GRE DEC 2013

PROJECT ID: 1130-33-71

WITH:

COUNTY: OUTAGAMIE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control)
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 = 470



15

N

DESIGN DESIGNATION STH 47

A.A.D.T. (2010)	=	12,250
A.A.D.T. (2030)	=	18,050
D.H.V.	=	1,372
D.D.	=	62/38
T.	=	9.5%
DESIGN SPEED	=	40 MPH
ESALS	=	5,000,500

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

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

APPLETON - GREEN BAY

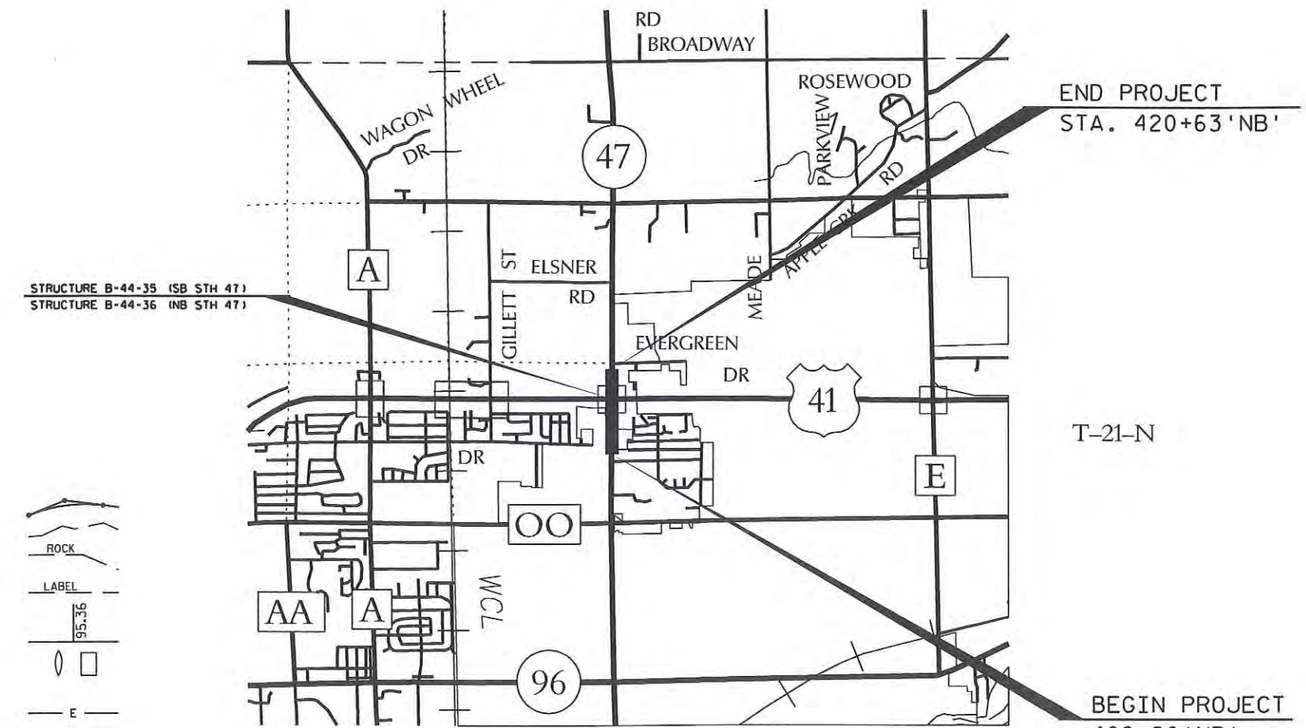
(STH 47 INTERCHANGE)

USH 41

OUTAGAMIE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1130-33-71	—	—

STATE PROJECT NUMBER
1130-33-71



LAYOUT
SCALE 0 0.5 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.338 MI.

"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), OUTAGAMIE COUNTY, NAD 1983(1991). VERTICAL DATUM BASED ON USGS(NAVD 88)."

ORIGINAL PLANS PREPARED BY

KL Engineering
[A] Better Experience

WISCONSIN
MIKE D. SCARMON
E-37613
EVANSVILLE, WI
PROFESSIONAL ENGINEER

DATE: 8/1/13 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KL ENGINEERING, INC.
Designer	KL ENGINEERING, INC.
Project Manager	MATTHEW HAEFS
Regional Examiner	
Regional Supervisor	BECKY RUIJAKKERS
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 08/21/13 Matthew W. Haefs PE (Signature)

E

FILE NAME : G:\WDOTNE\WNE0826\dgn\PLAN SHEETS\010101_ti.dgn PLOT DATE : 7/31/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 10

DIGGERS HOTLINE

Dial 811 or (800) 242-8511

www.DiggersHotline.com

UTILITY CONTACTS

ANR PIPELINE COMPANY
ROBERT BIBELHAUSEN
N4956 OAKCREST DRIVE
BONDUEL, WI
(715) 460-4001

CITY OF APPLETON DEPARTMENT OF PUBLIC WORKS
GARY KLEIN
MUNICIPAL SERVICE BUILDING, GLENDALE AVENUE
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(920) 419-6038

TOWN OF GRAND CHUTE SANITARY DIST 1
TODD PRAHL
1900 GRAND CHUTE BLVD
APPLETON, WI 54913-9613
(920) 832-1581

PAETEC, INC.
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TIME WARNER CABLE
VINCE ALBIN
3520 DESTINATION DR
APPLETON, WI 54915
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VINCE.ALBIN@TWCABLE.COM

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333 W EVERETT STREET, A299
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AT&T WISCONSIN
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221 WEST WASHINGTON STREET, 4TH FLOOR
APPLETON, WI 54911
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GL1784@ATT.COM

WISDOT NE REGION
ROBERT SCHUURMANS
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920) 492-5710
ROBERT.SCHUURMANS@DOT.WI.GOV

WISDOT STOC
DONALD SCHELL
433 W. ST. PAUL AVENUE, SUITE 300
MILWAUKEE, WI 53203-3007
(414) 227-2148
DONALD.SCHELL@DOT.WI.GOV

DNR AREA LIAISON

MATTHEW SCHAEUE
DEPARTMENT OF NATURAL RESOURCES
2984 SHAWANO AVENUE
PO BOX 10448
GREEN BAY, WI 54307-0448
(920) 662-5472
MATTHEW.SCHAEUE@WISCONSIN.GOV

COUNTY SURVEYOR OR SURVEYS CONTACT

JAMES A HEBERT
OUTAGAMIE COUNTY
PLANNING DEPARTMENT
3RD FLOOR OF THE ADMINISTRATION BUILDING
122 E. COLLEGE AVENUE
APPLETON WI 54911
920-832-5255

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVALS
PLAN DETAILS
EROSION CONTROL
STORM SEWER
SIGNING
ITS
RAMP GATE
TRAFFIC SIGNAL
PAVEMENT MARKING
TRAFFIC CONTROL
DETOUR
ALIGNMENT
CONTROL POINTS

ABBREVIATIONS

AEW	APRON ENDWALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
EAT	ENERGY ABSORBING TERMINAL
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SALV	SALVAGED
SAPBC	SALVAGED ASPHALTIC PAVEMENT BASE COURSE
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWINGS
SE	SUPER ELEVATION
SF	SQUARE FOOT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT

DESIGN CONTACTS

TRAFFIC SIGNALS
ROBERT SCHUURMANS
WISDOT NORTHEAST REGION
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920) 492-5710
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PERMANENT SIGNING
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GREEN BAY, WI 54304
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JEFF.ROSNER@GRAEF-USA.COM

ITS CAMERA
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DETOUR SIGNING
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PF.OCONNOR@DOT.WI.GOV

CONSULTANT PROJECT MANAGER
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KL ENGINEERING, INC.
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MADISON, WI 53711
(608) 663-1218
MSCARMON@KLENGINEERING.COM

GENERAL NOTES

THE CONTRACTOR SHALL CONTACT THE UTILITIES AND DIGGERS HOTLINE TO LOCATE AND FIELD VERIFY UTILITIES PRIOR TO THE START OF WORK. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. ANY LOCAL, MUNICIPAL OR OTHER UTILITY THAT IS NOT A MEMBER OF DIGGERS HOTLINE SHALL BE CONTACTED SEPARATELY.

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

RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE.

PROTECT INLETS WITH PROPER INLET PROTECTION AT LOCATIONS EXHIBITING RISK OF BEING IMPACTED BY CONSTRUCTION OPERATIONS AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

THE EXACT LOCATIONS OF PRIVATE ENTRANCES ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND UNLESS OTHERWISE DIRECTED BY THE ENGINEER, OR AS SHOWN ON THE PLANS.

THE EXACT LOCATION AND WIDTH OF TEMPORARY ACCESS FOR DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER. STAGE CONSTRUCTION AT ALL DRIVEWAYS TO PROVIDE ACCESS AT ALL TIMES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY ANY OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT THE CONTRACTORS EXPENSE.

PLACE SALVAGED TOPSOIL IN ALL GRADED AREAS AS DESIGNATED BY THE ENGINEER IMMEDIATELY AFTER GRADING HAS BEEN COMPLETED. SEED, MULCH AND FERTILIZE OR SOD AND FERTILIZE ALL AREAS 5 DAYS AFTER PLACEMENT OF SALVAGED TOPSOIL.

EROSION BALES ARE TO ONLY BE USED FOR REINFORCEMENT OF PROPOSED SILT FENCE LOCATIONS ALONG WETLANDS. ANY OTHER USE OF EROSION BALES IS PROHIBITED.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WATERWAY.

CURB AND GUTTER GRADES AND LAYOUT DATA ARE GIVEN TO THE FLANGE OF THE CURB.

SAWCUT ASPHALTIC AND CONCRETE DRIVEWAYS AND/OR PARKING LOTS AT THE MATCHLINE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER

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

EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.

ALL MANHOLE INLET OFFSETS ARE GIVEN TO THE CENTER OF THE STRUCTURE.

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. THIS ALSO INCLUDES VERIFICATION OF INVERT ELEVATIONS AT ALL PROPOSED STORM SEWER CONNECTION POINTS TO EXISTING SYSTEMS.

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

SIGNS IN CONFLICT WITH TRAFFIC CONTROL “IN USE” SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE ITEM “TRAFFIC CONTROL COVERING SIGNS TYPE 1 OR TYPE 2.

BENCHMARK LOCATIONS SHOWN ON PLAN ARE APPROXIMATE AND SHOULD BE VERIFIED.

5 FOOT WIDE SIDEWALK REQUIRES TRANSVERSE JOINTS SPACED AT 5 FEET, 8 FOOT WIDE SIDEWALK REQUIRES TRANSVERSE JOINTS SPACED AT 8 FEET.

SIDEWALK AND CURB & GUTTER REPLACEMENT SHOULD BE THE NEAREST JOINT. LIMITS ARE APPROXIMATE AND ARE TO BE VERIFIED IN THE FIELD BY THE ENGINEER. MATCH EXISTING SIDEWALK WIDTH.

REFER TO THE SPECIAL PROVISIONS FOR SPECIAL INSTRUCTIONS REGARDING THE VALLEY BAPTIST CHURCH PROPERTY.

ALL TOPSOIL REMOVED FROM THE EXISTING WETLAND DITCH ALONG RAMP NW SHALL BE STOCKPILED ON SITE AND REPLACED IN THE RELOCATED DITCH AREA.

VERIFY PROPOSED BEAMGUARD AND THRIE BEAM POST SPACING PRIOR TO DRAINAGE STRUCTURE OR CONDUIT PLACEMENT.

FOR ALL CURB RAMPS, REFER TO THE STANDARD DETAIL DRAWINGS FOR THE RAMP TAPER DIMENSIONS. SIDEWALK WIDTHS ARE DIMENSIONED IN THE PLAN.

ALIGNMENTS ARE LABELED WITH THE FOLLOWING IDENTIFIERS.

ALIGNMENT IDENTIFIERS

"NB"	STH 47 NORTHBOUND
"SB"	STH 47 SOUTHBOUND
"NE"	NORTHBOUND USH 41 ON RAMP FROM STH 47
"NW"	SOUTHBOUND USH 41 OFF RAMP TO STH 47
"SE"	NORTHBOUND USH 41 OFF RAMP TO STH 47
"SW"	SOUTHBOUND USH 41 ON RAMP FROM STH 47
"RTA"	RIGHT TURN LANE - NB STH 47 TO NB USH 41
"RTB"	RIGHT TURN LANE - SB USH 41 TO NB STH 47
"RTC"	RIGHT TURN LANE - SB STH 47 TO SB USH 41
"RTD"	RIGHT TURN LANE - NB USH 41 TO NB STH 47
"ASN"	ASSOCIATION DRIVE
"S"	USH 41 SOUTHBOUND
"N"	USH 41 NORTHBOUND

ASSOCIATION DRIVE PAVEMENT STRUCTURE SHALL BE THE SAME AS THE MAINLINE.

TEMPORARY ROADWAYS AND CROSSOVERS SHALL CONSIST OF A MINIMUM DEPTH 5-INCHES ASPHALTIC SURFACE TEMPORARY OVER A MINIMUM DEPTH 6-INCH DEPTH BASE AGGREGATE DENSE 1 ¼-INCH .

HMA PAVEMENT FOR SHOULDERS WHEN INDICATED ON THE PLANS, SHALL CONSIST OF COURSES AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS.

TOTAL DEPTH	LAYERS	TYPE	NOMINAL MAX SIZE GRADATION	PERFORMANCE GRADE
3 1/2-INCH	1	E-0.3	12.5 MM	PG58-28

RUNOFF COEFFICENT 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	0.08 0.22	0.16 0.30	0.22 0.38	0.12 0.26	0.20 0.34	0.27 0.44	0.15 0.30	0.24 0.37	0.33 0.50	0.19 0.34	0.28 0.41	0.38 0.56
MEDIAN STRIP-TURB	0.19 0.24	0.20 0.26	0.24 0.30	0.19 0.25	0.22 0.28	0.26 0.33	0.20 0.26	0.23 0.30	0.30 0.37	0.20 0.27	0.25 0.32	0.30 0.40
SIDE SLOPE-TRUF			0.25 0.32			0.27 0.34			0.28 0.36			0.30 0.38
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 = 25.8 ACRES
TOTAL AREA EXPECTED TO BE DISTRIBUTED BY CONSTRUCTION ACTIVITIES = 13.2 ACRES

2

2

BEGIN CONSTRUCTION
739+75'SE'

ASSOCIATION DRIVE

740SE

740N

740S

740SW

WETLANDS (TYP.)

SW RAMP

BEGIN CONSTRUCTION
744+25'SW'

SE RAMP

745SE

745N

745S

745SW

USH 41 NB

USH 41 SB

B-44-35

B-44-36

TOWN
OF
GRAND CHUTE

BEGIN PROJECT
STA. 402+80'NB'

CITY OF APPLETON

TOWN
OF
GRAND CHUTE

END PROJECT
STA. 420+63'NB'

396SB
396NB

400SB
400NB

405SB
405NB

406RTA

406RTB

410SB
410NB

415RTC

415SB
415NB

420SB
420NB

425SB
425NB

STH 47 / RICHMOND STREET

WEST CAPITOL DRIVE

WEST SENECA DRIVE

NORTH CHIPPEWA STREET

TOWN
OF
GRAND CHUTE

750NE

750N

750S

750SW

END CONSTRUCTION
751+50'NE'

NE RAMP

NW RAMP

755NE

755N

755S

755SW

TOWN
OF
GRAND CHUTE

CITY
OF
APPLETON

TOWN
OF
GRAND CHUTE

EVERGREEN DRIVE

ALVIN STREET

END CONSTRUCTION
756+50'NW'

N

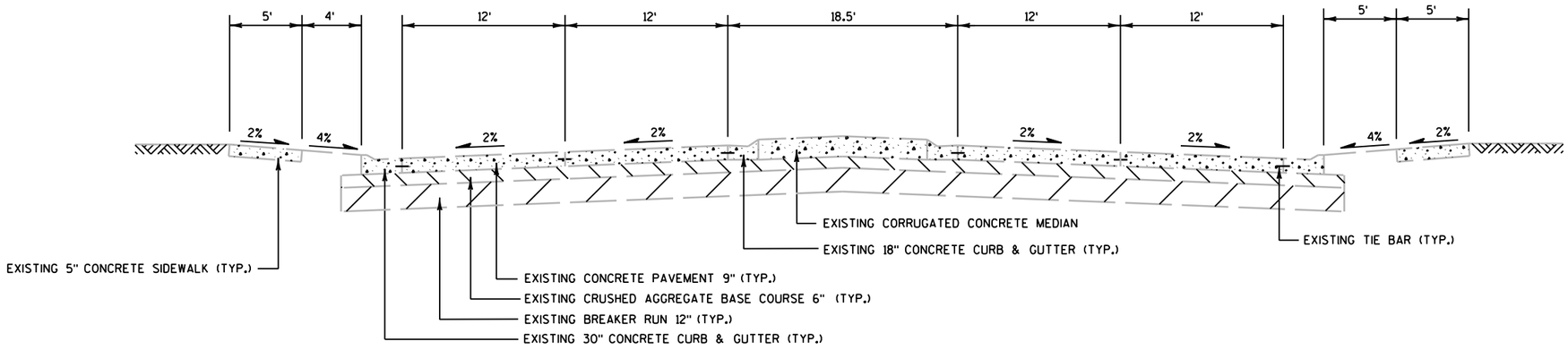
SCALE, FEET 0 100 200

ALIGNMENT NAMING CONVENTION
'SE' = NORTHBOUND USH 41 OFF RAMP TO STH 47
'NE' = NORTHBOUND USH 41 ON RAMP FROM STH 47
'SW' = SOUTHBOUND USH 41 ON RAMP FROM STH 47
'NW' = SOUTHBOUND USH 41 OFF RAMP TO STH 47

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PROJECT OVERVIEW	SHEET 4	E

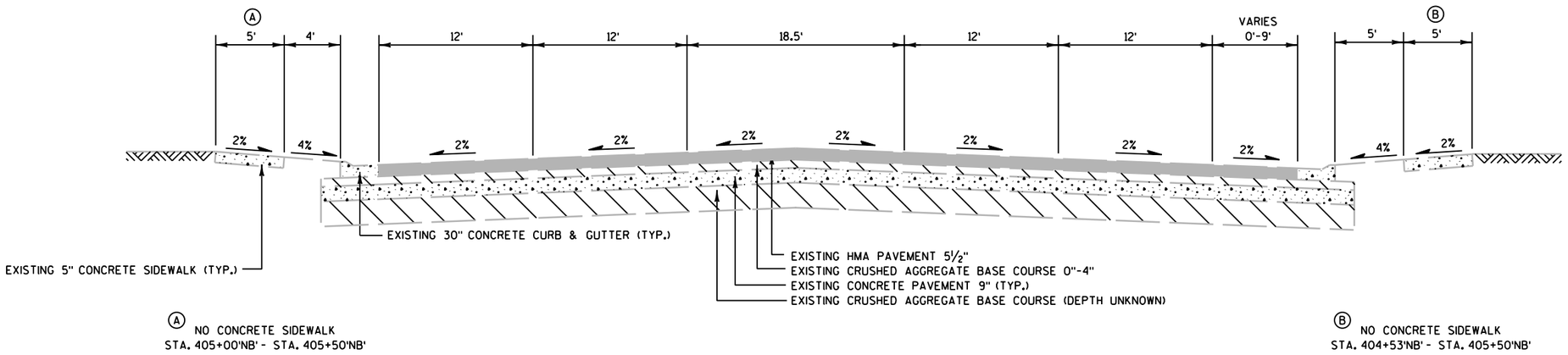
FILE NAME : G:\WDOTNE\WNE0826\dgn\PLAN SHEETS\020201_po.dgn PLOT DATE : 7/31/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42



TYPICAL EXISTING SECTION FOR STH 47

STA. 400+00'NB' - STA. 402+80'NB'



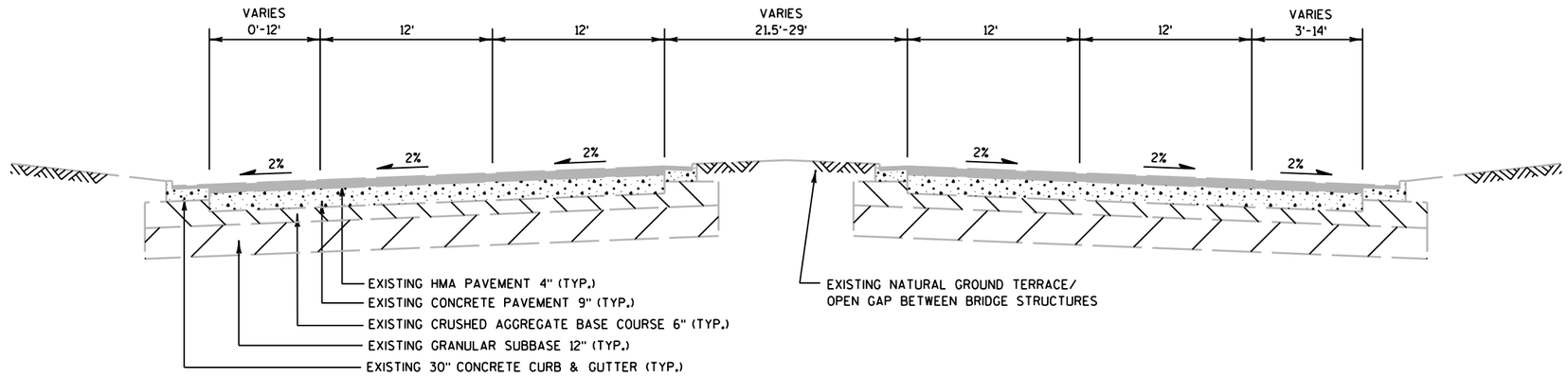
(A) NO CONCRETE SIDEWALK
STA. 405+00'NB' - STA. 405+50'NB'

(B) NO CONCRETE SIDEWALK
STA. 404+53'NB' - STA. 405+50'NB'

TYPICAL EXISTING SECTION FOR STH 47

STA. 402+80'NB' - STA. 405+50'NB'

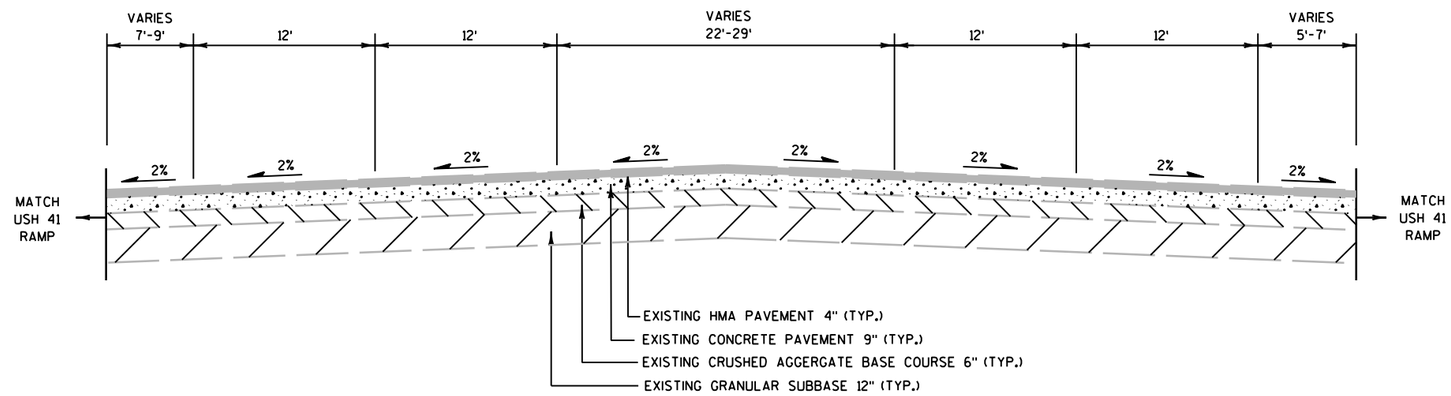
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 5	E



TYPICAL EXISTING SECTION FOR STH 47

STA. 406+78'NB' - STA. 408+10'NB'
STA. 408+72'NB' - STA. 409+65'NB'*
STA. 412+02'NB' - STA. 412+85'NB'*
STA. 413+50'NB' - STA. 418+08'NB'

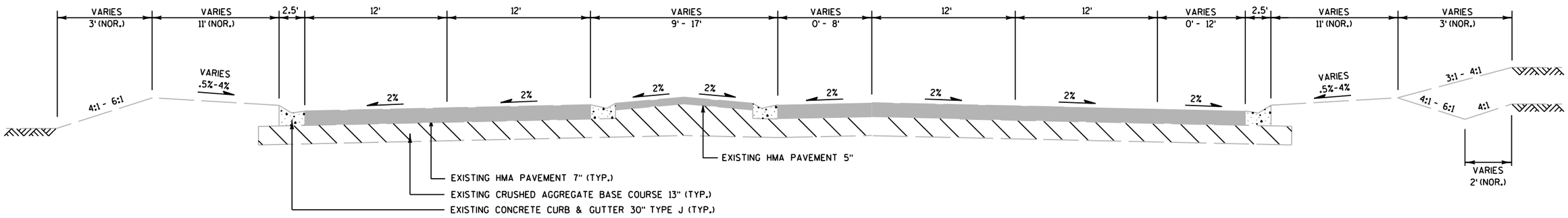
* EXISTING STRUCTURES B-44-35 & B-44-36 FROM STA. 409+65'NB' - STA. 412+02'NB'



TYPICAL EXISTING SECTION FOR STH 47

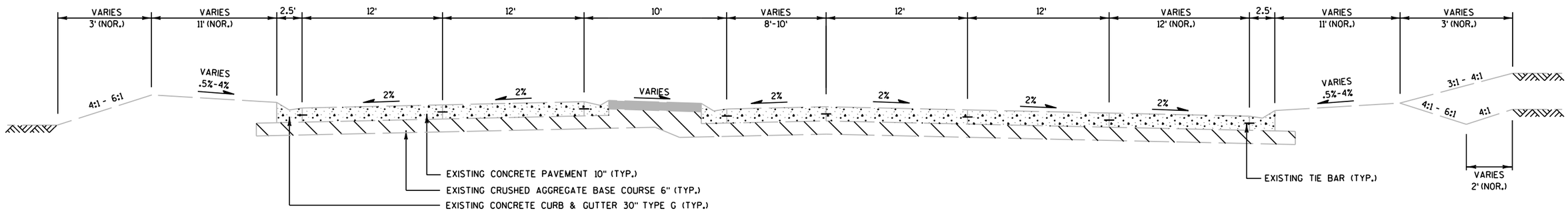
STA. 405+50'NB' - STA. 406+78'NB'
STA. 408+10'NB' - STA. 408+72'NB'
STA. 412+85'NB' - STA. 413+50'NB'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 6	E



TYPICAL EXISTING SECTION FOR STH 47

STA. 418+08'NB' - STA. 420+04'NB'

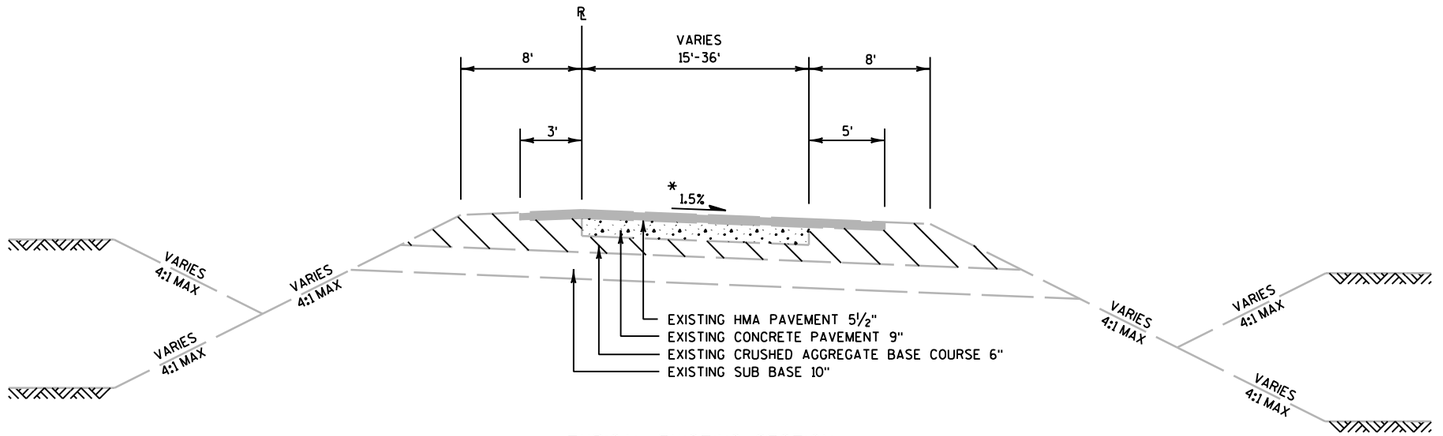


TYPICAL EXISTING SECTION FOR STH 47

STA. 420+04'NB' - STA. 422+17'NB'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 7	E

2



TYPICAL EXISTING SECTION

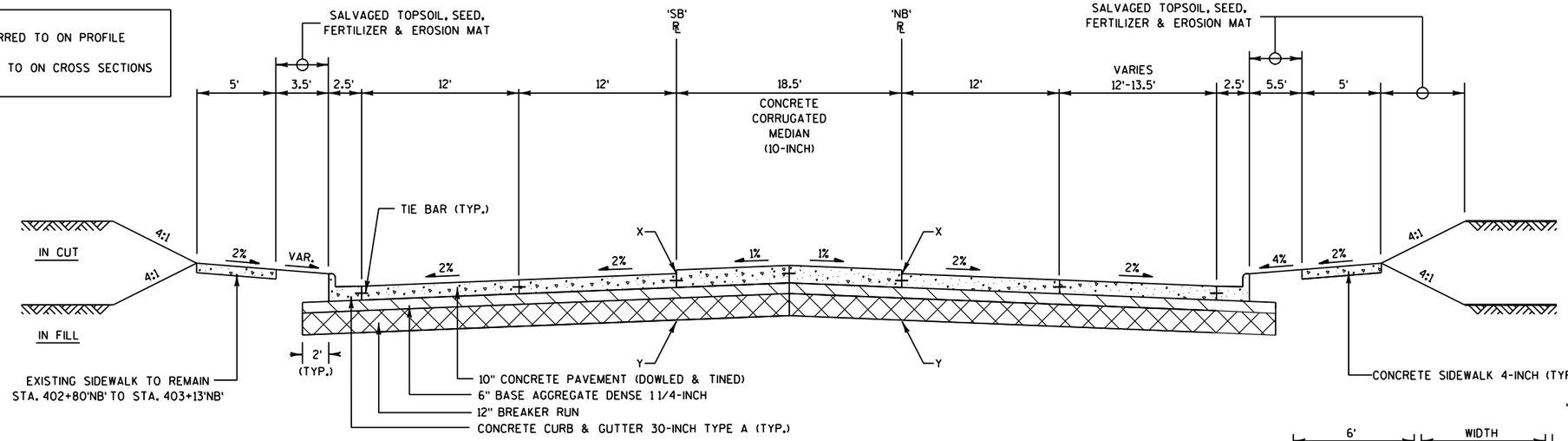
USH 41 RAMPS
STA. 748'NE'+57 - STA. 752'NE'+01
STA. 739'SE'+74 - STA. 747'SE'+90
STA. 742'SW'+00 - STA. 747'SW'+91 *
STA. 748'NW'+59 - STA. 756'NW'+51 *

*MIRROR SECTION FOR SW & NW RAMPS

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 8	E

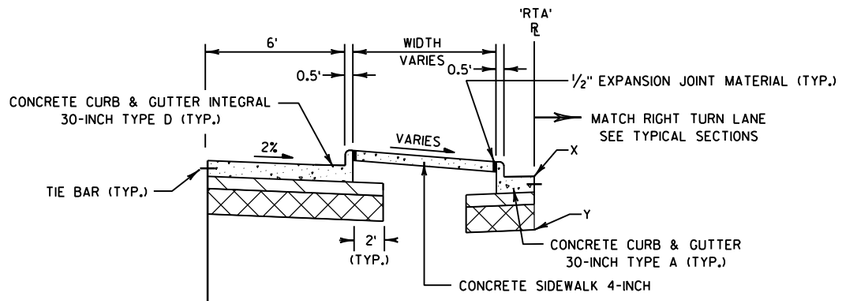
X = POINT REFERRED TO ON PROFILE

Y = POINT REFERRED TO ON CROSS SECTIONS

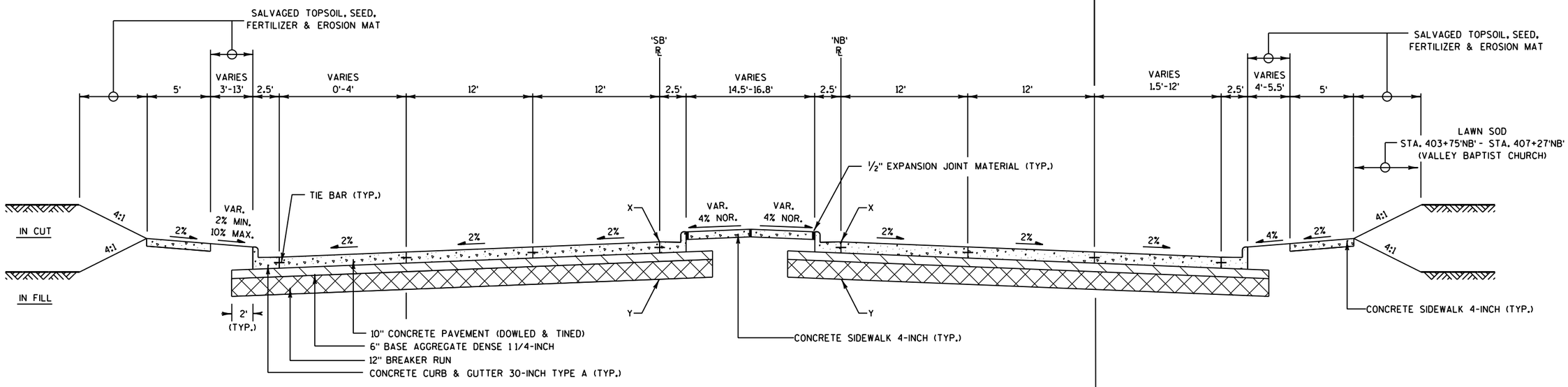


FINISHED TYPICAL SECTION FOR STH 47

STA. 402+80'NB' - STA. 403+69'NB'



STA. 407+28'NB' - STA. 408+40'NB'



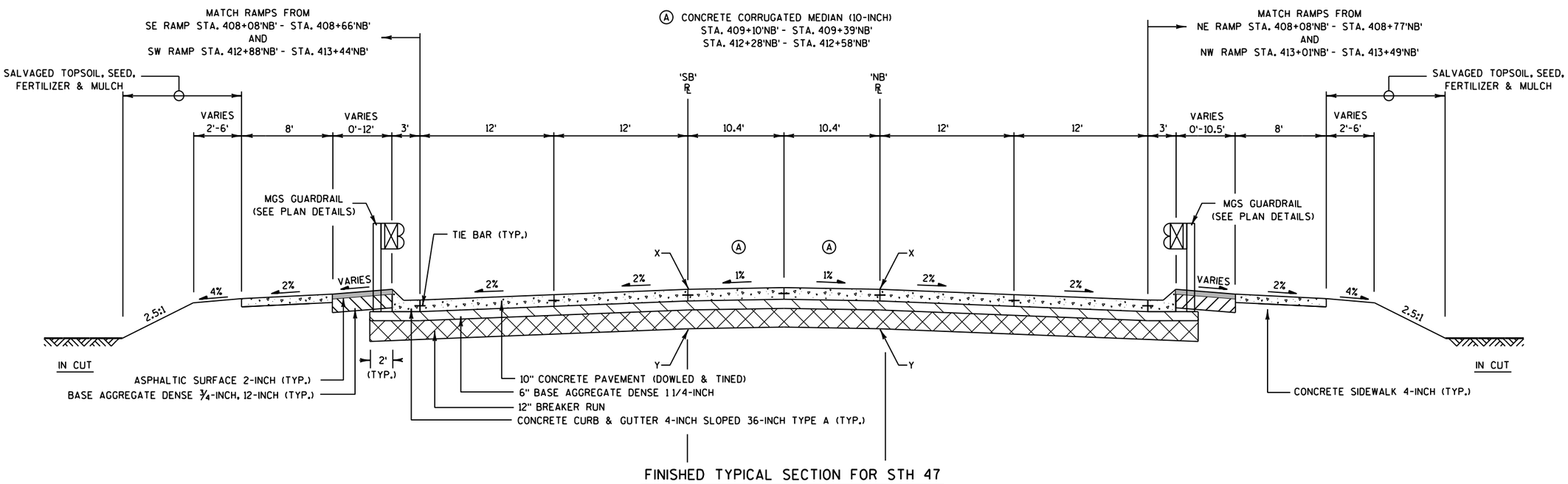
MATCH ASSOCIATION DRIVE
STA. 404+80'NB' - STA. 405+63'NB'
MATCH SE RAMP
STA. 407+54'NB' - STA. 408+08'NB'

FINISHED TYPICAL SECTION FOR STH 47

STA. 403+69'NB' - STA. 408+24'NB'

MATCH RIGHT TURN LANE
SEE TYPICAL SECTIONS
STA. 406+30'NB' - STA. 408+08'NB'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 9 E

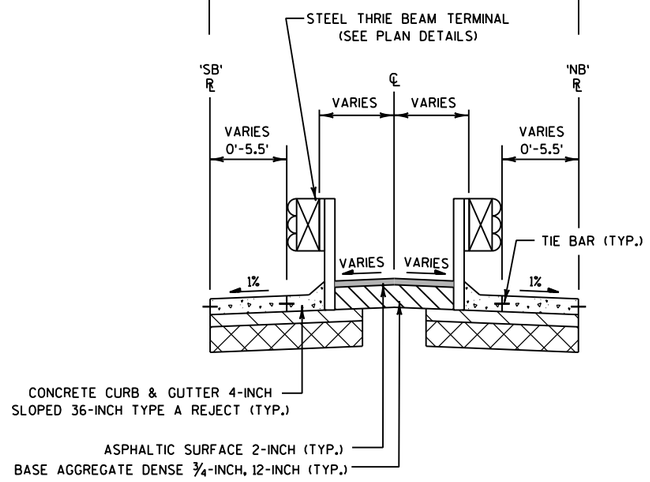


FINISHED TYPICAL SECTION FOR STH 47

X = POINT REFERRED TO ON PROFILE

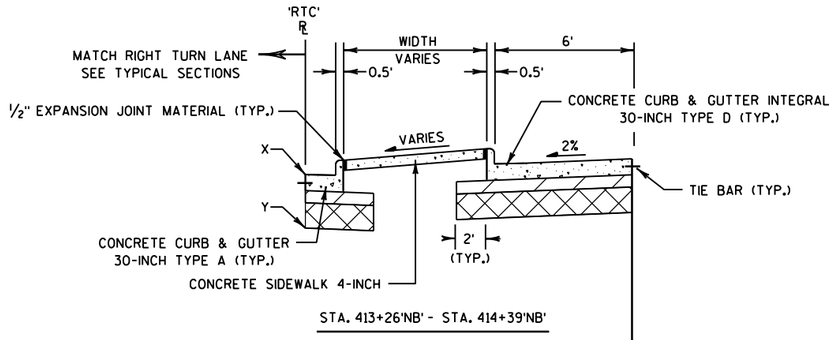
Y = POINT REFERRED TO ON CROSS SECTIONS

STA. 408+24'NB' - STA. 409+65'NB'*
STA. 412+02'NB' - STA. 413+44'NB'*



* EXISTING STRUCTURES B-44-35 & B-44-36 FROM STA. 409+65'NB' - STA. 412+02'NB'

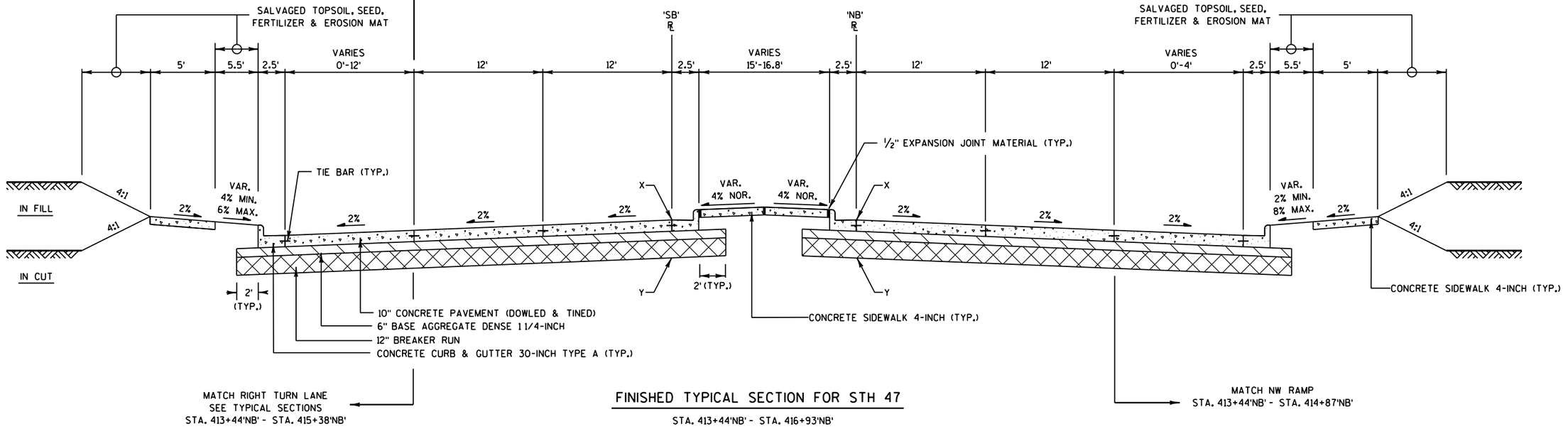
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 10	E



STA. 413+26'NB' - STA. 414+39'NB'

X = POINT REFERRED TO ON PROFILE

Y = POINT REFERRED TO ON CROSS SECTIONS

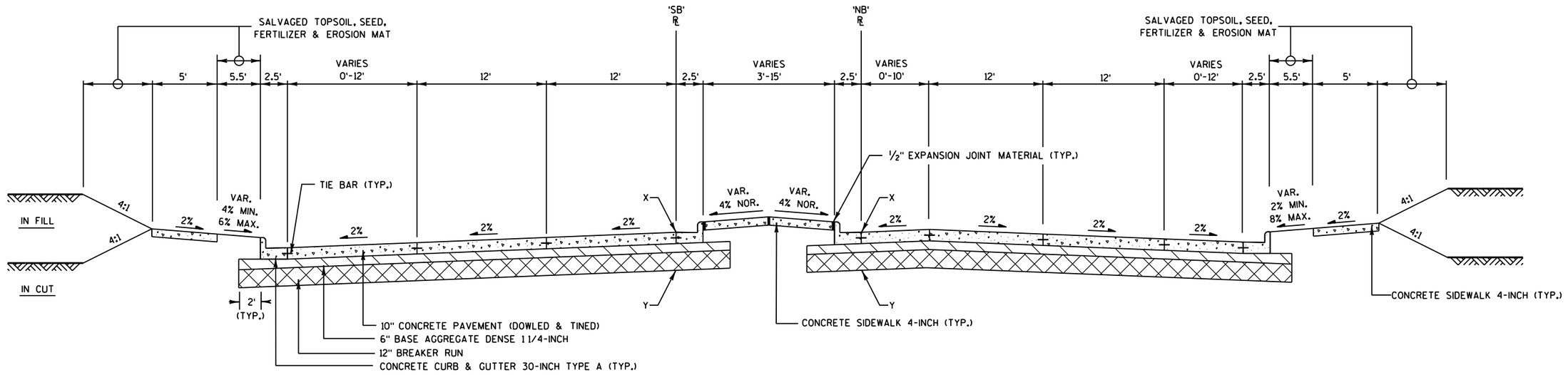


MATCH RIGHT TURN LANE
SEE TYPICAL SECTIONS
STA. 413+44'NB' - STA. 415+38'NB'

FINISHED TYPICAL SECTION FOR STH 47

STA. 413+44'NB' - STA. 416+93'NB'

MATCH NW RAMP
STA. 413+44'NB' - STA. 414+87'NB'

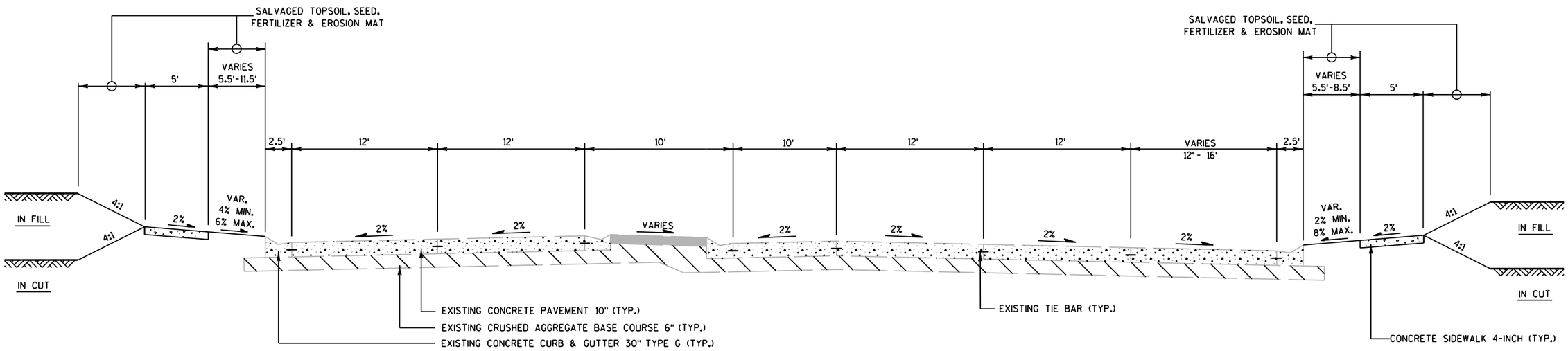


X = POINT REFERRED TO ON PROFILE

Y = POINT REFERRED TO ON CROSS SECTIONS

FINISHED TYPICAL SECTION FOR STH 47

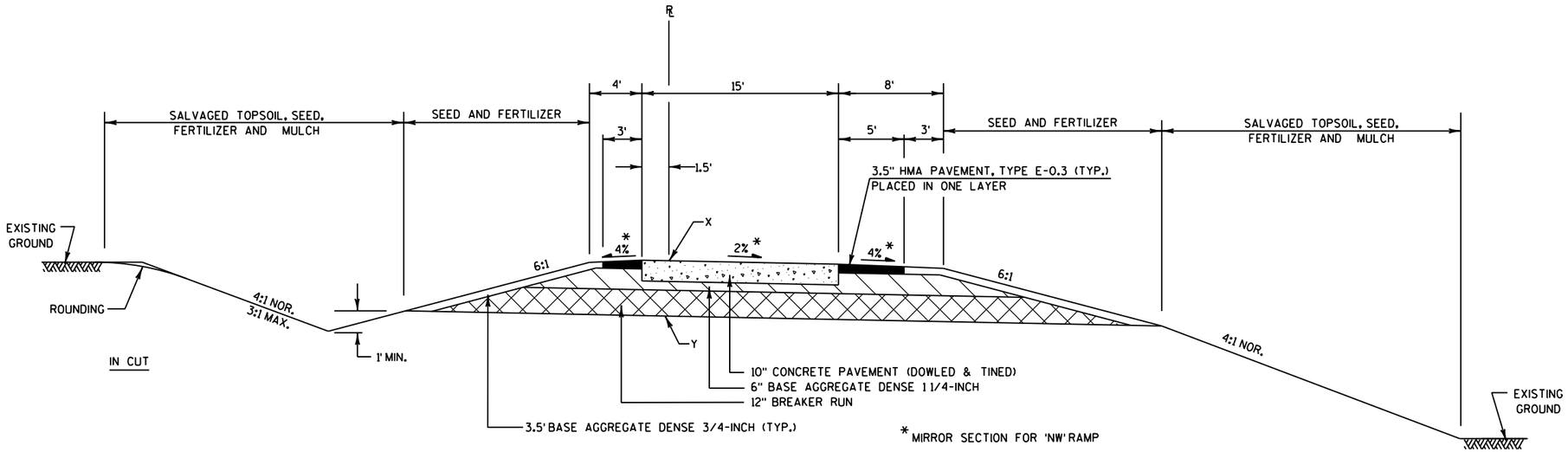
STA. 416+93'NB' - STA. 420+29'NB'



FINISHED TYPICAL SECTION FOR STH 47

STA. 420+29'NB' - STA. 422+17'NB'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 12	E



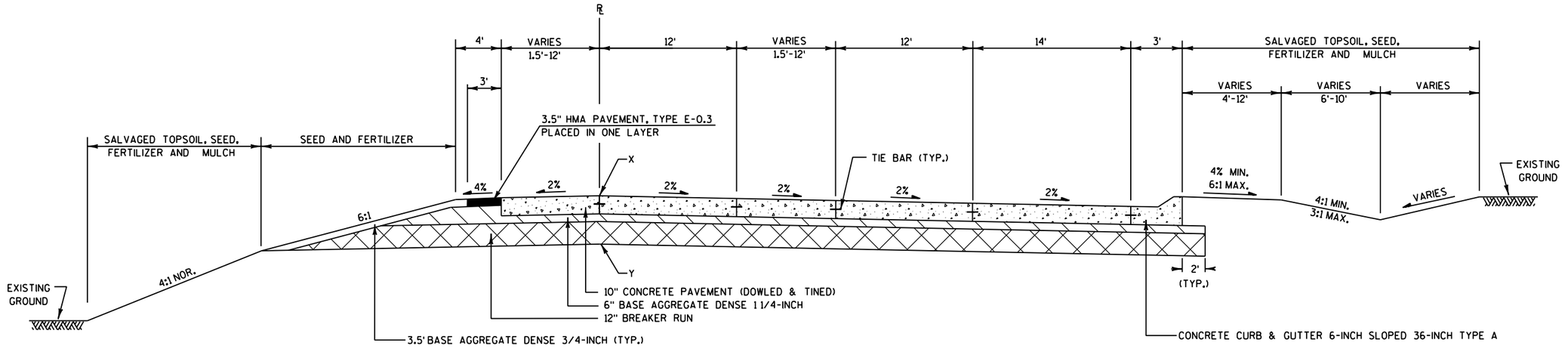
X = POINT REFERRED TO ON PROFILE

Y = POINT REFERRED TO ON CROSS SECTIONS

FINISHED TYPICAL SECTION FOR RAMPS

RAMP NW: STA. 756+10'NW' - STA. 756+50'NW' *
RAMP SE: STA. 739+75'SE' - STA. 740+40'SE'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 13	E

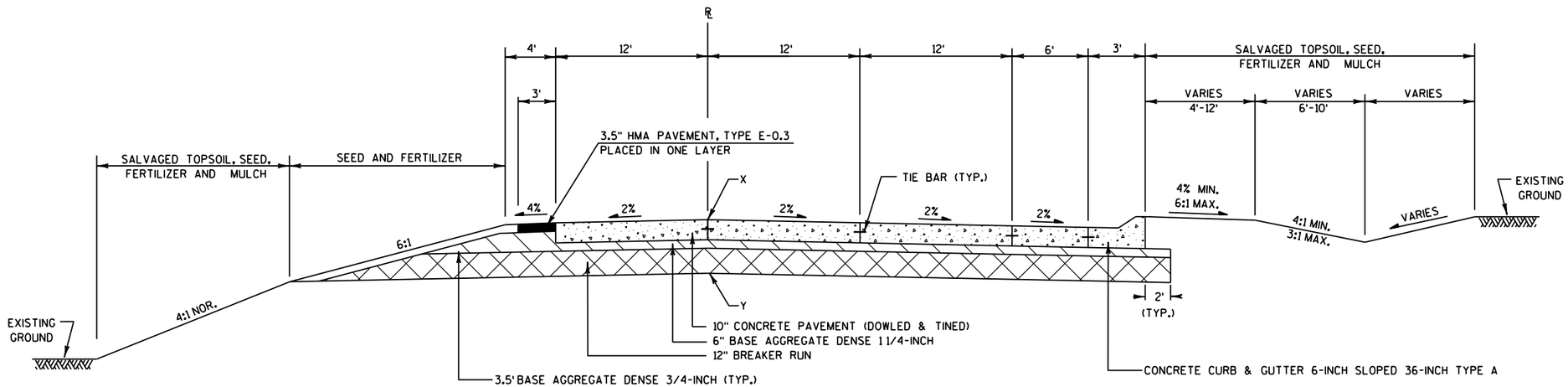


FINISHED TYPICAL SECTION FOR RAMPS

RAMP NW: STA. 753+10'NW' - STA. 756+10'NW'
RAMP SE: STA. 740+40'SE' - STA. 743+41'SE'

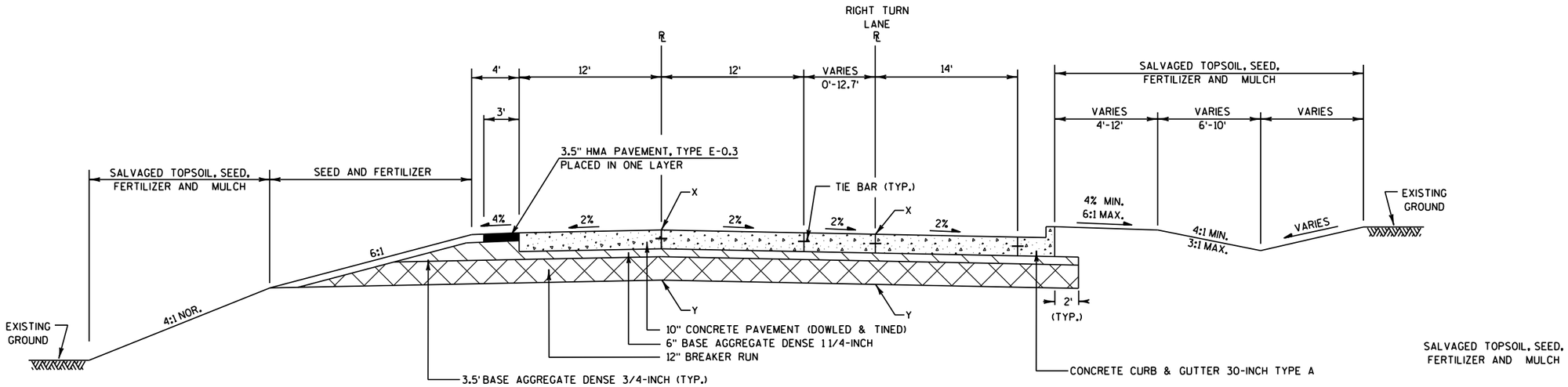
X = POINT REFERRED TO ON PROFILE

Y = POINT REFERRED TO ON CROSS SECTIONS



FINISHED TYPICAL SECTION FOR RAMPS

RAMP NW: STA. 750+42'NW' - STA. 753+10'NW'
RAMP SE: STA. 743+41'SE' - STA. 746+17'SE'

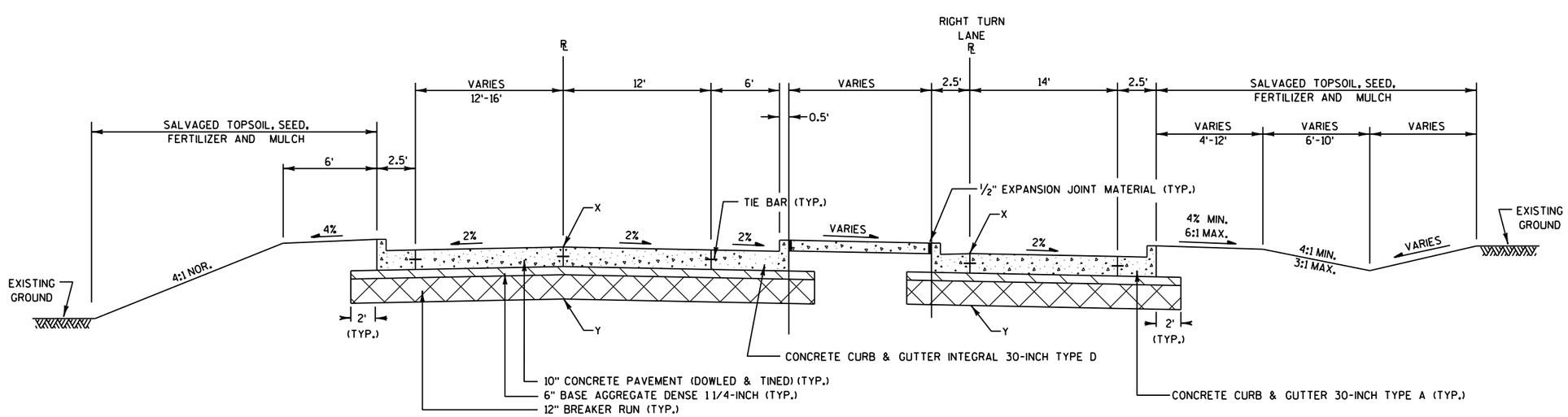


FINISHED TYPICAL SECTION FOR RAMPS

RAMP NW: STA. 749+58'NW' - STA. 750+42'NW'
RAMP SE: STA. 746+17'SE' - STA. 746+98'SE'

X = POINT REFERRED TO ON PROFILE

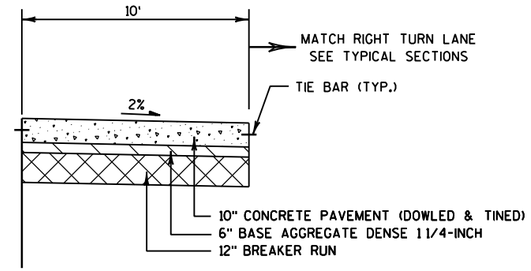
Y = POINT REFERRED TO ON CROSS SECTIONS



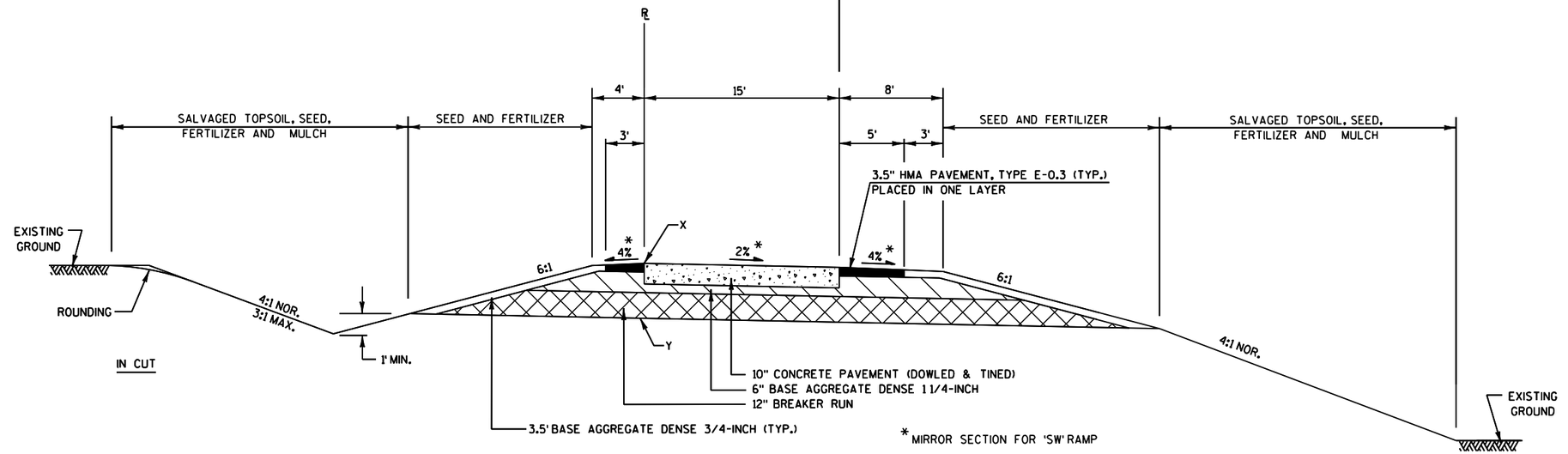
FINISHED TYPICAL SECTION FOR RAMPS

RAMP NW: STA. 748+49'NW' - STA. 749+58'NW'
RAMP SE: STA. 746+98'SE' - STA. 748+01'SE'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 15	E



RAMP SW: STA. 747+22'SW' - STA. 748+49'SW'
RAMP NE: STA. 748+01'NE' - STA. 749+30'NE'



X = POINT REFERRED TO ON PROFILE

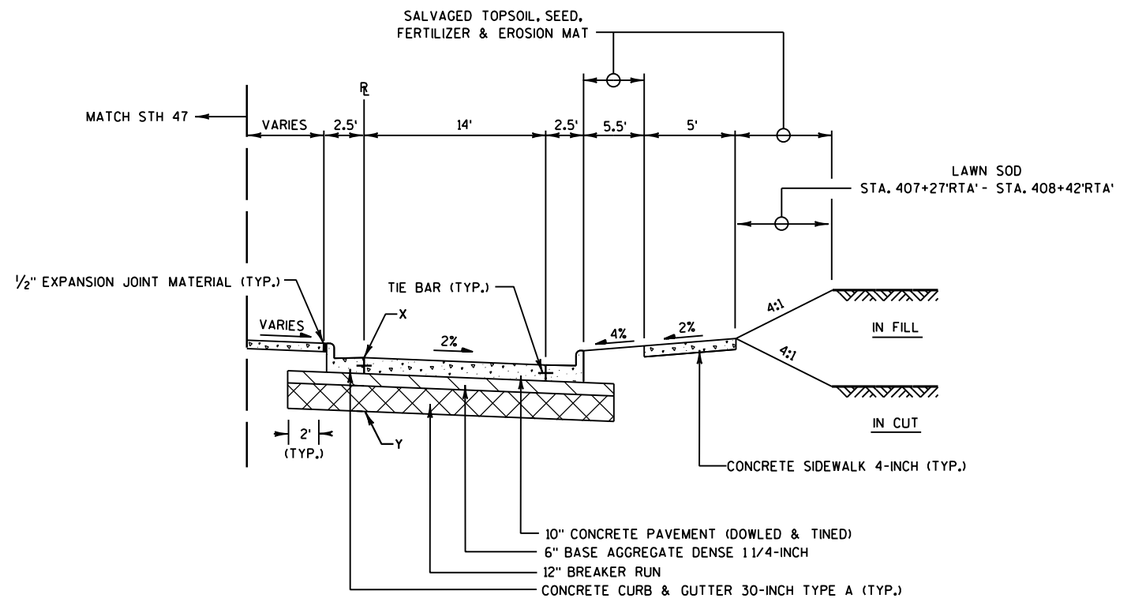
Y = POINT REFERRED TO ON CROSS SECTIONS

FINISHED TYPICAL SECTION FOR RAMPS

RAMP NE: STA. 748+49'NE' - STA. 751+50'NE'
RAMP SW: STA. 744+25'SW' - STA. 748+01'SW'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 16	E

2

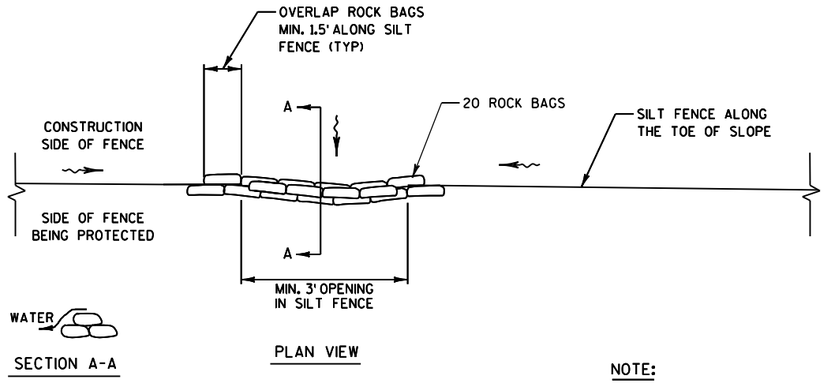


X = POINT REFERRED TO ON PROFILE

Y = POINT REFERRED TO ON CROSS SECTIONS

FINISHED TYPICAL SECTION FOR STH 47 RIGHT TURN LANES

NB STH 47: STA. 407+27'RTA' - STA. 408+42'RTA'
SB STH 47: STA. 413+22'RTC' - STA. 414+39'RTC'



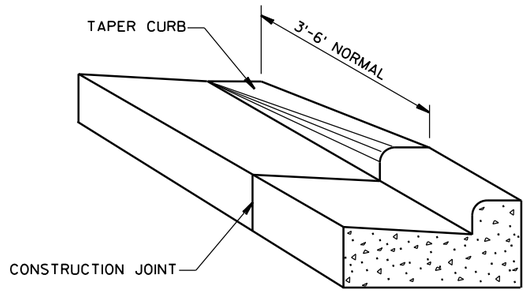
NOTE:

DIMENSIONS AND LOCATIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY ENGINEER

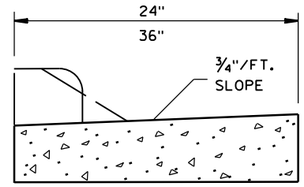
NOTE:
FOR FURTHER DETAIL SEE
SDD "SILT FENCE DETAIL"

SILT FENCE DRAINAGE OUTLET, ROCK BAGS

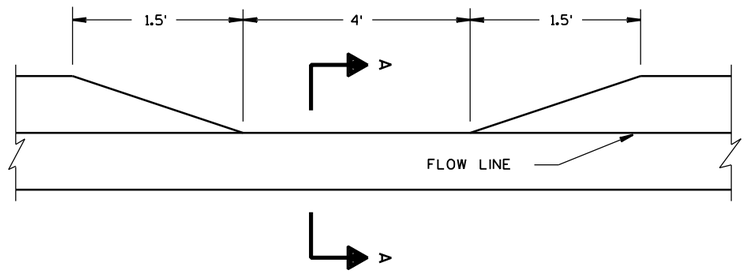
SEE EROSION CONTROL PLANS FOR LOCATIONS



DETAIL OF CURB & GUTTER TERMINI

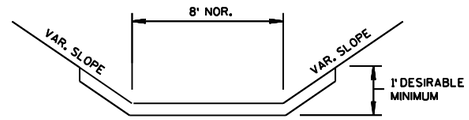


SECTION A-A

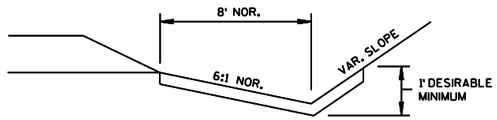


DETAIL OF CURB HEAD DEPRESSION FOR DRAINAGE AT CURB & GUTTER SECTION

SEE PLAN DETAILS FOR LOCATIONS



FLAT BOTTOM DITCHES

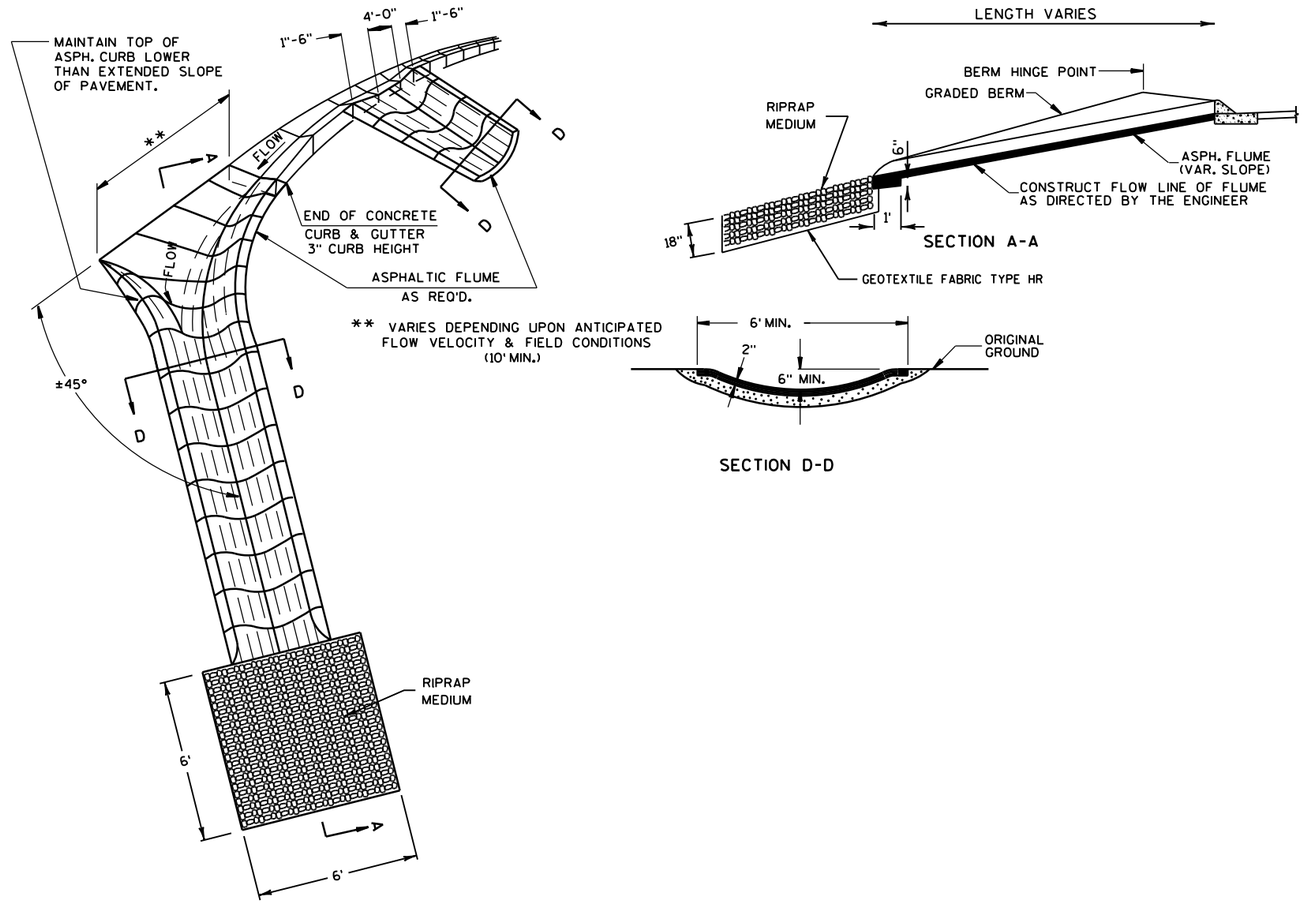


V-DITCHES

EROSION MAT DETAIL FOR DITCHES

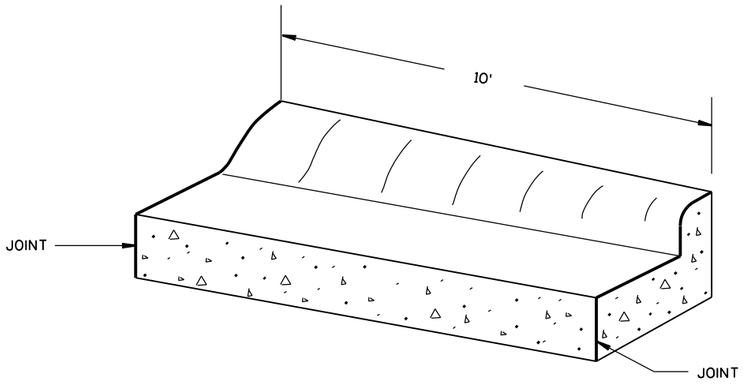
SEE EROSION CONTROL PLANS FOR LOCATIONS

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAILS	SHEET 18	E



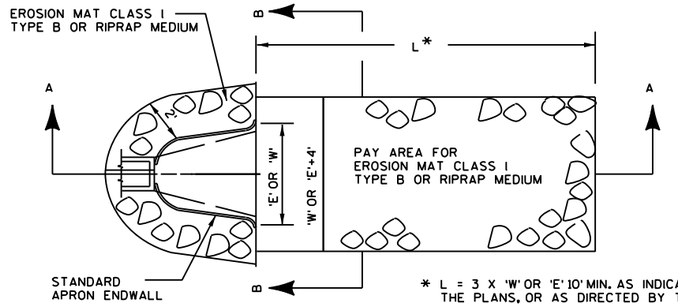
DETAIL FOR RIPRAP AT FLUME ENDS

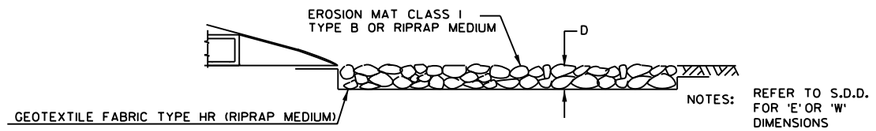
SEE EROSION CONTROL PLANS FOR LOCATIONS



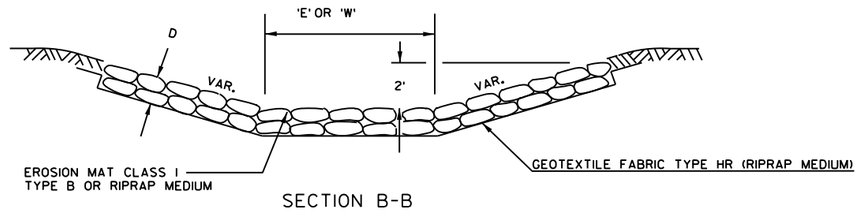
TRANSITION DETAIL

36" TYPE "A" CURB & GUTTER TO 30" TYPE "A" CURB & GUTTER
(TO BE MEASURED & PAID FOR AS 36" CONC. C&G)





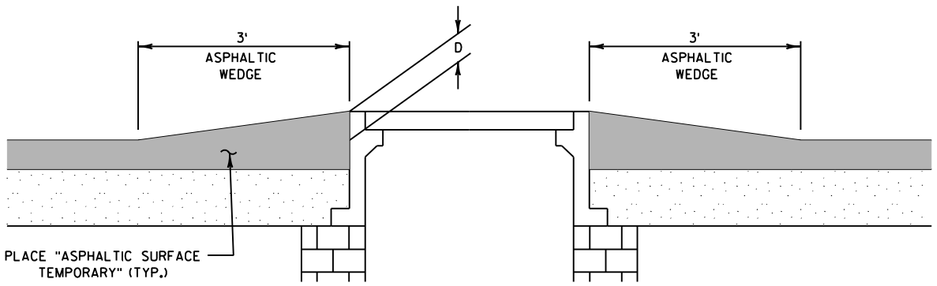
SECTION A-A



SECTION B-B

EROSION CONTROL TREATMENT AT PIPE ENDWALLS

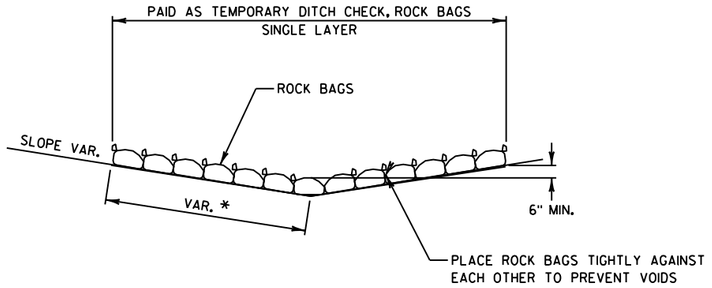
SEE EROSION CONTROL PLANS FOR LOCATIONS



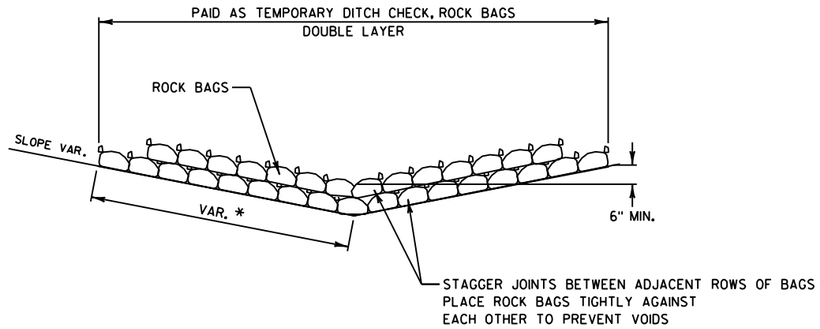
D = DEPTH VARIES AT EACH MANHOLE

TEMPORARY WEDGES DETAIL (SANITARY SEWER MANHOLES)

NOTE: PROVIDE ASPHALTIC WEDGES PRIOR
TO OPENING LANE TO TRAFFIC



SIDE VIEW (SINGLE LAYER)

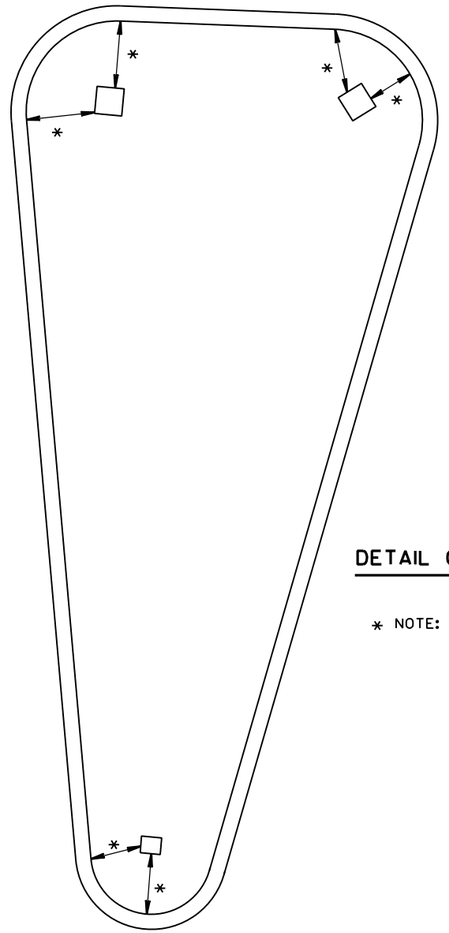


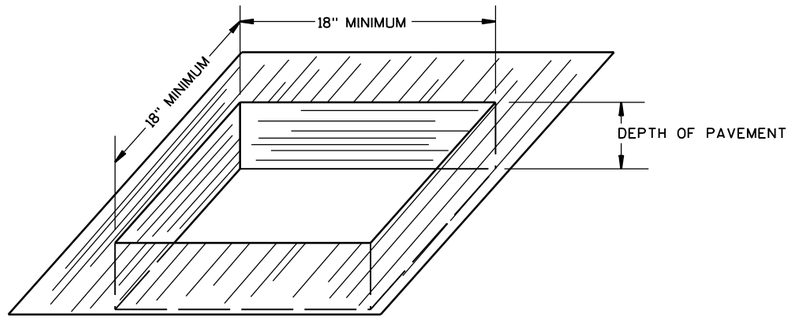
* LENGTH AND NUMBER OF BAGS MAY VARY
DEPENDING ON DESIRED DEPTH OF WATER POOL.

SIDE VIEW (DOUBLE LAYER)

TEMPORARY DITCH CHECK, ROCK BAGS, SINGLE LAYER AND DOUBLE LAYER

SEE EROSION CONTROL PLANS FOR LOCATIONS





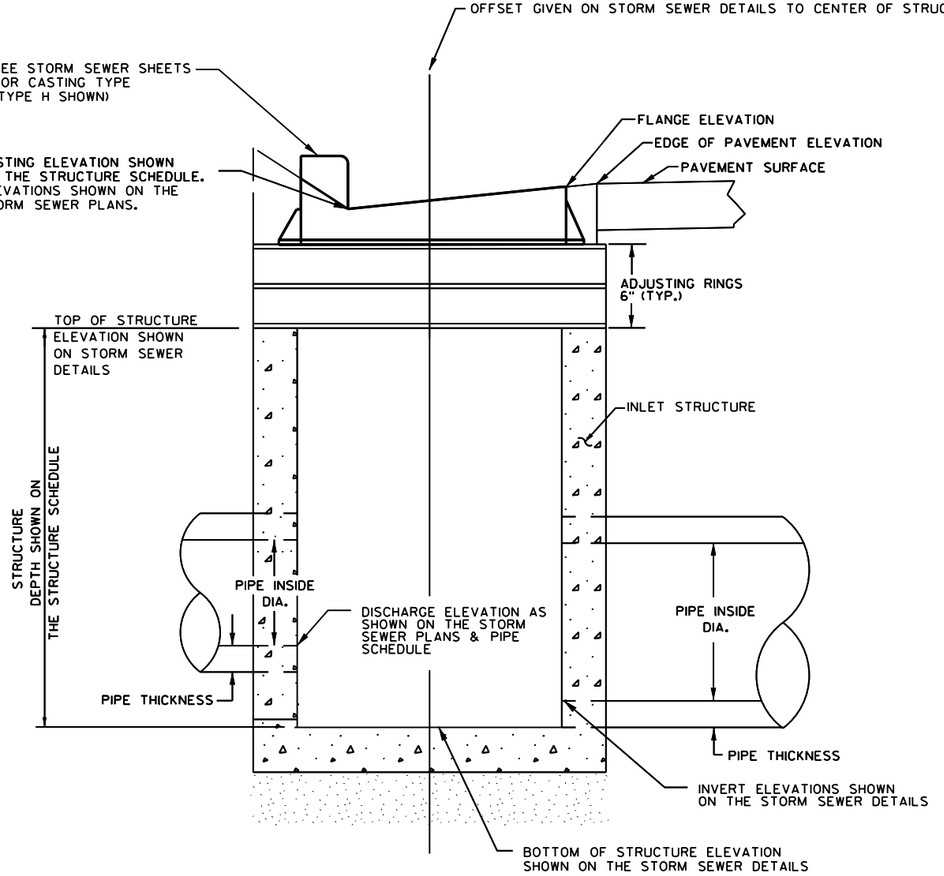
DETAIL OF OPENINGS IN ISLAND FOR SIGN PLACEMENT

* NOTE: ALL SQUARED OPENINGS IN ISLAND FOR SIGN PLACEMENTS SHALL SHALL BE DETERMINED BY SIGN SIZE AND NUMBER. A 2' MINIMUM FROM BACK OF CURB IS REQUIRED.

GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND INLET
(INCIDENTAL TO CONSTRUCTION OF INLET)

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPICABLE SPECIAL PROVISIONS, AND S.D.D. FOR INLETS (TYPE)

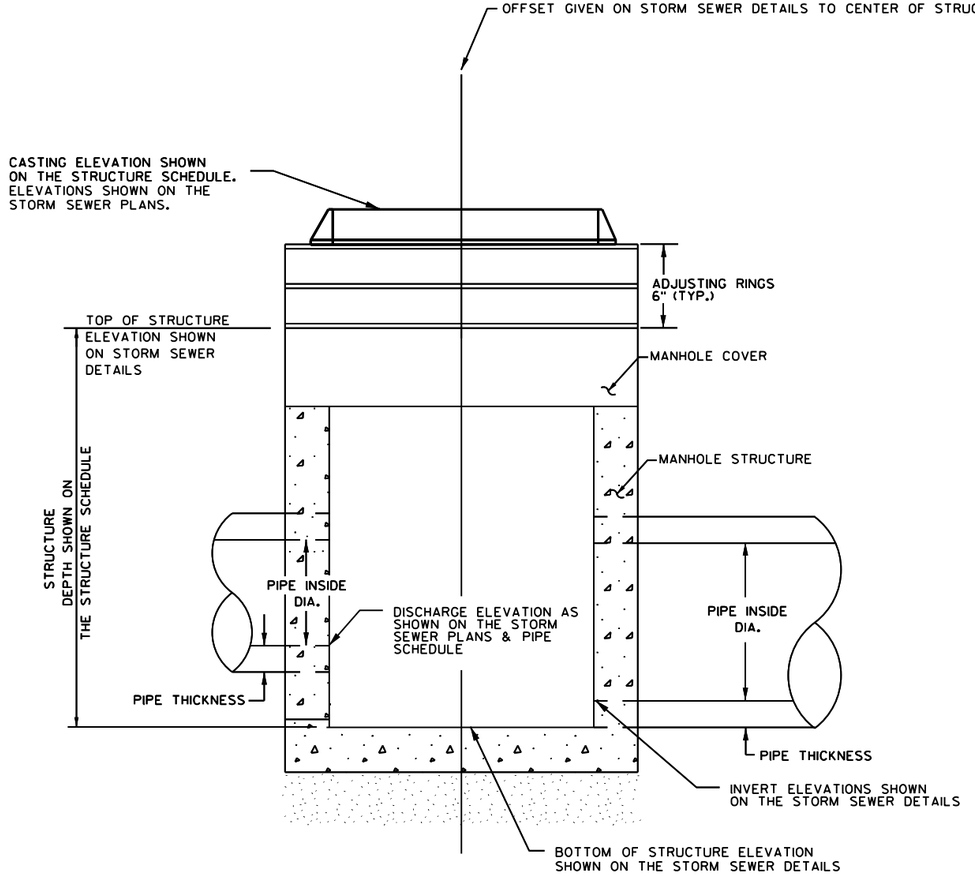


DETAIL OF INLET W/CASTING

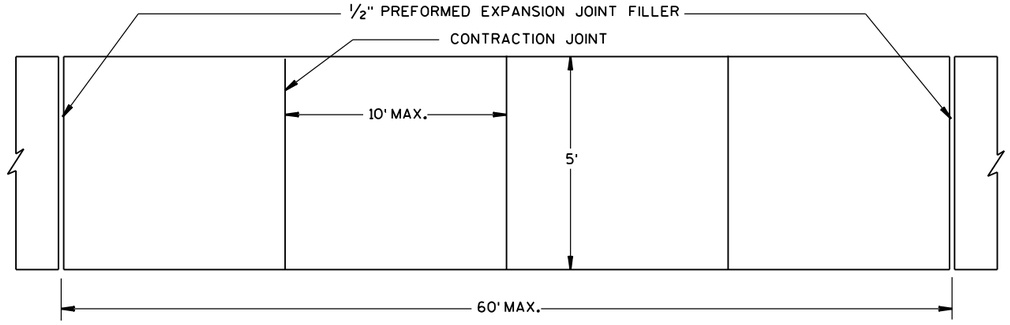
GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND INLET
(INCIDENTAL TO CONSTRUCTION OF INLET)

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPICABLE SPECIAL PROVISIONS, AND S.D.D. FOR MANHOLES (TYPE)

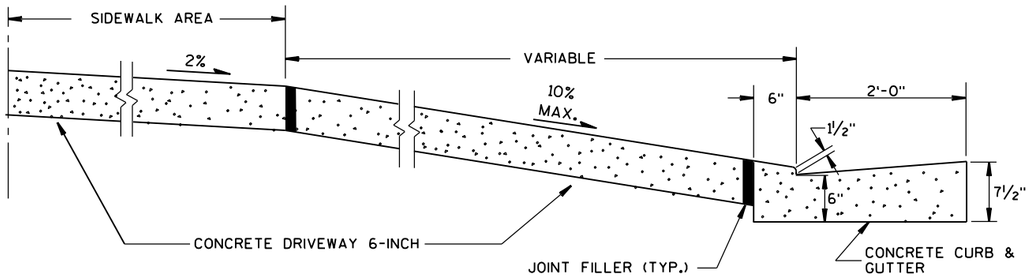


DETAIL OF MANHOLE W/CASTING

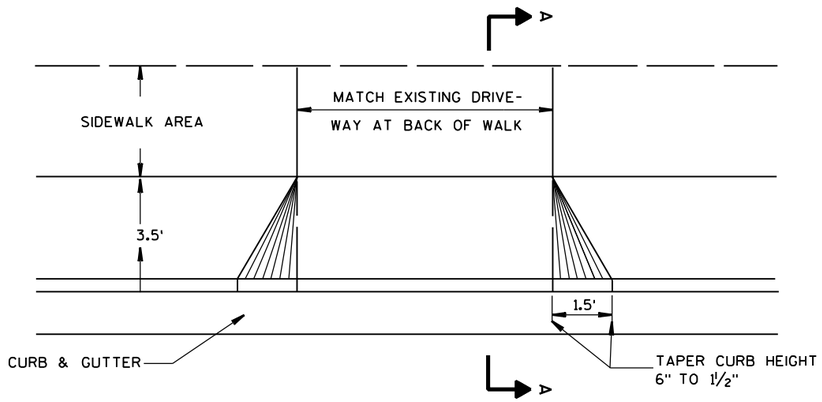




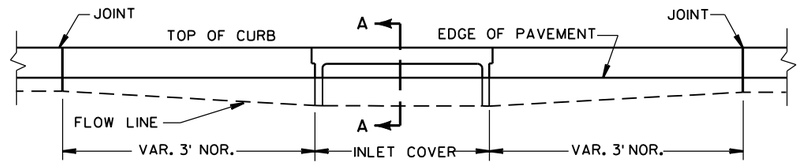
SIDEWALK DETAIL



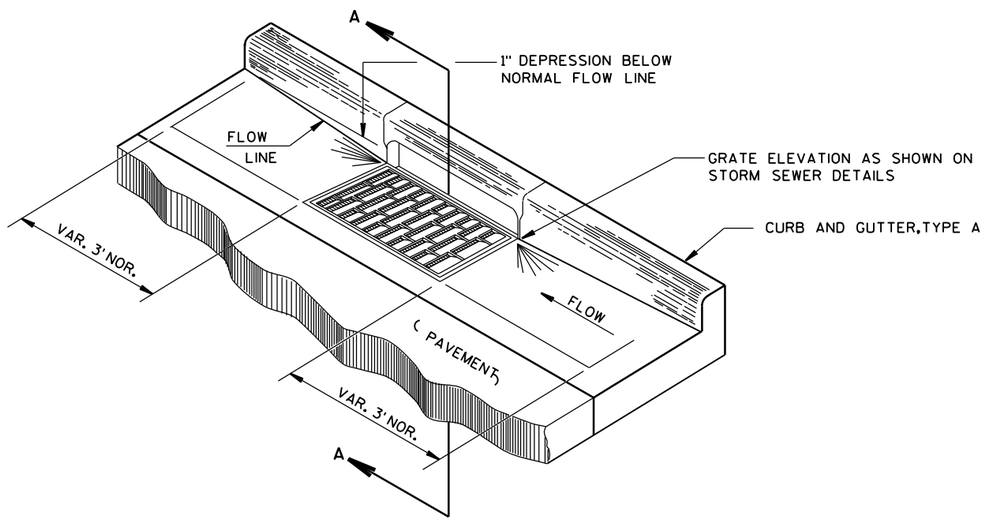
SECTION A-A

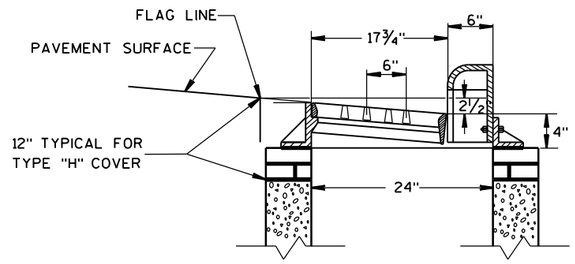


URBAN DRIVEWAY DETAIL



ELEVATION



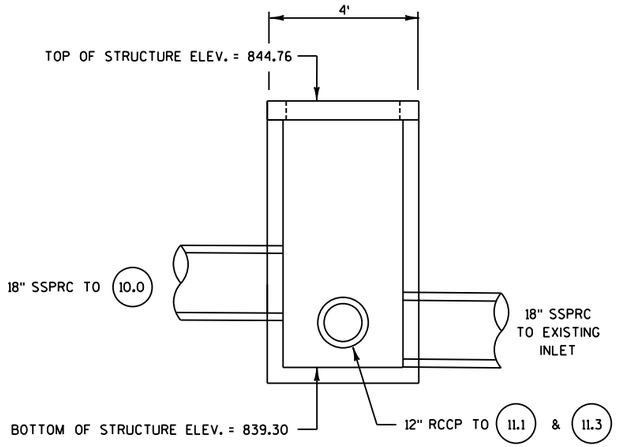


SECTION A-A

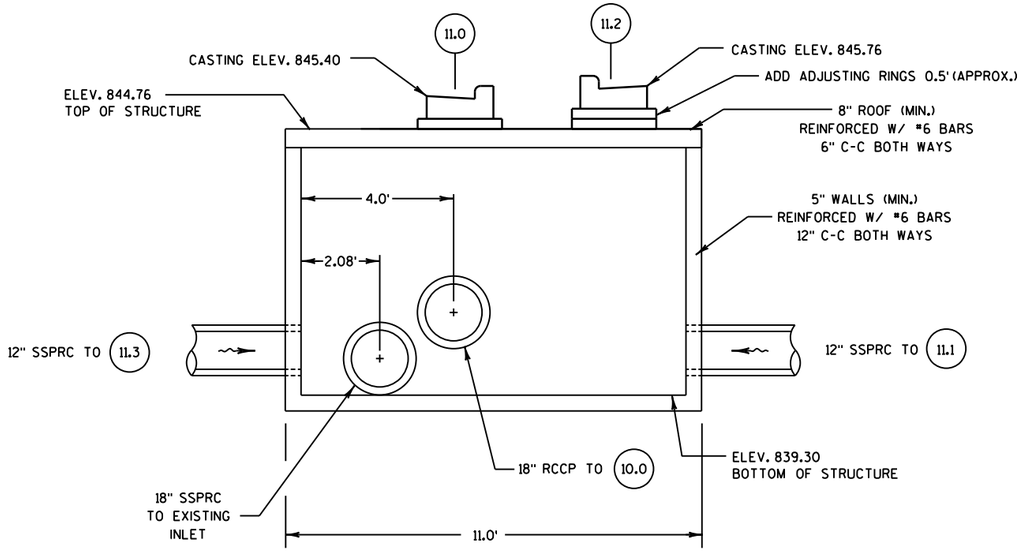
DETAIL OF CURB AND GUTTER AT INLETS

(2' X 3' INLET SHOWN)

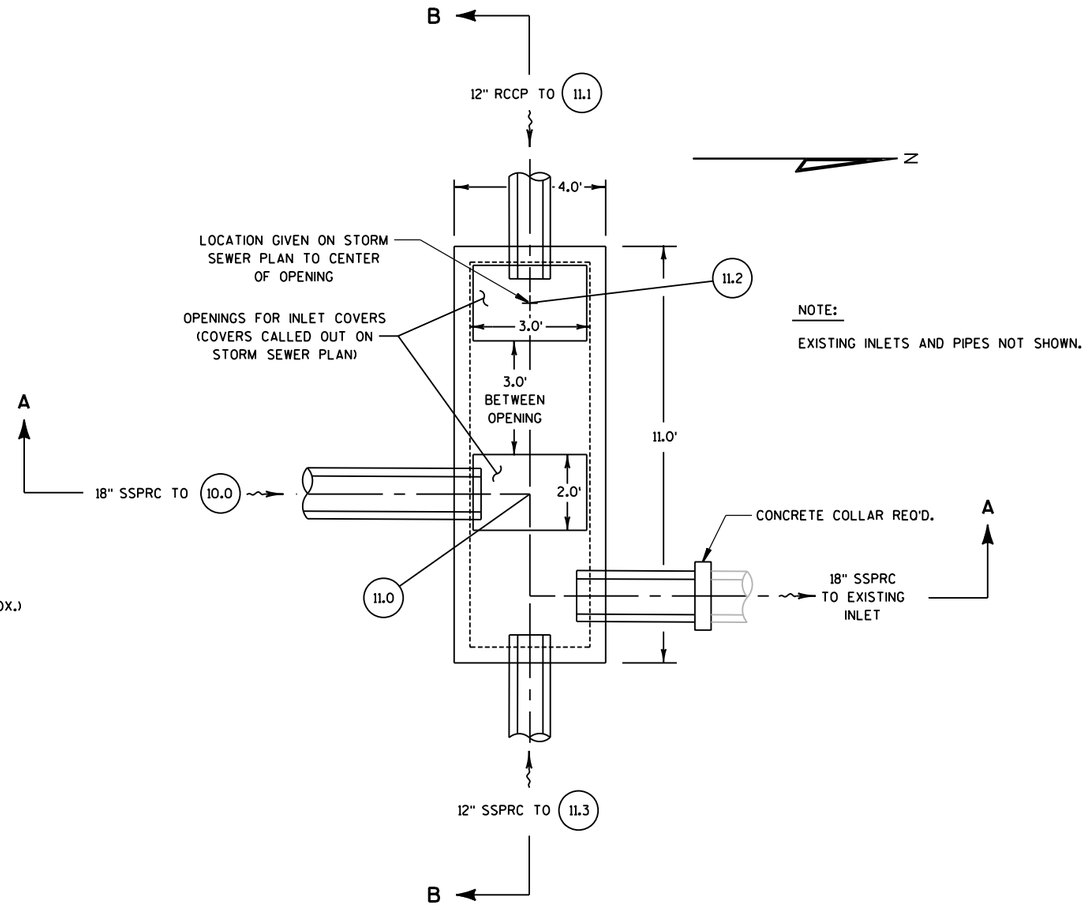
2



SECTION A-A



SECTION B-B



NOTE:

EXISTING INLETS AND PIPES NOT SHOWN.

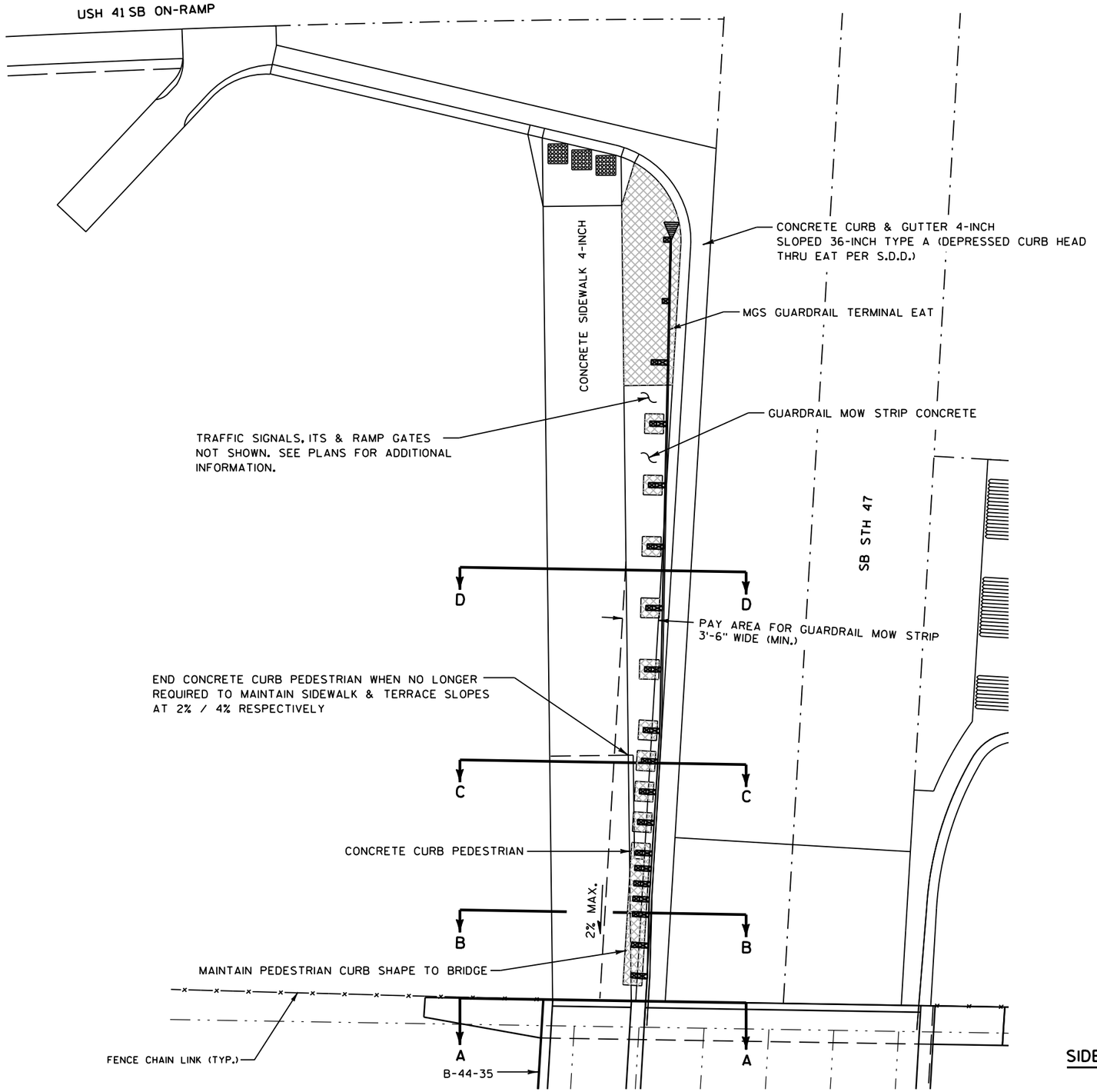
PLAN VIEW

DOUBLE INLET STRUCTURE DETAIL

INLETS 11.0 & 11.2

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAILS	SHEET 24	E

2

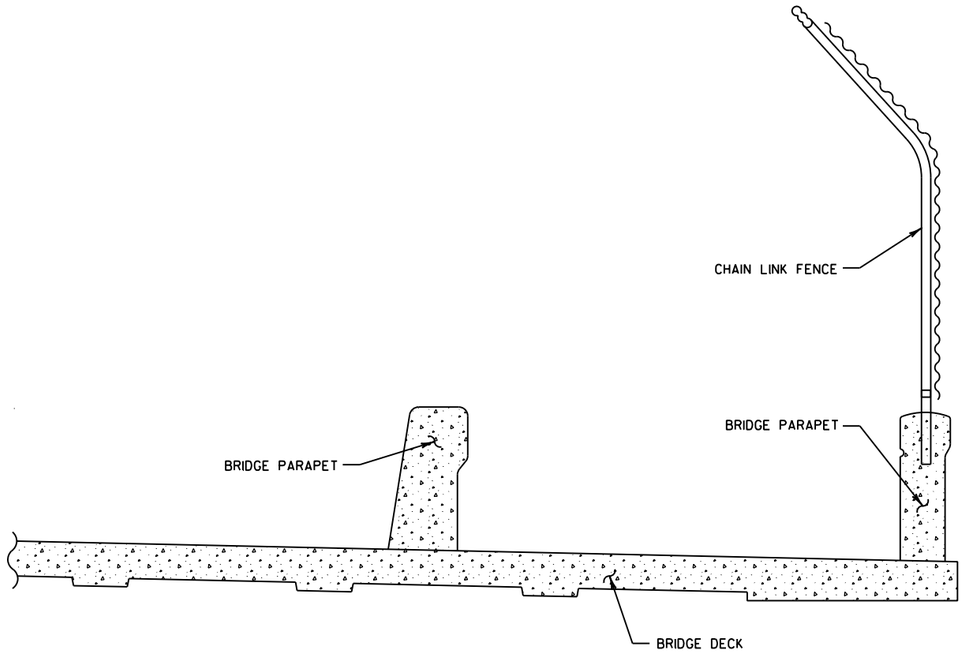


SIDEWALK TRANSITION AT STRUCTURE END DETAIL

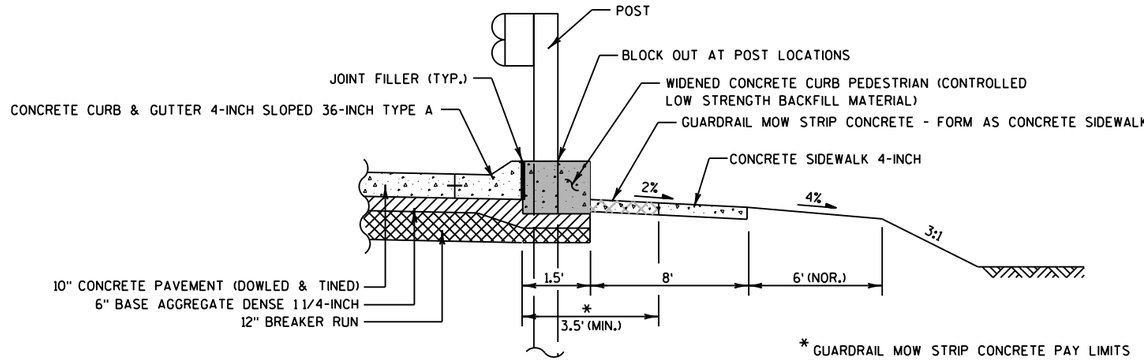
NE QUADRANT SHOWN, TYPICAL FOR ALL 4 QUADRANTS

SHEET 1 OF 2

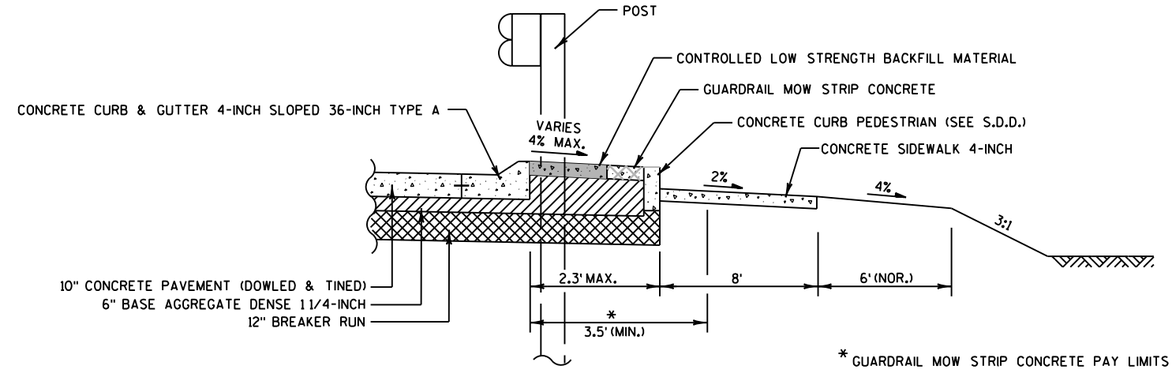
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAILS	SHEET 25	E



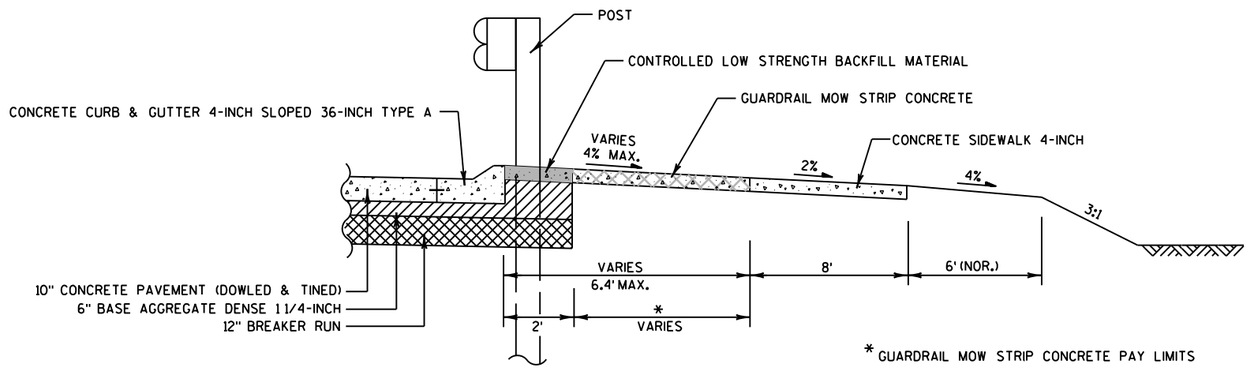
SECTION A-A



SECTION B-B



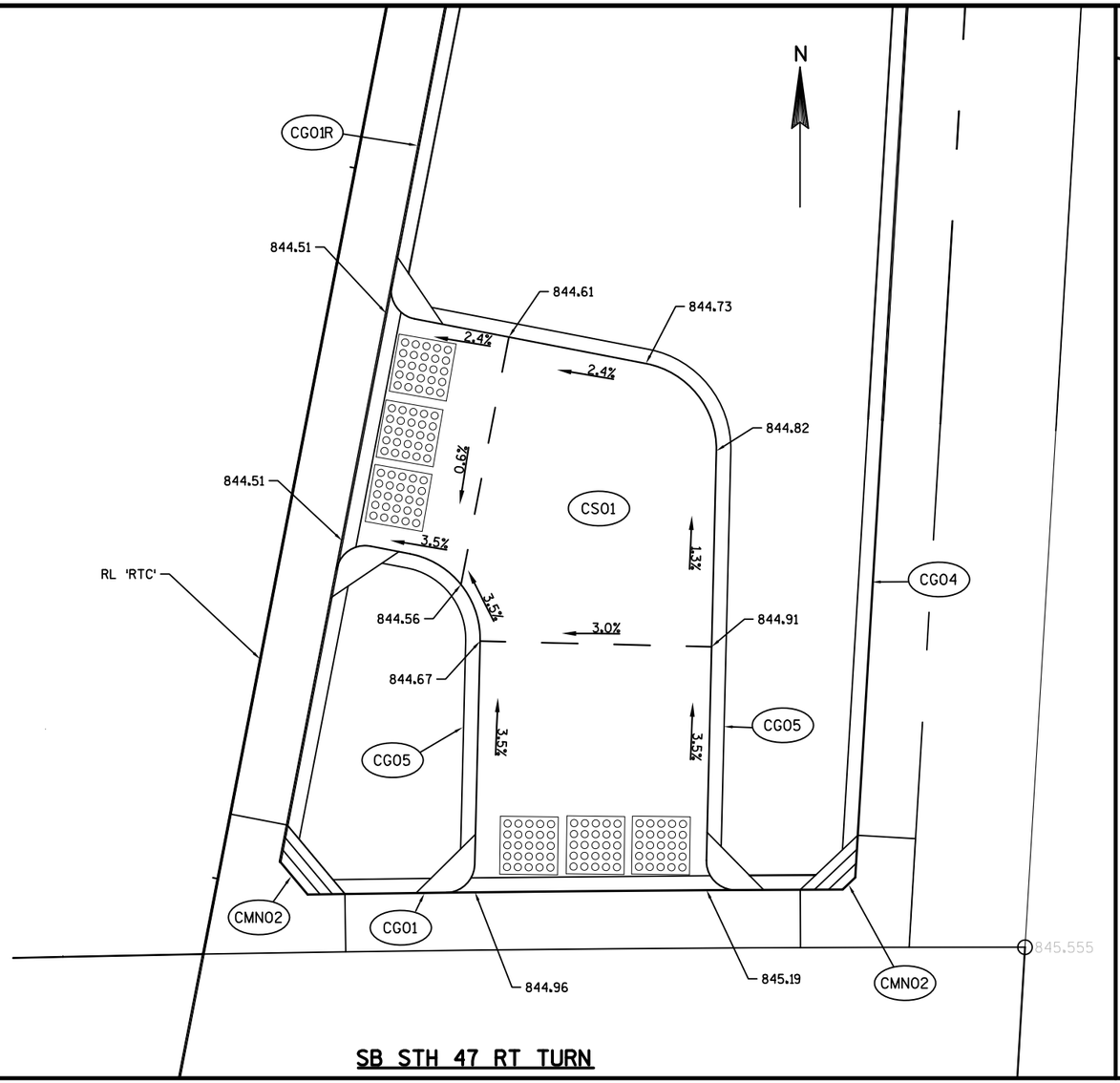
SECTION C-C



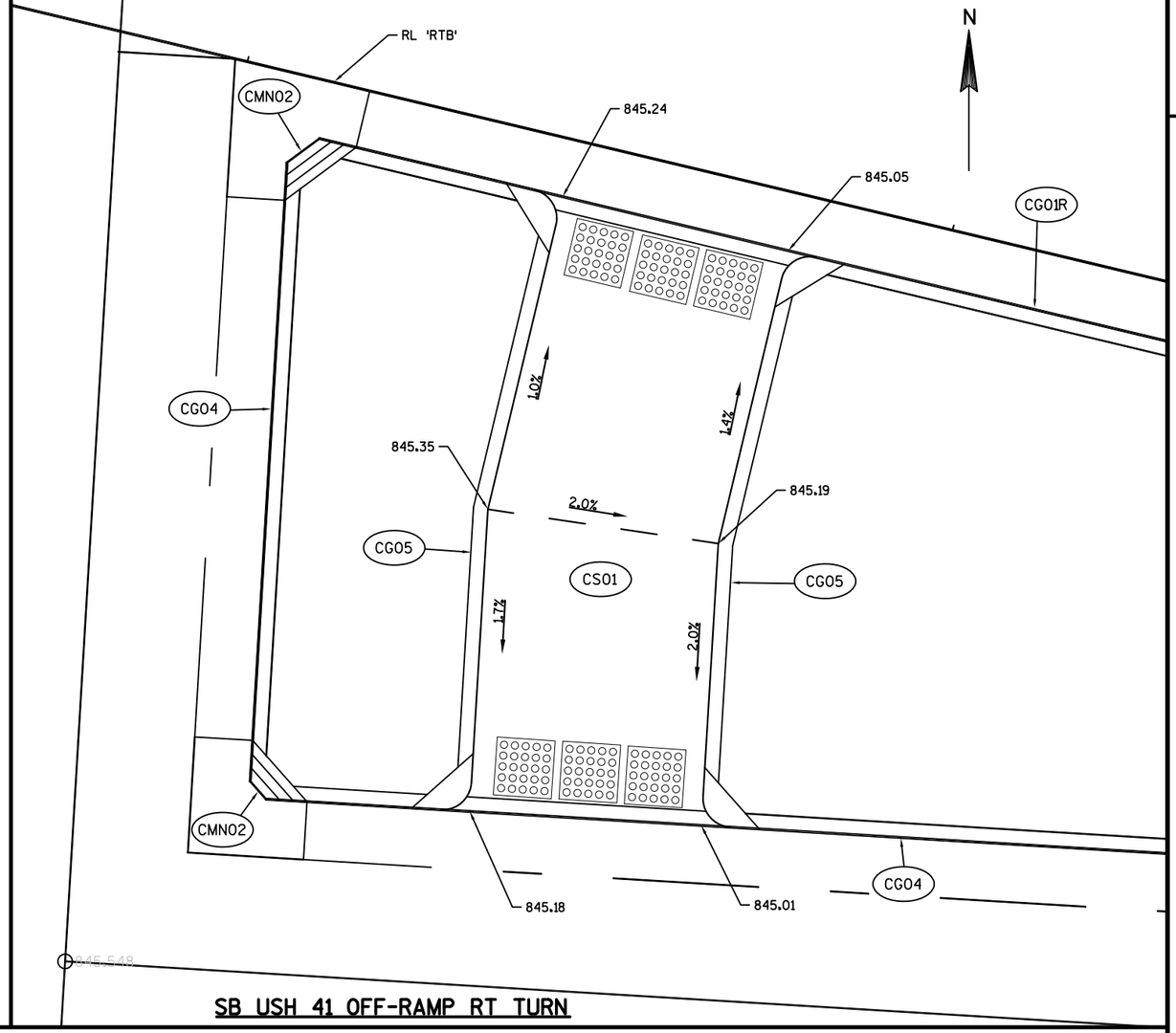
SECTION D-D

SHEET 2 OF 2

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAILS	SHEET 26	E



SB STH 47 RT TURN

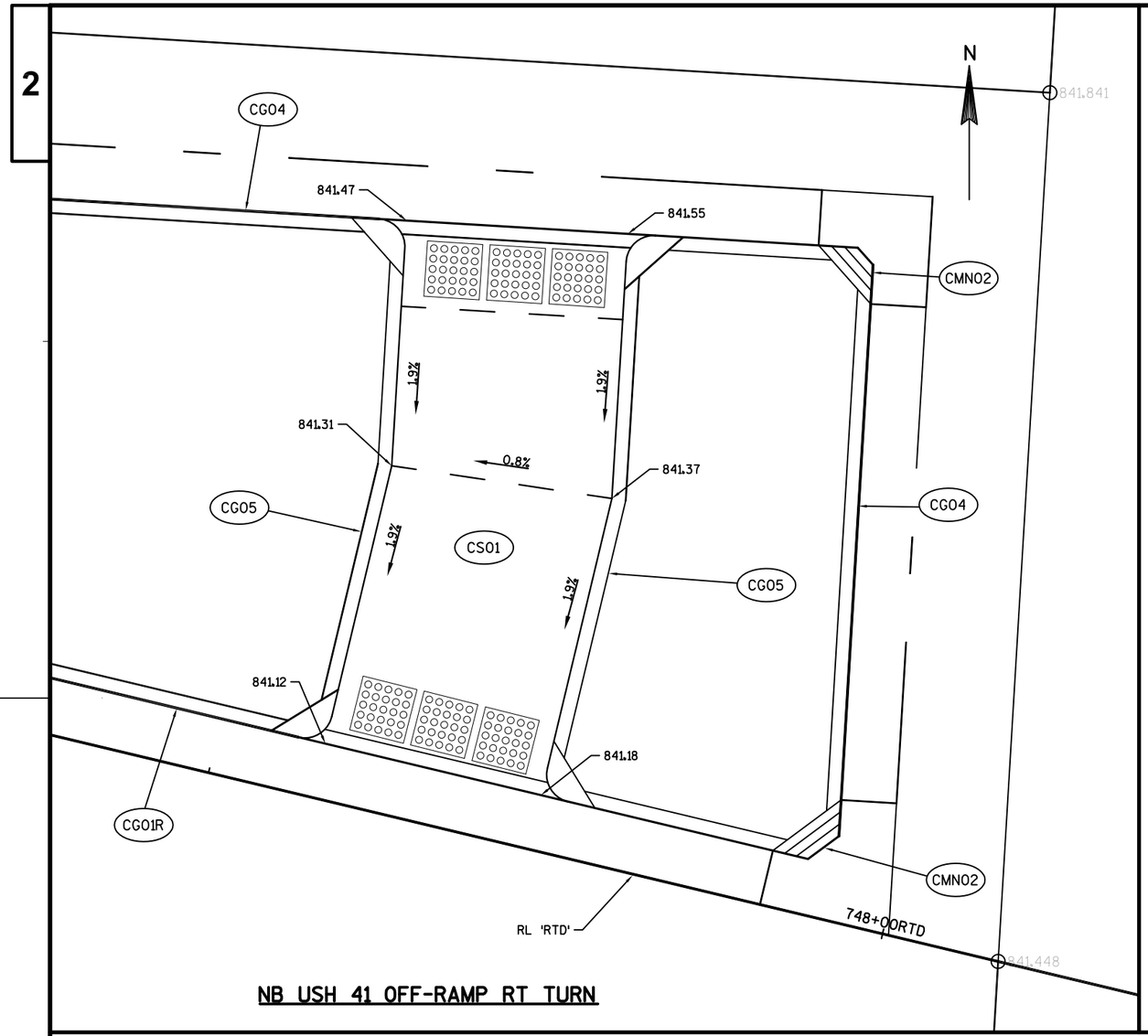


SB USH 41 OFF-RAMP RT TURN

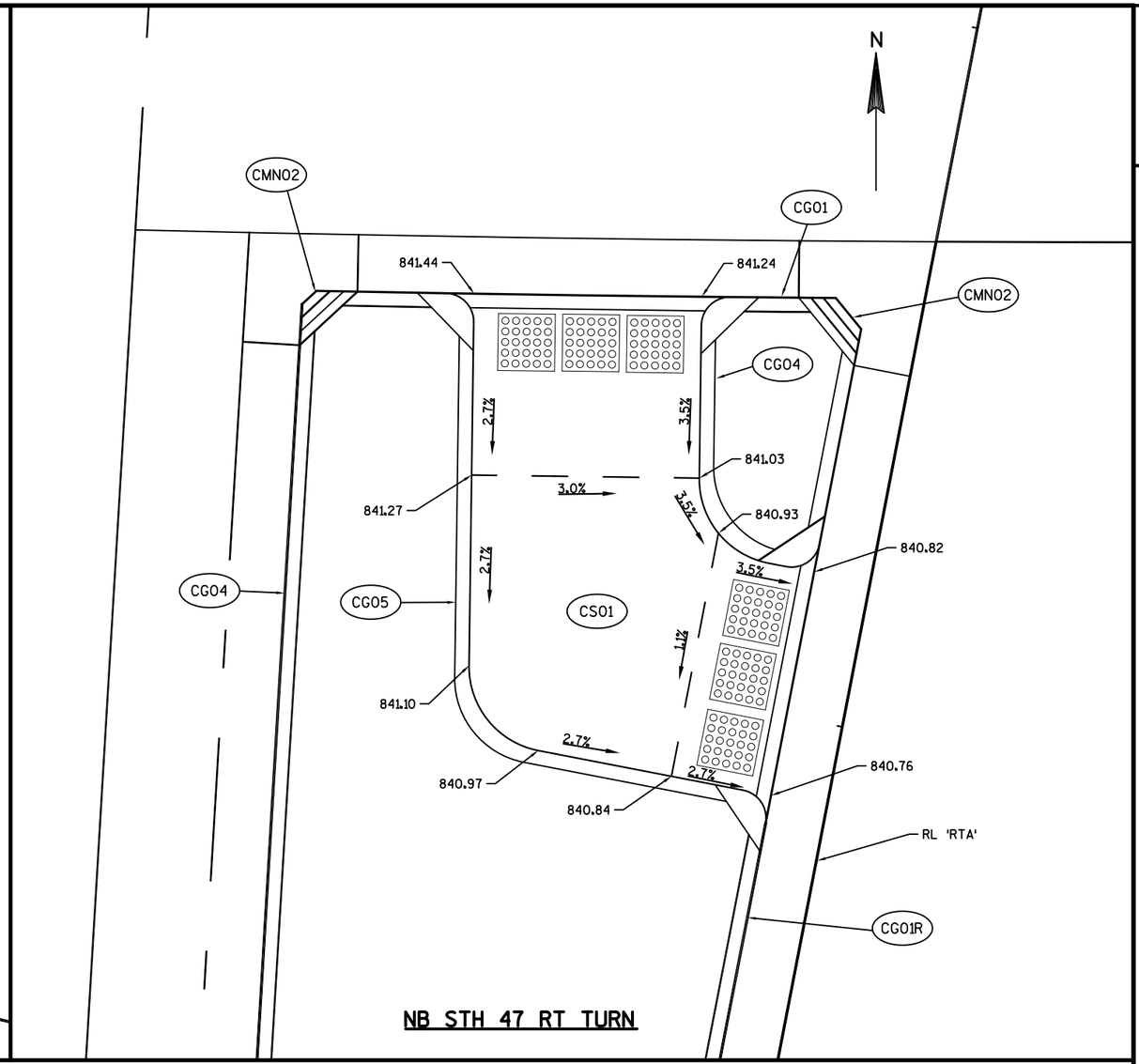
CURB RAMP DETAIL LEGEND

CG01R	CONCRETE CURB AND GUTTER 30-INCH TYPE A, REJECT
CG01	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CG04	CONCRETE CURB AND GUTTER INTEGRAL 30-INCH D
CG05	CONCRETE CURB PEDESTRIAN
CMN02	CONCRETE MEDIAN SLOPED NOSE TYPE 2
CS01	CONCRETE SIDEWALK, 4-INCH

CURB RAMP DETAILS



NB USH 41 OFF-RAMP RT TURN



NB STH 47 RT TURN

CURB RAMP DETAIL LEGEND

CG01R	CONCRETE CURB AND GUTTER 30-INCH TYPE A, REJECT
CG01	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CG04	CONCRETE CURB AND GUTTER INTEGRAL 30-INCH D
CG05	CONCRETE CURB PEDESTRIAN
CMN02	CONCRETE MEDIAN SLOPED NOSE TYPE 2
CS01	CONCRETE SIDEWALK, 4-INCH

CURB RAMP DETAILS

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAILS	SHEET 28	E

2

N

SCALE, FEET 0 100 200

NB USH 41 OFF-RAMP R/L

ASSOCIATION DR. R/L

DIVISION 4-2:SE RAMP

USH 41 SB R/L

SB USH 41 ON-RAMP R/L

DIVISION 5-2:SW RAMP

DIVISION 4-3:SE RAMP RT TURN

NB USH 41 OFF-RAMP RT TURN R/L

DIVISION 5-3:STH 47 SB RT TURN

SB STH 47 RT TURN R/L

DIVISION 6-1:MEDIAN WORK & TEMPORARY CROSSOVER REMOVAL

DIVISION 4-4:ASSOCIATION DRIVE

DIVISION 4-1:STH 47 SB

DIVISION 5-1:STH 47 SB

DIVISION 1-1:TEMPORARY CROSSOVER INSTALLATION

B-44-35

B-44-36

SB STH 47 R/L

NB STH 47 R/L

DIVISION 1-1:TEMPORARY CROSSOVER INSTALLATION

DIVISION 3-1:STH 47 NB

DIVISION 2-1:STH 47 NB

NB STH 47 RT TURN R/L

DIVISION 3-3:NW RAMP RT TURN

SLOPE INTERCEPTS (TYP.)

SB USH 41 OFF-RAMP RT TURN R/L

DIVISION 2-3:STH 47 NB RT TURN

DIVISION 2-2:NE RAMP

DIVISION 3-2:NW RAMP

NB USH 41 ON-RAMP R/L

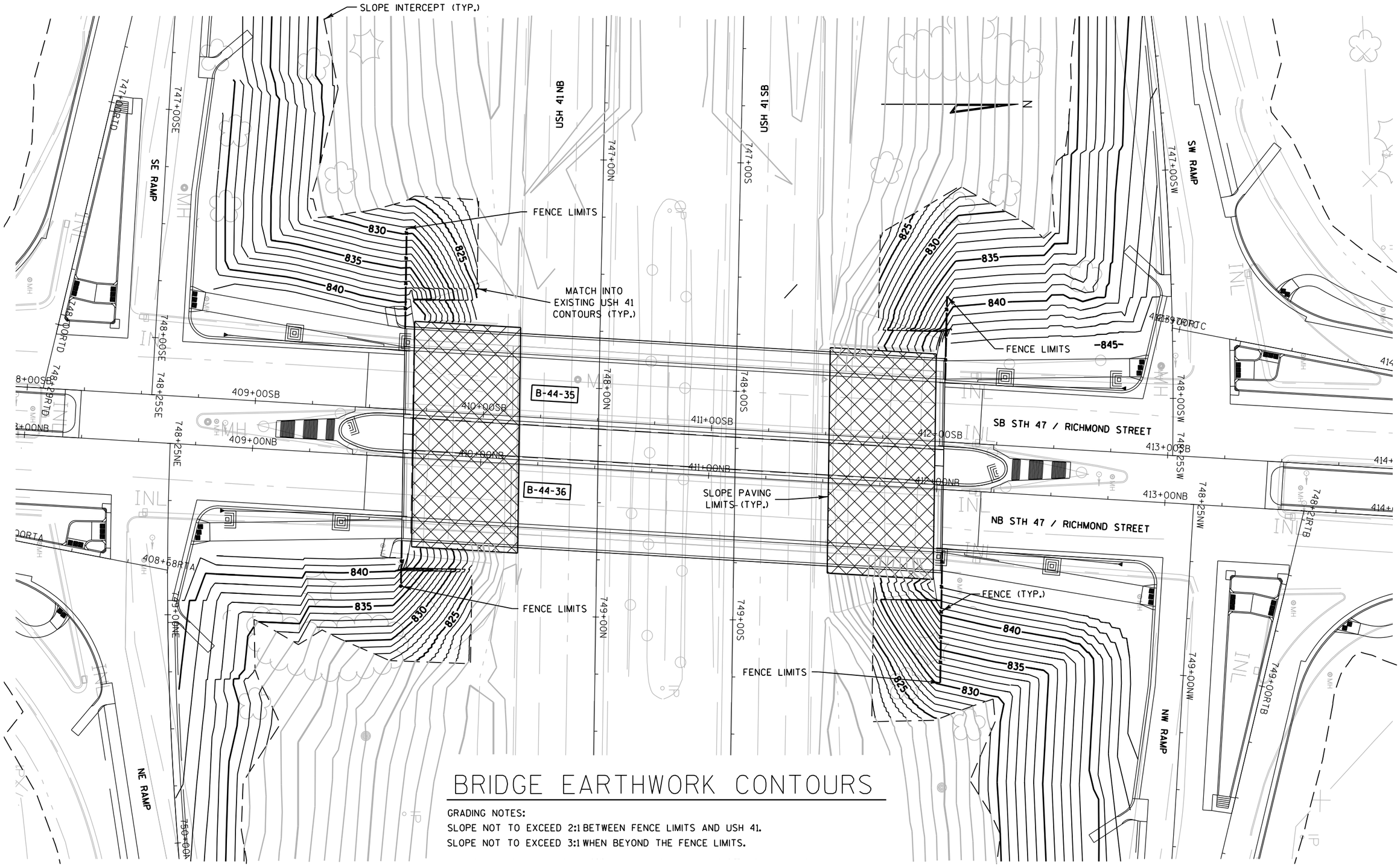
SB USH 41 OFF-RAMP R/L

USH 41 NB R/L

ALIGNMENT NAMING CONVENTION
'SE' = NORTHBOUND USH 41 OFF RAMP TO STH 47
'NE' = NORTHBOUND USH 41 ON RAMP FROM STH 47
'SW' = SOUTHBOUND USH 41 ON RAMP FROM STH 47
'NW' = SOUTHBOUND USH 41 OFF RAMP TO STH 47

CROSS SECTION & EARTHWORK LEGEND

2



BRIDGE EARTHWORK CONTOURS

GRADING NOTES:
SLOPE NOT TO EXCEED 2:1 BETWEEN FENCE LIMITS AND USH 41.
SLOPE NOT TO EXCEED 3:1 WHEN BEYOND THE FENCE LIMITS.

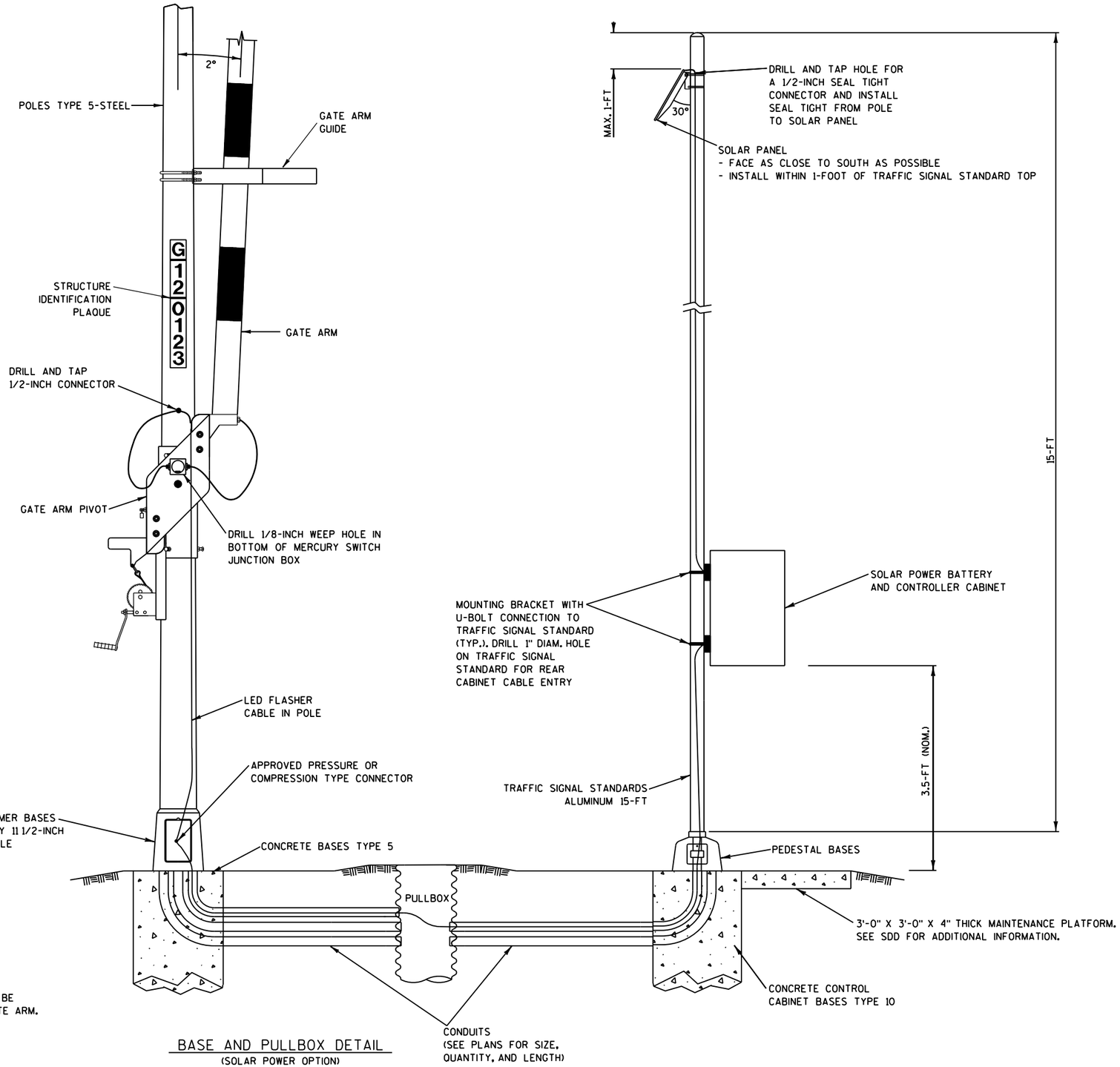
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAILS	SHEET 30	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\PLAN SHEETS\bridge slope paving detail.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WIRING NOTES

1. WIRING FROM SOLAR PANEL TO CABINET SHALL BE BLUE #10 XLP WIRE FOR POSITIVE CONDUCTOR AND WHITE #10 XLP FOR NEGATIVE CONDUCTOR.

2. WIRING FROM CABINET TO GATE ARM SHALL BE WHITE #10 XLP FOR COMMON, RED #10 XLP FOR FLASHER CIRCUIT 1, AND BLUE #10 XLP FOR FLASHER CIRCUIT 2.



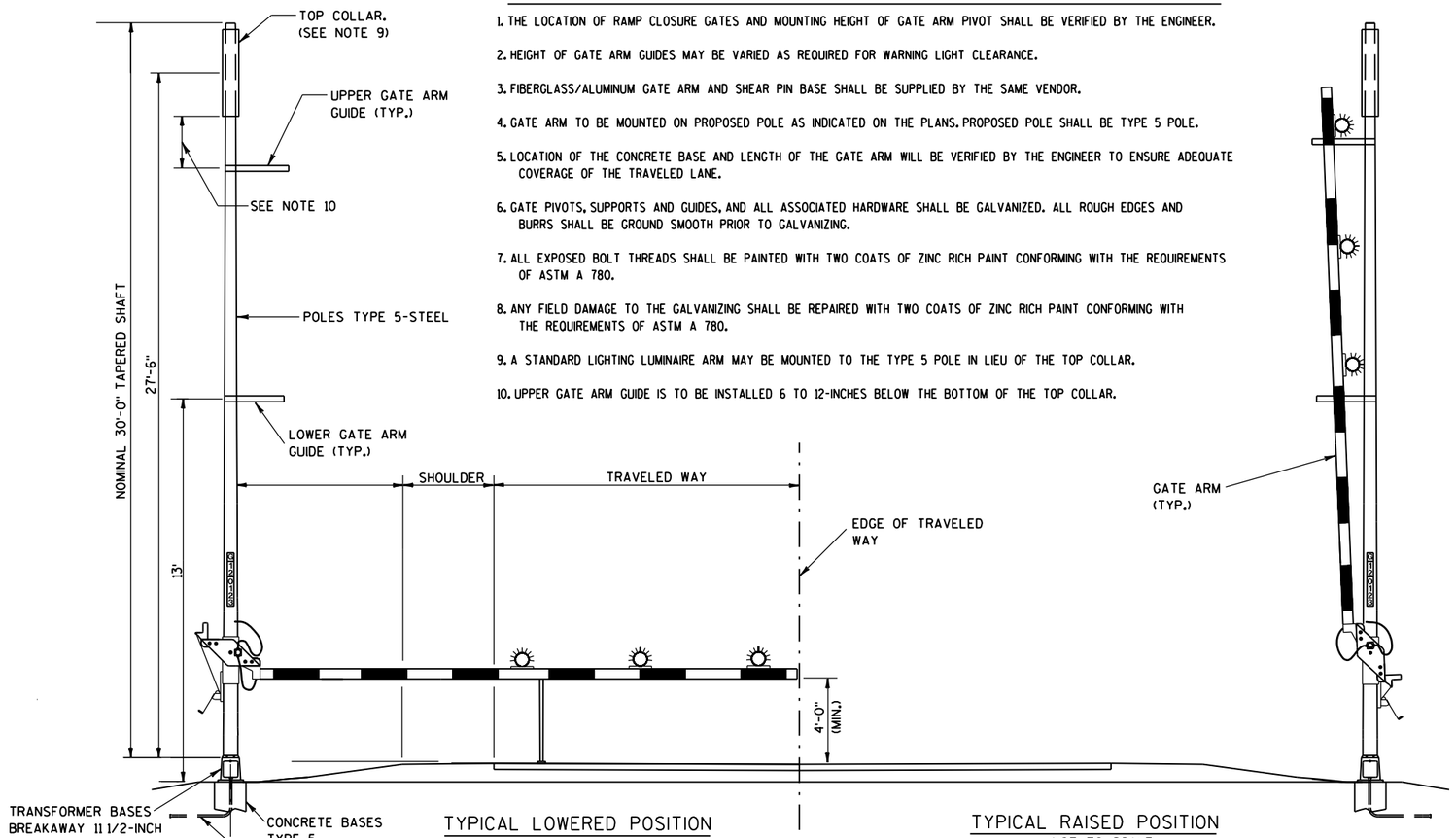
NOTE:

ALL ABOVE GROUND EQUIPMENT SHOWN IN THIS DETAIL WILL BE SALVAGED & REINSTALLED WITH THE EXCEPTION OF THE GATE ARM.

BASE AND PULLBOX DETAIL
(SOLAR POWER OPTION)

GENERAL NOTES

1. THE LOCATION OF RAMP CLOSURE GATES AND MOUNTING HEIGHT OF GATE ARM PIVOT SHALL BE VERIFIED BY THE ENGINEER.
2. HEIGHT OF GATE ARM GUIDES MAY BE VARIED AS REQUIRED FOR WARNING LIGHT CLEARANCE.
3. FIBERGLASS/ALUMINUM GATE ARM AND SHEAR PIN BASE SHALL BE SUPPLIED BY THE SAME VENDOR.
4. GATE ARM TO BE MOUNTED ON PROPOSED POLE AS INDICATED ON THE PLANS. PROPOSED POLE SHALL BE TYPE 5 POLE.
5. LOCATION OF THE CONCRETE BASE AND LENGTH OF THE GATE ARM WILL BE VERIFIED BY THE ENGINEER TO ENSURE ADEQUATE COVERAGE OF THE TRAVELED LANE.
6. GATE PIVOTS, SUPPORTS AND GUIDES, AND ALL ASSOCIATED HARDWARE SHALL BE GALVANIZED. ALL ROUGH EDGES AND BURRS SHALL BE GROUND SMOOTH PRIOR TO GALVANIZING.
7. ALL EXPOSED BOLT THREADS SHALL BE PAINTED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
8. ANY FIELD DAMAGE TO THE GALVANIZING SHALL BE REPAIRED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
9. A STANDARD LIGHTING LUMINAIRE ARM MAY BE MOUNTED TO THE TYPE 5 POLE IN LIEU OF THE TOP COLLAR.
10. UPPER GATE ARM GUIDE IS TO BE INSTALLED 6 TO 12-INCHES BELOW THE BOTTOM OF THE TOP COLLAR.

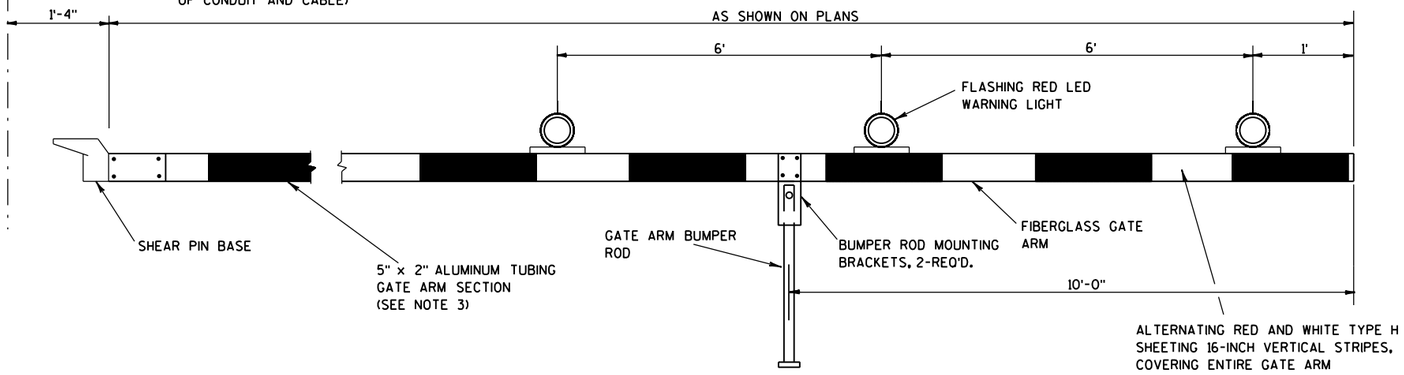


TYPICAL LOWERED POSITION
NOT TO SCALE

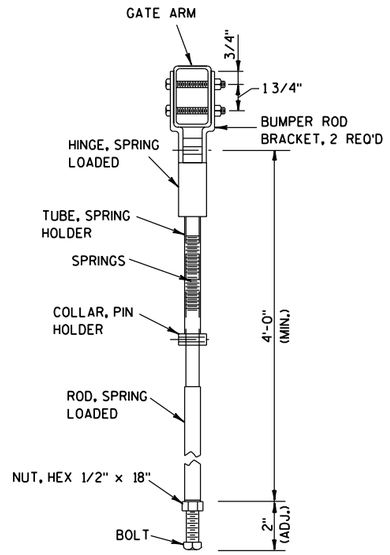
TYPICAL RAISED POSITION
NOT TO SCALE

NOTE:

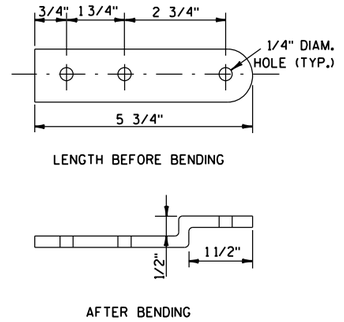
ALL ABOVE GROUND EQUIPMENT SHOWN IN THIS DETAIL WILL BE SALVAGED & REINSTALLED WITH THE EXCEPTION OF THE GATE ARM.



GATE DETAIL
(SOLAR POWER OPTION)



GATE ARM BUMPER ROD DETAIL



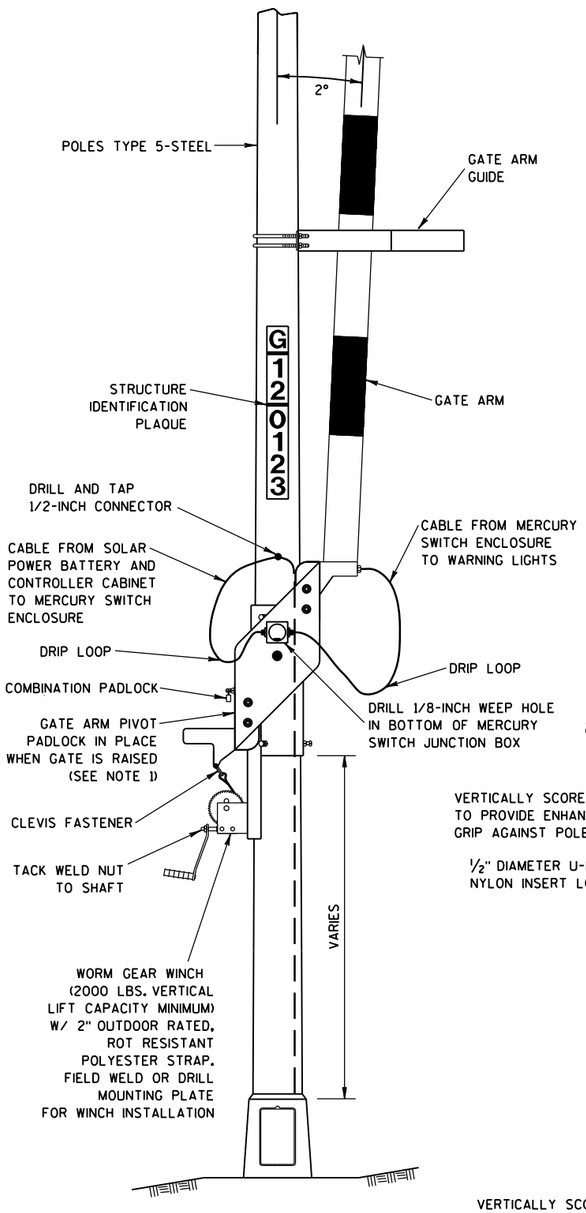
BUMPER ROD MOUNTING BRACKET DETAIL

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAILS	SHEET	E

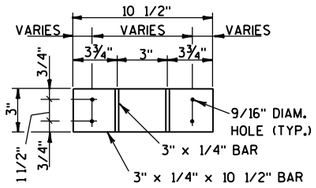
FILE NAME : G:\WDOTNE\WNE0826\dgn\PLAN SHEETS\021001_cd.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

GENERAL NOTES

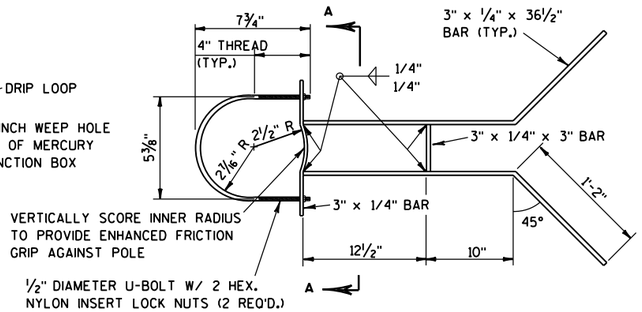
1. WHEN THE GATE IS FULLY RAISED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE OUTSIDE OF THE REAR CHANNEL AND PADLOCKED IN PLACE.
2. WHEN THE GATE IS FULLY LOWERED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE INSIDE OF THE REAR CHANNEL AND PADLOCKED INTO PLACE.
3. ANTI-SEIZE LUBRICATING MATERIAL SHALL BE USED ON ALL BOLT THREADS BEFORE INSTALLATION.
4. ALL BOLTS SHALL BE GALVANIZED AND CONFORM TO ASTM A307, GRADE A, UNLESS DESIGNATED AS HS (HIGH STRENGTH), WHICH SHALL CONFORM TO ASTM A325. BOLTS OF 1/2" NOMINAL DIAMTER OR LESS MAY BE STAINLESS STEEL.



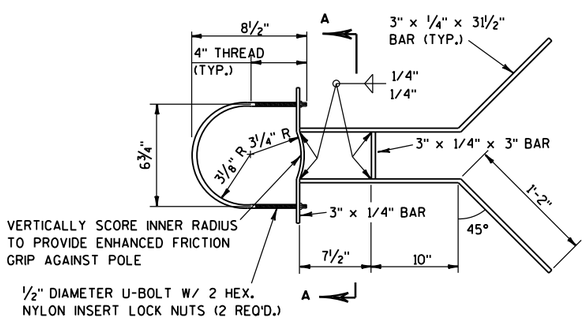
GATE PIVOT ASSEMBLY



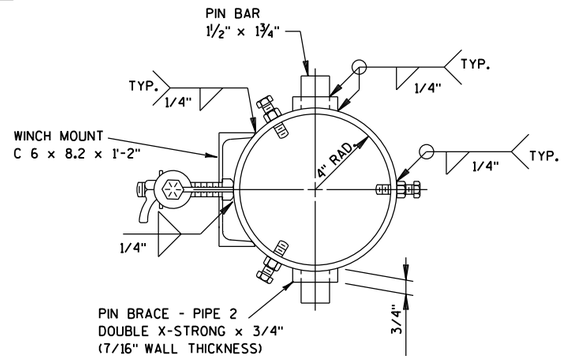
SECTION A-A
U-BOLTS NOT SHOWN



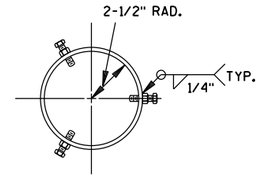
UPPER GATE ARM GUIDE DETAIL



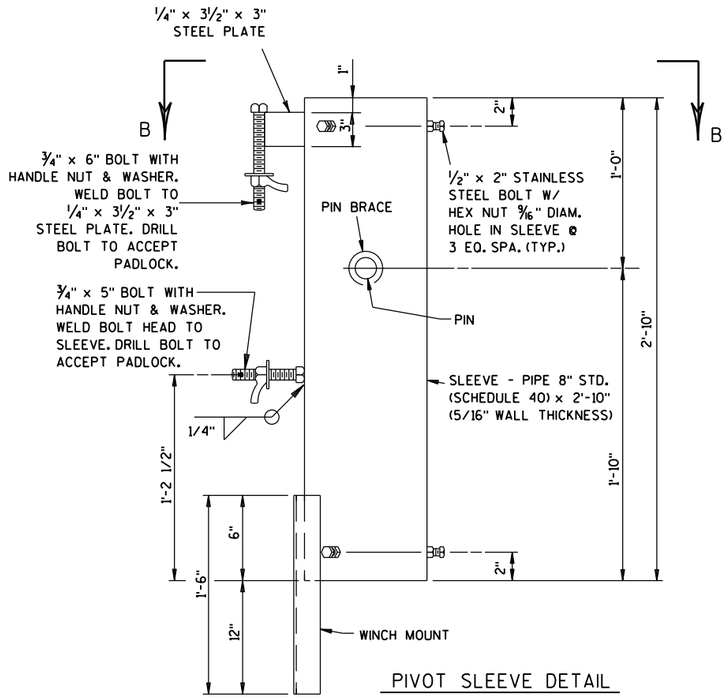
LOWER GATE ARM GUIDE DETAIL



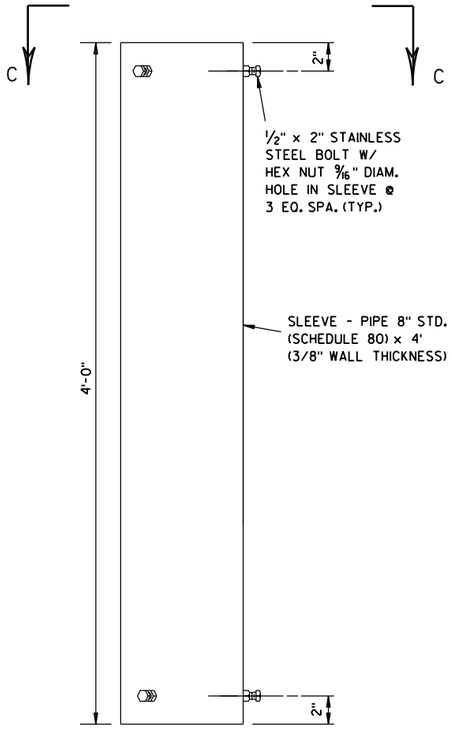
SECTION B-B



SECTION C-C



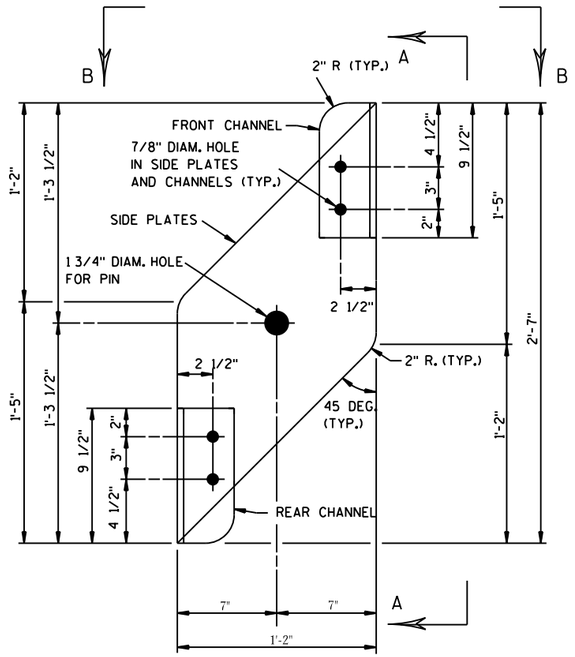
PIVOT SLEEVE DETAIL



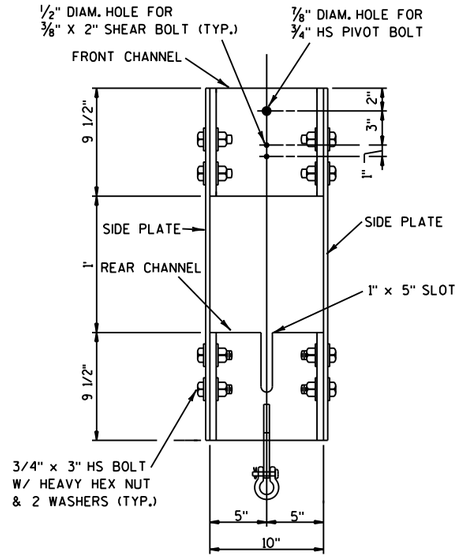
TOP COLLAR

NOTE:

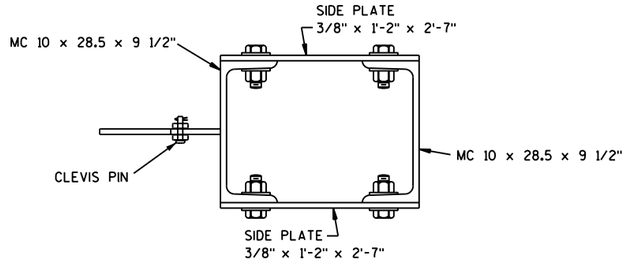
ALL ABOVE GROUND EQUIPMENT SHOWN IN THIS DETAIL WILL BE SALVAGED & REINSTALLED WITH THE EXCEPTION OF THE GATE ARM.



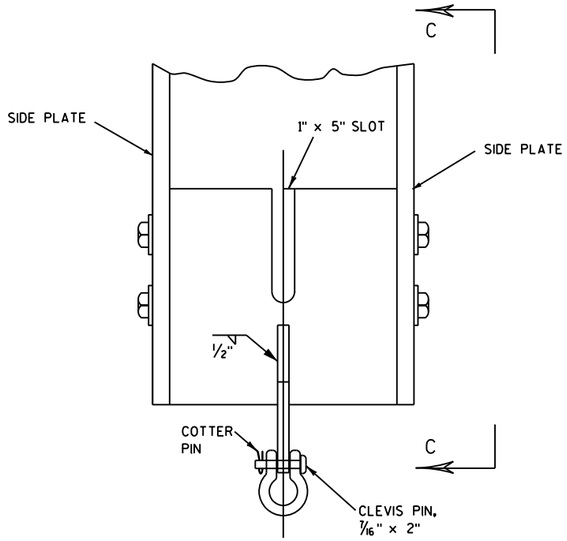
SIDE PLATE DETAIL



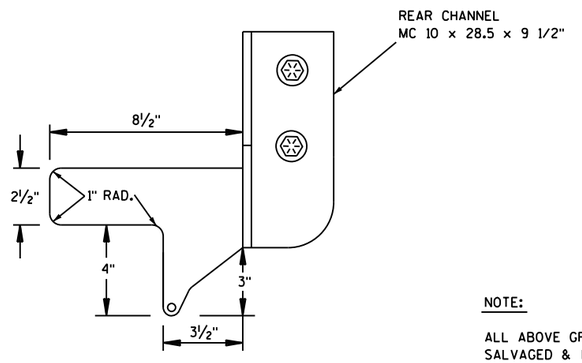
SECTION A-A



SECTION B-B



YOKE ASSEMBLY DETAIL



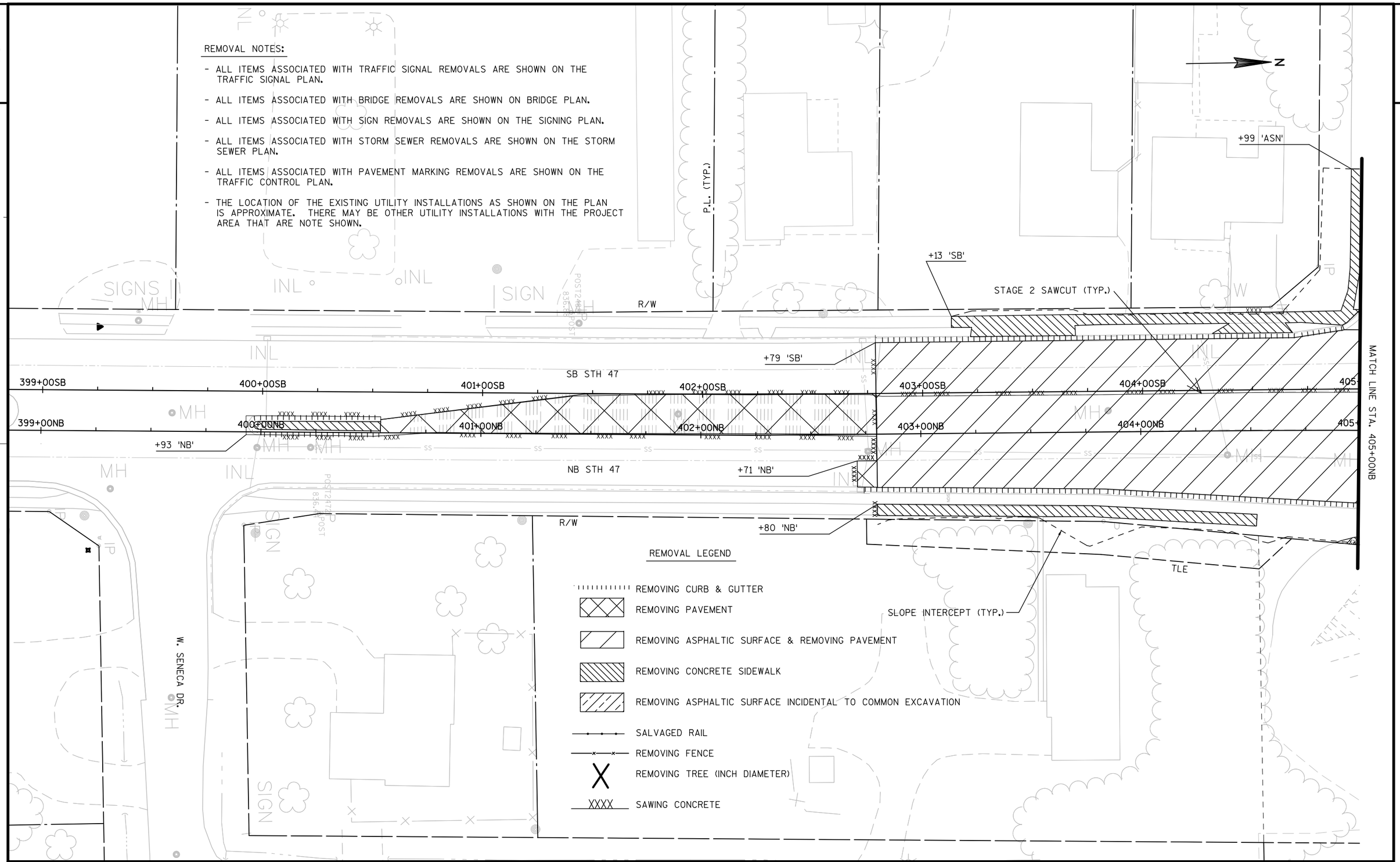
SECTION C-C

NOTE:

ALL ABOVE GROUND EQUIPMENT SHOWN IN THIS DETAIL WILL BE SALVAGED & REINSTALLED WITH THE EXCEPTION OF THE GATE ARM.

REMOVAL NOTES:

- ALL ITEMS ASSOCIATED WITH TRAFFIC SIGNAL REMOVALS ARE SHOWN ON THE TRAFFIC SIGNAL PLAN.
- ALL ITEMS ASSOCIATED WITH BRIDGE REMOVALS ARE SHOWN ON BRIDGE PLAN.
- ALL ITEMS ASSOCIATED WITH SIGN REMOVALS ARE SHOWN ON THE SIGNING PLAN.
- ALL ITEMS ASSOCIATED WITH STORM SEWER REMOVALS ARE SHOWN ON THE STORM SEWER PLAN.
- ALL ITEMS ASSOCIATED WITH PAVEMENT MARKING REMOVALS ARE SHOWN ON THE TRAFFIC CONTROL PLAN.
- THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLAN IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITH THE PROJECT AREA THAT ARE NOTE SHOWN.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	REMOVALS	SHEET 35	E

MATCH LINE STA. 745+50SE

REMOVAL LEGEND

N

REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE & REMOVING PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING ASPHALTIC SURFACE INCIDENTAL TO COMMON EXCAVATION

SALVAGED RAIL

REMOVING FENCE

REMOVING TREE (INCH DIAMETER)

SAWING CONCRETE

98+00ASN

99+00ASN

ASSOCIATION DRIVE

P.L. (TYP.)

SIGN

SLOPE INTERCEPT (TYP.)

+45 'ASN'

TLE

STAGE 2 SAWCUT (TYP)

R/W

+25.00'

12"

10"

746+00SE

746+72RTD

747+00RTD

NB USH 41 OFF-RAMP

747+00SE

CLEARING AND GRUBBING
(STA) LIMITS
744+05 'SE' - 747+50 'SE'

NB USH 41

REMOVE EXISTING BULLNOSE TERMINAL
TO ALLOW STRUCTURE CONSTRUCTION
OPERATIONS

MATCH LINE STA. 405+00NB

100+00ASN

SB STH 47

406+00SB

407+00SB

408+00SB

409+00SB

410+00SB

411+

406+00NB

407+00NB

408+00NB

409+00NB

410+00NB

411+

NB STH 47

406+31NBA

407+00NBA

408+00NBA

408+58NBA

748+00RTD

748+00SE

748+25SE

748+29RTD

748+25NE

749+

NB USH 41
ON-RAMP

CLEARING AND GRUBBING
(STA) LIMITS
408+75 'NB' - 409+75 'NB'

B-44-35

B-44-36

MATCH LINE STA. 411+00NB

MATCH LINE STA. 749+00NE

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	REMOVALS	SHEET 36	E

MATCH LINE STA. 747+25SW

CLEARING AND GRUBBING
(STA) LIMITS
411+75 'SB' - 412+40 'SB'

18"

SB USH 41 ON-RAMP

412+00RTC

414+00RTC

15"

R/W

TLE

SIGN

SIGN

N

748+00SW

748+25SW

415+00RTC

415+38RTC

B-44-35

SB STH 47

MATCH LINE STA. 411+00NB

00SB

412+00SB

413+00SB

414+00SB

415+00SB

416+00SB

MATCH LINE STA. 417+00NB

STAGE 2 SAWCUT (TYP)

00NB

412+00NB

413+00NB

414+00NB

415+00NB

416+00NB

748+25NW

748+25RTB

B-44-36

NB STH 47

CLEARING AND GRUBBING
(STA) LIMITS
411+75 'NB' - 412+50 'NB'

R/W

TLE

749+00RTB

749+00NW

SB USH 41 OFF-RAMP

SB USH 41

SLOPE INTERCEPT (TYP.)

P.L. (TYP.)

REMOVAL LEGEND

REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE & REMOVING PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING ASPHALTIC SURFACE INCIDENTAL TO COMMON EXCAVATION

SALVAGED RAIL

REMOVING FENCE

REMOVING TREE (INCH DIAMETER)

XXXX SAWING CONCRETE

750+00NW

750+00RTB

750+41RTB

CLEARING AND GRUBBING
(STA) LIMITS
750+15 'NW' - 753+45 'NW'

MATCH LINE STA. 750+75NW

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	REMOVALS	SHEET 37	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\REMOVALS\REMOVALS.DWG PLOT DATE : 9/18/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

2

N

W EVERGREEN DRIVE

P.L. (TYP.)

SLOPE INTERCEPT (TYP.)

TLE

R/W

+19 'SB'

+59 'SB'

+25 'SB'

STAGE 1 SAWCUT

SB STH 47

+29 'SB'

SIGNAL CONDUIT & WIRE IN AREA,
USE CAUTION WHEN SAWCUTTING

418+00SB

419+00SB

420+00SB

421+00SB

422+00SB

423+00SB

MATCH LINE STA. 417+00NB

419+00NB

415+00NB

420+00NB

421+00NB

422+00NB

423+00NB

+63 'NB'

NB STH 47

+23 'NB'

+19 'NB'

STAGE 1 SAWCUT

+30 'NB'

TLE

R/W

TLE

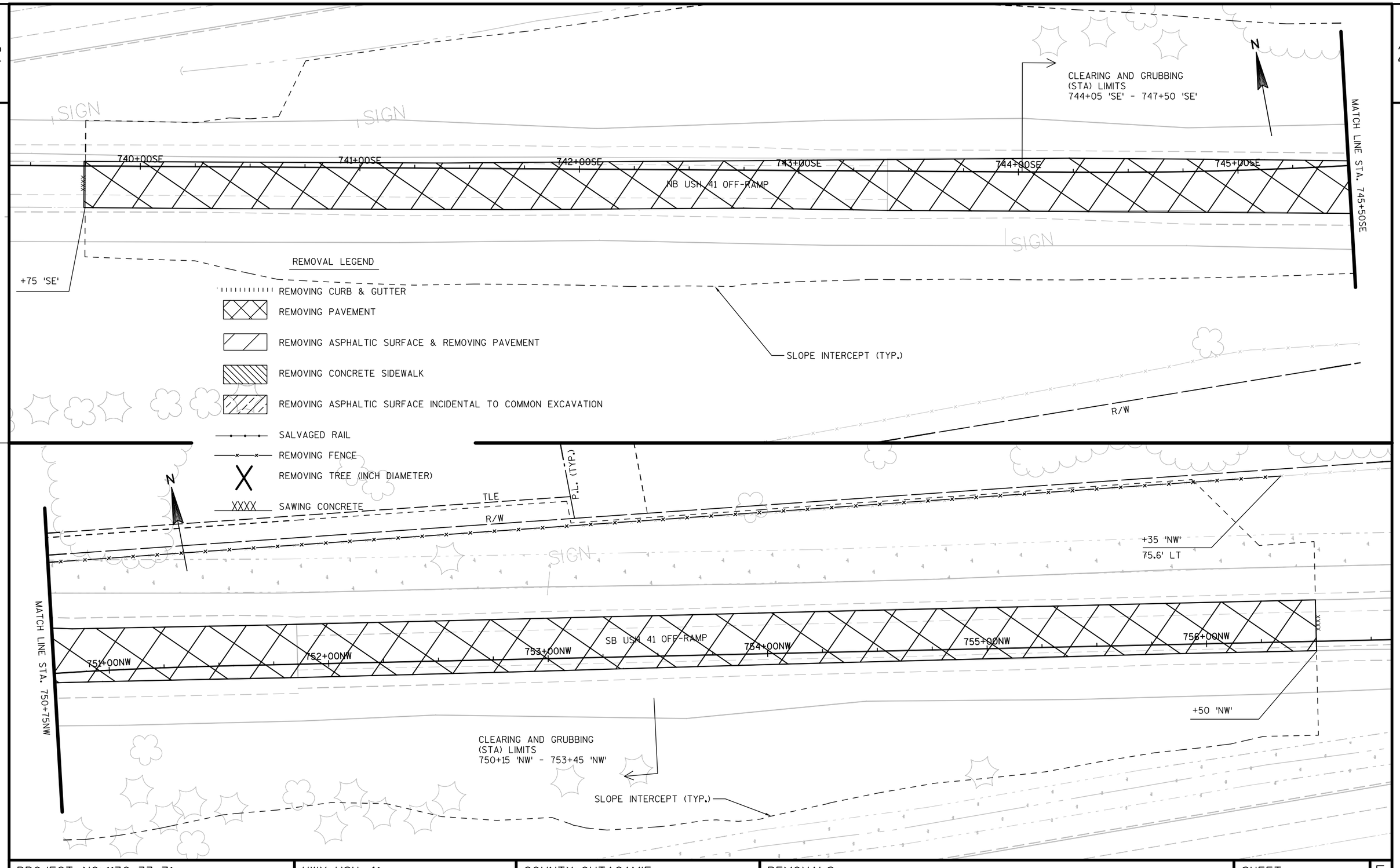
W EVERGREEN DRIVE

REMOVAL LEGEND

- REMOVING CURB & GUTTER
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE & REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE INCIDENTAL TO COMMON EXCAVATION
- SALVAGED RAIL
- REMOVING FENCE
- X — REMOVING TREE (INCH DIAMETER)
- XXXX — SAWING CONCRETE

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	REMOVALS	SHEET 38	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\REMOVALS\REMOVALS.DWG PLOT DATE : 9/18/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	REMOVALS	SHEET 39	E

2

2

N

R/W

SLOPE INTERCEPT (TYP.)

SB USH 41 ON-RAMP

742+00SW

743+00SW

744+00SW

745+00SW

746+00SW

747+00SW

+25 'SW'

MATCH LINE STA. 747+25SW

N

REMOVAL LEGEND

REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING ASPHALTIC SURFACE & REMOVING PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING ASPHALTIC SURFACE INCIDENTAL TO COMMON EXCAVATION

SALVAGED RAIL

REMOVING FENCE

REMOVING TREE (INCH DIAMETER)

XXXX SAWING CONCRETE

MATCH LINE STA. 749+00NE

SLOPE INTERCEPT (TYP.)

00NE

750+00NE

751+00NE

752+00NE

753+00

NB USH 41 ON-RAMP

+50 'NE'

15"

18"

+12 'NE'

65.9' RT

R/W

TLE

NOTIFY VALLEY BAPTIST CHURCH
WHEN REMOVING RIGHT-OF-WAY FENCE

P.L. (TYP.)

