MAD JUNE 2013

PROJECT ID: 6145-00-73
WITH: 6145-00-74

COUNTY: SAUK

ORDER OF SHEETS

Section No. 1 Title
Section No. 2 Typical Sections and Details
Section No. 3 ~~Estimate of Quantities~~
Section No. 3 ~~Miscellaneous Quantities~~
Section No. 4 ~~Right of Way Plat~~
Section No. 5 ~~Plan and Profile (includes erosion control plan)~~
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 = 28



05

N

DESIGN DESIGNATION

A.A.D.T. 2012	=	22,100
A.A.D.T. 2023	=	27,300
D.H.V. 2023	=	3,710
D.	=	63/37
T.	=	4.9%
DESIGN SPEED	=	40 mph
ESALS	=	6,796,300

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT 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
- EDGE OF STREAM
- RAILROAD
- FENCE —X— X—

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 —
- SANITARY SEWER — SAN —
- STORM SEWER — SS —
- TELEPHONE — T —
- WATER — W —
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

LAKE DELTON - IH 90

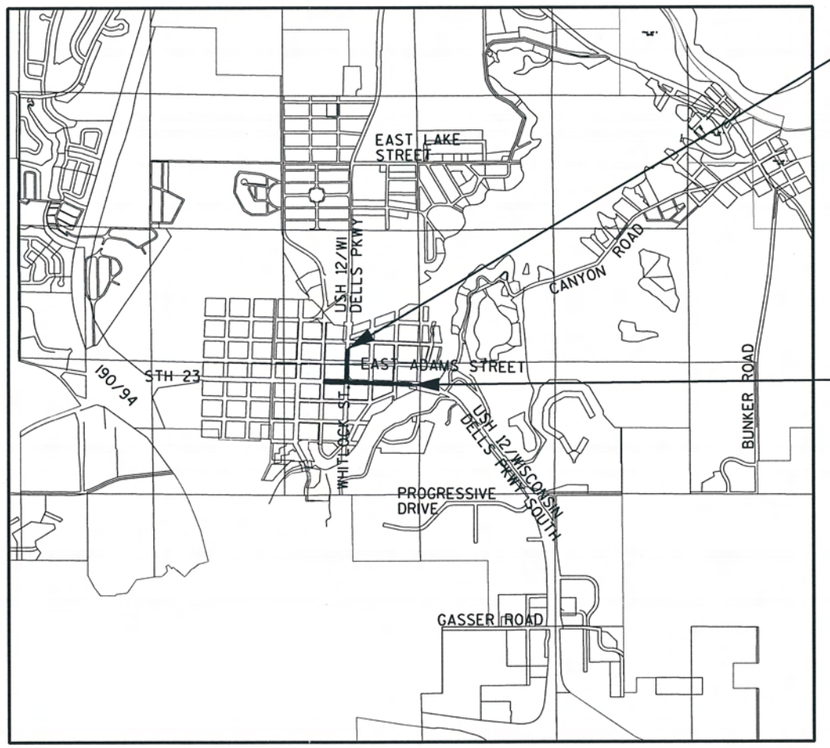
(WHITLOCK STREET TO ADAMS STREET)

USH 12

SAUK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6145-00-73	WISC 2013305	1

STATE PROJECT NUMBER
6145-00-73



END PROJECT
STA. 232+20

BEGIN PROJECT
STA. 213+00
Y = 280,521.60
X = 638,388.35

LAYOUT
Scale 0 1/2 1 MI.
TOTAL NET LENGTH OF CENTERLINE = 0.364 MI.

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Sauk Zone, NAD 83 (91) WISDOT Project 1674-00-00 2001 flight

Vertical Datum: NGVD 1929, Used WISDOT Bench Mark #3001 chiseled on Traffic Signal Base in the median at USH 12 & Gasser Rd. Elev.= 912.63.

ACCEPTED FOR
VILLAGE OF LAKE DELTON

1-24-13 (Date) Village President

1-24-13 (Date) Village Coordinator

ORIGINAL PLANS PREPARED BY:

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-1505 Fax: 608-356-2770
© MSA PROFESSIONAL SERVICES

WISCONSIN
RAINE L. GARDNER
E-41414
BARABOO
WI
PROFESSIONAL ENGINEER

1/17/13 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

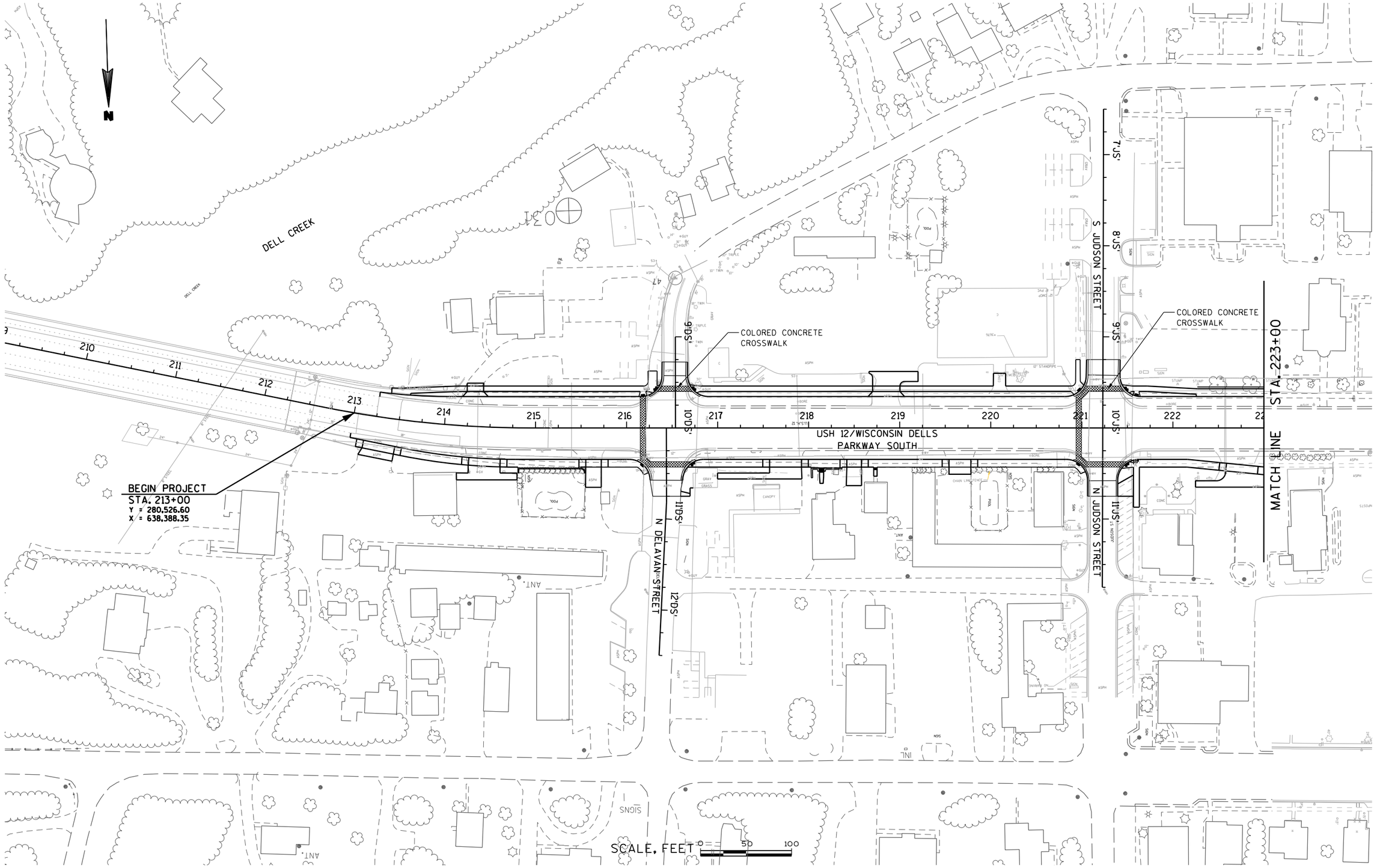
Surveyor	GAK (R.A.SMITH NATIONAL)
Designer	MSA PROFESSIONAL SERVICES, INC.
Project Manager	JAMES BUSCHKOPF
Regional Examiner	
Regional Supervisor	JOHN STEINER
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 1/31/13 (Signature)

E

2



PROJECT NO: 6145-00-73	HWY: USH 12	COUNTY: SAUK	USH 12 ENHANCEMENT DETAILS	SHEET 2	E

2

N

INL

T215
881.540

MH

INL

A/C

315

316

317

STH 23/MUNROE AVE.

END CONSTRUCTION
STA. 315+80

COLORED STAMPED CONCRETE RAISED MEDIAN
(INCLUDED UNDER SEPARATE PROJECT ID
#6145-00-74)

PROPOSED PLAZA AREA
(SEE PLAZA DETAIL SHEETS)

CONCRETE SIDEWALK 5-INCH STAMPED AND COLORED
(INCLUDED UNDER SEPARATE PROJECT ID
#6145-00-74)

7'WS' 8'WS' 9'WS' 10'WS'

WHITLOCK ST

226 227 228 229 230 231 232 233 234 235

USH 12/WIDELLS PARKWAY

COLORED CONCRETE
CROSSWALK (TYP. OF 6)

END PROJECT
STA. 232+20

CONCRETE SIDEWALK 5-INCH STAMPED AND COLORED
(INCLUDED UNDER SEPARATE PROJECT ID
#6145-00-74)

COLORED STAMPED CONCRETE RAISED MEDIAN
(INCLUDED UNDER SEPARATE PROJECT ID
#6145-00-74)

225

224

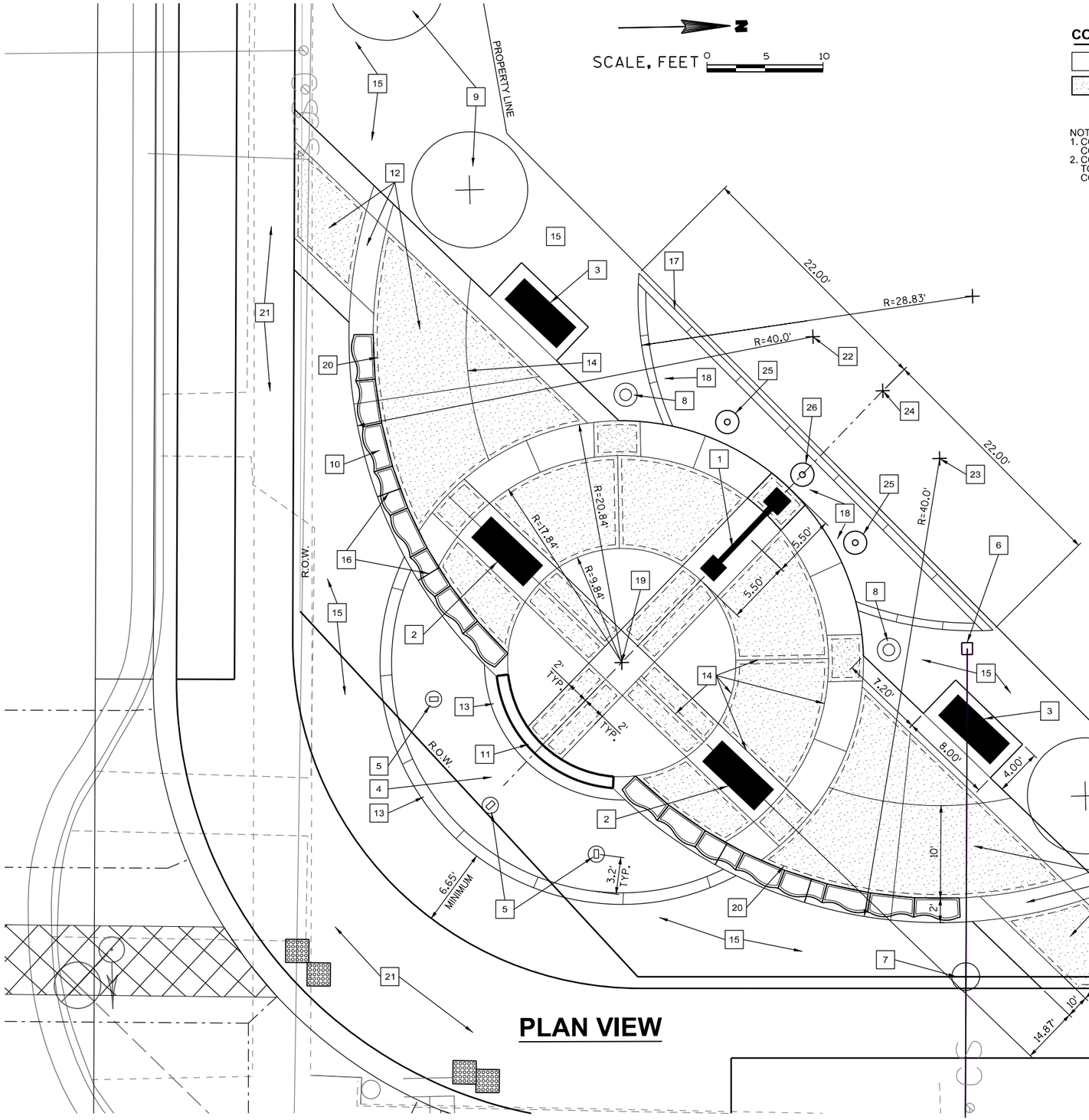
223

USH 12/WIDELLS PARKWAY

MATCH LINE STA. 223+00

SCALE, FEET 0 50 100

PROJECT NO: 6145-00-73	HWY: USH 12	COUNTY: SAUK	USH 12 ENHANCEMENT DETAILS	SHEET 3	E



PLAN VIEW

CONCRETE COLORING KEY

- NATURAL GREY (COLOR A)
- WISDOT RED COLOR SIMILAR TO FEDERAL STD. 595 COLOR SERVER, FS COLOR 31136 (COLOR B)

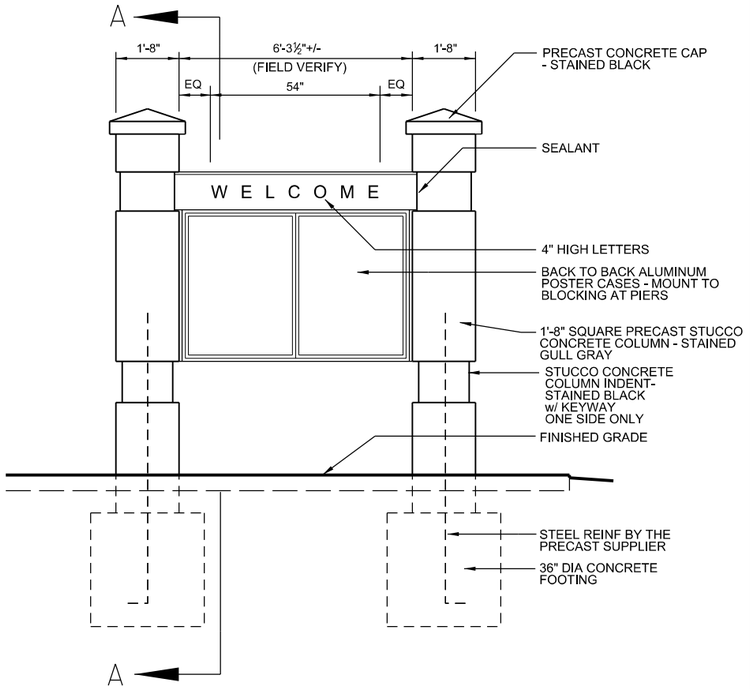
NOTE:
1. CONTRACTOR SHALL COORDINATE WORK WITH CONTRACTOR OF PROJECT ID: 6145-0074.
2. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO ALL EXISTING TURF AREAS OUTSIDE THE CONSTRUCTION LIMITS.

PLAN NOTES

1. KIOSK (SEE DETAILS)
2. BACKLESS BENCH, SUPPLIED AND INSTALLED BY PROJECT ID: 6145-00-74
3. BENCH , SUPPLIED AND INSTALLED BY PROJECT ID: 6145-00-74
4. FLOWER BED - 12-INCHES OF TOPSOIL TO FILL IN THE BED SUPPLIED BY CONTRACTOR. FLOWERS TO BE SUPPLIED AND INSTALLED BY OTHERS
5. ACCENT SIGN LIGHT FIXTURE - SEE PLAZA ELECTRICAL
6. YARD HYDRANT (SEE UTILITY PLANS IN PROJECT ID: 6145-00-73.)
7. 1-INCH WATER SERVICE WITH CURB STOP (SEE UTILITY PLANS)
8. LIGHT POLE LOCATION - SEE PLAZA ELECTRICAL
9. TREE LOCATION (TREES TO BE SUPPLIED AND INSTALLED BY OTHERS)
10. PRECAST CONCRETE PLANTER UNIT SET ON CONCRETE SIDEWALK - SEE PLANTER AND SIGN DETAILS
11. PRECAST CONCRETE SIGN - SEE PLANTER AND SIGN DETAILS
12. CONCRETE SIDEWALK 5-INCH OVER 8-INCH BASE AGGREGATE DENSE ¾-INCH.
13. 1'-0" WIDE x 4" THICK CONCRETE EDING WITH (2) CONTINUOUS #4 REBAR OVER 8-INCH BASE AGGREGATE DENSE ¾-INCH. TOP FLUSH w/ ADJACENT SIDEWALK
14. CONSTRUCTION OR CONTROL JOINT; TYPICAL. ALL JOINTS SHALL BE TOOLED JOINTS.
15. GRASS AREA TO BE RESTORED BY OTHERS. CONTRACTOR SHALL SUPPLY 6-INCHES OF TOPSOIL (MIN.) IN ALL GRASS AREAS.
16. CONTROL JOINT IN CONCRETE SIDEWALK BELOW PLANTERS; TYPICAL
17. 8" WIDE X 4" THICK CONCRETE EDGING WITH (1) CONTINUOUS #4 REBAR OVER 8-INCH BASE AGGREGATE DENSE ¾-INCH. TOP FLUSH w/ ADJACENT SIDEWALK
18. LANDSCAPE PLANTING AREA WITH 6" CRUSHED GRANITE DECORATIVE COVER AND WEED BARRIER OVER 12" OF TOPSOIL.
19. CENTER OF CIRCLE = STA. 226+68.62, 83.58' LT.
20. DASHED LINE REPRESENTS AREAS TO RECIEVE SMOOTH WINDOW PANED ALONG JOINTS (APPROX. WIDTH OF TROWEL 4-5").
21. SIDEWALK AND BASE, SUPPLIED AND INSTALLED BY PROJECT ID: 6145-00-74.
22. RADIUS POINT: STA. 226+85.1, 111.66' LT.
23. RADIUS POINT: STA. 226+96.0, 101.17' LT.
24. POINT ON CENTERLINE: STA. 226+91.13, 107.00' LT.
25. FLAG POLE AND BASE, SUPPLIED AND INSTALLED BY PROJECT ID: 6145-00-74.
26. FLAG POLE AND BASE, SUPPLIED AND INSTALLED BY PROJECT ID: 6145-00-74.

PROJECT NO: 6145-00-73	HWY: USH 12	COUNTY: SAUK	PLAZA PLAN	SHEET 4	E

2

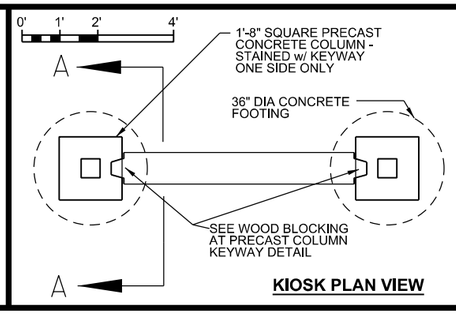


KIOSK ELEVATION - BOTH SIDES

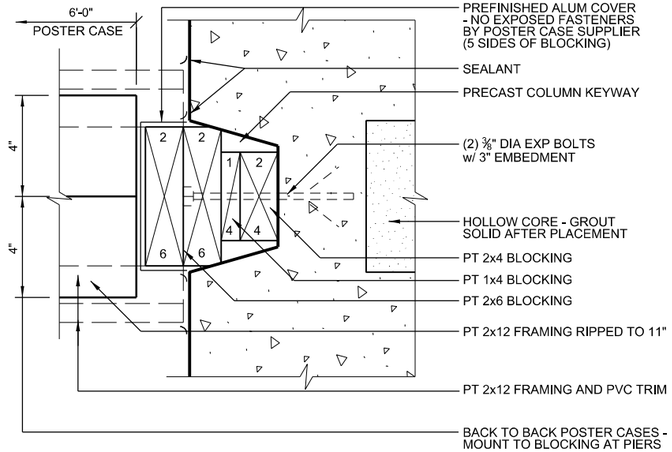
0' 1' 2' 4'



STUCCO PATTERN FOR KIOSK COLUMNS
NTS



KIOSK PLAN VIEW



WOOD BLOCKING AT PRECAST COLUMN KEYWAY DETAIL

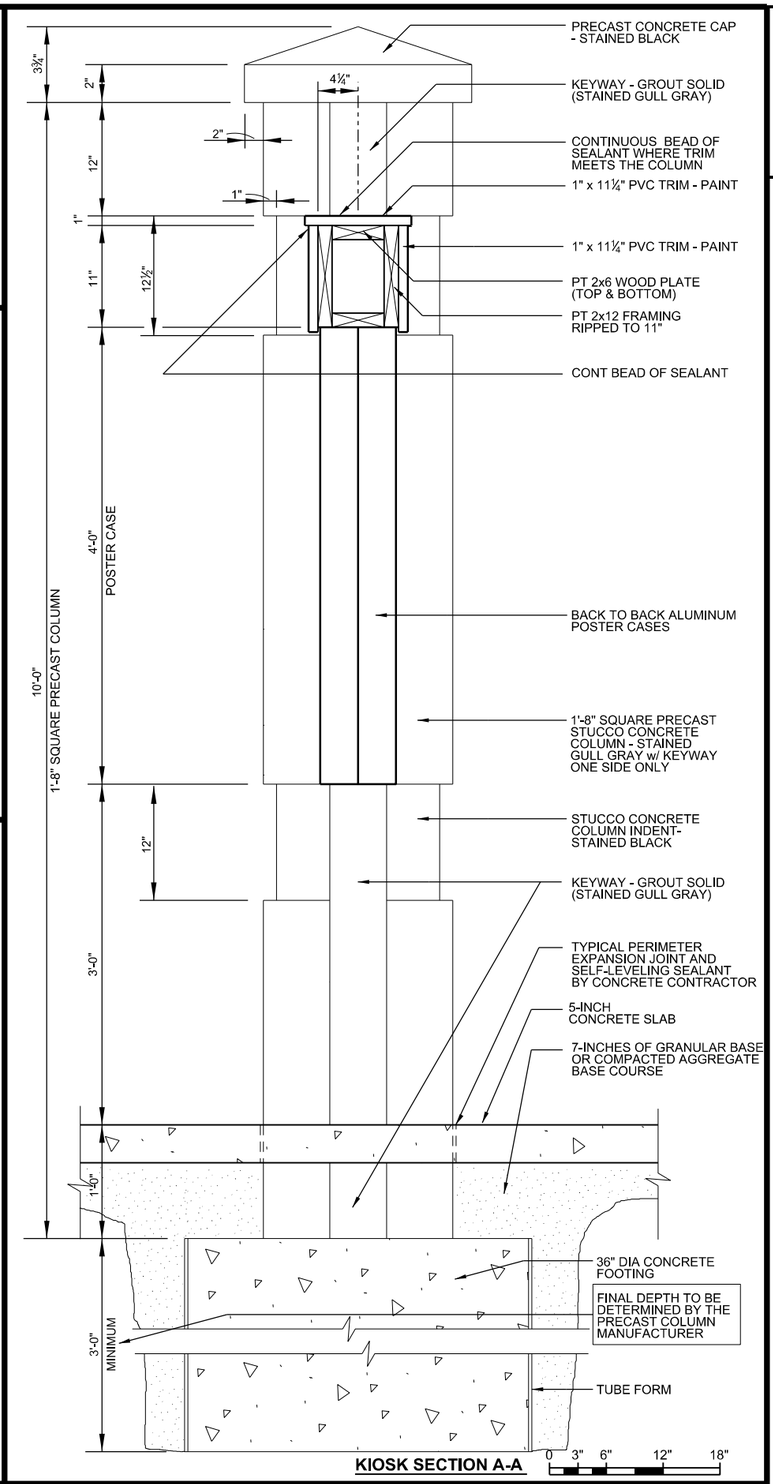
0 1½" 3" 6"





PLAZA AREA - COLOR RENDERING

(CONTACT RAINE GARDNER IF YOU WOULD LIKE A PDF COPY OF THE COLOR RENDERING AT RGARDNER@MSA-PS.COM.)

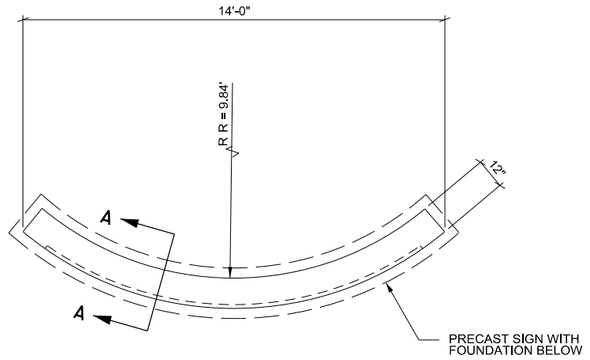


KIOSK SECTION A-A

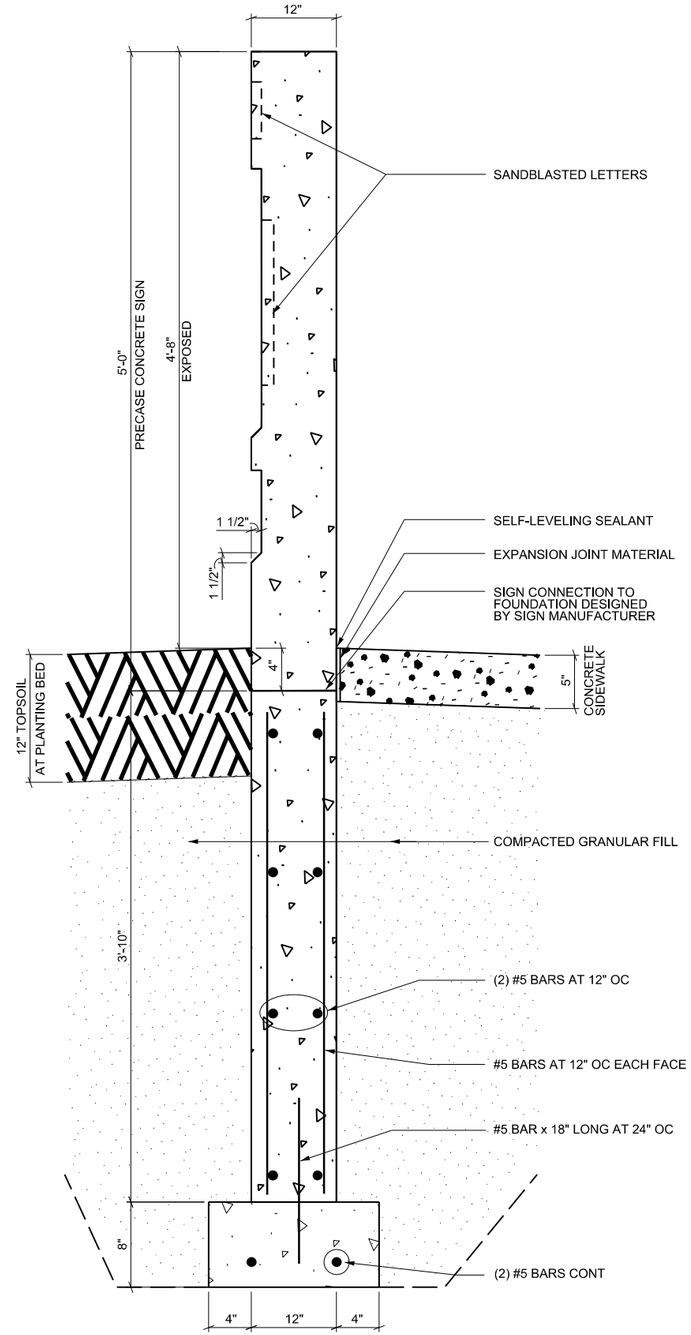
0 3" 6" 12" 18"

2

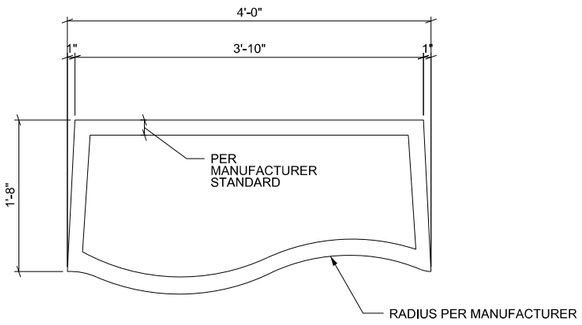
PROJECT NO: 6145-00-73	HWY: USH 12	COUNTY: SAUK	KIOSK SIGN DETAILS	SHEET 5	E



SIGN PLAN



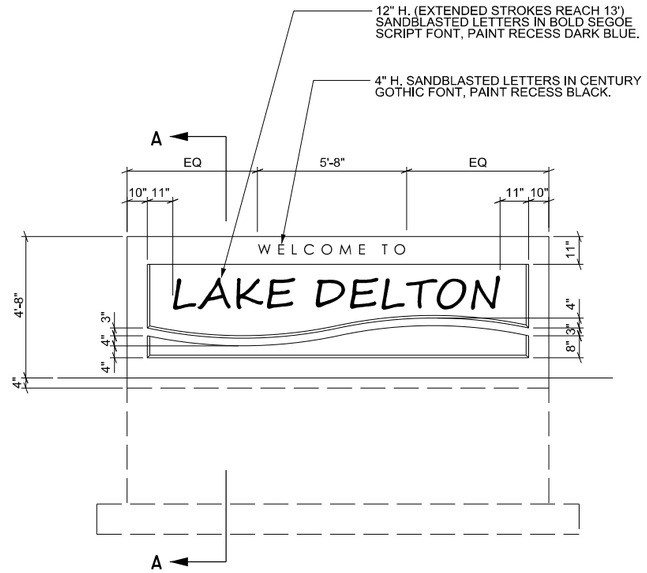
SECTION A-A



PRECAST CONCRETE PLANTER PLAN

NOTE: (2) UNIT DESIGN PLANS, SIMILAR TO CDP 3100 AND CDP 3101

NOTES:
1. 24" TALL.
2. FILL PLANTER AFTER PLACEMENT WITH 4" PEA GRAVEL & 12" TOPSOIL.
3. PLANTINGS SUPPLIED AND INSTALLED BY OTHERS.



FRONT SIGN ELEVATION

PROJECT NO: 6145-00-73	HWY: USH 12	COUNTY: SAUK	PLANTER AND SIGN DETAILS	SHEET 6	E



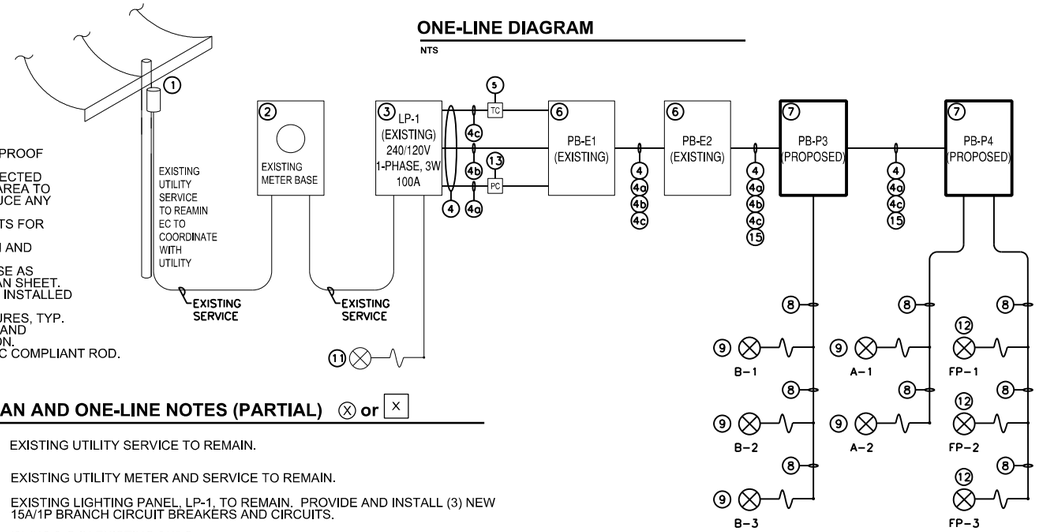
SCALE, FEET 0 5 10

GENERAL NOTES

1. ALL LIGHTING FOR PLAZA SHALL HAVE WATERPROOF SPLICING FOR ALL CONNECTIONS.
2. LOCATE SIGN FIXTURES SO THAT LIGHT IS DIRECTED IN AN UPWARD DIRECTION AT THE INTENDED AREA TO BE ILLUMINATED. ADJUST SHUTTERS TO REDUCE ANY STRAY LIGHTING.
3. PROVIDE ALL MOUNTING EQUIPMENT/BRACKETS FOR INSTALLATION.
4. INCLUDE ALL ACCESSORIES FOR APPLICATION AND INSTALLATION.
5. FIXTURE B TO BE LOCATED ON CONCRETE BASE AS DETAILED ON PLANTER AND SIGN DETAILS PLAN SHEET.
6. PROPOSED PULL BOX SHALL BE PROVIDE AND INSTALLED PER WISDOT STANDARDS (TYP.).
7. 3/4-INCH CONDUIT RUN TO ALL LIGHTING FIXTURES, TYP.
8. EC SHALL FIELD VERIFY EXISTING RACEWAYS AND SERVICE PRIOR TO BEGINNING CONSTRUCTION.
9. ALL FIXTURES SHALL HAVE GROUND, BY A NEC COMPLIANT ROD.

ONE-LINE DIAGRAM

NTS

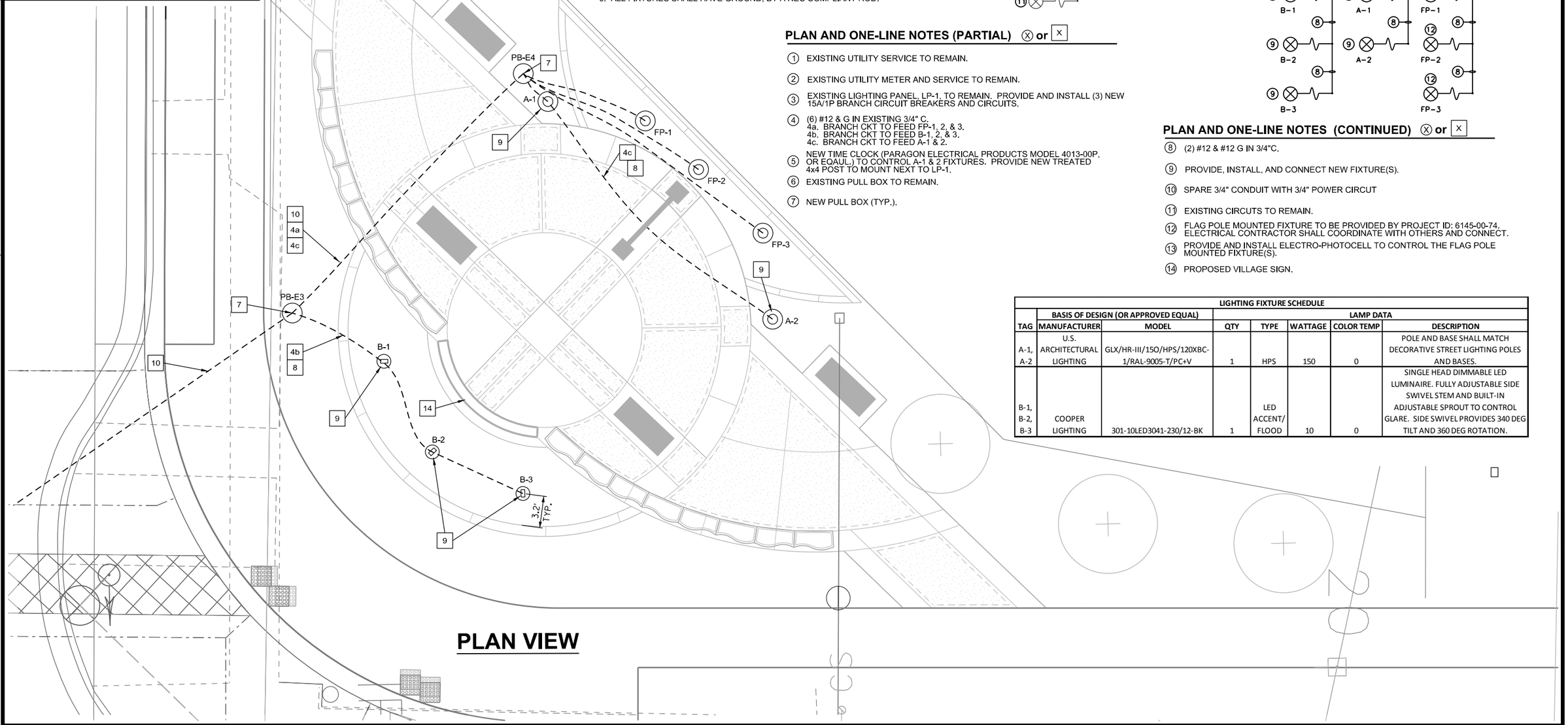


PLAN AND ONE-LINE NOTES (PARTIAL) ⓧ or ☒

1. EXISTING UTILITY SERVICE TO REMAIN.
2. EXISTING UTILITY METER AND SERVICE TO REMAIN.
3. EXISTING LIGHTING PANEL, LP-1, TO REMAIN. PROVIDE AND INSTALL (3) NEW 15A/1P BRANCH CIRCUIT BREAKERS AND CIRCUITS.
4. (6) #12 & G IN EXISTING 3/4" C.
   4a. BRANCH CKT TO FEED FP-1, 2, & 3.
   4b. BRANCH CKT TO FEED B-1, 2, & 3.
   4c. BRANCH CKT TO FEED A-1 & 2.
5. NEW TIME CLOCK (PARAGON ELECTRICAL PRODUCTS MODEL 4013-00P, OR EQAUL.) TO CONTROL A-1 & 2 FIXTURES. PROVIDE NEW TREATED 4x4 POST TO MOUNT NEXT TO LP-1.
6. EXISTING PULL BOX TO REMAIN.
7. NEW PULL BOX (TYP.).

PLAN AND ONE-LINE NOTES (CONTINUED) ⓧ or ☒

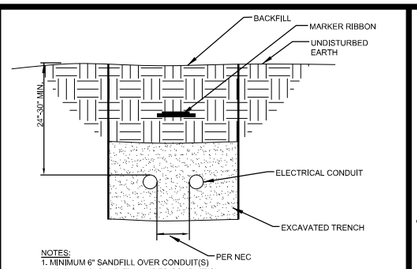
8. (2) #12 & #12 G IN 3/4"C.
9. PROVIDE, INSTALL, AND CONNECT NEW FIXTURE(S).
10. SPARE 3/4" CONDUIT WITH 3/4" POWER CIRCUT
11. EXISTING CIRCUTS TO REMAIN.
12. FLAG POLE MOUNTED FIXTURE TO BE PROVIDED BY PROJECT ID: 6145-00-74. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHERS AND CONNECT.
13. PROVIDE AND INSTALL ELECTRO-PHOTOCELL TO CONTROL THE FLAG POLE MOUNTED FIXTURE(S).
14. PROPOSED VILLAGE SIGN.



PLAN VIEW

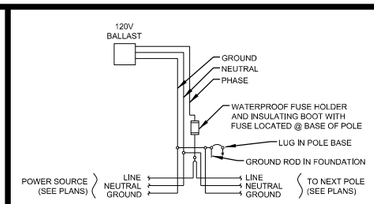
LIGHTING FIXTURE SCHEDULE

	BASIS OF DESIGN (OR APPROVED EQUAL)		LAMP DATA				
TAG	MANUFACTURER	MODEL	QTY	TYPE	WATTAGE	COLOR TEMP	DESCRIPTION
A-1, A-2	U.S. ARCHITECTURAL LIGHTING	GLX/HR-III/15O/HPS/120XBC-1/RAL-9005-T/PC+V	1	HPS	150	0	POLE AND BASE SHALL MATCH DECORATIVE STREET LIGHTING POLES AND BASES.
B-1, B-2, B-3	COOPER LIGHTING	301-10LED3041-230/12-BK	1	LED ACCENT/ FLOOD	10	0	SINGLE HEAD DIMMABLE LED LUMINAIRE. FULLY ADJUSTABLE SIDE SWIVEL STEM AND BUILT-IN ADJUSTABLE SPROUT TO CONTROL GLARE. SIDE SWIVEL PROVIDES 340 DEG TILT AND 360 DEG ROTATION.



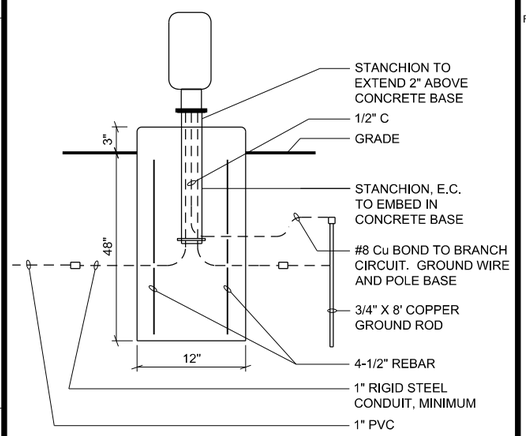
BURIED ELECTRICAL CONDUIT DETAIL

SCALE: NONE



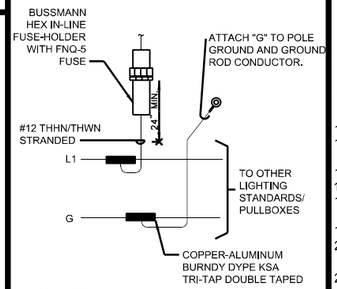
120V LUMINAIRE LIGHT POLE WIRING DETAIL

SCALE: NONE



GROUND MOUNTED FIXTURE BASE

NOT TO SCALE



NOTES:

1. SPLICE UNUSED PHASE CONDUCTORS THROUGH.
2. TO BE USED AT EACH POLE.
3. PER NEC

WIRING CONNECTION DETAIL

SCALE: NONE

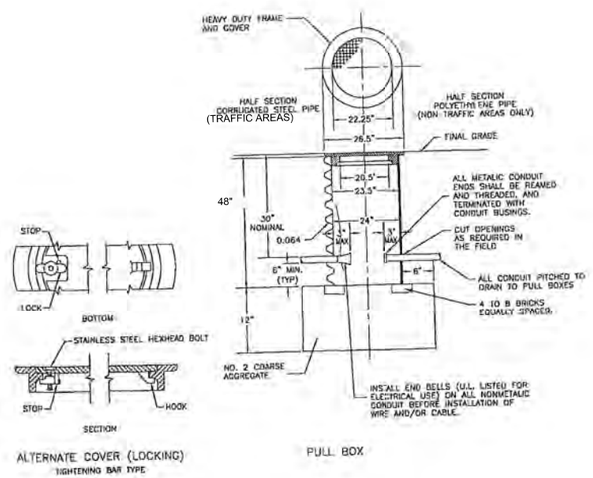
GENERAL NOTES - ELECTRICAL

1. THIS DRAWING IS A STANDARD LEGEND. SYMBOLS SHOWN MAY NOT ALL APPEAR ON DRAWINGS FOR THIS PROJECT.
2. ALL CONTACTS ARE SHOWN IN THE DE-ENERGIZED (SHELF) POSITION. BI-STABLE RELAYS ARE SHOWN IN THE RESET POSITION.
3. ONE-LINE DIAGRAMS FOR POWER SWITCHGEAR, USE ANSI STANDARD SYMBOLS AND ABBREVIATIONS.
4. SEE INSTRUMENTATION DRAWINGS FOR INSTRUMENTATION SYMBOLS AND DETAILS.
5. OTHER ABBREVIATIONS PER ANSI Z32.13 AND ISA S5.1
6. ELEVATIONS ADJACENT TO SYMBOLS ARE BASED ON STATION DATUM. HEIGHTS ADJACENT TO SYMBOLS (+4.0) ARE REFERENCED TO FINISHED FLOOR GRADE.
7. THE LETTERS "GFI" ADJACENT TO A RECEPTACLE INDICATES A GROUND FAULT INTERRUPTER FEED-THROUGH RECEPTACLE ASSEMBLY. THE LETTERS ADJACENT TO A PANELBOARD CIRCUIT BREAKER INDICATES A GROUND FAULT CIRCUIT BREAKER. THE LETTERS "IG" INDICATE AN ISOLATED GROUND RECEPTACLE, PROVIDE SEPARATE GROUND WIRE.
8. SEE SPECIFICATIONS AND SCHEDULES FOR COMPONENT REQUIREMENTS FOR MOTOR CONTROLLERS AND FOR CONTACTORS.
9. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE ONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM ENGINEER PRIOR TO PROCEEDING WITH WORK.
10. EFFORT WAS MADE IN THE PREPARATION OF THE CONTRACT DOCUMENTATION TO COORDINATE CONNECTIONS WITH ALL DISCIPLINES, HOWEVER THE EC IS RESPONSIBLE TO REVIEW ENTIRE PLANS AND THE SPECIFICATIONS AND INCLUDE ALL WORK REQUIRED TO PROVIDE A COMPLETE PROJECT.
11. SIZE HOMERUN WIRING PER ONE-LINE DIAGRAM AND NEC GUIDELINES.
12. REFER TO INSTRUMENTATION DEVICE SCHEDULE ON SCHEDULE SHEET FOR CONNECTION REQUIREMENTS OF INSTRUMENTATION AND CONTROL DEVICES, EQUIPMENT, ETC.
13. OBSERVE APPLICABLE CODE REQUIREMENTS FOR ELECTRICAL INSTALLATIONS WITHIN HAZARDOUS AREAS NOTED ON PLAN.
14. MINIMUM CONDUIT SIZE 3/4", UNLESS OTHERWISE NOTED.
15. ALL BRANCH CIRCUIT HOMERUNS TO BE (2)#12 & #12G IN 3/4"C MINIMUM UNLESS OTHERWISE NOTED OR REQUIRED. MOTOR WIRING AS INDICATED ON ONE-LINE DIAGRAM.
16. ALL DEVICE/SIGNAL CIRCUIT HOMERUNS TO BE (2)#14 & IN 3/4"C MINIMUM.
17. PROVIDE ALL MOTOR AND SIGNAL CIRCUIT HOMERUNS RELATED TO PROCESS EQUIPMENT.
18. COORDINATE EXACT LOCATION OF ALL EQUIPMENT AND FIXTURES WITH GC, OWNER, AND ENGINEER PRIOR TO ROUGH-IN.
19. EC SHALL MODIFY WIRE AND CIRCUIT SIZES BASED ON ACTUAL EQUIPMENT SUPPLIED.
20. CONTRACTOR SHALL REVIEW TYPICAL DETAILS AND ALL CONSTRUCTION SHALL COMPLY WITH ALL TYPICAL DRAWINGS AND DETAILS.
21. FUTURE EQUIPMENT AND DEVICES SHALL BE ROUGH IN CONDUIT FOR CONTROL AND POWER CABLES TO BOXES. ROUGH-IN CONDUIT AND MAKE PROVISION FOR FUTURE WIRING AND CABLING FOR POWER AND CONTROL. (TYP.)
22. DISCONNECTS RELATED TO PROCESS CONNECTIONS SHALL BE PROVIDED AND INSTALLED BY THE EC.
23. CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND LABELING ALL COMMUNICATIONS SYSTEM CABLING.
24. THE CONTRACTOR SHALL REVIEW AND FOLLOW GUIDELINES OF THE TYPICAL DETAILS.
25. EXISTING HOUSEKEEPING PADS, MOUNTS, AND SUPPORTS RELATED EQUIPMENT TO BE REMOVED SHALL BE REMOVED, AND SURFACES SHALL BE PATCHED.
26. CONSTRUCTION AND DEMOLISHION SHALL BE COMPLETE AND COORDINATE WITH ALL OTHER TRADES.
27. EC SHALL REVIEW CONTRACT DOCUMENT AND PROVIDE ALL WORK, MATERIALS, AND EQUIPMENT FOR A COMPLETE AND OPERABLE PROJECT.
28. INTERIOR RECEPTACALES SHALL BE MOUTNED 48"AFF.
29. EXTERIOR RECEPTACALES SHALL BE METALLIC INSERVICE WEATHER PROOF COVERS, GFI REC, AND MOUNTED 24" to 48" AFG.
30. PROVIDE CONCRETE HOUSEKEEP PAD FOR ALL FLOOR MOUNTED EQUIPMENT.
31. WALL MOUNTED EQUIPMENT AND DEVICES SHALL BE PER TYPICAL DETAILS.
32. ALL RACEWAYS THAT PENETRATE NEW FLOORS SHALL BE SLEEVED AND SEALED.
33. ALL EXTERIOR RACEWAYS THAT EXTEND FROM BELOW GRADE TO ABOVE GRADE SHALL BE INSTALLED WITH EXPANSION COLLAR SLEEVES.
34. EXTERIOR PEDISTALS SHALL BE INSTALLED TO A FROST PROTECTED STRUCTURE OR BE PROVIDED WITH MFR RECOMMENDED GROUND RATED GREEN TREAT FOUNDATION.
35. COORDINATE ACTUAL LOCATIONS OF ALL EQUIPMENT WITH GC, OWENER, AUTHORITY WITH JURISDICTION, OTHER TRADES, AND ENGINEER PRIOR TO ROUGH-IN. ACTUAL LAYOUT MAY VARY. ALL CHANGES SHALL BE JUSTIFIED AND COORDINATED.
36. OBSERVE ENVIRONMENT AND AREA CLASIFICATIONS AS REQUIRED. FOLLOW ALL APPLICABLE CODES.
37. SERVICE SHALL BE INSTALL COMPLETE AND IN COMPLIANCE TO THE UTILITY APPROVED REQUIREMENTS. ONLY DIRECTLY FROM THE UTILITY MAYBE APPLIED TO THE UTILITY ALLOWANCE. ALL OTHER WORK, LABOR, MATERIALS SHALL BE INCLUSIVE TO THE CONTRACT.

2

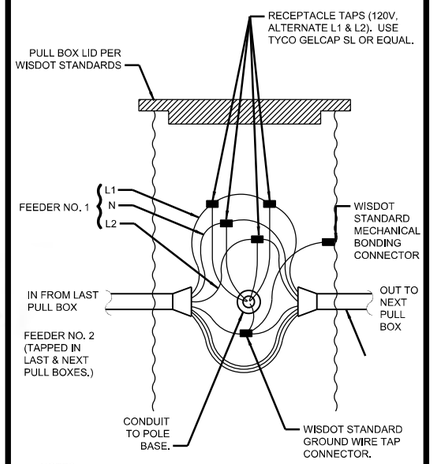
PULL BOX GENERAL NOTES:

1) SPLICING OF CONDUCTORS IN PULL BOX IS NOT PERMITTED, UNLESS SHOWN AS A TAP. TAPS SHALL BE WP POLARIS CONNECTORS OR BY COPPER-ALUMINUM BURNDY DYPE KSA TRI-TAP DOUBLE TAPPED
2) DETAILS OF CONSTRUCTION MATERIALS NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
3) ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.
4) POLYETHYLENE PULL BOXES SHALL NOT BE INSTALLED IN CONCRETE OR ASPHALTIC PAVEMENT. PULL BOXES LOCATED IN THE ROADWAY SHALL HAVE LOCKING COVERS.
5) ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1#4".
6) THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.
7) GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE. THE MECHANICAL CONNECTION (INSIDE AND OUTSIDE) TO THE PULL BOX SHALL BE TOTALLY AND PERMANENTLY SEALED WITH A SILICONE OR RUBBERIZED CALKING COMPOUND AS APPROVED BY THE ENGINEER.
8) GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE PULL BOXES.
9) ALL METALLIC CONDUIT, IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BRUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.



PLAZA PULL BOX DETAIL

SCALE: NONE

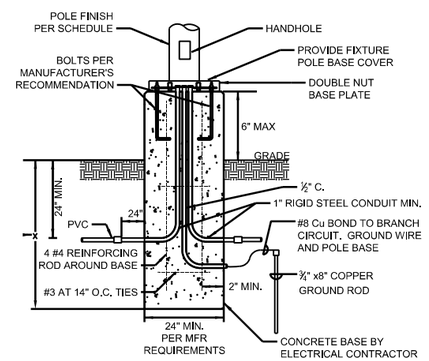


NOTES:

1. ALL TAP CONDUCTORS #12 AWG. FEEDER CONDUCTORS PER ONE-LINE.

PULL BOX FOR BRANCH CKT TAPS - ELEVATION VIEW

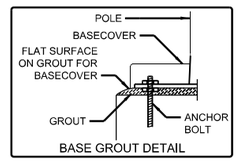
SCALE: NONE



POLE HEIGHT IN FEET	BASE DEPTH IN INCHES BELOW GRADE
10'-0"	X = 60" (INCHES)
15'-0"	X = 60" (INCHES)
20'-0"	X = 60" (INCHES)
25'-0"	X = 72" (INCHES)
30'-0"	X = 72" (INCHES)
35'-0"	X = 72" (INCHES)
40'-0"	X = 96" (INCHES)
45'-0"	X = 96" (INCHES)
50'-0"	X = 108" (INCHES)

NOTES:

1. IN UNDISTURBED EARTH, EXCLUDING FILL MATERIAL, A 2'-0" DIA. HOLE WHICH SHALL BE USED AS THE FORM FOR THE CONCRETE BASE SHALL BE DRILLED.
2. IN EXCAVATED AREAS OR IN EXISTING SOIL CONTAINING FILL OF OBJECTIONABLE MATERIAL, BACKFILL AROUND CONCRETE BASE WITH COMPACTED GRANULAR BACKFILL A MIN. OF 2'-0" IN ALL DIRECTIONS.
3. A BREAK-AWAY MOUNTING BASE FIXTURE SHALL BE SUPPLIED FOR ALL FIXTURES PROPOSED.



EXTERIOR MOUNTED FIXTURE BASE DETAIL

SCALE: NONE

PROJECT NO: 6145-00-73	HWY: USH 12	COUNTY: SAUK	PLAZA ELECTRICAL DETAILS	SHEET 8	E

2

EXISTING VILLAGE
ELECTRICAL SERVICE LP-1

PLAZA ELECTRICAL
CONNECTION

EXISTING
PULL BOX
PB-E1

EXISTING
PULL BOX
PB-E2

PROPOSED
PULL BOX
PB-P1

SEE PLAZA ELECTRICAL DETAIL SHEET
FOR MORE INFORMATION

STH 23/MUNROE AVE.

WHITLOCK ST

USH 12/WI DELLS PARKWAY

NOTE: WHITLOCK ST WAS
CONSTRUCTED BY THE
VILLAGE OF LAKE DELTON
IN 2012

USH 12/WI DELLS PARKWAY

SCALE: FEET 0 25 50

PROJECT NO: 6145-00-73	HWY: USH 12	COUNTY: SAUK	USH 12 ENHANCEMENT DETAILS	SHEET 9	E

2

SCALE, FEET 0 5 10

N

PROPERTY LINE

887.22
887.50
887.31
887.67
887.63
887.60
887.60
887.79
887.75
887.85
887.80
887.80
887.80
887.90
888.00
888.00
888.00
888.00
888.00
888.00
888.10
887.87
887.87
887.85
887.79
887.75
887.67
887.63
887.47
887.67
887.67
887.23
887.15
887.80

22.00'
22.00'
R=20.84'
R=17.84'
R=9.84'
5.50'
5.50'
7.20'
8.00'
4.00'
10'
2'
8'
2'
10'
14.87'
2' TYP.
2' TYP.
3.2' TYP.
6.65' MINIMUM

R.O.W.
R.O.W.
R.O.W.

CONCRETE COLORING KEY

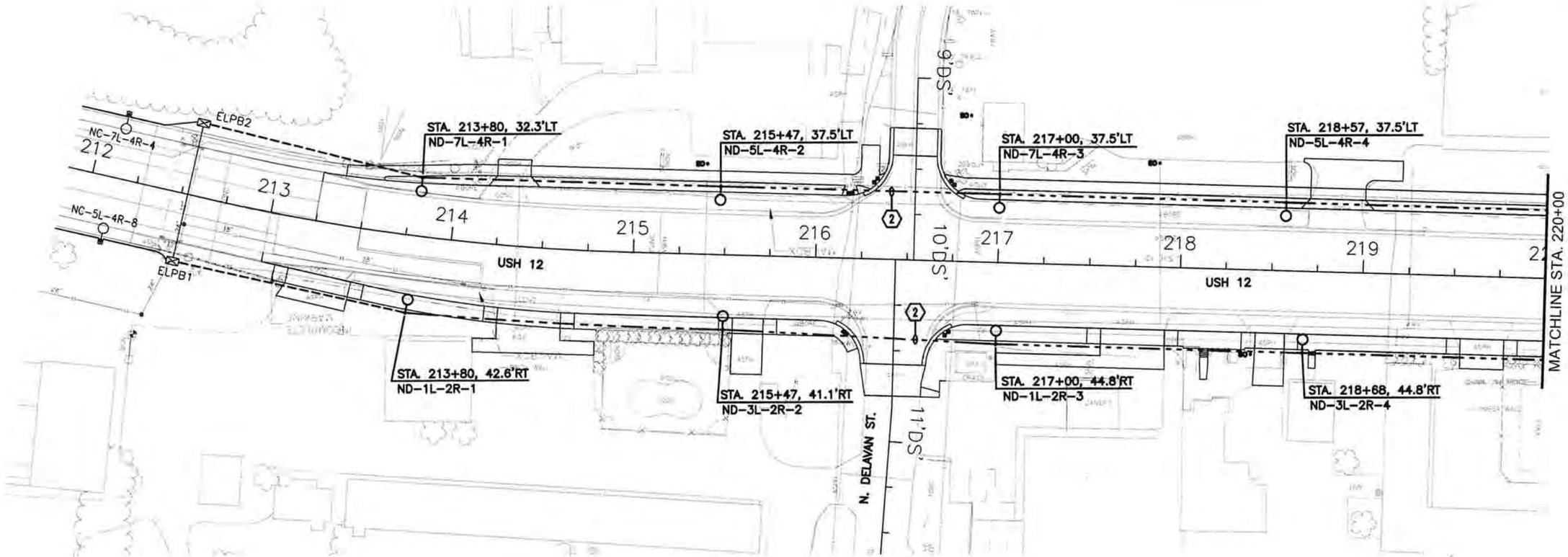
- NATURAL GREY (COLOR A)
- WISDOT RED COLOR SIMILAR TO FEDERAL STD. 595 COLOR SERVER, FS COLOR 31136 (COLOR B)

NOTE:

1. CONTRACTOR SHALL COORDINATE WORK WITH CONTRACTOR OF PROJECT ID: 6145-0074.
2. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO ALL EXISTING TURF AREAS OUTSIDE THE CONSTRUCTION LIMITS. CONTRACTOR MAY OPT TO INSTALL A THICKENED (1') DEEP BACK EDGER ALONG PROPERTY LINE TO PREVENT FILLING ADJACENT PROPERTY. IF SELECTED TO CONSTRUCT, CONTRACTOR SHALL NOTIFY WISDOT & VILLAGE OF DECISION PRIOR TO CONSTRUCTING.

PLAN VIEW

PROJECT NO: 6145-00-73	HWY: USH 12	COUNTY: SAUK	PLAZA GRADING PLAN	SHEET 10	E



LEGEND:

⊠	LIGHTING PULL BOX
○—	EXISTING DECORATIVE LIGHTING UNIT
○—	DECORATIVE LIGHTING UNIT: 28.5-FOOT OVERALL HEIGHT, 2-FOOT BRACKET, 250W HPS LUMINARIE, BANNER ARMS, FESTOON RECEPTACLE.
———	EXISTING CONDUCTORS/CONDUIT
- - - - - - - -	EMPTY 2-INCH CONDUIT
—— - ——	PROPOSED CONDUCTORS IN CONDUIT: 2-4AWG (LTG), 2-4AWG (REC) AND 1-6AWG (GND) IN 2-INCH CONDUIT
—— - - ——	PROPOSED CONDUCTORS IN CONDUIT: 3-4AWG (LTG), 2-4AWG (REC) AND 1-6AWG (GND) IN 2-INCH CONDUIT
—— - - - ——	PROPOSED CONDUCTORS IN CONDUIT: 2-2AWG (LTG), 2-2AWG (REC) AND 1-4AWG (GND) IN 2-INCH CONDUIT
—— - - - - ——	PROPOSED CONDUCTORS IN CONDUIT: 3-2AWG (LTG), 2-2AWG (REC) AND 1-4AWG (GND) IN 2-INCH CONDUIT

—⊣	CONDUIT STUB-OUT CAPPED
//////// X	REMOVAL/ABANDON
N	NEUTRAL
GND	GROUND
HPS	HIGH PRESSURE SODIUM
REM	REMOVE
TYP	TYPICAL

STA. 154+00, 60'RT — STATION (LOCATION)
ND-1L-2R-1
- POLE NUMBER
- RECEPTACLE (REC) CIRCUIT
- LUMINAIRE (LTG) CIRCUIT
- CONTROL CABINET

KEYED NOTES:

1. NO SPLICES IN PULL BOX.
2. DIRECTIONAL BORE CONDUIT.

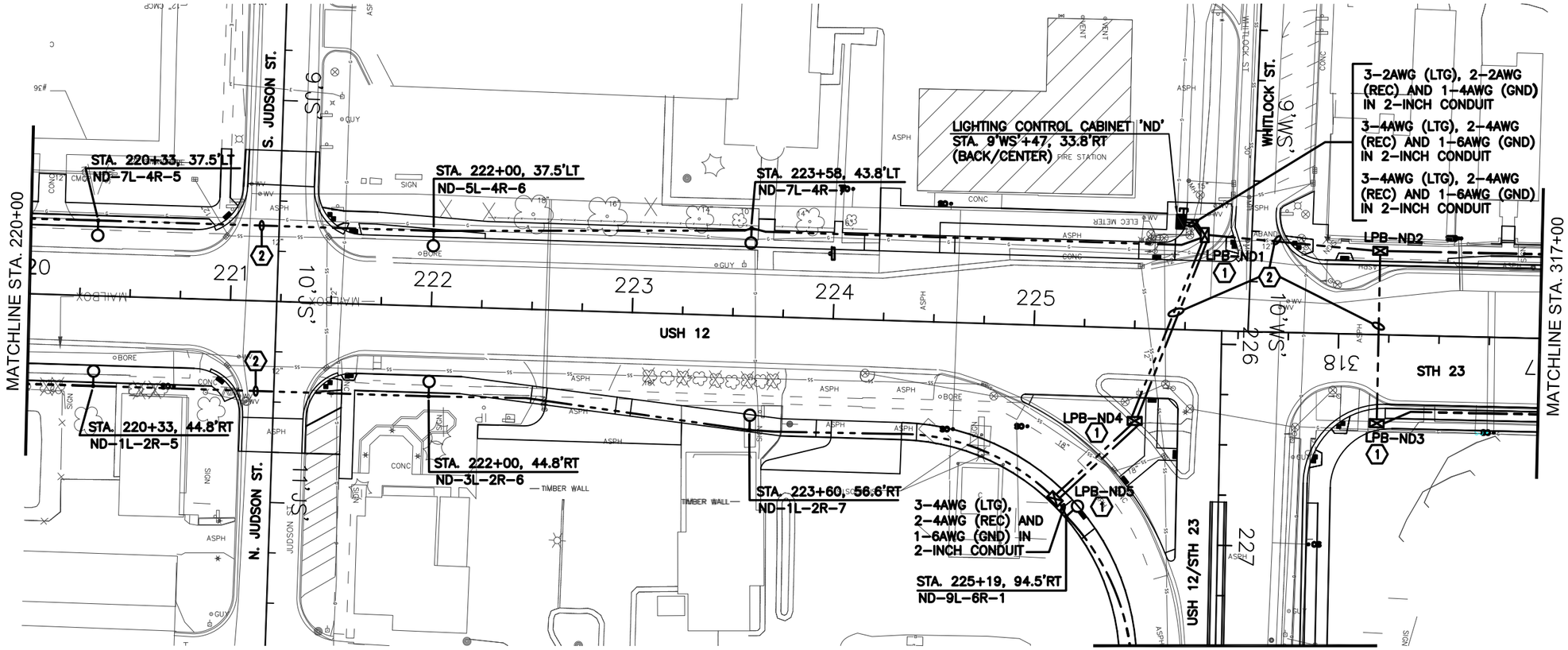
WISCONSIN
GREG W. SADOWSKI
E-29334
EAGLE, WI
PROFESSIONAL ENGINEER

Powrtek Engineering, Inc.
20711 WATERTOWN RD., SUITE C
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FAX: 262-827-9615

SHEET 1 OF 7

PROJECT NO: 6145-00-73	HWY: USH 12	COUNTY: SAUK	LIGHTING PLANS	SHEET E

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LEGEND:

⊠	LIGHTING PULL BOX
○—	EXISTING DECORATIVE LIGHTING UNIT
●—	DECORATIVE LIGHTING UNIT: 28.5-FOOT OVERALL HEIGHT, 2-FOOT BRACKET, 250W HPS LUMINARIE, BANNER ARMS, FESTOON RECEPTACLE.
———	EXISTING CONDUCTORS/CONDUIT
– – – – –	EMPTY 2-INCH CONDUIT
——— – ———	PROPOSED CONDUCTORS IN CONDUIT: 2-4AWG (LTG), 2-4AWG (REC) AND 1-6AWG (GND) IN 2-INCH CONDUIT
——— – – ———	PROPOSED CONDUCTORS IN CONDUIT: 3-4AWG (LTG), 2-4AWG (REC) AND 1-6AWG (GND) IN 2-INCH CONDUIT
——— – – – ———	PROPOSED CONDUCTORS IN CONDUIT: 2-2AWG (LTG), 2-2AWG (REC) AND 1-4AWG (GND) IN 2-INCH CONDUIT
——— – – – – ———	PROPOSED CONDUCTORS IN CONDUIT: 3-2AWG (LTG), 2-2AWG (REC) AND 1-4AWG (GND) IN 2-INCH CONDUIT

—⊣	CONDUIT STUB-OUT CAPPED
////////. X	REMOVAL/ABANDON
N	NEUTRAL
GND	GROUND
HPS	HIGH PRESSURE SODIUM
REM	REMOVE
TYP	TYPICAL

STA. 154+00, 60'RT ← STATION (LOCATION)
ND-1L-2R-1
- POLE NUMBER
- RECEPTACLE (REC) CIRCUIT
- LUMINAIRE (LTG) CIRCUIT
- CONTROL CABINET

KEYED NOTES:

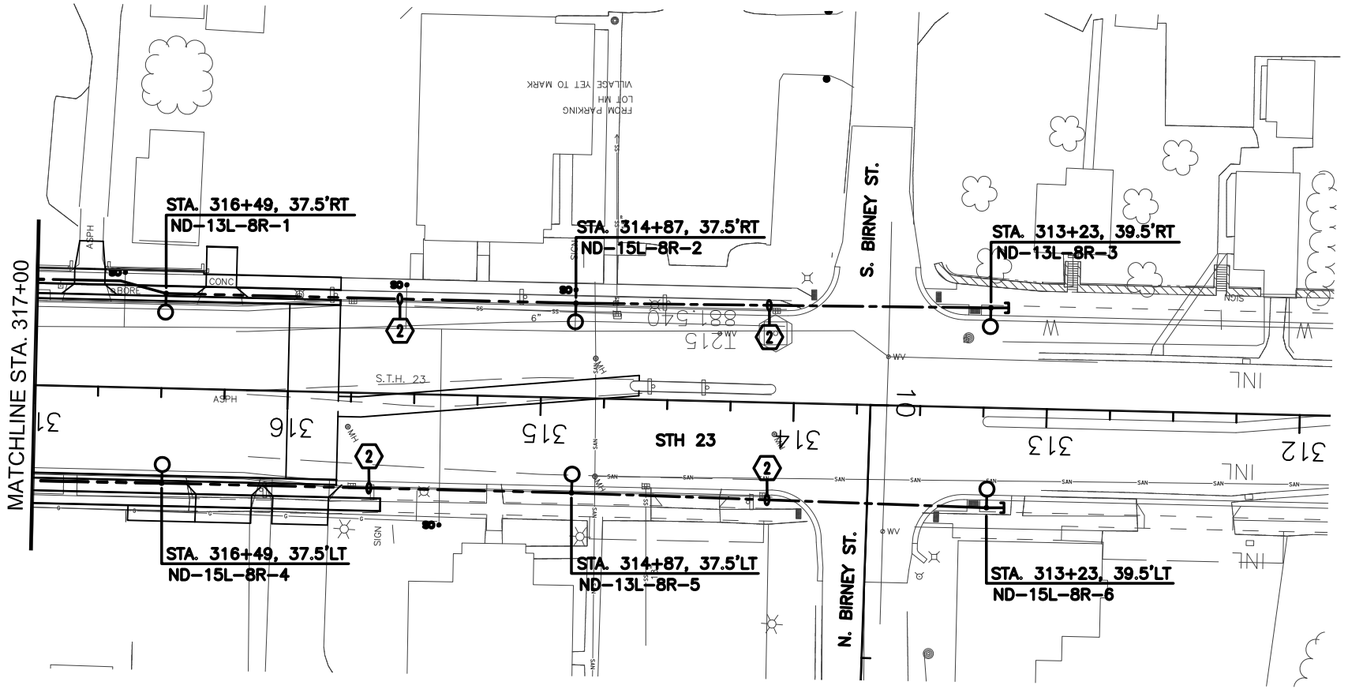
1. NO SPLICES IN PULL BOX.
2. DIRECTIONAL BORE CONDUIT.

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SHEET 2 OF 7

PROJECT NO: 6145-00-73	HWY: USH 12	COUNTY: SAUK	LIGHTING PLANS	SHEET 12 E

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LEGEND:

⊠	LIGHTING PULL BOX
○—	EXISTING DECORATIVE LIGHTING UNIT
○—	DECORATIVE LIGHTING UNIT: 28.5–FOOT OVERALL HEIGHT, 2–FOOT BRACKET, 250W HPS LUMINARIE, BANNER ARMS, FESTOON RECEPTACLE.
———	EXISTING CONDUCTORS/CONDUIT
– – – – – – – –	EMPTY 2–INCH CONDUIT
——— – ———	PROPOSED CONDUCTORS IN CONDUIT: 2–4AWG (LTG), 2–4AWG (REC) AND 1–6AWG (GND) IN 2–INCH CONDUIT
——— – – ———	PROPOSED CONDUCTORS IN CONDUIT: 3–4AWG (LTG), 2–4AWG (REC) AND 1–6AWG (GND) IN 2–INCH CONDUIT
——— – – – ———	PROPOSED CONDUCTORS IN CONDUIT: 2–2AWG (LTG), 2–2AWG (REC) AND 1–4AWG (GND) IN 2–INCH CONDUIT
——— – – – – ———	PROPOSED CONDUCTORS IN CONDUIT: 3–2AWG (LTG), 2–2AWG (REC) AND 1–4AWG (GND) IN 2–INCH CONDUIT

——⊣	CONDUIT STUB–OUT CAPPED
////////. X	REMOVAL/ABANDON
N	NEUTRAL
GND	GROUND
HPS	HIGH PRESSURE SODIUM
REM	REMOVE
TYP	TYPICAL

STA. 154+00, 60'RT ← STATION (LOCATION)
ND–1L–2R–1
- POLE NUMBER
- RECEPTACLE (REC) CIRCUIT
- LUMINAIRE (LTG) CIRCUIT
- CONTROL CABINET

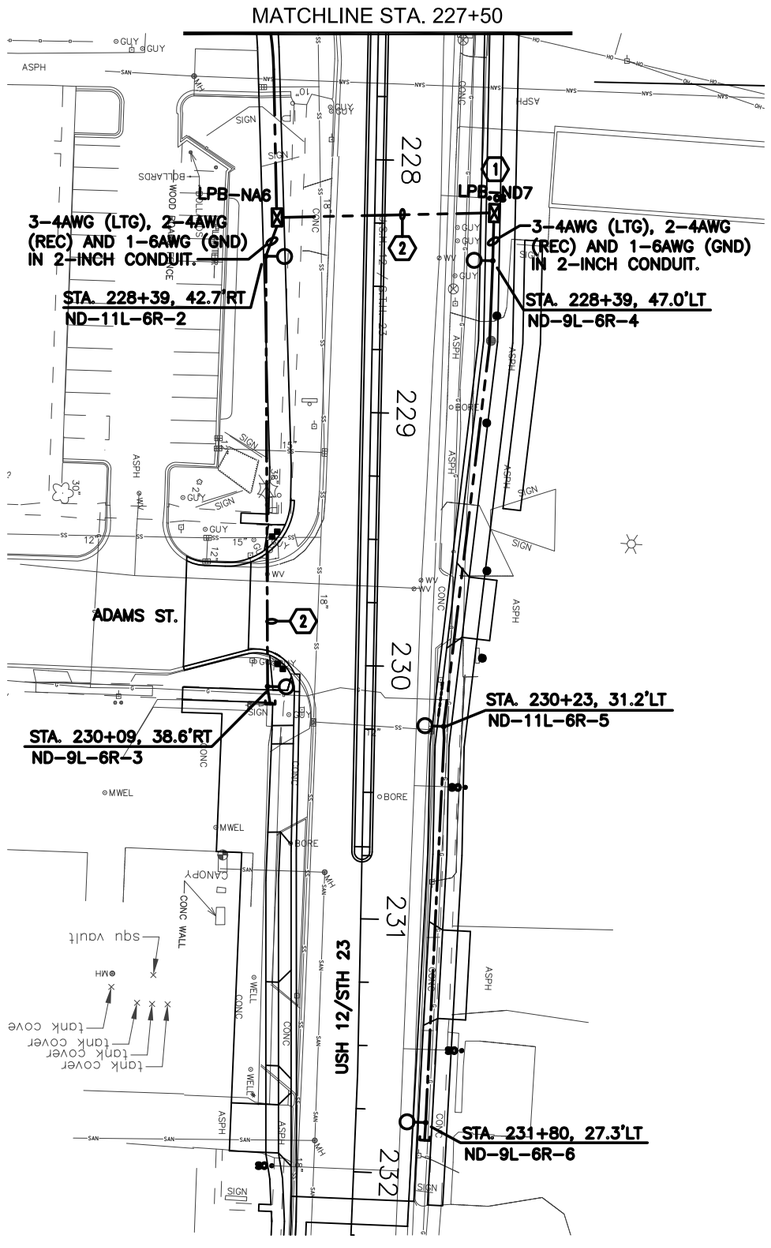
KEYED NOTES:

1. NO SPLICES IN PULL BOX.
2. DIRECTIONAL BORE CONDUIT.

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SHEET 3 OF 7

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KEYED NOTES:

1. NO SPLICES IN PULL BOX.
2. DIRECTIONAL BORE CONDUIT.

LEGEND:

⊠	LIGHTING PULL BOX
○–	EXISTING DECORATIVE LIGHTING UNIT
O–	DECORATIVE LIGHTING UNIT: 28.5–FOOT OVERALL HEIGHT, 2–FOOT BRACKET, 250W HPS LUMINARIE, BANNER ARMS, FESTOON RECEPTACLE.
———	EXISTING CONDUCTORS/CONDUIT
– – – – –	EMPTY 2–INCH CONDUIT
——– – ——–	PROPOSED CONDUCTORS IN CONDUIT: 2–4AWG (LTG), 2–4AWG (REC) AND 1–6AWG (GND) IN 2–INCH CONDUIT
——– – – ——–	PROPOSED CONDUCTORS IN CONDUIT: 3–4AWG (LTG), 2–4AWG (REC) AND 1–6AWG (GND) IN 2–INCH CONDUIT
——– – – – ——–	PROPOSED CONDUCTORS IN CONDUIT: 2–2AWG (LTG), 2–2AWG (REC) AND 1–4AWG (GND) IN 2–INCH CONDUIT
——– – – – ——–	PROPOSED CONDUCTORS IN CONDUIT: 3–2AWG (LTG), 2–2AWG (REC) AND 1–4AWG (GND) IN 2–INCH CONDUIT

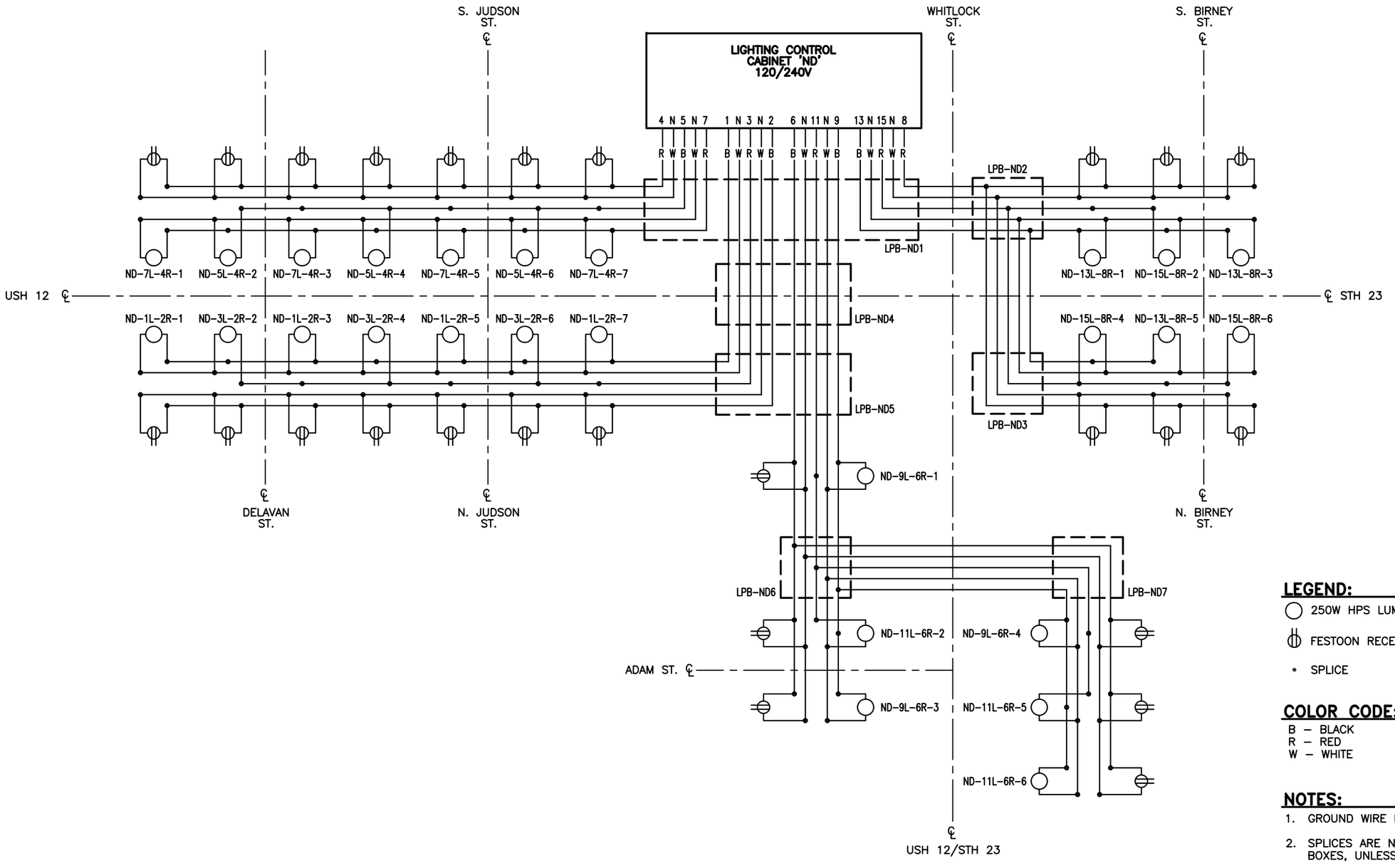
—]	CONDUIT STUB–OUT CAPPED
X	REMOVAL/ABANDON
N	NEUTRAL
GND	GROUND
HPS	HIGH PRESSURE SODIUM
REM	REMOVE
TYP	TYPICAL

STA. 154+00, 60'RT — STATION (LOCATION)
ND–1L–2R–1
- POLE NUMBER
- RECEPTACLE (REC) CIRCUIT
- LUMINAIRE (LTG) CIRCUIT
- CONTROL CABINET

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SHEET 4 OF 7

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LEGEND:

- ○ 250W HPS LUMINARIE
- ⫴ FESTOON RECEPTACLE
- • SPLICE

COLOR CODE:

B – BLACK
R – RED
W – WHITE

NOTES:

1. GROUND WIRE REQUIRED, NOT SHOWN.
2. SPLICES ARE NOT ALLOWED IN PULL BOXES, UNLESS INDICATED.

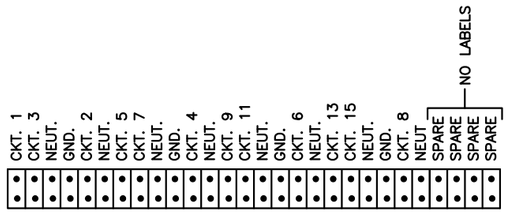
FIELD WIRING DIAGRAM – CABINET 'ND'

NOT TO SCALE

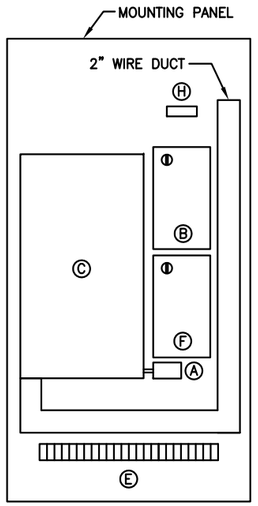
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SHEET 5 OF 7

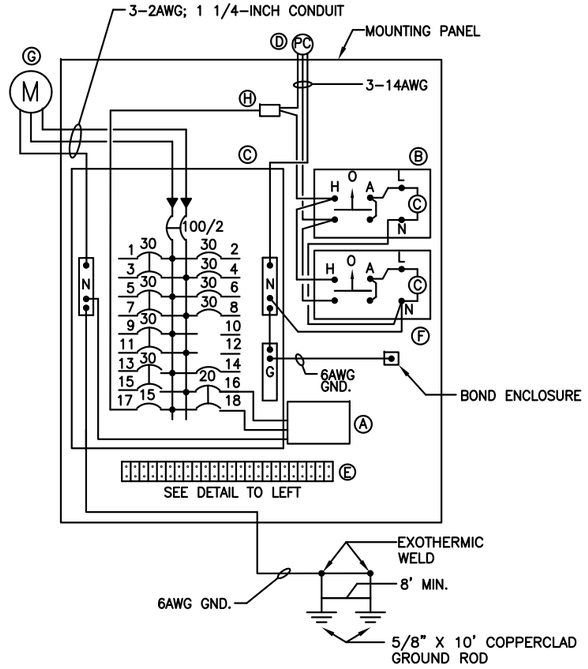
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FIELD WIRING TERMINATION STRIP DETAIL
NO SCALE



EQUIPMENT LAYOUT
NO SCALE



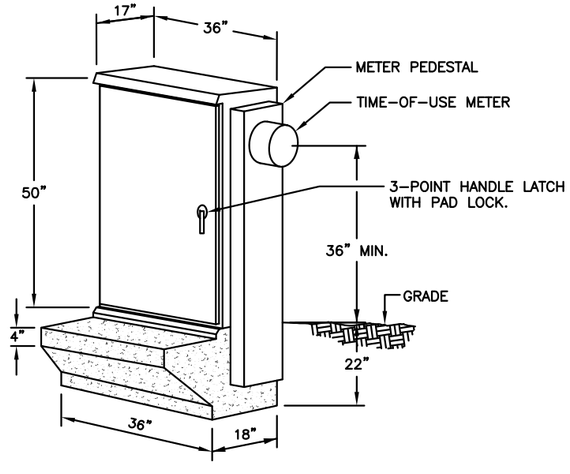
CONTROL DIAGRAM
NO SCALE

EQUIPMENT:

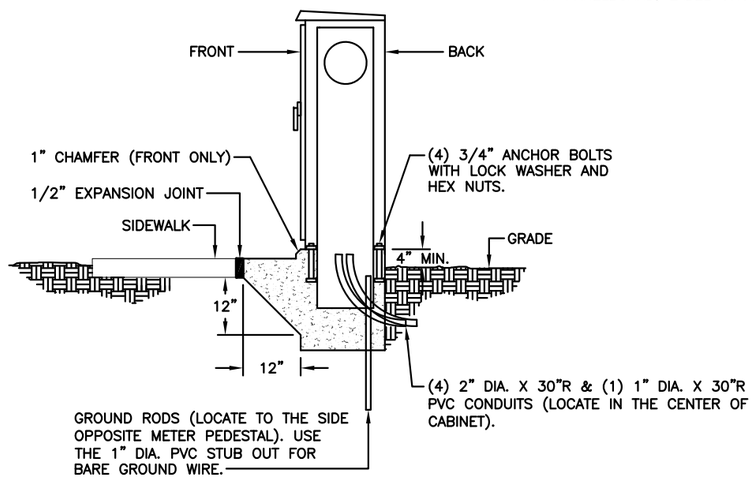
- (A) SURGE ARRESTER
- (B) 8 POLE. 30A 600V ELECTRICALLY HELD "LIGHTING" CONTACTOR, 120V CONTROL COIL, H-O-A SWITCH, NEMA 1 ENCLOSURE.
- (C) 100A MCB. 120/240V, 1PH. 3W. 18 CKT., PANELBOARD WITH (4) 30A/2P (LTG), (4) 30A/1P (RECPT), (1) 20A/2P (SURGE ARRESTER) AND (1) 15A/1P (CONTROL) BOLT-ON BRANCH BREAKERS, RATED 22000A RMS INTERRUPTING CAPACITY.
- (D) BUTTON TYPE PHOTOCELL, 120V, INSTALLED IN OVERHANG OF CABINET ABOVE DOOR (FACING DOWN).
- (E) FIELD WIRING TERMINATION STRIP, SEE DETAIL FOR BLOCK LAYOUT.
- (F) 4 POLE, 30A 600V ELECTRICALLY HELD "RECEPTACLE" CONTACTOR, 120V CONTROL COIL, H-O-A SWITCH, NEMA 1 ENCLOSURE.
- (G) UTILITY APPROVED 0-200A, 120/240V, 1PH, 3W METER PEDESTAL.
- (H) CONTROL TERMINAL BLOCK.

NOTES:

1. ALL CONTROL WIRING SHALL BE COLOR CODED 14 AWG, UNLESS OTHERWISE NOTED.
2. ALL POWER AND CONTROL WIRING SHALL BE NEATLY ROUTED, LABELED AND SUPPORTED. USE PARDUIT CCH SERIES MOUNTING DEVICES TO SUPPORT CONDUCTORS (FOR OTHER THAN IN WIRE DUCT).
3. THE LIGHTING CONTROL CABINET SHALL BE COMPLETELY WIRED UP TO THE FIELD WIRING TERMINATION STRIP IN THE CONTRACTORS SHOP AND TESTED PRIOR TO INSTALLATION AT THE SITE.
4. A COPY OF THIS SHEET WITH AS-BUILT (RECORD) CONDITIONS SHALL BE PUT IN A PLASTIC PROTECTOR IN THE CABINET.
5. THE CONTRACTOR SHALL COMPLY WITH UTILITY SERVICE AND METERING REQUIREMENTS.
6. PROVIDE 10 AWG WIRE FROM CIRCUIT BREAKERS (CKTs 1, 3, 5, 7, 9, 11, 13 & 15) THROUGH 'LIGHTING' CONTRACTOR, 10AWG FROM CIRCUIT BREAKERS (CKTs 2, 4, 6 & 8) THROUGH 'RECEPTACLE' CONTRACTOR, 10AWG GROUND WIRE FROM GROUND BUS AND 10AWG NEUTRAL WIRE FROM NEUTRAL BUS TO FIELD WIRING TERMINATION STRIP FOR EACH UNDERGROUND CABLE RUN, AS REQUIRED.
7. ENCLOSURE SHALL BE GROUNDED.
8. LEAVE UNUSED CIRCUIT BREAKERS IN OFF POSITION. PROVIDE TYPED CIRCUIT DIRECTORY IN PANELBOARD, LABEL UNUSED CBs AS "SPARE".



CABINET - FRONT VIEW
NO SCALE



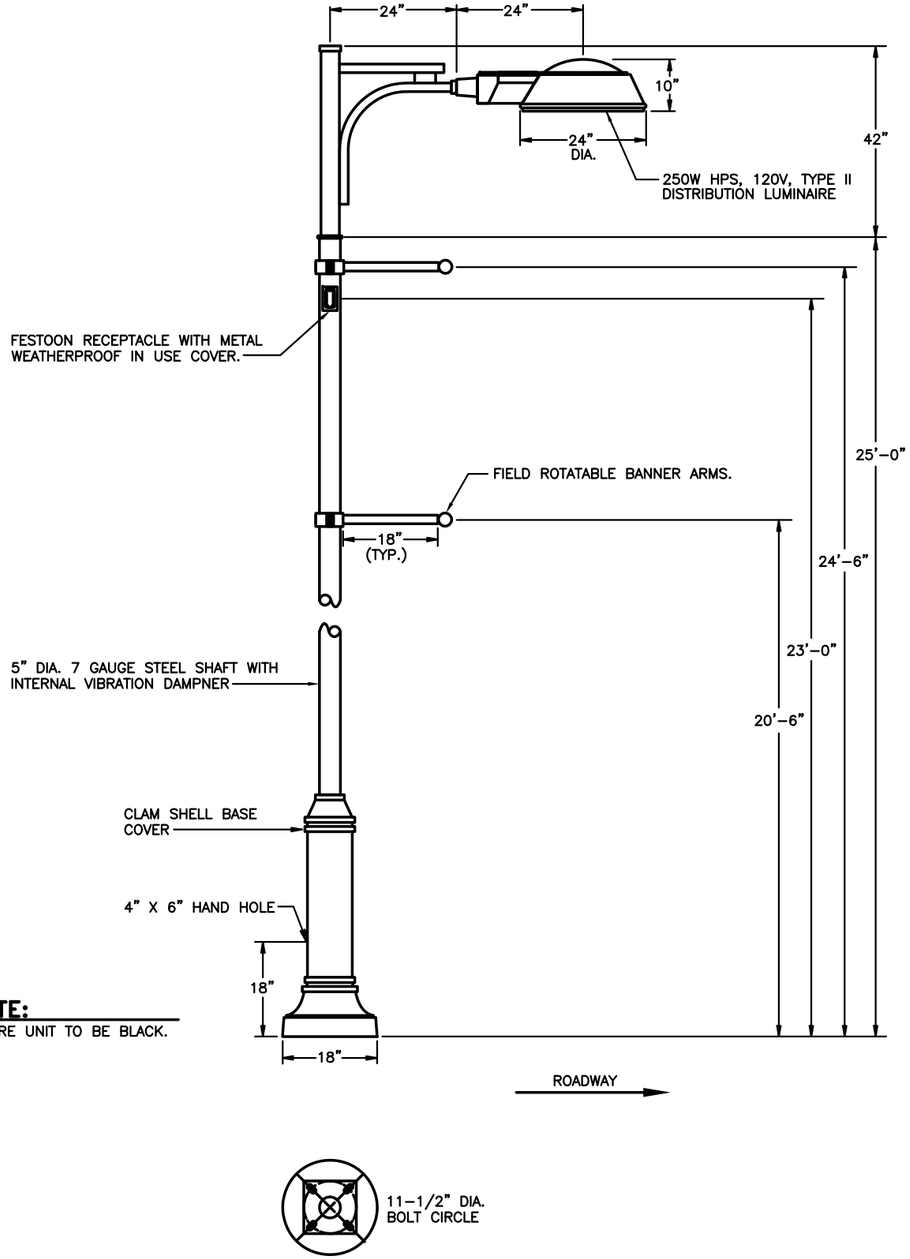
CABINET - SIDE VIEW
NO SCALE

LIGHTING CONTROL CABINET
NO SCALE

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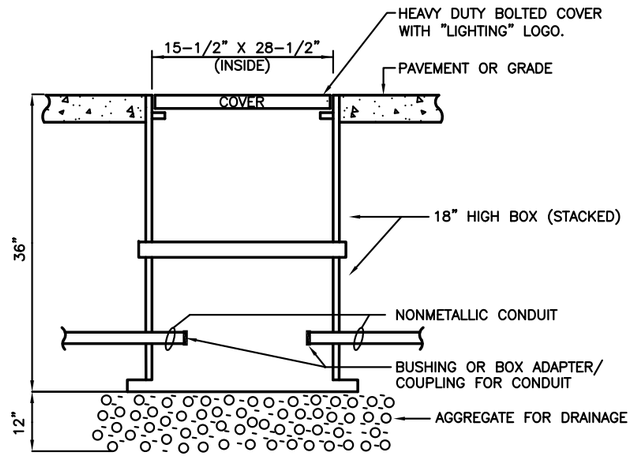
SHEET 6 OF 7

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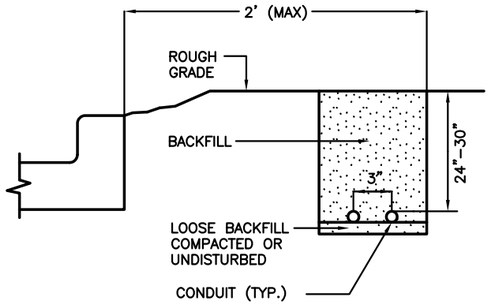
NOTE:
ENTIRE UNIT TO BE BLACK.

DECORATIVE LIGHTING UNIT DETAIL
NO SCALE

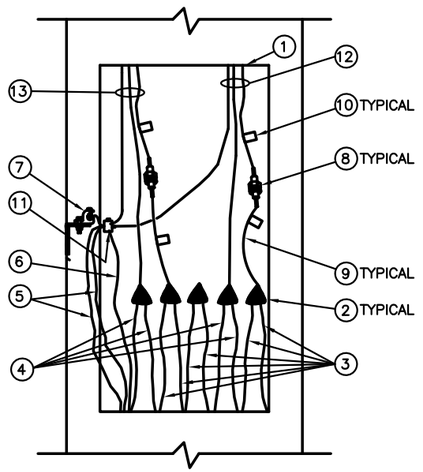


NOTES:
1. PULLBOX IS A UL LISTED CONCRETE COMPOSITE.
2. SHIM BETWEEN SECTIONS AS REQUIRED SO BOX IS LEVEL WITH FINAL GRADE/PAVEMENT.

LIGHTING PULL BOX (17"x30"x36")
NO SCALE



CONDUIT TRENCH DETAIL
NO SCALE



1. POLE HAND HOLE
2. INSULATED SPLICE.
3. UNGROUNDED CONDUCTORS.
4. GROUNDED CONDUCTORS.
5. SYSTEM GROUNDING CONDUCTORS.
6. #6 CONDUCTOR TO GROUND ROD.
7. TRANSFORMER BASE GROUNDING LUG.
8. INLINE BREAKAWAY FUSE ASSEMBLY, WITH WATERPROOF BOOTS AND 10A KTK FUSE.
9. 12" PIGTAIL BETWEEN SPLICE AND FUSE ASSEMBLY.
10. CIRCUIT TAG.
11. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTION (NOT INSULATED).
12. 3#12 RHW/USE TO LUMINAIRE.
13. 3#12 RHW/USE TO RECEPTACLE.

POLE WIRING DETAIL
NO SCALE

Powrtek Engineering,Inc.
20711 WATERTOWN RD., SUITE C
WAUKESHA, WI 53186
VOICE: 262-827-9575
FAX: 262-827-9615

SHEET 7 OF 7

H:\PROJECTS\11950-USH 12\Phase 3\Powrtek\E7 - Lighting Details.dwg, 1/10/2013 9:04:56 AM

DATE 05APR13 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	6145-00-73 QUANTITY
0180	213.0100	FINISHING ROADWAY (PROJECT) 01. 6145-00-73	EACH	1.000	1.000
0200	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	105.000	105.000
0450	602.0410	CONCRETE SIDEWALK 5-INCH	SF	865.000	865.000
0740	619.1000	MOBILIZATION	EACH	0.120	0.120
0810	625.0105	TOPSOIL	CY	40.000	40.000
1100	643.0100	TRAFFIC CONTROL (PROJECT) 01. 6145-00-73	EACH	1.000	1.000
1540	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 6145-00-73	LS	1.000	1.000
1580	652.0205	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3/4-INCH	LF	438.000	438.000
1590	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	3,537.000	3,537.000
1610	652.0605	CONDUIT SPECIAL 2-INCH	LF	1,289.000	1,289.000
1680	654.0105	CONCRETE BASES TYPE 5	EACH	26.000	26.000
1800	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	468.000	468.000
1810	655.0625	ELECTRICAL WIRE LIGHTING 6 AWG	LF	2,217.000	2,217.000
1820	655.0630	ELECTRICAL WIRE LIGHTING 4 AWG	LF	13,061.000	13,061.000
1830	655.0635	ELECTRICAL WIRE LIGHTING 2 AWG	LF	13,016.000	13,016.000
1870	656.0400	ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (LOCATION) 01. 6145-00-73 CABINET ND	LS	1.000	1.000
2180	SPV.0035	SPECIAL 01. CRUSHED GRANITE STONE	CY	8.000	8.000
2230	SPV.0060	SPECIAL 03. LIGHTING PULL BOXES	EACH	7.000	7.000
2240	SPV.0060	SPECIAL 04. LIGHTING CONTROL CABINET	EACH	1.000	1.000
2250	SPV.0060	SPECIAL 05. DECORATIVE LIGHTING UNITS	EACH	26.000	26.000
2260	SPV.0060	SPECIAL 06. ACCENT SIGN LIGHT FIXTURE B	EACH	3.000	3.000
2270	SPV.0060	SPECIAL 07. PLAZA LIGHT FIXTURE A	EACH	2.000	2.000
2280	SPV.0060	SPECIAL 08. PLAZA PULL BOX	EACH	2.000	2.000
2290	SPV.0060	SPECIAL 09. INFORMATION KIOSK	EACH	1.000	1.000
2620	SPV.0090	SPECIAL 05. 8-INCH WIDE X 4-INCH THICK CONCRETE EDGING	LF	71.000	71.000
2630	SPV.0090	SPECIAL 06. 1-FOOT WIDE X 4-INCH THICK CONCRETE EDGING	LF	53.000	53.000
2700	SPV.0105	SPECIAL 03. PLAZA PLANTER	LS	1.000	1.000
2710	SPV.0105	SPECIAL 04. PRECAST CONCRETE SIGN	LS	1.000	1.000
2720	SPV.0105	SPECIAL 05. PLAZA ELECTRICAL CONNECTION	LS	1.000	1.000
2730	SPV.0165	SPECIAL 01. CONCRETE SIDEWALK 5-INCH COLORED	SF	1,100.000	1,100.000
2740	SPV.0165	SPECIAL 02. COLORED CONCRETE CROSSWALKS	SF	4,144.000	4,144.000
2780	SPV.0165	SPECIAL 06. WEED BARRIER	SF	50.000	50.000

3

3

INFORMATION KIOSK

STATION	LOCATION	SPV.0060.09 INFORMATION KIOSK EACH
226+79.28	94.6' LT	1
TOTAL		1

BASE AGGREGATE

STATION - STATION	LOCATION	305.011 8-INCH BASE AGGREGATE DENSE 3/4-INCH TON
226+40.34 - 227+19.26	USH 12/ WIDELLS PKWY (PLAZA AREA)	105
TOTAL		105

TOPSOIL

STATION - STATION	LOCATION	625.0105 TOPSOIL CY
226+40.34 - 227+19.26	USH 12/ WIDELLS PKWY (PLAZA AREA)	40
TOTAL		40

CONCRETE SIDEWALK & EDGING

STATION - STATION	LOCATION	SPV.0165.01 CONCRETE SIDEWALK 5-INCH COLORED SF	602.041 CONCRETE SIDEWALK 5-INCH SF	SPV.0090.05 8-INCH WIDE X 4-INCH THICK CONCRETE EDGING SF	SPV.0090.06 1-FOOT WIDE X 4-INCH THICK CONCRETE EDGING LF
226+40.34 - 227+19.26	USH 12/ WI DELLS PKWY	1,100	865	71	53
TOTAL		1,100	865	71	53

COLORED CONCRETE CROSSWALKS

STATION - STATION	LOCATION	SPV.0165.02 COLORED CONCRETE CROSSWALKS SF
216+15 - 216+73	WEST DELEVAN ST	202
216+15 - 216+70	USH 12/NORTH DELEVAN ST	721
220+94 - 221+49	USH 12/JUDSON ST	1,017
221+63 - 221+69	USH 12	415
9'WS'+53 - 9'WS'+59	WHITLOCK ST	141
317+97 - 318+03	STH 23	455
225+57 - 225+63	USH 12	414
226+53 - 226+59	USH 12	499
229+48 - 229+54	EAST ADAMS ST	280
TOTAL		4,144

PLAZA PLANTER

STATION TO STATION	LOCATION	SPV.0105.03 PLAZA PLANTER LS
226+79.28	LT	1
TOTAL		1

PRECAST CONCRETE SIGN

STATION	LOCATION	SPV.0105.04 PRECAST CONCRETE SIGN LS
226+42.89	75.78' LT	1
TOTAL		1

CRUSHED GRANITE STONE

STATION - STATION	LOCATION	SPV.0035.01 CRUSHED GRANITE STONE CY
226+40.34 - 227+19.26	USH 12/ WIDELLS PKWY (PLAZA AREA)	8
TOTAL		8

PLAZA ELECTRICAL CONNECTION

STATION	LOCATION	SPV.0105.05 PLAZA ELECTRICAL EACH
7 'WS' +98.55	38.85' RT	1
TOTAL		1

WEED BARRIER

STATION - STATION	LOCATION	SPV.0165.06 WEED BARRIER SF
226+40.34 - 227+19.26	USH 12/ WIDELLS PKWY (PLAZA AREA)	50
TOTAL		50

PLAZA PULL BOX

STATION	LOCATION	SPV.0060.08 PLAZA PULL BOX EACH
226+42.89	89.51' LT	1
226+66.94	110.23' LT	1
TOTAL		2

PLAZA LIGHTING

STATION	LOCATION	SPV.0060.07 PLAZA LIGHT FIXTURE A EACH	SPV.0060.06 ACCENT SIGN LIGHT FIXTURE B EACH
226+68.96	106.66' LT	1	---
226+91.65	84.68' LT	1	---
226+52.40	80.43' LT	---	1
226+57.29	71.28' LT	---	1
226+66.43	67.08' LT	---	1
TOTAL		2	3

PLAZA LIGHTING WIRE AND CONDUIT

FROM	TO	652.0205 CONDUIT RIGID NON-METALLIC, SCHEDULE 40, 3/4-INCH LF	655.0610 ELECTRICAL WIRE LIGHTING (12 AWG) LF
Ex. Meter	PB-E1	---	50
PB-E1	PB-E2	---	136
PB-E2	PB-P3	246	123
PB-P3	PB-P4	66	33
PB-P4	A-1	4	4
A-1	A-2	25	25
PB-P	B-1	14	14
B-1	B-2	11	11
B-2	B-3	10	10
PB-P4	FP-1	13	13
PB-P4	FP-2	20	20
PB-P4	FP-3	29	29
	TOTAL	438	468

LIGHTING UNIT QUANTITIES

654.0105 CONCRETE BASES TYPE 5
SPV.0060.05 DECORATIVE LIGHTING UNITS

NO.	654.0105 CONCRETE BASES TYPE 5 EACH	SPV.0060.05 DECORATIVE LIGHTING UNITS EACH
ND-7L-4R-1	1	1
ND-5L-4R-2	1	1
ND-7L-4R-3	1	1
ND-5L-4R-4	1	1
ND-7L-4R-5	1	1
ND-5L-4R-6	1	1
ND-7L-4R-7	1	1
ND-1L-2R-1	1	1
ND-3L-2R-2	1	1
ND-1L-2R-3	1	1
ND-3L-2R-4	1	1
ND-1L-2R-5	1	1
ND-3L-2R-6	1	1
ND-1L-2R-7	1	1
ND-13L-8R-1	1	1
ND-15L-8R-2	1	1
ND-13L-8R-3	1	1
ND-15L-8R-4	1	1
ND-13L-8R-5	1	1
ND-15L-8R-6	1	1
ND-9L-6R-1	1	1
ND-11L-6R-2	1	1
ND-9L-6R-3	1	1
ND-9L-6R-4	1	1
ND-11L-6R-5	1	1
ND-9L-6R-6	1	1
TOTALS	26	26

LIGHTING CONTROL QUANTITIES

656.0400.1 ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL CABINET ND
SPV.0060.04 LIGHTING CONTROL CABINET

NO.	LOCATION	656.0400.1 ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL CABINET ND LS	SPV.0060.04 LIGHTING CONTROL CABINET EACH
CAB. ND	9'WS'+30	1	1
	TOTALS	1	1

LIGHTING PULL BOX QUANTITIES

SPV.0060.03 LIGHTING PULL BOXES

NO.	LOCATION	SPV.0060.03 LIGHTING PULL BOXES EACH
LPB-ND1	9"WS"+53, 24' RT	1
LPB-ND2	317+80, 42' RT	1
LPB-ND3	317+80, 44' LT	1
LPB-ND4	225+51, 46' RT	1
LPB-ND5	225+13, 86' RT	1
LPB-ND6	228+24, 39' RT	1
LPB-ND7	228+20, 47' LT	1
	TOTAL	7

LIGHTING BRANCH CIRCUIT WIRE AND CONDUIT QUANTITIES

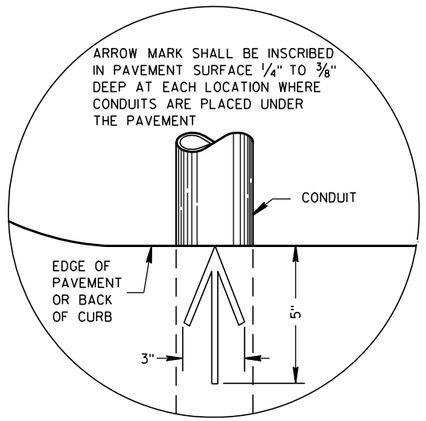
652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
652.0605 CONDUIT SPECIAL 2-INCH *
655.0625 ELECTRICAL WIRE LIGHTING 6 AWG
655.0630 ELECTRICAL WIRE LIGHTING 4 AWG
655.0635 ELECTRICAL WIRE LIGHTING 2 AWG

* RIGID NONMETALLIC SCHEDULE 40 CONDUIT

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0605 CONDUIT SPECIAL 2-INCH LF	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG LF	655.0635 ELECTRICAL WIRE LIGHTING 2 AWG LF
ELPB2	ND-7L-4R-1	125				
ND-7L-4R-1	ND-5L-4R-2	167			177	708
ND-5L-4R-2	ND-7L-4R-3	73	80		163	815
ND-7L-4R-3	ND-5L-4R-4	157			167	835
ND-5L-4R-4	ND-7L-4R-5	176			186	930
ND-7L-4R-5	ND-5L-4R-6	97	70		176	880
ND-5L-4R-6	ND-7L-4R-7	160			170	850
ND-7L-4R-7	LPB-ND1	227			235	1175
LPB-ND1	CAB. ND	39		42	231	105
ELPB1	ND-1L-2R-1	128				
ND-1L-2R-1	ND-3L-2R-2	167			177	708
ND-3L-2R-2	ND-1L-2R-3	73	80		163	815
ND-1L-2R-3	ND-3L-2R-4	169			179	895
ND-3L-2R-4	ND-1L-2R-5	164			174	870
ND-1L-2R-5	ND-3L-2R-6	97	70		176	880
ND-3L-2R-6	ND-1L-2R-7	160			170	850
ND-1L-2R-7	LPB-ND5	167			175	875
LPB-ND5	LPB-ND4	110		61	366	305
LPB-ND4	LPB-ND1		196	104	624	520
LPB-ND1	LPB-ND2	38	50	94	470	
LPB-ND2	ND-13L-8R-1	134		142	710	
ND-13L-8R-1	ND-15L-8R-2	62	100	172	860	
ND-15L-8R-2	ND-13L-8R-3		164	174	696	
LPB-ND2	LPB-ND3		85	91	455	
LPB-ND3	ND-15L-8R-4	135		143	715	
ND-15L-8R-4	ND-13L-8R-5	77	85	172	860	
ND-13L-8R-5	ND-15L-8R-6		164	174	696	
LPB-ND5	ND-9L-6R-1	6		14	70	
ND-9L-6R-1	LPB-ND6	146		154	770	
LPB-ND6	ND-11L-6R-2	15		23	115	
ND-11L-6R-2	ND-9L-6R-3	110	60	180	720	
LPB-ND6	LPB-ND7		85	91	455	
LPB-ND7	ND-9L-6R-4	17		25	125	
ND-9L-6R-4	ND-11L-6R-5	181		191	955	
ND-11L-6R-5	ND-9L-6R-6	160		170	680	
	TOTALS	3537	1289	2217	13061	13016

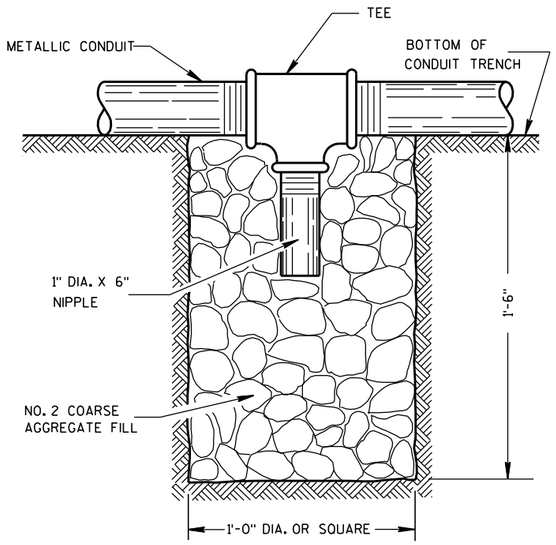
Standard Detail Drawing List

09B02-07	CONDUIT
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C03-03	TRANSFORMER/PEDESTAL BASES
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E04-05	WALKWAY LIGHTING UNIT AND CONCRETE BASE, TYPE 11



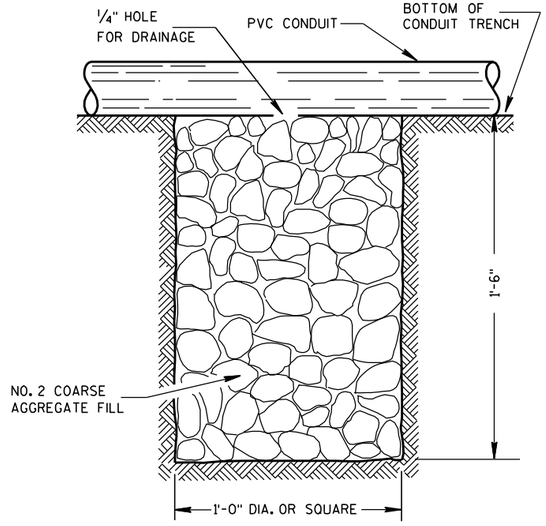
PLAN VIEW

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.

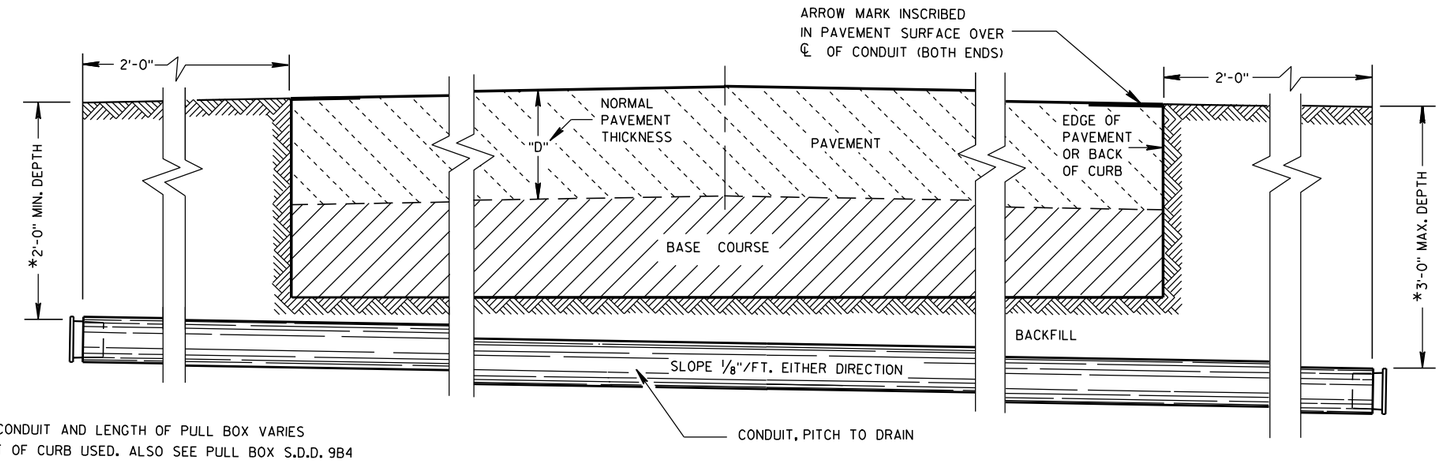
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

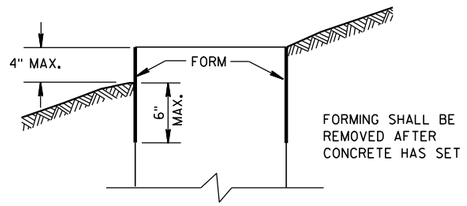
/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI

FHWA — HWYS

6

S.D.D. 9 B 2-7

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

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 SMOOTH 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 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

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) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES 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.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(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 EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

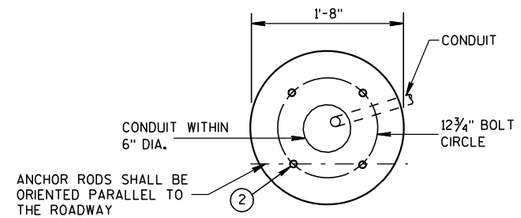
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

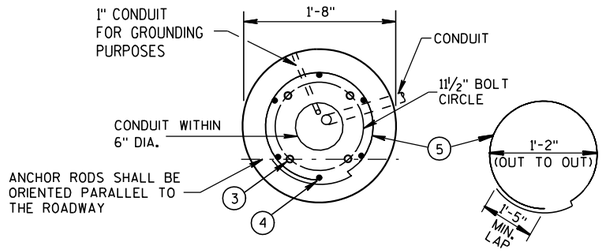
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

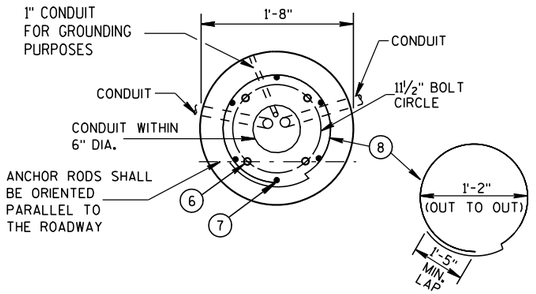
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



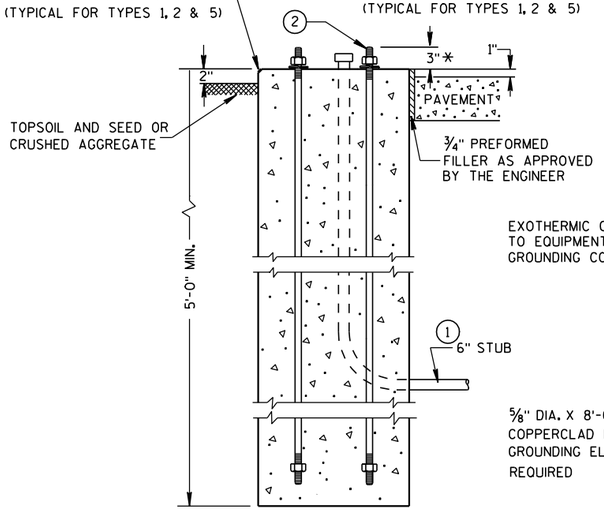




FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

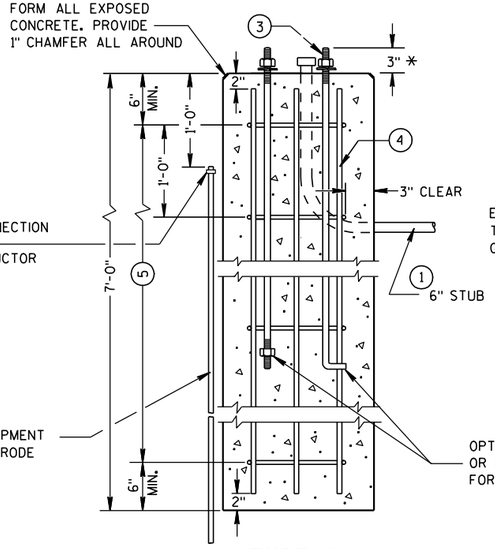
HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)

HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)



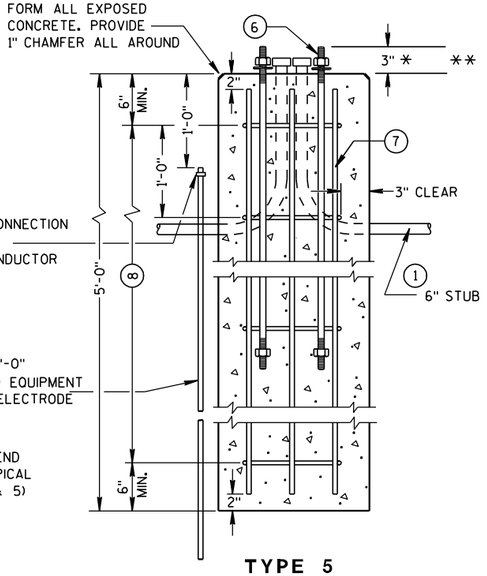
TYPE 1

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 2

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI
24
HWYS
FHWA

6
S.D.D. 9 C 2-6

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

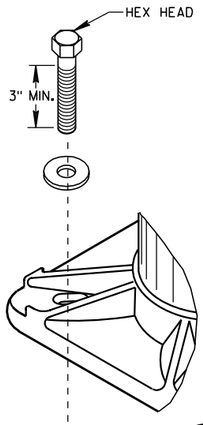
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

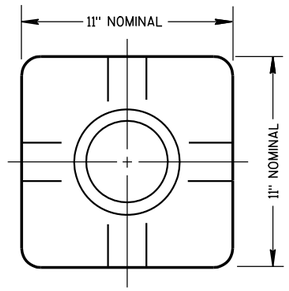
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

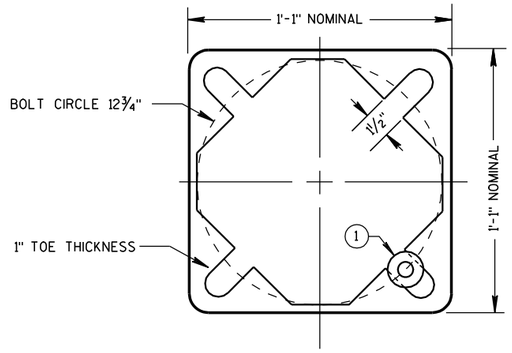
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

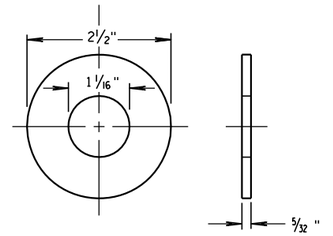




TOP VIEW
(PEDESTAL BASE)

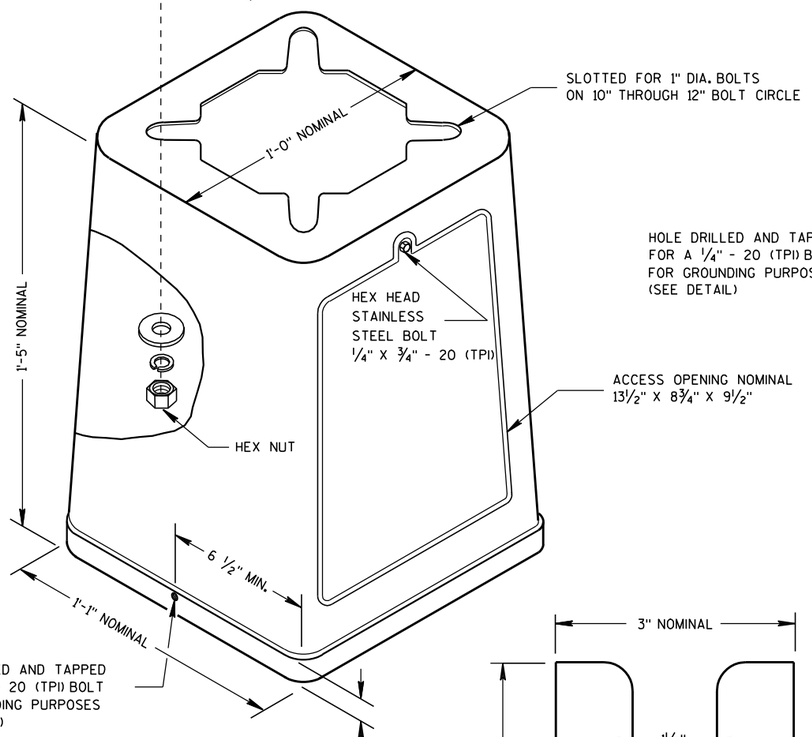


BOTTOM VIEW
(PEDESTAL BASE)

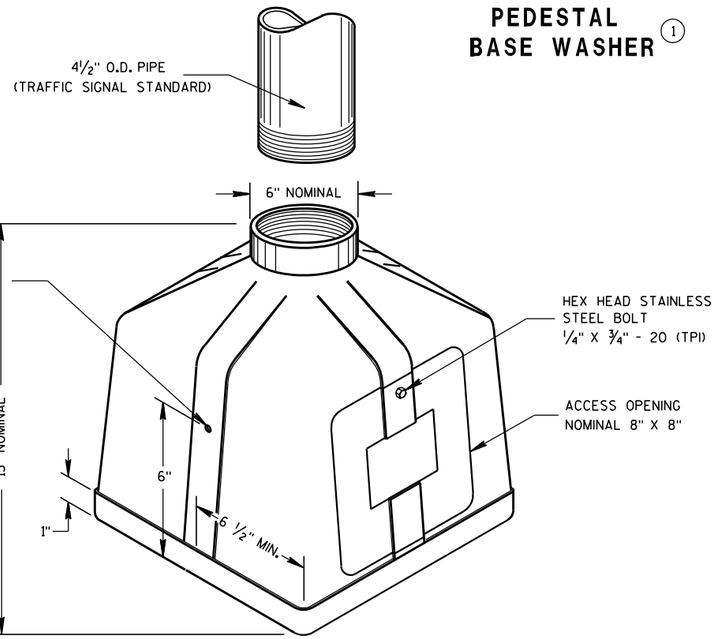


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

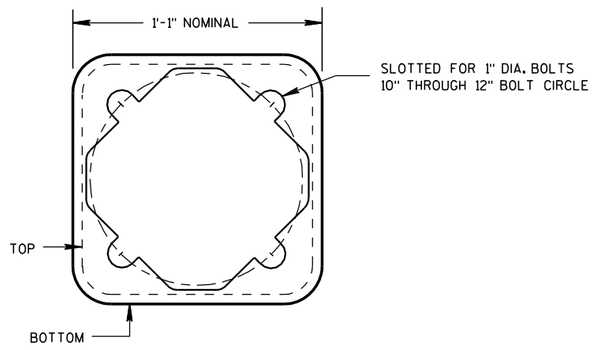


ISOMETRIC VIEW

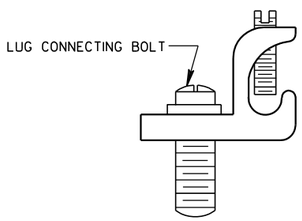


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

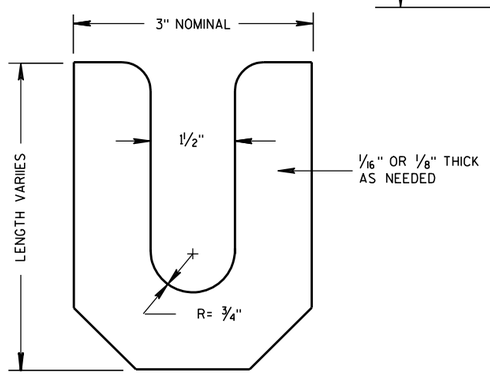


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

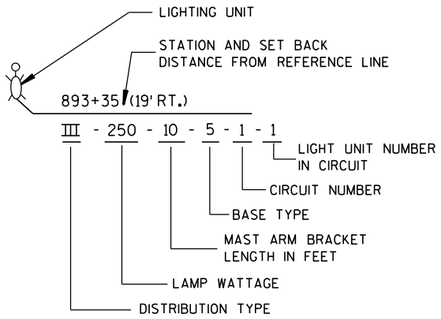
TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

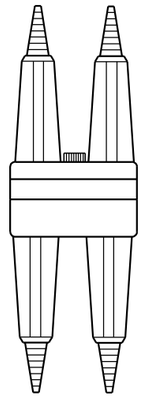
APPROVED
10/27/09 — DATE
/S/ Joanna L. [illegible] — STATE ELECTRICAL ENGI
25 — HWYS
FHWA

S.D.D. 9 C 3-3

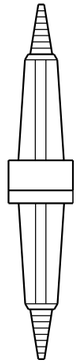
S.D.D. 9 C 3-3



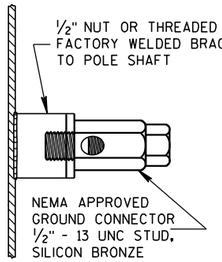
LIGHTING UNIT CODE
(TYPICAL)

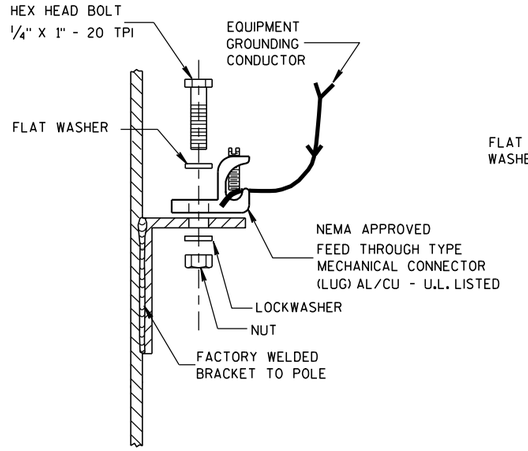


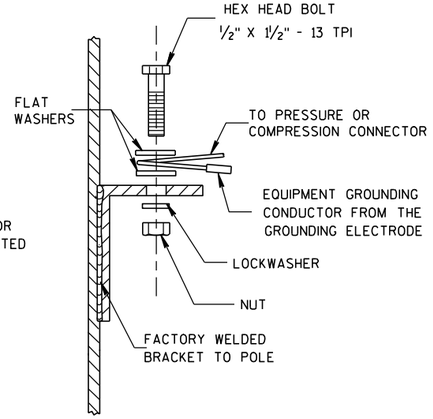
DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



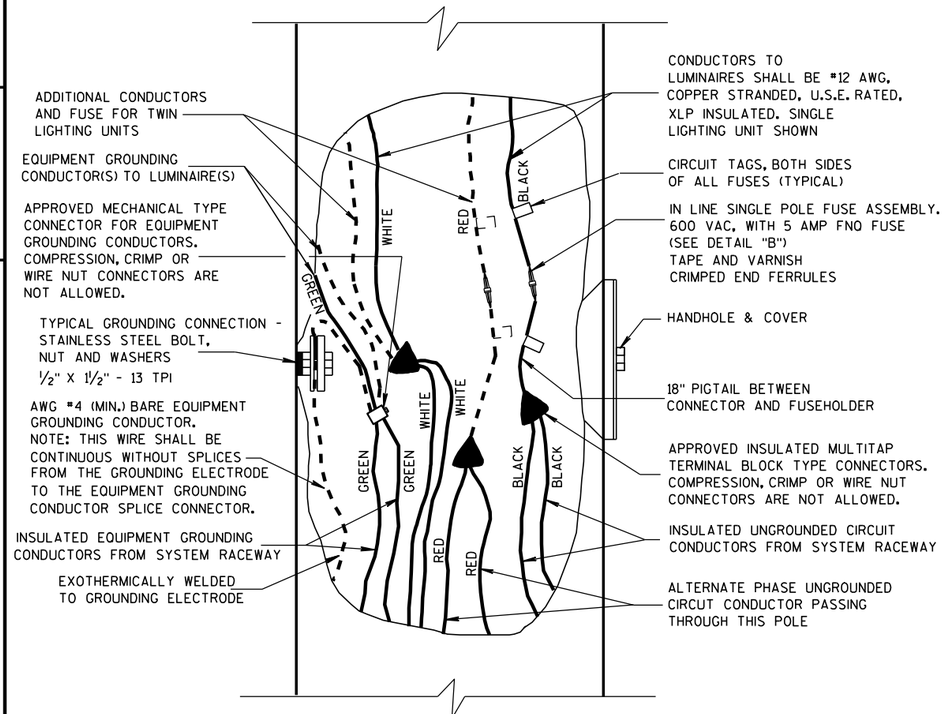
DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



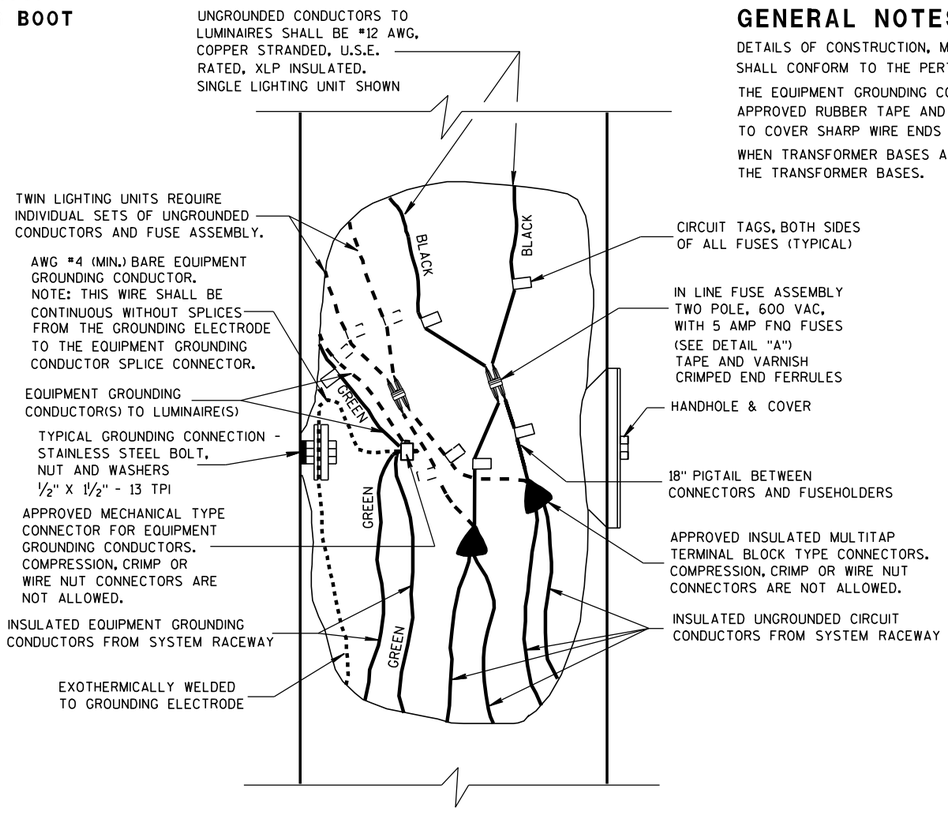




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



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

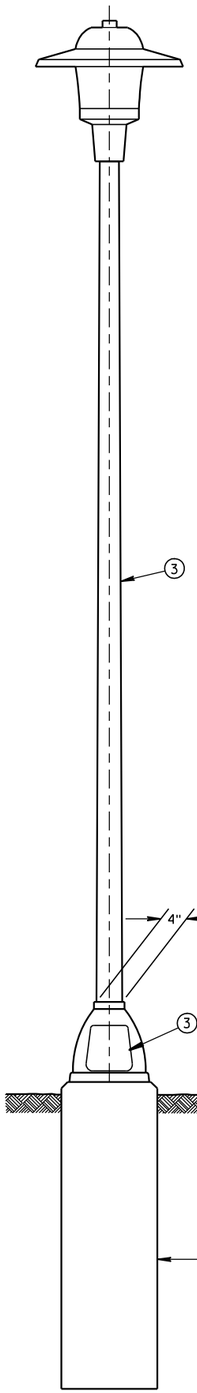
3/2/2011 — DATE

/S/ Thomas J. Gosnine — STATE ELECTRICAL ENGI

HWYS

FHWA

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S.D.D. 9 E 3-4

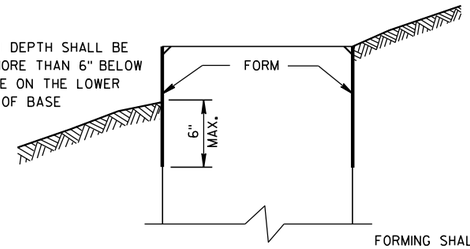


LUMINAIRE

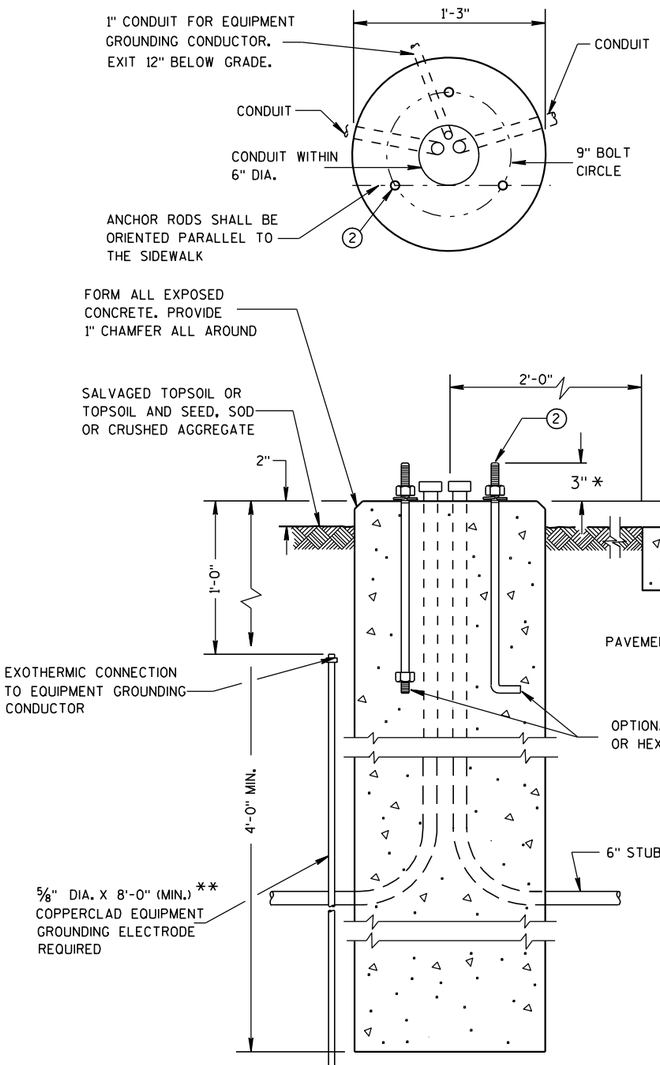
WT. = 50 LBS.
EFFECTIVE PROJECTED AREA
FOR WIND LOADING = 1.5 SQ. FT.

100 WATT HPS,
120/240 VAC HIGH POWER
FACTOR BALLAST

WALKWAY LIGHTING UNIT DETAIL



FORMING DETAIL



** GROUNDING ELECTRODE LENGTH MAY VARY, SEE SPECIAL PROVISIONS.

CONCRETE BASE, TYPE 11

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

CONCRETE BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT RUNS, NUMBER OF CONDUITS IN EACH CONCRETE BASE AND CONDUIT SIZE IS AS SHOWN ON THE PLANS. THE 1-INCH CONDUIT IS USED IN ALL BASES.

MINIMUM BENDING RADIUS OF CONDUIT SHALL BE SIX TIMES THE DIAMETER OF THE CONDUIT.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1-INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE AND BEFORE INSTALLATION OF CABLE OR WIRE.

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. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

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 CONCRETE BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE CONCRETE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1-FOOT OR LESS.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NO. 4 AWG, BARE, STRANDED COPPER. IT SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED LEAVING A 2-FOOT LENGTH OF WIRE ABOVE THE CONCRETE BASE. THE 2-FOOT LENGTH OF EQUIPMENT GROUNDING CONDUCTOR ABOVE THE BASE SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL PER SECTION 5.17.6.3, AASHTO 2001 4TH EDITION STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS.

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

GENERAL NOTES (CONTINUED)

(1) DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24-INCHES MIN. DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES MIN. DEPTH OF ALL CONDUITS SHALL NOT EXCEED 36-INCHES.

(2) THREE - ¾-INCH DIA. X 15-INCH ANCHOR RODS OR ¾-INCH DIA. X 19-INCH ANCHOR RODS INCLUDING THE 4-INCH "L" BEND. THE "L" BEND SHALL NOT BE THREADED. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS.

(3) PEDESTAL BASE-STANDARD:

THE PEDESTAL BASE-STANDARD SHALL BE A ONE PIECE WELDED UNIT, WITH AN OVERALL HEIGHT OF TEN FEET.

THE POLE SHALL BE ROUND, TAPERED, ALUMINUM WITH A 3-INCH OUTSIDE DIAMETER TOP AND 0.125 INCH WALL THICKNESS.

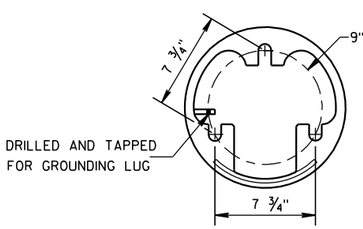
THE BELL SHAPED BASE SHALL BE 12 ½ INCHES IN DIAMETER AND HAVE A 9-INCH BOLT CIRCLE. ANCHOR RODS SHALL BE INCLUDED WITH THE BASE.

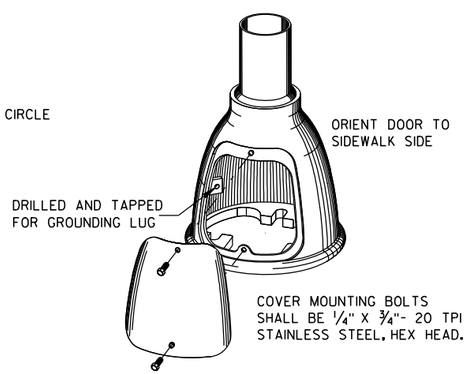
THE ACCESS DOOR OPENING SHALL BE APPROXIMATELY 7½ X 5¼ X 7½-INCHES.

THE FIXTURE AND PEDESTAL BASE-STANDARD SHALL BE PAINTED WITH AN EARTH COLORED THERMOSET POWDER COAT, ACRYLIC ENAMEL. THE ENAMEL SHALL BE FORMULATED TO SHOW NO APPRECIABLE FADING WITHIN FIVE YEARS.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED "AL/CU" TYPE. CONNECTION HARDWARE SHALL BE STAINLESS STEEL (BOLT, NUT, LOCKWASHER- ¼" X ¾" - 20 TPI

ALL NONMETALLIC CONDUIT CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES. (SEE NEC 347.5)





WALKWAY PEDESTAL BASE STANDARD DETAIL

WALKWAY LIGHTING UNIT AND CONCRETE BASE, TYPE 11

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/11/09
DATE

/S/ Joanna L. Pinsch
STATE ELECTRICAL ENGI

27

HWYS

FHWA

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S.D.D. 9 E 4-5

6

S.D.D. 9 E 4-5

Wisconsin Department of Transportation

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MAD JUNE 2013

PROJECT ID: 6145-00-74
WISPOT: 6145-00-72

COUNTY: SAUK

ORDER OF SHEETS

Section No.	1	Title Sheet
Section No.	2	Typical Sections and Details
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 = 268



05

N

DESIGN DESIGNATION

A.A.D.T. 2012	=	22,100
A.A.D.T. 2032	=	27,300
D.H.V. 2032	=	3,710
D.D.	=	63-37
T. % ADT	=	4.9%
DESIGN SPEED	=	40 MPH
ESALS	=	6,796,300

CONVENTIONAL SYMBOLS

COUNTY LINE
CORPORATE LIMITS
PROPERTY LINE
LIMITED EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
FENCE
GUARD RAIL
SLOPE INTERCEPT
ORIGINAL GROUND
MARSH OR ROCK PROFILE (To be noted as such) — ROCK
MARSH AREA
WOODED OR SHRUB AREA
STREAM OR WATER EDGE
BUSH
PINE TREE — (SIZE)
TREE — (SIZE)
TRAFFIC SIGNAL CONTROL CABINET
TRAFFIC SIGNAL
TRAFFIC SIGNAL MAST-ARM
TRAFFIC SIGNAL WITH LIGHT
EXISTING PULL BOX
BOLLARD

CAUTION
(SIZE) G — COMBUSTIBLE FLUIDS
(SIZE) SAN — UNDERGROUND UTILITIES GAS
(SIZE) SS — SANITARY SEWER
(SIZE) W — STORM SEWER
E — WATER
T — ELECTRIC
FO — TELEPHONE
TV — FIBER OPTIC
FM — CABLE TELEVISION
MH — FORCE MAIN
HH — MANHOLE
UTILITY PEDESTAL
FIBER OPTIC HAND HOLE
POWER POLE
TELEPHONE POLE
RAILROAD
HYDRANT
LIGHT POLE
RAILROAD SIGNAL
SIGN
TRANSMISSION TOWER
VALVE — ⊘(TYPE)
CURB STOP — ⊘CS
EXISTING CULVERT — (SIZE, TYPE)
PROPOSED CULVERT (Box or Pipe)
MATCH GRADE — XXX.XX (M)
GUTTER GRADE — XXX.XX (G)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

LAKE DELTON - IH 90

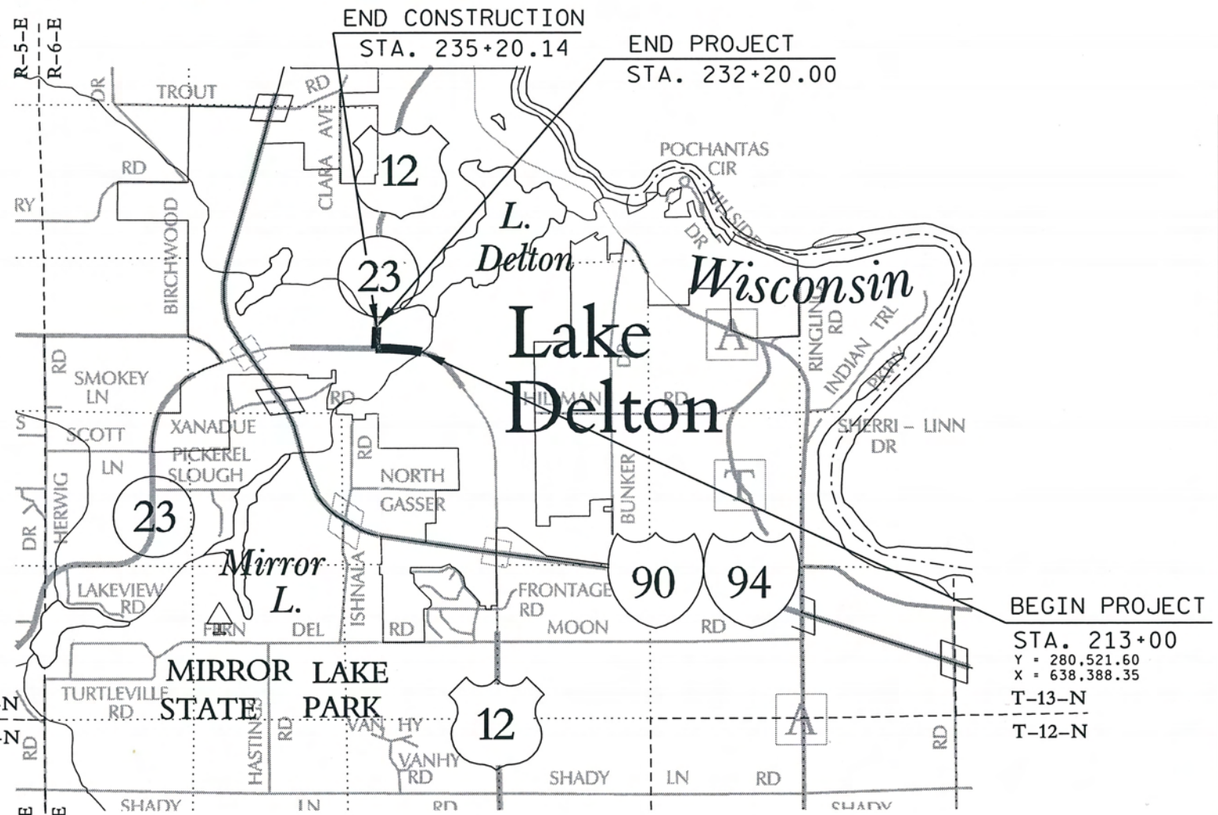
WHITLOCK STREET TO ADAMS STREET

USH 12

SAUK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6145-00-74	WISC 2013306	1

STATE PROJECT NUMBER
6145-00-74



LAYOUT
SCALE 0 0.5 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.364 MI.

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Sauk Zone, NAD 83 (91) WISDOT Project 1674-00-00 2001 flight

Vertical Datum: NGVD 1929. Used WISDOT Bench Mark □ #3001 chiseled on Traffic Sign Base in the median at USH 12 & Gasser Rd Elev. = 912.63

ACCEPTED FOR
VILLAGE of LAKE DELTON

1-24-13 (Date) (Signature & Title of Official)
1-24-13 (Date) Kay C Mckenny (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY
R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-3466
www.rasmithnational.com

WISCONSIN JOHN A. ELKIN II E-27875 BROOKFIELD WI PROFESSIONAL ENGINEER

2/1/13 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	GAK	(R.A. SMITH NATIONAL)
Designer	JAE/AJA	(R.A. SMITH NATIONAL)
Project Manager	JAMES BUSCHKOPF	
Regional Examiner		
Regional Supervisor	JOHN STEINER	
C.O. Examiner		

APPROVED FOR THE DEPARTMENT
DATE: 1/31/13 (Signature)

E

2

STANDARD ABBREVIATIONS

AP	ACCESS POINT
AC	ACRE
ADJ	ADJUST
AECPRC	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE
AH	AHEAD
AC	ASPHALT CEMENT
ASPH	ASPHALTIC
ACP	ASPHALTIC CONCRETE PAVEMENT
AVG	AVERAGE
ADT	AVERAGE DAILY TRAFFIC
BK	BACK
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
CB	CATCH BASIN
C/L	CENTER LINE
C/L CONST	CENTER LINE CONSTRUCTION
△	CENTRAL ANGLE OR DELTA
CL	CLASS
CONC	CONCRETE
CONST	CONSTRUCTION
CMCP	CORRUGATED METAL CULVERT PIPE
CTH	COUNTY TRUNK HIGHWAY
CABC	CRUSHED AGGREGATE BASE COURSE
CFS	CUBIC FEET PER SECOND
CY	CUBIC YARD
CP	CULVERT PIPE
CPCS	CULVERT PIPE CORRUGATED STEEL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DD	DIRECTIONAL DISTRIBUTION
DWY	DRIVEWAY
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
EL	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FPS	FEET PER SECOND
FERT	FERTILIZE
FE	FIELD ENTRANCE
FL	FLOW LINE
FT	FOOT
GN	GRID NORTH
HES	HIGH EARLY STRENGTH
HP	HIGH POINT
HW	HIGH WATER
HMA	HOT MIX ASPHALT
CWT	HUNDREDWEIGHT
HYD	HYDRANT
INL	INLET
ID	INSIDE DIAMETER
I	INTERSECTION ANGLE
INV	INVERT
IP	IRON PIPE OR PIN
JT	JOINT
LT	LEFT
L	LENGTH OF CURVE
LF	LINEAR FOOT
LP	LOW POINT
LS	LUMP SUM
MH	MANHOLE
MAX	MAXIMUM
Mgal	MEGAGALLON
MPH	MILES PER HOUR
MIN	MINIMUM
MON	MONUMENT
NOM	NOMINAL
NC	NORMAL CROWN
N	NORTH
Y	NORTH GRID COORDINATE
NB	NORTHBOUND
NO	NUMBER
OPT	OPTIONAL
OD	OUTSIDE DIAMETER
PAVT	PAVEMENT
PLE	PERMANENT LIMITED EASEMENT
PACS	PIPE ARCH CORRUGATED STEEL
PT	POINT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVC	POLYVINYL CHLORIDE
PCC	PORTLAND CEMENT CONCRETE
LB	POUND
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PE	PRIVATE ENTRANCE
PGL	PROFILE GRADE LINE
PL	PROPERTY LINE
Q100	100-YEAR FLOW RATE
R	RADIUS
RR	RAILROAD
R	RANGE
R/L	REFERENCE LINE
REINF	REINFORCING OR REINFORCEMENT
REQD	REQUIRED
RT	RIGHT
R/W	RIGHT-OF-WAY
RD	ROAD
RDWY	ROADWAY
SEC	SECTION
SHLDR	SHOULDER
S	SOUTH
SB	SOUTHBOUND
SQ	SQUARE
SF	SQUARE FEET
SW	SIDEWALK
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAYS
STA	STATION
SS	STORM SEWER
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
ST	STREET
STR	STRUCTURE OR STRUCTURAL
SE	SUPERELEVATION
T	TANGENT
TEMP	TEMPORARY
TI	TEMPORARY INTEREST
TLE	TEMPORARY LIMITED EASEMENT
†	TON
T	TOWN
T/L	TRANSIT LINE
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
V	VELOCITY OF DESIGN SPEED
VERT	VERTICAL
VC	VERTICAL CURVE
VOL	VOLUME
WM	WATER MAIN
WV	WATER VALVE
W	WEST
WB	WESTBOUND
YD	YARD

GENERAL NOTES

1. NO SHRUBS OR TREES ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
2. ALL CURB & GUTTER RADII ARE MEASURED TO THE FLANGE OF CURB.
3. CURB AND GUTTER PLAN GRADES ARE AT THE FLANGE LINE UNLESS OTHERWISE NOTED.
4. PIPE AND INLET ELEVATIONS AS SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER.
5. EROSION CONTROL DEVICES AS SHOWN ON THE EROSION CONTROL SHEETS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
6. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
7. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS IN THE AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK.
8. SEE SUBSURFACE EXPLORATION REPORTS FOR SOIL BORING INFORMATION. REPORTS ARE AVAILABLE FROM THE WISDOT SW REGION PROJECTS SECTION. JIM BUSCHKOPF PROJECT MANAGER, PHONE (608) 246-3851.
9. EXPANSION OF EARTHWORK IS VARIABLE AND IS ESTIMATED AT 1.2 IN THE YARDAGE SUMMARY. EXCAVATION BELOW SUBGRADE (EBS) IS ESTIMATED AND MAY VARY AS DIRECTED BY THE ENGINEER.
10. ASPHALTIC MATERIAL FOR HMA PAVEMENT SHALL BE PG 64-28. HMA PAVEMENT TYPE E-1 AND E-10 SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

TYPE	THICKNESS	LAYERS	NOM MAX SIZE GRADATION
E-1	4-INCH	ONE 1 ¾" UPPER LAYER ONE 2 ¼" LOWER LAYER	12.5 mm 12.5 mm
	3-INCH	ONE 3" UPPER LAYER	12.5 mm
E-10	5.25-INCH	ONE 1 ¾" UPPER LAYER ONE 1 ¾" LOWER LAYER ONE 1 ¾" LOWER LAYER	12.5 mm 12.5 mm 12.5 mm
	3.5-INCH	ONE 1 ¾" UPPER LAYER ONE 1 ¾" LOWER LAYER	12.5 mm 12.5 mm

11. WHEN THE QUANTITY OF ITEMS OF BASE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.
12. THE EXACT LOCATION OF PRIVATE ENTRANCES AND DRIVEWAYS IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
13. STATIONING, DISTANCES AND OFFSETS FOR SIGNS SHOWN ON THE PLANS ARE APPROXIMATE AND THE LOCATIONS OF SIGNS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
14. RESTORATION OF EXPOSED SLOPES AND DITCHES SHALL TAKE PLACE WITHIN 7 WORKING DAYS AFTER FINISHED GRADING IS COMPLETE.
15. QUANTITIES FOR EXCAVATION COMMON INCLUDE REMOVAL OF EXISTING CONCRETE PAVEMENT, ASPHALT, AND BASE COURSE TO THE PROPOSED SUBGRADE.
16. PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT, OR AS DIRECTED BY THE ENGINEER.
17. ASPHALTIC SURFACE TEMPORARY SHALL BE CONSTRUCTED IN A SINGLE LAYER.
18. THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 110 LBS./S.Y./IN.
19. TEMPORARY SIGNAL PLANS PREPARED BY WISDOT.
    TRAFFIC SIGNAL PLANS PREPARED BY TRANSMART.
    LIGHTING PLANS PREPARED BY POWRTEK.
20. ALL OPENINGS OF HOLES BELOW SUBGRADE RESULTING FROM REMOVALS OR ABANDONMENTS SHALL BE BACKFILLED WITH GRANULAR MATERIAL UNLESS REGULATIONS REQUIRE DIFFERENTLY. GRANULAR MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.
21. REINFORCED CONCRETE APRON ENDWALLS AND ADJOINING TWO SECTIONS OF CONCRETE PIPE SHALL BE TIED TOGETHER AS SHOWN ON THE STANDARD DETAIL DRAWINGS AND AS LOCATED IN THE MISCELLANEOUS QUANTITIES. JOINT TIES SHALL BE INCIDENTAL ITEMS INCLUDED IN THE COST OF THE CONCRETE PIPE.
22. PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS.
23. ALL OPENINGS OF HOLES BELOW SUBGRADE RESULTING FROM REMOVALS OR ABANDONMENTS SHALL BE BACKFILLED WITH GRANULAR MATERIAL UNLESS REGULATIONS REQUIRE DIFFERENTLY. GRANULAR MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.
24. PAVEMENT CROSS SLOPE IN CROSSWALKS SHALL BE 2.0% MAX.

ORDER OF SECTION 2 SHEETS

Project Overview
Typical Sections
Construction Details
Pavement Details
Storm Sewer and Erosion Control Plan
Existing Signing Plan
Permanent Signing / Pavement Marking Plan
Traffic Signal Plan
Interconnect Plan
Traffic Control / Construction Staging Plan
Alignment Plan

UTILITIES

GAS
ALLIANT ENERGY
4902 N BILTMORE LANE
MADISON, WI 53718
MR. JASON HOGAN (DOT LIASON)
(608) 458-4871

GAS
ALLIANT ENERGY
125 VINE STREET
BARABOO, WI 53913
MR. CHRIS WILHELM
(608) 356-0608

ELECTRIC
ALLIANT ENERGY
4902 N BILTMORE LANE
MADISON, WI 53718
MR. JASON HOGAN (DOT LIASON)
(608) 458-4871

ELECTRIC & LIGHTING
ALLIANT ENERGY
125 VINE STREET
BARABOO, WI 53913
MR. DAVE MCCOY
(608) 356-0609

CABLE TV
CHARTER COMMUNICATIONS
5555 IRISH LANE
FITCHBURG, WI 53711
MR. HARLOW JARVIS
(608) 274-3822

TELEPHONE
FRONTIER COMMUNICATIONS
100 COMMUNICATIONS DR
SUN PRAIRIE, WI 53590
MR. BRIAN VAN OOYEN
(608) 837-1151

WATER
VILLAGE OF LAKE DELTON
151 SKYLINE DRIVE
LAKE DELTON, WI 53940
MR. DAVID STERR
(608) 253-9268

SANITARY
VILLAGE OF LAKE DELTON
151 SKYLINE DRIVE
LAKE DELTON, WI 53940
MR. GARY HANSEN
(608) 254-6704
(608) 509-5051 MOBILE

WISDOT TRAFFIC SIGNALS
WISDOT SW REGION
3550 MORMON COURT
LA CROSSE, WI 54601
MR. ANDREW WINGA
(608) 785-9061

DESIGN CONTACT

R.A. SMITH NATIONAL, INC
16745 W BLUEMOUND ROAD
BROOKFIELD, WI 53005
JOHN ELKIN
(262) 781-1000

DNR LIAISON

WIS DNR
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711-5397
MS. CATHY BLESER
(608) 275-3308

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1-800-862-6263

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DIGGERS HOTLINE

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or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

2

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	GENERAL NOTES	SCALE, FEET 0 N/A	SHEET 2	E

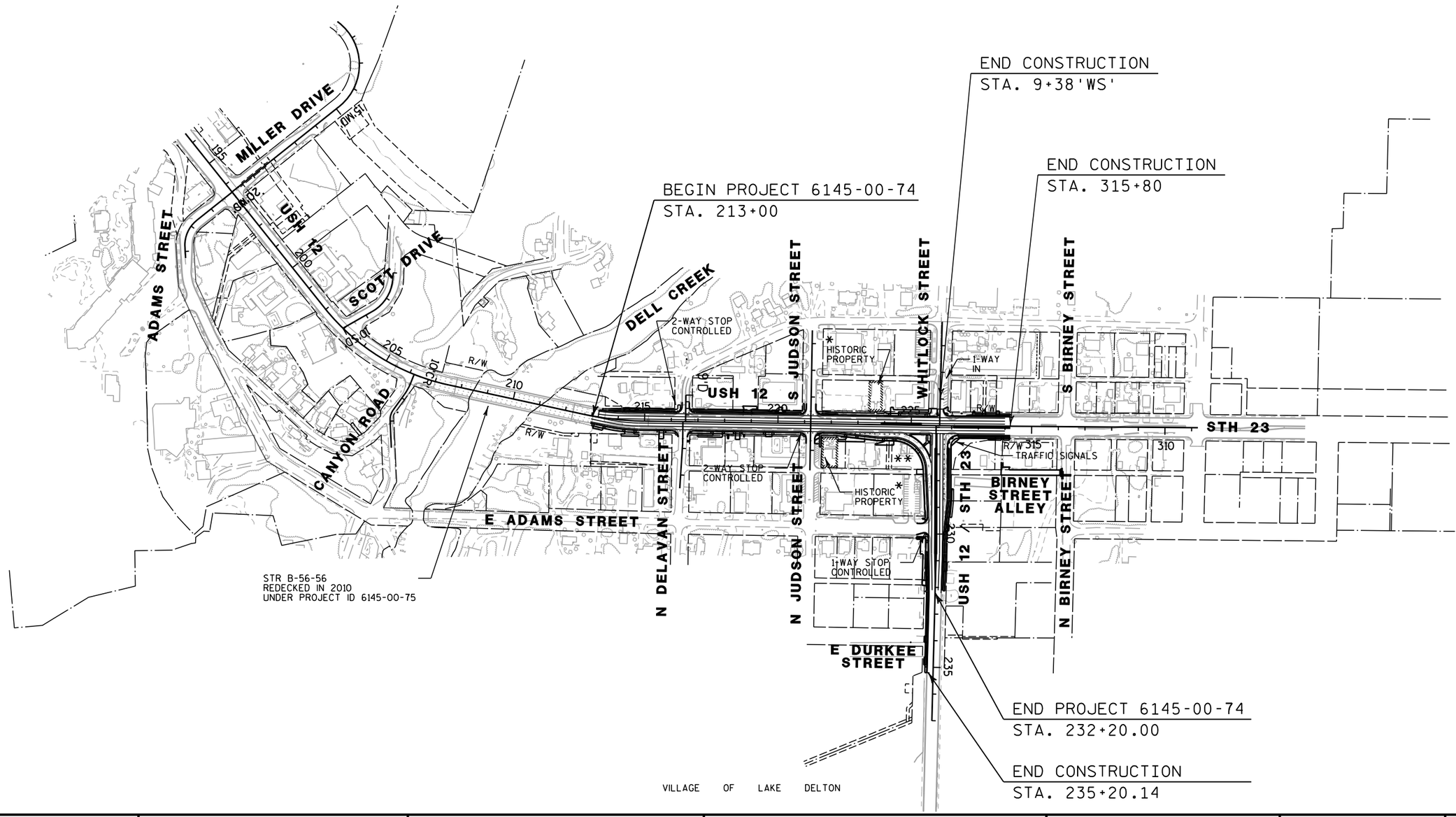
2

*HISTORICAL PROPERTIES
1) MARSHALL MEMORIAL HALL (30 WISCONSIN DELLS PKWY)
2) BRAT HOUSE GRILL (49 WISCONSIN DELLS PKWY)

**POTENTIAL SOIL AND GROUNDWATER CONTAMINATION
1) WISCONSIN DUCKS (11 WISCONSIN DELLS PKWY S)
SEE PLAN & PROFILE AND MISCELLANEOUS QUANTITIES FOR LOCATIONS.

