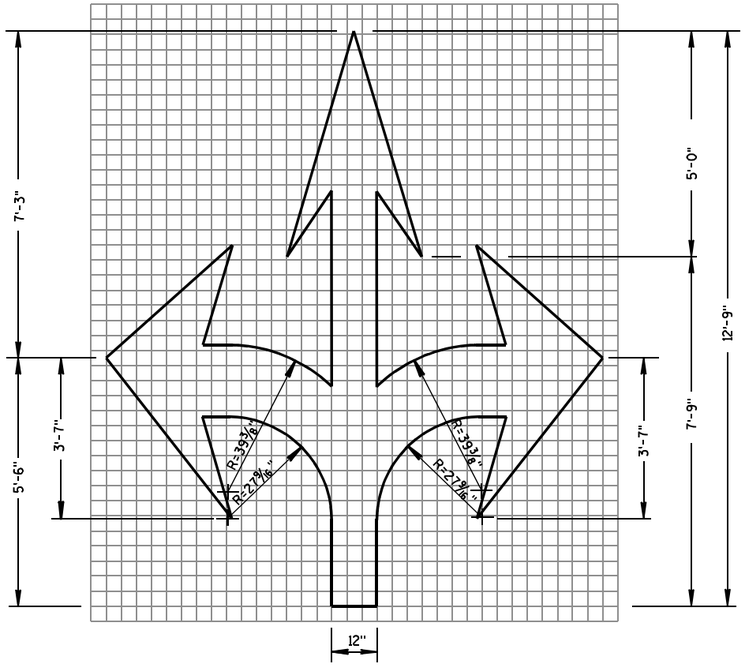
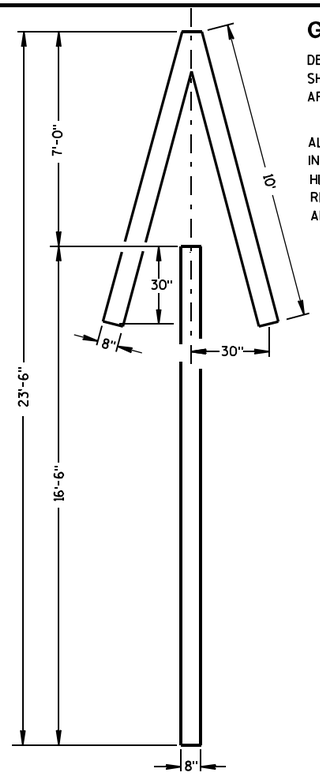


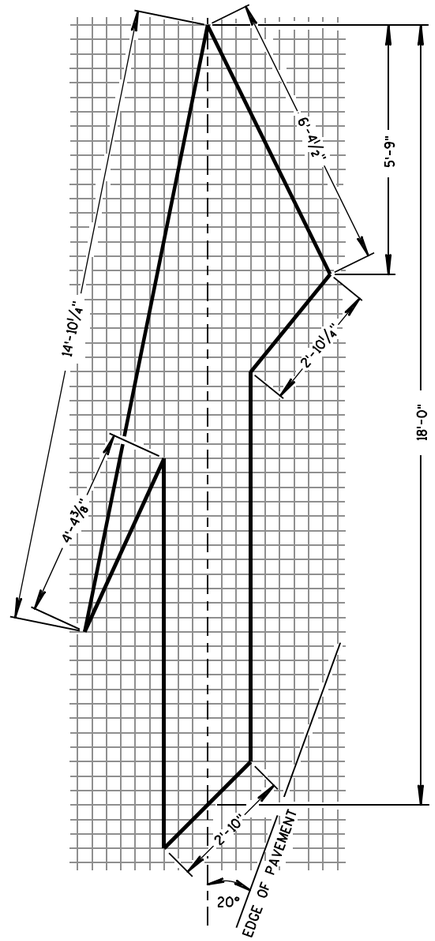
TYPE 2



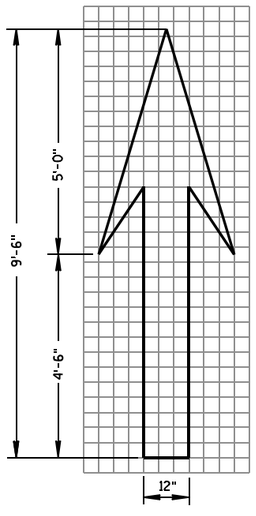
TYPE 6



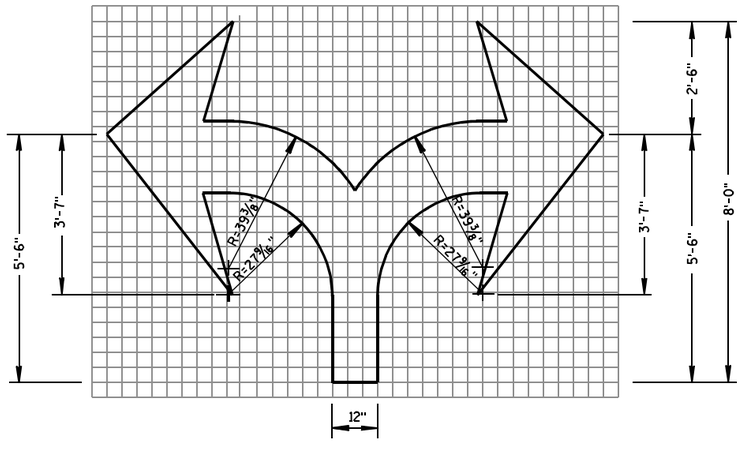
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 1



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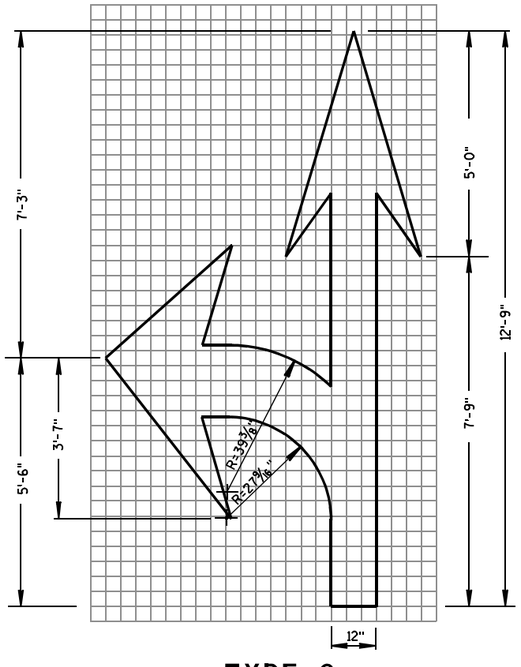
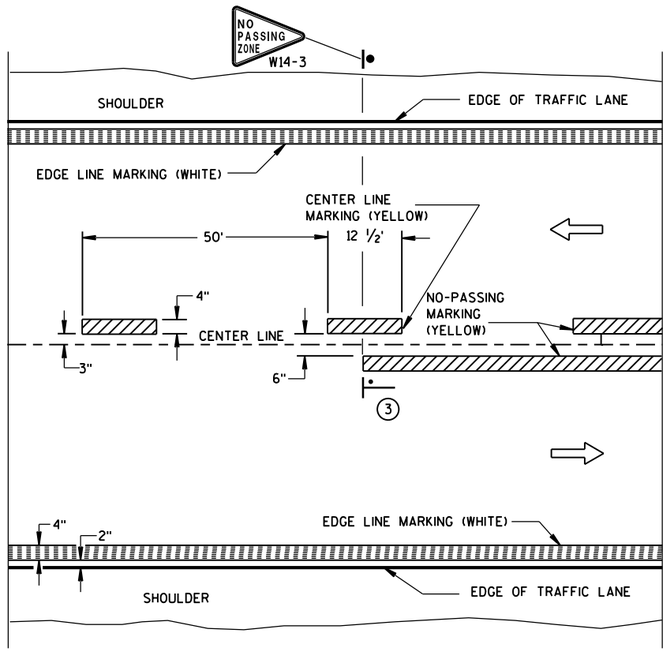


TYPE 3

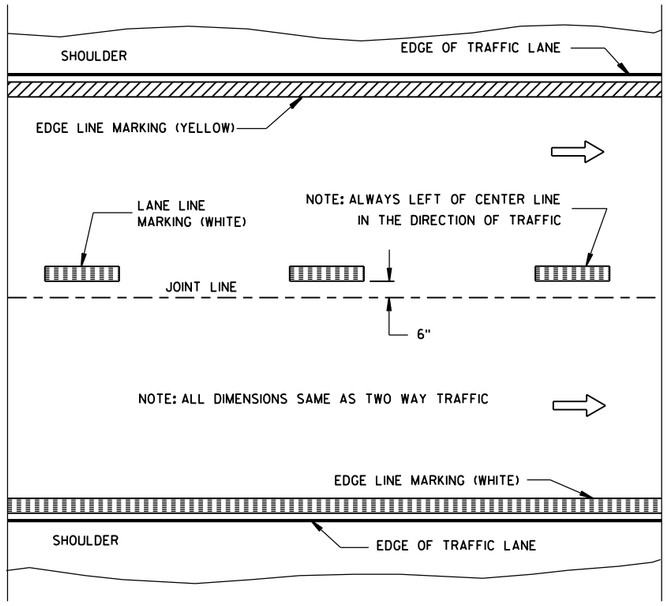
PAVEMENT MARKING ARROWS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/1/11 DATE FHWA	/S/ Thomas N. Nothdurm STATE TRAFFIC ENGINEER

6

S.D.D. 15 C 7-12c

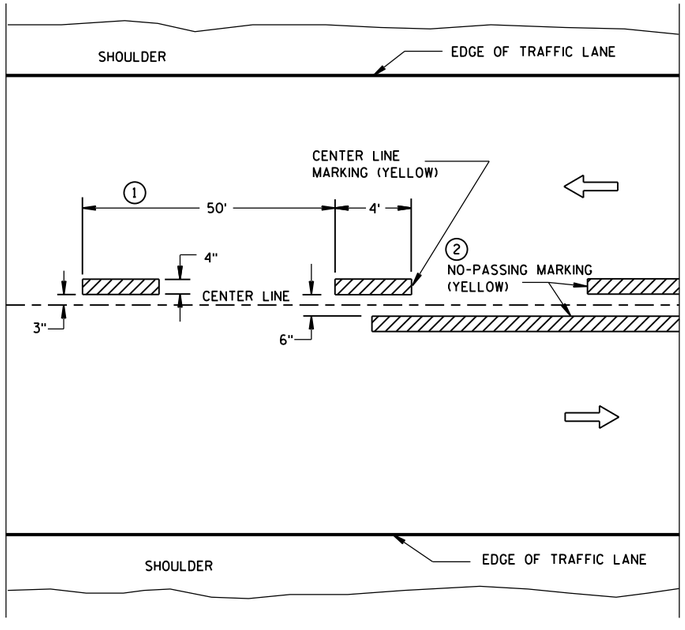


TWO WAY TRAFFIC

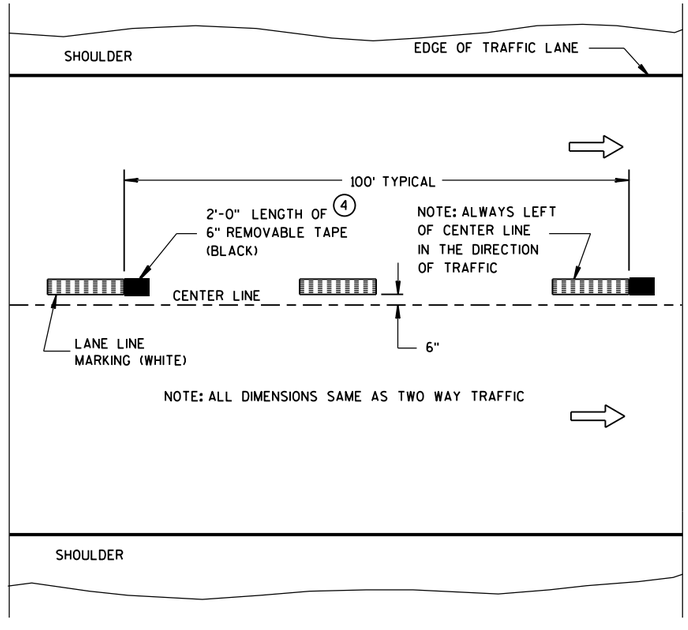


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

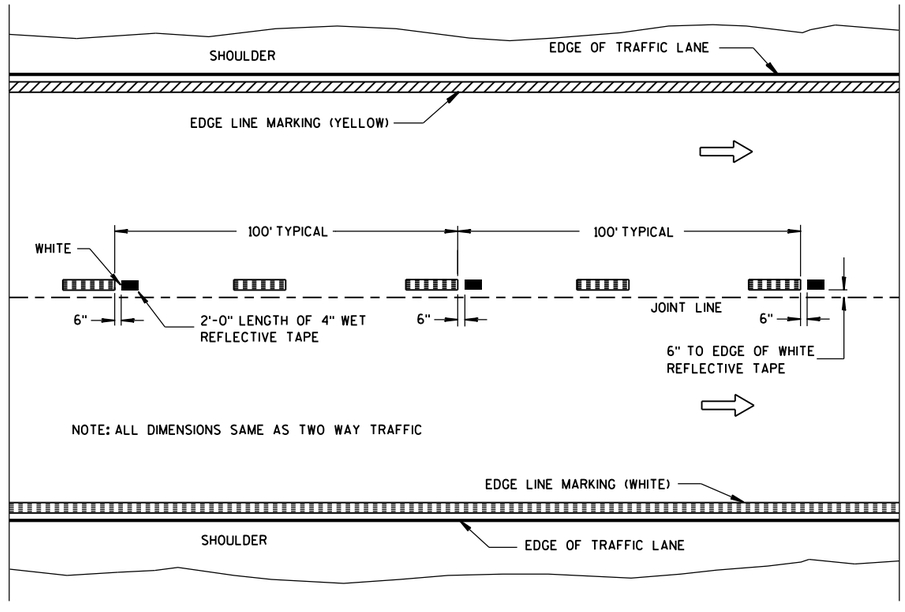
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

608

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S.D.D. 15 C 8-16a

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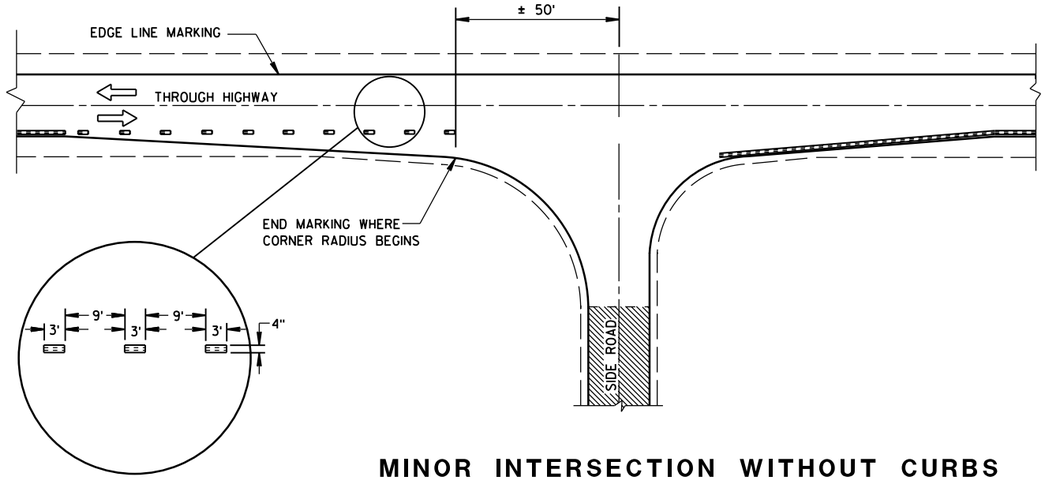
S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

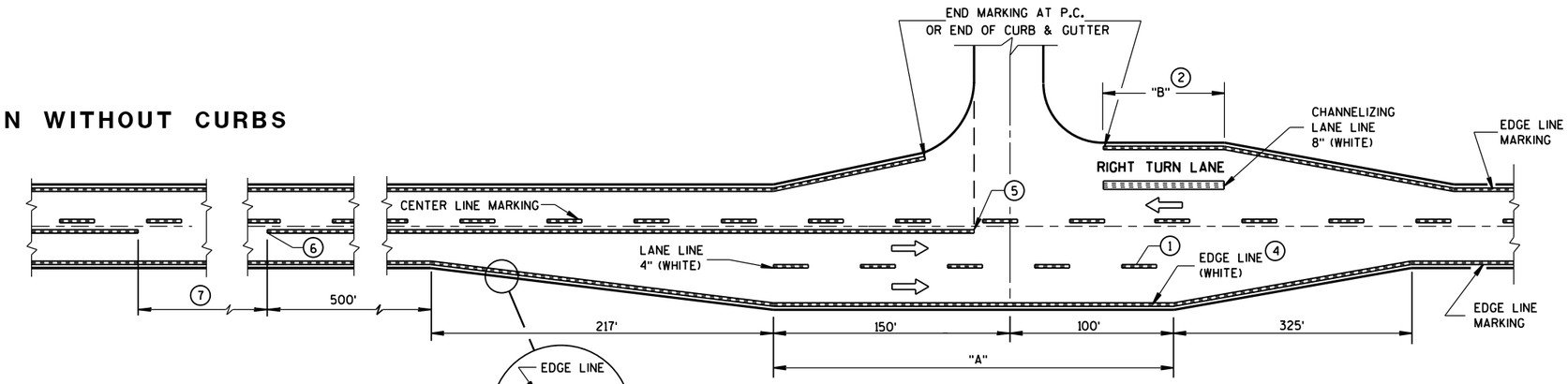
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

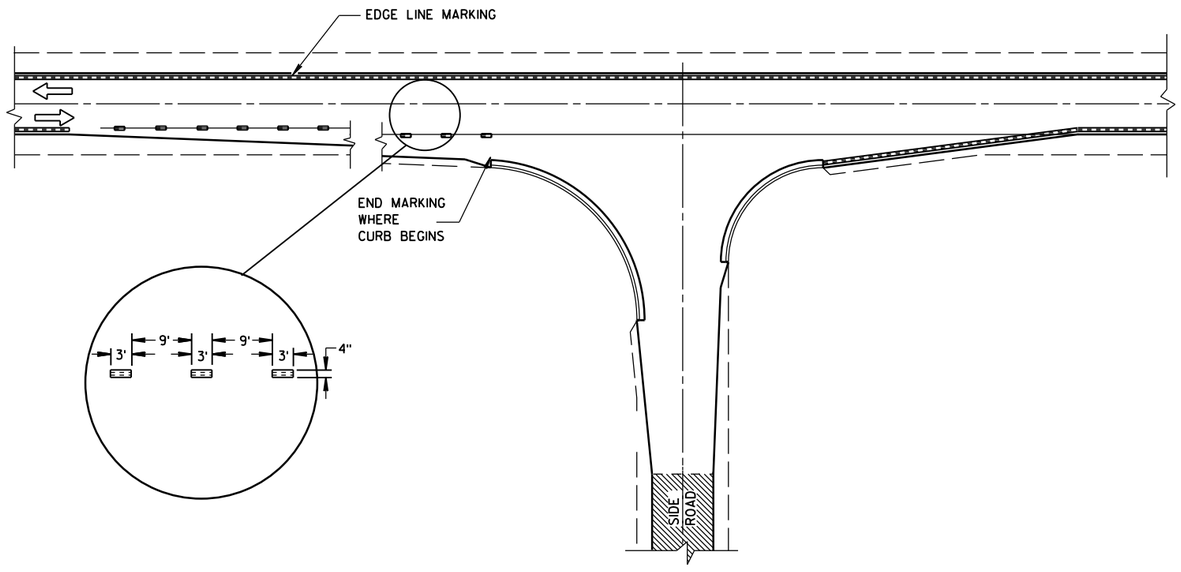
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



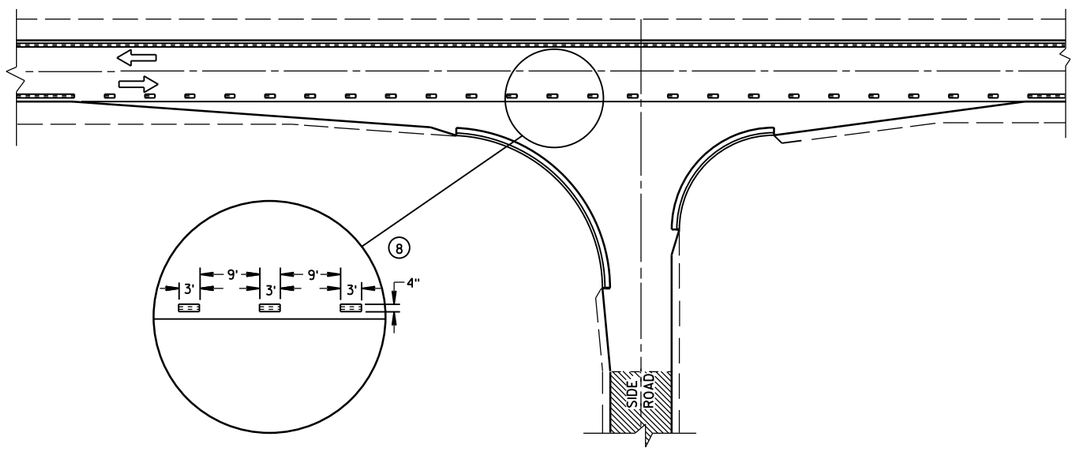
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

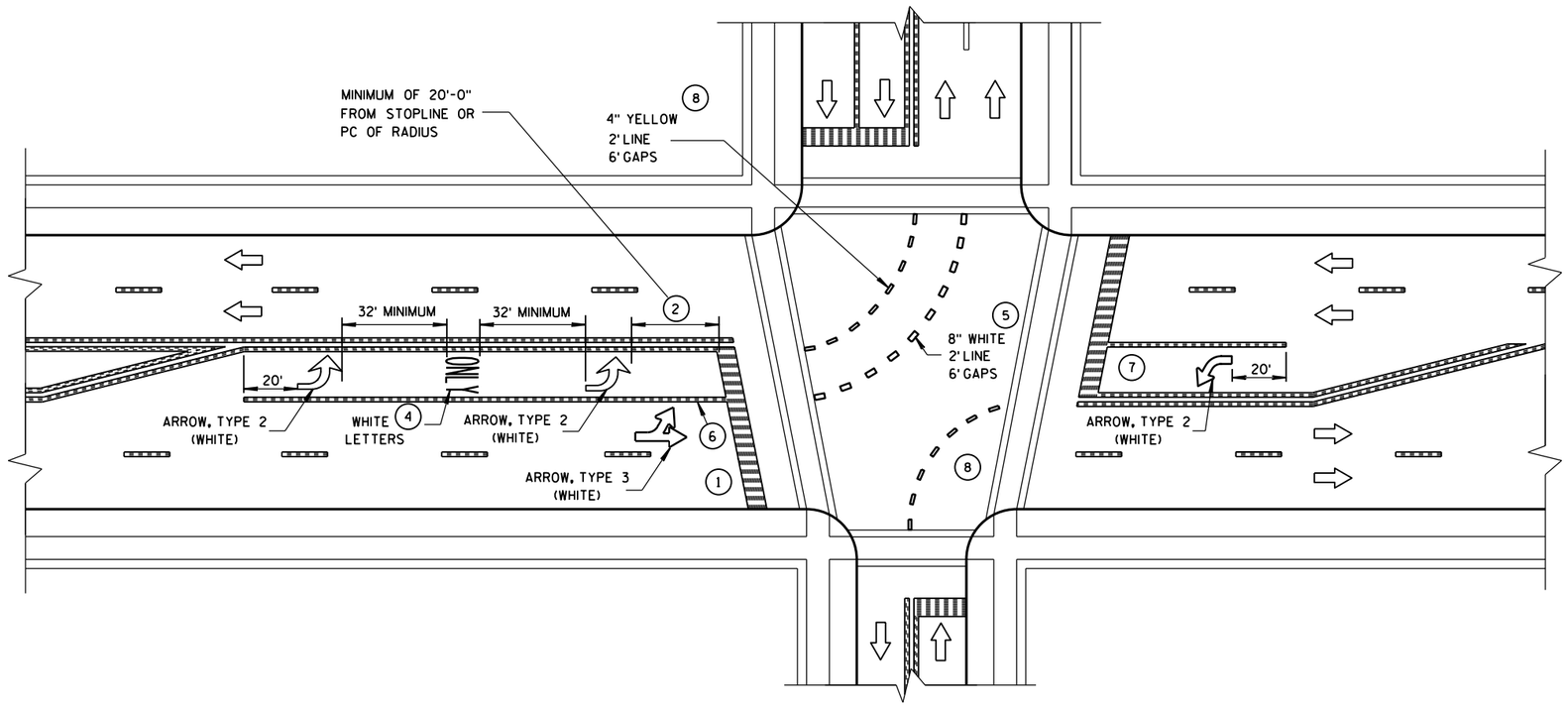
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 609

6

S.D.D. 15 C 8-16b

6

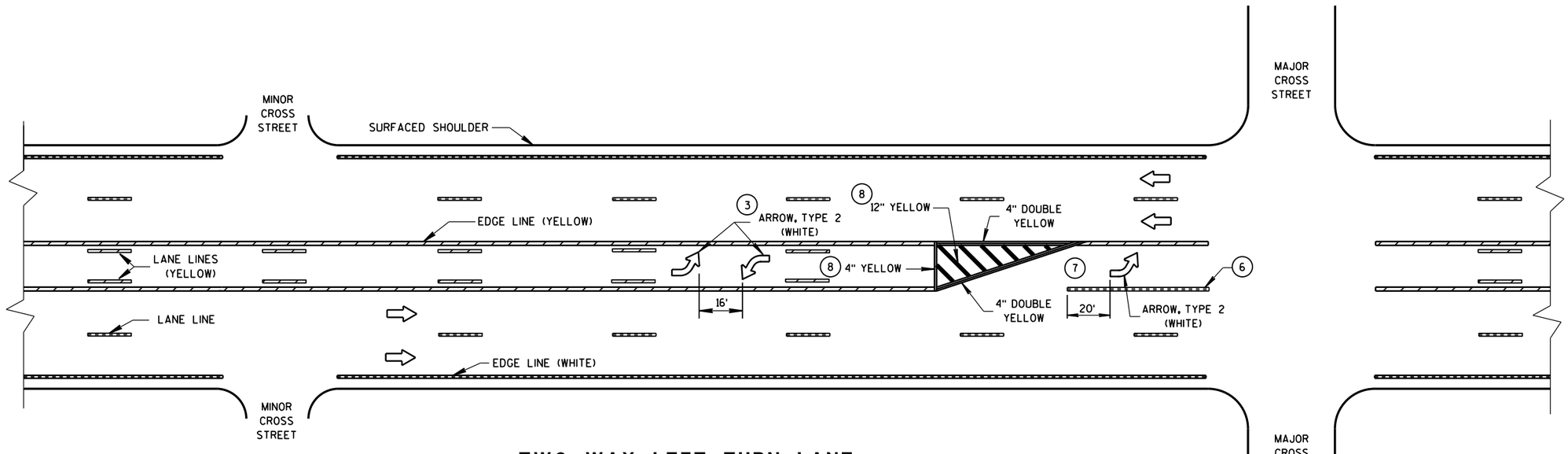
S.D.D. 15 C 8-16b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

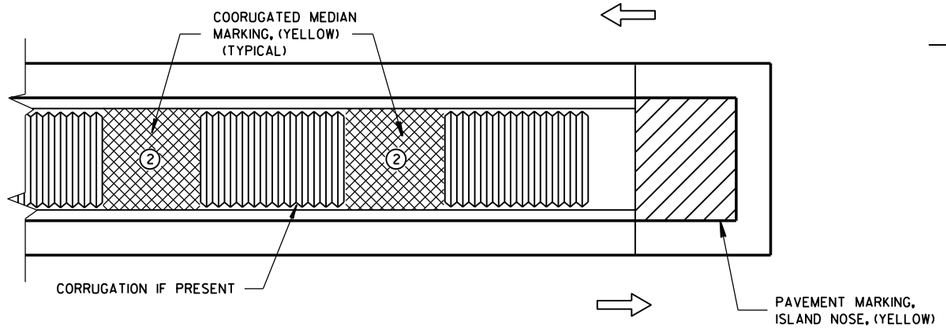
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

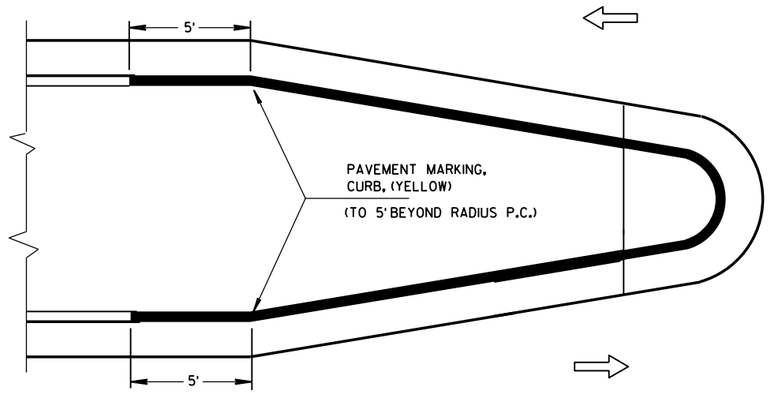
S.D.D. 15 C 8-16e

6

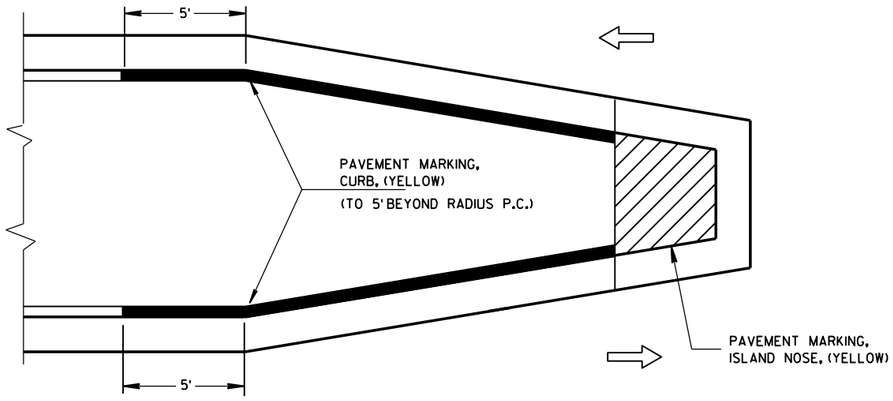
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

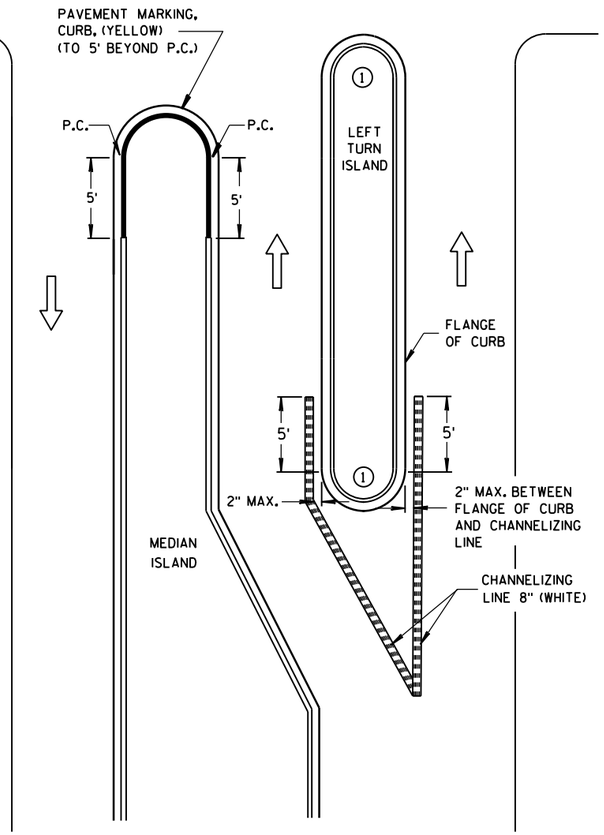


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

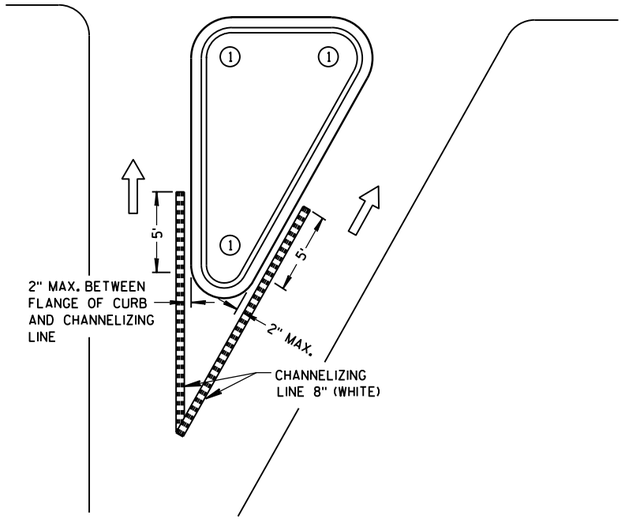


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 C 8-16f

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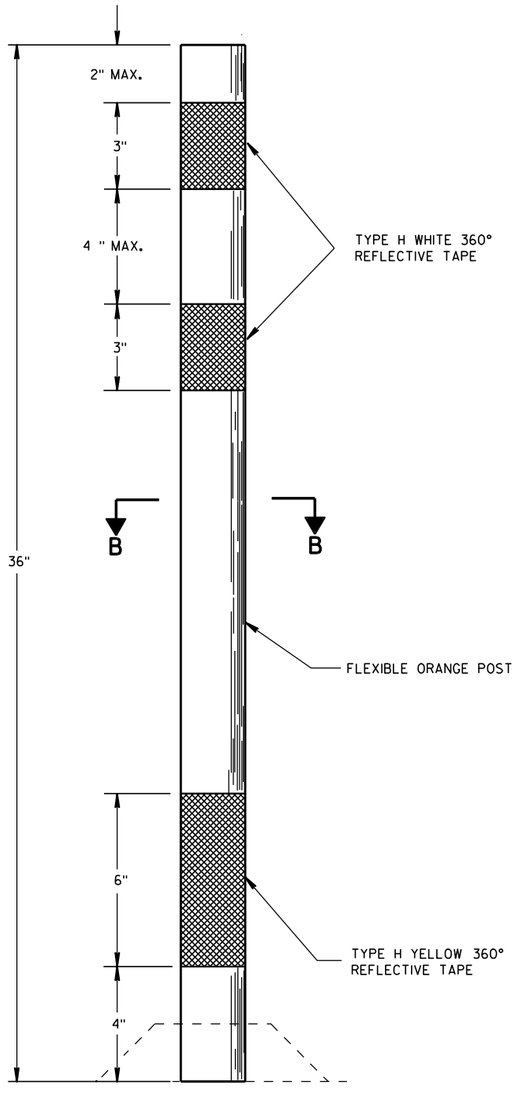
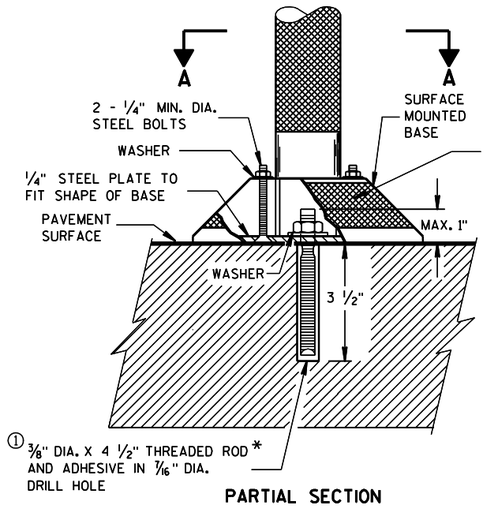
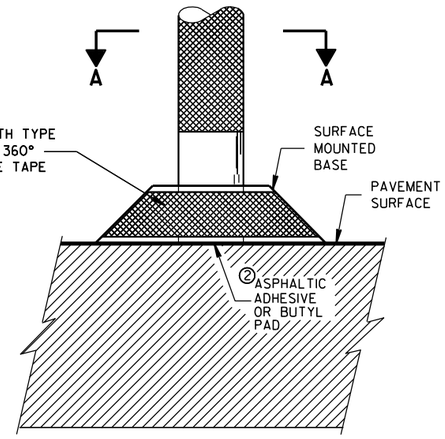
S.D.D. 15 C 8-16f



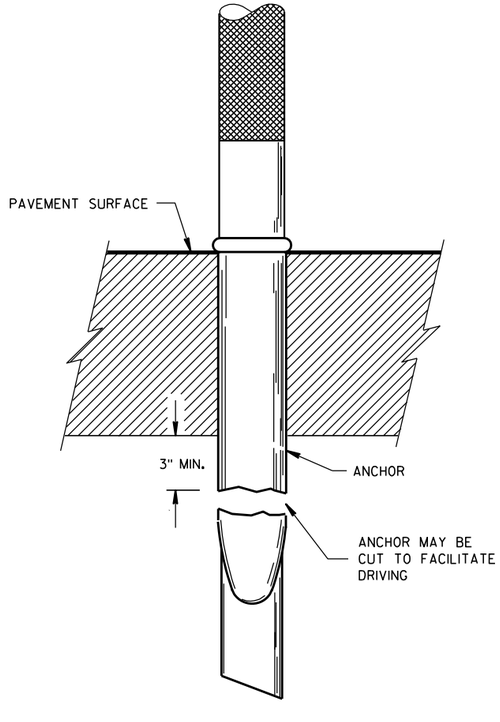
FLEXIBLE TUBULAR MARKER POST

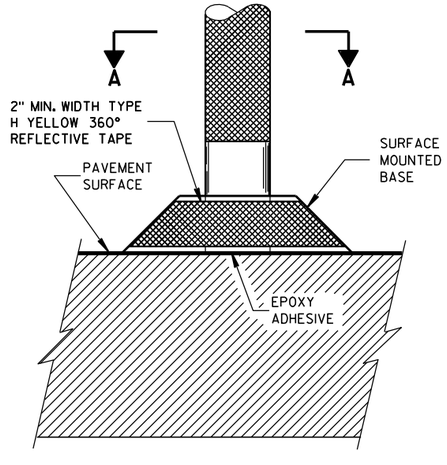


PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT





POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED

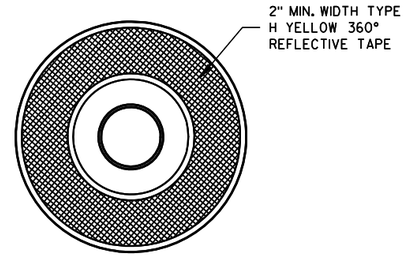
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

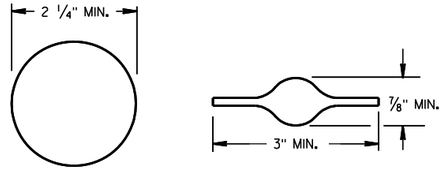
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



SECTION A-A

SURFACE MOUNTED BASE



SECTION B-B

ALTERNATIVE SHAPES

FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/17/94 DATE

/S/ Chester J. [illegible] DIRECTOR, OFFICE O

FHWA

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S.D.D. 15 C 11-5

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S.D.D. 15 C 11-5

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

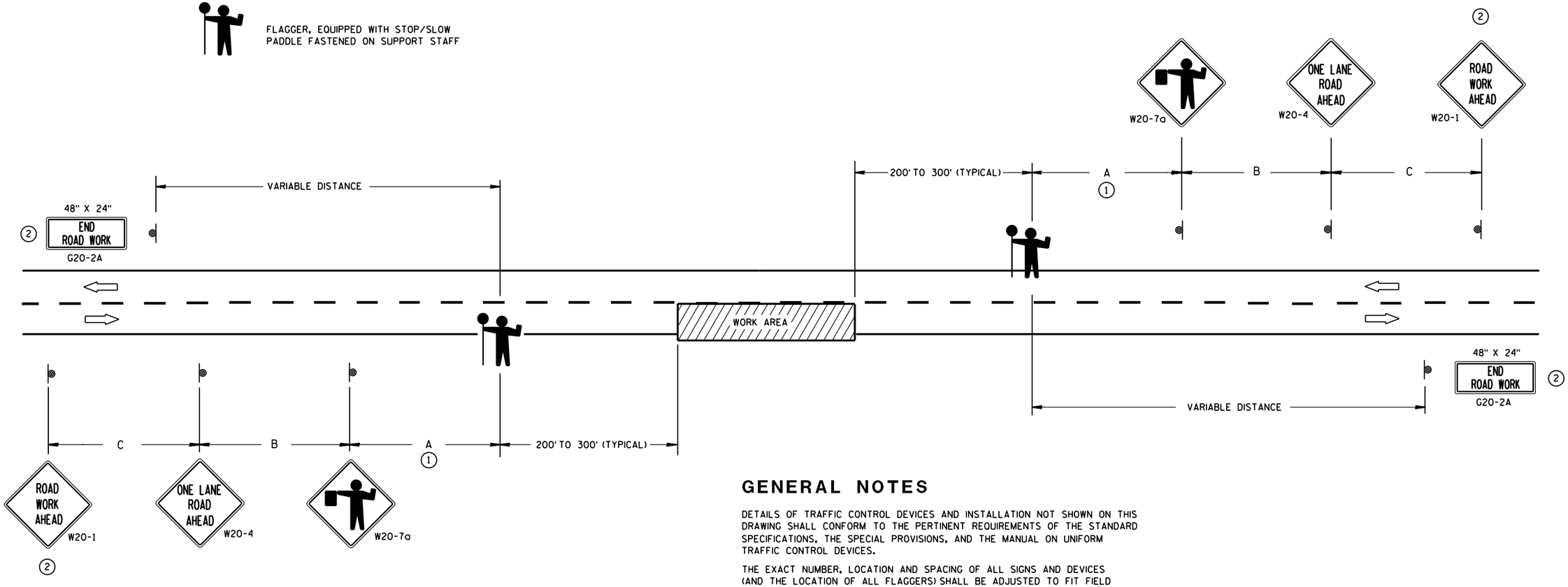
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 C 12-4

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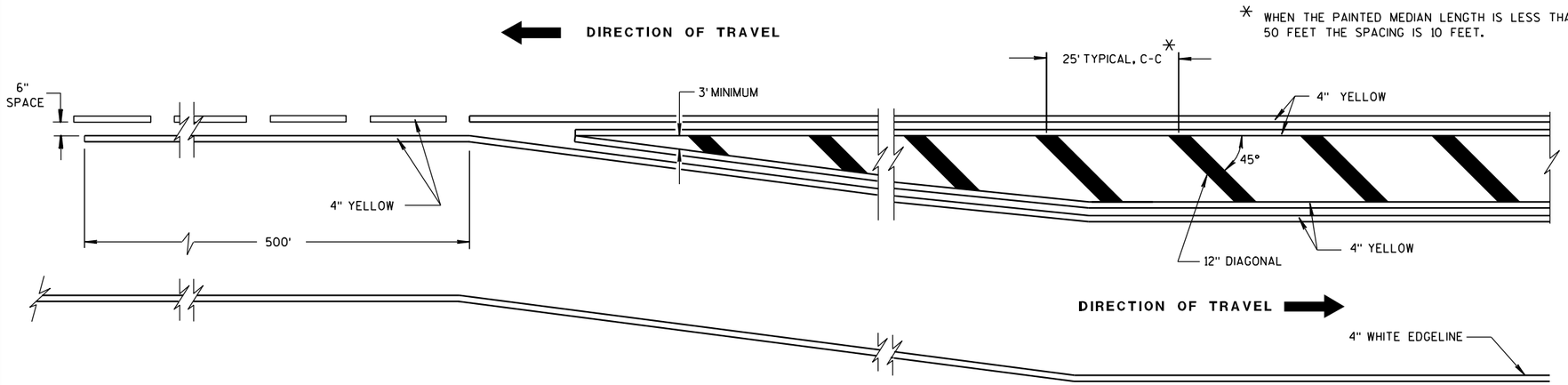
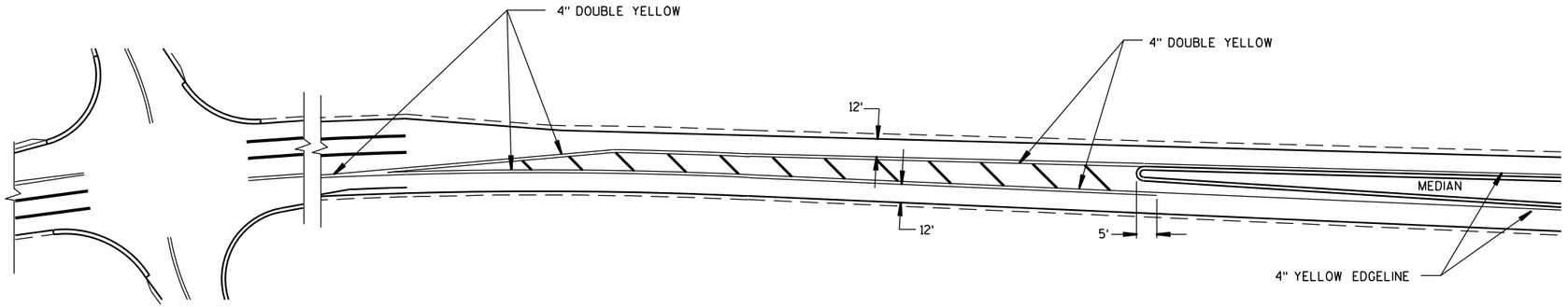
S.D.D. 15 C 12-4



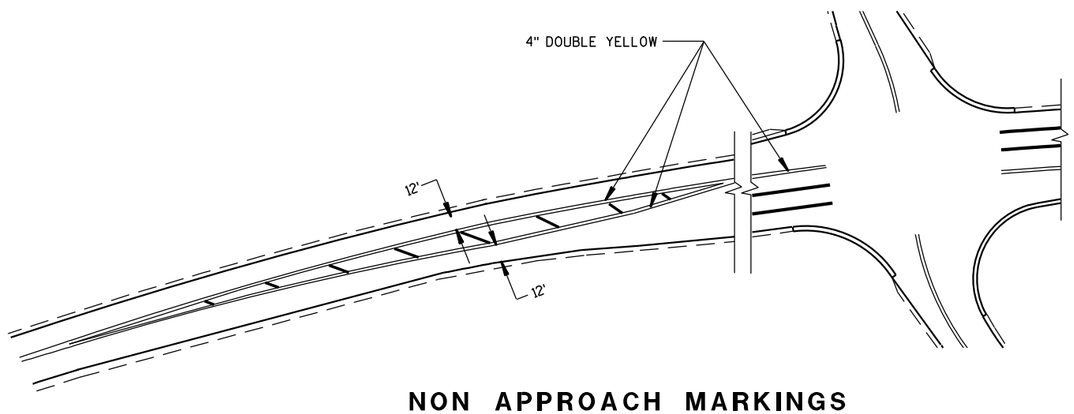
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER 614 IGN
FHWA	

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S.D.D. 15 C 18-3

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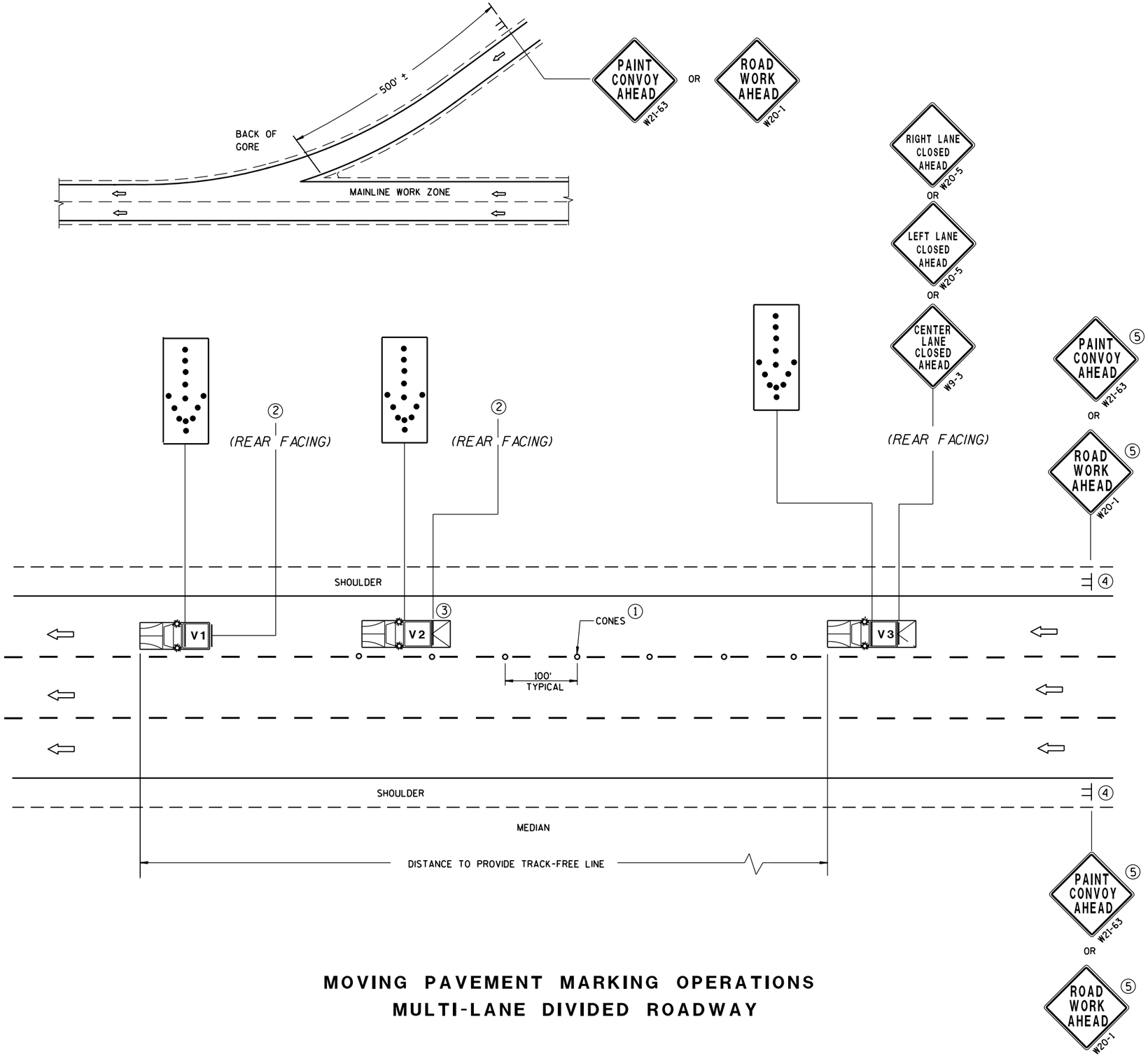

MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC EN

FHWA

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S.D.D. 15 C 19-2c

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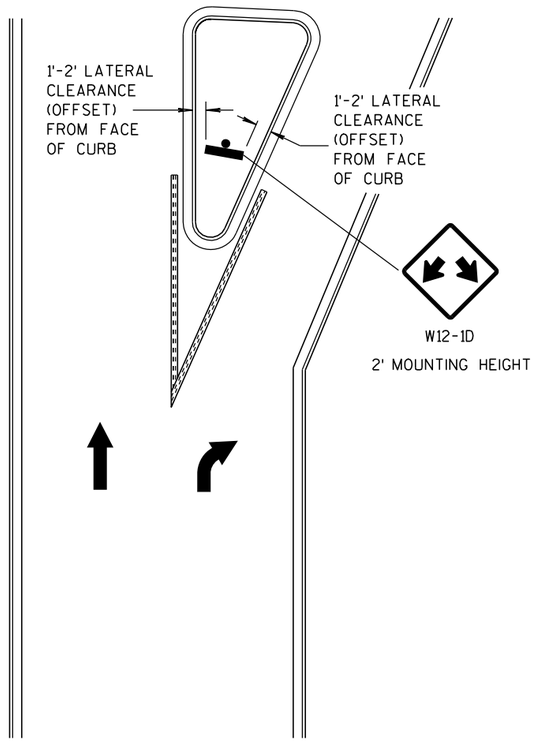
S.D.D. 15 C 19-2c

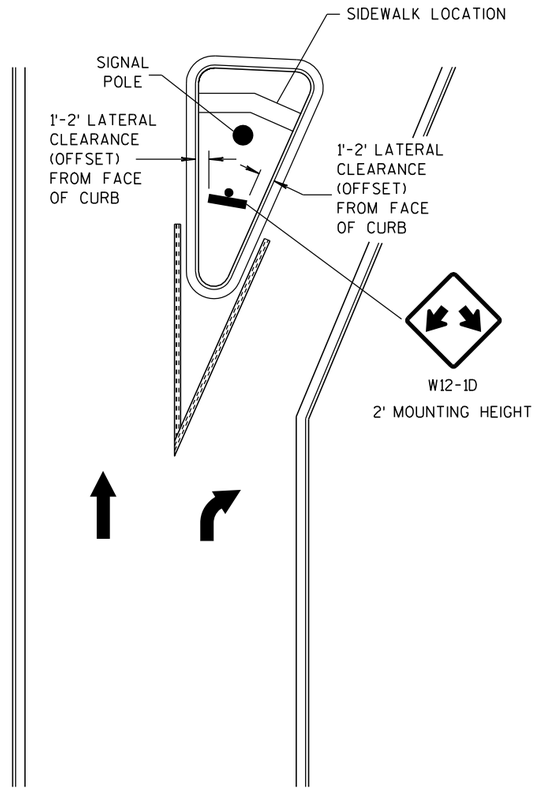
GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

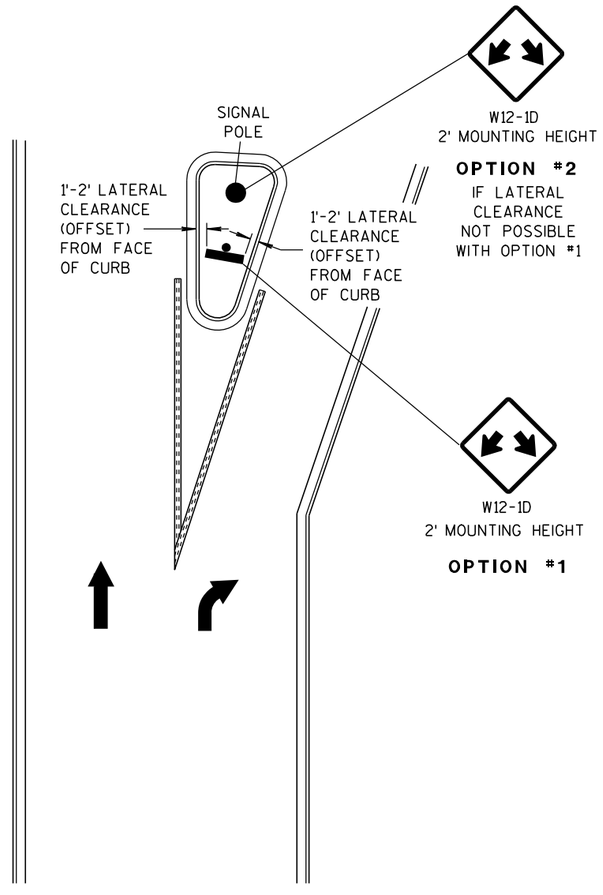
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.



LARGE RIGHT TURN ISLAND



LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE



SMALL RIGHT TURN ISLAND

DOUBLE ARROW WARNING SIGN PLACEMENT

DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-08 DATE	/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA	616 IGN

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S.D.D. 15 C 27-1

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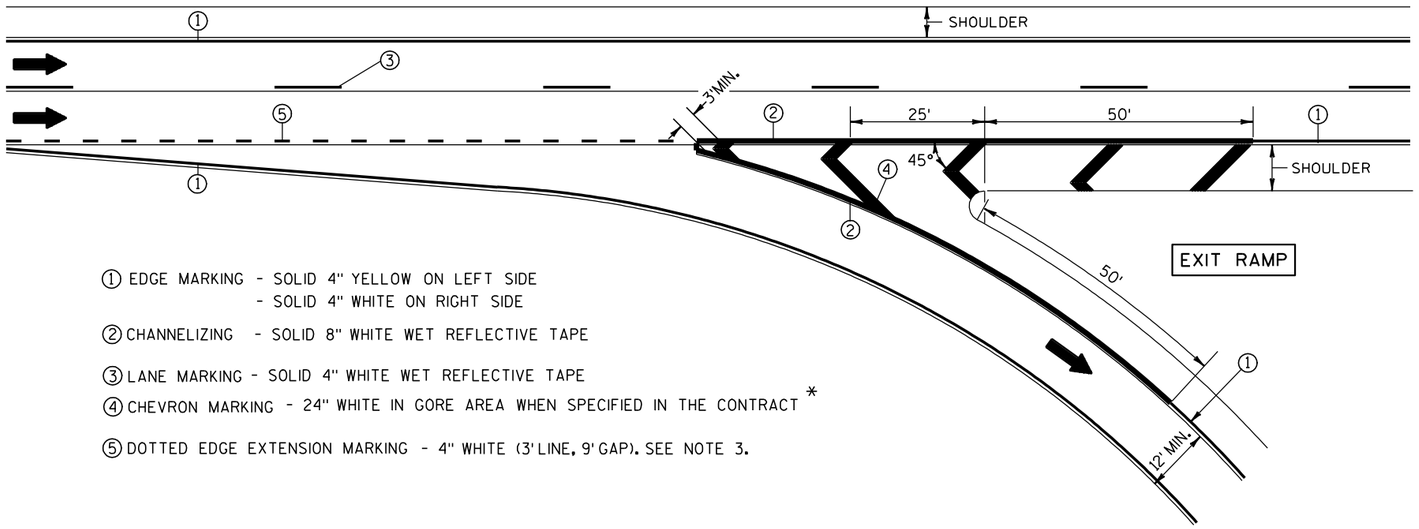
S.D.D. 15 C 27-1



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

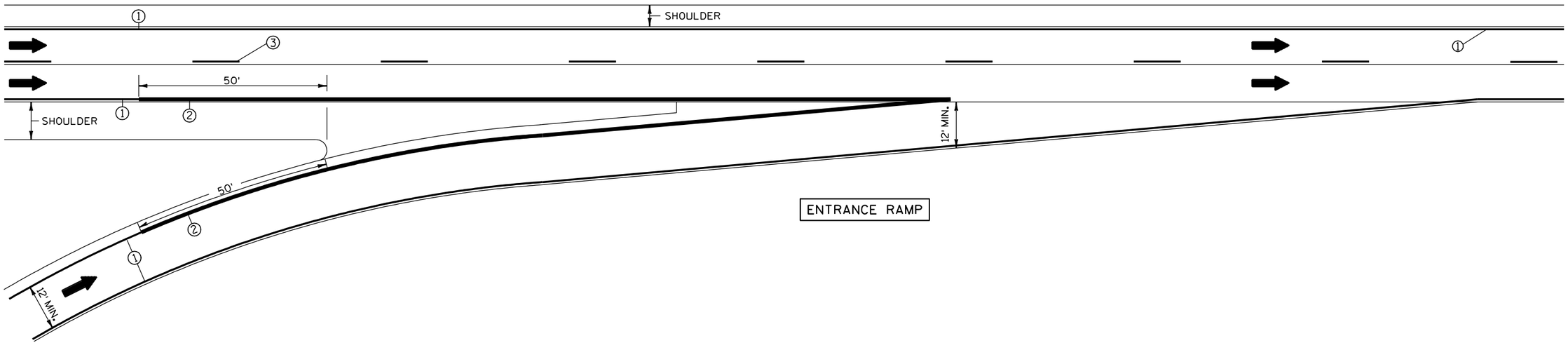
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



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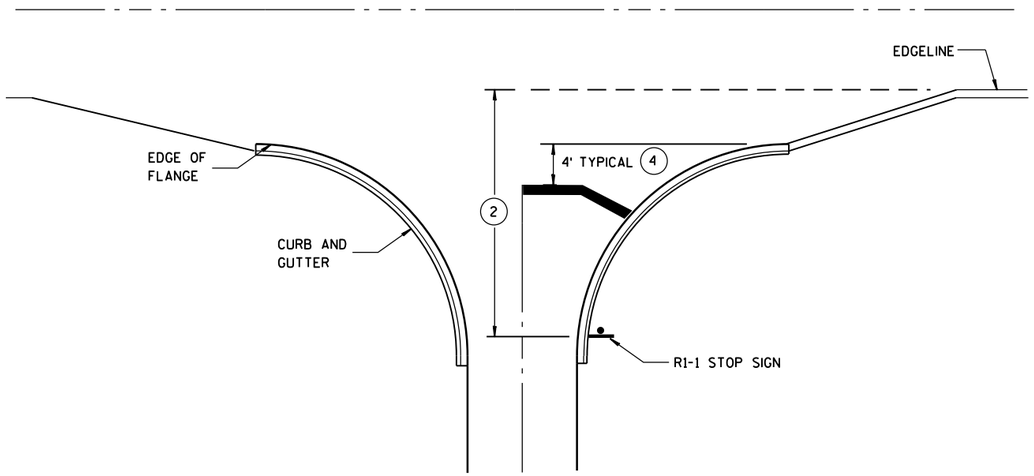
S.D.D. 15 C 31-1a

PAVEMENT MARKING (RAMPS AND GORES)

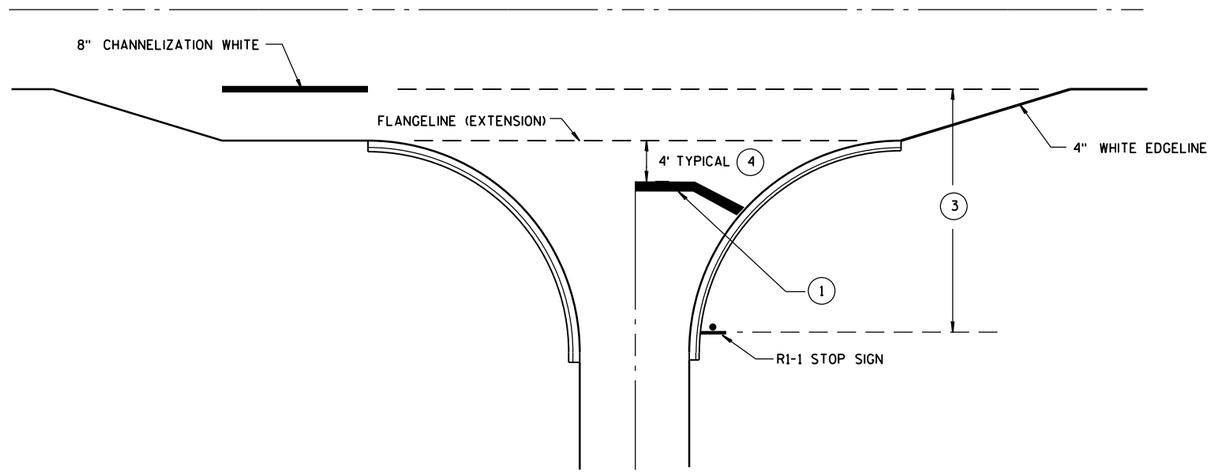
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

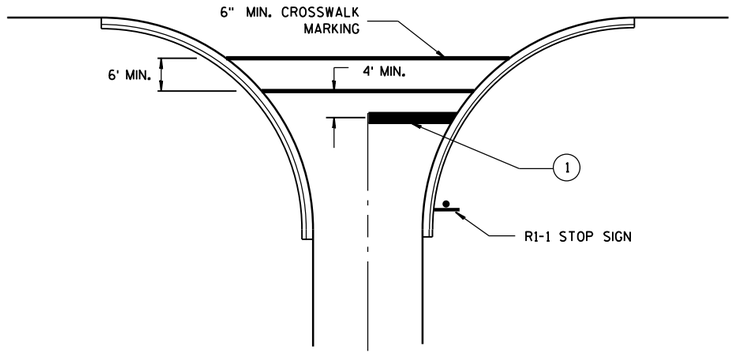
S.D.D. 15 C 31-1a



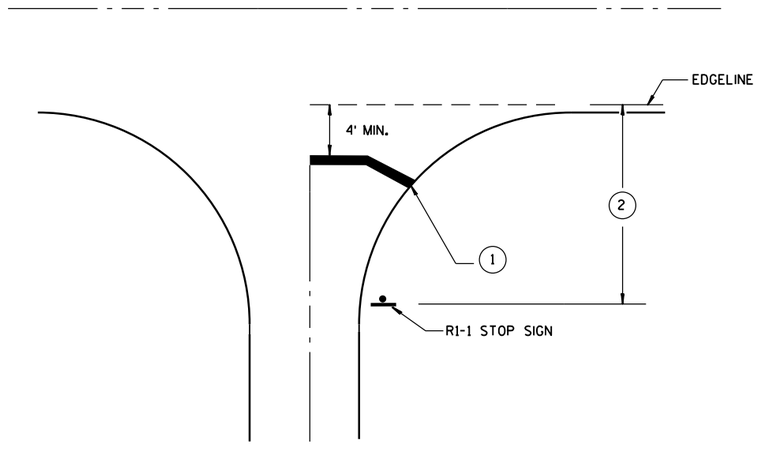
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 DATE
/S/ Travis Feltes
STATE TRAFFIC E
FHWA

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S.D.D. 15 C 33-1

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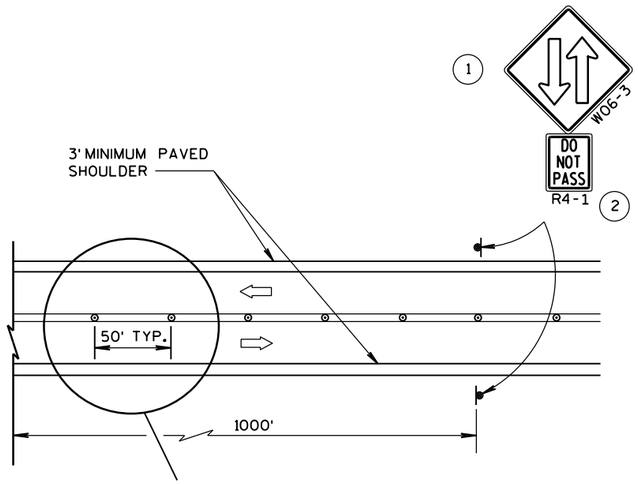
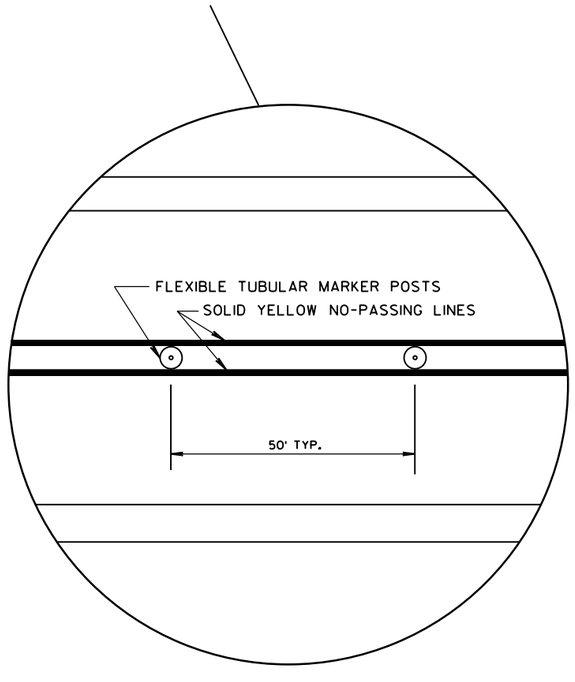
S.D.D. 15 C 33-1



TWO LANE, TWO WAY OPERATION



LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

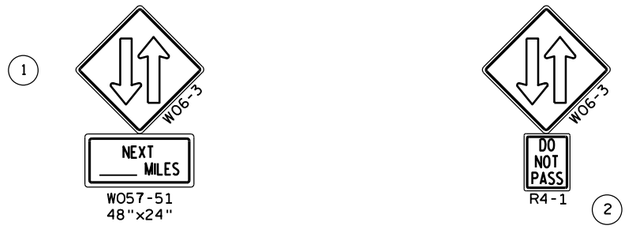
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50-FOOT SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.



THE W06-3 WITH THE W057-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500 FEET BEYOND ANY SIDEROAD. THE W06-3 WITH THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN W06-3 SIGNS.

(2) CONVENTIONAL: 24"x30"
FREEWAY AND EXPRESSWAY: 36"x48"

TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE — /S/ Travis Feltes STATE TRAFFIC ENGINEER — SIGN

FHWA

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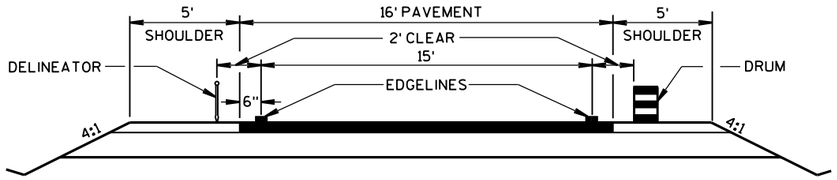
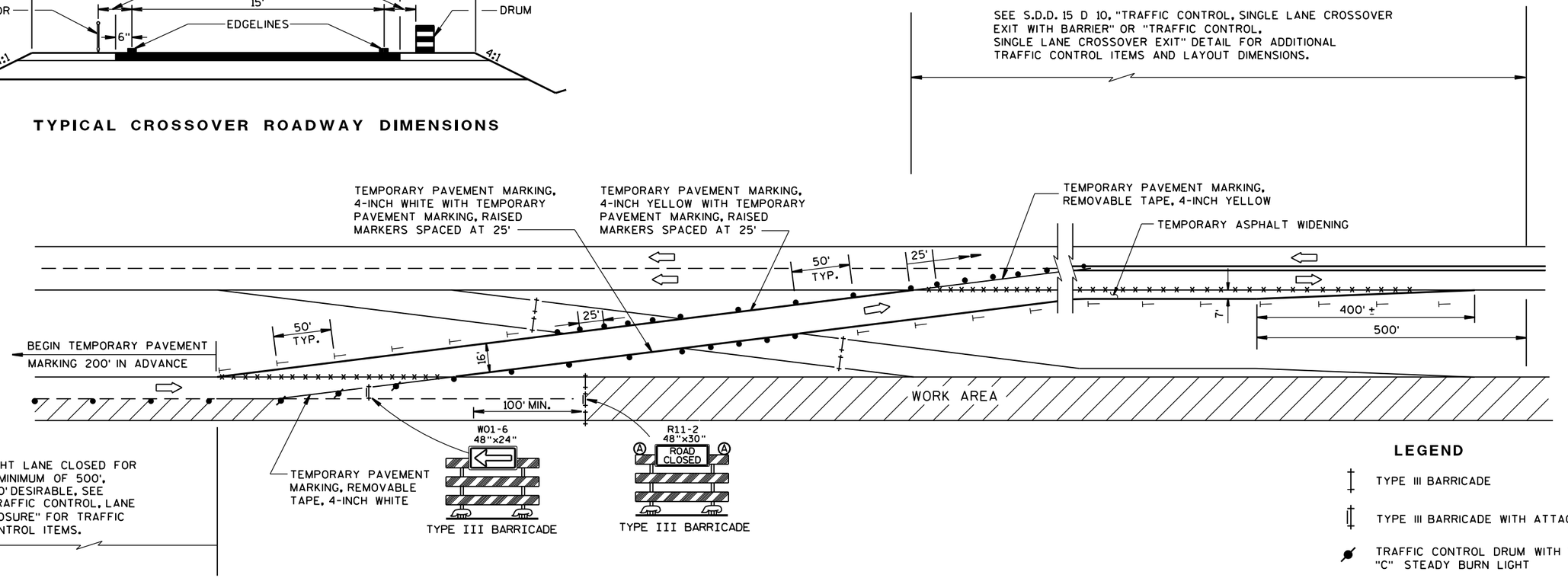


TYPICAL CROSSOVER ROADWAY DIMENSIONS



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- REMOVING PAVEMENT MARKINGS
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

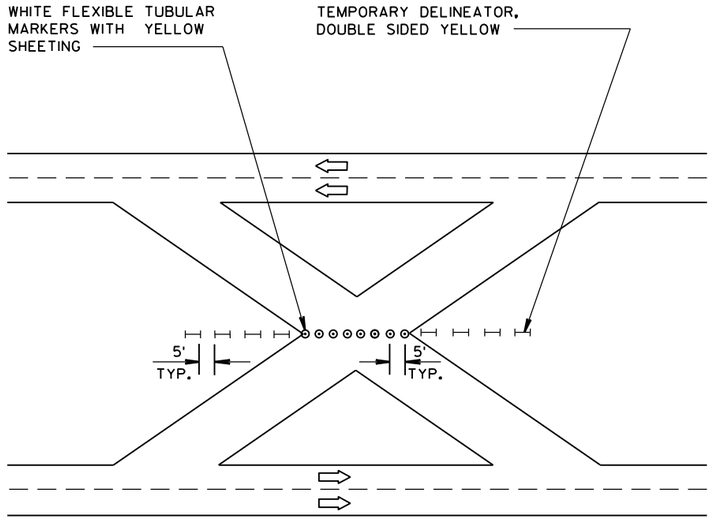
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER AND TEMPORARY PAVEMENT MARKING WHERE USED.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.



PROTECTION OF CROSSOVER NOT IN USE WHEN CONSTRUCTION IS NOT TAKING PLACE

TRAFFIC CONTROL, SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 DATE
/S/ Travis Feltes STATE TRAFFIC ENGINEER SIGN
FHWA

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S.D.D. 15 D 11-4

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S.D.D. 15 D 11-4

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- POST WITH ATTACHED SIGN IN DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

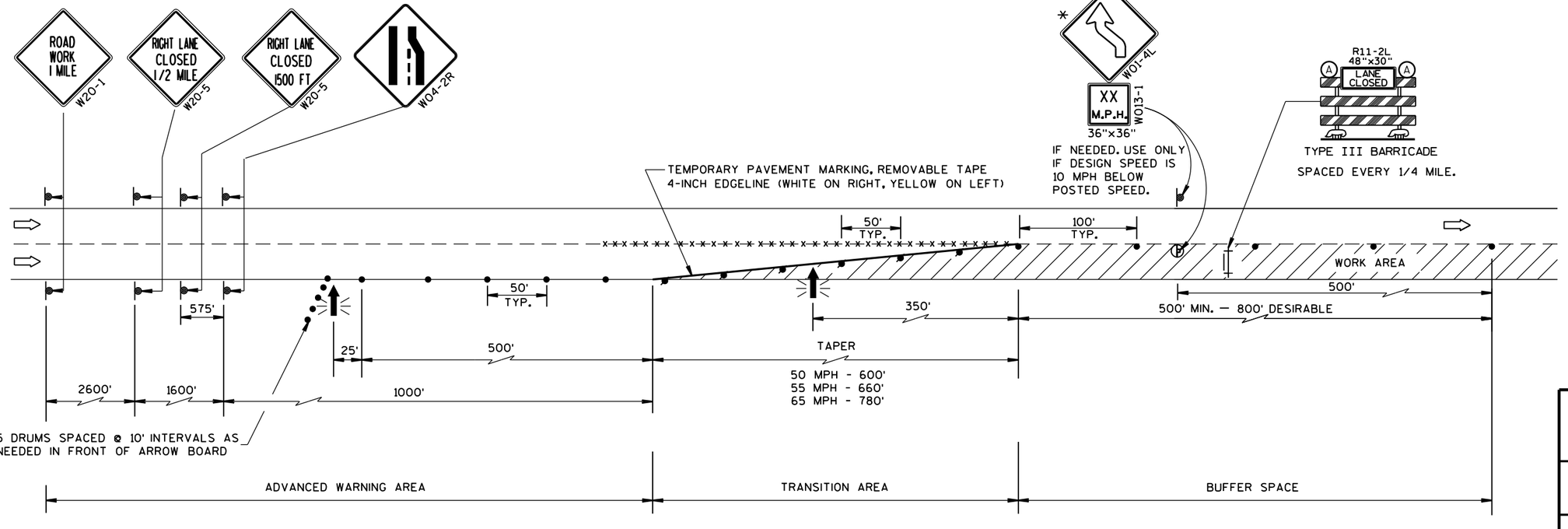
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

LOCATED 500 FEET IN ADVANCE OF R2-1 SIGN AND 500 FEET BEYOND THE "ROAD WORK 1 MILE" SIGN.