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	REMOVALS	SHEET 40	E

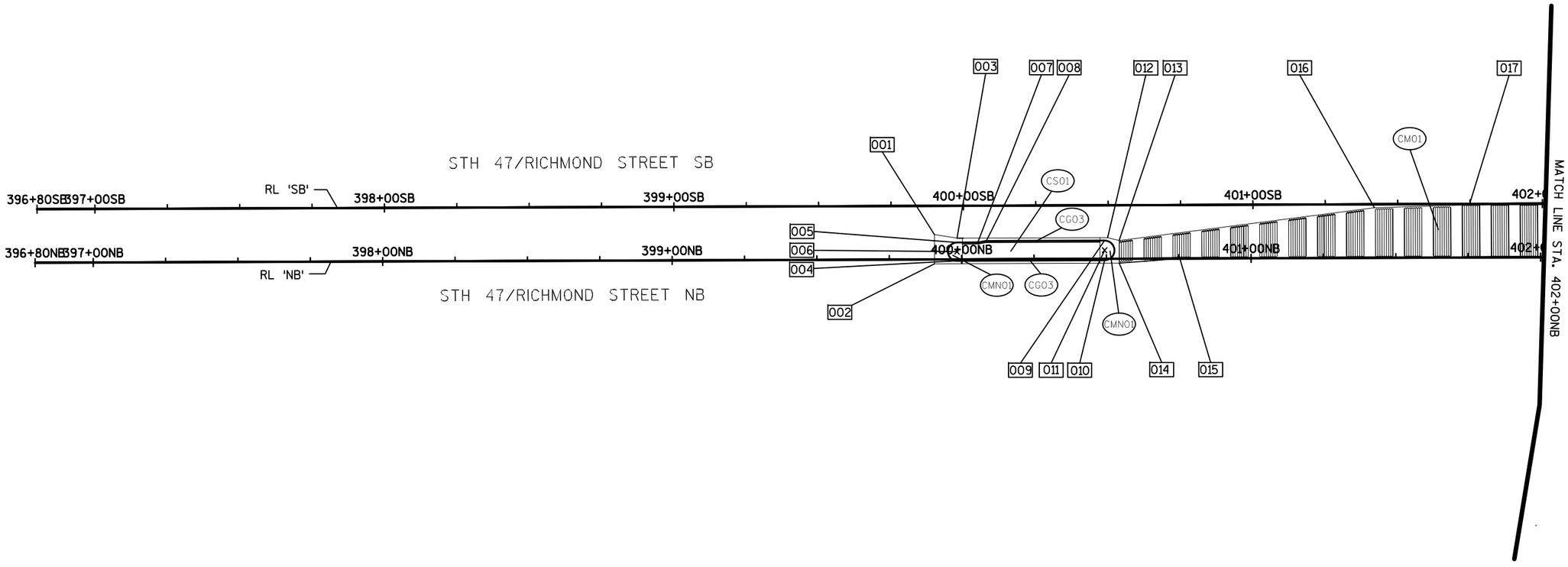
FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\REMOVALS\REMOVALS.DWG PLOT DATE : 9/18/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

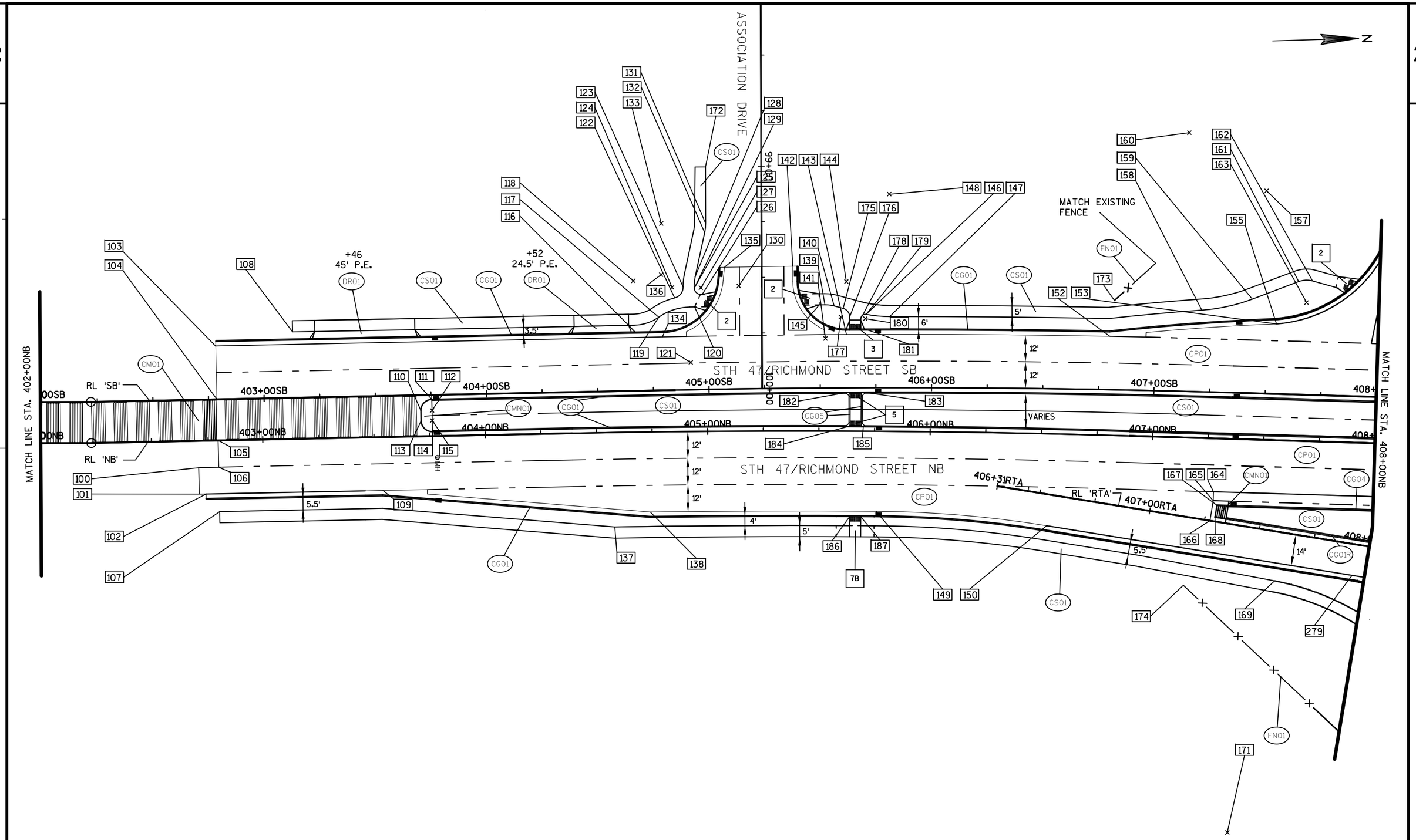
2

PLAN DETAIL LEGEND

- (AG01) BASE AGGREGATE DENSE 3/4-INCH
- (AP01) HMA PAVEMENT TYPE E-0.3, 3.5-INCH
- (CG01) CONCRETE CURB AND GUTTER 30-INCH TYPE A
- (CG01R) CONCRETE CURB AND GUTTER 30-INCH TYPE A, REJECT
- (CG02) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
- (CG03) CONCRETE CURB AND GUTTER 18-INCH TYPE A
- (CG04) CONCRETE CURB AND GUTTER INTEGRAL 30-INCH TYPE D
- (CG05) CONCRETE CURB PEDESTRIAN
- (CG06) CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE G
- (CG07) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
- (CM01) CONCRETE CORRUGATED MEDIAN (10-INCH)
- (CMN01) CONCRETE MEDIAN SLOPED NOSE TYPE 1
- (CMN02) CONCRETE MEDIAN SLOPED NOSE TYPE 2
- (CP01) CONCRETE PAVEMENT 10-INCH, DOWELED AND TINED
- (CS01) CONCRETE SIDEWALK, 4-INCH
- (DR01) CONCRETE DRIVEWAY, 6-INCH
- (FN01) FENCE CHAIN LINK, 4-FEET
- (PV01) CONCRETE PAVEMENT APPROACH SLAB
- (PV02) GUARDRAIL MOW STRIP CONCRETE
- (PV03) ASPHALTIC FLUME
- [2] CURB RAMP TYPE 2
- [5] CURB RAMP TYPE 5
- [6] CURB RAMP TYPE 6
- [7B] CURB RAMP TYPE 7B
- ■ CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA (2FT × 2FT)

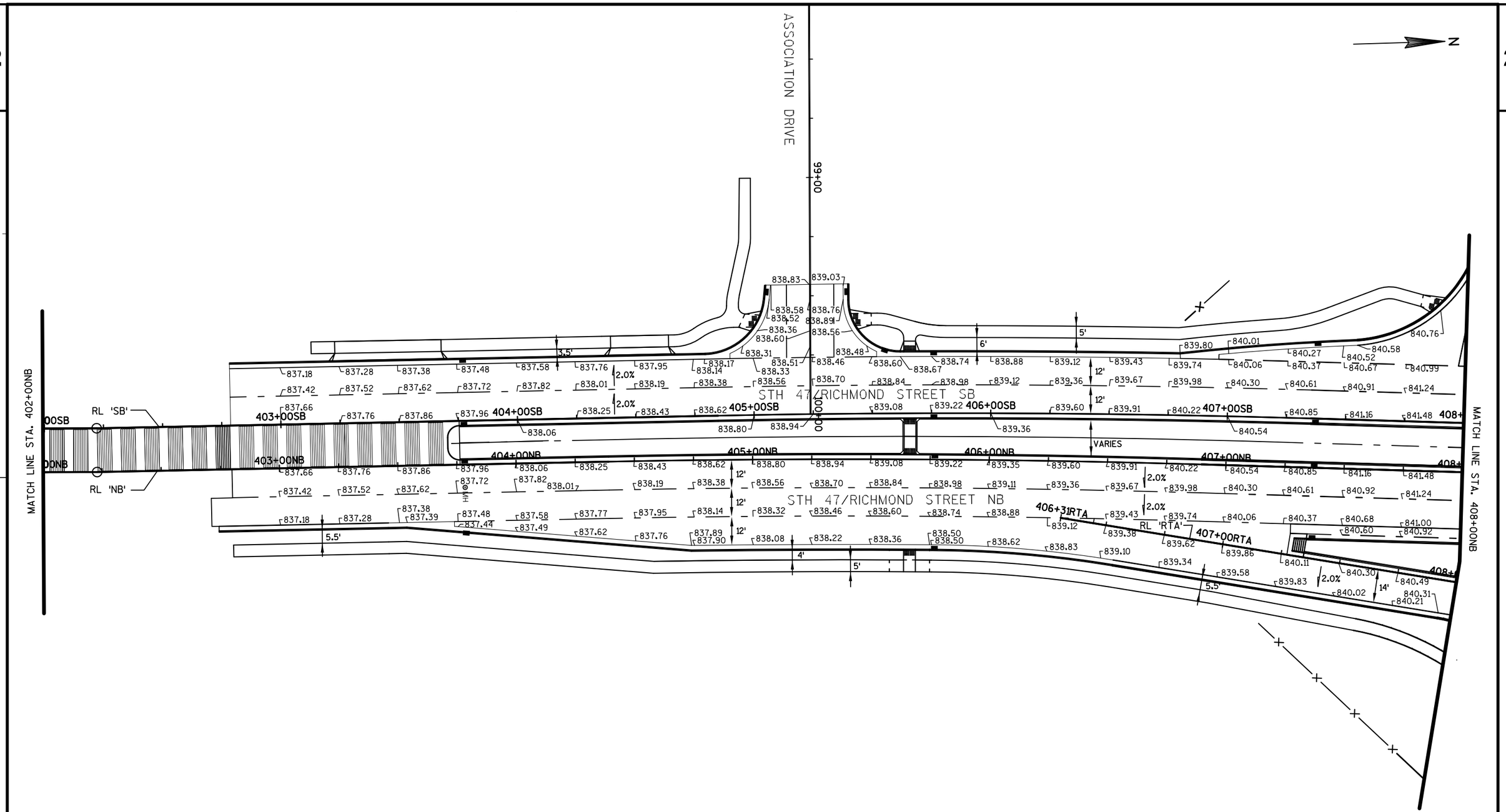
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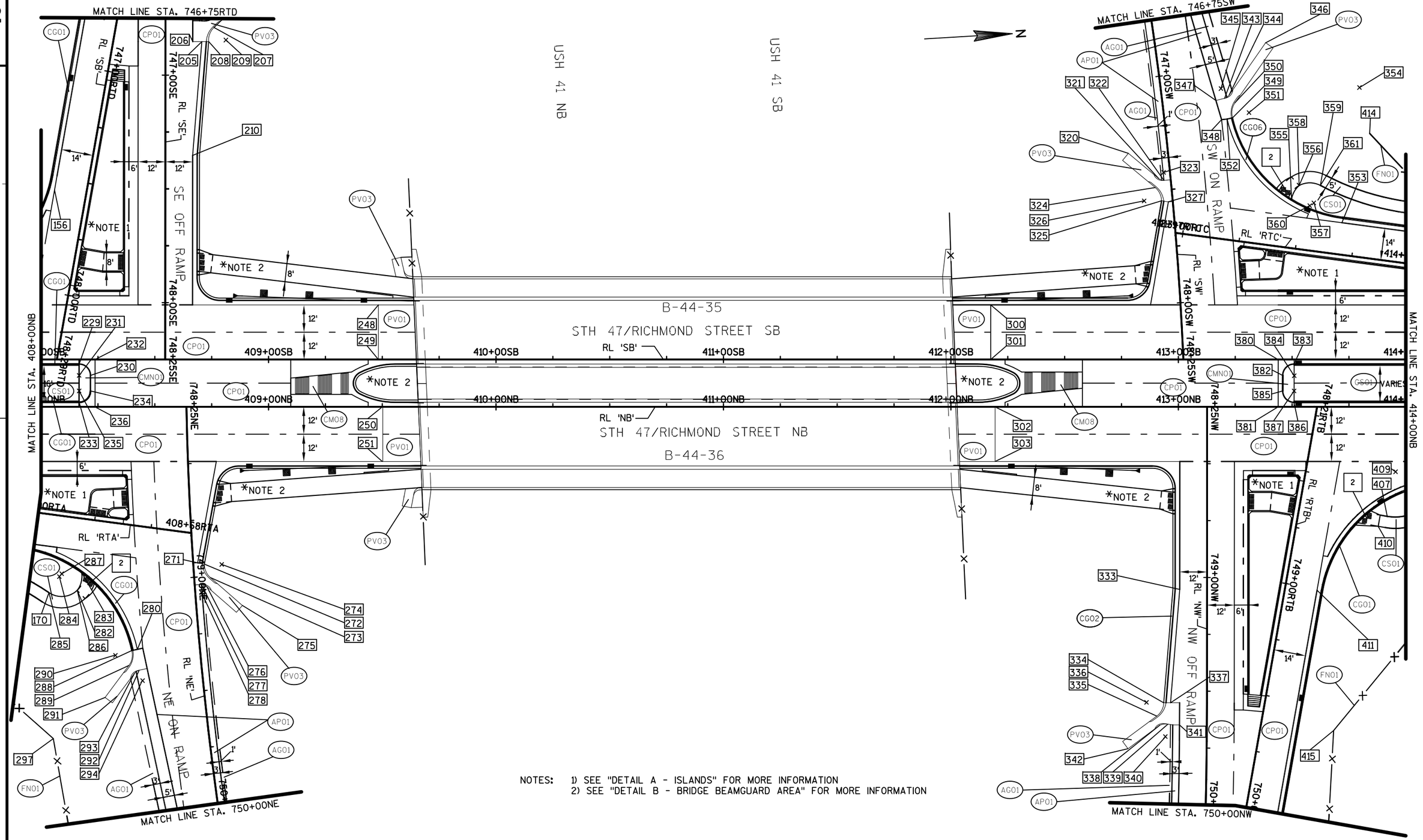

N
STH 47/RICHMOND STREET SB
STH 47/RICHMOND STREET NB
RL 'SB'
RL 'NB'
396+80SB
397+00SB
398+00SB
399+00SB
400+00SB
401+00SB
396+80NB
397+00NB
398+00NB
399+00NB
400+00NB
401+00NB
MATCH LINE STA. 402+00NB
001
002
003
004
005
006
007
008
009
010
011
012
013
014
015
016
017
CS01
CGO3
CMO1
CMN01



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN DETAILS	SHEET 43	E

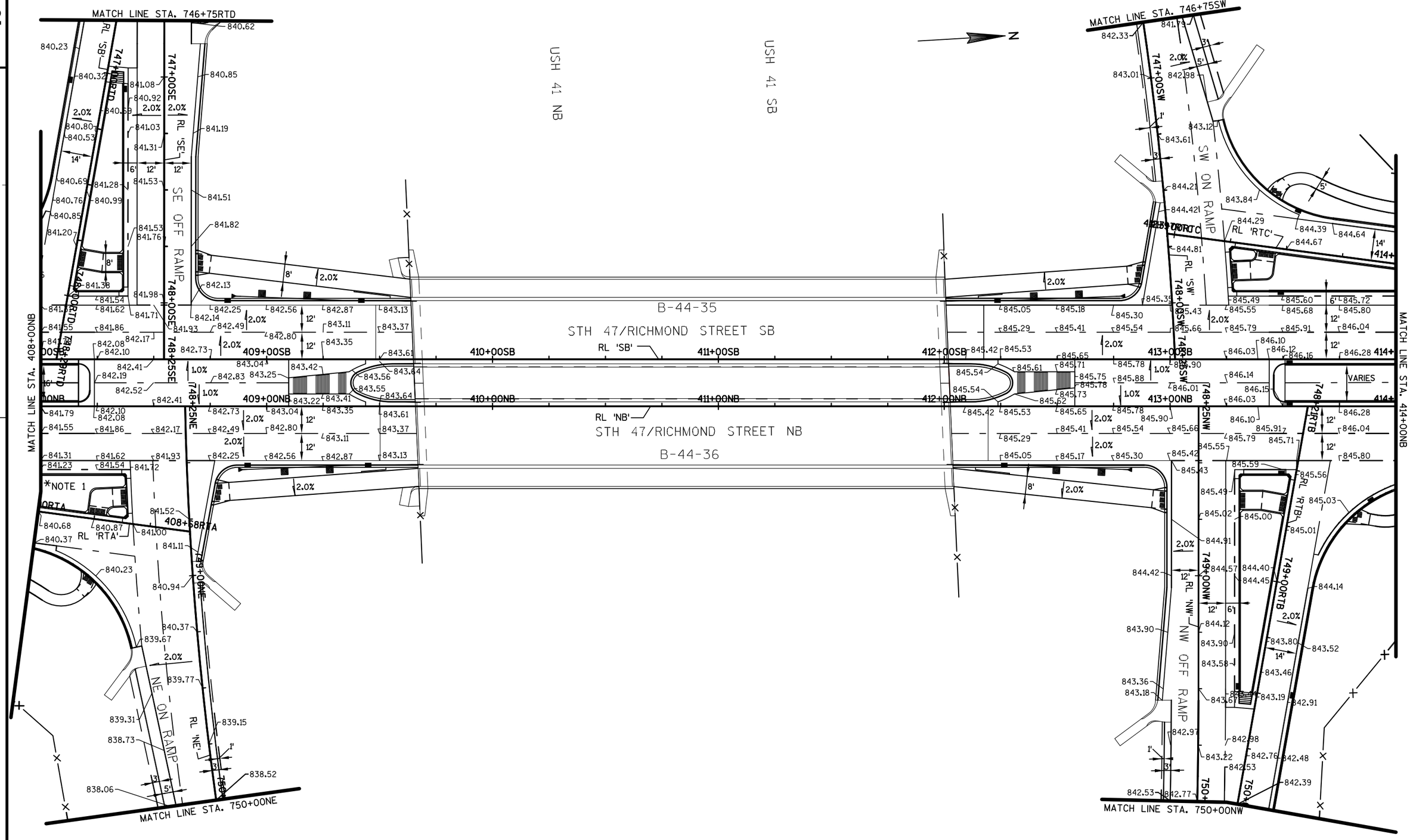
FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\PLAN DETAILS\02120_STH 47_PD.DWG PLOT DATE : 9/18/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF


N
ASSOCIATION DRIVE
99+00
MATCH LINE STA. 402+00NB
MATCH LINE STA. 408+00NB
RL 'SB'
RL 'NB'
403+00SB
404+00SB
405+00SB
406+00SB
407+00SB
403+00NB
404+00NB
405+00NB
406+00NB
407+00NB
406+31RTA
407+00RTA
RL 'RTA'
STH 47/RICHMOND STREET SB
STH 47/RICHMOND STREET NB
3.5'
2.0%
6'
5'
12'
VARIES
5.5'
4'
5'
14'
HWY



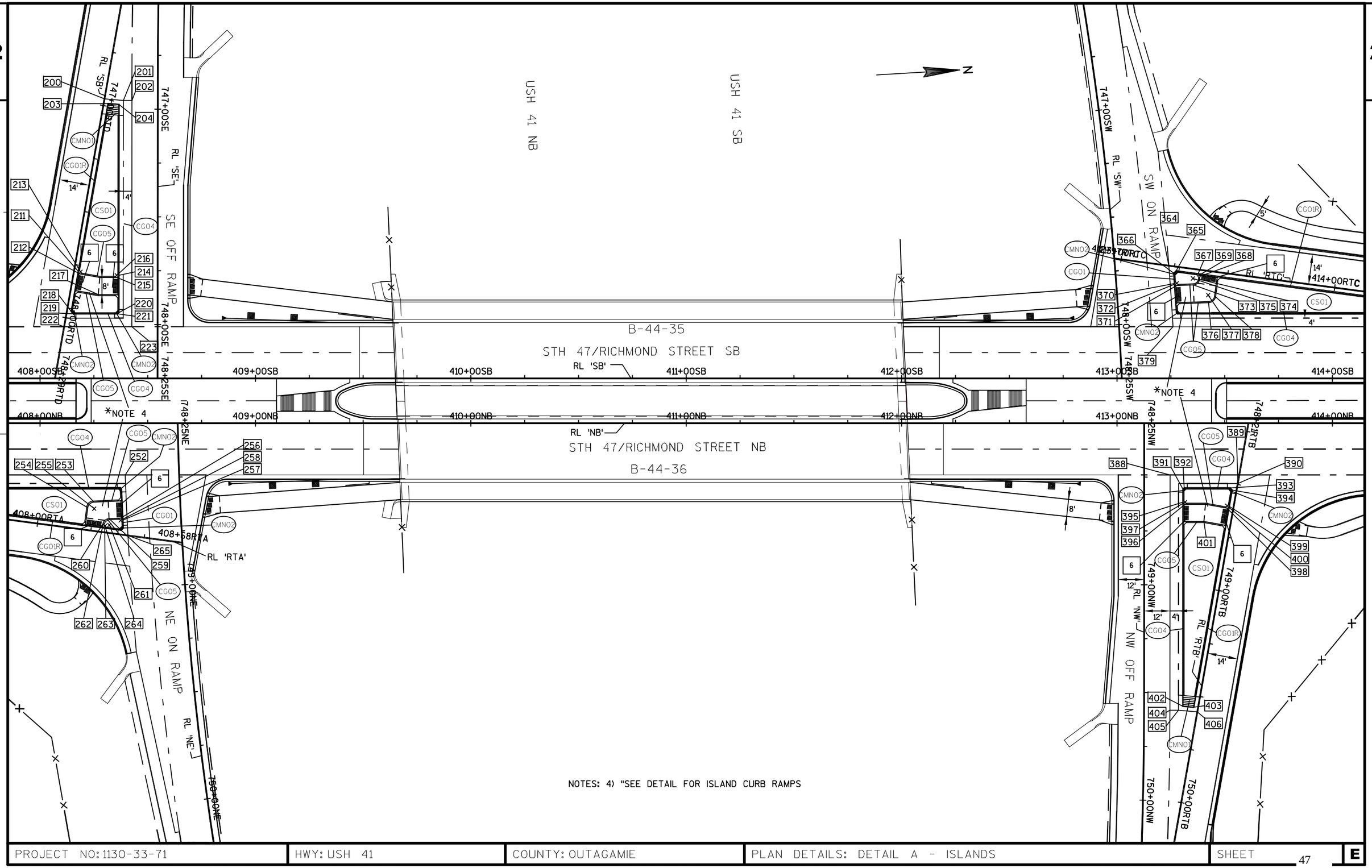
NOTES: 1) SEE "DETAIL A - ISLANDS" FOR MORE INFORMATION
2) SEE "DETAIL B - BRIDGE BEAMGUARD AREA" FOR MORE INFORMATION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN DETAILS	SHEET 45 E



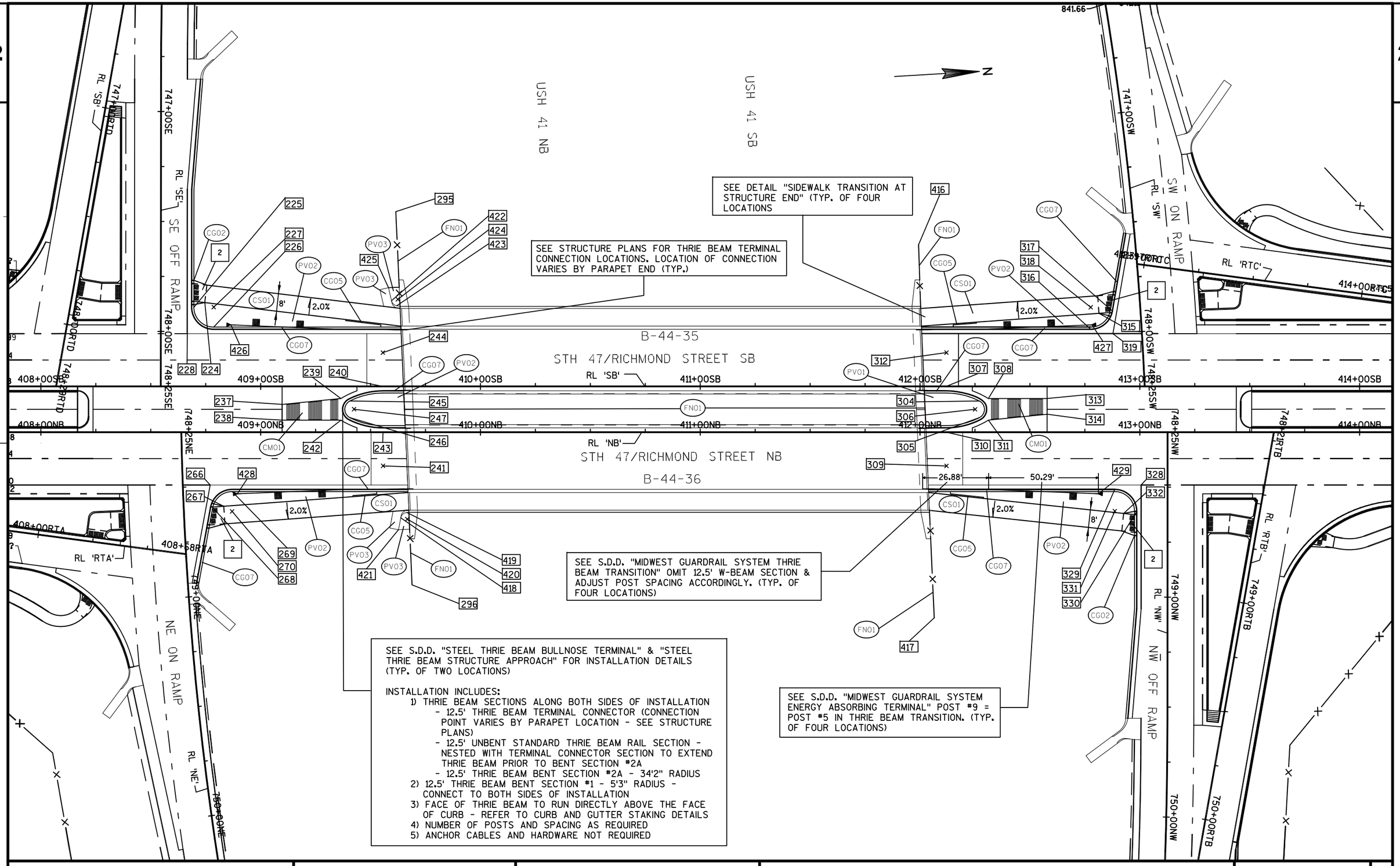
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PAVEMENT GRADES	SHEET 46 E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\PLAN DETAILS\STH 47_PAVEMENT GRADES.DWG PLOT DATE : 9/18/2013 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : 1:40_XREF



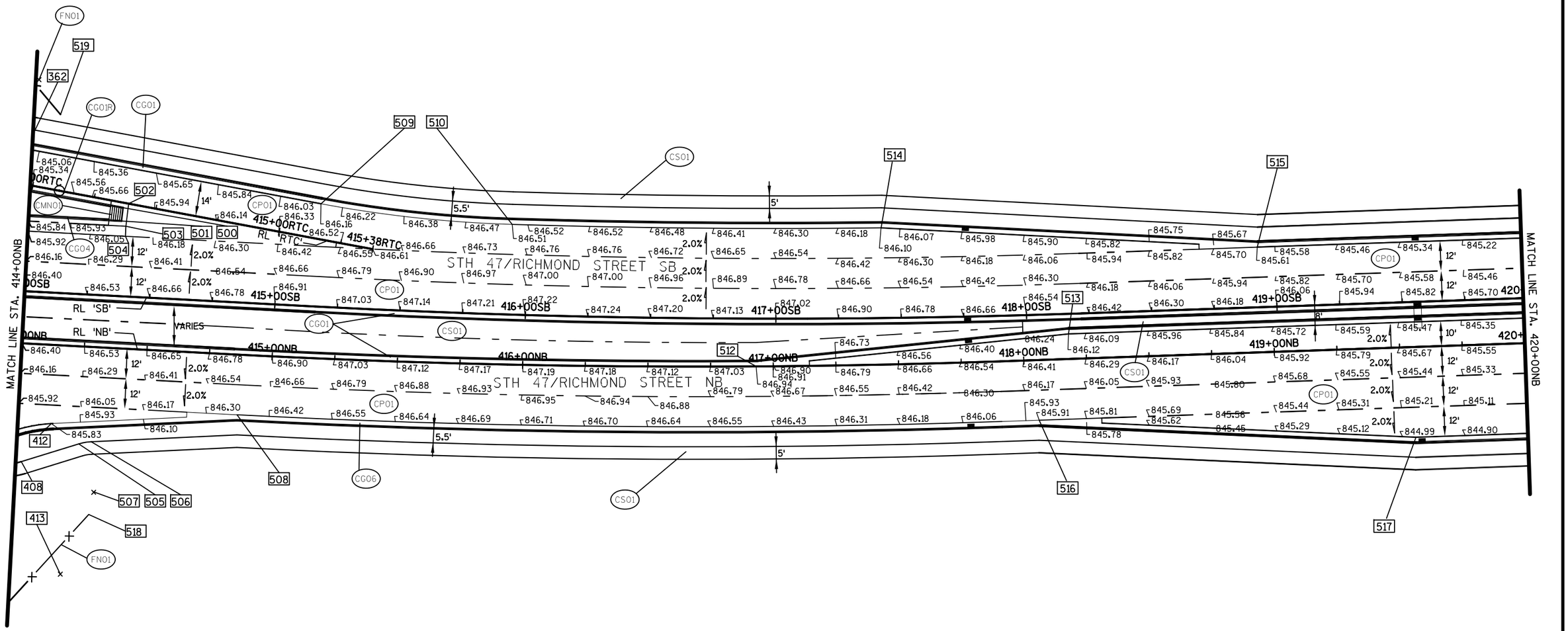
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN DETAILS: DETAIL A - ISLANDS	SHEET 47 E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\PLAN DETAILS\ISLANDS_STH 47_PD.DWG PLOT DATE : 9/18/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

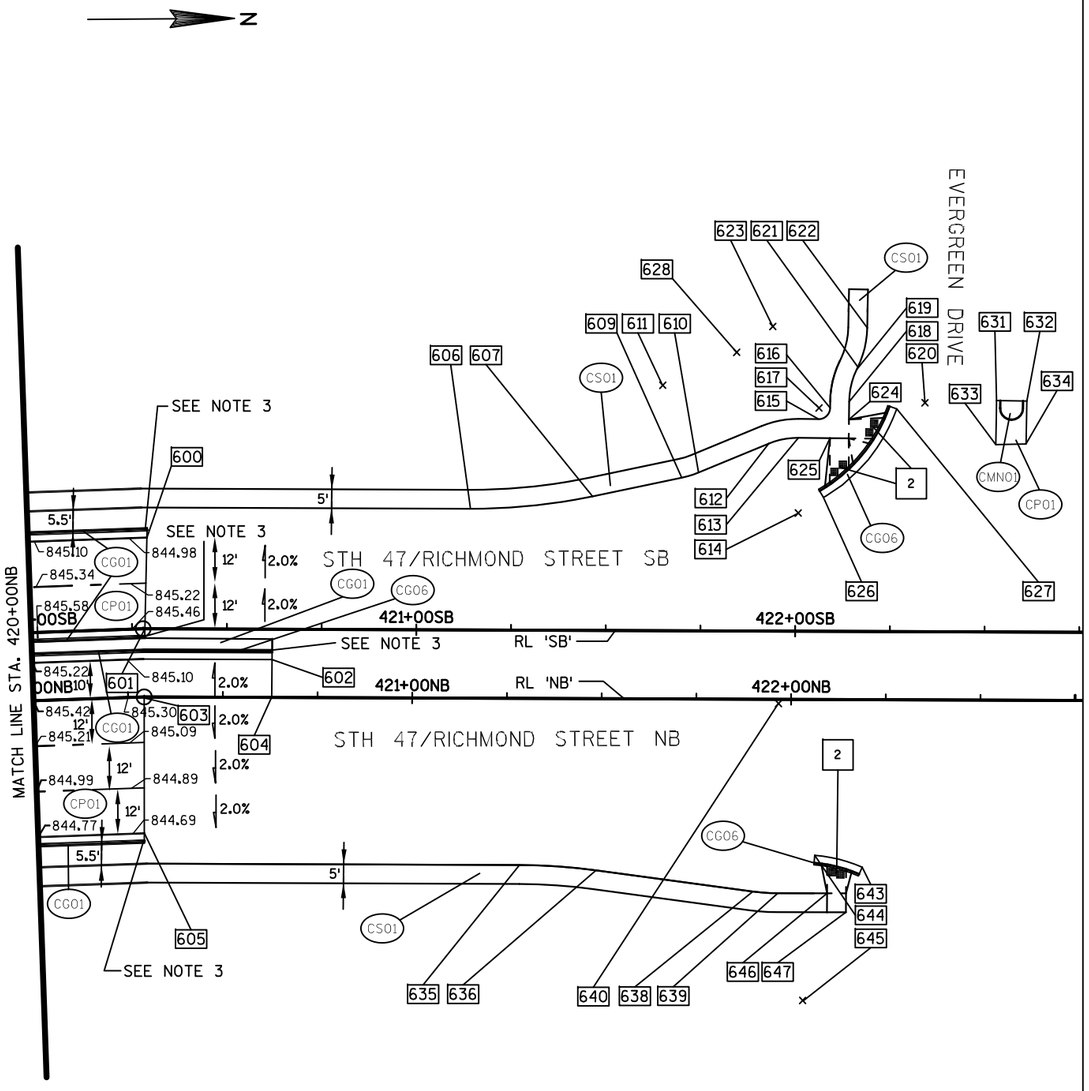


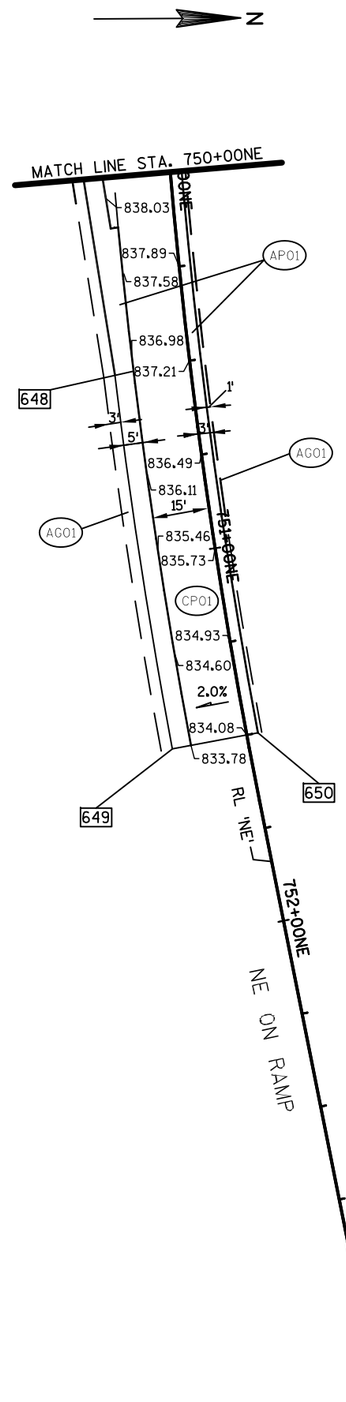
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN DETAILS: DETAIL B - BRIDGE BEAMGUARD AREA	SHEET 48 E

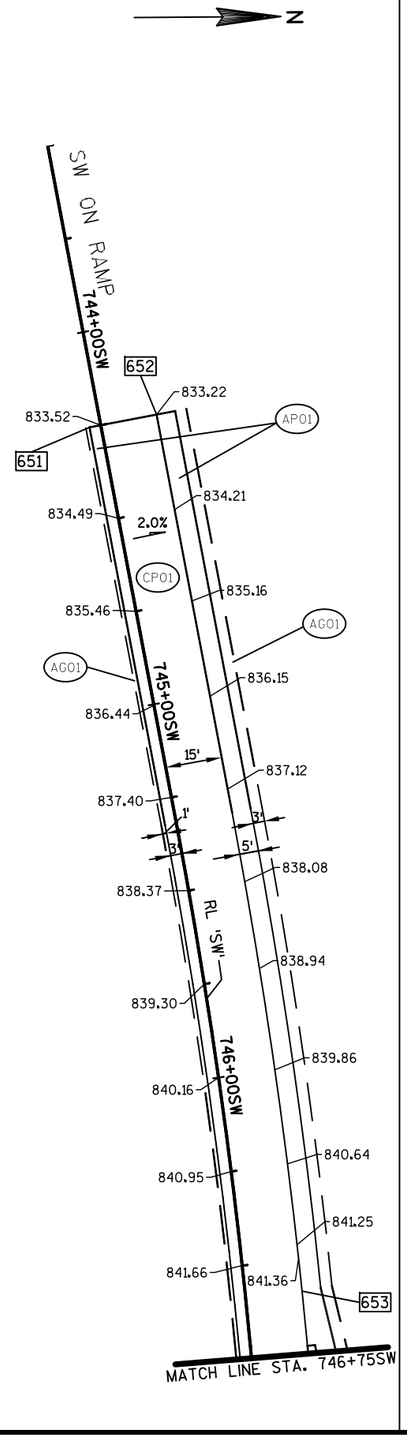
2



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN DETAILS AND PAVEMENT GRADES	SHEET 49 E

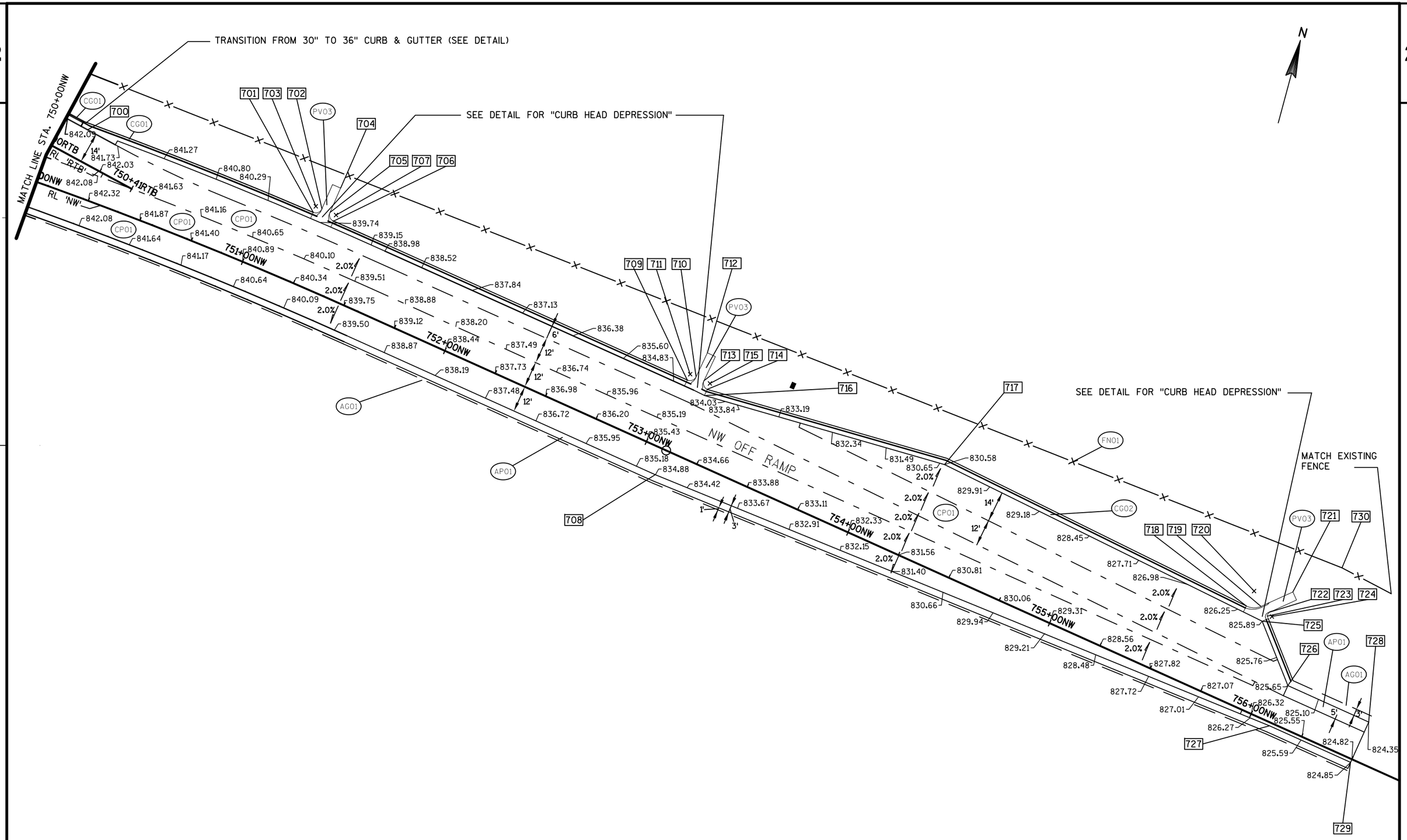




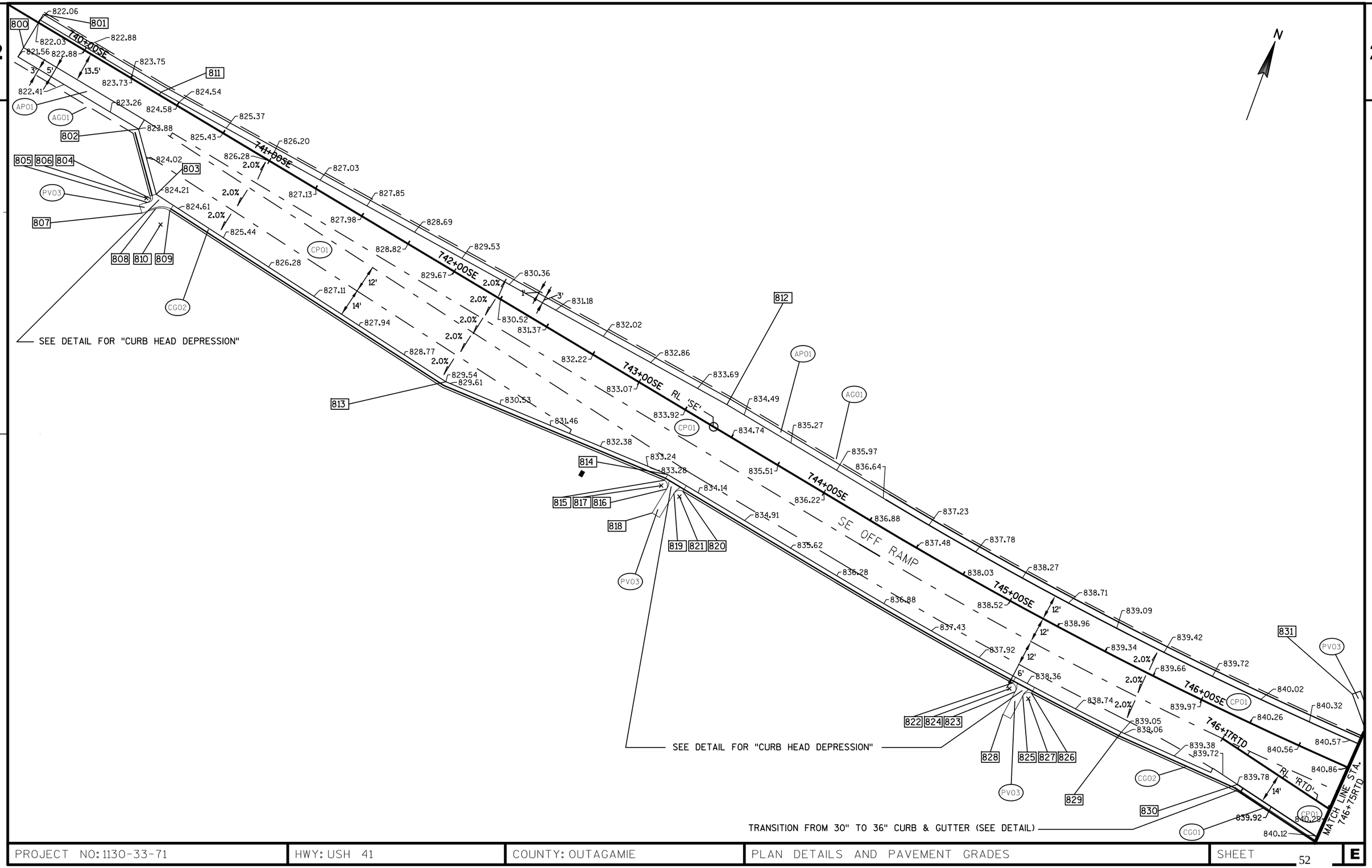


NOTES: 3) TRANSITION CONCRETE CURB AND GUTTER FROM '30-INCH TYPE A' TO '6-INCH SLOPED 30-INCH TYPE G'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN DETAILS AND PAVEMENT GRADES	SHEET 50 E



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN DETAILS AND PAVEMENT GRADES	SHEET 51	E



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN DETAILS AND PAVEMENT GRADES	SHEET 52	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\PLAN DETAILS\02120_STH 47_PD&PG - .DWG PLOT DATE : 9/18/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

PLAN DETAIL POINTS - SHEET 1 OF 7

POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
1	NB	399+90.64	8.6' LT	BEGIN WORK
2	NB	399+90.64	1.5' RT	BEGIN WORK
3	NB	399+98.44	7.3' LT	DEFLECTION
4	NB	399+98.44	0.5' RT	C1-1 (PC)
5	NB	399+98.44	5.8' LT	C1-1 (PT)
6	NB	399+98.44	2.7' LT	C1-1 (CC) - 3.0' RADIUS TO EOP
7	NB	400+05.64	5.8' LT	DEFLECTION
8	NB	400+08.55	6.3' LT	DEFLECTION
9	NB	400+49.40	6.3' LT	C1-2 (PC)
10	NB	400+49.40	0.5' RT	C1-2 (PT)
11	NB	400+49.40	2.9' LT	C1-2 (CC) - 3.5' RADIUS TO EOP
12	NB	400+50.46	7.3' LT	DEFLECTION
13	NB	400+54.40	6.'3 LT	DEFLECTION
14	NB	400+54.43	4.5' RT	DEFLECTION
15	NB	400+75.39	0'	DEFLECTION
16	NB	401+42.69	17.3' LT	DEFLECTION
17	NB	401+75.48	18.2' LT	DEFLECTION

PLAN DETAIL POINTS - SHEET 2 OF 7

POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
100	NB	402+70.96	12.0' RT	MATCH EXISTING PAVEMENT
101	NB	402+70.97	24.0' RT	MATCH EXISTING PAVEMENT
102	NB	402+74.02	24.0' RT	MATCH EXISTING CURB
103	SB	402+78.76	24.0' LT	MATCH EXISTING CURB
104	SB	402+78.77	0.0'	MATCH EXISTING PAVEMENT
105	NB	402+79.92	0.0'	MATCH EXISTING PAVEMENT
106	NB	402+79.96	12.0' RT	MATCH EXISTING PAVEMENT
107	NB	402+79.97	32.0' RT	MATCH EXISTING SIDEWALK
108	SB	403+13.38	29.6' LT	MATCH EXISTING SIDEWALK
109	NB	403+53.40	24.0' RT	TAPER 2-1 (FOC)
110	SB	403+70.34	7.0' RT	C2-1 (PC)
111	SB	403+75.34	2.0' RT	C2-1 (PT)
112	SB	403+75.34	7.0' RT	C2-1 (CC) - 5.0' RADIUS TO EOP
113	NB	403+71.33	7.0' LT	C2-2 (PC)
114	NB	403+76.3.3	2.0' LT	C2-2 (PT)
115	NB	403+76.33	7.0' LT	C2-2 (CC) - 5.0' RADIUS TO EOP
116	SB	404+64.49	29.5' LT	C2-3 (PC)
117	SB	404+78.07	32.9' LT	C2-3 (PT)
118	SB	404+66.91	49.5' LT	C2-3 (CC) - 20.0' RADIUS TO EOSW
119	SB	404+78.07	32.9' LT	C2-4 (PC)
120	SB	404+94.58	37.0' LT	C2-4 (PT)
121	SB	404+92.01	12.2'LT	C2-4 (CC) - 25.0' RADIUS TO EOSW
122	SB	404+85.39	41.4' LT	C2-5 (PC)
123	SB	404+89.25	46.3' LT	C2-5 (PT)
124	SB	404+84.29	46.3' LT	C2-5 (CC) - 5.0' RADIUS TO EOSW
125	SB	404+94.22	45.6' LT	C2-6 (PC)
126	SB	404+97.70	42.8' LT	C2-6 (PT)
127	SB	404+97.19	45.7' LT	C2-6 (CC) - 3.0' RADIUS TO EOSW
128	SB	404+94.73	50.8' LT	C2-7 (PC)
129	SB	404+94.22	45.6' LT	C2-7 (PT)
130	SB	405+14.02	46.3' LT	C2-7 (CC) - 20.0' RADIUS TO EOSW
131	SB	404+99.78	74.6' LT	C2-8 (PC)
132	SB	404+99.27	70.5' LT	C2-8 (PT)
133	SB	404+80.01	75.1' LT	C2-8 (CC) - 20.0' RADIUS TO EOSW
134	SB	404+79.55	24.0' LT	C2-9 (PC)
135	SB	405+07.77	54.8' LT	C2-9 (PT)
136	SB	404+79.55	52.0' LT	C2-9 (CC) - 28.0' RADIUS TO FOC
137	NB	404+57.54	42.5' RT	DEFLECTION
138	NB	404+73.72	36.0' RT	TAPER 2-1 (FOC)
139	SB	405+52.34	37.4' LT	C2-10 (PC)
140	SB	405+56.49	36.9' LT	C2-10 (PT)
141	SB	405+52.48	22.4' LT	C2-10 (CC) - 15.0' RADIUS TO EOSW
142	SB	405+38.15	54.9' LT	C2-11 (PC)
143	SB	405+61.88	24.0' LT	C2-11 (PT)
144	SB	405+61.88	48.0' LT	C2-11 (CC) - 24.0' RADIUS TO FOC
145	SB	405+70.72	33.0' LT	PED CURB ENTRANCE
146	SB	405+66.82	34.0' LT	C2-12 (PC)
147	SB	405+81.22	32.0' LT	C2-12 (PT)
148	SB	405+81.22	87.0' LT	C2-12 (CC) - 55.0' RADIUS TO EOSW
149	NB	405+75.85	36.0' RT	C2-13 (PC)
150	NB	406+53.30	43.3' RT	C2-13 (PT)
151	NB	UNKNOWN		C2-13 (CC)
152	SB	406+79.70	24.0' LT	C2-14 (PC)
153	SB	407+54.16	31.5' LT	C2-14 (PT)
154	SB	UNKNOWN		C2-14 (CC)
155	SB	407+54.16	31.5 LT	C2-15 (PC)

PLAN DETAIL POINTS - SHEET 2 OF 7 (CONTIUNED)

POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
156	SB	408+05.91	74.4' LT	C2-15 (PT)
157	SB	407+47.94	91.2' LT	C2-15 (CC) - 60.0' RADIUS TO FOC
158	SB	407+20.52	36.7' LT	C2-16 (PC)
159	SB	407+42.96	42.3' LT	C2-16 (PT)
160	SB	407+12.99	116.3' LT	C2-16 (CC) - 80.0' RADIUS TO EOSW
161	SB	407+63.57	50.8' LT	C2-17 (PC)
162	SB	407+69.77	51.3' LT	C2-17 (PT)
163	SB	407+67.38	41.6' LT	C2-17 (CC) - 10.0' RADIUS TO EOSW
164	NB	407+28.08	24.0' RT	JOINT LINE (FOC)
165	NB	407+28.08	28.0' RT	JOINT LINE (FOC)
166	NB	407+26.88	37.0' RT	JOINT LINE (FOC)
167	NB	407+29.83	30.0' RT	ISLAND NOSE
168	NB	407+29.12	35.3' RT	ISLAND NOSE
169	RTA	407+60.48	22.0' RT	C2-18 (PC)
170	RTA	408+09.17	34.2' RT	C2-18 (PT)
171	RTA	407+57.64	137.0' RT	C2-18 (CC) - 115.0' RADIUS TO EOSW
172	SB	405+00.15	100.0' LT	MATCH EXISTING SIDEWALK
173	SB	406+81.46	40.2' LT	BEGIN FENCE
174	RTA	407+20.30	30.6' RT	BEGIN FENCE
175	SB	405+60.47	35.7' LT	C2-19 (PC)
176	SB	405+63.38	31.9' LT	C2-19 (PT)
177	SB	405+59.40	31.9' LT	C2-19 (CC) - 4.0' RADIUS TO EOSW
178	SB	405+68.34	31.1' LT	C2-20 (PC)
179	SB	405+70.72	33.0' LT	C2-20 (PT)
180	SB	405+70.33	31.1' LT	C2-20 (CC) - 2.0' RADIUS TO EOSW
181	SB	405+69.84	26.5' LT	PED CURB ENTRANCE
182	SB	405+62.38	2.0' RT	PED CURB ENTRANCE
183	SB	405+69.38	2.0' RT	PED CURB ENTRANCE
184	NB	405+62.96	2.0' LT	PED CURB ENTRANCE
185	NB	405+69.92	2.0' LT	PED CURB ENTRANCE
186	NB	405+63.96	38.5' RT	PED CURB ENTRANCE
187	NB	405+69.00	38.5' RT	PED CURB ENTRANCE

PLAN DETAIL POINTS - SHEET 3 OF 7

POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
200	SE	746+95.21	24.7' RT	JOINT LINE (FOC)
201	SE	746+95.98	16.0' RT	JOINT LINE (FOC)
202	SE	746+95.98	12.0' RT	JOINT LINE (FOC)
203	SE	746+97.37	23.1' RT	ISLAND NOSE
204	SE	746+97.81	18.0' RT	ISLAND NOSE
205	SE	746+85.25	16.0' LT	FLUME
206	SE	746+85.25	12.0' LT	FLUME (FOC)
207	SE	746+78.96	21.3' LT	C3-1 (PC)
208	SE	746+85.25	19.0' LT	C3-1 (PT)
209	SE	746+84.52	26.6' LT	C3-1 (CC) - 7.6' RADIUS TO FLUME
210	SE	747+35.25	12.0' LT	DEFLECTION
211	SE	747+75.64	36.8' RT	C3-2 (PC)
212	SE	747+76.50	36.1' RT	C3-2 (PT)
213	SE	747+75.52	35.9' RT	C3-2 (CC) - 1.0' RADIUS TO PED CURB
214	SE	747+77.12	18.0' RT	C3-3 (PC)
215	SE	747+78.12	19.0' RT	C3-3 (PT)
216	SE	747+77.12	19.0' RT	C3-3 (CC) - 1.0' RADIUS TO PED CURB
217	SE	747+86.12	27.6' RT	DEFLECTION
218	SE	747+93.96	40.1' RT	ISLAND CORNER
219	SE	747+95.03	39.2' RT	ISLAND CORNER
220	SE	747+94.43	18.0' RT	ISLAND CORNER
221	SE	747+95.01	18.6' RT	ISLAND CORNER
222	SE	748+01.03	43.4' RT	JOINT LINE (FOC)
223	SE	748+01.01	12.0' RT	JOINT LINE (FOC)
224	SB	408+74.58	38.1' LT	PED CURB ENTRANCE
225	SB	408+69.62	36.0' LT	C3-4 (PC)
226	SB	408+78.62	27.0' LT	C3-4 (PT)
227	SB	408+78.62	36.0' LT	C3-4 (CC) - 9.0' RADIUS TO BOC
228	SB	408+66.61	24.0' LT	JOINT LINE (FOC)
229	SB	408+16.73	2.0' RT	C3-5 (PC)
230	SB	408+21.73	7.0' RT	C3-5 (PT)
231	SB	408+16.73	7.0' RT	C3-5 (CC) - 5.0' RADIUS TO MEDIAN
232	SB	408+23.73	0.0'	JOINT LINE (FOC)
233	NB	408+16.72	2.0' LT	C3-6 (PC)
234	NB	408+21.72	7.0' LT	C3-6 (PT)
235	NB	408+16.72	7.0' LT	C3-6 (CC) - 5.0' RADIUS TO MEDIAN
236	NB	408+23.73	0.0'	JOINT LINE (FOC)
237	NB	409+09.79	12.6' LT	MEDIAN NOSE
238	NB	409+09.79	5.5' LT	MEDIAN NOSE
239	NB	409+36.50	15.3' LT	C3-7 (PC)
240	NB	409+55.67	20.8' LT	C3-7 (PT)

PLAN DETAIL POINTS - SHEET 3 OF 7 (CONTINUED)

POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
241	NB	409+55.67	15.4' RT	C3-7 (CC) - 36.2' RADIUS TO FOC
242	NB	409+36.50	5.5' LT	C3-8 (PC)
243	NB	409+55.67	0.0'	C3-8 (PT)
244	NB	409+55.67	36.2' LT	C3-8 (CC) - 36.2' RADIUS TO FOC
245	NB	409+40.61	14.2' LT	C3-9 (PC)
246	NB	409+40.61	6.6' LT	C3-9 (PT)
247	NB	409+42.54	10.4' LT	C3-9 (CC) - 4.3' RADIUS TO MEDIAN
248	SB	409+48.29	24' LT	APPROACH SLAB
249	SB	409+48.29	0.0'	APPROACH SLAB
250	NB	409+50.00	0.0'	APPROACH SLAB
251	NB	409+50.00	24.0' RT	APPROACH SLAB
252	NB	408+39.56	24.0' RT	JOINT LINE (FOC)
253	NB	408+24.98	36.6' RT	C3-10 (PC)
254	NB	408+22.14	39.2' RT	C3-10 (PT)
255	NB	408+25.12	39.6' RT	C3-10 (CC) - 3.0' RADIUS TO PED CURB
256	NB	408+37.40	44.0' RT	C3-11 (PC)
257	NB	408+38.45	45.0' RT	C3-11 (PT)
258	NB	408+37.45	45.0' RT	C3-11 (CC) - 1.0' RADIUS TO PED CURB
259	NB	408+32.03	44.3' RT	C3-12 (PC)
260	NB	408+29.27	46.5' RT	C3-12 (PT)
261	NB	408+32.17	47.3' RT	C3-12 (CC) - 3.0' RADIUS TO PED CURB
262	NB	408+29.11	47.5' RT	C3-13 (PC)
263	NB	408+29.97	48.7' RT	C3-13 (PT)
264	NB	408+30.11	47.7' RT	C3-13 (CC) - 1.0' RADIUS TO PED CURB
265	NB	408+40.82	52.1' RT	JOINT LINE (FOC)
266	NB	408+77.04	24.0' RT	JOINT LINE (FOC)
267	NB	408+83.20	33.7' RT	PED CURB ENTRANCE
268	NB	408+78.19	34.4' RT	C3-14 (PC)
269	NB	408+87.04	27.0' RT	C3-14 (PT)
270	NB	408+87.04	36.0' RT	C3-14 (CC) - 9.0' RADIUS TO BOC
271	NE	748+93.80	2.0' RT	END CURB & GUTTER
272	NE	748+94.54	4.9' LT	C3-15 (PC)
273	NE	749+00.62	7.1' LT	C3-15 (PT)
274	NE	748+95.20	12.5' LT	C3-15 (CC) - 7.7' RADIUS TO FLUME
275	NE	749+14.04	20.2' LT	END FLUME
276	NE	749+04.43	5.2' LT	C3-16 (PC)
277	NE	749+03.40	3.0' LT	C3-16 (PT)
278	NE	749+06.90	2.7' LT	C3-16 (CC) - 3.5' RADIUS TO FLUME
279	RTA	407+94.48	14.0' RT	C3-17 (PC)
280	RTA	408+50.99	53.8' RT	C3-17 (PT)
281	RTA	UNKNOWN		C3-17 (CC)
282	RTA	408+21.39	31.6' RT	C3-18 (PC)
283	RTA	408+22.32	23.7' RT	C3-18 (PT)
284	RTA	408+12.75	26.6' RT	C3-18 (CC) - 10' RADIUS TO EOSW
285	RTA	408+09.17	34.2' RT	C3-19 (PC)
286	RTA	408+21.39	31.6' RT	C3-19 (PT)
287	RTA	408+13.65	25.3' RT	C3-19 (CC) - 10.0' RADIUS TO EOSW
288	NE	749+29.61	29.9' RT	C3-20 (PC)
289	NE	749+35.87	31.7' RT	C3-20 (PT)
290	NE	749+30.91	37.4' RT	C3-20 (CC) - 7.5' RADIUS TO FLUME
291	NE	749+48.53	43.6' RT	END FLUME
292	NE	749+38.37	27.5' RT	C3-21 (PC)
293	NE	749+39.50	29.7' RT	C3-21 (PT)
294	NE	749+42.82	26.5' RT	C3-21 (CC) - 4.7' RADIUS TO FLUME
295	SB	409+61.50	79.5' LT	FENCE
296	NB	409+68.88	69.4' RT	FENCE
297	NE	749+63.50	68.2' RT	FENCE
300	SB	412+17.50	24.0' LT	APPROACH SLAB
301	SB	412+17.50	0.0'	APPROACH SLAB
302	NB	412+19.44	0.0'	APPROACH SLAB
303	NB	412+19.44	24.0' RT	APPROACH SLAB
304	NB	412+26.99	14.2 LT	C3-22 (PC)
305	NB	412+26.99	6.6' LT	C3-22 (PT)
306	NB	412+25.05	10.4' LT	C3-22 (CC) - 4.2' RADIUS TO MEDIAN
307	NB	412+11.92	20.8' LT	C3-23 (PC)
308	NB	412+31.09	15.3' LT	C3-23 (PT)
309	NB	412+11.92	15.4' RT	C3-23 (CC) - 36.2' RADIUS TO FOC
310	NB	412+11.92	0.0'	C3-24 (PC)
311	NB	412+31.09	5.5' LT	C3-24 (PT)
312	NB	412+11.92	36.2' LT	C3-24 (CC) - 36.2' RADIUS TO FOC
313	NB	412+57.80	15.3' LT	MEDIAN NOSE
314	NB	412+57.80	8.4' LT	MEDIAN NOSE
315	SB	412+81.38	33.3' LT	PED CURB ENTRANCE
316	SB	412+77.64	26.0' LT	C3-25 (PC)
317	SB	412+87.49	34.3' LT	C3-25 (PT)

PLAN DETAIL POINTS - SHEET 3 OF 7 (CONTINUED)

POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
318	SB	412+77.64	36.0' LT	C3-25 (CC) - 10.0' RADIUS TO FOC
319	SB	412+87.74	24.0' LT	JOINT LINE (FOC)
320	SW	747+32.27	17.4' RT	END FLUME
321	SW	747+44.72	5.2' RT	C3-26 (PC)
322	SW	747+45.75	3.0' RT	C3-26 (PT)
323	SW	747+42.25	2.7' RT	C3-26 (CC) - 3.5' RADIUS TO FLUME
324	SW	747+48.53	7.1' RT	C3-27 (PC)
325	SW	747+54.61	4.9' RT	C3-27 (PT)
326	SW	747+53.95	12.5' RT	C3-27 (CC) - 7.6' RADIUS TO FLUME
327	SW	747+55.35	2.0' RT	END C & G
328	NB	413+00.61	24.0' RT	JOINT LINE (FOC)
329	NB	412+88.60	26.O' RT	C3-28 (PC)
330	NB	412+98.60	36.0' RT	C3-28 (PT)
331	NB	412+88.60	36.0' RT	C3-28 (CC) - 10.0' RADIUS TO FOC
332	NB	412+92.63	36.9' RT	PED CURB ENTRANCE
333	NW	749+05.26	12.0' RT	DEFLECTION
334	NW	749+55.08	19.0' RT	C3-29 (PC)
335	NW	749+61.04	22.0' RT	C3-29 (PT)
336	NW	749+54.88	26.6' RT	C3-29 (CC) - 7.6' RADIUS TO FLUME
337	NW	749+55.08	16.0' RT	END C & G
338	NW	749+65.11	20.7' RT	C3-30 (PC)
339	NW	749+64.57	17.1' RT	C3-30 (PT)
340	NW	749+70.18	18.1' RT	C3-30 (CC) - 5.7' RADIUS TO FLUME
341	NW	749+64.89	12.0' RT	FLUME (FOC)
342	NW	749+75.67	34.6' RT	END FLUME
343	SW	747+13.02	29.6' LT	C3-31 (PC)
344	SW	747+11.86	29.6' LT	C3-31 (PT)
345	SW	747+08.58	26.4' LT	C3-31 (CC) - 4.6' RADIUS TO FLUME
346	SW	746+91.58	48.3' LT	END FLUME
347	SW	747+13.51	23.5' LT	FLUME (FOC)
348	SW	747+22.04	25.0' LT	JOINT LINE (FOC)
349	SW	747+21.75	29.9' LT	C3-32 (PC)
350	SW	747+15.47	31.7' LT	C3-32 (PT)
351	SW	747+20.37	37.4' LT	C3-32 (CC) - 7.6' RADIUS TO FLUME
352	RTC	413+12.72	52.6' LT	C3-33 (PC)
353	RTC	413+68.76	14.0' LT	C3-33 (PT)
354	RTC	413+68.76	74.0' LT	C3-33 (CC) - 60.0' RADIUS TO FOC
355	RTC	413+45.45	21.4' LT	C3-34 (PC)
356	RTC	413+47.98	27.8' LT	C3-34 (PT)
357	RTC	413+55.44	21.1' LT	C3-34 (CC) - 10.0' RADIUS TO EOSW
358	RTC	413+47.98	27.8' LT	C3-35 (PC)
359	RTC	413+57.22	29.0' LT	C3-35 (PT)
360	RTC	413+53.78	19.6' LT	C3-35 (CC) - 10.0' RADIUS TO EOSW
361	RTC	413+57.22	29.0' LT	C3-36 (PC)
362	RTC	413+96.78	22.0' LT	C3-36 (PT)
363	RTC	UNKNOWN		C3-36 (CC)
364	SB	413+24.06	52.3' LT	JOINT LINE (FOC)
365	SB	413+27.41	49.9' LT	ISLAND CORNER
366	SB	413+26.33	48.9' LT	ISLAND CORNER
367	SB	413+37.61	48.5' LT	C3-37 (PC)
368	SB	413+38.47	47.4' LT	C3-37 (PT)
369	SB	413+37.48	47.5' LT	C3-37 (CC) - 1.0' RADIUS TO PED CURB
370	SB	413+26.68	44.1' LT	C3-38 (PC)
371	SB	413+27.72	43.2' LT	C3-38 (PT)
372	SB	413+27.68	44.2' LT	C3-38 (CC) - 1.0' RADIUS TO PED CURB
373	SB	413+35.42	43.4' LT	C3-39 (PC)
374	SB	413+38.29	46.0' LT	C3-39 (PT)
375	SB	413+35.32	46.4' LT	C3-39 (CC) - 3.0' RADIUS TO PED CURB
376	SB	413+42.47	35.7' LT	C3-40 (PC)
377	SB	413+45.34	38.3' LT	C3-40 (PT)
378	SB	413+42.36	38.7' LT	C3-40 (CC) - 3.0' RADIUS TO PED CURB
379	SB	413+25.99	24.0' LT	JOINT LINE (FOC)
380	NB	413+43.88	20.8' LT	JOINT LINE (FOC)
381	NB	413+43.86	0.0'	JOINT LINE (FOC)
382	NB	413+45.87	13.8' LT	C3-41 (PC)
383	NB	413+50.87	18.8' LT	C3-41 (PT)
384	NB	413+50.87	13.8' LT	C3-41 (CC) - 5.0' RADIUS TO MEDIAN
385	NB	413+45.87	7.0' LT	C3-42 (PC)
386	NB	413+50.86	2.0' LT	C3-42 (PT)
387	NB	413+50.87	7.0' LT	C3-42 (CC) - 5.0' RADIUS TO MEDIAN
388	NW	748+48.99	12.0' LT	JOINT LINE (FOC)
389	NW	748+48.94	43.4' LT	JOINT LINE (FOC)
390	NW	748+52.98	43.4' LT	DEFLECTION (FOC)
391	NW	748+55.57	18.0' LT	ISLAND CORNER
392	NW	748+54.99	18.5' LT	ISLAND CORNER

PLAN DETAIL POINTS - SHEET 3 OF 7 (CONTINUED)				
POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
393	NW	748+54.98	40.0' LT	ISLAND CORNER
394	NW	748+56.04	40.9' LT	ISLAND CORNER
395	NW	748+61.61	18.0' LT	C3-43 (PC)
396	NW	748+62.61	19.0' LT	C3-43 (PT)
397	NW	748+61.61	19.0' LT	C3-43 (CC) - 1.0' RADIUS TO PED CURB
398	NW	748+64.36	38.4' LT	C3-44 (PC)
399	NW	748+63.55	39.5' LT	C3-44 (PT)
400	NW	748+63.38	38.5' LT	C3-44 (CC) - 1.0' RADIUS TO PED CURB
401	NW	748+70.61	27.7' LT	DEFLECTION
402	NW	749+56.39	18.0' LT	ISLAND NOSE
403	NW	749+56.83	23.1' LT	ISLAND NOSE
404	NW	749+58.21	12.0' LT	JOINT LINE
405	NW	749+58.21	16.0' LT	JOINT LINE DEFLECTION
406	NW	749+58.95	24.7' LT	JOINT LINE
407	NB	413+91.84	48.1' RT	C3-45 (PC)
408	NB	414+02.22	47.2' RT	C3-45 (PT)
409	NB	413+95.32	28.4' RT	C3-45 (CC) - 20.0' RADIUS TO EOSW
410	NB	413+87.85	52.5' RT	PED CURB ENTRANCE
411	NB	413+60.95	80.6' RT	C3-46 (PC)
412	NB	414+14.06	31.3' RT	C3-46 (PT)
413	NB	414+20.03	91.0' RT	C3-46 (CC) - 60.0' RADIUS TO FOC
414	RTC	413+75.72	54.5' LT	FENCE
415	RTB	749+59.98	32.0' LT	FENCE
416	SB	411+99.34	64.5' LT	FENCE
417	NB	412+06.45	84.4' RT	FENCE
418	NB	409+63.74	39.0' RT	C3-47 (PC)
419	NB	409+66.49	36.5' RT	C3-47 (PT)
420	NB	409+66.68	39.5' RT	C3-47 (CC) - 3.0' RADIUS TO FLUME
421	NB	409+62.73	44.3' RT	END FLUME
422	SB	409+59.53	39.0' LT	C3-48 (PC)
423	SB	409+61.94	36.7' LT	C3-48 (PT)
424	SB	409+62.46	39.7' LT	C3-48 (CC) - 3.0' RADIUS TO FLUME
425	SB	409+58.17	44.9' LT	END FLUME
426	SB	408+86.43	28.0' LT	END BEAMGUARD
427	SB	412+87.74	24.0' LT	END BEAMGUARD
428	NB	408+89.40	28.0' RT	END BEAMGUARD
429	NB	412+81.17	28.0' RT	END BEAMGUARD

PLAN DETAIL POINTS - SHEET 4 OF 7				
POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
500	SB	414+37.48	35.3' LT	ISLAND NOSE
501	SB	414+37.13	30.0' LT	ISLAND NOSE
502	SB	414+39.60	37.1' LT	JOINT LINE
503	SB	414+39.00	28.0' LT	JOINT LINE
504	SB	414+39.00	24.0' LT	JOINT LINE
505	NB	414+24.75	38.9' RT	C4-1 (PC)
506	NB	414+29.66	37.8' RT	C4-1 (PT)
507	NB	414+31.65	57.7' RT	C4-1 (CC) - 20.0' RADIUS TO EOSW
508	NB	414+87.18	24.0' RT	DEFLECTION
509	SB	415+16.24	41.0' LT	C4-2 (PC)
510	SB	415+93.66	36.0' LT	C4-2 (PT)
511	SB	UNKNOWN		C4-2 (CC)
512	NB	416+93.19	0.0'	TAPER 4-1 (FOC)
513	NB	418+18.20	10.0' LT	TAPER 4-1 (FOC)
514	SB	417+42.39	36.0' LT	TAPER 4-2 (FOC)
515	SB	418+92.96	24.0' LT	TAPER 4-2 (FOC)
516	NB	418+05.30	24.0' RT	TAPER 4-3 (FOC)
517	NB	419+55.30	36.0' RT	TAPER 4-3 (FOC)
518	NB	414+30.23	66.9' RT	FENCE
519	RTC	414+05.65	30.0' LT	FENCE

PLAN DETAIL POINTS - SHEET 5 OF 7				
POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
600	SB	420+28.81	24.1' LT	MATCH EXISTING C & G
601	SB	420+28.37	0.0'	MATCH EXISTING PAVEMENT
602	SB	420+62.93	8.0' RT	MATCH EXISTING C & G
603	SB	420+29.24	0.0'	MATCH EXISTING PAVEMENT
604	SB	420+62.93	0.0'	MATCH EXISTING PAVEMENT
605	NB	420+28.04	36.0' RT	MATCH EXISTING C & G
606	SB	421+14.18	32.0' LT	C5-1 (PC)
607	SB	421+46.40	35.4' LT	C5-1 (PT)
608	SB	UNKNOWN		C5-1 (CC)
609	SB	421+69.91	40.4' LT	C5-2 (PC)
610	SB	421+74.34	41.8' LT	C5-2 (PT)
611	SB	421+64.71	64.8' LT	C5-2 (CC) - 25.0' RADIUS TO EOSW
612	SB	421+92.84	49.5' LT	C5-3 (PC)
613	SB	422+00.67	51.0' LT	C5-3 (PT)

PLAN DETAIL POINTS - SHEET 5 OF 7 (CONTINUED)				
POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
614	SB	422+00.55	31.0' LT	C5-3 (CC) - 20.0' RADIUS TO EOSW
615	SB	422+06.01	56.0' LT	C5-4 (PC)
616	SB	422+09.03	59.0' LT	C5-4 (PT)
617	SB	422+06.03	59.0' LT	C5-4 (CC) - 3.0' RADIUS TO EOSW
618	SB	422+14.04	60.6' LT	C5-5 (PC)
619	SB	422+15.98	69.1' LT	C5-5 (PT)
620	SB	422+34.04	60.5' LT	C5-5 (CC) - 20.0' RADIUS TO EOSW
621	SB	422+16.30	69.8' LT	C5-6 (PC)
622	SB	422+18.73	80.1' LT	C5-6 (PT)
623	SB	421+93.74	80.5' LT	C5-6 (CC) - 25.0' RADIUS TO EOSW
624	SB	422+14.01	55.9' LT	PED CURB ENTRANCE
625	SB	422+09.01	51.0' LT	PED CURB ENTRANCE
626	SB	422+07.32	35.3' LT	C5-7 (PC)
627	SB	422+26.68	58.8' LT	C5-7 (PT)
628	SB	421+84.24	73.6' LT	C5-7 (CC) - 45.0' RADIUS TO FOC
GAP IN NUMBERING				
631	SB	422+52.94	61.1' LT	JOINT LINE
632	SB	422+60.95	61.0' LT	JOINT LINE
633	SB	422+52.80	49.5' LT	JOINT LINE
634	SB	422+60.77	49.6' LT	JOINT LINE
635	NB	421+28.46	44.0' RT	C5-8 (PC)
636	NB	421+48.67	45.3' RT	C5-8 (PT)
637	NB	UNKNOWN		C5-8 (CC)
638	NB	421+90.09	50.8' RT	C5-9 (PC)
639	NB	421+96.71	51.2' RT	C5-9 (PT)
640	NB	421+96.60	1.2' RT	C5-9 (CC) - 50.0' RADIUS TO FOC
GAP IN NUMBERING				
643	NB	422+18.93	44.2' RT	C5-10 (PC)
644	NB	422+06.40	41.2' RT	C5-10 (PT)
645	NB	422+03.58	79.5' RT	C5-10 (CC) - 38.5' RADIUS TO FOC
646	NB	422+09.69	51.2' RT	PED CURB ENTRANCE
647	NB	422+14.70	56.2' RT	END SIDEWALK
648	NE	750+51.02	15.0' RT	DEFLECTION
649	NE	751+50.00	20.0' RT	END WORK
650	NE	751+50.00	3.0' LT	END WORK
651	SW	744+25.00	3.0' RT	BEGIN WORK
652	SW	744+25.00	15.0' LT	BEGIN WORK
653	SW	746+58.35	15.0' LT	DEFLECTION

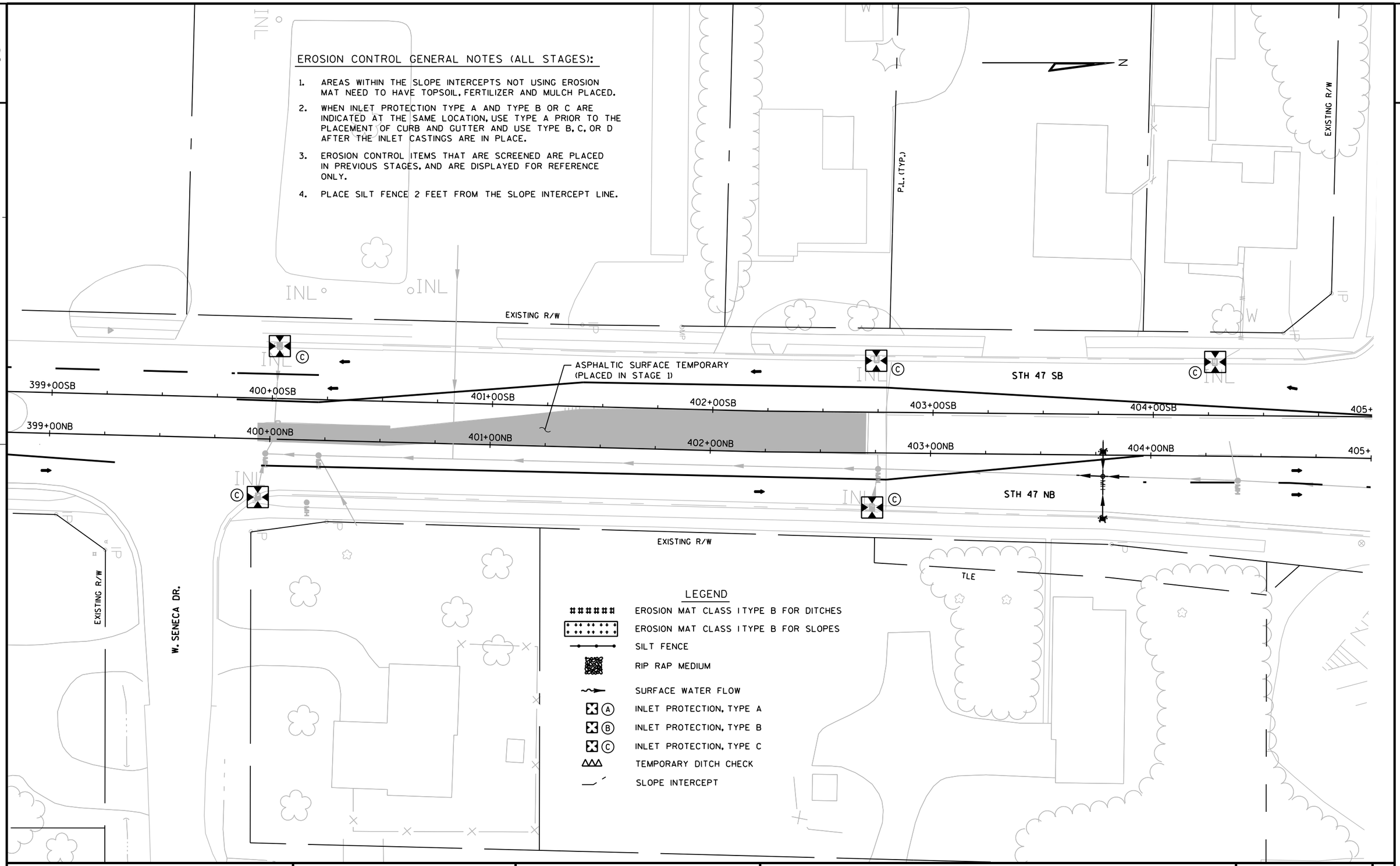
PLAN DETAIL POINTS - SHEET 6 OF 7				
POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
700	NW	750+13.64	30.3' LT	DEFLECTION
701	NW	751+20.56	33.0' LT	C6-1 (PC)
702	NW	751+23.51	36.0' LT	C6-1 (PT)
703	NW	751+20.56	36.0' LT	C6-1 (CC) - 3.0' RADIUS TO FLUME
704	NW	751+27.46	48.0' LT	END FLUME
705	NW	751+27.44	36.0' LT	C6-2 (PC)
706	NW	751+30.38	33.0' LT	C6-2 (PT)
707	NW	751+30.39	36.0' LT	C6-2 (CC) - 3.0' RADIUS TO FLUME
708	NW	753+09.78	12.0' RT	TAPER 6-1
709	NW	753+05.38	33.0' LT	C6-3 (PC)
710	NW	753+08.43	35.9' LT	C6-3 (PT)
711	NW	753+05.43	36.0' LT	C6-3 (CC) - 3.0' RADIUS TO FLUME
712	NW	753+08.56	44.0' LT	END FLUME
713	NW	753+12.43	35.9' LT	C6-4 (PC)
714	NW	753+15.37	35.8' LT	C6-4 (PT)
715	NW	753+15.43	35.8' LT	C6-4 (CC) - 3.0' RADIUS TO FLUME
716	NW	753+15.46	29.8' LT	TAPER 6-2
717	NW	754+27.20	45.9' LT	TAPER 6-2
718	NW	755+77.95	43.6' LT	C6-5 (PC)
719	NW	755+84.09	46.2' LT	C6-5 (PT)
720	NW	755+78.39	51.2' LT	C6-5 (CC) - 7.6' RADIUS TO FLUME
721	NW	755+86.73	49.2' LT	END FLUME
722	NW	755+88.97	45.7' LT	C6-6 (PC)
723	NW	755+88.48	43.3' LT	C6-6 (PT)
724	NW	755+90.52	44.1' LT	C6-6 (CC) - 2.2' RADIUS TO FLUME
725	NW	755+87.29	40.3' LT	TAPER 6-3
726	NW	756+09.87	18.5' LT	TAPER 6-3
727	NW	756+09.78	1.5' RT	TAPER 6-1
728	NW	756+50.00	18.5' LT	END WORK
729	NW	756+50.00	1.5' RT	END WORK
730	NW	756+10.34	77.1' LT	FENCE DEFLECTION

PLAN DETAIL POINTS - SHEET 7 OF 7				
POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
800	SE	739+75.00	13.5' RT	BEGIN WORK
801	SE	739+75.00	4.5' LT	BEGIN WORK

PLAN DETAIL POINTS - SHEET 7 OF 7 (CONTINUED)				
POINT NUMBER	REF. LINE	STATION	OFFSET	COMMENT
802	SE	740+40.29	18.5' RT	TAPER 7-1
803	SE	740+62.88	40.3' RT	TAPER 7-1
804	SE	740+61.66	43.4' RT	C7-1 (PC)
805	SE	740+61.19	45.7' RT	C7-1 (PT)
806	SE	740+59.86	44.2' RT	C7-1 (CC) - 2.0' RADIUS TO FLUME
807	SE	740+61.68	51.2' RT	END FLUME
808	SE	740+66.07	46.2' RT	C7-2 (PC)
809	SE	740+72.21	43.6' RT	C7-2 (PT)
810	SE	740+71.83	51.3' RT	C7-2 (CC) - 7.7' RADIUS TO FLUME
811	SE	740+40.38	1.5' LT	TAPER 7-2
812	SE	743+40.38	12' LT	TAPER 7-2
813	SE	743+22.96	45.9' RT	TAPER 7-3
814	SE	743+33.50	30.0' RT	TAPER 7-3
815	SE	743+33.57	33.0' RT	C7-3 (PC)
816	SE	743+36.47	36.0' RT	C7-3 (PT)
817	SE	743+33.47	36.0' RT	C7-3 (CC) - 3.0' RADIUS TO FLUME
818	SE	743+36.44	49.O' RT	END FLUME
819	SE	743+40.47	36.0' RT	C7-4 (PC)
820	SE	743+43.47	33.0' RT	C7-4 (PT)
821	SE	743+43.47	36.0' RT	C7-4 (CC) - 3.0' RADIUS TO FLUME
822	SE	745+19.02	33.0' RT	C7-5 (PC)
823	SE	745+21.97	36.0' RT	C7-5 (PT)
824	SE	745+19.02	36.0' RT	C7-5 (CC) - 3.0' RADIUS TO FLUME
825	SE	745+25.90	36.0' RT	C7-6 (PC)
826	SE	745+28.84	33.0' RT	C7-6 (PT)
827	SE	745+28.84	36.0' RT	C7-6 (CC) - 3.0' RADIUS TO FLUME
828	SE	745+21.96	48.0' RT	END FLUME
829	SE	745+73.52	30.0' RT	TAPER 7-4
830	SE	746+31.72	28.4' RT	TAPER 7-4
831	SE	746+62.90	32.0' LT	END FLUME

EROSION CONTROL GENERAL NOTES (ALL STAGES):

1. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE TOPSOIL, FERTILIZER AND MULCH PLACED.
2. WHEN INLET PROTECTION TYPE A AND TYPE B OR C ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, C, OR D AFTER THE INLET CASTINGS ARE IN PLACE.
3. EROSION CONTROL ITEMS THAT ARE SCREENED ARE PLACED IN PREVIOUS STAGES, AND ARE DISPLAYED FOR REFERENCE ONLY.
4. PLACE SILT FENCE 2 FEET FROM THE SLOPE INTERCEPT LINE.



LEGEND

- EROSION MAT CLASS ITYPE B FOR DITCHES
- EROSION MAT CLASS ITYPE B FOR SLOPES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- INLET PROTECTION, TYPE A
- INLET PROTECTION, TYPE B
- INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 1	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022101_ec_stg-1.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

LEGEND

- EROSION MAT CLASS ITYPE B, FOR DITCHES
- EROSION MAT CLASS ITYPE B, FOR SLOPES
- SILT FENCE
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT

N

P.L. (TYP.)

TLE

EXISTING R/W

EVERGREEN DRIVE

STH 47 SB

417+00SB 418+00SB 419+00SB 420+00SB 421+00SB 422+00SB

417+00NB 418+00NB 419+00NB 420+00NB 421+00NB 422+00NB

STH 47 NB

INL (C)

HWY

SS

TLE

EXISTING R/W

TLE

EVERGREEN DRIVE

2

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 1	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022102_ec_stg-1.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2

EROSION CONTROL GENERAL NOTES (ALL STAGES):

1. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE TOPSOIL, FERTILIZER AND MULCH PLACED.
2. WHEN INLET PROTECTION TYPE A AND TYPE B OR C ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, C, OR D AFTER THE INLET CASTINGS ARE IN PLACE.
3. EROSION CONTROL ITEMS THAT ARE SCREENED ARE PLACED IN PREVIOUS STAGES, AND ARE DISPLAYED FOR REFERENCE ONLY.
4. PLACE SILT FENCE 2 FEET FROM THE SLOPE INTERCEPT LINE.

N

EXISTING R/W

P.L. (TYP.)

EXISTING R/W

EXISTING R/W

Ⓒ (INSTALLED STAGE 1)

Ⓒ (INSTALLED STAGE 1)

Ⓒ (INSTALLED STAGE 1)

Ⓒ (INSTALLED STAGE 1)

399+00SB

399+00NB

400+00SB

400+00NB

401+00SB

401+00NB

402+00SB

402+00NB

403+00SB

403+00NB

STH 47 SB

STH 47 NB

404+00SB

404+00NB

405+

405+

Ⓐ Ⓒ

Ⓐ Ⓒ

MATCH LINE STA. 405+00NBR

EXISTING R/W

W. SENECA DR.

TLE

LEGEND

- EROSION MAT CLASS ITYPE B FOR DITCHES
- EROSION MAT CLASS ITYPE B FOR SLOPES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- Ⓐ INLET PROTECTION, TYPE A
- Ⓑ INLET PROTECTION, TYPE B
- Ⓒ INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 2	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022201_ec_stg-2.dgn
PLOT DATE : 9/18/2013
PLOT BY : KL Engineering
PLOT NAME :
PLOT SCALE :
WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT CLASS I TYPE B, FOR DITCHES
- EROSION MAT CLASS I TYPE B, FOR SLOPES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT
- SFDO SILT FENCE DRAINAGE OUTLET, ROCK BAGS (SEE DETAIL)

ASSOCIATION DRIVE
NS00+66
P.L. (TYP.)
TLE
EXISTING R/W
INL
NB USH 41 OFF RAMP
747+00RTD
747+00SE
STA. 746+43 N
54' RT
STA. 746+43 N
76' RT
SFDO
N
NB USH 41
747+00N
748+00RTD
748+29RTD
748+00SE
748+25SE
748+00N
MATCH LINE STA. 405+00NBR
00SB
406+00SB
407+00SB
408+00SB
409+00SB
410+00SB
STH 47 SB
STH 47 NB
00NB
406+00NB
407+00NB
408+00NB
409+00NB
410+00NB
406+31RTA
407+00RTA
408+00RTA
408+58RTA
748+25NE
748+50NE
MATCH LINE STA. 410+75NBR
EXISTING R/W
TLE
EROSION MAT CLASS I TYPE B FOR DITCHES (SEE DETAIL) (TYP.)
NB USH 41 ON RAMP
RIP RAP MEDIUM AT PIPE ENDWALL (SEE DETAIL) (TYP.)
RIP RAP MEDIUM AT FLUME OUTFALL (SEE DETAIL) (TYP.)
STA. 410+00 NB
38' RT
749+00N
SFDO
MATCH LINE STA. 749+50NE

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 2	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022202_ec_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

SB USH 41

SB USH 41 ON RAMP

EXISTING R/W

P.L. (TYP.)

TLE

PROPOSED R/W

STA. 747+82 S
46' LT

MATCH LINE STA. 410+75NB

748+00S

411+00SB

412+00SB

413+00SB

414+00SB

415+00SB

416+00SB

411+00NB

412+00NB

413+00NB

414+00NB

415+00NB

416+00NB

414+00RTC

415+00RTC

415+38RTC

STH 47 SB

STH 47 NB

748+25NW

748+12RTB

STA. 748+78 S
55' LT

749+00S

SB USH 41 OFF RAMP

749+00NW

749+00RTB

RIP RAP MEDIUM
AT PIPE OUTFALL
(SEE DETAIL) (TYP.)

SFDO

750+00S

750+00NW

750+00RTB

750+42RTB

STA. 750+05 S
58' RT

RIP RAP MEDIUM
AT FLUME OUTFALL
(SEE DETAIL) (TYP.)

WETLANDS
BOUNDARY (TYP.)

MATCH LINE STA. 750+50NW

EROSION MAT CLASS I
TYPE B FOR DITCHES
(SEE DETAIL) (TYP.)

STA. 749+62 RTB
40' LT

EXISTING R/W

TLE

STA. 414+30 NB
80' RT

STA. 415+55 NB
66' RT

MATCH LINE STA. 416+75NB

LEGEND

- EROSION MAT CLASS I TYPE B, FOR DITCHES
- EROSION MAT CLASS I TYPE B, FOR DITCHES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT
- SFDO SILT FENCE DRAINAGE OUTLET, ROCK BAGS (SEE DETAIL)

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 2	SHEET 59	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022203_ec_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

2

LEGEND

- EROSION MAT CLASS I TYPE B, FOR DITCHES
- EROSION MAT CLASS I TYPE B, FOR SLOPES
- SILT FENCE
- SFDO — SILT FENCE DRAINAGE OUTLET, ROCK BAGS
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT

N

P.L. (TYP.)

TLE

EXISTING R/W

EVERGREEN DRIVE

(C) (INSTALLED STAGE 1)

MATCH LINE STA. 416+75NB

STH 47 SB

STH 47 NB

417+00SB

418+00SB

419+00SB

420+00SB

421+00SB

422+00SB

417+00NB

418+00NB

419+00NB

420+00NB

421+00NB

422+00NB

(A) (C) (INSTALLED STAGE 1)

TLE

EXISTING R/W

TLE

EVERGREEN DRIVE

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 2	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022204_ec_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

750+00N 751+00N 752+00N 753+00N 754+00N

NB USH 41

N

STA. 749+57 N
57' RT

IP

STA. 751+48 NE
33' LT

STA. 751+47 NE
13' LT

754+00NE

753+00NE

752+00NE

751+00NE

750+00NE

NB USH 41 ON RAMP

MATCH LINE STA. 749+50NE

RIP RAP MEDIUM
AT FLUME OUTFALL
(SEE DETAIL) (TYP.)

EXISTING R/W

EROSION MAT CLASS I
TYPE B FOR DITCHES
(SEE DETAIL) (TYP.)

P.L. (TYP.)

LEGEND

- EROSION MAT CLASS I TYPE B, FOR DITCHES
- EROSION MAT CLASS I TYPE B, FOR SLOPES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 2	SHEET 61	E

2

N

LEGEND

- EROSION MAT CLASS I TYPE B, FOR DITCHES
- EROSION MAT CLASS I TYPE B, FOR SLOPES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT
- SFDO SILT FENCE DRAINAGE OUTLET, ROCK BAGS (SEE DETAIL)

P.L. (TYP.)

TEMPORARY DITCH CHECK (TYP.)

TLE

EXISTING R/W

EROSION MAT CLASS I TYPE B FOR DITCHES (SEE DETAIL) (TYP.)

RIP RAP MEDIUM AT FLUME OUTFALL (SEE DETAIL) (TYP.)

MATCH LINE STA. 750+50NW

751+00NW

SB USH 41 OFF RAMP

752+00NW

753+00NW

754+00NW

755+00NW

756+00NW

RIP RAP MEDIUM AT PIPE ENDWALL (SEE DETAIL) (TYP.)

WETLANDS BOUNDARY (TYP.)

STA. 756+53 NW 47' RT

STA. 756+75 NW 13' RT

SFDO

SB USH 41

751+00S

752+00S

753+00S

754+00S

755+00S

756+00S

751+00N

752+00N

753+00N

754+00N

755+00N

756+00N

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 2	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022206_ec_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

2

N

P.L. (TYP.)

EXISTING R/W

(INSTALLED STAGE 1)

(INSTALLED STAGE 1)

(INSTALLED STAGE 1)

(INSTALLED STAGE 1)

399+00SB

399+00NB

400+00SB

400+00NB

401+00SB

401+00NB

402+00SB

402+00NB

403+00SB

403+00NB

404+00SB

404+00NB

405+

405+

STH 47 SB

STH 47 NB

(INSTALLED STAGE 2)

(INSTALLED STAGE 2)

MATCH LINE STA. 405+00NB

EXISTING R/W

EXISTING R/W

W. SENECA DRIVE

TLE

LEGEND

- EROSION MAT CLASS I TYPE B, FOR DITCHES
- EROSION MAT CLASS I TYPE B, FOR SLOPES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 3	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022301_ec_stg-3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2

N

MATCH LINE STA. 745+50SE

LEGEND

- EROSION MAT CLASS I TYPE B, FOR DITCHES
- EROSION MAT CLASS I TYPE B, FOR SLOPES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT
- SFDO SILT FENCE DRAINAGE OUTLET, ROCK BAGS (SEE DETAIL)

ASSOCIATION DRIVE
EXISTING R/W
98+00ASN
99+00ASN
100+00ASN
P.L. (TYP.)
TLE
EXISTING R/W
TEMPORARY DITCH CHECK (TYP.)
EROSION MAT CLASS I TYPE B FOR DITCHES (SEE DETAIL) (TYP.)
NB USH 41 OFF RAMP
746+00SE
746+17RTD
747+00SE
747+00RTD
748+00SE
748+25SE
748+25NE
748+00RTD
745+00N
746+00N
747+00N
748+00N
NB USH 41
STA. 746+43 N
54' RT
RIP RAP MEDIUM AT PIPE ENDWALL (SEE DETAIL) (TYP.)
SFDO
RIP RAP MEDIUM AT FLUME OUTFALL (SEE DETAIL) (TYP.)
STA. 746+43 N
76' RT
MATCH LINE STA. 405+00NB
00SB
00NB
406+00SB
407+00SB
408+00SB
409+00SB
410+00SB
406+00NB
407+00NB
408+00NB
409+00NB
410+00NB
(C) (INSTALLED STAGE 2)
SB STH 47
NB STH 47
406+31RTA
407+00RTA
408+00RTA
408+58RTA
EXISTING R/W
MATCH LINE STA. 410+50NB

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 3	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022302_ec_stg-3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT CLASS I TYPE B, FOR DITCHES
- EROSION MAT CLASS I TYPE B, FOR SLOPES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT
- SFDO SILT FENCE DRAINAGE OUTLET, ROCK BAGS (SEE DETAIL)

MATCH LINE STA. 746+50SW

STA. 746+55 SW
56'RT

STA. 746+79 SW
87'RT

SFDO

WETLAND BOUNDARY (TYP.)

747+00S

SB USH 41

SB USH 41 ON RAMP

747+00SW

EXISTING R/W

RIP RAP MEDIUM
AT FLUME OUTFALL
(SEE DETAIL) (TYP.)

RIP RAP MEDIUM
AT PIPE ENDWALL
(SEE DETAIL) (TYP.)

TEMPORARY DITCH CHECK (TYP.)

SLOPE INTERCEPT (TYP.)

STA. 747+82 S
46'LT

747+38RTC

PROPOSED R/W

TLE

414+00RTC

415+00RTC

415+38RTC

MATCH LINE STA. 410+75NB

748+00S

411+00SB

412+00SB

413+00SB

748+25SW

414+00SB

415+00SB

416+00SB

411+00NB

412+00NB

413+00NB

748+25RTB

414+00NB

415+00NB

416+00NB

(INSTALLED STAGE 2)

SB STH 47

NB STH 47

MATCH LINE STA. 416+75NB

749+00S

STA. 748+78 S
55'LT

749+00NW

SB USH 41 OFF RAMP

749+00RTB

EXISTING R/W

STA. 414+30 NB
80.4'RT

STA. 405+54.8 NB
65.7'RT

TLE

P.L. (TYP.)

750+00S

STA. 750+05 S
58'LT

STA. 749+61.7 RTB
39.8'LT

N

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 3	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022303_ec_stg-3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

LEGEND

- EROSION MAT CLASS I TYPE B, FOR DITCHES
- EROSION MAT CLASS I TYPE B, FOR SLOPES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SLOPE INTERCEPT

N

MATCH LINE STA. 416+75NB

TLE

EXISTING R/W

EVERGREEN DRIVE

417+00SB

418+00SB

419+00SB

420+00SB

421+00SB

STH 47 SB

422+00SB

417+00NB

418+00NB

419+00NB

420+00NB

421+00NB

422+00NB

STH 47 NB

(A)(C)

(C) (INSTALLED STAGE 2)

(C) (INSTALLED STAGE 1)

INL

HWY

P.L. (TYP.)

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 3	SHEET 66	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022304_ec_stg-3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

2

N

740+00N

741+00N

742+00N

743+00N

744+00N

745+00N

NB USH 41

STA. 739+59 SE
17' LT

STA. 740+45 SE
50' LT

SFDO

WETLAND BOUNDARY (TYP.)

740+00SE

741+00SE

742+00SE

743+00SE

744+00SE

745+00SE

RIP RAP MEDIUM
AT PIPE ENDWALL
(SEE DETAIL) (TYP.)

RIP RAP MEDIUM
AT FLUME OUTFALL
(SEE DETAIL) (TYP.)

NB USH 41 OFF RAMP

MATCH LINE STA. 745+50SE

A B

TEMPORARY DITCH CHECK (TYP.)

EXISTING R/W

LEGEND

- EROSION MAT CLASS I TYPE B, FOR DITCHES
- EROSION MAT CLASS I TYPE B, FOR SLOPES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- SFDO SILT FENCE DRAINAGE OUTLET, ROCK BAGS (SEE DETAIL)
- SLOPE INTERCEPT

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 3	SHEET	E

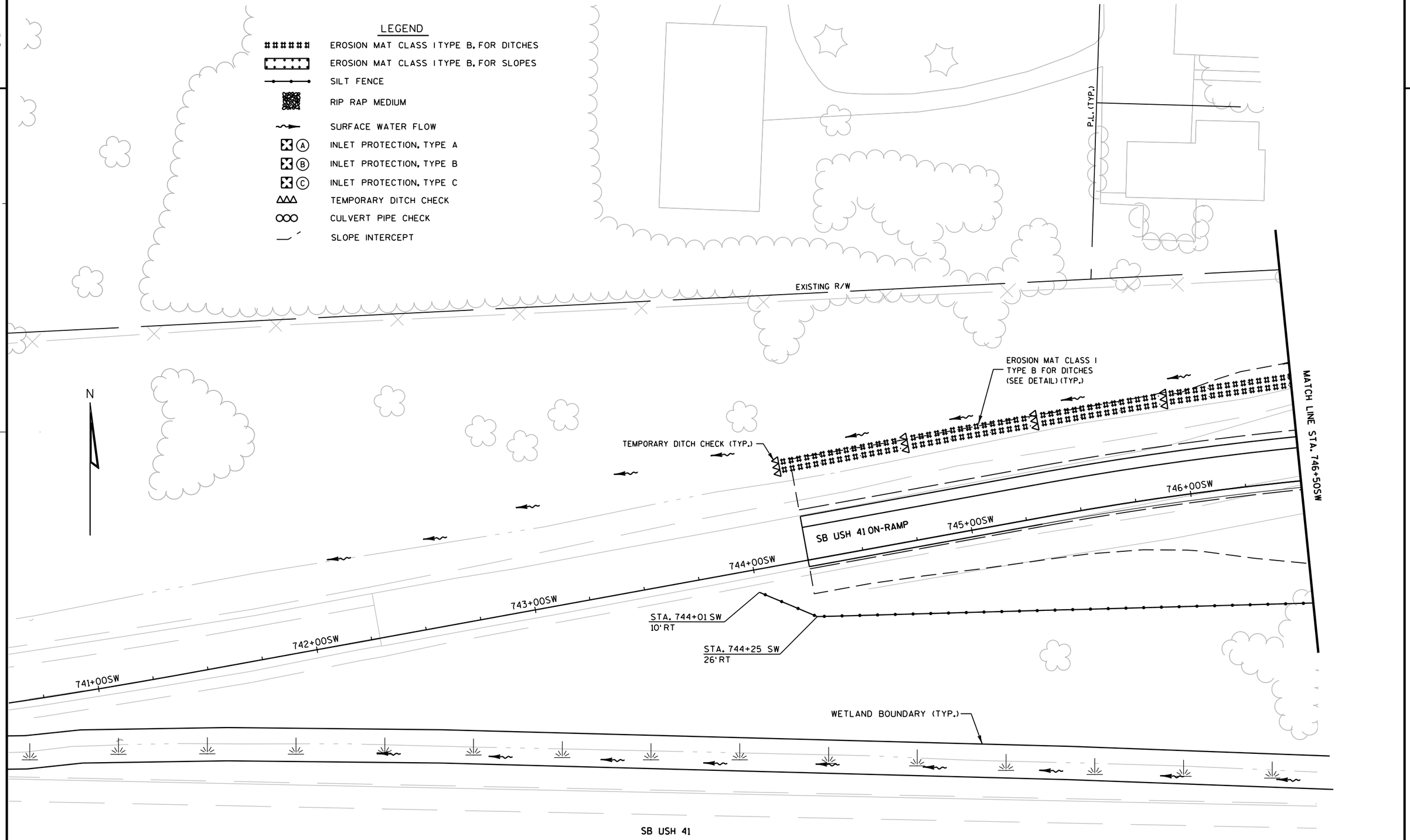
FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022305_ec_stg-3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

2

2

LEGEND

- EROSION MAT CLASS I TYPE B, FOR DITCHES
- EROSION MAT CLASS I TYPE B, FOR SLOPES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SLOPE INTERCEPT



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 3	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022306_ec_stg-3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT CLASS I TYPE B, FOR DITCHES
- EROSION MAT CLASS I TYPE B, FOR SLOPES
- SILT FENCE
- RIP RAP MEDIUM
- SURFACE WATER FLOW
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SLOPE INTERCEPT

N

P.L. (TYP.)

TLE

EXISTING R/W

EVERGREEN DRIVE

SB STH 47

NB STH 47

(INSTALLED STAGE 3)

(INSTALLED STAGE 2)

(INSTALLED STAGE 1)

417+00SB

418+00SB

419+00SB

420+00SB

421+00SB

422+00SB

417+00NB

418+00NB

419+00NB

420+00NB

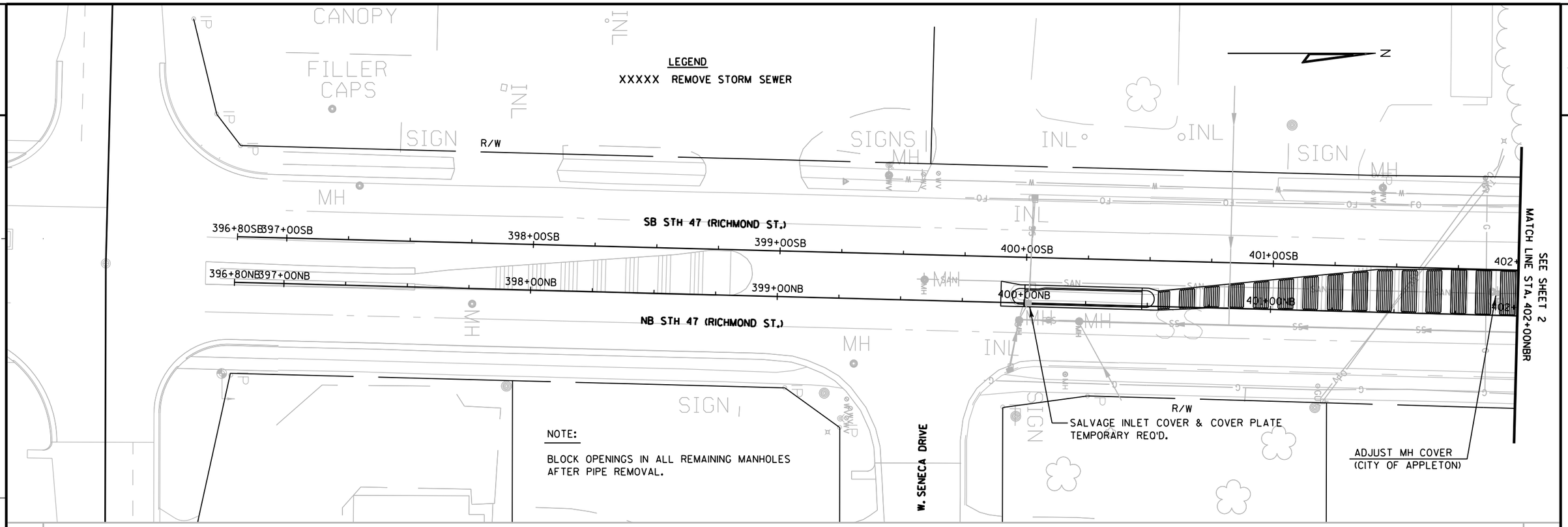
421+00NB

422+00NB

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - STAGE 4	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Erosion Control\Sheets - STH 47\022404_ec_stg-4.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	STORM SEWER	SHEET 70	E

2

N

INSTALL & STUB SECTION OF PIPE FOR CONNECTION TO INLET 1.2 IN STAGE 3

STA. 403+78.3SB, 24.0' LT
2'X3' INLET, TYPE H
1.1

STA. 99+48.3ASN, 17.0' RT
2'X3' INLET, TYPE H
2.1

ADJUST MH COVER (CITY OF APPLETON)

REMOVE EXISTING INLET

99+00ASN

2.2 STA. 99+48.3ASN, 14.0' LT
2'X3' INLET, TYPE H

2.3 STA. 405+55.6SB, 24.7' LT
2'X3' INLET, TYPE H

2.4 STA. 405+75.9SB, 24.0' LT
6' DIA. MANHOLE, TYPE H
TLE

SLOPE INTERCEPTS (TYP.)

ADJUST MH COVER TOWN OF GRAND CHUTE

ADJUST MH COVER TOWN OF GRAND CHUTE

3.1 STA. 407+37.5SB, 30.0' LT
2'X3' INLET, TYPE H

R/W

EXISTING INLETS/MANHOLES TO REMAIN

STA. 403+78.3SB, 0.0' RT
2'X3' INLET, TYPE H
1.2

ADJUST MH COVER (CITY OF APPLETON)

2.5 STA. 405+76.0SB, 0.0' RT
2'X3' INLET, TYPE H

STA. 407+37.3SB, 0.0' RT
2'X3' INLET, TYPE H
3.2

MATCH LINE STA. 402+00NBR
SEE SHEET 1

00SB
403+00SB
404+00SB
405+00SB
406+00SB
407+00SB

SB STH 47 (RICHMOND ST.)

100+00ASN

00NB
403+00NB
404+00NB
405+00NB
406+00NB
407+00NB

STA. 403+78.3NB, 0.0' RT
2'X3' INLET, TYPE H
1.3

CONCRETE COLLARS FOR PIPE REQ'D.

ADJUSTING MANHOLE COVERS

REMOVE EXISTING INLET

2.6 STA. 405+77.0NB, 0.0' RT
4' DIA. MANHOLE, TYPE H

STA. 407+37.3NB, 0.0' LT
4' DIA. MANHOLE, TYPE H
3.0

STA. 403+78.3NB, 9.6' RT
6' DIA MANHOLE, TYPE J
1.0

2.7 STA. 405+77.0NB, 36.0' RT
6' DIA. MANHOLE, TYPE H

NB STH 47 (RICHMOND ST.)

406+31RTA

STA. 407+37.3NB, 28.0' RT
2'X3' INLET, TYPE H
3.3

407+00RTA

MATCH LINE STA. 407+50SBR
SEE SHEET 3

R/W

LEGEND

XXXXX REMOVE STORM SEWER

OOOOO ABANDONING STORM SEWER

STA. 403+78.3NB, 27.4' RT
2'X3' INLET, TYPE H
1.4

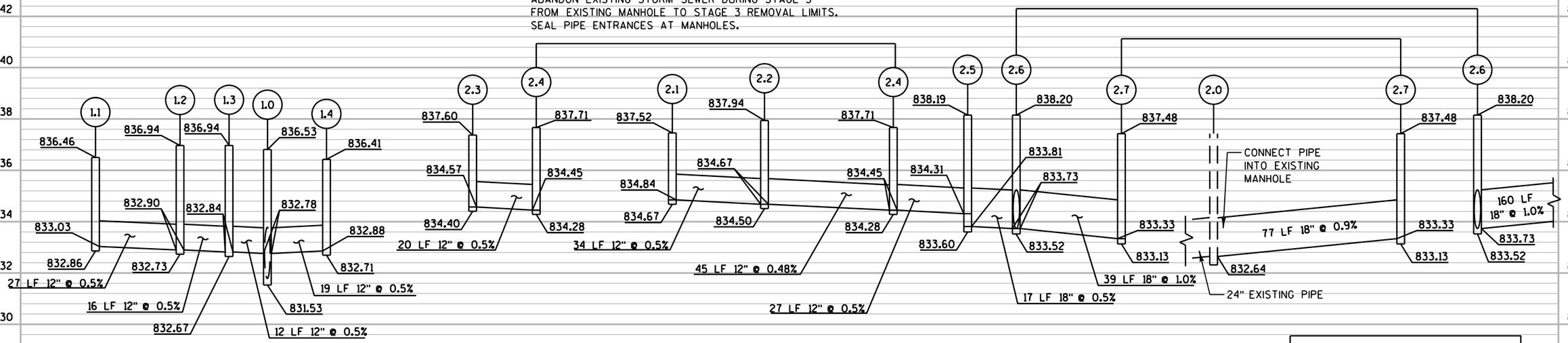
TLE
STA. 404+39.2NB, 11.0' RT
EXISTING MANHOLE
ADJUST MANHOLE COVERS
1.5

2.0 STA. 405+02.8NB, 13.4' RT
EXISTING MANHOLE
ADJUST MANHOLE COVERS

REMOVE 28-FT OF 24-INCH RCCP
ADD 24-FT OF 24-INCH RCCP

REMOVE EXISTING INLET

* NOTE:
ABANDON EXISTING STORM SEWER DURING STAGE 3 FROM EXISTING MANHOLE TO STAGE 3 REMOVAL LIMITS. SEAL PIPE ENTRANCES AT MANHOLES.



SEE SHEET 3 FOR 3.0, 3.1, 3.2 & 3.3 STRUCTURE DIAGRAM INFORMATION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	STORM SEWER	SHEET 71	E

SEE SHEET 6
MATCH LINE STA. 747+50SE

SEE SHEET 2
MATCH LINE STA. 407+50SBR

SEE SHEET 4
MATCH LINE STA. 412+50SBR

SLOPE INTERCEPTS (TYP.)

REMOVE EXIST INLET

REMOVING INLETS

USH 41 NB OFF-RAMP

USH 41 NB ON-RAMP

USH 41 SB

USH 41 NB

SB STH 47 (RICHMOND ST.)

NB STH 47 (RICHMOND ST.)

748+00RTD

748+28RT

408+00RTA

408+58RTA

748+00SE

748+25SE

748+25NE

748+00N

748+00S

749+00N

749+00S

408+00SB

409+00SB

410+00SB

411+00SB

412+00SB

408+00NB

409+00NB

410+00NB

411+00NB

412+00NB

5.2 STA. 408+94.1SB, 62.3'LT
12" ENDWALL

5.1 STA. 408+82.7SB, 24.0'LT
2'X3' INLET, TYPE HM

5.0 STA. 409+41.9SB, 24.0'LT
2'X3' INLET, TYPE HM

7.1 STA. 412+15.7SB, 60.3'LT
12" ENDWALL

7.0 STA. 412+23.6SB, 24.0'LT
2'X3' INLET, TYPE HM

4.0 STA. 409+45.0NB, 24.0'RT
2'X3' INLET, TYPE HM

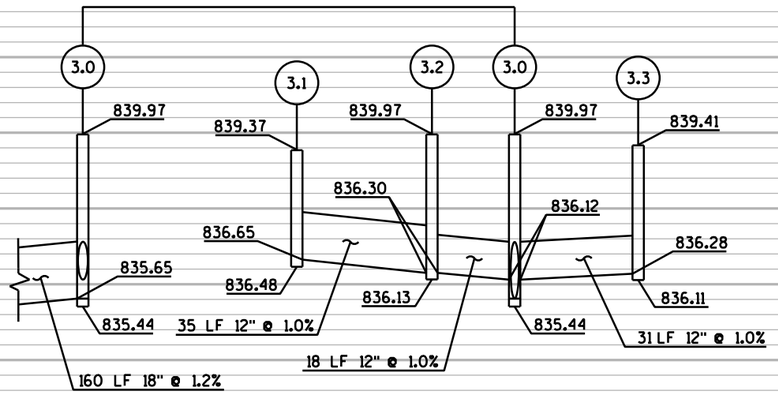
4.1 STA. 408+91.6NB, 24.0'RT
2'X3' INLET, TYPE HM

4.2 STA. 408+98.8NB, 63.3'LT
12" ENDWALL

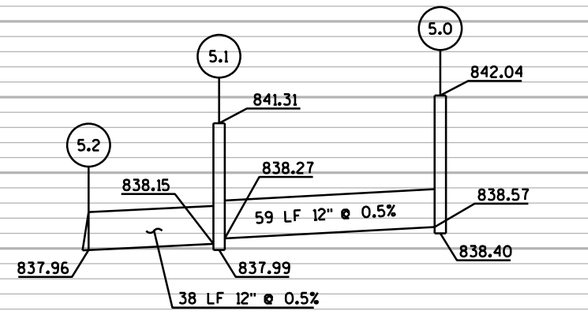
6.0 STA. 412+26.5NB, 24.0'RT
2'X3' INLET, TYPE HM

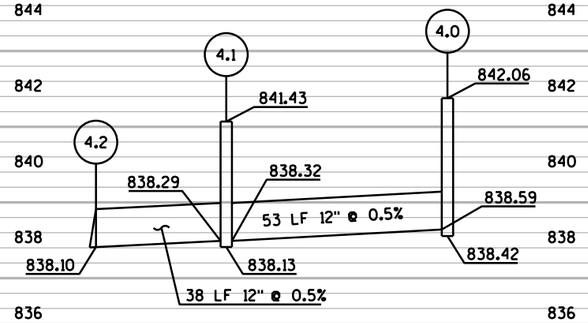
6.1 STA. 412+23.2NB, 56.6'RT
12" ENDWALL

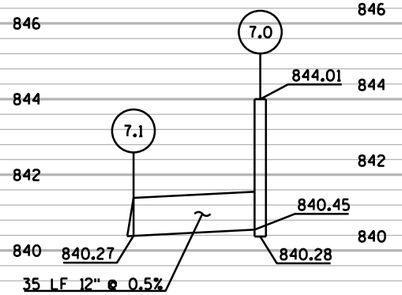
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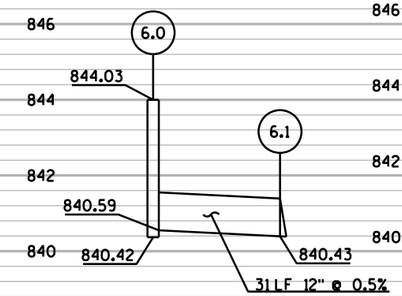


SEE SHEET 2 FOR 3.0, 3.1, 3.2 & 3.3
PLAN SHEET INFORMATION





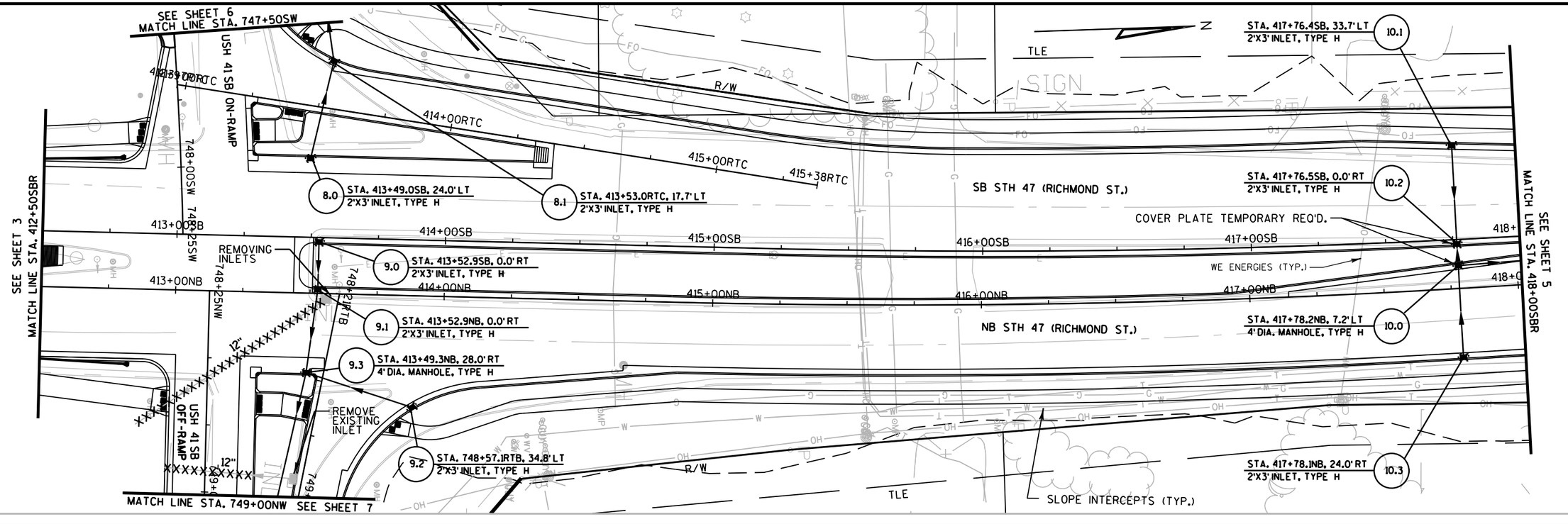


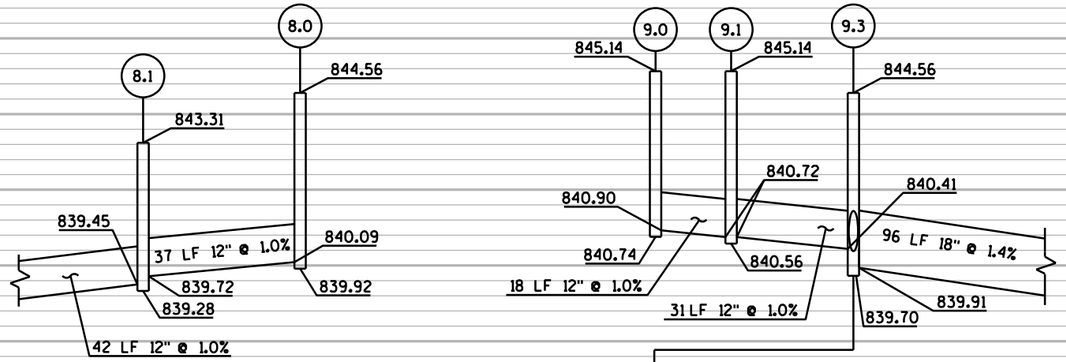


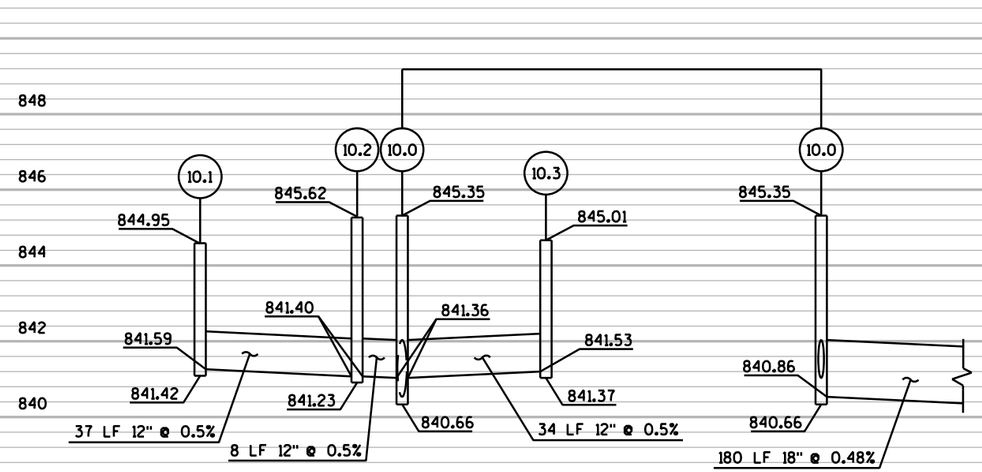
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	STORM SEWER	SHEET 72	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\STORM SEWER\022503_ss.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 41

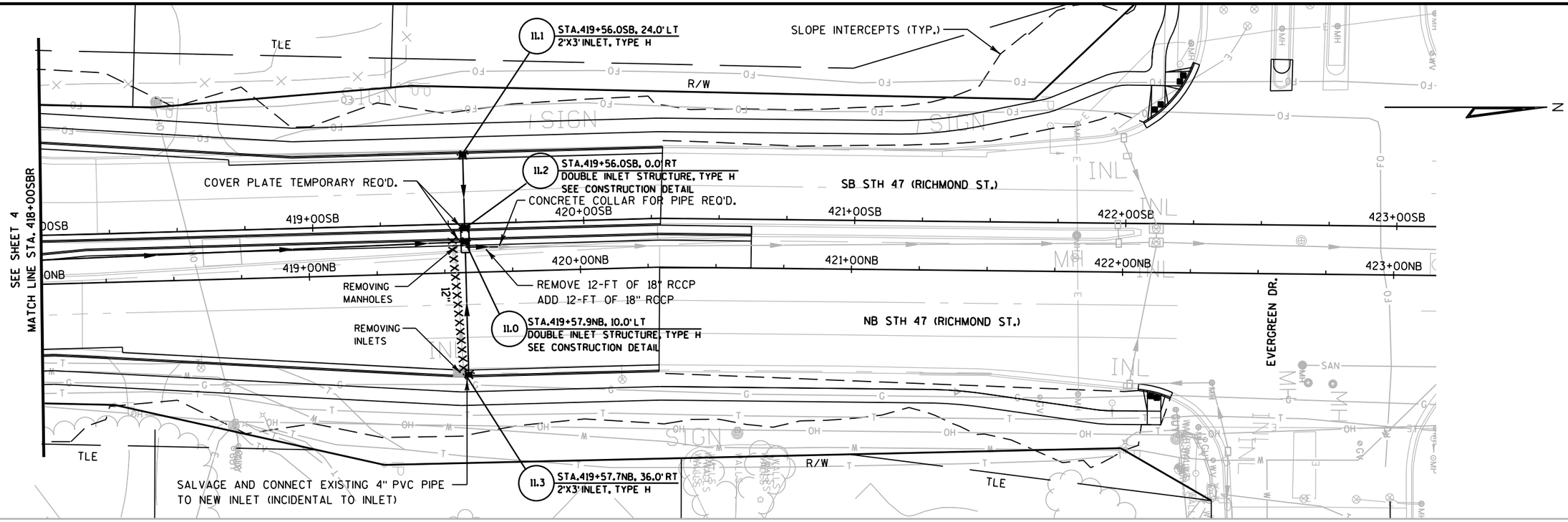






PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	STORM SEWER	SHEET	E

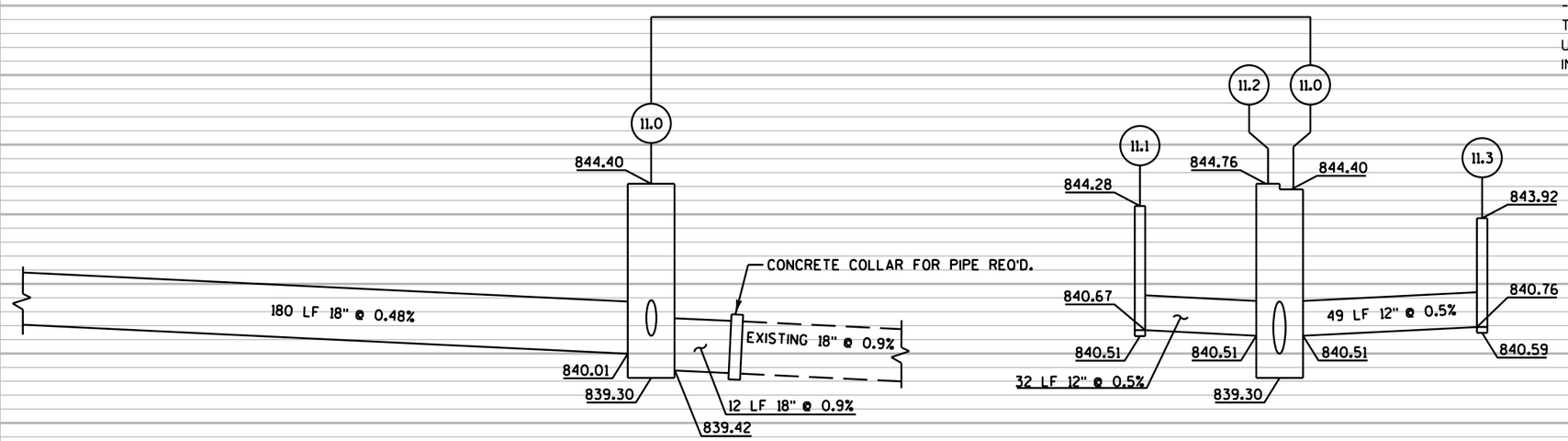
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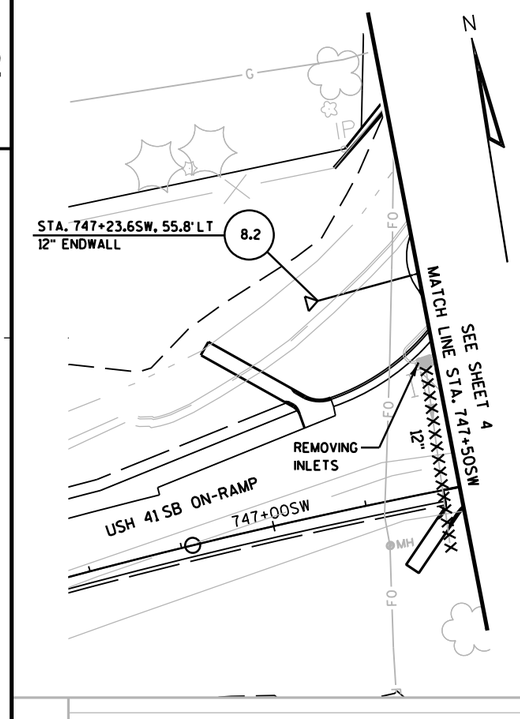


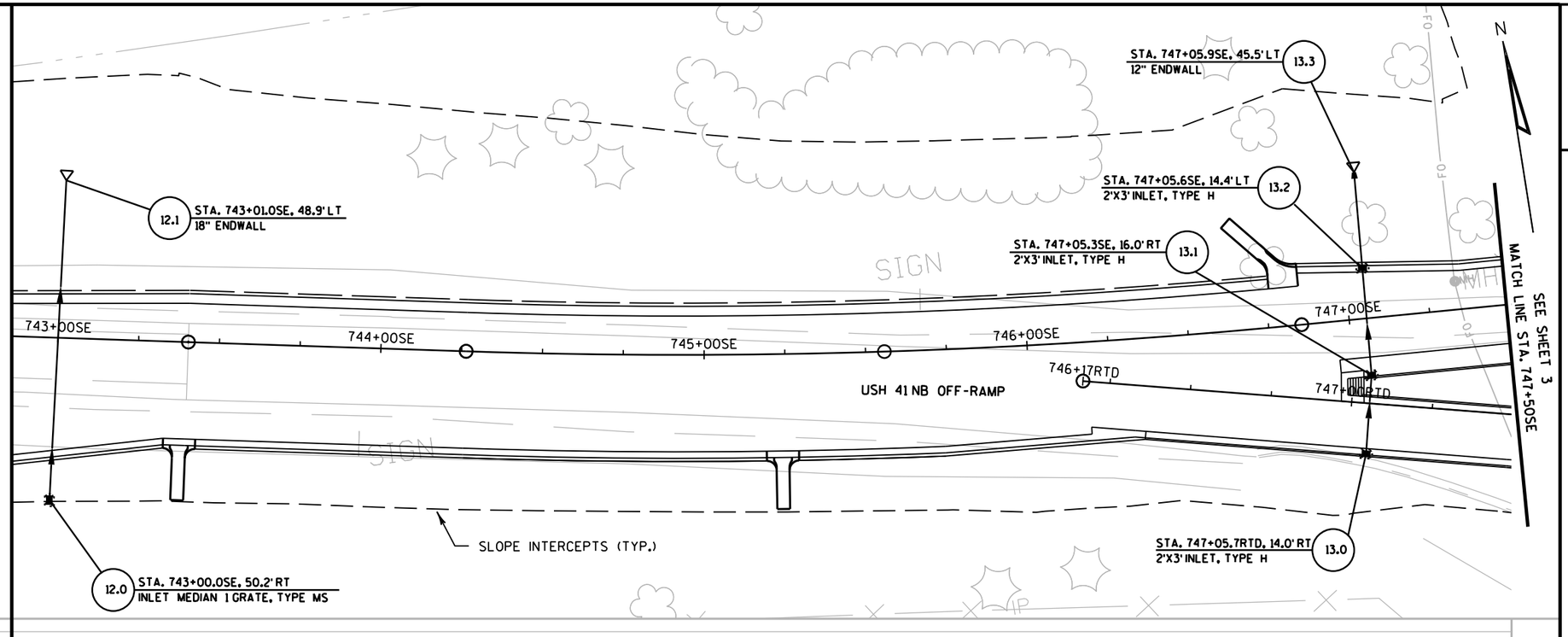
* NOTES:

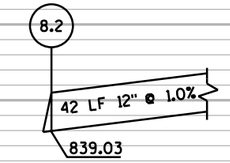
- TEMPORARY SHORING FOR INSTALLATION OF DOUBLE INLET STRUCTURE INCIDENTAL TO INLET ITEM.

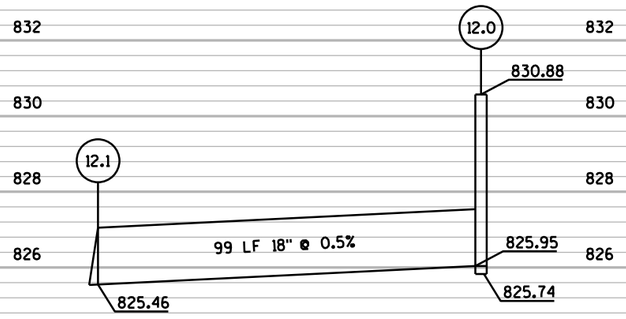
- REMOVE EXISTING INLET DURING STAGE 2. INSTALL TEMPORARY CONNECTIONS TO DOUBLE INLET STRUCTURE UNTIL STAGE 2 IS COMPLETE. TEMPORARY CONNECTION INCIDENTAL TO INLET ITEM.

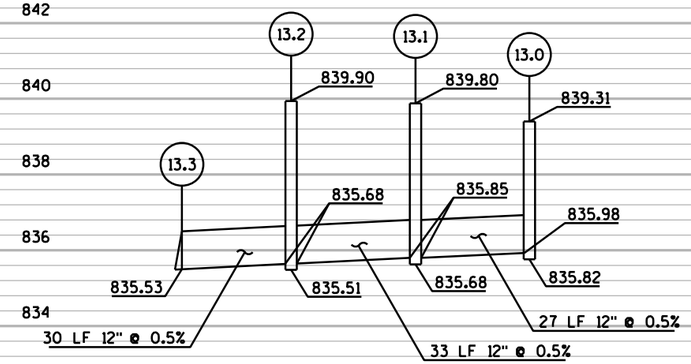




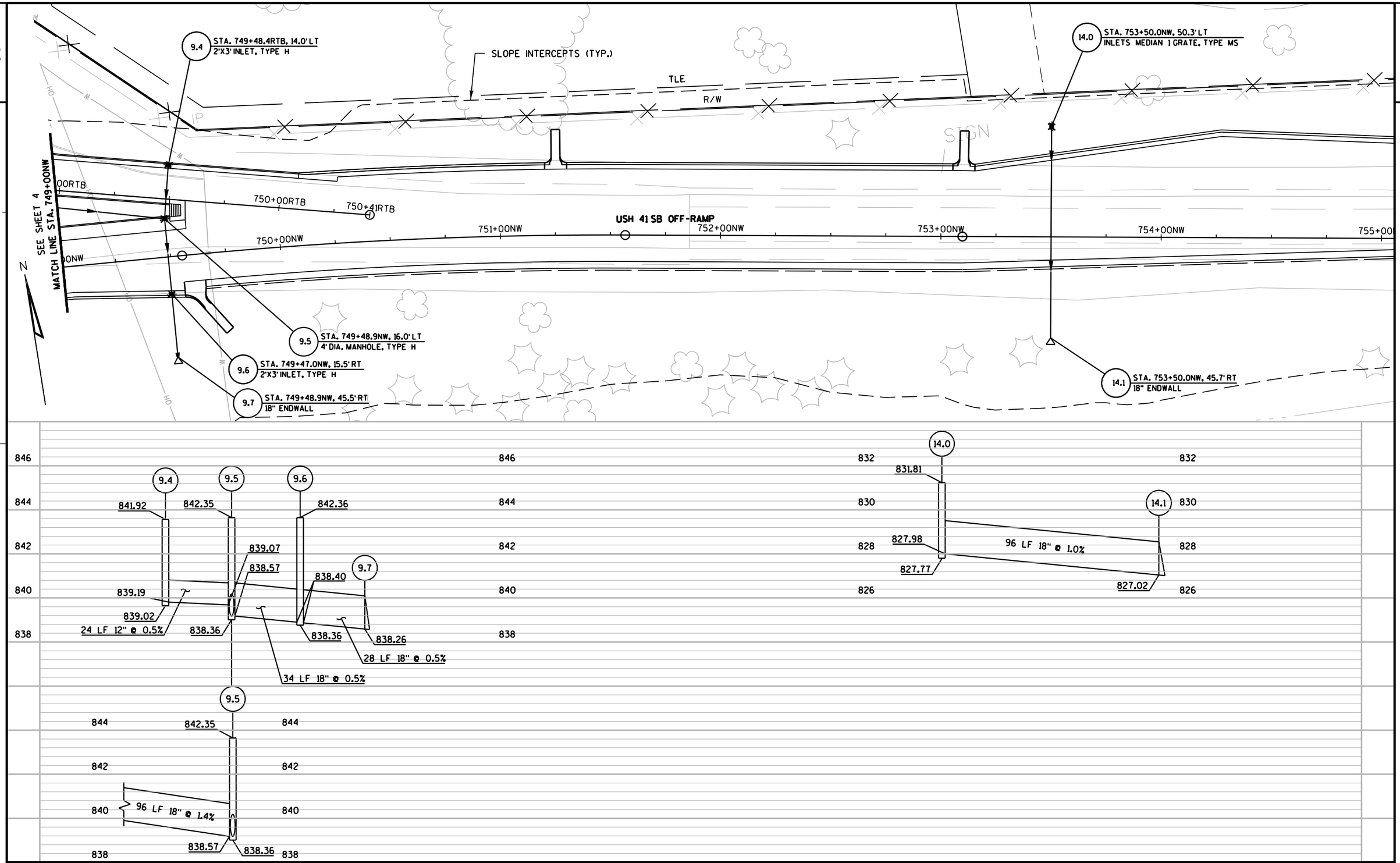








PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	STORM SEWER	SHEET 75	E



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	STORM SEWER	SHEET 76	E

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

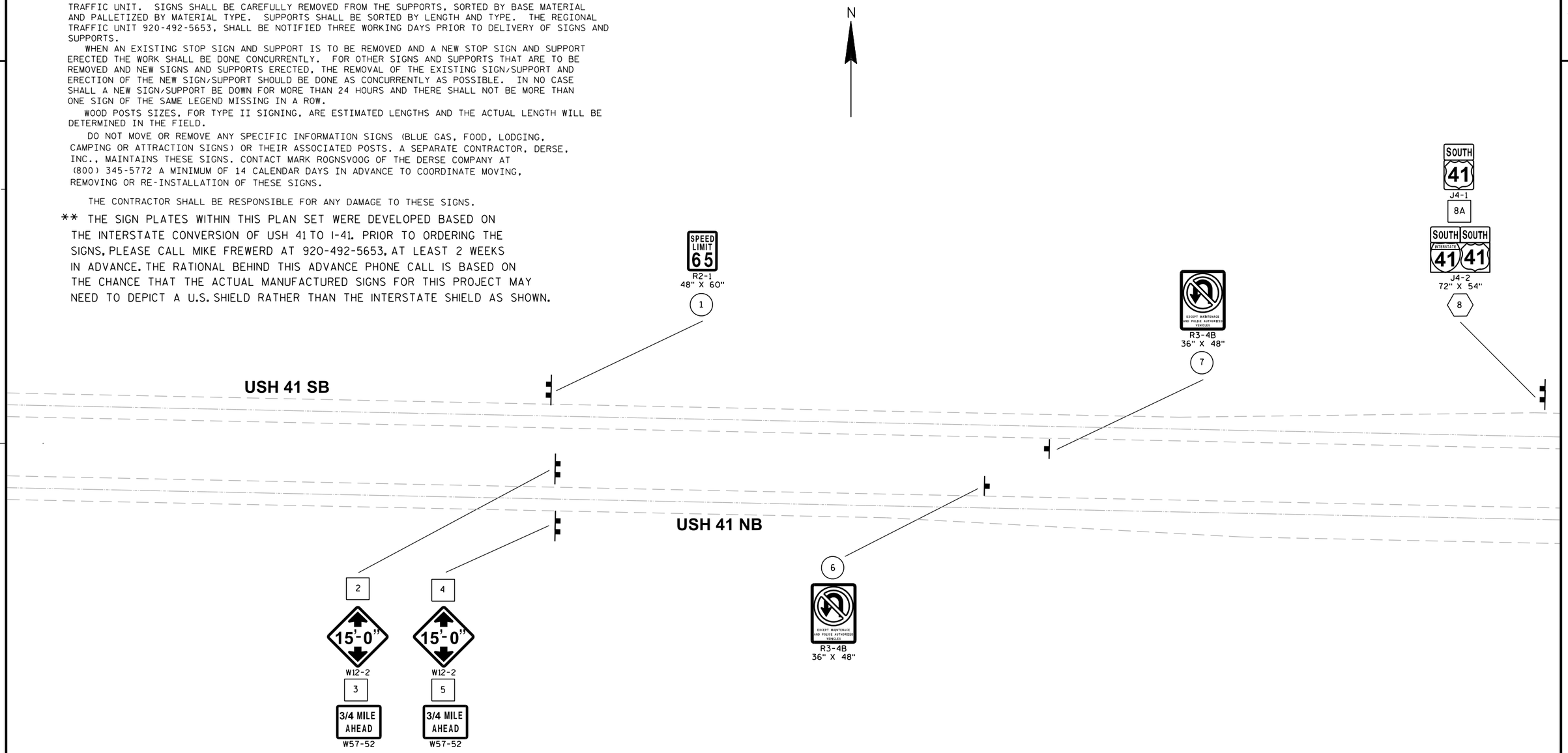
WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

DO NOT MOVE OR REMOVE ANY SPECIFIC INFORMATION SIGNS (BLUE GAS, FOOD, LODGING, CAMPING OR ATTRACTION SIGNS) OR THEIR ASSOCIATED POSTS. A SEPARATE CONTRACTOR, DERSE, INC., MAINTAINS THESE SIGNS. CONTACT MARK ROGNSVOOG OF THE DERSE COMPANY AT (800) 345-5772 A MINIMUM OF 14 CALENDAR DAYS IN ADVANCE TO COORDINATE MOVING, REMOVING OR RE-INSTALLATION OF THESE SIGNS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THESE SIGNS.

** THE SIGN PLATES WITHIN THIS PLAN SET WERE DEVELOPED BASED ON THE INTERSTATE CONVERSION OF USH 41 TO I-41. PRIOR TO ORDERING THE SIGNS, PLEASE CALL MIKE FREWERD AT 920-492-5653, AT LEAST 2 WEEKS IN ADVANCE. THE RATIONAL BEHIND THIS ADVANCE PHONE CALL IS BASED ON THE CHANCE THAT THE ACTUAL MANUFACTURED SIGNS FOR THIS PROJECT MAY NEED TO DEPICT A U.S. SHIELD RATHER THAN THE INTERSTATE SHIELD AS SHOWN.



SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 77	E

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

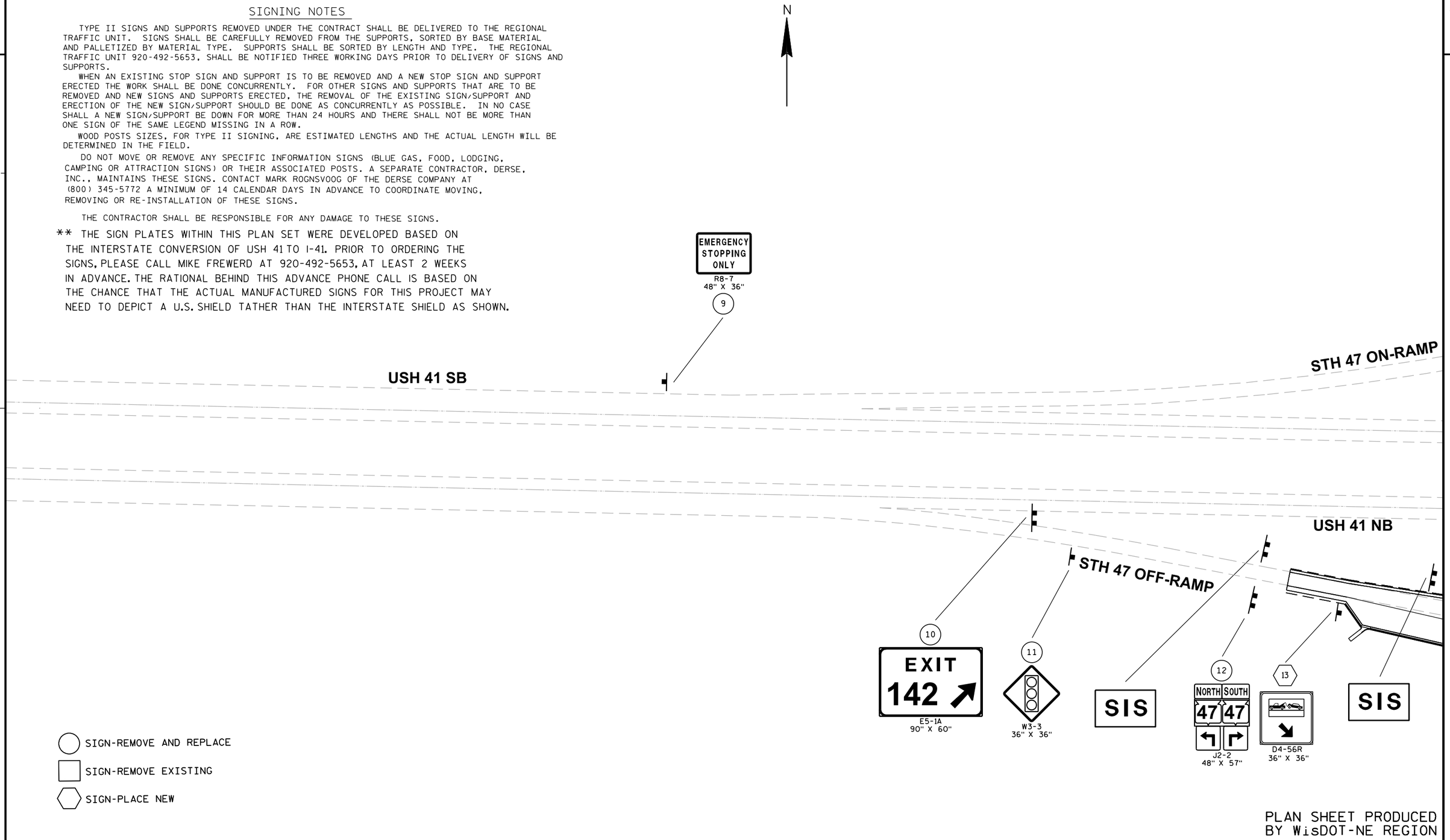
WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

DO NOT MOVE OR REMOVE ANY SPECIFIC INFORMATION SIGNS (BLUE GAS, FOOD, LODGING, CAMPING OR ATTRACTION SIGNS) OR THEIR ASSOCIATED POSTS. A SEPARATE CONTRACTOR, DERSE, INC., MAINTAINS THESE SIGNS. CONTACT MARK ROGNSVOOG OF THE DERSE COMPANY AT (800) 345-5772 A MINIMUM OF 14 CALENDAR DAYS IN ADVANCE TO COORDINATE MOVING, REMOVING OR RE-INSTALLATION OF THESE SIGNS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THESE SIGNS.

** THE SIGN PLATES WITHIN THIS PLAN SET WERE DEVELOPED BASED ON THE INTERSTATE CONVERSION OF USH 41 TO I-41. PRIOR TO ORDERING THE SIGNS, PLEASE CALL MIKE FREWERD AT 920-492-5653, AT LEAST 2 WEEKS IN ADVANCE. THE RATIONAL BEHIND THIS ADVANCE PHONE CALL IS BASED ON THE CHANCE THAT THE ACTUAL MANUFACTURED SIGNS FOR THIS PROJECT MAY NEED TO DEPICT A U.S. SHIELD TATHER THAN THE INTERSTATE SHIELD AS SHOWN.



SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 78	E

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

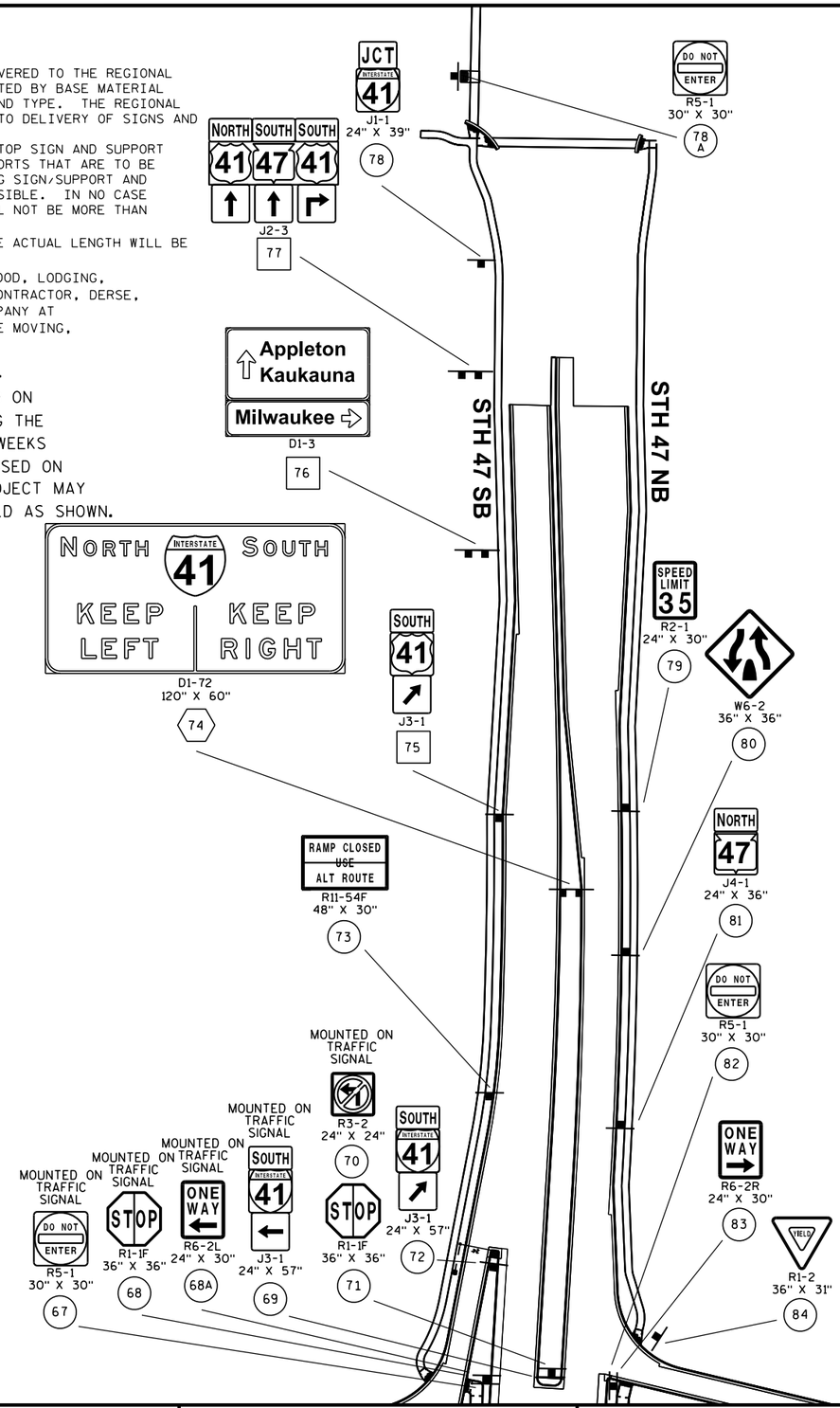
WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

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SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 79 E

N

SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

W4-1 48" X 48" (63)

D1-71 72" X 60" (65)

R5-57 36" X 36" (66)

MOUNTED ON TRAFFIC SIGNAL

R1-1F 36" X 36" (85)

R6-2L 24" X 30" (86)

W12-1D 24" X 24" (87)

R5-1A 36" X 24" (87A)

R5-1A 36" X 24" (87B)

J3-2 48" X 57" (88)

D1-4 138" X 66" (89)

R3-8P 54" X 30" (90)

R3-8P 54" X 30" (91)

D4-56R 36" X 36" (92)

D1-70 66" X 30" (64)

R11-54F 48" X 30" (96)

J2-1 (97)

W5-52L (98)

R4-7 24" X 30" (99)

R3-2 24" X 24" (100)

R5-1 30" X 30" (101)

J3-2 48" X 57" (102)

W4-1 48" X 48" (50)

R3-1 24" X 24" (61)

R4-7 24" X 30" (56A)

J2-1 (57)

R5-1A (58)

W12-2 (59)

W12-2 (60)

R1-1F 36" X 36" (62)

D1-70 72" X 30" (49)

R3-8P 54" X 30" (14)

D1-2 (51)

W12-2 (52)

R5-1A (53)

W12-2 (54)

R5-1A 36" X 24" (55)

R3-8P 54" X 30" (15)

D1-3 84" X 36" (16)

D1-4 96" X 54" (17)

J3-2 48" X 57" (18)

J3-2 48" X 57" (19)

D1-2 (20)

W12-1D 24" X 24" (23)

R3-1 24" X 24" (21)

R5-1 30" X 30" (24)

R6-2L 24" X 30" (25)

R1-2 36" X 31" (26)

W5-52L (30)

R1-1F 36" X 36" (22)

R11-54F 48" X 30" (56)

R5-57 36" X 36" (47)

D1-71 72" X 60" (48)

R11-54F 48" X 30" (43)

J3-1 24" X 57" (44)

R6-2L 24" X 30" (45)

R1-1F 36" X 36" (46)

STH 47 ON-RAMP

STH 47 OFF-RAMP

USH 41 SB

USH 41 NB

STH 47 SB

STH 47 NB

SIS

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

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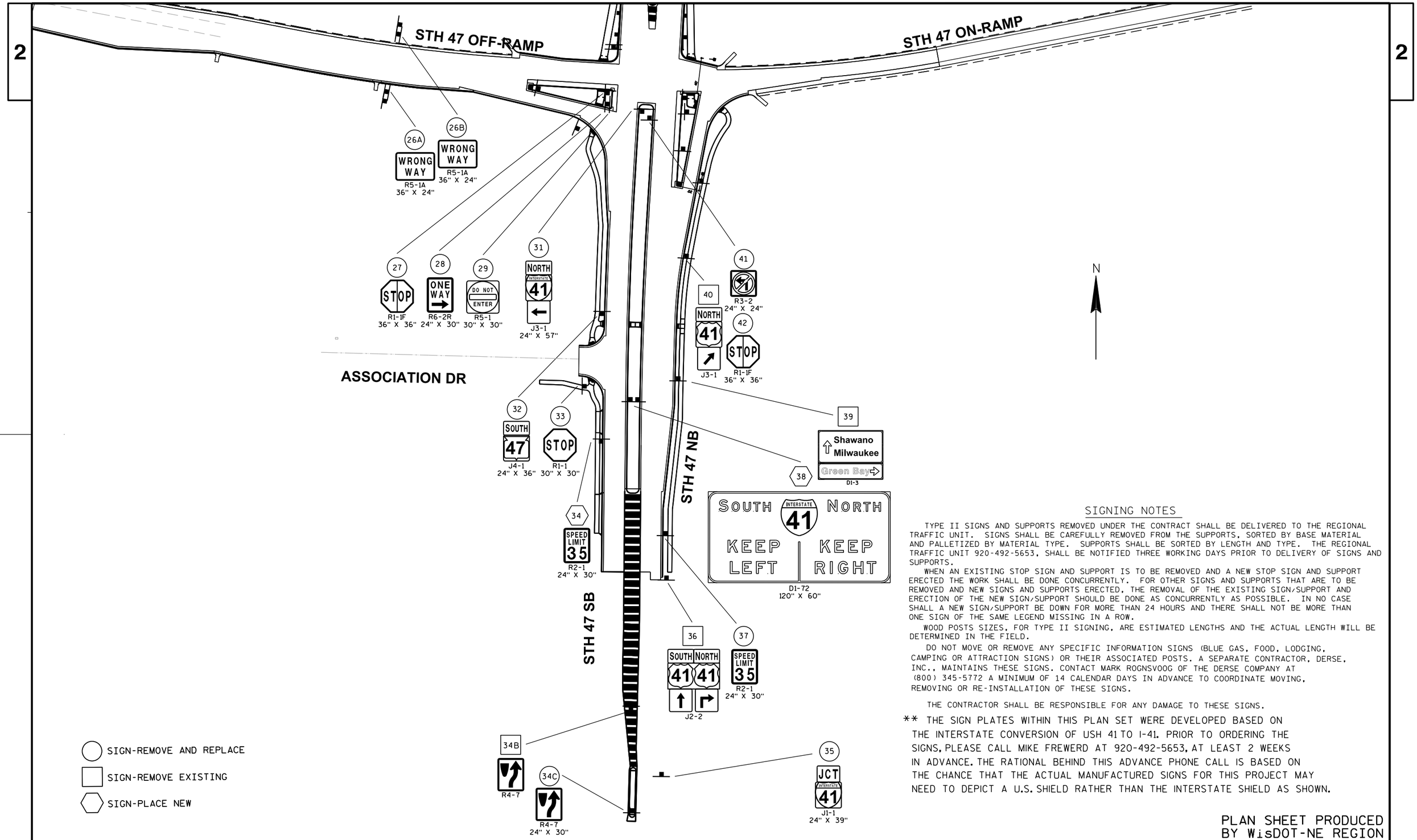
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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 80	E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1130-33-70 STH 47 Interchange Outagamie Cty\023204_ps.dgn PLOT DATE : 03-JUN-2013 10:43 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42



SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

SIGNING NOTES

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PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 81	E

2

SIGNING NOTES

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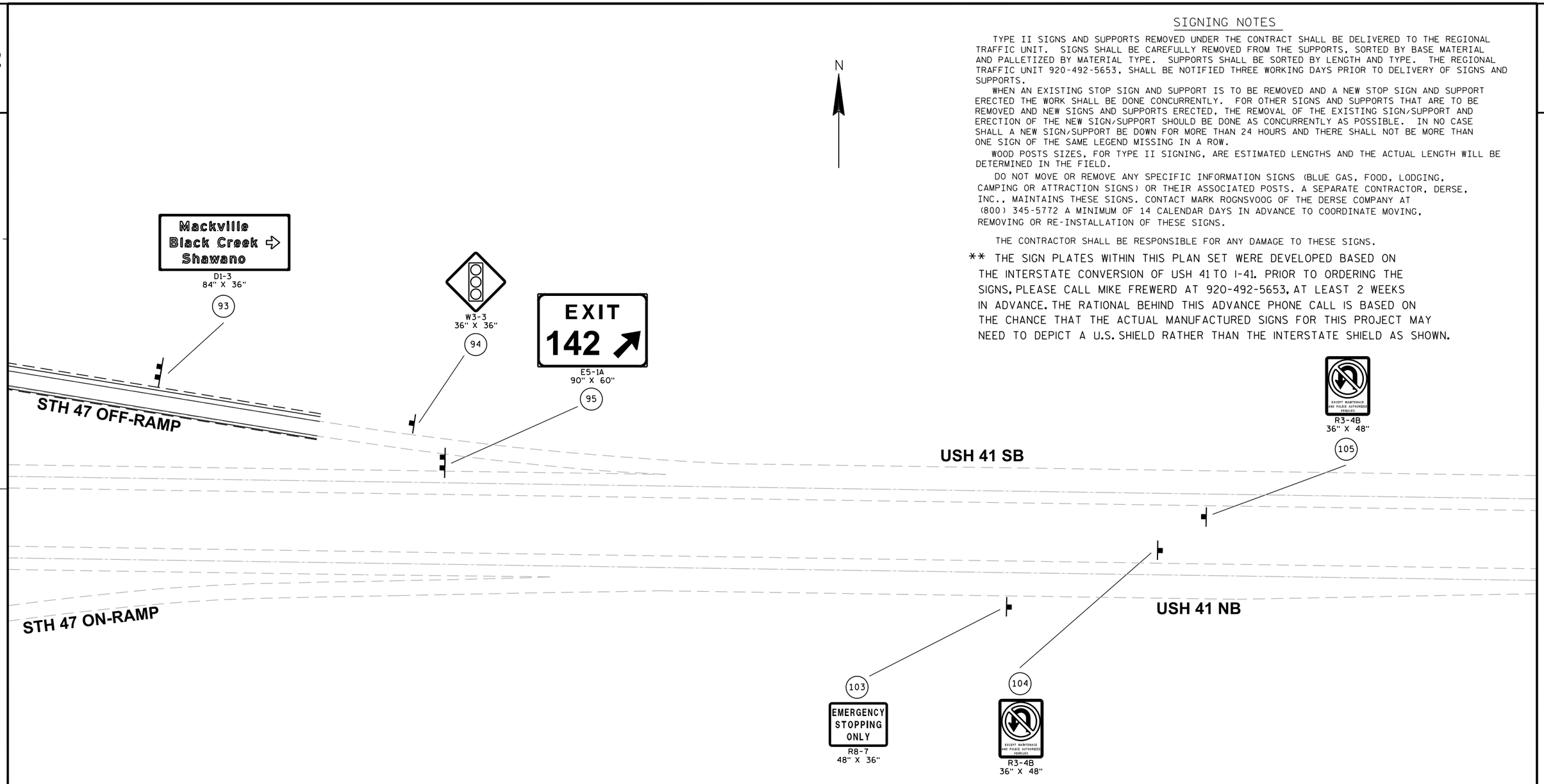
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SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 82	E

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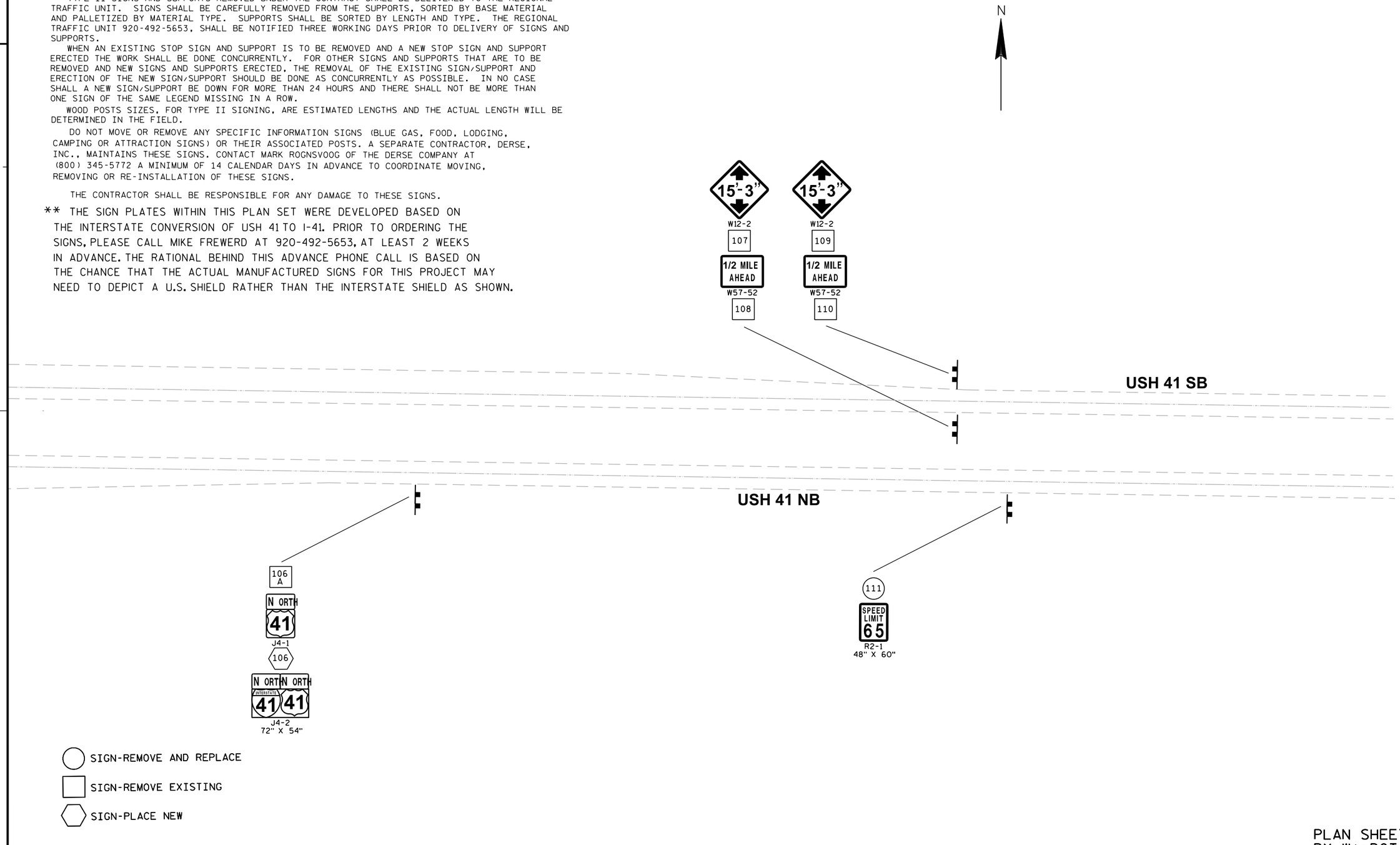
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SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 83	E

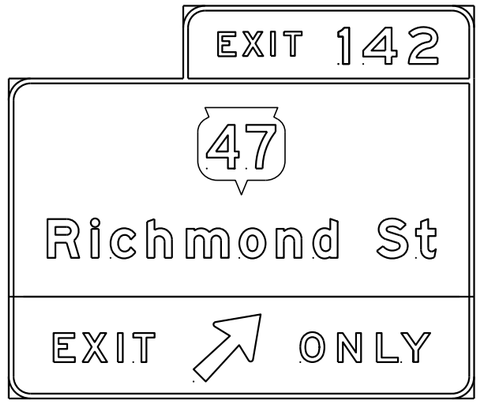
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N

201
E1-5P
120" X 30"



E6-1
192" X 132"
200

STH 47 OFF-RAMP

USH 41 SB

USH 41 NB

STH 47 ON-RAMP

SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 84	E

FTMS STANDARD ABBREVIATIONS

CCTV	CLOSED CIRCUIT TELEVISION SITE
CB	CONTROLLER CABINET
PB	PULL BOX
V	COMMUNICATIONS VAULT
F.O.C.	FIBER OPTIC CABLE
S-F	STATE-FURNISHED
DMS	DYNAMIC MESSAGE SIGN
MB	METER BREAKER
EX	EXISTING

LEGEND

PROPOSED

CCTV CAMERA AND POLE

BREAKER DISCONNECT BOX

24"X36" STEEL PULL BOX

ITS CONDUIT

COMMUNICATIONS VAULT

GROUND MOUNT SIGN

POLE-MOUNTED CABINET

TRAFFIC SIGNAL CABINET

MICROWAVE DETECTOR VEHICLE DETECTION ZONE

MICROWAVE DETECTOR ON TYPE 5 POLE

FTMS GENERAL NOTES

THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.

NO TREES (AND/OR SHRUBS) ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION ARE TO BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER AND SEED, AND MULCH. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION WILL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS. NO PAYMENT WILL BE MADE FOR RESTORING AREAS DISTURBED FOR FTMS CONSTRUCTION OPERATIONS.

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

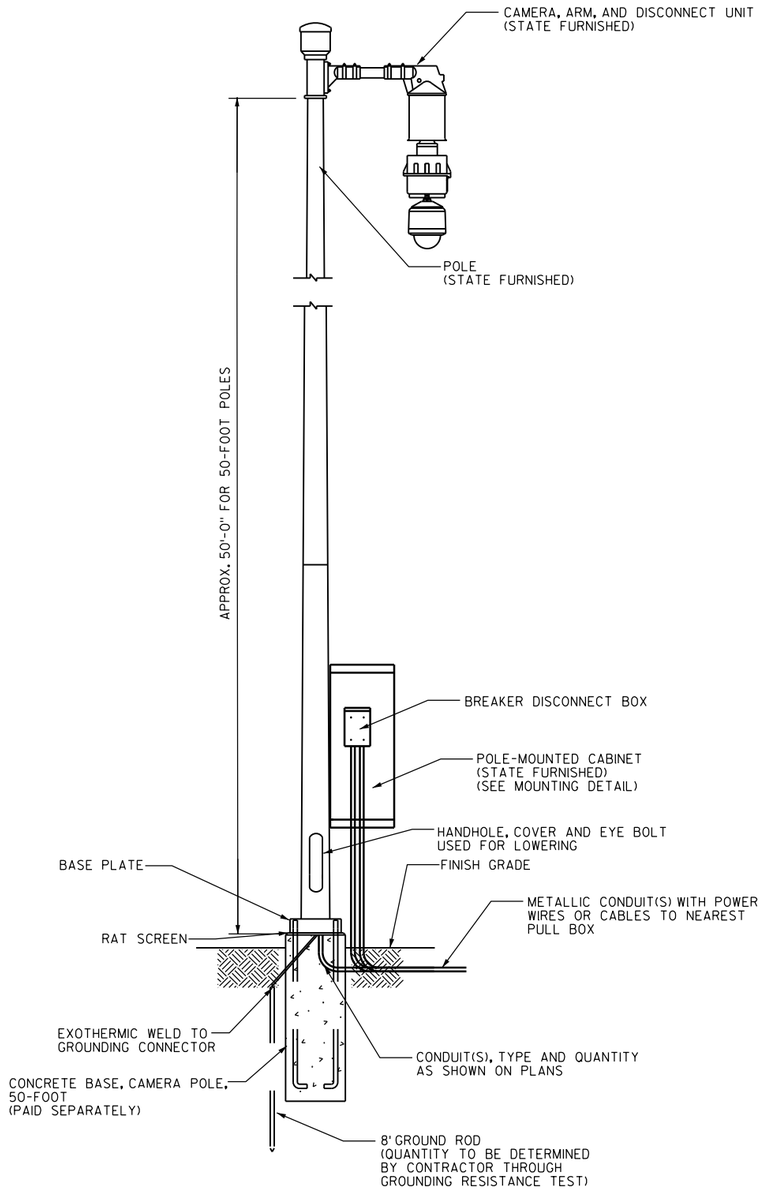
BE ADVISED THAT DUE TO RAMP, LANE, AND SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.

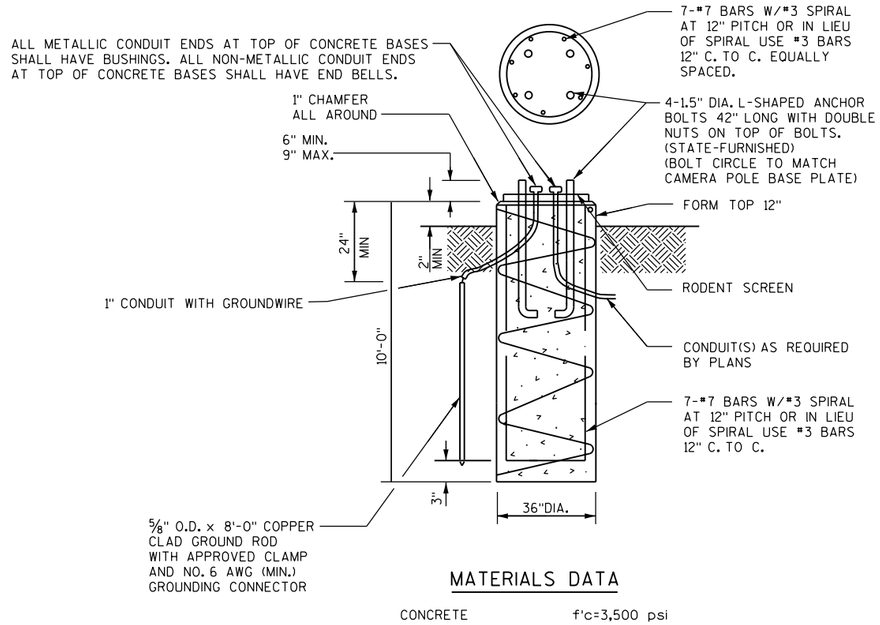
CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414) 227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.

HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.

VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.



CAMERA POLE WITH CAMERA LOWERING HARDWARE

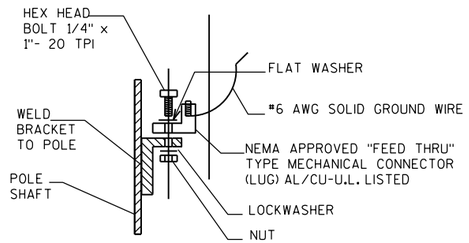


MATERIALS DATA

CONCRETE	f'c=3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi

CONCRETE BASE, 50' CAMERA POLE

NOT TO SCALE



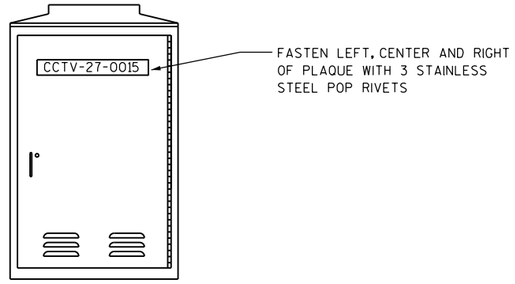
FIELD INSTALLED GROUNDING LUG

NOTES

1) ALL HARDWARE AND FASTENERS SHALL BE STAINLESS STEEL
2) POLE DRAWINGS SHOWN FOR BIDDING INFORMATION PURPOSES ONLY. POLES WILL BE STATE FURNISHED. BASE TO BE CONTRACTOR DESIGNED.
3) CONTRACTOR SHALL CONFIRM BOLT PATTERN OF CAMERA POLE PRIOR TO CONSTRUCTION OF CONCRETE BASE.
4) CONTRACTOR SHALL INSTALL GROUNDING LUG AS SHOWN

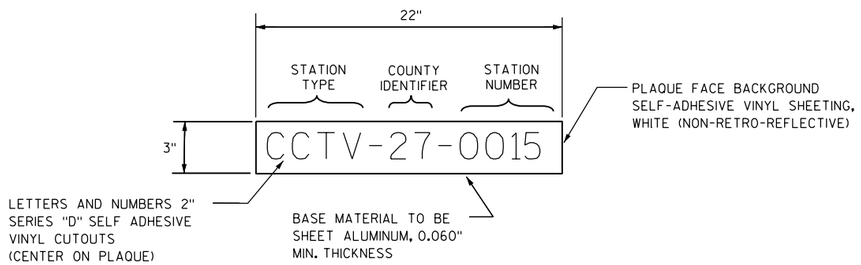
CAMERA POLES & FOUNDATIONS

2

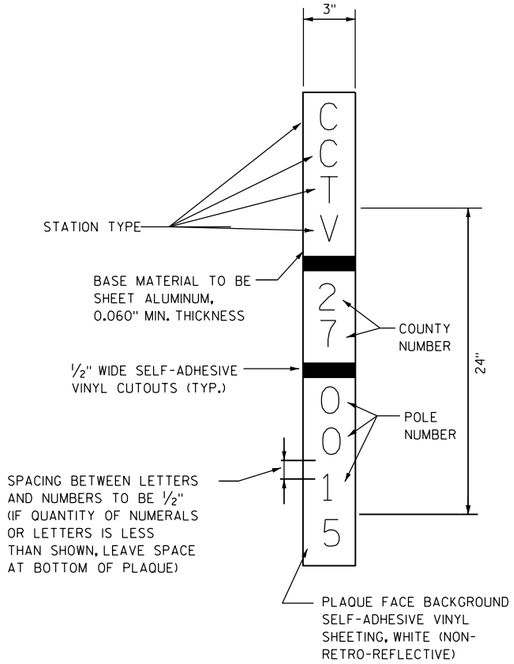


CONTROL CABINET IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS

(TYPICAL ALL CONTROL CABINETS)



CONTROL CABINET IDENTIFICATION PLAQUE DETAIL



POLE IDENTIFICATION PLAQUE DETAIL

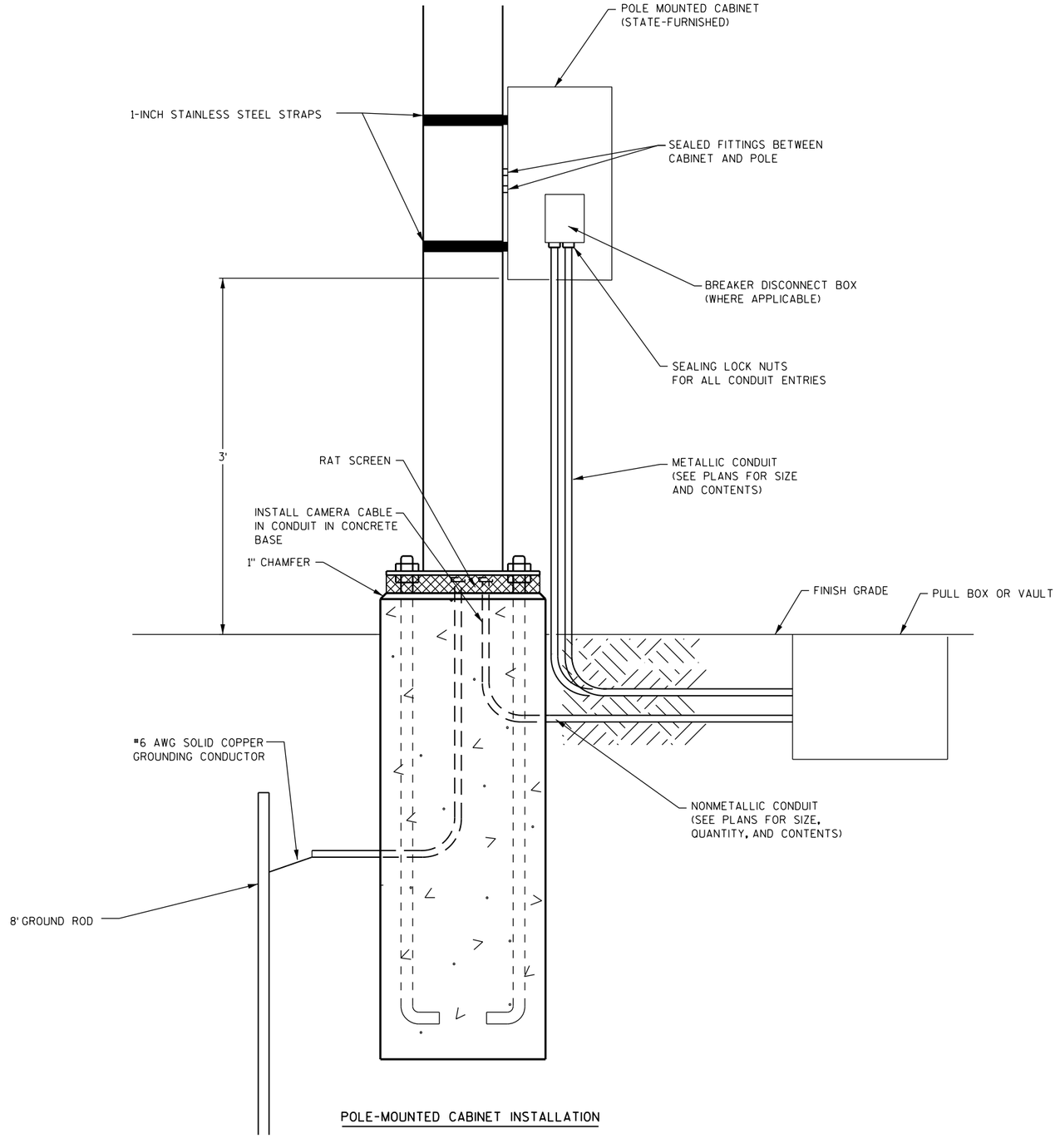
LEGEND STATION TYPE

RM - RAMP METER
CCTV - CLOSED CIRCUIT TELEVISION
ATR - AUTOMATIC TRAFFIC RECORDER
SDS - SYSTEM DETECTOR STATION
MD - MICROWAVE DETECTOR

NOTES

1) TWO PLAQUES PER CABINET REQUIRED ON CONTROL CABINET.
2) FASTEN ONE PLAQUE ON FRONT DOOR, UPPER HALF.
3) FASTEN ONE PLAQUE ON SIDE FACING LOCAL STREET. IF NO LOCAL STREET NEARBY, OR IF SUCH LOCATION COINCIDES WITH LOCATION OF PLAQUE IN NOTE 2, FASTEN PLAQUE ON REAR OF CABINET, UPPER HALF.
4) COUNTY NUMBER NOT REQUIRED ON RAMP METER CABINETS.

2



POLE-MOUNTED CABINET INSTALLATION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	FTMS CONSTRUCTION DETAILS	SHEET 88	E

2

2

N

WIS 47

USH 41

(1) 2-INCH METALLIC CONDUIT WITH
(3) NO. 6 AWG LIGHTING WIRES

SDS-44-0045
(1) TYPE 5 CONCRETE BASE
(1) 11-1/2-INCH TRANSFORMER BASE
(1) ALUMINUM TYPE 5 POLE
(1) MICROWAVE DETECTOR (S-F)

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) MD CABLE

(1) 2-INCH NONMETALLIC CONDUIT WITH
(3) NO. 6 AWG LIGHTING WIRES

CONNECT POWER CONDUCTORS TO
EXISTING TRAFFIC SIGNAL CABINET
METER BREAKER.

CCTV-44-0076
(1) 50-FOOT CONCRETE CAMERA POLE BASE
(1) 50-FOOT CAMERA POLE (S-F)
(1) INTEGRATED CONTROL CCTV CAMERA (S-F)
(1) POLE MOUNTED CABINET (S-F)
(1) BREAKER DISCONNECT BOX
(1) ETHERNET SWITCH / TERMINAL SERVER (S-F)
(1) ETHERNET VIDEO ENCODER (S-F)
(1) 4G INTERNET MODEM (S-F)
(2) PLAQUES SEQUENCE IDENTIFICATION

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) MD CABLE

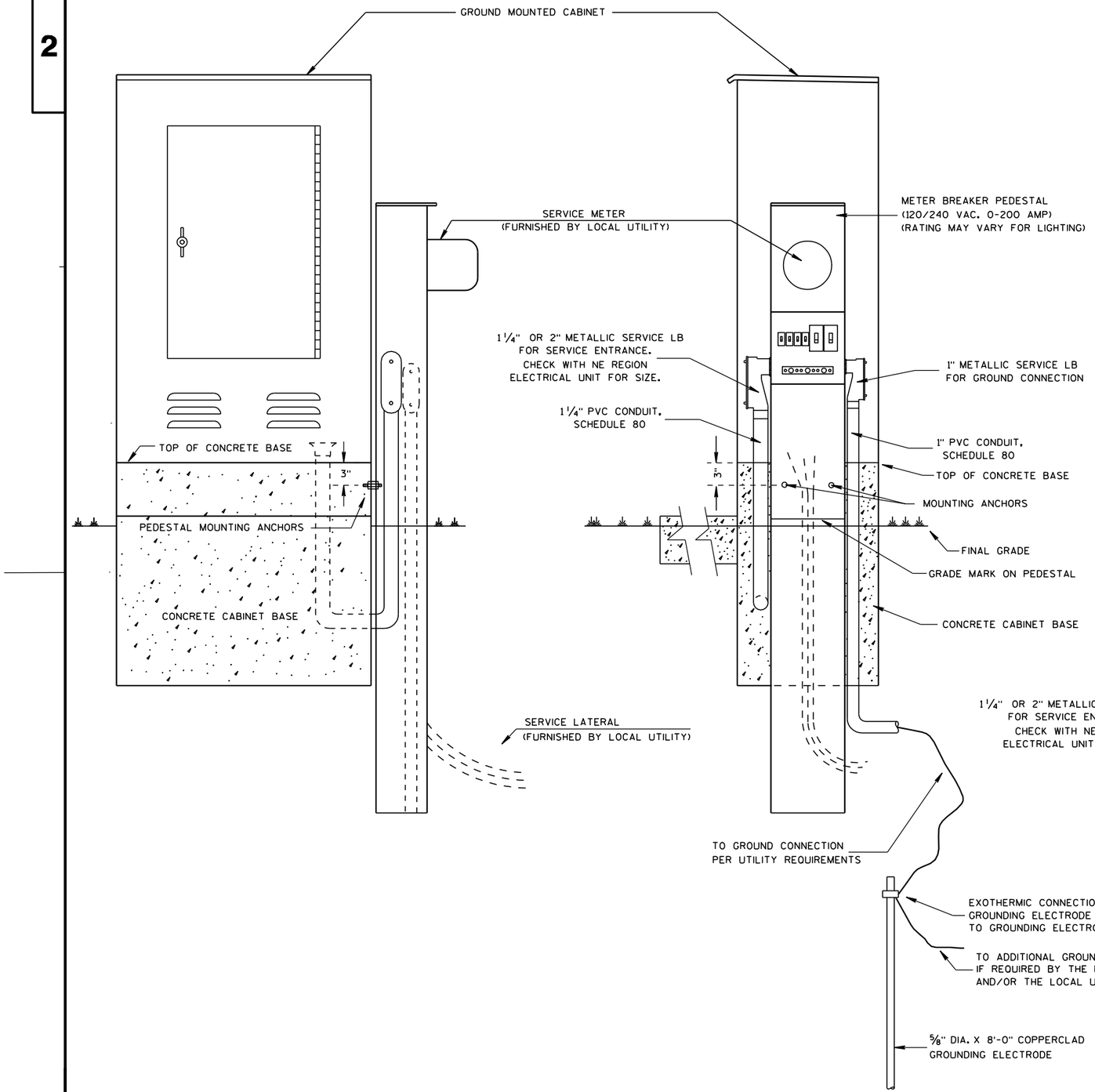
NOTE:
CONNECT THE GROUND CONDUCTOR IN THE POWER DISTRIBUTION WIRES TO EACH PULL BOX BETWEEN THE POWER SOURCE AND THE CABINET AS SHOWN IN THE S.D.D.S.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	FTMS PLAN SHEETS	SHEET 89 E

FILE NAME : \\mlww400\INGRPROJ\59271\11303300_STH47\cds\47_FM_05.dgn PLOT DATE : 5/30/2013 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2



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.

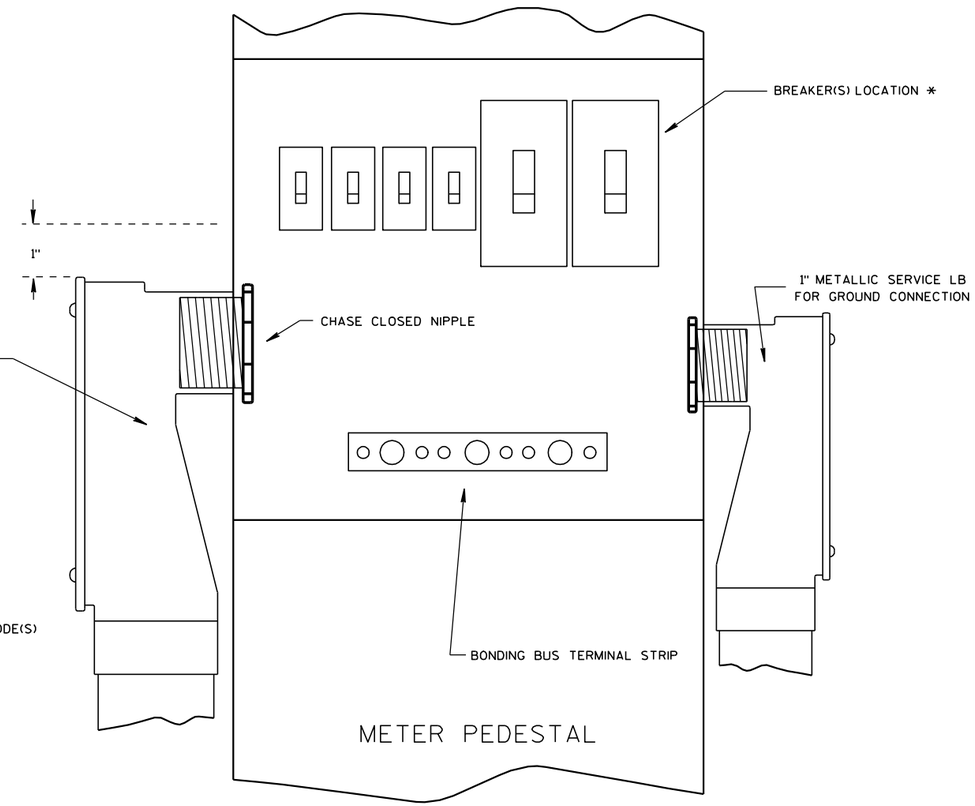
WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT OR SCHEDULE 80 PVC, NIPPLES AND/OR CONDULETS AS REQUIRED. CONDUIT LB SHALL BE OF METALLIC SERVICE ENTRANCE TYPE.

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.

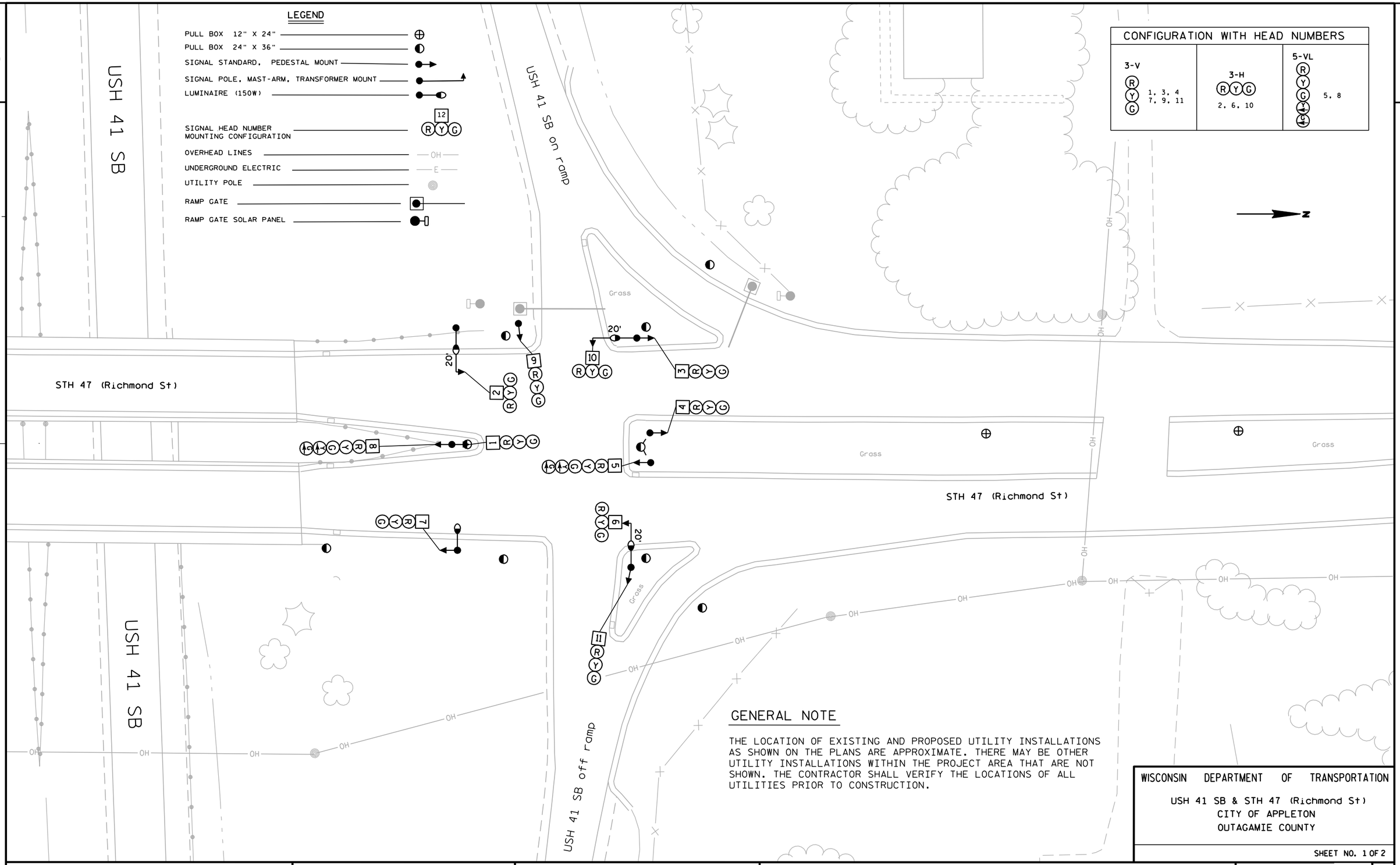
IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER NEC.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.



2

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAIL- NER METER PEDESTAL INSTALLATION	SHEET 90	E



GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

WISCONSIN DEPARTMENT OF TRANSPORTATION

USH 41 SB & STH 47 (Richmond St)
CITY OF APPLETON
OUTAGAMIE COUNTY

SHEET NO. 1 OF 2

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAIL - REMOVE SIGNAL	SHEET 91	E

2

CONFIGURATION WITH HEAD NUMBERS		
3-V R Y G 12, 14, 15 18, 20, 22	3-H R Y G 13, 17, 21	5-VL R Y G 4 4a 16, 19

LEGEND

- PULL BOX 12" X 24"
- PULL BOX 24" X 36"
- SIGNAL STANDARD, PEDESTAL MOUNT
- SIGNAL POLE, MAST-ARM, TRANSFORMER MOUNT
- LUMINAIRE (150W)
- CONTROL CABINET BASE
- SIGNAL HEAD NUMBER MOUNTING CONFIGURATION (12 R Y G)
- OVERHEAD LINES — OH —
- UNDERGROUND ELECTRIC — E —
- RAMP GATE
- RAMP GATE SOLAR PANEL

Association Drive

STH 47 (Richmond St)

USH 41 NB off ramp

USH 41 NB

USH 41 NB on ramp

PLAYGROUND

A/C

Grass

MH

OH

20'

3"

GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

WISCONSIN DEPARTMENT OF TRANSPORTATION

USH 41 NB & STH 47 (Richmond St)
CITY OF APPLETON
OUTAGAMIE COUNTY

SHEET NO. 2 OF 2

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAIL - REMOVE SIGNAL	SHEET E

FILE NAME : F:\d3_traffi\S-1400.dgn PLOT DATE : 23-MAY-2013 10:30 PLOT BY : dotc5s PLOT NAME : S-1400,remove PLOT SCALE : 40.000000:1.000000

WISDOT/CADDS SHEET 42

LEGEND

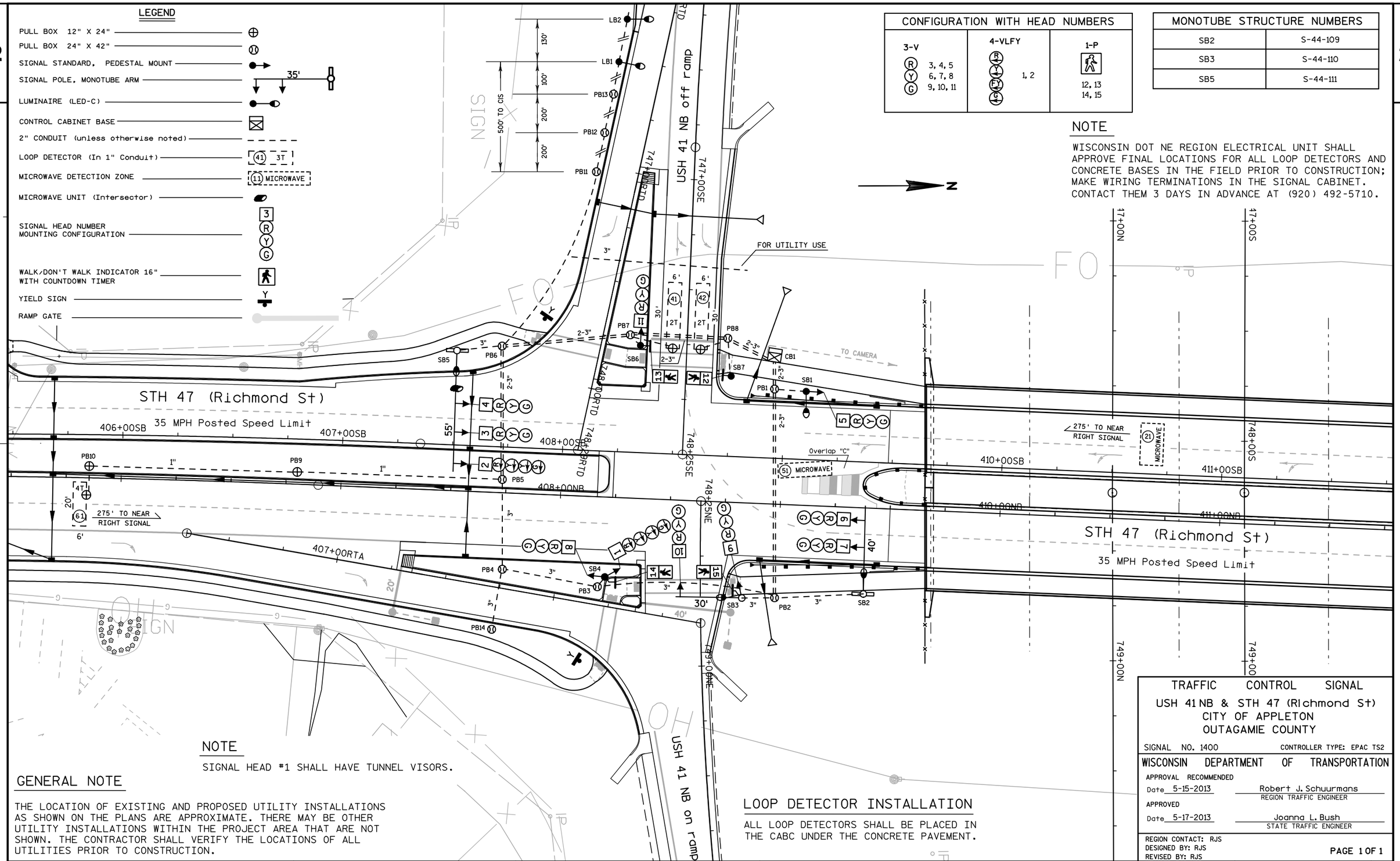
- PULL BOX 12" X 24"
- PULL BOX 24" X 42"
- SIGNAL STANDARD, PEDESTAL MOUNT
- SIGNAL POLE, MONOTUBE ARM — 35'
- LUMINAIRE (LED-C)
- CONTROL CABINET BASE
- 2" CONDUIT (unless otherwise noted)
- LOOP DETECTOR (In 1" Conduit) — (41) 3T
- MICROWAVE DETECTION ZONE — (11) MICROWAVE
- MICROWAVE UNIT (Intersector)
- SIGNAL HEAD NUMBER MOUNTING CONFIGURATION — 3 R Y G
- WALK/DON'T WALK INDICATOR 16" WITH COUNTDOWN TIMER
- YIELD SIGN — Y
- RAMP GATE

CONFIGURATION WITH HEAD NUMBERS		
3-V	4-VLFY	1-P
R 3, 4, 5 Y 6, 7, 8 G 9, 10, 11	1, 2	12, 13 14, 15

MONOTUBE STRUCTURE NUMBERS	
SB2	S-44-109
SB3	S-44-110
SB5	S-44-111

NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION; MAKE WIRING TERMINATIONS IN THE SIGNAL CABINET. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5710.



NOTE

SIGNAL HEAD #1 SHALL HAVE TUNNEL VISORS.

GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

LOOP DETECTOR INSTALLATION

ALL LOOP DETECTORS SHALL BE PLACED IN THE CABC UNDER THE CONCRETE PAVEMENT.

TRAFFIC CONTROL SIGNAL

USH 41 NB & STH 47 (Richmond St)
CITY OF APPLETON
OUTAGAMIE COUNTY

SIGNAL NO. 1400 — CONTROLLER TYPE: EPAC TS2

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 5-15-2013 — Robert J. Schuurmans, REGION TRAFFIC ENGINEER

APPROVED
Date 5-17-2013 — Joanna L. Bush, STATE TRAFFIC ENGINEER

REGION CONTACT: RJS
DESIGNED BY: RJS
REVISED BY: RJS

PAGE 1 OF 1

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REVISION	SHEET 93	E

GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

LOOP DETECTOR INSTALLATION

ALL LOOP DETECTORS SHALL BE PLACED IN THE CABC UNDER THE CONCRETE PAVEMENT.

NOTE

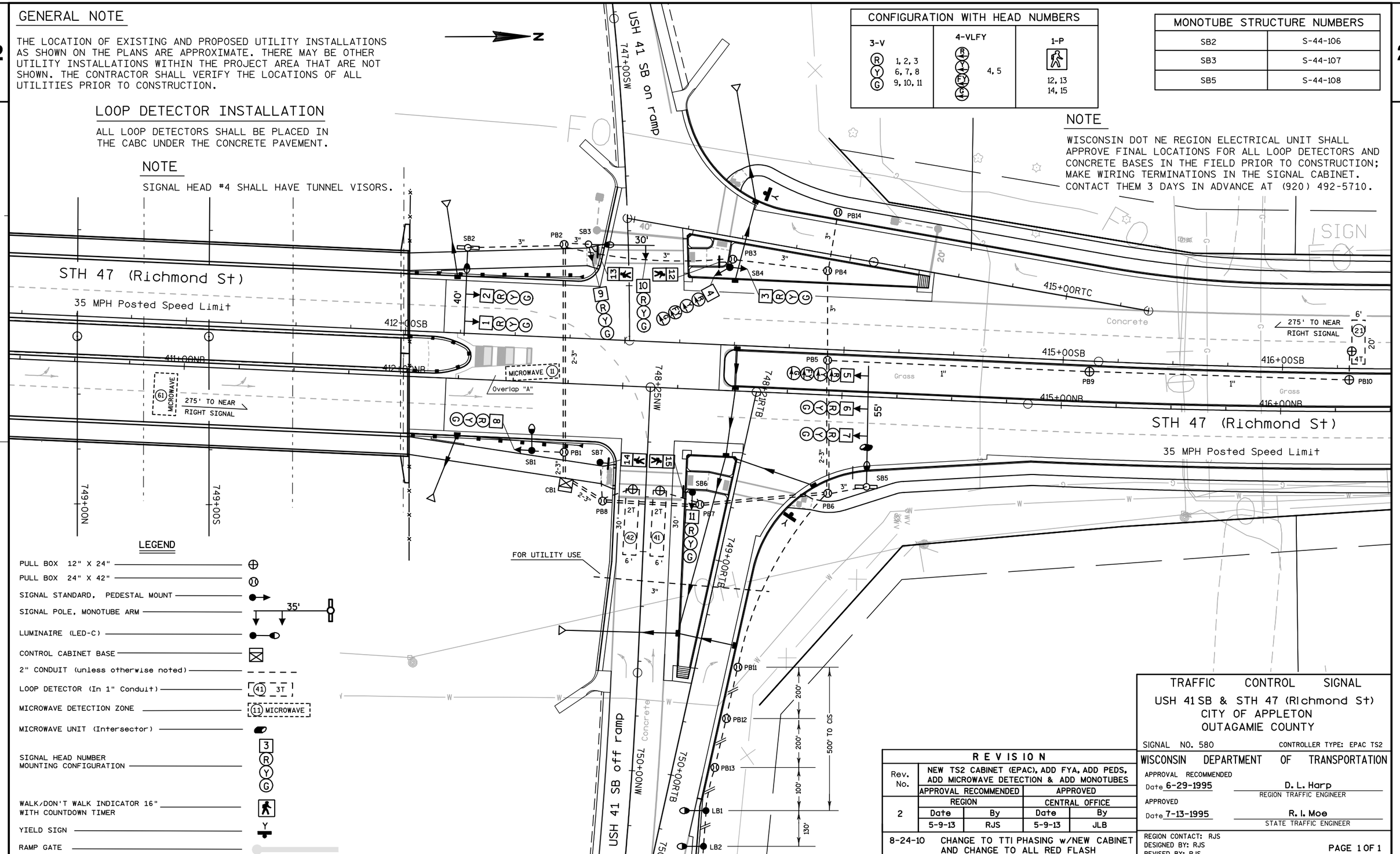
SIGNAL HEAD #4 SHALL HAVE TUNNEL VISORS.

CONFIGURATION WITH HEAD NUMBERS		
3-V	4-VLFY	1-P
R 1, 2, 3 Y 6, 7, 8 G 9, 10, 11	R, Y, G, LA, LB, LC, LD 4, 5	12, 13 14, 15

MONOTUBE STRUCTURE NUMBERS	
SB2	S-44-106
SB3	S-44-107
SB5	S-44-108

NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION; MAKE WIRING TERMINATIONS IN THE SIGNAL CABINET. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5710.



LEGEND

- PULL BOX 12" X 24"
- PULL BOX 24" X 42"
- SIGNAL STANDARD, PEDESTAL MOUNT
- SIGNAL POLE, MONOTUBE ARM — 35'
- LUMINAIRE (LED-C)
- CONTROL CABINET BASE
- 2" CONDUIT (unless otherwise noted)
- LOOP DETECTOR (In 1" Conduit) — (41) 3T
- MICROWAVE DETECTION ZONE — (11) MICROWAVE
- MICROWAVE UNIT (Intersector)
- SIGNAL HEAD NUMBER MOUNTING CONFIGURATION — 3, R, Y, G
- WALK/DON'T WALK INDICATOR 16" WITH COUNTDOWN TIMER
- YIELD SIGN — Y
- RAMP GATE

REVISION				
Rev. No.	NEW TS2 CABINET (EPAC), ADD FYA, ADD PEDS, ADD MICROWAVE DETECTION & ADD MONOTUBES			
	APPROVAL RECOMMENDED		APPROVED	
2	REGION		CENTRAL OFFICE	
	Date	By	Date	By
	5-9-13	RJS	5-9-13	JLB
8-24-10	CHANGE TO TTI PHASING w/NEW CABINET AND CHANGE TO ALL RED FLASH			

TRAFFIC CONTROL SIGNAL

USH 41 SB & STH 47 (Richmond St)
CITY OF APPLETON
OUTAGAMIE COUNTY

SIGNAL NO. 580 — CONTROLLER TYPE: EPAC TS2

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 6-29-1995 — D. L. Harp, REGION TRAFFIC ENGINEER

APPROVED
Date 7-13-1995 — R. I. Moe, STATE TRAFFIC ENGINEER

REGION CONTACT: RJS
DESIGNED BY: RJS
REVISED BY: RJS

PAGE 1 OF 1

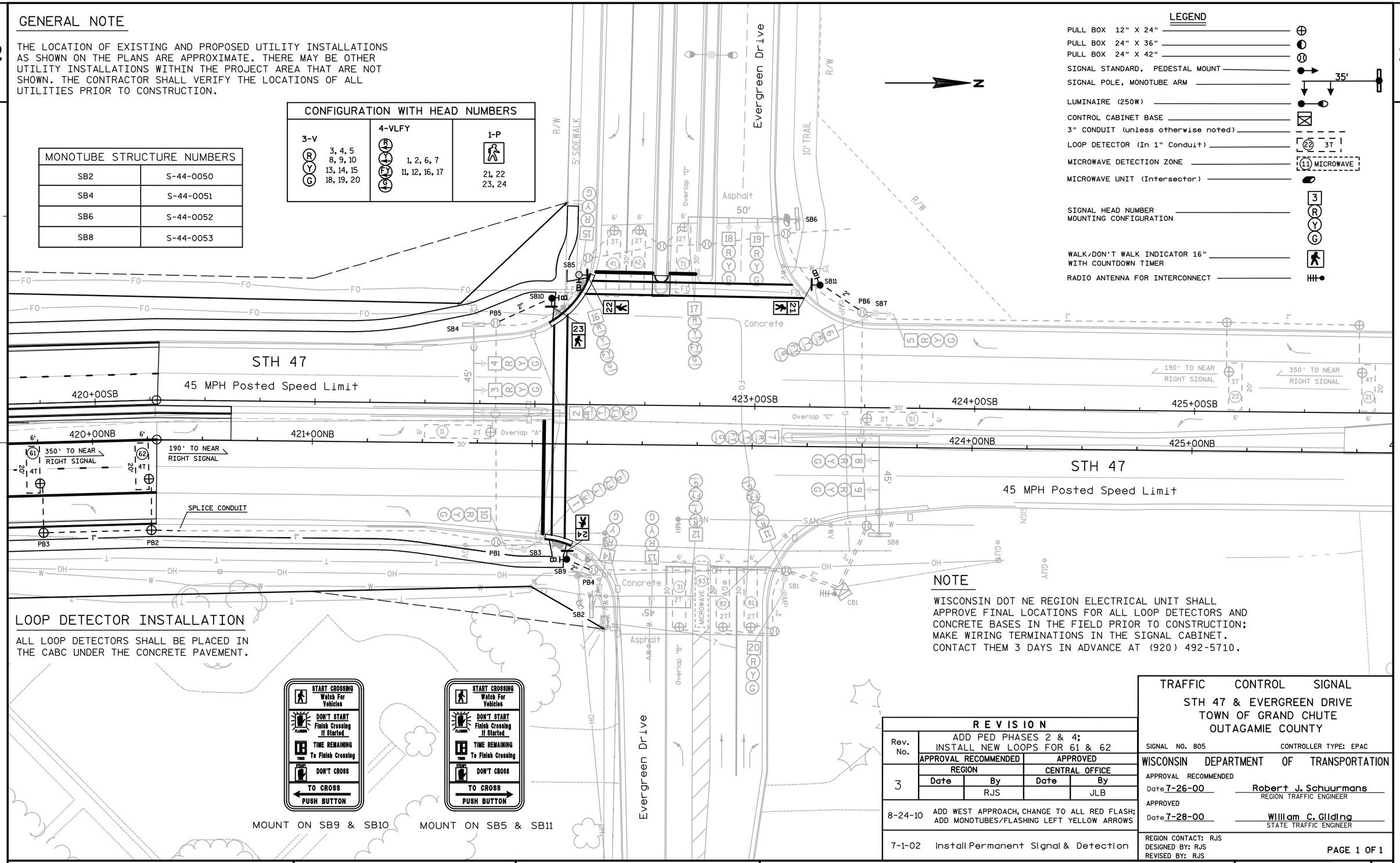
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REVISION	SHEET 94	E

GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

MONOTUBE STRUCTURE NUMBERS	
SB2	S-44-0050
SB4	S-44-0051
SB6	S-44-0052
SB8	S-44-0053

CONFIGURATION WITH HEAD NUMBERS		
3-V R Y G 3, 4, 5 8, 9, 10 13, 14, 15 18, 19, 20	4-VLFY R Y LT G 1, 2, 6, 7 11, 12, 16, 17	1-P 21, 22 23, 24



LEGEND

- PULL BOX 12" X 24"
- PULL BOX 24" X 36"
- PULL BOX 24" X 42"
- SIGNAL STANDARD, PEDESTAL MOUNT
- SIGNAL POLE, MONOTUBE ARM (35')
- LUMINAIRE (250W)
- CONTROL CABINET BASE
- 3" CONDUIT (unless otherwise noted)
- LOOP DETECTOR (In 1" Conduit) — 22 3T
- MICROWAVE DETECTION ZONE — 11 MICROWAVE
- MICROWAVE UNIT (Intersector)
- SIGNAL HEAD NUMBER MOUNTING CONFIGURATION — 3 R Y G
- WALK/DON'T WALK INDICATOR 16" WITH COUNTDOWN TIMER
- RADIO ANTENNA FOR INTERCONNECT

LOOP DETECTOR INSTALLATION

ALL LOOP DETECTORS SHALL BE PLACED IN THE CABC UNDER THE CONCRETE PAVEMENT.

MOUNT ON SB9 & SB10

MOUNT ON SB5 & SB11

NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION; MAKE WIRING TERMINATIONS IN THE SIGNAL CABINET. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5710.

REVISION				
Rev. No.	ADD PED PHASES 2 & 4; INSTALL NEW LOOPS FOR 61 & 62			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
	Date	By	Date	By
3		RJS		JLB
8-24-10	ADD WEST APPROACH, CHANGE TO ALL RED FLASH; ADD MONOTUBES/FLASHING LEFT YELLOW ARROWS			
7-1-02	Install Permanent Signal & Detection			

TRAFFIC CONTROL SIGNAL

STH 47 & EVERGREEN DRIVE
TOWN OF GRAND CHUTE
OUTAGAMIE COUNTY

SIGNAL NO. 805 CONTROLLER TYPE: EPAC

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 7-26-00 Robert J. Schuurmans
REGION TRAFFIC ENGINEER

APPROVED
Date 7-28-00 William C. Gilding
STATE TRAFFIC ENGINEER

REGION CONTACT: RJS
DESIGNED BY: RJS
REVISED BY: RJS

PAGE 1 OF 1

PROJECT NO: 1130-33-71	HWY: STH 47	COUNTY: OUTAGAMIE	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REVISION	SHEET 95	E

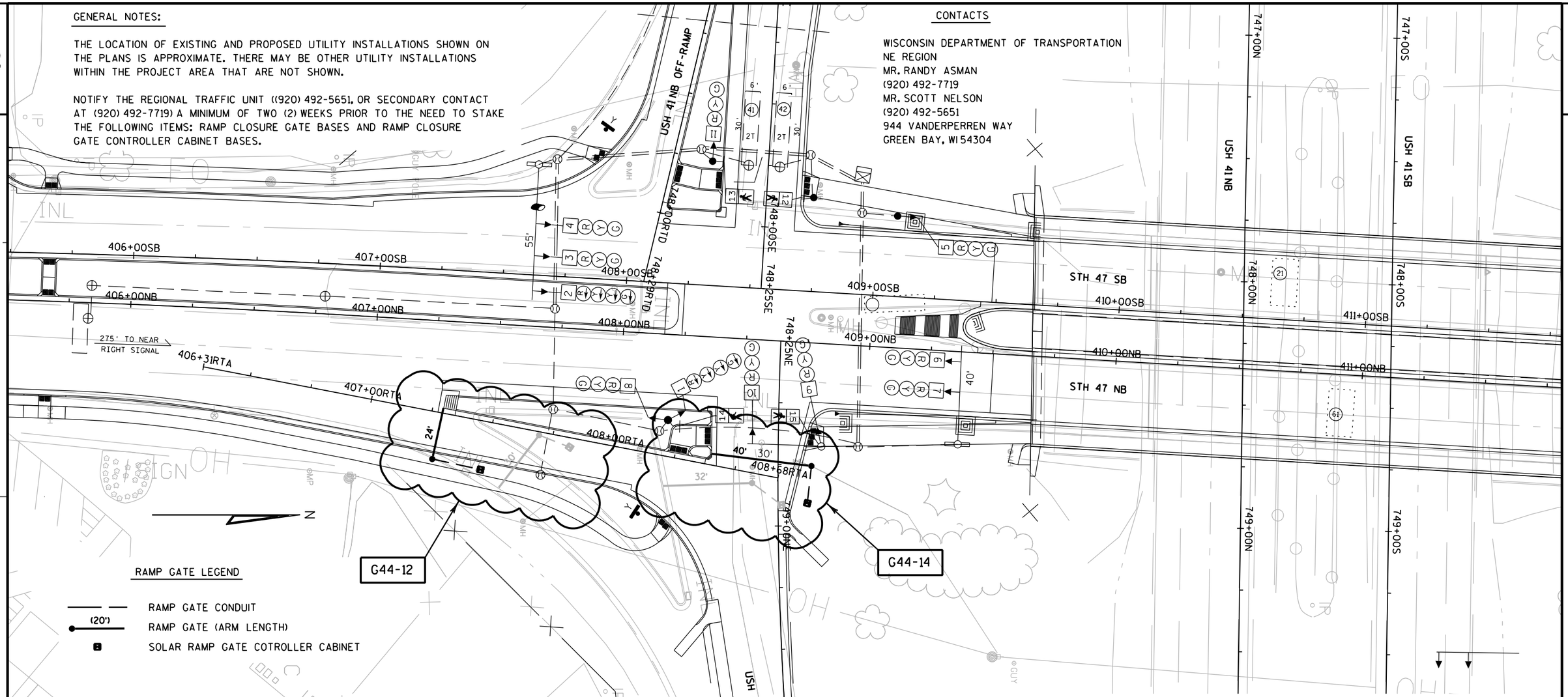
GENERAL NOTES:

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

NOTIFY THE REGIONAL TRAFFIC UNIT ((920) 492-5651, OR SECONDARY CONTACT AT (920) 492-7719) A MINIMUM OF TWO (2) WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING ITEMS: RAMP CLOSURE GATE BASES AND RAMP CLOSURE GATE CONTROLLER CABINET BASES.

CONTACTS

WISCONSIN DEPARTMENT OF TRANSPORTATION
NE REGION
MR. RANDY ASMAN
(920) 492-7719
MR. SCOTT NELSON
(920) 492-5651
944 VANDERPERREN WAY
GREEN BAY, WI 54304



RAMP GATE LEGEND

- RAMP GATE CONDUIT
- (20') RAMP GATE (ARM LENGTH)
- SOLAR RAMP GATE COTROLLER CABINET

G-44-12

REMOVAL ITEMS:
- REMOVING CONCRETE BASES - (1) RAMP GATE POLE & (2) SOLAR ASSEMBLY BASE AND MAINTENANCE PAD
- REMOVE AND SALVAGE RAMP GATE POLE
- REMOVE AND SALVAGE SOLAR ASSEMBLY
- REMOVE AND RETURN 30' GATE ARM
- ABANDON EXISTING CONDUIT AND WIRING

INSTALLATION ITEMS:
- INSTALL CONCRETE BASE TYPE 5 (RAMP GATE POLE)
- INSTALL CONCRETE CONTROL CABINET BASES TYPE 10, INLCLUDING MAINTENANCE PAD (SOLAR ASSEMBLY)
- REINSTALL RAMP GATE POLE
- REINSTALL SOLAR ASSEMBLY
- INSTALL NEW 24' GATE ARM
- INSTALL 2" SCHEDULE 40 PVC CONDUIT BETWEEN SOLAR ASSEMBLY AND RAMP GATE POLE (FLASHER WIRING INCIDENTAL)

G-44-14

REMOVAL ITEMS:
- REMOVING CONCRETE BASES - (1) RAMP GATE POLE & (2) SOLAR ASSEMBLY BASE AND MAINTENANCE PAD
- REMOVE AND SALVAGE RAMP GATE POLE
- REMOVE AND SALVAGE SOLAR ASSEMBLY
- REMOVE AND RETURN 32' GATE ARM
- ABANDON EXISTING CONDUIT AND WIRING

INSTALLATION ITEMS:
- INSTALL CONCRETE BASE TYPE 5 (RAMP GATE POLE)
- INSTALL CONCRETE CONTROL CABINET BASES TYPE 10, INLCLUDING MAINTENANCE PAD (SOLAR ASSEMBLY)
- REINSTALL RAMP GATE POLE
- REINSTALL SOLAR ASSEMBLY
- INSTALL NEW 40' GATE ARM
- INSTALL 2" SCHEDULE 40 PVC CONDUIT BETWEEN SOLAR ASSEMBLY AND RAMP GATE POLE (FLASHER WIRING INCIDENTAL)

2

G-44-13

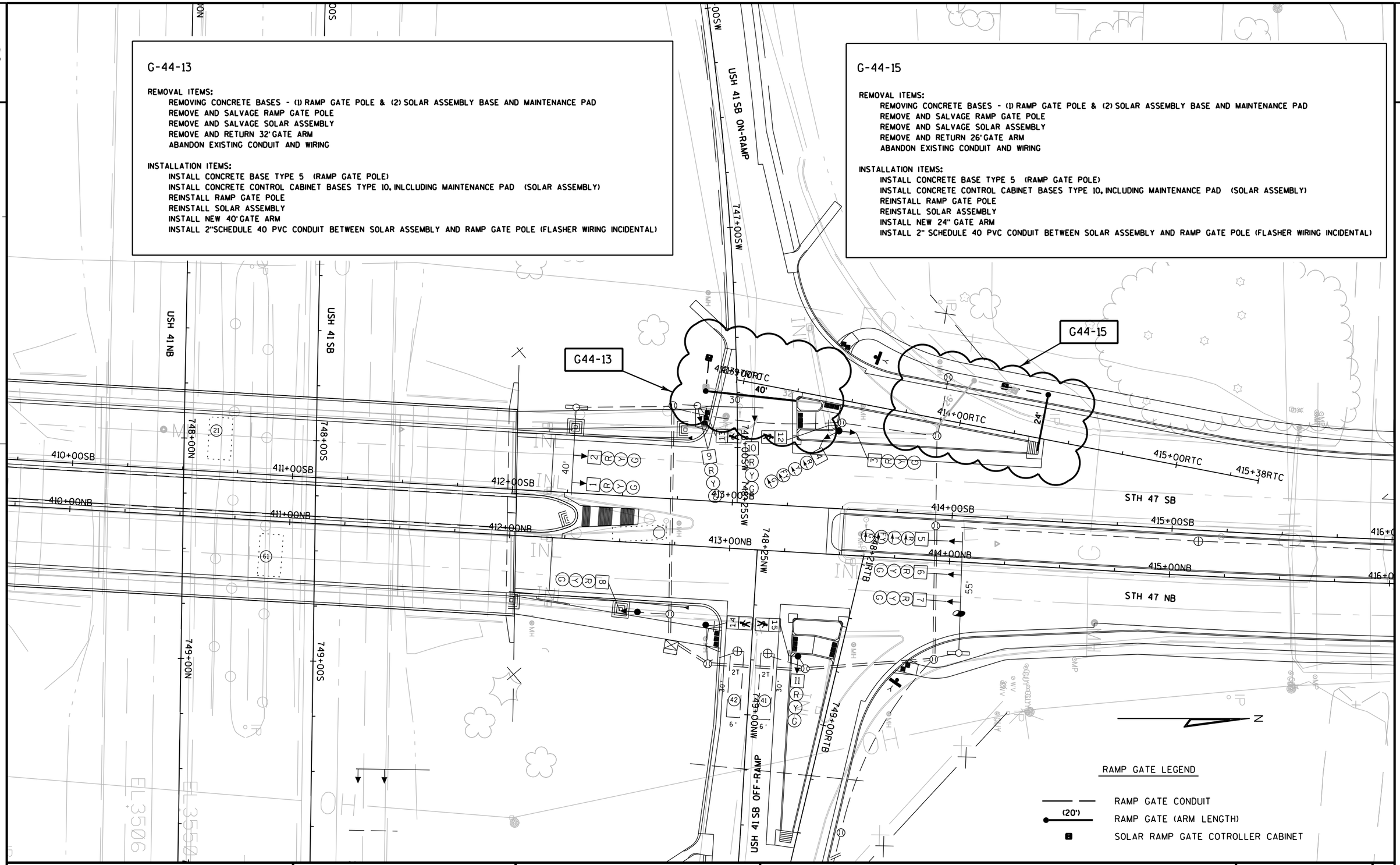
REMOVAL ITEMS:
- REMOVING CONCRETE BASES - (1) RAMP GATE POLE & (2) SOLAR ASSEMBLY BASE AND MAINTENANCE PAD
- REMOVE AND SALVAGE RAMP GATE POLE
- REMOVE AND SALVAGE SOLAR ASSEMBLY
- REMOVE AND RETURN 32' GATE ARM
- ABANDON EXISTING CONDUIT AND WIRING

INSTALLATION ITEMS:
- INSTALL CONCRETE BASE TYPE 5 (RAMP GATE POLE)
- INSTALL CONCRETE CONTROL CABINET BASES TYPE 10, INLCLUDING MAINTENANCE PAD (SOLAR ASSEMBLY)
- REINSTALL RAMP GATE POLE
- REINSTALL SOLAR ASSEMBLY
- INSTALL NEW 40' GATE ARM
- INSTALL 2"SCHEDULE 40 PVC CONDUIT BETWEEN SOLAR ASSEMBLY AND RAMP GATE POLE (FLASHER WIRING INCIDENTAL)

G-44-15

REMOVAL ITEMS:
- REMOVING CONCRETE BASES - (1) RAMP GATE POLE & (2) SOLAR ASSEMBLY BASE AND MAINTENANCE PAD
- REMOVE AND SALVAGE RAMP GATE POLE
- REMOVE AND SALVAGE SOLAR ASSEMBLY
- REMOVE AND RETURN 26' GATE ARM
- ABANDON EXISTING CONDUIT AND WIRING

INSTALLATION ITEMS:
- INSTALL CONCRETE BASE TYPE 5 (RAMP GATE POLE)
- INSTALL CONCRETE CONTROL CABINET BASES TYPE 10, INCLUDING MAINTENANCE PAD (SOLAR ASSEMBLY)
- REINSTALL RAMP GATE POLE
- REINSTALL SOLAR ASSEMBLY
- INSTALL NEW 24" GATE ARM
- INSTALL 2" SCHEDULE 40 PVC CONDUIT BETWEEN SOLAR ASSEMBLY AND RAMP GATE POLE (FLASHER WIRING INCIDENTAL)



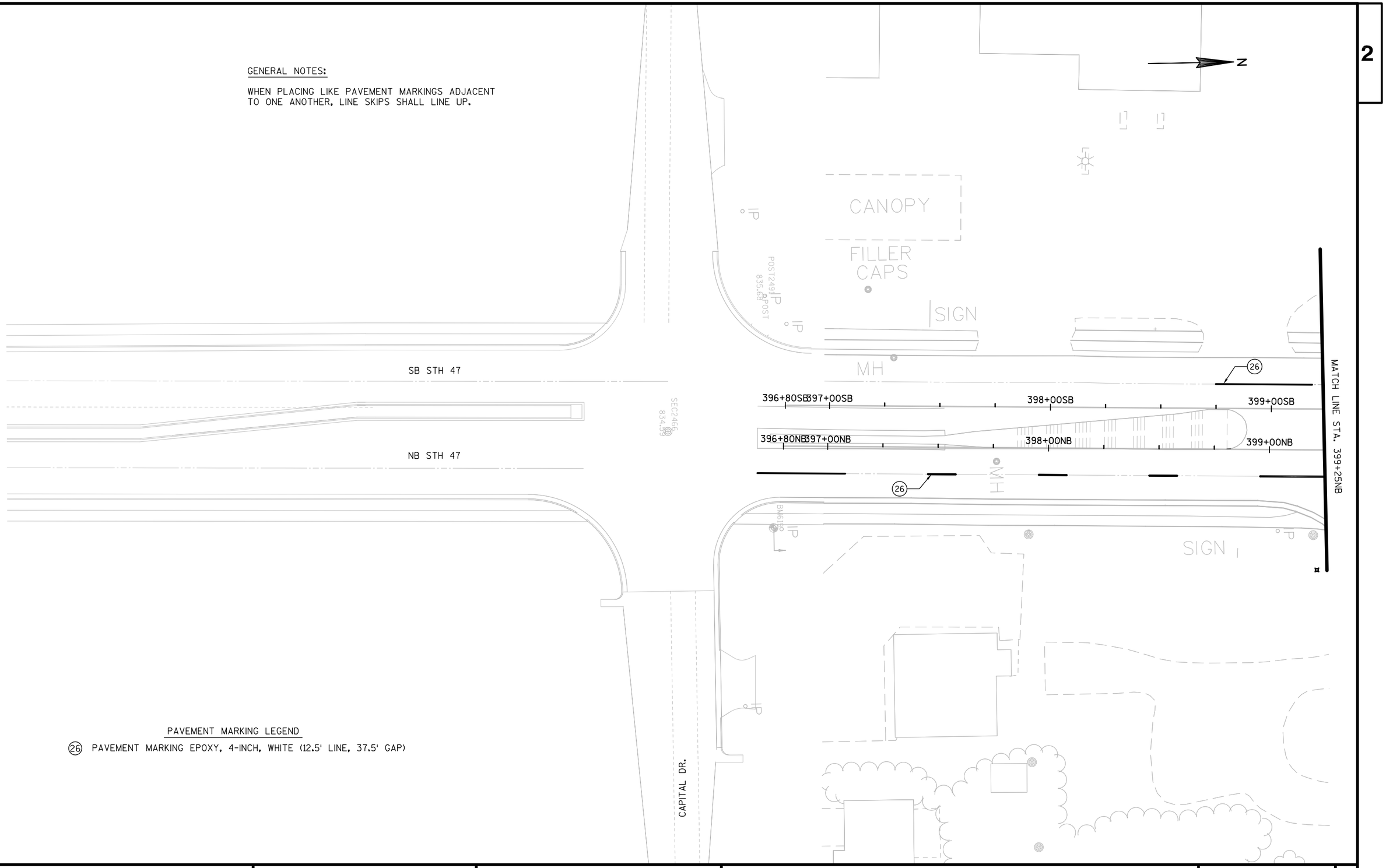
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	RAMP GATE DETAILS	SHEET 97	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\PLAN SHEETS\020102_rg.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

GENERAL NOTES:

WHEN PLACING LIKE PAVEMENT MARKINGS ADJACENT TO ONE ANOTHER, LINE SKIPS SHALL LINE UP.