N

VILLAGE OF LAKE DELTON



BEGIN PROJECT 6145-00-74
STA. 213+00

END CONSTRUCTION
STA. 9+38'WS'

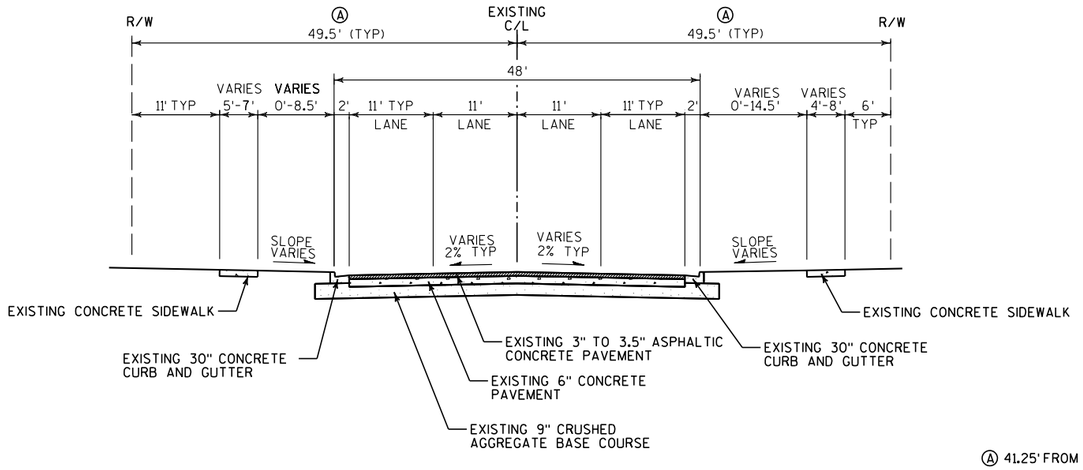
END CONSTRUCTION
STA. 315+80

END PROJECT 6145-00-74
STA. 232+20.00

END CONSTRUCTION
STA. 235+20.14

VILLAGE OF LAKE DELTON

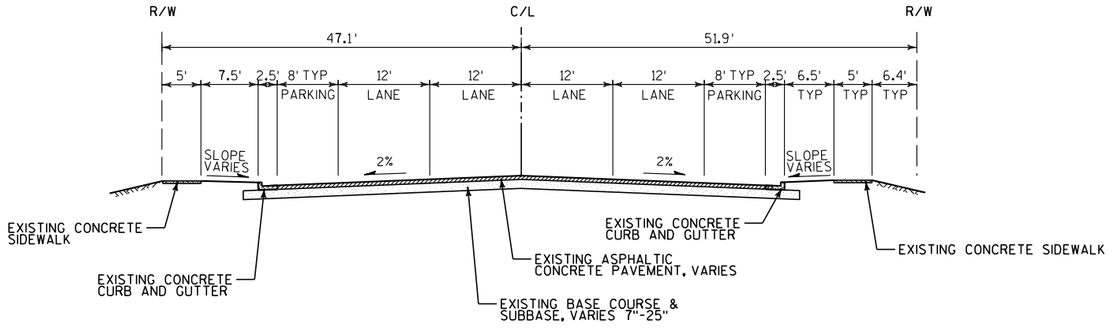
PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PROJECT OVERVIEW	SCALE, FEET 0 200 400	SHEET 3	E



Ⓐ 41.25' FROM STA 226+40 TO STA 235+20

TYPICAL EXISTING SECTION - USH 12

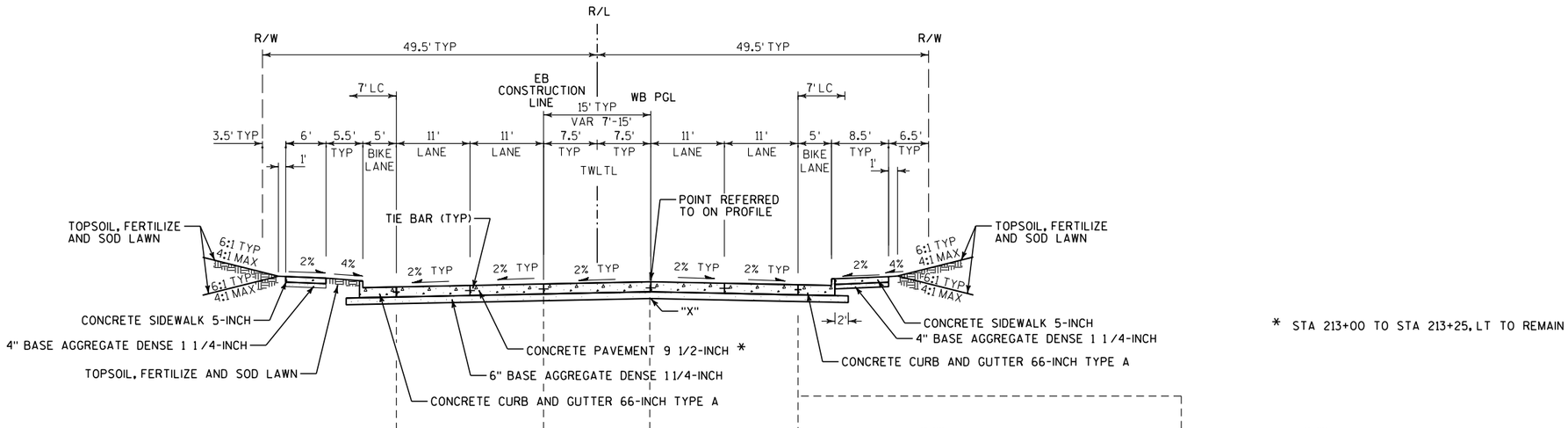
STA 213+00 - STA 235+20



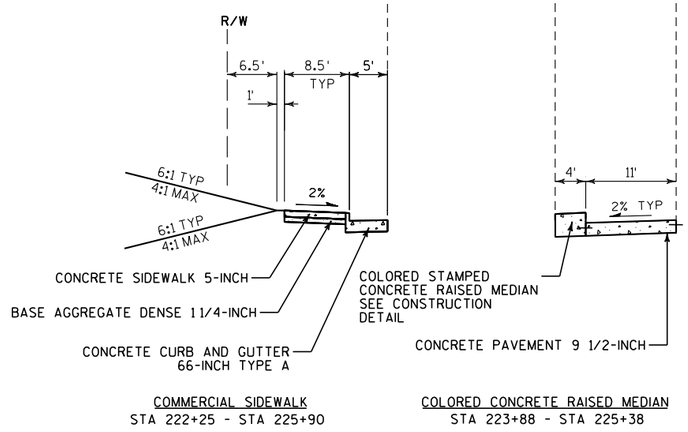
EXISTING TYPICAL SECTION - STH 23

STA 315+80 - STA 318+25

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	TYPICAL SECTIONS	SCALE, FEET 0 N/A	SHEET 4	E

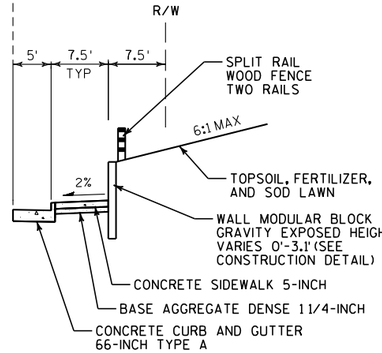


* STA 213+00 TO STA 213+25, LT TO REMAIN

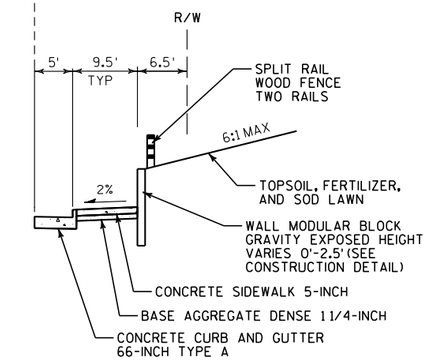


COMMERCIAL SIDEWALK
STA 222+25 - STA 225+90

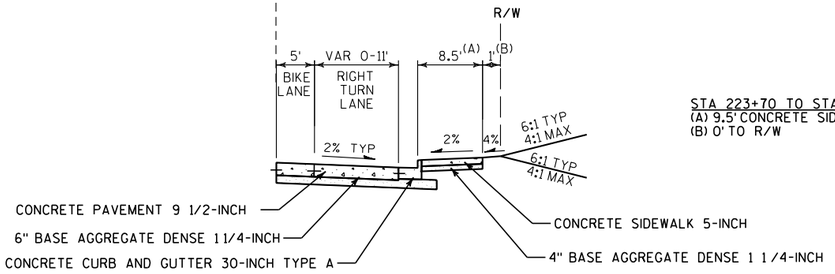
COLORED CONCRETE RAISED MEDIAN
STA 223+88 - STA 225+38



RETAINING WALL TYPICAL SECTION
STA 214+81 - STA 215+55



RETAINING WALL TYPICAL SECTION
STA 218+03 - STA 218+37



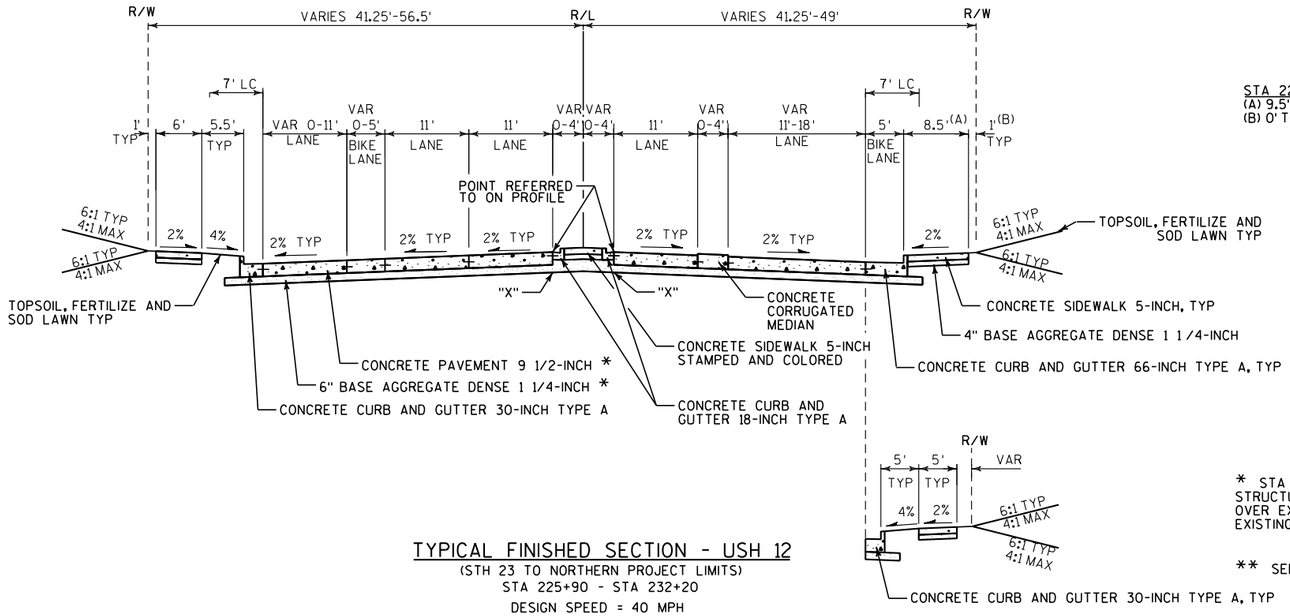
STA 223+70 TO STA 223+90
(A) 9.5' CONCRETE SIDEWALK 5-INCH TO R/W
(B) 0' TO R/W

RIGHT TURN LANE
STA 222+15 - STA 224+35

TYPICAL FINISHED SECTION - USH 12

(DELL CREEK BRIDGE TO STH 23)
STA 213+00 - STA 225+90
DESIGN SPEED = 40 MPH

NOTES: "X" = SUBGRADE POINT REFERRED TO ON CROSS SECTIONS
ALL 9 1/2-INCH CONCRETE PAVEMENT TO BE DOWELED AND TINED
LC = LATERAL CLEARANCE



STA 228+90 TO STA 229+10, RT
(A) 9.5' CONCRETE SIDEWALK 5-INCH TO R/W
(B) 0' TO R/W

TYPICAL FINISHED SECTION - USH 12

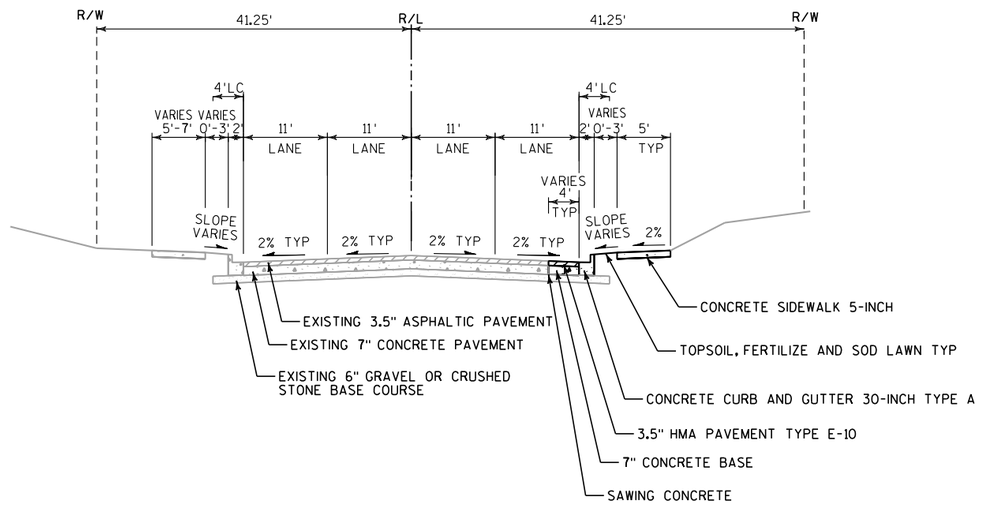
(STH 23 TO NORTHERN PROJECT LIMITS)
STA 225+90 - STA 232+20
DESIGN SPEED = 40 MPH

SIDEWALK TERRACE SECTION
STA 230+85 - STA 232+20

* STA 232+10 TO STA 232+20 THE PROPOSED PAVEMENT STRUCTURE IS 3.5" HMA PAVEMENT TYPE E-10 OVER EXISTING 6" CONCRETE BASE OVER EXISTING 6" BASE AGGREGATE DENSE 1 1/4-INCH.

** SEE PLAN & PROFILES.

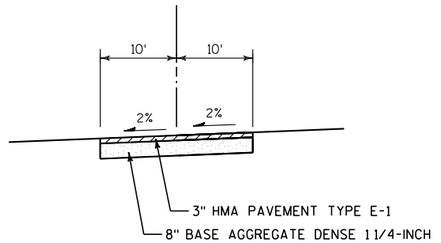
NOTES: ALL 9 1/2-INCH CONCRETE PAVEMENT TO BE DOWELED AND TINED
"X" = SUBGRADE POINT REFERRED TO ON CROSS SECTIONS
LC = LATERAL CLEARANCE



TYPICAL FINISHED SECTION

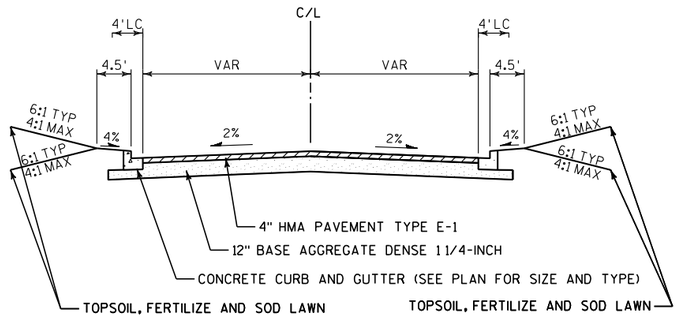
STA 232+10 - STA 235+20**
DESIGN SPEED = 40 MPH

2



FINISHED TYPICAL SECTION - BIRNEY STREET ALLEY

STA 13+83'BA' TO STA 16+13'BA'

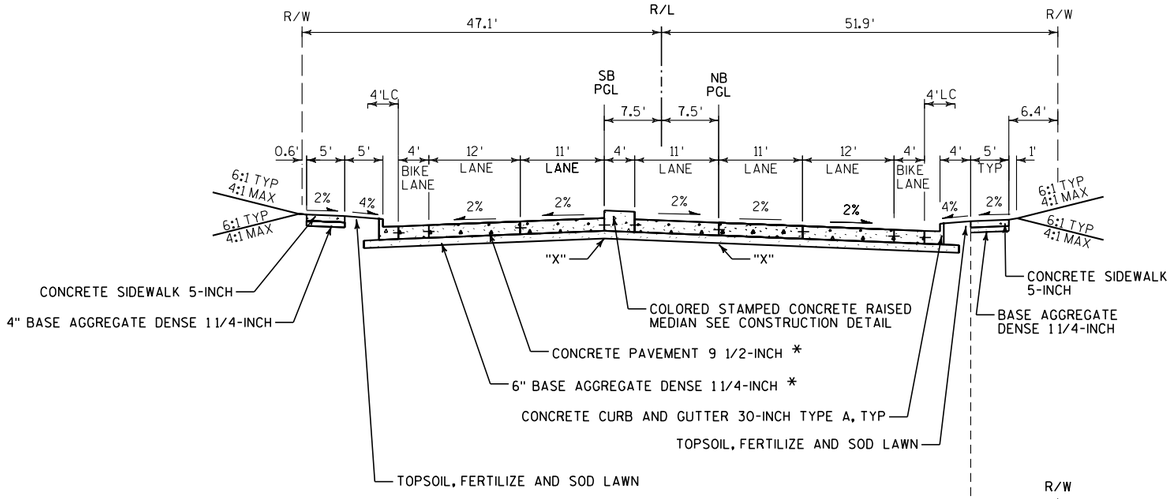


FINISHED TYPICAL SECTION - SIDEROADS

DELAVAN STREET
JUDSON STREET
EAST ADAMS STREET

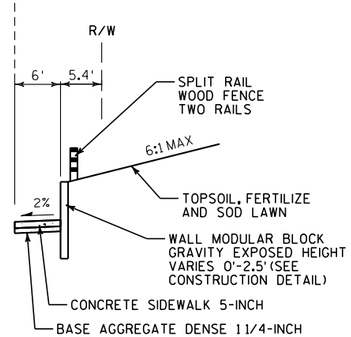
DESIGN SPEED = 30 MPH

NOTES: "X" = SUBGRADE POINT REFERRED TO ON CROSS SECTIONS
LC = LATERAL CLEARANCE



TYPICAL FINISHED SECTION - STH 23

STA 315+80 - STA 318+10
(WESTERN PROJECT LIMITS TO USH 12)
DESIGN SPEED = 40 MPH



RETAINING WALL TYPICAL SECTION
STA 316+34 - STA 316+72, RT
STA 316+86 - STA 317+13, RT
STA 317+20 - STA 317+60, RT
STA 317+67 - STA 317+96, RT
STA 318+00 - STA 318+06, RT

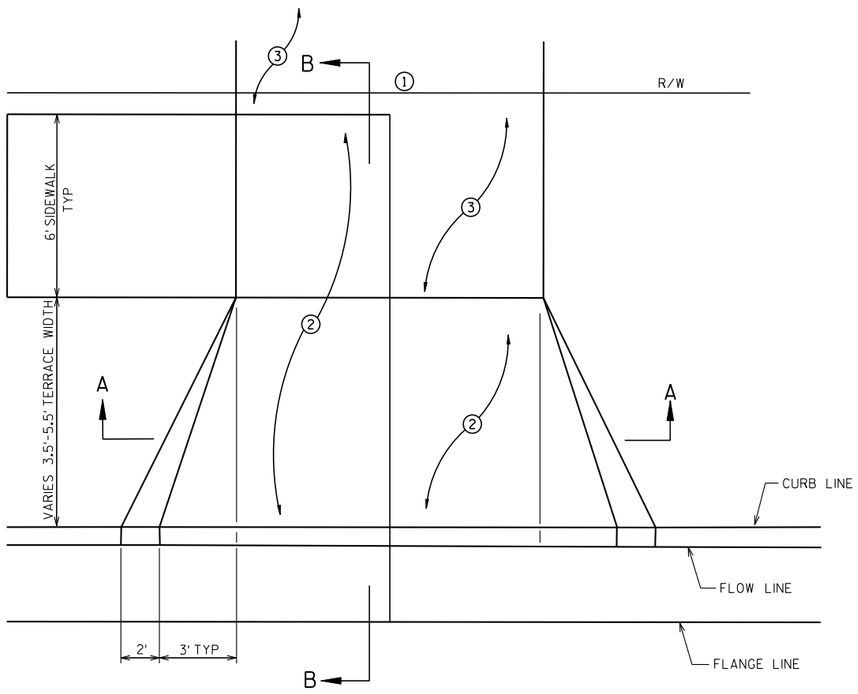
* STA 315+80 TO STA 316+00 THE PROPOSED PAVEMENT STRUCTURE IS 5.25" HMA PAVEMENT TYPE E-10 OVER EXISTING 4" BASE AGGREGATE DENSE 1 1/4-INCH OVER EXISTING 10" BASE AGGREGATE DENSE 3-INCH.

NOTES: ALL 9 1/2-INCH CONCRETE PAVEMENT TO BE DOWELED AND TINED
"X" = SUBGRADE POINT REFERRED TO ON CROSS SECTIONS
LC = LATERAL CLEARANCE

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 8	E

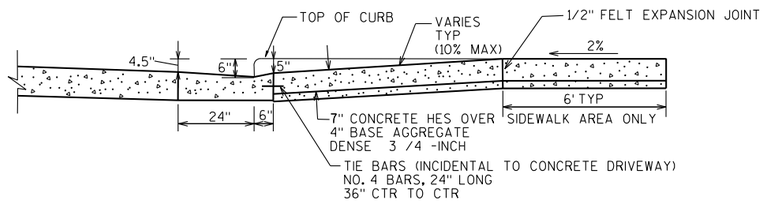
NOTES:

1. DRIVEWAY WIDTHS
   COMMERCIAL 35' MAX 12' MIN
   NON-COMMERCIAL 24' MAX 12' MIN
2. ALL DRIVEWAY APPROACHES SHALL BE 7" CONCRETE ON 4" BASE AGGREGATE DENSE 3/4-INCH.
3. DRIVEWAYS AND FIELD ENTRANCES SHALL BE REPLACED IN-KIND WITH MINIMUM SECTION OF:
   ASPHALT - 3" ASPH ON 4" BASE AGGREGATE DENSE 3/4-INCH
   CONCRETE - 7" CONCRETE ON 4" BASE AGGREGATE DENSE 3/4-INCH
   BASE AGG - 6" BASE AGGREGATE DENSE 3/4-INCH

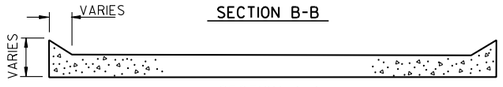


SIDEWALK AREAS NON-SIDEWALK AREAS

PLAN VIEW



SECTION B-B

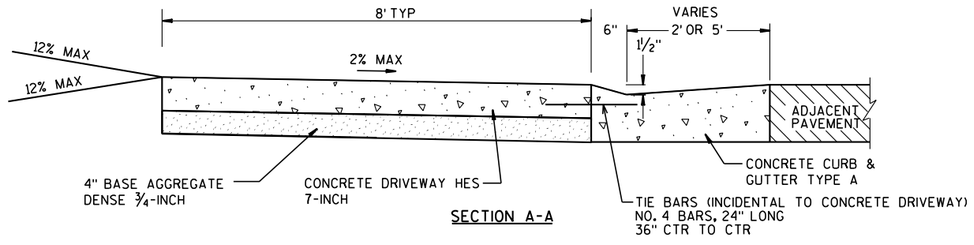


SECTION A-A

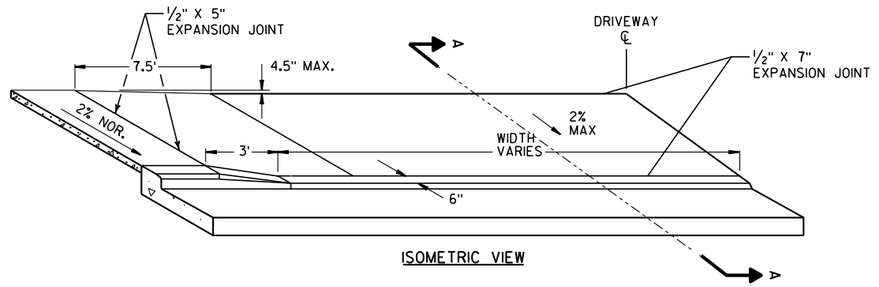
NOTE: DEPRESS SIDEWALK 0.14' WITH 4' TERRACE
DEPRESS SIDEWALK 0.08' WITH 5' TERRACE

URBAN CONCRETE DRIVEWAY DETAILS

SEE PLAN & PROFILE FOR LOCATIONS



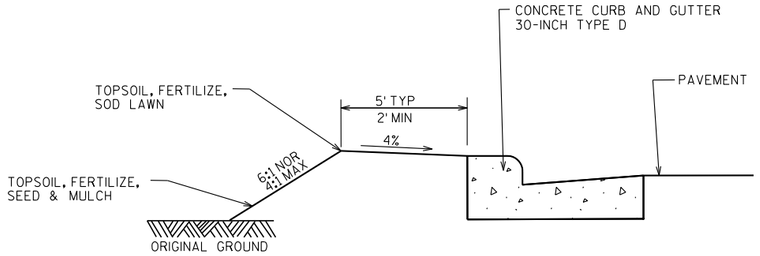
SECTION A-A



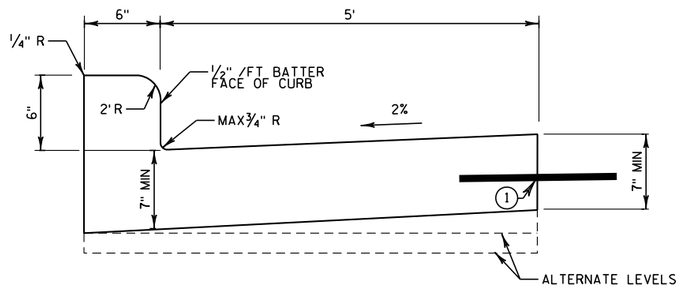
ISOMETRIC VIEW

DRIVEWAYS IN COMMERCIAL WALK AREAS (HALF SECTION)

SEE PLAN & PROFILE FOR LOCATIONS

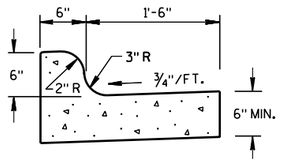


TYPICAL PARTIAL SECTION
AT INTERSECTION RADII



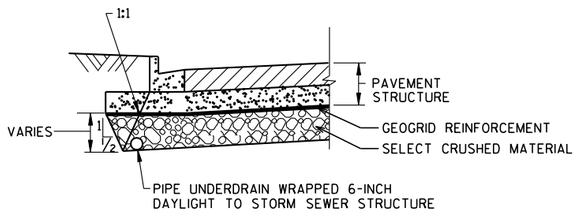
(1) NO. 4 X 2' TIE BARS SPACED AT 3' CENTER TO CENTER & LONGITUDINAL JOINT REQUIRED FOR CONCRETE CURB & GUTTER 66-INCH TYPE A (INCIDENTAL TO CONCRETE CURB & GUTTER 66-INCH TYPE A)

CONCRETE CURB & GUTTER, 66-INCH, TYPE A



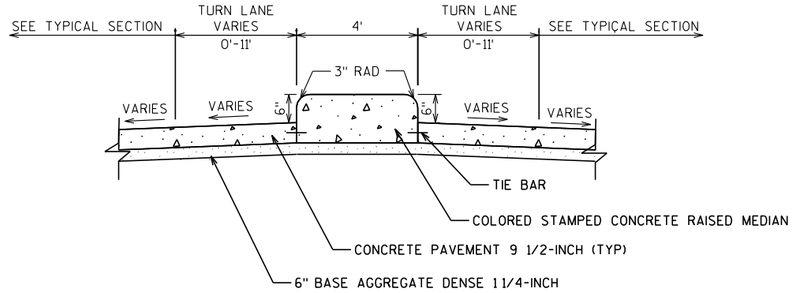
CONCRETE CURB & GUTTER 24-INCH

SEE PLAN FOR LOCATIONS



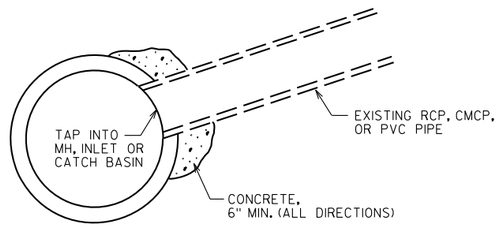
EXCAVATION BELOW SUBGRADE (EBS)

NOTES: 1. USE AS DIRECTED BY ENGINEER.
2. EBS SHALL BE PAID FOR AS EXCAVATION COMMON.
3. FOR UNSTABLE SUBGRADE.



COLORED STAMPED CONCRETE RAISED MEDIAN

STA 314+61 - STA 317+93
STA 223+88 - STA 235+38

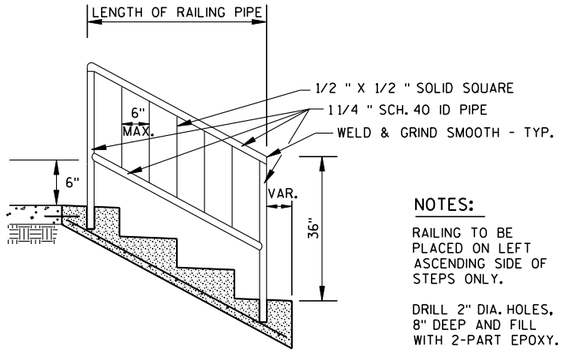


STORM SEWER CONNECTION

(INCIDENTAL TO RCPSS)

STORM SEWER STRUCTURE NUMBERS:
207, 300A, 803, 307, 311, 312A, 313, AND 317

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CONSTRUCTION DETAILS	SHEET E



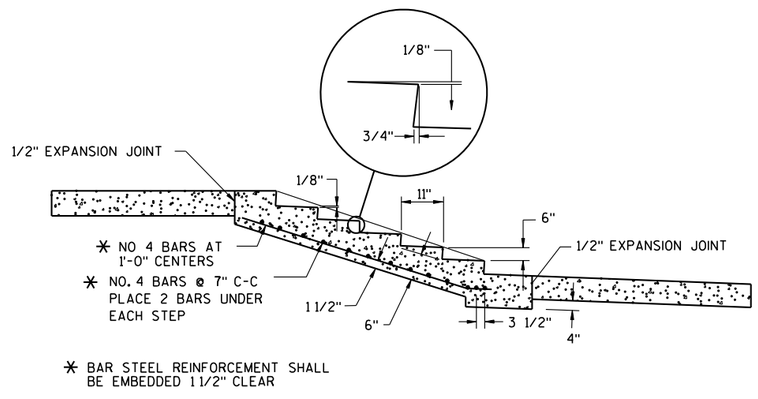
NOTES:

RAILING TO BE PLACED ON LEFT ASCENDING SIDE OF STEPS ONLY.

DRILL 2" DIA. HOLES, 8" DEEP AND FILL WITH 2-PART EPOXY.

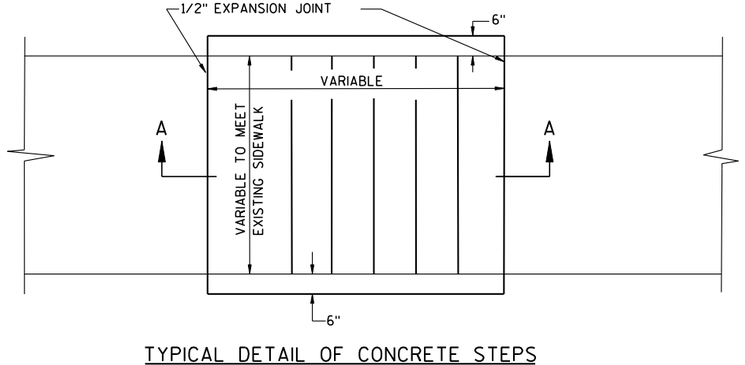
RAILING PIPE FOR STEPS DETAIL

STA 218+14, RT
STA 218+72, RT



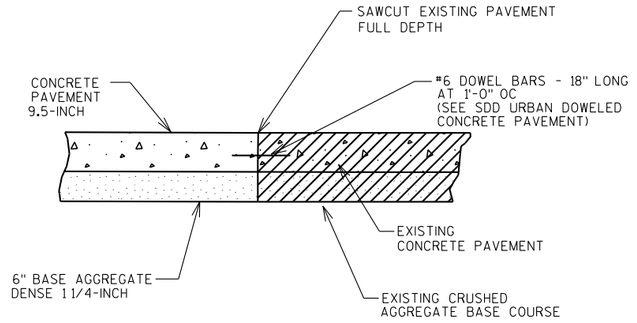
* BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 1 1/2" CLEAR

SECTION A - A



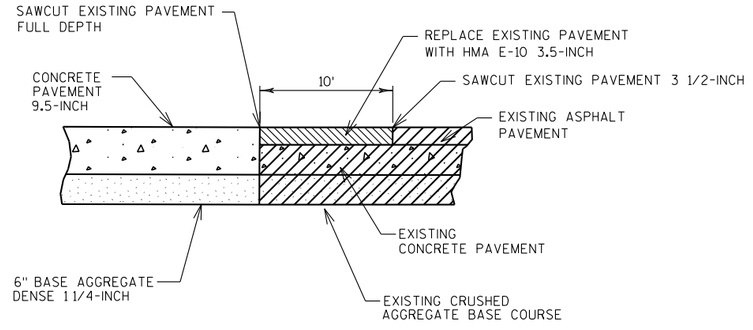
TYPICAL DETAIL OF CONCRETE STEPS

STA 218+14, RT
STA 317+17, RT
STA 218+72, RT
STA 317+63, RT
STA 317+98, RT



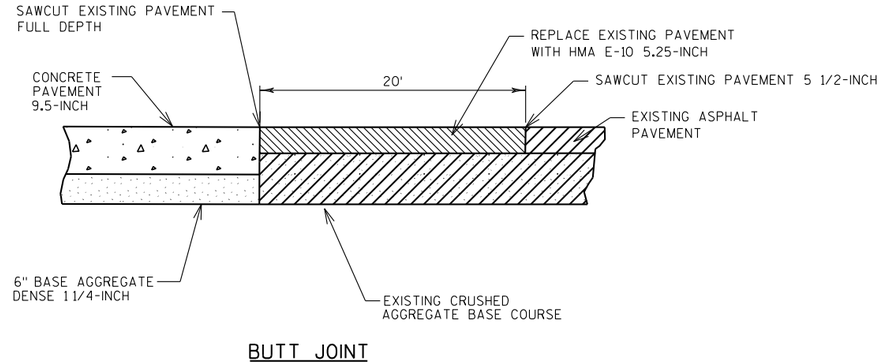
CONCRETE PAVEMENT BUTT JOINT AT EXISTING CONCRETE PAVEMENT

STA 213+00 RT
STA 213+25 LT



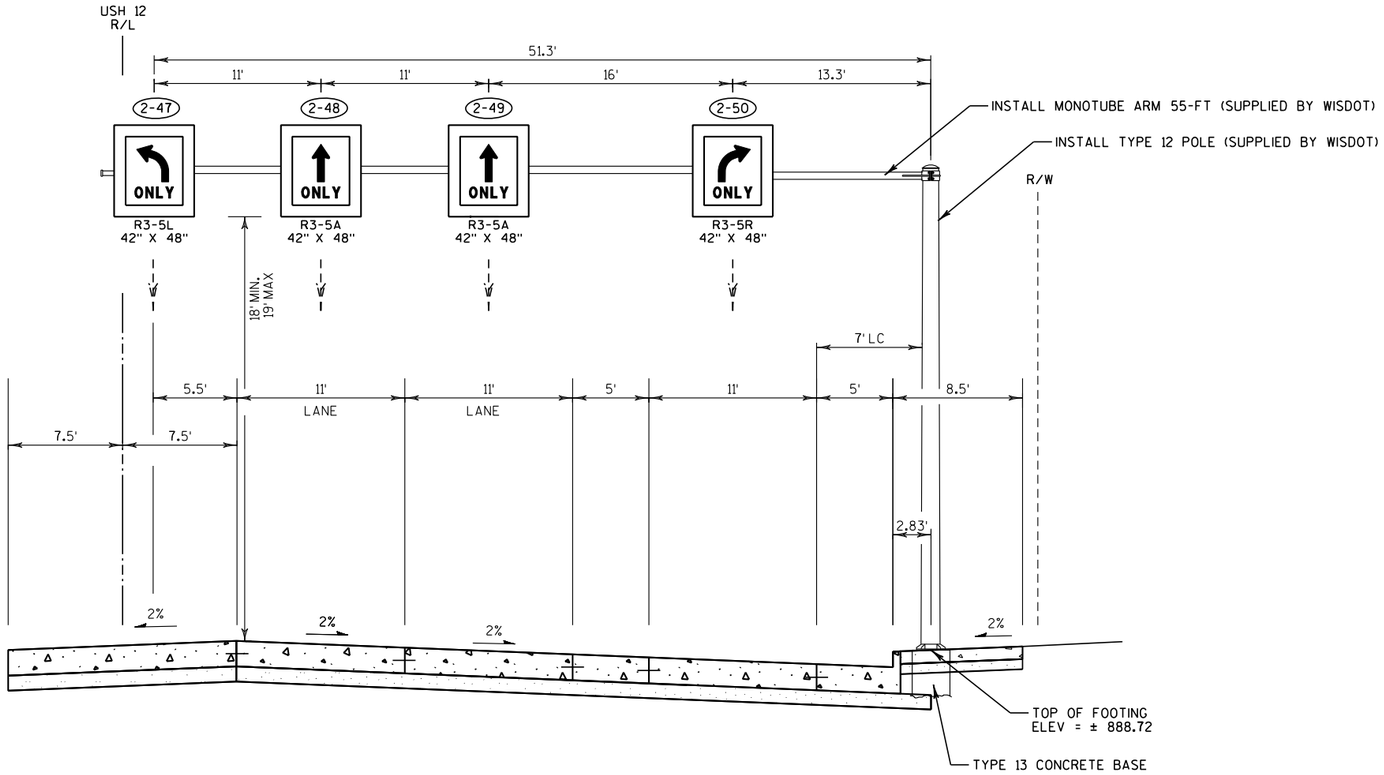
BUTT JOINT

STA 232+20



BUTT JOINT

STA 315+80



LEGEND

(1-XX) DENOTES SIGN NUMBER

CENTER LANE ARROW ON TRAVEL LANE

LC LATERAL CLEARANCE

OVERHEAD SIGN SUPPORT DETAIL
S-56-23
STA 223+80, RT
FACING WEST

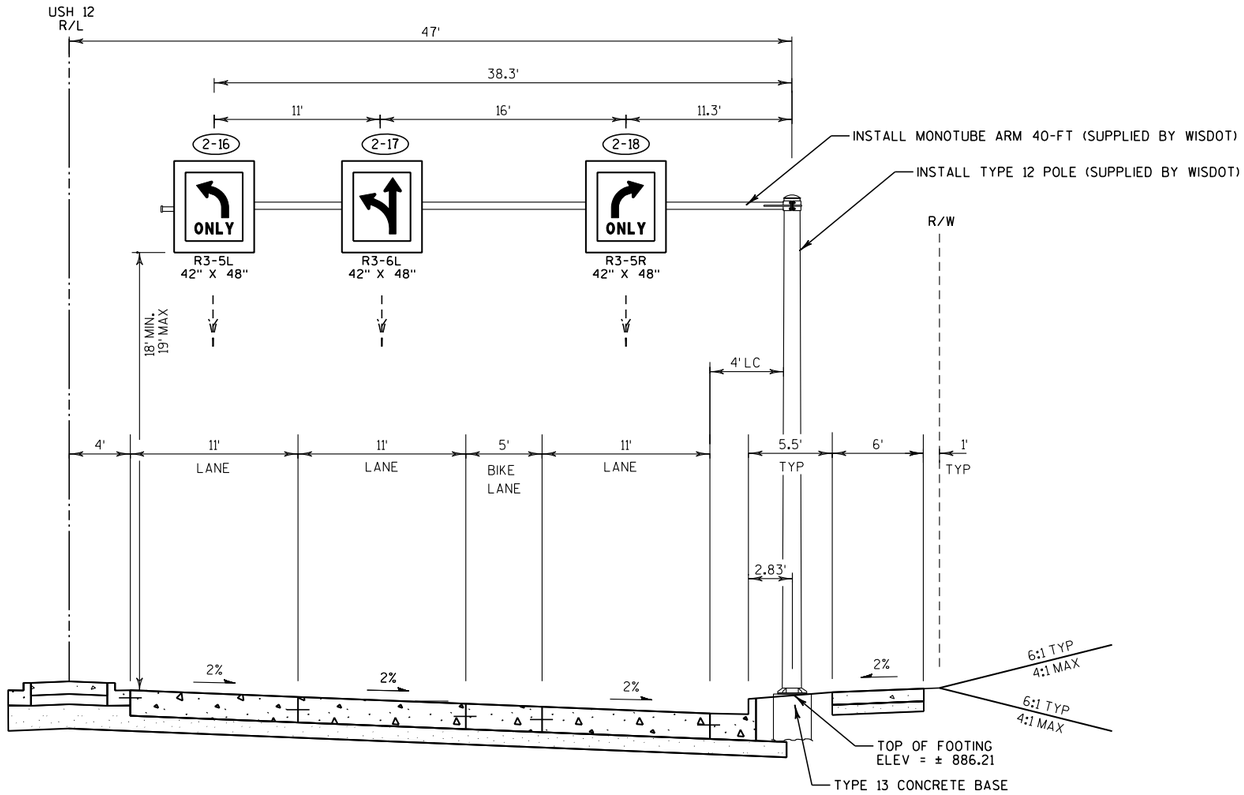
NOTE: CONTRACTOR SHALL:
1.) MOUNTING BRACKETS FOR SIGNS TO BE PER WISDOT APPROVED PRODUCT LIST.

GENERAL NOTES

1) DRAWINGS NOT TO SCALE

2) WISDOT TO SUPPLY THE TYPE 12 POLE AND MONOTUBE ARM 55-FT PER "TYPE 12 POLE 35'-55' MONOTUBE ARM" AND FOOTINGS SHALL BE PER SDD "CONCRETE BASE TYPE 13"

3) I.D. PLAQUE INCIDENTAL TO INSTALL POLES TYPE 12



OVERHEAD SIGN SUPPORT DETAIL
S-56-24
STA 228+71, LT
USH 12 SB AT STH 23

NOTE: CONTRACTOR SHALL:
1.) MOUNTING BRACKETS FOR SIGNS TO BE PER WISDOT APPROVED PRODUCT LIST.

LEGEND

(1-XX) DENOTES SIGN NUMBER

CENTER LANE ARROW ON TRAVEL LANE

LC LATERAL CLEARANCE

GENERAL NOTES

1) DRAWINGS NOT TO SCALE

2) WISDOT TO SUPPLY THE TYPE 12 POLE AND MONOTUBE ARM 40-FT PER "TYPE 12 POLE 35'-55' MONOTUBE ARM" AND FOOTINGS SHALL BE PER SDD "CONCRETE BASE TYPE 13"

3) I.D. PLAQUE INCIDENTAL TO INSTALL POLES TYPE 12

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.

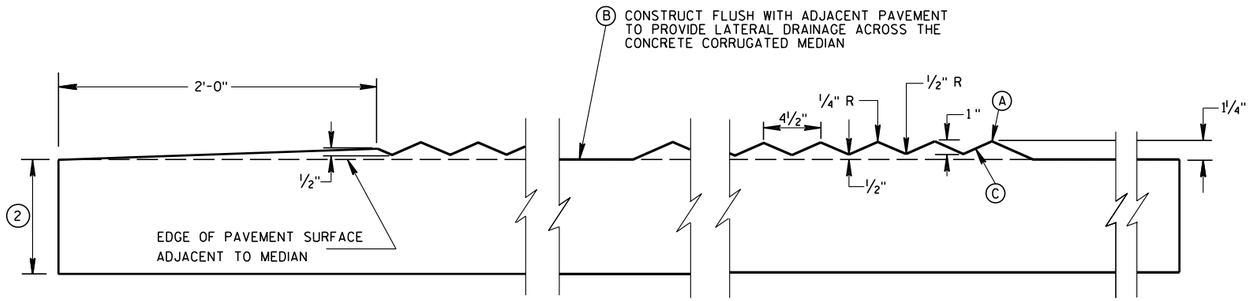
WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC FLOWING IN THE SAME DIRECTION NO PAVEMENT MARKING IS APPLIED TO THE CONCRETE CORRUGATED MEDIAN AREA.

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, PAINT, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

(1) SEE PLANS FOR WIDTH.

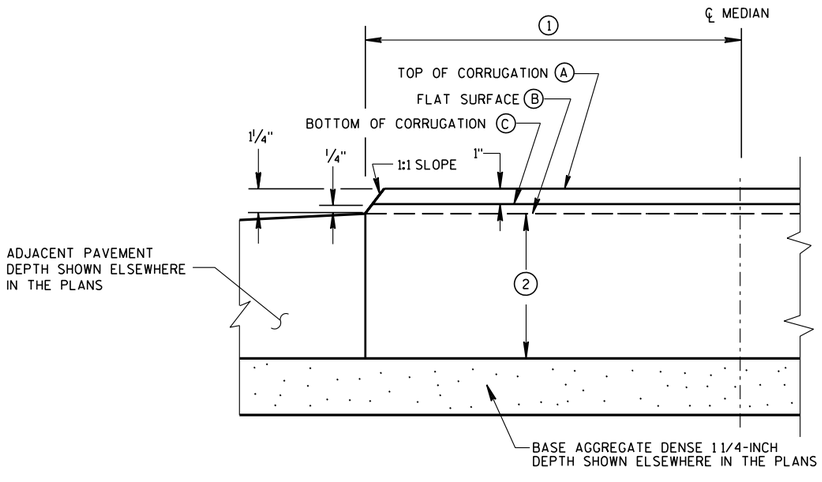
(2) THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9.5 INCH.

(3) TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.



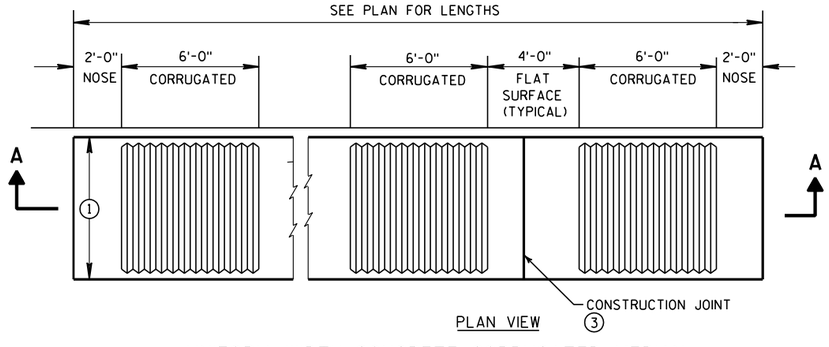
SECTION A-A

LONGITUDINAL SECTION



HALF CROSS SECTION

(2) CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT

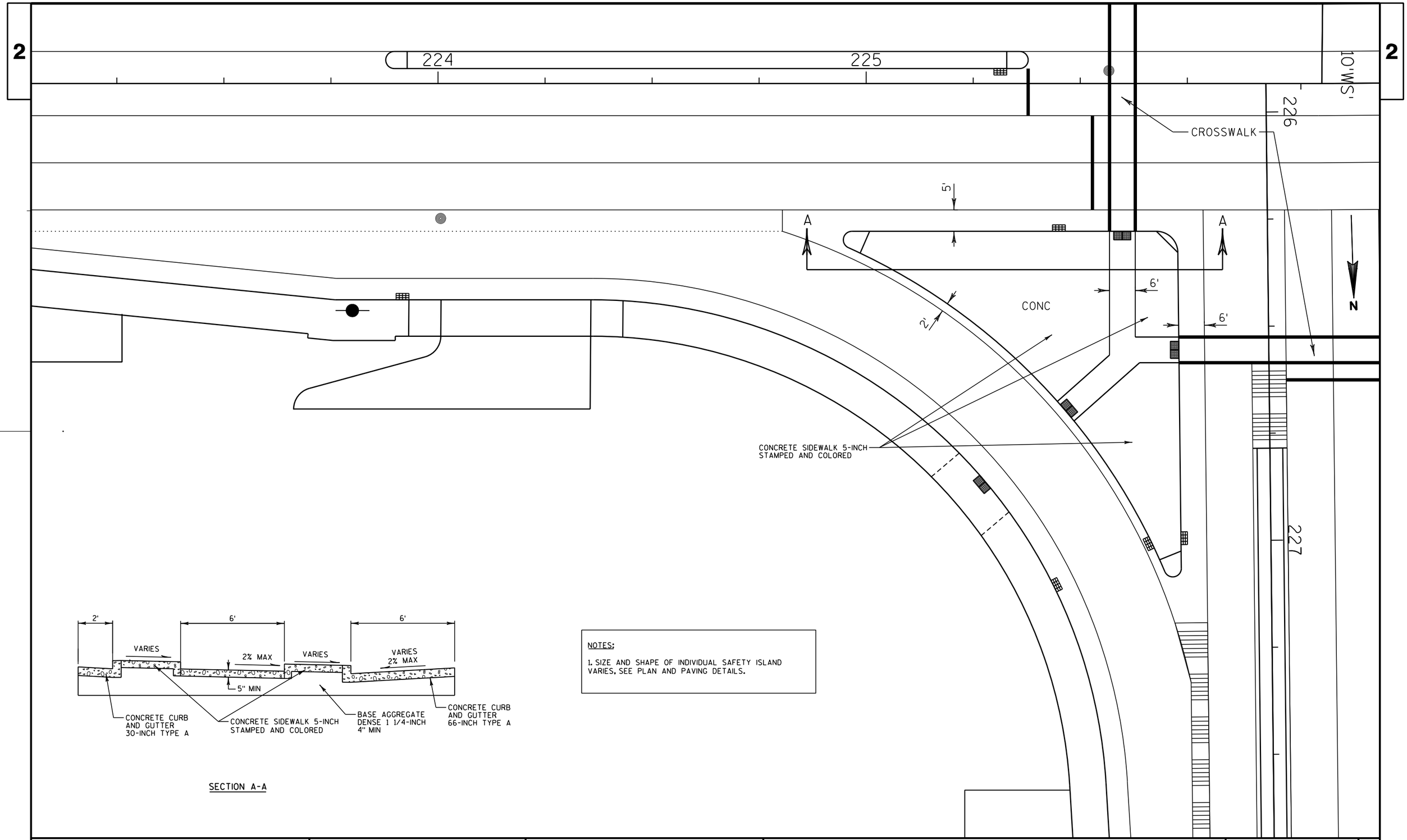


PLAN VIEW

UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN

CONCRETE CORRUGATED MEDIAN

STA 226+58 - STA 226+79
STA 227+19 - STA 227+80 RT

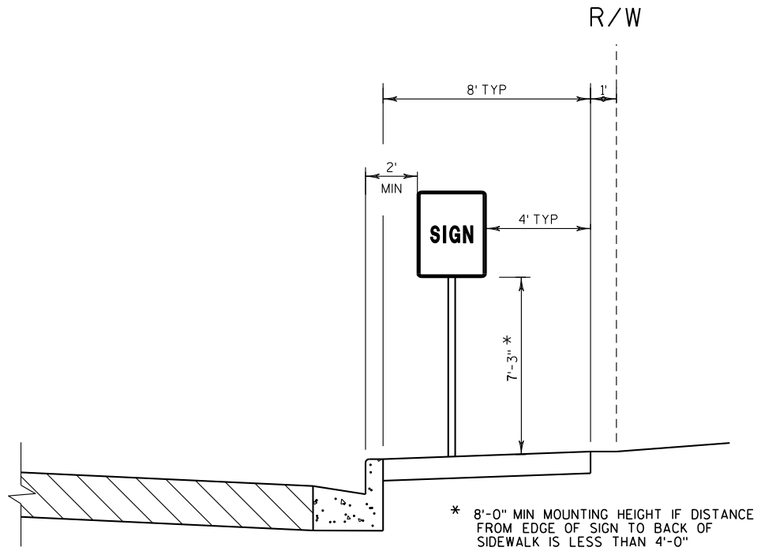


SECTION A-A

NOTES:

1. SIZE AND SHAPE OF INDIVIDUAL SAFETY ISLAND VARIES, SEE PLAN AND PAVING DETAILS.

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CONSTRUCTION DETAIL - CONCRETE SAFETY ISLAND	SHEET 15	E



* 8'-0" MIN MOUNTING HEIGHT IF DISTANCE FROM EDGE OF SIGN TO BACK OF SIDEWALK IS LESS THAN 4'-0"

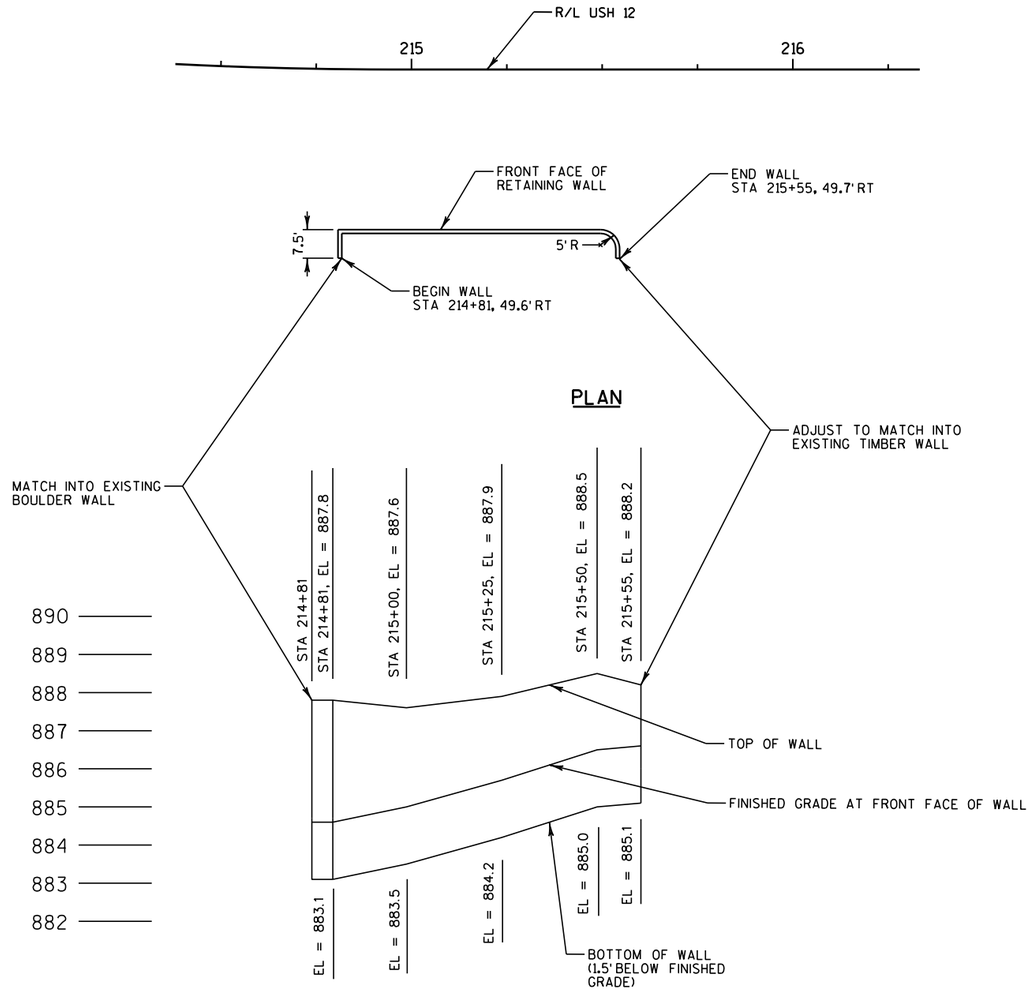
SIGN PLACEMENT ALONG COMMERCIAL WALK

SEE SIGNING PLAN FOR LOCATIONS

RUNOFF COEFFICIENT TABLE

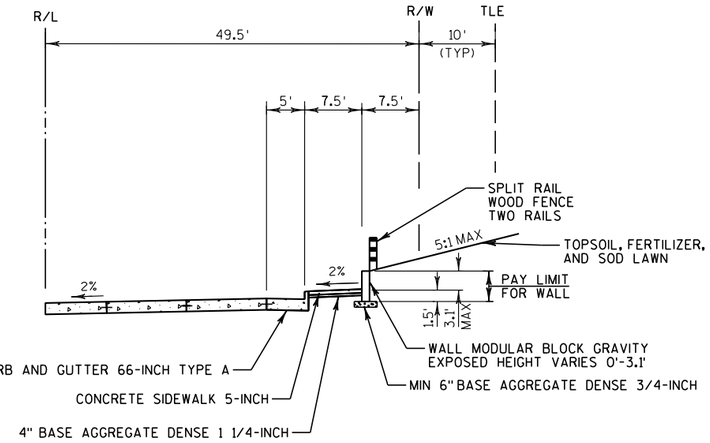
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .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 = 6.34 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 5.79 ACRES



ELEVATION
(LOOKING NORTH AT F.F. OF WALL)

WALL EXTERNAL STABILITY FOR MODULAR BLOCK GRAVITY RETAINING WALL DESIGN STA 214+81, 49.6' RT to STA 215+55, 49.7' RT	
Dimensions	
Wall Height (feet)	4.7
Exposed Wall Height (feet)	3.2
Minimum Foundation Width (feet)	3.25
Foundation Width / Wall Height	0.69
Wall Station	214+81
Boring Nos. Used	1
Capacity to Demand Ratio (CDR)	
Sliding	1.4
Eccentricity (0.25*Width/Eccentricity)	1.8
Bearing	18.4
Global Stability	1.8



WALL MODULAR BLOCK GRAVITY TYPICAL SECTION
(LOOKING WEST)

SUBSURFACE EXPLORATION REPORTS BY WISDOT. REPORTS ARE AVAILABLE FROM THE WISDOT SW REGION PROJECT SECTION, JAMES BUSCHKOPF, PROJECT MANAGER, PHONE (608) 246-3851

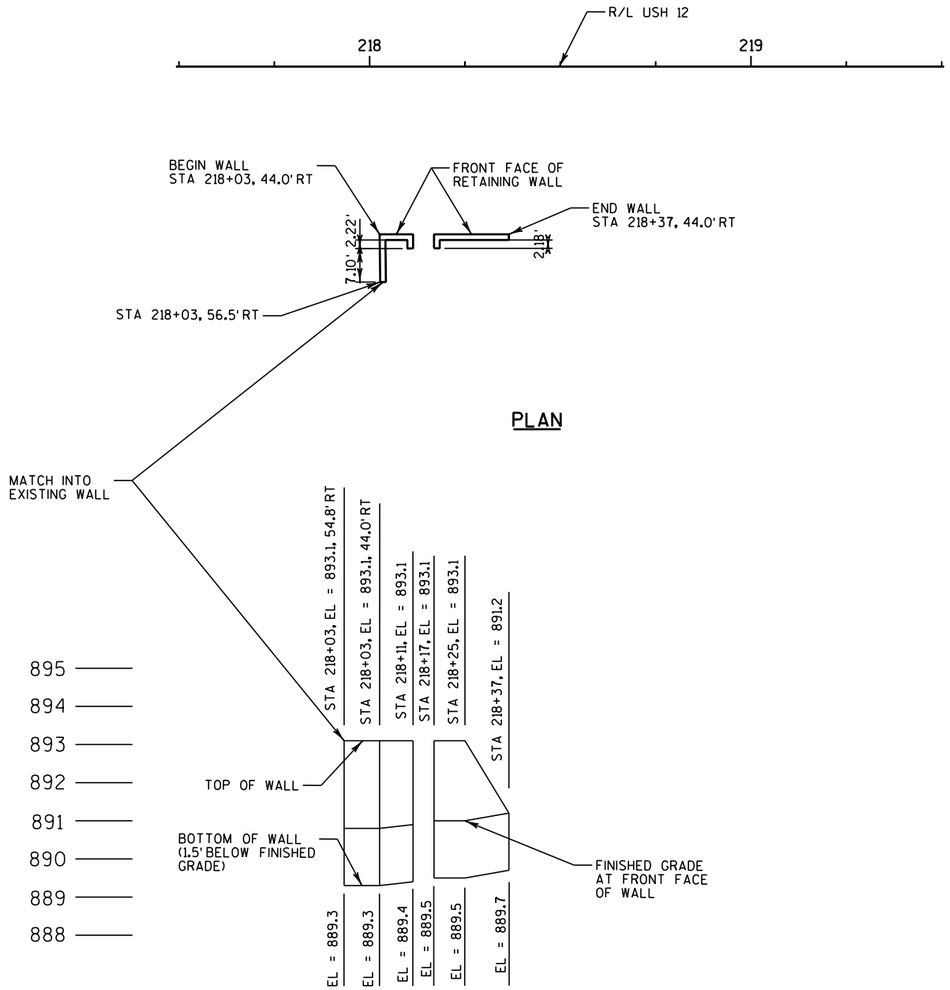
GENERAL NOTES

DRAWING SHALL NOT BE TO SCALE

ELEVATIONS ARE TO THE TOP OF WALL. SEE CROSS SECTIONS FOR MORE INFORMATION ON WALL ELEVATIONS.

WALL MODULAR BLOCK GRAVITY

STA 214+81, 49.6' RT TO STA 215+55, 49.7' RT

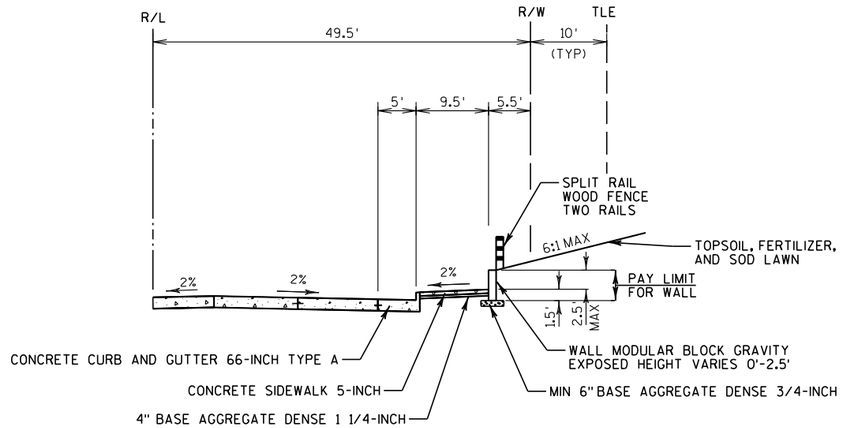


PLAN

ELEVATION

(LOOKING NORTH AT F.F. OF WALL)

WALL EXTERNAL STABILITY FOR MODULAR BLOCK GRAVITY RETAINING WALL DESIGN STA 218+03, 44.0' RT to STA 218+37, 44.0' RT	
Dimensions	
Wall Height (feet)	3.8
Exposed Wall Height (feet)	2.3
Minimum Foundation Width (feet)	3.25
Foundation Width / Wall Height	0.86
Wall Station	218+03
Boring Nos. Used	2
Capacity to Demand Ratio (CDR)	
Sliding	1.4
Eccentricity (0.25*Width/Eccentricity)	2.3
Bearing	24.5
Global Stability	2.1



WALL MODULAR BLOCK GRAVITY TYPICAL SECTION

(LOOKING WEST)

SUBSURFACE EXPLORATION REPORTS BY WISDOT. REPORTS ARE AVAILABLE FROM THE WISDOT SW REGION PROJECT SECTION, JAMES BUSCHKOPF, PROJECT MANAGER, PHONE (608) 246-3851

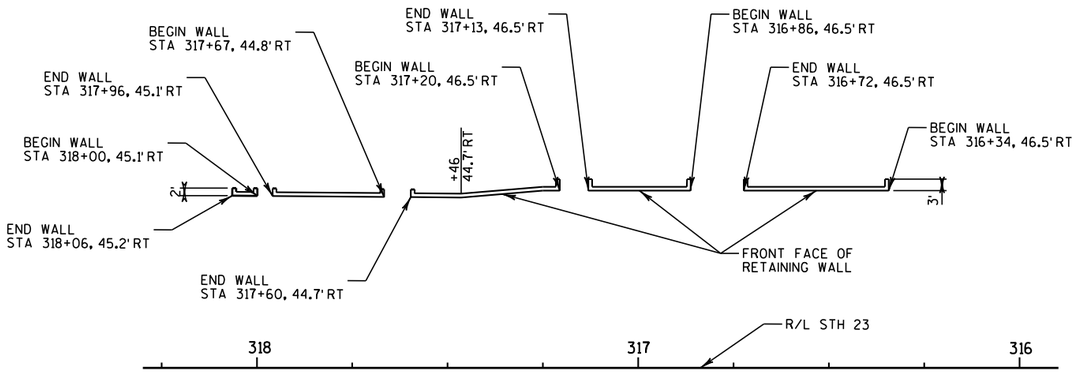
GENERAL NOTES

DRAWING SHALL NOT BE TO SCALE

ELEVATIONS ARE TO THE TOP OF WALL. SEE CROSS SECTIONS FOR MORE INFORMATION ON WALL ELEVATIONS.

WALL MODULAR BLOCK GRAVITY

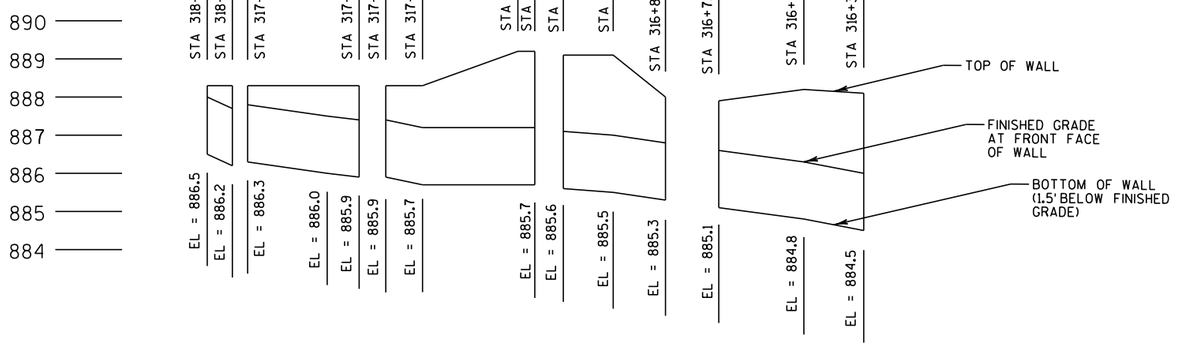
STA 218+03, 44.0'RT TO STA 218+37, 44.0'RT



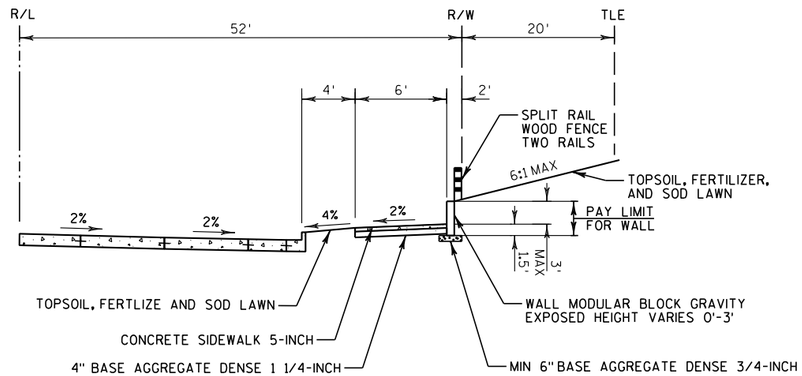
PLAN

WALL EXTERNAL STABILITY FOR MODULAR BLOCK GRAVITY RETAINING WALL DESIGN STA 316+34, 46.5' RT to STA 316+72, 46.5' RT	
Dimensions	
Wall Height (feet)	3.6
Exposed Wall Height (feet)	2.1
Minimum Foundation Width (feet)	3.25
Foundation Width / Wall Height	0.9
Wall Station	316+34
Boring Nos. Used	4
Capacity to Demand Ratio (CDR)	
Sliding	1.5
Eccentricity (0.25*Width/Eccentricity)	2.9
Bearing	25.4
Global Stability	2.2

WALL EXTERNAL STABILITY FOR MODULAR BLOCK GRAVITY RETAINING WALL DESIGN STA 316+86, 46.5' RT to STA 317+13, 46.5' RT STA 317+20, 46.5' RT to STA 317+60, 44.7' RT STA 317+67, 44.8' RT to STA 317+96, 45.1' RT STA 318+00, 45.1' RT to STA 318+06, 45.2' RT	
Dimensions	
Wall Height (feet)	3.4
Exposed Wall Height (feet)	1.9
Minimum Foundation Width (feet)	3.25
Foundation Width / Wall Height	1.0
Wall Station	317+20
Boring Nos. Used	3
Capacity to Demand Ratio (CDR)	
Sliding	1.5
Eccentricity (0.25*Width/Eccentricity)	3.1
Bearing	26.4
Global Stability	2.3



ELEVATION
(LOOKING SOUTH AT F.F. OF WALL)



WALL MODULAR BLOCK GRAVITY TYPICAL SECTION
(LOOKING EAST)

SUBSURFACE EXPLORATION REPORTS BY WISDOT. REPORTS ARE AVAILABLE FROM THE WISDOT SW REGION PROJECT SECTION, JAMES BUSCHKOPF, PROJECT MANAGER, PHONE (608) 246-3851

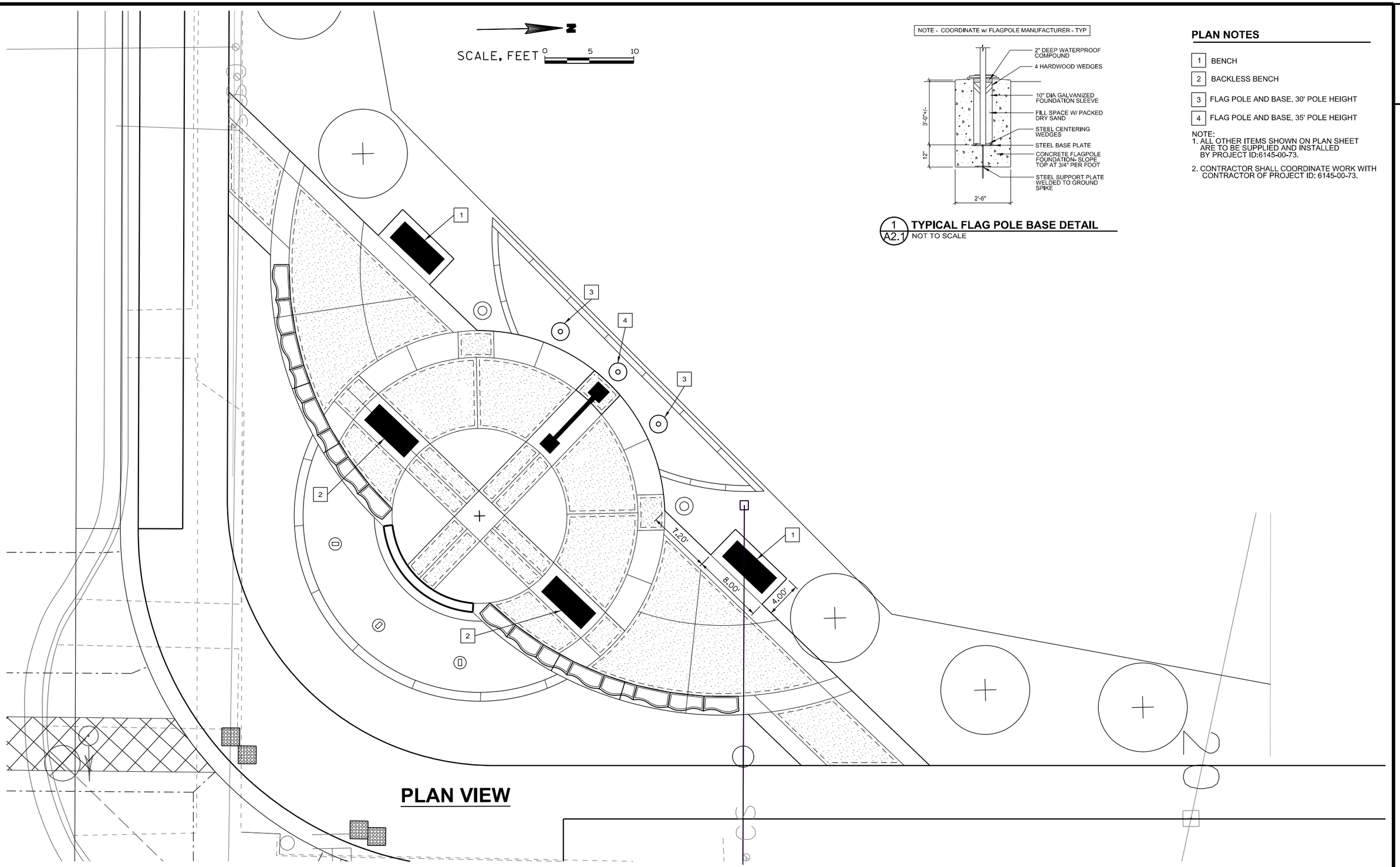
GENERAL NOTES

DRAWINGS SHALL NOT BE TO SCALE

ELEVATIONS ARE TO THE TOP OF WALL. SEE CROSS SECTIONS FOR MORE INFORMATION ON WALL ELEVATIONS.

WALL MODULAR BLOCK GRAVITY

STA 316+34, 46.5' RT TO STA 316+72, 46.5' RT
STA 316+86, 46.5' RT TO STA 317+13, 46.5' RT
STA 317+20, 46.5' RT TO STA 317+60, 44.7' RT
STA 317+67, 44.8' RT TO STA 317+96, 45.1' RT
STA 318+00, 45.1' RT TO STA 318+06, 45.2' RT



PLAN VIEW

NOTE - COORDINATE w/ FLAGPOLE MANUFACTURER - TYP

1 A2.1 **TYPICAL FLAG POLE BASE DETAIL**
NOT TO SCALE

PLAN NOTES

1. BENCH
2. BACKLESS BENCH
3. FLAG POLE AND BASE, 30' POLE HEIGHT
4. FLAG POLE AND BASE, 35' POLE HEIGHT

NOTE:
1. ALL OTHER ITEMS SHOWN ON PLAN SHEET ARE TO BE SUPPLIED AND INSTALLED BY PROJECT ID:6145-00-73.
2. CONTRACTOR SHALL COORDINATE WORK WITH CONTRACTOR OF PROJECT ID: 6145-00-73.

LEGEND

(AP04)	HMA PAVEMENT TYPE E-1, 4-INCH
(CG18A)	CONCRETE CURB AND GUTTER 18-INCH TYPE A
(CG24)	CONCRETE CURB AND GUTTER 24-INCH, SEE CONSTRUCTION DETAIL
(CG30A)	CONCRETE CURB AND GUTTER 30-INCH TYPE A
(CG30D)	CONCRETE CURB AND GUTTER 30-INCH TYPE D
(CG66A)	CONCRETE CURB AND GUTTER 66-INCH TYPE A
(CM01)	CONCRETE MEDIAN SLOPED NOSE TYPE 1
(CM02)	CONCRETE MEDIAN SLOPED NOSE TYPE 2
(CR01)	CONCRETE CURB RAMP TYPE 1
(CR01A)	CONCRETE CURB RAMP TYPE 1A
(CR02)	CONCRETE CURB RAMP TYPE 2
(CR03)	CONCRETE CURB RAMP TYPE 3
(CR04A)	CONCRETE CURB RAMP TYPE 4A
(CR06)	CONCRETE CURB RAMP TYPE 6
(CR07B)	CONCRETE CURB RAMP TYPE 7B
(LS01)	SOD LAWN
(CP09)	CONCRETE PAVEMENT 9 1/2-INCH

SUPERELEVATION DATA	STATION	RATE LT *	RATE RT
MATCH EXISTING RT	213+00.0	-	0.50%
MATCH EXISTING LT	213+25.0	-2%	0.72%
	213+50.0	-2.88%	1.94%
BEGIN FULL SUPERELEVATION (LT)	213+60.0	-3.35%	2.42%
	213+75.0	-3.35%	3.15%
BEGIN FULL SUPERELEVATION (RT)	214+00.0	-3.35%	3.35%
	214+50.0	-3.35%	3.35%
END FULL SUPERELEVATION	214+72.0	-3.35%	3.35%
	215+00.0	-2.5%	2%
	215+50.0	-2.5%	2%
	215+75.0	-2.5%	1%
REMOVE CROWN RT	216+00.0	-2.5%	0%
PAVEMENT WARPING	216+25.0	-2.5%	-1%
	216+50.0	-2.5%	-1%
NORMAL CROWN	217+00.0	-2%	-2%

* LT OF WB PGL

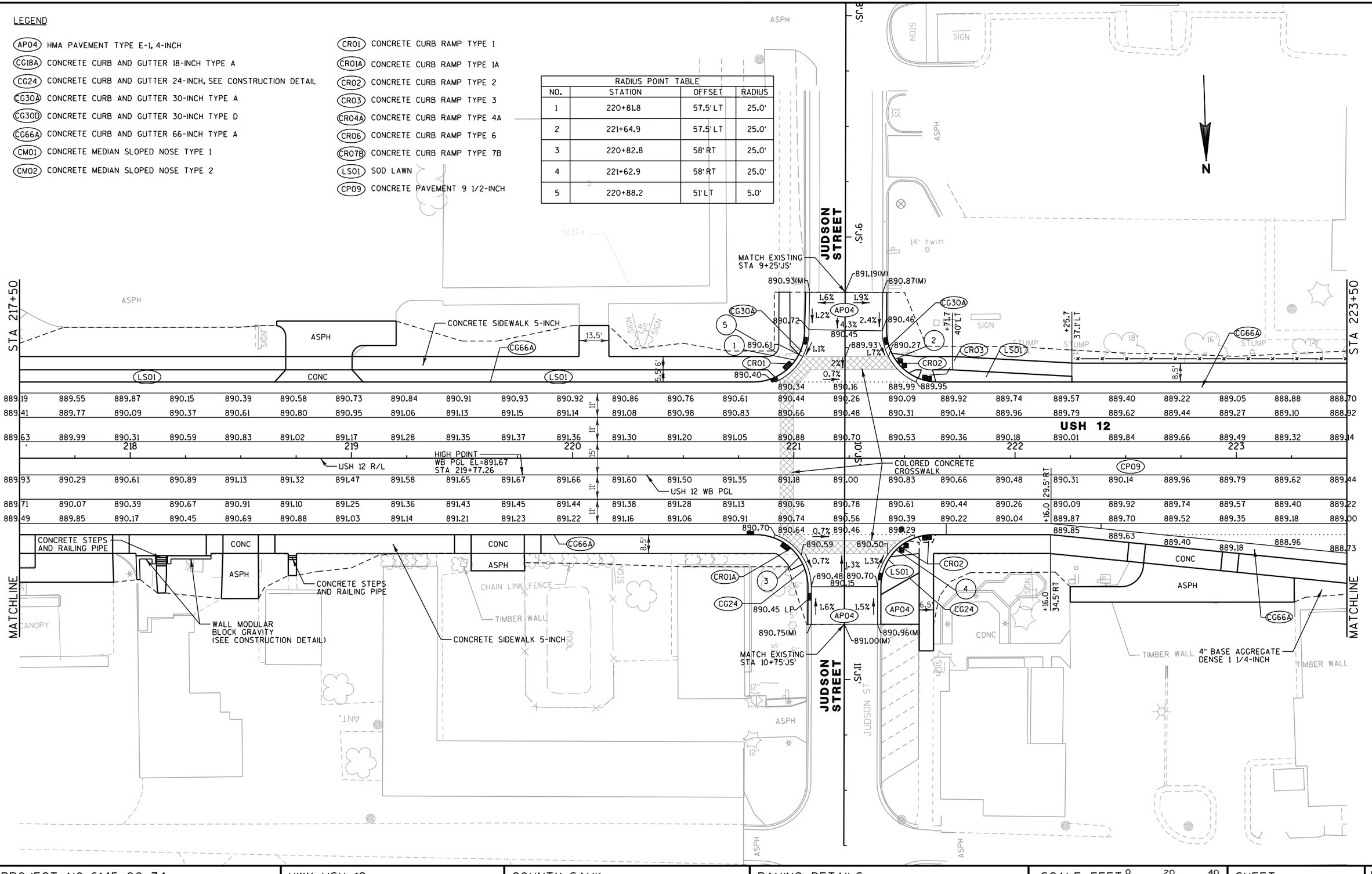
RADIUS POINT TABLE			
NO.	STATION	OFFSET	RADIUS
1	216+16.0	57.5' LT	25.0'
2	216+90.1	57.5' LT	25.0'
3	216+02.8	57.5' RT	25.0'
4	216+84.8	57.5' RT	25.0'
5	216+18.6	51.0' LT	5.0'

2

LEGEND

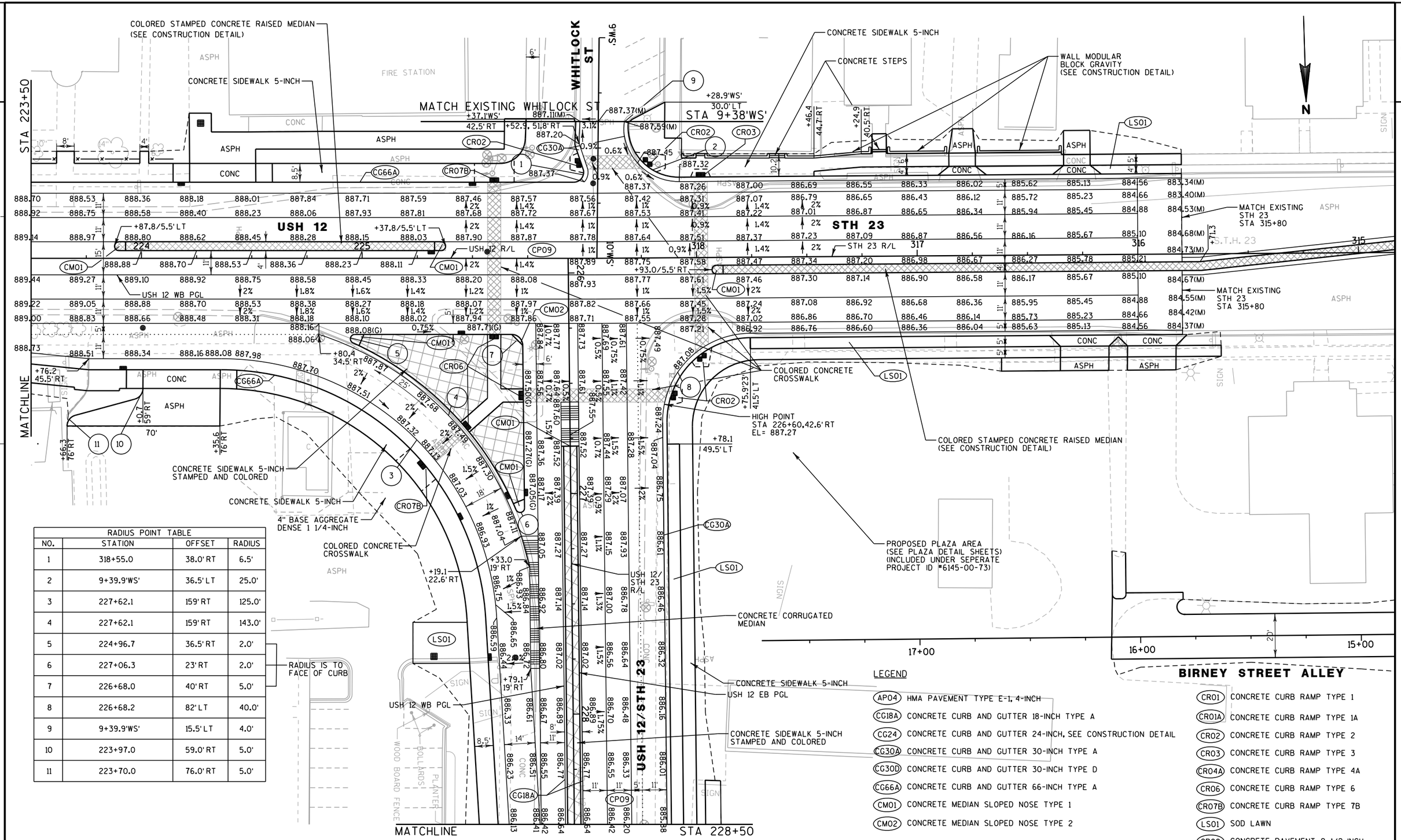
- (AP04) HMA PAVEMENT TYPE E-1, 4-INCH
- (CG18A) CONCRETE CURB AND GUTTER 18-INCH TYPE A
- (CG24) CONCRETE CURB AND GUTTER 24-INCH, SEE CONSTRUCTION DETAIL
- (CG30A) CONCRETE CURB AND GUTTER 30-INCH TYPE A
- (CG30D) CONCRETE CURB AND GUTTER 30-INCH TYPE D
- (CG66A) CONCRETE CURB AND GUTTER 66-INCH TYPE A
- (CM01) CONCRETE MEDIAN SLOPED NOSE TYPE 1
- (CM02) CONCRETE MEDIAN SLOPED NOSE TYPE 2
- (CR01) CONCRETE CURB RAMP TYPE 1
- (CR01A) CONCRETE CURB RAMP TYPE 1A
- (CR02) CONCRETE CURB RAMP TYPE 2
- (CR03) CONCRETE CURB RAMP TYPE 3
- (CR04A) CONCRETE CURB RAMP TYPE 4A
- (CR06) CONCRETE CURB RAMP TYPE 6
- (CR07B) CONCRETE CURB RAMP TYPE 7B
- (LS01) SOD LAWN
- (CP09) CONCRETE PAVEMENT 9 1/2-INCH

RADIUS POINT TABLE			
NO.	STATION	OFFSET	RADIUS
1	220+81.8	57.5' LT	25.0'
2	221+64.9	57.5' LT	25.0'
3	220+82.8	58' RT	25.0'
4	221+62.9	58' RT	25.0'
5	220+88.2	51' LT	5.0'



PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PAVING DETAILS	SCALE, FEET 0 20 40	SHEET 22	E

FILE NAME : t:\1022702\sheets\sheets-phase3\paving\021102_id.dgn PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



RADIUS POINT TABLE			
NO.	STATION	OFFSET	RADIUS
1	318+55.0	38.0' RT	6.5'
2	9+39.9'WS'	36.5' LT	25.0'
3	227+62.1	159' RT	125.0'
4	227+62.1	159' RT	143.0'
5	224+96.7	36.5' RT	2.0'
6	227+06.3	23' RT	2.0'
7	226+68.0	40' RT	5.0'
8	226+68.2	82' LT	40.0'
9	9+39.9'WS'	15.5' LT	4.0'
10	223+97.0	59.0' RT	5.0'
11	223+70.0	76.0' RT	5.0'

LEGEND

APO4	HMA PAVEMENT TYPE E-1, 4-INCH
CG18A	CONCRETE CURB AND GUTTER 18-INCH TYPE A
CG24	CONCRETE CURB AND GUTTER 24-INCH, SEE CONSTRUCTION DETAIL
CG30A	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CG30D	CONCRETE CURB AND GUTTER 30-INCH TYPE D
CG66A	CONCRETE CURB AND GUTTER 66-INCH TYPE A
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN SLOPED NOSE TYPE 2
CR01	CONCRETE CURB RAMP TYPE 1
CR01A	CONCRETE CURB RAMP TYPE 1A
CR02	CONCRETE CURB RAMP TYPE 2
CR03	CONCRETE CURB RAMP TYPE 3
CR04A	CONCRETE CURB RAMP TYPE 4A
CR06	CONCRETE CURB RAMP TYPE 6
CR07B	CONCRETE CURB RAMP TYPE 7B
LS01	SOD LAWN
CP09	CONCRETE PAVEMENT 9 1/2-INCH

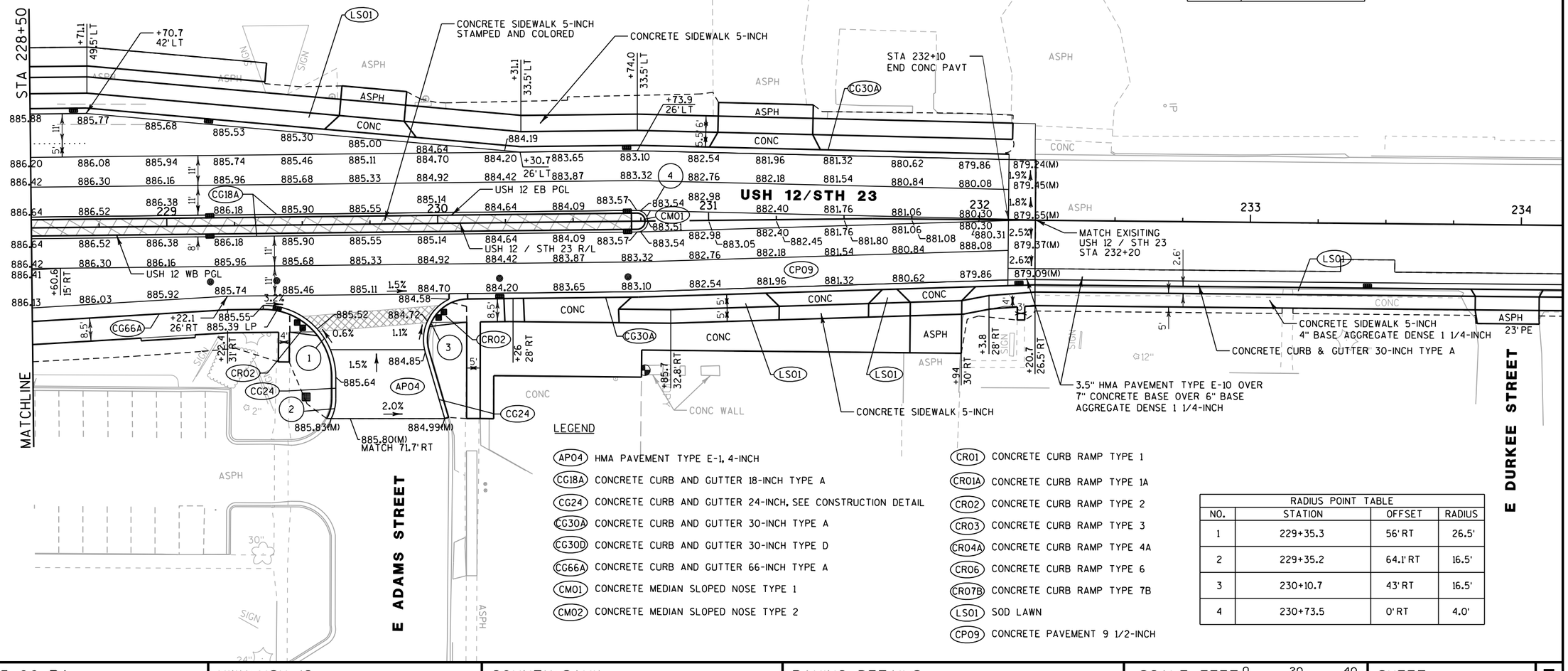
PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PAVING DETAILS	SCALE, FEET 0 20 40	SHEET 23	E

2

N

	USH 12 EB LANES	
STATION	SLOPE LT OF CROWN	SLOPE RT OF CROWN
230+00	-2.00%	-2.00%
230+25	-2.00%	-1.00%
230+50	-2.00%	0.00%
230+75	-2.00%	1.00%
231+00	-2.00%	2.00%

	EB RIGHT TURN TAPER
STATION	SLOPE
228+50	-2.00%
228+75	-2.50%
229+00	-3.00%
229+25	-3.00%
229+50	-2.50%
229+75	-2.00%
230+00	-2.00%



LEGEND

APO4	HMA PAVEMENT TYPE E-1, 4-INCH
CG18A	CONCRETE CURB AND GUTTER 18-INCH TYPE A
CG24	CONCRETE CURB AND GUTTER 24-INCH, SEE CONSTRUCTION DETAIL
CG30A	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CG30D	CONCRETE CURB AND GUTTER 30-INCH TYPE D
CG66A	CONCRETE CURB AND GUTTER 66-INCH TYPE A
CMO1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CMO2	CONCRETE MEDIAN SLOPED NOSE TYPE 2
CRO1	CONCRETE CURB RAMP TYPE 1
CRO1A	CONCRETE CURB RAMP TYPE 1A
CRO2	CONCRETE CURB RAMP TYPE 2
CRO3	CONCRETE CURB RAMP TYPE 3
CRO4A	CONCRETE CURB RAMP TYPE 4A
CRO6	CONCRETE CURB RAMP TYPE 6
CRO7B	CONCRETE CURB RAMP TYPE 7B
LS01	SOD LAWN
CP09	CONCRETE PAVEMENT 9 1/2-INCH

RADIUS POINT TABLE			
NO.	STATION	OFFSET	RADIUS
1	229+35.3	56' RT	26.5'
2	229+35.2	64.1' RT	16.5'
3	230+10.7	43' RT	16.5'
4	230+73.5	0' RT	4.0'

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PAVING DETAILS	SCALE, FEET 0 20 40	SHEET 24	E

MATCH EXISTING STH 23 STA 315+80

STH 23 R/L

884.20(M) 883.75(M) 883.24(M) 882.77(M) 882.45(M)

884.20(M) 883.75(M) 883.24(M) 882.79(M) 882.56(M)

315 314 313

10+00

STA 313+69.72 STH 23 = STA 10+00.00 BIRNEY STREET

+61.3

COLORED STAMPED CONCRETE RAISED MEDIAN

MATCH EXISTING STH 23 STA 315+80

STH 23

5.5" HMA PAVEMENT TYPE E-10

11' 11' 11' 5' 5'

CONC CONC ASPH ASPH

R/W

BIRNEY STREET R/L

11+00

TLE

2'R 3.5'R 2'R

884.68(M) 884.69(M)

884.50(M) 884.35 883.70 882.52

884.30(M) 884.15 883.50 882.32

884.10(M) 883.95 883.30 882.12

BIRNEY STREET ALLEY R/L

880.73 878.41

880.53 878.21

880.33 878.01

20'

17+00 16+00 15+00 14+00

MATCH STA 16+13

BIRNEY STREET ALLEY

HMA PAVEMENT TYPE E-1, 3-INCH OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH

BIRNEY STREET

12+00

13+00

USH 12/STH 23

N

LEGEND

APO4	HMA PAVEMENT TYPE E-1, 4-INCH
CG18A	CONCRETE CURB AND GUTTER 18-INCH TYPE A
CG24	CONCRETE CURB AND GUTTER 24-INCH, SEE CONSTRUCTION DETAIL
CG30A	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CG30D	CONCRETE CURB AND GUTTER 30-INCH TYPE D
CG66A	CONCRETE CURB AND GUTTER 66-INCH TYPE A
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN SLOPED NOSE TYPE 2
CR01	CONCRETE CURB RAMP TYPE 1
CR01A	CONCRETE CURB RAMP TYPE 1A
CR02	CONCRETE CURB RAMP TYPE 2
CR03	CONCRETE CURB RAMP TYPE 3
CR04A	CONCRETE CURB RAMP TYPE 4A
CR06	CONCRETE CURB RAMP TYPE 6
CR07B	CONCRETE CURB RAMP TYPE 7B
LS01	SOD LAWN
CP09	CONCRETE PAVEMENT 9 1/2-INCH

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PAVING DETAILS	SCALE, FEET 0 20 40	SHEET 25	E

2

DELL CREEK

N DELAVAN STREET

S JUDSON STREET

N JUDSON STREET

E ADAMS STREET

USH 12

STA 223+00

MATCHLINE

209 210 211 212 213 214 215 216 217 218 219 220 221 222

7 JS 8 JS 9 JS 10 JS 11 JS 12 JS

TLE PLE

LEGEND

########	EROSION MAT CLASS I, TYPE B
—•—•—•—	SILT FENCE
- - - - - - -	SLOPE INTERCEPT
A	INLET PROTECTION TYPE A
B	INLET PROTECTION TYPE B
C	INLET PROTECTION TYPE C

NOTES:

PLACE INLET PROTECTION AS FOLLOWS:

LOW POINT CURB & GUTTER INLETS:
TYPE A PRIOR TO PAVEMENT AND TYPE C AFTER PAVING

TYPE 8 FIELD INLETS:
TYPE A PRIOR TO INSTALLING GRATE AND TYPE B AFTER INSTALLING GRATE OR IF GRATE IS INSTALLED IMMEDIATELY

ALL OTHER INLETS: TYPE C

PLACE INLET PROTECTION TYPE C ONE INLET BEYOND PROJECT LIMITS ON DOWNSTREAM SIDE ROADS

SHEET 1 OF 2

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	EROSION CONTROL	SCALE, FEET 0 50 100	SHEET 26	E

2

2

BIRNEY STREET

BIRNEY STREET ALLEY

STH 23

USH 12 / STH 23

WHITLOCK STREET

USH 12

E ADAMS STREET

E DURKEE STREET

MATCHLINE

STA 223+00

N

LEGEND

EROSION MAT CLASS I, TYPE B

SILT FENCE

SLOPE INTERCEPT

A INLET PROTECTION TYPE A

B INLET PROTECTION TYPE B

C INLET PROTECTION TYPE C

NOTES:

PLACE INLET PROTECTION AS FOLLOWS:

LOW POINT CURB & GUTTER INLETS:
TYPE A PRIOR TO PAVEMENT AND TYPE C AFTER PAVING

TYPE 8 FIELD INLETS:
TYPE A PRIOR TO INSTALLING GRATE AND TYPE B AFTER INSTALLING GRATE OR IF GRATE IS INSTALLED IMMEDIATELY

ALL OTHER INLETS: TYPE C

PLACE INLET PROTECTION TYPE C ONE INLET BEYOND PROJECT LIMITS ON DOWNSTREAM SIDE ROADS

SHEET 2 OF 2

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	EROSION CONTROL	SCALE, FEET 0 50 100	SHEET 27	E

FILE NAME : t:\1022702\sheets\sheets-phase3\erosion control\022002_ec.dgn PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

LEGEND

RP REMOVE EXISTING STORM PIPE

RS REMOVE EXISTING DRAINAGE STRUCTURE

FIRST WEBER 220

A & J LEASING LL 124

CRUISERINO'S LLC 136-150

231 SURFSIDE MOTEL

151 ARMY DUCKS CANOPY

125-133 MARY'S PLACE

WISCONSIN DUCKS

DELAVAN STREET

USH 12

STA 214+04.9 30.6'LT
CATCH BASIN 2X3 - HS (302B)

SLOPE INTERCEPT

EB CONSTRUCTION LINE

STA 216+25.9, 24.0'RT
MANHOLE 4 FT - J (301)

USH 12 R/L

WB PGL

STA 216+89.5, 24.0'RT
MANHOLE 4 FT - J (300)

RIGID INSULATION REQUIRED

STA 216+92.5, 34.0'LT
CATCH BASIN 2X3-HS (300B)

STA 214+09.3, 23.7'RT
MANHOLE 4 FT - J (207)

STA 214+08.7, 33.2'RT
CATCH BASIN 2X3-HS (302A)

STA 216+25.9, 52.9'RT
CATCH BASIN 2X3-HS (301B)

STA 216+63.9, 46.8'RT
CATCH BASIN 2X3-HS (301A)

STA 216+89.5, 34.0'RT
INLET 4-FT - HS
CONNECT 8" PVC PIPE (300A)

FINISHED WB PROFILE

EXISTING R/L PROFILE

APPROXIMATE SOFT SANDSTONE ELEVATION
NO BLASTING ANTICIPATED

12" X 54.4' SSPRC CL IV @ 0.5%
879.70 → 876.76

12" X 9.5' SSPRC CL IV @ 10.0%
881.52 → 876.49

877.94

876.99

EXISTING 18" SSPRC

18" X 218.5' SSPRC CL IV @ 3.7%
881.63 → 876.49

12" X 63.7' SSPRC CL IV @ 1.0%
887.33 → 885.10

885.42

888.61

12" X 38.5' SSPRC CL IV @ 2.0%
887.33 → 885.25

885.64

888.56

12" X 28.9' SSPRC CL IV @ 1.0%
885.10

887.58

12" X 58.1' SSPRC CL IV @ 0.50%
888.07 → 885.71

EXISTING 8" PVC

885.52

888.44

12" X 10.0' SSPRC CL IV @ 1.00%
885.42

2' SUMP REQUIRED ON ALL CATCH BASINS. SUMPS ARE NOT SHOWN ON PROFILE VIEW

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STORM SEWER	SHEET 28	E

STA 221+04.9, 53.1' LT
CATCH BASIN 4 FT - HS
303

STA 220+89.2, 45.7' LT
CONCRETE COLLAR
303A

STA 220+91.0, 35.9' LT
CATCH BASIN 4 FT - HS
303B

STA 220+80.4, 34.0' RT
CATCH BASIN 4 FT - HS
304C

RIGID INSULATION REQUIRED

RIGID INSULATION REQUIRED
304D STA 221+41.9, 53.1' LT
INLET 4 FT - HS

RIGID INSULATION REQUIRED
304 STA 221+48.7, 32.0' RT
MANHOLE 4 FT - J

STA 221+39.3, 53.4' RT
CATCH BASIN 4 FT - HS
304B

304A STA 221+06.9, 62.6' RT
INLET 4 FT - HS

STA 224+26.8, 61.3' LT
CATCH BASIN 3 FT - S
305B

STA 224+18.0, 34.0' LT
CATCH BASIN 4 FT - HS
305C

STA 224+00.7, 31.5' RT
MANHOLE 5 FT - J
305

STA 223+91.7, 50.0' RT
CATCH BASIN 4 FT - HS
305A

STORM SEWER ANGLE POINT
SEE CONSTRUCTION STAGING PLANS

LEGEND
RP REMOVE EXISTING STORM PIPE
RS REMOVE EXISTING DRAINAGE STRUCTURE

JUDSON STREET

USH 12

EB PGL

USH 12 R/L

WB PGL

SLOPE INTERCEPT

FINISHED WB PROFILE

EXISTING R/L PROFILE

APPROXIMATE SOFT SANDSTONE ELEVATION
NO BLASTING ANTICIPATED

12" X 68.4' SSPRC CL IV @ 2.00%

24" X 251.9' SSPRC CL IV @ 0.60%

15" X 85.4' SSPRC CL IV @ 1.10%

24" X 144.4' SSPRC CL IV @ 0.51%

EXISTING 12" CMCP

12" X 10.0' SSPRC CL IV @ 1.0%

12" X 22.2' SSPRC CL IV @ 1.0%

15" X 36.9' SSPRC CL IV @ 1.0%

12" X 23.4' SSPRC CL IV @ 2.0%

12" X 33.7' SSPRC CL IV @ 2.0%

15" X 67.8' SSPRC CL IV @ 0.50%

12" X 28.7' SSPRC CL IV @ 0.50%

12" X 20.5' SSPRC CL IV @ 1.0%

2' SUMP REQUIRED ON ALL CATCH BASINS. SUMPS ARE NOT SHOWN ON PROFILE VIEW

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STORM SEWER	SHEET 29 E

FILE NAME : t:\1022702\sheets\sheets-Phase3\STORM\022502_ss.DGN PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

LEGEND
RP REMOVE EXISTING STORM PIPE
RS REMOVE EXISTING DRAINAGE STRUCTURE

WHITLOCK ST
STH 23
USH 12
USH 12/STH 23
USH 12/STH 23 R/L
STH 23 R/L
EB PGL
WB PGL
E ADAMS STREET
DELTON FIRE STATION
R/W
TLE
SLOPE INTERCEPT
9'WS'
10'WS'
20 ADCI

STA 09+54.9, 2.0'RT
MANHOLE 5 FT - J
803

STA 09+66, 2.0'RT
MANHOLE 6 FT - J
306

STA 225+50.0, 34.0'LT
MANHOLE 6 FT - HS
306A

STA 225+56.7, 3.0'LT
MANHOLE 5 FT - J
307

STA 225+31.3, 3.0'LT
CATCH BASIN 3 FT - Z
307A

STA 226+99.3, 20.5'RT
CATCH BASIN 2X3 - HS
309A

STA 227+74.0, 26.1'RT
MANHOLE 5 FT - J
310

STA 227+73.7, 37.8'RT
CATCH BASIN 2X3 - HS
310B

STA 227+73.1, 62.8'RT
INLET MEDIAN GRATE MS-A
310A

STA 229+15.9, 20.7'RT
MANHOLE 5 FT - J
311

STA 229+40.3, 20.5'RT
MANHOLE 5 FT-J
312

STA 229+40.3, 31.0'RT
CATCH BASIN 3 FT - HS
312B

STA 229+50.7, 63.5'RT
CATCH BASIN 4 FT - S
312A

ADJUST INLET

STA 227+09.9, 50.4'RT
CATCH BASIN 2X3 - HS
309B

STA 227+00.4, 28.3'RT
MANHOLE 2X3 - HS
309

STA 225+49.7, 34.0'RT
MANHOLE 5 FT - HS
308

STA 228+66.0, 43.5'LT
CATCH BASIN 2X3 - HS
311A

STA 229+15.9, 39.0'LT
CATCH BASIN 2X3 - HS
311B

STA 229+15.9, 3.5'LT
CATCH BASIN 3 FT - Z
311C

STA 229+15.9, 3.5'RT
CATCH BASIN 3 FT - Z
311D

2' SUMP REQUIRED ON ALL CATCH BASINS. SUMPS ARE NOT SHOWN ON PROFILE VIEW

APPROXIMATE SOFT SANDSTONE ELEVATION
NO BLASTING ANTICIPATED

FINISHED WB PROFILE
EXISTING R/L PROFILE

EXISTING 30" SSPRC
30" X 11.1' SSPRC CL IV @ 0.74%
30" X 54.7' SSPRC CL IV @ 0.74%
30" X 31.7' SSPRC CL IV @ 0.74%
30" X 38.8' SSPRC CL IV @ 0.74%
36" X 76.3' SSPRC CL IV @ 0.40%
36" X 73.7' SSPRC CL IV @ 0.45%
36" X 142.0' SSPRC CL IV @ 0.50%
36" X 24.5' SSPRC CL IV @ 0.55%
36" X 82.3' SSPRC CL IV @ 0.60%
12" X 25.4' SSPRC CL IV @ 2.0%
12" X 7.9' SSPRC CL IV @ 1.0%
12" X 24.0' SSPRC CL IV @ 0.45%
12" X 11.7' SSPRC CL IV @ 1.00%
12" X 25.0' SSPRC CL IV @ 1.00%
12" X 50.1' SSPRC CL IV @ 0.50%
12" X 35.5' SSPRC CL IV @ 0.50%
12" X 7.0' SSPRC CL IV @ 0.50%
12" X 17.2' SSPRC CL IV @ 0.50%
EXISTING 12" SSPRC
12" X 34.1' SSPRC CL IV @ 1.00%
12" X 10.5' SSPRC CL IV @ 1.00%

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STORM SEWER	SHEET 30 E

CONNECT EXISTING 12" PIPE TO MANHOLE 313 IN STAGE 1B. ABANDON PIPE IN STAGE 3.

314A STA 230+70.0, 27.5' LT
CATCH BASIN 2X3 - HS

314B STA 230+70.0, 3.5' LT
CATCH BASIN 3 FT - Z

400 STA 13+86, 12.2' RT (BIRNEY STREET ALLEY)
ADJUST INLET
REPLACE COVER WITH TYPE S COVER

LEGEND
RP REMOVE EXISTING STORM PIPE
RS REMOVE EXISTING DRAINAGE STRUCTURE

N

E ADAMS STREET

USH 12/STH 23

USH 12 R/L

SLOPE INTERCEPT

29"X45"

24"X38"

314C STA 230+70.0, 3.5' RT
CATCH BASIN 3 FT - Z

314 STA 230+70.0, 20.5' RT
MANHOLE 7 FT - J

313A STA 230+22.6, 27.5' RT
CATCH BASIN 2X3 - HS

313 STA 230+22.6, 20.5' RT
MANHOLE 7 FT - J

LOW CLEARANCE OVER SANITARY LATERALS.
EXCAVATE WITH CAUTION.
RIGID INSULATION REQUIRED.

315 STA 232+15.8, 23.6' RT
MANHOLE 6 FT - HS

STA 233+43.4, 23.5' RT
MANHOLE 6 FT - HS 316

E DURKEE STREET

STA 235+14.3, 23.5' RT
MANHOLE 6 FT - HS 317

SS 18"

APPROXIMATE SOFT SANDSTONE ELEVATION
NO BLASTING ANTICIPATED

EXISTING R/L PROFILE

FINISHED WB PROFILE

313 884.36
314 883.32
315 879.32
316 874.59
317 867.98

29"X45" X 47.4' SSPRC-HE CL IV @ 0.70%
879.52 880.94

36" X 82.3' SSPRC CL IV @ 0.60%
879.19

24"X38" X 144.3' SSPRC-HE CL IV @ 3.20%
874.57

24"X38" X 128.6' SSPRC-HE CL IV @ 3.50%
870.07

24"X38" X 170.9' SSPRC-HE CL IV @ 3.33%
864.38

EXISTING 18" PVC

313 884.36
313A 884.25
881.08
12" X 7.0' SSPRC CL IV @ 2.00%
880.94
879.52

314A 883.21
314B 883.52
314C 883.52
314 883.32
880.15
12" X 24.0' SSPRC CL IV @ 2.00%
879.67
12" X 7.0' SSPRC CL IV @ 0.50%
879.53
879.19
12" X 17.0' SSPRC CL IV @ 2.0%

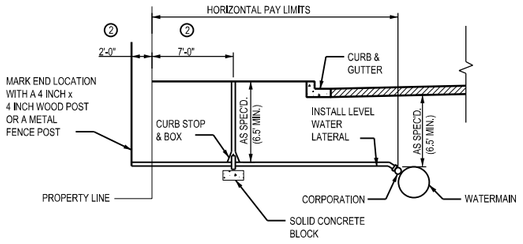
2' SUMP REQUIRED ON ALL CATCH BASINS. SUMPS ARE NOT SHOWN ON PROFILE VIEW

886 884 882 880 878 876 874 872 870 868 866 864 862

230 231 232 233 234 235 236

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STORM SEWER	SHEET 31 E

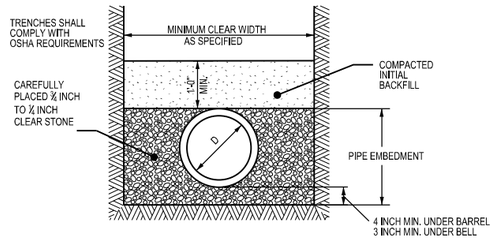
FILE NAME : t:\1022702\sheets\sheets-Phase3\STORM\022504_ss.DGN PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



GENERAL NOTES:

1. SEE PLANS AND SPECIFICATIONS FOR SIZE AND TYPE OF CURB STOP AND BOX CORPORATION AND SERVICE LINE.
2. COMMUNITY STANDARDS SHALL SUPERSEDE THE DIMENSIONS FROM THE PROPERTY LINE.

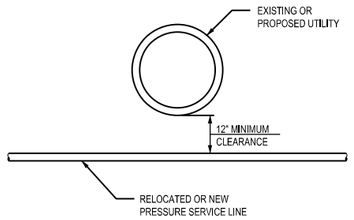
WATER SERVICE DETAIL
SCALE: NONE



GENERAL NOTES:

1. INITIAL BACKFILL SHALL BE DENSELY COMPACTED, NON-COHESIVE FINELY DIVIDED MATERIAL FREE OF DEBRIS, ORGANIC MATERIAL, AND LARGE STONES.
2. IN ROCK OR OTHER INCOMPRESSABLE MATERIALS, THE TRENCH SHALL BE OVEREXCAVATED A MINIMUM OF 6-INCHES AND REFILLED WITH GRANULAR MATERIAL.

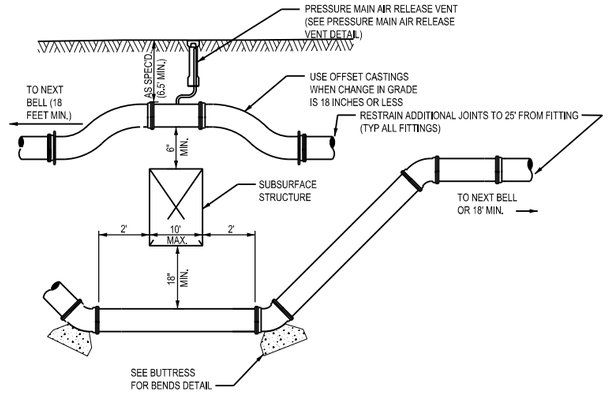
DUCTILE IRON WATER MAIN EMBEDMENT DETAIL
SCALE: NONE



GENERAL NOTES:

1. PIPE INSULATION SHALL BE INSTALLED AS REQUIRED. SEE "PIPE INSULATION DETAIL."

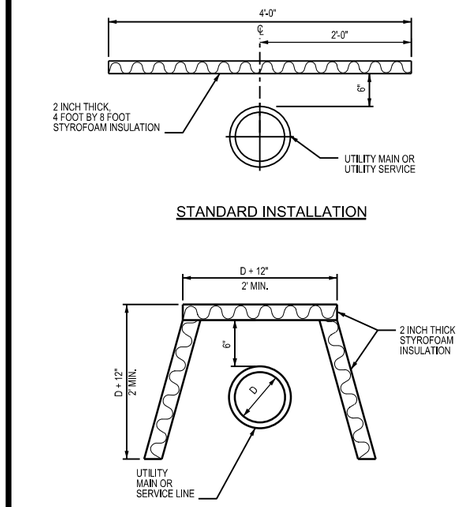
PRESSURE SERVICE CROSSING DETAIL
SCALE: NONE



GENERAL NOTES:

1. ALL FITTINGS SHALL BE CONNECTED TO THE PIPE WITH AN APPROVED WEDGE ACTION THRUST RESTRAINING GLAND.
2. LOCATIONS OF EXISTING MAINS ARE APPROXIMATE. LENGTH REQUIRED TO BE LOWERED WILL BE DETERMINED IN THE FIELD.
3. MAINS SHALL BE INSULATED IF COVER IS LESS THAN 6.5 FEET.
4. PROVIDE CONTINUITY STRAPS ACROSS ALL FITTINGS FROM PIPE TO PIPE

PRESSURE MAIN OFFSET DETAIL
SCALE: NONE



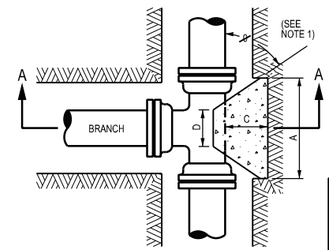
STANDARD INSTALLATION

SIDE PROTECTION INSTALLATION

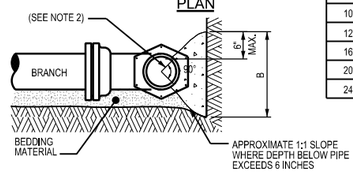
GENERAL NOTES:

1. THE SIDE PROTECTION INSTALLATION SHALL BE USED WHERE FROST WILL PENETRATE BELOW THE PIPE INVERT.

PIPE INSULATION DETAIL
SCALE: NONE



PLAN



SECTION A-A

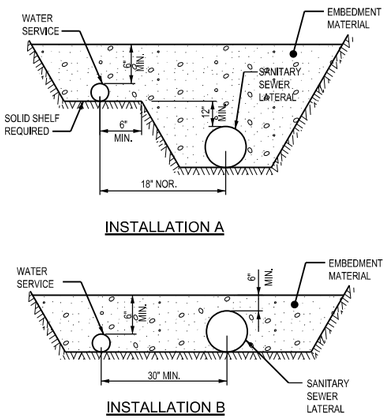
BUTTRESS DIMENSIONS				
B.D	A	B	C	D
6"	1'-3"	1'-0"	SEE NOTE NO. 1	SEE NOTE NO. 3
8"	1'-6"	1'-4"		
10"	1'-10"	1'-8"		
12"	2'-3"	2'-0"		
16"	3'-2"	2'-6"		
20"	4'-0"	3'-0"		
24"	5'-3"	3'-4"		

B.D. = BRANCH DIAMETER

NOTES:

1. PRECAST CONCRETE BLOCKS SHALL BE USED IN LIEU OF POURED-IN-PLACE CONCRETE. PRECAST CONCRETE SHALL BE PLACED TO THE DIMENSIONS SHOWN ON THESE DETAILS. ALL FITTINGS SHALL ALSO RECEIVE MEGA-LUG OR EQUAL JOINT RESTRAINT.
2. DIMENSION 'C' SHOULD BE LARGE ENOUGH TO MAKE ANGLE ∠ GREATER THAN OR EQUAL TO 45°.
3. CONCRETE SHOULD BEAR ON THIS QUADRANT OF PIPE AT A MINIMUM.
4. DIMENSION 'D' SHOULD BE AS LARGE AS POSSIBLE BUT CONCRETE SHOULD NOT INTERFERE WITH MECHANICAL JOINTS.
5. BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 PSI. INFORM THE ENGINEER IF ON-SITE SOIL DOES NOT MEET THIS CONDITION OR PRESSURES EXCEED 150 PSI.
6. BUTTRESS TO BE POURED AGAINST FIRM UNDISTURBED SOIL, OR DISTURBED SOIL COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY, ASTM D1557.
7. CONCRETE SHALL HAVE A MINIMUM 7-DAY COMPRESSIVE STRENGTH OF 2000 PSI.

BUTTRESS FOR TEES DETAIL
SCALE: NONE



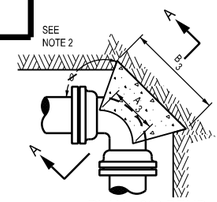
INSTALLATION A

INSTALLATION B

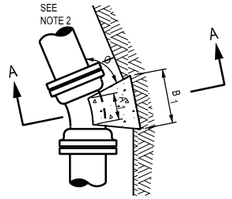
GENERAL NOTES:

1. DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING, SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE SPECIFICATIONS.
2. INSTALLATION B SHALL BE USED WHEN THE WATER SERVICE WILL HAVE LESS THAN 12 INCHES VERTICAL SEPARATION ABOVE THE SANITARY SEWER.
3. WATER SERVICES 2 INCHES IN DIAMETER OR LESS SHALL BE INSTALLED AS SHOWN ON THIS DETAIL. WATER SERVICES 2-1/2 INCHES OR LARGER IN DIAMETER SHALL BE INSTALLED AT LEAST 8 FEET HORIZONTALLY FROM ANY SANITARY SEWER.

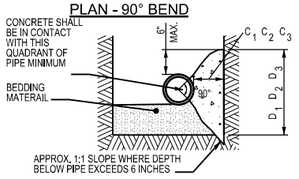
WATER SERVICE AND SANITARY SEWER LATERAL DETAIL
SCALE: NONE



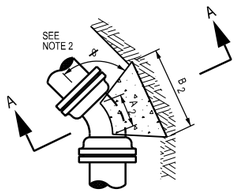
PLAN - 90° BEND



PLAN - 22 ½° BEND



SECTION A-A



PLAN - 45° BEND

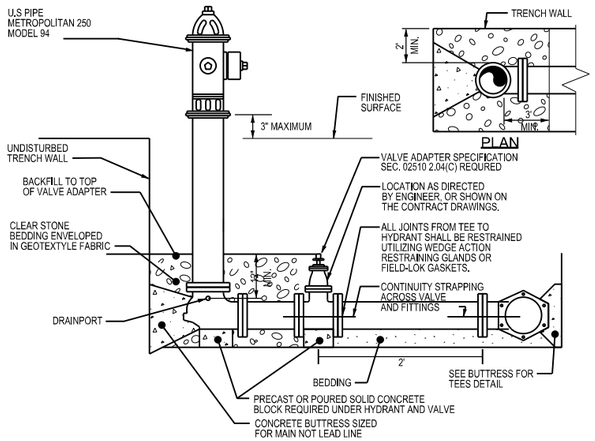
NOTES:

1. PRECAST CONCRETE BLOCKS SHALL BE USED IN LIEU OF POURED IN PLACE CONCRETE. PRECAST CONCRETE BLOCKS SHALL BE PLACED TO THE DIMENSIONS SHOWN ON THESE DETAILS. ALL FITTINGS SHALL ALSO RECEIVE MEGA-LUG OR EQUAL JOINT RESTRAINT.
2. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 P.S.I. AND AN EARTH RESISTANCE OF 2 TONS PER SQ. FT. INFORM THE ENGINEER IF PRESSURES EXCEED 150 PSI, OR ON-SITE SOIL DOES NOT MEET THIS CONDITION.
3. DIMENSION $C_1C_2C_3$ SHOULD BE LARGE ENOUGH TO MAKE ANGLE ∠ EQUAL TO OR LARGER THAN 45°.
4. DIMENSION $A_1A_2A_3$ SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERRING WITH THE MECHANICAL JOINT.
5. BUTTRESS TO BE POURED AGAINST FIRM UNDISTURBED SOIL, OR DISTURBED SOIL COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY, ASTM D1557.
6. CONCRETE SHALL HAVE A MINIMUM 7-DAY COMPRESSIVE STRENGTH OF 2000 PSI.

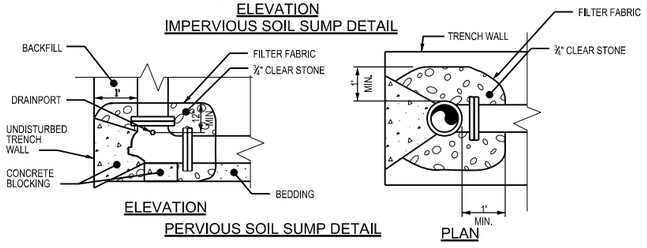
BUTTRESS DIMENSIONS						
PIPE SIZE	22½° BENDS		45° BENDS		90° BENDS	
	B_1	D_1	B_2	D_2	B_3	D_3
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
10"	1'-2"	1'-2"	1'-7"	1'-7"	2'-3"	1'-10"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"

BUTTRESS FOR FORCEMAIN & WATERMAIN BENDS DETAIL
SCALE: NONE

WISCONSIN
RAINE L. GARDNER
E-41414
BARABOO
WI
PROFESSIONAL ENGINEER
1/11/2013



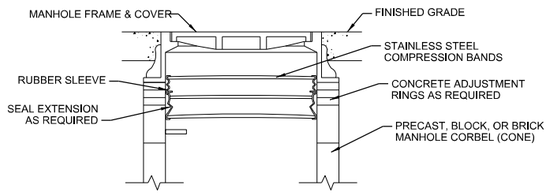
IMPERVIOUS SOIL SUMP DETAIL



PERVIOUS SOIL SUMP DETAIL

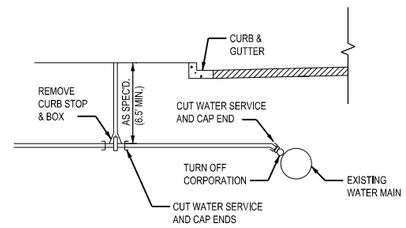
HYDRANT AND LEAD CONNECTION DETAIL

SCALE: NONE



GENERAL NOTES:
1. THE SEAL SHALL EXTEND FROM THE CASTING TO THE CORBEL (CONE). SEAL EXTENSIONS SHALL BE USED AS REQUIRED.
2. AN INTERAL ADAPTOR SEAL RING MAY BE USED IN LIEU OF THE RUBBER SLEEVE. THE INTERNAL ADAPTOR SEAL RING SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

INTERNAL RUBBER SLEEVE FRAME/CHIMNEY SEAL



GENERAL NOTES:
1. SEE SPECIFICATIONS FOR FURTHER ABANDONMENT DETAILS.

WATER SERVICE ABANDONMENT DETAIL

SCALE: NONE

N DELAVAN STREET

9 p.s.

10 p.s.

USH 12

213 214 215 216 217 218 219

ABANDON EXISTING
1-INCH WATER SERVICE

INSTALL UTILITY
INSULATION OVER
WATER SERVICE

1 - ADJUST EXISTING
WATER VALVE
1 - ADJUST EXISTING
HYDRANT

3 - ADJUST EXISTING
WATER VALVE

1 - ADJUST EXISTING
WATER CURB STOP

BEGIN PROJECT
6145-00-74
STA. 213+00

BRICK WALL

CANOPY

GRAV

N

5

5

ADJUST EXISTING
WATER VALVE

ABANDON EXISTING
4-INCH WATER SERVICE IN PLACE
1 - REMOVE AND SALVAGE EXISTING
WATER VALVE AND BOX TO OWNER
1 - 4-INCH PLUG
1- 4-INCH CAP

JUDSON STREET

9 p.s.

ADJUST EXISTING
WATER VALVES

1 - ADJUST EXISTING
WATER CURB STOP

12" STANDPIPE

219 220 221 222 223 224 225

10 p.s.

NOTE: CURB HEAD MAY NEED TO BE
BUMPED AROUND WATER VALVE

2 - ADJUST EXISTING
WATER VALVE
1 - ADJUST EXISTING
HYDRANT

USH 12

2 - ADJUST EXISTING
WATER CURB STOP

ABANDON EXISTING
2-INCH WATER SERVICE

CHAIN LINK FENCE

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	SANITARY SEWER AND WATER MAIN	SHEET 34	E

1 - YARD HYDRANT

1 - 1" WATER CURB STOP & BOX
62 LF - 1" WATER SERVICE
1 - CONNECT TO EXISTING CORPORATION

1 - ADJUST EXISTING WATER CURB STOP

32 LF - 8" DIWM
1 - 8" WATER PLUG
1 - 8"X12" TAPPING SLEEVE
1 - 8" VALVE AND BOX
1 - LIVE TAP

18 LF - 6" DIWM
1 - REMOVE, SALVAGE, AND RELOCATE EXISTING HYDRANT
1 - 22.5° 6" BEND
1 - ADJUST EXISTING WATER VALVE

2 - ADJUST EXISITING WATER VALVE

2 - ADJUST EXISITING WATER VALVE

1 - ADJUST EXISTING WATER VALVE
1 - ADJUST EXISTING HYDRANT

1 - 1" CORPORATION, CURB STOP, AND BOX
80 LF - 1" WATER SERVICE

ADJUST EXISTING SANITARY SEWER MANHOLE

WATER MAIN OFFSET
14 LF - 12" DIWM
4 - 45° 12" BEND
2 - CONNECT TO EXISTING

ABANDON EXISTING 1.5" WATER SERVICE

ABANDON EXISTING 1.5" WATER SERVICE

1 - ADJUST EXISTING WATER CURB STOP

ADJUST EXISTING SANITARY SEWER MANHOLE

ADJUST EXISTING SANITARY SEWER MANHOLE

ADJUST EXISTING SANITARY SEWER MANHOLE

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	SANITARY SEWER AND WATER MAIN	SHEET 35 E

2 - ADJUST EXISITING WATER CURB STOP

INSTALL INSULATION OVER WATER SERVICES

1 - ADJUST EXISITING WATER CURB STOP

1 - ADJUST EXISITING WATER CURB STOP

1 - ABANDON EXISTING 1.5" WATER SERVICE

END CONSTRUCTION
STA. 315+80.00

WHITLOCK STREET

USH 12

STH 23

BIRNEY STREET ALLEY

BIRNEY STREET

ADJUST EXISTING SANITARY SEWER MANHOLES

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	SANITARY SEWER AND WATER MAIN	SHEET 36	E

FILE NAME : $$....designfile....$$
U_3.DGN 1/11/2013 5:01:21 PM rgardner

PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 40

2

N

LEGEND

- EXISTING SIGN ON STEEL POST
- EXISTING SIGN MOUNTED ONTO SIGNAL POLE OR LIGHT POLE
- EXISTING SIGN ON WOOD POST(S)
- (IR-XX) SIGN NUMBER, REMOVE
- (IM-XX) SIGN NUMBER, MOVE
- * SIGN TO BE REMOVED BY VILLAGE OF LAKE DELTON

DELL CREEK

DELAVAN STREET

S JUDSON STREET

USH 12

DELAVAN STREET

N JUDSON STREET

MATCHLINE STA 224+50

DELL CREEK
I3-1
ON LIGHT POLE
SEPARATE SIGN
TO REMAIN

IR-19
R2-1
SPEED LIMIT 35

* D3
W Delavan St
Wis Dells Pkwy S
STOP
R1-1
IR-18

* D3
S Judson St
Wis Dells Pkwy S
IR-17
STOP
R1-1

IR-16
NO STOPPING STANDING OR PARKING
R7-4 MOD

IR-15
R2-1
SPEED LIMIT 35
POLICE DEPT →
IM-01

IR-13
EAST
12
M3-2
M1-4
J4-1
NO PARKING ANY TIME
R7-1
IR-14

IR-12
ALTERNATE
ALTERNATE
90
J4-1

SPEED LIMIT 35
R2-1
IR-01

PI 213+81.633

J1-1
JCT
23
NO STOPPING STANDING OR PARKING
R7-4
IR-02
IR-03

W3-3
ON POWER POLE
IR-04

* D3
N Delavan St
Wis Dells Pkwy S
STOP
R1-1
IR-05

SPEED LIMIT 35
R2-1
IR-06

ALTERNATE
ALTERNATE
90
J3-1
IR-07

BANK
POST OFFICE
IM-02
IM-03

R3-8
ONLY
IR-09

↑ Reedsburg
Wis Dells →
D1-2
IR-10

* D3
N Judson St
Wis Dells Pkwy S
STOP
R1-1
IR-08

ALTERNATE
ALTERNATE
90
J3-1
IR-11

← EXIT
MOVE BY OWNER

SHEET 1 OF XX

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	EXISTING SIGNING	SHEET 37	E

FILE NAME : t:\1022702\sheets\sheets-phase3\signing & marking\exist\023201_es.DGN PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

LEGEND

- EXISTING SIGN ON STEEL POST
- EXISTING SIGN MOUNTED ONTO SIGNAL POLE OR LIGHT POLE
- EXISTING SIGN ON WOOD POST(S)
- (2R-XX) SIGN NUMBER, REMOVE
- (2M-XX) SIGN NUMBER, MOVE
- * SIGN TO BE REMOVED BY VILLAGE OF LAKE DELTON

N

S BIRNEY STREET

N BIRNEY STREET

WHITLOCK STREET

USH 12/STH 23

STH 23

USH 12

E ADAMS STREET

E DURKEE STREET

MATCHLINE STA 224+50

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	EXISTING SIGNING	SHEET 38	E

2

PAVEMENT MARKING LEGEND

①	EPOXY 4-INCH, (WHITE)
②	EPOXY 4-INCH, (YELLOW)
③	GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (12.5'LINE 37.5'GAP WHITE)
④	GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)
⑤	GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (2'LINE 6'GAP WHITE)
⑥	CURB EPOXY, (YELLOW)
⑦	ISLAND NOSE EPOXY, (YELLOW)
⑧	DIAGONAL EPOXY 12-INCH, (YELLOW) 10' SPACING
⑨	ARROWS EPOXY TYPE 2, (WHITE)
⑩	ARROWS EPOXY TYPE 3, (WHITE)
⑪	CROSSWALK EPOXY 6-INCH, (WHITE)
⑫	CROSSWALK EPOXY 12-INCH (WHITE)
⑬	WORDS EPOXY
⑭	STOP LINE EPOXY 18-INCH (WHITE)
⑮	ARROWS BIKE LANE EPOXY
⑯	SYMBOLS BIKE LANE EPOXY

LEGEND

- PROPOSED SIGN MOUNTED ONTO SIGNAL POLE OR LIGHT POLE
- PROPOSED SIGN ON WOOD POST(S)
- (1-XX) SIGN NUMBER, PROPOSED
- (1M-XX) SIGN NUMBER, MOVED

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, AND STANDARD DETAILS.

TO LOCATE PERMANENT SIGNING IN THE FIELD THE ENGINEER SHALL CONTACT SOUTHWEST REGION TRAFFIC SECTION, ANDREW WINGA, AT (608) 785-9061 AT LEAST 5 WORKING DAYS PRIOR TO BEGINNING PERMANENT SIGN INSTALLATION.

MILLER DRIVE
15'MD'
16'MD'
17'MD'
18'MD'
19'MD'
20'MD'
20'AS'
21'AS'
22'AS'
23'AS'
ADAMS STREET
93'AB'
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
USH 12
7'SD'
8'SD'
9'SD'
10'SD'
SCOTT DRIVE
N
00+80
208+00
STA
MATCHLINE
REPLACE PAVEMENT MARKING DOUBLE ② REMOVED FOR STAGING
REPLACE PAVEMENT MARKING ① REMOVED FOR STAGING
③ REPLACE PAVEMENT MARKING REMOVED FOR STAGING
11'CR'
12'CR'
CANYON ROAD

SHEET 1 OF 5

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 39	E

PAVEMENT MARKING LEGEND

(1)	EPOXY 4-INCH, (WHITE)
(2)	EPOXY 4-INCH, (YELLOW)
(3)	GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (12.5'LINE 37.5'GAP WHITE)
(4)	GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)
(5)	GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (2'LINE 6'GAP WHITE)
(6)	CURB EPOXY, (YELLOW)
(7)	ISLAND NOSE EPOXY, (YELLOW)
(8)	DIAGONAL EPOXY 12-INCH, (YELLOW) 10' SPACING
(9)	ARROWS EPOXY TYPE 2, (WHITE)
(10)	ARROWS EPOXY TYPE 3, (WHITE)
(11)	CROSSWALK EPOXY 6-INCH, (WHITE)
(12)	CROSSWALK EPOXY 12-INCH (WHITE)
(13)	WORDS EPOXY
(14)	STOP LINE EPOXY 18-INCH (WHITE)
(15)	ARROWS BIKE LANE EPOXY
(16)	SYMBOLS BIKE LANE EPOXY

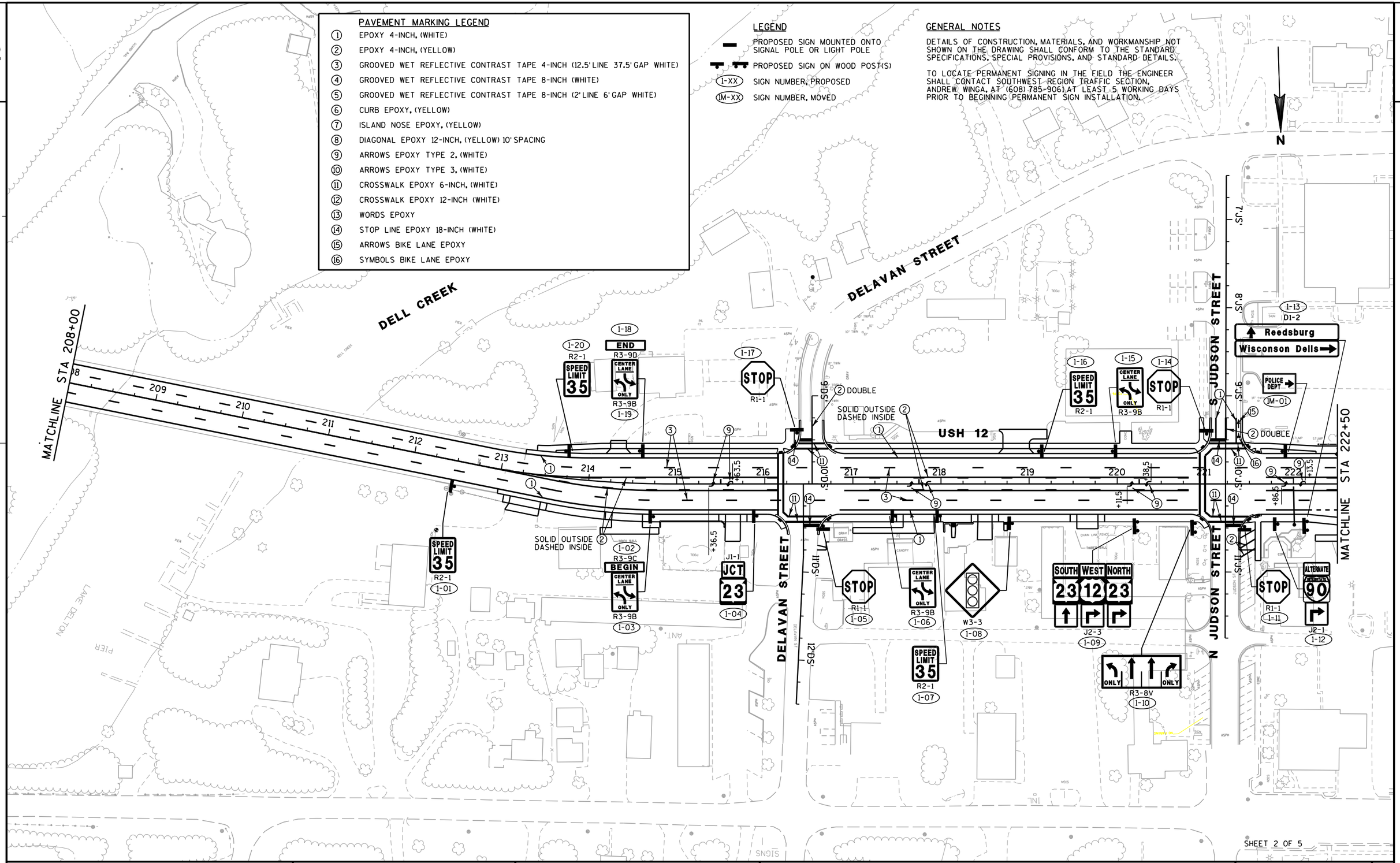
LEGEND

- PROPOSED SIGN MOUNTED ONTO SIGNAL POLE OR LIGHT POLE
- PROPOSED SIGN ON WOOD POST(S)
- (1-XX) SIGN NUMBER, PROPOSED
- (1M-XX) SIGN NUMBER, MOVED

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, AND STANDARD DETAILS.

TO LOCATE PERMANENT SIGNING IN THE FIELD THE ENGINEER SHALL CONTACT SOUTHWEST REGION TRAFFIC SECTION, ANDREW WINGA, AT (608) 785-9061 AT LEAST 5 WORKING DAYS PRIOR TO BEGINNING PERMANENT SIGN INSTALLATION.



SHEET 2 OF 5

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 40 E

2

N

S BIRNEY STREET

N BIRNEY STREET

MATCHLINE STA 314+00

STH 23

BIRNEY STREET ALLEY

ATHLETIC FIELD

REMOVE PAVEMENT MARKING STA 315+00 TO STA 315+80

S-56-24 OVERHEAD SIGN SUPPORT STA 228+71

S-56-23 OVERHEAD SIGN SUPPORT STA 223+80

STA 225+34 56.50' RT 75' R

MOUNT ON MAST ARM NEXT TO SIGNAL HEAD 11

MOUNT ON MAST ARM NEXT TO SIGNAL HEAD 51

MOUNT ON SIGNAL POLE

USH 12

E ADAMS STREET

USH 12/STH 23

E DURKEE STREET

MATCHLINE STA 236+00

MATCHLINE STA 222+50

SOLID OUTSIDE
DASHED INSIDE

DOUBLE

3' LINE 9' GAP

54" X 30"

PAVEMENT MARKING LEGEND

1. EPOXY 4-INCH, (WHITE)
2. EPOXY 4-INCH, (YELLOW)
3. GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (12.5' LINE 37.5' GAP WHITE)
4. GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)
5. GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (2' LINE 6' GAP WHITE)
6. CURB EPOXY, (YELLOW)
7. ISLAND NOSE EPOXY, (YELLOW)
8. DIAGONAL EPOXY 12-INCH, (YELLOW) 10' SPACING
9. ARROWS EPOXY TYPE 2, (WHITE)
10. ARROWS EPOXY TYPE 3, (WHITE)
11. CROSSWALK EPOXY 6-INCH, (WHITE)
12. CROSSWALK EPOXY 12-INCH (WHITE)
13. WORDS EPOXY
14. STOP LINE EPOXY 18-INCH (WHITE)
15. ARROWS BIKE LANE EPOXY
16. SYMBOLS BIKE LANE EPOXY

LEGEND

PROPOSED SIGN MOUNTED ONTO SIGNAL POLE OR LIGHT POLE

PROPOSED SIGN ON WOOD POST(S)

(2-XX) SIGN NUMBER, PROPOSED

(2M-XX) SIGN NUMBER, MOVED

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, AND STANDARD DETAILS.

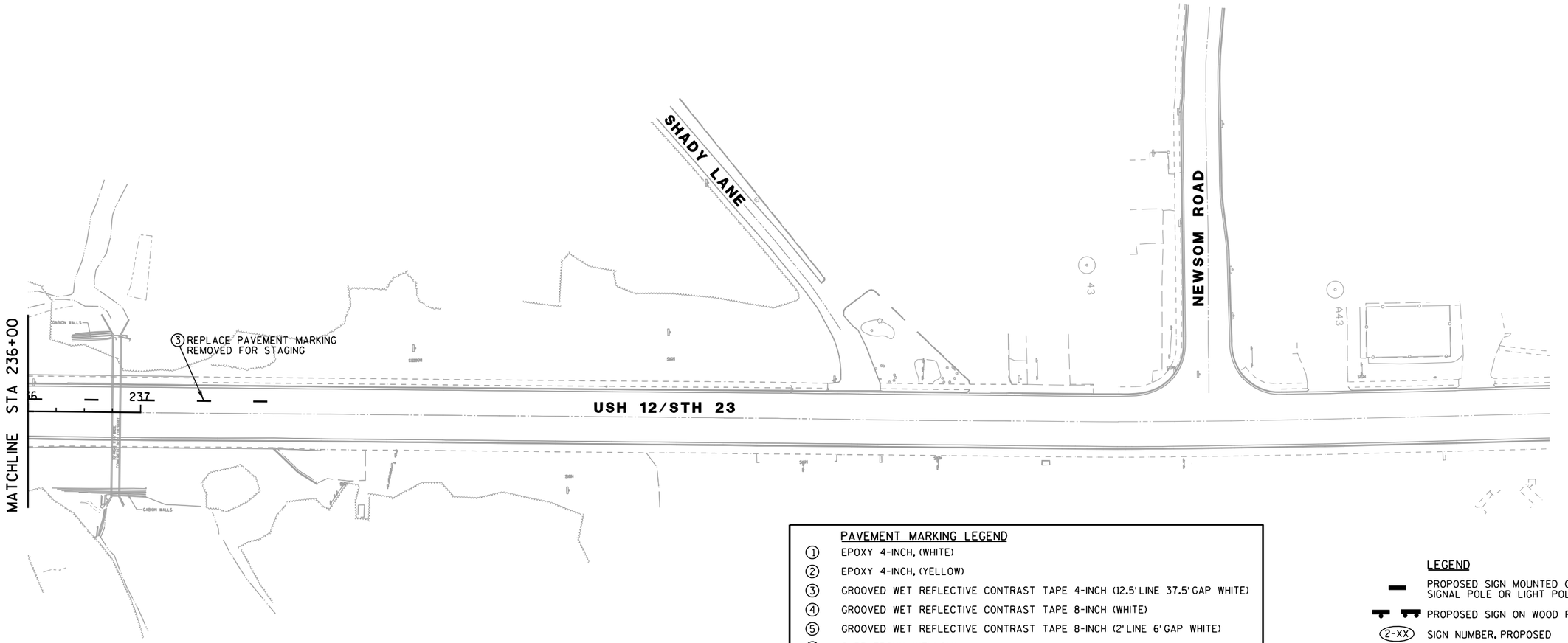
TO LOCATE PERMANENT SIGNING IN THE FIELD THE ENGINEER SHALL CONTACT SOUTHWEST REGION TRAFFIC SECTION, ANDREW WINGA, AT (608) 785-9061 AT LEAST 5 WORKING DAYS PRIOR TO BEGINNING PERMANENT SIGN INSTALLATION.

SHEET 3 OF 5

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PERMANENT SIGNING & PAVEMENT MARKING	SHEET	E

FILE NAME : t:\1022702\sheets\sheets-phase3\signing & marking\permanent & marking\023202_ps.dgn PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2



	PAVEMENT MARKING LEGEND
1	EPOXY 4-INCH, (WHITE)
2	EPOXY 4-INCH, (YELLOW)
3	GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (12.5'LINE 37.5'GAP WHITE)
4	GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)
5	GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (2'LINE 6'GAP WHITE)
6	CURB EPOXY, (YELLOW)
7	ISLAND NOSE EPOXY, (YELLOW)
8	DIAGONAL EPOXY 12-INCH, (YELLOW) 10' SPACING
9	ARROWS EPOXY TYPE 2, (WHITE)
10	ARROWS EPOXY TYPE 3, (WHITE)
11	CROSSWALK EPOXY 6-INCH, (WHITE)
12	CROSSWALK EPOXY 12-INCH (WHITE)
13	WORDS EPOXY
14	STOP LINE EPOXY 18-INCH (WHITE)
15	ARROWS BIKE LANE EPOXY
16	SYMBOLS BIKE LANE EPOXY

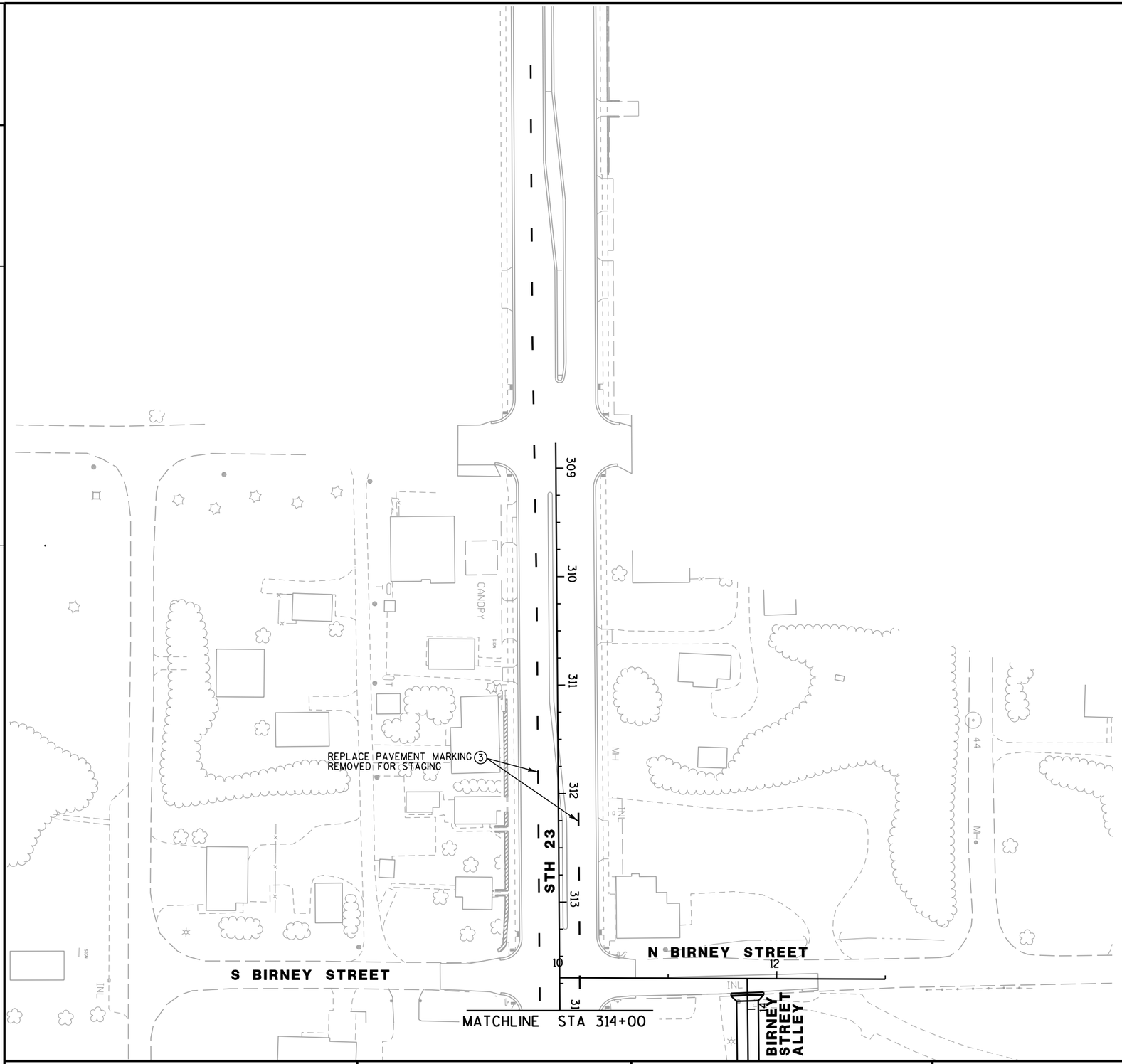
LEGEND

- PROPOSED SIGN MOUNTED ONTO SIGNAL POLE OR LIGHT POLE
- PROPOSED SIGN ON WOOD POST(S)
- (2-XX) SIGN NUMBER, PROPOSED
- (2M-XX) SIGN NUMBER, MOVED

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, AND STANDARD DETAILS.

TO LOCATE PERMANENT SIGNING IN THE FIELD THE ENGINEER SHALL CONTACT SOUTHWEST REGION TRAFFIC SECTION, ANDREW WINGA, AT (608) 785-9061 AT LEAST 5 WORKING DAYS PRIOR TO BEGINNING PERMANENT SIGN INSTALLATION.



N

PAVEMENT MARKING LEGEND

(1)	EPOXY 4-INCH, (WHITE)
(2)	EPOXY 4-INCH, (YELLOW)
(3)	GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (12.5' LINE 37.5' GAP WHITE)
(4)	GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)
(5)	GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (2' LINE 6' GAP WHITE)
(6)	CURB EPOXY, (YELLOW)
(7)	ISLAND NOSE EPOXY, (YELLOW)
(8)	DIAGONAL EPOXY 12-INCH, (YELLOW) 10' SPACING
(9)	ARROWS EPOXY TYPE 2, (WHITE)
(10)	ARROWS EPOXY TYPE 3, (WHITE)
(11)	CROSSWALK EPOXY 6-INCH, (WHITE)
(12)	CROSSWALK EPOXY 12-INCH (WHITE)
(13)	WORDS EPOXY
(14)	STOP LINE EPOXY 18-INCH (WHITE)
(15)	ARROWS BIKE LANE EPOXY
(16)	SYMBOLS BIKE LANE EPOXY

LEGEND

- PROPOSED SIGN MOUNTED ONTO SIGNAL POLE OR LIGHT POLE
- PROPOSED SIGN ON WOOD POST(S)
- (2-XX) SIGN NUMBER, PROPOSED
- (2M-XX) SIGN NUMBER, MOVED

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, AND STANDARD DETAILS.

TO LOCATE PERMANENT SIGNING IN THE FIELD THE ENGINEER SHALL CONTACT SOUTHWEST REGION TRAFFIC SECTION, ANDREW WINGA, AT (608) 785-9061 AT LEAST 5 WORKING DAYS PRIOR TO BEGINNING PERMANENT SIGN INSTALLATION.

SHEET 5 OF 5

PHASE	GREEN	YELLOW	RED	WALK	DON'T WALK
ϕ4	35.0	3.6	1.0	10.0	9.0*
ϕ2 &ϕ6	25.0	3.6	1.0	10.0	9.0*

Time in seconds

*-Based on max 44' crossing

Signal heads will need to be moved to line up with traffic depending on the traffic control plan.

TP1 TP2 TP3 TP4

P4A P4B P6A P6B 26A 26B

21 22 23 41 42 43 61 62 63

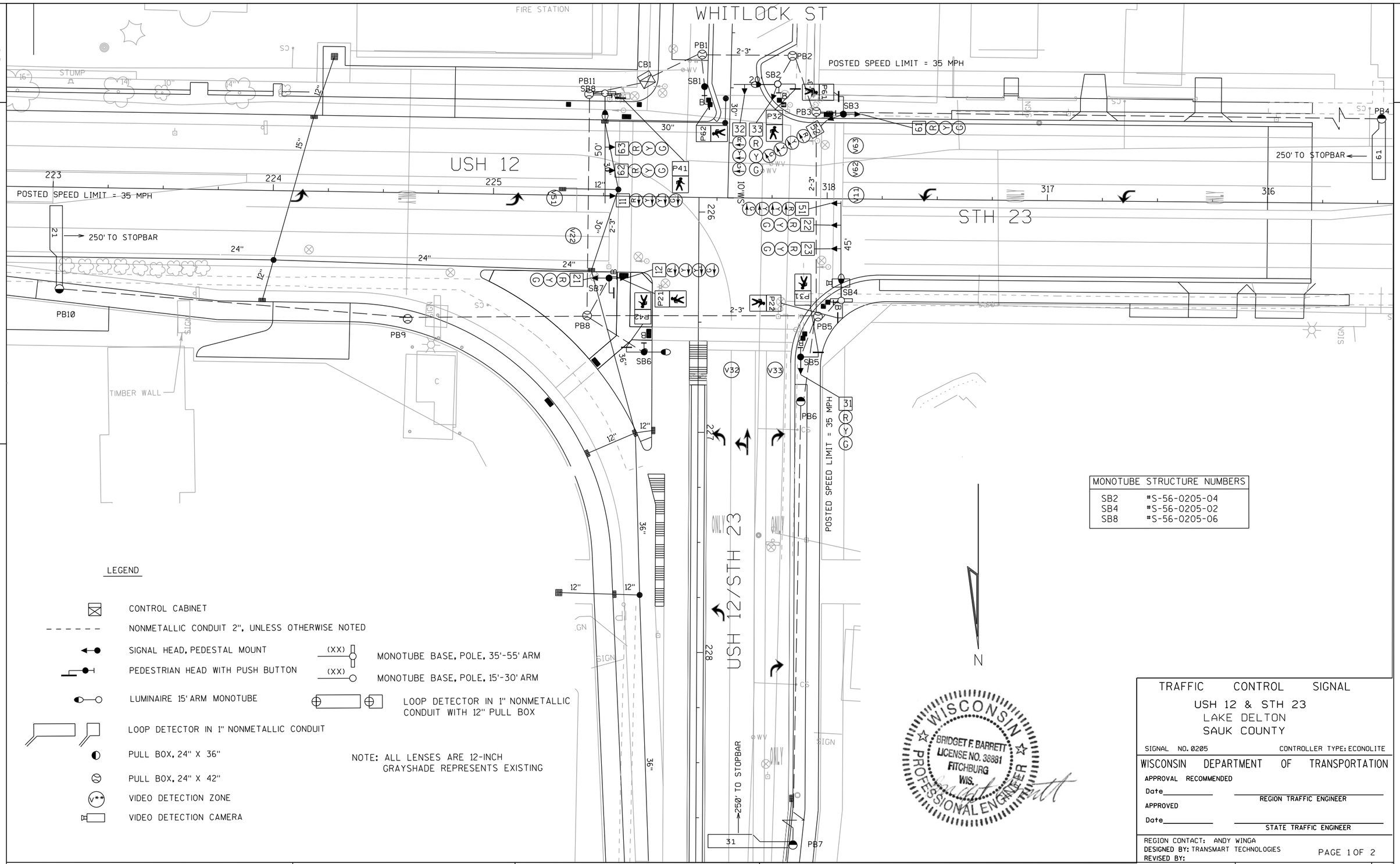
LEGEND	
Luminaire	
Wood Pole	

Pole Locations

TP1	Sta 317+85	Rt 38
TP2	Sta 317+82	Lt 51
TP3	Sta 225+54	Rt 41
TP4	Sta 225+61	Lt 49

PROJECT NO: 6145-00-75	HWY: USH 12	COUNTY: SAUK	TEMPORARY SIGNAL PLAN	SHEET	E

FILE NAME : N:\SPO\Traffic\Projects\Design\Sauk\USH 12, 23 to Gasser\12-23\23 Temp Signal Plan.dgn PLOT DATE : 11-JAN-2013 11:04 PLOT BY : dotarw PLOT NAME : PLOT SCALE : 20.952381:1



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, PEDESTAL MOUNT
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE 15' ARM MONOTUBE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- VIDEO DETECTION ZONE
- VIDEO DETECTION CAMERA
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT WITH 12" PULL BOX

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

MONOTUBE STRUCTURE NUMBERS	
SB2	#S-56-0205-04
SB4	#S-56-0205-02
SB8	#S-56-0205-06

WISCONSIN
BRIDGET F. BARRETT
LICENSE NO. 38881
FITCHBURG
WIS.
PROFESSIONAL ENGINEER

TRAFFIC CONTROL SIGNAL
USH 12 & STH 23
LAKE DELTON
SAUK COUNTY

SIGNAL NO. 0205 CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date_____ _____ REGION TRAFFIC ENGINEER

APPROVED
Date_____ _____ STATE TRAFFIC ENGINEER

REGION CONTACT: ANDY WINGA
DESIGNED BY: TRANSMART TECHNOLOGIES
REVISED BY:

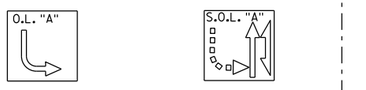
PAGE 1 OF 2

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	TRAFFIC SIGNAL PLAN	SHEET 45	E

USH 12 AT STH 23

HOME RUN	JUMPER	CABLE	BASE #	SIGNAL INDICATION WIRE COLOR											
				BLACK	WHITE	RED	GREEN	ORANGE	BLUE	WHITE/BLK	RED/BLK	GREEN/BLK	ORANGE/BLK	BLUE/BLK	BLK/WHITE
CB1 - SB1		9/C	SB1	6-DW	NEUTRAL				6-WALK	6-B					
CB1 - SB2		9/C	SB2	3-DW	NEUTRAL	3-R-ARROW 3-RED	3-G-ARROW 3-GREEN	3-Y-ARROW 3-YELLOW	3-WALK	6-B					
CB1 - SB3		12/C	SB3	6-DW	NEUTRAL	6-RED	6-GREEN	6-YELLOW	6-WALK	3-B	5-R-ARROW	5-G-ARROW	5-Y-ARROW	5-FY-ARROW	
CB1 - SB4		12/C	SB4	2-DW	NEUTRAL	2-RED	2-GREEN	2-YELLOW	2-WALK	3-B	5-R-ARROW	5-G-ARROW	5-Y-ARROW	5-FY-ARROW	
CB1 - SB5		9/C	SB5	3-DW	NEUTRAL	3-RED	3-GREEN	3-YELLOW	3-WALK	2-B					
CB1 - SB6		9/C	SB6	4-DW	NEUTRAL				4-WALK	2-B					
CB1 - SB7		12/C	SB7	2-DW	NEUTRAL	2-RED	2-GREEN	2-YELLOW	2-WALK	4-B	1-R-ARROW	1-G-ARROW	1-Y-ARROW	1-FY-ARROW	
CB1 - SB8		12/C	SB8	4-DW	NEUTRAL	6-RED	6-GREEN	6-YELLOW	4-WALK	4-B	1-R-ARROW	1-G-ARROW	1-Y-ARROW	1-FY-ARROW	

SEQUENCE OF OPERATION







RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **					Ø2 R/W	Ø2 CLEAR TO **				
Ø1	11,12	G ←	-	-				-	-	-			
Ø2	21,22,23	R	R	R				G	Y	R			
Ø4	41,42,43	R,R ←	R,R ←	R,R ←				R,R	R,R ←	R,R ←			
Ø5	51,52	R	R	R				R	R	R			
Ø6	61,62,63	R	R	R				R	R	R			
Ø2P	P21,P22	D	D	D				*	D	D			
Ø3P	P41,P42	D	D	D				D	D	D			
Ø6P	P61,P62	D	D	D				D	D	D			
Ø4P	P81,P82	D	D	D				D	D	D			
SOLA "A"	11,12	-	Y ←	R ←				FY ←	Y ←	R ←			
SOLA "C"	51,52	R ←	R ←	R ←				R ←	R ←	R ←			
OLA "A"	11,12	G ←	-	-				R ←	R ←	R ←			

	Ø3 R/W	Ø3 CLEAR TO **					Ø4 R/W	Ø4 CLEAR TO **					FLASH
	R ←	R ←	R ←				G ←	-	-				
	R	R	R				R	R	R				R
	G,G ←	Y,Y ←	R,R ←				G,G ←	Y,Y ←	R,R ←				R,R
	R ←	R ←	R ←				R ←	R ←	R ←				
	R	R	R				R	R	R				R
	D	D	D				D	D	D				
	*	D	D				D	D	D				
	D	D	D				D	D	D				
	D	D	D				*	D	D				
	R ←	R ←	R ←				R ←	R ←	R ←				R ←
	R ←	R ←	R ←				R ←	R ←	R ←				R ←
	R ←	R ←	R ←				G ←	-	-				





NOT USED

NOT USED

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **					Ø6 R/W	Ø6 CLEAR TO **				
Ø1	11,12	R ←	R ←	R ←				R ←	R ←	R ←			
Ø2	21,22,23	R	R	R				R	R	R			
Ø4	41,42,43,44	R,R ←	R,R ←	R,R ←				R,R ←	R,R ←	R,R ←			
Ø5	51,52	G ←	-	-				-	-	-			
Ø6	61,62,63	R	R	R				G	Y	R			
Ø2P	P21,P22	D	D	D				D	D	D			
Ø3P	P41,P42	D	D	D				D	D	D			
Ø6P	P61,P62	D	D	D				*	D	D			
Ø4P	P81,P82	D	D	D				D	D	D			
SOLA "A"	11,12	R ←	R ←	R ←				R ←	R ←	R ←			
SOLA "C"	51,52	-	Y ←	R ←				FY ←	Y ←	R ←			
OLA "A"	11,12	R ←	R ←	R ←				R ←	R ←	R ←			

	Ø7 R/W	Ø7 CLEAR TO **					Ø8 R/W	Ø8 CLEAR TO **				

BARRIER

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

* WHEN CALLED, TIMED STEADY WALK, THEN FLASHING DON'T WALK, THEN GOES TO STEADY DON'T WALK

CHART 1

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

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	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 TURNS
11	1	X			1	1				6X20	3
12	2	X			1	1				6X20	3
21	3	X			2	2			1 SEC	6X20	4
22	4	X			2	2				6X20	3
23	5	X			2	2				6X20	3
24	6	X			2	2				6X20	3
25	7	X			2	2				6X20	3
41	8	X			4	4			1 SEC	6X20	4
42	9	X			4	4				6X20	3
43	10	X			4	4				6X20	3
44	11	X			4	4				6X20	3
45	12	X			4	4				6X20	3
46	13	X			4	4				6X20	3
47	14	X			4	4		10 SEC		6X20	3
51	15	X			5	5				6X20	3
52	16	X			5	5				6X20	3
61	17	X			6	6			1 SEC	6X20	4
62	18	X			6	6				6X20	3
63	19	X			6	6				6X20	3
64	20	X			6	6				6X20	3
65	21	X			6	6		10 SEC		6X20	3

CONTROLLER LOGIC

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

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	1	2
O.L. "B"		
O.L. "C"	5	6
O.L. "D"		

OVERLAPS

O.L. "A" = Ø1 & PED Ø4
O.L. "B" =
O.L. "C" =
O.L. "D" =

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	X
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	S-1000
SIGNAL SYSTEM #:	SS- -0163

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.)