R2-1
48"×60"
(BLACK AND WHITE)

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 D 12-3

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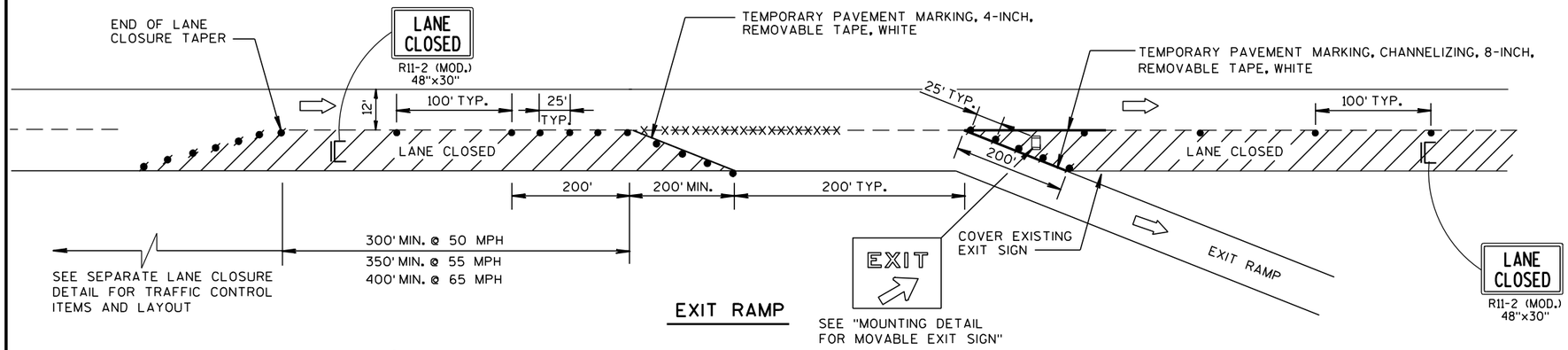
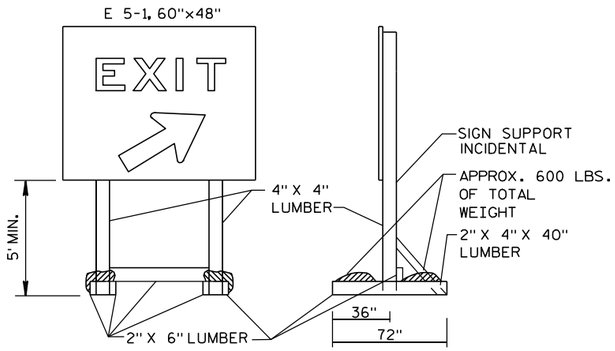
S.D.D. 15 D 12-3

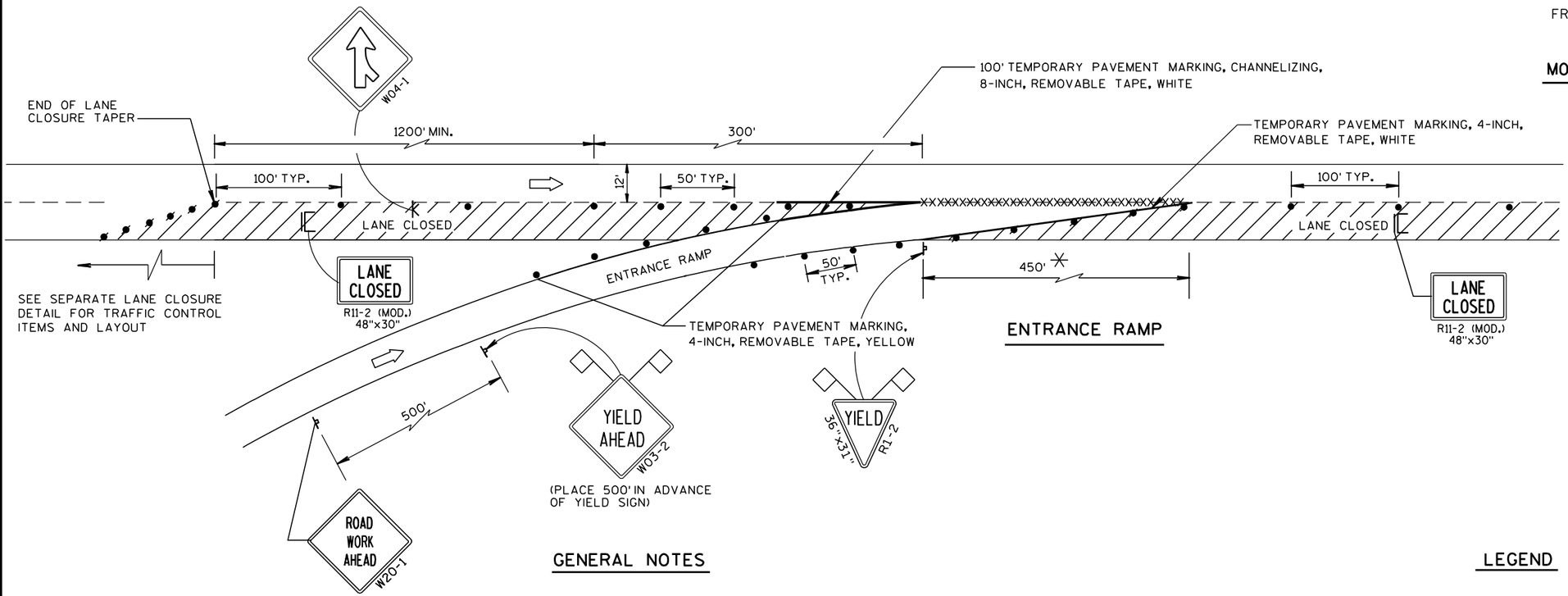


EXIT RAMP



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2 (MOD.) "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

✳ LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC CONTROL, DRUM
- TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN
- FLAGS, 16"x16" MIN., ORANGE
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000
DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

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S.D.D. 15 D 15-1

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TRAFFIC CONTROL DRUM

SIGN ON PERMANENT SUPPORT

TYPE "A" WARNING LIGHT (FLASHING)

DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

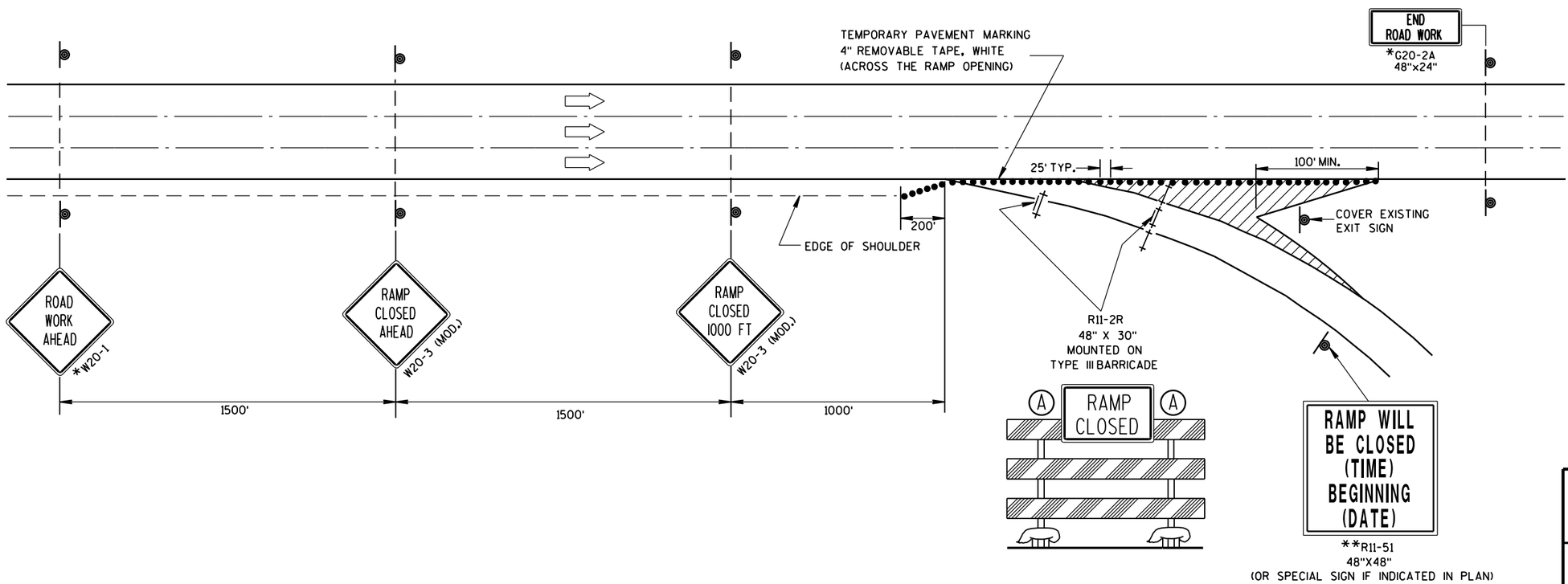
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

*W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP WILL BE CLOSED" SIGN 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



TRAFFIC CONTROL,
EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

623

DESIGN

FHWA

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S.D.D. 15 D 16-2

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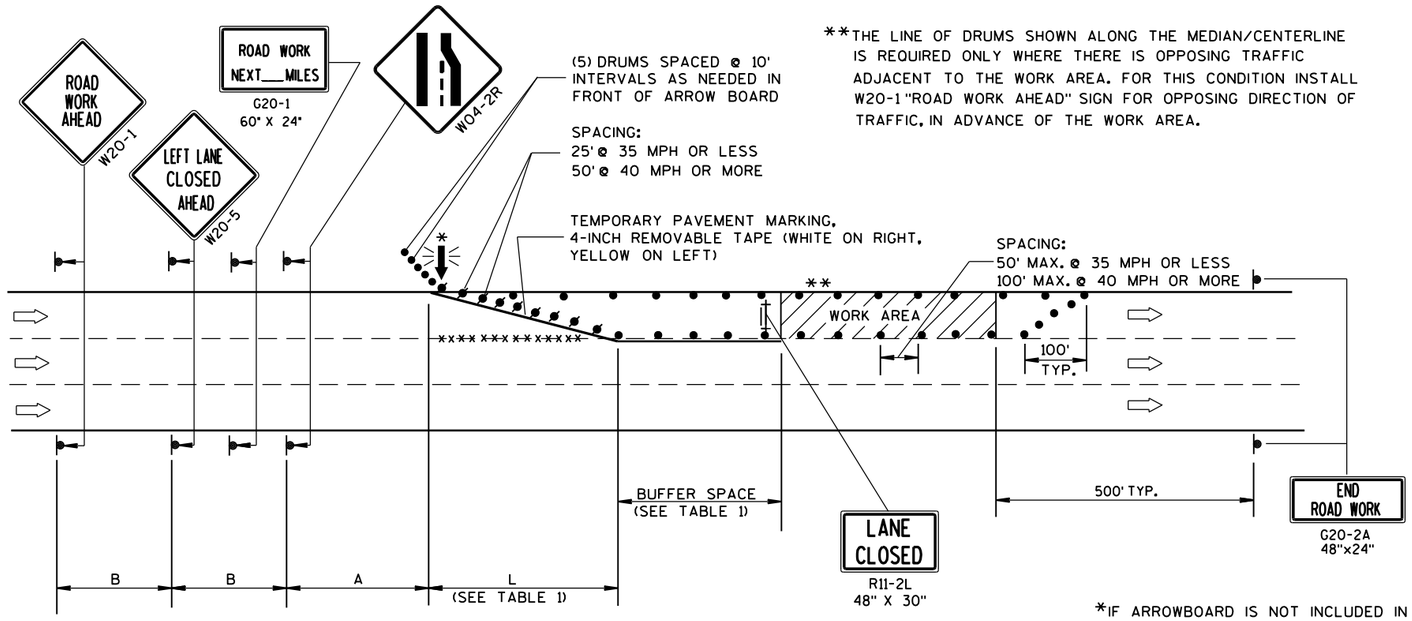
S.D.D. 15 D 16-2



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

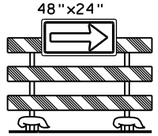


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 D 20-2

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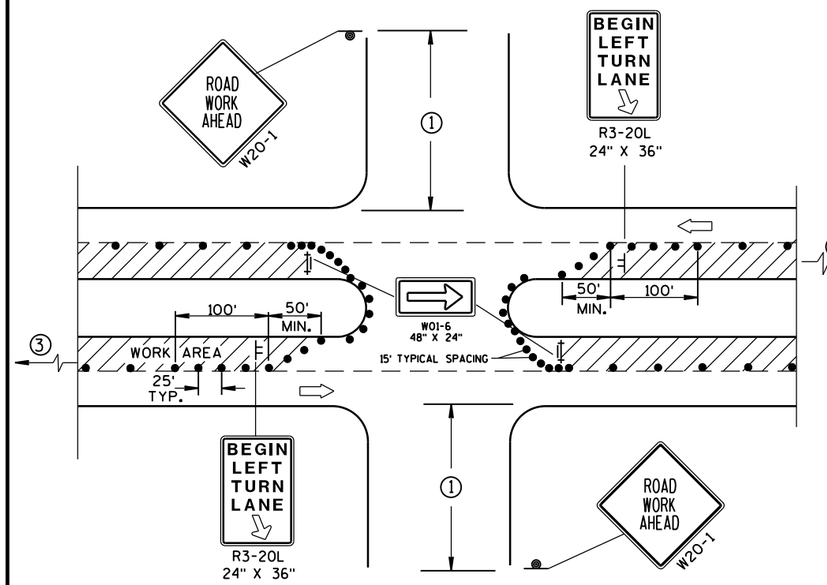
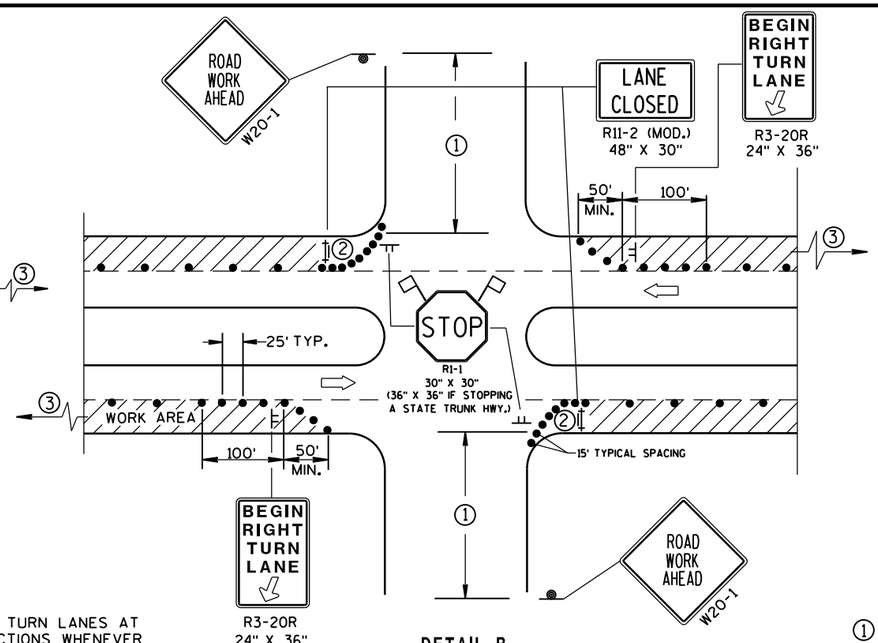


DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

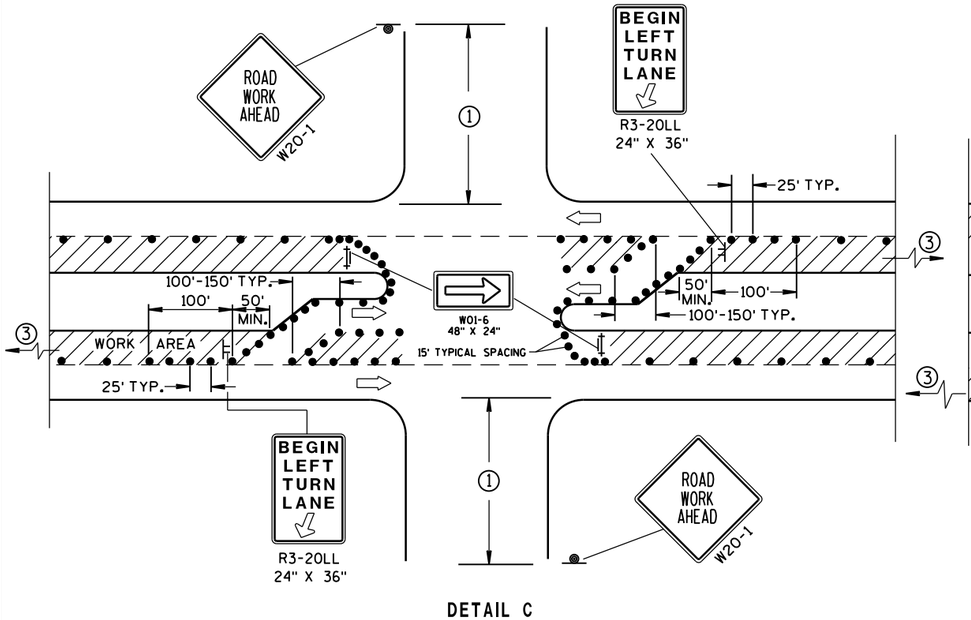
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

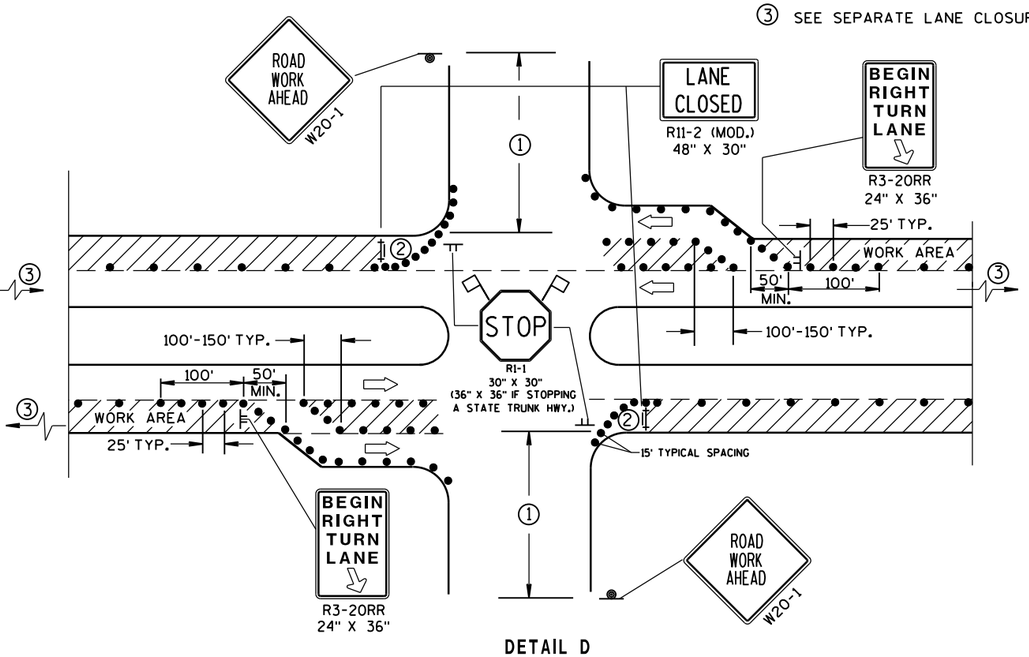
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 D 21-2

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

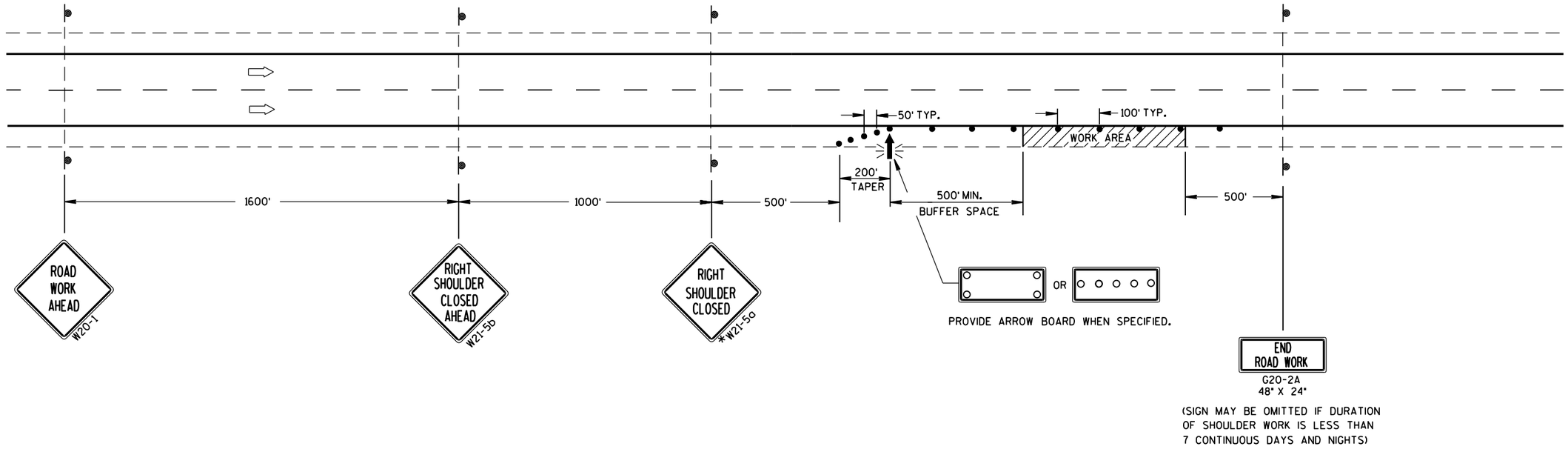
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

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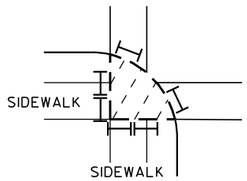
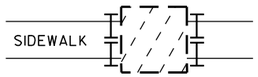
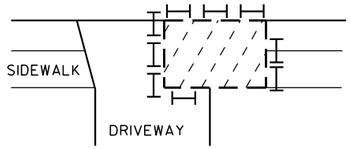
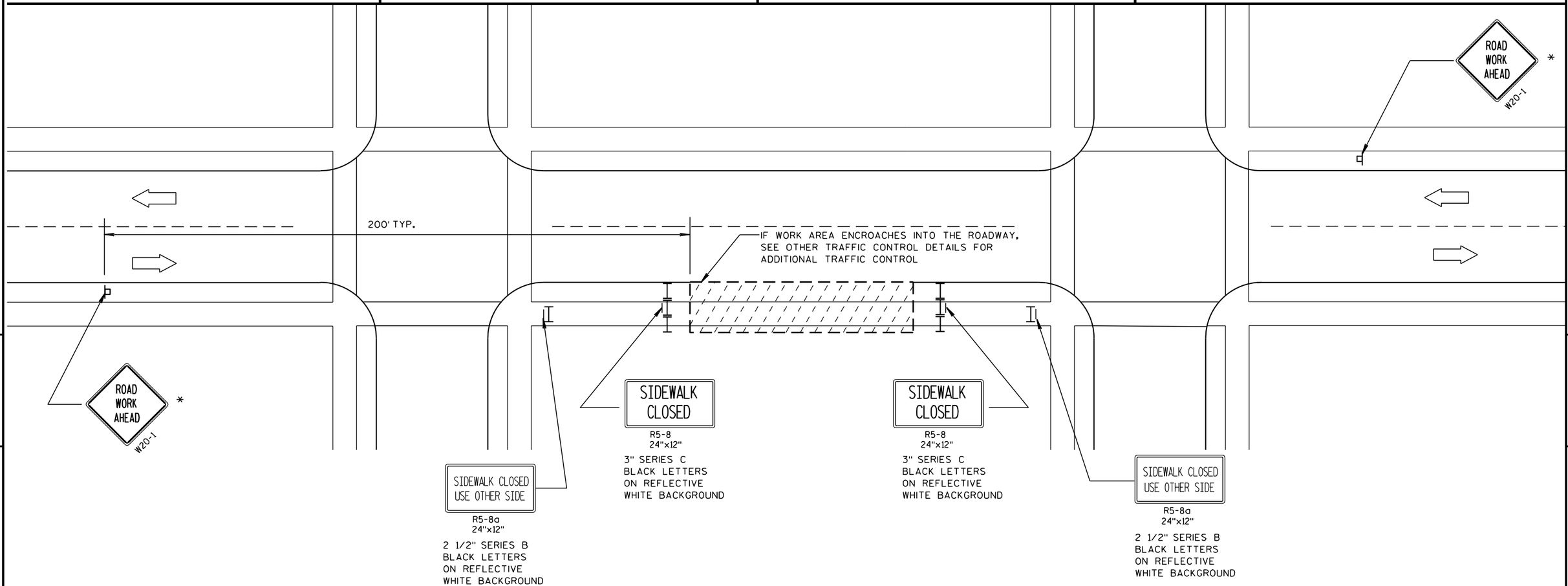
WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

THE EXACT LOCATION AND PLACEMENT OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK 627 NEER
FHWA

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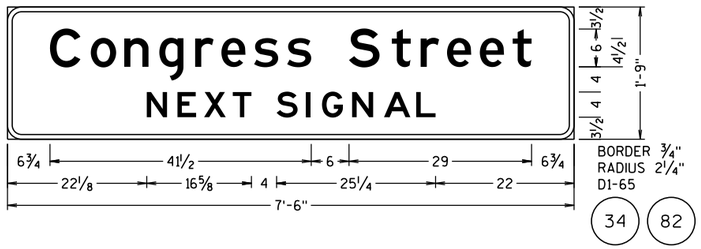
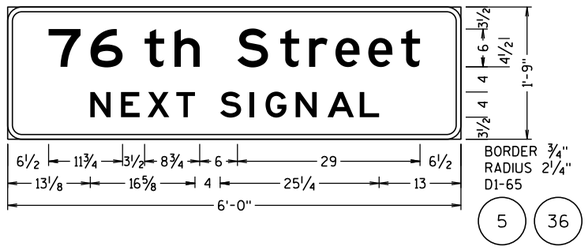
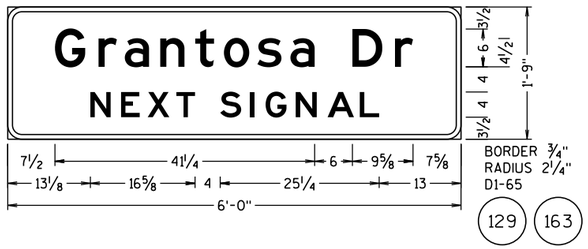
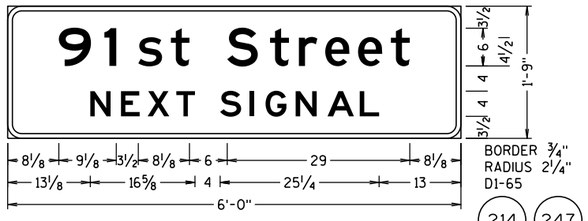
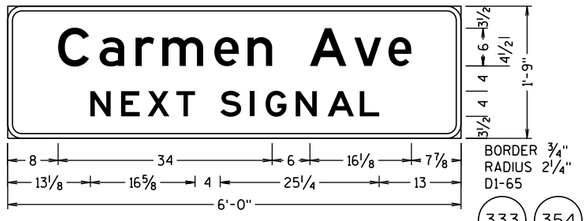
S.D.D. 15 D 30-1

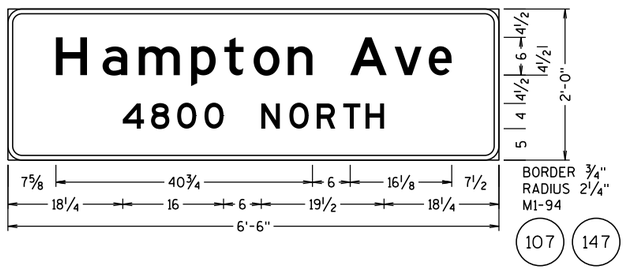


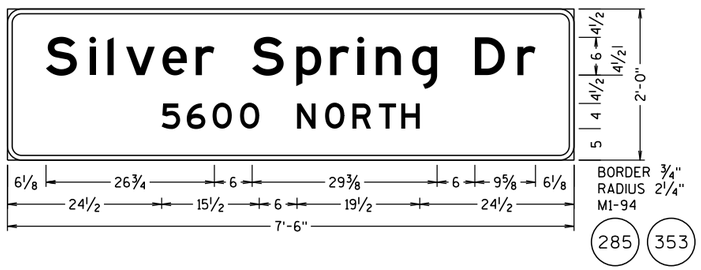












GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.

2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE II".

3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.

4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.

5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.

6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"

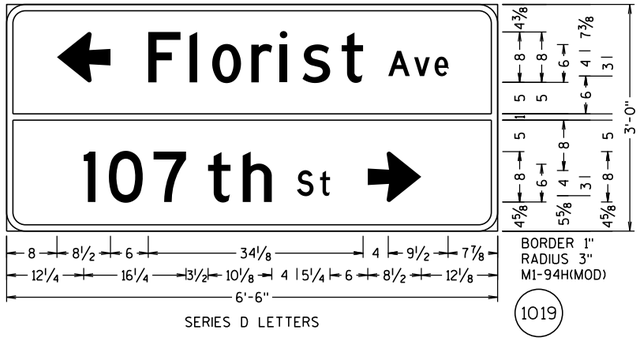
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

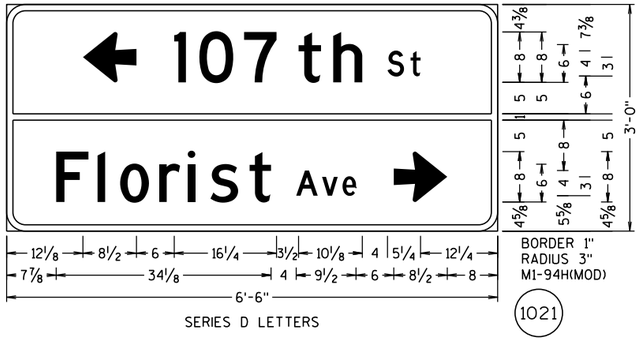
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

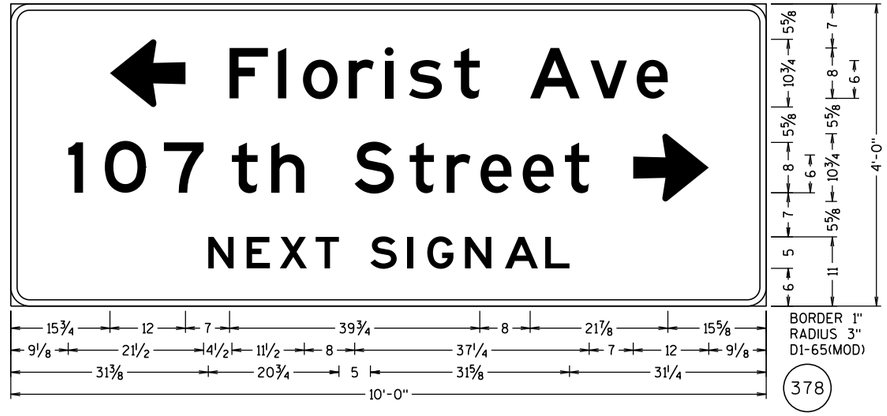
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

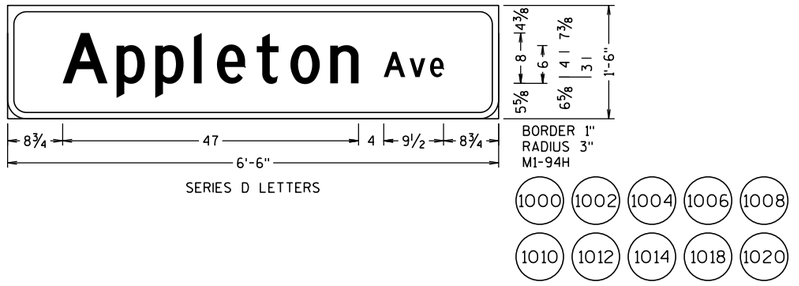
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10

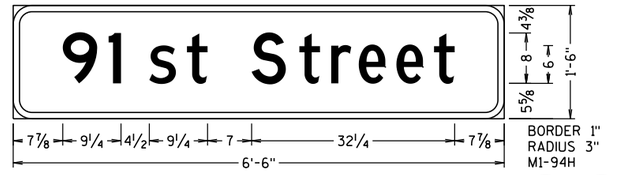
11. DO NOT SCALE.

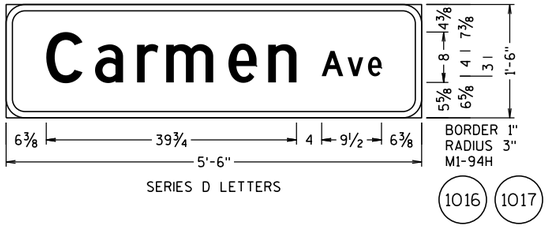


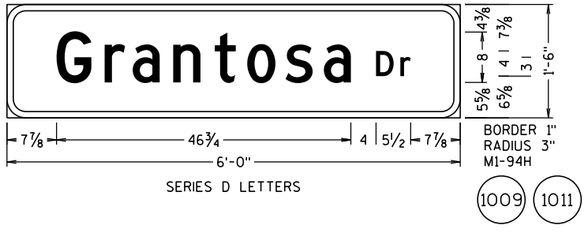


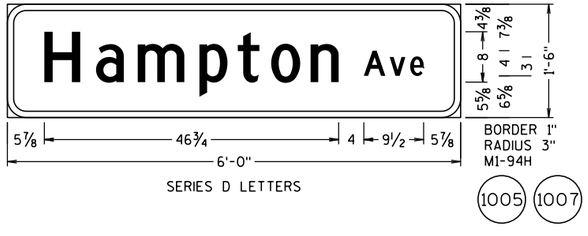


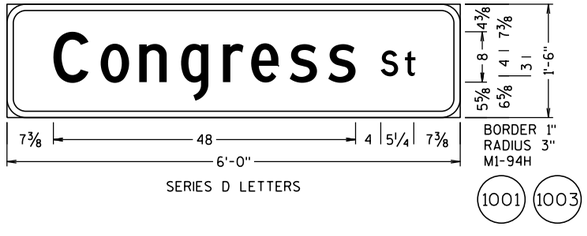












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8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
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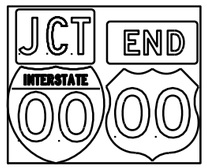
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10
11. DO NOT SCALE.

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE II SIGNS	SCALE: 0 1/2" 1"	SHEET 629	E

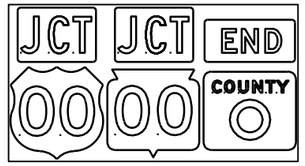
FILE NAME : J:\projects\D2_20101041\sign\070101_ms.dgn PLOT DATE : 16-DEC-2013 07:17 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1
WISDOT/CADDS SHEET 47

TYPICAL ASSEMBLIES

J1-1

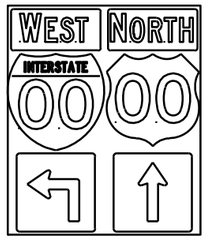


J1-2

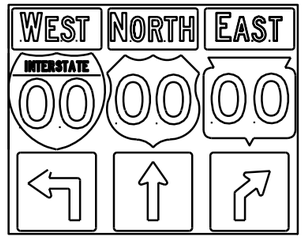


J1-3

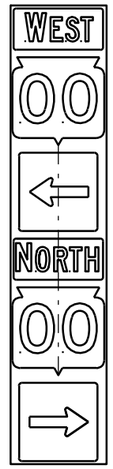
J2-1



J2-2

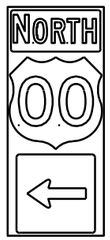


J2-3

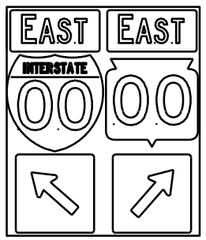


JV

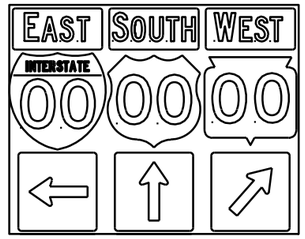
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1

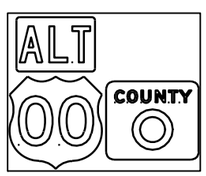


J3-2

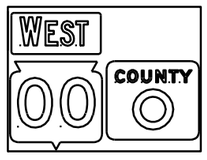


J3-3

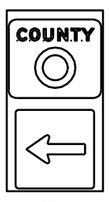
J4-1



J4-2



J4-2



J13-1

J12-1

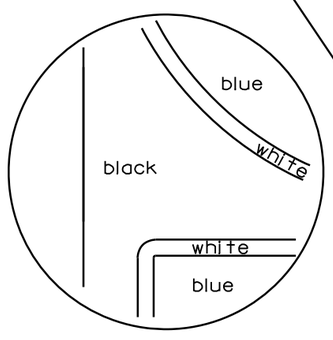
J32-1

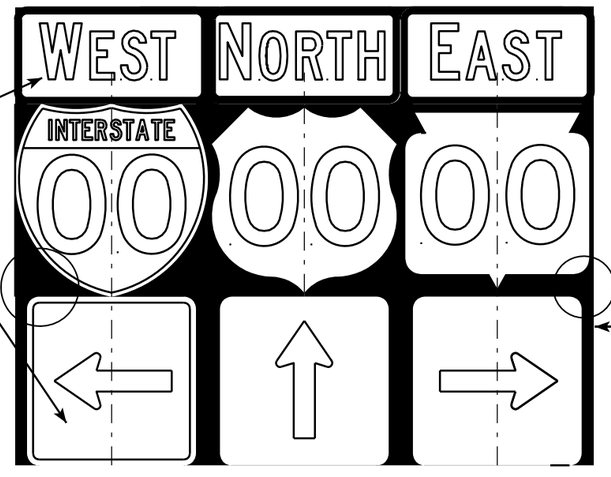
J33-1

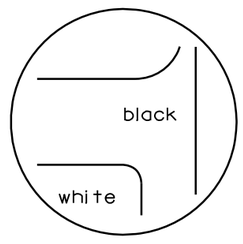
J23-1

J22-1

blue background
with interstate







black background

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of interstate and non interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

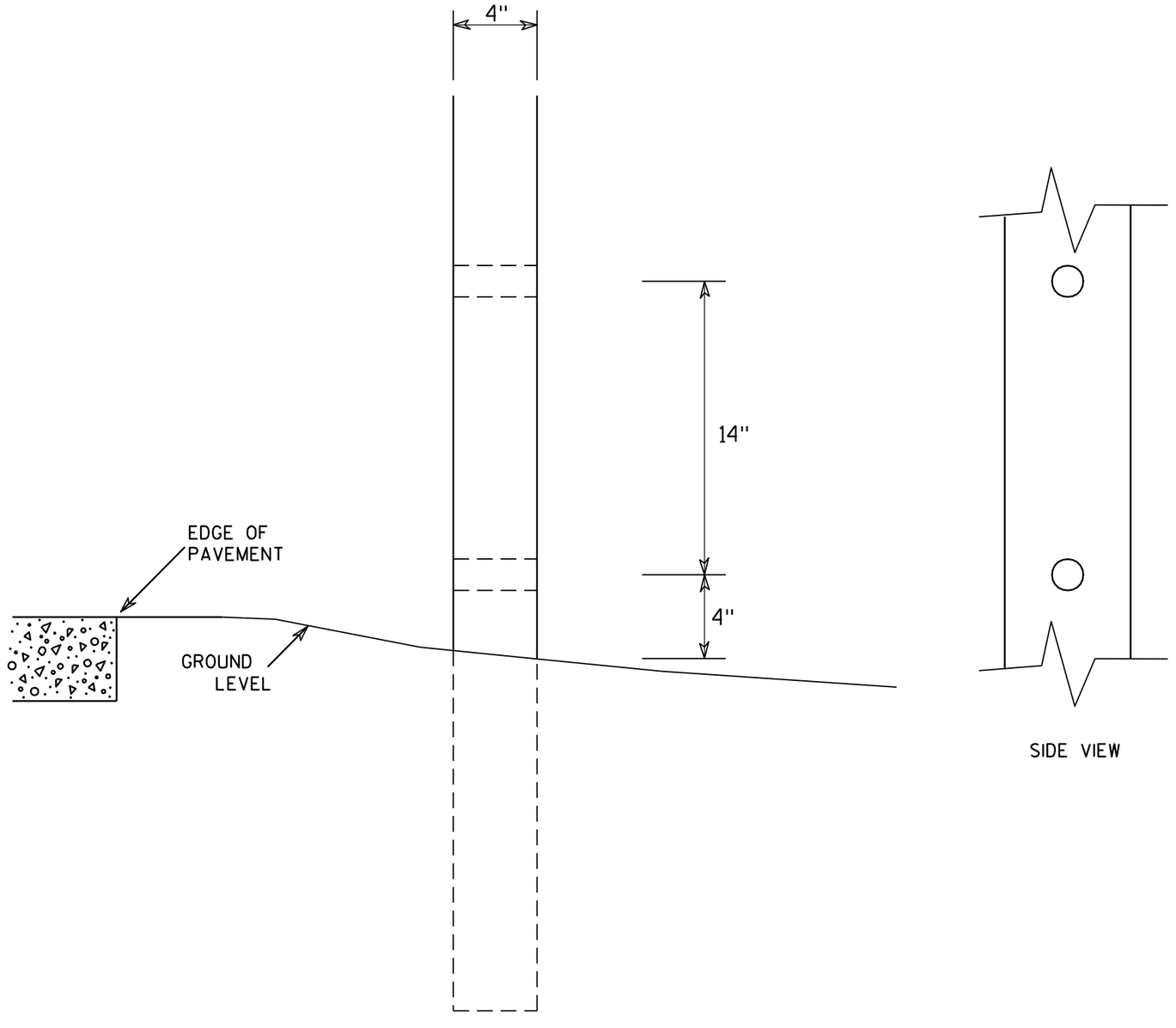
DATE 3/25/13 PLATE NO. A2-1S.7

7

7

PROJECT NO:

SHEET NO: 630 E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

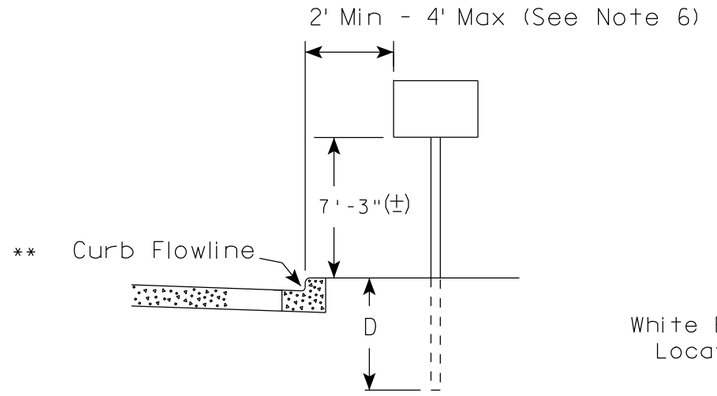
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

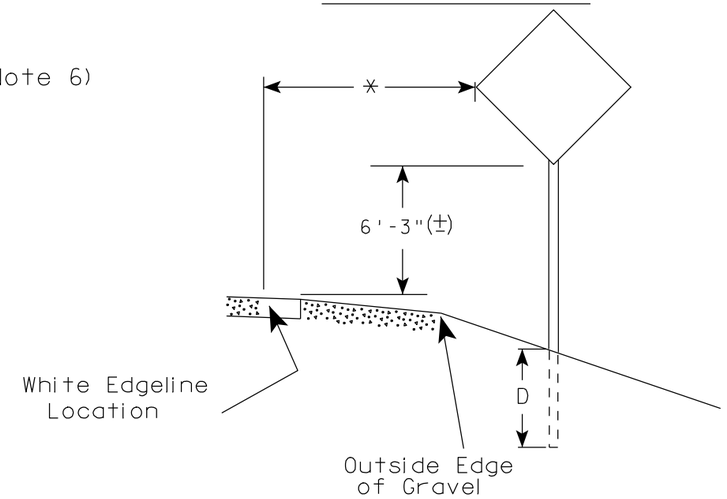
DATE 3/27/97 PLATE NO. A4-11.2

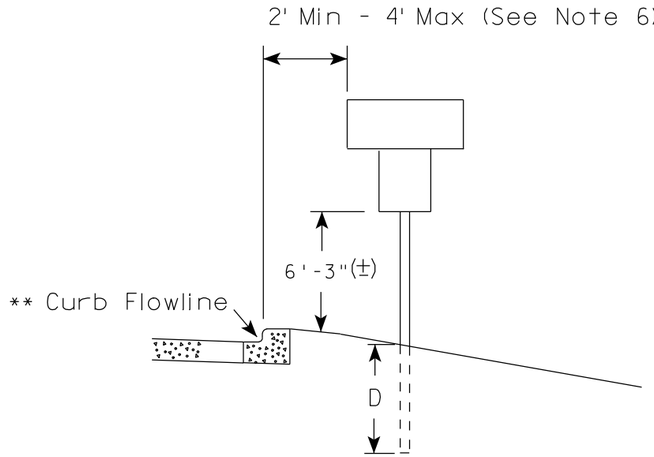
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 631	E

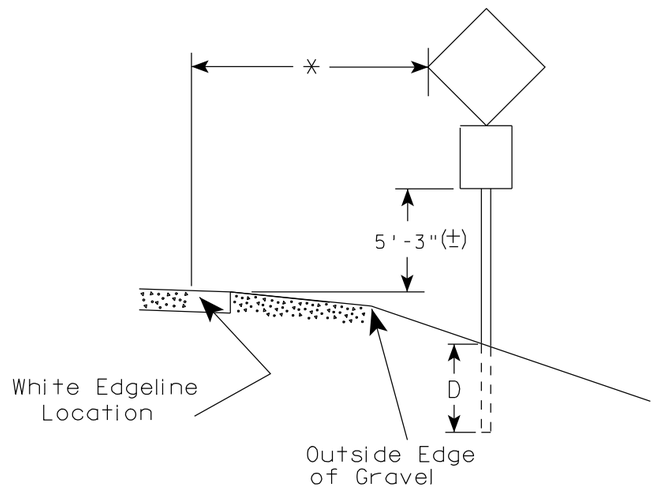
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

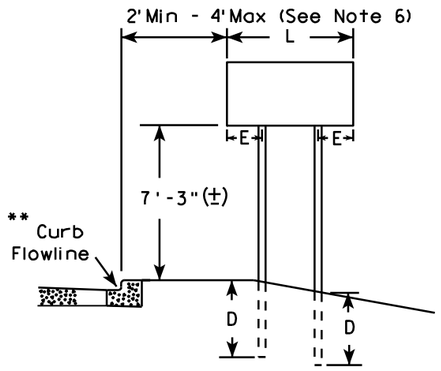
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

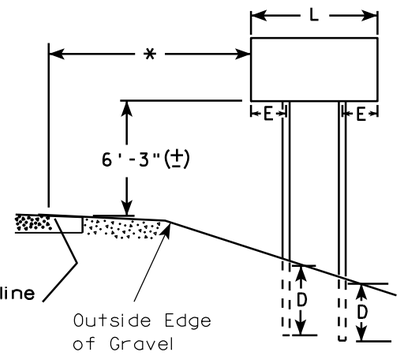
DATE 5/24/2013 PLATE NO. A4-3.17

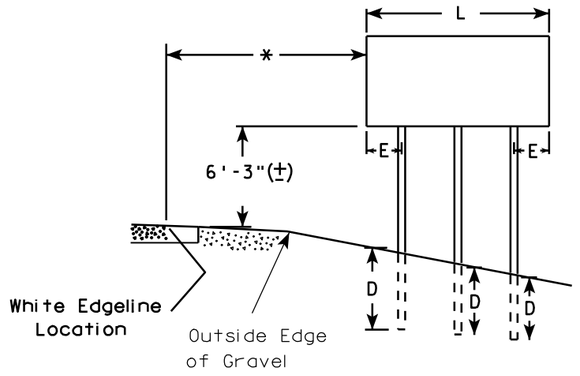
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 632	E

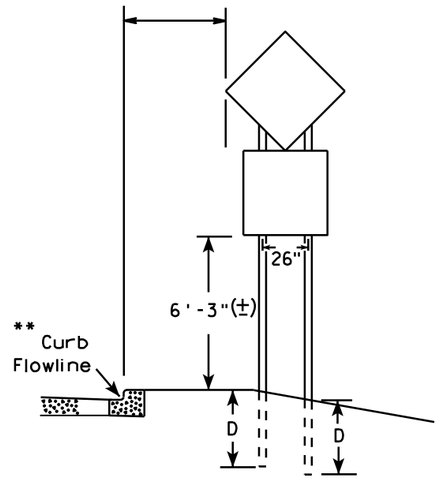
URBAN AREA



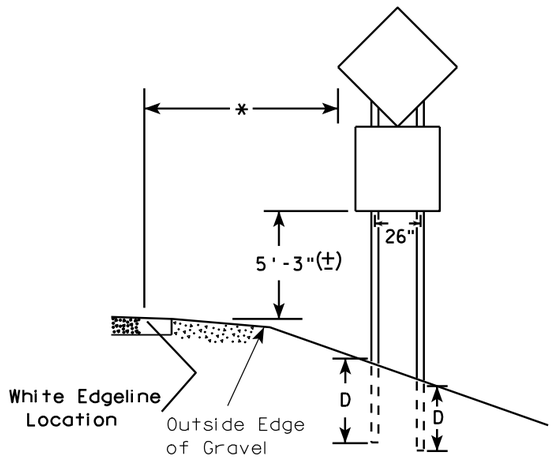
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. For multiple post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

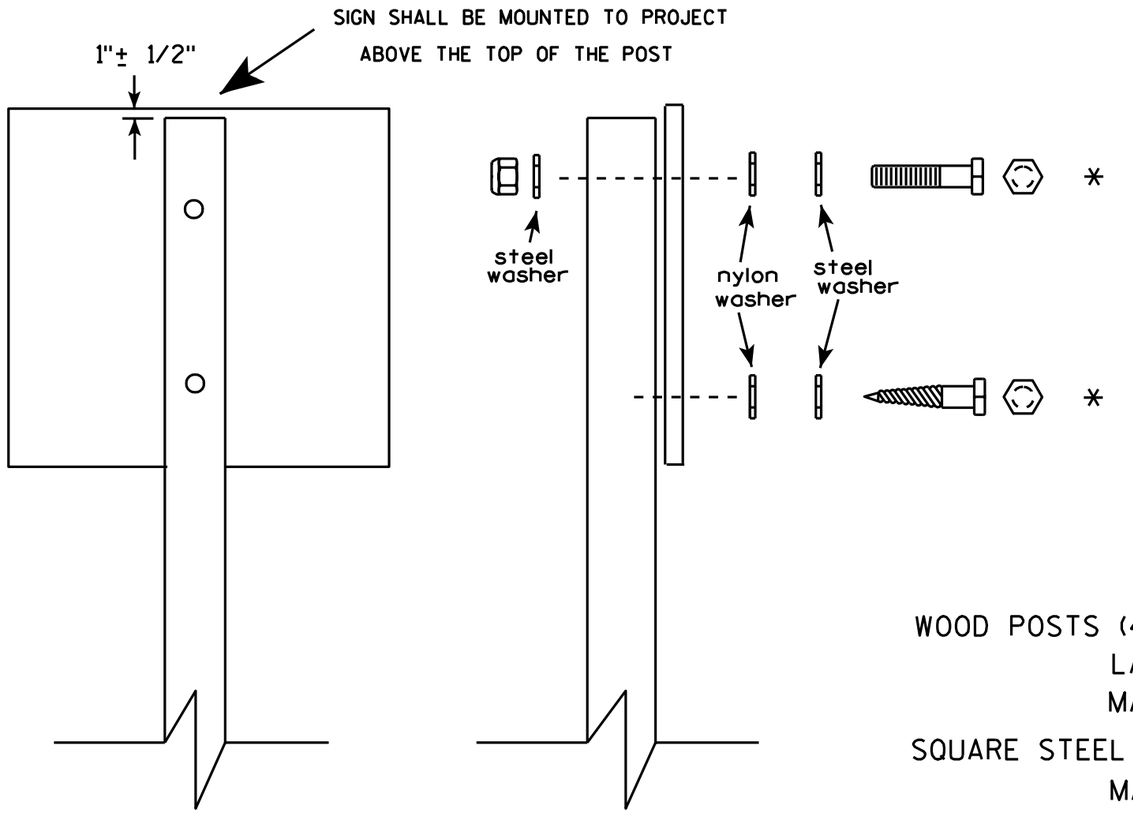
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 633	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

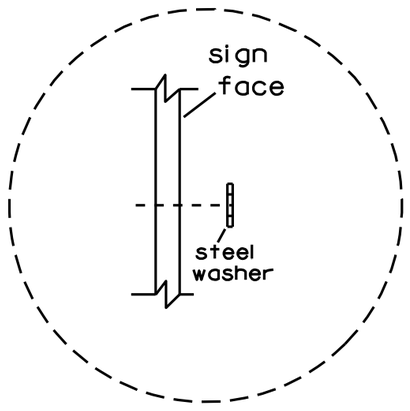
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

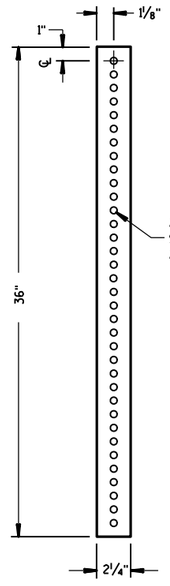
7

PROJECT NO:

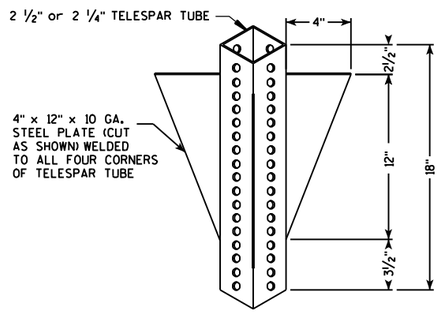
SHEET NO: 634 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

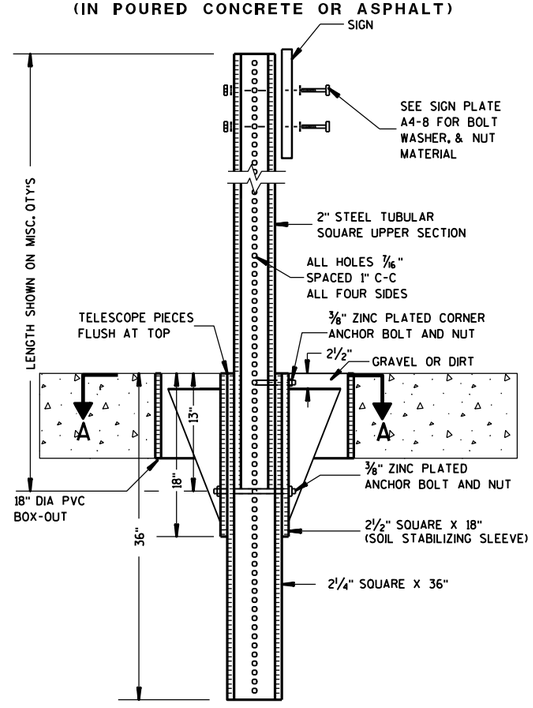
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



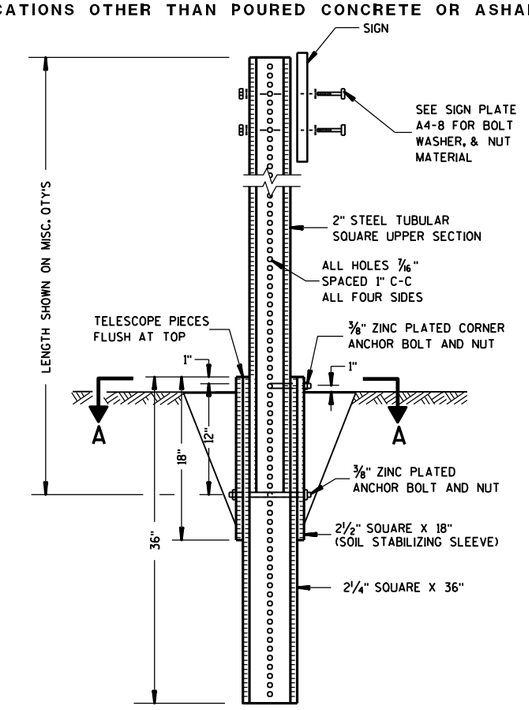
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

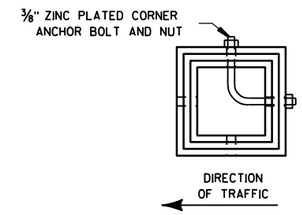


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

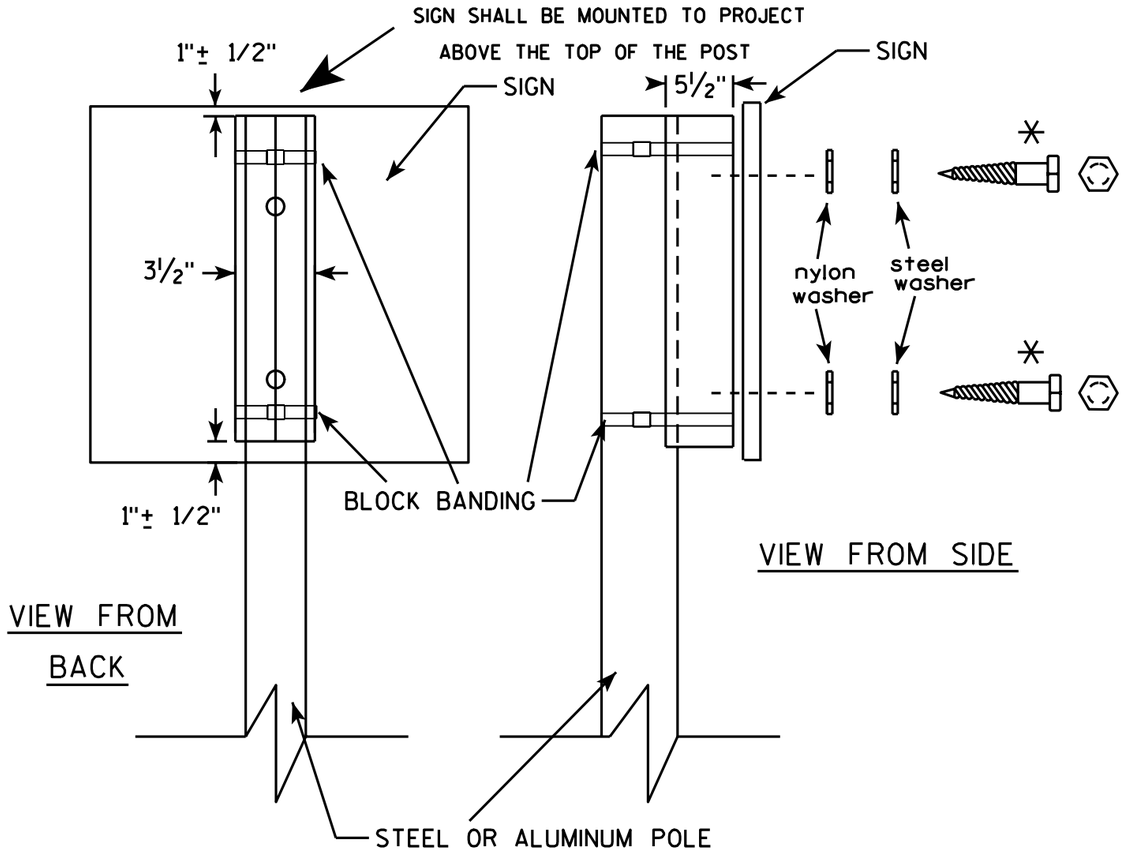
TUBULAR STEEL SIGN POST A4-9

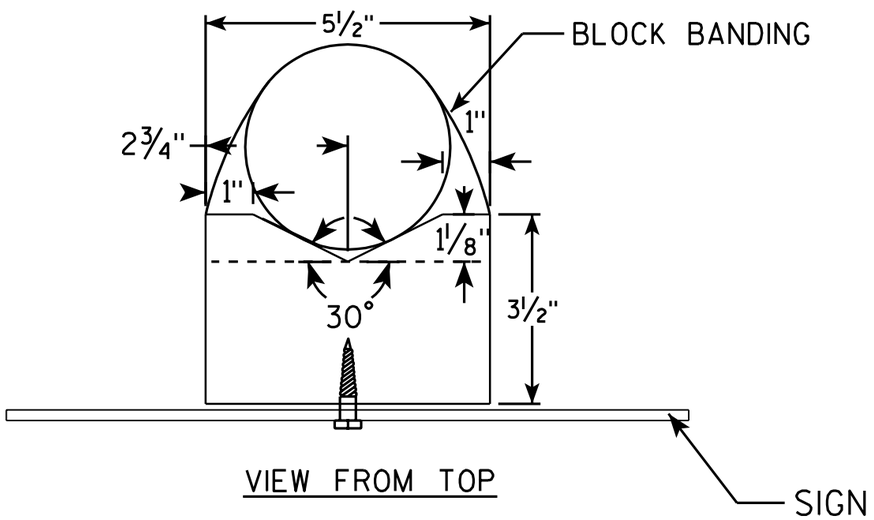
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 635	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

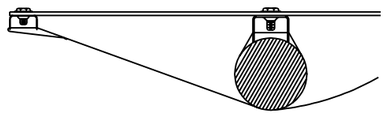
PROJECT NO:

SHEET NO: 636 E

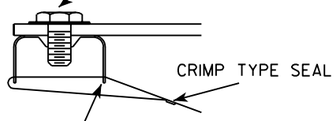
FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

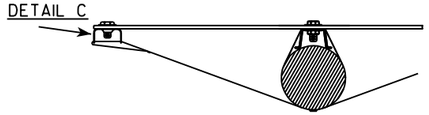
BRACE BANDING

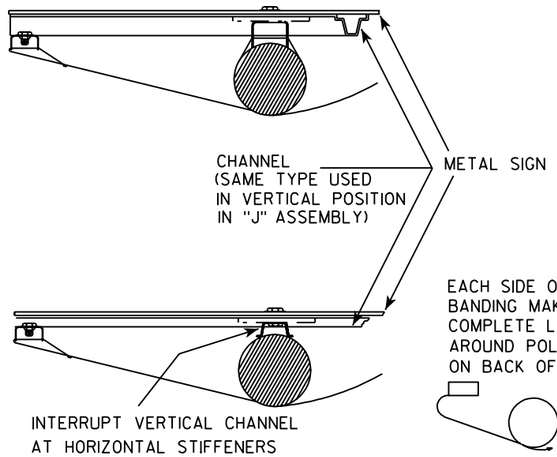


DETAIL C
CADMIUM PLATED STEEL BOLT
THROUGH BLACK BORDER



DETAIL C

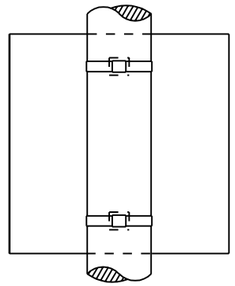


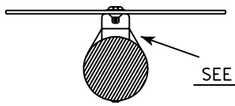


EACH SIDE OF BRACE
BANDING MAKES ONE
COMPLETE LOOP
AROUND POLE-SEAL
ON BACK OF POLE

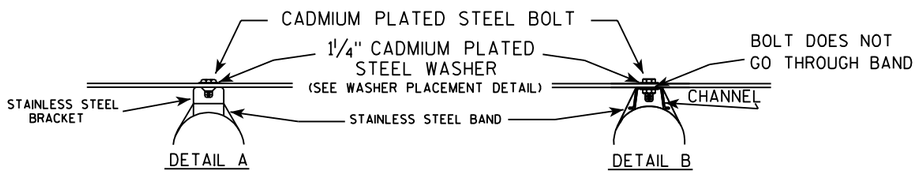
BRACKET BANDING

SINGLE SIGN





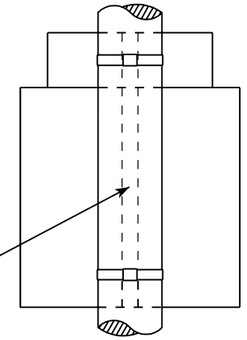
SEE DETAIL A



DETAIL A

DETAIL B

"J" ASSEMBLY

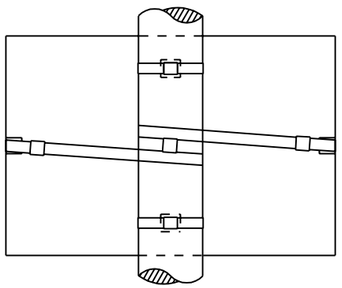


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

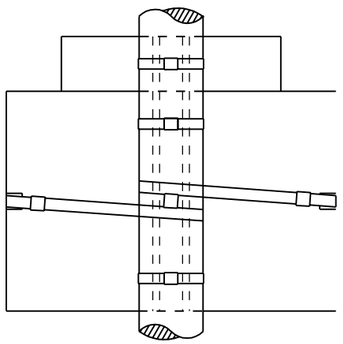
GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

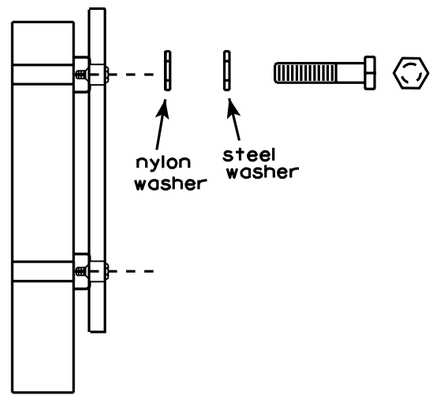


BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY BUT NOT SO TIGHT AS TO APPRECIABLY CURVE FACE OF SIGN.