PAVEMENT MARKING LEGEND

(26) PAVEMENT MARKING EPOXY, 4-INCH, WHITE (12.5' LINE, 37.5' GAP)

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PAVEMENT MARKING	SHEET 98	E

2

2

N

SB STH 47

NB STH 47

MATCH LINE STA. 399+25NB

MATCH LINE STA. 405+00NB

400+00SB

401+00SB

402+00SB

403+00SB

404+00SB

400+00NB

401+00NB

402+00NB

403+00NB

404+00NB

+42

(21) (TYP)

SIGNS

SIGN

MH

SS

POST 247.2 P
836.84 POST

W. SENECA DR.

PAVEMENT MARKING LEGEND

(21) PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (SEE SDD)
(23) PAVEMENT MARKING EPOXY, 4-INCH, WHITE
(24) PAVEMENT MARKING EPOXY, 4-INCH, YELLOW
(25) PAVEMENT MARKING CURB EPOXY, YELLOW
(26) PAVEMENT MARKING EPOXY, 4-INCH, WHITE (12.5' LINE, 37.5' GAP)
(28) PAVEMENT MARKING EPOXY, 8-INCH, WHITE
(29) PAVEMENT MARKING ISLAND NOSE EPOXY
(30) PAVEMENT MARKING ARROWS EPOXY, TYPE 2

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PAVEMENT MARKING	SHEET 99	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\PAVEMENT MARKING\11303371_PM_STH 47.DWG PLOT DATE : 7/31/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

2

N

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH, WHITE (SOLID)
(2) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH, WHITE (2' LINE, 6' GAP)
(10) PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC, ARROWS, WHITE (TYPE 2)
(11) PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC, ARROWS, WHITE (TYPE 3)
(20) PAVEMENT MARKING STOP LINE EPOXY, 18-INCH
(21) PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY (SEE SDD)
(22) PAVEMENT MARKING CROSSWALK EPOXY, 6-INCH, WHITE
(23) PAVEMENT MARKING EPOXY, 4-INCH, WHITE
(24) PAVEMENT MARKING EPOXY, 4-INCH, YELLOW
(25) PAVEMENT MARKING CURB EPOXY, YELLOW
(26) PAVEMENT MARKING EPOXY, 4-INCH, WHITE (12.5' LINE, 37.5' GAP)
(28) PAVEMENT MARKING EPOXY, 8-INCH, WHITE
(29) PAVEMENT MARKING ISLAND NOSE EPOXY

MATCH LINE STA. 745+50SE

746+00SE

746+17

747+00SE

747+00O

NB USH 41 OFF-RAMP

+16

GAP CENTERLINE PAVEMENT MARKINGS THROUGH THE INTERSECTION (TYP.)

STA. 409+24.6'SB'
O/S 37.2' LT
R=70'

98+00AS

99+00AS

100+00AS

ASSOCIATION DRIVE

MATCH LINE STA. 405+00NB

00SB

00NB

406+00SB

406+00NB

407+00SB

407+00NB

408+00SB

408+00NB

SB STH 47

NB STH 47

748+00O

748+00SE

748+25SE

748+25NE

409+00SB

409+00NB

410+00SB

410+00NB

MATCH LINE STA. 411+00NB

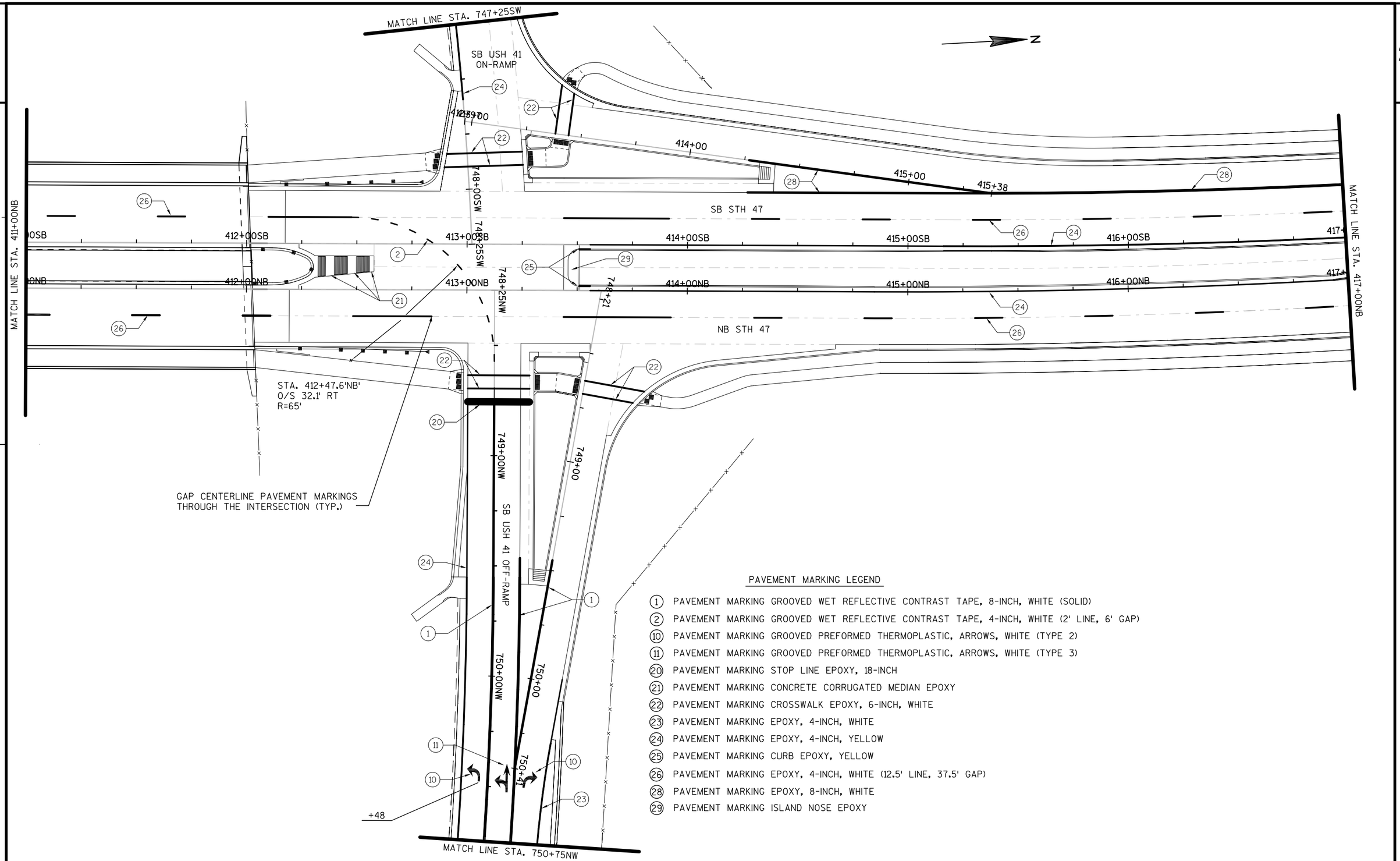
NB USH 41
ON-RAMP

749+

MATCH LINE STA. 749+00NE

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PAVEMENT MARKING	SHEET 100	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\PAVEMENT MARKING\11303371_PM_STH 47.DWG PLOT DATE : 7/31/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

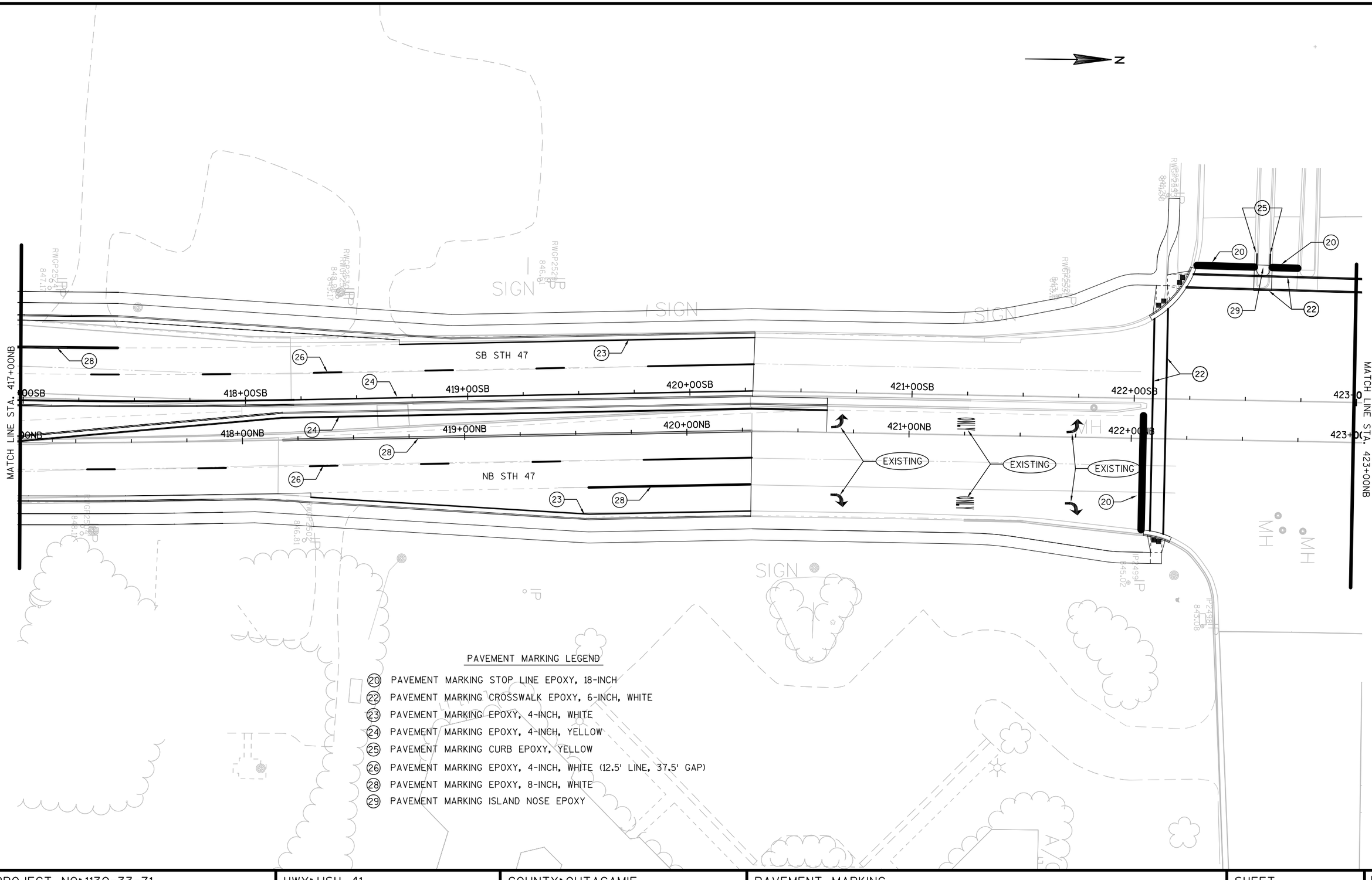


PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH, WHITE (SOLID)
2. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH, WHITE (2' LINE, 6' GAP)
10. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC, ARROWS, WHITE (TYPE 2)
11. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC, ARROWS, WHITE (TYPE 3)
20. PAVEMENT MARKING STOP LINE EPOXY, 18-INCH
21. PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY
22. PAVEMENT MARKING CROSSWALK EPOXY, 6-INCH, WHITE
23. PAVEMENT MARKING EPOXY, 4-INCH, WHITE
24. PAVEMENT MARKING EPOXY, 4-INCH, YELLOW
25. PAVEMENT MARKING CURB EPOXY, YELLOW
26. PAVEMENT MARKING EPOXY, 4-INCH, WHITE (12.5' LINE, 37.5' GAP)
28. PAVEMENT MARKING EPOXY, 8-INCH, WHITE
29. PAVEMENT MARKING ISLAND NOSE EPOXY

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PAVEMENT MARKING	SHEET 101	E

2



PAVEMENT MARKING LEGEND

(20) PAVEMENT MARKING STOP LINE EPOXY, 18-INCH
(22) PAVEMENT MARKING CROSSWALK EPOXY, 6-INCH, WHITE
(23) PAVEMENT MARKING EPOXY, 4-INCH, WHITE
(24) PAVEMENT MARKING EPOXY, 4-INCH, YELLOW
(25) PAVEMENT MARKING CURB EPOXY, YELLOW
(26) PAVEMENT MARKING EPOXY, 4-INCH, WHITE (12.5' LINE, 37.5' GAP)
(28) PAVEMENT MARKING EPOXY, 8-INCH, WHITE
(29) PAVEMENT MARKING ISLAND NOSE EPOXY

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PAVEMENT MARKING	SHEET 102	E

2

2

PAVEMENT MARKING LEGEND

(22) PAVEMENT MARKING CROSSWALK EPOXY, 6-INCH, WHITE

N

2-239.18
832.41

22

SB STH 47

MH

MH

MH

MH

00SB 424+00SB 425+00SB 426+00SB 427+00SB 428+00SB 429+

00NB 424+00NB 425+00NB 426+00NB 427+00NB 428+00NB 429+

NB STH 47

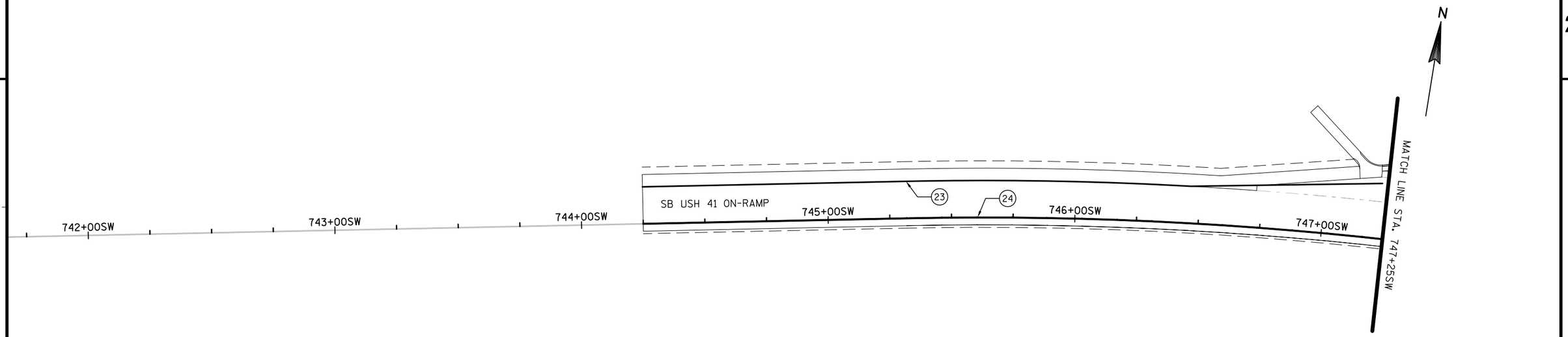
MATCH LINE STA. 423+00NB

SIGN

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PAVEMENT MARKING	SHEET 103	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\PAVEMENT MARKING\11303371_PM_STH 47.DWG PLOT DATE : 7/31/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

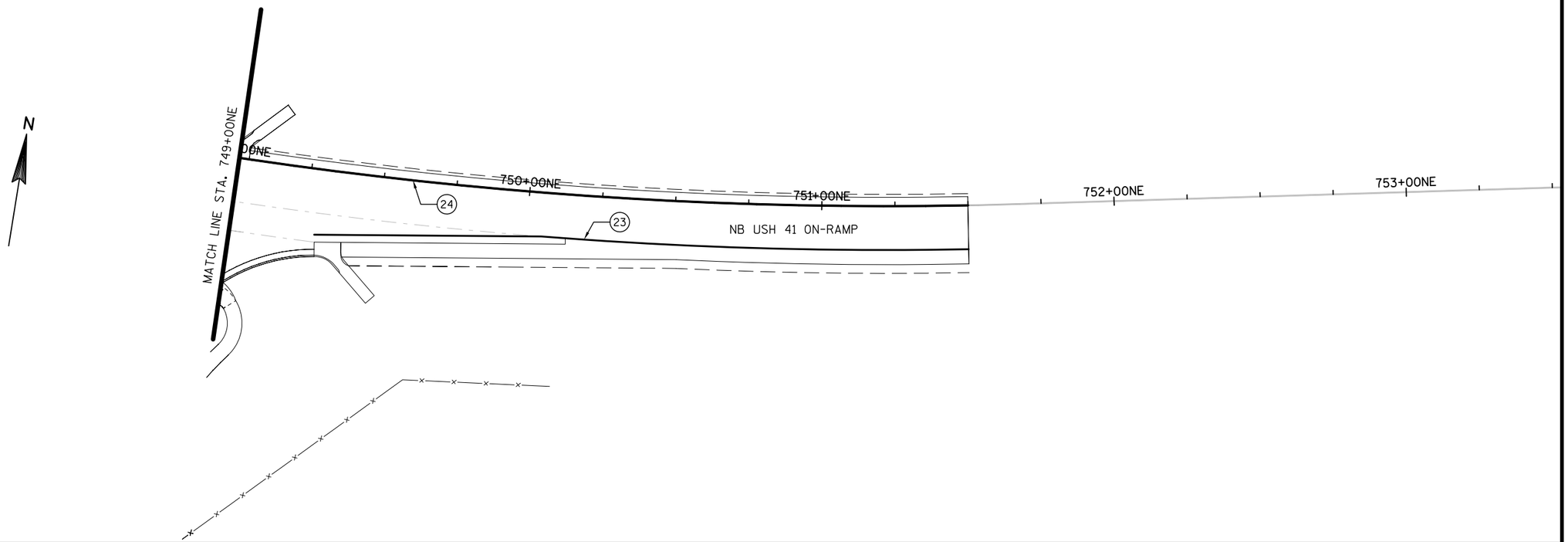
2



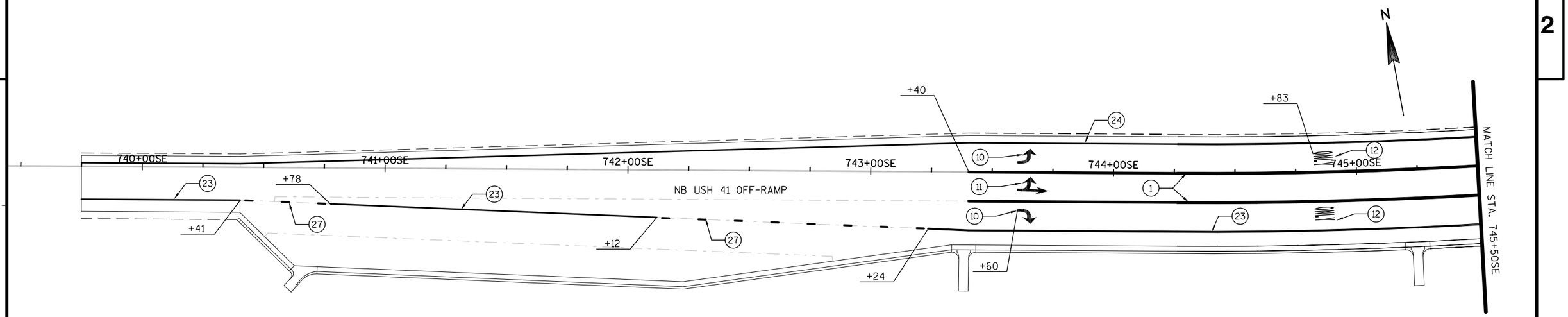
PAVEMENT MARKING LEGEND

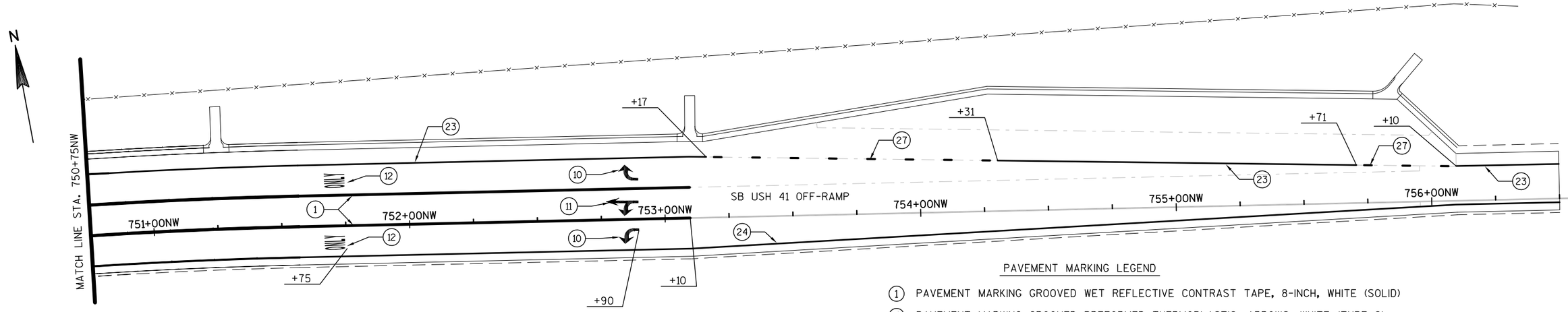
(23) PAVEMENT MARKING EPOXY, 4-INCH, WHITE

(24) PAVEMENT MARKING EPOXY, 4-INCH, YELLOW



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PAVEMENT MARKING	SHEET 104	E





PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH, WHITE (SOLID)
(10) PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC, ARROWS, WHITE (TYPE 2)
(11) PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC, ARROWS, WHITE (TYPE 3)
(12) PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC, WORDS, WHITE (ONLY)
(23) PAVEMENT MARKING EPOXY, 4-INCH, WHITE
(24) PAVEMENT MARKING EPOXY, 4-INCH, YELLOW
(27) PAVEMENT MARKING EPOXY, 4-INCH, WHITE (3' LINE, 9' GAP)

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PAVEMENT MARKING	SHEET 105	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\PAVEMENT MARKING\11303371_PM_STH 47.DWG PLOT DATE : 7/31/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

2

LEGEND

- TYPE III BARRICADE
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

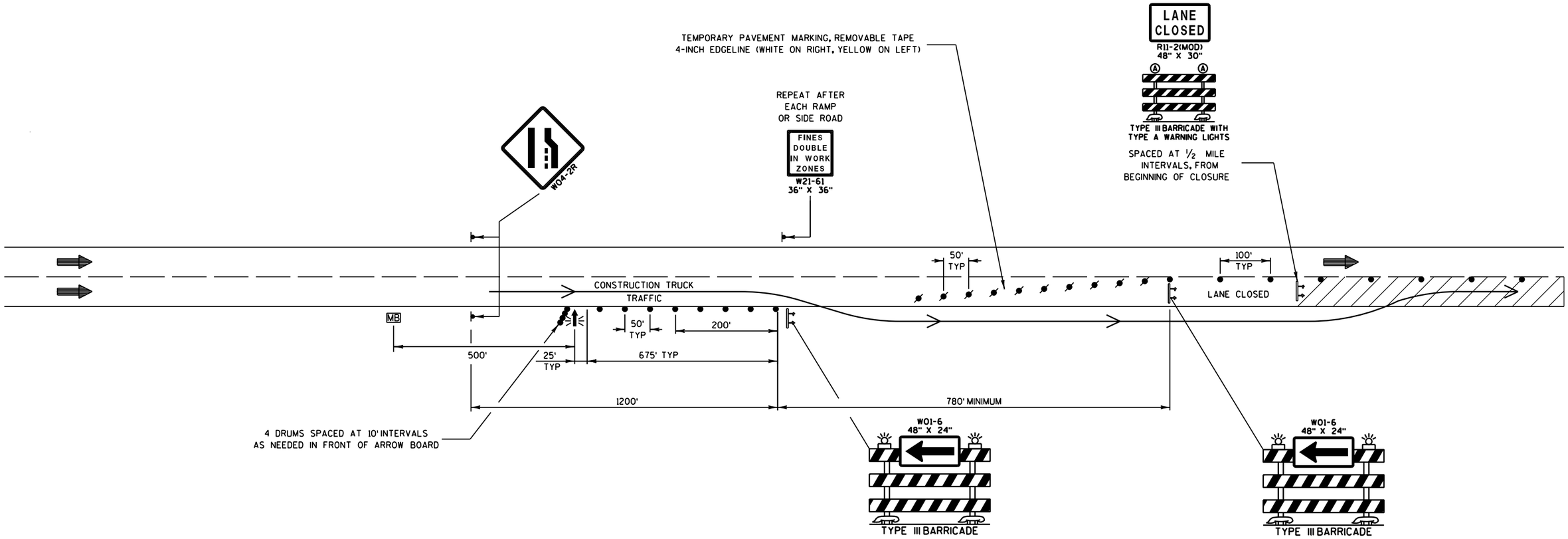
NOTES:

SPACING AND LOCATIONS OF DEVICES IN THE FIELD SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.

SEE OTHER TRAFFIC CONTROL DETAILS AND STANDARD DETAIL DRAWINGS FOR LANE CLOSURE DETAILS.

PORTABLE MESSAGE SIGN MESSAGES SHOULD READ:

FRAME 1	FRAME 2
TRUCKS EXITING RIGHT	TRAFFIC STAY LEFT



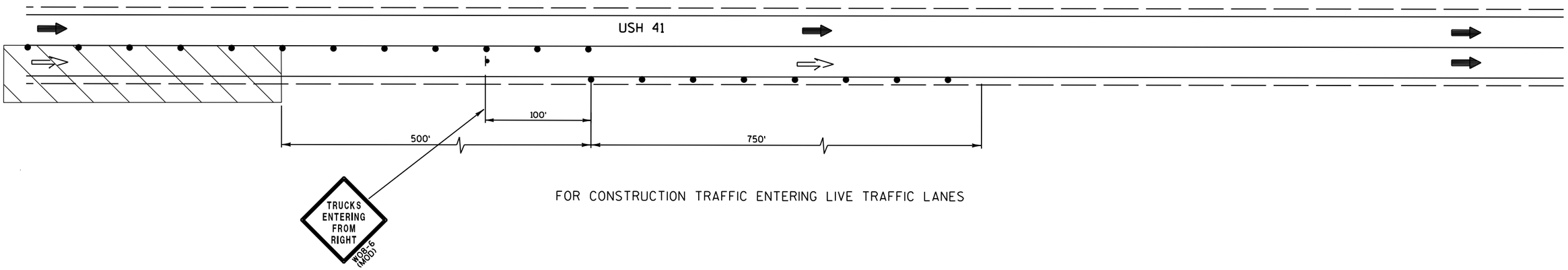
TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURE - USH 41

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL DETAIL	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\Construction Detail Sheets\Access During Lane Closure At Taper.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2



FOR CONSTRUCTION TRAFFIC ENTERING LIVE TRAFFIC LANES

TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN
- USH 41 TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK ZONE

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL DETAIL	SHEET 107	E

2

LEGEND

- TRAFFIC CONTROL DRUM
- CC — CRASH CUSHION
- TEMPORARY PRECAST CONCRETE BARRIER
- DIRECTION OF TRAFFIC
- WORK AREA

NOTES:

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

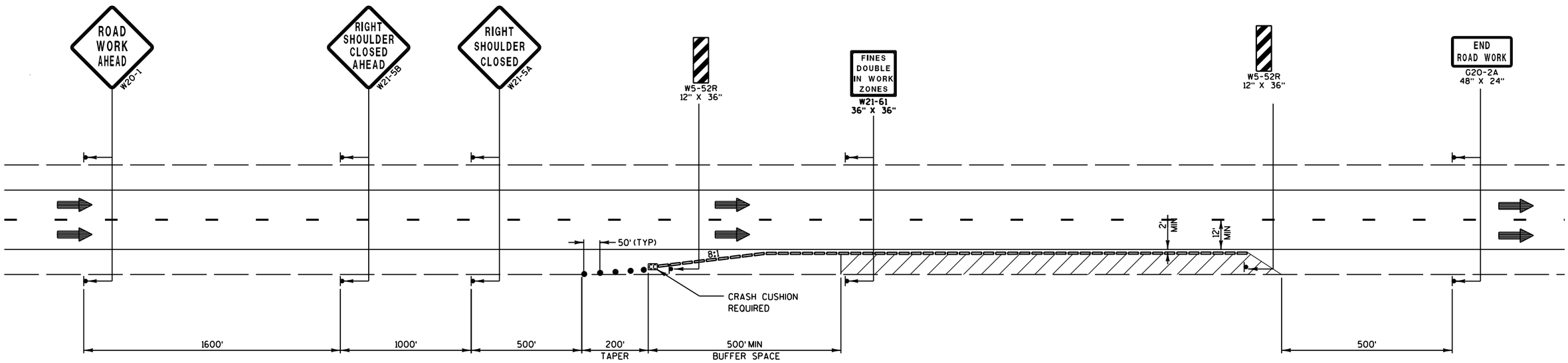
THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, 500 FEET DESIRABLE, DISTANCE TO EXISTING SIGNS.

THIS SHOULDER CLOSURE IS TYPICAL FOR CLOSING RIGHT SHOULDER - REVERSE FOR CLOSING LEFT SHOULDER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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.

FOR A SHOULDER CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE CRASHWORTHY SUPPORTS.

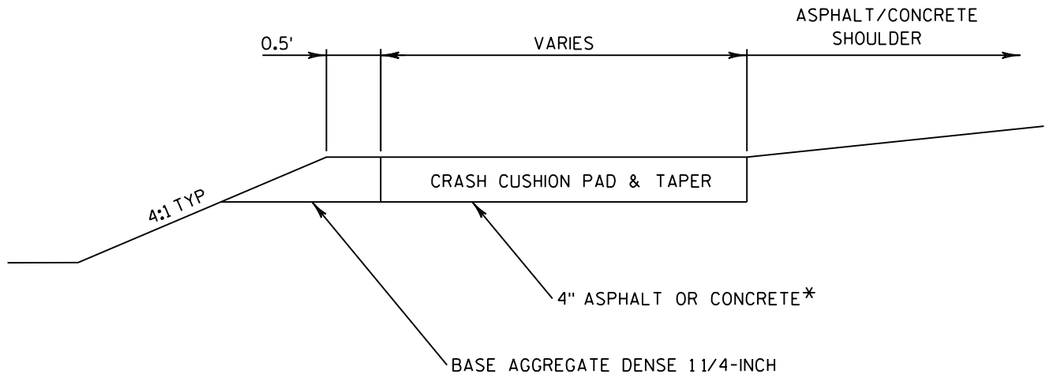


SHOULDER CLOSURE WITH BARRIER - USH 41

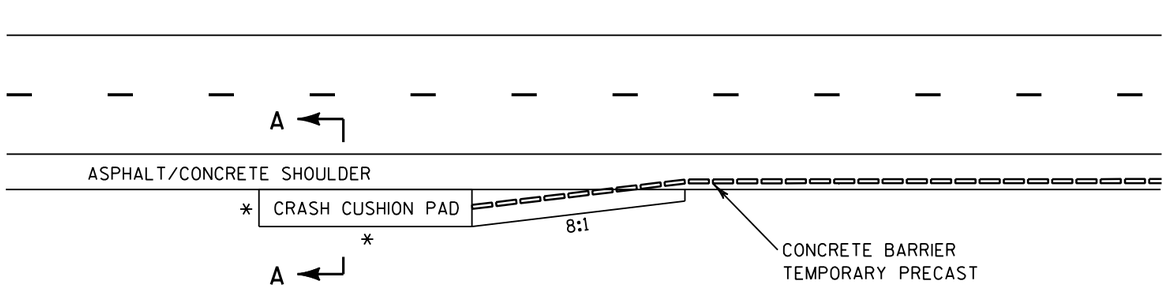
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL DETAIL	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\Construction Detail Sheets\Shoulder Closure with Barrier.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42



SECTION A-A



* CRASH CUSHION PAD DIMENSIONS
AS SPECIFIED BY MANUFACTURER.
(INCIDENTAL TO TEMPORARY CRASH CUSHION)

TEMPORARY CRASH CUSHION PAD DETAIL

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL DETAIL	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\Construction Detail Sheets\Temporary Crash Cushion Pad Detail.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

2

2

N

USH 41 SB

716+00S 717+00S 718+00S 719+00S 720+00S 721+00S

MATCH LINE STA. 721+75'NB'

TEMPORARY PAVEMENT MARKING

716+00N 717+00N 718+00N 719+00N 720+00N 721+00N

USH 41 NB

25'(TYP.)

200' TAPER

SEE S.D.D. "TRAFFIC CONTROL, EXIT RAMP CLOSURE" FOR ADDITIONAL WARNING SIGNS.

LEGEND

CC	CRASH CUSHION TEMPORARY
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
	TYPE III BARRICADE WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	TEMPORARY PAVEMENT MARKING 4" REMOVABLE TAPE, WHITE

NOTES:

ALL CONCRETE BARRIER TEMPORARY PRECAST IS TO BE PINNED PER THE REQUIREMENTS OF S.D.D. "CONCRETE BARRIER TEMPORARY PRECAST".

FOR OFF-PEAK HOUR LANE CLOSURES, SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURES, SPEEDS GREATER THAN 40 MPH".

FOR OFF-PEAK HOUR LANE CLOSURES, UTILIZE CONSTRUCTION DETAILS "TRAFFIC CONTROL DETAIL FOR ACCESS AT LANE CLOSURE" AND "TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41".

SEE CONSTRUCTION DETAIL "TEMPORARY CRASH CUSHION PAD DETAIL" FOR CRASH CUSHION INSTALLATION.

SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR" FOR STAGE 2 AND STAGE 3 BRIDGE DECK DEMOLITION DETOUR.

PLACE ADVANCED WARNING PORTABLE CHANGEBALE MESSAGE BOARDS PRIOR TO RAMP CLOSURES. SEE SPECIAL PROVISIONS FOR DETAILS.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - USH 41 - ALL STAGES	SHEET 110	E

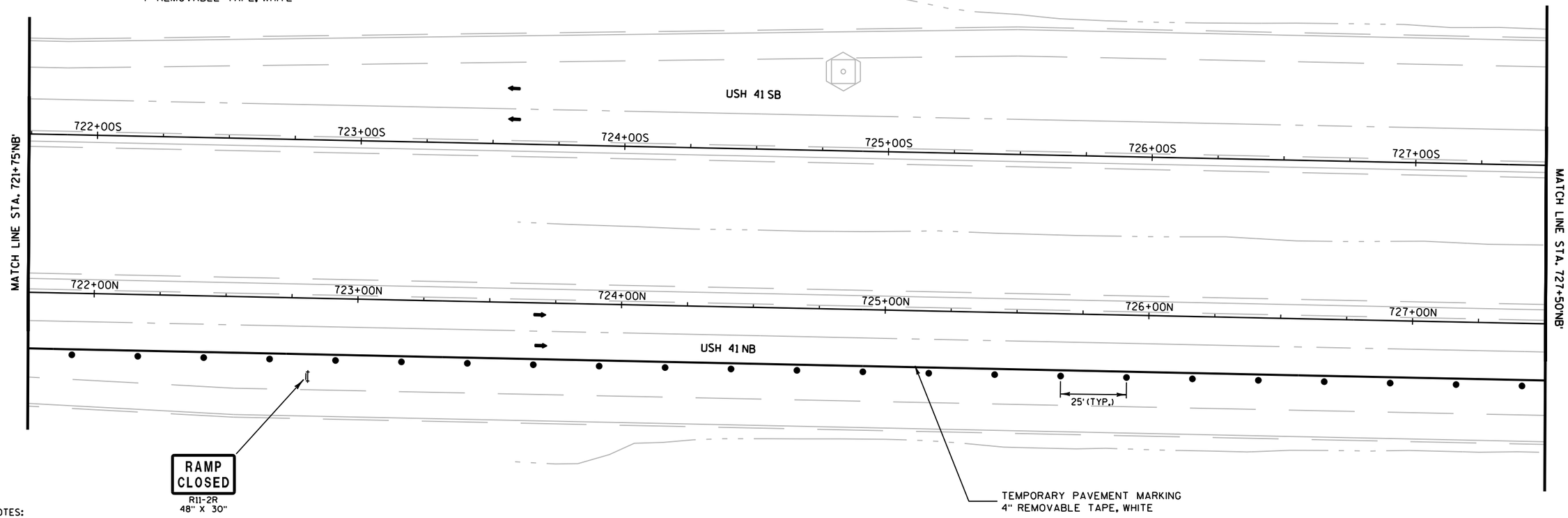
2

2

LEGEND

- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TEMPORARY PAVEMENT MARKING 4" REMOVABLE TAPE, WHITE

N



NOTES:

ALL CONCRETE BARRIER TEMPORARY PRECAST IS TO BE PINNED PER THE REQUIREMENTS OF STD. DETAIL DRAWING "CONCRETE BARRIER TEMPORARY PRECAST".

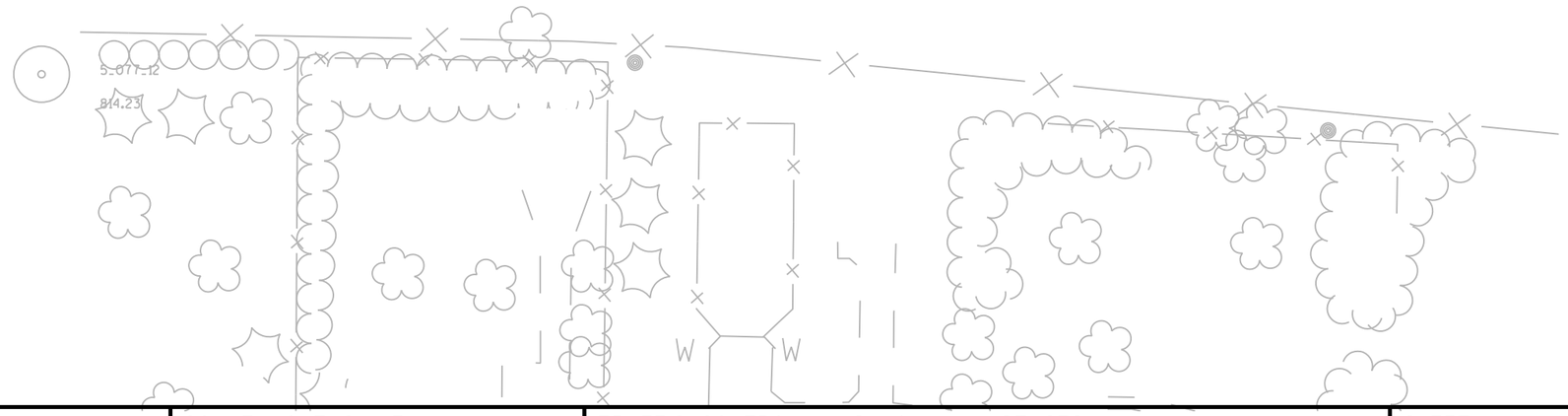
FOR OFF-PEAK HOUR LANE CLOSURES, SEE STD. DETAIL DRAWING "TRAFFIC CONTROL, LANE CLOSURES, SPEEDS GREATER THAN 40 MPH".

FOR OFF-PEAK HOUR LANE CLOSURES, UTILIZE CONSTRUCTION DETAILS "TRAFFIC CONTROL DETAIL FOR ACCESS AT LANE CLOSURE" AND "TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41".

SEE CONSTRUCTION DETAIL "TEMPORARY CRASH CUSHION PAD DETAIL" FOR CRASH CUSHION INSTALLATION.

SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR" FOR STAGE 2 AND STAGE 3 BRIDGE DECK DEMOLITION DETOUR.

PLACE ADVANCED WARNING PORTABLE CHANGEBALE MESSAGE BOARDS PRIOR TO RAMP CLOSURES. SEE SPECIAL PROVISIONS FOR DETAILS.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - USH 41 - ALL STAGES	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS USH 41\025209_tc_USH 41_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

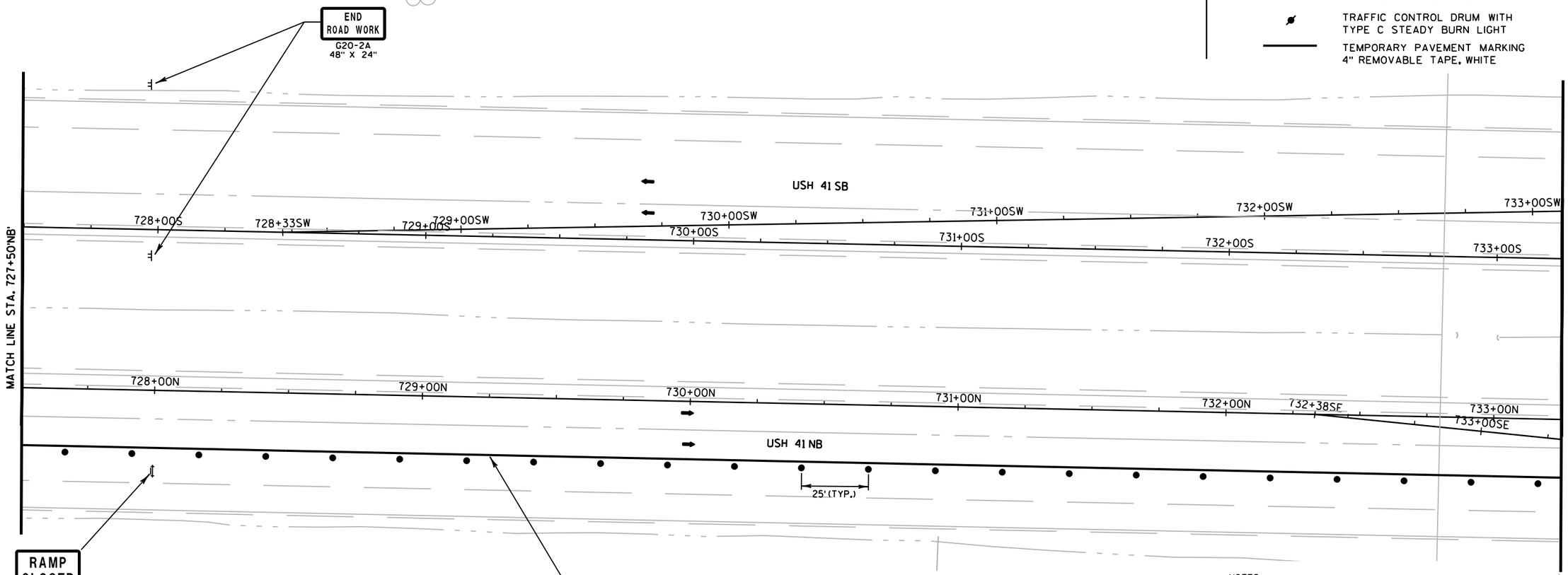
WISDOT/CADDS SHEET 42

2

LEGEND

- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TEMPORARY PAVEMENT MARKING 4" REMOVABLE TAPE, WHITE

N



NOTES:

ALL CONCRETE BARRIER TEMPORARY PRECAST IS TO BE PINNED PER THE REQUIREMENTS OF S.D.D. "CONCRETE BARRIER TEMPORARY PRECAST".

FOR OFF-PEAK HOUR LANE CLOSURES, SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURES, SPEEDS GREATER THAN 40 MPH".

FOR OFF-PEAK HOUR LANE CLOSURES, UTILIZE CONSTRUCTION DETAILS "TRAFFIC CONTROL DETAIL FOR ACCESS AT LANE CLOSURE" AND "TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41".

SEE CONSTRUCTION DETAIL "TEMPORARY CRASH CUSHION PAD DETAIL" FOR CRASH CUSHION INSTALLATION.

SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR" FOR STAGE 2 AND STAGE 3 BRIDGE DECK DEMOLITION DETOUR.

PLACE ADVANCED WARNING PORTABLE CHANGEBALE MESSAGE BOARDS PRIOR TO RAMP CLOSURES. SEE SPECIAL PROVISIONS FOR DETAILS.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - USH 41 - ALL STAGES	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS USH 41\025210_tc_USH 41_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2

LEGEND

- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TEMPORARY PAVEMENT MARKING 4" REMOVABLE TAPE, WHITE

N

NOTES:

ALL CONCRETE BARRIER TEMPORARY PRECAST IS TO BE PINNED PER THE REQUIREMENTS OF S.D.D. "CONCRETE BARRIER TEMPORARY PRECAST".

FOR OFF-PEAK HOUR LANE CLOSURES, SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURES, SPEEDS GREATER THAN 40 MPH".

FOR OFF-PEAK HOUR LANE CLOSURES, UTILIZE CONSTRUCTION DETAILS "TRAFFIC CONTROL DETAIL FOR ACCESS AT LANE CLOSURE" AND "TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41".

SEE CONSTRUCTION DETAIL "TEMPORARY CRASH CUSHION PAD DETAIL" FOR CRASH CUSHION INSTALLATION.

SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR" FOR STAGE 2 AND STAGE 3 BRIDGE DECK DEMOLITION DETOUR.

PLACE ADVANCED WARNING PORTABLE CHANGEBALE MESSAGE BOARDS PRIOR TO RAMP CLOSURES. SEE SPECIAL PROVISIONS FOR DETAILS.

MATCH LINE STA. 733+25'NB'

734+00SW 735+00SW 736+00SW 737+00SW 738+00SW

USH 41 SB

734+00S 735+00S 736+00S 737+00S 738+00S 739

MATCH LINE STA. 739+00'NB'

150' TAPER

734+00N 735+00N 736+00N 737+00N 738+00N 739

734+00SE 735+00SE 736+00SE 737+00SE 738+00SE 739+00SE

USH 41 NB

25' (TYP.)

RAMP CLOSED
R11-2R
48" X 30"

TEMPORARY PAVEMENT MARKING
4" REMOVABLE TAPE, WHITE

RAMP CLOSED
R11-2R
48" X 30"

SIGN

COVER SIGN

NOTE:
PLACE PCMS MINIMUM OF 7 DAYS PRIOR TO RAMP CLOSURE. SEE S.D.D. "TRAFFIC CONTROL, EXIT RAMP CLOSURE" FOR FURTHER DETAILS.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - USH 41 - ALL STAGES	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS USH 41\025211_tc_USH 41_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

2

2

LEGEND

- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TEMPORARY PAVEMENT MARKING 4" REMOVABLE TAPE, WHITE

N

739+00SW
740+00SW
741+00SW
742+00SW
743+00SW
744+00SW
74

USH 41 SB

MATCH LINE STA. 739+00'NB'

740+00S
741+00S
742+00S
743+00S
744+00S
745

MATCH LINE STA. 745+00'NB'

740+00N
741+00N
742+00N
743+00N
744+00N
745

50'(TYP.)

USH 41 NB

50'(TYP.)

CRASH CUSHIONS TEMPORARY

CONCRETE BARRIER TEMPORARY
PRECAST DELIVERED AND INSTALLED
STA. 742+77'NB' - STA. 751+06'NB'LT

PLACE CRASH CUSHION & ONE SECTION OF
BARRIER PARALLEL TO ROADWAY (TYP.)

SEE CONSTRUCTION DETAIL "SHOULDER CLOSURE
WITH BARRIER" FOR ADVANCED WARNING SIGNS.

CONCRETE BARRIER TEMPORARY
PRECAST DELIVERED AND INSTALLED
STA. 742+77'NB' - STA. 750+20'NB'RT

740+00SE
741+00SE
742+00SE
743+00SE

NOTES:

ALL CONCRETE BARRIER TEMPORARY PRECAST IS TO BE PINNED PER THE REQUIREMENTS OF S.D.D. "CONCRETE BARRIER TEMPORARY PRECAST".

FOR OFF-PEAK HOUR LANE CLOSURES, SEE S.D.D "TRAFFIC CONTROL, LANE CLOSURES, SPEEDS GREATER THAN 40 MPH".

FOR OFF-PEAK HOUR LANE CLOSURES, UTILIZE CONSTRUCTION DETAILS "TRAFFIC CONTROL DETAIL FOR ACCESS AT LANE CLOSURE" AND "TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41".

SEE CONSTRUCTION DETAIL "TEMPORARY CRASH CUSHION PAD DETAIL" FOR CRASH CUSHION INSTALLATION.

SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR" FOR STAGE 2 AND STAGE 3 BRIDGE DECK DEMOLITION DETOUR.

PLACE ADVANCED WARNING PORTABLE CHANGEBALE MESSAGE BOARDS PRIOR TO RAMP CLOSURES. SEE SPECIAL PROVISIONS FOR DETAILS.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - USH 41 - ALL STAGES	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS USH 41\025212_tc_USH 41_stg-2.dgn
PLOT DATE : 9/18/2013
PLOT BY : KL Engineering
PLOT NAME :
PLOT SCALE :
WISDOT/CADDS SHEET 42

2

2

N

LEGEND

- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TEMPORARY PAVEMENT MARKING 4" REMOVABLE TAPE, WHITE

'45+00SW

CONCRETE BARRIER TEMPORARY PRECAST DELIVERED AND INSTALLED STA. 746+27'SB'-STA. 753+76'SB'LT

412+00SB

412+00NB

USH 41 SB

746+00S

747+00S

748+00S

749+00S

750+00S

751

411+00SB

411+00NB

MATCH LINE STA. 745+00'NB'

CONCRETE BARRIER TEMPORARY PRECAST DELIVERED AND INSTALLED STA. 745+47'SB' - STA. 753+77'SB'RT

CONCRETE BARRIER TEMPORARY PRECAST DELIVERED AND INSTALLED STA. 742+77'NB' - STA. 751+06'NB'LT

746+00N

747+00N

748+00N

749+00N

750+00N

751

MATCH LINE STA. 751+00'NB'

USH 41 NB

410+00SB

410+00NB

CONCRETE BARRIER TEMPORARY PRECAST DELIVERED AND INSTALLED STA. 742+77'NB' - STA. 750+20'NB'RT

NOTES:

ALL CONCRETE BARRIER TEMPORARY PRECAST IS TO BE PINNED PER THE REQUIREMENTS OF S.D.D. "CONCRETE BARRIER TEMPORARY PRECAST".

FOR OFF-PEAK HOUR LANE CLOSURES, SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURES, SPEEDS GREATER THAN 40 MPH".

FOR OFF-PEAK HOUR LANE CLOSURES, UTILIZE CONSTRUCTION DETAILS "TRAFFIC CONTROL DETAIL FOR ACCESS AT LANE CLOSURE" AND "TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41".

SEE CONSTRUCTION DETAIL "TEMPORARY CRASH CUSHION PAD DETAIL" FOR CRASH CUSHION INSTALLATION.

SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR" FOR STAGE 2 AND STAGE 3 BRIDGE DECK DEMOLITION DETOUR.

PLACE ADVANCED WARNING PORTABLE CHANGEBALE MESSAGE BOARDS PRIOR TO RAMP CLOSURES. SEE SPECIAL PROVISIONS FOR DETAILS.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - USH 41 - ALL STAGES	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS USH 41\025213_tc_USH 41_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2

NOTES:

ALL CONCRETE BARRIER TEMPORARY PRECAST IS TO BE PINNED PER THE REQUIREMENTS OF S.D.D. "CONCRETE BARRIER TEMPORARY PRECAST".

FOR OFF-PEAK HOUR LANE CLOSURES, SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURES, SPEEDS GREATER THAN 40 MPH".

FOR OFF-PEAK HOUR LANE CLOSURES, UTILIZE CONSTRUCTION DETAILS "TRAFFIC CONTROL DETAIL FOR ACCESS AT LANE CLOSURE" AND "TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41".

SEE CONSTRUCTION DETAIL "TEMPORARY CRASH CUSHION PAD DETAIL" FOR CRASH CUSHION INSTALLATION.

SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR" FOR STAGE 2 AND STAGE 3 BRIDGE DECK DEMOLITION DETOUR.

PLACE ADVANCED WARNING PORTABLE CHANGEBALE MESSAGE BOARDS PRIOR TO RAMP CLOSURES. SEE SPECIAL PROVISIONS FOR DETAILS.

753+00NW 754+00NW 755+00NW 756+00NW

CONCRETE BARRIER TEMPORARY PRECAST DELIVERED AND INSTALLED STA. 746+27'SB' - STA. 753+76'SB'LT

PLACE CRASH CUSHION & ONE SECTION OF BARRIER PARALLEL TO ROADWAY (TYP.)

CRASH CUSHIONS TEMPORARY

50'(TYP.)

USH 41 SB

752+00S 753+00S 754+00S 755+00S 756+00S 757

CONCRETE BARRIER TEMPORARY PRECAST DELIVERED AND INSTALLED STA. 745+47'SB' - STA. 753+77'SB'RT

50'(TYP.)

SEE CONSTRUCTION DETAIL "SHOULDER CLOSURE WITH BARRIER" FOR ADVANCED WARNING SIGNS.

MATCH LINE STA. 751+00'NB'

CONCRETE BARRIER TEMPORARY PRECAST DELIVERED AND INSTALLED STA. 742+77'NB' - STA. 751+06'NB'LT

752+00N 753+00N 754+00N 755+00N 756+00N 757

MATCH LINE STA. 757+00'NB'

USH 41 NB

LEGEND

- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TEMPORARY PAVEMENT MARKING 4" REMOVABLE TAPE, WHITE

N

752+00NE 753+00NE 754+00NE 755+00NE 756+00NE 757+00NE

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - USH 41 - ALL STAGES	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS USH 41\025214_tc_USH 41_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

NOTE:
PLACE PCMS MINIMUM OF 7 DAYS PRIOR TO RAMP CLOSURE. SEE S.D.D. "TRAFFIC CONTROL, EXIT RAMP CLOSURE" FOR FURTHER DETAILS.

N

LEGEND

- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TEMPORARY PAVEMENT MARKING 4" REMOVABLE TAPE, WHITE

COVER SIGN

TEMPORARY PAVEMENT MARKING
4" REMOVABLE TAPE, WHITE

MB

757+00NW 758+00NW 759+00NW 760+00NW 761+00NW 762+00NW

SIGN

USH 41 SB

25' (TYP.)

MATCH LINE STA. 757+00NB

-00S 758+00S 759+00S 760+00S 761+00S 762+00S

MATCH LINE STA. 762+75NB

00N 758+00N 759+00N 760+00N 761+00N 762+00N

USH 41 NB

758+00NE 759+00NE 760+00NE 761+00NE 762+00NE

NOTES:

ALL CONCRETE BARRIER TEMPORARY PRECAST IS TO BE PINNED PER THE REQUIREMENTS OF S.D.D. "CONCRETE BARRIER TEMPORARY PRECAST".

FOR OFF-PEAK HOUR LANE CLOSURES, SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURES, SPEEDS GREATER THAN 40 MPH".

FOR OFF-PEAK HOUR LANE CLOSURES, UTILIZE CONSTRUCTION DETAILS "TRAFFIC CONTROL DETAIL FOR ACCESS AT LANE CLOSURE" AND "TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41".

SEE CONSTRUCTION DETAIL "TEMPORARY CRASH CUSHION PAD DETAIL" FOR CRASH CUSHION INSTALLATION.

SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR" FOR STAGE 2 AND STAGE 3 BRIDGE DECK DEMOLITION DETOUR.

PLACE ADVANCED WARNING PORTABLE CHANGEBALE MESSAGE BOARDS PRIOR TO RAMP CLOSURES. SEE SPECIAL PROVISIONS FOR DETAILS.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - USH 41 - ALL STAGES	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS USH 41\025215_tc_USH 41_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

LEGEND

- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TEMPORARY PAVEMENT MARKING 4" REMOVABLE TAPE, WHITE

N

RAMP CLOSED
R11-2R
48" X 30"

RAMP CLOSED
R11-2R
48" X 30"

TEMPORARY PAVEMENT MARKING
4" REMOVABLE TAPE, WHITE

SIGN

MATCH LINE STA. 762+75'NB'

763+00NW
764+00NW
765+00NW
766+00NW
766+00S
766+51NW
25' (TYP.)
USH 41 SB
763+00S
764+00S
765+00S
767+00S
768+00S

INL

763+00N
764+00N
765+00N
766+00N
767+00N
768+00N
763+00NE
764+00NE
765+00NE
766+00NE
767+00NE
768+00NE
USH 41 NB

MATCH LINE STA. 768+75'NB'

NOTES:

ALL CONCRETE BARRIER TEMPORARY PRECAST IS TO BE PINNED PER THE REQUIREMENTS OF S.D.D. "CONCRETE BARRIER TEMPORARY PRECAST".

FOR OFF-PEAK HOUR LANE CLOSURES, SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURES, SPEEDS GREATER THAN 40 MPH".

FOR OFF-PEAK HOUR LANE CLOSURES, UTILIZE CONSTRUCTION DETAILS "TRAFFIC CONTROL DETAIL FOR ACCESS AT LANE CLOSURE" AND "TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41".

SEE CONSTRUCTION DETAIL "TEMPORARY CRASH CUSHION PAD DETAIL" FOR CRASH CUSHION INSTALLATION.

SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR" FOR STAGE 2 AND STAGE 3 BRIDGE DECK DEMOLITION DETOUR.

PLACE ADVANCED WARNING PORTABLE CHANGEBALE MESSAGE BOARDS PRIOR TO RAMP CLOSURES. SEE SPECIAL PROVISIONS FOR DETAILS.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - USH 41 - ALL STAGES	SHEET 118	E

2

2

LEGEND

- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TEMPORARY PAVEMENT MARKING 4" REMOVABLE TAPE, WHITE

N

NOTES:

ALL CONCRETE BARRIER TEMPORARY PRECAST IS TO BE PINNED PER THE REQUIREMENTS OF S.D.D. "CONCRETE BARRIER TEMPORARY PRECAST".

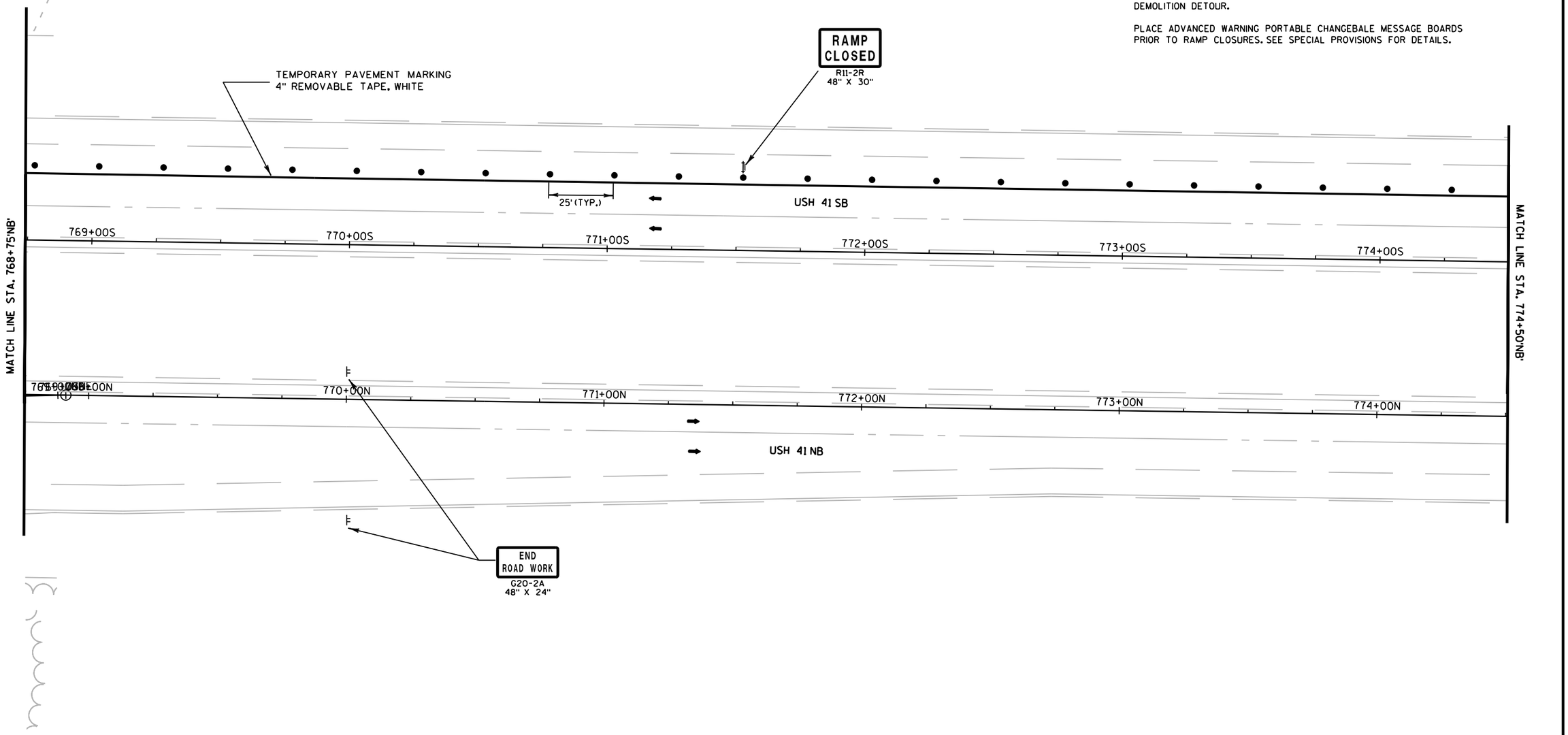
FOR OFF-PEAK HOUR LANE CLOSURES, SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURES, SPEEDS GREATER THAN 40 MPH".

FOR OFF-PEAK HOUR LANE CLOSURES, UTILIZE CONSTRUCTION DETAILS "TRAFFIC CONTROL DETAIL FOR ACCESS AT LANE CLOSURE" AND "TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41".

SEE CONSTRUCTION DETAIL "TEMPORARY CRASH CUSHION PAD DETAIL" FOR CRASH CUSHION INSTALLATION.

SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR" FOR STAGE 2 AND STAGE 3 BRIDGE DECK DEMOLITION DETOUR.

PLACE ADVANCED WARNING PORTABLE CHANGEBALE MESSAGE BOARDS PRIOR TO RAMP CLOSURES. SEE SPECIAL PROVISIONS FOR DETAILS.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - USH 41 - ALL STAGES	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS USH 41\025217_tc_USH 41_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2

N

LEGEND

- CC — CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TEMPORARY PAVEMENT MARKING 4" REMOVABLE TAPE, WHITE

NOTES:

ALL CONCRETE BARRIER TEMPORARY PRECAST IS TO BE PINNED PER THE REQUIREMENTS OF S.D.D. "CONCRETE BARRIER TEMPORARY PRECAST".

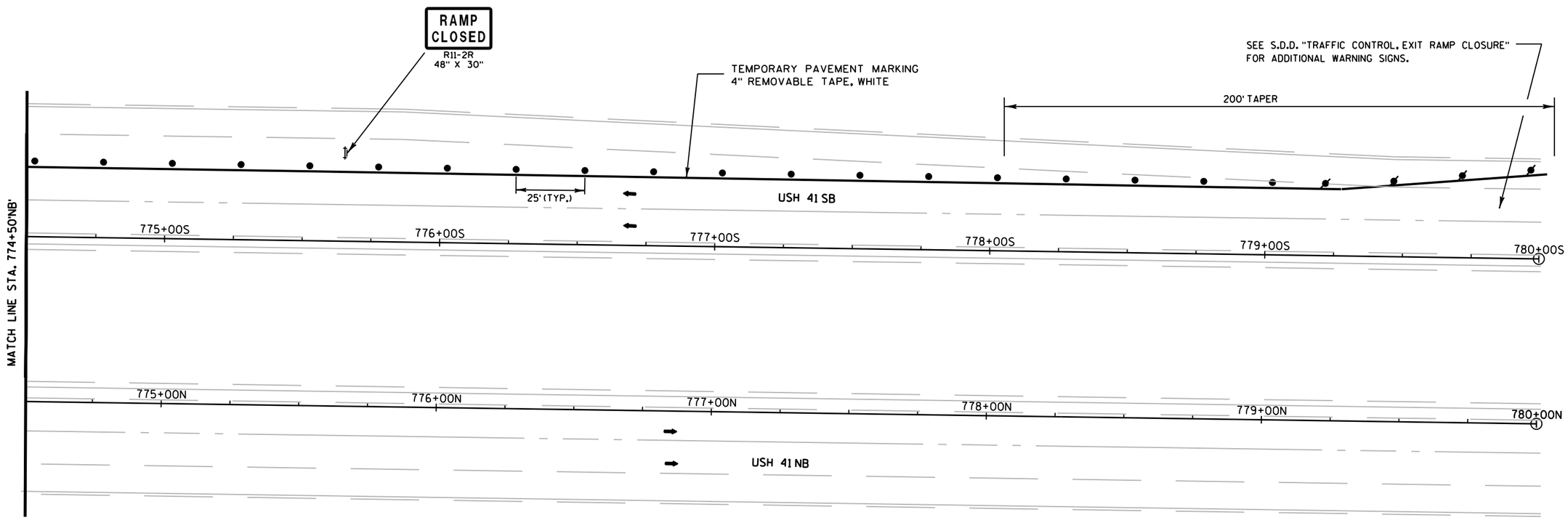
FOR OFF-PEAK HOUR LANE CLOSURES, SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURES, SPEEDS GREATER THAN 40 MPH".

FOR OFF-PEAK HOUR LANE CLOSURES, UTILIZE CONSTRUCTION DETAILS "TRAFFIC CONTROL DETAIL FOR ACCESS AT LANE CLOSURE" AND "TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41".

SEE CONSTRUCTION DETAIL "TEMPORARY CRASH CUSHION PAD DETAIL" FOR CRASH CUSHION INSTALLATION.

SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR" FOR STAGE 2 AND STAGE 3 BRIDGE DECK DEMOLITION DETOUR.

PLACE ADVANCED WARNING PORTABLE CHANGEBALE MESSAGE BOARDS PRIOR TO RAMP CLOSURES. SEE SPECIAL PROVISIONS FOR DETAILS.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - USH 41 - ALL STAGES	SHEET 120	E

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLEXIBLE TUBULAR MARKER
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK AREA

NOTES:

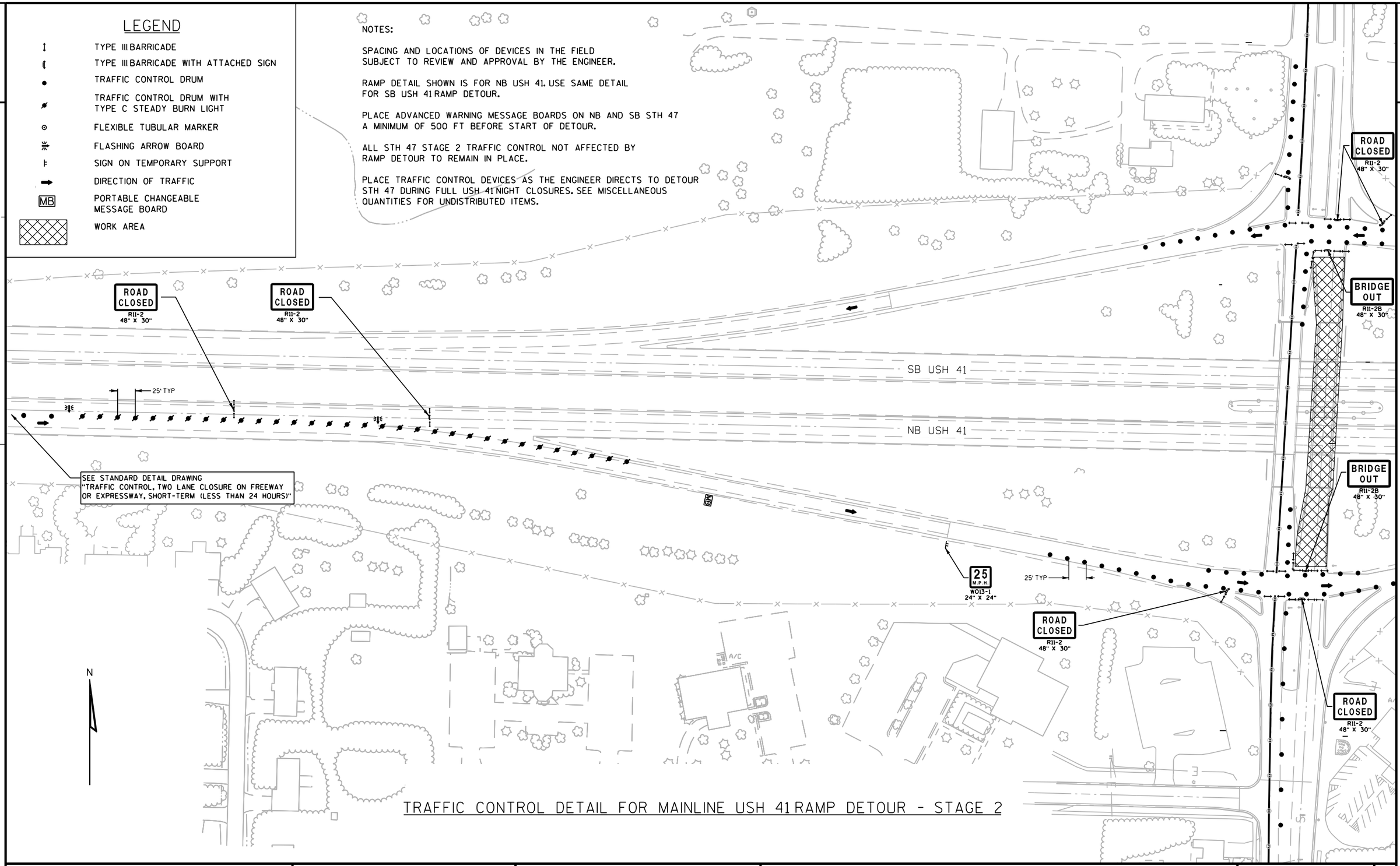
SPACING AND LOCATIONS OF DEVICES IN THE FIELD SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.

RAMP DETAIL SHOWN IS FOR NB USH 41. USE SAME DETAIL FOR SB USH 41 RAMP DETOUR.

PLACE ADVANCED WARNING MESSAGE BOARDS ON NB AND SB STH 47 A MINIMUM OF 500 FT BEFORE START OF DETOUR.

ALL STH 47 STAGE 2 TRAFFIC CONTROL NOT AFFECTED BY RAMP DETOUR TO REMAIN IN PLACE.

PLACE TRAFFIC CONTROL DEVICES AS THE ENGINEER DIRECTS TO DETOUR STH 47 DURING FULL USH 41 NIGHT CLOSURES. SEE MISCELLANEOUS QUANTITIES FOR UNDISTRIBUTED ITEMS.



TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR - STAGE 2

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL DETAIL - STAGE 2	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\Construction Detail Sheets\Traffic Control_USH 41_Ramp Detour_Stage 2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLEXIBLE TUBULAR MARKER
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK AREA

NOTES:

SPACING AND LOCATIONS OF DEVICES IN THE FIELD SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.

RAMP DETAIL SHOWN IS FOR NB USH 41. USE SAME DETAIL FOR SB USH 41 RAMP DETOUR.

PLACE ADVANCED WARNING MESSAGE BOARDS ON NB AND SB STH 47 A MINIMUM OF 500 FT BEFORE START OF DETOUR.

ALL STH 47 STAGE 3 TRAFFIC CONTROL NOT AFFECTED BY RAMP DETOUR TO REMAIN IN PLACE.

PLACE TRAFFIC CONTROL DEVICES AS THE ENGINEER DIRECTS TO DETOUR STH 47 DURING FULL USH 41 NIGHT CLOSURES. SEE MISCELLANEOUS QUANTITIES FOR UNDISTRIBUTED ITEMS.

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

CONSTRUCT TEMPORARY RAMP TO GRADE
5-INCH ASPHALTIC SURFACE TEMPORARY OVER
12-INCH MINIMUM 1¼ BASE AGGREGATE DENSE

BRIDGE OUT
R11-2B
48" X 30"

25' TYP

SEE STANDARD DETAIL DRAWING
"TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)"

SB USH 41

NB USH 41

CONSTRUCT TEMPORARY RAMP TO GRADE
5-INCH ASPHALTIC SURFACE TEMPORARY OVER
12-INCH MINIMUM 1¼ BASE AGGREGATE DENSE

BRIDGE OUT
R11-2B
48" X 30"

25 M.P.H.
W013-1
24" X 24"

25' TYP

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

N

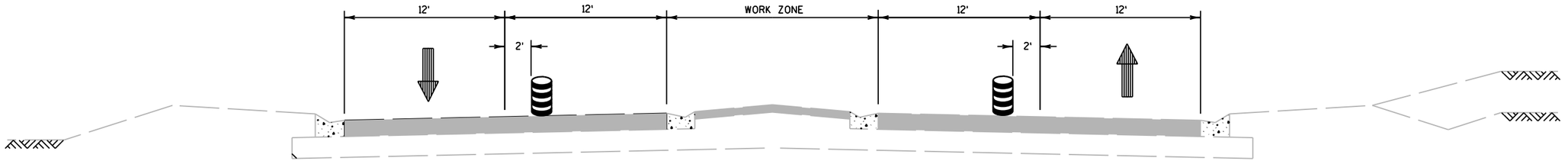
TRAFFIC CONTROL DETAIL FOR MAINLINE USH 41 RAMP DETOUR - STAGE 3

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL DETAIL - STAGE 3	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\Construction Detail Sheets\Traffic Control_USH 41_Ramp Detour_Stage 3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2



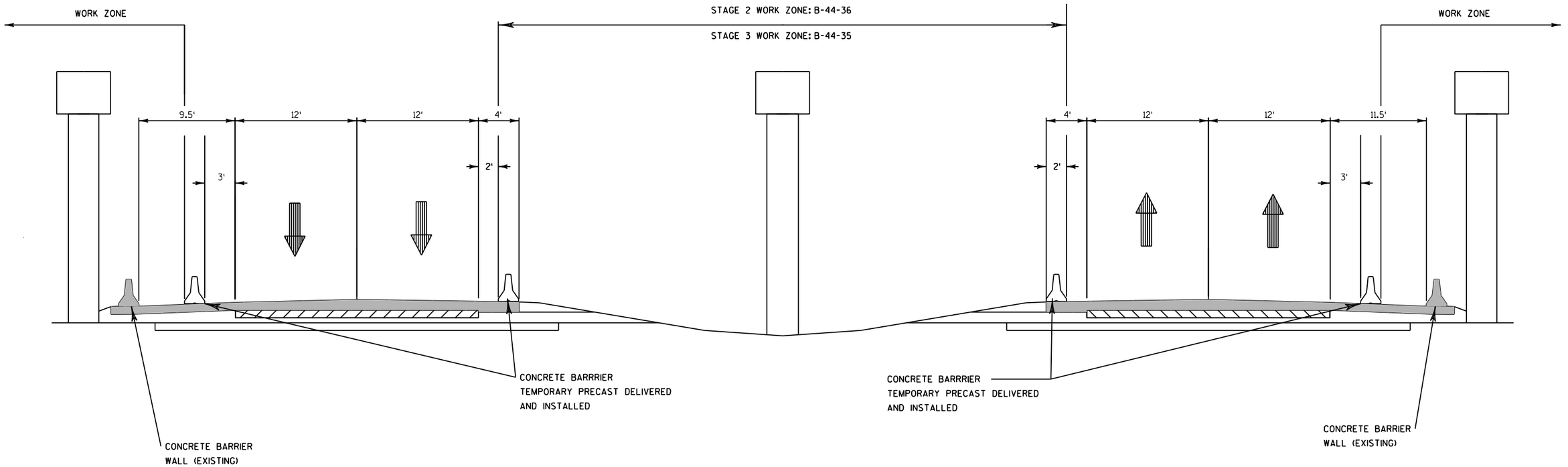
STH 47 STAGE 1 TRAFFIC CONTROL

STA. 396+00'NB' - STA. 424+00'NB'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	STH 47 STAGE 1	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025100_tc_stg-1.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

EXISTING CABLE GUARD NOT SHOWN. BULLNOSE TERMINAL TO BE REMOVED & REPLACED TO ALLOW STRUCTURE CONSTRUCTION OPERATIONS.



USH 41 TRAFFIC CONTROL ALL STAGES

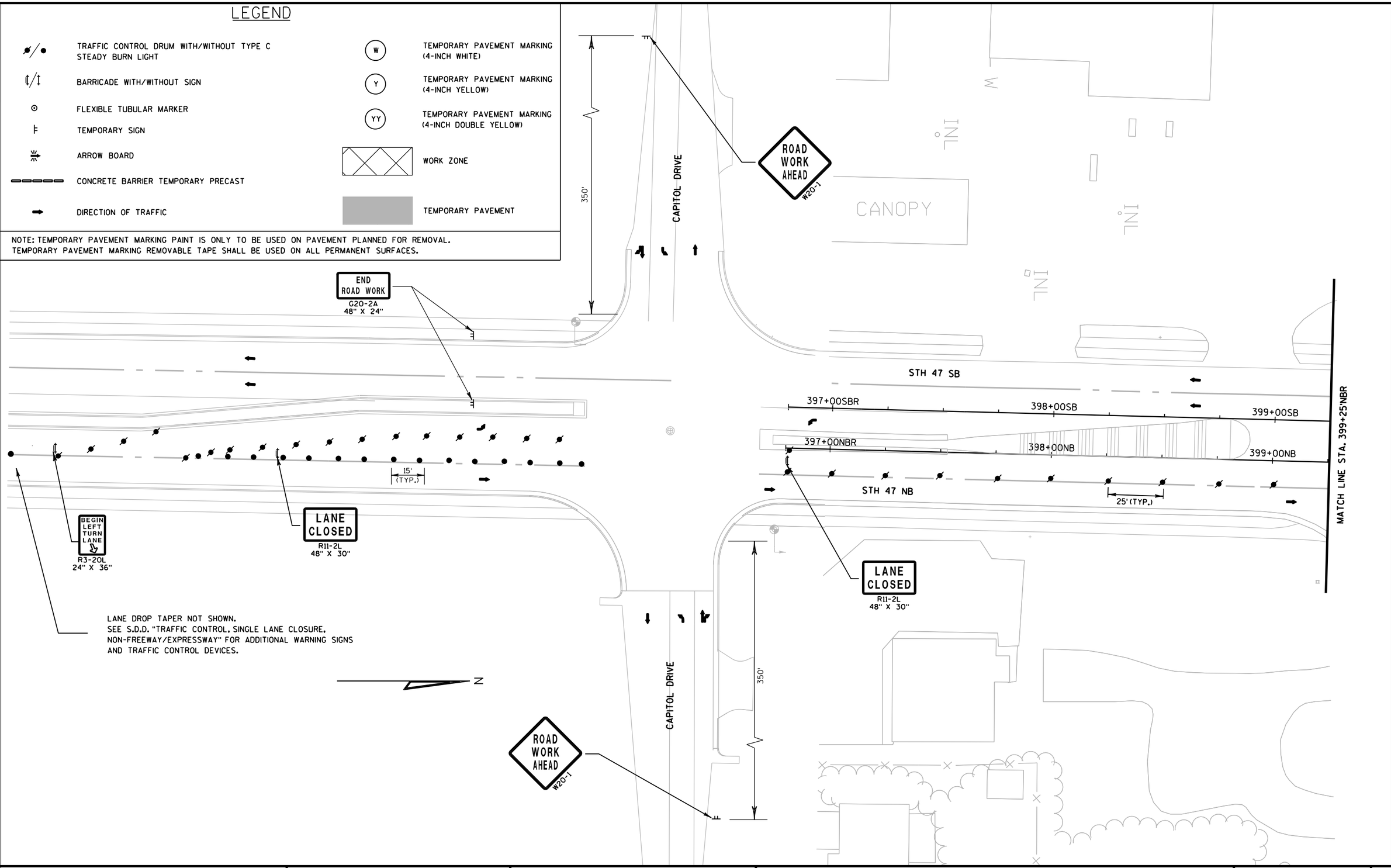
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	USH 41 TRAFFIC CONTROL - ALL STAGES	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025200_tc_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- BARRICADE WITH/WITHOUT SIGN
- FLEXIBLE TUBULAR MARKER
- TEMPORARY SIGN
- ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- (W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
- (Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
- (YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
- WORK ZONE
- TEMPORARY PAVEMENT

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025101_tc_stg-1.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

N

INL

INL

INL

INL

INL

INL

W

W

W

2

2

ROAD WORK AHEAD
W20-1

350'

ASSOCIATION DRIVE

NSV00+66

NSV00+60ASN

R3-2
24" X 24"

N

RAMP CLOSED
R11-2R
48" X 30"

NB USH 41 OFF-RAMP

747+00RTD

747+00SE

747+00N

INL

RAMP CLOSED
R11-2R
48" X 30"

R3-2
24" X 24"

LANE CLOSED
R11-2L
48" X 30"

USH 41 NB

748+00RTD

748+00SE

748+25SS

748+25RTG

748+25NE

748+00N

25'(TYP.)

MATCH LINE STA. 405+00'NBR

406+00SB

407+00SB

STH 47 SB

408+00SB

409+00SB

410+00SB

406+00NB

407+00NB

408+00NB

409+00NB

410+00NB

MATCH LINE STA. 410+75'NBR

406+31RTA

407+00RTA

408+00RTA

408+68RTA

25'(TYP.)

STH 47 NB

R3-1
24" X 24"

RAMP CLOSED
R11-2R
48" X 30"

RAMP CLOSED
R11-2R
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

749+00NE

749+00N

NB USH 41 ON-RAMP

750+

750

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- BARRICADE WITH/WITHOUT SIGN
- FLEXIBLE TUBULAR MARKER
- TEMPORARY SIGN
- ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- (W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
- (Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
- (YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
- WORK ZONE
- TEMPORARY PAVEMENT

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1	SHEET E

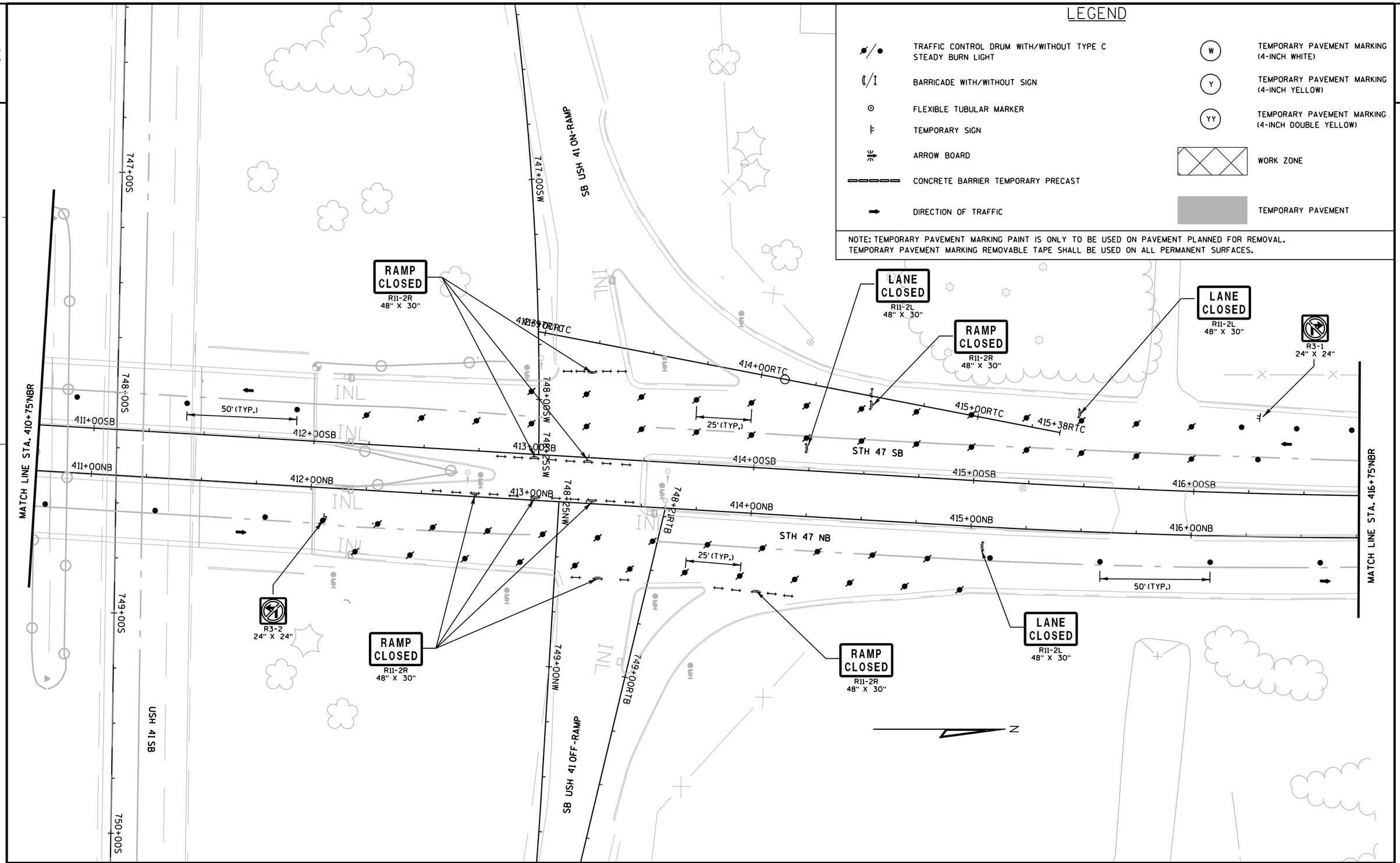
FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025103_tc_stg-1.dgn PLOT DATE : 10/8/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

2

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- BARRICADE WITH/WITHOUT SIGN
- FLEXIBLE TUBULAR MARKER
- TEMPORARY SIGN
- ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- (W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
- (Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
- (YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
- WORK ZONE
- TEMPORARY PAVEMENT

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.



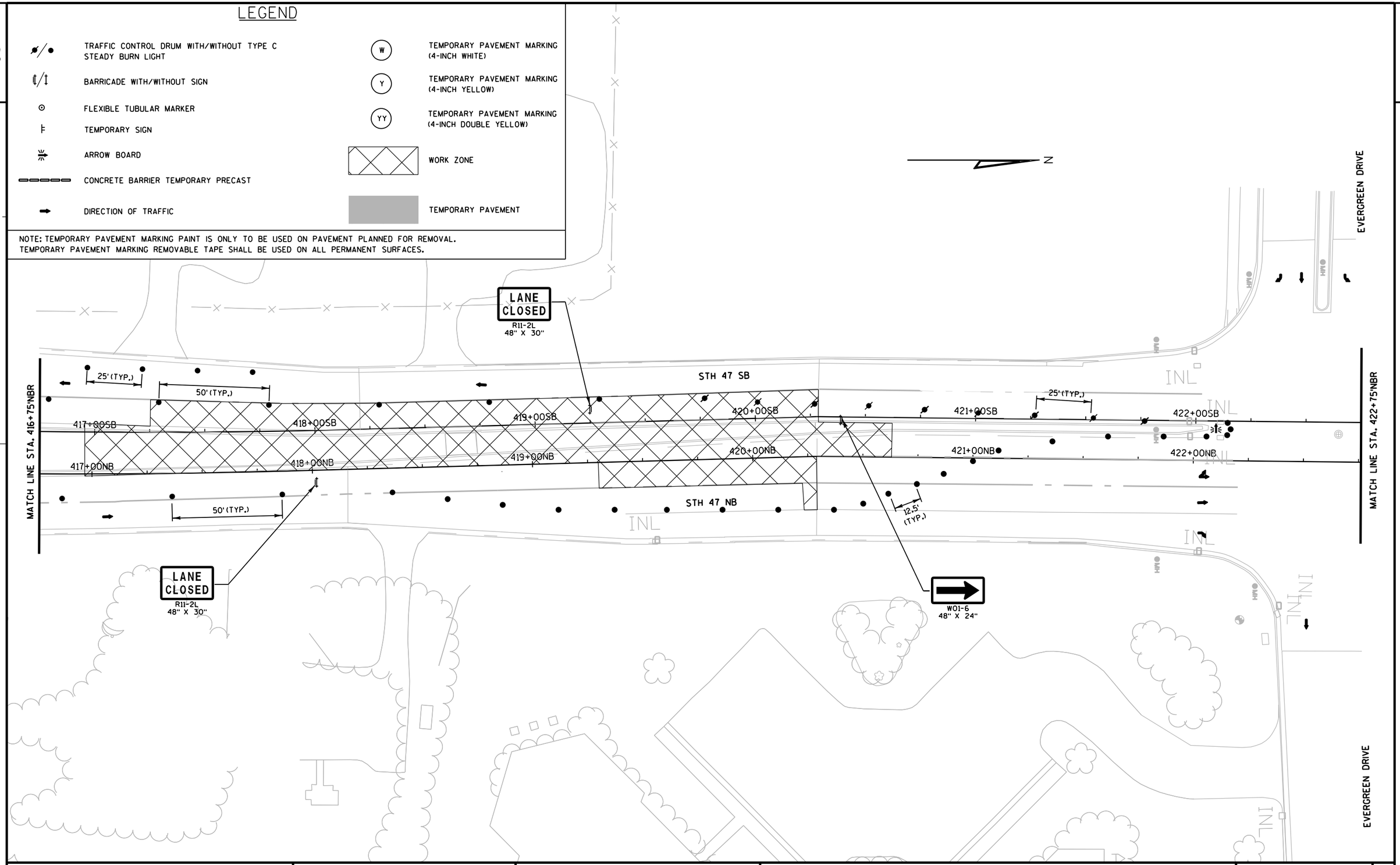
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025104_tc_stg-1.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- BARRICADE WITH/WITHOUT SIGN
- FLEXIBLE TUBULAR MARKER
- TEMPORARY SIGN
- ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- (W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
- (Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
- (YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
- WORK ZONE
- TEMPORARY PAVEMENT

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1	SHEET 129	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025105_tc_stg-1.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

EVERGREEN DRIVE

ROAD WORK AHEAD W20-1

350'

N

LANE CLOSED R11-2L 48" X 30"

LANE CLOSED R11-2L 48" X 30"

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

25' (TYP.)

25' (TYP.)

12' TYP.

MATCH LINE STA. 422+75 NBR

423+00SB 424+00SB 425+00SB STH 47 SB 426+00SB 427+00SB 428+00SB

423+00NB 424+00NB 425+00NB 426+00NB 427+00NB 428+00NB

STH 47 NB

MATCH LINE STA. 428+75 NBR

INL

MH

MP

350'

EVERGREEN DRIVE

ROAD WORK AHEAD W20-1

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	(W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	(Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	(YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

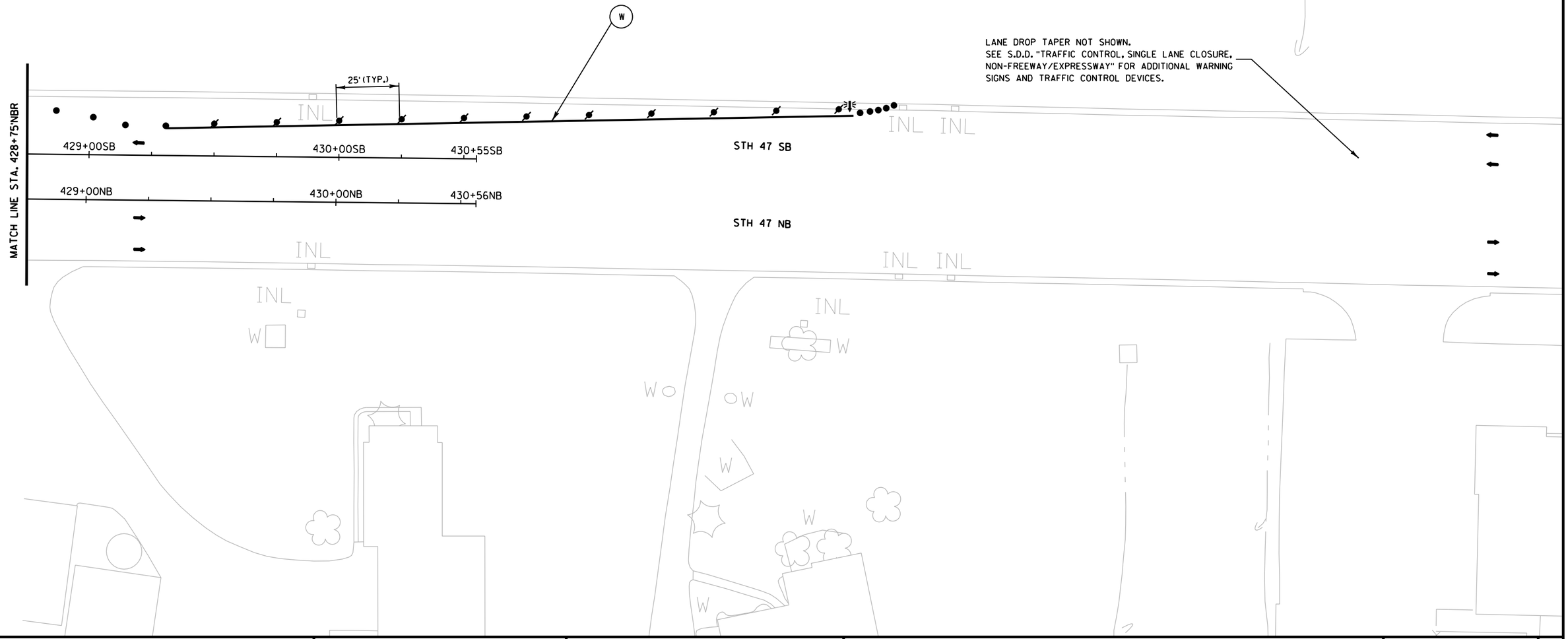
NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1	SHEET 130	E

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

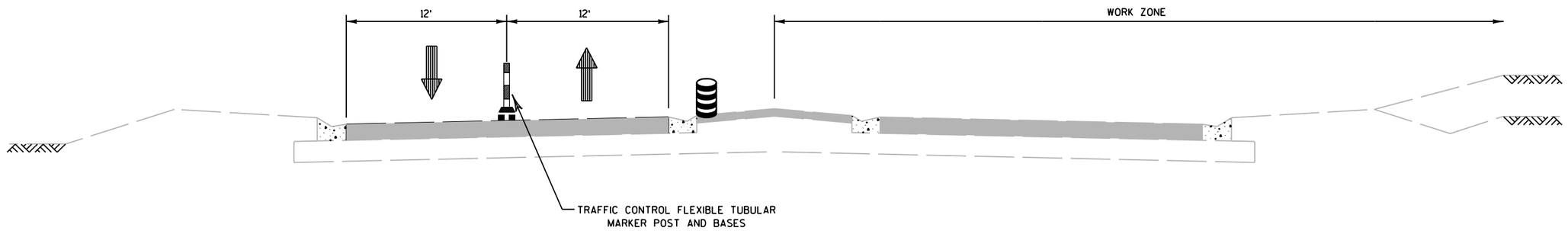
NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025107_tc_stg-1.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

2



STH 47 STAGE 2 TRAFFIC CONTROL

STA. 402+80'SB' - STA. 418+00'SB'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	STH 47 STAGE 2 TRAFFIC CONTROL	SHEET	E

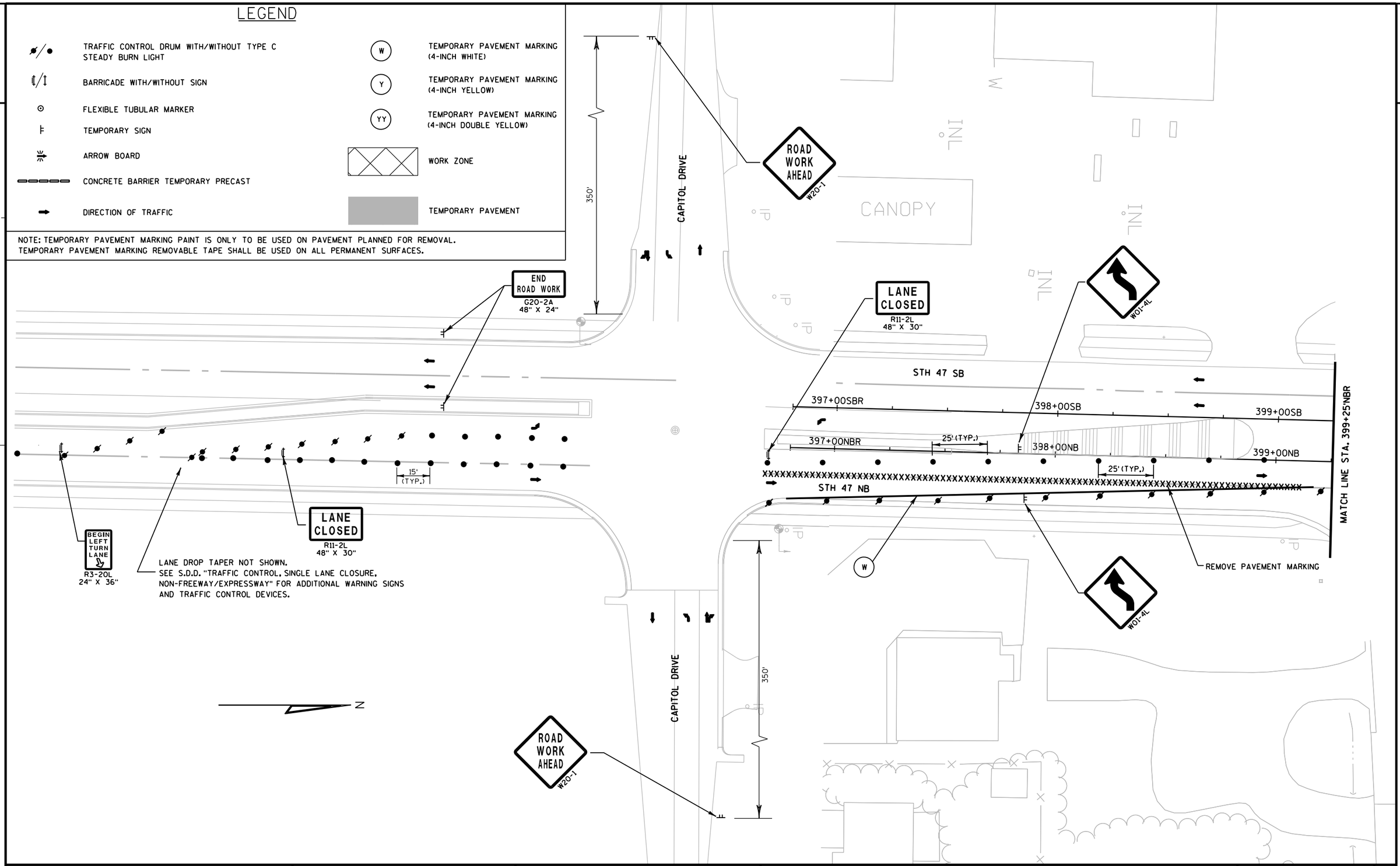
FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025200_tc_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	(W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	(Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	(YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025201_tc_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

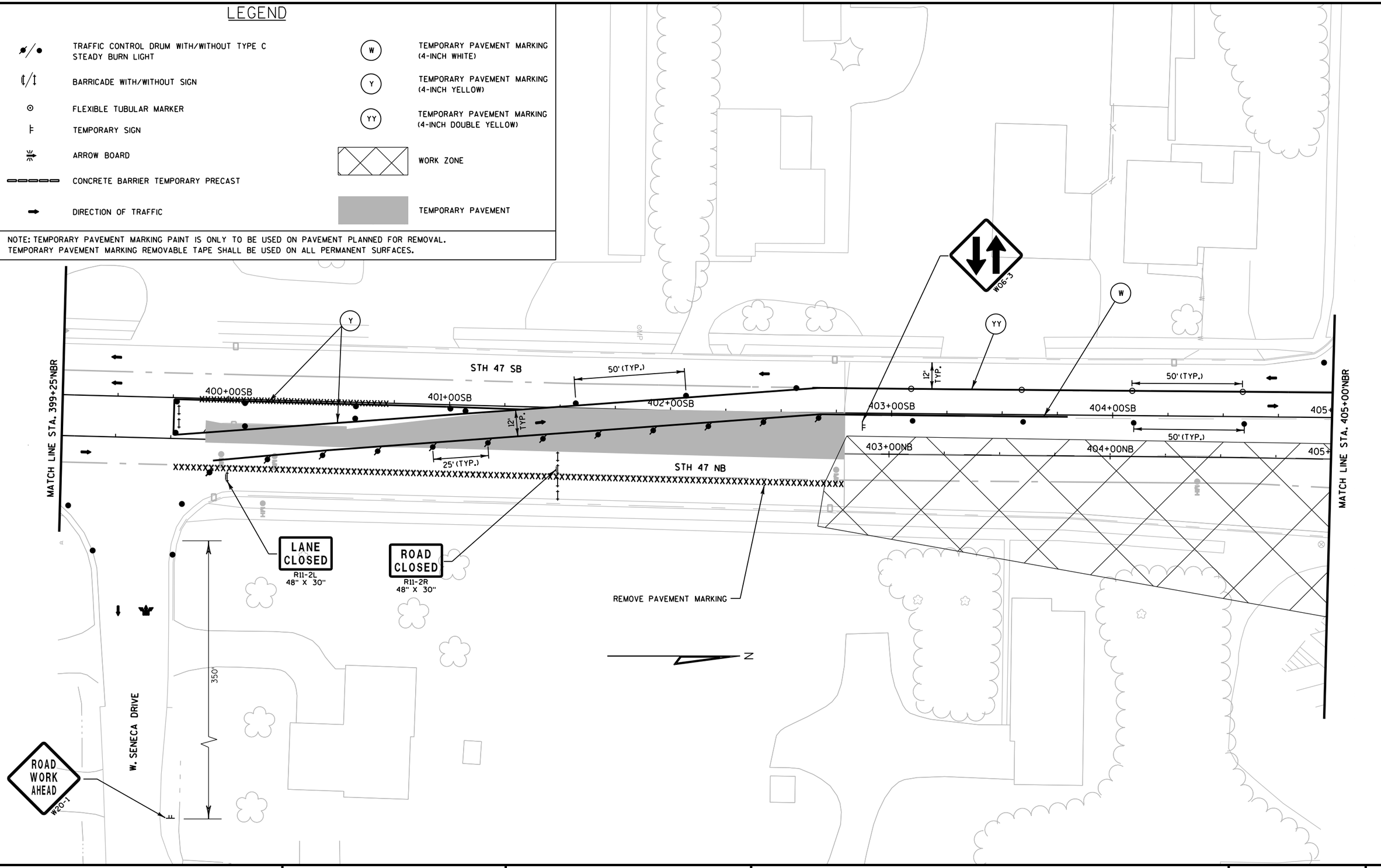
WISDOT/CADDS SHEET 42

2

LEGEND

	TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	(W)	TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
	BARRICADE WITH/WITHOUT SIGN	(Y)	TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
	FLEXIBLE TUBULAR MARKER	(YY)	TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
	TEMPORARY SIGN		WORK ZONE
	ARROW BOARD		TEMPORARY PAVEMENT
	CONCRETE BARRIER TEMPORARY PRECAST		
	DIRECTION OF TRAFFIC		

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL.
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2	SHEET 134	E

2

(PLACE SIGN 500 FT SOUTH OF CAPITOL DRIVE, FACING NORTHBOUND TRAFFIC)

ASSOCIATION DRIVE USE CAPITOL DRIVE

FM-01

FIXED MESSAGE SIGN, SEE DETAIL

ROAD WORK AHEAD W20-1

R3-2 24" X 24"

350'

ASSOCIATION DRIVE

NSV00+66

NB USH 41 OFF-RAMP

747+00RTD

747+00SE

747+00N

USH 41 NB

ROAD CLOSED R11-2 48" X 30"

YY

INL

25'(TYP.)

50'(TYP.)

STH 47 SB

STH 47 NB

12' TYP.

748+00RTD

748+00SE

748+00N

MATCH LINE STA. 405+00NBR

406+00SB

407+00SB

408+00SB

409+00SB

410+00SB

406+00NB

407+00NB

408+00NB

409+00NB

410+00NB

748+25NE

406+31RTA

407+00RTA

408+00RTA

408+58RTA

749+00NE

749+00N

NB USH 41 ON-RAMP

MATCH LINE STA. 410+75NBR

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- BARRICADE WITH/WITHOUT SIGN
- FLEXIBLE TUBULAR MARKER
- TEMPORARY SIGN
- ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- (W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
- (Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
- (YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
- WORK ZONE
- TEMPORARY PAVEMENT

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025203_tc_stg-2.dgn PLOT DATE : 10/8/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL.
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

N

ROAD CLOSED
R11-2
48" X 30"

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

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

R3-1
24" X 24"

WO1-4R

SB USH 41 ON-RAMP

SB USH 41 OFF-RAMP

USH 41 SB

STH 47 SB

STH 47 NB

MATCH LINE STA. 410+75'NBR

MATCH LINE STA. 416+75'NBR

747+00S

747+00SW

748+00S

748+00SW

748+25SW

748+50RTB

749+00S

749+00NW

749+00RTB

750+00S

410+75'NBR

411+00SB

411+00NB

412+00SB

412+00NB

413+00SB

413+00NB

414+00RTC

414+00SB

414+00NB

415+00RTC

415+38RTC

415+00SB

415+00NB

416+00SB

416+00NB

12' TYP.

25'(TYP.)

50'(TYP.)

INL

MH

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY:	TRAFFIC CONTROL - STAGE 2	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025204_tc_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

N

ROAD WORK AHEAD W20-1

350'

EVERGREEN DRIVE

W06-3

REMOVE PAVEMENT MARKINGS

W01-6 48" X 24"

W01-4R

LANE CLOSED R11-2L 48" X 30"

15' (TYP.)

MATCH LINE STA. 416+75'NBR

25' (TYP.)

YY

W

417+00SB

418+00SB

419+00SB

420+00SB

421+00SB

422+00SB

12' TYP.

417+00NB

418+00NB

419+00NB

420+00NB

421+00NB

422+00NB

STH 47 SB

STH 47 NB

50' (TYP.)

MATCH LINE STA. 422+75'NBR

EVERGREEN DRIVE

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- BARRICADE WITH/WITHOUT SIGN
- FLEXIBLE TUBULAR MARKER
- TEMPORARY SIGN
- ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- (W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
- (Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
- (YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
- WORK ZONE
- TEMPORARY PAVEMENT

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025205_tc_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

2

EVERGREEN DRIVE

N

MATCH EXISTING PAVEMENT MARKING

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

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

25' (TYP.)

25' (TYP.)

12' TYP.

MATCH LINE STA. 422+75 NBR

423+00SB 424+00SB 425+00SB STH 47 SB 426+00SB 427+00SB 428+00SB

423+00NB 424+00NB 425+00NB 426+00NB 427+00NB 428+00NB

STH 47 NB

MATCH LINE STA. 428+75 NBR

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

350'

EVERGREEN DRIVE

ROAD WORK AHEAD
W20-1

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	(W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	(Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	(YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

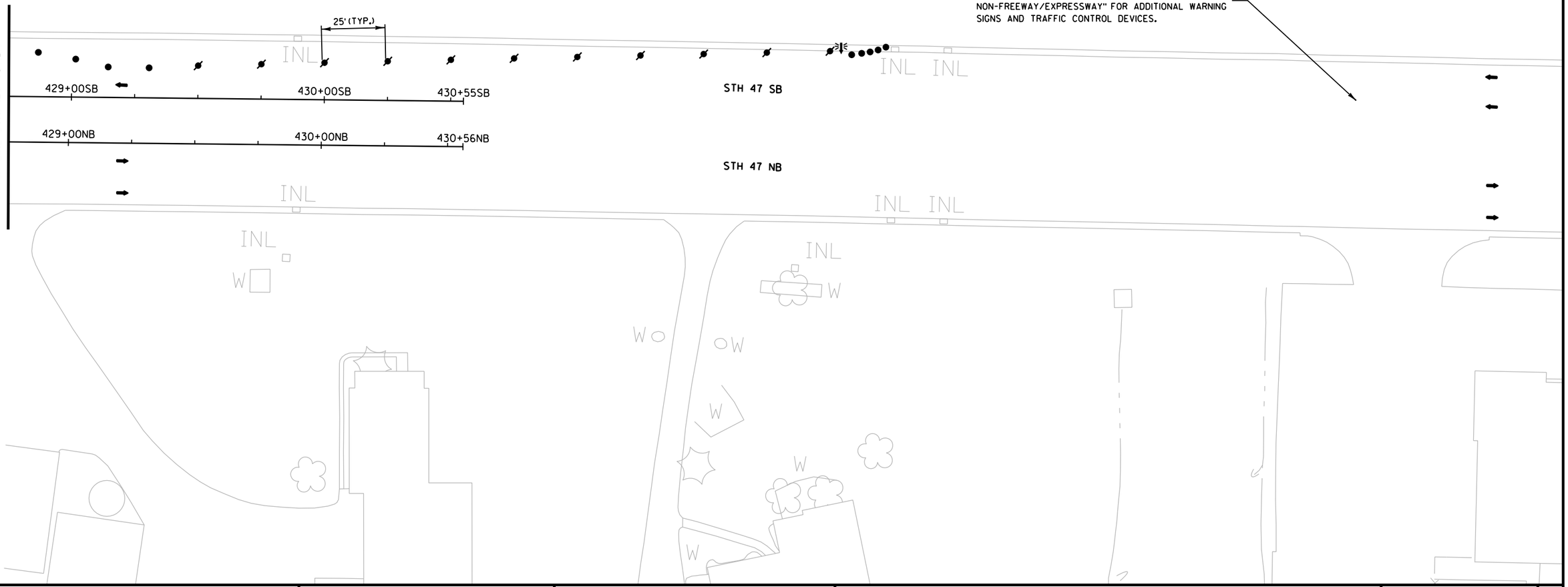
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2	SHEET 138	E

2

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.



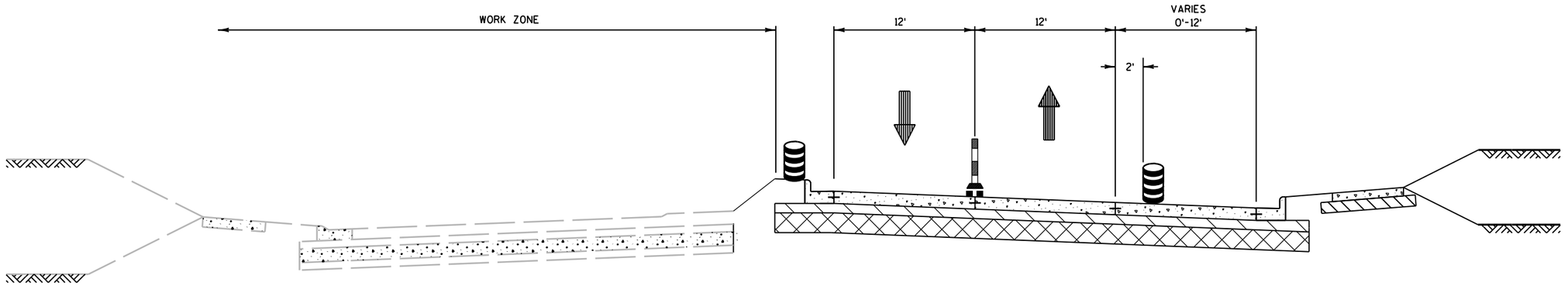
2

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025207_tc_stg-2.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

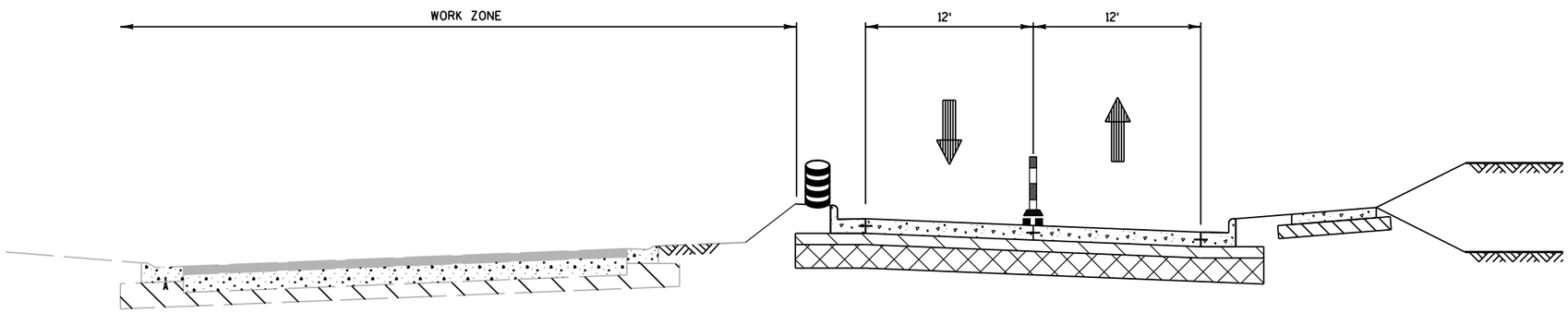
WISDOT/CADDS SHEET 42

2



STH 47 STAGE 3 TRAFFIC CONTROL

STA. 402+80'NB' - STA. 408+08'NB'



STH 47 STAGE 3 TRAFFIC CONTROL

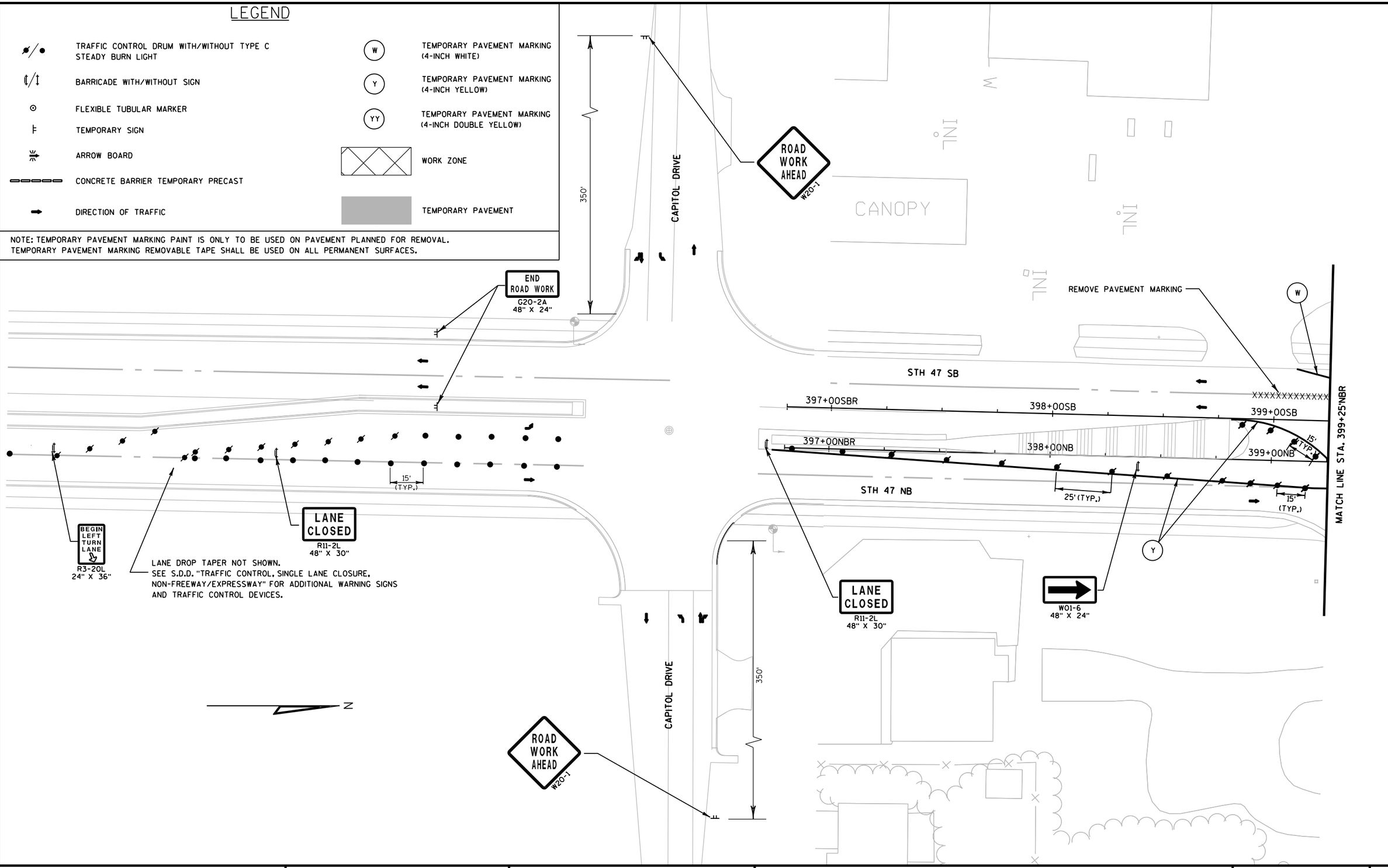
STA. 408+08'NB' - STA. 417+00'NB'

2

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 3	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025301_tc_stg-3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- BARRICADE WITH/WITHOUT SIGN
- FLEXIBLE TUBULAR MARKER
- TEMPORARY SIGN
- ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- (W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
- (Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
- (YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
- WORK ZONE
- TEMPORARY PAVEMENT

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

REMOVE PAVEMENT MARKING

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

REMOVE STAGE 2 TEMPORARY PAVEMENT MARKING IN CROSSOVER

MATCH LINE STA. 399+25NBR

MATCH LINE STA. 405+00NBR

400+00SB

400+00NB

401+00SB

401+00NB

402+00SB

402+00NB

403+00SB

403+00NB

404+00SB

404+00NB

25'(TYP.)

12' TYP.

STH 47 NB

STH 47 SB

50'(TYP.)

4' SKIP - 8' GAP

W01-6
48" X 24"

W06-3

W01-4R

RAMP CLOSED
R11-2R
48" X 30"

W. SENECA DRIVE

ROAD WORK AHEAD
W20-1

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 3	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025302_tc_stg-3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

2

N

(PLACE SIGN 500 FT SOUTH OF CAPITOL DRIVE, FACING NORTHBOUND TRAFFIC.
PLACE ADDITIONAL SIGN AT STA. 408+00NB, FACING SOUTHBOUND TRAFFIC.)

ASSOCIATION DRIVE

ROAD CLOSED AHEAD
W20-3

ASSOCIATION DRIVE USE CAPITOL DRIVE

FM-01
FIXED MESSAGE SIGN, SEE DETAIL

ROAD CLOSED
R11-2
48" X 30"

R3-1
24" X 24"

350'

NB USH 41 OFF-RAMP

USH 41 NB

STH 47 SB

STH 47 NB

NB USH 41 ON-RAMP

MATCH LINE STA. 405+00'NBR

MATCH LINE STA. 410+75'NBR

406+31RTA

407+00RTA

408+00RTA

408+68RTA

25'(TYP.)

12' TYP.

RAMP CLOSED
R11-2R
48" X 30"

R3-1
24" X 24"

RAMP CLOSED
R11-2R
48" X 30"

RAMP CLOSED
R11-2R
48" X 30"

YY

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	W — TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	Y — TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	YY — TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL.
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 3	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025303_tc_stg-3.dgn PLOT DATE : 10/8/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	(W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	(Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	(YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL.
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

MATCH LINE STA. 410+75'NBR

MATCH LINE STA. 416+75'NBR

747+00S

747+00SW

748+00S

748+00SW

748+25SW

749+00S

749+00NW

749+00RTB

750+00S

410+00SB

411+00SB

412+00SB

413+00SB

414+00SB

415+00SB

416+00SB

411+00NB

412+00NB

413+00NB

414+00NB

415+00NB

416+00NB

414+00RTC

415+00RTC

415+38RTC

748+25RTB

12' TYP.

12' TYP.

25' (TYP.)

25' (TYP.)

50' (TYP.)

25' (TYP.)

ROAD CLOSED
R11-2
48" X 30"

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

RAMP CLOSED
R11-2
48" X 30"

R3-1
24" X 24"

W

YY

N

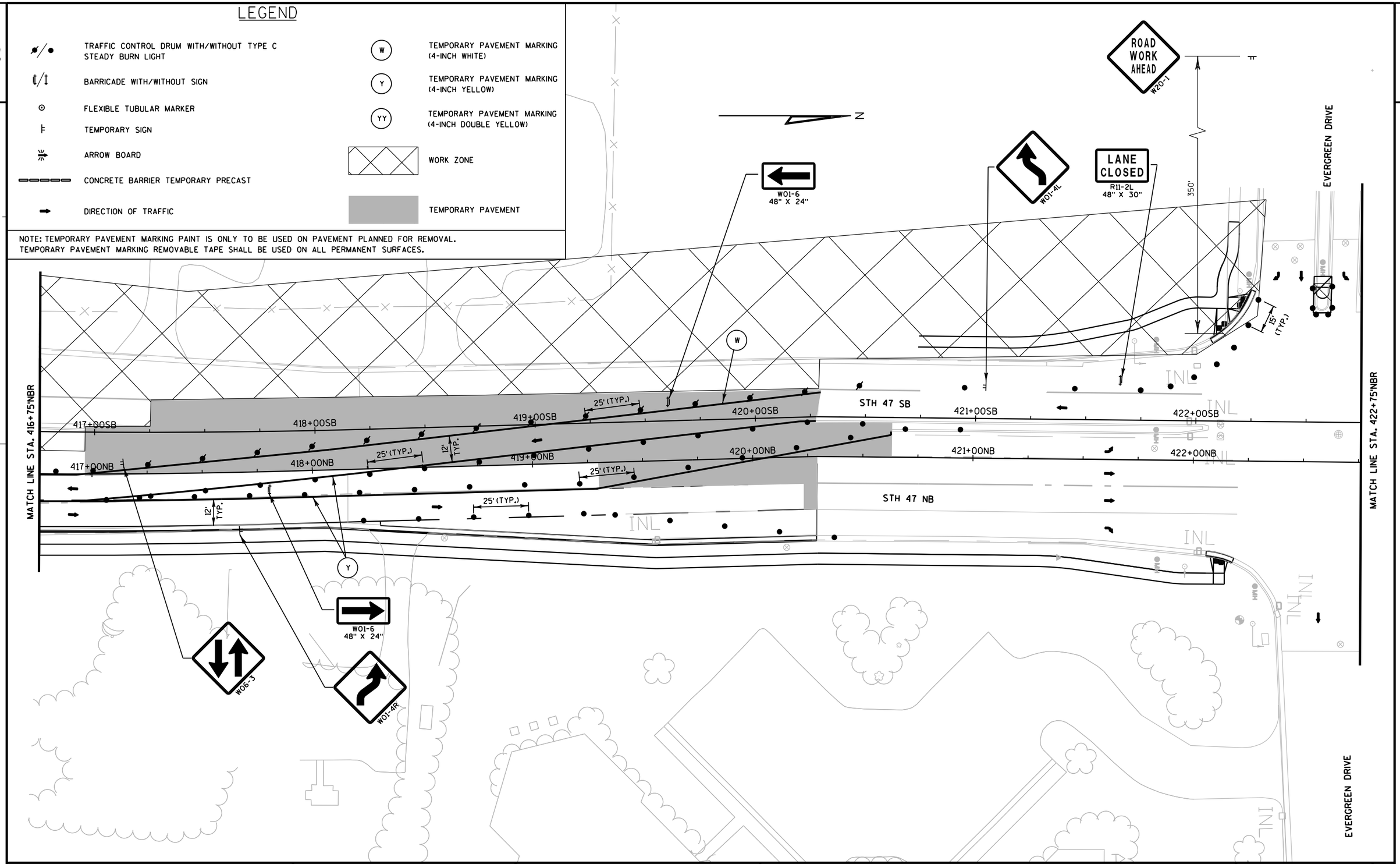
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 3	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025304_tc_stg-3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- BARRICADE WITH/WITHOUT SIGN
- FLEXIBLE TUBULAR MARKER
- TEMPORARY SIGN
- ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- (W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
- (Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
- (YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
- WORK ZONE
- TEMPORARY PAVEMENT

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 3	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025305_tc_stg-3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2

EVERGREEN DRIVE

N

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

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

25'(TYP.)

25'(TYP.)

MATCH LINE STA. 422+75 NBR

423+00SB 424+00SB 425+00SB STH 47 SB 426+00SB 427+00SB 428+00SB

423+00NB 424+00NB 425+00NB 426+00NB 427+00NB 428+00NB

STH 47 NB

MATCH LINE STA. 428+75 NBR

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

350'

EVERGREEN DRIVE

ROAD WORK AHEAD
W20-1

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- BARRICADE WITH/WITHOUT SIGN
- FLEXIBLE TUBULAR MARKER
- TEMPORARY SIGN
- ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- (W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
- (Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
- (YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
- WORK ZONE
- TEMPORARY PAVEMENT

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 3	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025306_tc_stg-3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	(W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	(Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	(YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

N

LANE DROP TAPER NOT SHOWN
SEE S.D.D. "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" FOR ADDITIONAL WARNING SIGNS AND TRAFFIC CONTROL DEVICES.

25' (TYP.)

429+00SB 430+00SB 430+55SB

STH 47 SB

429+00NB 430+00NB 430+56NB

STH 47 NB

MATCH LINE STA. 428+75NBR

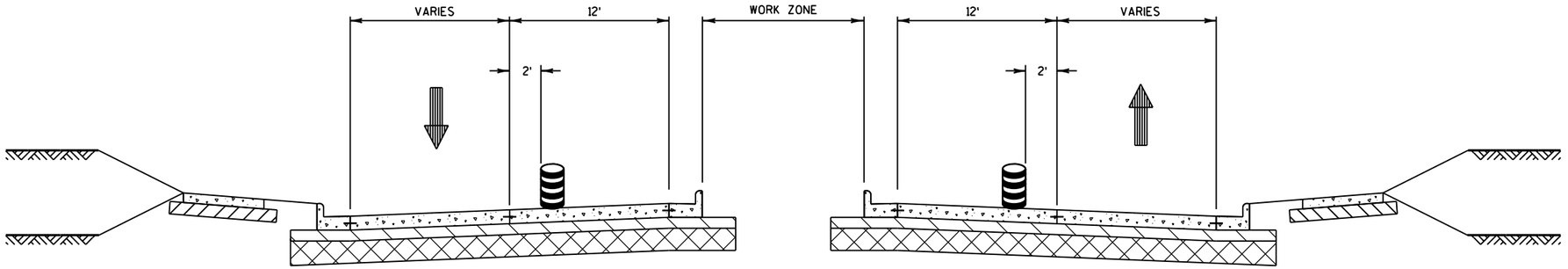
INL W

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 3	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025307_tc_stg-3.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2



STH 47 STAGE 4 TRAFFIC CONTROL

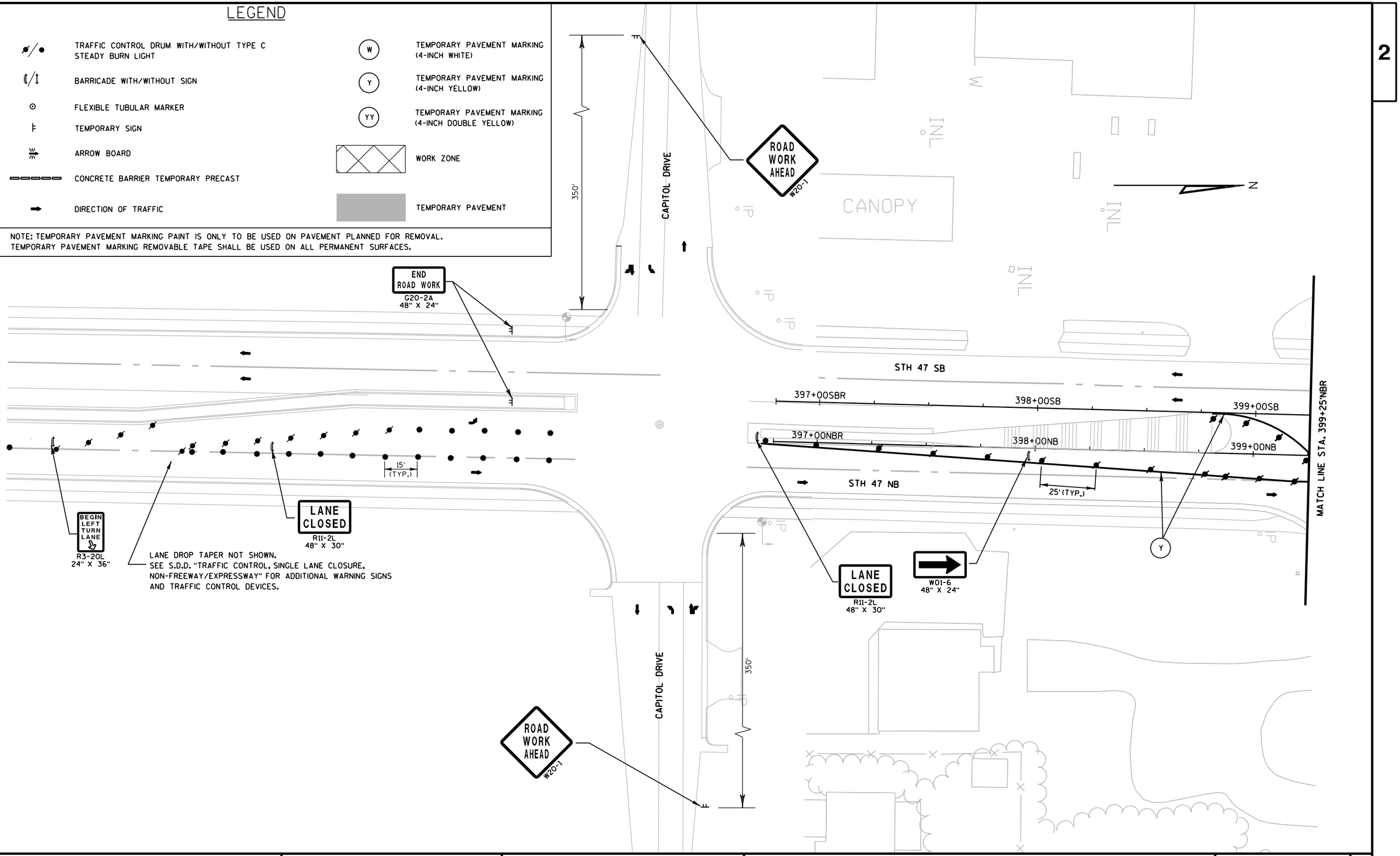
STA. 402+80'NB' - STA. 420+30'NB'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	STH 47 STAGE 4 TRAFFIC CONTROL	SHEET 148	E

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- BARRICADE WITH/WITHOUT SIGN
- FLEXIBLE TUBULAR MARKER
- TEMPORARY SIGN
- ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- (W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
- (Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
- (YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
- WORK ZONE
- TEMPORARY PAVEMENT

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

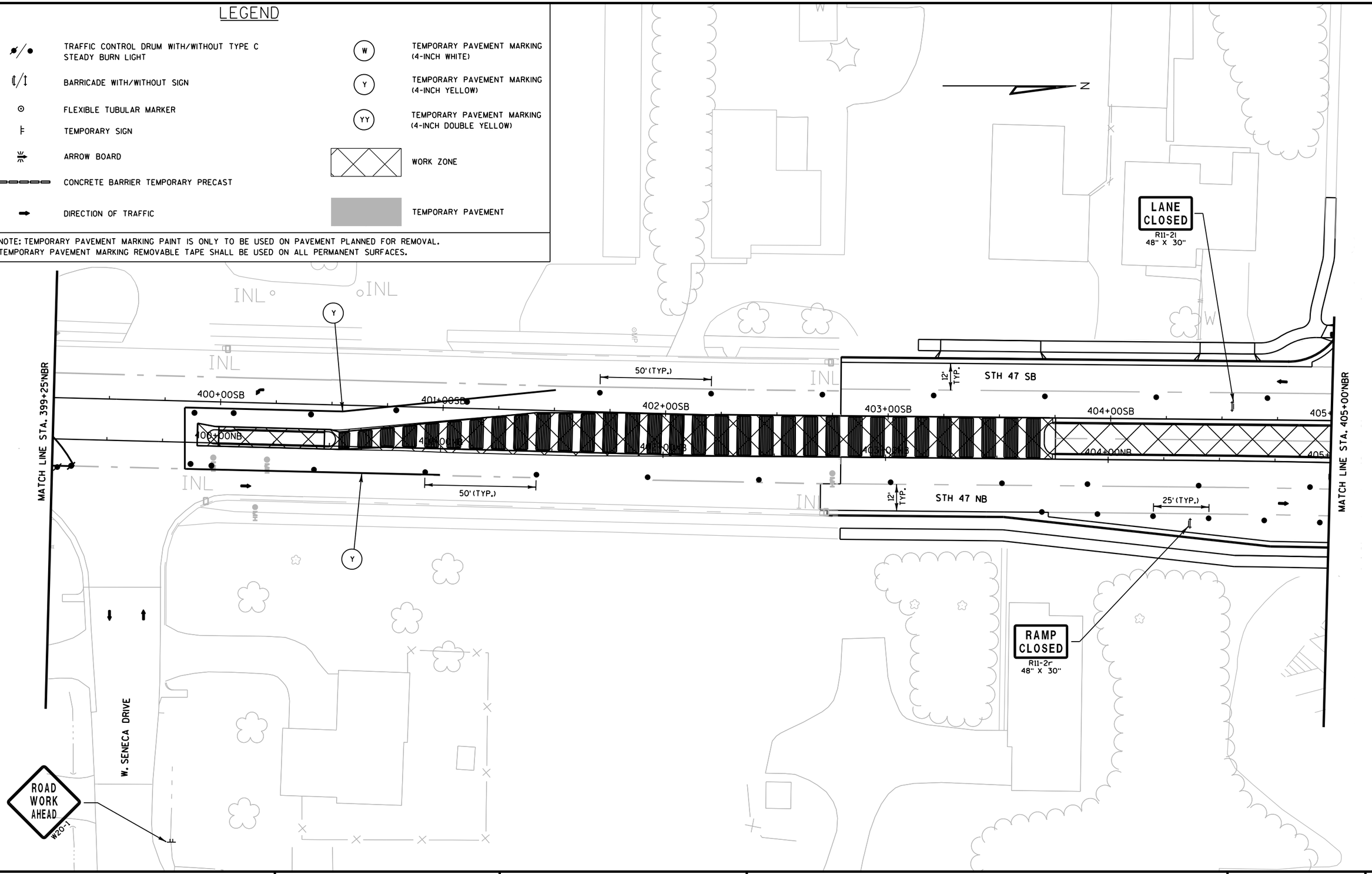


PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 4	SHEET E

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	(W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	(Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	(YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 4	SHEET E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025402_tc_stg-4.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

ROAD WORK AHEAD
W20-1

350'

ASSOCIATION DRIVE

100+00ASN

RAMP CLOSED
R11-2R
48" X 30"

NB USH 41 OFF-RAMP

747+00SE

747+00NE

RAMP CLOSED
R11-2R
48" X 30"

R3-2
24" X 24"

747+00N

USH 41 NB

748+00SE

748+25SE

748+00NE

748+25NE

748+00N

MATCH LINE STA. 405+00NBR

00SB

406+00SB

407+00SB

408+00SB

409+00SB

410+00SB

25'(TYP.)

50'(TYP.)

STH 47 SB

12' TYP.

00NB

406+00NB

407+00NB

408+00NB

409+00NB

410+00NB

406+31RTA

407+00RTA

408+00RTA

408+58RTA

STH 47 NB

R3-1
24" X 24"

RAMP CLOSED
R11-2R
48" X 30"

RAMP CLOSED
R11-2R
48" X 30"

R3-2
24" X 24"

YY

LANE CLOSED
R11-2L
48" X 30"

749+00NE

749+00N

RAMP CLOSED
R11-2R
48" X 30"

NB USH 41 ON-RAMP

750+

MATCH LINE STA. 410+75NBR

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	(W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	(Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	(YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 4	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025403_tc_stg-4.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

LEGEND

⌀/●	TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	(W)	TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
⌶/↕	BARRICADE WITH/WITHOUT SIGN	(Y)	TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
⊙	FLEXIBLE TUBULAR MARKER	(YY)	TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
⊦	TEMPORARY SIGN	▨	WORK ZONE
⇶	ARROW BOARD	▩	TEMPORARY PAVEMENT
▭▭▭	CONCRETE BARRIER TEMPORARY PRECAST		
➡	DIRECTION OF TRAFFIC		

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

N

MATCH LINE STA. 410+75'NBR

MATCH LINE STA. 416+75'NBR

SB USH 41 ON-RAMP

SB USH 41 OFF-RAMP

USH 41 SB

STH 47 SB

STH 47 NB

747+00OS

748+00OS

749+00OS

750+00OS

411+00SB

411+00NB

412+00SB

412+00NB

413+00SB

413+00NB

414+00SB

414+00NB

415+00SB

415+00NB

416+00SB

416+00NB

747+00OSW

748+00OSW

748+00ONW

749+00ONW

749+00RTB

414+00RTC

415+00RTC

415+30RTC

25'(TYP.)

50'(TYP.)

12' TYP.

R3-2
24" X 24"

R3-1
24" X 24"

RAMP CLOSED
R11-2R
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

W

Y

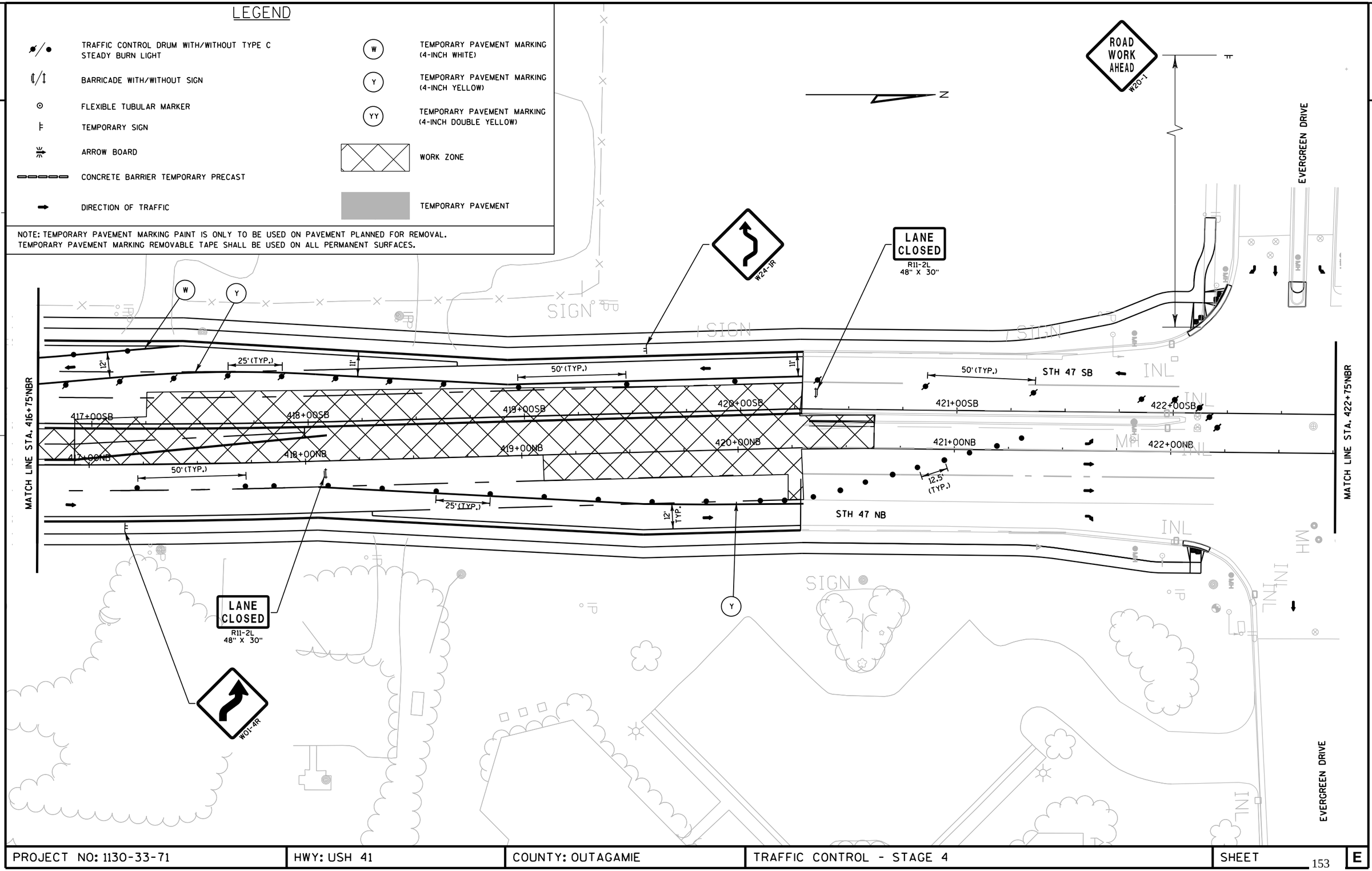
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 4	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025404_tc_stg-4.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- BARRICADE WITH/WITHOUT SIGN
- FLEXIBLE TUBULAR MARKER
- TEMPORARY SIGN
- ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- (W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
- (Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
- (YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
- WORK ZONE
- TEMPORARY PAVEMENT

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 4	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025405_tc_stg-4.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

2

2

EVERGREEN DRIVE

N

LANE CLOSED
R11-2L
48" X 30"

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

LANE CLOSED
R11-2L
48" X 30"

25'(TYP.)

STH 47 SB

423+00SB 424+00SB 425+00SB 426+00SB 427+00SB 428+00SB

423+00NB 424+00NB 425+00NB 426+00NB 427+00NB 428+00NB

STH 47 NB

MATCH LINE STA. 422+75'NBR

MATCH LINE STA. 428+75'NBR

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

350'

EVERGREEN DRIVE

ROAD WORK AHEAD
W20-1

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- BARRICADE WITH/WITHOUT SIGN
- FLEXIBLE TUBULAR MARKER
- TEMPORARY SIGN
- ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- (W) TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
- (Y) TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
- (YY) TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
- WORK ZONE
- TEMPORARY PAVEMENT

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 4	SHEET 154	E

2

LEGEND

TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT	TEMPORARY PAVEMENT MARKING (4-INCH WHITE)
BARRICADE WITH/WITHOUT SIGN	TEMPORARY PAVEMENT MARKING (4-INCH YELLOW)
FLEXIBLE TUBULAR MARKER	TEMPORARY PAVEMENT MARKING (4-INCH DOUBLE YELLOW)
TEMPORARY SIGN	WORK ZONE
ARROW BOARD	TEMPORARY PAVEMENT
CONCRETE BARRIER TEMPORARY PRECAST	
DIRECTION OF TRAFFIC	

NOTE: TEMPORARY PAVEMENT MARKING PAINT IS ONLY TO BE USED ON PAVEMENT PLANNED FOR REMOVAL. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED ON ALL PERMANENT SURFACES.

N

LANE DROP TAPER NOT SHOWN.
SEE S.D.D. "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" FOR ADDITIONAL WARNING SIGNS AND TRAFFIC CONTROL DEVICES.

MATCH LINE STA. 428+75NBR

25' (TYP.)

429+00SB 430+00SB 430+55SB

429+00NB 430+00NB 430+56NB

STH 47 SB

STH 47 NB

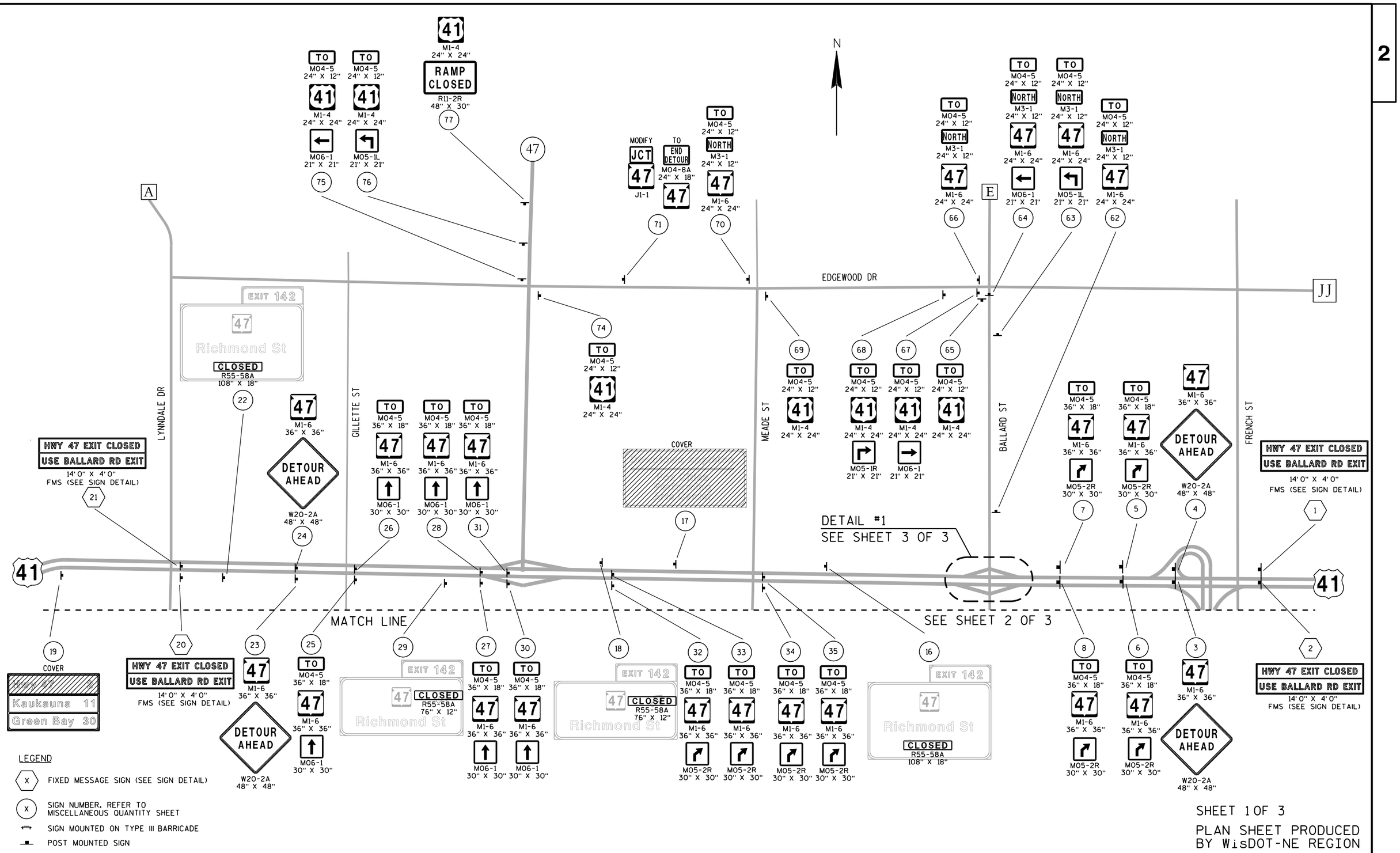
INL INL INL INL INL INL

W W W W W W

2

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 4	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\Traffic Control\SHEETS STH 47\025407_tc_stg-4.dgn PLOT DATE : 9/18/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	DETOUR SIGNING DETAIL	SHEET 156	E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1130-33-70 STH 47 Interchange Outagamie Cty\027001_dt.dgn PLOT DATE : 04-JUN-2013 07:15 PLOT BY : dotjlf PLOT NAME : PLOT SCALE : 2000:1

WISDOT/CADDS SHEET 42

2

N

MATCH LINE

SEE SHEET 1 OF 3

CAPITOL DR

NORTHLAND AVE

MASON ST

RICHMOND ST

MEADE ST

ONEIDA ST

BALLARD ST

FRENCH RD

A

47

E

441

48 — MODIFY JCT 47 (J1-1) / TO END DETOUR (M04-8A 24" X 18") 47

45 — TO (M04-5 24" X 12") / SOUTH (M3-3 24" X 12") / 47 (M1-6 24" X 24")

44 — TO (M04-5 24" X 12") / SOUTH (M3-3 24" X 12") / 47 (M1-6 24" X 24") / (M06-1 21" X 21")

43 — TO (M04-5 24" X 12") / SOUTH (M3-3 24" X 12") / 47 (M1-6 24" X 24") / (M05-1R 21" X 21")

42 — TO (M04-5 24" X 12") / SOUTH (M3-3 24" X 12") / 47 (M1-6 24" X 24")

54 — TO (M04-5 24" X 12") / 41 (M1-4 24" X 24") / (M06-1 21" X 21")

53 — TO (M04-5 24" X 12") / 41 (M1-4 24" X 24") / (M05-1R 21" X 21")

52 — 41 (M1-4 24" X 24") / RAMP CLOSED (R11-2R 48" X 30")

55 — TO (M04-5 24" X 12") / 41 (M1-4 24" X 24")

47 — TO (M04-5 24" X 12") / SOUTH (M3-3 24" X 12") / 47 (M1-6 24" X 24")

56 — TO (M04-5 24" X 12") / 41 (M1-4 24" X 24")

46 — TO (M04-5 24" X 12") / SOUTH (M3-3 24" X 12") / 47 (M1-6 24" X 24")

57 — TO (M04-5 24" X 12") / 41 (M1-4 24" X 24")

58 — TO (M04-5 24" X 12") / 41 (M1-4 24" X 24") / (M05-1L 21" X 21")

59 — TO (M04-5 24" X 12") / 41 (M1-4 24" X 24") / (M06-1 21" X 21")

60 — TO (M04-5 24" X 12") / 41 (M1-4 24" X 24")

LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN MOUNTED ON TYPE III BARRICADE

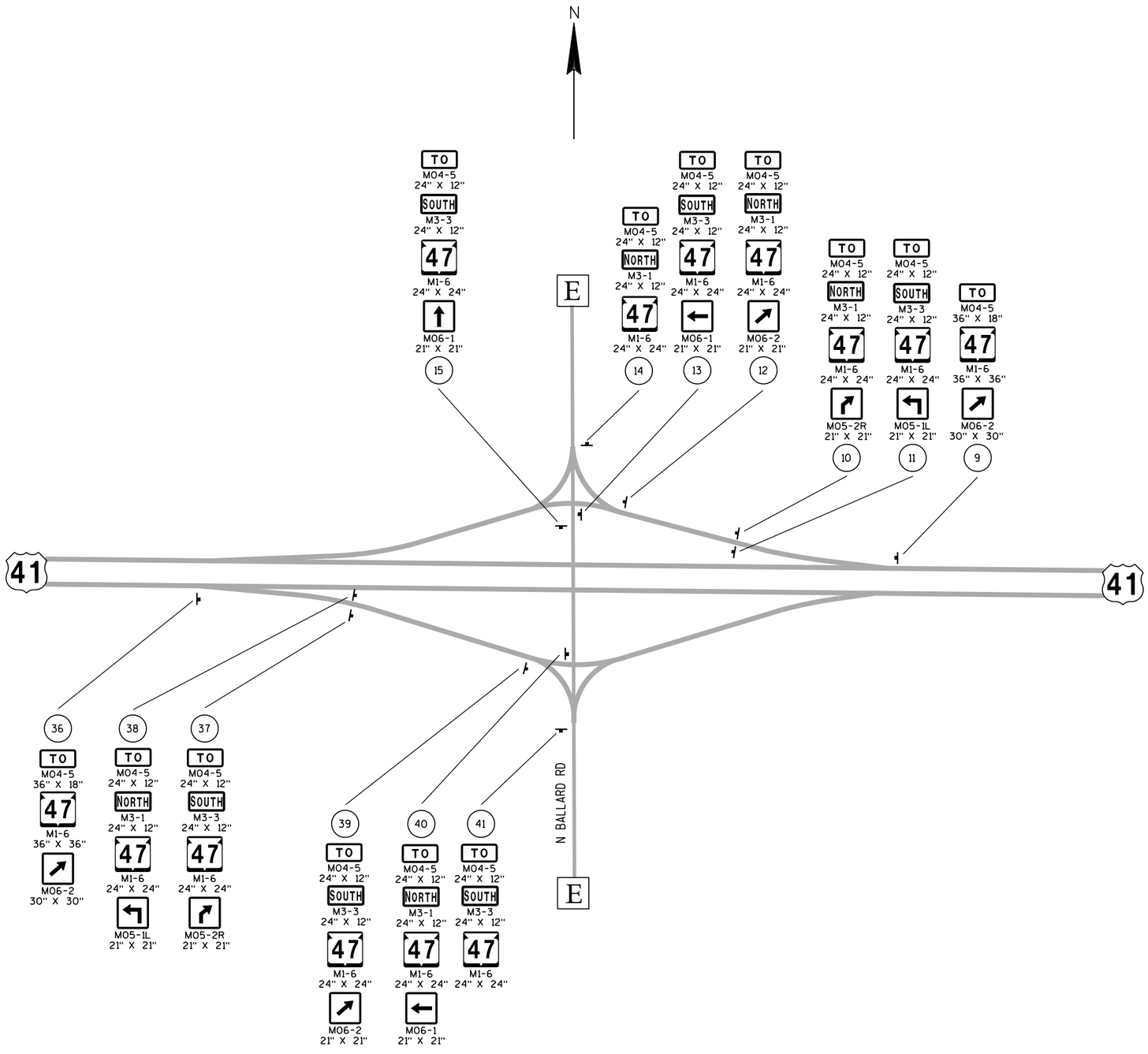
POST MOUNTED SIGN

SHEET 2 OF 3

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	DETOUR SIGNING DETAIL	SHEET 157	E

2



LEGEND

(X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN MOUNTED ON TYPE III BARRICADE

POST MOUNTED SIGN

DETAIL #1

SHEET 3 OF 3

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	DETOUR SIGNING DETAIL	SHEET 158	E

SB R/L

STH 47 SB R/L
STA. 396+80.00
X: 825,099.19
Y: 574,243.74

STH 47 SB R/L
STA. 402+22.11
X: 825,113.33
Y: 574,785.67

STH 47 SB R/L
PI STA. 406+10.07
X: 825,117.00
Y: 575,173.61
DELTA: 2°52'16.36"(RT)
DEG: 1°08'45.16"
L: 250.56'
T: 125.31'
R: 5000.00'
PC STA. 404+84.77
PT STA. 407+35.33

ASN R/L

ASSOCIATION DRIVE R/L
STA. 89+08.62
X: 824,025.33
Y: 575,115.93

ASSOCIATION DRIVE R/L
STA. 100+00.00
X: 825,116.33
Y: 575,087.39

SE R/L

NB USH 41
OFF-RAMP SE R/L
STA. 748+25.00
X: 825,131.56
X: 575,417.75

NB USH 41
OFF-RAMP SE R/L
PI STA. 745+56.00
X: 824,862.68
Y: 575,433.94
DELTA: 7°27'39.56"(LT)
DEG: 2°52'55.49"
L: 258.88'
T: 129.62'
R: 1988.00'
PC STA. 744+26.38
PT STA. 746+85.25

RTD R/L

NB USH 41
OFF-RAMP RT RTD R/L
STA. 748+28.66
X: 825,128.72
Y: 575,370.21

NB USH 41
OFF-RAMP RT RTD R/L
STA. 746+16.59
X: 824,922.47
Y: 575,419.52

NB R/L

STH 47 NB R/L
STA. 396+79.94
X: 825,117.67
Y: 574,242.52

STH 47 NB R/L
STA. 402+22.94
X: 825,131.82
Y: 574,785.34

STH 47 NB R/L
PI STA. 405+64.43
X: 825,135.05
Y: 575,126.81
DELTA: 2°52'16.36"(RT)
DEG: 1°08'45.16"
L: 250.56'
T: 125.31'
R: 5000.00'
PC STA. 404+39.12
PT STA. 406+89.68

RTB R/L

STH 47 NB RT RTA R/L
STA. 406+30.61
X: 825,163.32
Y: 575,191.76

STH 47 NB RT RTA R/L
STA. 408+67.80
X: 825,208.36
Y: 575,424.64

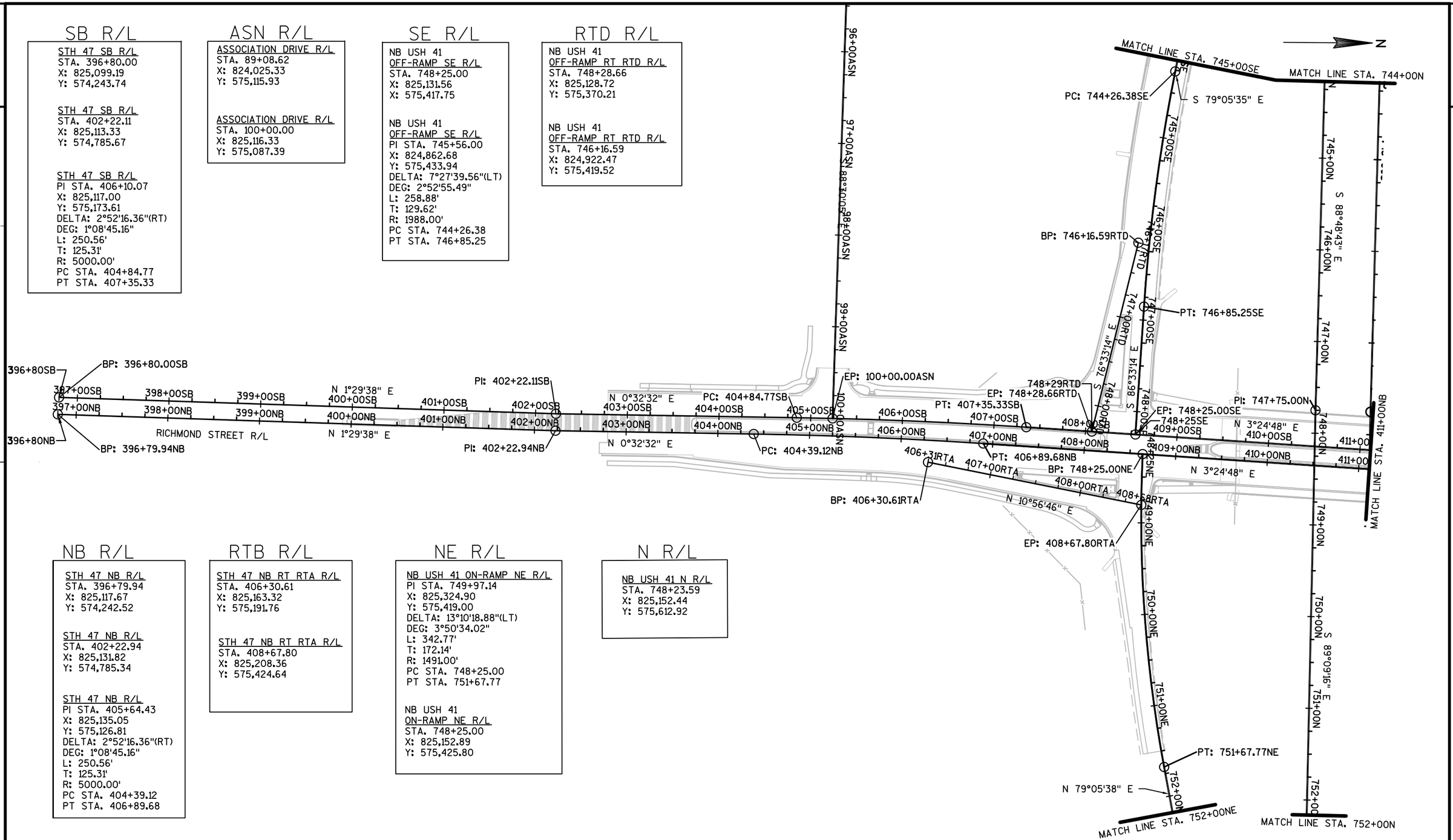
NE R/L

NB USH 41 ON-RAMP NE R/L
PI STA. 749+97.14
X: 825,324.90
Y: 575,419.00
DELTA: 13°10'18.88"(LT)
DEG: 3°50'34.02"
L: 342.77'
T: 172.14'
R: 1491.00'
PC STA. 748+25.00
PT STA. 751+67.77

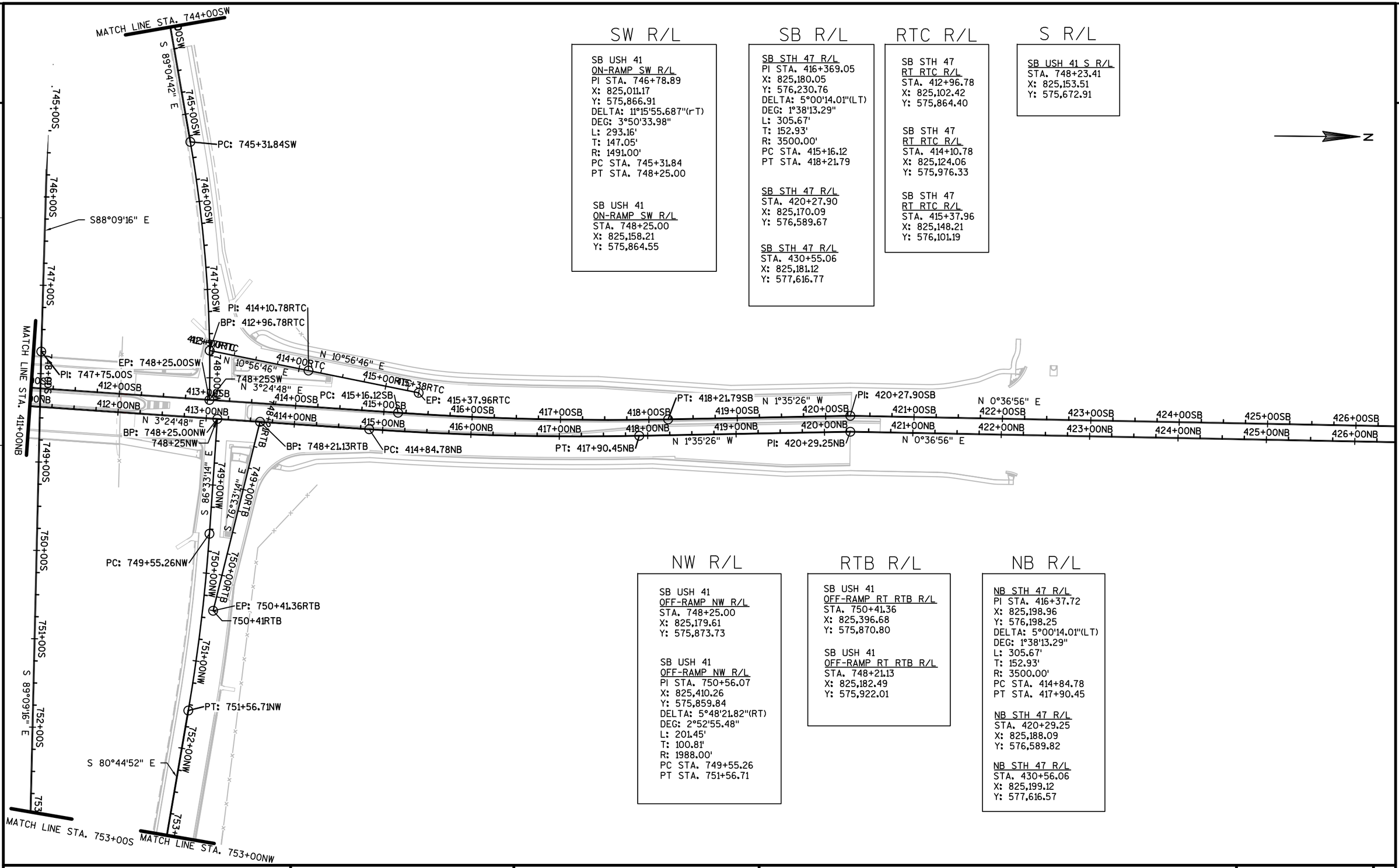
NB USH 41
ON-RAMP NE R/L
STA. 748+25.00
X: 825,152.89
Y: 575,425.80

N R/L

NB USH 41 N R/L
STA. 748+23.59
X: 825,152.44
Y: 575,612.92



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	ALIGNMENT PLAN	SHEET 159	E



SW R/L

SB USH 41
ON-RAMP SW R/L
PI STA. 746+78.89
X: 825,011.17
Y: 575,866.91
DELTA: 11°15'55.687"(rT)
DEG: 3°50'33.98"
L: 293.16'
T: 147.05'
R: 1491.00'
PC STA. 745+31.84
PT STA. 748+25.00

SB USH 41
ON-RAMP SW R/L
STA. 748+25.00
X: 825,158.21
Y: 575,864.55

SB R/L

SB STH 47 R/L
PI STA. 416+369.05
X: 825,180.05
Y: 576,230.76
DELTA: 5°00'14.01"(LT)
DEG: 1°38'13.29"
L: 305.67'
T: 152.93'
R: 3500.00'
PC STA. 415+16.12
PT STA. 418+21.79

SB STH 47 R/L
STA. 420+27.90
X: 825,170.09
Y: 576,589.67

SB STH 47 R/L
STA. 430+55.06
X: 825,181.12
Y: 577,616.77

RTC R/L

SB STH 47
RT RTC R/L
STA. 412+96.78
X: 825,102.42
Y: 575,864.40

SB STH 47
RT RTC R/L
STA. 414+10.78
X: 825,124.06
Y: 575,976.33

SB STH 47
RT RTC R/L
STA. 415+37.96
X: 825,148.21
Y: 576,101.19

S R/L

SB USH 41 S R/L
STA. 748+23.41
X: 825,153.51
Y: 575,672.91

NW R/L

SB USH 41
OFF-RAMP NW R/L
STA. 748+25.00
X: 825,179.61
Y: 575,873.73

SB USH 41
OFF-RAMP NW R/L
PI STA. 750+56.07
X: 825,410.26
Y: 575,859.84
DELTA: 5°48'21.82"(RT)
DEG: 2°52'55.48"
L: 201.45'
T: 100.81'
R: 1988.00'
PC STA. 749+55.26
PT STA. 751+56.71

RTB R/L

SB USH 41
OFF-RAMP RT RTB R/L
STA. 750+41.36
X: 825,396.68
Y: 575,870.80

SB USH 41
OFF-RAMP RT RTB R/L
STA. 748+21.13
X: 825,182.49
Y: 575,922.01

NB R/L

NB STH 47 R/L
PI STA. 416+37.72
X: 825,198.96
Y: 576,198.25
DELTA: 5°00'14.01"(LT)
DEG: 1°38'13.29"
L: 305.67'
T: 152.93'
R: 3500.00'
PC STA. 414+84.78
PT STA. 417+90.45

NB STH 47 R/L
STA. 420+29.25
X: 825,188.09
Y: 576,589.82

NB STH 47 R/L
STA. 430+56.06
X: 825,199.12
Y: 577,616.57

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	ALIGNMENT PLAN	SHEET 160	E

2

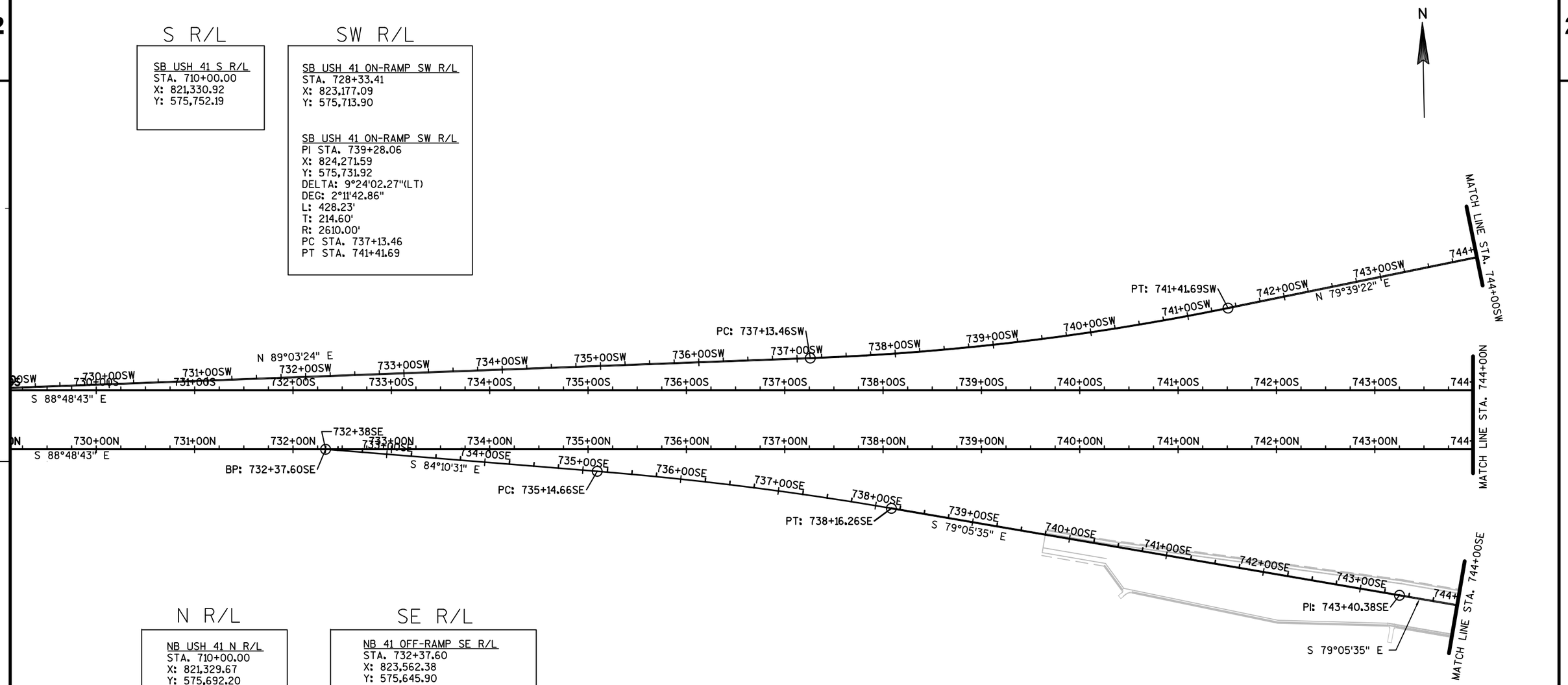
S R/L

SB USH 41 S R/L
STA. 710+00.00
X: 821,330.92
Y: 575,752.19

SW R/L

SB USH 41 ON-RAMP SW R/L
STA. 728+33.41
X: 823,177.09
Y: 575,713.90

SB USH 41 ON-RAMP SW R/L
PI STA. 739+28.06
X: 824,271.59
Y: 575,731.92
DELTA: 9°24'02.27"(LT)
DEG: 2°11'42.86"
L: 428.23'
T: 214.60'
R: 2610.00'
PC STA. 737+13.46
PT STA. 741+41.69



N R/L

NB USH 41 N R/L
STA. 710+00.00
X: 821,329.67
Y: 575,692.20

SE R/L

NB 41 OFF-RAMP SE R/L
STA. 732+37.60
X: 823,562.38
Y: 575,645.90

NB USH 41 OFF-RAMP SE R/L
PI STA. 736+65.56
X: 823,988.13
Y: 575,602.47
DELTA: 5°04'56.82"(RT)
DEG: 1°41'06.61"
L: 301.60'
T: 150.90'
R: 3400.00'
PC STA. 735+14.66
PT STA. 738+16.26

NB USH 41 OFF-RAMP SE R/L
STA. 743+40.38
X: 824,650.95
Y: 575,474.74

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	ALIGNMENT PLAN	SHEET 161	E

2

2

NW R/L

SB USH 41 OFF-RAMP NW R/L
STA. 753+09.78
X: 825,660.84
Y: 575,819.02

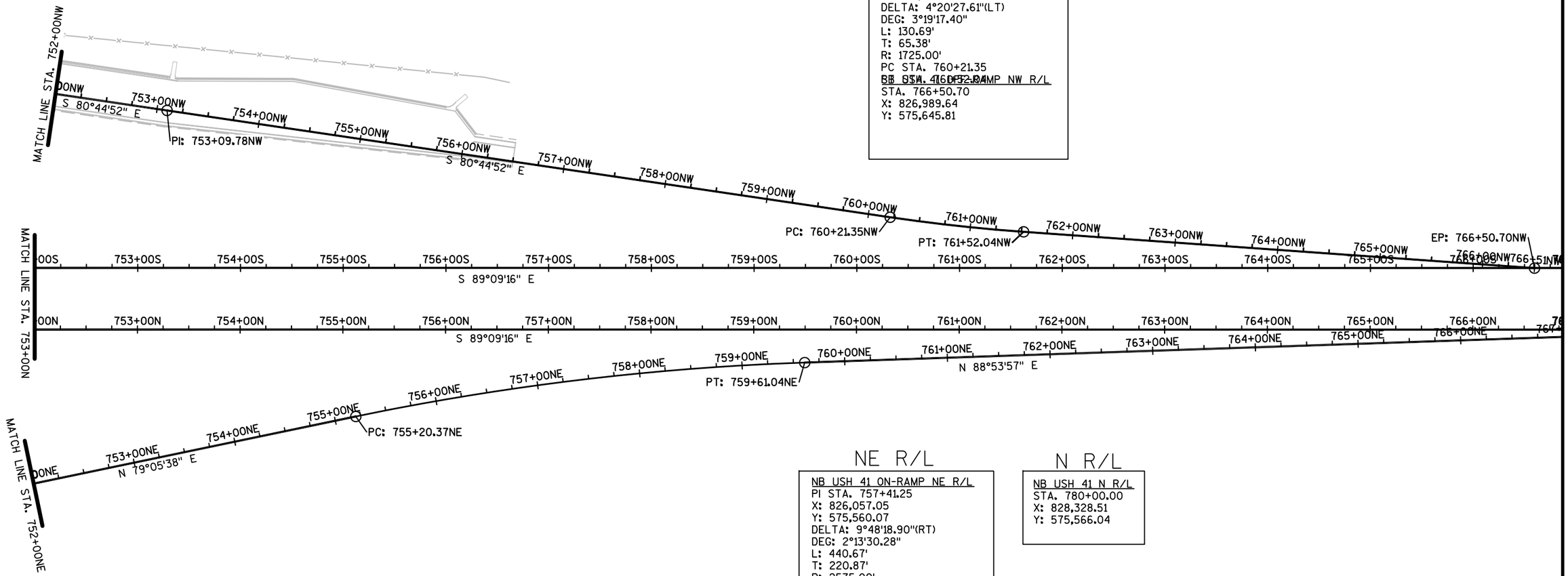
SB USH 41 OFF-RAMP NW R/L
PI STA. 760+86.73
X: 826,427.68
Y: 575,694.10
DELTA: 4°20'27.61"(LT)
DEG: 3°19'17.40"
L: 130.69'
T: 65.38'
R: 1725.00'
PC STA. 760+21.35
PT STA. 761+52.04

SB USH 41 OFF-RAMP NW R/L
STA. 766+50.70
X: 826,989.64
Y: 575,645.81

S R/L

SB USH 41 S R/L
STA. 779+99.64
X: 828,329.39
Y: 575,626.04

N



NE R/L

NB USH 41 ON-RAMP NE R/L
PI STA. 757+41.25
X: 826,057.05
Y: 575,560.07
DELTA: 9°48'18.90"(RT)
DEG: 2°13'30.28"
L: 440.67'
T: 220.87'
R: 2575.00'
PC STA. 755+20.37
PT STA. 759+61.04

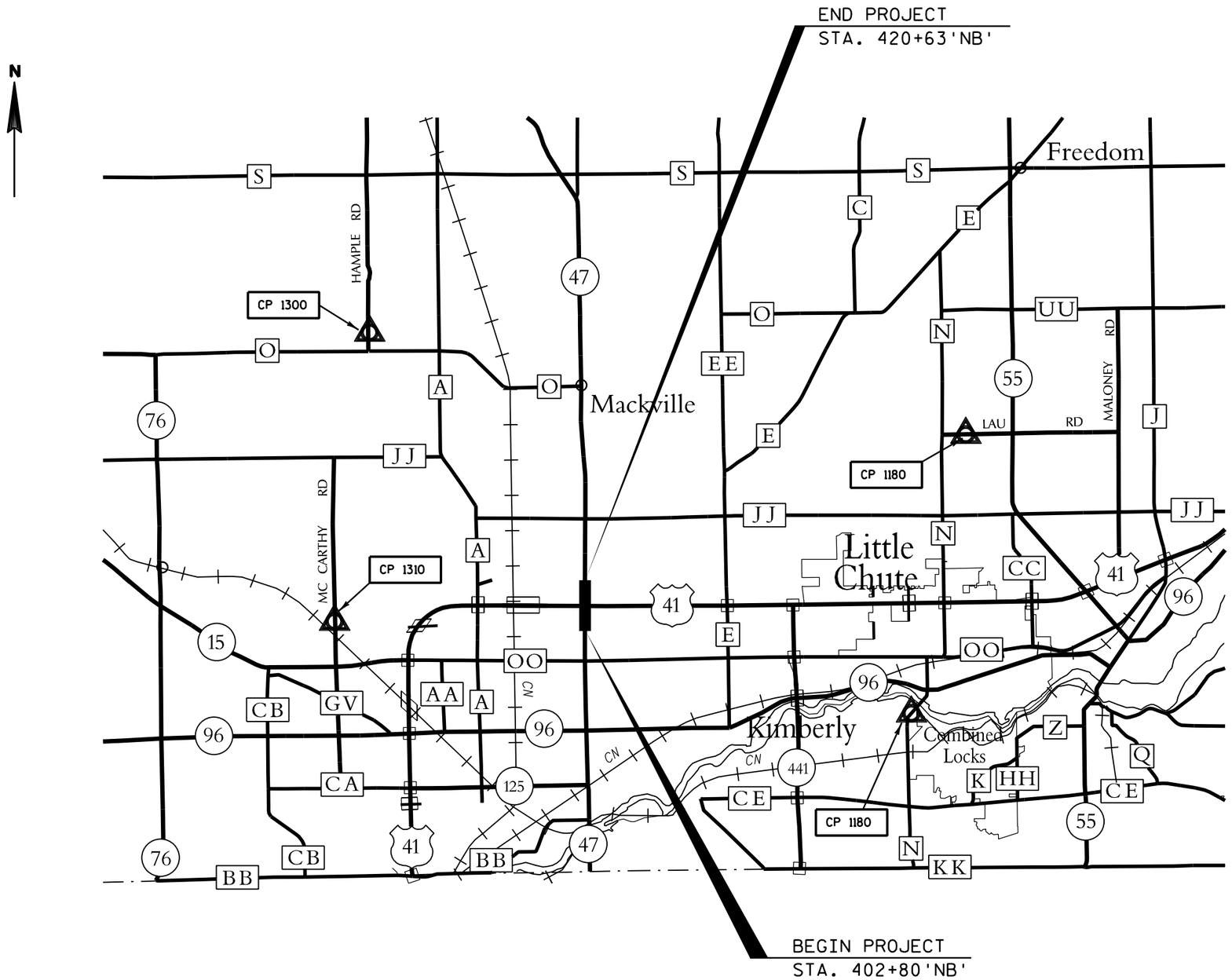
NB USH 41 ON-RAMP NE R/L
STA. 769+03.09
X: 827,219.76
Y: 575,582.41

N R/L

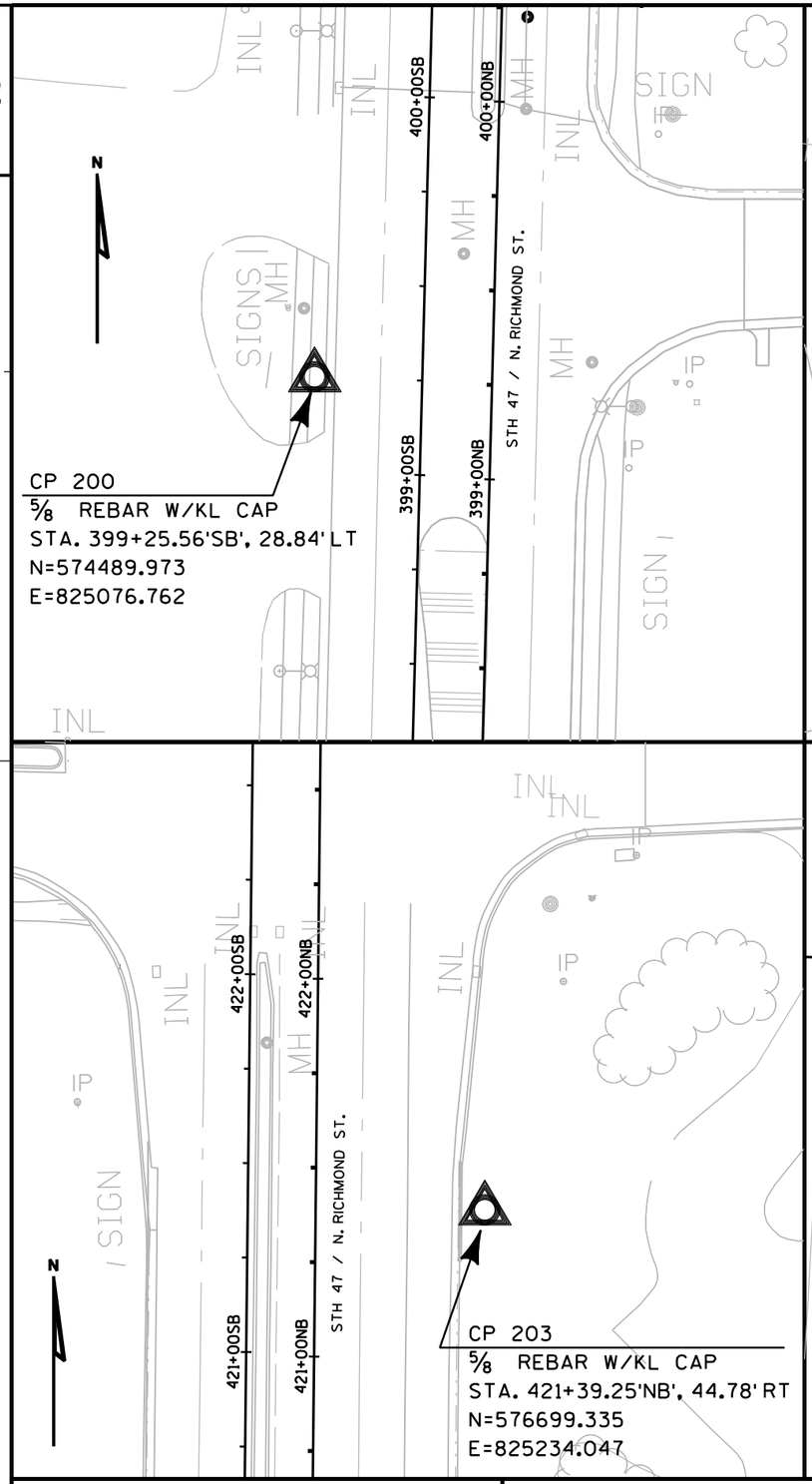
NB USH 41 N R/L
STA. 780+00.00
X: 828,328.51
Y: 575,566.04

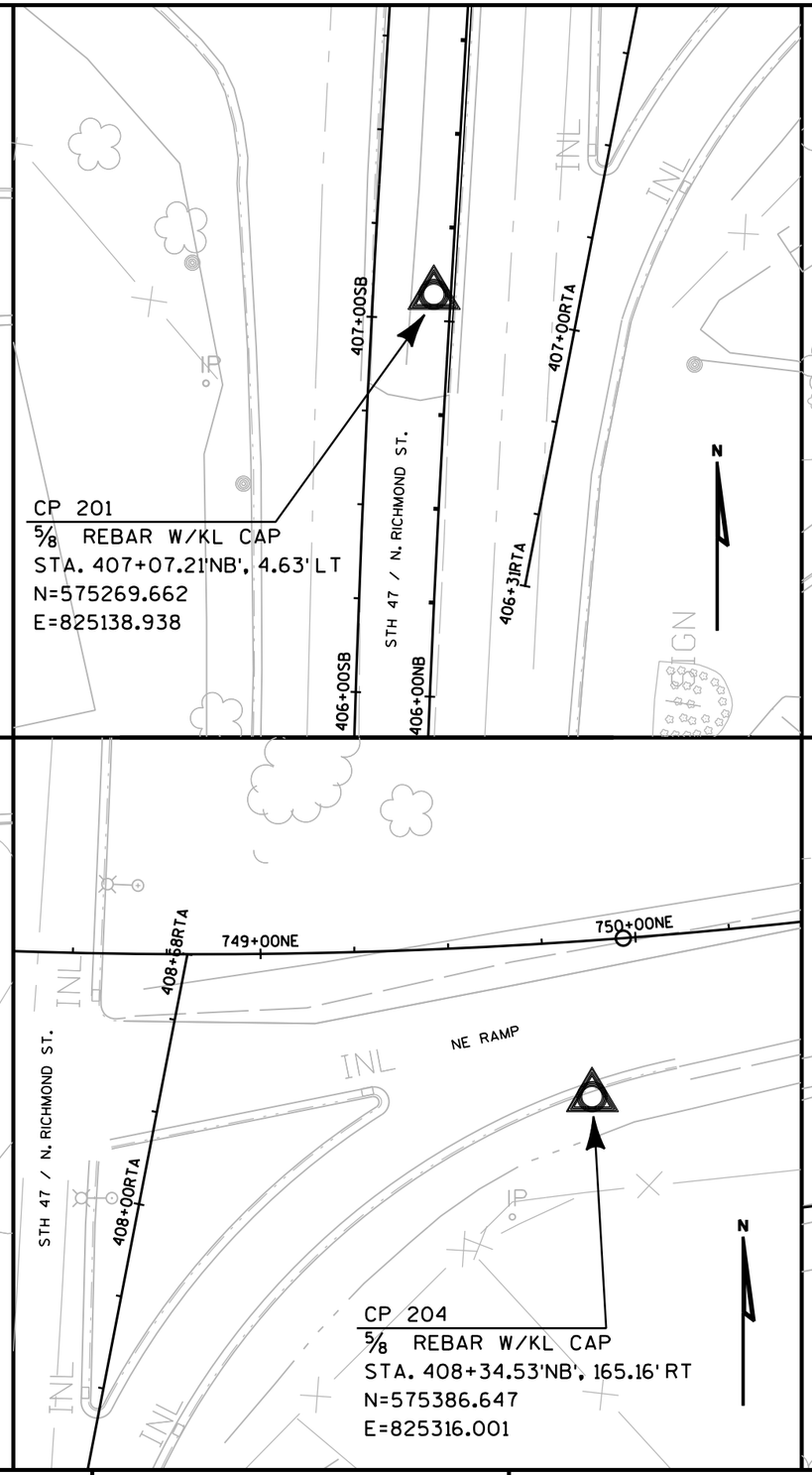
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	ALIGNMENT PLAN	SHEET 162	E

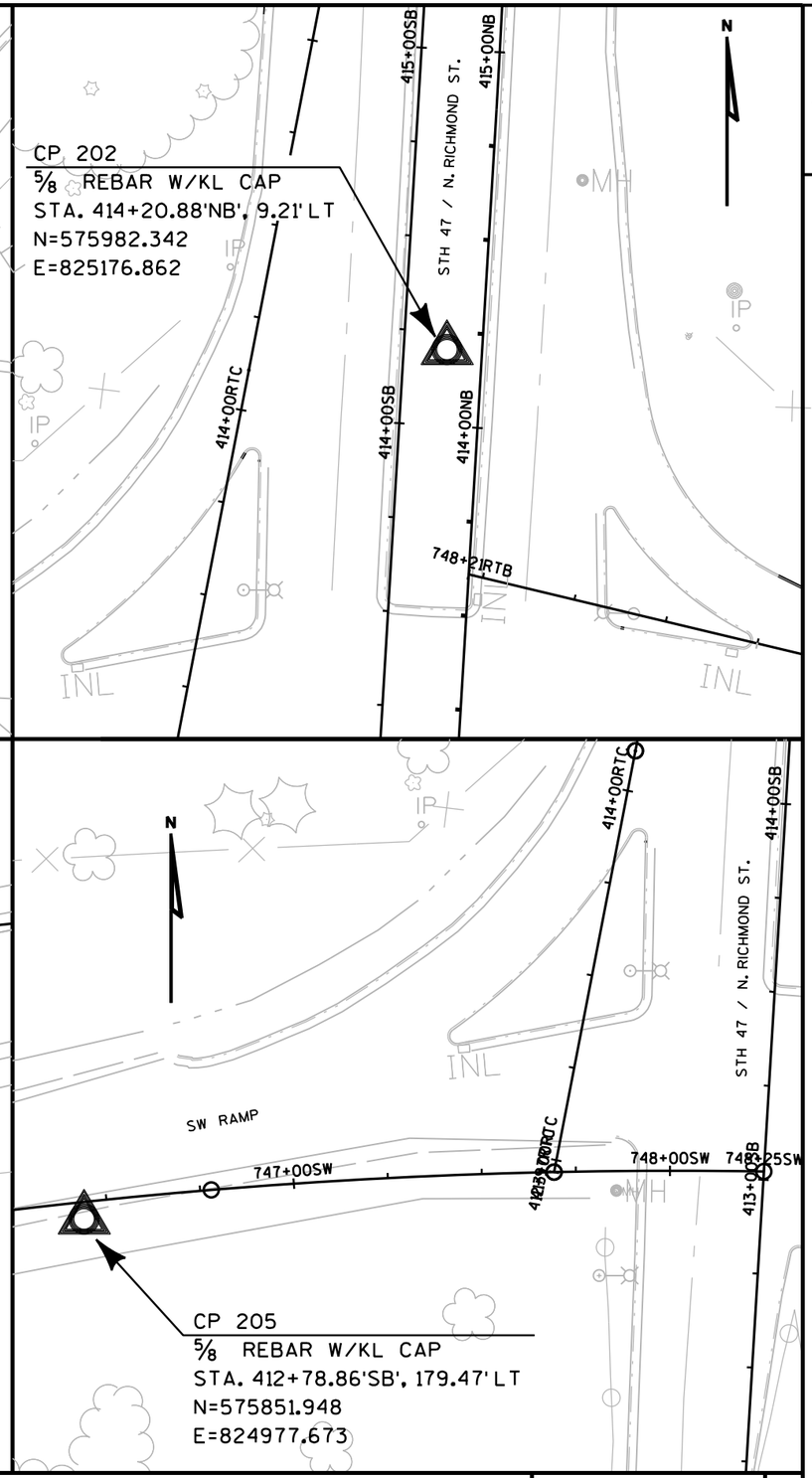
2



POINT NAME	TYPE	NORTHING	EASTING
1300	GPS MONUMENT	595537.808	809280.204
1310	GPS MONUMENT	576047.906	806408.033
1180	GPS MONUMENT	587974.203	853477.511
1190	GPS MONUMENT	567038.080	849325.496







PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CONTROL POINT DETAILS	SHEET 164 E

DATE 17OCT13 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	1130-33-71 QUANTITY
0010	201.0105	CLEARING	STA	9.000	9.000
0020	201.0120	CLEARING	ID	78.000	78.000
0030	201.0205	GRUBBING	STA	9.000	9.000
0040	201.0220	GRUBBING	ID	78.000	78.000
0050	203.0200	REMOVING OLD STRUCTURE (STATION) 01. 410+80.66 SBR	LS	1.000	1.000
0060	203.0200	REMOVING OLD STRUCTURE (STATION) 01. 410+81.256 NBR	LS	1.000	1.000
0070	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 01. B-44-35	LS	1.000	1.000
0080	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 02. B-44-36	LS	1.000	1.000
0090	204.0100	REMOVING PAVEMENT	SY	17,200.000	17,200.000
0100	204.0110	REMOVING ASPHALTIC SURFACE	SY	2,200.000	2,200.000
0110	204.0150	REMOVING CURB & GUTTER	LF	484.000	484.000
0120	204.0155	REMOVING CONCRETE SIDEWALK	SY	729.000	729.000
0130	204.0170	REMOVING FENCE	LF	1,039.000	1,039.000
0140	204.0175	REMOVING CONCRETE SLOPE PAVING	SY	914.000	914.000
0150	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	28.000	28.000
0160	204.0195	REMOVING CONCRETE BASES	EACH	29.000	29.000
0170	204.0210	REMOVING MANHOLES	EACH	1.000	1.000
0180	204.0220	REMOVING INLETS	EACH	15.000	15.000
0190	204.0245	REMOVING STORM SEWER (SIZE) 01. 12-INCH	LF	616.000	616.000
0200	204.0245	REMOVING STORM SEWER (SIZE) 02. 18-INCH	LF	12.000	12.000
0210	204.0245	REMOVING STORM SEWER (SIZE) 03. 24-INCH	LF	28.000	28.000
0220	204.0291.S	ABANDONING SEWER	CY	6.000	6.000
0230	205.0100	EXCAVATION COMMON	CY	15,344.000	15,344.000
0240	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-44-35	LS	1.000	1.000
0250	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 02. B-44-36	LS	1.000	1.000
0260	208.0100	BORROW	CY	7,306.000	7,306.000
0270	210.0100	BACKFILL STRUCTURE	CY	708.000	708.000
0280	213.0100	FINISHING ROADWAY (PROJECT) 01. 1130-33-71	EACH	1.000	1.000
0290	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	720.000	720.000
0300	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	10,646.000	10,646.000
0310	311.0110	BREAKER RUN	TON	19,367.000	19,367.000
0320	415.0100	CONCRETE PAVEMENT 10-INCH	SY	20,090.000	20,090.000
0330	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	174.000	174.000
0340	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	65.000	65.000
0350	416.0610	DRILLED TIE BARS	EACH	257.000	257.000
0360	416.0620	DRILLED DOWEL BARS	EACH	201.000	201.000
0370	455.0105	ASPHALTIC MATERIAL PG58-28	TON	13.000	13.000
0380	460.1100	HMA PAVEMENT TYPE E-0.3	TON	203.000	203.000
0390	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	130.000	130.000
0400	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	780.000	780.000
0410	465.0315	ASPHALTIC FLUMES	SY	177.000	177.000
0420	502.0100	CONCRETE MASONRY BRIDGES	CY	1,064.000	1,064.000
0430	502.3200	PROTECTIVE SURFACE TREATMENT	SY	2,558.000	2,558.000
0440	502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	968.000	968.000
0450	502.5010	MASONRY ANCHORS TYPE L NO. 6 BARS	EACH	20.000	20.000
0460	502.5015	MASONRY ANCHORS TYPE L NO. 7 BARS	EACH	18.000	18.000
0470	503.0136	PRESTRESSED GIRDER TYPE I 36-INCH	LF	610.000	610.000

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DATE 17OCT13 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	1130-33-71 QUANTITY
0480	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	200,520.000	200,520.000
0490	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	120.000	120.000
0500	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 01. B-44-35	EACH	42.000	42.000
0510	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 02. B-44-36	EACH	42.000	42.000
0520	506.7050.S	REMOVING BEARINGS (STRUCTURE) 01. B-44-35	EACH	58.000	58.000
0530	506.7050.S	REMOVING BEARINGS (STRUCTURE) 02. B-44-36	EACH	60.000	60.000
0540	506.7060.S	BRIDGE JACKING (STRUCTURE) 01. B-44-35	LS	1.000	1.000
0550	506.7060.S	BRIDGE JACKING (STRUCTURE) 02. B-44-36	LS	1.000	1.000
0560	509.1500	CONCRETE SURFACE REPAIR	SF	465.000	465.000
0570	513.4055	RAILING TUBULAR TYPE H (STRUCTURE) 01. B-44-35	LS	1.000	1.000
0580	513.4055	RAILING TUBULAR TYPE H (STRUCTURE) 02. B-44-36	LS	1.000	1.000
0590	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	88.000	88.000
0600	520.8000	CONCRETE COLLARS FOR PIPE	EACH	3.000	3.000
0610	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	6.000	6.000
0620	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	3.000	3.000
0630	601.0405	CONCRETE CURB & GUTTER 18-INCH TYPE A	LF	102.000	102.000
0640	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A	LF	5,495.000	5,495.000
0650	601.0413	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G	LF	76.000	76.000
0660	601.0452	CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D	LF	445.000	445.000
0670	601.0551	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	LF	625.000	625.000
0680	601.0555	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A	LF	1,325.000	1,325.000
0690	601.0600	CONCRETE CURB PEDESTRIAN	LF	139.000	139.000
0700	602.0405	CONCRETE SIDEWALK 4-INCH	SF	35,845.000	35,845.000
0710	602.0515	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA	SF	236.000	236.000
0720	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	3,200.000	3,200.000
0730	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	3,200.000	3,200.000
0740	604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL	SY	1,096.000	1,096.000
0750	606.0200	RIPRAP MEDIUM	CY	415.000	415.000
0760	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	985.000	985.000
0770	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	838.000	838.000
0780	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	24.000	24.000
0790	611.0530	MANHOLE COVERS TYPE J	EACH	1.000	1.000
0800	611.0624	INLET COVERS TYPE H	EACH	35.000	35.000
0810	611.0627	INLET COVERS TYPE HM	EACH	6.000	6.000
0820	611.0642	INLET COVERS TYPE MS	EACH	2.000	2.000
0830	611.2004	MANHOLES 4-FT DIAMETER	EACH	5.000	5.000
0840	611.2006	MANHOLES 6-FT DIAMETER	EACH	3.000	3.000
0850	611.3230	INLETS 2X3-FT	EACH	32.000	32.000
0860	611.3901	INLETS MEDIAN 1 GRATE	EACH	2.000	2.000

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DATE 17OCT13 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	1130-33-71 QUANTITY
0870	611.8110	ADJUSTING MANHOLE COVERS	EACH	8.000	8.000
0880	611.8120.S	COVER PLATES TEMPORARY	EACH	5.000	5.000
0890	611.9710	SALVAGED INLET COVERS	EACH	1.000	1.000
0900	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	300.000	300.000
0910	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	8.000	8.000
0920	614.0220	STEEL THRIE BEAM BULLNOSE TERMINAL	EACH	2.000	2.000
0930	614.0230	STEEL THRIE BEAM	LF	400.000	400.000
0940	614.0395	GUARDRAIL MOW STRIP CONCRETE	SY	281.000	281.000
0950	614.0905	CRASH CUSHIONS TEMPORARY	EACH	4.000	4.000
0960	614.0920	SALVAGED RAIL	LF	905.000	905.000
0970	614.1200	MGS GUARDRAIL TEMPORARY TRANSITION EAT	EACH	3.000	3.000
0980	614.2500	MGS THRIE BEAM TRANSITION	LF	120.000	120.000
0990	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	4.000	4.000
1000	616.0204	FENCE CHAIN LINK 4-FT	LF	1,145.000	1,145.000
1010	616.0208	FENCE CHAIN LINK 8-FT	LF	472.000	472.000
1020	616.0700.S	FENCE SAFETY	LF	250.000	250.000
1030	619.1000	MOBILIZATION	EACH	1.000	1.000
1040	620.0100	CONCRETE CORRUGATED MEDIAN	SF	5,650.000	5,650.000
1050	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	670.000	670.000
1060	625.0500	SALVAGED TOPSOIL	SY	23,000.000	23,000.000
1070	627.0200	MULCHING	SY	17,865.000	17,865.000
1080	628.1504	SILT FENCE	LF	3,350.000	3,350.000
1090	628.1520	SILT FENCE MAINTENANCE	LF	1,670.000	1,670.000
1100	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	12.000	12.000
1110	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	4.000	4.000
1120	628.2004	EROSION MAT CLASS I TYPE B	SY	3,100.000	3,100.000
1130	628.2006	EROSION MAT URBAN CLASS I TYPE A	SY	5,135.000	5,135.000
1140	628.7005	INLET PROTECTION TYPE A	EACH	41.000	41.000
1150	628.7010	INLET PROTECTION TYPE B	EACH	2.000	2.000
1160	628.7015	INLET PROTECTION TYPE C	EACH	47.000	47.000
1170	628.7504	TEMPORARY DITCH CHECKS	LF	280.000	280.000
1180	628.7570	ROCK BAGS	EACH	150.000	150.000
1190	629.0210	FERTILIZER TYPE B	CWT	14.000	14.000
1200	630.0130	SEEDING MIXTURE NO. 30	LB	325.000	325.000
1210	630.0140	SEEDING MIXTURE NO. 40	LB	95.000	95.000
1220	630.0200	SEEDING TEMPORARY	LB	485.000	485.000
1230	631.1000	SOD LAWN	SY	200.000	200.000
1240	633.0100	DELINEATOR POSTS STEEL	EACH	30.000	30.000
1250	633.0500	DELINEATOR REFLECTORS	EACH	30.000	30.000
1260	633.5200	MARKERS CULVERT END	EACH	9.000	9.000
1270	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	19.000	19.000
1280	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	53.000	53.000
1290	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	18.000	18.000
1300	637.1220	SIGNS TYPE I REFLECTIVE SH	SF	201.000	201.000
1310	637.2210	SIGNS TYPE II REFLECTIVE H	SF	986.420	986.420
1320	637.2215	SIGNS TYPE II REFLECTIVE H FOLDING	SF	99.680	99.680
1330	637.2230	SIGNS TYPE II REFLECTIVE F	SF	51.000	51.000
1340	638.2601	REMOVING SIGNS TYPE I	EACH	2.000	2.000
1350	638.2602	REMOVING SIGNS TYPE II	EACH	137.000	137.000
1360	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	92.000	92.000
1370	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
1380	643.0100	TRAFFIC CONTROL (PROJECT) 01. 1130-33-71	EACH	1.000	1.000
1390	643.0300	TRAFFIC CONTROL DRUMS	DAY	87,585.000	87,585.000

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DATE 17OCT13 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	1130-33-71 QUANTITY
1400	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	13,714.000	13,714.000
1410	643.0500	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	EACH	150.000	150.000
1420	643.0600	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	EACH	150.000	150.000
1430	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	7,379.000	7,379.000
1440	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	17,565.000	17,565.000
1450	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	610.000	610.000
1460	643.0900	TRAFFIC CONTROL SIGNS	DAY	11,015.000	11,015.000
1470	643.0910	TRAFFIC CONTROL COVERING SIGNS TYPE I	EACH	2.000	2.000
1480	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	263.000	263.000
1490	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	180.000	180.000
1500	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 1130-33-71	EACH	1.000	1.000
1510	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	31,320.000	31,320.000
1520	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	1,570.000	1,570.000
1530	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	7,050.000	7,050.000
1540	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	1,140.000	1,140.000
1550	646.0600	REMOVING PAVEMENT MARKINGS	LF	1,850.000	1,850.000
1560	646.0841.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH	LF	55.000	55.000
1570	646.0843.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH	LF	1,800.000	1,800.000
1580	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	1.000	1.000
1590	647.0456	PAVEMENT MARKING CURB EPOXY	LF	60.000	60.000
1600	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	150.000	150.000
1610	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	6.000	6.000
1620	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	LF	835.000	835.000
1630	647.0856	PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY	SF	2,305.000	2,305.000
1640	647.0955	REMOVING PAVEMENT MARKINGS ARROWS	EACH	1.000	1.000
1650	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	5,200.000	5,200.000
1660	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	8,280.000	8,280.000
1670	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	44.000	44.000
1680	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	4,376.000	4,376.000
1690	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	4,376.000	4,376.000
1700	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 1130-33-71	LS	1.000	1.000
1710	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 1130-33-71	LS	1.000	1.000
1720	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	4,376.000	4,376.000
1730	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	60.000	60.000
1740	652.0210	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1-INCH	LF	640.000	640.000
1750	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	3,376.000	3,376.000
1760	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	1,910.000	1,910.000
1770	652.0800	CONDUIT LOOP DETECTOR	LF	650.000	650.000
1780	653.0105	PULL BOXES STEEL 12X24-INCH	EACH	14.000	14.000
1790	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	3.000	3.000
1800	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	26.000	26.000
1810	653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	4.000	4.000
1820	653.0905	REMOVING PULL BOXES	EACH	25.000	25.000

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DATE 17OCT13 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	1130-33-71 QUANTITY
1830	654.0101	CONCRETE BASES TYPE 1	EACH	9.000	9.000
1840	654.0102	CONCRETE BASES TYPE 2	EACH	2.000	2.000
1850	654.0105	CONCRETE BASES TYPE 5	EACH	9.000	9.000
1860	654.0110	CONCRETE BASES TYPE 10	EACH	2.000	2.000
1870	654.0113	CONCRETE BASES TYPE 13	EACH	4.000	4.000
1880	654.0217	CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL	EACH	2.000	2.000
1890	654.0220	CONCRETE CONTROL CABINET BASES TYPE 10	EACH	4.000	4.000
1900	655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	LF	3,690.000	3,690.000
1910	655.0240	CABLE TRAFFIC SIGNAL 7-14 AWG	LF	600.000	600.000
1920	655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	LF	1,310.000	1,310.000
1930	655.0305	CABLE TYPE UF 2-12 AWG GROUNDED	LF	2,640.000	2,640.000
1940	655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	LF	7,040.000	7,040.000
1950	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	1,800.000	1,800.000
1960	655.0625	ELECTRICAL WIRE LIGHTING 6 AWG	LF	285.000	285.000
1970	655.0700	LOOP DETECTOR LEAD IN CABLE	LF	1,980.000	1,980.000
1980	655.0800	LOOP DETECTOR WIRE	LF	1,740.000	1,740.000
1990	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. S-1400	LS	1.000	1.000
2000	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 02. S-580	LS	1.000	1.000
2010	656.0500	ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 01. CCTV-44-0076	LS	1.000	1.000
2020	657.0100	PEDESTAL BASES	EACH	9.000	9.000
2030	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	7.000	7.000
2040	657.0315	POLES TYPE 4	EACH	2.000	2.000
2050	657.0322	POLES TYPE 5-ALUMINUM	EACH	5.000	5.000
2060	657.0420	TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT	EACH	2.000	2.000
2070	657.0425	TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT	EACH	2.000	2.000
2080	657.0430	TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT	EACH	5.000	5.000
2090	657.0709	LUMINAIRE ARMS TRUSS TYPE 4-INCH CLAMP 12-FT	EACH	2.000	2.000
2100	657.0710	LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FT	EACH	4.000	4.000
2110	657.1350	INSTALL POLES TYPE 10	EACH	2.000	2.000
2120	657.1360	INSTALL POLES TYPE 13	EACH	4.000	4.000
2130	657.1530	INSTALL MONOTUBE ARMS 30-FT	EACH	2.000	2.000
2140	657.1540	INSTALL MONOTUBE ARMS 40-FT	EACH	2.000	2.000
2150	657.1555	INSTALL MONOTUBE ARMS 55-FT	EACH	2.000	2.000
2160	657.1812	INSTALL LUMINAIRE ARMS STEEL 12-FT	EACH	6.000	6.000
2170	658.0110	TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL	EACH	18.000	18.000
2180	658.0115	TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL	EACH	4.000	4.000
2190	658.0215	BACKPLATES SIGNAL FACE 3 SECTION 12-INCH	EACH	18.000	18.000
2200	658.0220	BACKPLATES SIGNAL FACE 4 SECTION 12-INCH	EACH	4.000	4.000
2210	658.0416	PEDESTRIAN SIGNAL FACE 16-INCH	EACH	12.000	12.000
2220	658.0500	PEDESTRIAN PUSH BUTTONS	EACH	4.000	4.000
2230	658.0600	LED MODULES 12-INCH RED BALL	EACH	18.000	18.000
2240	658.0605	LED MODULES 12-INCH YELLOW BALL	EACH	18.000	18.000
2250	658.0610	LED MODULES 12-INCH GREEN BALL	EACH	18.000	18.000
2260	658.0615	LED MODULES 12-INCH RED ARROW	EACH	4.000	4.000
2270	658.0620	LED MODULES 12-INCH YELLOW ARROW	EACH	8.000	8.000
2280	658.0625	LED MODULES 12-INCH GREEN ARROW	EACH	4.000	4.000
2290	658.0635	LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH	EACH	12.000	12.000

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DATE 17OCT13 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	1130-33-71 QUANTITY
2300	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 01. S-1400	LS	1.000	1.000
2310	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 02. S-580	LS	1.000	1.000
2320	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 03. S-805	LS	1.000	1.000
2330	659.0802	PLAQUES SEQUENCE IDENTIFICATION	EACH	2.000	2.000
2340	670.0100	FIELD SYSTEM INTEGRATOR	LS	1.000	1.000
2350	670.0200	ITS DOCUMENTATION	LS	1.000	1.000
2360	672.0250	BASE CAMERA POLE 50-FT	EACH	1.000	1.000
2370	673.0225.S	INSTALL POLE MOUNTED CABINET	EACH	1.000	1.000
2380	674.0200	CABLE MICROWAVE DETECTOR	LF	115.000	115.000
2390	675.0300	INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY	EACH	1.000	1.000
2400	675.0400.S	INSTALL ETHERNET SWITCH	EACH	1.000	1.000
2410	677.0100	INSTALL CAMERA POLE	EACH	1.000	1.000
2420	677.0200	INSTALL CAMERA ASSEMBLY	EACH	1.000	1.000
2430	677.0300.S	INSTALL VIDEO ENCODER	EACH	1.000	1.000
2440	690.0250	SAWING CONCRETE	LF	2,626.000	2,626.000
2450	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	1,674.000	1,674.000
2460	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	6,504.000	6,504.000
2470	999.1500.S	CRACK AND DAMAGE SURVEY	LS	1.000	1.000
2480	SPV.0060	SPECIAL 01. DOUBLE INLET STRUCTURE	EACH	1.000	1.000
2490	SPV.0060	SPECIAL 02. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2	EACH	8.000	8.000
2500	SPV.0060	SPECIAL 03. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 3	EACH	4.000	4.000
2510	SPV.0060	SPECIAL 04. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS	EACH	4.000	4.000
2520	SPV.0060	SPECIAL 05. LED LUMINAIRE, LED-C	EACH	12.000	12.000
2530	SPV.0060	SPECIAL 06. REMOVE AND SALVAGE RAMP GATE POLE	EACH	4.000	4.000
2540	SPV.0060	SPECIAL 07. REMOVE AND SALVAGE SOLAR ASSEMBLY	EACH	4.000	4.000
2550	SPV.0060	SPECIAL 08. REMOVE AND RETURN GATE ARM	EACH	4.000	4.000
2560	SPV.0060	SPECIAL 09. RAMP GATE ARM 24-FT	EACH	2.000	2.000
2570	SPV.0060	SPECIAL 10. RAMP GATE ARM 40-FT	EACH	2.000	2.000
2580	SPV.0090	SPECIAL 11. CONCRETE BARRIER TEMPORARY PRECAST ANCHORING	LF	3,200.000	3,200.000
2590	SPV.0105	SPECIAL 12. CONCRETE PAVEMENT JOINT LAYOUT	LS	1.000	1.000
2600	SPV.0105	SPECIAL 13. REMOVE TRAFFIC SIGNAL S-1400	LS	1.000	1.000
2610	SPV.0105	SPECIAL 14. REMOVE TRAFFIC SIGNAL S-580	LS	1.000	1.000
2620	SPV.0120	SPECIAL 15. WATER FOR SEEDED AREAS	MGAL	520.000	520.000

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REMOVING PAVEMENT

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT/RT	204.0100 REMOVING PAVEMENT (SY)	204.0110 REMOVING ASPHALTIC SURFACE (SY)
STAGE 1	STH 47 - NB	400+54	-	402+80	LT & RT	404	--
		416+96	-	420+64	LT & RT	349	
					STAGE 1 SUBTOTAL	753	0
STAGE 2	STH 47 - NB	402+80	-	409+67	LT & RT	2,869	1,380
		412+00	-	418+16	LT & RT	2,786	--
		420+04	-	420+29	RT	62	--
	NE RAMP	749+25	-	751+51	LT & RT	774	--
	NW RAMP	749+00	-	756+50	LT & RT	2,157	--
					STAGE 2 SUBTOTAL	8,647	1,380
STAGE 3	STH 47 - NB	402+78	-	409+66	LT	1,731	773
		412+01	-	418+21	LT	2,775	--
		420+03	-	420+29	LT	43	--
	SE RAMP	739+75		747+50	LT & RT	2,145	--
	SW RAMP	744+25	-	747+25	LT & RT	900	--
	ASSOCIATION DRIVE	99+45	-	99+74	LT & RT	134	--
					STAGE 3 SUBTOTAL	7,729	773
					PROJECT TOTALS	**17,200**	**2,200**

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

CLEARING & GRUBBING

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT/RT	201.0105 CLEARING (STA)	201.0120 CLEARING (ID)	201.0205 GRUBBING (STA)	201.0220 GRUBBING (ID)
STAGE 2	STH 47 - NB	402+80	-	409+68	RT	1	23	1	23
		411+75	-	422+19	RT	0.75		0.75	
	NW RAMP	749+00	-	756+50	RT	3.25		3.25	
					STAGE 2 SUBTOTAL	5	23	5	23
STAGE 3	STH 47 - SB	402+80	-	409+68	LT		22		22
		411+75	-	422+60	LT	0.75	33	0.75	33
	SE RAMP	739+75	-	747+50	RT	3.5		3.5	
					STAGE 3 SUBTOTAL	4	55	4	55
					PROJECT TOTALS	**9**	**78**	**9**	**78**

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REMOVING CURB & GUTTER

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT/RT	204.0150 REMOVING CURB & GUTTER (LF)
STAGE 1	STH 47 - NB	399+94	-	400+56	LT & RT	41
		418+16	-	420+04	LT	63
	STH 47 - SB	416+96	-	420+03	LT & RT	70
					STAGE 1 SUBTOTAL	174
STAGE 2	STH 47 - NB	402+80	-	405+50	RT	92
		418+16	-	420+04	RT	63
		422+06		422+19	RT	4
	NE RAMP	748+25	-	751+50	LT & RT	--
	NW RAMP	748+25	-	756+01	LT & RT	--
					STAGE 2 SUBTOTAL	159
STAGE 3	STH 47 - SB	402+78	-	404+92	LT	71
		418+20	-	420+03	LT	61
		422+06	-	422+61	LT	19
	SE RAMP	739+74	-	748+01	LT & RT	--
	SW RAMP	744+25	-	748+01	LT & RT	--
	ASSOCIATION DRIVE	99+47	-	99+78	LT & RT	--
					STAGE 3 SUBTOTAL	150
					PROJECT TOTALS	**484**

REMOVING CONCRETE SIDEWALK

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT/RT	204.0155 REMOVING CONCRETE SIDEWALK (SY)
STAGE 1	STH 47 - NB	399+94	-	400+56	LT	25
		418+17	-	420+64	LT & RT	--
	STH 47 - SB	416+96	-	420+65	RT	401
					STAGE 1 SUBTOTAL	426
STAGE 2	STH 47 - NB	402+80	-	409+68	RT	99
		412+03	-	422+19	RT	--
	NE RAMP	748+25	-	751+50	LT & RT	--
	NW RAMP	748+25	-	756+01	LT & RT	--
					STAGE 2 SUBTOTAL	99
STAGE 3	STH 47 - SB	403+13	-	405+00	LT	142
		422+00	-	423+00	LT	31
	SE RAMP	739+74	-	748+01	LT & RT	--
	SW RAMP	744+25	-	748+01	LT & RT	--
	ASSOCIATION DRIVE	99+00	-	99+65	RT	32
					STAGE 3 SUBTOTAL	205
					PROJECT TOTALS	**729**

SALVAGED RAIL

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT/RT	614.0920 SALVAGED RAIL (LF)
STAGE 2	STH 47 - NB	408+50	-	409+70	LT& RT	171
		412+02	-	412+66	LT	64
	USH 41 - MEDIAN	747+00	-	749+50	LT	451
					STAGE 2 SUBTOTAL	687
STAGE 3	STH 47 - SB	409+01	-	409+68	LT	66
		412+00	-	412+85	LT	153
					STAGE 3 SUBTOTAL	219
					PROJECT TOTALS	**905**

REMOVING FENCE

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT/RT	204.0170 REMOVING FENCE (LF)
STAGE 2	STH 47 - NB	402+80	-	409+68	RT	181
		412+03	-	422+19	RT	777
					STAGE 2 SUBTOTAL	958
STAGE 3	STH 47 - SB	402+80	-	409+68	LT	25
		412+03	-	422+60	LT	56
					STAGE 3 SUBTOTAL	81
					PROJECT TOTALS	**1,039**

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

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EXCAVATION SUMMARY

Division	From/To Station	Location	205.0100 Excavation Common (1) (CY) Cut (2)	Salvaged/ Unusable Pavement Material	Available Material (3)	Unexpanded Fill	Expanded Fill (4) Factor 1.33	Mass Ordinate +/- (5)	Waste	208.0100 Borrow (CY)	Comment:
1	399+94 - 420+29 'NBR'	(DIV 1-1) STH 47 NB 'NBR' - STAGE 1 CONSTRUCTION (6)	565	368	197	0	0	197	197	0	
		DIVISION 1 SUBTOTAL	565	368	197	0	0	197	197	0	
2	402+80 - 409+65 'NBR'	(DIV 2-1) STH 47 NB 'NBR' - STAGE 2 CONSTRUCTION (8)	1,643	1,108	535	918	1,220	-685	0	685	
	748+49 - 751+50 'NE'	(DIV 2-2) USH 41 NE ON-RAMP 'NE' - STAGE 2 CONSTRUCTION	1,016	356	659	238	317	342	342	-342	WASTE USED IN DIVISION 2
	406+35 - 408+53 'RTA'	(DIV 2-3) STH 47 NB RT TURN 'RTA' - STAGE 2 CONSTRUCTION	237	92	145	227	301	-157	0	157	
		DIVISION 2 SUBTOTAL	2,895	1,556	1,339	1,383	1,839	-500	342	500	
3	412+03 - 422+11 'NBR'	(DIV 3-1) STH 47 NB 'NBR' - STAGE 2 CONSTRUCTION (9)	1,927	857	1,070	1,263	1,680	-610	0	610	
	748+49 - 756+50 'NW'	(DIV 3-2) USH 41 NW OFF-RAMP 'NW' - STAGE 2 CONSTRUCTION	2,805	942	1,863	2,287	3,041	-1,178	0	1,178	
	748+36 - 750+35 'RTB'	(DIV 3-3) USH 41 NW OFF-RAMP RTL 'RTB' - STAGE 2 CONSTRUCTION	198	55	143	108	144	-1	0	1	
		DIVISION 3 SUBTOTAL	4,930	1,854	3,077	3,659	4,866	-1,789	0	1,789	
4	402+79 - 409+65 'SBR'	(DIV 4-1) STH 47 SB 'SBR' - STAGE 3 CONSTRUCTION (8)	1,480	1,025	455	946	1,258	-803	0	803	
	739+70 - 748+01 'SE'	(DIV 4-2) USH 41 SE OFF-RAMP 'SE' - STAGE 3 CONSTRUCTION	1,708	940	768	3,048	4,054	-3,286	0	3,286	
	746+21 - 748+14 'RTD'	(DIV 4-3) USH 41 SE OFF-RAMP RTL 'RTD' - STAGE 3 CONSTRUCTION	285	66	218	77	102	116	116	-116	WASTE USED IN DIVISION 4
	99+45 - 99+76 'ASN'	(DIV 4-4) ASSOCIATION DRIVE 'ASN' - STAGE 3 CONSTRUCTION	153	54	99	2	2	97	97	-97	WASTE USED IN DIVISION 4
		DIVISION 4 SUBTOTAL	3,626	2,085	1,541	4,073	5,417	-3,876	213	3,876	
5	412+02 - 422+10 'SBR'	(DIV 5-1) STH 47 SB 'SBR' - STAGE 3 CONSTRUCTION (9)	1,740	894	847	1,297	1,725	-878	0	878	
	744+25 - 747+99 'SW'	(DIV 5-2) USH 41 SW ON-RAMP 'SW' - STAGE 3 CONSTRUCTION	1,049	448	601	231	307	294	294	-294	WASTE USED IN DIVISION 5
	413+10 - 415+29 'RTC'	(DIV 5-3) USH 41 SW ON-RAMP RTL 'RTC' - STAGE 3 CONSTRUCTION	208	77	132	194	259	-127	0	127	
		DIVISION 5 SUBTOTAL	2,998	1,419	1,579	1,722	2,290	-711	294	711	
6	399+94 - 420+29 'NBR'	(DIV 6-1) STH 47 NB 'NBR' - STAGE 4 CONSTRUCTION (7)	329	0	329	571	759	-430	0	430	
		DIVISION 6 SUBTOTAL	329	0	329	571	759	-430	0	430	
		SUBTOTALS	15,344	7,281	8,063	11,407	15,171	-7,109	1,046	7,306	
	PROJECT TOTAL		**15,344**							**7,306**	

Note 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
Note 2) Salvaged/Unusable Pavement Material is included in Cut.
Note 3) Available Material = Cut - Salvaged/Unusable Pavement Material
Note 4) Expanded Fill Factor = 1.33
Note 5) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
Mass ordinate = Available Material - Expanded Fill
Note 6) This is the construction of the Temporary Crosovers.
Note 7) This is the removal of the Temporary Crossovers and completion of the proposed median.
Note 8) This only includes construction south of the STH 47 bridge over USH 41.
Note 9) This only includes construction north of the STH 47 bridge over USH 41.