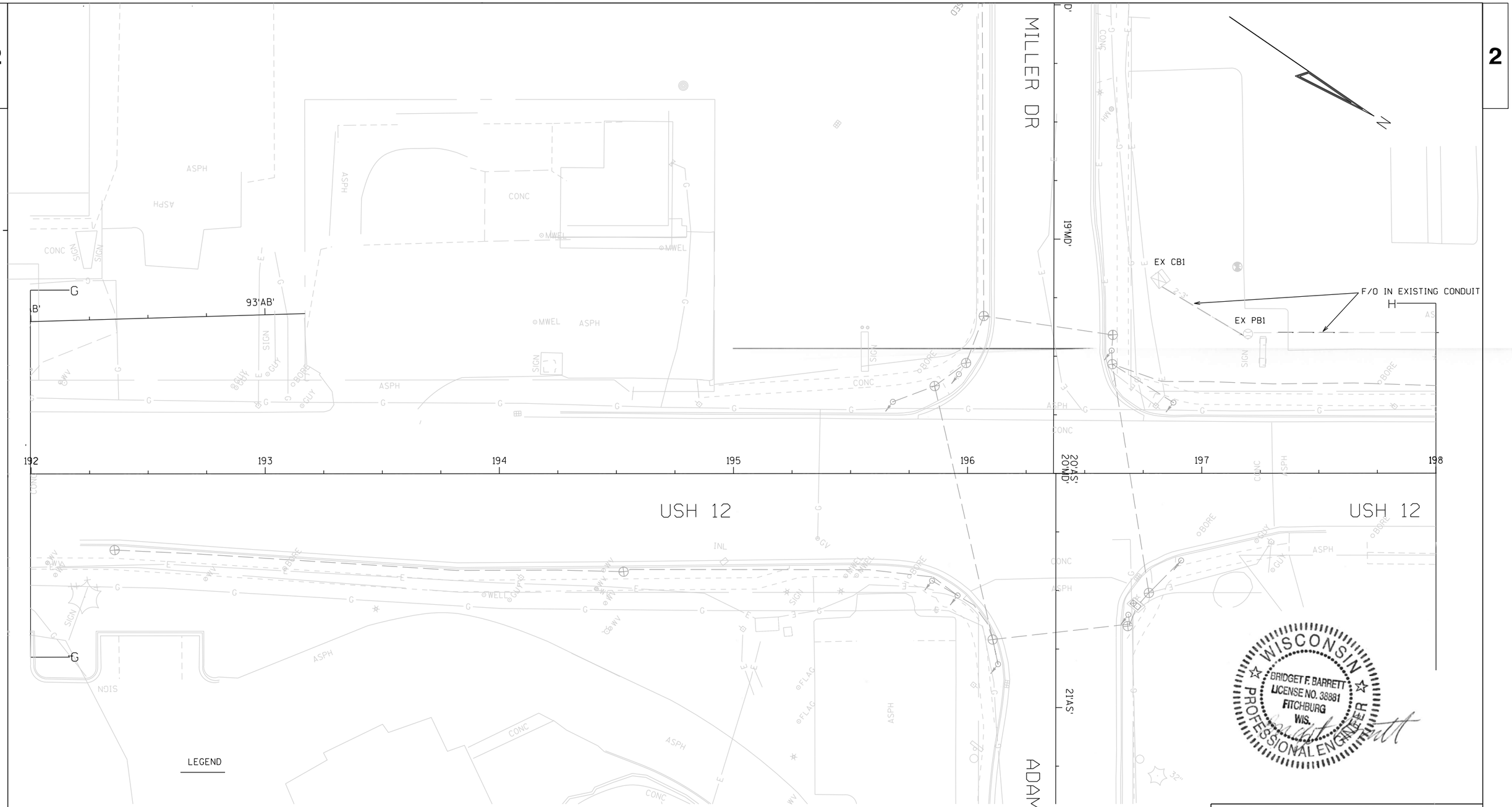
USH 12 & STH 23
VILLAGE OF LAKE DELTON
SAUK COUNTY

SIGNAL NO. S0205

CONTROLLER TYPE: ECONOLITE

DATE OCTOBER 2012 PAGE NO. 2 OF 2

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- COMMUNICATIONS VAULT
- PULL BOX, 24" X 36"

WISCONSIN
BRIDGET F. BARRETT
LICENSE NO. 38881
FITCHBURG
WIS.
PROFESSIONAL ENGINEER

TRAFFIC SIGNAL INTERCONNECT

USH 12/ ADAMS ST TO USH 12/STH 23
VILLAGE OF LAKE DELTON
SAUK COUNTY

SIGNAL NO.

REGION CONTACT: ANDY WINGA
DESIGNED BY: TRANSMART TECHNOLOGIES
REVISED BY:

PAGE 1 OF 6

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 48 E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- COMMUNICATIONS VAULT
- PULL BOX, 24" X 36"

TRAFFIC SIGNAL INTERCONNECT

USH 12/ ADAMS ST TO USH 12/STH 23
VILLAGE OF LAKE DELTON
SAUK COUNTY

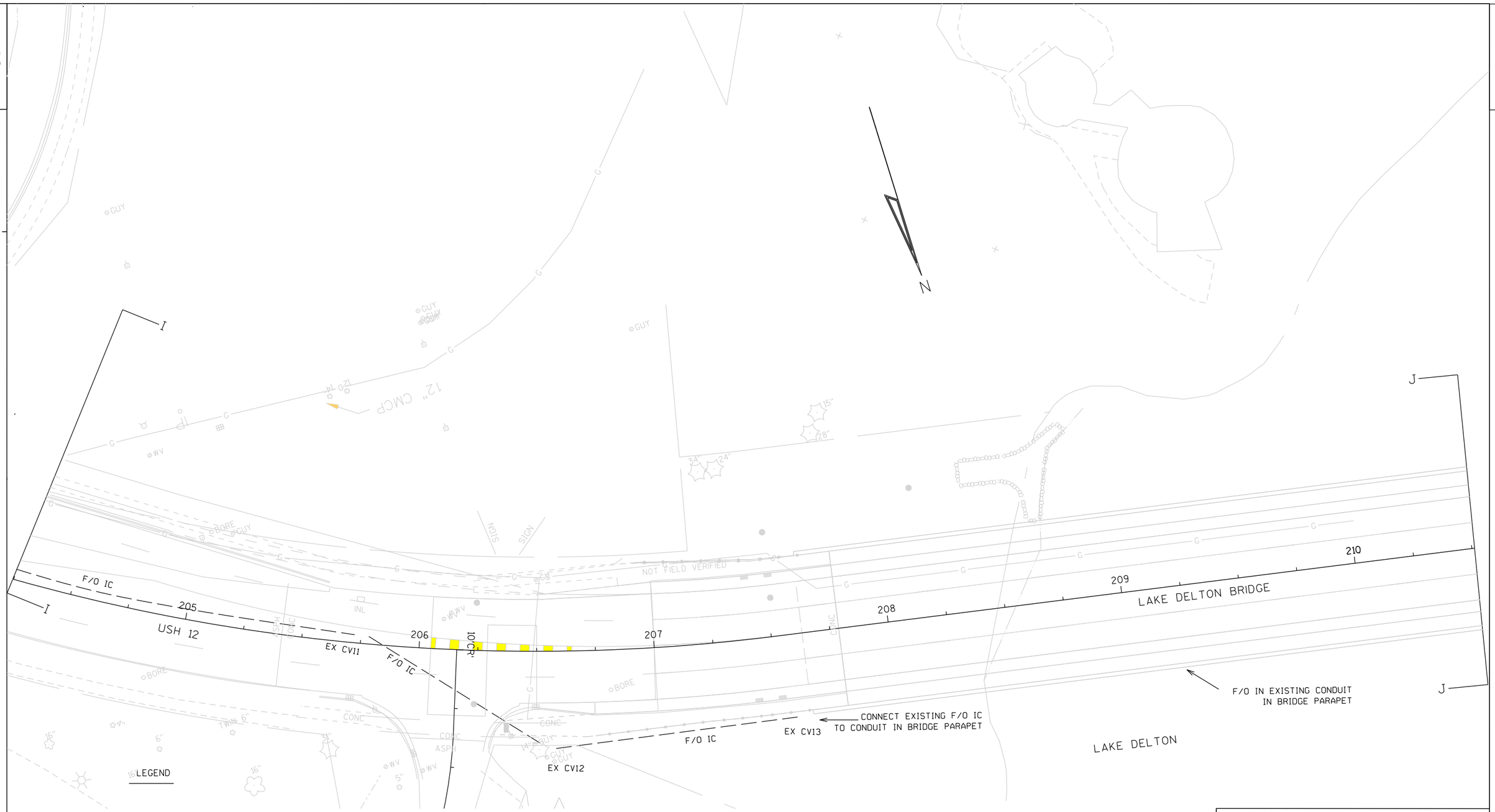
SIGNAL NO.

REGION CONTACT: ANDY WINGA
DESIGNED BY: TRANSMART TECHNOLOGIES
REVISED BY:

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 49	E

2

2



TRAFFIC SIGNAL INTERCONNECT
USH 12/ ADAMS ST TO USH 12/STH 23
VILLAGE OF LAKE DELTON
SAUK COUNTY

SIGNAL NO.

REGION CONTACT: ANDY WINGA
DESIGNED BY: TRANSMART TECHNOLOGIES
REVISED BY:

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 50	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- COMMUNICATIONS VAULT
- PULL BOX, 24" X 36"

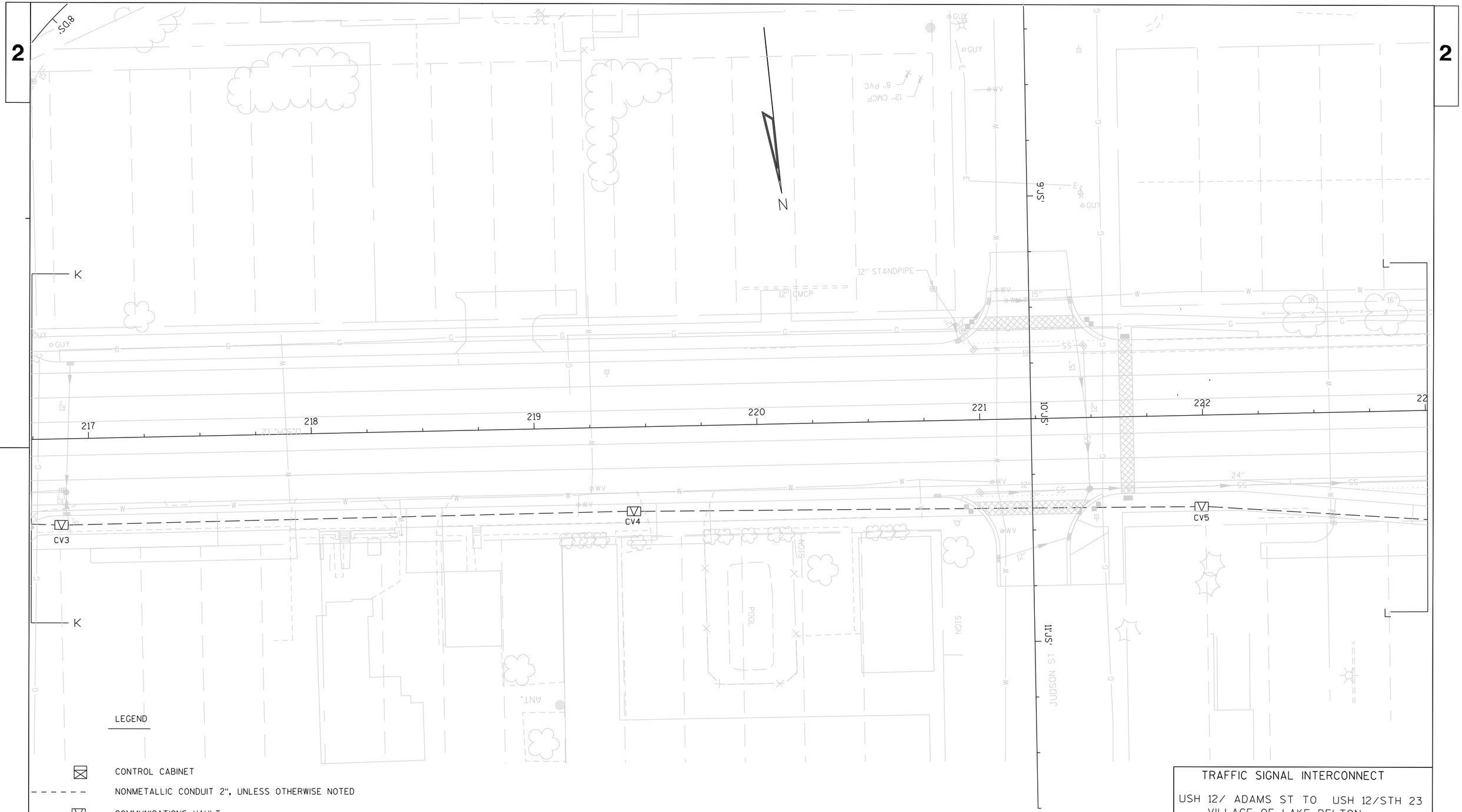
TRAFFIC SIGNAL INTERCONNECT

USH 12/ ADAMS ST TO USH 12/STH 23
VILLAGE OF LAKE DELTON
SAUK COUNTY

SIGNAL NO.

REGION CONTACT: ANDY WINGA
DESIGNED BY: TRANSMART TECHNOLOGIES
REVISED BY:

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 51	E



TRAFFIC SIGNAL INTERCONNECT

USH 12/ ADAMS ST TO USH 12/STH 23
VILLAGE OF LAKE DELTON
SAUK COUNTY

SIGNAL NO.

REGION CONTACT: ANDY WINGA
DESIGNED BY: TRANSMART TECHNOLOGIES
REVISED BY:

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 52	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

WHITLOCK ST

FIBER OPTIC SPLICE CABINET ENCLOSURE

CV6

F/O IC

2-3"

EX PB11

2-3"

INSTALL FIBER OPTIC CABLE PIGTAIL 12 CT AND FIBER OPTIC TRACER WIRE

USH 12

223 224 225 F/O IC 10"WS" 318 317 316

STH 23

226

F/O IC

EX PB10

EX PB9

F/O IC

EX PB8

227

USH 12/STH 23

228

N

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- COMMUNICATIONS VAULT
- PULL BOX, 24" X 36"

TRAFFIC SIGNAL INTERCONNECT

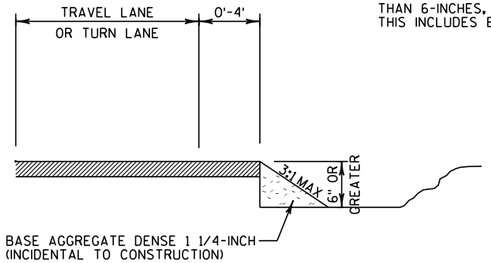
USH 12/ ADAMS ST TO USH 12/STH 23
VILLAGE OF LAKE DELTON
SAUK COUNTY

SIGNAL NO.

REGION CONTACT: ANDY WINGA
DESIGNED BY: TRANSMART TECHNOLOGIES
REVISED BY:

PAGE 6 OF 6

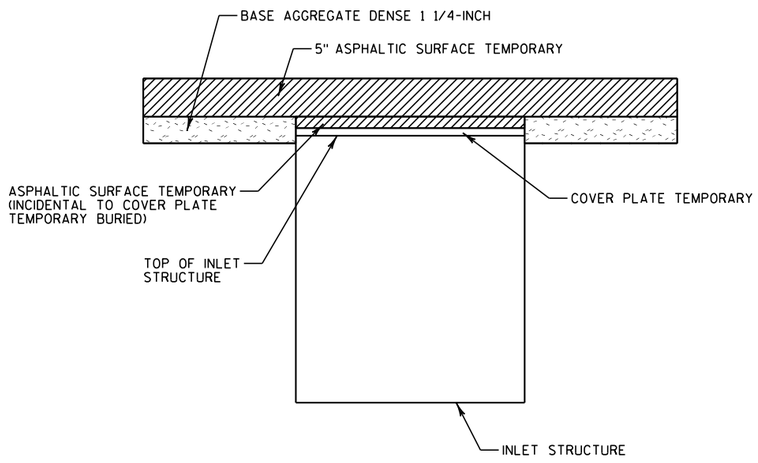
PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 53	E



NOTE:

PROVIDE 3:1 OR FLATTER SLOPE FOR ALL DROP OFFS GREATER THAN 6-INCHES, 4 FEET OR LESS FROM A TRAVEL LANE. THIS INCLUDES EXISTING OR PROPOSED TURN LANES.

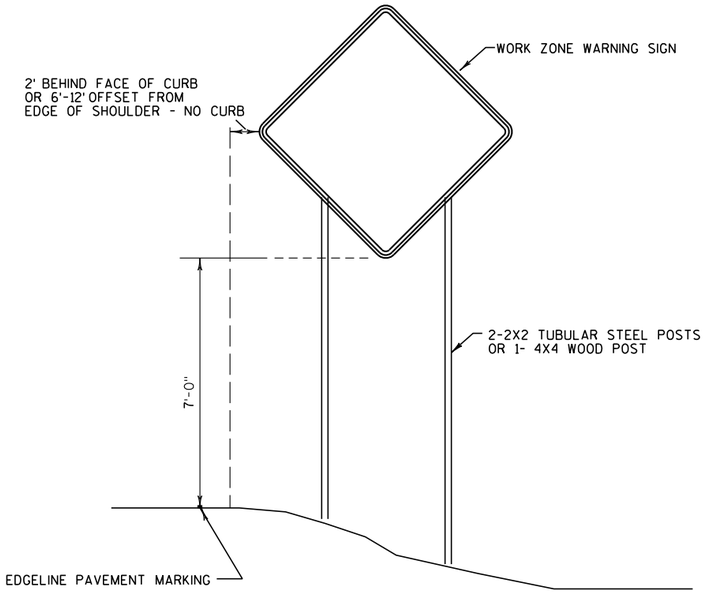
DROP OFFS DURING CONSTRUCTION



COVER PLATE TEMPORARY BURIED

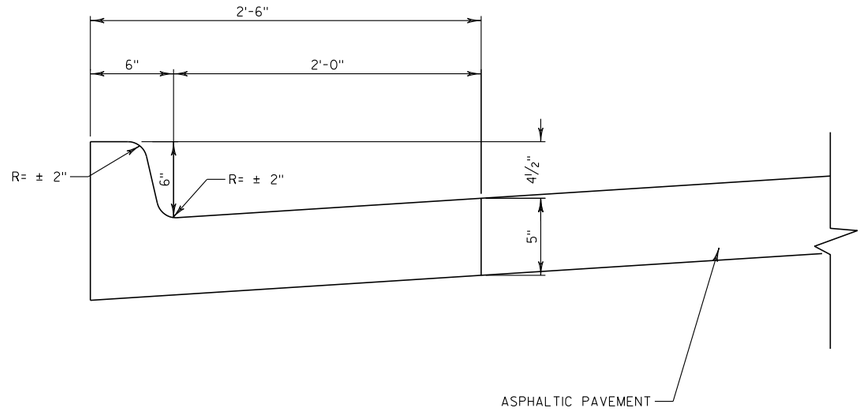
GENERAL NOTES FOR CONSTRUCTION STAGING AND TRAFFIC CONTROL

1. TRAFFIC CONTROL DRUMS IN TAPERS SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE "C", ONE WAY LIGHTS IN TAPERS ONLY, UNLESS OTHERWISE SHOWN.
2. SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION AND SPACING MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO MEET FIELD CONDITIONS.
3. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
4. ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.
5. A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK/CLOSED" AREAS IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER.
6. ADEQUATE TURNING PROVISIONS SHALL BE MAINTAINED FOR ALL VEHICLES, INCLUDING TRUCKS AND BUSES, AS DIRECTED BY THE ENGINEER.
7. ALL EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED. NOT ALL PAVEMENT MARKING REMOVALS ARE SHOWN IN STAGING PLAN.
8. BARRICADE STRIPES ARE TO SLOPE DOWNWARD IN THE DIRECTION OF TRAFFIC FLOW.
9. ALL DRUM SPACING IS 50' WITHOUT LIGHTS AND 25' WITH LIGHTS. 15' (OR TIGHTER AS NEEDED) SHALL BE USED AT INTERSECTIONS AND DRIVEWAYS.
10. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER CONSTRUCTION, EXCEPT AS NOTED IN THE STAGING PLAN OR AS DIRECTED BY THE ENGINEER.
11. WATER BLASTING SHALL BE USED TO REMOVE ALL PAVEMENT MARKINGS ON NEW PAVEMENT OR PAVEMENT THAT WILL REMAIN AFTER CONSTRUCTION. GRINDING OF PAVEMENT MARKINGS IN THESE AREAS IS NOT ALLOWED.
12. PERMANENT SIGNING TO BE INSTALLED IN STAGES DURING CONSTRUCTION. NOT ALL PERMANENT SIGNS ARE SHOWN ON CONSTRUCTION STAGING PLANS.
13. PAVEMENT MARKINGS PLACED IN A PREVIOUS STAGE ARE SHOWN AS SCREENED. MAINTAIN THESE MARKINGS IN SUBSEQUENT STAGES AS SHOWN IN THE PLANS.
14. SEE SPECIAL PROVISIONS FOR LIMITATIONS OF SIDEROAD CLOSURES. MAINTAIN EMERGENCY ACCESS AND ACCESS TO ALL COMMERCIAL BUILDINGS AT ALL TIMES.
15. IF A DROP OFF GREATER THAN 6 INCHES WILL OCCUR WITHIN 4 FEET OF AN OPEN TRAVEL LANE A 3:1 SLOPE OF FLATTER SHALL BE CONSTRUCTED USING BASE AGGREGATE DENSE 1 1/4-INCH. THIS SLOPE AND ALL MATERIAL NEEDED FOR CONSTRUCTION AND MAINTENANCE OF THE SLOPE IS INCIDENTAL TO CONSTRUCTION.



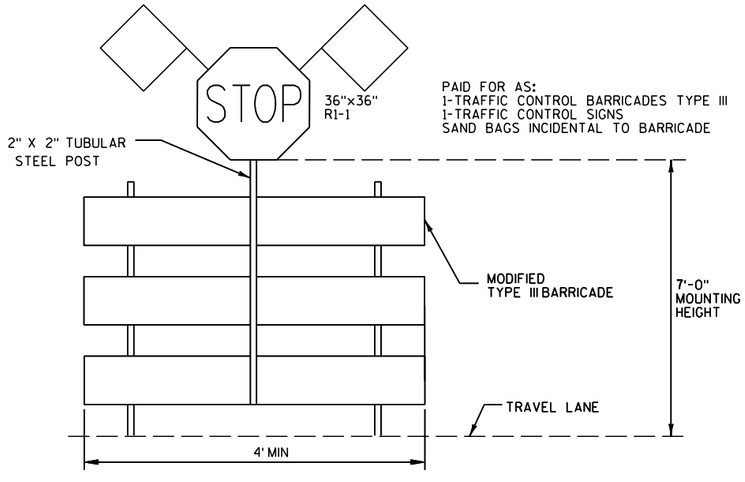
TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL
MOUNTING ON FIXED SUPPORT

LONG TERM
7 DAYS OR MORE

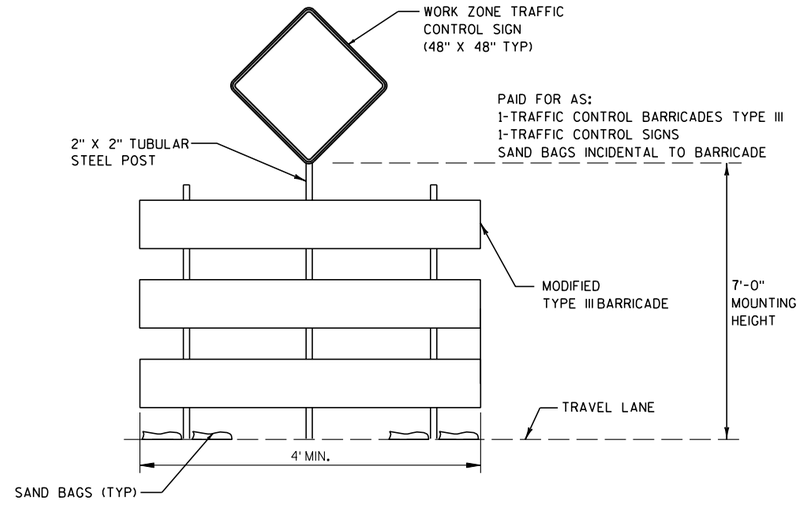


ASPHALTIC CURB

SEE STAGING PLANS
FOR LOCATIONS

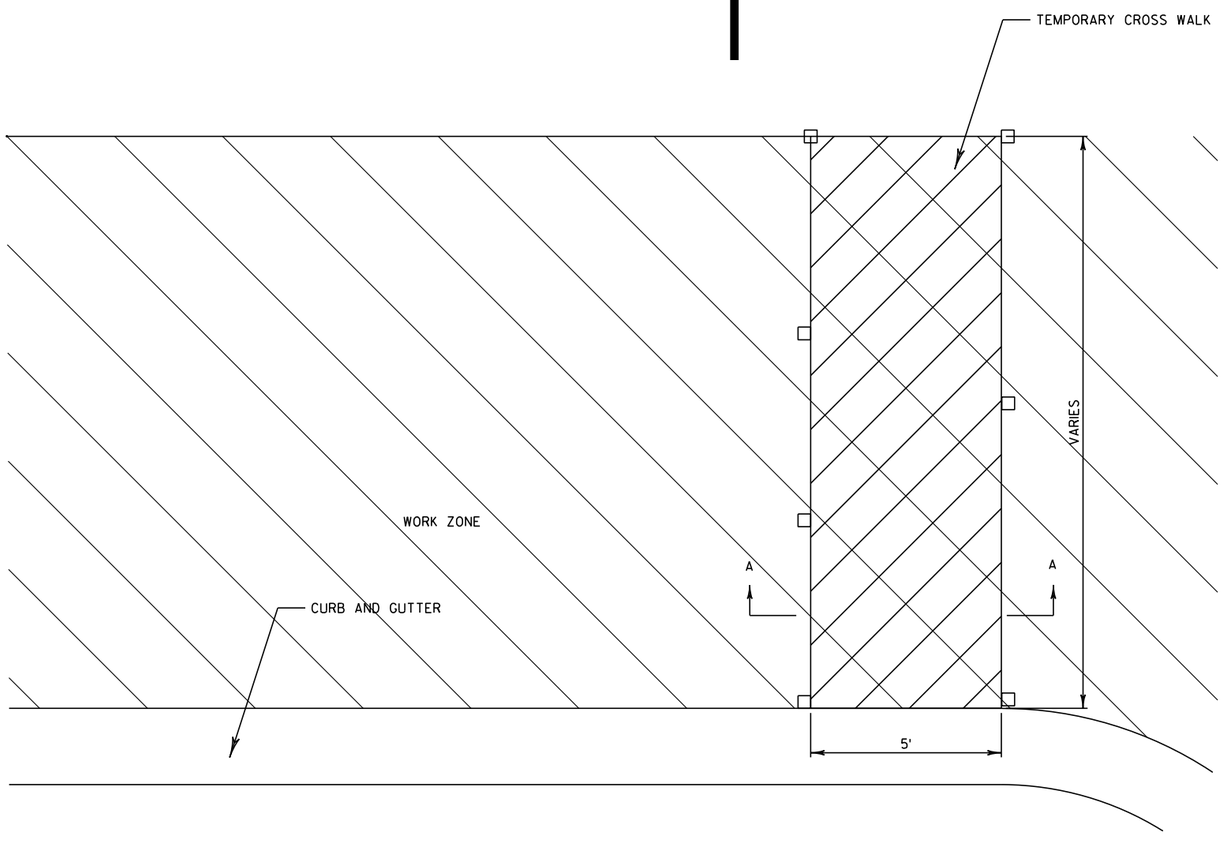


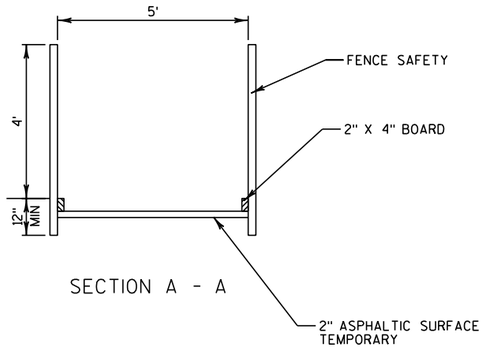
TEMPORARY STOP SIGN



TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL
MOUNTING ON TEMPORARY SUPPORT

2

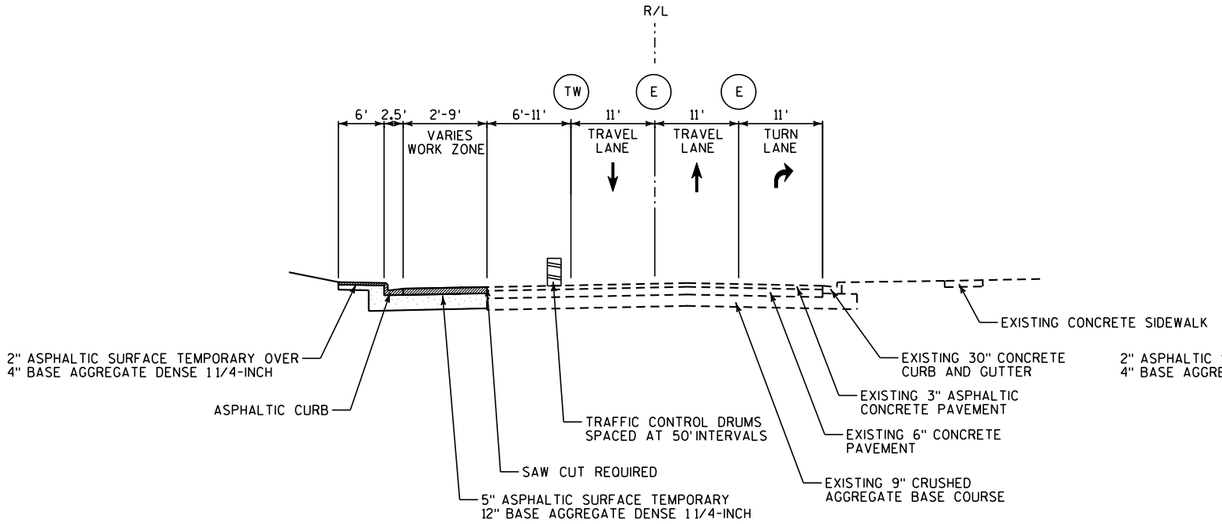




SECTION A - A

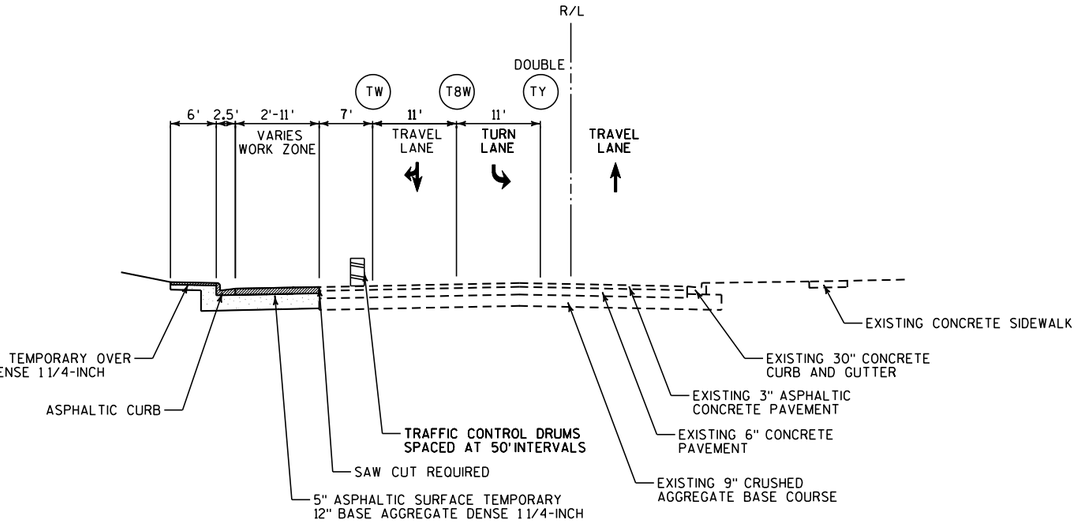
TEMPORARY CROSSWALK ACCESS DETAIL

SEE CONSTRUCTION STAGING PLANS FOR LOCATIONS



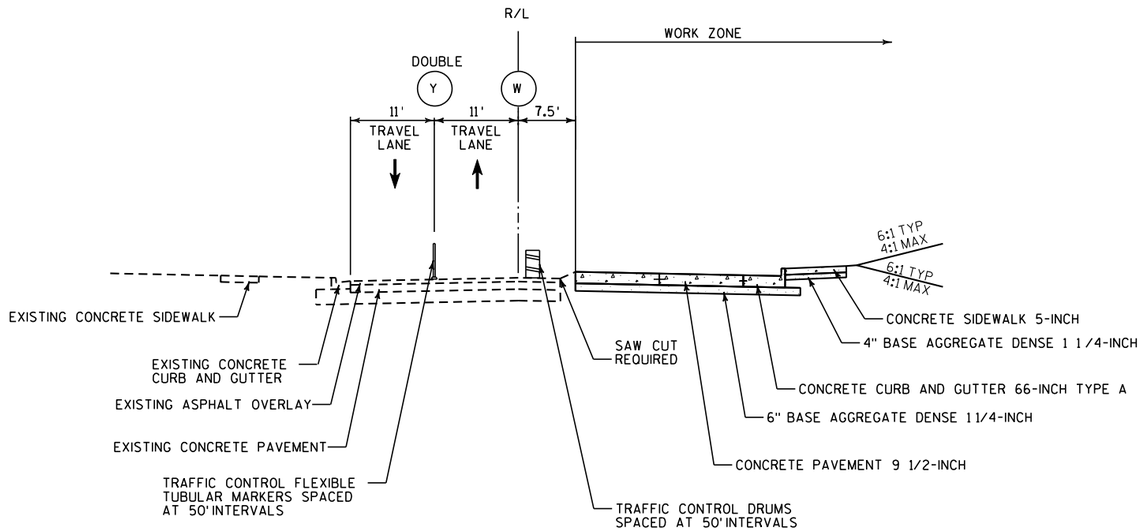
USH 12 - STAGE 1A

STA 222+40 - STA 224+90



USH 12 - STAGE 1A

STA 226+20 - STA 229+40



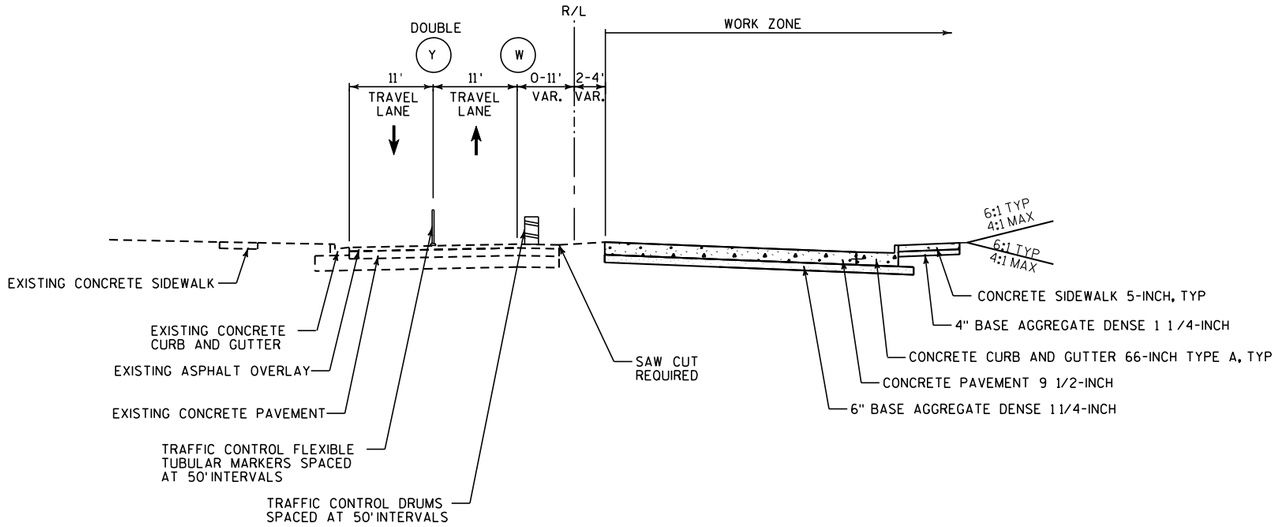
USH 12 - STAGE 1B

(DELL CREEK BRIDGE TO STH 23)

STA 213+00 - STA 225+90

TEMPORARY PAVEMENT MARKING LEGEND

- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8W) TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)
- (E) EXISTING PAVEMENT MARKINGS



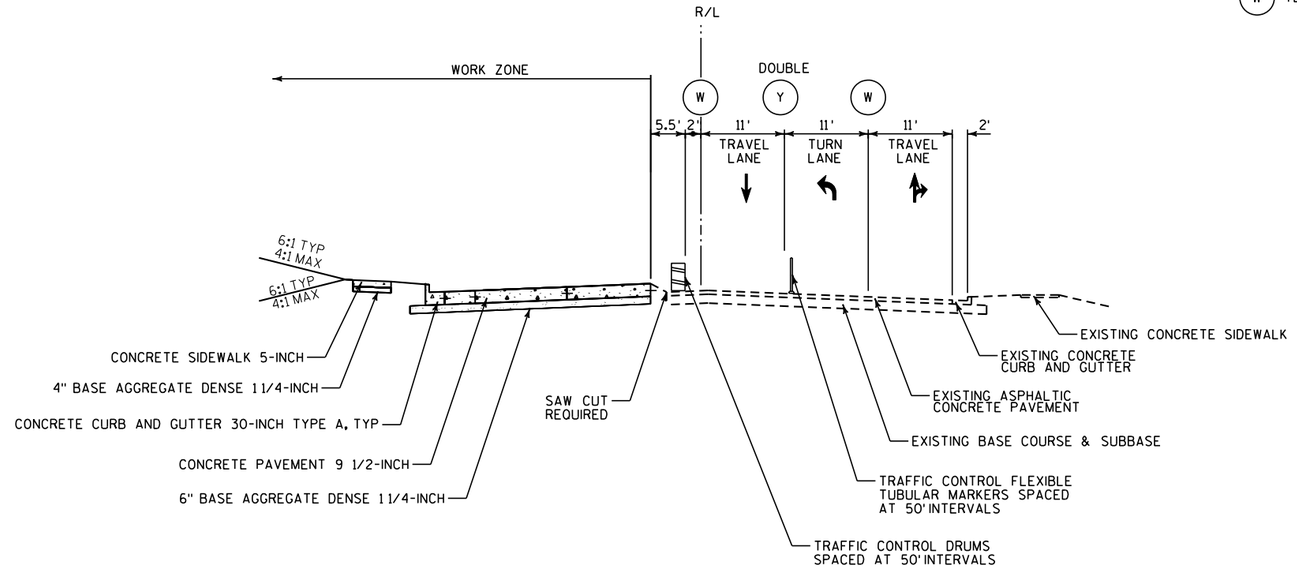
USH 12 - STAGE 1B

(STH 23 TO NORTHERN PROJECT LIMITS)
STA 225+90 - STA 232+20

TEMPORARY PAVEMENT MARKING LEGEND

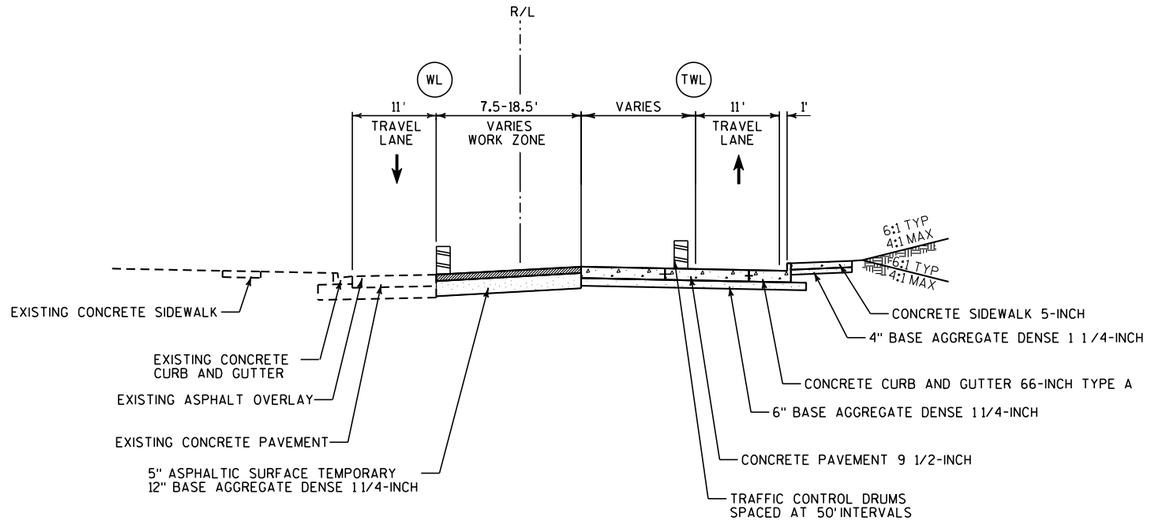
(Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)

(W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)



STH 23 - STAGE 1B

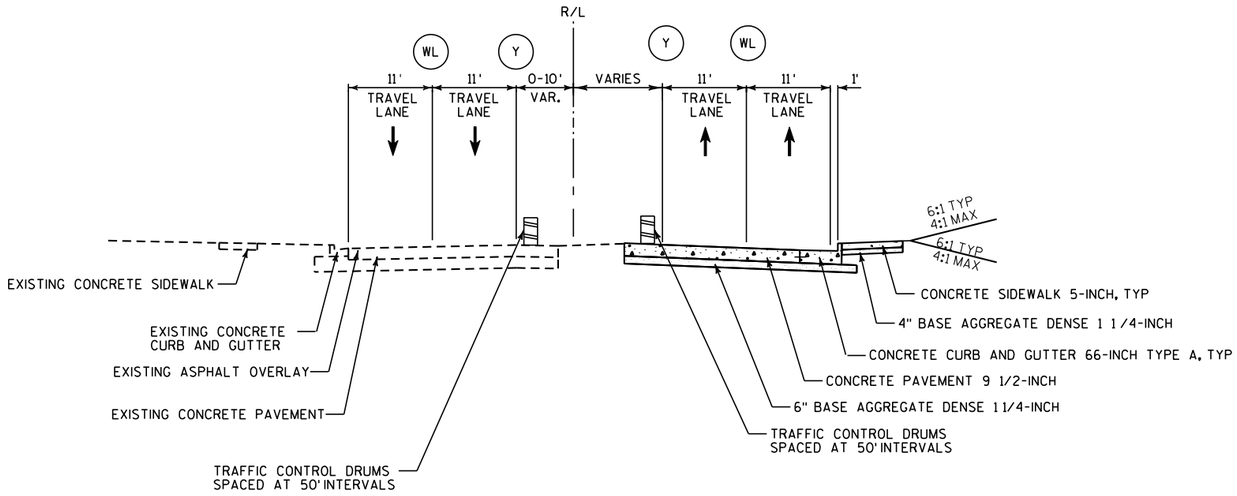
STA 315+80 - STA 318+10
(WESTERN PROJECT LIMITS TO USH 12)



USH 12 - STAGE 2A
(DELL CREEK BRIDGE TO STH 23)
STA 213+00 - STA 225+90

TEMPORARY PAVEMENT MARKING LEGEND

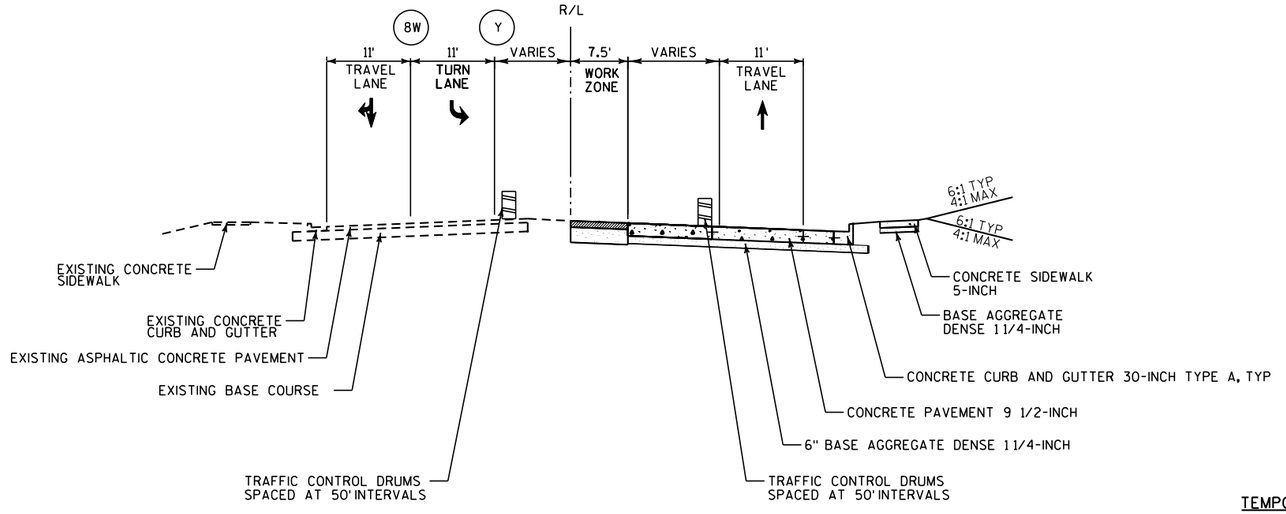
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (WL) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE) (12.5' LINE, 37.5' GAP)
- (TY) REMOVABLE TAPE 4-INCH (YELLOW)
- (TWL) REMOVABLE TAPE 4-INCH (WHITE) (12.5' LINE, 37.5' GAP)



USH 12 - STAGE 2A AND 2B
(STH 23 TO NORTHERN PROJECT LIMITS)
STA 225+90 - STA 232+20

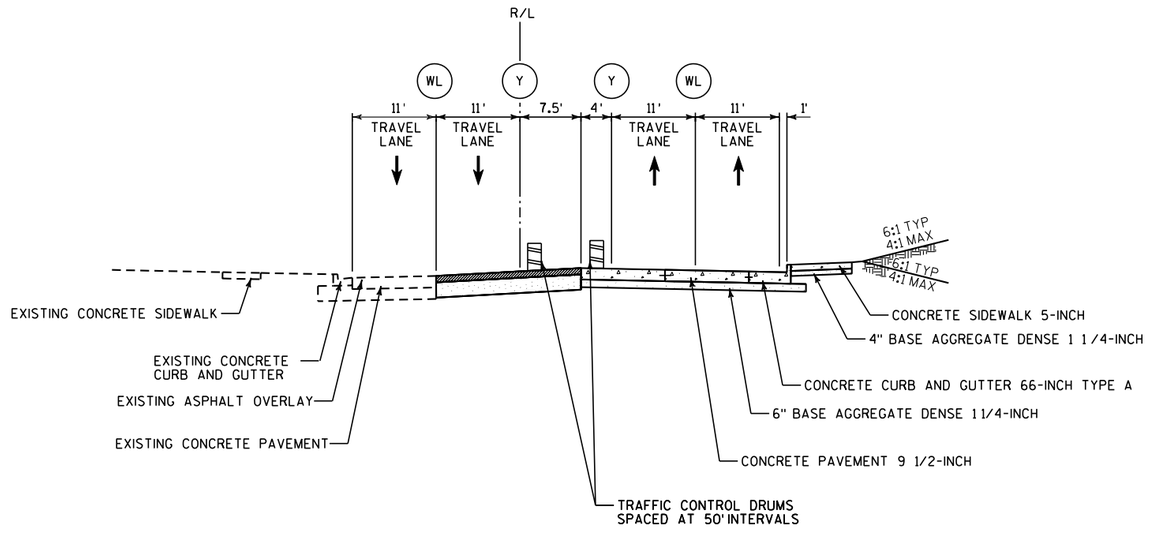
SHEET 6 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	TRAFFIC CONTROL DETAILS	SHEET 59	E



STH 23 - STAGE 2A

STA 315+80 - STA 318+10
(WESTERN PROJECT LIMITS TO USH 12)



USH 12 - STAGE 2B

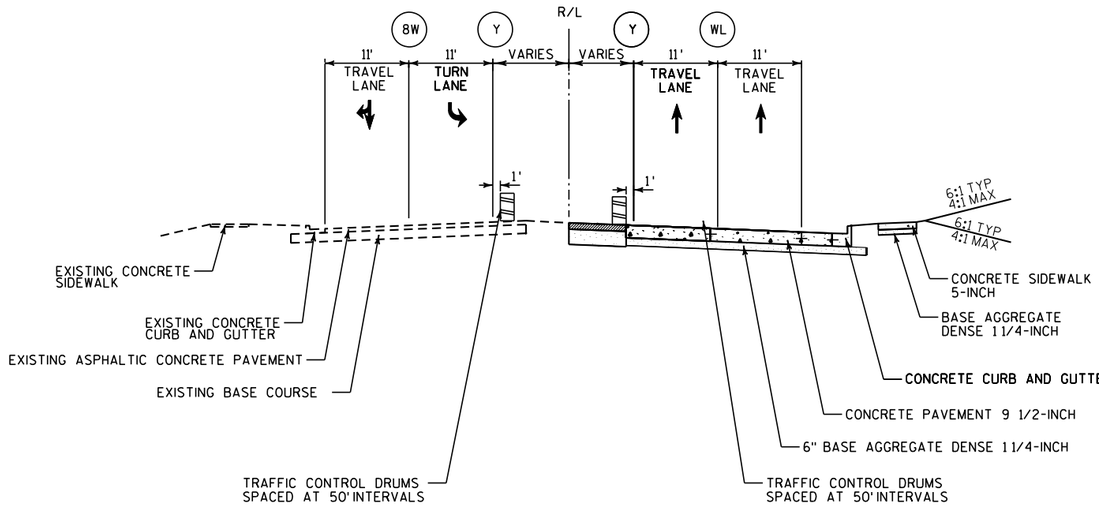
(DELL CREEK BRIDGE TO STH 23)
STA 213+00 - STA 225+90

TEMPORARY PAVEMENT MARKING LEGEND

- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (WL) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE) (12.5' LINE, 37.5' GAP)
- (TY) REMOVABLE TAPE 4-INCH (YELLOW)
- (TW) REMOVABLE TAPE 4-INCH (WHITE)
- (TWL) REMOVABLE TAPE 4-INCH (WHITE) (12.5' LINE, 37.5' GAP)

NOTE:

CONTRACTOR TO MAINTAIN PAVEMENT MARKINGS DURING WINTER SHUTDOWN IN ACCORDANCE WITH SECTION 649 OF THE STANDARD SPECIFICATIONS



STH 23 - STAGE 2B

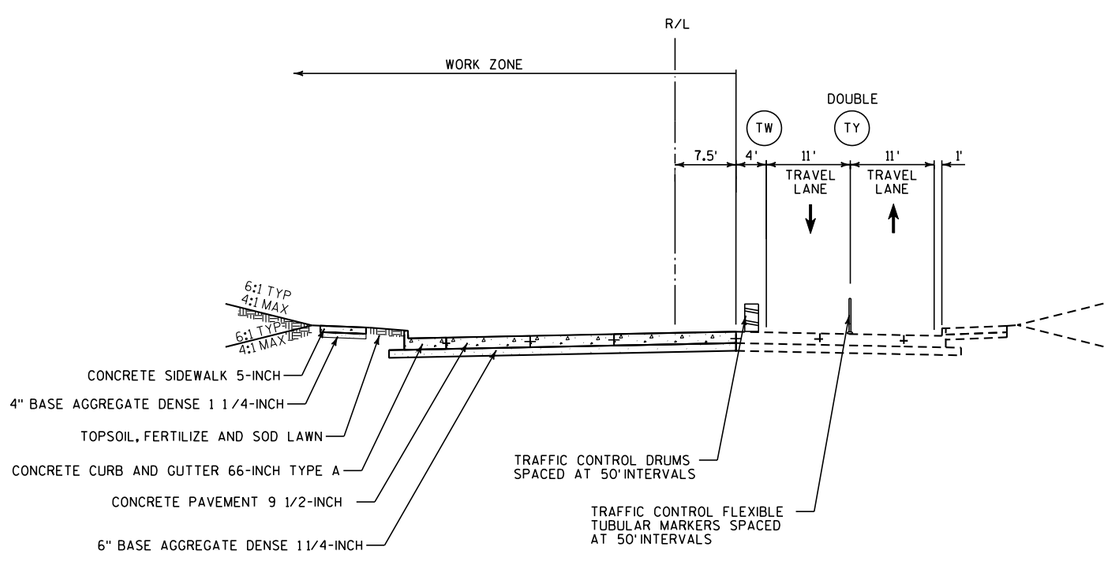
STA 315+80 - STA 318+10
(WESTERN PROJECT LIMITS TO USH 12)

TEMPORARY PAVEMENT MARKING LEGEND

- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (8W) TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)
- (TY) REMOVABLE TAPE 4-INCH (YELLOW)
- (TWL) REMOVABLE TAPE 4-INCH (WHITE) (12.5' LINE, 37.5' GAP)
- (TW) REMOVABLE TAPE 4-INCH (WHITE)

NOTE:

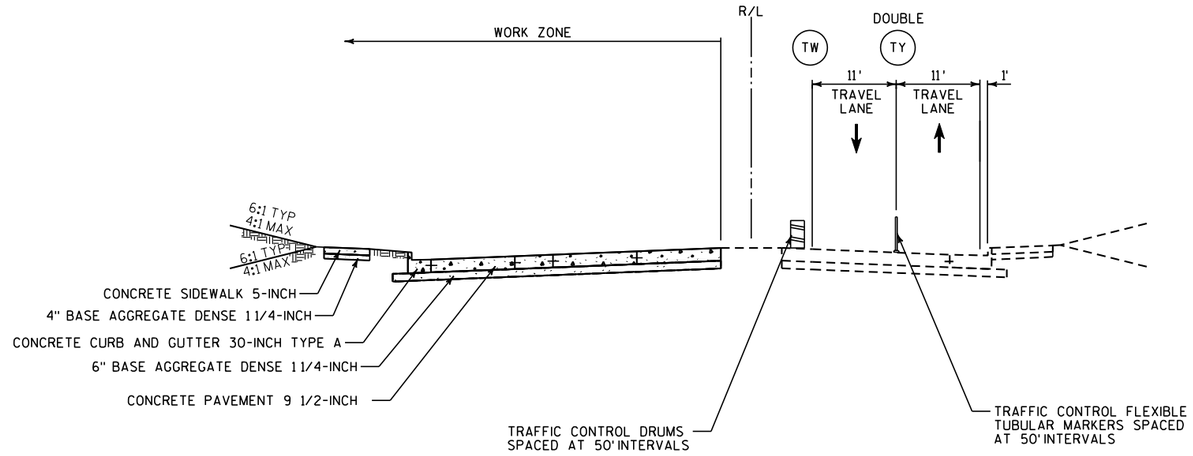
CONTRACTOR TO MAINTAIN PAVEMENT MARKINGS DURING WINTER SHUTDOWN IN ACCORDANCE WITH SECTION 649 OF THE STANDARD SPECIFICATIONS



USH 12 - STAGE 3

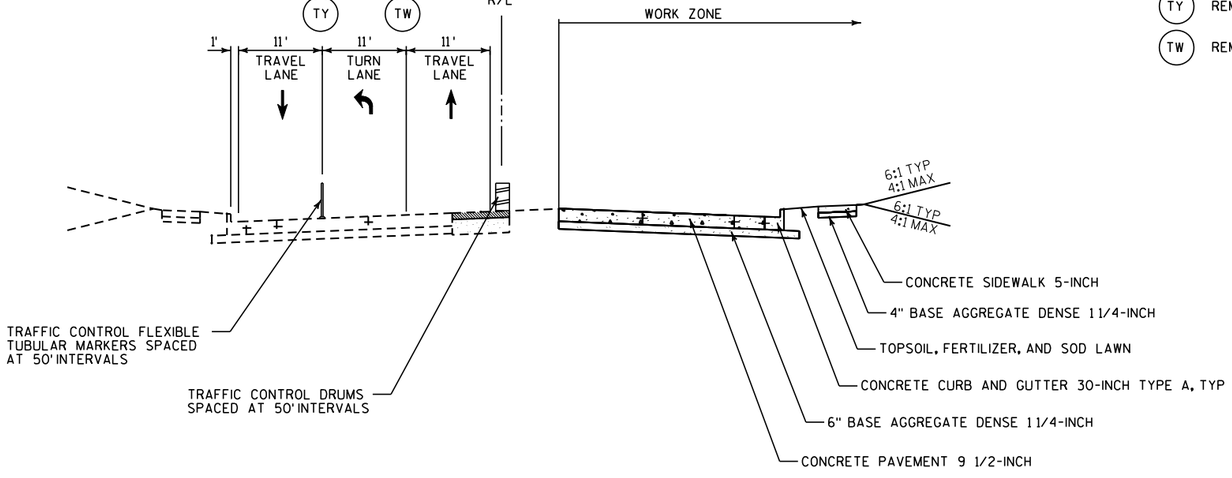
(DELL CREEK BRIDGE TO STH 23)
STA 213+00 - STA 225+90

2



USH 12 - STAGE 3

(STH 23 TO NORTHERN PROJECT LIMITS)
STA 225+90 - STA 232+20



STH 23 - STAGE 3

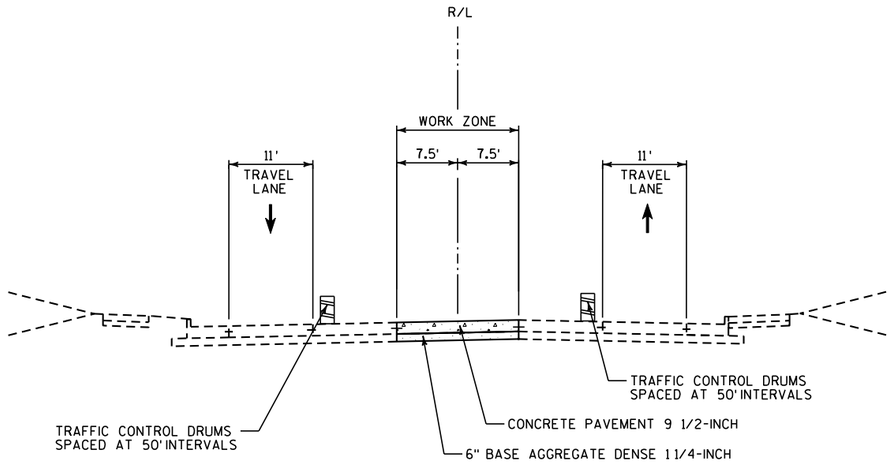
STA 315+80 - STA 318+10
(WESTERN PROJECT LIMITS TO USH 12)

TEMPORARY PAVEMENT MARKING LEGEND

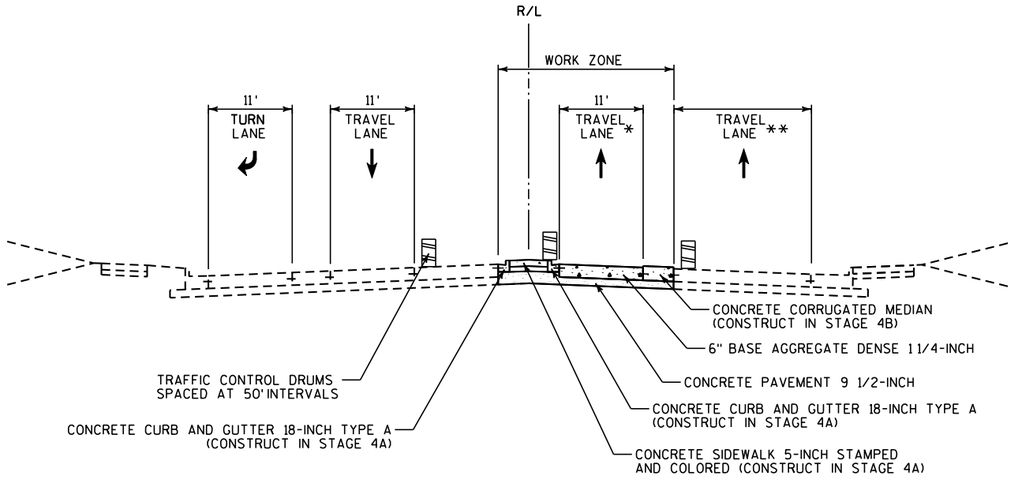
- (TY) REMOVABLE TAPE 4-INCH (YELLOW)
- (TW) REMOVABLE TAPE 4-INCH (WHITE)

SHEET 9 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	TRAFFIC CONTROL DETAILS	SHEET 62	E



USH 12 - STAGE 4A AND 4B
(DELL CREEK BRIDGE TO STH 23)
STA 213+00 - STA 225+90

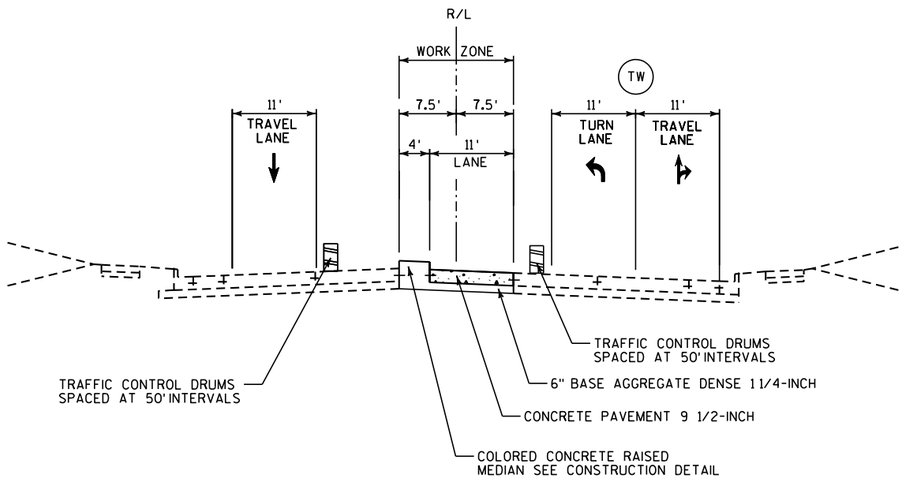


USH 12 - STAGE 4A AND 4B
(STH 23 TO NORTHERN PROJECT LIMITS)
STA 225+90 - STA 232+20

NOTE:

* LOCATION SHIFTS IN STAGES 4A AND 4B. (SEE STAGING PLAN SHEETS)

** STAGE 4B ONLY



STH 23 - STAGE 4A AND 4B
STA 315+80 - STA 318+10
(WESTERN PROJECT LIMITS TO USH 12)

TEMPORARY PAVEMENT MARKING LEGEND

(TW) REMOVABLE TAPE 4-INCH (WHITE)

2

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- X X X X X REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 2" ASPHALTIC SURFACE TEMPORARY OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)

TEMPORARY PAVEMENT MARKING LEGEND

- (TW8) REMOVABLE TAPE 8-INCH (WHITE)
- (TY) REMOVABLE TAPE 4-INCH (YELLOW)
- (TW) REMOVABLE TAPE 4-INCH (WHITE)
- (TA) ARROWS REMOVABLE TAPE
- (A) ARROWS
- (Y) 4-INCH (YELLOW)
- (W) 4-INCH (WHITE)
- (W8) 8-INCH (WHITE)
- (SB) STOP LINE 18-INCH
- (TSB) STOP LINE REMOVABLE TAPE 18-INCH
- (TWS) REMOVABLE TAPE 8-INCH (WHITE) 3' LINE 12' GAP
- (TWY) REMOVABLE TAPE 8-INCH (YELLOW) 3' LINE 12' GAP
- (TWL) REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (WL) 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (WORD) WORDS
- (TWORD) WORDS REMOVABLE TAPE
- (P) PERMANENT PAVEMENT MARKING SEE MARKING PLANS

N

210 211 212 213 214 215 216 217 218 219 220 221

USH 12

9-JS 10-JS 11-JS 12-JS

N DELAVAN STREET

N JUDSON STREET

E ADAMS STREET

STOP R1-1 EXISTING SIGN TO REMAIN

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

ROAD WORK 500 FT W20-1D

ROAD WORK 250 FT W20-1(MOD)

JCT 23 J1-1 24" X 39" EXISTING SIGN TO REMAIN

W03-3 ON POWER POLE TO REMAIN

SPEED LIMIT 35 R2-1 EXISTING SIGN TO REMAIN

ALTERNATE 90 J3-1 EXISTING SIGN TO REMAIN

7-JS 8-JS 9-JS

TEMPORARY ASPHALTIC CURB

SIDEWALK CLOSED R9-9 24" X 12"

EAST 12 ALTERNATE 90 EXISTING SIGN TO BE MOVED

TW TY

+43 21'LT +49.5 11'LT +24 21'LT +89 +31 22'LT

50' TYP

CONSTRUCT TEMPORARY SIDEWALK

W01-6 48" X 24"

REEDSBURG WIS DILLS D1-2 EXISTING SIGN TO REMAIN

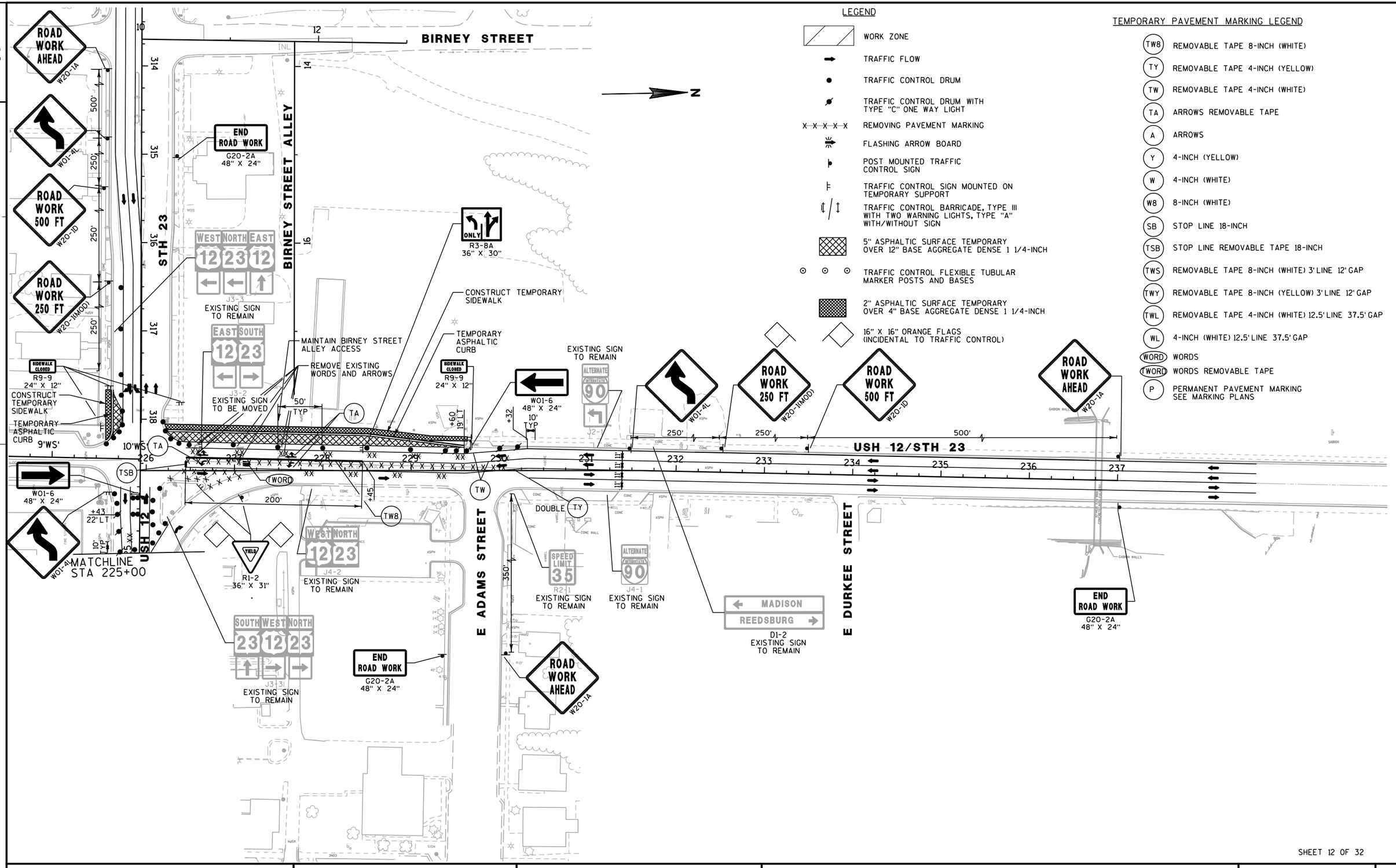
ONLY R3-8 EXISTING SIGN TO REMAIN

MATCHLINE STA 225+00

SHEET 11 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 1A	SHEET 64	E

FILE NAME : t:\1022702\sheets\sheets-phase3\staging\026000_ph3s1a.dgn PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



LEGEND

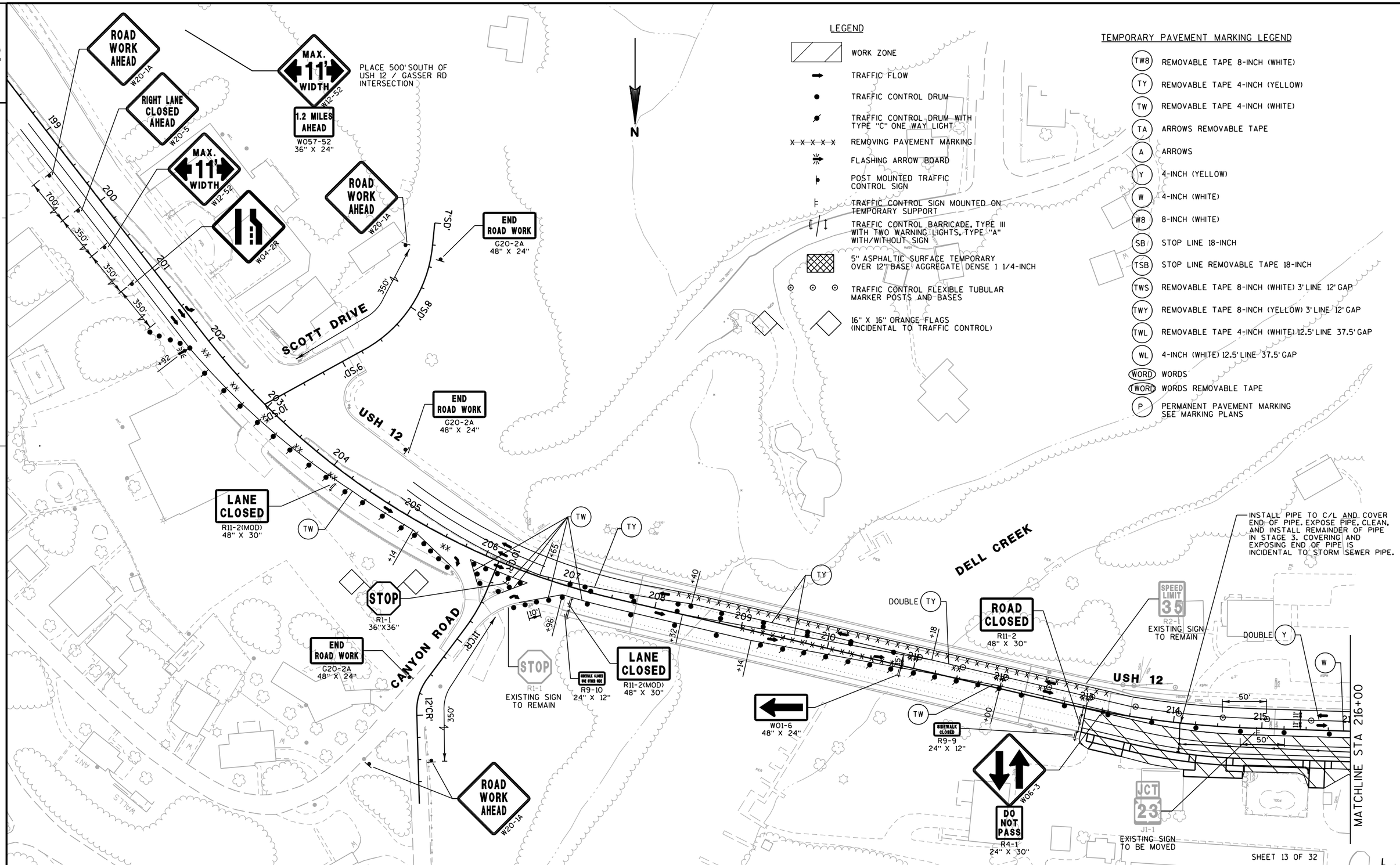
- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- X-X-X-X REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 2" ASPHALTIC SURFACE TEMPORARY OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)

TEMPORARY PAVEMENT MARKING LEGEND

TW8	REMOVABLE TAPE 8-INCH (WHITE)
TY	REMOVABLE TAPE 4-INCH (YELLOW)
TW	REMOVABLE TAPE 4-INCH (WHITE)
TA	ARROWS REMOVABLE TAPE
A	ARROWS
Y	4-INCH (YELLOW)
W	4-INCH (WHITE)
W8	8-INCH (WHITE)
SB	STOP LINE 18-INCH
TSB	STOP LINE REMOVABLE TAPE 18-INCH
TWS	REMOVABLE TAPE 8-INCH (WHITE) 3' LINE 12' GAP
TWY	REMOVABLE TAPE 8-INCH (YELLOW) 3' LINE 12' GAP
TWL	REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE 37.5' GAP
WL	4-INCH (WHITE) 12.5' LINE 37.5' GAP
WORD	WORDS
TWORD	WORDS REMOVABLE TAPE
P	PERMANENT PAVEMENT MARKING SEE MARKING PLANS

SHEET 12 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION 1A	SHEET 65 E



LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- X X X X X REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)

TEMPORARY PAVEMENT MARKING LEGEND

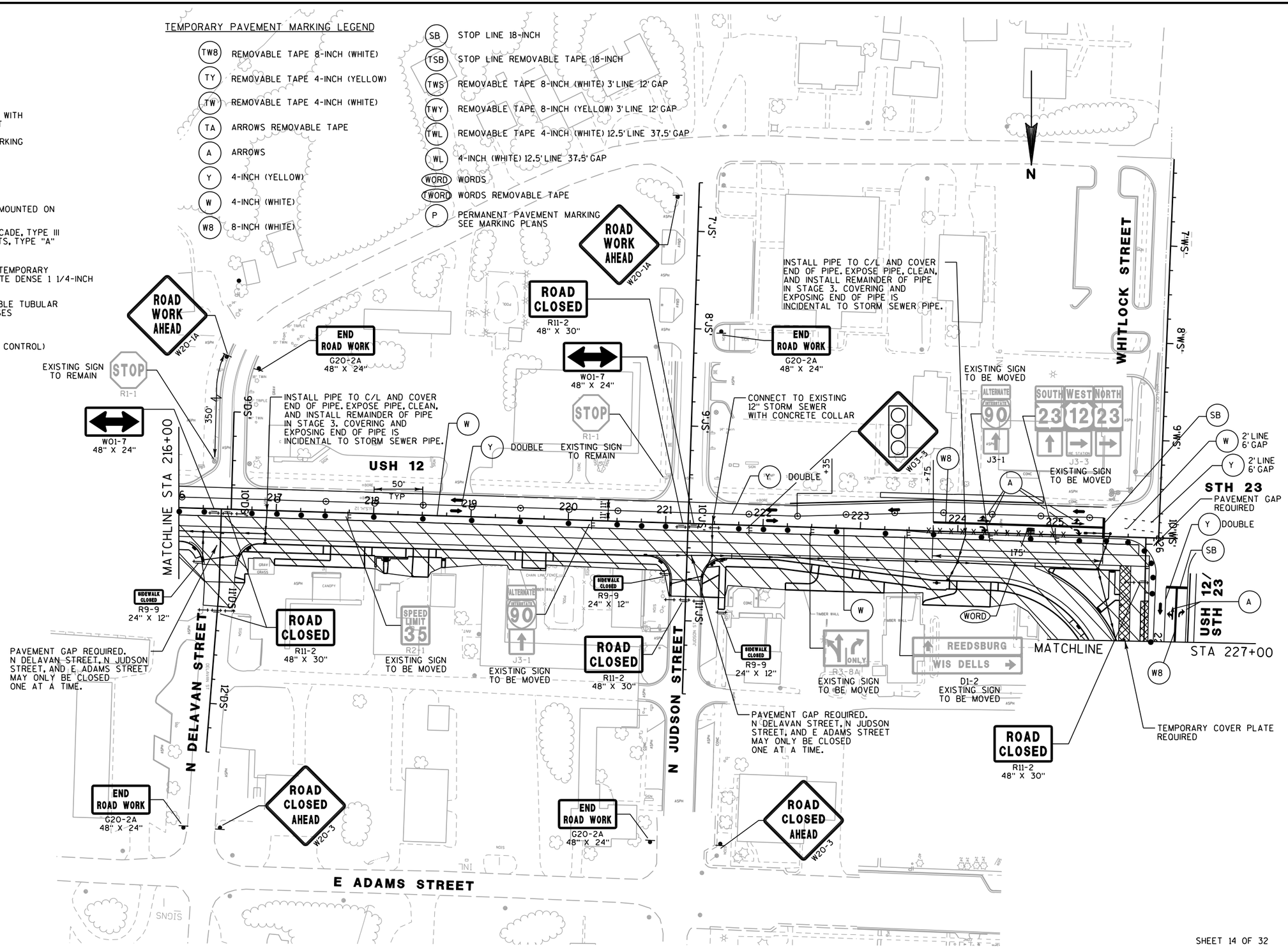
TW8	REMOVABLE TAPE 8-INCH (WHITE)
TY	REMOVABLE TAPE 4-INCH (YELLOW)
TW	REMOVABLE TAPE 4-INCH (WHITE)
TA	ARROWS REMOVABLE TAPE
A	ARROWS
Y	4-INCH (YELLOW)
W	4-INCH (WHITE)
W8	8-INCH (WHITE)
SB	STOP LINE 18-INCH
TSB	STOP LINE REMOVABLE TAPE 18-INCH
TWS	REMOVABLE TAPE 8-INCH (WHITE) 3' LINE 12' GAP
TWY	REMOVABLE TAPE 8-INCH (YELLOW) 3' LINE 12' GAP
TWL	REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE 37.5' GAP
WL	4-INCH (WHITE) 12.5' LINE 37.5' GAP
WORD	WORDS
TWORD	WORDS REMOVABLE TAPE
P	PERMANENT PAVEMENT MARKING SEE MARKING PLANS

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- X X X X X REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)

TEMPORARY PAVEMENT MARKING LEGEND

- TW8 REMOVABLE TAPE 8-INCH (WHITE)
- TY REMOVABLE TAPE 4-INCH (YELLOW)
- TW REMOVABLE TAPE 4-INCH (WHITE)
- TA ARROWS REMOVABLE TAPE
- A ARROWS
- Y 4-INCH (YELLOW)
- W 4-INCH (WHITE)
- W8 8-INCH (WHITE)
- SB STOP LINE 18-INCH
- TSB STOP LINE REMOVABLE TAPE 18-INCH
- TWS REMOVABLE TAPE 8-INCH (WHITE) 3'LINE 12'GAP
- TWY REMOVABLE TAPE 8-INCH (YELLOW) 3'LINE 12'GAP
- TWL REMOVABLE TAPE 4-INCH (WHITE) 12.5'LINE 37.5'GAP
- WL 4-INCH (WHITE) 12.5'LINE 37.5'GAP
- WORD WORDS
- TWORD WORDS REMOVABLE TAPE
- P PERMANENT PAVEMENT MARKING SEE MARKING PLANS



SHEET 14 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 1B	SHEET 67	E

2

BIRNEY STREET

BIRNEY STREET ALLEY

N

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)

MAX. 11' WIDTH W12-52

2.5 MILES AHEAD
W057-52
36" X 24"
PLACE AT USH 12 / STH 13 INTERSECTION

MAX. 11' WIDTH W12-52
PLACE AT NEWSOM RD INTERSECTION

ROAD WORK AHEAD W20-1A

LEFT LANE CLOSED AHEAD W20-5

W4-2L
36" X 36"

END ROAD WORK
G20-2A
48" X 24"

R9-10
24" X 12"
PLACE AT NEWSOM RD INTERSECTION

MATCHLINE STA 227+00

USH 12/STH 23

E DURKEE STREET

E ADAMS STREET

ROAD CLOSED
R11-2
48" X 30"

MAINTAIN BIRNEY STREET ALLEY ACCESS

TEMPORARY COVER PLATE REQUIRED

MAINTAIN ACCESS

CONNECT EXISTING 12" STORM SEWER TO MANHOLE

TEMPORARY COVER PLATE REQUIRED

EXISTING SIGN TO REMAIN
J2-1

MADISON
REEDSBURG
D1-2
EXISTING SIGN TO REMAIN

R3-8A
36" X 30"

DO NOT PASS
R4-1
24" X 30"

W01-6
48" X 24"

DOUBLE

SIDEWALK CLOSED
R9-9
24" X 12"

SPEED LIMIT 35
R2-1
EXISTING SIGN TO BE MOVED

ALTERNATE 90
J4-1
EXISTING SIGN TO BE MOVED

WEST NORTH 12 23
J4-2
EXISTING SIGN TO BE MOVED

PAVEMENT GAP REQUIRED.
N DELAVAN STREET, N JUDSON STREET, AND E ADAMS STREET MAY ONLY BE CLOSED ONE AT A TIME.

W01-4R

ROAD CLOSED
R11-2
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

STOP
R1-1
EXISTING SIGN TO REMAIN

ROAD CLOSED AHEAD W20-3
PLACE AT JUDSON ST INTERSECTION

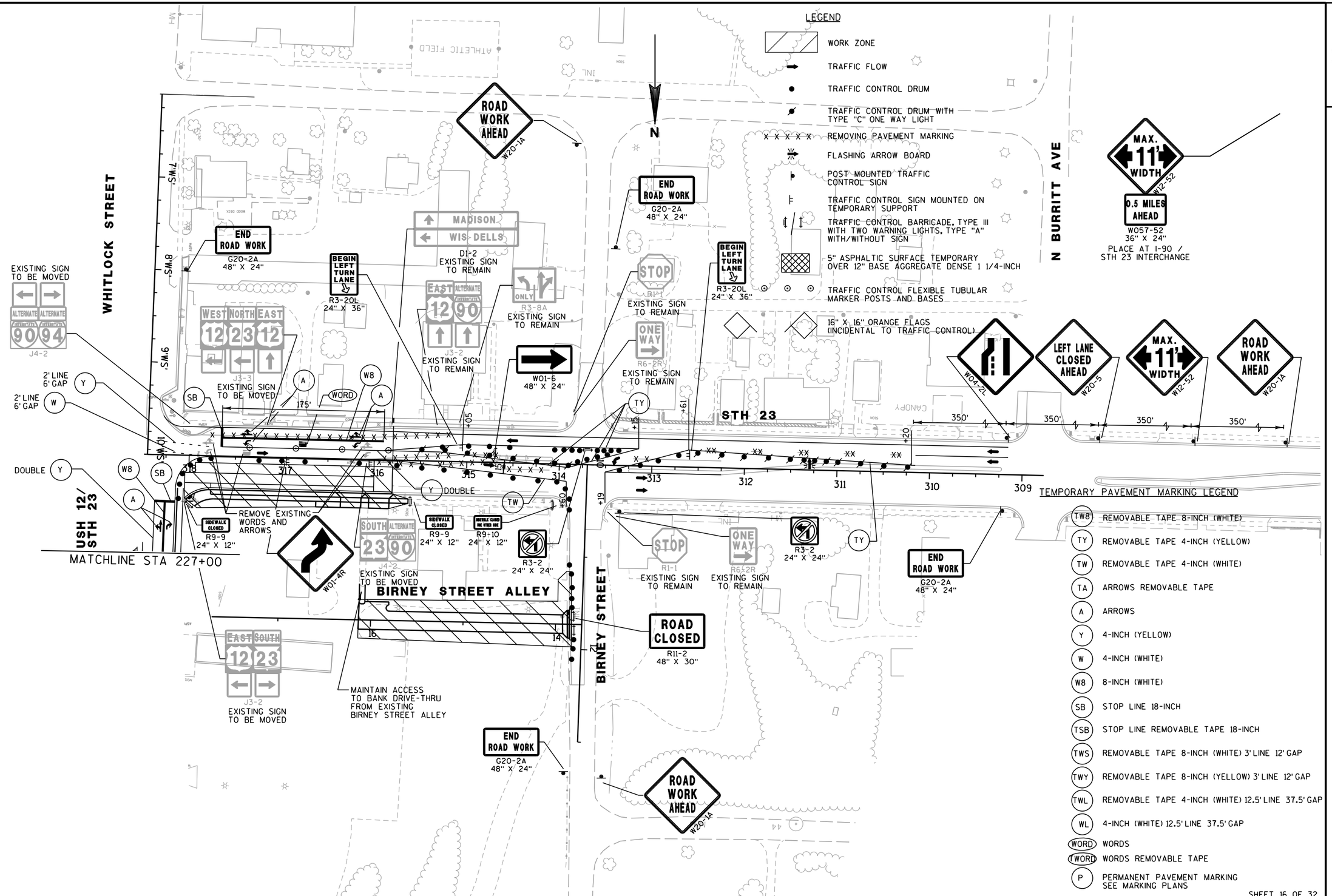
TEMPORARY PAVEMENT MARKING LEGEND

TW8	REMOVABLE TAPE 8-INCH (WHITE)
TY	REMOVABLE TAPE 4-INCH (YELLOW)
TW	REMOVABLE TAPE 4-INCH (WHITE)
TA	ARROWS REMOVABLE TAPE
A	ARROWS
Y	4-INCH (YELLOW)
W	4-INCH (WHITE)
W8	8-INCH (WHITE)

SB	STOP LINE 18-INCH
TSB	STOP LINE REMOVABLE TAPE 18-INCH
TWS	REMOVABLE TAPE 8-INCH (WHITE) 3'LINE 12'GAP
TWY	REMOVABLE TAPE 8-INCH (YELLOW) 3'LINE 12'GAP
TWL	REMOVABLE TAPE 4-INCH (WHITE) 12.5'LINE 37.5'GAP
WL	4-INCH (WHITE) 12.5'LINE 37.5'GAP
WORD	WORDS
TWORD	WORDS REMOVABLE TAPE
P	PERMANENT PAVEMENT MARKING SEE MARKING PLANS

SHEET 15 OF 32

2



SHEET 16 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 1B	SHEET 69 E

NOTE:
CONTRACTOR TO MAINTAIN TEMPORARY PAVEMENT MARKINGS DURING WINTER SHUTDOWN

N

ROAD WORK AHEAD W20-1A

RIGHT LANE CLOSED AHEAD W20-5

MAX. 11' WIDTH W12-52

PLACE 500' SOUTH OF USH 12 / GASSER RD INTERSECTION

1.2 MILES AHEAD
W057-52
36" X 24"

MAX. 11' WIDTH W12-52

W04-2R

ROAD WORK AHEAD W20-1A

END ROAD WORK
G20-2A
48" X 24"

SCOTT DRIVE

END ROAD WORK
G20-2A
48" X 24"

USH 12

LANE CLOSED
R11-2(MOD)
48" X 30"

TW

STOP
R1-1

END ROAD WORK
G20-2A
48" X 24"

CANYON ROAD

STOP
R1-1
EXISTING SIGN TO REMAIN

LANE CLOSED
R11-2(MOD)
48" X 30"

ROAD WORK AHEAD W20-1A

Y DOUBLE

WL

DELL CREEK

SPEED LIMIT 35
R2-1
EXISTING SIGN TO REMAIN

WO1-6
48" X 24"

USH 12

WO1-4R

SPEED LIMIT 35
R2-1
INSTALL PERMANENT SIGN

JCT 23
J1-1
INSTALL PERMANENT SIGN

MATCHLINE STA 216+00

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- X X X X X REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)

TEMPORARY PAVEMENT MARKING LEGEND

TW8	REMOVABLE TAPE 8-INCH (WHITE)
TY	REMOVABLE TAPE 4-INCH (YELLOW)
TW	REMOVABLE TAPE 4-INCH (WHITE)
TA	ARROWS REMOVABLE TAPE
A	ARROWS
Y	4-INCH (YELLOW)
W	4-INCH (WHITE)
W8	8-INCH (WHITE)
SB	STOP LINE 18-INCH
TSB	STOP LINE REMOVABLE TAPE 18-INCH
TWS	REMOVABLE TAPE 8-INCH (WHITE) 3' LINE 12' GAP
TWY	REMOVABLE TAPE 8-INCH (YELLOW) 3' LINE 12' GAP
TWL	REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE 37.5' GAP
WL	4-INCH (WHITE) 12.5' LINE 37.5' GAP
WORD	WORDS
TWORD	WORDS REMOVABLE TAPE
P	PERMANENT PAVEMENT MARKING SEE MARKING PLANS

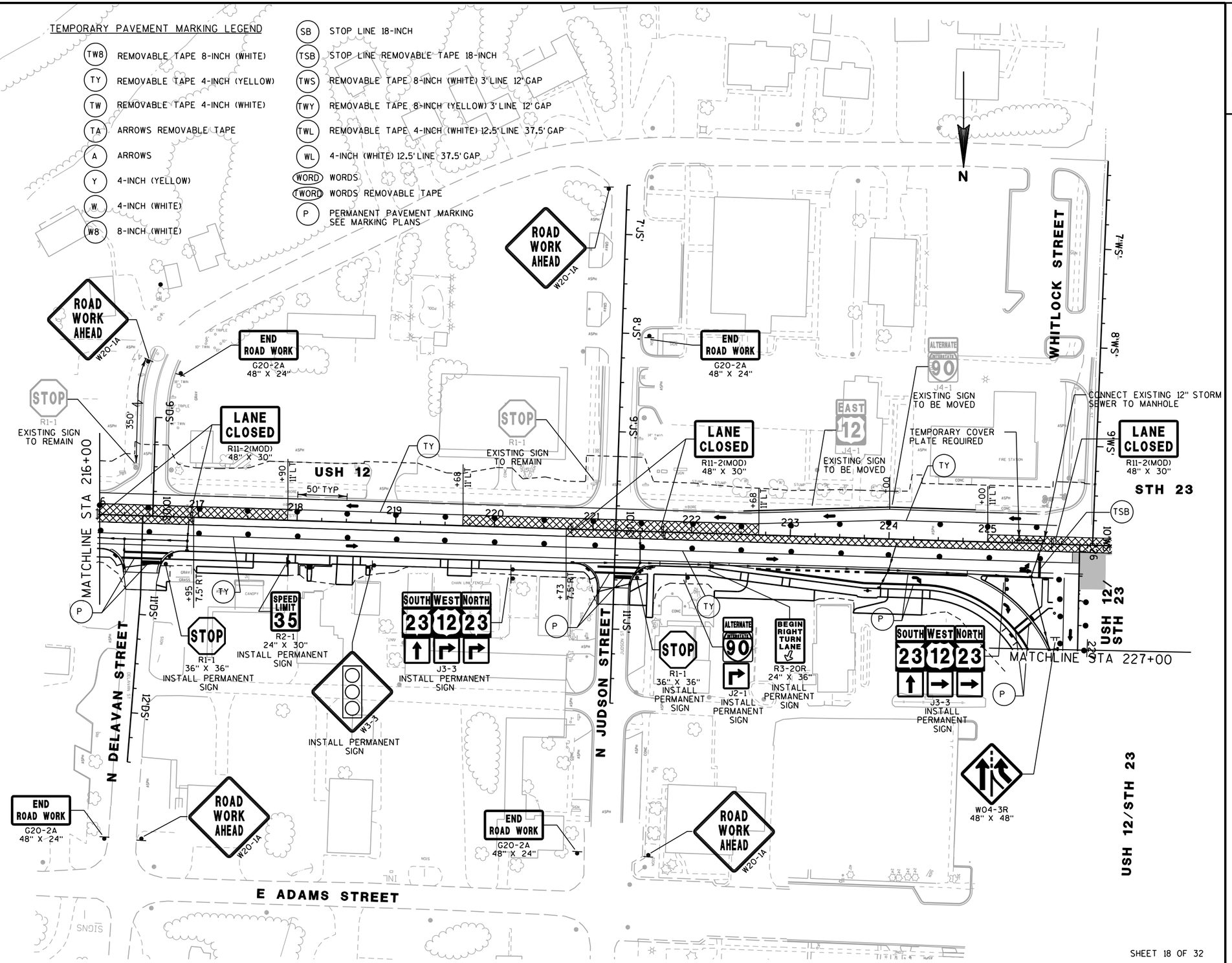
2

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- CONCRETE PAVEMENT FAST TRACK 9 1/2-INCH

TEMPORARY PAVEMENT MARKING LEGEND

- TW8 REMOVABLE TAPE 8-INCH (WHITE)
- TY REMOVABLE TAPE 4-INCH (YELLOW)
- TW REMOVABLE TAPE 4-INCH (WHITE)
- TA ARROWS REMOVABLE TAPE
- A ARROWS
- Y 4-INCH (YELLOW)
- W 4-INCH (WHITE)
- W8 8-INCH (WHITE)
- SB STOP LINE 18-INCH
- TSB STOP LINE REMOVABLE TAPE 18-INCH
- TWS REMOVABLE TAPE 8-INCH (WHITE) 3' LINE 12' GAP
- TWY REMOVABLE TAPE 8-INCH (YELLOW) 3' LINE 12' GAP
- TWL REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- WL 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- WORD WORDS
- TWORD WORDS REMOVABLE TAPE
- P PERMANENT PAVEMENT MARKING SEE MARKING PLANS



SHEET 18 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 2A	SHEET 71 E

FILE NAME : t:\1022702\sheets\sheets-phase3\staging\026202_ph3s2a.dgn PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

BIRNEY STREET

BIRNEY STREET ALLEY

N

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)
- CONCRETE PAVEMENT FAST TRACK 9 1/2-INCH

TEMPORARY PAVEMENT MARKING LEGEND

- (TW8) REMOVABLE TAPE 8-INCH (WHITE)
- (TY) REMOVABLE TAPE 4-INCH (YELLOW)
- (TW) REMOVABLE TAPE 4-INCH (WHITE)
- (TA) ARROWS REMOVABLE TAPE
- (A) ARROWS
- (Y) 4-INCH (YELLOW)
- (W) 4-INCH (WHITE)
- (W8) 8-INCH (WHITE)
- (SB) STOP LINE 18-INCH
- (TSB) STOP LINE REMOVABLE TAPE 18-INCH
- (TWS) REMOVABLE TAPE 8-INCH (WHITE) 3' LINE 12' GAP
- (TWY) REMOVABLE TAPE 8-INCH (YELLOW) 3' LINE 12' GAP
- (TWL) REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (WL) 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (WORD) WORDS
- (TWORD) WORDS REMOVABLE TAPE
- (P) PERMANENT PAVEMENT MARKING SEE MARKING PLANS

MATCHLINE STA 227+00

USH 12/STH 23

ONLY ONLY ONLY
R3-8W
54" X 30"

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

W03-3

ALTERNATE INTERSTATE 90
J2-1
EXISTING SIGN TO REMAIN

MADISON
REEDSBURG
D1-2
EXISTING SIGN TO REMAIN

(TWORD) (WORD) (TA) (A) (W8) (Y) (WL) (Y) DOUBLE

+51 +63

227 228 229 230 231 232 233 234 235 236 237

(Y) (W) 200' 110' (P)

SPEED LIMIT 35
R2-1
INSTALL PERMANENT SIGN

WEST NORTH 12 23
J4-2
48" X 36"
PERMANENT SIGN INSTALLED IN STAGE 2A

STOP
R1-1
36" X 36"
INSTALL PERMANENT SIGN

ALTERNATE INTERSTATE 90
J4-1
INSTALL PERMANENT SIGN

STOP
R1-1
36" X 36"
INSTALL PERMANENT SIGN

350'

E ADAMS STREET

E DURKEE STREET

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

500' 500'

ROAD WORK 500 FT
W20-1D

ROAD WORK AHEAD
W20-1A

250'

END ROAD WORK
G20-2A
48" X 24"

MAX. 11' WIDTH
W12-52

2.5 MILES AHEAD
W057-52
36" X 24"
PLACE AT USH 12 / STH 13 INTERSECTION

SHEET 19 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 2A	SHEET 72 E

2

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- X X X X X REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)
- CONCRETE PAVEMENT FAST TRACK 9 1/2-INCH

N

MAX. 11' WIDTH W12-52

0.5 MILES AHEAD W057-52 36" X 24"

PLACE AT I-90 / STH 23 INTERCHANGE

N BURRITT AVE

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

MADISON / WIS DELLS D1-2 EXISTING SIGN TO REMAIN

EAST ALTERNATE 12 90 J3-2 EXISTING SIGN TO REMAIN

ONLY R3-8A EXISTING SIGN TO REMAIN

STOP R1-1 EXISTING SIGN TO REMAIN

WEST NORTH EAST 12 23 12 J3-3 EXISTING SIGN TO BE MOVED

ALTERNATE 90 94 J4-2 EXISTING SIGN TO BE MOVED

ROAD WORK 250 FT W20-1M(MOD)

ROAD WORK 500 FT W20-1D

STH 23

USH 12/ STH 23

MATCHLINE STA 227+00

LANE CLOSED R11-2(MOD) 48" X 30"

SOUTH ALTERNATE 23 90 J4-2 INSTALL PERMANENT SIGN

EAST SOUTH 12 23 J3-2 EXISTING SIGN TO BE MOVED

BIRNEY STREET ALLEY

BIRNEY STREET

STOP R1-1 EXISTING SIGN TO REMAIN

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

TEMPORARY PAVEMENT MARKING LEGEND

TW8	REMOVABLE TAPE 8-INCH (WHITE)
TY	REMOVABLE TAPE 4-INCH (YELLOW)
TW	REMOVABLE TAPE 4-INCH (WHITE)
TA	ARROWS REMOVABLE TAPE
A	ARROWS
Y	4-INCH (YELLOW)
W	4-INCH (WHITE)
W8	8-INCH (WHITE)
SB	STOP LINE 18-INCH
TSB	STOP LINE REMOVABLE TAPE 18-INCH
TWS	REMOVABLE TAPE 8-INCH (WHITE) 3' LINE 12' GAP
TWY	REMOVABLE TAPE 8-INCH (YELLOW) 3' LINE 12' GAP
TWL	REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE 37.5' GAP
WL	4-INCH (WHITE) 12.5' LINE 37.5' GAP
WORD	WORDS
TWORD	WORDS REMOVABLE TAPE
P	PERMANENT PAVEMENT MARKING SEE MARKING PLANS

SHEET 20 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 2A	SHEET 73 E

FILE NAME : t:\1022702\sheets\sheets-phase3\staging\026204_ph3s2a.dgn PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

NOTE:
CONTRACTOR TO MAINTAIN TEMPORARY PAVEMENT MARKINGS DURING WINTER SHUTDOWN.

PAVEMENT MARKINGS TO BE REMOVED IN ADVANCE OF STAGE 3 USING WATER BLASTING.

MAX. 11' WIDTH W12-52
PLACE 500' SOUTH OF USH 12 / GASSER RD INTERSECTION

1.2 MILES AHEAD
W057-52
36" X 24"

ROAD WORK AHEAD W20-1A

END ROAD WORK
G20-2A
48" X 24"

SCOTT DRIVE

350'
350'
350'

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- X X X X X REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)

TEMPORARY PAVEMENT MARKING LEGEND

- TW8 REMOVABLE TAPE 8-INCH (WHITE)
- TY REMOVABLE TAPE 4-INCH (YELLOW)
- TW REMOVABLE TAPE 4-INCH (WHITE)
- TA ARROWS REMOVABLE TAPE
- A ARROWS
- Y 4-INCH (YELLOW)
- W 4-INCH (WHITE)
- W8 8-INCH (WHITE)
- SB STOP LINE 18-INCH
- TSB STOP LINE REMOVABLE TAPE 18-INCH
- TWS REMOVABLE TAPE 8-INCH (WHITE) 3' LINE 12' GAP
- TWY REMOVABLE TAPE 8-INCH (YELLOW) 3' LINE 12' GAP
- TWL REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- WL 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- WORD WORDS
- TWORD WORDS REMOVABLE TAPE
- P PERMANENT PAVEMENT MARKING SEE MARKING PLANS

NOTE:
CONTRACTOR TO MAINTAIN TEMPORARY PAVEMENT MARKINGS DURING WINTER SHUTDOWN.

PAVEMENT MARKINGS TO BE REMOVED IN ADVANCE OF STAGE 3 USING WATER BLASTING.

N

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

STOP R1-1 EXISTING SIGN TO REMAIN

USH 12

E ADAMS STREET

N DELAVAN STREET

N JUDSON STREET

WHITLOCK STREET

SPEED LIMIT 35 R2-1 24" X 30" PERMANENT SIGN INSTALLED IN STAGE 2A

STOP R1-1 36" X 36" PERMANENT SIGN INSTALLED IN STAGE 2A

SOUTH 23 WEST 12 NORTH 23 J3-3 PERMANENT SIGN INSTALLED IN STAGE 2A

W3-3 PERMANENT SIGN INSTALLED IN STAGE 2A

ONLY ONLY R3-8L 54" X 30"

EAST 12 J4-1 EXISTING SIGN TO BE MOVED

ALTERNATE INTERSTATE 90 J4-1 EXISTING SIGN TO BE MOVED

ALTERNATE INTERSTATE 90 J2-1

BEGIN RIGHT TURN LANE R3-20R 24" X 36" PERMANENT SIGNS INSTALLED IN STAGE 2A

SOUTH 23 WEST 12 NORTH 23 J3-3 PERMANENT SIGN INSTALLED IN STAGE 2A

WO4-3R 48" X 48"

USH 12/ STH 23

MATCHLINE STA 227+00

STH 23

SHEET 22 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 2B	SHEET 75	E

BIRNEY STREET

BIRNEY STREET ALLEY

NOTE:
CONTRACTOR TO MAINTAIN TEMPORARY PAVEMENT MARKINGS DURING WINTER SHUTDOWN.

PAVEMENT MARKINGS TO BE REMOVED IN ADVANCE OF STAGE 3 USING WATER BLASTING.

N

REMOVE EXISTING WORDS AND ARROWS PLACED IN STAGE 2A

R3-8W
54" X 30"

R3-20R
24" X 36"

W03-3

J2-1
EXISTING SIGN TO REMAIN

D1-2
EXISTING SIGN TO REMAIN

USH 12/STH 23

MATCHLINE STA 227+00

E ADAMS STREET

E DURKEE STREET

R2-1
PERMANENT SIGN INSTALLED IN STAGE 2A

J4-2
48" X 36"
PERMANENT SIGN INSTALLED IN STAGE 2A

R1-1
36" X 36"
PERMANENT SIGN INSTALLED IN STAGE 2A

J4-1
PERMANENT SIGN INSTALLED IN STAGE 2A

R1-1
36" X 36"
PERMANENT SIGN INSTALLED IN STAGE 2A

G20-2A
48" X 24"

G20-2A
48" X 24"

G20-2A
48" X 24"

W20-1A

W20-1D

W20-1A

W12-52

WO57-52
36" X 24"
PLACE AT USH 12 / STH 13 INTERSECTION

LEGEND

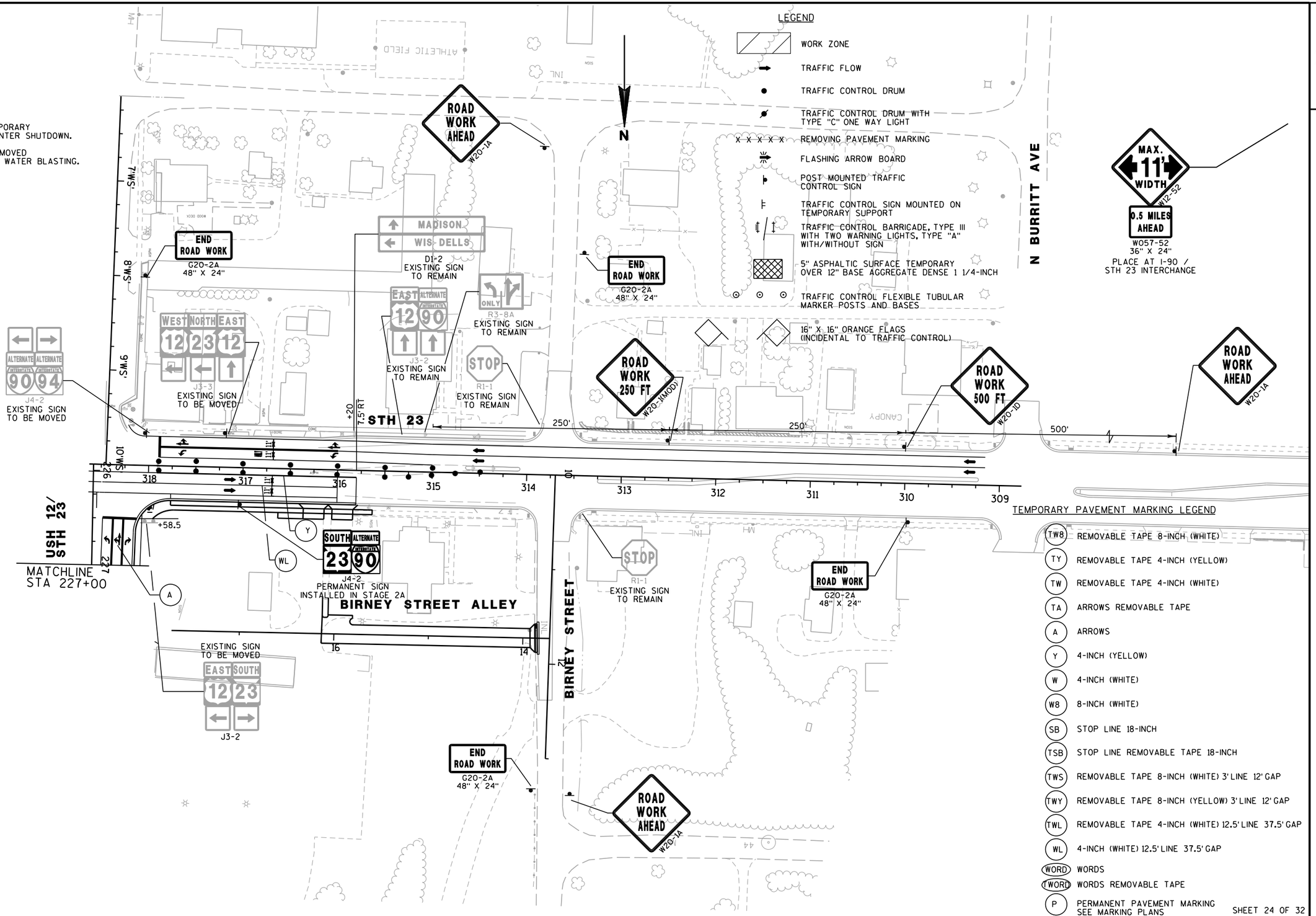
- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)

TEMPORARY PAVEMENT MARKING LEGEND

- TW8 REMOVABLE TAPE 8-INCH (WHITE)
- TY REMOVABLE TAPE 4-INCH (YELLOW)
- TW REMOVABLE TAPE 4-INCH (WHITE)
- TA ARROWS REMOVABLE TAPE
- A ARROWS
- Y 4-INCH (YELLOW)
- W 4-INCH (WHITE)
- W8 8-INCH (WHITE)
- SB STOP LINE 18-INCH
- TSB STOP LINE REMOVABLE TAPE 18-INCH
- TWS REMOVABLE TAPE 8-INCH (WHITE) 3'LINE 12'GAP
- TWY REMOVABLE TAPE 8-INCH (YELLOW) 3'LINE 12'GAP
- TWL REMOVABLE TAPE 4-INCH (WHITE) 12.5'LINE 37.5'GAP
- WL 4-INCH (WHITE) 12.5'LINE 37.5'GAP
- WORD WORDS
- TWORD WORDS REMOVABLE TAPE
- P PERMANENT PAVEMENT MARKING SEE MARKING PLANS

NOTE:
CONTRACTOR TO MAINTAIN TEMPORARY
PAVEMENT MARKINGS DURING WINTER SHUTDOWN.

PAVEMENT MARKINGS TO BE REMOVED
IN ADVANCE OF STAGE 3 USING WATER BLASTING.



SHEET 24 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 2B	SHEET 77 E

2

MAX. 11' WIDTH
W12-52
PLACE 500' SOUTH OF USH 12 / GASSER RD INTERSECTION

1.2 MILES AHEAD
W057-52
36" X 24"

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

SCOTT DRIVE

USH 12

LEFT LANE CLOSED AHEAD
W20-5

MAX. 11' WIDTH
W12-52

W04-2L

END ROAD WORK
G20-2A
48" X 24"

CANYON ROAD

ROAD WORK AHEAD
W20-1A

STOP
R1-1
EXISTING SIGN TO REMAIN

W01-4R

W01-6
48" X 24"

W06-3

DO NOT PASS
R4-1
24" X 30"

DELL CREEK

SPEED LIMIT 35
R2-1
EXISTING SIGN TO REMAIN

SIDEWALK CLOSED
R9-9
24" X 12"

ROAD CLOSED
R11-2
48" X 30"

SPEED LIMIT 35
R2-1
PERMANENT SIGN INSTALLED IN STAGE 2A

JCT 23
J1-1
PERMANENT SIGN INSTALLED IN STAGE 2A

SIDEWALK CLOSED NO OTHER ADS
R9-10
24" X 12"

EXPOSE PIPE, CLEAN, AND INSTALL REMAINDER OF PIPE EXPOSING END OF PIPE IS INCIDENTAL TO STORM SEWER PIPE.

MATCHLINE STA 216+00

N

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- X X X X X REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)

TEMPORARY PAVEMENT MARKING LEGEND

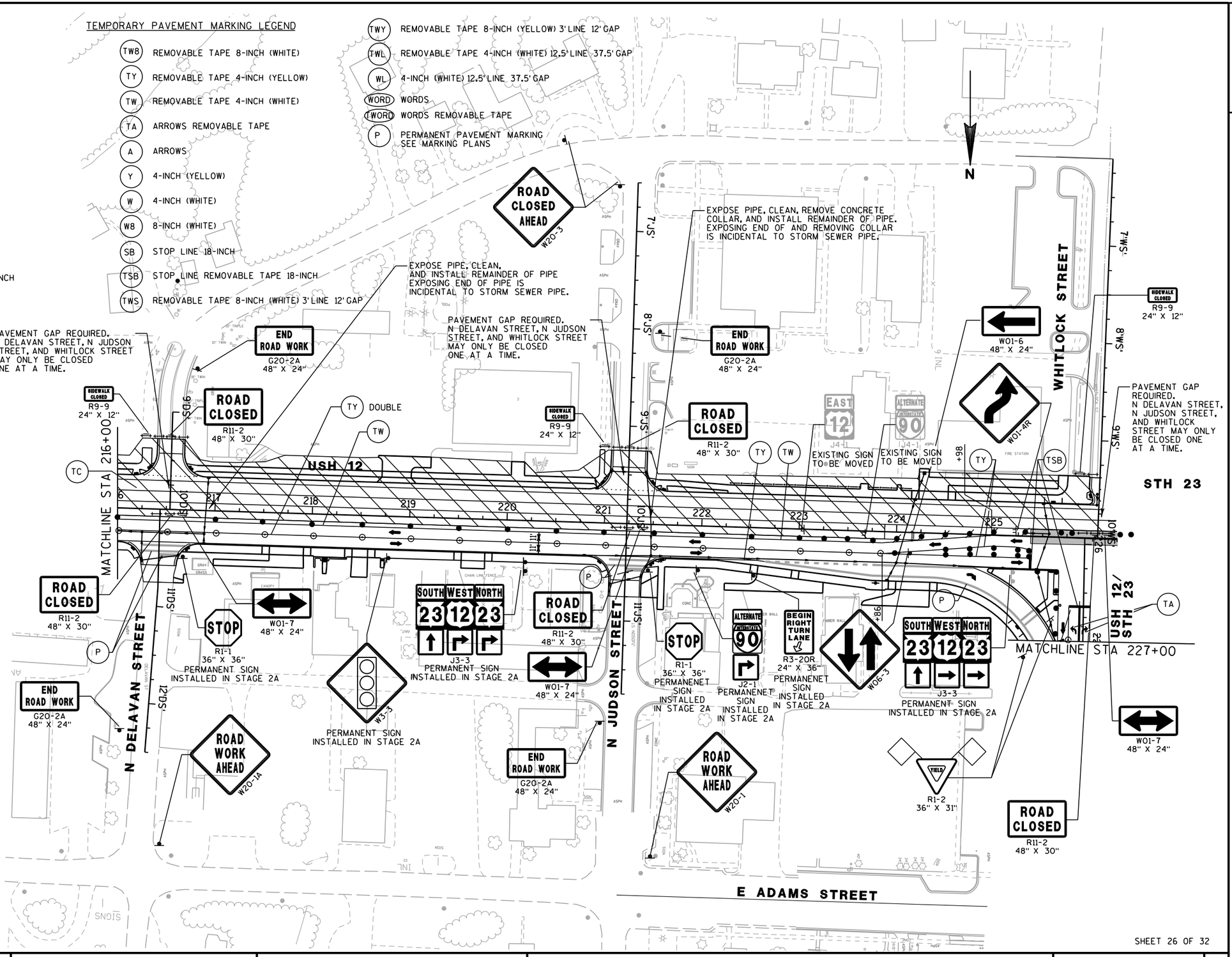
TW8	REMOVABLE TAPE 8-INCH (WHITE)
TY	REMOVABLE TAPE 4-INCH (YELLOW)
TW	REMOVABLE TAPE 4-INCH (WHITE)
TA	ARROWS REMOVABLE TAPE
A	ARROWS
Y	4-INCH (YELLOW)
W	4-INCH (WHITE)
W8	8-INCH (WHITE)
SB	STOP LINE 18-INCH
TSB	STOP LINE REMOVABLE TAPE 18-INCH
TWS	REMOVABLE TAPE 8-INCH (WHITE) 3' LINE 12' GAP
TWY	REMOVABLE TAPE 8-INCH (YELLOW) 3' LINE 12' GAP
TWL	REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE 37.5' GAP
WL	4-INCH (WHITE) 12.5' LINE 37.5' GAP
WORD	WORDS
TWORD	WORDS REMOVABLE TAPE
P	PERMANENT PAVEMENT MARKING SEE MARKING PLANS

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)
- CONCRETE PAVEMENT FAST TRACK 9 1/2-INCH

TEMPORARY PAVEMENT MARKING LEGEND

- (TW8) REMOVABLE TAPE 8-INCH (WHITE)
- (TY) REMOVABLE TAPE 4-INCH (YELLOW)
- (TW) REMOVABLE TAPE 4-INCH (WHITE)
- (TA) ARROWS REMOVABLE TAPE
- (A) ARROWS
- (Y) 4-INCH (YELLOW)
- (W) 4-INCH (WHITE)
- (W8) 8-INCH (WHITE)
- (SB) STOP LINE 18-INCH
- (TSB) STOP LINE REMOVABLE TAPE 18-INCH
- (TWS) REMOVABLE TAPE 8-INCH (WHITE) 3' LINE 12' GAP
- (TWY) REMOVABLE TAPE 8-INCH (YELLOW) 3' LINE 12' GAP
- (TWL) REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (WL) 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (WORD) WORDS
- (TWORD) WORDS REMOVABLE TAPE
- (P) PERMANENT PAVEMENT MARKING SEE MARKING PLANS



SHEET 26 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 3	SHEET 79 E

BIRNEY STREET

BIRNEY STREET ALLEY

N

BULKHEAD EXISTING 12" STORM SEWER INSIDE MANHOLE.
ABANDON EXISTING 12" STORM SEWER

R3-2
24" X 24"

ONLY ONLY
R3-8F
36" X 30"

W03-3

ALTERNATE
ALTERNATE 90
J2-1
EXISTING SIGN
TO BE MOVED

MADISON
REEDSBURG
EXISTING SIGN
TO BE MOVED

SIDEWALK CLOSED
R9-9
24" X 12"

ROAD CLOSED
R11-2
48" X 30"

DO NOT PASS
R4-1
24" X 30"

W06-3

W01-6
48" X 24"

W01-4L

LANE CLOSED
R11-2(MOD)
48" X 30"

W04-2R

MAX. 11' WIDTH
W12-52
48" X 48"

RIGHT LANE CLOSED AHEAD
W20-5

ROAD WORK AHEAD
W20-1A

MAX. 11' WIDTH
W12-52
2.5 MILES AHEAD
W057-52
36" X 24"
PLACE AT USH 12 / STH 13 INTERSECTION

STA 227+00

MATCHLINE

USH 12/STH 23

E ADAMS STREET

E DURKEE STREET

TW
TA
TY
TW8
TWORD
P
DOUBLE

ROAD CLOSED
R11-2
48" X 30"

W01-7
48" X 24"

SPEED LIMIT 35
R2-1
PERMANENT
SIGN INSTALLED
IN STAGE 2A

R3-2
24" X 24"

STOP
R1-1
36" X 36"
PERMANENT
SIGN INSTALLED
IN STAGE 2A

STOP
R1-1
36" X 36"
PERMANENT
SIGN INSTALLED
IN STAGE 2A

ALTERNATE
ALTERNATE 90
J4-1
PERMANENT
SIGN INSTALLED
IN STAGE 2A

STOP
R1-1
EXISTING SIGN
TO REMAIN

R3-2
24" X 24"

END ROAD WORK
G20-2A
48" X 24"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

R9-10
24" X 12"
PLACE AT
NEWSOM RD
INTERSECTION

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)

TEMPORARY PAVEMENT MARKING LEGEND

TW8	REMOVABLE TAPE 8-INCH (WHITE)
TY	REMOVABLE TAPE 4-INCH (YELLOW)
TW	REMOVABLE TAPE 4-INCH (WHITE)
TA	ARROWS REMOVABLE TAPE
A	ARROWS
Y	4-INCH (YELLOW)
W	4-INCH (WHITE)
W8	8-INCH (WHITE)
SB	STOP LINE 18-INCH
TSB	STOP LINE REMOVABLE TAPE 18-INCH
TWS	REMOVABLE TAPE 8-INCH (WHITE) 3' LINE 12' GAP
TWY	REMOVABLE TAPE 8-INCH (YELLOW) 3' LINE 12' GAP
TWL	REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE 37.5' GAP
WL	4-INCH (WHITE) 12.5' LINE 37.5' GAP
WORD	WORDS
TWORD	WORDS REMOVABLE TAPE
P	PERMANENT PAVEMENT MARKING SEE MARKING PLANS

SHEET 27 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 3	SHEET 80	E

2

WHITLOCK STREET

N BURRITT AVE

BIRNEY STREET

BIRNEY STREET ALLEY

USH 12/
STH 23

MATCHLINE
STA 227+00

ROAD CLOSED
R11-2
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

SIDEWALK CLOSED
R9-9
24" X 12"

WEST 12 NORTH 23 EAST 12
J3-3
EXISTING SIGN TO BE MOVED

ROAD CLOSED
R11-2
48" X 30"

SIDEWALK CLOSED
R9-9
24" X 12"

EAST ALTERNATE 12 90
J3-2
EXISTING SIGN TO BE MOVED

SIDEWALK CLOSED
R9-10
24" X 12"

W01-6
48" X 24"

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

STOP
R1-1
30" X 30"

W01-4L

STOP
R1-1
EXISTING SIGN TO REMAIN

LANE CLOSED
R11-2L
48" X 30"

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

W04-2R

RIGHT LANE CLOSED AHEAD
W20-5

MAX. 11' WIDTH
W12-52

ROAD WORK AHEAD
W20-1A

MAX. 11' WIDTH
W12-52
0.5 MILES AHEAD
W057-52
36" X 24"
PLACE AT I-90 / STH 23 INTERCHANGE

N

TC TSB TW TA TWORD TW8 DOUBLE TY

25' TYP

50' TYP

350' 350' 350' 700'

+59 +54 +13 +69 +23 +29 +25

310 311 312 313 314 315 316 317 318

STH 23

SOUTH ALTERNATE 23 90
J4-2
PERMANENT SIGN INSTALLED IN STAGE 2A

EAST SOUTH 12 23
J3-2
EXISTING SIGN TO BE MOVED

ONLY ONLY
R3-8E
36" X 30"

R3-2
24" X 24"

STOP
R1-1
EXISTING SIGN TO REMAIN

END ROAD WORK
G20-2A
48" X 24"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

PAVEMENT GAP REQUIRED.
N DELAVAN STREET,
N JUDSON STREET,
AND WHITLOCK STREET
MAY ONLY BE CLOSED
ONE AT A TIME.

TEMPORARY PAVEMENT MARKING LEGEND

TW8	REMOVABLE TAPE 8-INCH (WHITE)
TY	REMOVABLE TAPE 4-INCH (YELLOW)
TW	REMOVABLE TAPE 4-INCH (WHITE)
TA	ARROWS REMOVABLE TAPE
A	ARROWS
Y	4-INCH (YELLOW)
W	4-INCH (WHITE)
W8	8-INCH (WHITE)
SB	STOP LINE 18-INCH
TSB	STOP LINE REMOVABLE TAPE 18-INCH
TWS	REMOVABLE TAPE 8-INCH (WHITE) 3'LINE 12'GAP
TWY	REMOVABLE TAPE 8-INCH (YELLOW) 3'LINE 12'GAP
TWL	REMOVABLE TAPE 4-INCH (WHITE) 12.5'LINE 37.5'GAP
WL	4-INCH (WHITE) 12.5'LINE 37.5'GAP
WORD	WORDS
TWORD	WORDS REMOVABLE TAPE
P	PERMANENT PAVEMENT MARKING SEE MARKING PLANS

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)
- CONCRETE PAVEMENT FAST TRACK 9 1/2-INCH

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 3	SHEET 81	E

FILE NAME : t:\1022702\sheets\sheets-phase3\staging\026304_ph3s3.dgn PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- X X X X X REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES

TEMPORARY PAVEMENT MARKING LEGEND

- (TW8) REMOVABLE TAPE 8-INCH (WHITE)
- (TY) REMOVABLE TAPE 4-INCH (YELLOW)
- (TW) REMOVABLE TAPE 4-INCH (WHITE)
- (TA) ARROWS REMOVABLE TAPE
- (A) ARROWS
- (Y) 4-INCH (YELLOW)
- (W) 4-INCH (WHITE)
- (W8) 8-INCH (WHITE)
- (SB) STOP LINE 18-INCH
- (TSB) STOP LINE REMOVABLE TAPE 18-INCH
- (TWS) REMOVABLE TAPE 8-INCH (WHITE) 3' LINE 12' GAP
- (TWY) REMOVABLE TAPE 8-INCH (YELLOW) 3' LINE 12' GAP
- (TWL) REMOVABLE TAPE 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (WL) 4-INCH (WHITE) 12.5' LINE 37.5' GAP
- (WORD) WORDS
- (TWORD) WORDS REMOVABLE TAPE
- (P) PERMANENT PAVEMENT MARKING SEE MARKING PLANS

N

USH 12

STH 23

USH 12 / STH 23

WHITLOCK STREET

N DELAVAN STREET

N JUDSON STREET

E ADAMS STREET

MATCHLINE STA 227+00

ROAD WORK AHEAD W20-1A

LEFT LANE CLOSED AHEAD W20-5

MAX. 11' WIDTH W12-52

W04-2L

SPEED LIMIT 35 R2-1 24" X 30" INSTALL PERMANENT SIGN

STOP R1-1 30" X 30" INSTALL PERMANENT SIGN

STOP R1-1 36" X 36" PERMANENT SIGN INSTALLED IN STAGE 2

STOP R1-1 36" X 36" PERMANENT SIGN INSTALLED IN STAGE 2

JCT 23 J1-1 PERMANENT SIGN INSTALLED IN STAGE 2

SPEED LIMIT 35 R2-1 24" X 30" PERMANENT SIGN INSTALLED IN STAGE 2

SOUTH 23 WEST 12 NORTH 23 J3-3 PERMANENT SIGN INSTALLED IN STAGE 2

SOUTH 23 WEST 12 NORTH 23 J3-3 PERMANENT SIGN INSTALLED IN STAGE 2

ALTERNATE 90 J2-1 PERMANENT SIGN INSTALLED IN STAGE 2

BEGIN RIGHT TURN LANE R3-20R 24" X 36" PERMANENT SIGN INSTALLED IN STAGE 2

YIELD R1-2 36" X 31"

W3-3 PERMANENT SIGN INSTALLED IN STAGE 2

END ROAD WORK G20-2A 48" X 24"

REEDSBURG WISCONSIN DELLS D1-2 INSTALL PERMANENT SIGN

EAST 12 J4-1 INSTALL PERMANENT SIGN

ALTERNATE 90 J4-1 INSTALL PERMANENT SIGN

W01-6 48" X 24"

PLACE 500' SOUTH OF USH 12 / GASSER RD INTERSECTION

MAX. 11' WIDTH W12-52

1.2 MILES AHEAD W057-52 36" X 24"

SHEET 29 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 4A	SHEET 82	E

2

BIRNEY STREET

BIRNEY STREET ALLEY

N

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES
- 16" X 16" ORANGE FLAGS (INCIDENTAL TO TRAFFIC CONTROL)

MAX. 11' WIDTH W12-52
2.5 MILES AHEAD
W057-52
36" X 24"
PLACE AT USH 12 / STH 13 INTERSECTION

PLACE AT NEWSOME RD INTERSECTION

MATCHLINE STA 227+00

USH 12/STH 23

R3-2
160'
R3-2OR 24" X 36" INSTALL PERMANENT SIGN
ALTERNATE 90 J2-1 INSTALL PERMANENT SIGN
MADISON / REEDSBURG INSTALL PERMANENT SIGN
R3-8A 36" X 30" ONLY
W04-2L
LEFT LANE CLOSED AHEAD W20-5
MAX. 11' WIDTH W12-52 48" X 48"
ROAD WORK AHEAD W20-1A
350'
700'
700'
25' TYP
50' TYP
200'
+71
+59
+33
+00
+37
228
229
230
231
232
233
234
235
236
237

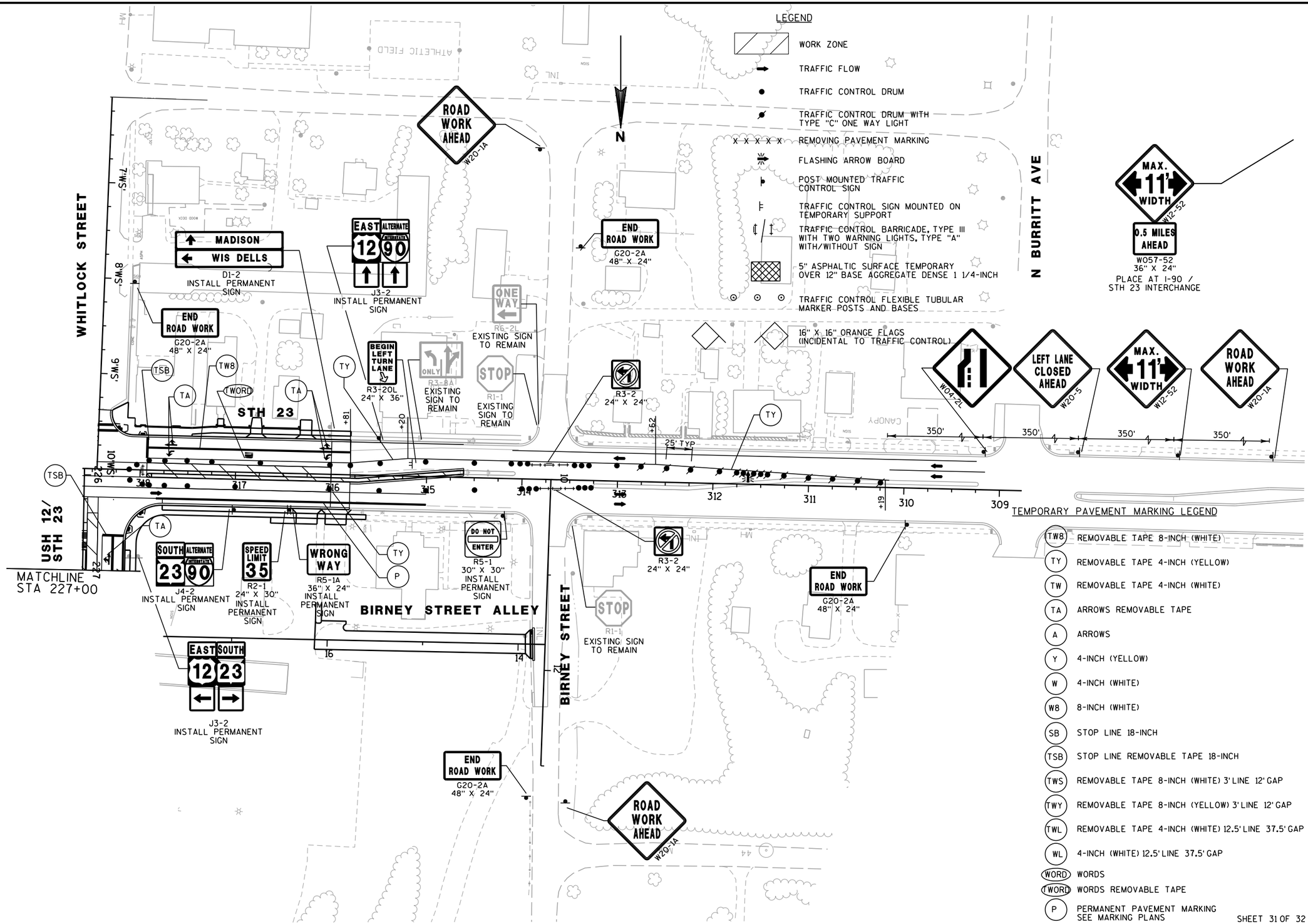
ONE WAY R6-2R 24" X 30"
SPEED LIMIT 35 R2-1 PERMANENT SIGN INSTALLED IN STAGE 2
WEST 12 NORTH 23 J4-2 PERMANENT SIGN INSTALLED IN STAGE 2
ALTERNATE 90 J4-1 PERMANENT SIGN INSTALLED IN STAGE 2
W01-6 48" X 24"
STOP R1-1 36" X 36" PERMANENT SIGN INSTALLED IN STAGE 2
STOP R1-1 36" X 36" PERMANENT SIGN INSTALLED IN STAGE 2
END ROAD WORK G20-2A 48" X 24"
END ROAD WORK G20-2A 48" X 24"
ROAD WORK AHEAD W20-1A
350'

E ADAMS STREET

E DURKEE STREET

TEMPORARY PAVEMENT MARKING LEGEND

TW8	REMOVABLE TAPE 8-INCH (WHITE)	TSB	STOP LINE REMOVABLE TAPE 18-INCH
TY	REMOVABLE TAPE 4-INCH (YELLOW)	TWS	REMOVABLE TAPE 8-INCH (WHITE) 3'LINE 12'GAP
TW	REMOVABLE TAPE 4-INCH (WHITE)	TWY	REMOVABLE TAPE 8-INCH (YELLOW) 3'LINE 12'GAP
TA	ARROWS REMOVABLE TAPE	TWL	REMOVABLE TAPE 4-INCH (WHITE) 12.5'LINE 37.5'GAP
A	ARROWS	WL	4-INCH (WHITE) 12.5'LINE 37.5'GAP
Y	4-INCH (YELLOW)	WORD	WORDS
W	4-INCH (WHITE)	TWORD	WORDS REMOVABLE TAPE
W8	8-INCH (WHITE)	P	PERMANENT PAVEMENT MARKING SEE MARKING PLANS
SB	STOP LINE 18-INCH		



SHEET 31 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 4A	SHEET 84 E

BIRNEY STREET

BIRNEY STREET ALLEY

STH 23

USH 12/STH 23

USH 12

E ADAMS STREET

E ADAMS STREET

N

* FOR ADVANCE WARNING SIGNS AND TRAFFIC CONTROL SEE STAGE 4A SHEETS

W01-6 48" X 24"

EAST 12 SOUTH 23 J3-2 INSTALL PERMANENT SIGN

BEGIN RIGHT TURN LANE R3-20R 24" X 36" PERMANENT SIGN INSTALLED IN STAGE 4A

ALTERNATE INTERSTATE 90 J2-1 PERMANENT SIGN INSTALLED IN STAGE 4A

MADISON REEDSBURG PERMANENT SIGN INSTALLED IN STAGE 4A

ONLY ONLY R3-8P 54" X 30" INSTALL PERMANENT SIGN

ROAD WORK 500 FT W20-1D

ROAD WORK AHEAD W20-1A

500'

END ROAD WORK G20-2A 48" X 24"

ONE WAY R6-2R 24" X 30" INSTALL PERMANENT SIGN

W4-3R 30" X 30" INSTALL PERMANENT SIGN

* FOR ADVANCE WARNING SIGNS AND TRAFFIC CONTROL SEE STAGE 4A SHEETS

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

LEGEND

- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" ONE WAY LIGHT
- REMOVING PAVEMENT MARKING
- FLASHING ARROW BOARD
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN MOUNTED ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- 5" ASPHALTIC SURFACE TEMPORARY OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES

TEMPORARY PAVEMENT MARKING LEGEND

- TW8 REMOVABLE TAPE 8-INCH (WHITE)
- TY REMOVABLE TAPE 4-INCH (YELLOW)
- TW REMOVABLE TAPE 4-INCH (WHITE)
- TA ARROWS REMOVABLE TAPE
- A ARROWS
- Y 4-INCH (YELLOW)
- W 4-INCH (WHITE)
- W8 8-INCH (WHITE)
- SB STOP LINE 18-INCH
- TSB STOP LINE REMOVABLE TAPE 18-INCH
- TWS REMOVABLE TAPE 8-INCH (WHITE) 3'LINE 12'GAP
- TWY REMOVABLE TAPE 8-INCH (YELLOW) 3'LINE 12'GAP
- TWL REMOVABLE TAPE 4-INCH (WHITE) 12.5'LINE 37.5'GAP
- WL 4-INCH (WHITE) 12.5'LINE 37.5'GAP
- WORD WORDS
- TWORD WORDS REMOVABLE TAPE
- P PERMANENT PAVEMENT MARKING SEE MARKING PLANS

SHEET 32 OF 32

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	STAGE CONSTRUCTION - STAGE 4B	SHEET 85 E

2

MATCH LINE STA 200+00

SCOTT DRIVE

7.5D.
8.5D.
9.5D.
10.5D.
11.5CR.
12.5CR.

SECTION LINE

USH 12

N76°50'47.5"W
515.61'

BEGIN DELAVAN STREET R/L
STA 9+00'DS'
Y=280,449.14
X=638,033.36
AH=N01°38'52.7"E

DELAVAN STREET R/L

PC EB PGL 5
PC 4
CURVE 4
CURVE 5 EB PGL
PT EB PGL 5
PT 4
PC WB PGL 4
PI 4
CURVE 4 WB PGL
PT WB PGL 4
USH 12 R/L

100.02'
N1°38'52.7"E

DELAVAN ST
168.35'
N04°33'40.4"E
81.65'
N01°38'52.5"E

9.0S.
10.0S.
11.0S.
12.0S.

PI DS1
STA 10+81.65'DS'
Y=280,630.40
X=638,048.65
BK=N01°38'52.5"E
AH=N04°33'40.4"E

END DELAVAN STREET R/L
STA 12+50'DS'
Y=280,798.22
X=638,062.04
BK=N04°33'40.4"E

7.5'
N88°13'15.5"W

BEGIN JUDSON STREET R/L
STA 6+50'JS'
Y=280,213.86
X=637,555.46
AH=N01°55'14.7"E

JUDSON STREET R/L

JUDSON ST
N01°55'15.3"E
175.00
350.00'
NO1°55'14.7"E

7.0S.
8.0S.
9.0S.
10.0S.
11.0S.

END JUDSON STREET R/L
STA 11+75.00'JS'
Y=280,738.57
X=637,573.06
BK=N01°55'15.3"E

1098.35'

PI 3
STA 225+93.35
Y=280,578.27
X=637,097.08
BK=N88°13'15.5"W
AH=N01°08'41.7"E

END STH 23 R/L
STA 318+58.18
Y=280,578.27
X=637,097.08
BK=S88°13'10.7"E

USH 12/STH 23 R/L

USH 12 WB PGL

USH 12 EB PGL

STA 230+73.54, 4'RT

STA 230+73.54, 4'LT

PI 4
STA 231+60.62
Y=281,145.43
X=637,108.41
BK=N01°08'41.7"E
AH=N02°20'15.7"E

END USH 12 R/L
STA 232+20.00
Y=281,205.43
X=637,110.86
BK=N02°20'15.7"E

BEGIN WHITLOCK STREET R/L
STA 6+10.49'WS'
Y=280,189.48
X=637,068.14
AH=N02°20'15.8"E

WHITLOCK ST
N02°20'15.8"E
389.51'

7.0WS.
8.0WS.
9.0WS.
10.0WS.

WHITLOCK STREET R/L

END WHITLOCK STREET R/L
STA 10+00'WS'
Y=280,578.67
X=637,084.03
BK=N02°20'15.8"E

S88°13'10.7"E
12.20'

STH 23
S88°38'44.5"E
969.33'

STH 23 R/L

PI STH 23
STA 318+45.98
Y=280,578.65
X=637,084.89
BK=S88°38'44.5"E
AH=S88°13'10.7"E

4'
4'

S88°47'21"E

BIRNEY ST =
STA 13+71.70
BIRNEY STREET ALLEY

BIRNEY STREET ALLEY

END BIRNEY ST ALLEY R/L
STA 17+71.70
Y=280,754.21
X=637,014.73
BK=S88°47'21"E

BIRNEY STREET ALLEY RL

BEGIN BIRNEY ST ALLEY R/L
STA 13+71.70
Y=280,762.66
X=636,614.82
AH=S88°47'21"E

BEGIN STH 23 R/L
STA 308+76.65
Y=280,601.56
X=636,115.82
AH=S88°38'44.5"E

BEGIN BIRNEY ST R/L
STA 10+00.00
Y=280,589.90
X=636,608.75
AH=N02°01'17.8"E

BIRNEY STREET RL
STA 11+72.87

BIRNEY STREET
BIRNEY STREET 300'
N02°01'17.8"E

END BIRNEY ST R/L
STA 13+00.00
Y=280,889.72
X=636,619.36
BK=N02°01'17.8"E

USH 12 / STH 23
NO1°08'41.7"E
597.27'
540.00'
NO2°20'15.7"E

7.0WS.
8.0WS.
9.0WS.
10.0WS.
11.0WS.
12.0WS.

N

MON.
X=638,522.3430
Y=280,945.1460

6. R E 1 13 N 21 21 21 21

CURVE 4 USH 12 RL
PISTA 213+81.63
Y=280,540.63
X=638,308.96
DELTA=11°22'28.0" LT
D=04°59'59.9"
T=114.12'
L=227.49'
R=1145.92'
PC STA 212+67.51
Y=280,514.66
X=638,420.09
PT STA 214+95.00
Y=280,544.17
X=638,194.90
BK=N76°50'47.5"W
AH=N88°13'15.5"W

CURVE 4 EB PGL
PISTA 206+20.43
Y=280,367.15
X=639,051.31
DELTA=24°02'52.5" LT
D=08°48'53.0"
T=138.45'
L=272.82'
R=650.00'
PC STA 204+83.71
Y=280,283.44
X=639,161.58
PT STA 207+57.73
Y=280,398.65
X=638,916.49
BK=N52°47'54.9"W
AH=N76°50'47.4"W

CURVE 5 EB PGL
PISTA 213+43.50
Y=280,531.97
X=638,345.99
DELTA=11°22'28.2" LT
D=09°32'57.5"
T=59.75'
L=119.11'
R=600.00'
PC STA 212+83.85
Y=280,518.38
X=638,404.17
PT STA 214+02.95
Y=280,533.83
X=638,286.26
BK=N76°50'47.4"W
AH=N88°13'15.5"W

CURVE 4 WB PGL
PISTA 214+18.78
Y=280,549.28
X=638,271.93
DELTA=11°22'28.2" LT
D=09°32'57.5"
T=59.75'
L=119.11'
R=600.00'
PC STA 213+59.71, 3.72' RT
Y=280,535.68
X=638,330.11
PT STA 214+78.03, 7.63' RT
Y=280,551.14
X=638,212.20
BK=N76°50'47.4"W
AH=N88°13'15.5"W

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	ALIGNMENT PLAN	SHEET 86	E

DATE 05APR13 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	6145-00-74 QUANTITY
0010	201.0105	CLEARING	STA	6.000	6.000
0020	201.0205	GRUBBING	STA	8.000	8.000
0030	202.0105	ROADSIDE CLEARING	STA	3.000	3.000
0040	204.0100	REMOVING PAVEMENT	SY	12,745.000	12,745.000
0050	204.0150	REMOVING CURB & GUTTER	LF	675.000	675.000
0060	204.0155	REMOVING CONCRETE SIDEWALK	SY	2,510.000	2,510.000
0070	204.0195	REMOVING CONCRETE BASES	EACH	7.000	7.000
0080	204.0210	REMOVING MANHOLES	EACH	1.000	1.000
0090	204.0220	REMOVING INLETS	EACH	20.000	20.000
0100	204.0245	REMOVING STORM SEWER (SIZE) 01. 8-INCH	LF	10.000	10.000
0110	204.0245	REMOVING STORM SEWER (SIZE) 02. 10-INCH	LF	20.000	20.000
0120	204.0245	REMOVING STORM SEWER (SIZE) 03. 12-INCH	LF	425.000	425.000
0130	204.0245	REMOVING STORM SEWER (SIZE) 04. 15-INCH	LF	20.000	20.000
0140	204.0245	REMOVING STORM SEWER (SIZE) 05. 18-INCH	LF	1,283.000	1,283.000
0150	204.0291.S	ABANDONING SEWER	CY	2.000	2.000
0160	205.0100	EXCAVATION COMMON	CY	13,920.000	13,920.000
0170	205.0501.S	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	TON	100.000	100.000
0190	213.0100	FINISHING ROADWAY (PROJECT) 02. 6145-00-74	EACH	1.000	1.000
0200	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	315.000	315.000
0210	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	11,962.000	11,962.000
0220	312.0110	SELECT CRUSHED MATERIAL	TON	4,888.000	4,888.000
0230	320.0135	CONCRETE BASE 7-INCH	SY	160.000	160.000
0240	415.0095	CONCRETE PAVEMENT 9 1/2-INCH	SY	14,500.000	14,500.000
0250	415.0210	CONCRETE PAVEMENT GAPS	EACH	7.000	7.000
0260	415.1150.S	CONCRETE PAVEMENT FAST TRACK (INCH) 01. 9 1/2-INCH	SY	460.000	460.000
0270	416.0270	CONCRETE DRIVEWAY HES 7-INCH	SY	1,047.000	1,047.000
0280	416.0610	DRILLED TIE BARS	EACH	145.000	145.000
0290	416.0620	DRILLED DOWEL BARS	EACH	56.000	56.000
0300	440.4410.S	INCENTIVE IRI RIDE	DOL	11,850.000	11,850.000
0310	455.0120	ASPHALTIC MATERIAL PG64-28	TON	17.000	17.000
0320	455.0605	TACK COAT	GAL	50.000	50.000
0330	460.1101	HMA PAVEMENT TYPE E-1	TON	160.000	160.000
0340	460.1110	HMA PAVEMENT TYPE E-10	TON	82.000	82.000
0350	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	3,150.000	3,150.000
0360	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	246.000	246.000
0370	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	860.000	860.000
0380	465.0310	ASPHALTIC CURB	LF	660.000	660.000
0390	513.2050.S	RAILING PIPE	LF	8.000	8.000
0400	520.8000	CONCRETE COLLARS FOR PIPE	EACH	2.000	2.000
0410	532.0200.S	WALL MODULAR BLOCK GRAVITY	SF	850.000	850.000
0420	601.0405	CONCRETE CURB & GUTTER 18-INCH TYPE A	LF	805.000	805.000
0430	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A	LF	1,879.000	1,879.000
0440	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	94.000	94.000
0450	602.0410	CONCRETE SIDEWALK 5-INCH	SF	26,560.000	26,560.000
0460	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	184.000	184.000
0470	602.1500	CONCRETE STEPS	SF	180.000	180.000
0480	607.5000	STORM SEWER ROCK EXCAVATION	CY	500.000	500.000
0490	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	773.400	773.400

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DATE 05APR13 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	6145-00-74 QUANTITY
0500	608.0415	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	LF	190.100	190.100
0510	608.0418	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	218.500	218.500
0520	608.0424	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	396.300	396.300
0530	608.0430	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 30-INCH	LF	136.300	136.300
0540	608.0436	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 36-INCH	LF	398.800	398.800
0550	610.0424	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 24X38-INCH	LF	443.800	443.800
0560	610.0429	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH	LF	47.400	47.400
0570	611.0530	MANHOLE COVERS TYPE J	EACH	13.000	13.000
0580	611.0639	INLET COVERS TYPE H-S	EACH	28.000	28.000
0590	611.0645	INLET COVERS TYPE MS-A	EACH	1.000	1.000
0600	611.0651	INLET COVERS TYPE S	EACH	3.000	3.000
0610	611.0666	INLET COVERS TYPE Z	EACH	5.000	5.000
0620	611.1003	CATCH BASINS 3-FT DIAMETER	EACH	7.000	7.000
0630	611.1004	CATCH BASINS 4-FT DIAMETER	EACH	7.000	7.000
0640	611.1230	CATCH BASINS 2X3-FT	EACH	12.000	12.000
0650	611.2004	MANHOLES 4-FT DIAMETER	EACH	4.000	4.000
0660	611.2005	MANHOLES 5-FT DIAMETER	EACH	7.000	7.000
0670	611.2006	MANHOLES 6-FT DIAMETER	EACH	6.000	6.000
0680	611.2007	MANHOLES 7-FT DIAMETER	EACH	2.000	2.000
0690	611.3004	INLETS 4-FT DIAMETER	EACH	3.000	3.000
0700	611.3901	INLETS MEDIAN 1 GRATE	EACH	1.000	1.000
0710	611.8115	ADJUSTING INLET COVERS	EACH	2.000	2.000
0720	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	3,666.000	3,666.000
0730	616.0700.S	FENCE SAFETY	LF	180.000	180.000
0740	619.1000	MOBILIZATION	EACH	0.880	0.880
0750	620.0100	CONCRETE CORRUGATED MEDIAN	SF	410.000	410.000
0760	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	120.000	120.000
0770	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	1.000	1.000
0780	623.0200	DUST CONTROL SURFACE TREATMENT	SY	17,120.000	17,120.000
0790	624.0100	WATER	MGAL	50.000	50.000
0800	625.0100	TOPSOIL	SY	4,740.000	4,740.000
0820	627.0200	MULCHING	SY	2,370.000	2,370.000
0830	628.1104	EROSION BALES	EACH	100.000	100.000
0840	628.1504	SILT FENCE	LF	650.000	650.000
0850	628.1520	SILT FENCE MAINTENANCE	LF	375.000	375.000
0860	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	15.000	15.000
0870	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	10.000	10.000
0880	628.2004	EROSION MAT CLASS I TYPE B	SY	150.000	150.000
0890	628.7005	INLET PROTECTION TYPE A	EACH	14.000	14.000
0900	628.7010	INLET PROTECTION TYPE B	EACH	14.000	14.000
0910	628.7015	INLET PROTECTION TYPE C	EACH	76.000	76.000
0920	628.7560	TRACKING PADS	EACH	5.000	5.000
0930	628.7570	ROCK BAGS	EACH	50.000	50.000
0940	629.0210	FERTILIZER TYPE B	CWT	104.000	104.000
0950	630.0110	SEEDING MIXTURE NO. 10	LB	190.000	190.000
0960	630.0200	SEEDING TEMPORARY	LB	180.000	180.000

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DATE 05APR13 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	6145-00-74 QUANTITY
0970	630.0300	SEEDING BORROW PIT	LB	200.000	200.000
0980	631.0300	SOD WATER	MGAL	217.000	217.000
0990	631.1000	SOD LAWN	SY	4,740.000	4,740.000
1000	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	37.000	37.000
1010	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	24.000	24.000
1020	634.0620	POSTS WOOD 4X6-INCH X 20-FT	EACH	4.000	4.000
1030	637.0202	SIGNS REFLECTIVE TYPE II	SF	581.000	581.000
1040	637.0402	SIGNS REFLECTIVE FOLDING TYPE II	SF	16.000	16.000
1050	638.2102	MOVING SIGNS TYPE II	EACH	34.000	34.000
1060	638.2602	REMOVING SIGNS TYPE II	EACH	73.000	73.000
1070	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	57.000	57.000
1080	638.4000	MOVING SMALL SIGN SUPPORTS	EACH	9.000	9.000
1090	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
1110	643.0100	TRAFFIC CONTROL (PROJECT) 02. 6145-00-74	EACH	1.000	1.000
1120	643.0300	TRAFFIC CONTROL DRUMS	DAY	46,170.000	46,170.000
1130	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	1,467.000	1,467.000
1140	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	7,534.000	7,534.000
1150	643.0500	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	EACH	110.000	110.000
1160	643.0600	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	EACH	110.000	110.000
1170	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	15,068.000	15,068.000
1180	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	9,445.000	9,445.000
1190	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	442.000	442.000
1200	643.0900	TRAFFIC CONTROL SIGNS	DAY	20,500.000	20,500.000
1210	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	12,410.000	12,410.000
1220	646.0600	REMOVING PAVEMENT MARKINGS	LF	2,000.000	2,000.000
1230	646.0841.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH	LF	1,965.000	1,965.000
1240	646.0843.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH	LF	1,075.000	1,075.000
1250	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	16.000	16.000
1260	647.0176	PAVEMENT MARKING ARROWS EPOXY TYPE 3	EACH	1.000	1.000
1270	647.0206	PAVEMENT MARKING ARROWS BIKE LANE EPOXY	EACH	1.000	1.000
1280	647.0306	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY	EACH	1.000	1.000
1290	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	6.000	6.000
1300	647.0456	PAVEMENT MARKING CURB EPOXY	LF	20.000	20.000
1310	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	181.000	181.000
1320	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	4.000	4.000
1330	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	110.000	110.000
1340	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	LF	740.000	740.000
1350	647.0776	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH	LF	465.000	465.000
1360	647.0856	PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY	SF	32.000	32.000
1370	647.0955	REMOVING PAVEMENT MARKINGS ARROWS	EACH	8.000	8.000
1380	647.0965	REMOVING PAVEMENT MARKINGS WORDS	EACH	3.000	3.000
1390	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	13,000.000	13,000.000
1400	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	29,000.000	29,000.000
1410	649.0701	TEMPORARY PAVEMENT MARKING 8-INCH	LF	1,160.000	1,160.000
1420	649.0801	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH	LF	780.000	780.000
1430	649.1100	TEMPORARY PAVEMENT MARKING STOP LINE 18-INCH	LF	160.000	160.000

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DATE 05APR13 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	6145-00-74 QUANTITY
1440	649.1200	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 18-INCH	LF	106.000	106.000
1450	649.1700	TEMPORARY PAVEMENT MARKING ARROWS	EACH	26.000	26.000
1460	649.1800	TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE	EACH	21.000	21.000
1470	649.1900	TEMPORARY PAVEMENT MARKING WORDS	EACH	7.000	7.000
1480	649.2000	TEMPORARY PAVEMENT MARKING WORDS REMOVABLE TAPE	EACH	8.000	8.000
1490	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	49.000	49.000
1500	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	2,870.000	2,870.000
1510	650.5000	CONSTRUCTION STAKING BASE	LF	700.000	700.000
1520	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	208.000	208.000
1530	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	2,570.000	2,570.000
1550	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 02. 6145-00-74	LS	1.000	1.000
1560	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 6145-00-74	LS	1.000	1.000
1570	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	3,170.000	3,170.000
1590	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	1,770.000	1,770.000
1600	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	1,610.000	1,610.000
1620	652.0800	CONDUIT LOOP DETECTOR	LF	240.000	240.000
1630	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	4.000	4.000
1640	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	7.000	7.000
1650	653.0905	REMOVING PULL BOXES	EACH	14.000	14.000
1660	654.0101	CONCRETE BASES TYPE 1	EACH	4.000	4.000
1670	654.0102	CONCRETE BASES TYPE 2	EACH	1.000	1.000
1690	654.0110	CONCRETE BASES TYPE 10	EACH	1.000	1.000
1700	654.0113	CONCRETE BASES TYPE 13	EACH	4.000	4.000
1710	654.0217	CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL	EACH	1.000	1.000
1720	655.0210	CABLE TRAFFIC SIGNAL 3-14 AWG	LF	120.000	120.000
1730	655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	LF	515.000	515.000
1740	655.0240	CABLE TRAFFIC SIGNAL 7-14 AWG	LF	85.000	85.000
1750	655.0250	CABLE TRAFFIC SIGNAL 9-14 AWG	LF	460.000	460.000
1760	655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	LF	485.000	485.000
1770	655.0320	CABLE TYPE UF 2-10 AWG GROUNDED	LF	470.000	470.000
1780	655.0505	ELECTRICAL WIRE TRAFFIC SIGNALS 14 AWG	LF	1,770.000	1,770.000
1790	655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	LF	750.000	750.000
1800	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	580.000	580.000
1840	655.0700	LOOP DETECTOR LEAD IN CABLE	LF	1,220.000	1,220.000
1850	655.0800	LOOP DETECTOR WIRE	LF	965.000	965.000
1860	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. USH 12 & STH 23	LS	1.000	1.000
1880	657.0100	PEDESTAL BASES	EACH	4.000	4.000
1890	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	1.000	1.000
1900	657.0315	POLES TYPE 4	EACH	1.000	1.000
1910	657.0420	TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT	EACH	4.000	4.000
1920	657.1350	INSTALL POLES TYPE 10	EACH	1.000	1.000
1930	657.1355	INSTALL POLES TYPE 12	EACH	2.000	2.000
1940	657.1360	INSTALL POLES TYPE 13	EACH	2.000	2.000
1950	657.1520	INSTALL MONOTUBE ARMS 20-FT	EACH	1.000	1.000
1960	657.1540	INSTALL MONOTUBE ARMS 40-FT	EACH	1.000	1.000

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DATE 05APR13 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	6145-00-74 QUANTITY
1970	657.1545	INSTALL MONOTUBE ARMS 45-FT	EACH	1.000	1.000
1980	657.1550	INSTALL MONOTUBE ARMS 50-FT	EACH	1.000	1.000
1990	657.1555	INSTALL MONOTUBE ARMS 55-FT	EACH	1.000	1.000
2000	657.1815	INSTALL LUMINAIRE ARMS STEEL 15-FT	EACH	4.000	4.000
2010	658.0500	PEDESTRIAN PUSH BUTTONS	EACH	8.000	8.000
2020	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 01. USH 12 & STH 23	LS	1.000	1.000
2030	659.0125	LUMINAIRES UTILITY HPS 250 WATTS	EACH	4.000	4.000
2040	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 01. USH 12 & STH 23	LS	1.000	1.000
2050	670.0100	FIELD SYSTEM INTEGRATOR	LS	1.000	1.000
2060	670.0200	ITS DOCUMENTATION	LS	1.000	1.000
2070	673.0105	COMMUNICATION VAULT TYPE 1	EACH	6.000	6.000
2080	675.0400.S	INSTALL ETHERNET SWITCH	EACH	1.000	1.000
2090	678.0036	INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT	LF	3,750.000	3,750.000
2100	678.0200	FIBER OPTIC SPLICE ENCLOSURE	EACH	1.000	1.000
2110	678.0300	FIBER OPTIC SPLICE	EACH	12.000	12.000
2120	678.0500	COMMUNICATION SYSTEM TESTING	LS	1.000	1.000
2130	690.0150	SAWING ASPHALT	LF	3,845.000	3,845.000
2140	690.0250	SAWING CONCRETE	LF	2,763.000	2,763.000
2150	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	4,500.000	4,500.000
2160	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR	HRS	2,000.000	2,000.000
2170	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	1,320.000	1,320.000
2190	SPV.0045	SPECIAL 01. PORTABLE CHANGEABLE MESSAGE SIGN	DAY	84.000	84.000
2200	SPV.0045	SPECIAL 02. TEMPORARY CROSSWALK	DAY	65.000	65.000
2210	SPV.0060	SPECIAL 01. 8-COUNT FIBER OPTIC CONNECTOR 200-FEET	EACH	1.000	1.000
2220	SPV.0060	SPECIAL 02. COVER PLATE TEMPORARY BURIED	EACH	4.000	4.000
2300	SPV.0060	SPECIAL 10. BENCH	EACH	2.000	2.000
2310	SPV.0060	SPECIAL 11. BACKLESS BENCH	EACH	2.000	2.000
2320	SPV.0060	SPECIAL 12. ADJUST EXISTING SANITARY SEWER MANHOLE	EACH	5.000	5.000
2330	SPV.0060	SPECIAL 13. ADJUST EXISTING WATER CURB STOP LESS THAN 6-INCHES	EACH	5.000	5.000
2340	SPV.0060	SPECIAL 14. ADJUST EXISTING WATER CURB STOP 6-INCHES OR GREATER	EACH	4.000	4.000
2350	SPV.0060	SPECIAL 15. ADJUST EXISTING WATER VALVE BOX 6-INCHES OR LESS	EACH	9.000	9.000
2360	SPV.0060	SPECIAL 16. ADJUST EXISTING WATER VALVE BOX GREATER THAN 6-INCHES	EACH	8.000	8.000
2370	SPV.0060	SPECIAL 17. ADJUST EXISTING HYDRANT	EACH	3.000	3.000
2380	SPV.0060	SPECIAL 18. REMOVE, SALVAGE, AND RELOCATE EXISTING HYDRANT	EACH	1.000	1.000
2390	SPV.0060	SPECIAL 19. 4-INCH WATER MAIN CAP	EACH	1.000	1.000
2400	SPV.0060	SPECIAL 20. 4-INCH WATER MAIN PLUG	EACH	1.000	1.000
2410	SPV.0060	SPECIAL 21. 8-INCH WATER MAIN PLUG	EACH	1.000	1.000
2420	SPV.0060	SPECIAL 22. YARD HYDRANT	EACH	1.000	1.000
2430	SPV.0060	SPECIAL 23. ABANDON EXISTING 1-INCH WATER SERVICE	EACH	1.000	1.000
2440	SPV.0060	SPECIAL 24. ABANDON EXISTING 1.5-INCH WATER SERVICE	EACH	3.000	3.000

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DATE 05APR13 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	6145-00-74 QUANTITY
2450	SPV.0060	SPECIAL 25. ABANDON EXISTING 2-INCH WATER SERVICE	EACH	1.000	1.000
2460	SPV.0060	SPECIAL 26. ABANDON EXISTING 4-INCH WATER SERVICE	EACH	1.000	1.000
2470	SPV.0060	SPECIAL 27. 1-INCH WATER CORPORATION CURB STOP AND BOX	EACH	2.000	2.000
2480	SPV.0060	SPECIAL 28. 35' FLAG POLE	EACH	1.000	1.000
2490	SPV.0060	SPECIAL 29. DUCTILE IRON 22.5-DEGREE BEND, 6-INCH	EACH	1.000	1.000
2500	SPV.0060	SPECIAL 30. DUCTILE IRON 45-DEGREE BEND, 12-INCH	EACH	4.000	4.000
2510	SPV.0060	SPECIAL 31. REMOVE AND SALVAGE EXISTING WATER VALVE AND BOX	EACH	1.000	1.000
2520	SPV.0060	SPECIAL 32. 8-INCH X 12-INCH TAPPING SLEEVE	EACH	1.000	1.000
2530	SPV.0060	SPECIAL 33. 8-INCH WATER VALVE AND BOX	EACH	1.000	1.000
2540	SPV.0060	SPECIAL 34. CONNECT TO EXISTING WATER CORPORATION	EACH	1.000	1.000
2550	SPV.0060	SPECIAL 35. CONNECT TO EXISTING WATER MAIN	EACH	2.000	2.000
2560	SPV.0060	SPECIAL 36. EXPOSING EXISTING UTILITY	EACH	20.000	20.000
2570	SPV.0060	SPECIAL 37. 30' FLAG POLE	EACH	2.000	2.000
2580	SPV.0090	SPECIAL 01. REMOVING PAVEMENT MARKINGS WATER BLASTING	LF	6,400.000	6,400.000
2590	SPV.0090	SPECIAL 02. CONCRETE CURB & GUTTER 24-INCH	LF	144.000	144.000
2600	SPV.0090	SPECIAL 03. CONCRETE CURB & GUTTER 66-INCH TYPE A	LF	2,680.000	2,680.000
2610	SPV.0090	SPECIAL 04. SPLIT RAIL WOOD FENCE TWO RAILS	LF	221.000	221.000
2640	SPV.0090	SPECIAL 07. 1-INCH COPPER WATER SERVICE	LF	142.000	142.000
2650	SPV.0090	SPECIAL 08. DUCTILE IRON WATER MAIN, 6-INCH	LF	18.000	18.000
2660	SPV.0090	SPECIAL 09. DUCTILE IRON WATER MAIN, 8-INCH	LF	32.000	32.000
2670	SPV.0090	SPECIAL 10. DUCTILE IRON WATER MAIN, 12-INCH	LF	14.000	14.000
2680	SPV.0105	SPECIAL 01. CONCRETE PAVEMENT JOINT LAYOUT	LS	1.000	1.000
2690	SPV.0105	SPECIAL 02. TRAFFIC SIGNALS (USH 12/WHITLOCK STREET/STH 23)	LS	1.000	1.000
2750	SPV.0165	SPECIAL 03. CONCRETE SIDEWALK 5-INCH STAMPED AND COLORED	SF	4,605.000	4,605.000
2760	SPV.0165	SPECIAL 04. COLORED STAMPED CONCRETE RAISED MEDIAN	SF	1,930.000	1,930.000
2770	SPV.0165	SPECIAL 05. RIGID INSULATION	SF	480.000	480.000
2790	SPV.0180	SPECIAL 01. GEOGRID REINFORCEMENT	SY	5,600.000	5,600.000

3

3

CLEARING AND GRUBBING

LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	202.0105 ROADSIDE CLEARING STA
USH 12			
216+00 - 217+00	1	1	---
222+00 - 224+00	---	2	2
224+00 - 225+00	---	---	1
229+00 - 230+00	1	1	---
BIRNEY STREET ALLEY			
13+71'BS' - 16+13'BS'	4	4	---
PROJECT TOTALS	**6**	**8**	**3**

REMOVING PAVEMENT

LOCATION	204.0100 SY
USH 12	
213+00 - 219+00	3,550
219+00 - 225+00	3,600
225+00 - 230+00	3,750
230+00 - 235+20	1,800
STH 23	
315+80 - 318+00	45
PROJECT TOTAL	**12,745**

REMOVING INLETS

LOCATION	204.0220 EACH
USH 12	
214+09, 23' RT	1
216+14, 26' RT	1
216+88, 23' RT	1
220+98, 32' LT	1
221+00, 32' RT	1
221+47, 32' LT	1
221+49, 32' RT	1
224+76, 30' RT	1
225+42. 71' RT	1
225+53, 31' LT	1
226+56, 27' RT	1
227+72, 45' RT	1
229+16, 18' RT	1
230+23, 20' RT	1
230+25, 26' LT	1
232+16, 24' RT	1
233+43, 24' RT	1
235+14, 24' RT	1
STH 23	
318+23, 44' RT	1
BIRNEY STREET ALLEY	
13+86, 12' RT	1
PROJECT TOTAL	**20**

REMOVING STORM SEWER

LOCATION	204.0245.01 8-INCH LF	204.0245.02 10-INCH LF	204.0245.03 12-INCH LF	204.0245.04 15-INCH LF	204.0245.05 18-INCH LF
USH 12					
214+09 - 216+88 RT	---	---	280	---	---
216+88 RT	10	---	---	---	---
220+80 - 221+48 LT/RT	---	---	200	---	---
221+48 - 225+67 RT	---	---	---	---	430
225+52 - 318+23 (STH 23) LT/RT	---	---	180	---	---
226+55 - 235+20 RT	---	---	---	---	853
227+72 RT	---	20	---	---	---
229+16 RT	---	---	---	4	---
229+50 RT	---	---	---	16	---
230+23 LT/RT	---	---	45	---	---
PROJECT TOTALS	**10**	**20**	**425**	**20**	**1,283**

REMOVING CURB & GUTTER

LOCATION	204.0150 LF
USH 12	
213+00 - 219+00	45
219+00 - 225+00	110
225+00 - 230+00	50
STH 23	
315+80 - 318+00	440
BIRNEY STREET ALLEY	
13+71'BS' - 16+13'BS'	30
PROJECT TOTAL	**675**

REMOVING MANHOLES

LOCATION	204.0210 EACH
USH 12	
225+81, 44' LT	1
PROJECT TOTAL	**1**

REMOVING CONCRETE SIDEWALK

LOCATION	204.0155 SY
USH 12	
213+00 - 219+00 LT/RT	560
219+00 - 225+00 LT/RT	670
225+00 - 230+00 LT/RT	610
230+00 - 235+20 LT/RT	370
STH 23	
315+80 - 318+00	300
PROJECT TOTAL	**2,510**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

BASE COURSE ITEMS

LOCATION	*** 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	** 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
USH 12		
213+00 - 219+00	---	1,900
219+00 - 225+00	---	2,200
225+00 - 230+00	---	2,200
230+00 - 235+20	---	680
STH 23		
315+80 - 318+00	---	680
DELAVAN STREET		
9+00'DS' - 11+00'DS'	---	90
JUDSON STREET		
9+00'JS' - 11+00'JS'	---	110
ADAMS STREET		
	---	100
BIRNEY STREET ALLEY		
13+71'BS' - 16+13'BS'	---	280
UNDISTRIBUTED	315	412
PROJECT TOTALS	**315**	**8,652**

**ADDITIONAL QUANTITIES SHOWN ELSEWHERE.
SEE TEMPORARY PAVEMENT ITEMS AND CONCRETE SIDEWALK TABLES.
***SEE DRIVEWAY CONSTRUCTION DETAIL, TO BE USED FOR TEMPORARY ACCESS AS DIRECTED BY THE ENGINEER.