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

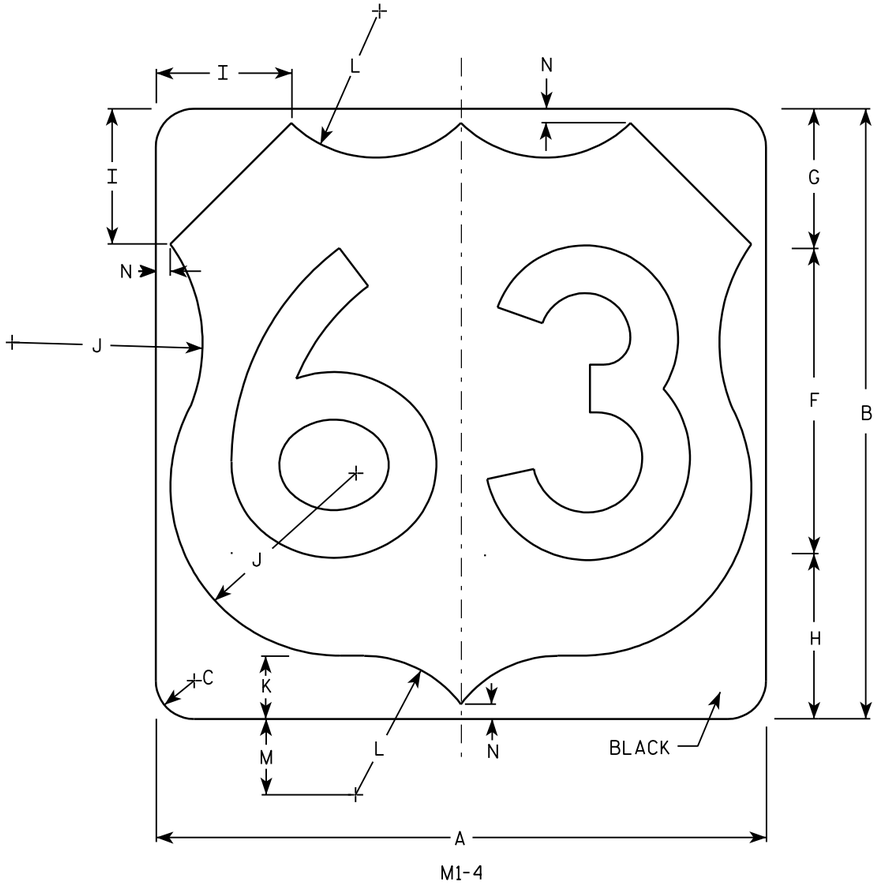
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2

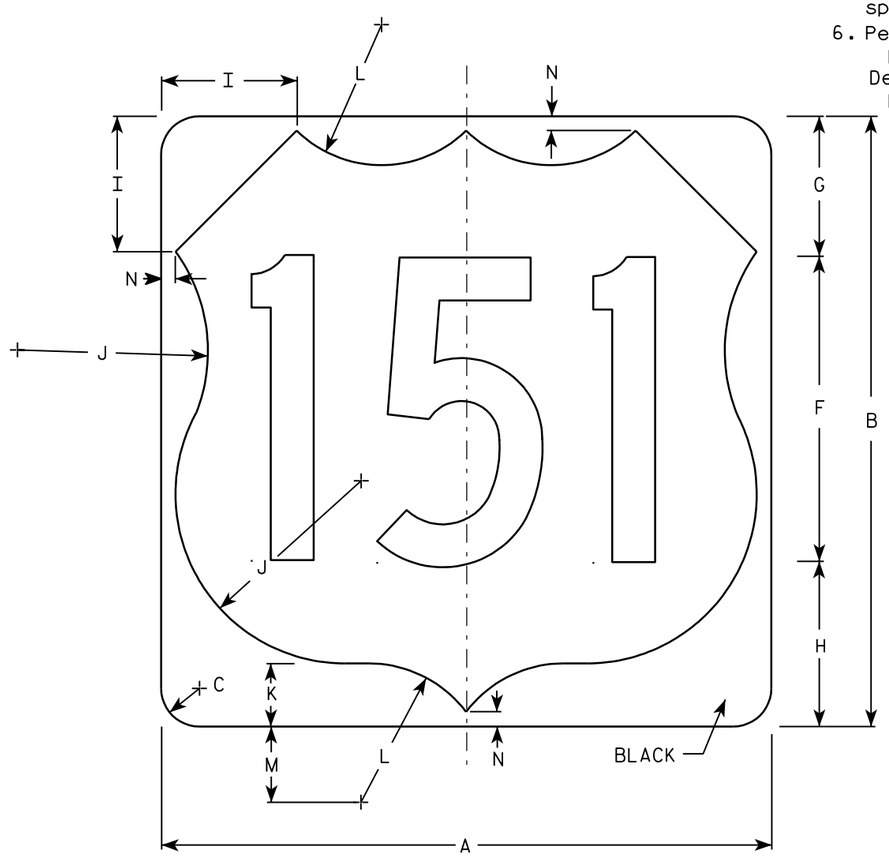
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 637	E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Areq. sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

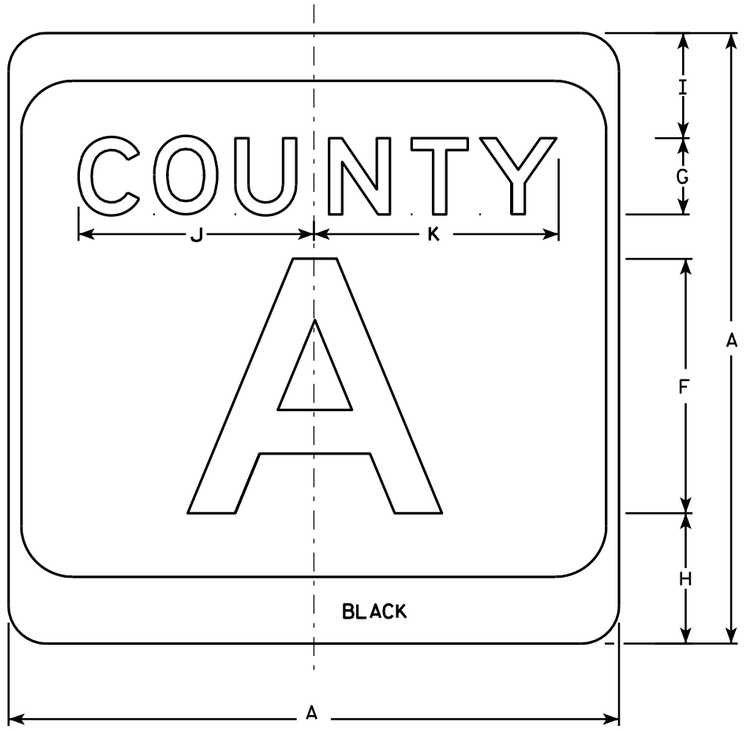
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

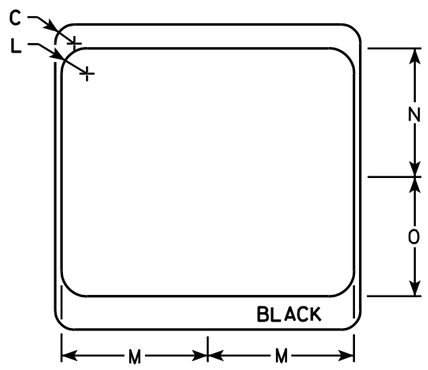
APPROVED Matthew R Rauch
for State Traffic Engineer

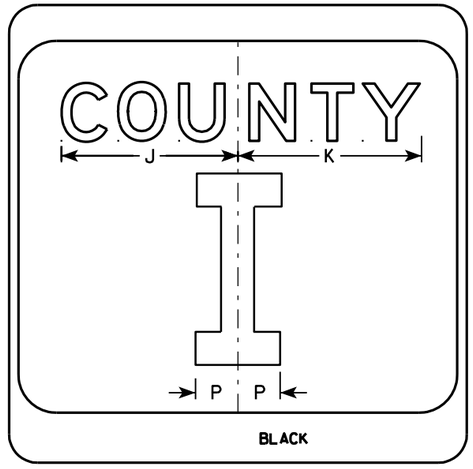
DATE 08/25/05 PLATE NO. M1-4.9

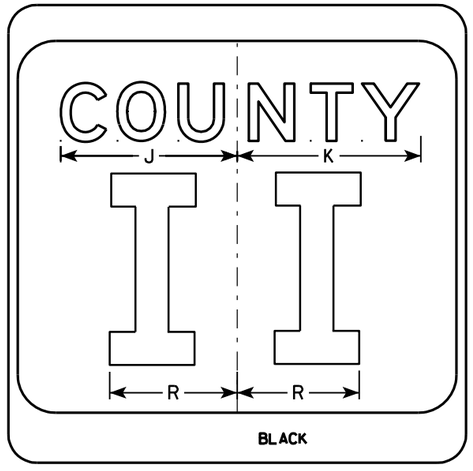
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 638 | E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

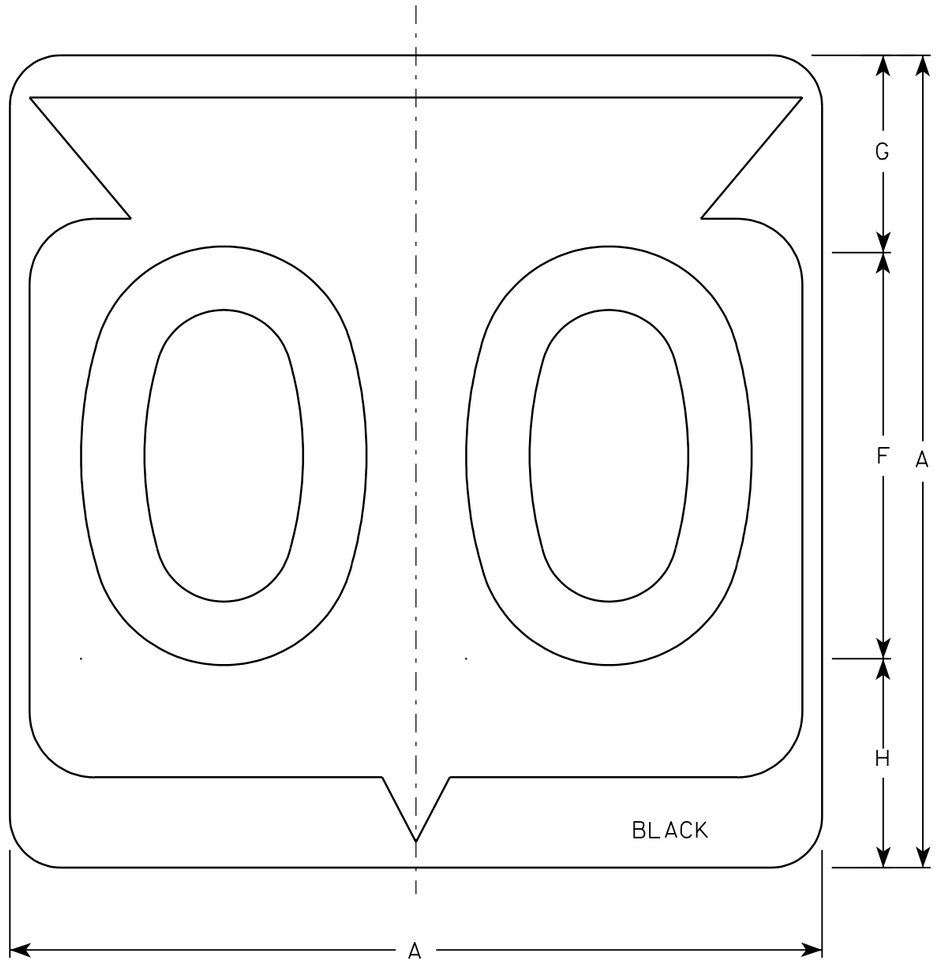
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

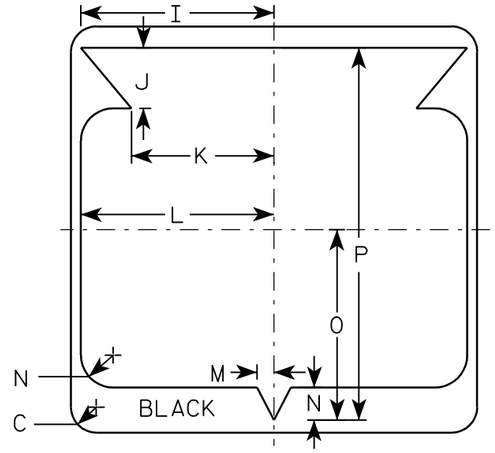
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 639 | E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

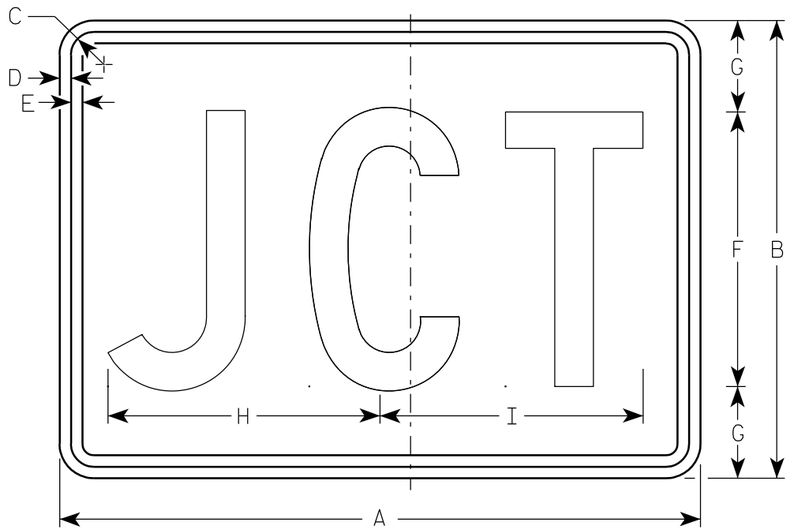
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

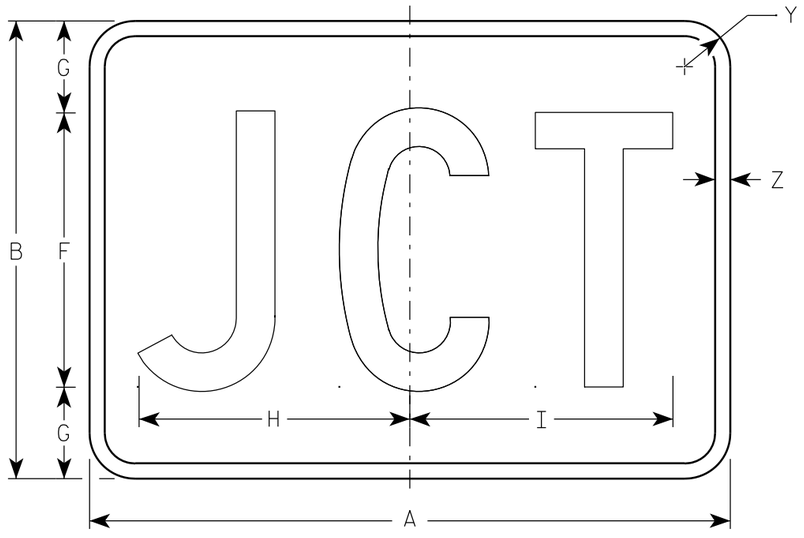
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 640	E



M2-1
MK2-1
MM2-1
MR2-1



MB2-1
MG2-1
MN2-1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   Message - Black
   MB2-1 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   MG2-1 Background - Green
   Message - White - Type H Reflective
   MK2-1 Background - Green
   Message - White - Type H Reflective
   MM2-1 Background - White - Type H Reflective
   Message - Green
   MN2-1 Background - Brown
   Message - White - Type H Reflective
   MR2-1 Background - Brown
   Message - Yellow - Type H Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

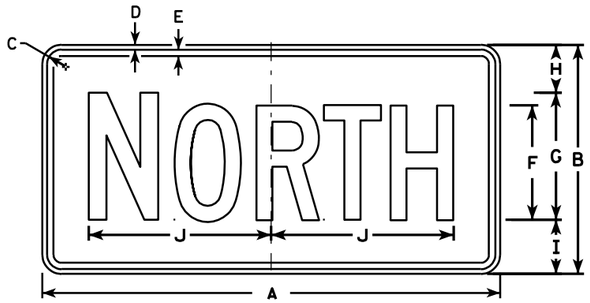
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

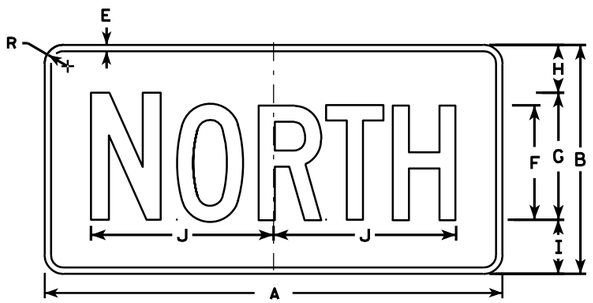
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

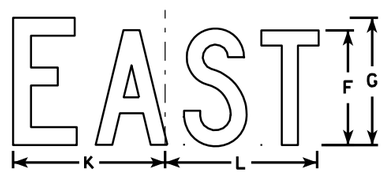
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 641	E



M3-1
MK3-1
MO3-1

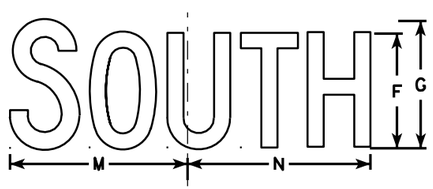


MB3-1
MG3-1
MM3-1
MN3-1

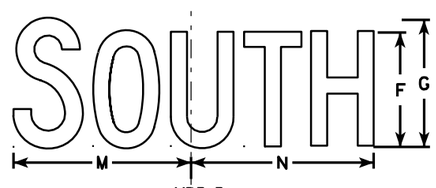


M3-2
MK3-2
MO3-2

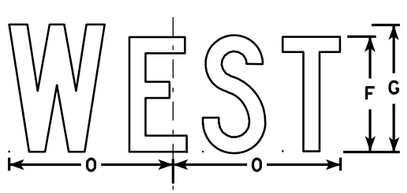
MB3-2
MG3-2
MM3-2
MN3-2



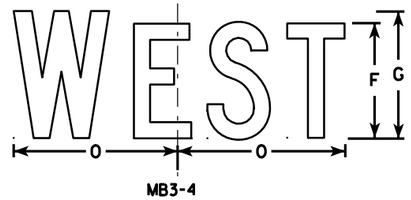
M3-3
MK3-3
MO3-3



MB3-3
MG3-3
MM3-3
MN3-3



M3-4
MK3-4
MO3-4



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective) Message - Black
   MB3-1 thru MB3-4 Background - Blue Message - White - Type H Reflective (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective Message - Green
   MN3-1 thru MN3-4 Background - Brown Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

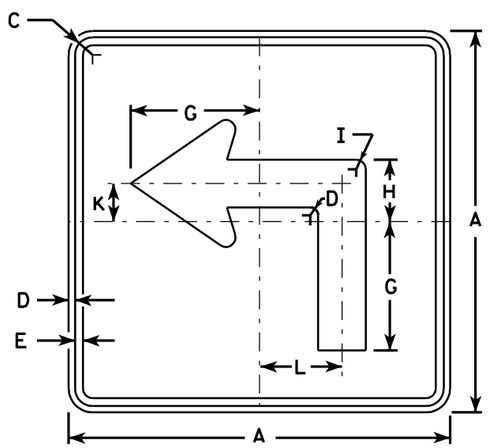
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

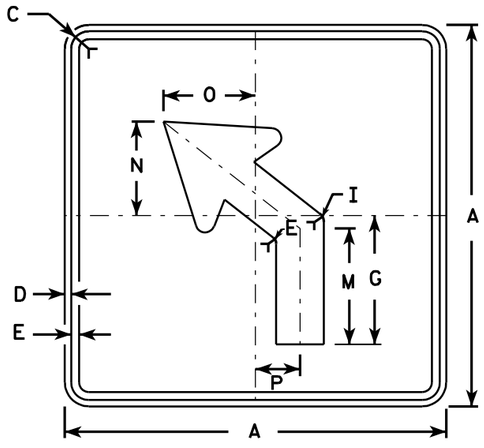
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

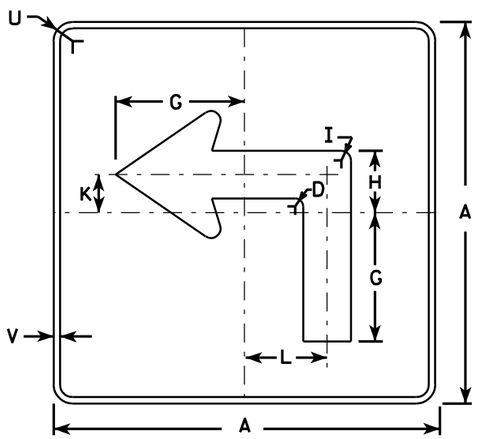
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 642	E



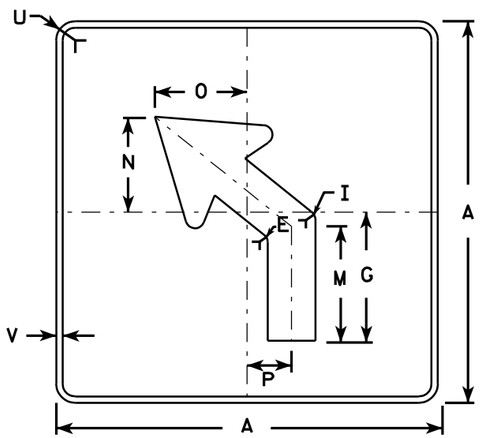
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



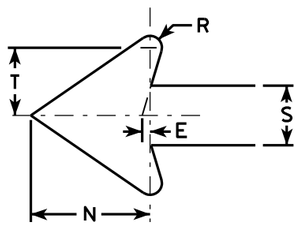
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
   MB5-1 and MB5-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG5-1 and MG5-2 Background - Green Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective Message - Green
   MN5-1 and MN5-2 Background - Brown Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Reflective Message - Black
   MR5-1 and MR5-2 Background - Brown Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m²
1																												
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56

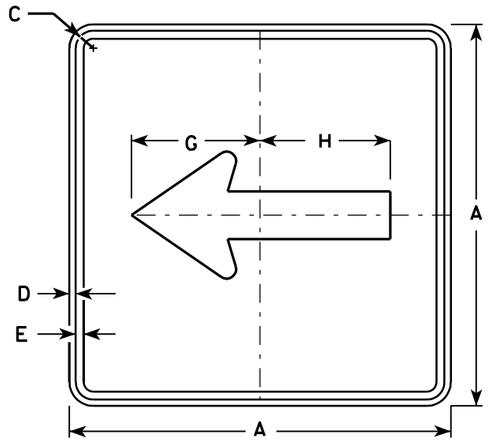
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

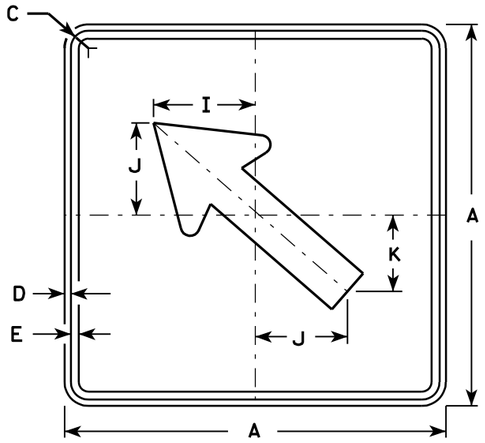
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M5-1.11

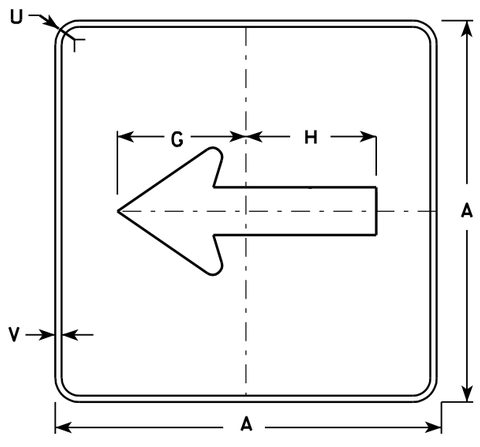
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 643	E



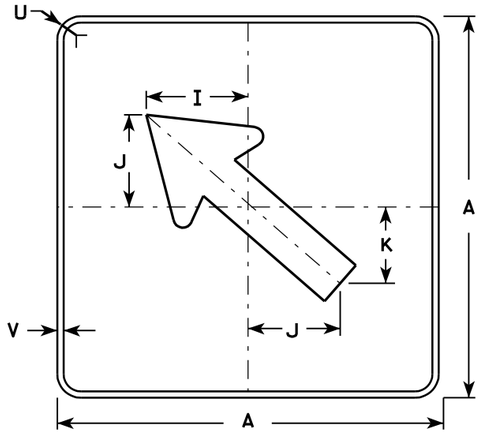
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MR6-2



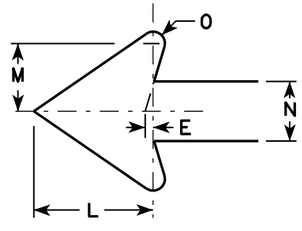
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
   MB6-1 and MB6-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG6-1 and MG6-2 Background - Green Message - White - Type H Reflective
   MK6-1 and MK6-2 Background - Green Message - White - Type H Reflective
   MM6-1 and MM6-2 Background - White - Type H Reflective Message - Green
   MN6-1 and MN6-2 Background - Brown Message - White - Type H Reflective
   MO6-1 and MO6-2 Background - Orange - Reflective Message - Black
   MR6-1 and MR6-2 Background - Brown Message - Yellow - Type H Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

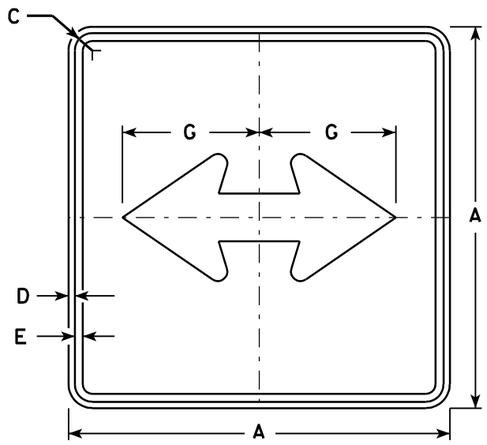
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

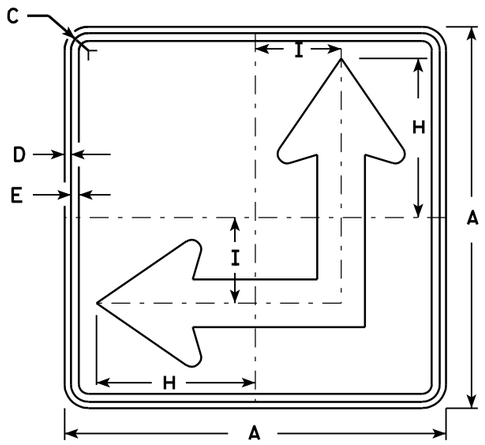
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-1.12

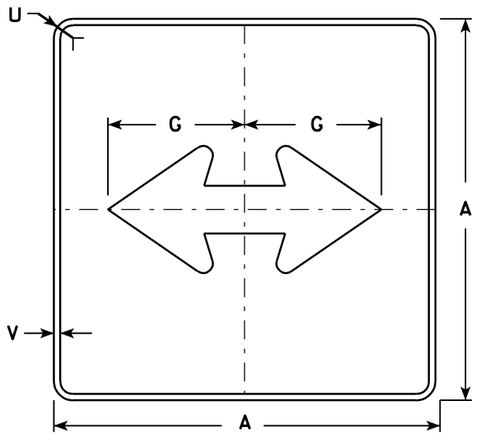
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 644	E



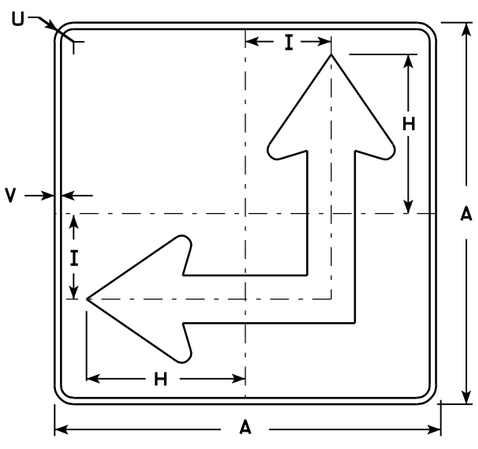
M6-4
MK6-4
MM6-4
MO6-4
MR6-4



M6-6
MK6-6
MM6-6
MO6-6
MR6-6



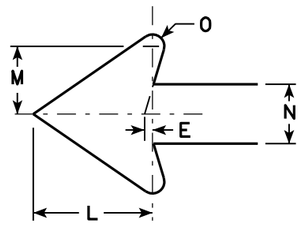
MB6-4
MG6-4
MN6-4



MB6-6
MG6-6
MN6-6

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   MG6-4 and MG6-6 Background - Green
   Message - White - Type H Reflective
   MK6-4 and MK6-6 Background - Green
   Message - White - Type H Reflective
   MM6-4 and MM6-6 Background - White - Type H Reflective
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White - Type H Reflective
   MO6-4 and MO6-6 Background - Orange - Reflective
   Message - Black
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow - Type H Reflective
5. M6-6R same as M6-6L except arrow points ahead and right.



Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

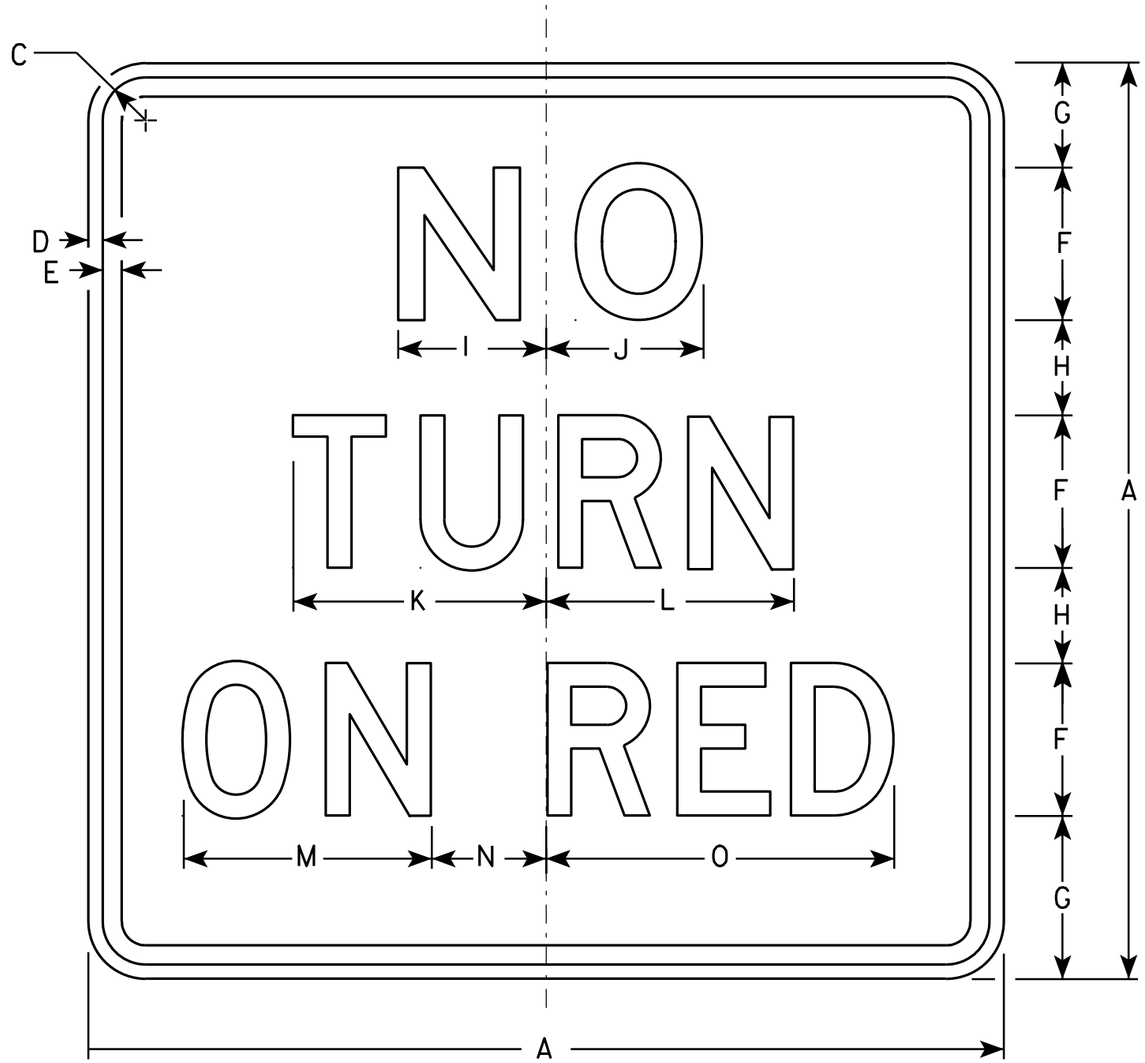
STANDARD SIGN M6-4 & M6-6 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-4.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 645	E



R10-11B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 5.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series E.
   Lines 2 and 3 are Series D.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8	3/8	3/8	3	2 3/4	1 3/4	3	3 1/8	5	4 7/8	5 1/4	1 7/8	7 1/8												2.25
2S	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 7/8	4 1/8	6 5/8	6 1/2	6 1/2	3	9 1/8												4.0
2M	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 7/8	4 1/8	6 5/8	6 1/2	6 1/2	3	9 1/8												4.0
3	30		1 3/8	1/2	5/8	5	4 1/2	3	4 7/8	5 1/4	8 1/4	8 1/8	7 3/4	4 1/8	11 7/8												6.25
4																											
5																											

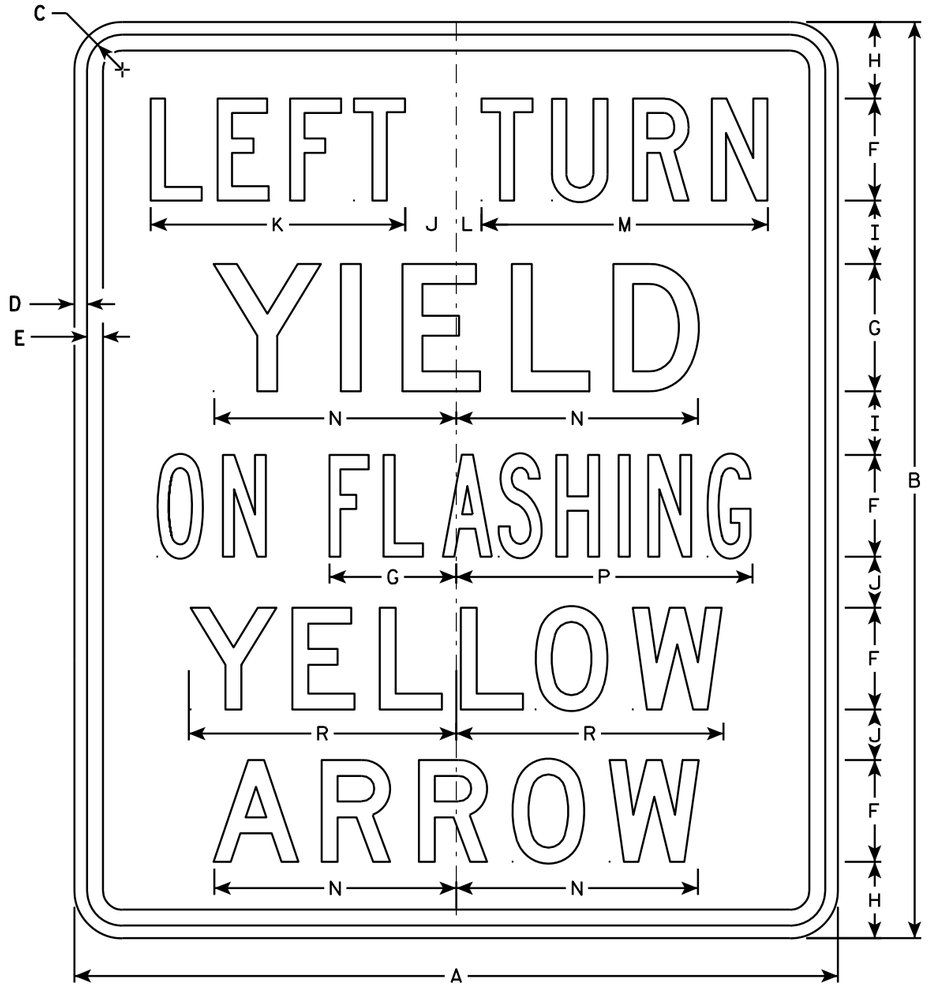
STANDARD SIGN
R10-11B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-11B.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 646 | E

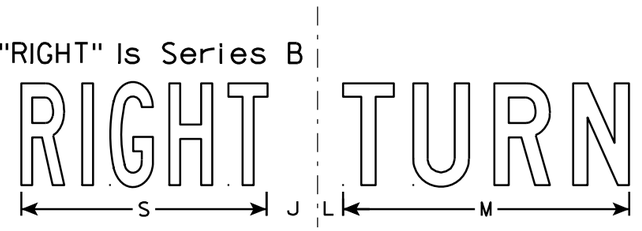


R10-50L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C.
   Lines 2, 4 and 5 are Series D.
   Line 3 is Series B.

"RIGHT" Is Series B



R10-50R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	4	5	3	2 1/2	2	10	1	11 1/4	9 1/2	4 1/4	11 5/8		10 1/2	9 5/8								7.5
2M	30	36	1 3/8	1/2	5/8	4	5	3	2 1/2	2	10	1	11 1/4	9 1/2	4 1/4	11 5/8		10 1/2	9 5/8								7.5
3																											
4																											
5																											

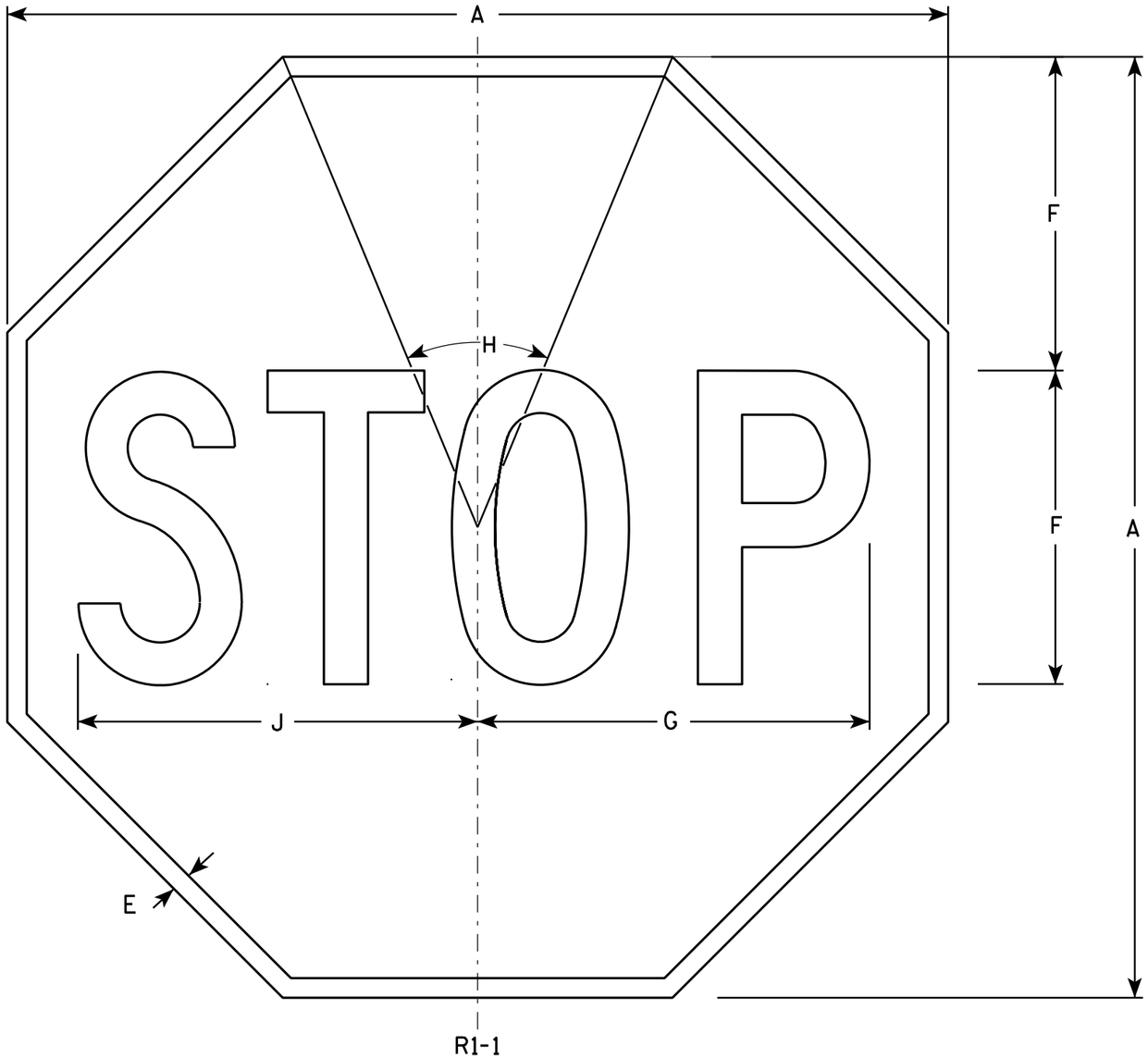
STANDARD SIGN
R10-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/11/13 PLATE NO. R10-50.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 647	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

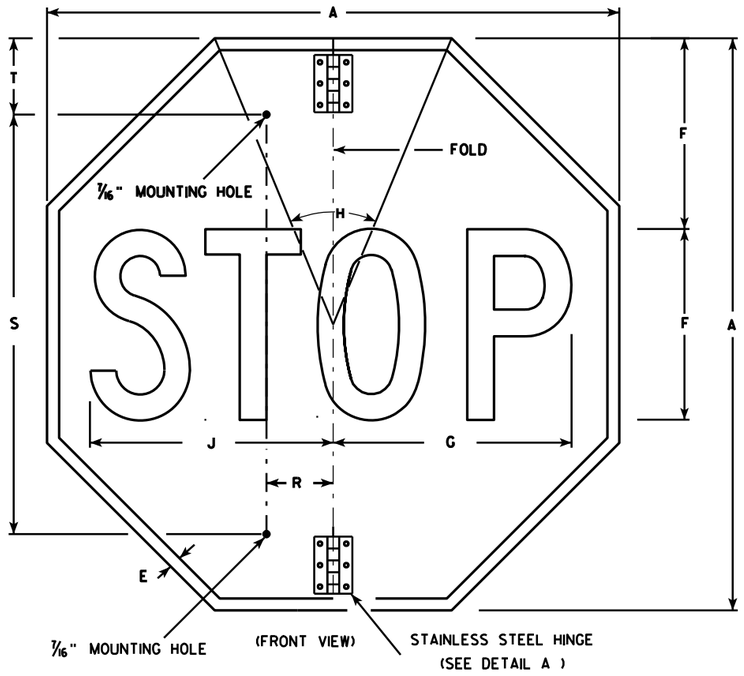
STANDARD SIGN
R1-1

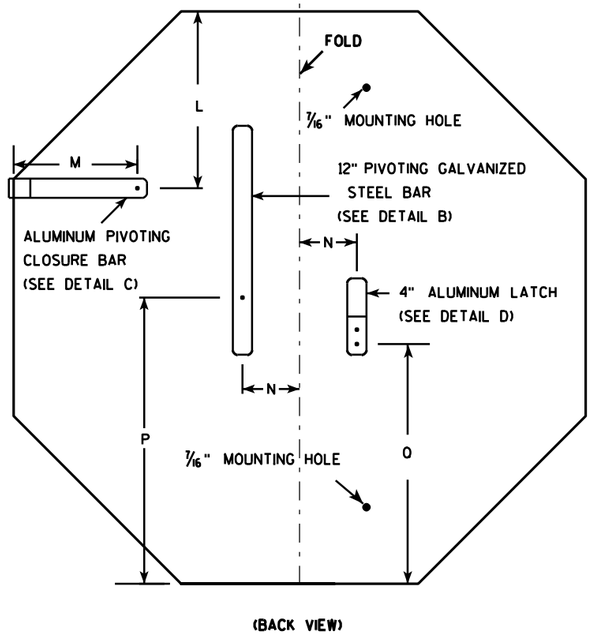
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

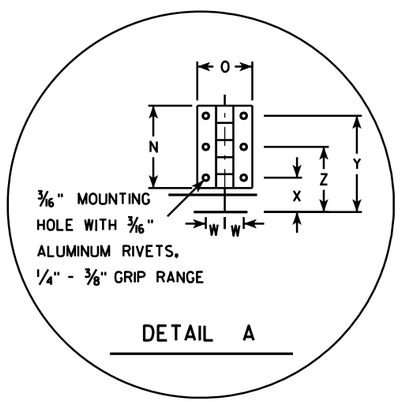
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 648	E



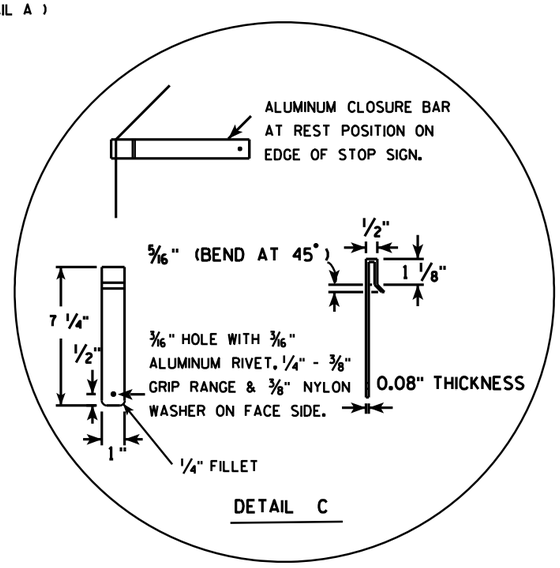


NOTES

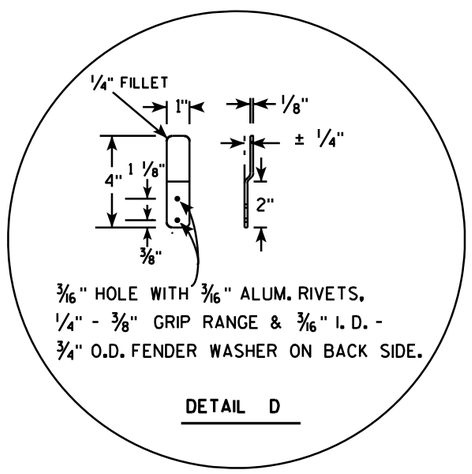
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



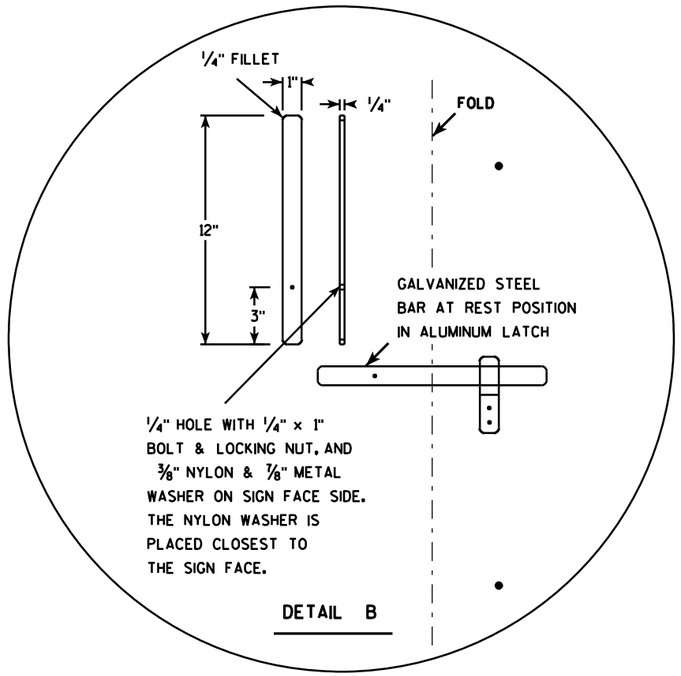
DETAIL A



DETAIL C



DETAIL D



DETAIL B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

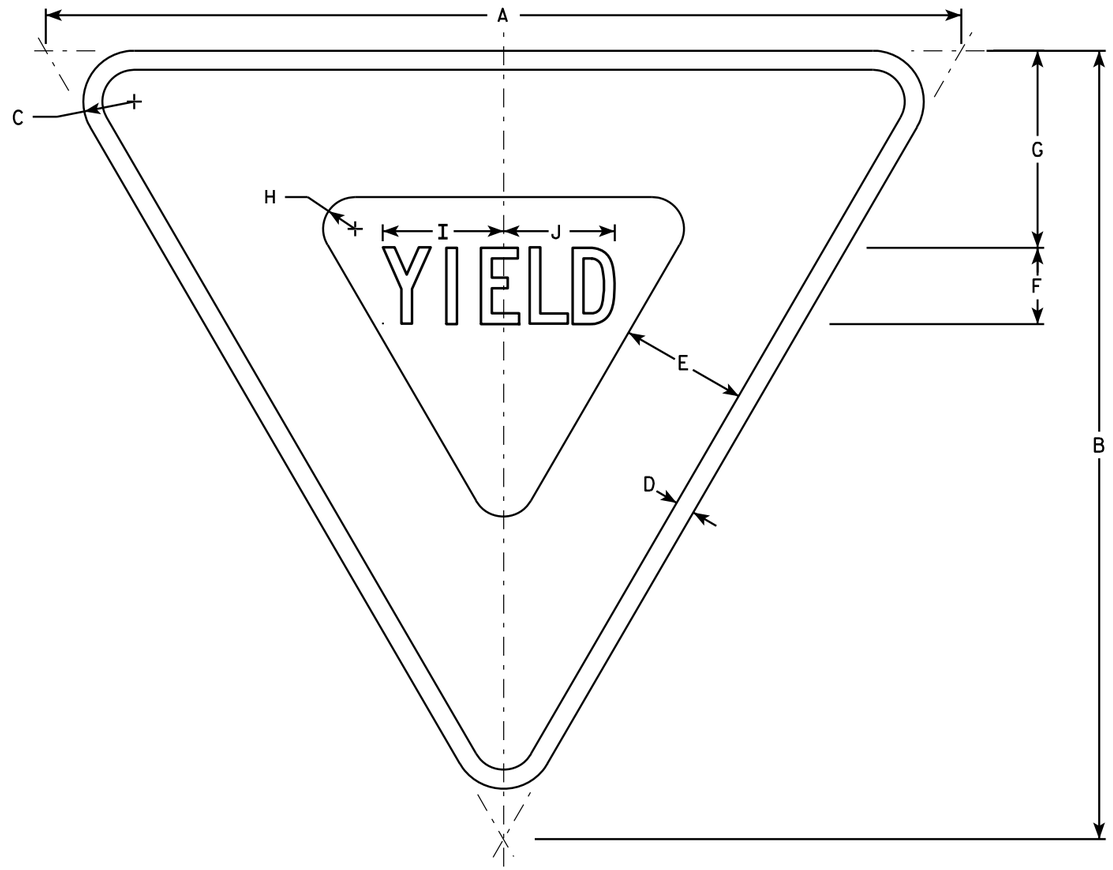
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 649	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

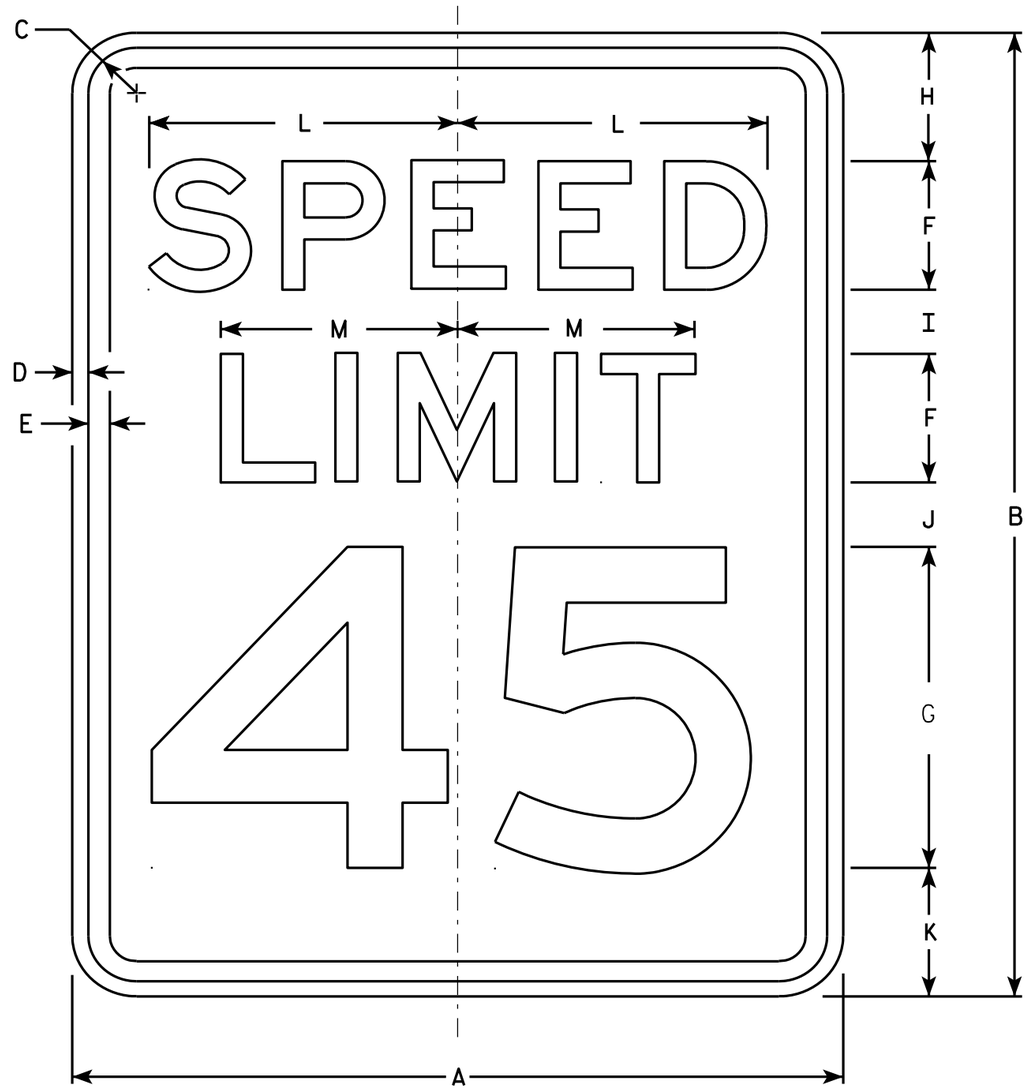
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 650 | E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

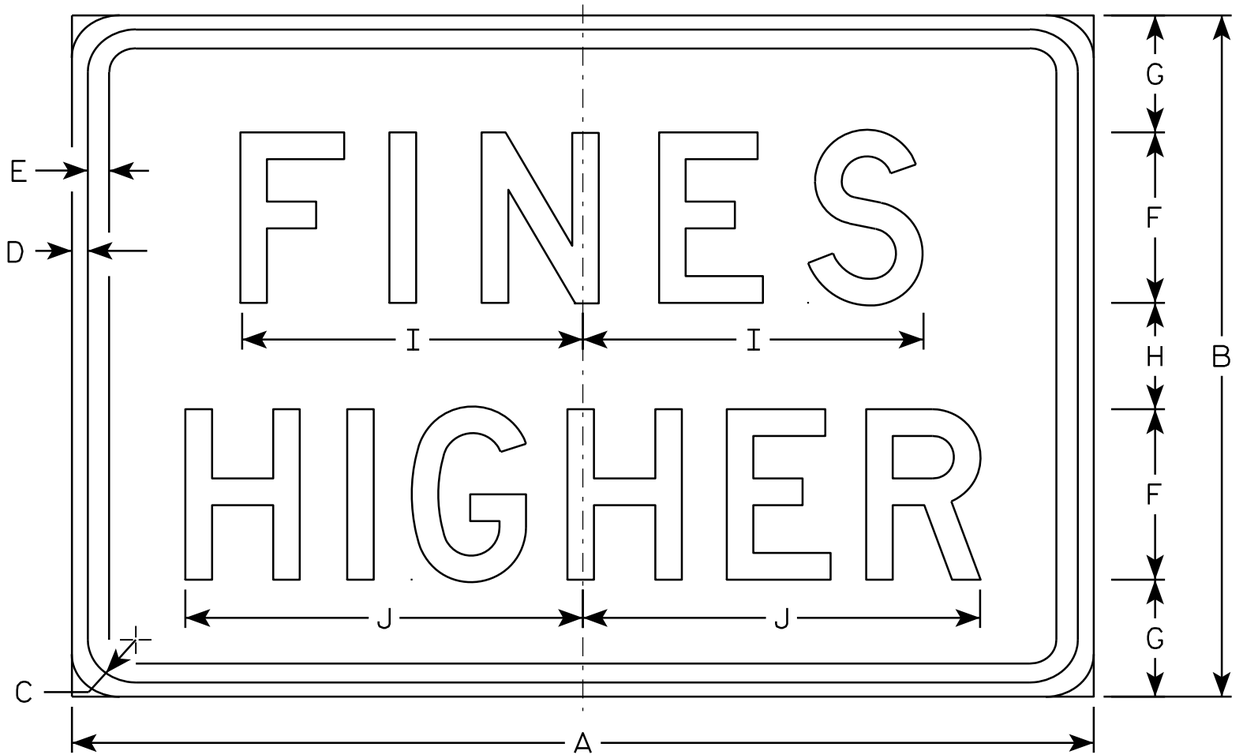
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 651 | E



R2-6P

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

STANDARD SIGN
R2-6P

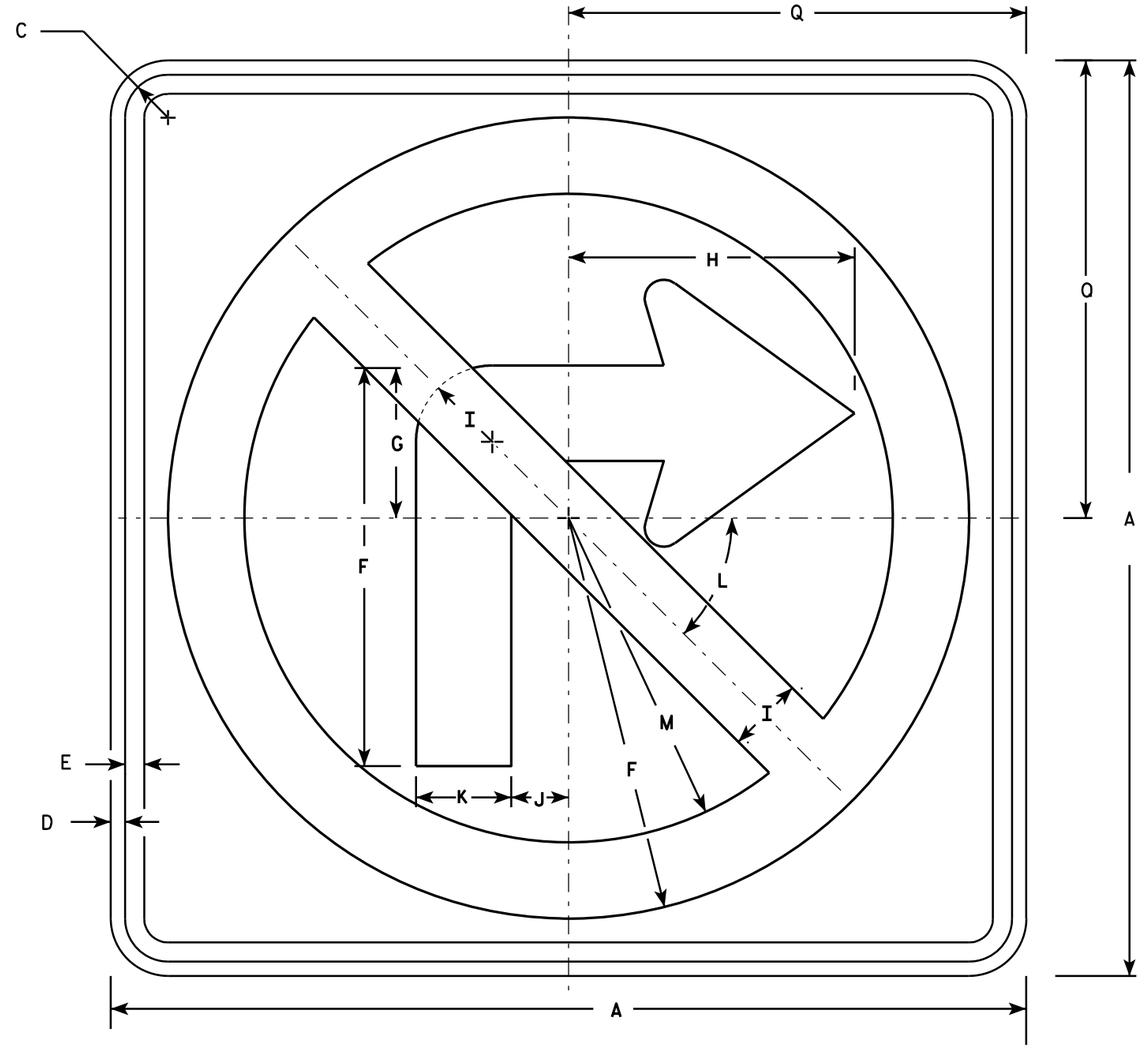
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 652 | E

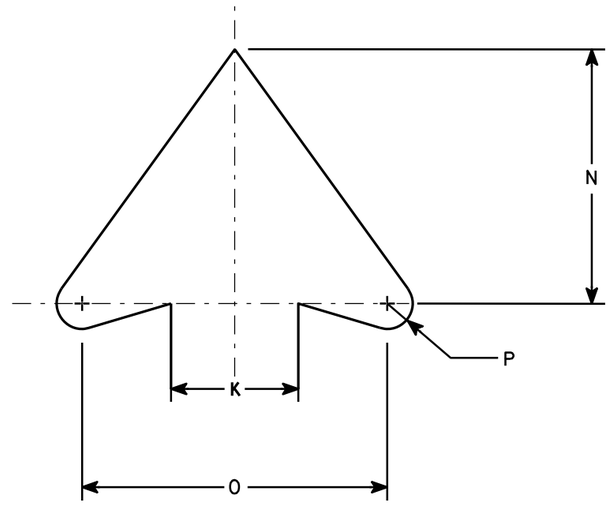
7



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

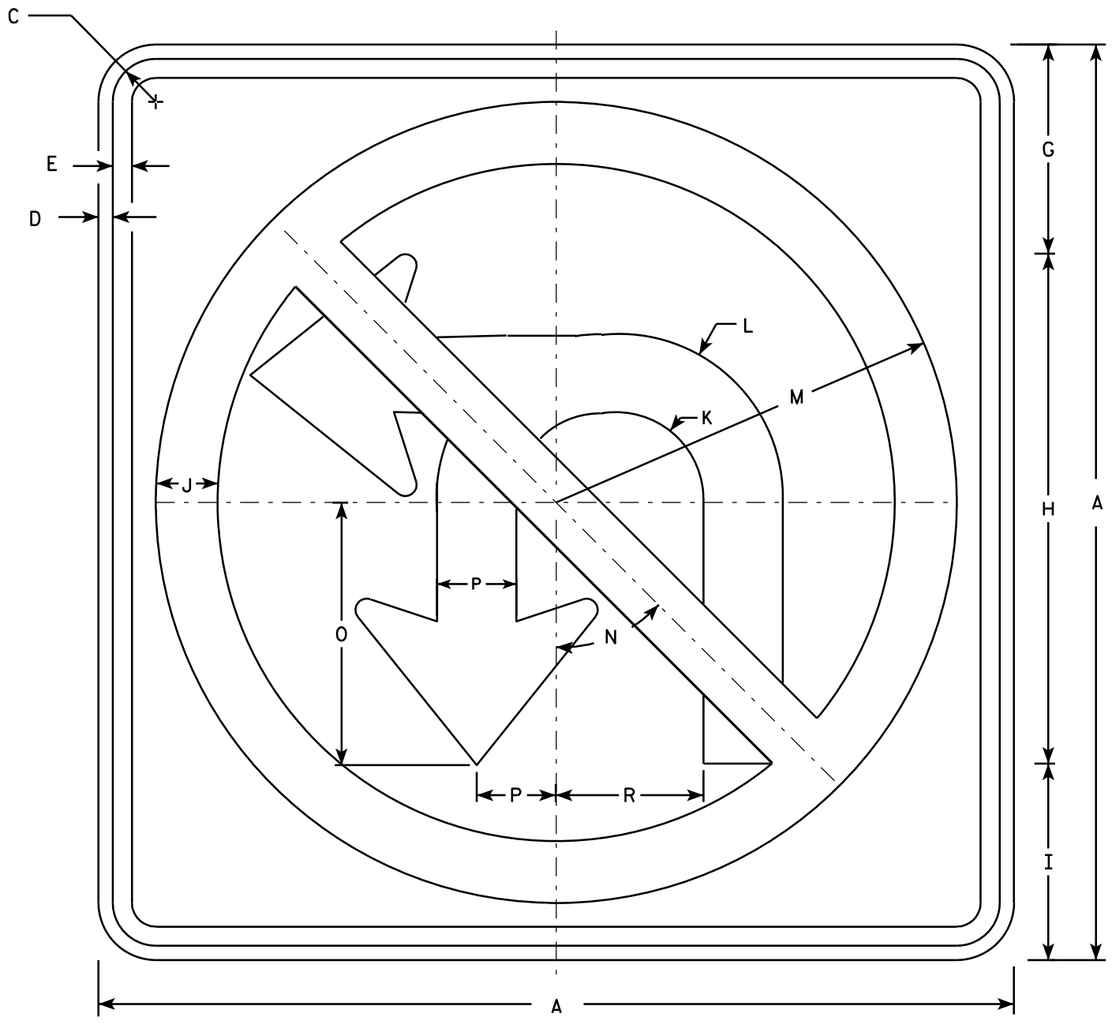
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 653	E



R3-18

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		5 1/2	13 3/8	5 1/8	1 5/8	2 1/4	4 1/4	10 1/2	45°	6 7/8	2 1/8		3 7/8									4.0
2M	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45°	10 3/8	3 1/8		5 3/4									9.0
3	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
4	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
5	48		2 1/4	3/4	1		11	26 3/4	10 1/4	3 1/4	4 5/8	8 5/8	21	45°	13 3/4	4 1/8		7 3/4									16.0

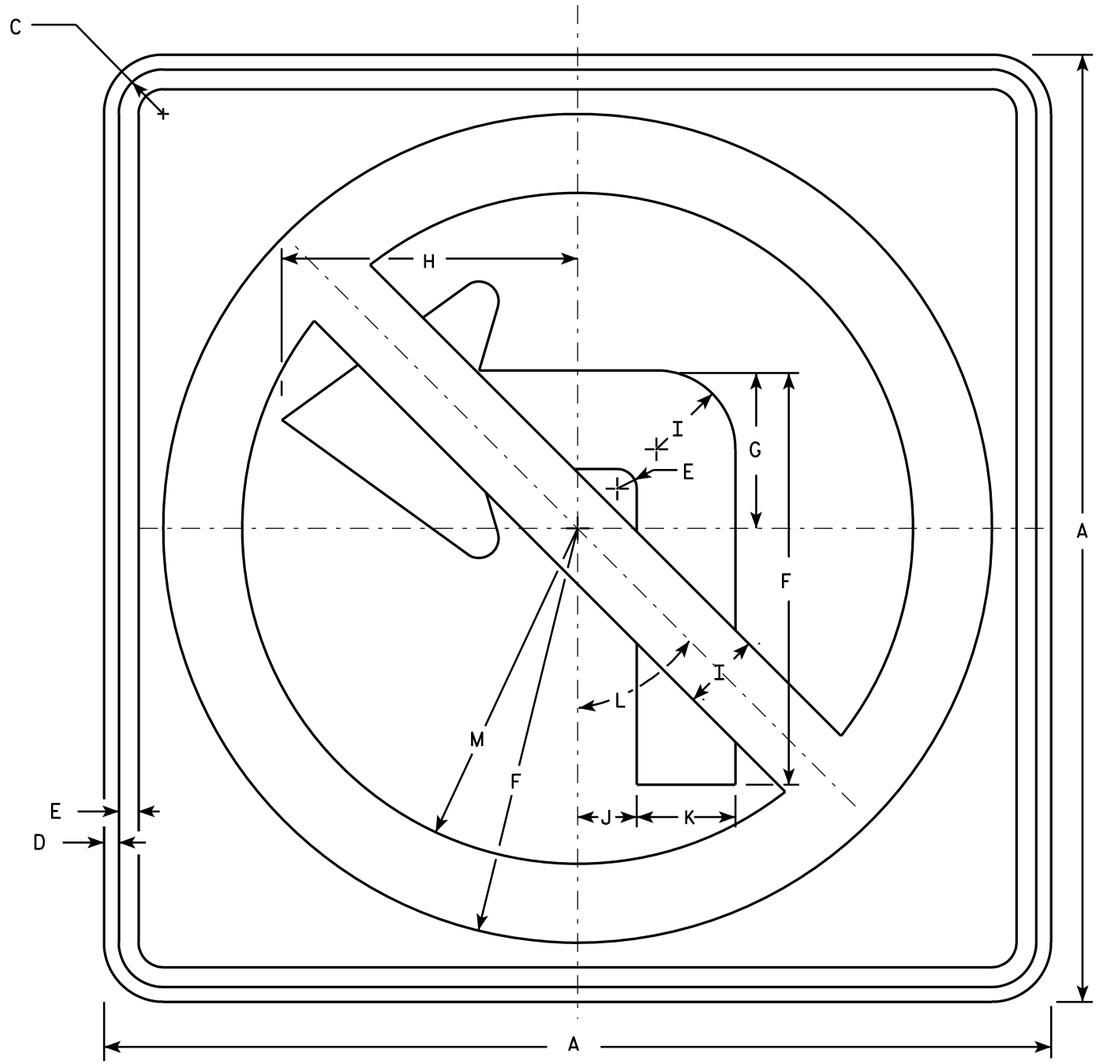
STANDARD SIGN
R3-18

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/10 PLATE NO. R3-18.2

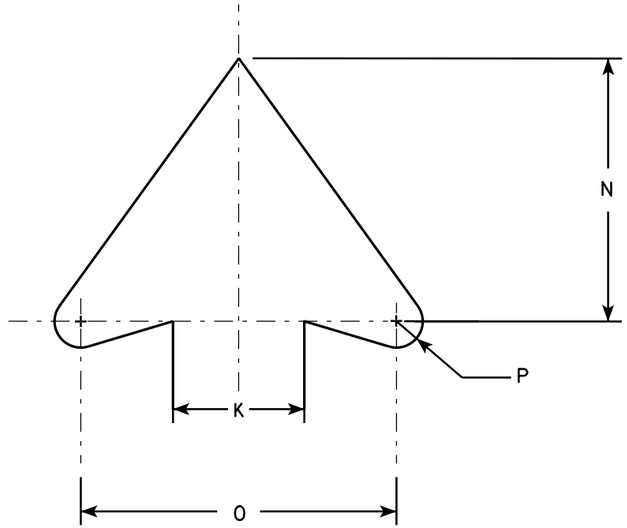
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 654	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

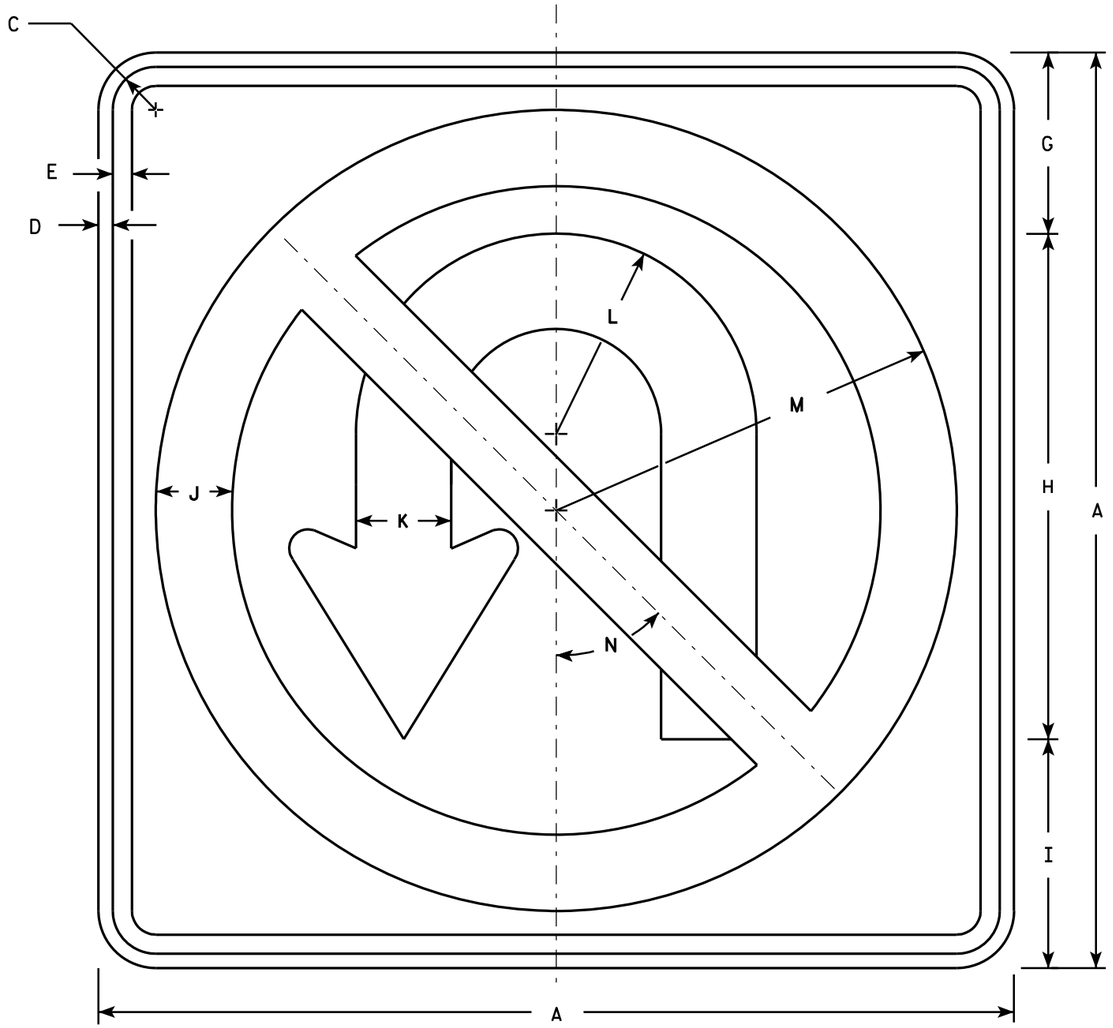
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

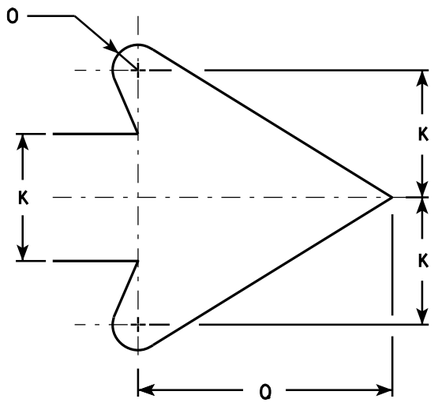
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 655	E



R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

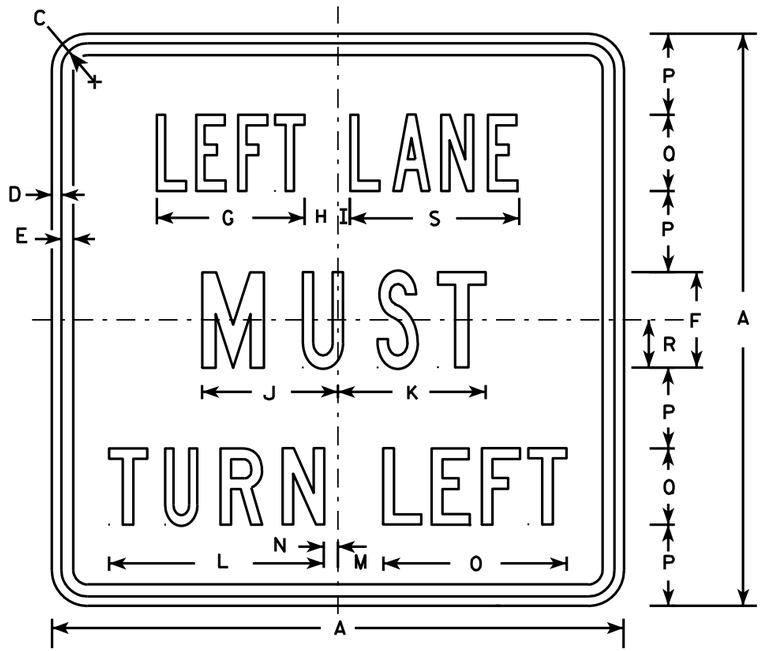
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

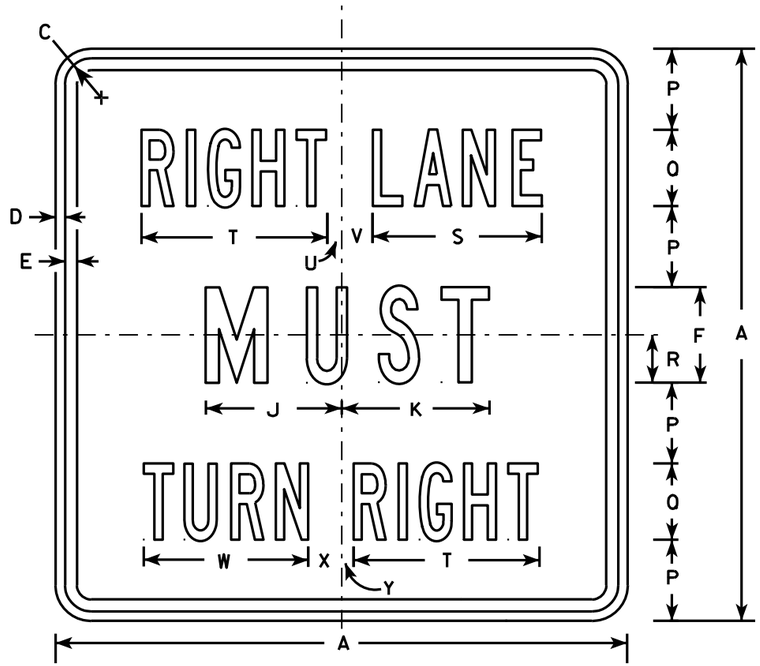
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 656	E



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

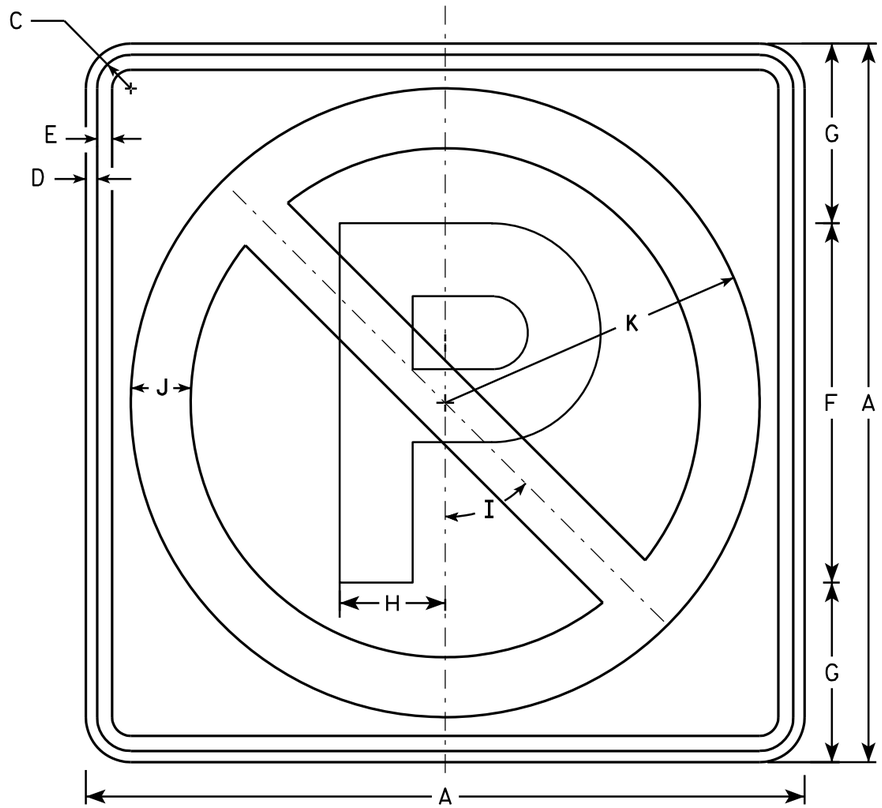
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 657 | E



R3-8A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Letter P are non reflective black, the circle with diagonal bar is reflective red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2	12	6	3 1/2	45°	2	10 1/2																4.0
2M	24		1 1/8	3/8	1/2	12	6	3 1/2	45°	2	10 1/2																4.0
3																											
4																											
5																											

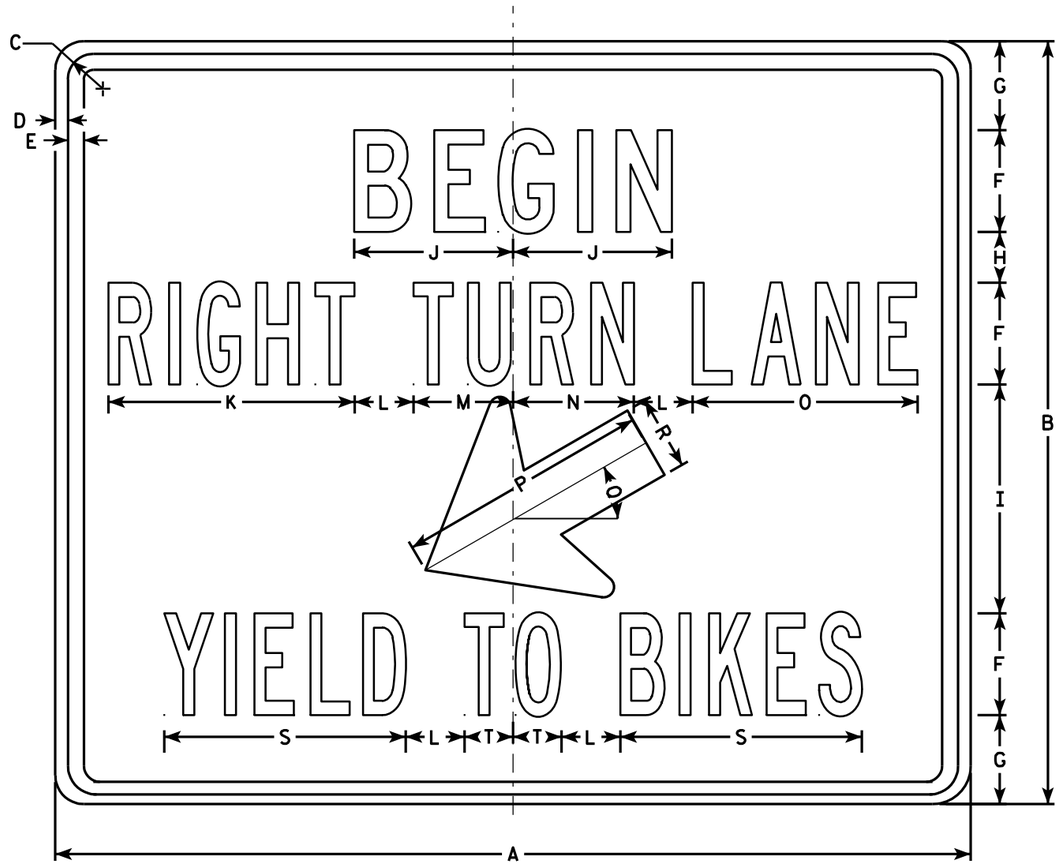
STANDARD SIGN
R3-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/01/12 PLATE NO. R3-8A.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 658 | E



R4-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C
   Lines 2 & 3 are Series B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
2M	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
3																											
4																											
5																											

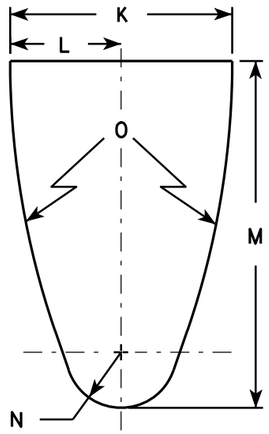
STANDARD SIGN
R4-4

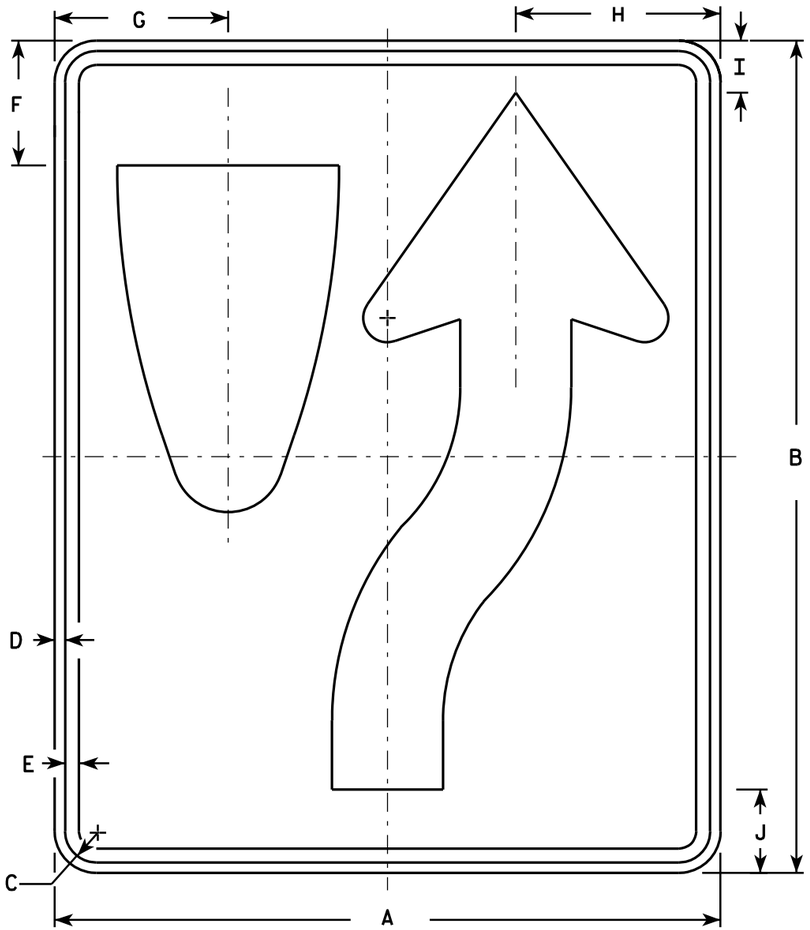
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-4.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 659 | E