AGGREGATE ITEMS

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT / RT	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)	311.0110 BREAKER RUN (TON)
STAGE 1	STH 47 - NB	399+95	-	402+80	LT & RT	--	150	--
		417+00	-	420+63	LT & RT	--	400	--
					STAGE 1 SUBTOTAL	0	550	0
STAGE 2	STH 47 - NB	402+80	-	409+67	RT	--	860	1,750
		412+01	-	420+29	RT	--	1,020	2,050
	NE RAMP	748+44	-	752+00	LT & RT	145	780	1,550
	NW RAMP	748+44	-	756+01	LT & RT	185	1,850	3,700
					STAGE 2 SUBTOTAL	330	4,510	9,050
STAGE 3	STH 47 - SB	402+80	-	409+67	LT	--	820	1,650
		412+01	-	420+29	LT	--	930	1,850
	SE RAMP	739+74	-	748+01	LT & RT	200	1,800	3,600
	SW RAMP	741+99	-	748+01	LT & RT	190	900	1,750
	ASSOCIATION DRIVE	741+99	-	748+01	LT & RT	--	46	92
	TEMPORARY RAMPS					--	360	--
					STAGE 3 SUBTOTAL	390	4,856	8,942
STAGE 4	STH 47 - NB	399+95	-	400+56	LT & RT	--	20	35
		402+80	-	409+58	LT	--	280	550
		409+58	-	413+44	LT	--	130	210
		413+44	-	420+29	LT & RT	--	160	310
	STH 47 - SB	418+50	-	420+29	LT	--	140	270
					STAGE 4 SUBTOTAL	0	730	1,375
					PROJECT TOTALS	**720**	**10,646**	**19,367**

ASPHALT ITEMS

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT / RT	455.0105 ASPHALTIC MATERIAL PG 58-28 (TON)	460.1100 HMA PAVEMENT TYPE E-0.3 (TON)	465.0125 ASPHALTIC SURFACE TEMPORARY (TON)	465.0315 ASPHALTIC FLUMES (SY)
STAGE 1	STH 47 - NB	399+94	-	402+71	LT & RT	--	--	130	--
		417+00	-	420+63	LT & RT	--	--	350	--
					STAGE 1 SUBTOTAL	0	0	480	0
STAGE 2	NE RAMP	748+25	-	751+50	LT & RT	3	42	--	37
	NW RAMP	748+25	-	756+01	LT & RT	3	51	--	48
					STAGE 2 SUBTOTAL	6	93	0	85
STAGE 3	SE RAMP	739+74	-	748+01	LT & RT	4	55	150	52
	SW RAMP	744+25	-	748+01	LT & RT	4	55	150	33
					STAGE 3 SUBTOTAL	7	110	300	85
STAGE 4	STH 47 - NB	409+38	-	412+29	LT & RT	--	--	--	7
					STAGE 4 SUBTOTAL	0	0	0	7
					PROJECT TOTALS	**13**	**203**	**780**	**177**

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

REMOVING STORM SEWER

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT / RT	204.0210 REMOVING MANHOLES (EACH)	204.0220 REMOVING INLETS (EACH)	204.0245.01 REMOVING STORM SEWER 12-INCH (LF)	204.0245.02 REMOVING STORM SEWER 18-INCH (LF)	204.0245.03 REMOVING STORM SEWER 24-INCH (LF)	204.0291.S ABANDONING SEWER (CY)
STAGE 1	STH 47 NB	402+71	-	409+50	RT	--	--	25	--	--	--
	STH 47 NB	412+01	-	420+29	RT	1	--	--	12	--	--
					STAGE 1 SUBTOTAL	1	0	25	12	0	0
STAGE 2	STH 47 NB	402+71	-	409+50	RT	--	3	131	--	--	--
	STH 47 NB	412+01	-	420+29	RT	--	4	161	--	--	--
	NE RAMP	748+44	-	752+00	LT/RT	--	--	23	--	--	--
	NW RAMP	748+44	-	756+01	LT/RT	--	1	34	--	--	--
					STAGE 2 SUBTOTAL	0	8	349	0	0	0
STAGE 3	STH 47 SB	402+80	-	409+50	LT		2	72	--	28	6
	STH 47 SB	412+01	-	420+29	LT	--	2	49	--	--	--
	SE RAMP	739+74	-	748+01	LT/RT	--	2	71	--	--	--
	SW RAMP	744+25	-	748+01	LT/RT	--	1	50	--	--	--
					STAGE 3 SUBTOTAL	0	7	242	0	28	6
					PROJECT TOTALS	**1**	**15**	**616**	**12**	**28**	**6**

CONCRETE PAVEMENT ITEMS

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT / RT	415.0100 CONCRETE PAVEMENT 10-INCH (SY)	415.0410 CONCRETE PAVEMENT APPROACH SLAB (SY)	416.0160 CONCRETE DRIVEWAY 6-INCH (SY)	416.0610 DRILLED TIE BARS (EACH)	416.0620 DRILLED DOWEL BARS (EACH)
STAGE 2	STH 47 - NB	402+71	-	409+50	RT	1,800	42	--	5	22
		412+01	-	420+29	RT	2,250	45	--	--	22
	NE RAMP	748+44	-	752+00	LT & RT	1,540	--	--	--	14
	NW RAMP	748+44	-	756+01	LT & RT	3,990	--	--	--	14
					STAGE 2 SUBTOTAL	9,580	87	0	5	72
STAGE 3	STH 47 - SB	402+80	-	409+50	LT	1,790	45	65	--	22
		412+01	-	420+29	LT	1,760	42	--	--	11
	SE RAMP	739+74	-	748+01	LT & RT	3,840	--	--	--	14
	SW RAMP	744+25	-	748+01	LT & RT	1,630	--	--	--	14
	ASSOCIATION DRIVE	741+99	-	748+01	LT & RT	140	--	--	--	30
					STAGE 3 SUBTOTAL	9,160	87	65	0	91
STAGE 4	STH 47 - NB	399+90	-	402+71	RT	--	--	--	91	--
		408+29	-	409+44	LT	230	--	--	--	--
		412+24	-	413+44	LT	265	--	--	--	--
		417+14	-	420+29	LT & RT	450	--	--	21	20
	STH 47 - SB	399+90	-	402+71	RT	--	--	--	116	9
		417+25	-	420+29	LT	405	--	--	24	9
					STAGE 4 SUBTOTAL	1,350	0	0	252	38
					PROJECT TOTALS	**20,090**	**174**	**65**	**257**	**201**

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ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

CONCRETE CURB & GUTTER ITEMS

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	TO	STATION	O/S	601.0405 18-INCH TYPE A (LF)	601.0409 30-INCH TYPE A (LF)	601.0413 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G (LF)	601.0452 INTEGRAL 30-INCH TYPE D (LF)	601.0551 4-INCH SLOPED 36-INCH TYPE A (LF)	601.0555 6-INCH SLOPED 36-INCH TYPE A (LF)	601.0600 CONCRETE CURB PEDESTRIAN (LF)
STAGE 2	STH 47 - NB	402+73	-	409+66	LT & RT	--	1,160	--	105	110	--	32
		412+01	-	420+63	LT & RT	--	1,340	34	--	120	--	--
		422+05	-	422+20	RT	--	--	12	--	--	--	--
	NE RAMP	748+44	-	752+00	LT & RT	--	--	--	--	45	--	--
	NW RAMP	748+44	-	756+01	LT & RT	--	260	--	120	25	670	36
				STAGE 2 SUBTOTAL		0	2,760	46	225	300	670	67
STAGE 3	STH 47 - SB	402+78	-	409+66	LT & RT	--	960	--	--	135	--	--
		412+01	-	420+29	LT & RT	--	1,530	--	105	120	--	38
		422+05	-	422+25	LT	--	--	30	--	--	--	--
	SE RAMP	739+74	-	748+01	RT	--	245	--	115	25	655	34
	SW RAMP	741+99	-	748+01	LT & RT	--	--	--	--	45	--	--
				STAGE 3 SUBTOTAL		0	2,735	30	220	325	655	72
STAGE 4	STH 47 - NB	399+97	-	400+50	RT	51	--	--	--	--	--	--
		408+24	-	409+58	LT	--	--	--	--	--	--	--
		412+09	-	413+44	LT	--	--	--	--	--	--	--
		416+97	-	420+29	LT & RT	--	--	--	--	--	--	--
	STH 47 - SB	399+97	-	400+50	RT	51	--	--	--	--	--	--
		418+50	-	420+29	LT	--	--	--	--	--	--	--
				STAGE 4 SUBTOTAL		102	0	0	0	0	0	0
				PROJECT TOTALS		**102**	**5,495**	**76**	**445**	**625**	**1,325**	**139**

CONCRETE SIDEWALK ITEMS

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT / RT	602.0405 CONCRETE SIDEWALK 4-INCH (SF)	602.0515 DETECTABLE WARNING FIELD NATURAL PATINA (SF)	620.0100 CONCRETE CORRUGATED MEDIAN (SF)	602.0506 CONCRETE MEDIAN SLOPED NOSE (SF)
STAGE 2	STH 47 - NB	402+80	-	409+67	RT	4,750	40	--	--
		412+01	-	422+15	RT	5,000	28	--	--
	NE RAMP	748+44	-	752+00	LT & RT	--	--	--	100
	NW RAMP	748+44	-	756+01	LT & RT	1,350	24	--	100
				STAGE 2 SUBTOTAL		11,100	92	0	200
STAGE 3	STH 47 - SB	402+80	-	409+67	LT	2,950	44	--	--
		412+01	-	422+15	LT	6,800	60	--	--
	SE RAMP	739+74	-	748+01	LT & RT	1,200	24	--	100
	SW RAMP	741+99	-	748+01	LT & RT	--	--	--	100
	ASSOCIATION DRIVE	741+99	-	748+01	LT & RT	--	--	--	--
				STAGE 3 SUBTOTAL		10,950	128	0	200
STAGE 4	STH 47 - NB	399+98	-	400+50	LT & RT	295	--	--	75
		403+76	-	408+17	LT & RT	6,500	16	5,200	45
		409+10	-	412+58	LT & RT	--	--	450	--
		413+50	-	420+63	LT & RT	7,000	--	--	150
	STH 47 - SB	418+50	-	420+29	LT	--	--	--	--
				STAGE 4 SUBTOTAL		13,795	16	5,650	270
				PROJECT TOTALS		**35,845**	**236**	**5,650**	**670**

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APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE

WORK TO BE COMPLETED DURING STAGE	STRUCT. NO.	ROADWAY	STATION	OFFSET	522.1012 12-INCH (EACH)	522.1018 18-INCH (EACH)	633.5200 MARKERS CULVERT END (EACH)
STAGE 2	4.2	STH 47	408+98.8NB	63.3' RT	1	--	1
	6.1	STH 47	412+23.2NB	56.6' RT	1	--	1
	9.6	41 SB OFF-RAMP	749+48.9NW	45.5' RT	--	1	1
	14.1	41 SB OFF-RAMP	753+50.0NW	45.7' RT	--	1	1
				STAGE 2 SUBTOTAL	2	2	4
STAGE 3	5.2	STH 47	408+94.1SB	62.3' LT	1	--	1
	7.1	STH 47	412+15.7SB	60.3' LT	1	--	1
	8.2	41 SB ON-RAMP	747+23.6SW	55.8' LT	1	--	1
	12.1	41 NB OFF-RAMP	743+01.0SE	48.9' LT	--	1	1
	13.2	41 NB OFF-RAMP	747+05.9SE	45.5' LT	1	--	1
				STAGE 3 SUBTOTAL	4	1	5
				PROJECT TOTALS	**6**	**3**	**9**

GUARDRAIL ITEMS

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT / RT	614.0395 GUARDRAIL MOW STRIP CONCRETE (SY)	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL (EACH)	614.0230 STEEL THRIE BEAM (LF)	614.1200 MGS GUARDRAIL TEMPORARY TERMINAL EAT (EACH)	614.2500 MGS THRIE BEAM TRANSITION (LF)	614.2610 MGS GUARDRAIL TERMINAL EAT (EACH)
STAGE 1	STH 47 - SB	408+61	-	409+14	LT	--	--	--	1	--	--
				STAGE 1 SUBTOTAL		0	0	0	1	0	0
STAGE 2	STH 47 - NB	409+25	-	412+50	LT	38	--	--	2	--	--
	STH 47 - NB	408+88	-	412+83	RT	101	--	--	--	60	2
				STAGE 2 SUBTOTAL		139	0	0	2	60	2
STAGE 3	STH 47 - SB	408+85	-	412+80	LT & RT	142	--	175	--	60	2
	USH 41 - NB	747+17	-	749+35	LT & RT	--	2	225	--	--	--
				STAGE 3 SUBTOTAL		142	2	400	0	60	2
				PROJECT TOTALS		**281**	**2**	**400**	**3**	**120**	**4**

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

STORM SEWER PIPE

WORK TO BE COMPLETED DURING STAGE	FROM STRUCTURE NO.	-	TO STRUCTURE NO.	INLET ELEV	OUTLET ELEV	SLOPE %	520.8000 CONCRETE COLLARS FOR PIPE (EACH)	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH (LF)	608.0318 18-INCH (LF)	608.0324 24-INCH (LF)
STAGE 1	STUB	-	10.0	841.41	841.36	0.50%	--	9	--	--
	10.2	-	10.0	841.40	841.36	0.50%	--	8	--	--
	STUB	-	11.0	840.64	840.51	0.50%	--	25	--	--
	10.0	-	11.0	840.86	840.01	0.48%	--	--	180	--
	STUB	-	11.2	840.60	840.51	0.50%	--	18	--	--
	11.0	-	STUB	839.42	839.31	0.90%	1	--	12	--
					STAGE 1 SUBTOTALS		1	60	192	0
STAGE 2	STUB	-	1.0	831.82	831.78	0.30%	1	--	--	12
	1.0	-	STUB	831.78	831.74	0.30%	1	--	--	12
	1.3	-	1.0	832.84	832.78	0.50%	--	12	--	--
	1.4	-	1.0	832.88	832.78	0.50%	--	19	--	--
	2.6	-	2.7	833.73	833.33	1.00%	--	--	39	--
	2.7	-	2.0	833.33	832.64	0.90%	--	--	77	--
	3.0	-	2.6	835.65	833.73	1.20%	--	--	160	--
	3.3	-	3.0	836.28	836.12	1.00%	--	31	--	--
	4.0	-	4.1	838.59	838.32	0.50%	--	53	--	--
	4.1	-	4.2	838.29	838.10	0.50%	--	38	--	--
	6.0	-	6.1	840.59	840.43	0.50%	--	31	--	--
	9.1	-	9.3	840.72	840.41	1.00%	--	31	--	--
	9.3	-	9.5	839.91	838.57	1.40%	--	--	96	--
	9.2	-	9.3	840.62	840.41	0.50%	--	42	--	--
	9.4	-	9.5	839.19	839.07	0.50%	--	27	--	--
	9.5	-	9.6	838.57	838.40	0.50%	--	--	34	--
	9.6	-	9.7	838.40	838.26	0.50%	--	--	28	--
	10.3	-	STUB	841.53	841.41	0.50%	--	25	--	--
	11.3	-	STUB	840.76	840.64	0.50%	--	24	--	--
	14.0	-	14.1	827.98	827.02	1.00%	--	--	96	--
					STAGE 2 SUBTOTAL		2	333	530	24
STAGE 3	1.1	-	1.2	833.03	832.90	0.50%	--	27	--	--
	2.1	-	2.2	834.84	834.67	0.50%	--	34	--	--
	2.2	-	2.4	834.67	834.45	0.48%	--	45	--	--
	2.3	-	2.4	834.57	834.45	0.50%	--	20	--	--
	2.4	-	2.5	834.45	834.31	0.50%	--	27	--	--
	3.1	-	3.2	836.65	836.30	1.00%	--	35	--	--
	5.0	-	5.1	838.57	838.27	0.50%	--	59	--	--
	5.1	-	5.2	838.15	837.96	0.50%	--	38	--	--
	7.0	-	7.1	840.45	840.27	0.50%	--	35	--	--
	8.0	-	8.1	840.09	839.72	1.00%	--	37	--	--
	8.1	-	8.2	839.45	839.03	1.00%	--	42	--	--
	10.1	-	10.2	841.59	841.40	0.50%	--	37	--	--
	11.1	-	STUB	840.67	840.60	0.50%	--	14	--	--
	12.0	-	12.1	825.95	825.46	0.50%	--	--	99	--
	13.0	-	13.1	835.95	835.85	0.50%	--	27	--	--
	13.1	-	13.2	835.85	835.68	0.50%	--	33	--	--
	13.2	-	13.3	835.68	835.53	0.50%	--	30	--	--
					STAGE 3 SUBTOTAL		0	540	99	0
STAGE 4	1.2	-	1.3	832.90	832.82	0.50%	--	16	--	--
	2.5	-	2.6	833.81	833.73	0.50%	--	--	17	--
	3.2	-	3.0	836.30	836.12	1.00%	--	18	--	--
	9.0	-	9.1	840.90	840.72	1.00%	--	18	--	--
					STAGE 4 SUBTOTAL		0	52	17	0
					PROJECT TOTALS		**3**	**985**	**838**	**24**

FENCE ITEMS

WORK COMPLETED DURING STAGE	LOCATION	STATION		STATION	LT / RT	614.0204 FENCE CHAIN LINK 4-FT (LF)	616.0700.S FENCE SAFETY (LF)
STAGE 1	STH 47 NB	402+50NB	-	408+50NB	RT	--	250
				STAGE 1 SUBTOTAL		0	250
STAGE 2	STH 47 NB	402+50NB	-	420+50NB	RT	1,040	--
				STAGE 2 SUBTOTAL		1,040	0
STAGE 3	STH 47 SB	402+50SB	-	420+50SB	LT	105	--
				STAGE 3 SUBTOTAL		105	0
				PROJECT TOTALS		**1,145**	**250**

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

STORM SEWER STRUCTURE SCHEDULE

WORK TO BE COMPLETED DURING STAGE	STRUCT. NO.	ROADWAY	STATION	OFFSET	TOP STRUCTURE ELEV	CASTING ELEV	BOTTOM STRUCTURE ELEV	DEPTH	611.8110 ADJUSTING MANHOLE COVERS (EACH)	611.8120.S COVER PLATES TEMPORARY (EACH)	611.9710 SALVAGED INLET COVERS (EACH)	611.3230 INLETS 2x3-FT (EACH)	611.3901 INLETS MEDIAN 1 GRATE (EACH)	SPV.0060.01 INLETS DOUBLE INLET (EACH)	611.2004 MANHOLES 4-FT DIA. (EACH)	611.2006 MANHOLES 6-FT DIA. (EACH)	611.0530 MANHOLE COVERS TYPE J (EACH)	611.0624 INLET COVERS TYPE H (EACH)	611.0627 INLET COVERS TYPE HM (EACH)	611.0642 INLET COVERS TYPE MS (EACH)
STAGE 1	--	STH 47	400+01.8NB	0.2 LT	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--
	SANITARY	STH 47	401+82.0NB	8.5' LT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	11.0	STH 47	419+57.9NB	10.0' LT	844.36	845.36	839.30	5.06	--	1	--	--	--	--	--	--	--	--	--	--
	11.2	STH 47	419+56.0SB	0.0' RT	844.76	845.76	839.30	5.46	--	1	--	--	--	1	--	--	--	--	--	--
	10.0	STH 47	417+78.2NB	7.2' LT	845.33	846.33	840.66	4.67	--	1	--	--	--	--	1	--	--	--	--	--
	10.2	STH 47	417+76.5SB	0.0' RT	845.62	846.62	841.23	4.39	--	1	--	1	--	--	--	--	--	--	--	--
							STAGE 1 SUBTOTAL		1	5	1	1	0	1	1	0	0	0	0	0
STAGE 2	1.0	STH 47	403+78.3NB	9.6' RT	836.53	837.78	831.53	5.00	--	--	--	--	--	--	--	1	1	--	--	--
	1.3	STH 47	403+78.3NB	0.0' RT	836.94	837.94	832.67	4.27	--	--	--	1	--	--	--	--	--	1	--	--
	1.4	STH 47	403+78.3NB	27.4' RT	836.41	837.41	832.71	3.70	--	--	--	1	--	--	--	--	--	1	--	--
	1.5	STH 47	404+39.2NB	11.0' RT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	2.0	STH 47	405+02.8NB	13.4' RT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	2.6	STH 47	405+77.0NB	0.0' RT	838.20	839.20	833.52	4.68	--	--	--	--	--	--	1	--	--	1	--	--
	2.7	STH 47	405+77.0NB	36.0' RT	837.48	838.48	833.13	4.35	--	--	--	--	--	--	--	1	--	1	--	--
	3.0	STH 47	407+37.3NB	0.0' RT	839.97	840.97	835.44	4.53	--	--	--	--	--	--	1	--	--	1	--	--
	3.3	STH 47	407+37.3NB	28.0' RT	839.41	840.41	836.11	3.30	--	--	--	1	--	--	--	--	--	1	--	--
	4.0	STH 47	409+45.0NB	24.0' RT	842.06	843.06	838.42	3.64	--	--	--	1	--	--	--	--	--	--	1	--
	4.1	STH 47	408+91.6NB	24.0' RT	841.43	842.43	838.13	3.30	--	--	--	1	--	--	--	--	--	--	1	--
	6.0	STH 47	412+26.5NB	24.0' RT	844.03	845.03	840.42	3.61	--	--	--	1	--	--	--	--	--	--	1	--
	9.1	STH 47	413+52.9NB	0.0' RT	845.14	846.14	840.56	4.58	--	--	--	1	--	--	--	--	--	1	--	--
	9.2	STH 47	748+57.1RTB	34.8' LT	844.24	845.24	840.46	3.78	--	--	--	1	--	--	--	--	--	1	--	--
	9.3	STH 47	413+49.3NB	28.0' RT	844.56	845.56	839.70	4.86	--	--	--	--	--	--	1	--	--	1	--	--
	9.4	41 SB OFF-RAMP	749+48.4RTB	14.0' LT	841.92	842.92	839.02	2.90	--	--	--	1	--	--	--	--	--	1	--	--
	9.5	41 SB OFF-RAMP	749+48.9NW	16.0' LT	842.35	843.35	838.36	3.99	--	--	--	--	--	--	1	--	--	1	--	--
	9.6	41 SB OFF-RAMP	749+47.0NW	15.5' RT	842.36	843.36	838.36	4.00	--	--	--	1	--	--	--	--	--	1	--	--
	10.3	STH 47	417+78.1NB	24.0' RT	845.01	846.01	841.37	3.64	--	--	--	1	--	--	--	--	--	1	--	--
	11.3	STH 47	419+57.7NB	36.0' RT	843.92	844.92	840.58	3.34	--	--	--	1	--	--	--	--	--	1	--	--
	14.0	41 SB OFF-RAMP	753+50.0NW	50.3' LT	831.81	831.81	827.77	4.04	--	--	--	--	1	--	--	--	--	--	--	1
							STAGE 2 SUBTOTAL		2	0	0	12	1	0	4	2	1	14	3	1
STAGE 3	1.1	STH 47	403+78.3SB	24.0' LT	836.46	837.46	832.86	3.60	--	--	--	1	--	--	--	--	--	1	--	--
	1.2	STH 47	403+78.3SB	0.0' RT	836.94	837.94	832.73	4.21	--	--	--	1	--	--	--	--	--	1	--	--
	2.1	STH 47	99+48.3ASN	17.0' RT	837.52	838.52	834.67	2.85	--	--	--	1	--	--	--	--	--	1	--	--
	2.2	STH 47	99+48.3ASN	14.0' LT	837.94	838.94	834.50	3.44	--	--	--	1	--	--	--	--	--	1	--	--
	SANITARY	STH 47	405+50SB	31.0' LT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	2.3	STH 47	405+55.6SB	24.7' LT	837.60	838.60	834.40	3.20	--	--	--	1	--	--	--	--	--	1	--	--
	2.4	STH 47	405+75.9SB	24.0' LT	837.71	838.71	834.28	3.43	--	--	--	--	--	--	--	1	--	1	--	--
	2.5	STH 47	405+76.0SB	0.0' RT	838.19	839.19	833.60	4.59	--	--	--	1	--	--	--	--	--	1	--	--
	SANITARY	STH 47	406+80SB	38.0 LT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	3.1	STH 47	407+37.5SB	30.0' LT	839.37	840.37	836.48	2.89	--	--	--	1	--	--	--	--	--	1	--	--
	3.2	STH 47	407+37.3SB	0.0' RT	839.97	840.97	836.13	3.84	--	--	--	1	--	--	--	--	--	1	--	--
	5.0	STH 47	409+41.9SB	24.0' LT	842.04	843.04	838.40	3.64	--	--	--	1	--	--	--	--	--	--	1	--
	5.1	STH 47	408+82.7SB	24.0' LT	841.31	842.31	837.99	3.32	--	--	--	1	--	--	--	--	--	--	1	--
	7.0	STH 47	412+23.6SB	24.0' LT	844.01	845.01	840.28	3.73	--	--	--	1	--	--	--	--	--	--	1	--
	8.0	STH 47	413+49.0SB	24.0' LT	844.56	845.56	839.92	4.64	--	--	--	1	--	--	--	--	--	1	--	--
	8.1	STH 47	413+53.0RTC	17.7' LT	843.31	844.31	839.28	4.03	--	--	--	1	--	--	--	--	--	1	--	--
	9.0	STH 47	413+52.9SB	0.0' RT	845.14	846.14	840.74	4.40	--	--	--	1	--	--	--	--	--	1	--	--
	10.1	STH 47	417+76.4SB	33.7' LT	844.95	845.95	841.42	3.53	--	--	--	1	--	--	--	--	--	1	--	--
	11.1	STH 47	419+56.0SB	24.0' LT	844.28	845.28	840.51	3.77	--	--	--	1	--	--	--	--	--	1	--	--
	12.0	41 NB OFF-RAMP	743+00.0SE	50.2' RT	830.88	830.88	824.74	6.14	--	--	--	--	1	--	--	--	--	--	--	1
	13.0	41 NB OFF-RAMP	747+05.7RTD	14.0' RT	839.31	840.31	835.82	3.49	--	--	--	1	--	--	--	--	--	1	--	--
	13.1	41 NB OFF-RAMP	747+05.3SE	16.0' RT	839.80	840.80	835.68	4.12	--	--	--	1	--	--	--	--	--	1	--	--
	13.2	41 NB OFF-RAMP	747+05.6SE	14.4' LT	839.90	840.90	835.51	4.39	--	--	--	1	--	--	--	--	--	1	--	--
							STAGE 3 SUBTOTAL		2	0	0	19	1	0	0	1	0	17	3	1
STAGE 4	SANITARY	STH 47	403+87.0NB	9.0 LT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	SANITARY	STH 47	405+26NB	9.0 LT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	SANITARY	STH 47	403+87.0NB	9.0 LT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--
	11.0	STH 47	419+57.9NB	10.0' LT	844.40	845.40	839.30	5.10	--	--	--	--	--	--	--	--	--	1	--	--
	11.2	STH 47	419+56.0SB	0.0' RT	844.76	845.76	839.30	5.46	--	--	--	--	--	--	--	--	--	1	--	--
	10.0	STH 47	417+78.2NB	7.2' LT	845.35	846.35	840.66	4.69	--	--	--	--	--	--	--	--	--	1	--	--
	10.2	STH 47	417+76.5SB	0.0' RT	845.62	846.62	841.23	4.39	--	--	--	--	--	--	--	--	--	1	--	--
							STAGE 4 SUBTOTAL		3	0	0	0	0	0	0	0	0	4	0	0
							PROJECT TOTALS		8	5	1	32	2	1	5	3	1	35	6	2

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

LANSCAPING ITEMS

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION - STATION	LT / RT	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	628.2006 EROSION MAT URBAN CLASS I TYPE A (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0130 SEEDING MIXTURE NO. 30 (LB)	630.0140 SEEDING MIXTURE NO. 40 (LB)	630.0200 SEEDING TEMPORARY (LB)	631.1000 SOD LAWN (SY)	SPV.0120.15 WATER FOR SEEDED AREAS (MGAL)
STAGE 2	STH 47 - NB	402+71 - 409+50	RT	1,270	0	1,270	1	0	23	0	200	29
		412+01 - 420+29	RT	1,660	0	1,660	1	0	30	0	0	40
	NE RAMP	748+44 - 752+00	LT & RT	1,890	1,890	0	1	34	0	51	0	42
	NW RAMP	748+44 - 756+01	LT & RT	7,370	7,370	0	5	133	0	199	0	166
			STAGE 2 SUBTOTAL	12,190	9,260	2,930	8	167	53	250	200	277
STAGE 3	STH 47 - SB	402+80 - 409+50	LT	625	0	625	0	0	12	0	0	14
		412+01 - 420+29	LT	1,580		1,580	1	0	30	0		35
	SE RAMP	739+74 - 748+01	LT & RT	6,180	6,180	0	4	114	0	170	0	139
	SW RAMP	744+25 - 748+01	LT & RT	2,425	2,425	0	2	44	0	65	0	54
	ASSOCIATION DRIVE	741+99 - 748+01	LT & RT	0	0	0	0	0	0	0	0	0
			STAGE 3 SUBTOTAL	10,810	8,605	2,205	7	158	43	235	0	243
			PROJECT TOTALS	23,000	17,865	5,135	14	325	95	485	200	520

DELINEATORS

	STATION - STATION	LOCATION	204.0180 REMOVING DELINEATORS (EACH)	633.0100 DELINEATOR POSTS STEEL (EACH)	633.0500 DELINEATOR REFLECTORS (EACH)
STAGE 2	749+65'NW' - 756+50 'NW'	NW RAMP	14	14	14
	STAGE 2 SUBTOTAL		14	14	14
STAGE 3	739+75'SE' - 746+75'SE'	SE RAMP	14	14	14
	STAGE 3 SUBTOTAL		14	14	14
		UNDISTRIBUTED	--	2	2
		PROJECT TOTAL	**28**	**30**	**30**

EROSION CONTROL

WORK COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT/RT	606.0200 ** RIPRAP MEDIUM (SY)	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.2004 EROSION MAT CLASS I TYPE B (LF)	628.7504 TEMPORARY DITCH CHECKS (LF)	645.0120 ** GEOTEXTILE FABRIC TYPE HR (SY)
STAGE 2	USH 41 NB - ON RAMP	748+75	-	752+00NE	RT	4	--	--	255	32	15
	USH 41 NB - ON RAMP	748+75	-	750+75NE	LT	4	300	150	--	--	15
	STH 47	408+50	-	410+25NB	RT	70	--	--	110	--	263
	STH 47	411+50	-	416+00NB	RT	48	214	107	152	--	180
	USH 41 SB - OFF RAMP	749+50	-	756+50NW	RT	28	800	400	--	--	105
	USH 41 SB - OFF RAMP	749+50	-	756+75NW	LT	12	--	--	650	56	45
				STAGE 2 SUBTOTAL		166	1,314	657	1,167	88	623
STAGE 3	USH 41 NB - OFF RAMP	748+25	-	739+50SE	RT	12	--	--	845	72	45
	USH 41 NB - OFF RAMP	748+00	-	739+50SE	LT	22	800	400	--	--	83
	STH 47	408+75	-	410+25SB	LT	78	50	25	--	--	293
	STH 47	411+25	-	413+00SB	LT	4	75	40	--	--	--
	USH 41 SB - ON RAMP	747+00	-	742+00SW	RT	4	414	207	95	--	15
	USH 41 SB - ON RAMP	741+75	-	747+75SW	LT	8	--	--	340	64	30
				STAGE 3 SUBTOTAL		128	1,339	672	1,280	136	465
				*UNDISTRIBUTED		74	663	332	612	56	272
				PROJECT TOTALS		**370**	**3,350**	**1,670**	**3,100**	**280**	**1400**

* 25% of the Item Total + additional quantity for rounding purposes
** Additional quantity found in "Erosion Control at Pipe Endwalls" table

EROSION CONTROL AT PIPE ENDWALLS

WORK COMPLETED DURING STAGE	LOCATION	STATION	LT/RT	606.0200 ** RIPRAP MEDIUM (CY)	645.0120 ** GEOTEXTILE FABRIC TYPE HR (SY)	628.7570 ROCK BAGS (EACH)
STAGE 2	STH 47	408+98NB	RT	4	15	20
	STH 47	412+15NB	RT	4	15	--
	NB USH 41 - OFF RAMP	749+50NW	RT	4	15	20
	NB USH 41 - OFF RAMP	753+50NW	RT	4	15	20
		STAGE 2 SUBTOTAL		16	60	60
STAGE 3	STH 47	408+92SB	LT	4	15	--
	STH 47	412+17SB	LT	4	15	20
	SB USH 41 - OFF RAMP	743+00SE	LT	4	15	20
	SB USH 41 - OFF RAMP	747+05SE	LT	4	15	20
	SB USH 41 - ON RAMP	746+90SW	LT	4	15	--
		STAGE 3 SUBTOTAL		20	75	60
		* UNDISTRIBUTED		9	35	30
		PROJECT TOTALS		**45**	**170**	**150**

* 25% of the Item Total + additional quantity for rounding purposes
** Additional quantity found in "Erosion Control" table

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 (EACH)	628.1910 EMERGENCY (EACH)
STAGE 1	3	1
STAGE 2	3	1
STAGE 3	3	1
STAGE 4	3	1
PROJECT TOTALS	**12**	**4**

3

INLET PROTECTION

WORK COMPLETED DURING STAGE	LOCATION	STATION	OFFSET	628.7005 TYPE A (EACH)	628.7010 TYPE B (EACH)	628.7015 TYPE C (EACH)
STAGE 1	STH 47	399+95.0NB	26.4' RT	--	--	1
	STH 47	400+02.8SB	23.8' LT	--	--	1
	STH 47	402+72NB	25.4' RT	--	--	1
	STH 47	402+74NB	42.7' LT	--	--	1
	STH 47	404+28SB	24.0'LT	--	--	1
	STH 47	419+57.7NB	36.0' RT	--	--	1
	STH 47	421+99.0SB	24.0' LT	--	--	1
	STH 47	421+98.0SB	0.0' RT	--	--	1
	STH 47	421+98.5NB	9.3' LT	--	--	1
	STH 47	422+03.2NB	36.0' RT	--	--	1
	STH 47	422+39.5NB	65.6' RT	--	--	1
			STAGE 1 SUBTOTAL	0	0	11
STAGE 2	STH 47	403+78NB	0.0' RT	1	--	1
	STH 47	403+78NB	27.4' RT	1	--	1
	STH 47	405+77NB	0.0' RT	1	--	1
	STH 47	405+77NB	36.0' RT	1	--	1
	STH 47	407+37.3NB	0.0' RT	1	--	1
	STH 47	407+37.3NB	28.0' RT	1	--	1
	STH 47	408+91.6NB	24.0' RT	1	--	1
	STH 47	409+45NB	24.0' RT	1	--	1
	STH 47	412+26.5NB	24.0' RT	1	--	1
	STH 47	413+52.9NB	0.0' RT	1	--	1
	STH 47	413+49.3NB	28.0' RT	1	--	1
	STH 47	417+78.1NB	24.0' RT	1	--	1
	STH 47	419+57.8NB	37.6' RT	1	--	--
	SB USH 41 - OFF RAMP	748+57.1RTB	34.8' LT	1	--	1
	SB USH 41 - OFF RAMP	749+48.4RTB	14.0' LT	1	--	1
	SB USH 41 - OFF RAMP	749+48.9NW	16.0' LT	1	--	1
	SB USH 41 - OFF RAMP	753+50NW	50.3' LT	1	1	--
			STAGE 2 SUBTOTAL	17	1	15
STAGE 3	STH 47	403+78.3SB	0.0' RT	1	--	1
	STH 47	403+78.3SB	24.0' LT	1	--	1
	ASSOCIATION DR	99+48.3ASN	17.0' RT	1	--	1
	ASSOCIATION DR	99+48.3ASN	14.0' LT	1	--	1
	STH 47	405+45.9SB	31.3' LT	1	--	1
	STH 47	405+75.9SB	24.0' LT	1	--	1
	STH 47	405+76.0SB	0.0' RT	1	--	1
	STH 47	407+37.5SB	30.0' LT	1	--	1
	STH 47	407+37.3SB	0.0' RT	1	--	1
	NB USH 41 - OFF RAMP	747+05.7RTD	14.0' RT	1	--	1
	NB USH 41 - OFF RAMP	747+05.3SE	16.0' RT	1	--	1
	NB USH 41 - OFF RAMP	743+00SE	50.2' RT	1	1	-
	STH 47	408+82.7SB	24.0' LT	1	--	1
	STH 47	409+42SB	24.0' LT	1	--	1
	STH 47	412+23.6SB	24.0' LT	1	--	1
	STH 47	413+49SB	24.0' LT	1	--	1
	STH 47	413+52.9SB	0.0' RT	1	--	1
	NB USH 41 - OFF RAMP	413+53RTC	17.7' LT	1	--	1
	STH 47	417+76.4SB	33.7' LT	1	--	1
	STH 47	419+56SB	24.0'LT	1	--	1
			STAGE 3 SUBTOTAL	20	1	19
STAGE 4	STH 47	417+76.5SB	0.0' RT	1	--	--
	STH 47	417+76.5NB	10.0' RT	1	--	--
	STH 47	419+56SB	0.0' RT	1	--	1
	STH 47	419+57.9NB	10.0' LT	1	--	1
			STAGE 4 SUBTOTAL	4	0	2
			PROJECT TOTALS	**41**	**2**	**47**

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

TRAFFIC CONTROL DEVICES

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT/RT	DAYS IN PHASE	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED (LF)	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED (LF)	SPV.0090.11 CONCRETE BARRIER TEMPORARY PRECAST ANCHORING (LF)	614.0905 CRASH CUSHION TEMPORARY (EACH)	*643.1000 SIGNS FIXED MESSAGE (S.F.)	643.1050 SIGNS PCMS (NO.)	643.1050 SIGNS PCMS (DAYS)	643.0300 DRUMS (NO.)	643.0300 DRUMS (DAYS)	643.0420 BARRICADES TYPE III (NO.)	643.0420 BARRICADES TYPE III (DAYS)	643.0705 WARNING LIGHTS TYPE A (NO.)	643.0705 WARNING LIGHTS TYPE A (DAYS)	643.0715 WARNING LIGHTS TYPE C (NO.)	643.0715 WARNING LIGHTS TYPE C (DAYS)	643.0800 ARROW BOARDS (NO.)	643.0800 ARROW BOARDS (DAYS)	643.0900 TRAFFIC CONTROL SIGNS (NO.)	643.0900 TRAFFIC CONTROL SIGNS (DAYS)	643.0500 FLEXIBLE TUBULAR MARKER POSTS (EACH)	643.0600 FLEXIBLE TUBULAR MARKER BASES (EACH)
STAGE 1	STH 47	396+00	-	430+00		11	--	--	--	--	--	--	--	310	3,410	85	935	45	495	170	1,870	2	22	50	550	--	--
	USH 41 - NB	717+00	-	752+00		11	1,600	1,600	1,600	2	--	--	--	100	1,100	10	110	5	55	10	110	--	--	5	55	--	--
	USH 41 - SB	745+00	-	780+00		11	1,600	1,600	1,600	2	--	--	--	100	1,100	10	110	5	55	5	55	--	--	5	55	--	--
				STAGE 1 SUBTOTAL			3,200	3,200	3,200	4	0	0	0	510	5,610	105	1,155	55	605	185	2,035	2	22	60	660	0	0
STAGE 2	STH 47	396+00	-	430+00		72	--	--	--	--	19	--	--	270	19,440	49	3,528	25	1,764	70	5,040	2	144	35	2,520	75	75
	USH 41 - NB	717+00	-	752+00		72	--	--	--	--	--	--	--	100	7,200	10	720	5	360	10	720	--	--	5	360	--	--
	USH 41 - SB	745+00	-	780+00		72	--	--	--	--	--	--	--	100	7,200	10	720	5	360	5	360	--	--	5	360	--	--
	USH 41 - NB RAMP DETOUR	--	-	--		4	--	--	--	--	--	3	12	150	600	10	40	15	60	70	280	5	20	35	140	--	--
	USH 41 - SB RAMP DETOUR	--	-	--		4	--	--	--	--	--	3	12	150	600	10	40	15	60	70	280	5	20	30	120	--	--
				STAGE 2 SUBTOTAL			0	0	0	0	19	6	24	770	35,040	89	5,048	65	2,604	225	6,680	12	184	110	3,500	75	75
STAGE 3	STH 47	396+00	-	430+00		67	--	--	--	--	19	--	--	265	17,755	53	3,551	30	2,010	55	3,685	2	134	45	3,015	75	75
	USH 41 - NB	717+00	-	752+00		67	--	--	--	--	--	--	--	100	6,700	10	670	5	335	10	670	--	--	10	670	--	--
	USH 41 - SB	745+00	-	780+00		67	--	--	--	--	--	--	--	100	6,700	10	670	5	335	5	335	--	--	10	670	--	--
	USH 41 - NB RAMP DETOUR	--	-	--		4	--	--	--	--	--	3	12	150	600	10	40	15	60	70	280	5	20	30	120	--	--
	USH 41 - SB RAMP DETOUR	--	-	--		4	--	--	--	--	--	3	12	150	600	10	40	15	60	70	280	5	20	30	120	--	--
				STAGE 3 SUBTOTAL			0	0	0	0	19	6	24	765	32,355	93	4,971	70	2,800	210	5,250	12	174	125	4,595	75	75
STAGE 4	STH 47	396+00	-	430+00		24	--	--	--	--	--	--	--	250	6,000	60	1,440	30	720	90	2,160	2	48	45	1,080	--	--
	USH 41 - NB	717+00	-	752+00		24	--	--	--	--	--	--	--	100	2,400	10	240	5	120	10	240	--	--	10	240	--	--
	USH 41 - SB	745+00	-	780+00		24	--	--	--	--	--	--	--	100	2,400	10	240	5	120	5	120	--	--	10	240	--	--
				STAGE 4 SUBTOTAL			0	0	0	0	0	0	0	450	10,800	80	1,920	40	960	105	2,520	2	48	65	1,560	0	0
MISCELLANEOUS	USH 41 - NIGHT LANE CLOSURE					50	--	--	--	--	--	2	100	70	3,500	10	500	5	250	20	1,000	3	150	10	500	--	-
				MISCELLANEOUS SUBTOTAL			0	0	0	0	0	2	100	70	3,500	10	500	5	250	20	1,000	3	150	10	500	0	0
MISCELLANEOUS	STH 47 - NIGHT DETOUR					8	--	--	--	--	--	4	32	35	280	15	120	20	160	10	80	4	32	25	200	--	-
				MISCELLANEOUS SUBTOTAL			0	0	0	0	0	4	32	35	280	15	120	20	160	10	80	4	32	25	200	0	0
				PROJECT TOTALS			3,200	3,200	3,200	4	39	18	180	2,600	87,585	392	13,714	255	7,379	755	17,565	35	610	395	11,015	150	150

*ADDITIONAL QUANTITIES FOUND IN THE "TRAFFIC CONTROL DETOUR" TABLE

3

3

REMOVAL & ERECTION OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 TYPE II SIGNS REFLECTIVE H S.F.	637.2215 TYPE II FOLDING SIGNS REFLECTIVE H S.F.	637.2230 TYPE II SIGNS REFLECTIVE F S.F.	634.0614 POSTS WOOD 4X6X14 EACH	634.0616 POSTS WOOD 4X6X16 EACH	634.0618 POSTS WOOD 4X6X18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	I-41 SB	R2-1	48" X 60"	20.00				1	1	1	1	65 MPH
2	I-41 NB	W12-2								1	2	15'-0"
3	"	W57-52								1		3/4 MILE AHEAD
4	"	W12-2								1	2	15'-0"
5	"	W57-52								1		3/4 MILE AHEAD
6	"	R3-4B	36" X 48"	12.00				1				
7	I-41 SB	R3-4B	36" X 48"	12.00				1				
8	"	J4-2	72" X 54"	27.00					2			SOUTH I-41, SOUTH USH 41
8A	"	J4-1								2	1	
9	I-41 SB ON-RAMP	R8-7	48" X 36"	12.00				1		1	1	
10	I-41 NB OFF-RAMP	E5-1A	90" X 60"	37.50					2	1	2	EXIT 142
11	"	W3-3	36" X 36"			9.00		1		1	1	
12	"	J2-2	48" X 57"	19.00				2		6	2	NORTH STH 47, SOUTH STH 47, SEE PLAN SHEET
13	"	D4-56R	36" X 36"	9.00				1				
14	"	R3-8P	54" X 30"	11.25				1		1	1	
15	"	R3-8P	54" X 30"	11.25				1		1	1	
16	"	D1-3	84" X 36"	21.00				2		1	2	SEE SIGN DETAIL SHEET
17	"	D1-4	96" X 54"	36.00				3		1	2	SEE SIGN DETAIL SHEET
18	"	J3-2	48" X 57"	19.00				2		1	1	NORTH STH 47, SOUTH STH 47, SEE PLAN SHEET
19	"	J3-2	48" X 57"	19.00				2		1	1	NORTH STH 47, SOUTH STH 47, SEE PLAN SHEET
20	STH 47 OVERPASS	D1-2								1	1	
21	STH 47 SB	R3-1	24" X 24"	4.00						1		MOUNT TO TRAFFIC SIGNAL
22	"	R1-1F	36" X 36"		7.46					1		MOUNT TO TRAFFIC SIGNAL AND BELOW SIGN #21
23	I-41 NB OFF-RAMP SPLITTER ISLAND	W12-1D	24" X 24"			4.00	1					
24	STH 47 SB	R5-1	30" X 30"	6.25						1		MOUNT TO TRAFFIC SIGNAL AND ON BACKSIDE OF SIGN #21 & #22
25	I-41 NB OFF-RAMP SPLITTER ISLAND	R6-2L	24" X 30"	5.00						1		MOUNT TO TRAFFIC SIGNAL, SIGN FACING NORTH
26	I-41 NB OFF-RAMP	R1-2	36" X 31"	3.87			1			1	1	
26A		R5-1A	36" X 24"	6.00						1		MOUNT ON BACKSIDE OF SIGN #19
26B		R5-1A	36" X 24"	6.00						1		MOUNT ON BACKSIDE OF SIGN #18
27	I-41 NB OFF-RAMP SPLITTER ISLAND	R1-1F	36" X 36"		7.46					1		MOUNT TO TRAFFIC SIGNAL, SIGN FACING WEST
28	"	R6-2R	24" X 30"	5.00				1		1	1	
29	"	R5-1	30" X 30"	6.25						1		MOUNT ON BACKSIDE OF SIGN #28
30	STH 47 OVERPASS	W5-52L								1	1	
31	STH 47 SB	J3-1	24" X 57"	9.50						3		MOUNT TO TRAFFIC SIGNAL, NORTH I-41, SEE PLAN SHEET
32	"	J4-1	24" X 36"	6.00				1		2	1	
33	ASSOCIATION DR	R1-1	30" X 30"	5.18			1			1	1	
	PAGE SUBTOTALS			329.05	14.92	13.00	3	21	5	40	26	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

REMOVAL & ERECTION OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 TYPE II SIGNS REFLECTIVE H S.F.	637.2215 TYPE II FOLDING SIGNS REFLECTIVE H S.F.	637.2230 TYPE II SIGNS REFLECTIVE F S.F.	634.0614 POSTS WOOD 4X6X14 EACH	634.0616 POSTS WOOD 4X6X16 EACH	634.0618 POSTS WOOD 4X6X18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
34	STH 47 SB	R2-1	24" X 30"	5.00			1					35 MPH
34A	VACANT											
34B	"	R4-7								1	1	
34C	"	R4-7	24" X 30"	5.00			1			1	1	
35	STH 47 NB	J1-1	24" X 39"	6.50				1		1	1	JCT I-41
36	"	J2-2								6	1	
37	"	R2-1	24" X 30"	5.00			1			1	1	35 MPH
38	"	D1-72	120" X 60"	50.00				4				SEE SIGN DETAIL SHEET
39	"	D1-3								1	1	
40	"	J3-1								3	1	
41	"	R3-2	24" X 24"	4.00								MOUNT TO TRAFFIC SIGNAL
42	"	R1-1F	36" X 36"		7.46							MOUNT TO TRAFFIC SIGNAL AND BELOW SIGN #41
43	"	R11-54F	48" X 30"		10.00		1			1	1	
44	STH 47 NB SPLITTER ISLAND	J3-1	24" X 57"	9.50				1		1	1	NORTH I-41, SEE PLAN SHEET
45	"	R6-2L	24" X 30"	5.00						1		MOUNT TO TRAFFIC SIGNAL, SIGN FACING WEST
46	"	R1-1F	36" X 36"		7.46					1		MOUNT TO TRAFFIC SIGNAL, SIGN FACING SOUTH
47	I-41 NB ON-RAMP	R5-57	36" X 36"	9.00			1			1	1	
48	"	D1-71	72" X 60"	30.00					2			SEE SIGN DETAIL SHEET
49	"	D1-70	72" X 30"	15.00								SEE SIGN DETAIL SHEET
50	I-41 NB	W4-1	48" X 48"	16.00				1	1	1	2	
51	STH 47 OVERPASS	D1-2								1	1	SEE PLAN SHEET
52	I-41 NB	W12-2								1	2	
53	STH 47 OVERPASS	R5-1A								1	1	
54	I-41 NB	W12-2								1	2	
55	STH 47 OVERPASS	R5-1A	36" X 24"	6.00				1		1	1	
56	STH 47 NB SPLITTER ISLAND	R11-54F	48" X 30"		10.00		1			1	1	
56A	STH 47 OVERPASS	R4-7	24" x 30"	5.00			1			1	1	
57	"	J2-1								1	1	
58	"	R5-1A								1	1	
59	I-41 SB	W12-2								1	2	15'-3"
60	"	W12-2								1	2	15'-3"
61	STH 47 NB	R3-1	24" X 24"	4.00						1		MOUNT TO TRAFFIC SIGNAL, SIGN FACING SOUTH
62	"	R1-1F	36" X 36"		7.46					1		MOUNT TO TRAFFIC SIGNAL AND BELOW SIGN #61
63	I-41 SB	W4-1	48" X 48"			16.00		2		1	2	
64	I-41 SB ON-RAMP	D1-70	66" X 30"	13.75					2			SEE SIGN DETAIL SHEET
65	"	D1-71	72" X 60"	30.00								MOUNT ON BACKSIDE OF SIGN #64, SEE SIGN DETAIL SHEET
66	"	R5-57	36" X 36"	9.00				1		1	1	
67	STH 47 SB SPLITTER ISLAND	R5-1	30" X 30"	6.25						1		MOUNT TO TRAFFIC SIGNAL, SIGN FACING SOUTH
68	"	R1-1F	36" X 36"		7.46					1		MOUNT TO TRAFFIC SIGNAL, SIGN FACING NORTH
68A	"	R6-2L	24" X 30"	5.00						1		MOUNT TO TRAFFIC SIGNAL, SIGN FACING EAST
	PAGE SUBTOTALS			239.00	49.84	16.00	7	11	5	38	30	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

REMOVAL & ERECTION OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 TYPE II SIGNS REFLECTIVE H S.F.	637.2215 TYPE II FOLDING SIGNS REFLECTIVE H S.F.	637.2230 TYPE II SIGNS REFLECTIVE F S.F.	634.0614 POSTS WOOD 4X6X14 EACH	634.0616 POSTS WOOD 4X6X16 EACH	634.0618 POSTS WOOD 4X6X18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
69	STH 47	J3-1	24" X 57"	9.50						3		SOUTH I-41, MOUNT TO TRAFFIC SIGNAL, SIGN FACING SOUTH
70	"	R3-2	24" X 24"	4.00						1		MOUNT TO TRAFFIC SIGNAL
71	"	R1-1F	36" X 36"		7.46					1		MOUNT TO TRAFFIC SIGNAL AND BELOW SIGN #70
72	STH 47 SB SPLITTER ISLAND	J3-1	24" X 57"	9.50				1		3	1	SOUTH I-41, SEE PLAN SHEET
73	STH 47 SB	R11-54F	48" X 30"		10.00		1			1	1	
74	"	D1-72	120" X 60"	50.00				2	2			SEE SIGN DETAIL SHEET
75	"	J3-1								3	1	
76	"	D1-3								1	2	SEE PLAN SHEET
77	"	J2-3								9	2	SEE PLAN SHEET
78	"	J1-1	24" X 39"	6.50				1		2	1	JCT I-41
78A		R5-1	30" X 30"	6.25			1			1	1	
79	STH 47 NB	R2-1	24" X 30"	5.00			1			1	1	35 MPH
80	"	W6-2	36" X 36"			9.00				1	1	
81	"	J4-1	24" X 36"	6.00				1		2	1	NORTH STH 47
82	I-41 SB OFF-RAMP SPLITTER ISLAND	R5-1	30" X 30"	6.25			1			1	1	MOUNT ON BACKSIDE OF SIGN #83
83	"	R6-2R	24" X 30"	5.00						1		
84	I-41 SB OFF-RAMP	R1-2	36" X 31"	3.87			1			1	1	
85	I-41 SB OFF-RAMP SPLITTER ISLAND	R1-1F	36" X 36"		7.46					1		MOUNT TO TRAFFIC SIGNAL, SIGN FACING EAST
86	"	R6-2L	24" X 30"	5.00						1		MOUNT TO TRAFFIC SIGNAL, SIGN FACING SOUTH
87	"	W12-1D	24" X 24"			4.00	1					
87A	I-41 SB OFF-RAMP	R5-1A	36" X 24"	6.00						1		MOUNT ON BACKSIDE OF SIS SIGN
87B	"	R5-1A	36" X 24"	6.00						1		MOUNT ON BACKSIDE OF SIGN #88
88	"	J3-2	48" X 57"	19.00				2				SOUTH STH 47, NORTH STH 47, SEE PLAN SHEET
89	"	D1-4	138" X 66"	63.25				2	2	1	3	SEE SIGN DETAIL SHEET
90	"	R3-8P	54" X 30"	11.25				1		1	1	
91	"	R3-8P	54" X 30"	11.25				1				
92	"	D4-56R	36" X 36"	9.00				1				
93	"	D1-3	84" X 36"	21.00			1	1		1	2	SEE SIGN DETAIL SHEET
94	"	W3-3	36" X 36"			9.00		1		1	1	
95	"	E5-1A	90" X 60"	37.50					2	1	2	EXIT 142
96	STH 47 SB	R11-54F	48" X 30"		10.00		1			1	1	
97	"	J2-1								3	1	
98	"	W5-52L								1	1	
99	"	R4-7	24" X 30"	5.00						1		MOUNT TO TRAFFIC SIGNAL
100	STH 47 NB	R3-2	24" X 24"	4.00						1		MOUNT TO TRAFFIC SIGNAL, SIGN FACING NORTH
101	I-41 SB OFF-RAMP	R5-1	30" X 30"	6.25			1			1	1	
102	"	J3-2	48" X 57"	19.00				2				
	PAGE SUBTOTALS			335.37	34.92	22.00	9	16	6	49	27	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

REMOVAL & ERECTION OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 TYPE II SIGNS REFLECTIVE H S.F.	637.2215 TYPE II FOLDING SIGNS REFLECTIVE H S.F.	637.2230 TYPE II SIGNS REFLECTIVE F S.F.	634.0614 POSTS WOOD 4X6X14 EACH	634.0616 POSTS WOOD 4X6X16 EACH	634.0618 POSTS WOOD 4X6X18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
103	I-41 NB	R8-7	48" X 36"	12.00				1		1	1	
104	"	R3-4B	36" X 48"	12.00				1		1	1	
105	I-41 SB	R3-4B	36" X 48"	12.00				1		1	1	
106	I-41 NB	J4-2	72" X 54"	27.00				1	1			NORTH I-41, NORTH USH 41, SEE PLAN SHEET
106A	"	J4-1								2	1	
107	I-41 SB	W12-2								1	2	15'-3"
108	"	W57-52								1		1/2 MILE AHEAD
109	"	W12-2								1	2	15'-3"
110	"	W57-52								1		1/2 MILE AHEAD
111	I-41 NB	R2-1	48" X 60"	20.00				1	1	1	1	65 MPH
	PAGE SUBTOTALS			83.00	0.00	0.00	0	5	2	10	9	
	PROJECT TOTALS			**986.42**	**99.68**	**51.00**	**19**	**53**	**18**	**137**	**92**	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE I

SIGN NO.	LOCATION	SIGN CODE	637.1220 SIGNS TYPE I REFLECTIVE SH W X H	S.F.	638.2601 REMOVING SIGNS TYPE I EACH	REMARKS
200	I-41 SB & STH 47 OFF-RAMP	E6-1	192" X 132"	176.00	1	SEE SIGN DETAIL SHEET
201	"	E1-5P	120" X 30"	25.00	1	EXIT 142, MOUNTED ABOVE SIGN #200 IN UPPER RIGHT CORNER
	PROJECT TOTALS			201.00	2	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

TRAFFIC CONTROL DETOUR SIGNS AND COVERING SIGNS

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 174 DAYS	643.3000 DETOUR SIGNS (DAYS)	*643.1000 SIGNS FIXED MESSAGE (S.F.)	**643.0910 COVERING SIGNS TYPE I (EACH)	REMARKS
1	500' E OF FRENCH RD OVERPASS	FMS	14'-0"x4'-0"				56		SEE SIGN DETAILS
2	ACROSS FROM SIGN # 1 (MEDIAN SIDE)	FMS	14'-0"x4'-0"				56		SEE SIGN DETAILS
3	200' W OF EXIT 145-TILT RT SIGN	M1-6	36"x36"	1	174	174			47
	"	W20-2-A	48"x48"	1	174	174			
4	ACROSS FROM SIGN # 3 (MEDIAN SIDE)	M1-6	36"x36"	1	174	174			47
	"	W20-2-A	48"x48"	1	174	174			
5	LT OF EAST BALLARD RD SIGN BRIDGE BASE	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 5-2-R	30"x30"	1	174	174			
6	ACROSS FROM SIGN # 5 (MEDIAN SIDE)	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 5-2-R	30"x30"	1	174	174			
7	LT OF SIS SIGN (BLUE INFO)	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 5-2-R	30"x30"	1	174	174			
8	ACROSS FROM SIGN # 7 (MEDIAN SIDE)	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 5-2-R	30"x30"	1	174	174			
9	LT OF W BALLARD RD SIGN BRIDGE BASE	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 6-2	30"x30"	1	174	174			RIGHT
10	LT OF R3-8-P (LT-ONLY; LT-THRU; RT-ONLY)	MO 4-5	24"x12"	1	174	174			
	"	M3-1	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 5-2-R	21"x21"	1	174	174			
11	ACROSS FROM SIGN # 10 (LEFT SIDE)	MO 4-5	24"x12"	1	174	174			
	"	M3-3	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 5-1-L	21"x21"	1	174	174			
12	LT OF PARK & RIDE SIGN	MO 4-5	24"x12"	1	174	174			
	"	M3-1	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 6-2	21"x21"	1	174	174			RIGHT
13	RT OF J13-1 (E-DBL ARROW)	MO 4-5	24"x12"	1	174	174			
	"	M3-3	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 6-1	21"x21"	1	174	174			LEFT
14	ABOVE J4-1 (NORTH - E)	MO 4-5	24"x12"	1	174	174			
	"	M3-1	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
15	ABOVE J2-1 (N-41-AH LT)	MO 4-5	24"x12"	1	174	174			
	"	M3-3	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 6-1	21"x21"	1	174	174			AHEAD
16	TYPE 1 (47-RICHMOND ST-1 MILE)	R-55-58-A	108"X18"	1	174	174			PLACE OVER - 1 MILE
17	TYPE 1 (DOWNTOWN APPLETON; FOX CITIES PERFORMING ARTS CENTER)							1	DOWNTOWN APPLETON; FOX CITIES PERFORMING ARTS CENTER
18	TYPE 1 (47-RICHMOND ST- EXIT ONLY) OVERHEAD	R-55-58-A	76"x12"	1	174	174			PLACE OVER - TILT RT ARROW
19	TYPE 1 D1-3 (HWY 47-2; KAUKAUNA-11; GREEN BAY-30)							1	HWY 47 - 2
20	1000' W OF SIGN # 22	FMS	14'-0"x4'-0"				56		SEE SIGN DETAILS
21	ACROSS FROM SIGN # 20 (MEDIAN SIDE)	FMS	14'-0"x4'-0"				56		SEE SIGN DETAILS
22	TYPE 1 (47-RICHMOND ST-1 MILE)	R-55-58-A	108"X18"	1	174	174			PLACE OVER -1 MILE
23	200' E OF RAILROAD BRIDGE EAST ABUTTMENT	M1-6	36"x36"	1	174	174			47
	"	W20-2-A	48"x48"	1	174	174			
24	ACROSS FROM SIGN # 23 (MEDIAN SIDE)	M1-6	36"x36"	1	174	174			47
	"	W20-2-A	48"x48"	1	174	174			
25	200' E OF GILLETT ST BRIDGE EAST ABUTTMENT	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 6-1	30"x30"	1	174	174			AHEAD
26	ACROSS FROM SIGN # 25 (MEDIAN SIDE)	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 6-1	30"x30"	1	174	174			AHEAD
27	@ BEGINNING OF EB TURN LANE TAPER	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 6-1	30"x30"	1	174	174			AHEAD
28	ACROSS FROM SIGN # 27 (MEDIAN SIDE)	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 6-1	30"x30"	1	174	174			AHEAD
29	TYPE 1 (47-RICHMOND ST- EXIT ONLY) OVERHEAD	R-55-58-A	76"x12"	1	174	174			PLACE OVER - TILT RT ARROW
30	200' E OF RAMP GORE	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 6-1	30"x30"	1	174	174			AHEAD

TRAFFIC CONTROL DETOUR SIGNS AND COVERING SIGNS, CONTINUED

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 174 DAYS	643.3000 DETOUR SIGNS (DAYS)	*643.1000 SIGNS FIXED MESSAGE (S.F.)	**643.0910 COVERING SIGNS TYPE I (EACH)	REMARKS
31	ACROSS FROM SIGN # 30 (MEDIAN SIDE)	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 6-1	30"x30"	1	174	174			AHEAD
32	LT OF TYPE 1 (E-BALLARD RD-1 MILE)	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 5-2-R	30"x30"	1	174	174			
33	ACROSS FROM SIGN # 32 (MEDIAN SIDE)	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 5-2-R	30"x30"	1	174	174			
34	LT OF BLUE FOOD INFO SIGN	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 5-2-R	30"x30"	1	174	174			
35	ACROSS FROM SIGN # 34 (MEDIAN SIDE)	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 5-2-R	30"x30"	1	174	174			
36	LT OF TYPE 1 (E-BALLARD RD-TILT RT)	MO 4-5	36"x18"	1	174	174			
	"	M1-6	36"x36"	1	174	174			47
	"	MO 6-2	30"x30"	1	174	174			RIGHT
37	LT OF D1-3 (LT-FREEDOM; APPLETON-RT; BALLARD RD-LT & RT)	MO 4-5	24"x12"	1	174	174			
	"	M 3-3	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 5-2-R	21"x21"	1	174	174			
38	RT OF FOOD INFO SIG ON RAMP	MO 4-5	24"x12"	1	174	174			
	"	M 3-1	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 5-1-L	21"x21"	1	174	174			
39	LT OF R3-8-P (LT-ONLY; LT-THRU; RT-ONLY)	MO 4-5	24"x12"	1	174	174			
	"	M 3-3	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 6-2	21"x21"	1	174	174			RIGHT
40	RT OF J13-1 (E-DBL ARROW)	MO 4-5	24"x12"	1	174	174			
	"	M 3-1	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 6-1	21"x21"	1	174	174			LEFT
41	ABOVE J4-1 (SOUTH -E)	MO 4-5	24"x12"	1	174	174			
	"	M 3-3	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
42	100' S OF CAPITOL DR INTERSECTION ON CTH E	MO 4-5	24"x12"	1	174	174			
	"	M 3-3	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
43	ABOVE J1-1 (JCT OO)	MO 4-5	24"x12"	1	174	174			
	"	M 3-3	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 5-1-R	21"x21"	1	174	174			
44	LT OF J13-1 (OO-DBL ARROW)	MO 4-5	24"x12"	1	174	174			
	"	M 3-3	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 6-1	21"x21"	1	174	174			RIGHT
45	250 ' W BALLARD RD INTERSECTION ON CTH OO	MO 4-5	24"x12"	1	174	174			
	"	M 3-3	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
46	250 ' W MEADE ST INTERSECTION ON CTH OO	MO 4-5	24"x12"	1	174	174			
	"	M 3-3	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
47	250 ' W ONEIDA ST INTERSECTION ON CTH OO	MO 4-5	24"x12"	1	174	174			
	"	M 3-3	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
48	MODIFY J1-1 (JCT 47)	MO 4-5-A	24"x18"	1	174	174			
	"	M1-6	EXISTING						
	GAP IN SIGN NUMBERS (49-51)								
52	1000' S OF CTH OO INTERSECTION ON STH 47	M 1-4	24"x24"	1	174	174			41
		R 11-2-R	48"x30"	1	174	174			
53	500' S OF CTH OO INTERSECTION ON STH 47	MO 4-5	24"x12"	1	174	174			
	"	M 1-4	24"x24"	1	174	174			41
	"	MO 5-1-R	21"x21"	1	174	174			
54	RT OF J13-1 (OO-DBL ARROW)	MO 4-5	24"x12"	1	174	174			
	"	M 1-4	24"x24"	1	174	174			41
	"	MO 6-1	21"x21"	1	174	174			RIGHT
55	200' E OF STH 47 INTERSECTION ON CTH OO	MO 4-5	24"x12"	1	174	174			
	"	M 1-4	24"x24"	1	174	174			41
	SUBTOTALS			**133**		**23,142**	**224**	**2**	

* ADDITIONAL QUANTITIES IN THE "TRAFFIC CONTROL DEVICES" TABLE

** 1 "COVER SIGN" CYCLE PER SIGN UNLESS STATED OTHERWISE.

TRAFFIC CONTROL DETOUR SIGNS AND COVERING SIGNS, CONTINUED

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 174 DAYS	643.3000 DETOUR SIGNS (DAYS)	*643.1000 SIGNS FIXED MESSAGE (S.F.)	**643.0910 COVERING SIGNS TYPE I (EACH)	REMARKS
	SUBTOTALS FROM PREVIOUS PAGE			**133**		**23,142**	**224**	**2**	
57	200' E OF MEADE ST INTERSECTION ON CTH OO	MO 4-5	24"x12"	1	174	174			
	"	M 1-4	24"x24"	1	174	174			41
58	RT OF J1-1 (JCT E)	MO 4-5	24"x12"	1	174	174			
	"	M 1-4	24"x24"	1	174	174			41
	"	MO 5-1-L	21"x21"	1	174	174			
59	V OF CTH EE INTERSECTION ON CTH OO (MEDIAN :	MO 4-5	24"x12"	1	174	174			
	"	M 1-4	24"x24"	1	174	174			41
	"	MO 6-1	21"x21"	1	174	174			LEFT
60	00' N OF NORTHLAND AVE INTERSECTION ON CTH	MO 4-5	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			41
	GAP IN SIGN NUMBERS (61)								
62	00' N OF EVERGREEN DT INTERSECTION ON CTH I	MO 4-5	24"x12"	1	174	174			
	"	M 3-1	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
63	RT OF J1-1 (JCT JJ)	MO 4-5	24"x12"	1	174	174			
	"	M 3-1	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 5-1-L	21"x21"	1	174	174			
64	MEDIAN SIDE -ABOVE LEFT TURN LANE SIGN	MO 4-5	24"x12"	1	174	174			
	"	M 3-1	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
	"	MO 6-1	21"x21"	1	174	174			LEFT
65	200' S OF CTH JJ INTERSECTION ON CTH E	MO 4-5	24"x12"	1	174	174			
	"	M 1-4	24"x24"	1	174	174			41
66	200' W OF CTH E INTERSECTION ON CTH JJ	MO 4-5	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
67	RT OF J13-1 (E-DBL ARROW)	MO 4-5	24"x12"	1	174	174			
	"	M 1-4	24"x24"	1	174	174			41
	"	MO 6-1	21"x21"	1	174	174			RIGHT
68	RT OF J1-1 (JCT E)	MO 4-5	24"x12"	1	174	174			
	"	M 1-4	24"x24"	1	174	174			41
	"	MO 5-1-R	21"x21"	1	174	174			
69	200' E OF MEADE ST INTERSECTION ON CTH JJ	MO 4-5	24"x12"	1	174	174			
	"	M 1-4	24"x24"	1	174	174			41
70	200' W OF MEADE ST INTERSECTION ON CTH JJ	MO 4-5	24"x12"	1	174	174			
	"	M 3-1	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			47
71	MODIFY J1-1 (JCT 47)	MO 4-5-A	24"x18"	1	174	174			
	"	M1-6	EXISTING						
	GAP IN SIGN NUMBERS (72-73)								
74	200' E OF STH 47 INTERSECTION ON CTH E	MO 4-5	24"x12"	1	174	174			
	"	M 1-4	24"x24"	1	174	174			41
75	LT OF J13-1 (JJ-DBL ARROW)	MO 4-5	24"x12"	1	174	174			
	"	M 1-4	24"x24"	1	174	174			41
	"	M6-1	21"x21"	1	174	174			LEFT
76	LT OF J1-1 (JCT JJ)	MO 4-5	24"x12"	1	174	174			
	"	M1-6	24"x24"	1	174	174			41
	"	MO 5-1-L	21"x21"	1	174	174			
77	750' N OF SIGN # 76	M 1-4	24"x24"	1	174	174			41
	"	R 1--2-R	48"x30"	1	174	174			
	PROJECT TOTALS			**180**		**31,320**	**224**	**2**	

* ADDITIONAL QUANTITIES IN THE "TRAFFIC CONTROL DEVICES" TABLE

** 1 "COVER SIGN" CYCLE PER SIGN UNLESS STATED OTHERWISE.

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

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TEMPORARY PAVEMENT MARKINGS

WORK TO BE COMPLETED DURING STAGE	STATION		STATION	LOCATION	646.0600 REMOVING PAVEMENT MARKINGS (LF)	647.0955 REMOVING PAVEMENT MARKING ARROWS (EACH)	649.0100 TEMPORARY PAVEMENT MARKING 4-INCH WHITE (LF)	649.0100 TEMPORARY PAVEMENT MARKING 4-INCH YELLOW (LF)	649.0400 REMOVABLE TAPE 4-INCH WHITE (LF)	649.0400 REMOVABLE TAPE 4-INCH YELLOW (LF)
STAGE 2	396+00	-	402+80	STH 47	250	1	--	--	300	--
	402+80	-	420+30	STH 47	500	--	700	4,500	--	--
	420+30	-	432+00	STH 47	--	--	--	--	--	--
				STAGE 2 SUBTOTAL	750	1	5,200		300	
STAGE 3	396+00	-	402+80	STH 47	100	--	--	--	550	1,200
	402+80	-	420+30	STH 47	1,000	--	--	--	900	3,600
	420+30	-	432+00	STH 47	--	--	--	--	75	150
				STAGE 3 SUBTOTAL	1,100	0	0		6,475	
STAGE 4	396+00	-	402+80	STH 47	--	--	--	--	--	630
	402+80	-	420+30	STH 47	--	--	--	--	425	450
	420+30	-	432+00	STH 47	--	--	--	--	--	--
				STAGE 4 SUBTOTAL	0	0	0		1,505	
				PROJECT TOTALS	**1,850**	**1**	**5,200**		**8,280**	

PAVEMENT MARKING

LOCATION	STATION	-	STATION	LT/RT	646.0106 EPOXY 4-INCH (WHITE) (LF)	646.0106 EPOXY 4-INCH (YELLOW) (LF)	646.0126 EPOXY 8-INCH (WHITE) (LF)	646.0841.S GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (WHITE) (LF)	646.0843.S GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE) (LF)	647.0166 ARROWS EPOXY TYPE 2 (EACH)	647.0456 CURB EPOXY (LF)	647.0566 STOP LINE EPOXY 18-INCH (LF)	647.0766 CROSSWALK EPOXY 6-INCH (LF)	647.0856 CONCRETE CORRUGATED MEDIAN EPOXY (SF)	647.0606 ISLAND NOSE EPOXY (EACH)	SPV.0060.02 GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 (EACH)	SPV.0060.03 GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 3 (EACH)	SPV.0060.04 GROOVED PREFORMED THERMOPLASTIC WORDS (EACH)
STH 47 MAINLINE	396+80	-	408+25	LT/RT	345	659	431	--	--	1	40	--	--	2135	4	--	--	--
STH 47 MAINLINE	408+25	-	413+40	LT/RT	181	--	--	55	--	--	--	--	--	170	--	--	--	--
STH 47 MAINLINE	413+40	-	423+25	LT/RT	702	1381	709	--	--	--	20	92	389	--	2	--	--	--
NB USH 41 ON-RAMP	748+75	-	752+00	LT/RT	225	260	--	--	--	--	--	--	115	--	--	--	--	--
SB USH 41 OFF-RAMP	748+50	-	756+50	LT/RT	540	774	--	--	900	--	--	29	110	--	--	4	2	2
NB USH 41 OFF-RAMP	740+00	-	748+00	LT/RT	550	797	--	--	900	--	--	29	106	--	--	4	2	2
SB USH 41 ON-RAMP	742+00	-	747+75	LT/RT	301	335	--	--	--	--	--	--	115	--	--	--	--	--
				SUBTOTALS	2,844	4,206	1,140	55	1,800	1	60	150	835	2,305	6	8	4	4
				PROJECT TOTALS	7,050		1,140	55	1,800	1	60	150	835	2,305	6	8	4	4

CONSTRUCTION STAKING

STATION	-	STATION	DESCRIPTION	650.4500 SUBGRADE (LF)	650.7000 CONCRETE PAVEMENT (LF)	650.9920 SLOPE STAKES (LF)	650.4000 STORM SEWER (EACH)	650.8500.01 ELECTRICAL INSTALLATIONS (LS)	650.9910.01 SUPPLEMENTAL CONTROL (LS)	SPV.0105.12 CONCRETE PAVEMENT JOINT LAYOUT (LS)
399+90	-	420+63	STH 47	2,073	2,073	2,073	34	-	-	-
748+49	-	751+50	RAMP NE	301	301	301	-	-	-	-
748+49	-	756+50	RAMP NW	801	801	801	5	-	-	-
739+75	-	748+01	RAMP SE	826	826	826	5	-	-	-
744+25	-	748+00	RAMP SW	375	375	375	-	-	-	-
		1130-33-71		--	--	--	--	1	1	1
			TOTALS	**4,376**	**4,376**	**4,376**	**44**	**1**	**1**	**1**

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

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CONDUIT RIGID NONMETALLIC SCHEDULE 40

LOCATION		652.0210	* 652.0225
STH 47 & EVERGREEN (S-805)			
		1-INCH	2-INCH
FROM	TO	(LF)	(LF)
PB1	PB2	20	
PB2	PB3	160	
PB4	SB9		20
PB5	SB10		30
PB6	SB11		20
	TOTALS	180	70

PULL BOXES STEEL

LOCATION	653.0105 12x24-INCH (EACH)
STH 47 & EVERGREEN (S-805)	4
TOTALS	4

CONCRETE BASES

LOCATION	654.0101 TYPE 1 (EACH)
STH 47 & EVERGREEN (S-805)	3
TOTALS	3

ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG

LOCATION		655.0515	655.0515
STH 47 & EVERGREEN (S-805)		(GROUNDED CONDUCTOR) (WHITE)	(EQUIPMENT GROUNDING CONDUCTOR) (Green)
FROM	TO	(LF)	(LF)
SB2	SB9	70	70
SB9	SB3	120	120
SB4	SB10	70	70
SB10	SB5	140	140
SB6	SB11	130	130
SB11	SB7	60	60
	SUBTOTAL	590	590
	PROJECT TOTALS	**1,180**	

REMOVING PULL BOXES

LOCATION	* 653.0905 (EACH)
STH 47 & EVERGREEN (S-805)	2
TOTALS	2

LOOP DETECTORS

LOCATION	LOOP NO.	# OF TURNS	652.0800 CONDUIT (LF)	655.0700 LEAD IN CABLE (LF)	655.0800 WIRE (LF)
STH 47 & EVERGREEN (S-805)	61	4	70	500	240
	62	4	80	340	260
TOTALS			150	840	500

TRAFFIC SIGNAL CABLE

STH 47 & EVERGREEN (S-805)			655.0230		655.0230
				HEAD	BASE TO HEAD
			5-14 AWG	NO.	5-14 AWG
LOCATION	FROM	TO	(LF)		(LF)
STH 47 (WEST SIDE)	CB1	SB11	200	21	15
	SB11	SB5	250	22	15
STH 47 (SOUTH SIDE)	CB1	SB9	180	24	15
	SB9	SB10	260	23	15
		SUBTOTAL	890		60
		PROJECT TOTALS	**950**		

PEDS

Walk	=	Green
Don't Walk	=	Red
Button	=	Black & White

TRAFFIC SIGNALS

LOCATION	657.0100 PEDESTAL BASES (EACH)	657.0430 TRAFFIC SIGNAL STANDARD ALUMINUM 10-FT (EACH)	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH (EACH)	658.0500 PEDESTRIAN PUSH BUTTON (EACH)	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH (EACH)	658.5069.03 SIGNAL MOUNTING HARDWARE (STH 47 & EVERGREEN DR) LS
STH 47 & EVERGREEN (S-805)	3	3	4	4	4	1
TOTALS	3	3	4	4	4	1

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

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CONDUIT RIGID NONMETALLIC SCHEDULE 40

LOCATION		652.0210	652.0225	652.0235
USH 41 SB & STH 47 (S-580)				
FROM	TO	1-INCH (LF)	2-INCH (LF)	3-INCH (LF)
CB1	PB1			20
CB1	PB1			20
PB1	SB1		10	
PB1	PB2			100
PB1	PB2			100
PB2	SB2			45
PB2	SB3			10
PB2	PB3			80
PB3	SB4		10	
PB3	PB4			45
PB4	PB14			30
PB4	PB5			40
PB5	PB9	120		
PB9	PB10	110		
PB5	PB6			60
PB5	PB6			60
PB6	SB5			20
PB6	PB11		90	
PB11	PB12		200	
PB12	PB13		200	
PB13	LB1		100	
LB1	LB2		130	
PB6	PB7			60
PB6	PB7			60
PB7	SB6		10	
PB7	PB8			45
PB7	PB8			45
PB8	SB7		20	
PB8	CB1			20
PB8	CB1			20
WE Conduit				80
	TOTALS	230	770	960

PULL BOXES STEEL

LOCATION	653.0105 12x24-INCH (EACH)	653.0140 24x42-INCH (EACH)
USH 41 SB & STH 47 (S-580)	5	12
TOTALS	5	12

CONCRETE BASES

LOCATION	654.0101 TYPE 1 (EACH)	654.0102 TYPE 2 (EACH)	654.0105 TYPE 5 (EACH)	654.0110 TYPE 10 (EACH)	654.0113 TYPE 13 (EACH)	654.0217 CONTROL CABINET TYPE 9 SPECIAL (EACH)
USH 41 SB & STH 47 (S-580)	3	1	2	1	2	1
TOTALS	3	1	2	1	2	1

LOOP DETECTORS

LOCATION	LOOP NO.	# OF TURNS	652.0800 CONDUIT (LF)	655.0700 LEAD IN CABLE (LF)	655.0800 WIRE (LF)
USH 41 SB & STH 47 (S-580)	21	4	70	440	240
	41	2	90	90	190
	42	2	90	40	190
TOTALS			250	570	620

REMOVING PULL BOXES

LOCATION	653.0905 (EACH)
USH 41 SB & STH 47 (S-580)	11
TOTALS	11

REMOVING CONCRETE BASES

LOCATION	204.0195 * (EACH)
USH 41 SB & STH 47 (S-580)	8
TOTALS	8

*ADDITIONAL QUANTITY FOUND IN RAMP GATE & SIGNAL S-140 TABLES

ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG

LOCATION		655.0515 (GROUNDED CONDUCTOR) (WHITE)	655.0515 (EQUIPMENT GROUNDING CONDUCTOR) (GREEN)
USH 41 SB & STH 47 (S-580)			
FROM	TO	(LF)	(LF)
CB1	SB1	60	60
SB1	PB1		30
SB1	SB2	200	200
SB3	PB2		30
SB2	SB3	90	90
SB3	SB4	130	130
SB4	PB3		20
SB4	PB4		80
SB4	SB5	210	210
SB5	PB6		30
SB5	PB5		100
SB5	PB11		130
PB11	PB12		220
PB12	PB13		220
SB5	SB6	120	120
SB6	PB7		20
SB6	SB7	110	110
SB7	PB8		40
SB7	CB1	70	70
	SUBTOTAL	990	1,910
	PROJECT TOTALS	2,900	

TRAFFIC SIGNALS

LOCATION	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (USH 41 NB & STH 47) (LS)	657.0100 PEDESTAL BASES (EACH)	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE (EACH)	657.0315 POLES TYPE 4 (EACH)	657.0322 POLES TYPE 5 ALUMINUM (EACH)	657.0420 TRAFFIC SIGNAL STANDARD ALUMINUM 13-FT (EACH)	657.0425 TRAFFIC SIGNAL STANDARD ALUMINUM 15-FT (EACH)	657.0430 TRAFFIC SIGNAL STANDARD ALUMINUM 10-FT (EACH)	657.1350 INSTALL POLES TYPE 10 (EACH)
USH 41 SB & STH 47 (S-580)	1	3	3	1	2	1	1	1	1
TOTALS	1	3	3	1	2	1	1	1	1

TRAFFIC SIGNALS

LOCATION	657.1360 INSTALL POLES TYPE 13 (EACH)	657.1530 INSTALL MONOTUBE ARMS 30-FT (EACH)	657.1540 INSTALL MONOTUBE ARMS 40-FT (EACH)	657.1555 INSTALL MONOTUBE ARMS 55-FT (EACH)	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL (EACH)	658.0115 TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL (EACH)	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH (EACH)	658.0600 LED MODULES 12-INCH RED BALL (EACH)	658.0605 LED MODULES 12-INCH YELLOW BALL (EACH)
USH 41 SB & STH 47 (S-580)	2	1	1	1	9	2	4	9	9
TOTALS	2	1	1	1	9	2	4	9	9

TRAFFIC SIGNALS

LOCATION	658.0610 LED MODULES 12-INCH GREEN BALL (EACH)	658.0615 LED MODULES 12-INCH RED ARROW (EACH)	658.0620 LED MODULES 12-INCH YELLOW ARROW (EACH)	658.0625 LED MODULES 12-INCH GREEN ARROW (EACH)	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH (EACH)	658.5069.02 SIGNAL MOUNTING HARDWARE (USH 41 NB & STH 47) (LS)	SPV.0105.14 REMOVE TRAFFIC SIGNAL (USH 41 NB & STH 47) (LS)
USH 41 SB & STH 47 (S-580)	9	2	4	2	4	1	1
TOTALS	9	2	4	2	4	1	1

TRAFFIC SIGNAL CABLE

USH 41 SB & STH 47 (S-580)			655.0230	655.0240	655.0260		655.0230	655.0240	658.0215	658.0220
							BASE TO HEAD	BASE TO HEAD	BACKPLATES SIGNAL FACE	BACKPLATES SIGNAL FACE
			5-14	7-14	12-14	HEAD	5-14	7-14	3 SECTION	4 SECTION
LOCATION	FROM	TO	AWG (LF)	AWG (LF)	AWG (LF)	NO.	AWG (LF)	AWG (LF)	12-INCH (EACH)	12-INCH (EACH)
USH 41 SB RAMP	CB1	SB6	110			11	15		1	
	CB1	SB7	70			14	10			
	SB7	SB6	110			15	10			
	CB1	SB3	170			13	10			
	SB3	SB4	130			12	10			
	CB1	SB3	170			9	15		1	
						10	50		1	
STH 47	CB1	SB5			190	6	65		1	
(NORTH SIDE)						7	50		1	
	SB5	SB4			210	3	20		1	
	CB1	SB5		190		5		80		1
	SB5	SB4		210		4		20		1
STH 47	CB1	SB1			60	8	15		1	
(SOUTH SIDE)	SB1	SB2			200	1	60		1	
						2	50		1	
		SUBTOTAL	760	400	660		380	100	9	2
		PROJECT TOTALS	**1,140**	**500**	**660**				**9**	**2**

NB & EB

Red	=	Red
Yellow	=	Orange
Green	=	Green
Left Red	=	Red
Left Yellow	=	Black
Left Flashing Yellow	=	White
Left Green	=	Blue

SB & WB

Red	=	Red w/Black
Yellow	=	Orange w/Black
Green	=	Green w/Black
Left Red	=	Red w/Black
Left Yellow	=	Black w/White
Left Flashing Yellow		White w/Black
Left Green	=	Blue w/Black

RAMP

Red	=	Red
Yellow	=	Orange
Green	=	Green

PEDS

Walk	=	Green
Don't Walk	=	Red
Button	=	Black & White

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

LIGHTING SUMMARY

LOCATION	657.0709 LUMINAIRE ARMS TRUSS TYPE 4-INCH CLAMP 12-FT (EACH)	657.0710 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FT (EACH)	657.1812 INSTALL LUMINAIRE ARMS STEEL 12-FT (EACH)	SPV.0060.05 LED LUMINAIRE LED-C (EACH)
USH 41 SB & STH 47 (S-580)	1	2	3	6
TOTALS	1	2	3	6

SIGNAL LIGHTING CABLE

LOCATION USH 41 SB & STH 47 (S-580)		655.0305 TYPE UF 2-12 AWG GROUNDED
FROM	TO	(LF)
CB1	SB1	60
SB1	SB3	160
SB3	SB2	90
CB1	SB5	190
SB5	LB1	660
LB1	LB2	150
	TOTALS	1,310

ELECTRICAL WIRE LIGHTING 12 AWG

LOCATION USH 41 SB & STH 47 (S-580) 120 VOLT SYSTEM		655.0610
FROM	TO	(LF)
SB1	LUMINAIRE	150
SB2	LUMINAIRE	150
SB3	LUMINAIRE	150
SB5	LUMINAIRE	150
LB1	LUMINAIRE	150
LB2	LUMINAIRE	150
	TOTALS	900

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

CONDUIT RIGID NONMETALLIC SCHEDULE 40

LOCATION		652.0210	652.0225	652.0235
USH 41 NB & STH 47 (S-1400)		1-INCH	2-INCH	3-INCH
FROM	TO	(LF)	(LF)	(LF)
CB1	PB1			15
CB1	PB1			15
PB1	SB1		20	
PB1	PB2			100
PB1	PB2			100
PB2	SB2			40
PB2	SB3			20
PB2	PB3			80
PB3	SB4		10	
PB3	PB4			40
PB4	PB14			30
PB4	PB5			40
PB5	PB9	115		
PB9	PB10	115		
PB5	PB6			60
PB5	PB6			60
PB6	SB5			20
PB6	PB11		90	
PB11	PB12		200	
PB12	PB13		200	
PB13	LB1		100	
LB1	LB2		130	
PB6	PB7			60
PB6	PB7			60
PB7	SB6		10	
PB7	PB8			45
PB7	PB8			45
PB8	SB7		20	
PB8	CB1			20
PB8	CB1			20
WE Conduit				80
	TOTALS	230	780	950

PULL BOXES STEEL

LOCATION	653.0105 12x24-INCH (EACH)	653.0140 24x42-INCH (EACH)
USH 41 NB & STH 47 (S-1400)	5	12
TOTALS	5	12

REMOVING PULL BOXES

LOCATION	653.0905 (EACH)
USH 41 NB & STH 47 (S-1400)	11
TOTALS	11

CONCRETE BASES

LOCATION	654.0101 TYPE 1 (EACH)	654.0102 TYPE 2 (EACH)	654.0105 TYPE 5 (EACH)	654.0110 TYPE 10 (EACH)	654.0113 TYPE 13 (EACH)	654.0217 CONTROL CABINET TYPE 9 SPECIAL (EACH)
USH 41 NB & STH 47 (S-1400)	3	1	2	1	2	1
TOTALS	3	1	2	1	2	1

REMOVING CONCRETE BASES

LOCATION	204.0195 (EACH)
USH 41 NB & STH 47 (S-1400)	9
TOTALS	9

LOOP DETECTORS

LOCATION	LOOP NO.	# OF TURNS	652.0800 CONDUIT (LF)	655.0700 LEAD IN CABLE (LF)	655.0800 WIRE (LF)
USH 41 NB & STH 47 (S-1400)	41	2	90	90	190
	42	2	90	40	190
	61	4	70	440	240
TOTALS			250	570	620

TRAFFIC SIGNALS

LOCATION	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (USH 41 NB & STH 47) (LS)	657.0100 PEDESTAL BASES (EACH)	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE (EACH)	657.0315 POLES TYPE 4 (EACH)	657.0322 POLES TYPE 5 ALUMINUM (EACH)	657.0420 TRAFFIC SIGNAL STANDARD ALUMINUM 13-FT (EACH)	657.0425 TRAFFIC SIGNAL STANDARD ALUMINUM 15-FT (EACH)	657.0430 TRAFFIC SIGNAL STANDARD ALUMINUM 10-FT (EACH)	657.1350 INSTALL POLES TYPE 10 (EACH)
USH 41 NB & STH 47 (S-1400)	1	3	3	1	2	1	1	1	1
TOTALS	1	3	3	1	2	1	1	1	1

TRAFFIC SIGNALS

LOCATION	657.1360 INSTALL POLES TYPE 13 (EACH)	657.1530 INSTALL MONOTUBE ARMS 30-FT (EACH)	657.1540 INSTALL MONOTUBE ARMS 40-FT (EACH)	657.1555 INSTALL MONOTUBE ARMS 55-FT (EACH)	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL (EACH)	658.0115 TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL (EACH)	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH (EACH)	658.0600 LED MODULES 12-INCH RED BALL (EACH)	658.0605 LED MODULES 12-INCH YELLOW BALL (EACH)
USH 41 NB & STH 47 (S-1400)	2	1	1	1	9	2	4	9	9
TOTALS	2	1	1	1	9	2	4	9	9

TRAFFIC SIGNALS

LOCATION	658.0610 LED MODULES 12-INCH GREEN BALL (EACH)	658.0615 LED MODULES 12-INCH RED ARROW (EACH)	658.0620 LED MODULES 12-INCH YELLOW ARROW (EACH)	658.0625 LED MODULES 12-INCH GREEN ARROW (EACH)	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH (EACH)	658.5069.01 SIGNAL MOUNTING HARDWARE (USH 41 NB & STH 47) (LS)	SPV.0105.13 REMOVE TRAFFIC SIGNAL (USH 41 NB & STH 47) (LS)
USH 41 NB & STH 47 (S-1400)	9	2	4	2	4	1	1
TOTALS	9	2	4	2	4	1	1

ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG

LOCATION		655.0515 (GROUNDED CONDUCTOR) (WHITE)	655.0515 (EQUIPMENT GROUNDING CONDUCTOR) (GREEN)
USH 41 NB & STH 47 (S-1400)			
FROM	TO	(LF)	(LF)
CB1	SB1	60	60
SB1	PB1		40
SB1	SB2	200	200
SB2	SB3	90	90
SB3	PB2		40
SB3	SB4	150	150
SB4	PB3		20
SB4	PB4		80
SB4	SB5	210	210
SB5	PB6		30
SB5	PB5		100
SB5	PB11		130
PB11	PB12		220
PB12	PB13		220
SB5	SB6	120	120
SB6	PB7		20
SB6	SB7	110	110
SB7	PB8		40
SB7	CB1	70	70
	SUBTOTAL	1,010	1,950
	PROJECT TOTALS	2,960	

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

TRAFFIC SIGNAL CABLE

LOCATION	FROM	TO	655.0230 5-14 AWG (LF)	655.0240 7-14 AWG (LF)	655.0260 12-14 AWG (LF)	HEAD NO.	655.0230 BASE TO HEAD 5-14 AWG (LF)	655.0240 BASE TO HEAD 7-14 AWG (LF)	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12-INCH (EACH)	658.0220 BACKPLATES SIGNAL FACE 4 SECTION 12-INCH (EACH)
USH 41 NB & STH 47 (S-1400)										
USH 41 NB RAMP	CB1	SB6	110			11	15		1	
	CB1	SB7	70			12	10			
	SB7	SB6	110			13	10			
	CB1	SB3	180			15	10			
	SB3	SB4	150			14	10			
	CB1	SB3	180			9	15		1	
						10	50		1	
STH 47	CB1	SB1			60	5	15		1	
(NORTH SIDE)	SB1	SB2	200			6	75		1	
						7	50		1	
STH 47	CB1	SB5			190	3	65		1	
(SOUTH SIDE)						4	50		1	
	SB5	SB4	210			8	15		1	
	CB1	SB5			190	2		80		1
	SB5	SB4			210	1		20		1
		SUBTOTAL	1,210	0	650		390	100	9	2
	PROJECT TOTALS		**1,600**	**100**	**650**				**9**	**2**

NB & EB

Red	=	Red
Yellow	=	Orange
Green	=	Green
Left Red	=	Red
Left Yellow	=	Black
Left Flashing Yellow	=	White
Left Green	=	Blue

SB & WB

Red	=	Red w/Black
Yellow	=	Orange w/Black
Green	=	Green w/Black
Left Red	=	Red w/Black
Left Yellow	=	Black w/White
Left Flashing Yellow	=	White w/Black
Left Green	=	Blue w/Black

RAMP

Red	=	Red
Yellow	=	Orange
Green	=	Green

PEDS

Walk	=	Green
Don't Walk	=	Red
Button	=	Black & White

LIGHTING SUMMARY

LOCATION	657.0709 LUMINAIRE ARMS TRUSS TYPE 4-INCH CLAMP 12-FT (EACH)	657.0710 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FT (EACH)	657.1812 INSTALL LUMINAIRE ARMS STEEL 12-FT (EACH)	SPV.0060.05 LED LUMINAIRE LED-C (EACH)
USH 41 NB & STH 47 (S-1400)	1	2	3	6
TOTALS	1	2	3	6

SIGNAL LIGHTING CABLE

LOCATION USH 41 NB & STH 47 (S-1400) FROM	TO	655.0305 TYPE UF 2-12 AWG GROUNDED (LF)
CB1	SB1	60
SB1	SB3	180
SB3	SB2	90
CB1	SB5	190
SB5	LB1	660
LB1	LB2	150
	TOTALS	1330

ELECTRICAL WIRE LIGHTING 12 AWG

LOCATION USH 41 NB & STH 47 (S-1400) 120 VOLT SYSTEM FROM	TO	655.0610 (LF)
SB1	LUMINAIRE	150
SB2	LUMINAIRE	150
SB3	LUMINAIRE	150
SB5	LUMINAIRE	150
LB1	LUMINAIRE	150
LB2	LUMINAIRE	150
	TOTALS	900

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

3

3

RAMP CLOSURE GATE REMOVAL ITEMS

GATE ID	* 204.0195 REMOVING CONCRETE BASES (EACH)	SPV.0060.06 REMOVE AND SALVAGE RAMP GATE POLE (EACH)	SPV.0060.07 REMOVE AND SALVAGE SOLAR ASSEMBLY (EACH)	SPV.0060.08 REMOVE AND RETURN GATE ARM (EACH)
G-44-12	3	1	1	1
G-44-13	3	1	1	1
G-44-14	3	1	1	1
G-44-15	3	1	1	1
TOTALS	12	4	4	4

* ADDITIONAL QUANTITY FOUND IN "SIGNAL" TABLES

RAMP CLOSURE GATE INSTALLATION ITEMS

STATION	LOCATION	GATE ID	* 654.0105 CONCRETE BASES TYPE 5 (EACH)	654.0220 CONCRETE CONTROL CABINET BASES TYPE 10 (EACH)	SPV.0060.09 RAMP GATE ARM 24-FT (EACH)	SPV.0060.10 RAMP GATE ARM 40-FT (EACH)	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH (LF)
407+28.9RTA	19.3' RT	G-44-12	1	--	1	--	20
407+48.9RTA	19.7' RT		--	1	--	--	--
747+73.5SW	14.1' RT	G-44-13	1	--	--	1	16
747+58.6SW	12.3' RT		--	1	--	--	--
748+75.5NE	13.6' LT	G-44-14	1	--	--	1	16
748+90.6NE	12.0' LT		--	1	--	--	--
414+37.0RTC	20.0' LT	G-44-15	1	--	1	--	20
414+17.0RTC	20.0' LT		--	1	--	--	--
		TOTALS	4	4	2	2	72

* ADDITIONAL QUANTITY FOUND IN "SIGNAL" & "ITS" TABLES

CITY OF APPLETON CONDUIT & PULLBOXES

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT/RT	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	* 653.014 PULL BOXES STEEL 24X42-INCH EACH	* 653.0905 REMOVING PULL BOXES EACH
STAGE 2	STH 47 - NB	402+75	-	408+10	RT	540	2	1
					TOTALS	**540**	**2**	**1**

* ADDITIONAL QUANTITY FOUND IN "STRUCTURE", "ITS", "RAMP GATE", & "SIGNAL" TABLES

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

3

ITS PULL BOXES

LOCATION	ITEM ID	653.0135 PULL BOXES STEEL 24 X 36 EACH
409+05SBR, 50' LT	PB01	1
409+60SBR, 45' LT	PB02	1
747+05NB, 50' RT	PB03	1
	TOTAL	3

ITS CABINET ITEMS

LOCATION	ITEM I.D.	656.0500.01 ELECTRICAL SERVICE BREAKER DISCONNECT BOX CCTV-44-0076	659.0802 PLAQUES SEQUENCE IDENTIFICATION EACH	673.0225.S INSTALL POLE MOUNTED CABINET EACH	675.0400.S INSTALL ETHERNET SWITCH EACH	677.0300.S INSTALL VIDEO ENCODER EACH
409+65SBR, 45' LT	CCTV-44-0076	1	2	1	1	1
	TOTAL	1	2	1	1	1

ITS CCTV

LOCATION	ITEM ID.	672.0250 BASE CAMERA POLE 50-FT EACH	677.0100 INSTALL CAMERA POLE EACH	677.0200 INSTALL CAMERA ASSEMBLY EACH
409+65SBR, 45' LT	CCTV-44-0076	1	1	1
	TOTAL	1	1	1

ITS MICROWAVE DETECTORS

LOCATION	ITEM I.D.	** 654.0105 CONCRETE BASE TYPE 5 EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	* 657.0322 POLES TYPE 5 ALUMINUM EACH	675.0300 INSTALL MOUNTED ETHERNET MICROWAVE DETECTOR ASSEMBLY EACH
747+00NB, 50' RT	SDS-44-0045	1	1	1	1
	TOTAL	1	1	1	1

* ADDITIONAL QUANTITY FOUND IN "SIGNALS" TABLES
** ADDITIONAL QUANTITY FOUND IN "SIGNALS" & "RAMP GATES" TABLES

ITS CONDUIT & CABLE

FROM	TO	LINEAR DISTANCE	* 652.0125 CONDUIT RIGID METALLIC 2-INCH LF	** 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF	674.0200 CABLE MICROWAVE DETECTOR LF
METER BREAKER	PB01	10	--	10	75	--
PB01	PB02	50	--	50	150	--
PB02	CCTV-44-0076	5	10	10	60	20
PB02	PB03	75	--	150	--	75
PB03	SDS-44-0045	5	--	10	--	20
	TOTAL		10	230	285	115

* ADDITIONAL QUANTITY FOUND IN STRUCTURE QUANTITIES
** ADDITIONAL QUANTITY FOUND IN "RAMP GATES" & "SIGNALS" TABLES

3

SAWING CONCRETE

WORK TO BE COMPLETED DURING STAGE	LOCATION	STATION	-	STATION	LT / RT	690.0250 SAWING CONCRETE (LF)
STAGE 1	STH 47 - NB	399+95	-	402+80	LT & RT	635
		418+07	-	420+31	LT & RT	845
				STAGE 1 SUBTOTAL		1,480
STAGE 2	STH 47 - NB	402+80	-	409+67	LT & RT	638
		412+01	-	420+29	LT & RT	220
	NE RAMP	748+44	-	752+00	LT & RT	25
	NW RAMP	748+44	-	756+01	LT & RT	23
				STAGE 2 SUBTOTAL		906
STAGE 3	STH 47 - SB	402+80	-	409+67	LT	57
		412+01	-	420+29	LT	95
	SE RAMP	739+74	-	748+01	LT & RT	24
	SW RAMP	741+99	-	748+01	LT & RT	23
	ASSOCIATION DRIVE	741+99	-	748+01	LT & RT	40
				STAGE 3 SUBTOTAL		240
				PROJECT TOTALS		**2,626**

Document #: 1977779
Date: 03-05-2013 Time: 01:14 PM Pages: 1
Fee: $25.00 County: OUTAGAMIE State: WI
SARAH R VAN CAMP
REGISTER OF DEEDS
****The above recording information verifies this document has been electronically received and returned to the submitter.****

TRANSPORTATION PROJECT PLAT NO: 1130-33-21 - 4.01 AMENDMENT No. 1

THIS AMENDMENT REVISES PARCEL 1 AND REMOVES UTILITY PARCEL 40 FROM TRANSPORTATION PROJECT PLAT 1130-33-21-4.01, RECORDED AS DOCUMENT 1960868, IN THE OFFICE OF THE REGISTER OF DEEDS, OUTAGAMIE COUNTY.

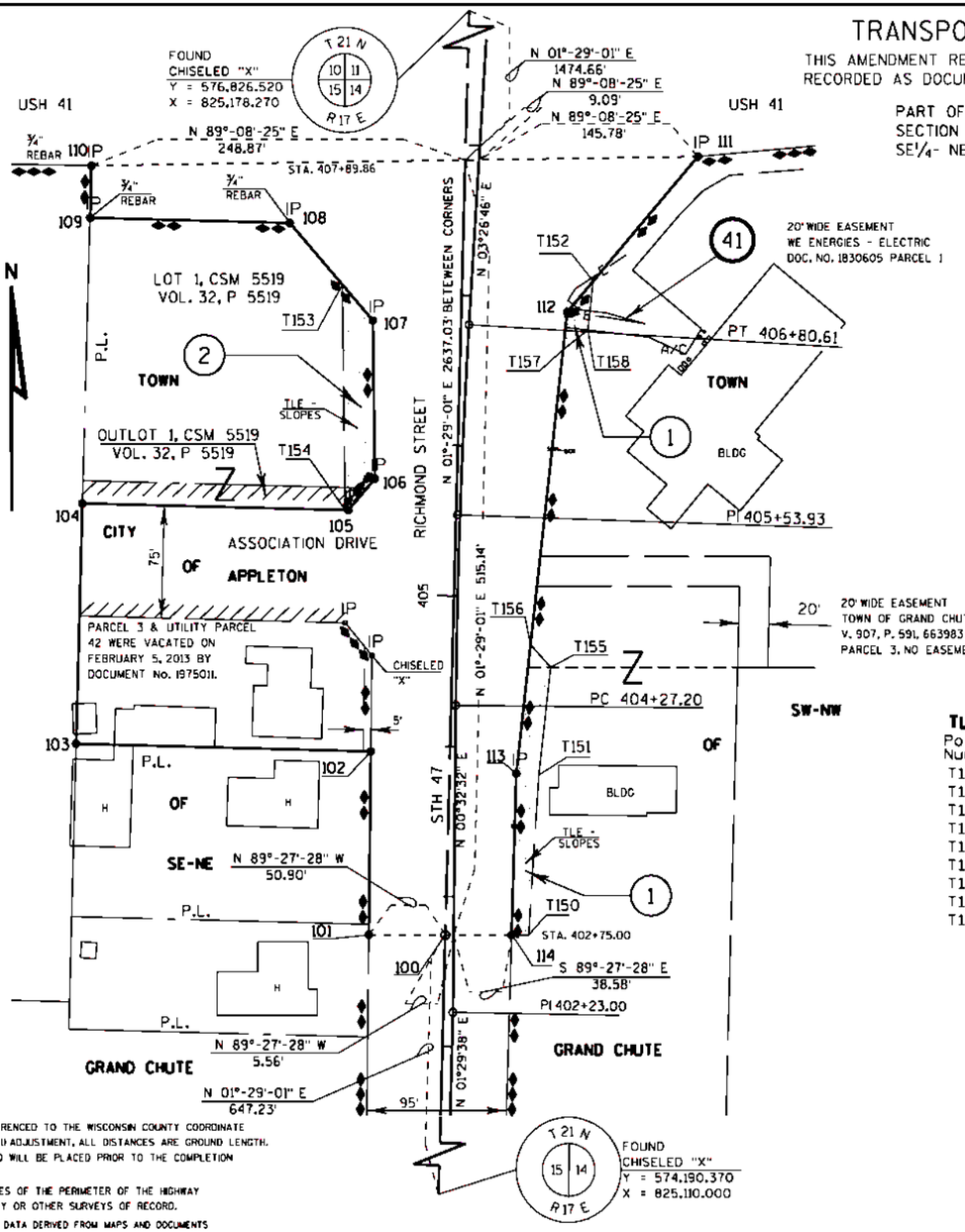
PART OF THE LOT 1, CSM 5519, LOCATED IN THE SE¼- NE 1/4, SECTION 15 AND PART OF THE SW¼- NW¼ OF SECTION 14, T 21 N, R 17 E, IN THE TOWN OF GRAND CHUTE, & PART OF OUT LOT 1, CSM 5519, LOCATED IN THE SE¼- NE¼, SECTION 15, T 21 N, R 17 E, CITY OF APPLETON, ALL LOCATED IN OUTAGAMIE COUNTY, WISCONSIN.

RELOCATION ORDER USH 41 APPLETON - GREEN BAY
(STH 47 INTERCHANGE) OUTAGAMIE 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 HEREBY ORDERS THAT:
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.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1130-33-21-4.01
AMENDMENT NO: 1



COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	N 89°27'28" W	50.90'
101-102	N 00°38'52" E (N 00°38'52" E)	121.12'
102-103	N 88°30'17" W	196.26'
103-104	N 01°29'01" E	159.96'
104-105	S 88°30'17" E	177.01'
105-106	N 40°24'46" E (N 40°24'46" E)	27.38' (27.38')
106-107	N 00°46'16" W (N 00°46'16" W)	105.33' (105.33')
107-108	N 40°21'09" W (N 40°21'09" W)	85.17' (87.17')
108-109	N 88°30'16" W (N 88°30'16" W)	133.02' (133.02')
109-110	N 01°30'33" E (N 01°30'33" E)	34.69' (34.69')
110-111	N 89°08'25" E (N 89°08'25" E)	403.74' (403.74')
111-112	S 40°04'20" W (S 40°04'20" W)	135.24'
112-113	S 06°17'48" W (S 06°17'48" W)	308.74'
113-114	S 01°40'06" W (S 01°40'06" W)	107.38'
114-100	N 89°27'28" W	44.14'

TLE STATION & OFFSET TABLE

Point Number	Station	Offset
T150	402+75.00	50.00'
T151	403+81.46	55.68'
T152	407+14.57	80.76'
T153	407+02.21	-85.90'
T154	405+54.48	-79.48'
T155	404+53.56	62.83'
T156	404+68.45	49.16'
T157	406+67.55	63.41'
T158	406+81.88	79.13'

Point Number	Station	Offset
100	402+75.00	-5.56'
101	402+75.00	-56.46'
102	403+96.12	-56.24'
103	403+99.39	-252.47'
104	405+53.01	-251.50'
105	405+54.50	-74.50'
106	405+75.71	-57.54'
107	406+79.57	-64.17'
108	407+41.03	-123.12'
109	407+36.50	-256.06'
110	407+71.17	-257.23'
111	408+01.49	145.37'
112	406+92.95	64.68'
113	403+82.36	40.69'
114	402+75.00	38.58'

P.I. = 405+53.93
Y = 575,116.256
X = 825,134.955
DELTA = 02° 54' 14" (RT)
D = 01° 08' 45"
T = 126.73'
L = 253.41'
R = 5000.00'
P.C. = 404+27.20
P.T. = 406+80.61

P.I. = 402+23.00
Y = 574,785.338
X = 825,131.823
DELTA = 00° 57' 07" (LT)

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.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(000)		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

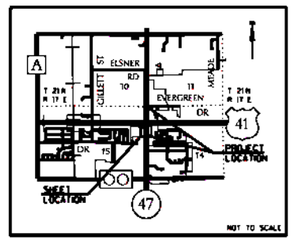
CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN — IP (IF UNLESS NOTED)
R/W MONUMENT — ● =SET
R/W STANDARD — ▲ =SET
SIGN — ISIGN
SECTION CORNER MONUMENT
SECTION CORNER SYMBOL
FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT
PARCEL NUMBER — 100
UTILITY PARCEL NUMBER — 02
SIGN NUMBER (OFF PREMISE) — 92
BUILDING — 21

PROPOSED R/W LINE
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)
ACCESS CONTROLLED BY PARCEL ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
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		



SCALE, FEET
0 50 100

NOTES:

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, OUTAGAMIE COUNTY, (ENGLISH), NAD 1983 (1991) ADJUSTMENT, ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE ¾" X 24" REBAR AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF 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 THE NEW REFERENCE LINES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

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 DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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.

EXISTING HIGHWAY RIGHT-OF-WAY HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 47 IS ESTABLISHED FROM PREVIOUS PROJECT 1130-42-00.

EXISTING ACCESS CONTROL ACQUIRED UNDER PROJECTS 103-2128 AND 6240-05-21.

UTILITY SCHEDULE & INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
41	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO D.O.T.
ALL AREAS SHOWN IN S.F. UNLESS OTHERWISE NOTED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
1	VALLEY BAPTIST CHURCH, INC.	TLE	----	----	----	0.070
2	MARIAN UNIVERSITY, INC.	TLE	----	----	----	0.059

KL Engineering
(A) Better Experience

I, THOMAS J. HANSEN, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1130-33-21-4.01 AMENDMENT No. 1AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN LAND SURVEYOR — THOMAS J. HANSEN S-2033 MADISON, WISCONSIN

Thomas J Hansen — MARCH 1, 2013
THOMAS J. HANSEN — DATE
AGENT FOR KL ENGINEERING, INC.
R.L.S. NUMBER 2033

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

H Bruce Endl — MARCH 1, 2013
DATE

Document #: 1960869
Date: 09-28-2012 Time: 8:42 AM Pages: 1
Fee: $25.00 County: OUTAGAMIE State: WI

JANICE FLENZ
REGISTER OF DEEDS
****The above recording information verifies this document has been electronically received and returned to the submitter.****

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1130-33-21-4.02
AMENDMENT NO:

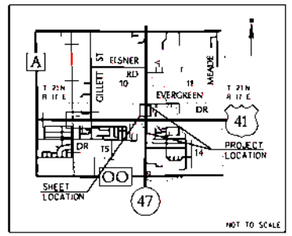
TRANSPORTATION PROJECT PLAT NO: 1130-33-21 - 4.02

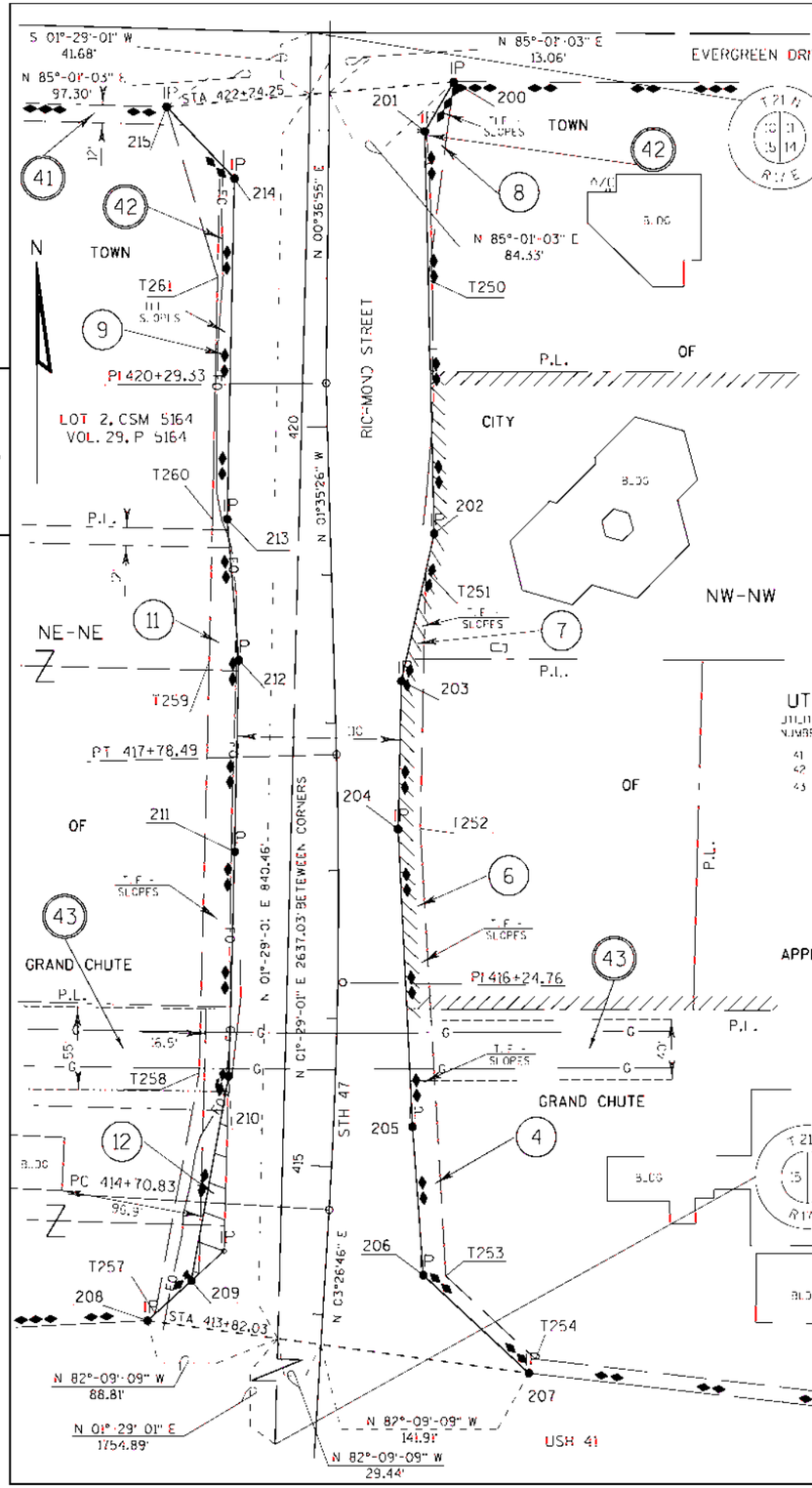
PART OF THE LOT 2, CSM 5164 LOCATED IN THE NE¼ NE¼, & PART OF THE NE¼- NE¼ OF SECTION 15, PART OF THE NW¼- NW¼ OF SECTION 14, IN THE TOWN OF GRAND CHUTE, & PART OF THE NW¼- NW¼ OF SECTION 14, IN THE CITY OF APPLETON, T 21 N, R 17 E, OUTAGAMIE COUNTY, WISCONSIN.

RELOCATION ORDER USH 41 APPLETON - GREEN BAY
(STH 47 INTERCHANGE) OUTAGAMIE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, UPGRADE, 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 84.09 (1) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
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.





COURSE TABLE		
COURSE	BEARING	DISTANCE
200-201	S 30°03'49" W (S 30°03'49" W)	38.70' (38.70')
201-202	S 01°18'27" E (S 01°18'27" E)	271.65' (271.65')
202-203	S 12°32'37" W (S 12°32'37" W)	101.98' (101.98')
203-204	S 01°14'02" W (S 01°14'02" W)	100.00' (100.00')
204-205	S 02°45'12" E (S 02°45'12" E)	201.20' (201.20')
205-206	S 04°09'37" E (S 04°09'37" E)	100.51' (100.50')
206-207	S 47°11'20" E (S 47°11'20" E)	97.46' (97.48')
207-208	N 82°09'09" W (N 82°09'09" W)	260.16' (260.16')
208-209	N 47°41'55" E (N 47°41'55" E)	39.92'
209-210	N 10°21'36" E	140.59'
210-211	N 01°33'02" E (N 01°33'02" E)	151.43'
211-212	N 01°14'02" E (N 01°14'02" E)	129.51' (129.51')
212-213	N 04°46'31" W (N 04°46'31" W)	95.52' (95.52')
213-214	N 01°14'01" E (N 01°14'01" E)	230.07' (230.07')
214-215	N 43°29'25" W (N 43°29'25" W)	66.68' (66.68')
215-200	N 85°01'03" E (N 85°01'03" E)	194.69' (194.69')

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO D.O.T.
ALL AREAS SHOWN IN SQ. FT. UNLESS OTHERWISE NOTED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
4	JAMES F. BAER	TLE	----	----	----	0.188
6	3800 RICHMOND LLC	TLE	----	----	----	0.083
7	NORTH RICHMOND PARTNERS, LLP	T-F	----	----	----	0.068
8	T & S PROPERTY HOLDINGS, LLC	T-F	----	----	----	0.023
9	TEAM DEVELOPMENT APPLETON, LLC	TLE	----	----	----	0.088
11	EVERGREEN MEADOWVIEW, LLC	T-F	----	----	----	0.039
12	TEAM DEVELOPMENT APPLETON, LLC	T-F/TLE	0.023	----	0.025	0.091

TLE STATION & OFFSET TABLE

Point Number	Station	Offset
T250	421+00.00	68.27'
T251	419+01.05	63.86'
T252	417+27.59	55.64'
T253	414+31.07	81.45'
T254	413+78.69	145.30'
T255	413+59.92	492.11'
T256	413+49.87	492.75'
T257	413+93.82	-113.06'
T258	415+60.25	-92.05'
T259	418+43.99	-84.14'
T260	419+39.39	-79.43'
T261	421+00.00	-74.14'

Point Number	Station	Offset
200	422+33.75	83.93'
201	422+00.05	64.91'
202	419+25.77	70.09'
203	418+26.88	45.19'
204	417+27.59	40.63'
205	415+29.43	53.33'
206	414+30.70	66.14'
207	413+68.88	141.49'
208	413+88.85	-117.91'
209	414+17.44	90.05'
210	415+58.83	-72.04'
211	417+13.39	-69.90'
212	418+44.05	64.11'
213	419+39.42	-69.42'
214	421+66.87	-63.42'
215	422+14.75	-109.83'

UTILITY SCHEDULE & INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNERS:	INTEREST REQUIRED
41	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS
42	AT & T - WISCONSIN	RELEASE OF RIGHTS
43	ANR PIPELINE	RELEASE OF RIGHTS

41 12' WIDE EASEMENT
WE ENERGIES - ELECTRIC
DOCUMENT 1507176 PARCEL 9

42 10' WIDE EASEMENT
AT & T - WISCONSIN
V. 9076, P. 25, 963237 PARCEL 9
12 WIDE EASEMENT
AT & T - WISCONSIN
V. 660, P. 237, PARCEL 2
16.5' WIDE EASEMENT
AT& T - WISCONSIN
V. 912, P. 35 665786 PARCEL 12
16.5' WIDE EASEMENT
AT& T - WISCONSIN
V. 912, P. 37 665787 PARCEL 12

43 55' WIDE EASEMENT
ANR PIPELINE
V. 824, P. 434, 517872 PARCEL 12
40 WIDE EASEMENT
ANR PIPELINE
V. 824, P. 434, 517871 PARCEL 4

CONVENTIONAL ABBREVIATIONS

ACCESS POINT / DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RE BAR OR IRON PIPE	REB
ACRES	AC.	REMONUMENTANCE	REM.
AND OTHERS	ET AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.		
FLOWAGE EASEMENT	FLEP		
LAND CONTRACT	L.C.		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	P.L.		
RECORDED AS	(DOC)		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	FIP/FIR (UNLESS NOTED)	PROPOSED R/W LINE	
		EXISTING R/W LINE	
R/W MONUMENT	● (SET)	PROPERTY LINE	
R/W STANDARD	▲ (SET)	LOT & TIE LINES	
SIGN	(S.GN.)	SLOPE INTERCEPTS	
SECTION CORNER MONUMENT	⊕	CORPORATE LIMITS	
SECTION CORNER SYMBOL		ACCESS RESTRICTED BY PREVIOUS ACQUISITION/CONTROL	
		ACCESS CONTROLLED BY PARCEL ACQUISITION	
FEE (HATCH VARIES)		NO ACCESS (BY STATUTORY AUTHORITY)	
TEMPORARY LIMITED EASEMENT		SECTION LINE	
PERMANENT LIMITED EASEMENT		QUARTER LINE	
R/W BOUNDARY POINT	200	SIXTEENTH LINE	
PARCEL NUMBER	102	EXISTING CENTERLINE	
UTILITY PARCEL NUMBER	(92)	PROPOSED REFERENCE LINE	
STA. NUMBER (OPP. PREVISE)	21+00	PARALLEL OFFSET	
BUILDING			

P.I. = 416+24.76
Y = 576,185.197
X = 825,199.324
DELTA = 05° 02' 11" (LT)
D = 01° 38' 13"
T = 153.93'
L = 307.66'
R = 3500.00'
P.C. = 414+70.83
P.T. = 417+78.49

P.I. = 420+29.33
Y = 576,589.818
X = 825,188.090
DELTA = 02° 12' 21" (RT)

CONVENTIONAL UTILITY SYMBOLS

		NON COMPENSABLE	COMPENSABLE
WATER	-W-		
GAS	-G-		
TELEPHONE	-T-		
OVERHEAD TRANSMISSION LINES	OH		
ELECTRIC	-E-		
CABLE TELEVISION	-TV-		
FIBER OPTIC	-FO-		
SANITARY SEWER	SAN		
STORM SEWER	SS		
POWER POLE			
TELEPHONE POLE			
TELEPHONE PEDESTAL			
ELECTRIC TOWER			

SCALE, FEET
0 50 100

NOTES:

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, OUTAGAMIE COUNTY, (ENG. SPA.) NAD 1983 (1991) ADJUSTMENT. ALL DISTANCES ARE GROUND LENGTH.

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DIMENSIONING FOR THE NEW R/W IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

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EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 47 IS ESTABLISHED FROM PREVIOUS PROJECT 1130-47-00.
EXISTING ACCESS CONTROL ACQUIRED UNDER PROJECTS 703-2026 AND 6240-03-21.

KL Engineering
[A] Better Experience

I, THOMAS J. HANSEN, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1130-33-21-4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN THOMAS J. HANSEN S-2033 MADISON, WISCONSIN LAND SURVEYOR

Thomas J. Hansen — SEPTEMBER 21, 2012
THOMAS J. HANSEN — DATE
AGENT FOR KL ENGINEERING, INC.
R.L.S. NUMBER 2033

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

Norman H. Pawelczyk — 9/21/12
NORMAN H. PAWELCZYK — DATE

FILE NAME : G:\WDOTNE\W\NE0826\tpp\1130332121402.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 9/21/2012
PLOT BY : KL Engineering
PLOT NAME :
PLOT SCALE :

DK HOLDINGS OF WISCONSIN LLC
3419 N. RICHMOND ST

GOODMAN PROPERTIES OF APPLETON
3437 N. RICHMOND ST

STURM FAMILY TRUST
3505 N. RICHMOND ST

CHARLES STURM
3525 N. RICHMOND ST

PROPERTY LINE (TYP)

TIME WARNER CABLE (TYP.)

CONRAD E. & ROSEMARY SCHADLER
3531 N. RICHMOND ST

BM619

SB STH 47 (RICHMOND ST)

CITY OF APPLETON WATER (TYP.)

WE ENERGIES ELECTRIC (TYP.)

AT&T WISCONSIN (TYP.)
TOWN OF GRAND CHUTE SANITARY

CITY OF APPLETON STORM SEWER (TYP.)

CITY OF APPLETON SANITARY (TYP.)

399+00NB | 400+00NB | 401+00NB | 402+00NB | 403+00NB | 404+00NB | 405+

WE ENERGIES GAS (TYP.)

MATCHLINE STA 405+00NB'

NB STH 47 (RICHMOND ST)

BAY LAKES BAPTISTS ASSOCIATION INC.
650 W. SENECA DR

BEGIN PROJECT (MATCH EXISTING)
SAWCUT REQ'D
STA. 402+79.94'NB'

R/W (TYP)

TLE (TYP)

SLOPE INTERCEPT (TYP)

INSTALL SAFETY FENCE ALONG TLE BOUNDARY FROM 402+75'NB' RT - 407+25'NB' RT

VALLEY BAPTIST CHURCH INC.
3600 N. CHIPPEWA ST

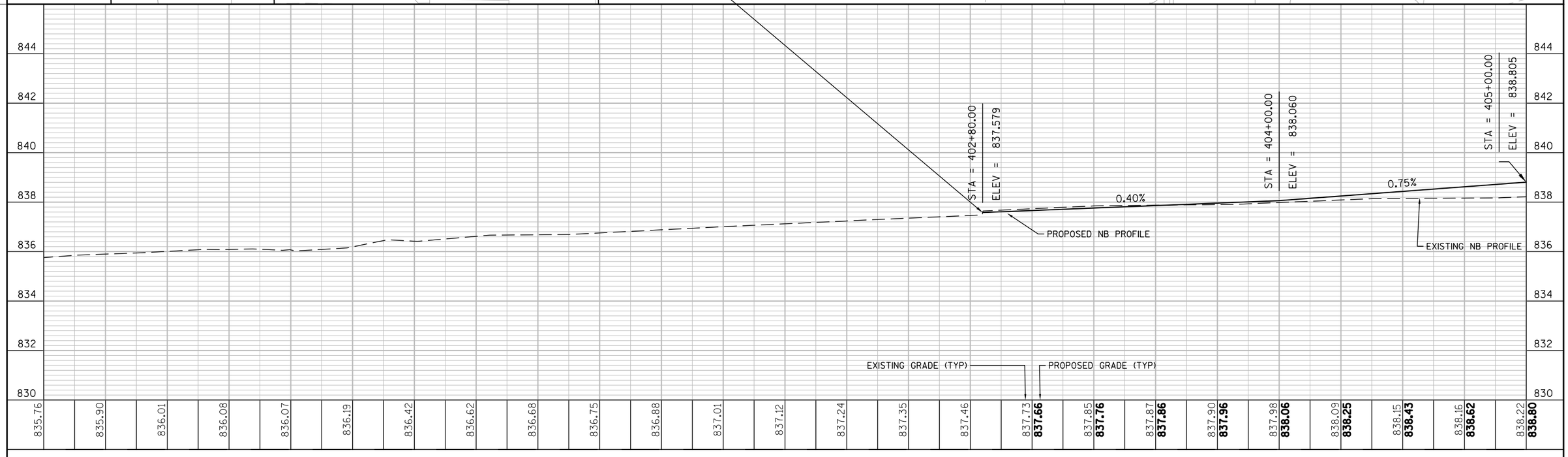
VALLEY BAPTIST CHURCH INC.
3600 N. RICHMOND ST

W SENECA DR

INSTALL CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH FOR USE BY THE CITY OF APPLETON FROM STA 402+75'NB' - STA 408+10'NB'. INSTALL INCLUDES TWO PULLBOXES STEEL 24X42-INCH AND ONE REMOVING PULLBOXES. SEE MISCELLANEOUS QUANTITIES TABLE "CITY OF APPLETON CONDUIT & PULLBOXES" FOR ITEMS.

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEVATION
619	369+75'NB'	CHISELED SQUARE BASE OF TRAFFIC SIGNAL - NE. QUAD. CAPITOL DR. & STH 47	834.71



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: NB STH 47	SHEET 198	E

MARION UNIVERSITY
NO ADDRESS LISTED

PROPERTY LINE (TYP)

MARION UNIVERSITY INC.
3701 N. RICHMOND ST

AT&T WISCONSIN (TYP.)

USH 41 NB OFF-RAMP

TOWN OF GRAND CHUTE SANITARY

SB STH 47 (RICHMOND ST)

CITY OF APPLETON
SANITARY (TYP.)

MATCHLINE STA 405+00'NB'

406+00NB

407+00NB

408+00NB

748+25NE

409+00NB

410+00NB

MATCHLINE STA 411+00'NB'

B-44-35

B-44-36

406+31RTB

NB STH 47 (RICHMOND ST)

TIME WARNER CABLE (TYP.)

407+00RTB

CITY OF APPLETON
WATER (TYP.)

408+00RTB

BM620

INSTALL SAFETY FENCE ALONG TLE BOUNDARY
FROM 402+75'NB' RT - 407+25'NB' RT

R/W (TYP)

408+58RTB

USH 41 NB ON-RAMP

749+06NE

SLOPE INTERCEPT (TYP)

TLE (TYP)

WE ENERGIES
ELECTRIC (TYP.)

EXISTING SIGN
TO REMAIN

VALLEY BAPTIST CHURCH INC.
3600 N. CHIPPEWA ST

N

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEVATION
620	409+60'NB'	BRONZE DISC IN WHEELGUARD B-44-36 SE END	841.97

848
846
844
842
840
838
836
834

STA = 405+00.00
ELEV = 838.805

STA = 406+10.00
ELEV = 839.410

STA = 409+40.00
ELEV = 843.540

0.55%

1.25%

0.70%

PROPOSED NB PROFILE

EXISTING NB PROFILE

STA 409+65.89'NB' - STA 412+02.72'NB'
STR B-44-36 REQ'D
4 SPAN - 36"W PRESTRESSED CONCRETE GIRDER
STRUCTURE WIDTH WIDENED FROM 39FT TO 40FT
SKEW 2°28'34" LHF
MINIMUM VERTICAL CLEARANCE RAISED FROM 15.05FT TO 16.75FT
(SEE STRUCTURAL PLANS)

EXISTING GRADE (TYP)

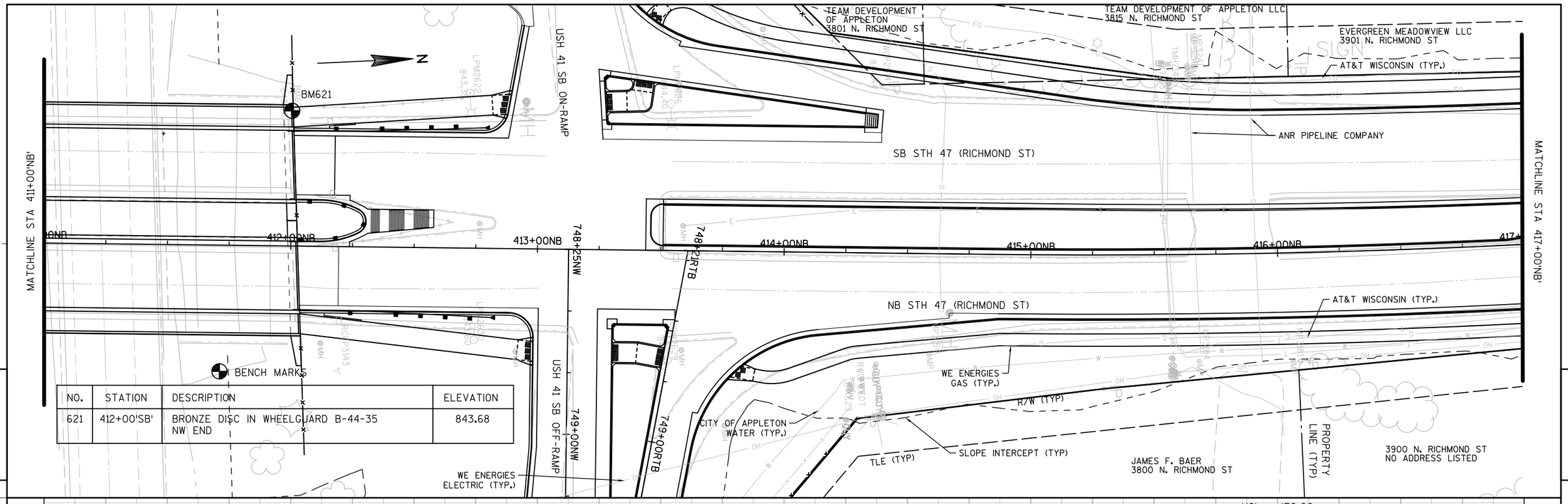
PROPOSED GRADE (TYP)

405+00'NB'	405+25'NB'	405+50'NB'	405+75'NB'	406+00'NB'	406+25'NB'	406+50'NB'	406+75'NB'	407+00'NB'	407+25'NB'	407+50'NB'	407+75'NB'	408+00'NB'	408+25'NB'	408+50'NB'	408+75'NB'	409+00'NB'	409+25'NB'	409+50'NB'	409+75'NB'	410+00'NB'	410+25'NB'	410+50'NB'	410+75'NB'	411+00'NB'
838.22	838.32	838.45	838.59	838.71	838.81	838.96	839.24	839.54	839.71	839.84	839.97	840.21	840.37	840.44	840.33	840.57	840.82	841.17	834.36	825.94	822.39	822.39	822.40	822.41
838.80	**838.94**	**839.08**	**839.22**	**839.36**	**839.60**	**839.91**	**840.22**	**840.54**	**840.85**	**841.16**	**841.48**	**841.79**	**842.10**	**842.41**	**842.73**	**843.04**	**843.35**	**843.61**	**843.78**	**843.96**	**844.13**	**844.31**	**844.48**	**844.66**

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: NB STH 47	SHEET 199	E

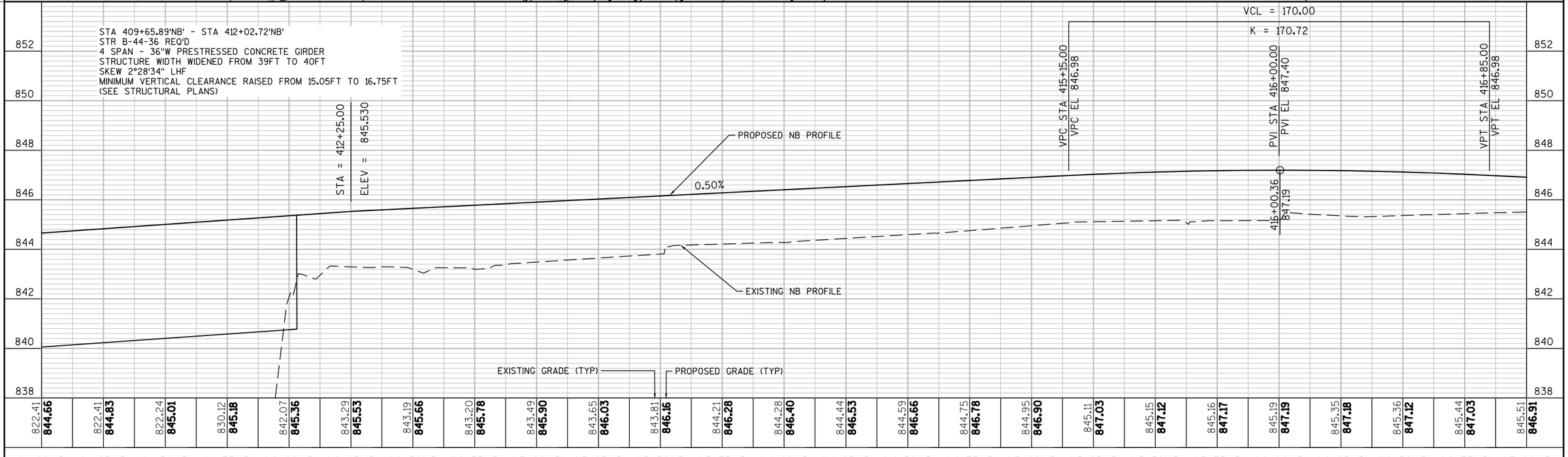
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WISDOT/CADDS SHEET 44

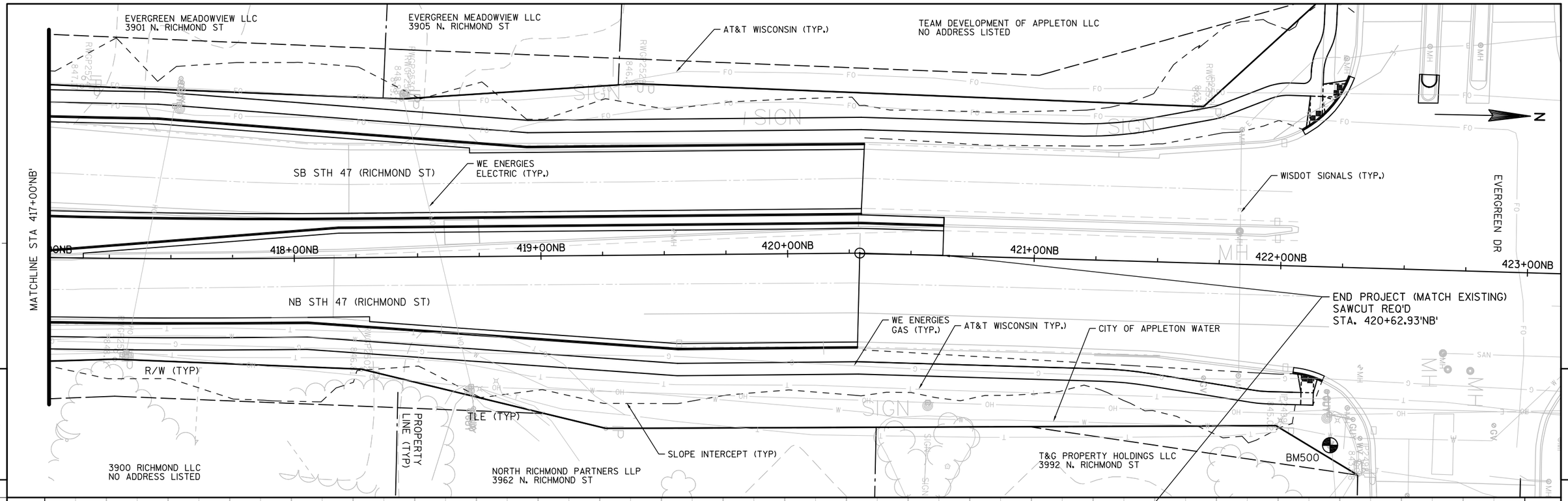


NO.	STATION	DESCRIPTION	ELEVATION
621	412+00'SB'	BRONZE DISC IN WHEELGUARD B-44-35 NW END	843.68

STA 409+65.89'NB' - STA 412+02.72'NB'
STR B-44-36 REQ'D
4 SPAN - 36"W PRESTRESSED CONCRETE GIRDER
STRUCTURE WIDTH WIDENED FROM 39FT TO 40FT
SKEW 2°28'34" LHF
MINIMUM VERTICAL CLEARANCE RAISED FROM 15.05FT TO 16.75FT
(SEE STRUCTURAL PLANS)

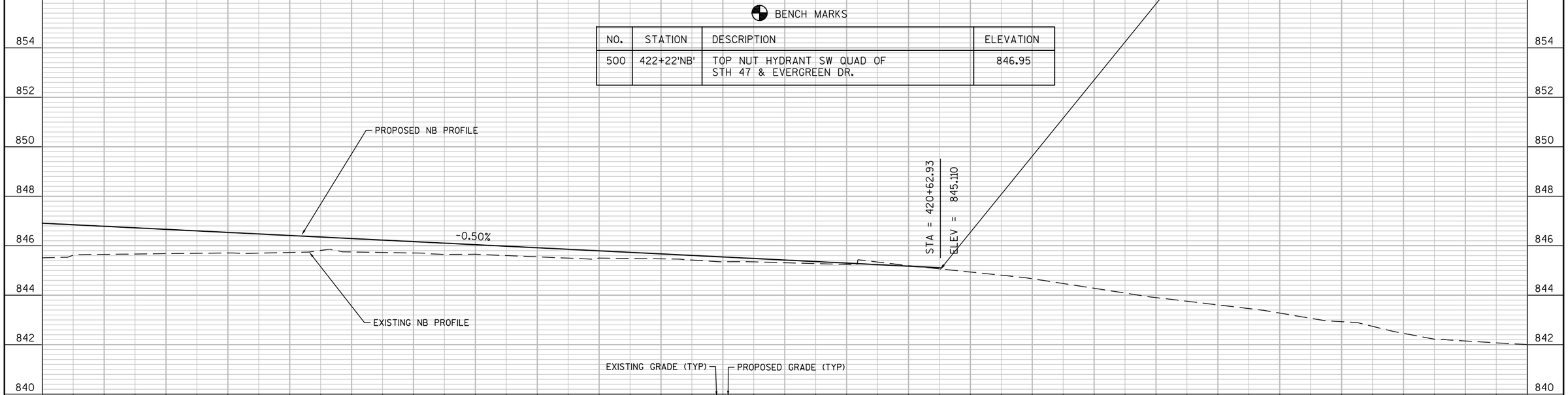


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BENCH MARKS

NO.	STATION	DESCRIPTION	ELEVATION
500	422+22'NB'	TOP NUT HYDRANT SW QUAD OF STH 47 & EVERGREEN DR.	846.95



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: NB STH 47	SHEET 201	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEVATION
619	369+75'NB'	CHISELED SQUARE BASE OF TRAFFIC SIGNAL - NE. QUAD. CAPITOL DR. & STH 47	934.71

DK HOLDINGS OF WISCONSIN LLC
3419 N. RICHMOND ST

CITY OF APPLETON WATER (TYP.)

AT&T WISCONSIN (TYP.)

CITY OF APPLETON STORM SEWER (TYP.)

GOODMAN PROPERTIES OF APPLETON
3437 N. RICHMOND ST

STURM FAMILY TRUST
3505 N. RICHMOND ST

PROPERTY LINE (TYP)

CHARLES STURM
3525 N. RICHMOND ST

CONRAD E. & ROSEMARY SCHADLER
3531 N. RICHMOND ST

TOWN OF GRAND CHUTE SANITARY

404+52'SB' LT
RECONSTRUCT P.E.
SAWCUT CONCRETE REQ'D

403+46'SB' LT
RECONSTRUCT P.E.
SAWCUT CONCRETE REQ'D

BM619

TIME WARNER CABLE (TYP.)

CITY OF APPLETON SANITARY (TYP.)

WE ENERGIES GAS (TYP.)

MATCHLINE STA 405+00'SB'

WE ENERGIES ELECTRIC (TYP.)

BEGIN PROJECT (MATCH EXISTING)
SAWCUT REQUIRED
STA. 402+78.76'SB'

W SENECA DR

R/W (TYP)

VALLEY BAPTIST CHURCH INC
3600 N. CHIPPEWA ST

BAY LAKES BAPTIST ASSOCIATION
650 W. SENECA DR

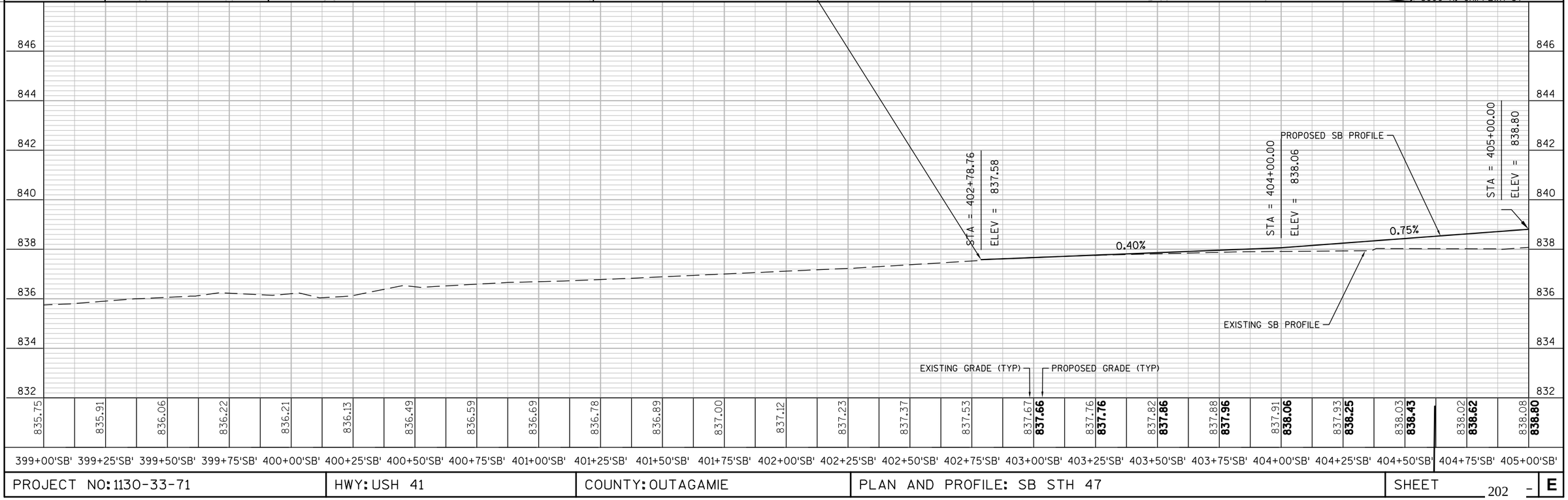
TLE (TYP)

SLOPE INTERCEPT (TYP)

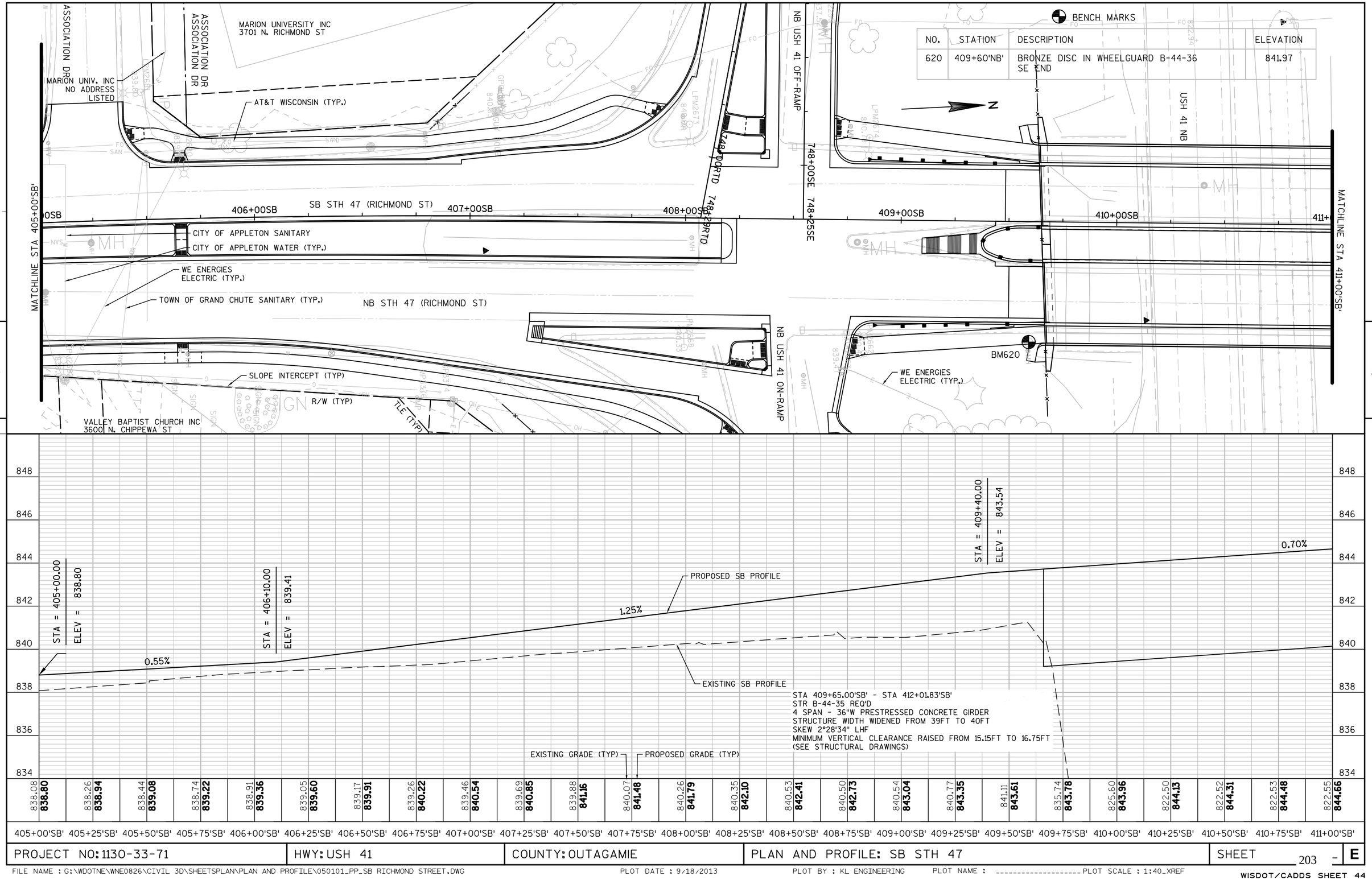
VALLEY BAPTIST CHURCH INC
3600 N. CHIPPEWA ST

399+00SB 400+00SB 401+00SB 402+00SB 403+00SB 404+00SB 405

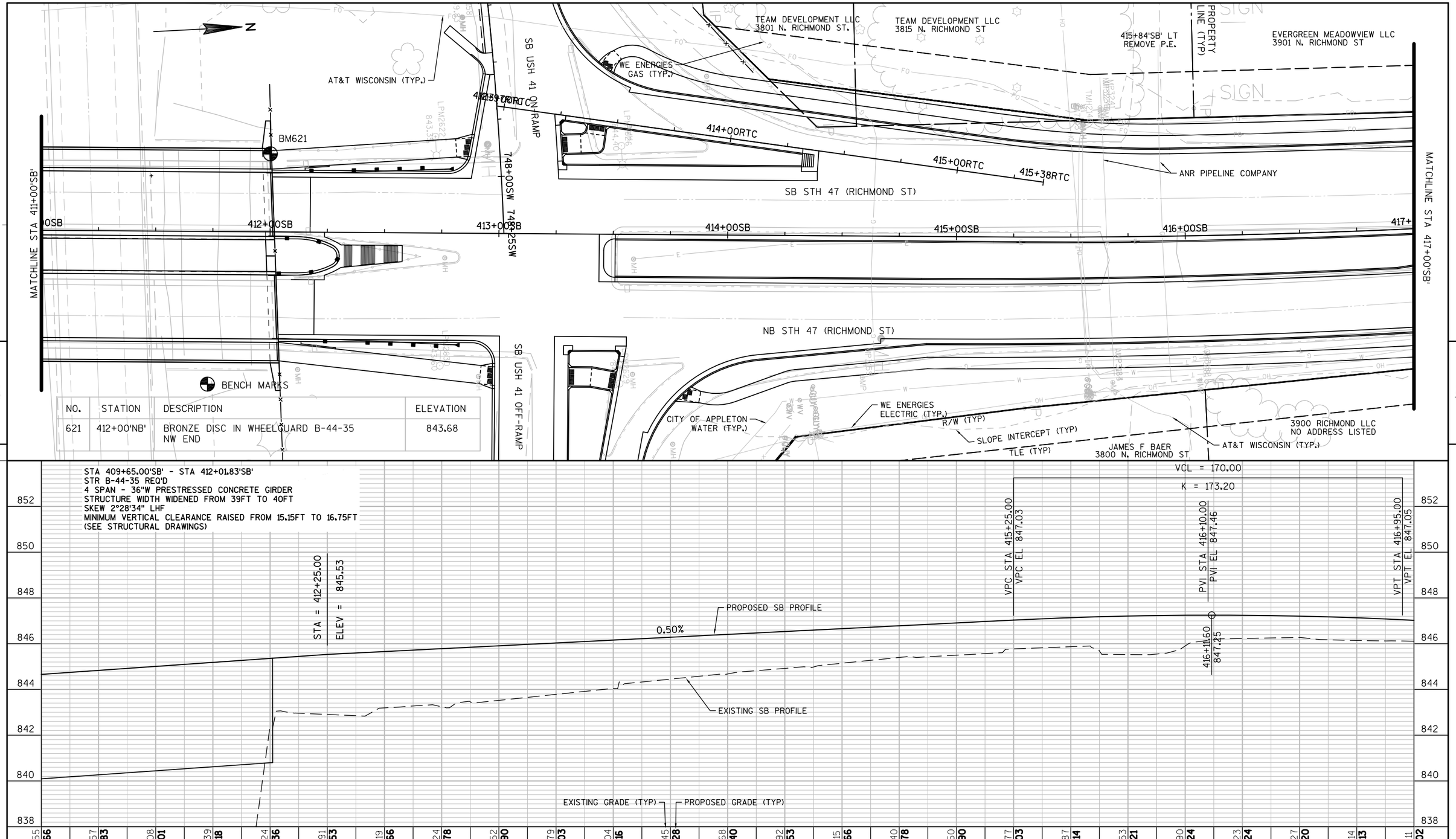
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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: SB STH 47	SHEET 203 - E



NO.	STATION	DESCRIPTION	ELEVATION
621	412+00'NB'	BRONZE DISC IN WHEELGUARD B-44-35 NW END	843.68

STA 409+65.00'SB' - STA 412+01.83'SB'
STR B-44-35 REQ'D
4 SPAN - 36"W PRESTRESSED CONCRETE GIRDER
STRUCTURE WIDTH WIDENED FROM 39FT TO 40FT
SKEW 2°28'34" LHF
MINIMUM VERTICAL CLEARANCE RAISED FROM 15.15FT TO 16.75FT
(SEE STRUCTURAL DRAWINGS)

411+00'SB'	411+25'SB'	411+50'SB'	411+75'SB'	412+00'SB'	412+25'SB'	412+50'SB'	412+75'SB'	413+00'SB'	413+25'SB'	413+50'SB'	413+75'SB'	414+00'SB'	414+25'SB'	414+50'SB'	414+75'SB'	415+00'SB'	415+25'SB'	415+50'SB'	415+75'SB'	416+00'SB'	416+25'SB'	416+50'SB'	416+75'SB'	417+00'SB'
822.55	822.57	822.08	830.39	842.24	842.91	843.19	843.24	843.52	843.79	844.04	844.45	844.68	844.92	845.15	845.40	845.50	845.77	845.87	845.53	845.90	846.23	846.27	846.14	846.11
844.66	**844.83**	**845.01**	**845.18**	**845.36**	**845.53**	**845.66**	**845.78**	**845.90**	**846.03**	**846.16**	**846.28**	**846.40**	**846.53**	**846.66**	**846.78**	**846.90**	**847.03**	**847.14**	**847.21**	**847.24**	**847.24**	**847.20**	**847.13**	**847.02**

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: SB STH 47	SHEET 204 - E

EVERGREEN MEADOWVIEW LLC
3901 N. RICHMOND ST

PROPERTY LINE (TYP)

TEAM DEVELOPMENT OF APPLETON LLC
NO ADDRESS LISTED

N

AT&T WISCONSIN (TYP.)

417+30'SB' LT
REMOVE P.E.

418+59'SB' LT
REMOVE P.E.

SB STH 47 (RICHMOND ST)

END PROJECT (MATCH EXISTING)
SAWCUT REQ'D
STA. 420+28.37'SB'

WISDOT SIGNALS (TYP.)

MATCHLINE STA 417+00'SB'

00SB | 418+00SB | 419+00SB | 420+00SB | 421+00SB | 422+00SB | 423+00SB

WE ENERGIES ELECTRIC (TYP.)

AT&T WISCONSIN (TYP.)

WE ENERGIES
GAS (TYP.)

NB STH 47 (RICHMOND ST)

EVERGREEN DR

R/W (TYP)

TLE (TYP)

SLOPE INTERCEPT (TYP)

3900 RICHMOND LLC
NO ADDRESS LISTED

PROPERTY LINE (TYP)

NORTH RICHMOND PARTNERS LLP
3962 N. RICHMOND ST

T&G PROPERTY HOLDINGS LLC
3992 N. RICHMOND ST

BM500

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BENCH MARKS

NO.	STATION	DESCRIPTION	ELEVATION
500	422+22'NB'	TOP NUT HYDRANT SW QUAD OF STH 47 & EVERGREEN DR.	846.95

854
852
850
848
846
844
842
840

PROPOSED SB PROFILE

-0.48%

EXISTING SB PROFILE

STA = 420+28.46
ELEV = 845.44

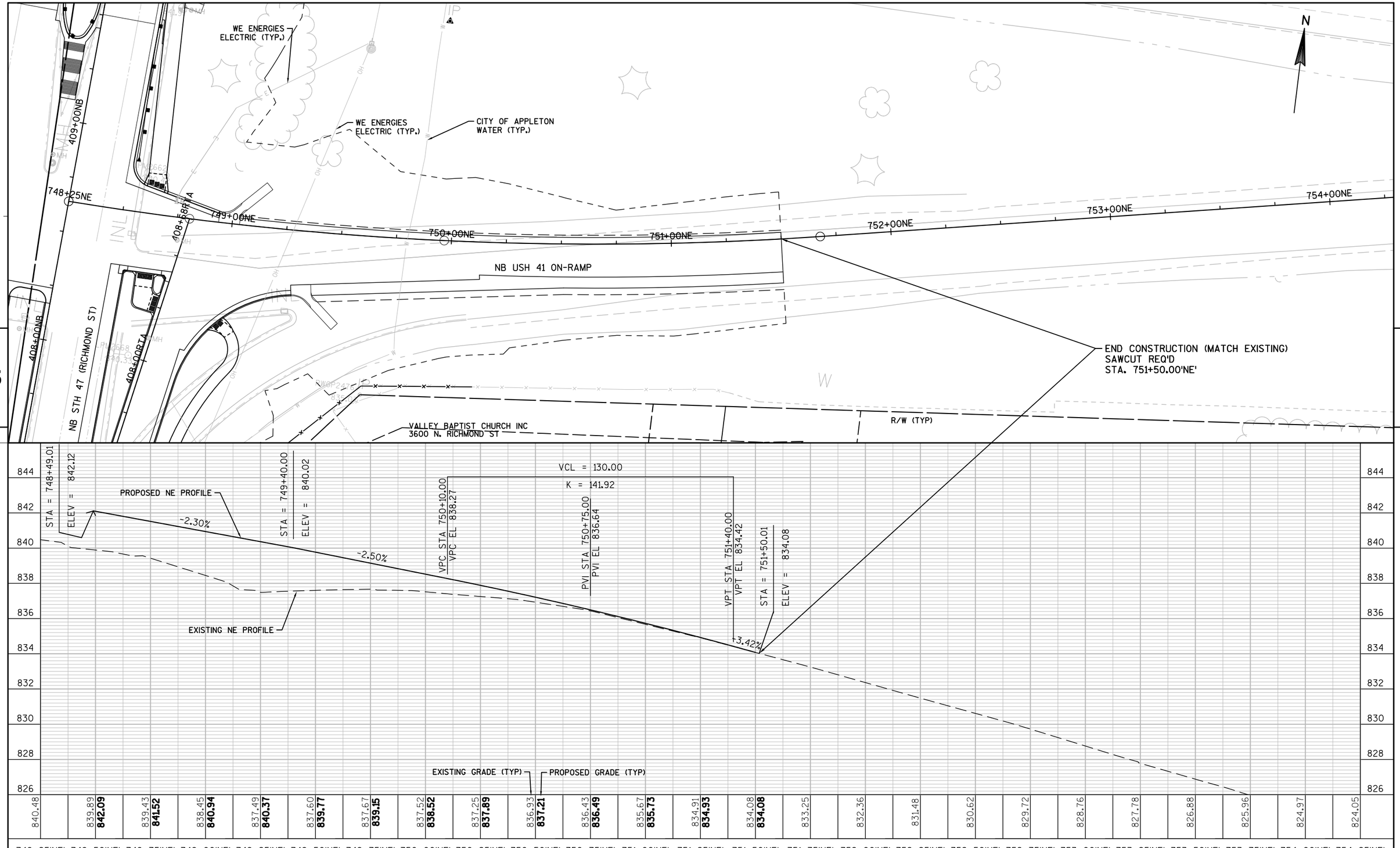
EXISTING GRADE (TYP)

PROPOSED GRADE (TYP)

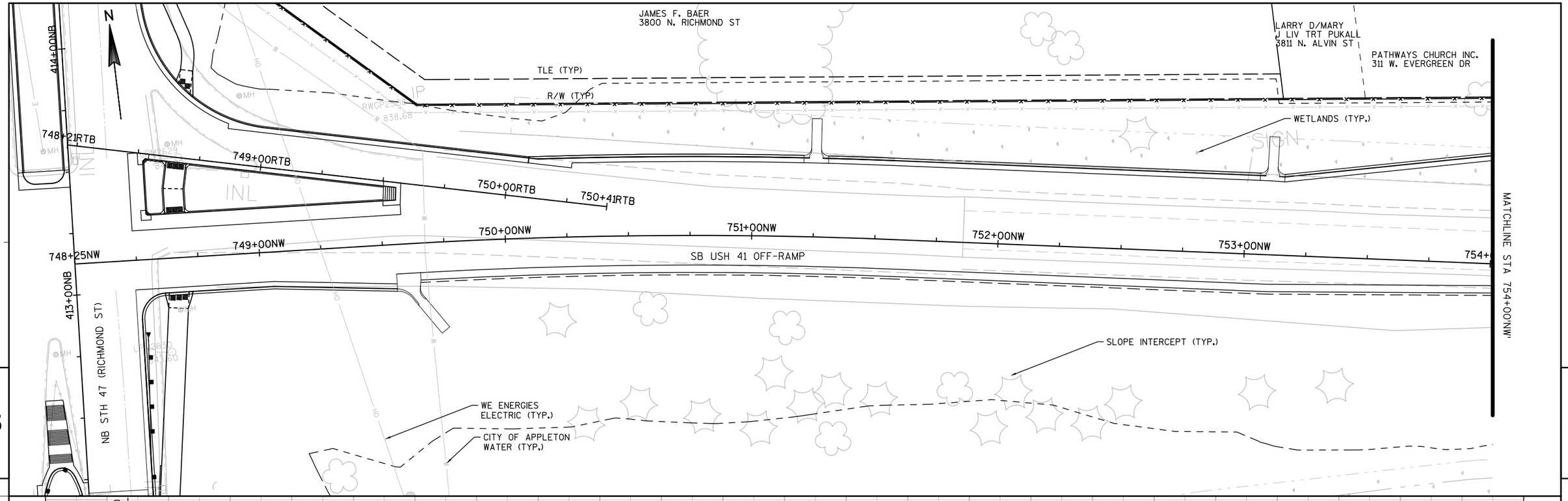
846.11	846.06	845.99	846.00	845.95	845.90	845.82	845.74	845.70	845.65	845.58	845.52	845.49	845.45	845.16	844.83	844.50	844.21	843.91	843.61	843.31	842.83	842.24	842.02	841.87
847.02	**846.90**	**846.78**	**846.66**	**846.54**	**846.42**	**846.30**	**846.18**	**846.06**	**845.94**	**845.82**	**845.70**	**845.58**	**845.46**											

417+00'SB' | 417+25'SB' | 417+50'SB' | 417+75'SB' | 418+00'SB' | 418+25'SB' | 418+50'SB' | 418+75'SB' | 419+00'SB' | 419+25'SB' | 419+50'SB' | 419+75'SB' | 420+00'SB' | 420+25'SB' | 420+50'SB' | 420+75'SB' | 421+00'SB' | 421+25'SB' | 421+50'SB' | 421+75'SB' | 422+00'SB' | 422+25'SB' | 422+50'SB' | 422+75'SB' | 423+00'SB'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: SB STH 47	SHEET 205 - E



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: USH 41 NE ON-RAMP	SHEET 206	E



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: USH 41 NW OFF-RAMP	SHEET 207	E

PATHWAYS CHURCH INC.
311 W EVERGREEN DR

R/W (TYP)

WETLANDS (TYP.)

N

MATCHLINE STA 754+00'NW'

SB USH 41 OFF-RAMP

0NW | 755+00NW | 756+00NW | 757+00NW | 758+00NW | 759+00NW | 760+00NW

SLOPE INTERCEPT (TYP)

END CONSTRUCTION (MATCH EXISTING)
SAWCUT REQ'D
STA. 756+50.00'NW'

STA = 754+25.00
ELEV = 831.56

PROPOSED NW PROFILE

EXISTING NW PROFILE

-3.00%

STA = 756+50.01
ELEV = 824.82

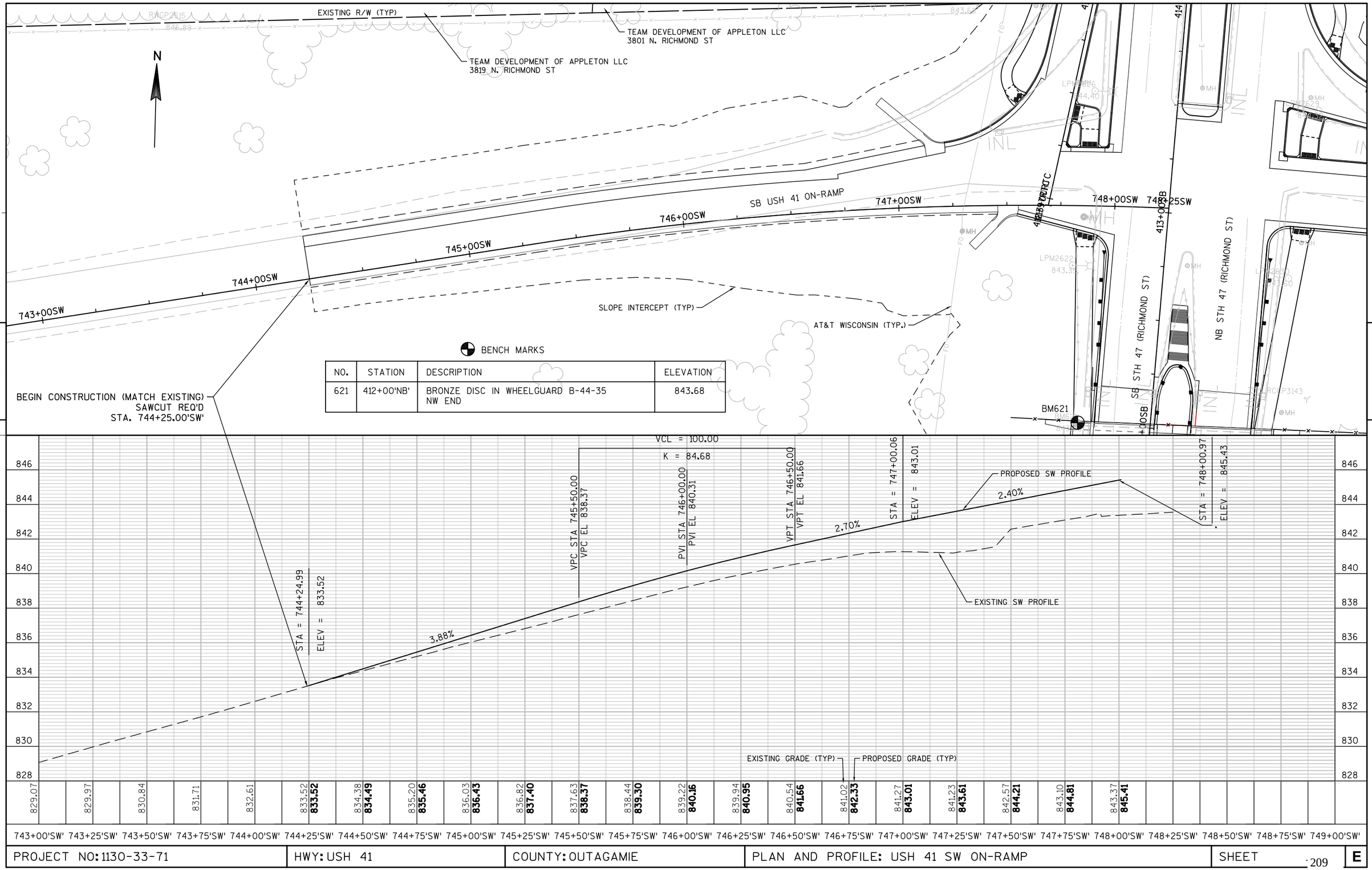
EXISTING GRADE (TYP)

PROPOSED GRADE (TYP)

832.33	831.58	830.83	830.08	829.33	828.58	827.81	827.07	826.33	825.58	824.82	824.08	823.33	822.58	821.84	821.12	820.41	819.69	819.06	818.48	817.91	817.40	816.90	816.46	816.13
832.33	**831.56**	**830.81**	**830.06**	**829.31**	**828.56**	**827.82**	**827.07**	**826.32**	**825.57**	**824.82**														

754+00'NW' | 754+25'NW' | 754+50'NW' | 754+75'NW' | 755+00'NW' | 755+25'NW' | 755+50'NW' | 755+75'NW' | 756+00'NW' | 756+25'NW' | 756+50'NW' | 756+75'NW' | 757+00'NW' | 757+25'NW' | 757+50'NW' | 757+75'NW' | 758+00'NW' | 758+25'NW' | 758+50'NW' | 758+75'NW' | 759+00'NW' | 759+25'NW' | 759+50'NW' | 759+75'NW' | 760+00'NW'

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: USH 41 NW OFF-RAMP	SHEET 208	E



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: USH 41 SW ON-RAMP	SHEET 209	E

NB USH 41

SIGN SIGN SIGN

737+00SE 738+00SE 739+00SE 740+00SE 741+00SE 742+00SE

USH 41 NB OFF-RAMP

BEGIN CONSTRUCTION (MATCH EXISTING)
SAWCUT REQ'D
STA. 739+75.00'SE'

SLOPE INTERCEPT (TYP)

MATCHLINE STA 742+75'SE'

N

5 5

PROPOSED SE PROFILE

3.40%

EXISTING SE PROFILE

STA = 739+74.99
ELEV = 822.03

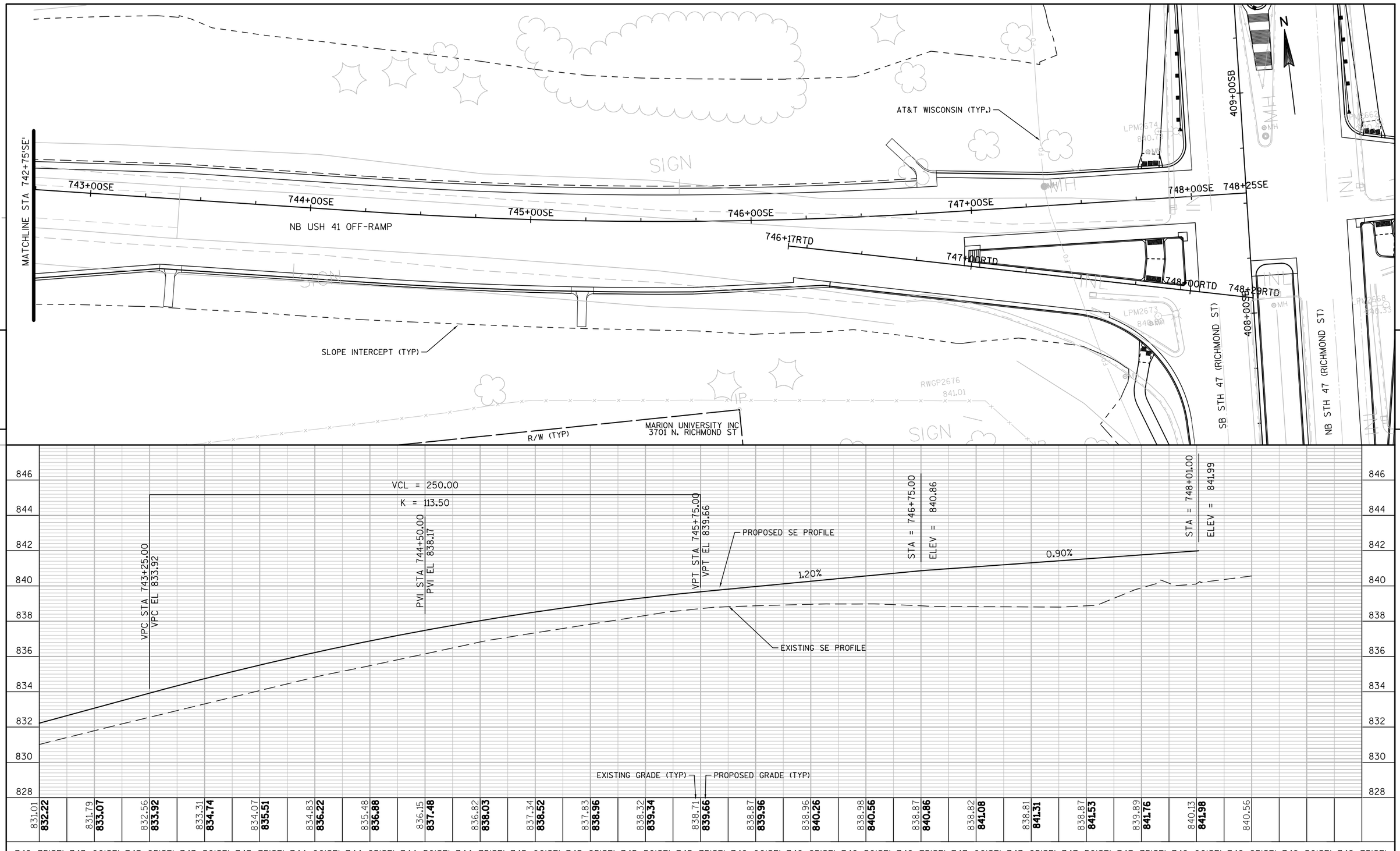
EXISTING GRADE (TYP) PROPOSED GRADE (TYP)

832 830 828 826 824 822 820 818 816 814

736+75'SE'	737+00'SE'	737+25'SE'	737+50'SE'	737+75'SE'	738+00'SE'	738+25'SE'	738+50'SE'	738+75'SE'	739+00'SE'	739+25'SE'	739+50'SE'	739+75'SE'	740+00'SE'	740+25'SE'	740+50'SE'	740+75'SE'	741+00'SE'	741+25'SE'	741+50'SE'	741+75'SE'	742+00'SE'	742+25'SE'	742+50'SE'	742+75'SE'
816.19	816.46	816.65	816.90	817.44	817.95	818.47	818.98	819.50	820.01	820.57	821.32	822.03	**822.03**	822.74	**822.88**	823.45	**823.73**	824.19	**824.58**	824.95	**825.43**	825.72	**826.28**	826.48	**827.13**	827.21	**827.98**	827.94	**828.82**	828.67	**829.67**	829.44	**830.52**	830.23	**831.37**	831.01	**832.22**

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: USH 41 SE OFF-RAMP	SHEET 210	E

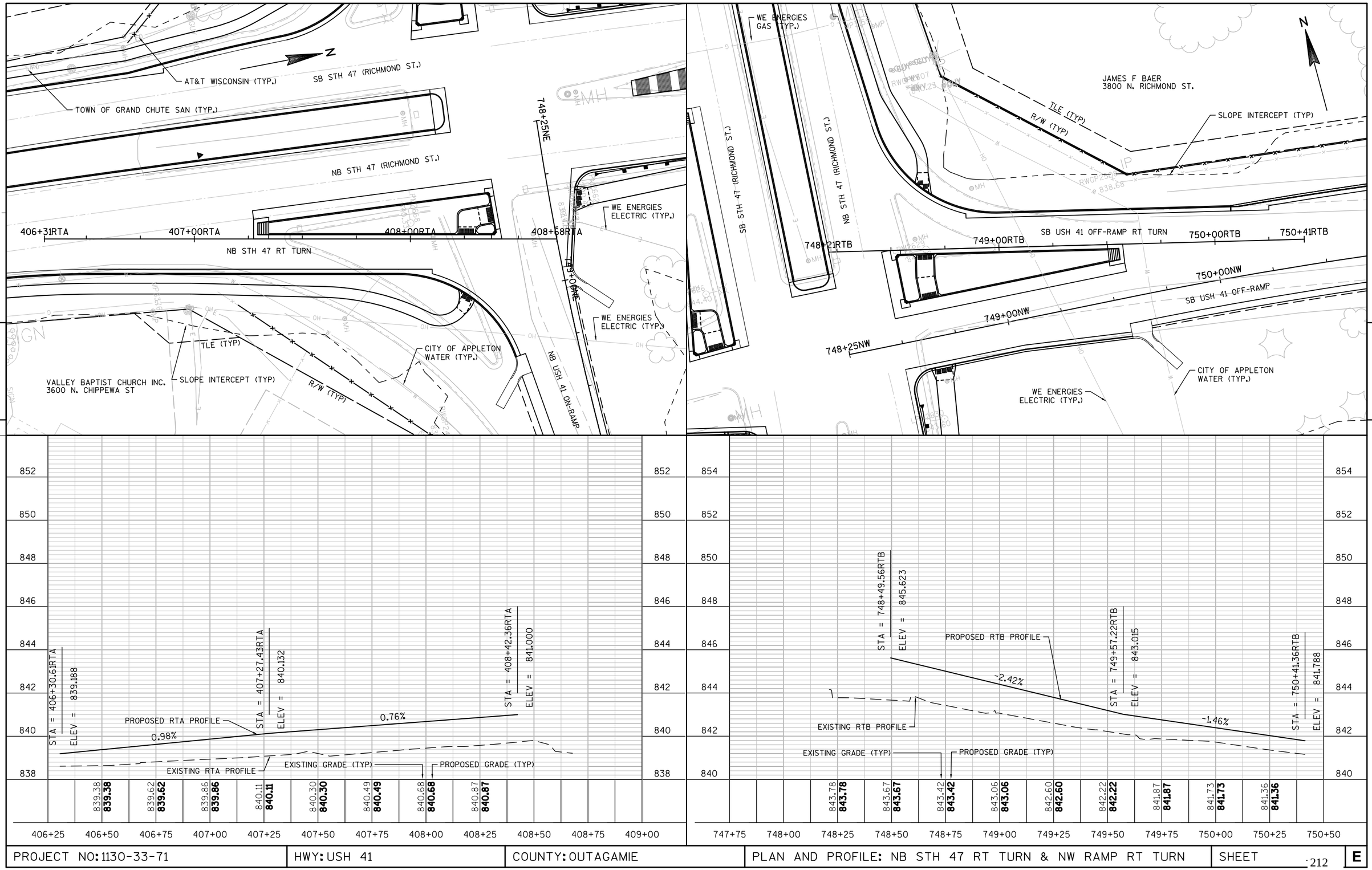
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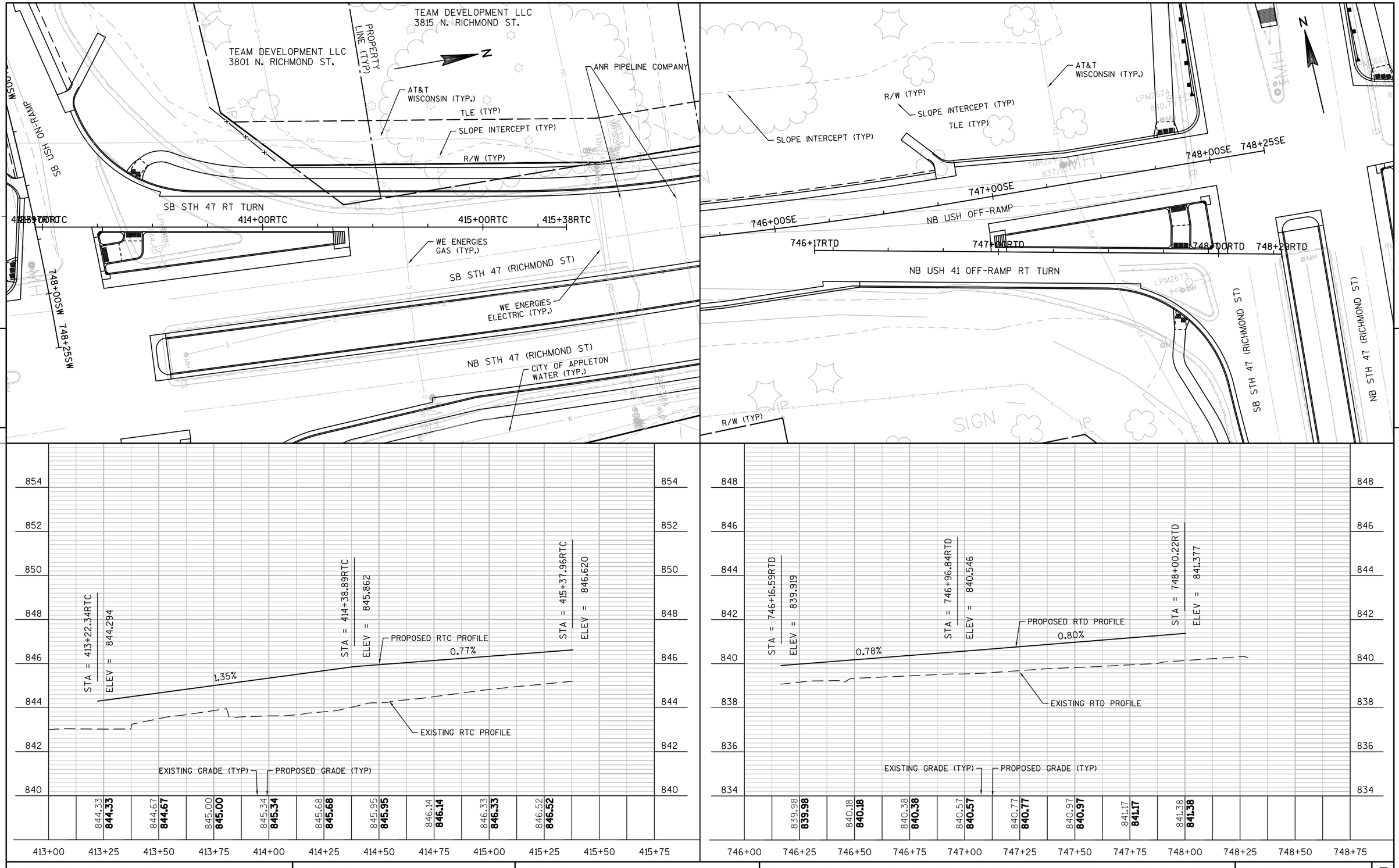
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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: USH 41 SE OFF-RAMP	SHEET 211	E



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: NB STH 47 RT TURN & NW RAMP RT TURN	SHEET 212	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\PLAN AND PROFILE\050101_PP_NB STH 47 RT & NW RAMP RT.DWG PLOT DATE : 9/18/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1:40_XREF



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: SB STH 47 RT TURN & SE RAMP RT TURN	SHEET 213	E

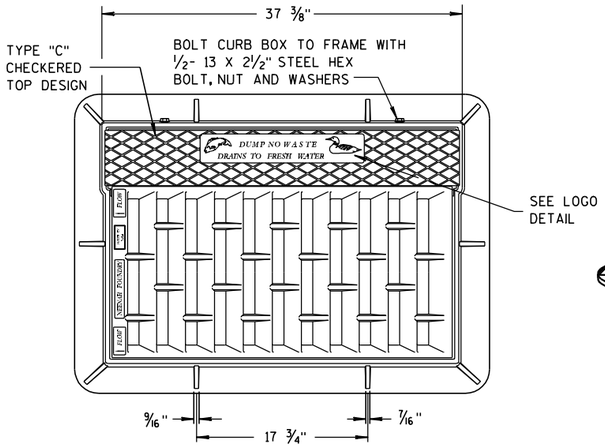
Standard Detail Drawing List

08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18C	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
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
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
09C05-07	CONCRETE CONTROL CABINET BASES
09C06-05	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-03	CONCRETE BASE TYPE 10
09C12-03A	CONCRETE BASE TYPE 13
09C13-01	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09E01-12C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-12D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-12G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-04B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-04D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-04E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F09-03	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
11B01-05	CONCRETE CORRUGATED MEDIAN
11B02-02	CONCRETE MEDIAN NOSE
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13B02-06	CONCRETE PAVEMENT APPROACH SLAB
13C01-16	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-02B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-02C	CONCRETE PAVEMENT JOINT TIES
13C18-02D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-01A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B26-02A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B28-02	GUARDRAIL MOW STRIP

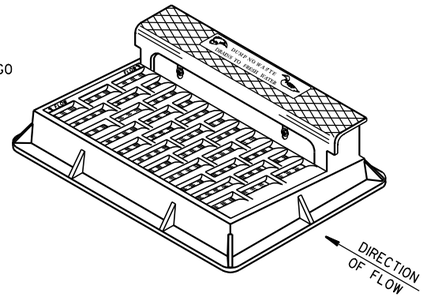
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Standard Detail Drawing List

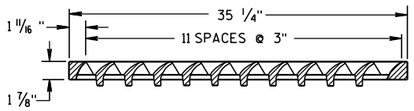
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A02-07	DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B03-12A	CHAIN LINK FENCE
15B03-12B	CHAIN LINK FENCE
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-01	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
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
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D03-01	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D14-01	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D16-01	TRAFFIC CONTROL, EXIT RAMP CLOSURE
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

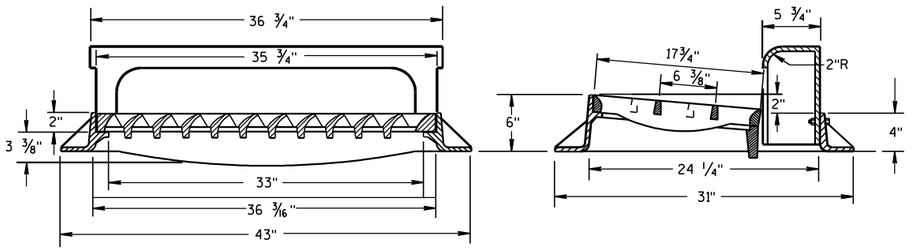


NOTE:
GRATE IS REVERSIBLE.