FINISHING ROADWAY

LOCATION	213.0100 EACH
USH 12 (I.D. 6145-00-74)	1
PROJECT TOTAL	**1**

ABANDONING SEWER

LOCATION	204.0291.S CY
CATEGORY 0010	
USH 12	
230+23 LT/RT*	2
PROJECT TOTALS	**2**

*EXISTING PIPE TO REMAIN FUNCTIONAL IN WINTER (STAGE 2).
BULKHEAD EXISTING 12" STORM SEWER IN MANHOLE 313 IN SPRING (STAGE 3).

CONCRETE PAVEMENT ITEMS

LOCATION	320.0135 CONCRETE BASE 7-INCH SY	415.0095 CONCRETE PAVEMENT 9 1/2-INCH SY	415.1150.S CONCRETE PAVEMENT FAST TRACK 9 1/2-INCH SY
USH 12			
213+00 - 219+00	---	4,000	---
219+00 - 225+00	---	4,550	---
225+00 - 230+00	---	3,390	460
230+00 - 235+20	160	1,100	---
STH 23			
315+80 - 318+00	---	1,460	---
PROJECT TOTALS	**160**	**14,500**	**460**

CONCRETE PAVEMENT GAPS

STAGE	ROADWAY	* LOCATION	415.0210 EACH
STAGE 1B	USH 12	N DELAVAN ST	1
		N JUDSON ST	1
		STH 23	1
		E ADAMS ST	1
STAGE 3	USH 12	N DELAVAN ST	1
		N JUDSON ST	1
		STH 23	1
PROJECT TOTALS			**7**

* FOR INFORMATION ONLY

CONCRETE DRIVEWAY ITEMS

LOCATION	416.0270 CONCRETE DRIVEWAY HES 7-INCH SY
USH 12	
213+00 - 219+00	265
219+00 - 225+00	175
225+00 - 230+00	34
230+00 - 235+20	475
STH 23	
315+80 - 318+00	84
BIRNEY STREET ALLEY	
13+71'BS' - 16+13'BS'	14
PROJECT TOTALS	**1,047**

DRILLED TIE BARS

LOCATION	416.0610 EACH
USH 12	
213+00 - 219+00	19
219+00 - 225+00	8
225+00 - 230+00	8
230+00 - 235+20	102
STH 23	
315+80 - 318+00	4
BIRNEY STREET ALLEY	
13+71'BS' - 16+13'BS'	4
PROJECT TOTAL	**145**

DRILLED DOWEL BARS

LOCATION	416.0620 EACH
USH 12	
213+00 RT	21
213+25 LT	19
235+20	16
PROJECT TOTAL	**56**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

EARTHWORK SUMMARY

LOCATION	205.0100 EXCAVATION COMMON CY	205.0501.S * EXCAVATION, HAULING, AND DISPOSAL OR PETROLEUM CONTAMINATED SOIL TON	312.0110 SELECT CRUSHED MATERIAL TON	607.5000 STORM SEWER ROCK EXCAVATION CY	612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH LF	SPV.0180.01 GEOGRID REINFORCEMENT SY
USH 12						
STAGE 1A	661	---	---	---	---	130
STAGE 1B	3,682	100	---	---	---	1,900
STAGE 2A	808	---	---	---	---	484
STAGE 3	3,430	---	---	---	---	1,900
STAGE 4A	458	---	---	---	---	167
STAGE 4B	141	---	---	---	---	42
STH 23						
STAGE 1A	54	---	---	---	---	8
STAGE 1B	649	---	---	---	---	325
STAGE 2A	371	---	---	---	---	108
STAGE 3	649	---	---	---	---	325
STAGE4A	391	---	---	---	---	67
BIRNEY STREET						
STAGE 1B	184	---	---	---	---	144
UNDISTRIBUTED FOR STORM SEWER EXCAVATIO	---	---	---	500	---	---
UNDISTRIBUTED FOR EBS**	2,444	---	4,888	---	3,666	---
PROJECT TOTALS	**13,920**	**100**	**4,888**	**500**	**3,666**	**5,600**

*SEE SPECIAL PROVISIONS FOR LOCATION.
**EBS IS UNDISTRIBUTED AND ESTIMATED AT 30% OF THE ROADWAY FOOTPRINT TO A DEPTH OF 16 INCHES. ASSUMES EBS AREAS WILL BE BACKFILLED WITH SELECT CRUSHED MATERIAL.

HMA PAVEMENT ITEMS

LOCATION	455.0120 ASPHALTIC MATERIAL PG 64-28 TON	455.0605 TACK COAT GAL	460.1101 HMA PAVEMENT TYPE E-1 TON	460.1110 HMA PAVEMENT TYPE E-10 TON
USH 12				
230+00 - 235+20	3	10	---	40
STH 23				
315+80 - 318+00	3	11	---	42
DELAVAN STREET				
9+00'DS' - 11+00'DS'	2	5	23	---
JUDSON STREET				
9+00'JS' - 11+00'JS'	2	6	26	---
ADAMS STREET				
	2	5	23	---
BIRNEY STREET ALLEY				
13+71'BS' - 16+13'BS'	5	13	88	---
PROJECT TOTALS	**17**	**50**	**160**	**82**

TEMPORARY PAVEMENT ITEMS

STAGE	305.0120 ** BASE AGGREGATE DENSE 1 1/4-INCH TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0310 ASPHALTIC CURB LF
STAGE 1A	770	205	660
STAGE 1B	410	155	---
STAGE 2A	1,350	500	---
PROJECT TOTALS	**2,530**	**860**	**660**

**ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE BASE COURSE ITEMS AND CONCRETE SIDEWALK TABLES.

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

LOCATION	465.0120 TON
USH 12	
213+00 - 219+00	77
219+00 - 225+00	90
225+00 - 230+00	45
230+00 - 235+20	17
STH 23	
315+80 - 318+00	16
N. DELAVAN STREET	
9+00'DS' - 11+00'DS'	1
PROJECT TOTAL	**246**

WALL MODULAR BLOCK GRAVITY

LOCATION	532.0200.S WALL MODULAR BLOCK GRAVITY SF
USH 12	
214+85 - 215+55	280
218+03 - 218+37	160
STH 23	
316+34 - 318+06	410
PROJECT TOTALS	**850**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER STRUCTURES

STRUCTURE NUMBER	STATION	OFFSET	520.8000 CONCRETE COLLARS FOR PIPE EACH	611.1003 CATCH BASIN 3-FT DIA EACH	611.1004 CATCH BASIN 4-FT DIA EACH	611.1230 CATCH BASIN 2X3-FT EACH	611.2004 MH 4-FT DIA EACH	611.2005 MH 5-FT DIA EACH	611.2006 MH 6-FT DIA EACH	611.2007 MH 7-FT DIA EACH	611.3004 INLETS 4-FT DIA EACH	611.3901 INLET MEDIAN 1 GRATE EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0639 INLET COVERS TYPE H-S EACH	611.0645 INLET COVERS TYPE MS-A EACH	611.0651 INLET COVERS TYPE S EACH	611.0666 INLET COVERS TYPE Z EACH	611.8115 ADJUSTING INLET COVERS EACH	RIM OR FLANGE ELEV	STR DEPTH FEET	COMMENTS
300A	216+89.5	34.0' RT	---	---	---	---	---	---	---	---	1	---	---	1	---	---	---	---	888.44	2.1	CONNECT TO EXISTING 8" PIPE TO THE NORTH; NO SUMP REQUIRED
300B	216+92.5	34.0' LT	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	888.07	3.5	
300	216+89.5	24.0' RT	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	---	888.61	2.1	
301A	216+63.9	46.8' RT	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	888.56	4.1	
301B	216+25.9	52.9' RT	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	887.58	3.5	
301	216+25.9	24.0' RT	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	---	887.33	1.6	
302A	214+08.7	33.2' RT	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	881.63	4.9	
302B	214+04.9	30.6' LT	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	879.70	4.1	
207	214+09.3	23.7' RT	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	---	881.52	3.9	CONNECT TO EXISTING 18" PIPE TO THE EAST
303A	220+89.2	45.7' LT	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	N/A	N/A	CONNECT TO EXISTING 12" PIPE TO THE SOUTHEAST
303B	220+91.0	35.9' LT	---	---	1	---	---	---	---	---	---	---	---	1	---	---	---	---	890.40	4.3	
303	221+04.9	53.1' LT	---	---	1	---	---	---	---	---	---	---	---	1	---	---	---	---	890.63	5.0	
304A	221+06.9	62.6' RT	---	---	---	---	---	---	---	---	1	---	---	1	---	---	---	---	890.45	2.7	NO SUMP REQUIRED
304B	221+39.3	53.4' RT	---	---	1	---	---	---	---	---	---	---	---	1	---	---	---	---	890.64	5.6	
304C	220+80.4	34.0' RT	---	---	1	---	---	---	---	---	---	---	---	1	---	---	---	---	890.80	4.8	
304D	221+41.9	53.1' LT	1	---	---	---	---	---	---	---	1	---	---	1	---	---	---	---	890.33	3.1	TEMPORARY COLLAR REQUIRED OVER WINTER; NO SUMP REQUIRED
304	221+48.7	32.0' RT	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	---	890.34	4.5	
305A	223+91.7	50.0' RT	---	---	1	---	---	---	---	---	---	---	---	1	---	---	---	---	888.32	5.0	
305B	224+26.8	61.3' LT	---	1	---	---	---	---	---	---	---	---	---	---	---	1	---	---	887.90	4.1	REQUIRES FLAT TOP WITH 2'X2' OPENING FOR INLET COVER
305C	224+18.0	34.0' LT	---	---	1	---	---	---	---	---	---	---	---	1	---	---	---	---	888.23	4.8	
305	224+00.7	31.5' RT	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	888.62	4.3	
803	09+54.9	2.0' RT	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	887.42	3.8	CONNECT TO EXISTING 30" PIPE TO THE SOUTH
306	09+66.0	2.0' RT	---	---	---	---	---	---	1	---	---	---	1	---	---	---	---	---	887.35	3.8	
306A	225+50.0	34.0' LT	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	887.39	4.5	REQUIRES FLAT TOP WITH 2'X3' OPENING FOR INLET COVER
307A	225+31.3	3.0' LT	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1	---	888.06	5.4	REQUIRES FLAT TOP WITH 2' DIAMETER OPENING FOR INLET COVER
307	225+56.7	3.0' LT	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	---	887.98	5.1	TEMPORARILY CONNECT TO EXISTING 12" PIPE TO SOUTH OVER WINTER
308	225+45.0	34.0' RT	---	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---	887.78	5.5	REQUIRES FLAT TOP WITH 2'X3' OPENING FOR INLET COVER
309A	226+99.3	20.5' RT	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	887.08	5.0	
309B	227+09.9	50.4' RT	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	886.91	4.6	
309	227+00.4	28.3' RT	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	887.20	5.2	REQUIRES FLAT TOP WITH 2'X3' OPENING FOR INLET COVER
310A	227+73.1	62.8' RT	---	---	---	---	---	---	---	---	---	1	---	---	1	---	---	---	886.40	3.0	
310B	227+73.7	37.8' RT	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	886.37	4.6	
310	227+74.0	26.1' RT	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	886.58	4.6	
311A	228+66.0	43.5'LT	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	885.80	4.3	
311B	229+15.9	39.0' LT	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	885.58	4.3	
311C	229+15.9	3.5' LT	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1	---	886.25	5.1	REQUIRES FLAT TOP WITH 2' DIAMETER OPENING FOR INLET COVER
311D	229+15.9	3.5' RT	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1	---	886.25	5.1	REQUIRES FLAT TOP WITH 2' DIAMETER OPENING FOR INLET COVER
311	229+15.9	20.7' RT	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	885.92	4.7	CONNECT TO EXISTING 15" PIPE TO THE EAST
312A	229+50.7	63.5' RT	---	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---	885.52	4.2	REQUIRES FLAT TOP WITH 2'X2' OPENING FOR INLET COVER. CONNECT TO EXISTING 12" PIPE TO THE NORTH AND 15" PIPE TO THE EAST.
312B	229+40.3	31.0' RT	---	1	---	---	---	---	---	---	---	---	---	1	---	---	---	---	885.39	4.4	
312C	229+60.0	63.7' RT	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	885.78	N/A	EXISTING INLET AND PIPE TO REMAIN. ADJUST COVER.
312	229+40.3	20.5' RT	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	885.58	4.5	
313A	230+22.6	27.5' RT	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	884.25	4.3	
313	230+22.6	20.5' RT	---	---	---	---	---	---	---	1	---	---	1	---	---	---	---	---	884.36	3.8	TEMPORARILY CONNECT TO EXISTING 12" PIPE OVER WINTER. ABANDON EXISTING 12" PIPE IN SPRING 2014.
314A	230+70.0	27.5' LT	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	883.21	4.2	
314B	230+70.0	3.5' LT	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1	---	883.52	4.9	REQUIRES FLAT TOP WITH 2' DIAMETER OPENING FOR INLET COVER
314C	230+70.0	3.5' RT	---	1	---	---	---	---	---	---	---	---	---	---	---	---	1	---	883.52	5.1	REQUIRES FLAT TOP WITH 2' DIAMETER OPENING FOR INLET COVER
314	230+70.0	20.5' RT	---	---	---	---	---	---	---	1	---	---	1	---	---	---	---	---	883.32	3.0	LOW CLEARANCE OVER SANITARY SEWER LATERALS. EXCAVATE WITH CAUTION.
315	232+15.8	23.6' RT	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	879.32	3.9	REQUIRES FLAT TOP WITH 2'X3' OPENING FOR INLET COVER
316	233+43.4	23.5' RT	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	874.59	3.7	REQUIRES FLAT TOP WITH 2'X3' OPENING FOR INLET COVER
317	235+14.3	23.5' RT	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	867.98	2.8	REQUIRES FLAT TOP WITH 2'X3' OPENING FOR INLET COVER. CONNECT TO EXISTING 18" PIPE TO THE NORTHEAST.
400	13+86.7	12.2' RT	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	1	N/A	N/A	REMOVE EXISTING INLET COVER. ADJUST & REPLACE WITH TYPE S COVER.
TOTALS			2	7	7	12	4	7	6	2	3	1	13	28	1	3	5	2			

1. RIM ELEVATIONS ARE GIVEN AT THE GRATE FLANGE FOR INLETS ON 66-INCH CURB & GUTTER, CURB FLANGE LINE FOR INLET GRATES ON ALL OTHER TYPES OF CURB AND GUTTER, OR THE CENTER OF THE MANHOLE STRUCTURE FOR MANHOLES.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES OR TO THE END OF PIPE WHERE THERE IS AN ENDWALL.
3. PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES.
4. STR DEPTH = RIM ELEV - INV - CASTING HEIGHT - ADJUSTMENT + 2' SUMP (CATCH BASINS ONLY).
   CASTING HEIGHT = 8 7/8" FOR TYPE J COVERS; 6" FOR TYPE H-S AND S COVERS; 2" FOR TYPE MS-A COVERS; AND 7" FOR TYPE Z COVERS.
   ADJUSTMENT = 4" TYPICAL (NO ADJUSTMENT FOR MEDIAN INLETS)

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER PIPES

					608.0412	608.0415	608.0418	608.0424	608.0430	608.0436	610.0424	610.0429	
					STORM SEWER PIPE REINFORCED CONCRETE								
					CLASS IV						CLASS HE-IV	CLASS HE-IV	
FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE (FT/FT)	12" (LF)	15" (LF)	18" (LF)	24" (LF)	30" (LF)	36" (LF)	24X38-INCH (LF)	29X45-INCH (LF)	COMMENTS
300A	300	885.52	885.42	0.0100	10.0	---	---	---	---	---	---	---	CONNECT TO EXISTING 8" PIPE TO THE NORTH; NO SUMP REQUIRED
300B	300	885.71	885.42	0.0050	58.1	---	---	---	---	---	---	---	
300	301	885.42	885.10	0.0050	63.7	---	---	---	---	---	---	---	
301A	301B	885.64	885.25	0.0101	38.5	---	---	---	---	---	---	---	
301B	301	885.25	885.10	0.0052	28.9	---	---	---	---	---	---	---	
301	207	884.60	876.49	0.0371	---	---	218.5	---	---	---	---	---	
302A	207	877.94	876.99	0.1000	9.5	---	---	---	---	---	---	---	
302B	207	876.76	876.49	0.0050	54.4	---	---	---	---	---	---	---	
207	EXIST	876.49	N/A	N/A	---	---	---	---	---	---	---	---	CONNECT TO EXISTING 18" PIPE TO THE EAST
303A	303B	887.38	887.28	0.0100	10.0	---	---	---	---	---	---	---	CONNECT TO EXISTING 12" PIPE TO THE SOUTHEAST
303B	303	887.28	887.06	0.0100	22.2	---	---	---	---	---	---	---	
303	304D	886.81	886.44	0.0100	---	36.9	---	---	---	---	---	---	
304A	304B	886.89	886.22	0.0200	33.7	---	---	---	---	---	---	---	NO SUMP REQUIRED
304B	304	886.22	885.75	0.0200	23.4	---	---	---	---	---	---	---	
304C	304	887.12	885.75	0.0200	68.4	---	---	---	---	---	---	---	
304D	304	886.44	885.50	0.0110	---	85.4	---	---	---	---	---	---	TEMPORARY COLLAR REQUIRED OVER WINTER; NO SUMP REQUIRED
304	305	884.75	883.24	0.0060	---	---	---	251.9	---	---	---	---	
305A	305	884.44	884.24	0.0100	20.5	---	---	---	---	---	---	---	
305B	305C	884.97	884.83	0.0050	28.7	---	---	---	---	---	---	---	REQUIRES FLAT TOP WITH 2'X2' OPENING FOR INLET COVER
305C	305	884.58	884.24	0.0050	---	67.8	---	---	---	---	---	---	
305	308	883.24	882.50	0.0051	---	---	---	144.4	---	---	---	---	
803	306	882.50	882.42	0.0074	---	---	---	---	11.1	---	---	---	CONNECT TO EXISTING 30" PIPE TO THE SOUTH
306	306A	882.42	882.02	0.0074	---	---	---	---	54.7	---	---	---	
306A	307	882.02	881.78	0.0074	---	---	---	---	31.7	---	---	---	REQUIRES FLAT TOP WITH 2'X3' OPENING FOR INLET COVER
307A	307	883.79	883.28	0.0200	25.4	---	---	---	---	---	---	---	REQUIRES FLAT TOP WITH 2' DIAMETER OPENING FOR INLET COVER
307	308	881.78	881.50	0.0074	---	---	---	---	38.8	---	---	---	TEMPORARILY CONNECT TO EXISTING 12" PIPE TO SOUTH OVER WINTER
308	309	881.50	881.19	0.0040	---	---	---	---	---	76.3	---	---	REQUIRES FLAT TOP WITH 2'X3' OPENING FOR INLET COVER
309A	309	883.27	883.19	0.0100	7.9	---	---	---	---	---	---	---	
309B	309	883.43	883.19	0.0100	24.0	---	---	---	---	---	---	---	
309	310	881.19	880.86	0.0045	---	---	---	---	---	73.7	---	---	REQUIRES FLAT TOP WITH 2'X3' OPENING FOR INLET COVER
310A	310B	883.23	882.98	0.0100	25.0	---	---	---	---	---	---	---	
310B	310	882.98	882.86	0.0100	11.7	---	---	---	---	---	---	---	
310	311	880.86	880.15	0.0050	---	---	---	---	---	142.0	---	---	
311A	311B	882.70	882.45	0.0050	50.1	---	---	---	---	---	---	---	
311B	311C	882.45	882.27	0.0050	35.5	---	---	---	---	---	---	---	
311C	311D	882.27	882.23	0.0050	7.0	---	---	---	---	---	---	---	REQUIRES FLAT TOP WITH 2' DIAMETER OPENING FOR INLET COVER
311D	311	882.23	882.15	0.0050	17.2	---	---	---	---	---	---	---	REQUIRES FLAT TOP WITH 2' DIAMETER OPENING FOR INLET COVER
311	312	880.15	880.01	0.0055	---	---	---	---	---	24.5	---	---	CONNECT TO EXISTING 15" PIPE TO THE EAST
312A	312B	882.46	882.12	0.0100	34.1	---	---	---	---	---	---	---	REQUIRES FLAT TOP WITH 2'X2' OPENING FOR INLET COVER. CONNECT TO EXISTING 12" PIPE TO THE NORTH AND 15" PIPE TO THE EAST.
312B	312	882.12	882.01	0.0100	10.5	---	---	---	---	---	---	---	
312C	312A	N/A	N/A	N/A	---	---	---	---	---	---	---	---	EXISTING INLET AND PIPE TO REMAIN. ADJUST COVER.
312	313	880.01	879.52	0.0060	---	---	---	---	---	82.3	---	---	
313A	313	881.08	880.94	0.0200	7.0	---	---	---	---	---	---	---	
313	314	879.52	879.19	0.0070	---	---	---	---	---	---	---	47.4	TEMPORARILY CONNECT TO EXISTING 12" PIPE OVER WINTER. ABANDON EXISTING 12" PIPE IN SPRING 2014.
314A	314B	880.15	879.67	0.0200	24.0	---	---	---	---	---	---	---	
314B	314C	879.67	879.53	0.0200	7.0	---	---	---	---	---	---	---	REQUIRES FLAT TOP WITH 2' DIAMETER OPENING FOR INLET COVER
314C	314	879.53	879.19	0.0200	17.0	---	---	---	---	---	---	---	REQUIRES FLAT TOP WITH 2' DIAMETER OPENING FOR INLET COVER
314	315	879.19	874.57	0.0320	---	---	---	---	---	---	144.3	---	LOW CLEARANCE OVER SANITARY SEWER LATERALS. EXCAVATE WITH CAUTION.
315	316	874.57	870.07	0.0350	---	---	---	---	---	---	128.6	---	REQUIRES FLAT TOP WITH 2'X3' OPENING FOR INLET COVER
316	317	870.07	864.38	0.0333	---	---	---	---	---	---	170.9	---	REQUIRES FLAT TOP WITH 2'X3' OPENING FOR INLET COVER
317	EXIST	864.38	N/A	N/A	---	---	---	---	---	---	---	---	REQUIRES FLAT TOP WITH 2'X3' OPENING FOR INLET COVER. CONNECT TO EXISTING 18" PIPE TO THE NORTHEAST.
400	EXIST	N/A	N/A	N/A	---	---	---	---	---	---	---	---	REMOVE EXISTING INLET COVER. ADJUST & REPLACE WITH TYPE S COVER.
TOTALS					773.4	190.1	218.5	396.3	136.3	398.8	443.8	47.4	

1. RIM ELEVATIONS ARE GIVEN AT THE GRATE FLANGE FOR INLETS ON 66-INCH CURB & GUTTER, CURB FLANGE LINE FOR INLET GRATES ON ALL OTHER TYPES OF CURB AND GUTTER, OR THE CENTER OF THE MANHOLE STRUCTURE FOR MANHOLES.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES OR TO THE END OF PIPE WHERE THERE IS AN ENDWALL.
3. PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES.
4. STR DEPTH = RIM ELEV - INV - CASTING HEIGHT - ADJUSTMENT + 2' SUMP (CATCH BASINS ONLY).
   CASTING HEIGHT = 8 7/8" FOR TYPE J COVERS; 6" FOR TYPE H-S AND S COVERS; 2" FOR TYPE MS-A COVERS; AND 7" FOR TYPE Z COVERS.
   ADJUSTMENT = 4" TYPICAL (NO ADJUSTMENT FOR MEDIAN INLETS)

ALL ITEMS CATEGORY 0010 UNLESS NOTED

CONCRETE ITEMS

LOCATION	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	620.0100 CONCRETE CORRUGATED MEDIAN SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	650.5500 CONST STAKING CURB GUTTER AND C&G LF	SPV.0090.02 CONCRETE CURB & GUTTER 24-INCH LF	SPV.0090.03 CONCRETE CURB & GUTTER 66-INCH TYPE A LF
USH 12								
213+00 - 219+00	---	105	---	---	---	---	---	1,060
219+00 - 225+00	---	54	---	---	40	---	---	1,080
225+00 - 230+00	645	550	---	410	60	---	---	540
230+00 - 235+20	160	730	---	---	---	---	---	---
STH 23								
315+80 - 318+00	---	440	---	---	20	---	---	---
DELAVAN STREET								
9+00'DS' - 11+00'DS' LT & RT	---	---	30	---	---	30	---	---
JUDSON STREET								
9+00'JS' - 11+00'JS' LT &RT	---	---	34	---	---	68	34	---
ADAMS STREET								
	---	---	---	---	---	110	110	---
BIRNEY STREET ALLEY								
13+71'BS' - 16+13'BS' LT & RT	---	---	30	---	---	---	---	---
PROJECT TOTALS	**805**	**1,879**	**94**	**410**	**120**	**208**	**144**	**2,680**

MOBILIZATION

LOCATION	619.1000 EACH
USH 12 (I.D. 6145-00-74)	1
PROJECT TOTAL	**1**

FIELD OFFICE TYPE C

LOCATION	642.5201 EACH
USH 12 (I.D. 6145-00-74)	1
PROJECT TOTAL	**1**

CONCRETE PAVEMENT JOINT LAYOUT

LOCATION	SPV.0105.01 LS
ID 6145-00-74	1
PROJECT TOTAL	**1**

CONCRETE SIDEWALK

LOCATION	** 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.1500 CONCRETE STEPS SF	513.2050.S RAILING PIPE LF
USH 12					
213+00 - 219+00	180	6,060	40	110	8
219+00 - 225+00	230	7,850	48	---	---
225+00 - 230+00	200	7,000	80	---	---
230+00 - 235+20	100	3,200	---	---	---
STH 23					
315+80 - 318+00	70	2,450	16	70	---
PROJECT TOTALS	**780**	**26,560**	**184**	**180**	**8**

**ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE BASE COURSE ITEMS AND TEMPORARY PAVEMENT ITEMS TABLE.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

EROSION CONTROL ITEMS

LOCATION	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.1905 MOBILIZATIONS EACH	628.1910 MOBILIZATIONS EMERGENCY EACH	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7560 TRACKING PADS EACH	628.7570 ROCK BAGS EACH
USH 12											
STA 213+00 - STA 219+00	---	350	175	50	---	---	0	0	8	---	---
STA 219+00 - STA 225+00	---	0	0	0	---	---	1	1	4	---	---
STA 225+00 - STA 230+00	---	0	0	0	---	---	3	3	11	---	---
STA 230+00 - STA 237+00	---	0	0	0	---	---	0	0	14	---	---
STH 23											
315+80 - 318+00	---	0	0	0	---	---	0	0	6	---	---
DELAVAN STREET											
STA 9+00'DS' - 11+00'DS'	---	0	0	0	---	---	---	---	6	---	---
JUDSON STREET											
STA 9+00'JS' - STA 11+00'JS'	---	0	0	0	---	---	---	---	4	---	---
WHITLOCK STREET											
	---	0	0	0	---	---	---	---	2	---	---
BIRNEY STREEET ALLEY											
STA 13+71'BS' - STA 16+13'BS'	---	200	100	---	---	---	---	---	1	---	---
UNDISTRIBUTED	100	100	100	100	15	10	10	10	20	5	50
PROJECT TOTALS	**100**	**650**	**375**	**150**	**15**	**10**	**14**	**14**	**76**	**5**	**50**

DUST CONTROL SURFACE TREATMENT

LOCATION	623.0200 SY
USH 12	
213+00 - 219+00	4,250
219+00 - 225+00	4,700
225+00 - 230+00	4,000
230+00 - 235+20	1,600
STH 23	
315+80 - 318+00	1,450
DELAVAN STREET	
9+00'DS' - 11+00'DS'	200
JUDSON STREET	
9+00'JS' - 11+00'JS'	225
ADAMS STREET	
	225
BIRNEY STREET ALLEY	
13+71'BS' - 16+13'BS'	470
PROJECT TOTAL	**17,120**

RESTORATION ITEMS

LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
USH 12								
STA 213+00 - STA 219+00	1,050	525	1	20	20	0	30	1,050
STA 219+00 - STA 225+00	930	465	1	20	20	0	30	930
STA 225+00 - STA 230+00	700	350	1	20	10	0	20	700
STA 230+00 - STA 235+20	430	215	1	10	10	0	20	430
STH 23								
STA 315+80 - STA 318+00	300	150	0	10	10	0	8	300
BIRNEY STREET ALLEY								
STA 13+71 - STA 16+13	330	165	0	10	10	0	9	330
WASTE SITE	0	0	0	0	0	200	0	0
UNDISTRIBUTED	1,000	500	100	100	100	0	100	1,000
PROJECT TOTALS	**4,740**	**2,370**	**104**	**190**	**180**	**200**	**217**	**4,740**

LANDMARK REFERENCE MONUMENTS

LOCATION	DESCRIPTION	621.0100 EACH
USH 12		
STA 213+81.633, 5.669' RT	ALIGNMENT PI	1
PROJECT TOTAL		**1**

NOTIFY ENGINEER AT LEAST 1 WEEK PRIOR TO PLACEMENT.

FENCE SAFETY

LOCATION	616.0700.S LF
USH 12	
219+00 - 225+00	180
PROJECT TOTAL	**180**

WATER

LOCATION	624.0100 MGAL
UNDISTRIBUTED	50
PROJECT TOTAL	**50**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

REMOVING SIGNS

SIGN #	SIGN CODE	SIGN MOUNTED ON SAME POST AS #	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	** 638.2102 MOVING SIGNS TYPE II EACH	** 638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
1R-1	R2-1	---	1	1	---	---	SPEED LIMIT __ MPH
1R-2	J1-1	---	1	1	---	---	JCT OR END ASSEMBLY
1R-3	R7-4MOD	1R-2	1	---	---	---	NO STOPPING STANDING OR PARKING
1R-4	W3-3	---	1	1	---	---	SIGNAL AHEAD SYMBOL
1R-5	R1-1	---	1	1	---	---	STOP SIGN
1R-6	R2-1	---	1	1	---	---	SPEED LIMIT __ MPH
1R-7	J3-1	---	1	1	---	---	DIRECTIONAL ASSEMBLY
1R-8	R1-1	---	1	1	---	---	STOP SIGN
1R-9	R3-8	---	1	1	---	---	LEFT, AHEAD / RIGHT ONLY
1R-10	D1-2	---	1	1	---	---	TWO DESTINATIONS ARROWS
1R-11	J3-1	---	1	1	---	---	DIRECTIONAL ASSEMBLY
1R-12	J4-1	---	1	1	---	---	REASSURANCE ASSEMBLY
1R-13	J4-1	---	1	1	---	---	REASSURANCE ASSEMBLY
1R-14	R7-1D	1R-13	1	---	---	---	NO PARKING ANY TIME DOUBLE ARROW
1R-15	R2-1	---	1	1	---	---	SPEED LIMIT __ MPH
1M-01		1R-15	---	---	1	---	POLICE DEPT (RIGHT ARROW)
1R-16	R7-4MOD	---	1	1	---	---	NO STOPPING STANDING OR PARKING
1M-02		---	---	---	1	1	BANK/POST OFFICE
1M-03		1M-02	---	---	1	---	BANK/POST OFFICE
1R-17	R1-1	---	1	1	---	---	STOP SIGN
1R-18	R1-1	---	1	1	---	---	STOP SIGN
1R-19	R2-1	---	1	1	---	---	SPEED LIMIT __ MPH
2R-1	J3-3	---	3	2	---	---	DIRECTIONAL ASSEMBLY
2R-2	R1-51	---	1	1	---	---	RIGHT TURN NO STOP
2R-3	R1-1	---	1	1	---	---	STOP SIGN
2R-4	J4-2	---	2	1	---	---	REASSURANCE ASSEMBLY
2M-1	D7-56R	---	---	---	1	---	BOAT LANDING RIGHT ARROW
2R-5	R1-1	---	1	1	---	---	STOP SIGN
2R-6	R7-4MOD	---	1	1	---	---	NO STOPPING STANDING OR PARKING
2R-7	R2-1	2R-6	1	---	---	---	SPEED LIMIT __ MPH
2R-8	J4-1	---	1	1	---	---	REASSURANCE ASSEMBLY
2R-9	R1-1	---	1	1	---	---	STOP SIGN
2R-10	D1-2	---	2	2	---	---	TWO DESTINATIONS ARROWS
2R-11	J2-1	---	1	1	---	---	ROUTE TURN ASSEMBLY
2M-2	D7-56L	---	---	---	1	---	BOAT LANDING LEFT ARROW
2R-12	S1-1	---	1	1	---	---	SCHOOL ADVANCE ZONE
2R-13	W16-9P	2R-12	1	---	---	---	AHEAD
2R-14	R3-8I	---	1	1	---	---	LEFT ONLY, LEFT, AHEAD, RIGHT
2R-15	R3-5L	---	1	1	---	---	ARROW UP LEFT/ONLY
2R-16	R3-6-V	2R-15	1	---	---	---	ARROW LEFT, AHEAD AND RIGHT
2R-17	R5-1	---	1	1	---	---	DO NOT ENTER
2R-18	R1-1F	---	1	1	---	---	STOP SIGN (FOLDING)
2R-19	R1-1F	---	1	1	---	---	STOP SIGN (FOLDING)
2R-20	J3-2	---	2	1	---	---	DIRECTIONAL ASSEMBLY
2R-21	W6-1	---	1	1	---	---	DIVIDED HIGHWAY AHEAD SYMBOL

ALL ITEMS CATEGORY 0010 UNLESS NOTED

REMOVING SIGNS

SIGN #	SIGN CODE	SIGN MOUNTED ON SAME POST AS #	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	** 638.2102 MOVING SIGNS TYPE II EACH	** 638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
2R-22	R7-1L	---	1	1	---	---	NO PARKING ANY TIME LEFT ARROW
2R-23	J4-2	---	2	2	---	---	REASSURANCE ASSEMBLY
2R-24	R2-1	---	1	1	---	---	SPEED LIMIT __ MPH
2R-25	R5-1A	2R-24	1	---	---	---	WRONG WAY
2R-26	R7-1L	ON LIGHT POLE	1	---	---	---	NO PARKING ANY TIME LEFT ARROW
2R-27	R3-55L	---	1	1	---	---	LEFT TURN LANE W/ARROW
2R-28	R6-2R	---	1	1	---	---	ONE WAY ARROW RIGHT
2R-29	R4-7	---	1	1	---	---	KEEP RIGHT SYMBOL
2R-30	R7-1D	---	1	1	---	---	NO PARKING ANY TIME DOUBLE ARROW
2R-31	R5-1	2R-30	1	---	---	---	DO NOT ENTER
2R-32	W6-2	---	1	1	---	---	DIVIDED HIGHWAY ENDS SYMBOL
2R-33	W6-2	---	1	1	---	---	DIVIDED HIGHWAY ENDS SYMBOL
2R-34	R3-8A	---	1	1	---	---	LEFT LANE MUST TURN LEFT, RT LN THRU/RT
2R-35	J3-2	---	2	2	---	---	DIRECTIONAL ASSEMBLY
2R-36	R7-51R	---	1	1	---	---	NO PARKING HERE TO CORNER RIGHT ARROW
2R-37	D1-2	---	2	2	---	---	TWO DESTINATIONS ARROWS
2R-38	J3-3	---	3	1	---	---	DIRECTIONAL ASSEMBLY
2R-39	J4-2	ON POWER POLE	1	---	---	---	REASSURANCE ASSEMBLY
2R-40	R1-1F	---	1	1	---	---	STOP SIGN (FOLDING)
2R-41	R5-1A	---	1	1	---	---	WRONG WAY
2R-42	R5-1A	---	1	1	---	---	WRONG WAY
2R-43	D9-2	ON POWER POLE	1	---	---	---	H (HOSPITAL)
2R-44	MB6-1	ON POWER POLE	1	---	---	---	ARW RIGHT LEFT OR AHEAD, BLUE
PROJECT TOTALS			**73**	**57**	**5**	**1**	

**ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE TRAFFIC CONTROL ITEMS.

OVERHEAD SIGNS

LOCATION	** 654.0113 CONCRETE BASE TYPE 13 EACH	657.1355 INSTALL POLES TYPE 12 EACH	657.1540 INSTALL MONOTUBE ARM 40-FT EACH	657.1555 INSTALL MONOTUBE ARM 55-FT EACH
USH 12				
S-45-23, STA 223+80, 54' RT	1	1	---	1
S-45-24, STA 228+71, 47' LT	1	1	1	---
PROJECT TOTALS	**2**	**2**	**1**	**1**

**ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE TRAFFIC SIGNAL - CONCRETE BASES TABLE.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PERMANENT SIGNING

SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE (in)	637.0202 SIGNS, TYPE II REFLECTIVE SIGN AREA (SF)	637.0402 SIGNS FOLDING TYPE II REFLECTIVE SIGN AREA (SF)	634.0616 POSTS WOOD 4X6-INCH X 16 FT (EACH)	634.0618 POSTS WOOD 4X6-INCH X 18 FT (EACH)	634.0620 POSTS WOOD 4X6-INCH X 20 FT (EACH)	SIGN MOUNTED ON SAME POST AS #	REMARKS
1-1	R2-1	2S	24X30	5.00	--	1	--	--	--	SPEED LIMIT __ MPH
1-2	R3-9C	2S	24X6	1.00	--	1	--	--	--	BEGIN
1-3	R3-9B	2S	24X36	6.00	--	--	--	--	1-2	CENTER LANE FOR LEFT TURNS ONLY
1-4	J1-1	2S	24X39	6.50	--	--	1	--	--	JCT OR END ASSEMBLY
	M2-1	--	--	--	--	--	--	--	--	JCT
	M1-6	--	--	--	--	--	--	--	--	STH MARKER 2 OR 3 DIGITS
1-5	R1-1	3	36X36	7.46	--	--	1	--	--	STOP SIGN
1-6	R3-9B	2S	24X36	6.00	--	--	1	--	--	CENTER LANE FOR LEFT TURNS ONLY
1-7	R2-1	2S	24X30	5.00	--	1	--	--	--	SPEED LIMIT __ MPH
1-8	W3-3	2S	36X36	9.00	--	--	2	--	--	SIGNAL AHEAD SYMBOL
1-9	J2-3	2S	72X57	28.50	--	--	--	2	--	ROUTE TURN ASSEMBLY
	M3-3	--	--	--	--	--	--	--	--	SOUTH
	M1-6	--	--	--	--	--	--	--	--	STH MARKER 2 OR 3 DIGITS
	M6-1	--	--	--	--	--	--	--	--	ARW RIGHT LEFT OR AHEAD
	M3-4	--	--	--	--	--	--	--	--	WEST
	M1-4	--	--	--	--	--	--	--	--	USH MARKER 2 OR 3 DIGITS
	M5-1R	--	--	--	--	--	--	--	--	ADV ARW RIGHT TURN
	M3-1	--	--	--	--	--	--	--	--	NORTH
	M1-6	--	--	--	--	--	--	--	--	STH MARKER 2 OR 3 DIGITS
	M5-1R	--	--	--	--	--	--	--	--	ADV ARW RIGHT TURN
1-10	R3-8V	2S	72X30	15.00	--	2	--	--	--	LEFT ONLY / AHEAD ONLY / AHEAD ONLY / RIGHT ONLY
1-11	R1-1	3	36X36	7.46	--	--	1	--	--	STOP SIGN
1-12	J2-1	2S	24X57	9.50	--	--	1	--	--	ROUTE TURN ASSEMBLY
	MB4-1	2S	24X12	2.00	--	--	--	--	--	ALTERNATE - BLUE
	M1-1	--	--	--	--	--	--	--	--	IH MARKER 2 DIGIT CUTOUT
	MB5-1R	--	--	--	--	--	--	--	--	ADV ARW RIGHT TURN, BLUE
1-13	D1-2	2S	72X30	15.00	--	2	--	--	--	TWO DESTINATIONS ARROWS
1M-1	--	--	--	--	--	1	--	--	--	POLICE DEPT (RIGHT ARROW)
1-14	R1-1	3	36X36	7.46	--	--	1	--	--	STOP SIGN
1-15	R3-9B	2S	24X36	6.00	--	--	1	--	--	CENTER LANE FOR LEFT TURNS ONLY
1-16	R2-1	2S	24X30	5.00	--	1	--	--	--	SPEED LIMIT __ MPH
1-17	R1-1	3	36X36	7.46	--	--	1	--	--	STOP SIGN
1-18	R3-9D	2S	24x6	1.00	--	1	--	--	--	END
1-19	R3-9B	2S	24X36	6.00	--	--	--	--	1-18	CENTER LANE FOR LEFT TURNS ONLY
1-20	R2-1	2S	24X30	5.00	--	1	--	--	--	SPEED LIMIT __ MPH
2-1	R3-20R	2S	24X36	6.00	--	1	--	--	--	BEGIN RIGHT TURN LANE with DOWN LEFT ARROW
2-2	R3-9D	2S	24x6	1.00	--	1	--	--	--	END
2-3	R3-9B	2S	24X36	6.00	--	--	--	--	2-2	CENTER LANE FOR LEFT TURNS ONLY
2-4	J3-3	2S	72X57	28.50	--	--	--	2	--	DIRECTIONAL ASSEMBLY
	M3-3	--	--	--	--	--	--	--	--	SOUTH
	M1-6	--	--	--	--	--	--	--	--	STH MARKER 2 OR 3 DIGITS
	M6-1	--	--	--	--	--	--	--	--	ARW RIGHT LEFT OR AHEAD
	M3-4	--	--	--	--	--	--	--	--	WEST
	M1-4	--	--	--	--	--	--	--	--	USH MARKER 2 OR 3 DIGITS

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PERMANENT SIGNING

SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE (in)	637.0202 SIGNS, TYPE II REFLECTIVE SIGN AREA (SF)	637.0402 SIGNS FOLDING TYPE II REFLECTIVE SIGN AREA (SF)	634.0616 POSTS WOOD 4X6-INCH X 16 FT (EACH)	634.0618 POSTS WOOD 4X6-INCH X 18 FT (EACH)	634.0620 POSTS WOOD 4X6-INCH X 20 FT (EACH)	SIGN MOUNTED ON SAME POST AS #	REMARKS
	M6-1	--	--	--	--	--	--	--	--	ARW RIGHT LEFT OR AHEAD
	M3-1	--	--	--	--	--	--	--	--	NORTH
	M1-6	--	--	--	--	--	--	--	--	STH MARKER 2 OR 3 DIGITS
	M6-1	--	--	--	--	--	--	--	--	ARW RIGHT LEFT OR AHEAD
2-5	W4-3R	2S	36X36	9.00	--	--	1	--	--	MERGE-ADDED LANE RIGHT SYMBOL
2M-1	--	--	--	--	--	1	--	--	--	BOAT LANDING RIGHT ARROW
2-6	R6-2R	2S	24X30	5.00	--	1	--	--	--	ONE WAY ARROW RIGHT
2-7	R1-1	3	36X36	7.46	--	--	1	--	--	STOP SIGN
2-8	R2-1	2S	24X30	5.00	--	1	--	--	--	SPEED LIMIT __ MPH
2-9	J4-2	2S	48X36	12.00	--	--	1	--	--	REASSURANCE ASSEMBLY
	M3-4	--	--	--	--	--	--	--	--	WEST
	M1-4	--	--	--	--	--	--	--	--	USH MARKER 2 OR 3 DIGITS
	M3-1	--	--	--	--	--	--	--	--	NORTH
	M1-6	--	--	--	--	--	--	--	--	STH MARKER 2 OR 3 DIGITS
2-10	R1-1	3	36X36	7.46	--	--	1	--	--	STOP SIGN
2-11	J4-1	2S	24X36	6.00	--	--	1	--	--	REASSURANCE ASSEMBLY
	MB4-1	--	--	--	--	--	--	--	--	ALTERNATE - BLUE
	M1-1	--	--	--	--	--	--	--	--	IH MARKER 2 DIGIT CUTOUT
2-12	R3-8P	2S	54X30	11.25	--	--	1	--	--	LEFT ONLY / LEFT, AHEAD / RIGHT ONLY
2-13	D1-2	2S	48X24	8.00	--	1	--	--	--	TWO DESTINATIONS ARROWS
2-14	J2-1	2S	24X57	9.50	--	--	1	--	--	ROUTE TURN ASSEMBLY
	MB4-1	--	--	--	--	--	--	--	--	ALTERNATE - BLUE
	M1-1	--	--	--	--	--	--	--	--	IH MARKER 2 DIGIT CUTOUT
	MB5-1L	--	--	--	--	--	--	--	--	ADV ARW LEFT TURN, BLUE
2M-2	--	--	--	--	--	1	--	--	--	BOAT LANDING LEFT ARROW
2-15	R3-55R	2S	24X30	5.00	--	1	--	--	--	RIGHT TURN LANE W/ ARROW
2-16	R3-5L	2S	42X48	14.00	--	--	--	--	OVERHEAD	LANE CONT SYM LEFT ONLY
2-17	R3-6L	2S	42X48	14.00	--	--	--	--	2-16	LANE CONT SYM LEFT & THRU ONLY
2-18	R3-5R	2S	42X48	14.00	--	--	--	--	2-16	LANE CONT SYM RIGHT ONLY
2-19	J3-2	2S	48X57	19.00	--	--	1	--	--	DIRECTIONAL ASSEMBLY
	M3-2	--	--	--	--	--	--	--	--	EAST
	M1-4	--	--	--	--	--	--	--	--	USH MARKER 2 OR 3 DIGITS
	M6-1	--	--	--	--	--	--	--	--	ARW RIGHT LEFT OR AHEAD
	M3-3	--	--	--	--	--	--	--	--	SOUTH
	M1-6	--	--	--	--	--	--	--	--	STH MARKER 2 OR 3 DIGITS
	M6-1	--	--	--	--	--	--	--	--	ARW RIGHT LEFT OR AHEAD
2-20	R4-7	2S	24X30	5.00	--	1	--	--	--	KEEP RIGHT SYMBOL
2-21	J4-2	2S	48X36	12.00	--	--	1	--	--	REASSURANCE ASSEMBLY
	M3-3	--	--	--	--	--	--	--	--	SOUTH
	M1-6	--	--	--	--	--	--	--	--	STH MARKER 2 OR 3 DIGITS
	MB4-1	--	--	--	--	--	--	--	--	ALTERNATE - BLUE
	M1-1	--	--	--	--	--	--	--	--	IH MARKER 2 DIGIT CUTOUT
2-22	R2-1	2S	24X30	5.00	--	--	1	--	--	SPEED LIMIT __ MPH
2-23	R5-1A	2S	36X24	6.00	--	--	--	--	2-22	WRONG WAY
2-24	R3-55L	2S	24X30	5.00	--	1	--	--	--	LEFT TURN LANE W/ARROW

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PERMANENT SIGNING

SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE (in)	637.0202 SIGNS, TYPE II REFLECTIVE SIGN AREA (SF)	637.0402 SIGNS FOLDING TYPE II REFLECTIVE SIGN AREA (SF)	634.0616 POSTS WOOD 4X6-INCH X 16 FT (EACH)	634.0618 POSTS WOOD 4X6-INCH X 18 FT (EACH)	634.0620 POSTS WOOD 4X6-INCH X 20 FT (EACH)	SIGN MOUNTED ON SAME POST AS #	REMARKS
2-25	R5-1	2S	30X30	6.25	--	1	--	--	--	DO NOT ENTER
2-26	R1-1	2S	30X30	5.18	--	1	--	--	--	STOP SIGN
2-27	R4-7	2S	24X30	5.00	--	1	--	--	--	KEEP RIGHT SYMBOL
2-28	J3-2	2S	48X57	19.00	--	--	1	--	--	DIRECTIONAL ASSEMBLY
	M3-2	--	--	--	--	--	--	--	--	EAST
	M1-4	--	--	--	--	--	--	--	--	USH MARKER 2 OR 3 DIGITS
	M6-1	--	--	--	--	--	--	--	--	ARW RIGHT LEFT OR AHEAD
	MB4-1	--	--	--	--	--	--	--	--	ALTERNATE - BLUE
	M1-1	--	--	--	--	--	--	--	--	IH MARKER 2 DIGIT CUTOUT
	MB6-1	--	--	--	--	--	--	--	--	ARW RIGHT LEFT OR AHEAD, BLUE
2-29	R7-51R	2S	18X24	3.00	--	1	--	--	--	NO PARKING HERE TO CORNER RIGHT ARROW
2-30	D1-2	2S	66X30	13.75	--	2	--	--	--	TWO DESTINATIONS ARROWS
2-31	R6-1R	2S	36X12	3.00	--	--	--	--	SIGNAL POLE	ONE WAY RIGHT ARROW
2-32	J4-1	2S	24X36	6.00	--	--	--	--	2-31	REASSURANCE ASSEMBLY
	MB4-1	--	--	--	--	--	--	--	--	ALTERNATE - BLUE
	M1-1	--	--	--	--	--	--	--	--	IH MARKER 2 DIGIT CUTOUT
2-33	R1-1F	2S	30X30	--	5.18	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
2-34	R1-1F	2S	30X30	--	5.18	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
2-35	R1-1F	2S	30X30	--	5.18	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
2-36	J4-1	2S	24X36	6.00	--	--	1	--	--	REASSURANCE ASSEMBLY
	MB4-1	--	--	--	--	--	--	--	--	ALTERNATE - BLUE
	M1-1	--	--	--	--	--	--	--	--	IH MARKER 2 DIGIT CUTOUT
2-37	R3-9C	2S	24X6	1.00	--	--	1	--	--	BEGIN
2-38	R3-9B	2S	24X36	6.00	--	--	--	--	2-37	CENTER LANE FOR LEFT TURNS ONLY
2-39	J4-1	2S	24X36	6.00	--	--	1	--	--	REASSURANCE ASSEMBLY
	M3-2	--	--	--	--	--	--	--	--	EAST
	M1-4	--	--	--	--	--	--	--	--	USH MARKER 2 OR 3 DIGITS
2-40	R7-1D	2S	18X24	3.00	--	1	--	--	--	NO PARKING ANY TIME DOUBLE ARROW
2-41	R6-2R	2S	24X30	5.00	--	1	--	--	--	ONE WAY ARROW RIGHT
2-42	R6-2R	2S	24X30	5.00	--	1	--	--	--	ONE WAY ARROW RIGHT
2-43	R6-2R	2S	24X30	5.00	--	1	--	--	--	ONE WAY ARROW RIGHT
2-44	R6-2R	2S	24X30	5.00	--	1	--	--	--	ONE WAY ARROW RIGHT
2-45	R6-2R	2S	24X30	5.00	--	1	--	--	--	ONE WAY ARROW RIGHT
2-46	R6-2R	2S	24X30	5.00	--	1	--	--	--	ONE WAY ARROW RIGHT
2-47	R3-5L	2S	42X48	14.00	--	--	--	--	OVERHEAD	LANE CONT SYM LEFT ONLY
2-48	R3-5A	2S	42X48	14.00	--	--	--	--	2-47	LANE CONT SYM AHEAD ONLY
2-49	R3-5A	2S	42X48	14.00	--	--	--	--	2-47	LANE CONT SYM AHEAD ONLY
2-50	R3-5R	2S	42X48	14.00	--	--	--	--	2-47	LANE CONT SYM RIGHT ONLY
2-51	W12-1D	2S	24X24	4.00	--	1	--	--	--	DOUBLE DOWN ARROW
2-52	R10-50	2S	30X36	7.50	--	--	--	--	OVERHEAD	LEFT TURN YIELD ON FLASHING YELLOW ARROW
2-53	R10-50	2S	30X36	7.50	--	--	--	--	OVERHEAD	LEFT TURN YIELD ON FLASHING YELLOW ARROW
2-54	R6-2R	2S	24X30	5.00	--	1	--	--	--	ONE WAY ARROW RIGHT
2-55	R6-2R	2S	24X30	5.00	--	1	--	--	--	ONE WAY ARROW RIGHT
PROJECT TOTALS				**581**	**16**	**37**	**24**	**4**		

ALL ITEMS CATEGORY 0010 UNLESS NOTED

TRAFFIC CONTROL ITEMS

STAGE	* ASSUMED STAGE DURATION DAYS	** 638.2102 MOVING SIGNS TYPE II EACH	** 638.4000 MOVING SMALL SIGN SUPPORTS EACH	643.0300 DRUMS EACH*	643.0300 DRUMS DAYS	643.0410 BARRICADES TYPE II EACH*	643.0410 BARRICADES TYPE II DAYS	643.0420 BARRICADES TYPE III EACH*	643.0420 BARRICADES TYPE III DAYS	643.0500 FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 WARNING LIGHTS TYPE A EACH*	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C EACH*	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS EACH*	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS EACH*	643.0900 SIGNS DAYS	*** SPV.0045.01 PORTABLE CHANGEABLE MESSAGE SIGN EACH*	SPV.0045.01 PORTABLE CHANGEABLE MESSAGE SIGN DAYS	SPV.0045.02 TEMPORARY CROSSWALK EACH*	SPV.0045.02 TEMPORARY CROSSWALK DAYS
STAGE 1A	7	3	---	60	420	6	42	10	70	---	---	20	140	15	105	---	---	40	280	3	42	---	---
STAGE 1B	70	14	3	240	16,800	12	840	55	3,850	50	50	110	7,700	69	4,830	3	210	90	6,300	---	---	---	---
STAGE 2A	7	5	5	150	1,050	---	---	12	84	---	---	24	168	25	25	1	7	60	420	---	---	---	---
STAGE 2B	130	---	---	90	11,700	---	---	5	650	---	---	10	1,300	---	---	---	---	50	6,500	---	---	---	---
STAGE 3	65	7	---	220	14,300	9	585	42	2,730	60	60	84	5,460	63	4,095	3	195	100	6,500	3	42	1	65
STAGE 4A & 4B	10	---	---	190	1,900	---	---	15	150	---	---	30	300	39	390	3	30	50	500	---	---	---	---
UNDISTRIBUTED	---	---	---	---	4,620	---	150	---	760	30	30	---	1,510	---	950	---	50	---	2,050	---	---	---	---
PROJECT TOTAL		**29**	**8**		**46,170**		**1,467**		**7,534**	**110**	**110**		**15,068**		**9,445**		**442**		**20,500**		**84**		**65**

* FOR INFORMATION ONLY. ACTUAL NUMBER OF DEVICES TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
**ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE REMOVING SIGNS TABLE.
***PLACE PORTABLE CHANGEABLE MESSAGE SIGNS ON WEST, EAST, AND NORTH LEGS OF USH 12 / STH 23 INTERSECTION FOR 2 WEEKS IN ADVANCE OF STAGE 1A AND STAGE 3

TRAFFIC CONTROL

PROJECT	643.0100 TRAFFIC CONTROL EACH
ID 6145-00-74	1
PROJECT TOTAL	**1**

SPLIT RAIL WOOD FENCE TWO RAILS

LOCATION	SPV.0090.04 LF
USH 12	
214+81 - 215+55 RT	83
218+03 - 218+37 RT	47
STH 23	
316+34 - 318+06	91
PROJECT TOTAL	**221**

COVER PLATES TEMPORARY BURIED

LOCATION	SPV.0060.02 EACH
STAGE 1B	
227+00, 20' RT	1
229+16, 3.5' RT	1
230+70, 3.5' RT	1
STAGE 2A	
225+31, 3' LT	1
PROJECT TOTALS	**4**

EXPOSING EXISTING UTILITY

LOCATION	SPV.0060.36 EACH
UNDISTRIBUTED	20
PROJECT TOTAL	**20**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

PERMANENT PAVEMENT MARKING

LOCATION	646.0106 EPOXY 4-INCH WHITE LF	646.0106 EPOXY 4-INCH YELLOW LF	646.0841.S GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH LF	646.0843.S GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH LF	647.0166 ARROWS EPOXY TYPE 2 WHITE EACH	647.0176 ARROWS EPOXY TYPE 3 WHITE EACH	647.0206 ARROWS BIKE LANE EPOXY EACH	647.0306 SYMBOLS BIKE LANE EPOXY EACH	647.0356 WORDS EPOXY WHITE EACH	647.0456 CURB EPOXY YELLOW LF	647.0566 STOP LINE EPOXY 18-INCH WHITE LF	647.0606 ISLAND NOSE EPOXY YELLOW EACH	647.0726 DIAGONAL EPOXY 12-INCH YELLOW LF	647.0766 CROSSWALK EPOXY 6-INCH WHITE LF	647.0776 CROSSWALK EPOXY 12-INCH LF	647.0856 PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN (EPOXY) SF
USH 12																
201+00 - 207+63	185	170	225				---	---								
207+63 - 222+50	2,890	3,120	745	---	8	---	1	1	---	---	68	1	---	615	---	---
222+50 - 235+20	2,530	2,090	550	855	6	1	---	---	4	20	75	2	110	125	465	32
STH 23																
309+00 - 315+00	---	---	300	---	---	---	---	---	---	---	---	---	---	---	---	---
315+00 - 318+00	760	665	145	220	2	---	---	---	2	---	38	1	---	---	---	---
JUDSON STREET																
9+00'JS' - 10+00'JS'	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SUBTOTAL	**6,365**	**6,045**	**1,965**	**1,075**	**16**	**1**	**1**	**1**	**6**	**20**	**181**	**4**	**110**	**740**	**465**	**32**
PROJECT TOTALS	**12,410**		**1,965**	**1,075**	**16**	**1**	**1**	**1**	**6**	**20**	**181**	**4**	**110**	**740**	**465**	**32**

TEMPORARY PAVEMENT MARKING PAINT

ROADWAY	649.0100 4-INCH WHITE LF	649.0100 4-INCH YELLOW LF	649.0701 8-INCH WHITE LF	649.0701 8-INCH YELLOW LF	649.1100 STOP BAR 18-INCH LF	649.1700 ARROWS EACH	649.1900 WORDS EACH
STAGE 1B	2,000	4,000	560	---	70	12	3
STAGE 2A	700	2,400	600	---	60	8	3
STAGE 2B	1,100	2,800	---	---	30	6	1
TOTALS	3,800	9,200	1,160	0	160	26	7
PROJECT TOTALS	**13,000**		**1,160**		**160**	**26**	**7**

TEMPORARY PAVEMENT MARKING REMOVEABLE TAPE

STAGE	649.0400 4-INCH WHITE LF	649.0400 4-INCH YELLOW LF	649.0801 8-INCH WHITE LF	649.0801 8-INCH YELLOW LF	649.1200 STOP BAR 18-INCH LF	649.1800 ARROWS EACH	649.2000 WORDS EACH
STAGE 1A	800	1,100	200	---	10	4	1
STAGE 1B	1,900	3,900	---	---	---	---	---
STAGE 2A	1,400	3,000	---	---	16	1	1
STAGE 3	4,300	7,300	360	---	60	8	4
STAGE 4A	---	5,300	220	---	20	6	1
STAGE 4B	---	---	---	---	---	2	1
SUBTOTALS	8,400	20,600	780	0	106	21	8
PROJECT TOTALS	**29,000**		**780**		**106**	**21**	**8**

PAVEMENT MARKING REMOVALS

STAGE	646.0600 REMOVING PAVEMENT MARKINGS LF	647.0955 REMOVING PAVEMENT MARKINGS ARROWS EACH	647.0965 REMOVING PAVEMENT MARKINGS WORDS EACH	SPV.0090.01 REMOVING PAVEMENT MARKINGS WATER BLASTING LF
STAGE 1A	1,300	4	2	---
STAGE 1B	700	4	1	2,300
STAGE 2B	---	---	---	2,800
STAGE 3	---	---	---	1,300
PROJECT TOTALS	**2,000**	**8**	**3**	**6,400**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

CONSTRUCTION STAKING

LOCATION	* 650.4500 SUBGRADE LF	* 650.5000 BASE LF	* 650.9920 SLOPE STAKES LF
USH 12			
213+00 - 235+20	2,220	300	2,520
STH 23			
316+00 - 318+50	250	---	250
DELAVAN STREET			
9+00'DS' - 11+00'DS'	50	50	50
JUDSON STREET			
9+00'JS' - 11+00'JS'	50	50	50
BIRNEY STREET ALLEY			
13+71'BS' - 16+13'BS'	300	300	300
PROJECT TOTALS	**2,870**	**700**	**3,170**

* ADDITIONAL STAKING ITEMS SHOWN ELSEWHERE

CONSTRUCTION STAKING CONCRETE PAVEMENT

LOCATION	* 650.7000 LF
USH 12	
213+00 - 235+20	1,920
STH 23	
316+00 - 318+50	250
DELAVAN STREET	
9+00'DS' - 11+00'DS'	200
JUDSON STREET	
9+00'JS' - 11+00'JS'	200
PROJECT TOTALS	**2,570**

* ADDITIONAL STAKING ITEMS SHOWN ELSEWHERE

CONSTRUCTION STAKING STORM SEWER

DESCRIPTION	* 650.4000 EACH
MANHOLES 4-FOOT DIAMETER	4
MANHOLES 5-FOOT DIAMETER	7
MANHOLES 6-FOOT DIAMETER	6
MANHOLES 7-FOOT DIAMETER	2
INLETS 4-FT DIAMETER	3
INLET MEDIAN 1 GRATE	1
CATCH BASIN 3-FT DIAMETER	7
CATCH BASIN 4-FT DIAMETER	7
CATCH BASIN 2X3-FT	12
PROJECT TOTAL	**49**

*ADDITIONAL STAKING ITEMS SHOWN ELSEWHERE

CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS

LOCATION	* 650.8500 LS
USH 12 (I.D. 6145-00-74)	1
PROJECT TOTAL	**1**

*ADDITIONAL STAKING ITEMS SHOWN ELSEWHERE

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

LOCATION	* 650.9910 LS
USH 12 (I.D. 6145-00-74)	1
PROJECT TOTAL	**1**

*ADDITIONAL STAKING ITEMS SHOWN ELSEWHERE

SAWING CONCRETE

LOCATION	690.0250 LF
USH 12	
213+00 - 219+00	86
219+00 - 225+00	37
225+00 - 230+00	35
230+00 - 235+20	385
STAGE 1B	2,200
STH 23	
315+80 - 318+00	20
PROJECT TOTAL	**2,763**

SAWING ASPHALT

LOCATION	690.0150 LF
USH 12	
213+00 - 219+00	265
219+00 - 225+00	300
225+00 - 230+00	260
230+00 - 235+20	105
STAGE 1B	2,200
STH 23	
315+80 - 318+00	395
DELAVAN STREET	
9+00'DS' - 11+00'DS'	55
JUDSON STREET	
9+00'JS' - 11+00'JS'	63
WHITLOCK STREET	
	20
ADAMS STREET	
	42
BIRNEY STREET ALLEY	
13+71'BS' - 16+13'BS'	140
PROJECT TOTAL	**3,845**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

ADJUST EXISTING SANITARY SEWER MANHOLE

CATEGORY	STATION	OFFSET	SPV.0060.12 EACH
0030	227+68.43	77.5 ' RT	1
	230+81.91	14.6 ' RT	1
	231+88.25	15.8 ' RT	1
	15+02.30	7.86 'LT	1
	15+31.64	7.86 'LT	1
TOTAL			5

ADJUST EXISTING WATER VALVE BOX GREATER THAN 6-INCHES

CATEGORY	STATION	OFFSET	SPV.0060.16 EACH
0030	216+23.07	33.0 ' RT	1
	216+19.19	29.4 ' RT	1
	216+15.83	32.5 ' RT	1
	219+19.07	34.5 ' RT	1
	221+05.00	28.0 ' RT	1
	229+64.54	39.6 ' RT	1
	9 'WS'+38.1	18.9 ' RT	1
	9'WS'+42.43	21.8 ' RT	1
TOTAL			8

WATER MAIN PLUG

CATEGORY	STATION	LOCATION	SPV.0060.20 4-INCH WATER MAIN PLUG EA	SPV.0060.21 8-INCH WATER MAIN PLUG EA
0030	219+25.23	27.37' RT	1	---
	228+92.16	56.04' LT	---	1
TOTAL			1	1

ADJUST EXISTING WATER CURB STOP LESS THAN 6-INCHES

CATEGORY	STATION	OFFSET	SPV.0060.13 EACH
0030	222+56.9	49.5 ' RT	1
	222+58.2	49.6 ' RT	1
	224+56.8	59.0 ' LT	1
	228+14.31	45.2 ' LT	1
	231+98.5	32.2 ' LT	1
TOTAL			5

ADJUST EXISTING HYDRANT

CATEGORY	STATION	OFFSET	SPV.0060.17 EACH
0030	216+11.67	46.6 ' RT	1
	220+88.9	46.3 ' RT	1
	225+52.9	55.0 ' RT	1
TOTAL			3

YARD HYDRANT

CATEGORY	STATION	LOCATION	SPV.0060.22 EA
0030	226+98.42	84.8'LT	1
TOTAL			1

ADJUST EXISTING WATER CURB STOP 6-INCHES OR GREATER

CATEGORY	STATION	OFFSET	SPV.0060.14 EACH
0030	218+39.6	46.3 ' RT	1
	316+65.3	45.4 ' RT	1
	317+40.1	48.8 ' RT	1
	317+41.4	48.8 ' RT	1
TOTAL			4

REMOVE, SALVAGE, AND RELOCATE EXISTING HYDRANT

CATEGORY	STATION	OFFSET	SPV.0060.18 EACH
0030	229+55.06	38.8 ' RT	1
TOTAL			1

RIGID INSULATION

CATEGORY	STATION	LOCATION	SPV.0165.05 SF
0030	216+89.5	34.0' RT	32
	214+08.7	33.2' RT	32
	218+39.0	35.0' RT	64
	221+04.9	53.1' LT	32
	221+06.9	62.6' RT	32
	221+41.9	53.1' LT	32
	229+67.7	19.1' rt	32
	230+82.0	21.0' RT	32
	231+88.0	23.0' RT	32
	233+22.0	23.5' RT	32
	233+86.5	23.5' RT	32
	234+06.0	16.0' RT	32
	317+41.0	40.0' RT	64
TOTAL			480

ADJUST EXISTING WATER VALVE BOX 6-INCHES OR LESS

CATEGORY	STATION	OFFSET	SPV.0060.15 EACH
0030	216+15.9	46.8 ' RT	1
	221+08.7	58.1 ' LT	1
	221+09.0	50.2 ' RT	1
	221+13.0	53.3 ' LT	1
	225+52.9	55.0 ' LT	1
	229+65.7	21.1 ' LT	1
	229+69.2	18.4 ' LT	1
	318+25.5	15.6 ' RT	1
	318+29.4	12.5 ' RT	1
TOTAL			9

4-INCH WATERMAIN CAP

CATEGORY	STATION	LOCATION	SPV.0060.19 EA
0030	219+25.2	27.37' RT	1
TOTAL			1

ABANDON EXISTING WATER SERVICE

CATEGORY	STATION	LOCATION	SPV.0060.23 ABANDON EXISTING 1-INCH WATER EA	SPV.0060.24 ABANDON EXISTING 1.5-INCH EA	SPV.0060.25 ABANDON EXISTING 2-INCH WATER EA	SPV.0060.26 ABANDON EXISTING 4-INCH WATER EA
0030	217+87.27	LT	1	---	---	---
	219+25.23	RT/LT	---	---	---	1
	224+61.39	RT	---	---	1	---
	230+47.28	LT	---	1	---	---
	231+51.30	LT	---	1	---	---
	317+22.36	LT	---	1	---	---
TOTAL			1	3	1	1

1-INCH WATER CORPORATION, CURB STOP, AND BOX

CATEGORY	STATION	LOCATION	SPV.0060.27 1-INCH WATER CORPORATION, CURB STOP, AND EA
0030	226+99	56.38' LT	1
	227+30.5	54.0' RT	1
	TOTAL		2

1-INCH COPPER WATER SERVICE

CATEGORY	STATION	LOCATION	SPV.0090.07 LF
0030	226+99	LT	62
	227+31	RT	80
	TOTAL		142

CONNECT TO EXISTING WATER CORPORATION

CATEGORY	STATION	OFFSET	SPV.0060.34 EACH
0030	226+98.62	27.3 ' LT	1
	TOTAL		1

DUCTILE IRON BEND

CATEGORY	STATION	OFFSET	SPV.0060.29 DUCTILE IRON 22.5-DEGREE BEND, 6-INCH EACH	SPV.0060.30 DUCTILE IRON 45-DEGREE BEND, 12-INCH EACH
0030	229+61.55	39.6 ' RT	1	-
	229+67.70	19.1 ' RT	-	4
	TOTALS		1	4

DUCTILE IRON WATER MAIN

CATEGORY	STATION - STATION	LOCATION	SPV.0090.08 DUCTILE IRON WATER MAIN 6-INCH LF	SPV.0090.09 DUCTILE IRON WATER MAIN 8-INCH LF	SPV.0090.10 DUCTILE IRON WATER MAIN 12-INCH LF
0030	228+91	LT	-	32	-
	229+48 - 229+65	RT	18	-	-
	229+68	RT	-	-	14
	TOTAL		18	32	14

REMOVE AND SALVAGE EXISTING WATER VALVE AND BOX

CATEGORY	STATION	OFFSET	SPV.0060.31 EACH
0030	219+25.23	27.4 ' RT	1
	TOTALS		1

8-INCH X 12-INCH TAPPING SLEEVE

CATEGORY	STATION	OFFSET	SPV.0060.32 EACH
0030	228+90.90	24.4 ' LT	1
	TOTALS		1

8-INCH WATER VALVE AND BOX

CATEGORY	STATION	OFFSET	SPV.0060.33 EACH
0030	228+74.06	27.6 ' LT	1
	TOTALS		1

CONNECT TO EXISTING WATER MAIN

CATEGORY	STATION	OFFSET	SPV.0060.35 EACH
0030	229+67.81	27.0 ' RT	1
	229+68.1	13.0 ' RT	1
	TOTAL		2

BENCHES

CATEGORY	STATION	LOCATION	SPV.0060.10 BENCH EACH	SPV.0060.11 BACKLESS BENCH EACH
0020	226+58.74	93.16' LT	---	1
	226+61.61	113.68' LT	1	---
	226+78.65	73.86' LT	---	1
	226+98.99	77.83' LT	1	---
	TOTAL		2	2

CONCRETE SIDEWALK 5-INCH STAMPED AND COLORED

CATEGORY	STATION - STATION	LOCATION	SPV.0165.03 CONCRETE SIDEWALK 5-INCH STAMPED AND COLORED SF
0020	225+00 - 227+00	USH 12/STH 23 INTERSECTION ISLAND	2,245
	226+78 - 230+72	USH 12	2,360
	TOTAL		4,605

COLORED STAMPED CONCRETE RAISED MEDIAN

CATEGORY	STATION - STATION	LOCATION	SPV.0165.04 SF
0020	223+88 - 225+38	USH 12	600
	314+61 - 317+93	STH 23	1,330
	TOTAL		1,930

FLAG POLES

CATEGORY	STATION	LOCATION	SPV.0060.37 30' FLAG POLE EACH	SPV.0060.28 35' FLAG POLE EACH
0020	226+72.28	104.31' LT	1	---
	226+84.20	107.00' LT	---	1
	226+88.75	101.17' LT	1	---
	TOTAL		2	1

SIGNAL AND LIGHTING WIRE AND CABLE

CATEGORY	FROM	TO	655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG LF	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF
0010	SB1	HEAD P62	15			
	SB2	HEAD 32		45		
	SB2	HEAD 33		45		
	SB2	HEAD P32	15			
	SB2	LUMINAIRE				145
	SB3	HEAD 52			20	
	SB3	HEAD 61		20		
	SB3	HEAD P61	15			
	SB4	HEAD 51			45	
	SB4	HEAD 22		70		
	SB4	HEAD 23		70		
	SB4	HEAD P22	15			
	SB4	LUMINAIRE				145
	SB5	HEAD 31		20		
	SB5	HEAD P31	15			
	SB6	HEAD P42	15			
	SB6	LUMINAIRE				145
	SB7	HEAD 12			20	
	SB7	HEAD 21		20		
	SB7	HEAD P21	15			
	SB8	HEAD 11		75		
	SB8	HEAD 62		75		
	SB8	HEAD 63		75		
	SB8	HEAD P41	15			
	SB8	LUMINAIRE				145
		TOTAL	120	515	85	580

SIGNAL AND LIGHTING WIRE

CATEGORY	FROM	TO	655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF	655.0320 CABLE TYPE UF 2-10 AWG GROUNDED LF
0100	CB1	SB1	9			
	CB1	SB2	83			
	CB1	SB3		108		
	CB1	SB4		192		
	CB1	SB5	225			
	CB1	SB6	143			
	CB1	SB7		145		
	CB1	SB8		40		
	SB1	SB2			92	
	SB2	SB3			55	
	SB3	SB4			85	
	SB4	SB5			33	
	SB5	SB6			140	
	SB6	SB7			50	
	SB7	SB8			144	
	SB8	CB1			38	
	CB1	PB1			28	
	SB2	PB2			15	
	SB3	PB3			13	
	SB4	PB5			13	
	SB6	PB8			24	
	SB8	PB11			20	
	CB1	SB2				85
	CB1	SB4				203
	CB1	SB6				144
	CB1	SB8				38
		TOTAL	460	485	750	470

CONDUIT

CATEGORY	FROM	TO	652.0225 CONDUIT NONMET. 2-INCH LF	652.0235 CONDUIT NONMET. 3-INCH LF
0010	CB1	PB1		58
	PB1	SB1	26	
	PB1	PB2		82
	PB2	SB2	15	
	PB2	PB3		56
	PB3	SB3	13	
	PB3	PB4		266
	PB3	PB9		187
	PB5	SB4	15	
	PB5	SB5	21	
	PB5	PB6		40
	PB6	PB7		235
	PB5	PB8		191
	PB8	PB9		91
	PB9	PB10		159
	PB8	SB6	25	
	PB8	SB7	26	
	PB8	PB11		205
	PB11	SB8	19	
	PB11	CB1		40
TOTAL			160	1610

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE.
SEE I/C CONDUIT TABLE.

SHEET 1 OF 3

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	MISCELLANEOUS QUANTITIES	STH. 23 & HWY. 12	SHEET	E

FILE NAME : $$ designfile $$ PLOT DATE : $$ plottingdate $$ PLOT BY : $$ plotuser ..$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 43

POLES

CATEGORY	SIGNAL BASE NO.	657.0100 PEDESTAL BASE EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0420 TRAFFIC STANDARDS ALUMINUM 13-FT EACH	657.0315 POLES TYPE 4 EACH	657.1350 INSTALL POLES TYPE 10 EACH	657.1360 INSTALL POLES TYPE 13 EACH	657.1520 INSTALL MONOTUBE ARMS 20-FT EACH	657.1545 INSTALL MONOTUBE ARMS 45-FT EACH	657.1550 INSTALL MONOTUBE ARMS 50-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	659.0125 LUMINAIRES UTILITY HPS 250 WATTS EACH	657.1815 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH
0010	SB1	1		1							1		
	SB2					1		1			1	1	1
	SB3	1		1							1		
	SB4						1		1		1	1	1
	SB5	1		1							1		
	SB6		1		1						1	1	1
	SB7	1		1							1		
	SB8						1			1	1	1	1
	TOTAL	4	1	4	1	1	2	1	1	1	8	4	4

PULL BOXES

CATEGORY	PULL BOX NO.	LOCATION*	653.0135 PULL BOXES STEEL 24x36-INCH EACH	653.0140 PULL BOXES STEEL 24x42-INCH EACH
0010	PB1	225+90 63'LT		1
	PB2	318+18 63'RT		1
	PB3	318+05 38'RT		1
	PB4	315+40 39'RT	1	
	PB5	318+05 52'LT		1
	PB6	318+13 90'LT	1	
	PB7	229+15 44'LT	1	
	PB8	225+49 53'RT		1
	PB9	224+60 55'RT		1
	PB10	223+02 46'RT	1	
	PB11	225+52 45'LT		1
	TOTAL		4	7

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

TRAFFIC DETECTOR LOOPS

CATEGORY	LOOP NO.	HOME RUN PULL BOX	LOCATION*	SIZE	TURNS	PAVEMENT TYPE	652.0800 CONDUIT LOOP DETECTOR LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF	655.0800 LOOP DETECTOR WIRE LF
0010	21	PB17	223+02 21'RT	6X20	4	CONCRETE	80	379	320
	31	PB11	229+15 15'LT	6X20	4	CONCRETE	80	473	320
	61	PB5	315+40 21'RT	6X20	4	CONCRETE	80	368	325
TOTAL							240	1220	965

* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP. FINAL LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD.

CONCRETE BASES

CATEGORY	BASE NO.	LOCATION *	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0113** CONCRETE BASES TYPE 13 EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
0010	CB1	225+68 50'LT					1
	SB1	317+52 48'RT	1				
	SB2	318+21 50'RT			1		
	SB3	317+92 37'RT	1				
	SB4	317+92 45'LT				1	
	SB5	317+88 70'RT	1				
	SB6	225+70 70'RT		1			
	SB7	225+53 38'RT	1				
	SB8	225+51 47'LT				1	
		TOTAL	4	1	1	2	1

* FINAL LOCATION TO BE DETERMINED BY ENGINEER IN FIELD

** ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE OVERHEAD SIGNS TABLE.

TRAFFIC SIGNAL MOUNTING HARDWARE

CATEGORY	LOCATION	658.5069 SIGNAL MOUNTING HARDWARE LS
0010	USH 12 & STH 23	1
	TOTAL	1

METER BREAKER PEDESTAL

CATEGORY	LOCATION*	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS
0010	USH 12 & STH 23	1
	TOTAL	1

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

STATE FURNISHED SUMMARY (FOR INFORMATION ONLY)

FACES

CATEGORY	SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL EACH	658.0115 TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL EACH	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12" EACH	658.0220 BACKPLATES SIGNAL FACE 4 SECTION 12" EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH	658.0600 LED MODULES 12" RED BALL EACH	658.0605 LED MODULES 12" YELLOW BALL EACH	658.0610 LED MODULES 12" GREEN BALL EACH	658.0615 LED MODULES 12" RED ARROW EACH	658.0620 LED MODULES 12" YELLOW ARROW EACH	658.0625 LED MODULES 12" GREEN ARROW EACH
0010	11	SB7		1		1						1	2	1
	12	SB6		1		1						1	2	1
	21	SB6	1		1				1	1	1			
	22	SB4	1		1				1	1	1			
	23	SB4	1		1				1	1	1			
	31	SB5	1		1				1	1	1			
	32	SB2	1		1							1	1	1
	33	SB2	1		1				1	1	1			
	51	SB4		1		1						1	2	1
	52	SB3		1		1						1	2	1
	61	SB3	1		1				1	1	1			
	62	SB1	1		1				1	1	1			
	63	SB8	1		1				1	1	1			
	P21	SB7					1	1						
	P22	SB4					1	1						
	P41	SB8					1	1						
	P42	SB2					1	1						
	P61	SB3					1	1						
	P62	SB8					1	1						
	P41	SB1					1	1						
	P42	SB6					1	1						
		TOTALS	9	4	9	4	8	8	8	8	8	5	9	5

REMOVALS

CATEGORY	ITEM NO.	LOCATION*	653.0905 REMOVING PULL BOXES EACH	204.0195 REMOVING CONCRETE BASES EACH
0010	EXPB	EX 224+20 26'RT	1	
	EXPB	EX 224+78 35'RT	1	
	EXPB	EX 225+40 37'RT	1	
	EXPB	EX 225+65 45'LT	1	
	EXPB	EX 225+65 27'RT	1	
	EXPB	EX 225+77 46'LT	1	
	EXPB	EX 225+80 40'RT	1	
	EXPB	EX 225+70 67'LT	1	
	EXPB	EX 318+00 24'RT	1	
	EXPB	EX 318+05 43'RT	1	
	EXPB	EX 318+18 46'RT	1	
	EXPB	EX 318+22 47'LT	1	
	EXPB	EX 227+52 32'LT	1	
	EXPB	EX 228+50 32'LT	1	
	EXSB	EX 225+57 39'LT		1
	EXSB	EX 225+70 30'RT		1
	EXSB	EX 225+77 47'LT		1
	EXSB	EX 318+00 30'LT		1
	EXSB	EX 318+18 42'RT		1
	EXSB	EX 318+18 50'LT		1
	EXCAB	EX 225+57 45'LT		1
TOTAL			14	7

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

SHEET 3 OF 3

3

INSTALL FIBER OPTIC CABLE

CATEGORY	FROM	TO	LINEAR DISTANCE	FIBER SLACK	678.0036 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36 CT LF
0010	EXCB1(S0932)	EXPB1	45	100	145
	EXPB1	EXPB2	245	20	265
	EXPB2	EXCV10	52	50	102
	EXCV10	EXCV11	580	50	630
	EXCV11	EXCV12	93	50	143
	EXCV12	EXCV13	115	50	165
	EXCV13	CV1	456	50	506
	CV1	CV2	212	50	262
	CV2	CV3	235	50	285
	CV3	CV4	255	50	305
	CV4	CV5	255	50	305
	CV5	EXPB10	165	20	185
	EXPB10	EXPB9	115	20	135
	EXPB9	EXPB8	90	20	110
	EXPB8	EXPB11	105	20	125
	EXPB11	CV6	32	50	82
TOTAL					3750

FIBER OPTIC SPLICE

CATEGORY	LOCATION		678.0200 FIBER OPTIC SPLICE ENCLOSURE EACH	678.0300 FIBER OPTIC SPLICE EACH
0010	CV1		1	12
		TOTAL	1	12

I/C CONDUIT

CATEGORY	FROM	TO	652.0225 CONDUIT NONMET. 2-INCH LF	655.0505 ELECTRICAL WIRE TRAFFIC SIGNALS 14 AWG LF
0010	EXCV13	CV1	465	511
	CV1	CV2	213	234
	CV2	CV3	218	240
	CV3	CV4	257	283
	CV4	CV5	255	280
	CV5	EXPB10	167	184
	EXPB11	CV6	24	26
	CV6	CB1	11	12
TOTAL			1610	1770

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE. SEE CONDUIT TABLE

FIBER OPTIC COMMUNICATIONS EQUIPMENT

CATEGORY	LOCATION		675.0400.S. INSTALL ETHERNET SWITCH EACH	SPV.0060.01 8-COUNT FIBER OPTIC CONNECTOR 200-FEET EACH	ST-ST SINGLE MODE FIBER JUMPER 4-FEET** EACH	CAT-5E CABLE 4-FEET** EACH
0010	CB1		1	1	2	1
		TOTAL	1	1	2	1

* PAY ITEMS INCLUDES INSTALLATION OF BOTH CONTRACTOR FURNISHED AND STATE FURNISHED MATERIALS AS LISTED

** FOR INFORMATION ONLY

FIELD SYSTEM INTEGRATOR

CATEGORY	LOCATION		670.0100 FIELD SYSTEM INTEGRATOR L.S.
0010	EXCB1(S0932) - EXCB1 (S0205)		1
		TOTAL	1

ITS DOCUMENTATION

CATEGORY	LOCATION		670.0200 ITS DOCUMENTATION L.S.
0010	EXCB1(S0932) - EXCB1 (S0205)		1
		TOTAL	1

COMMUNICATION SYSTEM TESTING

CATEGORY	LOCATION		678.0500 COMMUNICATION SYSTEM TESTING L.S.
0010	EXCB1(S0932) - EXCB1 (S0205)		1
		TOTAL	1

COMMUNICATION VAULTS

CATEGORY	PULL BOX NO.	LOCATION*	673.0105 COMMUNICATIONS VAULT TYPE 1 EACH
0010	CV1	212+50 35'LT	1
	CV2	214+55 40'RT	1
	CV3	216+85 40'RT	1
	CV4	219+45 40'RT	1
	CV5	222+00 40'RT	1
	CV6	225+65 65'LT	1
	TOTAL		6

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

STATE FURNISHED SUMMARY (FOR INFORMATION ONLY)	
LOCATION	ETHERNET SWITCH EACH
CB1	1
TOTAL	1

SHEET 1 OF 1

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	MISCELLANEOUS QUANTITIES	HWY. 12 INTERCONNECT	SHEET	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 43

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT 6145-00-24

IH-90 ROAD, (DELL CREEK TO WHITLOCK STREET)

USH 12, VILLAGE OF LAKE DELTON

SAUK COUNTY



THESE NOTES, CONENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCOATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 6145-00-24

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, SAUK COUNTY ZONE, NAD83 (91) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY OTHERS.

ALL RIGHT-OF-WAY LINES DEPICTED IN NON ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

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.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR ESTABLISHED FROM PREVIOUS PROJECT AND
EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENTS.
EXISTING ACCESS CONTROL ALONG ESTABLISHED FROM PREVIOUS PROJECTS XXXX-XX-XX.

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.

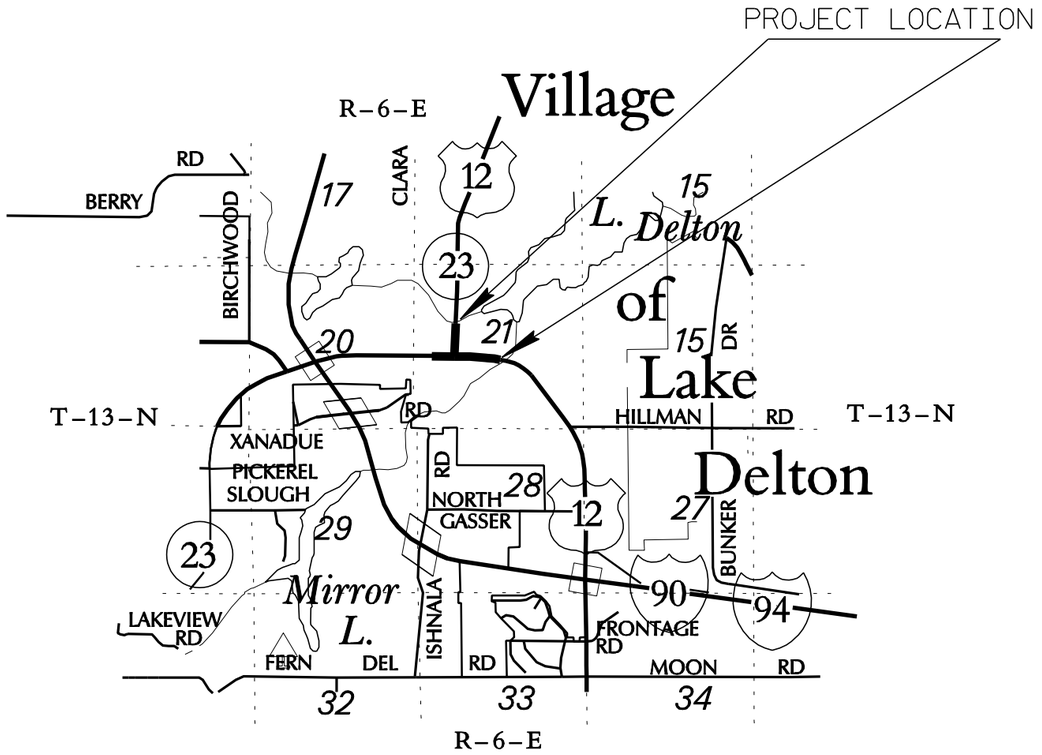
A **PERMANENT LIMITED EASEMENT** (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

A **HIGHWAY EASEMENT** (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

PARCEL IDENTIFICATION NUMBERS MAT NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTEREST REQUIRED.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.



CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CHISELED	CHIS	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.	**CURVE DATA**	
EASEMENT	EASE.	LONG CHORD	LCH
HIGHWAY EASEMENT	H.E.	LONG CHORD BEARING	LCB
LAND CONTRACT	LC	RADIUS	R
MONUMENT	MON.	DEGREE OF CURVE	D
PAGE	P.	CENTRAL ANGLE OR DELTA	DELTA
PERMANENT LIMITED EASEMENT	PLE	LENGTH OF CURVE	L
PROPERTY LINE	PL	TANGENT	TAN
RECORDED AS	(100')		

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	⌀ (1" UNLESS NOTED)	PROPOSED R/W LINE	———
R/W MONUMENT	●(SET)	EXISTING H.E. LINE	— —
R/W STANDARD	▲(SET)	PROPERTY LINE	—·—
SIGN	SIGN	LOT & TIE LINES	--------
SECTION CORNER MONUMENT	●	SLOPE INTERCEPTS	— — -
SECTION CORNER SYMBOL		CORPORATE LIMITS	//////////
FEE (HATCH VARIES)		ACCESS RESTRICTED (BY PREVIOUS PROJECT/CONTROL)	●●●●●●●
TEMPORARY LIMITED EASEMENT		ACCESS CONTROLED (BY PARCEL ACQUISITION)	▮▮▮▮▮▮▮
PERMANENT LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	●●●●●●●●
R/W BOUNDARY POINT	RWB20	SECTION LINE	— — —
PARCEL NUMBER	102	QUARTER LINE	— — —
UTILITY PARCEL NUMBER	92	SIXTEENTH LINE	———
SIGN NUMBER (OFF PREMISE)	21-	EXISTING CENTERLINE	—·—·—
BUILDING		PROPOSED REFERENCE LINE	———
		PARALLEL OFFSET	

CONVENTIONAL UTILITY SYMBOLS

WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

PROJECT NUMBER 6145-00-24 - 4.01
SHEET 2 OF 2
AMENDMENT NO:

FILE NAME : s:\5160751\Client To\Wisdot 120312ph-3\DGNs\040401_rt.DGN
PLOT DATE : 3/12/2012
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
6145-00-24 4.01

TRANSPORTATION PROJECT PLAT NO: 6145-00-24 - 4.01 AMENDMENT NO.1

ADDS PARCEL 73 AND REMOVES PARCEL 72 FROM TRASNSPORTATION PROJECT PLAT 6145-00-25-4.01 RECORDED AS DOC.1049272 AND FILED IN CABINET D ENVELOPE 283-F

THAT PART OF LOTS 7 THROUGH 13, BLOCK 40, LOTS 7 THROUGH 20, BLOCK 39, LOTS 1 THROUGH 14, BLOCK 42 OF NORRIS VILLAGE (ORIGINAL PLAT), VACATED NORTH DELAVAN STREET, VACATED SOUTH DELAVAN STREET, AND LOTS 1 AND 2 OF CSM 1836, ALL BEING IN THE NE1/4-SW1/4 OF SECTION 21, T13N, R6E, VILLAGE OF LAKE DELTON, SAUK COUNTY, WISCONSIN.

RELOCATION ORDER USH 12, LAKE DELTON - IH 90 ROAD, (DELL CREEK BRIDGE TO WHITLOCK STREET), VILLAGE OF LAKE DELTON, SAUK COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

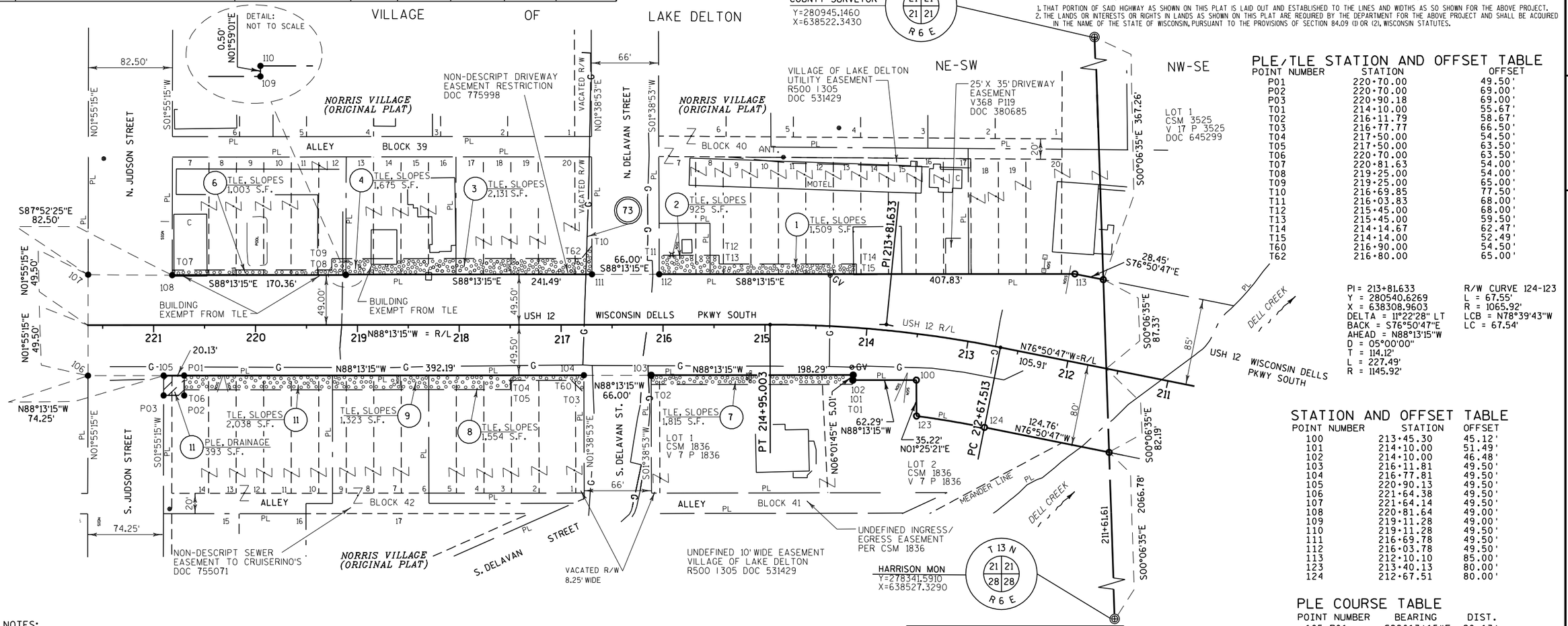
TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND AND INTERESTS TO DOT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	AREA SQUARE FEET REQUIRED NEW	EXISTING	TOTAL	TLE S.F.	PLE S.F.
1	ANDRZEJ AND BARBARA JANUS	TLE	-	-	-	1,509	-
2	WISCONSIN DUCKS, INC.	TLE	-	-	-	925	-
3	GEORGE AND SUZANNE FIELD	TLE	-	-	-	2,131	-
4	BARNEY D. AND MARY M. STRAUGH	TLE	-	-	-	1,675	-
6	HELEN PIOTROWSKI	TLE	-	-	-	1,003	-
7	LDS OF THE DELLS, LLC	TLE	-	-	-	1,815	-
8	CRUISERINO'S, LLC	TLE	-	-	-	1,554	-
9	A & J LEASING, LLC	TLE	-	-	-	1,323	-
11	CRUISERINO'S, LLC	TLE, PLE	-	-	-	2,038	393
73	ALLIANT ENERGY - GAS	RELEASE OF RIGHTS					



COORDINATES FROM COUNTY SURVEYOR
Y=280945.1460
X=638522.3430

PLE/TLE STATION AND OFFSET TABLE

POINT NUMBER	STATION	OFFSET
P01	220+70.00	49.50'
P02	220+70.00	69.00'
P03	220+90.18	69.00'
T01	214+10.00	55.67'
T02	216+11.79	58.67'
T03	216+77.77	66.50'
T04	217+50.00	54.50'
T05	217+50.00	63.50'
T06	220+70.00	63.50'
T07	220+81.63	54.00'
T08	219+25.00	54.00'
T09	219+25.00	65.00'
T10	216+69.85	77.50'
T11	216+03.83	68.00'
T12	215+45.00	68.00'
T13	215+45.00	59.50'
T14	214+14.67	62.47'
T15	214+14.00	52.49'
T60	216+90.00	54.50'
T62	216+80.00	65.00'

PI = 213+81.633
Y = 280540.6269
X = 638308.9603
DELTA = 11°22'28" LT
BACK = S76°50'47"E
AHEAD = N88°13'15"W
D = 05°00'00"
T = 114.12'
L = 227.49'
R = 1145.92'

R/W CURVE 124-123
L = 67.55'
R = 1065.92'
LCB = N78°39'43"W
LC = 67.54'

STATION AND OFFSET TABLE

POINT NUMBER	STATION	OFFSET
100	213+45.30	45.12'
101	214+10.00	51.49'
102	214+10.00	46.48'
103	216+11.81	49.50'
104	216+77.81	49.50'
105	220+90.13	49.50'
106	221+64.38	49.50'
107	221+64.14	49.50'
108	220+81.64	49.00'
109	219+11.28	49.00'
110	219+11.28	49.50'
111	216+69.78	49.50'
112	216+03.78	49.50'
113	212+10.10	85.00'
123	213+40.13	80.00'
124	212+67.51	80.00'

PLE COURSE TABLE

POINT NUMBER	BEARING	DIST.
105-P01	S88°13'15"E	20.13'
P01-P02	S01°46'45"W	19.50'
P02-P03	N88°13'15"W	20.18'
P03-105	N01°55'15"E	19.50'

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, SAUK COUNTY ZONE, NAD83 (91) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4 " X 34" IRON REBARS) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY OTHERS.

DIMENSIONING FOR THE NEW R/W IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

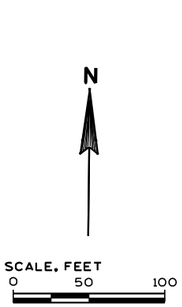
RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

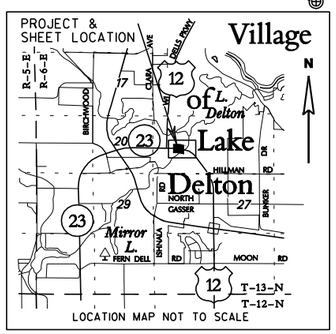
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR USH 12 ESTABLISHED FROM PREVIOUS PROJECT 418B, 6146-2-21, 6145-00-25, THE PLAT OF VILLAGE OF LAKE DELTON, AND CSM 1836.
EXISTING HIGHWAY RIGHT-OF-WAY FOR SOUTH DELAVAN STREET, NORTH DELAVAN STREET, SOUTH JUDSON STREET, AND NORTH JUDSON STREET ESTABLISHED FROM NORRIS VILLAGE (ORIGINAL PLAT).

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

NOTE;
FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OR 2 OF DOCUMENT 1049272, OF TRANPORTATION PROJECT PLATS IN THE SAUK COUNTY REGISTER OF DEEDS.





R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6145-00-24-4.01 AMENDMENT NO.1 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

11/27/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

REAL ESTATE SUPERVISOR DATE:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6145-00-24-4.01
AMENDMENT NO: 1

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN _____ COUNTY, WISCONSIN AT ____:____ M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

FILE NAME : s:\5160751\Phase 3 Project\Plat Phase 3\040401_rp.dgn
APPRAISAL PLAT DATE : NOVEMBER 27, 2012
PLOT DATE : 11/27/2012 PLOT BY : gak PLOT NAME : PLOT SCALE : $$.....plotscale.....$$
6145-00-24 4.01 AMEND.-1

TRANSPORTATION PROJECT PLAT NO: 6145-00-24 - 4.02 AMENDMENT NO.1

AMENDS PARCELS 12,14, 29, 34, 36, AND 71 AND REMOVES PARCEL 13 FROM TRANSPORTATION PLAT 6145-00-24 - 4.02 RECORDED AS DOC. 1050046 AND FILED IN CABINET D ENVELOPE 284-A

THAT PART OF OUTLOT 1 OF CSM 5901, LOTS 12 THROUGH 16, BLOCK 37, LOTS 7 THROUGH 20, BLOCK 38, LOTS 1 THROUGH 6, LOTS 9 THROUGH 14, BLOCK 43, LOTS 1 THROUGH 9, BLOCK 44, OF NORRIS VILLAGE (ORIGINAL PLAT) IN THE NE1/4-SW1/4 AND THE NW1/4-SW1/4 OF SECTION 21,T13N, R6E, VILLAGE OF LAKE DELTON, SAUK COUNTY, WISCONSIN.

RELOCATION ORDER USH 12, LAKE DELTON - IH 90 ROAD, (DELL CREEK BRIDGE TO WHITLOCK STREET), VILLAGE OF LAKE DELTON, SAUK COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND AND INTERESTS TO DOT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	AREA SQUARE FEET REQUIRED NEW	EXISTING	TOTAL	PLE S.F.	TLE S.F.
12	STEVEN W HAUPT	FEE, PLE, TLE	999	-	999	343	4,751
14	WISCONSIN DUCKS, INC	FEE, PLE, TLE	3,935	1,927	5,862	340	5,299
22	COUNTRY MARKET, INC	TLE	-	-	-	-	239
23	VILLAGE OF LAKE DELTON	FEE	1,118	-	-	-	-
24	MICHAEL D WENTLAND	TLE	-	-	-	-	184
28	BARABOO NATIONAL BANK	TLE	-	-	-	-	476
29	TOWN OF DELTON	PLE, TLE	-	-	-	255	3,455
33	KARAUS FAMILY TRUST	TLE	-	-	-	-	1,164
34	JAMES D MOWERY, ET AL	TLE	-	-	-	-	279
36	MICHAEL D WENTLAND	TLE	-	-	-	-	357
37	ZAKOPANE, LLC	TLE	-	-	-	-	422
71	VILLAGE OF LAKE DELTON	RELEASE OF RIGHTS					
73	ALLIANT ENERGY - GAS	RELEASE OF RIGHTS					

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, SAUK COUNTY ZONE, NAD83 (91) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4 " X 34" IRON REBARS) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY OTHERS.

DIMENSIONING FOR THE NEW R/W IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

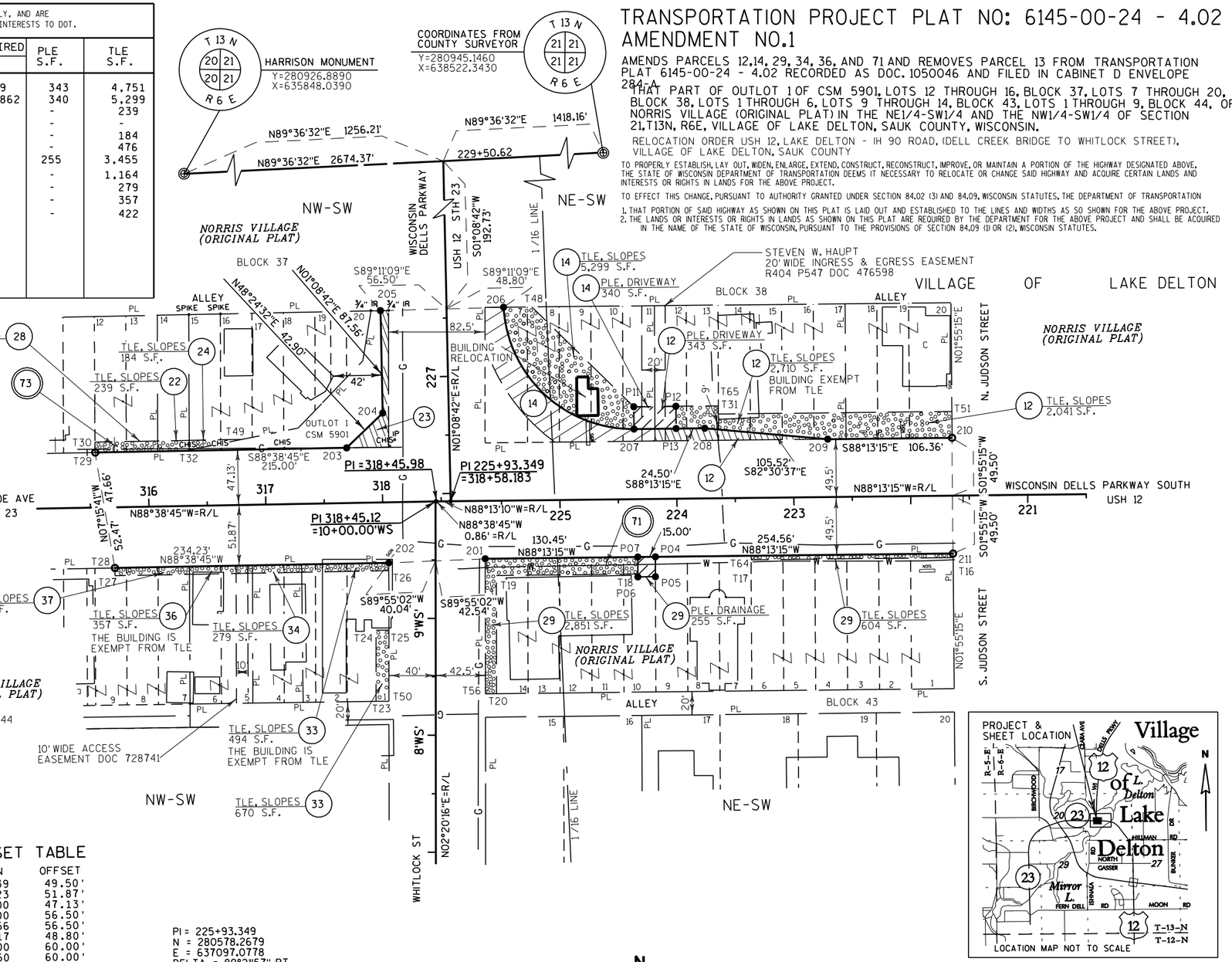
RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

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.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR USH 12 ESTABLISHED FROM PREVIOUS PROJECTS 4188, 6146-2-21, THE PLAT OF VILLAGE OF LAKE DELTON, AND NORRIS VILLAGE (ORIGINAL PLAT).
EXISTING HIGHWAY RIGHT-OF-WAY FOR WHITLOCK STREET, SOUTH JUDSON STREET, AND NORTH JUDSON STREET ESTABLISHED FROM NORRIS VILLAGE (ORIGINAL PLAT).

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

NOTE:
FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OR 2 OF DOCUMENT 1049272, OF TRANPORTATION PROJECT PLATS IN THE SAUK COUNTY REGISTER OF DEEDS.



PLE/TLE STATION AND OFFSET TABLE

POINT NUMBER	STATION	OFFSET
P04	224+18.94	49.50'
P05	224+19.06	66.50'
P06	224+34.06	66.50'
P07	224+33.94	49.50'
P11	224+36.00	79.00'
P12	224+00.00	79.00'
P13	224+00.00	60.00'
T16	221+64.39	53.00'
T17	223+37.00	53.00'
T64	223+37.00	49.50'
T18	224+34.04	64.00'
T19	225+53.03	64.00'
T20	08+35.50 'WS'	52.00'
T23	08+29.06 'WS'	51.00'
T24	08+90.00 'WS'	51.00'
T25	08+90.00 'WS'	40.00'
T26	318+04.11	58.50'
T27	315+70.00	58.50'
T28	315+70.00	51.88'
T29	315+55.00	47.12'
T30	315+55.00	56.00'
T48	227+57.87	73.00'
T49	316+80.44	56.00'
T51	221+64.08	72.00'
T64	223+37.00	49.50'
T65	223+64.00	79.00'
T31	223+64.00	72.00'
T56	8+35.41"WS"	42.50'
T50	8+29.20"WS"	40.00'

STATION AND OFFSET TABLE

POINT NUMBER	STATION	OFFSET
201	225+64.39	49.50'
202	318+04.23	51.87'
203	317+70.00	47.13'
204	226+70.00	56.50'
205	227+57.56	56.50'
206	227+58.17	48.80'
207	224+36.00	60.00'
208	223+75.50	60.00'
209	222+70.50	49.50'
210	221+64.14	49.50'
211	221+64.38	49.50'

PLE COURSE TABLE

POINT NUMBER	BEARING	DIST.
P07-P04	S88°13'15"E	15.00'
P04-P05	S02°10'51"W	17.00'
P05-P06	N88°13'15"W	15.00'
P06-P07	N02°10'51"E	17.00'
207-P11	N01°46'45"E	19.00'
P11-P12	S88°13'15"E	36.00'
P12-P13	S01°46'45"W	19.00'
P13-207	N88°13'15"W	36.00'

PI= 225+93.349
N = 280578.2679
E = 637097.0778
DELTA = 89°21'57" RT
BACK = S88°13'15"E
AHEAD = N01°08'42"E

PI= 318+45.984
N = 280578.6470
E = 637084.8848
DELTA = 00°25'35" RT
BACK = N88°38'45"W
AHEAD = S88°13'10"E

PI= 318+45.12
N = 280578.668
E = 637084.025
DELTA = 90°59'01" RT
BACK = N88°38'45"W
AHEAD = S02°20'16"W

FEE 206-207
L=168.42'
R=110.50'
LCB=S44°33'25"E
LC=152.58'

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6145-00-24-4.02 AMENDMENT NO.1 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

GREGORY A. KUNZ
S-1346
WAUKESHA, WI
LAND SURVEYOR

11/27/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

REAL ESTATE SUPERVISOR DATE:

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6145-00-24-4.02
AMENDMENT NO: 1

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN _____ COUNTY, WISCONSIN AT ____:____ M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

FILE NAME : s:\5160751\Phase 3 Project\Plat Phase 3\040402_rp.dgn
APPRAISAL PLAT DATE : NOVEMBER 27, 2012
PLOT DATE : 1/18/2013
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
6145-00-24 4.02 AMEND.-1

TRANSPORTATION PROJECT PLAT NO: 6145-00-24 - 4.03

THAT PART OF LOT 6, BLOCK 38, LOTS 6 AND 7, BLOCK 25, VACATED ALLEY, BLOCK 26, LOTS 1 AND 12, BLOCK 26, VACATED ADAMS STREET, AND LOTS1-16, BLOCK 37 OF NORRIS VILLAGE (ORIGINAL PLAT) IN THE SW1/4-NW1/4, SE1/4-NW1/4, NW1/4-SW1/4, AND NE1/4-SW1/4 ALL OF SECTION 21,T13N, R6E, VILLAGE OF LAKE DELTON, SAUK COUNTY, WISCONSIN.

RELOCATION ORDER USH 12, LAKE DELTON - IH 90 ROAD, (DELL CREEK BRIDGE TO WHITLOCK STREET), VILLAGE OF LAKE DELTON, SAUK COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND AND INTERESTS TO DOT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	AREA SQUARE FEET REQUIRED NEW	EXISTING	TOTAL	PLE S.F.	TLE S.F.
16	BDB ENTERPRISES, LLC	FEE, TLE	1,377	0.00	1,377	-	4,525
17	MARTIN H BERNING	TLE	-	-	-	-	3,196
18	MARTIN H AND LILA H BERNING	TLE	-	-	-	-	277
19	RHM INVESTMENTS GROUP, INC	TLE	-	-	-	-	811
21	BP PROPERTIES LLC	FEE, TLE	501	0.00	501	-	1,979
22	COUNTRY MARKET, INC	FEE, TLE	808	0.00	808	-	5,358
24	MICHAEL WENTLAND	TLE	-	-	-	-	1,380
28	BARABOO NATIONAL BANK	TLE	-	-	-	-	3,311

PLE/TLE STATION AND OFFSET TABLE

POINT NUMBER	STATION	OFFSET
T34	227+77.57	66.50'
T35	228+71.00	66.50'
T36	230+30.00	50.67'
T37	232+25.00	47.94'
T38	232+25.00	41.25'
T39	232+20.00	41.25'
T40	232+20.00	51.25'
T41	231+92.39	51.25'
T42	231+72.39	51.25'
T43	230+80.00	49.58'
T44	230+80.00	75.00'
T45	230+15.35	73.65'
T46	229+32.85	73.00'
T47	227+77.87	73.00'
T68	227+91.08	452.46'
T66	227+90.72	177.68'
T67	227+77.72	177.69'
T75	227+57.72	174.70'
T74	227+27.72	174.73'
T73	227+27.83	263.03'
T72	227+42.83	263.02'
T71	227+43.08	453.19'
T70	227+58.08	452.96'
T69	227+78.08	452.66'

STATION AND OFFSET TABLE

POINT NUMBER	STATION	OFFSET
300	227+77.56	56.50'
301	228+71.00	56.50'
302	229+88.00	44.85'
303	231+92.30	41.25'
304	231+72.30	41.25'
305	230+15.79	38.24'
306	229+33.26	40.00'
307	227+78.19	47.60'

PI = 231+60.622
N = 281145.4277
E = 637108.4128
DELTA = 01°11'34" RT
BACK = S01°08'42"W
AHEAD = N02°20'16"E

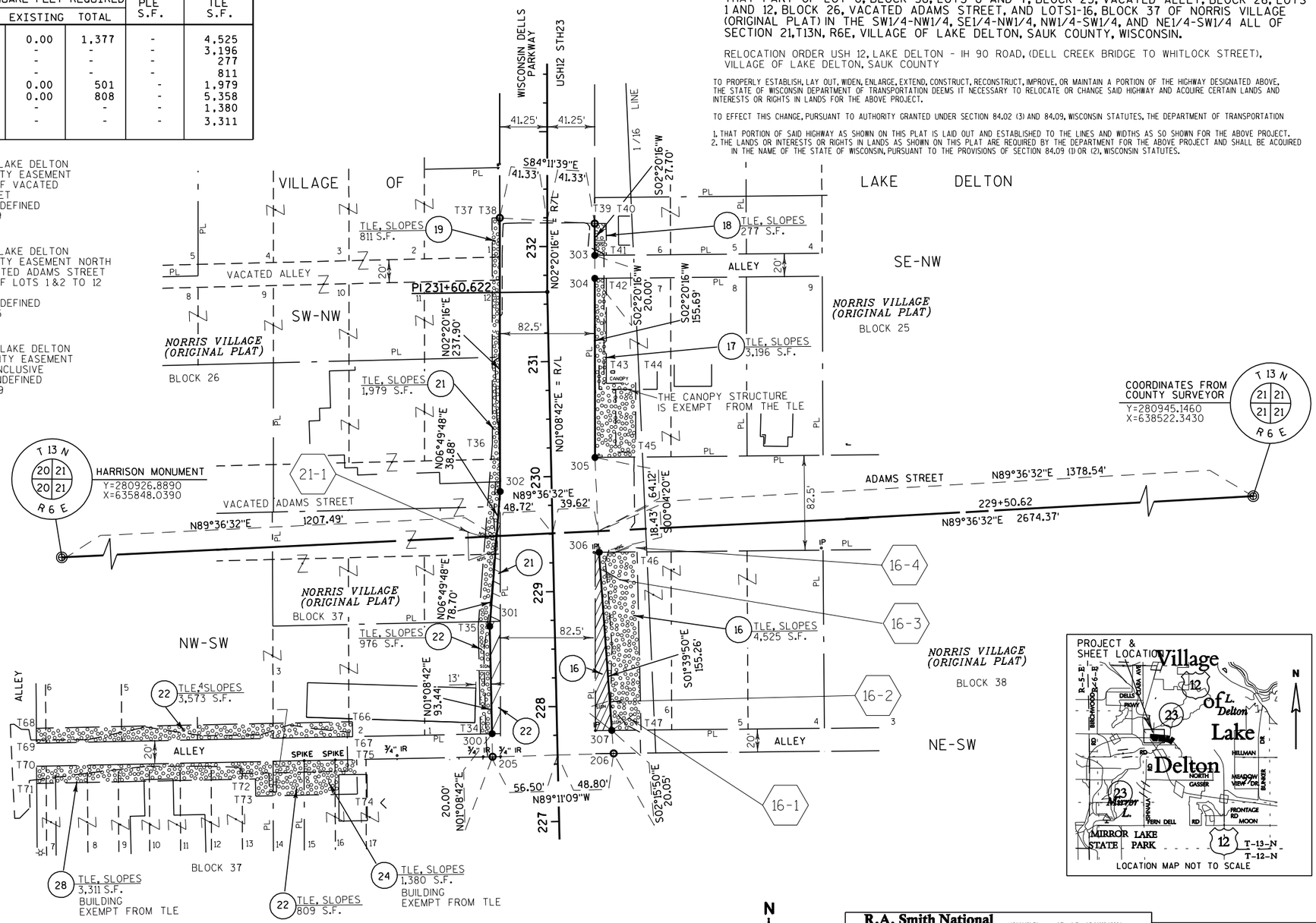
VILLAGE OF LAKE DELTON
10' WIDE UTILITY EASEMENT
SOUTH 1/2 OF VACATED
ADAMS STREET
LOCATION UNDEFINED
V 293 P 49
DOC 326761

VILLAGE OF LAKE DELTON
10' WIDE UTILITY EASEMENT NORTH
1/2 OF VACATED ADAMS STREET
SOUTH 1/2 OF LOTS 1&2 TO 12
INCLUSIVE
LOCATION UNDEFINED
V 293 P 65
DOC 326769

VILLAGE OF LAKE DELTON
10' WIDE UTILITY EASEMENT
LOTS 3-15 INCLUSIVE
LOCATION UNDEFINED
V 293 P 49
DOC 326761

WISCONSIN POWER & LIGHT
12' WIDE POLE EASEMENT
V 345 P 138
DOC 361060

WISCONSIN POWER & LIGHT
12' WIDE POLE EASEMENT
V 345 P 144
DOC 361063



NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, SAUK COUNTY ZONE, NAD83 (91) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4 " X 34" IRON REBARS) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY OTHERS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

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.

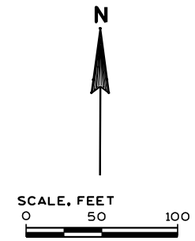
DIMENSIONING FOR THE NEW R/W IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR USH 12 ESTABLISHED FROM PREVIOUS PROJECTS 418B, 6146-2-21, THE PLAT OF VILLAGE OF LAKE DELTON, AND NORRIS VILLAGE (ORIGINAL PLAT).
EXISTING HIGHWAY RIGHT-OF-WAY FOR ADAMS STREET ESTABLISHED FROM NORRIS VILLAGE (ORIGINAL PLAT).

NOTE:

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1049272, OF TRANSPORTATION PROJECT PLAT IN THE SAUK COUNTY REGISTER OF DEEDS.

IMPACTED SIGNS	SIGN OWNER
16-1	"NOAH'S ARK/HILTON GARDEN INN"
16-2	"CRYSTAL GRAND/KAHUNAVILLE"
16-3	"RIVERVIEW PARK/DOWNTOWN DELLS"
16-4	"RAVINA BAY/SUNSET BAY"
21-1	"VIKING VILLAGE FOODS"



R.A. Smith National
Beyond Surveying and Engineering
16746 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6145-00-24-4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

03/23/2012
GREGORY A. KUNZ — DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

REAL ESTATE SUPERVISOR — DATE:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6145-00-24-4.03
AMENDMENT NO:

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS
IN _____ COUNTY, WISCONSIN AT
___:___ .M ON _____
AS DOCUMENT # _____ AND
FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

FILE NAME : s:\5160751\Phase 3 Project\Plat Phase 3\040403_rp.dgn
APPRAISAL PLAT DATE : MARCH 23, 1012
PLOT DATE : 3/23/2012 PLOT BY : gak PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

6145-00-24 4.03

R/W MONUMENT POINT NUMBERS AND COORDINATES

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X
100	280485.2441	638336.5374
101	280487.1780	638274.2733
102	280492.1640	638274.7999
103	280498.3198	638076.6104
104	280500.3688	638010.6420
105	280513.1694	637598.5164
106	280515.4745	637524.3019
107	280614.4192	637527.6202
108	280611.3582	637610.0639
109	280606.0694	637780.3411
110	280606.5691	637780.3584
111	280599.0720	638021.7351
112	280597.0230	638087.7035
113	280584.3618	638495.3394
200	280515.4745	637524.3019
201	280527.8927	637124.4876
202	280527.7736	637041.9140
203	280627.5549	637010.0362
204	280656.0317	637042.1206
205	280743.5751	637043.8702
206	280742.0787	637149.1584
207	280633.3541	637256.2145
208	280631.4759	637316.6853
209	280617.7212	637421.3087
210	280614.4192	637527.6202
300	280763.5711	637044.2698
301	280856.9916	637046.1368
302	280973.7355	637060.1196
303	281175.3979	637150.9208
304	281155.4138	637150.1050
305	280999.8554	637143.7546
306	280917.3088	637143.8585
307	280762.1162	637148.3662

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X
P01	280512.5444	637618.6387
P02	280493.0538	637618.0333
P03	280493.6803	637597.8628
P04	280523.3773	637269.8649
P05	280506.3892	637269.2180
P06	280506.8548	637254.2248
P07	280523.8430	637254.8717
P11	280652.3449	637256.8044
P12	280651.2273	637292.7870
P13	280632.2365	637292.1971

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X

FILE NAME : s:\5160751\Phase 3 Project\Plat Phase 3\040404_rp.dgn
APPRAISAL PLAT DATE : NOVEMBER 27, 2012
PLOT DATE : 11/27/2012
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
6145-00-24 4.04

UTILITIES
GAS/ELECTRIC = ALLIANT ENERGY
WATER/SANITARY = VILLAGE OF LAKE DELTON
CABLE TV = CHARTER COMMUNICATIONS
TELEPHONE = VERIZON

NOTE: SEE STORM SEWER PLAN FOR STORM SEWER REMOVALS
SER = SEE ENCROACHMENT REPORT
TP = TRANSPLANT TREE (SEE ENHANCEMENT DETAIL)
CGT = CURB & GUTTER TRANSITION SEE CONSTRUCTION DETAIL

CG-18 = CURB & GUTTER 18-INCH
CG-24 = CURB & GUTTER 24-INCH
CG-30 = CURB & GUTTER 30-INCH
CG-66 = CURB & GUTTER 66-INCH

FIRST WEBER 220
231 SURFSIDE MOTEL
CRUISERINO'S LLC 136-150
125-133 MARY'S PLACE
151 ARMY DUCKS CANOPY
A & J LEASING LL(124
WISCONSIN DUCKS

N DELAVAN STREET
USH 12

SAVE TREE
SIGN & PLANTER TO BE REMOVED BY OWNER (SER)
SLOPE INTERCEPT
SIGN & WOOD RAMP TO REMAIN
SIGN TO REMAIN
CAUTION
CONCRETE SIDEWALK 5-INCH
CG-66
CG-30
EB CONSTRUCTION LINE
USH 12 R/L
WB PGL
REMOVE ACCESS
CONCRETE STEPS & RAILING PIPE (SEE CONSTRUCTION DETAIL)
SIGN & LIGHT TO BE REMOVED BY OWNER (SER)
LANDSCAPE TIMBERS TO REMAIN (SER)
CHAIN LINK FENCE TO REMAIN
WALL MODULAR BLOCK GRAVITY STA 214+85 TO STA 215+53 (SEE CONSTRUCTION DETAIL)
FIELD STONE WALL WITHIN R/W TO BE REMOVED BY OWNER (SER)
WALL AND COLUMNS TO REMAIN (SER)
BUILDING ENCROACHMENT TO REMAIN (SER)
COLUMN ENCROACHMENT TO REMAIN (SER)
BILLBOARD TO REMAIN
PLACE SOD LAWN TO THE R/W
REMOVE STEPS
REMOVE MODULAR BLOCK WALL
WALL MODULAR BLOCK GRAVITY STA 218+02 TO STA 218+35 (SEE CONSTRUCTION DETAIL)

CURVE EB 5
R = 600'
PC STA 212+83.85, 0.12' RT
PT STA 214+02.95, 3.82' LT
SE = 3.35%

CURVE WB 4
R = 600'
PC STA 213+59.71, 3.72' RT
PT STA 214+78.03, 7.63' RT
SE = 3.35%

CURVE 4
R = 1145.92'
PC STA 212+67.51
PT STA 214+95.00
SE = 3.35%

P.I. 213+81.633

BEGIN PROJECT 6145-00-74
STA. 213+00
Y = 280,521.60
X = 638,388.35

VCL 140.00
K = 37.69
+3.36 %
213+70.000
L879.62
VPC STA 214+80.000
VPC EL 883.32
K = 147.98
VCL 600.00

WB FINISHED PROFILE
EXISTING R/L PROFILE
APPROXIMATE SOFT SANDSTONE ELEVATION
NO BLASTING ANTICIPATED
EXISTING R/L PROFILE ELEVATION
FINISHED WB PROFILE ELEVATION

	213	214	215	216	217	218	219
EXISTING R/L PROFILE ELEVATION	877.91	878.64	880.29	881.84	883.44	884.85	886.15
FINISHED WB PROFILE ELEVATION	877.92	879.00	880.63	882.31	883.98	885.51	886.86

	213	214	215	216	217	218	219
EXISTING R/L PROFILE ELEVATION	887.84	888.89	890.11	890.77	891.05	890.92	
FINISHED WB PROFILE ELEVATION	888.06	889.08	889.93	890.61	891.13	891.47	

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PLAN & PROFILE	SHEET	E

FILE NAME : t:\1022702\sheets\sheets-Phase3\PLANPROF\050101_pp.DGN PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

UTILITIES
GAS/ELECTRIC = ALLIANT ENERGY
WATER/SANITARY = VILLAGE OF LAKE DELTON
CABLE TV = CHARTER COMMUNICATIONS
TELEPHONE = VERIZON

CG-18 = CURB & GUTTER 18-INCH
CG-24 = CURB & GUTTER 24-INCH
CG-30 = CURB & GUTTER 30-INCH
CG-66 = CURB & GUTTER 66-INCH

NOTE: SEE STORM SEWER PLAN FOR STORM SEWER REMOVALS
SER = SEE ENCROACHMENT REPORT
TP = TRANSPLANT TREE (SEE ENHANCEMENT DETAIL)
CGT = CURB & GUTTER TRANSITION SEE CONSTRUCTION DETAIL

JUDSON STREET
USH 12
MOOSE JAW
110
CAUTION
SIGN & TREE TO REMAIN
SIGNS TO REMAIN
12" STANDPIPE
30' PE
TLE
ASPH
CONC
R/W
PLE
25'R
CONCRETE SIDEWALK 5-INCH
CG-66
CG-30
CG-24
HMA
SIGN
*HISTORICAL SITE
MARSHALL MEMORIAL HALL
REMOVAL RAISED BY OTHERS
ASPH ALLEY
DELTON FIRE STATION
FENCE SAFETY
SAVE TREES ROADSIDE CLEARING (ABOVE SIDEWALK)
TOWN OF LAKE DELTON
SOD LAWN
COLORED CONCRETE RAISED MEDIAN (SEE CONSTRUCTION DETAIL)
EB CONSTRUCTION LINE
USH 12 R/L
WB PGL
POTENTIAL LIMITS OF SOIL AND GROUNDWATER CONTAMINATION
LANDSCAPING TO BE REMOVED BY OWNER (SER)
150' STORAGE
60' STORAGE
10:1 TAPER
PI 10+00.000 JS1
PI 10+00.000 JS'
CONCRETE STEPS TO BE REMOVED (TO BE PAID FOR AS REMOVING CONCRETE SIDEWALK)
BUILDING TO REMAIN (SER)
5.6' TO BLDG FACE
SIGN & LIGHT TO BE REMOVED BY OWNER (SER)
FENCE AND POOL DECK TO REMAIN (SER)
SIGN TO BE REMAIN (SER)
TWI-LITE MOTEL
CHAIN LINK FENCE
11' TO BLDG FACE
49 BRAT HOUSE GRILL INC
SLOPE INTERCEPT
CONCRETE PATIO TO BE REMOVED BY OWNER (SER)
31 KFC
SIGN TO BE MOVED BY OWNER
DRIVEWAY CURB CUT
SAVE TREES
DELLS BOAT TRIPS INFO
STR S-56-23 OVERHEAD SIGN SUPPORT
9.5' CONCRETE SIDEWALK TO R/W LINE
BUILDING TO BE REMOVED BY OTHERS PRIOR TO CONSTRUCTION
4" BASE AGGREGATE DENSE 1 1/4-INCH

WB FINISHED PROFILE
EXISTING R/L PROFILE
-0.69 %
-0.50%
219+77.26
891.67
VPT STA 220+80.000
VPT EL 891.32
VPI STA 224+75.000
VPI EL 888.58
APPROXIMATE SOFT SANDSTONE ELEVATION
NO BLASTING ANTICIPATED
K = 147.98
VCL 600.00
EXISTING R/L PROFILE ELEVATION
FINISHED WB PROFILE ELEVATION

| | | |

NOTE: ~~SEE STORM SEWER PLAN FOR STORM SEWER REMOVALS~~

SER = SEE ENCROACHMENT REPORT

TP = TRANSPLANT TREE (SEE ENHANCEMENT DETAIL)

CGT = CURB & GUTTER TRANSITION SEE CONSTRUCTION DETAIL

CG-18 = CURB & GUTTER 18-INCH
CG-24 = CURB & GUTTER 24-INCH
CG-30 = CURB & GUTTER 30-INCH
CG-66 = CURB & GUTTER 66-INCH

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV
15	318+07. 47' RT	TOP OF STONE WINDOW LEDGE AT NE COR OF DENNY'S RESTAURANT	890.06

STH 23
USH 12
WHITLOCK ST
USH 12/STH 23
E ADAMS STREET
DENNY'S DINER 2
COUNTRY MARKET INC 21
VILLAGE OF LAKE DELTON
DELTON FIRE STATION FIRE STATION
WENTLAND
BP PROPE
POTENTIAL LIMITS OF SOIL AND GROUNDWATER CONTAMINATION
SEE STH 23 PLAN & PROFILE
CONSTRUCTION PERMIT OBTAINED
BUILDING & SIGN TO REMAIN (SER)
CONCRETE CORRUGATED MEDIAN
CONCRETE SIDEWALK 5-INCH
CONCRETE SIDEWALK 5-INCH STAMPED AND COLORED
200' STORAGE
5' BIKE LANE
ADJUST EXISTING MONITORING WELL (SEE SPECIAL PROVISIONS)
CONTRACTOR TO BOX OUT TYPE Z COVER DURING PAVING OPERATION AND PLACE COVER WITH CURB AND GUTTER
REMOVE ACCESS
REMOVE OVERHEAD SIGN SUPPORT
SLOPE INTERCEPT
STR S-56-24 OVERHEAD SIGN SUPPORT
SIGN TO BE REMOVED BY OWNER
12.5:1 TAPER
CONTRACTOR TO BOX OUT TYPE Z COVER DURING PAVING OPERATIONS AND PLACE COVER WITH RAISED MEDIAN
CONCRETE PAVEMENT DECORATIVE CROSSWALK
4" BASE AGGREGATE DENSE 1 1/4-INCH
CONCRETE SIDEWALK 5-INCH
SIGN TO BE REMOVED BY OWNER (SER)
BUILDING TO BE REMOVED BY OTHERS PRIOR TO CONSTRUCTION
CONCRETE CORRUGATED MEDIAN
9.5' CONCRETE SIDEWALK TO R/W LINE
3 SIGNS TO BE REMOVED BY OWNER (SER)
1 SIGN TO BE REMOVED BY OWNER
REMOVE CURB & GUTTER
REMOVE ACCESS
SOD LAWN
2 SIGNS TO BE REMOVED BY OWNER
2 SIGNS TO REMAIN (SER)
20 ADCI
20' ALLEY
UTILITIES
GAS/ELECTRIC = ALLIANT ENERGY
WATER/SANITARY = VILLAGE OF LAKE DELTON
CABLE TV = CHARTER COMMUNICATIONS
TELEPHONE = VERIZON
CAUTION

VPI STA 225+90.000 VPI EL888.00
VPI STA 226+23.000 VPI EL887.78
VPC STA 228+85.000 VPC EL886.47
VPI STA 229+60.000 VPI EL886.10
-0.50 %
-0.67 %
-0.50 %
-0.50 %
WB & EB FINISHED PROFILE
EXISTING R/L PROFILE
APPROXIMATE SOFT SANDSTONE ELEVATION NO BLASTING ANTICIPATED
EXISTING R/L PROFILE ELEVATION
FINISHED WB & EB PROFILE ELEVATION
K = 87.04
VCL 150.00

	225	226	227	228	229	230
EXISTING R/L PROFILE ELEVATION	887.49	887.39	887.26	887.07	886.96	886.81	886.53	886.00	885.24
FINISHED WB & EB PROFILE ELEVATION	888.45	887.93	887.64	887.39	887.14	886.89	886.64	886.38	885.90	885.14

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PLAN & PROFILE	SHEET E

FILE NAME : t:\1022702\sheets\sheets-Phase3\PLANPROF\050103_pp.DGN PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

NOTE: SEE STORM SEWER PLAN FOR STORM SEWER REMOVALS

SER = SEE ENCROACHMENT REPORT

TP = TRANSPLANT TREE (SEE ENHANCEMENT DETAIL)

CGT = CURB & GUTTER TRANSITION SEE CONSTRUCTION DETAIL

UTILITIES
GAS/ELECTRIC = ALLIANT ENERGY
WATER/SANITARY = VILLAGE OF LAKE DELTON
CABLE TV = CHARTER COMMUNICATIONS
TELEPHONE = VERIZON

CG-18 = CURB & GUTTER 18-INCH
CG-24 = CURB & GUTTER 24-INCH
CG-30 = CURB & GUTTER 30-INCH
CG-66 = CURB & GUTTER 66-INCH

BP PROPERTIES LLC
101

RHM INVESTMENTS GROUP LLC
131

KOCH
141

126
BERNING

138
HOLZEM

110
CITGO

USH 12/STH 23

E ADAMS STREET

E DURKEE STREET

SLOPE INTERCEPT P 231+60.622

CAUTION

3.5" HMA PAVEMENT TYPE E-10

CONTRACTOR TO PAVE AROUND TYPE Z CATCH BASIN

USH 12 R/L

WB PGL

CG-18

CG-30

CG-24

SIGN TO REMAIN (SER)

SOD LAWN

CONCRETE SIDEWALK 5-INCH

ADJUST SANITARY SEWER MANHOLE

REMOVE LIGHT POLE BY OWNER (SER)

POTENTIAL LIMITS OF SOIL AND GROUNDWATER CONTAMINATION

3.5" HMA PAVEMENT TYPE E-10 OVER 7" CONCRETE BASE OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH

CONCRETE SIDEWALK 5-INCH 4" BASE AGGREGATE DENSE 1 1/4-INCH

END PROJECT 6145-00-74
STA. 232+20.00

END CONSTRUCTION
STA. 235+20.14

NO.	STATION	DESCRIPTION	ELEV
16	230+76.55'RT	CHISELED BOX ON TOP OF S. END OF WESTERLY GAS PUMP ISLAND	885.93

VPI STA 229+60.000
VPI EL886.10

VPT STA 230+35.000
VPT EL884.43

VPC STA 231+00.000
VPC EL882.98

VPI STA 231+50.000
VPI EL881.87

VPT STA 232+00.000
VPT EL880.30

VPT STA 232+20.000
VPT EL879.67

K = 87.04
VCL 150.00

-2.22 %

K = 106.75
VCL 100.00

-3.14 %

EXISTING R/L PROFILE

WB FINISHED PROFILE

APPROXIMATE SOFT SANDSTONE ELEVATION
NO BLASTING ANTICIPATED

EXISTING R/L PROFILE ELEVATION
FINISHED WB PROFILE ELEVATION

886.00 / 885.90
885.24 / 885.14
884.23 / 884.09
883.06 / 882.98
881.78 / 881.76
880.29 / 880.30

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PLAN & PROFILE	SHEET E

FILE NAME : t:\1022702\sheets\sheets-Phase3\PLANPROF\050104_pp.DGN PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV
15	318+07, 47' RT	TOP OF WINDOW LEDGE	890.06

DELTON FIRE STATION
FIRE STATION
WHITLOCK STREET
S.M.6
S.M.10
BUILDING ENCROACHMENT TO REMAIN (SER)
DENNY'S DINER
2
MY GANG ANTIQUE MALL
14
WALL MODULAR BLOCK GRAVITY STA 316+34 TO STA 316+75, STA 316+86 TO STA 317+13, & STA 317+20 TO STA 317+37 (SEE CONSTRUCTION DETAIL)
CONCRETE STEP (SEE CONSTRUCTION DETAIL)
WETLAND
20
ZAKOPANE LLC
30
SLOPE INTERCEPT
CONCRETE SIDEWALK 5-INCH
REMOVE MODULAR BLOCK GRAVITY WALL
BM 15
CG-30
STH 23 CONSTRUCTED IN 2008
COLORED CONCRETE RAISED MEDIAN (SEE CONSTRUCTION DETAIL)
USH 12
STH 23
EB PGL
USH 12 R/L
WB PGL
POTENTIAL LIMITS OF SOIL AND GROUNDWATER CONTAMINATION
STH 23 R/L
CONCRETE SIDEWALK 5-INCH
VILLAGE OF LAKE DELTON
WETLAND
11
CAUTION
COUNTRY MARKET INC
19
LAKE DELTON NATIONAL BANK
END CONSTRUCTION
STA. 315+80.00
BIRNEY STREET

UTILITIES
GAS/ELECTRIC = ALLIANT ENERGY
WATER/SANITARY = VILLAGE OF LAKE DELTON
CABLE TV = CHARTER COMMUNICATIONS
TELEPHONE = VERIZON

CG-18 = CURB & GUTTER 18-INCH
CG-24 = CURB & GUTTER 24-INCH
CG-30 = CURB & GUTTER 30-INCH
CG-66 = CURB & GUTTER 66-INCH

NOTE: SEE STORM SEWER PLAN FOR STORM SEWER REMOVALS
SER = SEE ENCROACHMENT REPORT
TP = TRANSPLANT TREE (SEE ENHANCEMENT DETAIL
CGT = CURB & GUTTER TRANSITION SEE CONSTRUCTION DETAIL

USH 12/STH 23
NB VPOT STA 318+58.200 EL887.89
SB VPOT STA 318+58.200 EL887.75
NB VPT STA 317+35.000 EL887.18
SB VPT STA 317+35.000 EL887.13
NB VPI STA 316+75.000 EL886.83
SB VPI STA 316+75.000 EL886.83
NB VPC STA 316+15.000 EL885.45
SB VPC STA 316+15.000 EL885.45
NB VPI STA 316+00.000 EL885.10
SB VPI STA 316+00.000 EL885.10
NB VPOT STA 315+80.000 EL884.68
SB VPOT STA 315+80.000 EL884.68
NB K = 69.63
NB VCL 120.00
SB K = 66.47
SB VCL 120.00
FINISHED NB PROFILE
FINISHED SB PROFILE
EXISTING PROFILE
+0.58 %
+0.50 %
+2.31 %
+2.10 %
EXISTING PROFILE ELEVATION
FINISHED SB PROFILE ELEVATION
FINISHED NB PROFILE ELEVATION
887.54 887.85 887.70
887.50 887.56 887.45
887.43 887.27 887.20
887.20 886.89 886.86
886.42 886.16 886.16
885.10 885.10 885.10
883.66
882.37

892 890 888 886 884 882 880 878

318+50 318 317 316 315 314

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PLAN & PROFILE - STH 23	SHEET 123 E

FILE NAME : t:\1022702\sheets\sheets-Phase3\PLANPROF\050105_pp.DGN PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

USH 12

STH 23

USH 12/STH 23

CONCRETE SIDEWALK 5-INCH

CG-30

CONC

CONC

ASPH 24' PE

ASPH 22' PE

TLE

26.92'

COUNTRY MARKET INC

VILLAGE OF LAKE DELTON

40'R

CAUTION

11 WENTLAND

19 LAKE DELTON NATIONAL BANK

R/W

NOTE: SEE STORM SEWER PLAN FOR STORM SEWER REMOVALS

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CG-18 = CURB & GUTTER 18-INCH
CG-24 = CURB & GUTTER 24-INCH
CG-30 = CURB & GUTTER 30-INCH
CG-66 = CURB & GUTTER 66-INCH

UTILITIES
GAS/ELECTRIC = ALLIANT ENERGY
WATER/SANITARY = VILLAGE OF LAKE DELTON
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TELEPHONE = VERIZON

BIRNEY STREET

PI 13+71.70

11+00

12+00

N

PI 17+71.70

WENTLAND

SLOPE INTERCEPT

SIGNS TO BE MOVED BY OWNER

ADJUST INLET & REMOVE CURB BOX REPLACE WITH INLET COVER TYPE S

BIRNEY STREET R/L

TO BE ADJUSTED BY OWNER

BIRNEY STREET ALLEY R/L

BIRNEY STREET ALLEY

ASPH

20'

17+00

16+00

15+00

14+00

HMA PAVEMENT TYPE E-1, 3-INCH

END CONSTRUCTION
STA. 16+13

COUNTRY MARKET INC 21

BEGIN CONSTRUCTION
STA. 13+71.70

EXISTING PROFILE

FINISHED PROFILE

VPI STA 15+00.00
VPI EL883.00

VPT STA 15+75.00
VPT EL883.86

VPOT STA 16+13
VPOT EL884.30

VPC STA 14+25.00
VPC EL879.41

K = 41.24
VCL 150.00

+1.15 %

+4.79 %

-2 %

VPI STA 13+87.20
VPI EL877.64

VPI STA 13+84.70
VPI EL877.64

VPI STA 13+92.20
VPI EL877.84

VPI STA 13+86.70
VPI EL877.52

VPOT STA 13+71.70
VPOT EL877.90

EXISTING PROFILE ELEVATION
FINISHED PROFILE ELEVATION

| | | |

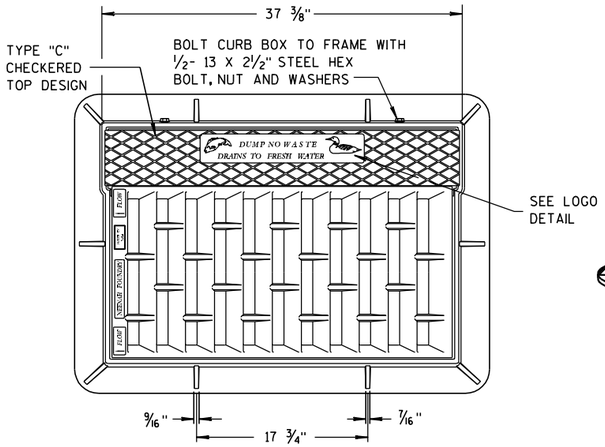
Standard Detail Drawing List

08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
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
08A09-01	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-14A	CURB RAMPS TYPES 1 AND 1-A
08D05-14B	CURB RAMPS TYPES 2 AND 3
08D05-14C	CURB RAMPS TYPE 4A
08D05-14D	CURB RAMPS TYPE 4B
08D05-14E	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
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-07	CONDUIT
09B04-10	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C03-03	TRANSFORMER/PEDESTAL BASES
09C06-05	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-02	CONCRETE BASE TYPE 10
09C12-02A	CONCRETE BASE TYPE 13
09C12-02B	CONCRETE BASE TYPE 13
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-02	SIGNAL OR LIGHTING CONTROL CABINET
09E01-11C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-11G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E04-05	WALKWAY LIGHTING UNIT AND CONCRETE BASE, TYPE 11
09E06-04	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
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
09F09-03	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
09F14-02	LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULL BOX 45 DEGREE ELBOWS TO PULL BOX
09G01-03A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03B	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
10A18-04A	LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP
10A18-04B	LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP
11B02-02	CONCRETE MEDIAN NOSE
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13C01-15	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-07	URBAN DOWELED CONCRETE PAVEMENT
13C15-05A	CONCRETE BASE
13C15-05B	CONCRETE BASE
13C18-01A	CONCRETE PAVEMENT JOINTING
13C18-01B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-01C	CONCRETE PAVEMENT JOINT TIES
13C18-01D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-01	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12A	PAVEMENT MARKING SYMBOLS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15E	PAVEMENT MARKING (LEFT TURN LANE)

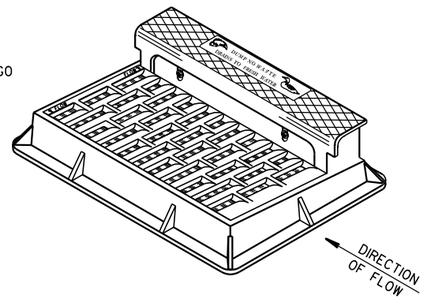
6

Standard Detail Drawing List

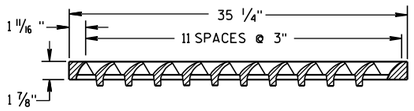
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT
15C29-02A	BICYCLE LANE MARKING
15D06-02	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D20-01	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-01	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D29-02	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

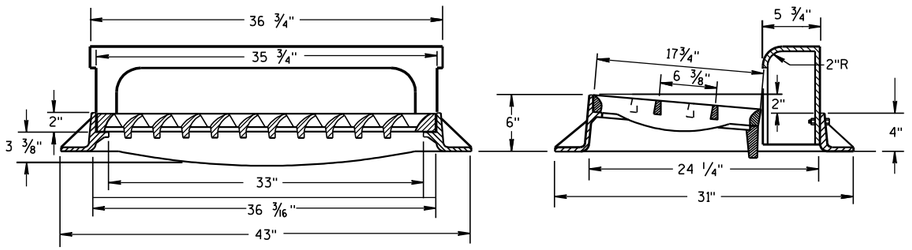


NOTE:
GRATE IS REVERSIBLE.



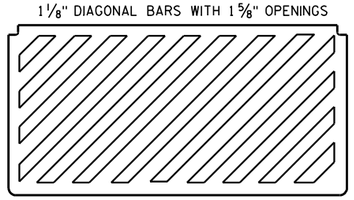
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"





TYPE "H"

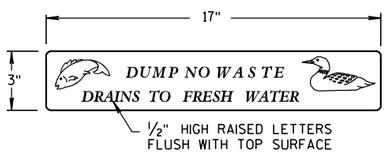
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



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

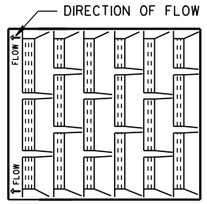
GENERAL NOTES

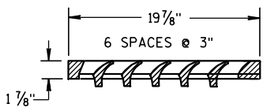
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

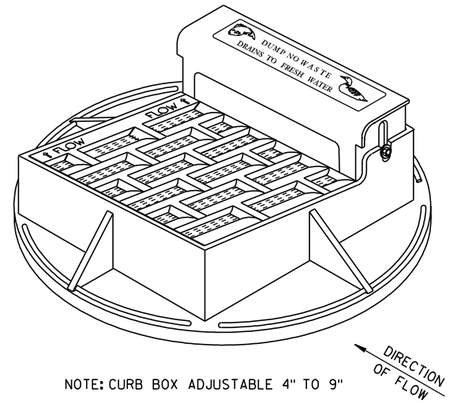
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

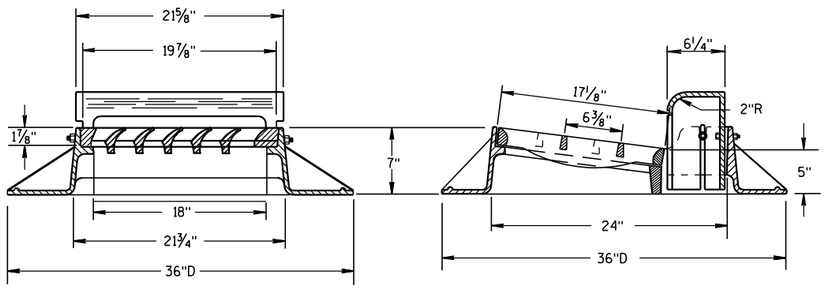
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





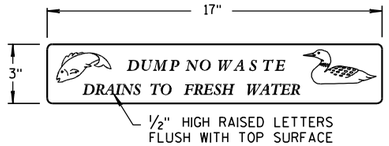


NOTE: CURB BOX ADJUSTABLE 4" TO 9"



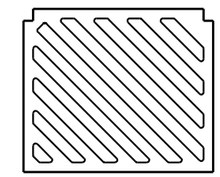
TYPE "A"

(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.

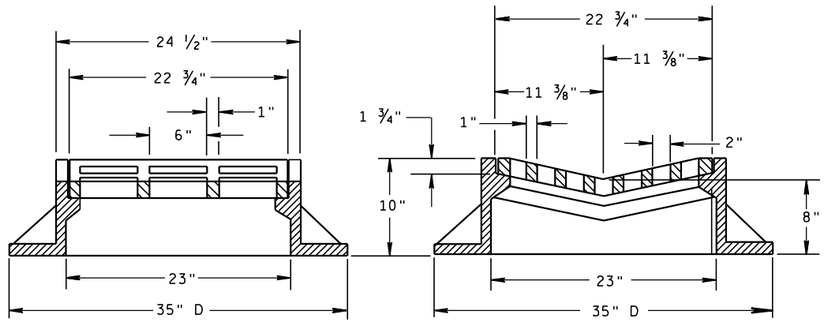
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

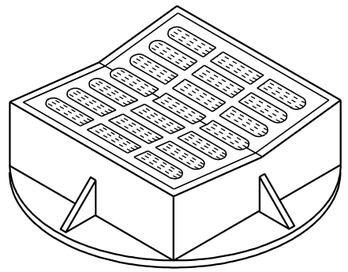
INLET COVERS TYPE A, H, A-S, & H-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 8 A 5-18a

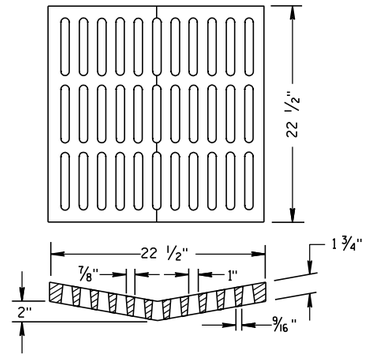




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

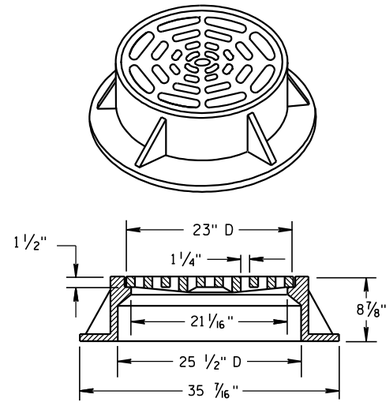


ALTERNATIVE GRATE FOR TYPE "B" COVER

(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.