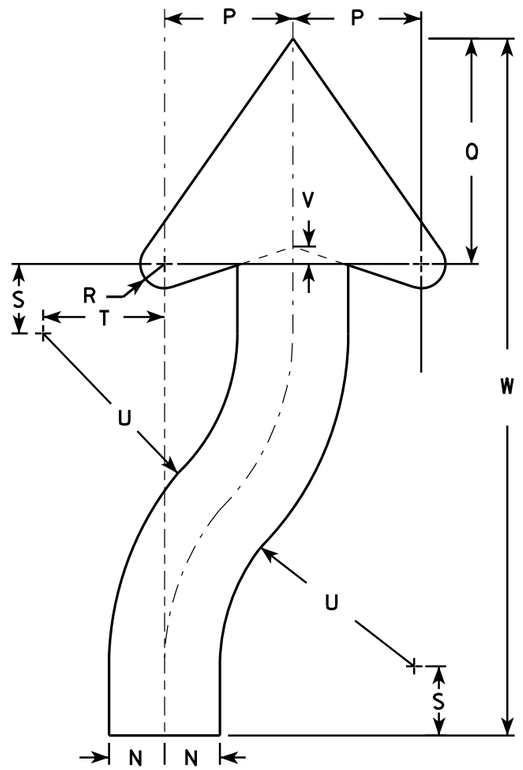




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

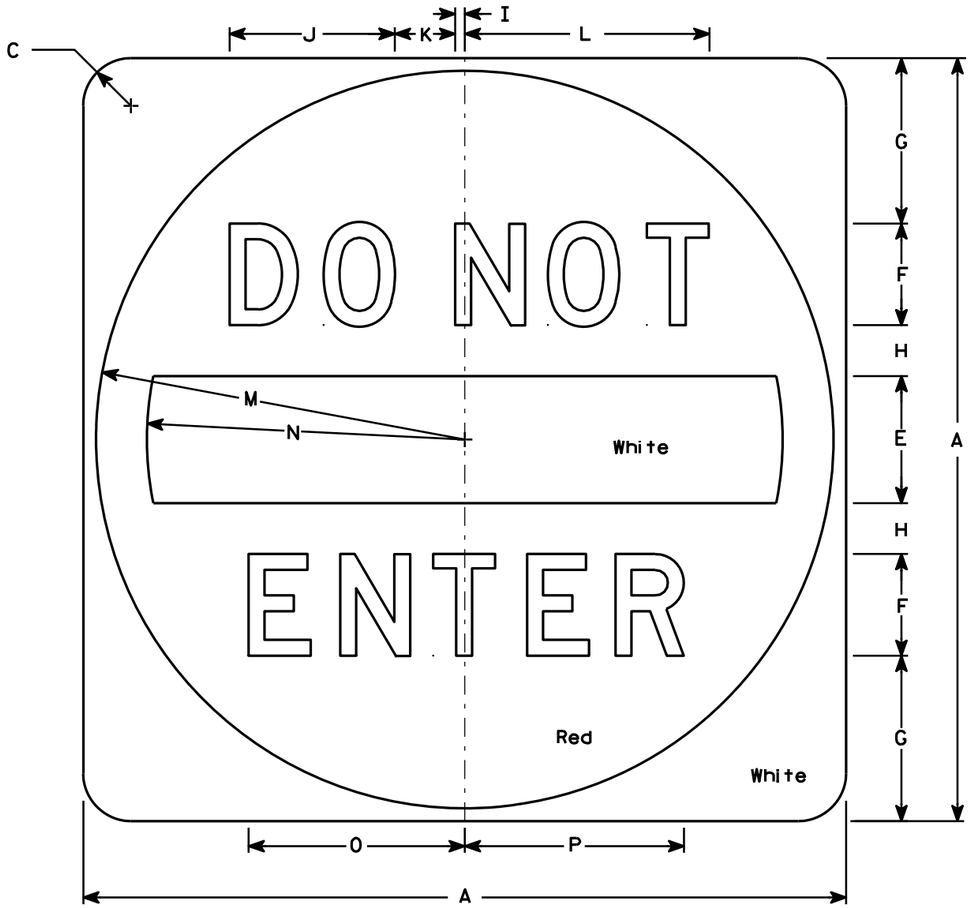
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 660	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

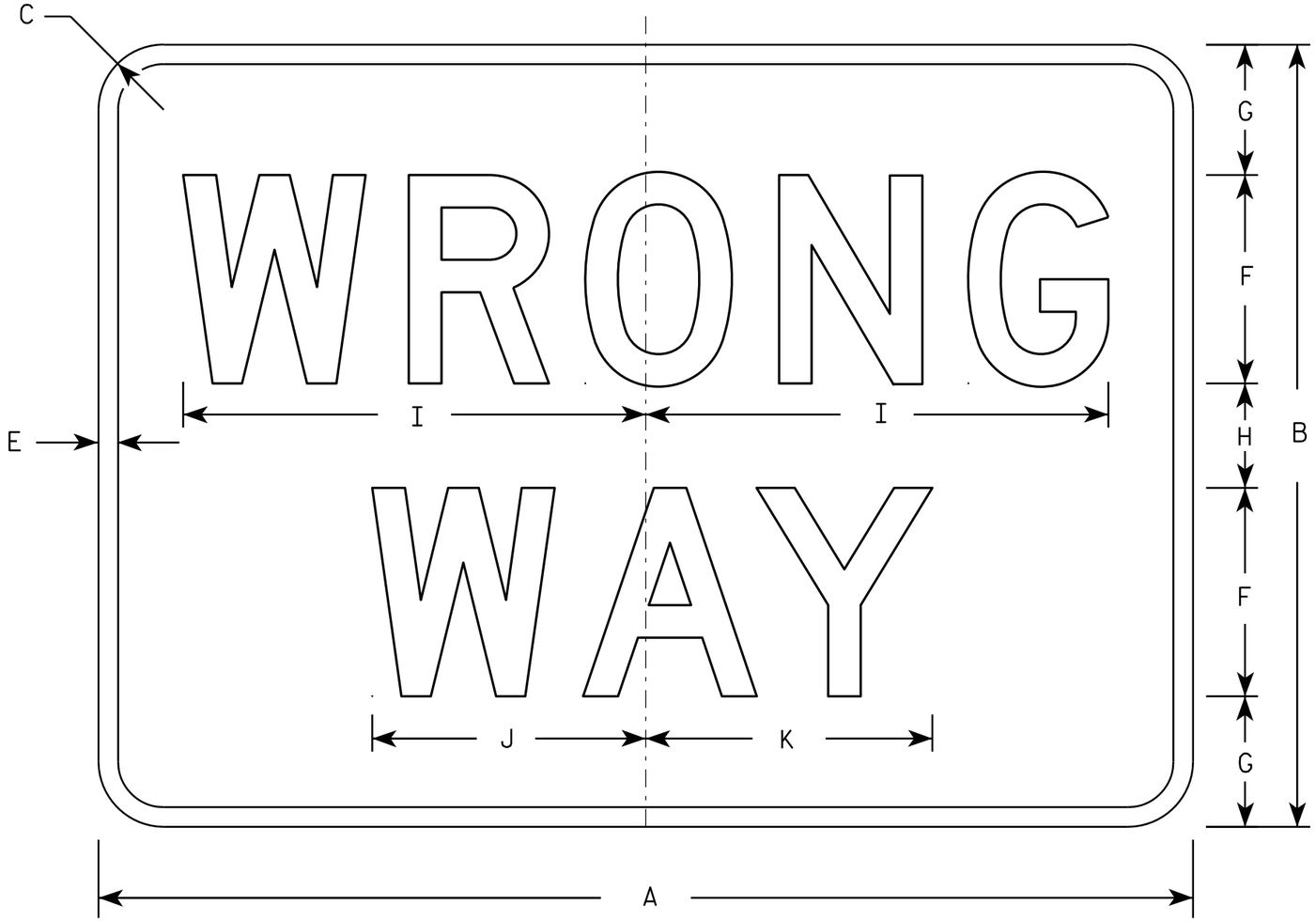
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 661 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

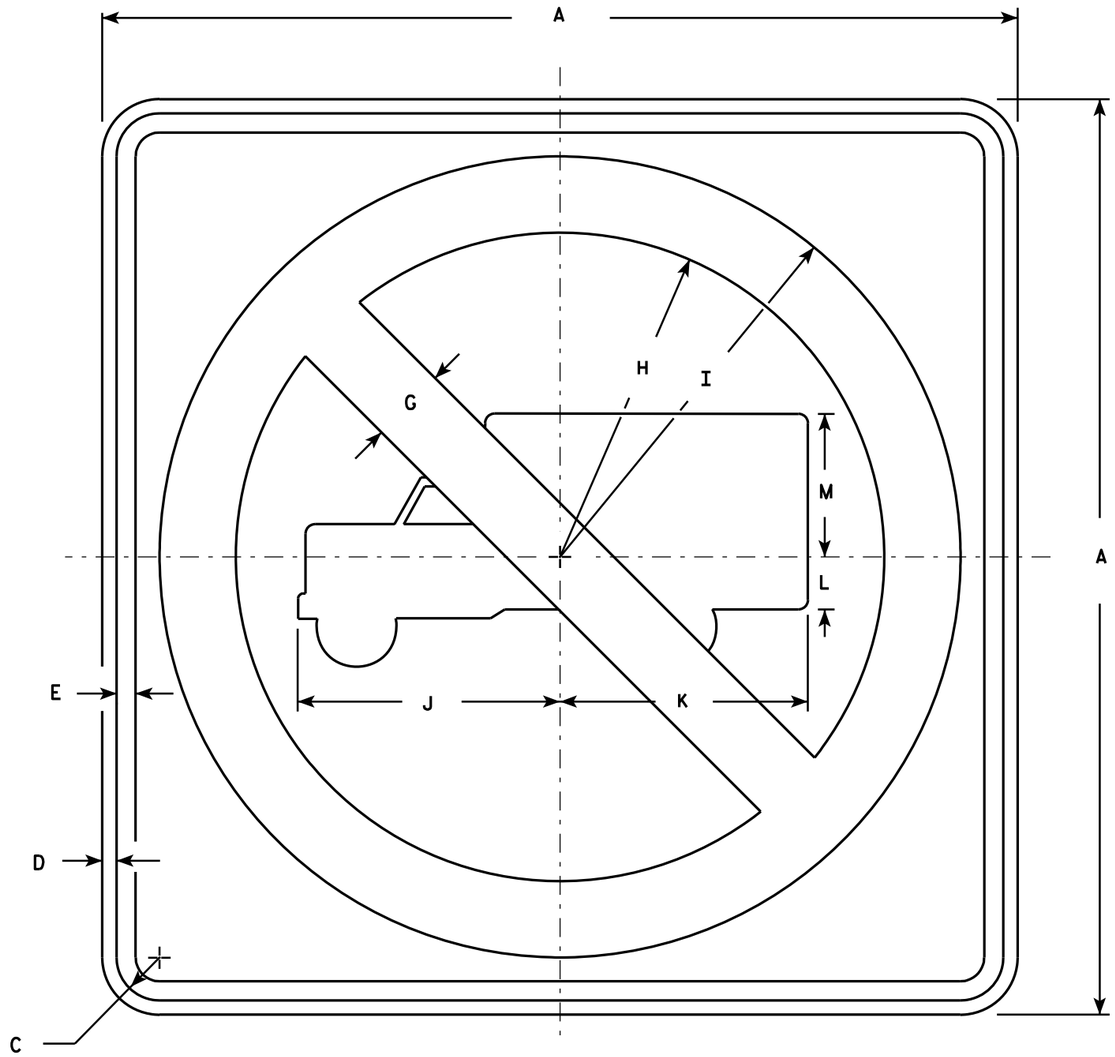
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 662	E



R5-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Circle & Diagonal - Reflective red.
   Truck Symbol & Border - Non-reflective black.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
2M	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
3	30		1 3/8	1/2	5/8		2 1/2	10 5/8	13 1/8	8 1/2	8 1/8	1 5/8	4 3/4														6.25
4	36		1 5/8	5/8	3/4		3	12 3/4	15 3/4	10 1/4	9 3/4	2	5 3/4														9.0
5	48		2 1/4	3/4	1		4	17	21	13 5/8	13	2 5/8	7 5/8														16.0

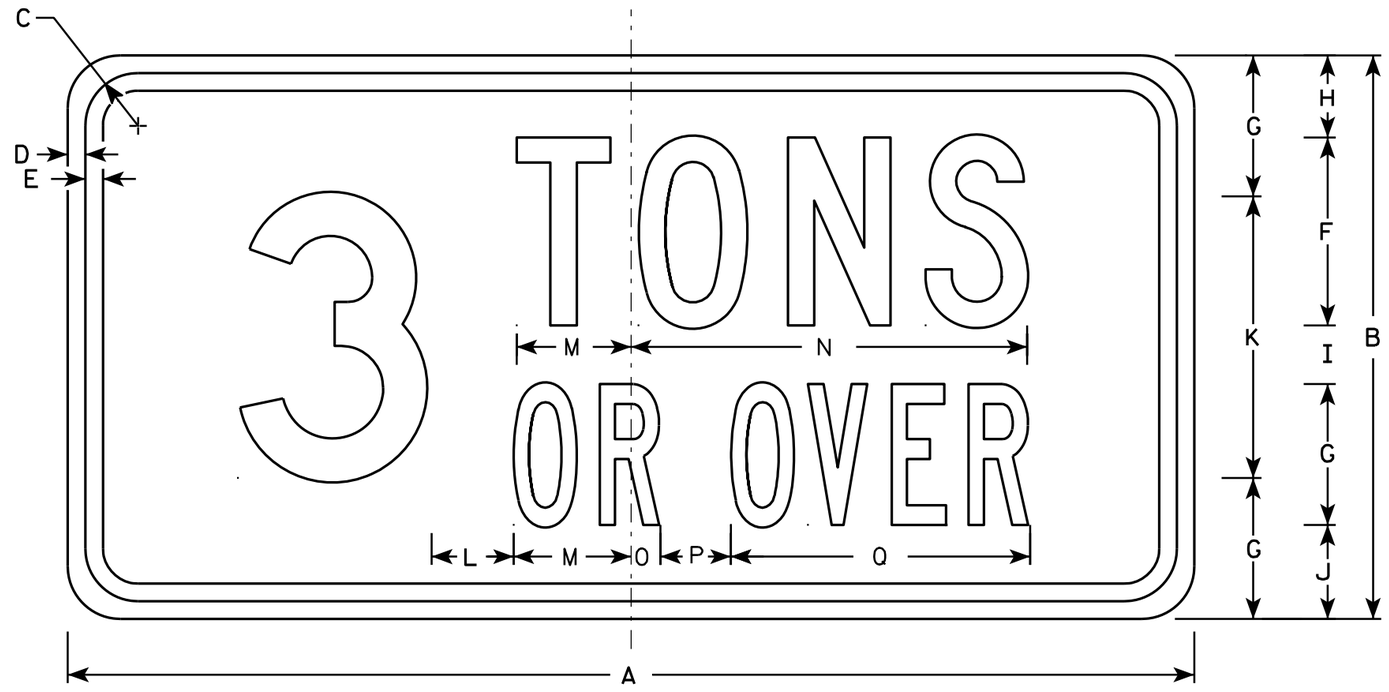
STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 663	E



R5-2A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series "C"
   Line 2 is Series "B"
   Numeral is Series "D"
6. Substitute appropriate numerals.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	4	3	1 3/4	1 1/4	2	6	1 3/4	2 1/2	8 1/2	5/8	1 1/2	6 3/8										2.0
2M	24	12	1 1/8	3/8	3/8	4	3	1 3/4	1 1/4	2	6	1 3/4	2 1/2	8 1/2	5/8	1 1/2	6 3/8										2.0
3	30	15	1 1/8	3/8	1/2	5	4	2 1/8	1 3/8	2 1/2	7	2 1/4	3 1/8	10 1/2	1	2 3/8	8 1/2										2.25
4	36	18	1 1/8	3/8	1/2	6	5	2 5/8	1 3/8	3	9	2 1/2	3 3/4	12 5/8	1 3/8	3 1/8	10 1/2										4.5
5	48	24	1 3/8	3/8	5/8	8	6	3 1/2	2 1/2	4	12	3 1/2	4 7/8	16 7/8	1 1/4	3	12 3/4										8.0

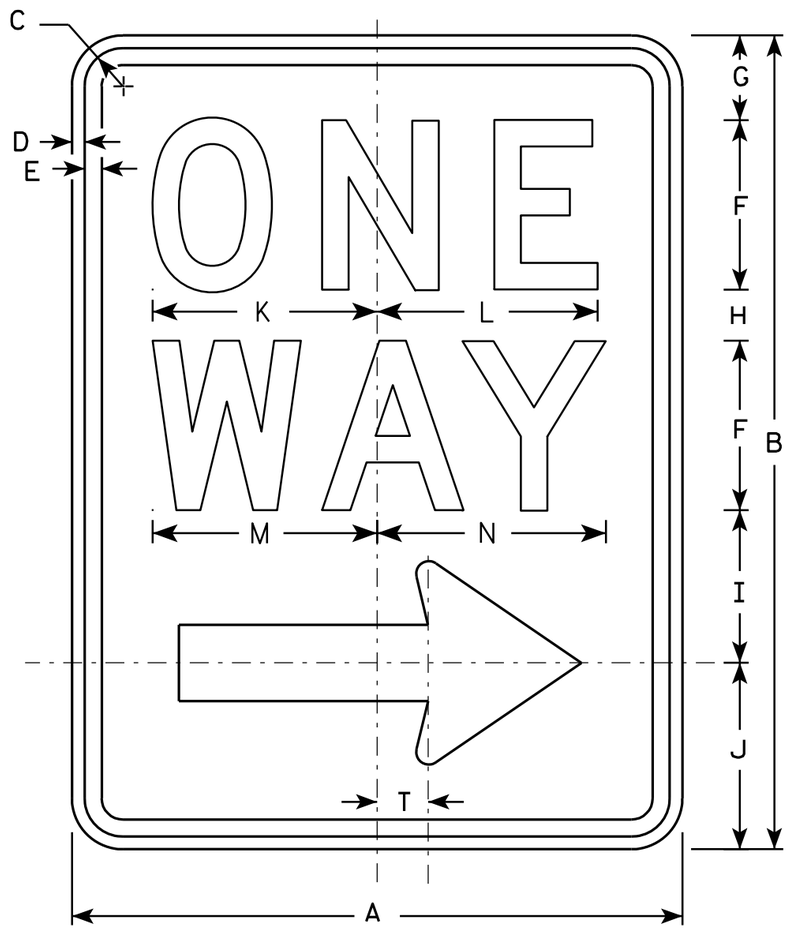
STANDARD SIGN
R5-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2A.7

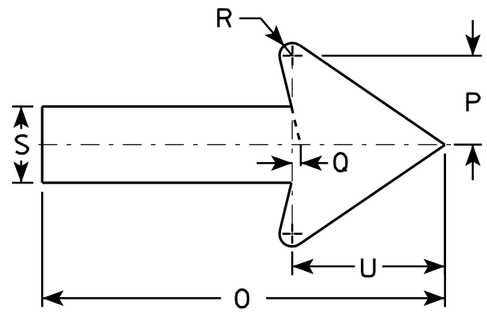
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 664 | E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

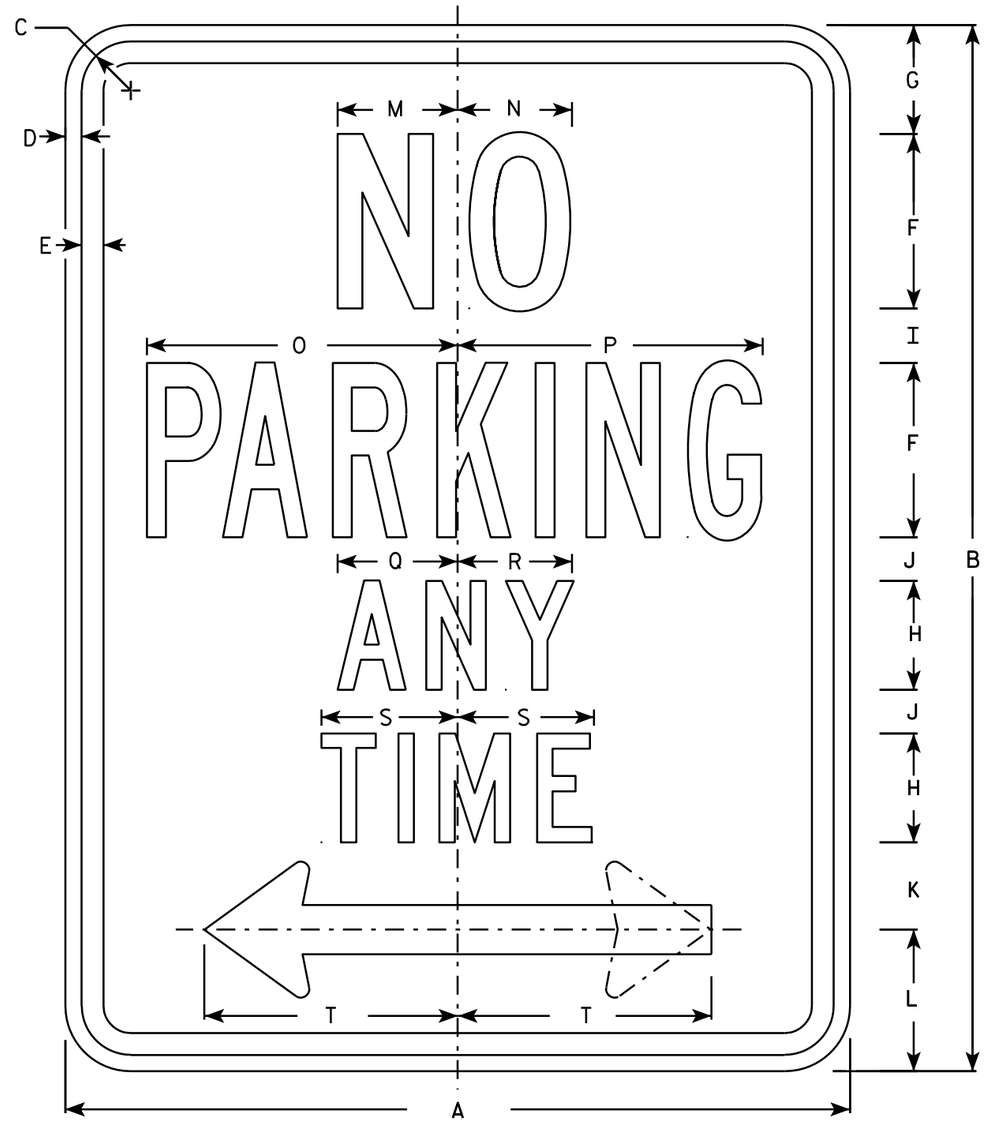
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

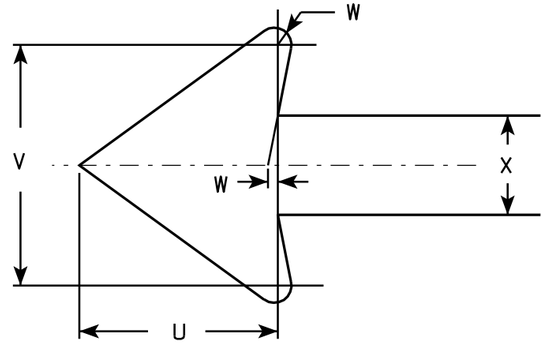
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 665	E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 666	E

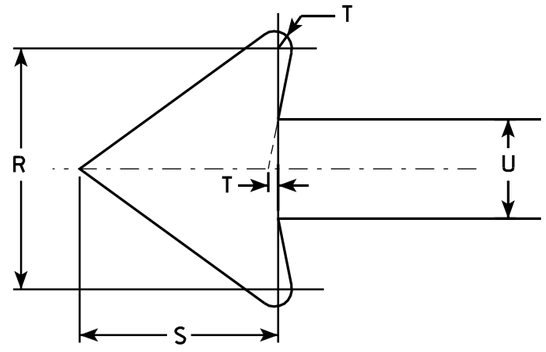
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R71.DGN PLOT DATE : 31-MAR-2011 09:20 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.476110:1.000000

WISDOT/CADDS SHEET 42

R7-5

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Green
3. Message Series - See Note 7
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals as required & adjust spacing to achieve proper balance.
6. R7-5D (double arrow)
   R7-5L (left arrow)
   R7-5R (right arrow)
7. Lines 1, 2 & 3 are series C Copy
   Line 4 Series B Copy.



* - See Note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	2	2	2 1/4	1 1/4	4	2 1/2	2 1/8	2	2 7/8	4 5/8	4 1/2	3 7/8	1 3/4	1 1/2	1/8	3/4						1.5
2S	18	24	1 1/8	3/8	1/2	3	3	2 5/8	1 1/4	5 5/8	3 1/4	3 1/8	3 1/8	4 1/4	6 7/8	6 3/4	5 7/8	2 5/8	2 1/4	1/4	1 1/8						3.0
2M	24	30	1 1/8	3/8	1/2	4	3	3	2	6	3 1/2	4 1/4	4 1/8	5 3/4	9 1/8	9 1/8	7 3/4	3 1/2	3	1/4	1 1/2						5.0
3	24	30	1 1/8	3/8	1/2	4	3	3	2	6	3 1/2	4 1/4	4 1/8	5 3/4	9 1/8	9 1/8	7 3/4	3 1/2	3	1/4	1 1/2						5.0
4																											
5																											

STANDARD SIGN
R7-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

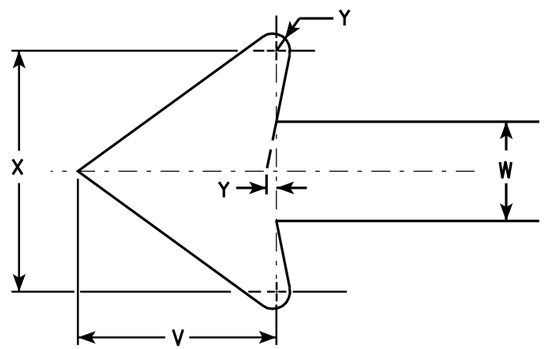
DATE 03/31/2011 PLATE NO. R7-5.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 667	E

R7-6

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See note 6.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R7-6L (left arrow)
   R7-6R (right arrow)
   R7-6D (double arrow)
6. Lines 1, 3 and 4 are Series C.
   Line 2 is Series B.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	2	1 7/8	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	4 5/8	4 1/2	2 7/8	2 3/4	3 7/8	1 1/2	3/4	1 3/4	1/8		1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	5 3/4	5 5/8	3 1/2	3 1/2	5 7/8	2 1/4	1 1/8	2 5/8	1/4		3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	6 7/8	6 3/4	4 1/8	4 1/4	7 3/4	3	1 1/2	3 1/2	1/4		5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	6 7/8	6 3/4	4 1/8	4 1/4	7 3/4	3	1 1/2	3 1/2	1/4		5.0
4																											
5																											

STANDARD SIGN
R7-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

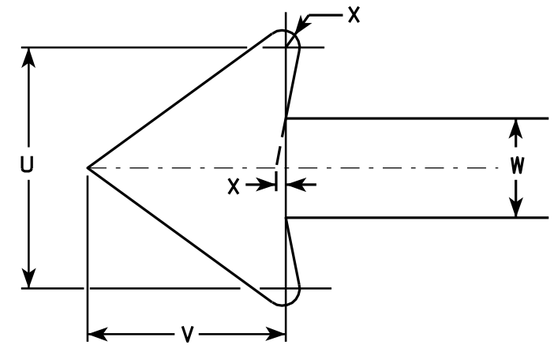
DATE 3/31/2011 PLATE NO. R7-6.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 668	E

R7-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R7-7D (double arrow)
   R7-7R (right arrow)
   R7-7L (left arrow)
6. Lines 1, 3 and 4 are Series C.
   Line 2 is Series B.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	2	1 7/8	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2	2 3/4	2 5/8	3 7/8	1 3/4	1 1/2	3/4	1/8			1.50
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 1/2	3 3/8	3 3/8	5 7/8	2 5/8	2 1/4	1 1/8	1/4			3.00
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3	4 1/8	4	7 3/4	3 1/2	3	1 1/2	1/4			5.00
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3	4 1/8	4	7 3/4	3 1/2	3	1 1/2	1/4			5.00
4																											
5																											

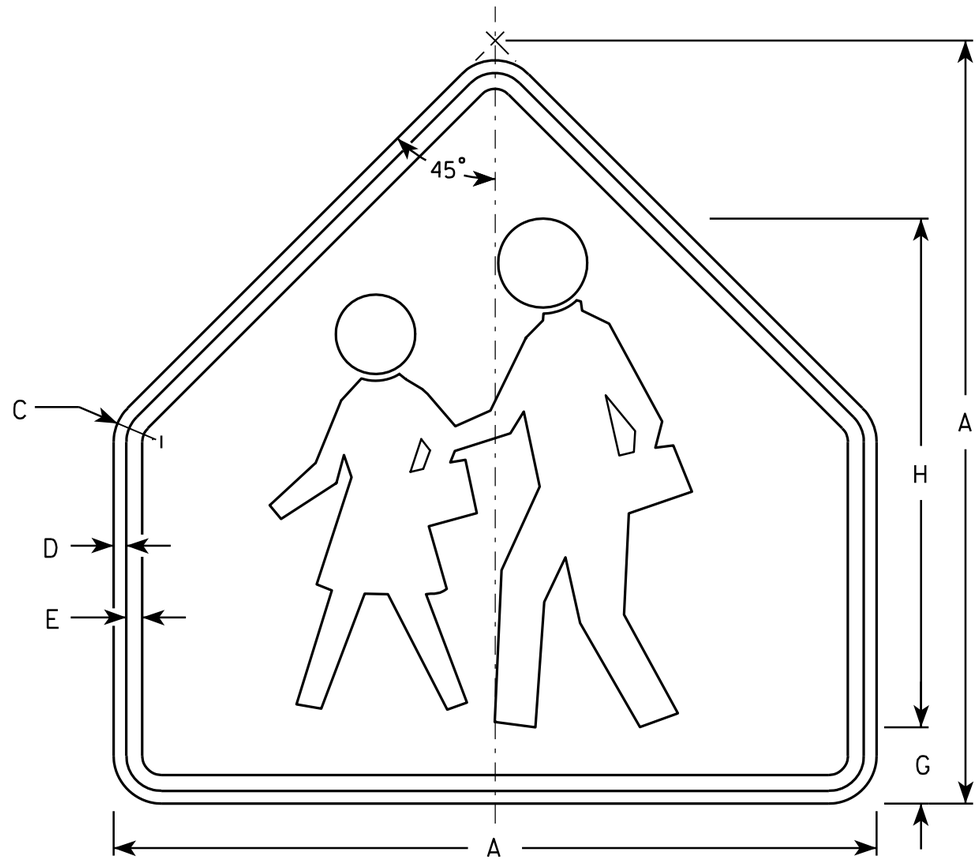
STANDARD SIGN
R7-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-7.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 669 | E



S1-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

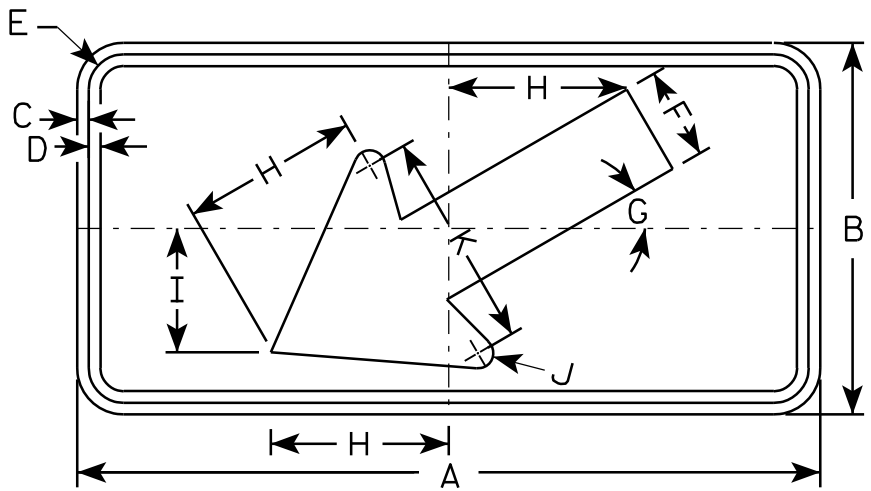
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 670	E



S16-7L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. S16-7R are the same as S16-7L except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2S	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
5																											

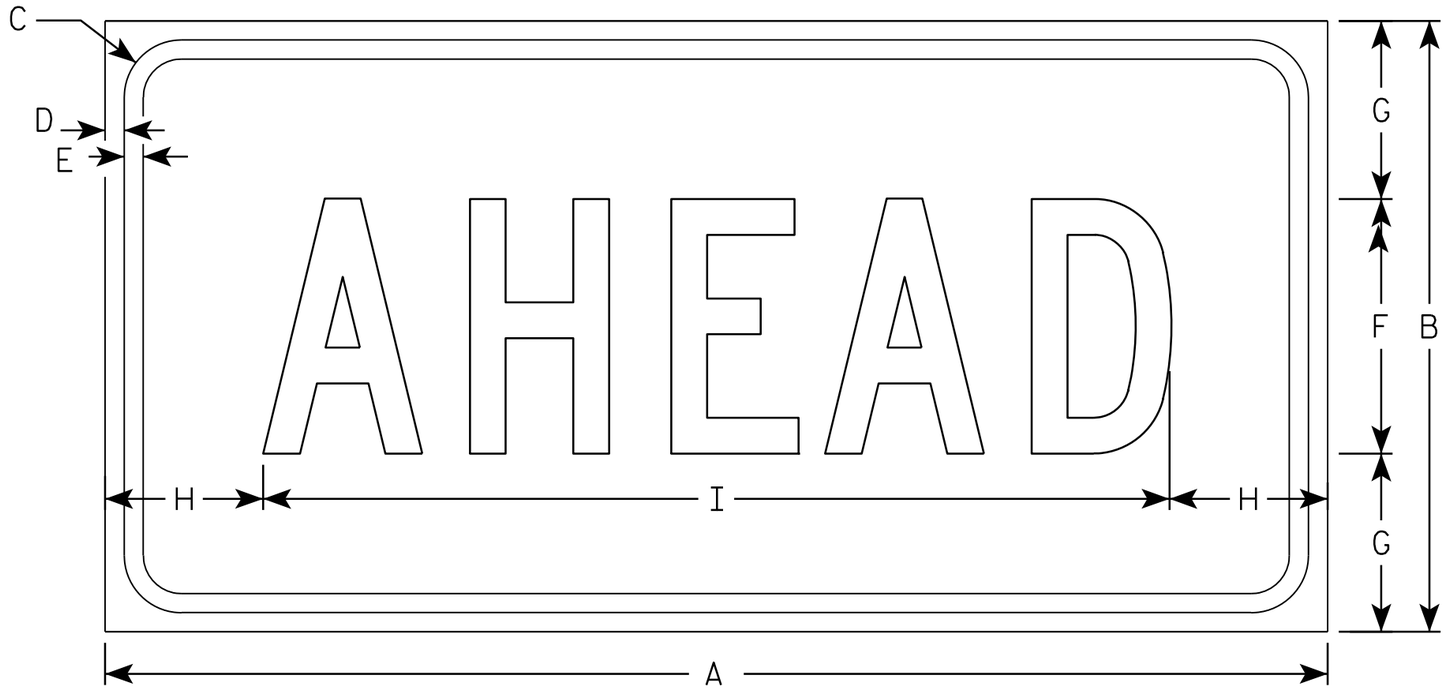
STANDARD SIGN
S16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



S16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
S16-9P

WISCONSIN DEPT OF TRANSPORTATION

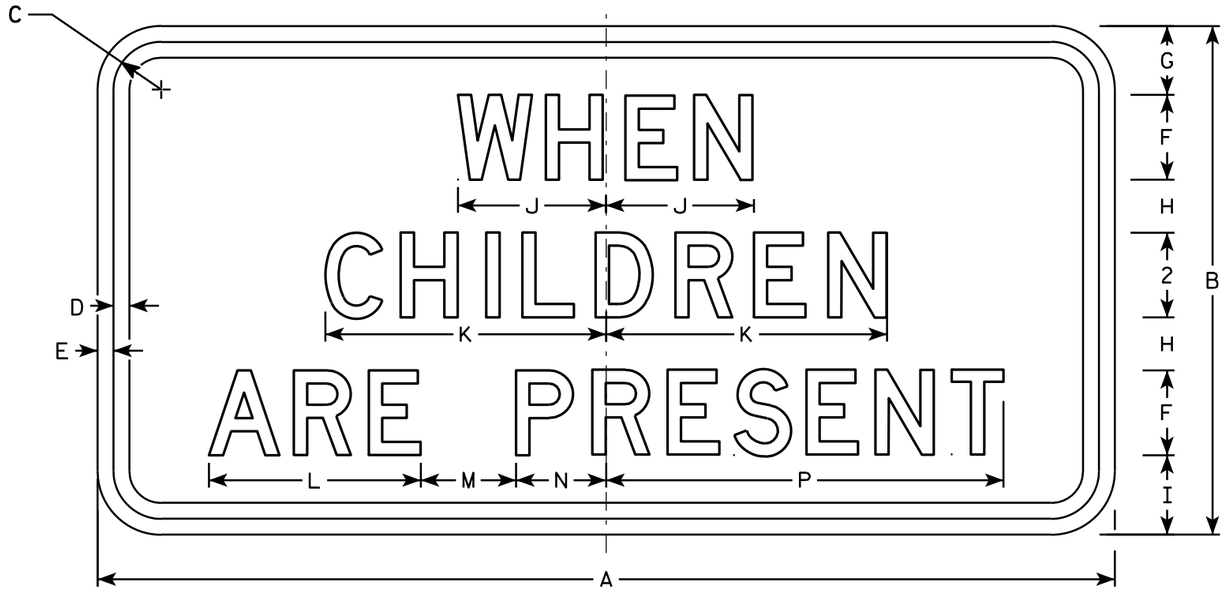
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 672 | E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



S4-2

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	2	1 5/8	1 1/4	1 7/8	3 1/2	6 5/8	5	2 1/4	2 1/8	9 3/8												2.0
3	36	18	1 1/8	1/2	3/8	3			2 7/8	5 7/8	10 5/8	8 1/8	3	4	15 1/8												4.5
4																											
5																											

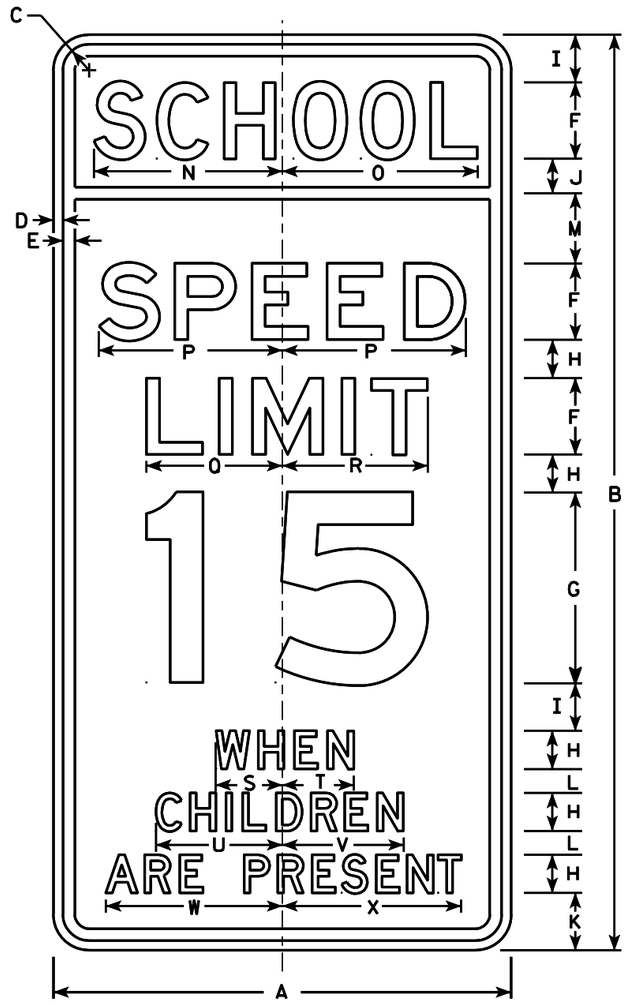
STANDARD SIGN
S4-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/04/10 PLATE NO. S4-2.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 673	E



S4-51

NOTES

1. Sign is Type II - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. (See note 5).
2. Color:
   Background - See note 5
   Message - Black
3. Message Series - See note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Top panel (SCHOOL) background - Yellow Green -Type F Reflective.
   Lower panel background - White -Type H Reflective.
6. From top to bottom:
   Lines 1, 5, 6 & 7 are series D
   Lines 2, 3 & 4 are series E
7. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	48	1 3/8	1/2	5/8	4	10	2	2 1/2	1 3/4	3	1 1/4	3 3/4	9 7/8	10 1/4	9 5/8	7 1/8	7 5/8	3 1/2	3 3/8	6 5/8	6 3/8	9 1/4	9 3/8			8.00	0.72
3	36	72	2 1/4	3/4	1	6	15	3	3 3/4	2 3/4	4 1/2	1 7/8	5 1/2	15	15 1/4	14 1/2	11 1/4	11 1/2	5 1/2	5 3/4	10	9 3/4	14	14 1/8			18.00	1.62
4																												
5																												

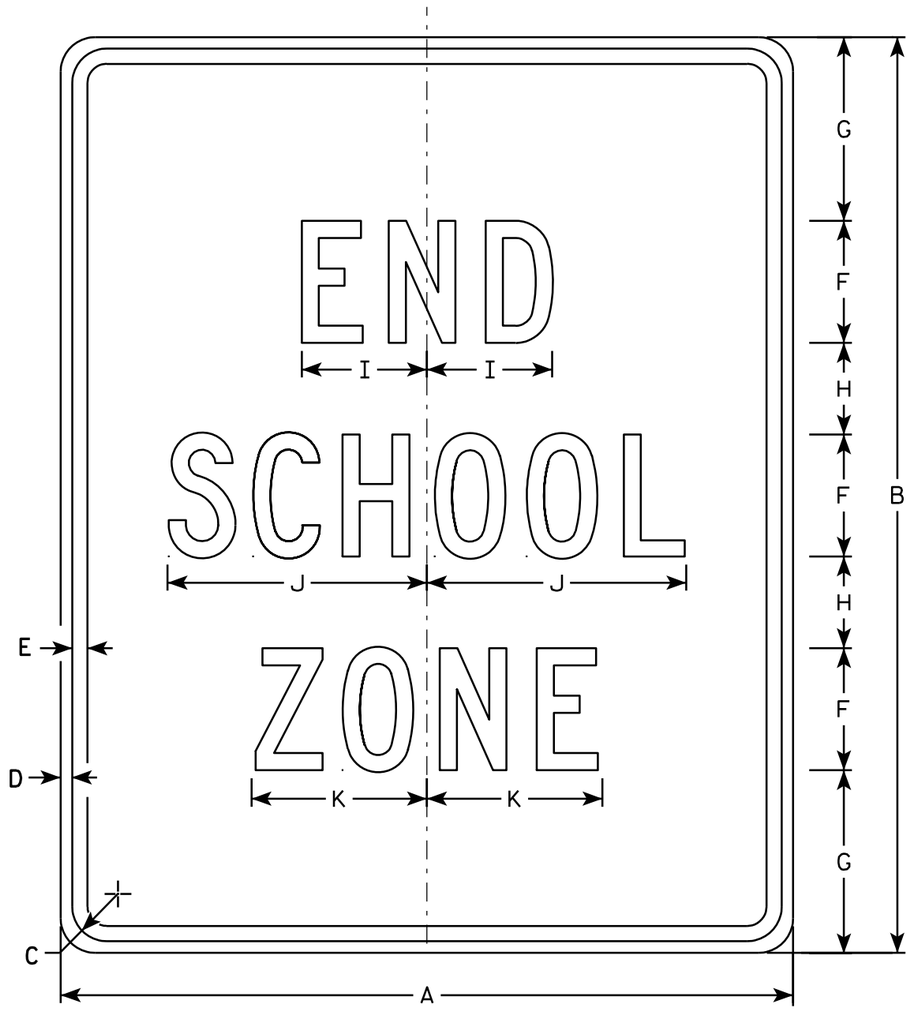
STANDARD SIGN
S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/26/10 PLATE NO. S4-51.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 674	E



S5-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

STANDARD SIGN
S5-2

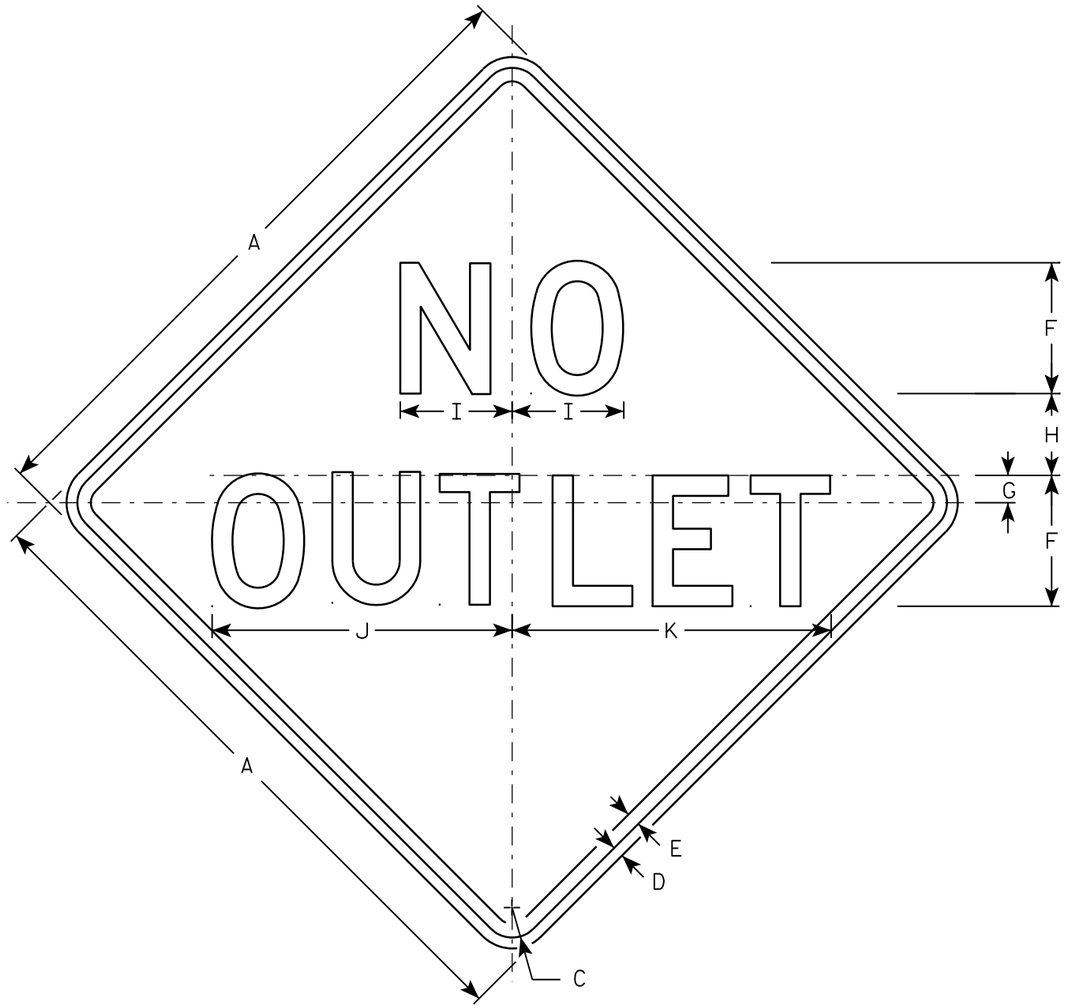
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/8/11 PLATE NO. S5-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 675 | E

7



W14-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2 3/4	4 1/8	11 3/4	12 3/8																4.0
2S	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
2M	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
3	36		1 5/8	5/8	3/4	7	1 3/8	4 5/8	6	16 1/8	17 1/8																9.0
4																											
5																											

STANDARD SIGN
W14-2

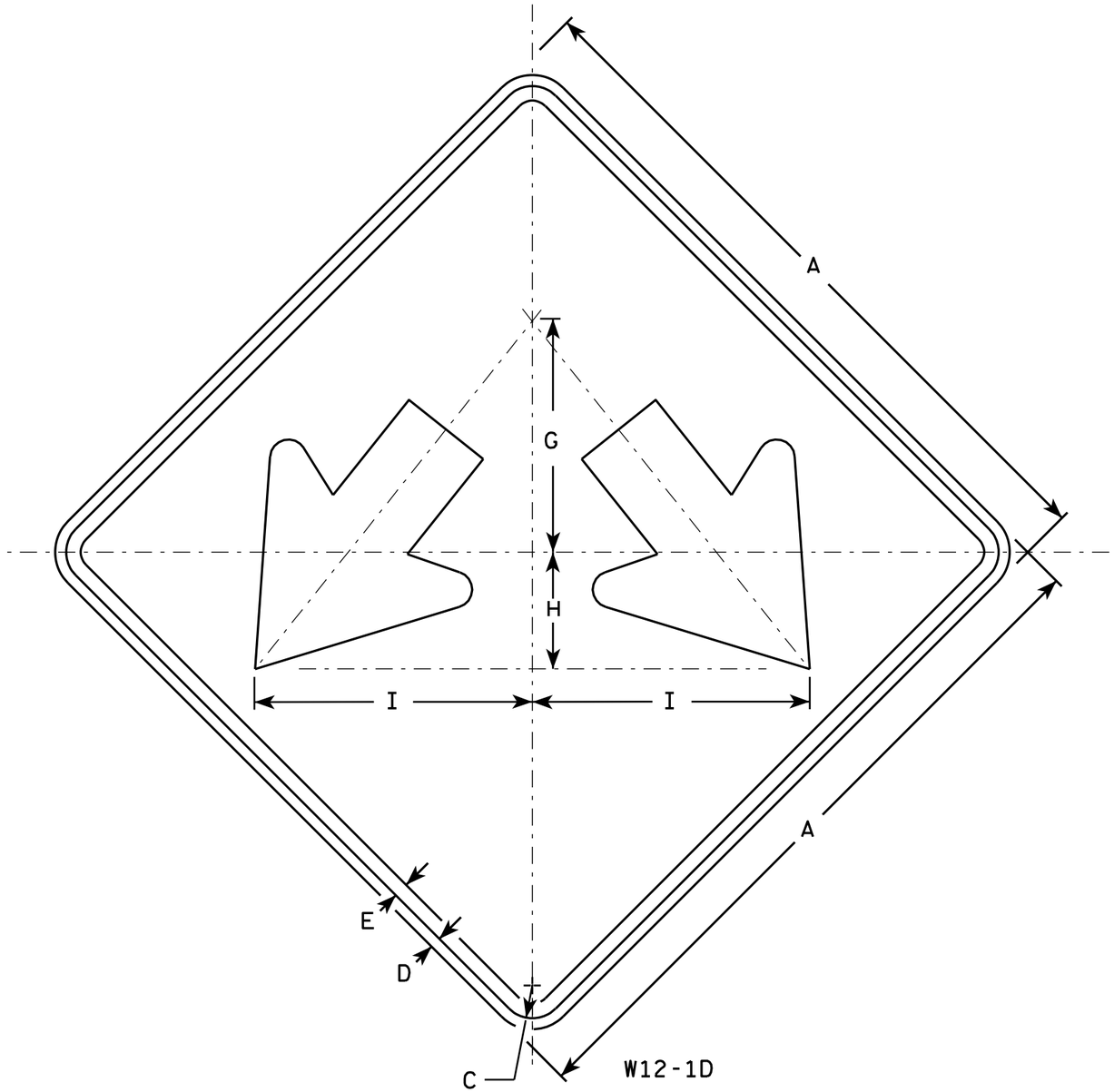
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-2.3

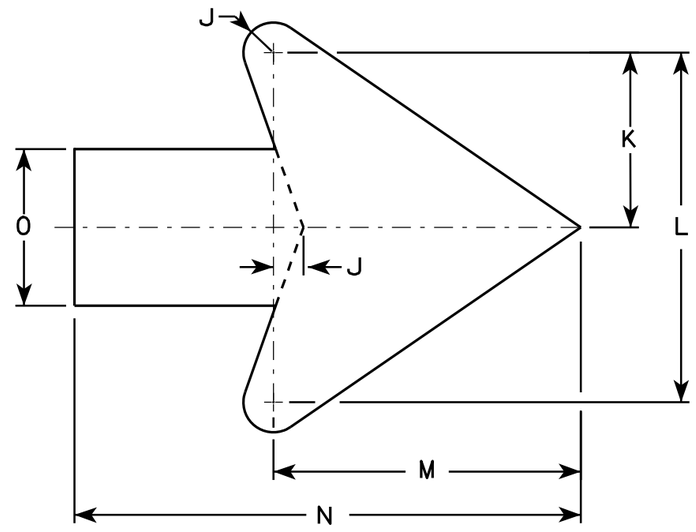
PROJECT NO:

SHEET NO: 676 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

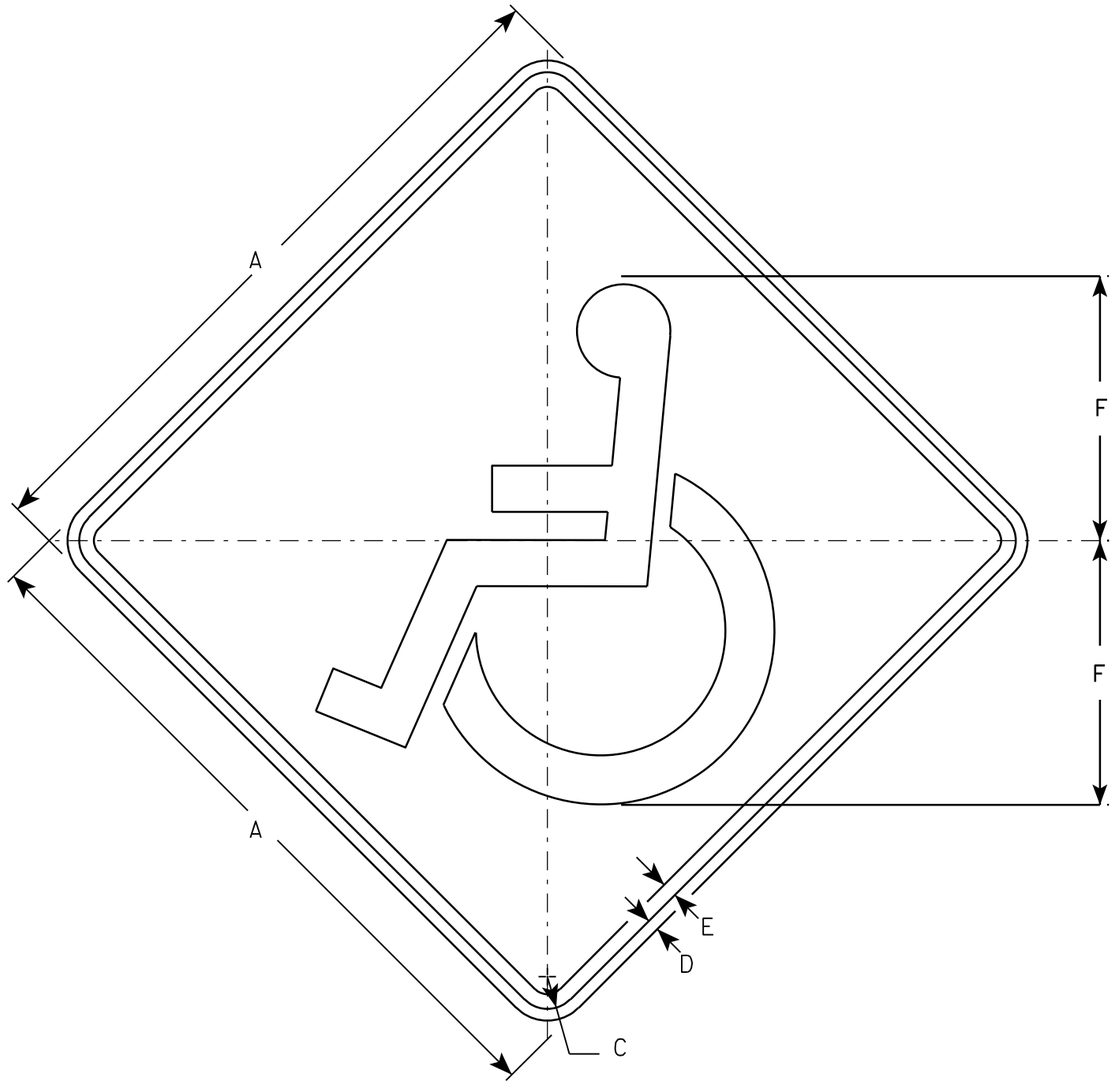
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 677	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W121D.DGN PLOT DATE : 13-MAR-2013 13:26 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.713802:1.000000

WISDOT/CADDS SHEET 42

7

7



W11-9

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Symbol - BLACK
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	11 1/4																					6.25
2M	30		1 3/8	1/2	5/8	11 1/4																					6.25
3	36		1 5/8	5/8	3/4	13 1/2																					9.0
4	36		1 5/8	5/8	3/4	13 1/2																					9.0
5	48		2 1/4	3/4	1	18																					16.0

STANDARD SIGN
W11-9

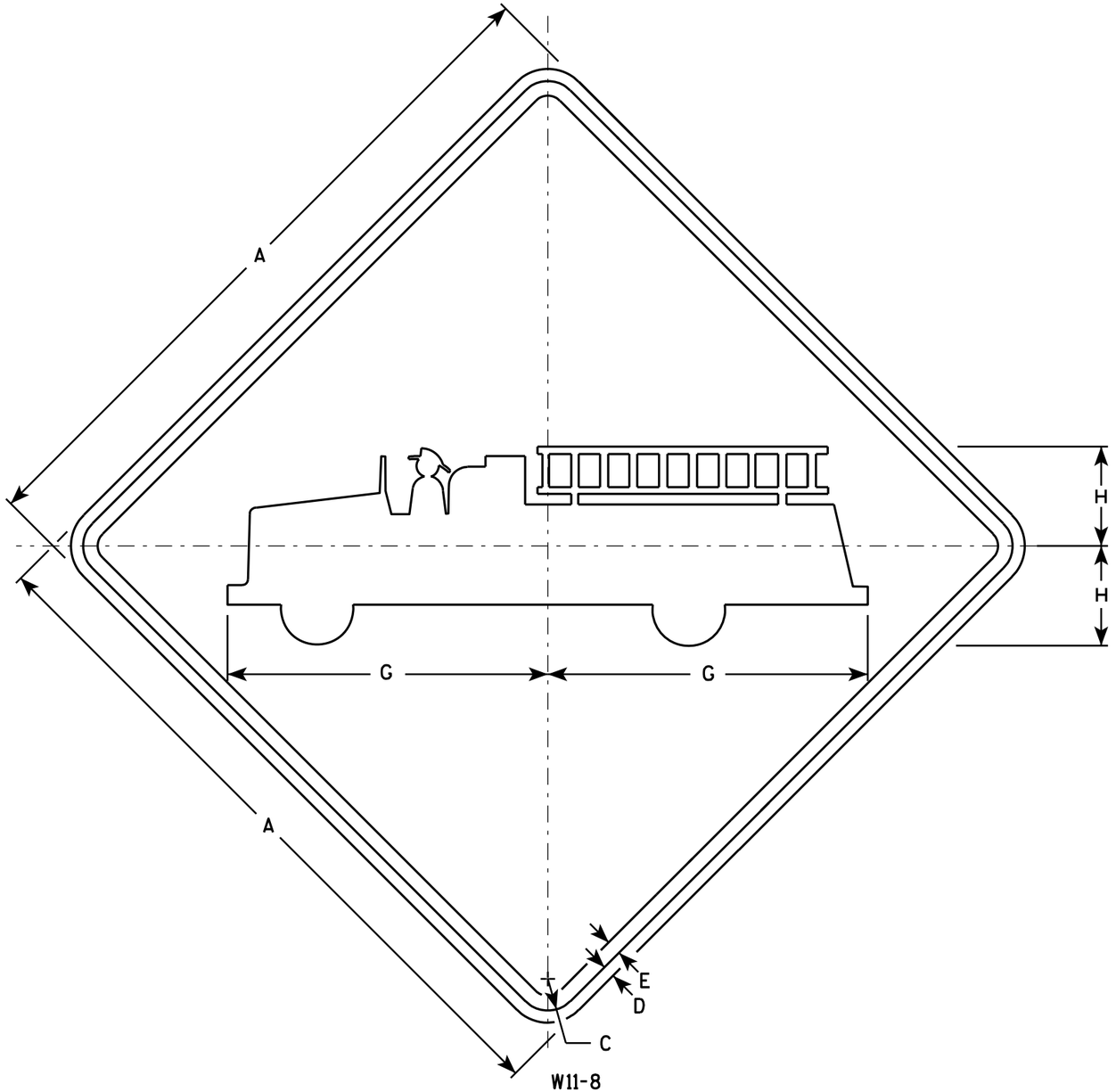
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-9.3

PROJECT NO:

SHEET NO: 678 E



W11-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		11	3 3/8																			4.0
2S	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
2M	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
3	36		1 5/8	5/8	3/4		16 1/2	5 1/4																			9.0
4	48		2 1/4	3/4	1		22	7																			16.0
5																											

STANDARD SIGN
W11-8

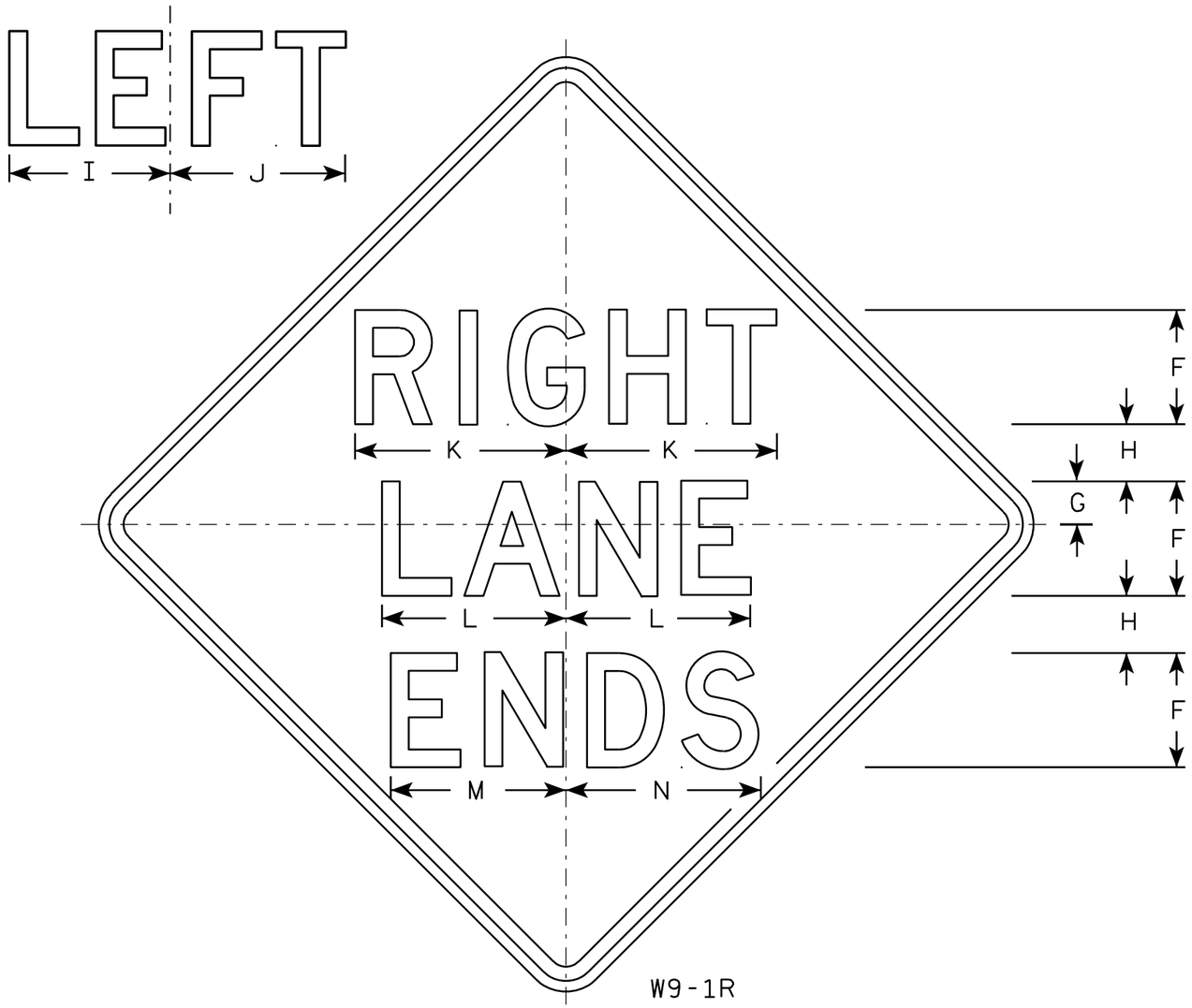
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-8.7

PROJECT NO:

SHEET NO: 679 E



W9-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. W9-1L same as W9-1R except the word Left replaces Right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	1 1/2	2 1/2	7 1/8	7 5/8	9 1/4	8 1/8	7 5/8	8 5/8													6.25
2S	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
2M	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
3	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
4	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
5	48		2 1/4	3/4	1	8	3	4	11 1/4	12 1/4	14 3/4	12 7/8	12 1/4	13 5/8													16.0

STANDARD SIGN
W9-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

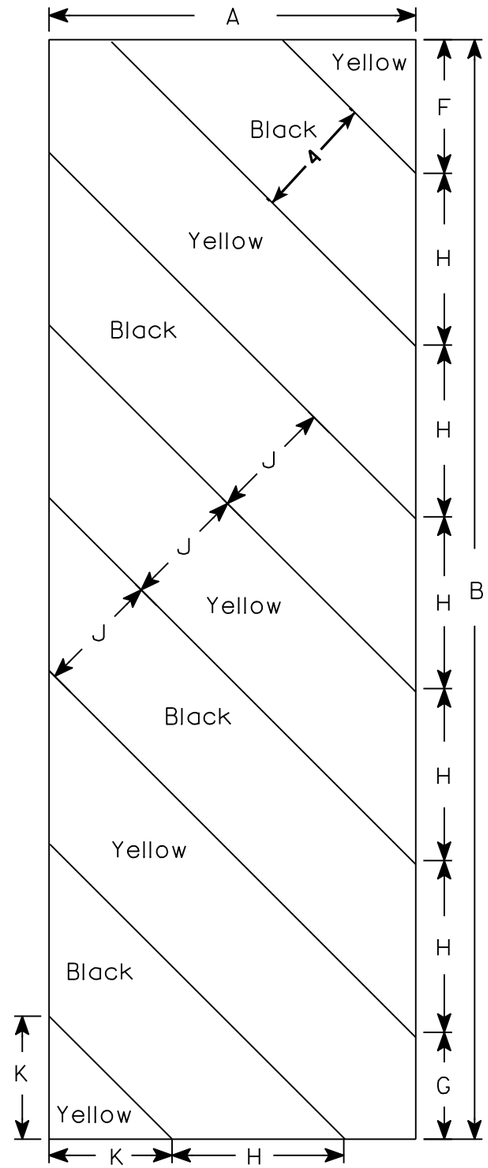
DATE 03/18/13 PLATE NO. W9-1.8

PROJECT NO:

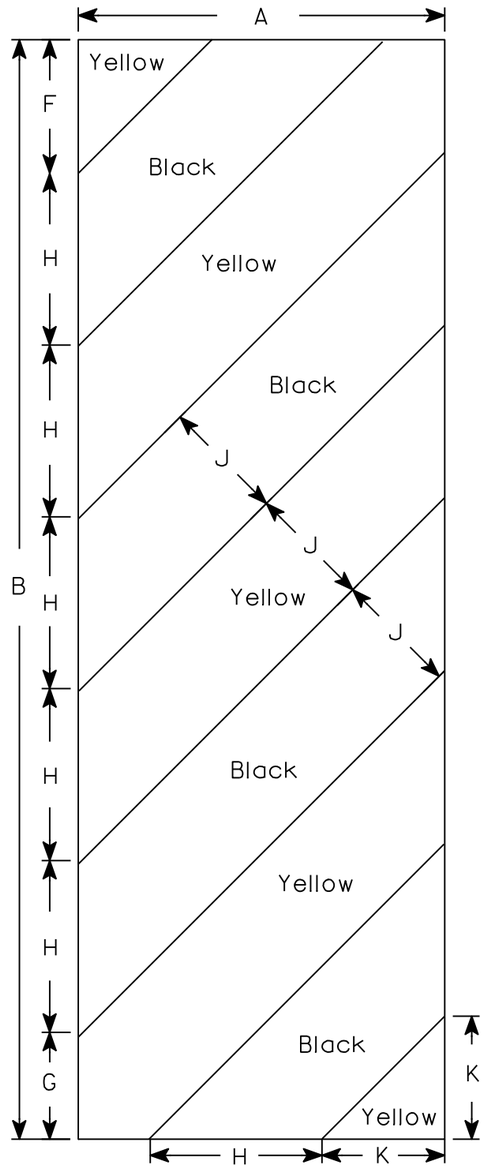
SHEET NO: 680 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W91.DGN PLOT DATE : 18-MAR-2013 11:42 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

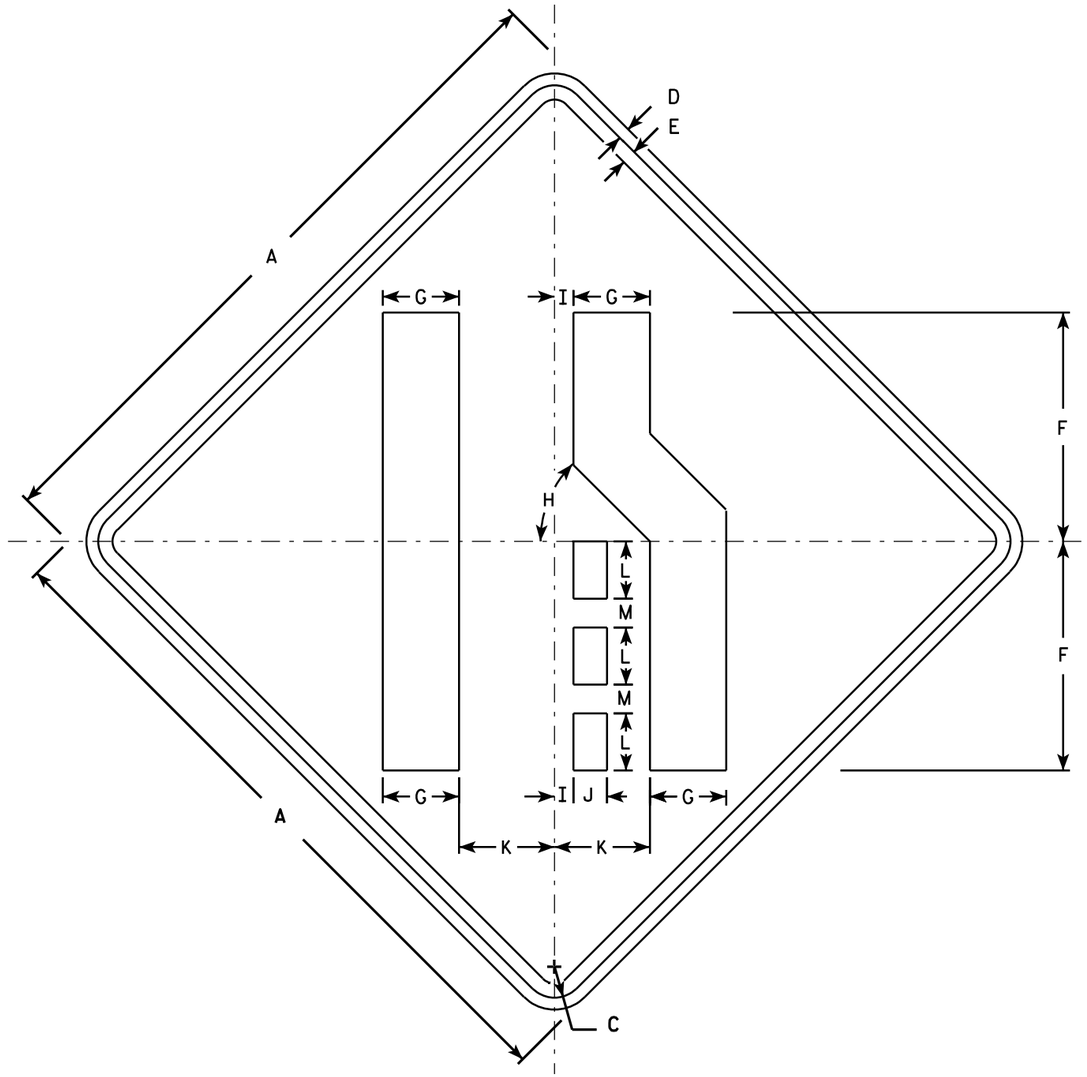
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 681	E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

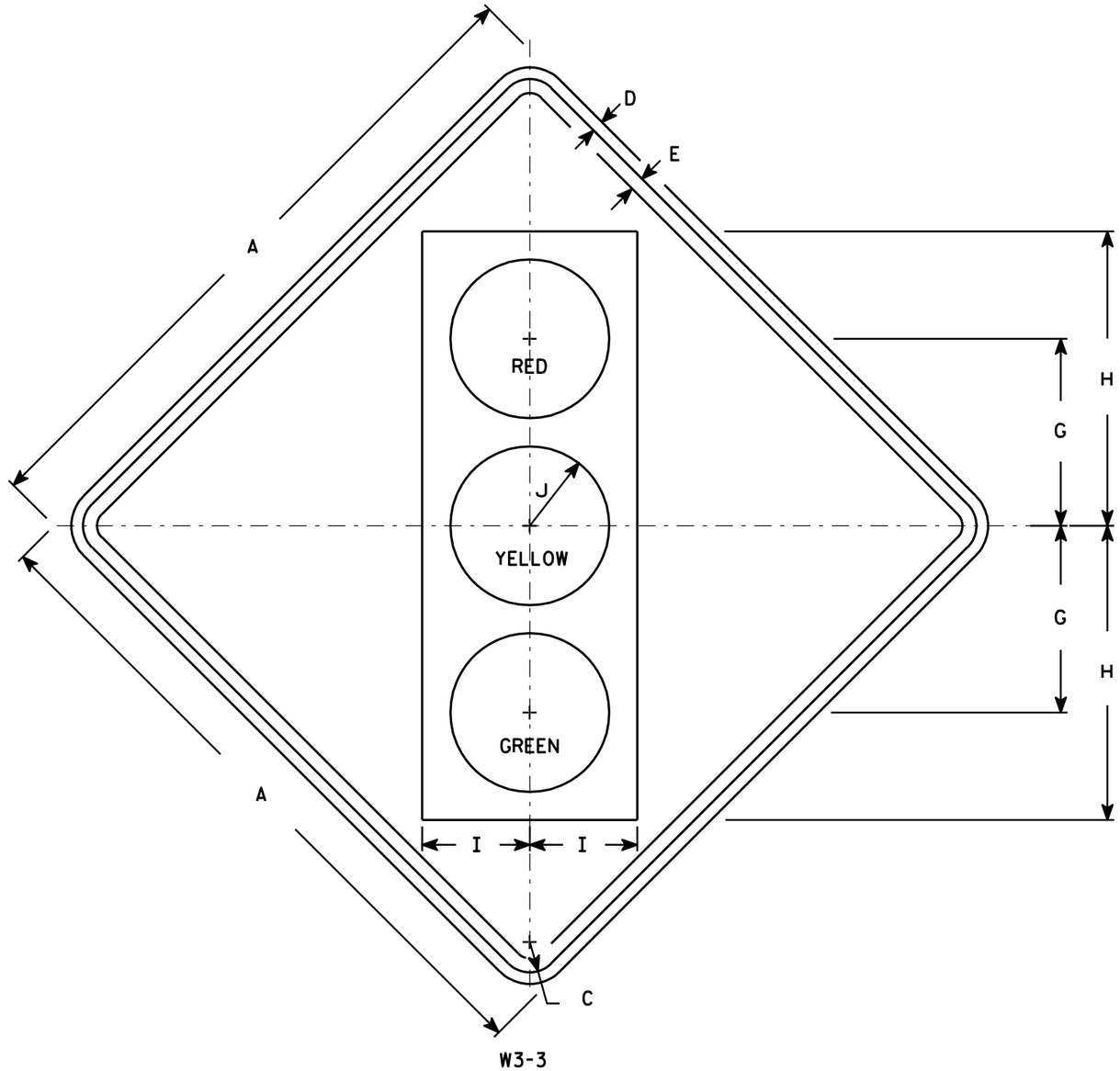
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 682 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