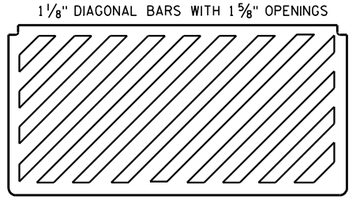
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"





TYPE "H"

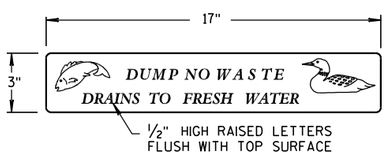
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



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

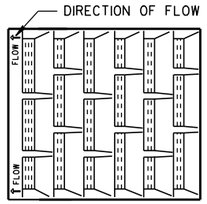
GENERAL NOTES

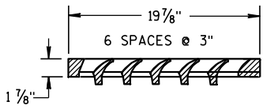
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

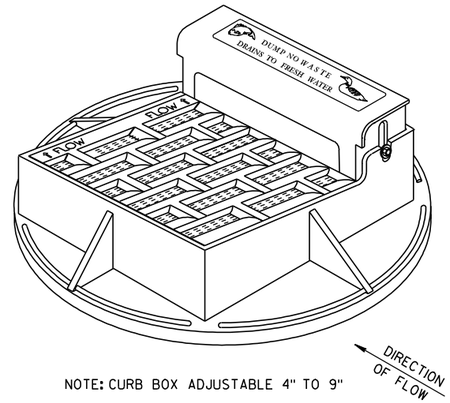
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

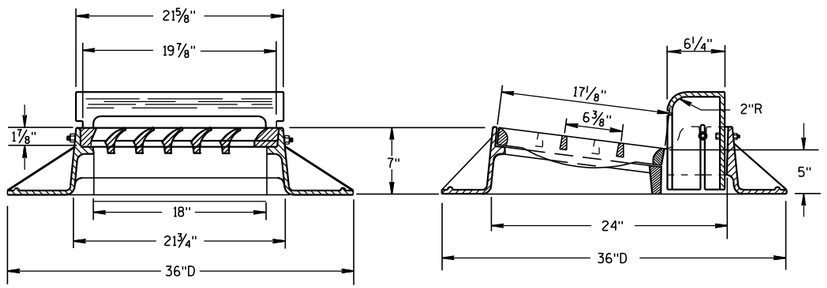
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





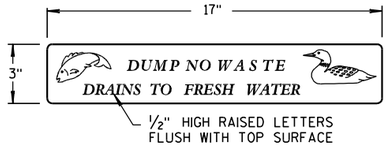


NOTE: CURB BOX ADJUSTABLE 4" TO 9"



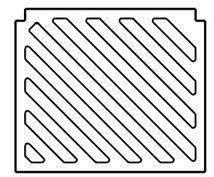
TYPE "A"

(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.

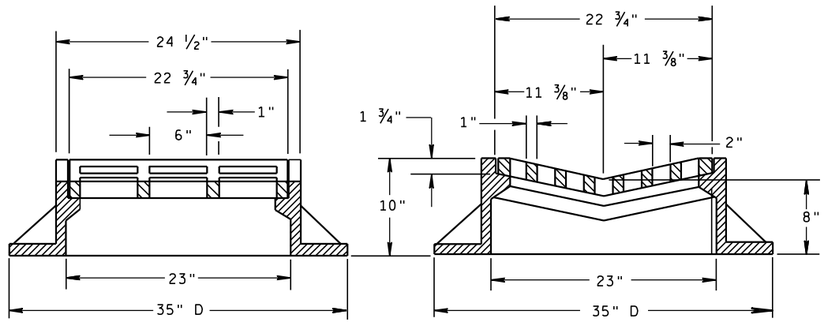
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

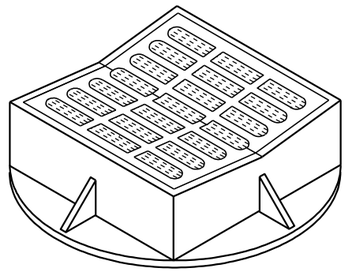
INLET COVERS TYPE A, H, A-S, & H-S

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

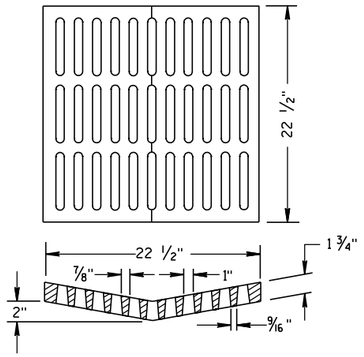




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

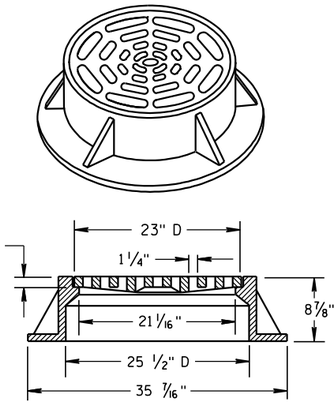


ALTERNATIVE GRATE FOR TYPE "B" COVER

(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.

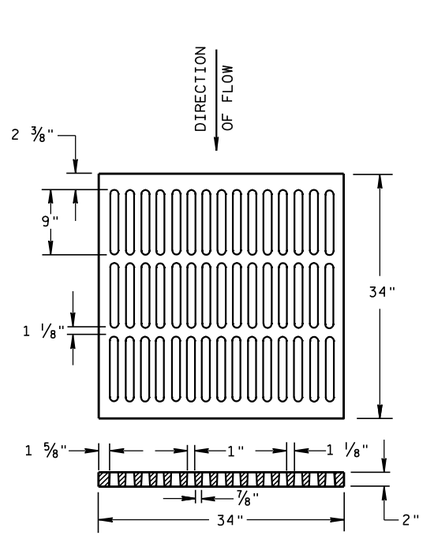
GENERAL NOTES

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.

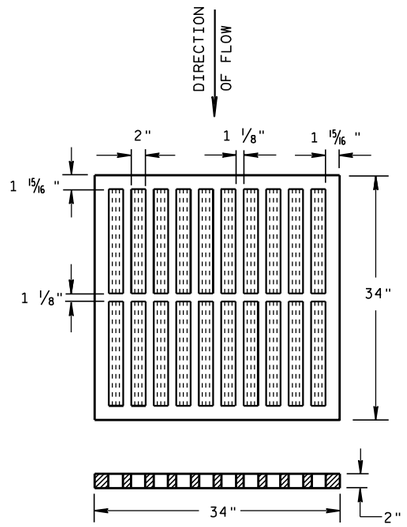


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

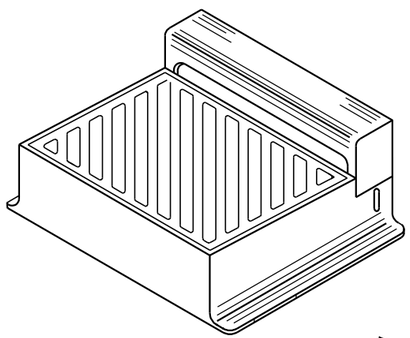


TYPE "MS"

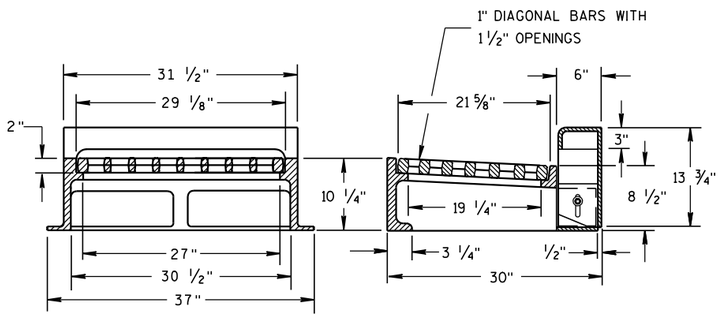
(APPROXIMATE GRATE WEIGHT 268 LBS.)

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



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

217

ENT

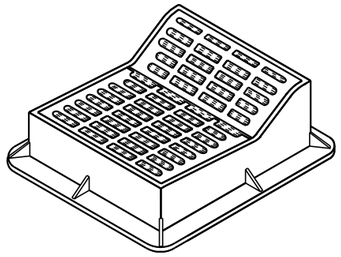
FHWA

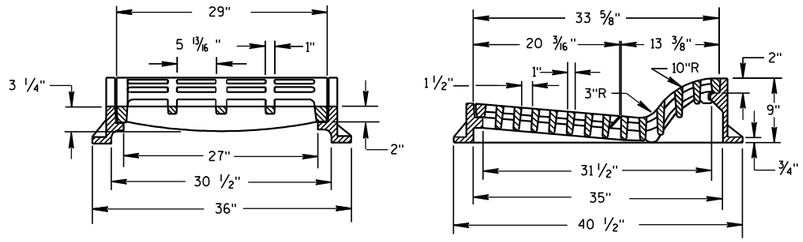
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S.D.D. 8 A 5-18b

6

S.D.D. 8 A 5-18b



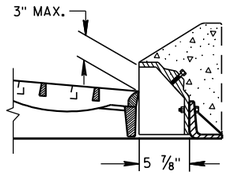


TYPE "F"

(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

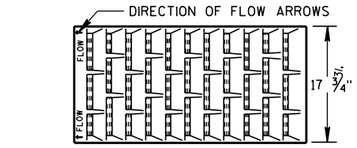
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

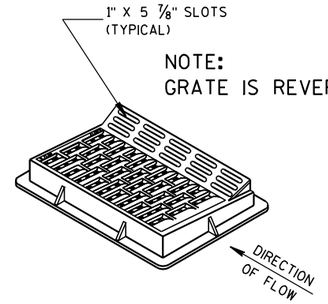
GENERAL NOTES

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.

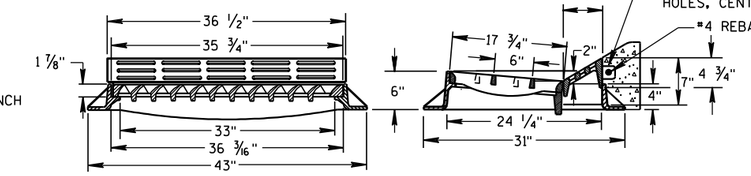
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





NOTE:
GRATE IS REVERSIBLE.

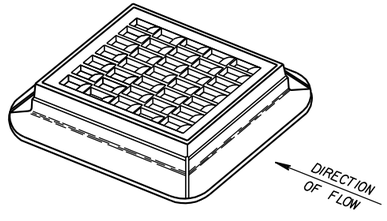


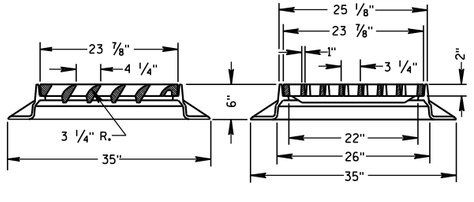
TYPE "HM"

(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

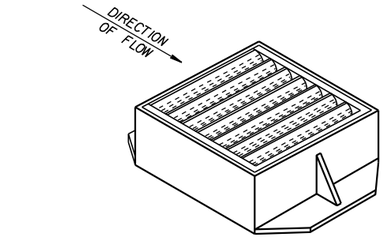


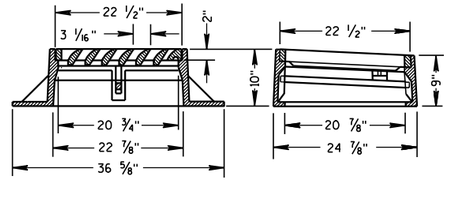


TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

FRAME.....164 LBS.
GRATE..... 169 LBS.

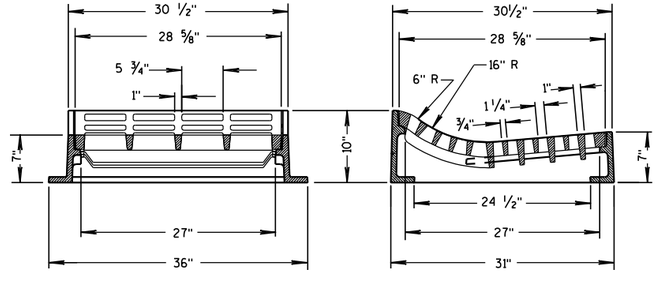




TYPE "V"

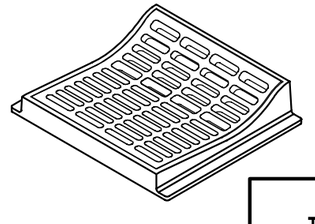
(APPROXIMATE WEIGHT 410 LBS.)

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

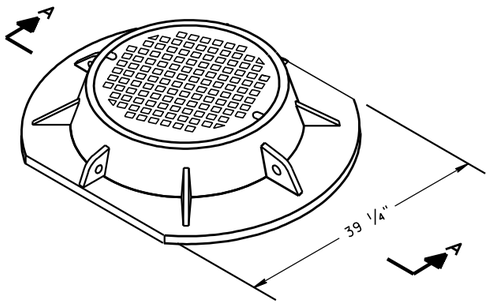
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

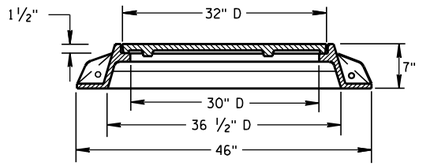
6

S.D.D. 8 A 5-18c

6

S.D.D. 8 A 5-18c



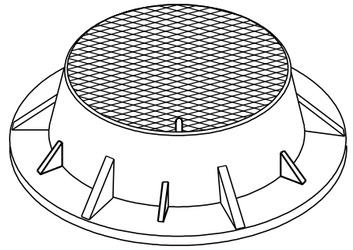


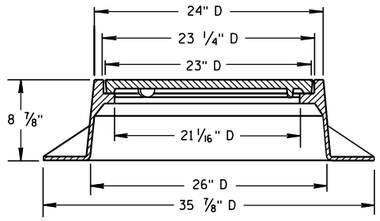
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

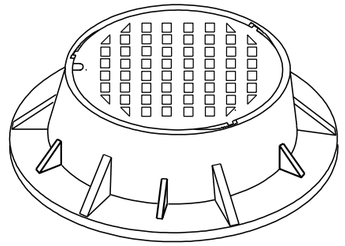


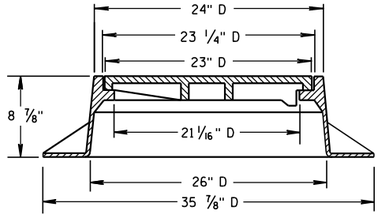


TYPE "J"

(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)

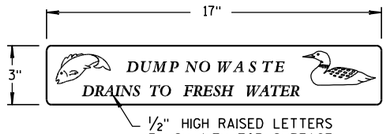
GENERAL NOTES

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

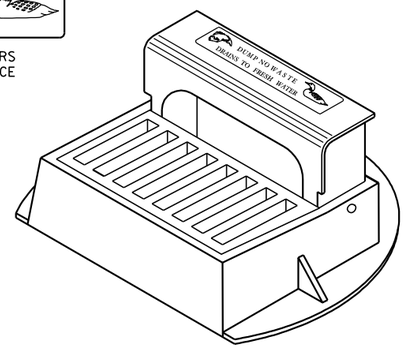
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

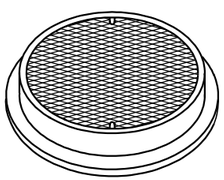
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

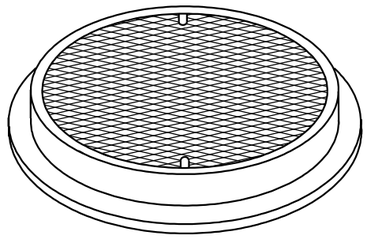
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

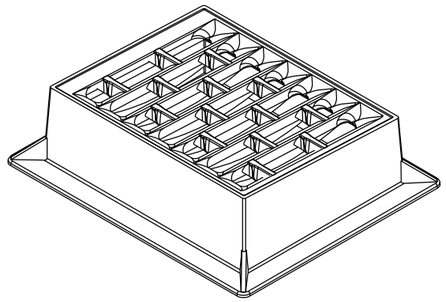


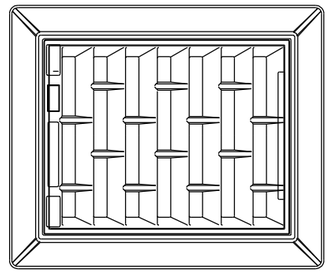
LOGO DETAIL

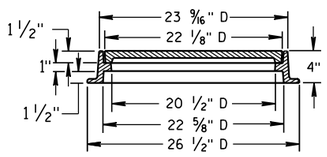








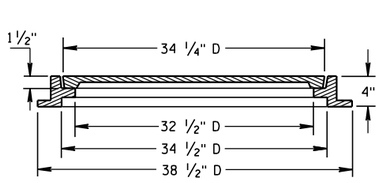




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

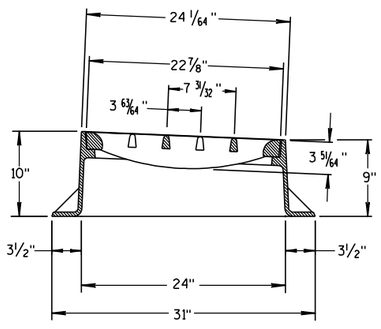
FRAME.....81 LBS.
LID.....77 LBS.

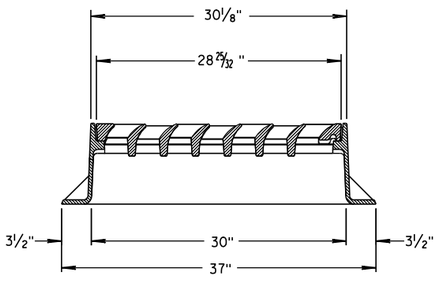


TYPE "M"

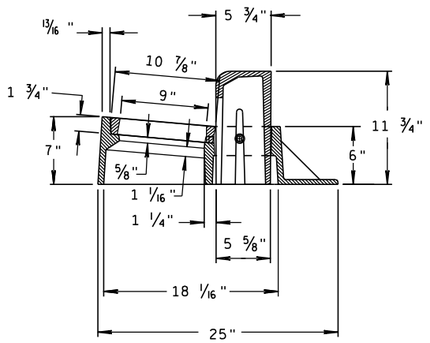
(APPROXIMATE WEIGHT 377 LBS.)

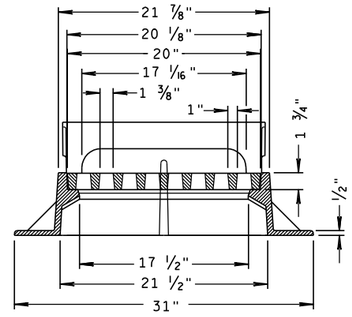
FRAME..... 125 LBS.
LID..... 252 LBS.





INLET COVER TYPE "BW"





INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

FRAME.....206 LBS.
GRATE..... 46 LBS.
CURB BOX..... 92 LBS.

INLET COVERS, TYPE BW, Z
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

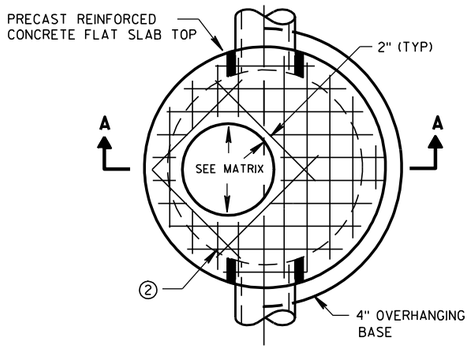
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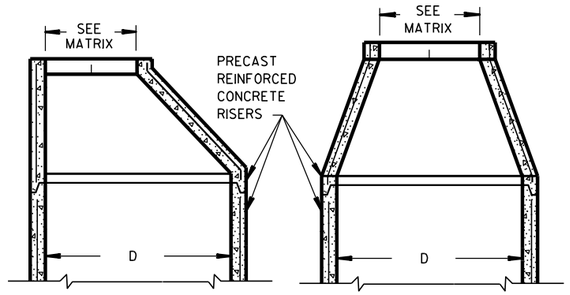
S.D.D. 8 A 5-18d

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S.D.D. 8 A 5-18d

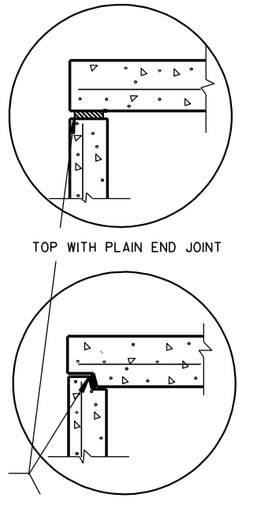


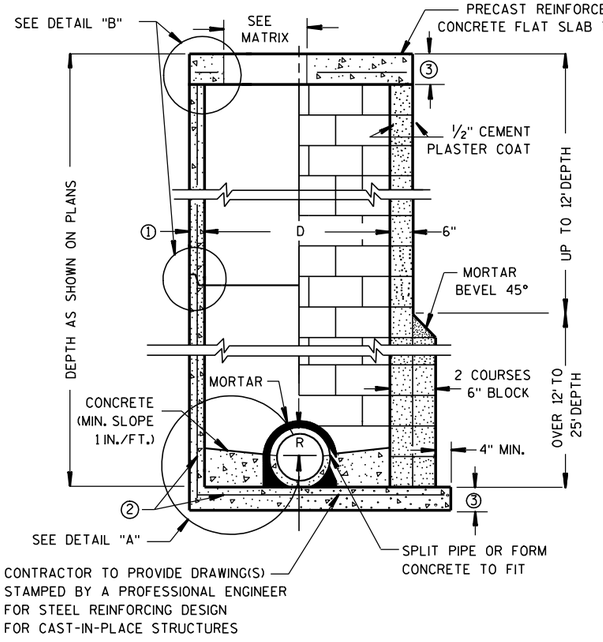
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

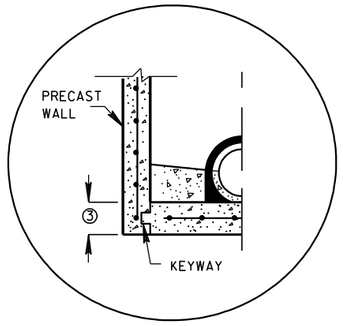
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



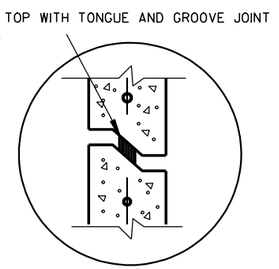


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

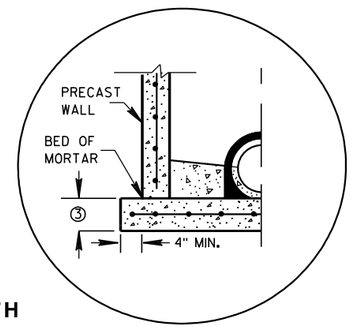
CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②



PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION

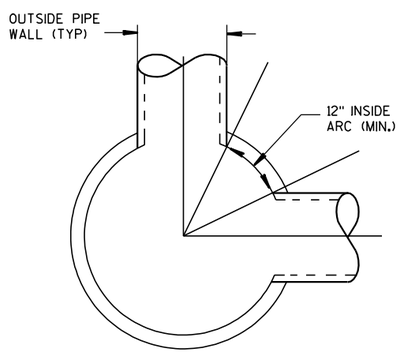


DETAIL "B"



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

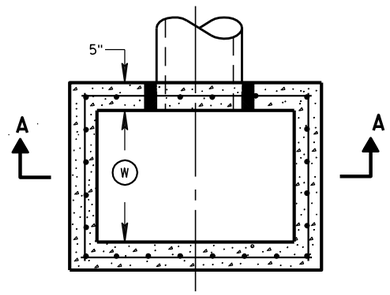
6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

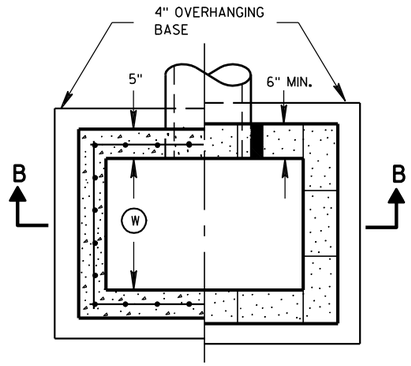
FHWA

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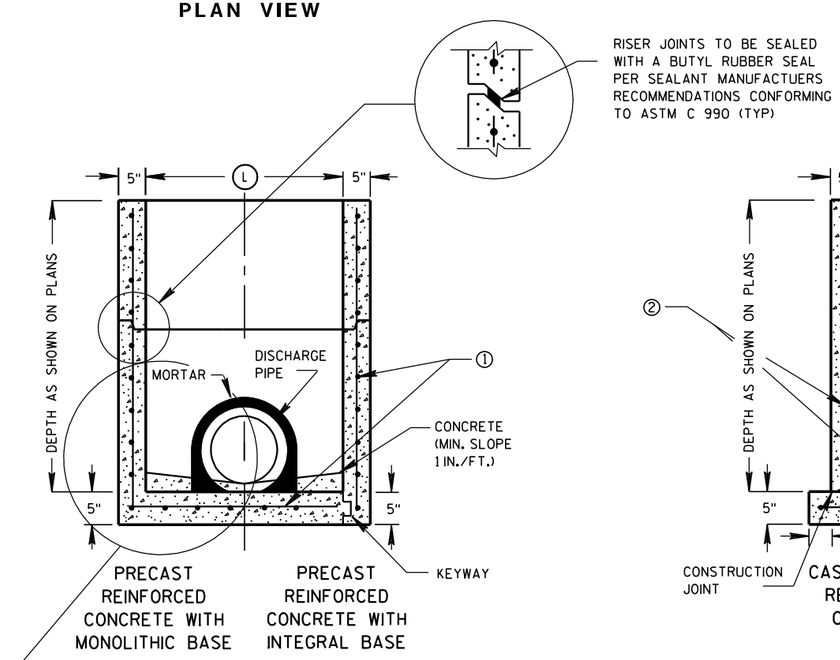
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S.D.D. 8 B 9-1



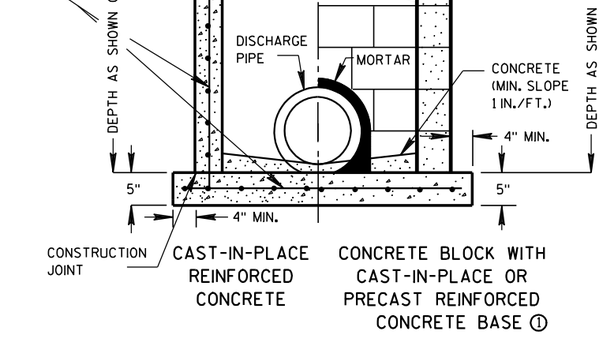
PLAN VIEW



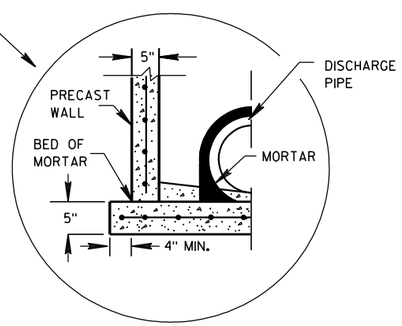
PLAN VIEW



SECTION A-A



SECTION B-B



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

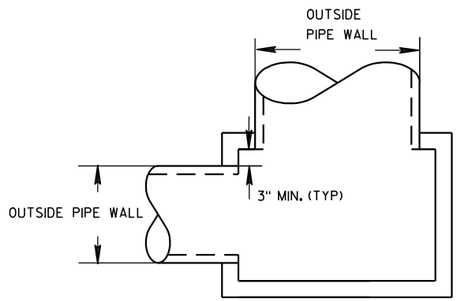
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

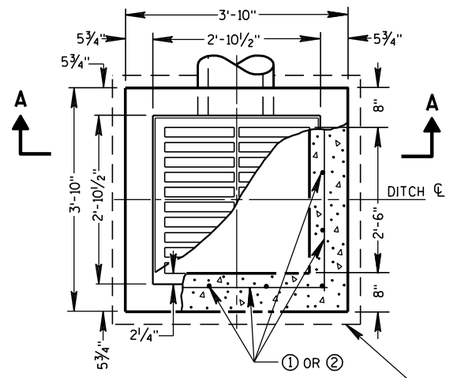
APPROVED
6/5/2012 DATE
/S/ Jerry H. Zoda ROADWAY STANDARDS D 221 IT
ENGINEER
FHWA

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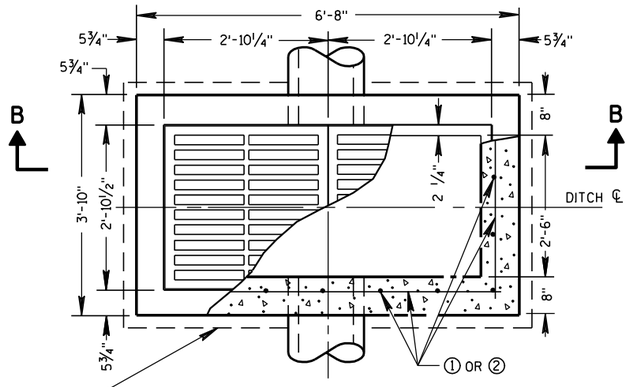
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6

S.D.D. 8 C 7-1

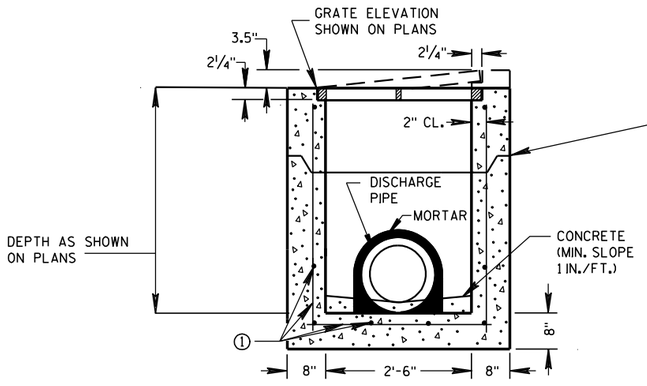


PLAN VIEW

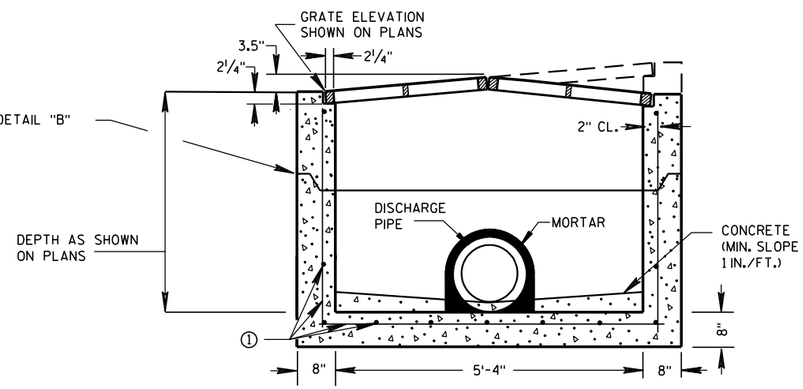


PLAN VIEW

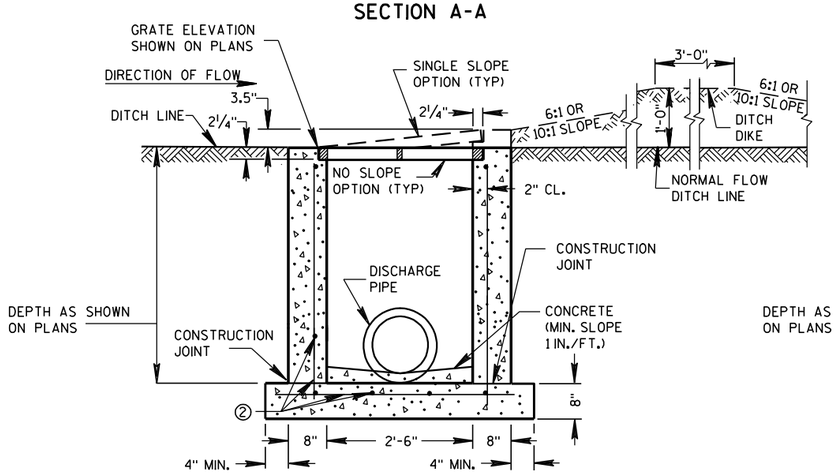
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



PRECAST REINFORCED CONCRETE SECTION A-A

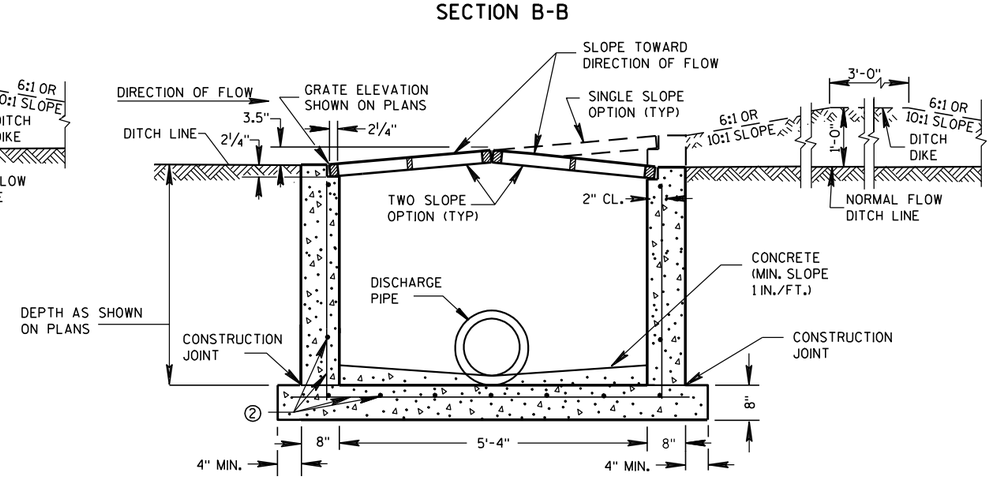


PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

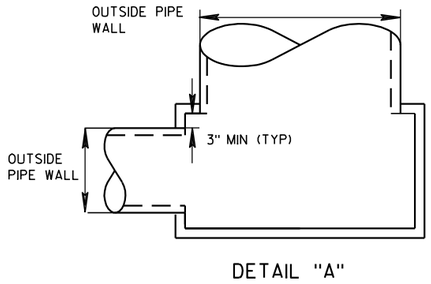
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

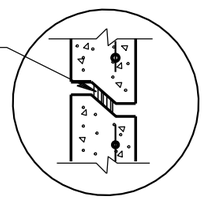
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

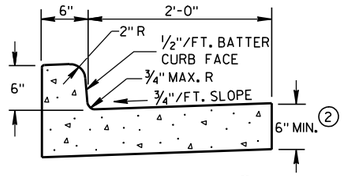
FHWA

6

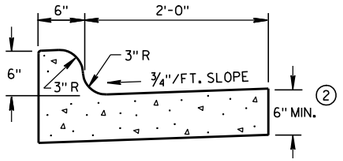
S.D.D. 8 C 8-1

6

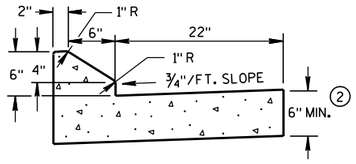
S.D.D. 8 C 8-1



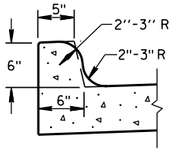
TYPES A & D (1)



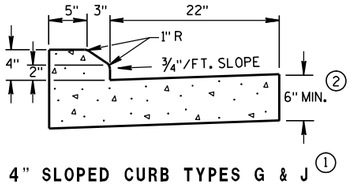
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

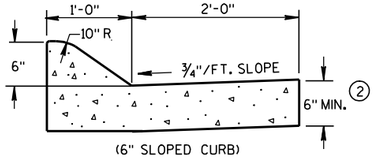


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

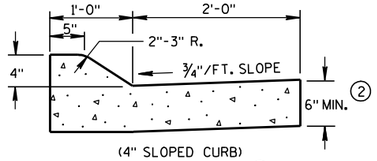


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

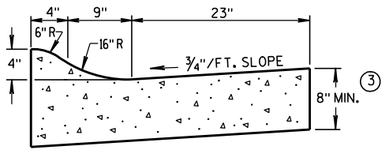


(6" SLOPED CURB)



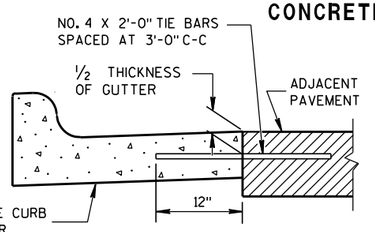
(4" SLOPED CURB)

TYPES A & D (1)

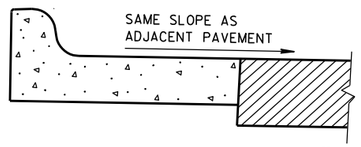


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

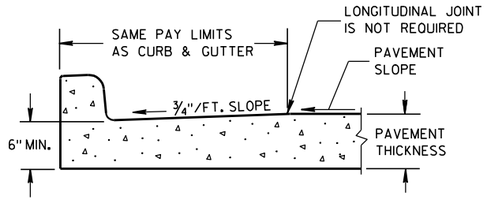
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

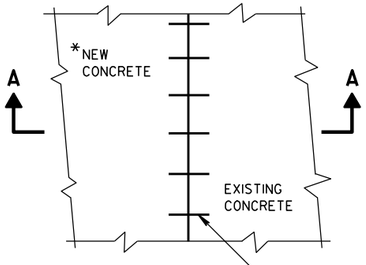
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

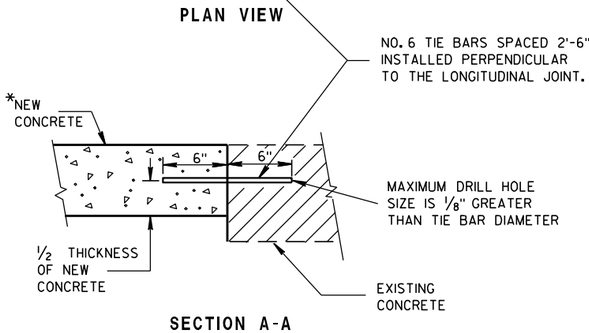


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



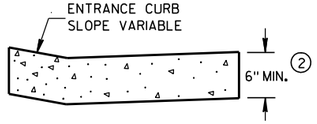
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW

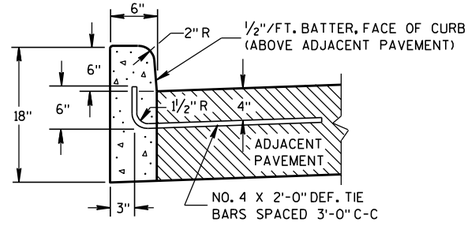


SECTION A-A

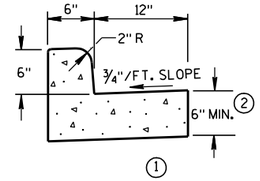
TIE BARS DRILLED INTO EXISTING PAVEMENT



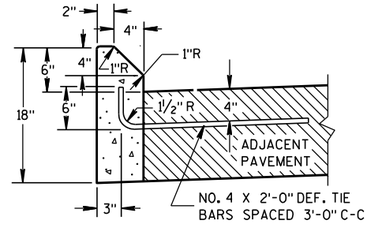
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



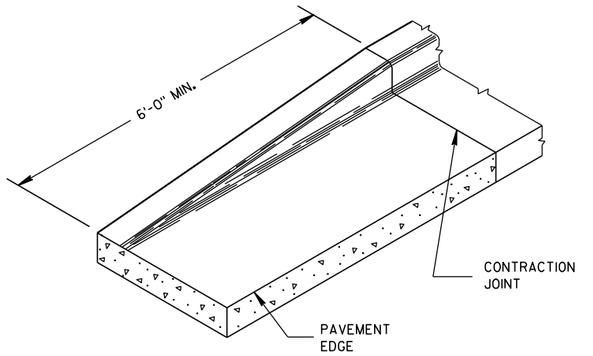
(1)
TYPES A & D



(1)
TYPES A & D
CONCRETE CURB & GUTTER 18"



(1)
TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
9/4/08 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA	223 ENT

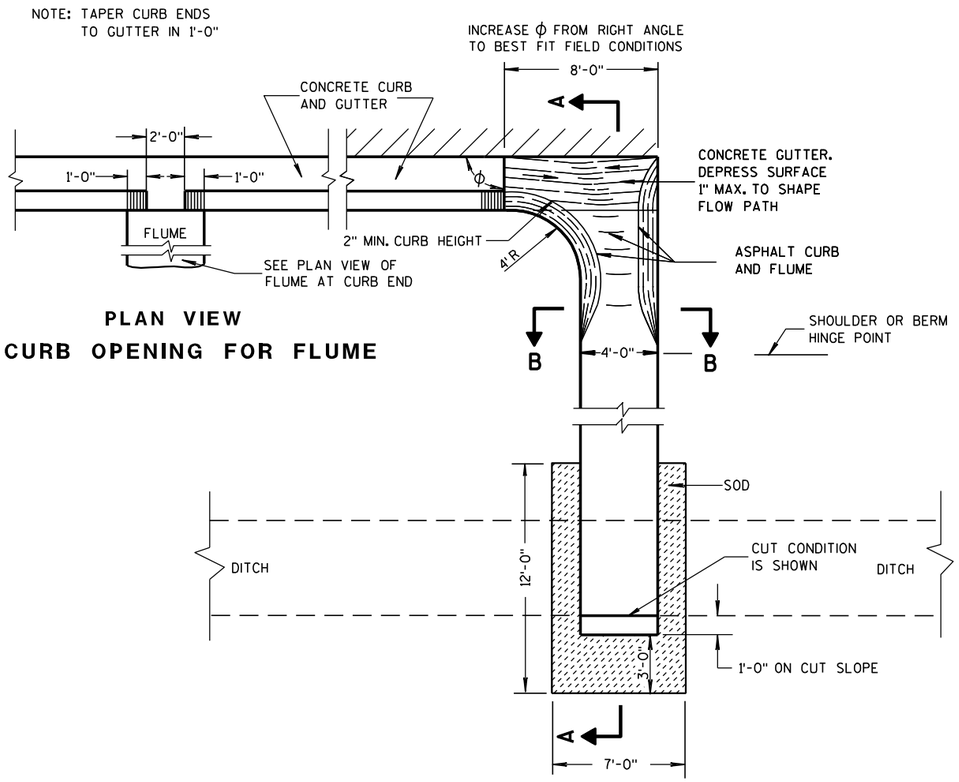
6

S.D.D. 8 D 1-17

6

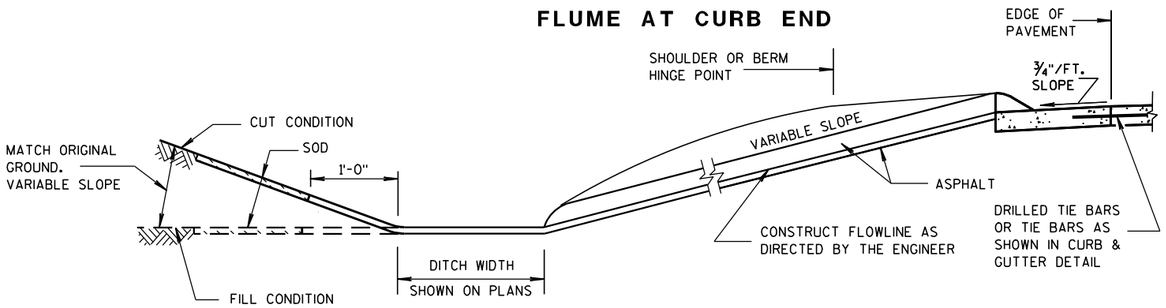
S.D.D. 8 D 1-17

ASPHALTIC FLUME

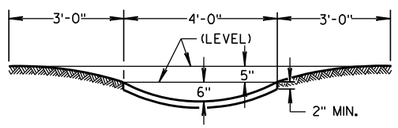


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

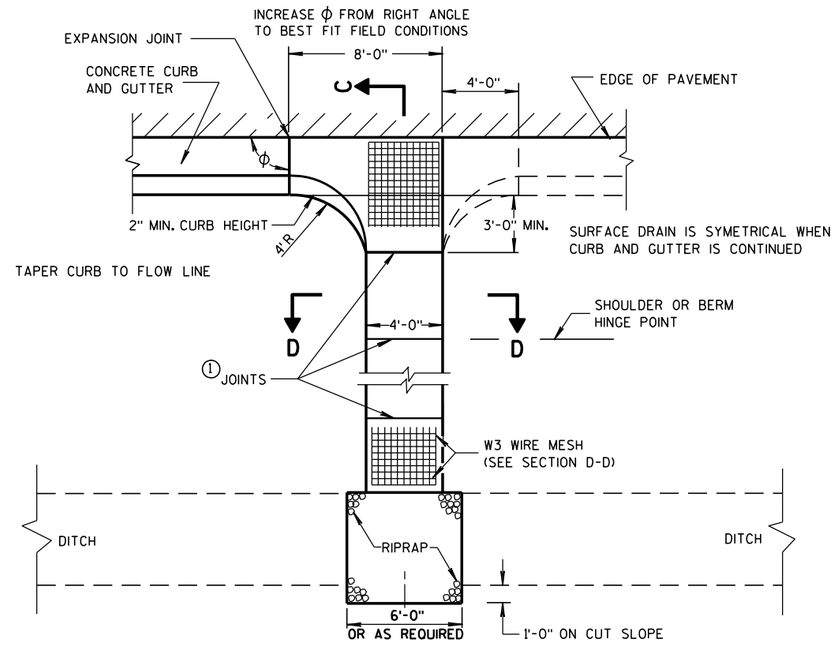
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

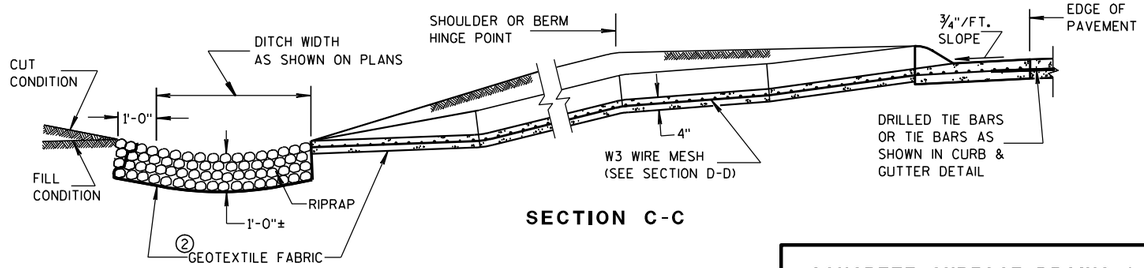
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

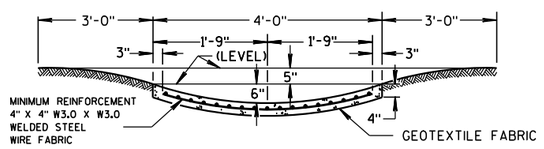
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

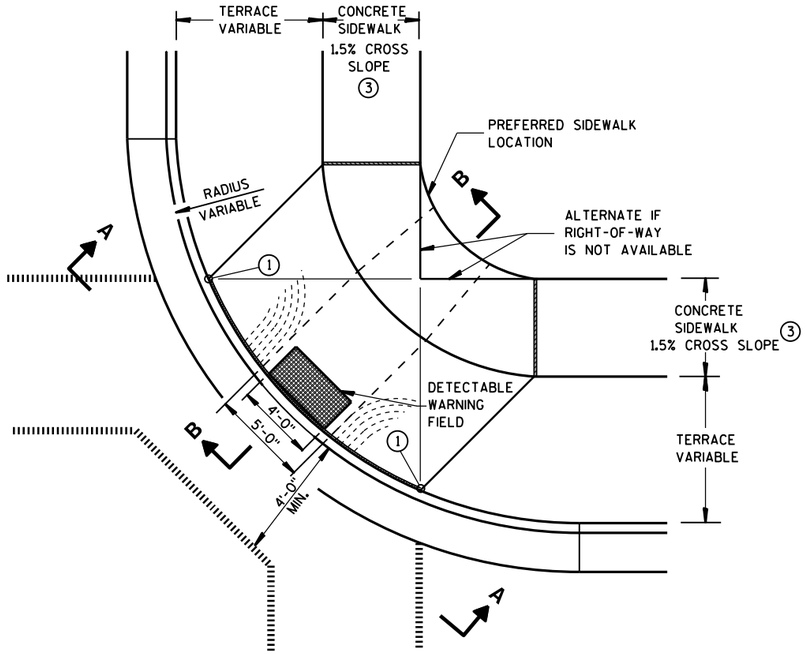
CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

6 S.D.D. 8 D 4-5

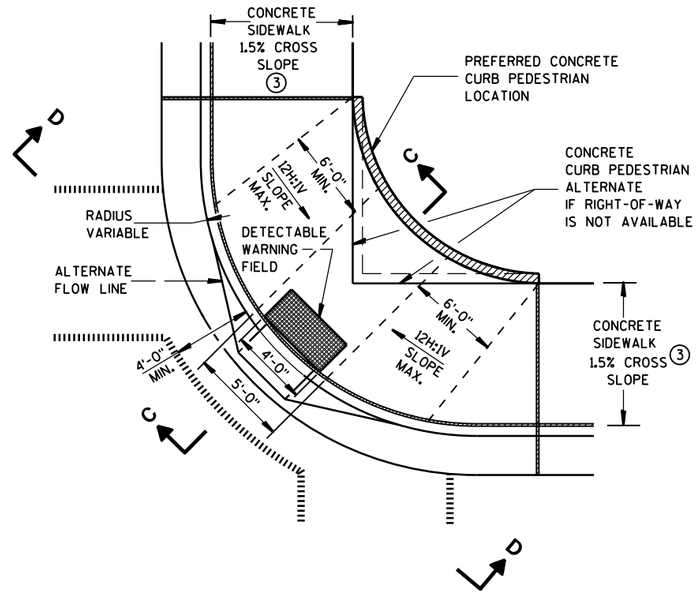
6 S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

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

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

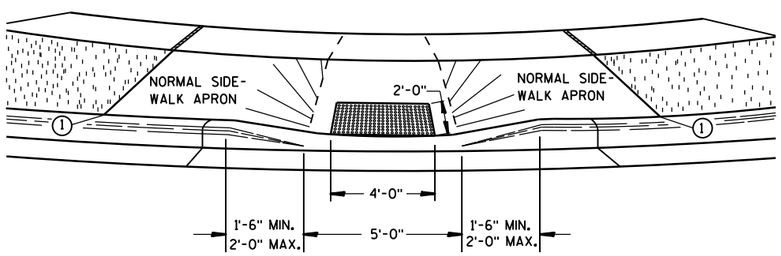
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

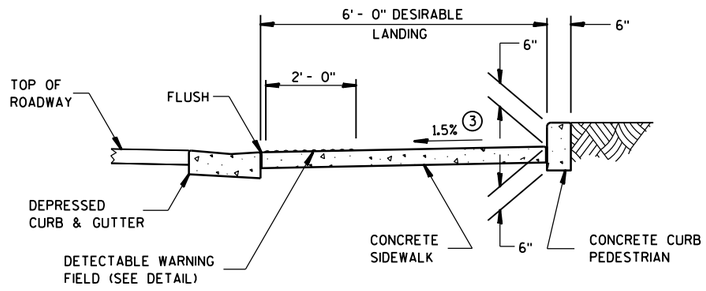
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

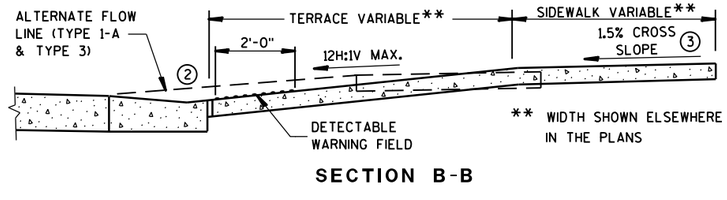
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



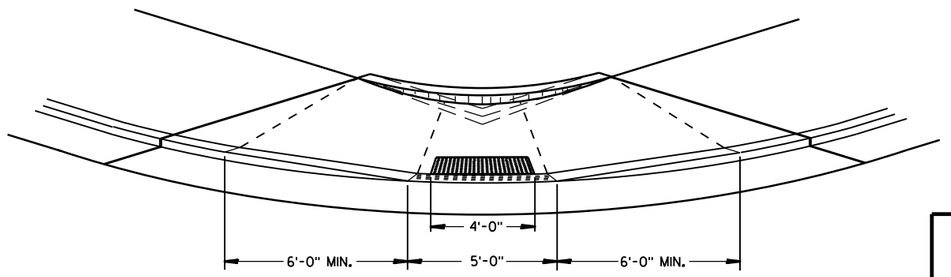
VIEW A-A



SECTION C-C



SECTION B-B



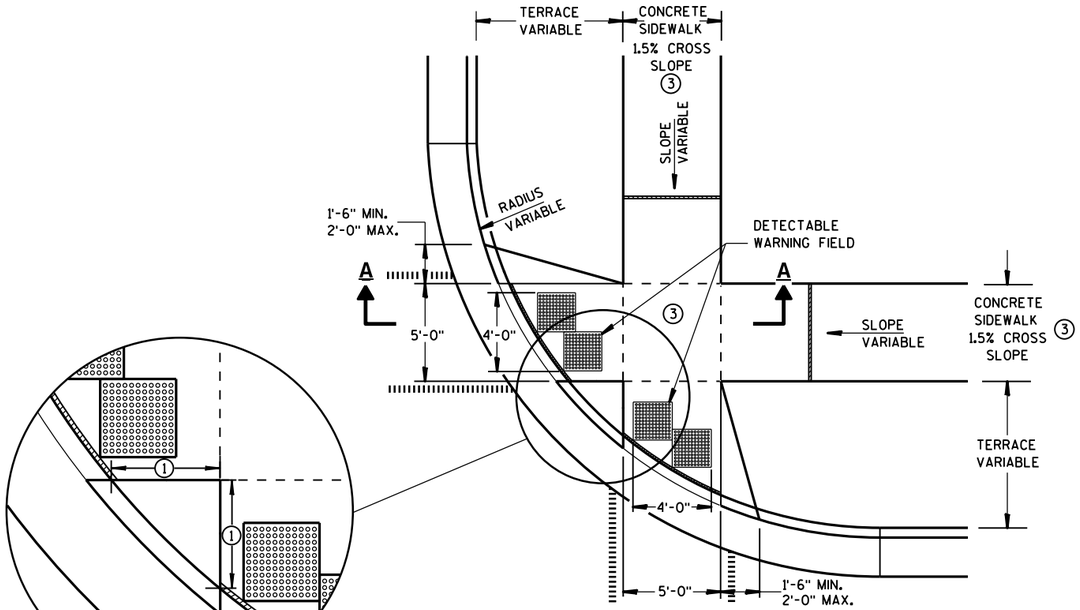
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

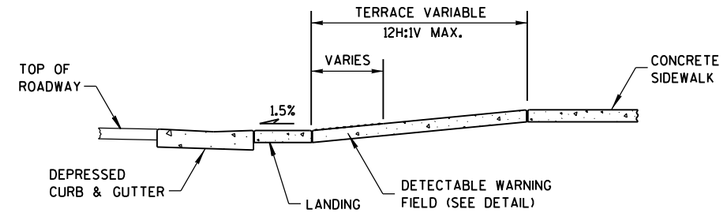
S.D.D. 8 D 5-15a



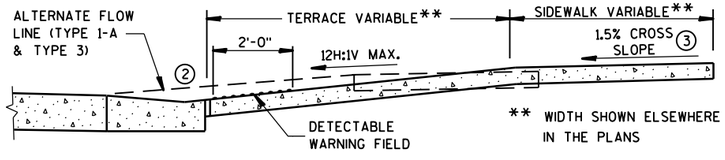
PLAN VIEW

TYPE 2 RAMP

(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

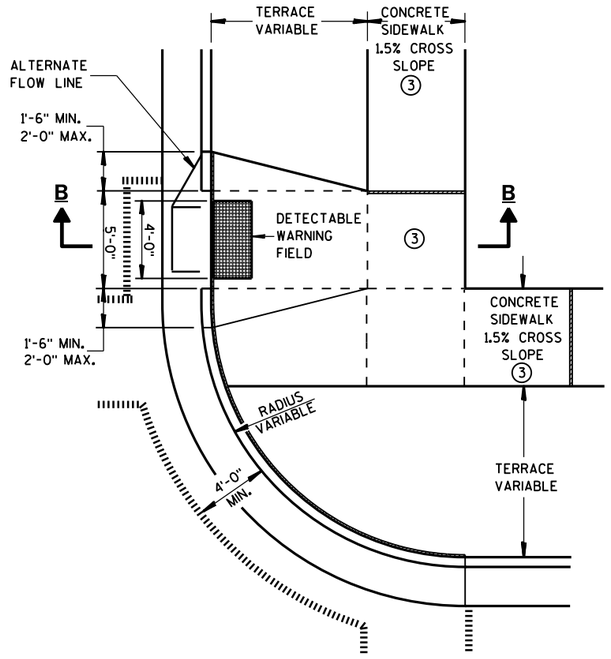
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

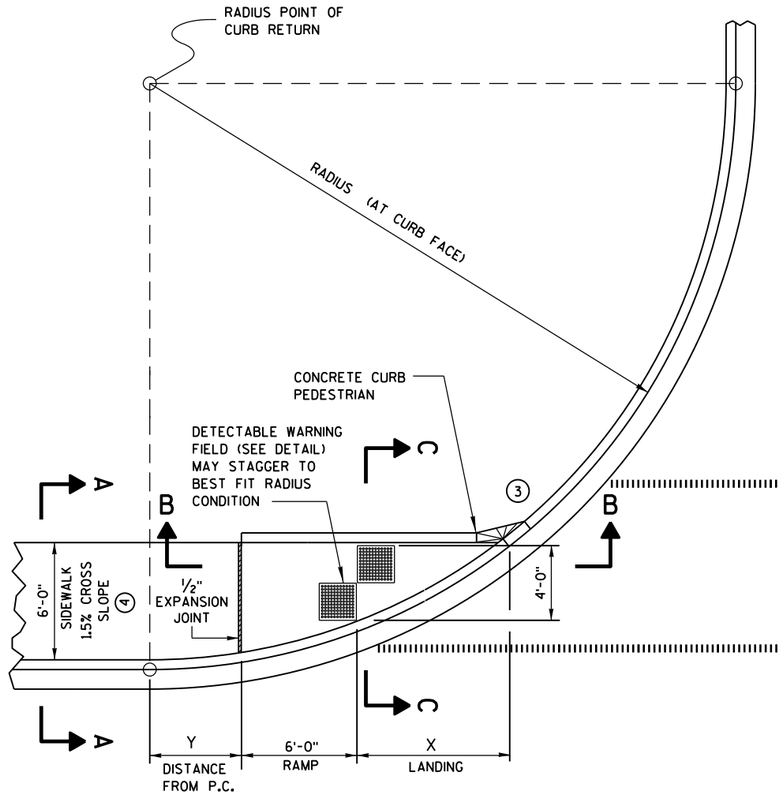
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

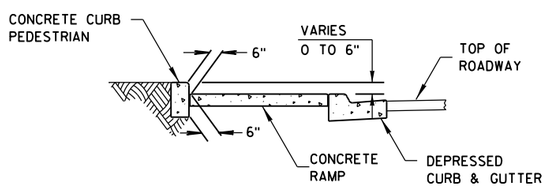
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

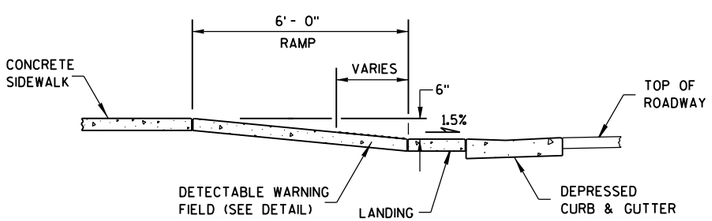
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



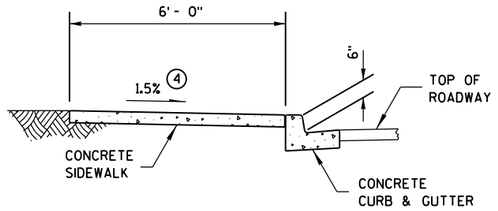
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

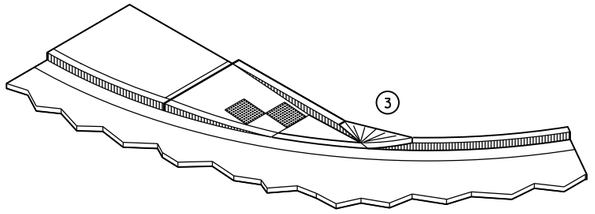
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

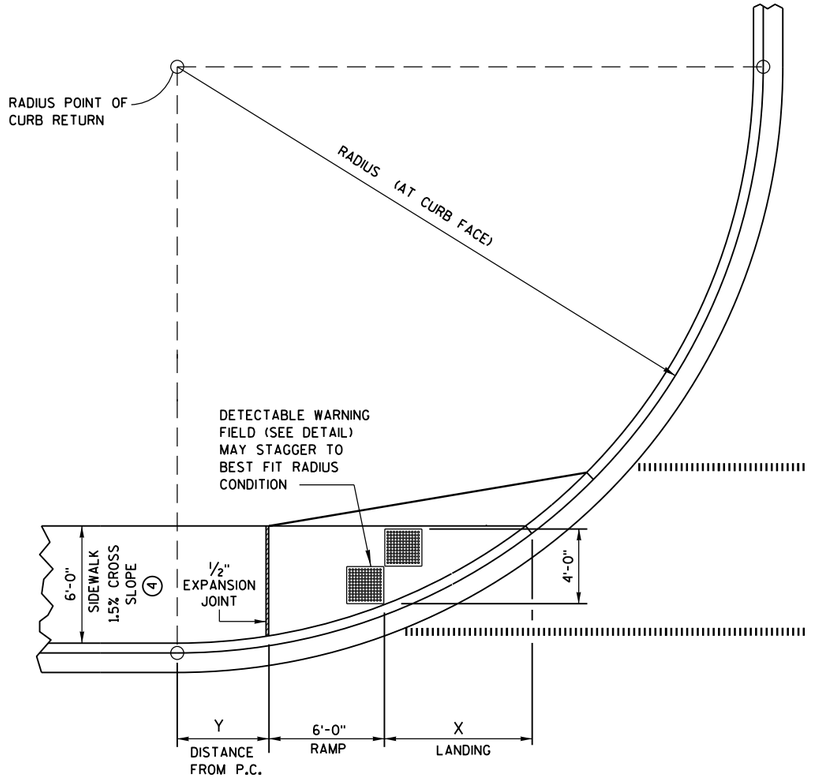
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

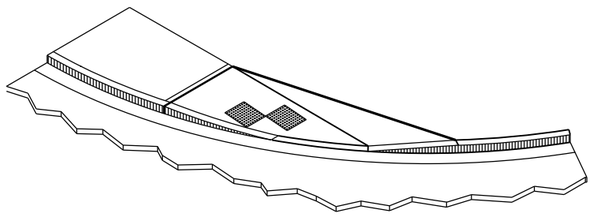
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

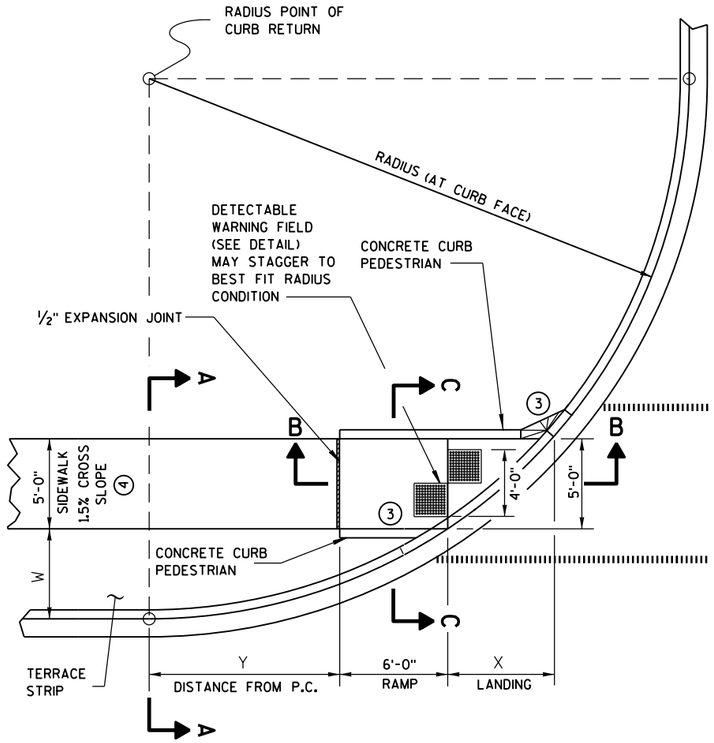
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

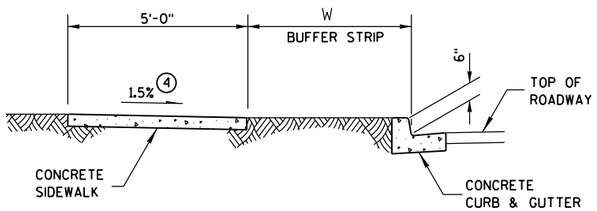
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

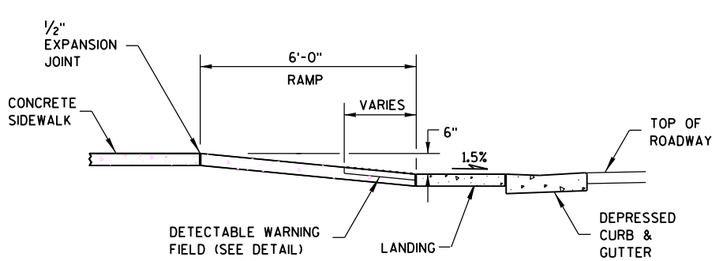
S.D.D. 8 D 5-15c



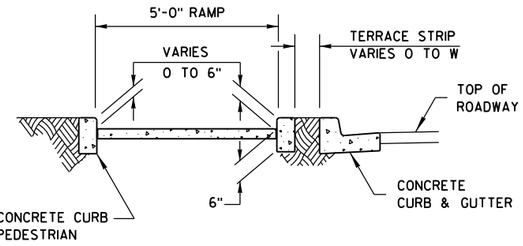
CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



SECTION B-B FOR TYPE 4B



SECTION C-C FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

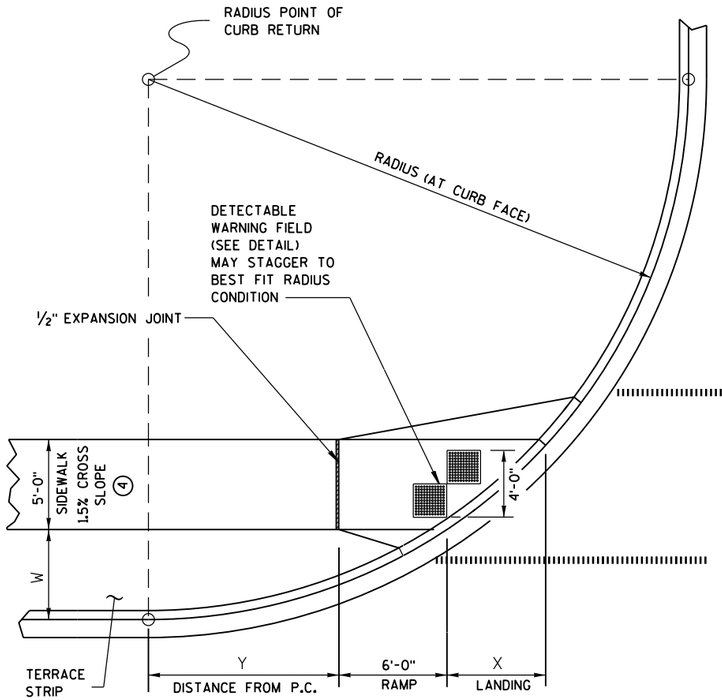
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

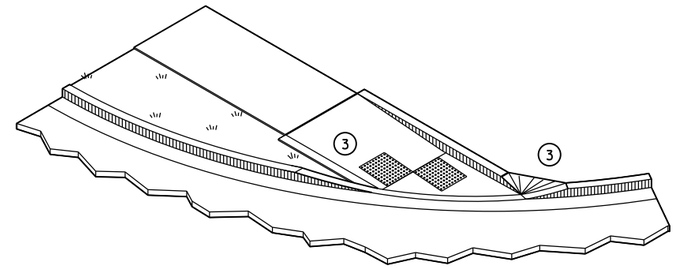
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

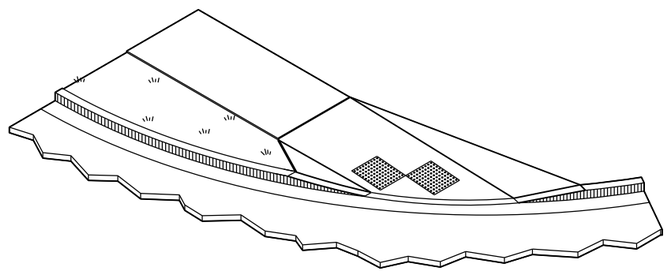
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



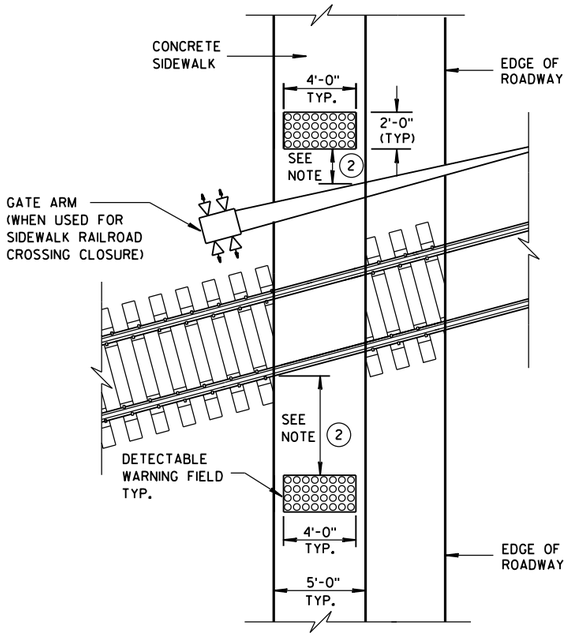
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

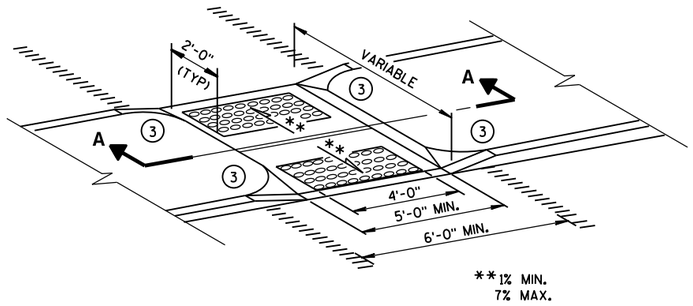
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

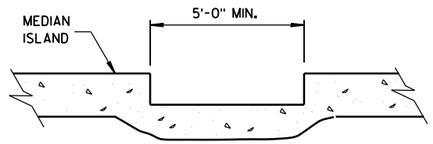
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

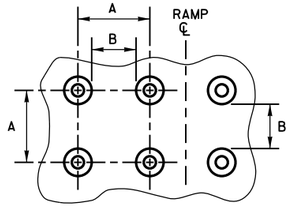
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



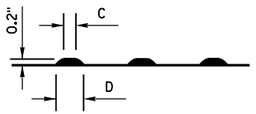
SECTION A-A



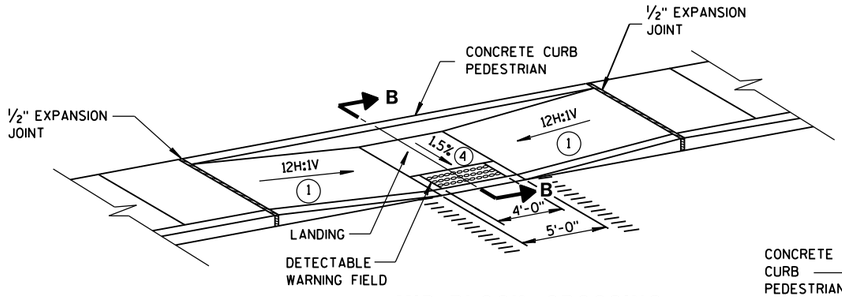
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

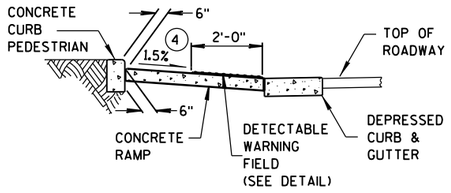
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

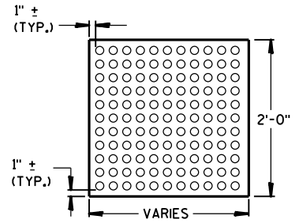


MID-BLOCK CROSSING
TYPE 7A



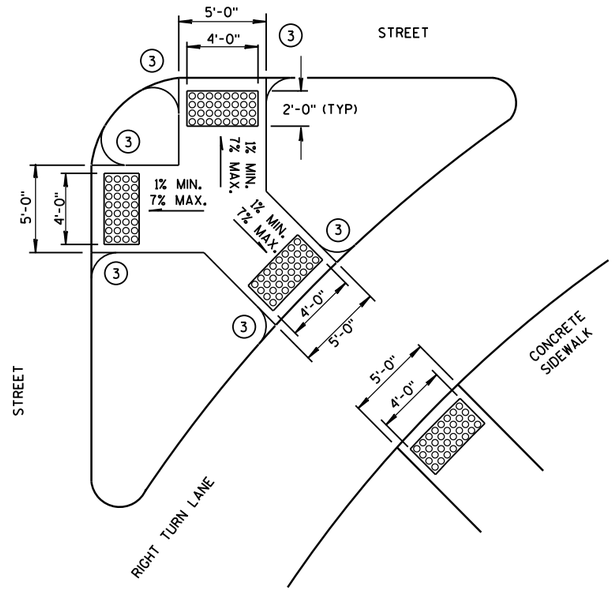
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

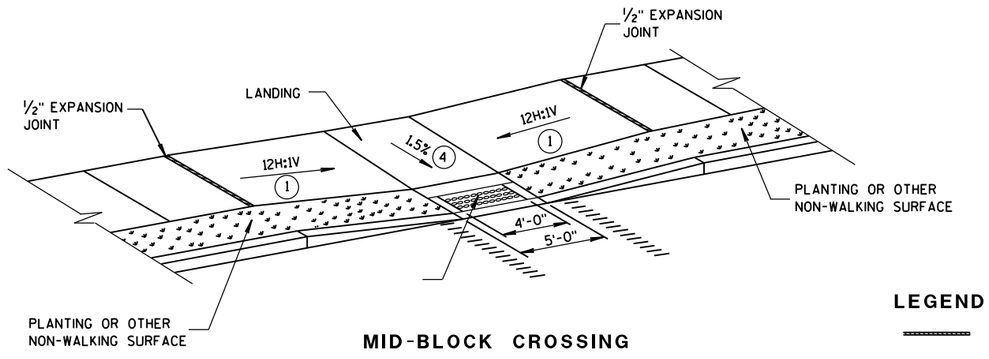


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

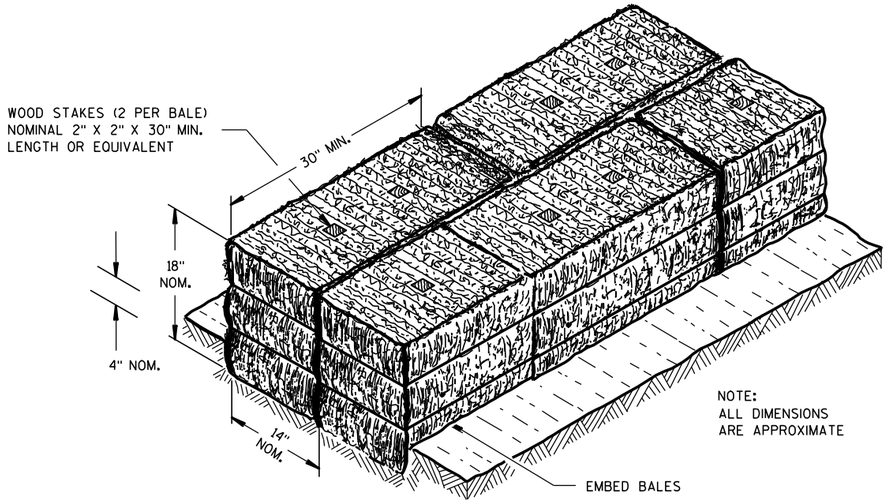
APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

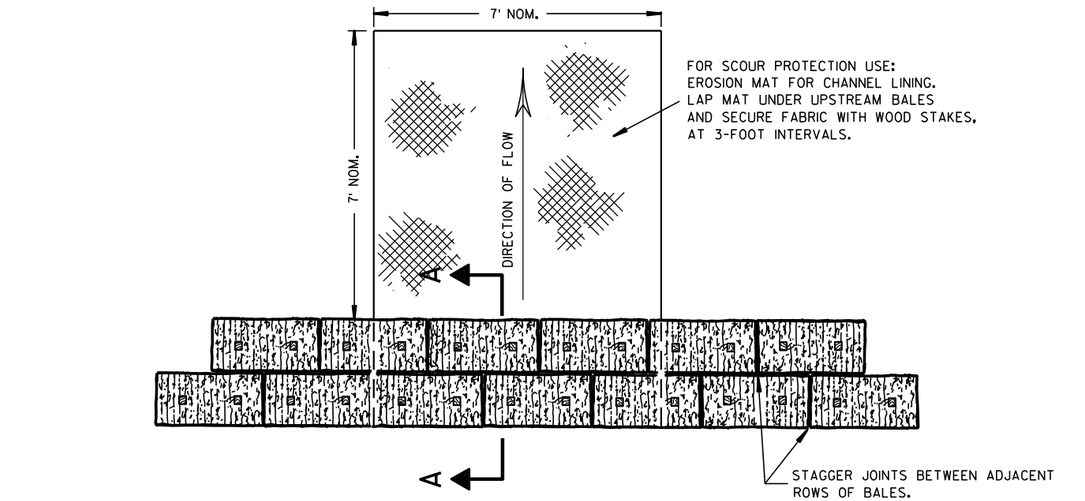
S.D.D. 8 D 5-15e

6

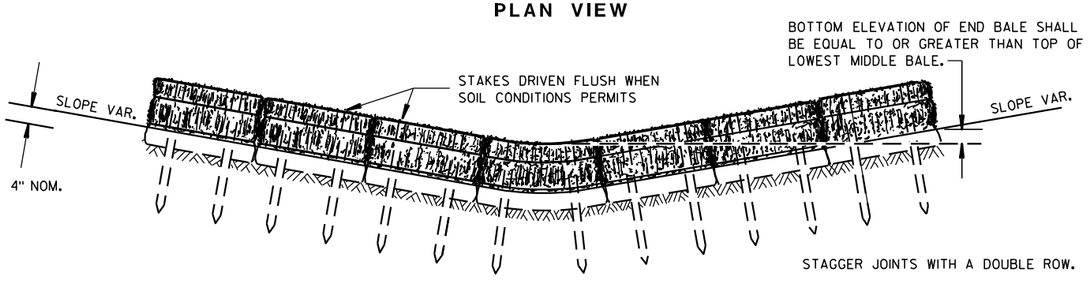
S.D.D. 8 D 5-15e



SECTION A-A



PLAN VIEW



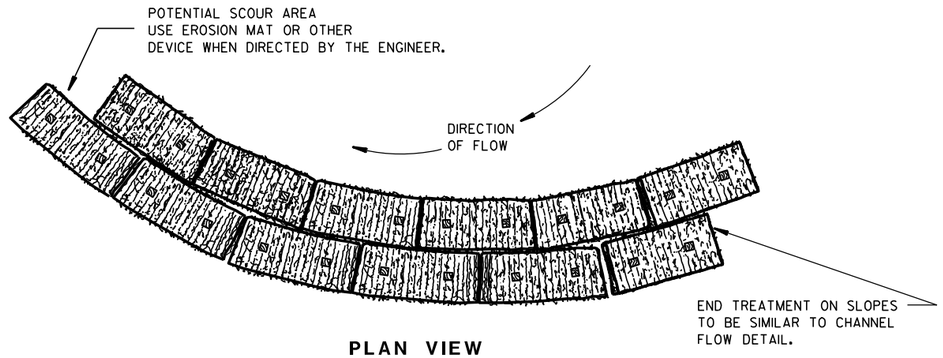
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

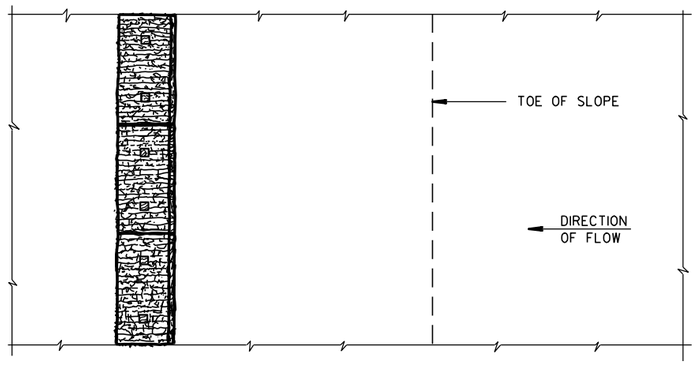
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

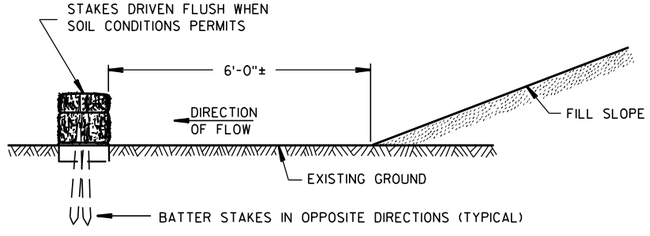


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

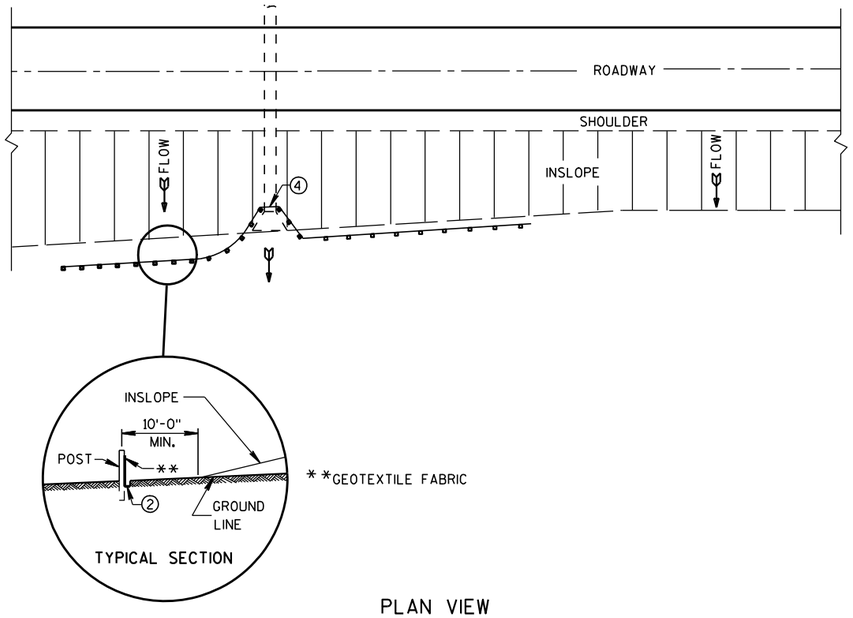
EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

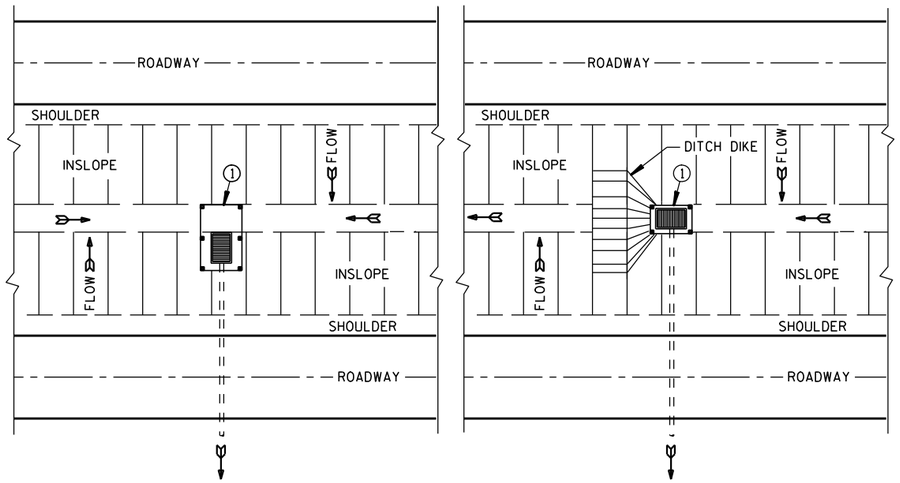
APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



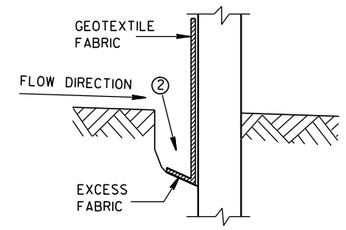
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

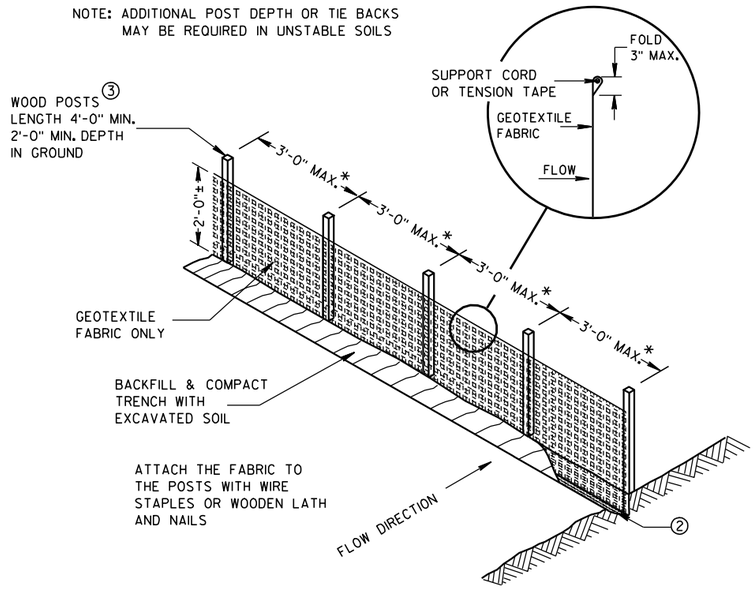
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

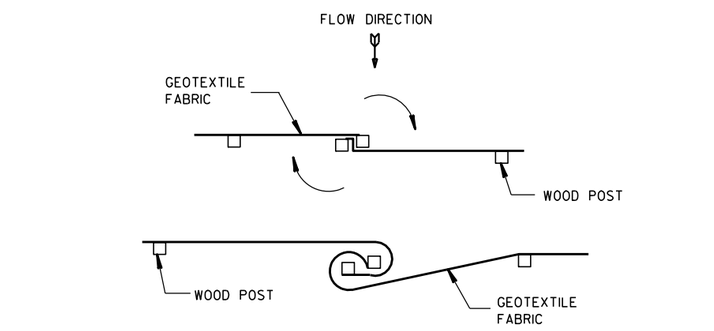
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



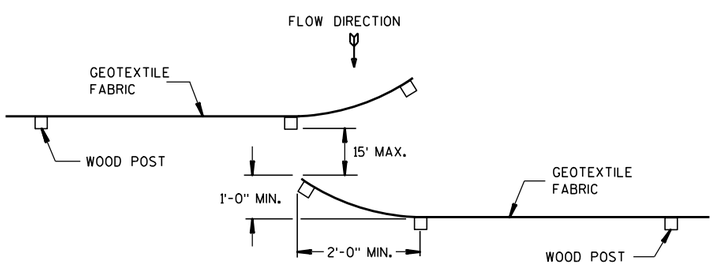
TRENCH DETAIL



SILT FENCE

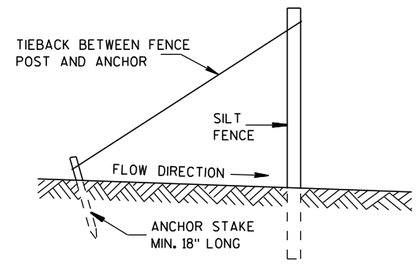


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

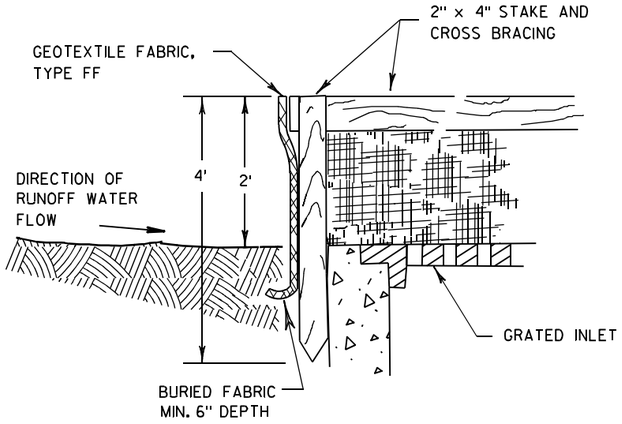
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

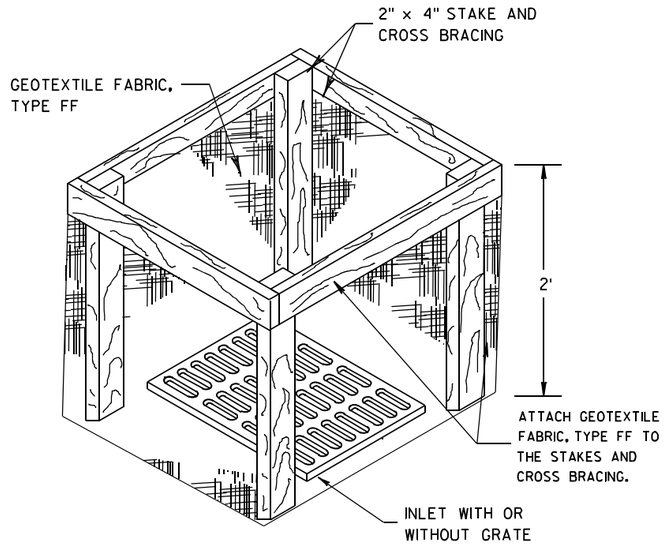
6

S.D.D. 8 E 9-6

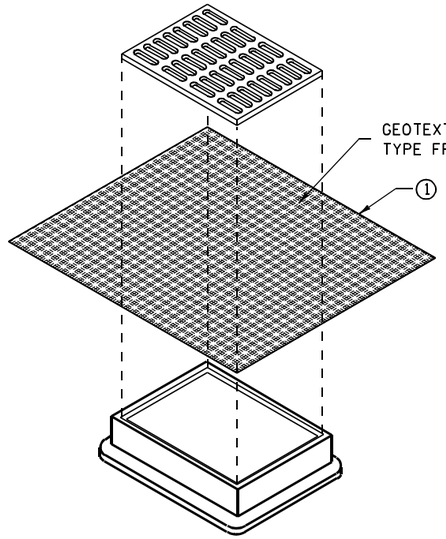
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S.D.D. 8 E 9-6



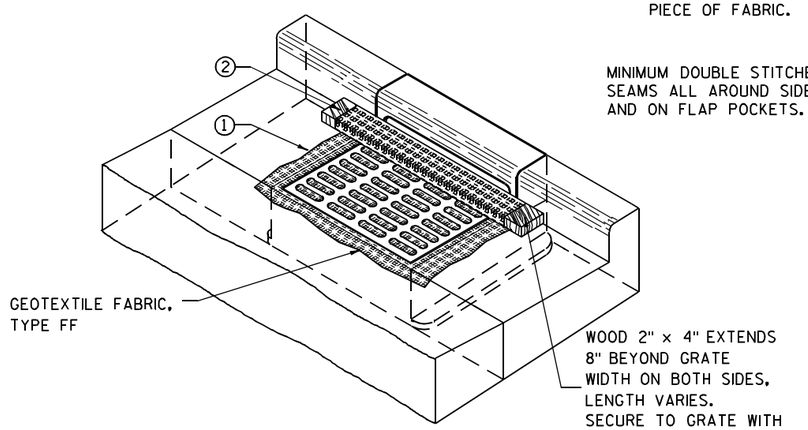


INLET PROTECTION, TYPE A

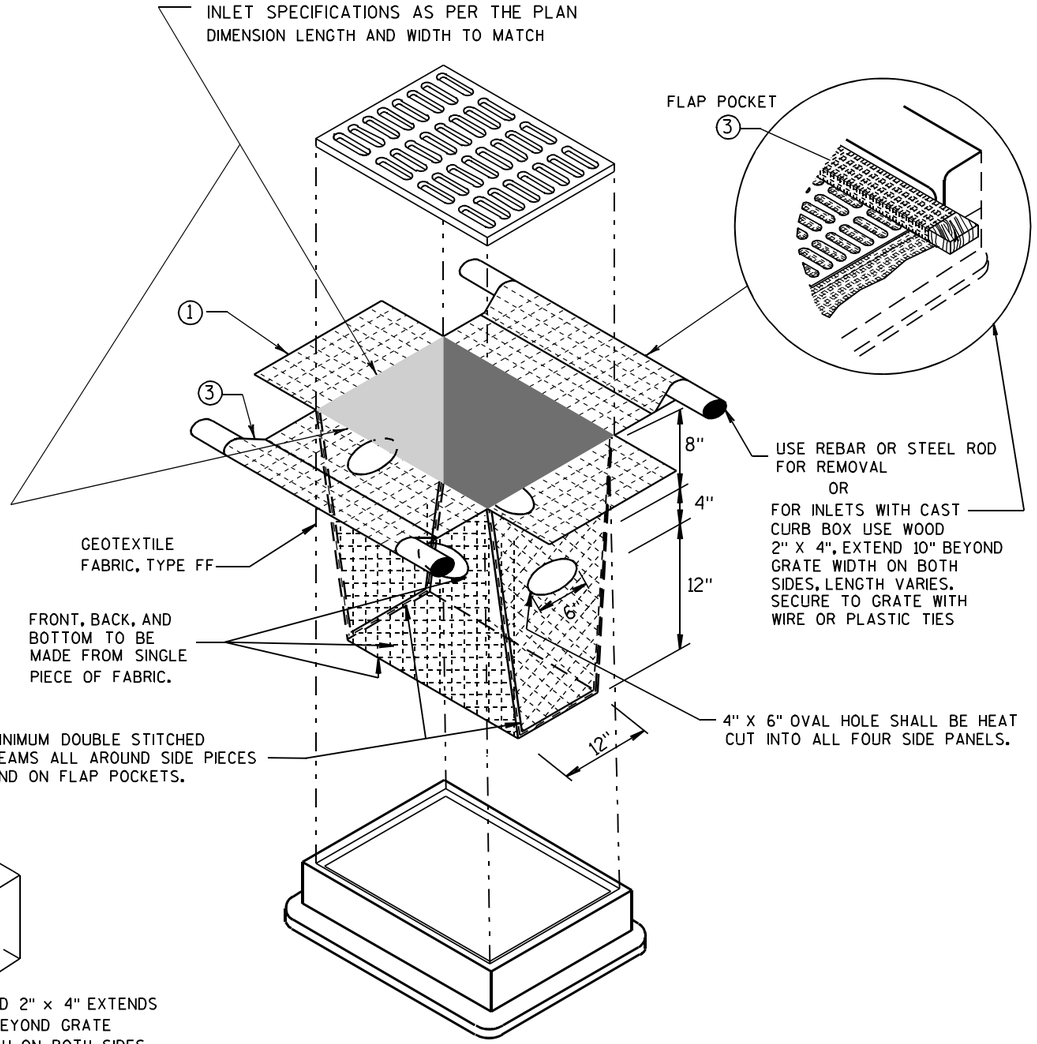


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

METAL APRON ENDWALLS

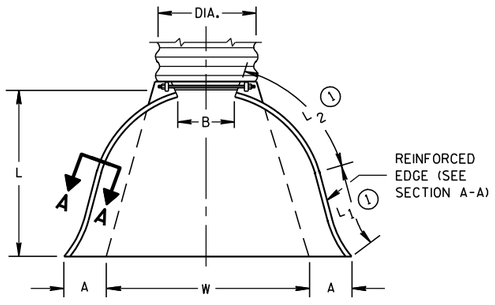
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

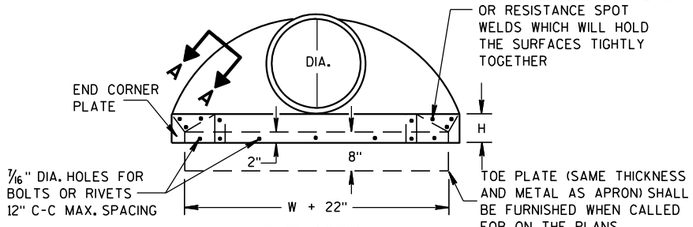
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

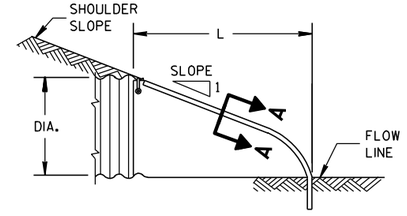
*MINIMUM
**MAXIMUM



PLAN VIEW

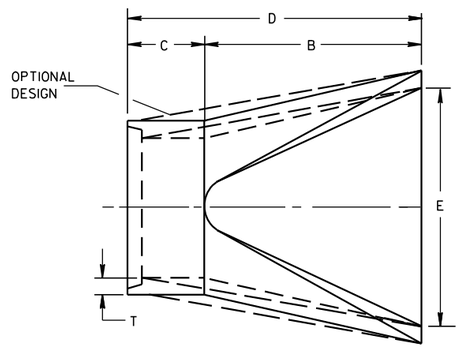


END VIEW

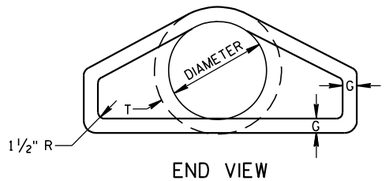


SIDE ELEVATION

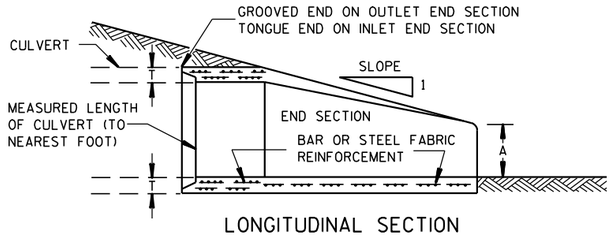
METAL ENDWALLS



PLAN

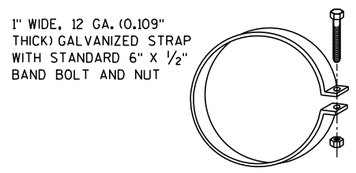


END VIEW



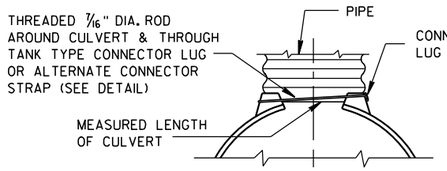
LONGITUDINAL SECTION

CONCRETE ENDWALLS

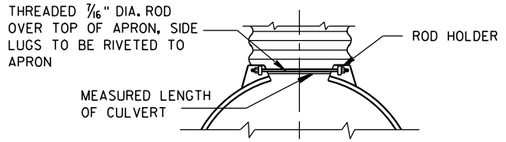


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

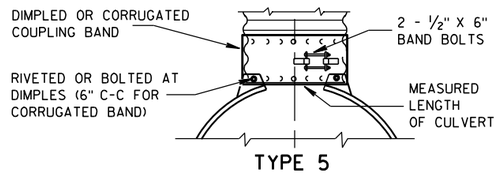


TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE

TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

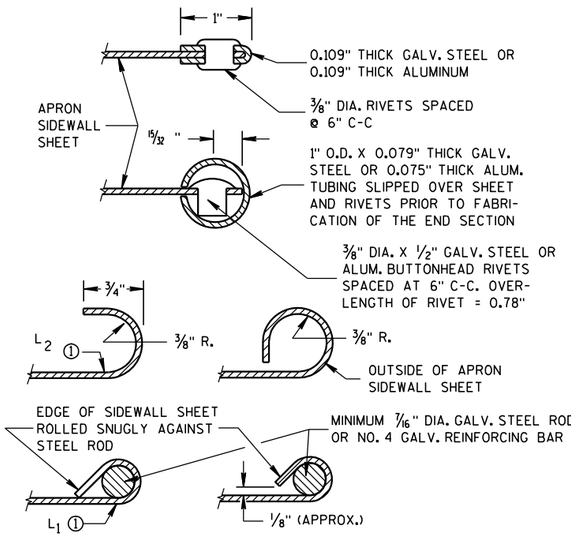
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

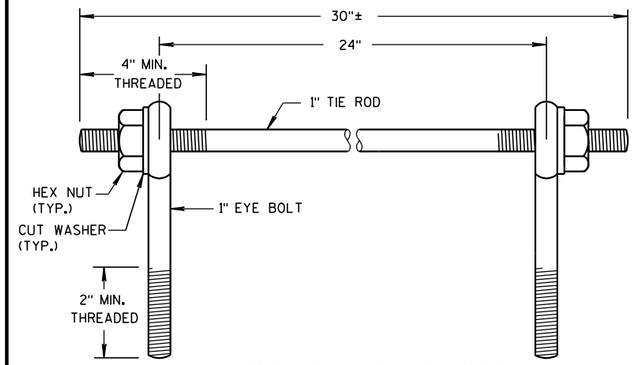
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

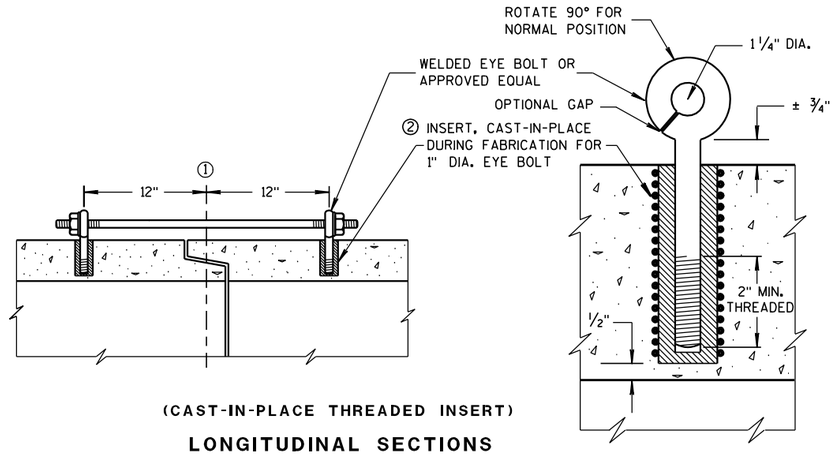
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

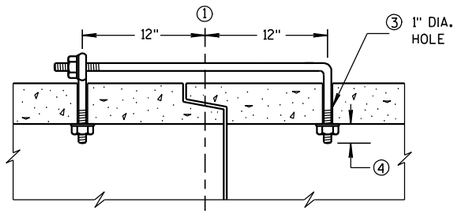
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

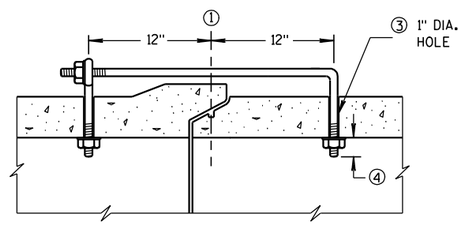
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

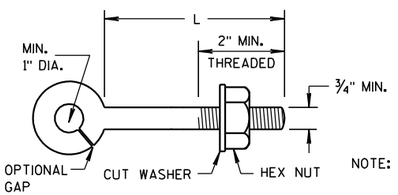


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

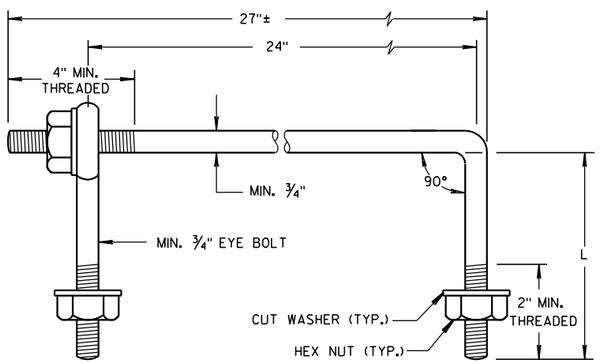
EYE BOLT DIMENSION TABLE

PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

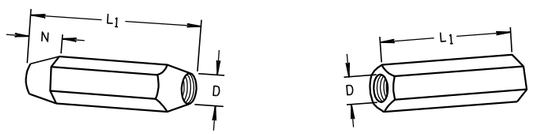
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

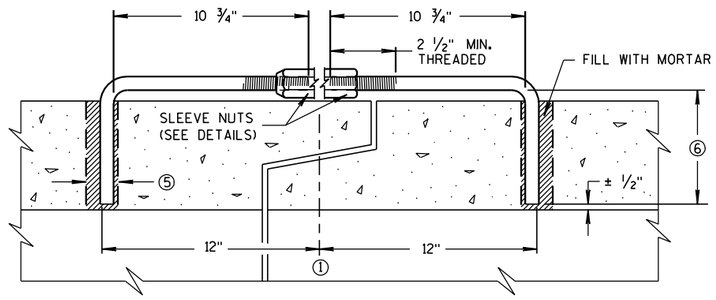
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

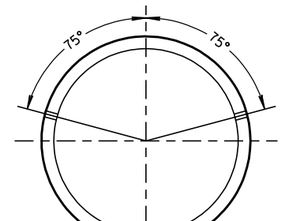
SLEEVE NUTS



LONGITUDINAL SECTION

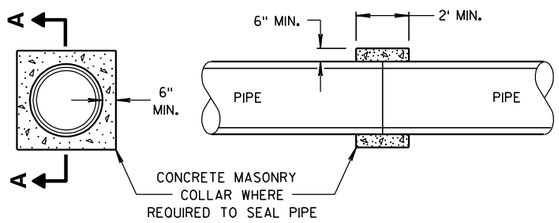
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

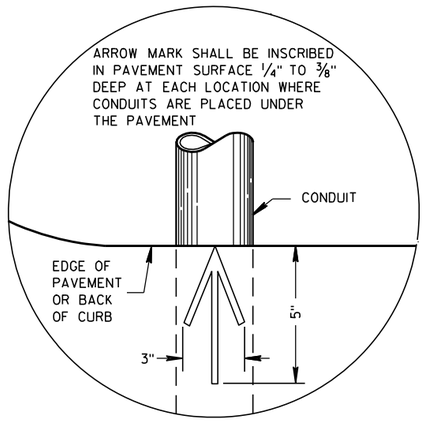
APPROVED
6/5/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
234
FHWA

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S.D.D. 8 F 4-7

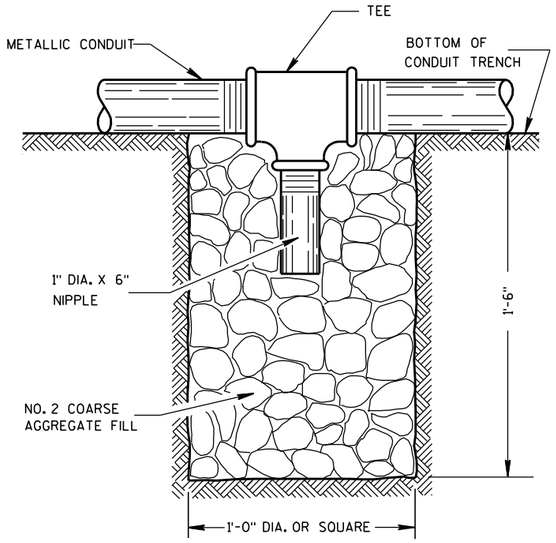
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S.D.D. 8 F 4-7



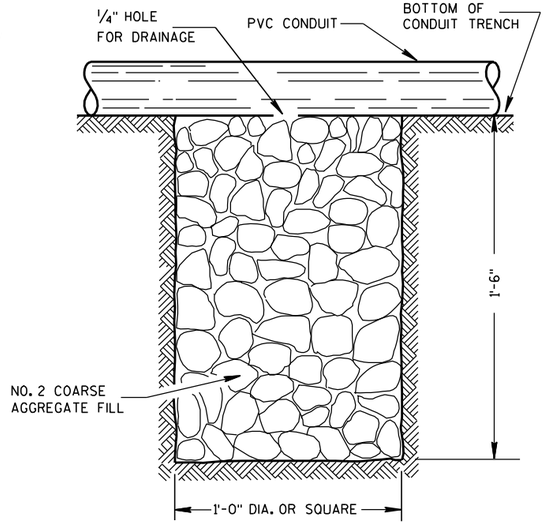
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

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

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

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

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

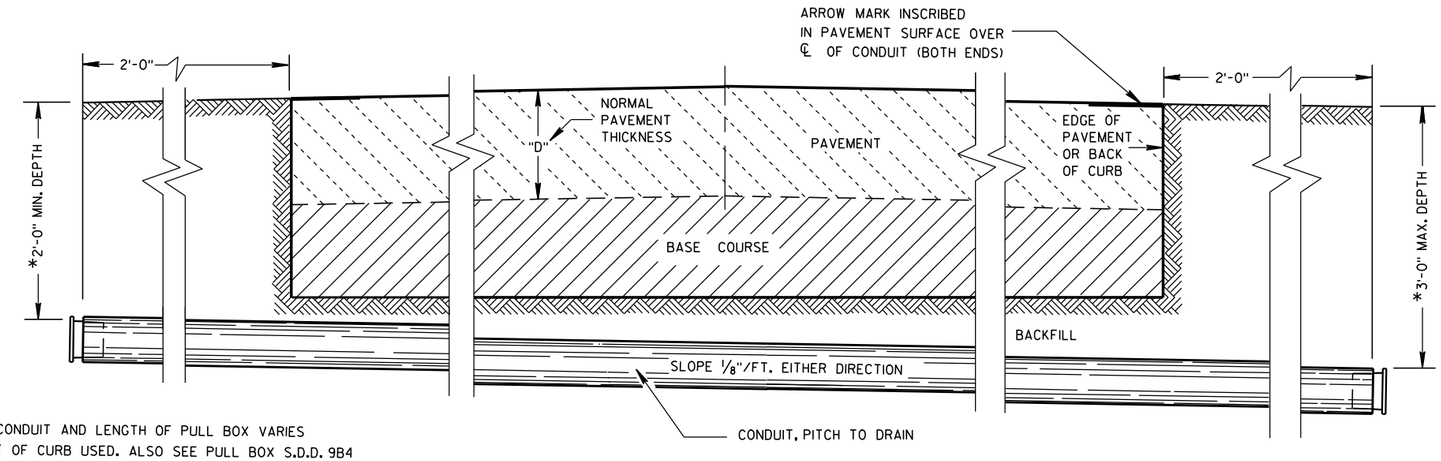
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 — DATE

/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI

235 — HWYS

FHWA

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S.D.D. 9 B 2-7

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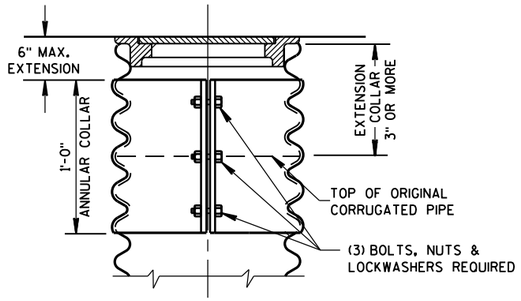
S.D.D. 9 B 2-7

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

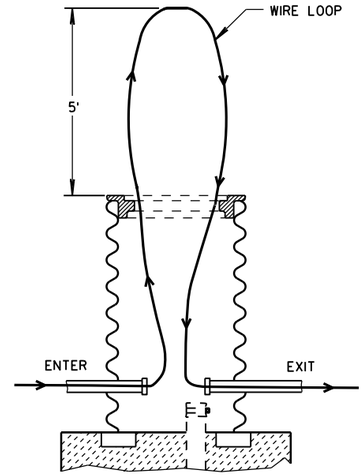
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	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.

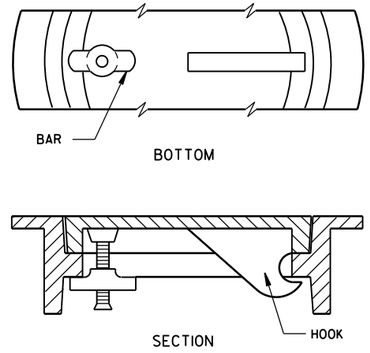
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

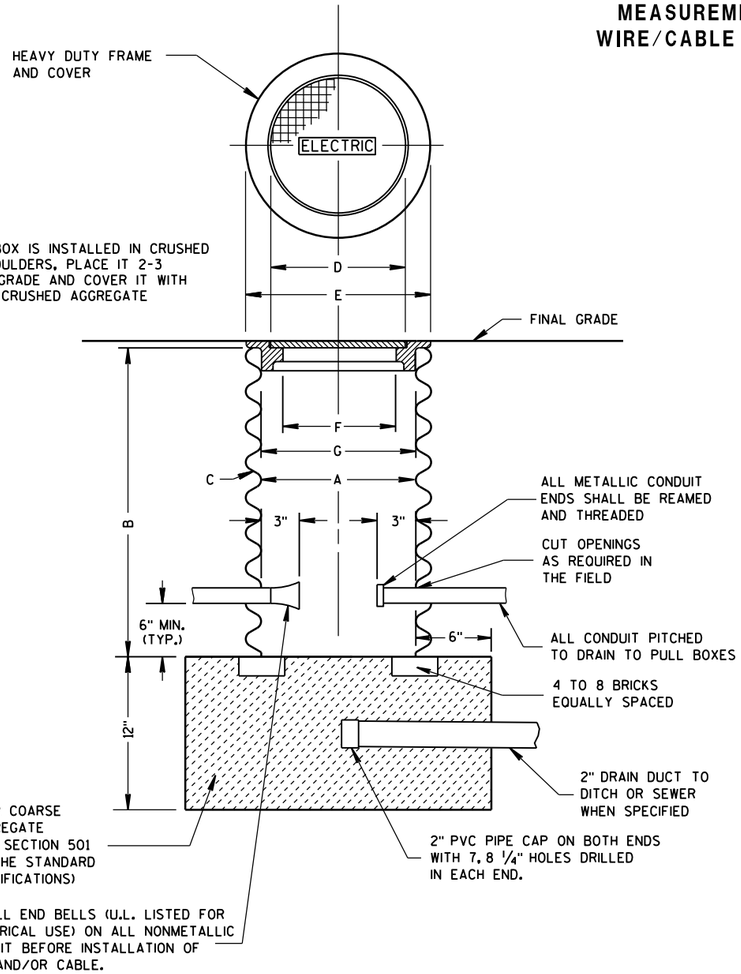


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



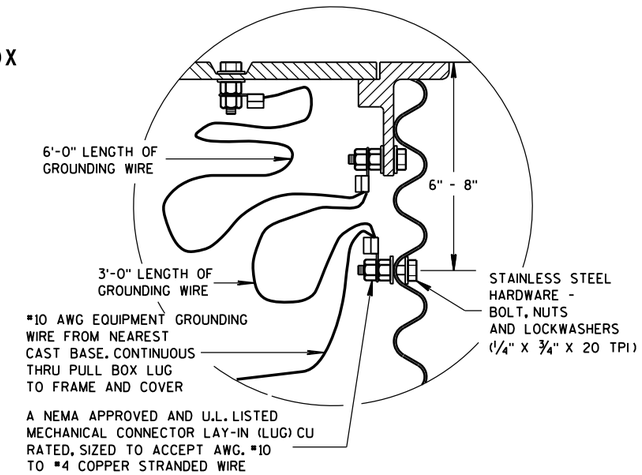
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

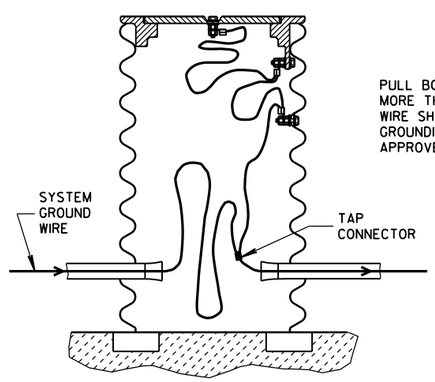


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

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

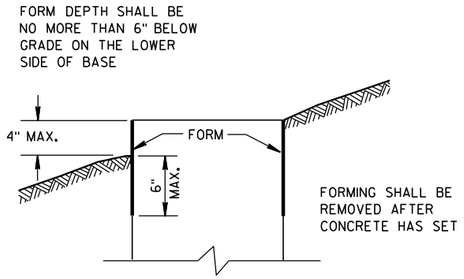
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S.D.D. 9 B 4-10

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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) I" DIA. X 3'-6" ANCHOR RODS.

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

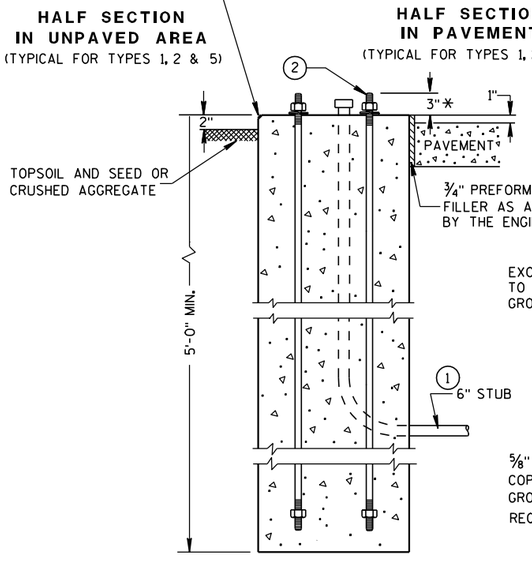
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

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

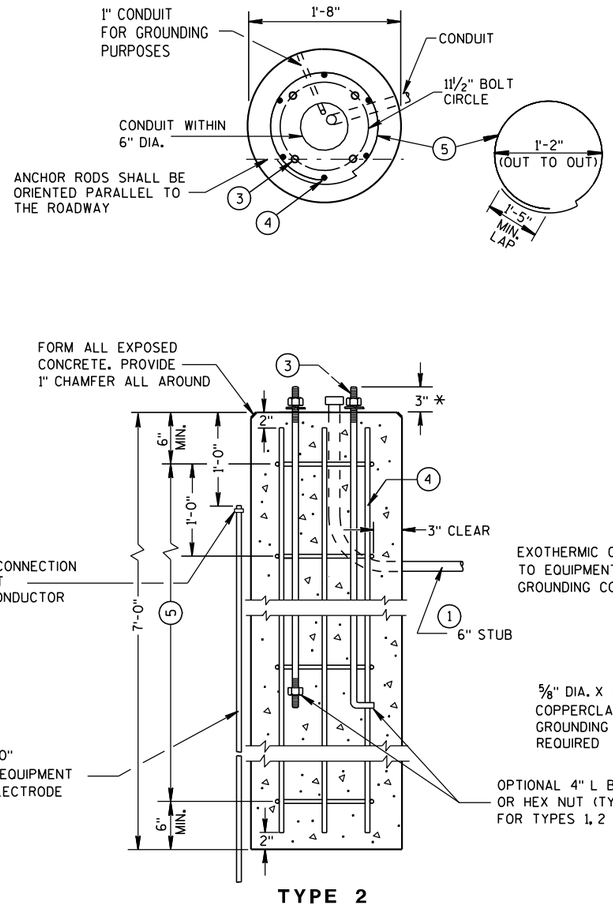
(6) (4) I" DIA. X 3'-6" ANCHOR RODS.

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

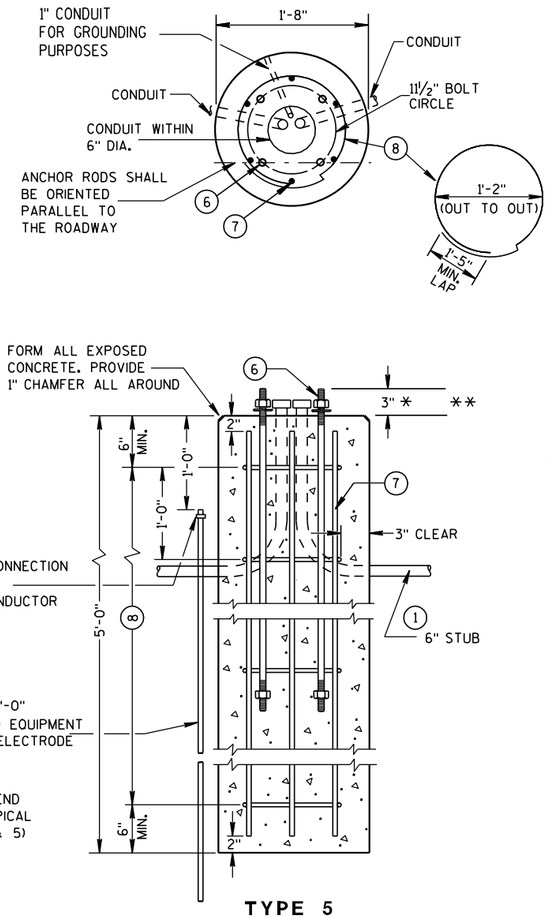
(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



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 237 — HWYS

FHWA

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S.D.D. 9 C 2-6

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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.

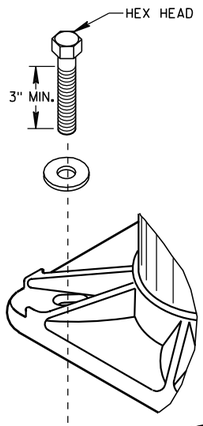
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

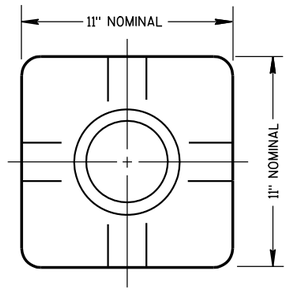
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

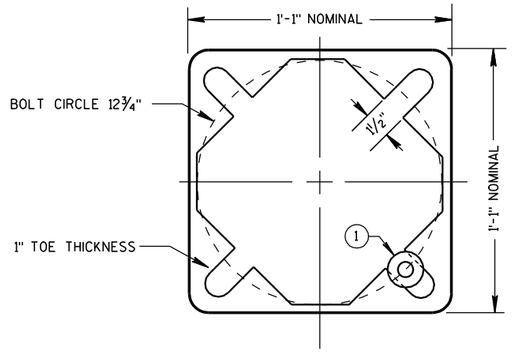
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

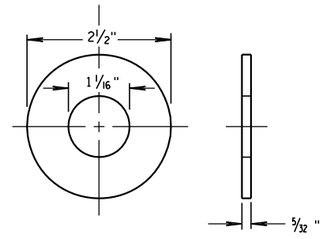




TOP VIEW
(PEDESTAL BASE)

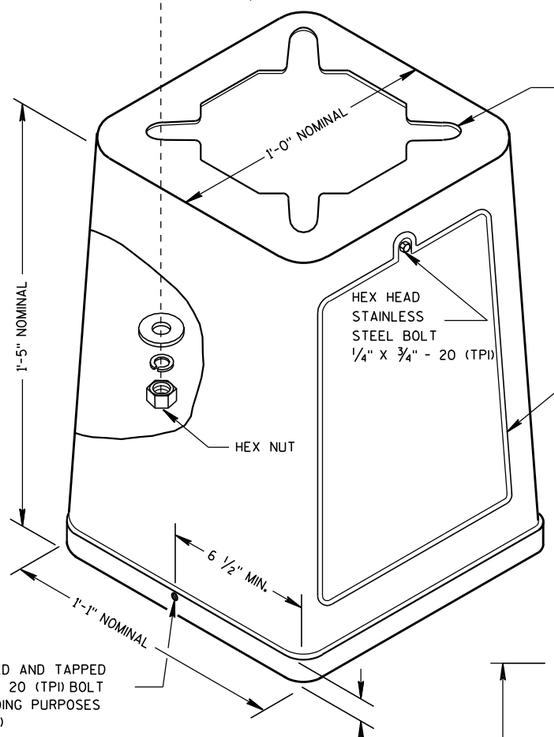


BOTTOM VIEW
(PEDESTAL BASE)

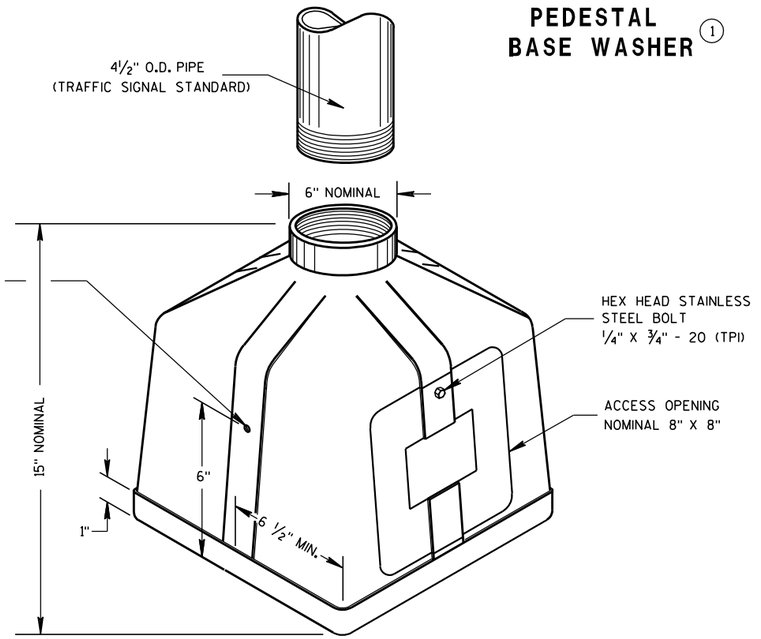


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

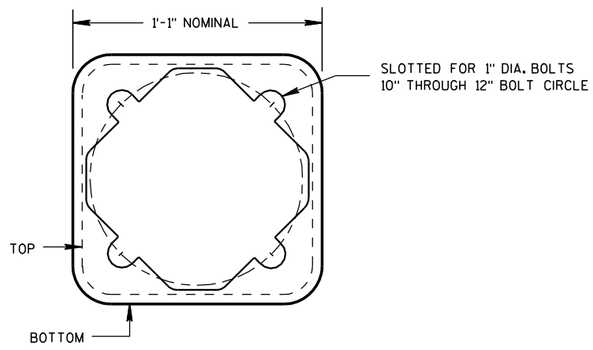


ISOMETRIC VIEW

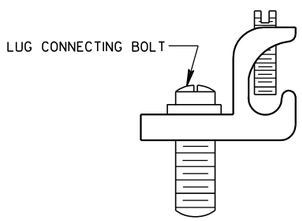


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

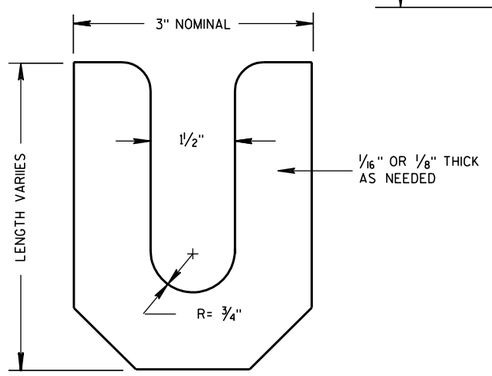


TYPICAL MECHANICAL CONNECTOR LUG

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. Rich — STATE ELECTRICAL ENGI
238
HWYS
FHWA

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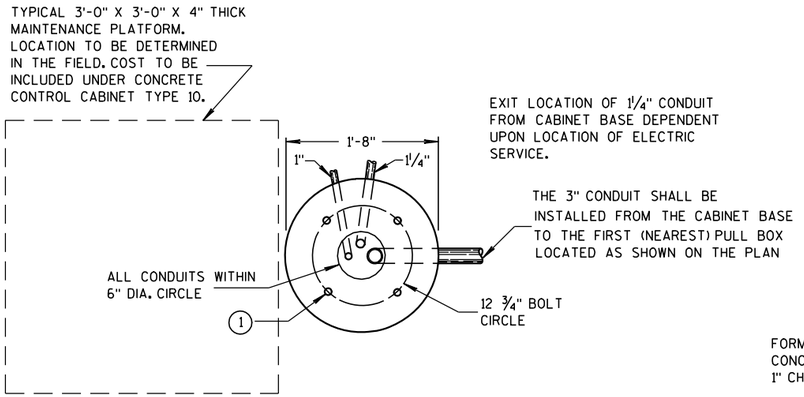
S.D.D. 9 C 3-3

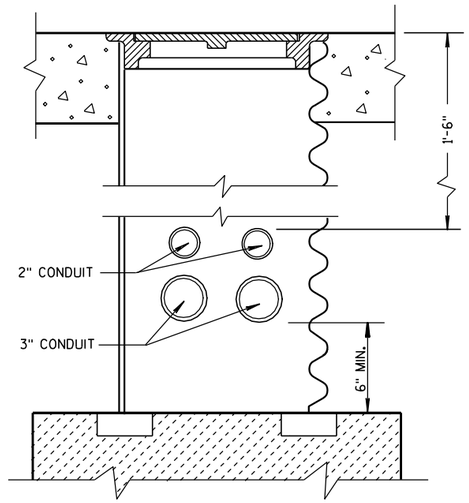
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S.D.D. 9 C 3-3

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65 *

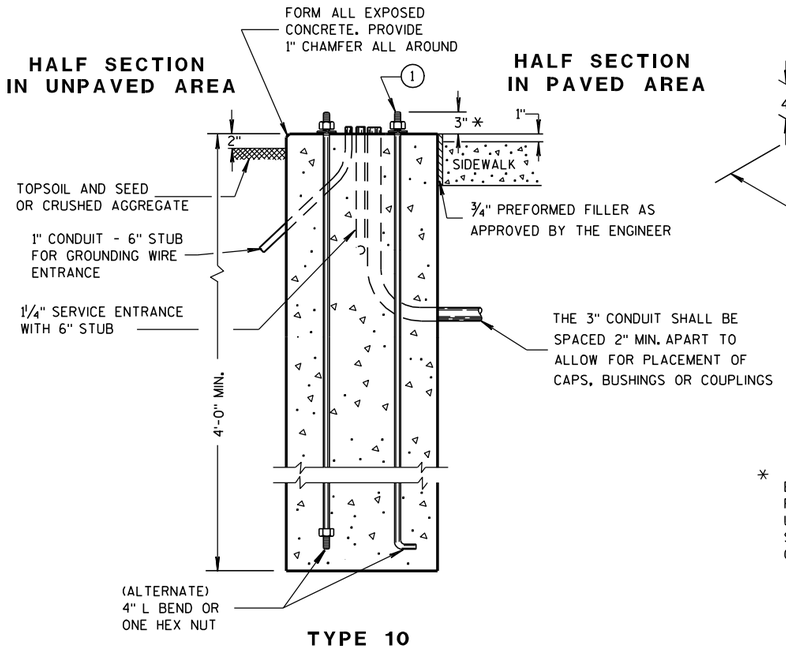
* INCLUDES MAINTENANCE PLATFORM.



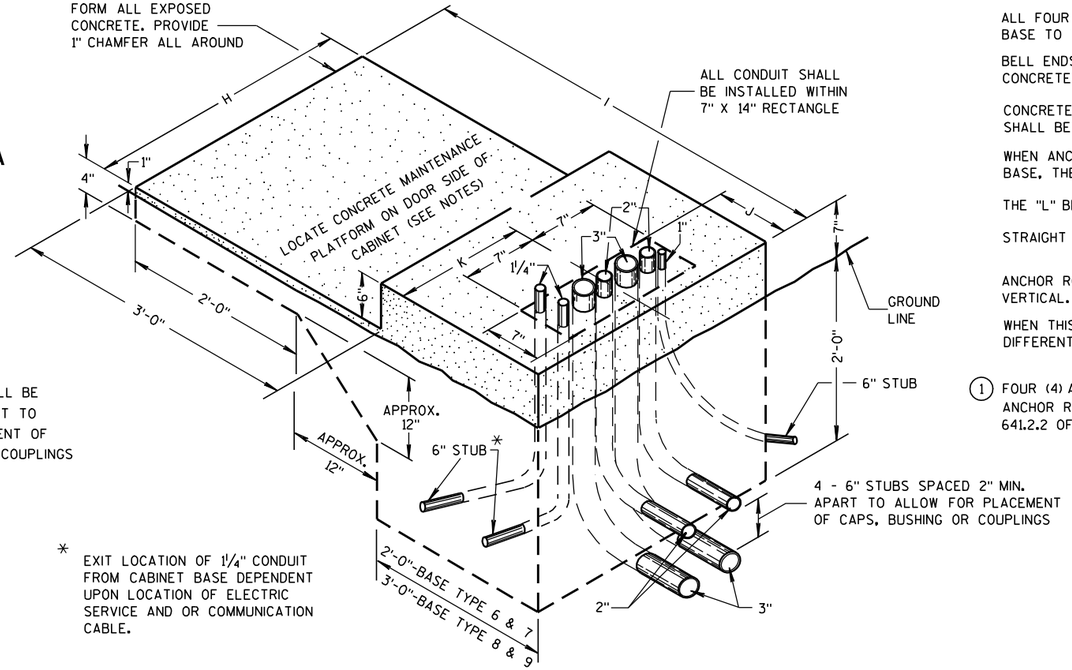


CONDUIT LOCATIONS IN 24" X 36" PULL BOX

(LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



TYPE 10



TYPE 6,7,8 AND 9 (ISOMETRIC VIEW)

* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF ELECTRIC SERVICE AND OR COMMUNICATION CABLE.

* 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

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 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 SURFACES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND 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.

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.

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST PULL BOX LOCATED AS SHOWN ON THE PLANS.

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

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

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

WHEN THIS DRAWING IS USED FOR STREET LIGHTING CABINET BASES, CONDUIT MAY BE DIFFERENT AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

(1) FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6"
ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS.

CONCRETE CONTROL CABINET BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/3/10
DATE

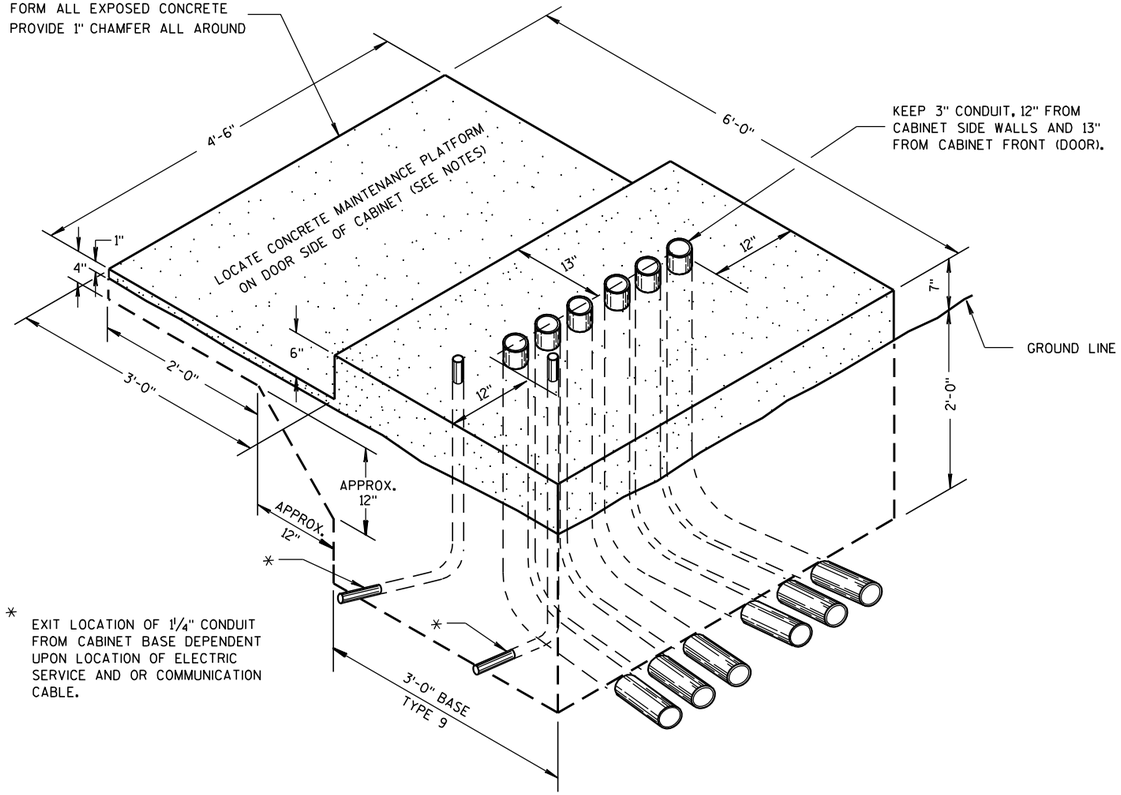
/S/ Joanna L. [illegible]
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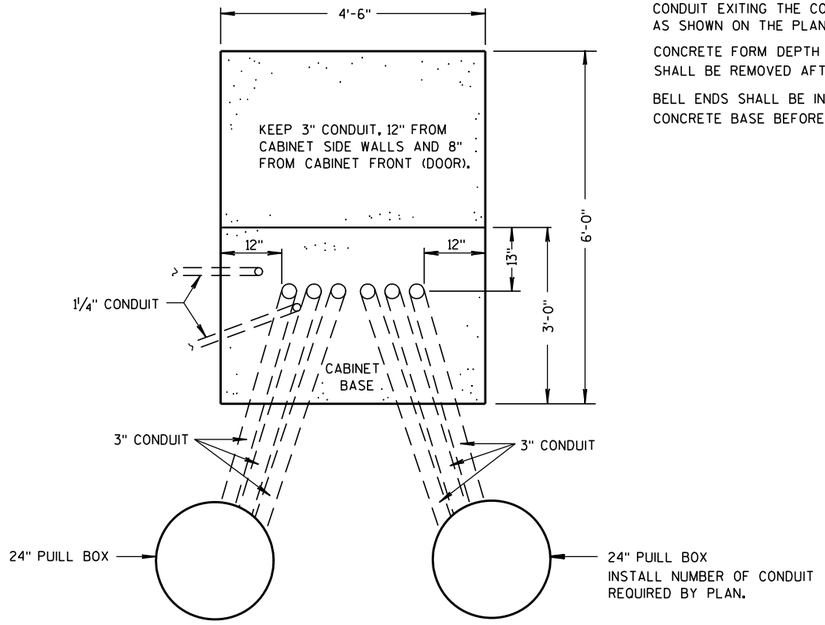


* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF ELECTRIC SERVICE AND OR COMMUNICATION CABLE.

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 Ananthapadmanabhan — STATE ELECTRICAL ENGI 240 HWYS

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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).

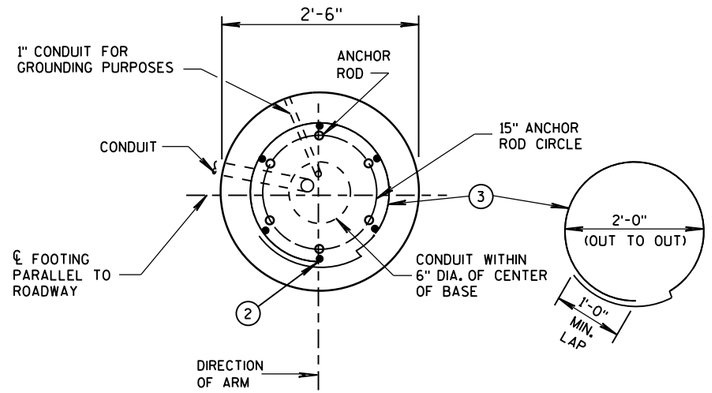
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

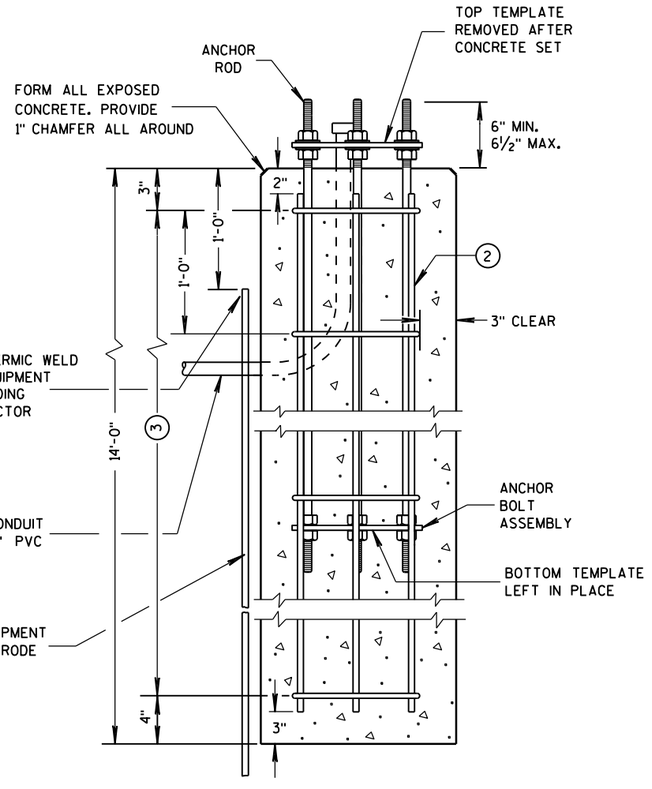
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 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.

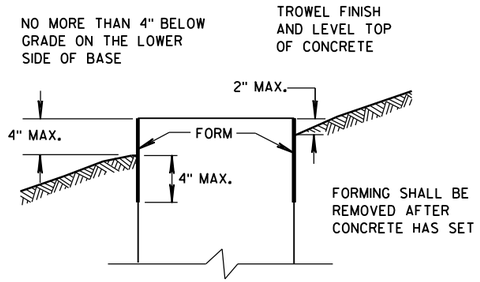
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



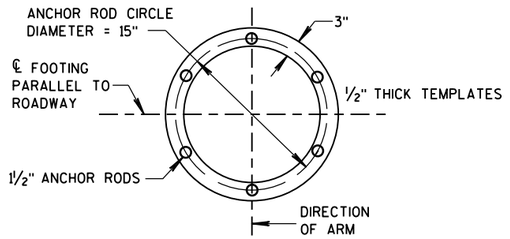


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

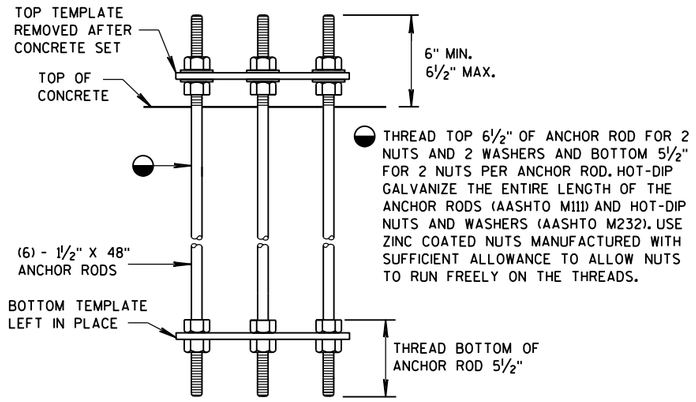
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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

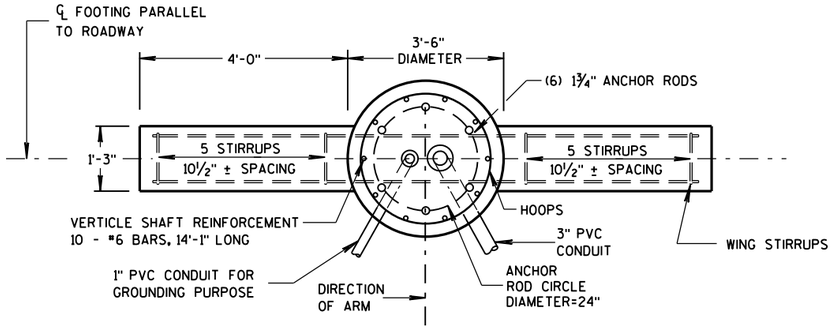
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

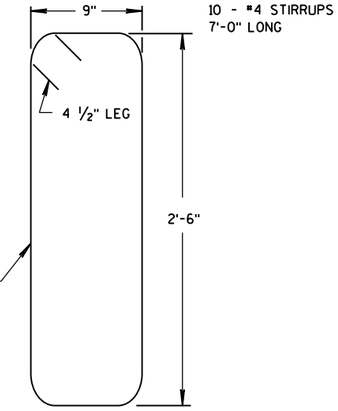
APPROVED
1-16-2013 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA

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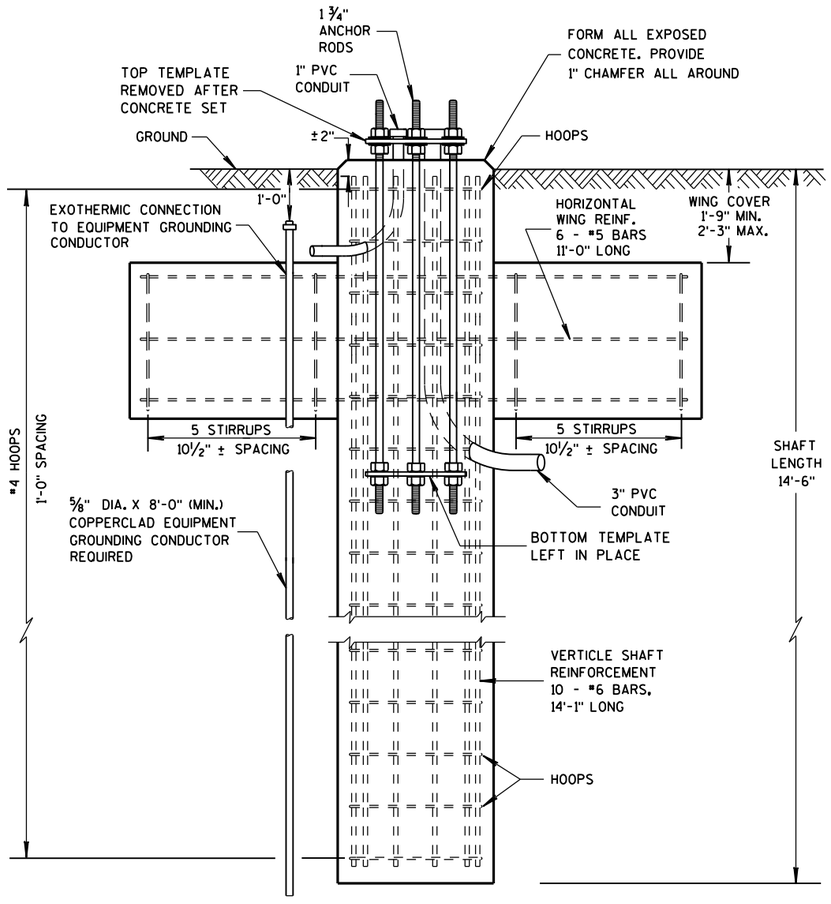
S.D.D. 9 C 11-3



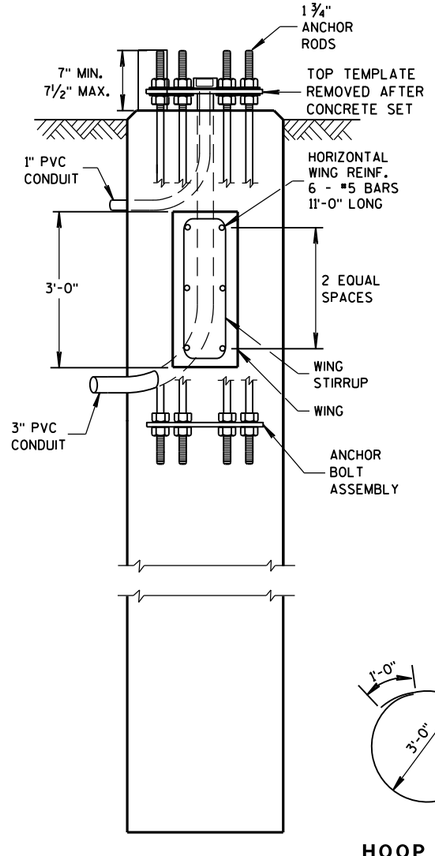
PLAN VIEW



WING STIRRUP

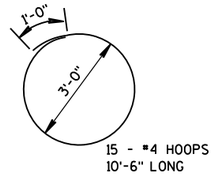


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



15 - #4 HOOPS 10'-6" LONG

HOOP DETAIL

GENERAL NOTES

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

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

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

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

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

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

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

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

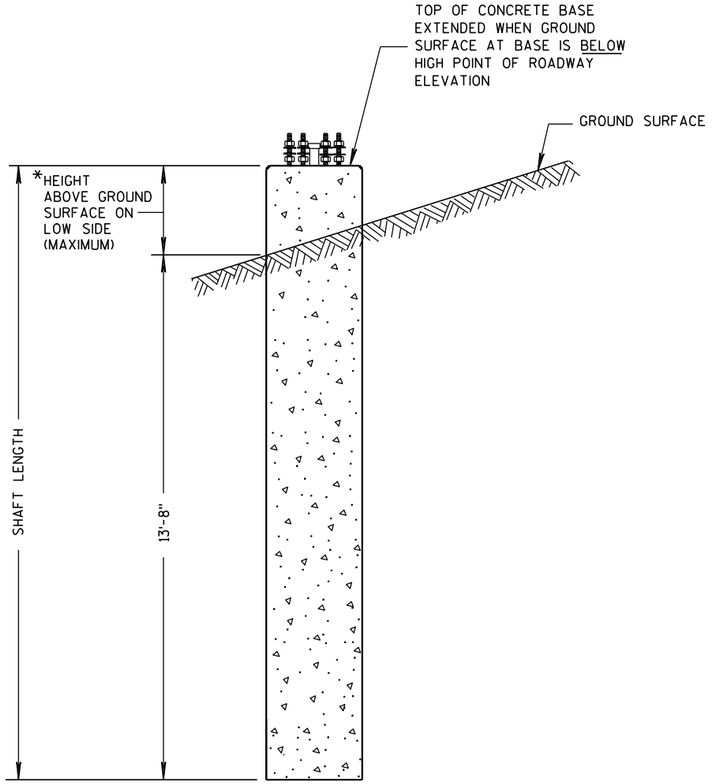
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 9 C 12-3a

REINFORCEMENT AND CONCRETE QUANTITIES ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

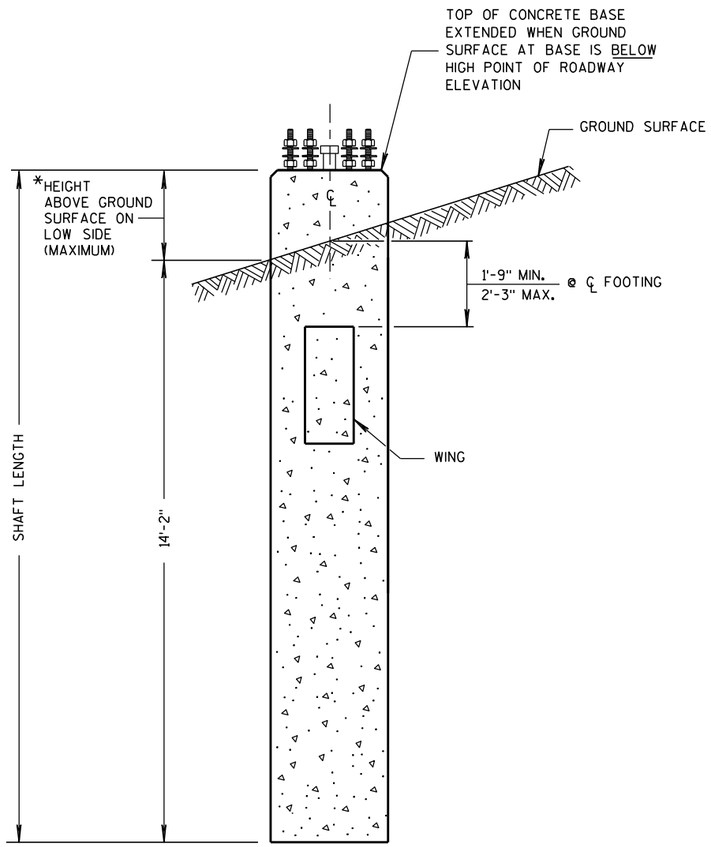
HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL BAR STEEL
>0" TO 6"	10"	14'-6"	14'-1"	16	2.6	78	127
>6" TO 1'-0"	1'-4"	15'-0"	14'-7"	16	2.7	78	131
>1'-0" TO 1'-6"	1'-10"	15'-6"	15'-1"	17	2.8	83	136
>1'-6" TO 2'-0"	2'-4"	16'-0"	15'-7"	17	2.9	83	141



CONCRETE BASE TYPE 10 (EXTENDED)

REINFORCEMENT AND CONCRETE QUANTITIES ADJUSTED FOR EXTENDED TYPE 13 CONCRETE BASE

HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF H.S. BAR STEEL
>0" TO 6"	10"	15'-0"	14'-7"	16	6.5	447
>6" TO 1'-0"	1'-4"	15'-6"	15'-1"	16	6.6	454
>1'-0" TO 1'-6"	1'-10"	16'-0"	15'-7"	17	6.8	469
>1'-6" TO 2'-0"	2'-4"	16'-6"	16'-1"	17	7.0	476



CONCRETE BASE TYPE 13 (EXTENDED)

CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3-3-10 DATE — /S/ Joanna L. Rush STATE ELECTRICAL ENGI — HWYS

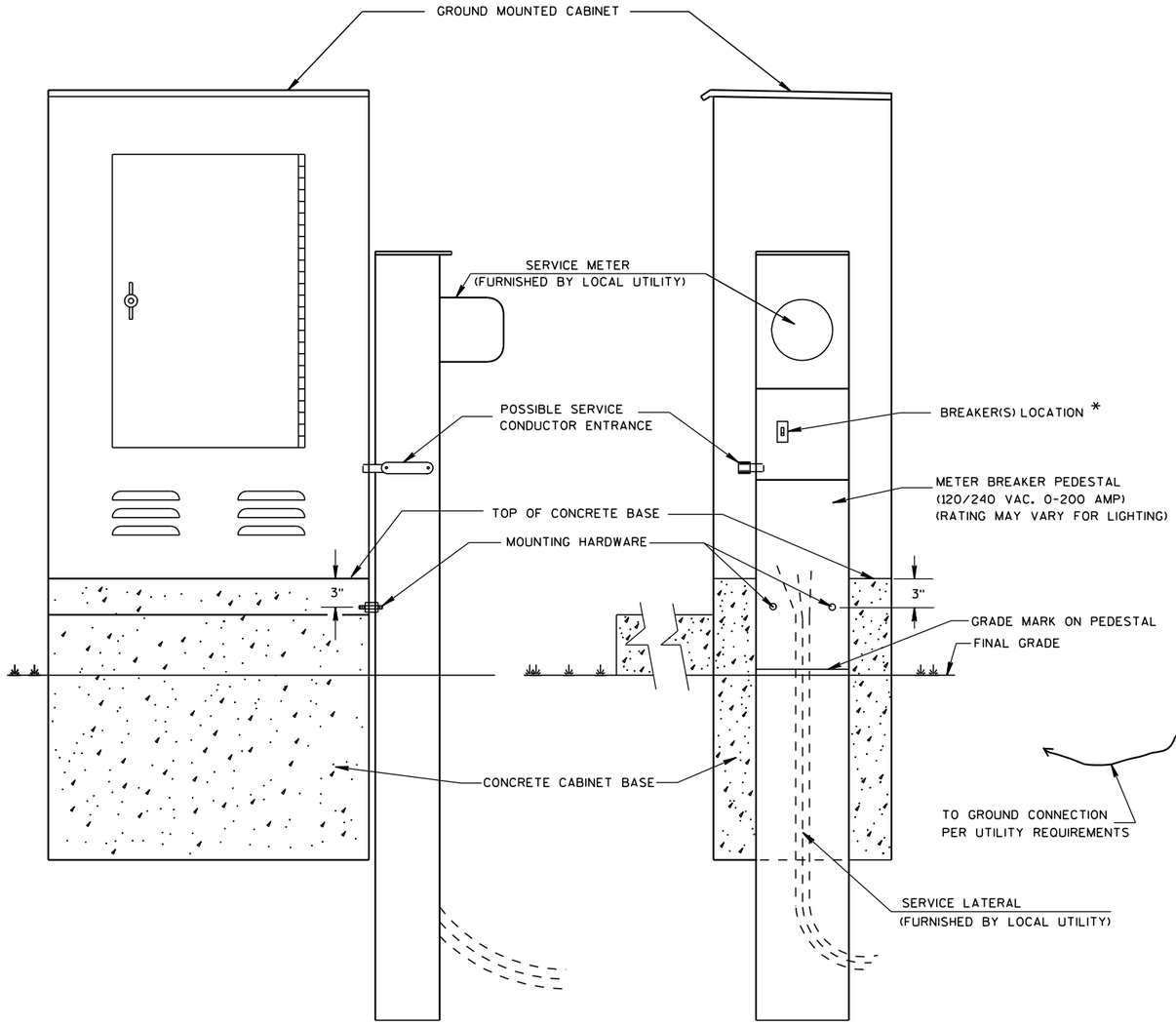
FHWA

6

S.D.D. 9 C 13-1

6

S.D.D. 9 C 13-1



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.

6

S.D.D. 9 D 1-4

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/27/09 DATE

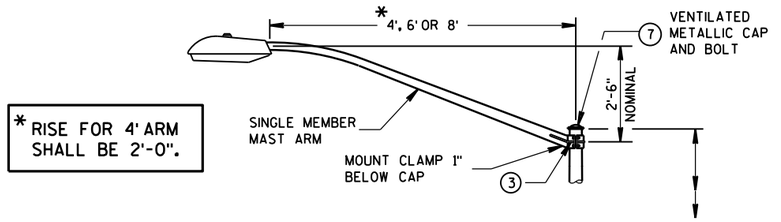
/S/ Joanna L. Bush
STATE ELECTRICAL ENGI

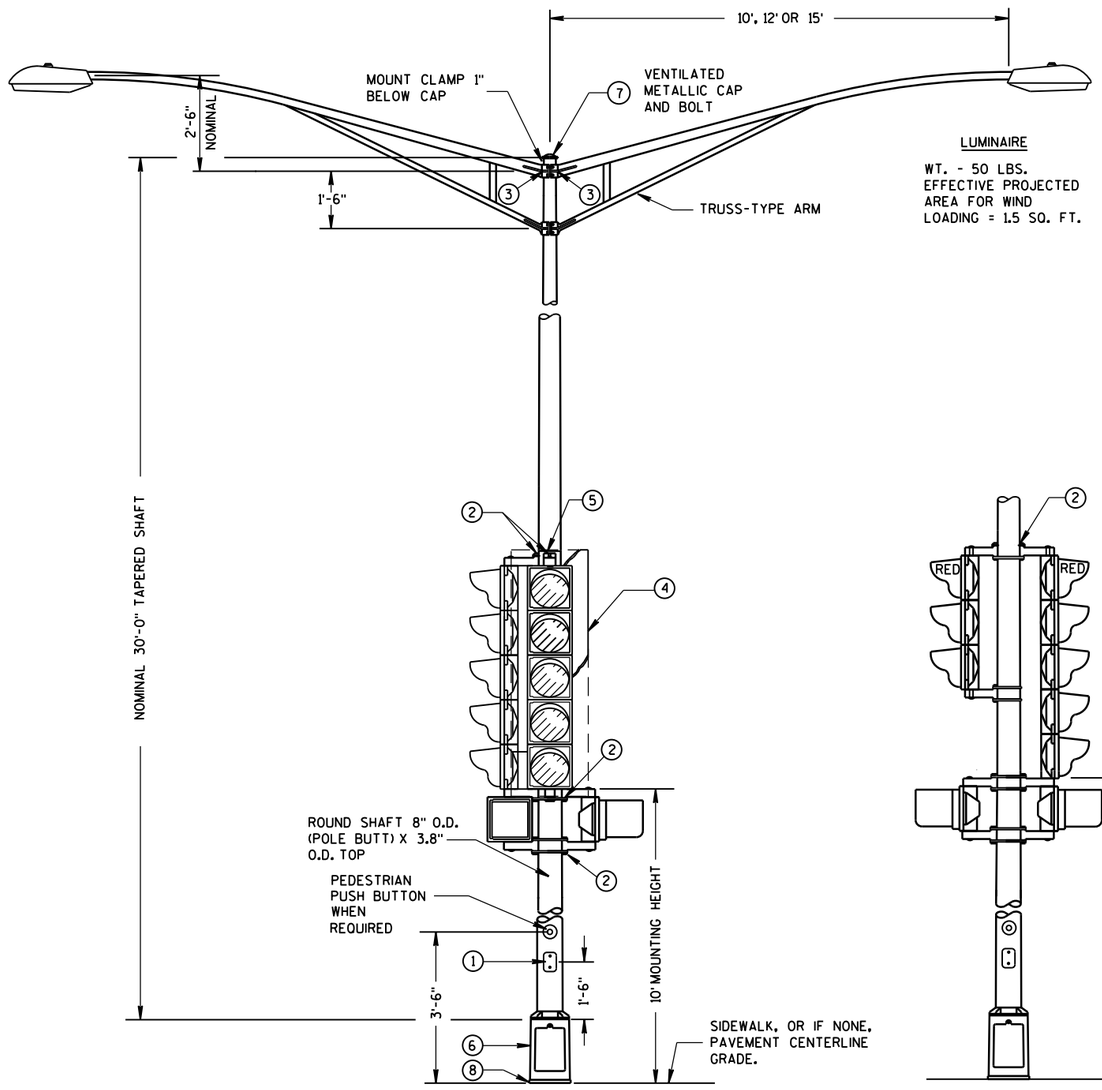
HWYS

FHWA

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S.D.D. 9 D 1-4

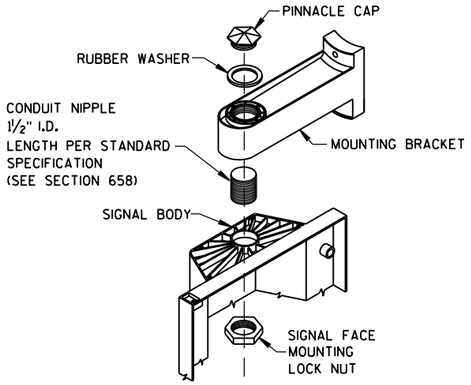




LUMINAIRE

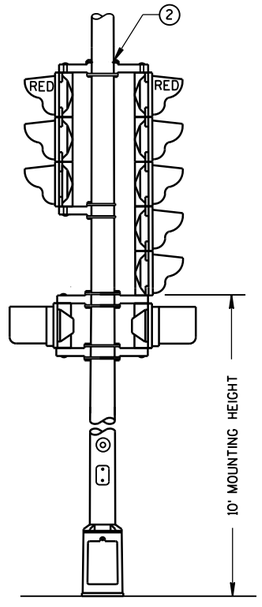
WT. - 50 LBS.
EFFECTIVE PROJECTED AREA FOR WIND LOADING = 1.5 SQ. FT.

(MAXIMUM LOAD)

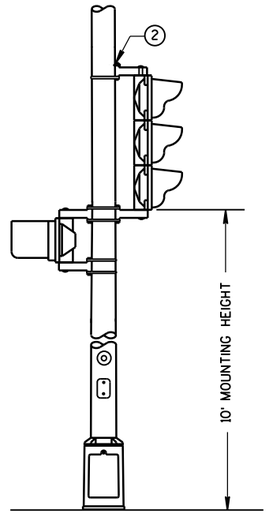


SIGNAL FACE MOUNTING DETAIL

(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

TYPE 4 POLE MOUNTING CONFIGURATION

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.

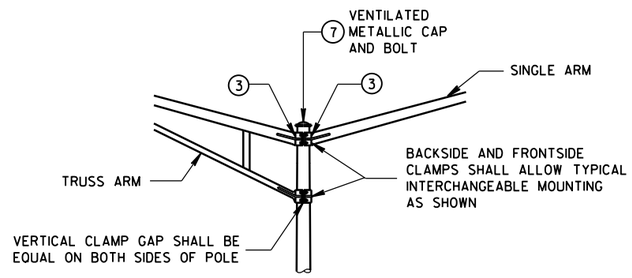
(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(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

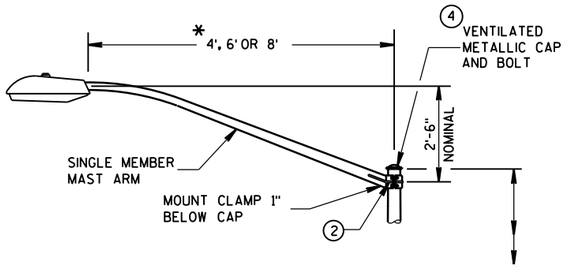
POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

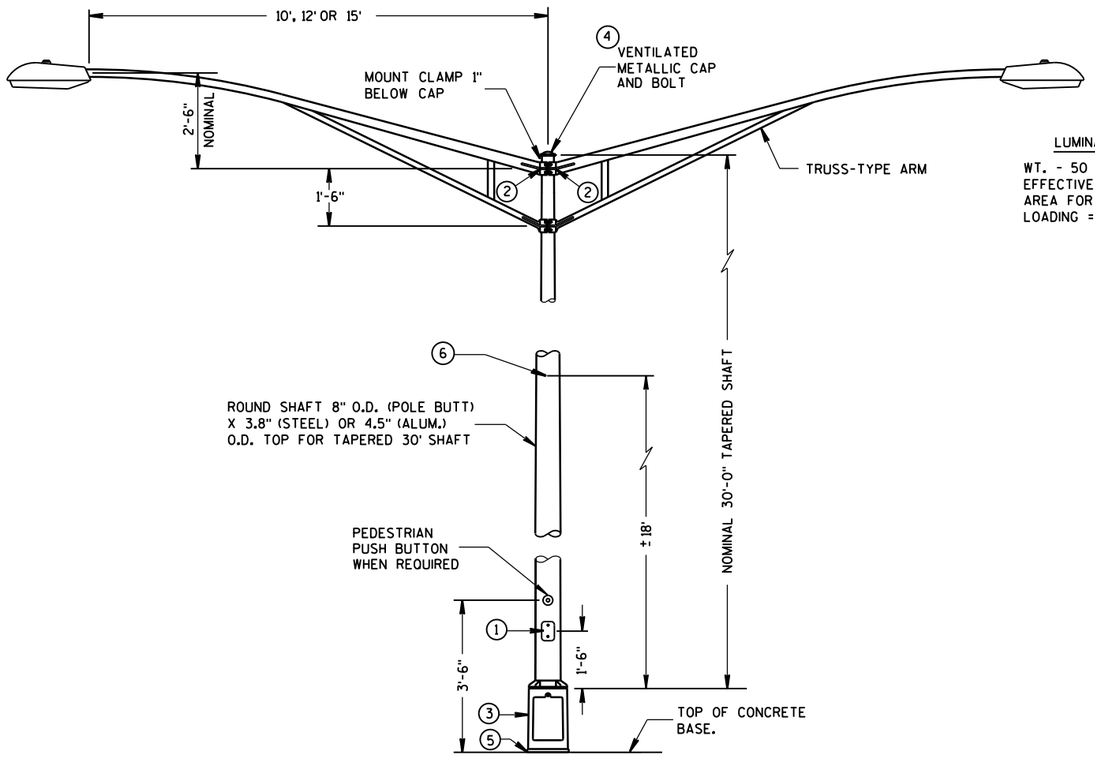
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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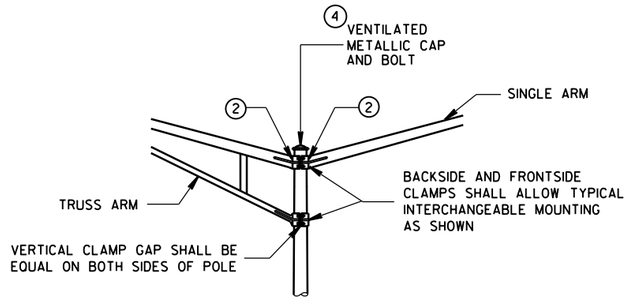
S.D.D. 9 E 1-12c

*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

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

GENERAL NOTES

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

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

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 ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS 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) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

6

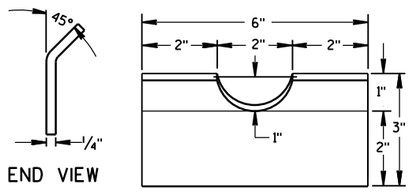
S.D.D. 9 E 1-12d

POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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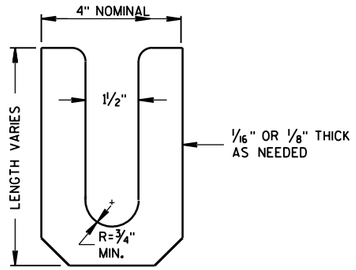
S.D.D. 9 E 1-12d



FRONT VIEW

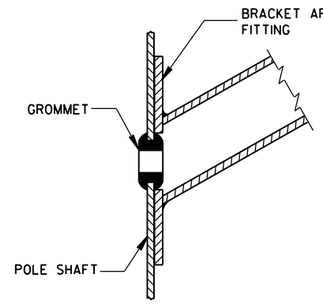
RECTANGULAR CLAMP SHIM

(4 TO A SET)

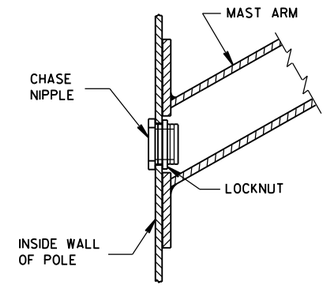


LEVELING SHIM (15)

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".

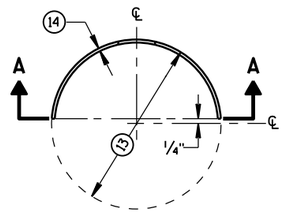
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

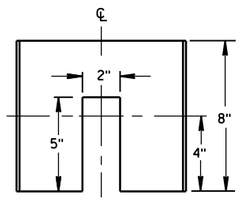
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(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.



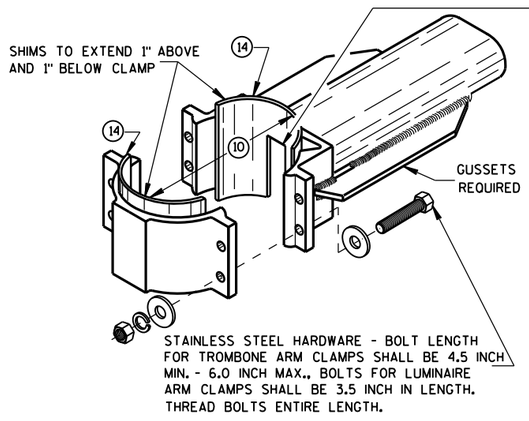
PLAN VIEW



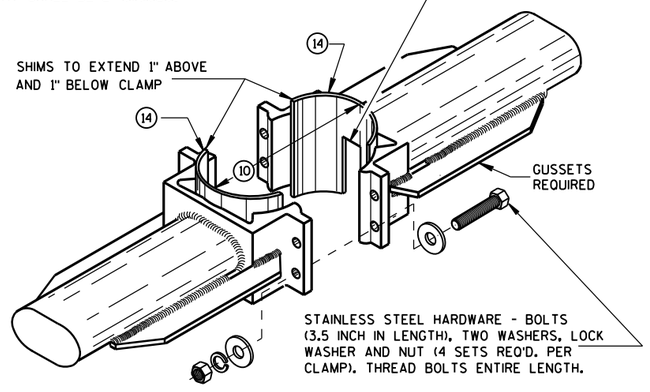
SECTION A-A

CIRCULAR CLAMP SHIM

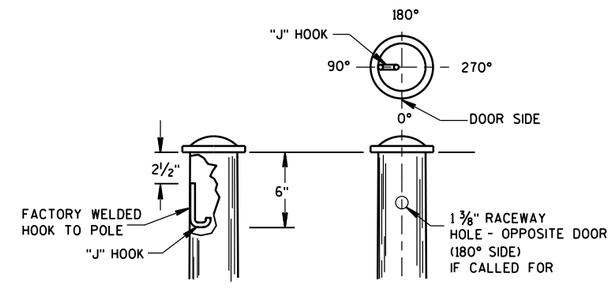
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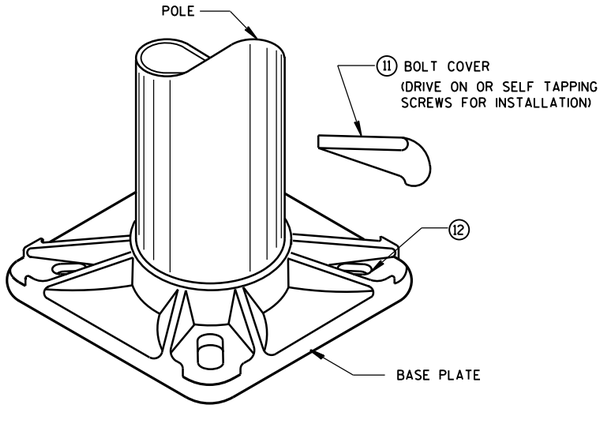
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



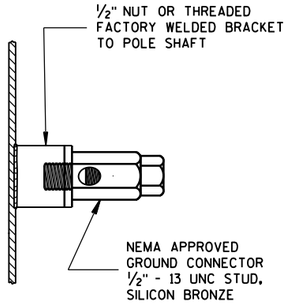
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

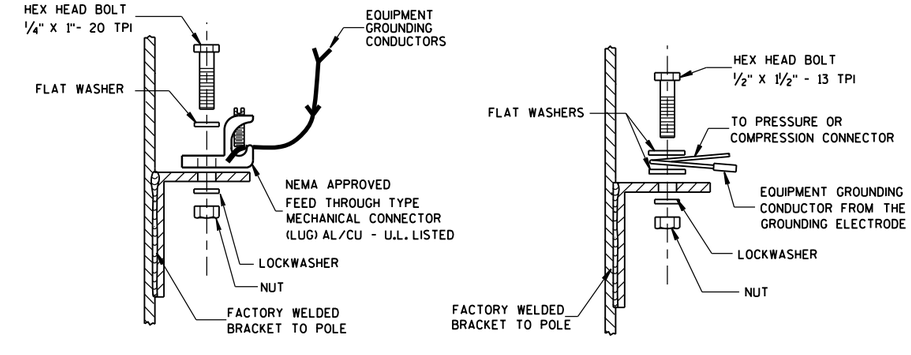


TYPICAL "J" HOOK LOCATION



BASE PLATE





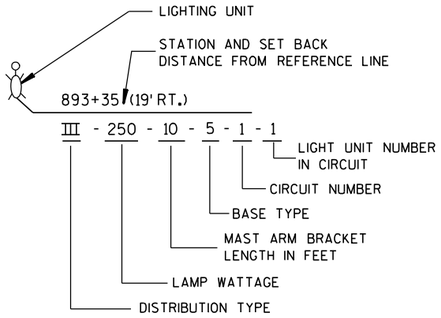
TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

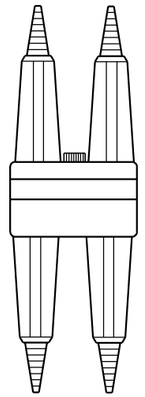
HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

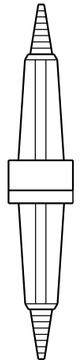
APPROVED
2/7/2013 DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 247
FHWA



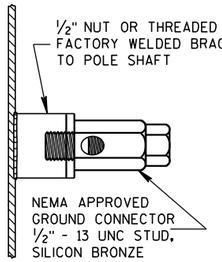
LIGHTING UNIT CODE
(TYPICAL)

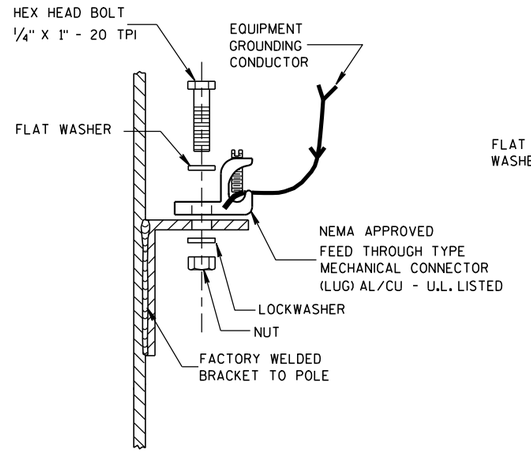


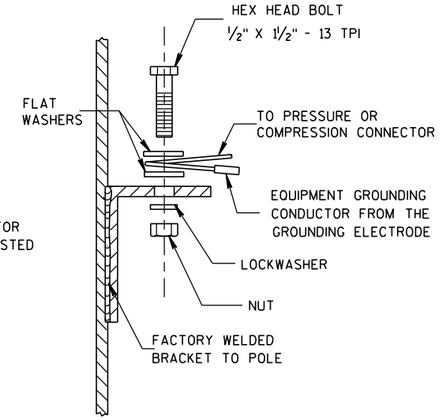
DETAIL "A"
BREAKAWAY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



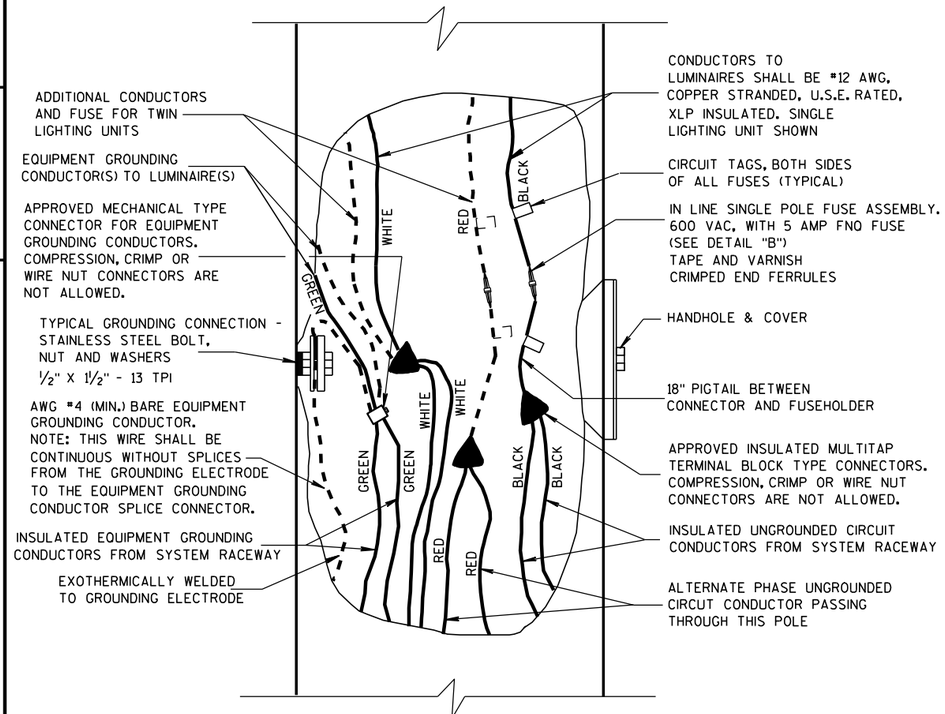
DETAIL "B"
BREAKAWAY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



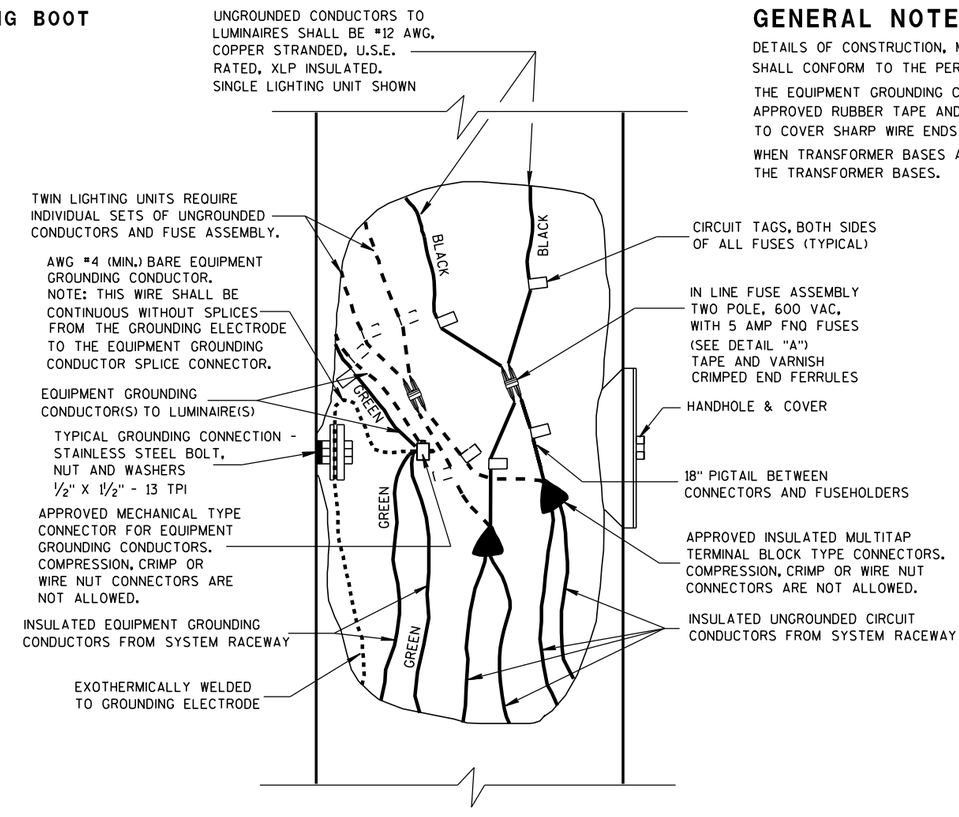




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

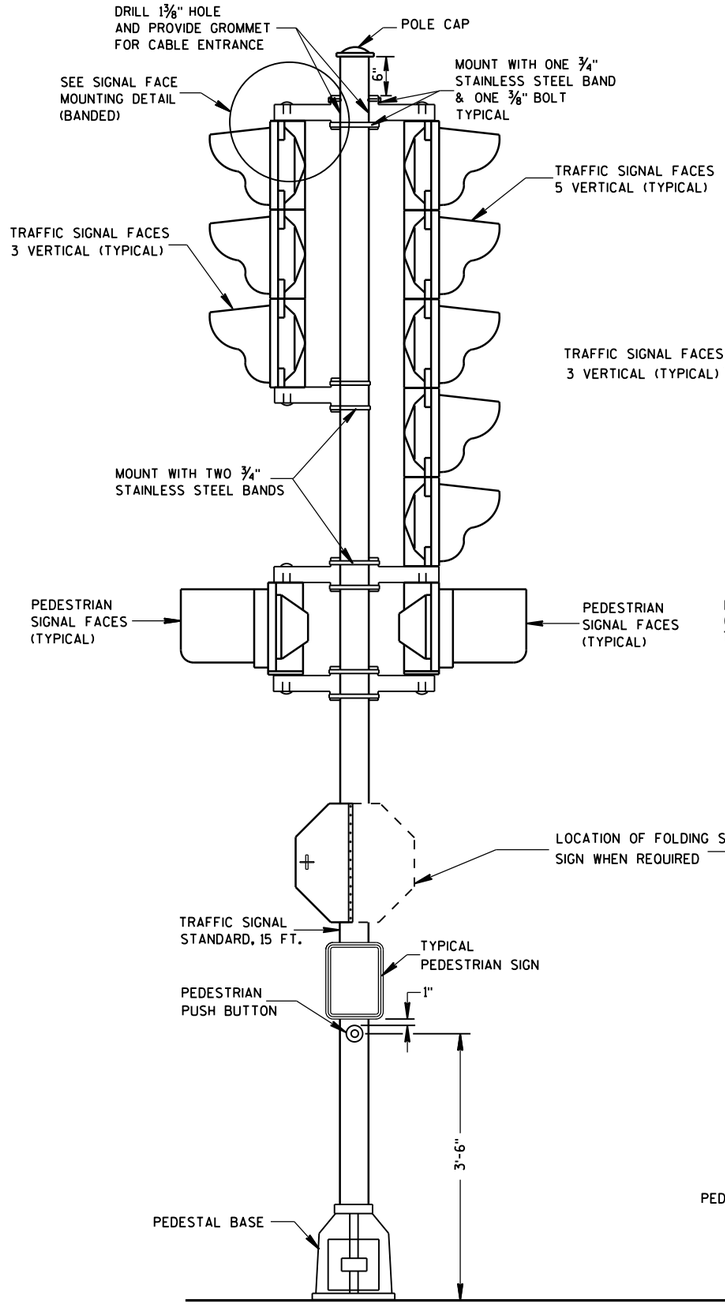
3/2/2011 — DATE

/S/ Thomas J. Gosnell — STATE ELECTRICAL ENGI

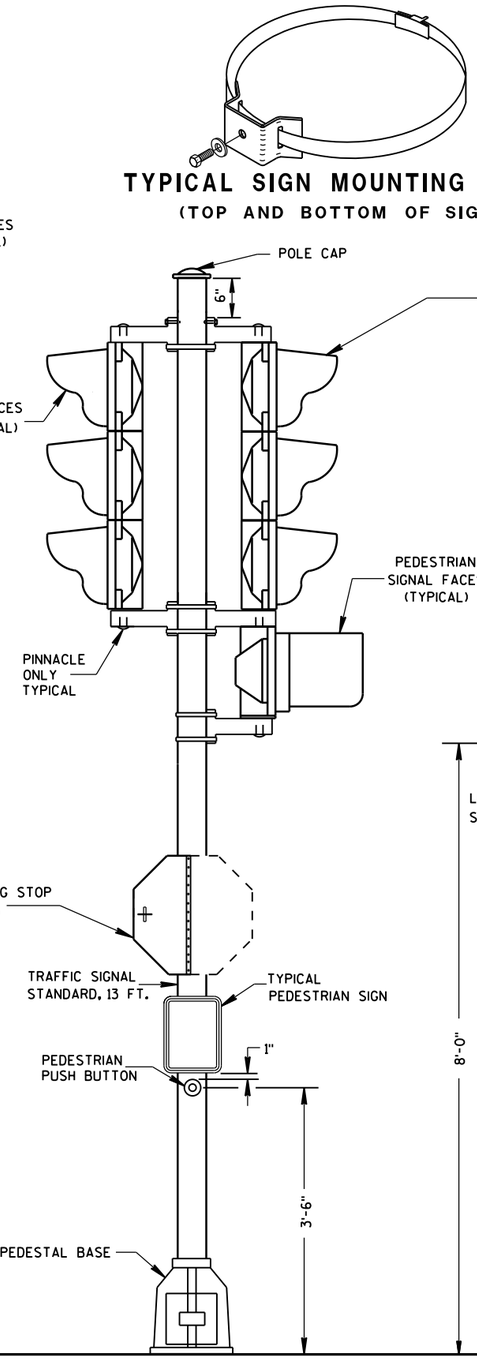
248

HWYS

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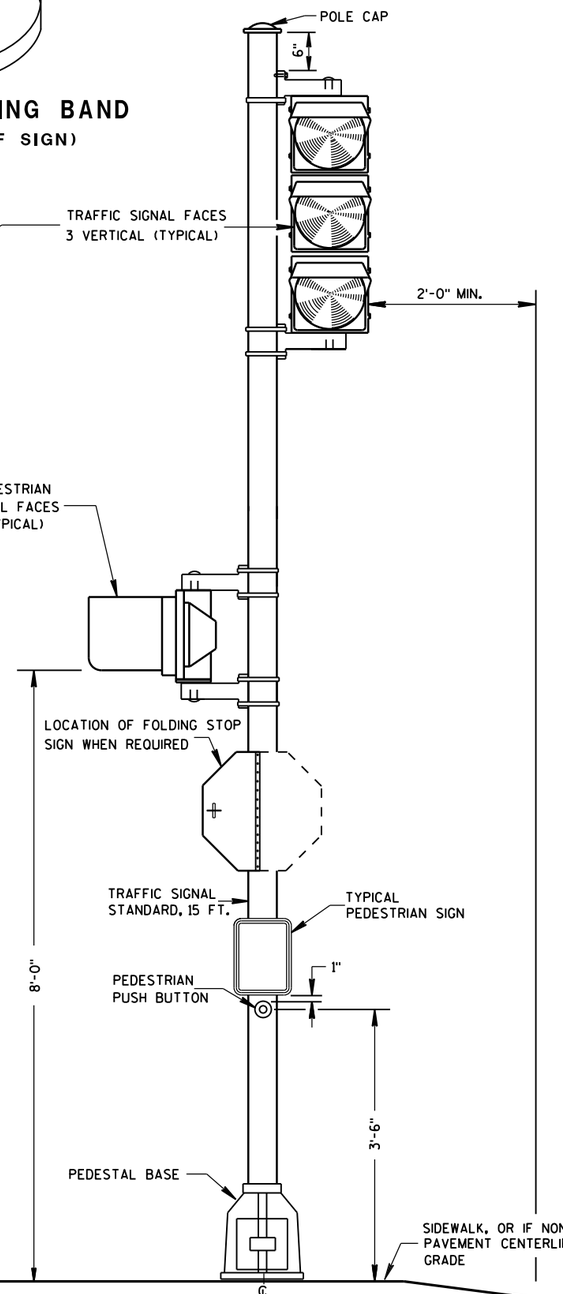


TRAFFIC SIGNAL STANDARD-15 FT.



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.

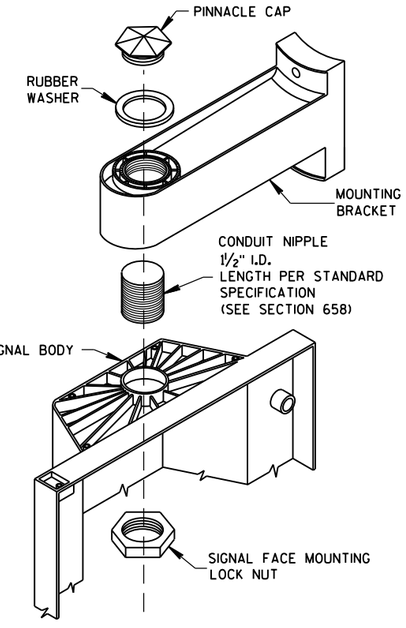
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION 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) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

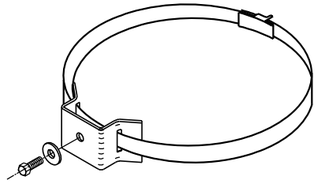
TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

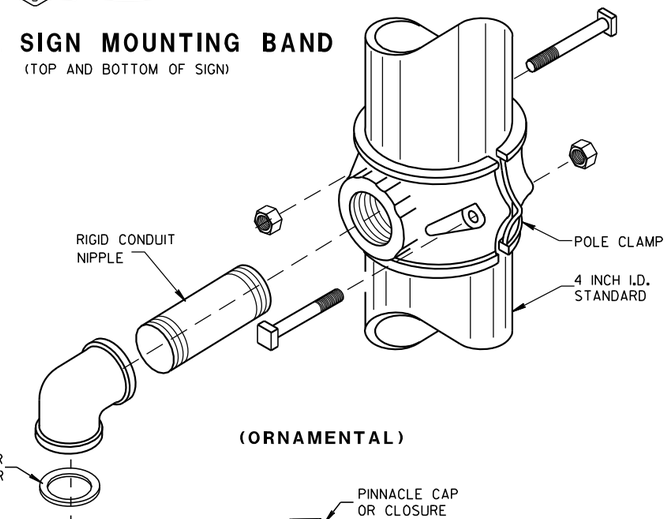
APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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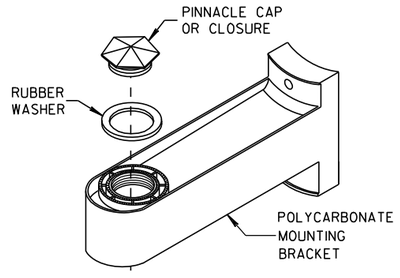
S.D.D. 9 E 6-5



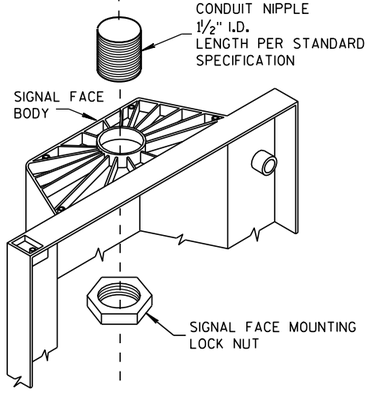
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



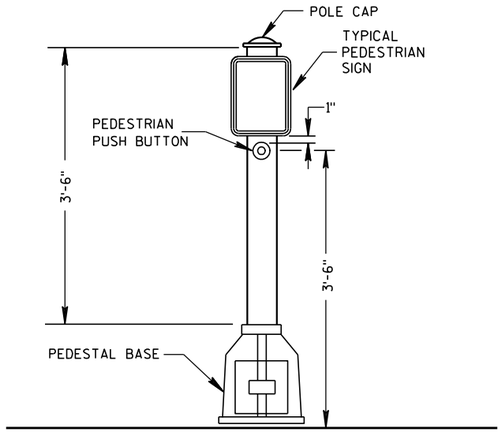
(ORNAMENTAL)



(BANDED)



SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

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.