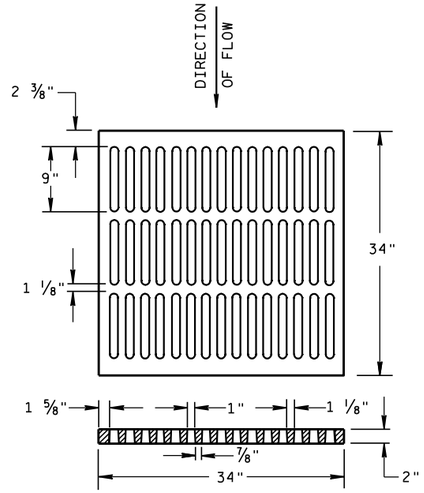
GENERAL NOTES

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.

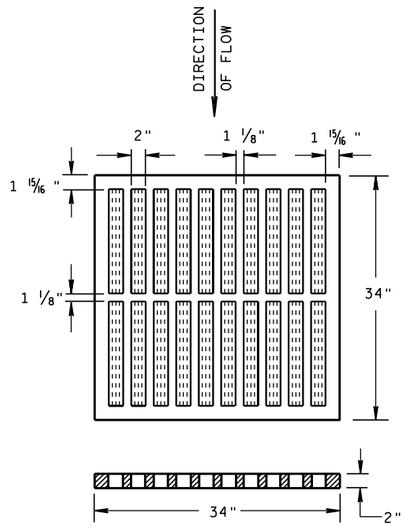


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

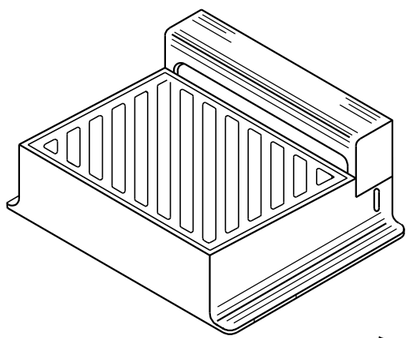


TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

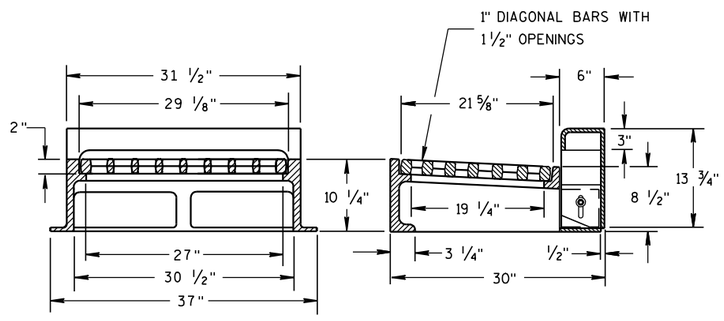
USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

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

128

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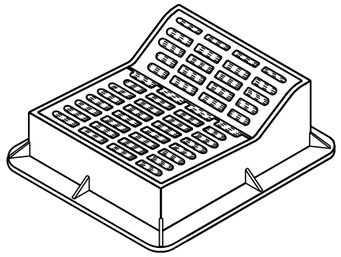
FHWA

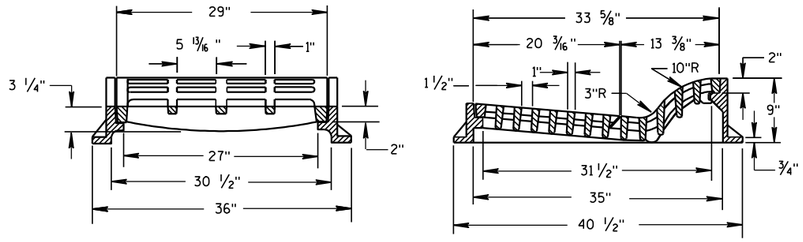
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S.D.D. 8 A 5-18b

6

S.D.D. 8 A 5-18b



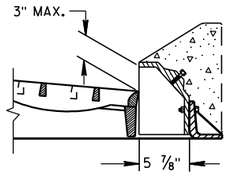


TYPE "F"

(APPROXIMATE WEIGHT 644 LBS.)

FRAME.....302 LBS.
GRATE.....160 LBS.
GRATE.....182 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

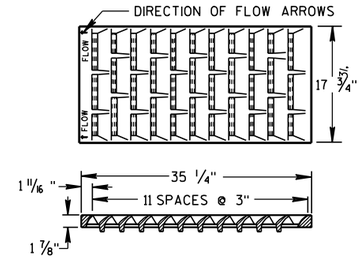
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

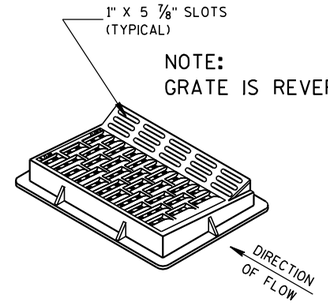
GENERAL NOTES

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.

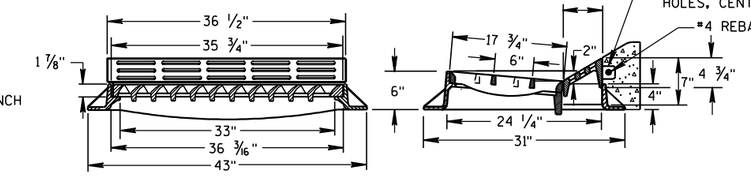
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





NOTE:
GRATE IS REVERSIBLE.

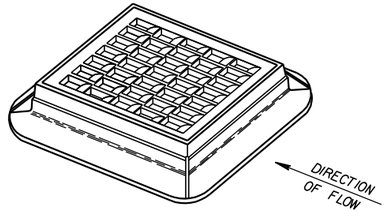


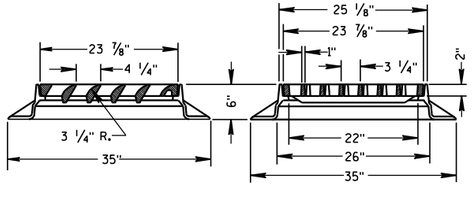
TYPE "HM"

(APPROXIMATE WEIGHT 414 LBS.)
FRAME..... 181 LBS.
GRATE..... 159 LBS.
CURB BOX..... 74 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

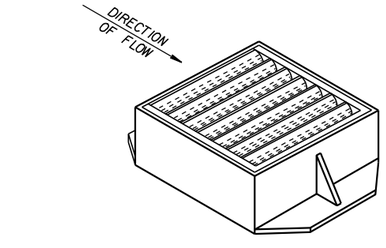


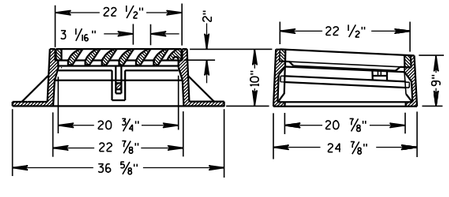


TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

FRAME.....164 LBS.
GRATE..... 169 LBS.

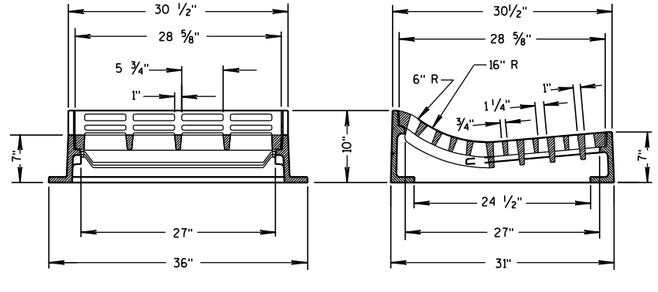




TYPE "V"

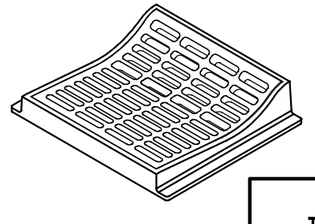
(APPROXIMATE WEIGHT 410 LBS.)

FRAME..... 269 LBS.
GRATE..... 136 LBS.
SAFETY BAR..... 5 LBS.



TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)
FRAME.....270 LBS.
GRATE.....260 LBS.
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

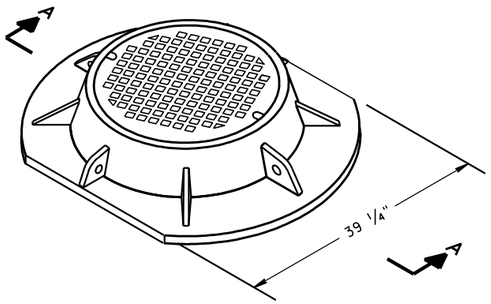
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

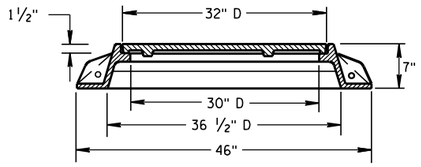
6

S.D.D. 8 A 5-18c

6

S.D.D. 8 A 5-18c



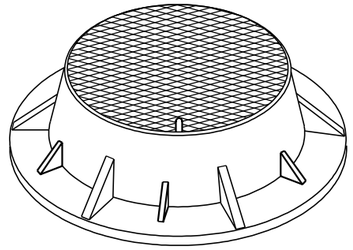


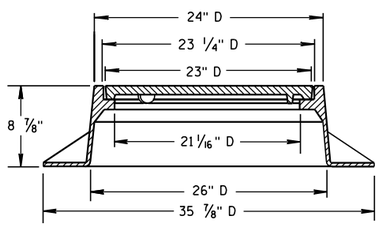
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

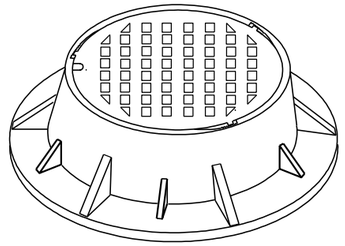


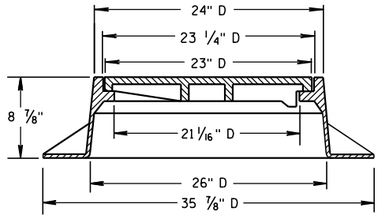


TYPE "J"

(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)

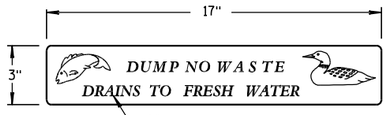
GENERAL NOTES

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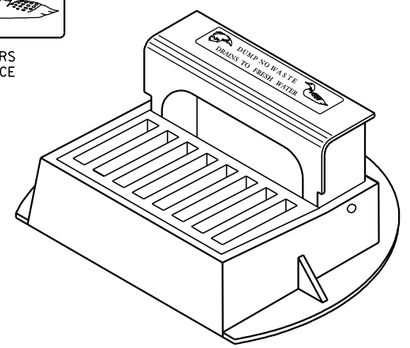
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

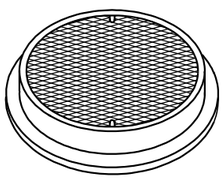
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

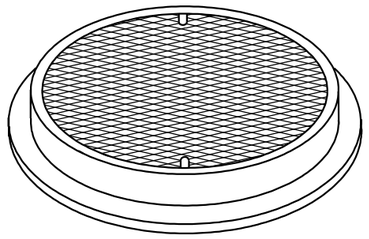
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

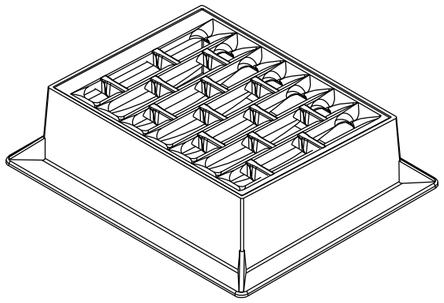


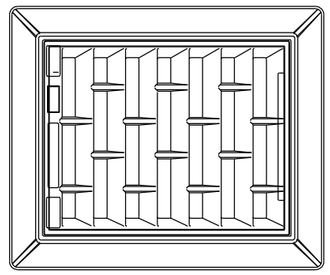
LOGO DETAIL

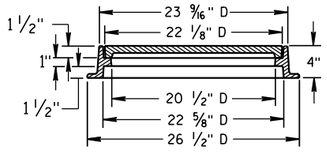








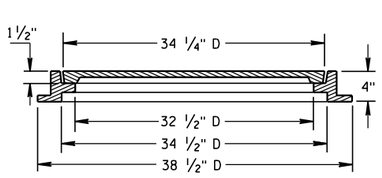




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

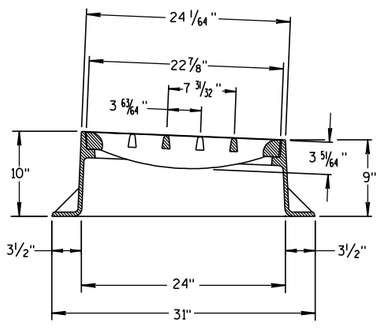
FRAME.....81 LBS.
LID.....77 LBS.

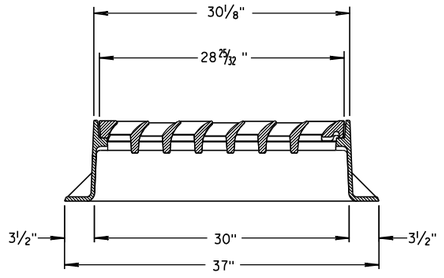


TYPE "M"

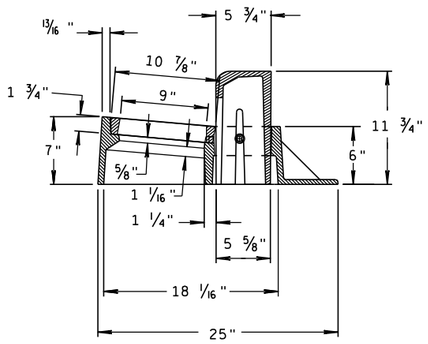
(APPROXIMATE WEIGHT 377 LBS.)

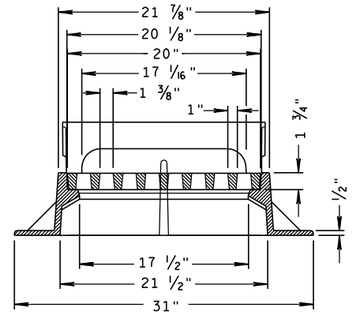
FRAME..... 125 LBS.
LID..... 252 LBS.





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. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

130

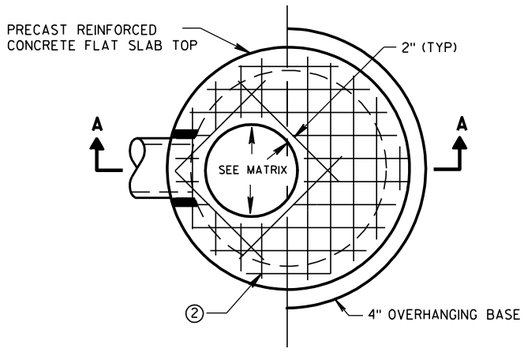
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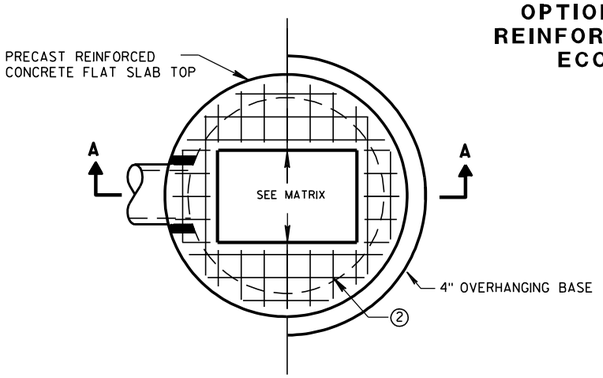
S.D.D. 8 A 5-18d

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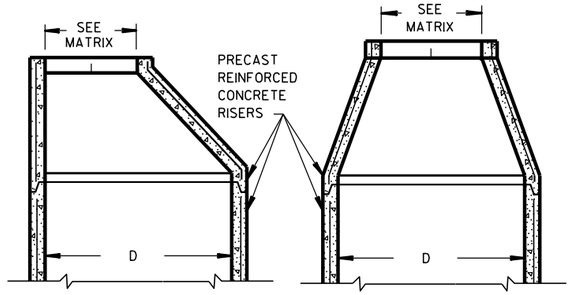
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PLAN VIEW CIRCULAR OPENING

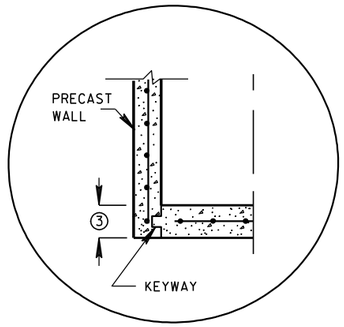


PLAN VIEW RECTANGULAR OPENING

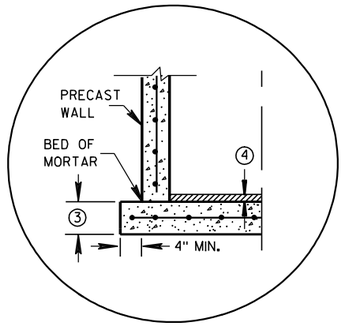


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

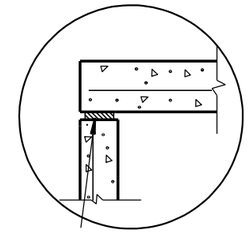


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



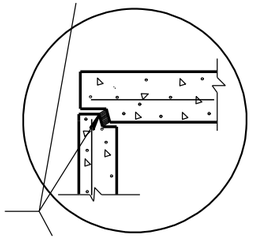
SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

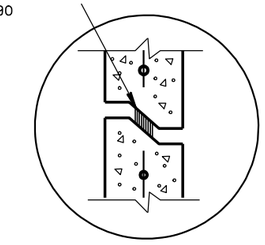


TOP WITH PLAIN END JOINT

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

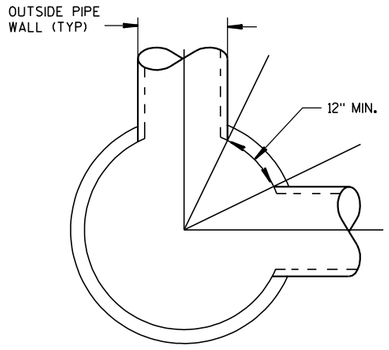


TOP WITH TONGUE AND GROOVE JOINT

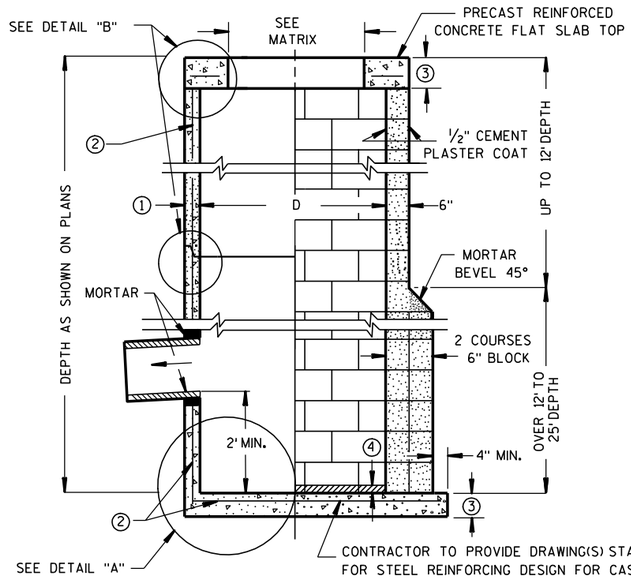


RISER WITH TONGUE AND GROOVE JOINT

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

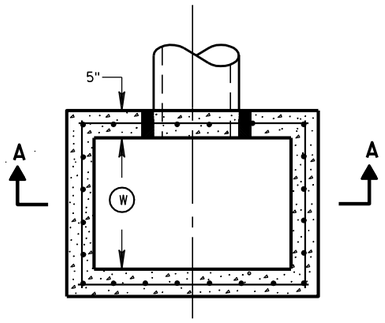
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

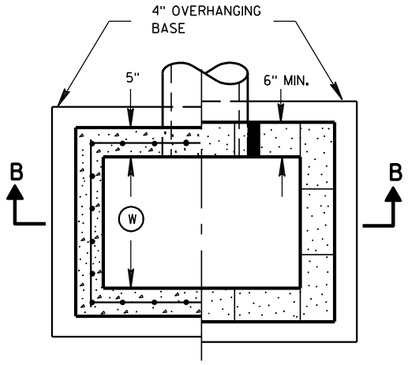
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

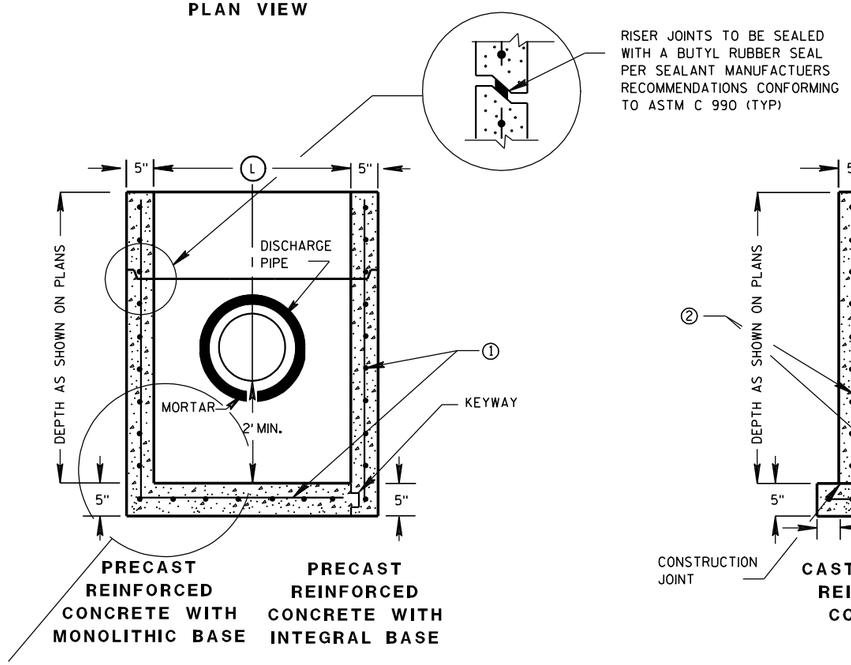
6
S.D.D. 8 A 8-1



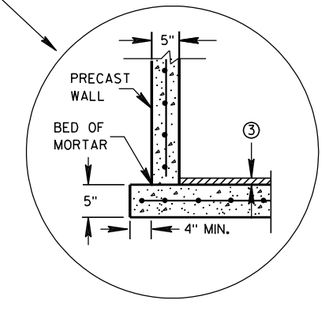
PLAN VIEW



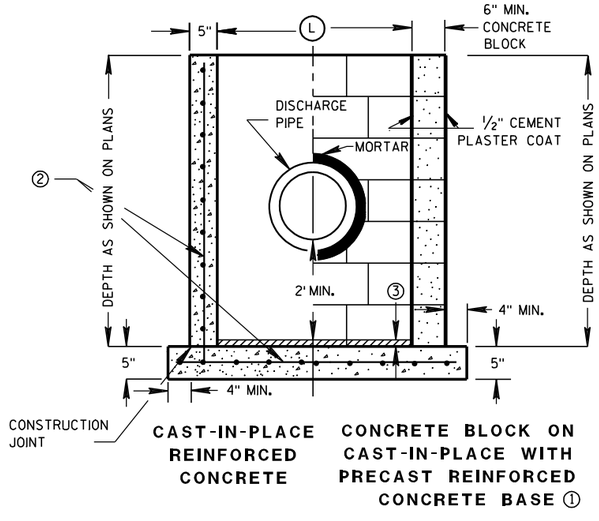
PLAN VIEW



SECTION A-A



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION



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.

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 PRECAST CATCH BASIN 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" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST CATCH BASINS 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.

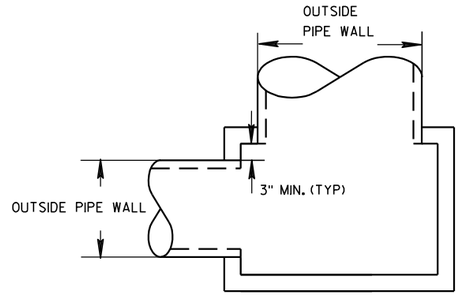
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER TYPE	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

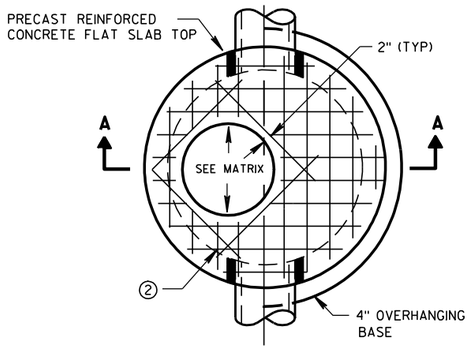
CATCH BASINS 2X3-FT AND 2.5X3-FT

CATCH BASINS 2X3-FT AND 2.5X3-FT

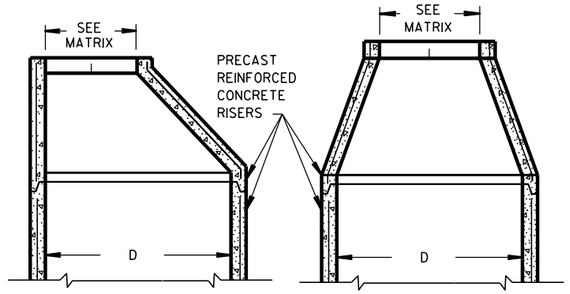
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 A 9-1

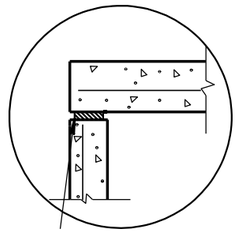


PLAN VIEW CIRCULAR OPENING



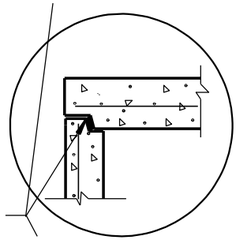
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

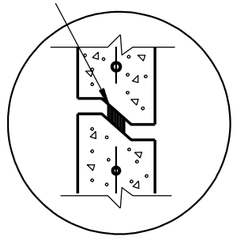


TOP WITH PLAIN END JOINT

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

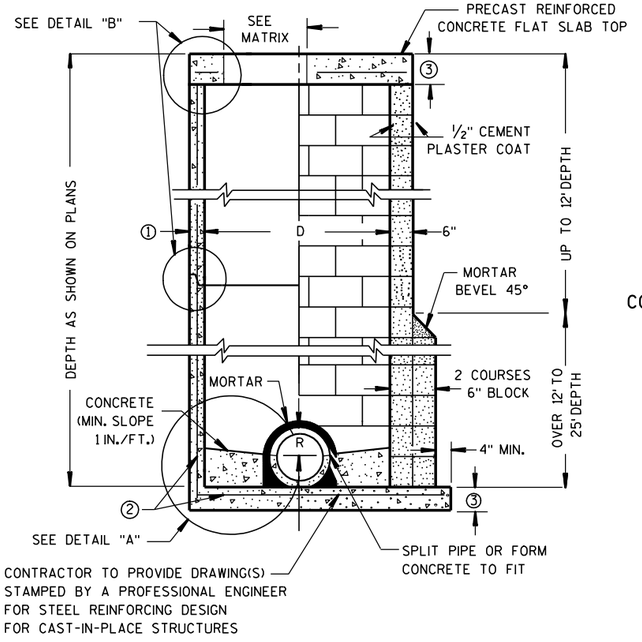


TOP WITH TONGUE AND GROOVE JOINT



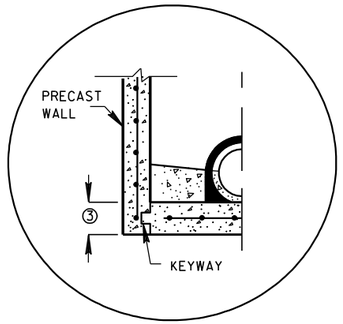
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

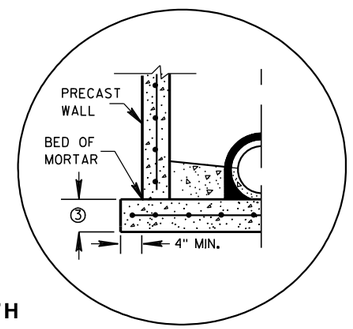


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

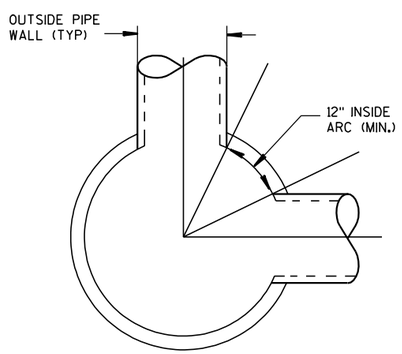


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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 MANHOLE 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 CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE 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" 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.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

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, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES 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".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE 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	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

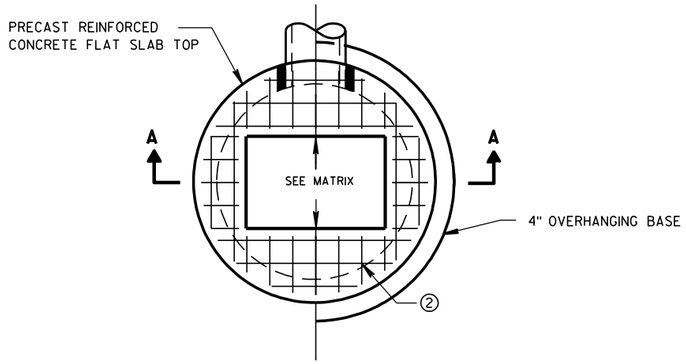
APPROVED

6/5/2012
DATE

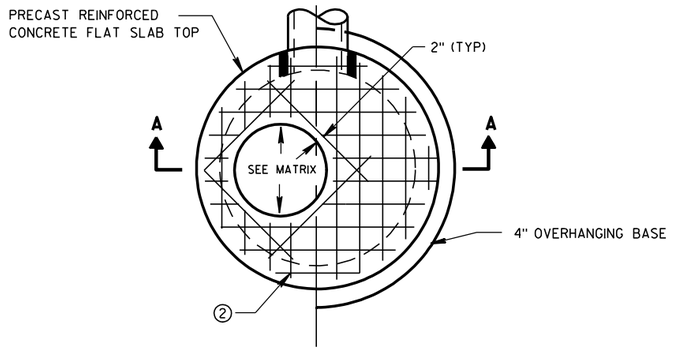
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

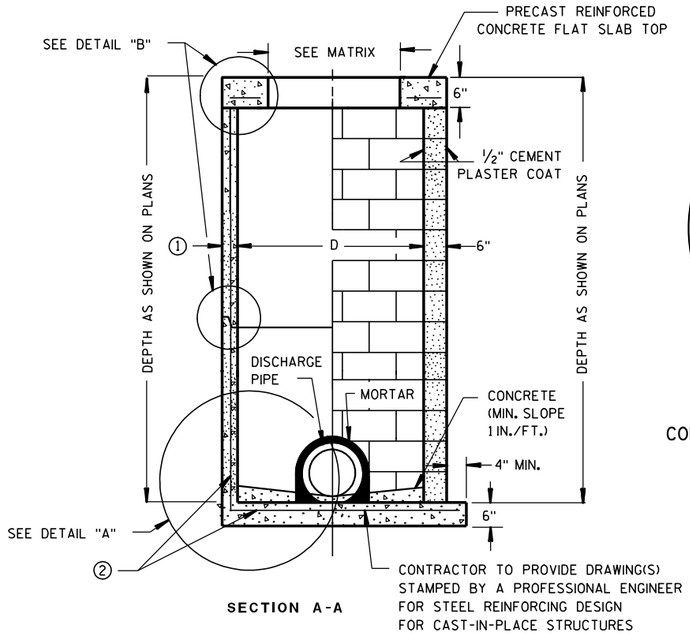
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PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

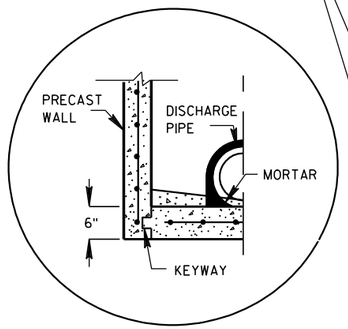


SECTION A-A

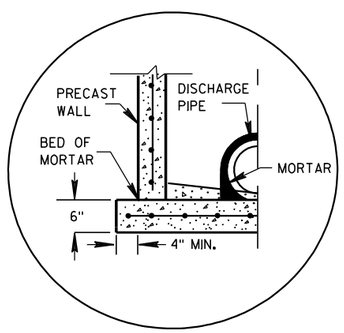
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

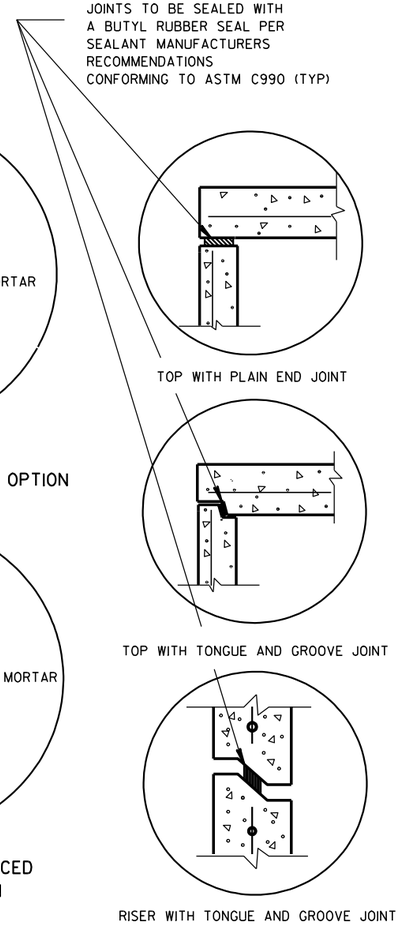


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "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.

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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.

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.

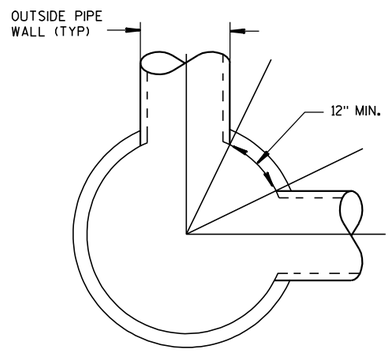
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

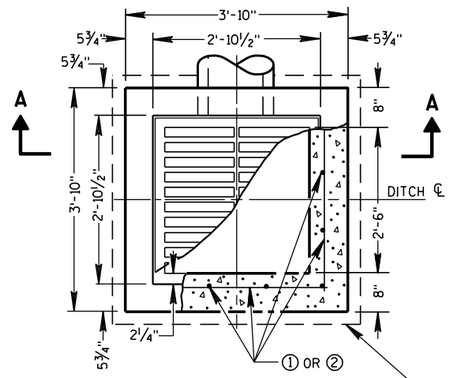
INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

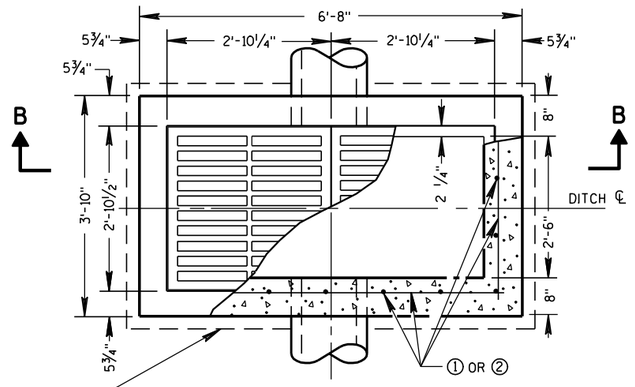
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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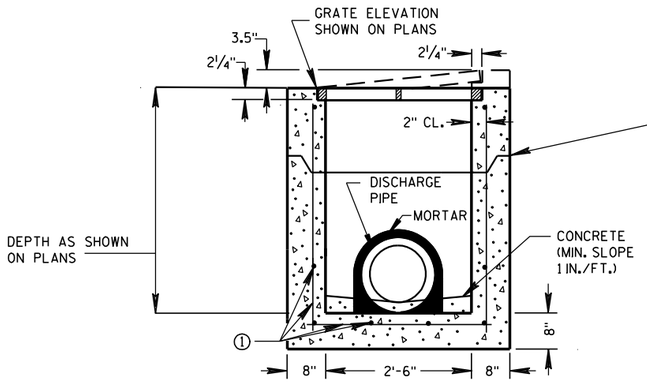


PLAN VIEW

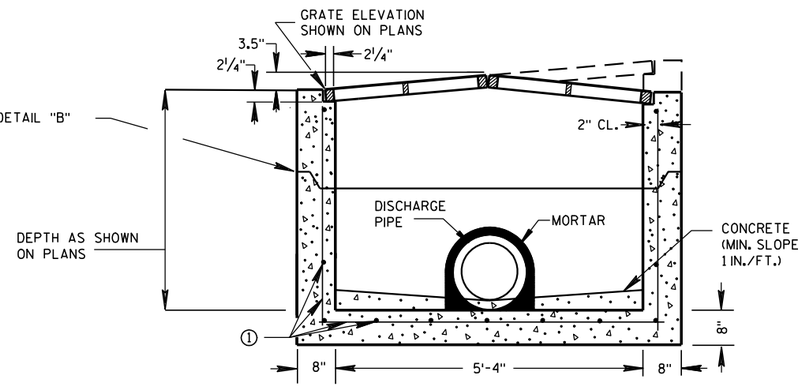


PLAN VIEW

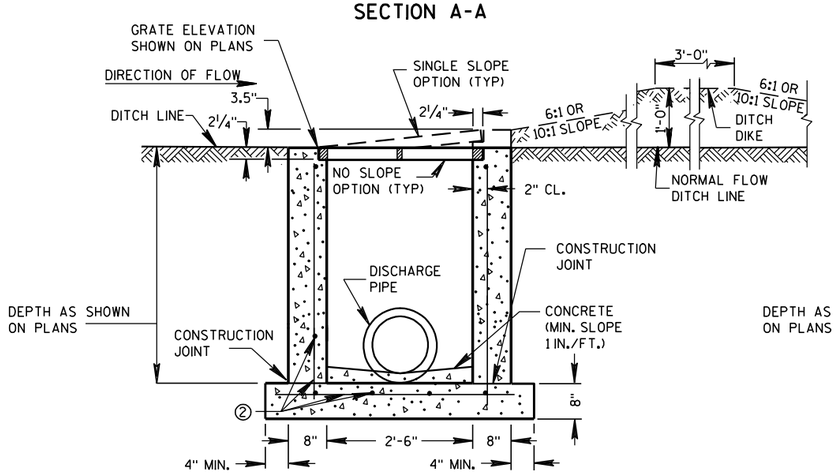
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



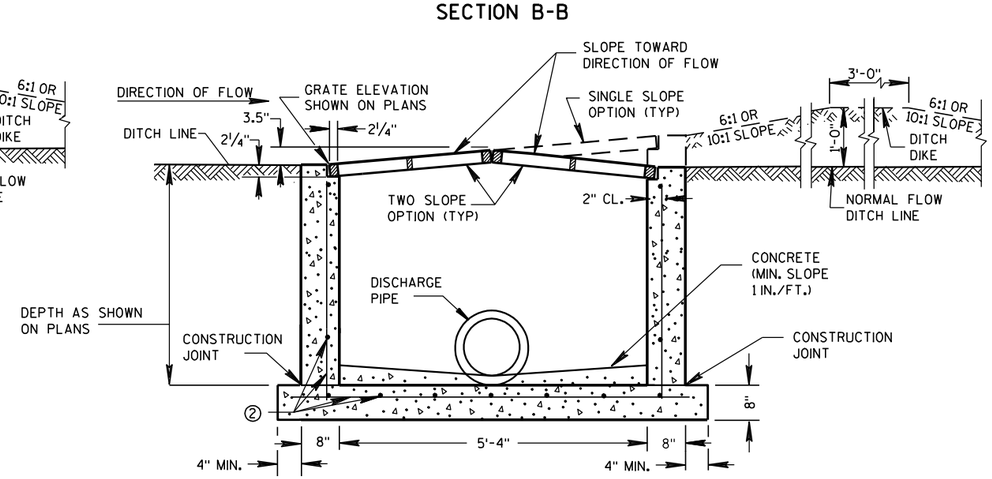
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

GENERAL NOTES

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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.

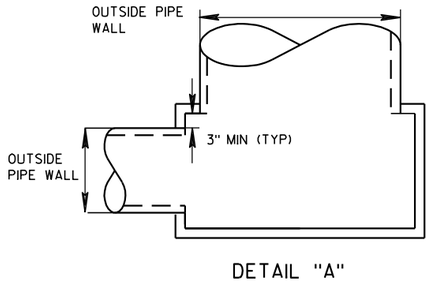
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

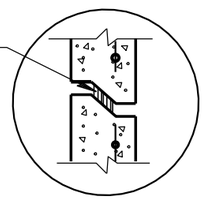
PIPE MATRIX

	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 GRATE

INLETS MEDIAN 2 GRATE

INLETS MEDIAN 1 AND 2 GRATE

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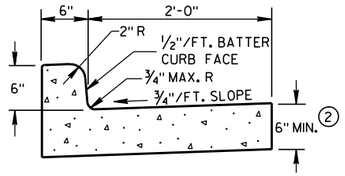
6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

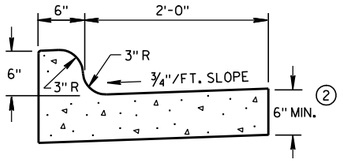
FHWA

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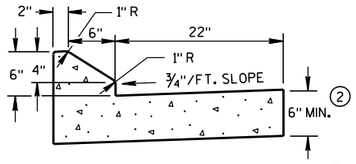
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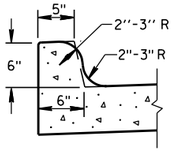
TYPES A & D (1)



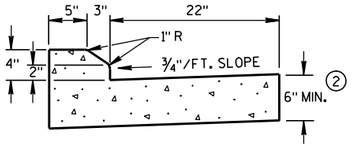
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

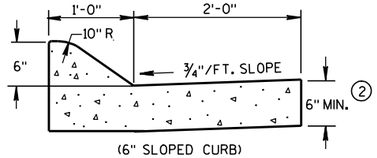


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

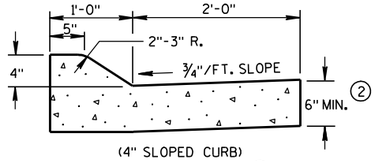


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

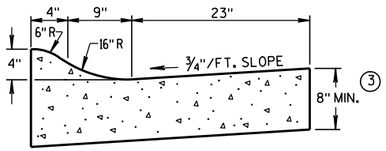


(6" SLOPED CURB)



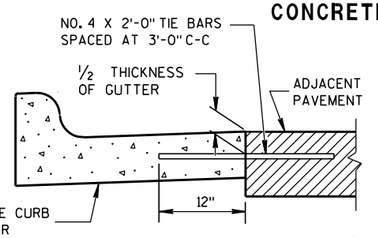
(4" SLOPED CURB)

TYPES A & D (1)

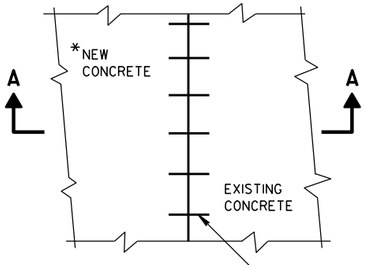


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

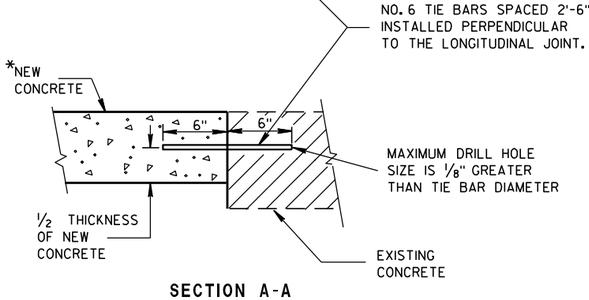


TYPICAL TIE BAR LOCATION (1)



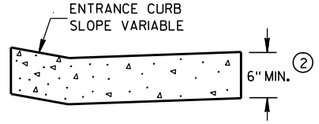
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW

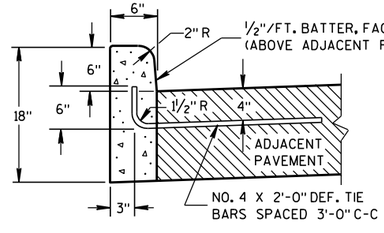


SECTION A-A

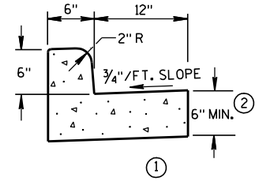
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

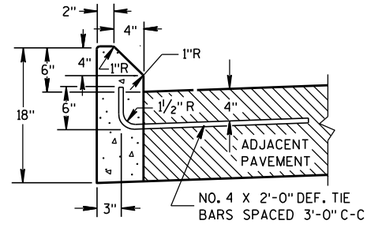


(1)
TYPES A & D



(1)
TYPES A & D

CONCRETE CURB & GUTTER 18"



(1)
TYPES G & J

CONCRETE CURB

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.

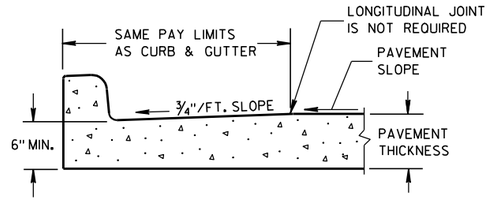
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

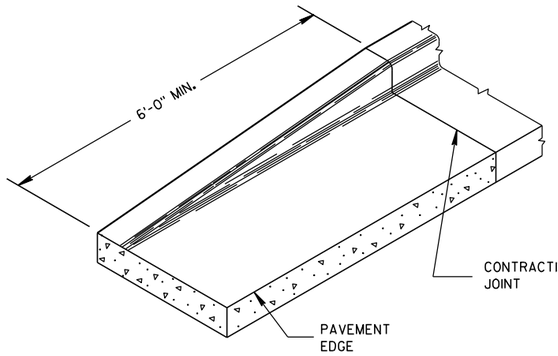
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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



END SECTION CURB & GUTTER

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

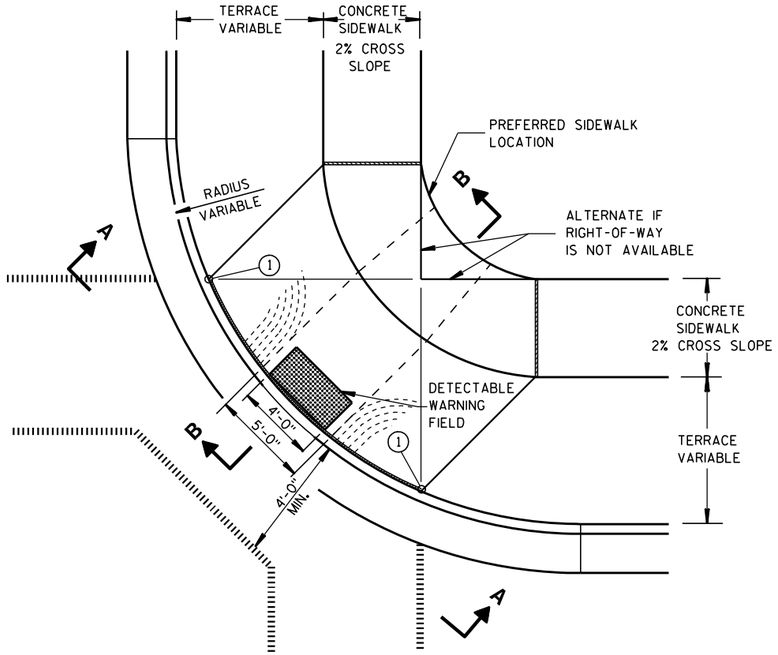
ENT

6

S.D.D. 8 D 1-17

6

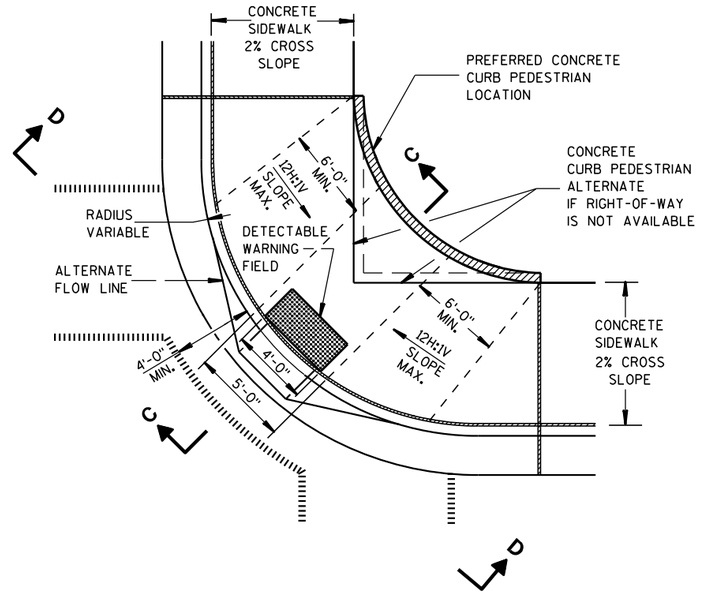
S.D.D. 8 D 1-17



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".

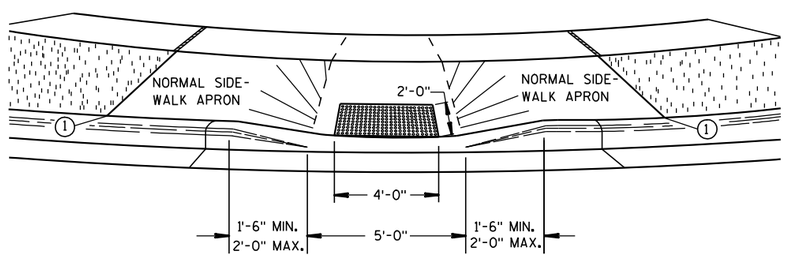
SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

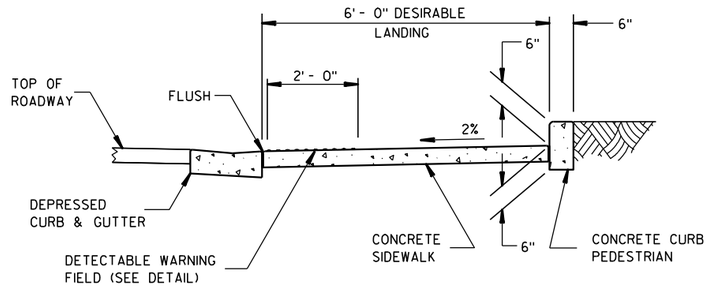
(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

LEGEND

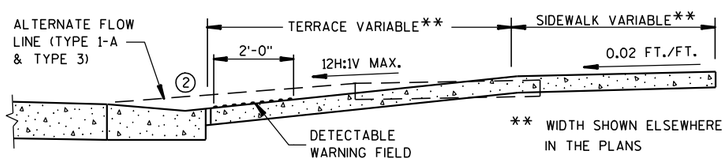
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



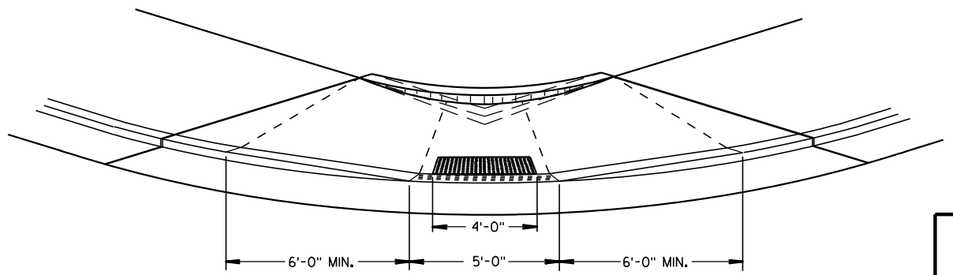
VIEW A-A



SECTION C-C



SECTION B-B

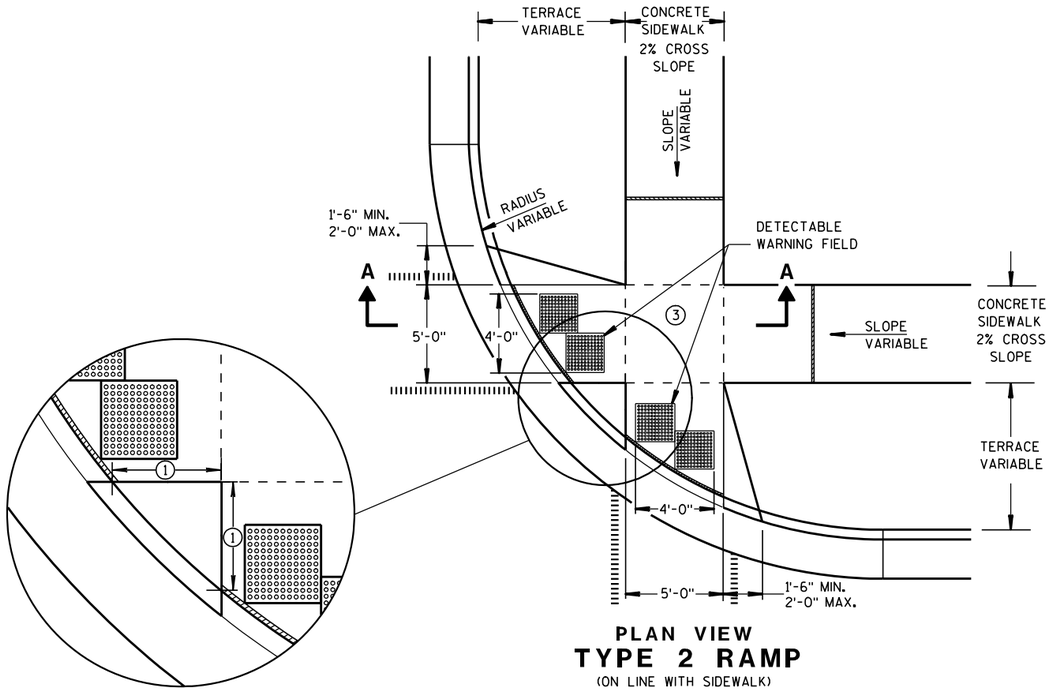


VIEW D-D

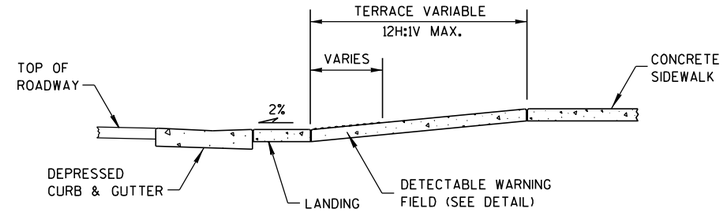
CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

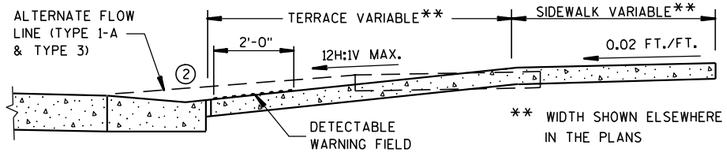
6
S.D.D. 8 D 5-14a



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.

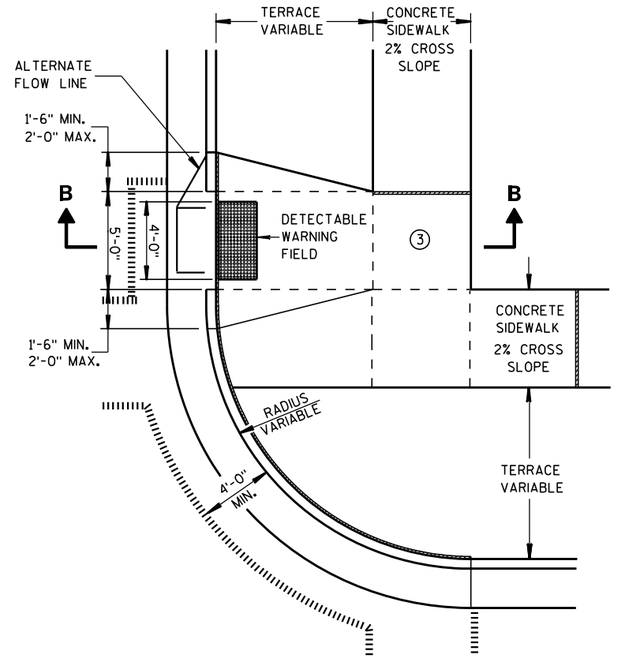
(1) WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

(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) PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

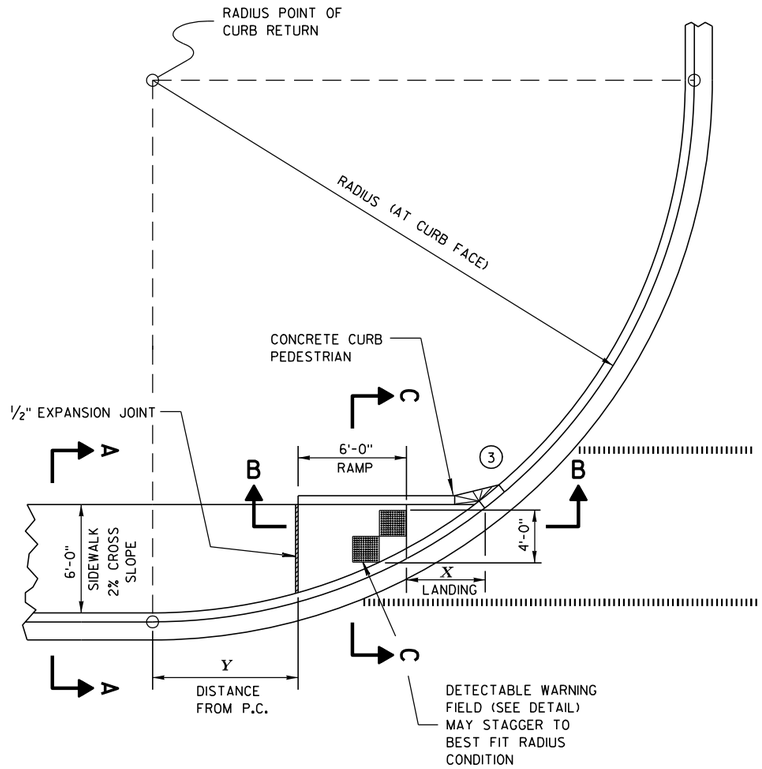


PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

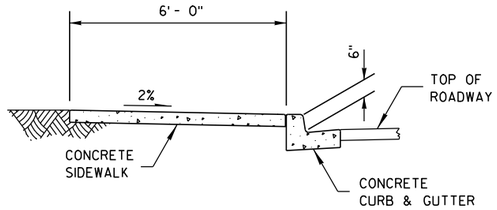
6
S.D.D. 8 D 5-14b



CURB RAMP TYPE 4A
PLAN VIEW

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

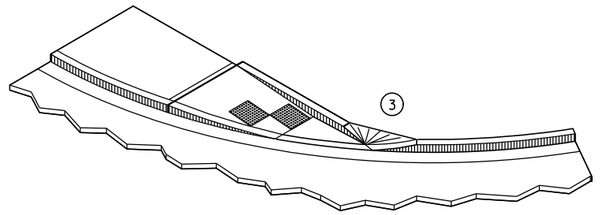
GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

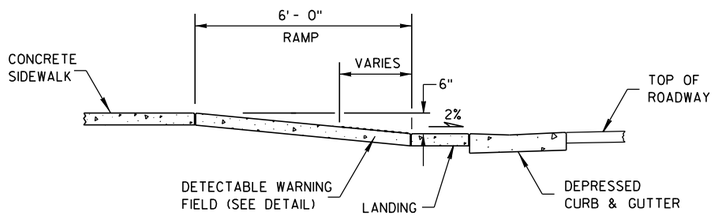
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

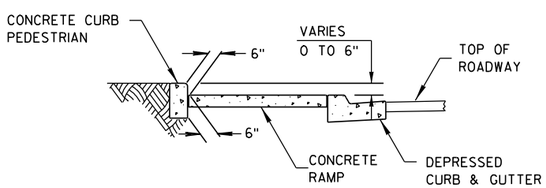
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW



SECTION B-B



SECTION C-C

LEGEND

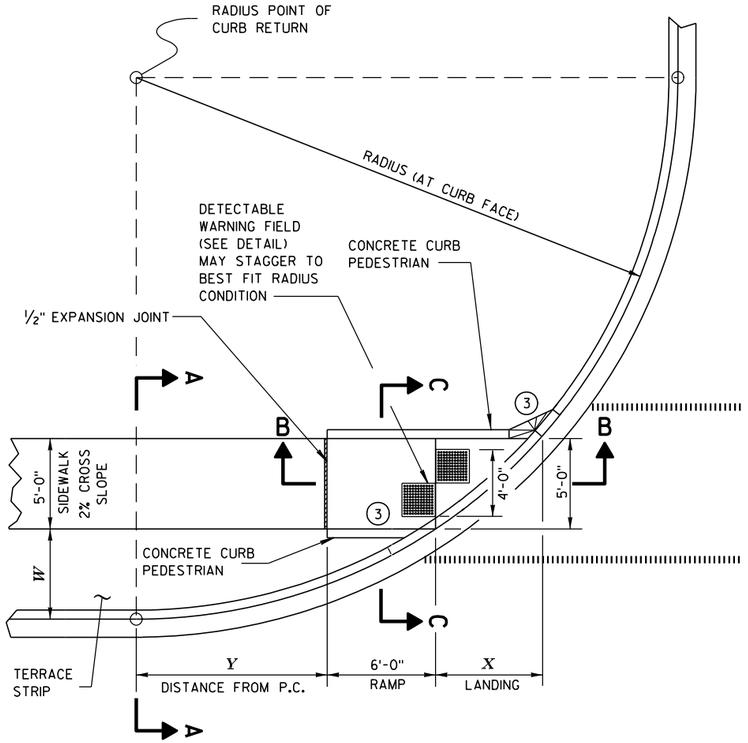
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 8 D 5-14c



CURB RAMP TYPE 4B
PLAN VIEW

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

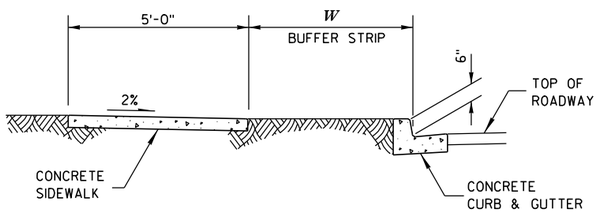
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

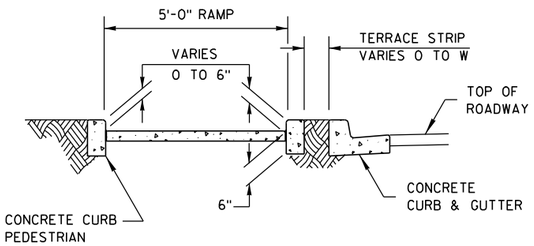
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

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"
70 FEET	12'-2¾"	14'-3¼"	11'-¼"	17'-4"	10'-1"	19'-11¾"	9'-3¾"	22'-4¼"	8'-8¼"	24'-6¼"
80 FEET	13'-2"	15'-8½"	11'-10½"	18'-11¾"	10'-10¾"	21'-10"	10'-1"	24'-4¾"	9'-5"	26'-8¾"
90 FEET	14'- ½"	17'-½"	12'-8¼"	20'-6½"	11'-7¾"	23'-7"	10'-9¾"	26'-3¾"	10'-1¼"	28'-9½"
100 FEET	14'-10½"	18'-3¾"	13'-5½"	22'-0"	12'-4¼"	25'-2¾"	11'-5¾"	28'-1½"	10'-9"	30'-9"

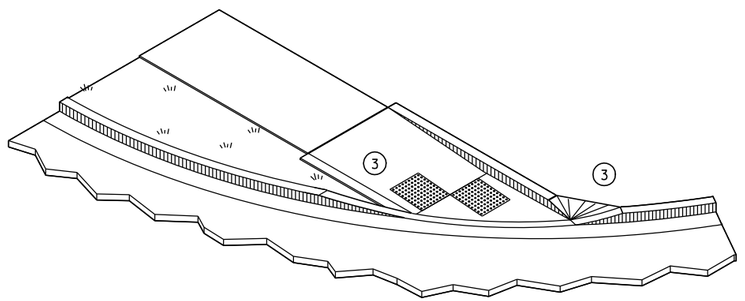
INTERMEDIATE RADII CAN BE INTERPOLATED



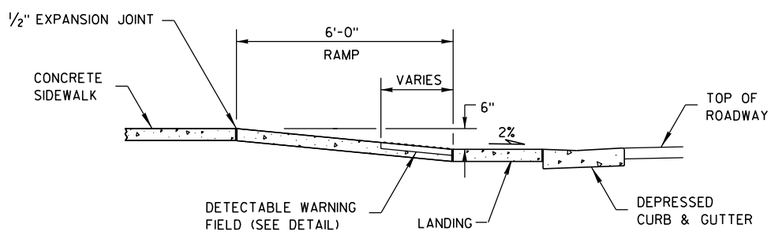
SECTION A-A



SECTION C-C



ISOMETRIC VIEW



SECTION B-B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

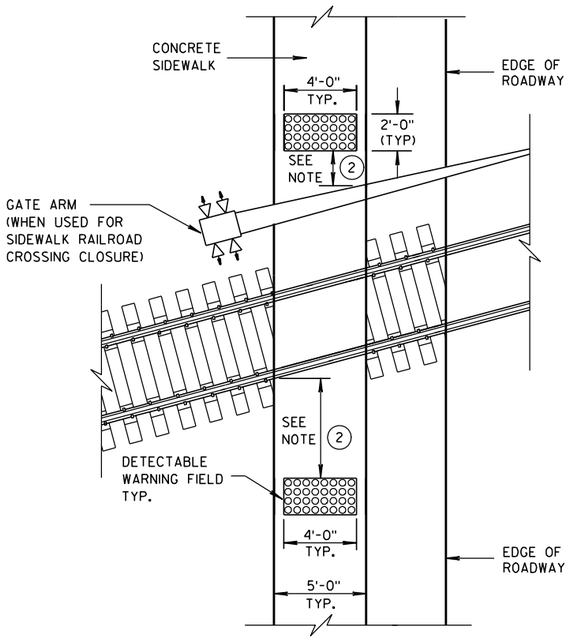
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B

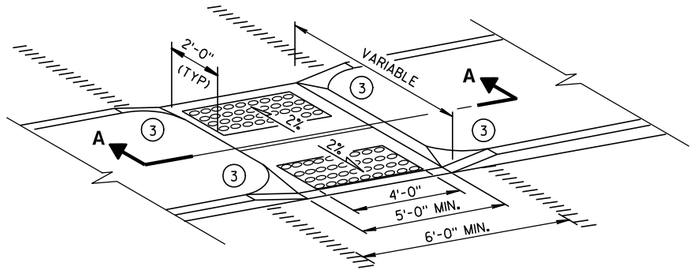
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

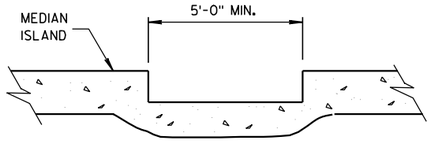
S.D.D. 8 D 5-14d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



SECTION A-A

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

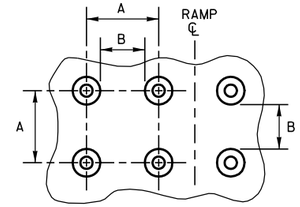
(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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.

LEGEND

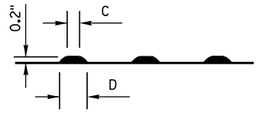
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



PLAN VIEW

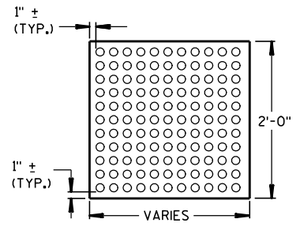
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



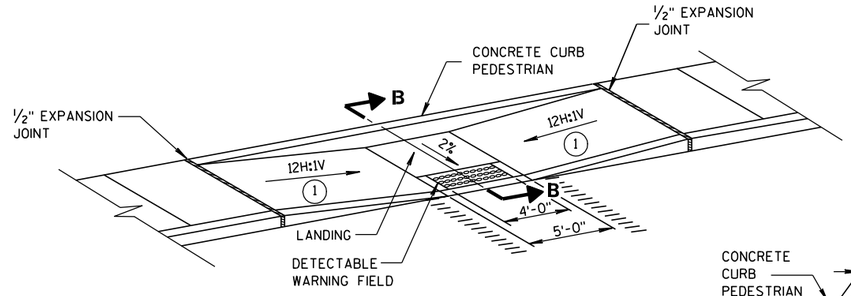
ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

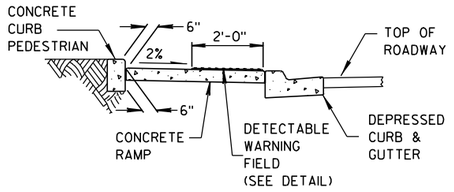


PLAN VIEW

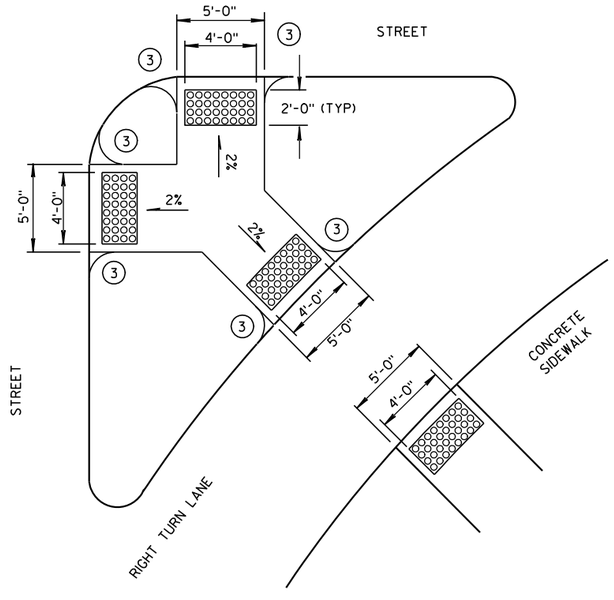
DETECTABLE WARNING FIELD (TYPICAL)



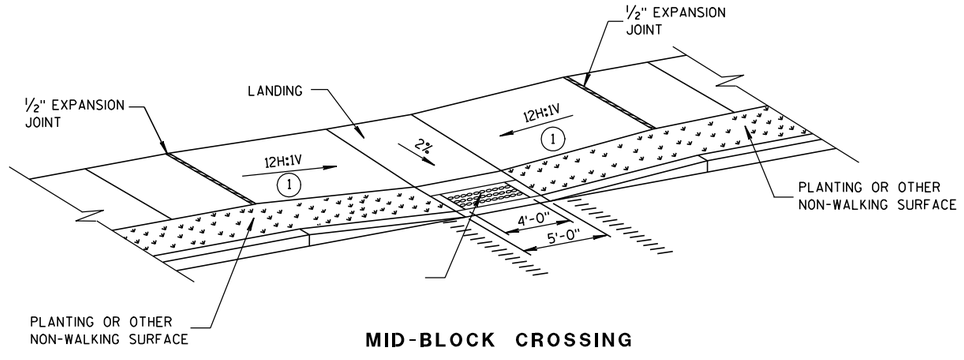
MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



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.

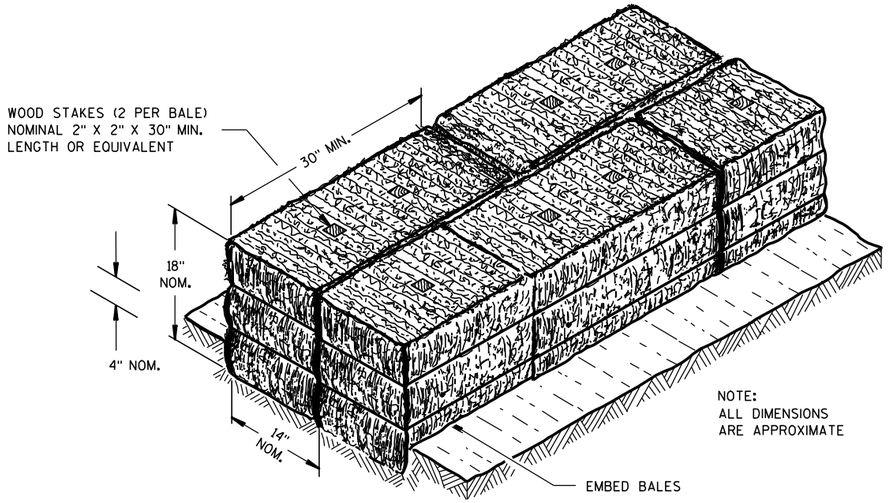
CURB RAMPS TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

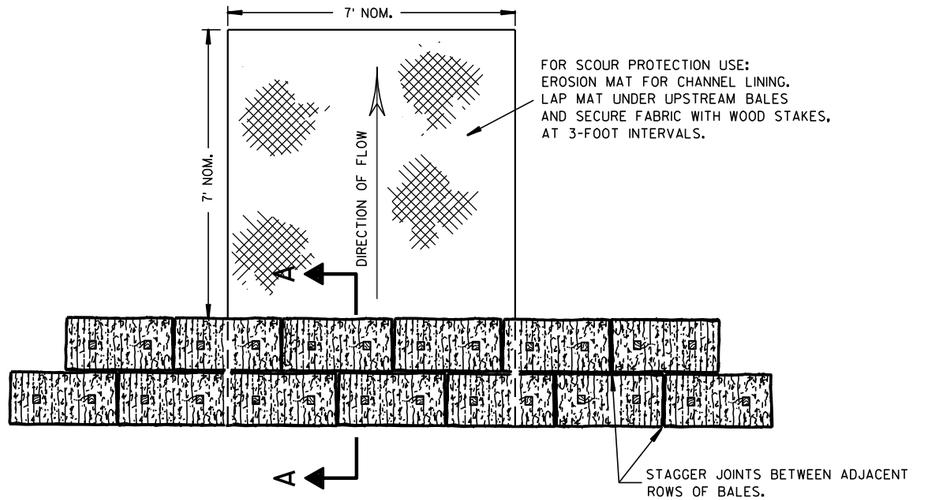
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2-9-10 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
141
FHWA
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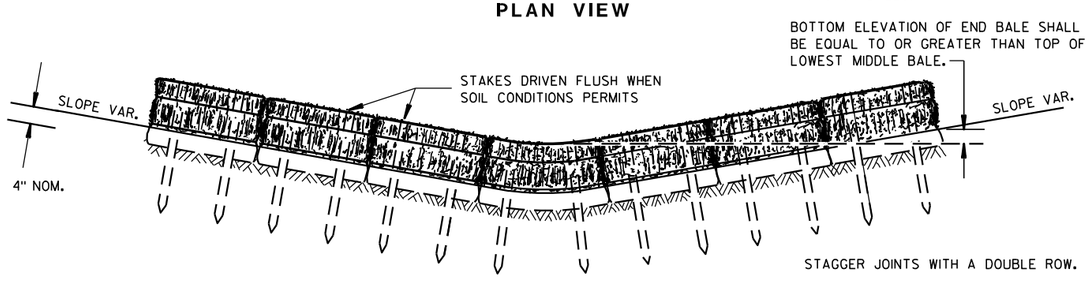
S.D.D. 8 D 5-14e



SECTION A-A



PLAN VIEW



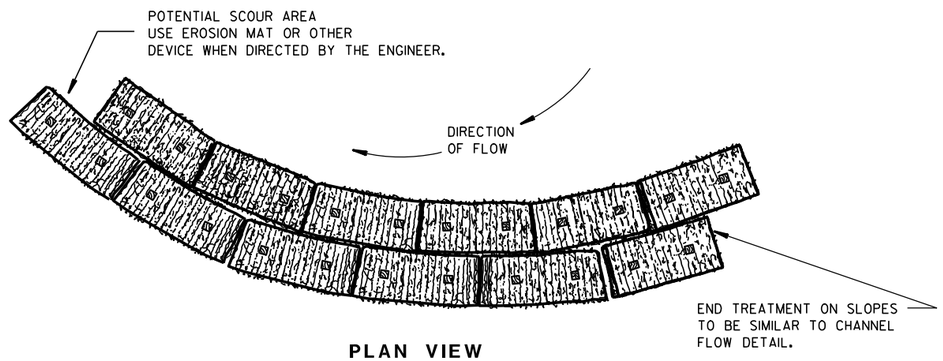
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

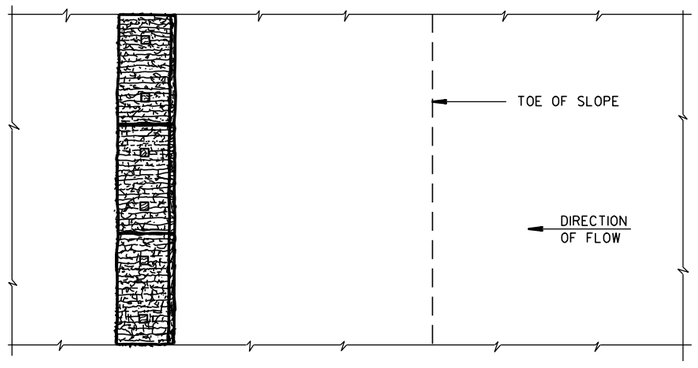
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

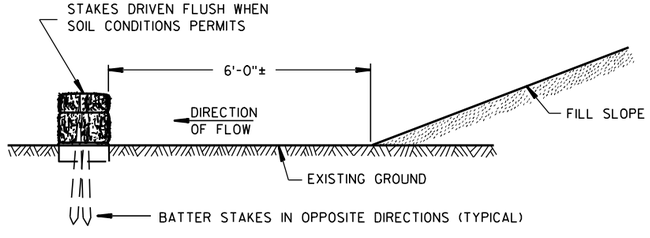


PLAN VIEW

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

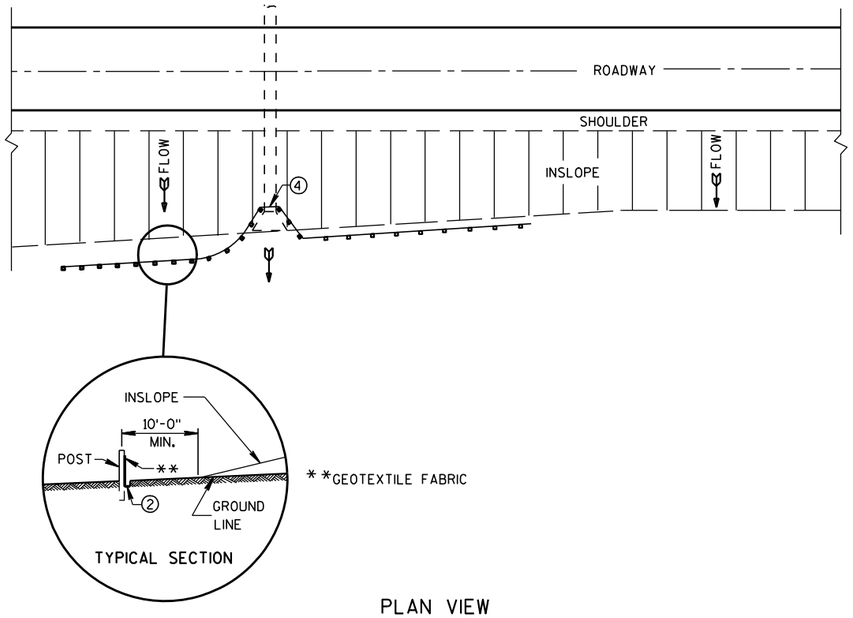
APPROVED
6/04/02 DATE
/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 E 8-3

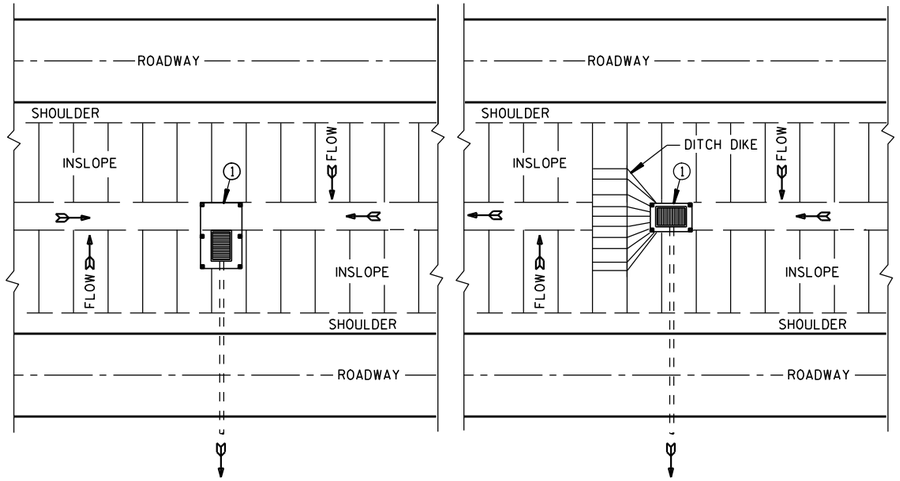
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S.D.D. 8 E 8-3



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.

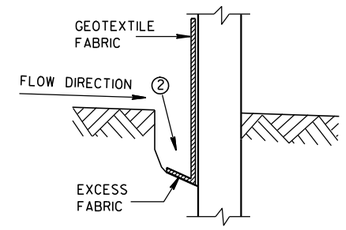
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

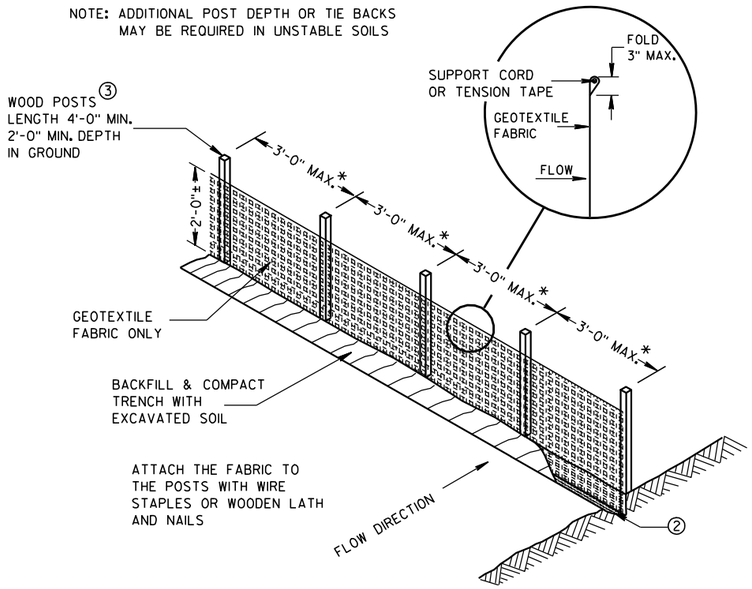
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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.

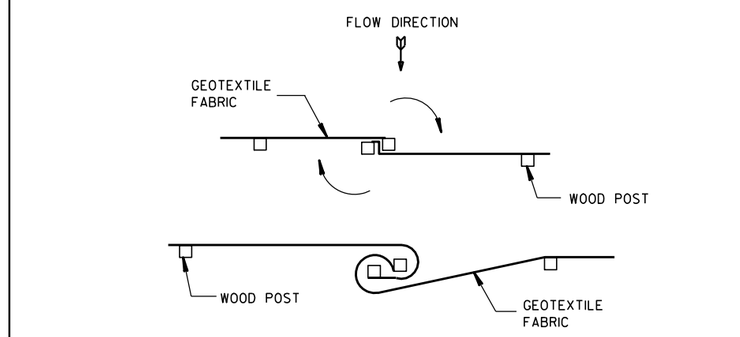


TRENCH DETAIL

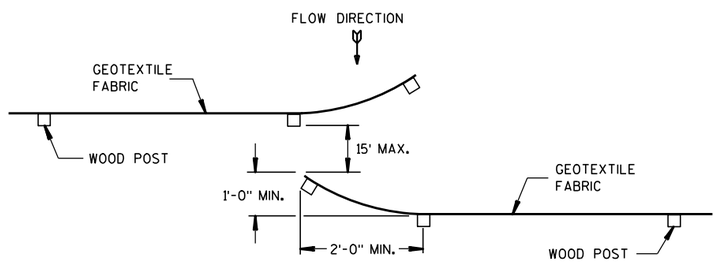


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

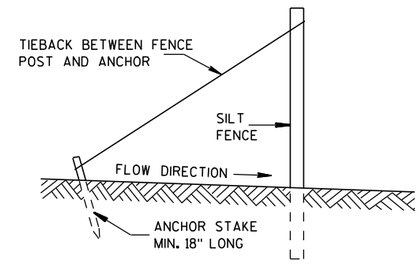


TWIST METHOD



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

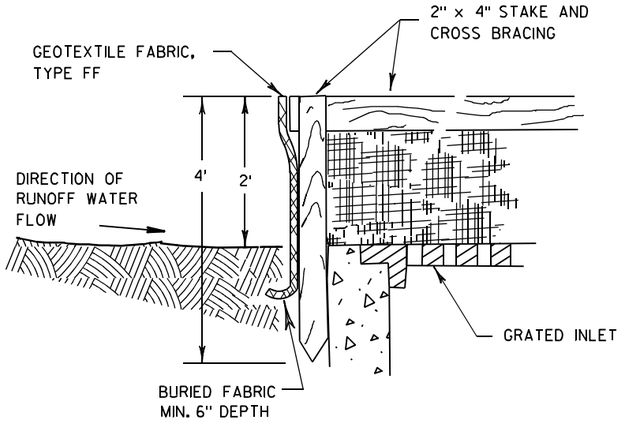
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

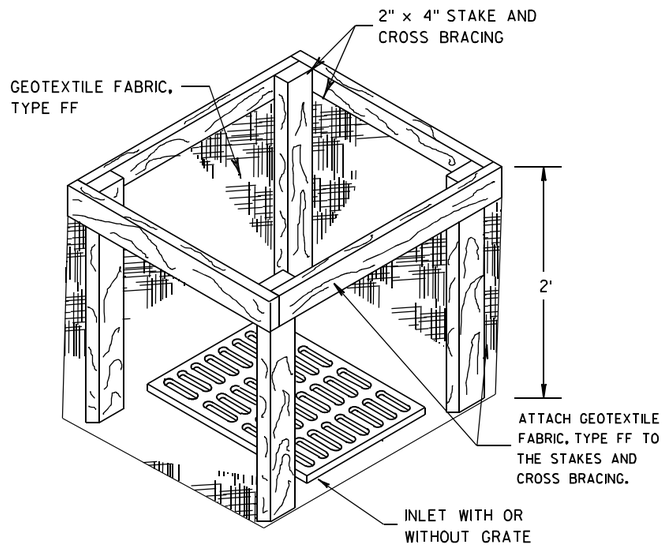
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S.D.D. 8 E 9-6

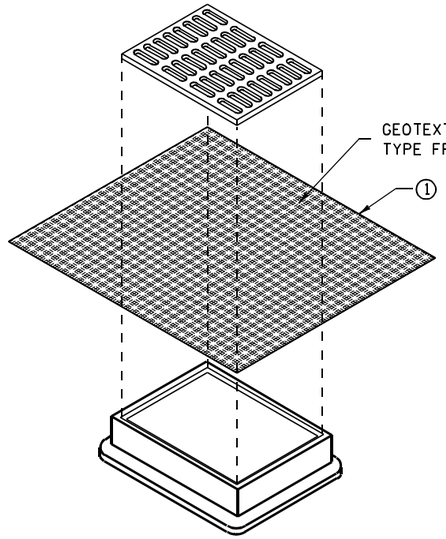
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S.D.D. 8 E 9-6



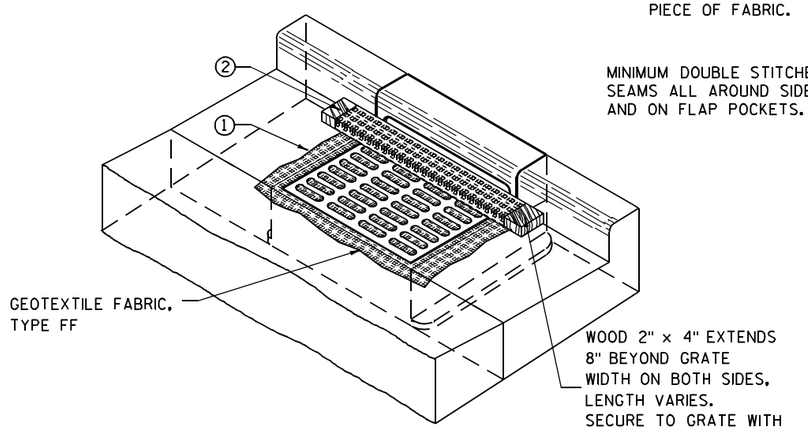


INLET PROTECTION, TYPE A

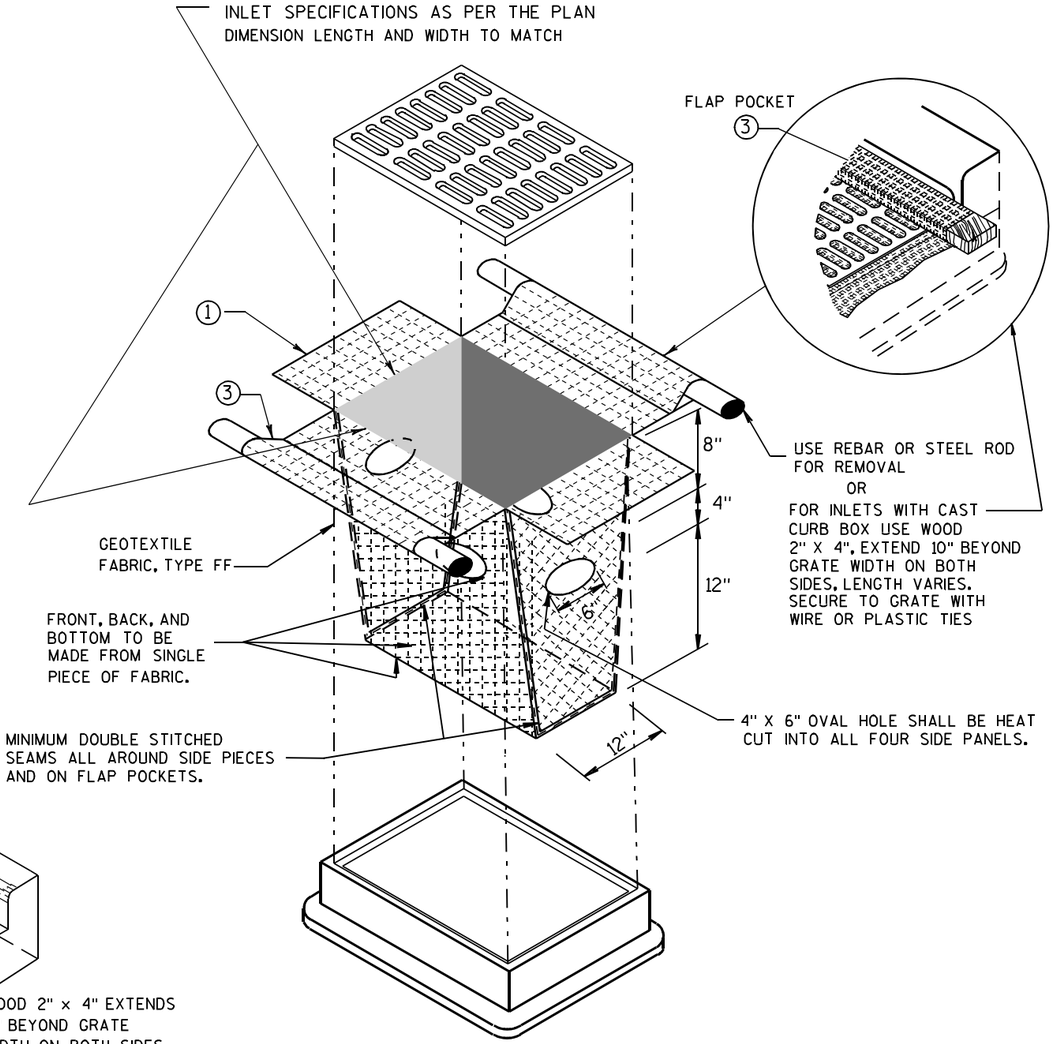


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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.

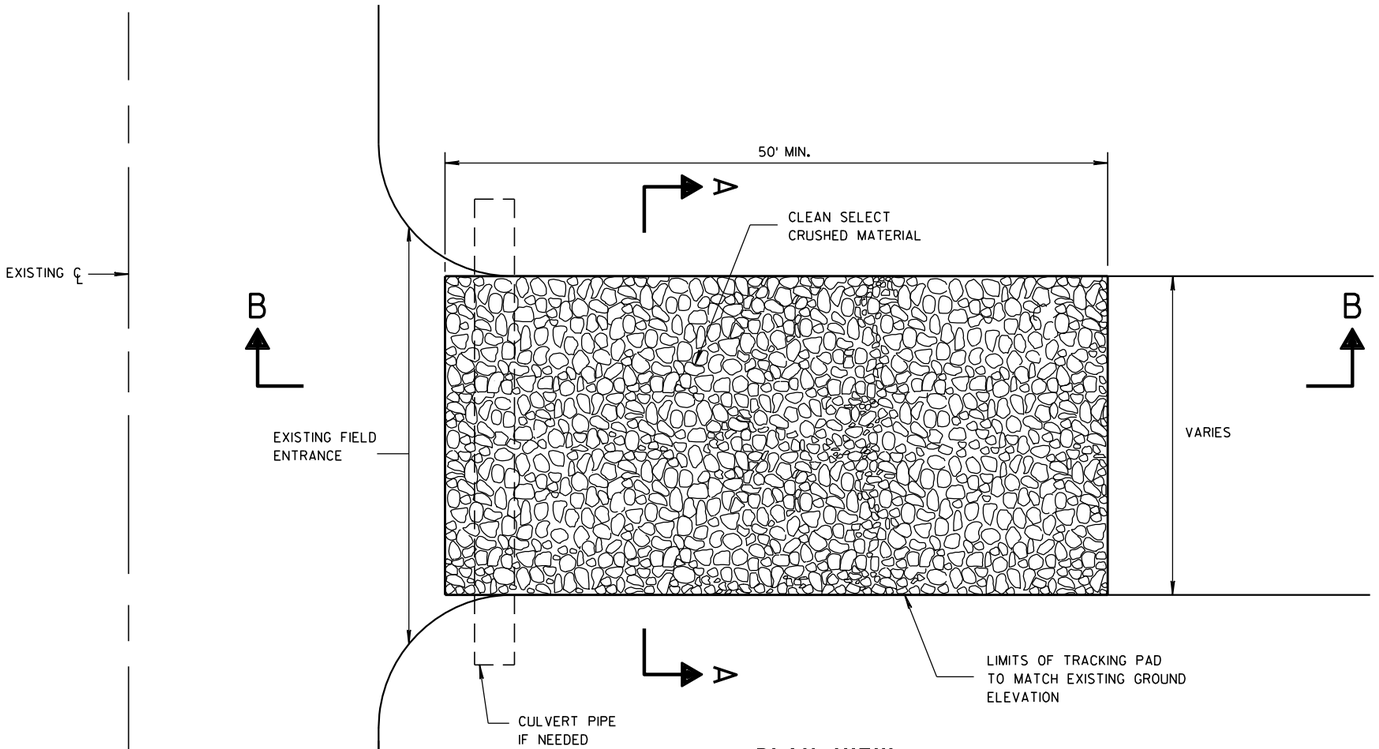
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

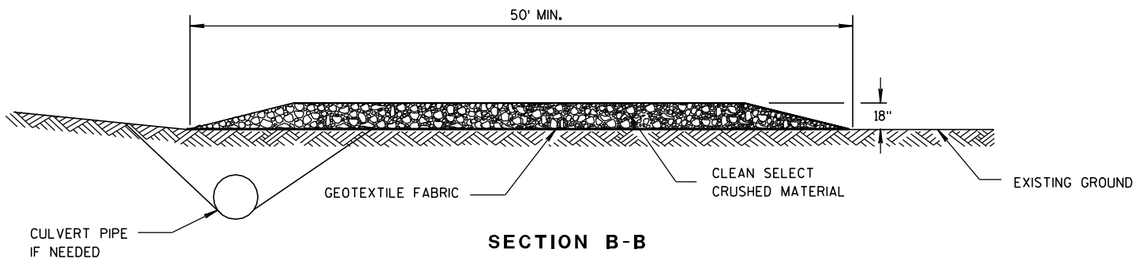
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2



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.

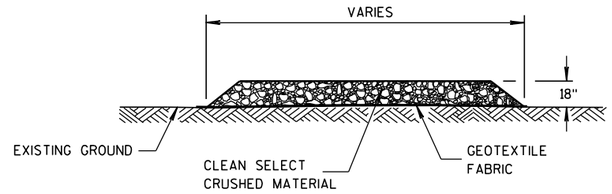
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

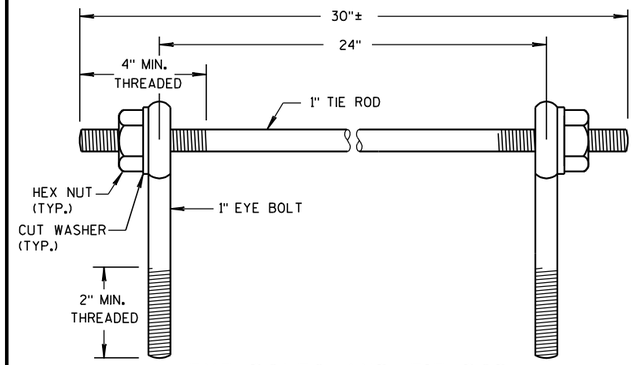
TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/24/2011 DATE FHWA	/S/ Jerry H. Zoda ROADWAY STANDARDS ENGINEER

6

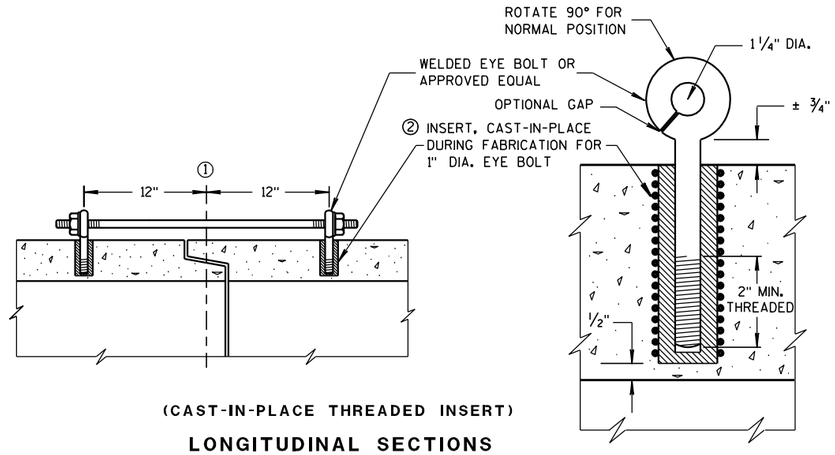
S.D.D. 8 E 14-1

6

S.D.D. 8 E 14-1



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.

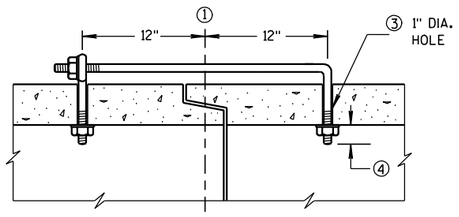
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

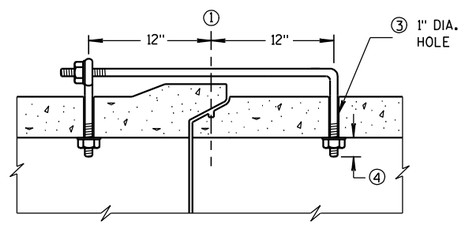
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

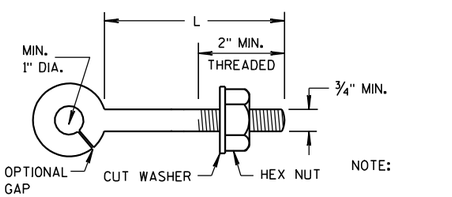


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

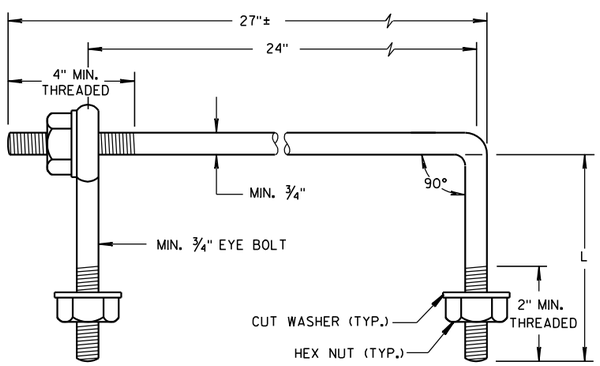
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

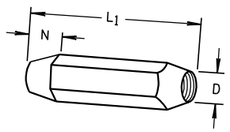
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

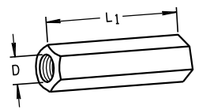
ADJUSTABLE TIE ROD TABLE

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



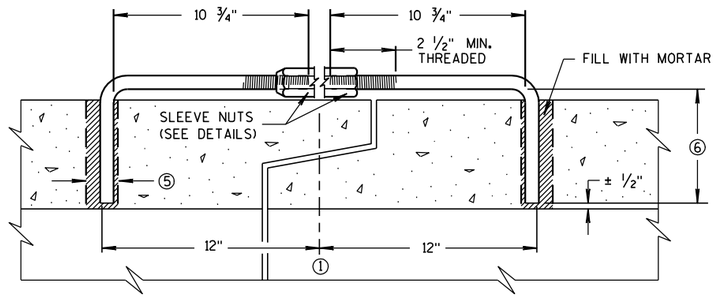
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PLAIN

RIGHT AND LEFT THREADS

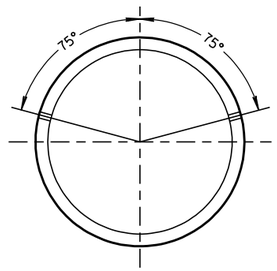
SLEEVE NUTS



LONGITUDINAL SECTION

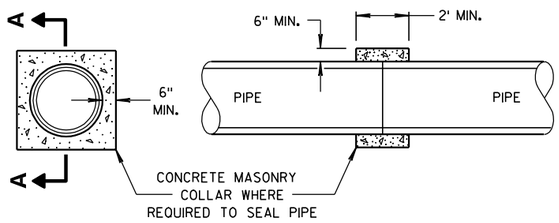
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

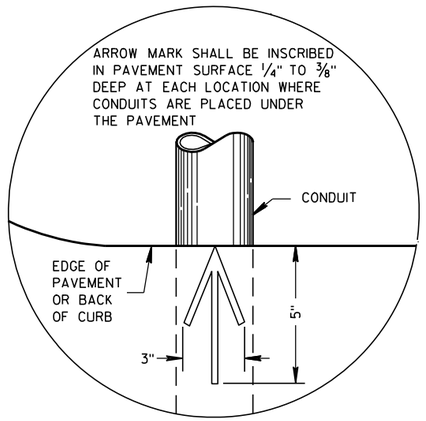
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 F 4-7

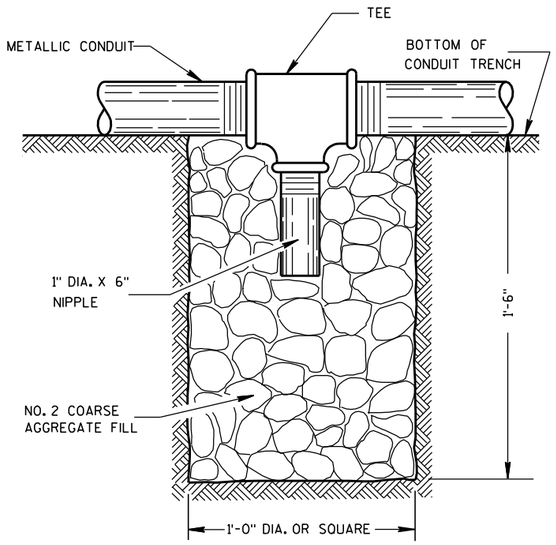
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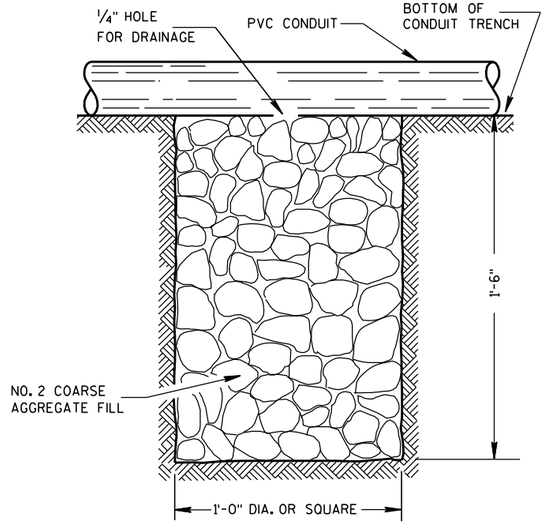
PLAN VIEW

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.

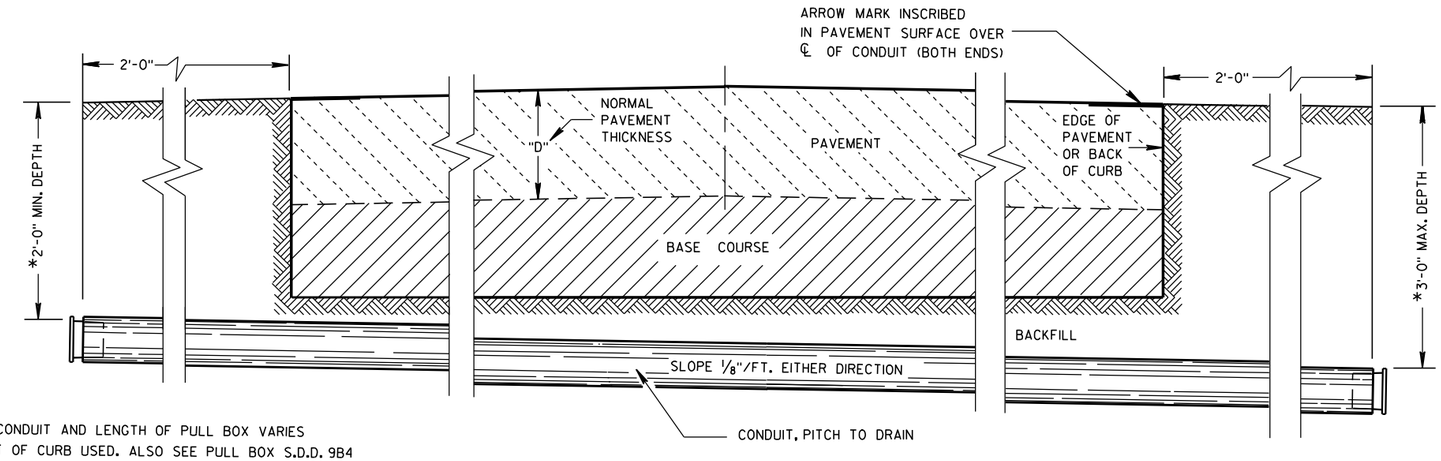
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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HWYS

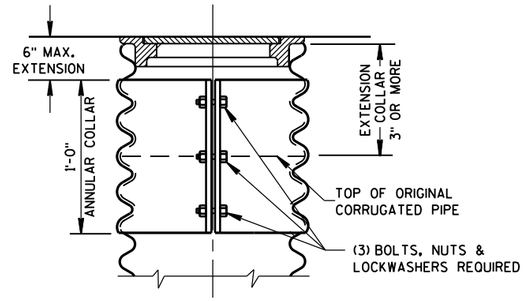
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TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

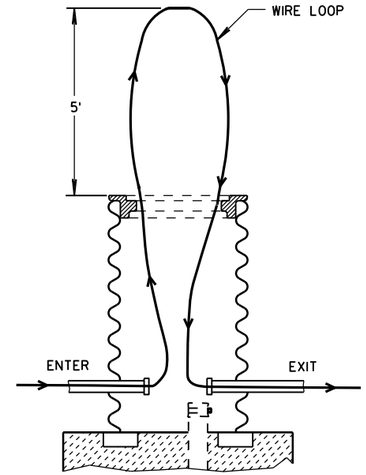
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

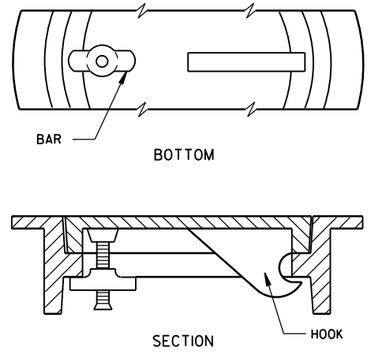
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

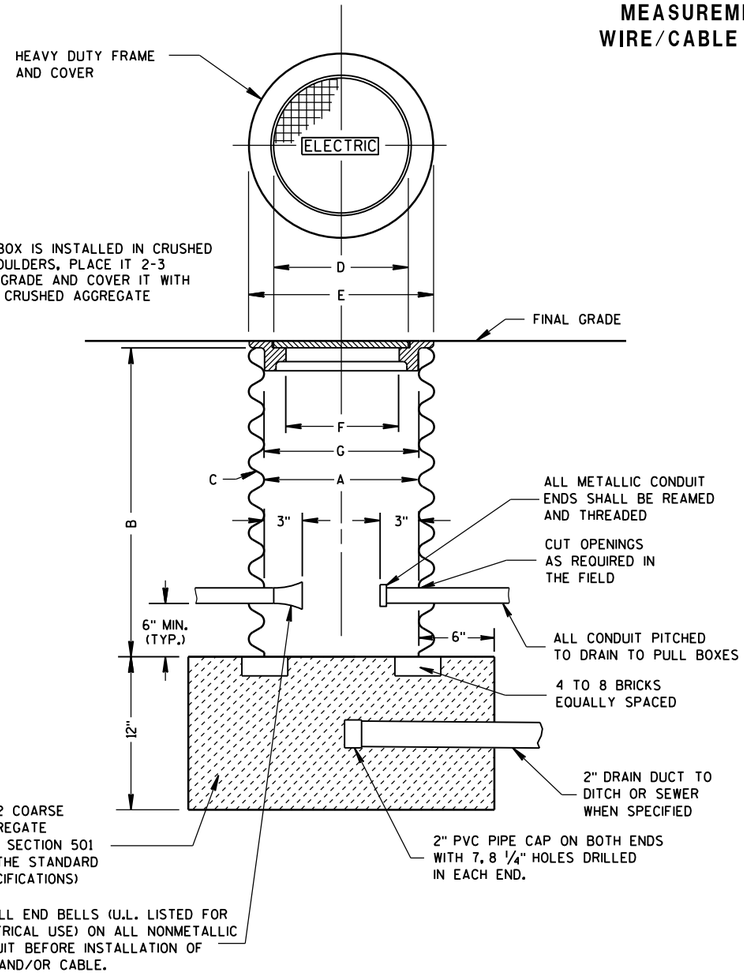


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



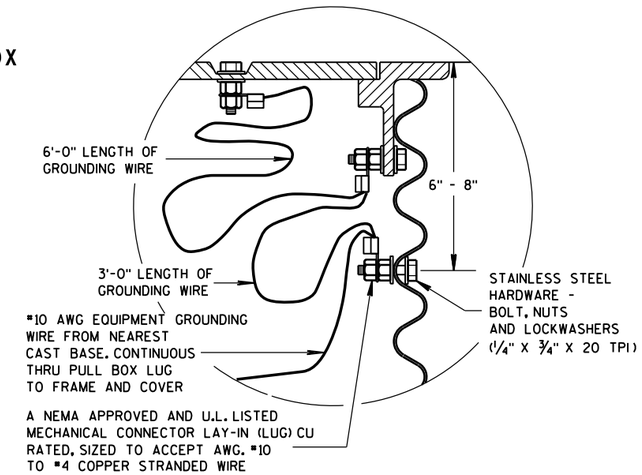
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

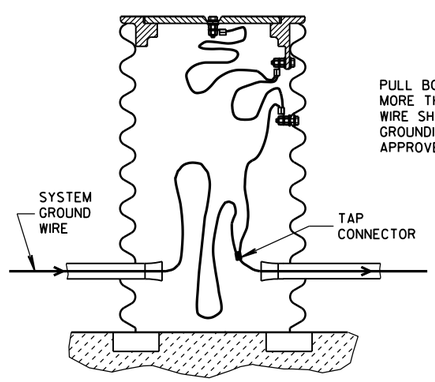


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

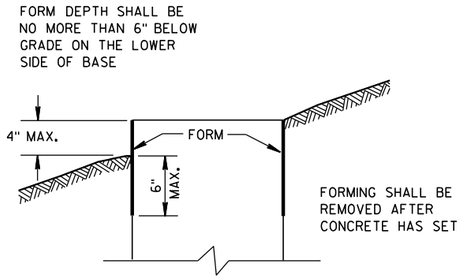
2-7-2013 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA

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S.D.D. 9 B 4-10



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

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 SMOOTH 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 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

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) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES 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.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(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 EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

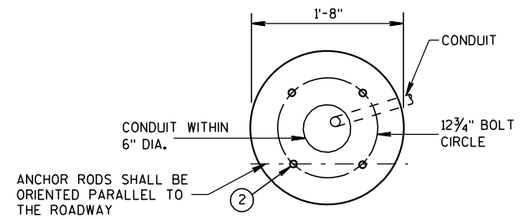
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

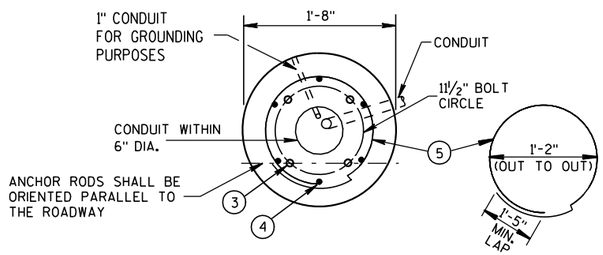
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

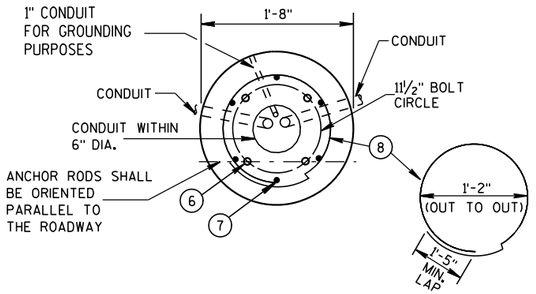
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

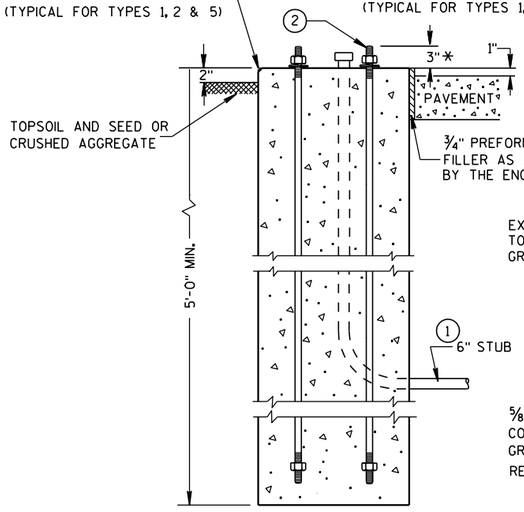






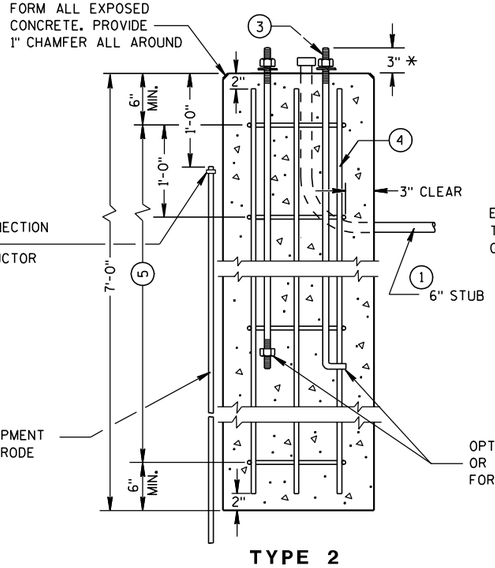
FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)

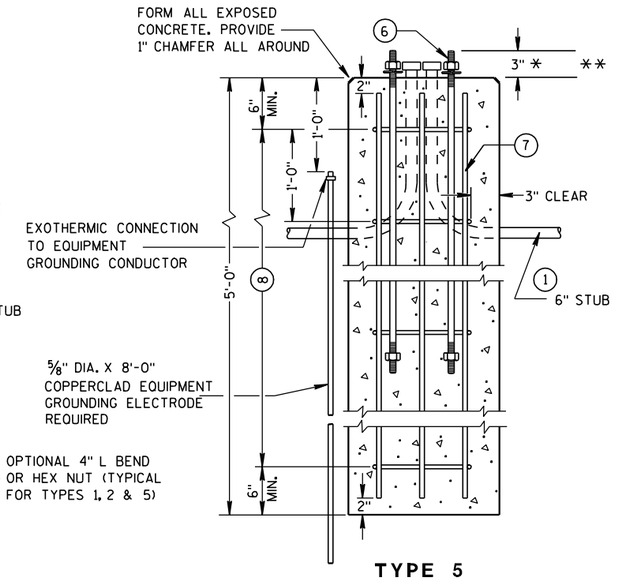


HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)

TYPE 1



TYPE 2



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI
149
HWYS
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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.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

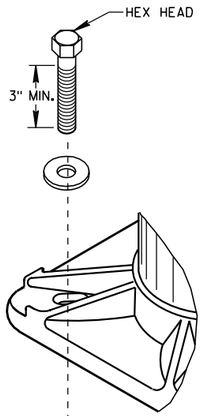
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

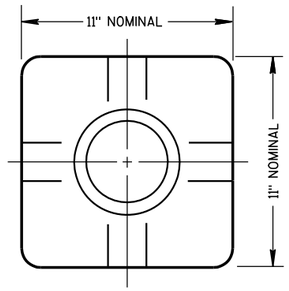
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

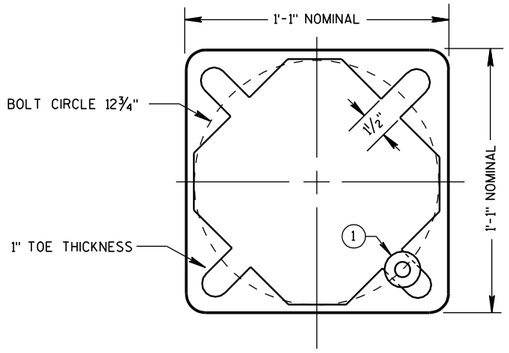
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

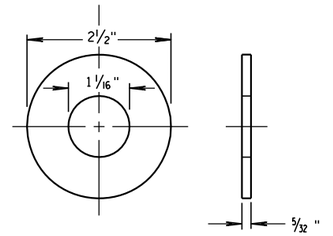




TOP VIEW
(PEDESTAL BASE)

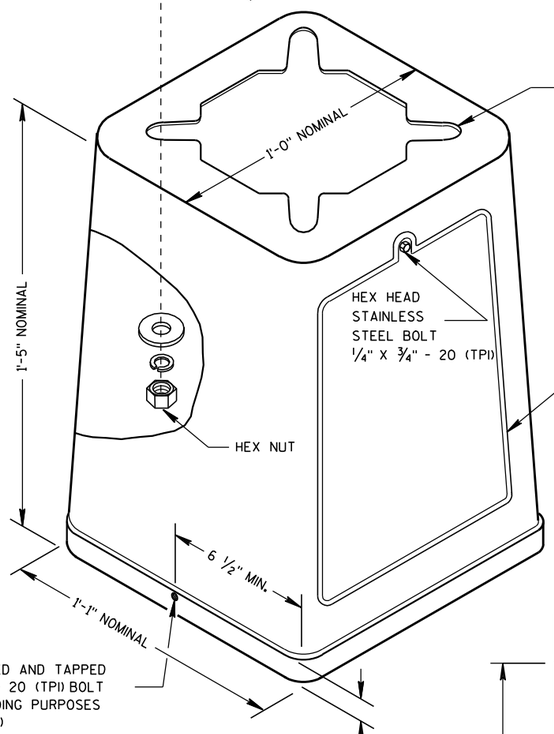


BOTTOM VIEW
(PEDESTAL BASE)

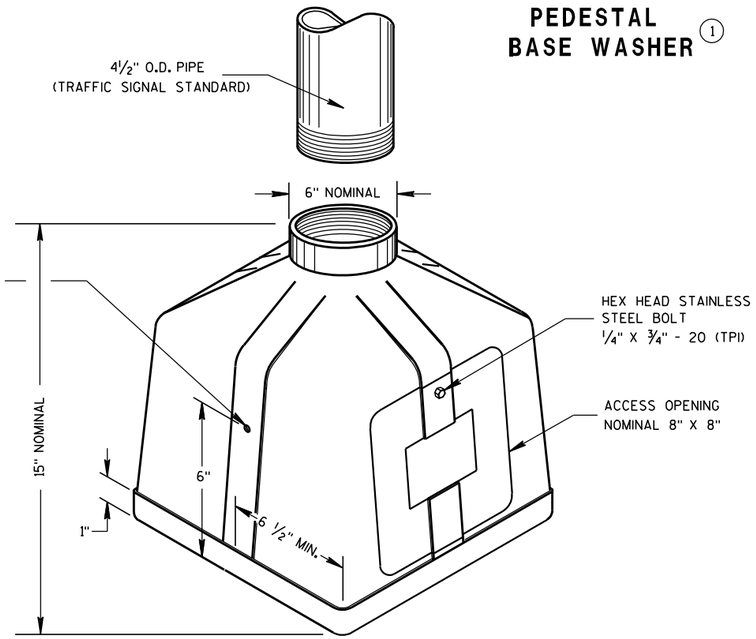


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

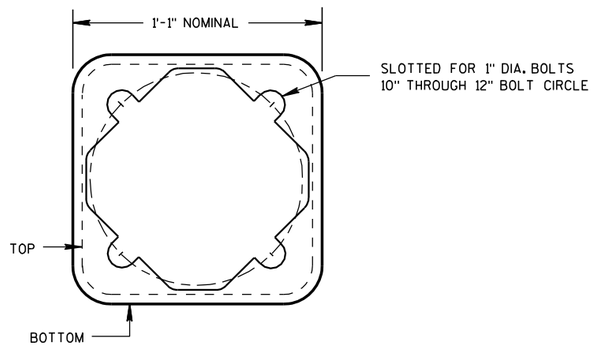


ISOMETRIC VIEW

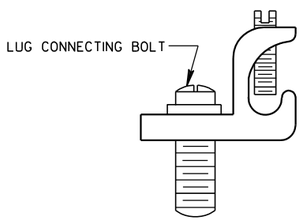


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

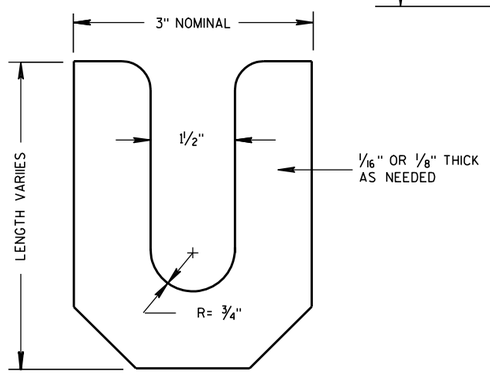


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

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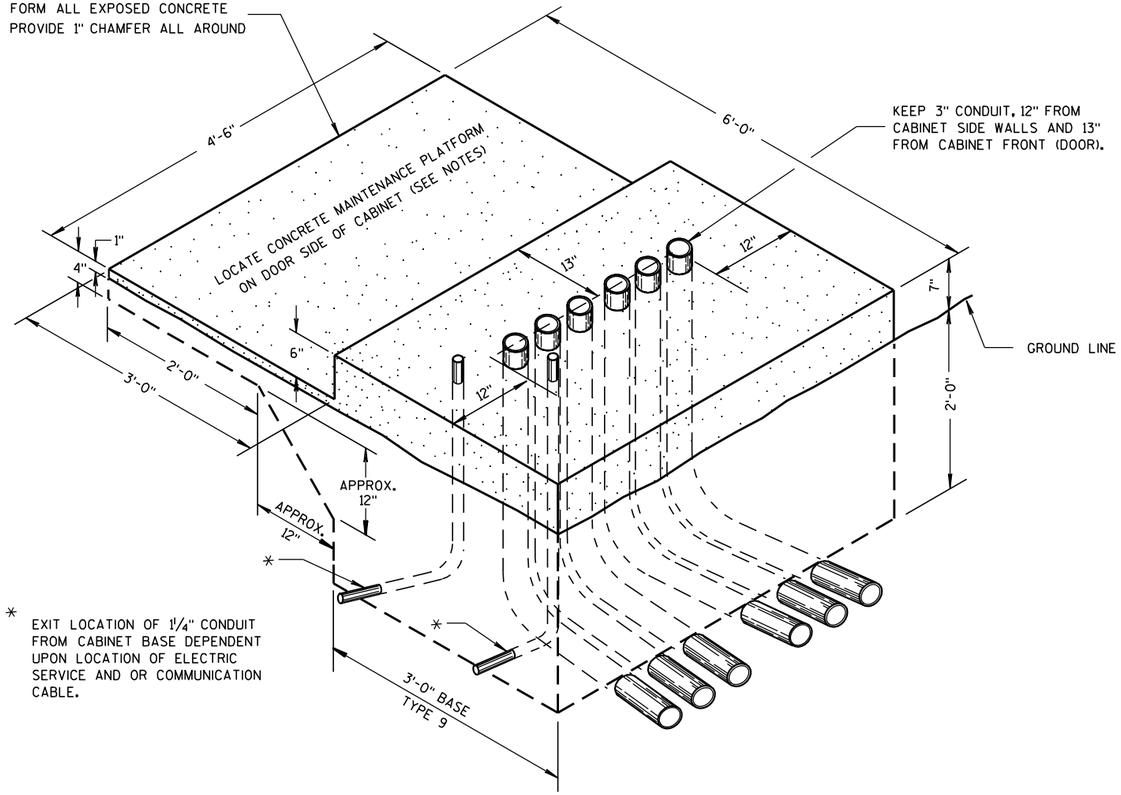
APPROVED
10/27/09 — DATE
/S/ Joanna L. Rich — STATE ELECTRICAL ENGI
150 — HWYS
FHWA

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S.D.D. 9 C 3-3

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S.D.D. 9 C 3-3

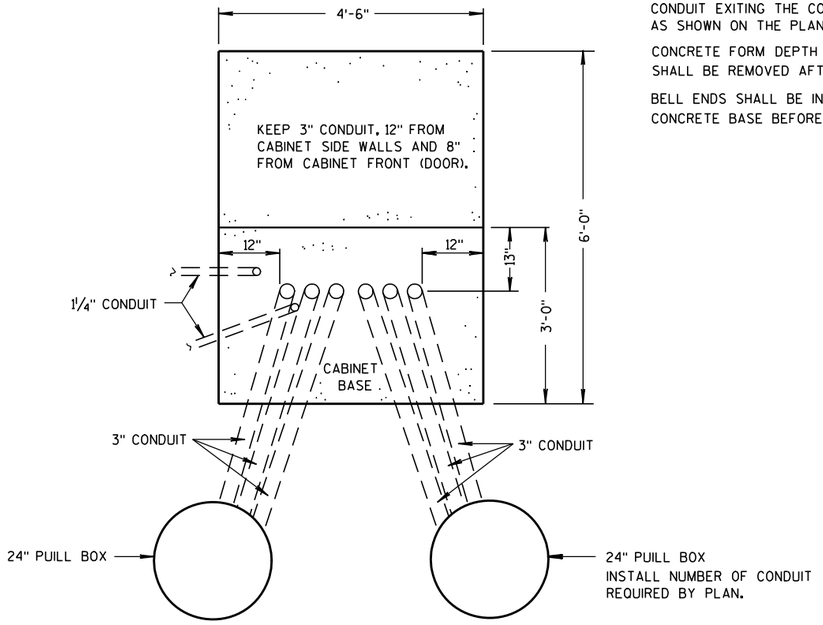


* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF ELECTRIC SERVICE AND OR COMMUNICATION CABLE.

ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

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. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/27/07
DATE

/S/ Balu Anantharayanan
STATE ELECTRICAL ENGI 151 HWYS

FHWA

6

6

S.D.D. 9 C 6-5

S.D.D. 9 C 6-5

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).

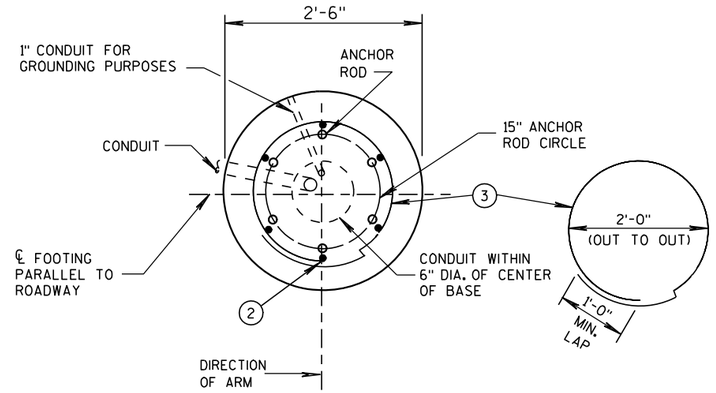
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

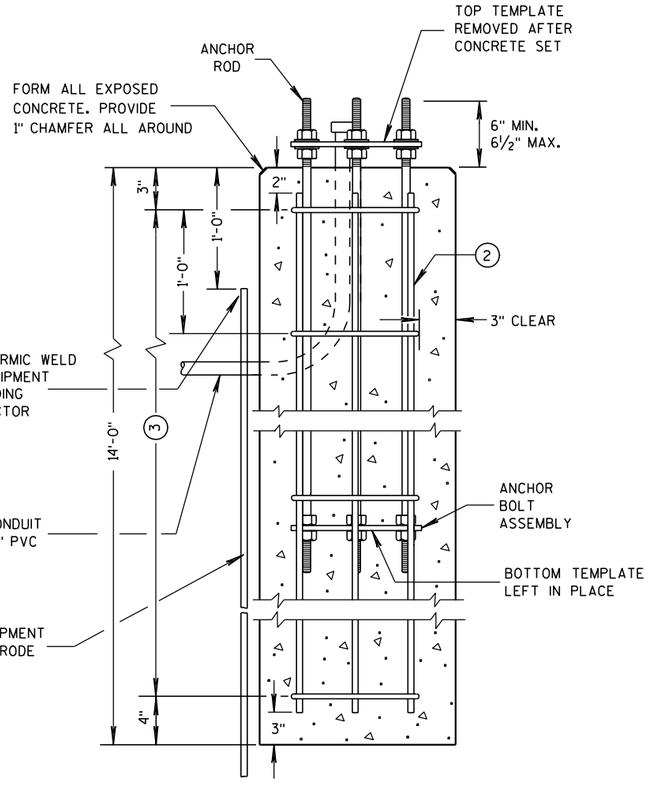
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN 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.

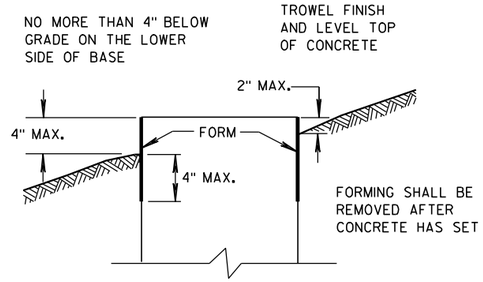
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



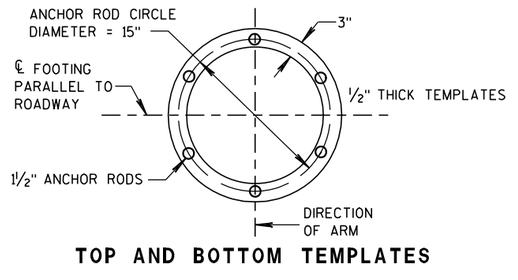


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

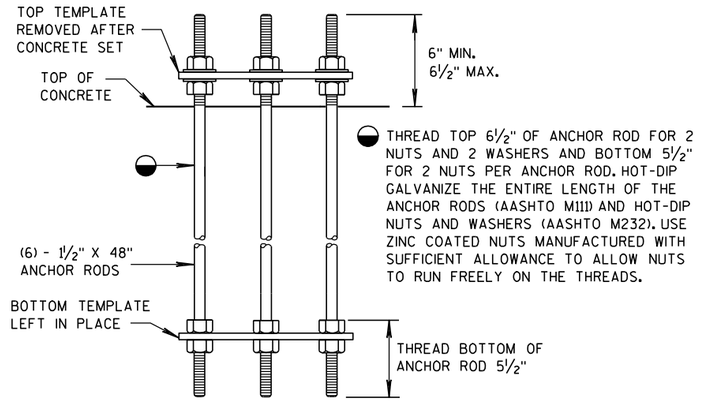
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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

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3-2-11 DATE

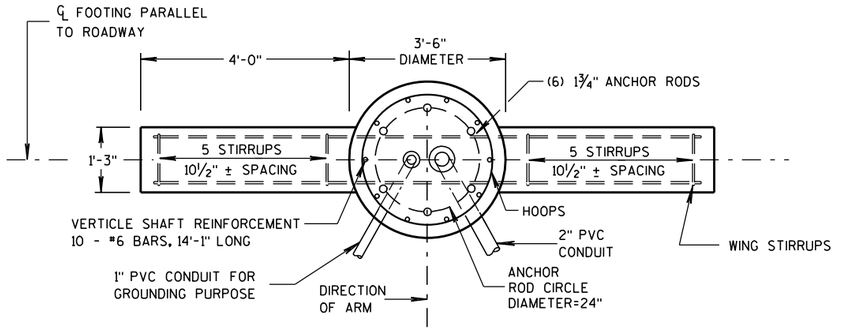
/S/ Thomas J. Corrigan
STATE ELECTRICAL ENGI

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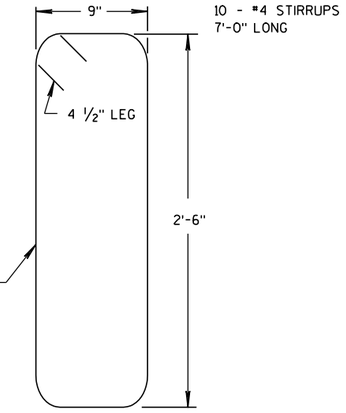
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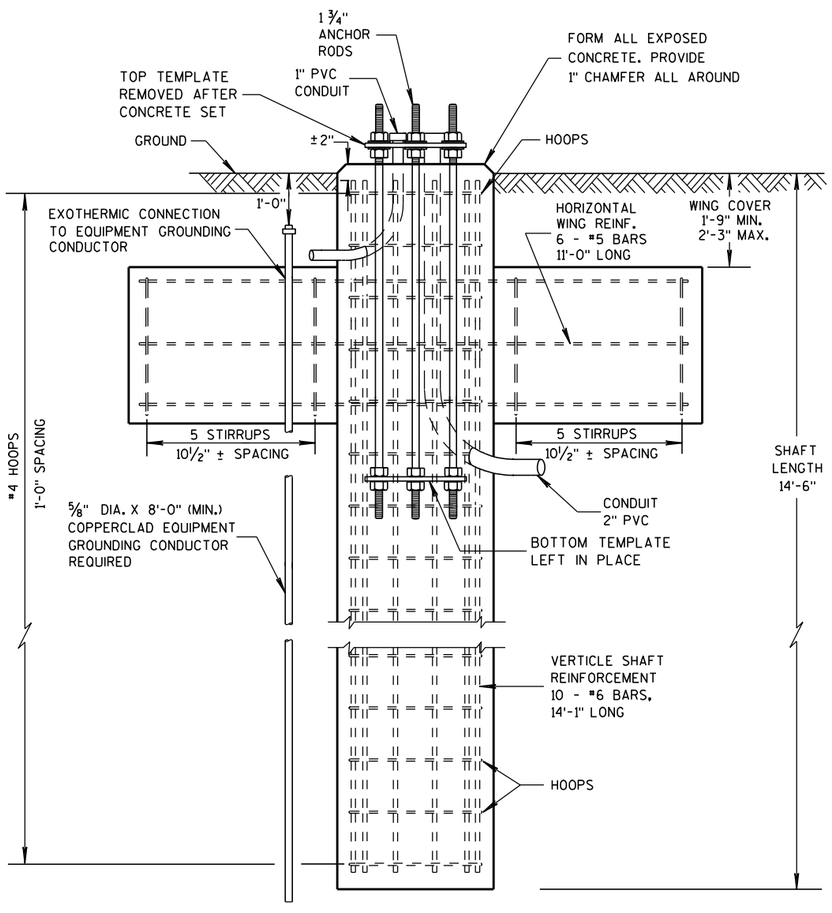
S.D.D. 9 C 11-2



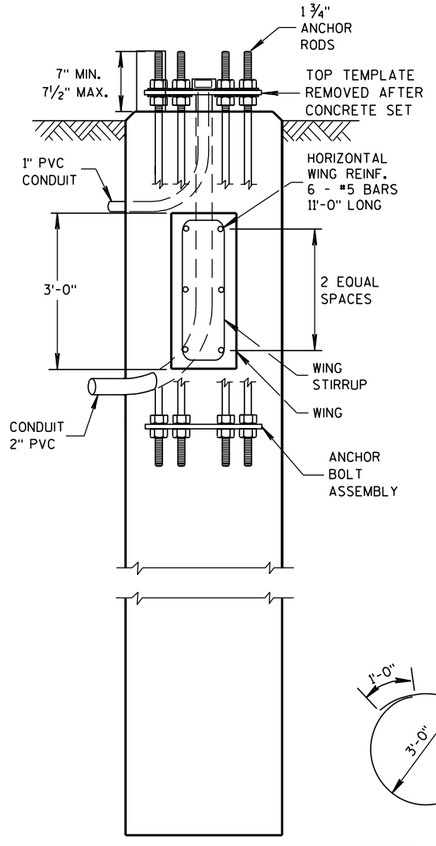
PLAN VIEW



WING STIRRUP

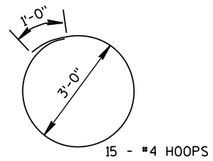


ELEVATION VIEW



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.

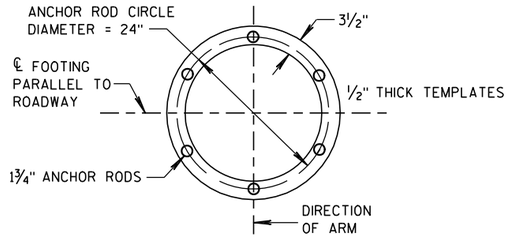
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

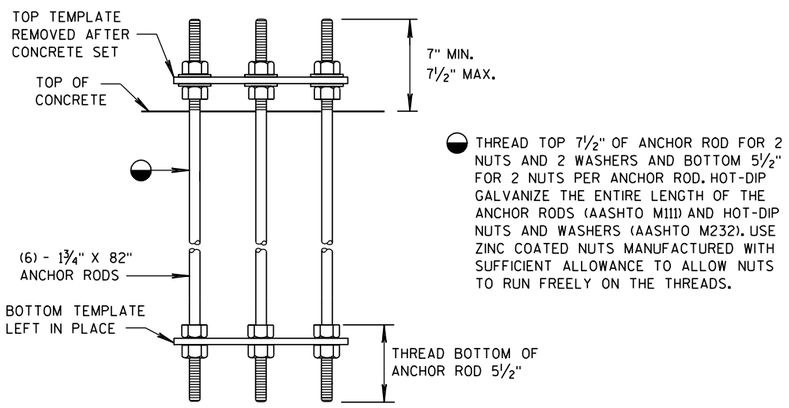
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 9 C 12-2a
S.D.D. 9 C 12 -2a



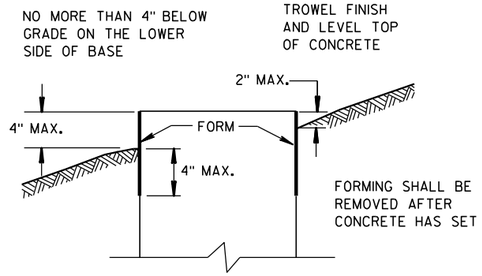
TOP AND BOTTOM TEMPLATES



◒ THREAD TOP 7½" OF ANCHOR ROD FOR 2 NUTS AND 2 WASHERS AND BOTTOM 5½" FOR 2 NUTS PER ANCHOR ROD. HOT-DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR RODS (AASHTO M111) AND HOT-DIP NUTS AND WASHERS (AASHTO M232). USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

6

CONCRETE BASE TYPE 13

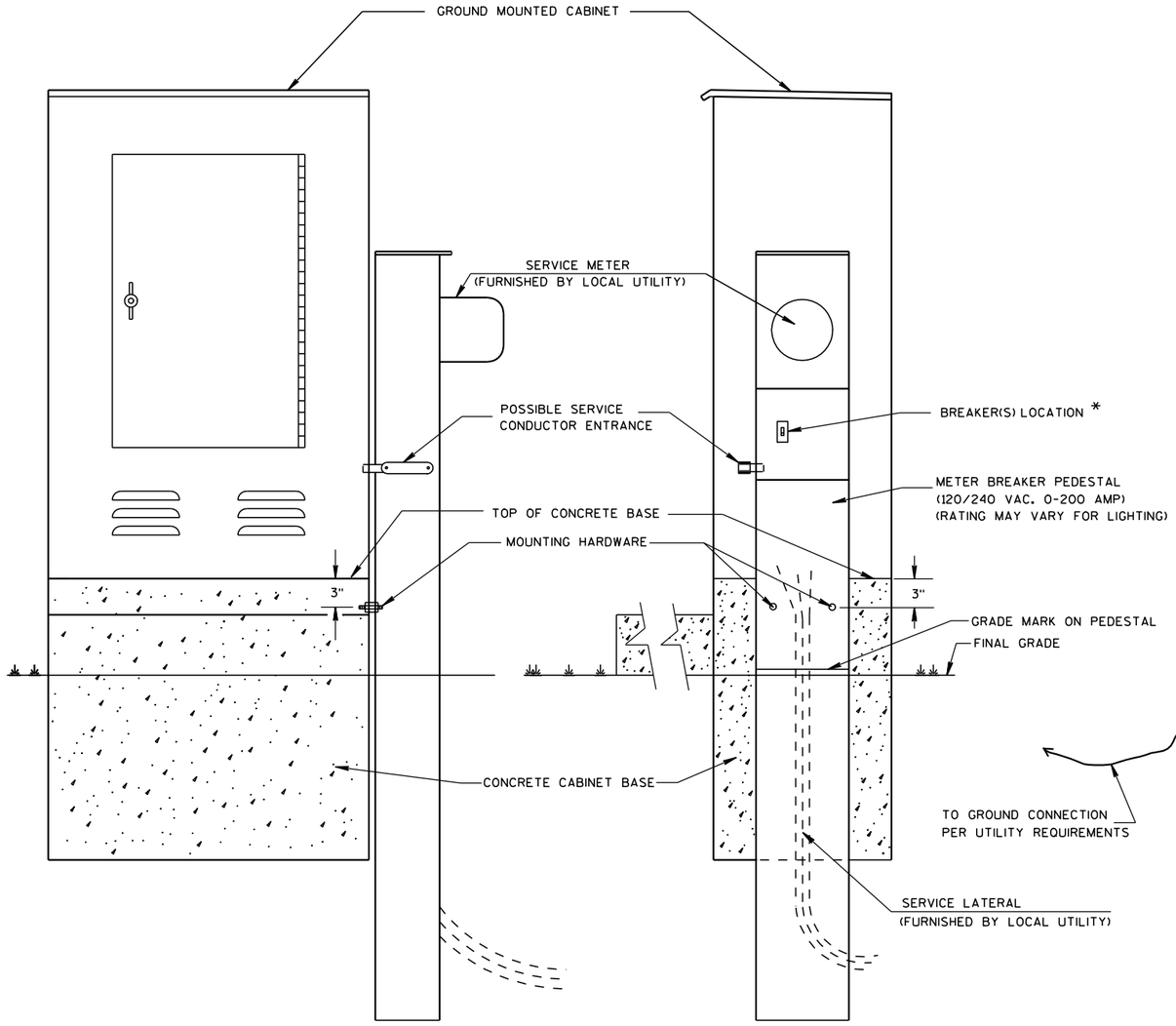
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3-2-11 DATE — /S/ Thomas J. Cearlock STATE ELECTRICAL ENGI — HWYS

FHWA

S.D.D. 9 C 12-2b



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/27/09 — DATE

/S/ Joanna L. Bush — STATE ELECTRICAL ENGI

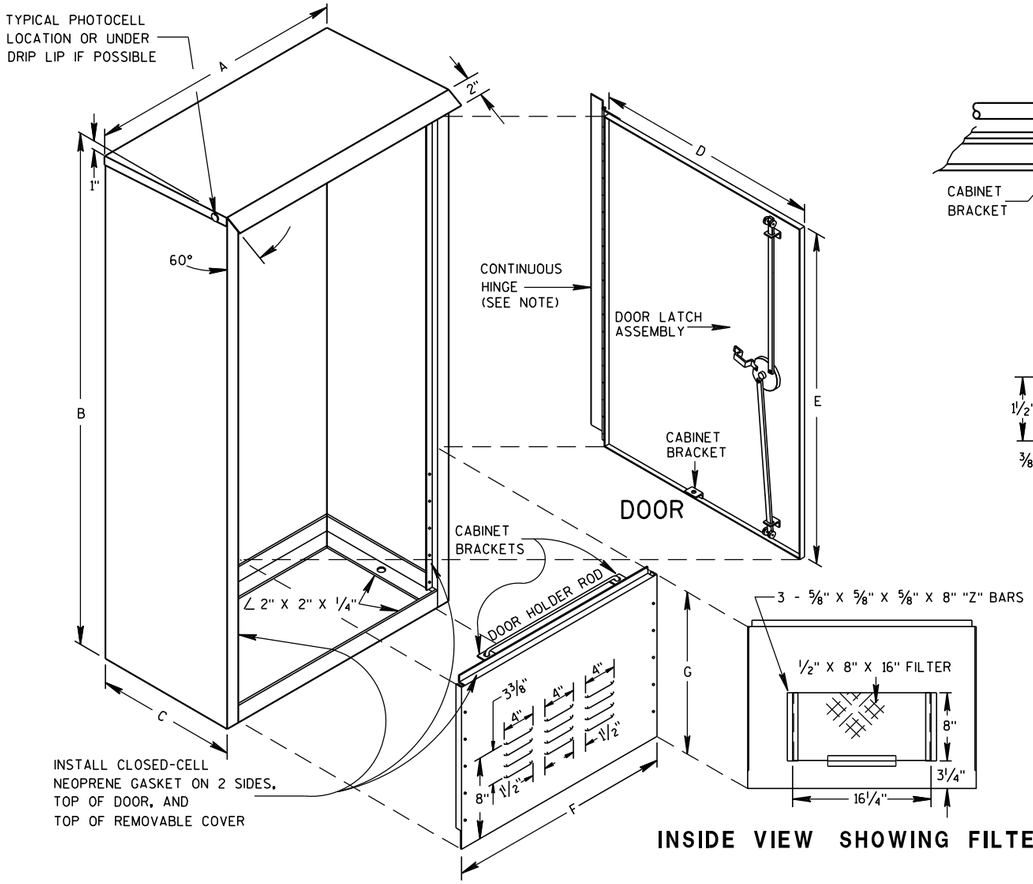
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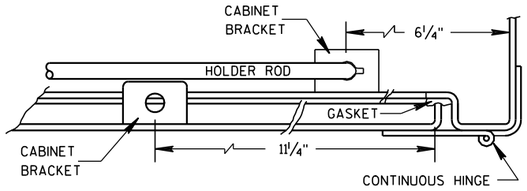
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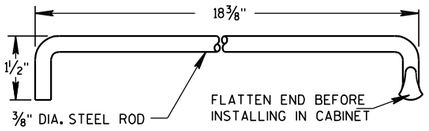


REMOVABLE COVER

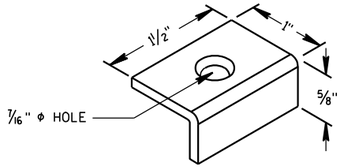
INSIDE VIEW SHOWING FILTER



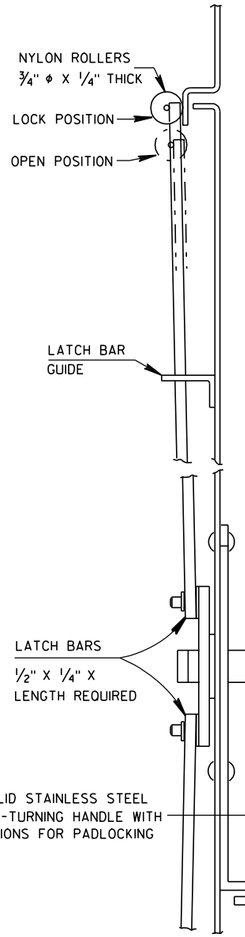
HINGE & DOOR HOLDER



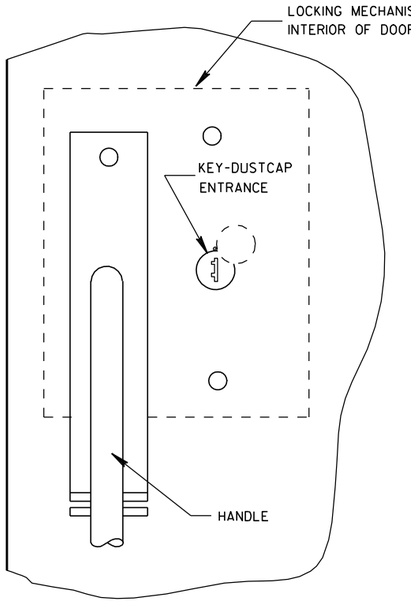
HOLDER ROD



CABINET BRACKET

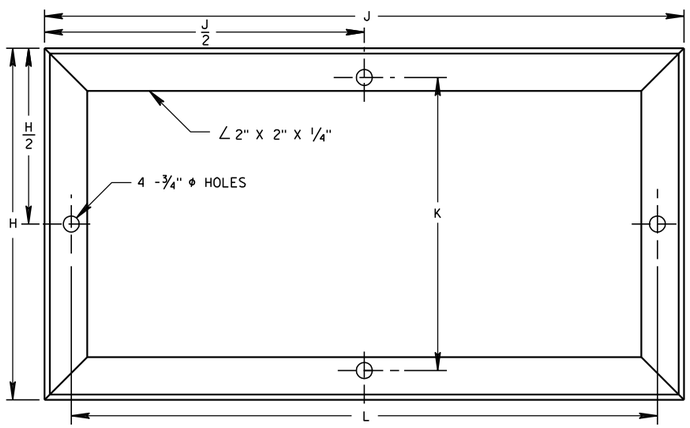


SIDE VIEW



FRONT VIEW

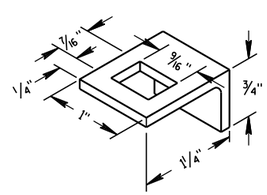
LATCH ASSEMBLY



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2



LATCH BAR GUIDE

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.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE AN APPROVED TYPE.

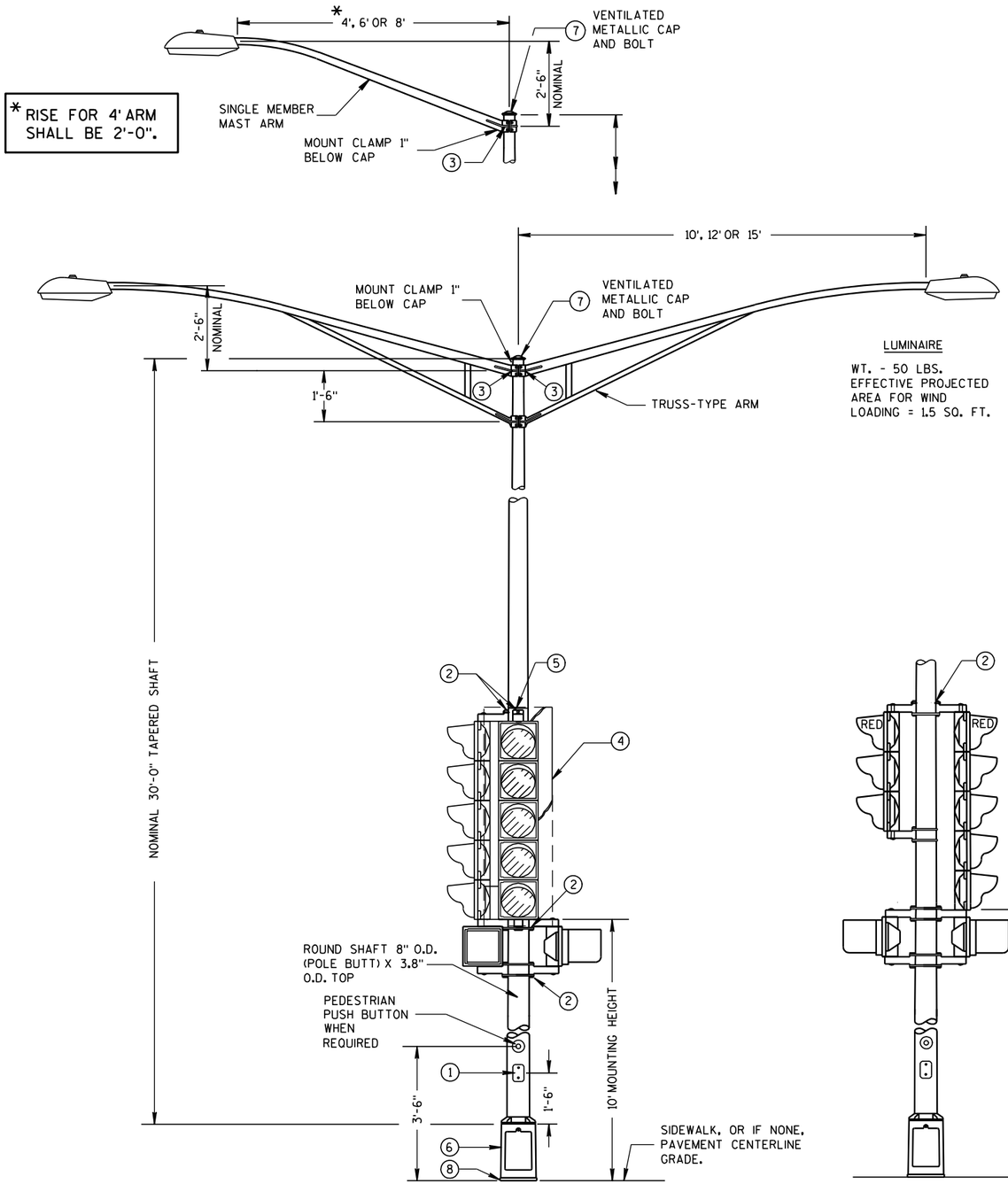
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

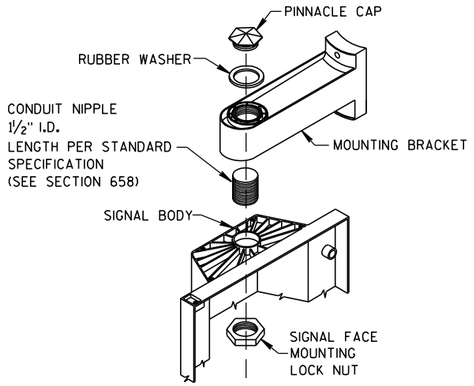
SIGNAL OR LIGHTING CONTROL CABINET

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10/21/96 — DATE
/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI
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SIGNAL FACE MOUNTING DETAIL
(BANDED)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

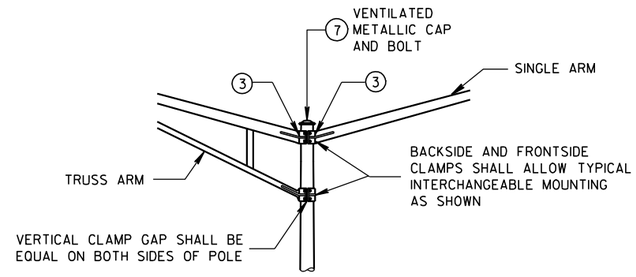
POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

1. 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.
2. SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658).
3. GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.
4. SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.
5. POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.
6. CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
7. FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
8. SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.



INTERCHANGEABLE MOUNTING DETAIL

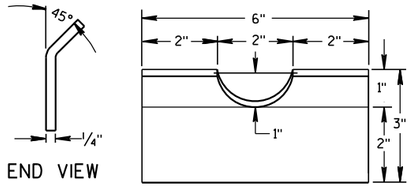
TYPE 4 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

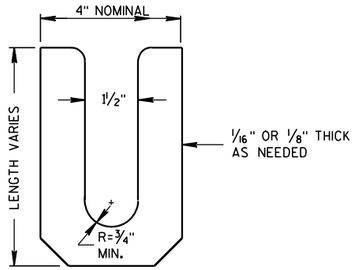
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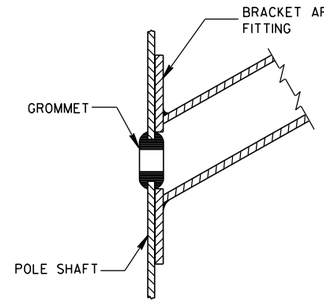
RECTANGULAR CLAMP SHIM

(4 TO A SET)

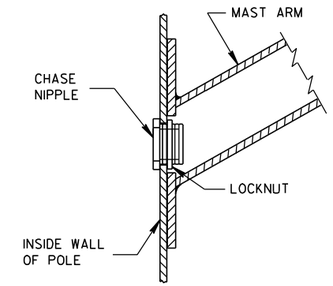


LEVELING SHIM (15)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

(10.) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11.) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

(12.) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13.) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)

(14.) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")

SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35", 0.53" OR 0.70".

SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".