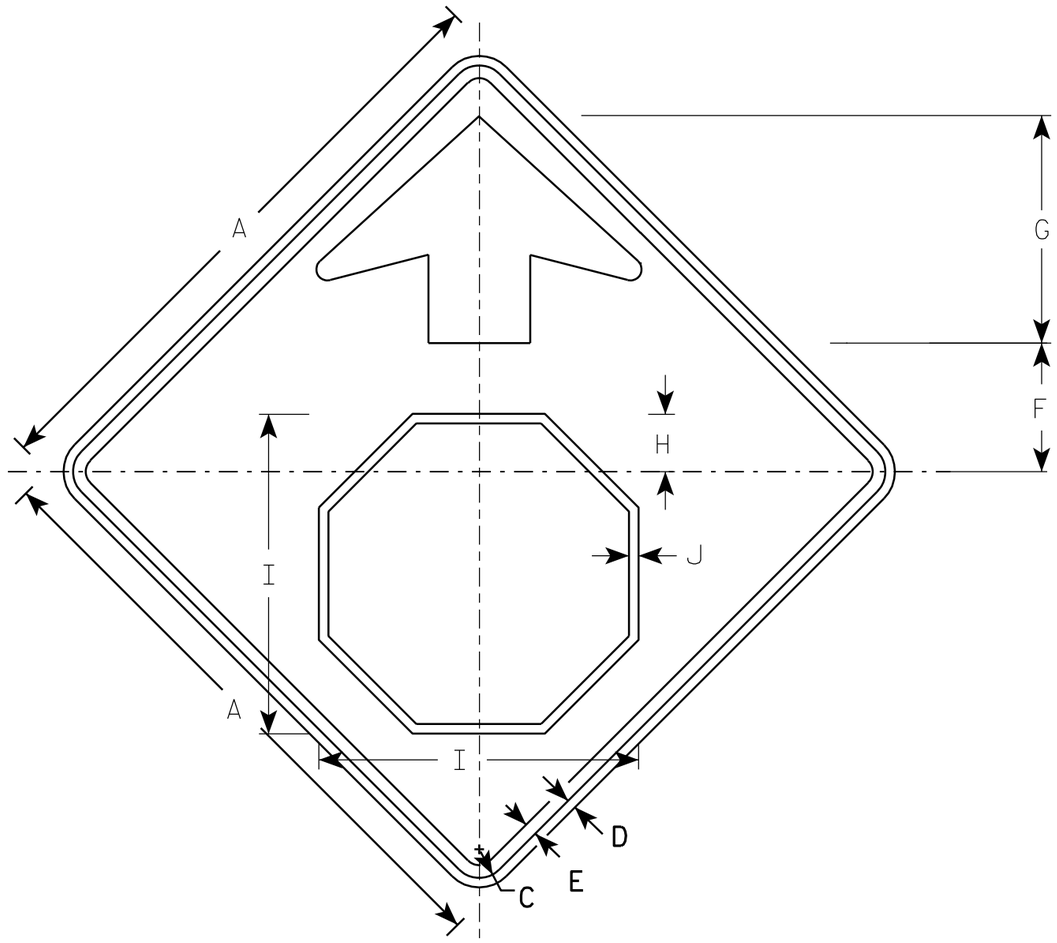
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 683 | E

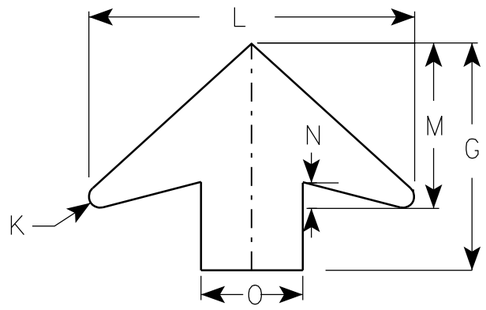
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000
WISDOT/CADDS SHEET 42



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

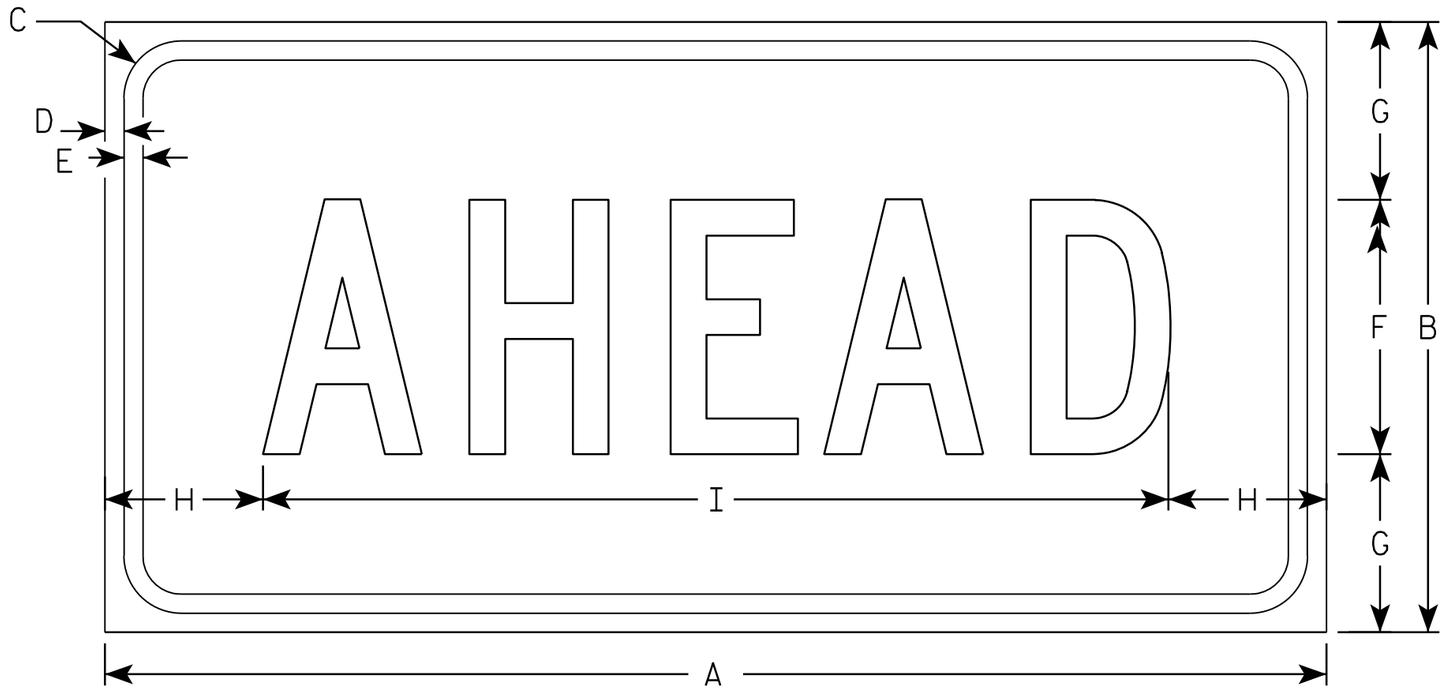
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 684 E



W16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

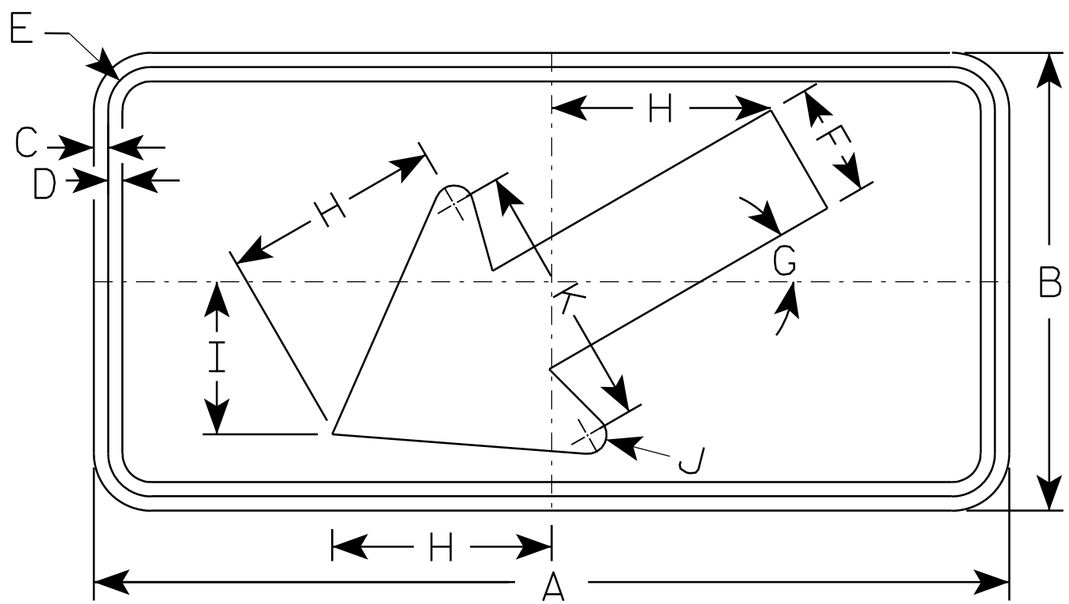
STANDARD SIGN
W16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 685 | E



W16-7L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W16-7R is the same as W16-L except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4																											8
5																											8

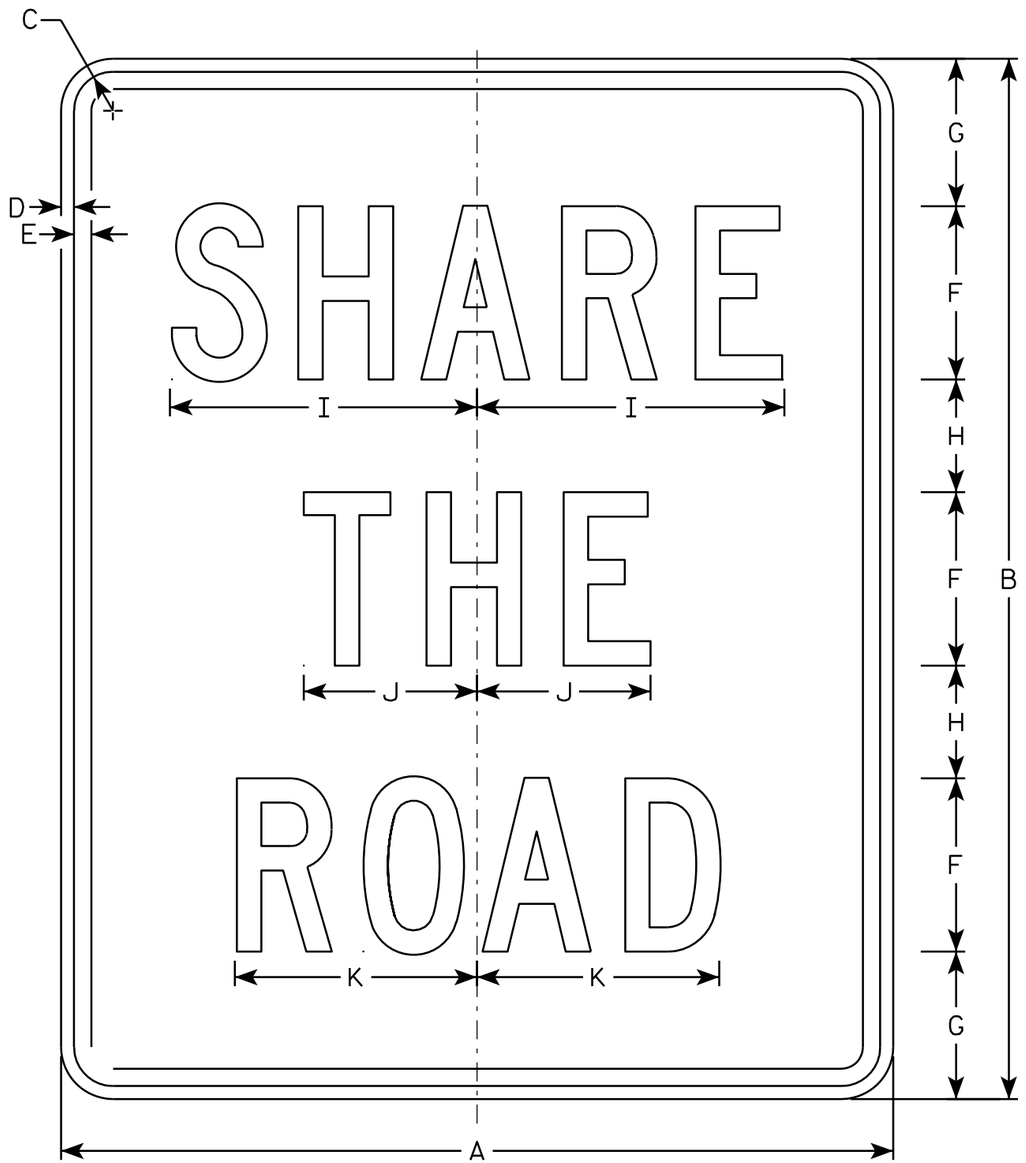
STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. W16-7.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 686	E



W16-1P

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18	24	1 1/8	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
2M	18	24	1 1/8	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
3	24	30	1 1/8	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
4	24	30	1 1/8	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
5																											

STANDARD SIGN
W16-1P

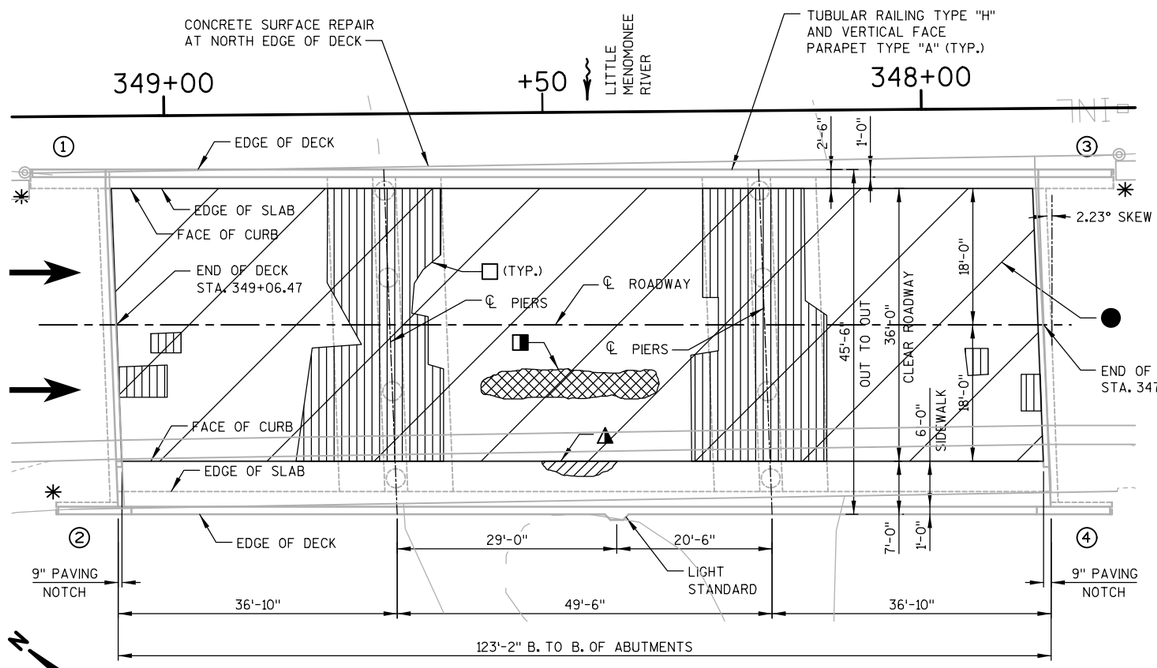
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/2/10 PLATE NO. W16-1P.1

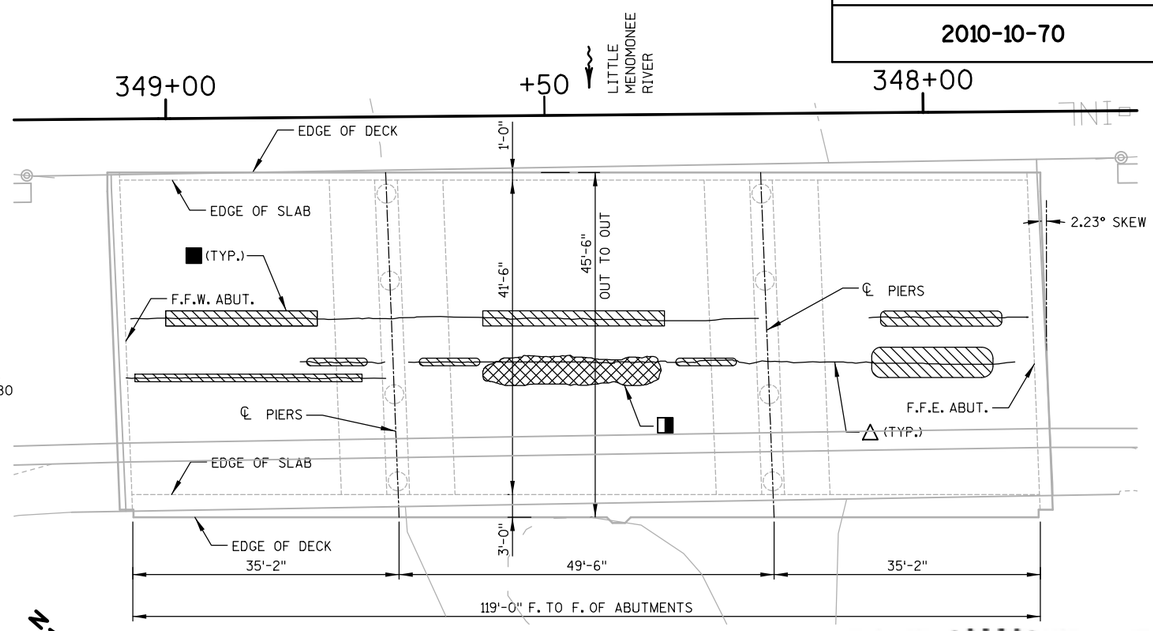
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 687 | E

STATE PROJECT NUMBER
2010-10-70



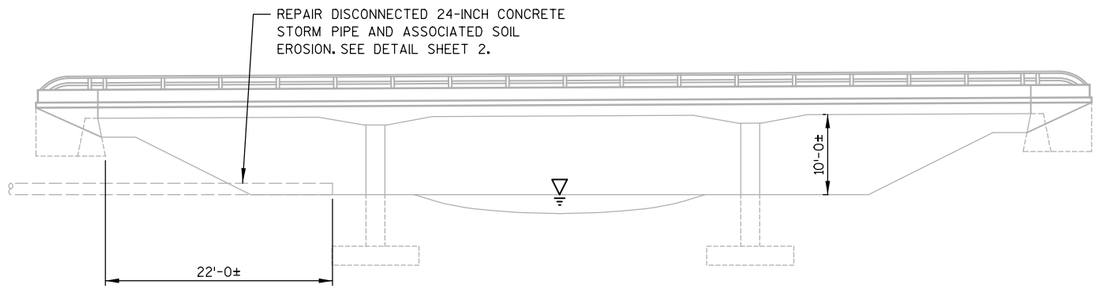
PLAN - TOP OF DECK

3-SPAN CONCRETE HAUNCH
(CONCRETE OVERLAY AND REPAIRS)



PLAN - BOTTOM OF DECK

3-SPAN CONCRETE HAUNCH
(UNDERSIDE OF DECK REPAIRS)



ELEVATION

(LOOKING NORTHEAST)

DESIGN DATA

LIVE LOAD:

INVENTORY RATING	HS 16.7
OPERATING RATING	HS 27.9
MAX. STD. PERMIT VEHICLE LOAD	218 KIPS

ULTIMATE DESIGN STRESSES:

CONCRETE SUPERSTRUCTURE	f'c = 4,000 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi
CONCRETE MASONRY OVERLAY DECK	f'c = 4,000 psi

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES AND NOTES
3. ABUTMENT AND PARAPET PLANS AND DETAILS

LEGEND

- ◨ FULL DEPTH DECK REPAIR
- ■ CONCRETE SURFACE REPAIR
- △ CRACK SEALING EPOXY
- ⊛ INDICATES WING NUMBER
- ◭ CURB REPAIR
- ● 1½" CONCRETE OVERLAY
- □ PREPARATION DECKS
- ✳ EXISTING BEAM GUARD ATTACHMENT

WISCONSIN
KEITH R. BEHREND
E-42073
MADISON
WI
PROFESSIONAL ENGINEER
Keith R. Behrend
4-16-13

DESIGN CONTACT:
KEITH BEHREND: (608) 251-4843

BUREAU OF STRUCTURES CONTACT:
WILLIAM DREYER: (608) 266-8489

NO.	DATE	REVISION	BY

STRAND ASSOCIATES®
910 West Wingra Drive
Madison, WI 53715
608 251-4843
608 251-8655 FAX
www.strand.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreyer KAR 07/24/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-325

USH 41 SB(APPLETON AVE)/LITTLE MENOMONEE RIVER

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
MILWAUKEE	MILWAUKEE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	KRB	DESIGN CK'D.	DJW	DRAWN BY	DTH	PLANS CK'D.	DJW

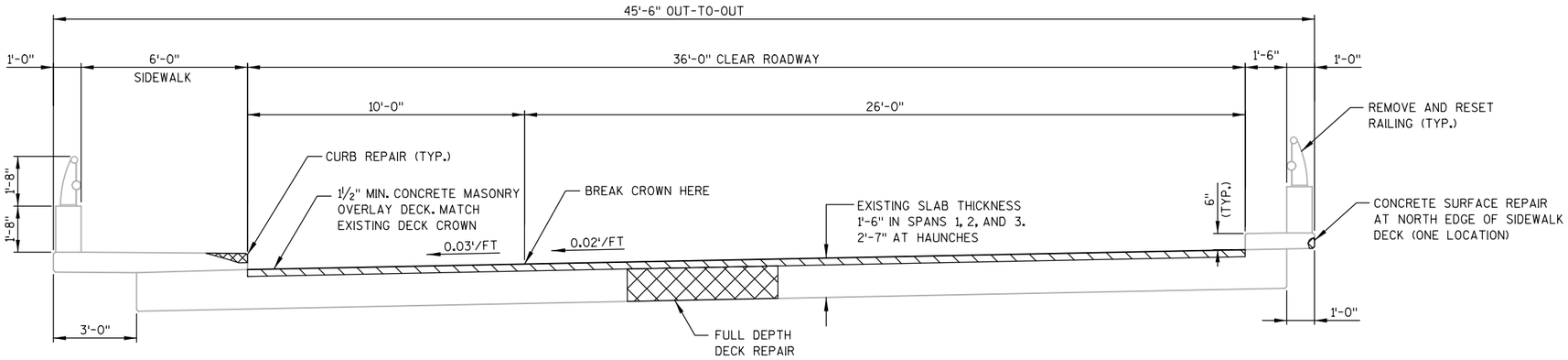
GENERAL PLAN

SHEET 1 OF 3
688

8

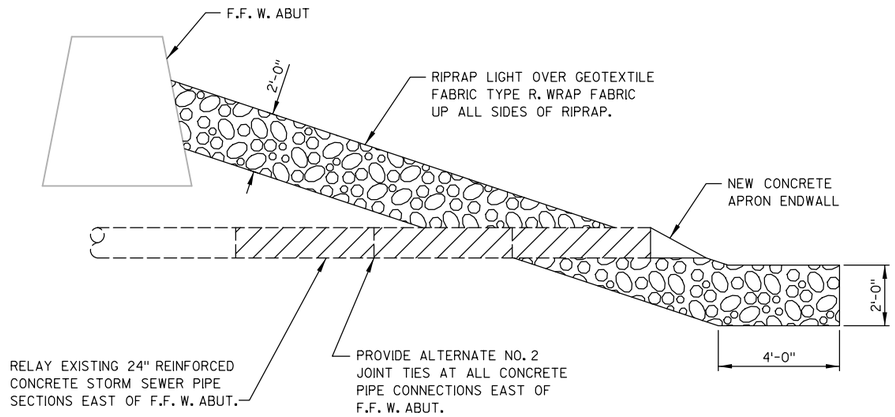
8

STATE PROJECT NUMBER
2010-10-70

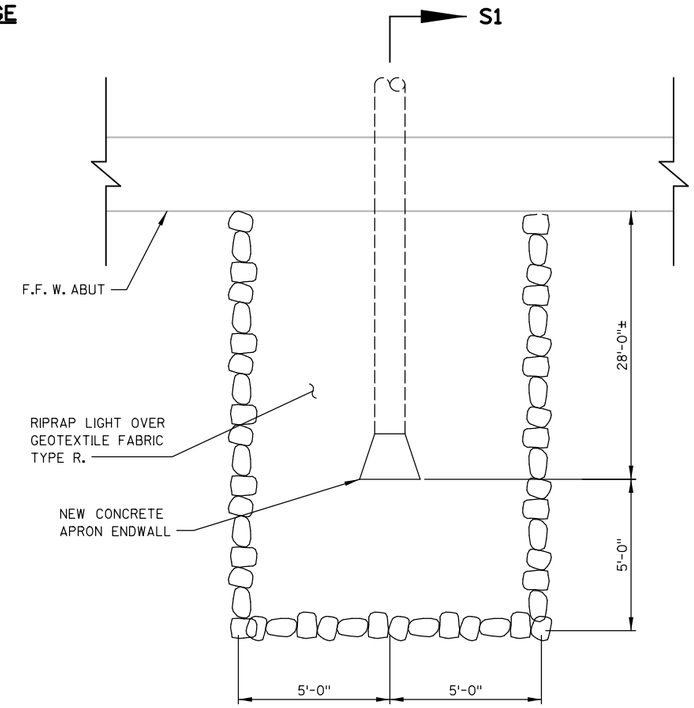


CROSS SECTION THRU BRIDGE

(TAKEN AT ℄ SPAN 2 LOOKING WEST)



SECTION S1



PLAN

DISCONNECTED CONCRETE STORM PIPE REPAIR DETAILS

TOTAL ESTIMATED QUANTITIES

NO.	BID ITEMS	UNIT	WEST ABUT.	PIER 1	PIER 2	EAST ABUT.	SUPERS.	TOTALS
203.0210.S.01	ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-40-325	LS	--	--	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-40-325	LS	--	--	--	--	--	1
502.0717.S	CRACK SEALING EPOXY	LF	--	--	--	--	255	255
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	--	674	674
509.0301	PREPARATION DECKS TYPE 1	SY	--	--	--	--	124	124
509.0302	PREPARATION DECKS TYPE 2	SY	--	--	--	--	50	50
509.1200	CURB REPAIR	LF	--	--	--	--	20	20
509.1500	CONCRETE SURFACE REPAIR	SF	10	--	--	2	294	306
509.2000	FULL-DEPTH DECK REPAIR	SY	--	--	--	--	11	11
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	--	--	--	--	38	38
509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY	SY	--	--	--	--	487	487
509.9020.S	EPOXY CRACK SEALING	LF	--	--	--	--	100	100
513.9005.S.01	REMOVING AND RESETTING TUBULAR RAILING STRUCTURE B-40-325	LS	--	--	--	--	--	1
522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	1	--	--	--	--	1
606.0100	RIPRAP LIGHT	CY	25	--	--	--	--	25
609.0124	RELAID STORM SEWER 24-INCH	LF	22	--	--	--	--	22
645.0130	GEOTEXTILE FABRIC TYPE R	SY	56	--	--	--	--	56
SPV.0035.01	CONCRETE SURFACE REPAIR CORROSION INHIBITING ADMIXTURE	CY	0.1	--	--	0.1	3.3	3.5

GENERAL NOTES

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND SUBSEQUENT CONCRETE OVERLAY.

CONTRACTOR SHALL VERIFY DIMENSIONS IN THE FIELD.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1-INCH DEEP SAWCUT.

AT "CURB REPAIR" EXPOSE EXISTING REINFORCEMENT A MINIMUM OF 1½" CLEAR.

CLEAN AND FILL EXISTING LONGITUDINAL AND TRANSVERSE CRACKS IN THE BRIDGE DECK WITH PENETRATING EPOXY UNDER BID ITEMS "CRACK SEALING EPOXY" AS DIRECTED BY THE FIELD ENGINEER.

UNDER "PREPARATION DECKS TYPE 1" AND "PREPARATION DECKS TYPE 2" WORK, NOT MORE THAN ⅓ OF THE TOP BAR STEEL OCCURRING IN CONCRETE THAT IS MORE THAN 5'-0" AWAY FROM THE CENTERLINE OF THE PIERS (MEASURED PERPENDICULAR TO THE LENGTH OF THE PIERS) SHALL BE EXPOSED AT ANY ONE TIME. TOP BAR STEEL THAT IS IN CONCRETE DIRECTLY OVER THE PIERS AND WITHIN 5'-0" OF THE CENTERLINE OF THE PIERS MAY BE ENTIRELY EXPOSED UNDER THE WORK ASSOCIATED WITH THESE BID ITEMS.

UNDER "REMOVING CONCRETE MASONRY DECK OVERLAY", DEPTH OF REMOVAL SHALL BE 1½-INCHES.

CLEAN AND FILL EXISTING CRACKS IN THE PARAPETS WITH PENETRATING EPOXY UNDER BID ITEM "EPOXY CRACK SEALING" AS DIRECTED BY THE FIELD ENGINEER.

REMOVE AND REATTACH EXISTING BEAM GUARD AT ENDS OF PARAPETS AS REQUIRED TO COMPLETE WORK. INCIDENTAL TO REMOVING AND RESETTING TUBULAR RAILING STRUCTURE B-40-325.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION REQUIRED TO COMPLETE THE CONCRETE SURFACE REPAIRS AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE SURFACE REPAIR".

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-325

DRAWN BY DTH | PLANS CK'D. DJW

CROSS SECTIONS, QUANTITIES, AND NOTES

SHEET 2
689

FILE =
SCALE =

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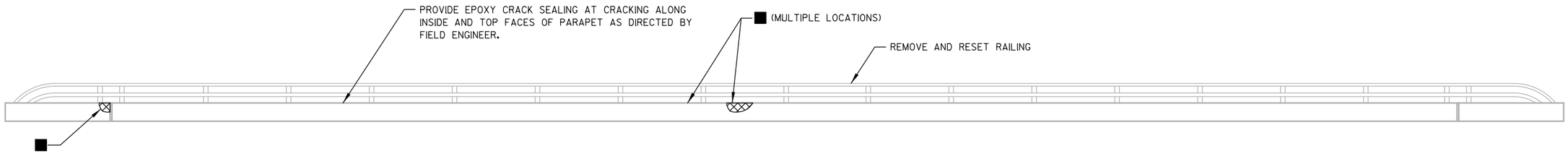
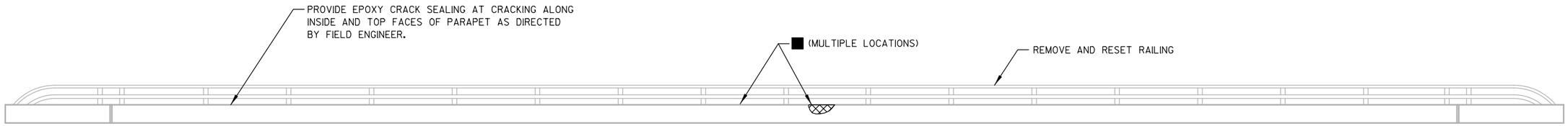
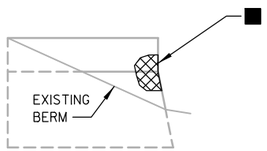
STATE PROJECT NUMBER
2010-10-70



INSIDE FACE SOUTH PARAPET

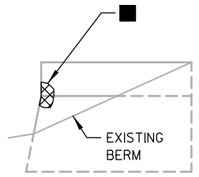


INSIDE FACE NORTH PARAPET

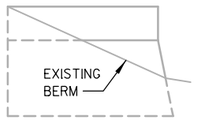


WING 2 ELEVATION

WEST ABUTMENT ELEVATION

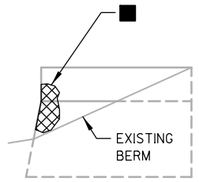


WING 1 ELEVATION



WING 3 ELEVATION

EAST ABUTMENT ELEVATION



WING 4 ELEVATION

LEGEND

■ CONCRETE SURFACE REPAIR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-325

DRAWN BY	DTH	PLANS CK'D.	DJW

ABUTMENT AND PARAPET PLANS AND DETAILS

SHEET 3
690

8

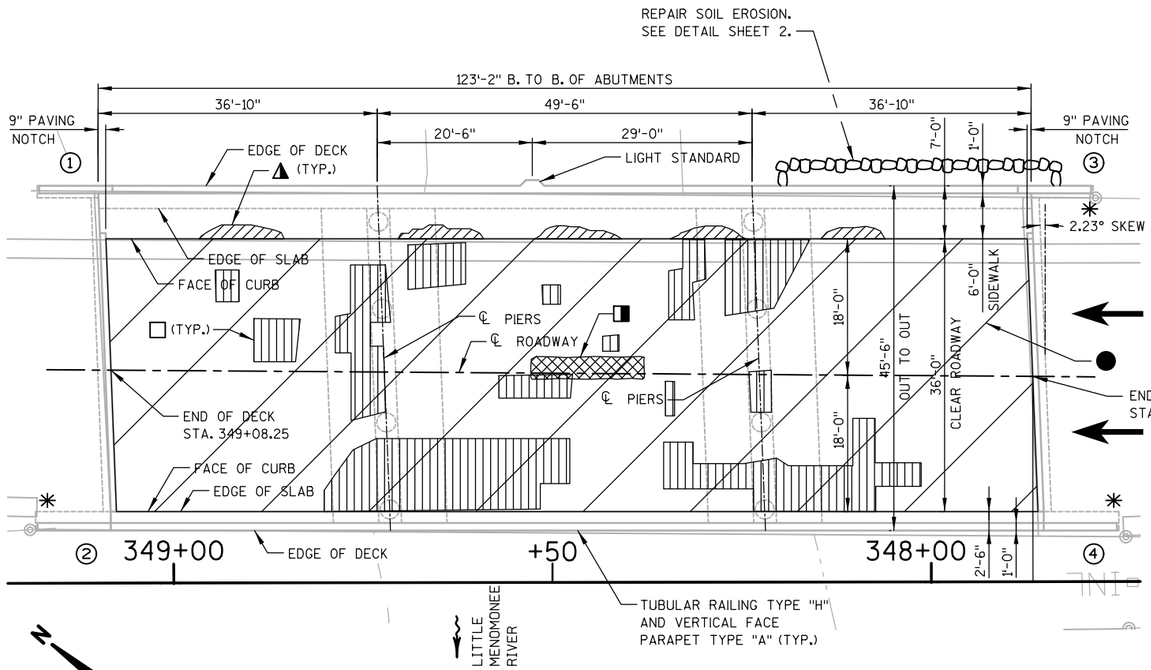
8

FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\080203_ab.dgn PLOT DATE : 4/16/2013 PLOT BY : _username_

FILE=
SCALE =

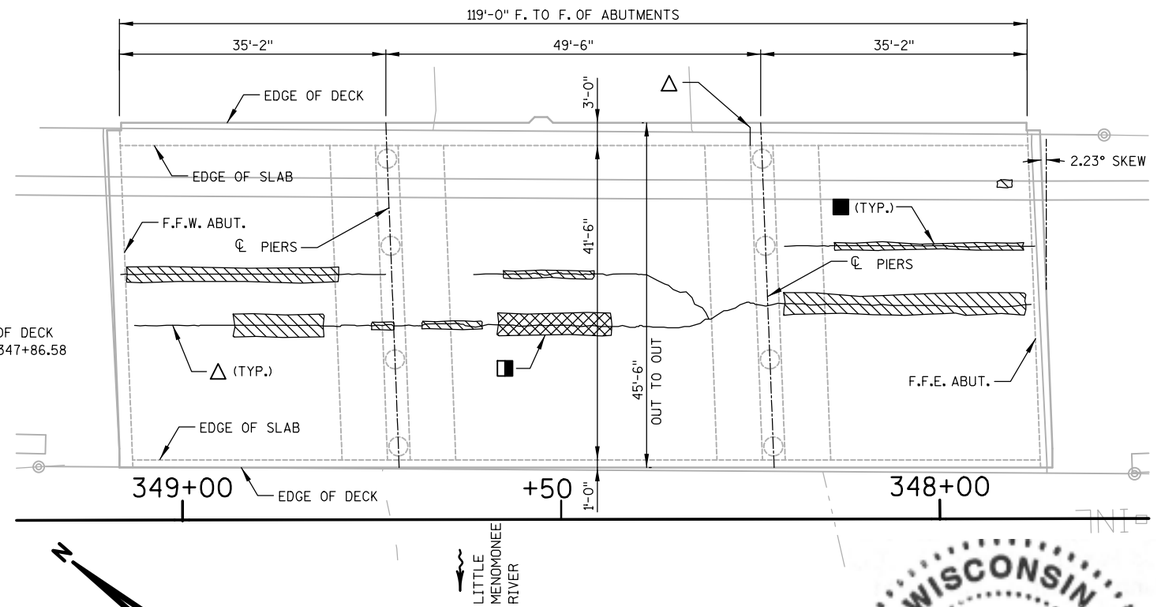
STATE PROJECT NUMBER

2010-10-70



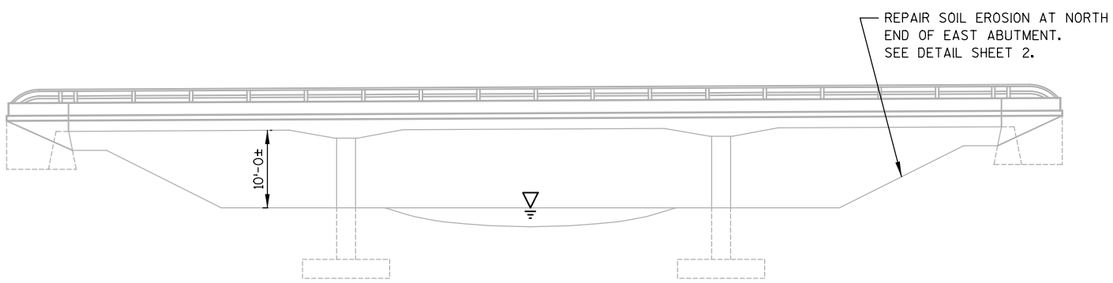
PLAN - TOP OF DECK

3-SPAN CONCRETE HAUNCH
(CONCRETE OVERLAY AND REPAIRS)



PLAN - BOTTOM OF DECK

3-SPAN CONCRETE HAUNCH
(UNDERSIDE OF DECK REPAIRS)



ELEVATION

(LOOKING NORTHEAST)

DESIGN DATA

LIVE LOAD:

INVENTORY RATING	HS 16.7
OPERATING RATING	HS 27.9
MAX. STD. PERMIT VEHICLE LOAD	218 KIPS

ULTIMATE DESIGN STRESSES:

CONCRETE SUPERSTRUCTURE	f'c = 4,000 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi
CONCRETE MASONRY OVERLAY DECK	f'c = 4,000 psi

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES AND NOTES
3. ABUTMENT AND PARAPET PLANS AND DETAILS

LEGEND

- FULL DEPTH DECK REPAIR
- CONCRETE SURFACE REPAIR
- CRACK SEALING EPOXY
- (#) INDICATES WING NUMBER
- CURB REPAIR
- 1½" CONCRETE OVERLAY
- PREPARATION DECKS
- EXISTING BEAM GUARD ATTACHMENT

WISCONSIN
KEITH R. BEHREND
E-42073
MADISON
WI
PROFESSIONAL ENGINEER
Keith R. Behrend
4-16-13

DESIGN CONTACT:
KEITH BEHREND: (608) 251-4843

BUREAU OF STRUCTURES CONTACT:
WILLIAM DREYER: (608) 266-8489

NO.	DATE	REVISION	BY

STRAND ASSOCIATES®
910 West Wingra Drive
Madison, WI 53715
608 251-4843
608 251-8655 FAX
www.strand.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher for 07/24/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-326

USH 41 NB(APPLETON AVE)/LITTLE MENOMONEE RIVER

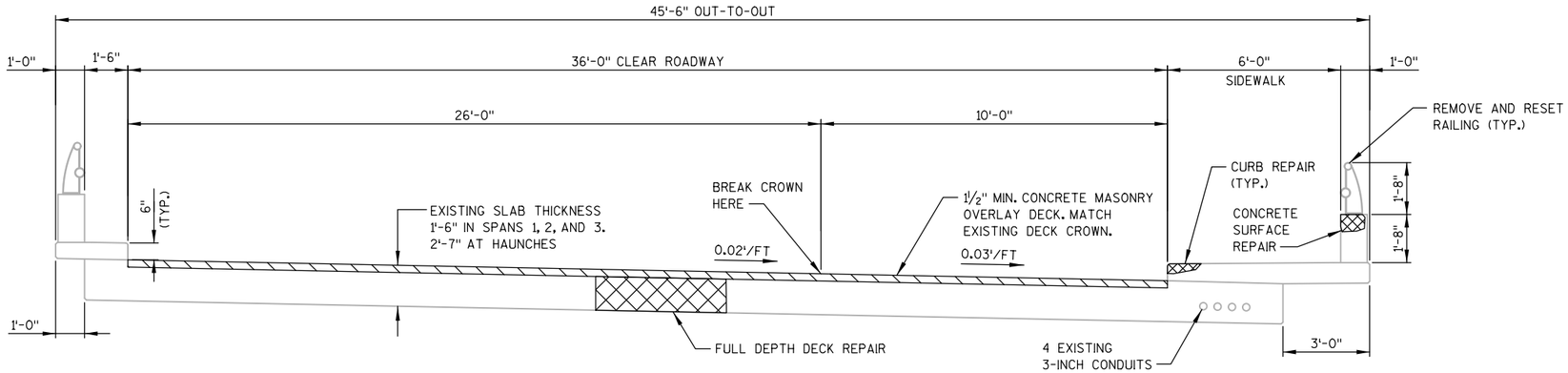
COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
MILWAUKEE	MILWAUKEE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
KRB	DJW	DTH	DJW

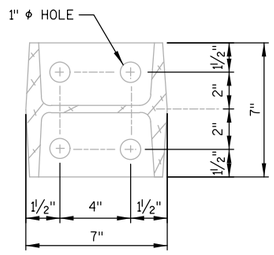
GENERAL PLAN

SHEET 1 OF 3
691

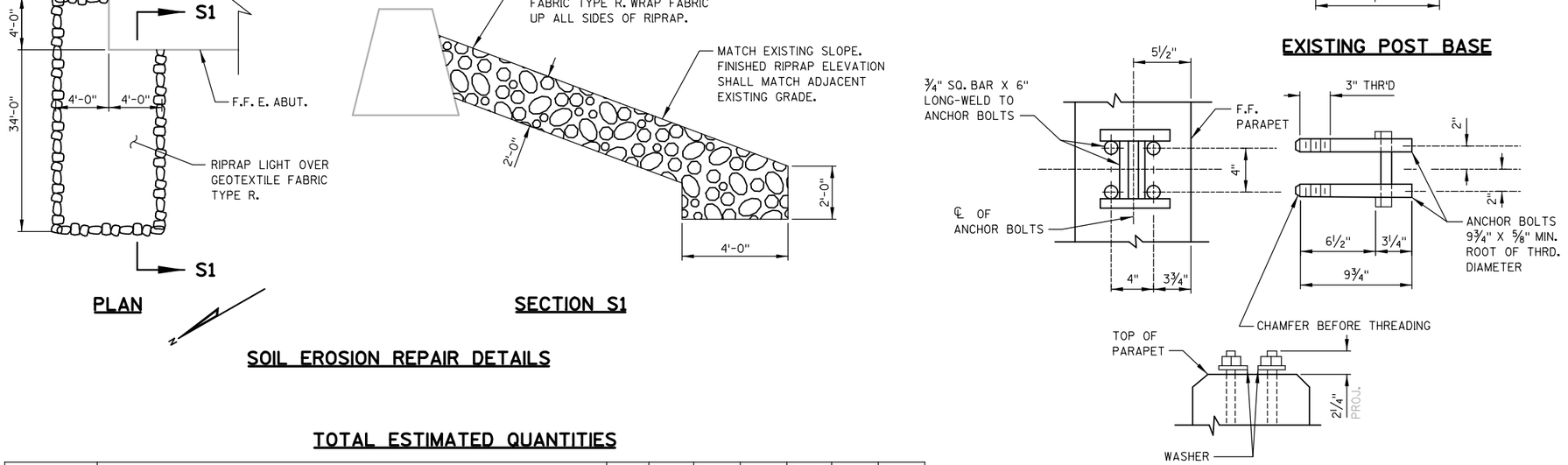


CROSS SECTION THRU BRIDGE

(TAKEN AT ℄ SPAN 2 LOOKING WEST)

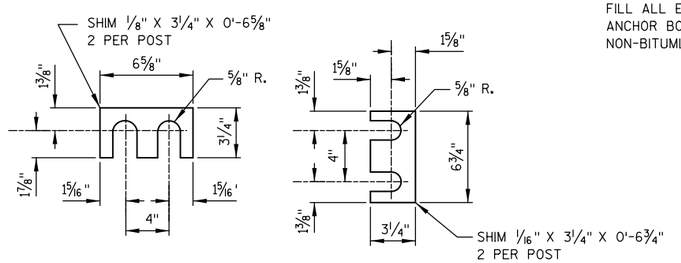


EXISTING POST BASE



SOIL EROSION REPAIR DETAILS

RAILING ANCHOR ASSEMBLY



POST SHIM DETAILS

TOTAL ESTIMATED QUANTITIES

NO.	BID ITEMS	UNIT	WEST ABUT.	PIER 1	PIER 2	EAST ABUT.	SUPERS.	TOTALS
203.0210.S.02	ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-40-326	LS	--	--	--	--	--	1
502.0100	CONCRETE MASONRY BRIDGES	CY	--	--	--	--	4	4
502.0717.S	CRACK SEALING EPOXY	LF	--	--	--	--	215	215
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	--	674	674
509.0301	PREPARATION DECKS TYPE 1	SY	--	--	--	--	87	87
509.0302	PREPARATION DECKS TYPE 2	SY	--	--	--	--	35	35
509.1200	CURB REPAIR	LF	--	--	--	--	15	15
509.1500	CONCRETE SURFACE REPAIR	SF	11	--	--	6	438	455
509.2000	FULL-DEPTH DECK REPAIR	SY	--	--	--	--	5	5
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	--	--	--	--	31	31
509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY	SY	--	--	--	--	487	487
509.9020.S	EPOXY CRACK SEALING	LF	--	--	--	--	240	240
513.9005.S.02	REMOVING AND RESETTING TUBULAR RAILING STRUCTURE B-40-326	LS	--	--	--	--	--	1
606.0100	RIPRAP LIGHT	CY	--	--	--	25	--	25
645.0130	GEOTEXTILE FABRIC TYPE R	SY	--	--	--	55	--	55
SPV.0035.01	CONCRETE SURFACE REPAIR CORROSION INHIBITING ADMIXTURE	CY	0.1	--	--	0.1	4.9	5.1
SPV.0060.04	RAILING ANCHOR ASSEMBLY	EACH	--	--	--	--	9	9
SPV.0090.04	REMOVING OLD PARAPET OVER WATERWAY WITH MINIMAL DEBRIS STRUCTURE B-40-326	LF	--	--	--	--	62	62

STATE PROJECT NUMBER

2010-10-70

GENERAL NOTES

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND SUBSEQUENT CONCRETE OVERLAY.

CONTRACTOR SHALL VERIFY DIMENSIONS IN THE FIELD.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1-INCH DEEP SAWCUT.

AT "CURB REPAIR" EXPOSE EXISTING REINFORCEMENT A MINIMUM OF 1½" CLEAR.

CLEAN AND FILL EXISTING LONGITUDINAL AND TRANSVERSE CRACKS IN THE BRIDGE DECK WITH PENETRATING EPOXY UNDER BID ITEM "CRACK SEALING EPOXY" AS DIRECTED BY THE FIELD ENGINEER.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

ANY EXCAVATION REQUIRED TO COMPLETE THE CONCRETE SURFACE REPAIRS AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE SURFACE REPAIR".

UNDER "PREPARATION DECKS TYPE 1" AND "PREPARATION DECKS TYPE 2" WORK, NOT MORE THAN ⅓ OF THE TOP BAR STEEL OCCURRING IN CONCRETE THAT IS MORE THAN 5'-0" AWAY FROM THE CENTERLINE OF THE PIERS (MEASURED PERPENDICULAR TO THE LENGTH OF THE PIERS) SHALL BE EXPOSED AT ANY ONE TIME. TOP BAR STEEL THAT IS IN CONCRETE DIRECTLY OVER THE PIERS AND WITHIN 5'-0" OF THE CENTERLINE OF THE PIERS MAY BE ENTIRELY EXPOSED UNDER THE WORK ASSOCIATED WITH THESE BID ITEMS.

UNDER "REMOVING CONCRETE MASONRY DECK OVERLAY", DEPTH OF REMOVAL SHALL BE 1½-INCHES.

CLEAN AND FILL EXISTING CRACKS IN THE PARAPETS WITH PENETRATING EPOXY UNDER BID ITEM "EPOXY CRACK SEALING" AS DIRECTED BY THE FIELD ENGINEER.

ANY EXCAVATION REQUIRED TO REPAIR THE SOIL EROSION AT THE NORTH END OF THE EAST ABUTMENT IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "RIPRAP LIGHT".

REMOVE AND REATTACH EXISTING BEAM GUARD AT ENDS OF PARAPETS AS REQUIRED TO COMPLETE WORK. INCIDENTAL TO REMOVING AND RESETTING TUBULAR RAILING STRUCTURE B-40-326.

RAILING NOTES

THE SHANK AND ROOT DIAMETER OF THREAD FOR ANCHOR BOLTS SHALL BE A MIN. OF ⅝".

SHIMS SHALL CONFORM TO SAME MATERIAL AS POSTS.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

RAILING POSTS SHALL BE SET NORMAL TO GRADE LINE.

SHIMS SHALL BE USED UNDER POST WHERE REQ'D. FOR ALIGNMENT.

FILL ALL EXPOSED OPENINGS BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-326

DRAWN BY	DTH	PLANS CK'D.	DJW

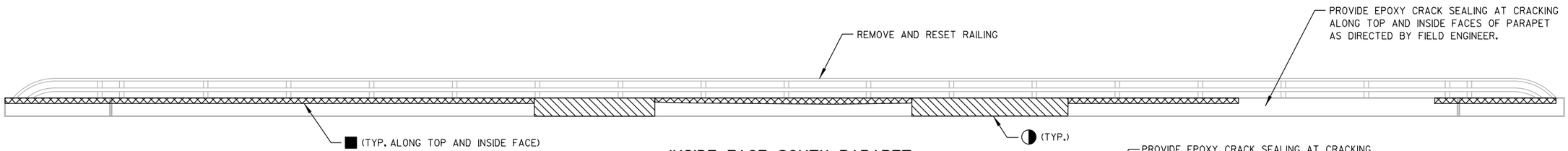
CROSS SECTIONS, QUANTITIES, AND NOTES

SHEET 2
692

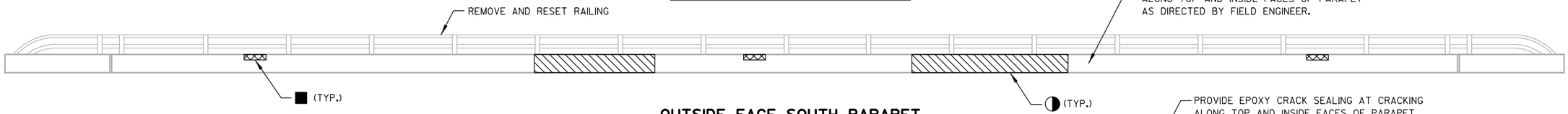
FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\080302_xs.dgn
PLOT DATE : 4/16/2013
PLOT BY : _username_

FILE=
SCALE =

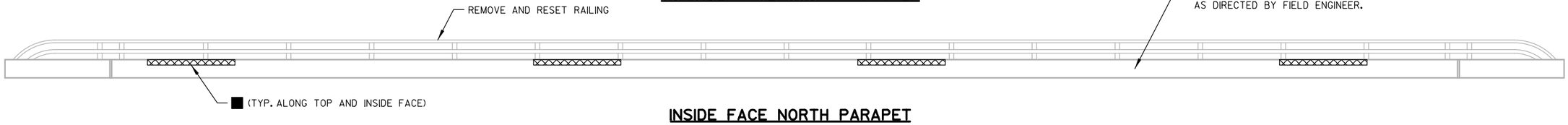
STATE PROJECT NUMBER
2010-10-70



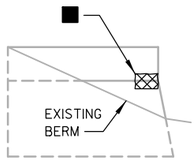
INSIDE FACE SOUTH PARAPET



OUTSIDE FACE SOUTH PARAPET

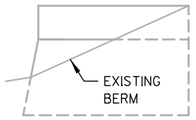


INSIDE FACE NORTH PARAPET



WING 2 ELEVATION

WEST ABUTMENT ELEVATION



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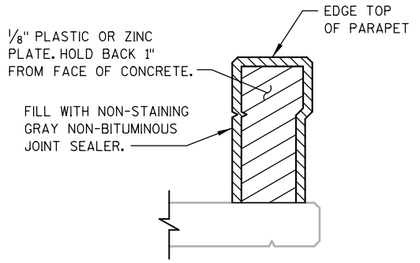
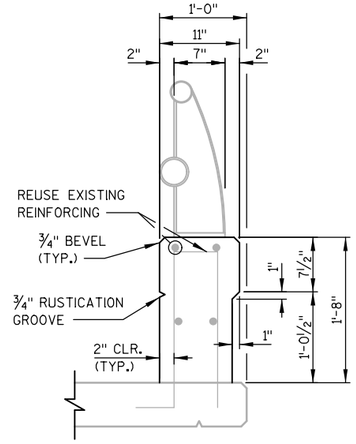
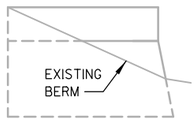


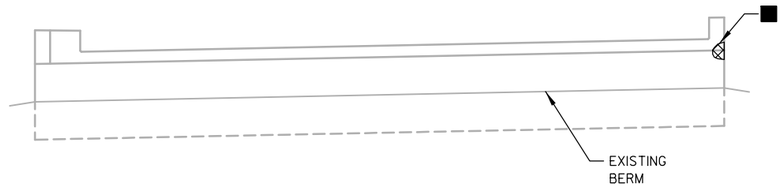
DEFLECTION JOINT DETAIL



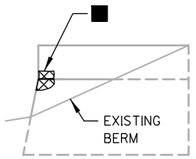
SECTION THRU NEW PARAPET



WING 3 ELEVATION



EAST ABUTMENT ELEVATION



WING 4 ELEVATION

LEGEND

- ■ CONCRETE SURFACE REPAIR
- ◑ REMOVE OLD PARAPET AS DIRECTED BY FIELD ENGINEER. REUSE EXISTING REINFORCING AND PROVIDE NEW RAILING ANCHORAGES. PROVIDE NEW DEFLECTION JOINTS IN NEW PARAPET WHERE EXISTING PARAPET JOINTS WERE LOCATED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-326

DRAWN BY	DTH	PLANS CK'D.	DJW

ABUTMENT AND PARAPET PLANS AND DETAILS

SHEET 3
693

8

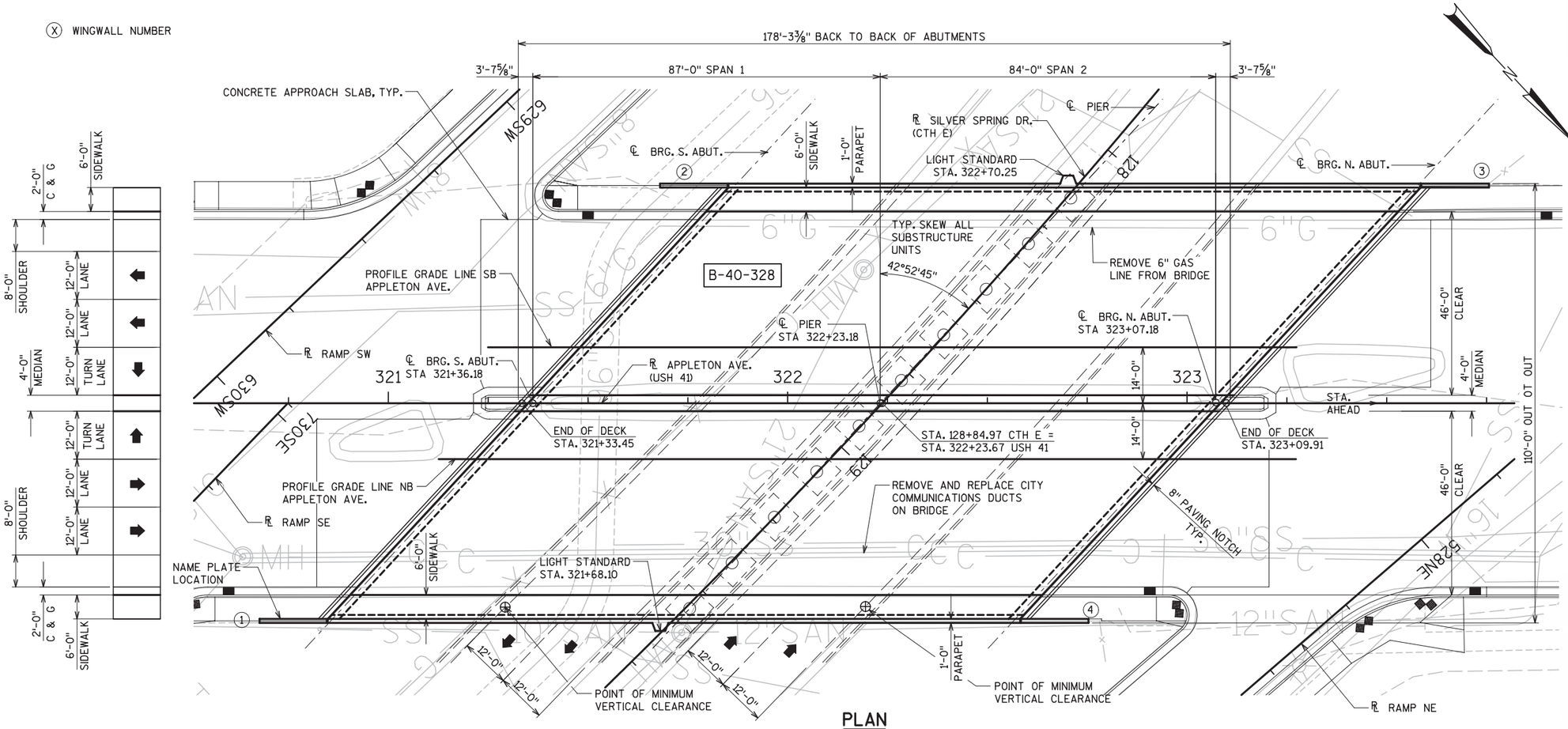
8

FILE NAME : S:\MAD\1000--1099\1084\002\Micros\Design\Plan\080303_ab.dgn PLOT DATE : 4/16/2013 PLOT BY : _username_

FILE=
SCALE =

STATE PROJECT NUMBER
2010-10-70

Ⓧ WINGWALL NUMBER



PLAN

2-SPAN STEEL DECK GIRDER BRIDGE
DECK REPLACEMENT

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. TYPICAL SECTION
3. GENERAL NOTES AND QUANTITIES
4. CONSTRUCTION STAGE 2
5. CONSTRUCTION STAGE 3
6. ABUTMENT SURFACE REPAIRS
7. PIER SURFACE REPAIRS
8. SOUTH ABUTMENT
9. SOUTH ABUTMENT DETAILS
10. NORTH ABUTMENT
11. NORTH ABUTMENT DETAILS
12. BEARING BLOCK DETAILS
13. TOP OF DECK ELEVATIONS
14. DEFLECTION DIAGRAM
15. SUPERSTRUCTURE GEOMETRY
16. SUPERSTRUCTURE REINFORCEMENT
17. SUPERSTRUCTURE DETAILS (1 OF 2)
18. SUPERSTRUCTURE DETAILS (2 OF 2)
19. VERTICAL FACE PARAPET
20. LIGHT STANDARD
21. SUPERSTRUCTURE BILL OF BARS
22. CHAIN LINK FENCE
23. EXPANSION JOINT DETAILS (1 OF 2)
24. EXPANSION JOINT DETAILS (2 OF 2)
25. FIXED BEARINGS
26. EXPANSION BEARINGS
27. CONDUIT DETAILS
28. UNDERDECK CONDUIT SUPPORT

DESIGN DATA

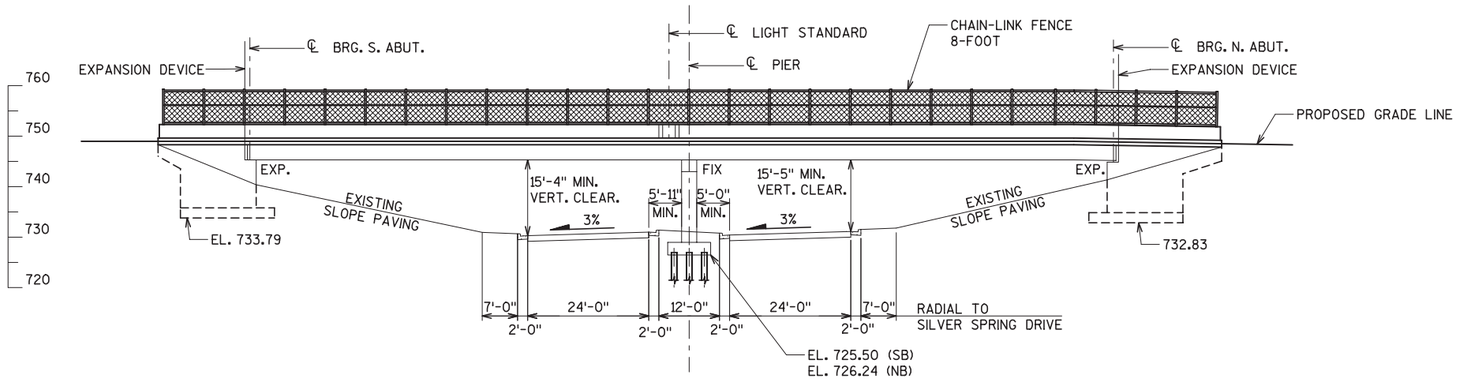
DESIGN LIVE LOAD - HS20
INVENTORY RATING - HS-23
OPERATING RATING - HS-39
MAX STANDARD PERMIT VEHICLE LOAD - 250 KIPS

ULTIMATE DESIGN STRESSES:

CONCRETE:
SUPERSTRUCTURE.....f'c = 4,000 psi
ALL OTHERS.....f'c = 3.500 psi

HIGH STREGTH BAR STEEL
REINFORCEMENT (GRADE 60).....fy = 60,000 psi

EXISTING STRUCTURAL STEEL
ASTM A36, ...Fy = 36,000 psi
ASTM A441
¾" THICK AND LESS.....Fy = 50,000 psi
GREATER THAN ¾" TO 1½"....Fy = 46,000 psi
GREATHER THAN 1½".....Fy = 42,000 psi



ELEVATION

(LOOKING WEST)

BENCH MARK INFORMATION

BM NO.	DESCRIPTION	ELEVATION
8134	STA 126+42.93, 17.75' RT FOUND MON. SEC CORNER SO. 29-8-21	730.470
20000	FOUND IP W/ CAP, MEDIAN AREA STA 127+25.98, 0.08' RT	729.89

TRAFFIC DATA - APPLETON AVE.

ADT (2013) = 15,100
ADT (2033) = 17,100
DESIGN SPEED = 45 MPH

STRUCTURES DESIGN CONTACTS

BLOOM COMPANIES, LLC:
JASON SADOWSKI: (414) 771-3390

BUREAU OF STRUCTURES CONTACT:
BILL DREHER: (608) 266-8489

WISCONSIN
JASON R. SADOWSKI
E-38660
PEWAUKEE, WI
PROFESSIONAL ENGINEER
7/12/13

NO.	DATE	REVISION	BY

BLOOM COMPANIES, LLC
Infrastructure Innovation and Ingenuity
10501 W. Research Drive • Milwaukee, WI 53226
Phone: (414) 771-3390 Fax: (414) 771-4490

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 07/18/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-328

APPLETON AVE. OVER SILVER SPRING DR.

COUNTY	CITY
MILWAUKEE	MILWAUKEE

DESIGN SPEC. AASHTO STANDARD SPEC. 17th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AJA	JRS	AJA	JRS

GENERAL PLAN AND ELEVATION

SHEET 1 OF 28
694

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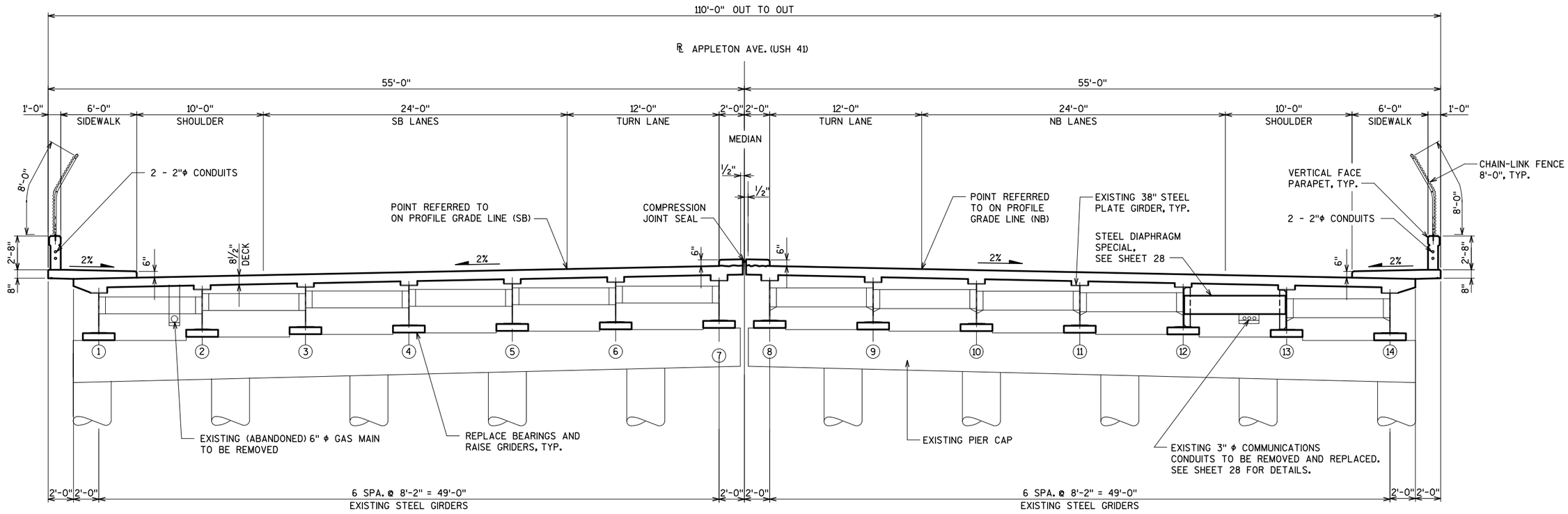
8

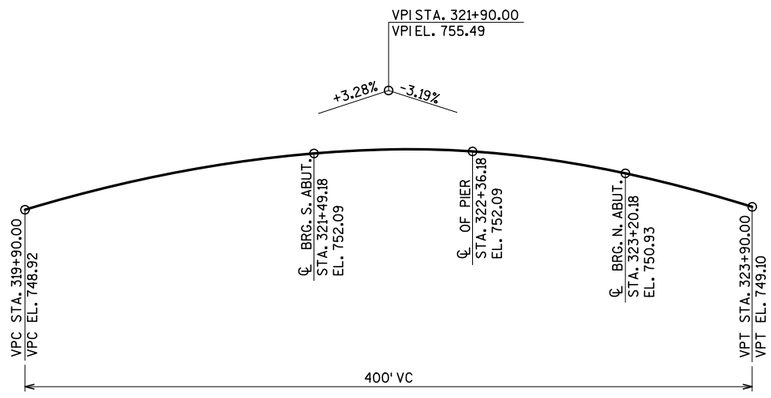
STATE PROJECT NUMBER

2010-10-70

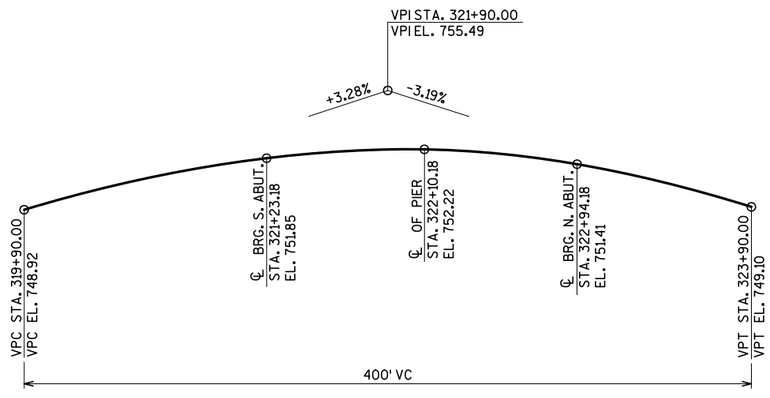


TYPICAL SECTION

(LOOKING NORTH)



PROPOSED PROFILE GRADE LINE SB APPLETON AVE.



PROPOSED PROFILE GRADE LINE NB APPLETON AVE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

TYPICAL SECTION

SHEET 2 OF 28

695

STATE PROJECT NUMBER
2010-10-70

TOTAL ESTIMATED QUANTITIES

	ITEM NO.	BID ITEMS	UNIT	SOUTH ABUT.	NORTH ABUT.	PIER 1	SUPER.	TOTAL
	203.0200	REMOVING OLD STRUCTURE STA. 322+23.18	LS	-	-	-	-	1
	203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-40-328	LS	-	-	-	-	1
	203.0225.S	DEBRIS CONTAINMENT STRUCTURE B-40-328	LS	-	-	-	-	1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-40-328	LS	-	-	-	-	1
	210.0100	BACKFILL STRUCTURE	CY	46	46	-	-	92
	502.0100	CONCRETE MASONRY BRIDGES	CY	18	18	-	628	664
	502.2000	COMPRESSION JOINT SEALER PREFORMED ELASTOMERIC (2 1/2-INCH)	LF	-	-	-	174	174
	502.3100	EXPANSION DEVICE B-40-328	LS	-	-	-	-	1
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	2286	2286
	502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	368	368	-	-	736
	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	4,040	4,110	530	137,830	146,510
	506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	14	14	-	-	28
	506.5000	BEARING ASSEMBLIES FIXED B-40-328	EACH	-	-	14	-	14
	506.7050.S	REMOVING BEARINGS STRUCTURE B-40-328	EACH	14	14	14	-	42
	506.7060.S	BRIDGE JACKING STRUCTURE B-40-328	LS	-	-	-	-	1
◐	509.1500	CONCRETE SURFACE REPAIR	SF	32	17	60	-	109
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	31	31	-	-	62
	517.0900.S	PREPARATION AND COATING OF TOP FLANGES B-40-328	LS	-	-	-	-	1
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE STRUCTURE B-40-328	LS	-	-	-	-	1
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS STRUCTURE B-40-328	LS	-	-	-	-	1
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	-	-	-	-	1
	616.0208	FENCE CHAIN LINK 8-FT	LF	-	-	-	423	423
	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	88	88	-	40	216
	652.0225	CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH	LF	-	-	-	654	654
	653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	-	-	-	2	2
	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	-	-	-	2	2
	SPV.0060.26	EMBEDDED GALVANIC ANODES	EACH	38	24	38	-	100
◥	SPV.0060.27	STEEL DIAPHRAGM SPECIAL B-40-328	EACH	-	-	-	9	9
	SPV.0070.01	CORROSION INHIBITING PROTECTIVE COATING	GAL	-	-	20	-	20
◥	SPV.0105.07	UNDERDECK UTILITY STRUCTURE B-40-328, CITY OF MILWAUKEE CONDUITS	LS	-	-	-	-	1
		NON-BID ITEMS						
		PREFORMED JOINT FILLER						
		BRIDGE SEAT PROTECTION	SIZE	-	-	-	-	1/2" & 3/4"
			LS	-	-	-	-	1

ALL BID ITEMS ARE CATEGORY 0040, EXCEPT AS SHOWN.

◥ THESE BID ITEMS ARE CATEGORY 0070.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BARS STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

AT ABUTMENTS ALL SPACES NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURAL BACKFILL.

USE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND INCORPORATE INTO NEW WORK.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE ROADWAY DECK, MEDIAN, SIDEWALK, INSIDE FACE OF PARAPETS AND THE TOP OF THE PARAPETS.

THE EXISTING STRUCTURE B-40-328 IS A 2-SPAN STEEL DECK GIRDER BRIDGE WITH AN OVERALL WIDTH OF 110' AND AN OVERALL LENGTH OF 178'-3".

ALL CONCRETE REMOVAL SHALL BE DEFINED WITH A 1" DEEP SAWCUT.

CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. THE NEW NAME PLATE SHALL SHOW THE ORIGINAL CONSTRUCTION YEAR OF 1967.

STEEL GIRDERS, STEEL BEARINGS, AND DIAPHRAGMS SHALL BE PAINTED LIGHT GRAY (FEDERAL COLOR NO. 26293)

ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988. ALL STATIONS AND ALL ELEVATIONS ARE IN FEET.

EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID FOR IN THE LUMP SUM PRICE BID AS "EXPANSION DEVICE B-40-328".

VARIATIONS TO THE NEW GRADE LINE OVER 1/4" MUST BE SUBMITTED BY FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

BEVEL EXPOSED EDGES OF CONCRETE 1" UNLESS OTHERWISE NOTED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

PROTECT CONCRETE SLOPE PAVING FROM DAMAGE DURING DEMOLITION OF EXISTING DECK. CONTRACTOR SHALL REPAIR DAMAGED SLOPE PAVING DUE TO DEMOLITION AT THE DIRECTION OF THE FIELD ENGINEER. REPAIR WORK IS INCIDENTAL TO THE BID ITEM "REMOVING OLD STRUCTURE".

BRIDGE WORK NOTES

THE EXISTING DECK, SIDEWALKS, PARAPETS, CONDUITS IN PARAPETS, RAILINGS AND MEDIANS WILL BE REMOVED AND REPLACED IN THIS CONTRACT. EXISTING GIRDERS, DIAPHRAGMS AND SUBSTRUCTURE UNITS WILL REMAIN IN PLACE. THE GIRDERS WILL BE RAISED TO INCREASE VERTICAL CLEARANCE OVER SILVER SPRING DRIVE. SUPERSTRUCTURE STEEL WILL BE REPAINTED. THE BEARINGS WILL BE REPLACED.

◐ PERFORM CONCRETE SURFACE REPAIR AT ABUTMENTS AND PIER AS DIRECTED BY THE FIELD ENGINEER.

EXISTING GAS MAIN ATTACHED TO UNDERSIDE OF THE EXISTING DECK IS NO LONGER IN SERVICE AND SHALL BE REMOVED WITH THE DECK. REMOVAL IS INCIDENTAL TO THE BID ITEM "REMOVING OLD STRUCTURE".

EXISTING COMMUNICATIONS CONDUITS ATTACHED TO THE UNDERSIDE OF EXISTING DECK SHALL BE REMOVED. REMOVAL IS INCIDENTAL TO THE BID ITEM "REMOVING OLD STRUCTURE". COORDINATE REMOVAL WITH THE CITY OF MILWAUKEE.

INSTALL NEW COMMUNICATIONS DUCT PACKAGE AFTER THE BRIDGE IS RAISED. SEE SHEET 28 FOR DETAILS.