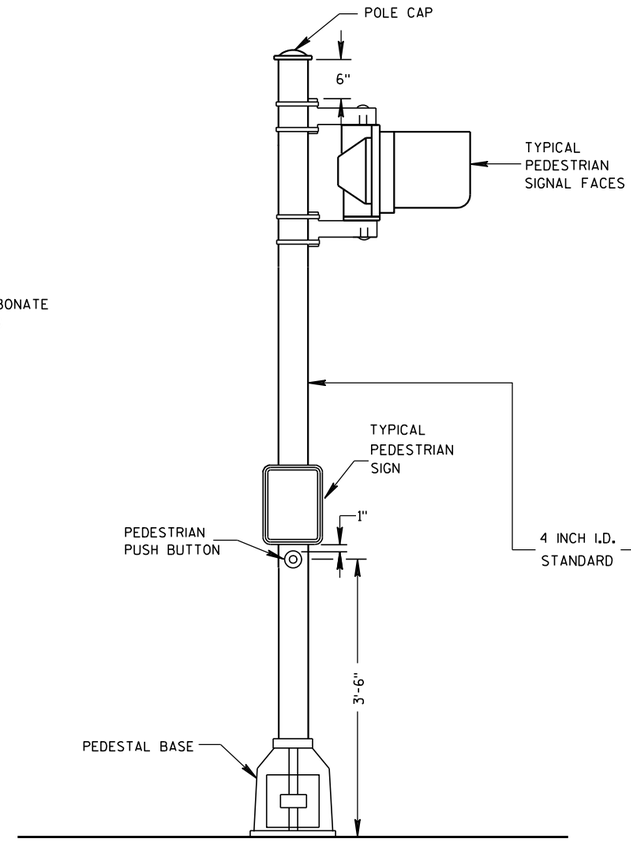
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

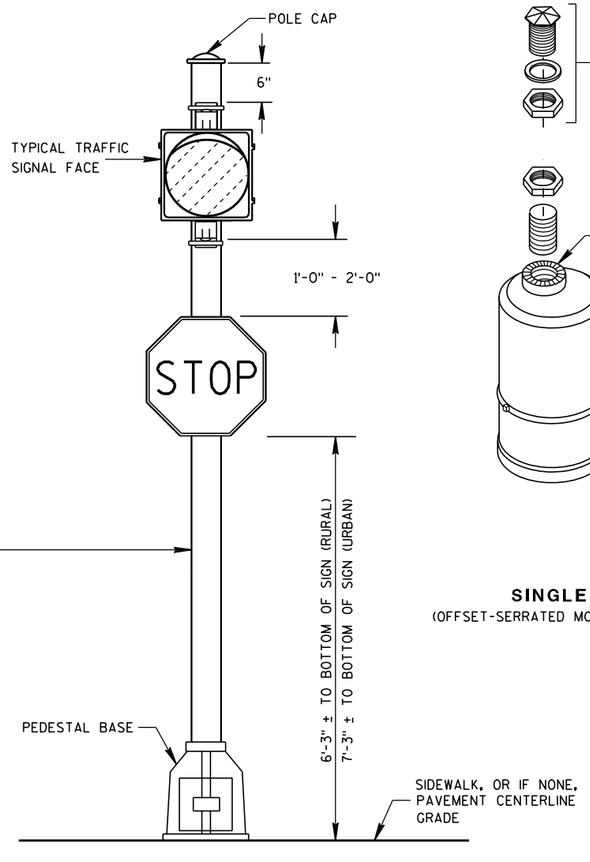
MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

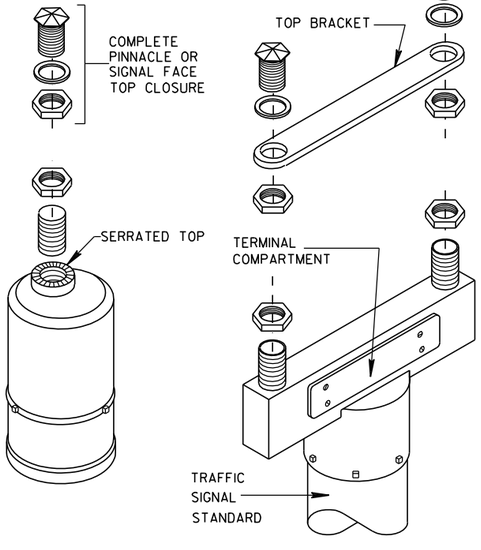
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



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

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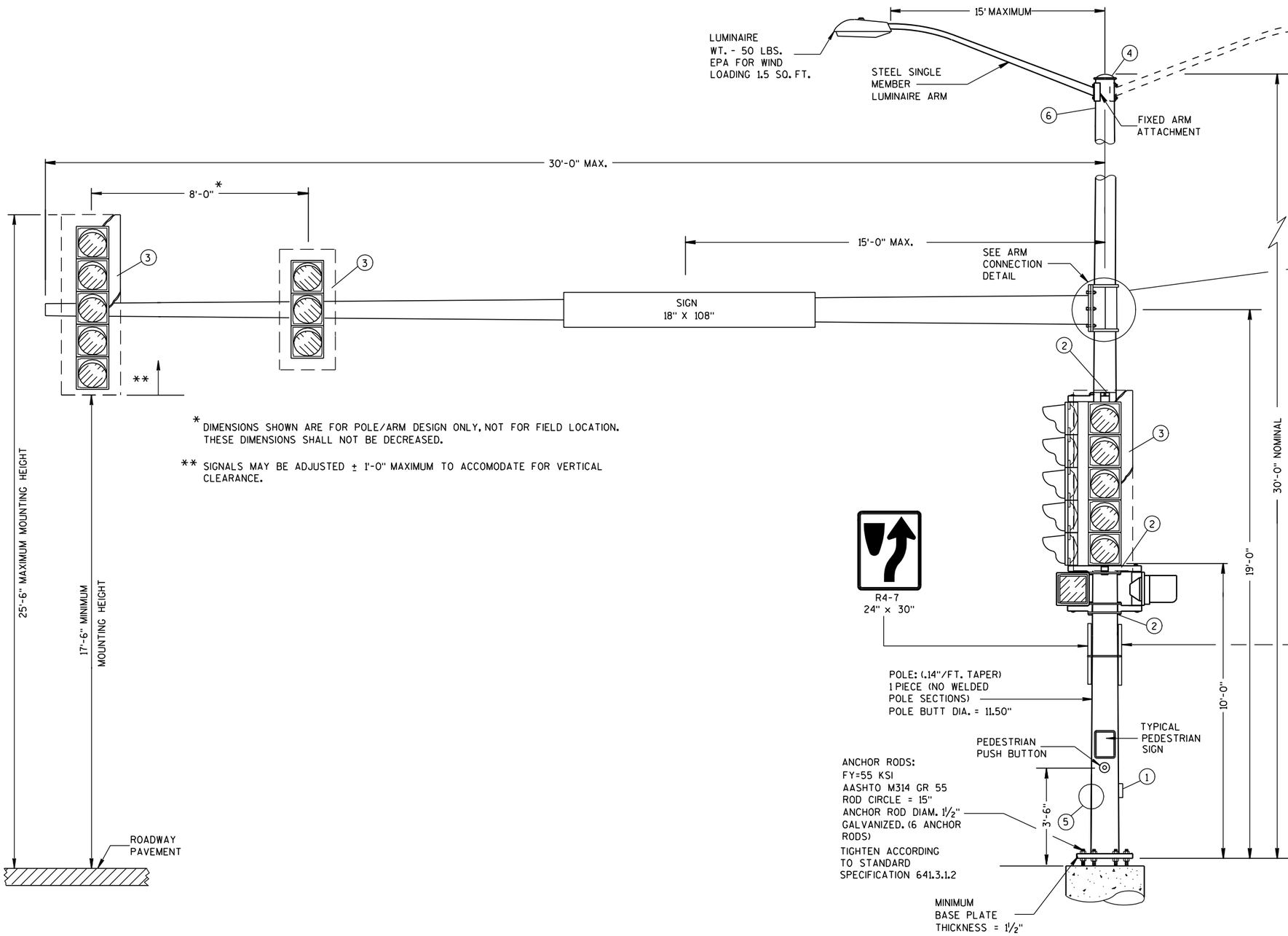
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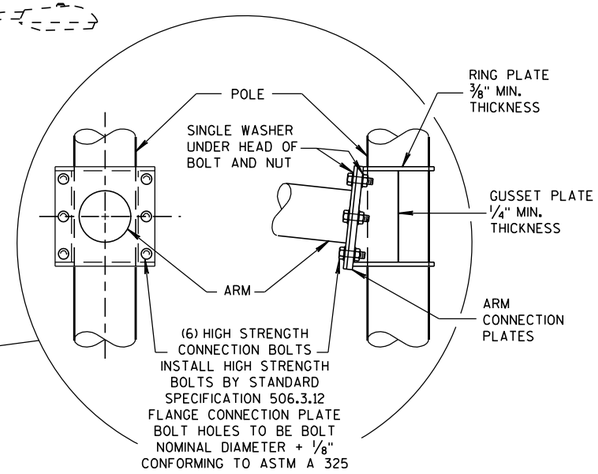
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S.D.D. 9 E 7-5

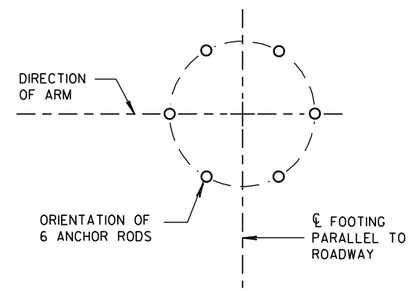
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6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

* 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.

(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

251 — HWYS

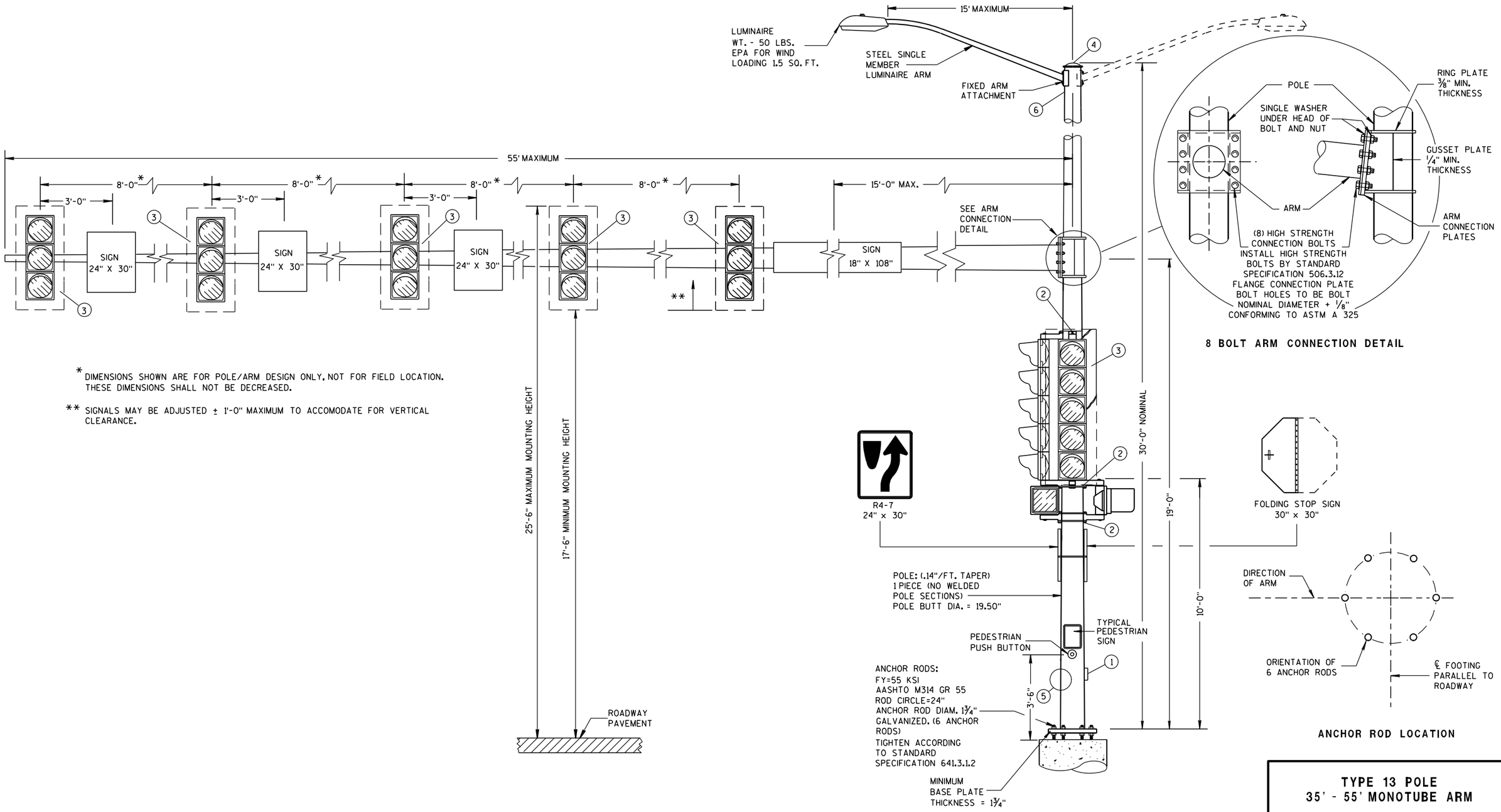
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S.D.D. 9 E 8-4b

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S.D.D. 9 E 8-4b



* 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 — HWYS

FHWA

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S.D.D. 9 E 8-4d

6

S.D.D. 9 E 8-4d

GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE LATEST AASHTO AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

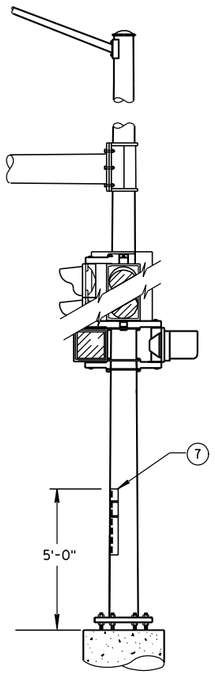
(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

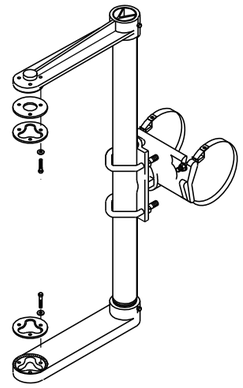
(7) INSTALL DEPARTMENT PROVIDED STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 5'-0" ABOVE THE CURB OR SHOULDER . ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

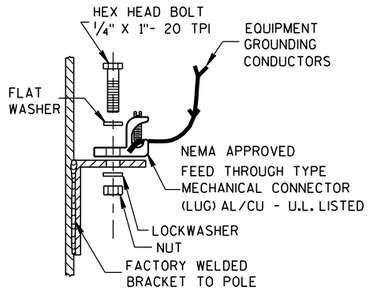


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



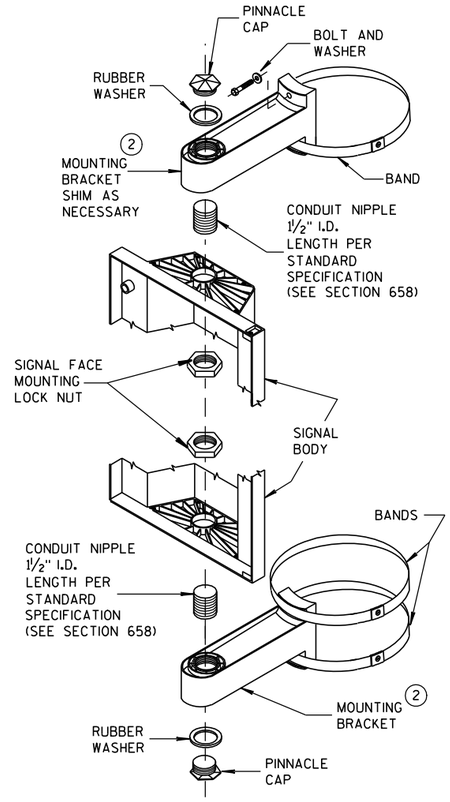
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

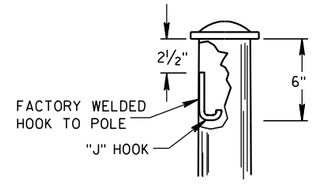


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

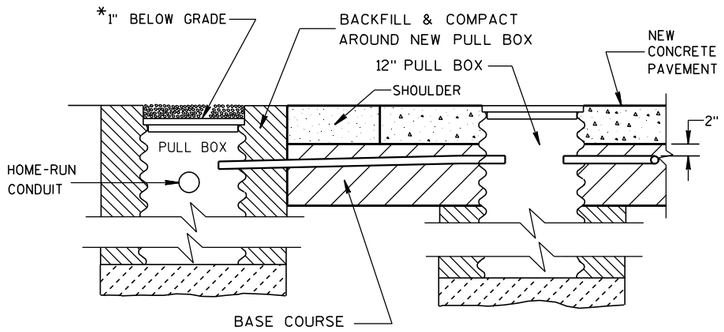
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

/S/ Thomas J. Corrigan
STATE ELECTRICAL ENGI 253 HWYS

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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.

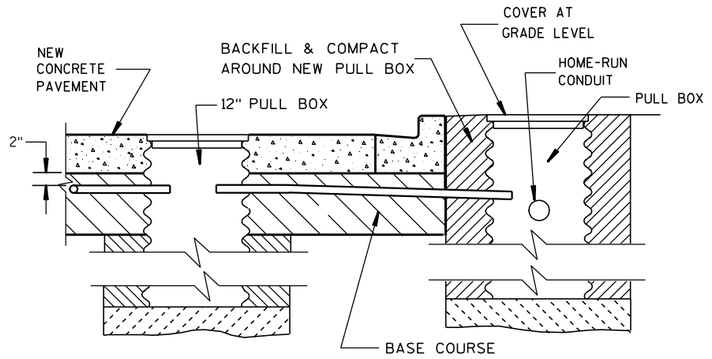
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

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.

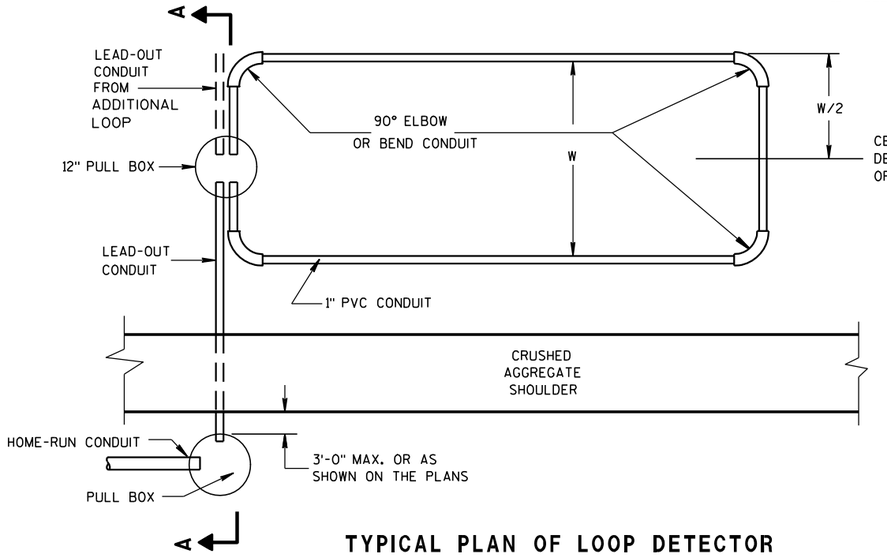
12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



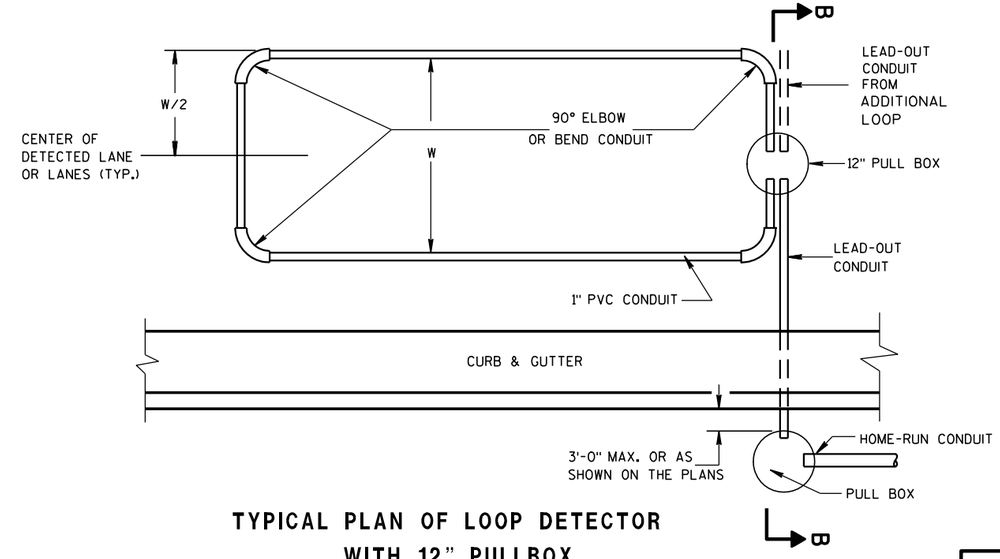
SECTION B-B

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

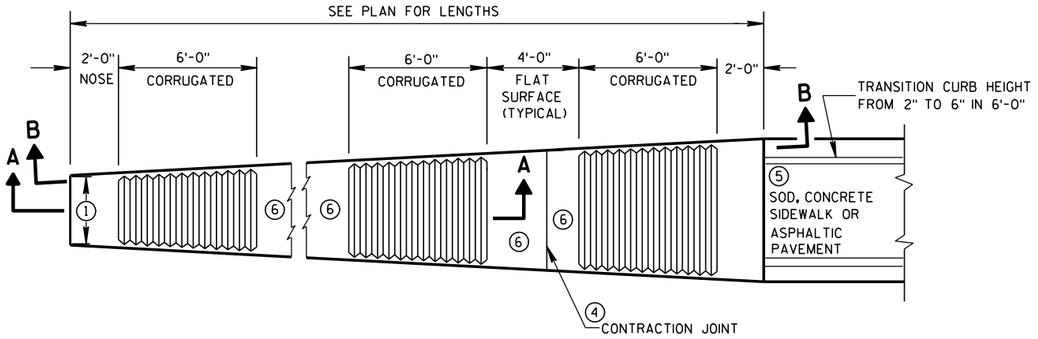
FHWA

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S.D.D. 9 F 9-3

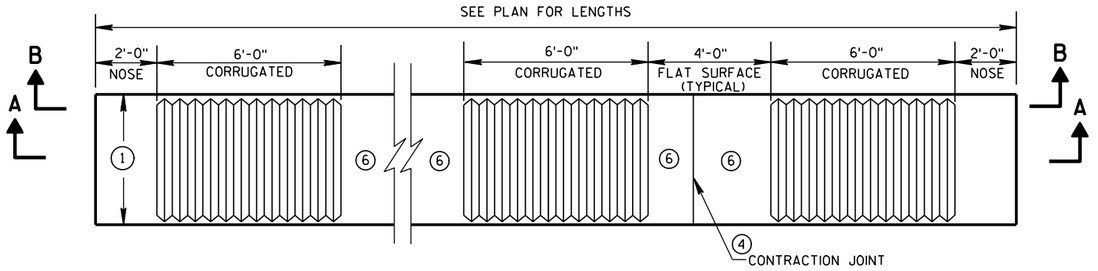
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S.D.D. 9 F 9-3



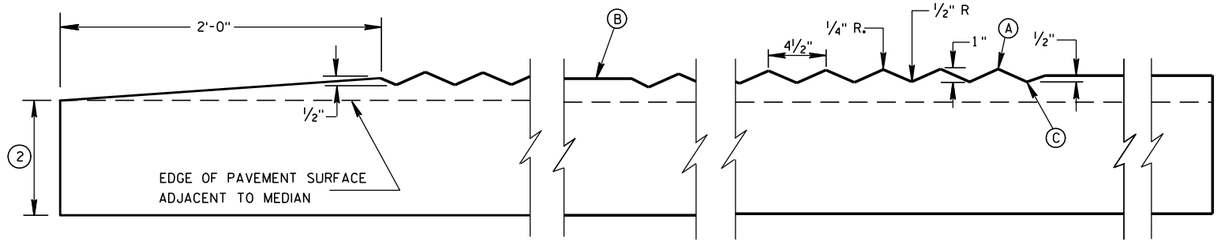
PLAN VIEW

VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN



PLAN VIEW

UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN



SECTION A-A

LONGITUDINAL SECTION

GENERAL NOTES

(1) SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.

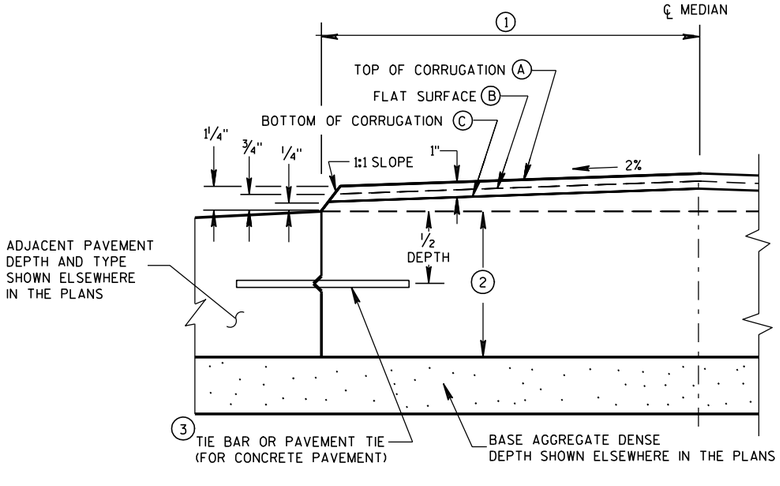
(2) THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN.
ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:
(1) NEW OR EXISTING CONCRETE PAVEMENT.
(2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.
(3) ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.

(3) 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.
INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR 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.

(4) CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE. TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.

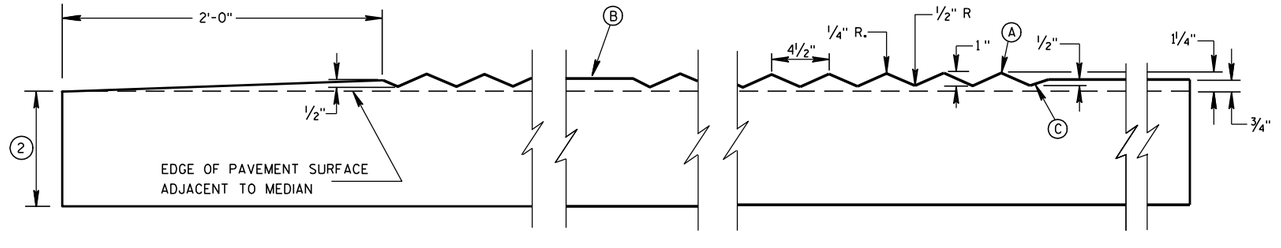
(5) SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.

(6) YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.



HALF CROSS SECTION

(2) CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT



SECTION B-B

LONGITUDINAL SECTION

CONCRETE CORRUGATED MEDIAN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/07
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

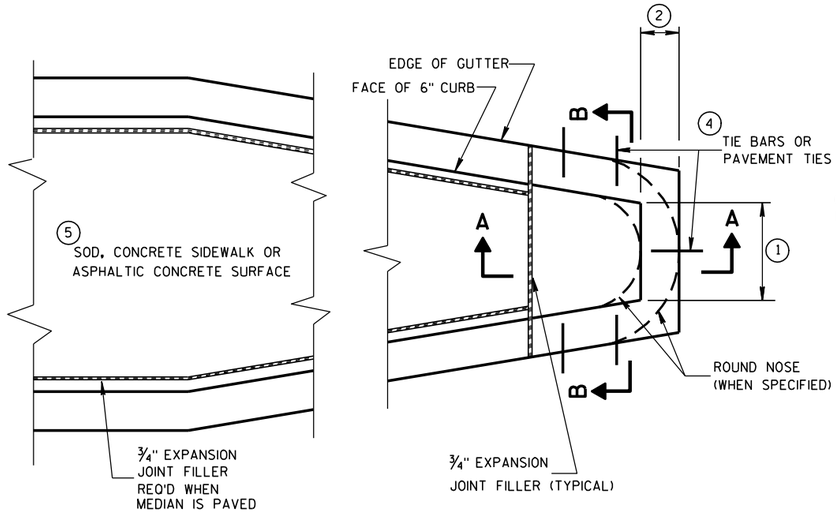
FHWA

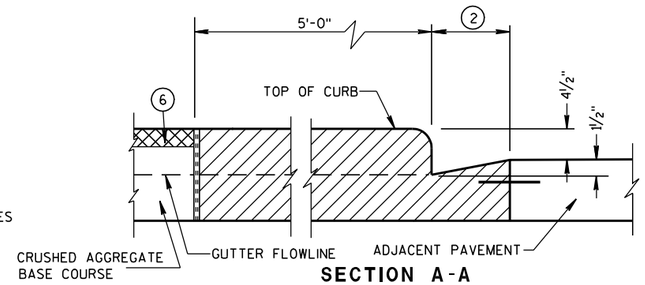
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S.D.D. 11 B 1-5

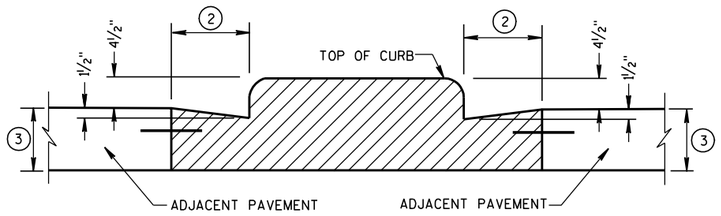
6

S.D.D. 11 B 1-5





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.

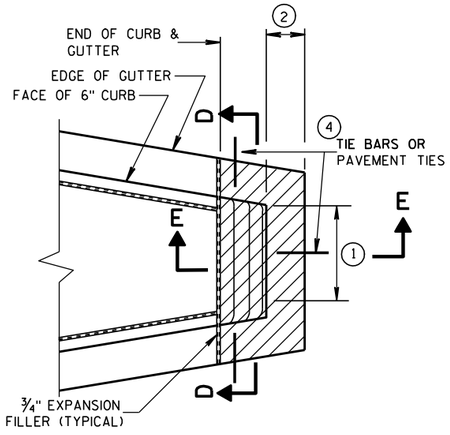
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

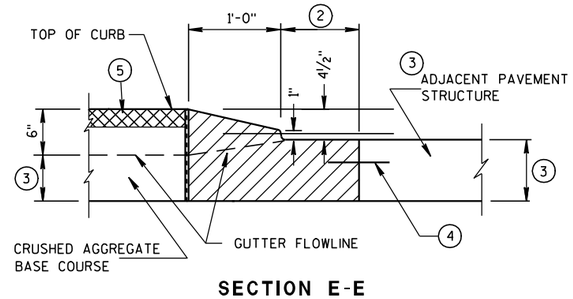
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(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.

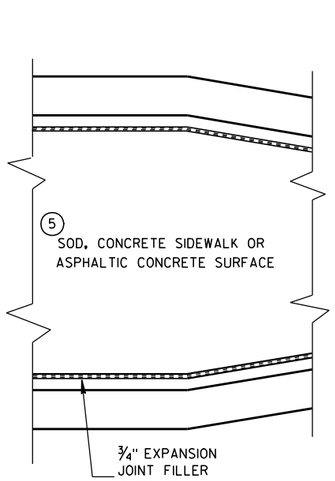
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

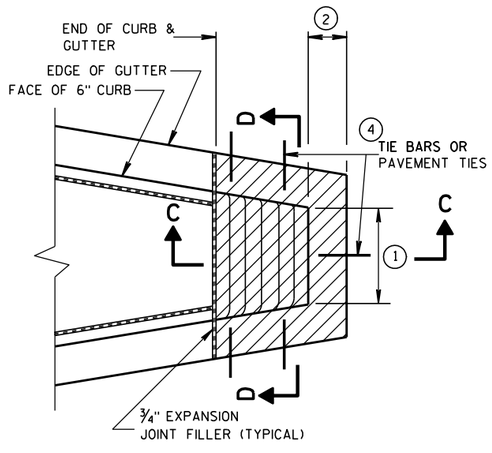




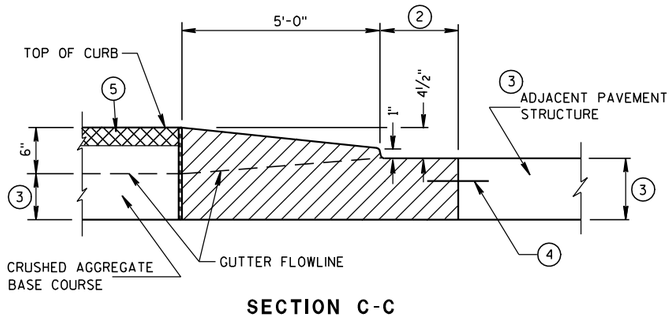
SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2

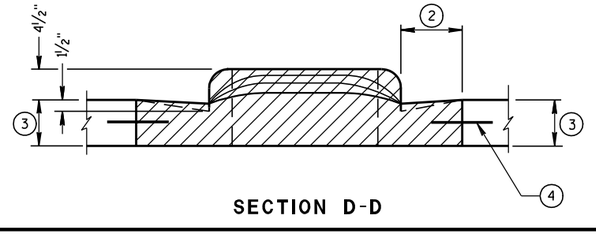




CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION C-C



SECTION D-D

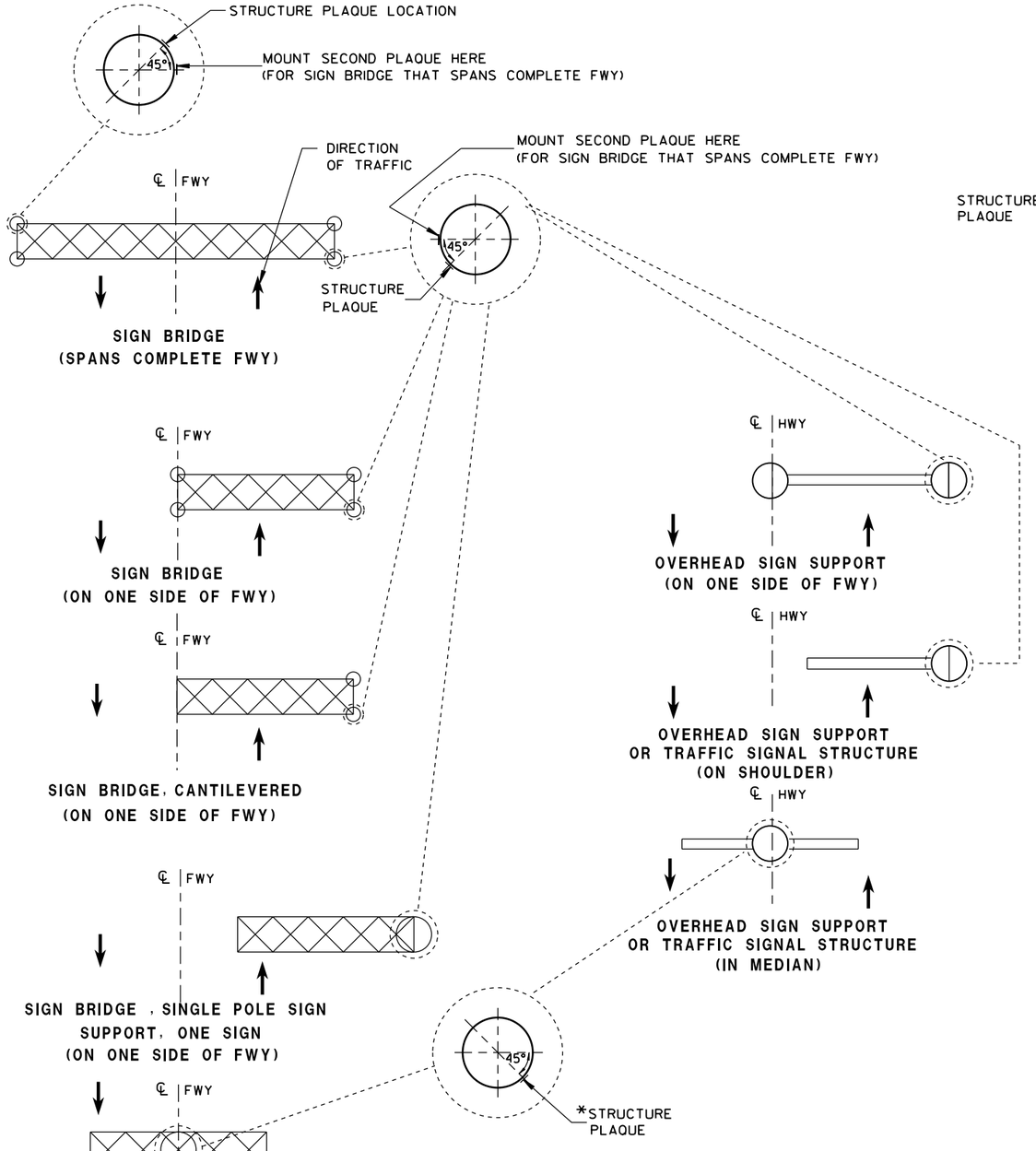
CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE FHWA	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER 256
	NT

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S.D.D. 11 B 2-2

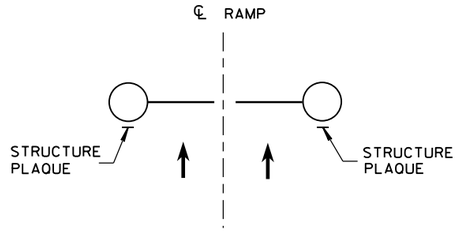
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S.D.D. 11 B 2-2

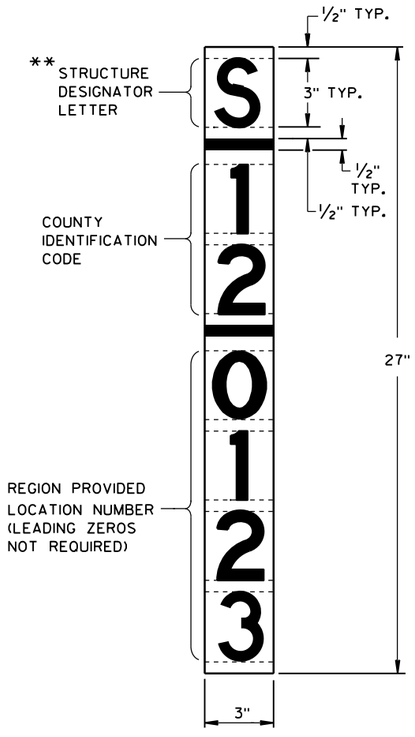


* WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

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.

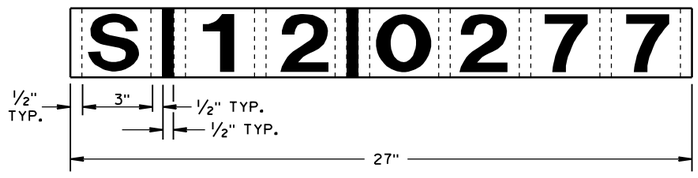
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

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

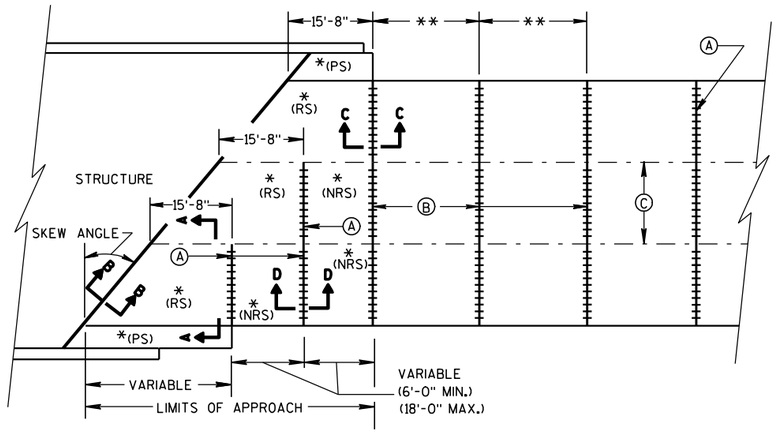
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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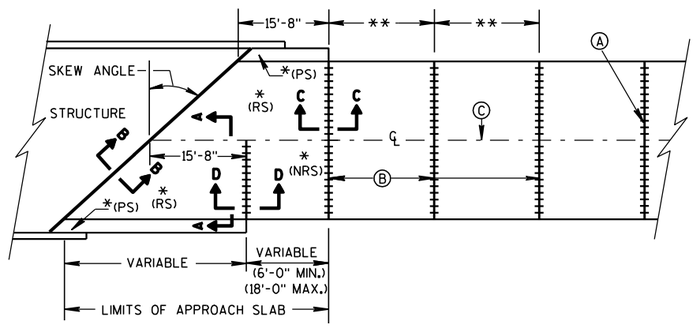
S.D.D. 12 A 4-3

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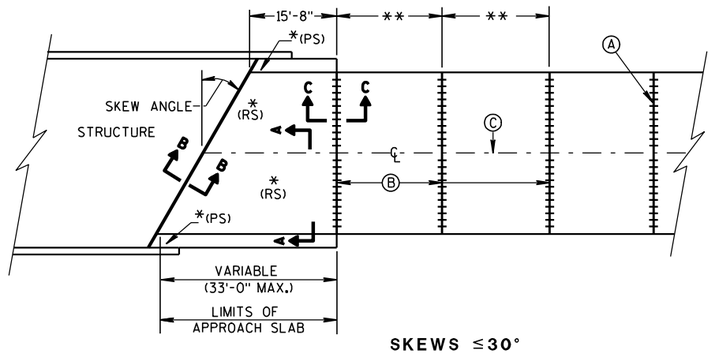
S.D.D. 12 A 4-3



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



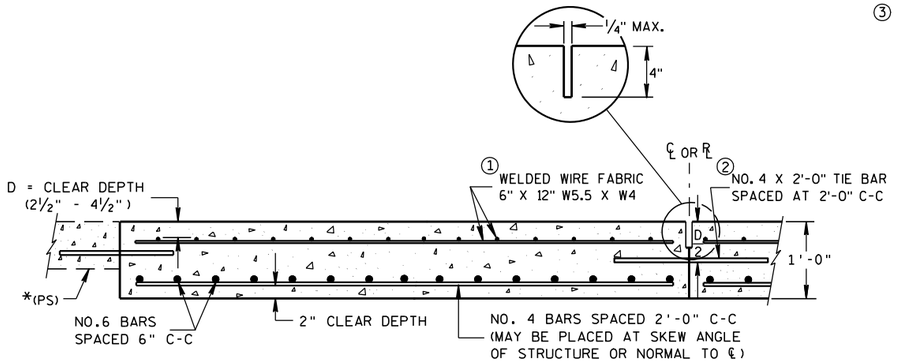
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

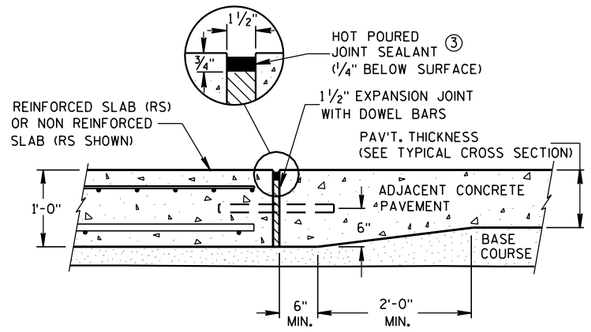
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C4, SDD 13C11, & SDD 13C13)

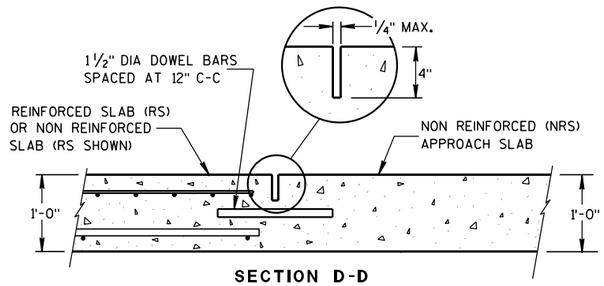
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

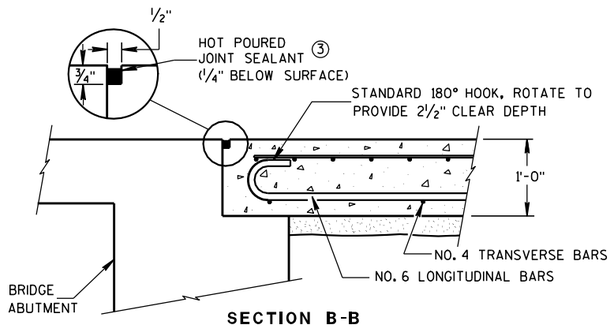
APPROACH SLABS ABUTTING AN HMA PAVEMENT OVER BASE COURSE DO NOT NEED TO BE DOWELED.

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

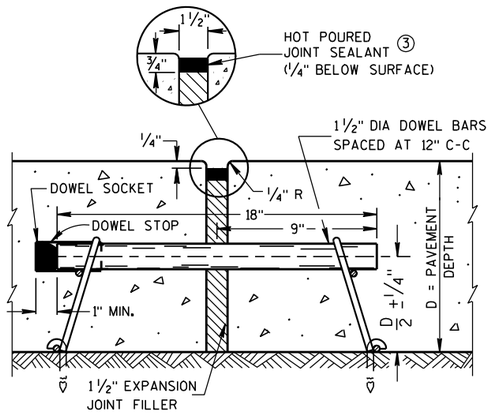
1 THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

2 THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

3 USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

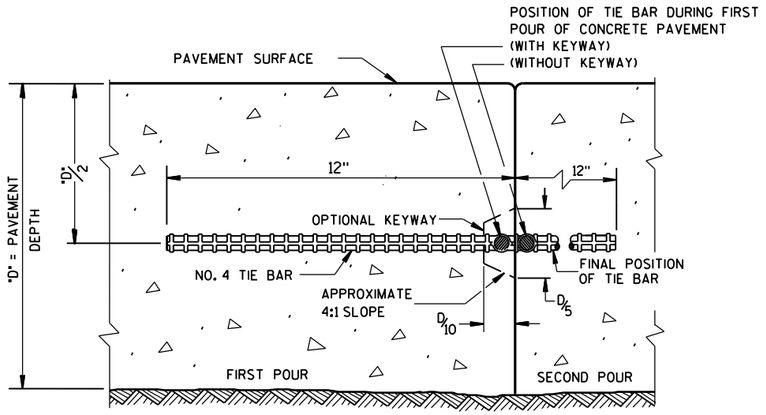
APPROVED
12/11/2009
DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE 258 NEER
FHWA

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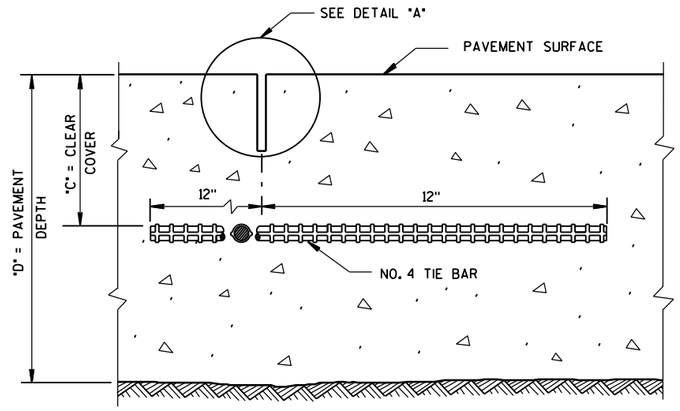
S.D.D. 13 B 2-6

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S.D.D. 13 B 2-6



CONSTRUCTION JOINT



SAWED JOINT

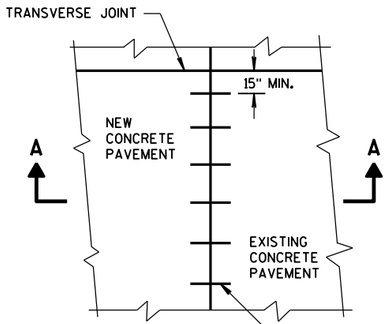
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

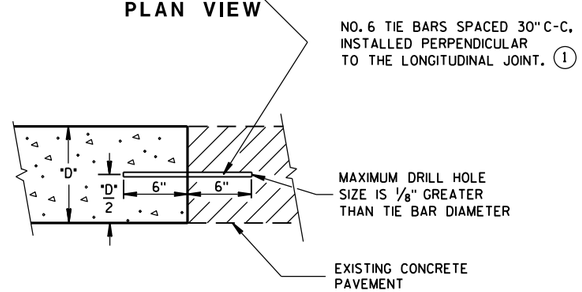
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

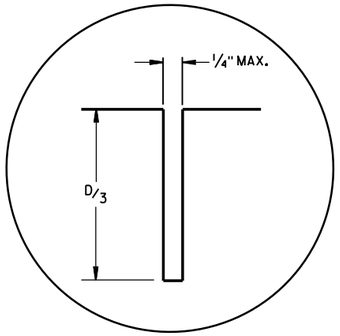


PLAN VIEW



SECTION A-A

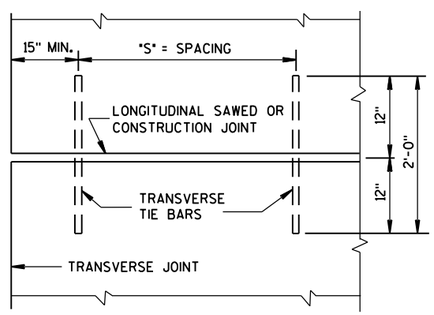
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

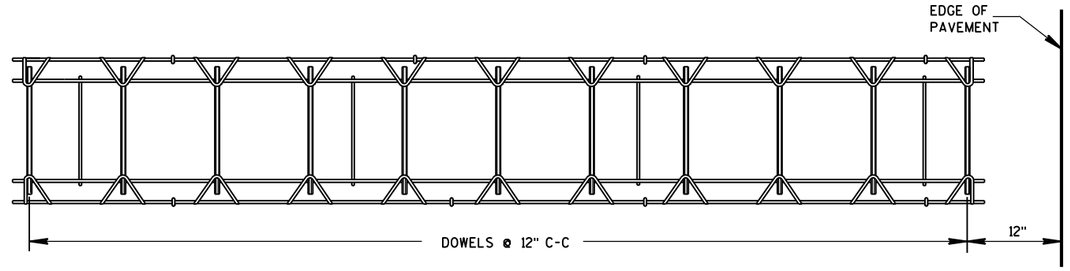
5-3-2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE

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S.D.D. 13 C 1-16

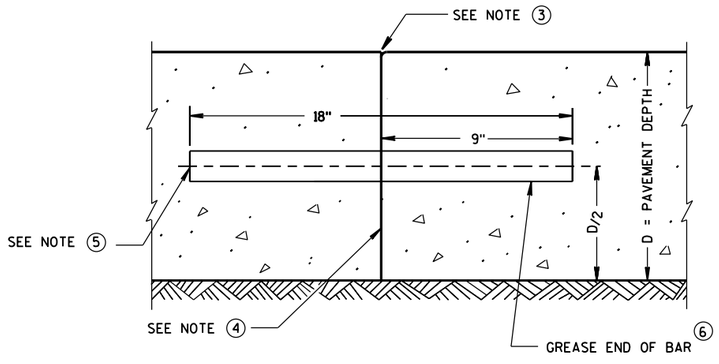


PLAN VIEW

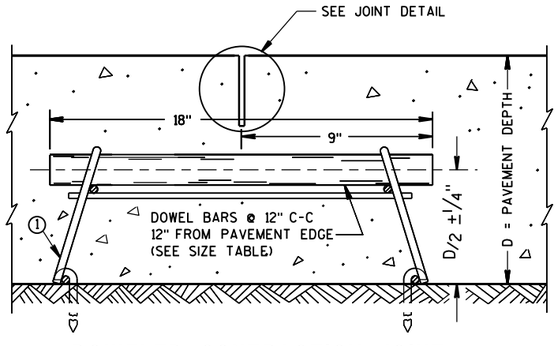


SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



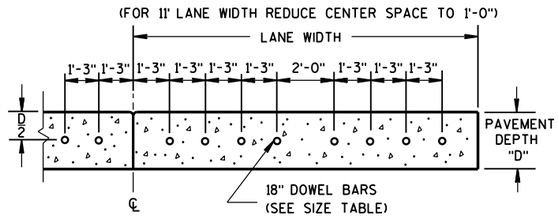
TRANSVERSE CONSTRUCTION JOINT



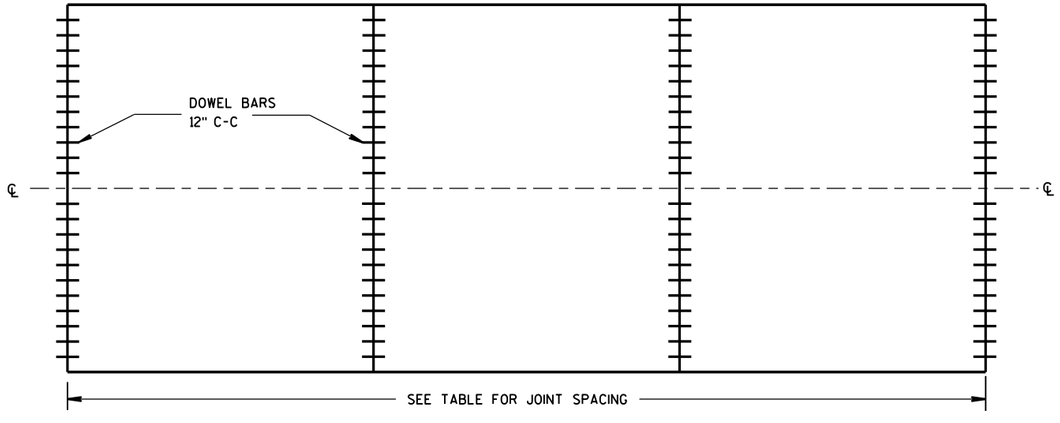
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 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'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE 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, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② 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.

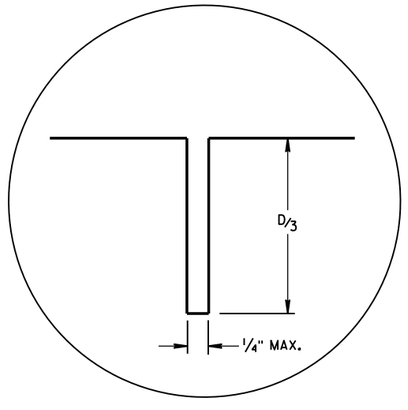
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

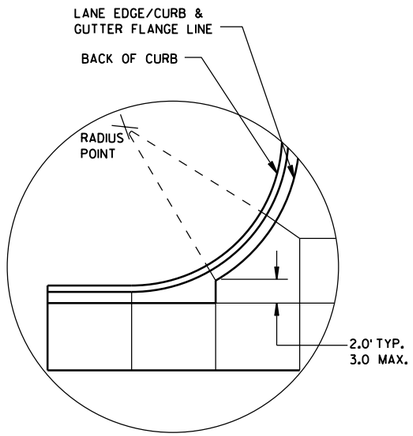
URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

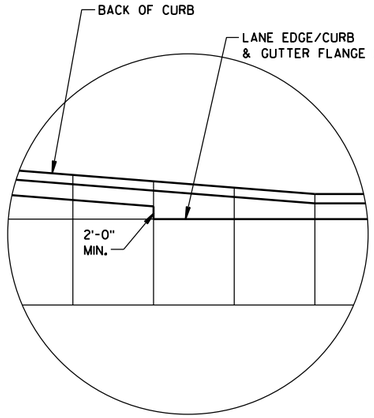
APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER
FHWA

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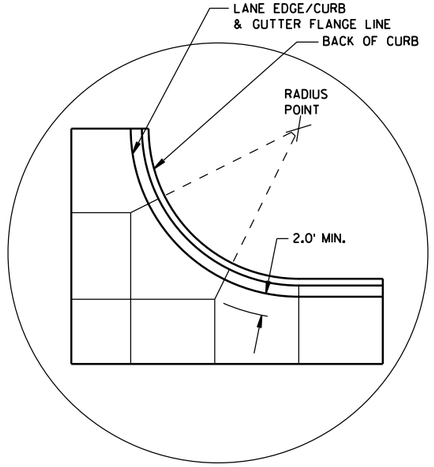
S.D.D. 13 C 13-8



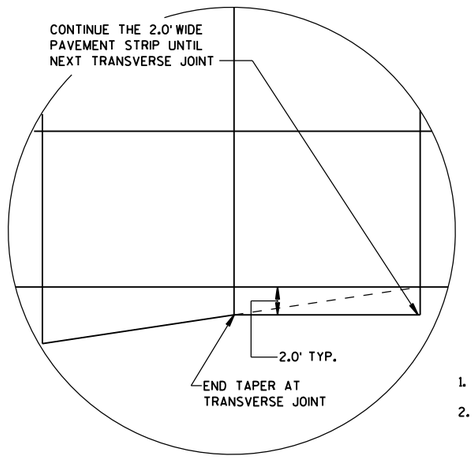
DETAIL "A"



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.

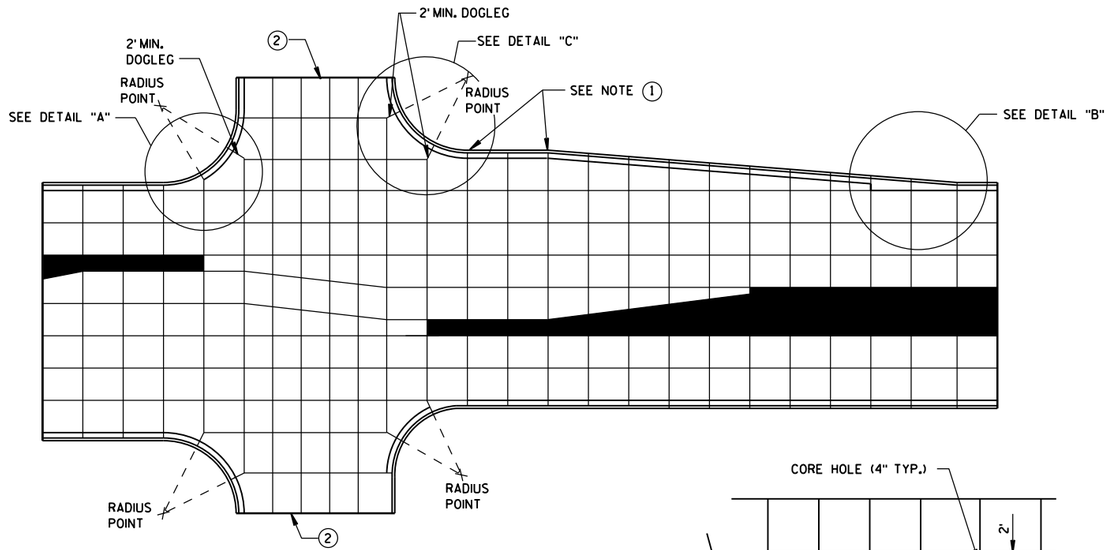
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

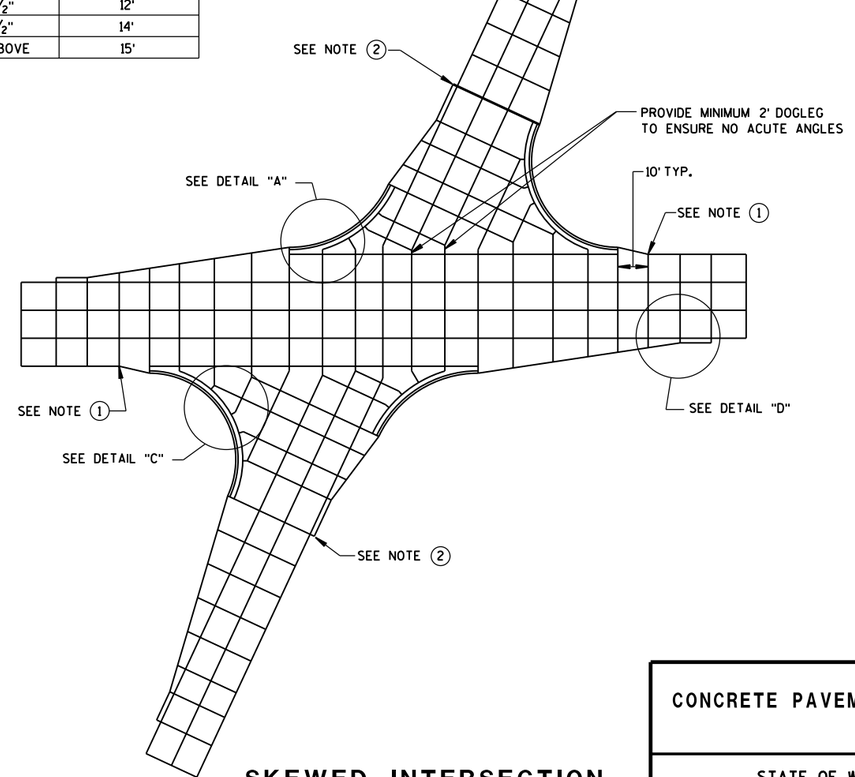
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



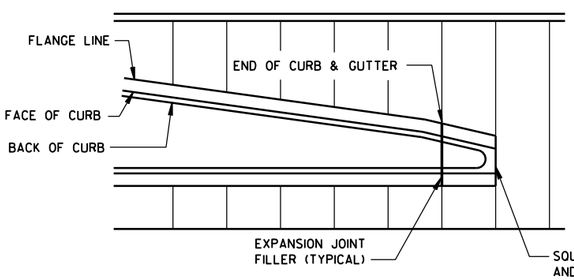
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

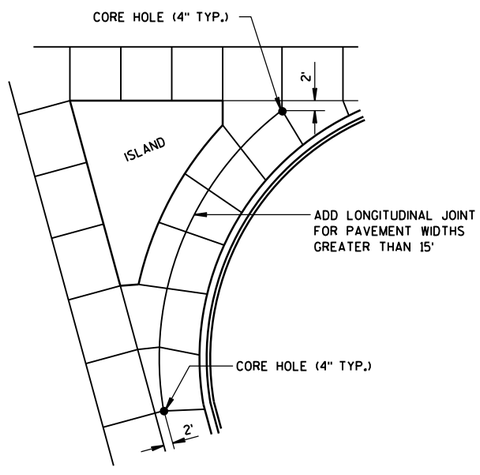
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

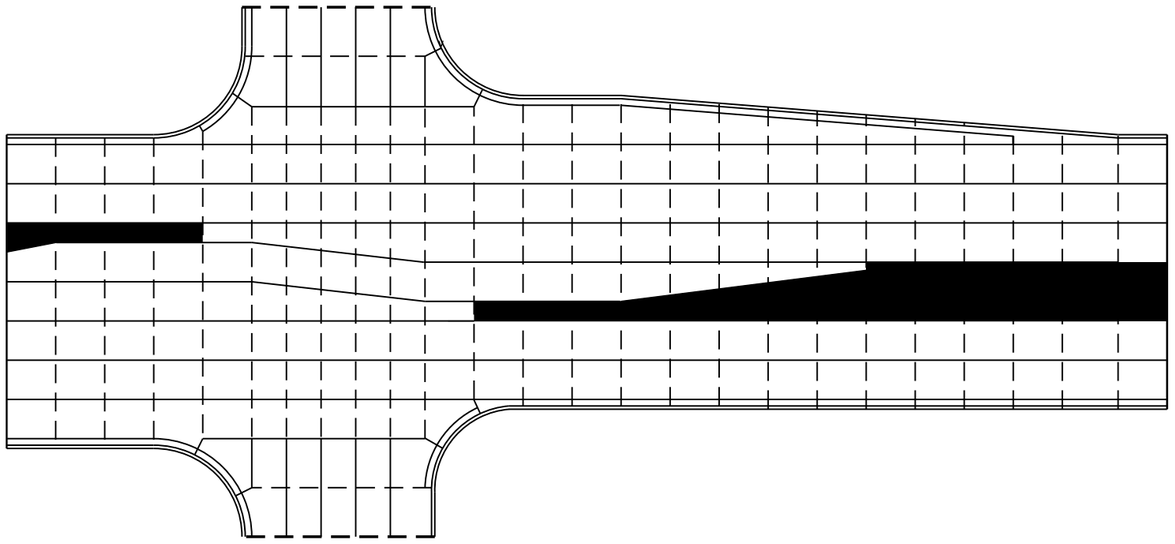
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S.D.D. 13 C 18-2a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

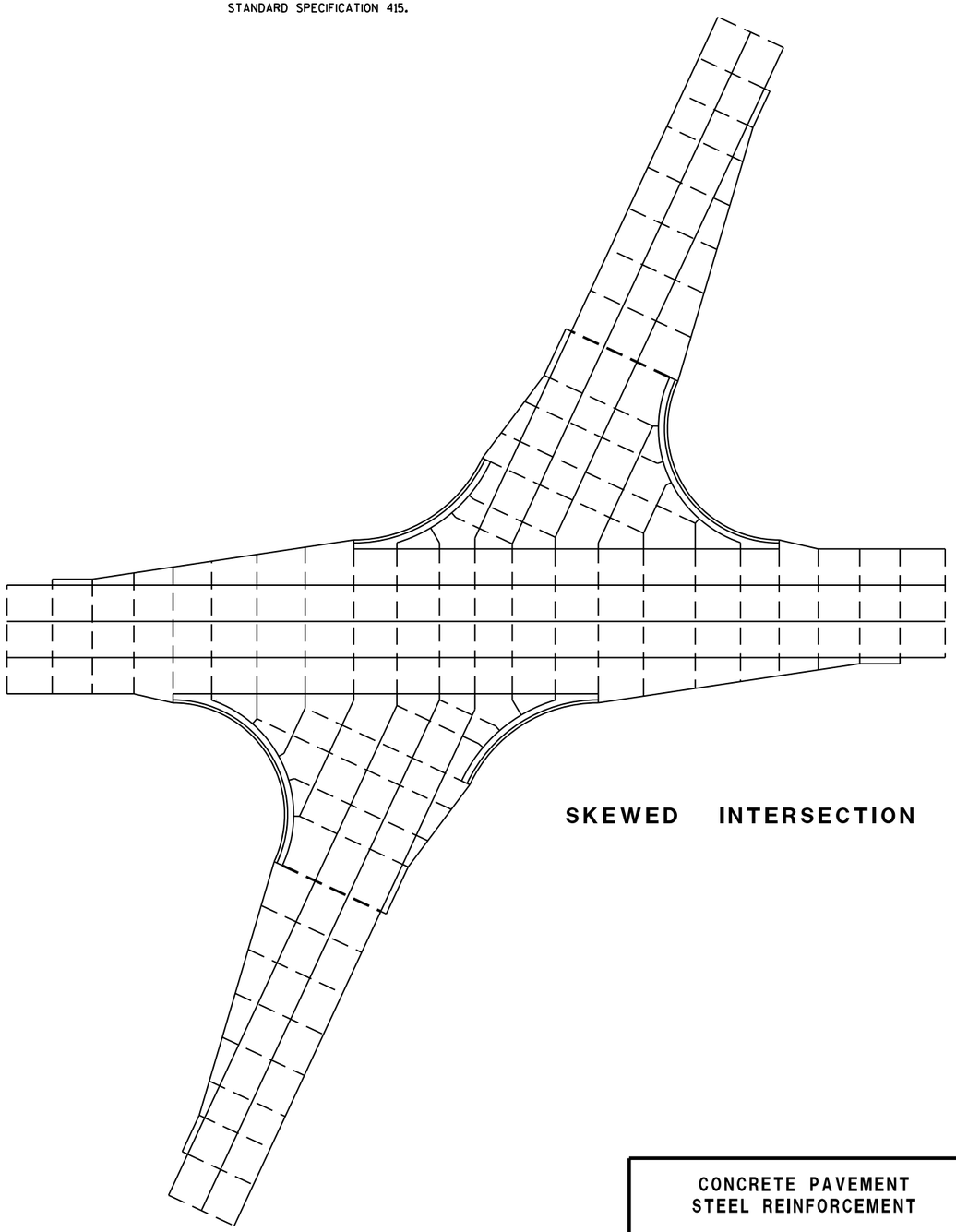
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

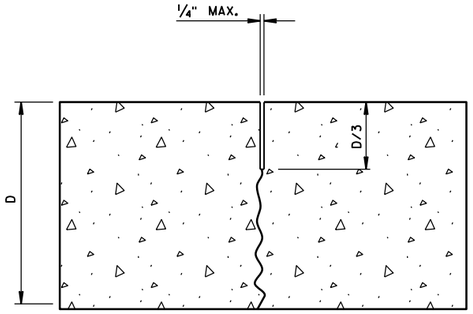
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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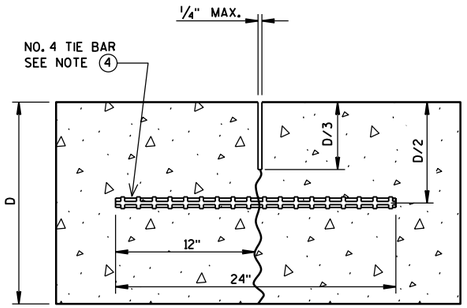
S.D.D. 13 C 18-2b

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S.D.D. 13 C 18-2b



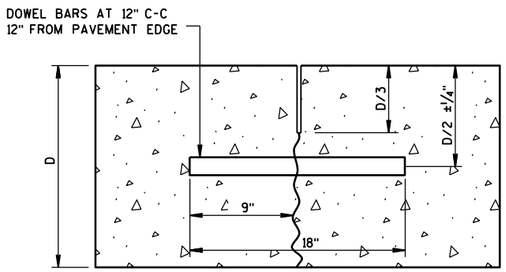
UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

GENERAL NOTES

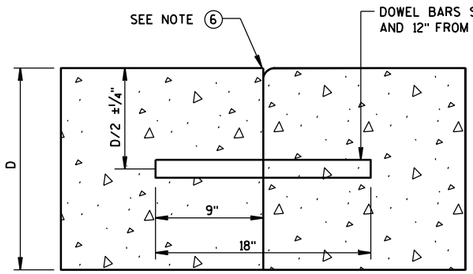
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



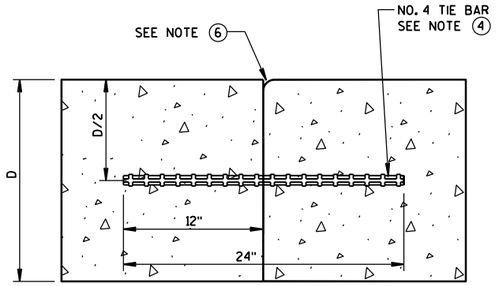
DOWELED-TRANSVERSE

CONTRACTION JOINTS

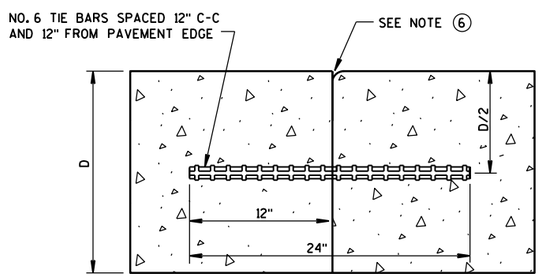
SEE NOTE (2)



DOWELED TRANSVERSE

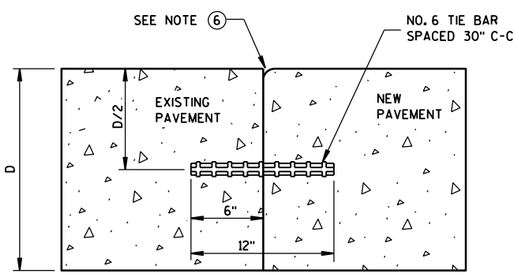


TIED LONGITUDINAL



TIED TRANSVERSE

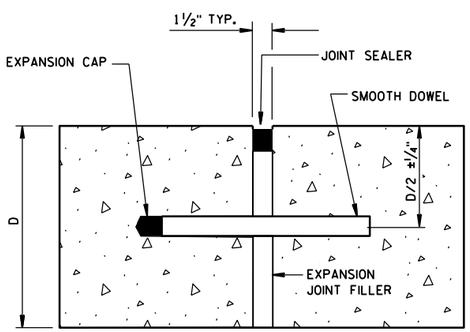
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

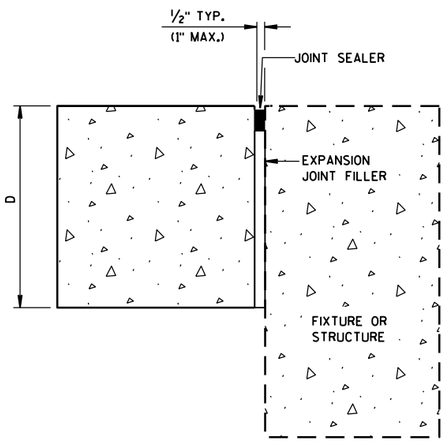
CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

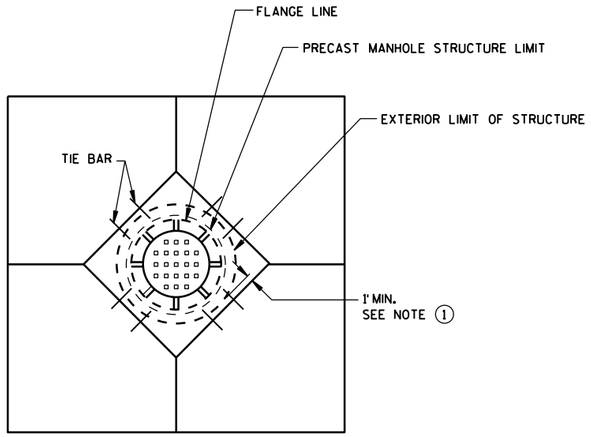
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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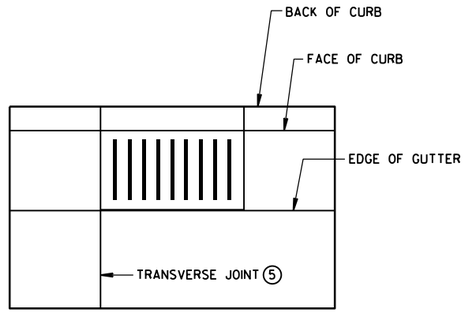
S.D.D. 13 C 18-2c

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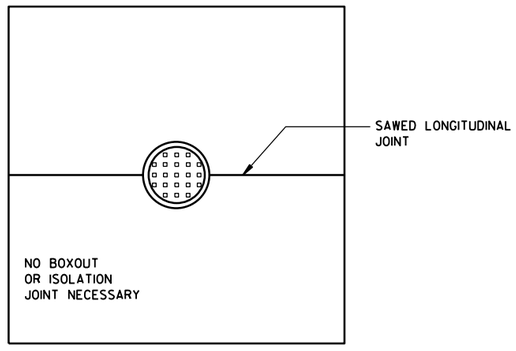
S.D.D. 13 C 18-2c



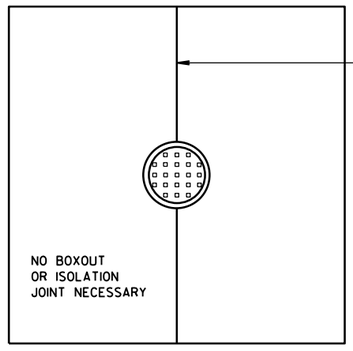
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



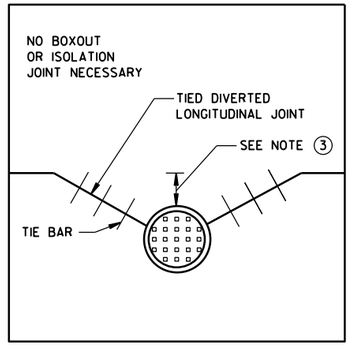
INLET WITH TRANSVERSE JOINT



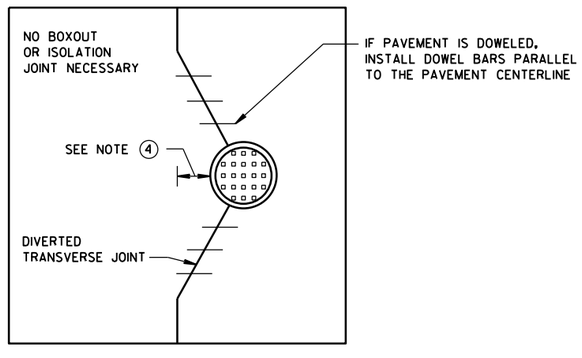
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

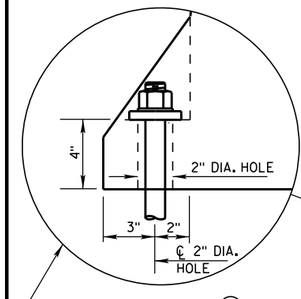
APPROVED

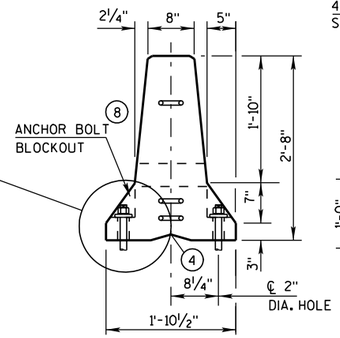
5-3-2013 DATE — /S/ Deb Bischoff PAVEMENT POLICY & DE — NEER

FHWA

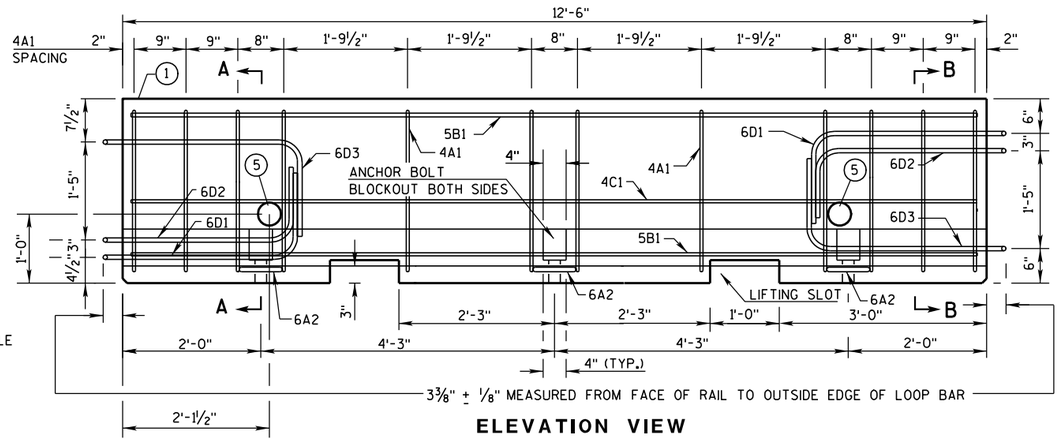
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S.D.D. 13 C 18-2d

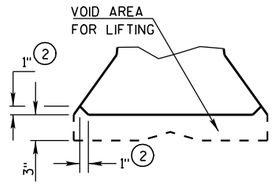




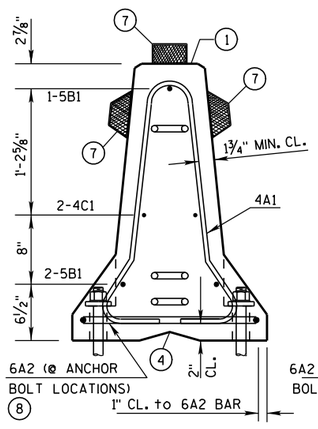
END VIEW



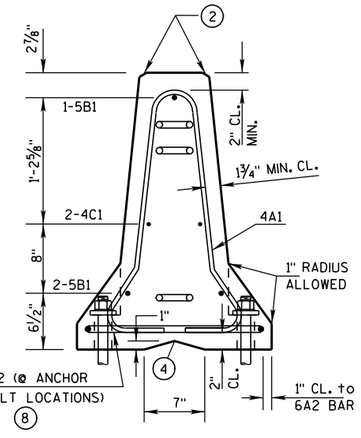
ELEVATION VIEW



DETAIL "B"
LIFTING SLOT DETAIL



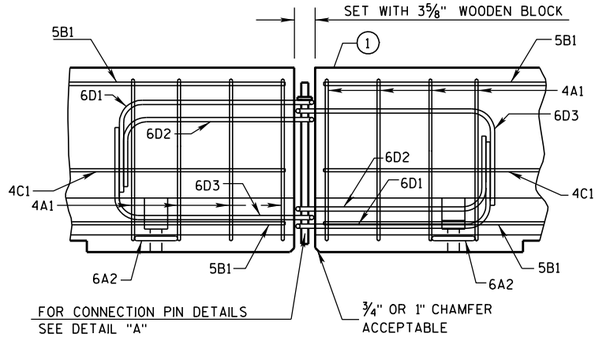
SECTION A-A
(STIRRUP PLACEMENT)



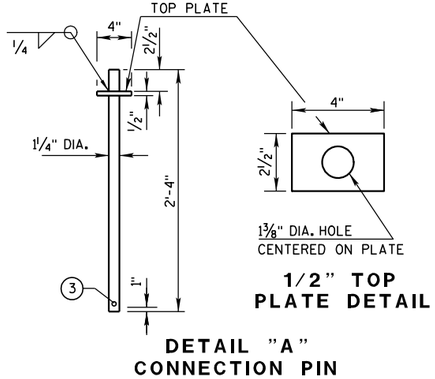
SECTION B-B
(STIRRUP PLACEMENT)

PLAN VIEW

DETAILS OF BARRIER SECTION

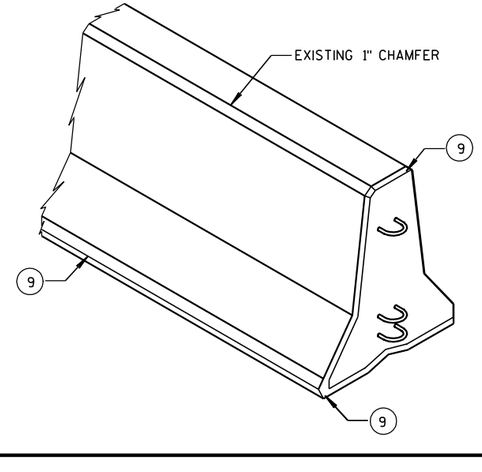


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE: WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

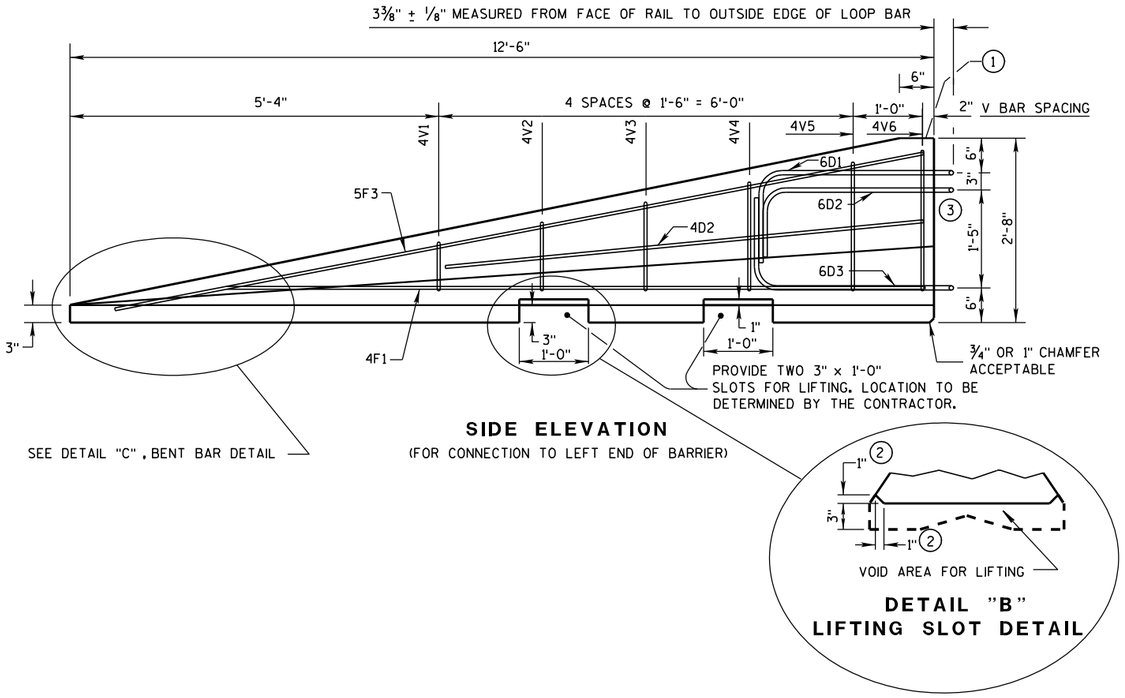
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

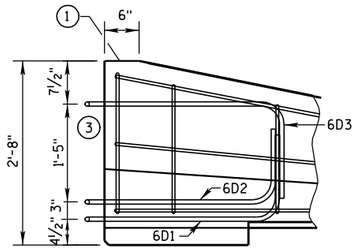
S.D.D. 14 B 7-13a



SIDE ELEVATION

(FOR CONNECTION TO LEFT END OF BARRIER)

DETAIL "B"
LIFTING SLOT DETAIL

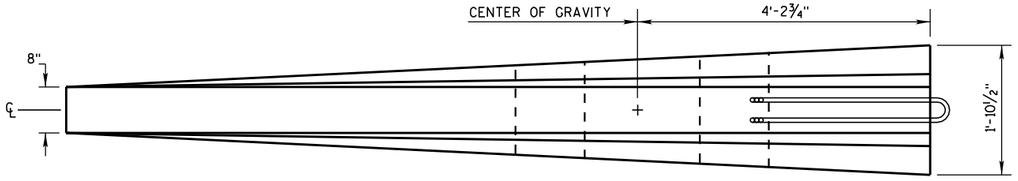


SIDE ELEVATION

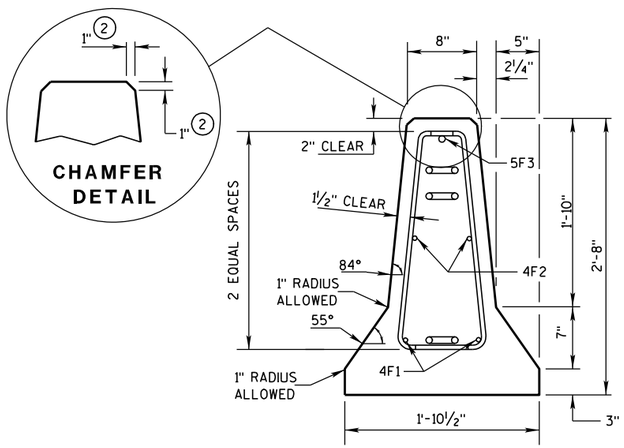
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

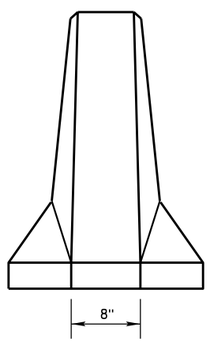
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



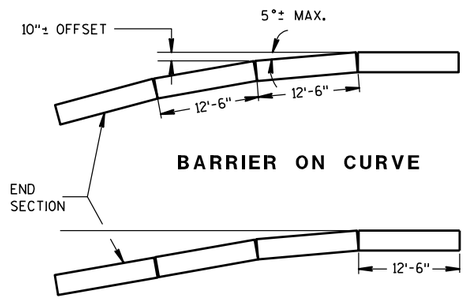
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

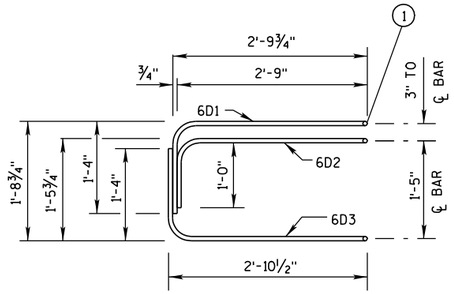
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S.D.D. 14 B 7-13b

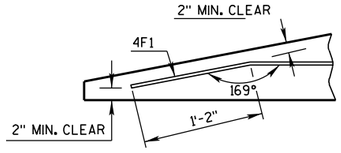
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

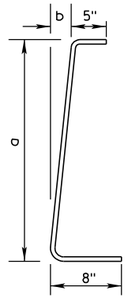
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

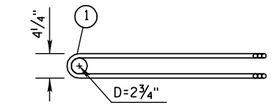
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

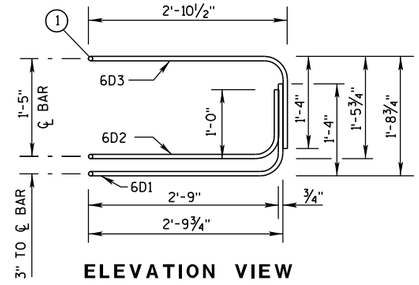
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

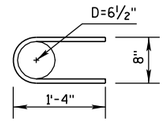
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



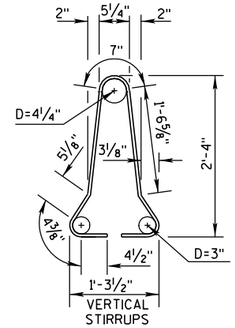
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

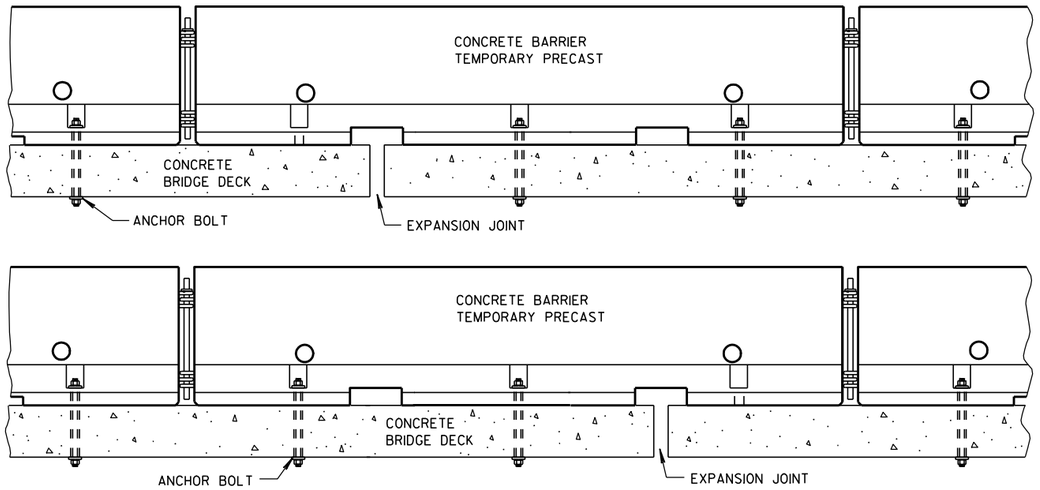
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

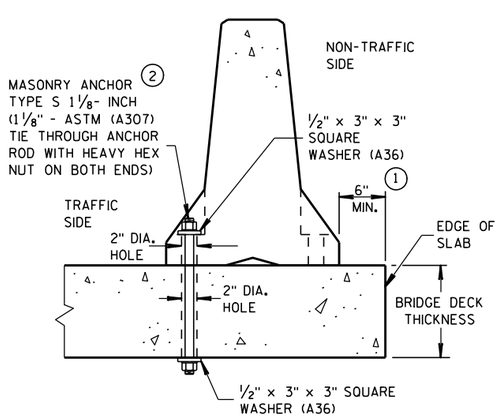
6

S.D.D. 14 B 7-13c



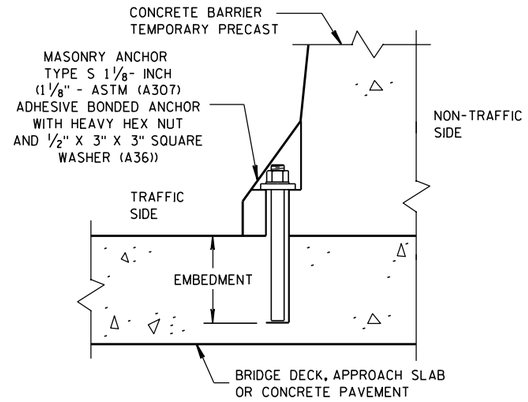
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

2

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

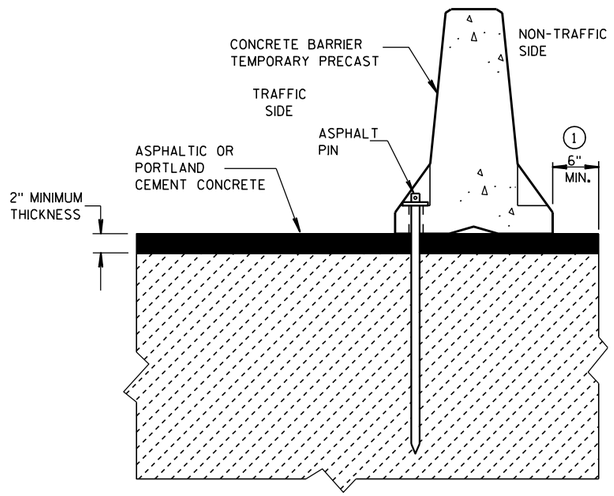
1. CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

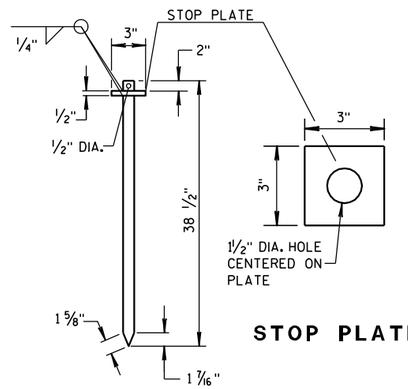
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

2. ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

   WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

   UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.



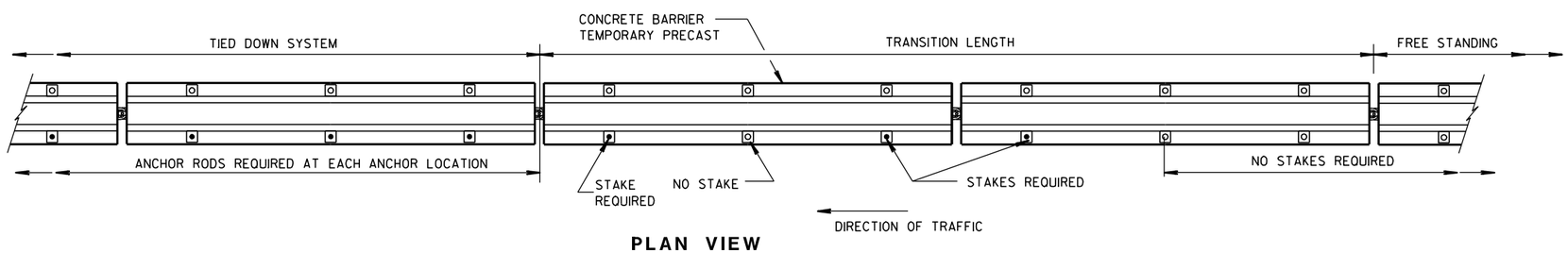


STOP PLATE

ASPHALT PIN
(ASTM A36 STEEL)

STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



PLAN VIEW

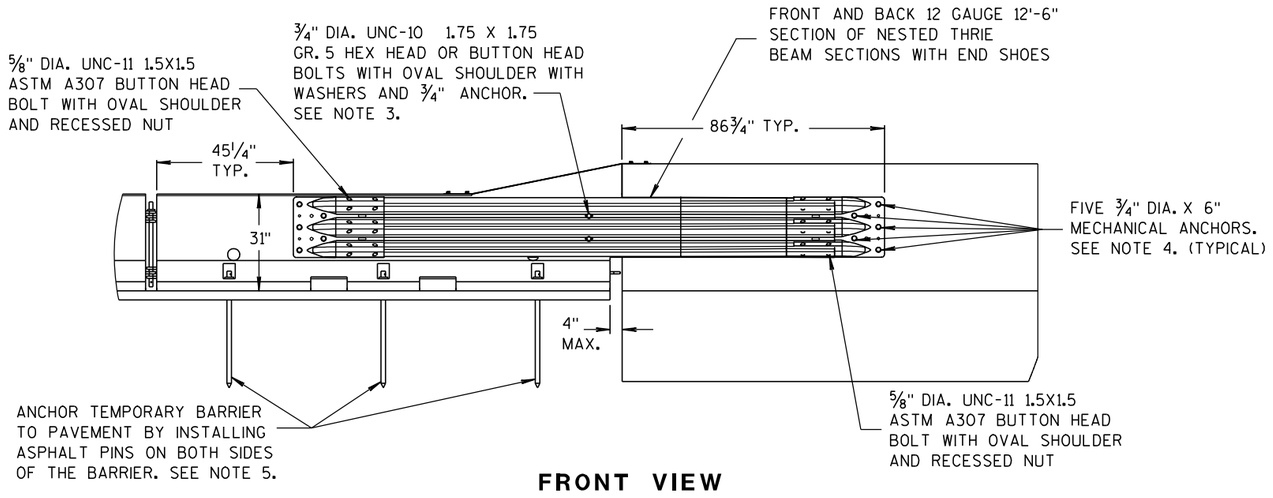
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

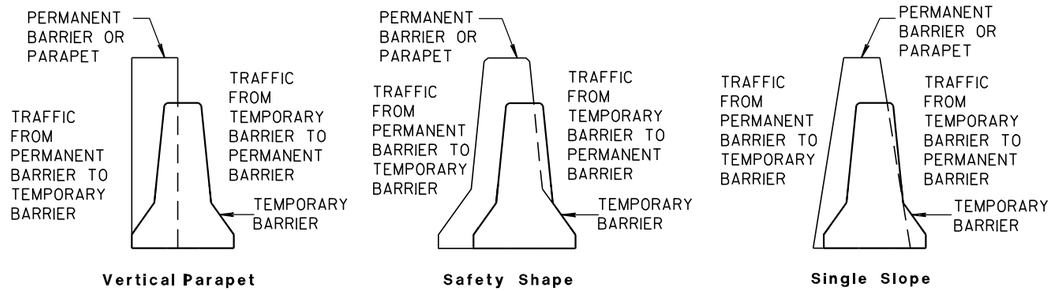
6
S.D.D. 14 B 7-13d



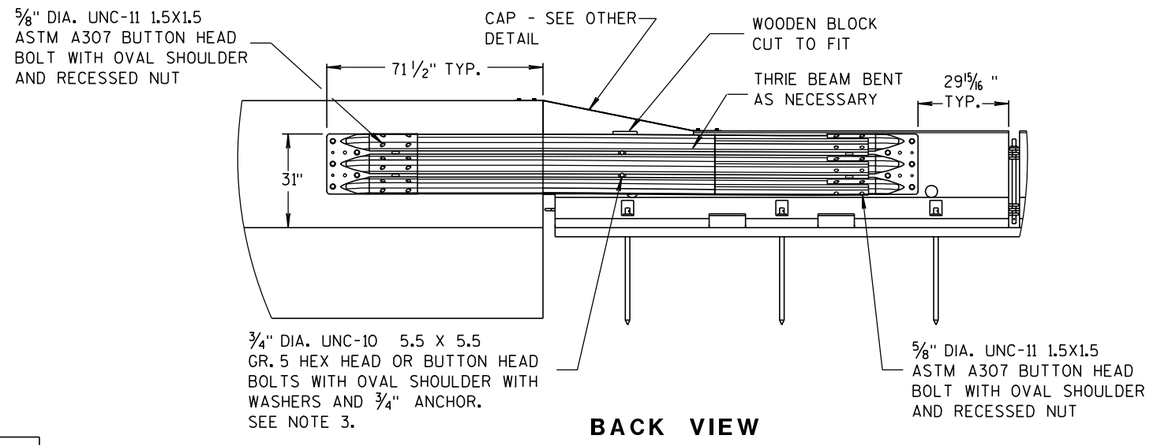
FRONT VIEW

NOTES

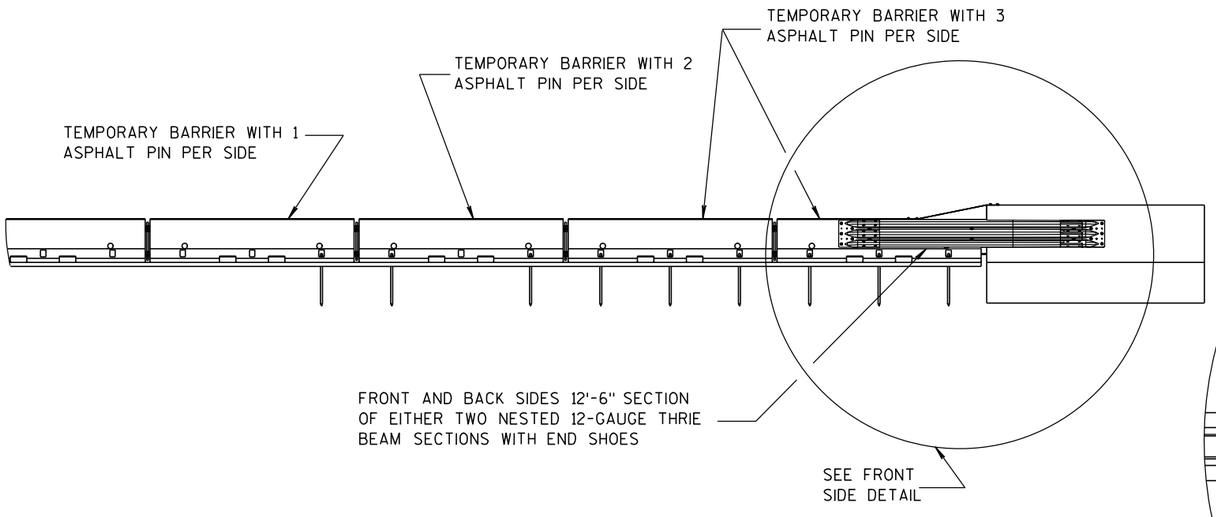
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



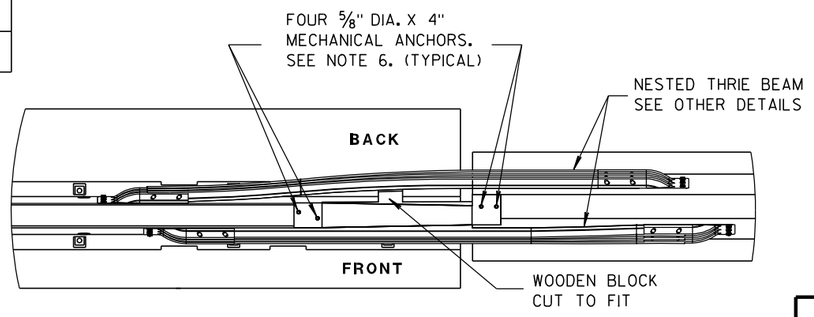
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



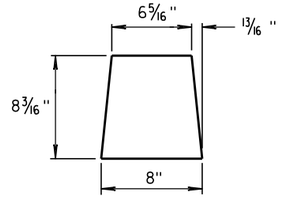
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

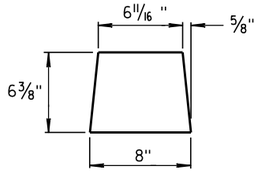
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

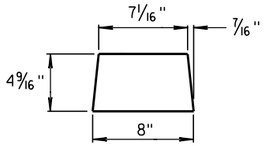
6
S.D.D. 14 B 7-13e



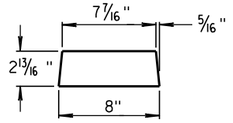
GUSSET 1



GUSSET 2

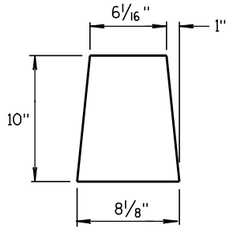


GUSSET 3

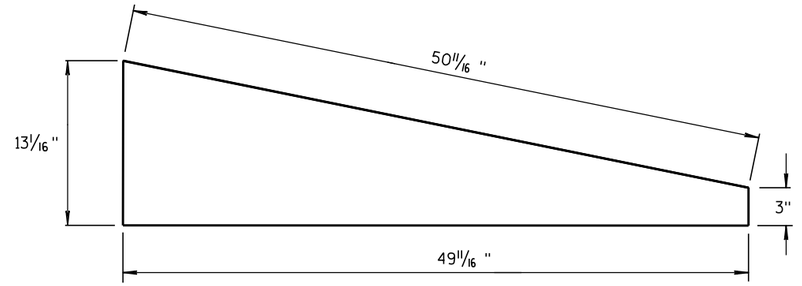


GUSSET 4

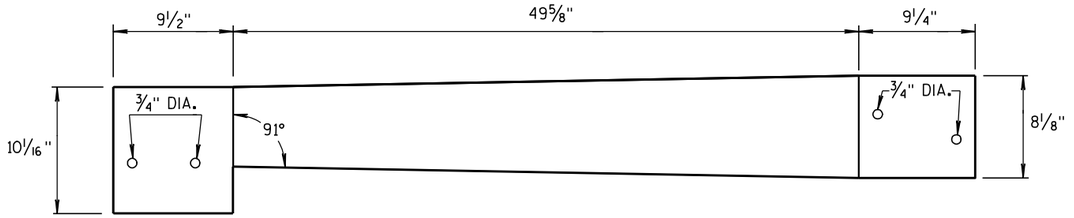
GUSSETS

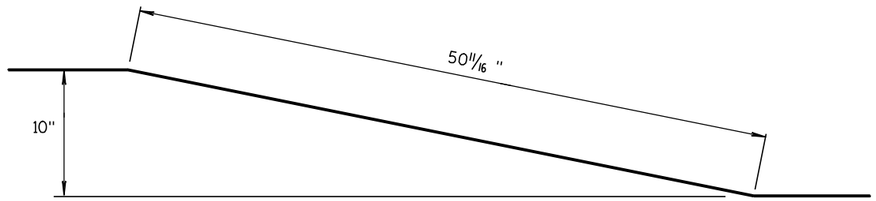


END PLATE

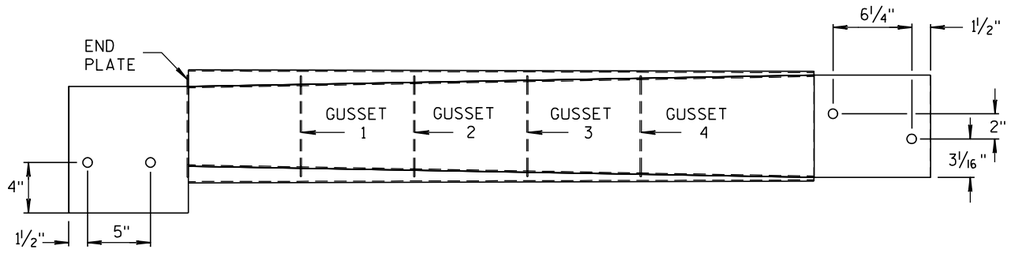


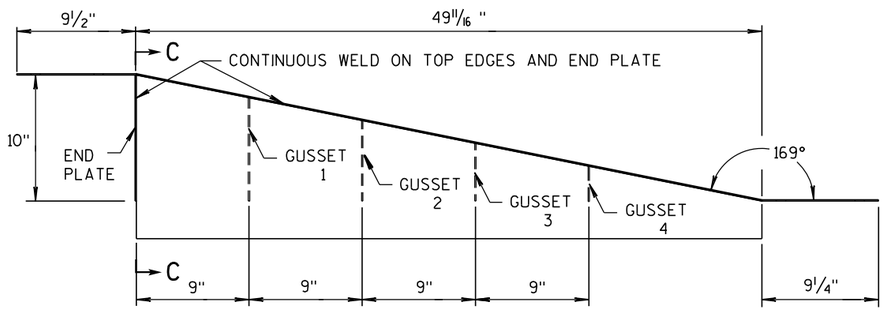
SIDE PLATE

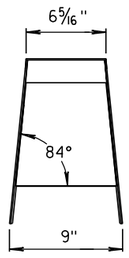




TOP PLATE







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

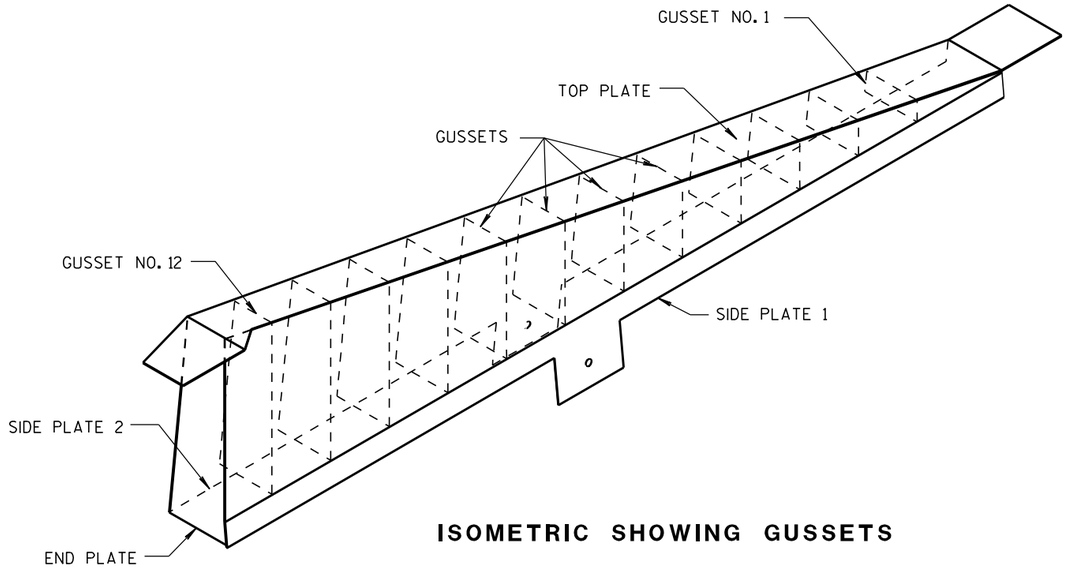
SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

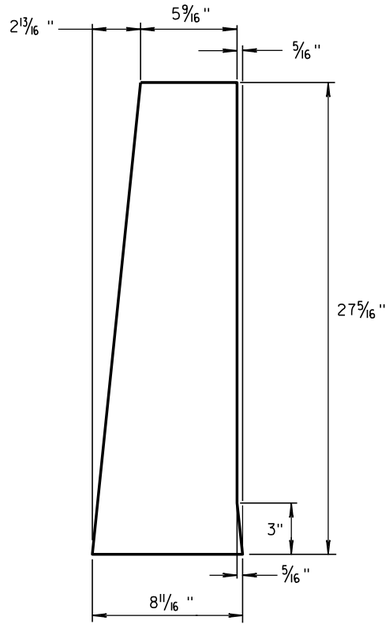
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-13f

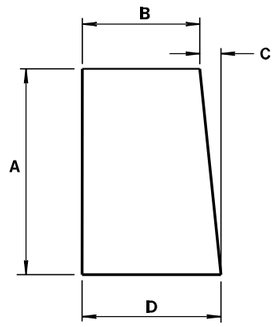


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



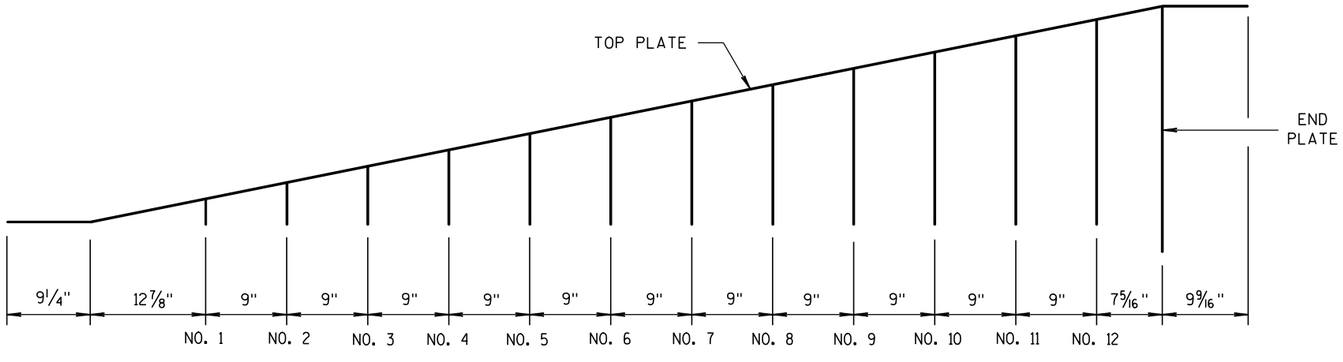
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

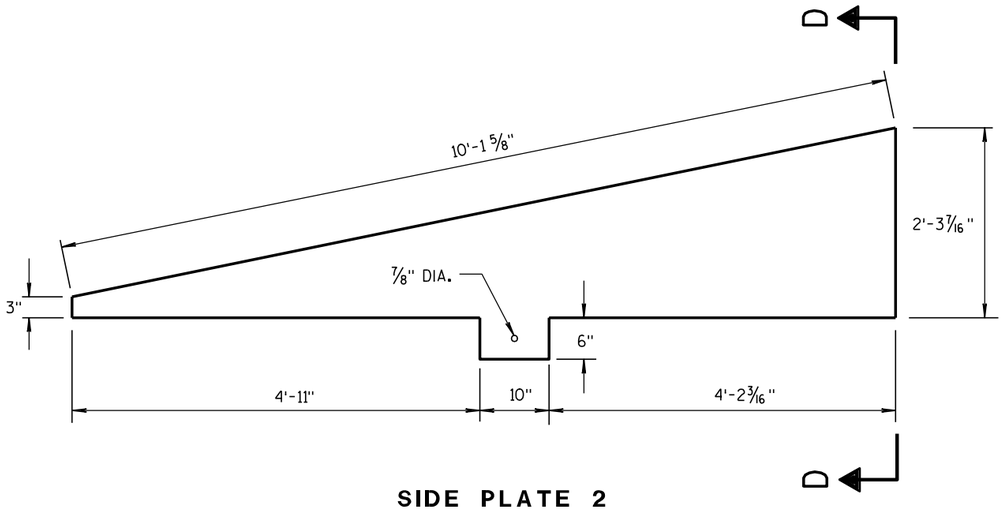
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

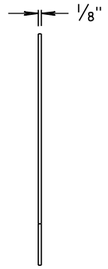
S.D.D. 14 B 7-13g

6

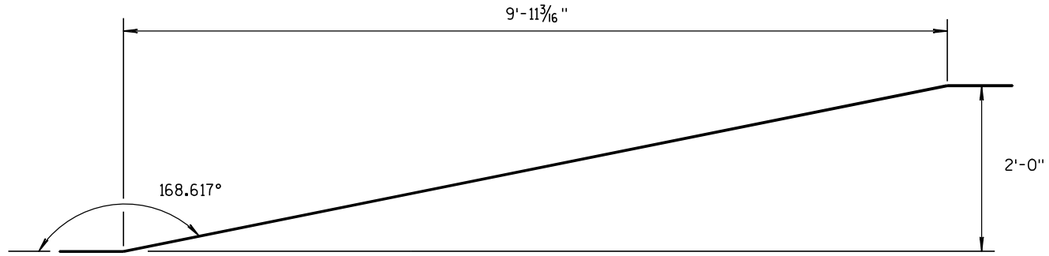
S.D.D. 14 B 7-13g



SIDE PLATE 2

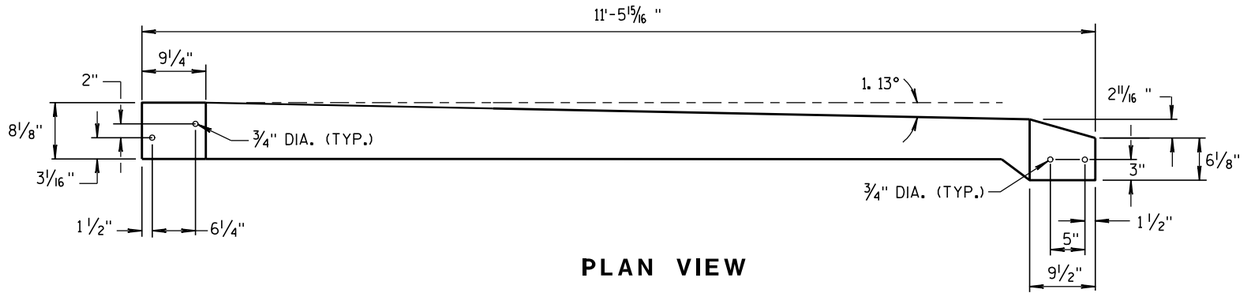


END VIEW



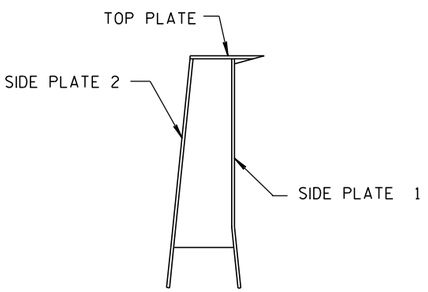
SIDE VIEW

TOP PLATE

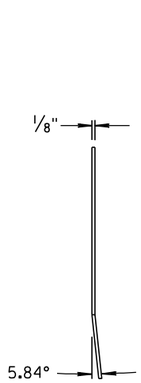


PLAN VIEW

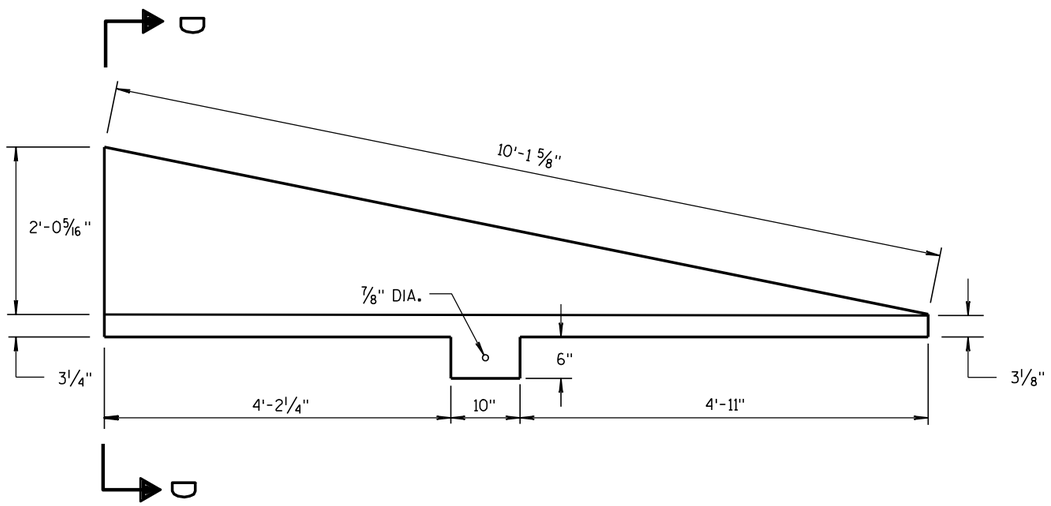
TOP PLATE



SECTION D-D



END VIEW



SIDE PLATE 1

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. ---- — ROADWAY STANDARDS ENGINEER

272 — ENT

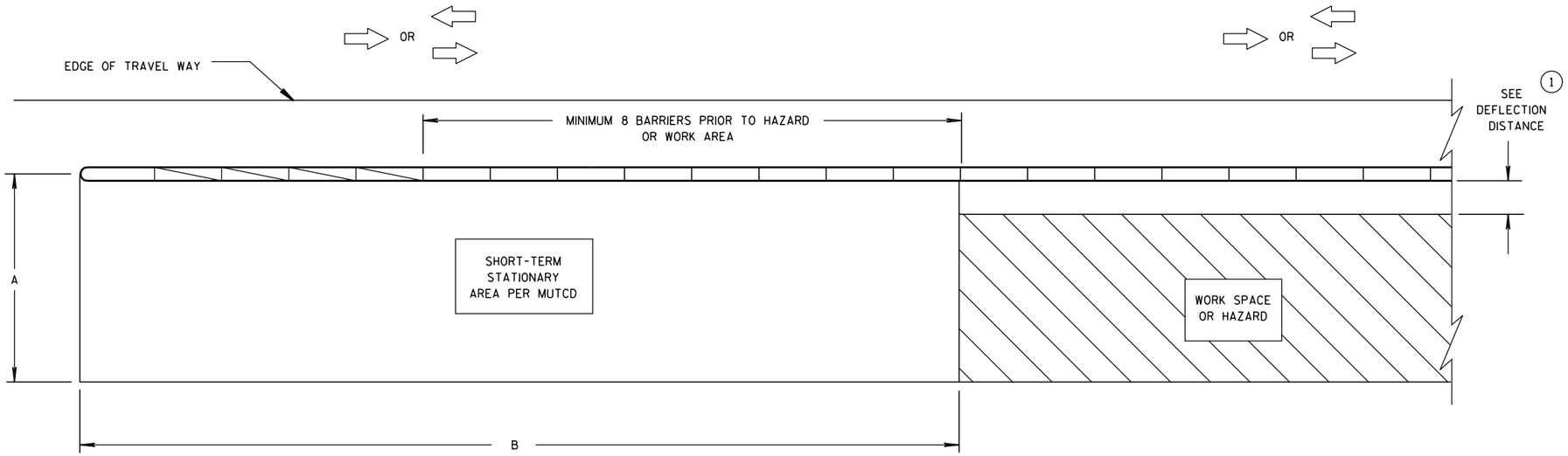
FHWA

6

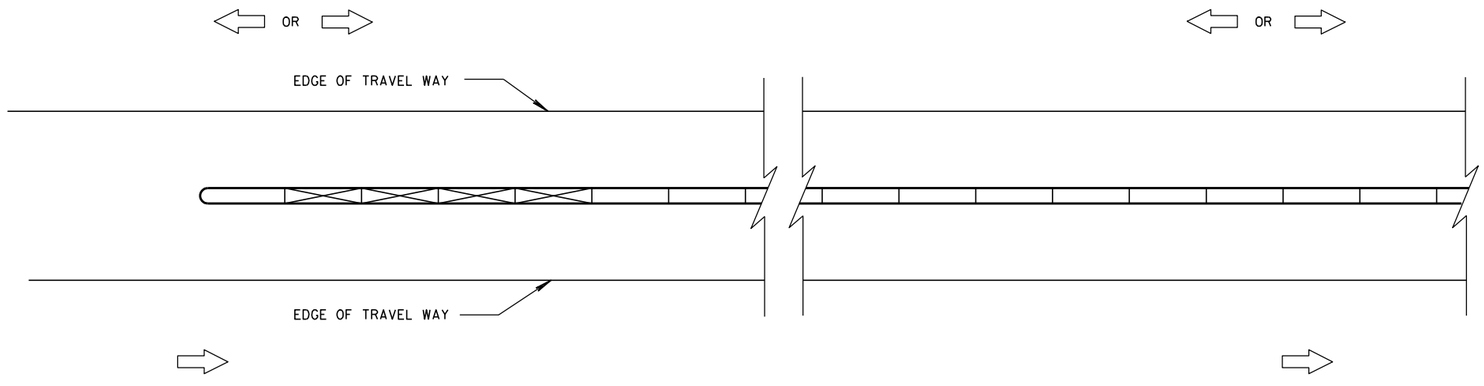
S.D.D. 14 B 7-13h

6

S.D.D. 14 B 7-13h



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

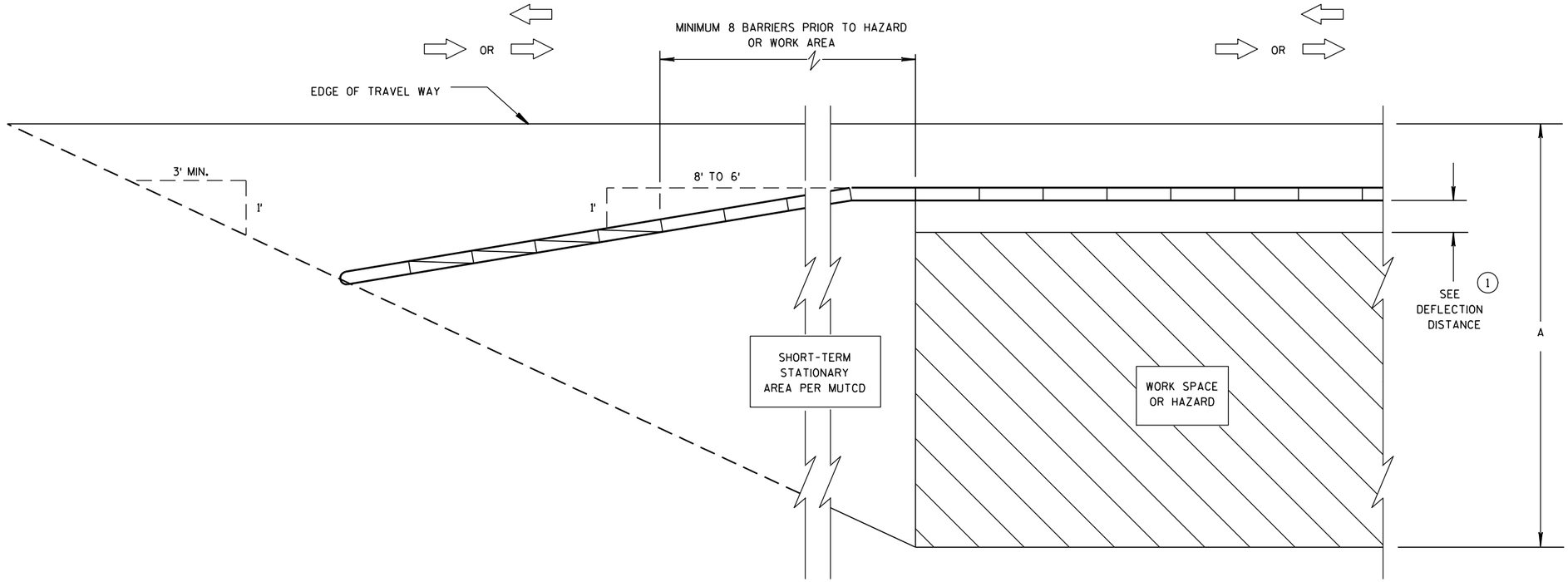
(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

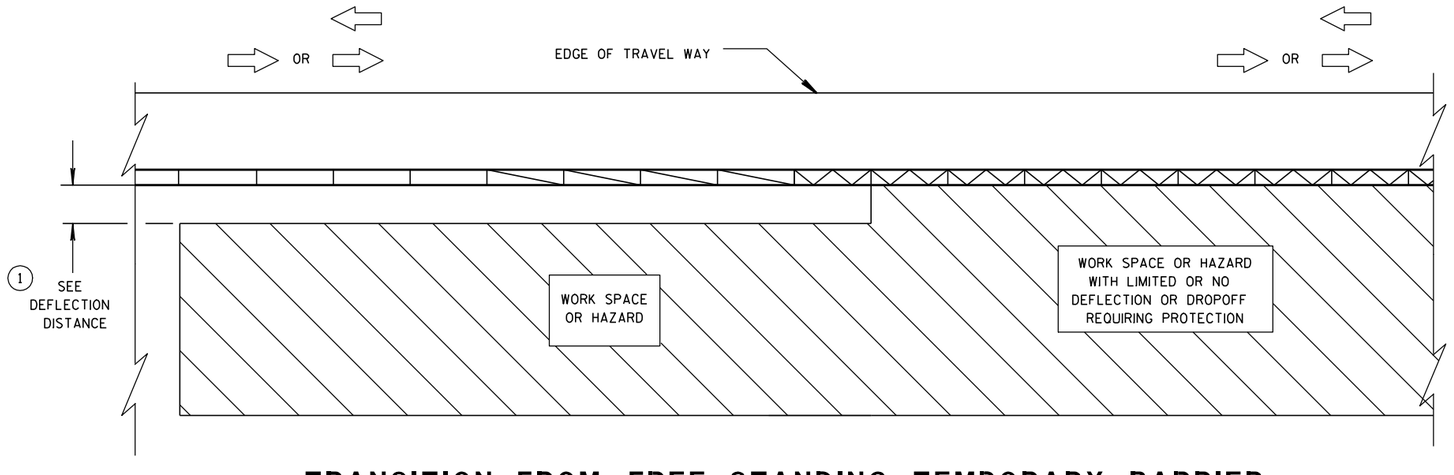
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 8-1a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

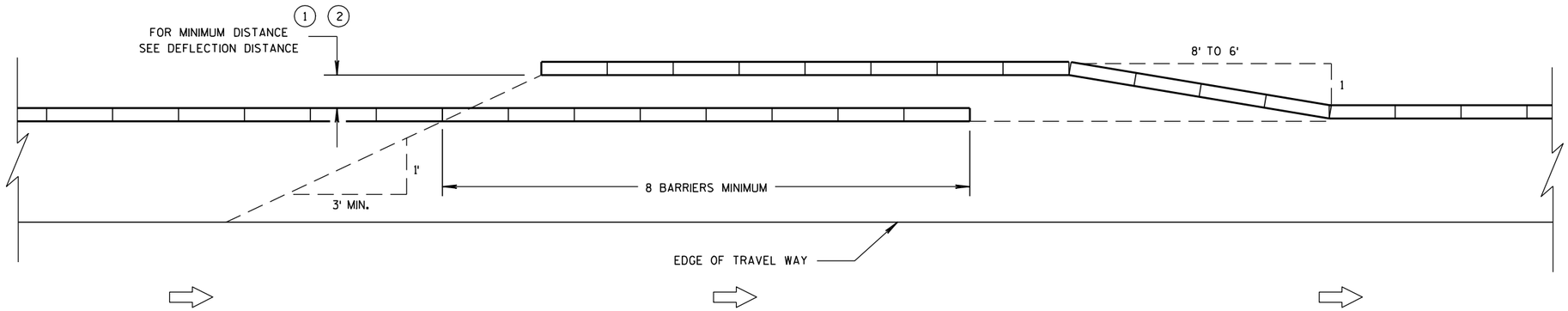
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

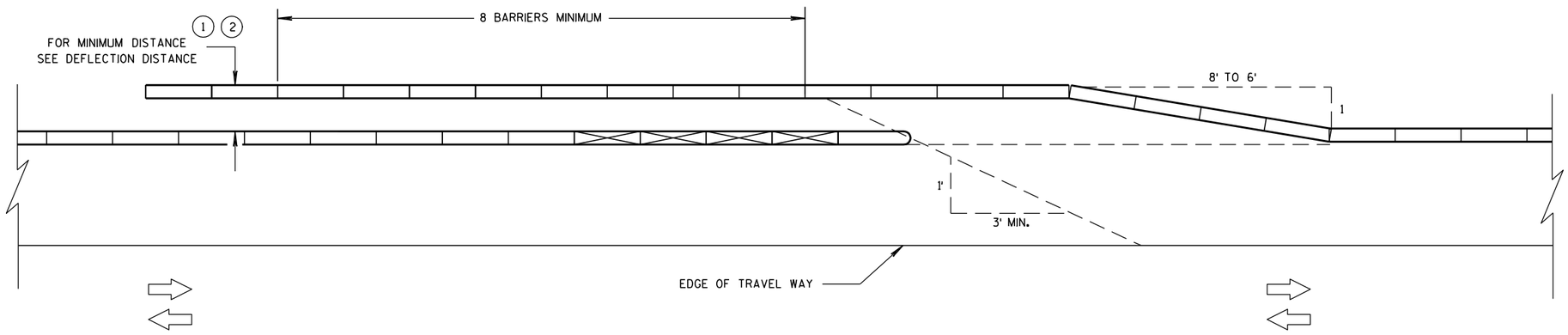
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

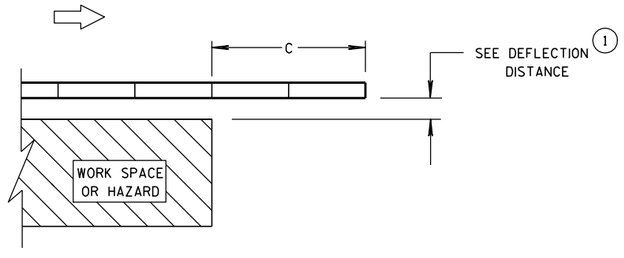
S.D.D. 14 B 8-1b



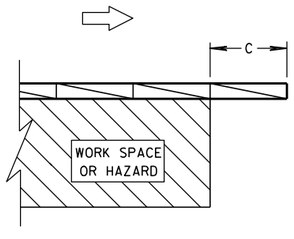
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

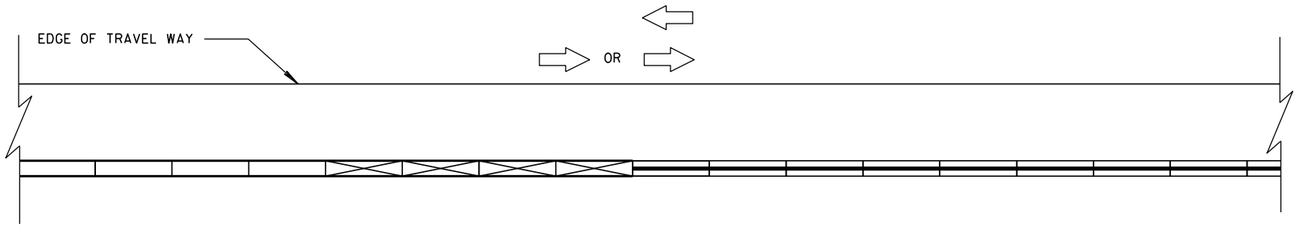
LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

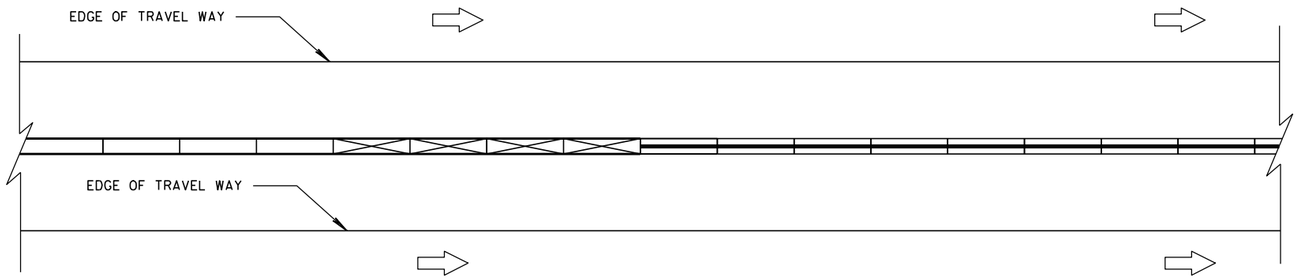
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 8-1c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

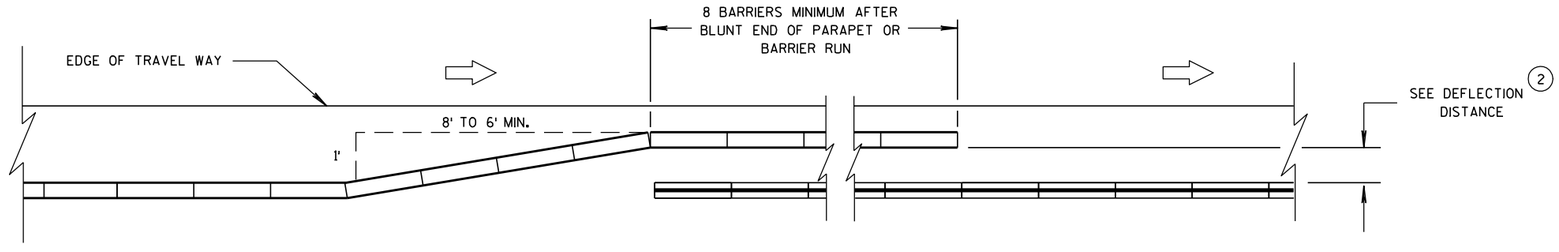
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

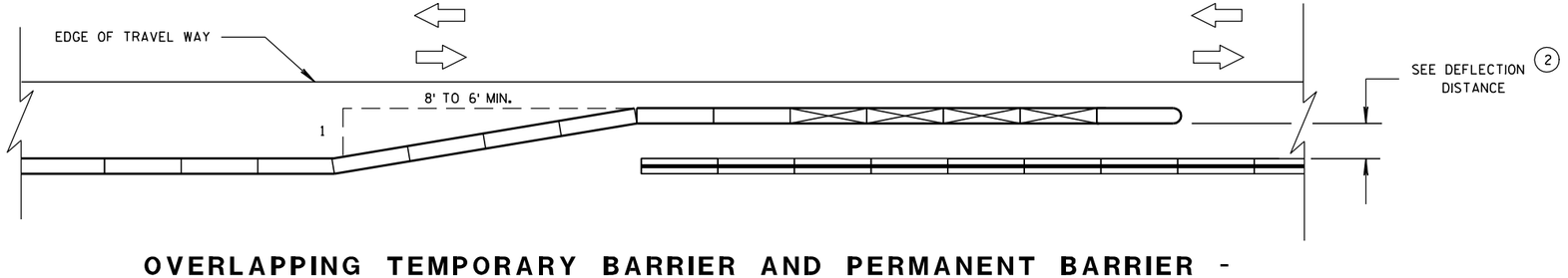
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6
S.D.D. 14 B 8-1d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

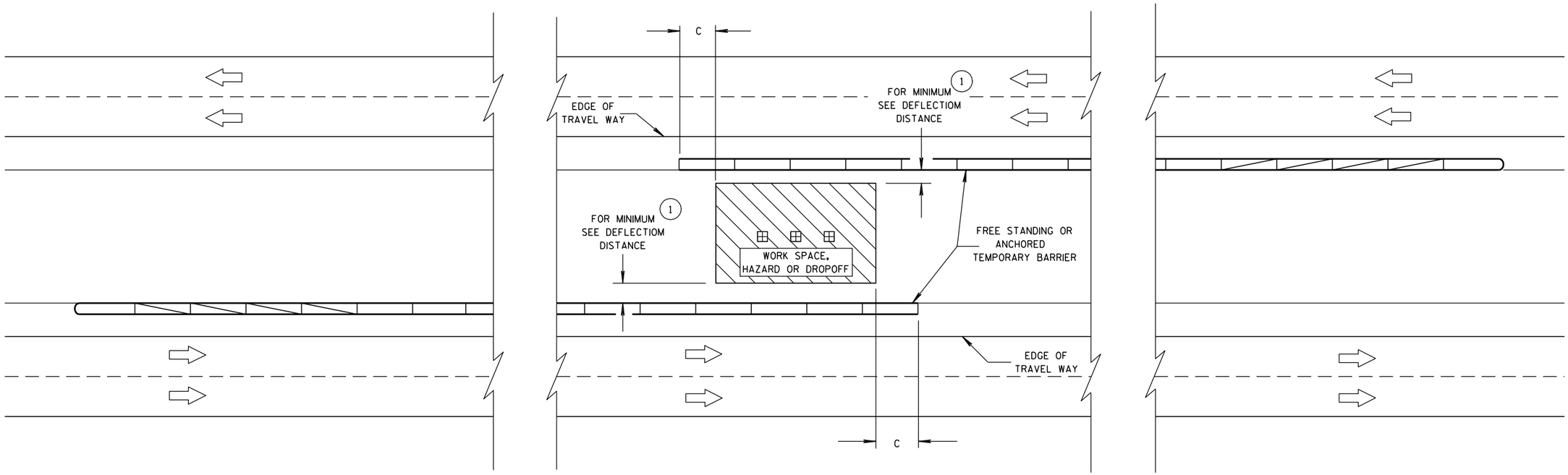
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER

277

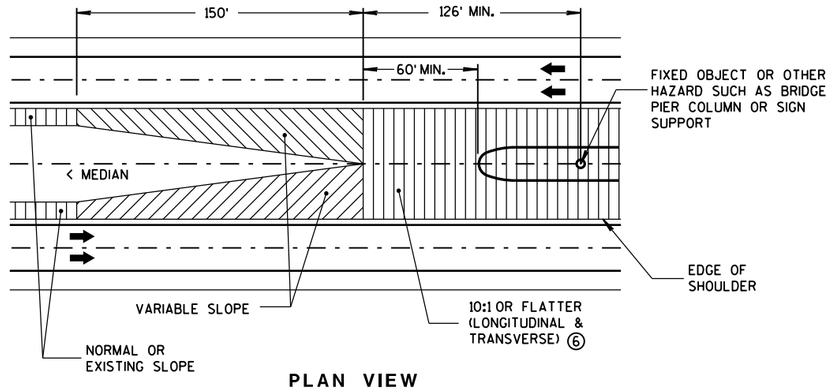
FHWA

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S.D.D. 14 B 8-1e

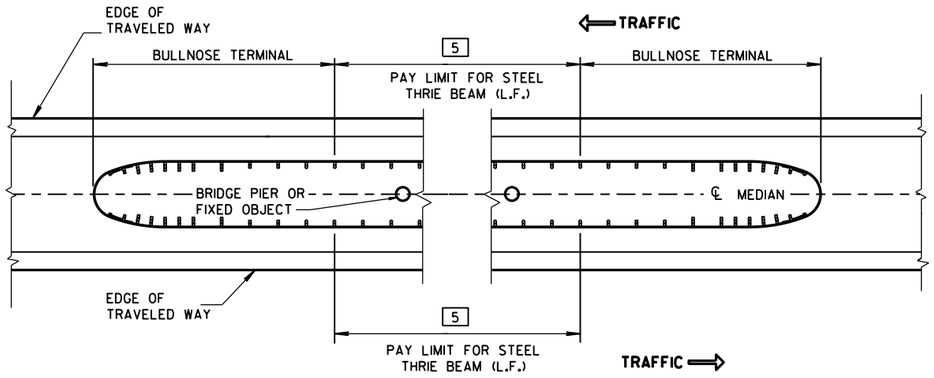
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S.D.D. 14 B 8-1e

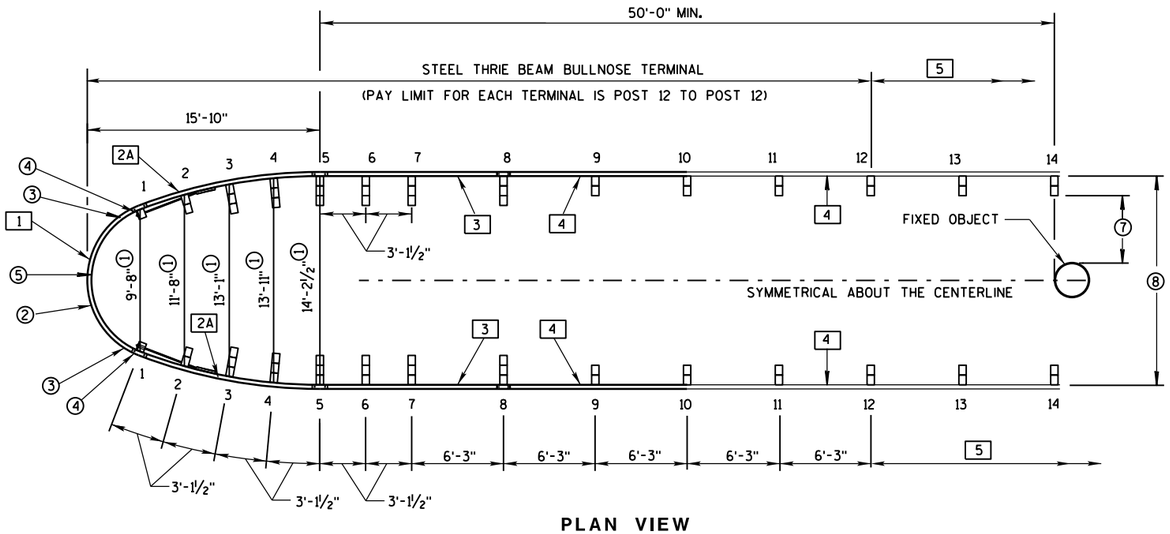


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

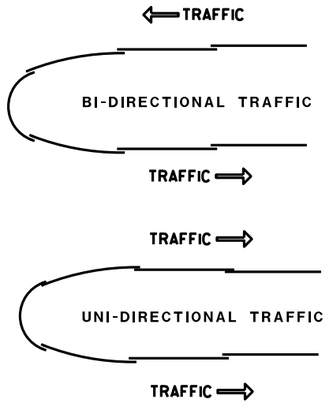


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

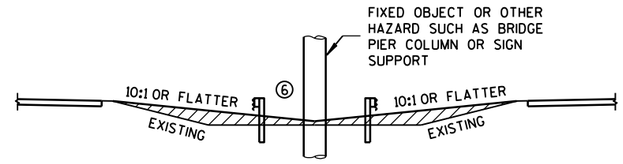
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

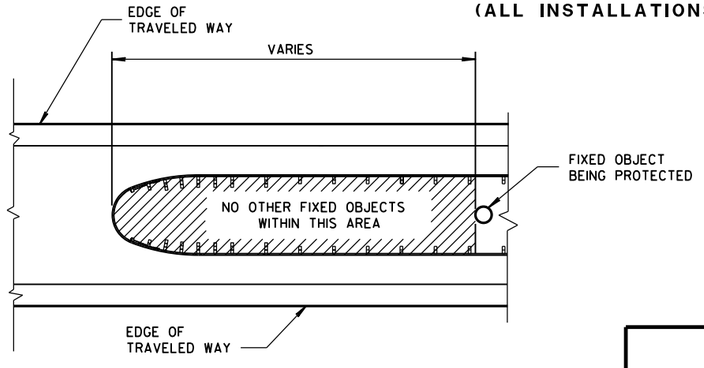
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)



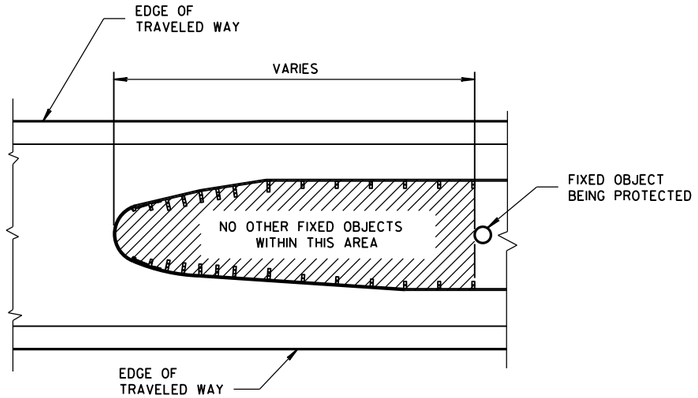
HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 26-2a



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

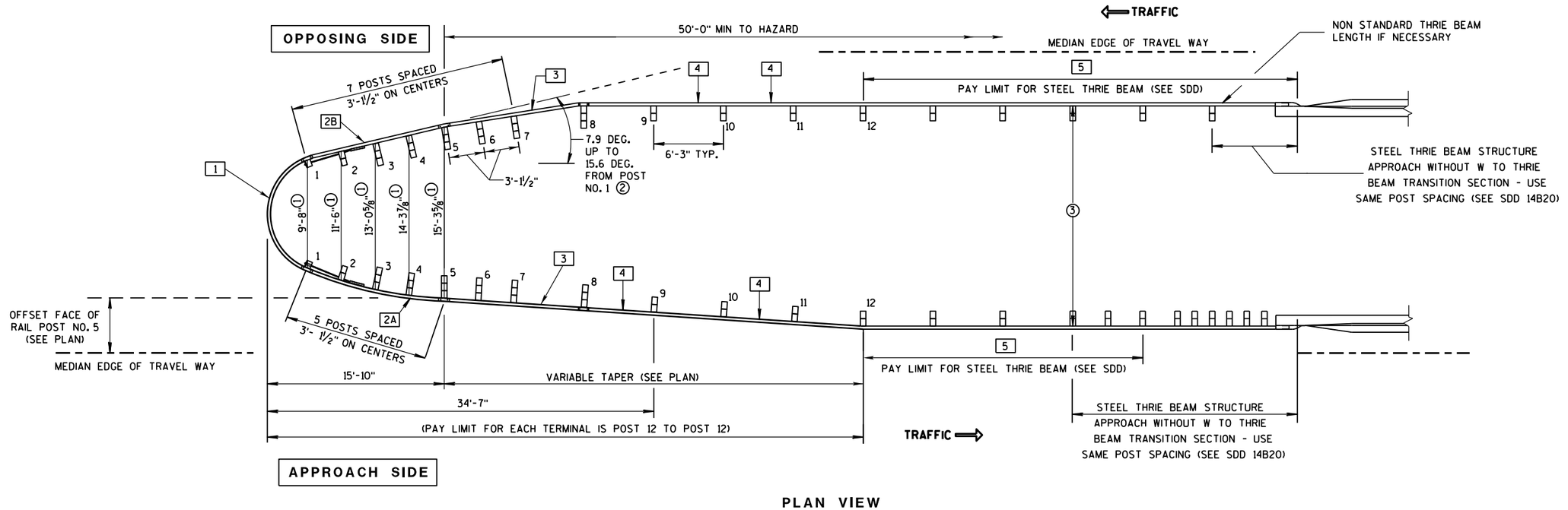
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

WIDENED BULLNOSE DESIGN

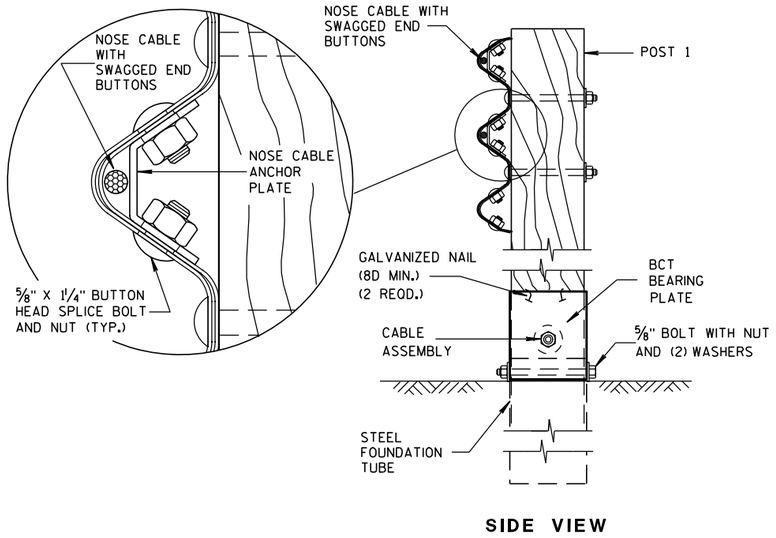
(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

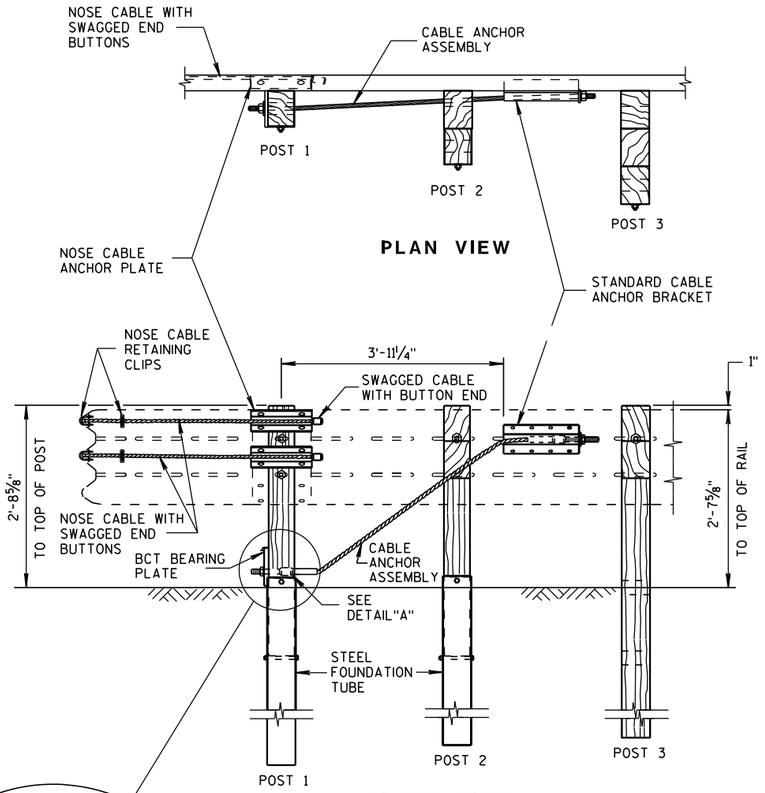
6

S.D.D. 14 B 26-2b



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



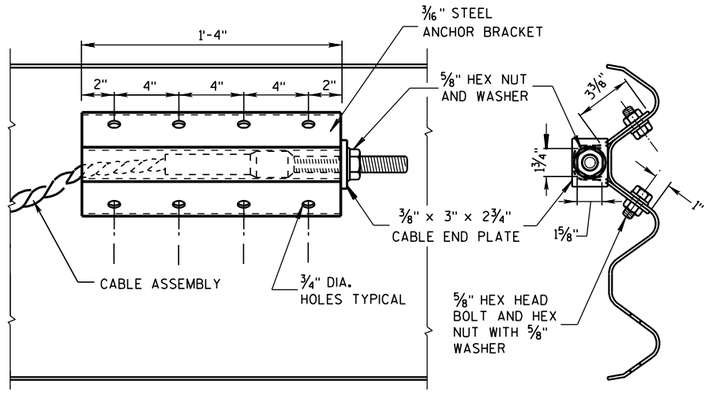
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

GENERAL NOTES

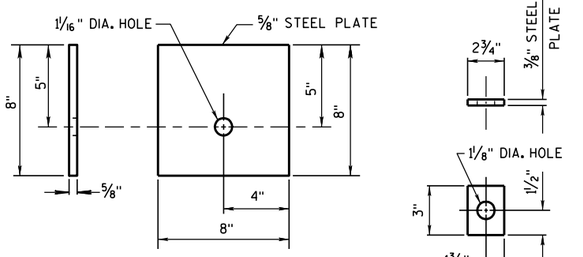
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



FRONT VIEW

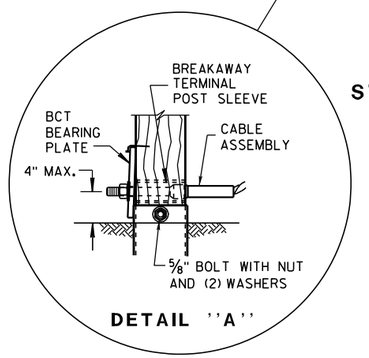
END VIEW

DETAILS OF CABLE ANCHOR BRACKET

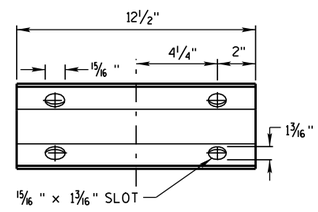


BCT BEARING PLATE

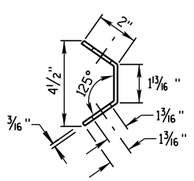
CABLE END PLATE



DETAIL ''A''



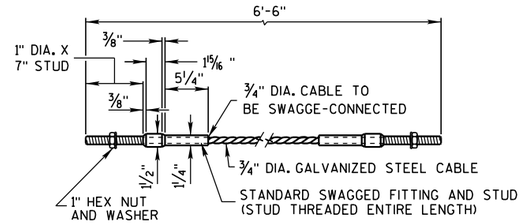
ELEVATION VIEW



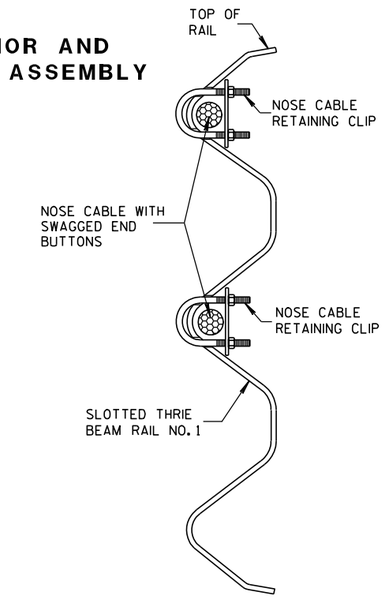
END VIEW

NOSE CABLE ANCHOR PLATE

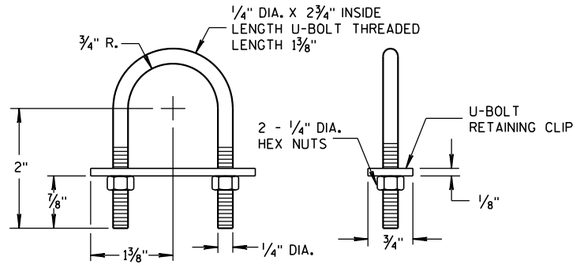
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



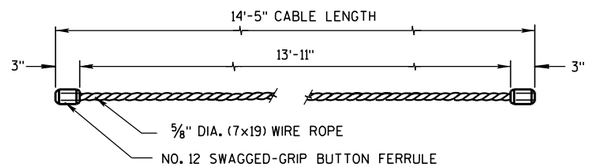
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP



NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

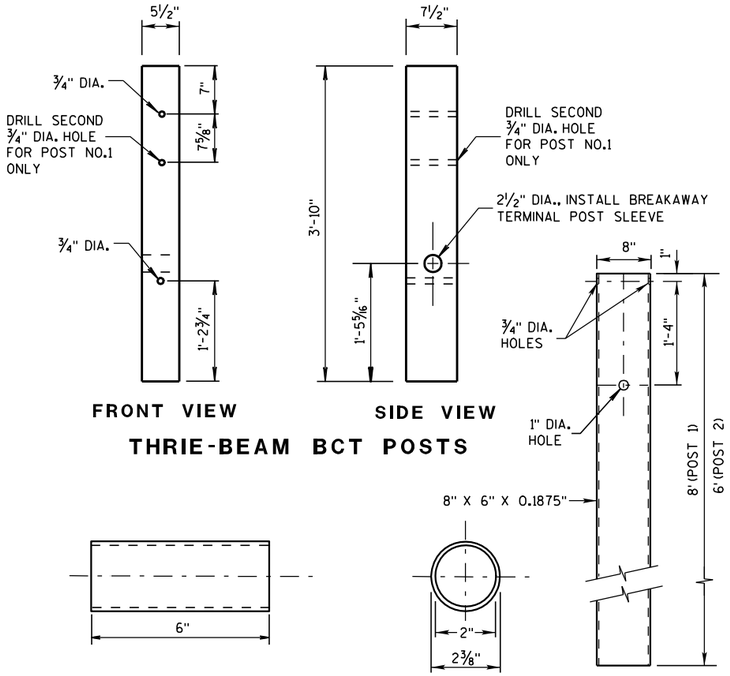
TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

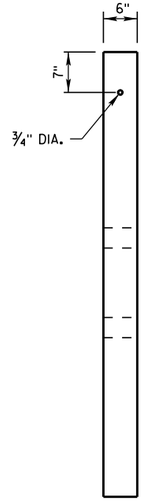
S.D.D. 14 B 26-2c

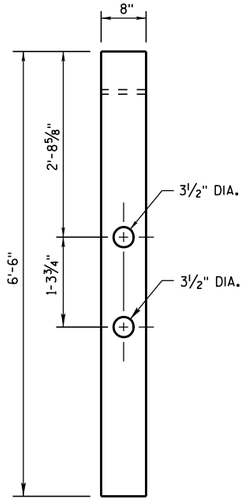


THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

STEEL FOUNDATION TUBE

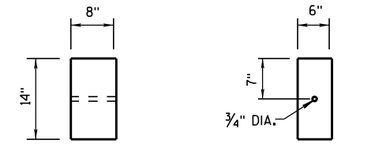




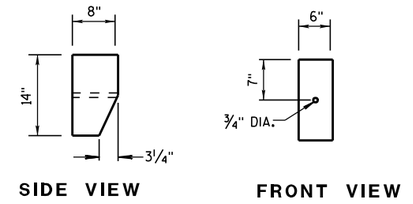
THRIE-BEAM CRT WOOD POSTS

GENERAL NOTES

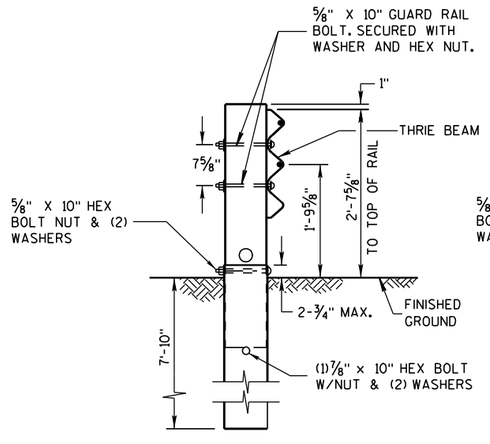
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



STANDARD WOOD BLOCK

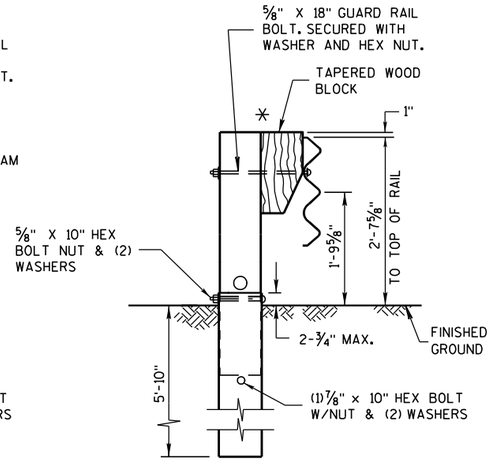


TAPERED WOOD BLOCK



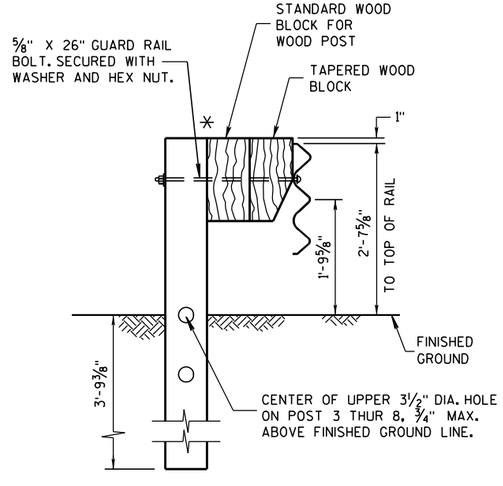
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



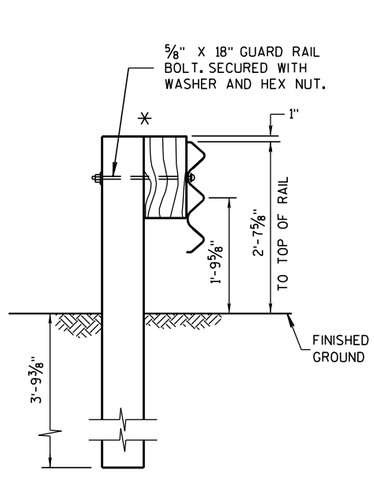
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12

(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

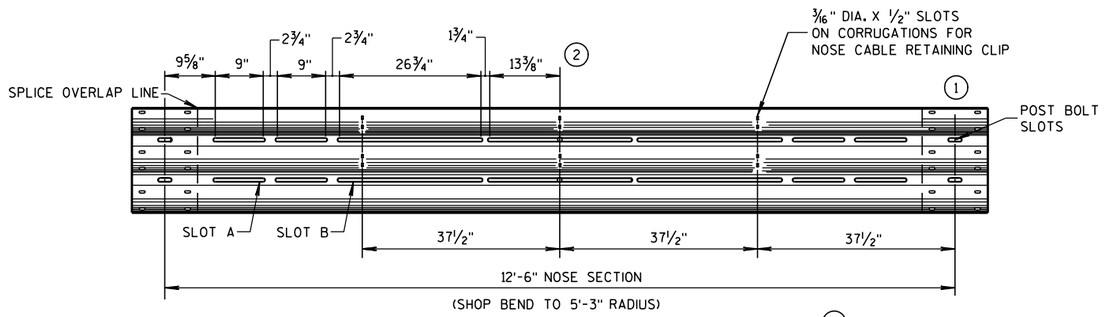
✳ IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

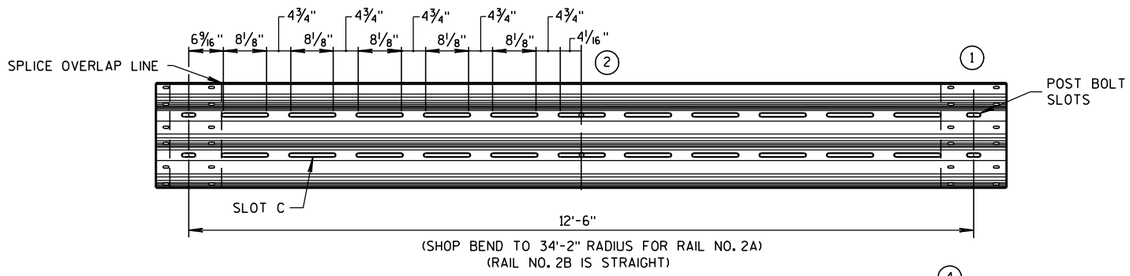
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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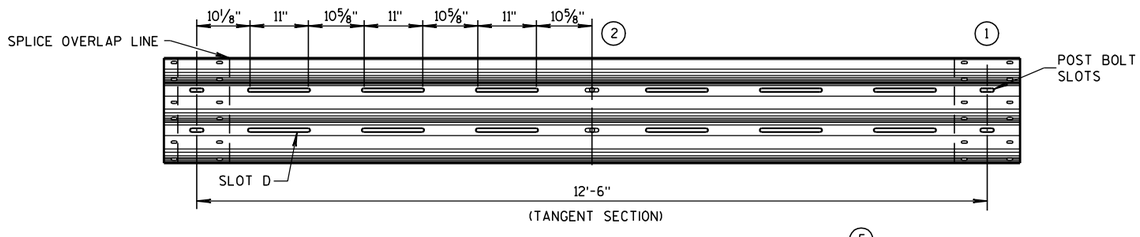
S.D.D. 14 B 26-2d



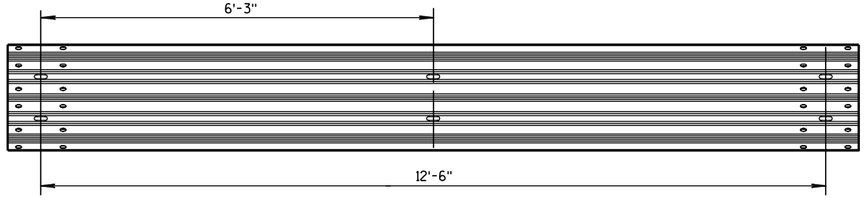
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

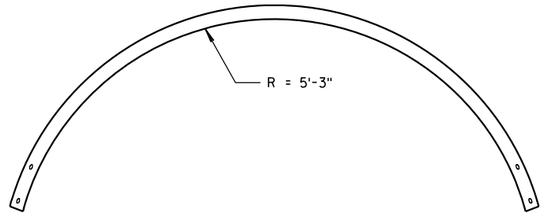
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

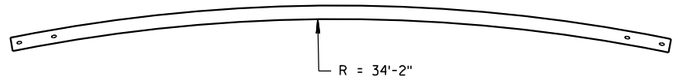
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



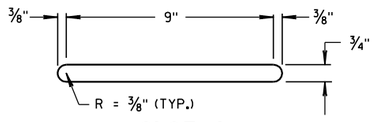
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

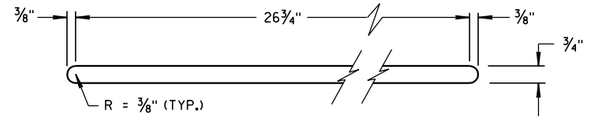


PLAN VIEW

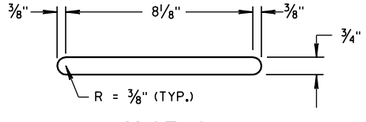
SLOTTED THRIE BEAM RAIL NO. 2A



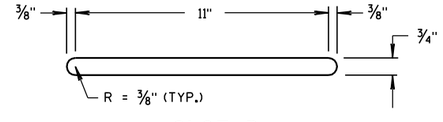
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM BULLNOSE TERMINAL

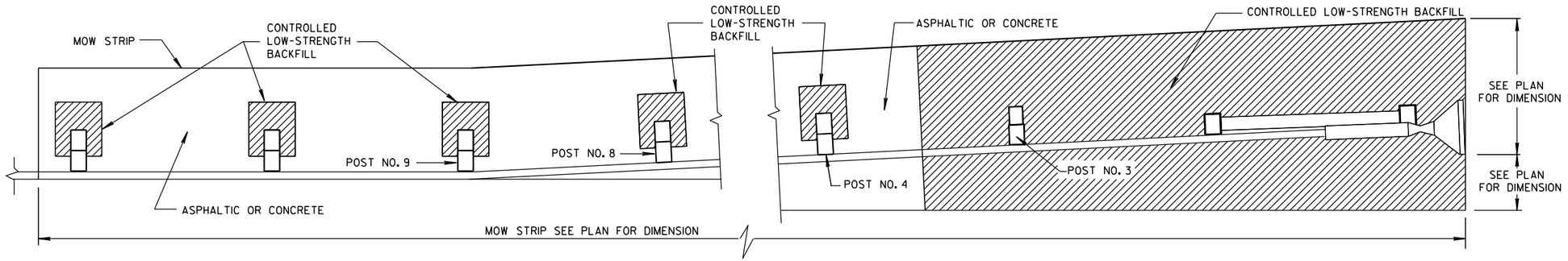
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-2010
DATE

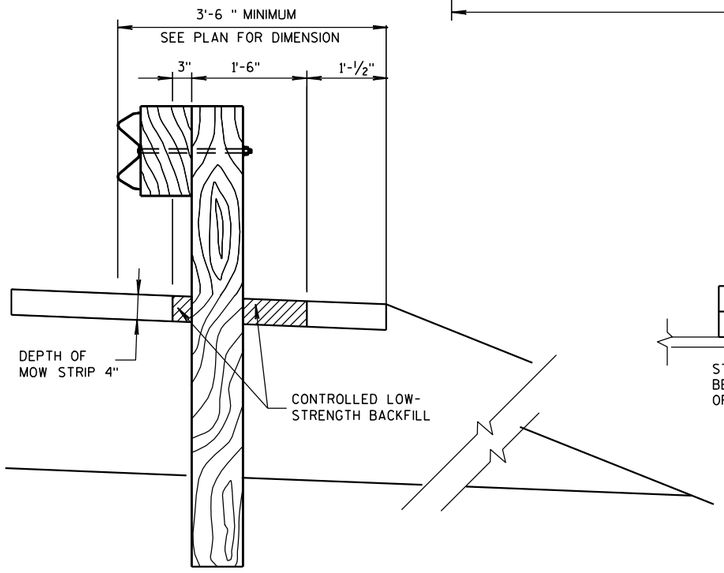
/S/ Jerry H. [illegible]
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

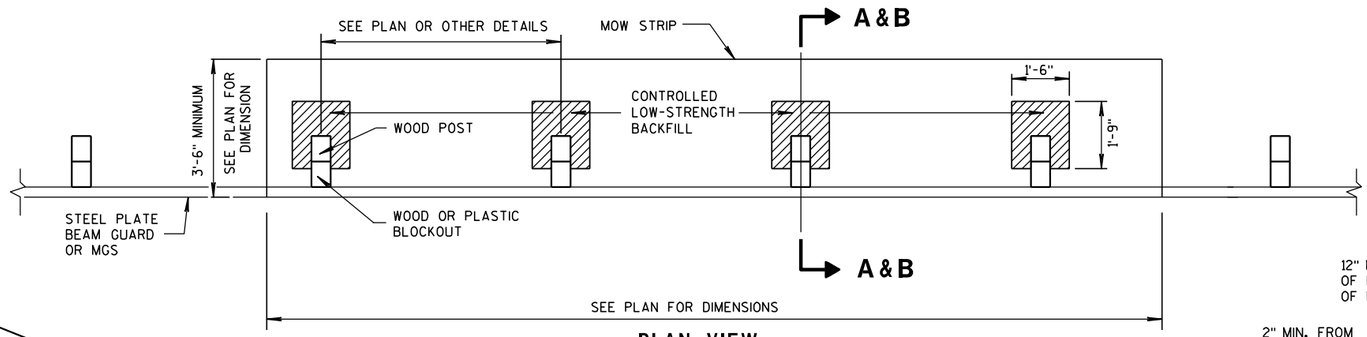


PLAN VIEW

MOW STRIP FOR STEEL PLATE BEAM GUARD ENERGY ABORBING TERMINAL

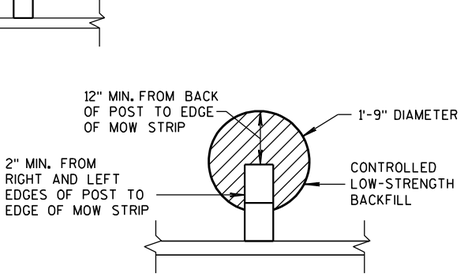


SECTION A-A

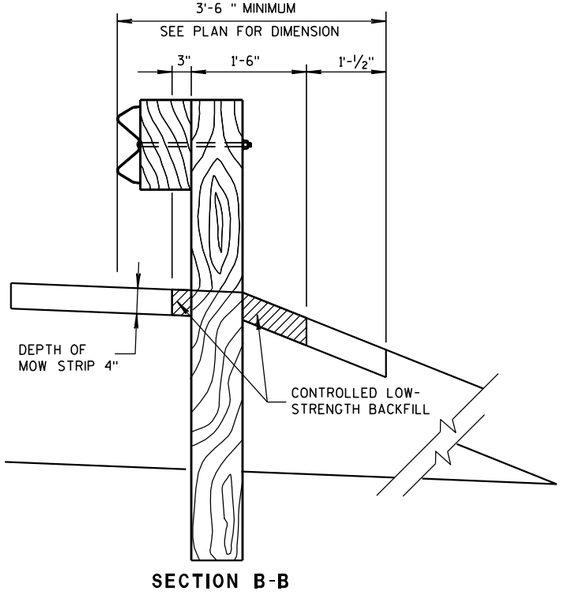


PLAN VIEW

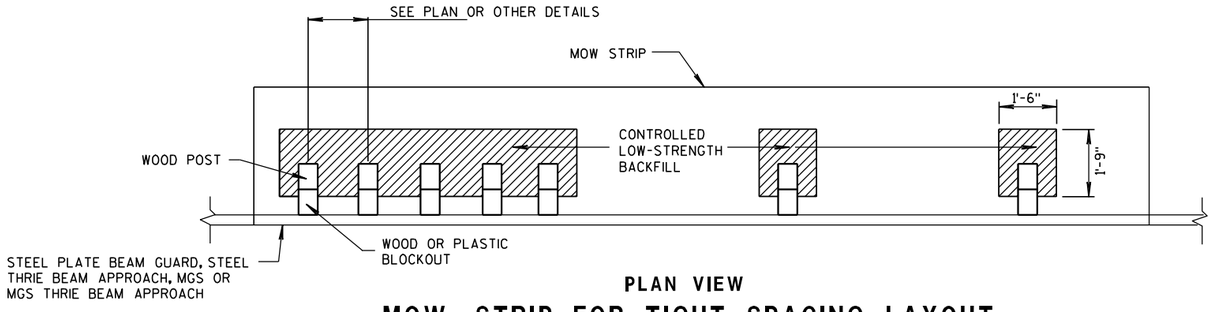
MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN

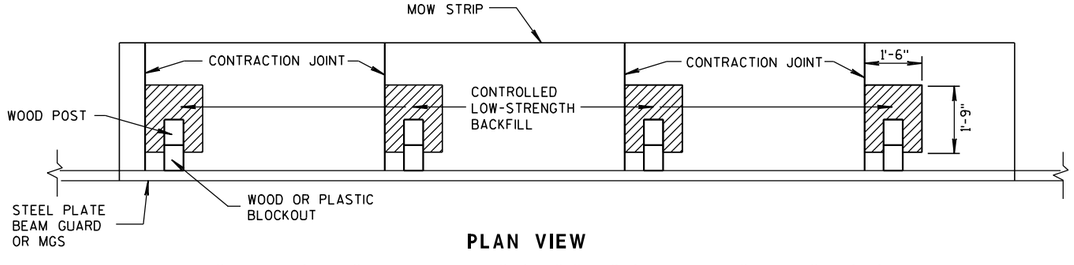


SECTION B-B



PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/27/12 — DATE

/S/ Jerry H. Zaas — ROADWAY STANDARDS ENGINEER

FHWA

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

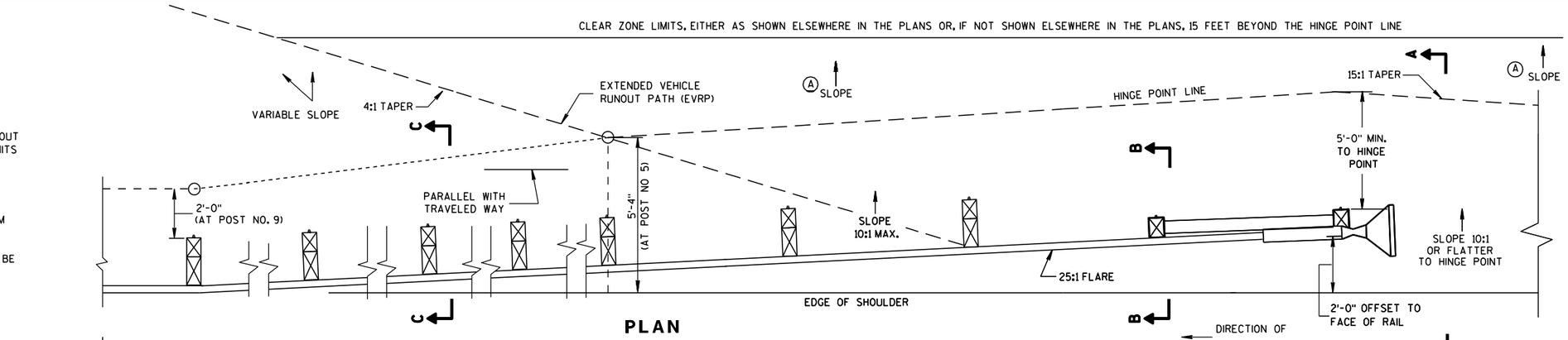
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

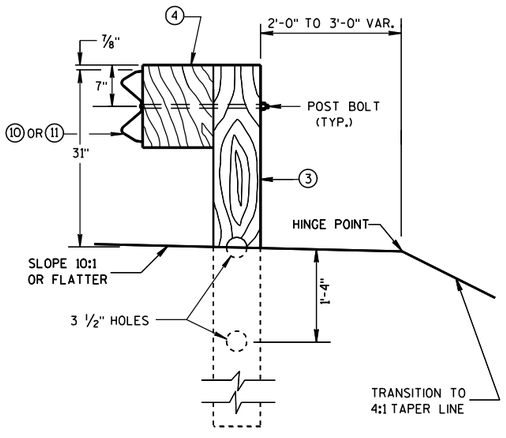
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

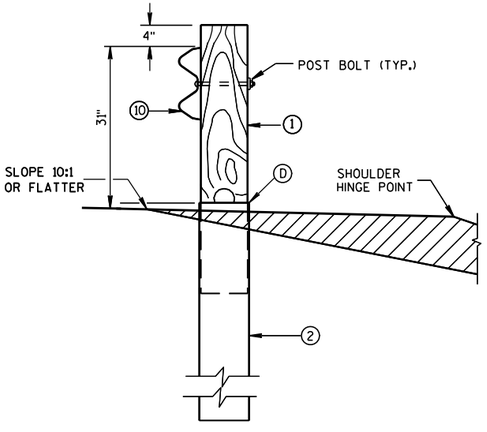
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

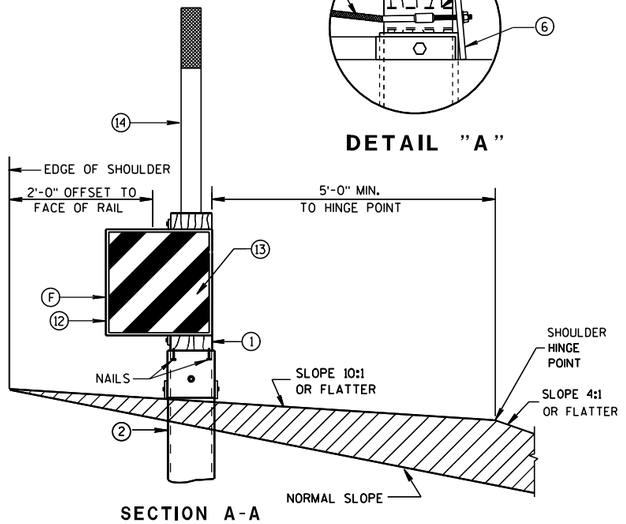




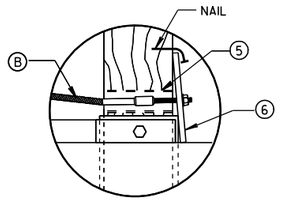
SECTION C-C
TYPICAL AT POST NOS. 3-9



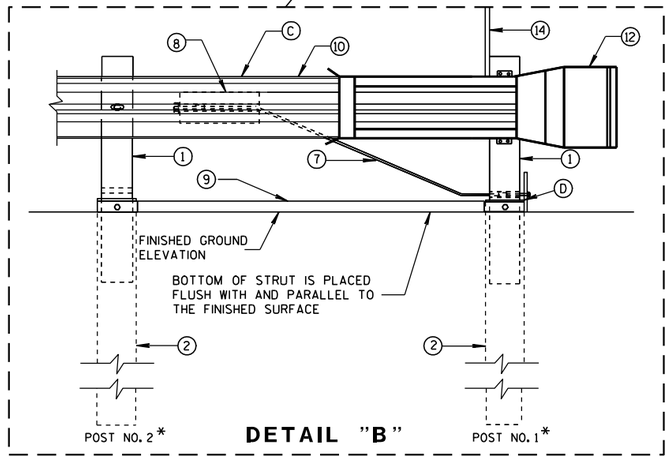
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



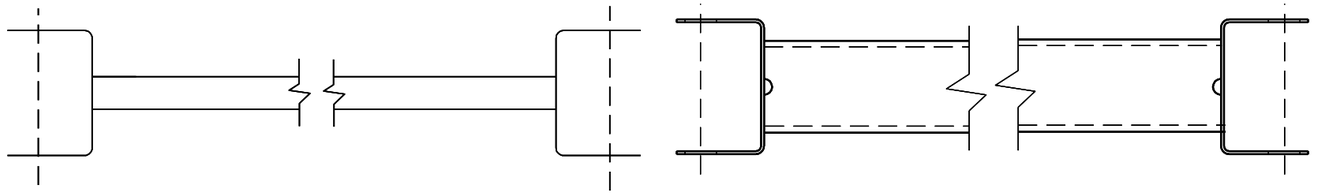
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1a

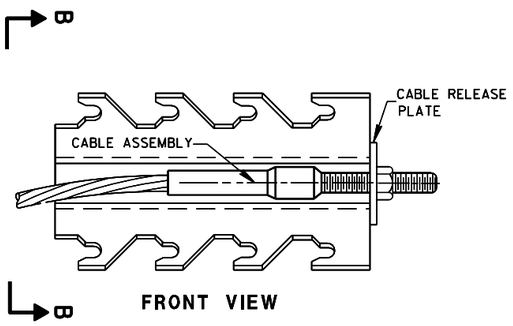


(9) (H)

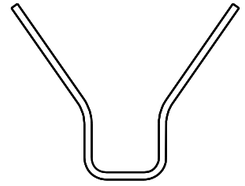
GENERIC GROUND STRUT

BILL OF MATERIALS

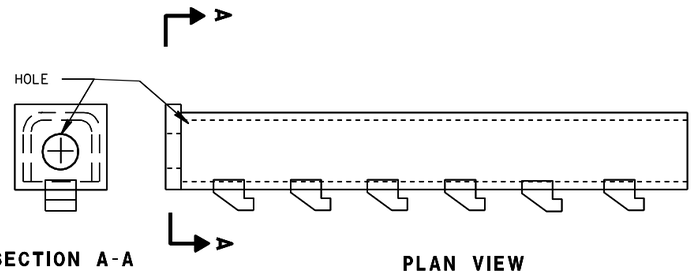
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



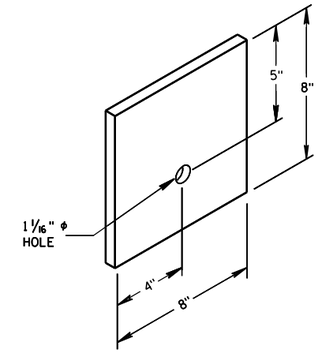
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)

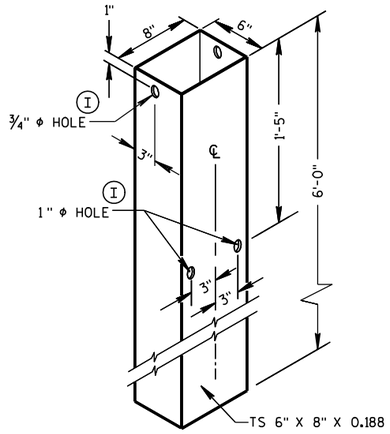


BEARING PLATE (6)

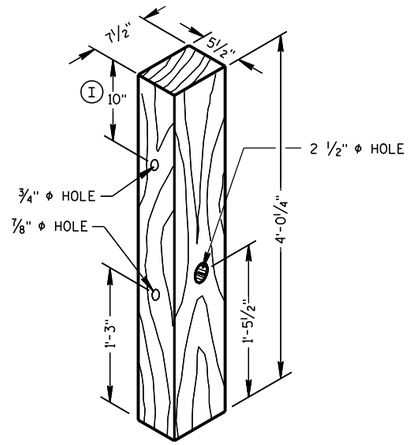
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 44-1b

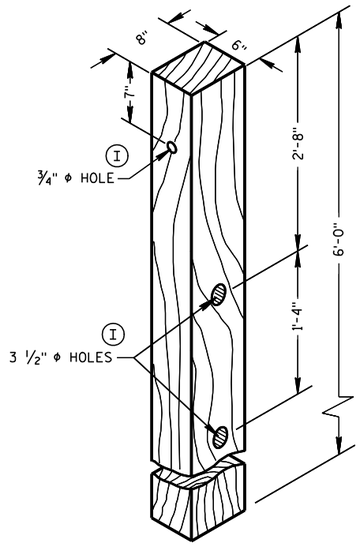


FOUNDATION TUBE (2)



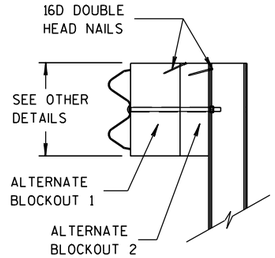
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

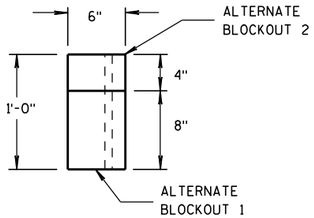


POSTS NUMBER 3-9

WOOD CRT POST (3)

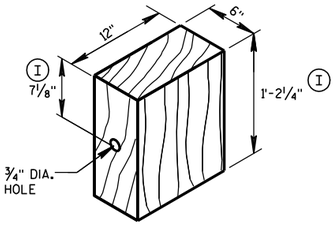


SIDE VIEW



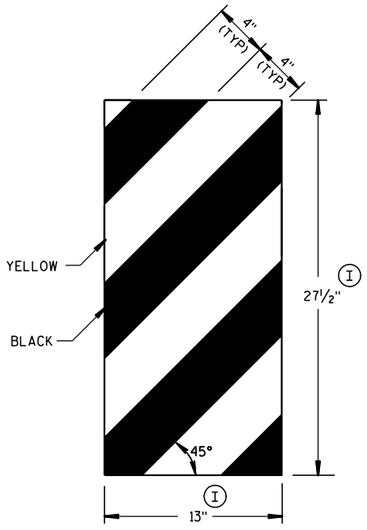
TOP VIEW

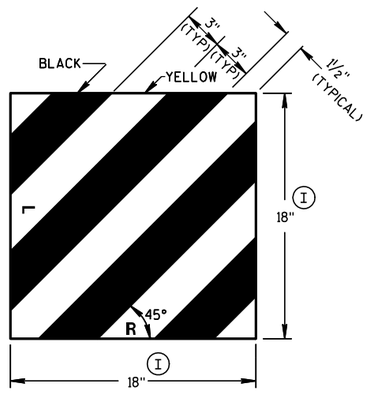
ALTERNATE WOOD BLOCKOUT DETAIL



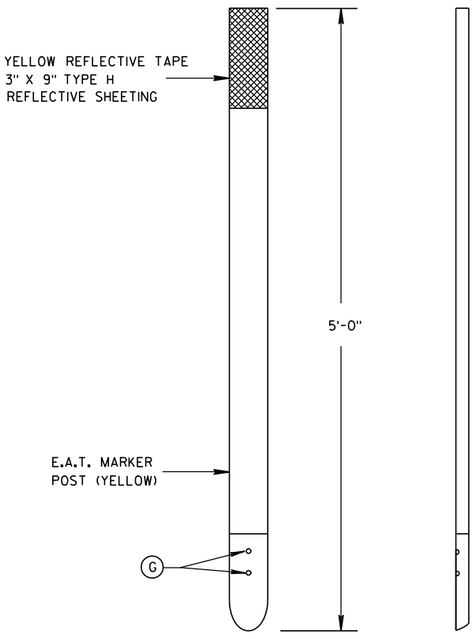
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



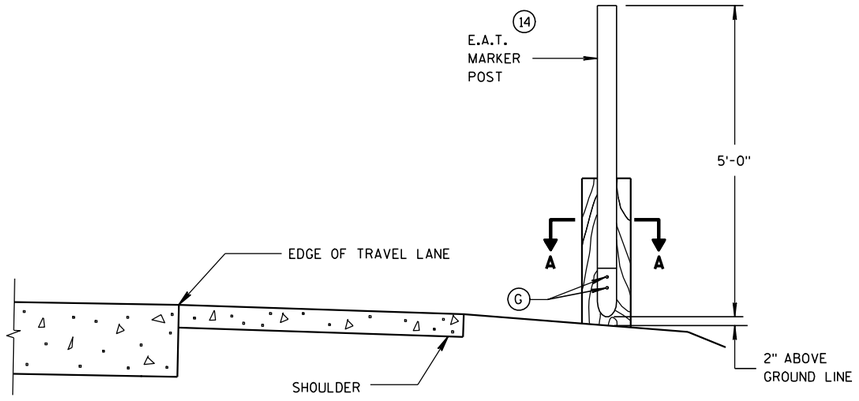


GENERIC REFLECTIVE SHEETING (13) (H)



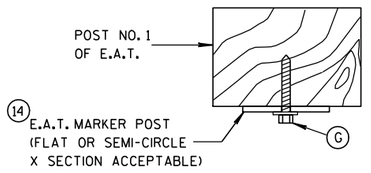
FRONT VIEW **SIDE VIEW**

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

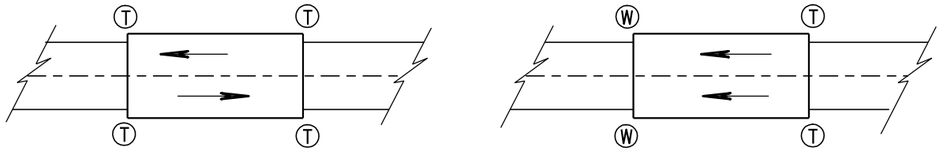
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

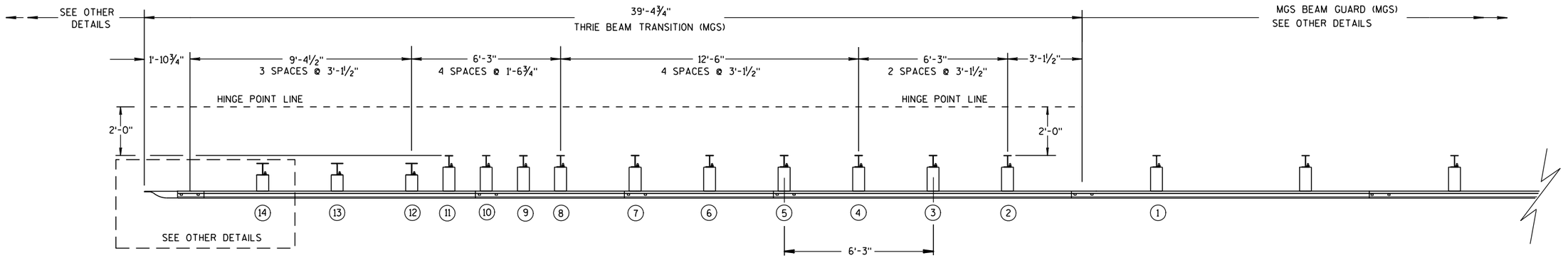
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

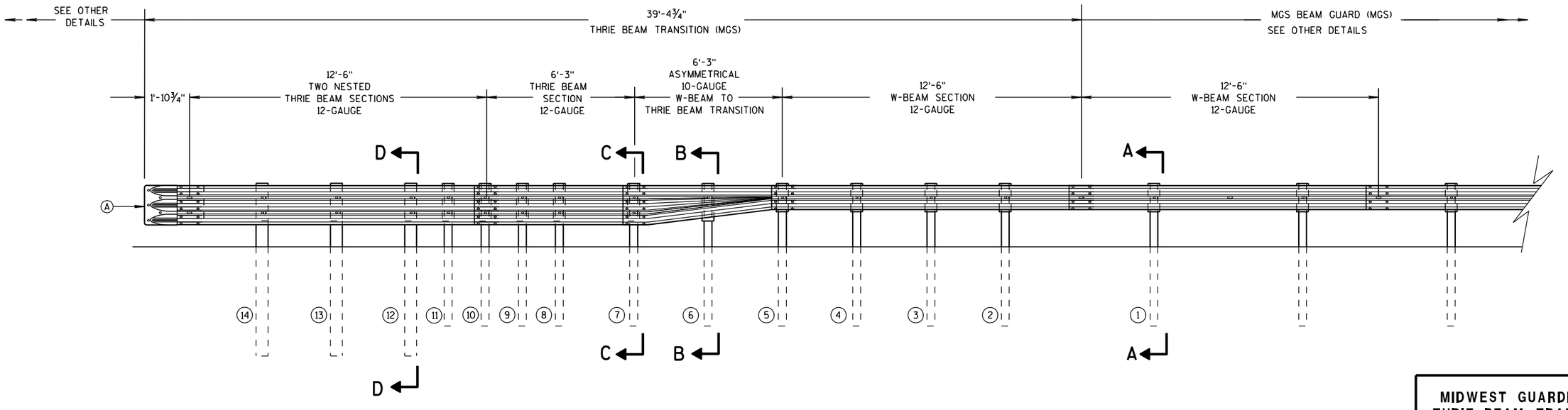
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

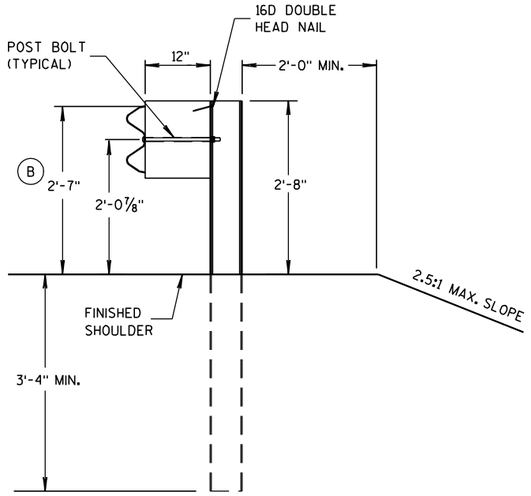
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3a

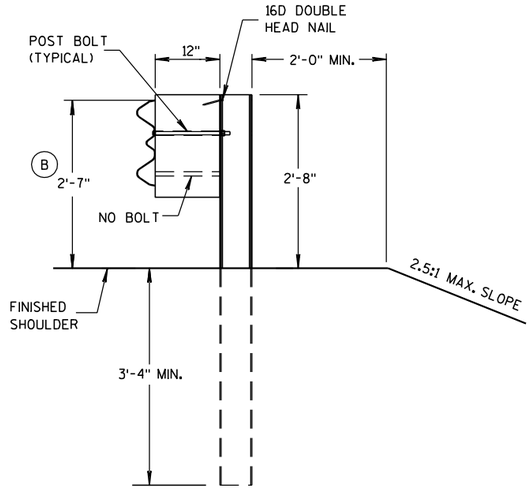
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



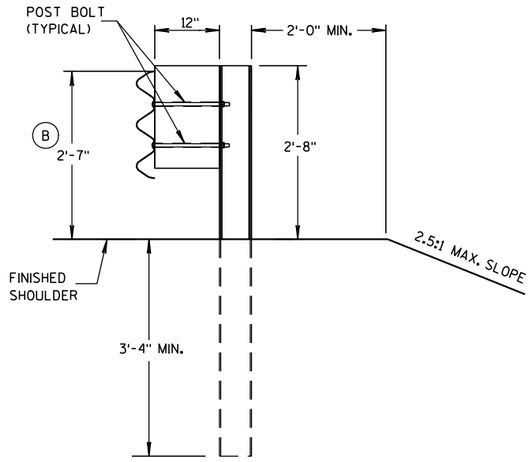
SECTION A-A

POSTS 1-5



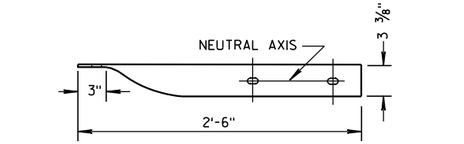
SECTION B-B

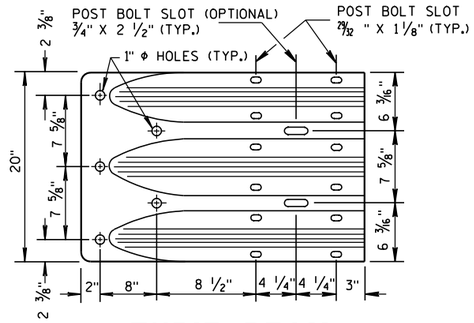
POST 6



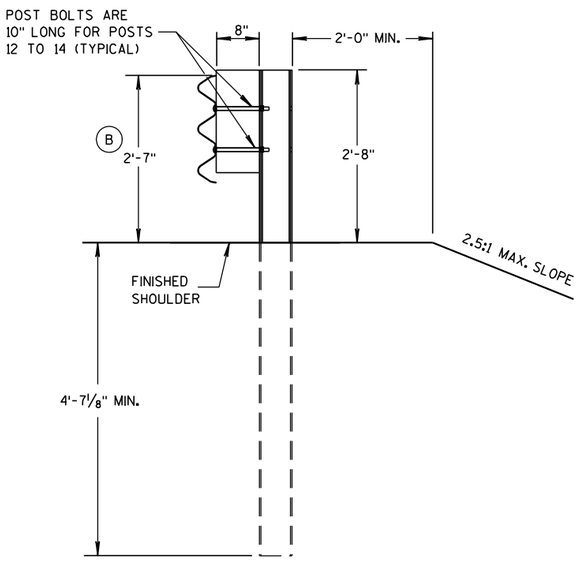
SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14

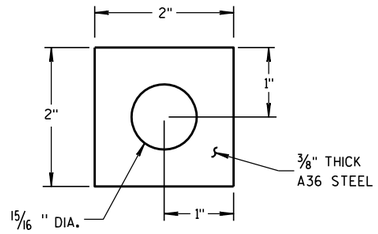
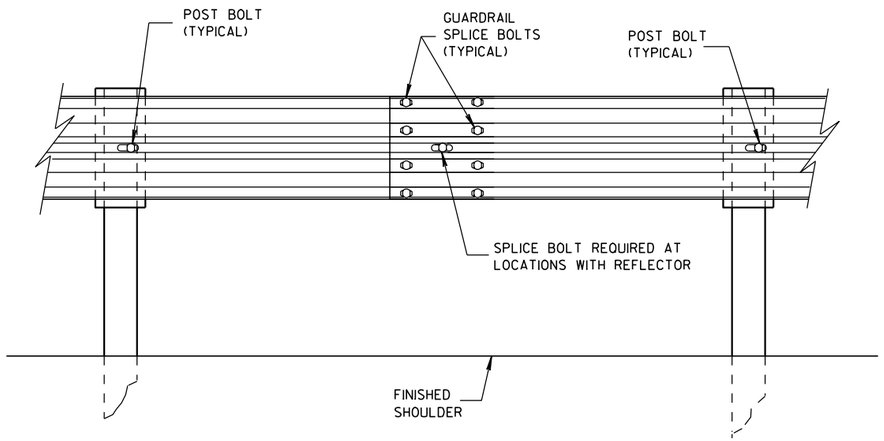
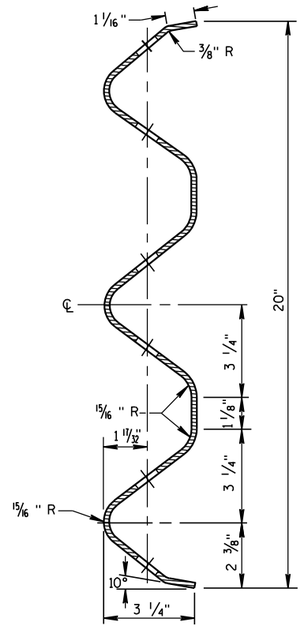


PLATE WASHER DETAIL



SPLICE DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

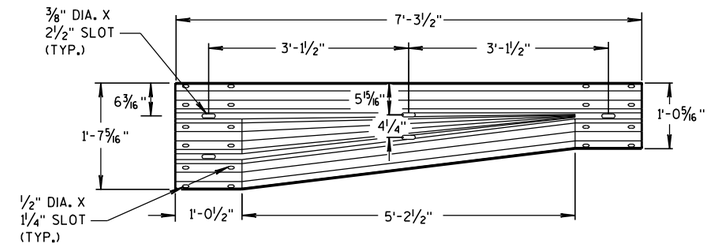
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

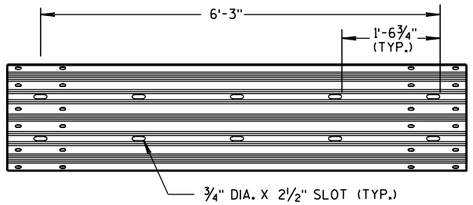
S.D.D. 14 B 45-3b

6

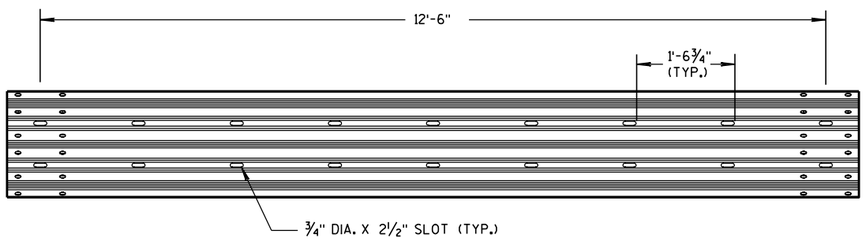
S.D.D. 14 B 45-3b



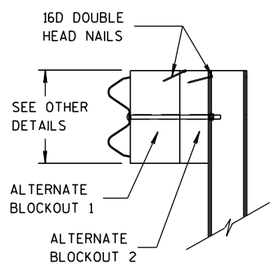
W-BEAM TO THRIE BEAM TRANSITION SECTION



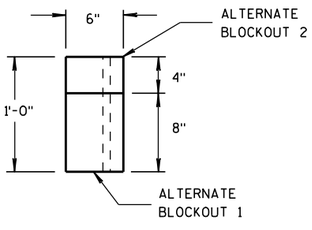
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

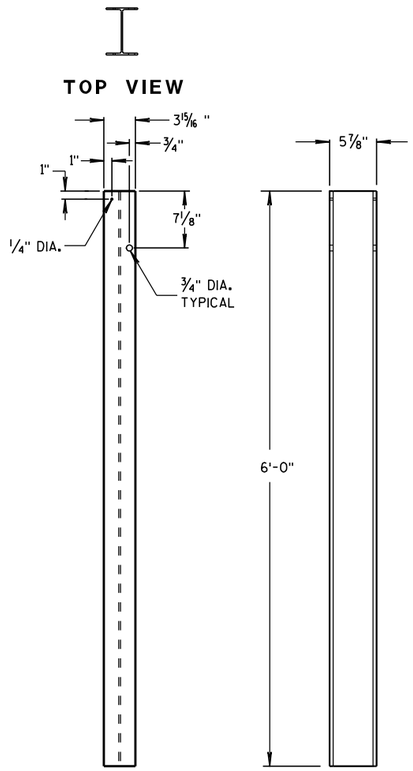


SIDE VIEW

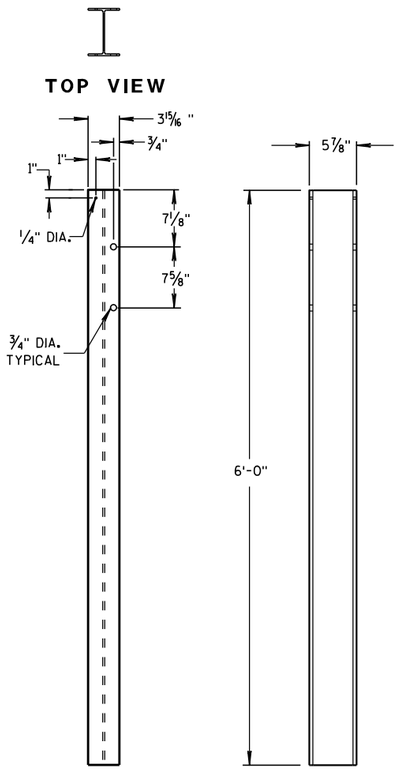


TOP VIEW

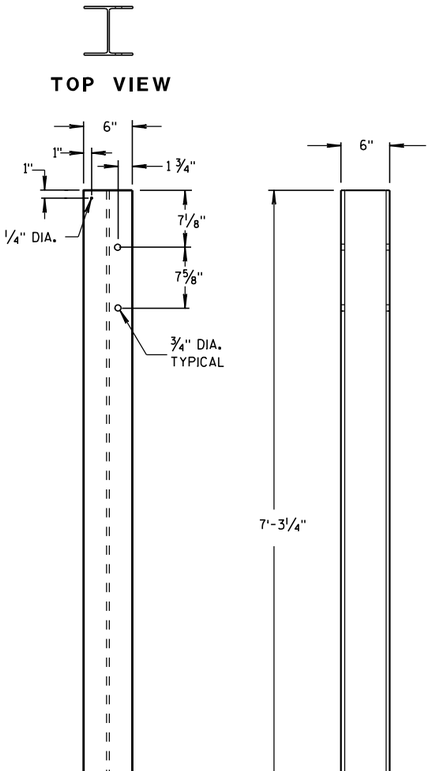
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

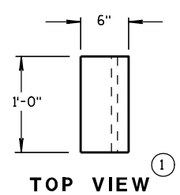


STEEL POSTS 6-11

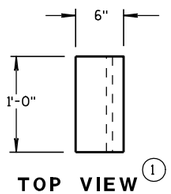


STEEL POSTS 12-14

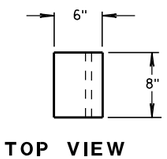
1. WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



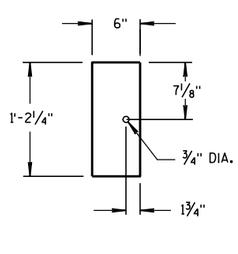
TOP VIEW (1)



TOP VIEW (1)

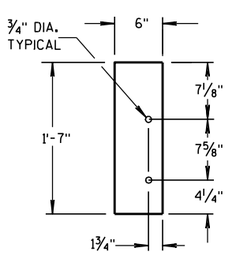


TOP VIEW



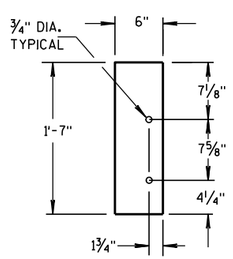
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

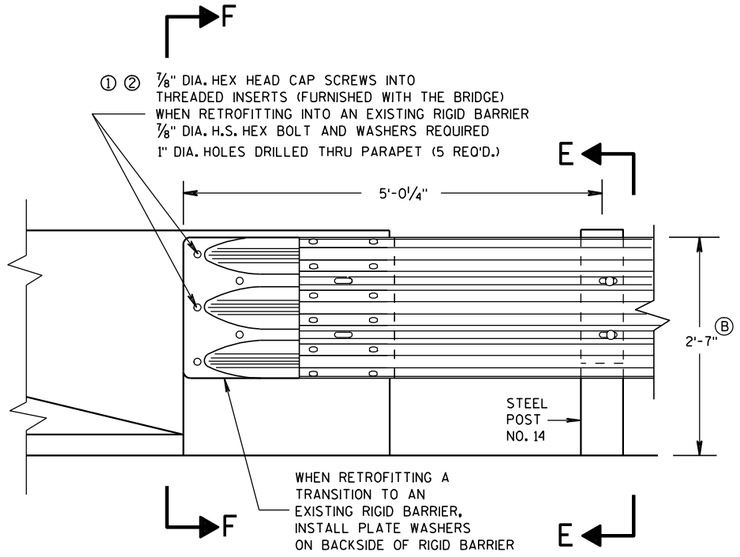
STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

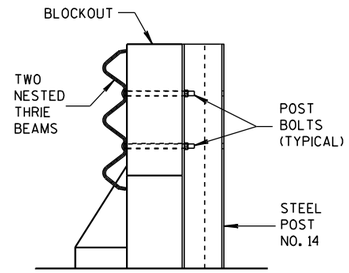
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

GENERAL NOTES

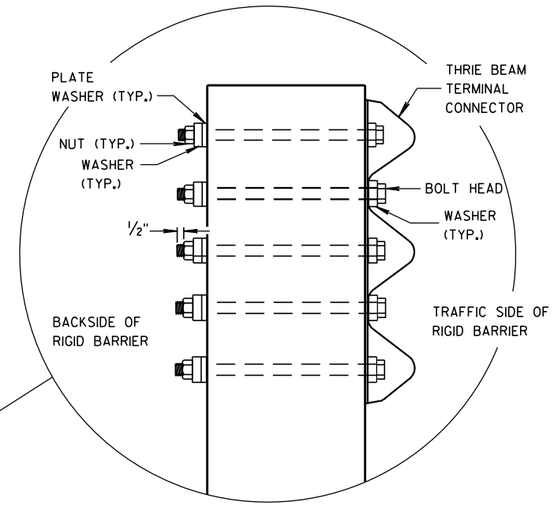
THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

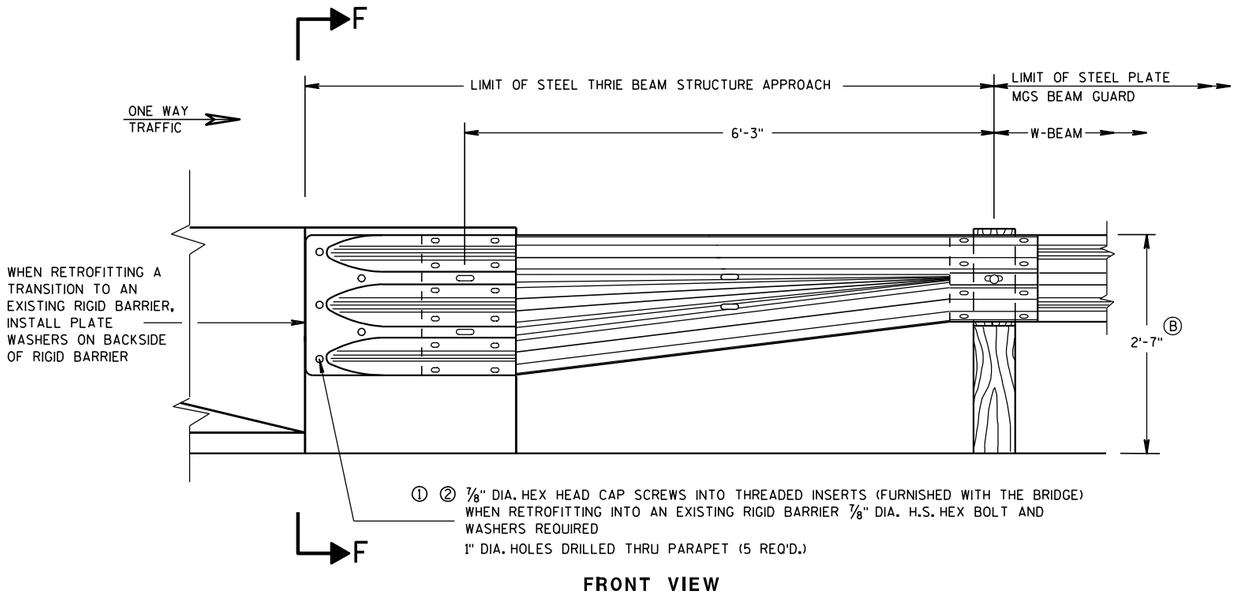
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

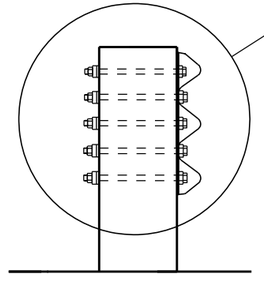
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW



SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS (290) ENGINEER

FHWA

6

S.D.D. 14 B 45-3d

6

S.D.D. 14 B 45-3d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

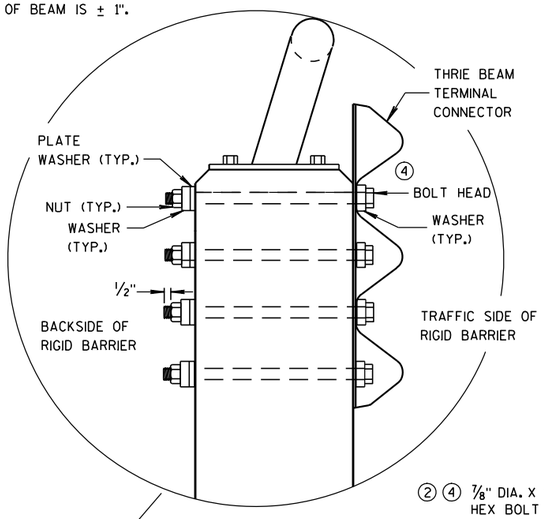
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

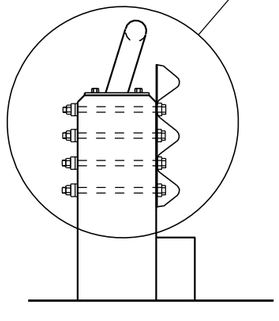
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③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2". BLOCK IS INCIDENTAL TO THE CONTRACT.