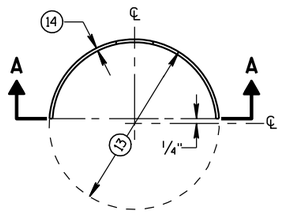
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

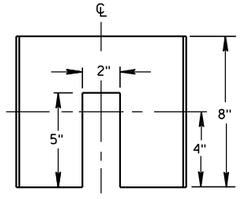
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(15.) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



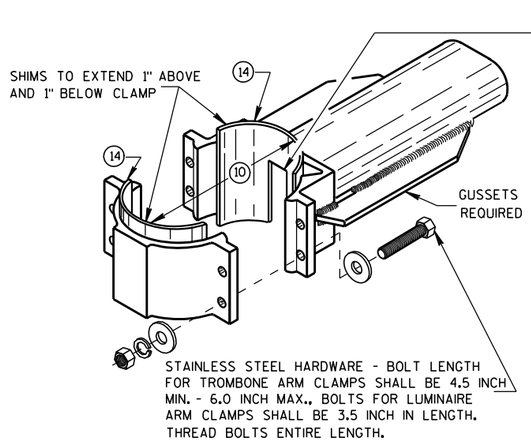
PLAN VIEW



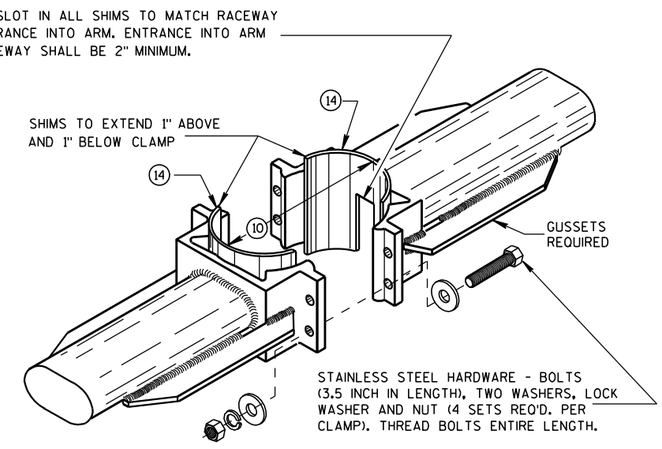
SECTION A-A

CIRCULAR CLAMP SHIM

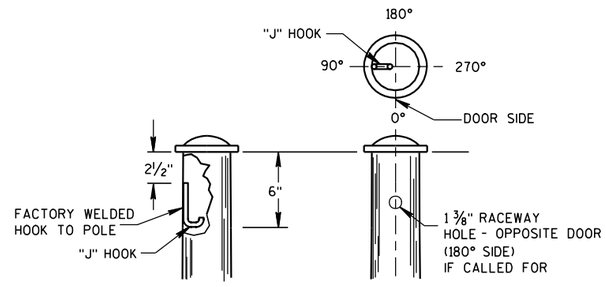
(2 TO A SET)



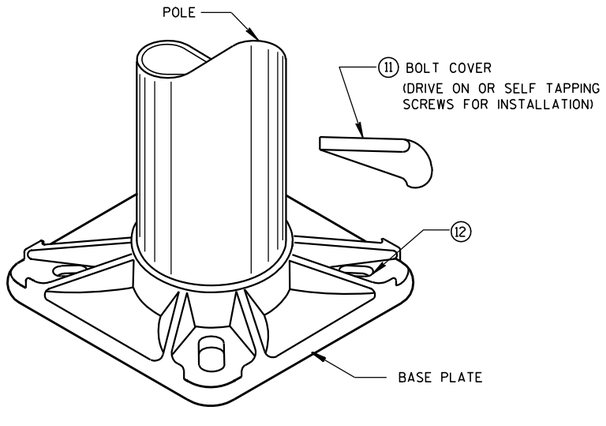
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



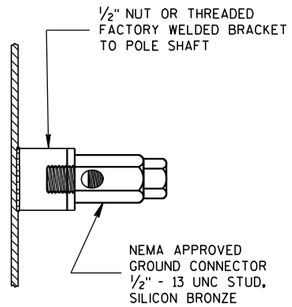
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

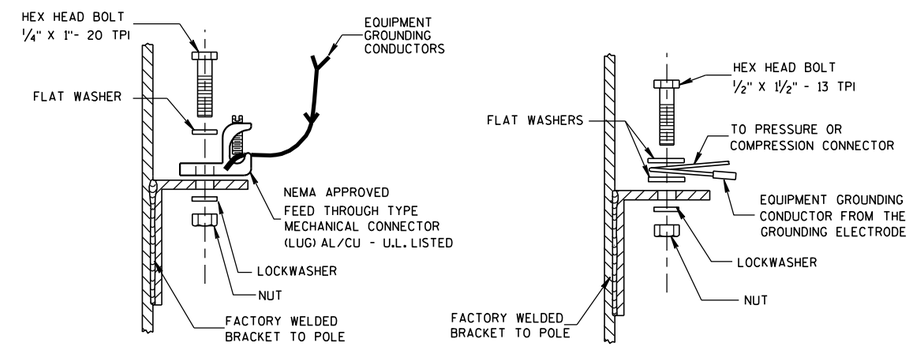


TYPICAL "J" HOOK LOCATION



BASE PLATE





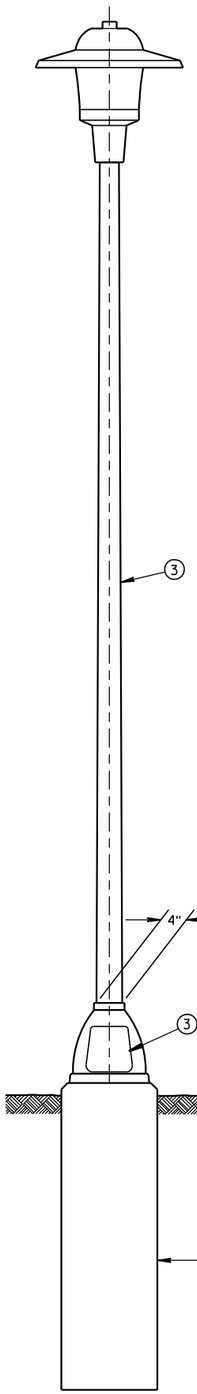
TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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3/2/11 — DATE
/S/ Thomas J. Gosling — STATE ELECTRICAL ENGI
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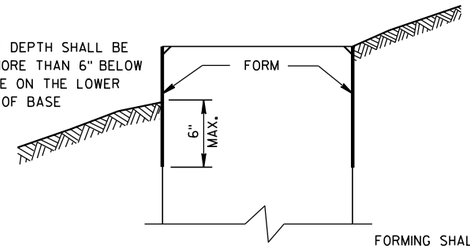


LUMINAIRE

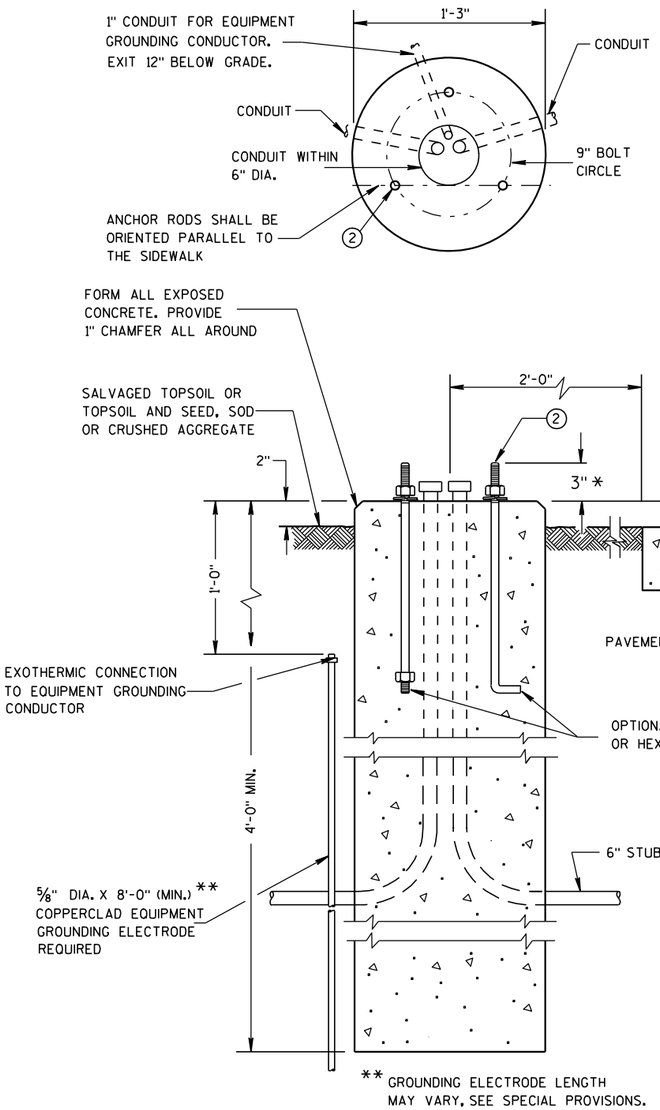
WT. = 50 LBS.
EFFECTIVE PROJECTED AREA
FOR WIND LOADING = 1.5 SQ. FT.

100 WATT HPS,
120/240 VAC HIGH POWER
FACTOR BALLAST

WALKWAY LIGHTING UNIT DETAIL



FORMING DETAIL



** GROUNDING ELECTRODE LENGTH MAY VARY, SEE SPECIAL PROVISIONS.

CONCRETE BASE, TYPE 11

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

CONCRETE BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT RUNS, NUMBER OF CONDUITS IN EACH CONCRETE BASE AND CONDUIT SIZE IS AS SHOWN ON THE PLANS. THE 1-INCH CONDUIT IS USED IN ALL BASES.

MINIMUM BENDING RADIUS OF CONDUIT SHALL BE SIX TIMES THE DIAMETER OF THE CONDUIT.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1-INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE AND BEFORE INSTALLATION OF CABLE OR WIRE.

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. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

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 CONCRETE BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE CONCRETE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1-FOOT OR LESS.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NO. 4 AWG, BARE, STRANDED COPPER. IT SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED LEAVING A 2-FOOT LENGTH OF WIRE ABOVE THE CONCRETE BASE. THE 2-FOOT LENGTH OF EQUIPMENT GROUNDING CONDUCTOR ABOVE THE BASE SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL PER SECTION 5.17.6.3, AASHTO 2001 4TH EDITION STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS.

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

GENERAL NOTES (CONTINUED)

(1) DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24-INCHES MIN. DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES MIN. DEPTH OF ALL CONDUITS SHALL NOT EXCEED 36-INCHES.

(2) THREE - ¾-INCH DIA. X 15-INCH ANCHOR RODS OR ¾-INCH DIA. X 19-INCH ANCHOR RODS INCLUDING THE 4-INCH "L" BEND. THE "L" BEND SHALL NOT BE THREADED. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS.

(3) PEDESTAL BASE-STANDARD:

THE PEDESTAL BASE-STANDARD SHALL BE A ONE PIECE WELDED UNIT, WITH AN OVERALL HEIGHT OF TEN FEET.

THE POLE SHALL BE ROUND, TAPERED, ALUMINUM WITH A 3-INCH OUTSIDE DIAMETER TOP AND 0.125 INCH WALL THICKNESS.

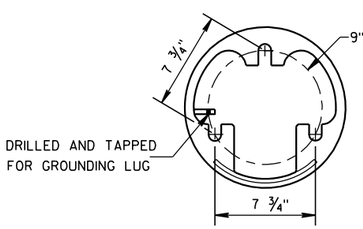
THE BELL SHAPED BASE SHALL BE 12 ½ INCHES IN DIAMETER AND HAVE A 9-INCH BOLT CIRCLE. ANCHOR RODS SHALL BE INCLUDED WITH THE BASE.

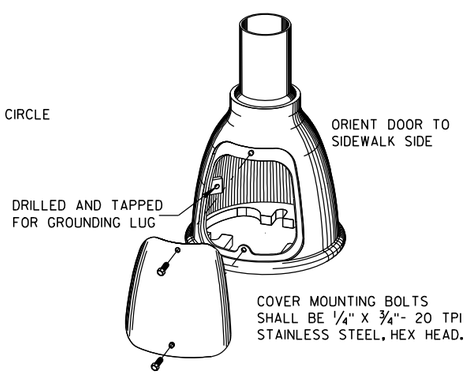
THE ACCESS DOOR OPENING SHALL BE APPROXIMATELY 7½ X 5¼ X 7½-INCHES.

THE FIXTURE AND PEDESTAL BASE-STANDARD SHALL BE PAINTED WITH AN EARTH COLORED THERMOSET POWDER COAT, ACRYLIC ENAMEL. THE ENAMEL SHALL BE FORMULATED TO SHOW NO APPRECIABLE FADING WITHIN FIVE YEARS.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED "AL/CU" TYPE. CONNECTION HARDWARE SHALL BE STAINLESS STEEL (BOLT, NUT, LOCKWASHER- ¼" X ¾" - 20 TPI

ALL NONMETALLIC CONDUIT CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES. (SEE NEC 347.5)





WALKWAY PEDESTAL BASE STANDARD DETAIL

WALKWAY LIGHTING UNIT AND CONCRETE BASE, TYPE 11

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/11/09
DATE

/S/ Joanna L. Rich
STATE ELECTRICAL ENGI

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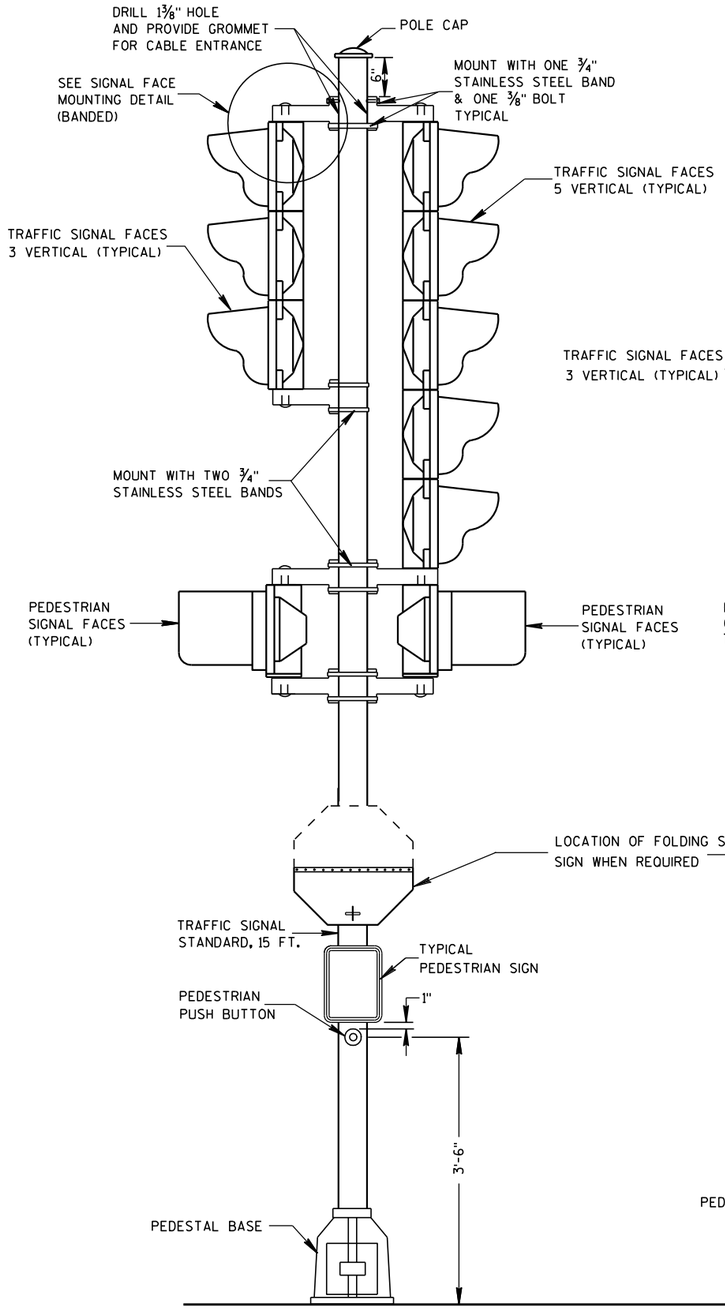
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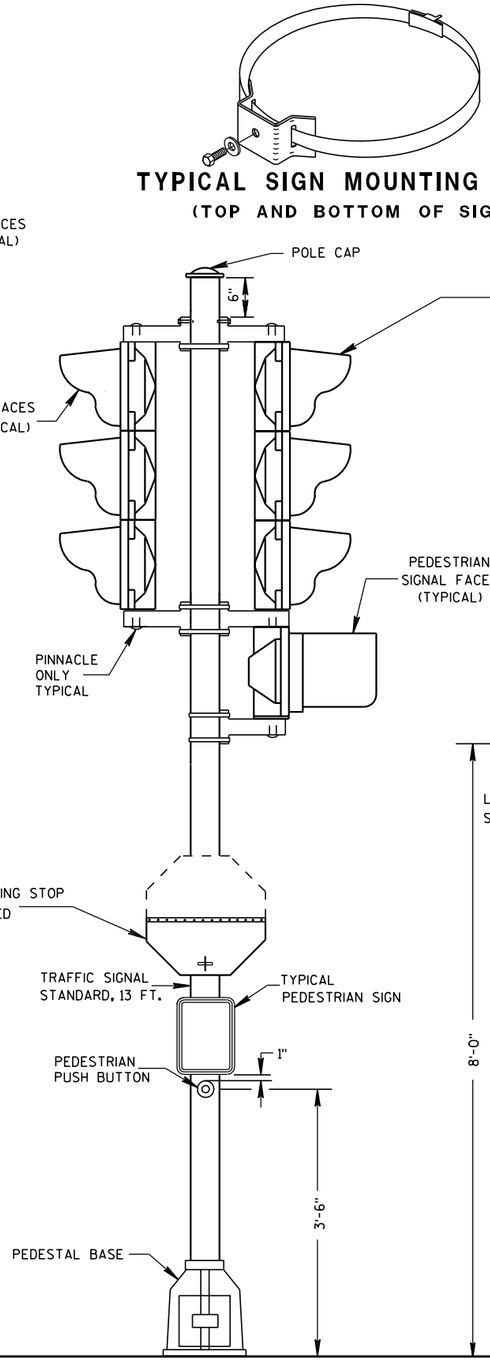
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S.D.D. 9 E 4-5

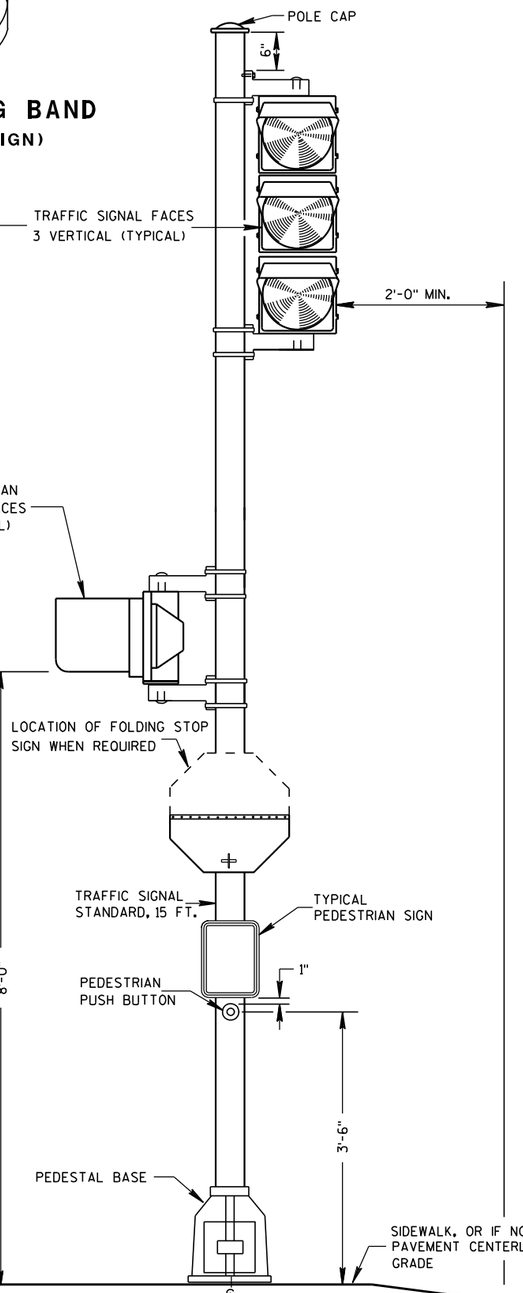


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

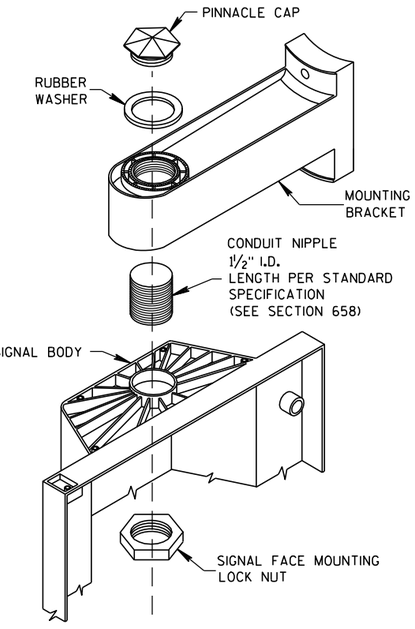
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE DISTRICT TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



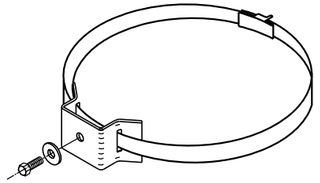
SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

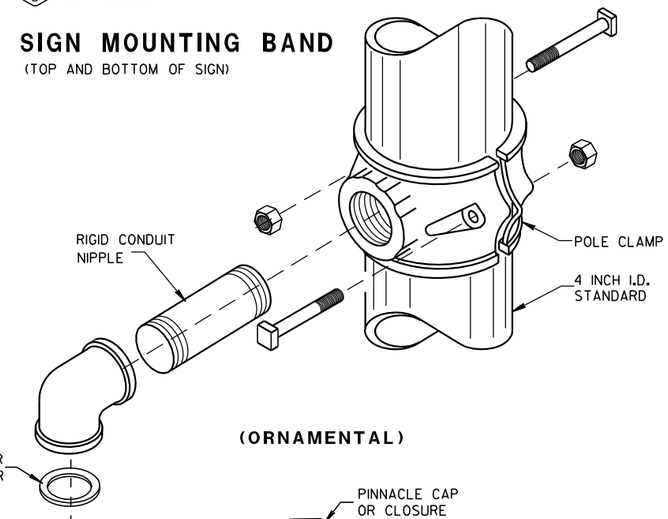
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/11/10 DATE
/S/ John Corbin STATE ELECTRICAL ENGI
160
HWYS
FHWA

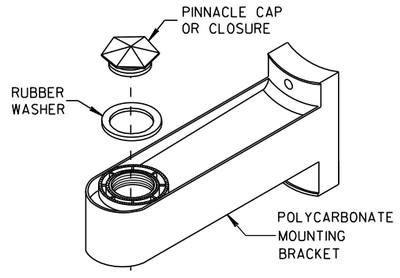
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S.D.D. 9 E 6-4



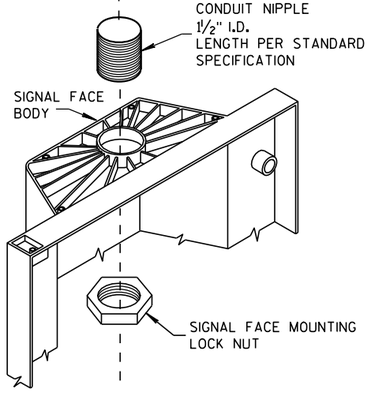
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



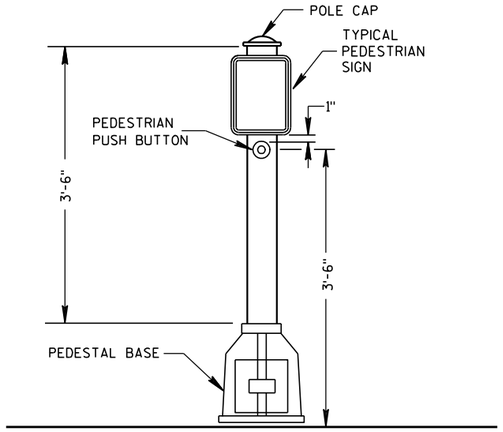
(ORNAMENTAL)



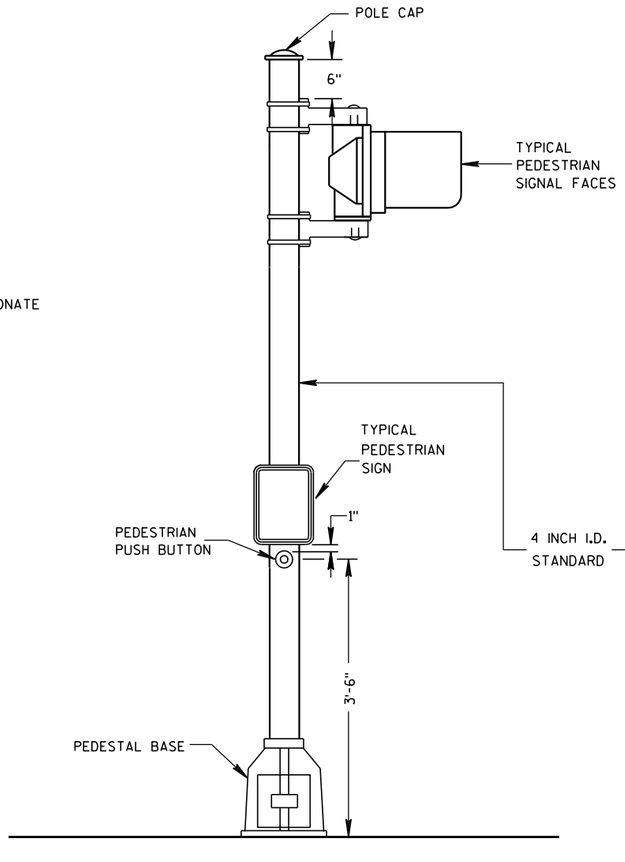
(BANDED)



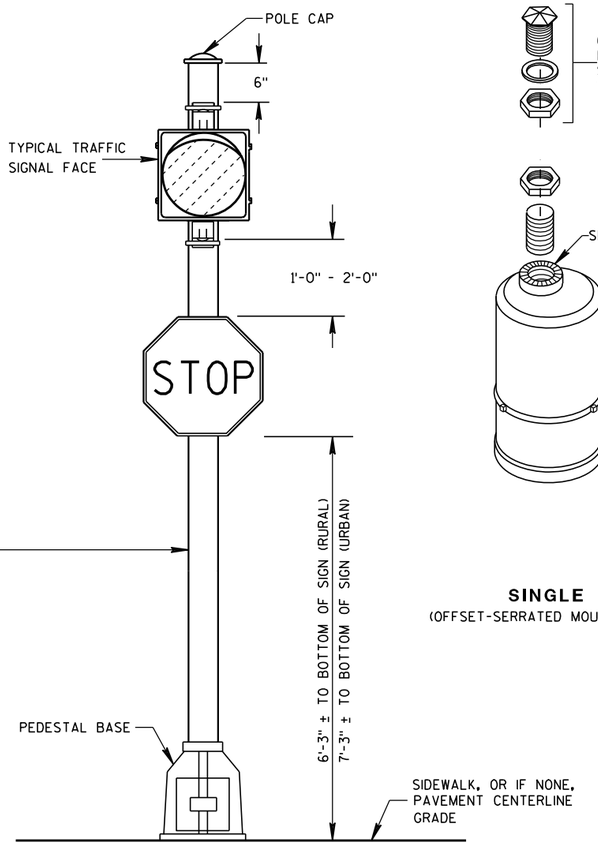
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

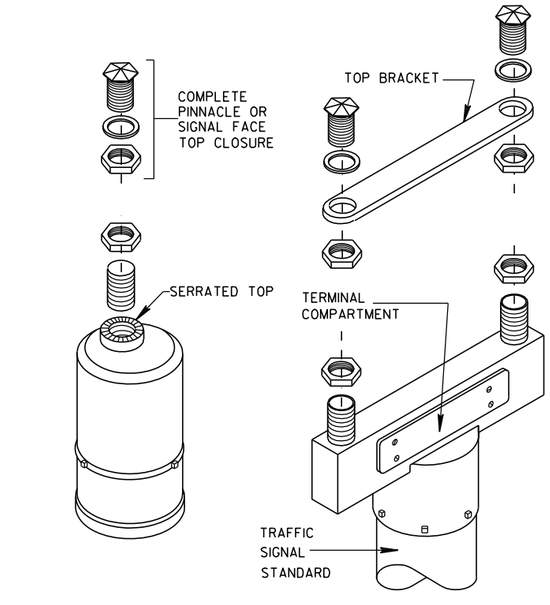
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI

HWYS

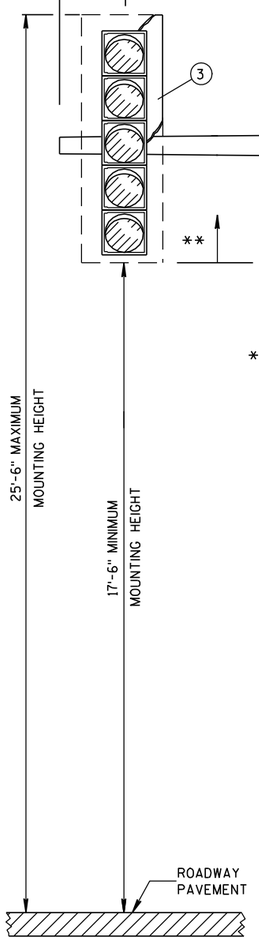
FHWA

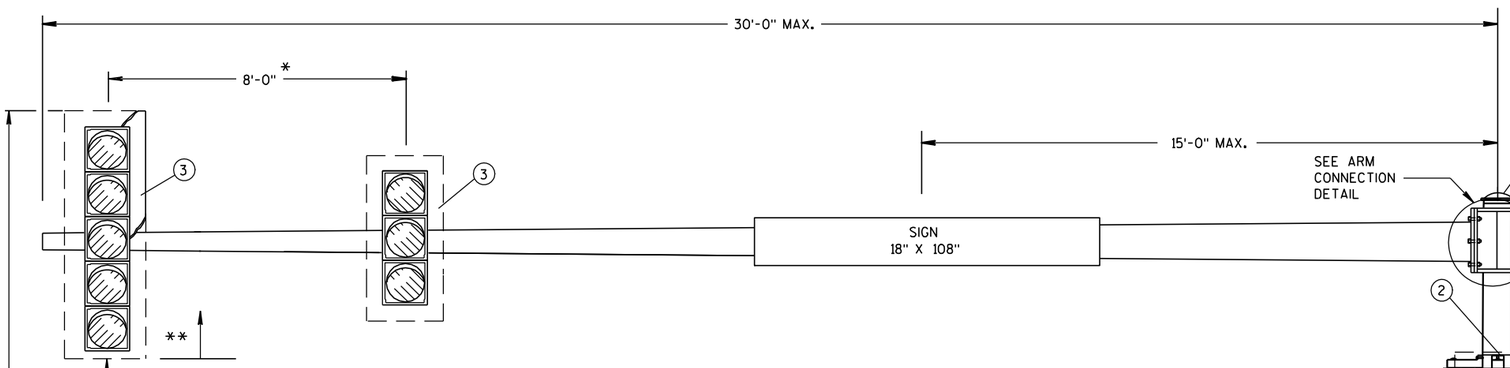
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S.D.D. 9 E 7-5

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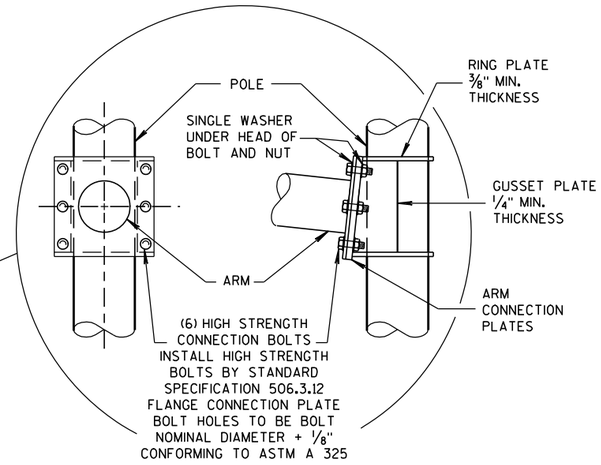
S.D.D. 9 E 7-5



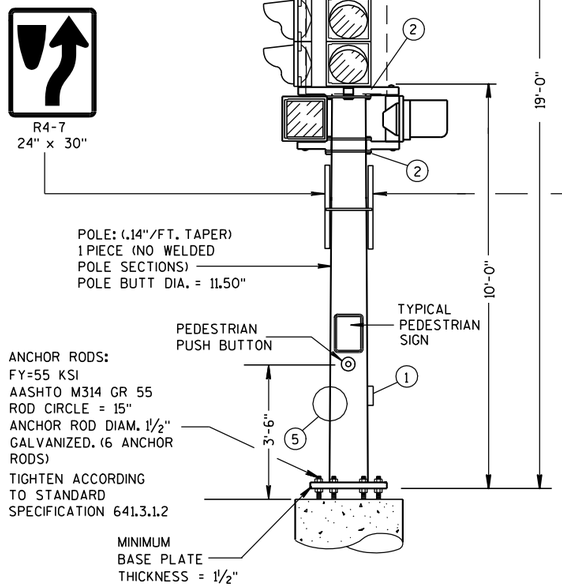


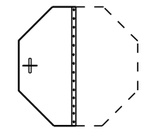
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY. NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

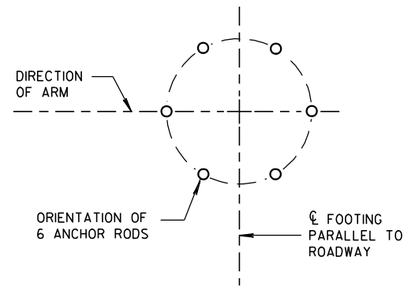
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL





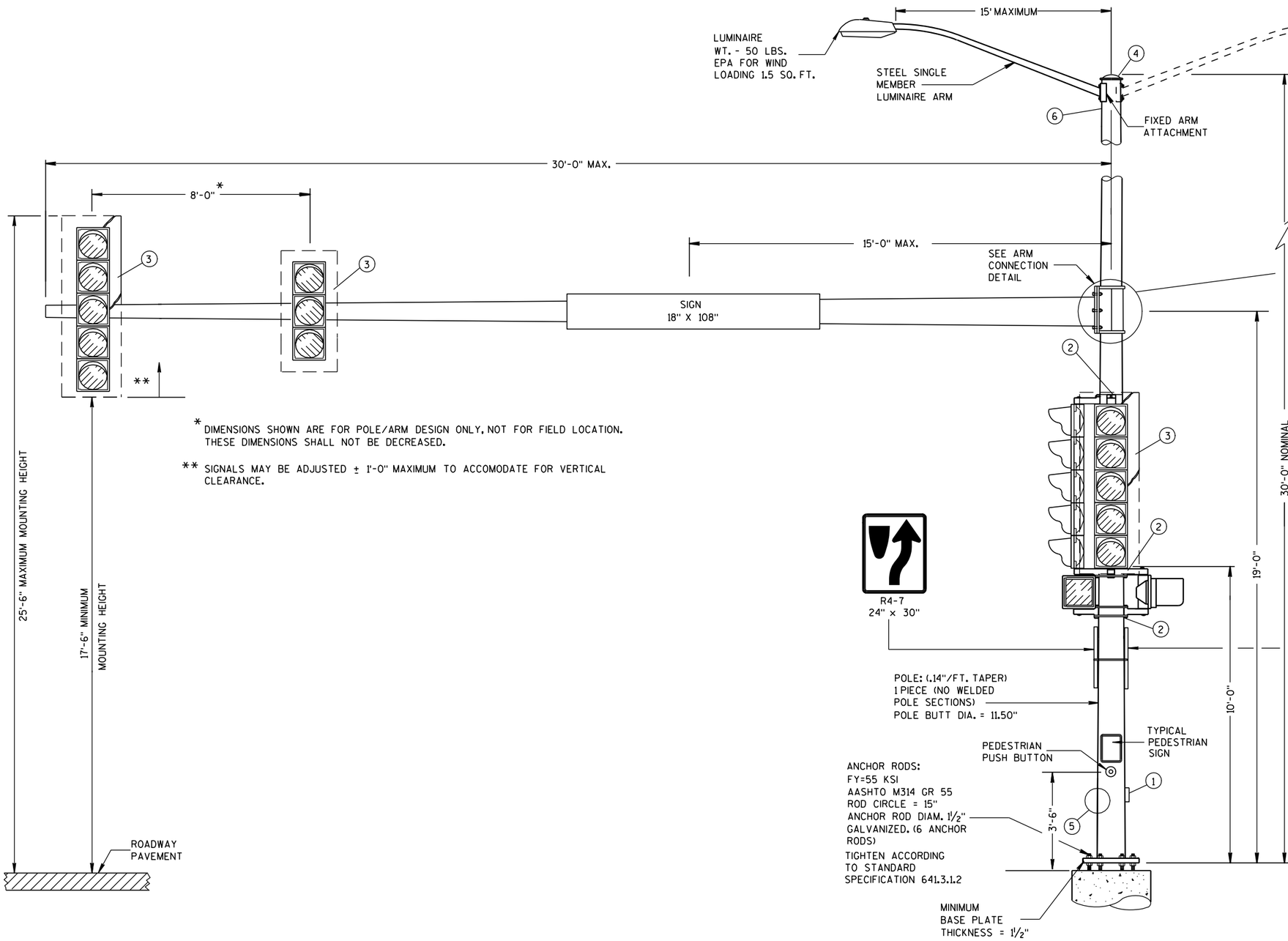


ANCHOR ROD LOCATION

(MAXIMUM LOAD)

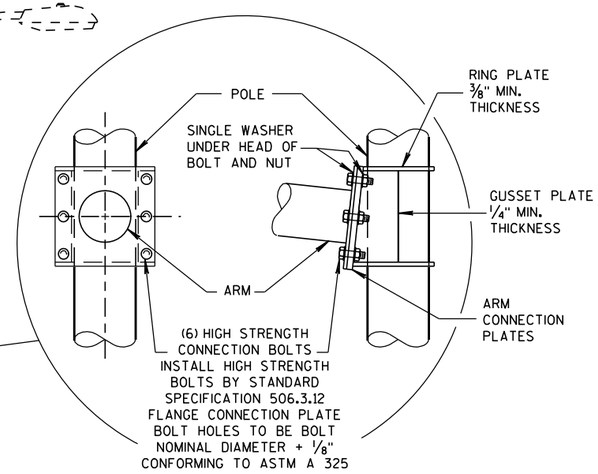
TYPE 9 POLE 15'- 30' MONOTUBE ARM

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
FHWA	HWYS

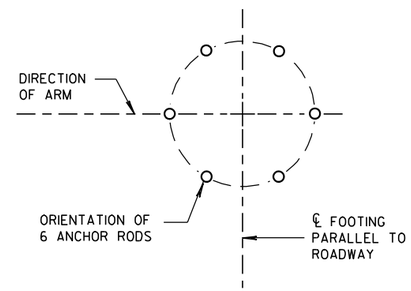


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL

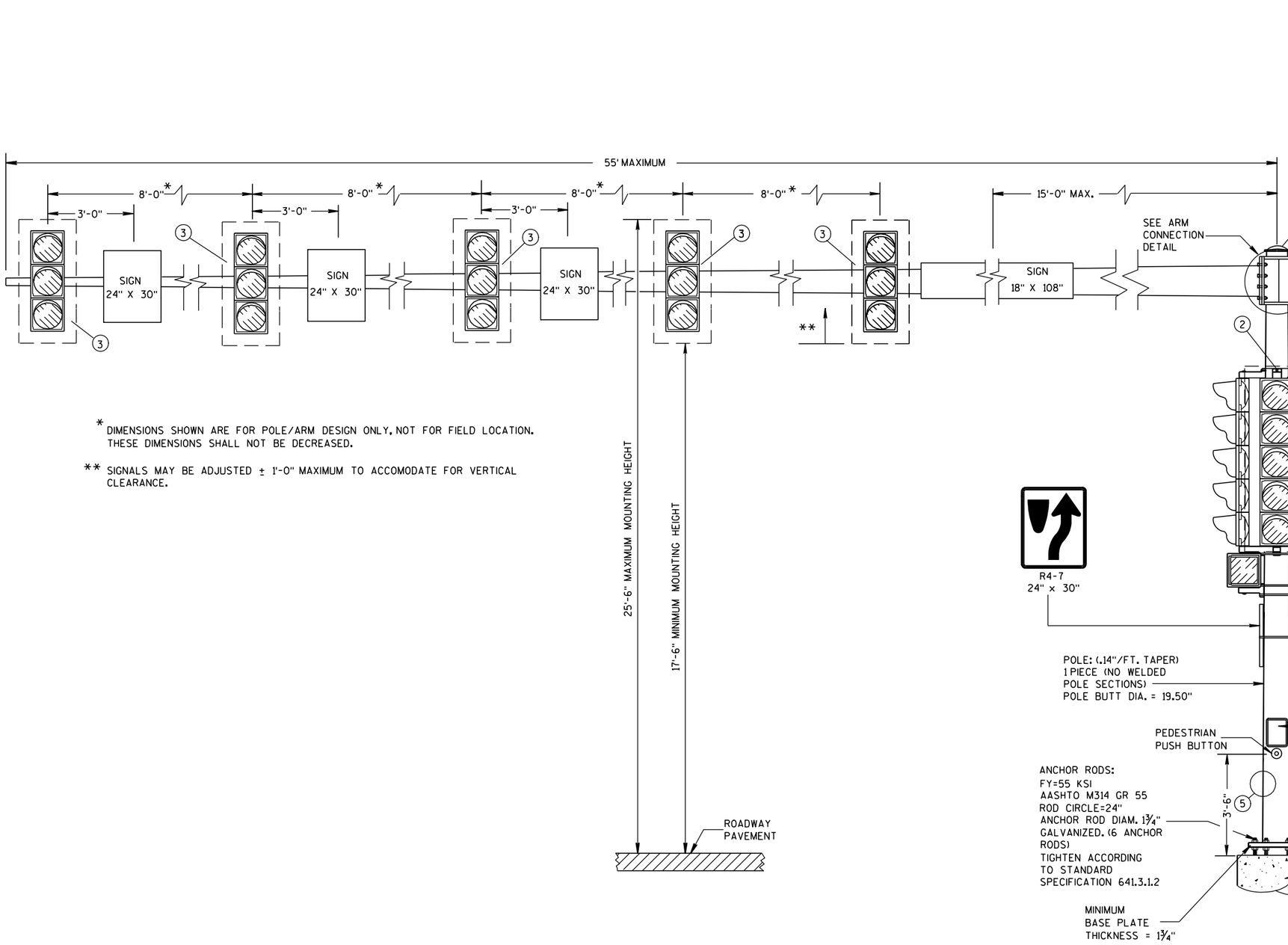


ANCHOR ROD LOCATION

(MAXIMUM LOAD)

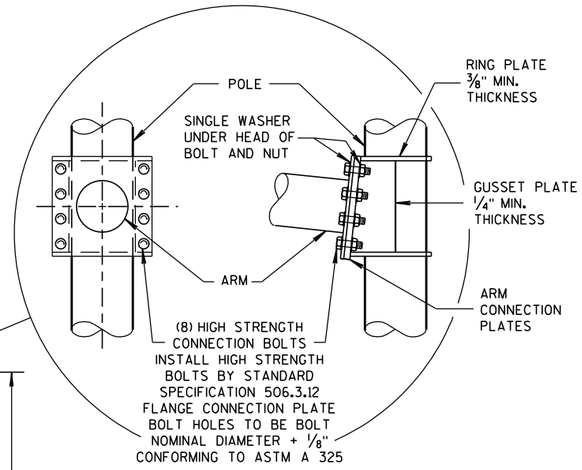
TYPE 10 POLE
15'- 30' MONOTUBE ARM

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
FHWA	163 HWYS

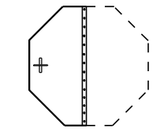


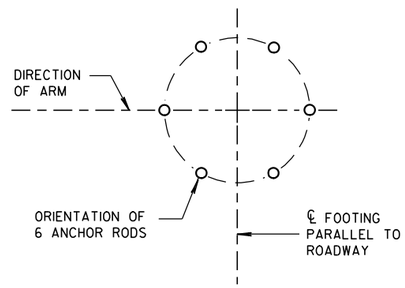
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



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

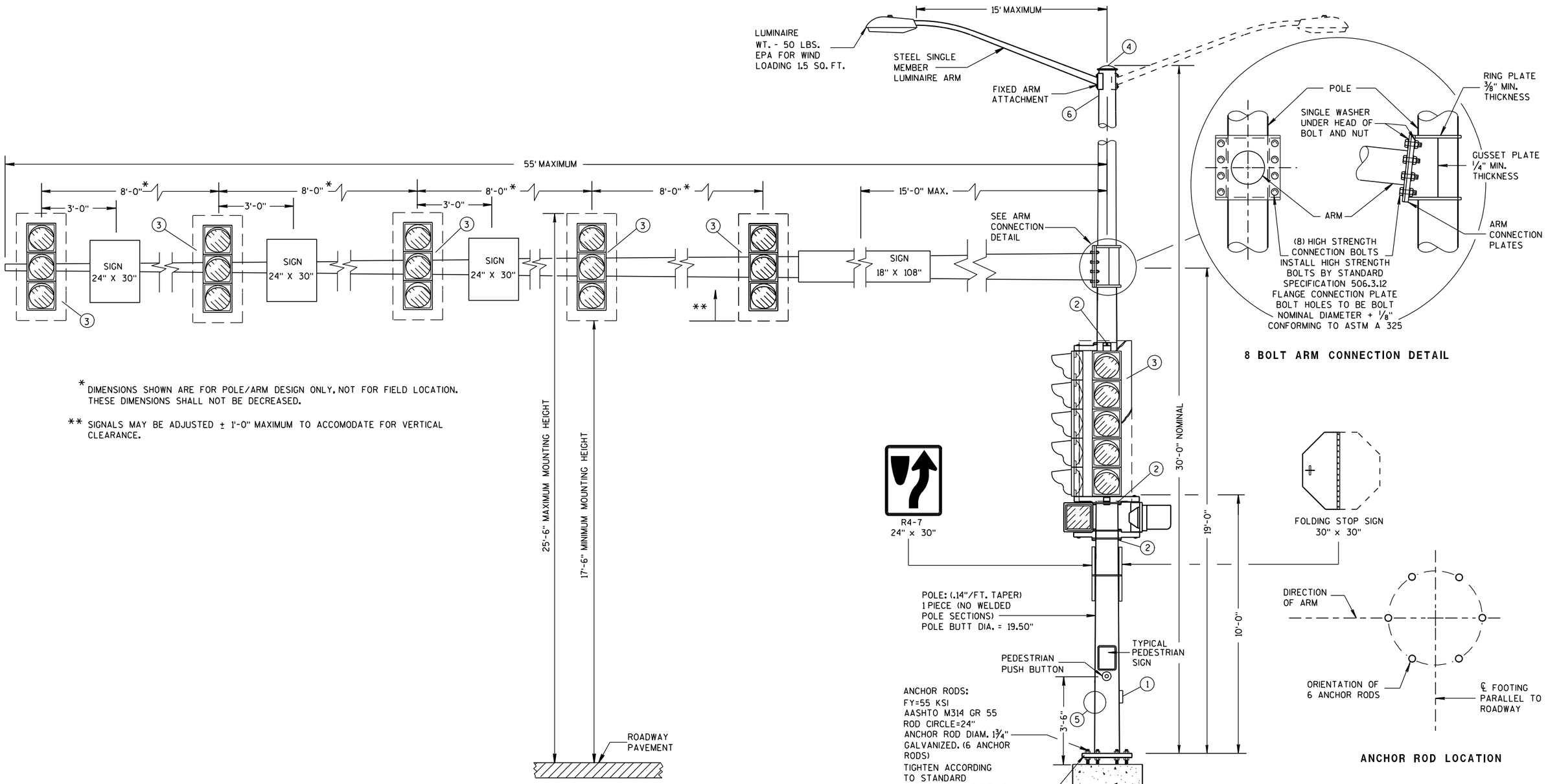
APPROVED
3/2/2011 — DATE
/S/ Thomas J. Gorring — STATE ELECTRICAL ENGI
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HWYS
FHWA

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S.D.D. 9 E 8-4c

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S.D.D. 9 E 8-4c



* 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.

8 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 — DATE

/S/ Thomas J. Cannon — STATE ELECTRICAL ENGI

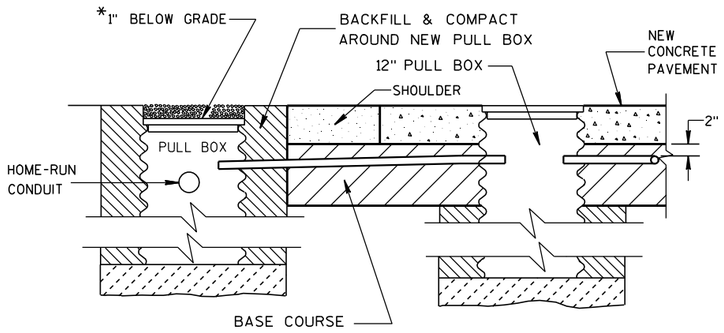
165

HWYS

FHWA

6

S.D.D. 9 E 8-4d



SECTION A-A

NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS

*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.

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.

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.

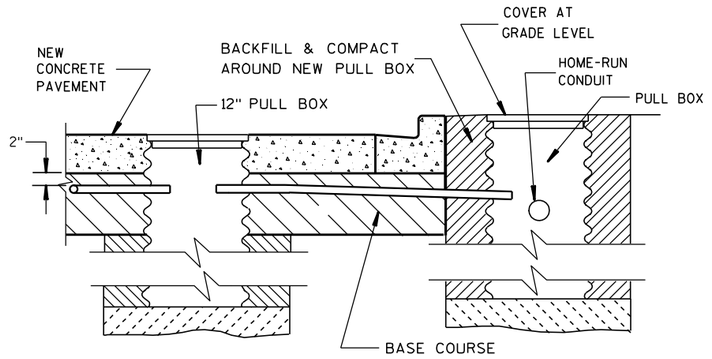
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

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 DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT, CONDULET AND PULL BOX SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE NEW CONCRETE PAVEMENT IS PLACED.

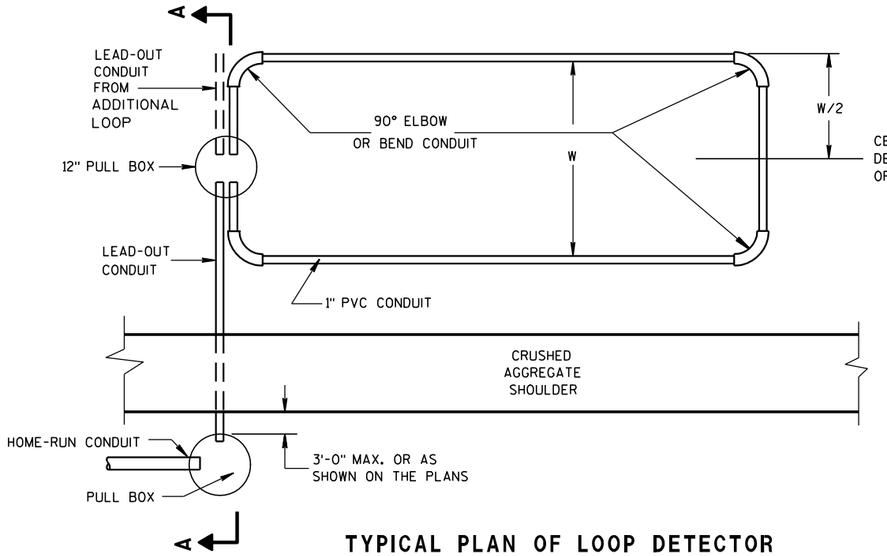
12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



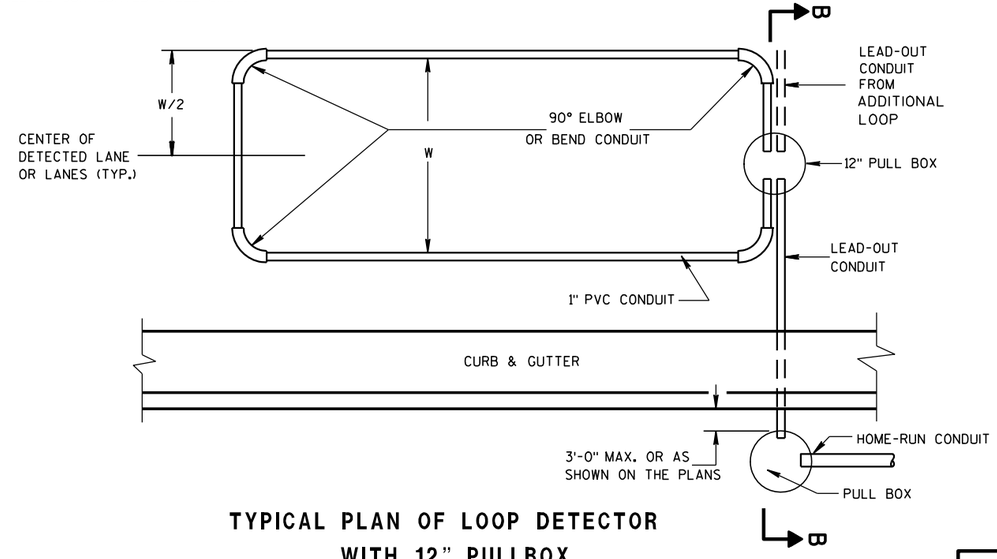
SECTION B-B

CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMNET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

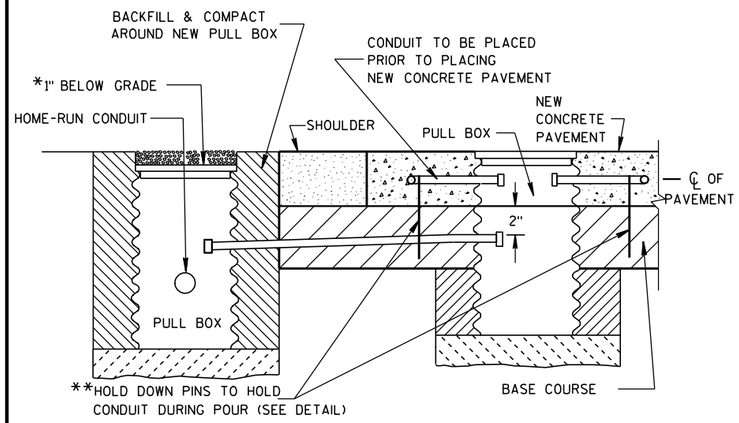
APPROVED

6-7-06 DATE — /S/ Balu Ananthanarayanan, STATE ELECTRICAL ENGI — HWYS

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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.

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.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES, INCLUDING LOCKING PULL BOX COVERS, 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.

ANY PVC LEAD-OUT CONDUIT CONTAINING MORE THAN TWO TWISTED PAIR OF LOOP LEAD-IN WIRE SHALL BE 2".

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.

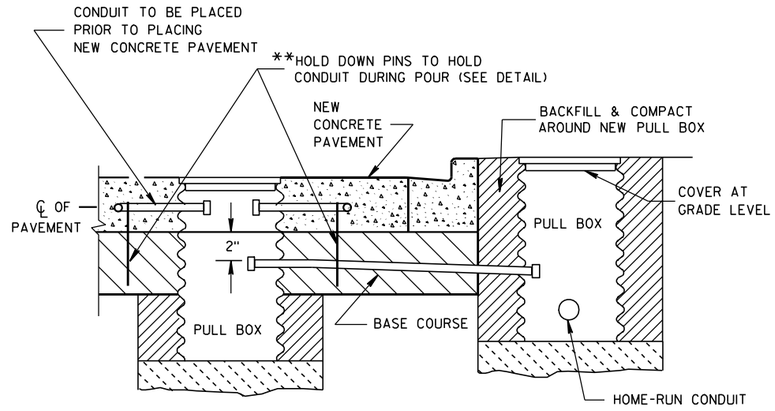
SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, INTO THE PULL BOX IN THE PAVEMENT, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE PULL BOX IN THE BASE COURSE, AND THE RELATED CONDUITS SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW CONCRETE PAVEMENT IS POURED. ANY DAMAGE THAT OCCURS DUE TO FAILURE TO PROTECT THE INSTALLATION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

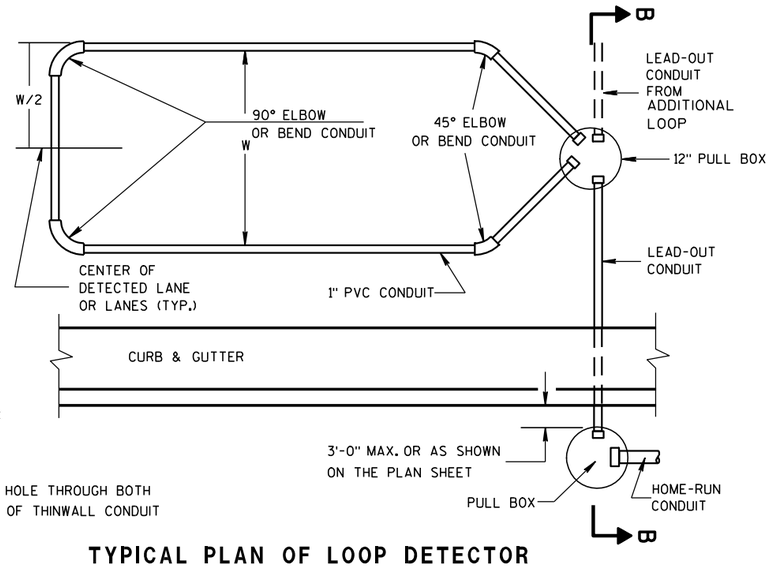
SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE ACCOMPLISHED UNDER THE DIRECTION OF THE PROJECT ENGINEER.

12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.

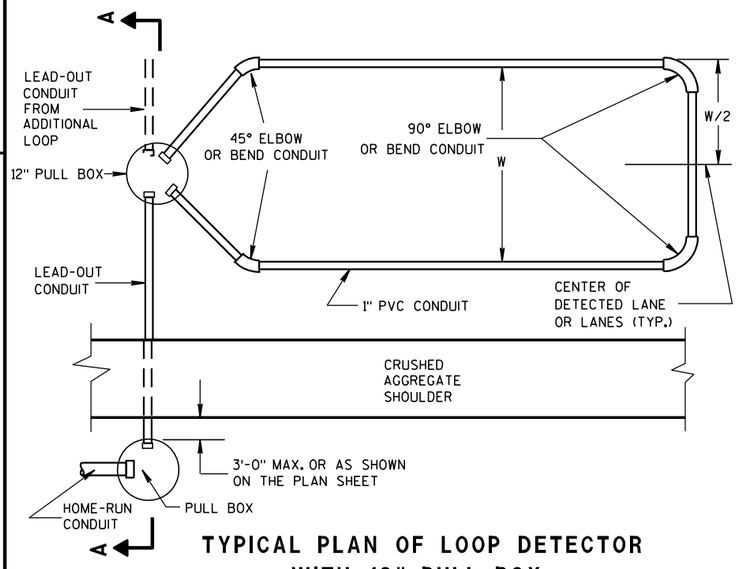


SECTION B-B
CURB & GUTTER

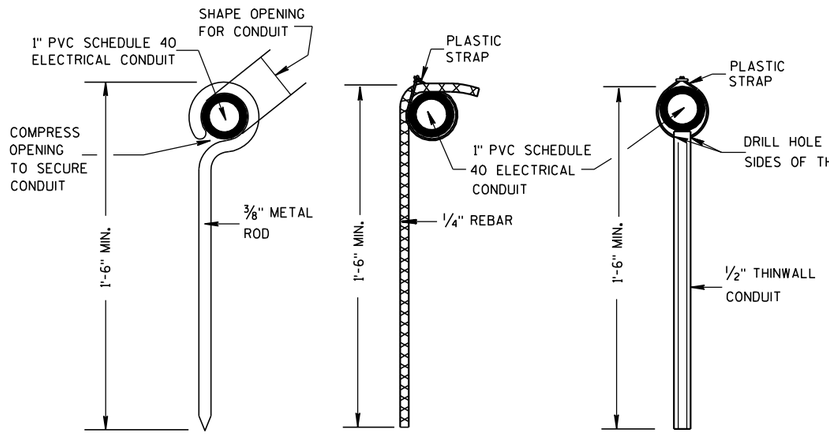
LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULL BOX



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULL BOX



TYPICAL DETAILS FOR HOLD DOWN PINS

**HOLD DOWN PINS ARE REQUIRED TO STABILIZE THE LOOP TO MEET THE DIMENSIONAL AND PHYSICAL CONSTRUCTION REQUIREMENTS OF THE PLANS. THE NUMBER OF HOLD DOWN PINS SHALL BE DETERMINED IN THE FIELD, BY THE PROJECT ENGINEER.

LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULL BOX 45 DEGREE ELBOWS TO PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-7-06 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

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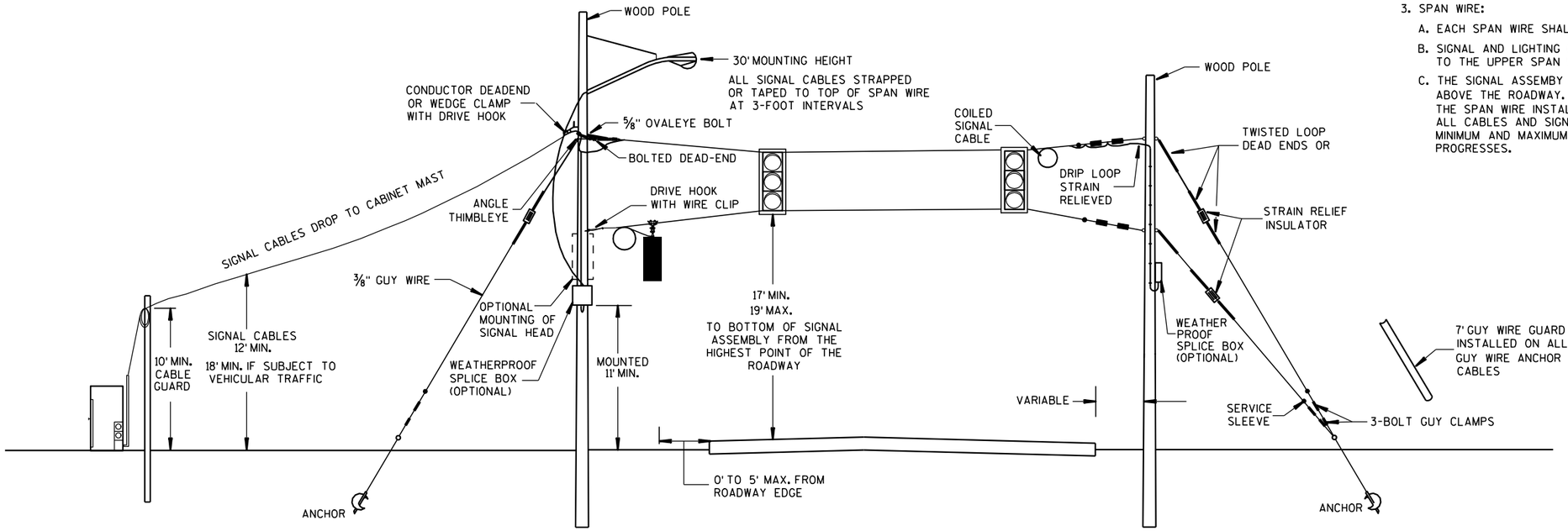
GENERAL NOTES

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

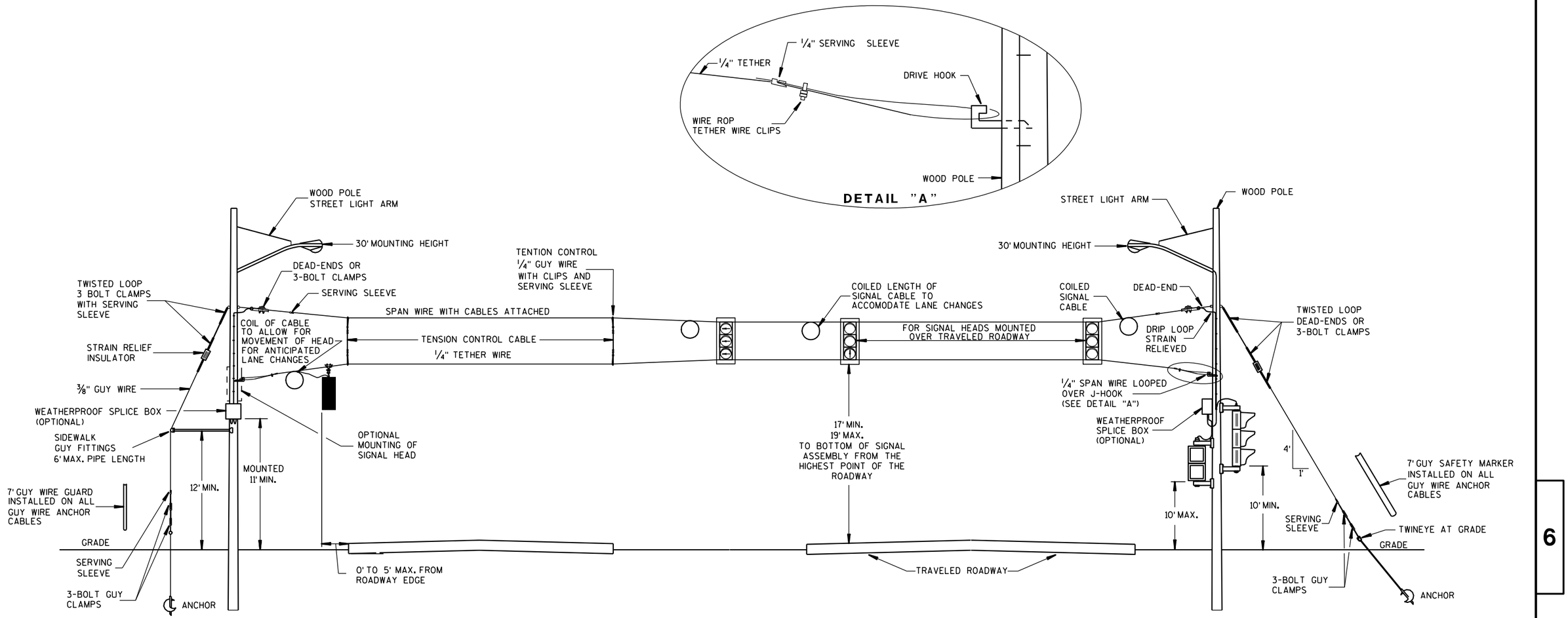
/S/ Balu Ananthar[illegible]n
STATE ELECTRICAL ENGI

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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

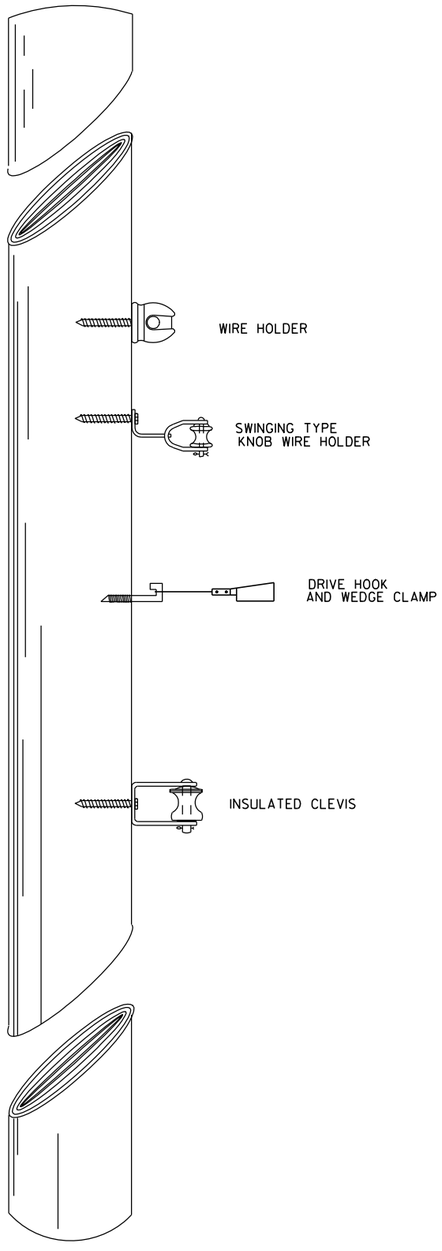
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7-14-08 DATE — /S/ Balu Ananthanarayanan STATE ELECTRICAL ENGI

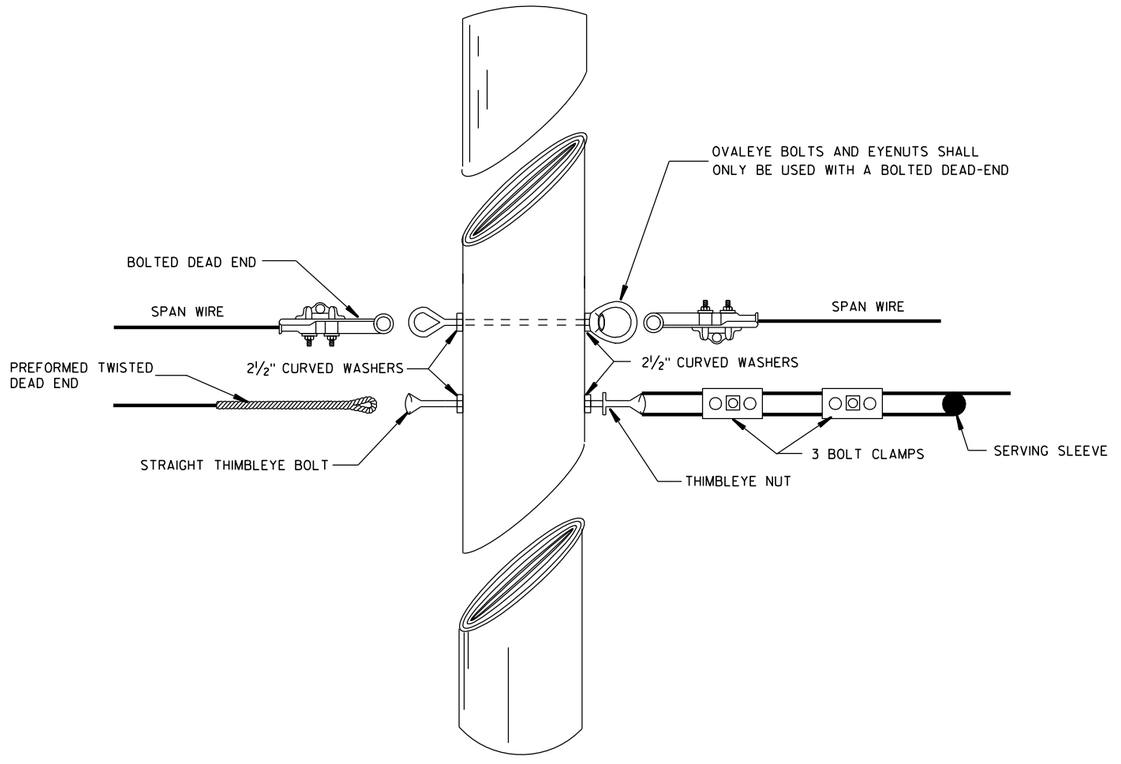
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S.D.D. 9 G 1-3b



TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

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S.D.D. 9 G 1-3d

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

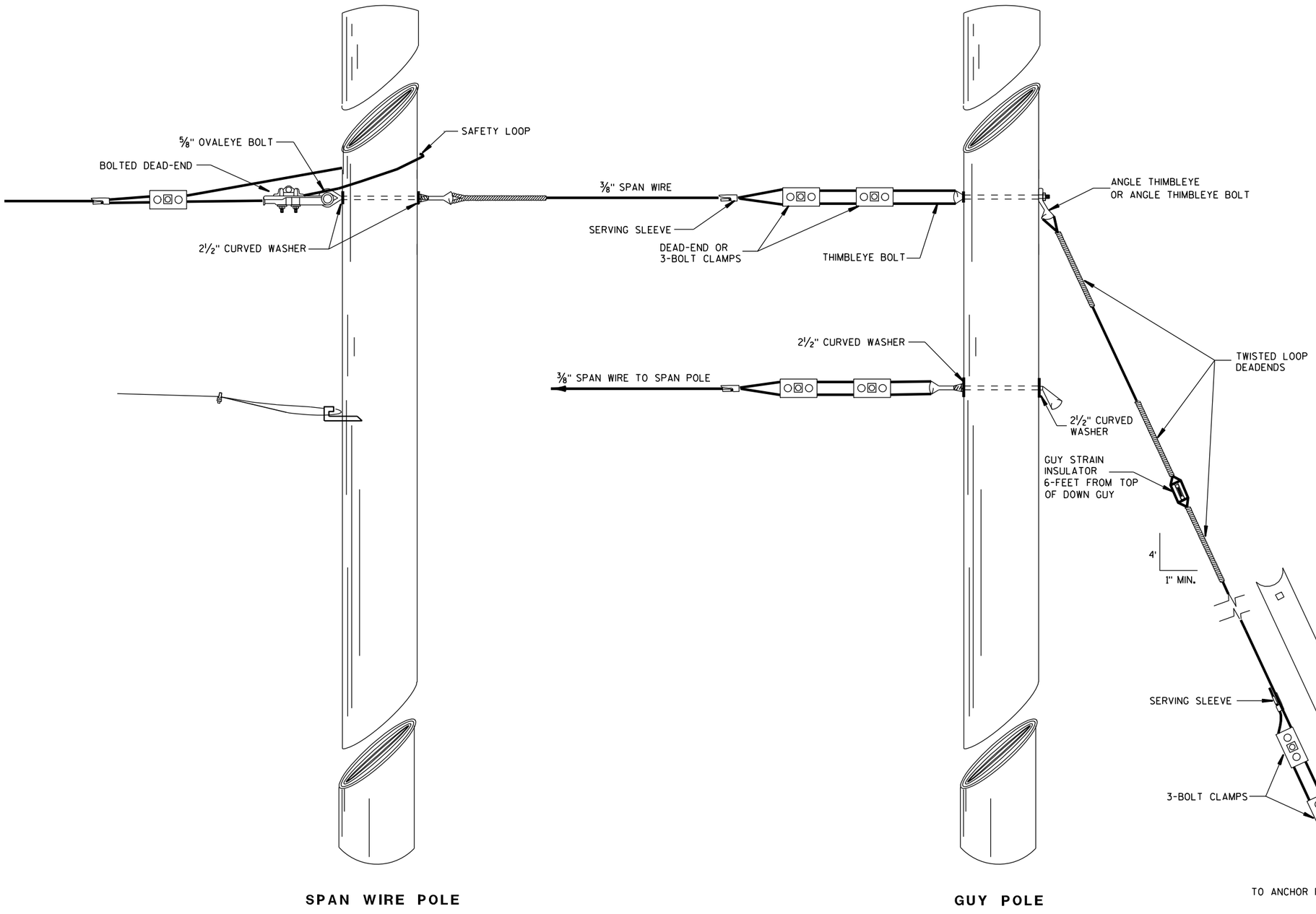
170

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 Aganthanarayanan — STATE ELECTRICAL ENGI — HWYS

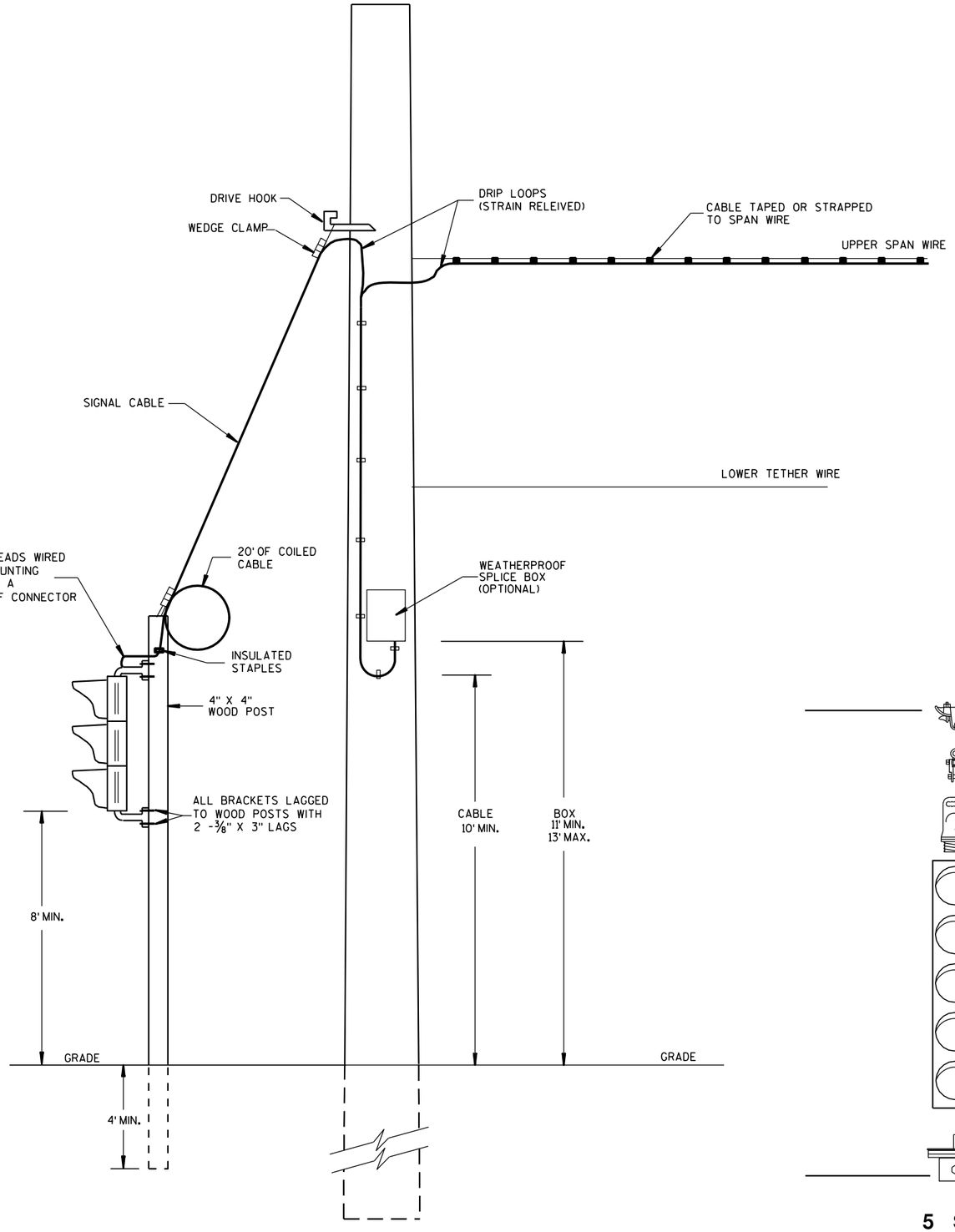
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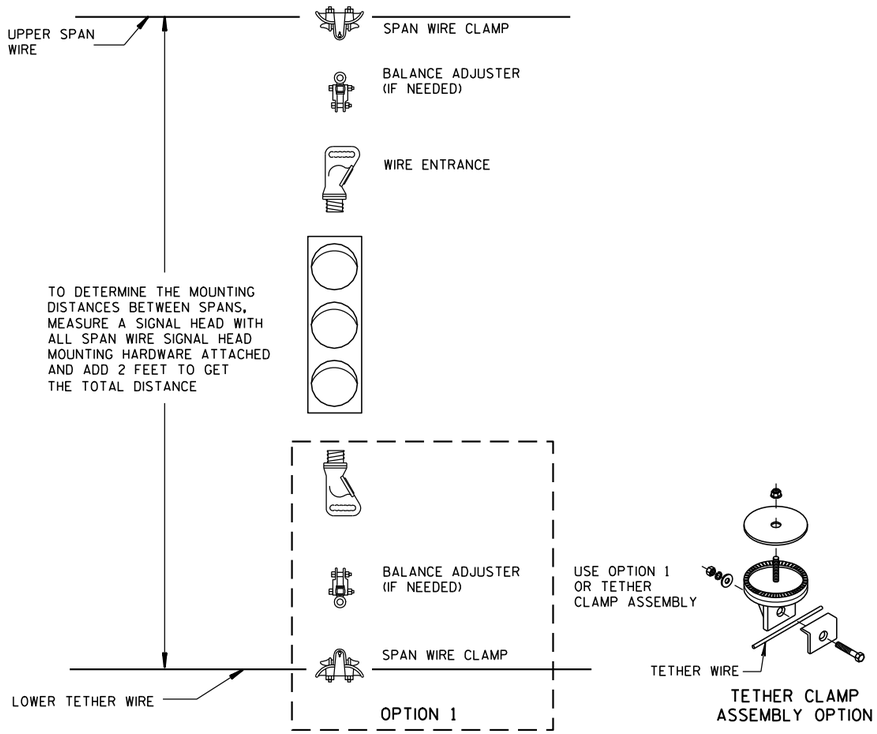
S.D.D. 9 G 1-3e

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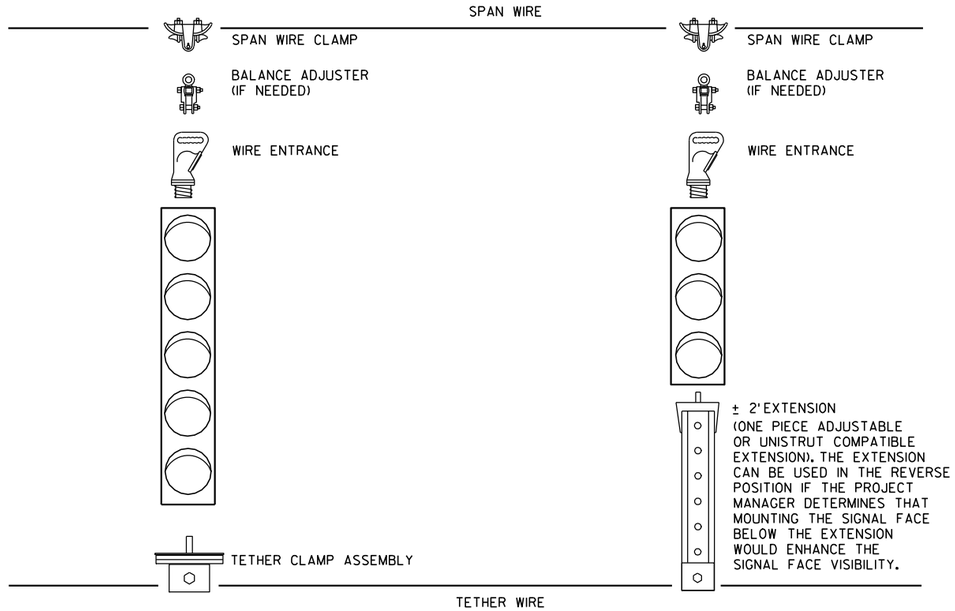
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TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TYPICAL SPAN WIRE MOUNTING HARDWARE



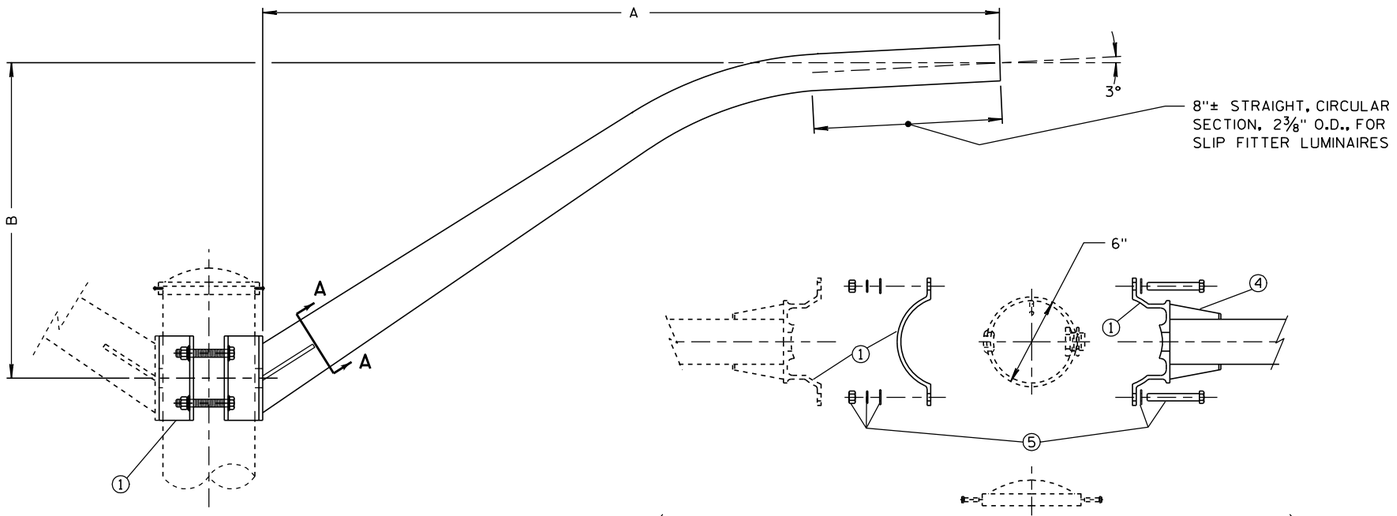
5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

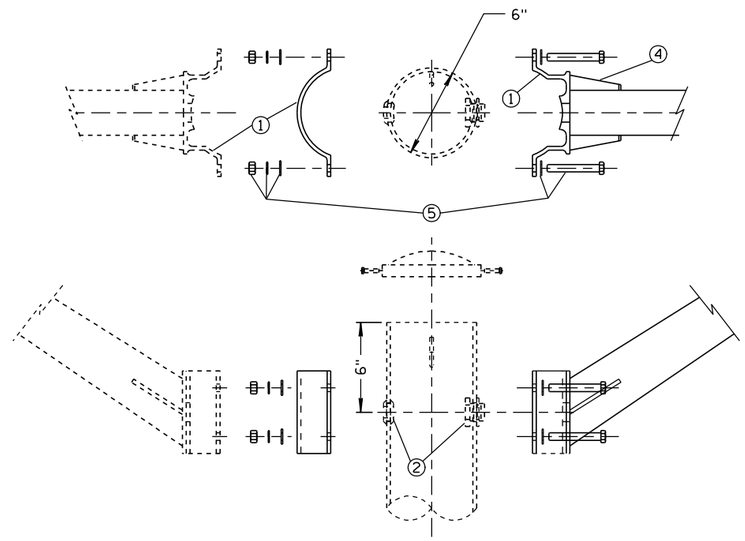
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7-14-08 DATE
/S/ Balu Aganthangarayanan
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S.D.D. 9 G 1-3f



LUMINAIRE ARMS, SINGLE MEMBER, 6-INCH CLAMP - FOR POLES, TYPE 7, A OR E

VARIOUS LENGTHS (SEE TABLE)



CLAMP ASSEMBLY

SINGLE MEMBER CLAMP SHOWN

TYPE	DIM. A NOMINAL ARM LENGTH (FT)	DIM. B APPROX. RISE (FT)
SINGLE MEMBER	4.0	2.0
SINGLE MEMBER	8.0	3.0
SINGLE MEMBER	10.0	3.0
SINGLE MEMBER	15.0	3.0

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ARMS AND CLAMP EXTRUSIONS SHALL BE CONSTRUCTED OF NATURAL FINISH 6063-T6 ALUMINUM (OR DARK BRONZE ANODIZED IF SO STATED IN THE CONTRACT).

HEAT TREATMENT OF WELDS IN STRUCTURAL AREAS IS REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A..

① CLAMPS SHALL BE EXTRUDED ALUMINUM.

② RACE WAY: 1⅜" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET) PER EACH REQUIRED LUMINAIRE ARM. PROVIDE 1½" HOLE IN CLAMP EXTRUSION TO CONTINUE RACEWAY.

③ STIFFENER

④ GUSSETS REQUIRED.

⑤ CLAMP BOLT ASSEMBLY (BOLT - ½"-13 UNC, 2 EACH - FLAT WASHER, LOCK WASHER, NUT) - 4 EACH PER CLAMP.

LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

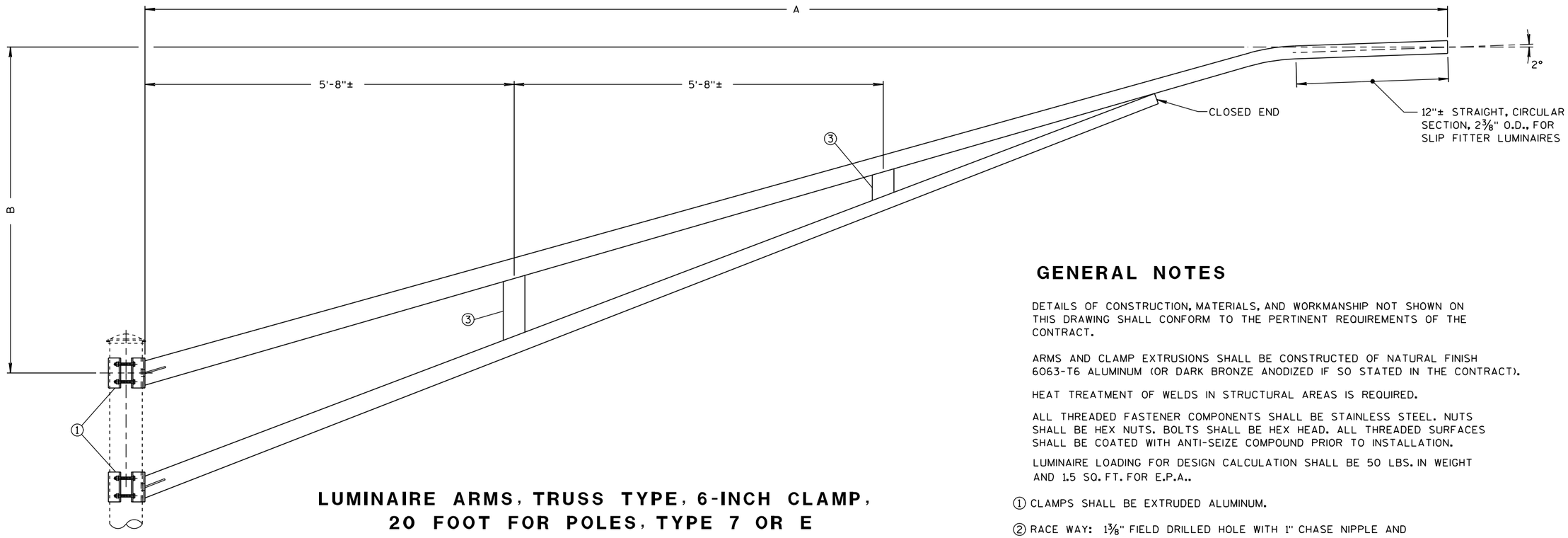
APPROVED

10/25/2010 DATE — /S/ John Corbin STATE ELECTRICAL ENGI — HWYS

FHWA

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S.D.D. 10 A 18-4a



LUMINAIRE ARMS, TRUSS TYPE, 6-INCH CLAMP, 20 FOOT FOR POLES, TYPE 7 OR E

UPPER AND LOWER TRUSS CHORD CLAMPS SIMILIAR

TYPE	DIM. A NOMINAL ARM LENGTH (FT)	DIM. B APPROX. RISE (FT)
TRUSS TYPE	20.0	5.0

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ARMS AND CLAMP EXTRUSIONS SHALL BE CONSTRUCTED OF NATURAL FINISH 6063-T6 ALUMINUM (OR DARK BRONZE ANODIZED IF SO STATED IN THE CONTRACT).

HEAT TREATMENT OF WELDS IN STRUCTURAL AREAS IS REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A..

① CLAMPS SHALL BE EXTRUDED ALUMINUM.

② RACE WAY: 1⅜" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET) PER EACH REQUIRED LUMINAIRE ARM. PROVIDE 1½" HOLE IN CLAMP EXTRUSION TO CONTINUE RACEWAY. NOTE: NO RACEWAY ON LOWER TRUSS CORD CLAMP. FOR INFORMATION ONLY.

③ STIFFENER.

④ GUSSETS REQUIRED.

⑤ CLAMP BOLT ASSEMBLY (BOLT - ½"-13 UNC, 2 EACH - FLAT WASHER, LOCK WASHER, NUT) - 4 EACH PER CLAMP.

LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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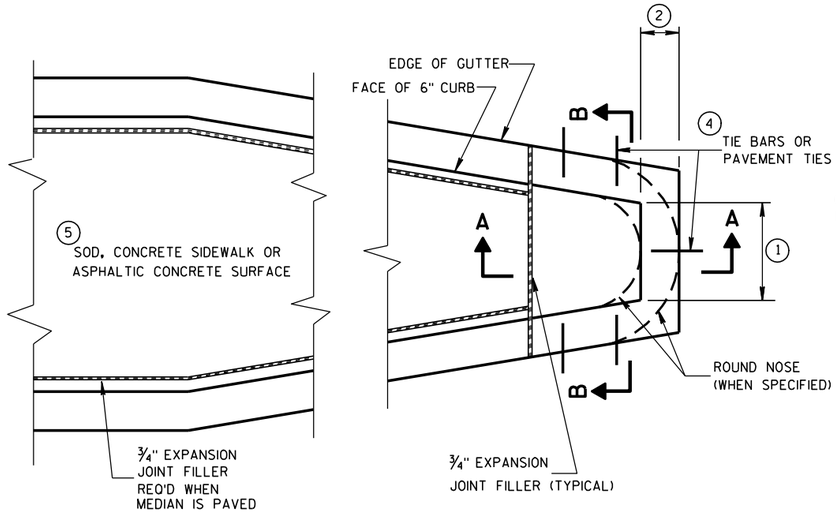
10/25/2010 DATE

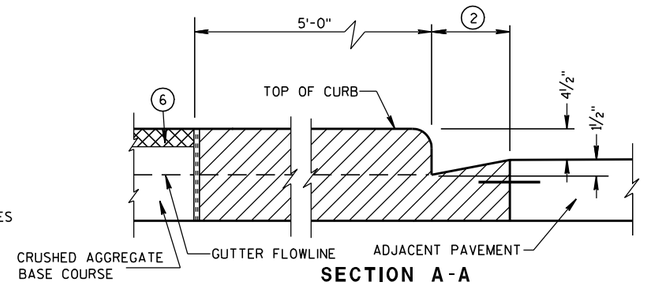
/S/ John Corbin
STATE ELECTRICAL ENGI

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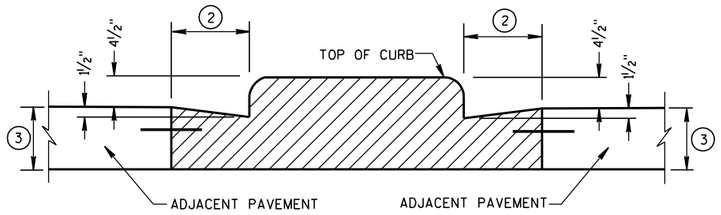
HWYS

FHWA





SECTION A-A



SECTION B-B

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.

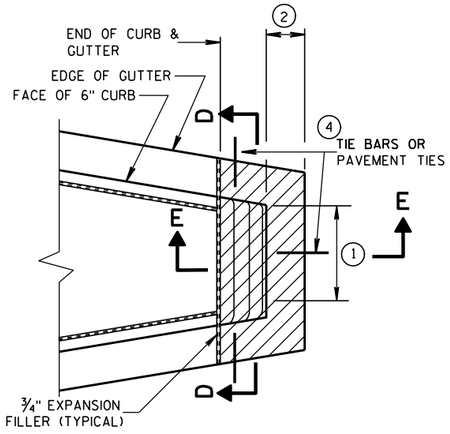
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

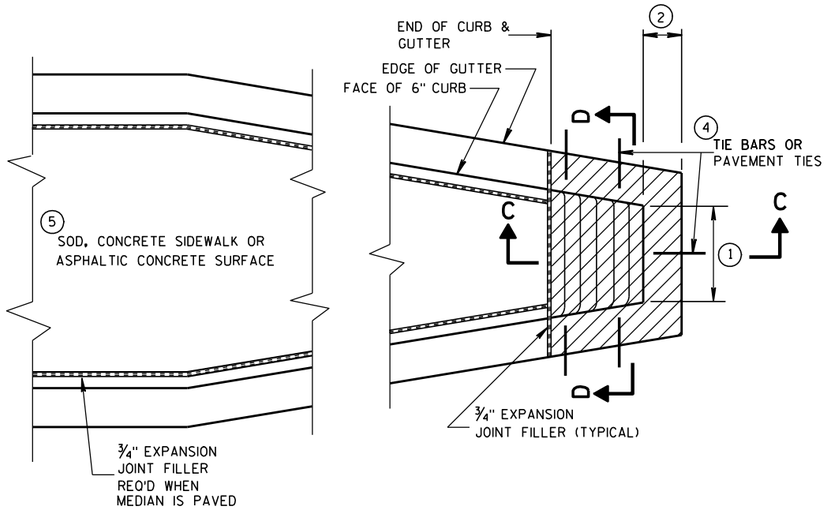
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

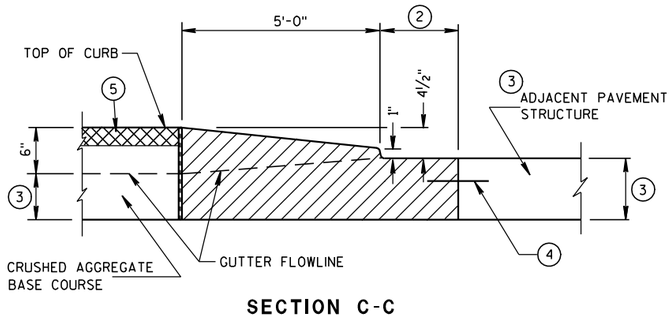
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

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.

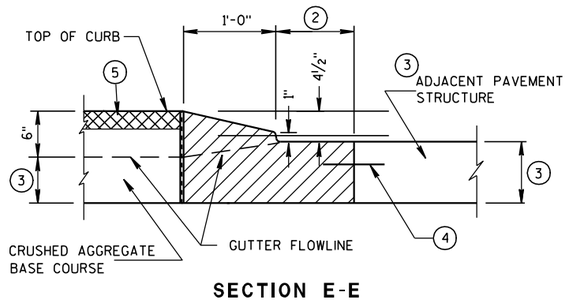
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.







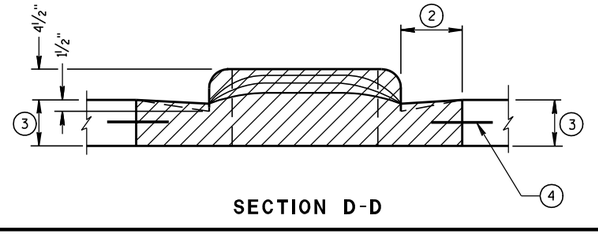
SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

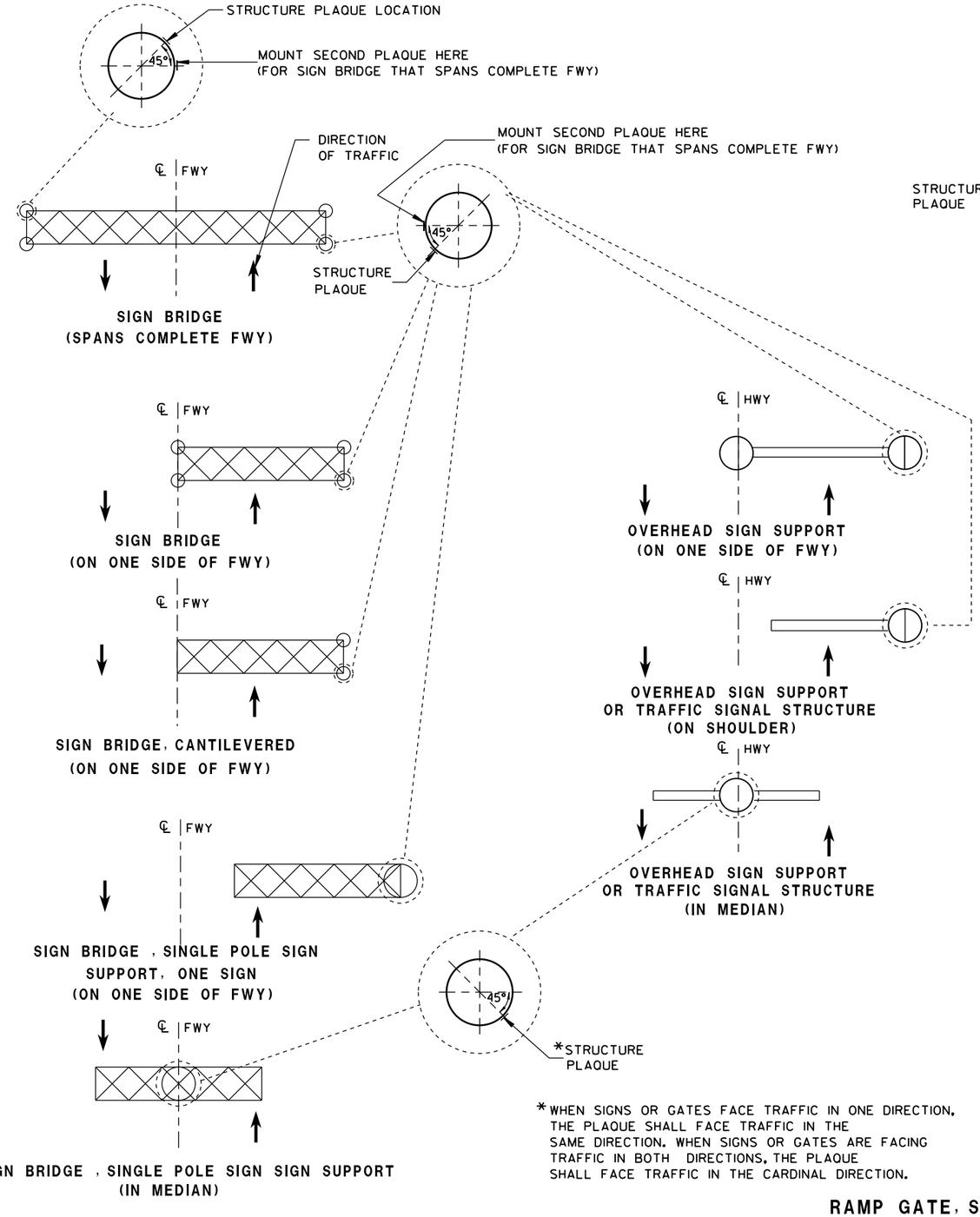
CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE FHWA	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER 175 NT

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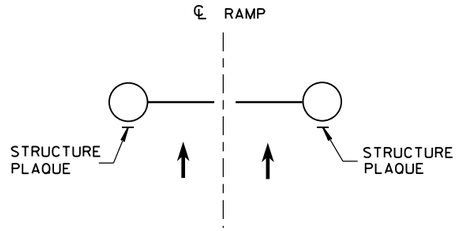
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S.D.D. 11 B 2-2

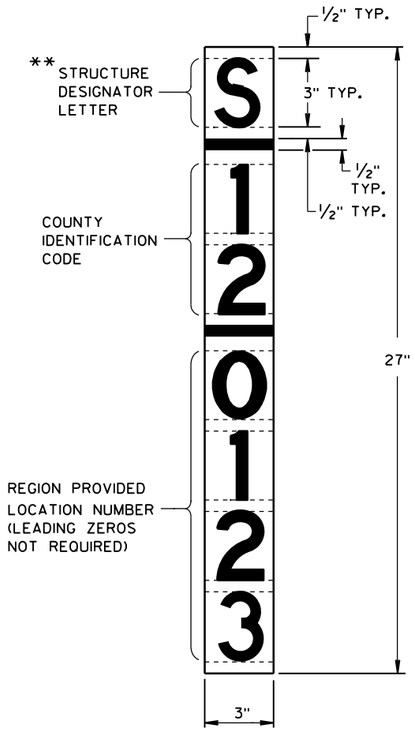


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

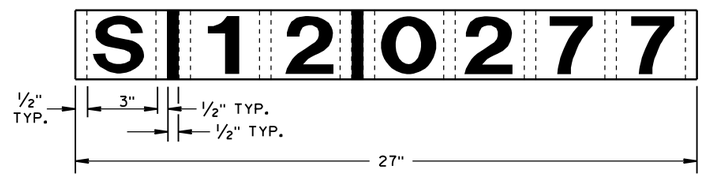
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

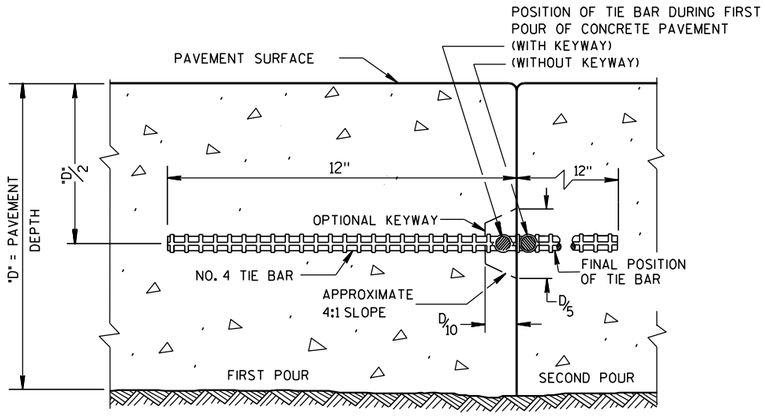
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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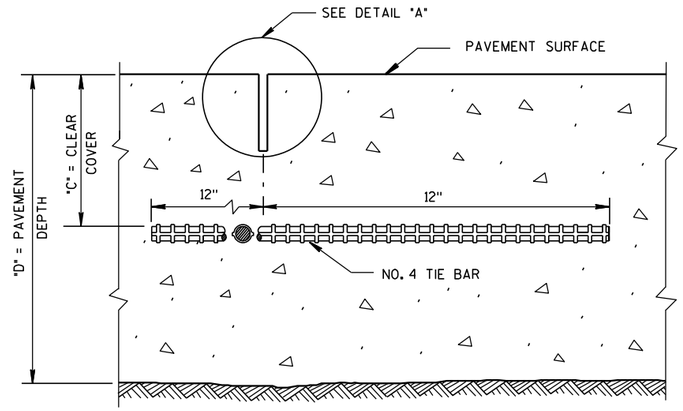
S.D.D. 12 A 4-3

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S.D.D. 12 A 4-3



CONSTRUCTION JOINT



SAWED JOINT

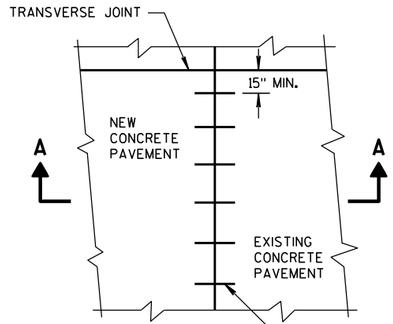
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

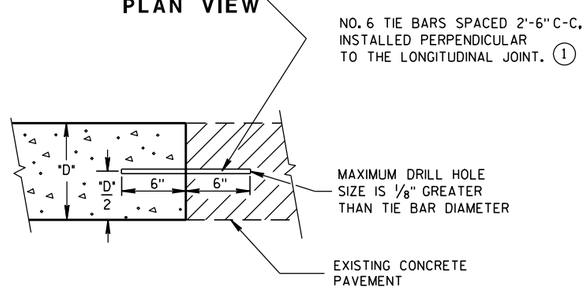
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

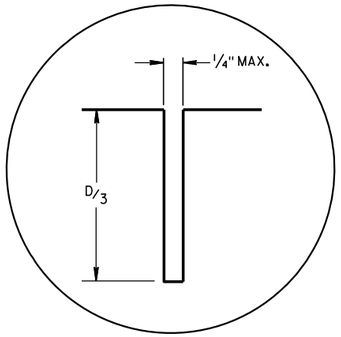
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

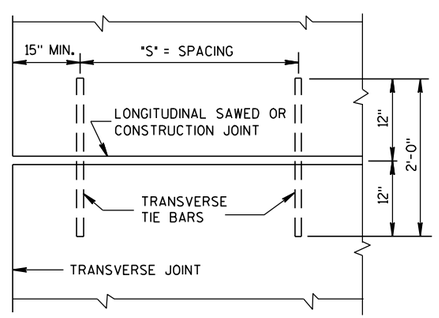


SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

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

10-5-2010
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DI 177 INEER

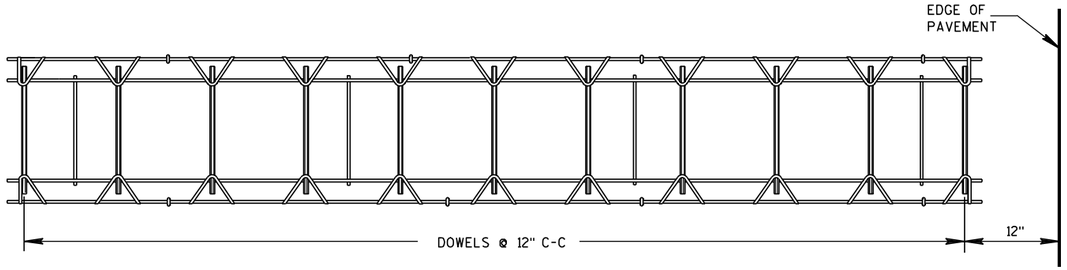
FHWA

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S.D.D. 13 C 1-15

6

S.D.D. 13 C 1-15

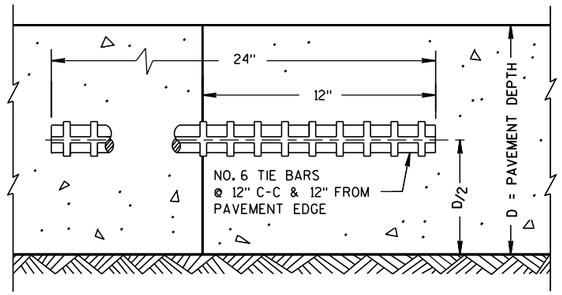


PLAN VIEW



SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



TRANSVERSE CONSTRUCTION JOINT

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, CENTER THE DOWEL ASSEMBLY ACROSS THE LANES. LOCATE THE INNER AND OUTER MOST DOWEL BARS SO THAT THE CENTER OF THE BARS ARE A MINIMUM OF 6 INCHES AND A MAXIMUM OF 12 INCHES FROM THE LONGITUDINAL JOINT AND THE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

① THE ENGINEER MAY APPROVE THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. THE CONTRACTOR MAY USE MECHANICAL DOWEL BAR INSERTERS INSTEAD OF DOWEL ASSEMBLIES.

② ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

③ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

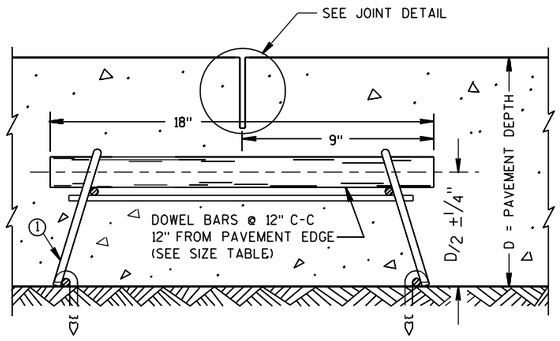
④ SPACE DOWEL BARS INSTALLED BY DRILLING 1'-3" ON CENTER. CENTER THE GROUPING OF DOWEL BARS INSIDE THE SLAB BASED ON ALL THE FOLLOWING SITUATIONS:

BETWEEN THE EDGES OF PAVEMENTS WITHOUT LONGITUDINAL JOINTS OR BETWEEN THE EDGE OF PAVEMENT AND NEAREST LONGITUDINAL JOINT OR BETWEEN TWO ADJACENT LONGITUDINAL JOINTS.

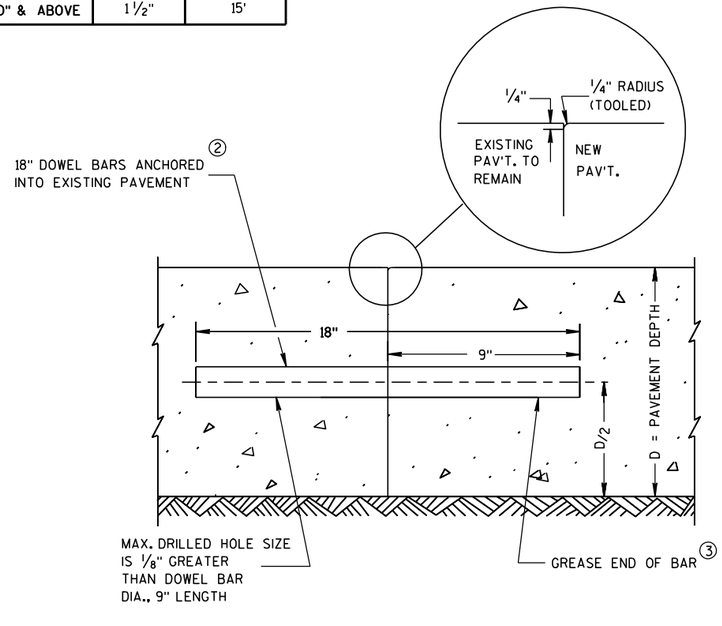
⑤ SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

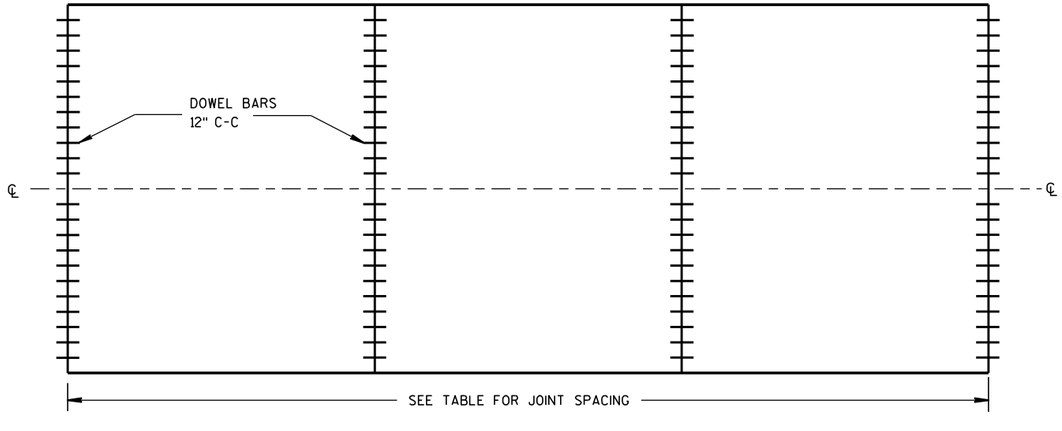


DOWELED CONTRACTION JOINT

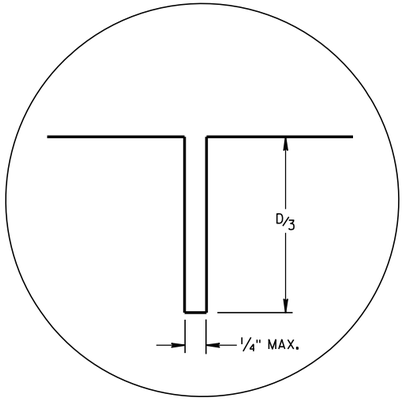


TRANSVERSE CONTRACTION JOINTS ABUTTING EXISTING PAVEMENT

④ DOWEL BAR DETAIL



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

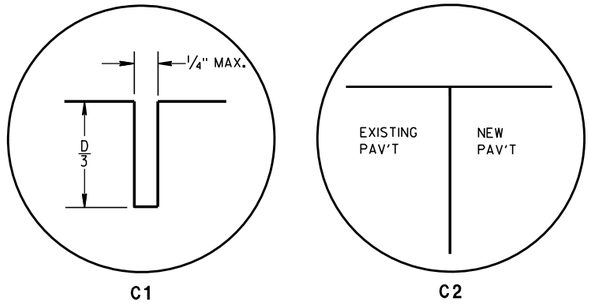
APPROVED
12/11/2009 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE
NEER
FHWA

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S.D.D. 13 C 13-7

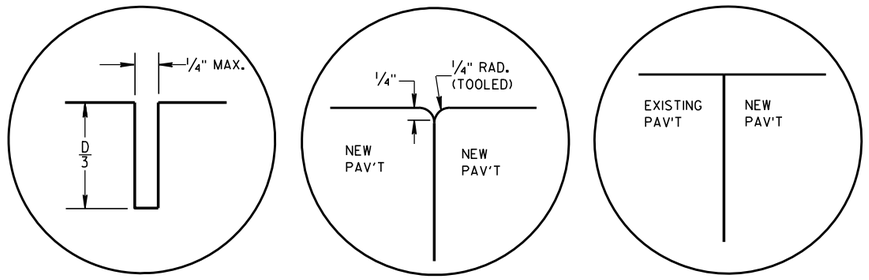
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S.D.D. 13 C 13-7



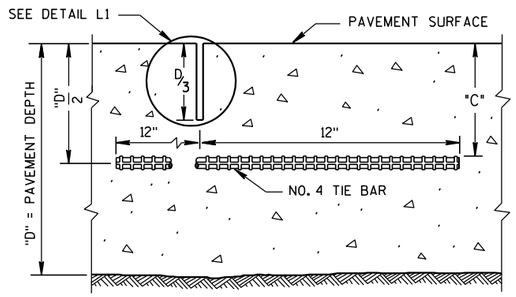
C1 C2

TRANSVERSE JOINTS



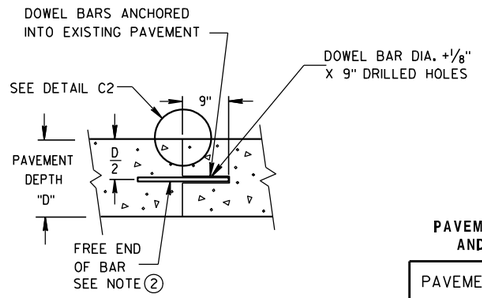
L1 L2 L3

LONGITUDINAL JOINTS



SECTION C-C

SAWED JOINT



SECTION D-D

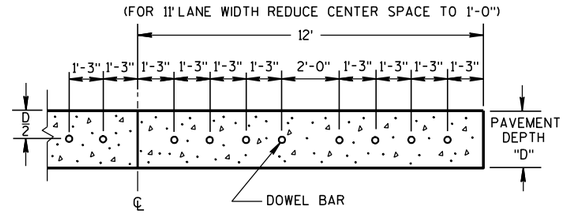
GENERAL NOTES

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

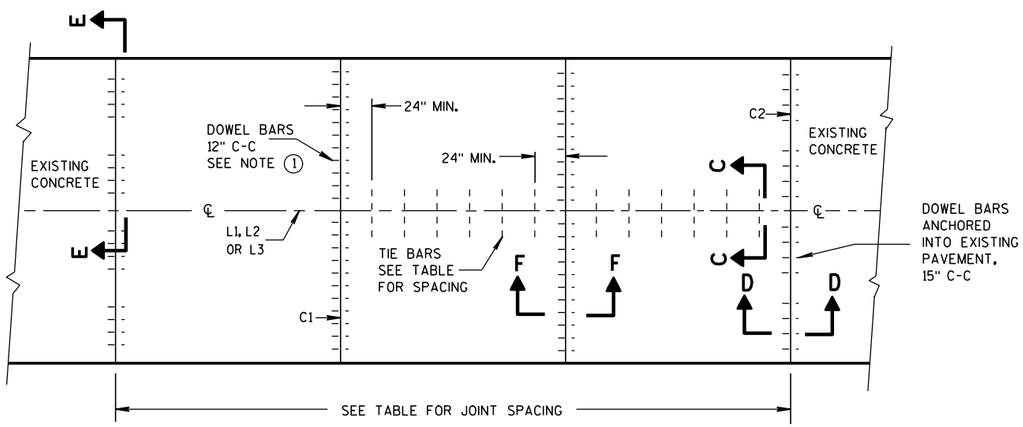
SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

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'

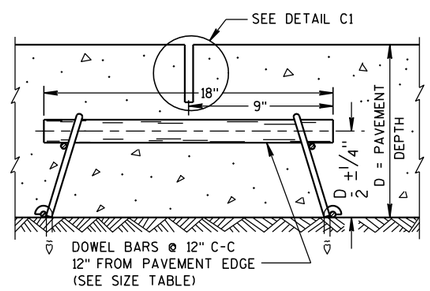
TIE BAR LOCATION TABLE

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

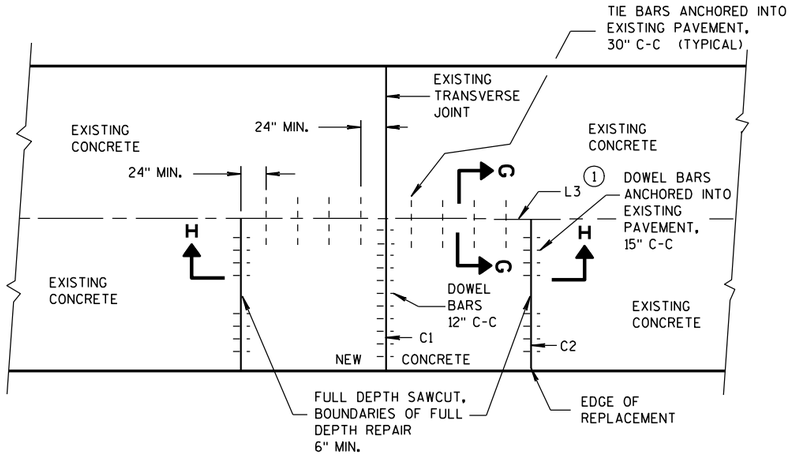
CONTRACTION JOINT

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 15-5a

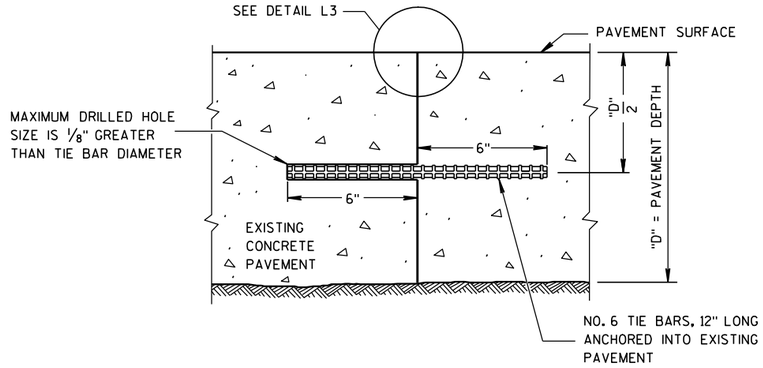


PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR

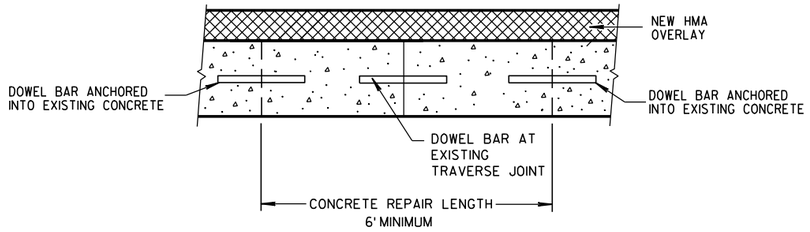
GENERAL NOTES

(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.



SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



SECTION H-H

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

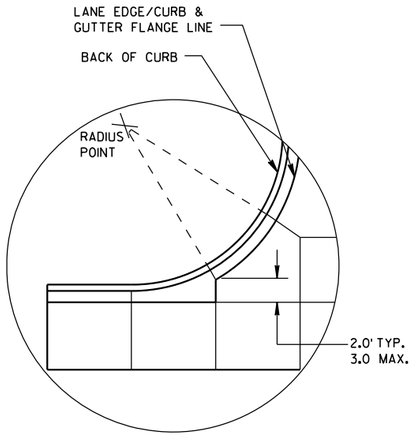
12-11-2009
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & D 180 INEER

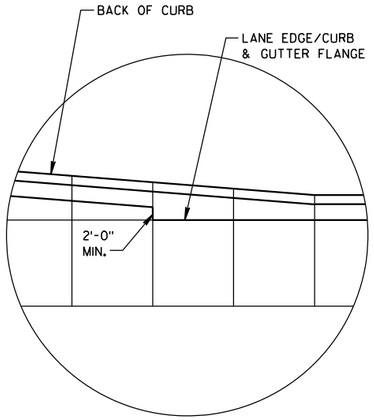
FHWA

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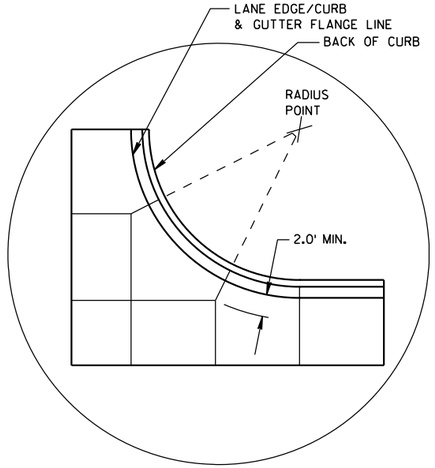
S.D.D. 13 C 15-5b



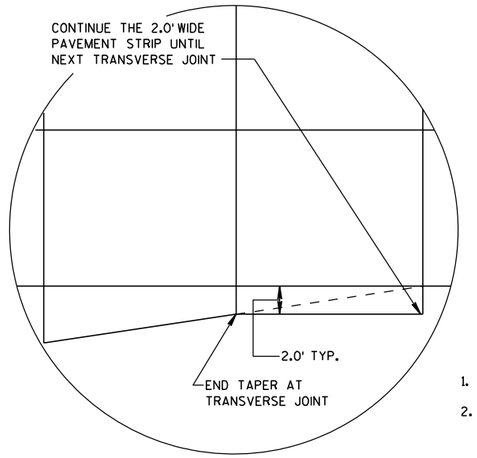
DETAIL "A"



DETAIL "B"



DETAIL "C"



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.

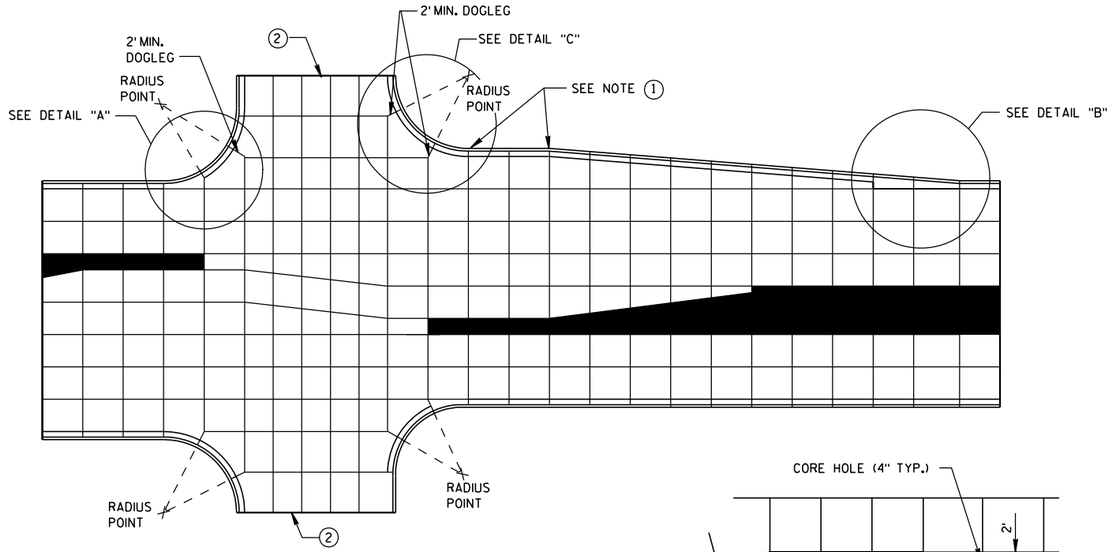
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

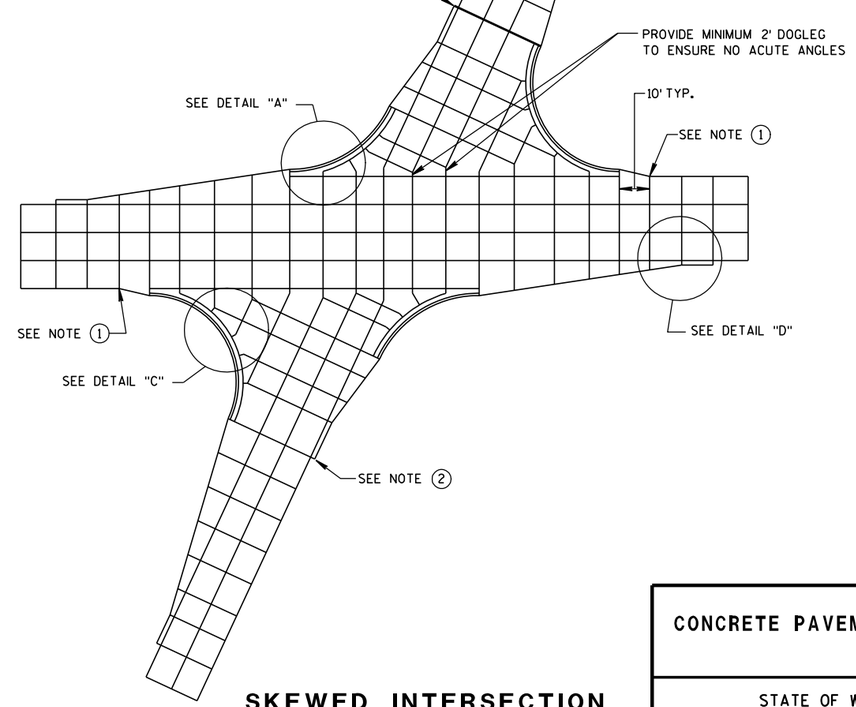
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



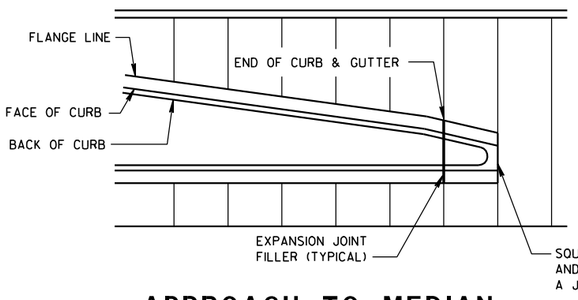
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

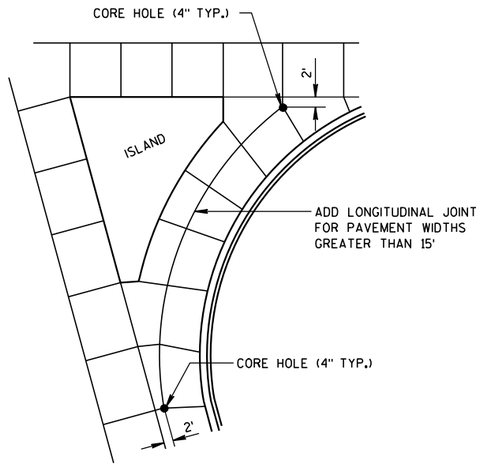
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

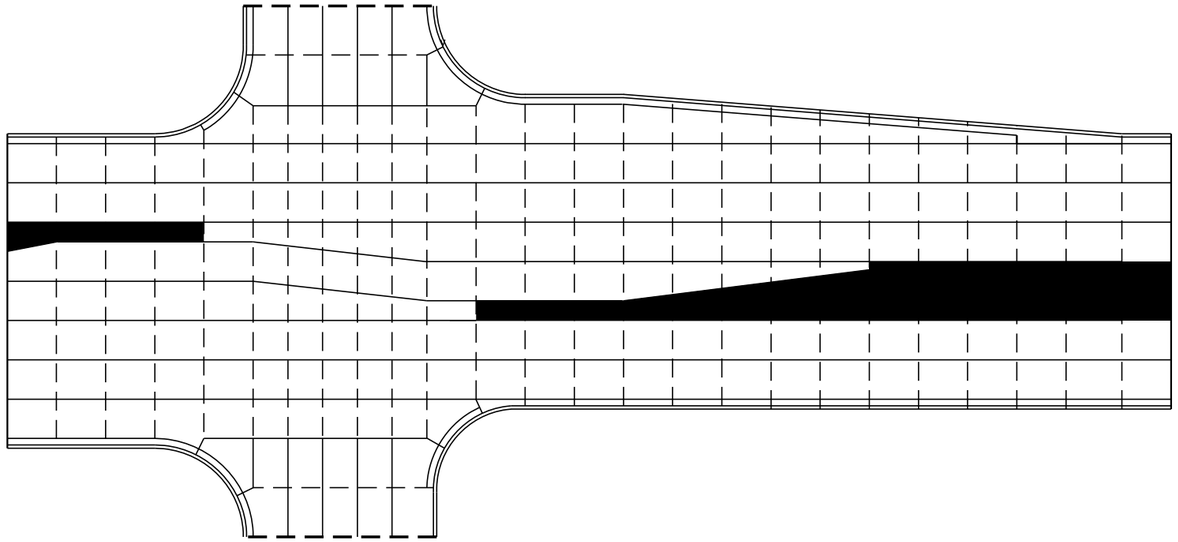
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S.D.D. 13 C 18-1a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

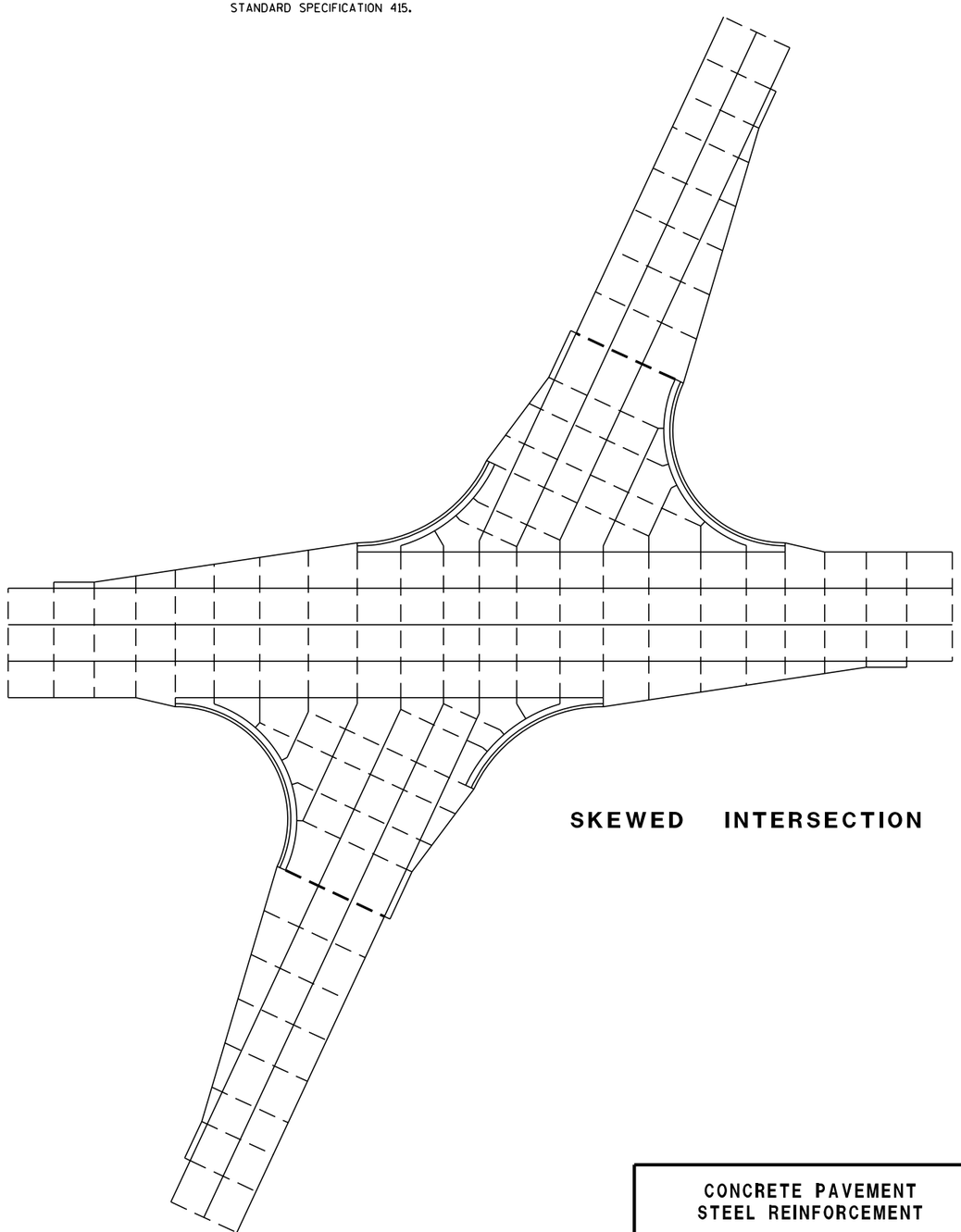
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

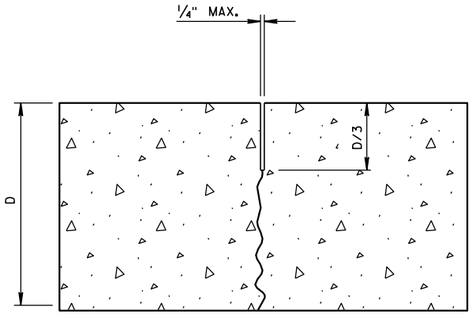
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S.D.D. 13 C 18-1b

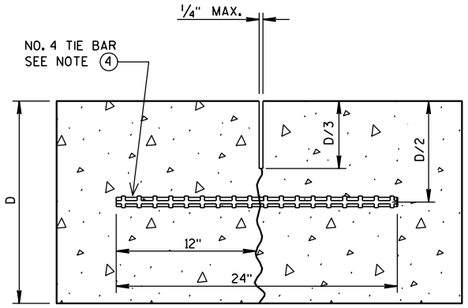
S.D.D. 13 C 18-1b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



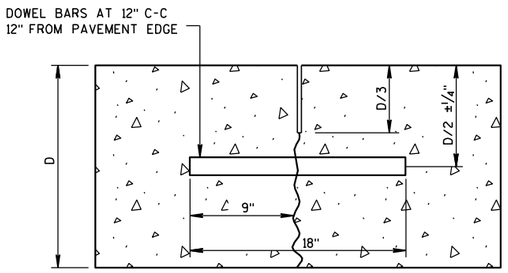
UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

GENERAL NOTES

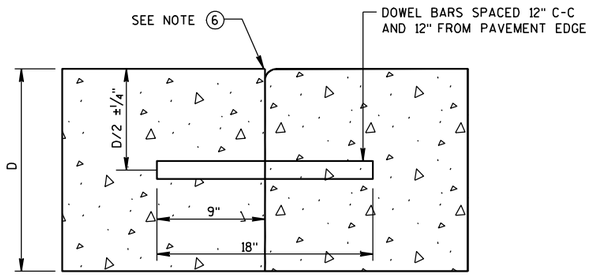
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE 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.



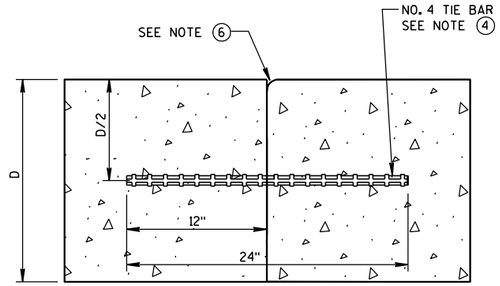
DOWELED-TRANSVERSE

CONTRACTION JOINTS

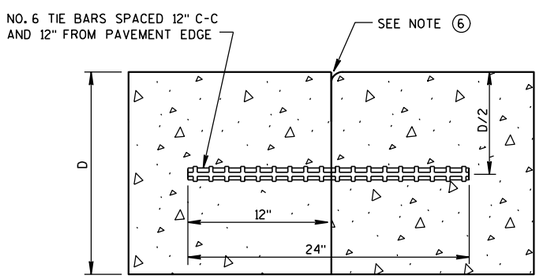
SEE NOTE (2)



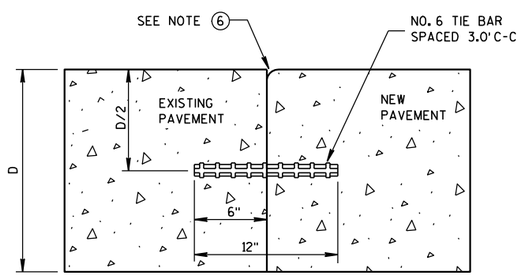
DOWELED TRANSVERSE



TIED LONGITUDINAL



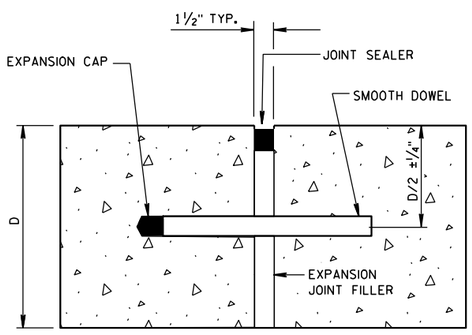
TIED TRANSVERSE
SEE NOTE (3)



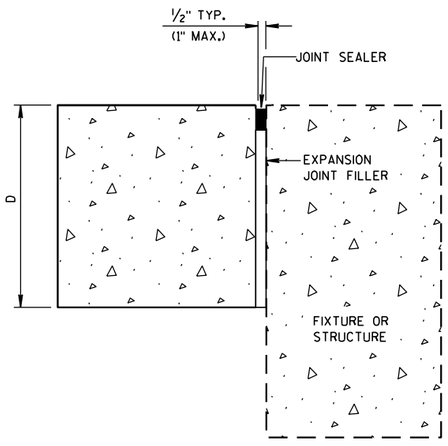
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE
SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

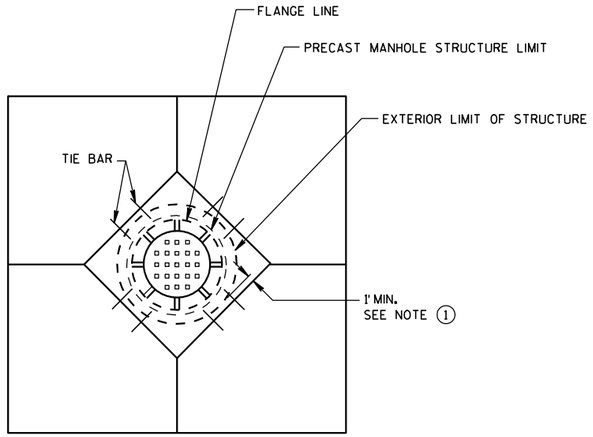
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

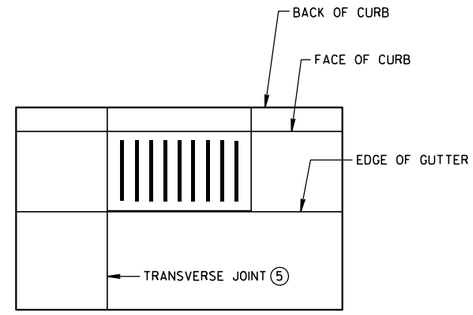
S.D.D. 13 C 18-1c

6

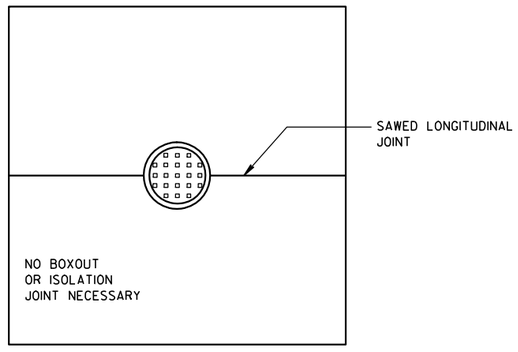
S.D.D. 13 C 18-1c



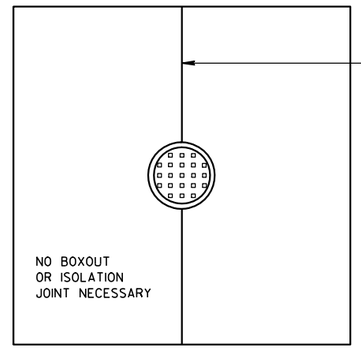
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



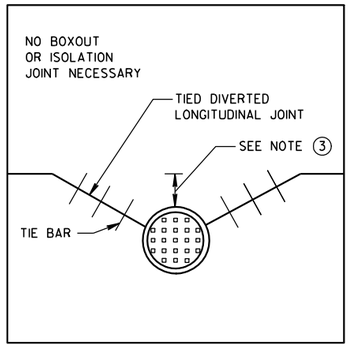
INLET WITH TRANSVERSE JOINT



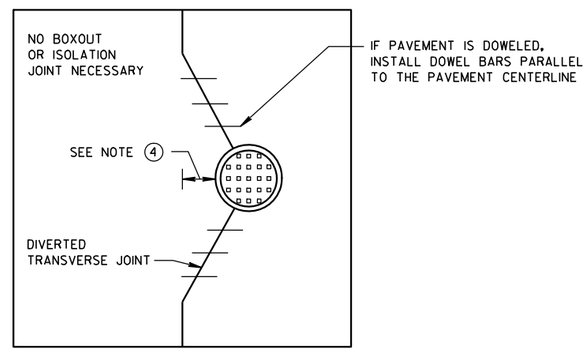
MANHOLE WITH LONGITUDINAL JOINT



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 GREATER THAN 2 FEET, DO NOT DIVERT JOINT AND SAW LONGITUDINAL JOINT AS NORMAL. IF DISTANCE IS 2 FEET OR LESS, DIVERT LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE.
4. IF DISTANCE FROM THE EDGE OF MANHOLE TO THE NEAREST TRANSVERSE JOINT IS GREATER THAN 4 FEET, REDIRECT JOINT TO INTERSECT MANHOLE. IF DISTANCE IS 4 FEET OR LESS, PLACE REBAR REINFORCEMENT AROUND MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

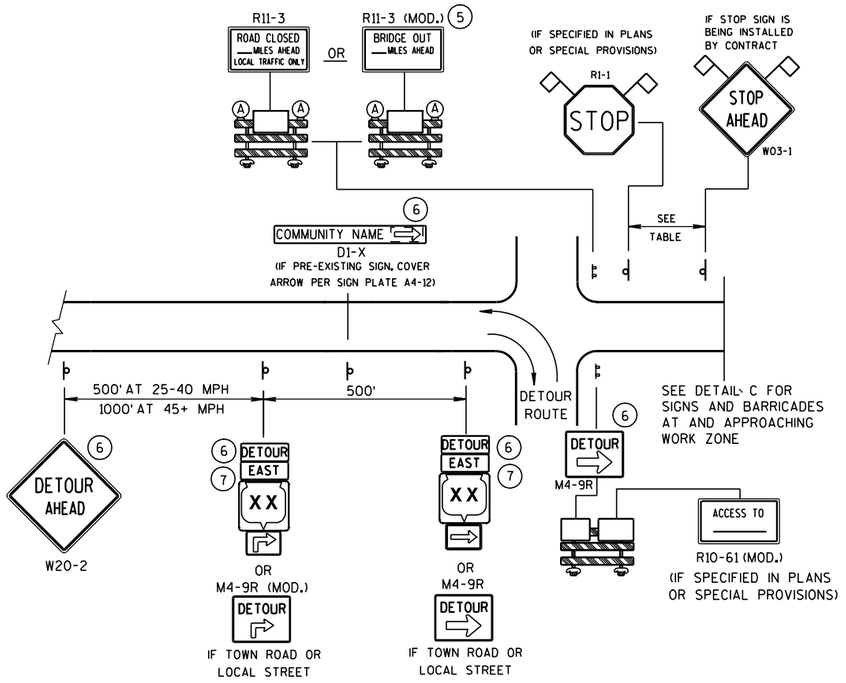
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-5-2010 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & D ENGINEER
FHWA

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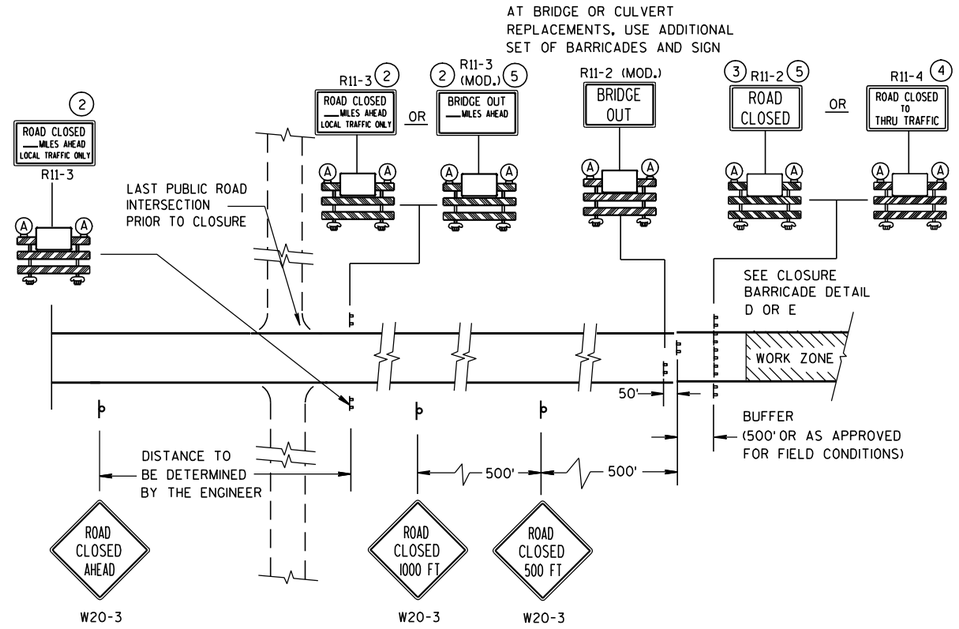
S.D.D. 13 C 18-1d



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

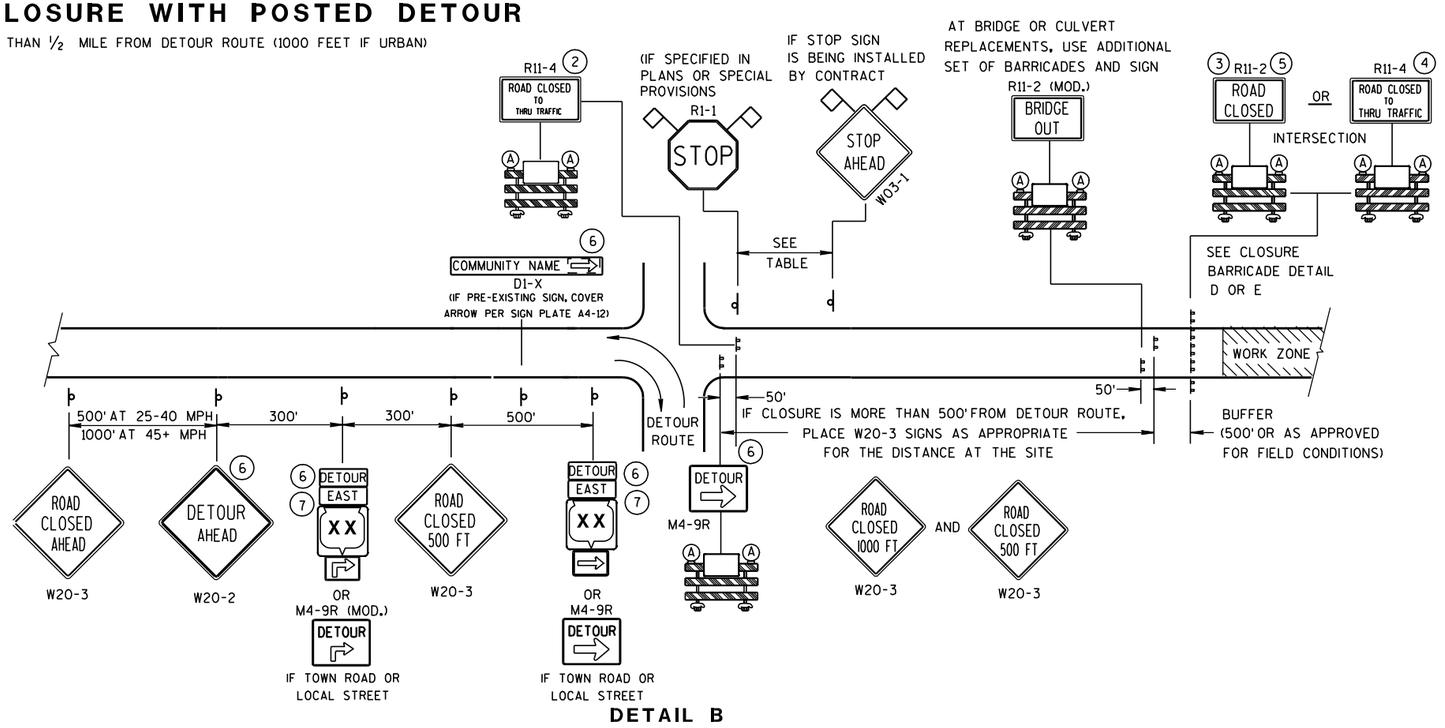


DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

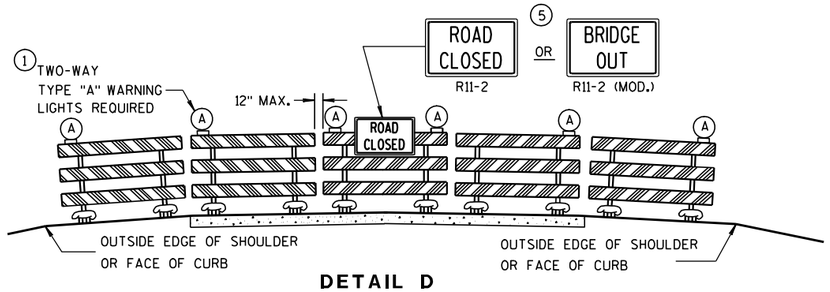
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

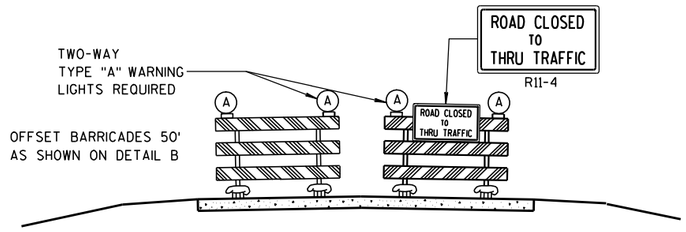
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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.

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.

BARRICADES 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.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

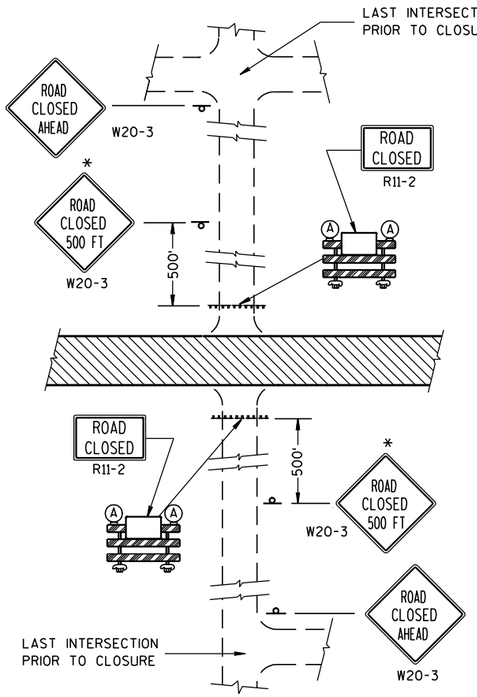
9/16/03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MAR[illegible]INEER

FHWA

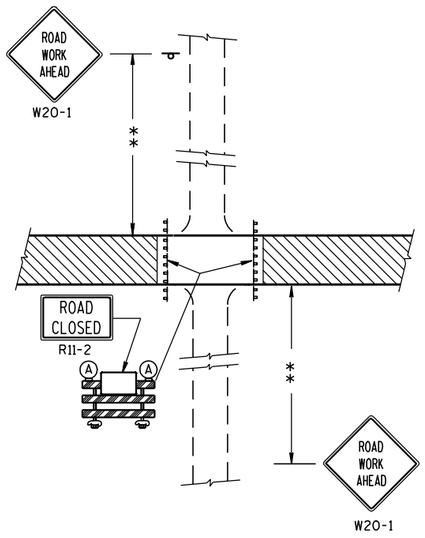
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S.D.D. 15 C 2-4b



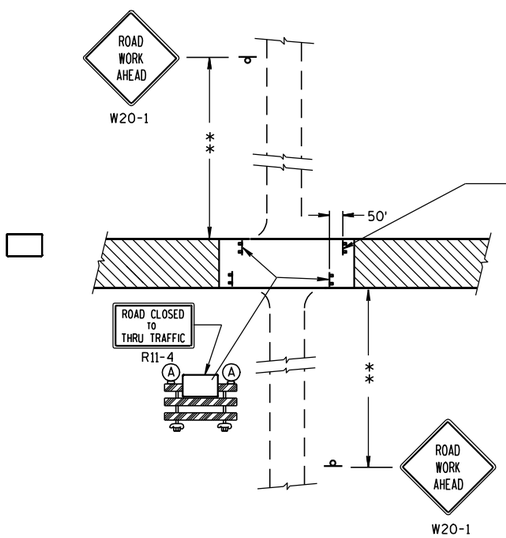
DETAIL 1

(NO ACCESS TO PROJECT)



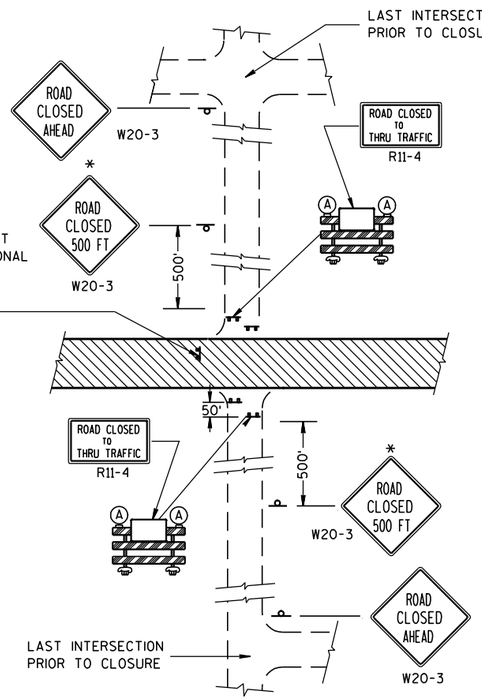
DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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.

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.

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.

BARRICADES 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.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- POST MOUNTED WARNING SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-03 DATE

/S/ Thomas N. N[illegible] CHIEF SIGNS AND MAR[illegible] INEER

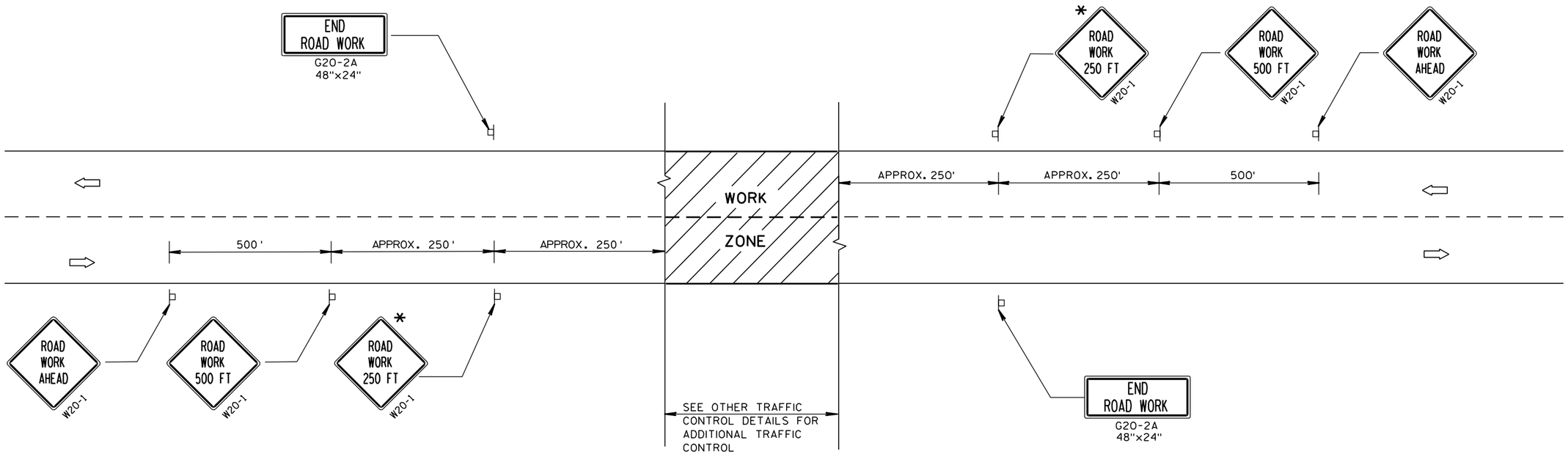
FHWA

6

S.D.D. 15 C 3-1

6

S.D.D. 15 C 3-1



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.