THE CONTRACTOR SHALL SUBMIT A REMOVAL PLAN TO THE ENGINEER FOR APPROVAL PER SPECIAL PROVISIONS. PLANS OF THE EXISTING BRIDGE ARE ON FILE AND ARE AVAILABLE FOR INSPECTION AT THE WISCONSIN DEPARTMENT OF TRANSPORTATION, SOUTH EAST REGION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

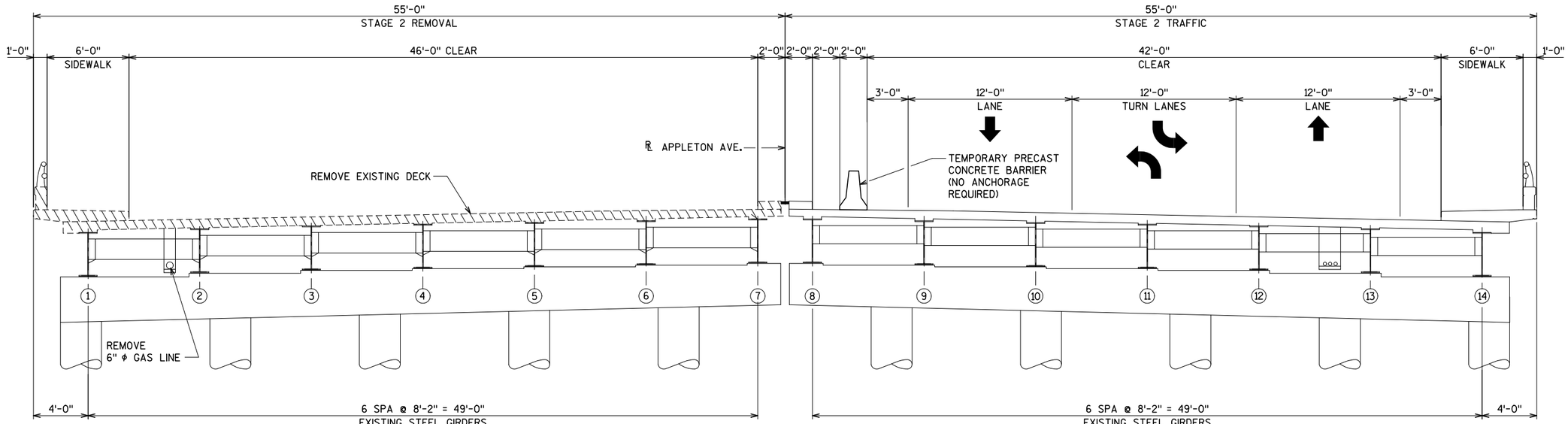
GENERAL NOTES AND QUANTITIES

SHEET 3 OF 28
696

8

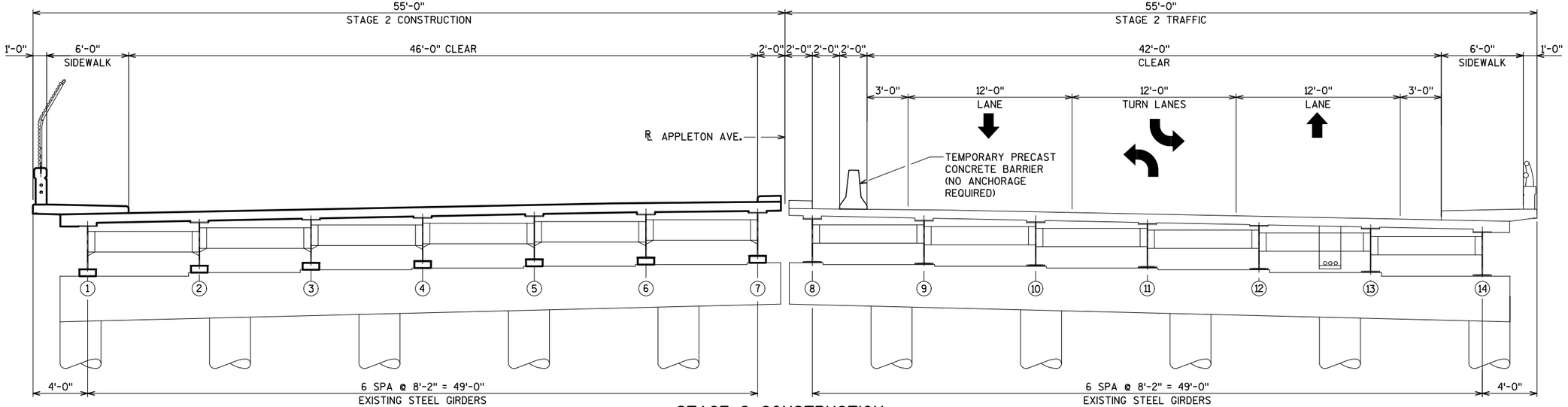
8

STATE PROJECT NUMBER
2010-10-70



STAGE 2 REMOVAL

(LOOKING NORTH)



STAGE 2 CONSTRUCTION

(LOOKING NORTH)

8

8

NOTES

SEE ROADWAY PLANS FOR ADDITIONAL TRAFFIC CONTROL DETAILS.

REPLACE EXISTING SHEAR LUGS ON TOP FLANGE IF DAMAGED DURING DECK REMOVAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

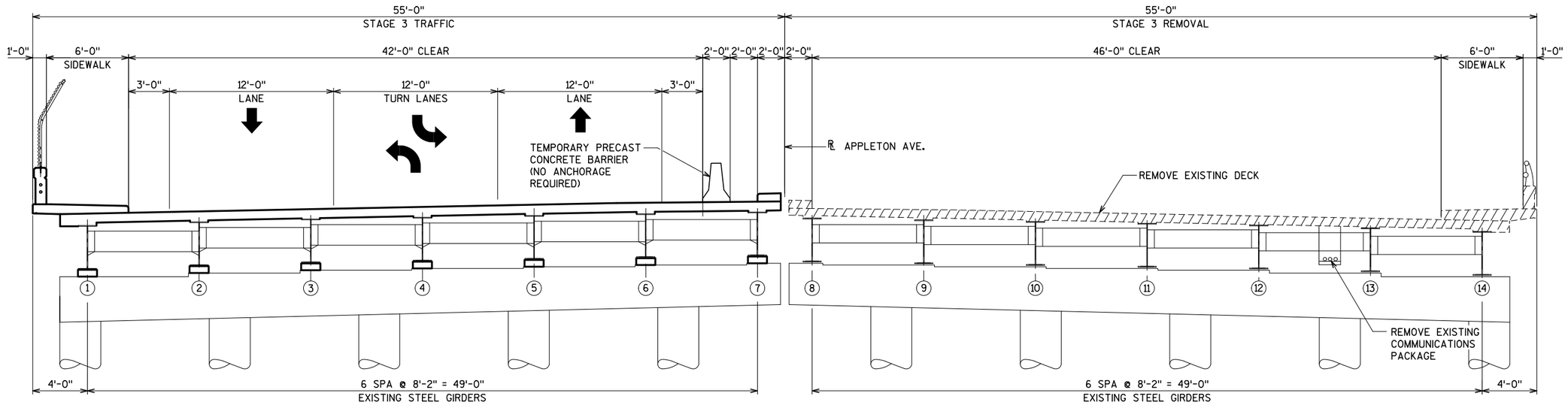
STRUCTURE B-40-328

DRAWN BY	AJA	PLANS CK'D.	JRS

CONSTRUCTION STAGE 2

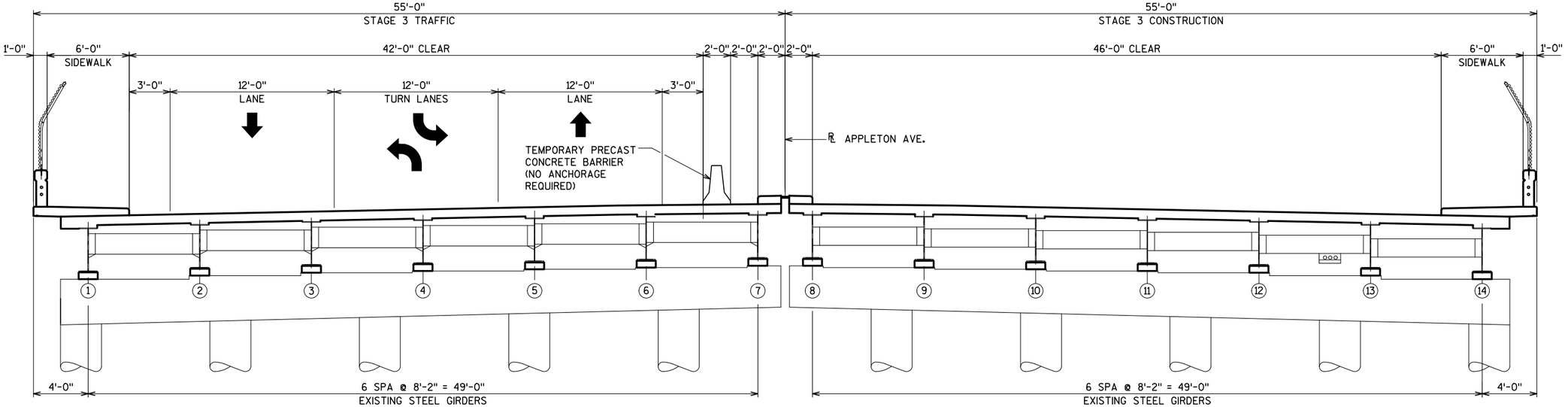
SHEET 4 OF 28
697

STATE PROJECT NUMBER
2010-10-70



STAGE 3 REMOVAL

(LOOKING NORTH)



STAGE 3 CONSTRUCTION

(LOOKING NORTH)

8

8

NOTES

SEE ROADWAY PLANS FOR ADDITIONAL TRAFFIC CONTROL DETAILS.

REPLACE EXISTING SHEAR LUGS ON TOP FLANGE IF DAMAGED DURING DECK REMOVAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY	AJA	PLANS CK'D.	JRS

CONSTRUCTION STAGE 3

SHEET 5 OF 28
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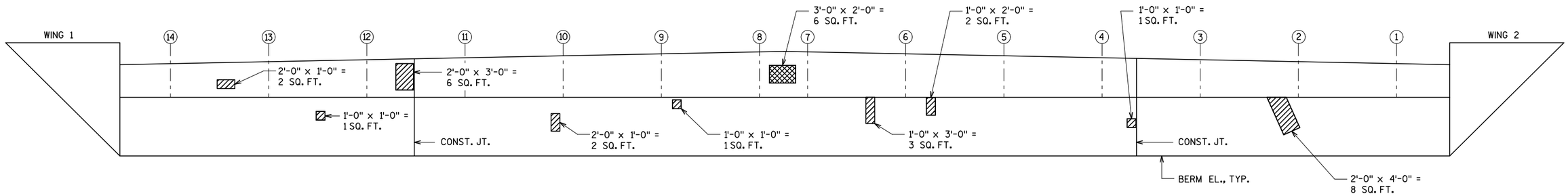
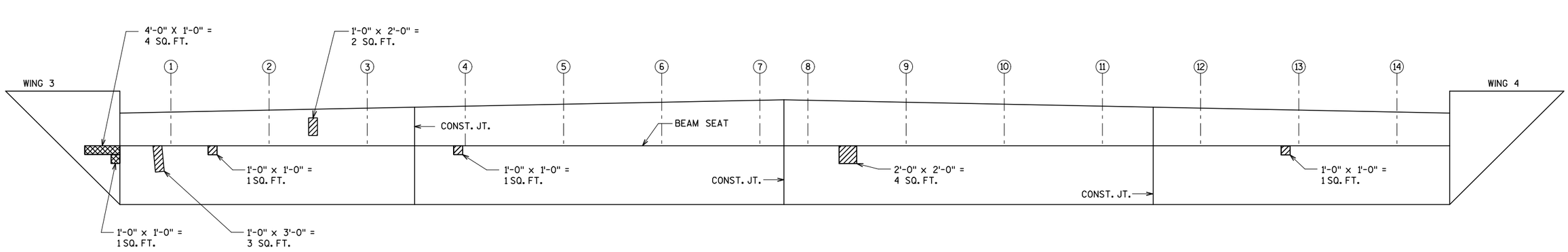
STATE PROJECT NUMBER
2010-10-70



SOUTH ABUTMENT
(LOOKING SOUTH)



NORTH ABUTMENT
(LOOKING NORTH)

8

8

LEGEND

- DELAMINATED AREA, PERFORM CONCRETE SURFACE REPAIR
- SPALL AREA, PERFORM CONCRETE SURFACE REPAIR
- (X) GIRDER NUMBER

NOTES

AREAS AND LOCATIONS FOR CONCRETE SURFACE REPAIR ARE APPROXIMATE. PERFORM REPAIRS AS DIRECTED BY THE FIELD ENGINEER.

THE FINISHED CONCRETE SURFACE SHALL MATCH THE SHAPE AND FINISH OF THE ORIGINAL CONCRETE SURFACE, UNLESS DIRECTED BY THE ENGINEER TO PROVIDE ADDITIONAL CONCRETE.

PROVIDE EMBEDDED GALVANIC ANODES AT ALL CONCRETE SURFACE REPAIRS.

SEE SHEET 7 FOR SURFACE REPAIR AND EMBEDDED ANODE DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

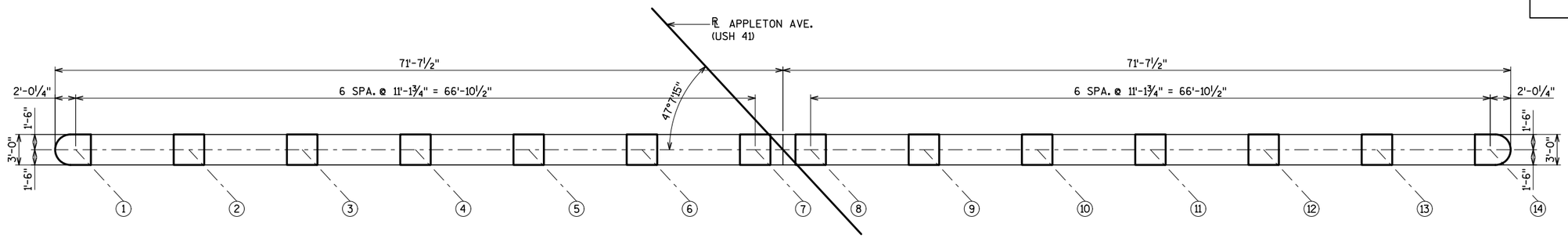
DRAWN BY	AJA	PLANS CK'D.	JRS

ABUTMENT SURFACE REPAIRS

SHEET 6 OF 28
699

STATE PROJECT NUMBER

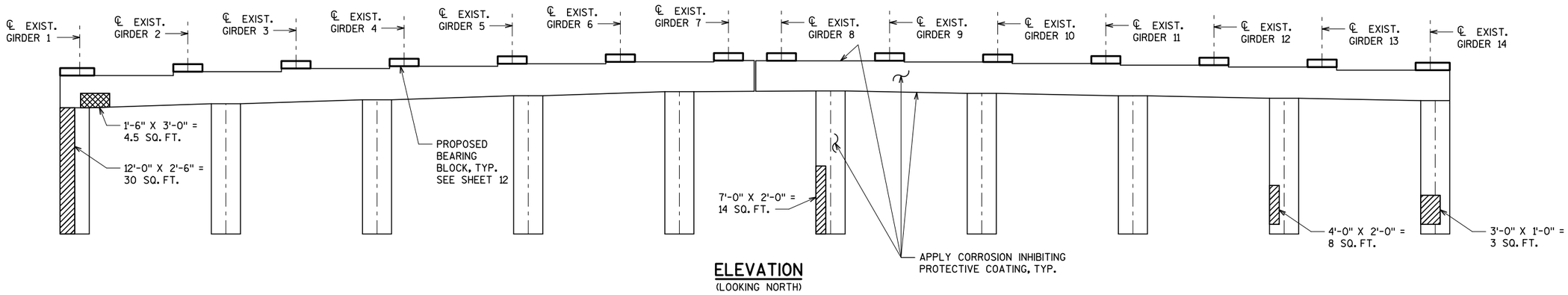
2010-10-70



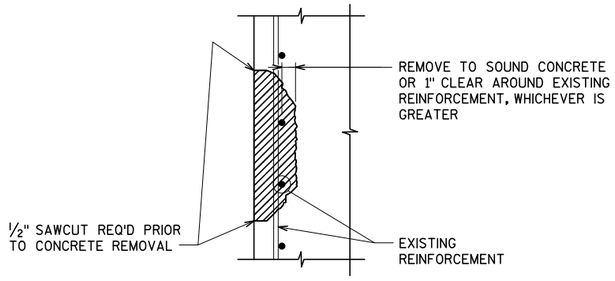
PLAN

LEGEND

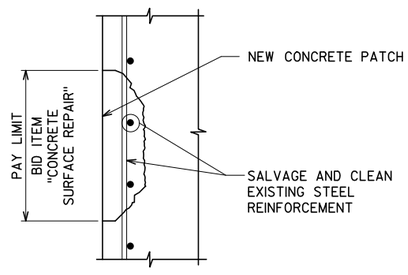
- DELAMINATED AREA
- SPALL AREA
- (X) GIRDER NUMBER



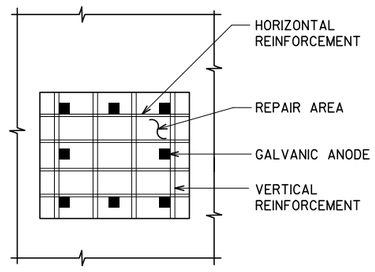
ELEVATION
(LOOKING NORTH)



TYPICAL CONCRETE SURFACE REMOVAL DETAIL



TYPICAL CONCRETE SURFACE REPAIR DETAIL



ELEVATION OF EMBEDDED ANODE REPAIR

EMBEDDED ANODE NOTES

REMOVE DAMAGED CONCRETE PER CONTRACT SPECIFICATION.

REPLACE / CLEAN CORRODED REINFORCING STEEL.

ENSURE ALL EXPOSED REINFORCING STEEL IS SECURELY FASTENED TOGETHER WITH TIE WIRE TO PROVIDE GOOD CONTINUITY.

ATTACH ANODES TO CLEAN REINFORCING STEEL. ANODE QUANTITY ON SHEET 3 IS BASED ON A MAXIMUM SPACING ON 24 INCHES AROUND THE PERIMETER OF THE REPAIR. SEE SPECIAL PROVISIONS.

POUR BACK REPAIR AREA WITH MATERIAL PER CONTRACT SPECIFICATION.

NOTES

AREAS AND LOCATIONS FOR CONCRETE SURFACE REPAIR ARE APPROXIMATE. PERFORM REPAIRS AS DIRECTED BY THE FIELD ENGINEER.

THE FINISHED CONCRETE SURFACE SHALL MATCH THE SHAPE AND FINISH OF THE ORIGINAL CONCRETE SURFACE, UNLESS DIRECTED BY THE ENGINEER TO PROVIDE ADDITIONAL CONCRETE.

PROVIDE EMBEDDED GALVANIC ANODES AT ALL CONCRETE SURFACE REPAIRS.

APPLY CORROSION INHIBITING PROTECTIVE COATING TO ALL EXPOSED CONCRETE AT PIER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

PIER SURFACE REPAIRS

SHEET 7 OF 28

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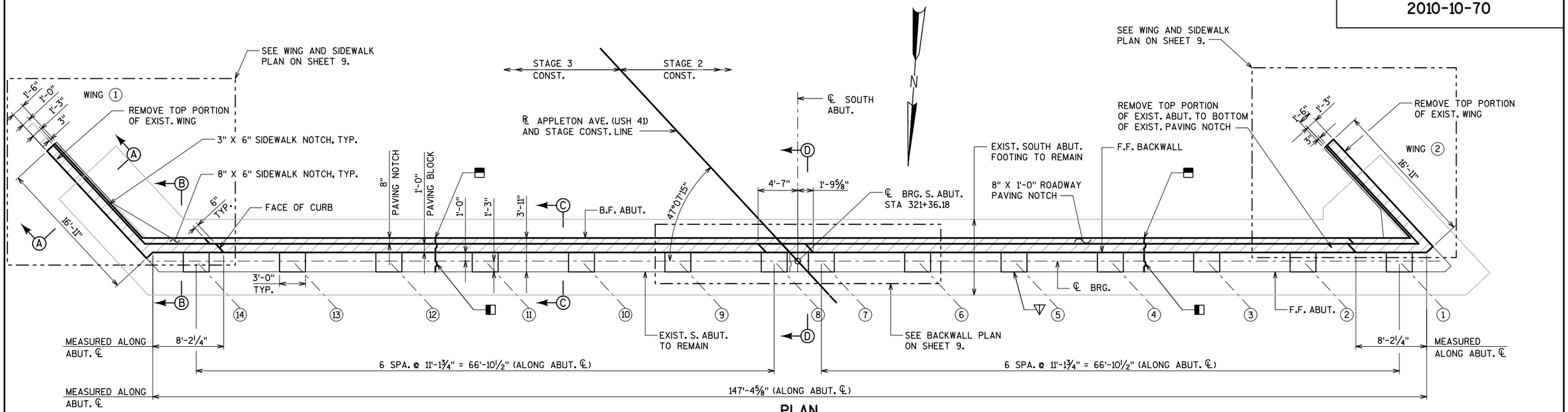
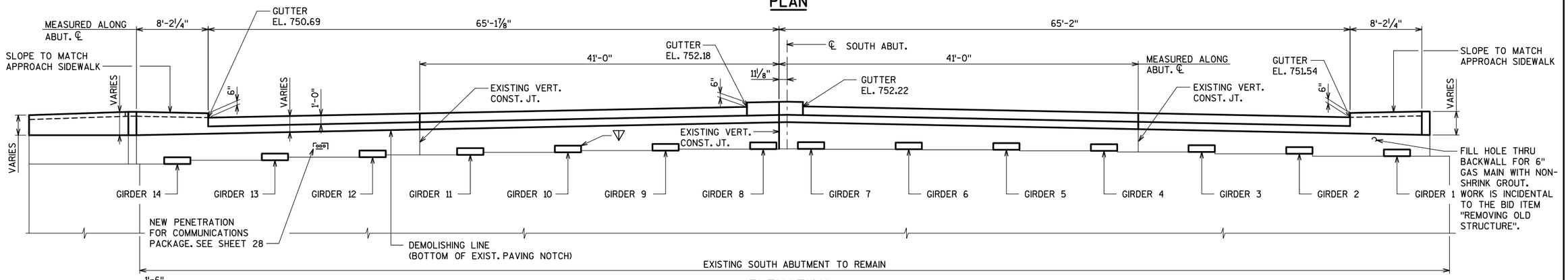
8

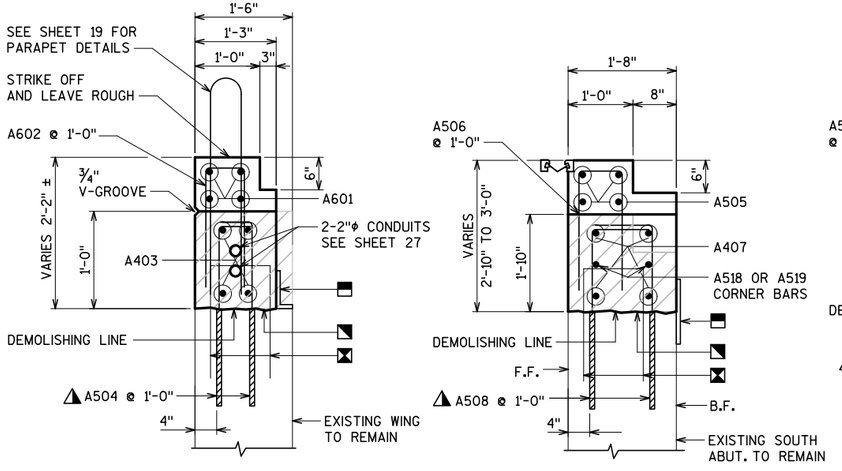
STATE PROJECT NUMBER
2010-10-70



PLAN

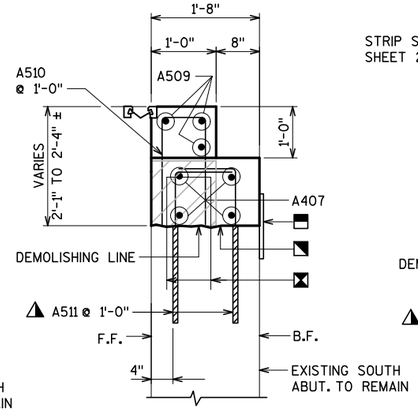


ELEVATION
(LOOKING SOUTH)

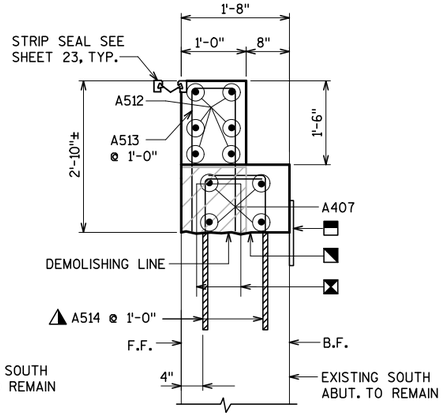


SECTION A-A

SECTION B-B



SECTION C-C



SECTION D-D

LEGEND

- ▽ PROPOSED BEARING BLOCK. SEE SHEET 12 FOR DETAILS AND ELEVATIONS.
- ⊠ SALVAGE AND CLEAN EXISTING VERTICAL REINFORCEMENT AND INCORPORATE INTO NEW WORK
- ▬ 18" RUBBERIZED MEMBRANE WATERPROOFING
- (X) GIRDER NUMBER
- ◥ CONST. JT. LEAVE ROUGH
- ⚠ CONCRETE MASONRY ANCHORS, TYPE L, NO. 5 BARS EMBED 1'-6" WITH MIN. PULLOUT CAPACITY OF 19 KIPS.
- ◧ CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6".
- B.F. BACK FACE
- F.F. FRONT FACE
- ▨ CONCRETE REMOVAL

NOTES

WORK WITH SHEET 9.

FOR BAR BENDING DIAGRAMS, SEE SHEET 9.

FOR BEARING BLOCK DETAILS, SEE SHEET 12.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

SOUTH ABUTMENT

SHEET 8 OF 28
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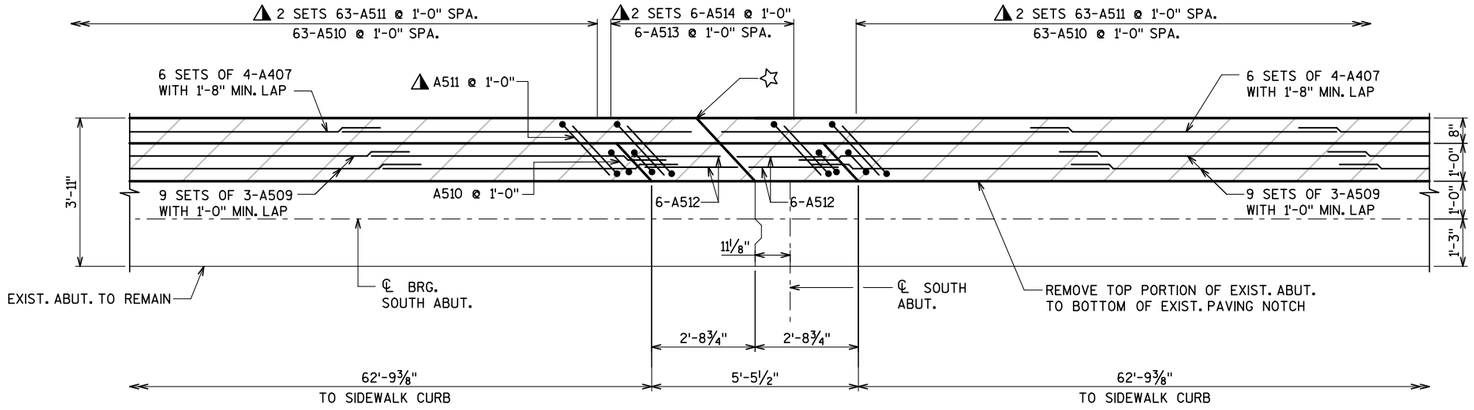
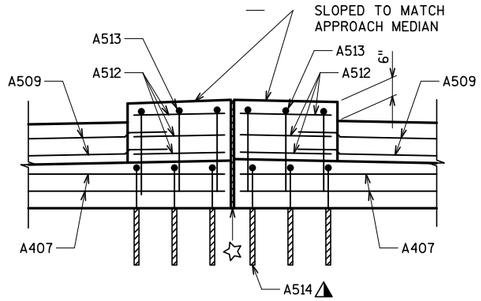
STATE PROJECT NUMBER

2010-10-70



BACKWALL PLAN

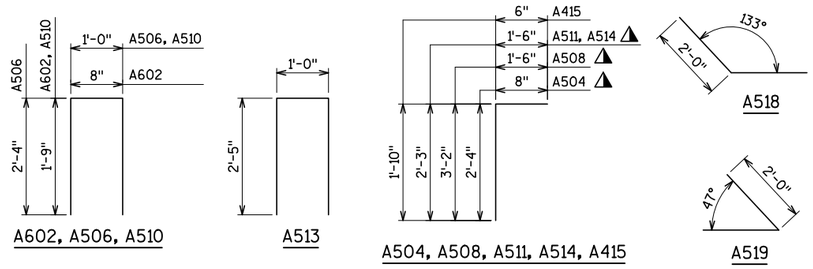


MEDIAN ELEVATION

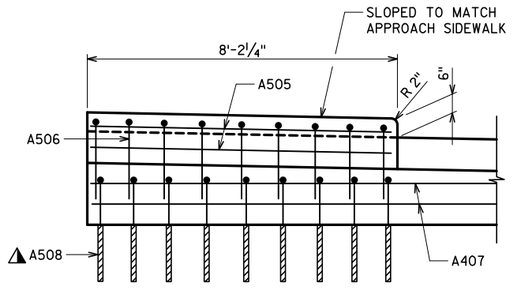
BILL OF BARS - SOUTH ABUTMENT

BAR MARK	COAT	NO. STAGE 2	NO. STAGE 3	NO. TOTAL	LENGTH	BENT	BAR SERIES	LOCATION
A601	X	4	4	8	16'-7"	-	-	LONGITUDINAL WINGS
A602	X	17	17	34	4'-0"	X	-	VERTICAL WINGS
A403	X	4	4	8	16'-7"	-	-	LONGITUDINAL WINGS
A504	X	34	34	68	2'-11"	X	-	VERTICAL ANCHORS WINGS ▲
A505	X	4	4	8	7'-11"	-	-	LONGITUDINAL SIDEWALK
A506	X	9	9	18	5'-5"	X	-	VERTICAL SIDEWALK
A407	X	24	24	48	13'-9"	-	-	LONGITUDINAL BACKWALL
A508	X	18	18	36	4'-6"	X	-	VERTICAL ANCHORS SIDEWALK ▲
A509	X	27	27	54	8'-2"	-	-	LONGITUDINAL PAVING BLOCK
A510	X	63	63	126	4'-4"	X	-	VERTICAL PAVING BLOCK
A511	X	126	126	252	3'-8"	X	-	VERTICAL ANCHORS PAVING BLOCK ▲
A512	X	6	6	12	2'-4"	-	-	LONGITUDINAL MEDIAN
A513	X	3	3	6	5'-7"	X	-	VERTICAL MEDIAN
A514	X	6	6	12	3'-6"	X	-	VERTICAL ANCHORS MEDIAN ▲
A415	X	98	98	196	2'-3"	X	-	BEARING BLOCK
A416	X	28	28	56	2'-8"	-	-	BEARING BLOCK SIDES
A417	X	28	28	56	1'-11"	-	-	BEARING BLOCK SIDES
A518	X	-	2	2	4'-0"	X	-	PAVING BLOCK CORNERS
A519	X	2	-	2	4'-0"	X	-	PAVING BLOCK CORNERS

ALL DIMENSIONS IN THE BARE ENDS ARE OUT TO OUT

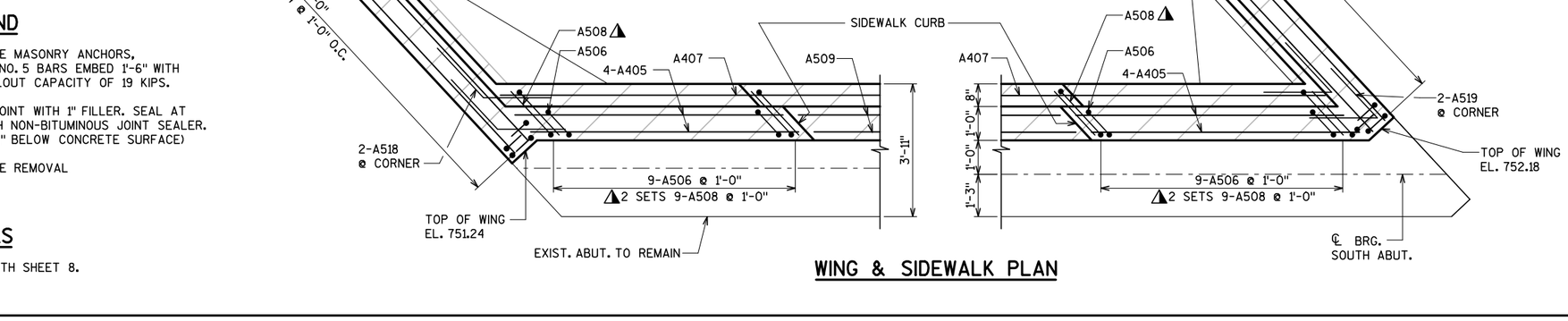


BENDING DIAGRAMS



SIDEWALK ELEVATION

(SPACE VERTICAL BARS AS SHOWN IN PLAN)



WING & SIDEWALK PLAN

LEGEND

▲ CONCRETE MASONRY ANCHORS, TYPE L, NO. 5 BARS EMBED 1'-6" WITH MIN. PULLOUT CAPACITY OF 19 KIPS.

☆ CONST. JOINT WITH 1" FILLER. SEAL AT TOP WITH NON-BITUMINOUS JOINT SEALER. (HOLD ⅛" BELOW CONCRETE SURFACE)

▨ CONCRETE REMOVAL

NOTES

WORK WITH SHEET 8.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

SOUTH ABUTMENT DETAILS

SHEET 9 OF 28
702

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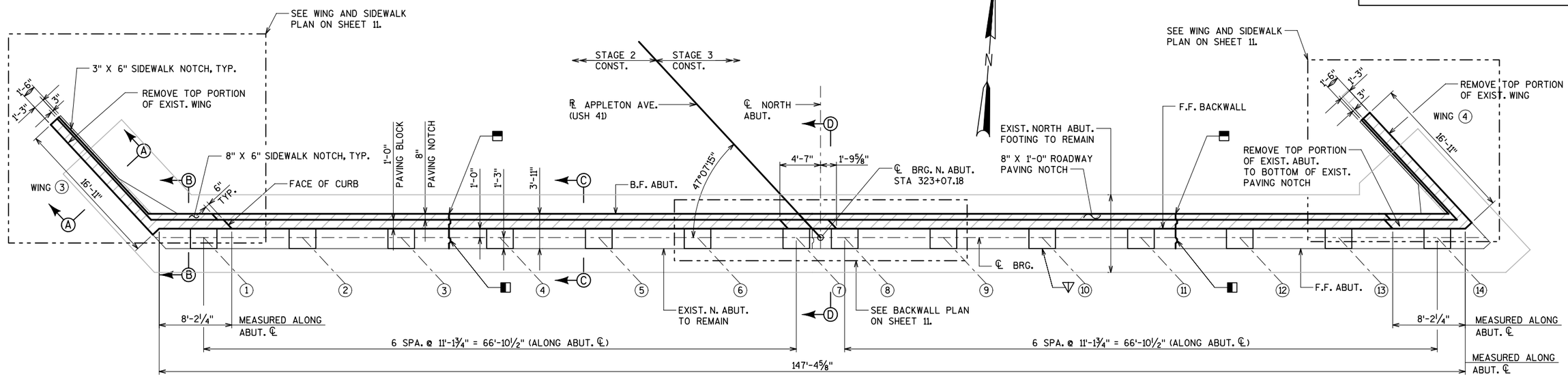
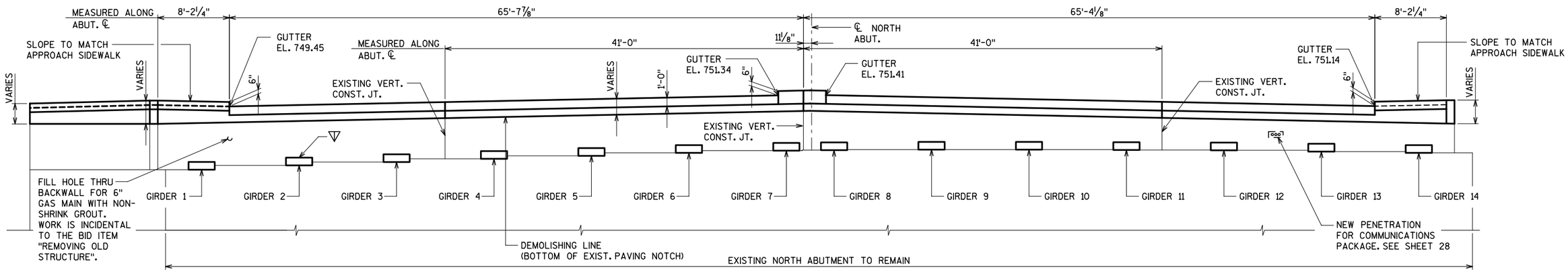
8

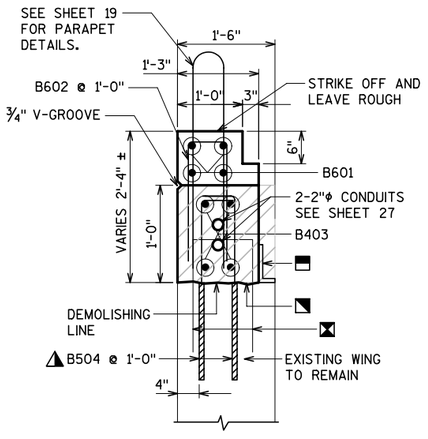
STATE PROJECT NUMBER
2010-10-70



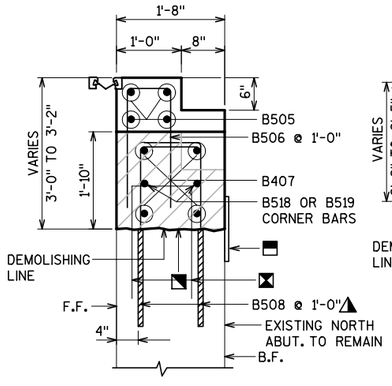
PLAN



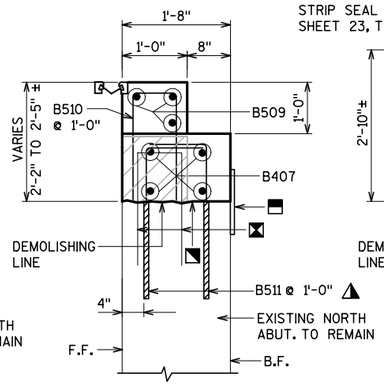
ELEVATION
(LOOKING NORTH)



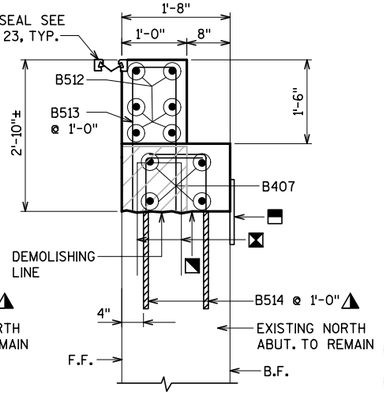
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

LEGEND

- PROPOSED BEARING BLOCK. SEE SHEET 12 FOR DETAILS AND ELEVATIONS.
- SALVAGE AND CLEAN EXISTING VERTICAL REINFORCEMENT AND INCORPORATE INTO NEW WORK
- 18" RUBBERIZED MEMBRANE WATERPROOFING
- (X) GIRDER NUMBER
- CONST. JT. LEAVE ROUGH
- CONCRETE MASONRY ANCHORS, TYPE L, NO. 5 BARS EMBED 1'-6" WITH MIN. PULLOUT CAPACITY OF 19 KIPS.
- CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6".
- B.F. BACK FACE
- F.F. FRONT FACE
- CONCRETE REMOVAL

NOTES

WORK WITH SHEET 11.

FOR BAR BENDING DIAGRAMS, SEE SHEET 11.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

NORTH ABUTMENT

SHEET 10 OF 28
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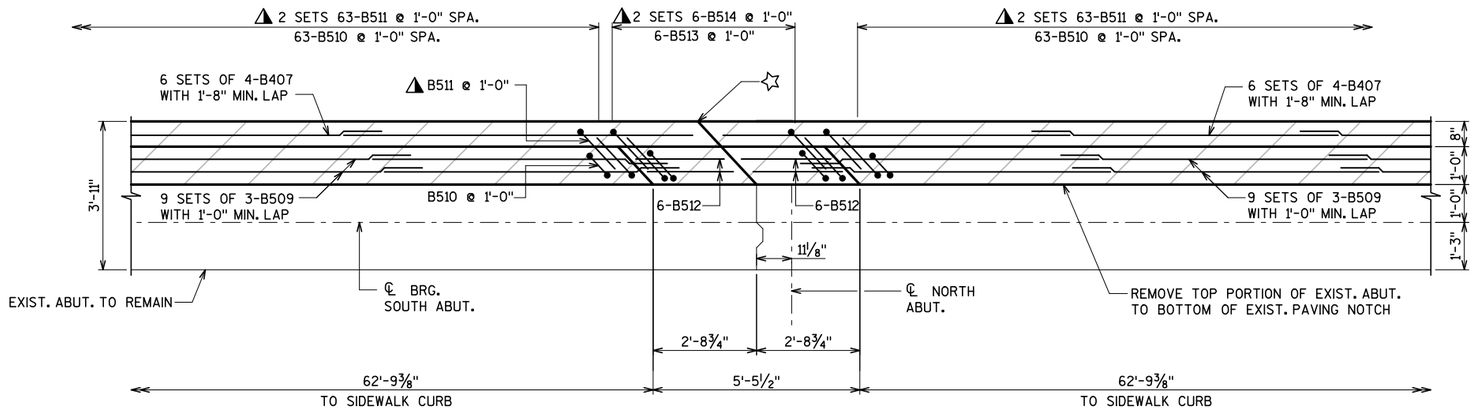
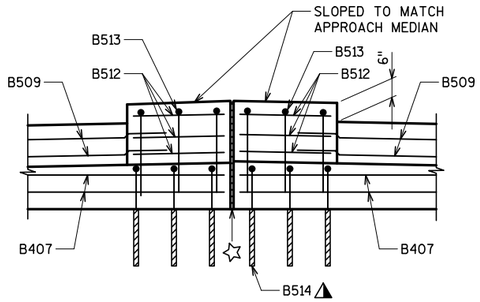
STATE PROJECT NUMBER

2010-10-70



BACKWALL PLAN

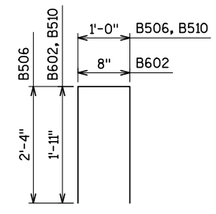


MEDIAN ELEVATION

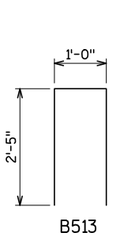
BILL OF BARS - NORTH ABUTMENT

BAR MARK	COAT	NO. STAGE 2	NO. STAGE 3	NO. TOTAL	LENGTH	BENT	BAR SERIES	LOCATION
B601	X	4	4	8	16'-7"	-	-	LONGITUDINAL WINGS
B602	X	17	17	34	4'-3"	X	-	VERTICAL WINGS
B403	X	4	4	8	16'-7"	-	-	LONGITUDINAL WINGS
B504	X	34	34	68	2'-11"	X	-	VERTICAL ANCHORS WINGS ⚠
B505	X	4	4	8	7'-11"	-	-	LONGITUDINAL SIDEWALK
B506	X	9	9	18	5'-5"	X	-	VERTICAL SIDEWALK
B407	X	24	24	48	13'-9"	-	-	LONGITUDINAL BACKWALL
B508	X	18	18	36	4'-6"	X	-	VERTICAL ANCHORS SIDEWALK ⚠
B509	X	27	27	54	8'-2"	-	-	LONGITUDINAL PAVING BLOCK
B510	X	63	63	126	4'-7"	X	-	VERTICAL PAVING BLOCK
B511	X	126	126	252	3'-8"	X	-	VERTICAL ANCHORS PAVING BLOCK ⚠
B512	X	6	6	12	2'-4"	-	-	LONGITUDINAL MEDIAN
B513	X	3	3	6	5'-7"	X	-	VERTICAL MEDIAN
B514	X	6	6	12	3'-8"	X	-	VERTICAL ANCHORS MEDIAN ⚠
B415	X	98	98	196	2'-3"	X	-	BEARING BLOCK
B416	X	28	28	56	2'-8"	-	-	BEARING BLOCK SIDES
B417	X	28	28	56	1'-11"	-	-	BEARING BLOCK SIDES
B518	X	2	-	2	4'-0"	X	-	PAVING BLOCK CORNERS
B519	X	-	2	2	4'-0"	X	-	PAVING BLOCK CORNERS

ALL DIMENSIONS IN THE BARE ENDS ARE OUT TO OUT



B602, B506, B510



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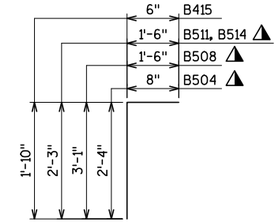
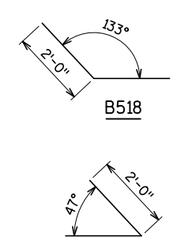


B504, B508, B511, B514, B415



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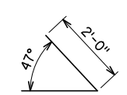
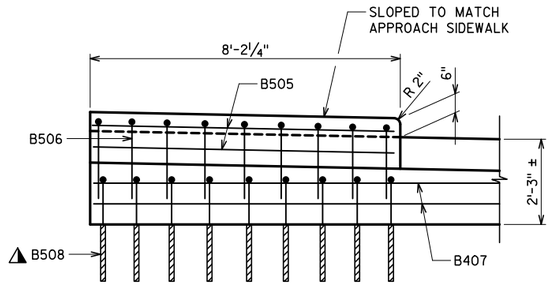


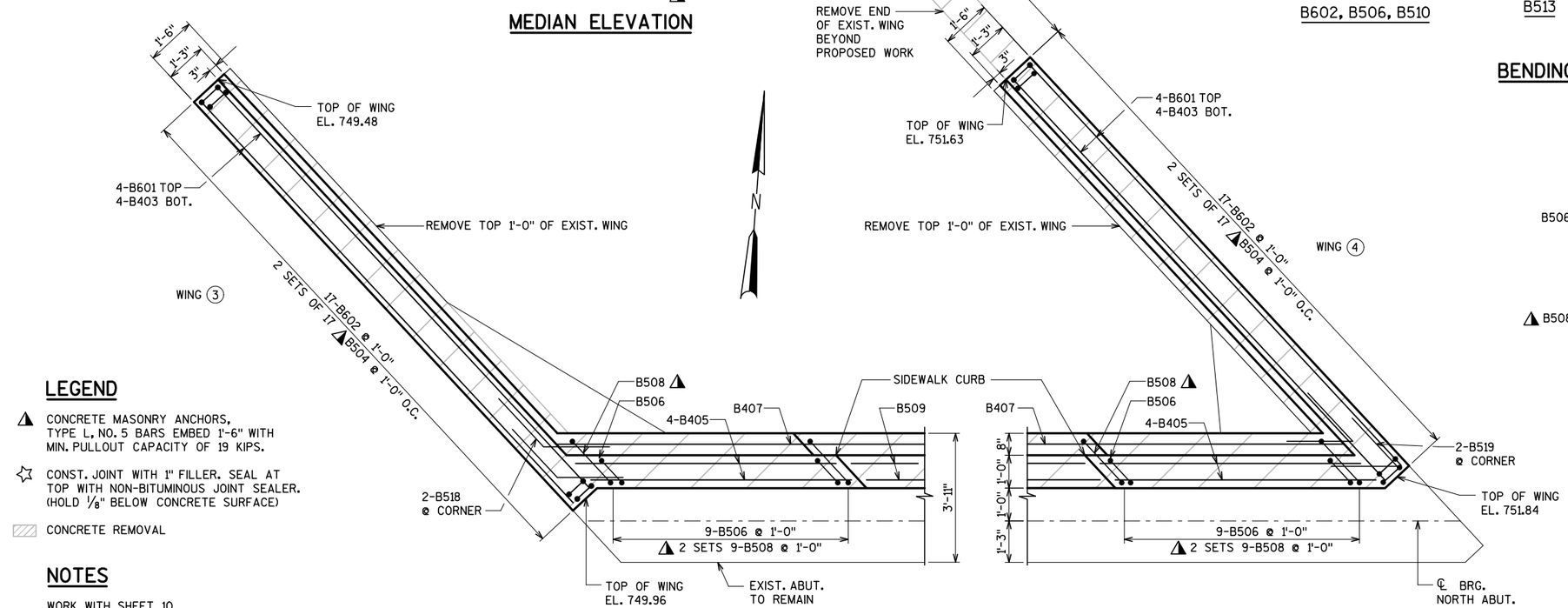
B519

BENDING DIAGRAMS



SIDEWALK ELEVATION

(SPACE VERTICAL BARS AS SHOWN IN PLAN)



WING & SIDEWALK PLAN

LEGEND

⚠ CONCRETE MASONRY ANCHORS, TYPE L, NO. 5 BARS EMBED 1'-6" WITH MIN. PULLOUT CAPACITY OF 19 KIPS.

☆ CONST. JOINT WITH 1" FILLER. SEAL AT TOP WITH NON-BITUMINOUS JOINT SEALER. (HOLD ⅛" BELOW CONCRETE SURFACE)

CONCRETE REMOVAL

NOTES

WORK WITH SHEET 10.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

NORTH ABUTMENT DETAILS

SHEET 11 OF 28
704

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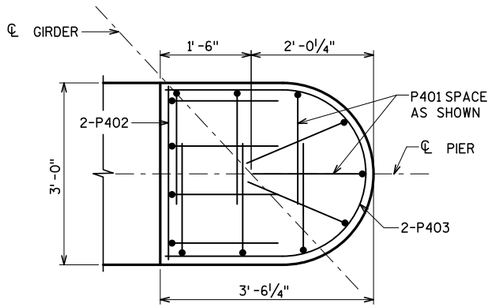
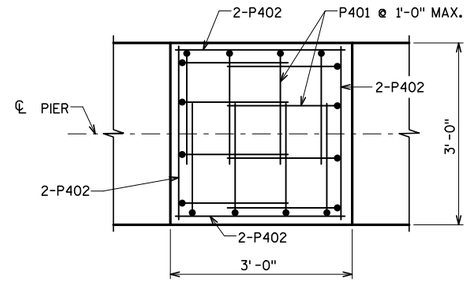
8

STATE PROJECT NUMBER

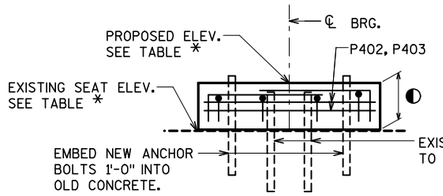
2010-10-70



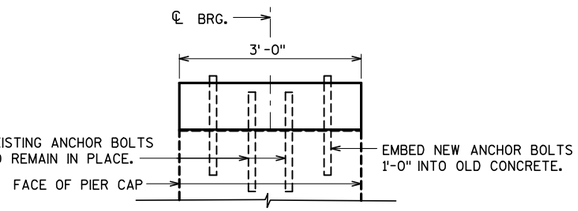
PLAN AT GIRDERS 1 & 14



PLAN AT GIRDERS 2-13

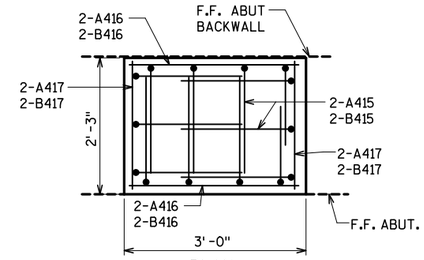


ELEVATION

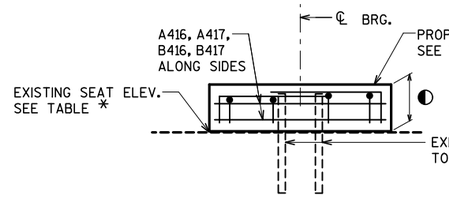


SIDE ELEVATION

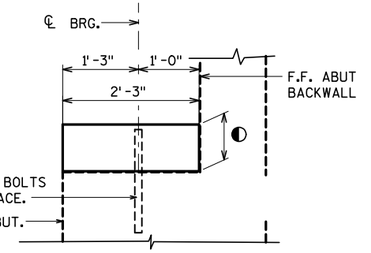
CONCRETE BEARING BLOCK DETAILS - AT PIER



PLAN



ELEVATION



SIDE ELEVATION

CONCRETE BEARING BLOCK DETAILS - AT ABUTMENTS

BEAM SEAT ELEVATIONS

		GIRDER 1	GIRDER 2	GIRDER 3	GIRDER 4	GIRDER 5	GIRDER 6	GIRDER 7	GIRDER 8	GIRDER 9	GIRDER 10	GIRDER 11	GIRDER 12	GIRDER 13	GIRDER 14
NORTH ABUT.	*EXISTING	743.58	744.08	744.46	744.83	745.17	745.51	745.76	745.82	745.88	745.88	745.84	745.80	745.66	745.51
	PROPOSED	744.54	745.04	745.42	745.79	746.13	746.47	746.72	746.78	746.84	746.84	746.80	746.76	746.62	746.47
PIER	*EXISTING	745.36	745.76	746.09	746.32	746.57	746.77	746.90	746.89	746.88	746.76	746.59	746.43	746.23	745.91
	PROPOSED	746.19	746.59	746.92	747.15	747.40	747.60	747.73	747.72	747.71	747.59	747.42	747.26	747.06	746.74
SOUTH ABUT.	*EXISTING	745.90	746.17	746.38	746.50	746.63	746.69	746.73	746.71	746.53	746.34	746.05	745.78	745.43	745.01
	PROPOSED	746.73	747.00	747.21	747.33	747.46	747.52	747.56	747.54	747.36	747.17	746.88	746.61	746.26	745.84

LEGEND

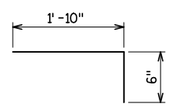
* EXISTING SEAT ELEVATIONS SHALL BE VERIFIED IN THE FIELD.

◐ APPROXIMATE BEARING BLOCK HEIGHTS:
S. ABUT. = 9⅛"
PIER = 9¼"
N. ABUT. = 10⅝"

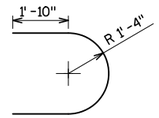
BILL OF BARS - PIER BEARING BLOCK

BAR MARK	COAT	NO. STAGE 2	NO. STAGE 3	NO. TOTAL	LENGTH	BENT	BAR SERIES	LOCATION
P401	X	109	109	218	2'-3"	X	-	BEARING BLOCK AT PIER
P402	X	50	50	100	2'-8"	-	-	BEARING BLOCK AT PIER SIDES
P403	X	2	2	4	7'-10"	X	-	BEARING BLOCK AT PIER SIDES

ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT



P401



P403

BENDING DIAGRAMS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

BEARING BLOCK DETAILS

SHEET 12 OF 28
705

8

8

STATE PROJECT NUMBER
2010-10-70

SOUTH BOUND TOP OF DECK ELEVATIONS

POINT / GIRDER	℄ BRG. SOUTH ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ BRG. NORTH ABUT.
W. DECK EDGE	751.46	751.48	751.46	751.44	751.40	751.36	751.30	751.23	751.15	751.06	750.95	750.84	750.71	750.58	750.43	750.27	750.10	749.92	749.72	749.52	749.30
1	751.50	751.52	751.50	751.48	751.45	751.41	751.36	751.29	751.21	751.12	751.02	750.91	750.78	750.65	750.50	750.35	750.18	750.00	749.81	749.60	749.39
2	751.64	751.66	751.68	751.66	751.64	751.61	751.57	751.51	751.44	751.36	751.27	751.17	751.06	750.93	750.80	750.65	750.49	750.32	750.14	749.95	749.75
3	751.78	751.81	751.83	751.83	751.82	751.80	751.77	751.72	751.67	751.60	751.52	751.42	751.32	751.21	751.08	750.95	750.80	750.64	750.47	750.29	750.09
4	751.91	751.95	751.98	751.99	752.00	751.98	751.96	751.93	751.88	751.82	751.75	751.67	751.58	751.48	751.36	751.23	751.10	750.95	750.79	750.62	750.43
5	752.03	752.08	752.12	752.14	752.16	752.16	752.15	752.12	752.09	752.04	751.98	751.91	751.83	751.73	751.63	751.51	751.39	751.25	751.10	750.94	750.76
PGL	752.09	752.15	752.19	752.22	752.24	752.25	752.24	752.22	752.19	752.15	752.09	752.03	751.95	751.87	751.77	751.66	751.53	751.40	751.26	751.10	750.93
6	752.14	752.20	752.25	752.29	752.31	752.32	752.32	752.31	752.28	752.24	752.19	752.13	752.06	751.98	751.89	751.78	751.66	751.54	751.40	751.24	751.08
7	752.24	752.31	752.37	752.42	752.45	752.48	752.50	752.48	752.47	752.44	752.40	752.35	752.29	752.22	752.13	752.04	751.93	751.82	751.69	751.54	751.39
E. DECK EDGE	752.27	752.34	752.40	752.45	752.49	752.51	752.53	752.52	752.51	752.49	752.45	752.40	752.34	752.27	752.19	752.10	752.00	751.88	751.75	751.62	751.47

NORTH BOUND TOP OF DECK ELEVATIONS

POINT / GIRDER	℄ BRG. SOUTH ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ BRG. NORTH ABUT.
W. DECK EDGE	752.27	752.34	752.40	752.45	752.49	752.51	752.52	752.53	752.51	752.49	752.45	752.40	752.34	752.28	752.19	752.10	752.00	751.88	751.76	751.62	751.47
8	752.21	752.29	752.35	752.40	752.44	752.47	752.48	752.50	752.48	752.45	752.42	752.38	752.32	752.25	752.17	752.08	751.98	751.87	751.74	751.61	751.46
9	751.97	752.06	752.13	752.19	752.24	752.28	752.31	752.32	752.32	752.31	752.29	752.25	752.21	752.15	752.08	752.00	751.91	751.81	751.69	751.57	751.43
PGL	751.85	751.95	752.03	752.09	752.15	752.19	752.22	752.24	752.25	752.24	752.22	752.19	752.15	752.10	752.04	751.96	751.87	751.78	751.67	751.55	751.41
10	751.72	751.82	751.90	751.98	752.04	752.09	752.12	752.15	752.16	752.16	752.14	752.12	752.09	752.04	751.98	751.91	751.83	751.74	751.63	751.52	751.39
11	751.46	751.57	751.67	751.75	751.82	751.88	751.93	751.96	751.98	751.99	751.99	751.98	751.95	751.92	751.87	751.81	751.74	751.66	751.56	751.46	751.34
12	751.19	751.31	751.42	751.51	751.60	751.67	751.72	751.77	751.80	751.82	751.83	751.83	751.81	751.79	751.75	751.70	751.64	751.57	751.49	751.39	751.29
13	750.92	751.05	751.16	751.27	751.36	751.44	751.51	751.57	751.61	751.64	751.66	751.68	751.66	751.65	751.62	751.58	751.53	751.47	751.40	751.31	751.22
14	750.63	750.77	750.90	751.02	751.12	751.21	751.29	751.36	751.41	751.45	751.48	751.50	751.52	751.50	751.48	751.45	751.42	751.36	751.30	751.23	751.14
E. DECK EDGE	750.56	750.70	750.83	750.95	751.06	751.15	751.23	751.30	751.36	751.40	751.44	751.46	751.48	751.46	751.45	751.42	751.38	751.34	751.28	751.20	751.12

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

TOP OF DECK ELEVATIONS

SHEET 13 OF 28
706

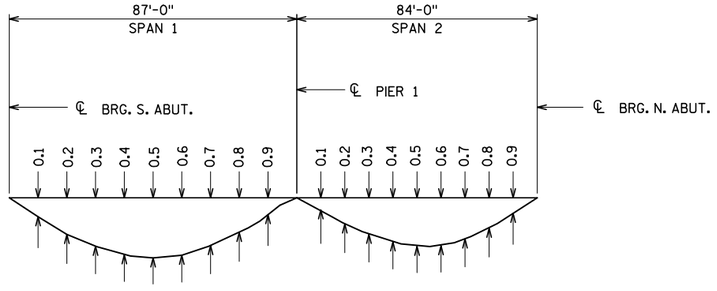
STATE PROJECT NUMBER

2010-10-70

DEAD LOAD DEFLECTIONS

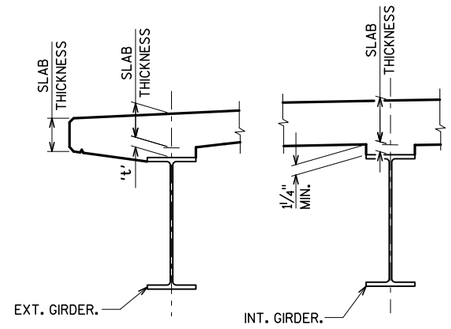
	CONCRETE DEAD LOAD DEFLECTIONS (INCHES)										
		SPAN 1									
	℄ BRG S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ PIER
EXIST. GIRDERS 1, 7, 8, 14	0.00	0.34	0.61	0.80	0.87	0.83	0.68	0.48	0.27	0.08	0.00
EXIST. GIRDERS 2-6 & 9-13	0.00	0.50	0.91	1.20	1.31	1.26	1.06	0.76	0.43	0.14	0.00
	SPAN 2										℄ BRG N. ABUT.
	℄ PIER	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
EXIST. GIRDERS 1, 7, 8, 14	0.00	0.05	0.19	0.36	0.55	0.68	0.73	0.68	0.53	0.29	0.00
EXIST. GIRDERS 2-6 & 9-13	0.00	0.08	0.30	0.58	0.84	1.02	1.09	1.00	0.77	0.42	0.00

DL DEFLECTIONS INCLUDE CONCRETE DECK, SIDEWALK, MEDIAN AND PARAPET



DEFLECTION DIAGRAM

SEE TABLE FOR DEAD LOAD DEFLECTION AT 0.1 POINT



HAUNCH DETAIL

(SIDEWALK NOT SHOWN)

NOTE

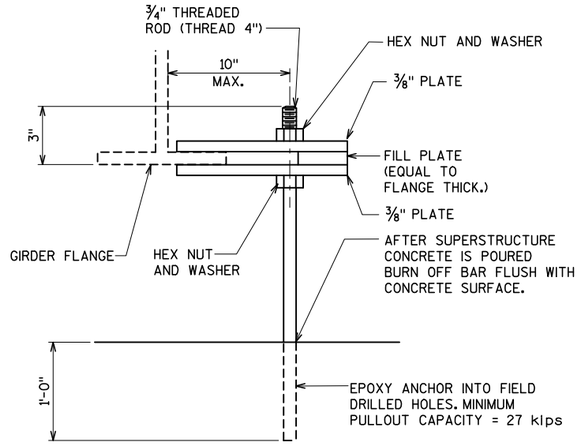
AN AVERAGE HAUNCH HEIGHT OF 4" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

NOTES

TO DETERMINE 't' ELEVATIONS OF THE TOP FLANGES, TOP OF SPLICE PLATE, OR TOP OF COVER PLATES, WHICHEVER APPLIES, SHALL BE TAKEN AT ℄ OF BRGS. AND AT TENTH POINTS OF EACH SPAN, THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF STEEL ELEVATION
+ DEAD LOAD DEFLECTION (CONCRETE)
- SLAB THICKNESS

= CONCRETE HAUNCH HEIGHT 't'



TEMPORARY HOLD DOWN

PLACE ONE PER GIRDER AT ABUTMENT WHERE SLAB POUR TERMINATES. (PLACE TO MISS BRG'S & NO CLOSER THAN 5" FROM EDGES OF ABUTMENT.) THESE HOLD DOWN ITEMS SHALL BE INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES"

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STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

DEFLECTION DIAGRAM

SHEET 14 OF 28
707

8

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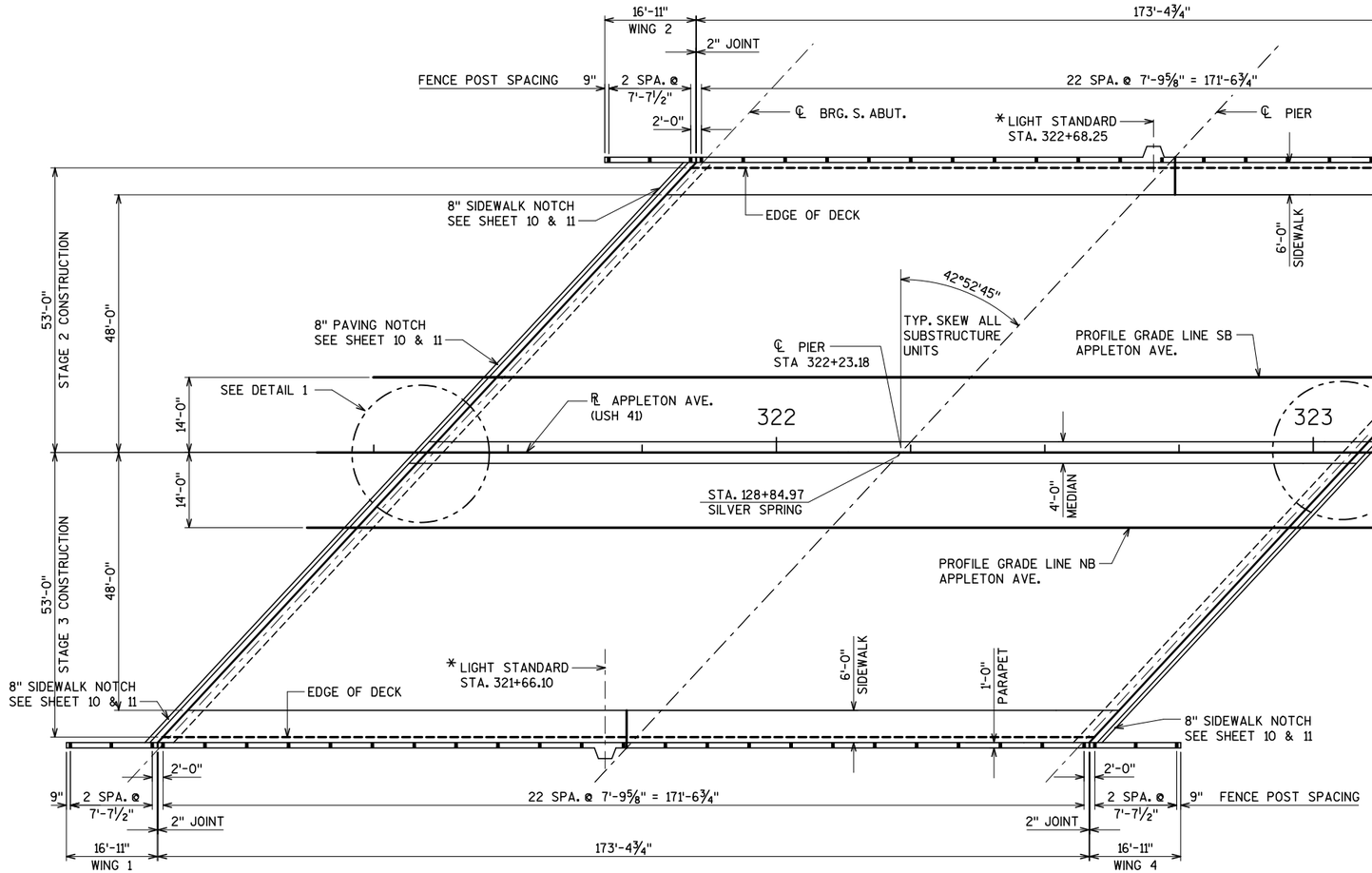
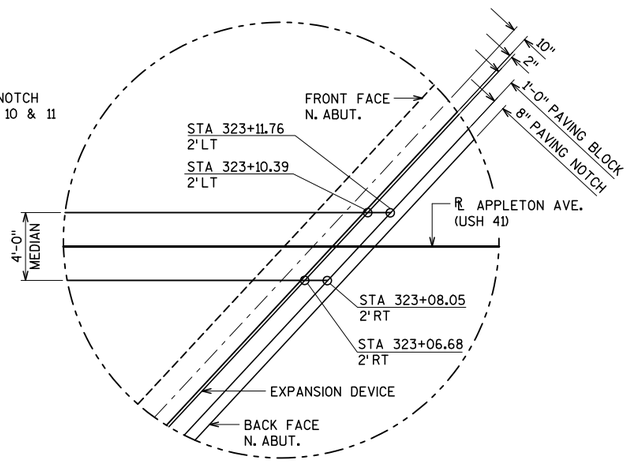
STATE PROJECT NUMBER

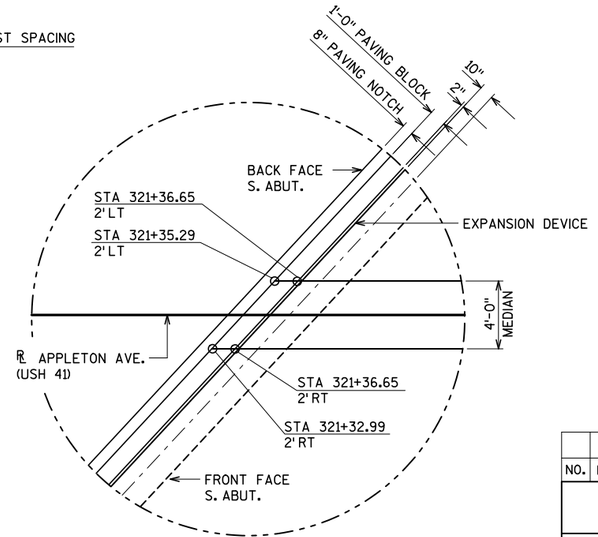
2010-10-70



DECK PLAN



DETAIL 2



DETAIL 1

NOTES

FOR FENCING DETAILS, SEE SHEET 22.

FOR DECK REINFORCING DETAILS AND LIGHT STANDARD DETAILS, SEE SHEET 16 THRU 21.

FOR PAVING BLOCK DETAILS, SEE SHEET 8 THRU 11.

* PROVIDE ACCESS PANEL IN FENCE AT LIGHT POLES. SEE SHEET 20 FOR DETAILS.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

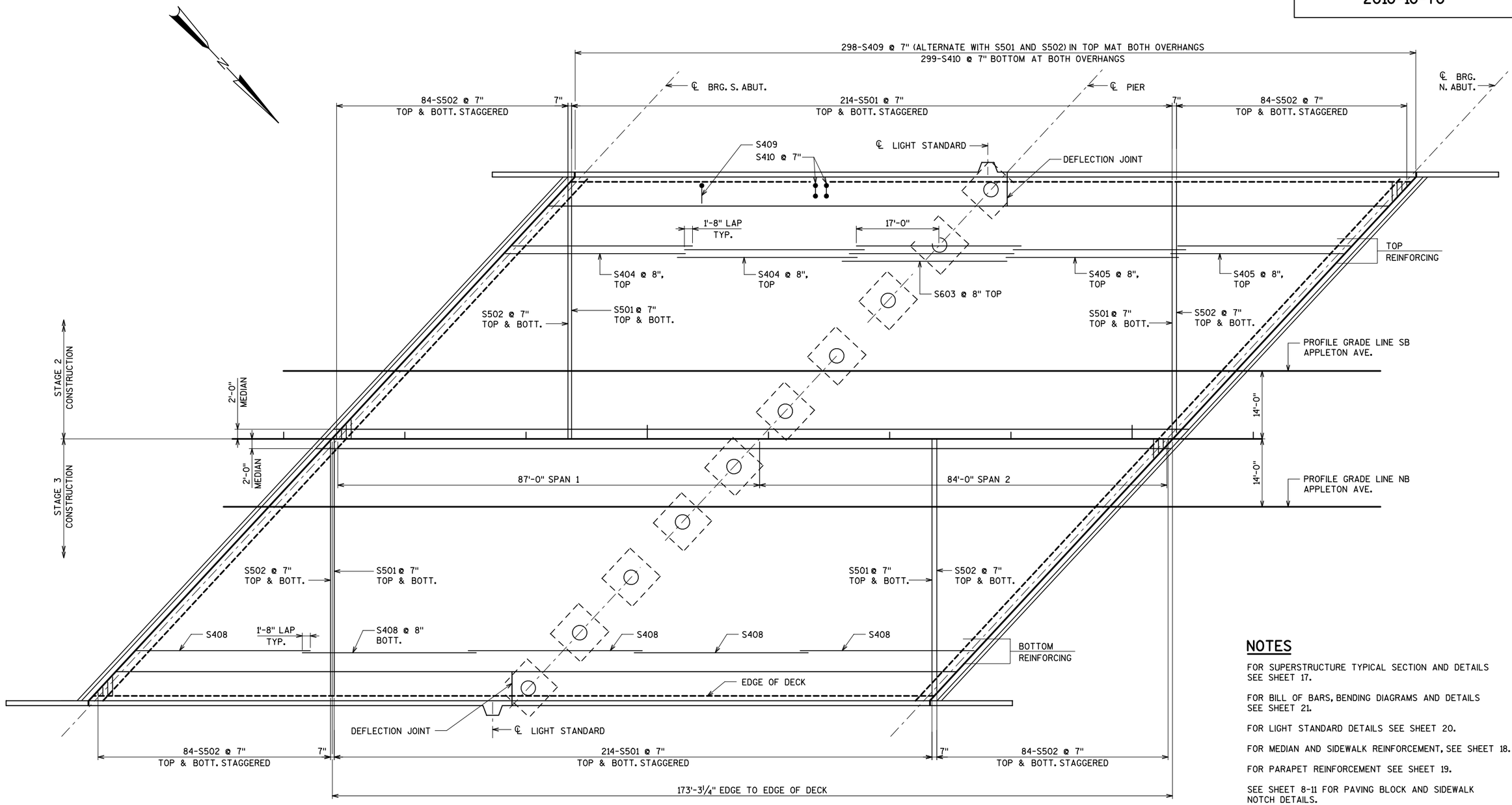
SUPERSTRUCTURE GEOMETRY

SHEET 15 OF 28

708

STATE PROJECT NUMBER

2010-10-70



DECK REINFORCEMENT PLAN

NOTES

FOR SUPERSTRUCTURE TYPICAL SECTION AND DETAILS SEE SHEET 17.

FOR BILL OF BARS, BENDING DIAGRAMS AND DETAILS SEE SHEET 21.

FOR LIGHT STANDARD DETAILS SEE SHEET 20.

FOR MEDIAN AND SIDEWALK REINFORCEMENT, SEE SHEET 18.

FOR PARAPET REINFORCEMENT SEE SHEET 19.