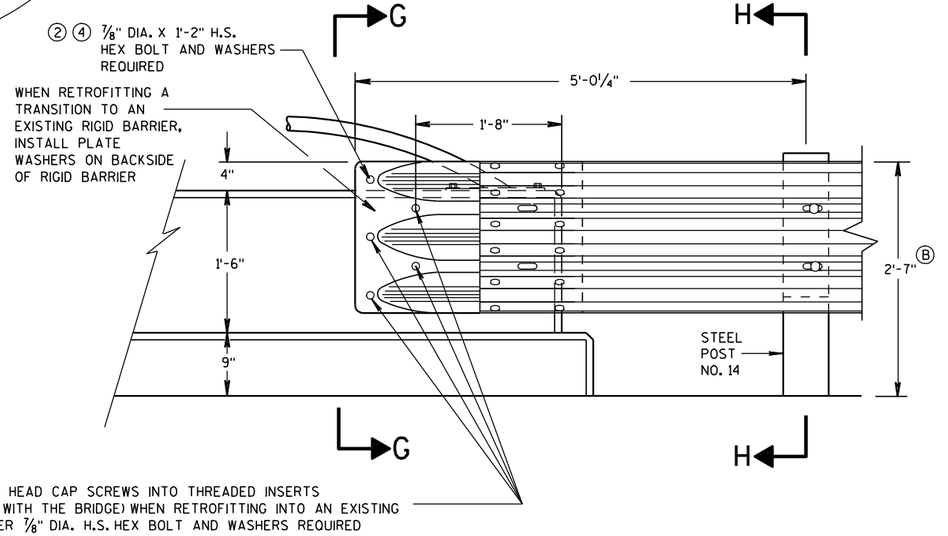
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

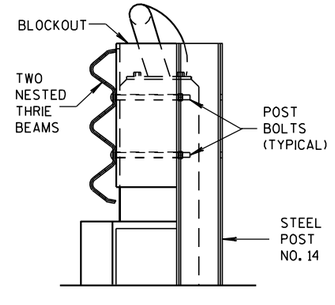




SECTION G-G

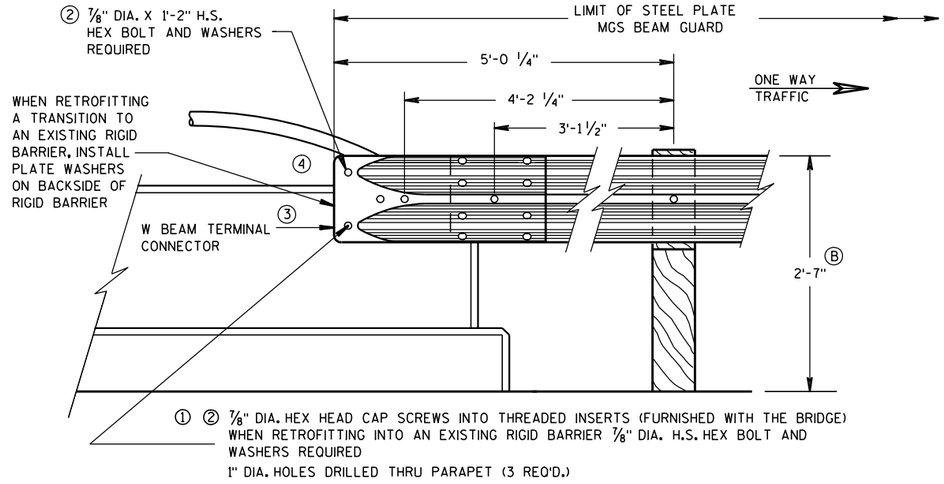


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

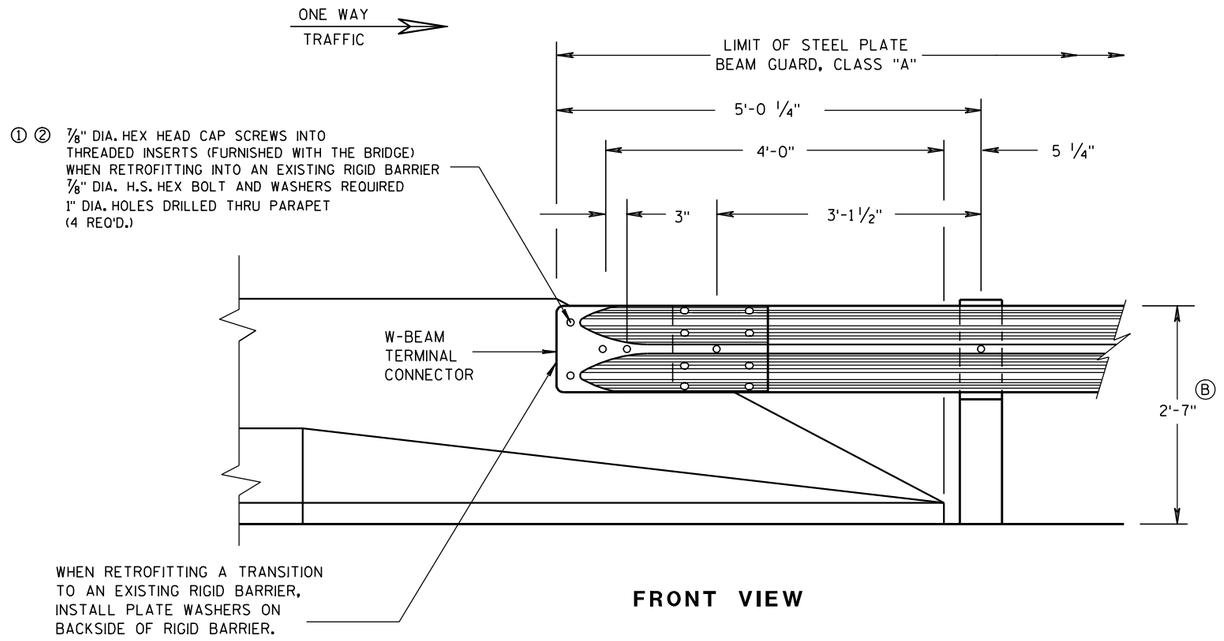
FHWA

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S.D.D. 14 B 45-3e

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S.D.D. 14 B 45-3e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

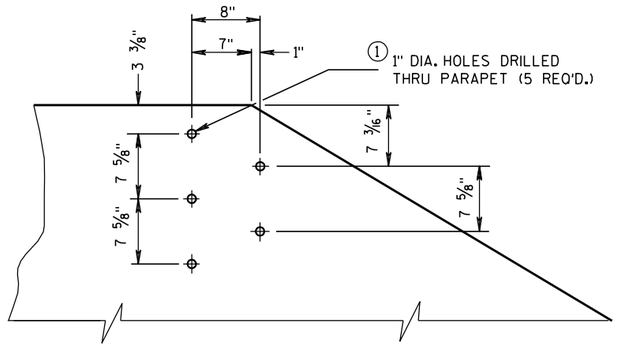
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

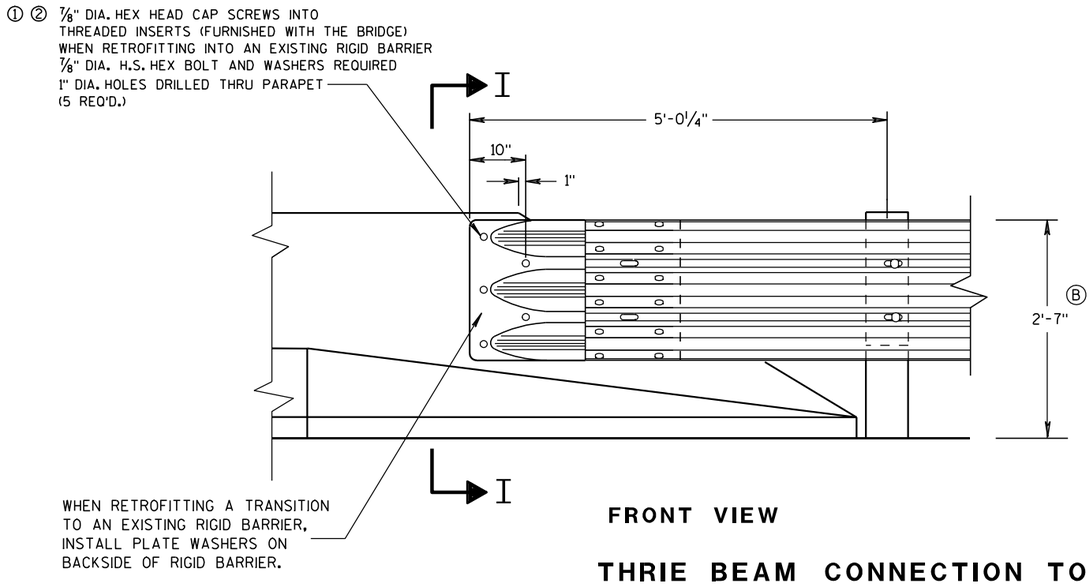
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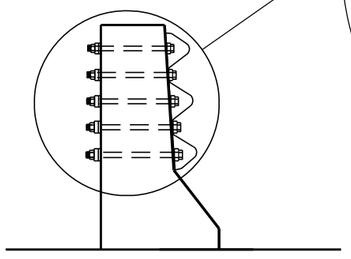
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



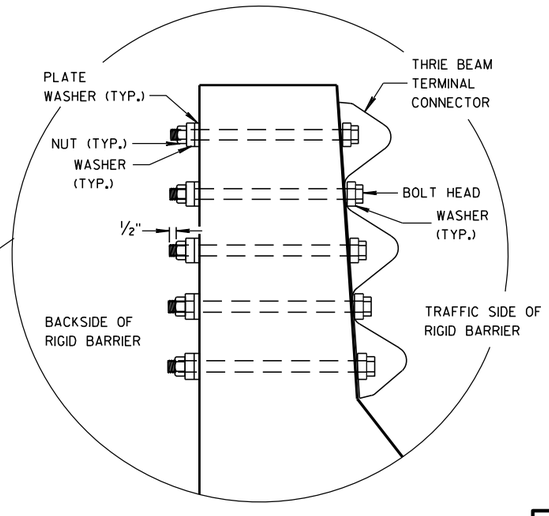
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

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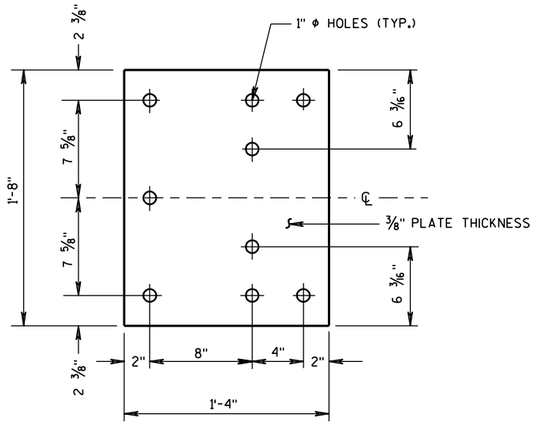
FHWA

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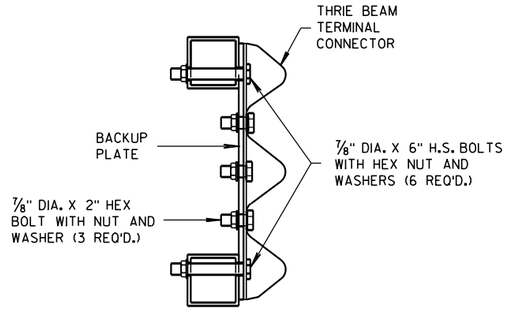
S.D.D. 14 B 45-3f

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S.D.D. 14 B 45-3f



BACK-UP PLATE DETAIL

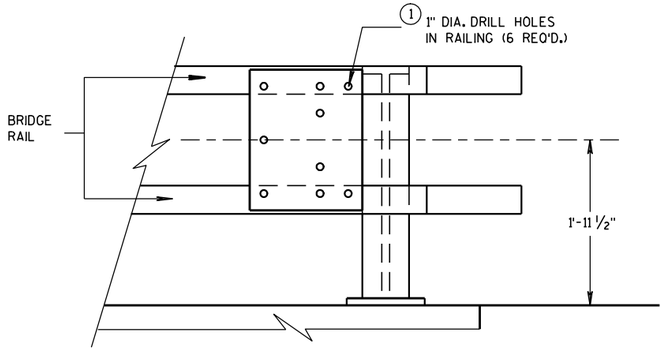


SECTION J-J

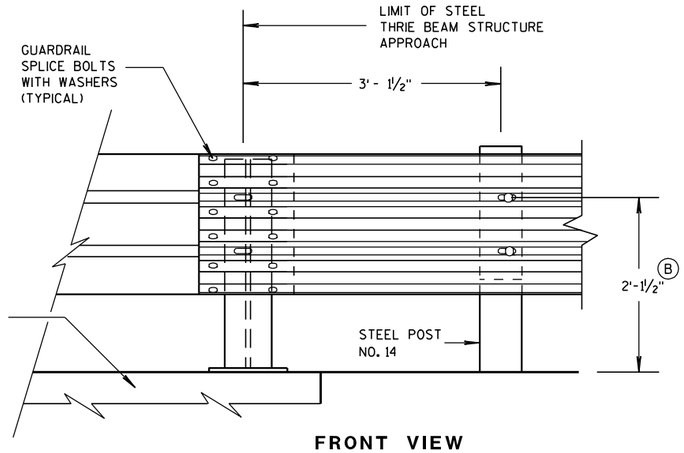
GENERAL NOTES

(1) DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(B) TOLERANCE FOR TOP OF BEAM IS ± 1".

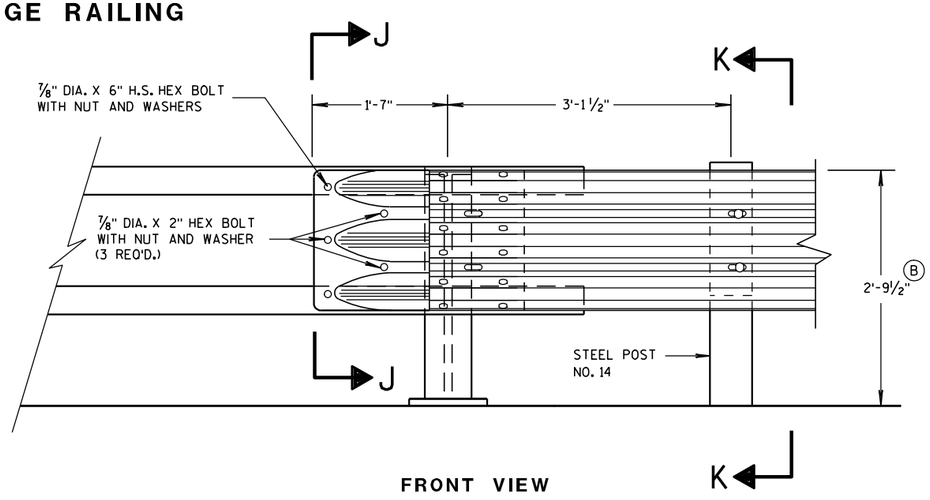


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

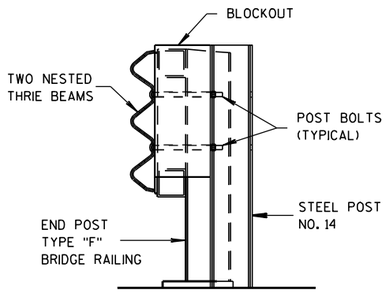


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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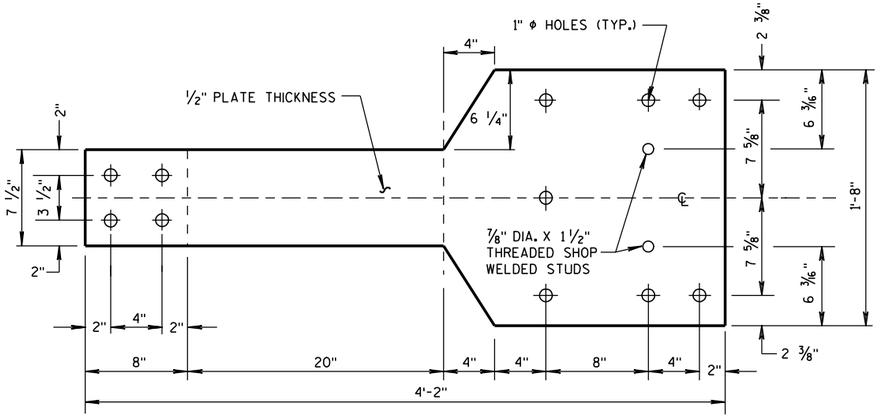
S.D.D. 14 B 45-3g

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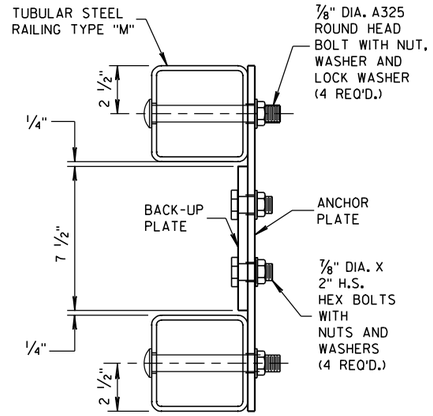
S.D.D. 14 B 45-3g

GENERAL NOTES

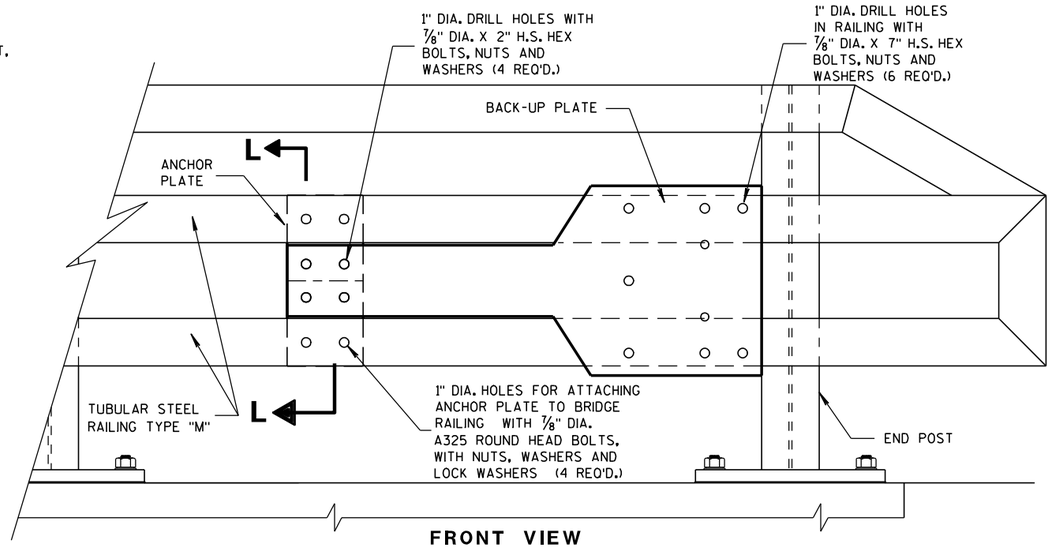
(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



FRONT VIEW

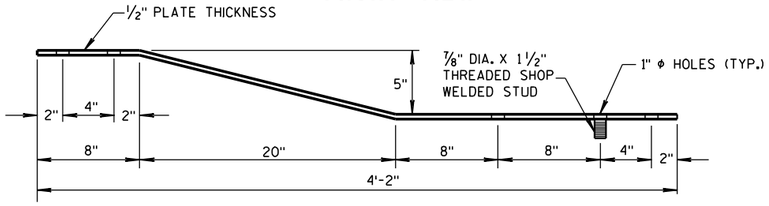


SECTION L-L



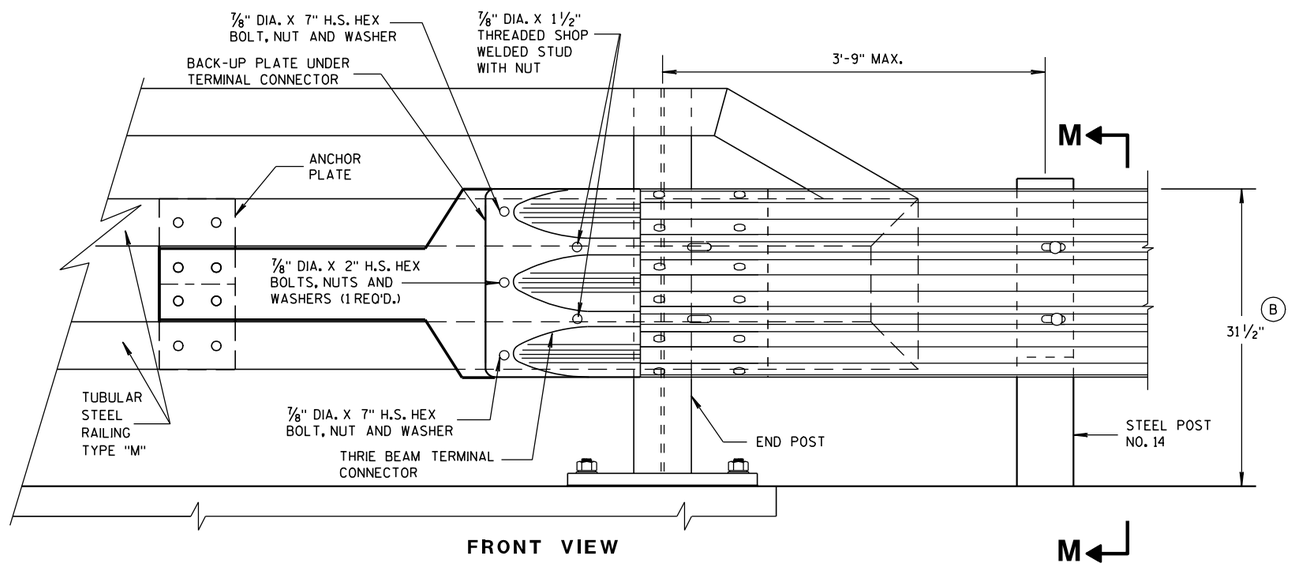
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

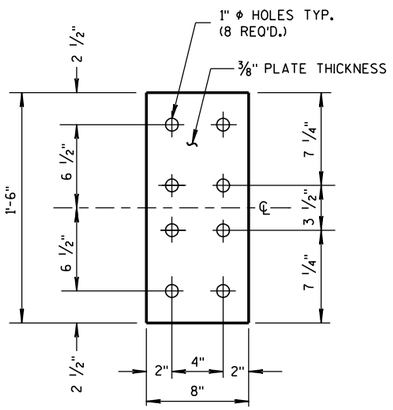


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

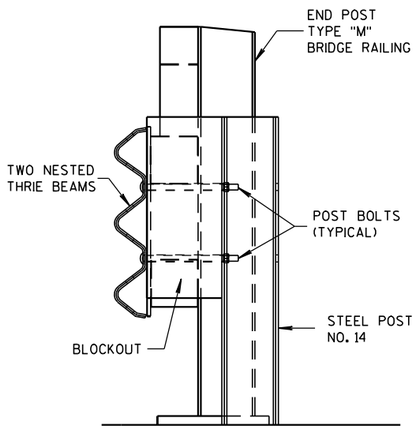


FRONT VIEW

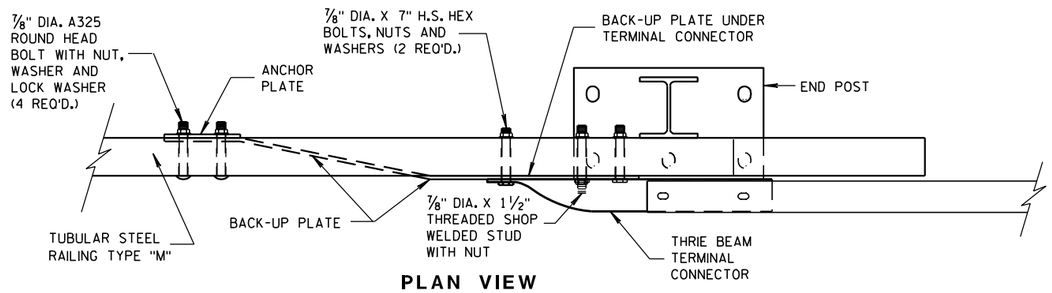


FRONT VIEW

ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

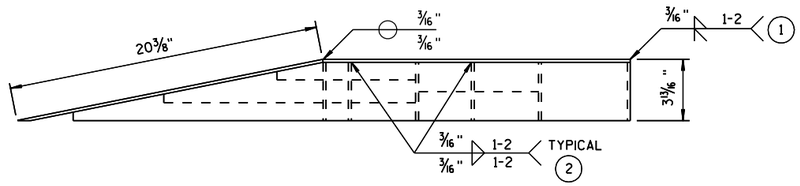
294 ENT

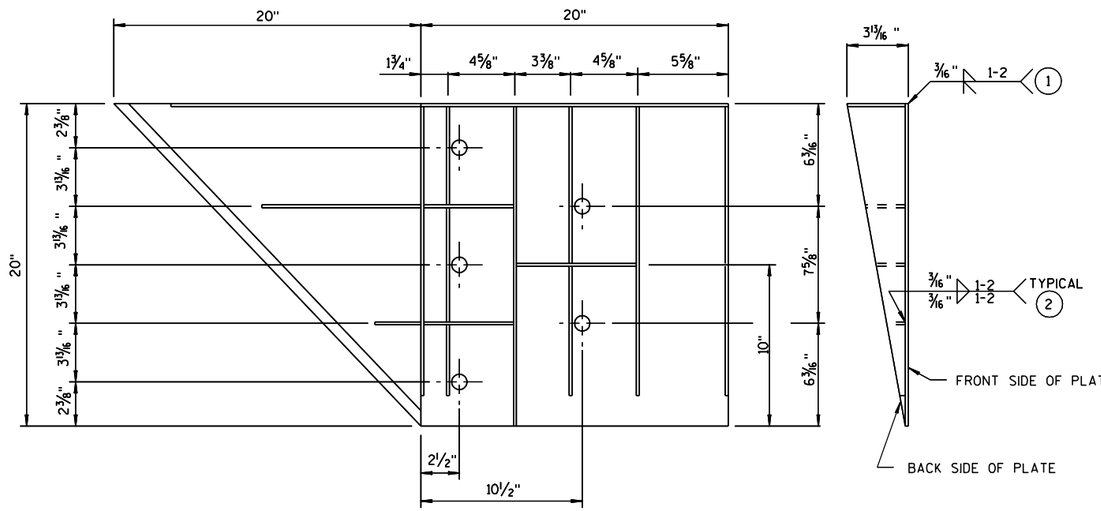
6

S.D. 14 B 45-3h

6

S.D. 14 B 45-3h





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

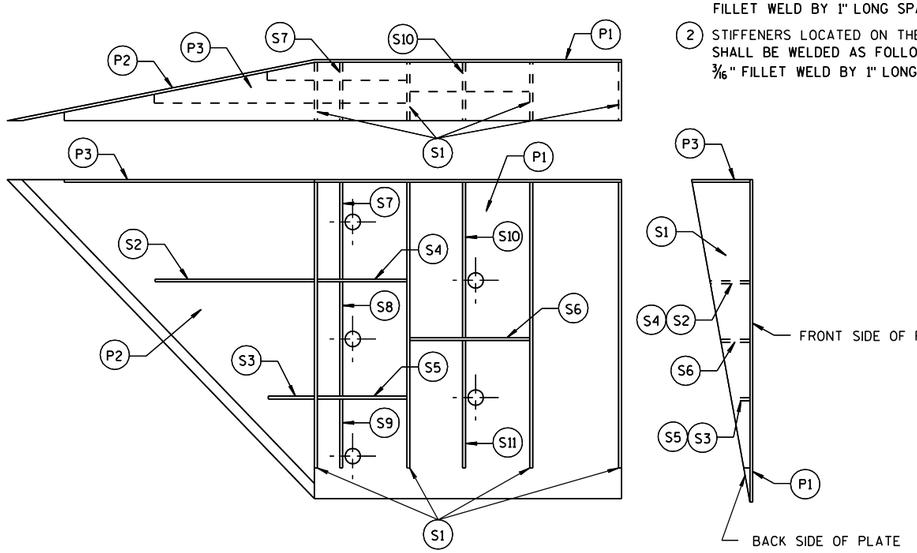


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

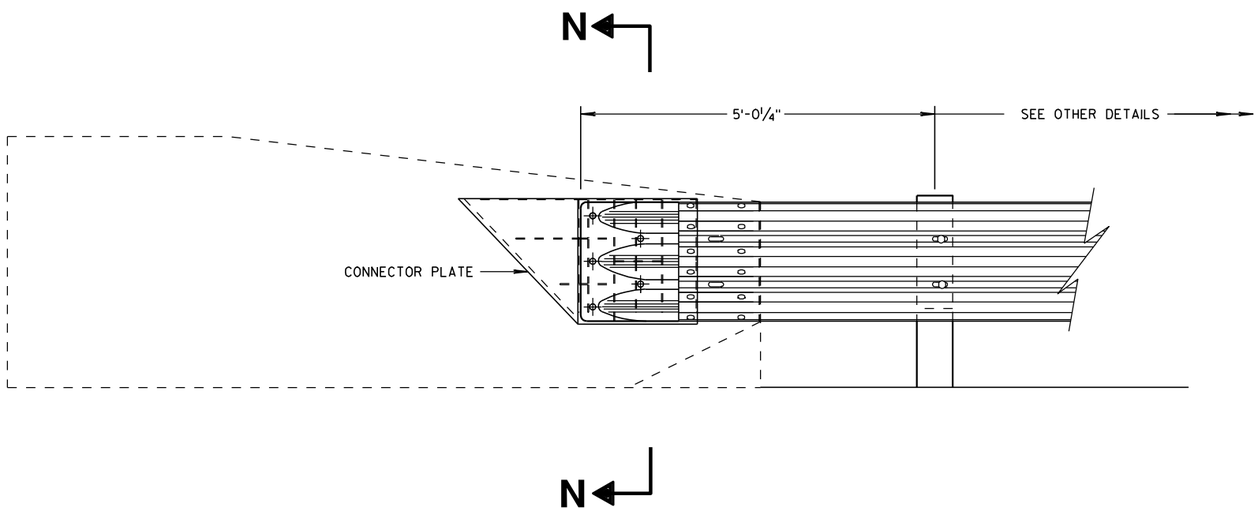
APPROVED
8/31/2012
DATE
/S/ Jerry H ...
ROADWAY STANDARDS ENGINEER
295
FHWA

6

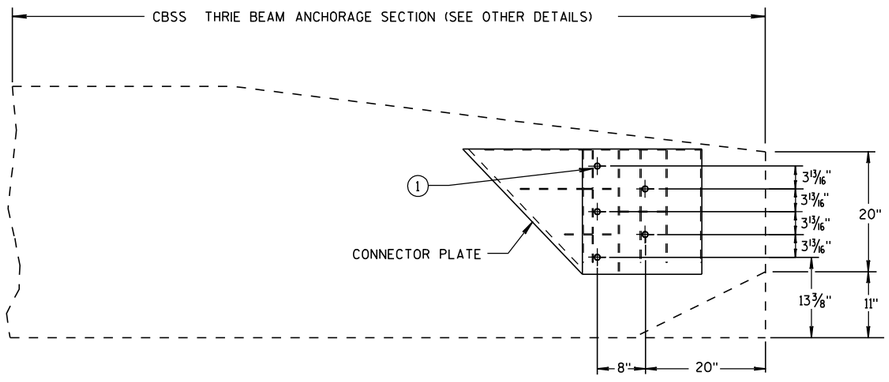
S.D.D. 14 B 45-3i

6

S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

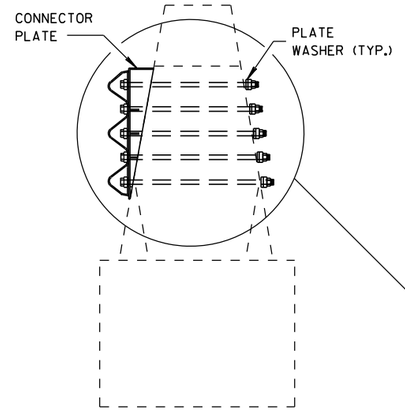


SINGLE SLOPE CONNECTION PLATE PLACEMENT

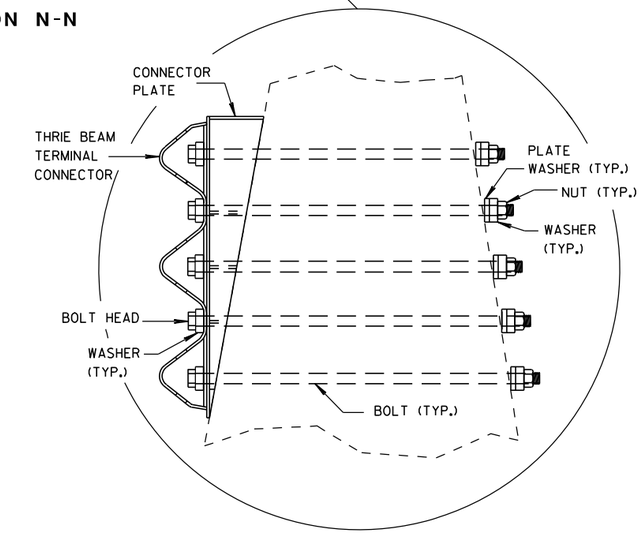
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

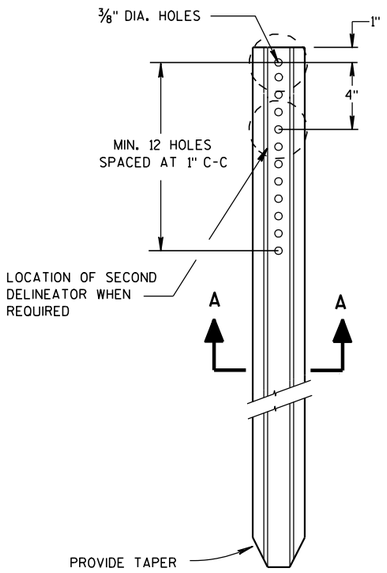
APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

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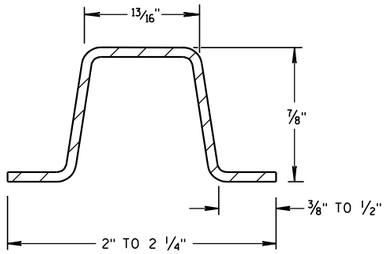
S.D.D. 14 B 45-3j

6

S.D.D. 14 B 45-3j

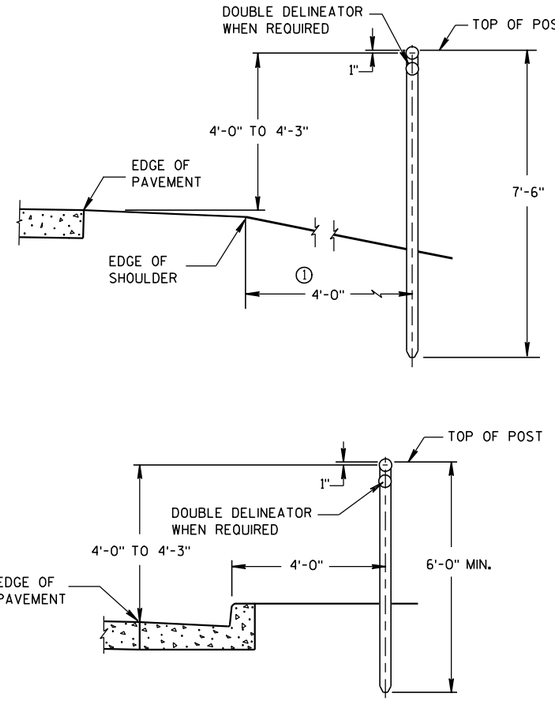


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

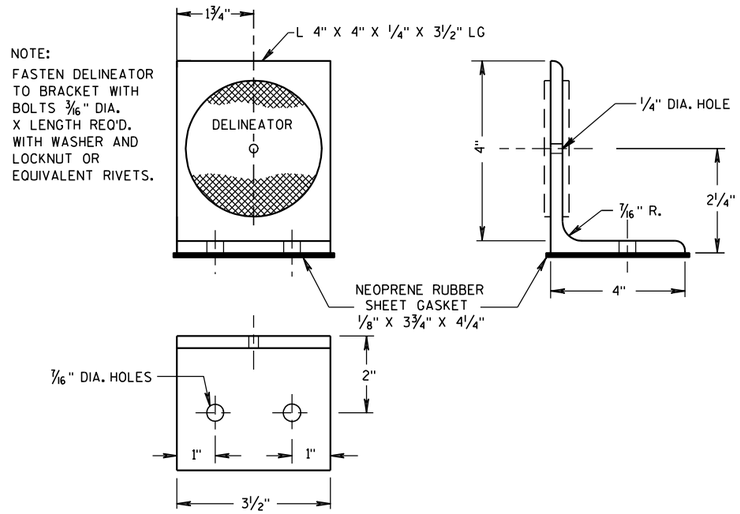


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

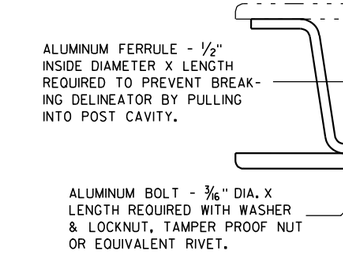
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

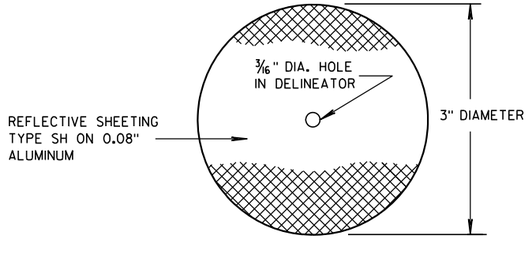
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



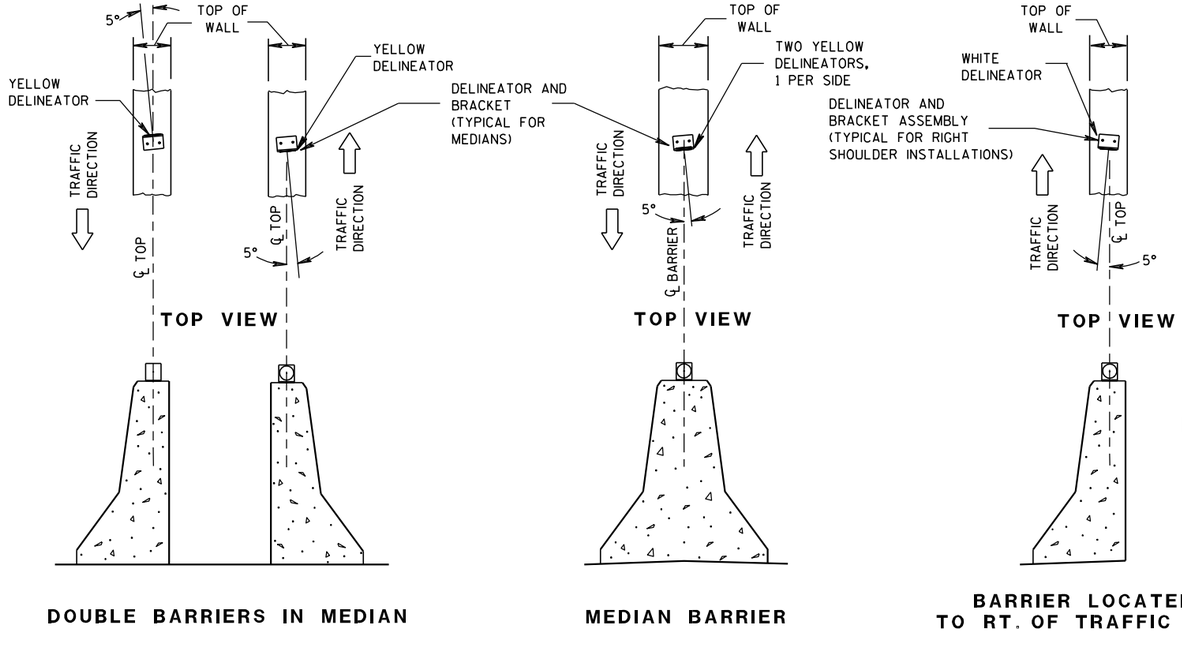
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR



DELINEATOR

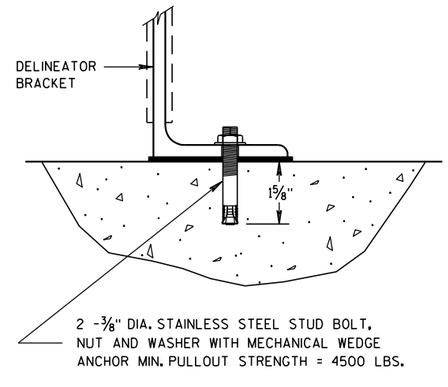


DOUBLE BARRIERS IN MEDIAN

MEDIAN BARRIER

BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATORS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

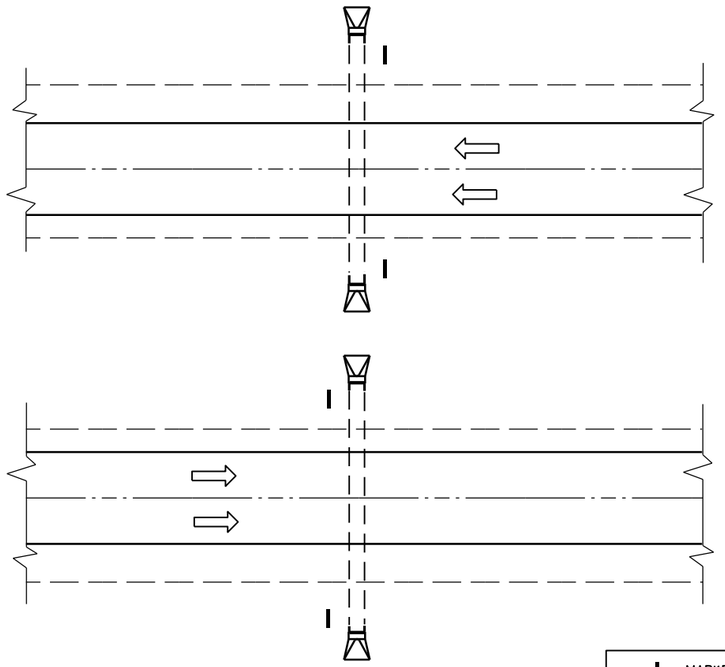
APPROVED
1/25/2011 — DATE
/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

297

FHWA

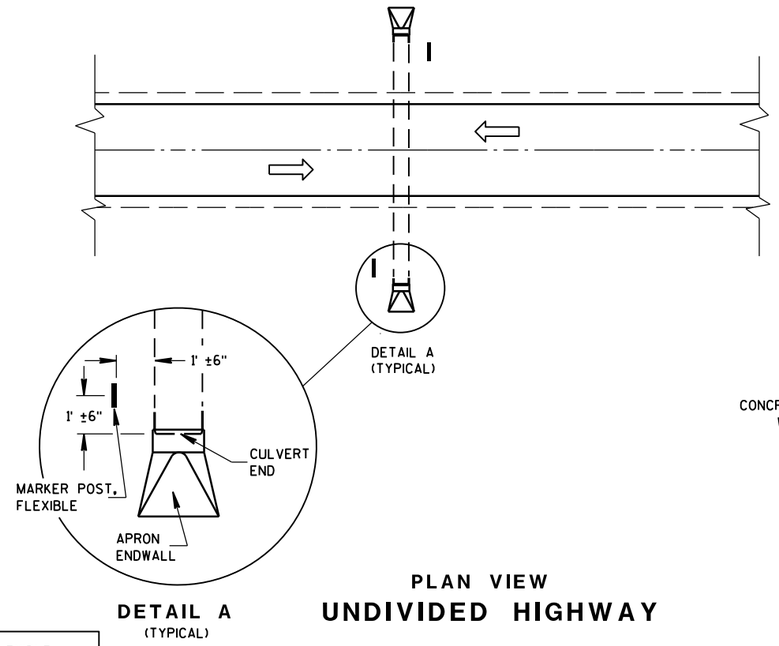
6

S.D.D. 15 A 2-7



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

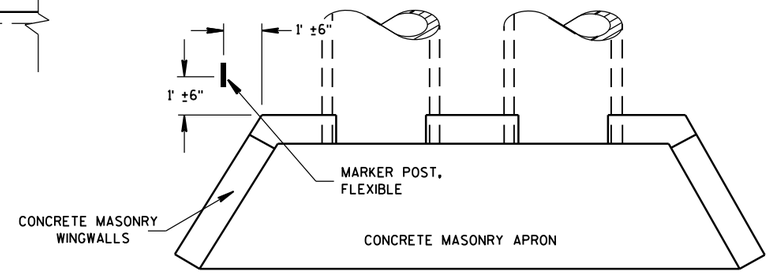
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

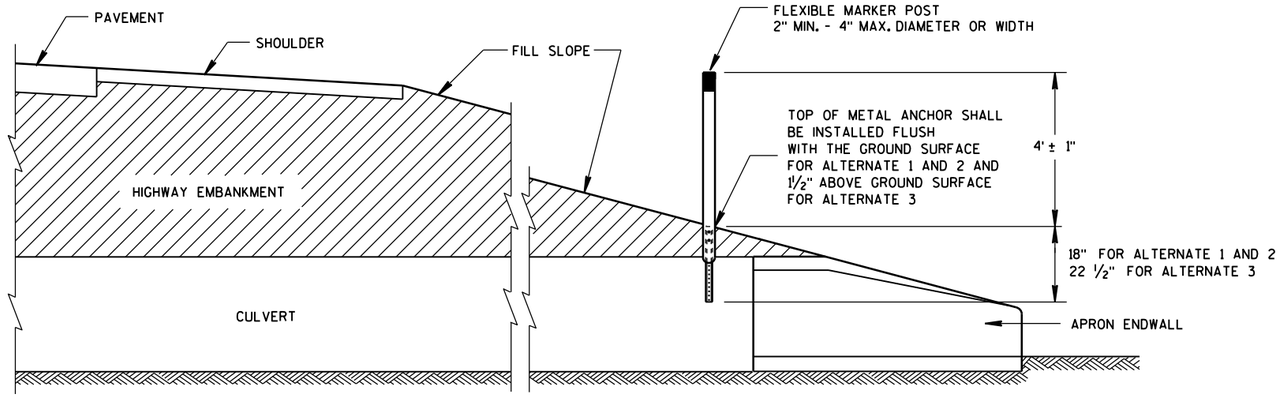
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

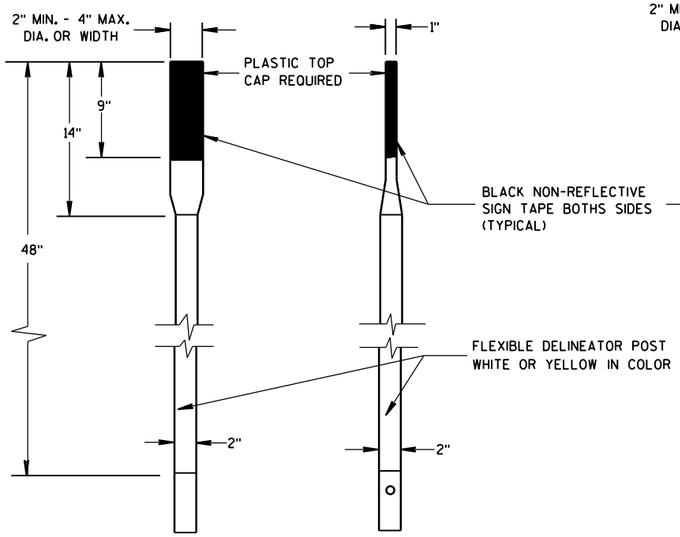
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

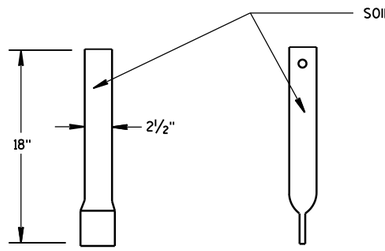
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S.D.D. 15 A 3-2a

6

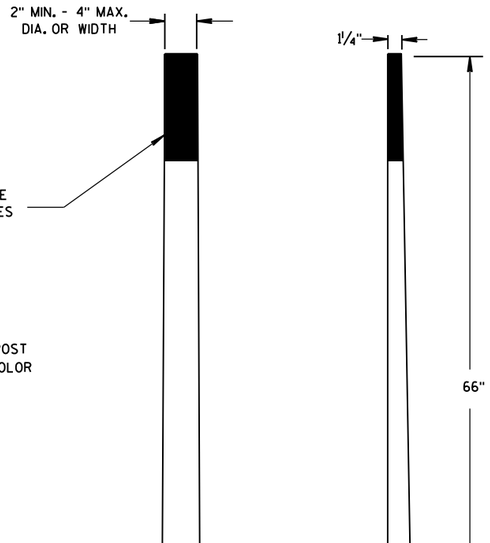
S.D.D. 15 A 3-2a





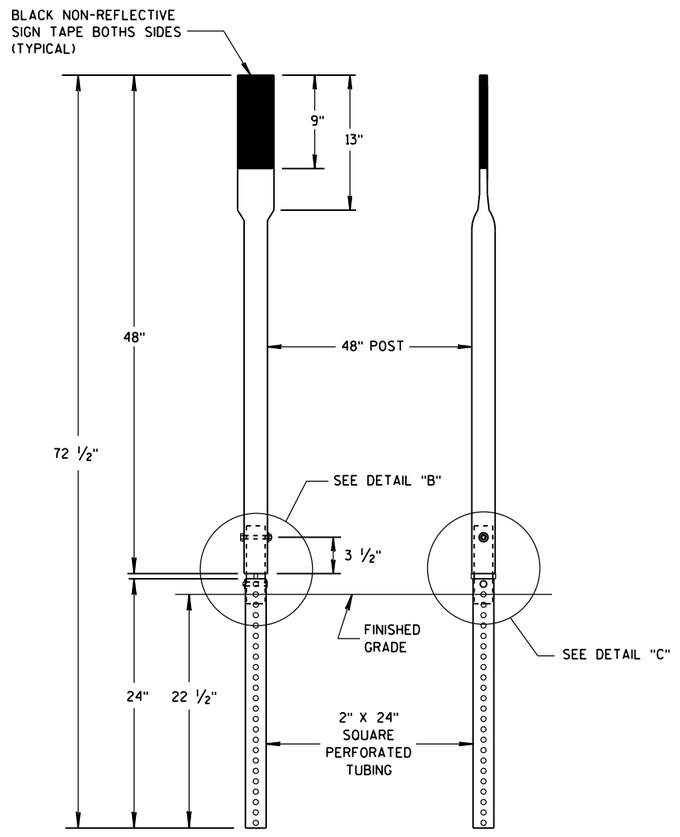
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

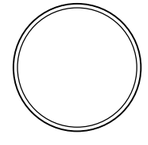
ALTERNATE 2



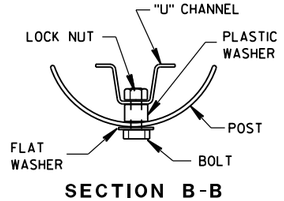
FRONT VIEW SIDE VIEW

ALTERNATE 3

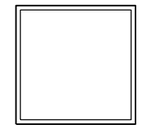
FLEXIBLE MARKER POSTS



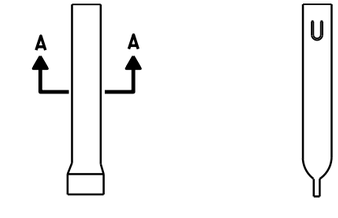
SECTION A-A



SECTION B-B

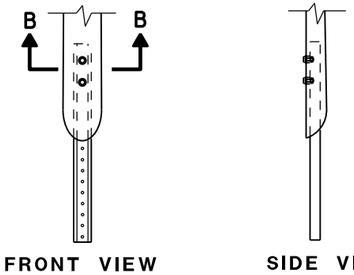


SECTION C-C



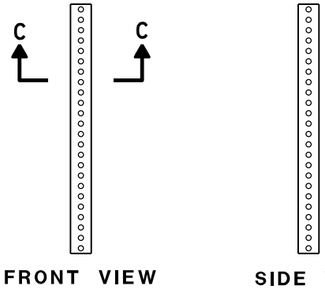
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

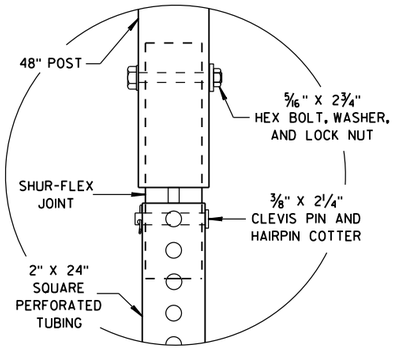
ALTERNATE 2



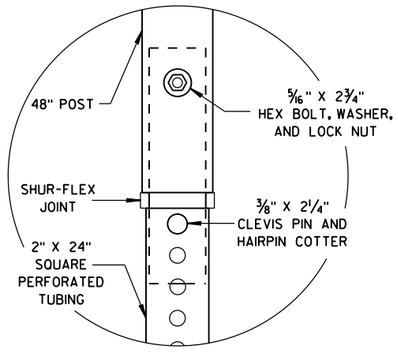
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

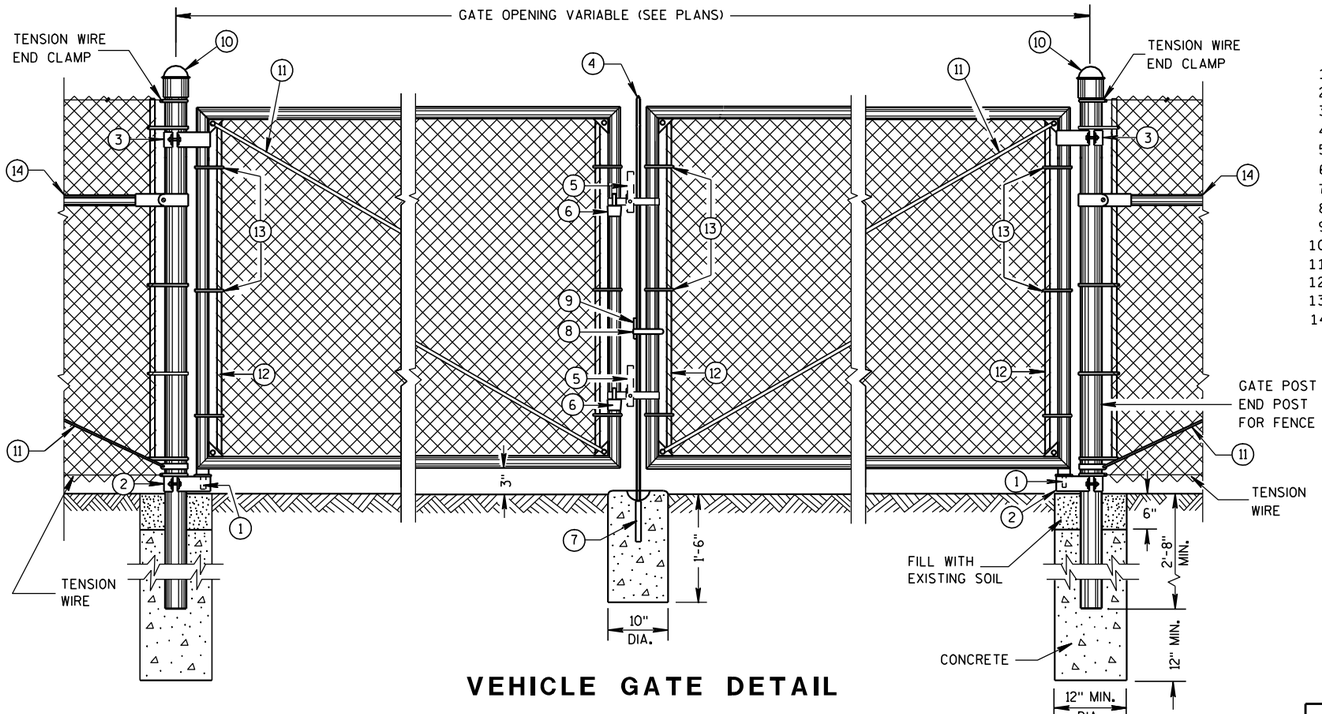
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

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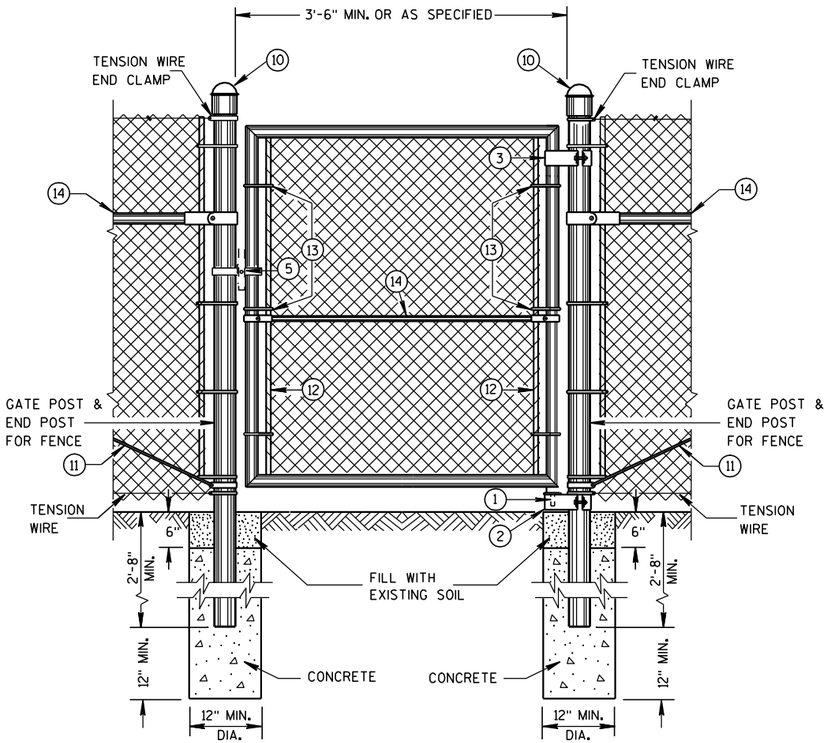
S.D.D. 15 A 3-2b

6

S.D.D. 15 A 3-2b



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

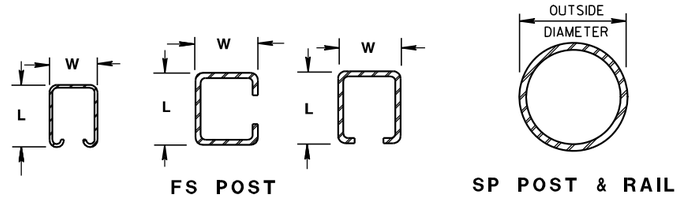
FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.



FS POST

SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR FORMED STEEL FENCE POST

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR ROUND STEEL FENCE POST

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

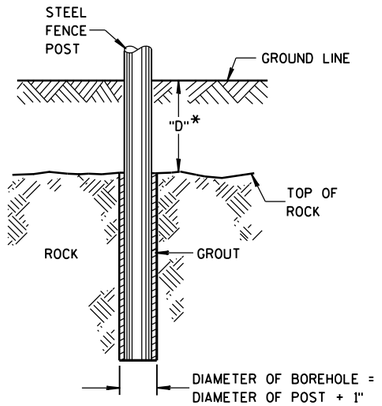
** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

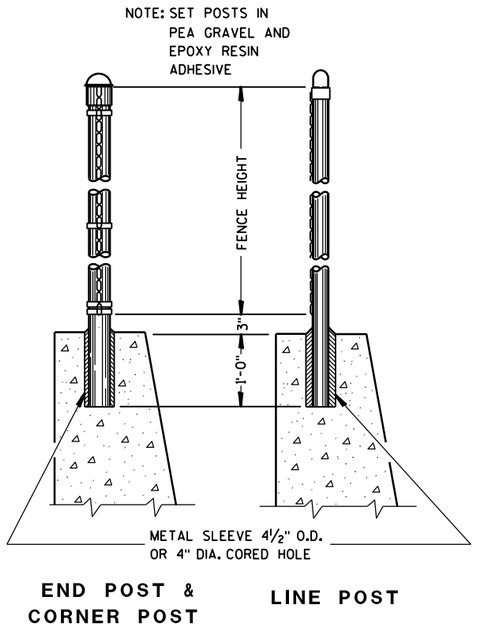
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S.D.D. 15 B 3-12a

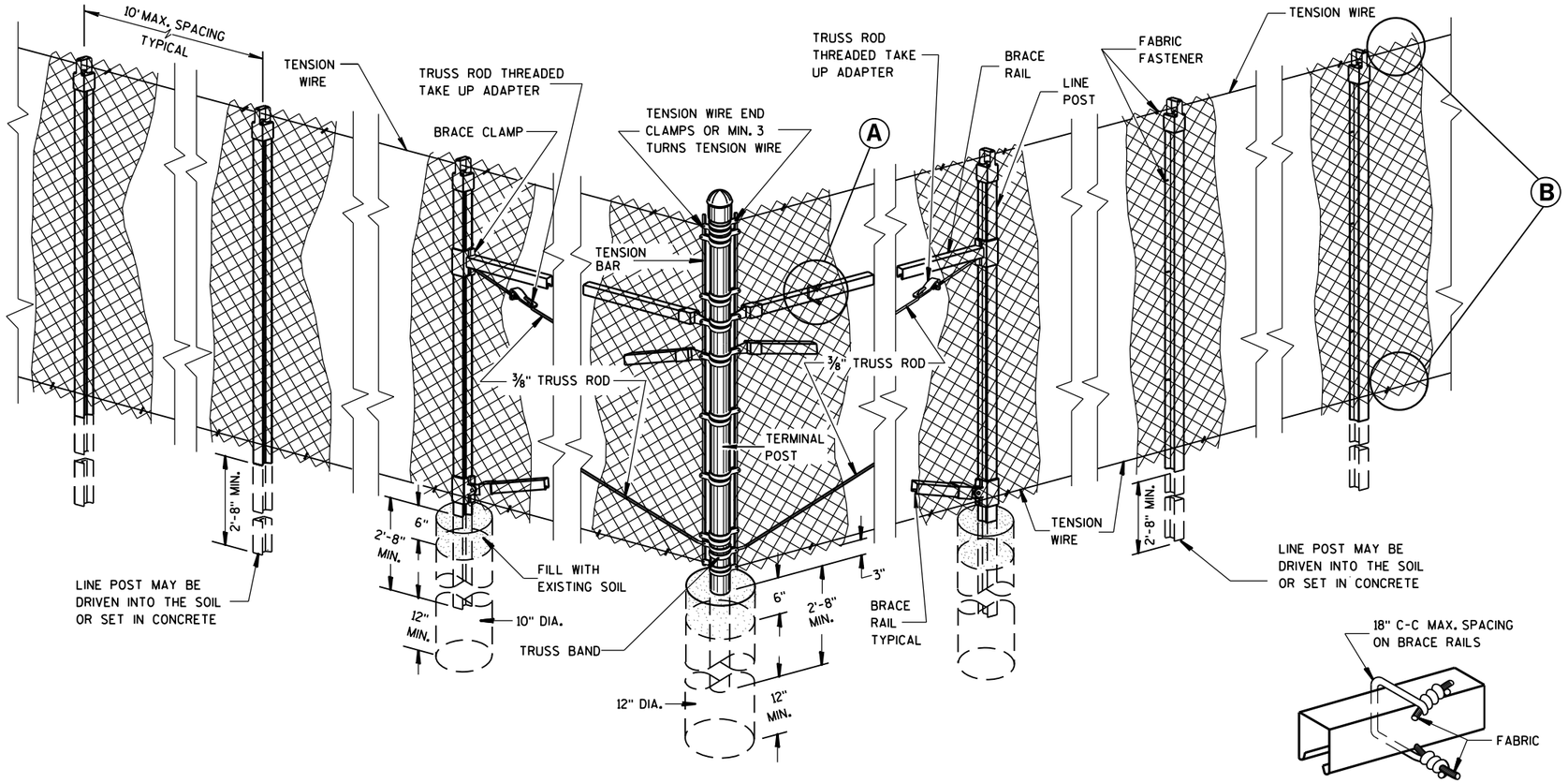


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

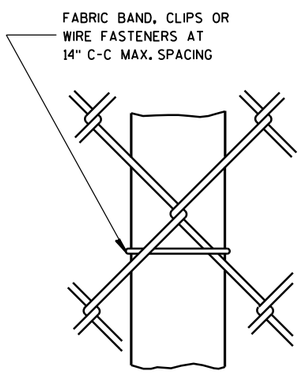
ROCK INSTALLATION OF LINE POST



DETAILS OF FENCE ON WALL

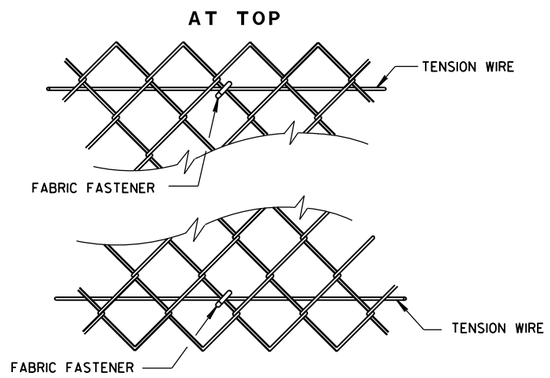


END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



LINE POST

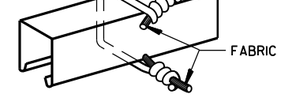
FABRIC FASTENER



AT BOTTOM

SELVAGES

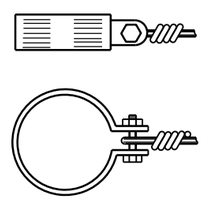
Ⓑ



BRACE RAIL

FABRIC FASTENER

Ⓐ



TENSION WIRE END CLAMP

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

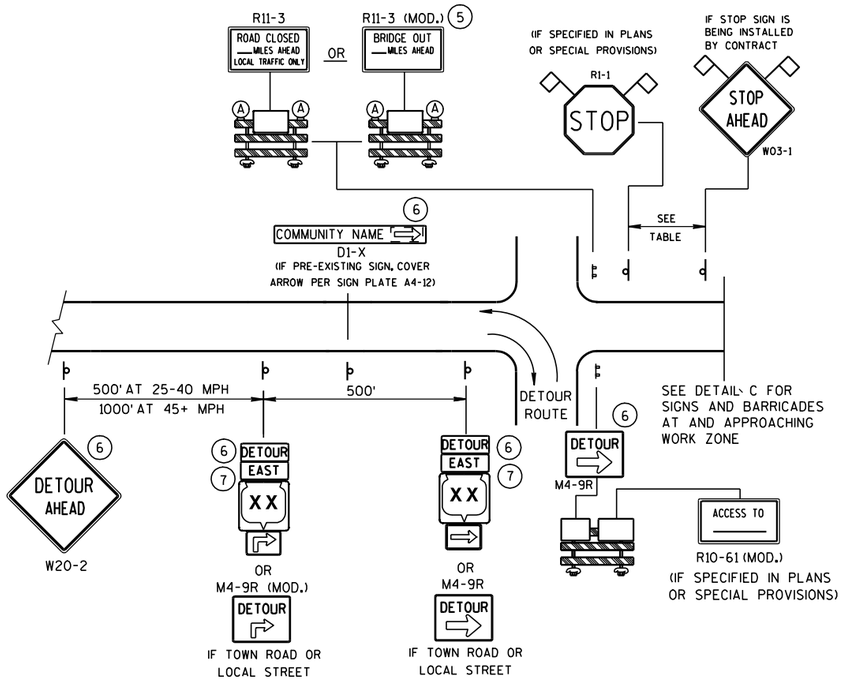
APPROVED
3/19/2010
DATE
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 15 B 3-12b

6

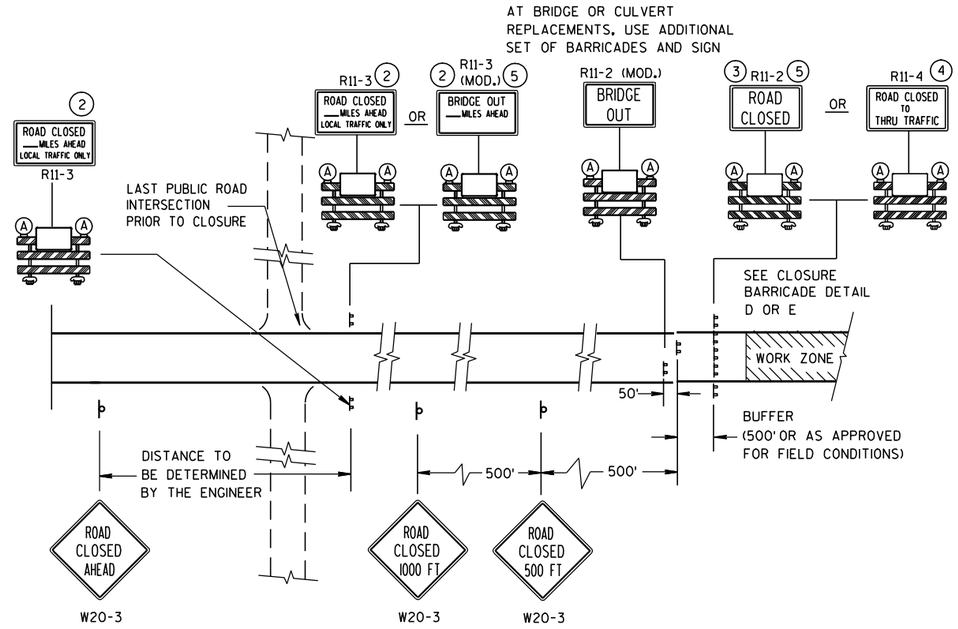
S.D.D. 15 B 3-12b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

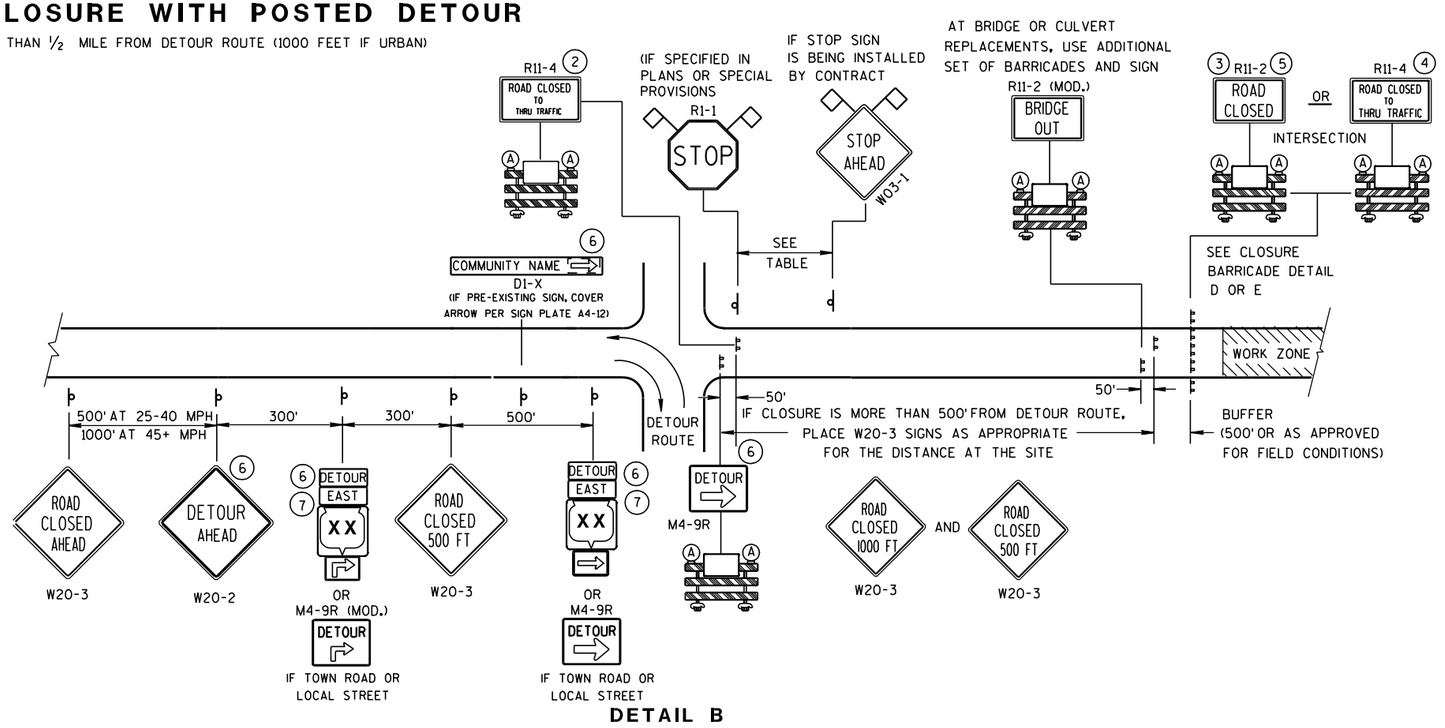


DETAIL C

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

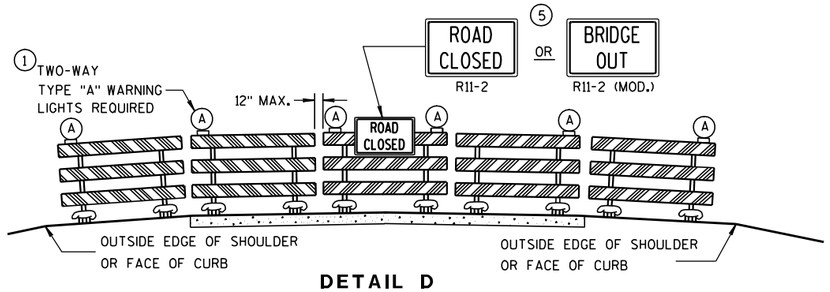
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1; M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

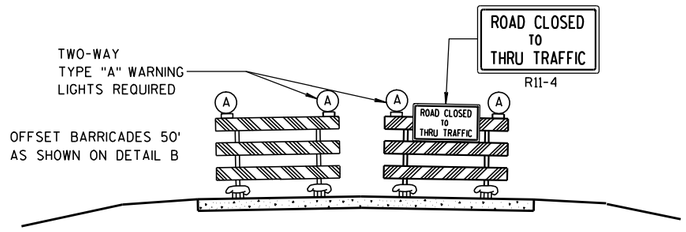
S.D.D. 15 C 2-4a



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

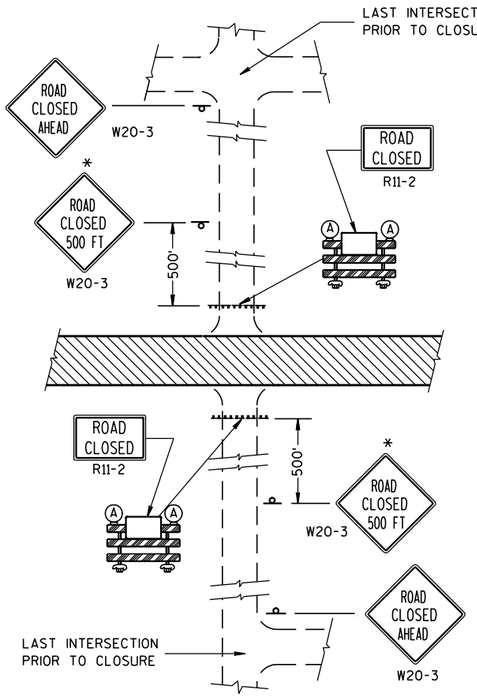
9/16/03 — DATE

/S/ Thomas N. N[illegible] — CHIEF SIGNS AND MARKING ENGINEER

FHWA

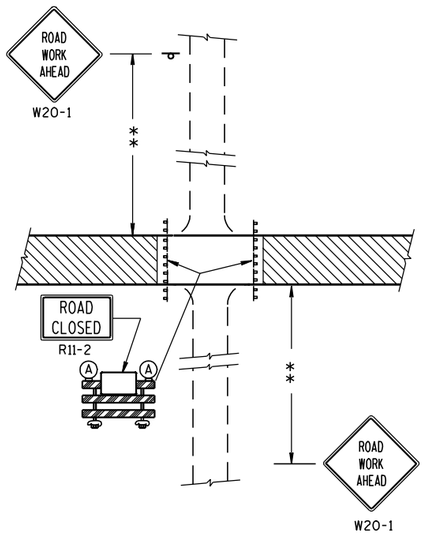
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S.D.D. 15 C 2-4b



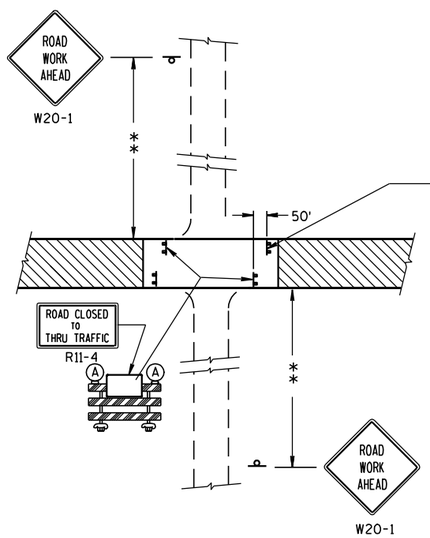
DETAIL 1

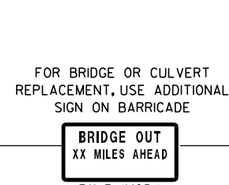
(NO ACCESS TO PROJECT)



DETAIL 2

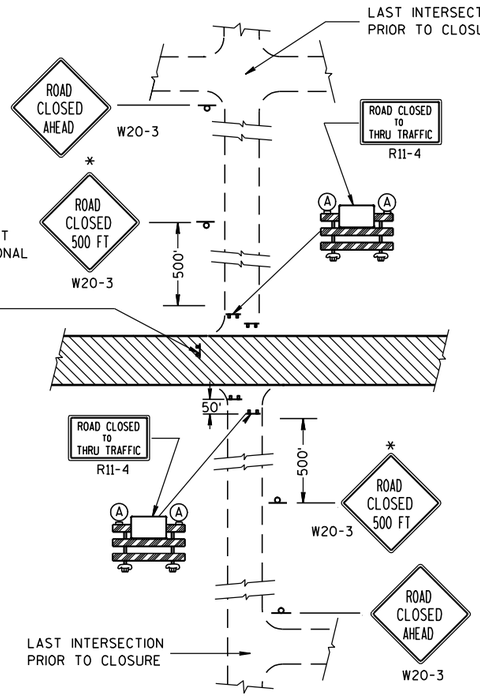
(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).





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] INEER
CHIEF SIGNS AND MAR 304

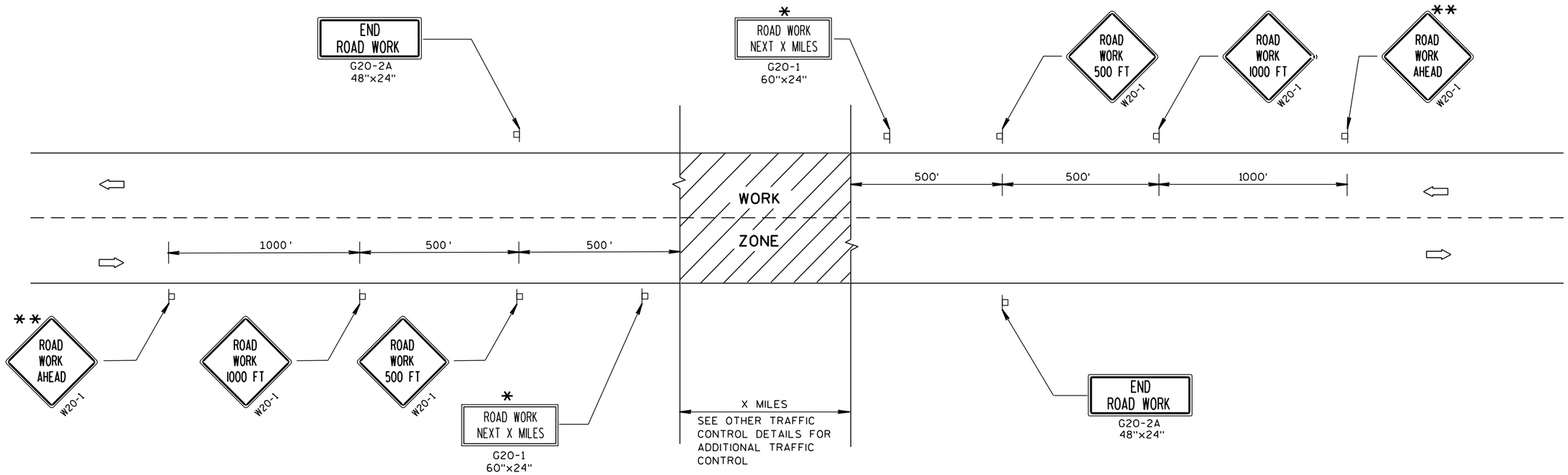
FHWA

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S.D.D. 15 C 3-1

6

S.D.D. 15 C 3-1



6

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

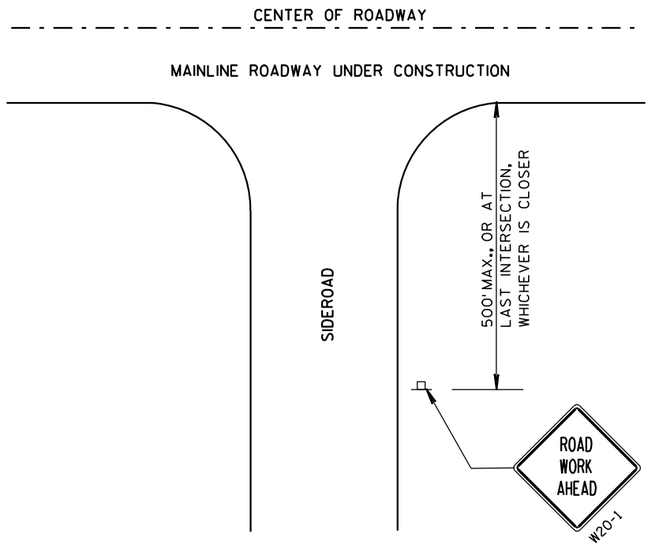
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING.

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00 DATE

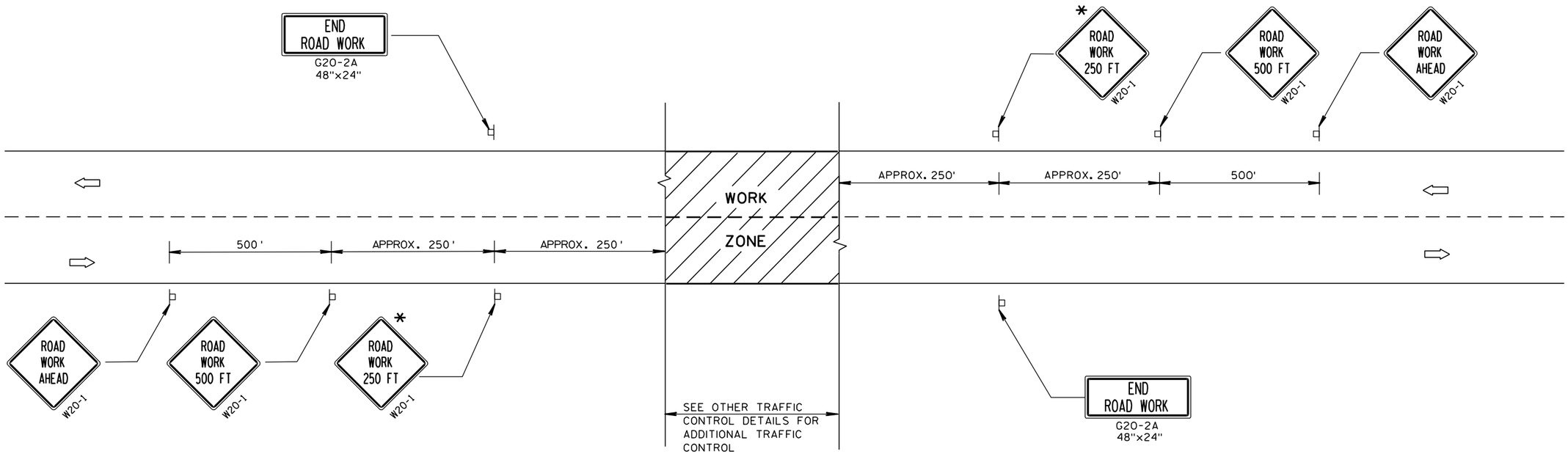
/S/ Chester J. [illegible] CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

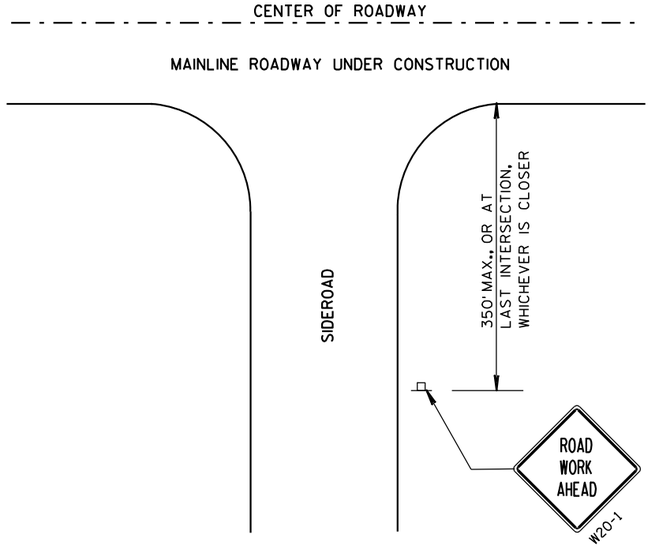
S.D.D. 15 C 4-1

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S.D.D. 15 C 4-1



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, 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.

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

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S.D.D. 15 C 5-1

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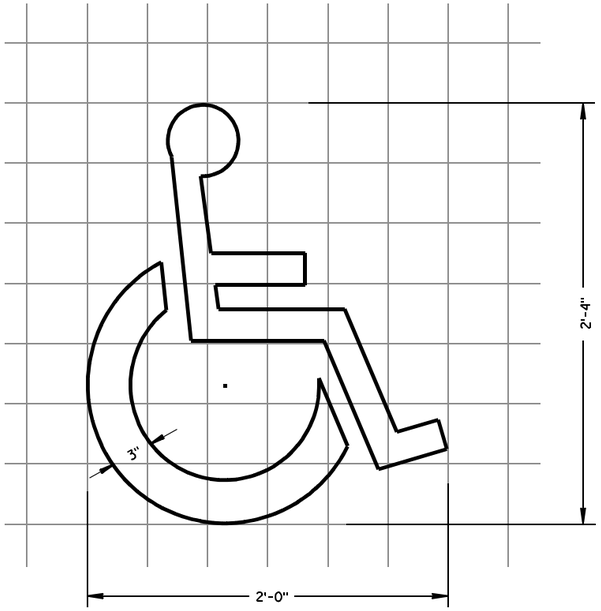
S.D.D. 15 C 5-1

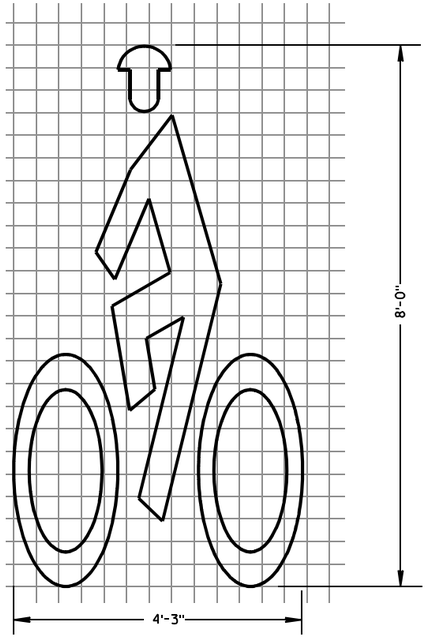
GENERAL NOTES

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.

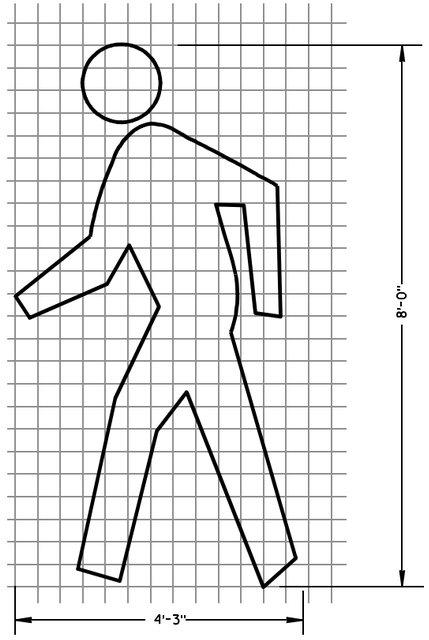
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES 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.

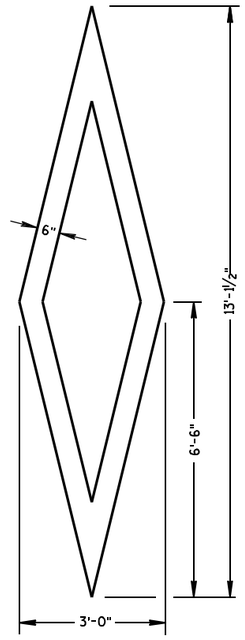




BIKE CROSSING SYMBOL



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

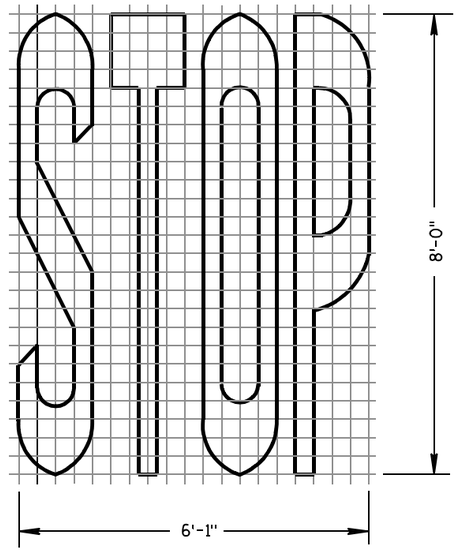
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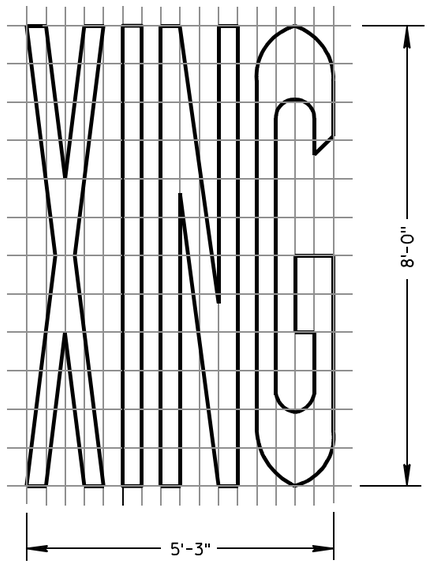
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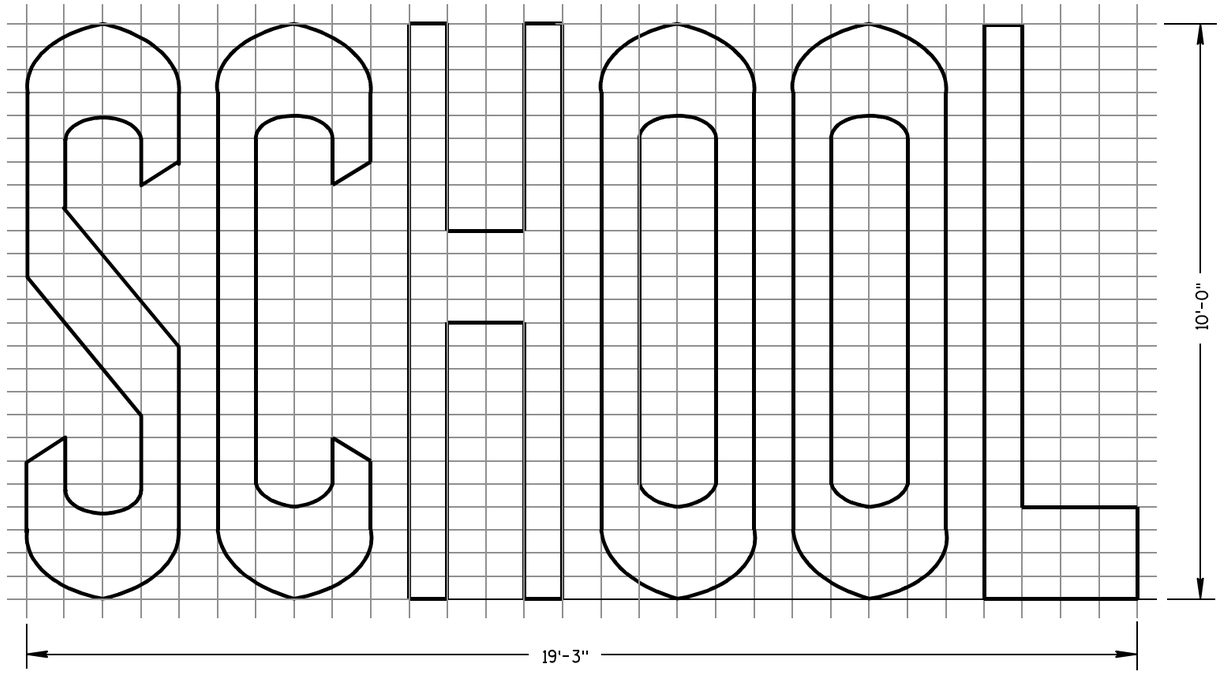
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

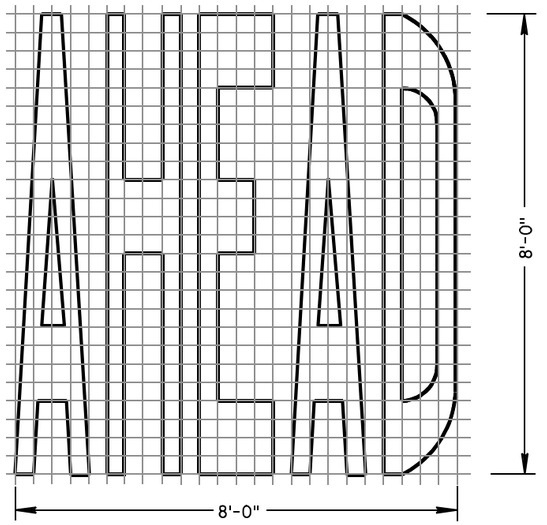
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

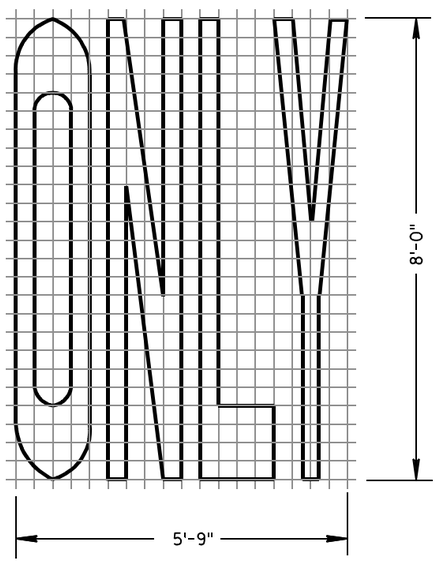


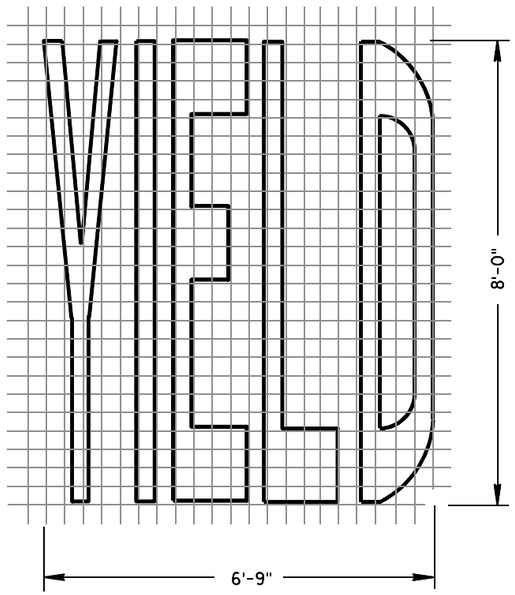


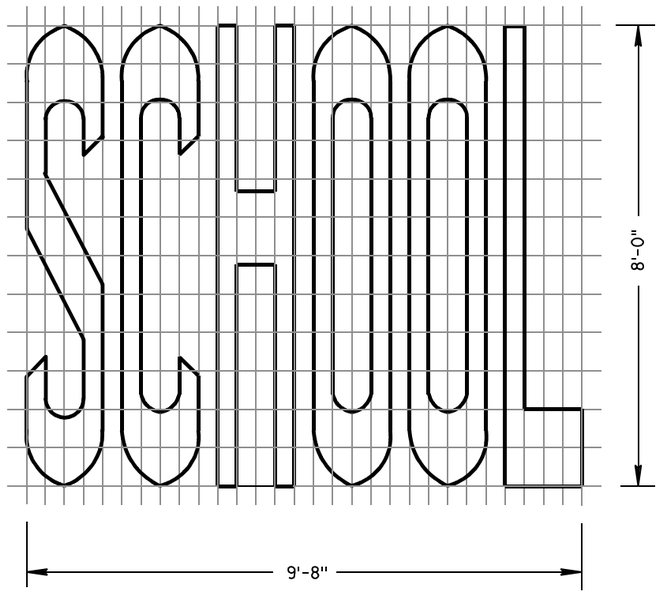


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 7-12b

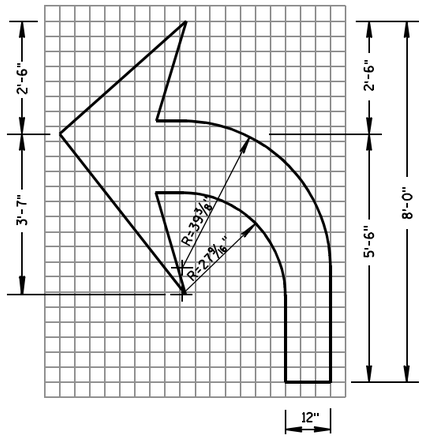
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S.D.D. 15 C 7-12b

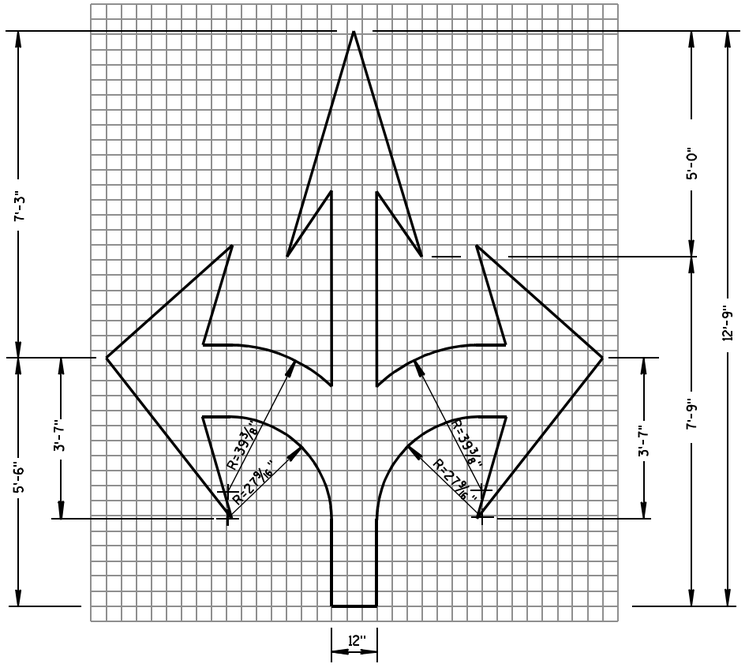
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

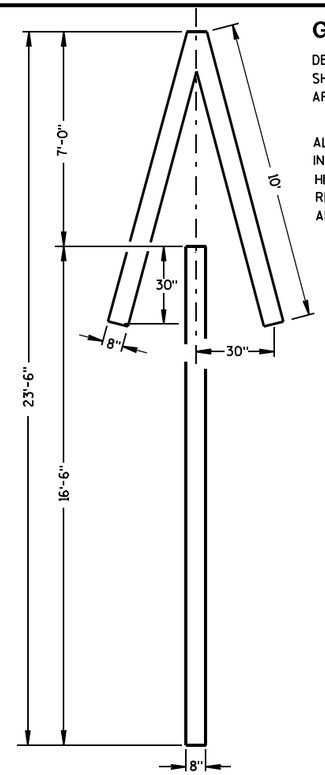
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



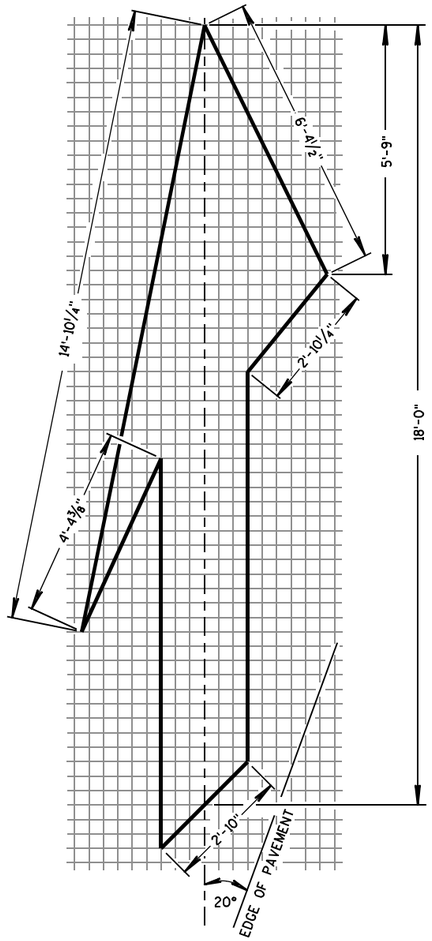
TYPE 2



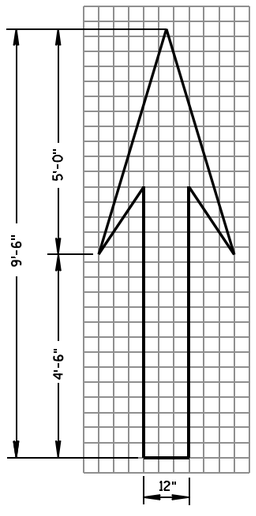
TYPE 6



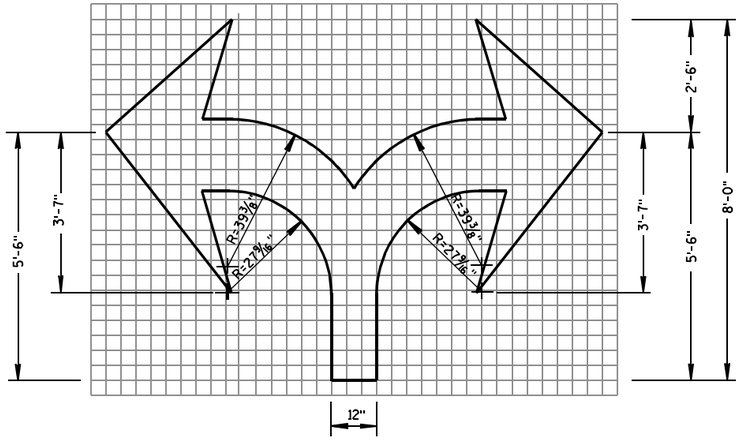
TYPE 4



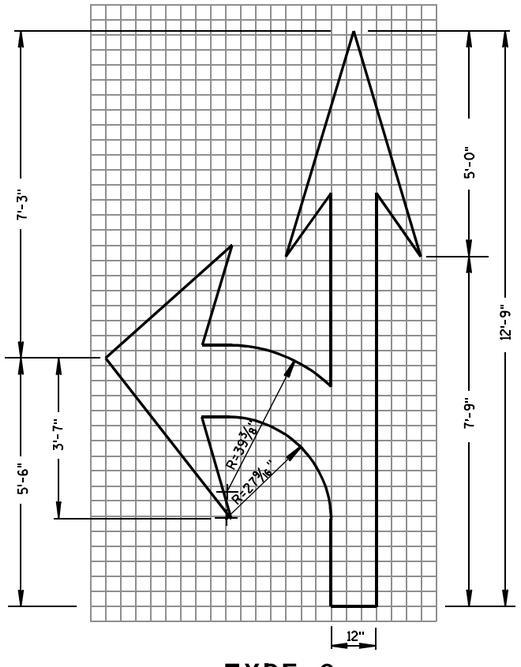
TYPE 5 LANE DROP ARROW



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

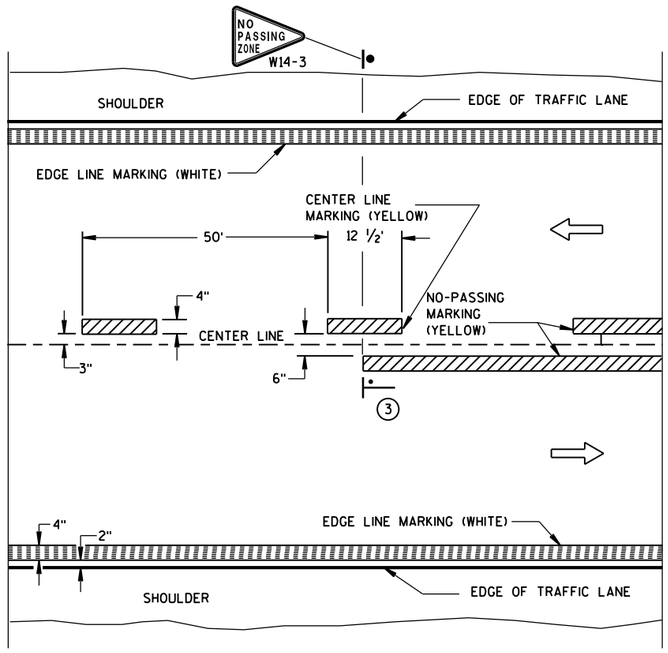
FHWA

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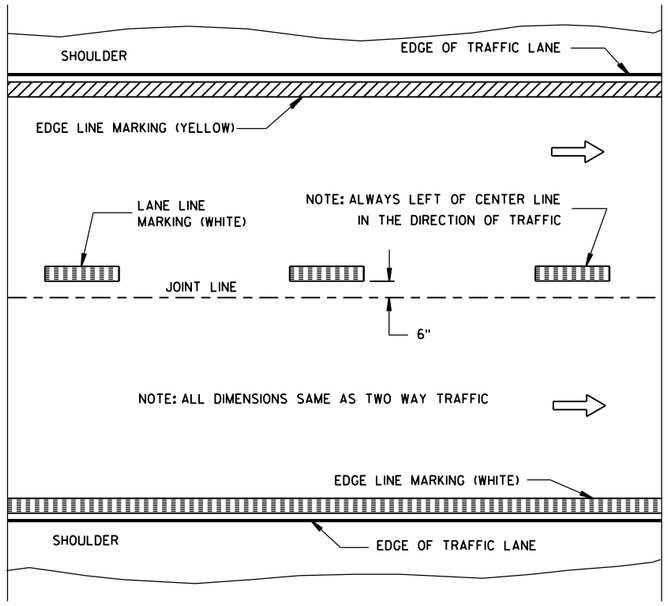
S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c

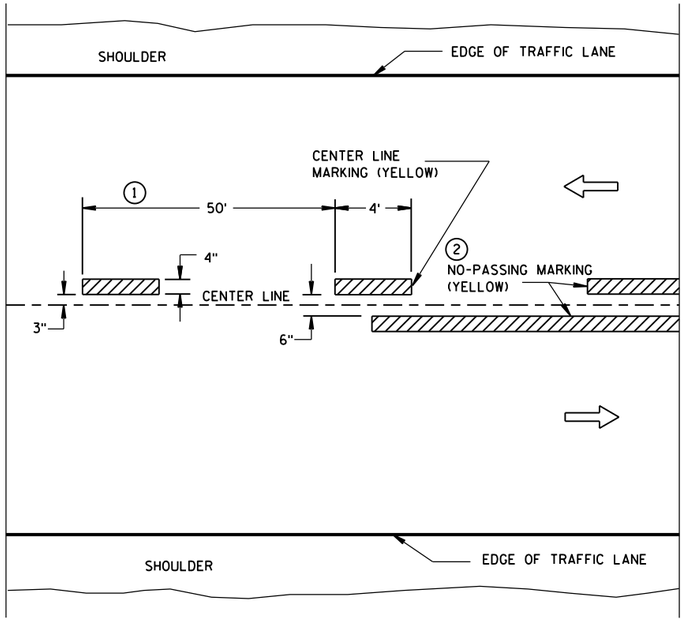


TWO WAY TRAFFIC

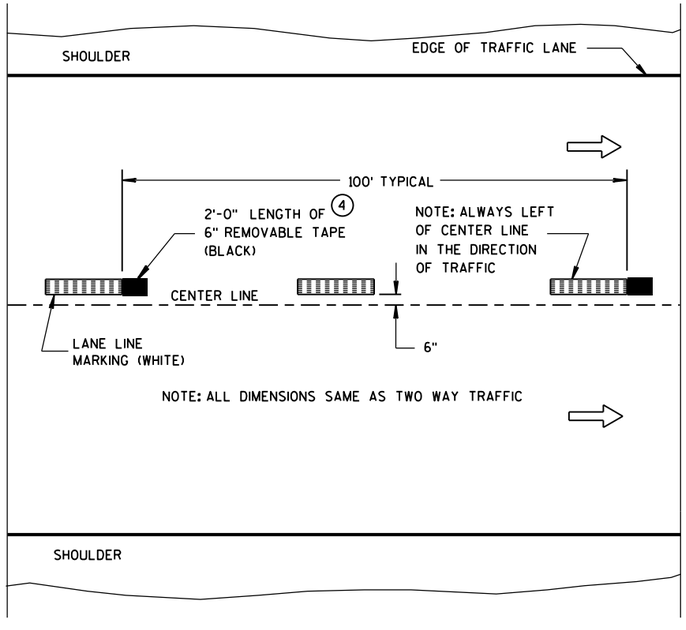


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

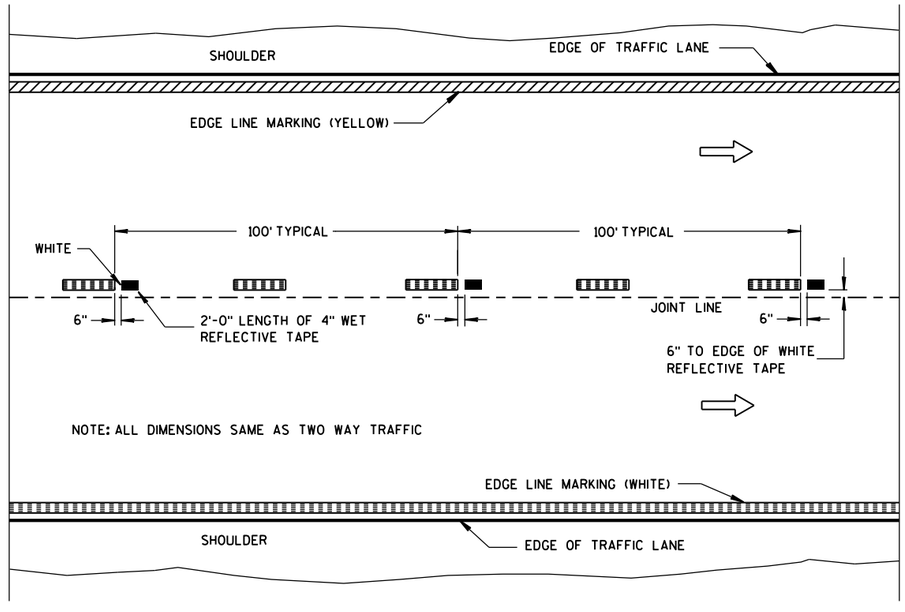
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC E

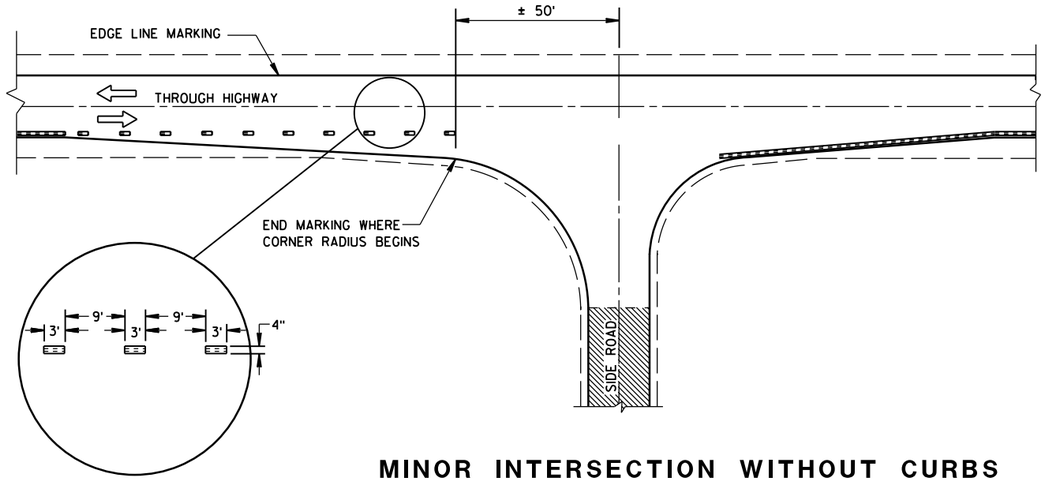
FHWA

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S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

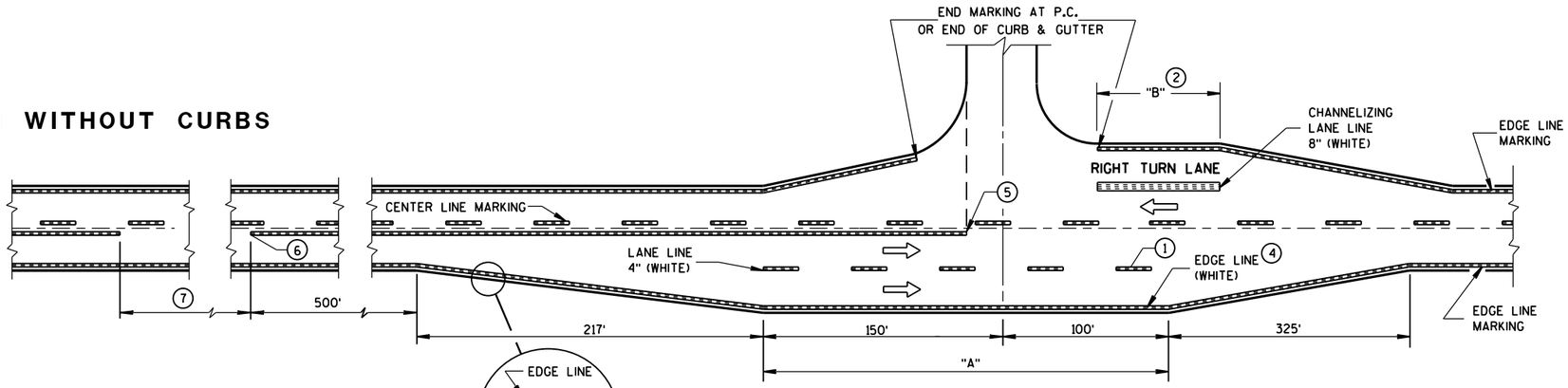
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

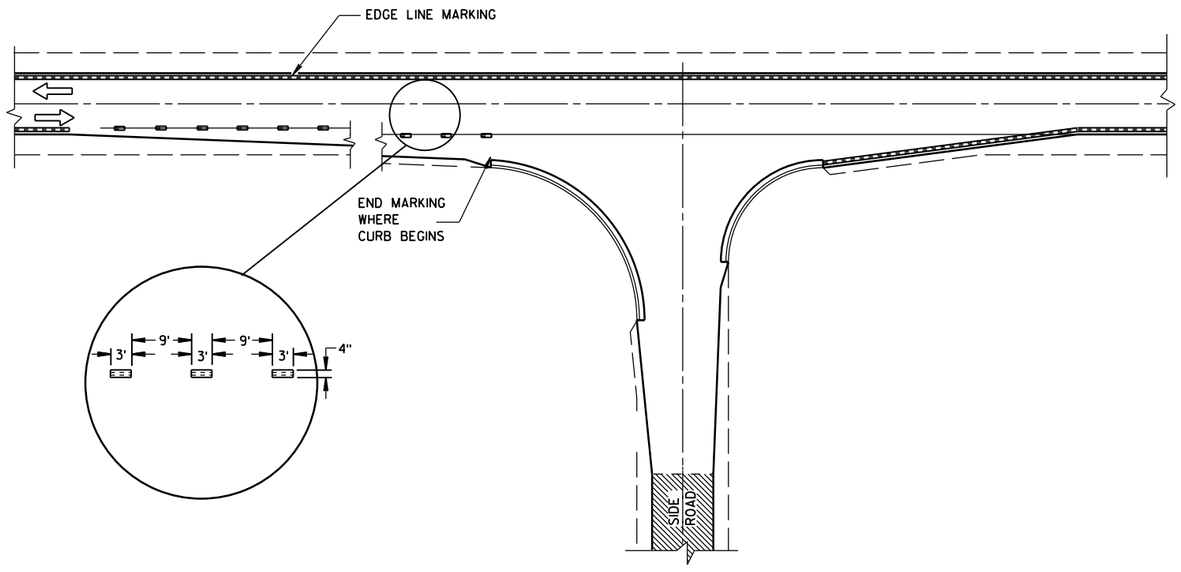
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



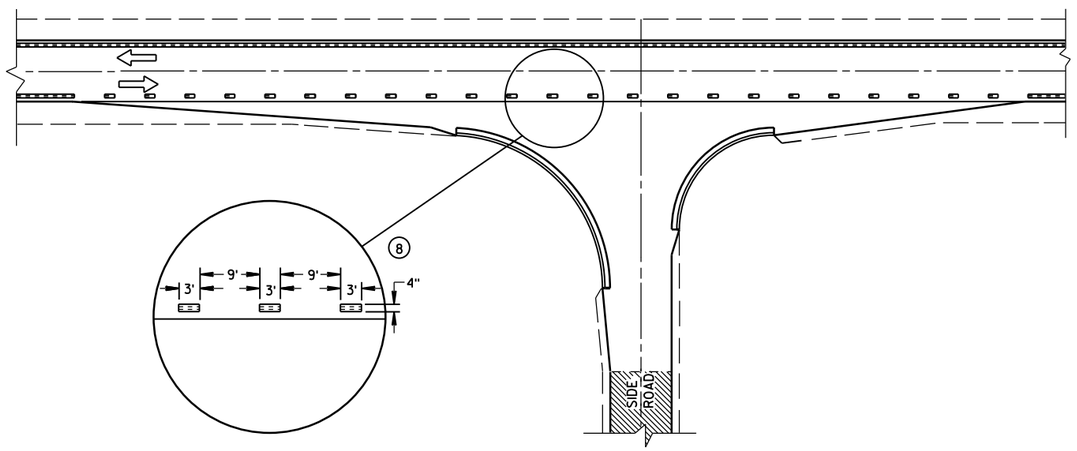
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

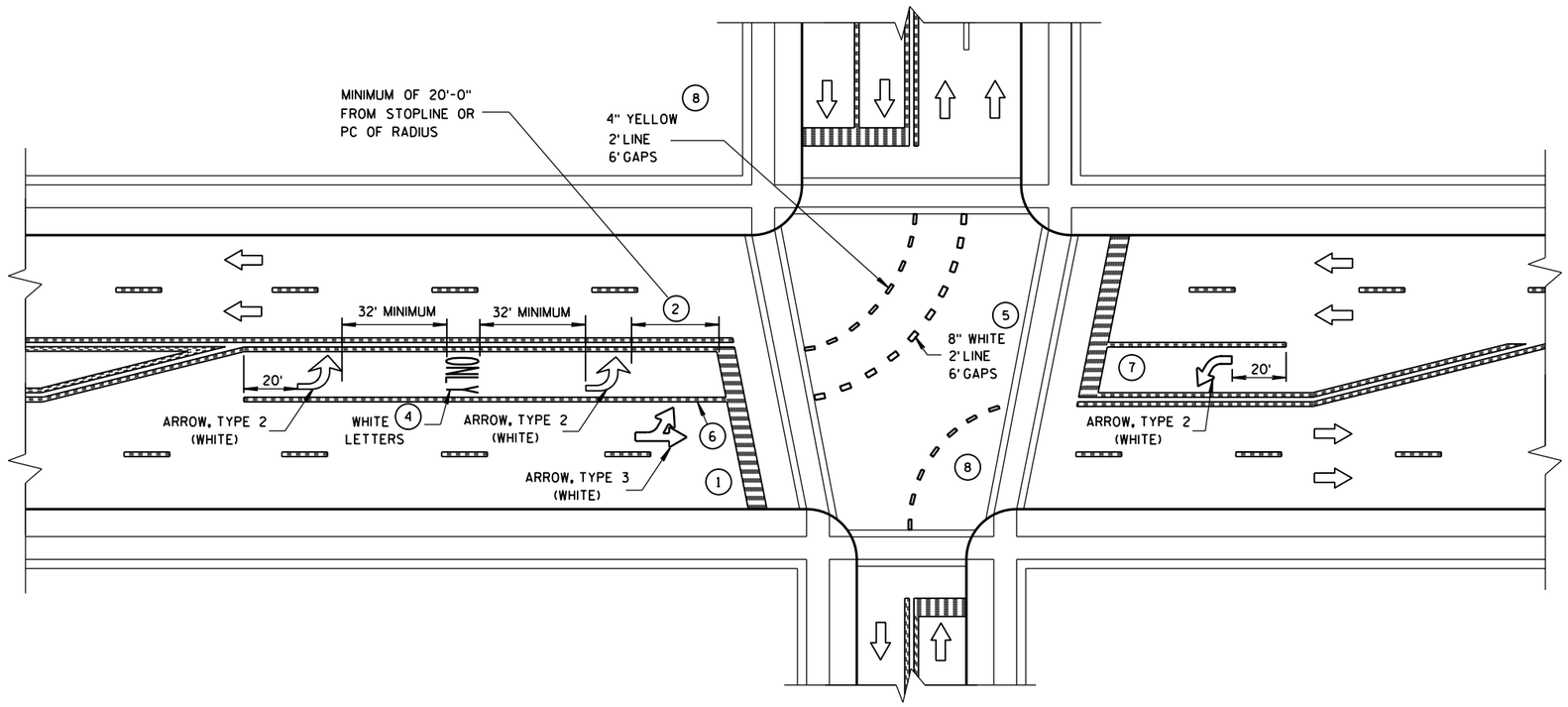
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

6

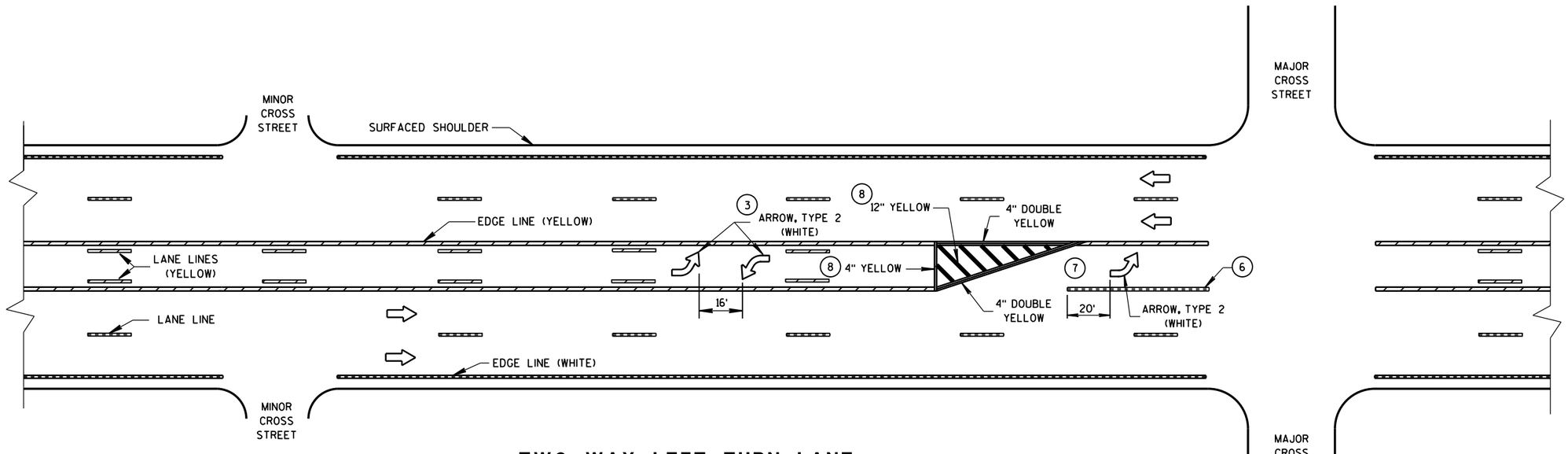
S.D.D. 15 C 8-16b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

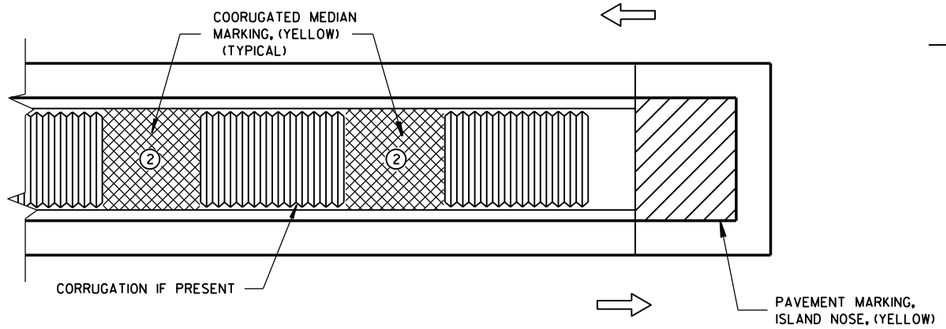
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

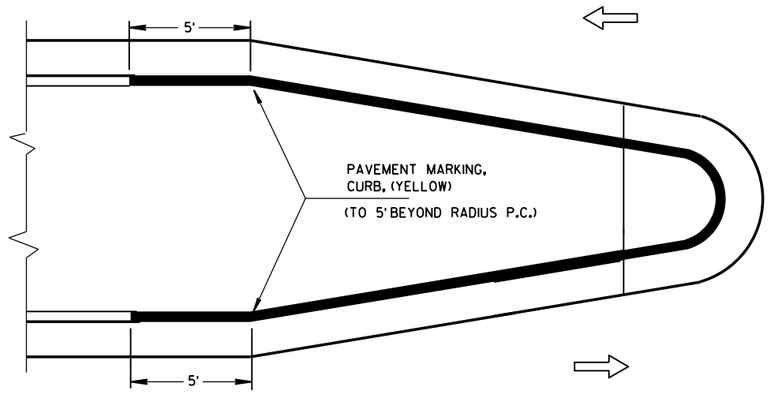
S.D.D. 15 C 8-16e

6

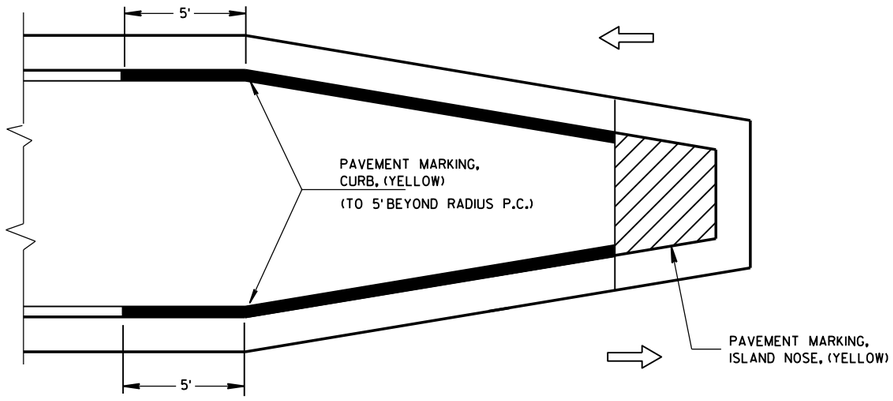
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

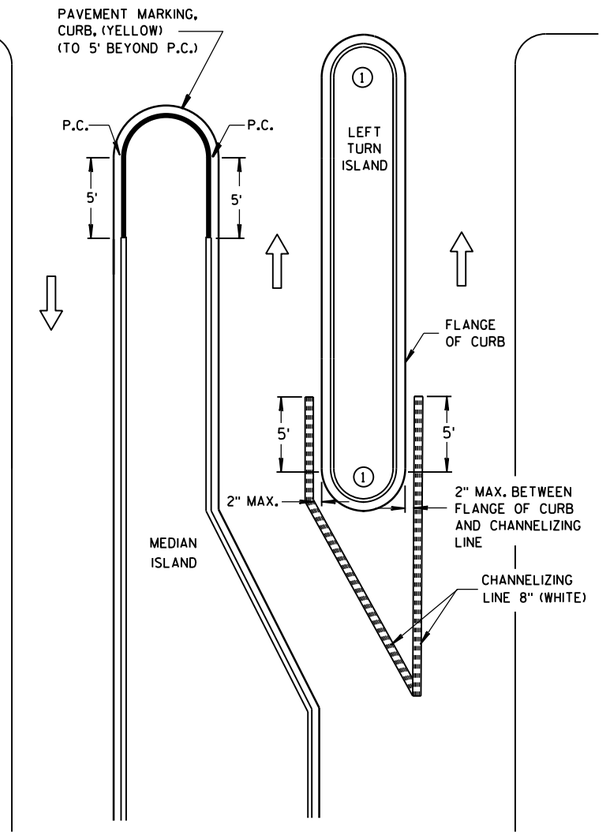


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

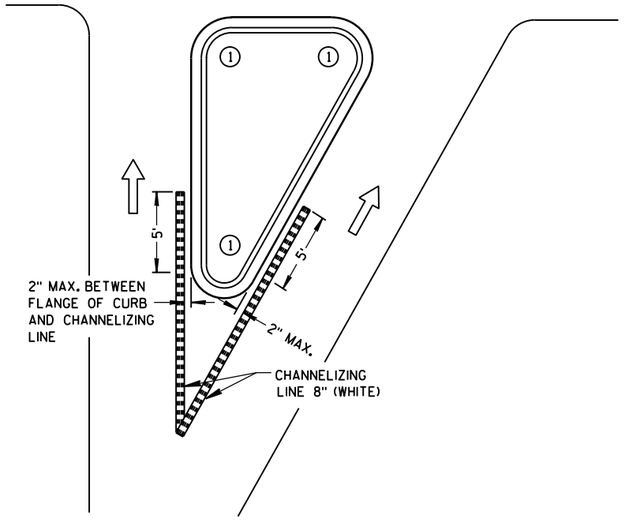


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

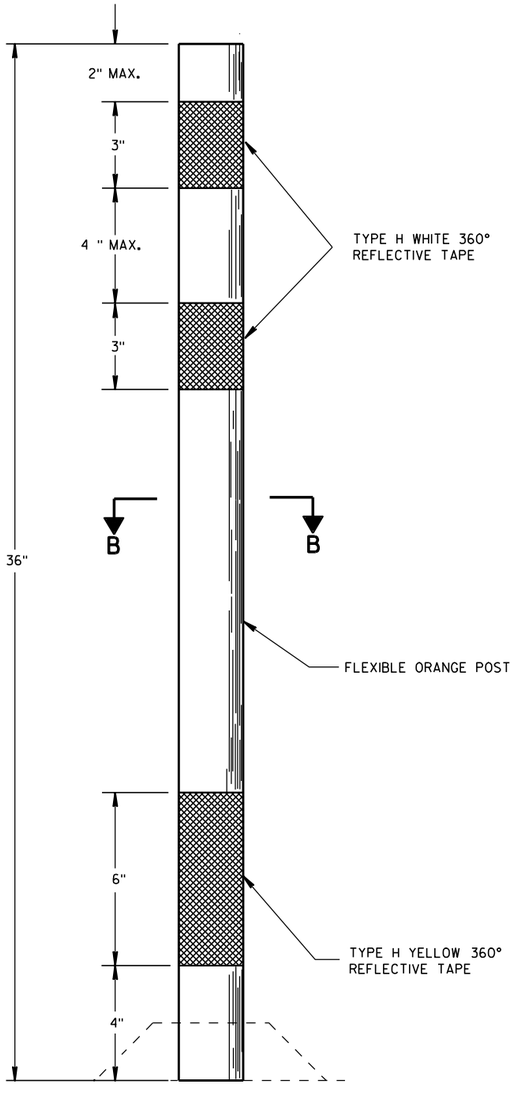
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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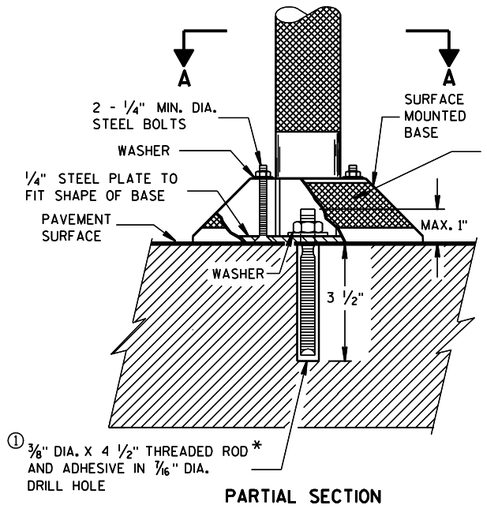
S.D.D. 15 C 8-16f

6

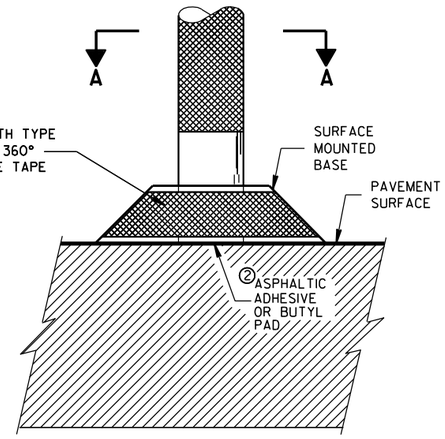
S.D.D. 15 C 8-16f



FLEXIBLE TUBULAR MARKER POST



PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT

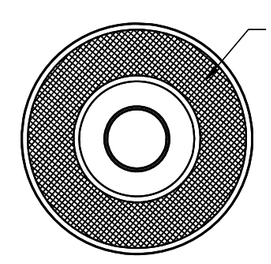
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

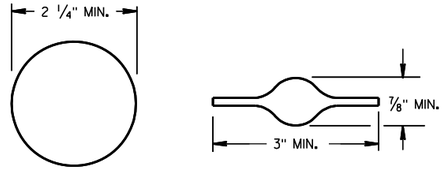
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



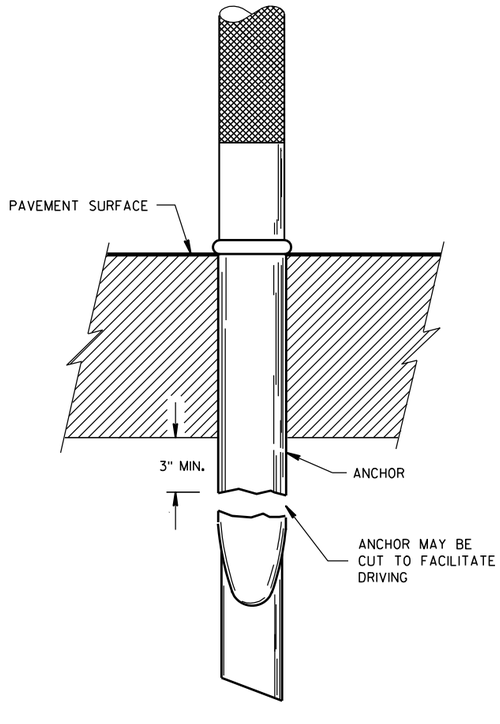
SECTION A-A

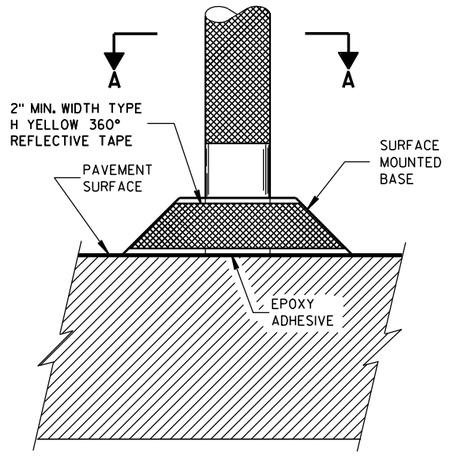
SURFACE MOUNTED BASE



SECTION B-B

ALTERNATIVE SHAPES





POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED

FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/17/94 DATE

/S/ Chester J. [illegible] DIRECTOR, OFFICE O

FHWA

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S.D.D. 15 C 11-5

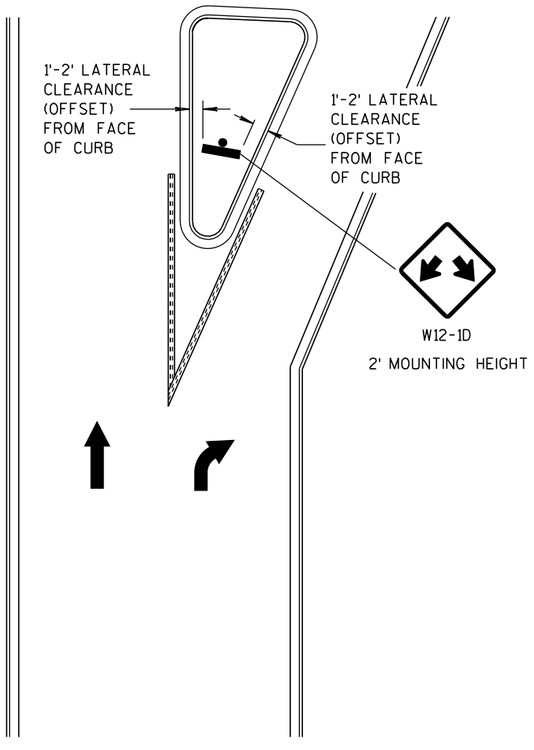
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S.D.D. 15 C 11-5

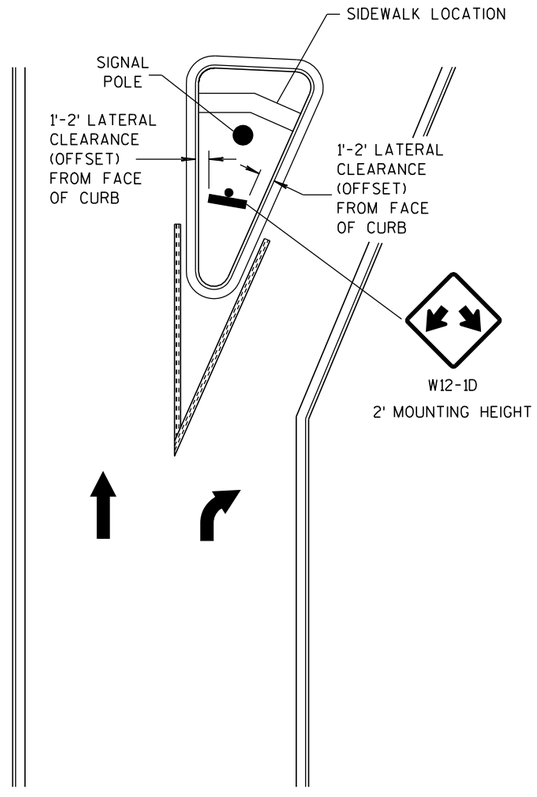
GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

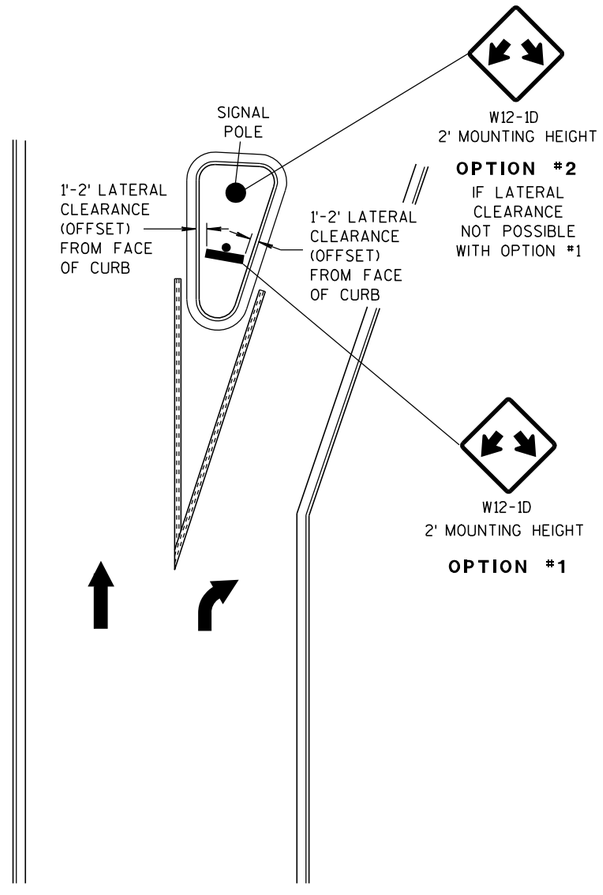
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.



LARGE RIGHT TURN ISLAND



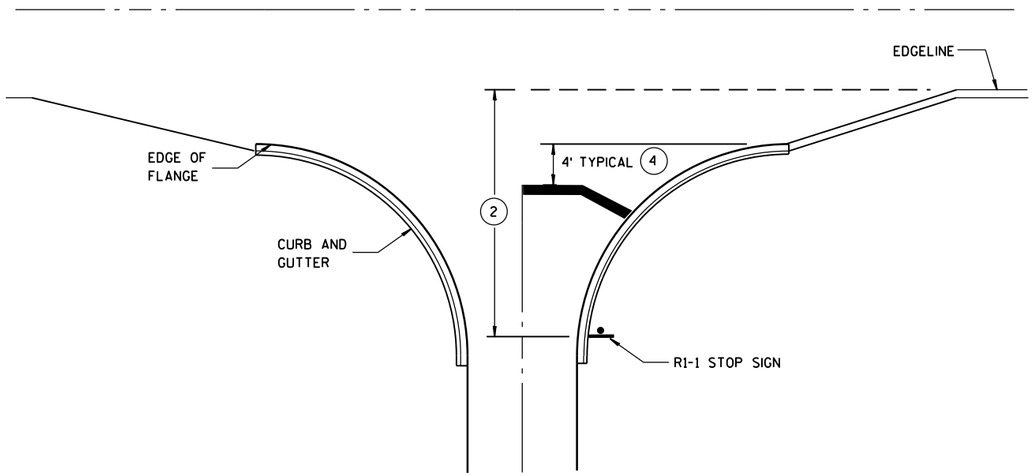
LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE



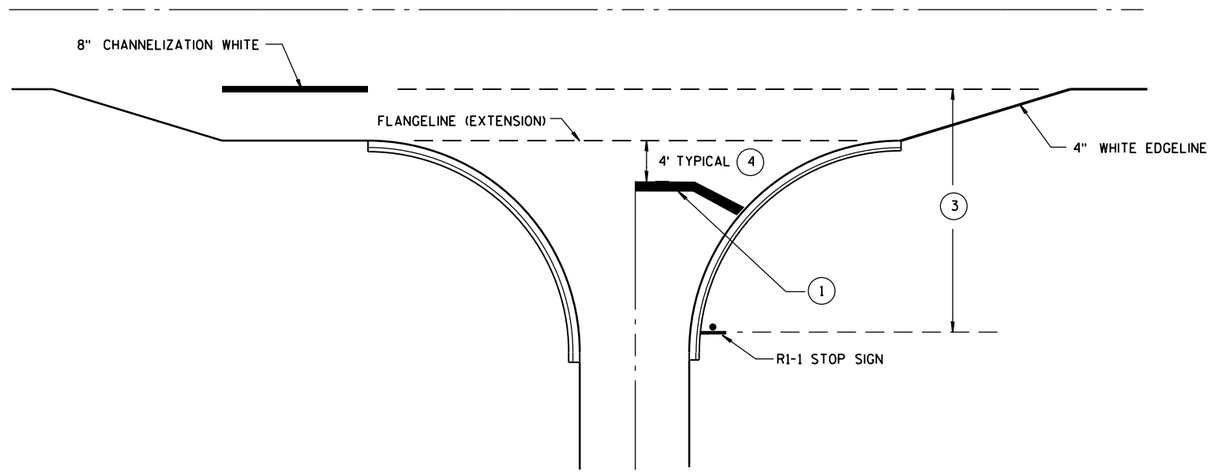
SMALL RIGHT TURN ISLAND

DOUBLE ARROW WARNING SIGN PLACEMENT

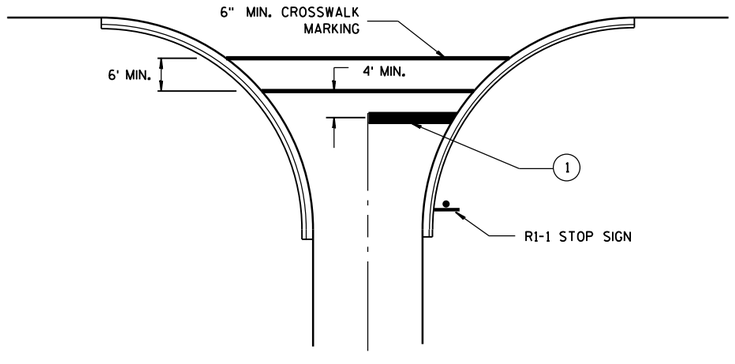
DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-08 DATE	/S/ Thomas N. Nothem STATE TRAFFIC ENGINEER
FHWA	315 IGN



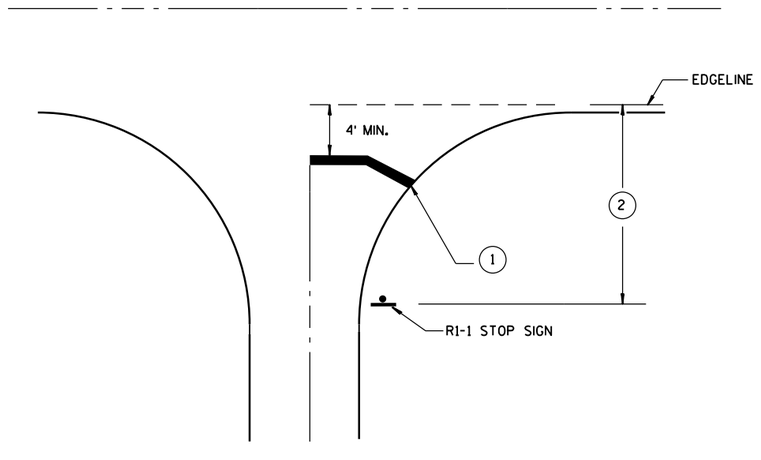
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

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S.D.D. 15 C 33-1

LEGEND

- POST WITH ATTACHED SIGN
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- ARROW BOARD
- REMOVING PAVEMENT MARKING
- TEMPORARY PRECAST CONCRETE BARRIER
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES :

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

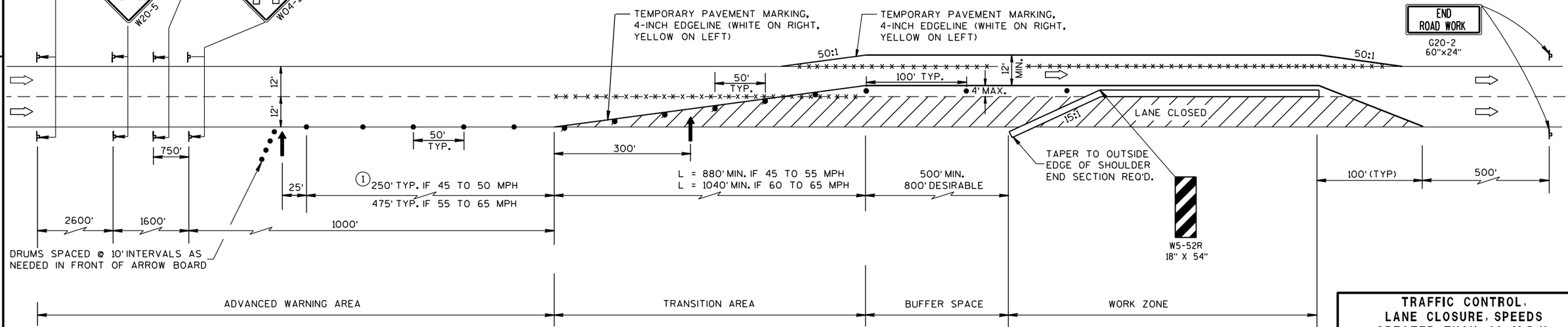
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED WITHIN THE WORK ZONE OTHER THAN BEHIND THE PRECAST CONCRETE BARRIER.





TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-94
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE OF [illegible]

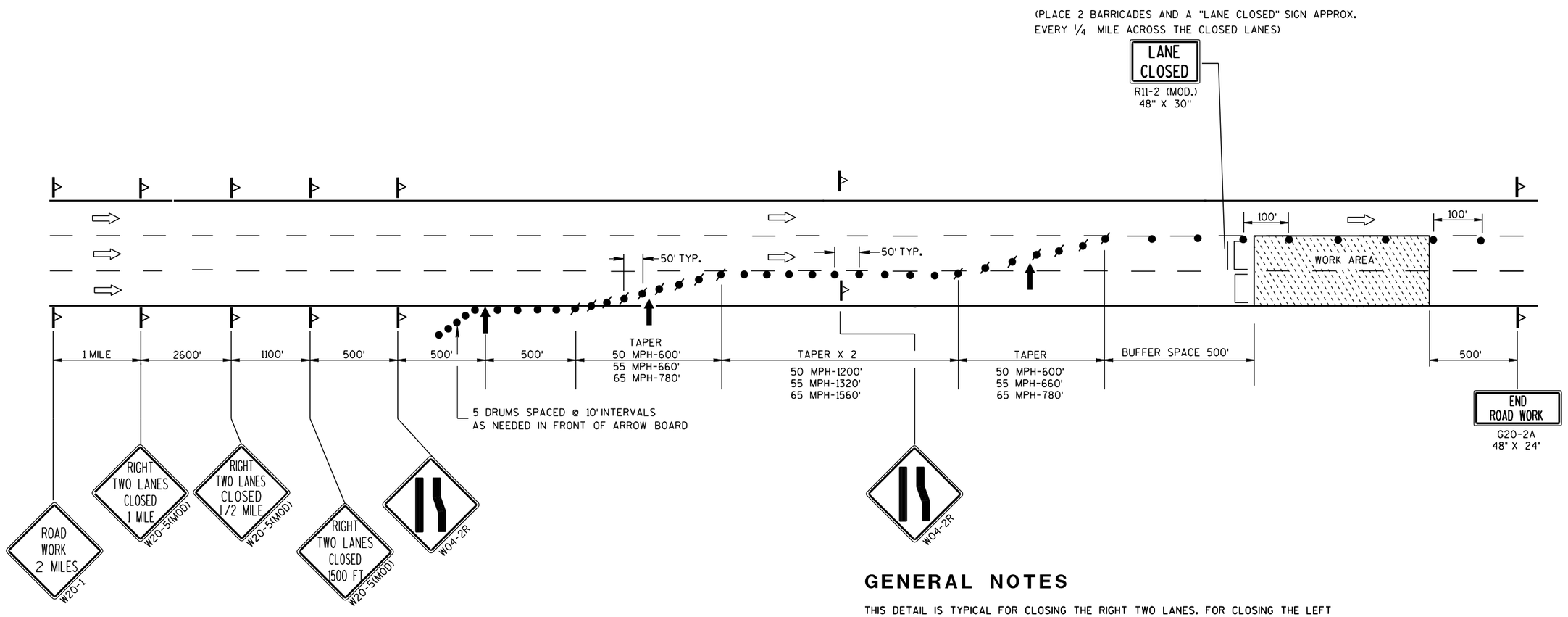
FHWA

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S.D.D. 15 D 3-1



LEGEND

- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY BURN)
- SIGN ON POST OR PORTABLE SUPPORT
- FLASHING ARROW BOARD
- TYPE III BARRICADE (8' EQUIVALENT) WITH/WITHOUT SIGN
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

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.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

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S.D.D. 15 D 14-1

SYMBOLS

IC/C	TYPE III BARRICADE (8' EQUIVALENT) WITH/WITHOUT SIGN
•	DRUM
⊢	POST MOUNTED SIGN
(A)	WARNING LIGHT, TYPE A (FLASHING)
⇨	DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

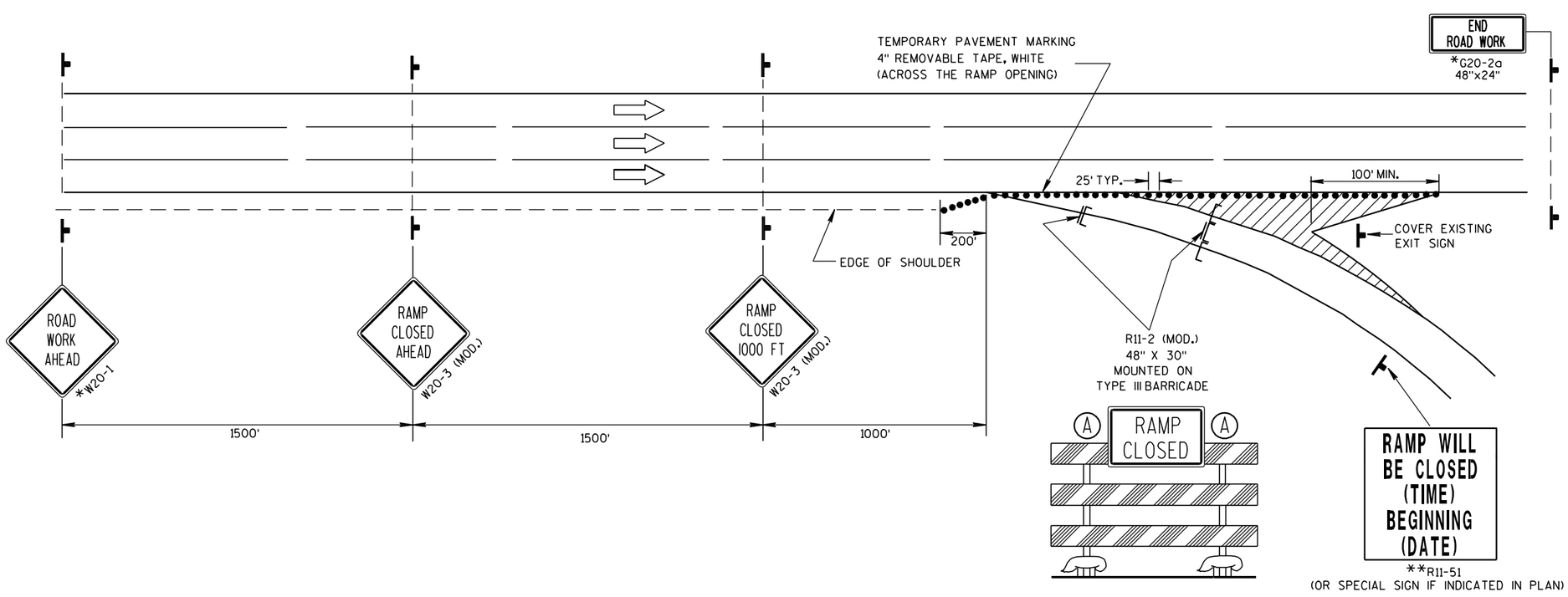
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

*W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

**USE THE "RAMP WILL BE CLOSED" SIGN IF INDICATED IN MISCELLANEOUS QUANTITIES. PLACE 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



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S.D.D. 15 D 16-1

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S.D.D. 15 D 16-1

TRAFFIC CONTROL, EXIT RAMP CLOSURE

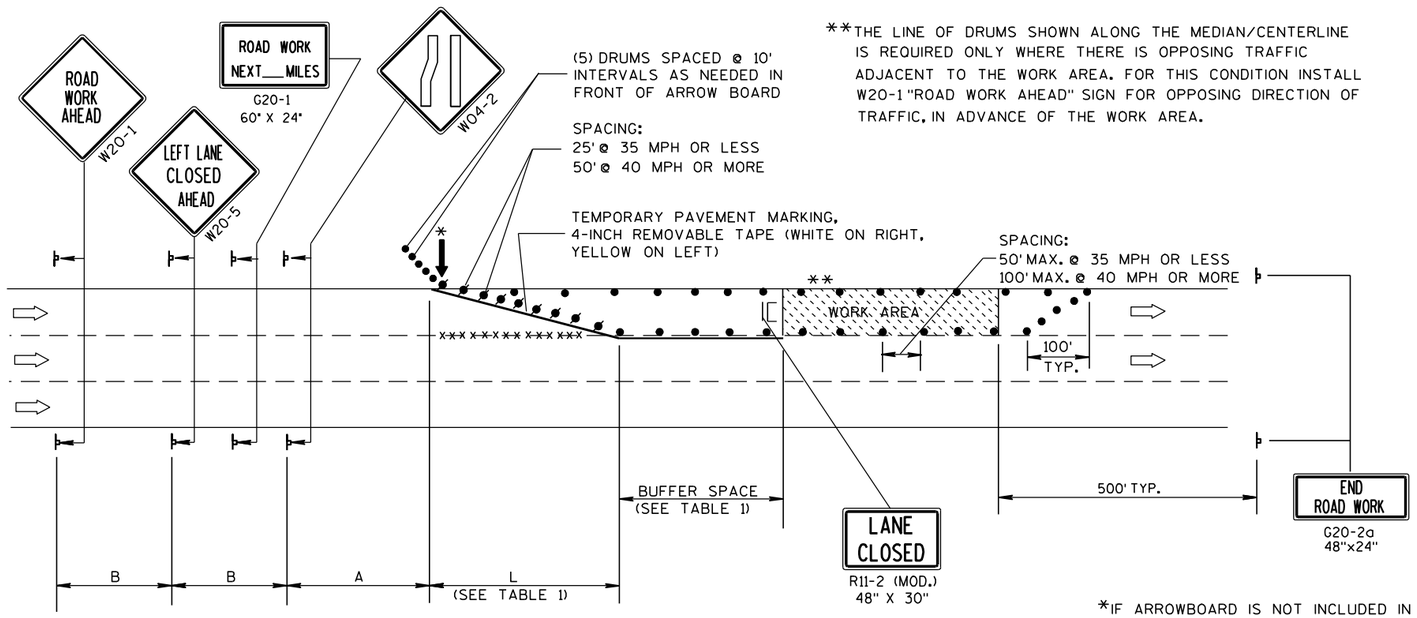
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/2000
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MAR 319 INEER

FHWA



**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"

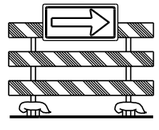


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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

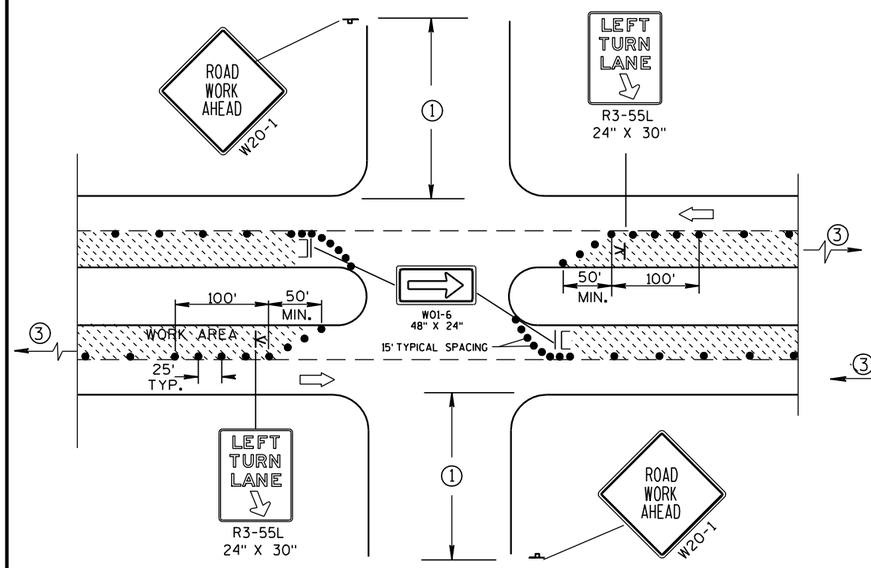
5/23/00
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

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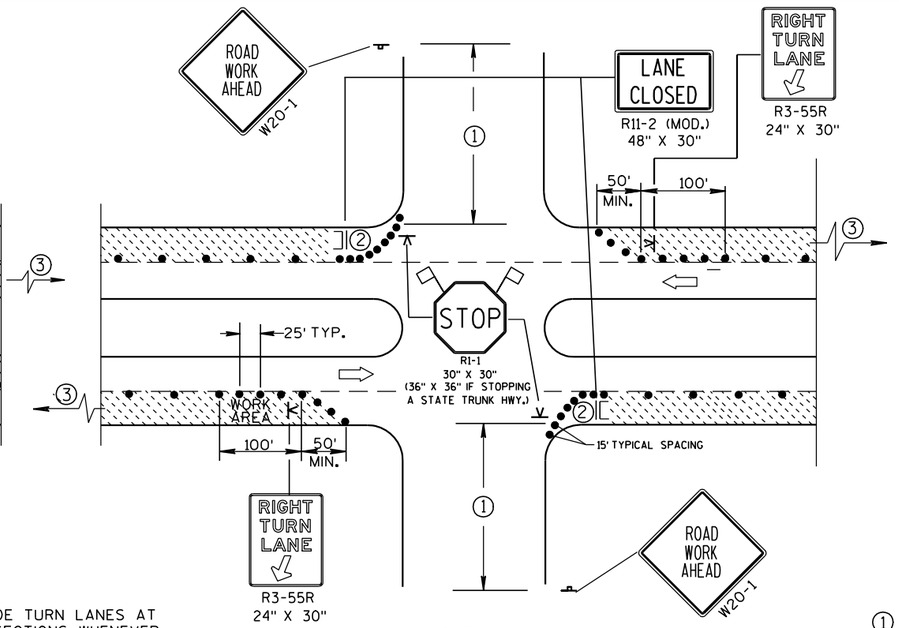
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DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

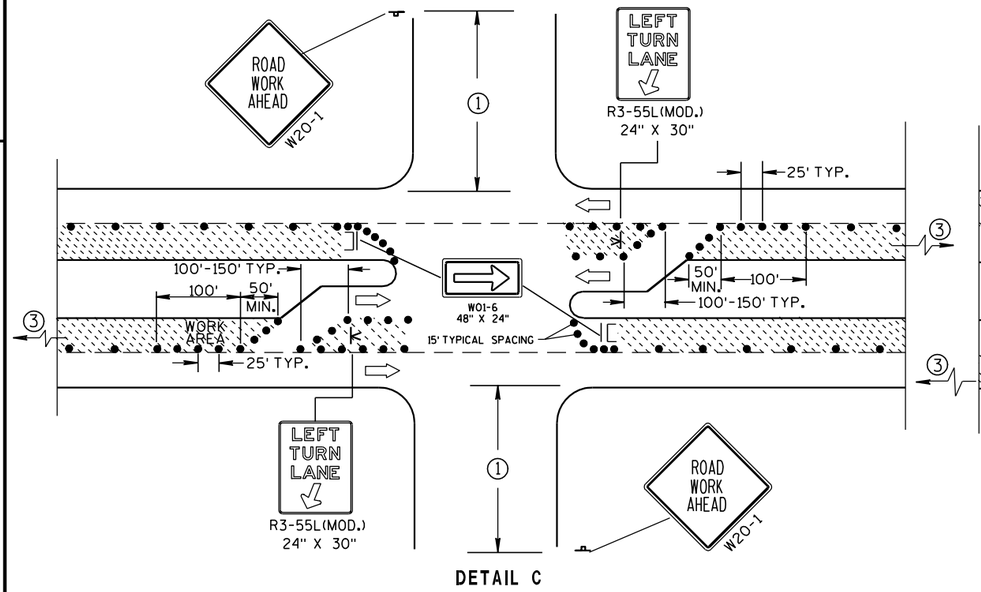
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

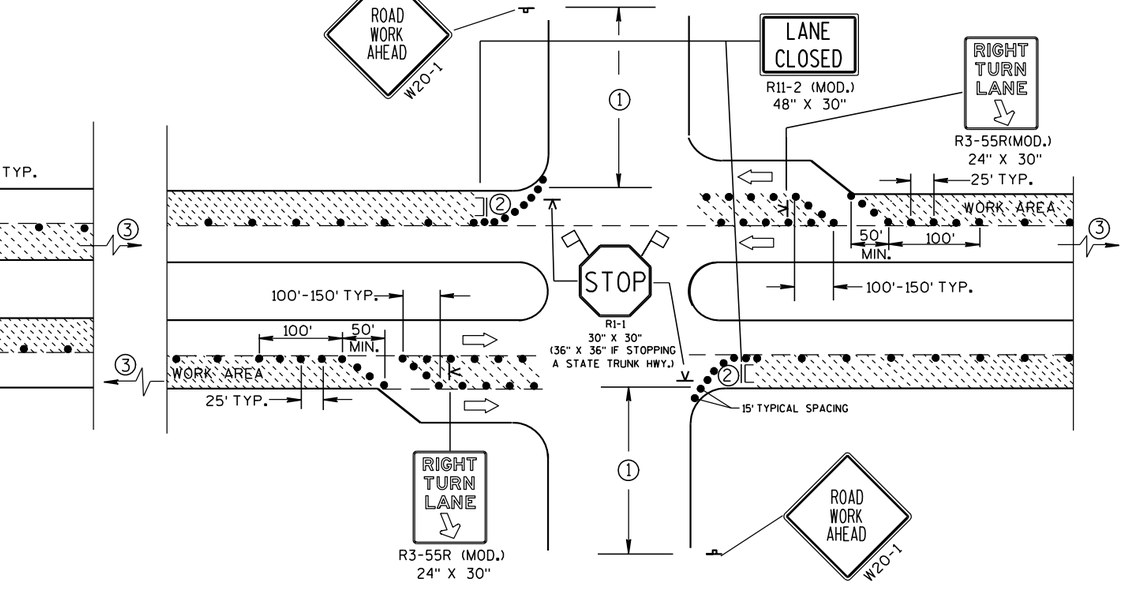
② ALSO USE BARRICADE AND 15' TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

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 MARKINGS ENGINEER
FHWA

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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.

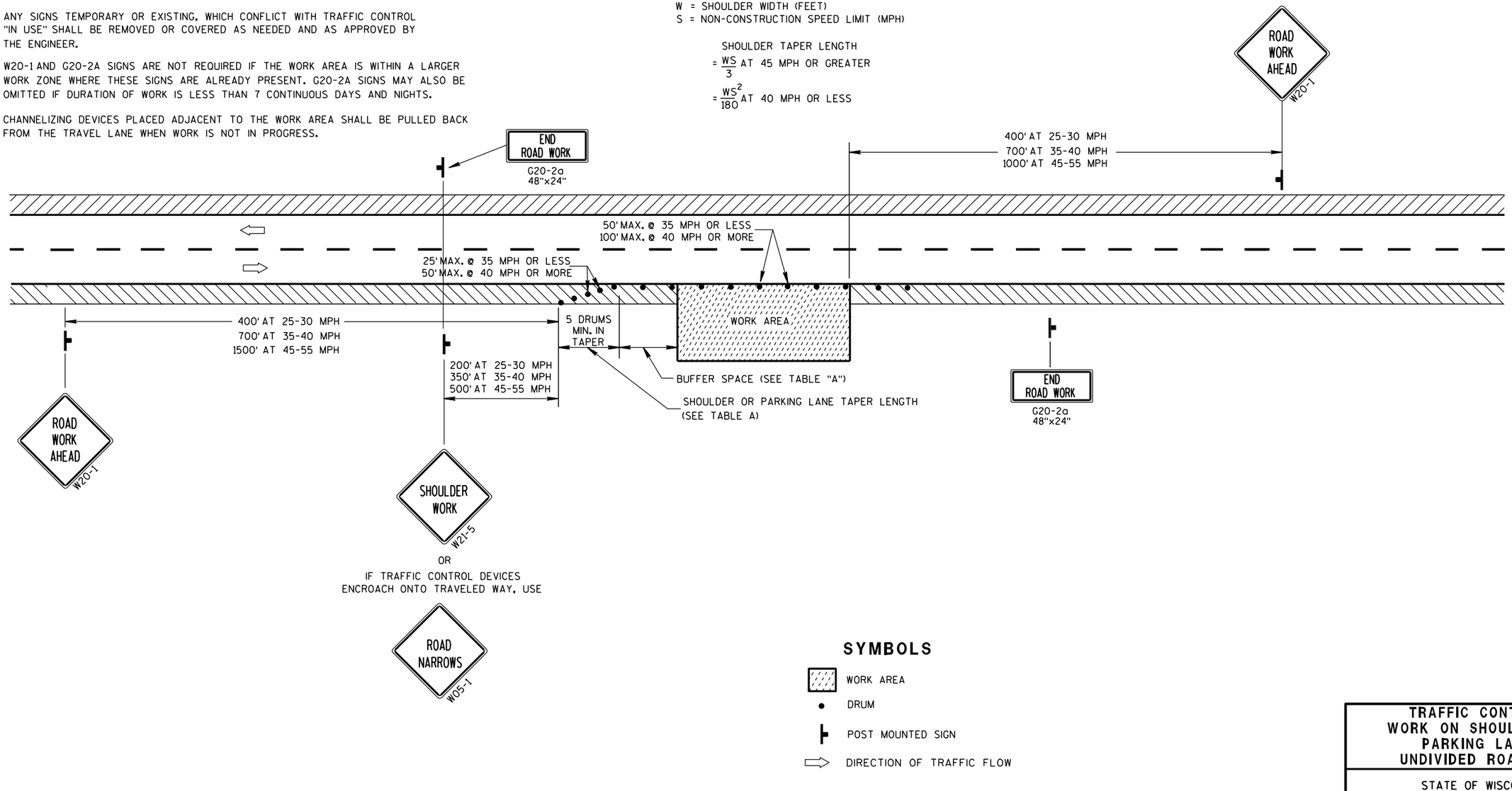
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

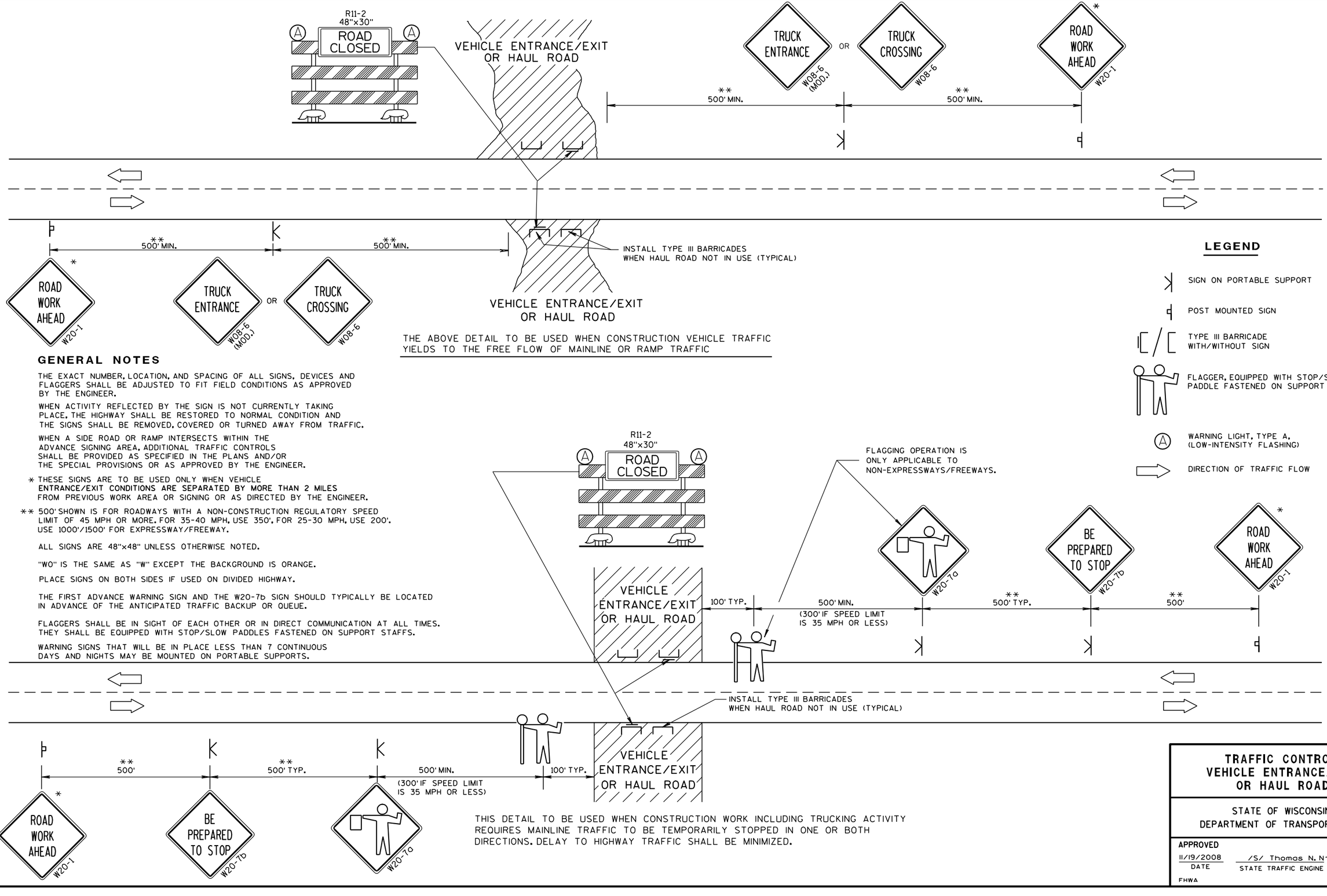
- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

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

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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

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

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.