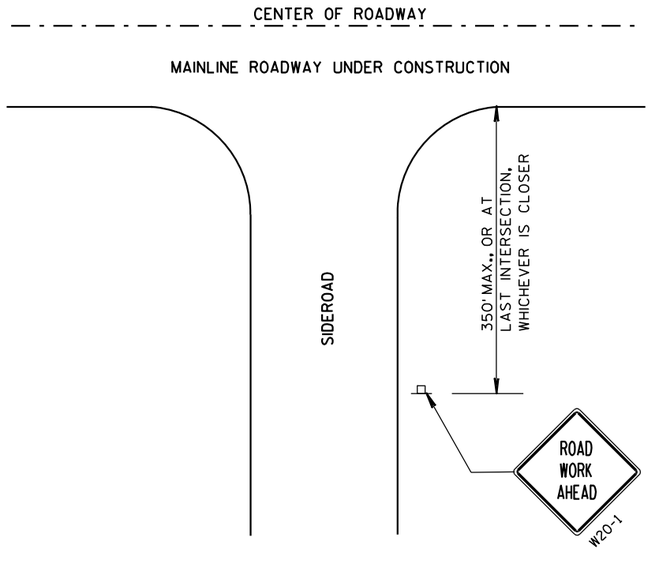
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

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.

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

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

5/23/00
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKING ENGINEER

FHWA

6

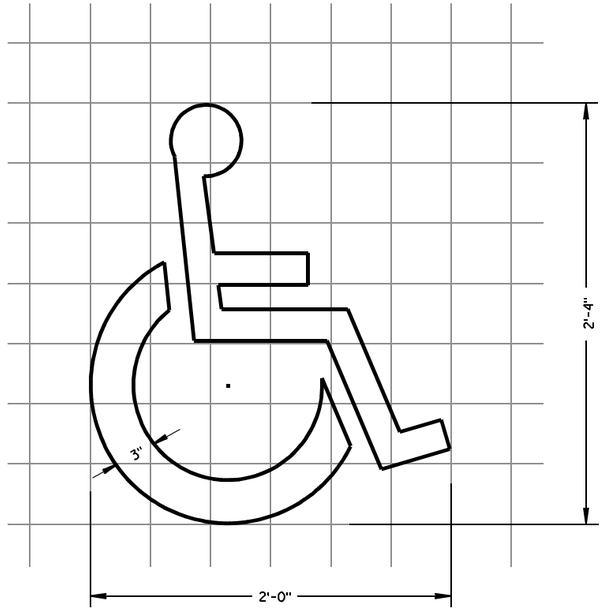
S.D.D. 15 C 5-1

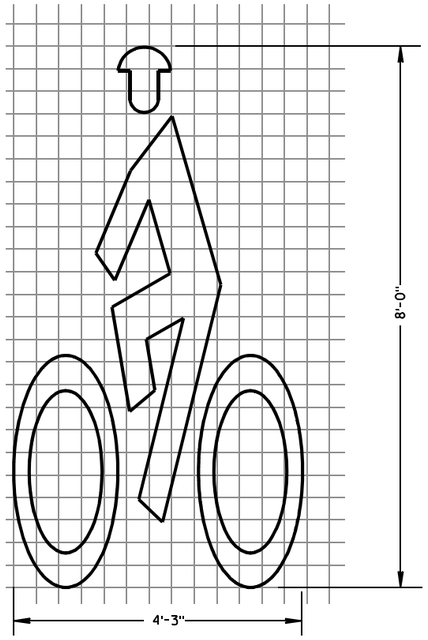
GENERAL NOTES

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.

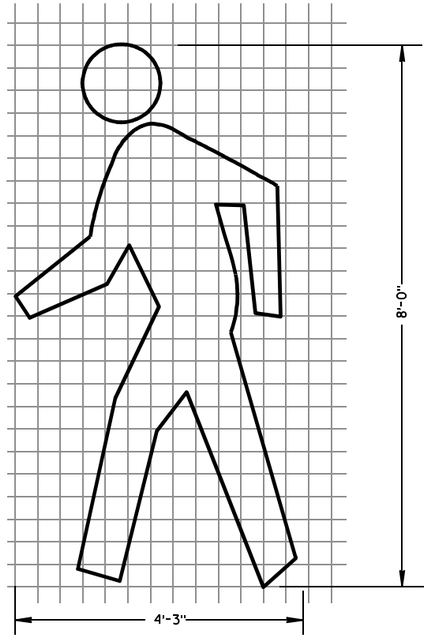
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

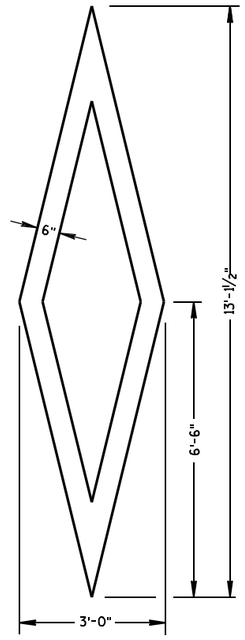




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 DATE

/S/ Thomas N Nathan
STATE TRAFFIC ENGINEER

FHWA

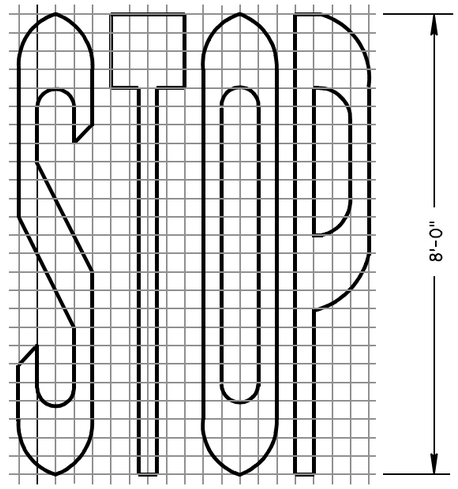
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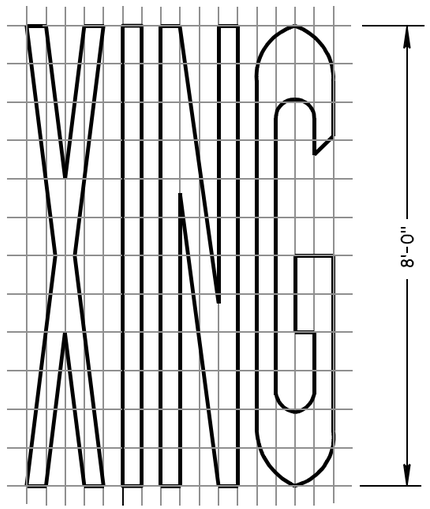
S.D.D. 15 C 7-12a

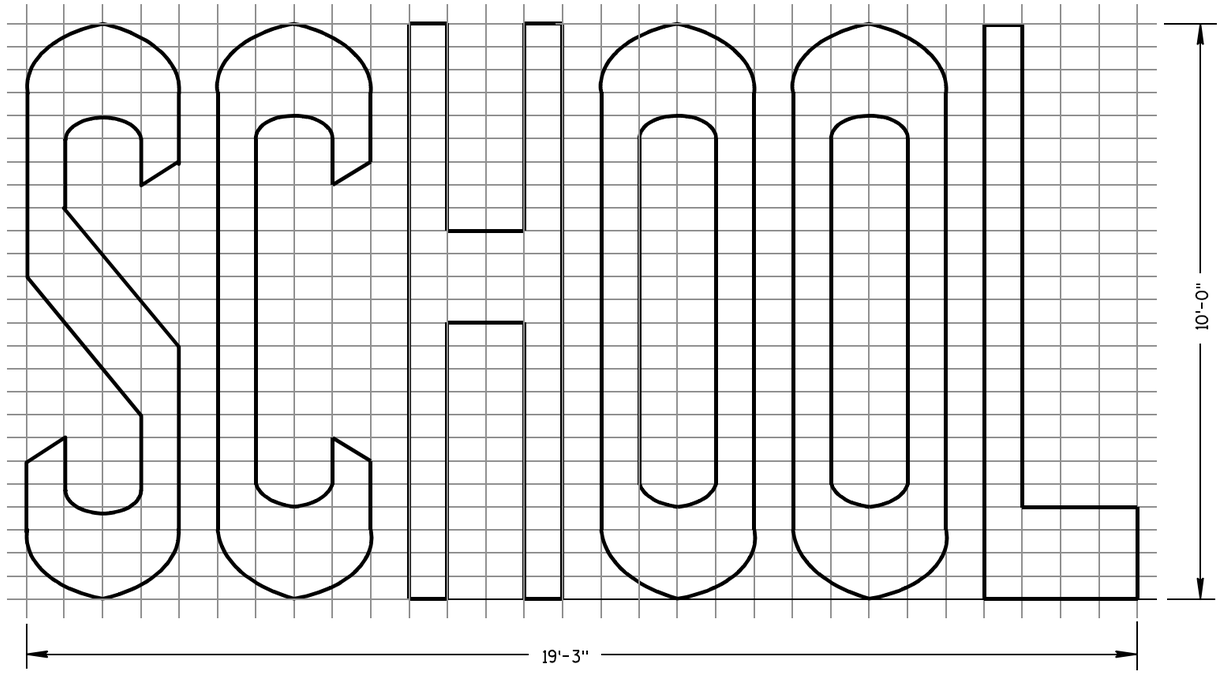
GENERAL NOTES

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.

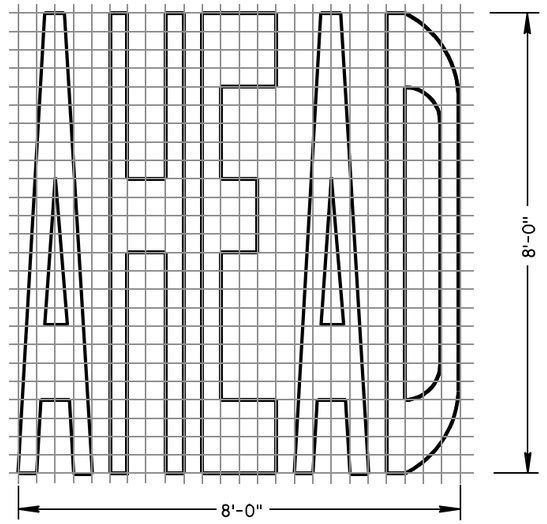
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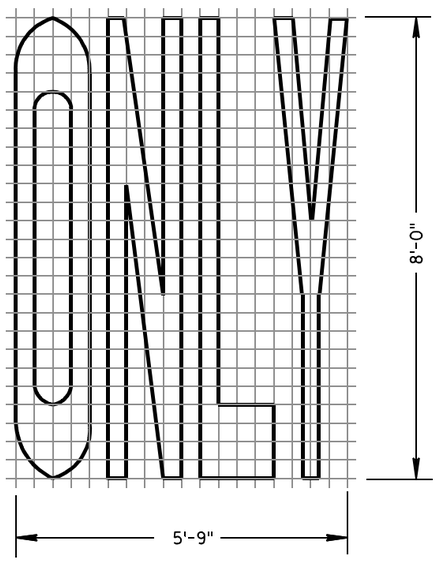


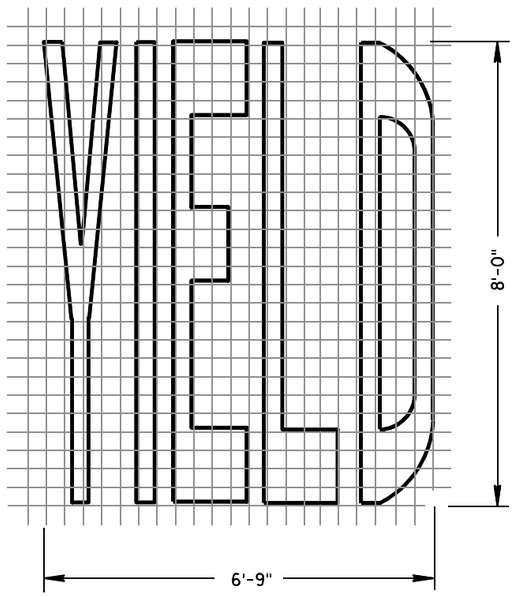


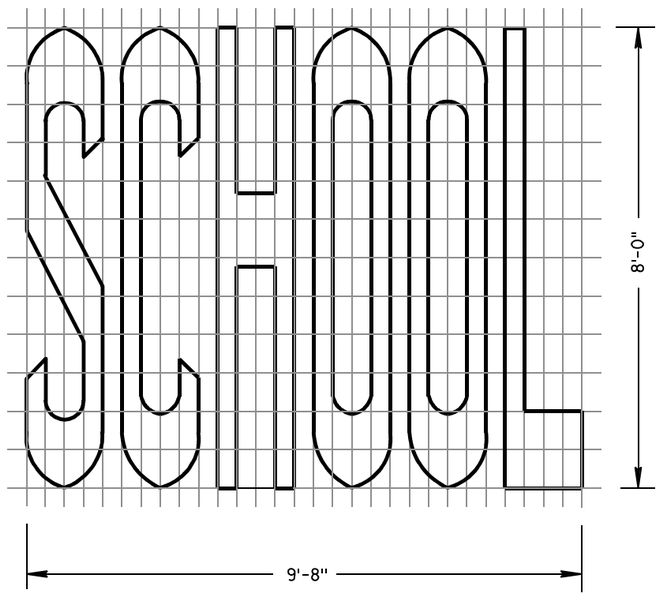


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE

/S/ Thomas N. Nothohm
STATE TRAFFIC ENGINEER

FHWA

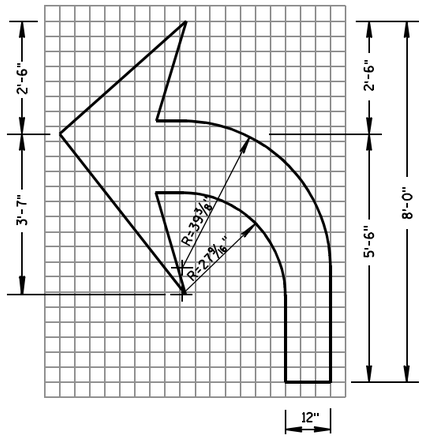
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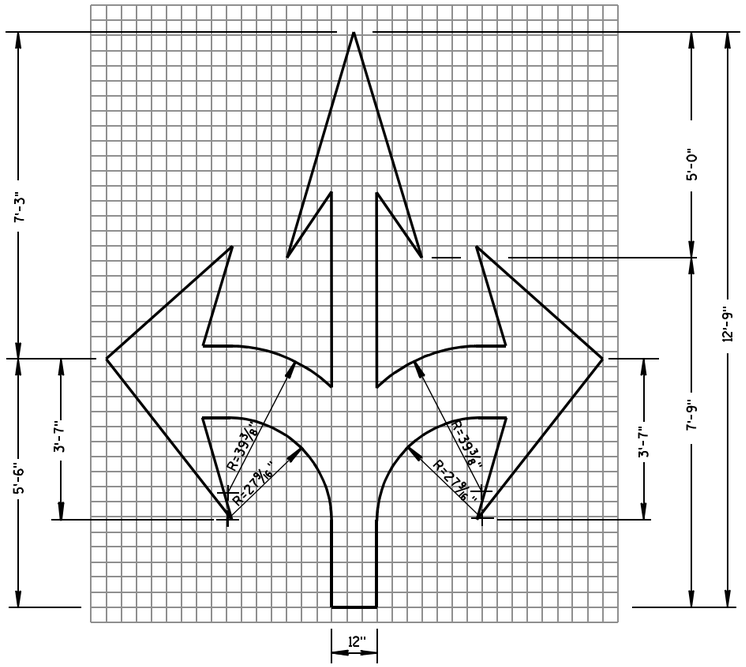
S.D.D. 15 C 7-12b

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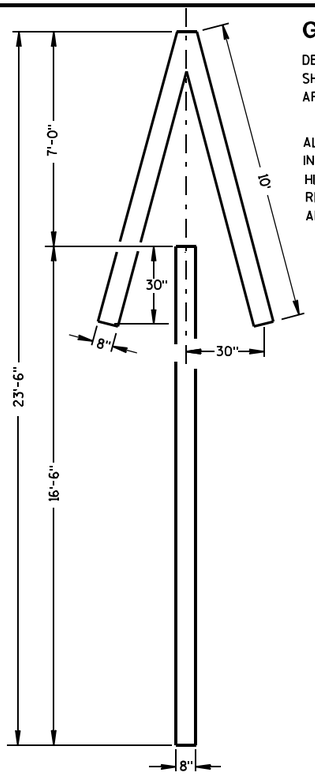
S.D.D. 15 C 7-12b



TYPE 2



TYPE 6

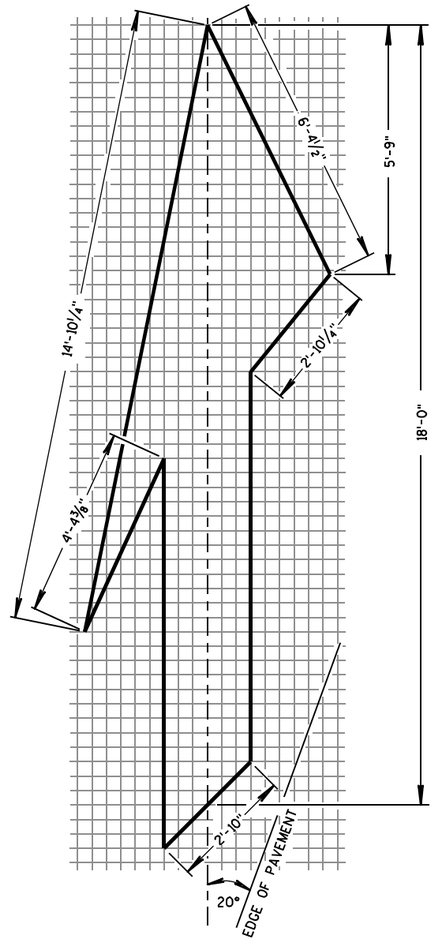


TYPE 4

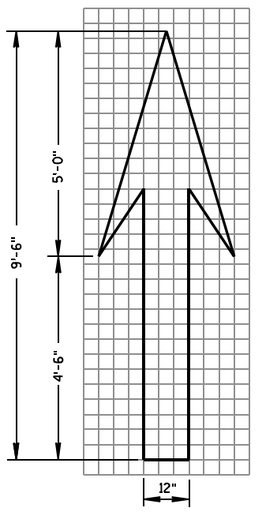
GENERAL NOTES

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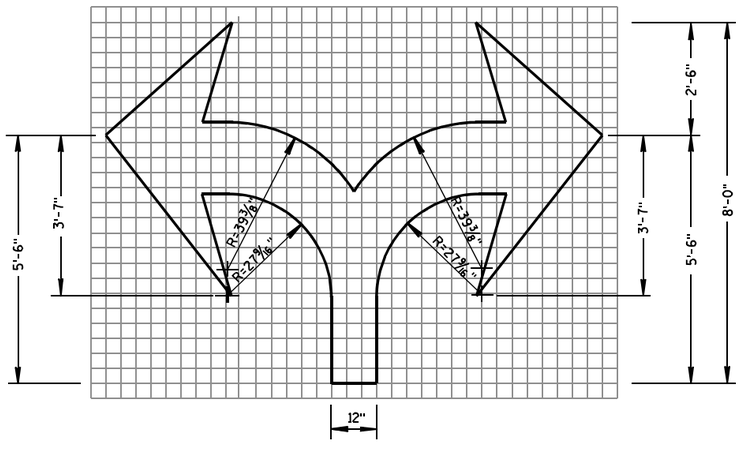
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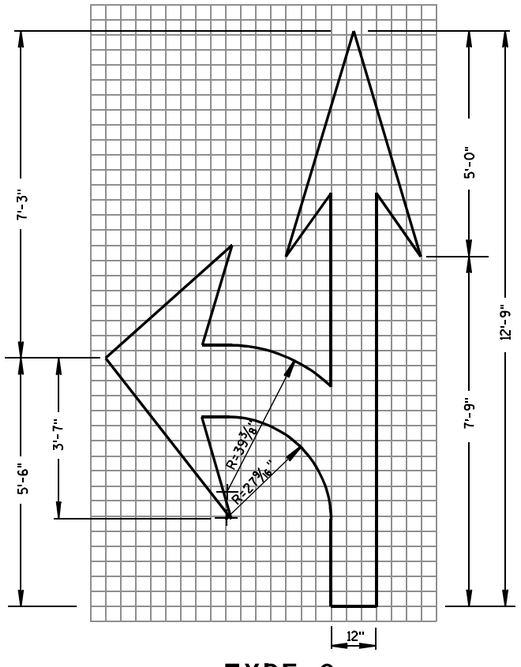
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

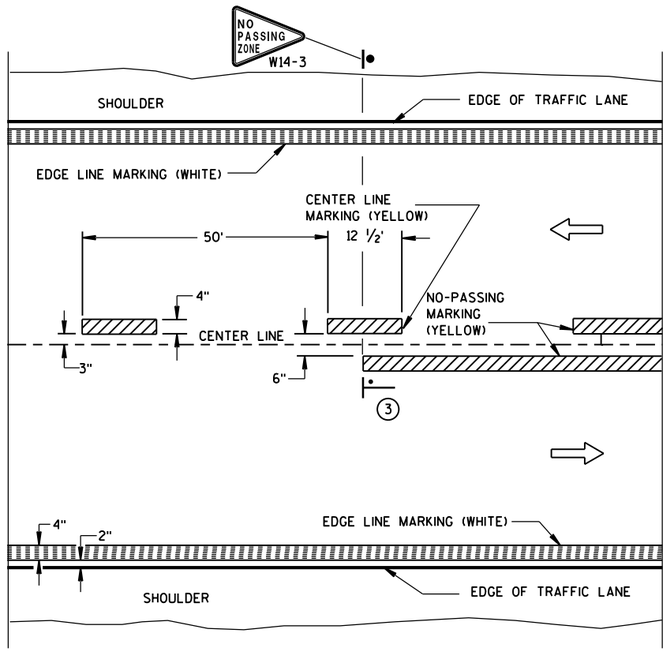
FHWA

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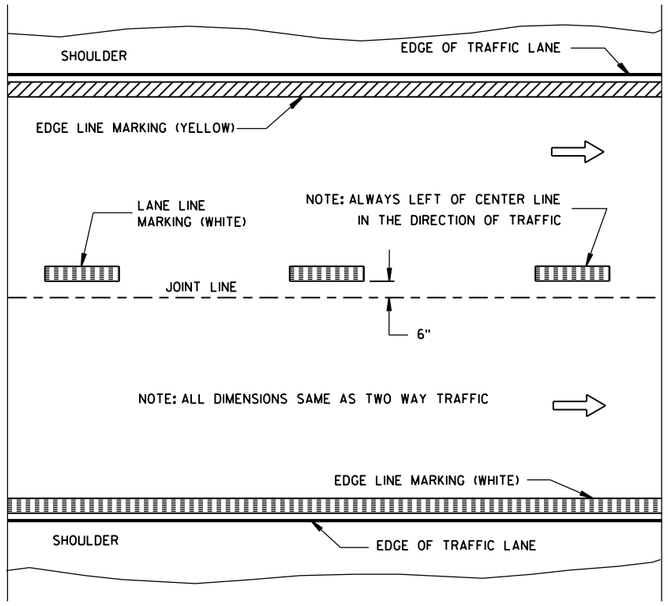
S.D.D. 15 C 7-12c

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S.D.D. 15 C 7-12c

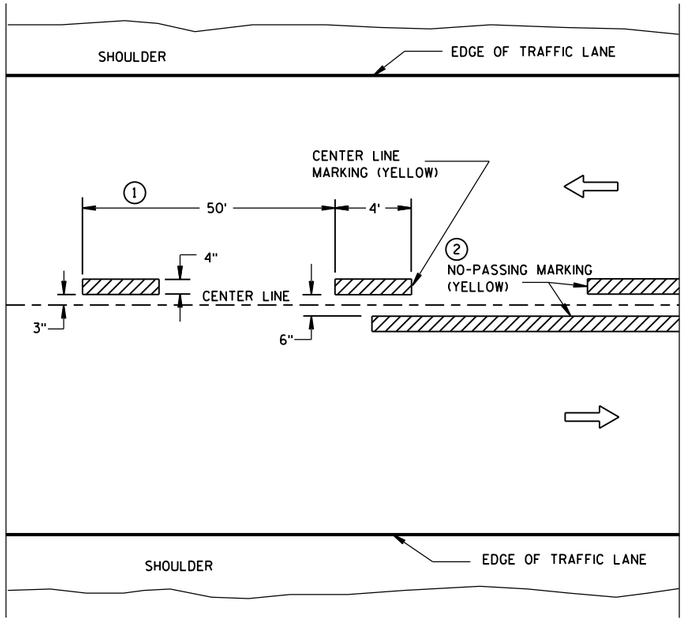


TWO WAY TRAFFIC

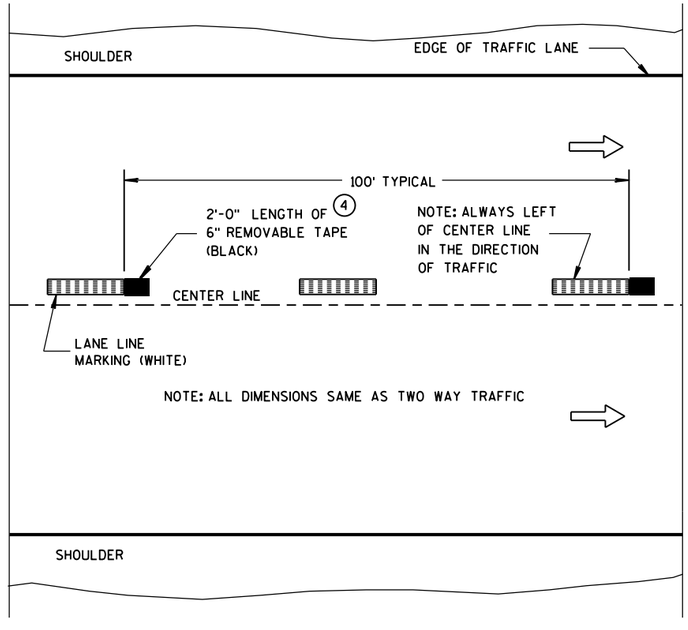


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

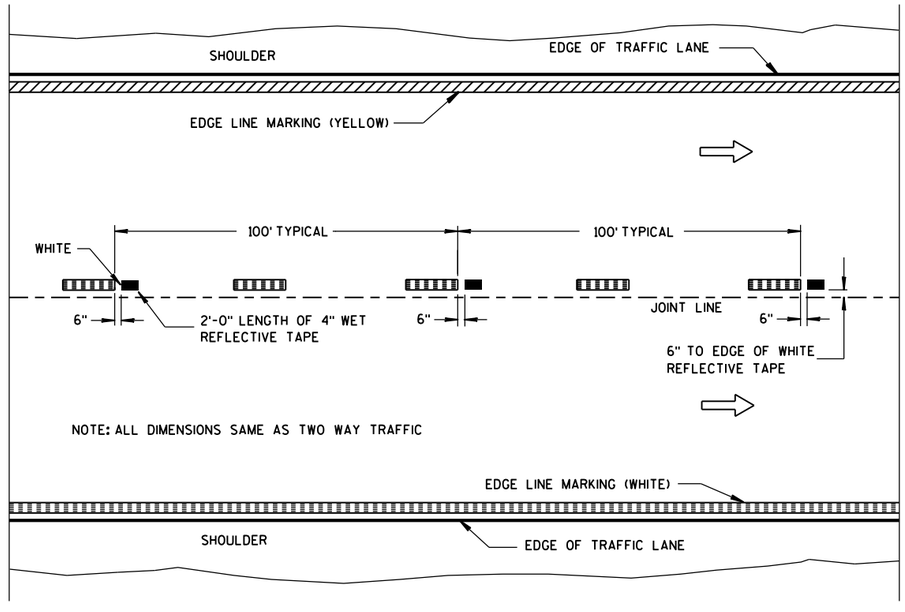
GENERAL NOTES

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

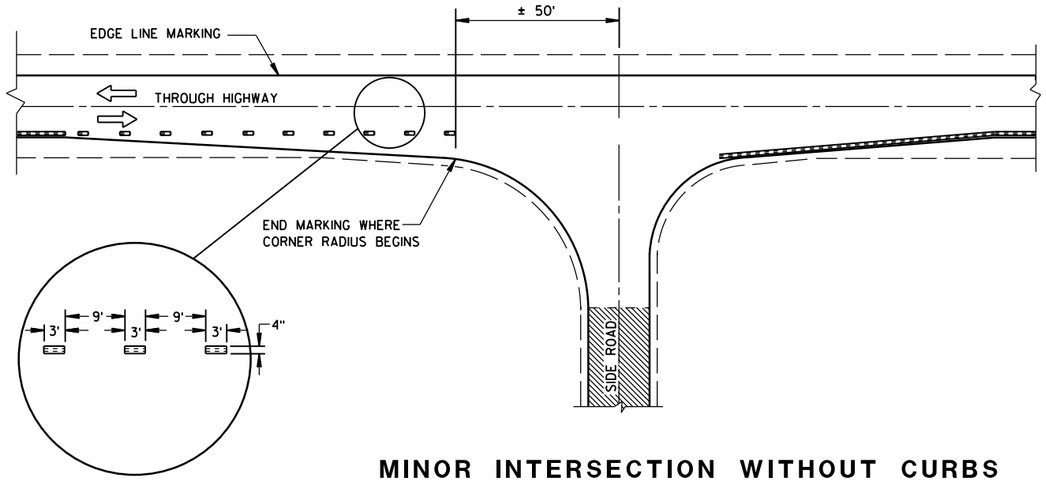
APPROVED
10-1-2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 8-15a

6

S.D.D. 15 C 8-15a



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.

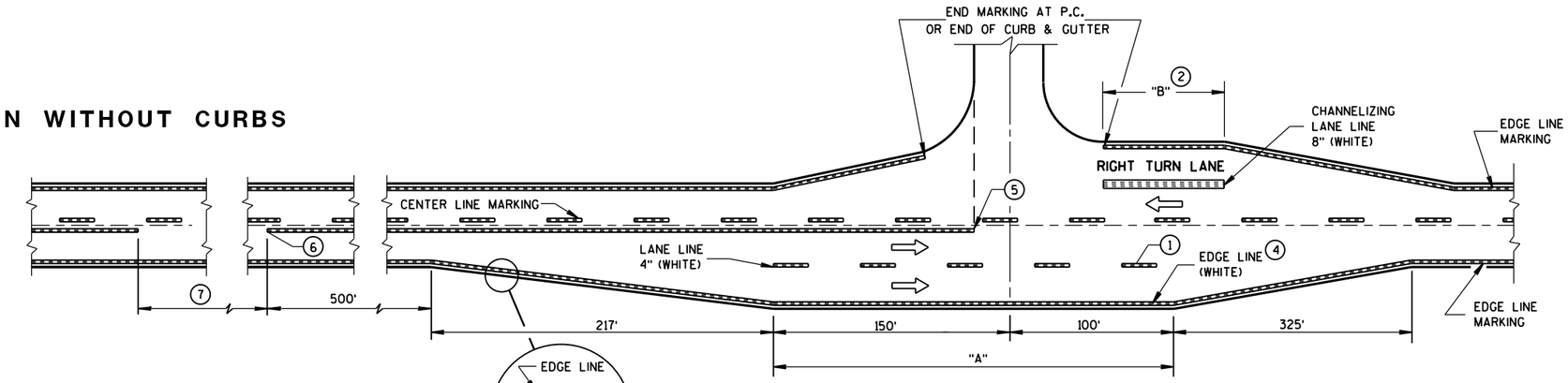
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

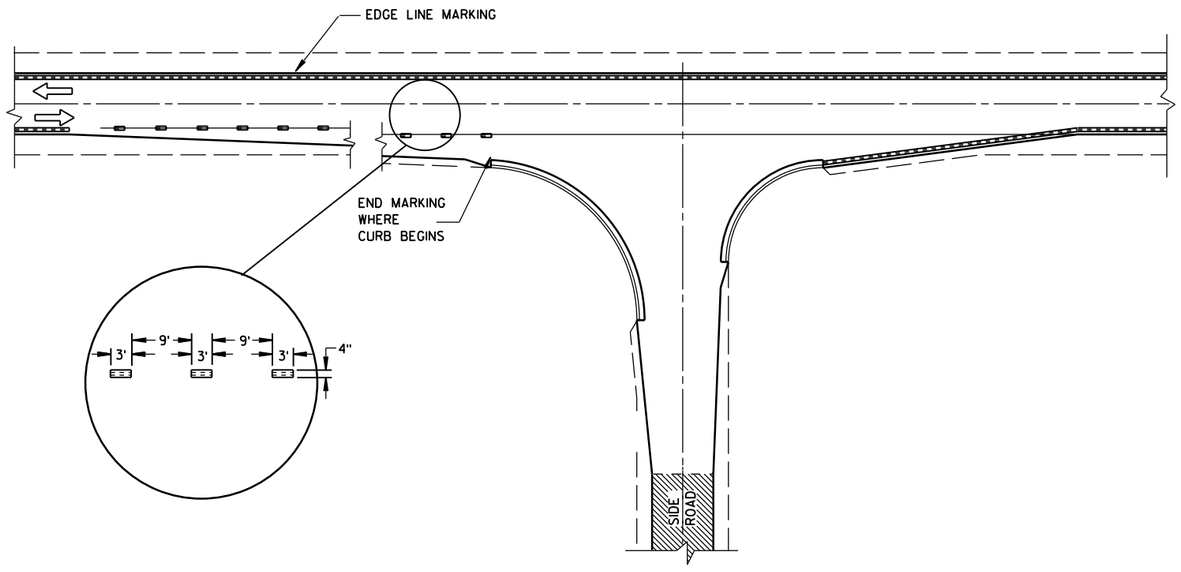
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



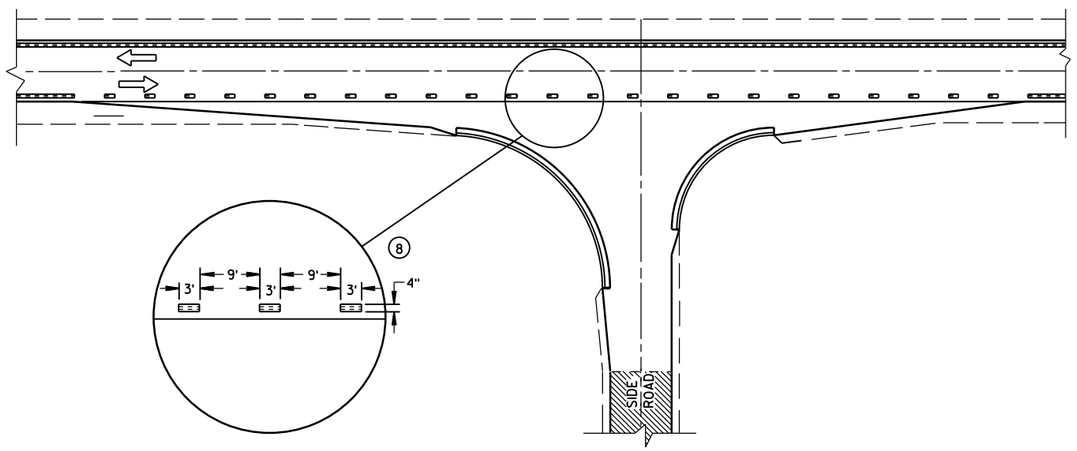
MAJOR INTERSECTIONS

(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)

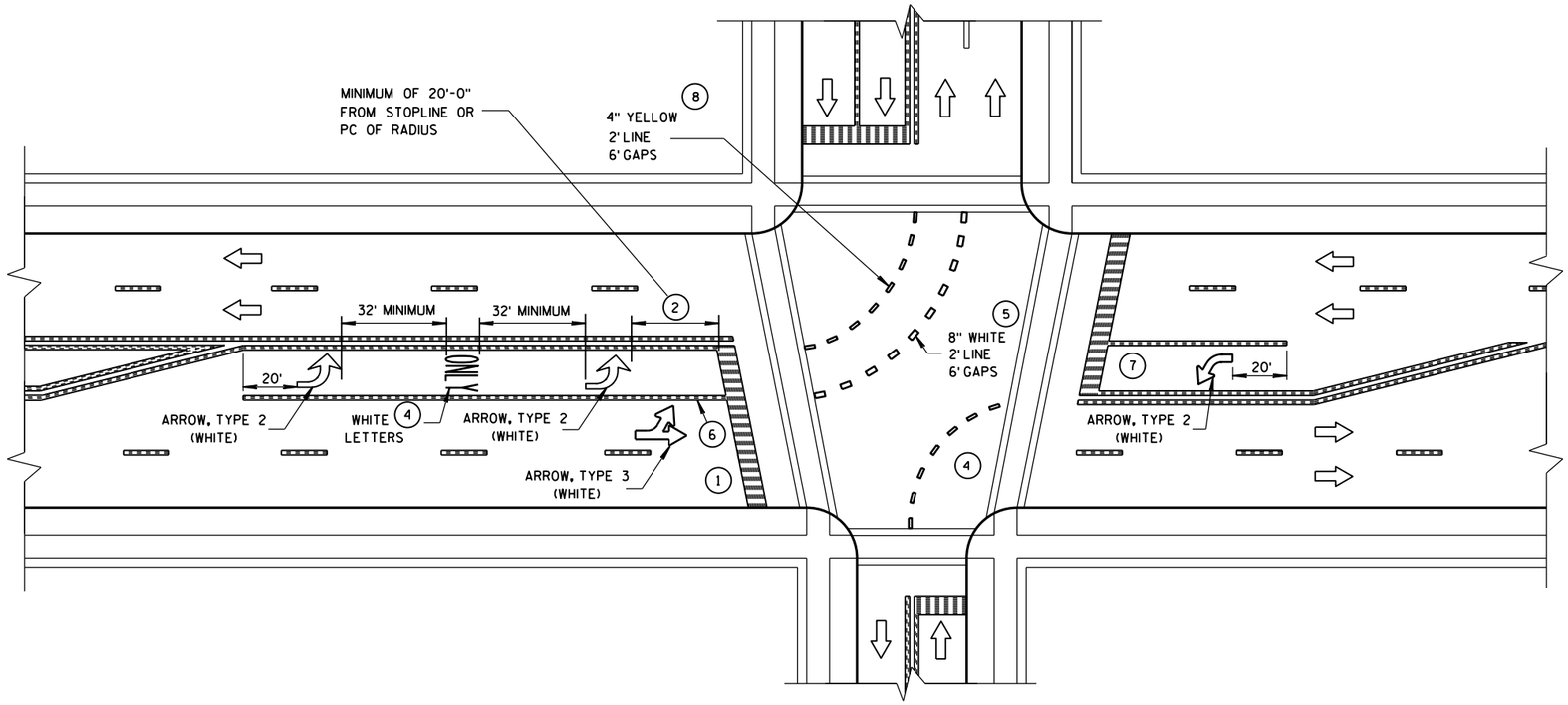
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 15 C 8-15b

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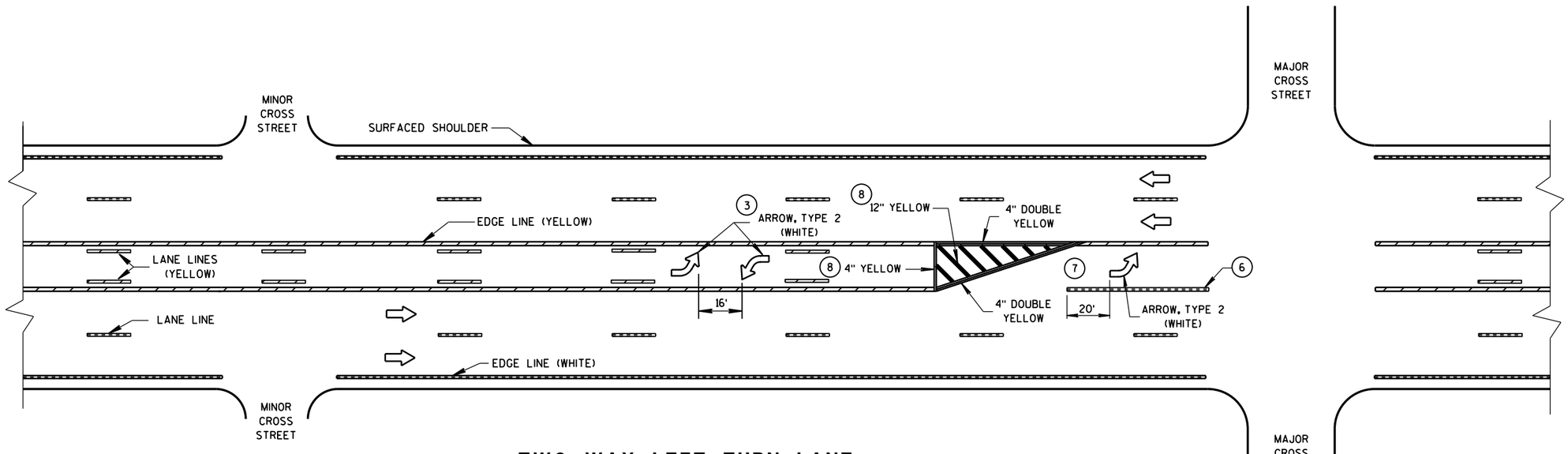
S.D.D. 15 C 8-15b



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' OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA ARROW AND ONLY PER 160' 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'.
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)

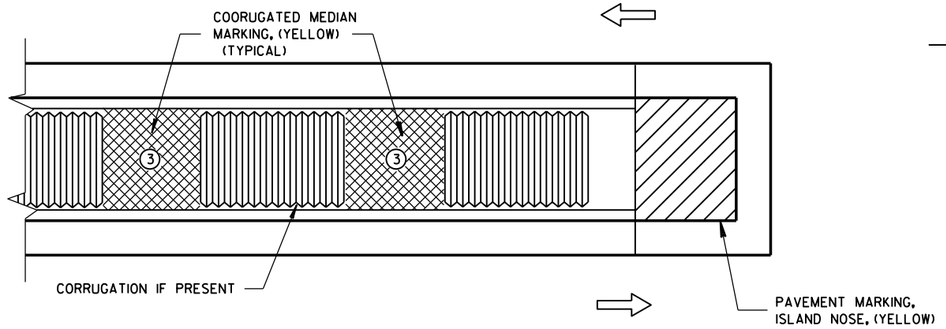
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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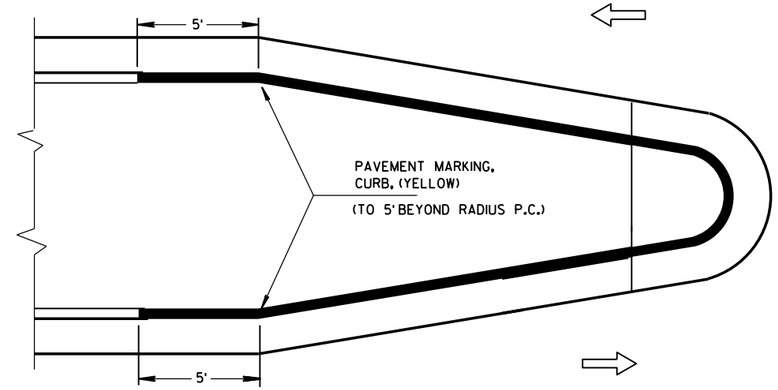
S.D.D. 15 C 8-15e

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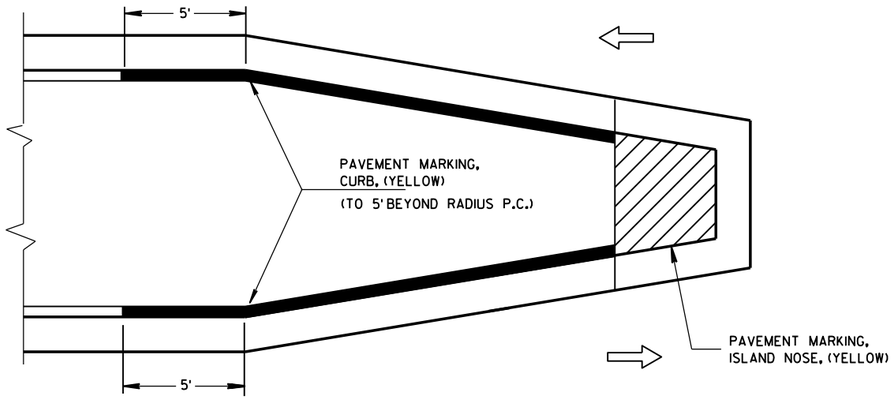
S.D.D. 15 C 8-15e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

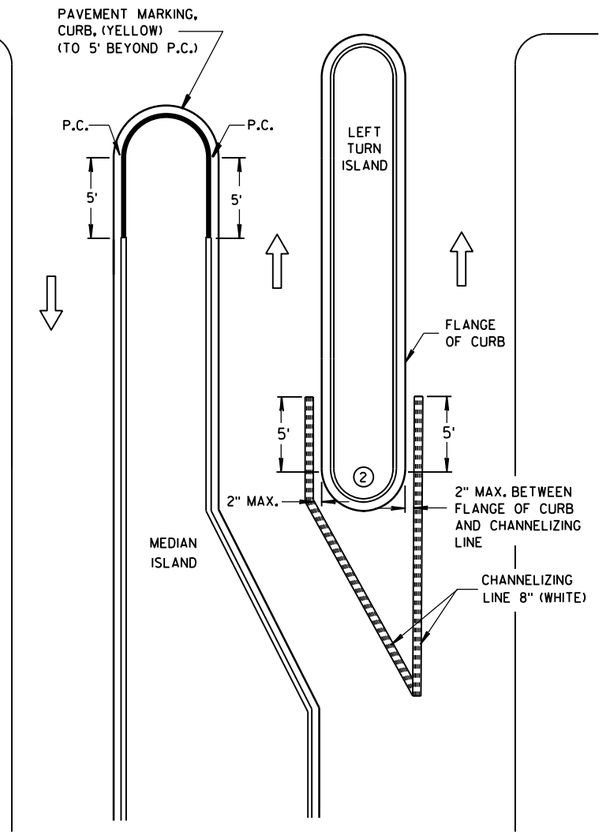


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

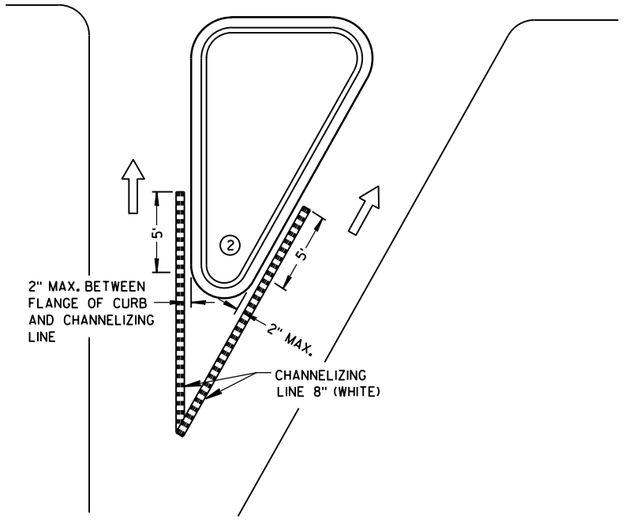
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



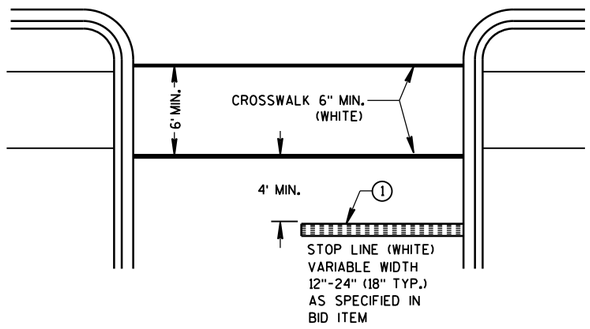
LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
3. 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



STOP LINE AND CROSSWALK

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

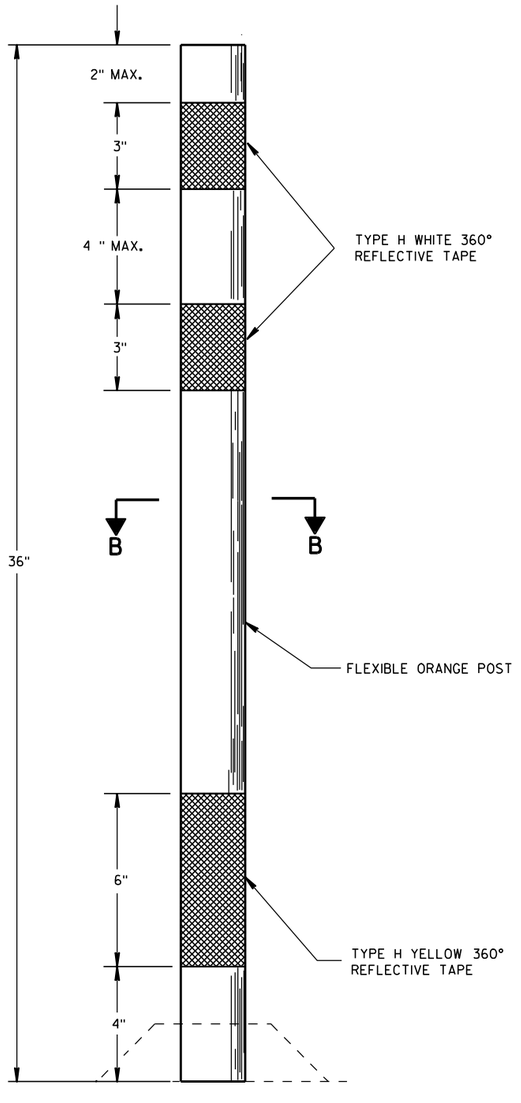
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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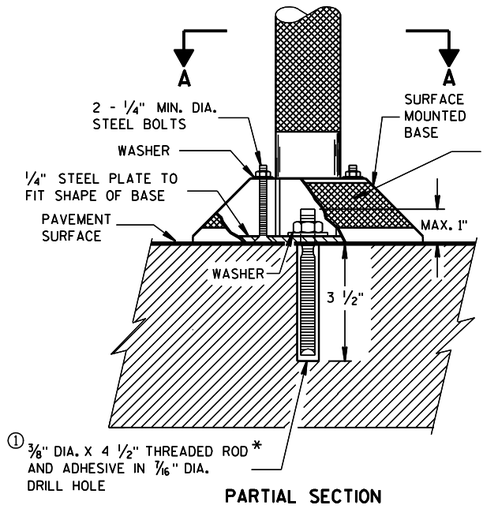
S.D.D. 15 C 8-15f

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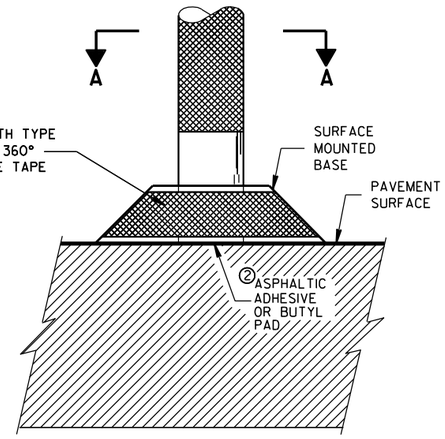
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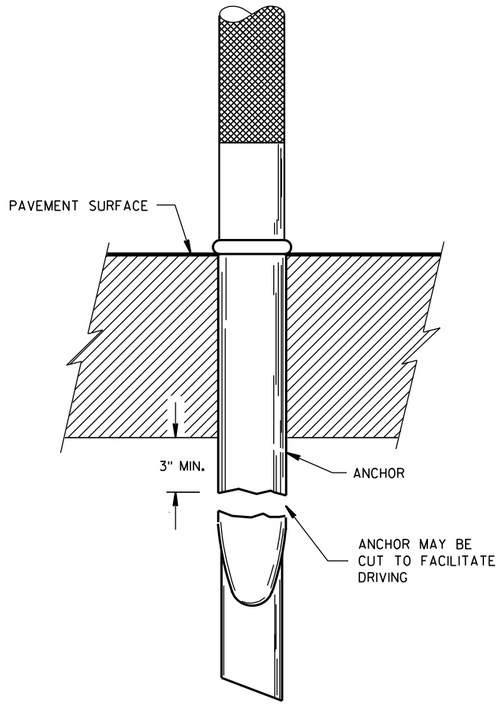
FLEXIBLE TUBULAR MARKER POST



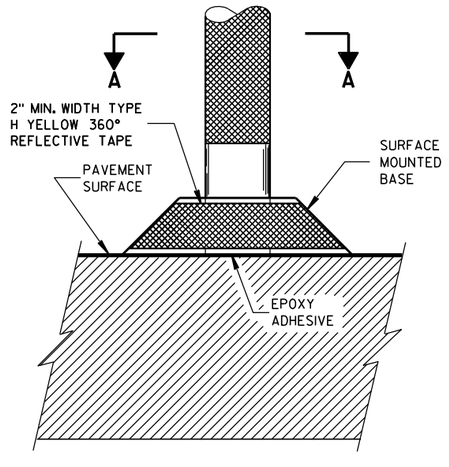
PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT



POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED



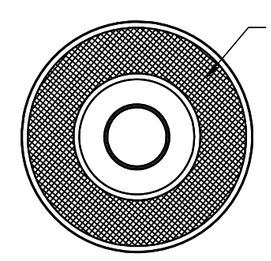
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SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

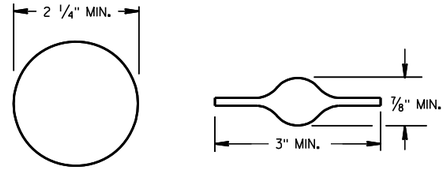
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

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 196 FHWA

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S.D.D. 15 C 11-5

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S.D.D. 15 C 11-5

TWO-LANE ROADWAY

SYMBOLS

WORK AREA

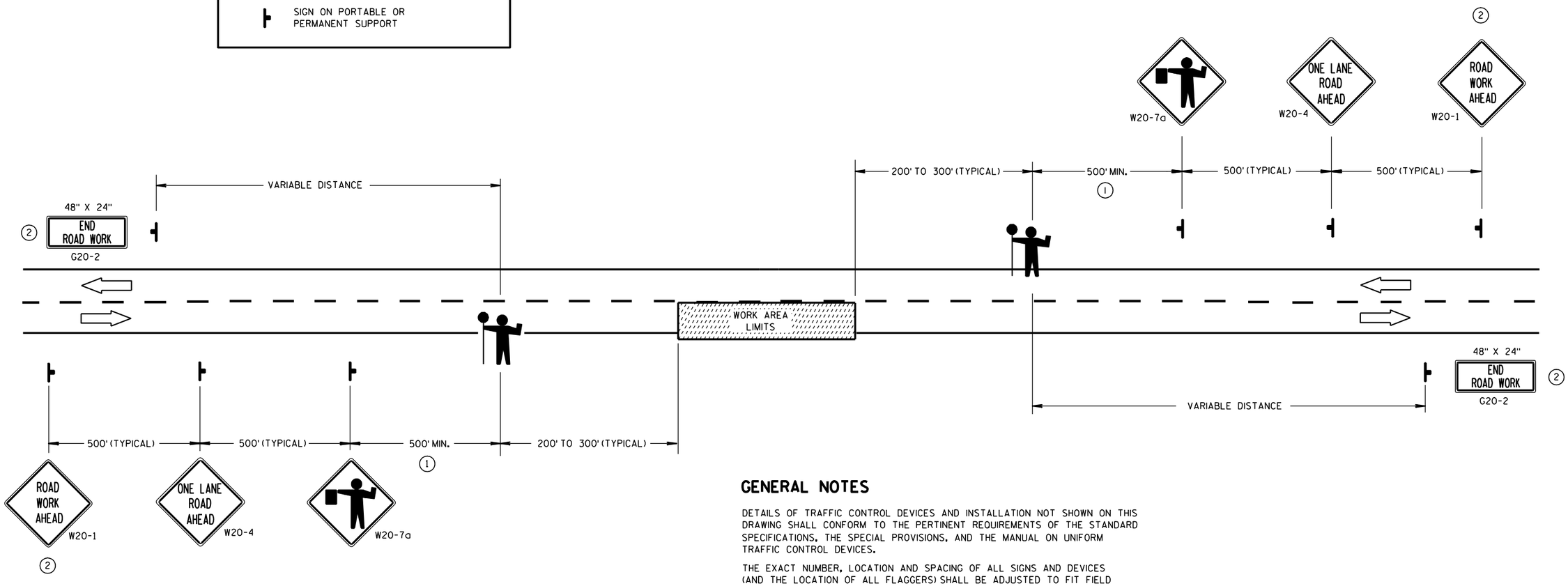
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN ON PORTABLE OR PERMANENT SUPPORT



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, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

9/5/06 — DATE

/S/ Thomas N. Nathaam — STATE TRAFFIC ENGINEER

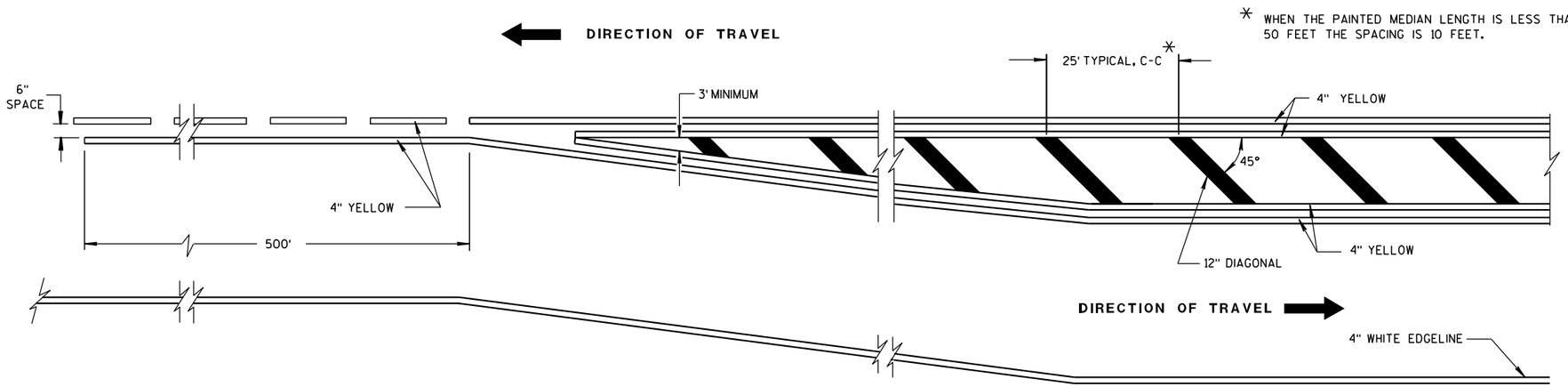
FHWA

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S.D.D. 15 C 12-3

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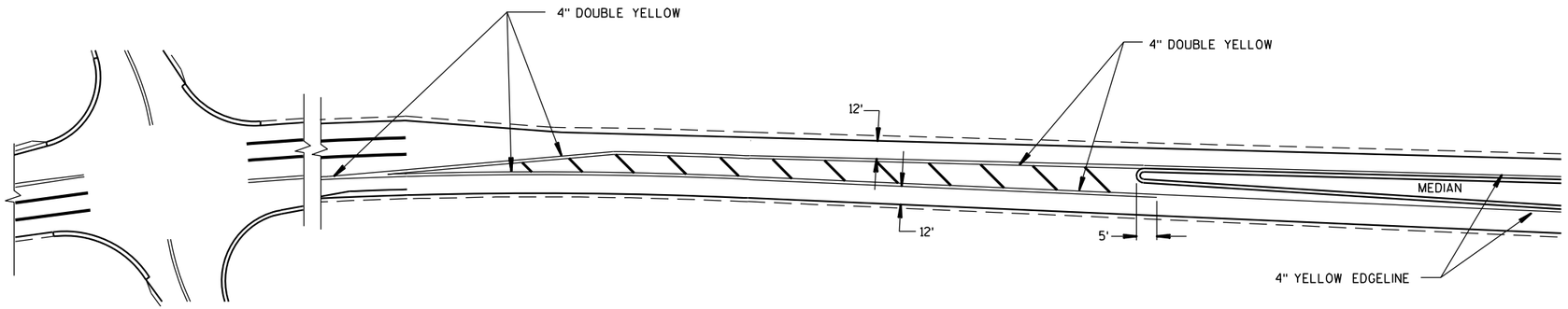
S.D.D. 15 C 12-3



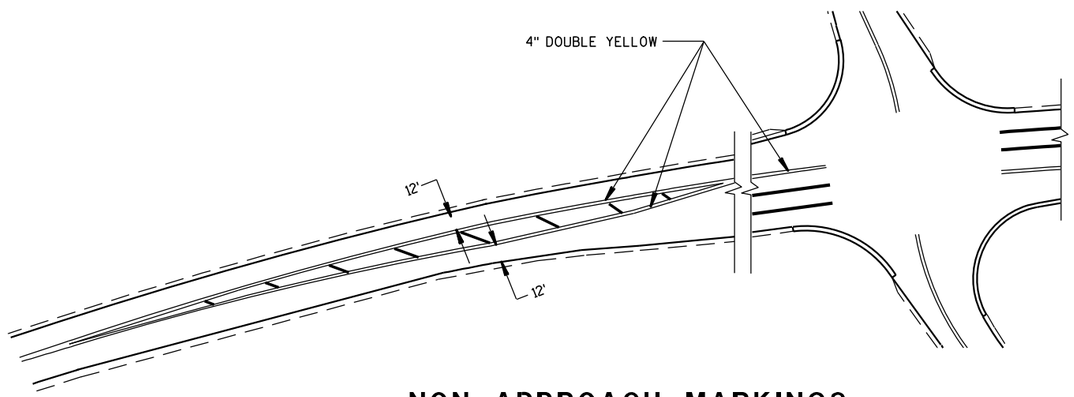
MEDIAN ISLAND DETAIL

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
FHWA	198 IGN

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S.D.D. 15 C 18-3

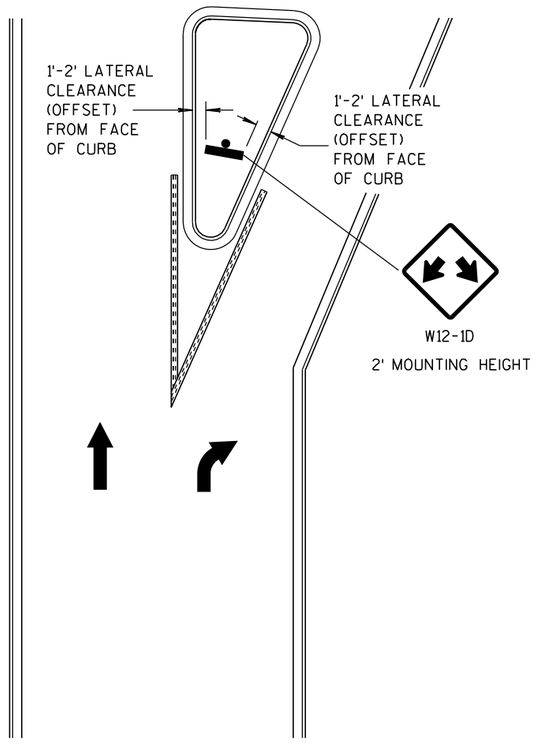
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S.D.D. 15 C 18-3

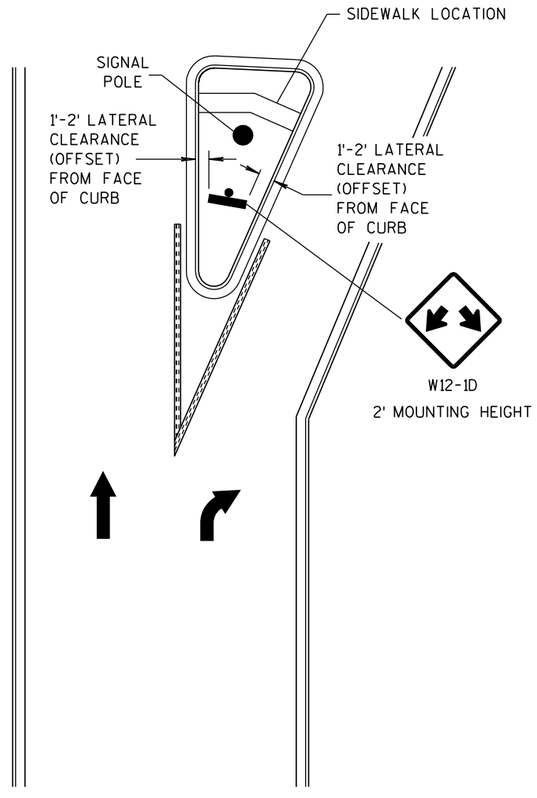
GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

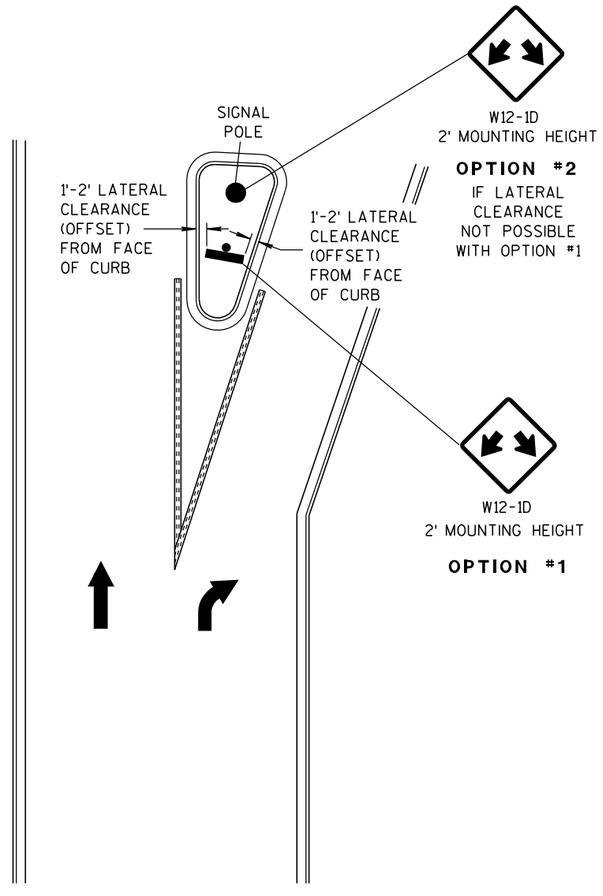
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.



LARGE RIGHT TURN ISLAND



LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE



SMALL RIGHT TURN ISLAND

DOUBLE ARROW WARNING SIGN PLACEMENT

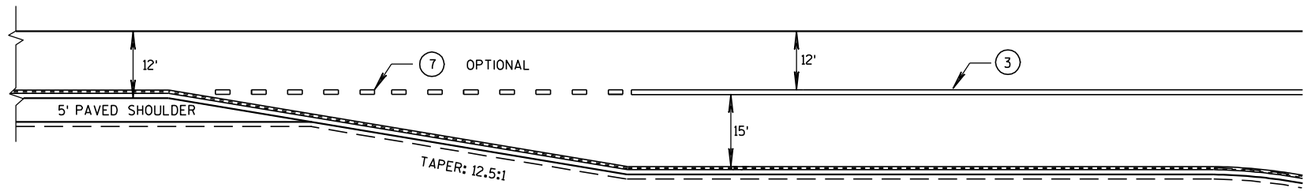
DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-08 DATE	/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA	

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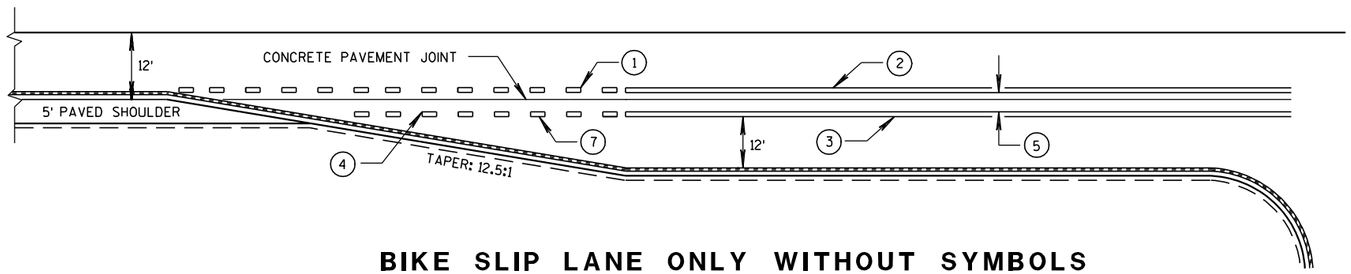
S.D.D. 15 C 27-1

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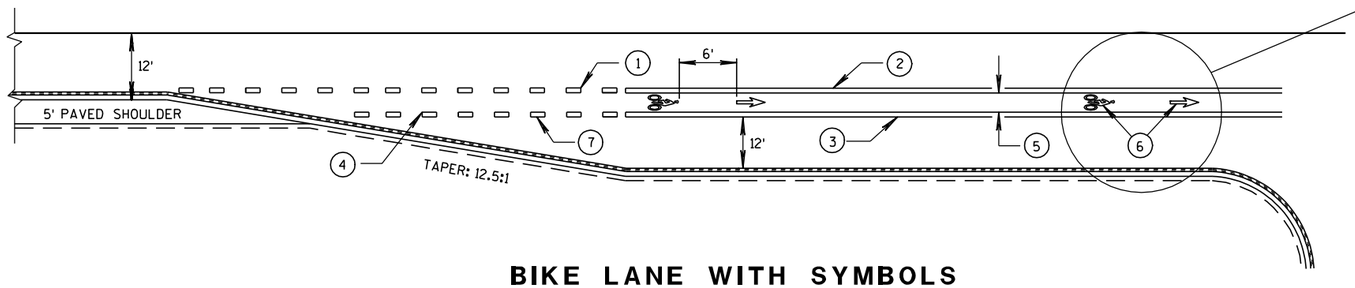
S.D.D. 15 C 27-1

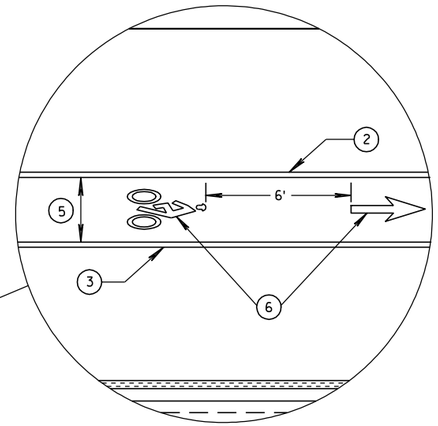


WIDER TURN LANE



BIKE SLIP LANE ONLY WITHOUT SYMBOLS





BIKE LANE WITH SYMBOLS

GENERAL NOTES

1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
   2 LANE (3' LEFT, 2' RIGHT OF JOINT).
   4 LANE (2' LEFT, 3' RIGHT OF JOINT).
   BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥45 MPH.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/6/2012
DATE

/S/ Thomas N. N[illegible]
STATE TRAFFIC ENGINEER
SIGN

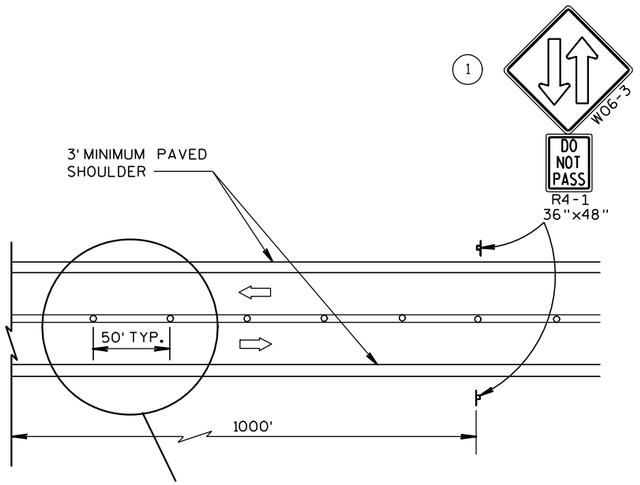
FHWA

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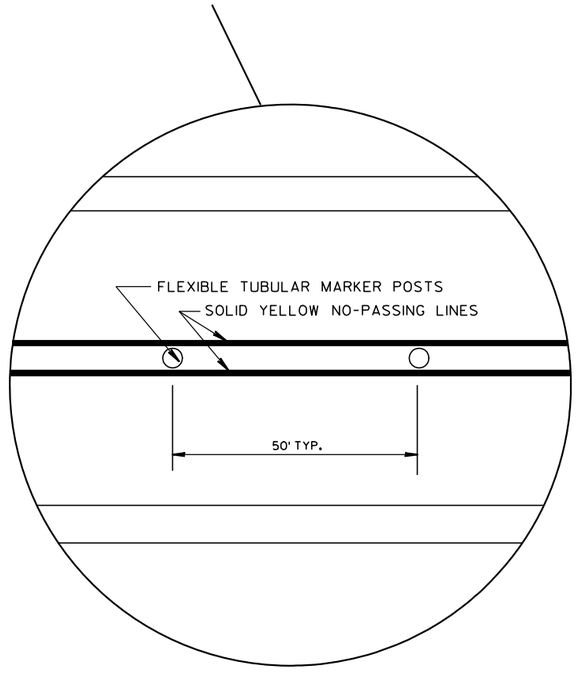
S.D.D. 15 C 29-2a

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S.D.D. 15 C 29-2a



TWO LANE, TWO WAY OPERATION



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.

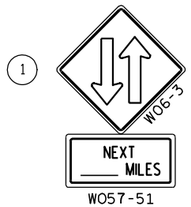
A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC @ 50' SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.



R2-1
48"x60"
(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.



W057-51
48"x24"



R4-1
36"x48"

THE W06-3 WITH THE W057-51 SHALL BE LOCATED 200' BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500' BEYOND ANY SIDEROAD. THE W06-3 WITH THE R4-1 SHALL BE LOCATED 1000' BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN W06-3 SIGNS.

LEGEND

- POST WITH ATTACHED SIGN
- FLEXIBLE TUBULAR MARKER AND BASE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

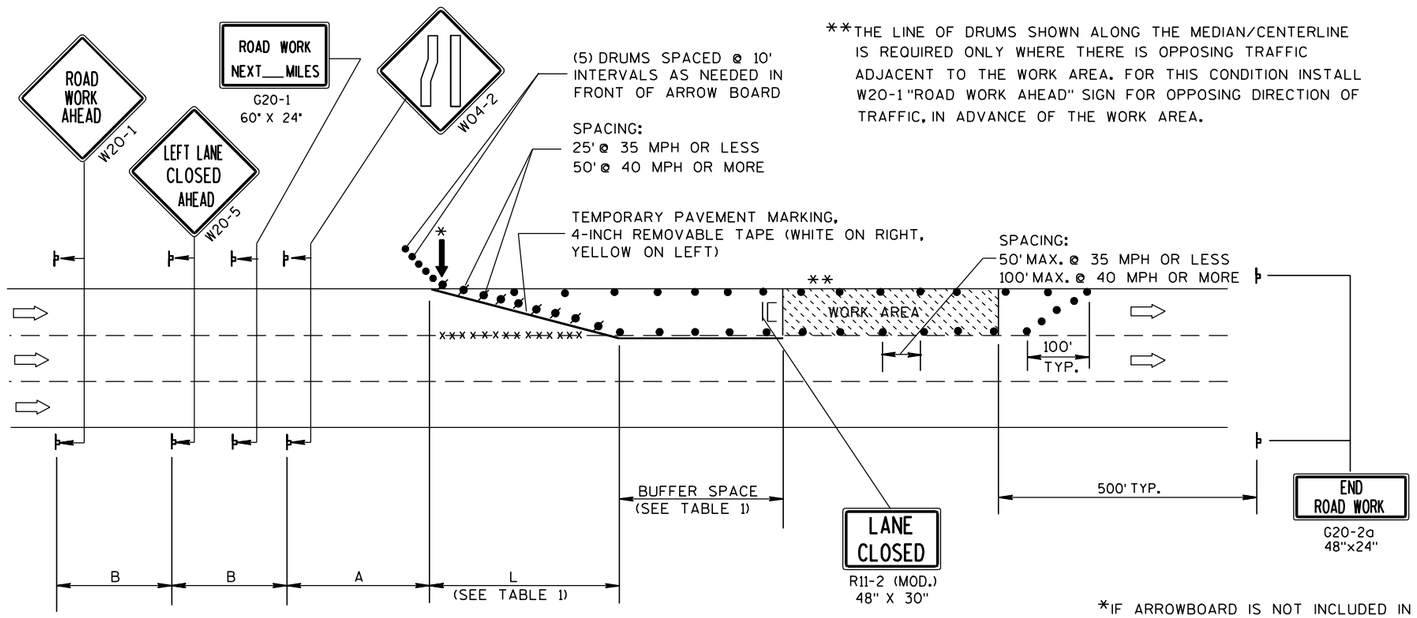
APPROVED
12-4-95
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE OF

FHWA

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S.D.D. 15 D 6-2



**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"

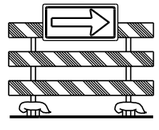


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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

- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- POST MOUNTED SIGN
- ARROW BOARD
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHTS, TYPE A (FLASHING) WITH/WITHOUT SIGN
- DIRECTION OF TRAFFIC FLOW
- xxxx REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

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 7 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.

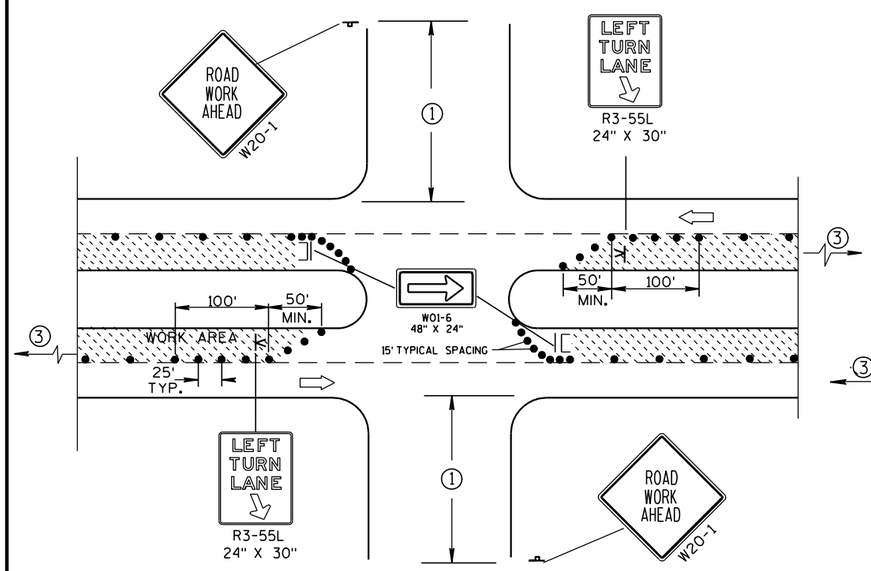
TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

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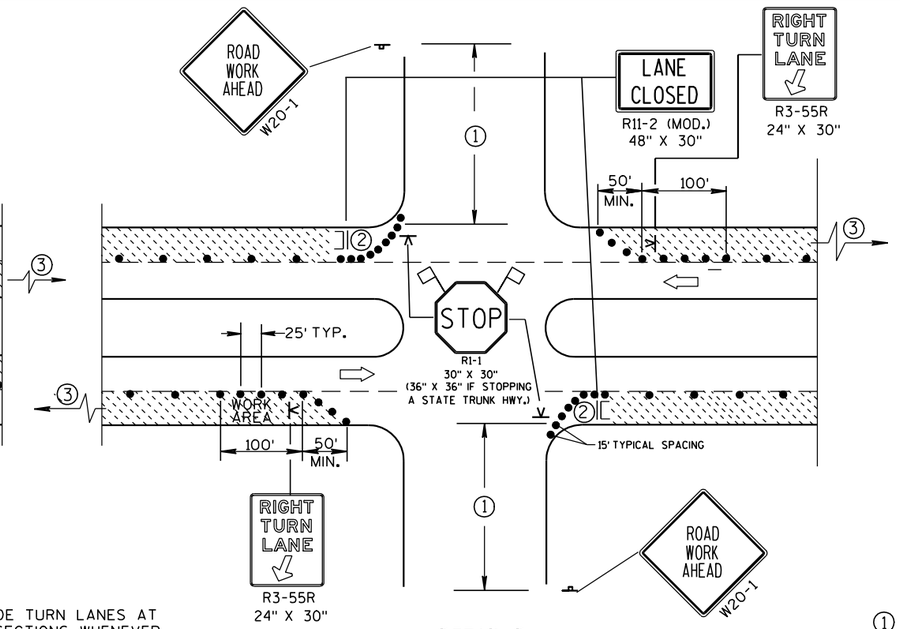
S.D.D. 15 D 20-1



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.

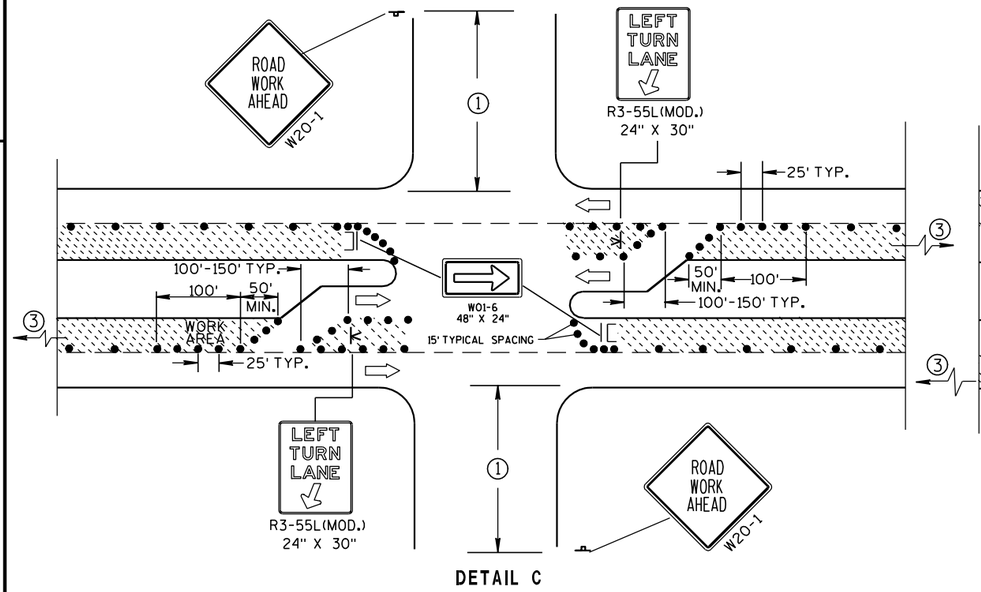
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

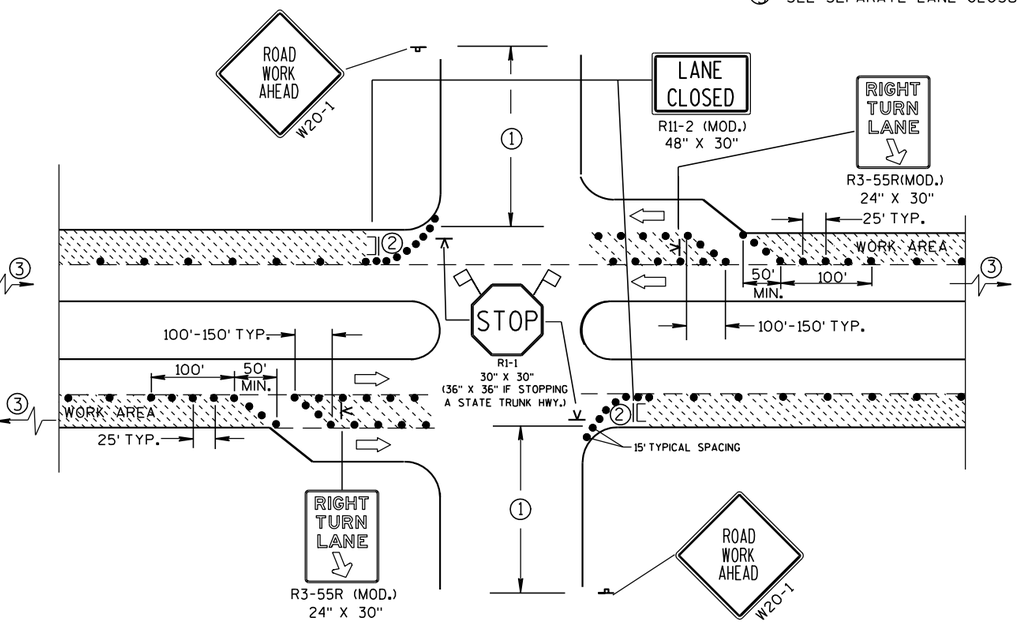
② ALSO USE BARRICADE AND 15' TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

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

- DRUM
- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHT, TYPE A (FLASHING) WITH SIGN
- DIRECTION OF TRAFFIC FLOW
- FLAGS, 16" X 16" MIN., ORANGE

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00 — DATE

/S/ Chester J. Spang — CHIEF SIGNS AND MARKING ENGINEER

FHWA

6

S.D.D. 15 D 21-1
S.D.D. 15 D 21-1

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.

ALL SIGNS ARE 48" X 48" 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 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.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

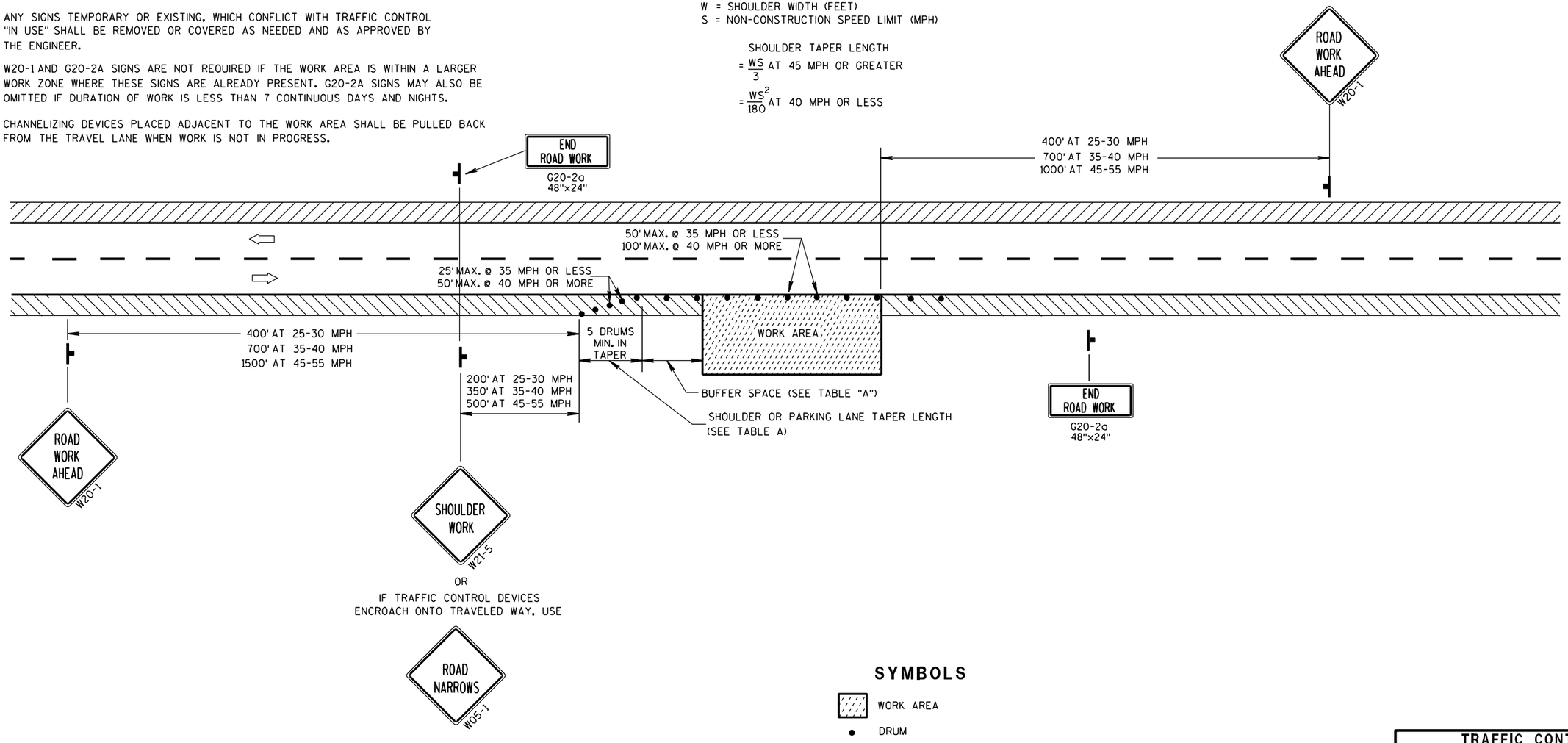
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
$= \frac{WS}{3}$ AT 45 MPH OR GREATER
$= \frac{WS^2}{180}$ AT 40 MPH OR LESS



SYMBOLS

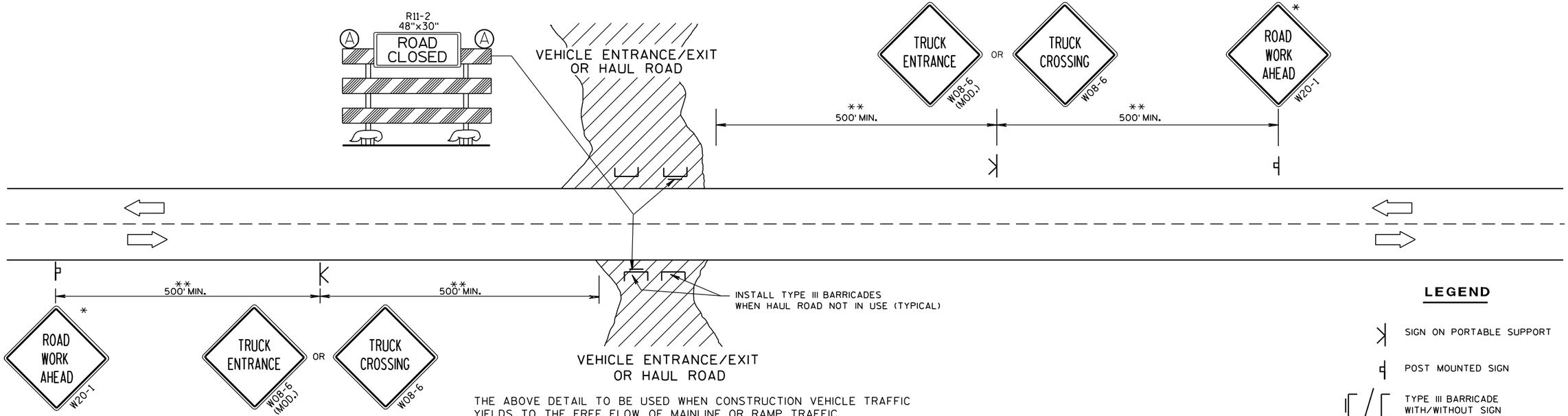
- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER
FHWA

6
S.D.D. 15 D 28-1



THE ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, DEVICES AND FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

* THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE **ENTRANCE/EXIT CONDITIONS ARE SEPARATED BY MORE THAN 2 MILES** FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.

** 500' SHOWN IS FOR ROADWAYS WITH A NON-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350'. FOR 25-30 MPH, USE 200'. USE 1000'/1500' FOR EXPRESSWAY/FREEWAY.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

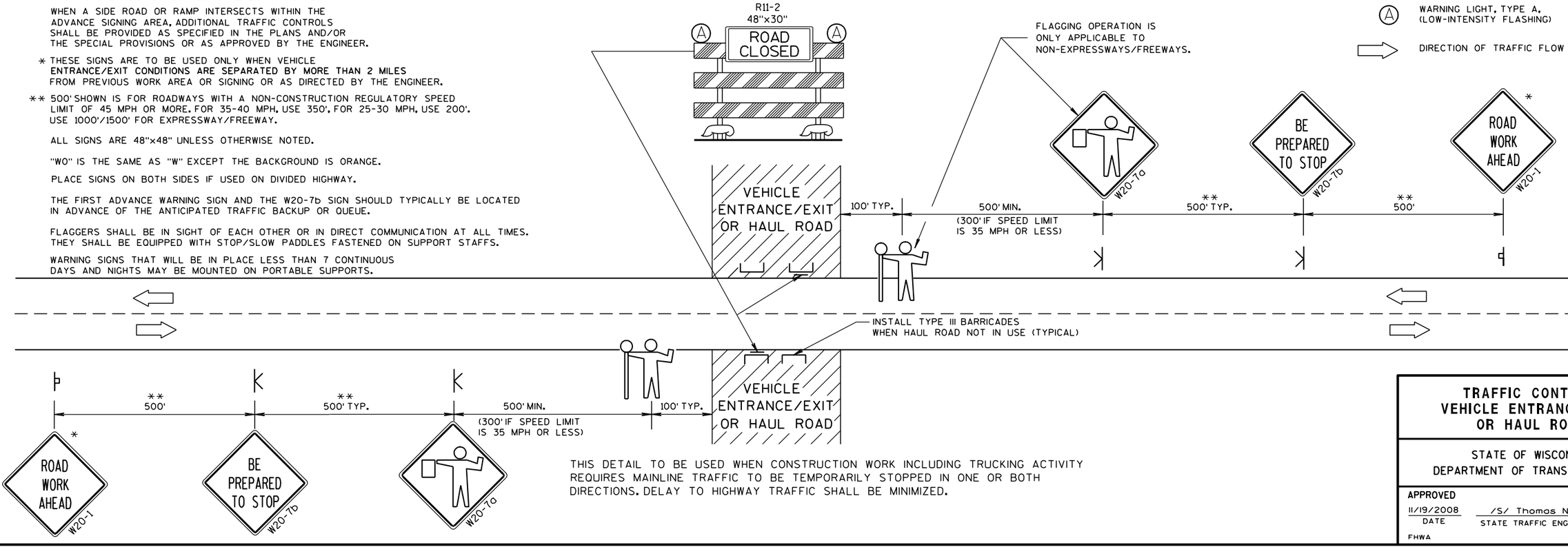
THE FIRST ADVANCE WARNING SIGN AND THE W20-7b SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

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.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

LEGEND

- SIGN ON PORTABLE SUPPORT
- POST MOUNTED SIGN
- TYPE III BARRICADE WITH/WITHOUT SIGN
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- (A) WARNING LIGHT, TYPE A, (LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC FLOW



THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

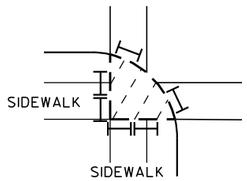
TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

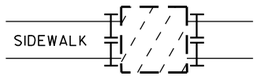
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

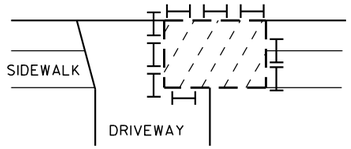
APPROVED
11/19/2008 DATE
/S/ Thomas N. N[illegible]
STATE TRAFFIC ENGINE[illegible] SIGN
FHWA

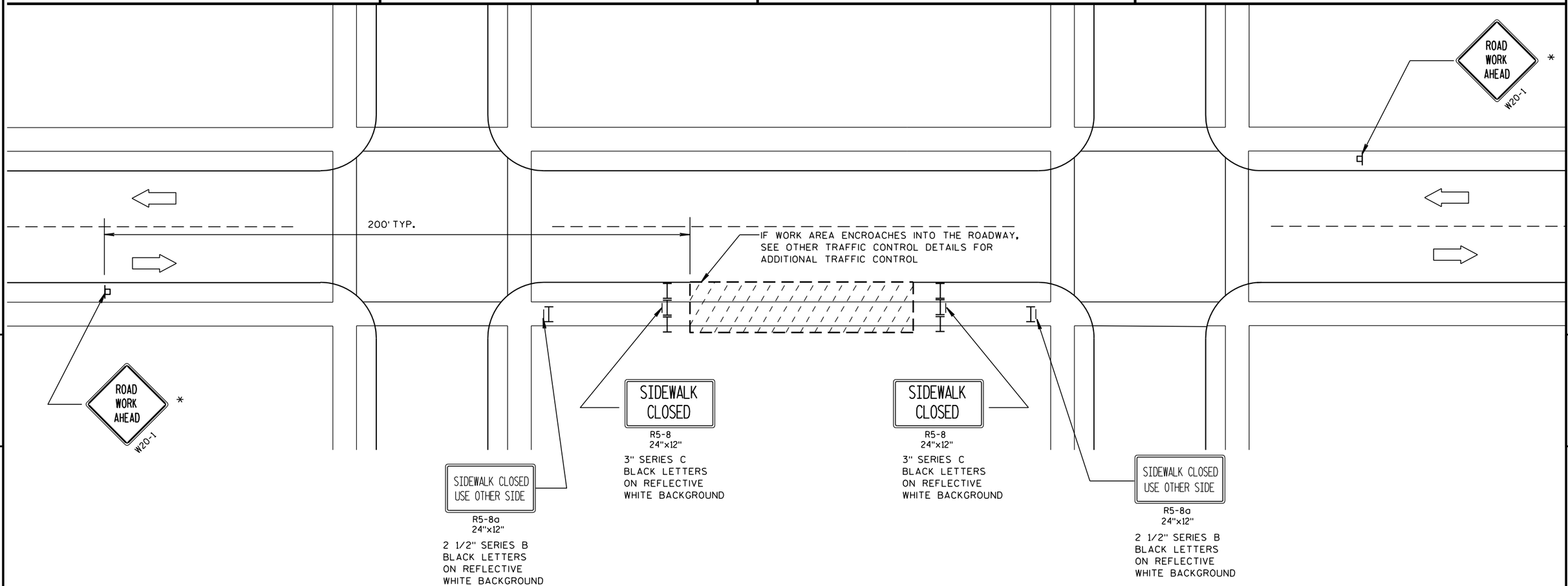
6
S.D.D. 15 D 29-2

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

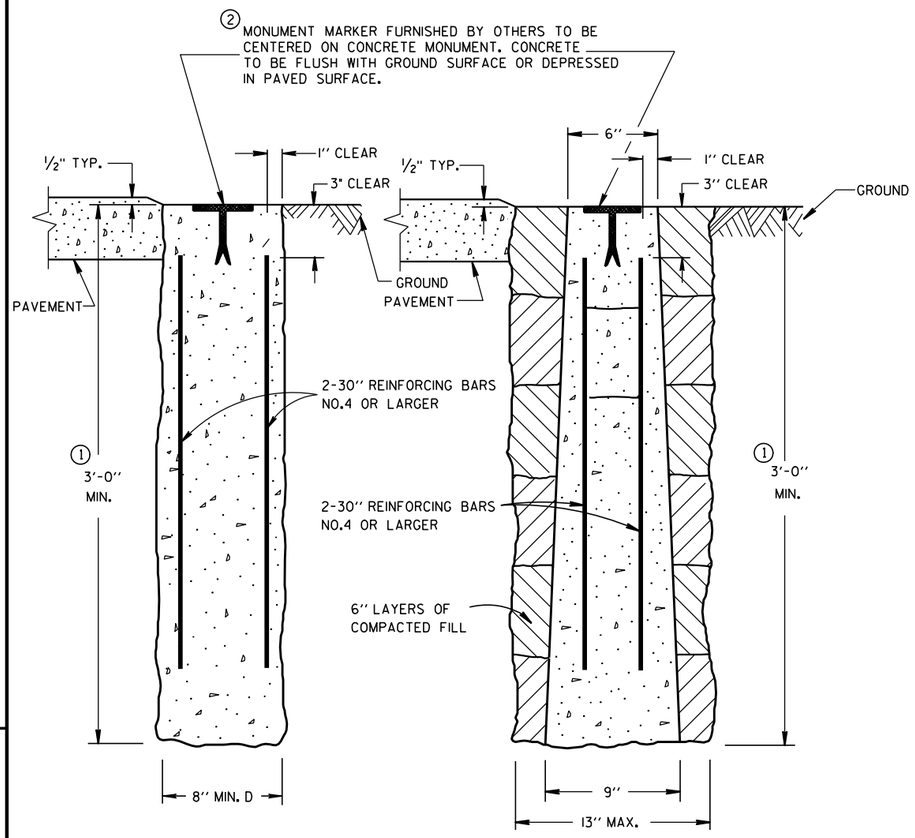
APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible]NEER
FHWA

6

S.D.D. 15 D 30-1

6

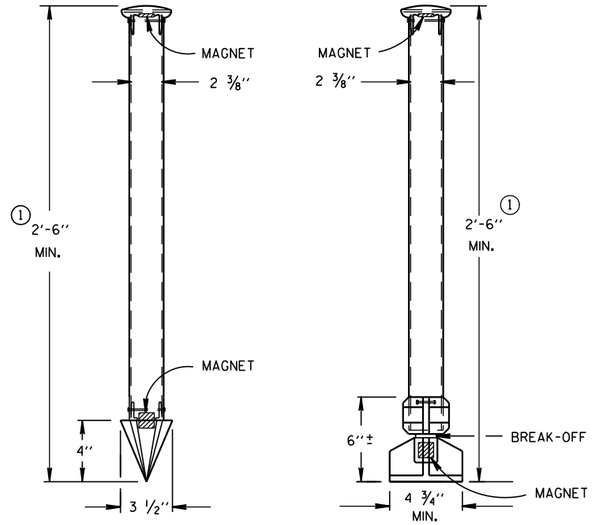
S.D.D. 15 D 30-1



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C DRIVE-IN MONUMENT

TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

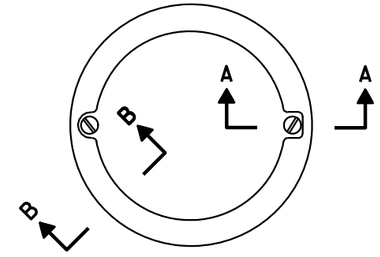
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

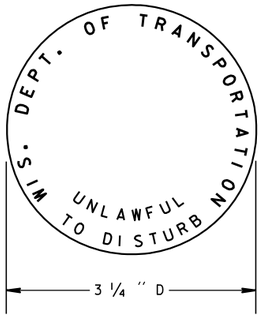
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

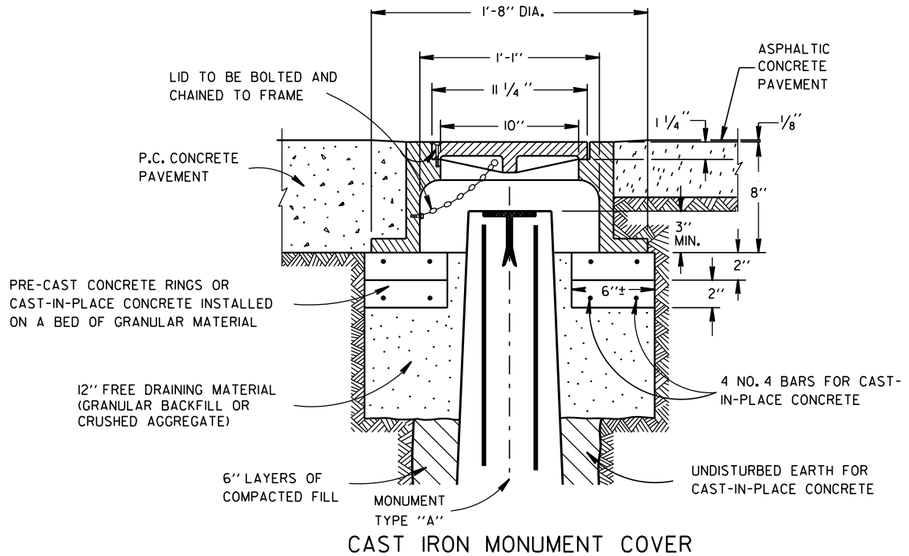
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

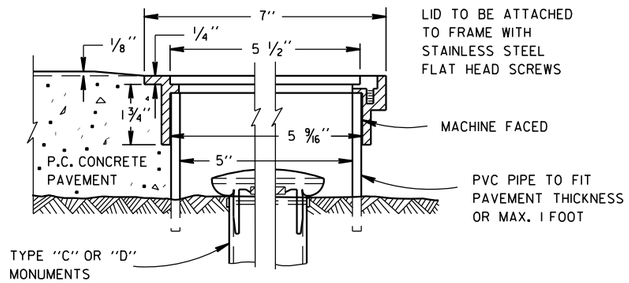


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

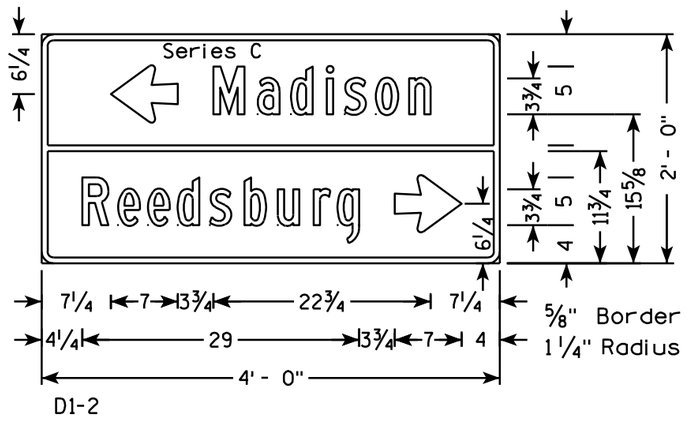
9/22/1999 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

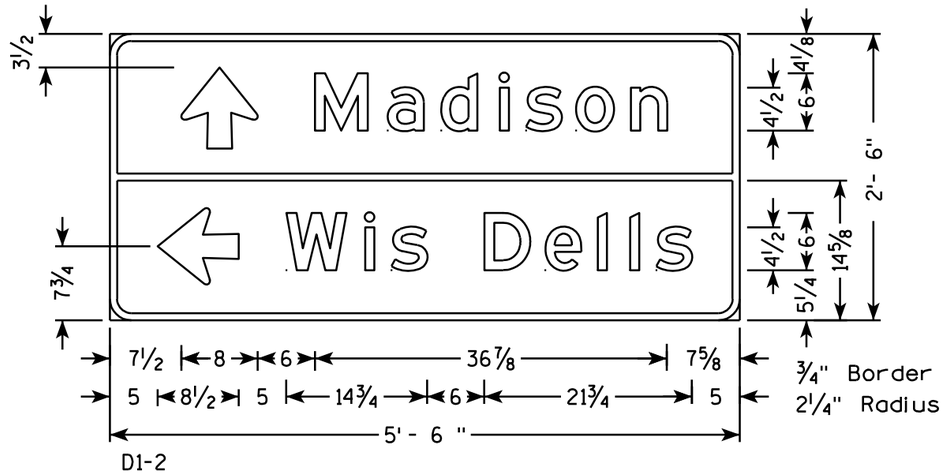
S.D.D. 16 A 1-6



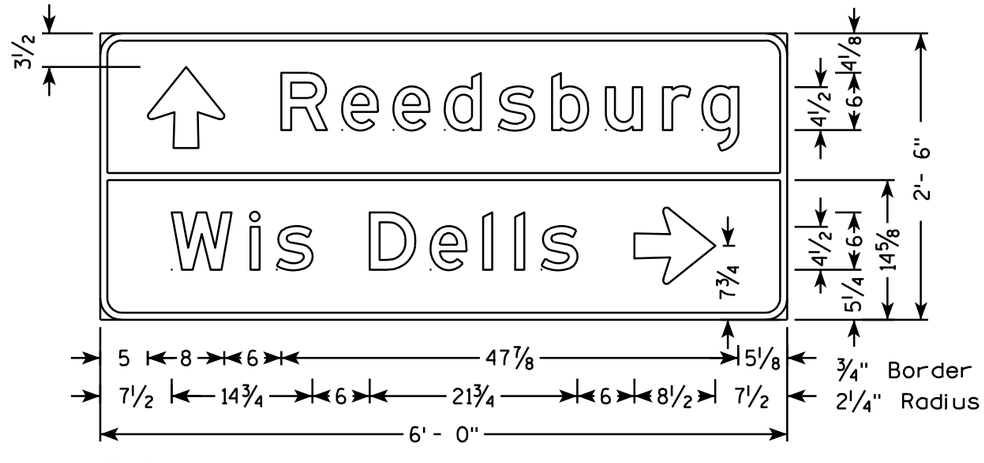
D1-2

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E except as Shown



D1-2



D1-2

7

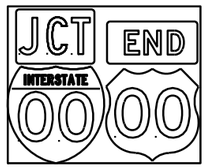
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PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	PERMANENT SIGNING	SHEET NO: 208	E

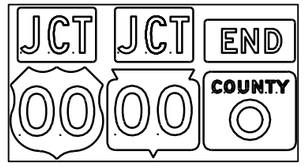
TYPICAL ASSEMBLIES



J1-1



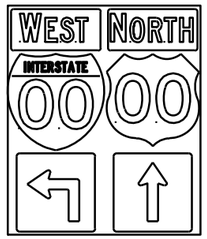
J1-2



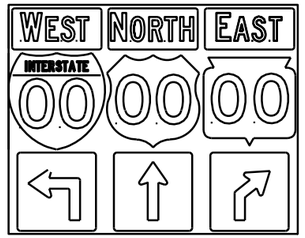
J1-3



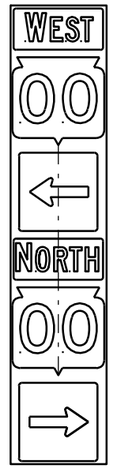
J2-1



J2-2

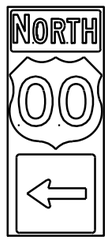


J2-3

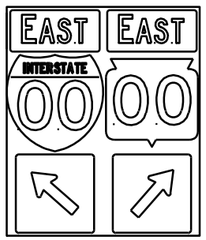


JV

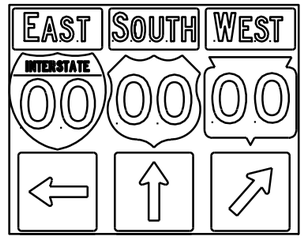
(Typical Vertical J-Assembly
See Note 10)



J3-1



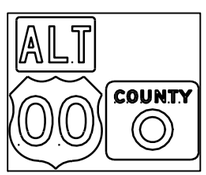
J3-2



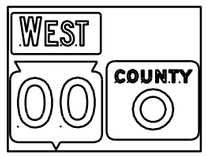
J3-3



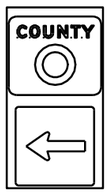
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



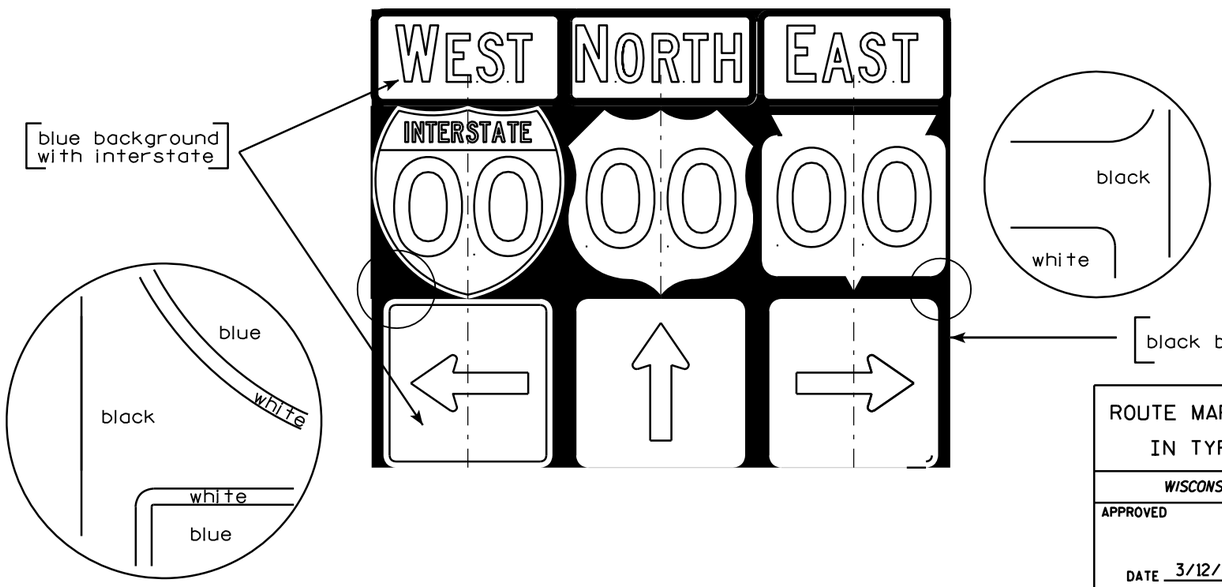
J23-1



J22-1

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



ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. A2-1S.7

PROJECT NO:

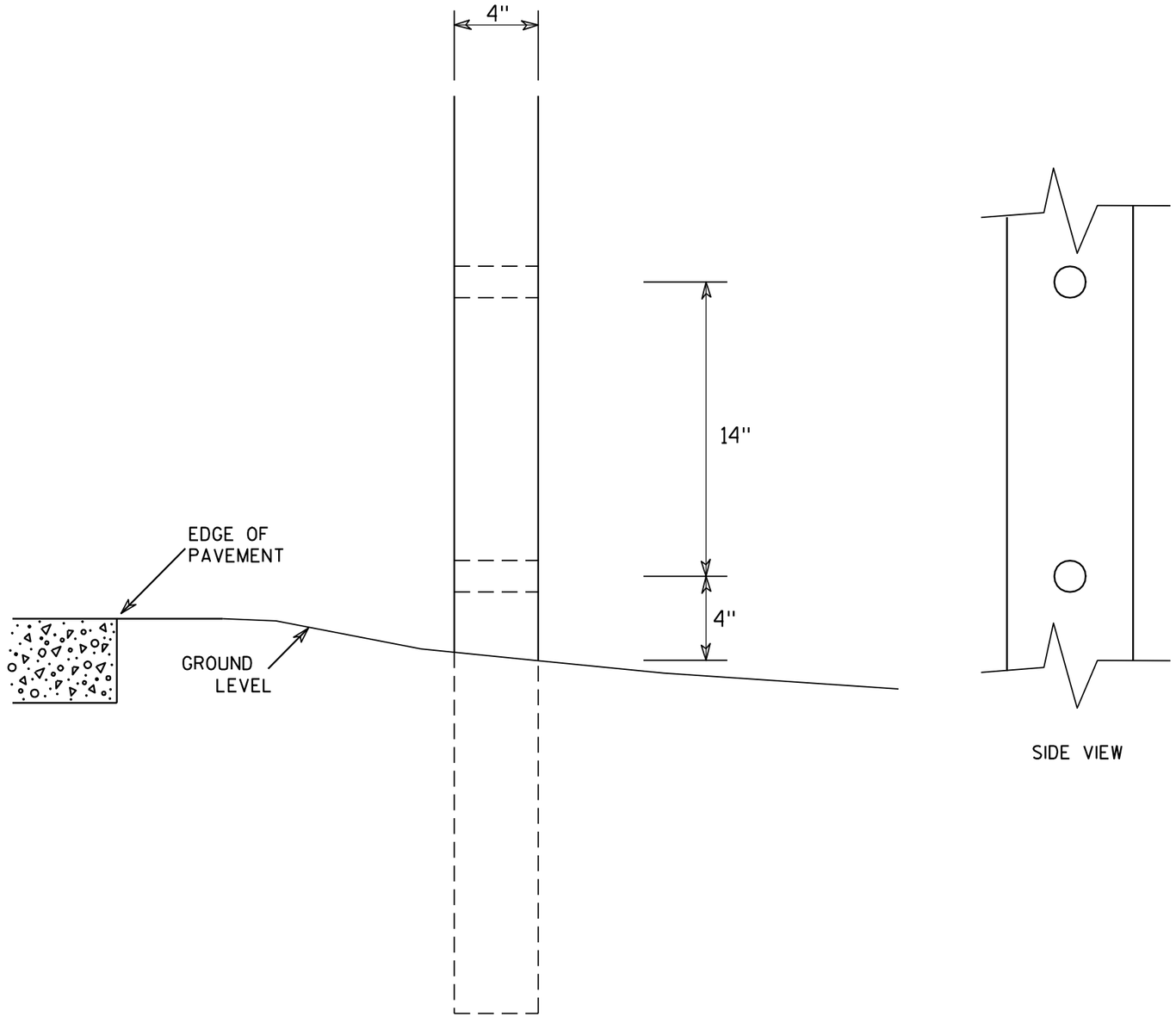
SHEET NO: 209 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 12-MAR-2013 10:43 PLOT BY : mscj9h PLOT NAME :

WISDOT/CADDS SHEET 42

7

7



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

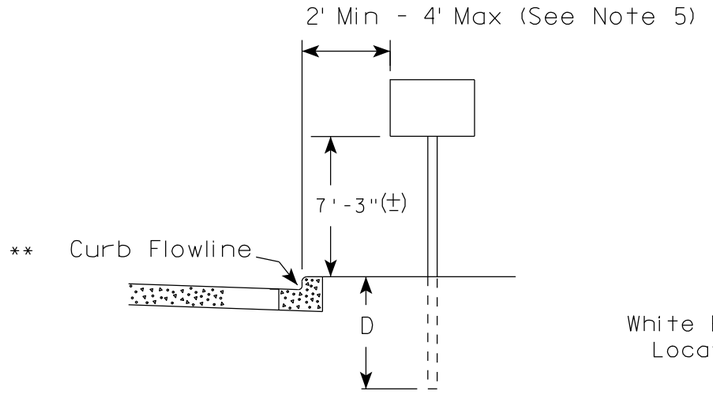
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

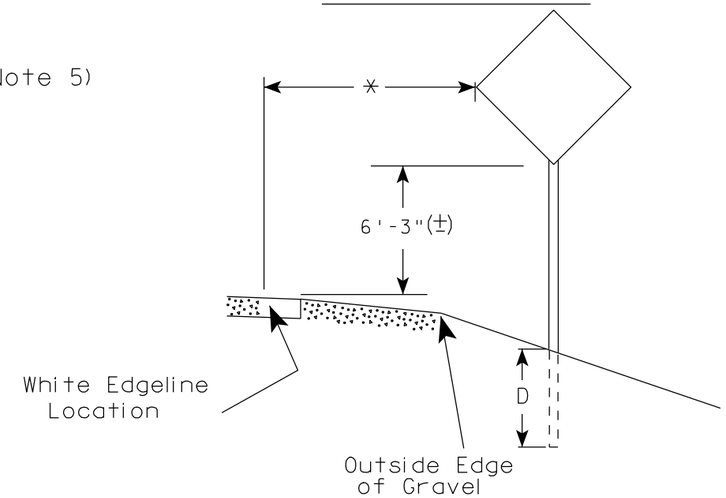
DATE 3/27/97 PLATE NO. A4-11.2

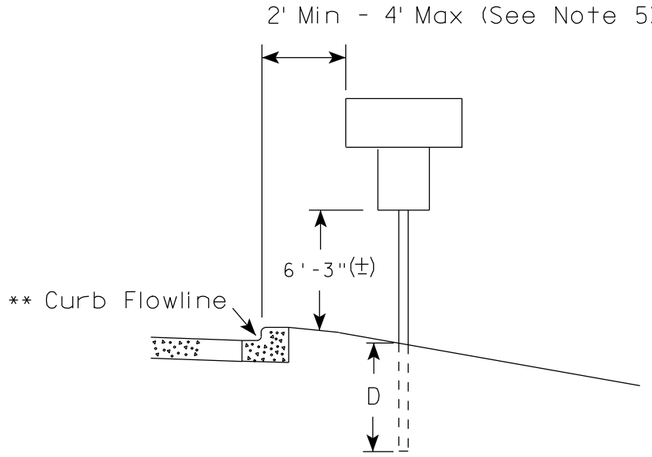
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 210	E

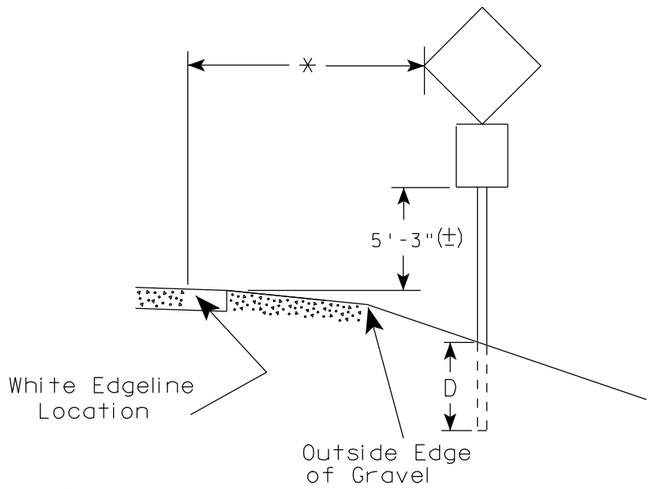
URBAN AREA



RURAL AREA (See Note 2)







** 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.

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), 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" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

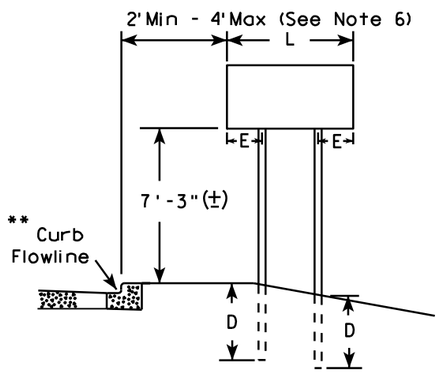
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

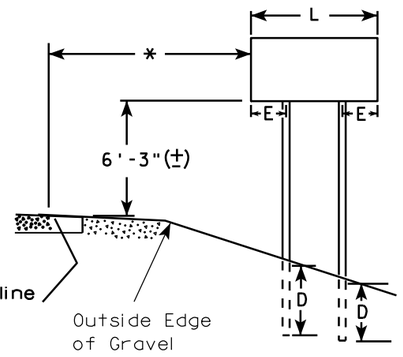
DATE 9/21/2011 PLATE NO. A4-3.16

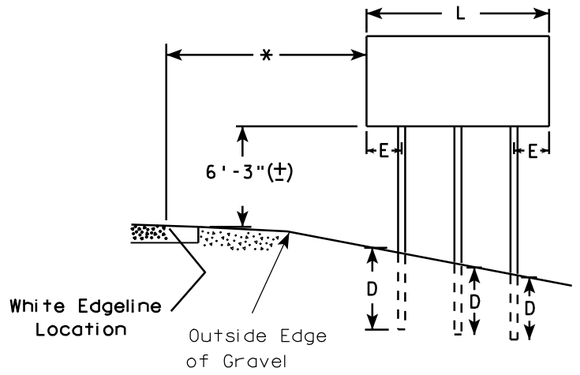
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 211	E

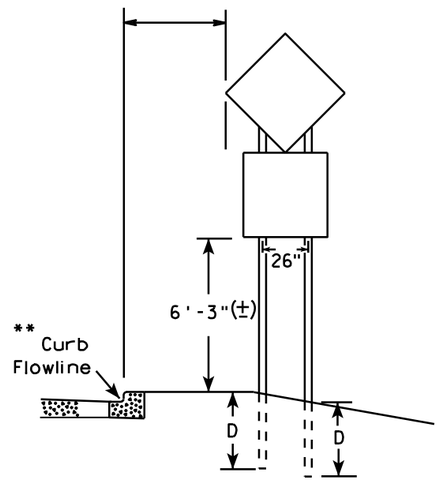
URBAN AREA



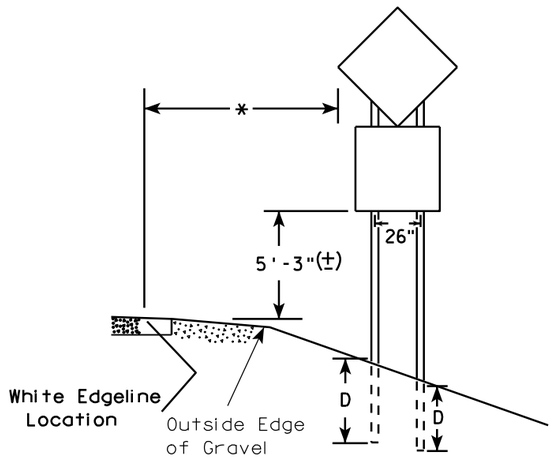
RURAL AREA (See Note 3)







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

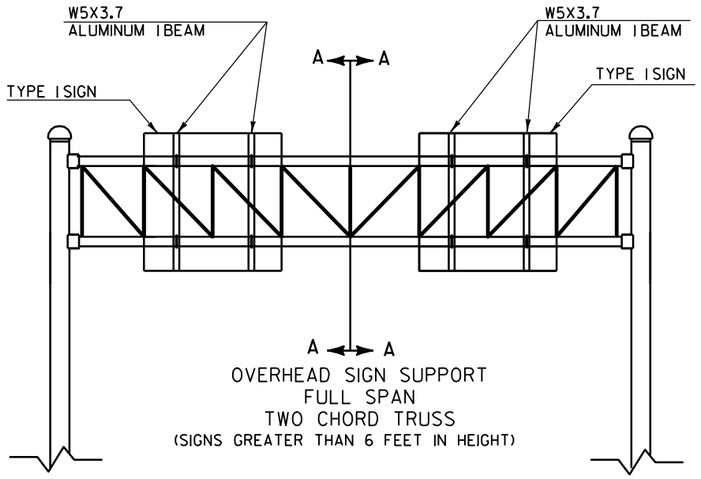
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

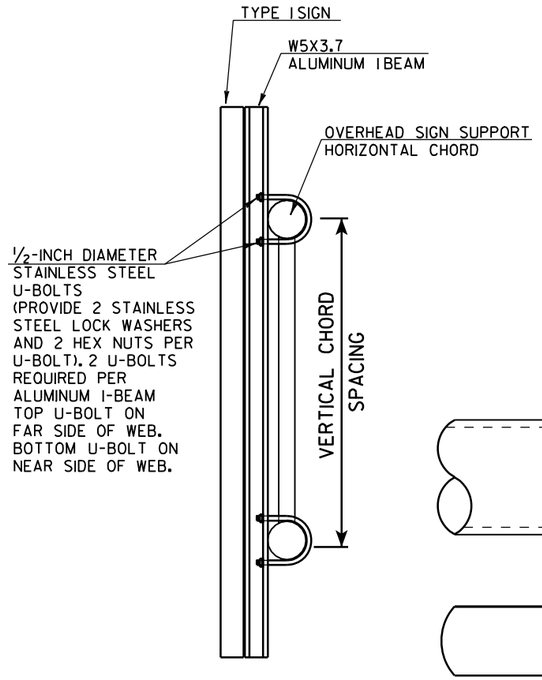
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 212	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\A44.DGN PLOT DATE : 21-SEP-2011 13:36 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 109.249131:1.000000

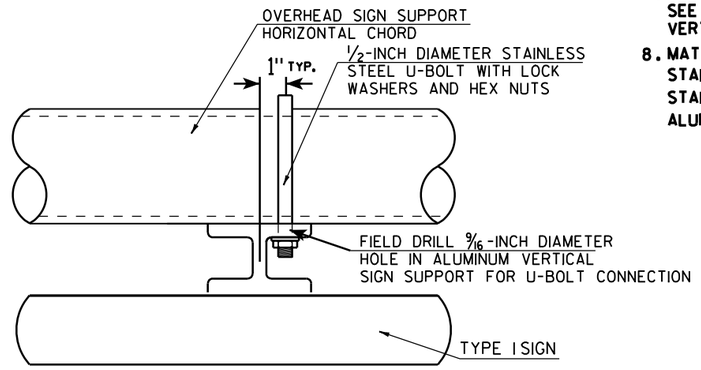
WISDOT/CADDS SHEET 42



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



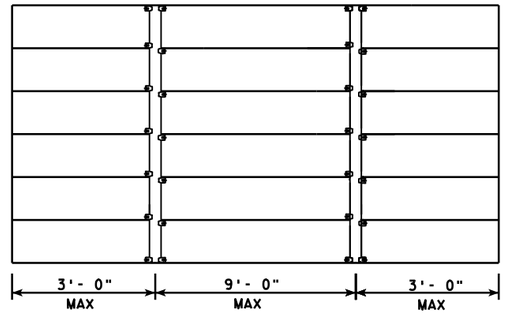
CUT SECTION A-A



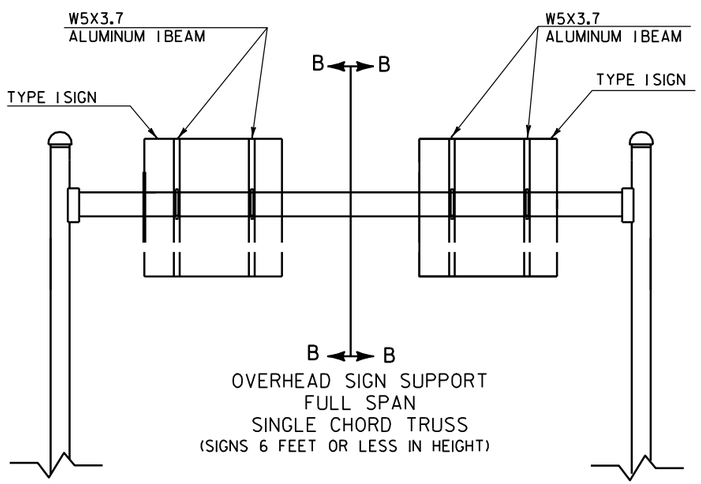
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

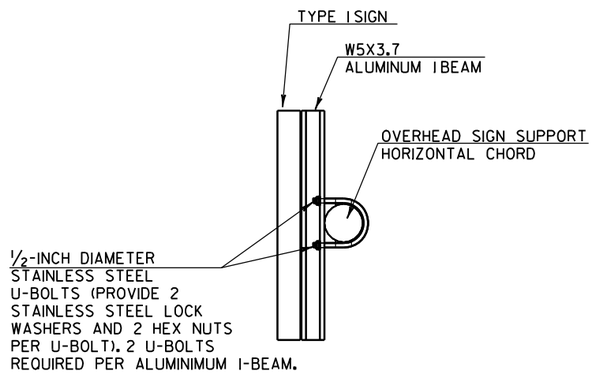
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.



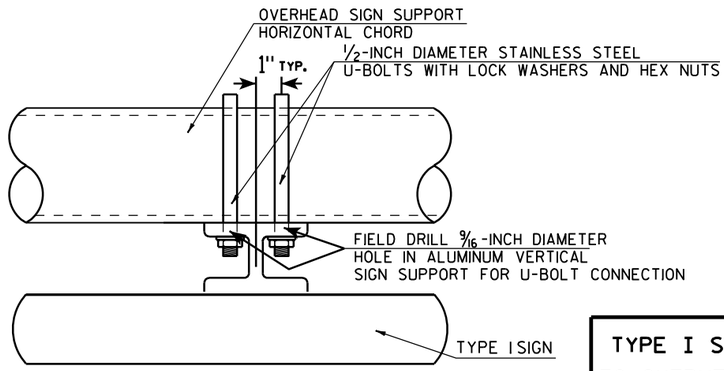
SPACING OF W5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

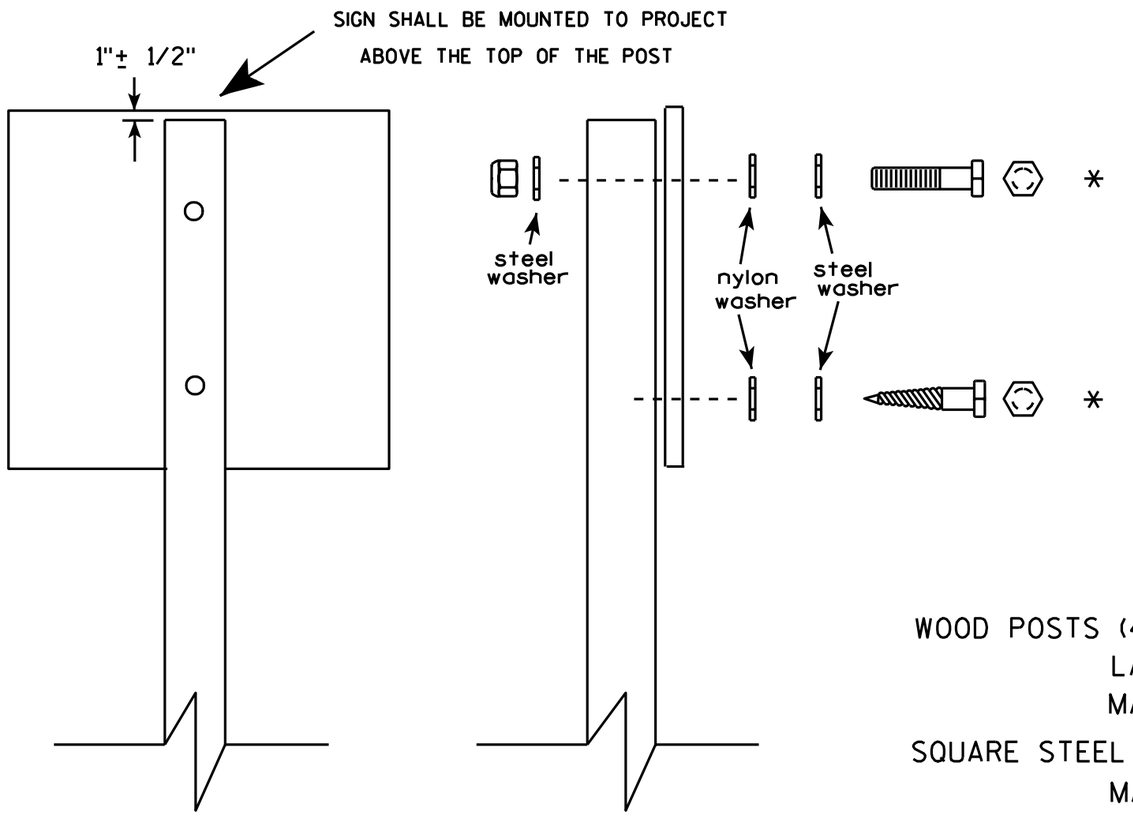
TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/12/12 PLATE NO. A4-7.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 213	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

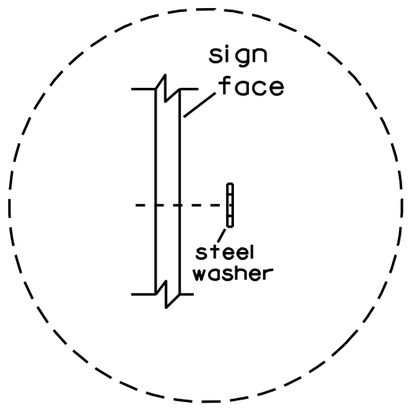
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

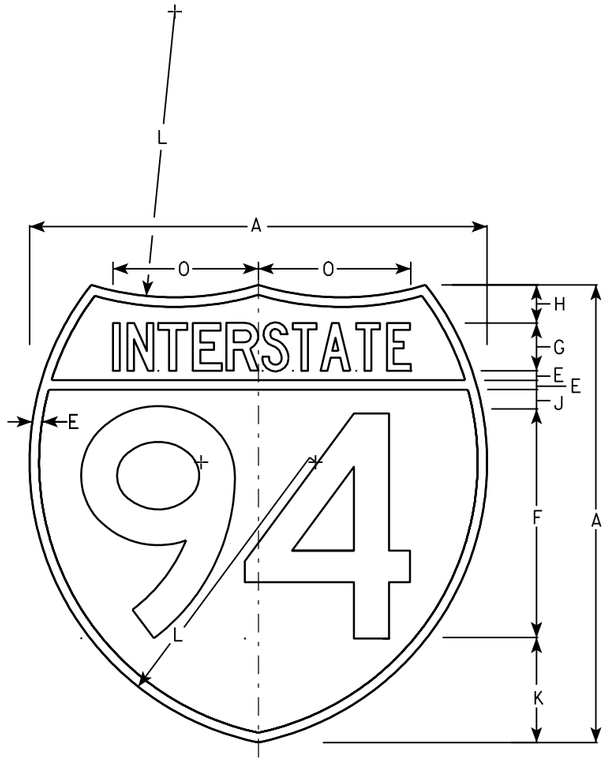
DATE 3/23/10 PLATE NO. A4-8.7

7

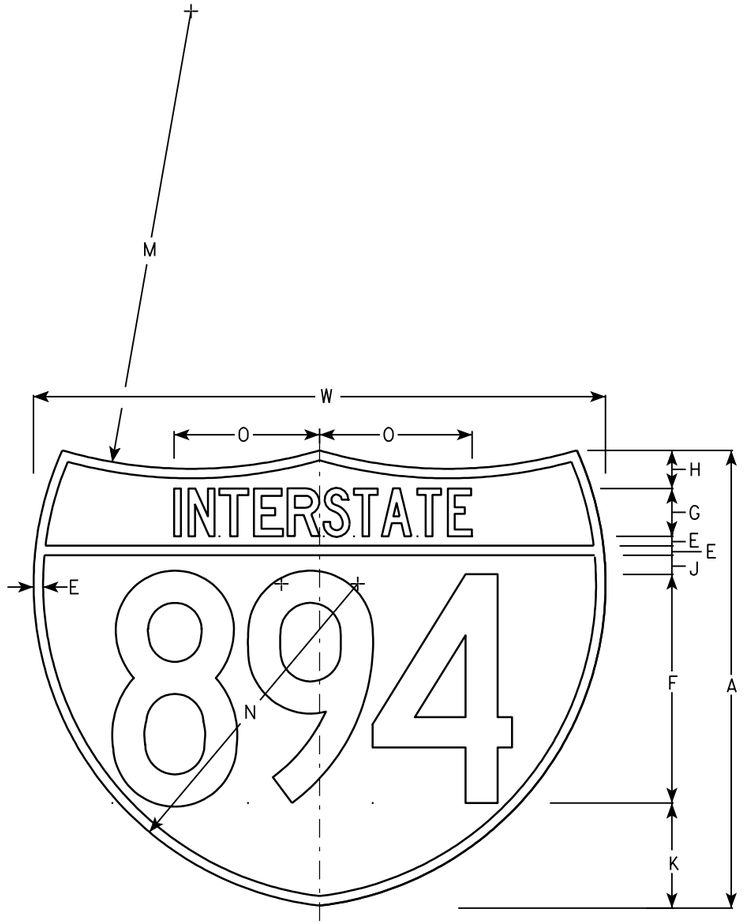
7

PROJECT NO:

SHEET NO: 214 E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

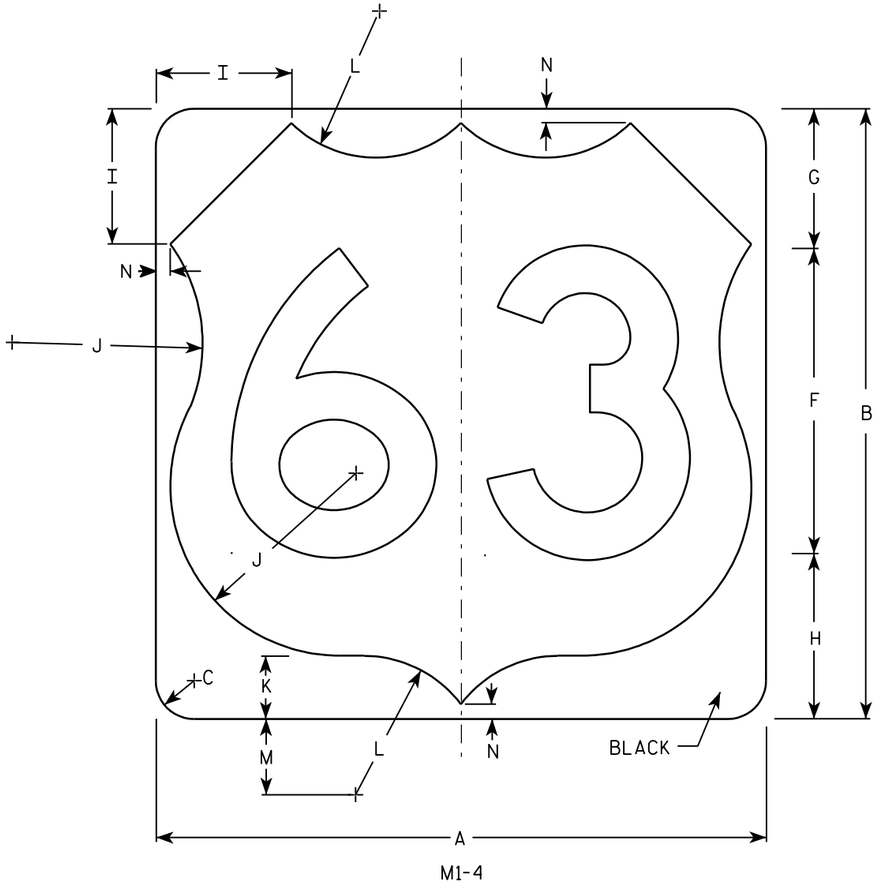
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

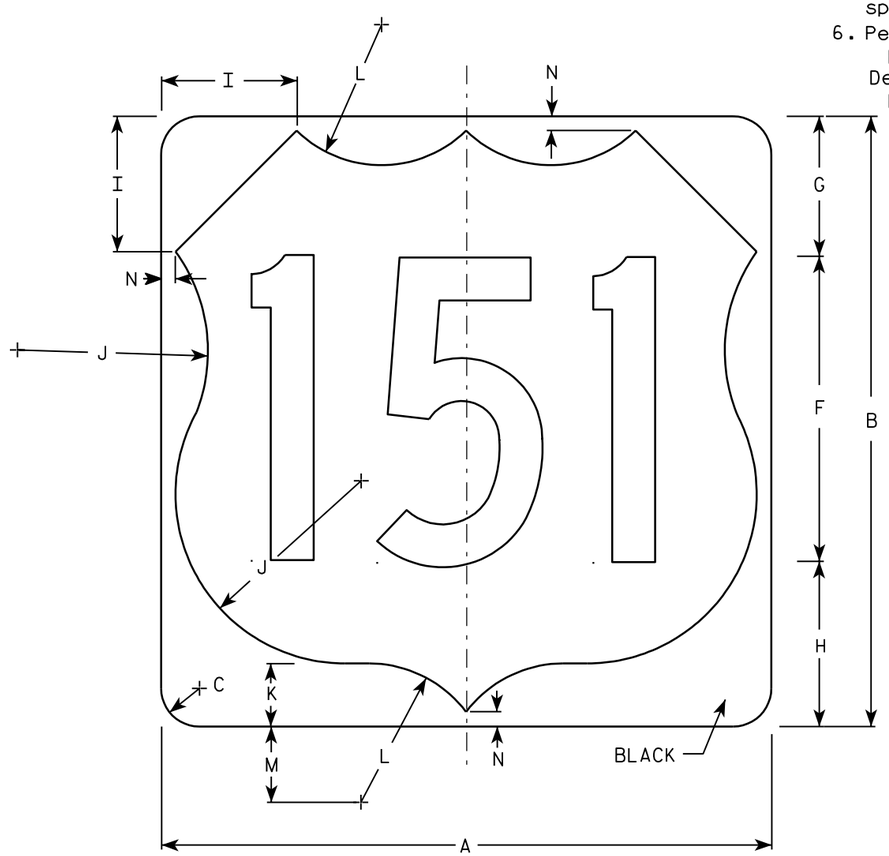
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 215	E



M1-4



M1-4

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

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	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

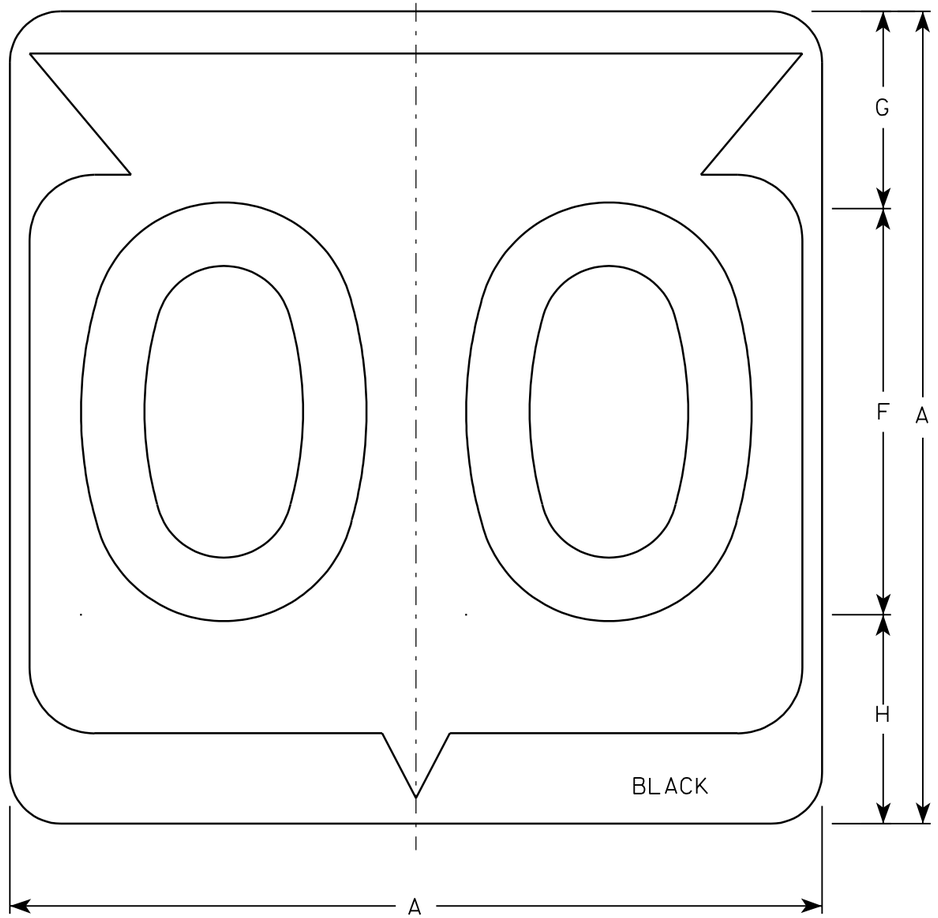
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

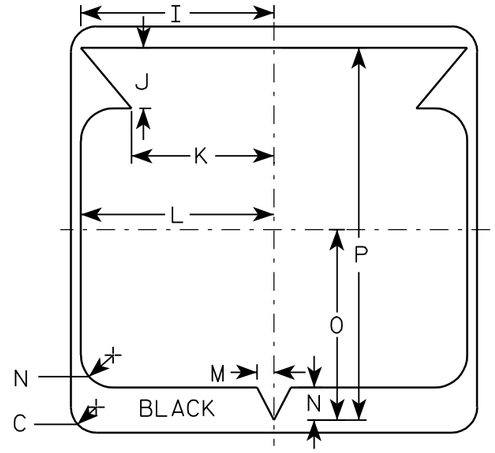
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 216 | E



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

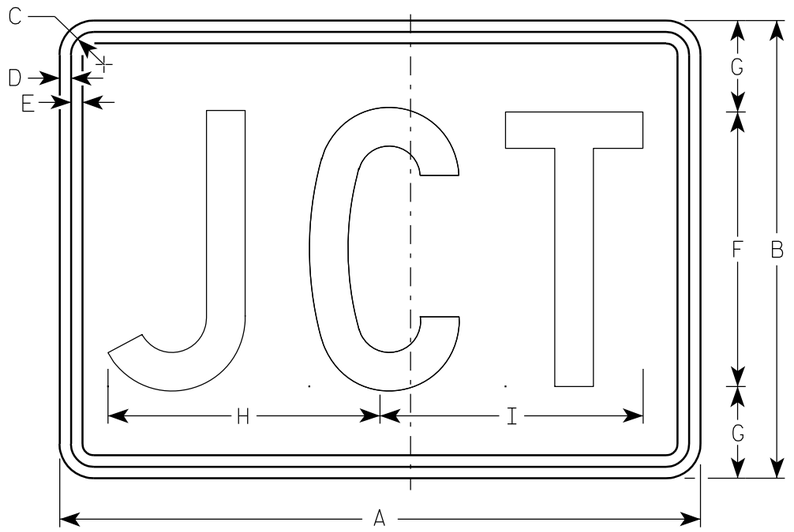
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

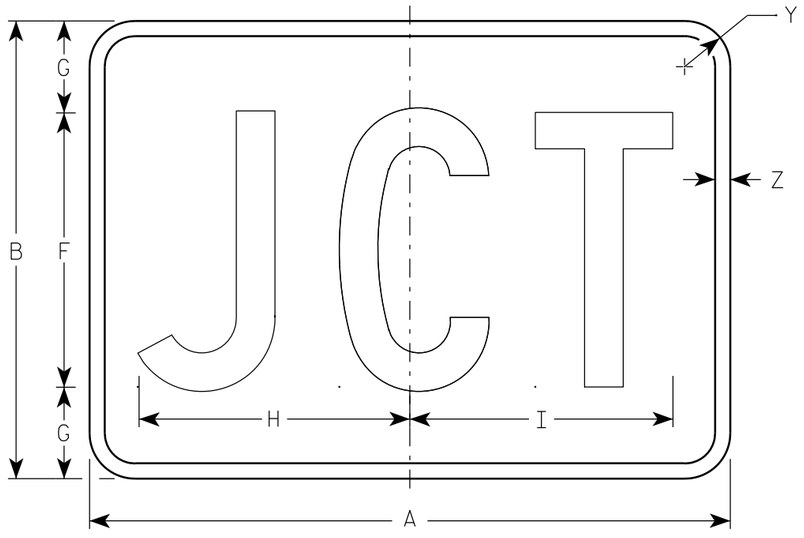
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 217	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

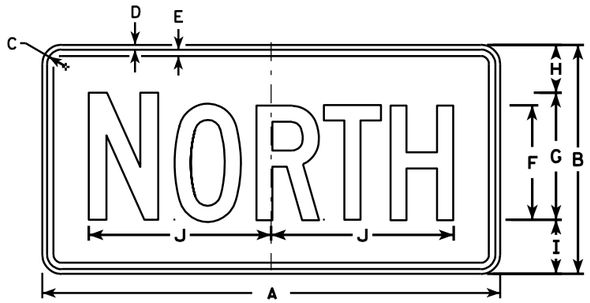
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

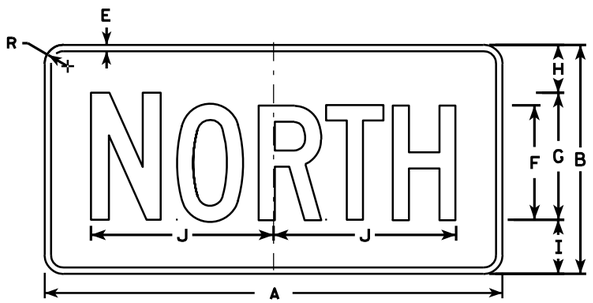
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 218	E



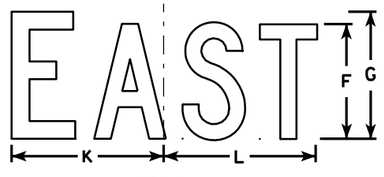
M3-1
MK3-1
MO3-1



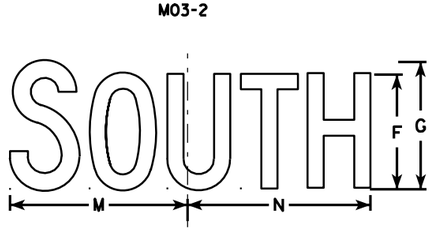
MB3-1
MG3-1
MM3-1
MN3-1



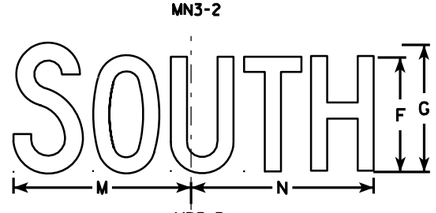
M3-2
MK3-2
MO3-2



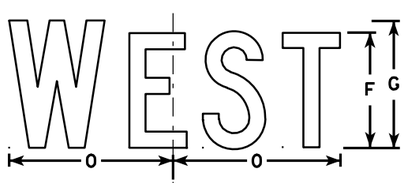
MB3-2
MG3-2
MM3-2
MN3-2



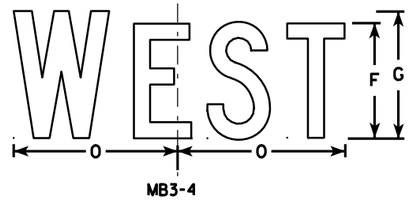
M3-3
MK3-3
MO3-3



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

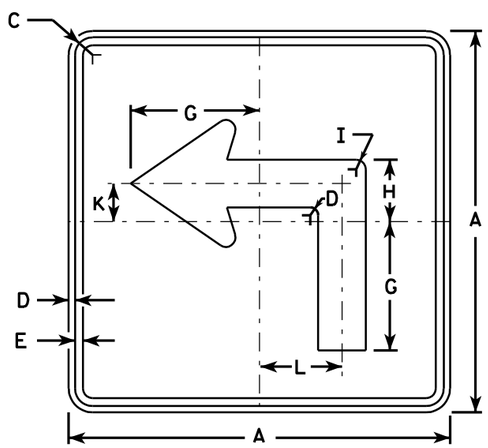
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

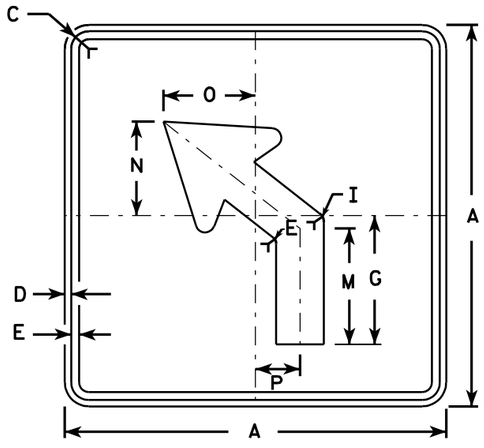
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

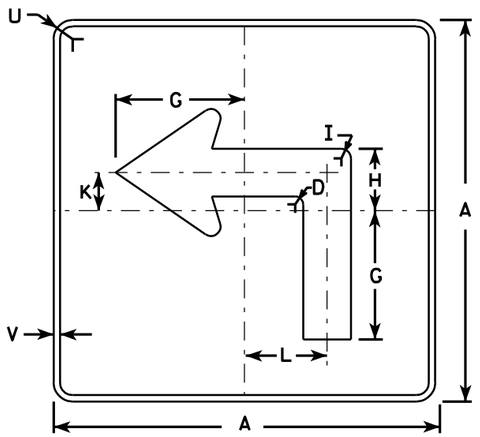
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 219	E



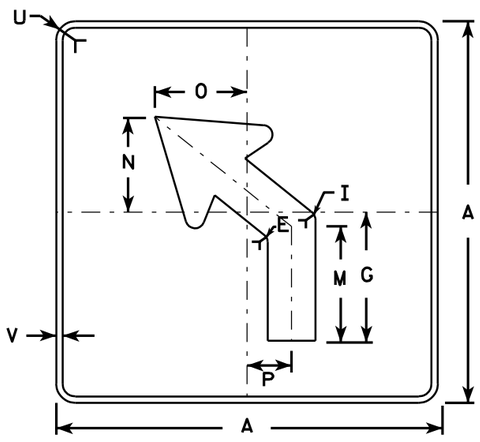
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



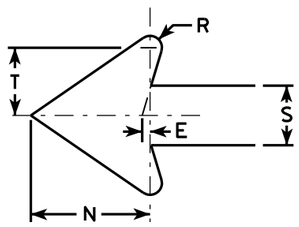
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



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

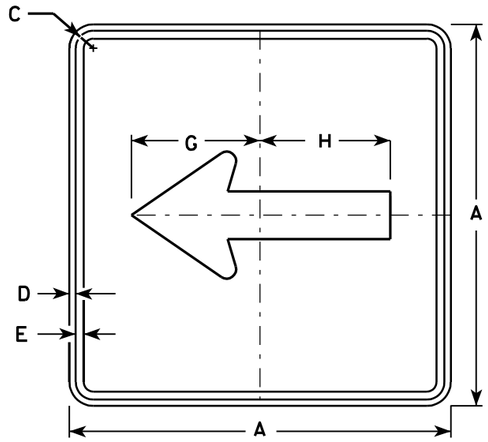
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

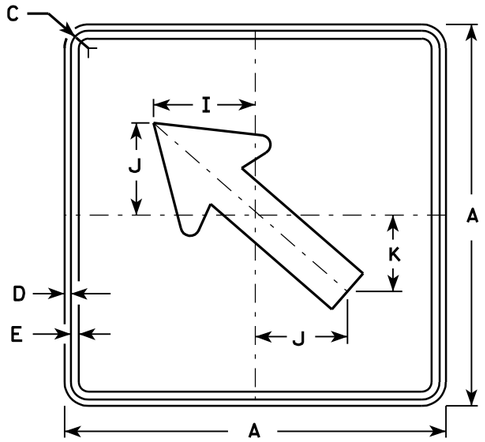
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M5-1.11

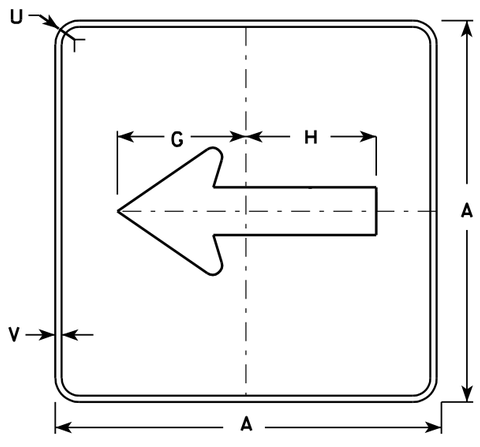
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 220	E



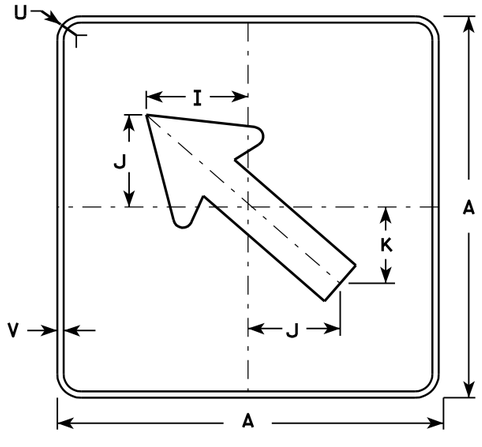
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MR6-2



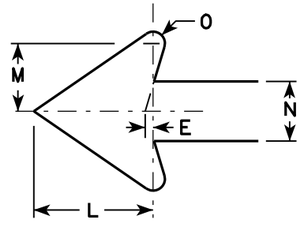
MB6-1
MG6-1
MN6-1



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

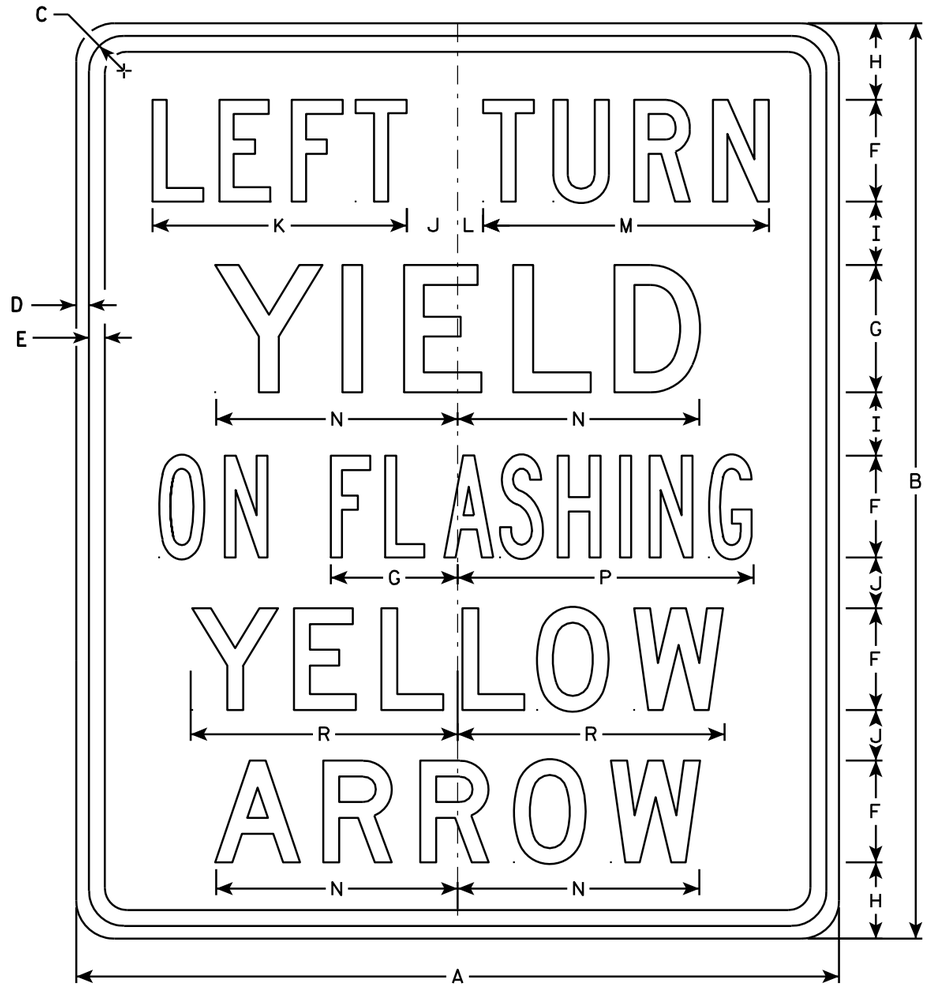
STANDARD SIGN M6-1 & M6-2 SERIES

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: 221	E



R10-50

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.