SEE SHEET 8-11 FOR PAVING BLOCK AND SIDEWALK NOTCH DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

SUPERSTRUCTURE REINFORCEMENT

SHEET 16 OF 28
709

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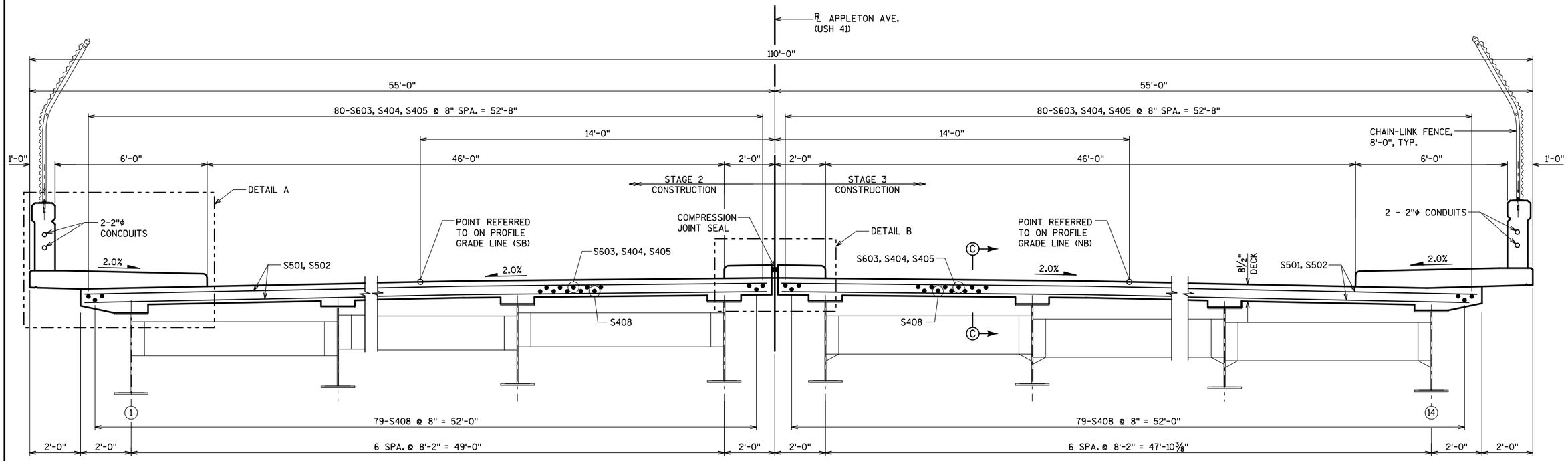
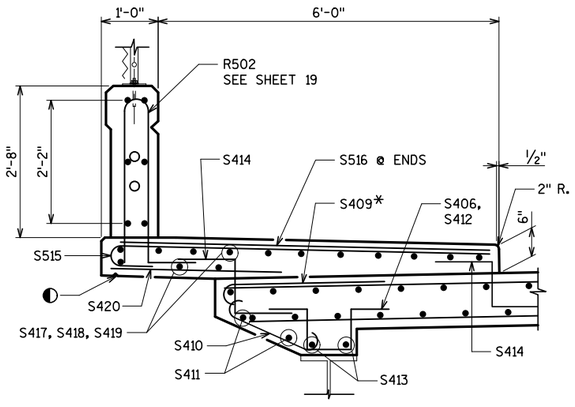
STATE PROJECT NUMBER
2010-10-70

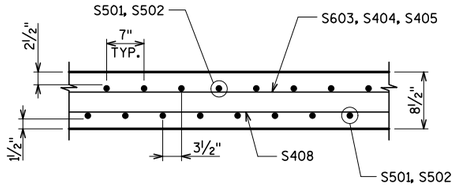


TYPICAL SECTION

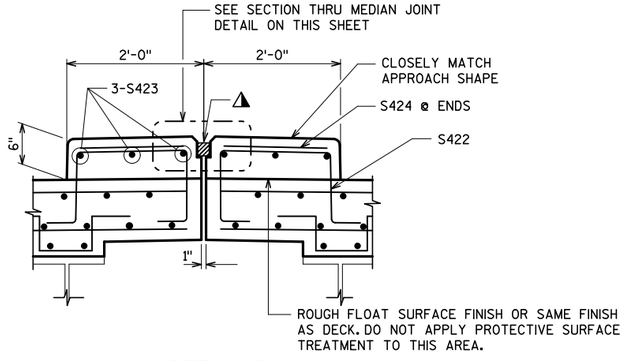
(LOOKING NORTH)



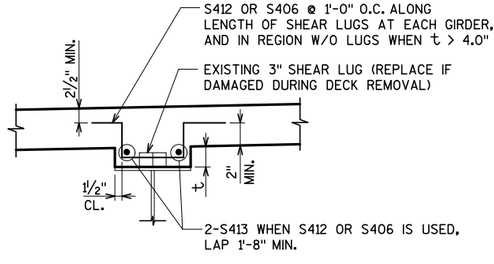
DETAIL A



SECTION C-C

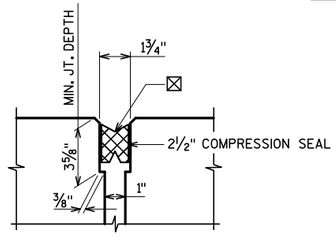


DETAIL B



HAUNCH SECTION

NOTE: DETAIL IS REQUIRED AT ALL GIRDER LINES ACCORDING TO SCHEDULE ON SHEET 21
USE S406 BARS WHEN $t \leq 4.0"$
USE S412 BARS WHEN $t > 4.0"$



SECTION THRU JOINT MEDIAN

LEGEND

- ◭ 2½" COMPRESSION JOINT SEAL AT MEDIAN.
- ◐ ¾" V-GROOVE. TERMINATE 2'-0" FROM FRONT FACE OF ABUTMENT.
- * ALTERNATE S409 AND S501/S502 @ 3½" SPACING
- Ⓧ GIRDER NUMBER
- ☒ MANUFACTURER MUST LABEL TOP OF SEAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

SUPERSTRUCTURE DETAILS (1 OF 2)

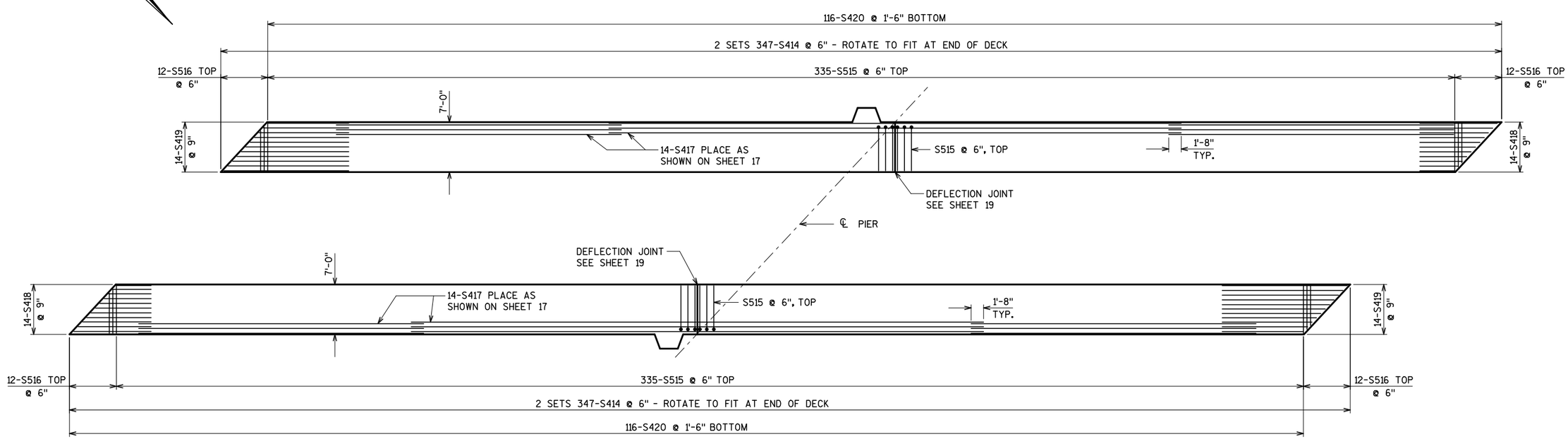
SHEET 17 OF 28
710

8

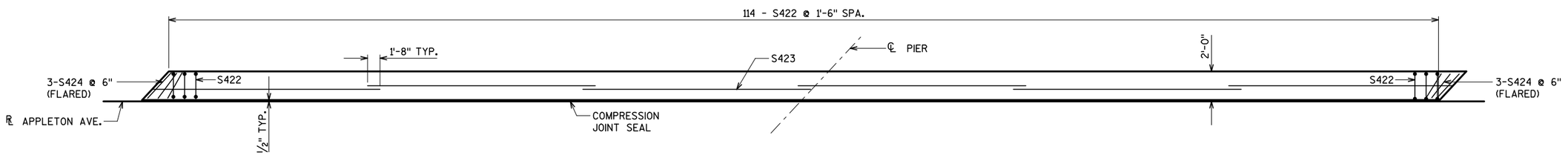
8

STATE PROJECT NUMBER

2010-10-70



PLAN - SIDEWALK REINF.



HALF PLAN - MEDIAN REINF.

(WEST HALF SHOWN, EAST HALF SIMILAR)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

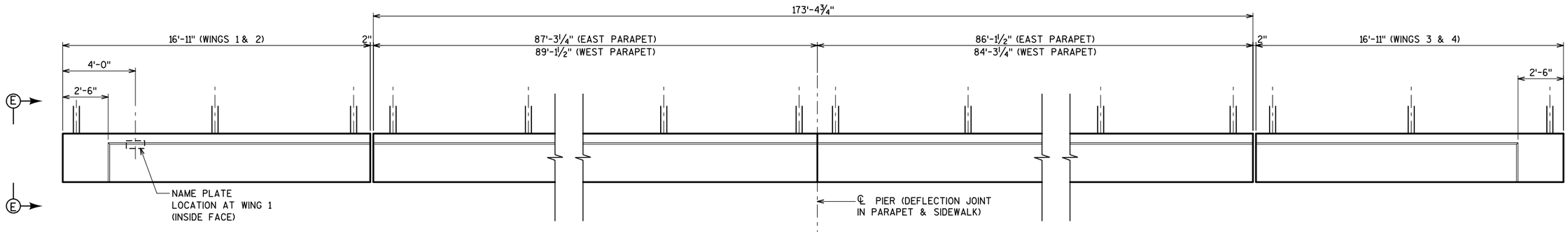
STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

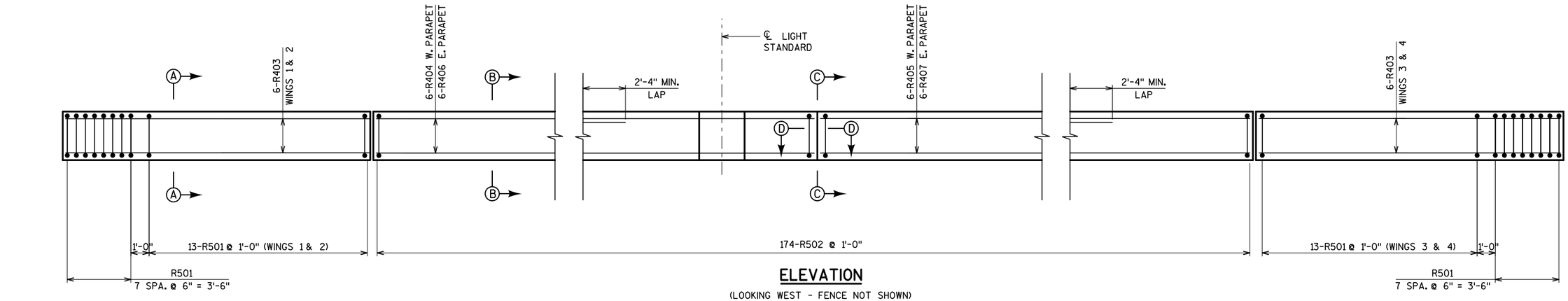
SUPERSTRUCTURE DETAILS (2 OF 2)

SHEET 18 OF 28
711

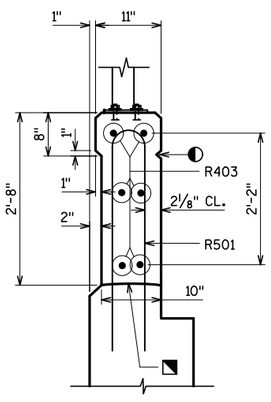
STATE PROJECT NUMBER
2010-10-70



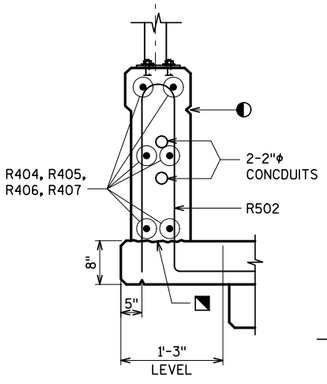
OUTSIDE ELEVATION
(LOOKING WEST)



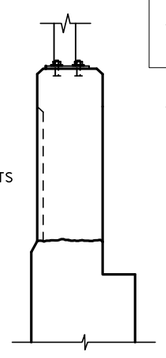
ELEVATION
(LOOKING WEST - FENCE NOT SHOWN)



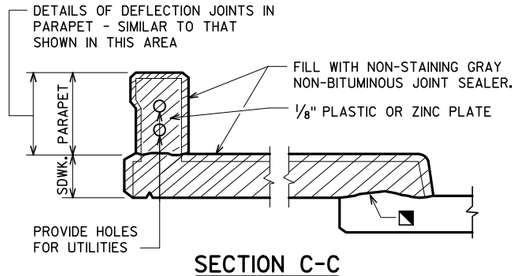
SECTION A-A
(PARAPET ON WINGS)



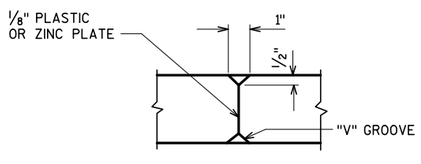
SECTION B-B
(PARAPET ON BRIDGE)



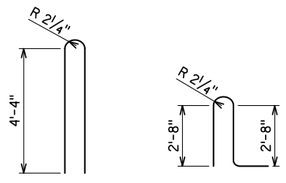
VIEW E-E
(PARAPET ON WINGS)



SECTION C-C
(DEFLECTION JOINT DETAIL AT PIERS)



SECTION D-D



R501 R502

BENDING DIAGRAMS

BILL OF BARS - PARAPET

BAR MARK	COAT	NO. STAGE 2	NO. STAGE 3	NO. TOTAL	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	42	42	84	9'-3"	X	-	PARAPET VERTICAL ON WINGS
R502	X	174	174	348	6'-8"	X	-	PARAPET VERTICAL ON DECK
R403	X	12	12	24	16'-7"	-	-	PARAPET LONGITUDINAL ON WINGS
R404	X	18	-	18	31'-6"	-	-	PARAPET LONGITUDINAL ON DECK
R405	X	18	-	18	30'-0"	-	-	PARAPET LONGITUDINAL ON DECK
R406	X	-	18	18	31'-0"	-	-	PARAPET LONGITUDINAL ON DECK
R407	X	-	18	18	30'-6"	-	-	PARAPET LONGITUDINAL ON DECK

ALL DIMENSIONS IN THE BAR BEND ARE OUT TO OUT

NOTES

WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF ⅛" ZINC OR PLASTIC PLATE CUT AS SHOWN IN SECTION "C" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATORS MAY BE OMITTED.

◥ CONST. JOINT-STRIKE OFF AS SHOWN AND LEAVE ROUGH. MATCH BRIDGE X-SLOPE.

◐ ¾" V-GROOVE. TERMINATE 2'-6" AWAY FROM END OF PARAPET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

VERTICAL FACE PARAPET

SHEET 19 OF 28
712

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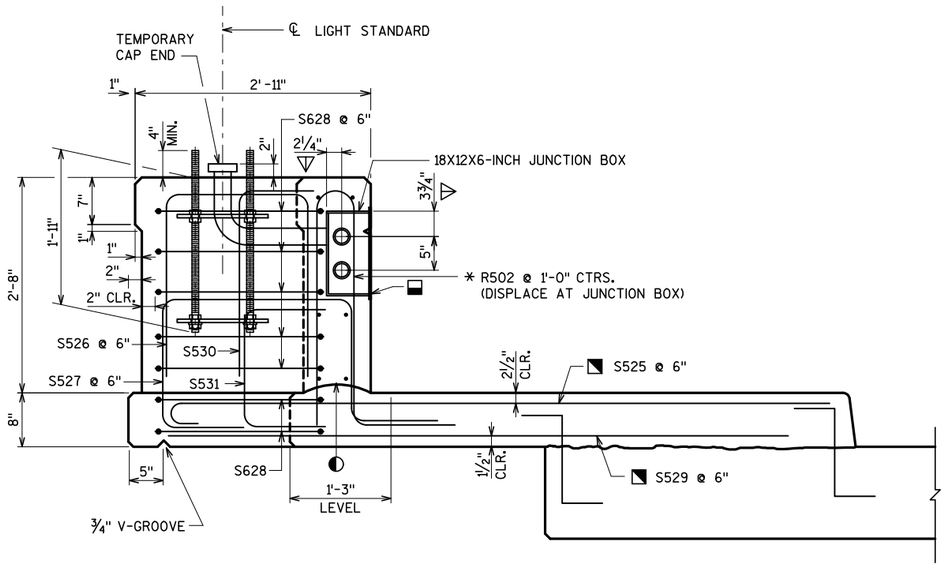
STATE PROJECT NUMBER

2010-10-70



SECTION A-A

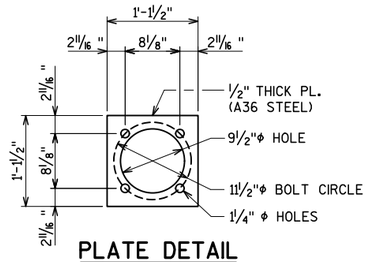
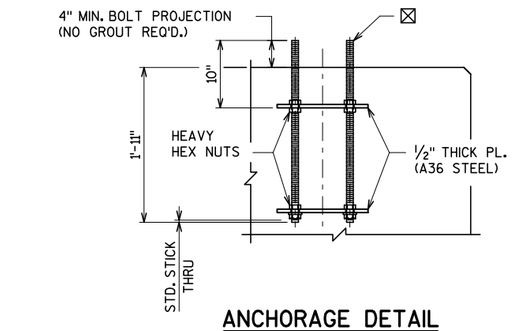


PLATE DETAIL



ANCHORAGE DETAIL

LEGEND

◐ CONSTR. JT. STRIKE OFF AS SHOWN.

⬓ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

◥ THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN SIDEWALK.

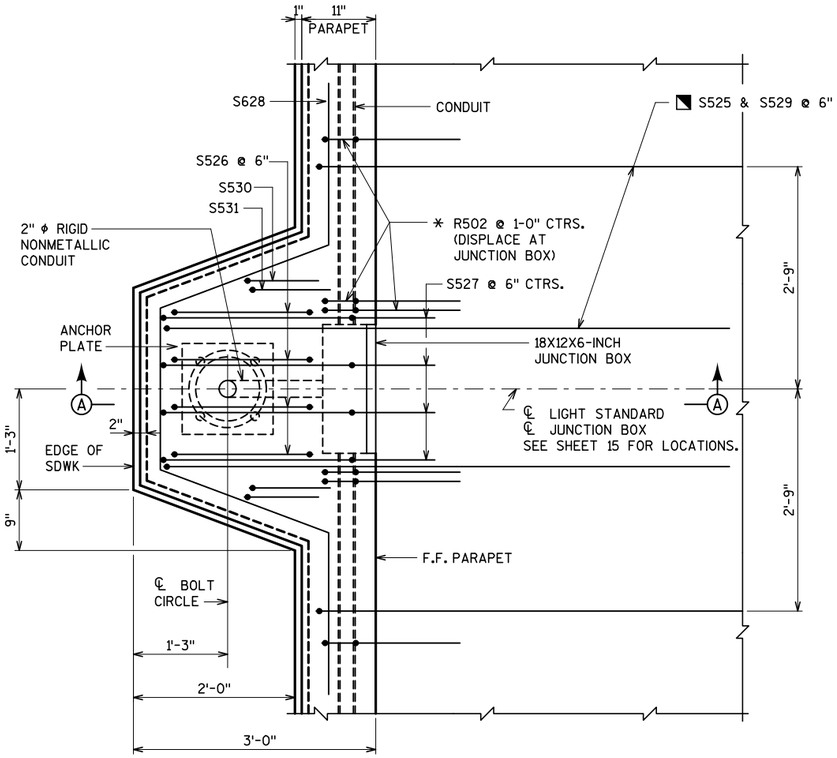
⊠ 1"ϕ THREADED ANCHOR BOLTS ASTM A449 OR AASHTO M 314-90 GR 55. HOT DIP ASTM A153, CLASS C. UPPER 8" OF BOLT INCLUDING NUTS & WASHERS. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING. PROVIDE DOUBLE FLAT WASHERS & NUTS.

* SEE VERTICAL FACE PARAPET "A", SHEET 19 FOR ADDITIONAL BAR STEEL DETAILS

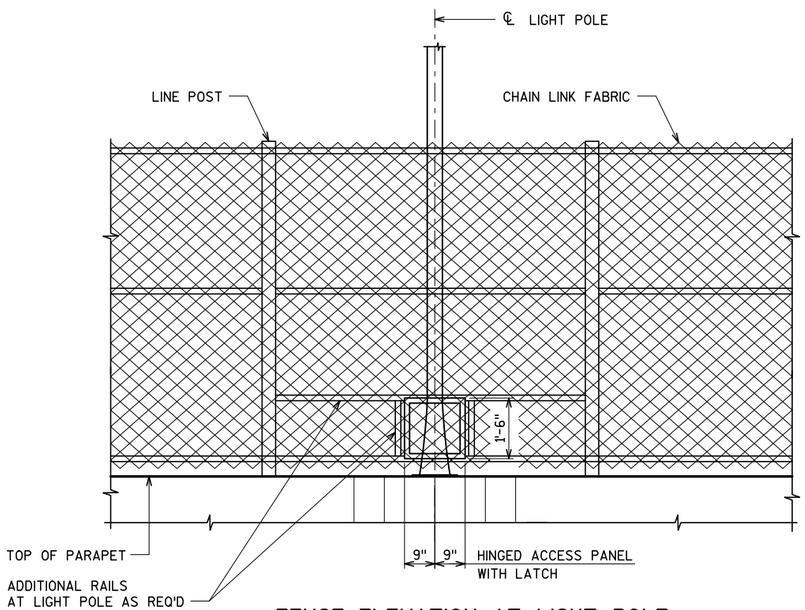
NOTES

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. LISTED FOR ELECTRICAL USE SHALL BE USED.



PLAN AT LIGHT STANDARD



FENCE ELEVATION AT LIGHT POLE

SEE SHEET 15 FOR LIGHT POLE LOCATIONS
SEE SHEET 22 FOR FENCE DETAILS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

LIGHT STANDARD

SHEET 20 OF 28
713

STATE PROJECT NUMBER
2010-10-70

BILL OF BARS - SUPERSTRUCTURE

BAR MARK	COAT	NO. STAGE 2	NO. STAGE 3	NO. TOTAL	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	428	428	856	52'-7"	-	-	DECK TRANS. TOP & BOTT.
S502	X	336	336	672	26'-6"	-	⚠	DECK TRANS. TOP & BOTT. AT ENDS
S603	X	80	80	160	34'-0"	-	-	DECK LONG. TOP OVER PIER
S404	X	160	160	320	38'-0"	-	-	DECK LONG. TOP SPAN 1
S405	X	160	160	320	37'-0"	-	-	DECK LONG. TOP SPAN 2
S406	X	494	676	1170	3'-1"	X	-	DECK HAUNCHES - VERT.
S408	X	395	395	790	36'-0"	-	-	DECK LONG. BOTTOM
S409	X	298	298	596	3'-4"	X	-	DECK OVERHANG TRANS. TOP
S410	X	299	299	598	2'-5"	X	-	DECK OVERHANG TRANS. BOTTOM
S411	X	10	10	20	36'-0"	-	-	DECK OVERHANG LONG. BOTTOM
S412	X	597	385	982	3'-7"	X	-	DECK HAUNCHES - VERT.
S413	X	62	60	122	37'-0"	-	-	DECK HAUNCHES - LONG.
S414	X	694	694	1388	2'-5"	X	-	SIDEWALK VERTICAL
S515	X	335	335	670	7'-1"	X	-	SIDEWALK TRANS. TOP
S516	X	24	24	48	3'-8"	-	⚠	SIDEWALK TRANS. TOP AT ENDS
S417	X	56	56	112	40'-0"	-	-	SIDEWALK LONG.
S418	X	14	14	28	8'-0"	-	⚠	SIDEWALK LONG. ENDS.
S419	X	14	14	28	14'-7"	-	⚠	SIDEWALK LONG. ENDS.
S420	X	116	116	232	3'-0"	-	-	SIDEWALK TRANS. BOTTOM
S421	X	24	24	48	10'-9"	-	-	AT EXPANSION JOINT
S422	X	114	114	228	3'-11"	X	-	MEDIAN VERTICAL
S423	X	18	18	36	30'-3"	-	-	MEDIAN LONG.
S424	X	6	6	12	2'-6"	-	-	MEDIAN TRANS. ENDS
S525	X	8	8	16	9'-1"	X	-	SIDEWALK TRANS. AT LIGHT STANDARD
S526	X	4	4	8	6'-0"	X	-	PARAPET VERT. AT LIGHT STANDARD
S527	X	4	4	8	6'-10"	X	-	PARAPET VERT. AT LIGHT STANDARD
S628	X	7	7	14	10'-0"	X	-	PARAPET TRANS. AT LIGHT STANDARD
S529	X	8	8	16	8'-6"	-	-	SIDEWALK TRANS. AT LIGHT STANDARD
S530	X	2	2	4	3'-2"	X	-	PARAPET VERT. AT LIGHT STANDARD
S531	X	2	2	4	3'-3"	X	-	PARAPET VERT. AT LIGHT STANDARD

ALL DIMENSIONS IN THE BAR BEND ARE OUT TO OUT

⚠ LENGTH SHOWN IS AN AVERAGE AND USED FOR COMPUTING WEIGHTS ONLY.
SEE BAR SERIES TABLE FOR ACTUAL LENGTH.

BAR SERIES TABLE

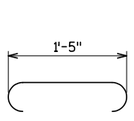
BAR MARK	NUMBER REQUIRED	LENGTH
S502	8 SERIES OF 84	8" TO 52'-4"
S516	4 SERIES OF 12	8" TO 6'-7"
S418	2 SERIES OF 14	4'-11" TO 11'-2"
S419	2 SERIES OF 14	11'-5" TO 17'-8"

BUNDLE AND TAG EACH SERIES SEPARATELY

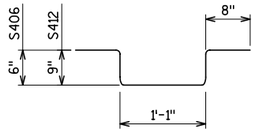
S406 & S412 BAR SCHEDULE - HAUNCH REINFORCEMENT

	SPAN 1			SPAN 2		
	0.0L TO 0.4L	0.4L TO END OF LUGS	END OF LUGS TO 1.0L	0.0L TO END OF LUGS	END OF LUGS TO 0.6L	0.6L TO 1.0L
GIRDER 1	35 - S412	38 - S412	15 - S412	15 - S412	36 - S412	34 - S412
GIRDER 2	35 - S406	38 - S412	15 - S412	15 - S412	36 - S412	34 - S412
GIRDER 3	35 - S406	38 - S406	-	-	36 - S412	34 - S406
GIRDER 4	35 - S406	38 - S406	-	-	36 - S412	34 - S406
GIRDER 5	35 - S406	38 - S406	-	-	36 - S412	34 - S406
GIRDER 6	35 - S406	38 - S412	-	-	36 - S412	34 - S406
GIRDER 7	35 - S406	38 - S412	15 - S412	15 - S412	36 - S412	34 - S406
GIRDER 8	35 - S406	38 - S412	15 - S412	15 - S412	36 - S412	34 - S412
GIRDER 9	35 - S406	38 - S406	-	-	36 - S406	34 - S406
GIRDER 10	35 - S406	38 - S406	-	-	36 - S406	34 - S406
GIRDER 11	35 - S406	38 - S406	-	-	36 - S406	34 - S406
GIRDER 12	35 - S406	38 - S406	-	-	36 - S406	34 - S406
GIRDER 13	35 - S406	38 - S412	-	-	36 - S412	34 - S406
GIRDER 14	35 - S412	38 - S412	15 - S412	15 - S412	36 - S412	34 - S412

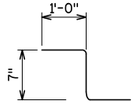
S406 AND S412 BARS ARE REQUIRED AT ALL GIRDER REGIONS WITH EXISTING SHEAR LUGS.
IN REGIONS WITHOUT SHEAR LUGS, S412 BARS ARE REQUIRED WHEN THE HAUNCH EXCEEDS 4".
ADJUST BARS IN FIELD AS REQUIRED BASED ON ACTUAL HAUNCH HEIGHTS ENCOUNTERED.
SEE SHEET 17 FOR HAUNCH REINFORCEMENT DETAIL.



S410



S406, S412



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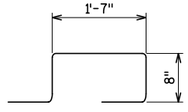

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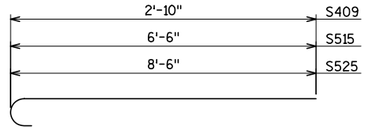
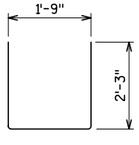


S409, S515, S525



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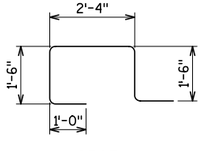

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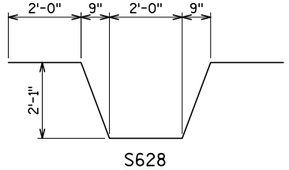

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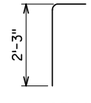

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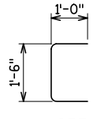


S531

BENDING DIAGRAMS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

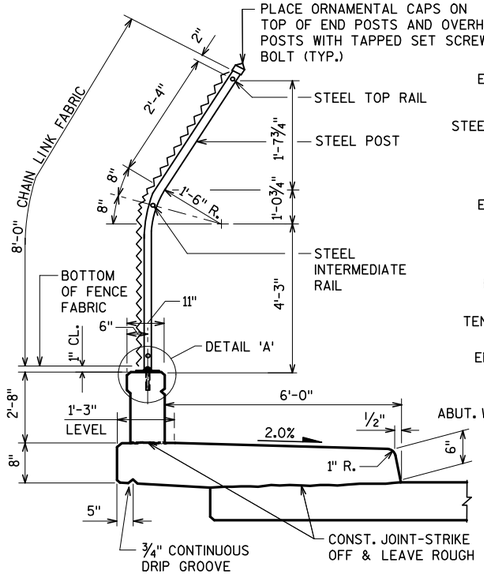
SUPERSTRUCTURE
BILL OF BARS

SHEET 21 OF 28
714

8

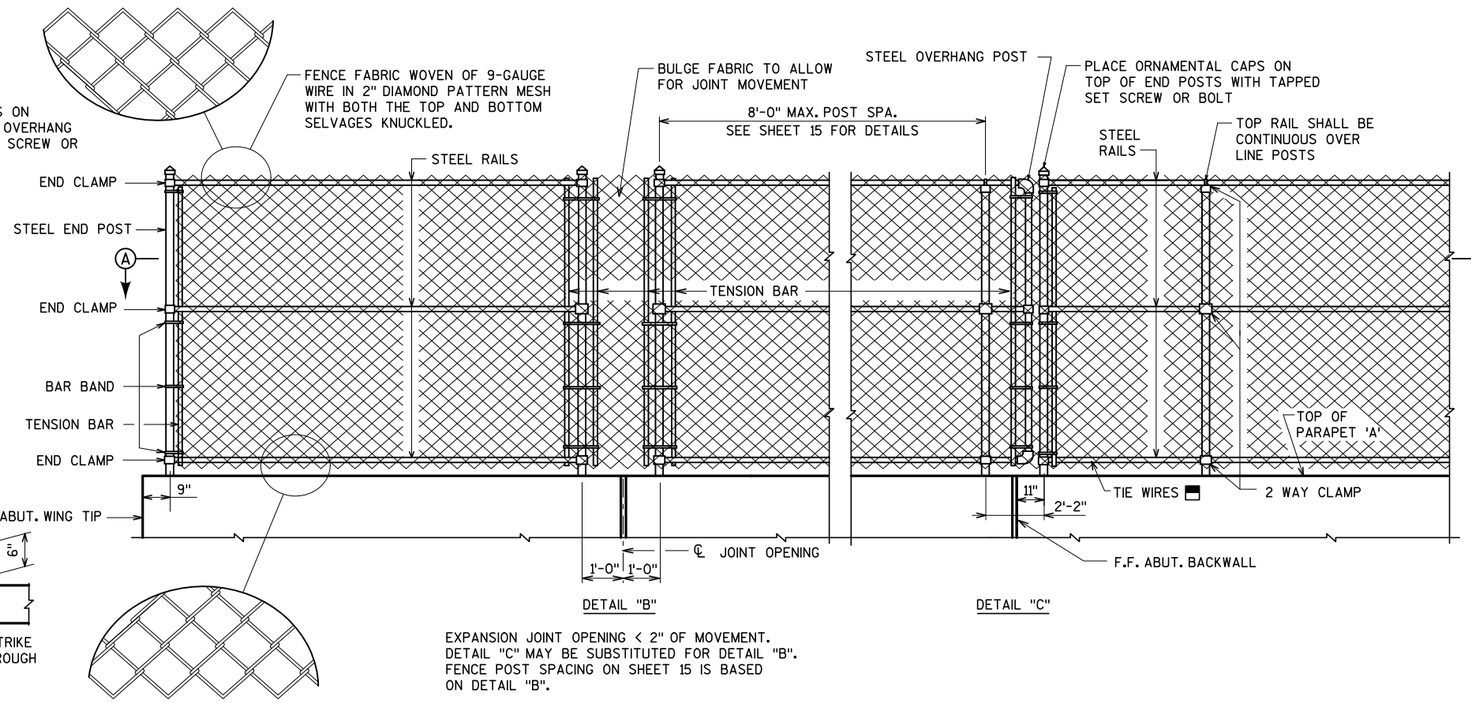
8

STATE PROJECT NUMBER
2010-10-70



SECTION THRU FENCE ON 'A' PARAPET

PROTECTIVE SCREENING



EXPANSION JOINT OPENING < 2" OF MOVEMENT. DETAIL "C" MAY BE SUBSTITUTED FOR DETAIL "B". FENCE POST SPACING ON SHEET 15 IS BASED ON DETAIL "B".

NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A461 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 8-FT" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

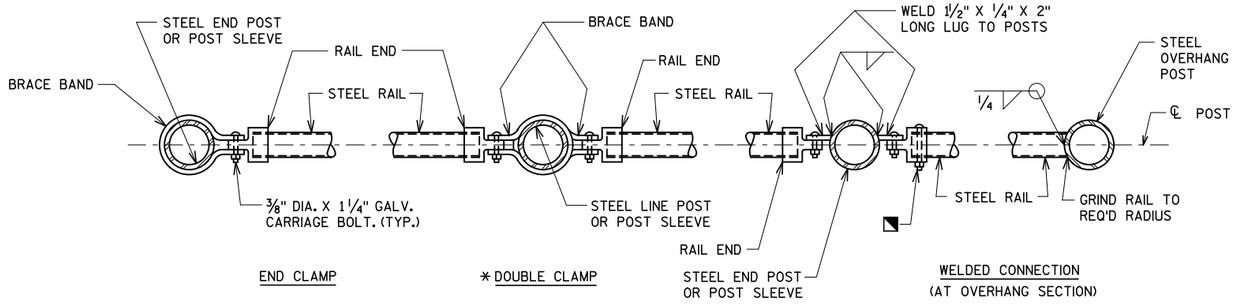
ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE ℄ OF THE POST.

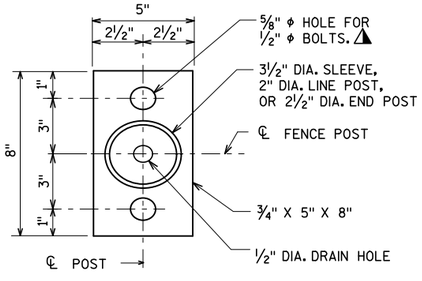
MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0", LOCATE SPLICES NEAR ¼ POINT OF POST SPACING.

PROVIDE ACCESS PANEL IN FENCE AT LIGHT POLE LOCATIONS. SEE SHEET 20 FOR DETAILS. COST IS INCIDENTAL TO BID ITEM "FENCE CHAIN LINK 8-FT".

FENCE PART ELEVATION

(OUTSIDE VIEW OF PARAPET 'A')

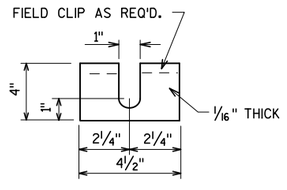




BASE PLATE

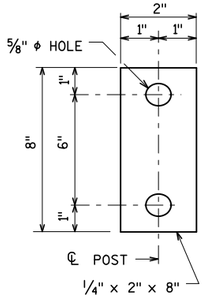
SECTION A-A

NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS

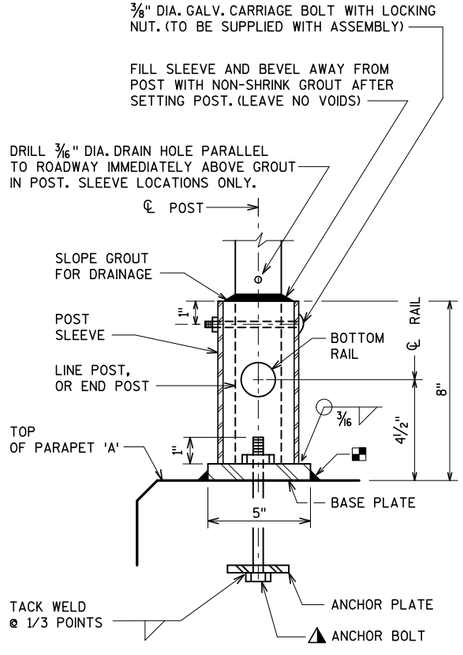


POST SHIM DETAILS

SHMIS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



ANCHOR PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

LEGEND

- ■ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
- * ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.
- △ ½" DIA. X 6⅞" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. TYPE "S", ½" DIA. CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR ½" DIA. BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆
- ☆ ½" DIA. CONCRETE MASONRY ANCHOR TYPE "S", 6" MIN. EMBEDMENT (EPOXY ANCHORED) INTO CONCRETE AND MINIMUM PULLOUT CAPACITY OF 10 KIPS. ANCHOR, WASHER AND NUT SHALL BE GALVANIZED.
- ▬ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".
- ◥ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

CHAIN LINK FENCE

SHEET 22 OF 28
715

8

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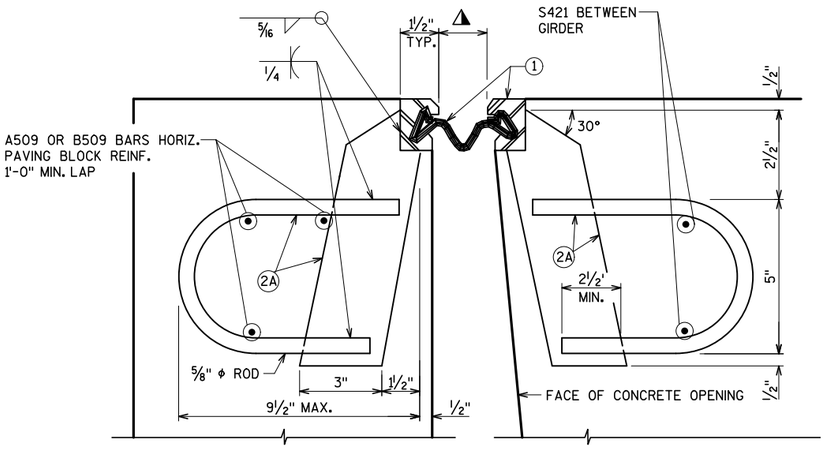
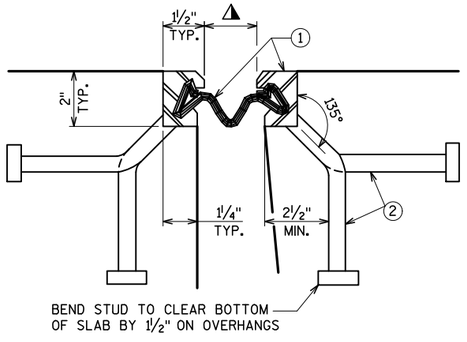
STATE PROJECT NUMBER
2010-10-70



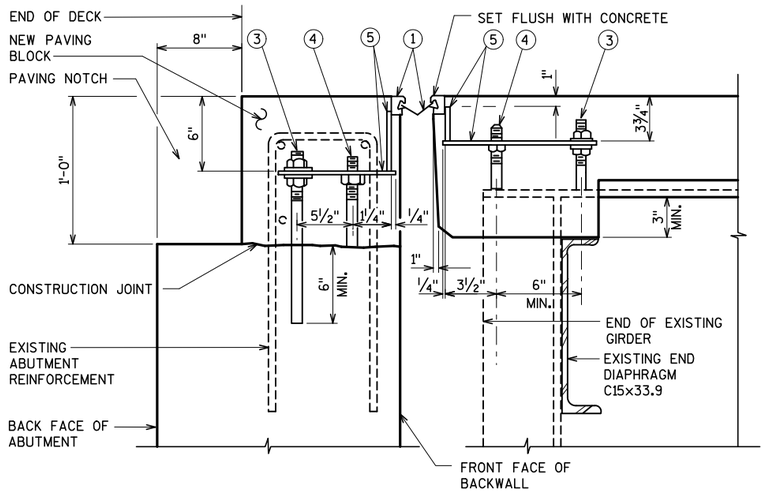
SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS



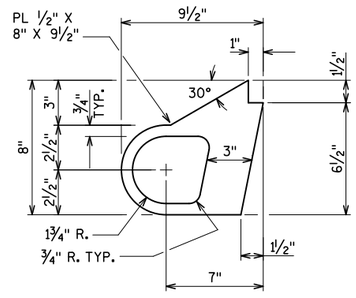
SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF SLAB & AT PARAPETS, MEDIAN & SIDEWALKS

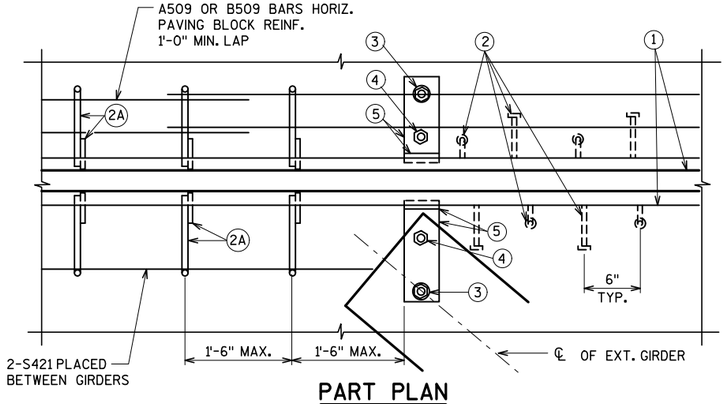


SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE



ALTERNATE STRIP SEAL ANCHOR



PART PLAN

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, DETAILS SHALL BE SUBMITTED FOR APROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWAK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE. DO NOT APPLY SLIP-RESISTANT SURFACE AT MEDIAN.

ANCHOR SYSTEM NO. 8 & NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-40-328".

LEGEND

1. NEOPRENE STRIP SEAL (4 INCH GLAND) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1¾".
2. STUDS ⅝" ϕ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

2A. ½" THICK ANCHOR PLATE WITH ⅝"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

3. ¾" ϕ THREADED ROD WITH 2 NUTS AND WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE, ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY- COATING MATERIAL. PROVIDE 1½" ϕ HOLE FOR NO. 3 & 1" ϕ HOLE FOR NO. 4.
7. ¾" ϕ x 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾" ϕ x 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾" ϕ x 2 ¼" GALVANIZED THREADED COUPLING.
10. SIDEWALK/MEDIAN PLATE ⅜" x 3'-0" x LIMITS SHOWN. BEND DOWN FACE OF SIDEWALK WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.
11. 1" x 5" SLOTTED CSK. HOLE FOR NO. 7 SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

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EXPANSION JOINT DETAILS (1 OF 2)

SHEET 23 OF 28
716

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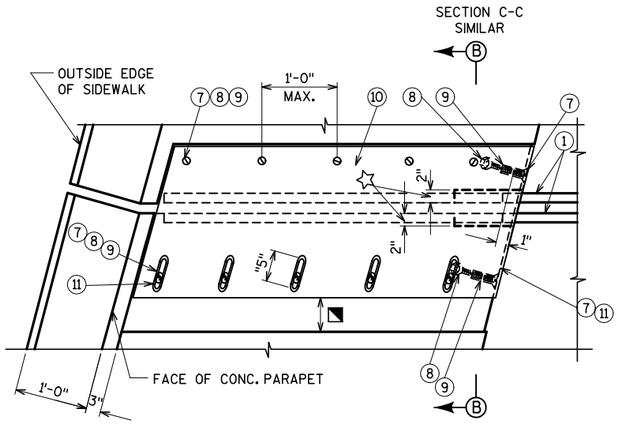
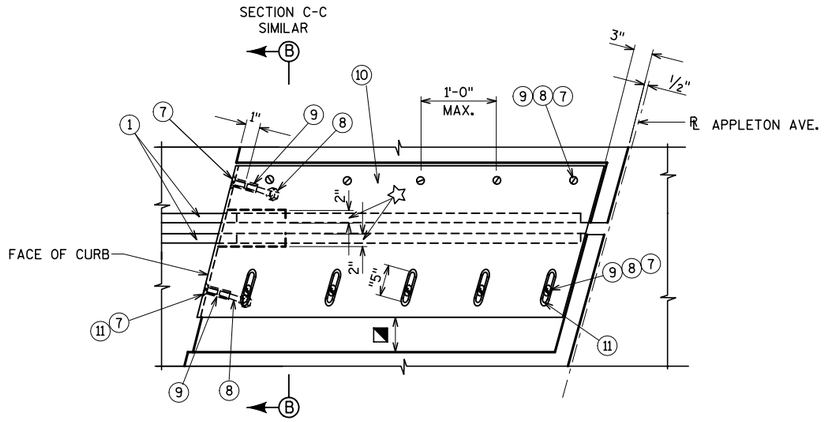
STATE PROJECT NUMBER

2010-10-70



PLAN AT SIDEWALK

APPLIES AT NORTH ABUTMENT SB LANES
AND SOUTH ABUTMENT NB LANES.
OTHER LOCATIONS SIMILAR.



HALF-PLAN AT MEDIAN

APPLIES AT NORTH ABUTMENT SB LANES
AND SOUTH ABUTMENT NB LANES.
OTHER LOCATIONS SIMILAR.

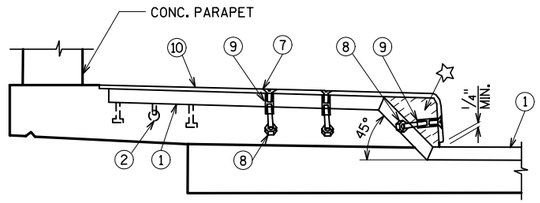
NOTES

SEE SHEET 23 FOR EXPANSION JOINT NOTES AND LEGEND.

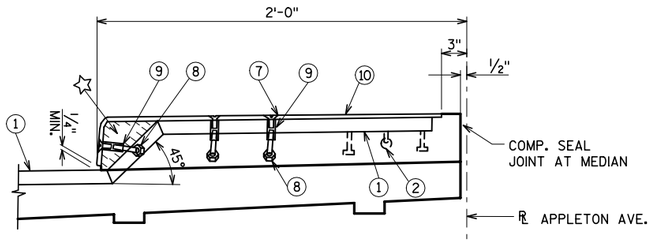
☆ BLOCK OUT CONCRETE 2" EACH SIDE FOR JOINT OPENING.

◥ JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

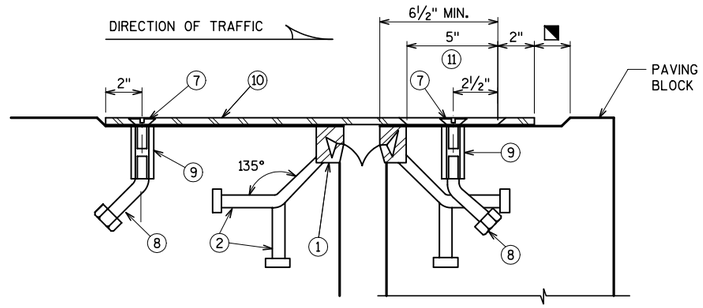
ORIENT COVER PLATES WITH DIRECTION OF TRAFFIC AS SHOWN IN SECTION B-B AND C-C.



SECTION AT SIDEWALK

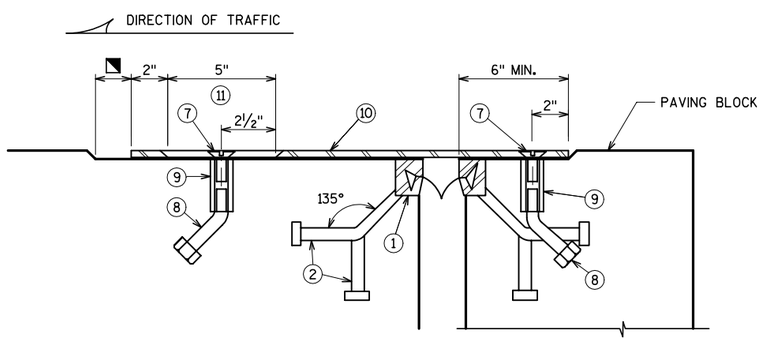


SECTION AT MEDIAN



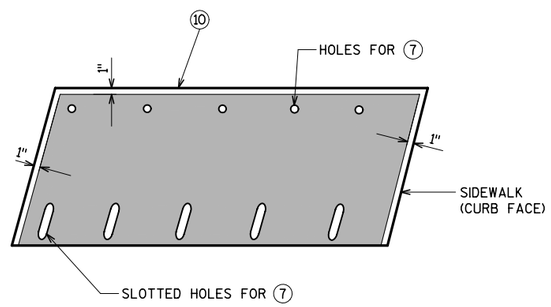
SECTION C-C

APPLIES AT NORTH ABUTMENT NB LANES
AND SOUTH ABUTMENT SB LANES



SECTION B-B

APPLIES AT NORTH ABUTMENT SB LANES
AND SOUTH ABUTMENT NB LANES



PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE
IN SHADED AREA ONLY (NOT ON CURB FACE)

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W.S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

DRAWN BY AJA | PLANS CK'D. JRS

EXPANSION JOINT DETAILS (2 OF 2)

SHEET 24 OF 28
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STATE PROJECT NUMBER
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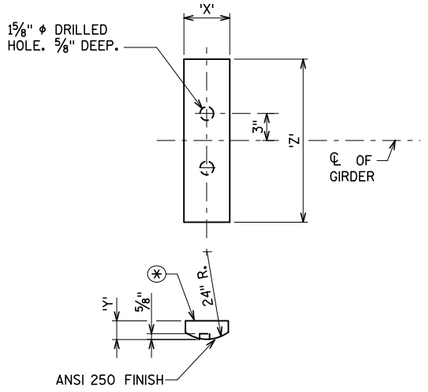
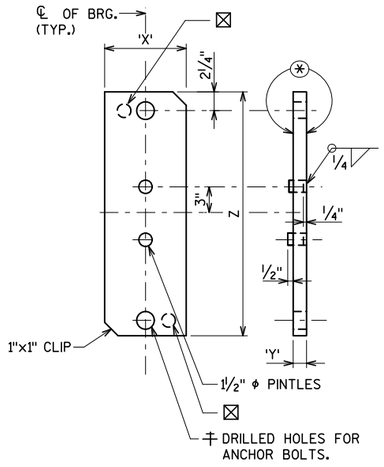
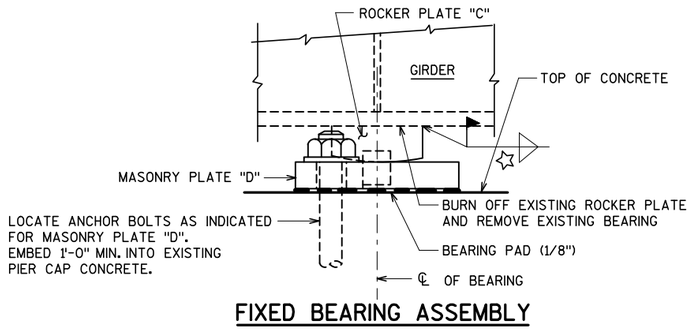


ROCKER PLATE "C"



MASONRY PLATE "D"



FIXED BEARING ASSEMBLY

BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING.

IN LIEU OF USING SHIM PLATES, FABRICATOR MAY INCREASE THICKNESS OF MASONRY PLATE "D" BY THE SHIM PLATE THICKNESS.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

ANCHOR BOLTS SHALL BE THREADED 5". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. PROJECT ANCHOR BOLTS, MASONRY PLATE "D" THICKNESS + 2¼", ABOVE TOP OF BEARING BLOCK CONCRETE.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES, BUT EXCLUDING PINTLES, ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ALL MATERIAL IN TYPE "A" BEARINGS, INCLUDING SHIM PLATES AND BEARING PADS, SHALL BE PAID FOR AT THE UNIT BID PRICE FOR "BEARING ASSEMBLIES FIXED B-40-328".

CHAMFER TOP OF PINTLES ⅛". DRILL HOLES FOR ALL PINTLES IN MASONRY PLATE "D" FOR A DRIVING FIT.

PROVIDE ⅛" THICK BEARING PAD THE SAME SIZE AS MASONRY PLATE "D" FOR EACH BEARING.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C.

ROCKER PLATE "C" SHALL BE SHOP PAINTED WITH A WELDABLE PRIMER.

MASONRY PLATE "D" SHALL BE GALVANIZED.

PLACE SHIM PLATES BETWEEN BEARING PAD AND MASONRY PLATE "D". PLATES SHALL HAVE 'X' AND 'Z' DIMENSIONS THAT MATCH MASONRY PLATE "D".

⧺ DRILLED HOLES FOR ANCHOR BOLTS IN MASONRY PLATE "D" SHALL HAVE A DIAMETER ⅜" LARGER THAN ANCHOR BOLT.

⊛ FINISH THESE SURFACES TO ANSI 250 IF 'Y' DIMENSION IS GREATER THAN 2".

☒ AT EXISTING ANCHOR BOLT LOCATIONS LEAVE BOLTS IN PLACE AND EMBED INTO NEW BEARING BLOCK. SEE SHEET 12 FOR DETAILS.

PAINT FIXED BEARINGS TO MATCH GIRDERS. PAINTING IS INCLUDED WITH "STRUCTURE REPAINTING RECYCLED ABRASIVE" BID ITEM.

☆ TABLE OF FILLET WELD SIZES

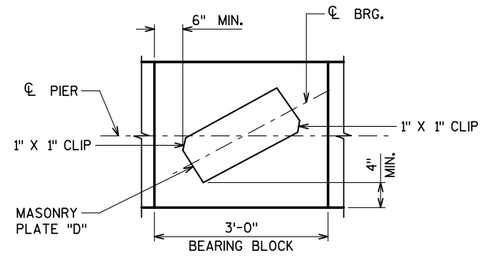
MATERIAL THICKNESS OF THICKER PART JOINED	⧺ MIN. SIZE OF FILLET WELD
TO ½" INCLUSIVE	3/16"
OVER ½" TO ¾"	¼"
OVER ¾" TO 1½"	▽ 5/16"
OVER 1½" TO 2¼"	▽ ⅜"
OVER 2¼" TO 6"	▽ ½"

⧺ EXCEPT THAT WELD SIZE SHALL NOT EXCEED THICKNESS OF THE THINNER PART JOINED.

▽ MIN. PASS SIZE IS 5/16".

BEARING DETAILS

PLATE C			PLATE D			ANCHOR BOLT SIZE	NO. OF BRG. REQ'D.	HEIGHT (FEET)	LOCATION
'X'	'Y'	'Z'	'X'	'Y'	'Z'				
5"	1 15/16 "	1'-4"	10"	2⅜"	2'-1"	1¼" DIA. X 2'-3" LONG	14	0.370	PIER



CLEARANCE DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

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FIXED BEARINGS

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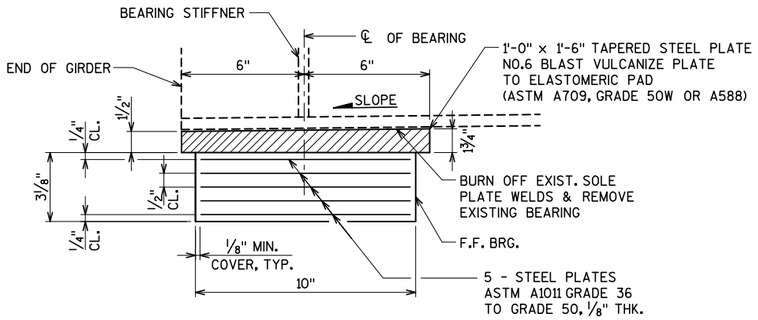
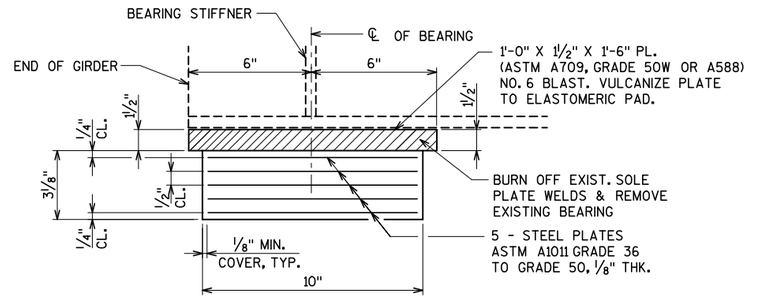


ELASTOMERIC EXPANSION BEARING

(TOP STEEL PLATE TAPERED)



ELASTOMERIC EXPANSION BEARING

(TOP STEEL PLATE NOT TAPERED)

NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING.

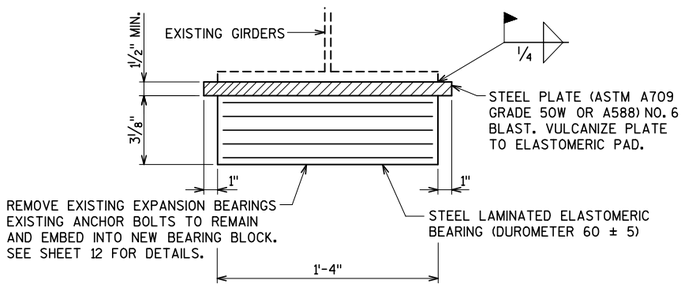
ALL MATERIALS USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED".

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL STRUCTURAL STEEL PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL.

ON BEARING REPLACEMENTS, COMPRESSION LOAD AND ADHESION TEST WILL BE WAIVED WHERE BEARINGS ARE DETAILED TO MEET HEIGHT REQUIREMENTS.

USE TAPERED STEEL TOP PLATES AS SHOWN IN SCHEDULE.



FRONT ELEVATION

TAPERED PLATE SCHEDULE

LOCATION	SOUTH ABUTMENT	NORTH ABUTMENT
	TAPER PLATE REQ'D	TAPER PLATE REQ'D
GIRDER 1	NO	YES
GIRDER 2	NO	YES
GIRDER 3	NO	YES
GIRDER 4	NO	YES
GIRDER 5	NO	YES
GIRDER 6	NO	YES
GIRDER 7	NO	YES
GIRDER 8	NO	YES
GIRDER 9	NO	YES
GIRDER 10	NO	YES
GIRDER 11	NO	NO
GIRDER 12	NO	NO
GIRDER 13	YES	NO
GIRDER 14	YES	NO

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

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EXPANSION BEARINGS

SHEET 26 OF 28

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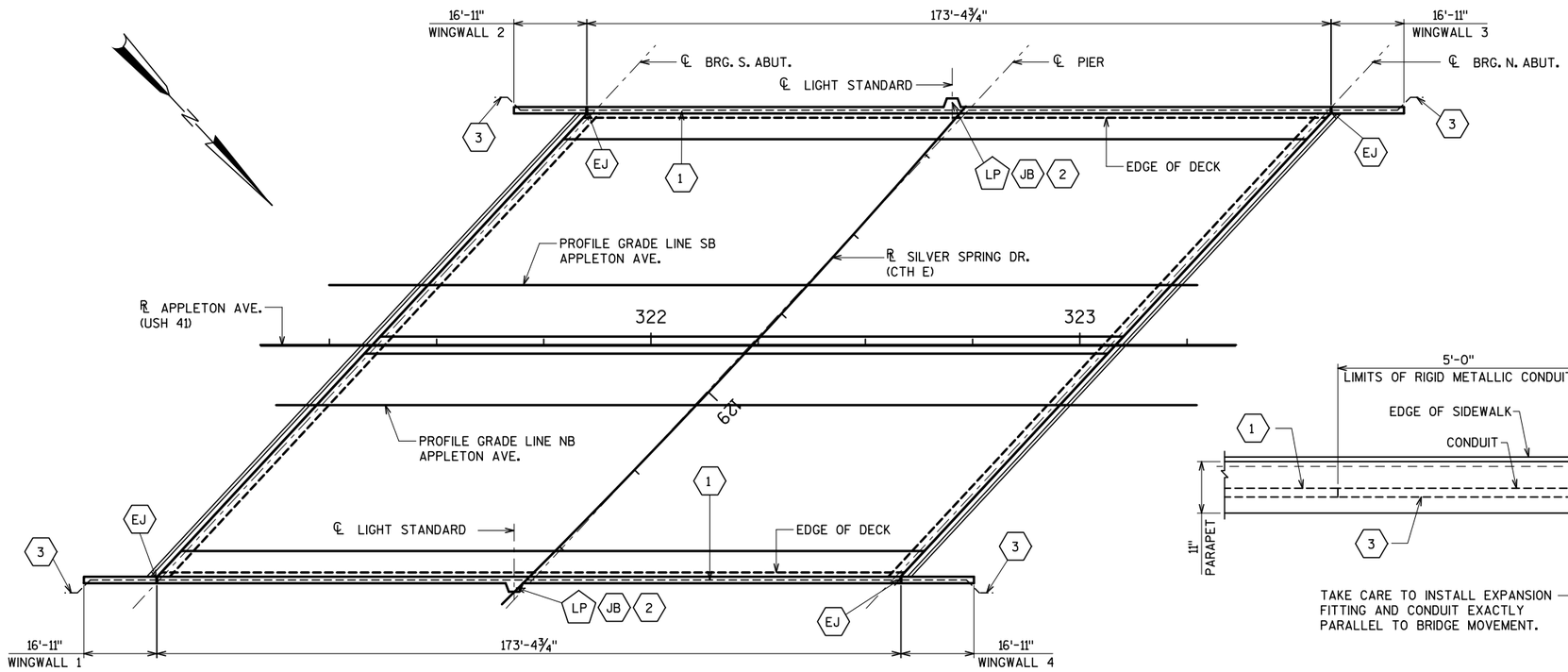
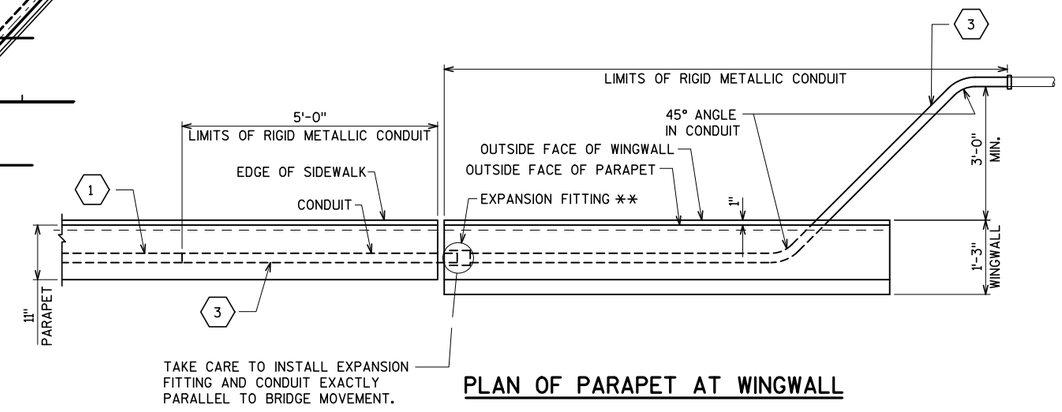


PLAN



PLAN OF PARAPET AT WINGWALL

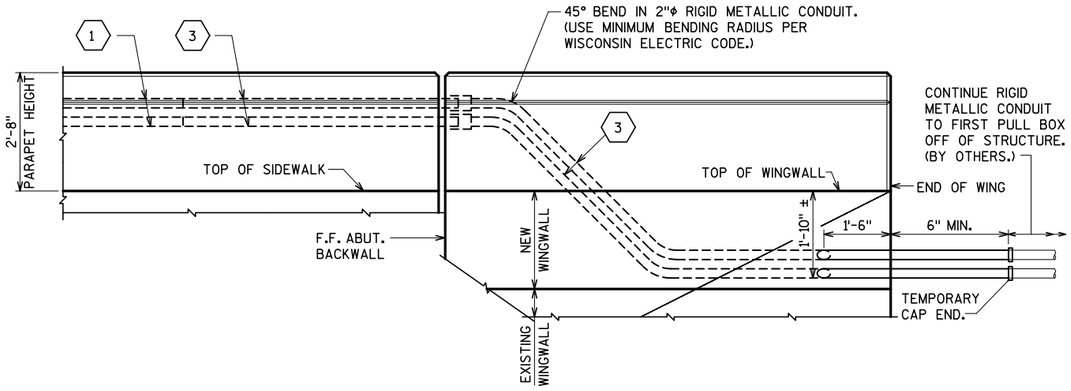
NOTES

** USE AN APPROVED EXPANSION FITTING AT EACH JOINT. POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING, SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE IN THE DECK BELOW IT.
TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.

ALL EXPOSED CONDUIT ENDS SHALL BE SUPPLIED WITH TEMPORARY WEATHERPROOF CAPS TO PREVENT INGRESS OF MOISTURE PRIOR TO LIGHT POLE OR TRAFFIC SIGNAL INSTALLATION.

LEGEND

- LP — LIGHT POLE MOUNTING LOCATION-INSTALLATION OF ANCHOR ASSEMBLY REQUIRED. SEE SHEET 20.
- JB — 18x12x6-INCH JUNCTION BOX. LOCATE ON TRAFFIC FACE OF PARAPET. SEE SHEET 20 FOR DETAILS.
- EJ — EXPANSION JOINT LOCATION. USE RIGID METALLIC CONDUIT ON EITHER SIDE OF JOINT. METALLIC CONDUIT TO EXTEND 5'-0" INTO PARAPET ON DECK SIDE AND THRU PARAPET AND WINGWALL TO A MINIMUM OF 6" BEYOND END OF WINGWALL.
- 1 — TWO - 2" DIA. RIGID NONMETALLIC CONDUITS IN PARAPET.
- 2 — TWO - 2" DIA. RIGID NONMETALLIC CONDUIT FROM JUNCTION BOX TO LIGHT STANDARD.
- 3 — TWO - 2" DIA RIGID METALLIC CONDUITS FROM EXPANSION JOINT TO END OF PARAPET AT WINGWALL. SEE CONDUIT DETAILS ON THIS SHEET FOR PARAPET AT WINGWALLS.



OUTSIDE ELEVATION OF PARAPET AT WINGWALL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

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CONDUIT DETAILS

SHEET 27 OF 28
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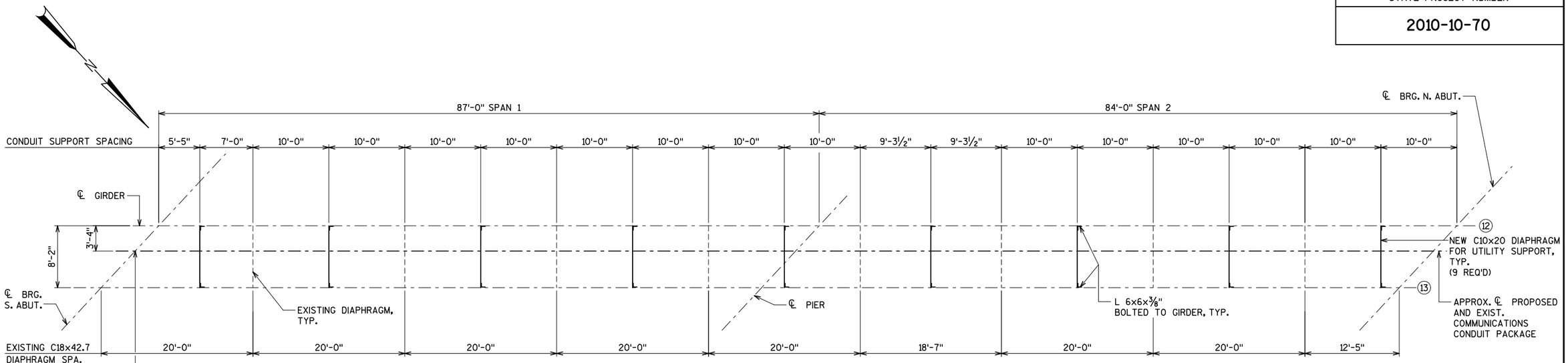


FRAMING PLAN

CONDUIT SUPPORT NOTES

NEW DIAPHRAGMS AND CONNECTION PLATES TO THE EXISTING GIRDERS SHALL BE INCLUDED IN THE BID ITEM "STEEL DIAPHRAGM SPECIAL B-40-328."

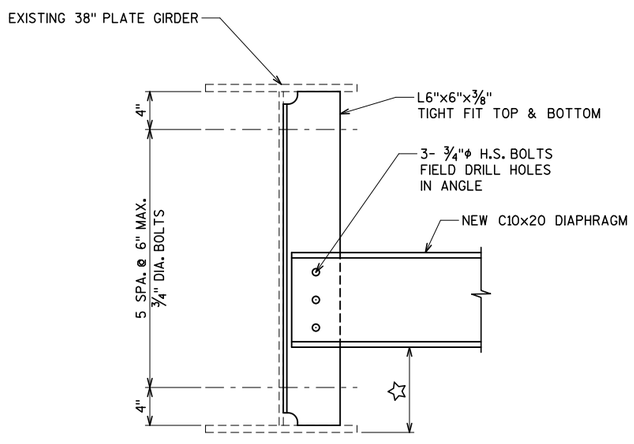
NEW CONDUIT AND CONDUIT SUPPORT SYSTEM ARE INCLUDED IN THE LUMP SUM BID ITEM, "UNDERDECK UTILITY STRUCTURE B-40-328, CITY OF MILWAUKEE CONDUIT."

THE EXISTING CONDUIT PACKAGE WILL BE REMOVED WITH THE DECK. THE REMOVAL SHALL BE COORDINATED WITH THE CITY OF MILWAUKEE.

NEW STRUCTURAL STEEL DIAPHRAGMS AND ANGLES SHOWN SHALL BE ASTM A709, GRADE 36.

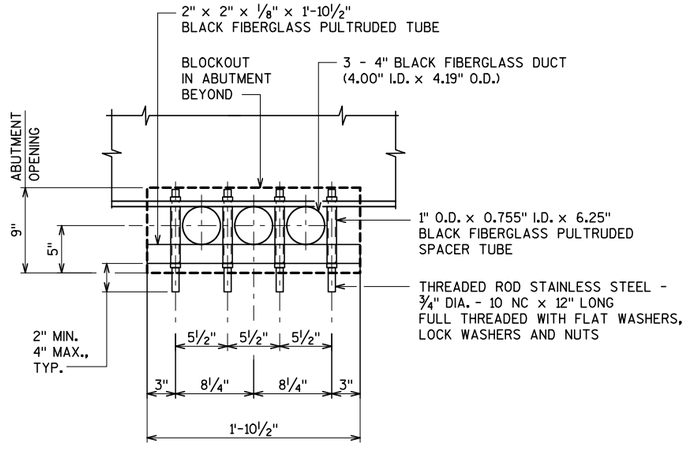
PAINT NEW DIAPHRAGMS AND CONNECTION PLATES TO MATCH GIRDER REPAINTING. NEW DIAPHRAGMS AND CONNECTION PLATES SHALL BE PRIME COATED PRIOR TO INSTALLATION.

BOTTOM ELEVATION OF NEW DIAPHRAGM SUPPORTS SHALL MATCH THE BOTTOM OF THE EXISTING DIAPHRAGMS. FIELD DRILL HOLES IN CONNECTION PLATES TO MATCH EXISTING CONDITIONS.