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									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									7.5
3																											
4																											
5																											

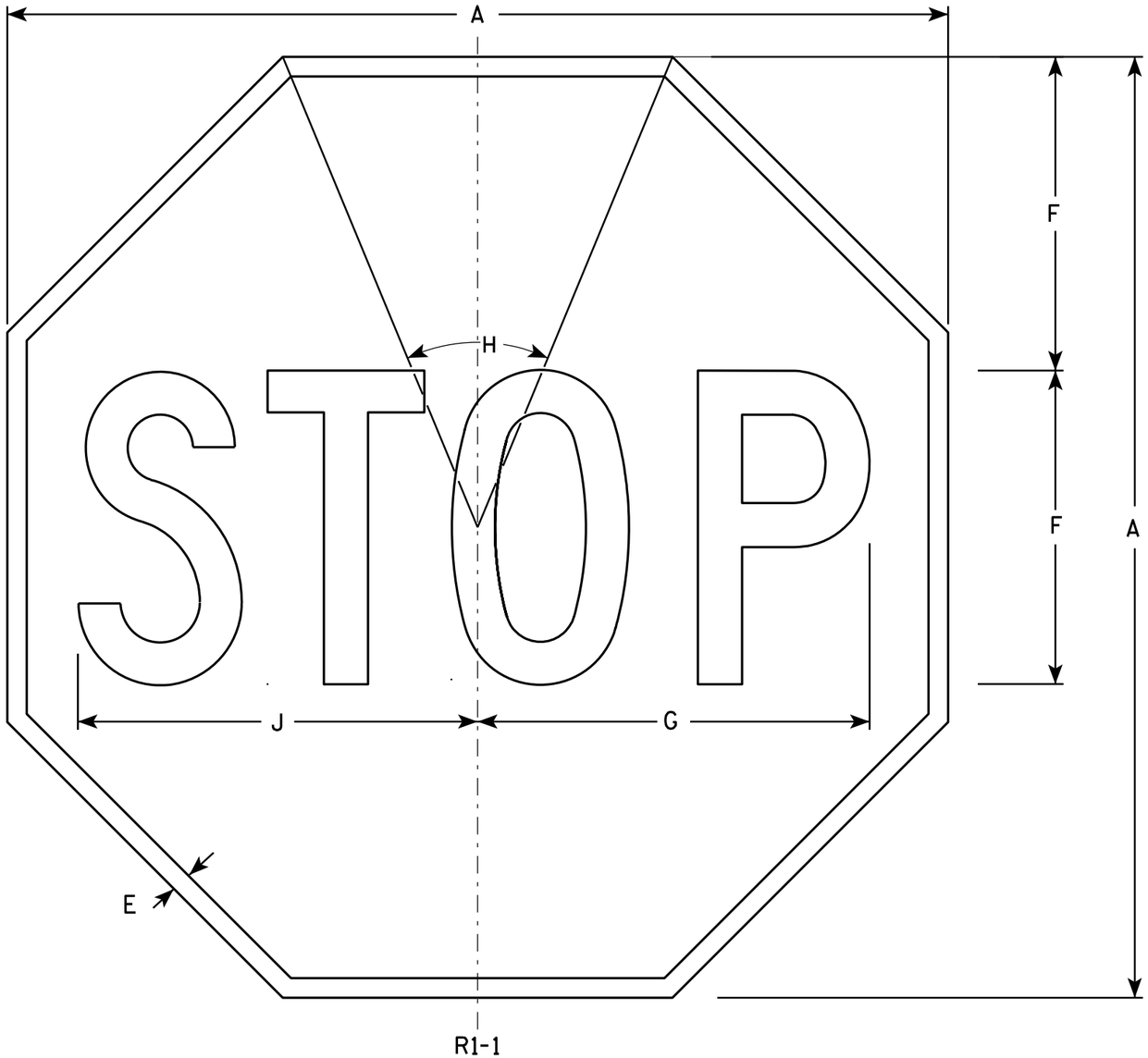
STANDARD SIGN
R10-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/10 PLATE NO. R10-50.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 222	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

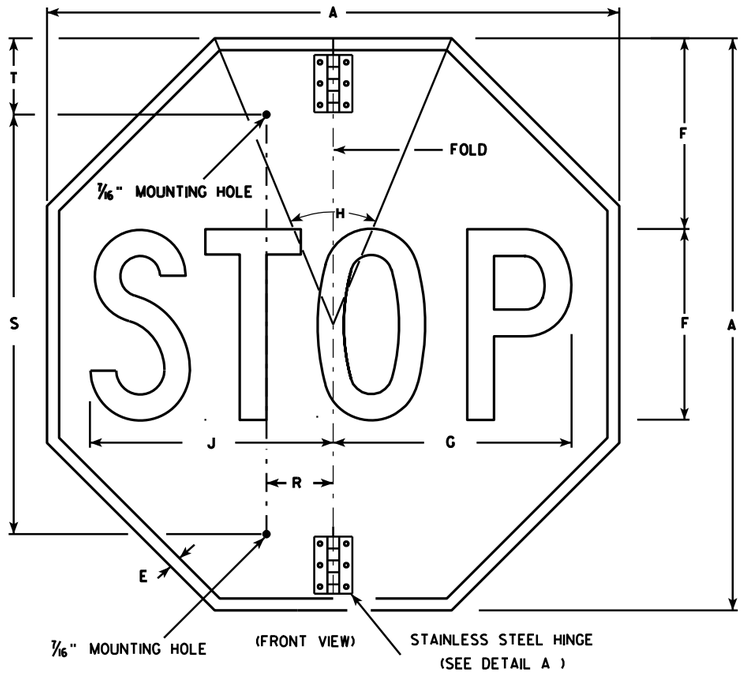
STANDARD SIGN
R1-1

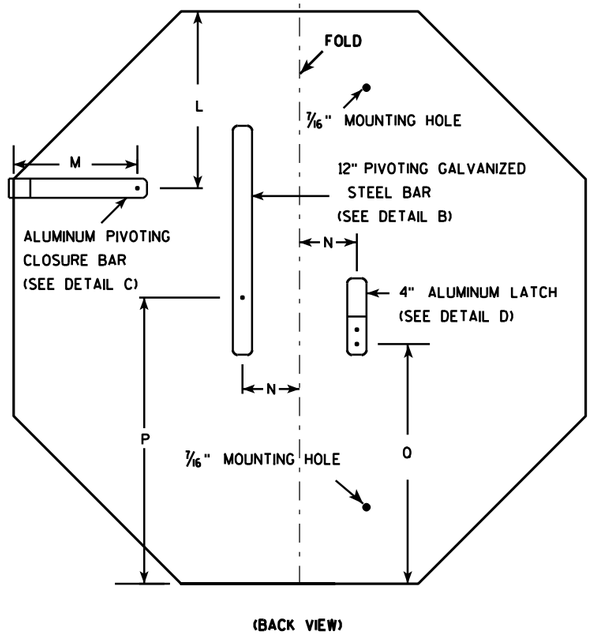
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

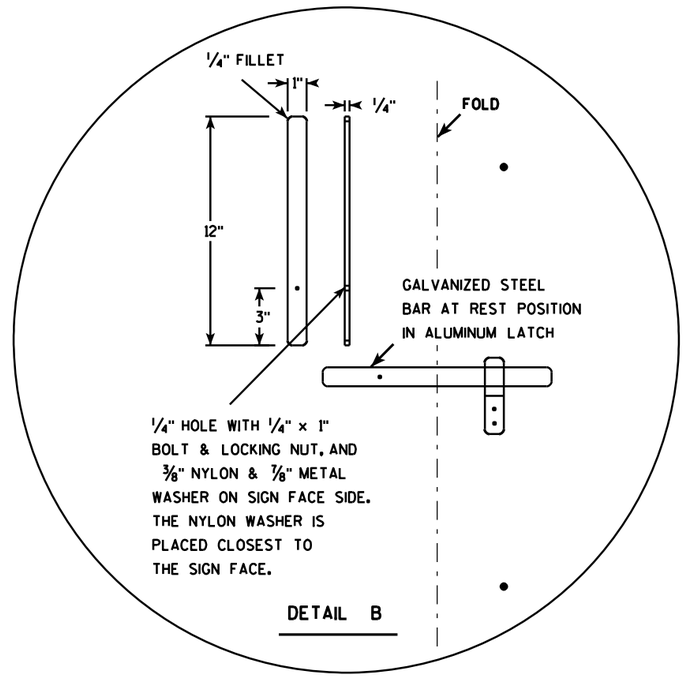
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 223	E

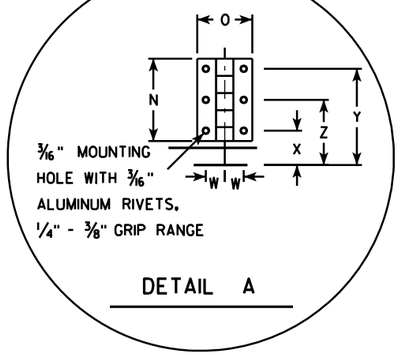


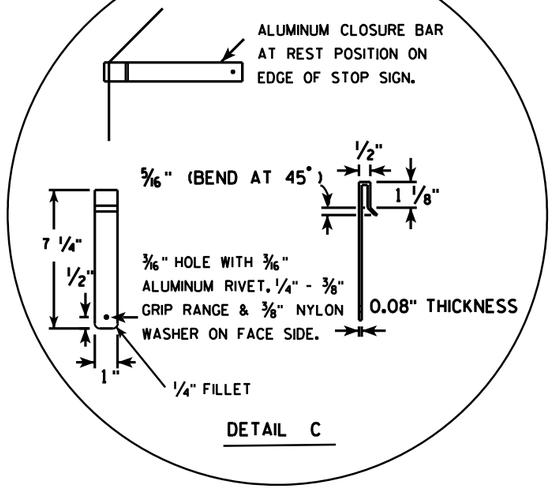


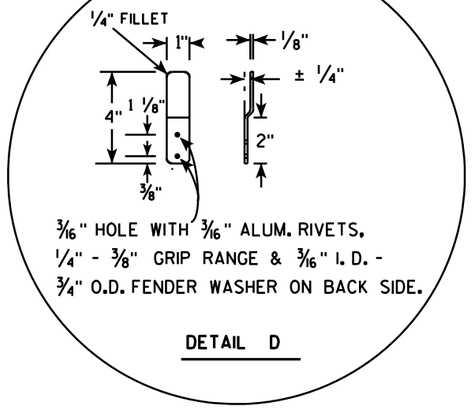
NOTES

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.









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																											

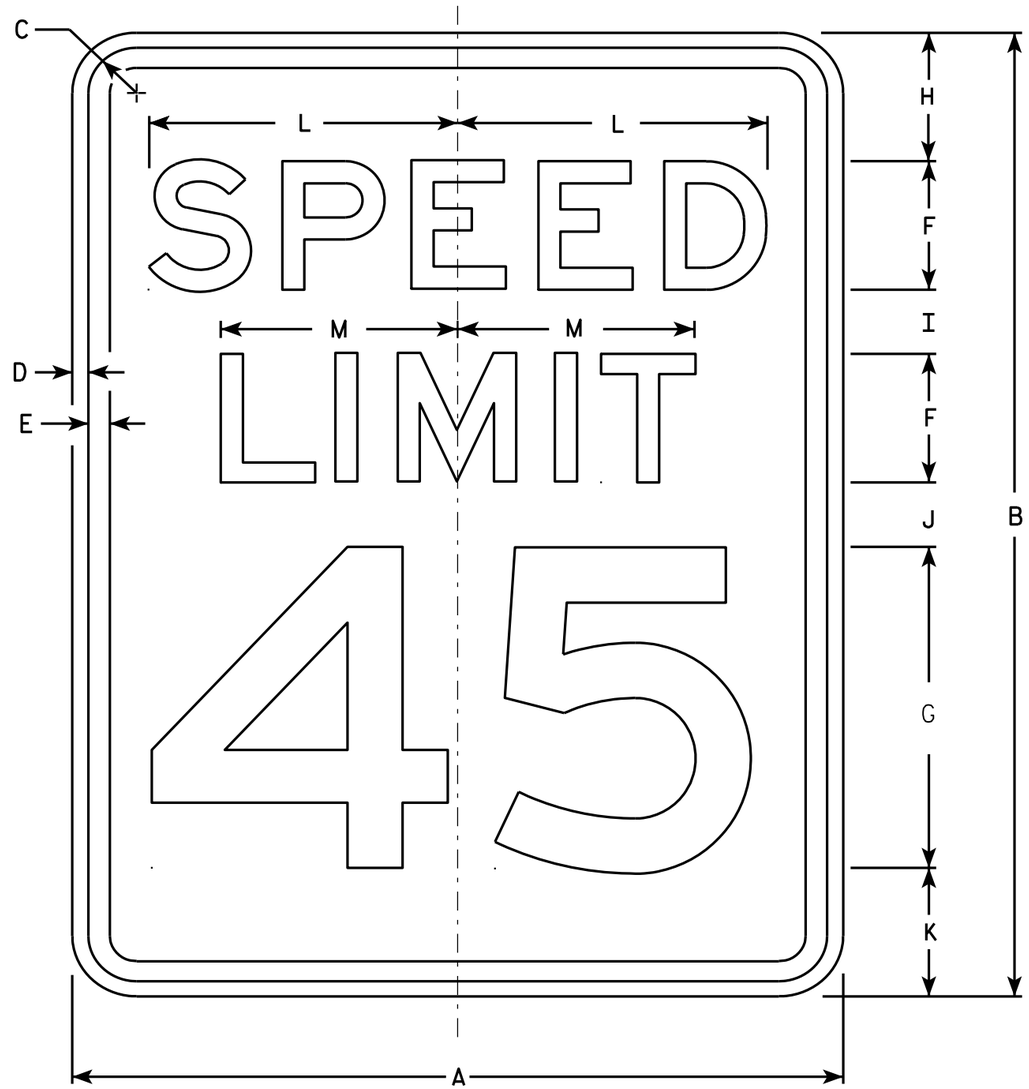
STANDARD SIGN
R1-1F

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: 224 | 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

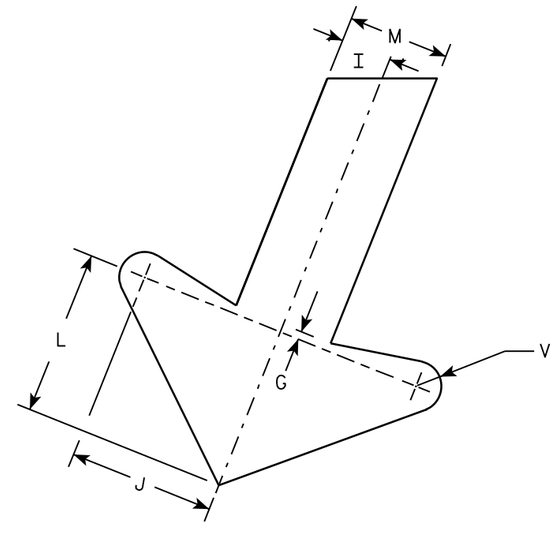
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 225	E



R3-20R

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.



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	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

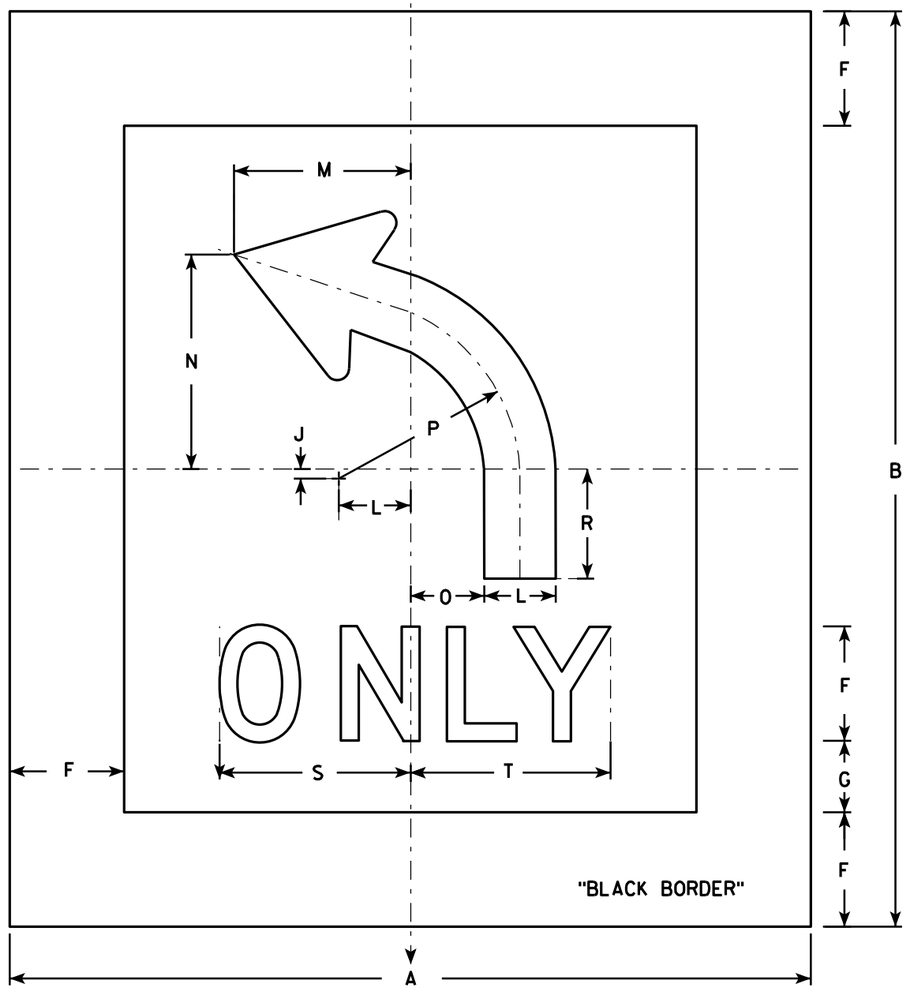
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

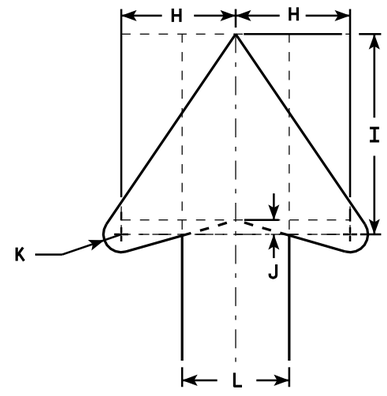
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 226 | E



R3-5L

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. When base material is metal, the corners shall be rounded.
5. R3-5R is the same as R3-5L except curved portion of arrow points right.
6. The 6" border is non-reflective black.



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	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
2M	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
3																											
4																											
5																											

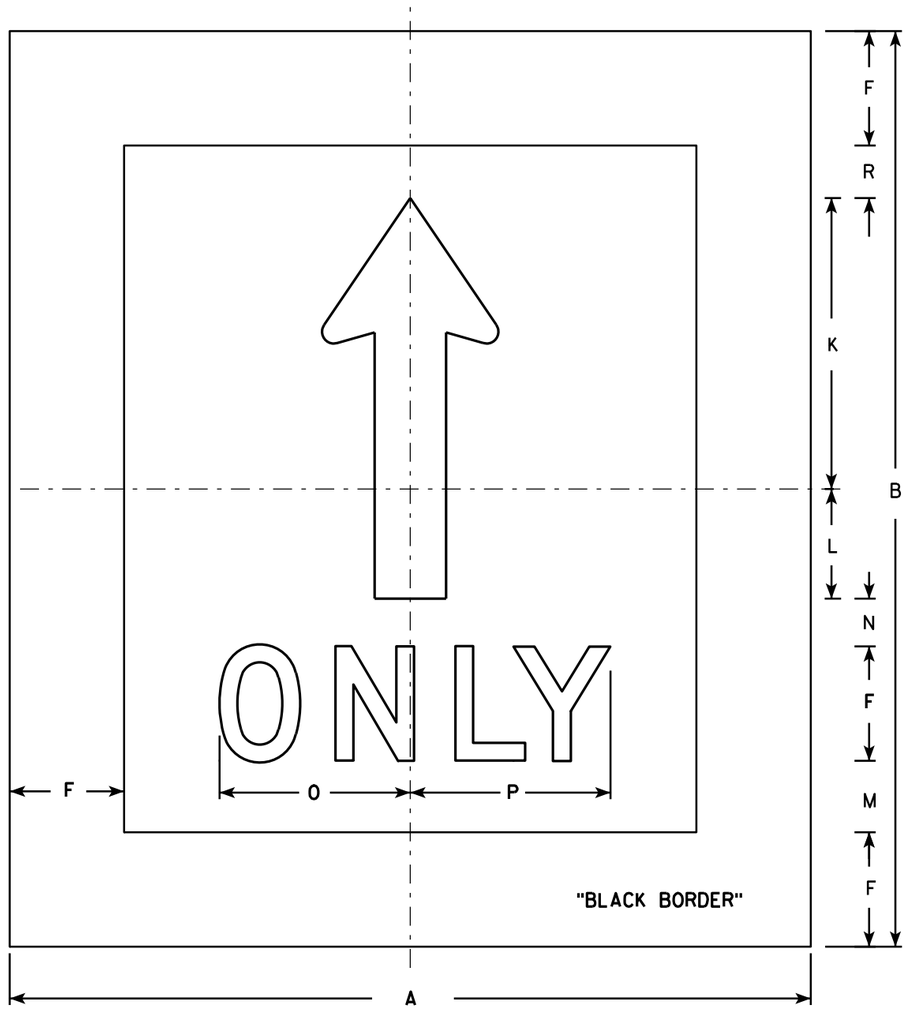
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

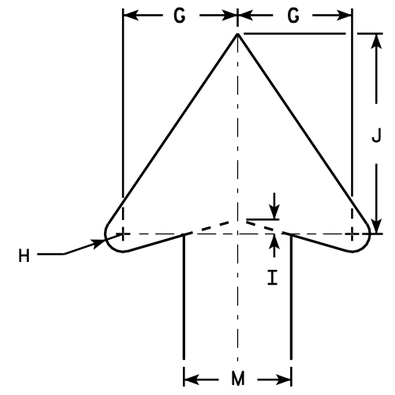
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 227	E



R3-5A

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. When base material is metal, the corners shall be rounded.
5. The 6" border is non-reflective black.



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	42	48				6	4	5/8	1/2	7	15 1/4	5 3/4	3 3/4	2 1/2	10	10 1/2		2 3/4									1.26
2M	42	48				6	4	5/8	1/2	7	15 1/4	5 3/4	3 3/4	2 1/2	10	10 1/2		2 3/4									1.26
3																											
4																											
5																											

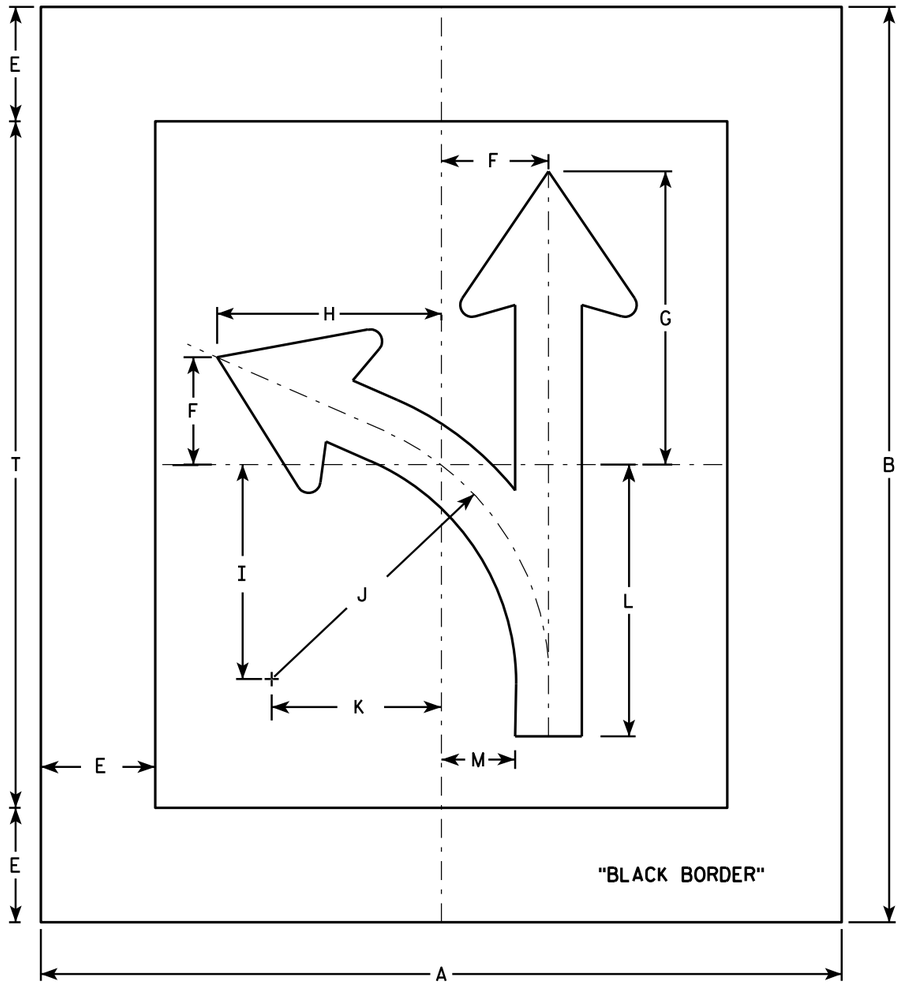
STANDARD SIGN
R3-5A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5A.5

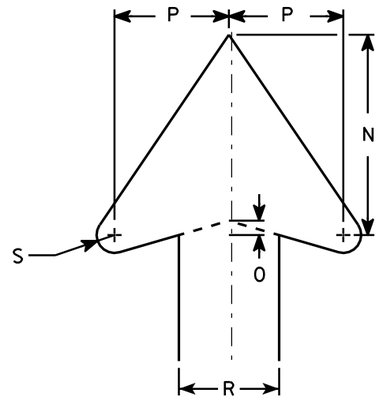
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 228	E



R3-6L

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. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
4. R3-6R is the same as R3-6L except curved portion of arrow points right.
5. The 6" border is non-reflective black.



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	42	48			6	5 5/8	15 3/8	11 3/4	11 1/4	14 1/2	8 7/8	14 1/4	3 7/8	7	1/2	4		3 1/2	5/8	36							14.0
2M	42	48			6	5 5/8	15 3/8	11 3/4	11 1/4	14 1/2	8 7/8	14 1/4	3 7/8	7	1/2	4		3 1/2	5/8	36							14.0
3																											
4																											
5																											

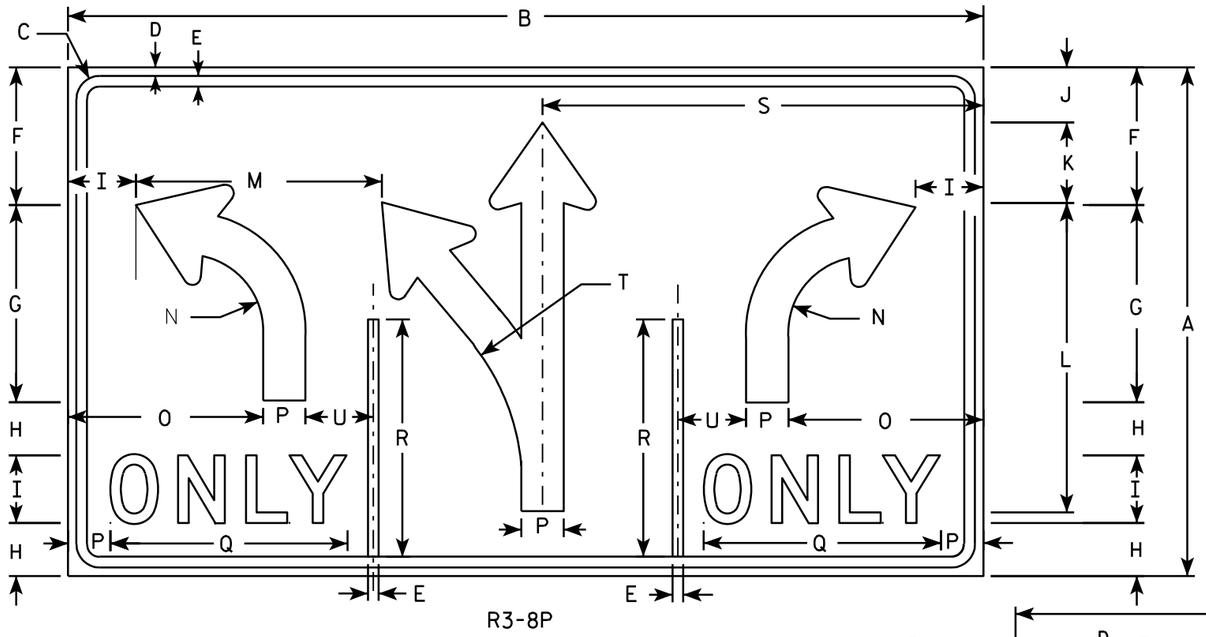
STANDARD SIGN
R3-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-6.5

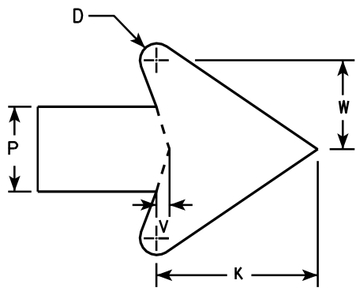
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 229 | E



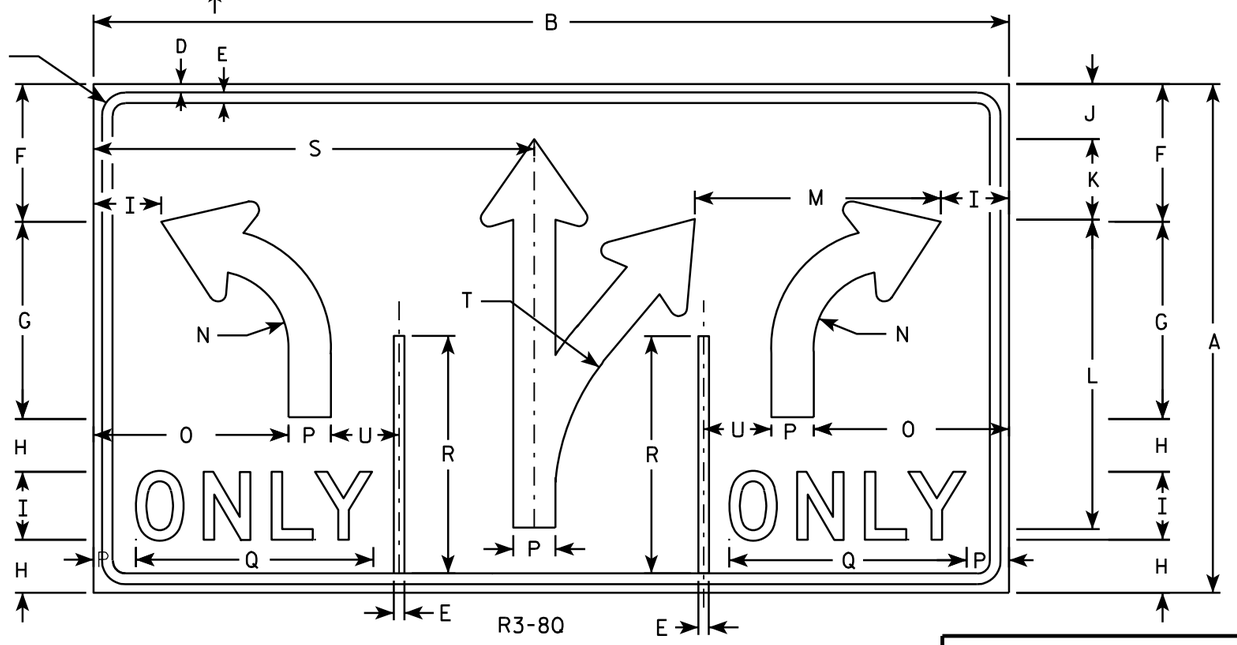
R3-8P

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.



ARROW DETAIL



R3-8Q

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	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14 1/2	4 1/2	11 1/2	2 1/2	14	14	26	13 1/4	4	3/8	2 5/8				11.25
2M	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14 1/2	4 1/2	11 1/2	2 1/2	14	14	26	13 1/4	4	3/8	2 5/8				11.25
3																											
4	48	84	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	22 5/8	7 1/4	17 1/4	3 3/4	20 5/8	22 3/8	40 3/4	21 7/8	7	5/8	4				28.0
5	48	84	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	22 5/8	7 1/4	17 1/4	3 3/4	20 5/8	22 3/8	40 3/4	21 7/8	7	5/8	4				28.0

STANDARD SIGN
R3-8P & R3-8Q

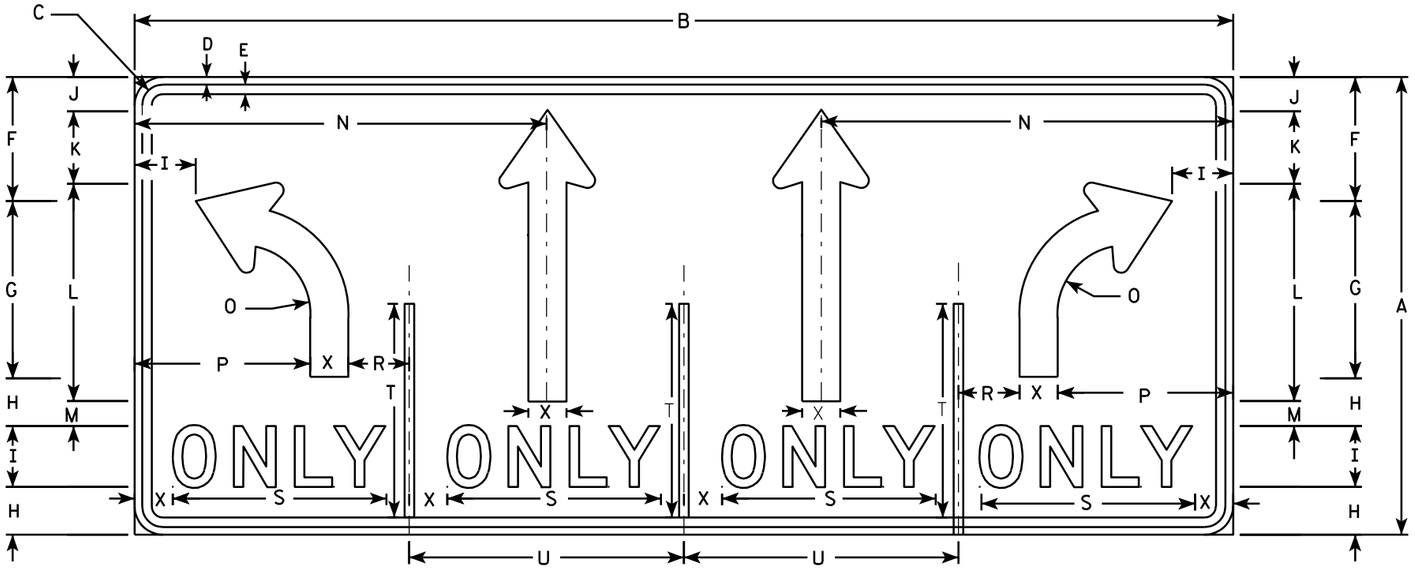
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-8P.2

PROJECT NO:

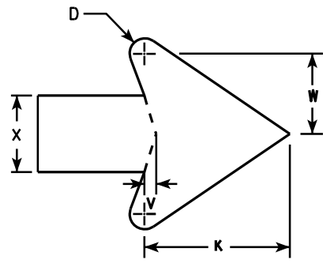
SHEET NO: 230 E



R3-8V

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.



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	30	72	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	27	4 1/2	11 1/2		4	14	14	18	3/8	2 5/8	2 1/2			15.0
2M	30	72	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	27	4 1/2	11 1/2		4	14	14	18	3/8	2 5/8	2 1/2			15.0
3																											
4	48	108	2 1/4	3/4	1	14 3/8	17 1/4	5 3/8	6	5 3/8	7 1/8	21 1/2	3	40 1/2	7 1/4	17 1/4		6	20 5/8	22 3/8	27	5/8	4	3 3/4			36.0
5	48	108	2 1/4	3/4	1	14 3/8	17 1/4	5 3/8	6	5 3/8	7 1/8	21 1/2	3	40 1/2	7 1/4	17 1/4		6	20 5/8	22 3/8	27	5/8	4	3 3/4			36.0

STANDARD SIGN
R3-8V

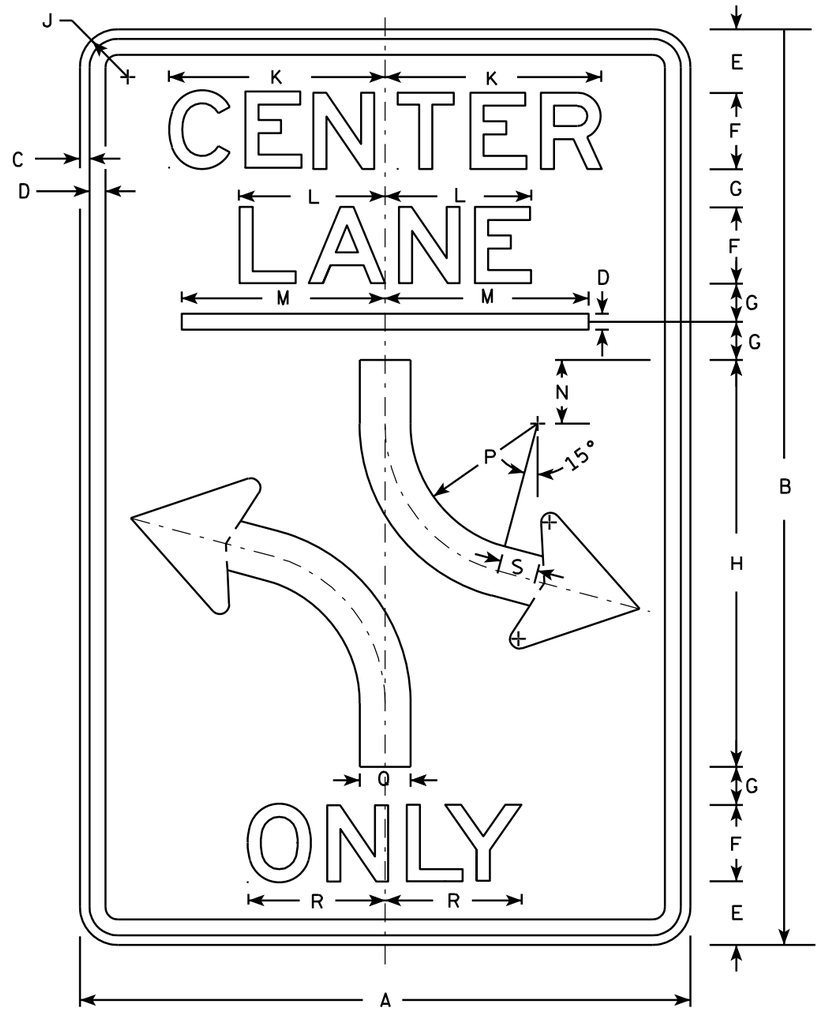
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/18/11 PLATE NO. R3-8V.3

PROJECT NO:

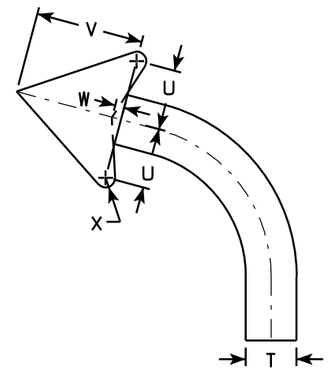
SHEET NO: 231 E



R3-9B

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.



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	36	3/8	1/2	2 1/2	3	1 1/2	16		1 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
2M	24	36	3/8	1/2	2 1/2	3	1 1/2	16		1 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
3	36	48	5/8	7/8	3 1/2	5	1 1/2	20		2 1/4	14 1/8	9 1/2	12	3		4	3	9 7/8	2		3 1/2	6 1/8	1/2				12.0
4																											
5																											

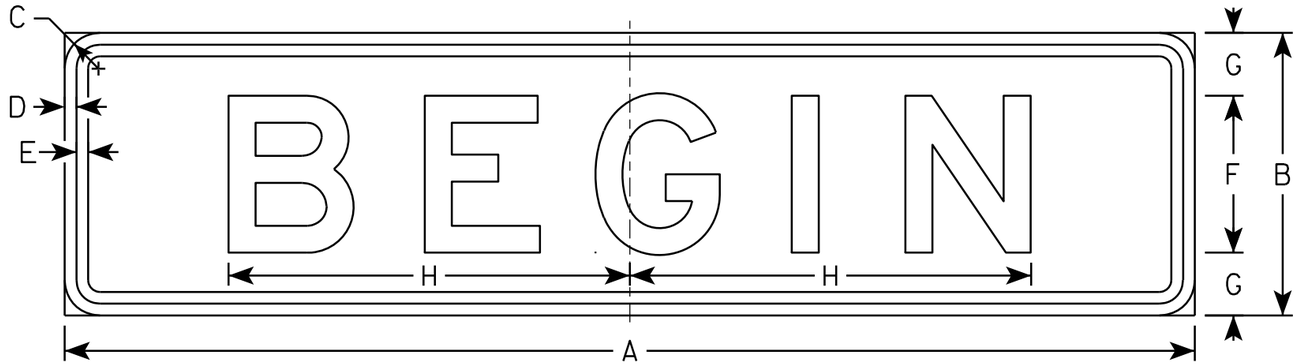
STANDARD SIGN
R3-9B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-9B.5

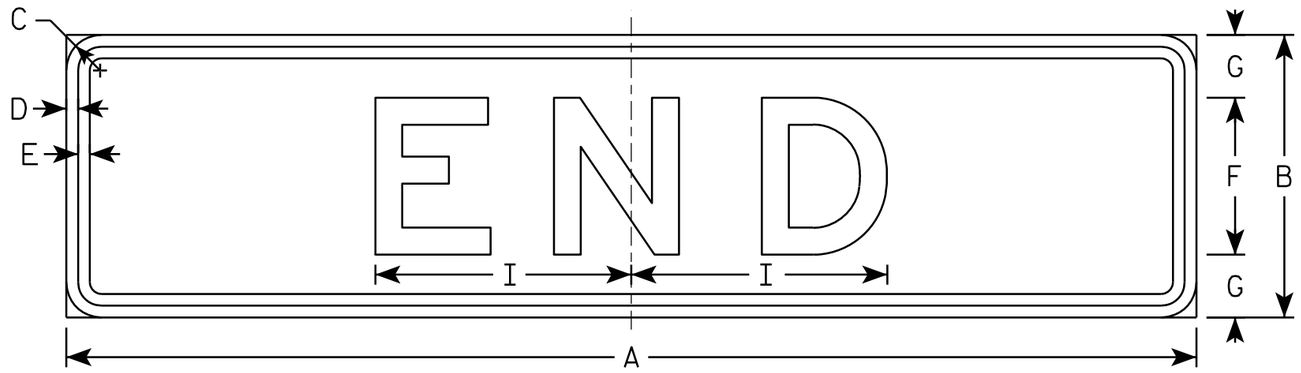
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 232	E



R3-9C

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.



R3-9D

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	6	1 1/8	3/8	3/8	3	1 1/2	7 3/4	4 7/8																		1.0
2M	24	6	1 1/8	3/8	3/8	3	1 1/2	7 3/4	4 7/8																		1.0
3	36	9	1 1/8	3/8	3/8	5	2	12 3/4	8 1/8																		1.86
4																											
5																											

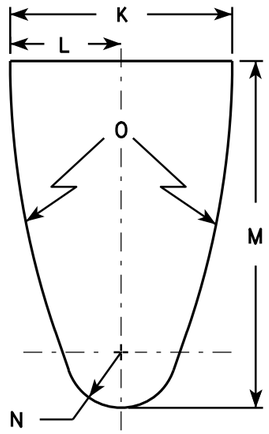
STANDARD SIGN
R3-9C & R3-9D

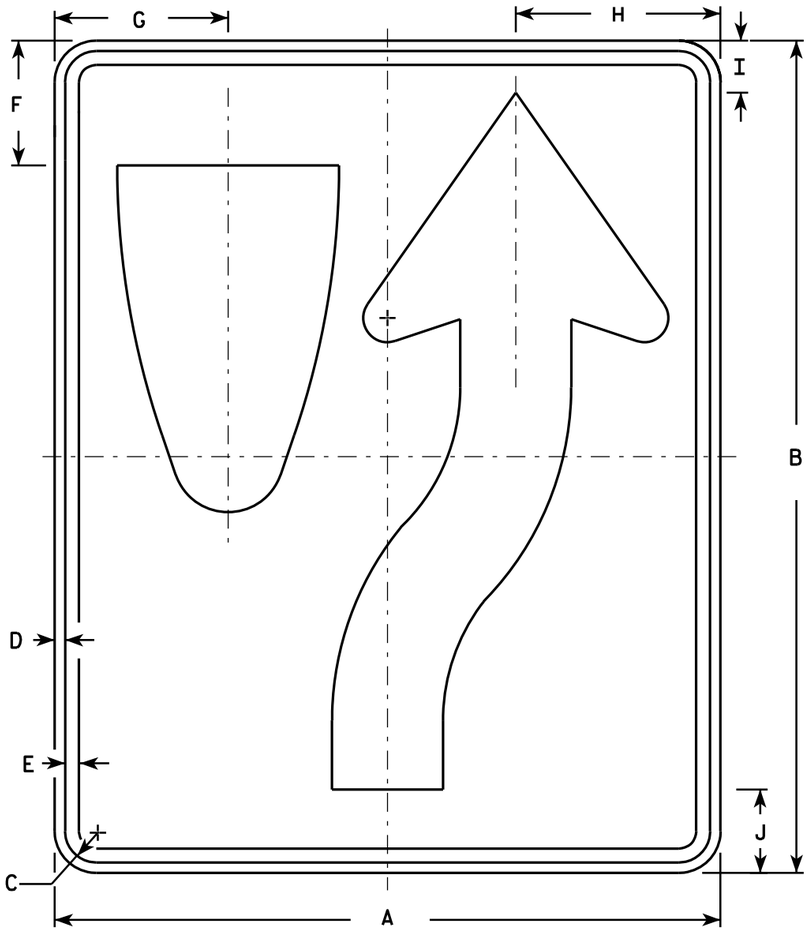
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-9C.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 233	E

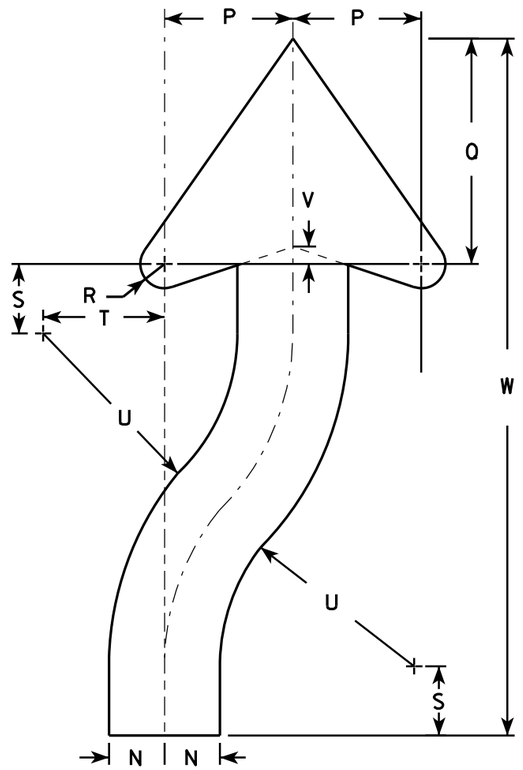




R4-7

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

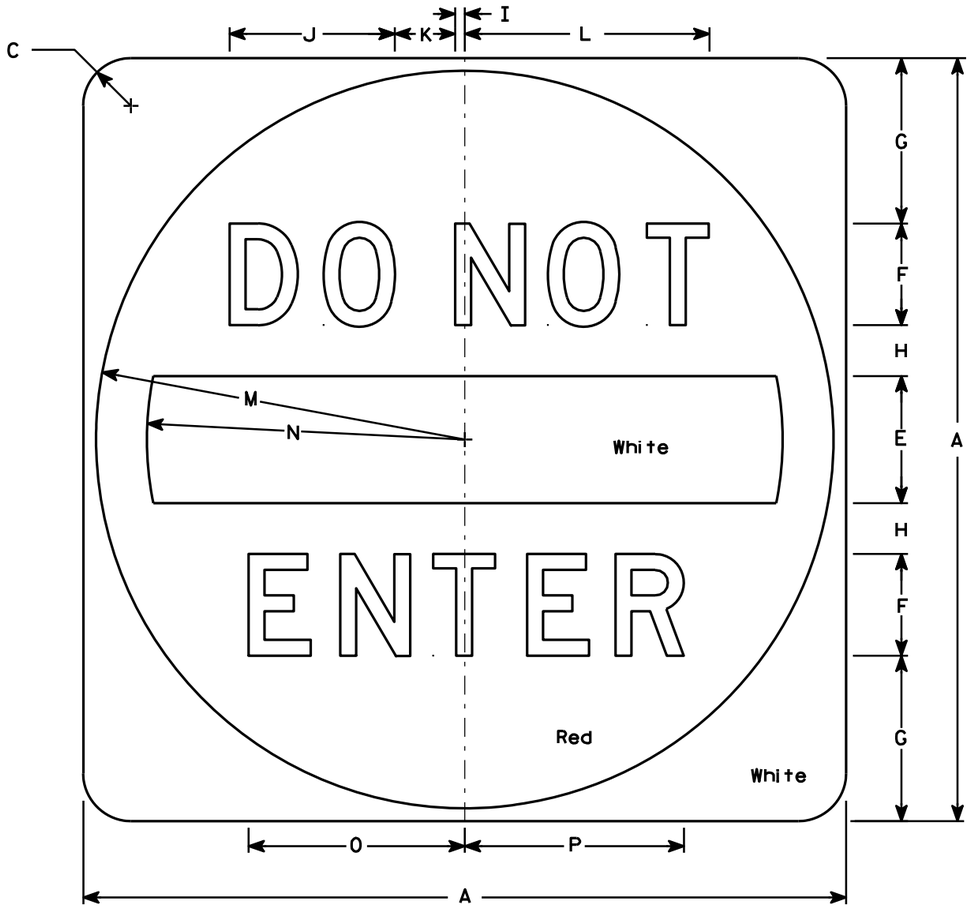
STANDARD SIGN
R4-7 & R4-8

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: 234	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

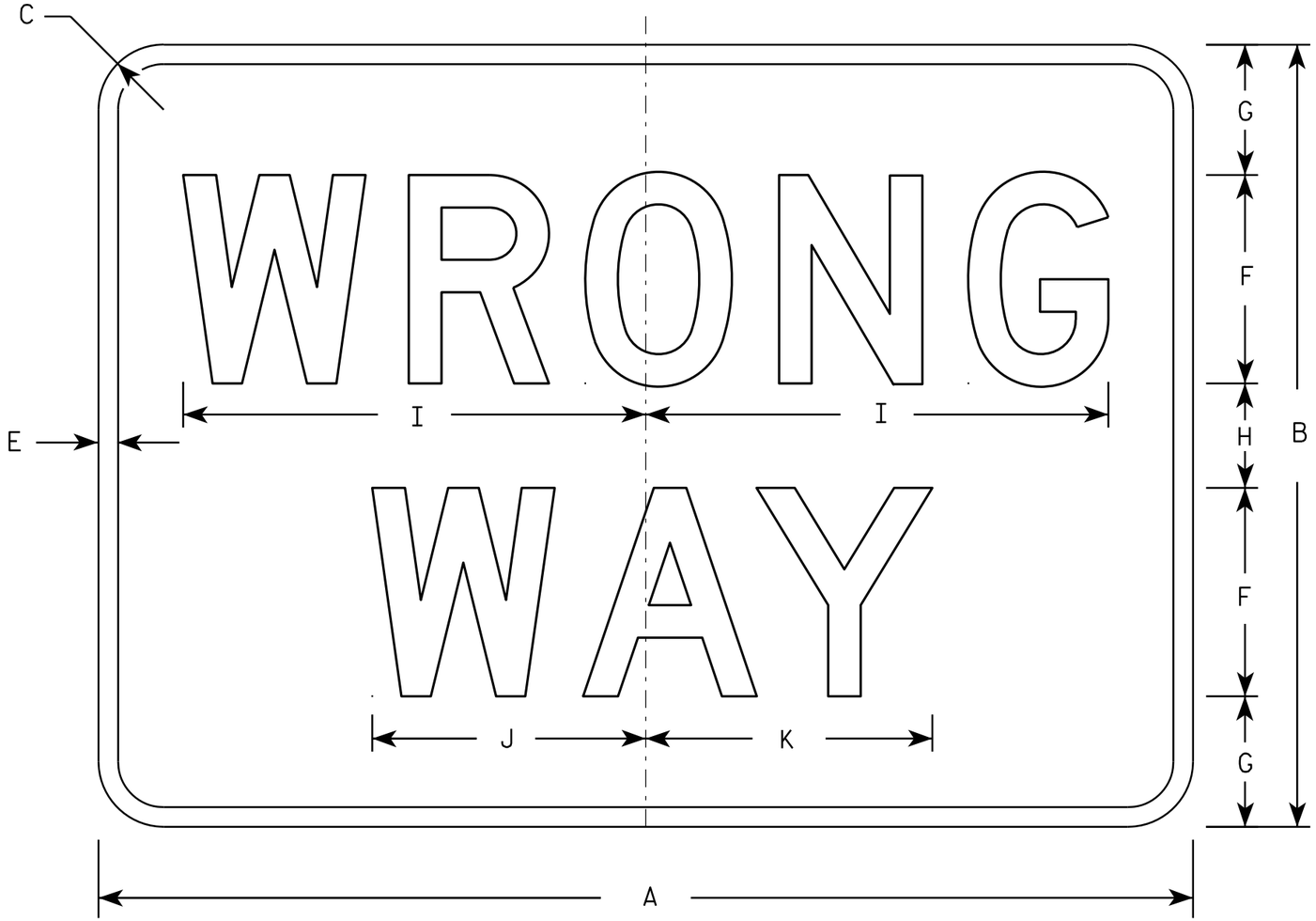
STANDARD SIGN
R5-1

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: 235 | 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

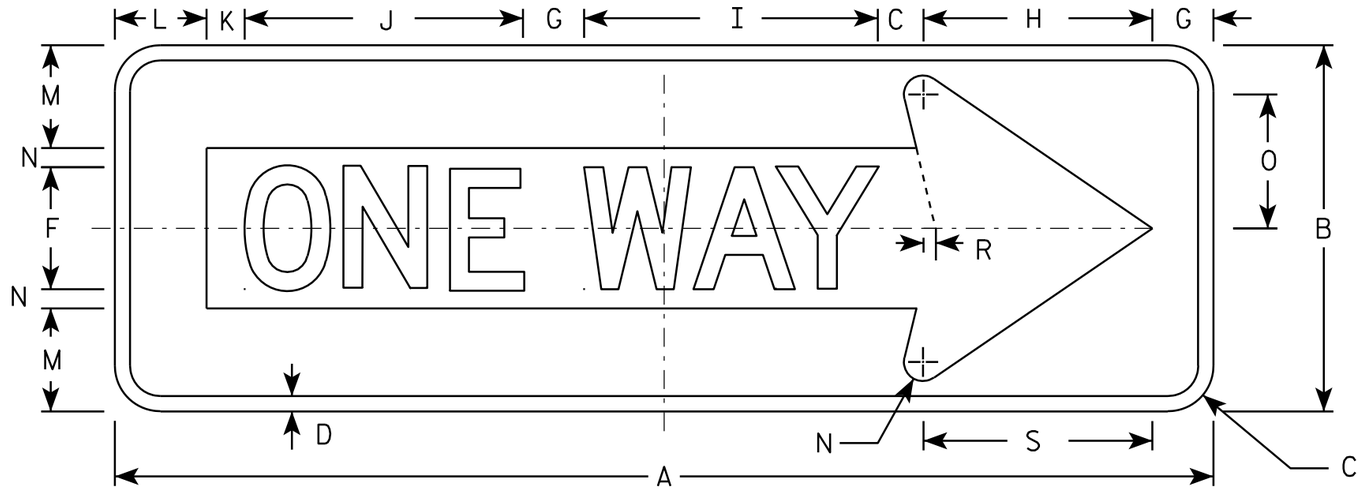
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

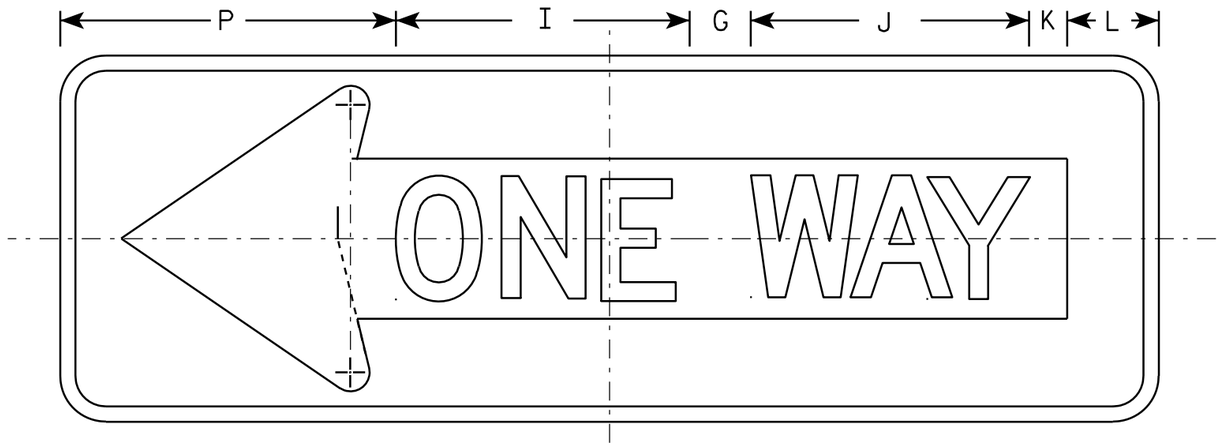
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 236	E



R6-1R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
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.



R6-1L

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	12	1 ½	½		4	2	7 ½	9 ⅝	9 ⅛	1 ¼	3	3 ⅜	⅝	4 ⅜	11		⅜	7 ½								3.0
2M	54	18	2 ¼	¾		6	3	11 ¼	14 ½	13 ⅝	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
3	54	18	2 ¼	¾		6	3	11 ¼	14 ½	13 ⅝	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
4	54	18	2 ¼	¾		6	3	11 ¼	14 ½	13 ⅝	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
5																											

STANDARD SIGN
R6-1 L & R

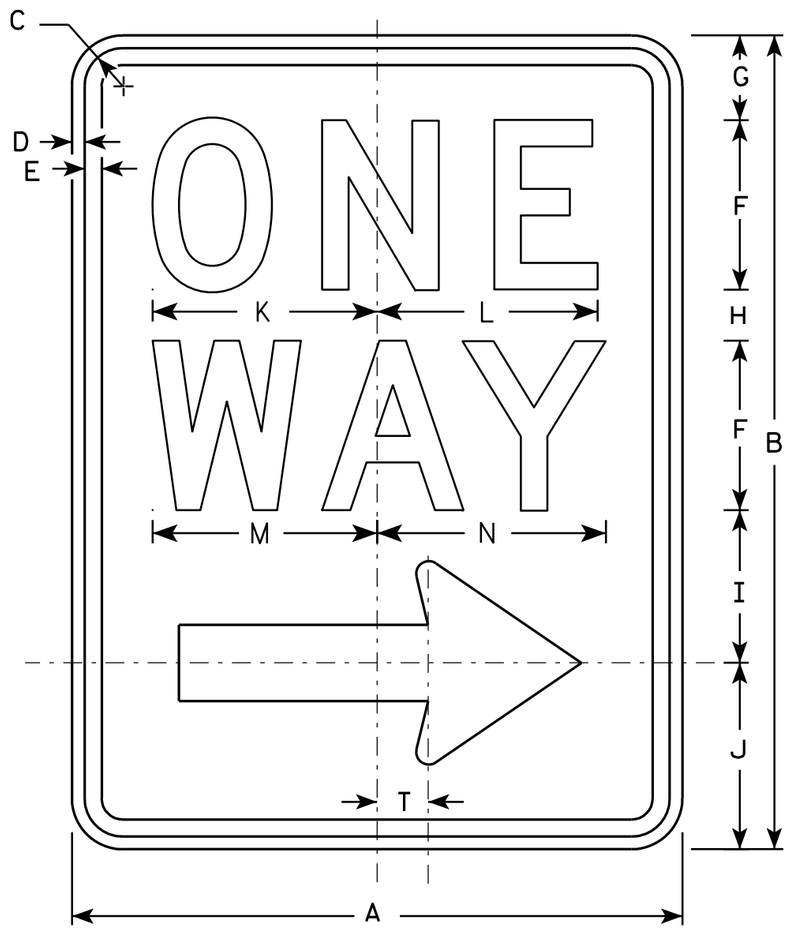
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R6-1.2

PROJECT NO:

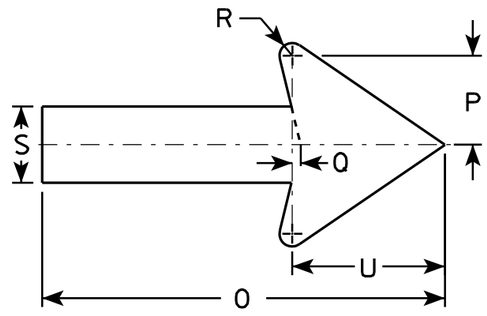
SHEET NO: 237 E



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																										

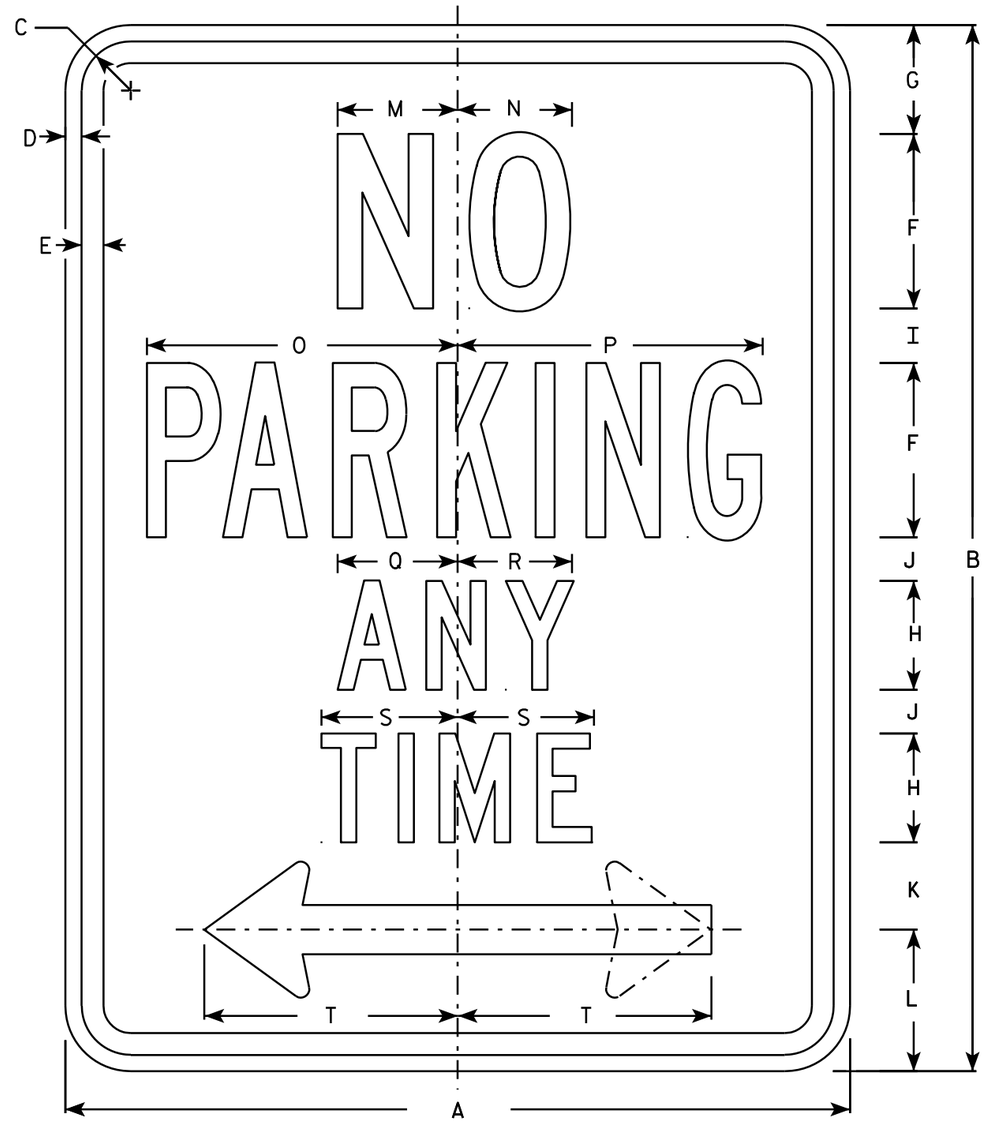
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

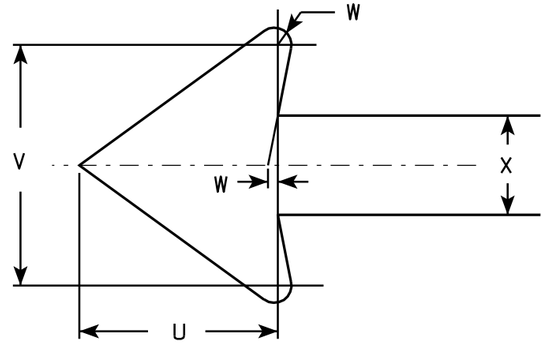
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 238	E



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

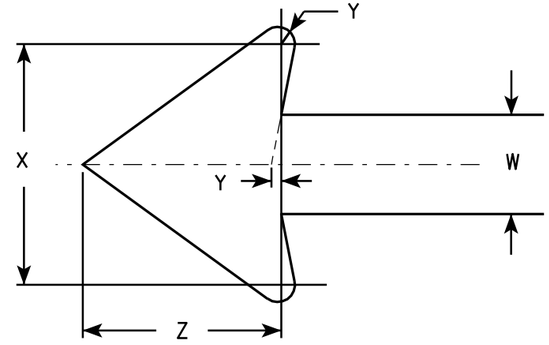
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 239	E



R7-51

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. R7-51D (double arrow)
   R7-51R (right arrow)
   R7-51L (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	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	4 7/8	5/8	1 3/4	2 1/2	4 3/8	3 7/8	3/4	1 3/4	1/8	1 1/2	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	1 1/8	1 1/2	3 1/8	5 1/2	5 7/8	1 1/8	2 5/8	1/4	2 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	7 1/8	1 1/4	2	3 3/4	6 1/2	7 3/4	1 1/2	3 1/2	1/4	3	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	7 1/8	1 1/4	2	3 3/4	6 1/2	7 3/4	1 1/2	3 1/2	1/4	3	5.0
4																											
5																											

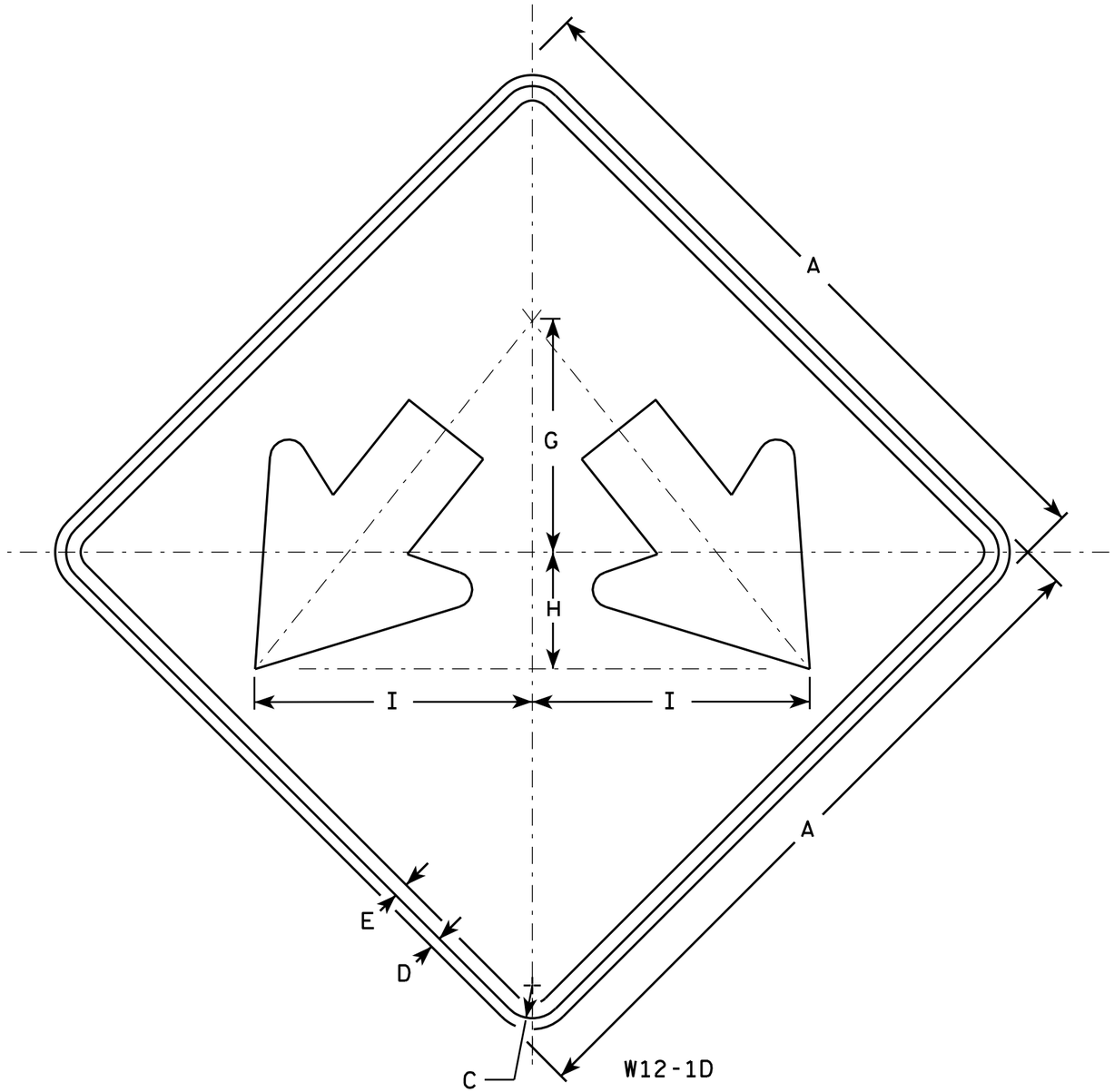
STANDARD SIGN
R7-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

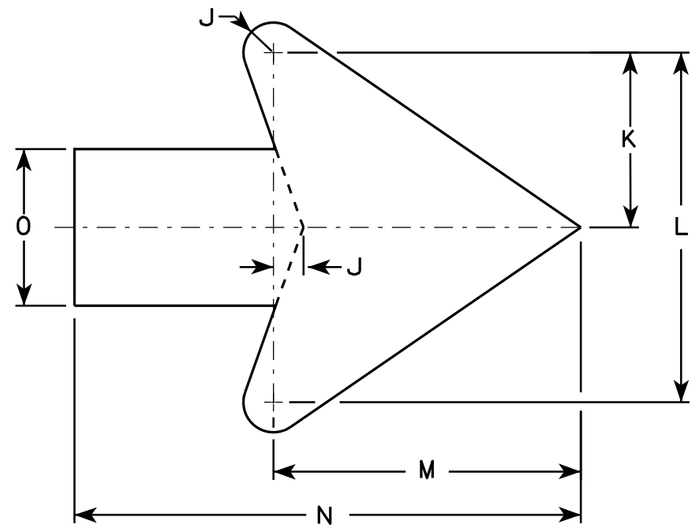
DATE 3/31/2011 PLATE NO. R7-51.6

PROJECT NO:	HWY:	COUNTY:			SHEET NO: 240	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

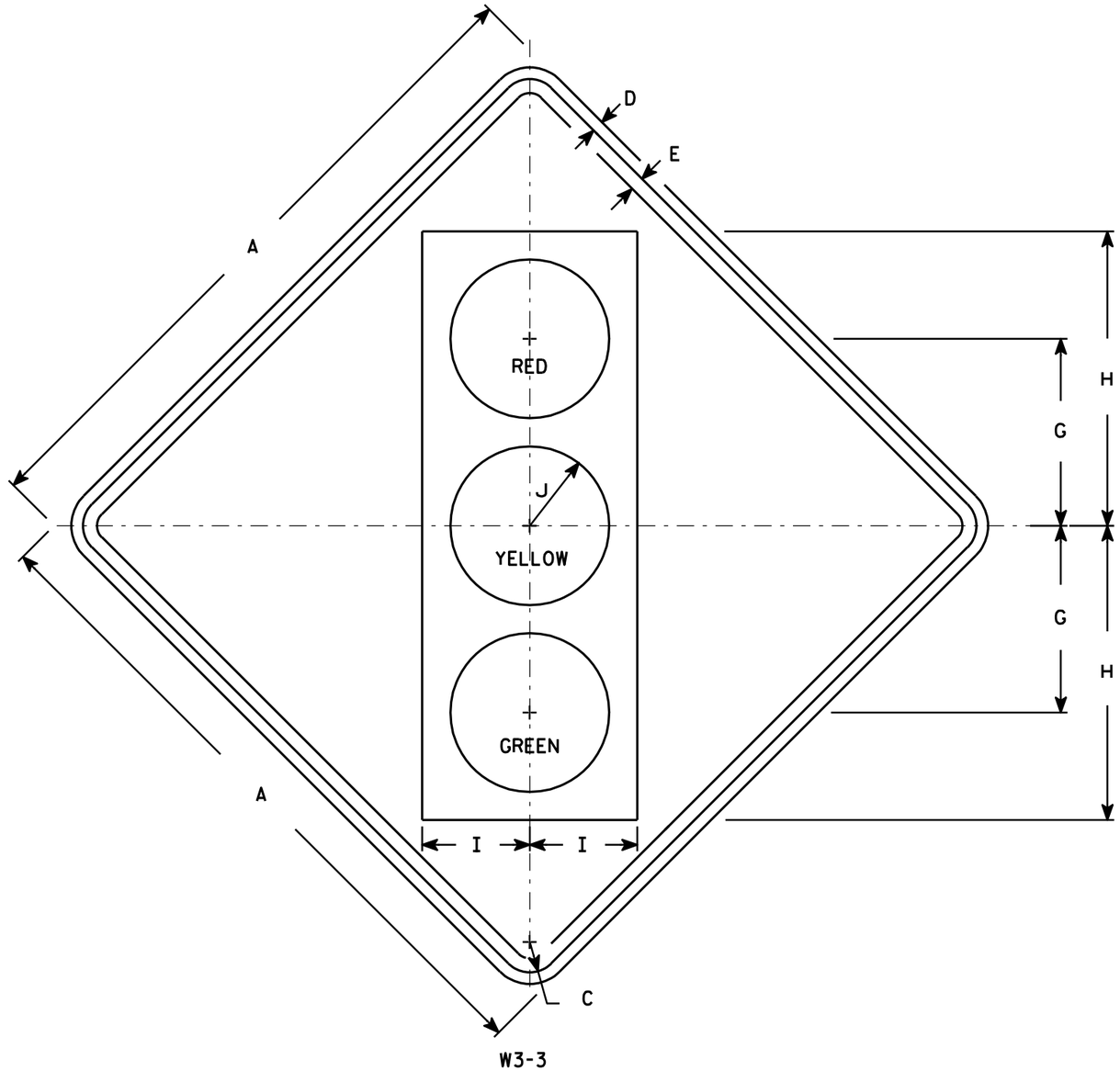
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 241	E

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



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

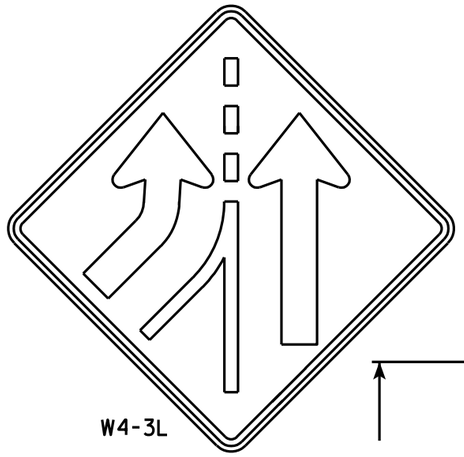
STANDARD SIGN
W3-3

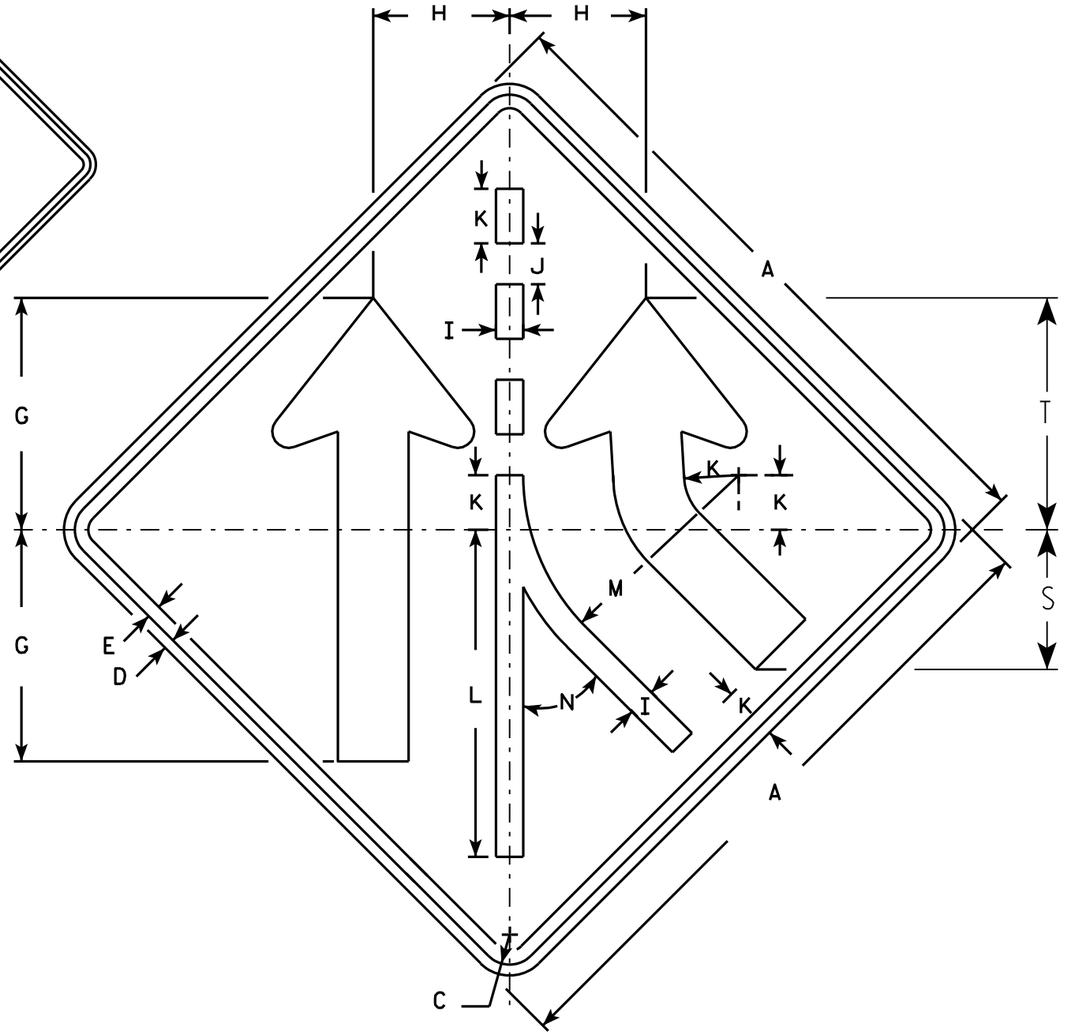
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 242 | E

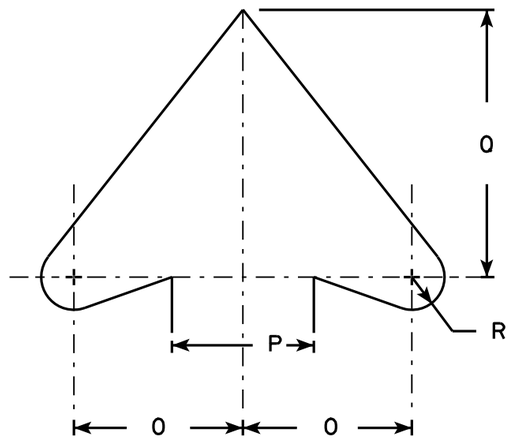




W4-3R

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. W4-3 L is the same as W4-3 R except the arrow is reversed along the vertical centerline.



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	30		1 3/8	1/2	5/8		10 5/8	6 1/4	1 1/4	1 7/8	2 1/2	15	9 7/8	45°	3 7/8	3 1/4	6 1/8	3/4	6 3/8	10 5/8							6.25
2S	36		1 5/8	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
2M	36		1 5/8	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
3																											
4	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
5	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0

STANDARD SIGN
W4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-3.8

PROJECT NO:

SHEET NO: 243 E

EARTHWORK SUMMARY			A	B	C	D	E	F	G	H
			Item # 205.0100		*	*	*	*	*	*
Division	From/To Station	Location	Excavation Common (1)		Salvaged/ Unusable Pavement Material	Available Material (4)	Unexpanded Fill	Expanded Fill (5)	Mass Ordinate +/- (6)	Waste (7)
			Cut (2) (CY)	EBS Excavation (3) (CY)	(2) (CY)	(CY)	(CY)	(CY) Factor 1.20	(CY)	(CY)
Stage 1A	222+00 - 229+50 LT	USH 12	661	56	110	551	0	0	551	
	317+50 - 318+45 RT	STH 23	54	7	5	49	0	0	49	
Stage 1A Subtotal			715	63	115	600	0	0	600	663
Stage 1B	213+00 - 235+20	USH 12	3,682	843	1,731	1,951	123	147	1,804	
	315+80 - 318+58	STH 23	649	144	210	439	1	2	437	
	14+00 - 16+13	Birney Street Alley	184	63	46	138	6	7	131	
Stage 1B Subtotal			4,514	1,050	1,987	2,527	130	156	2,371	3,421
Stage 2A	214+50 - 226+50	USH 12	808	178	352	456	0	0	456	
	315+80 - 318+58	STH 23	371	42	30	341	0	0	341	
Stage 2A Subtotal			1,178	220	382	796	0	0	796	1,016
Stage 1A, 1B, 2A Subtotal			6,407	1,333	2,484	3,923	130	156	3,767	5,100
Stage 3	213+00 - 232+20	USH 12	3,430	843	1,731	1,699	122	147	1,552	
	315+80 - 232+20	STH 23	649	144	210	439	1	2	437	
Stage 3 Subtotal			4,078	987	1,941	2,137	124	148	1,989	2,976
Stage 4A	224+00 - 229+00	USH 12	458	74	77	381	45	53	327	
	316+00 - 318+00	STH 23	391	30	31	360	0	0	360	
Stage 4A Subtotal			849	104	108	741	45	54	687	791
Stage 4B	226+25 - 227+50 RT	USH 12	141	20	20	121	18	21	100	
Stage 4B Subtotal			141	20	20	121	18	21	100	120
Stage 3, 4A, 4B Subtotal			5,069	1,111	2,069	3,000	186	224	2,776	3,887
Grand Totals (CY)			11,476	2,444	4,553	6,923	317	380	6,543	8,987
		Total Excavation Common	13,920		CY					

1) Common Excavation is the sum of the Cut (A) and EBS Excavation (B) columns. Item number 205.0100.
2) Salvaged/Unusable Pavement Material (C) is included in Cut (A). This assumes the existing pavement is salvaged or wasted by the contractor. The existing pavement structure is not shown in the cross sections
3) EBS Excavation to be backfilled with Select Crushed Material. See Select Crushed Material table for quantity. EBS is undistributed and estimated at 30% of the roadway footprint to a depth of 16 inches.
4) Available Material (D) is Cut (A) minus Salvaged/Unusable Pavement Material (C).
5) Expanded Fill (F) = (Unexpanded Fill (E)) * Expanded Fill Factor.
6) The Mass Ordinate (G=D-F) + or - Qty calculated for the Division. Plus quantity indicates a waste volume of material within the Division. Minus indicates a borrow volume of material within the Division.
7) Waste is the sum of EBS excavation (B) plus the mass ordinate (G) and excludes salvage/unusable pavement material (C).

* FOR INFORMATION ONLY

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USH 12, STAGE 1A								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.20	Mass Ordinate
				Note 1	Note 3	Note 1	Note 4	Note 5
222+00	0	0.0	0.0	0	0	0	0	0
222+50	50	11.6	0.0	11	0	11	0	11
223+00	50	19.0	0.0	28	0	39	0	39
223+50	50	35.5	0.0	50	0	90	0	90
224+00	50	39.3	0.0	69	0	159	0	159
224+50	50	26.4	0.0	61	0	220	0	220
225+00	50	0.0	0.0	24	0	244	0	244
225+50	50	0.0	0.0	0	0	244	0	244
225+93	43	0.0	0.0	0	0	244	0	244
226+50	57	32.8	0.0	35	0	279	0	279
227+00	50	38.7	0.0	66	0	345	0	345
227+50	50	41.4	0.0	74	0	419	0	419
228+00	50	39.2	0.0	75	0	494	0	494
228+50	50	34.7	0.0	68	0	562	0	562
229+00	50	28.8	0.0	59	0	621	0	621
229+50	50	14.8	0.0	40	0	661	0	661

USH 23, STAGE 1A								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.20	Mass Ordinate
				Note 1	Note 3	Note 1	Note 4	Note 5
317+50	0	0.0	0.0	0	0	0	0	0
318+00	50	30.5	0.0	28	0	28	0	28
318+45	45	0.0	0.0	25	0	54	0	54

USH 12, STAGE 1B								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.20	Mass Ordinate
				Note 1	Note 3	Note 1	Note 4	Note 5
213+00	0	9.0	0.0	0	0	0	0	0
213+25	25	37.7	0.0	22	0	22	0	22
213+50	25	36.5	0.2	34	0	56	0	56
214+00	50	41.8	1.0	73	1	129	1	127
214+50	50	39.7	0.0	76	1	204	2	202
215+00	50	52.7	1.9	86	2	290	5	285
215+50	50	43.3	2.6	89	4	379	10	369
216+00	50	39.2	4.2	76	6	455	17	438
216+45	45	101.8	0.0	117	3	572	21	551
216+50	5	102.1	0.0	19	0	591	21	570
217+00	50	66.5	1.2	156	1	747	23	725
217+50	50	71.4	2.4	128	3	875	27	849
218+00	50	89.7	0.2	149	2	1,024	29	995
218+50	50	57.5	0.0	136	0	1,161	30	1,131
219+00	50	55.9	0.0	105	0	1,266	30	1,236
219+50	50	28.6	0.2	78	0	1,344	30	1,314
220+00	50	25.8	0.4	50	1	1,394	31	1,364
220+50	50	26.3	0.8	48	1	1,442	32	1,411
221+00	50	32.7	0.2	55	1	1,497	33	1,464
221+23	23	76.6	0.0	47	0	1,544	33	1,511
221+50	27	24.1	0.0	50	0	1,594	33	1,561
222+00	50	50.7	0.0	69	0	1,663	33	1,630
222+50	50	43.7	0.0	87	0	1,751	33	1,718
223+00	50	16.9	0.0	56	0	1,807	33	1,774
223+50	50	38.5	0.5	51	0	1,858	34	1,825
224+00	50	25.0	0.1	59	1	1,917	34	1,883
224+50	50	25.5	2.9	47	3	1,964	38	1,926
225+00	50	30.3	1.9	52	4	2,015	43	1,972
225+50	50	25.3	13.7	51	14	2,067	60	2,006
225+93	43	48.7	0.0	59	11	2,126	73	2,052
226+50	57	44.0	9.7	98	10	2,223	86	2,138
227+00	50	71.6	3.8	107	12	2,330	100	2,230
227+50	50	67.9	9.9	129	13	2,460	116	2,344
228+00	50	69.6	1.0	127	10	2,587	128	2,459
228+50	50	65.9	4.6	125	5	2,712	134	2,578
229+00	50	64.3	2.0	121	6	2,833	141	2,692
229+50	50	60.0	0.2	115	2	2,948	144	2,804
229+75	25	88.6	0.2	69	0	3,017	144	2,873
230+00	25	42.3	0.2	61	0	3,077	144	2,933
230+50	50	41.8	0.4	78	1	3,155	145	3,011
231+00	50	52.0	0.0	87	0	3,242	145	3,097
231+50	50	40.9	0.3	86	0	3,328	145	3,183
232+00	50	38.8	0.3	74	1	3,402	146	3,256
232+20	20	36.2	1.1	28	1	3,430	147	3,283
232+50	30	22.0	0.0	32	1	3,462	147	3,315
233+00	50	22.0	0.0	41	0	3,503	147	3,355
233+50	50	22.0	0.0	41	0	3,543	147	3,396
234+00	50	22.0	0.0	41	0	3,584	147	3,437
234+50	50	22.0	0.0	41	0	3,625	147	3,478
235+00	50	22.0	0.0	41	0	3,666	147	3,518
235+20	20	22.0	0.0	16	0	3,682	147	3,535

1) Cut Volume does not include EBS excavation.
2) Salvaged/Unusable Pavement Material is included in Cut. This assumes the existing pavement is salvaged or wasted by the contractor. The existing pavement structure is not shown in the cross sections, but is included as a lump sum in the earthwork summary sheet.
3) EBS Excavation to be backfilled with Select Crushed Material.
4) Expanded Fill = Unexpanded Fill * Expanded Fill Factor.
5) Mass Ordinate = Cut - Expanded Fill. Mass Ordinate is a (+) or (-) Qty calculated for the Division. Plus (+) quantity indicates a waste volume of material within the Division, does not include EBS. Minus (-) indicates a shortage of material within the Division.
See Earthwork Summary Table.

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USH 23, STAGE 1B

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 4	Mass Ordinate Note 5
315+80	0	55.3	0.5	0	0	0	0	0
316+00	20	61.9	0.0	43	0	43	0	43
316+50	50	72.8	0.0	125	0	168	0	168
317+00	50	72.1	0.0	134	0	302	0	302
317+50	50	65.5	0.1	127	0	430	0	429
318+00	50	43.6	0.7	101	1	531	1	530
318+45	45	66.6	0.0	92	1	623	2	621
318+58	13	40.8	0.0	26	0	649	2	647

BIRNEY STREET ALLEY, STAGE 1B

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 4	Mass Ordinate Note 5
14+00	0	19.3	0.0	0	0	0	0	0
14+50	50	33.4	0.0	49	0	49	0	49
15+00	50	25.8	2.3	55	2	104	3	101
15+50	50	15.7	0.8	38	3	142	6	136
16+00	50	19.3	0.1	32	1	175	7	167
16+13	13	18.4	0.0	9	0	184	7	177

USH 12, STAGE 2A

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 4	Mass Ordinate Note 5
214+50	0	15.9	0.0	0	0	0	0	0
215+00	50	21.1	0.0	34	0	34	0	34
215+50	50	17.3	0.0	36	0	70	0	70
216+00	50	15.7	0.0	31	0	100	0	100
216+45	45	40.7	0.0	47	0	147	0	147
216+50	5	40.8	0.0	8	0	155	0	155
217+00	50	26.6	0.0	62	0	217	0	217
217+50	50	28.6	0.0	51	0	268	0	268
218+00	50	35.9	0.0	60	0	328	0	328
218+50	50	23.0	0.0	55	0	383	0	383
219+00	50	22.4	0.0	42	0	425	0	425
219+50	50	11.4	0.0	31	0	456	0	456
220+00	50	10.3	0.0	20	0	476	0	476
220+50	50	10.5	0.0	19	0	495	0	495
221+00	50	13.1	0.0	22	0	517	0	517
221+23	23	30.6	0.0	19	0	536	0	536
221+50	27	9.7	0.0	20	0	556	0	556
222+00	50	20.3	0.0	28	0	584	0	584
222+50	50	17.5	0.0	35	0	619	0	619
223+00	50	6.8	0.0	22	0	641	0	641
223+50	50	15.4	0.0	21	0	662	0	662
224+00	50	10.0	0.0	24	0	685	0	685
224+50	50	10.2	0.0	19	0	704	0	704
225+00	50	12.1	0.0	21	0	724	0	724
225+50	50	10.1	0.0	21	0	745	0	745
225+93	43	19.5	0.0	24	0	769	0	769
226+50	57	17.6	0.0	39	0	808	0	808

USH 23, STAGE 2A

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut Note 1	Cumulative Vol (CY) Expanded Fill 1.20 Note 4	Mass Ordinate Note 5
315+80	0	31.6	0.0	0	0	0	0	0
316+00	20	35.4	0.0	25	0	25	0	25
316+50	50	41.6	0.0	71	0	96	0	96
317+00	50	41.2	0.0	77	0	173	0	173
317+50	50	37.4	0.0	73	0	246	0	246
318+00	50	24.9	0.0	58	0	303	0	303
318+45	45	38.1	0.0	53	0	356	0	356
318+58	13	23.3	0.0	15	0	371	0	371

1) Cut Volume does not include EBS excavation.
2) Salvaged/Unusable Pavement Material is included in Cut. This assumes the existing pavement is salvaged or wasted by the contractor. The existing pavement structure is not shown in the cross sections, but is included as a lump sum in the earthwork summary sheet.
3) EBS Excavation to be backfilled with Select Crushed Material.
4) Expanded Fill = Unexpanded Fill * Expanded Fill Factor.
5) Mass Ordinate = Cut - Expanded Fill. Mass Ordinate is a (+) or (-) Qty calculated for the Division. Plus (+) quantity indicates a waste volume of material within the Division, does not include EBS. Minus (-) indicates a shortage of material within the Division. See Earthwork Summary Table.

USH 23, STAGE 3								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.20	Mass Ordinate
				Note 1	Note 3	Note 1	Note 4	Note 5
315+80	0	55.3	0.5	0	0	0	0	0
316+00	20	61.9	0.0	43	0	43	0	43
316+50	50	72.8	0.0	125	0	168	0	168
317+00	50	72.1	0.0	134	0	302	0	302
317+50	50	65.5	0.1	127	0	430	0	429
318+00	50	43.6	0.7	101	1	531	1	530
318+45	45	66.6	0.0	92	1	623	2	621
318+58	13	40.8	0.0	26	0	649	2	647

USH 12, STAGE 4A								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.20	Mass Ordinate
				Note 1	Note 3	Note 1	Note 4	Note 5
224+00	0	12.5	0.1	0	0	0	0	0
224+50	50	12.7	1.5	23	1	23	2	22
225+00	50	15.1	0.9	26	2	49	4	45
225+50	50	12.6	6.8	26	7	75	13	62
225+93	43	24.4	0.0	29	5	104	20	85
226+50	57	22.0	4.8	49	5	153	26	128
227+00	50	35.8	1.9	53	6	207	33	174
227+50	50	33.9	4.9	65	6	271	41	231
228+00	50	34.8	0.5	64	5	335	47	288
228+50	50	33.0	2.3	63	3	398	50	348
229+00	50	32.2	1.0	60	3	458	53	404

USH 12, STAGE 3								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.20	Mass Ordinate
				Note 1	Note 3	Note 1	Note 4	Note 5
213+00	0	9.0	0.0	0	0	0	0	0
213+25	25	37.7	0.0	22	0	22	0	22
213+50	25	36.5	0.2	34	0	56	0	56
214+00	50	41.8	1.0	73	1	129	1	127
214+50	50	39.7	0.0	76	1	204	2	202
215+00	50	52.7	1.9	86	2	290	5	285
215+50	50	43.3	2.6	89	4	379	10	369
216+00	50	39.2	4.2	76	6	455	17	438
216+45	45	101.8	0.0	117	3	572	21	551
216+50	5	102.1	0.0	19	0	591	21	570
217+00	50	66.5	1.2	156	1	747	23	725
217+50	50	71.4	2.4	128	3	875	27	849
218+00	50	89.7	0.2	149	2	1,024	29	995
218+50	50	57.5	0.0	136	0	1,161	30	1,131
219+00	50	55.9	0.0	105	0	1,266	30	1,236
219+50	50	28.6	0.2	78	0	1,344	30	1,314
220+00	50	25.8	0.4	50	1	1,394	31	1,364
220+50	50	26.3	0.8	48	1	1,442	32	1,411
221+00	50	32.7	0.2	55	1	1,497	33	1,464
221+23	23	76.6	0.0	47	0	1,544	33	1,511
221+50	27	24.1	0.0	50	0	1,594	33	1,561
222+00	50	50.7	0.0	69	0	1,663	33	1,630
222+50	50	43.7	0.0	87	0	1,751	33	1,718
223+00	50	16.9	0.0	56	0	1,807	33	1,774
223+50	50	38.5	0.5	51	0	1,858	34	1,825
224+00	50	25.0	0.1	59	1	1,917	34	1,883
224+50	50	25.5	2.9	47	3	1,964	38	1,926
225+00	50	30.3	1.9	52	4	2,015	43	1,972
225+50	50	25.3	13.7	51	14	2,067	60	2,006
225+93	43	48.7	0.0	59	11	2,126	73	2,052
226+50	57	44.0	9.7	98	10	2,223	86	2,138
227+00	50	71.6	3.8	107	12	2,330	100	2,230
227+50	50	67.9	9.9	129	13	2,460	116	2,344
228+00	50	69.6	1.0	127	10	2,587	128	2,459
228+50	50	65.9	4.6	125	5	2,712	134	2,578
229+00	50	64.3	2.0	121	6	2,833	141	2,692
229+50	50	60.0	0.2	115	2	2,948	144	2,804
229+75	25	88.6	0.2	69	0	3,017	144	2,873
230+00	25	42.3	0.2	61	0	3,077	144	2,933
230+50	50	41.8	0.4	78	1	3,155	145	3,011
231+00	50	52.0	0.0	87	0	3,242	145	3,097
231+50	50	40.9	0.3	86	0	3,328	145	3,183
232+00	50	38.8	0.3	74	1	3,402	146	3,256
232+20	20	36.2	1.1	28	1	3,430	147	3,283

1) Cut Volume does not include EBS excavation.
2) Salvaged/Unusable Pavement Material is included in Cut. This assumes the existing pavement is salvaged or wasted by the contractor. The existing pavement structure is not shown in the cross sections, but is included as a lump sum in the earthwork summary sheet.
3) EBS Excavation to be backfilled with Select Crushed Material.
4) Expanded Fill = Unexpanded Fill * Expanded Fill Factor.
5) Mass Ordinate = Cut - Expanded Fill. Mass Ordinate is a (+) or (-) Qty calculated for the Division. Plus (+) quantity indicates a waste volume of material within the Division, does not include EBS. Minus (-) indicates a shortage of material within the Division. See Earthwork Summary Table.

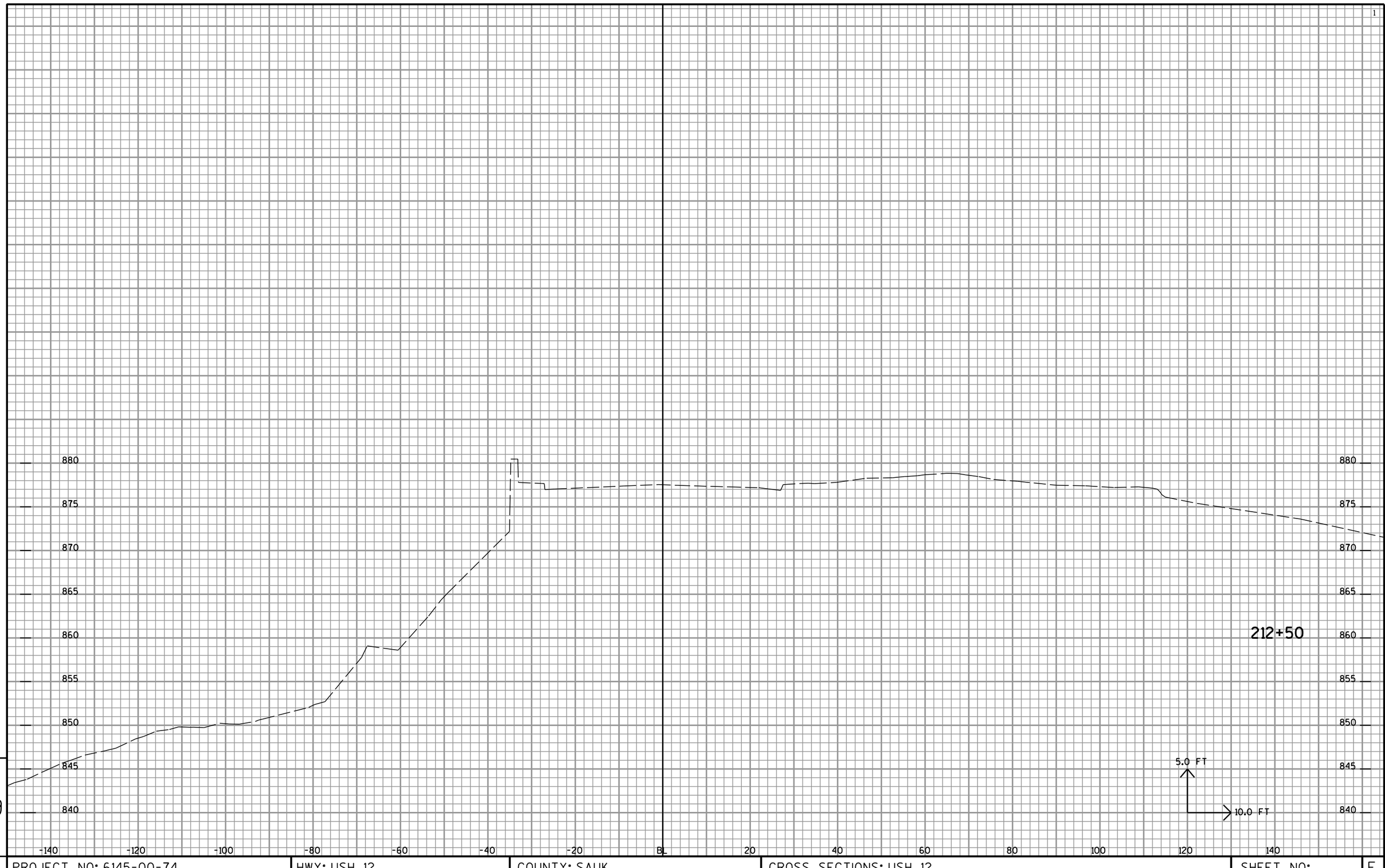
USH 23, STAGE 4A								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut Note 1	Expanded Fill 1.20 Note 4	Mass Ordinate Note 5
316+00	0	30.9	0.0	0	0	0	0	0
316+50	50	36.4	0.0	62	0	62	0	62
317+00	50	72.1	0.0	100	0	163	0	163
317+50	50	65.5	0.0	127	0	290	0	290
318+00	50	43.6	0.3	101	0	391	0	391

USH 12, STAGE 4B								
		AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut Note 1	Expanded Fill 1.20 Note 4	Mass Ordinate Note 5
225+93	0	0.0	0.0	0	0	0	0	0
226+50	57	22.0	4.8	23	5	23	6	17
227+00	50	35.8	1.9	53	6	77	14	63
227+50	50	33.9	4.9	65	6	141	21	120

1) Cut Volume does not include EBS excavation.
2) Salvaged/Unusable Pavement Material is included in Cut. This assumes the existing pavement is salvaged or wasted by the contractor. The existing pavement structure is not shown in the cross sections, but is included as a lump sum in the earthwork summary sheet.
3) EBS Excavation to be backfilled with Select Crushed Material.
4) Expanded Fill = Unexpanded Fill * Expanded Fill Factor.
5) Mass Ordinate = Cut - Expanded Fill. Mass Ordinate is a (+) or (-) Qty calculated for the Division. Plus (+) quantity indicates a waste volume of material within the Division, does not include EBS. Minus (-) indicates a shortage of material within the Division. See Earthwork Summary Table.

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PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 249	E

FILE NAME : †:±1022702±sheets±sheets-Phase3±XSECT±090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

STAGE 3 ← → STAGE 1B

R/W

DRIVE RT

SS WAT

0.020 0.007

876.51 27.41

876.62 21.97

877.09 1.44

877.25 23.47

877.33 28.97

879.22 44.99

880 875 870 865 860 855

213+25

R/W

STAGE 3 ← → STAGE 1B

R/W

SS WAT

0.005

876.63 0.46

876.52 22.41

876.49 27.97

880 875 870 865 860 855

213+00

R/W

5.0 FT

10.0 FT

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9 9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 250	E

FILE NAME : †:±1022702±sheets±sheets-Phase3±XSECT±090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

DRIVE LT
NOT FOR YARDAGE

DRIVE RT
NOT FOR YARDAGE

STAGE 3 ← → STAGE 1B

TLE R/W GAS TV SS WAT R/W TLE

20:1 10:1 0.034 0.034 0.033 10:1

881.14 -45.36 878.91 -35.19 879.91 -5.67 880.35 7.41 881.35 35.91 884.08 55.01

214+30

STAGE 3 ← → STAGE 1B

BLDG R/W R/W GAS SS WAT

A:1 0.034 0.034 0.034 6:1

878.36 -50.29 878.02 -33.15 878.27 -25.65 879.01 -3.58 879.34 6.32 880.33 35.85 882.41 46.48

214+00

STAGE 3 ← → STAGE 1B

R/W R/W SS WAT

5:1 0.029 0.029 0.019 10:1

878.47 -39.14 876.74 -30.19 876.96 -22.69 877.61 -8.88 877.71 2.98 878.14 25.03 878.29 32.53 879.98 40.07

213+50

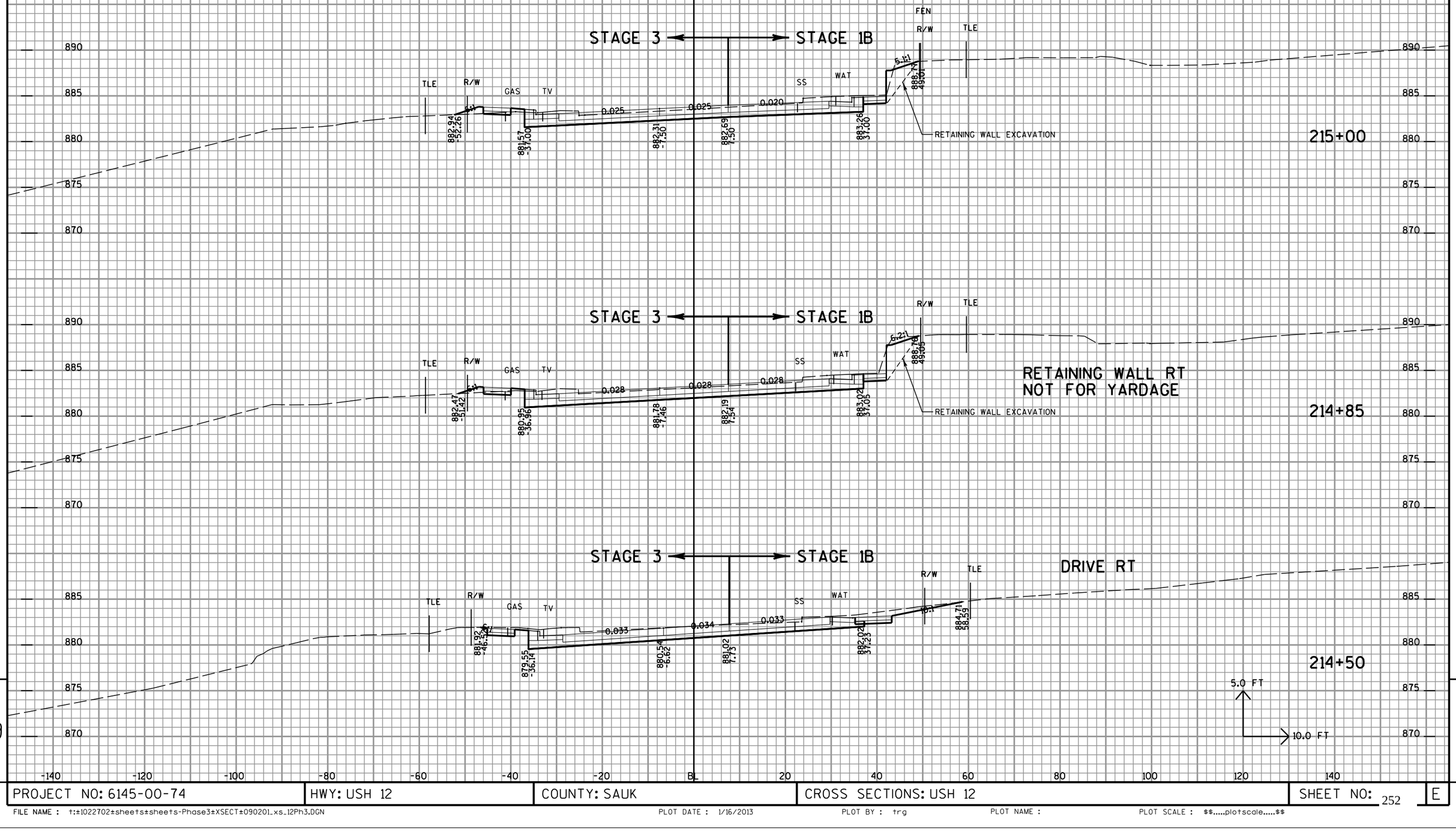
5.0 FT
10.0 FT

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9 9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 251 E

FILE NAME : t:\1022702\sheets\sheets-Phase3\XSECT\090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



9

9

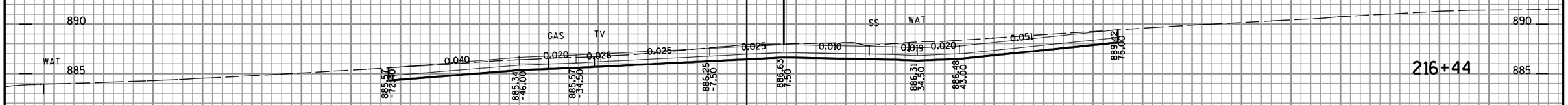
PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 252	E

FILE NAME : t:\1022702\sheets\sheets-Phase3\XSECT\090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

DELAVAN STREET

STAGE 3 ← → STAGE 1B

DELAVAN STREET



216+44

STAGE 3 ← → STAGE 1B



216+00

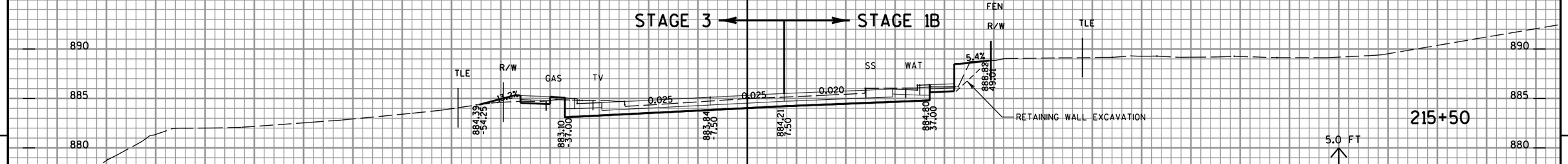
STAGE 3 ← → STAGE 1B



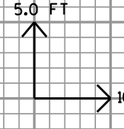
DRIVE RT
NOT FOR YARDAGE

215+62

STAGE 3 ← → STAGE 1B



215+50



9

9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 253	E

FILE NAME : t:±1022702±sheets±sheets-Phase3±XSECT±090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

STAGE 3 ← → STAGE 1B

TLE TLE R/W GAS WAT R/W BLDG TLE BLDG

890 885

891.24 -52.00 4.0% 887.75 -37.00 0.020 888.64 7.50 0.020 888.05 37.00 0.4% 890.11 56.01

217+50

STAGE 3 ← → STAGE 1B

TLE R/W GAS WAT R/W TLE

890 885

890.46 -56.20 4.0% 887.26 -37.00 0.020 887.85 -7.50 0.020 888.15 7.50 0.020 887.56 37.00 2.6% 889.45 56.00

REMOVE DRIVE RT

217+20

STAGE 3 ← → STAGE 1B

BLDG BLDG BLDG TLE R/W GAS WAT R/W TLE

890 885

889.88 -56.20 4.0% 886.89 -37.00 0.020 887.48 -7.50 0.020 887.78 7.50 0.020 887.19 37.00 0.4% 889.25 56.01

217+00

STAGE 3 ← → STAGE 1B

890 885 880

SS WAT GAS TV

885.75 -72.80 0.042 885.57 -46.00 0.020 885.80 -34.50 0.026 0.025 886.48 -7.50 0.025 885.85 7.50 0.010 886.52 34.50 0.022 0.020 886.69 43.00 0.048 889.50 75.00

216+54

STAGE 3 ← → STAGE 1B

DELAVAN STREET

890 885 880

SS WAT GAS TV

885.69 -72.80 0.041 885.48 -46.00 0.020 885.71 -34.50 0.026 0.025 886.39 -7.50 0.025 885.76 7.50 0.010 886.43 34.50 0.022 0.020 886.60 43.00 0.049 889.47 75.00

DELAVAN STREET

5.0 FT 10.0 FT

216+50

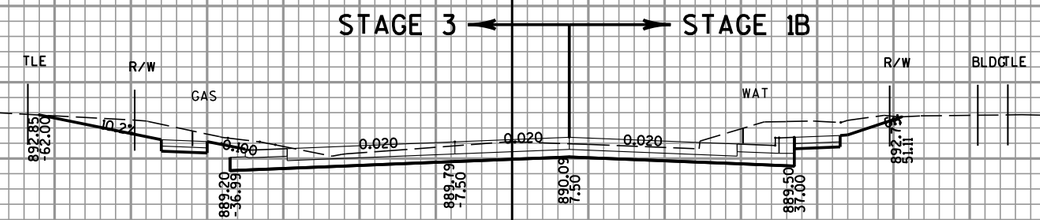
-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9 9

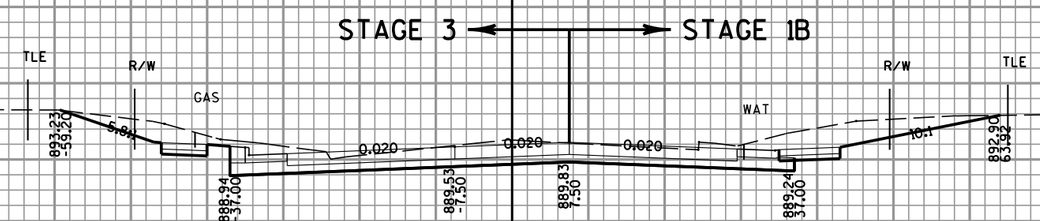
PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 254	E

FILE NAME : t:±1022702±sheets±sheets-Phase3±XSECT±090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

DRIVE LT
NOT FOR YARDAGE

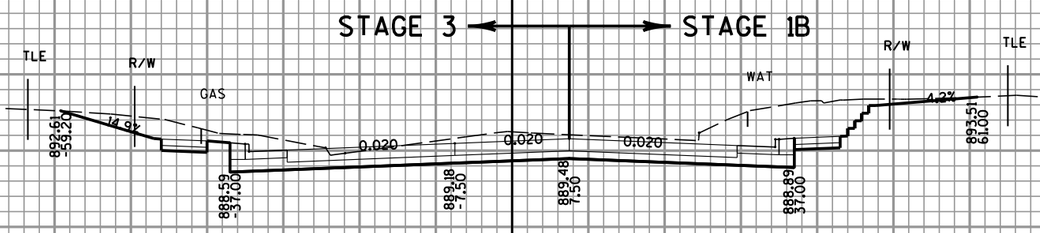


218+85



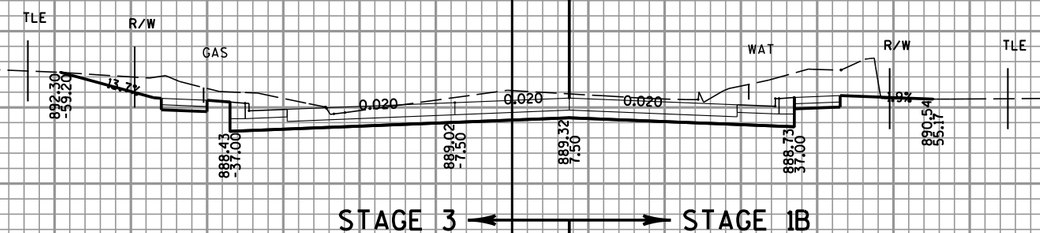
DRIVE RT

218+50



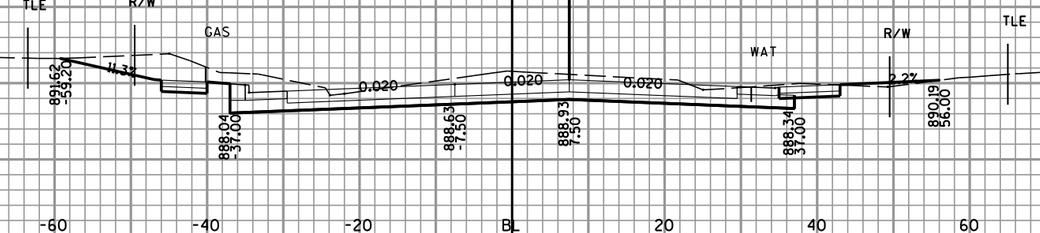
STEPS RT
NOT FOR YARDAGE

218+14



218+00

DRIVE RT
NOT FOR YARDAGE



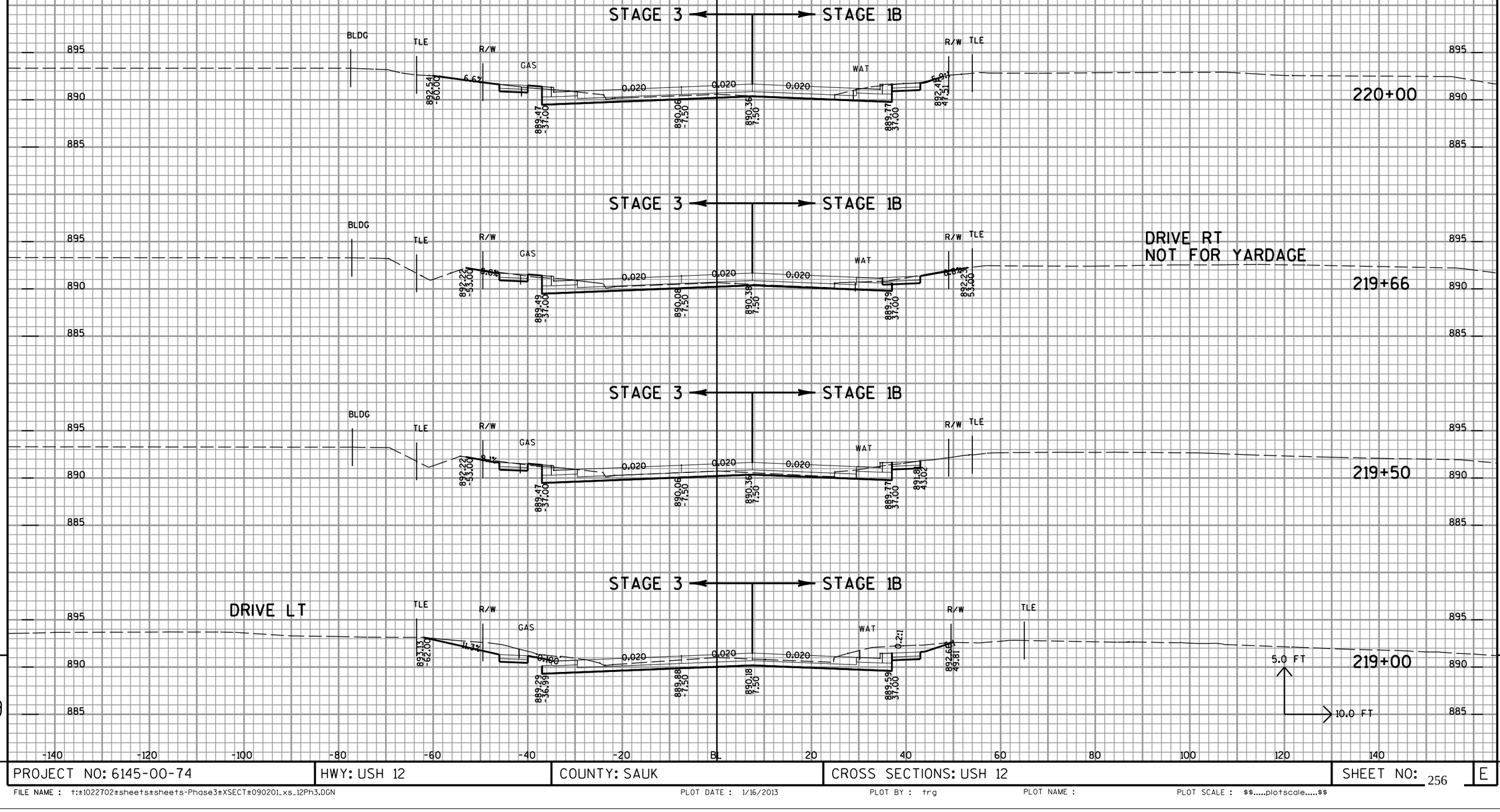
217+70

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9 9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 255	E

FILE NAME : t:\1022702\sheets\sheets-Phase3\XSECT\090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



9

9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 256	E

FILE NAME : t:±1022702±sheets±sheets-Phase3±XSECT±090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

STAGE 3 ← → STAGE 1B

WAT GAS SS

5.5% 0.020 0.020 0.020 0.020 4.3%

891.67 -75.00 | 888.55 -4.99 | 889.24 -7.50 | 889.54 7.50 | 888.87 41.06 | 891.72 75.00

890 885 890 885

221+50

STAGE 3 ← → STAGE 1B

JUDSON STREET JUDSON STREET

WAT GAS SS SS

0.043 0.020 0.020 0.020 0.020 0.020 0.020 0.013

891.18 -75.00 | 888.66 -46.00 | 888.89 -34.50 | 889.43 -7.50 | 889.73 7.50 | 889.19 34.50 | 891.00 75.00

890 885 890 885

221+23

STAGE 3 ← → STAGE 1B

GAS SS WAT SS

3.7% 0.020 0.020 0.020 0.020 0.020 2.8%

891.49 -75.00 | 889.03 -48.57 | 889.05 -34.50 | 889.59 -7.50 | 889.89 7.50 | 889.09 47.29 | 891.35 75.00

890 885 890 885

221+00

STAGE 3 ← → STAGE 1B

BLDG TLE R/W GAS WAT R/W TLE

2.8% 0.020 0.020 0.020 9.0%

891.65 -52.00 | 889.31 -37.00 | 889.90 -7.50 | 890.20 7.50 | 889.61 37.00 | 892.28 45.51

895 890 885 895 890 885

220+50

STAGE 3 ← → STAGE 1B

SIDEWALK LT
NOT FOR YARDAGE

BLDG TLE R/W GAS WAT R/W TLE

6.8% 0.020 0.020 0.020 6.8%

892.55 -80.00 | 889.46 -37.00 | 890.06 -7.50 | 890.35 7.50 | 889.76 37.00 | 892.41 47.51

5.0 FT 10.0 FT

895 890 885 895 890 885

220+10

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9 9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 257	E

FILE NAME : †:±1022702±sheets±sheets-Phase3±XSECT±090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

STAGE 3 ← → STAGE 1B

WAT R/W GAS SS R/W TLE

890 885

889.86 -46.50 -4.2% 887.26 -37.00 0.020 887.85 -7.50 0.020 888.15 7.50 0.020 887.99 50.38 0.020 889.94 61.44 1.4%

STAGE 1A WIDENING

223+50

STAGE 3 ← → STAGE 1B

TLER/W WAT GAS SS R/W TLE

890 885

890.17 -46.07 -4.2% 887.61 -37.00 0.020 888.20 -7.50 0.020 888.50 7.50 0.020 887.74 45.38 0.020 889.63 65.00 2.4%

STAGE 1A WIDENING

223+00

STAGE 3 ← → STAGE 1B

TLER/W WAT GAS SS R/W TLE

890 885

890.67 -47.25 -4.2% 887.82 -37.00 0.020 888.41 -7.50 0.020 888.71 7.50 0.020 888.01 42.38 0.020 890.56 65.00 5.6%

DRIVE RT
NOT FOR YARDAGE

STAGE 1A WIDENING

222+70

STAGE 3 ← → STAGE 1B

TLER/W WAT GAS SS R/W TLE

890 885

890.88 -47.25 -4.2% 887.96 -37.00 0.020 888.55 -7.50 0.020 888.85 7.50 0.020 888.19 40.38 0.020 891.14 65.00 5.7%

STAGE 1A WIDENING

222+50

STAGE 3 ← → STAGE 1B

TLER/W WAT GAS SS R/W TLE BLDG

895 890 885

891.70 -50.80 -4.2% 888.30 -37.00 0.020 888.89 -7.50 0.020 889.19 7.50 0.020 888.60 37.00 0.020 892.44 51.30 4.5%

222+00

STAGE 3 ← → STAGE 1B

WAT GAS SS

890 885

891.55 -50.67 -4.2% 888.57 -37.70 0.020 889.17 -7.50 0.020 889.47 7.50 0.020 888.87 37.41 5% 893.04 81.00

SIDEWALK RT
NOT FOR YARDAGE

5.0 FT
10.0 FT

221+60

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9 9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 258	E

FILE NAME : t:\1022702\sheets\sheets-Phase3\XSECT\090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

STAGE 3 | STAGE 2A | STAGE 1B

MATCH WHITLOCK STREET

SS GAS WAT GAS

0.005 0.010 0.010 0.010 0.005

886.42 -50.10 | 886.32 -29.50 | 886.54 -7.50 | 886.59 7.50 | 886.47 29.50

MATCH STA 226+50 USH 12

225+93

STAGE 3 | STAGE 1B

TLE WAT R/W GAS

6.6%

0.020 0.020 0.012

888.10 -57.30 | 886.02 -37.00 | 886.61 -7.50 | 885.91 7.50 | 886.55 37.00 | 887.10 59.01

R/W WAT GAS SS SS 6.6% TLE

MATCH STA 226+50 USH 12

225+50

DRIVE LT

STAGE 4 | STAGE 3 | STAGE 1B

TLE BLDG WAT R/W GAS

2.9%

0.020 0.020 0.016 0.015 0.021

888.68 -57.30 | 886.27 -37.00 | 886.86 -7.50 | 887.16 7.50 | 886.00 70.50

SS R/W WAT GAS SS 3.5% TLE

887.50 107.69

MATCH STA 225+00 USH 12

225+00

STAGE 4 | STAGE 3 | STAGE 1B

BLDG TLE WAT R/W GAS

1.4%

0.020 0.020 0.020 0.020

888.75 -57.30 | 886.57 -36.99 | 887.16 -7.50 | 887.46 7.50 | 886.53 55.16

SS R/W TLE

887.74 66.00

SS GAS

224+50

STAGE 1A WIDENING

DRIVE LT
NOT FOR YARDAGE

STAGE 4 | STAGE 3 | STAGE 1B

TLE WAT R/W GAS

2.6%

0.020 0.020 0.020 0.020

887.32 -57.30 | 886.71 -36.99 | 887.30 -7.50 | 887.60 7.50 | 886.69 53.00

SS R/W TLE

887.79 65.89

224+30

STAGE 1A WIDENING

STAGE 4 | STAGE 3 | STAGE 1B

WAT R/W GAS

8.3%

0.020 0.020 0.020 0.020

889.46 -48.50 | 886.91 -37.00 | 887.50 -7.50 | 887.80 7.50 | 886.89 53.00

SS R/W TLE

888.61 71.00

DRIVE RT

5.0 FT

10.0 FT

224+00

STAGE 1A WIDENING

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9 9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 259	E

FILE NAME : t:\1022702\sheets\sheets-Phase3\XSECT\090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

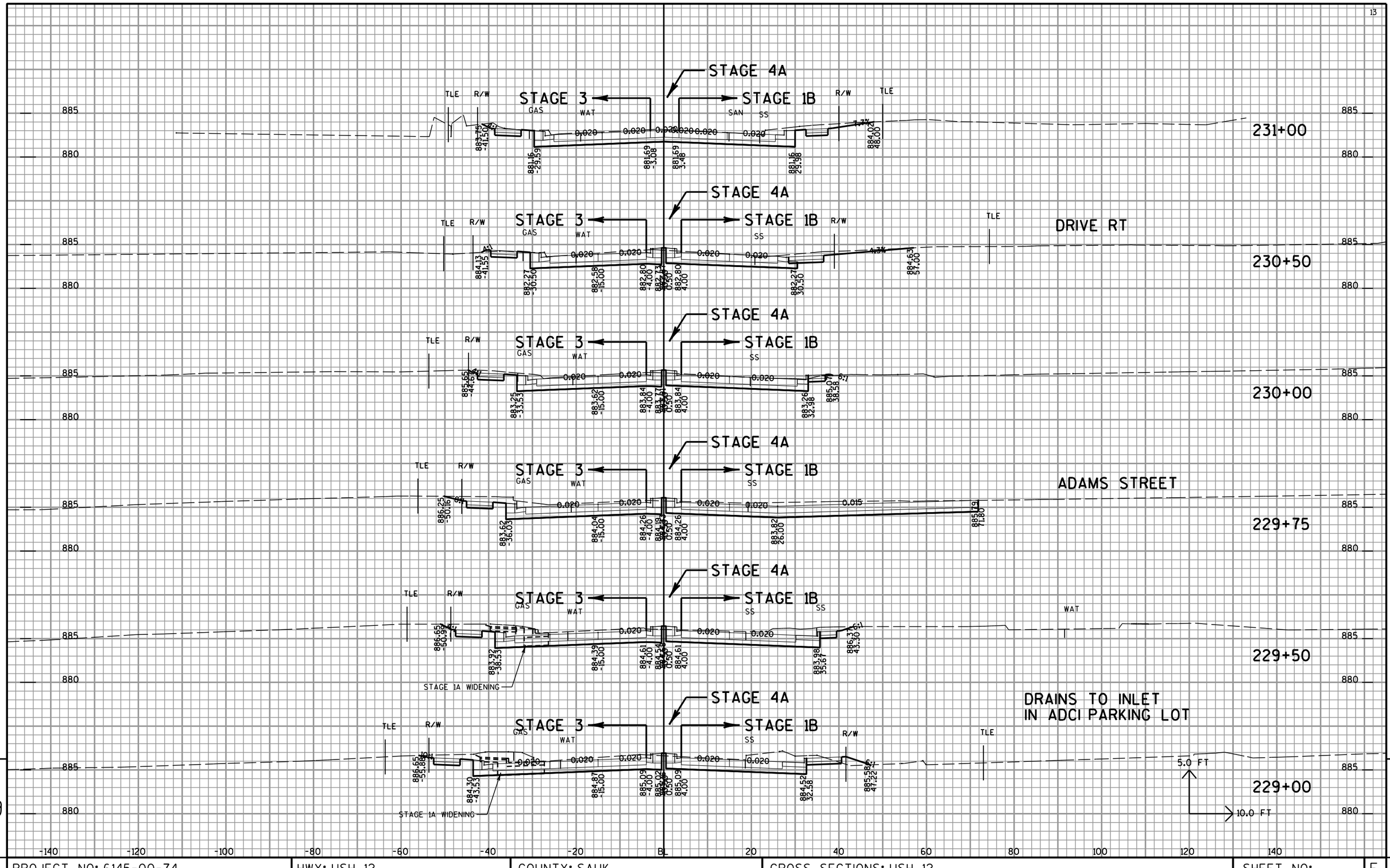
REMOVE ALLEY LEFT
NOT FOR YARDAGE

REMOVE ALLEY RT
NOT FOR YARDAGE

STAGE 4A
STAGE 3
STAGE 1B
STAGE 1A WIDENING
TLE
R/W
GAS
WAT
SS
885
880
228+50
228+00
227+70
227+50
227+00
226+50
MATCH STA 227+00 USH 12
MATCH STA 225+50 USH 12
5.0 FT
10.0 FT
-140
-120
-100
-80
-60
-40
-20
0
20
40
60
80
100
120
140

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 260	E

FILE NAME : t:±1022702±sheets±sheets-Phase3±XSECT±090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



9

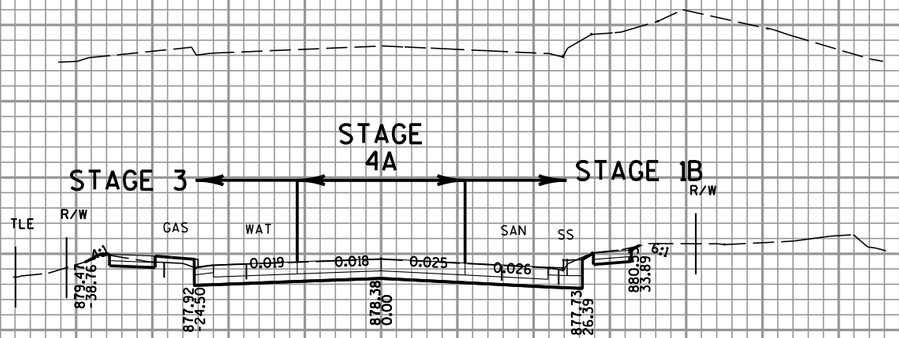
9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 261	E

FILE NAME : t:\1022702\sheets\sheets-Phase3\XSECT\090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

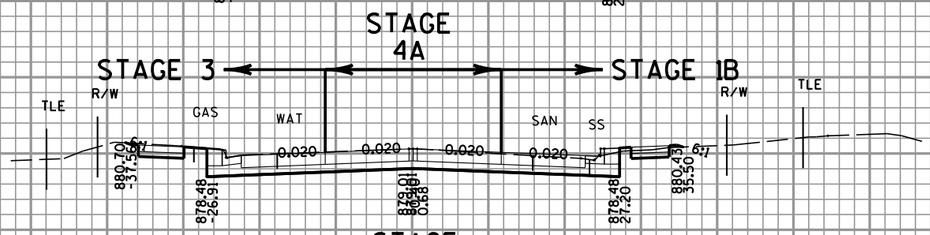
880 / 875

232+50



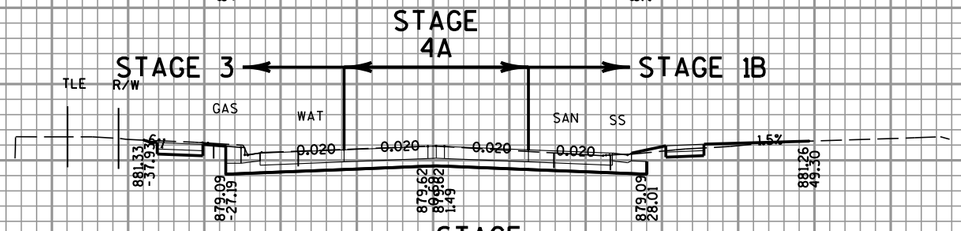
880 / 875

232+20



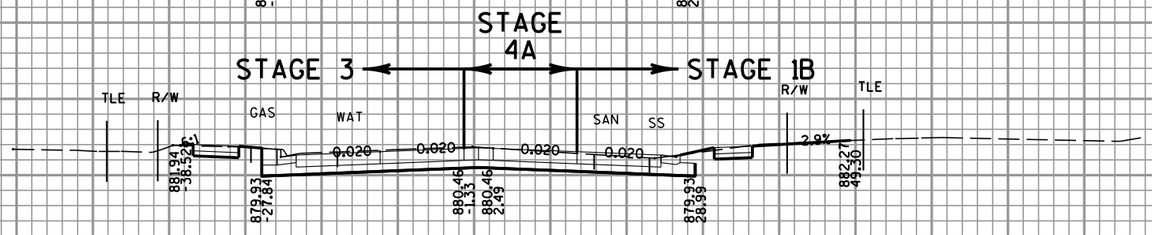
880 / 875

232+00



880 / 875

231+80

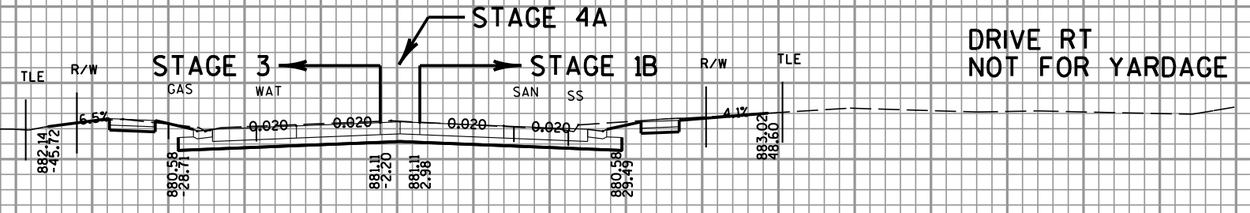


880 / 875

231+50

DRIVE LT
NOT FOR YARDAGE

DRIVE RT
NOT FOR YARDAGE



885 / 880 / 875

231+25

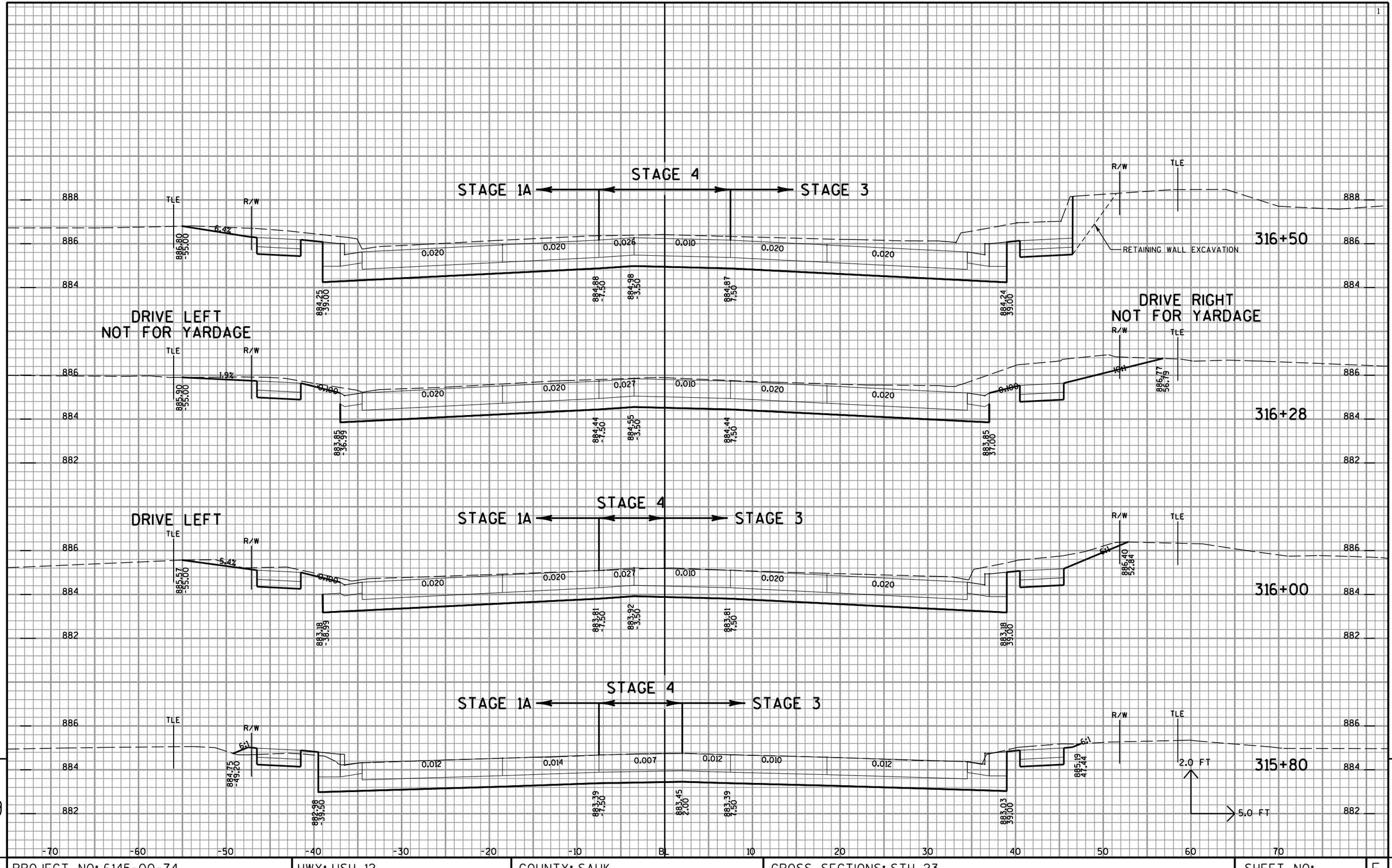
5.0 FT
10.0 FT

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: USH 12	SHEET NO: 262	E

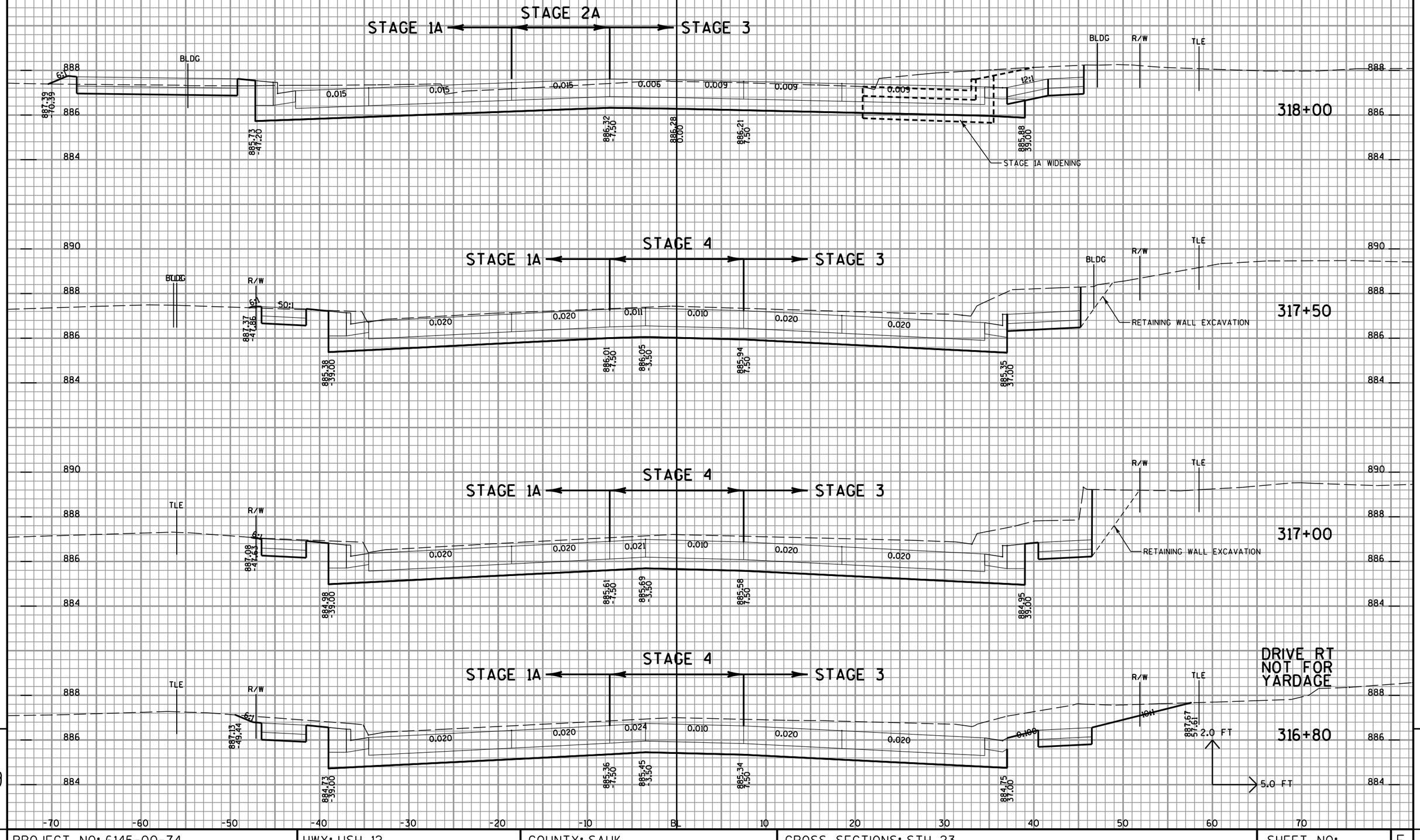
FILE NAME : t:\1022702\sheets\sheets-Phase3\XSECT\090201_xs_12Ph3.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET NO: 263 E

FILE NAME : T:±1022702±Sheets±sheets-Phase3±XSECT±090202_xs_sth23.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

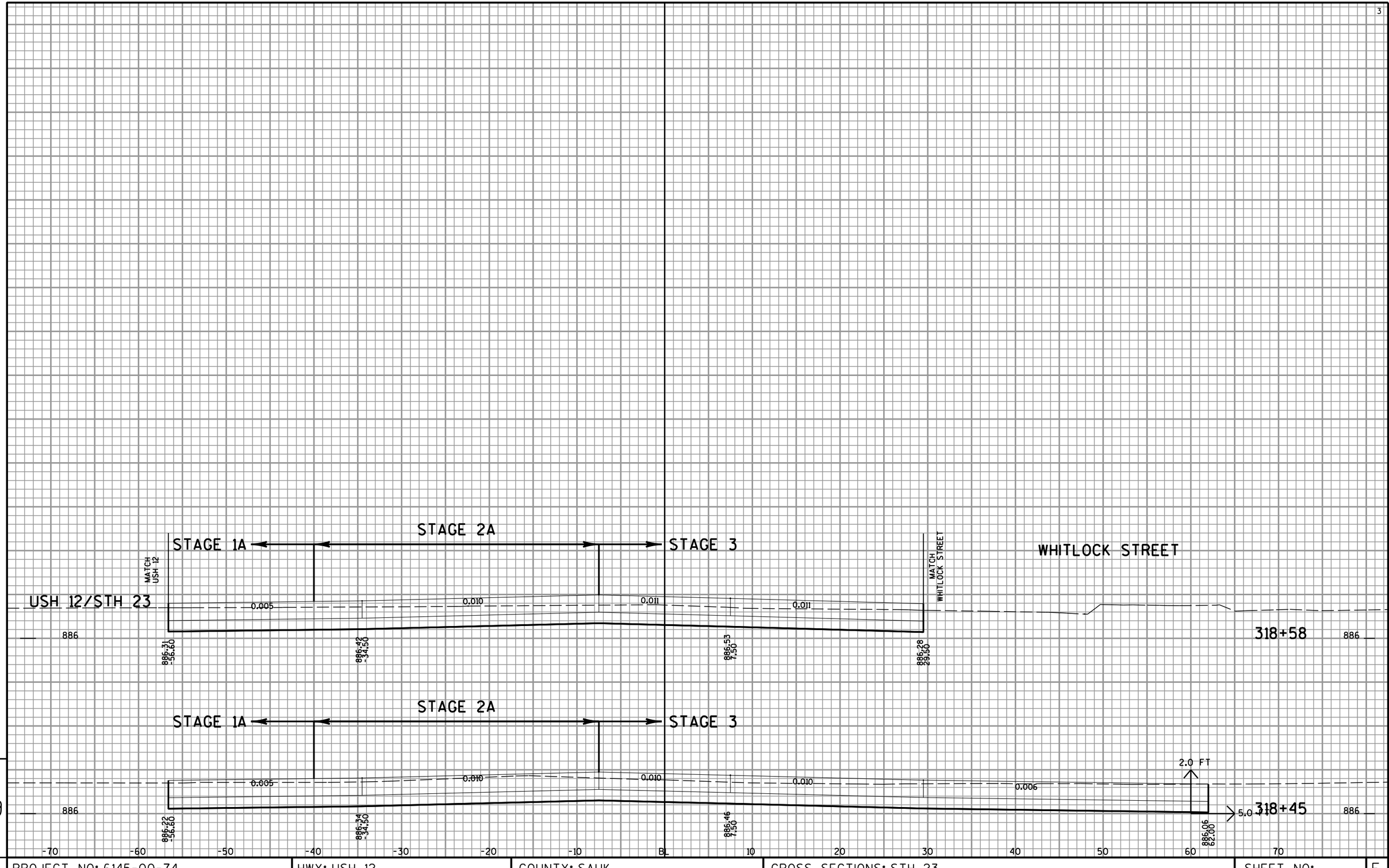


9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET NO: 264	E

FILE NAME : T:±1022702±Sheets±sheets-Phase3±XSECT±090202_xs_sth23.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

9

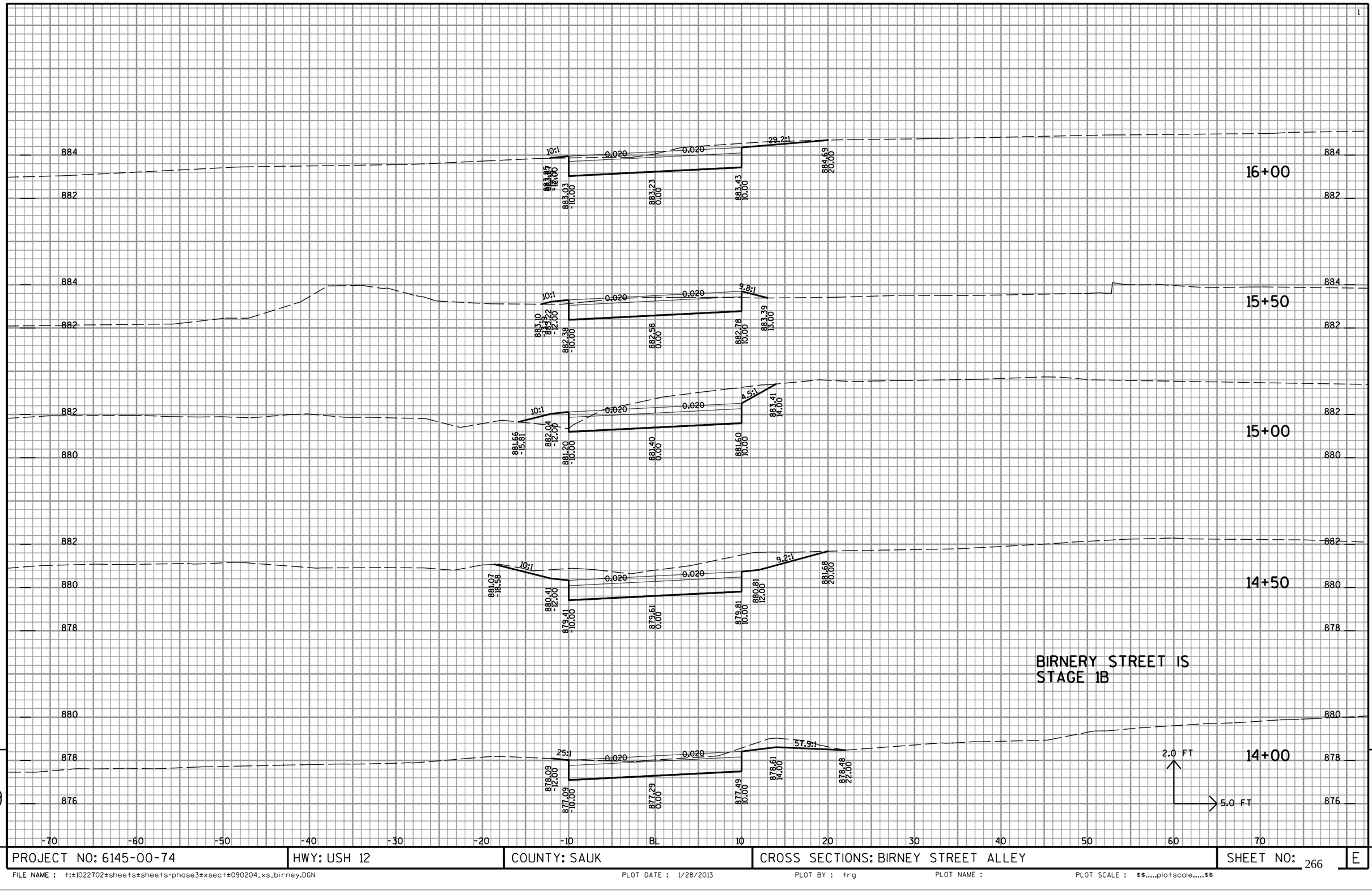


9

9

PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: STH 23	SHEET NO: 265	E

FILE NAME : T:±1022702±Sheets±sheets-Phase3±XSECT±090202_xs_sth23.DGN PLOT DATE : 1/16/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

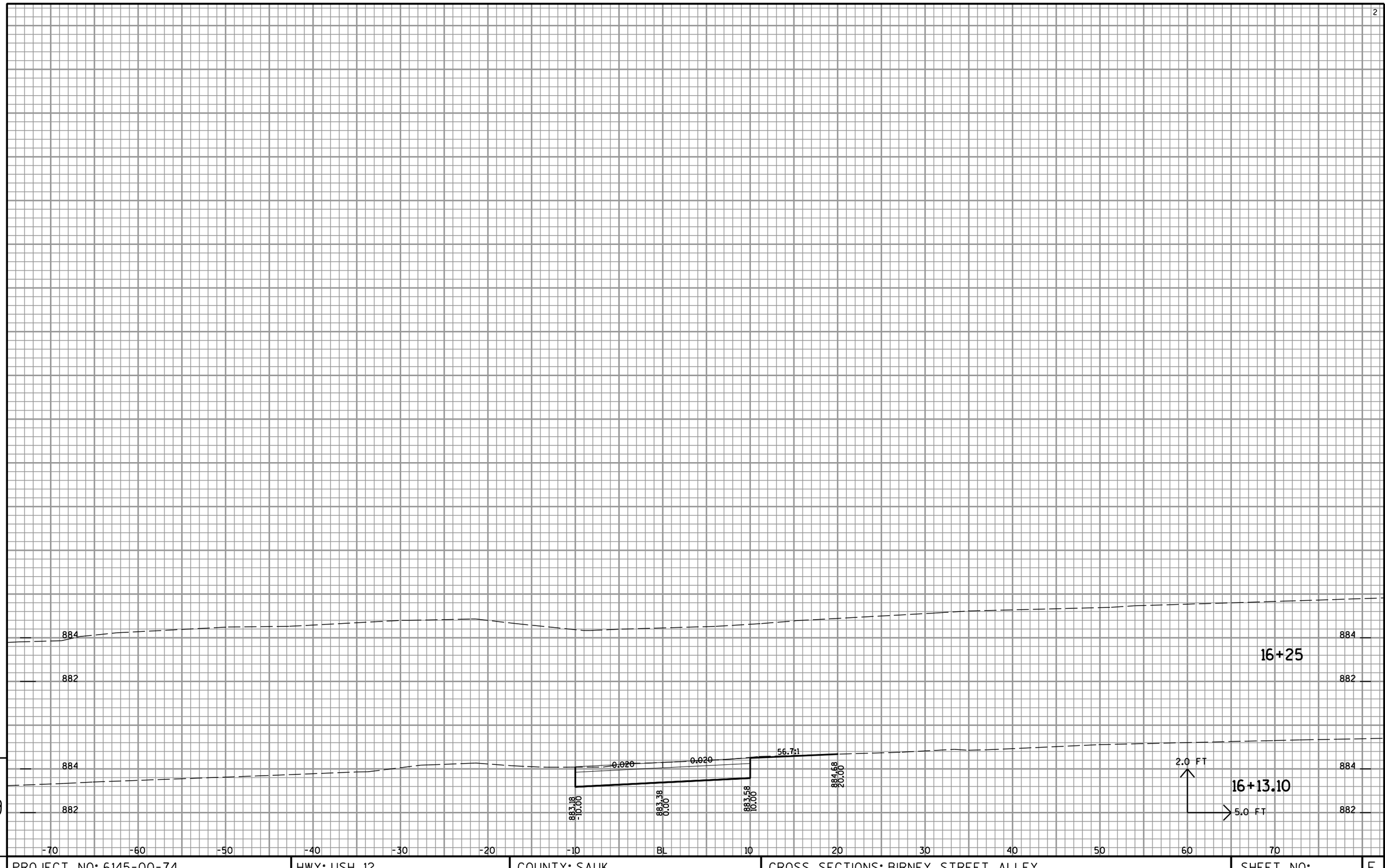


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PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: BIRNEY STREET ALLEY	SHEET NO: 266	E

FILE NAME : t:\1022702\sheets\sheets-phase3\xsect\090204_xs_birney.DGN PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



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PROJECT NO: 6145-00-74	HWY: USH 12	COUNTY: SAUK	CROSS SECTIONS: BIRNEY STREET ALLEY	SHEET NO: 267	E

FILE NAME : t:\1022702\sheets\sheets-phase3\xsect\090204_xs_birney.DGN PLOT DATE : 1/28/2013 PLOT BY : trg PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

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