NEW DIAPHRAGM CONNECTION TO EXISTING STEEL GIRDER

☆ ADJUST HEIGHT IN FIELD AS NEEDED TO MATCH EXISTING DIAPHRAGM HEIGHT



COMMUNICATION PACKAGE SUPPORT DETAIL

(17 REQ'D)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-328

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UNDERDECK CONDUIT SUPPORT

SHEET 28 OF 28
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USH 41/Appleton Avenue - Stage 2								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.25	Mass Ordinate
318+30 BA		74	3	0	0	0	0	0
318+50	20	59	10	49	5	49	6	43
319+00	50	35	20	87	28	136	41	95
319+50	50	21	40	52	55	188	110	78
320+00	50	16	49	34	82	222	212	9
320+50	50	27	29	40	72	262	302	-40
321+00	50	29	39	52	62	313	380	-66
321+50	50	29	14	53	49	367	441	-74
321+78	28	0	0	15	7	382	450	-69
Structure B-40-0328								
322+70		0	0	0	0	382	450	-69
323+00	30	0	0	0	0	382	450	-69
323+50	50	27	19	25	17	407	472	-65
324+00	50	40	21	62	37	469	518	-49
324+50	50	46	8	80	27	549	552	-3
325+00	50	77	17	115	24	664	582	82
325+50	50	68	5	135	21	799	607	192
326+00 EA	50	90	2	146	7	945	616	329
				945	493			

9

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PROJECT NO: 2010-10-70	HWY: USH 41/ APPLETON AVENUE	COUNTY: MILWAUKEE	EARTHWORK QUANTITIES	SHEET NO: 722	E

FILE NAME : F:\BM1-1921A\Roads\cds\ap090101_ew.ppt PLOT DATE : PLOT BY jmueller PLOT NAME : PLOT SCALE :

SW Ramp - Stage 2								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.25	Mass Ordinate
623SW+65 BA		52	4	0	0	0	0	0
624SW+00	35	56	4	70	5	70	6	64
624SW+50	50	59	4	107	8	177	16	161
625SW+00	50	60	4	111	8	288	26	262
625SW+50	50	61	4	112	8	400	35	365
626SW+00	50	54	4	107	8	507	45	462
626SW+50	50	45	5	92	8	599	55	544
627SW+00	50	40	6	79	10	678	68	610
627SW+50	50	36	6	70	12	748	82	666
628SW+00	50	33	8	63	13	811	99	712
628SW+50	50	14	28	44	33	855	141	714
629SW+00	50	7	62	20	83	875	244	631
629SW+20	20	11	44	7	39	882	293	589
629SW+43 EA	23	0	0	5	19	887	317	570
				887	235			

NW Ramp - Stage 2								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.25	Mass Ordinate
421NW+66 BA		35	3	0	0	0	0	0
422NW+00	34	34	4	44	4	44	5	38
422NW+50	50	33	5	62	8	106	16	90
423NW+00	50	32	6	60	10	166	29	137
423NW+50	50	43	4	70	9	236	40	195
424NW+00	50	54	4	89	7	325	49	276
424NW+50	50	52	4	98	7	423	58	365
425NW+00	50	36	9	82	12	504	72	432
425NW+50	50	21	20	53	26	557	105	451
426NW+00	50	9	37	27	53	584	172	412
426NW+50	50	30	37	36	69	620	257	362
426NW+60	10	79	0	20	7	640	266	374
426NW+82	22	22	26	41	11	681	279	402
427NW+00	12	24	8	10	8	691	289	402
427NW+08 EA	8	0	0	4	1	695	290	404
				695	232			

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USH 41 / Appleton Avenue - Stage 3								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.25	Mass Ordinate
318+30 BA		72	4	0	0	0	0	0
318+50	20	55	12	47	6	47	7	40
319+00	50	32	32	80	40	127	57	70
319+50	50	31	57	58	82	185	160	26
320+00	50	41	43	67	92	252	275	-22
320+50	50	25	33	61	70	314	362	-48
321+00	50	27	13	48	42	361	415	-53
321+35	35	0	0	17	8	379	425	-46
Structure B-40-0328								
322+70		0	0	0	0	379	425	-46
323+00	30	18	18	10	10	389	437	-49
323+50	50	20	27	35	41	424	489	-65
324+00	50	40	15	55	39	478	537	-59
324+50	50	46	10	79	23	557	566	-9
325+00	50	58	7	96	16	653	586	67
325+50	50	85	5	132	11	785	600	186
326+00 EA	50	135	0	203	4	988	605	383
				988	484			

9

9

PROJECT NO: 2010-10-70 | HWY: USH 41/ APPLETON AVENUE | COUNTY: MILWAUKEE | EARTHWORK QUANTITIES | SHEET NO: 724 | E

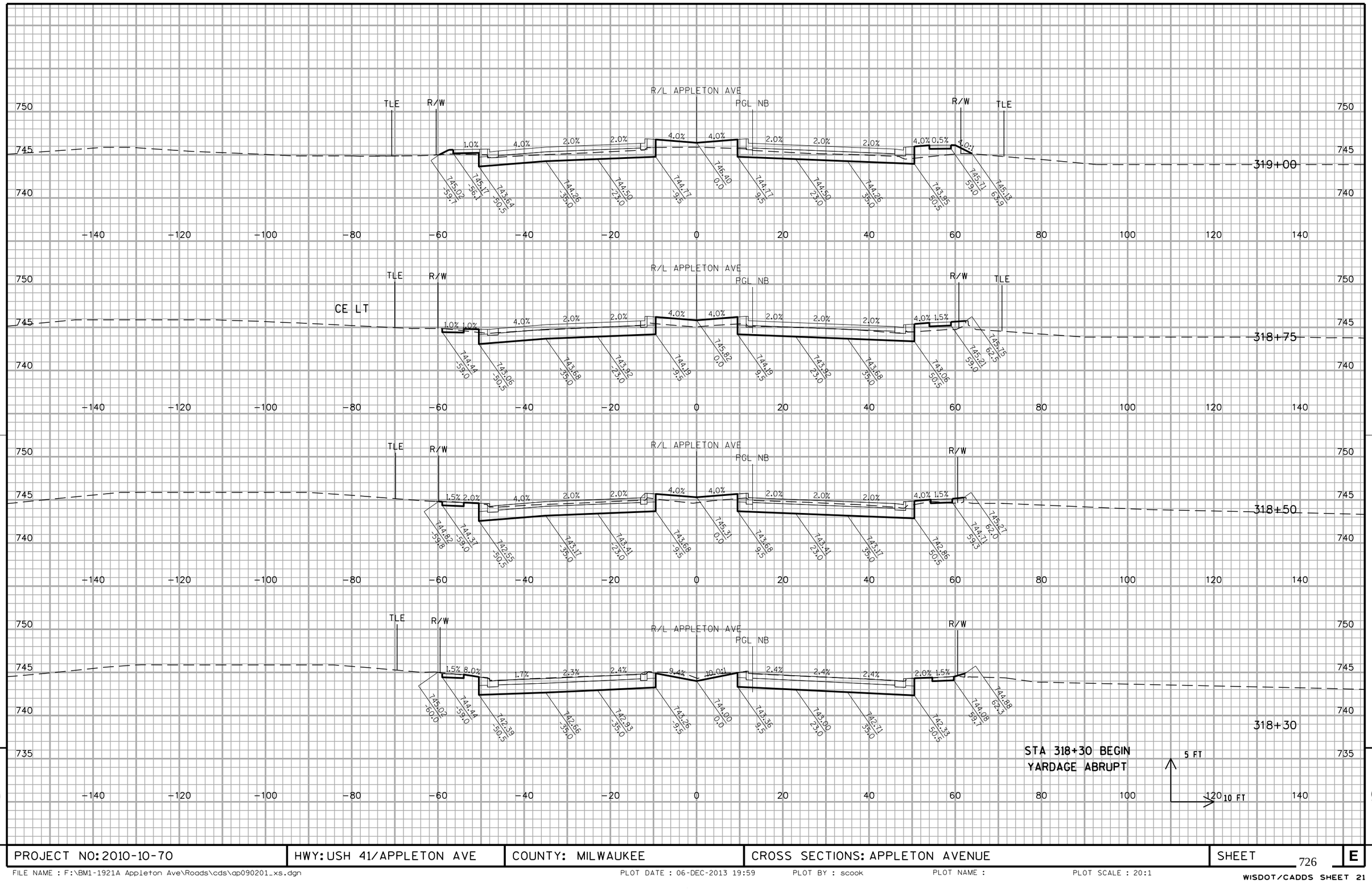
FILE NAME : F:\BM1-1921A\Roads\cds\ap090101_ew.ppt PLOT DATE : PLOT BY jmueller PLOT NAME : PLOT SCALE :

SE Ramp - Stage 3

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Mass Ordinate
730SE+63 BA		0	0	0	0	0	0	0
731SE+00	37	26	25	18	17	0	0	0
731SE+50	50	30	38	52	58	52	73	-21
732SE+00	50	51	5	75	40	126	122	4
732SE+50	50	57	5	100	9	227	133	93
733SE+00	50	48	4	97	8	324	144	181
733SE+50	50	38	3	80	6	404	152	252
734SE+00	50	36	3	68	6	472	159	313
734SE+30 EA	30	34	3	39	3	511	163	347
				529	148			

NE Ramp - Stage 3

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Mass Ordinate
528NE+18 BA		0	0	0	0	0	0	0
528NE+60	42	22	17	17	13	0	0	0
529NE+00	40	19	21	30	28	30	35	-5
529NE+50	50	24	15	40	34	71	77	-7
530NE+00	50	41	12	61	25	131	108	23
530NE+50	50	55	25	90	33	221	150	71
531NE+00	50	59	12	106	34	327	192	134
531NE+50	50	61	9	111	19	438	216	222
532NE+00	50	69	4	120	12	559	231	328
532NE+50	50	62	4	121	8	559	241	439
533NE+00	50	62	4	115	8	559	251	544
533NE+50	50	57	4	110	8	3915	261	644
533NE+86 EA	36	53	4	73	6	9082	268	710
				996	227			



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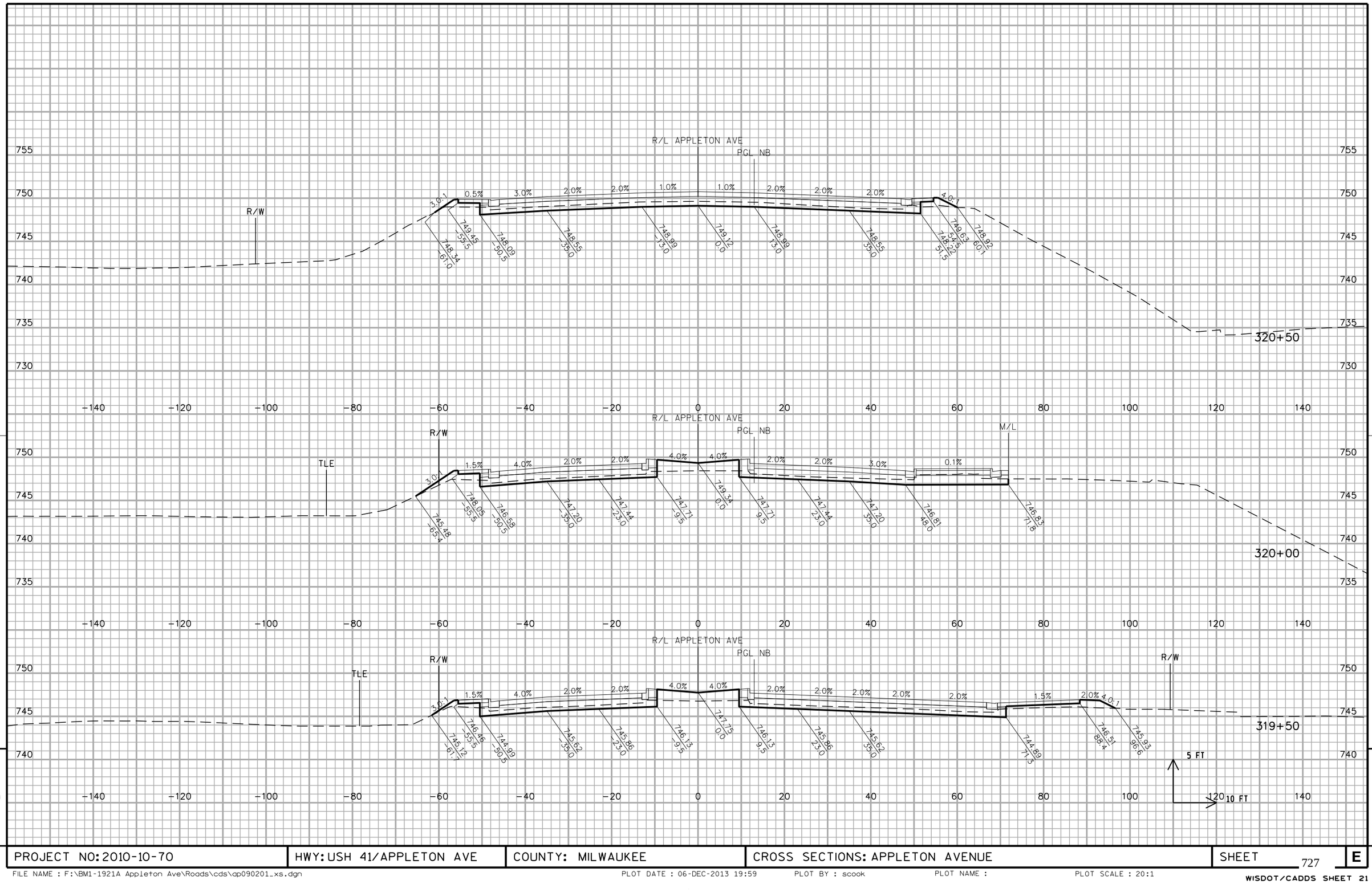
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: APPLETON AVENUE	SHEET 726	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap090201_xs.dgn PLOT DATE : 06-DEC-2013 19:59 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: APPLETON AVENUE	SHEET 727 E

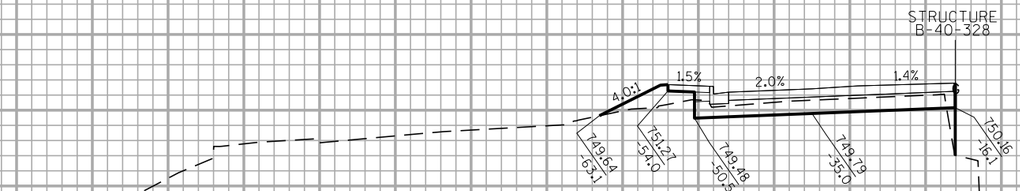
FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap090201_xs.dgn PLOT DATE : 06-DEC-2013 19:59 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

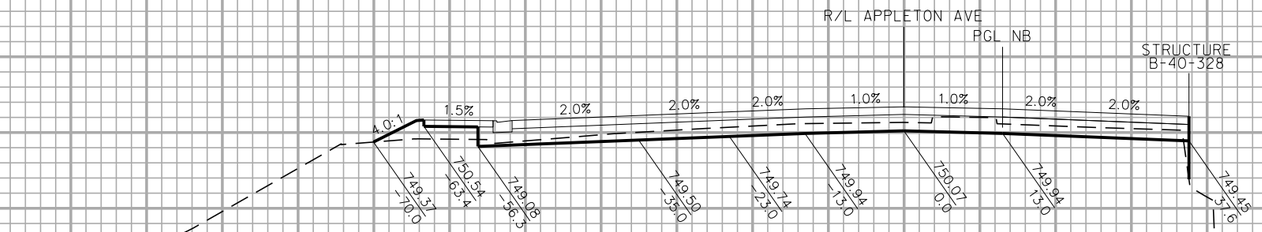
STRUCTURE B-40-328

STRUCTURE B-40-328
STA 321+33.47 TO 323+09.89

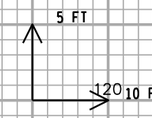
STA 321+78
YARDAGE EQUALS ZERO



321+50

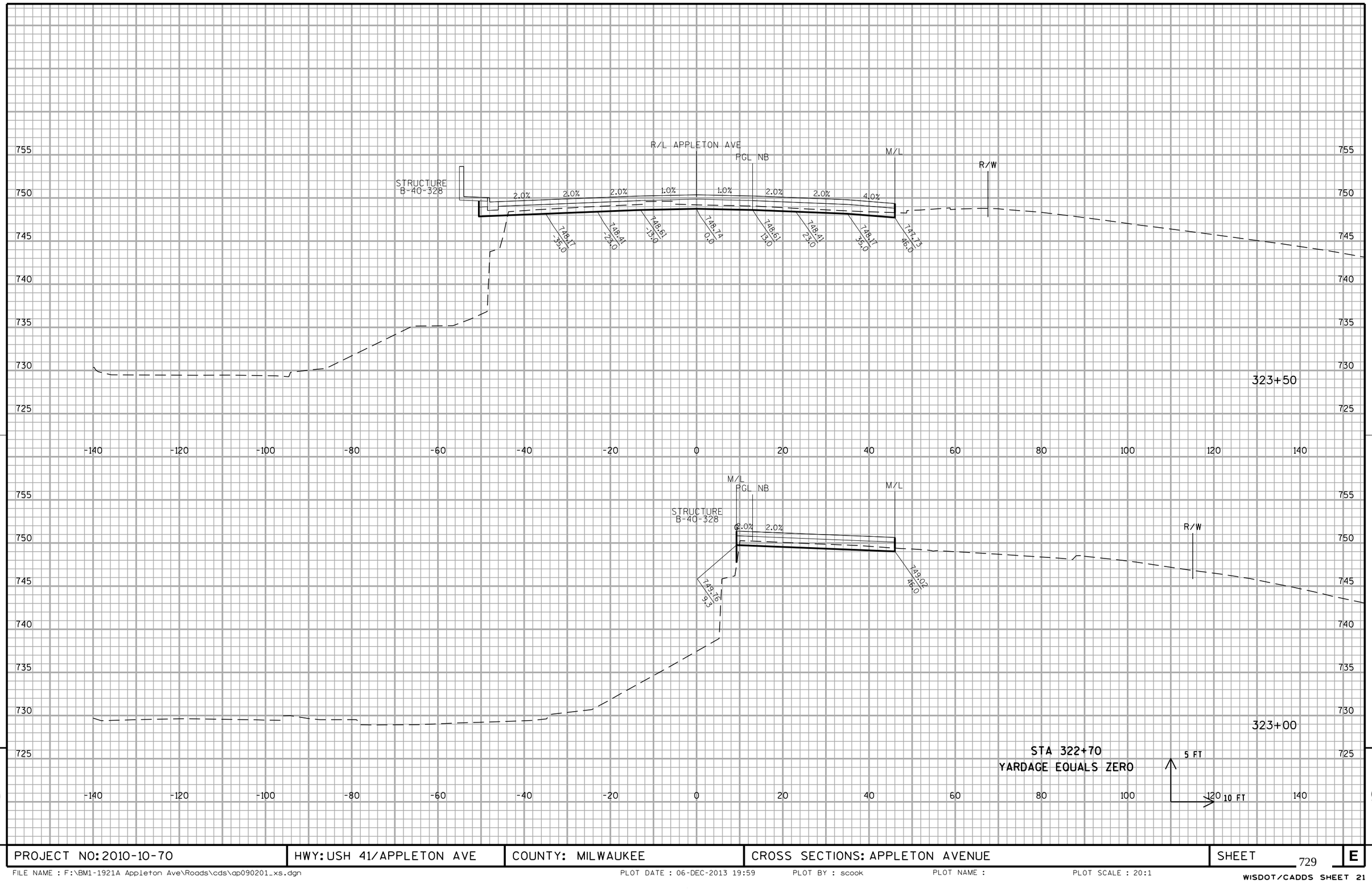


321+00



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: APPLETON AVENUE	SHEET	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap090201_xs.dgn PLOT DATE : 06-DEC-2013 19:59 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1



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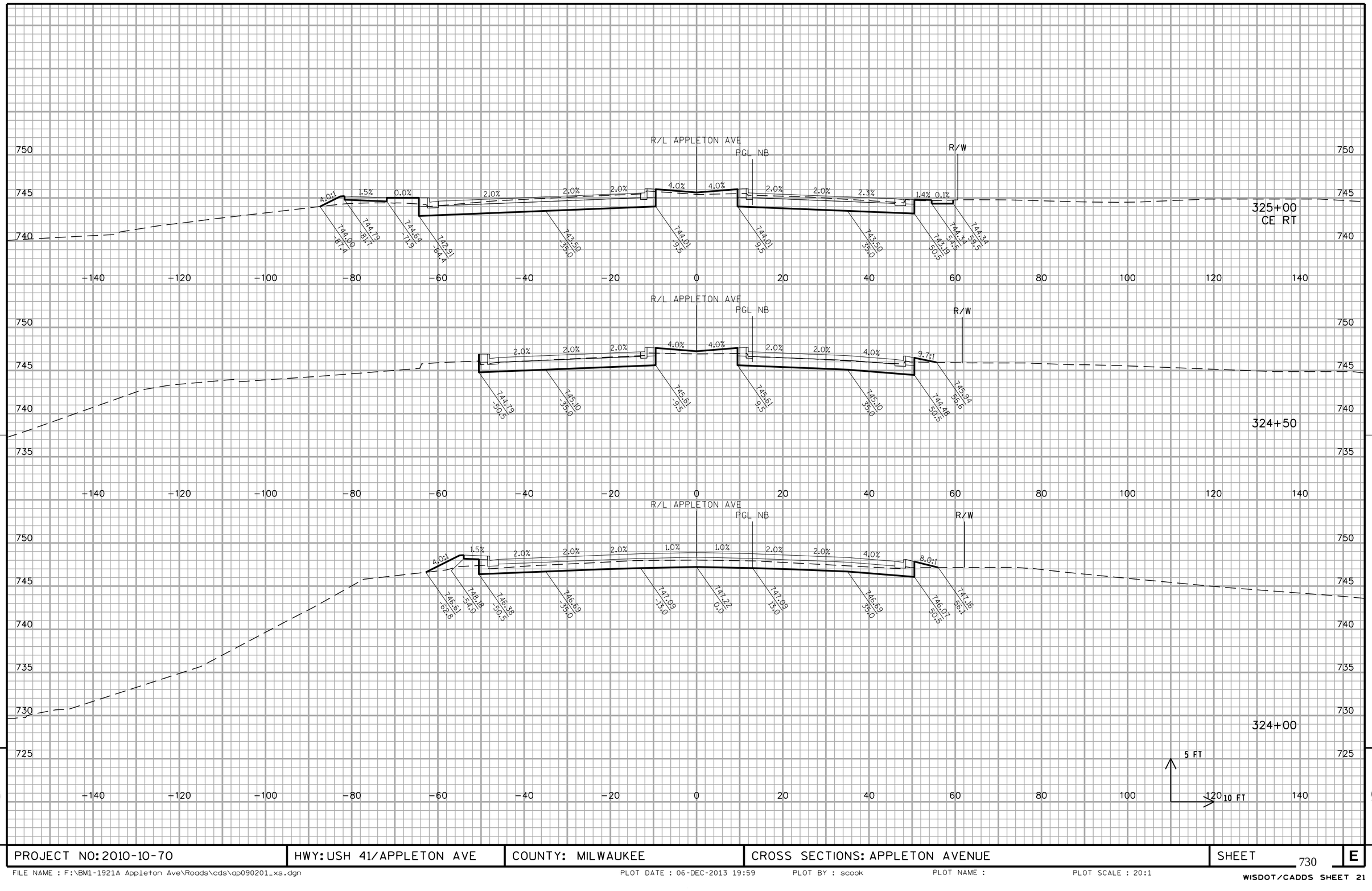
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: APPLETON AVENUE	SHEET 729	E

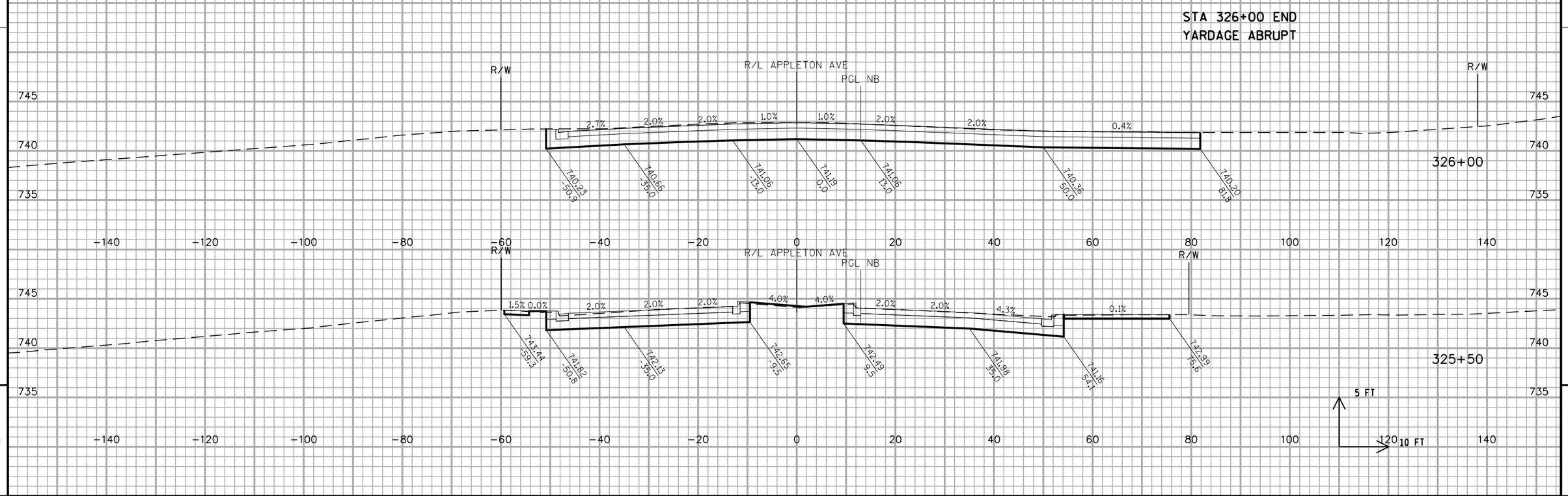
FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap090201_xs.dgn PLOT DATE : 06-DEC-2013 19:59 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: APPLETON AVENUE	SHEET 730	E

STA 326+00 END
YARDAGE ABRUPT

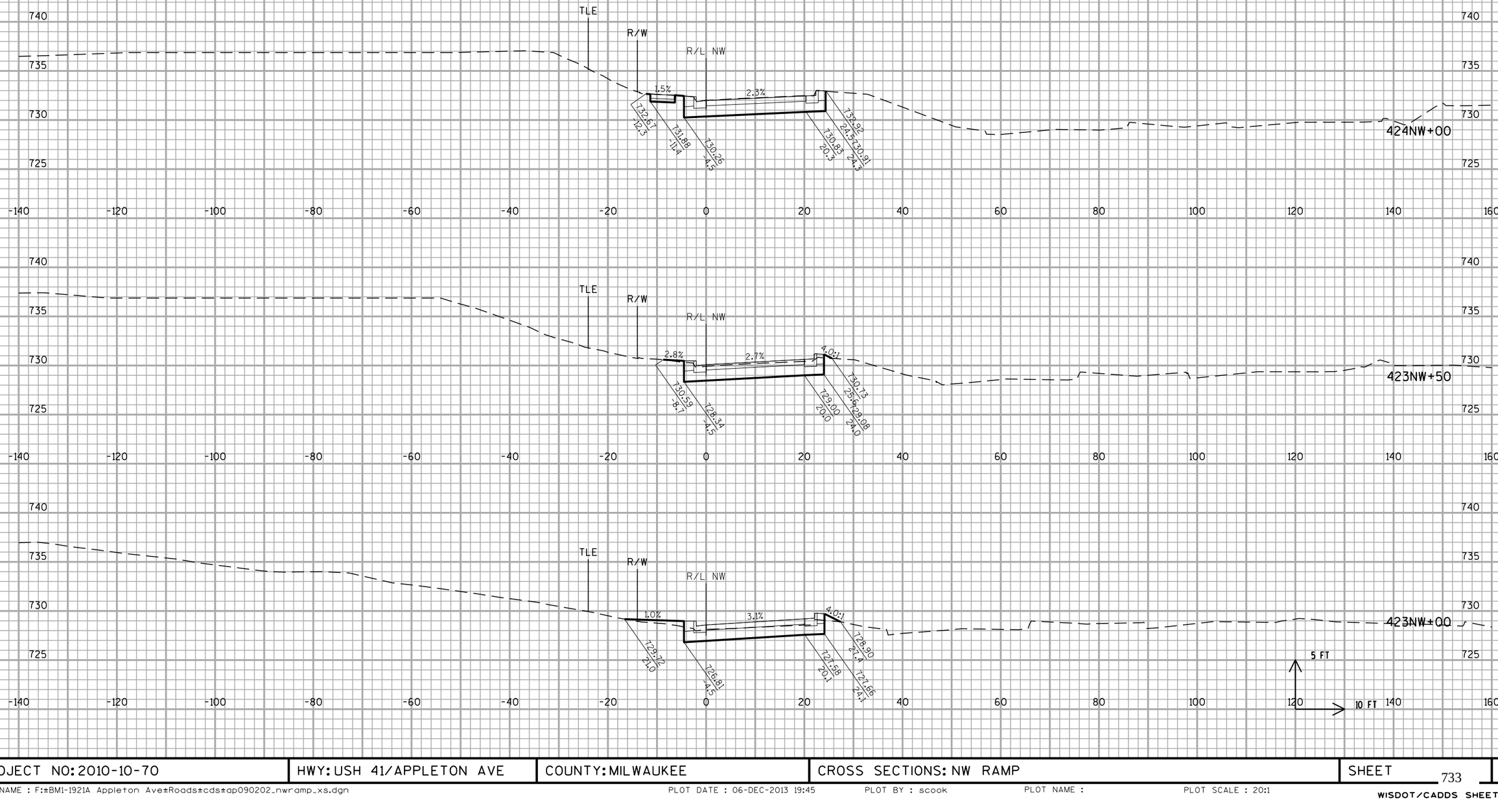


PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: APPLETON AVENUE	SHEET 731	E

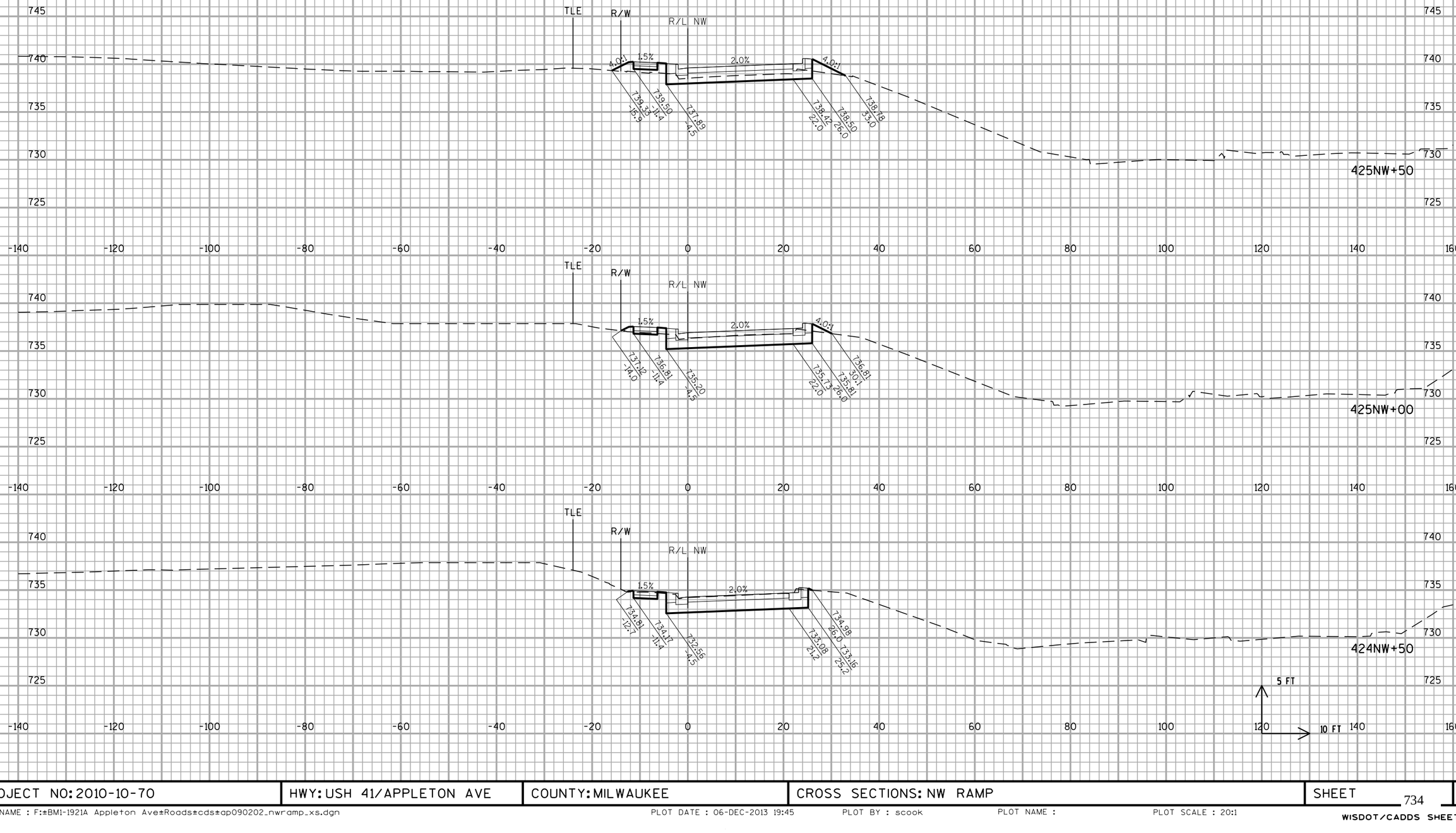
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: NW RAMP	SHEET 732	E

FILE NAME : F:±BM1-1921A Appleton Ave±Roads±cds±ap090202_nwramp_xs.dgn PLOT DATE : 06-DEC-2013 19:45 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: NW RAMP	SHEET 733	E



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PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: NW RAMP	SHEET 734	E

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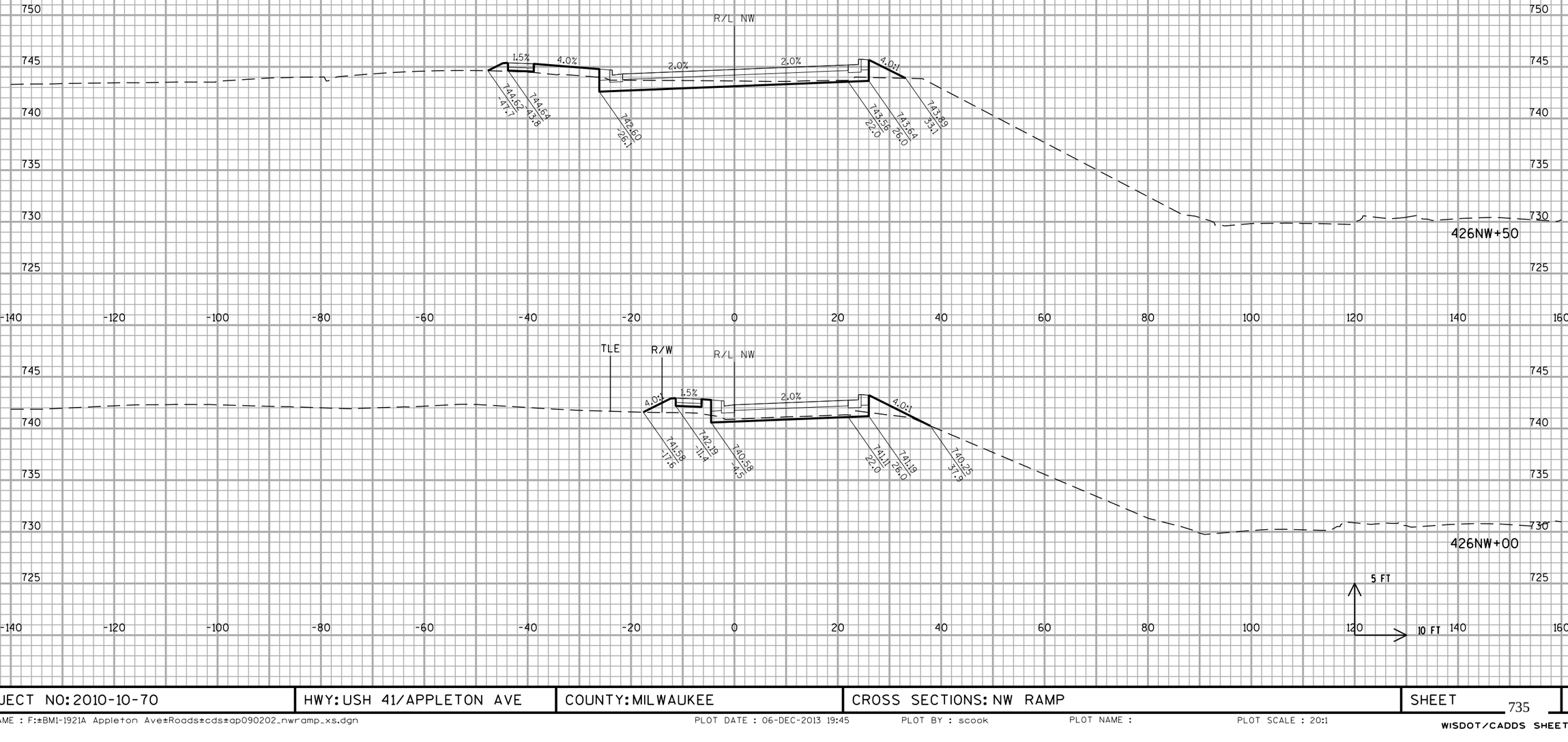

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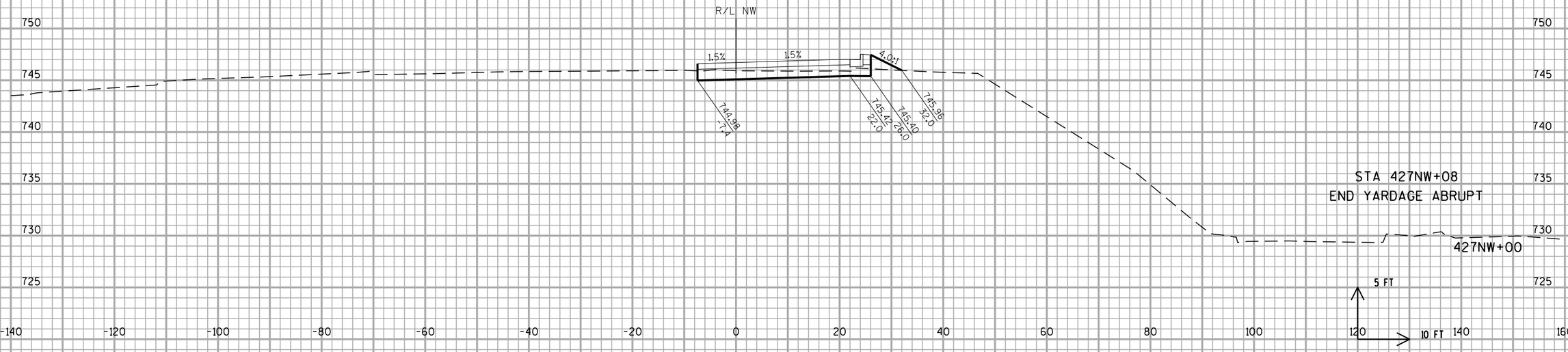
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: NW RAMP	SHEET 735	E



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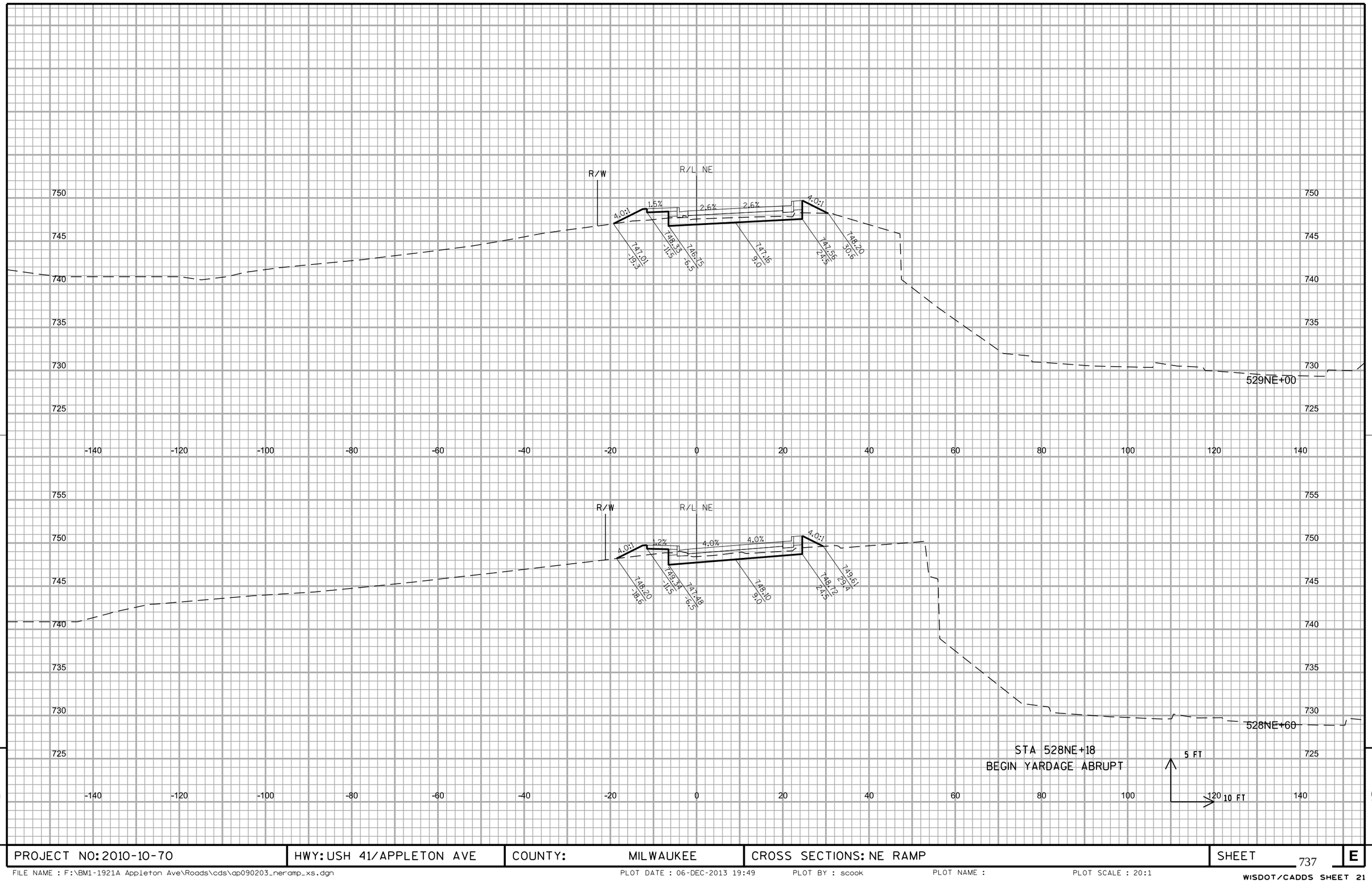
9

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: NW RAMP	SHEET 736	E

FILE NAME : F:±BM1-1921A Appleton Ave±Roads±cds±ap090202_nwramp_xs.dgn PLOT DATE : 06-DEC-2013 19:45 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1

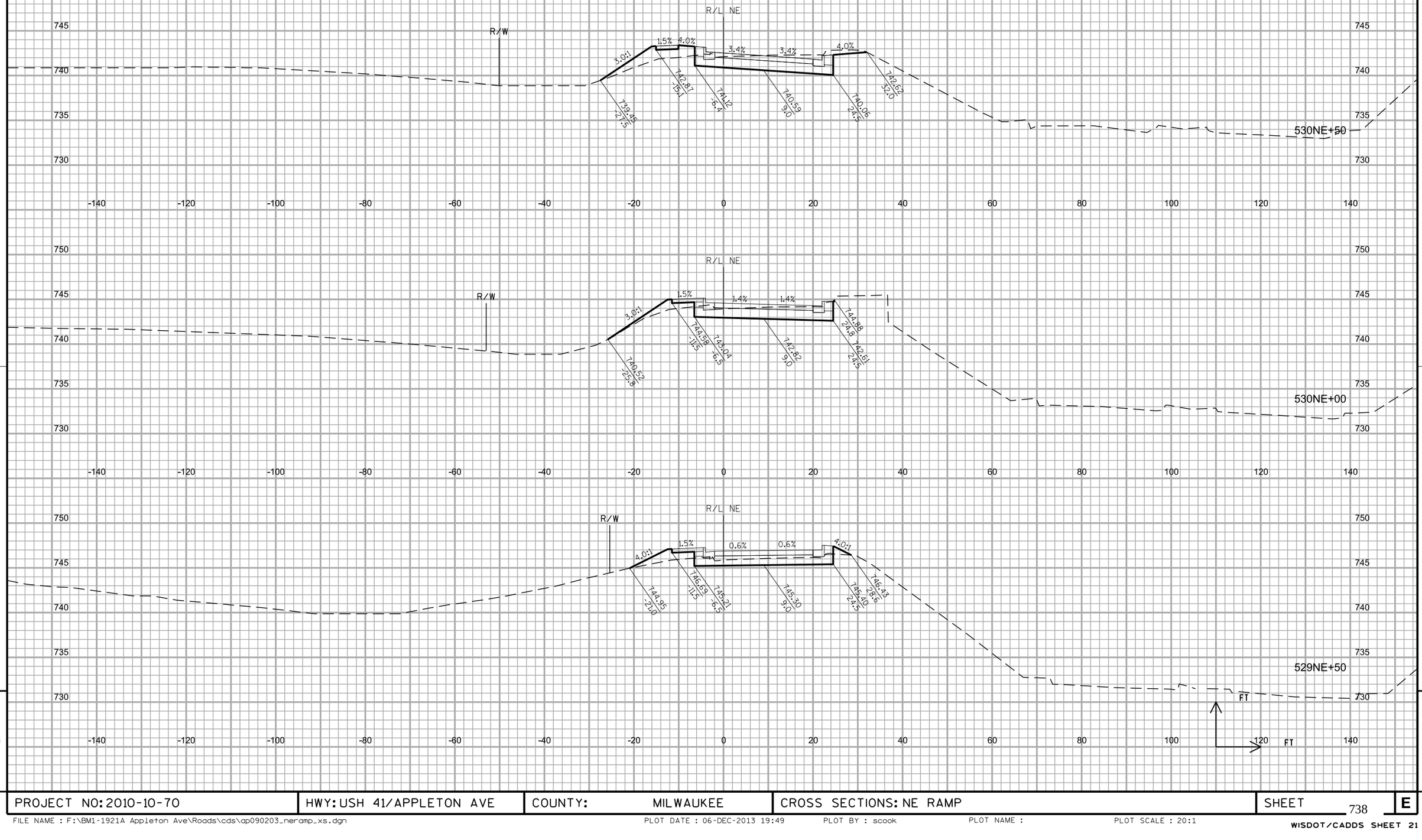
WISDOT/CADDS SHEET 21



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: NE RAMP	SHEET 737	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap090203_neramp_xs.dgn PLOT DATE : 06-DEC-2013 19:49 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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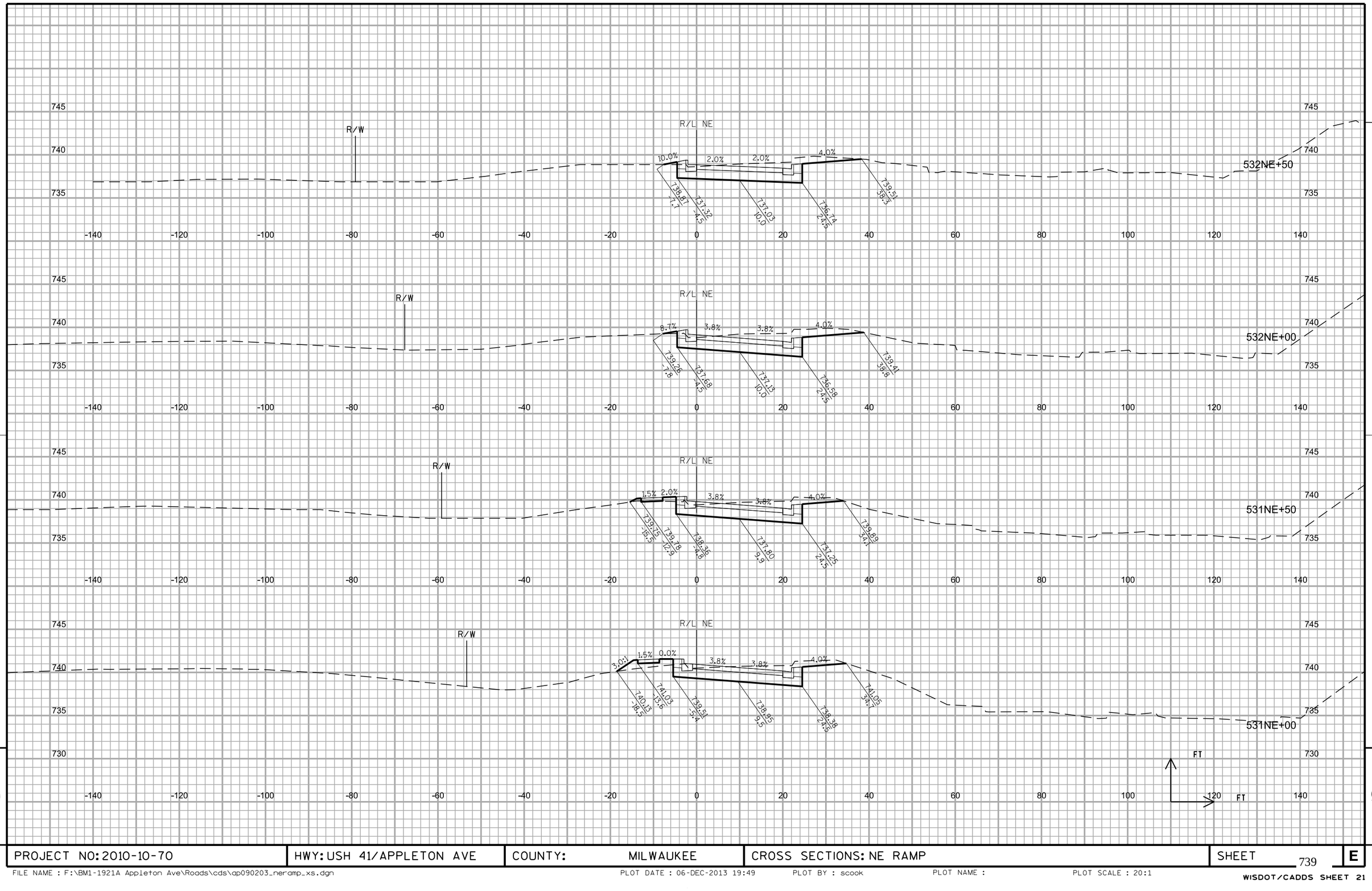
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: NE RAMP	SHEET 738	E

9

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap090203_neramp_xs.dgn PLOT DATE : 06-DEC-2013 19:49 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: NE RAMP	SHEET 739	E

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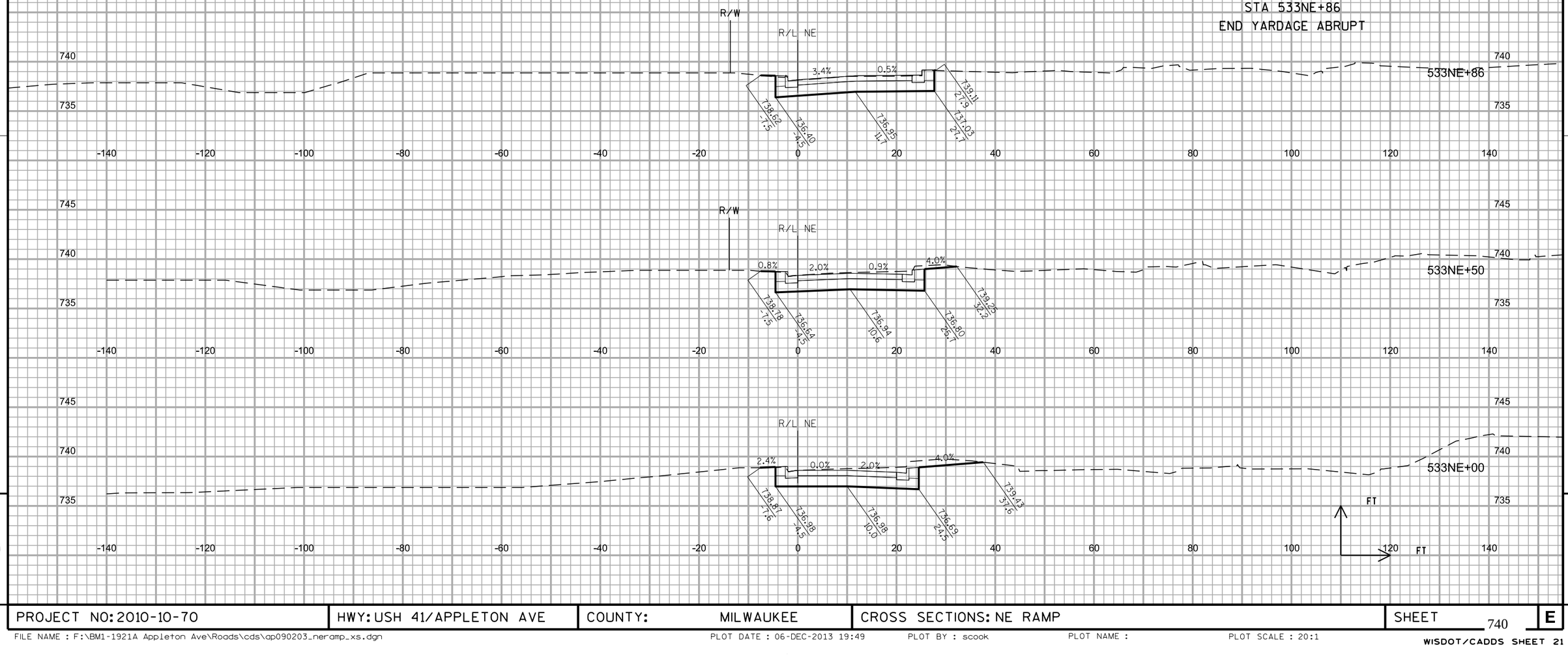
WISDOT/CADDS SHEET 21



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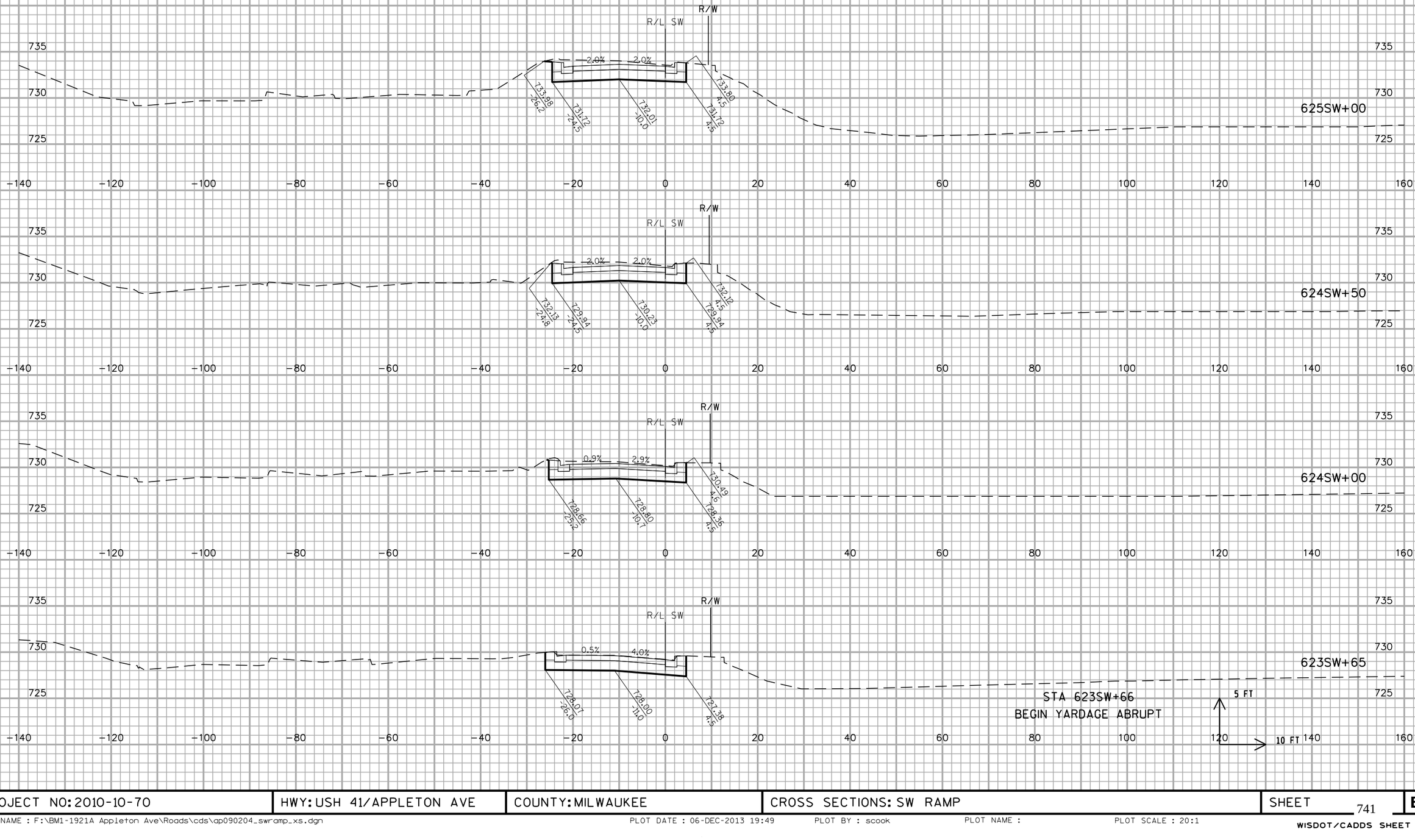
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: NE RAMP	SHEET 740	E



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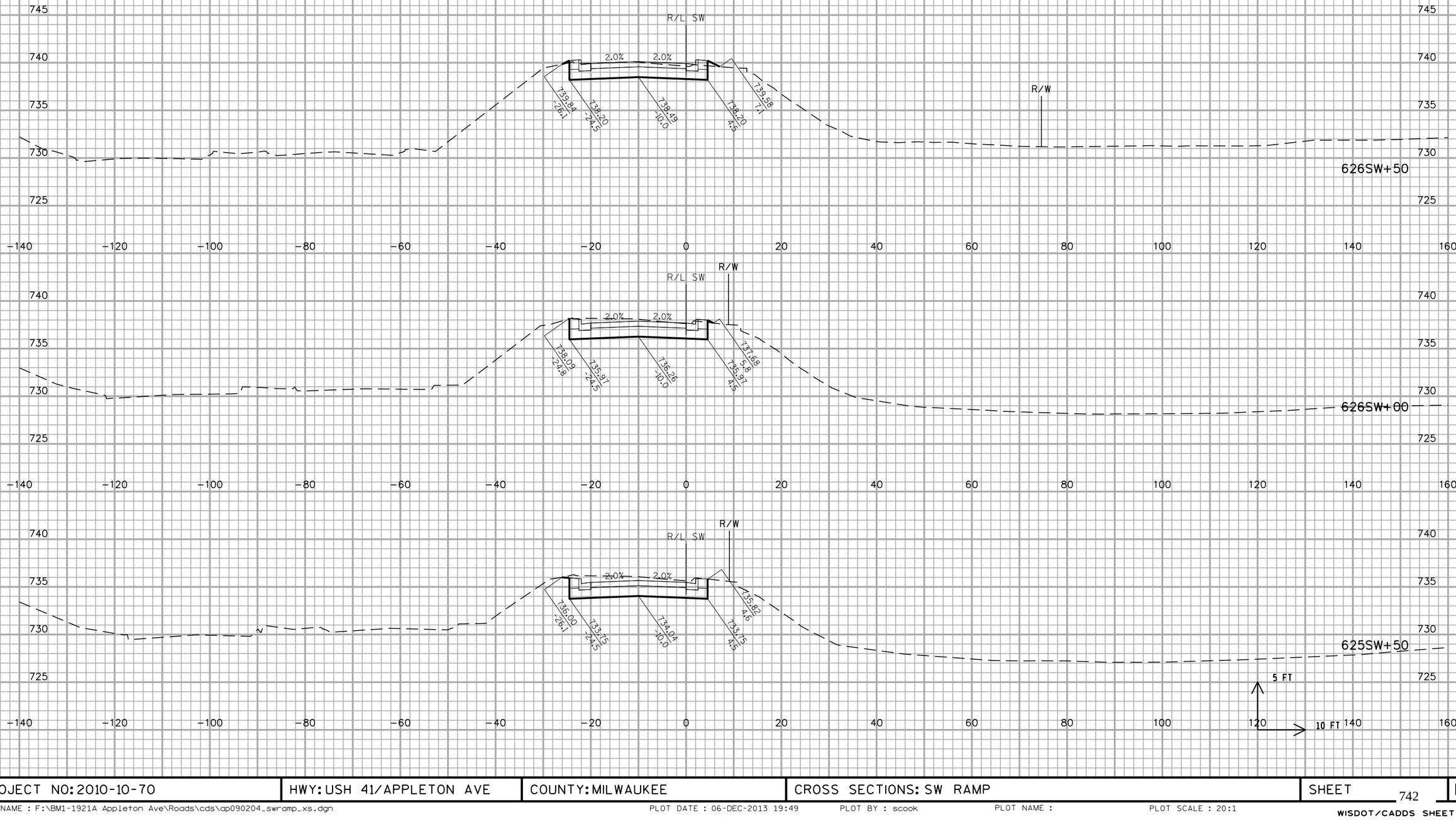
9

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: SW RAMP	SHEET 741	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap090204_swramp_xs.dgn PLOT DATE : 06-DEC-2013 19:49 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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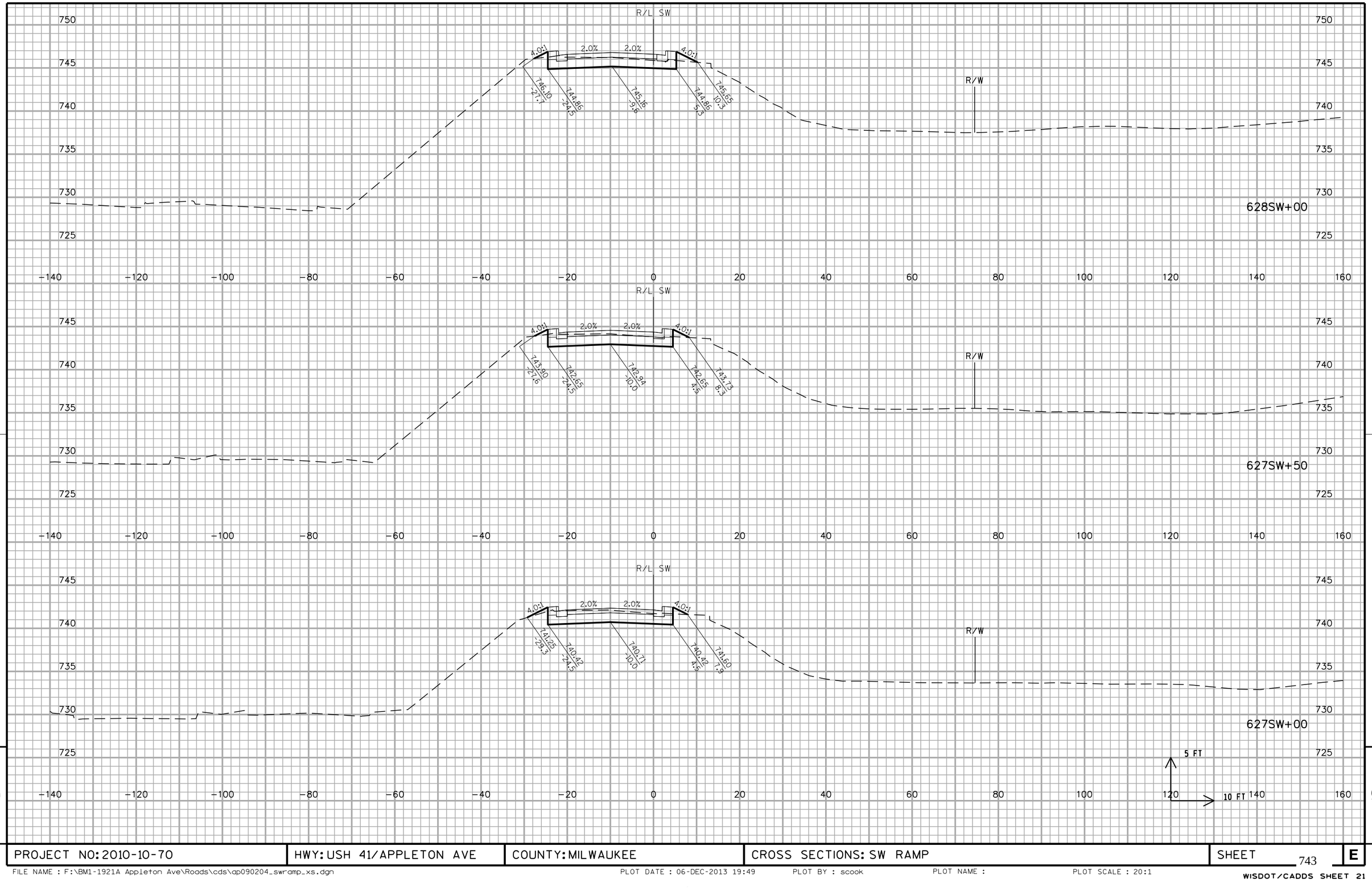
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: SW RAMP	SHEET 742	E

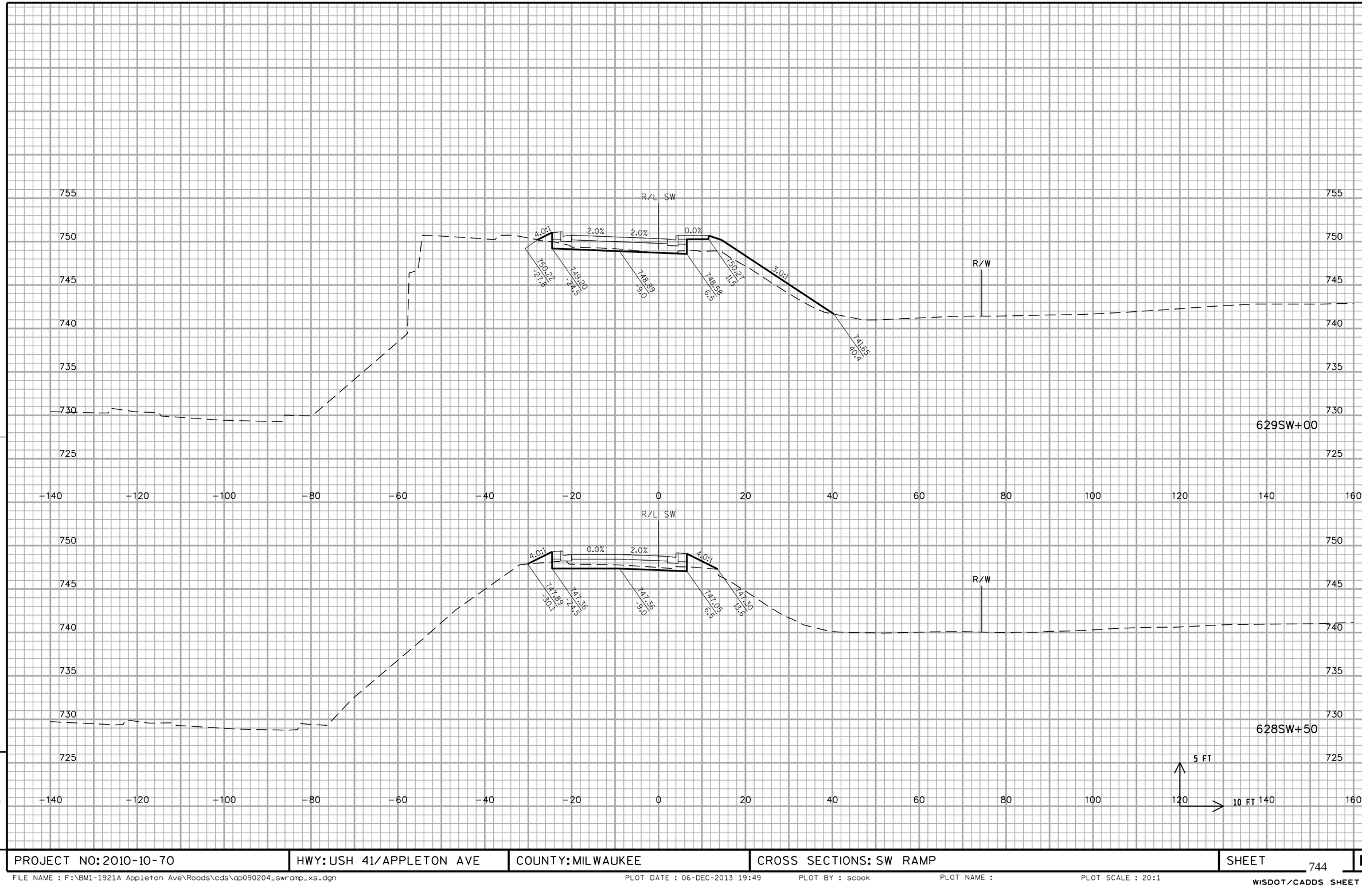
FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap090204_swramp_xs.dgn PLOT DATE : 06-DEC-2013 19:49 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: SW RAMP	SHEET 743	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap090204_swramp_xs.dgn PLOT DATE : 06-DEC-2013 19:49 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: SW RAMP	SHEET 744	E

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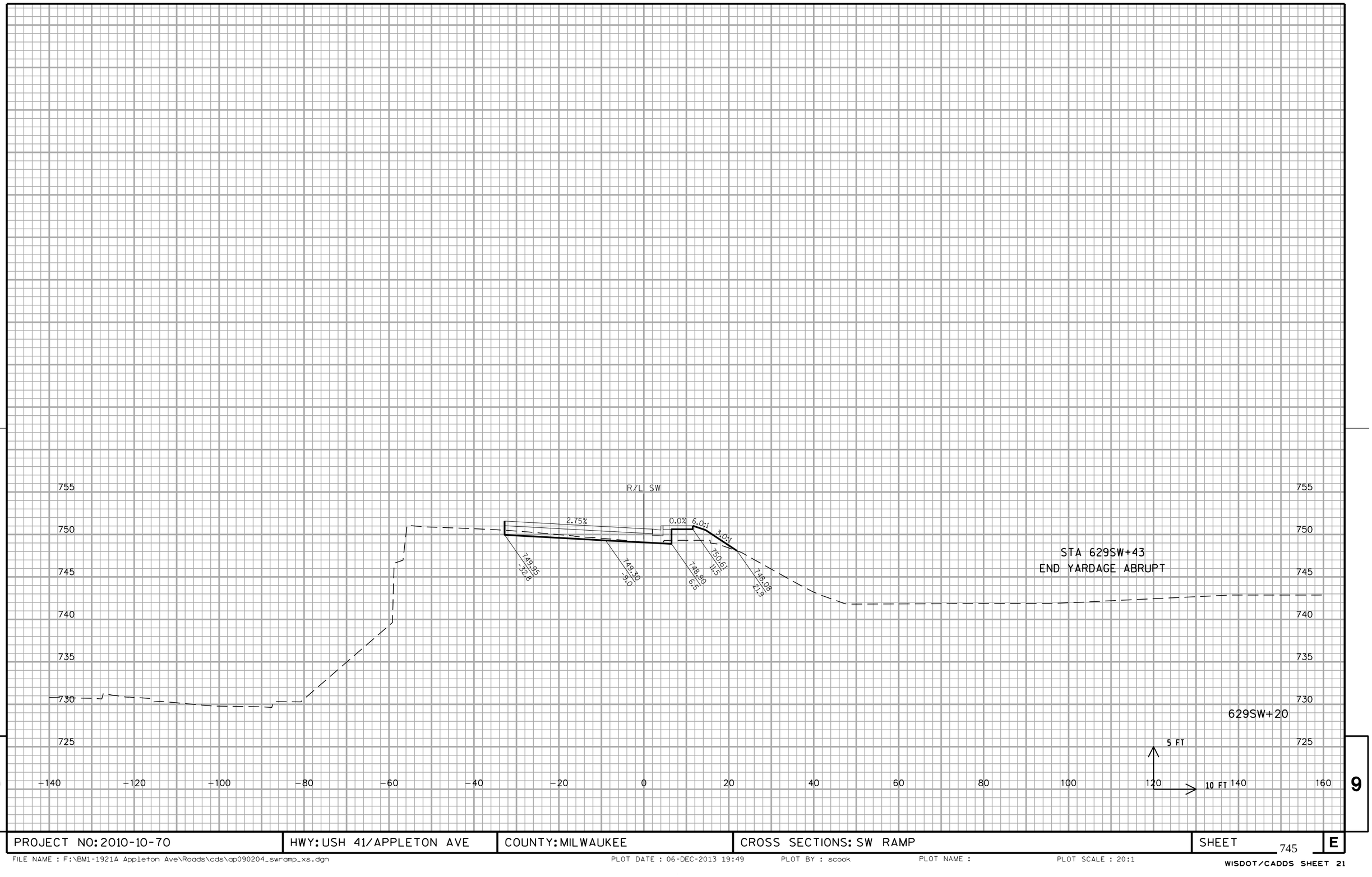
WISDOT/CADDS SHEET 21



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PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: SW RAMP	SHEET 745	E

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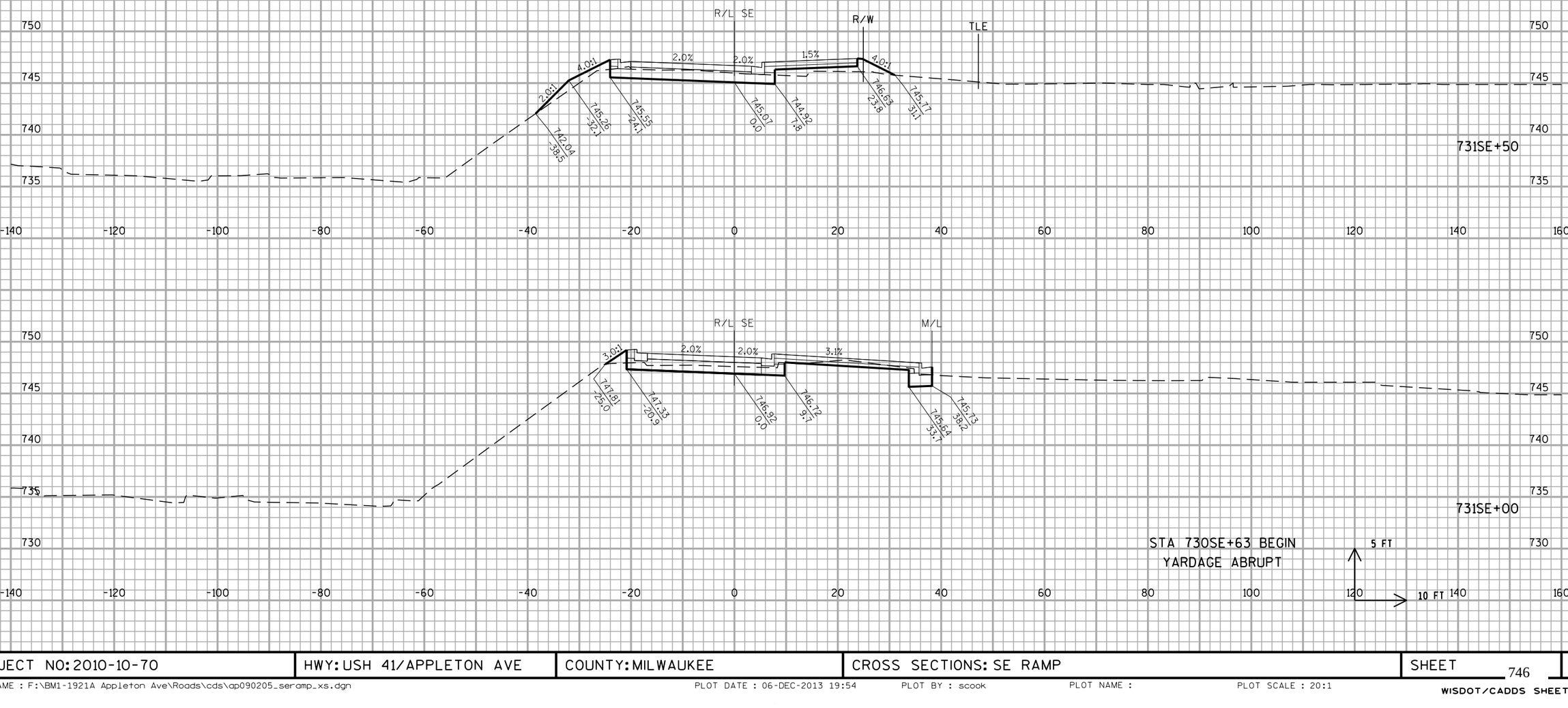
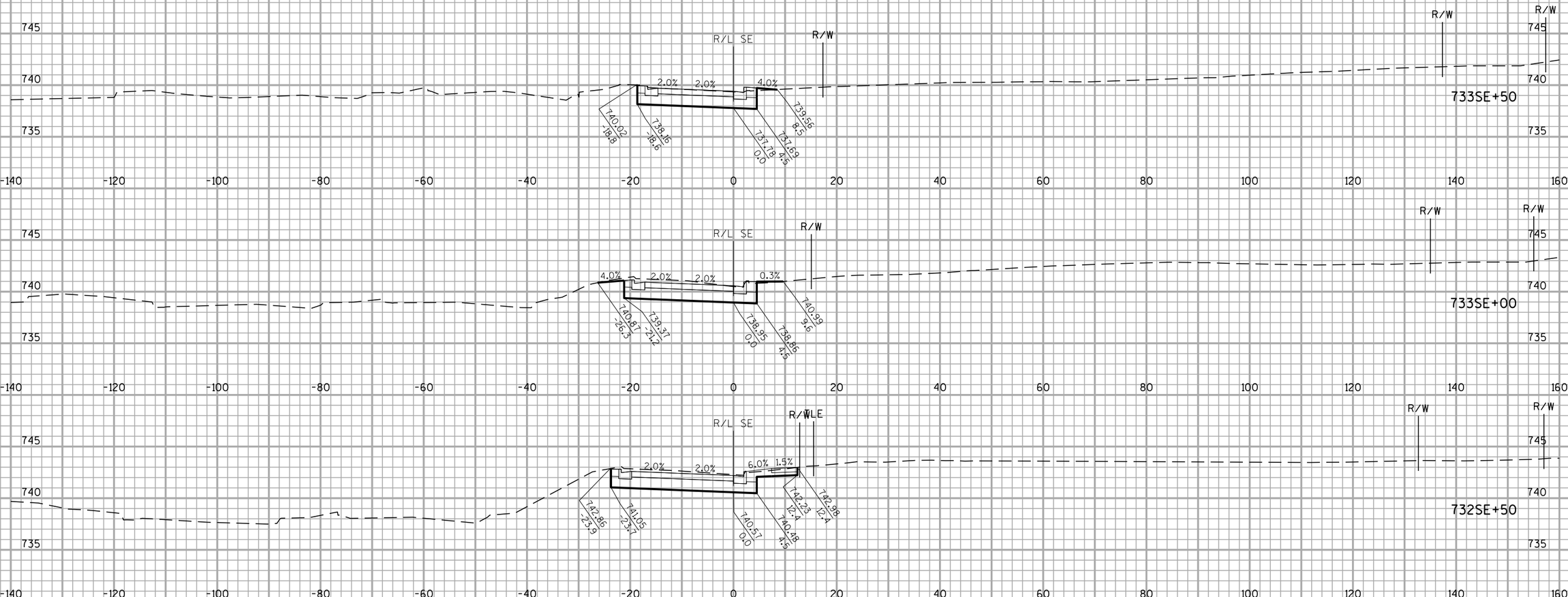
WISDOT/CADDS SHEET 21



PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: SE RAMP	SHEET	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap090205_seramp_xs.dgn PLOT DATE : 06-DEC-2013 19:54 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1



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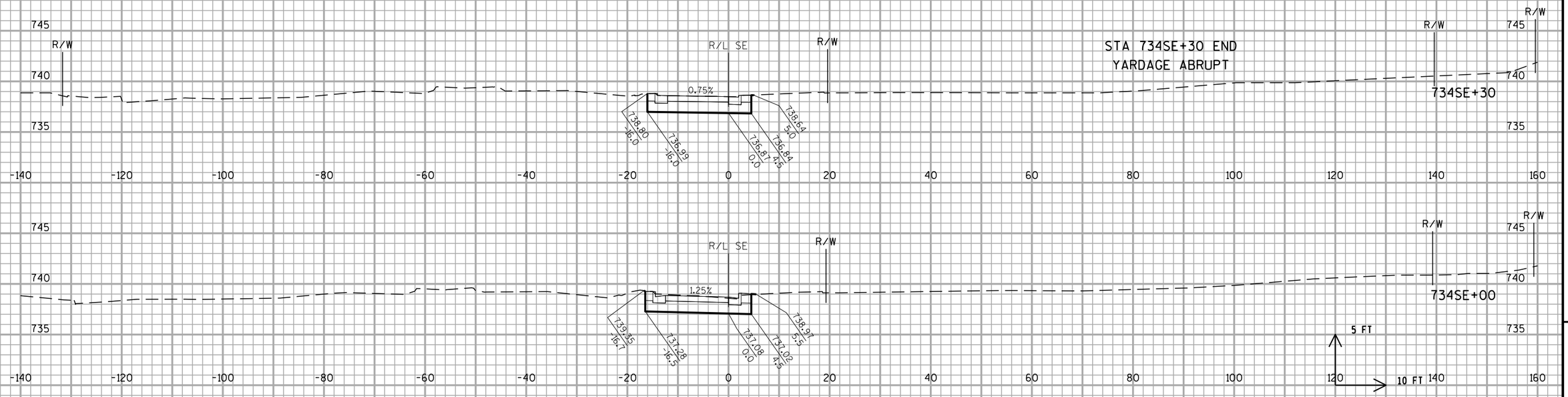
PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: SE RAMP	SHEET 747	E

FILE NAME : F:\BM1-1921A Appleton Ave\Roads\cds\ap090205_seramp_xs.dgn PLOT DATE : 06-DEC-2013 19:54 PLOT BY : scook PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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9

PROJECT NO: 2010-10-70	HWY: USH 41/APPLETON AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: SE RAMP	SHEET 748	E

Notes

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Notes

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