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

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DEPARTMENT OF TRANSPORTATION

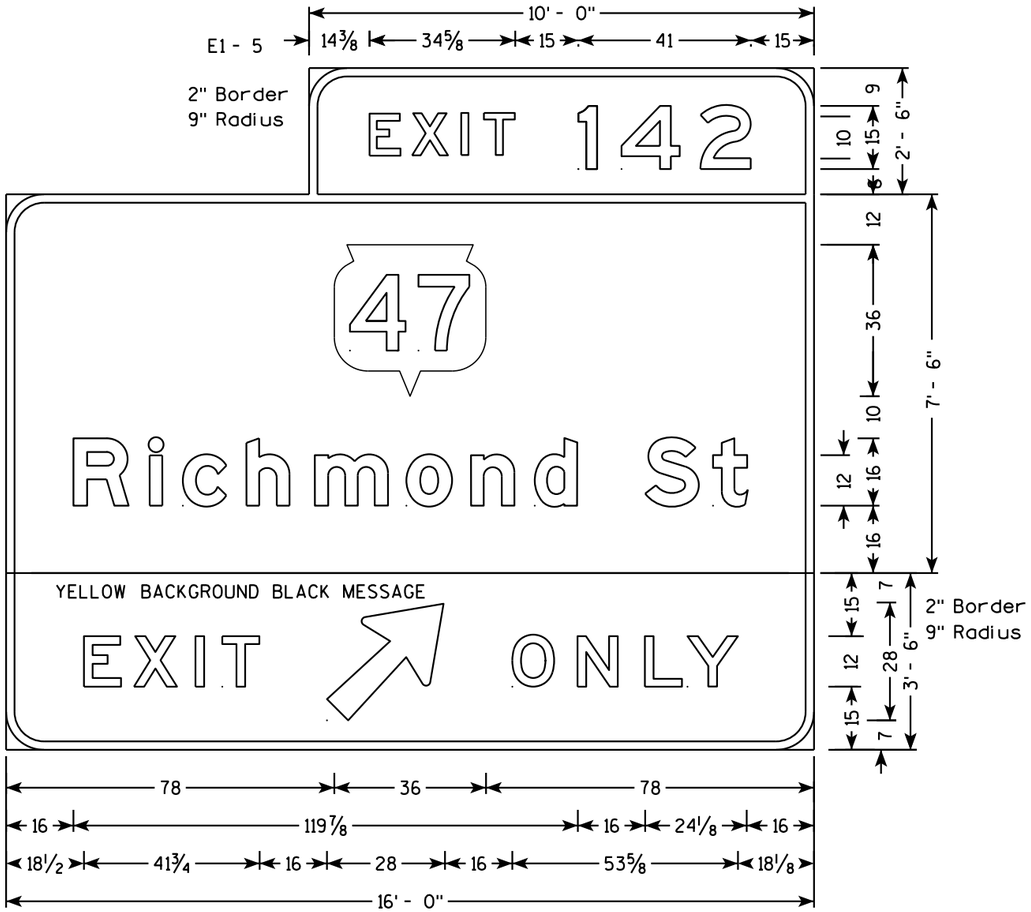
APPROVED
11/19/2008 DATE
/S/ Thomas N. N[illegible]
STATE TRAFFIC ENGINE[illegible] SIGN
FHWA

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S.D.D. 15 D 29-2

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S.D.D. 15 D 29-2



E6-1

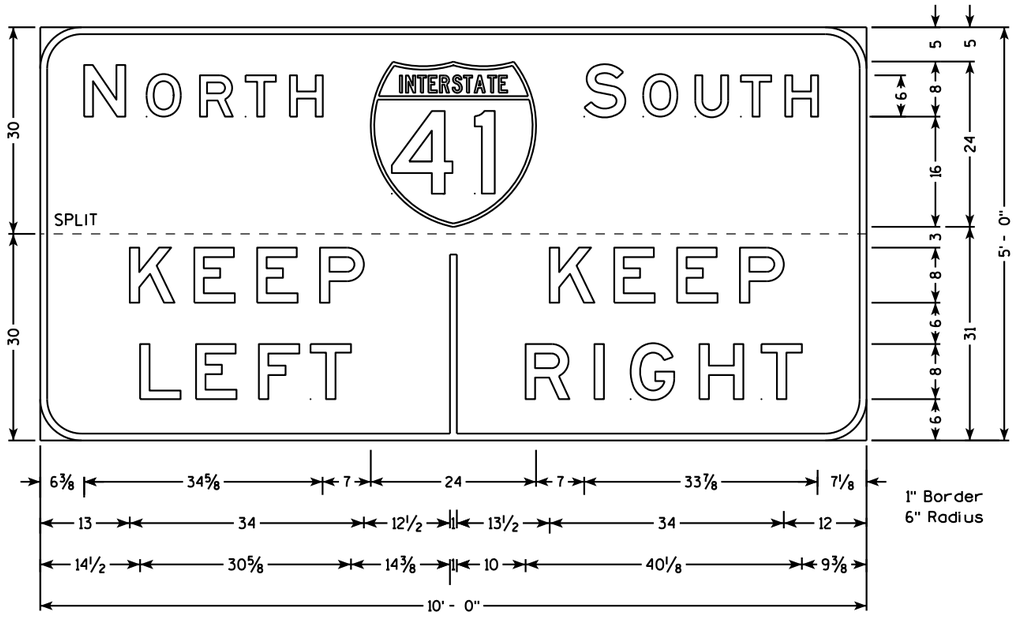
NOTES

1. Sign is Type I- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all cap Words are Series E

7

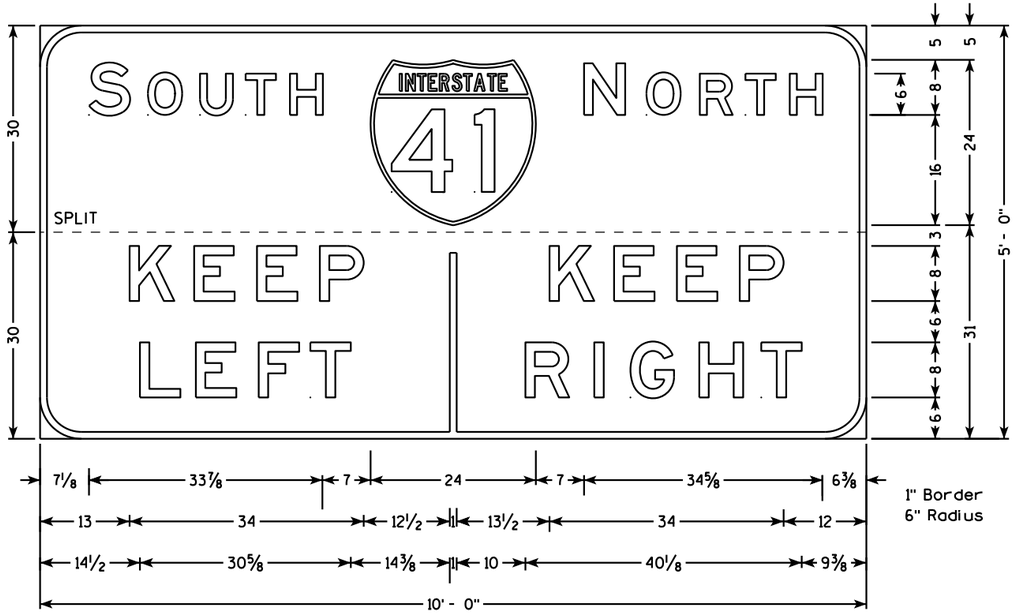
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PROJECT NO:1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET NO: 324	E



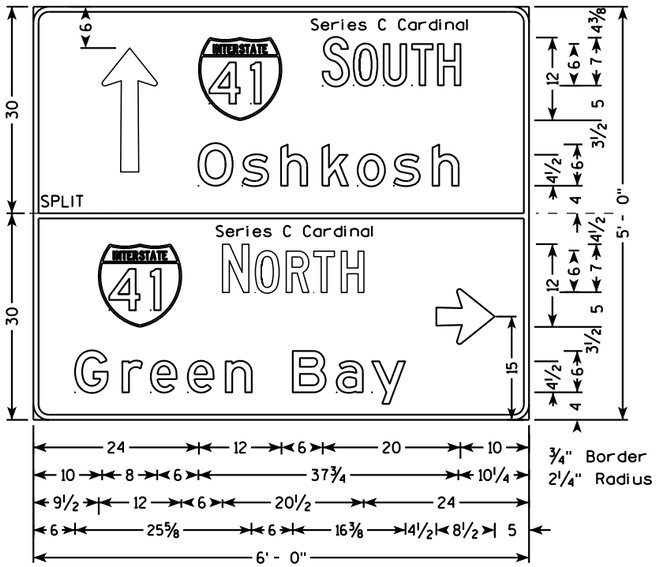
NOTES

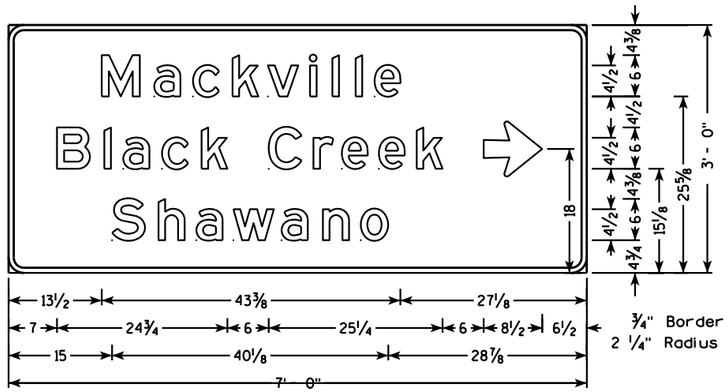
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E



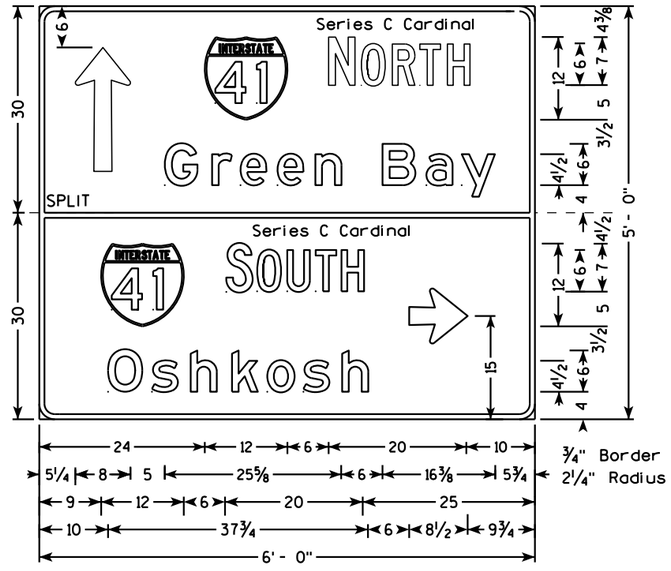
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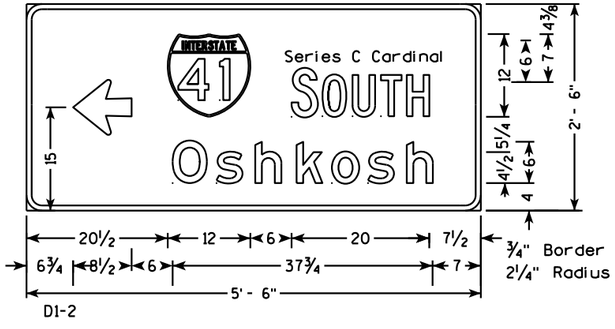
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E except as Shown



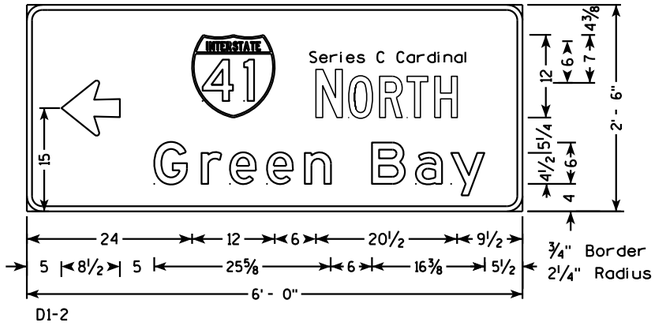


D1-3



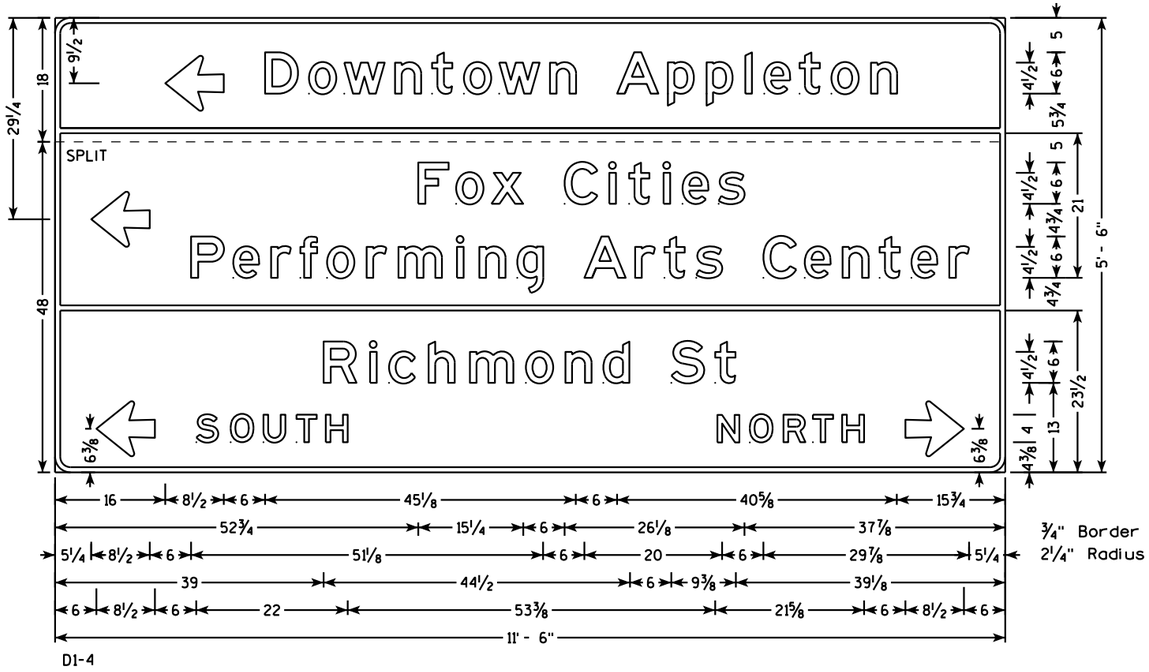


D1-2



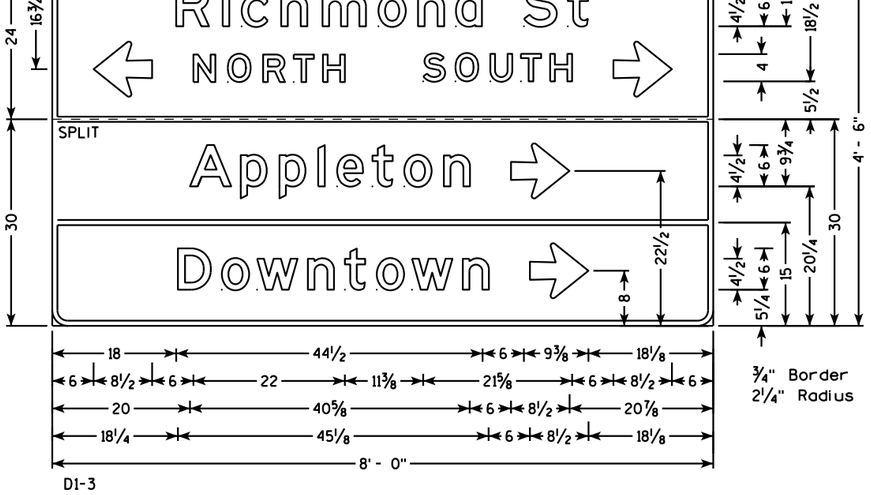
D1-2

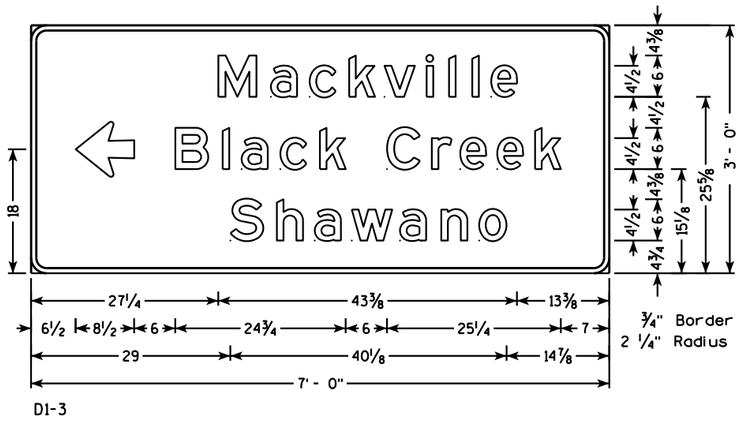
PROJECT NO:1130-33-71	HWY:USH 41	COUNTY:OUTAGAMIE	PERMANENT SIGNING	SHEET NO: 326	E



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





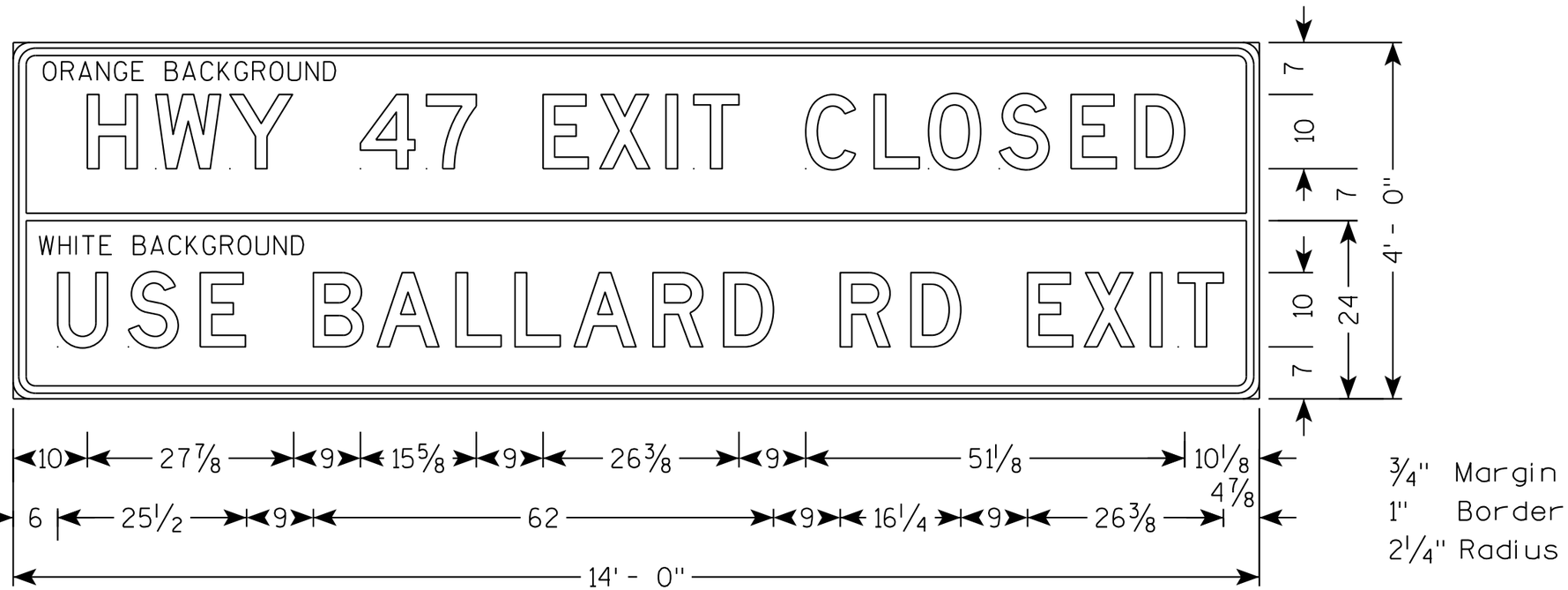
7

7

PROJECT NO:1130-33-71	HWY:USH 41	COUNTY:OUTAGAMIE	PERMANENT SIGNING	SHEET NO: 327 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 - AS NOTED
   Message - BLACK
3. Message Series - D



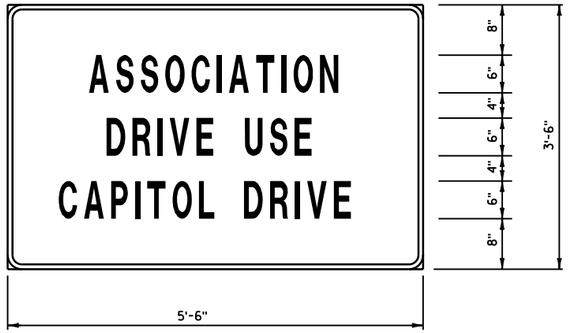
1 2 20 21

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	TEMPORARY SIGNING	SHEET NO: 328	E

A= 19.25 SQ. FT.
BORDER= 3/4"
RADIUS= 2 1/4"

FM-01



2 - 4" X 6" WOOD POSTS OR
3 - 2" X 2" STEEL POSTS

GENERAL NOTES:

ALL SIGNS TO HAVE STANDARD REFLECTIVE SHEETING - REFERENCE: "WIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION.

AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.

ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"X6"). THE NUMBER OF POSTS RROUIRED FOR EACH LAYOUT IS SHOWN.

THE SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "FIXED MESSAGE SIGNS".

SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.

ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS:
12" CAPS SHALL BE SERIES "D"
6" CAPS SHALL BE SERIES "C"

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.

SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 637.2.1.2.

SIGNS TO BE PLACED 10 DAYS PRIOR TO CONSTRUCTION.

7

7

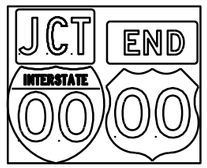
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	FIXED MESSAGE SIGN DETAILS	SHEET	E

FILE NAME : G:\WDOTNE\WNE0826\dgn\PLAN SHEETS\070101_sd.dgn PLOT DATE : 10/8/2013 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 47

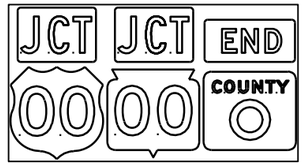
TYPICAL ASSEMBLIES



J1-1



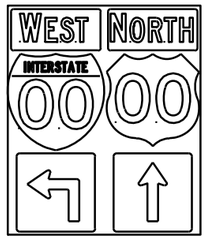
J1-2



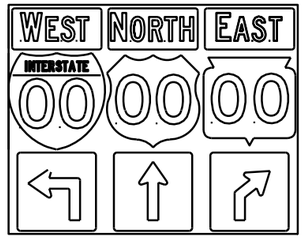
J1-3



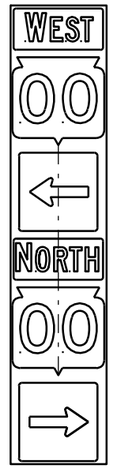
J2-1



J2-2

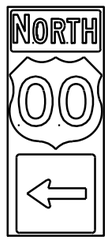


J2-3

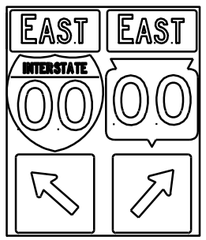


JV

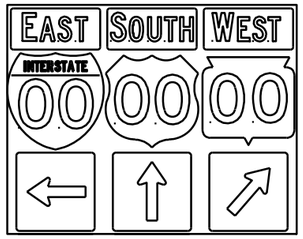
(Typical Vertical J-Assembly
See Note 10 and 11)



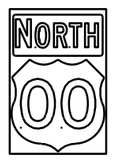
J3-1



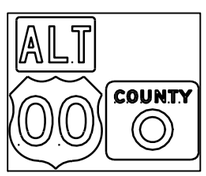
J3-2



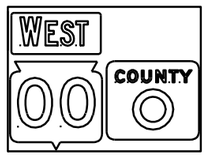
J3-3



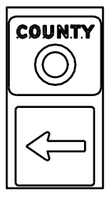
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

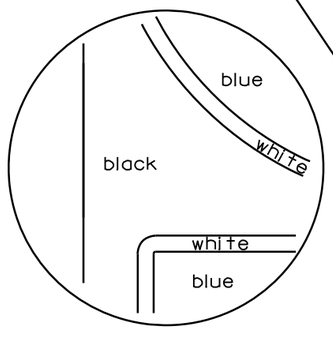


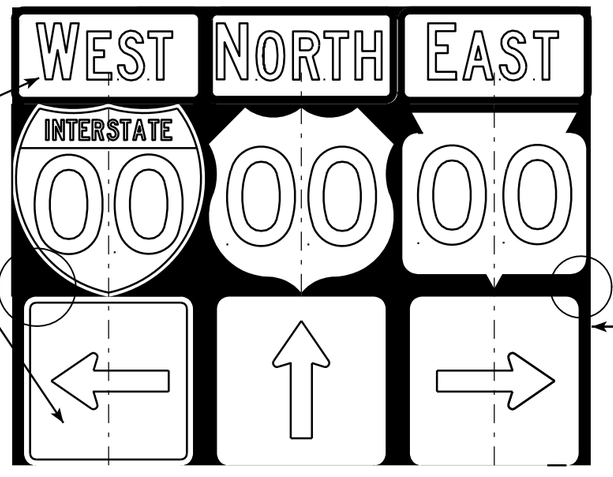
J23-1

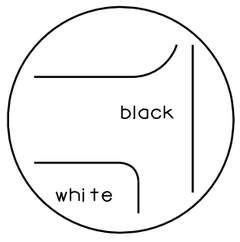


J22-1

blue background
with interstate







black background

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of interstate and non interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

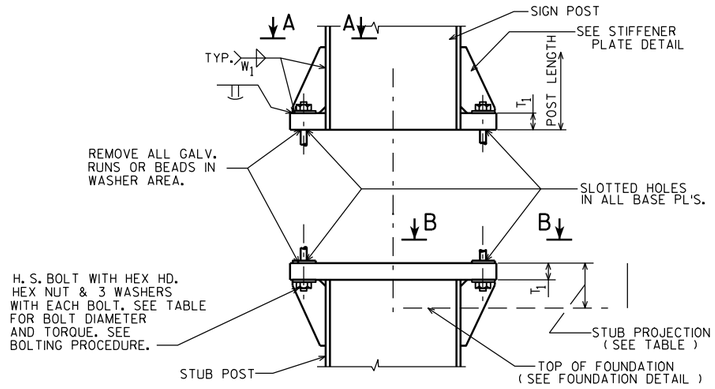
DATE 3/25/13 PLATE NO. A2-1S.7

7

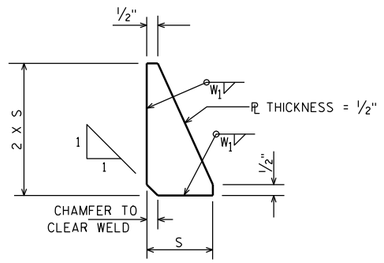
7

PROJECT NO:

SHEET NO: 330 E

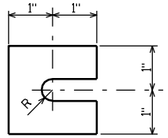


SIGN POST AND STUB POST ELEVATION



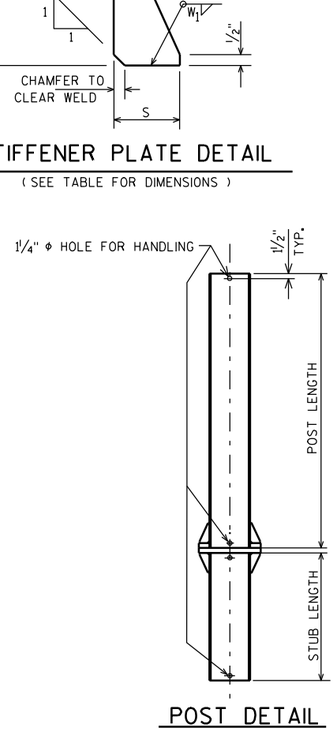
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)



FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

SHIM DETAIL



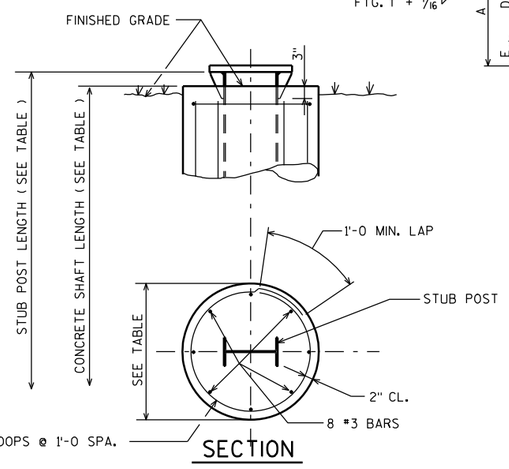
POST DETAIL

	QUANTITIES FOR 1 FOOTING	
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
E	1.0	62

⑦

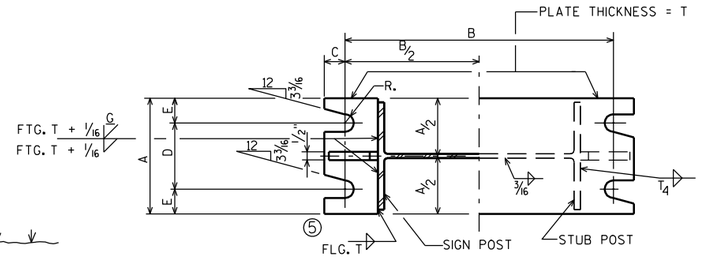
REINF.	TYPE	#3	#4
	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
	E	8 @ 7'-11	9 @ 6'-3

⑦

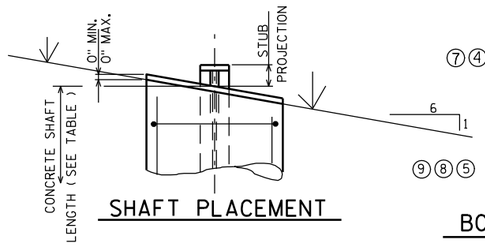


SECTION

FOUNDATION DETAIL



SECTION A-A SECTION B-B



SHAFT PLACEMENT

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & 1/2 WIND△	140 △25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

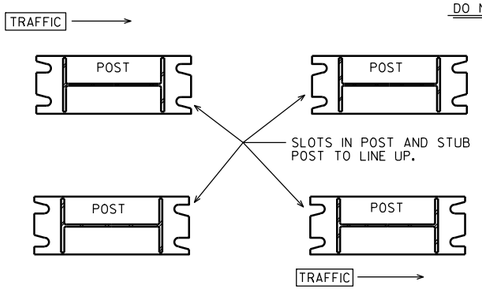
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50.
⑨ THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
H.S. BOLTS, WASHERS & NUTS SHALL BE A325 GALVANIZED WHEN POSTS, POST STUBS AND ATTACHMENTS ARE A709 GRADE 50 AND GALVANIZED.

BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
4. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.



POST SLOT ORIENTATION ⑦

		BASE CONNECTION DATA TABLE											FOUNDATION DATA				②
	TYPE	DIMENSION / POST SIZE	BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	K
④	A	W10"X12.0 #/FT.	3/4" Φ @ 75#-FT.	5 1/4"	1'-0 3/8	7/8"	3 1/2"	7/8"	1"	3/16"	5/16"	13/32 "	2 1/8"	3'-6	3"	2'-0 Φ	5'-0	76.0# ④
④	B	W12"X16.0 #/FT.	7/8" Φ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/4"	1/4"	5/16"	15/32 "	3"	5'-6	3"	2'-0 Φ	7'-0	146.5# ④
	C	W12"X19.0 #/FT.	7/8" Φ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/2"	5/16"	5/16"	15/32 "	3"	6'-0	3"	2'-0 Φ	7'-6	182.1#
	D	W12"X22.0 #/FT.	7/8" Φ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/2"	3/8"	5/16"	15/32 "	3"	6'-6	3"	2'-0 Φ	8'-0	210.5#
③	E	W12"X26.0 #/FT.	1" Φ @ 90#-FT.	7"	1'-4 1/4	1 1/4"	4"	1 1/2"	1 1/2"	3/8"	5/16"	17/32 "	3"	7'-0	3"	2'-0 Φ	8'-6	293.0# ③

① ⑥ ①

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer
DATE 4/26/11 PLATE NO. A3-1.13

NO.	DATE	REVISION
⑨	4-26-11	REMOVE NON-GALVANIZED
⑧	10-30-96	NOT GALVANIZED/GALVANIZED
⑦	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
⑥	8-24-87	BASE CONN. WELD
⑤	10-13-81	BASE CONN. WELD & FUSE PL WASHERS
④	10-19-79	POST A & B, A572 GR. 50, & K
②	11-28-78	"K" ③ 4-23-79 TYPE "E"
①	5-4-78	T_1 , T_2 & W_1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

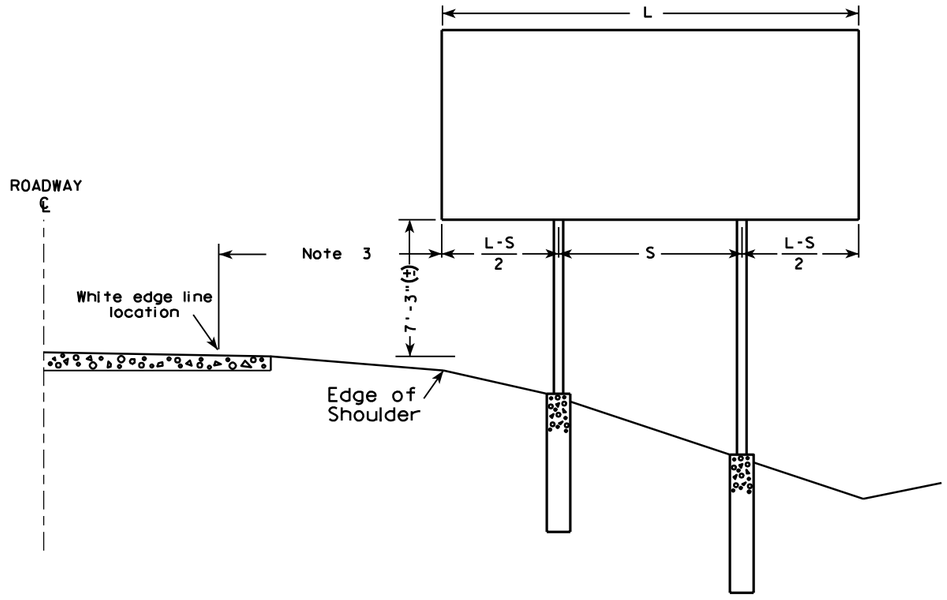
TYPE A, B, C, D, & E

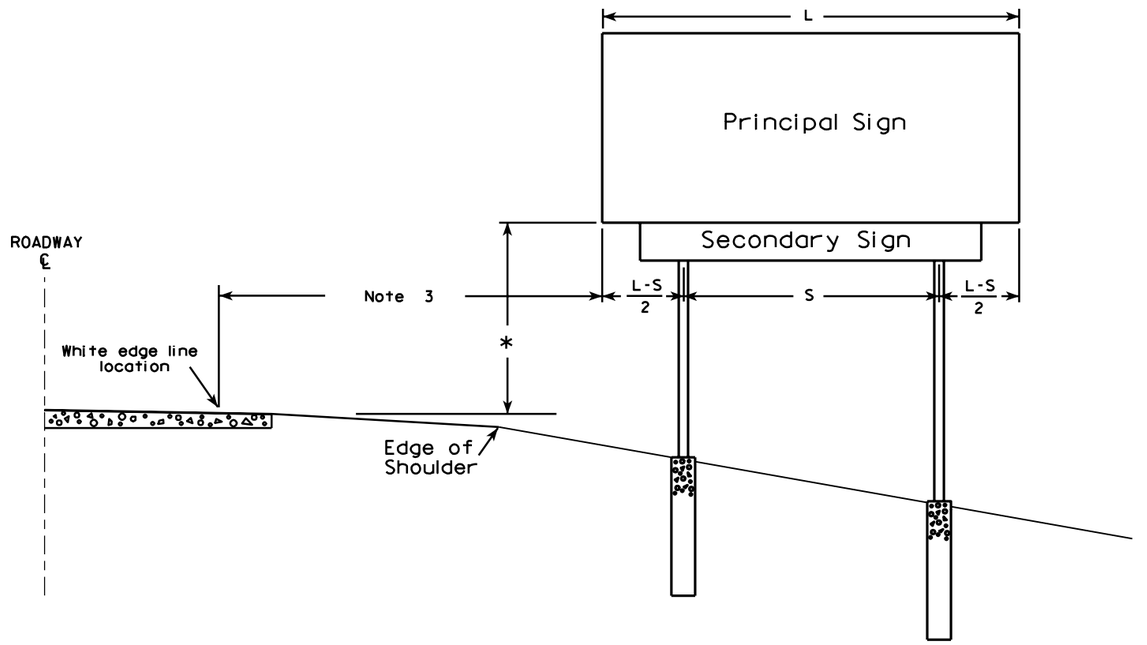
CONST. SPEC. 2011 | DRAWN BY JPH | PLANS CK'D.

FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS

SHEET

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 331 | E





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

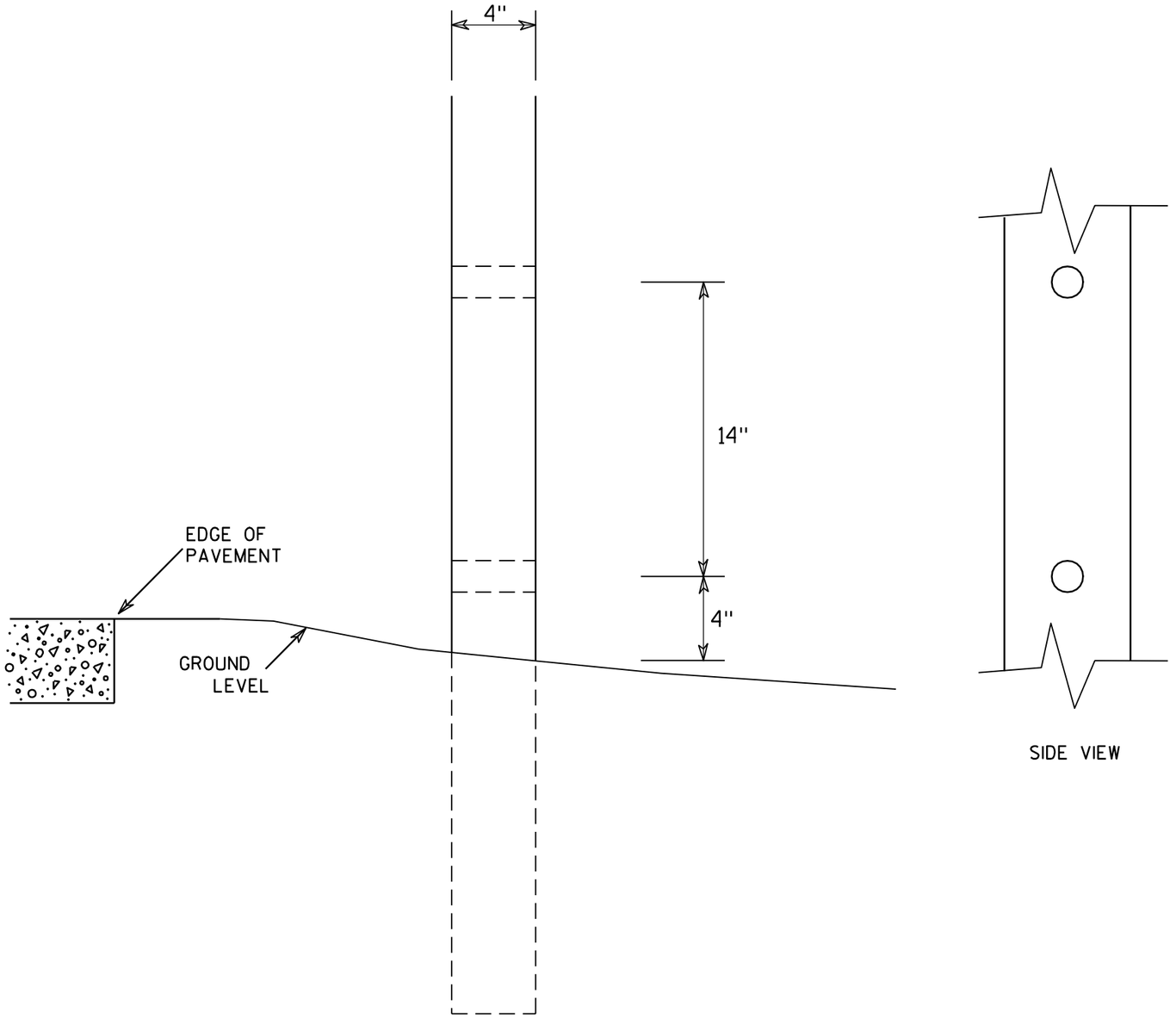
TYPICAL INSTALLATION OF TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:				SHEET NO: 332	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

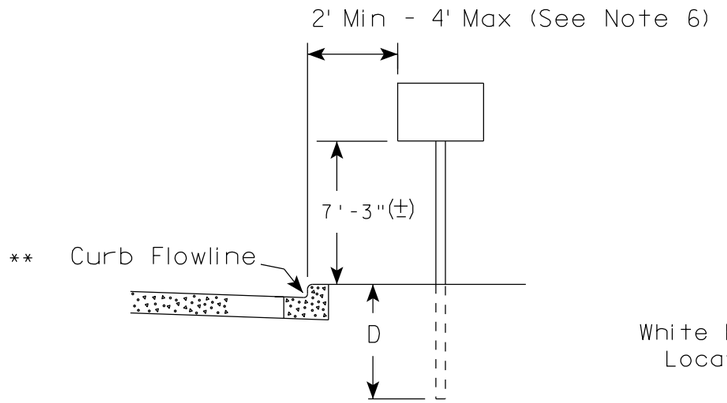
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

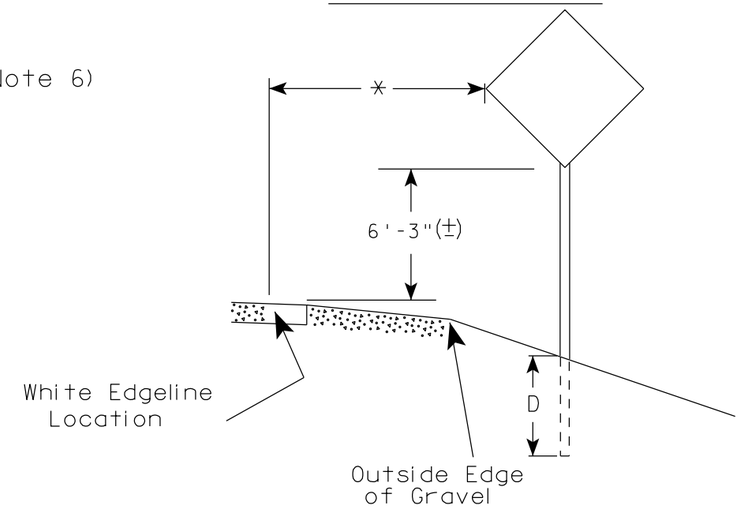
DATE 3/27/97 PLATE NO. A4-11.2

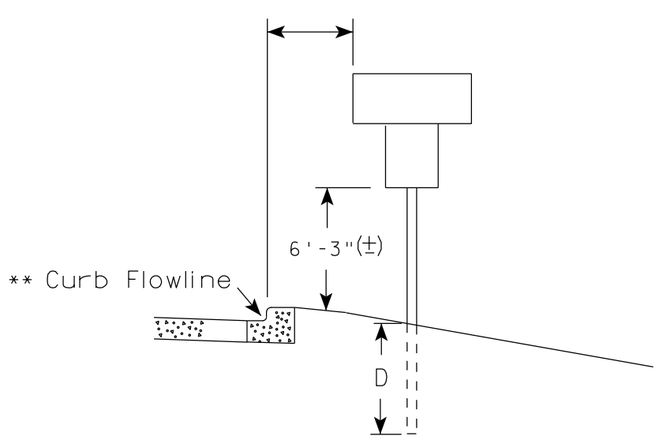
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 333	E

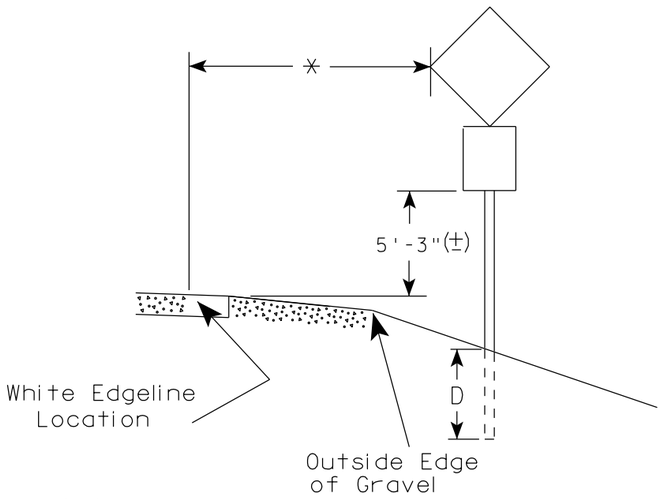
URBAN AREA



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, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

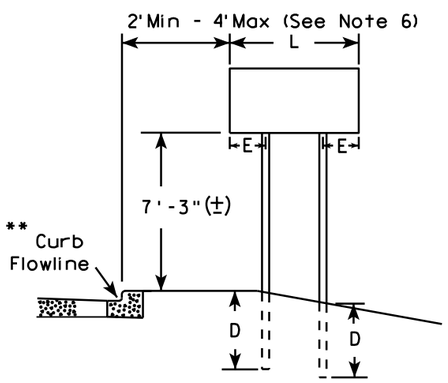
WISCONSIN DEPT OF TRANSPORTATION

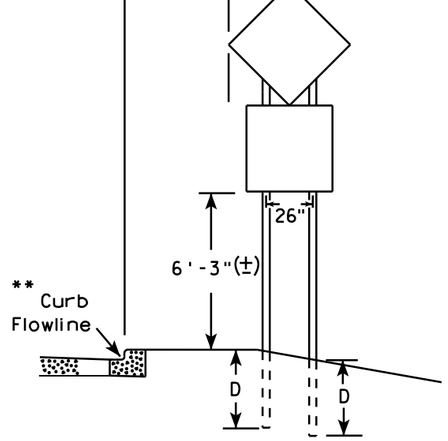
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

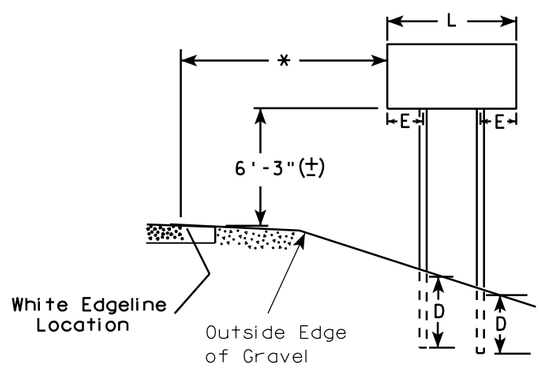
URBAN AREA

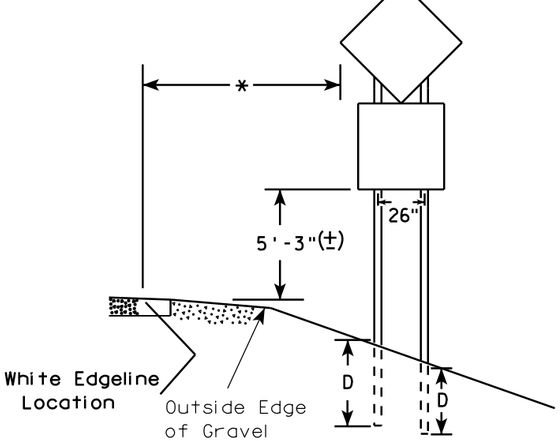




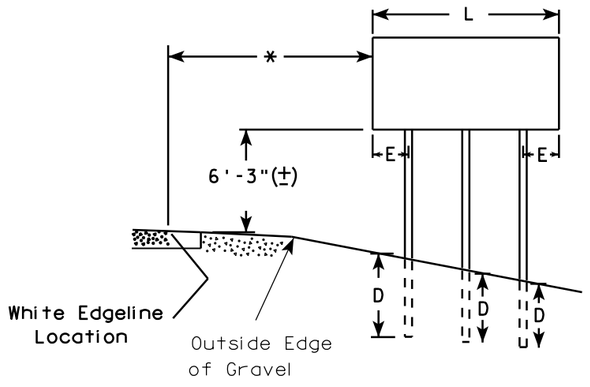
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)





48" DIAMOND WARNING SIGN



GENERAL NOTES

1. For 3 or 4 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.

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'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

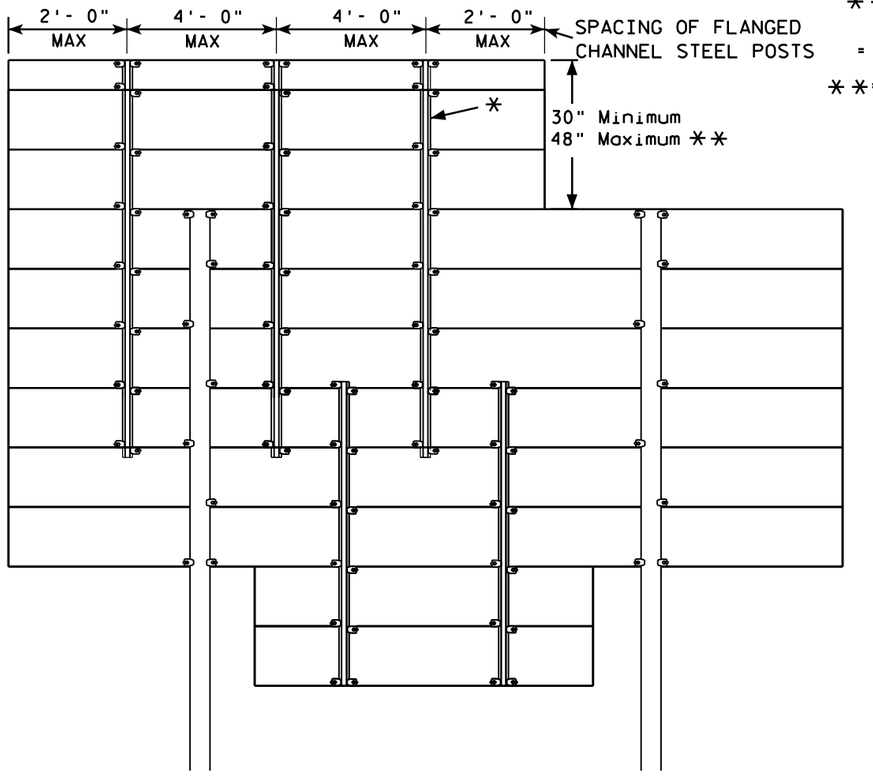
DATE 9/30/13 PLATE NO. A4-4 12 335

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 30-SEP-2013 13:27 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000

7 7

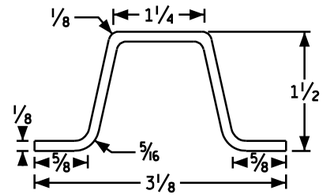
GROUND MOUNTED SIGN



*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

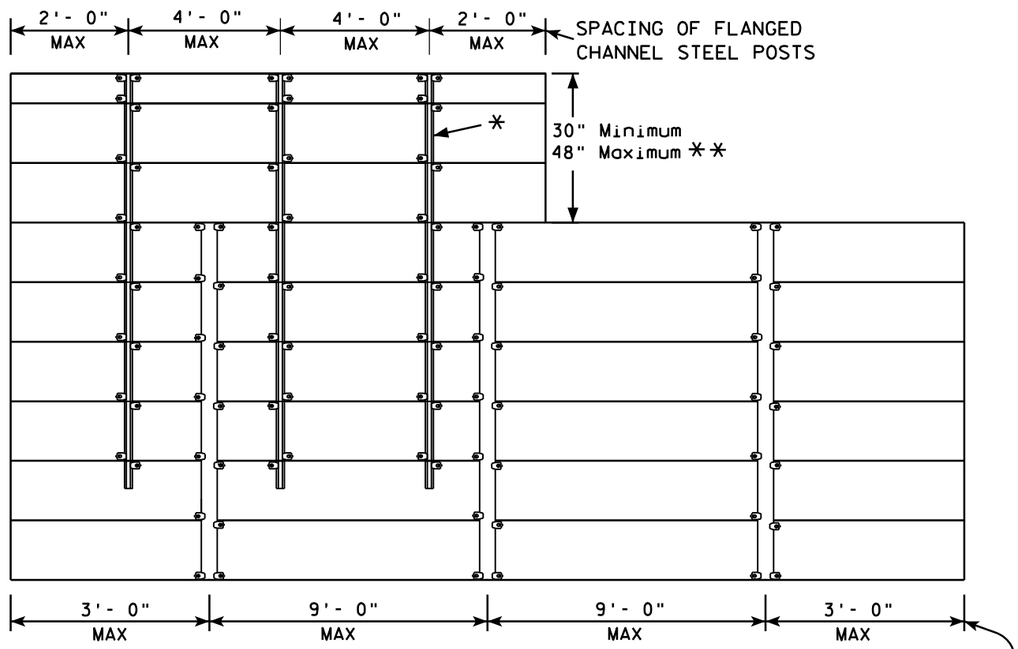
**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.

2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.

3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.

4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.

5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)

ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

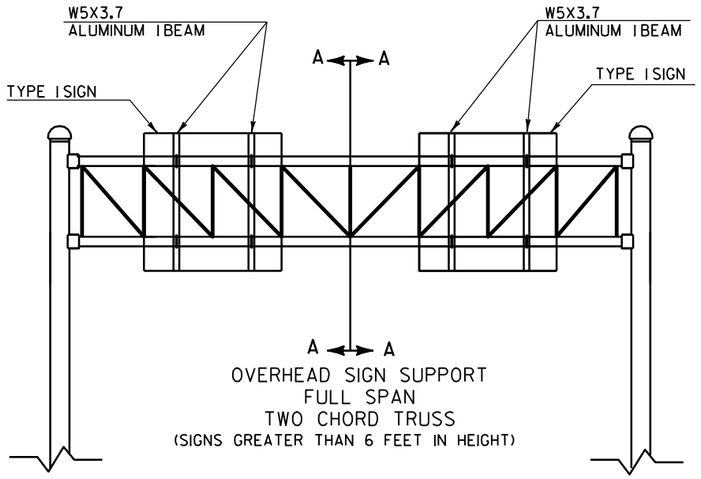
DATE 6/7/10 PLATE NO. A4-6.11

7

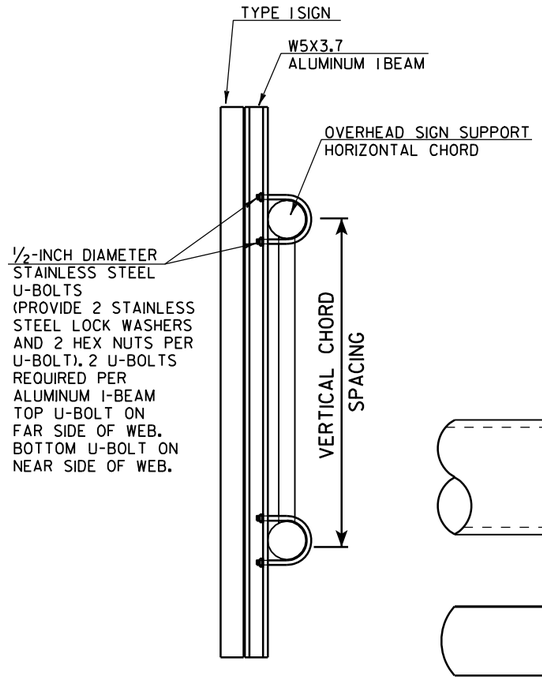
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PROJECT NO:

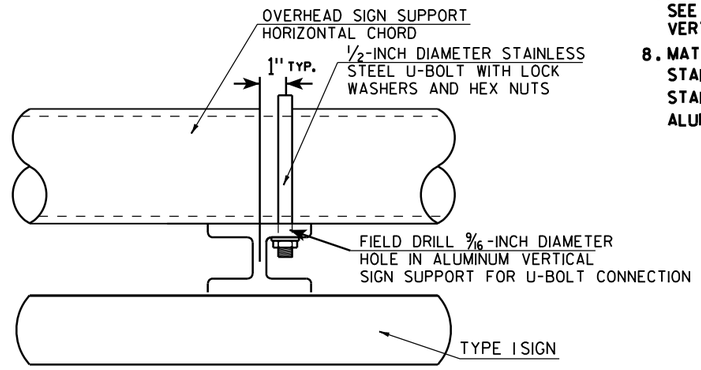
SHEET NO: 336 E



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



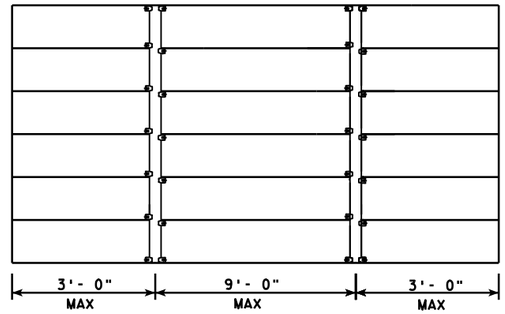
CUT SECTION A-A



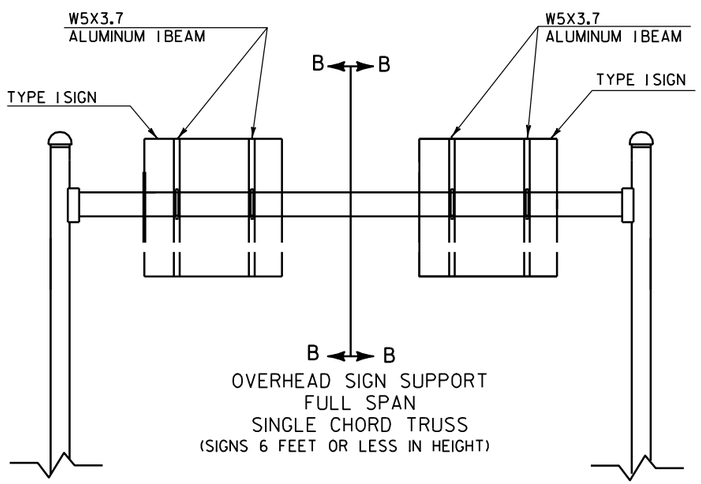
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

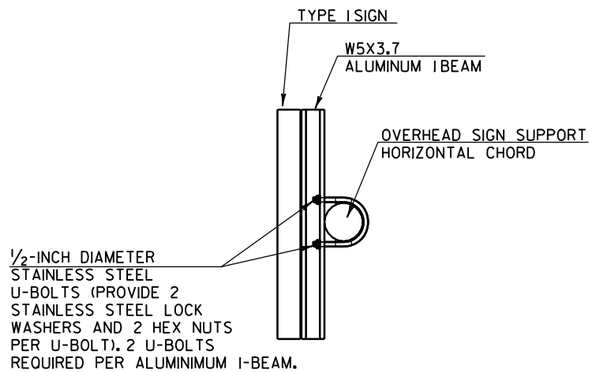
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE 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.



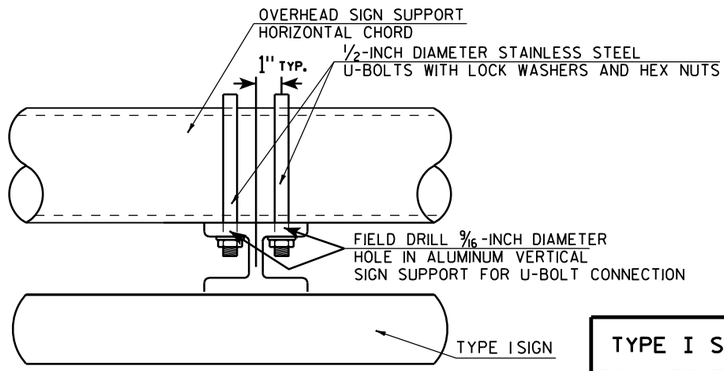
SPACING OF W5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



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

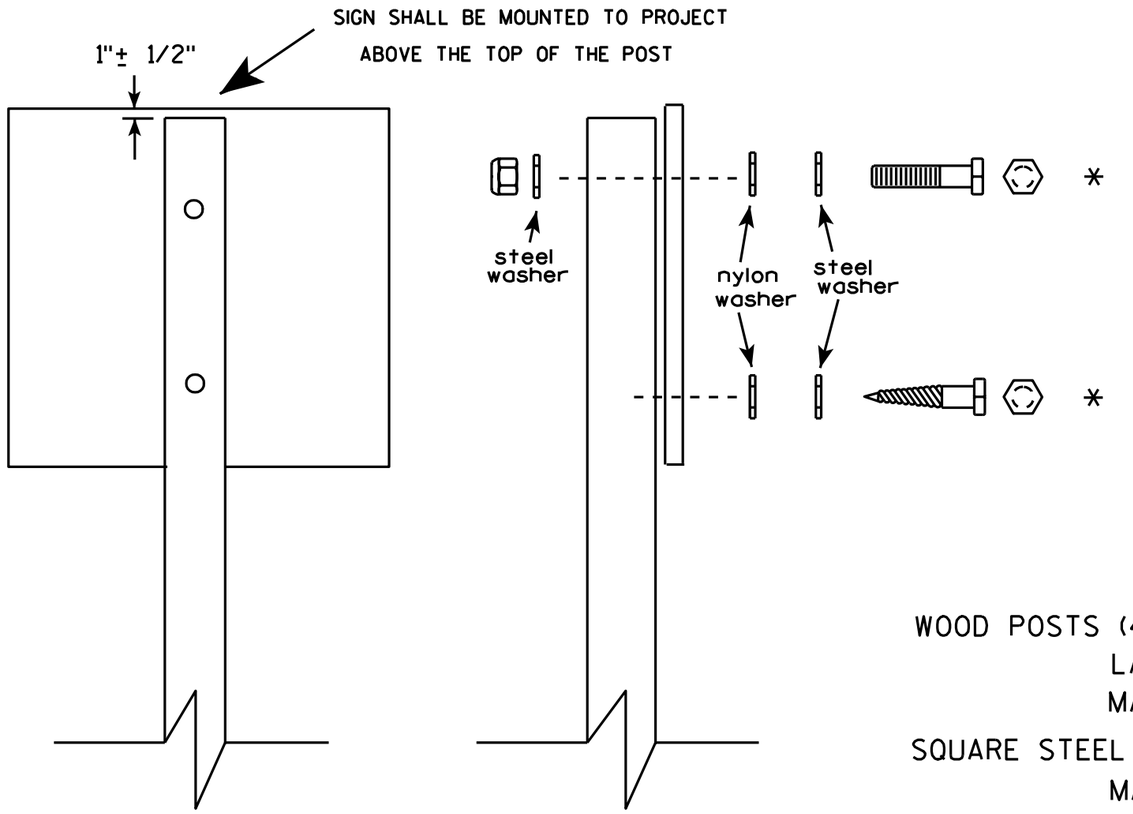
TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

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: 337	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

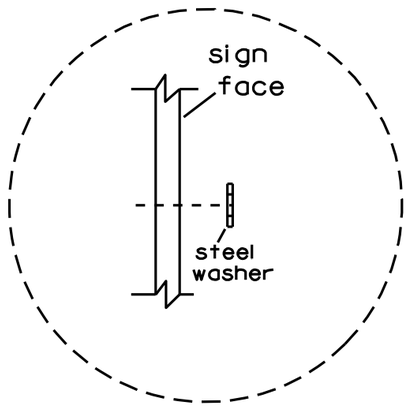
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

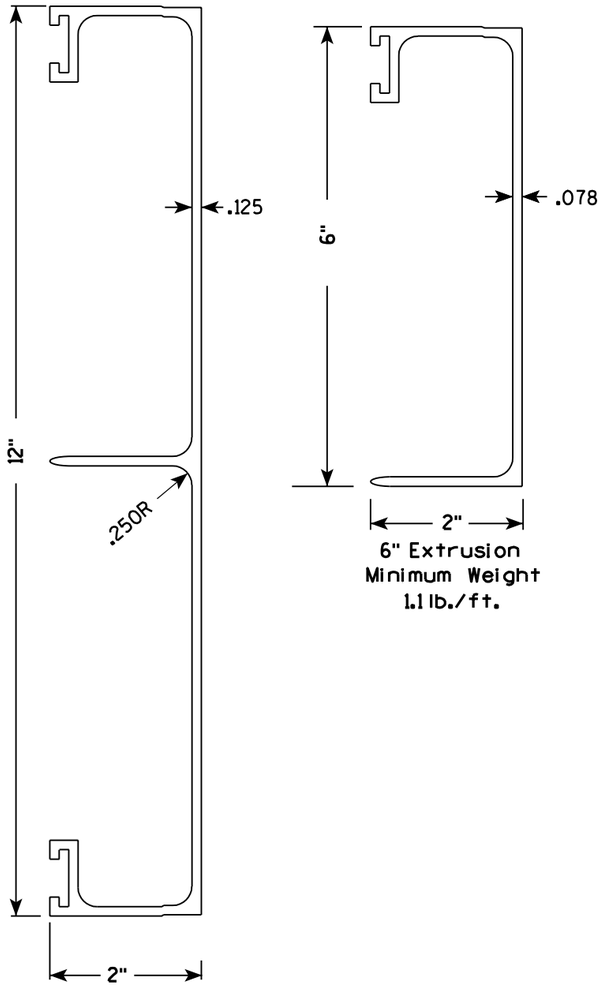
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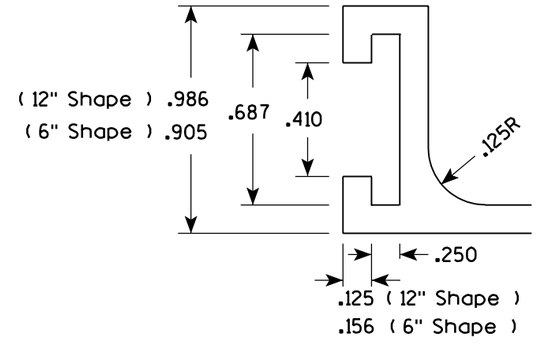
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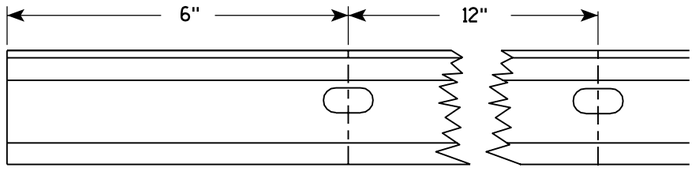
PROJECT NO:

SHEET NO: 338 E

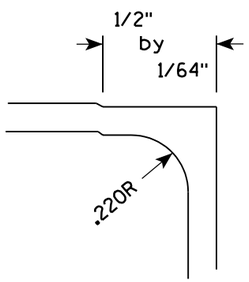
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

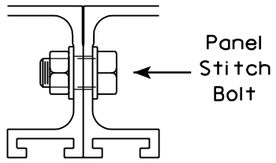


Hardware

STITCH BOLT, WASHER & NUT

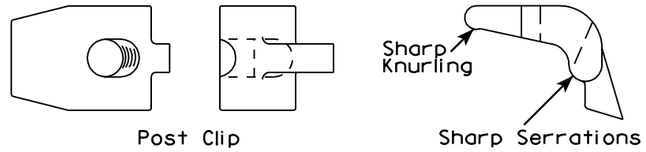
The hardware includes:

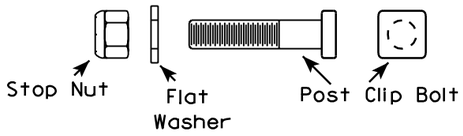
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

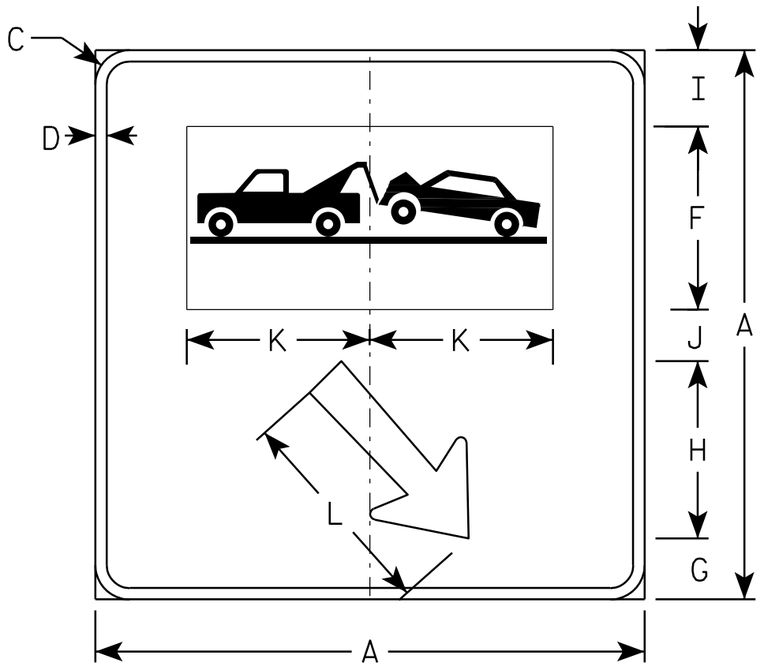
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spagg
for State Traffic Engineer

DATE 11/18/99 PLATE NO. A5-2.9

PROJECT NO:

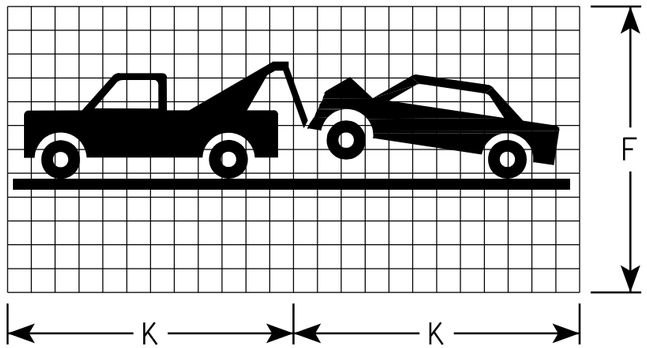
SHEET NO: 339 E



D4-56R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - BLUE
   Message - WHITE
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. D4-56L is same as D4-56R except arrow is reversed.
6. Arrow is from A1-2 Lower Case 4½ Series D & E, with a modified length.



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	36		2 1/4	3/4		12	4	11 5/8	5	3 3/8	12	14															9.0
3																											
4																											
5																											

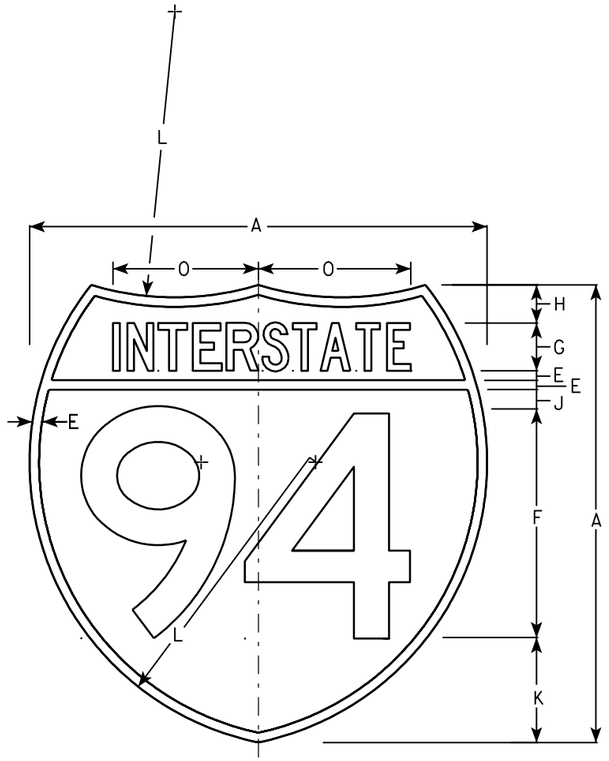
STANDARD SIGN
D4-56 L & R

WISCONSIN DEPT OF TRANSPORTATION

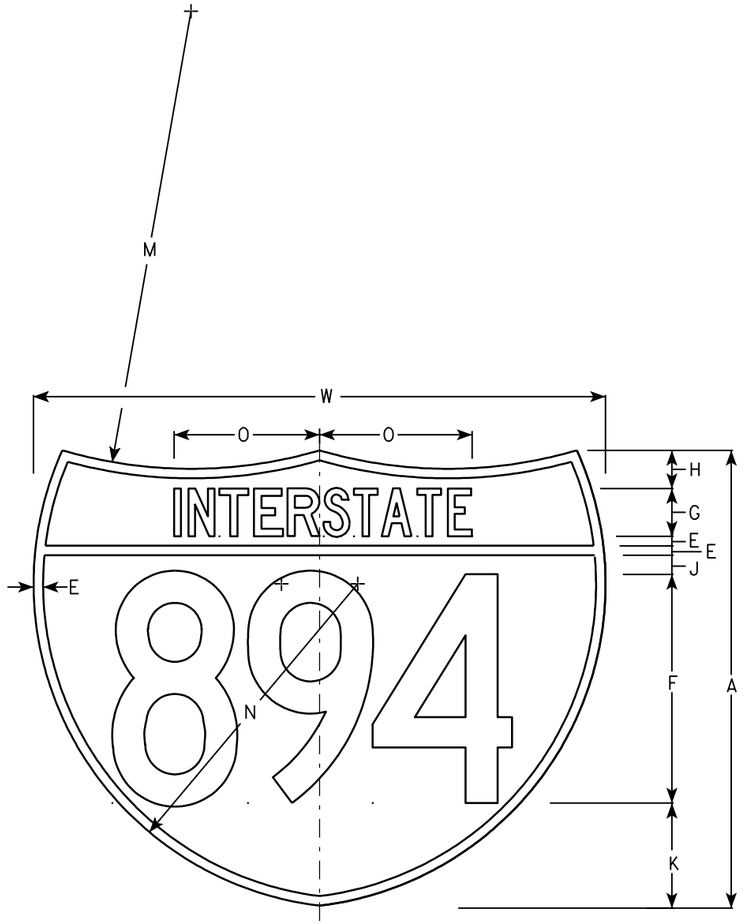
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/14/2011 PLATE NO. D4-56.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 340	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

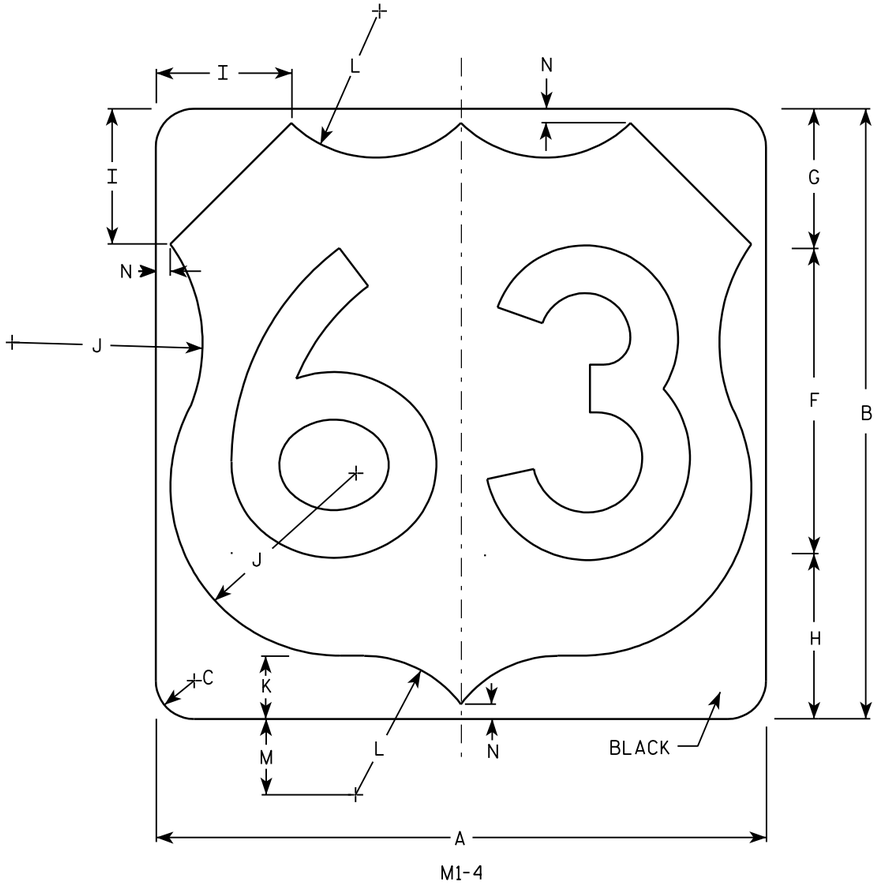
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

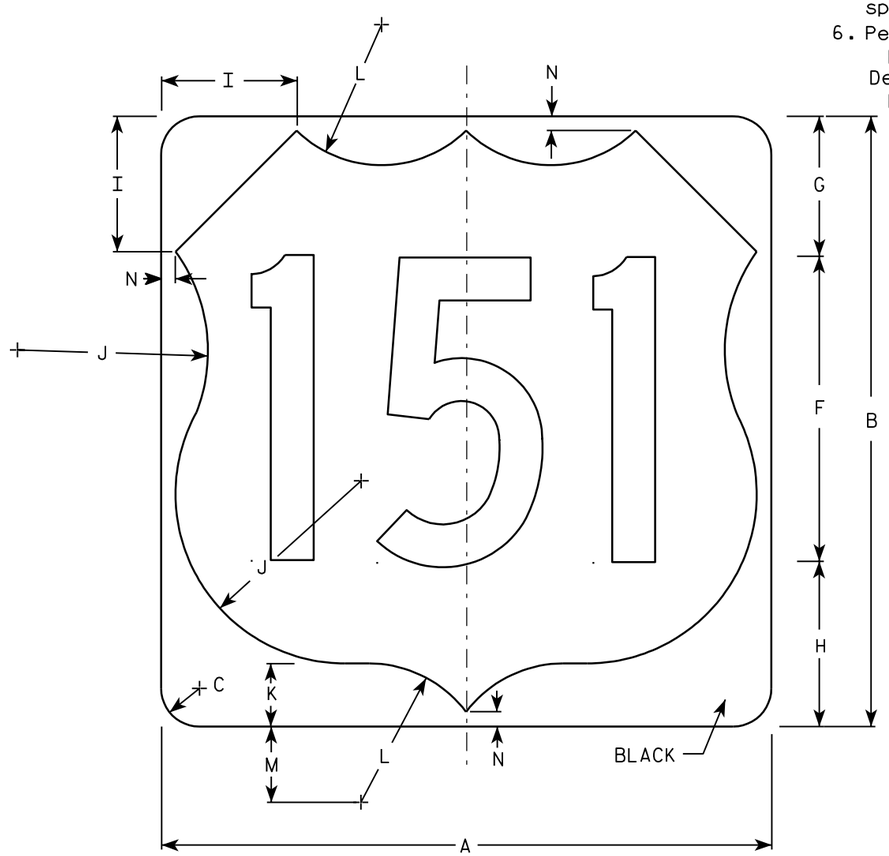
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 341	E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 ½			12	5 ½	6 ½	5	7 ½	2 ½	5 ½	3	½													4.0	.36
3	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0	.81
4	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0	.81
5	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0	.81

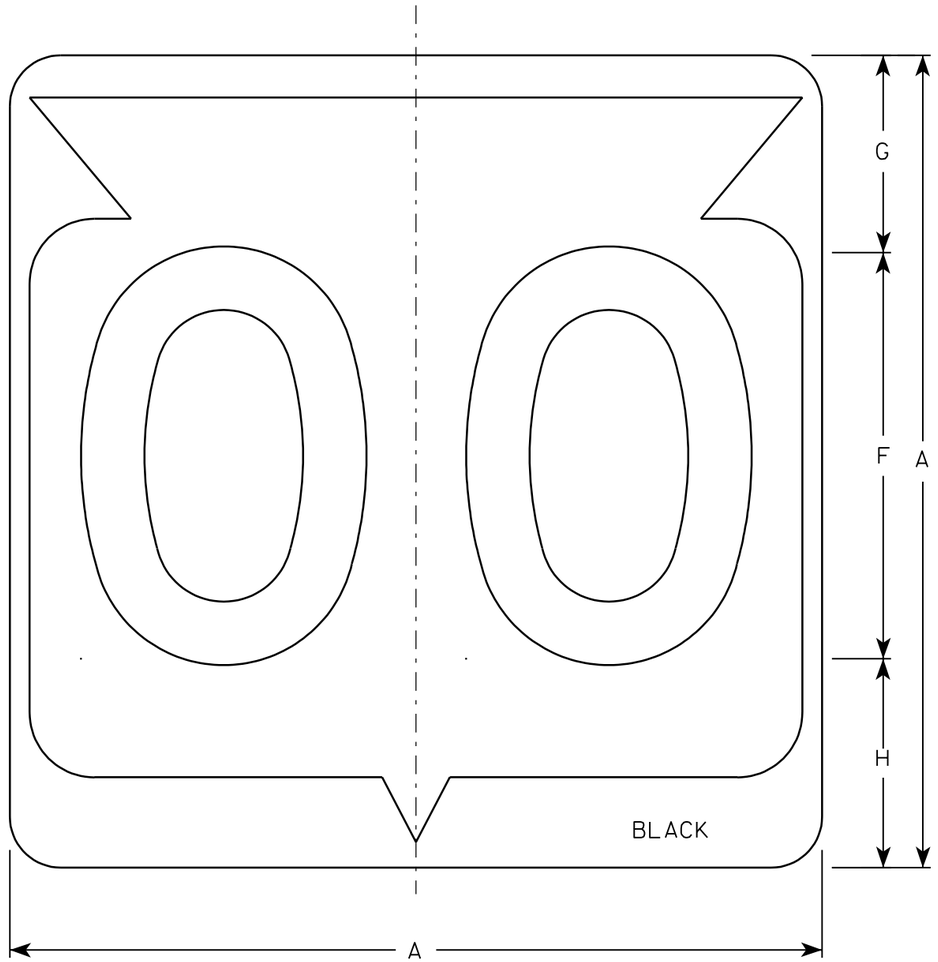
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

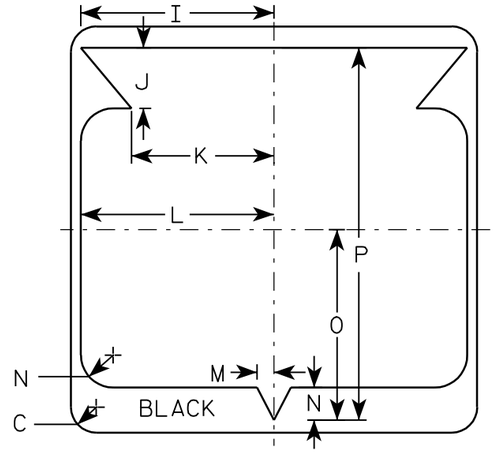
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 342 | E



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

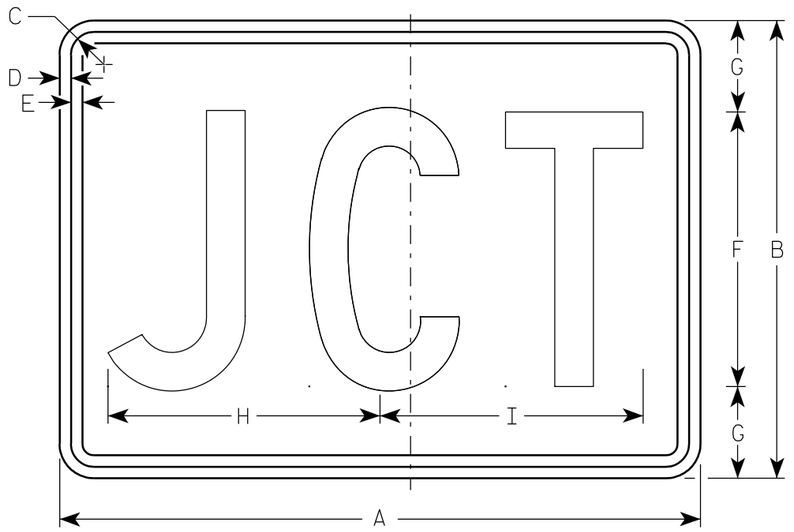
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

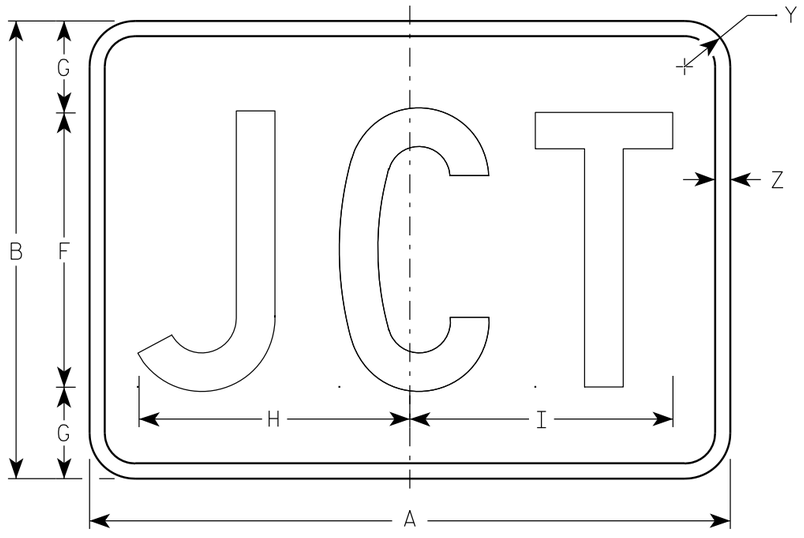
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 343	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

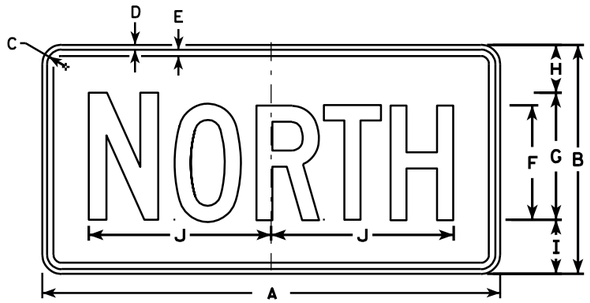
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

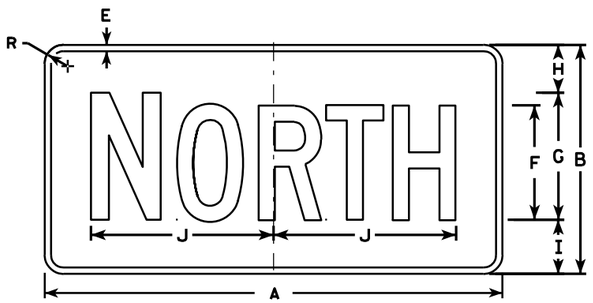
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 344	E



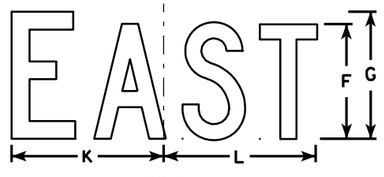
M3-1
MK3-1
MO3-1



MB3-1
MG3-1
MM3-1
MN3-1



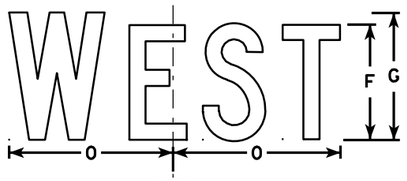
M3-2
MK3-2
MO3-2



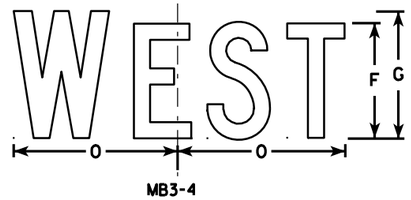
MB3-2
MG3-2
MM3-2
MN3-2

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

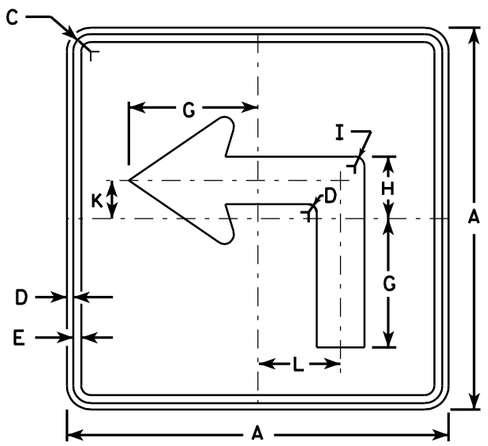
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

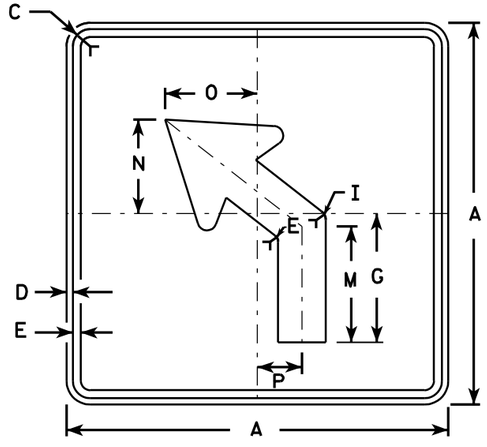
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

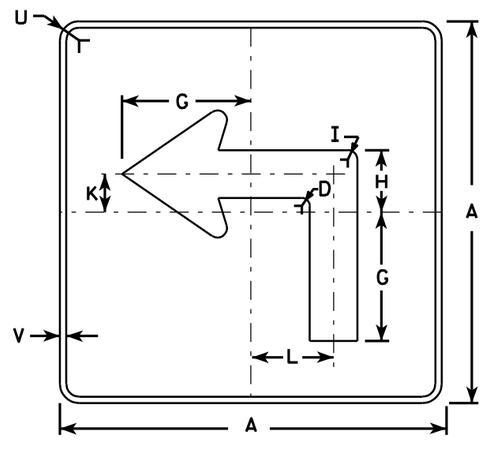
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 345	E



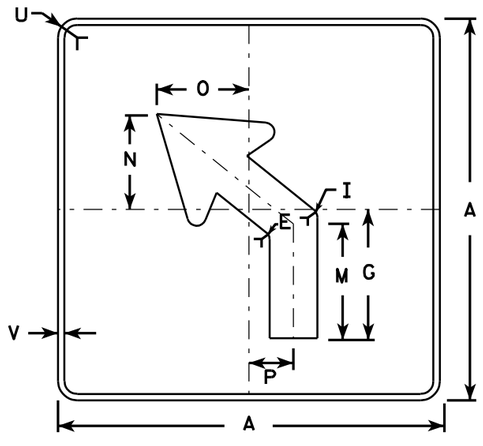
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



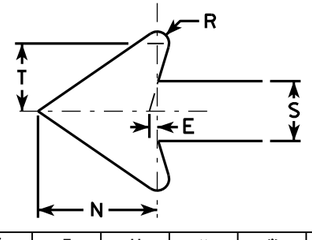
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



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
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H 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 - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   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.

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	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
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
4	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
5	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

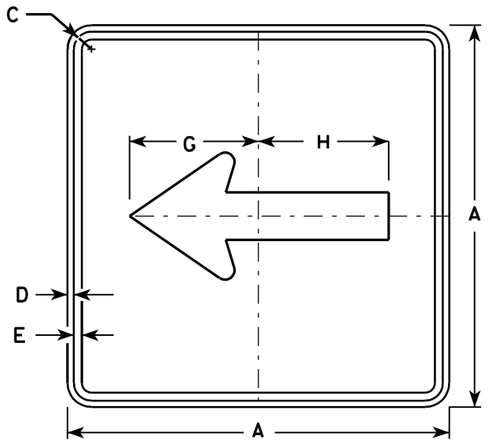
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

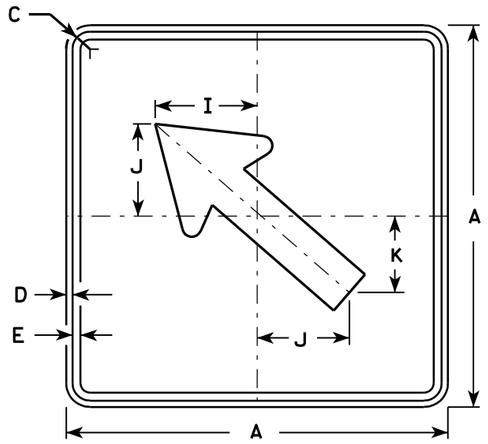
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

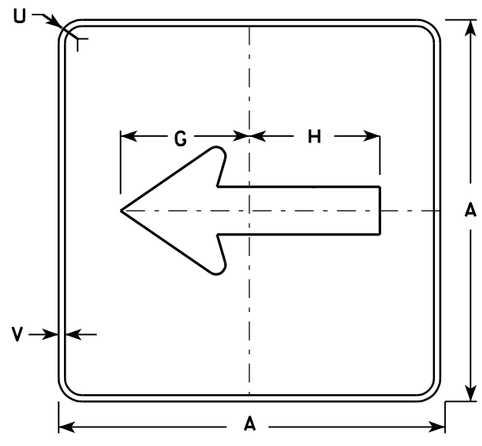
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 346	E



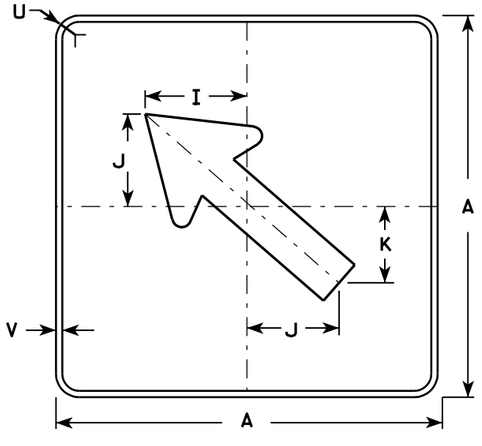
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MP6-2
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
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H 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

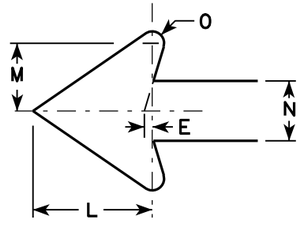
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective

   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White - Type H Reflective
   Message - Blue

   MR6-1 and MR6-2 Background - Brown
   Message - Yellow - Type H Reflective



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	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
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
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
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

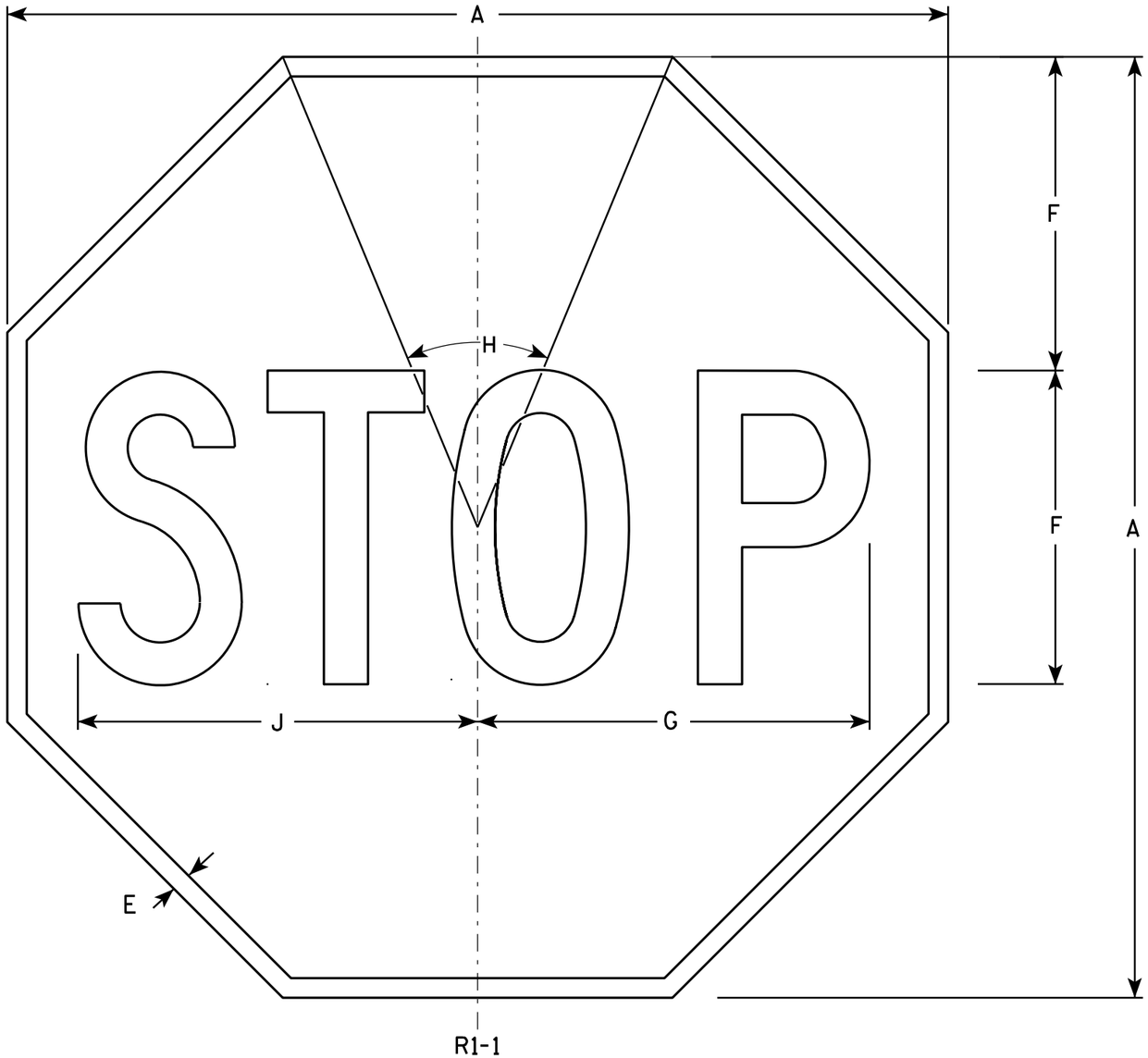
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 347	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

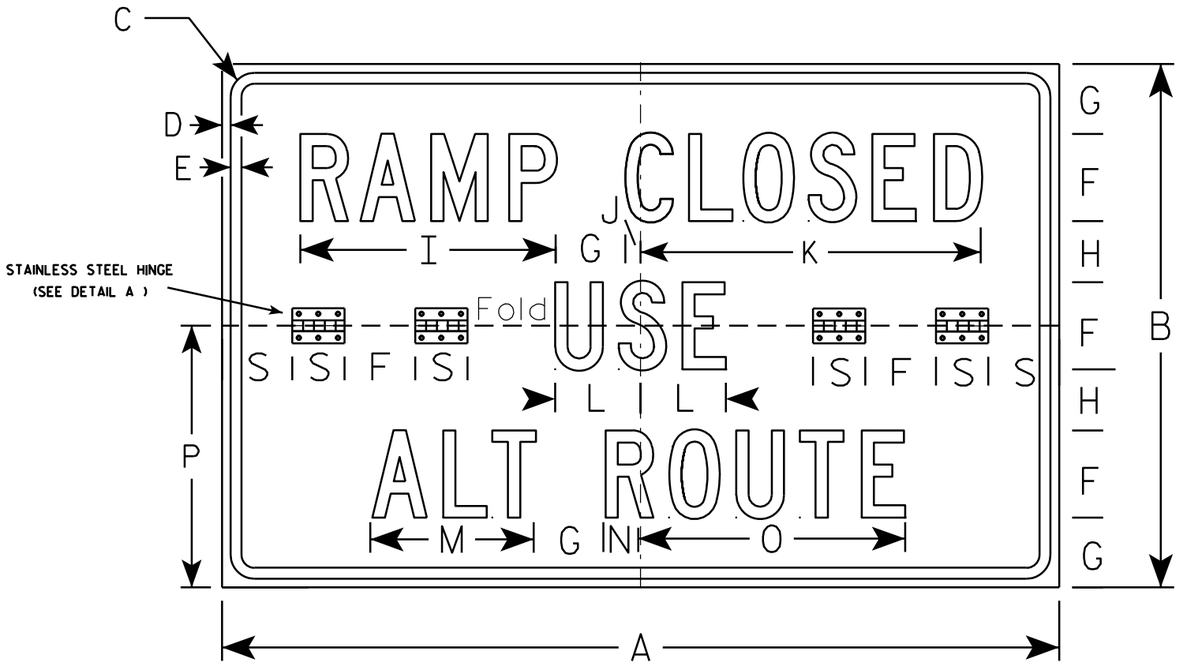
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

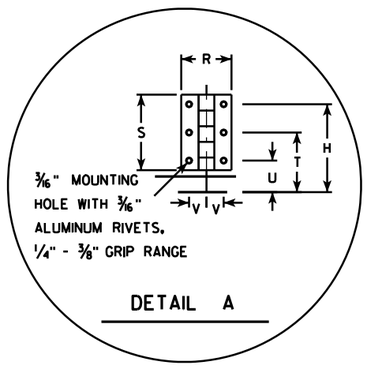
APPROVED Matthew L Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

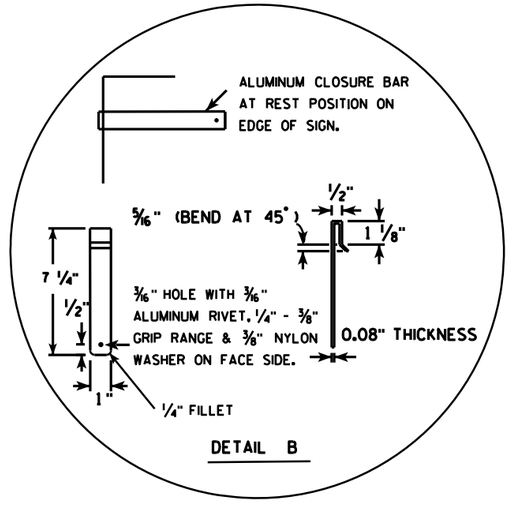
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 348	E



R11-54F



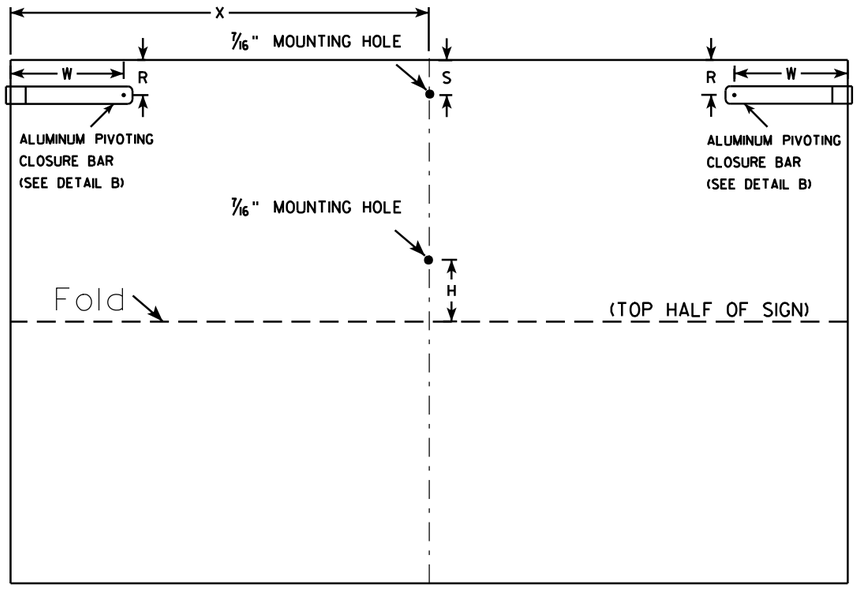
DETAIL A



DETAIL B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - C
4. Sign Base Material shall be aluminum corners and borders shall be rounded.
5. All hardware used on the folding sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



(BACK VIEW)

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	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
2M	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
3																											
4																											
5																											

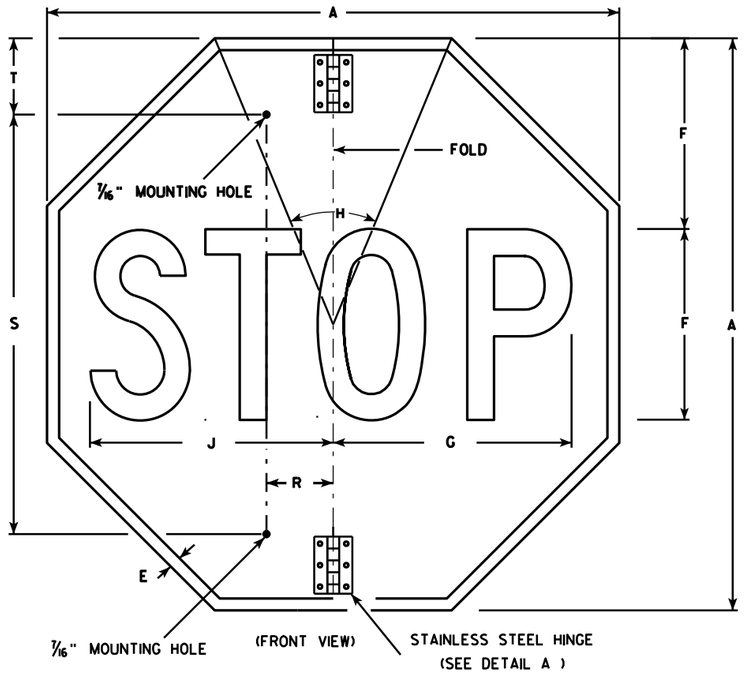
STANDARD SIGN
R11-54F

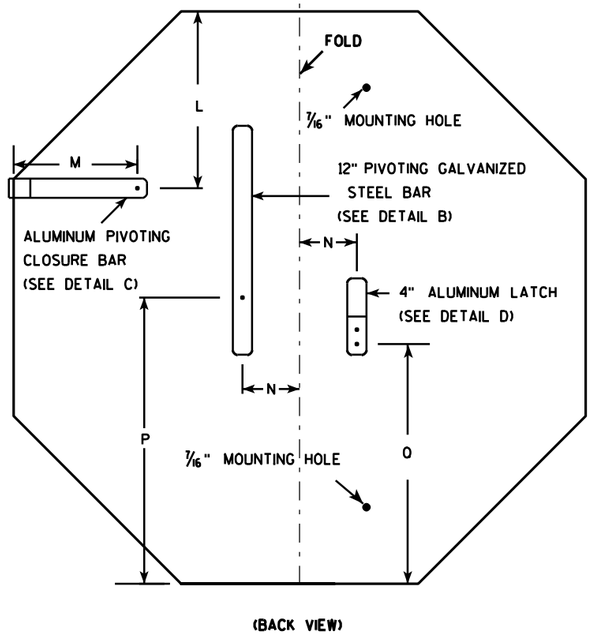
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-54F.2

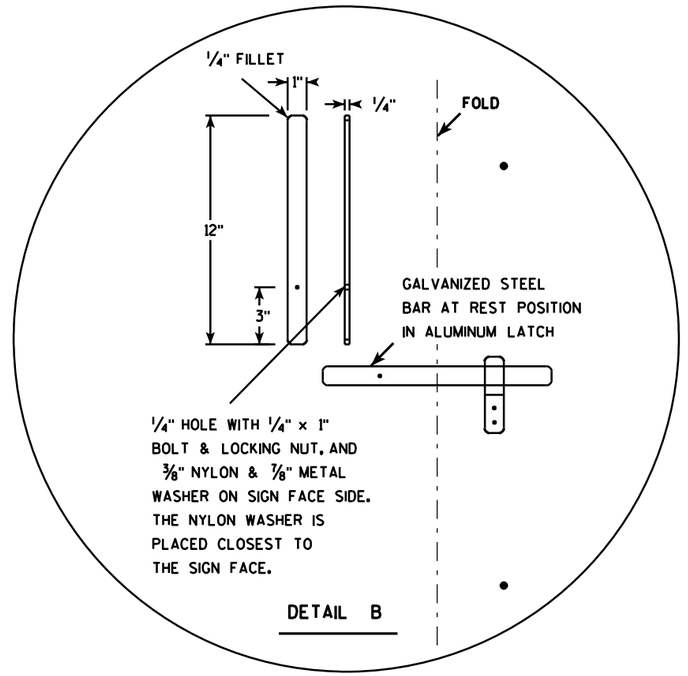
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 349	E



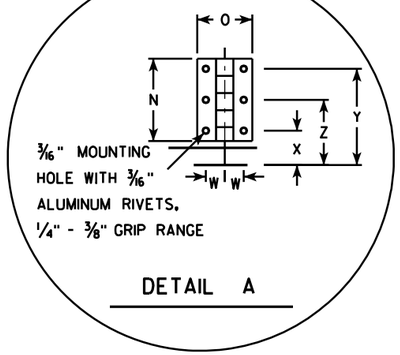


NOTES

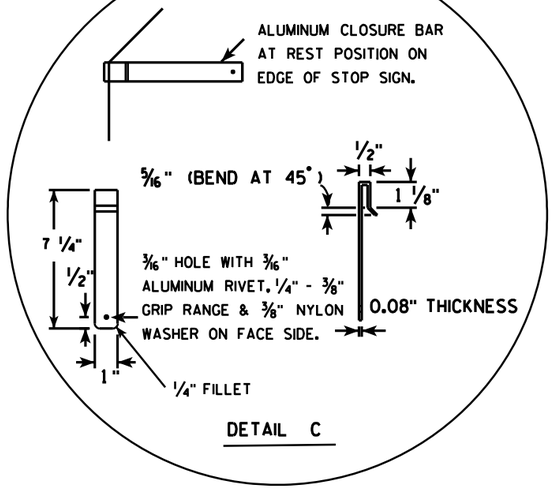
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



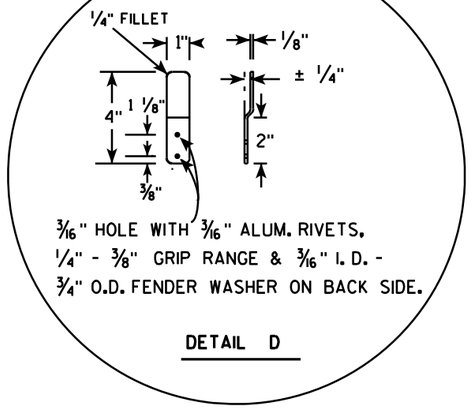
DETAIL B



DETAIL A



DETAIL C



DETAIL D

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																											

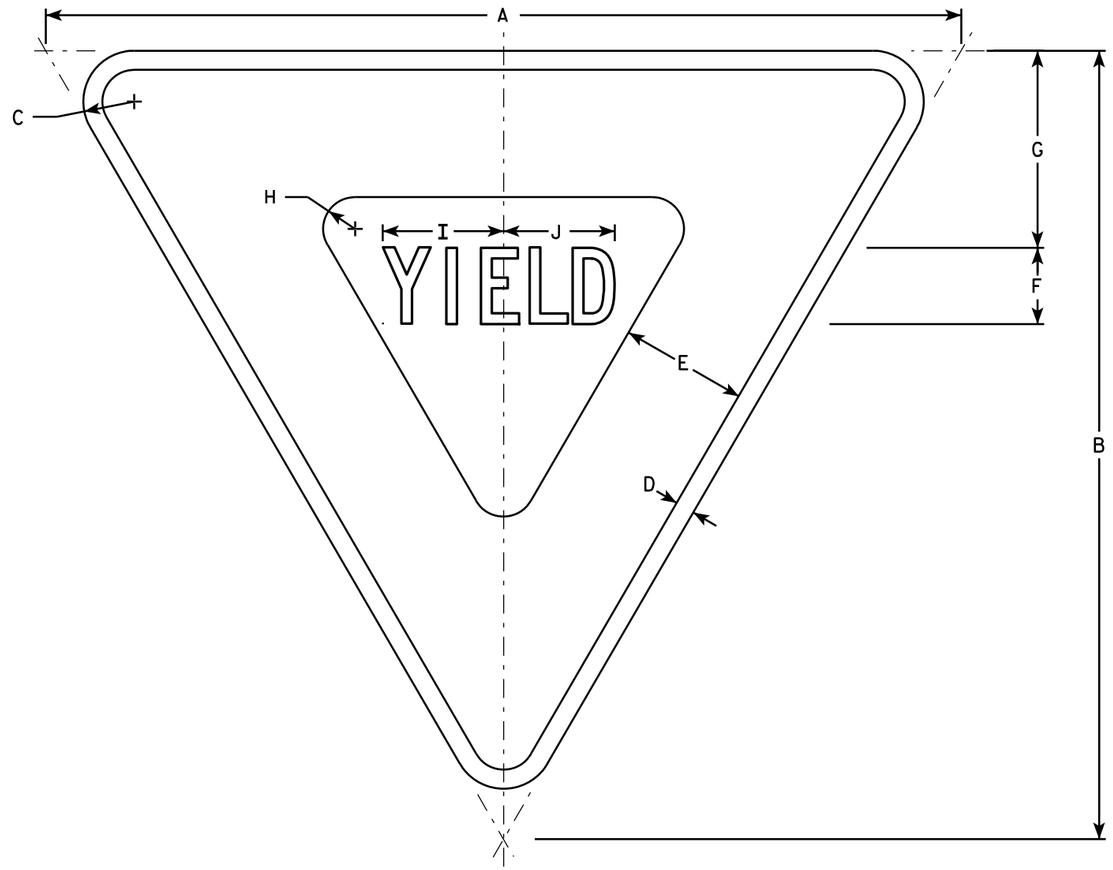
STANDARD SIGN
R1-1F

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: 350	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

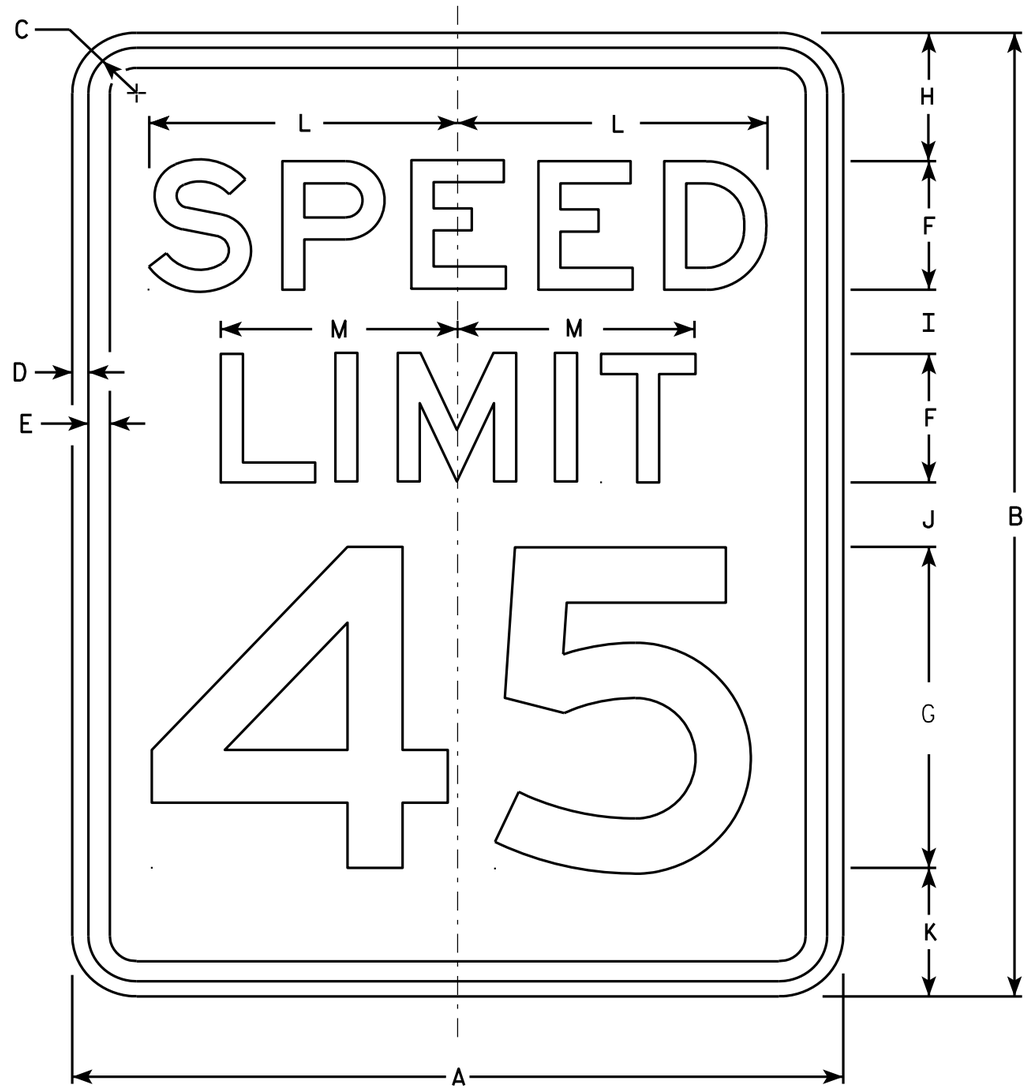
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 351 | 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

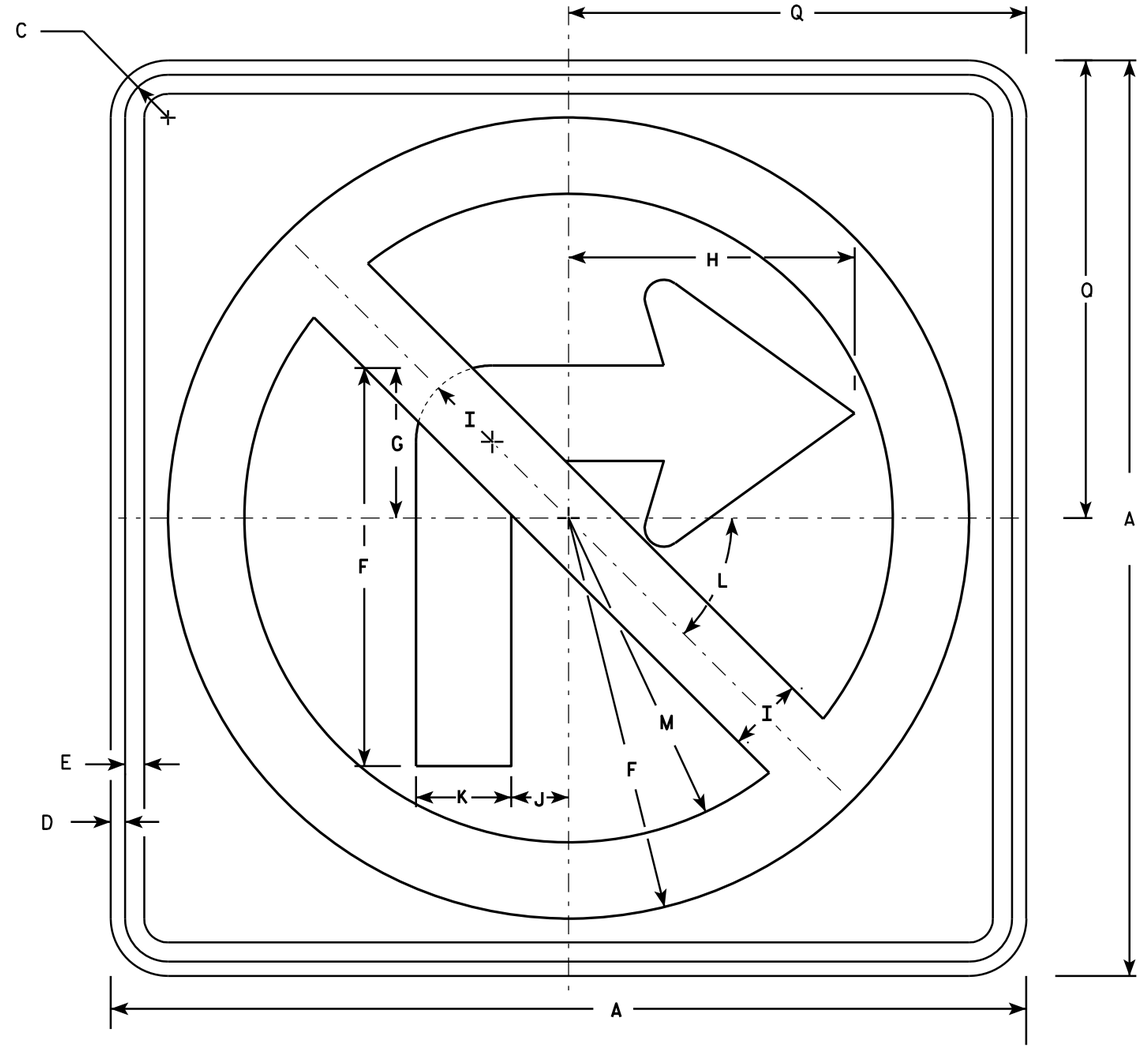
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 352 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000

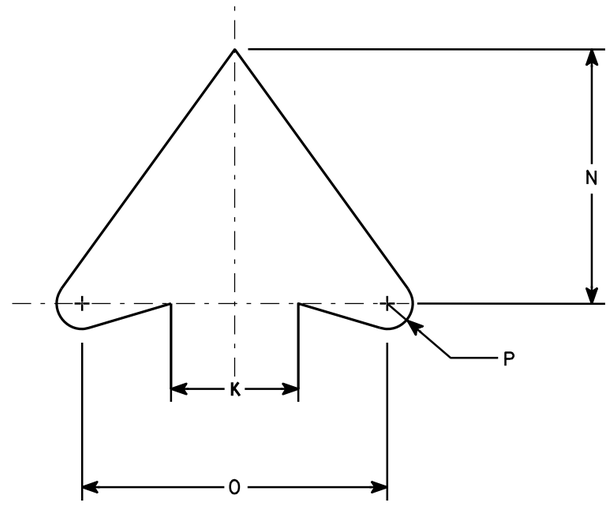
WISDOT/CADDS SHEET 42



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

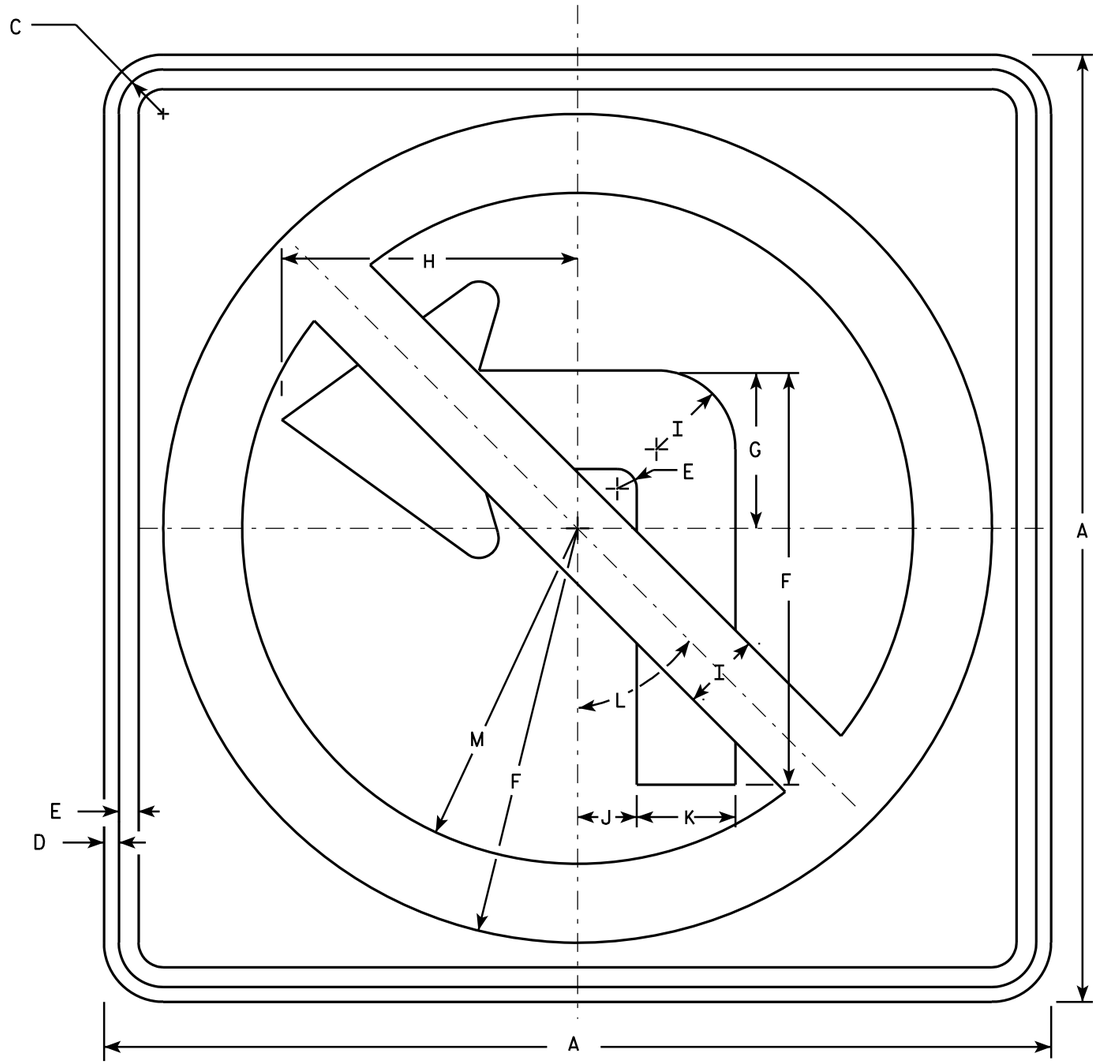
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

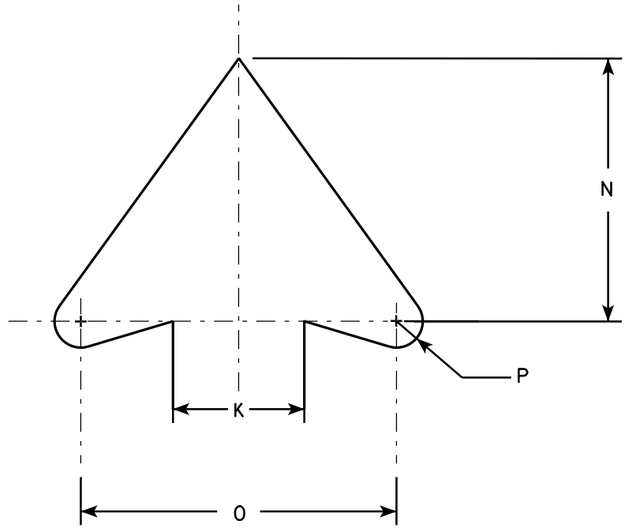
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 353	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

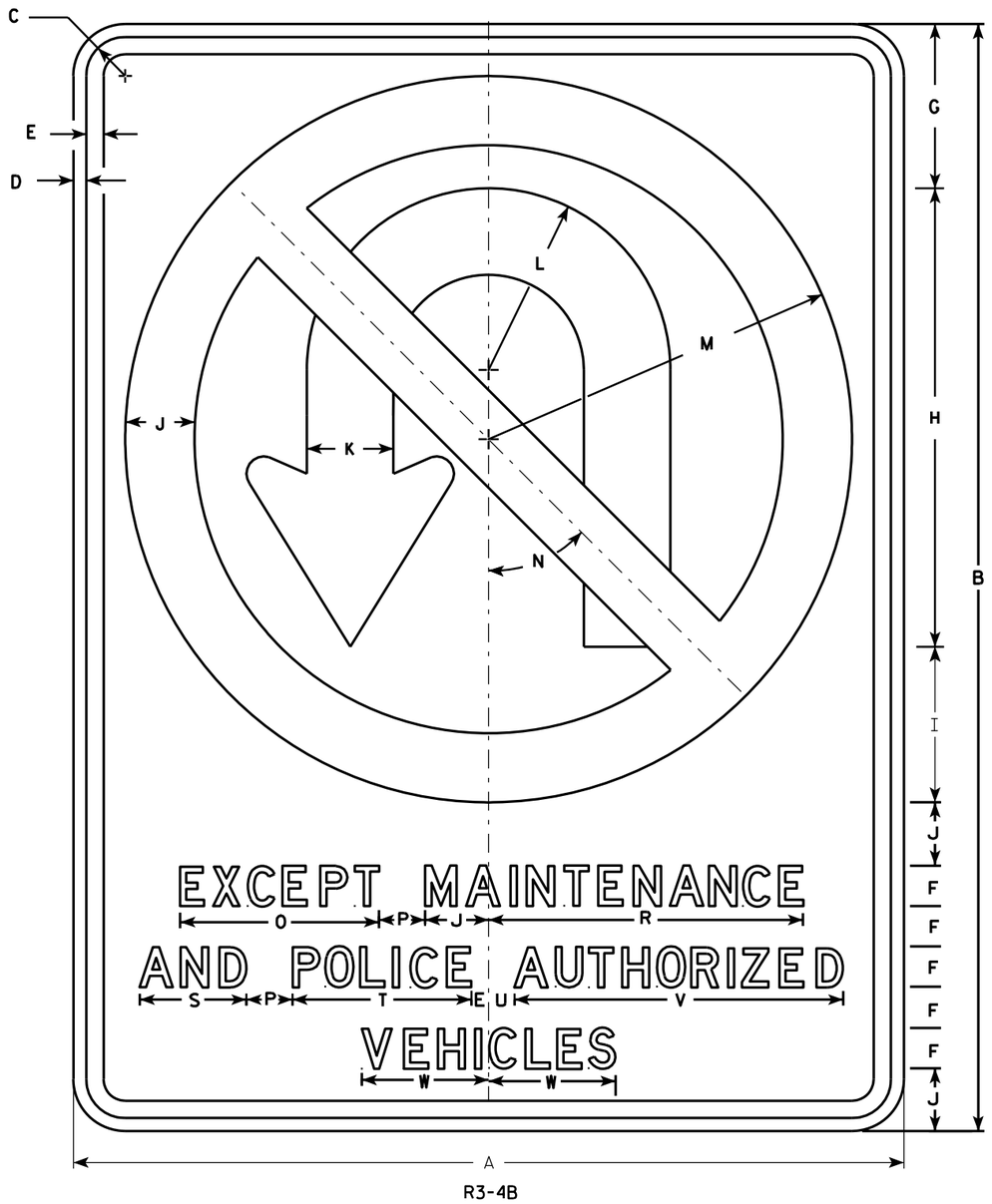
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

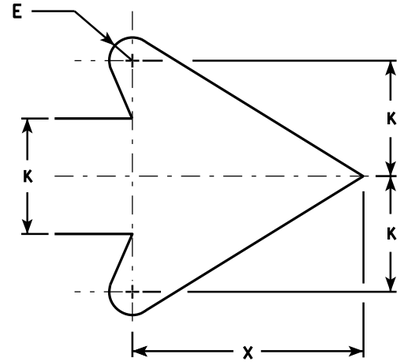
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 354	E



R3-4B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0
5	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0

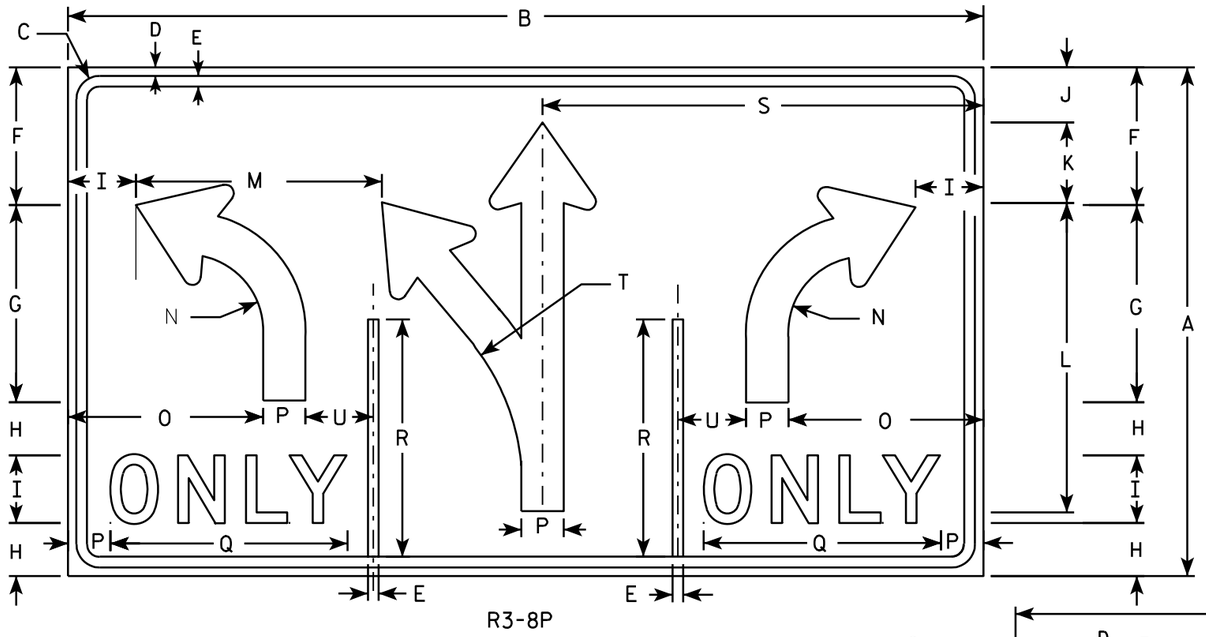
STANDARD SIGN
R3-4B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-4B.2

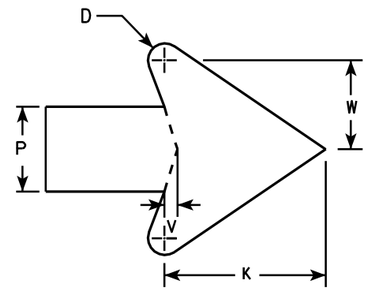
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 355	E



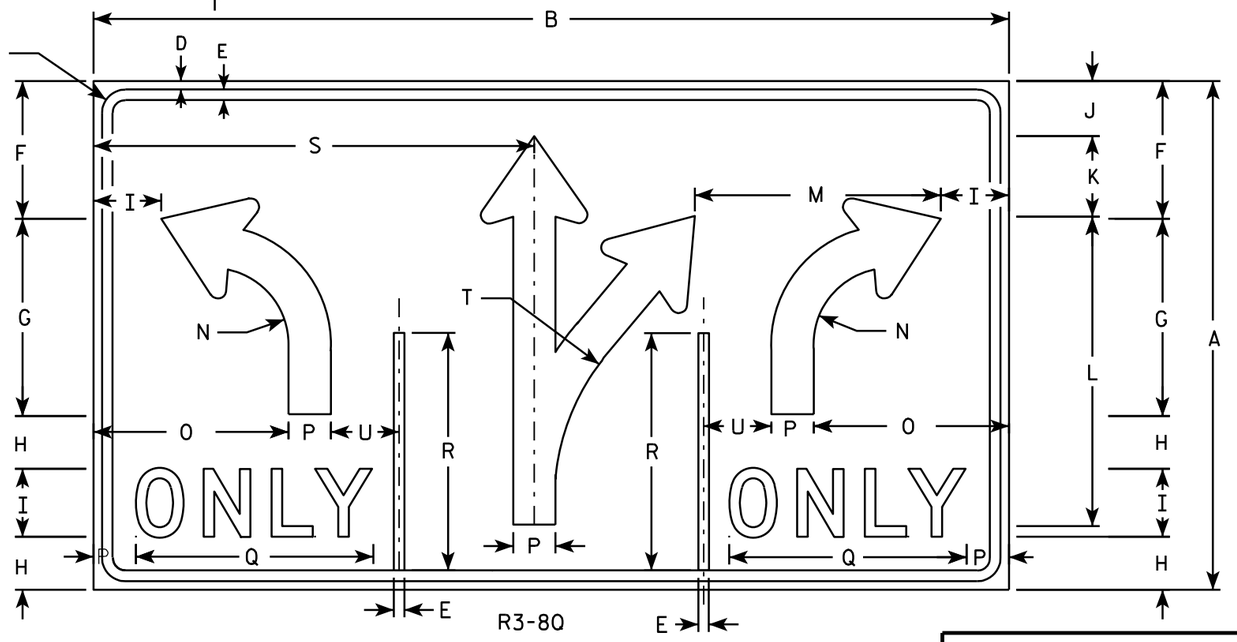
R3-8P

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

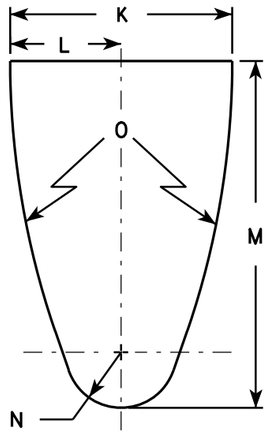
WISCONSIN DEPT OF TRANSPORTATION

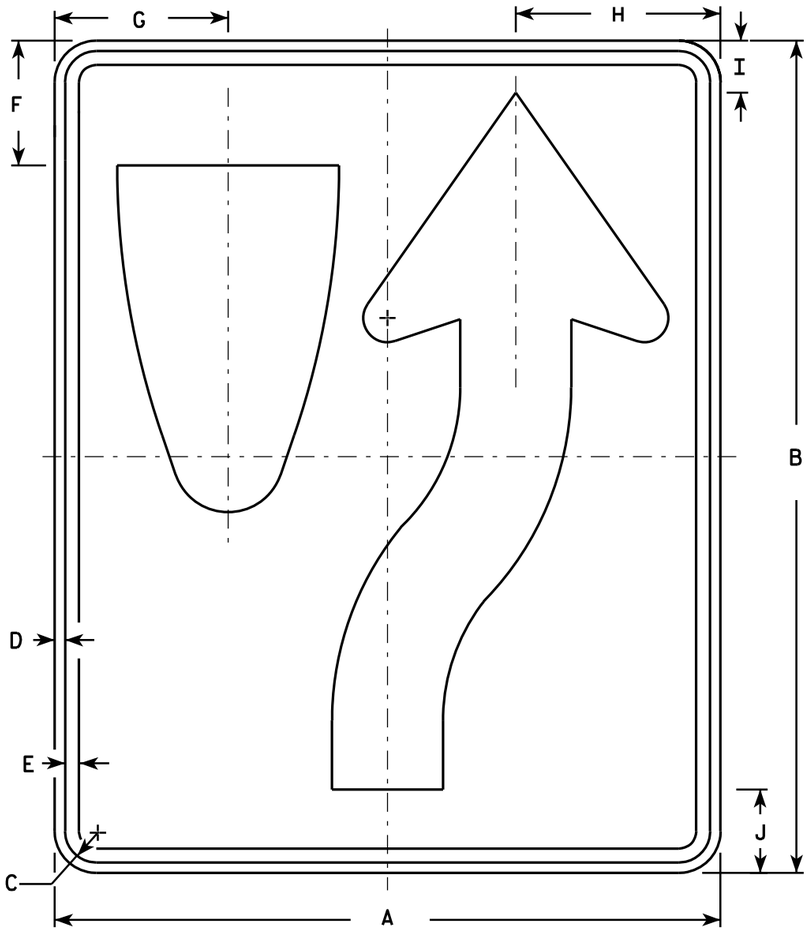
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-8P.2

PROJECT NO:

SHEET NO: 356 E

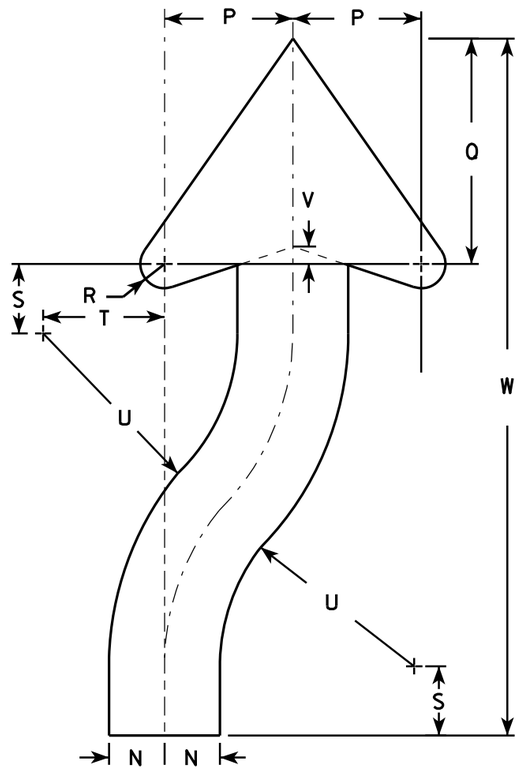




R4-7

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

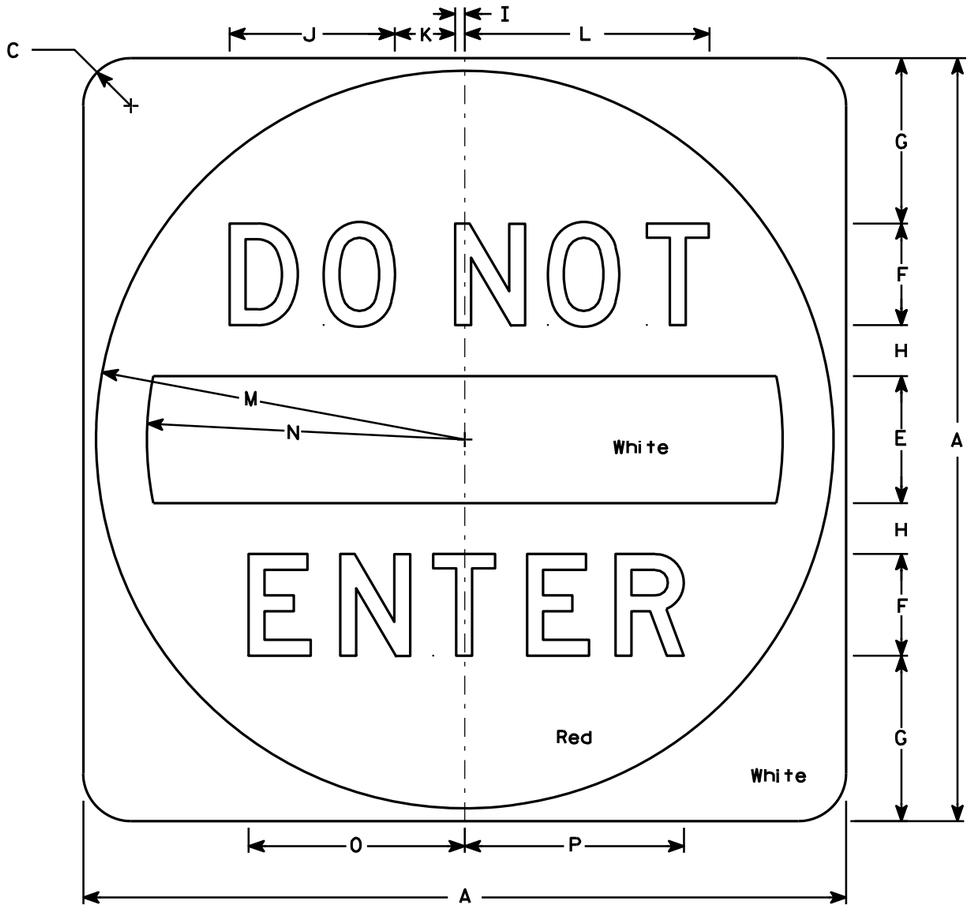
STANDARD SIGN
R4-7 & R4-8

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: 357	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

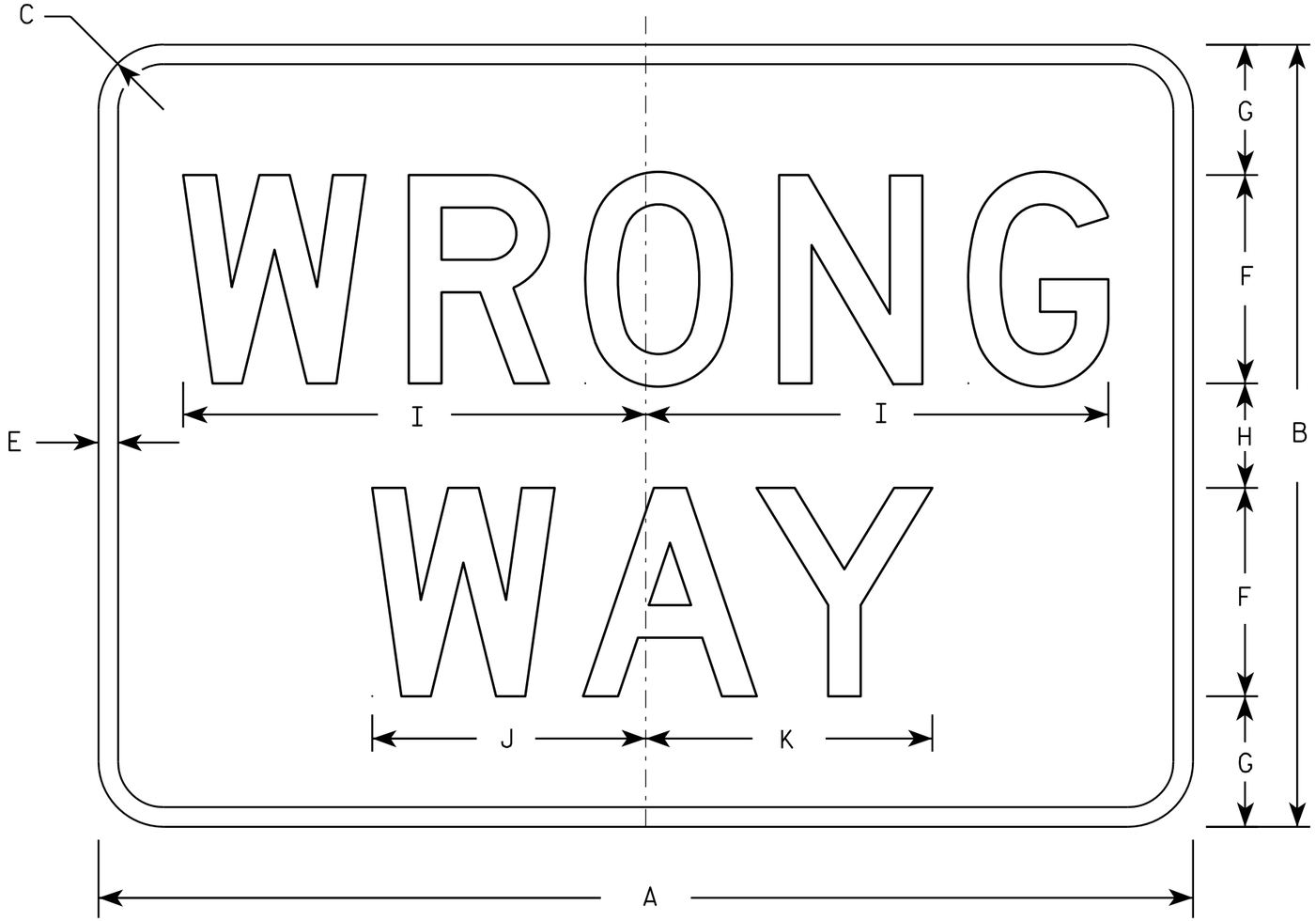
STANDARD SIGN
R5-1

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: 358 | 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: 359 | E



R5-57

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 - Lines 1, 2, and 5 are Series C.
   Lines 3 and 4 are Series B.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0
5	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0

STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

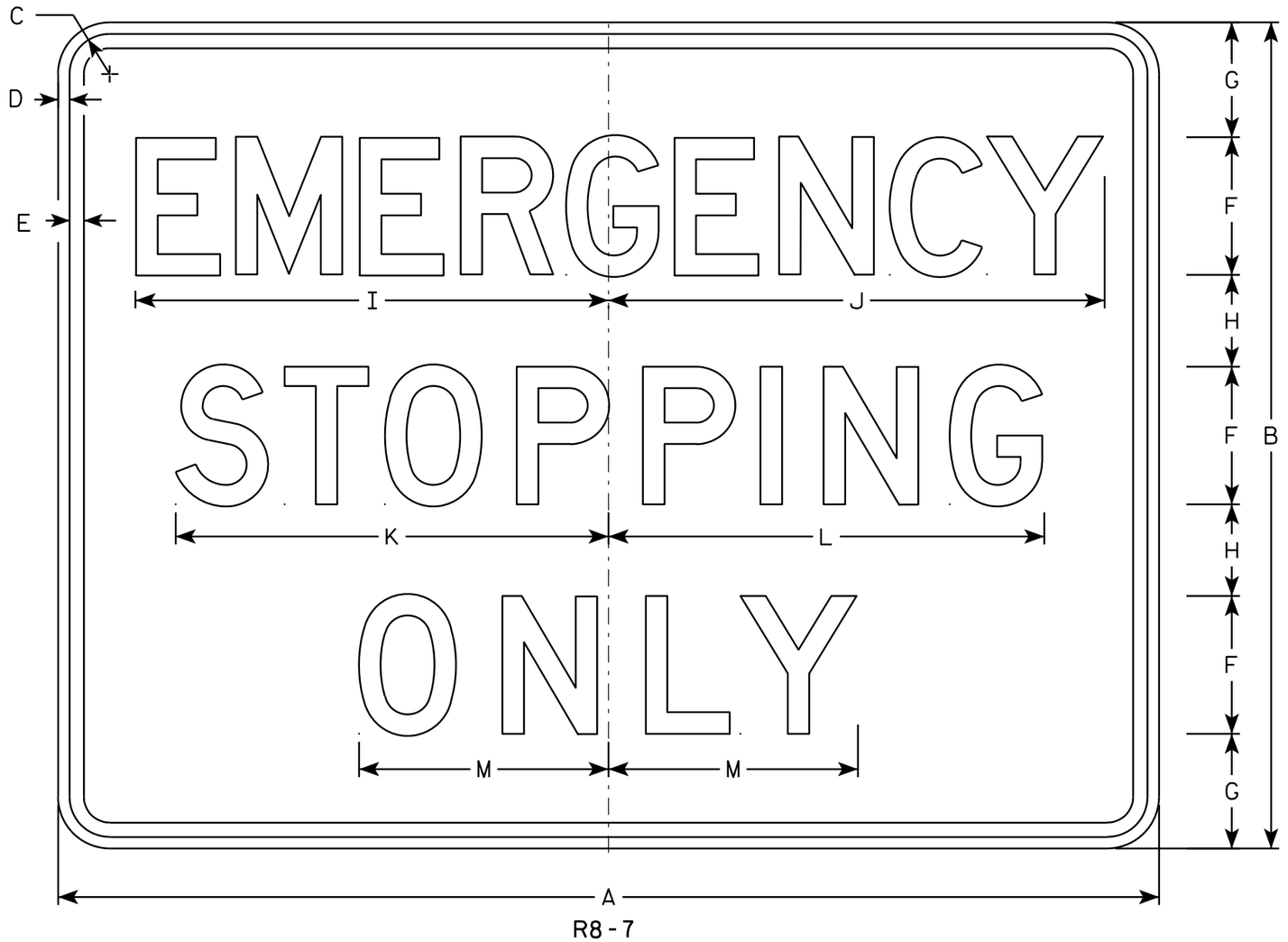
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 360 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R557.DGN PLOT DATE : 29-MAR-2011 14:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

7



R8 - 7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0
5	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0

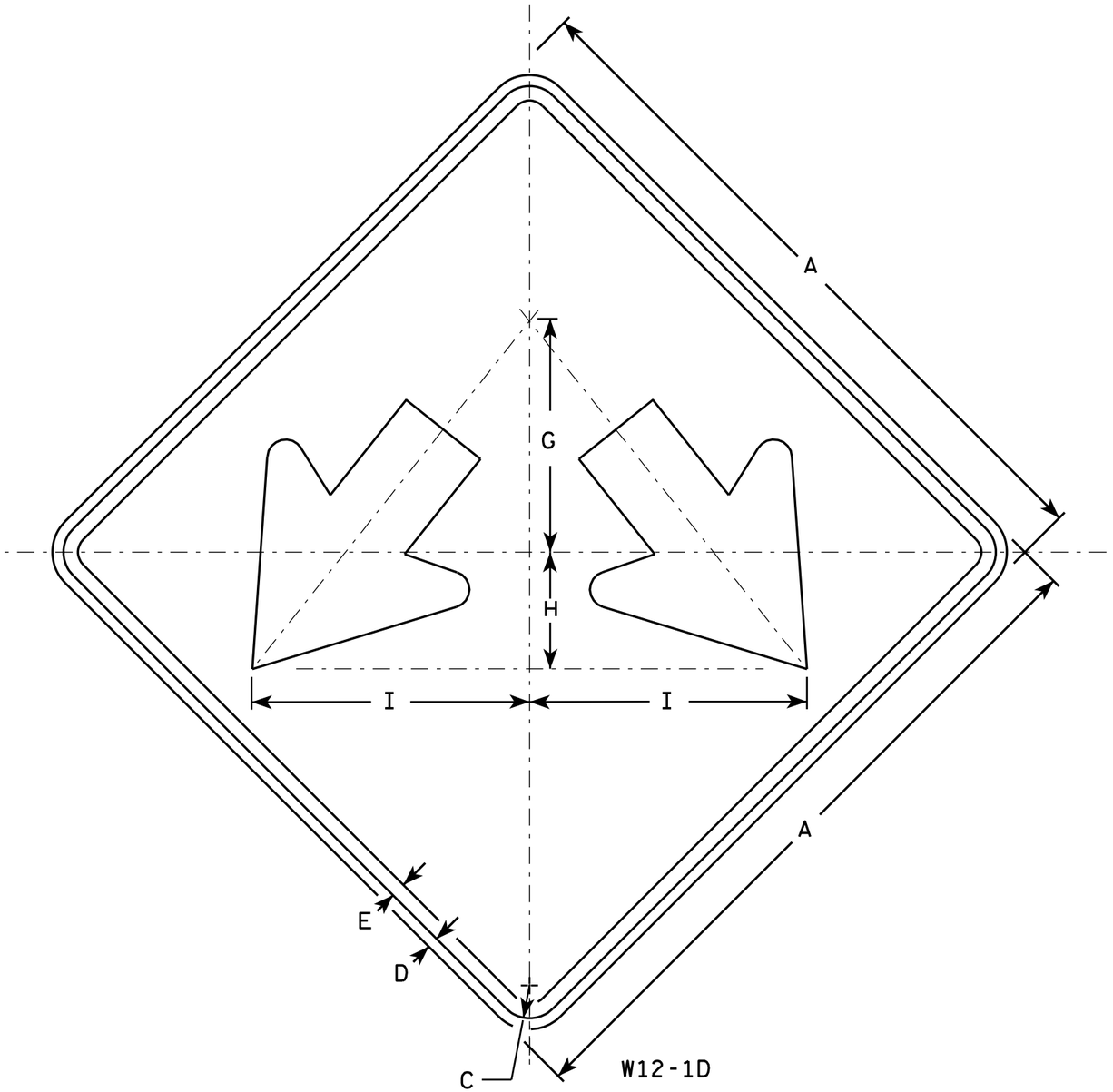
STANDARD SIGN
R8 - 7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

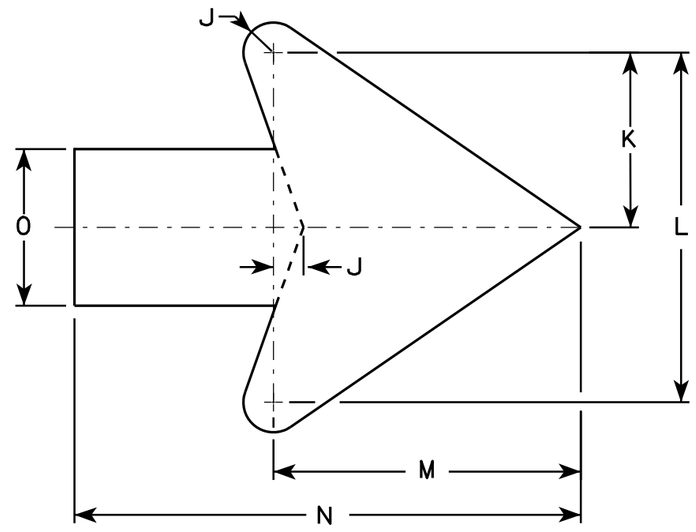
DATE 3/31/2011 PLATE NO. R8-7.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 361 | 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

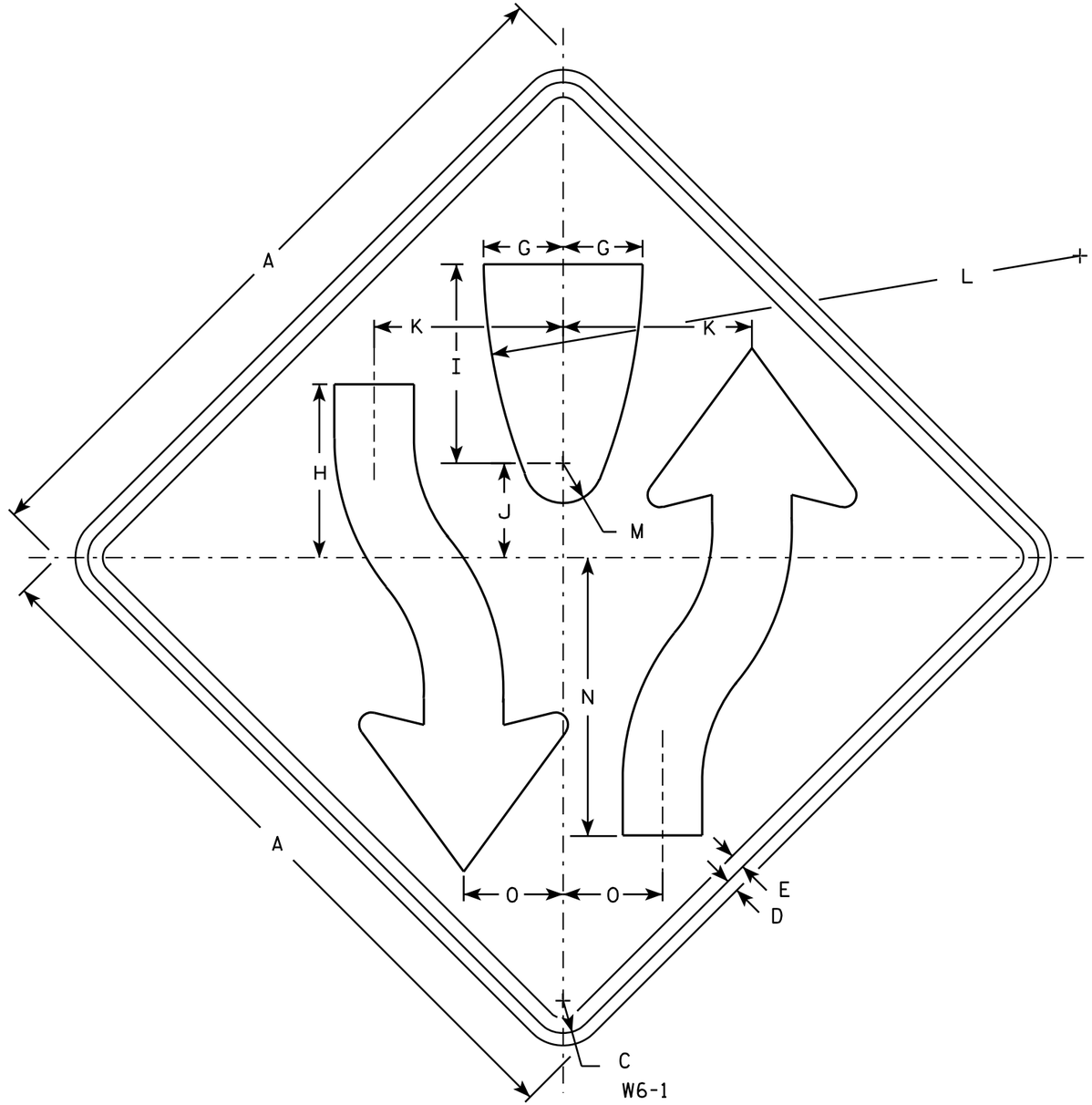
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 362	E

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

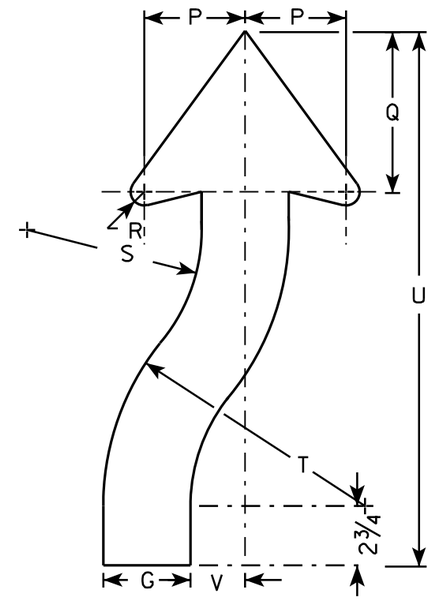
7

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 - 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. W6-2 same as W6-1 but is rotated 180° when mounted.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

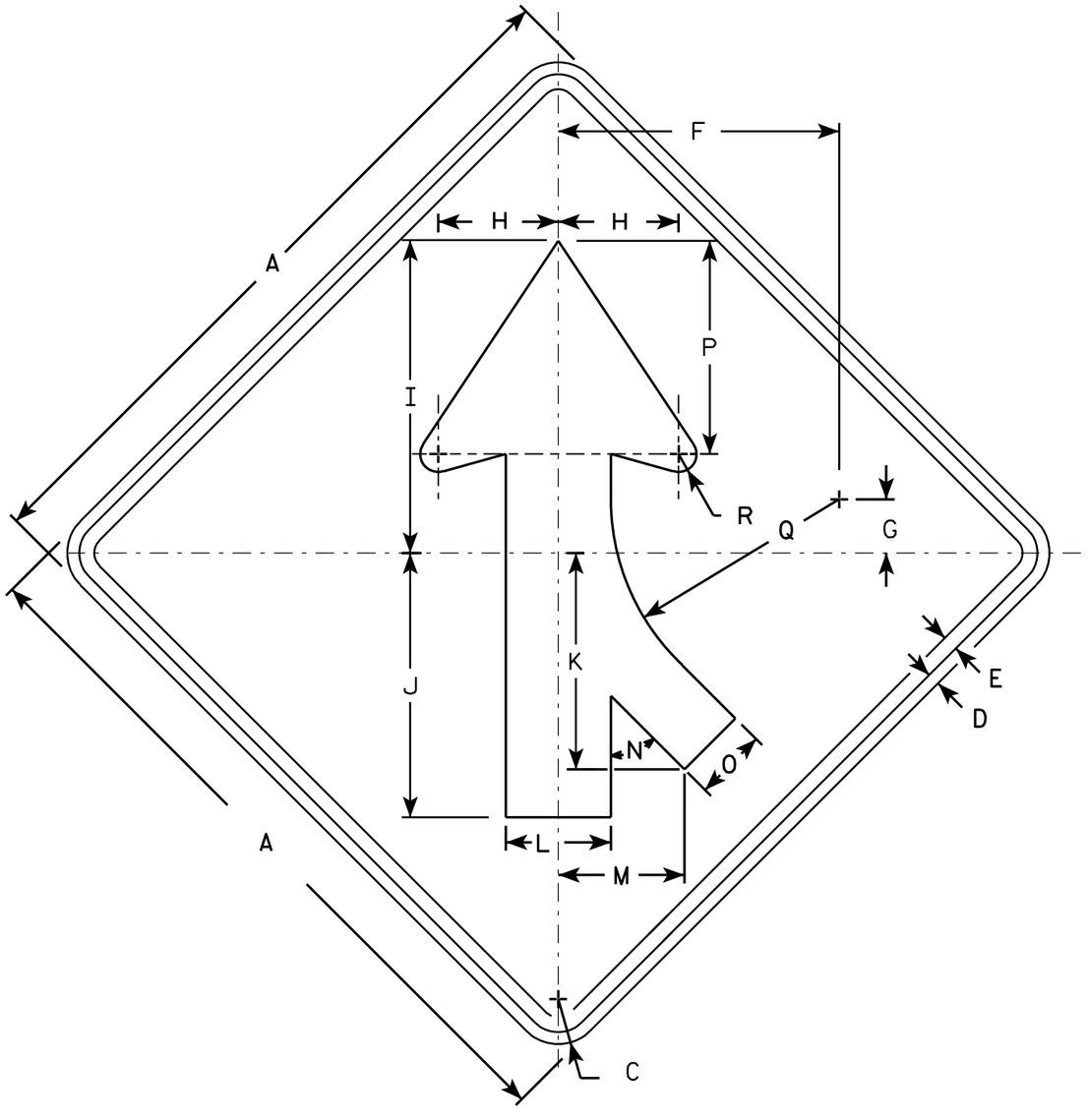
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 363	E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42



W4-1 R

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. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

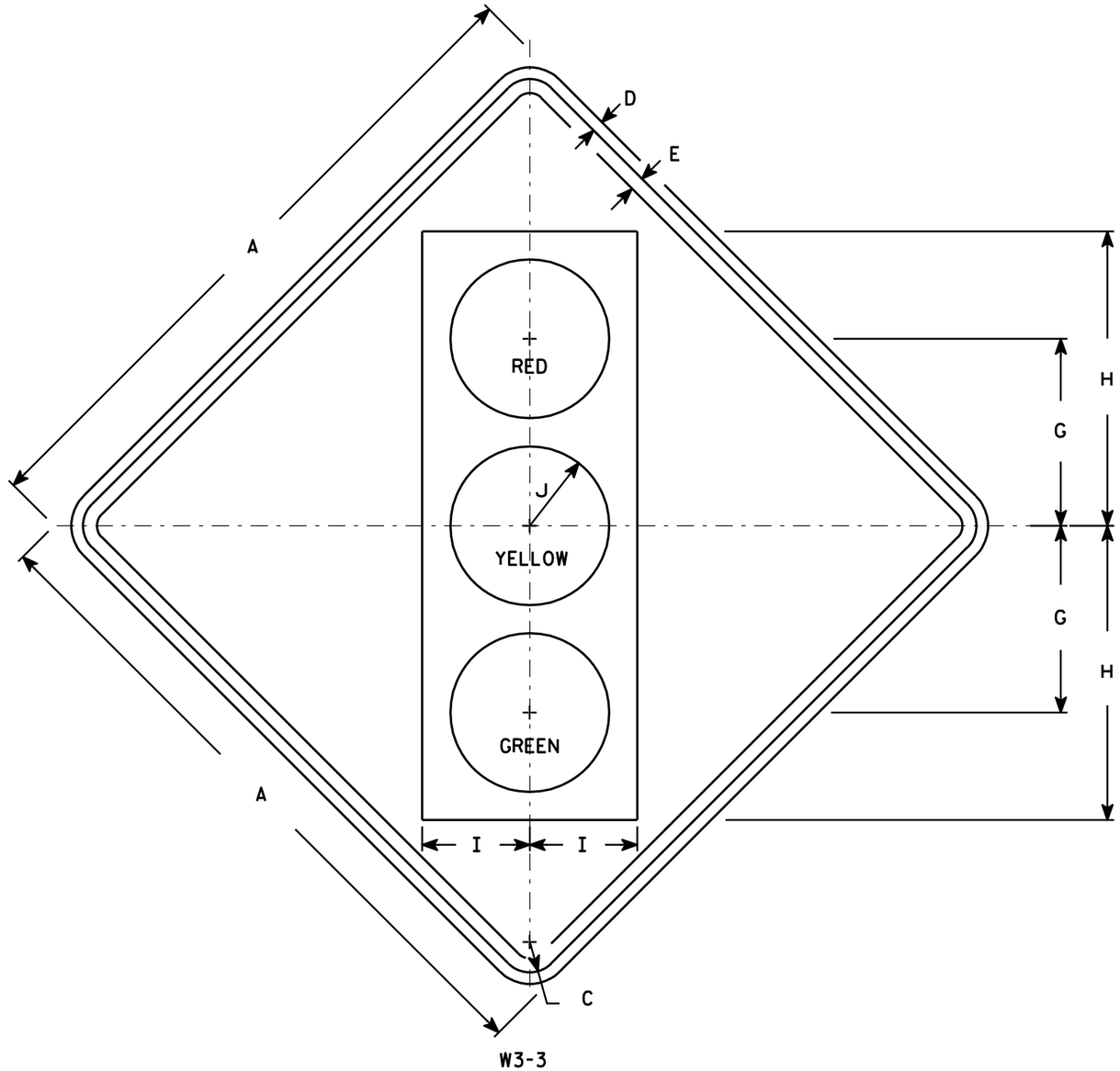
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 364	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

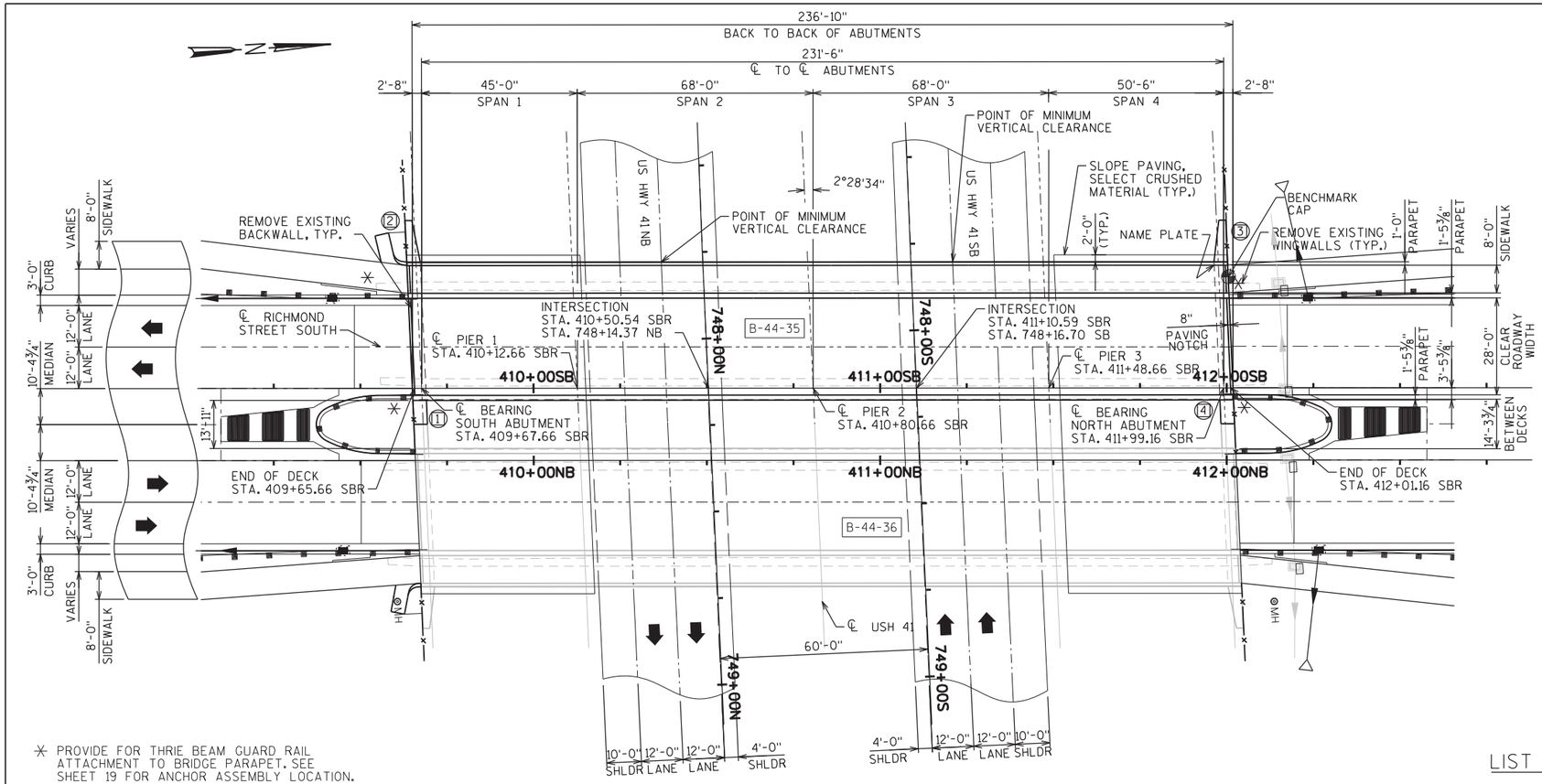
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 365 | E

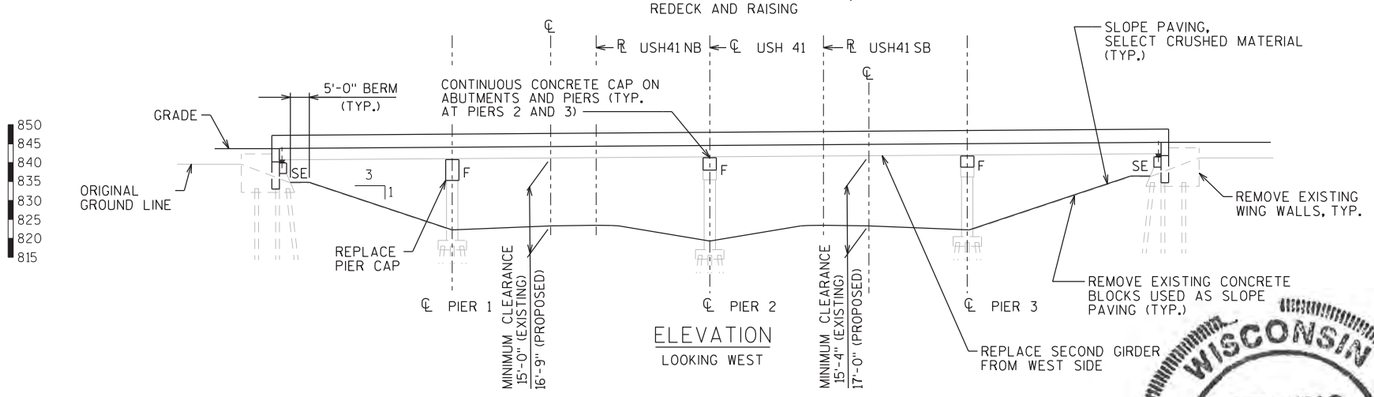


✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT TO BRIDGE PARAPET. SEE SHEET 19 FOR ANCHOR ASSEMBLY LOCATION.

(1) (2) (3) (4) INDICATES WING NUMBER

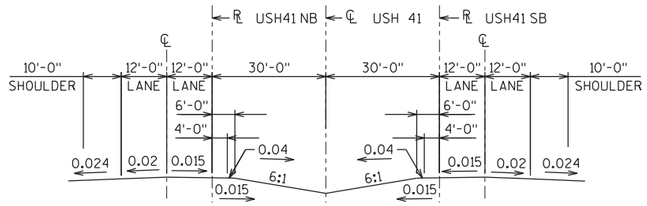
PLAN

4 SPAN 36" PRESTRESSED GIRDERS, REDECK AND RAISING



ELEVATION

LOOKING WEST



TYPICAL SECTION USH41

LOOKING WEST - NORMAL TO USH 41

DESIGN DATA

LIVE LOAD:
INVENTORY RATING: HS-19
OPERATING RATING: HS-32
WISCONSIN STANDARD PERMIT VEHICLE LOAD (WIS-SPV) = 220 KIPS.

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY
SUPERSTRUCTURE..... f'c = 4,000 PSI ALL OTHER..... f'c = 3,500 PSI

BAR STEEL REINFORCEMENT, GRADE 60 ..... fy = 60,000 PSI

36-INCH PRESTRESSED GIRDER, CONCRETE MASONRY..... f'c = 6,000 PSI
f'ci = 4,500 PSI

STRANDS - .05" Φ WITH ULTIMATE TENSILE STRENGTH OF 270,000 PSI

ULTIMATE DESIGN STRESSES (EXISTING WORK):
EXISTING CONCRETE MASONRY..... f'c = 2,500 PSI

EXISTING BAR STEEL REINFORCEMENT, GRADE 40 ..... fy = 40,000 PSI

TRAFFIC DATA RICHMOND STREET

AADT = 12,250 (2010)
= 18,050 (2030)

DESIGN SPEED = 40 MPH

TRAFFIC DATA USH41

AADT = 62,900 (2009)
= 87,900 (2029)

FOUNDATION DATA

EXISTING PILING AT ABUTMENTS IS TREATED TIMBER PILING. ESTIMATED 50'-0" LONG DRIVEN TO A MINIMUM BEARING OF 20 TONS PER PILE.

EXISTING PILING AT PIERS IS TREATED TIMBER PILING. ESTIMATED 40'-0" LONG DRIVEN TO A MINIMUM BEARING OF 20 TONS PER PILE.

LIST OF DRAWINGS

1. DECK REPLACEMENT AND RAISING
2. CROSS SECTIONS AND GENERAL NOTES
3. QUANTITIES AND PROFILE
4. ABUTMENT REMOVAL DETAILS
5. SOUTH ABUTMENT
6. NORTH ABUTMENT
7. ABUTMENT BILL OF BARS
8. PIER 1
9. PIER 2
10. PIER 3
11. PIER BILL OF BARS
12. SUPERSTRUCTURE CROSS SECTIONS
13. SUPERSTRUCTURE
14. SUPERSTRUCTURE DETAILS
15. SUPERSTRUCTURE GIRDER REPLACEMENT
16. 36" PRESTRESSED GIRDER DETAILS
17. STEEL DIAPHRAGM
18. VERTICAL FACE PARAPET 'A'
19. SINGLE SLOPE PARAPET 32SS
20. TUBULAR RAILING TYPE "H" (STEEL)
21. CHAIN LINK FENCE DETAILS
22. SLOPE PAVING (SELECT CRUSHED MATERIAL)

WISCONSIN
JEFFREY S. ROSNER
34316-006
DE PERE, WI
PROFESSIONAL ENGINEER
9-25-13

BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER, P.E. 608-266-8489

CONSULTANT CONTACT:
JEFFREY S. ROSNER, P.E. 920-592-9440

STATE PROJECT NUMBER
1130-33-71

NO.	DATE	REVISION	BY

GRAEF
1150 Springhurst Drive, Suite 201
Green Bay, WI 54304
920-592-9440
920-592-9445 fax
www.graef-usa.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 09/26/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-44-35

RICHMOND STREET (STH 47 SB) OVER U.S.H. 41

COUNTY	TOWN
OUTAGAMIE	GRAND CHUTE

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JSR	SAC	AMZ	JSR

DECK REPLACEMENT AND RAISING

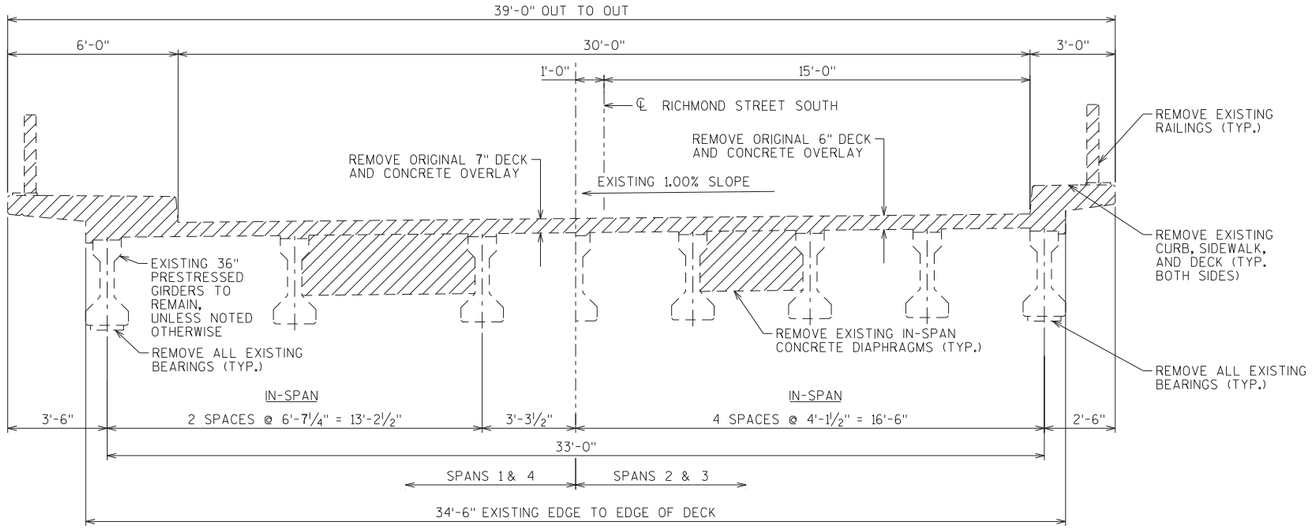
SHEET 1 OF 22

366

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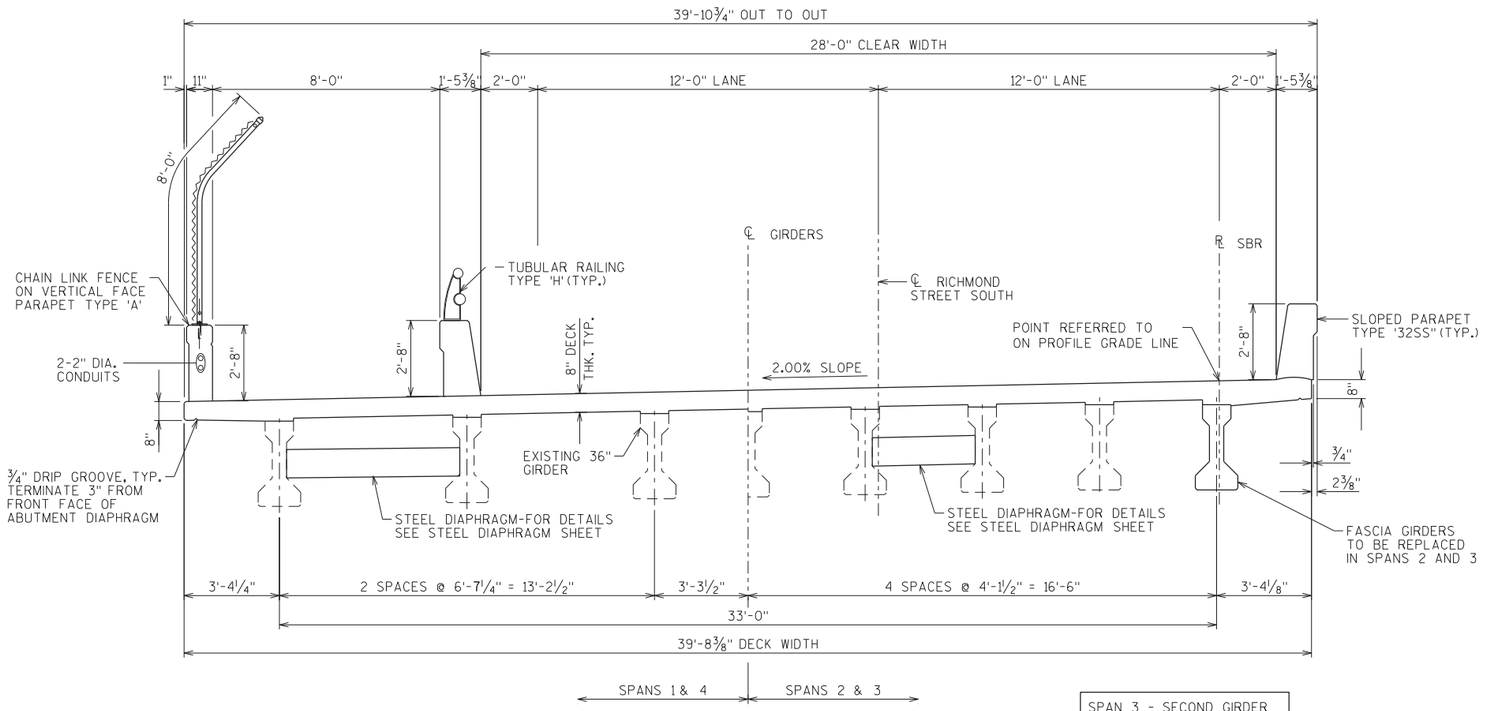
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EXISTING CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



SPAN 3 - SECOND GIRDER FROM WEST TO BE REPLACED - TYPE I 36-INCH

CROSS SECTION THRU ROADWAY

(LOOKING NORTH)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

ALL DETAILS, MATERIALS AND FABRICATION SHALL CONFORM TO THE CURRENT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE SPECIFICATIONS OF THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE AND THE FRONT FACE AND THE TOP OF THE PARAPET. PROTECTIVE SURFACE TREATMENT SHALL ALSO BE APPLIED TO PIERS 1, 2 AND 3 FROM THE EXISTING GROUND LINE TO THE BOTTOM OF THE PIER CAP AFTER WATER BLAST CLEANING THE PIER COLUMNS.

THE EXISTING GROUND LINE OR ROADWAY SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION.

VARIATIONS TO THE NEW GRADE LINE OVER 1/4" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEETS 1 AND 20.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

CONCRETE SURFACE REPAIR AS DIRECTED BY ENGINEER. QUANTITIES SHOWN ARE APPROXIMATE.

SOUTH ABUTMENT	125 S.F.
PIER 1	REPLACE PIER CAP
PIER 2	60 S.F. ON PIER CAP
PIER 3	10 S.F. ON PIER CAP
NORTH ABUTMENT	70 S.F.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

THE CONTRACTOR SHALL SUBMIT A REMOVAL AND BRIDGE JACKING PLAN TO THE ENGINEER FOR APPROVAL.

CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAILED DRAWINGS. THE NEW NAME PLATE SHALL SHOW THE ORIGINAL CONSTRUCTION YEAR OF 1961.

THE EXISTING STRUCTURE, B-44-35, IS A 4-SPAN PRESTRESSED GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 39'-0" AND AN OVERALL LENGTH OF 236'-10". THE ENTIRE DECK, ABUTMENT BACKWALL, WINGWALLS, THE CAP OF PIER 1, AND GIRDER BEARINGS WILL BE REMOVED AND REPLACED. THE EXISTING GIRDERS WILL BE RAISED TO INCREASE CLEARANCE.

ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER FRICTION TYPE HIGH-TENSILE STRENGTH BOLTS UNLESS SHOWN OR NOTED OTHERWISE.

THE SUPERSTRUCTURE CONCRETE QUANTITY INCLUDES VOLUME FOR OVERHANG TRIANGULAR AREA, DIAPHRAGMS, AND THE AVERAGE ESTIMATED HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

REMOVING OLD STRUCTURE SHALL INCLUDE THE REMOVAL OF THE EXISTING RAILING, DECK, CONCRETE DIAPHRAGMS, ABUTMENT BACKWALLS, WINGWALLS, AND THE PIER CAP OF PIER 1. THIS BID ITEM SHALL ALSO INCLUDE THE REMOVING AND REPLACING ONE OF THE PRESTRESSED GIRDERS.

THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE DECK SHALL BE PLACED WITH 2 1/2" OF CLEAR COVER.

STATE PROJECT NUMBER

1130-33-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

DRAWN BY AMZ | PLANS CK'D. JSR

CROSS SECTIONS AND GENERAL NOTES | SHEET 2 OF 22

8

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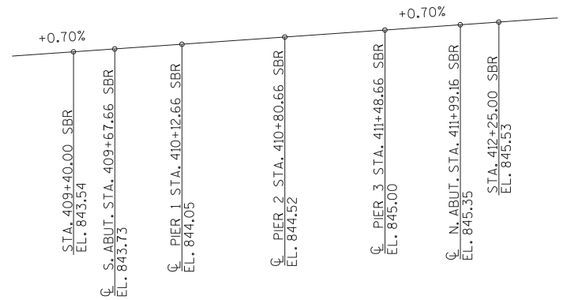
STATE PROJECT NUMBER
1130-33-71

BENCH MARKS

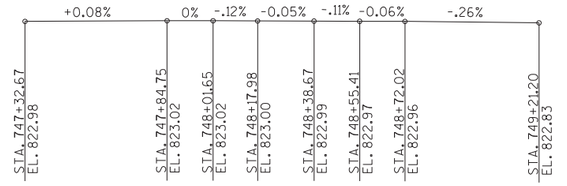
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
620	409+60.91 NBR	36.73' RT.	BRONZE DISC IN THE SE END OF THE WHEEL GUARD ON STRUCTURE B-44-36	841.97
621	412+00.53 SBR	32.12' LT.	BRONZE DISC IN THE NW END OF THE WHEEL GUARD ON STRUCTURE B-44-35	843.68

ESTIMATED QUANTITIES

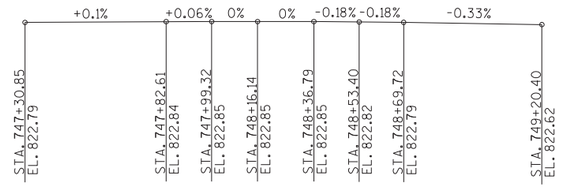
ITEM NO.	BID ITEMS	UNIT	SUPER	S ABUT	N ABUT	PIER 1	PIER 2	PIER 3	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 410+80.66 SBR	LS	--	--	--	--	--	--	1
203.0225.S	DEBRIS CONTAINMENT STRUCTURE B-44-35	LS	--	--	--	--	--	--	1
204.0175	REMOVING CONCRETE SLOPE PAVING	SY	--	215	242	--	--	--	457
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-44-35	LS	--	--	--	--	--	--	1
210.0100	BACKFILL STRUCTURE	CY	--	177	177	--	--	--	354
502.0100	CONCRETE MASONRY BRIDGES	CY	414	38	38	29	11	11	541
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1279	--	--	--	--	--	1279
502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	--	115	115	--	80	116	426
502.5010	MASONRY ANCHORS TYPE L NO. 6 BARS	EACH	--	5	5	--	--	--	10
502.5015	MASONRY ANCHORS TYPE L NO. 7 BARS	EACH	--	--	--	18	--	--	18
503.0136	PRESTRESSED GIRDER TYPE I 36-INCH	LF	339	--	--	--	--	--	339
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	90,860	2960	2960	2670	1040	1220	100,260
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	--	6	6	15	18	15	60
506.4000	STEEL DIAPHRAGMS B-44-35	EACH	42	--	--	--	--	--	42
506.7050.S	REMOVING BEARINGS, B-44-35	EACH	58	--	--	--	--	--	58
506.7060.S	BRIDGE, JACKING, B-44-35	LS	--	--	--	--	--	--	1
509.1500	CONCRETE SURFACE REPAIR	SF	--	125	70	--	60	10	265
513.4055	RAILING TUBULAR TYPE H B-44-35	LS	--	--	--	--	--	--	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	--	22	22	--	--	--	44
604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL	SY	--	258	290	--	--	--	548
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	--	75	75	--	--	--	150
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	--	--	--	--	--	4
616.0208	FENCE CHAIN LINK 8-FT	LF	236	--	--	--	--	--	236
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	25	--	--	--	--	--	25
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	457	--	--	--	--	--	457
653.0222	JUNCTION BOXES 18 X 12 X 6-INCH	EACH	2	--	--	--	--	--	2
	NON-BID ITEMS								
	PREFORMED JOINT FILLER								¾"



RICHMOND STREET PROFILE GRADE LINE



USH41 SB PROFILE GRADE LINE



USH41 NB PROFILE GRADE LINE

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

DRAWN BY AMZ | PLANS CK'D. JSR

QUANTITIES AND PROFILE

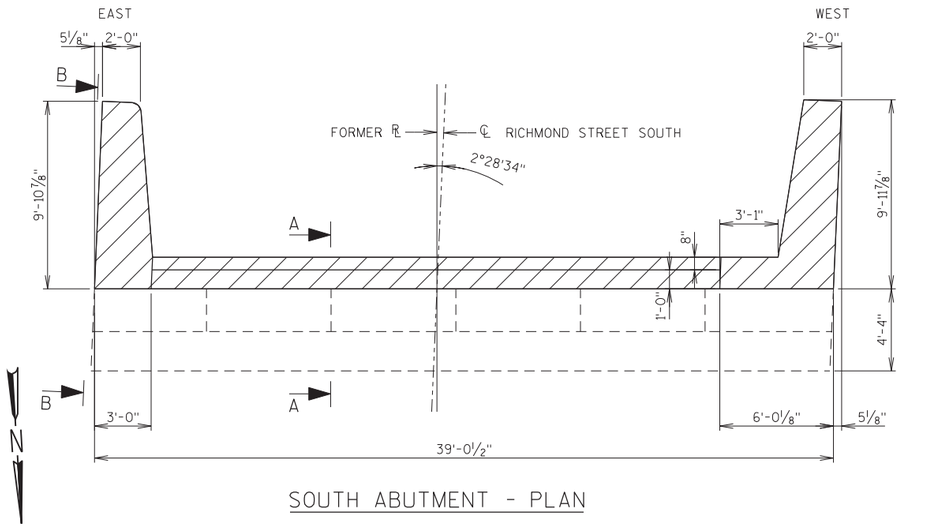
SHEET 3 OF 22

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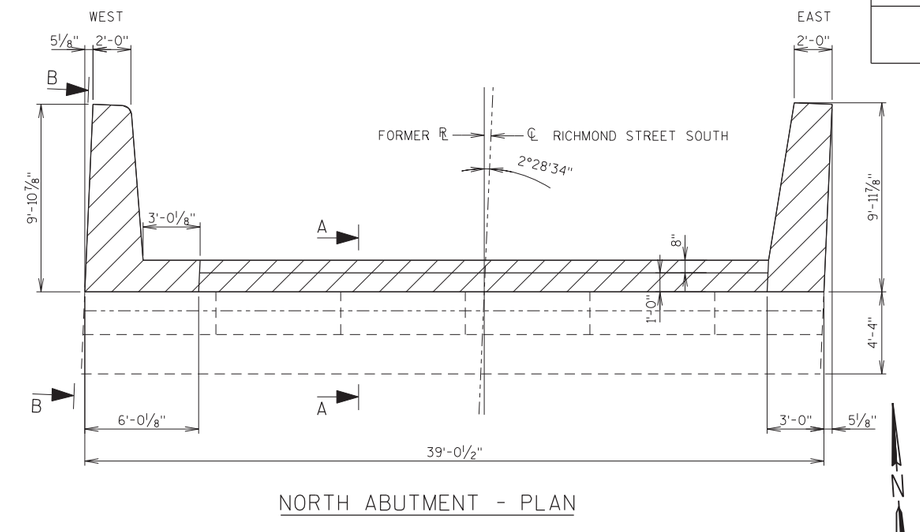
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STATE PROJECT NUMBER

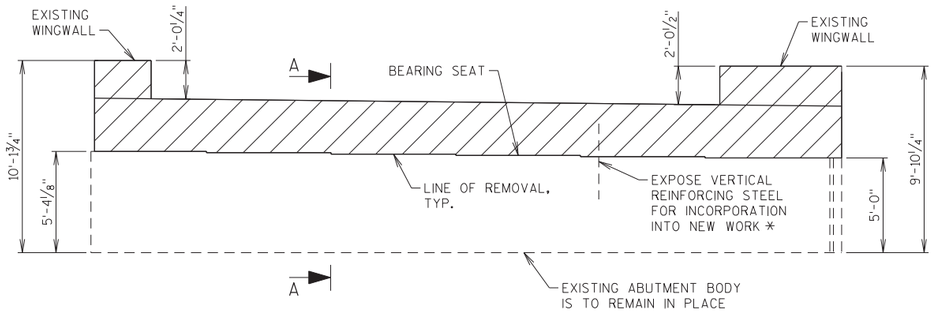
1130-33-71



SOUTH ABUTMENT - PLAN

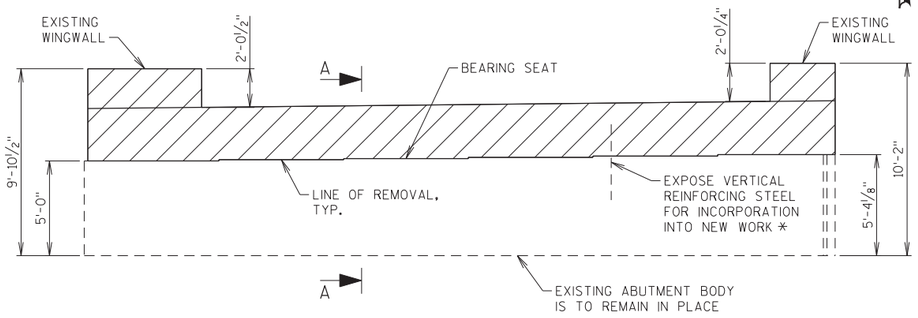


NORTH ABUTMENT - PLAN



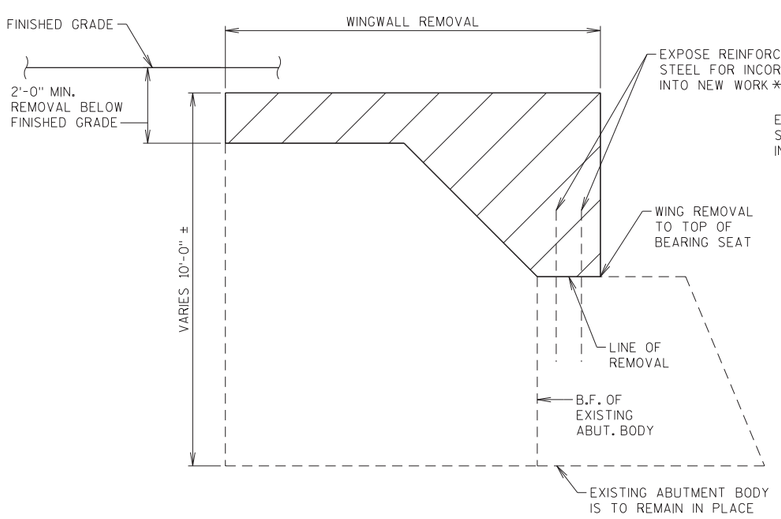
SOUTH ABUTMENT - ELEVATION

(LOOKING SOUTH)

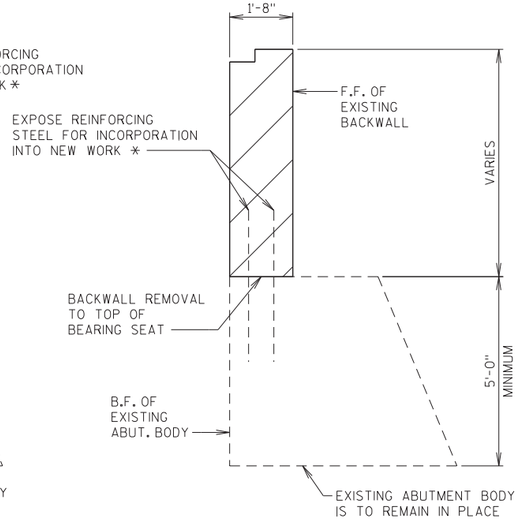


NORTH ABUTMENT - ELEVATION

(LOOKING NORTH)



SECTION B-B -
SHOWING WINGWALL REMOVAL



SECTION A-A -
SHOWING BACKWALL REMOVAL

LEGEND

= CONCRETE REMOVAL

* = EXTEND EXISTING BARS A MINIMUM OF 24 BAR DIAMETERS INTO NEW WORK. BENDS AT THE TOP ARE ALLOWED TO BE CUT OFF.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

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ABUTMENT REMOVAL DETAILS

SHEET 4 OF 22

8

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STATE PROJECT NUMBER
1130-33-71

LEGEND

* = EXTEND EXISTING BARS A MINIMUM OF 24 BAR DIAMETERS INTO NEW WORK.

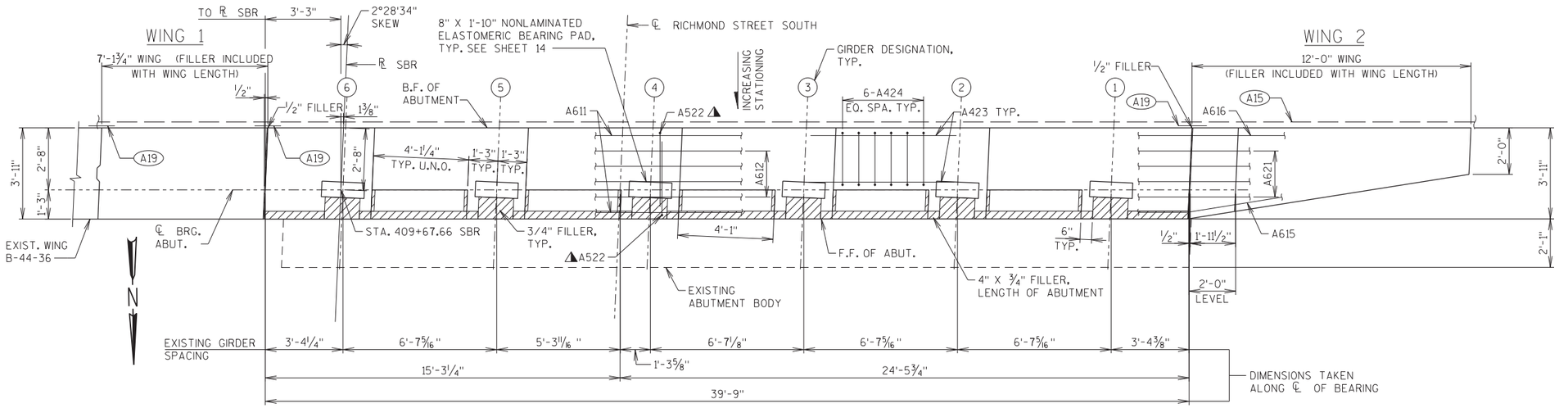
(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

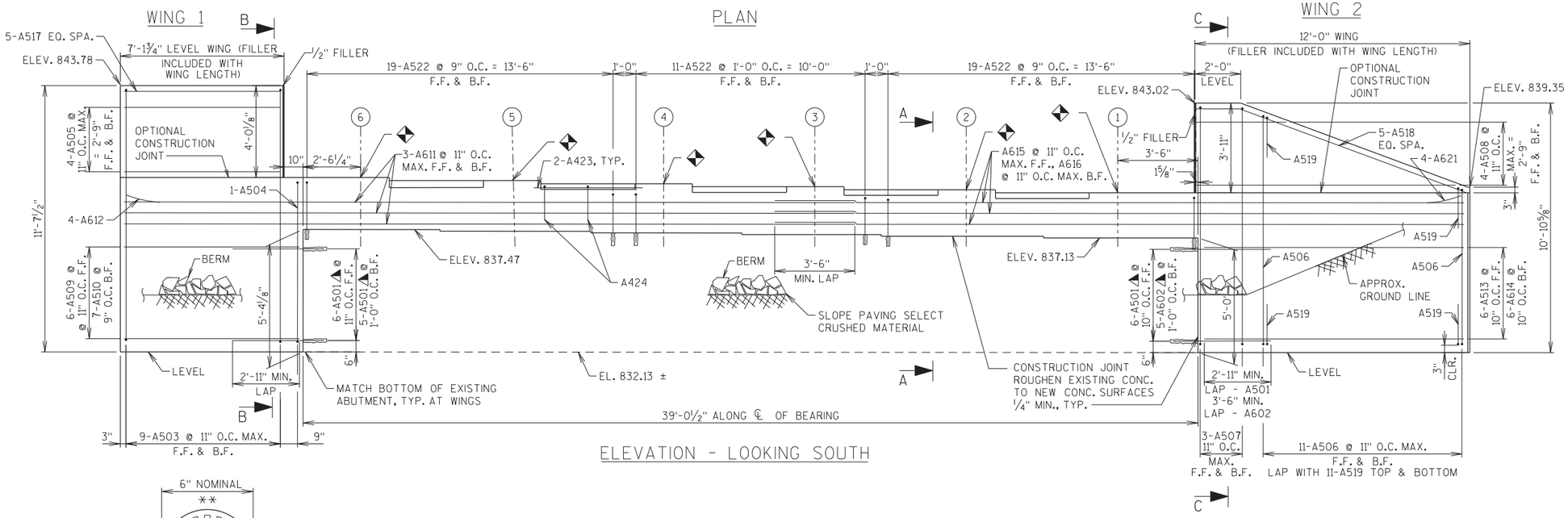
◭ A501 MASONRY ANCHORS TYPE L. MINIMUM PULLOUT CAPACITY OF 4.8 KIPS. EMBED 10½" IN CONCRETE MINIMUM.

◭ A602 MASONRY ANCHORS TYPE L. MINIMUM PULLOUT CAPACITY OF 7.5 KIPS. EMBED 1'-3" IN CONCRETE MINIMUM.

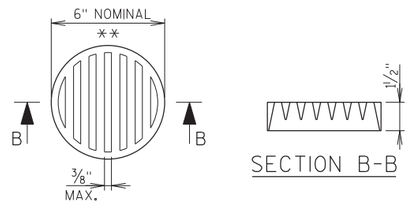
◭ A522 MASONRY ANCHORS TYPE L. MINIMUM PULLOUT CAPACITY OF 4.8 KIPS. EMBED 5" IN CONCRETE MINIMUM.



PLAN



ELEVATION - LOOKING SOUTH



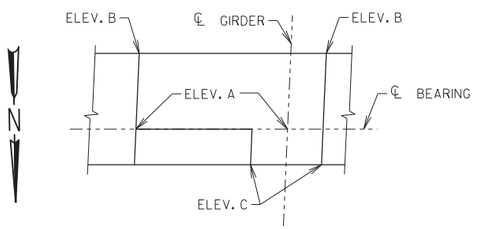
RODENT SCREEN DETAIL

SECTION B-B

** DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH SHEET METAL SCREWS.



◭ BEARING SEAT ELEVATION PLAN

◭ BEARING SEAT ELEVATION SCHEDULE			
GIRDER	A	B	C
1	839.10	839.07	839.11
2	839.24	839.21	839.25
3	839.37	839.34	839.38
4	839.50	839.47	839.51
5	839.64	839.61	839.65
6	839.77	839.74	839.78

NOTES

1. FOR SECTIONS A-A, B-B AND C-C, SEE SHEET 6.
2. ASSUMED EXISTING CONCRETE STRENGTH = 2,500 PSI.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

DRAWN BY AMZ | PLANS CK'D. JSR

SOUTH ABUTMENT

SHEET 5 OF 22

370

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STATE PROJECT NUMBER

1130-33-71

WING 3

12'-0" WING (FILLER INCLUDED WITH WING LENGTH)

A15 B616 1/2" FILLER A19

8" X 1'-10" NONLAMINATED ELASTOMERIC BEARING PAD, TYP. SEE SHEET 14

℄ RICHMOND STREET SOUTH

GIRDER DESIGNATION, TYP.

INCREASING STATIONING

25 26 27 28 29 30

6-B424 EQ. SPA. TYP.

B423 TYP.

B611

B522 ▲

B.F. OF ABUTMENT

1 3/8"

2°28'34" SKEW

3'-3" TO ℞ SBR

℞ SBR

WING 4

7'-1 3/4" WING (FILLER INCLUDED WITH WING LENGTH)

1/2" FILLER A19

EXIST. WING B-44-36

3'-11" 2'-0" 2'-1" B621 B615 B612 2'-8" 1'-3"

4'-1 1/4" TYP. U.N.O. 1'-3" TYP. 1'-3" TYP.

1'-11 1/2" 1/2" 3/4" FILLER, TYP. 6" TYP. 4'-1" 4" X 3/4" FILLER, LENGTH OF ABUTMENT EXISTING ABUTMENT BODY B522 ▲ F.F. OF ABUT. STA. 411+99.16 SBR ℄ BRG. ABUT.

2'-0" LEVEL

N

3'-4 3/8" 6'-7 5/16" 6'-7 5/16" 6'-7 1/8" 5'-3 11/16" 6'-7 5/16" 3'-4 1/4" EXISTING GIRDER SPACING

DIMENSIONS TAKEN ALONG ℄ OF BEARING

1'-3 5/8" 24'-5 3/4" 15'-3 1/4" 39'-9"

PLAN

WING 3 C

12'-0" WING (FILLER INCLUDED WITH WING LENGTH) 2'-0" LEVEL

OPTIONAL CONSTRUCTION JOINT

ELEV. 844.62

19-B522 @ 9" O.C. = 13'-6" F.F. & B.F. 1'-0" 11-B522 @ 1'-0" O.C. = 10'-0" F.F. & B.F. 1'-0" 19-B522 @ 9" O.C. = 13'-6" F.F. & B.F.

A

B WING 4

7'-1 3/4" LEVEL WING (FILLER INCLUDED WITH WING LENGTH) ELEV. 845.38 5-B517 EQ. SPA.

1/2" FILLER

4-B508 @ 11" O.C. MAX. = 2'-9" F.F. & B.F. 10'-10 1/2" 3" 6-B513 @ 10" O.C. F.F. 6-B614 @ 10" O.C. B.F. 4-B621 B519 B506 B519 B506 B519

ELEV. 840.97 B519 5-B518 EQ. SPA. 3'-10 3/4" 3'-6" 1 5/8" 3" CLR. LEVEL

ELEV. 840.72 B615 @ 11" O.C. MAX. F.F., B616 @ 11" O.C. MAX. B.F. ELEV. 840.86 ELEV. 840.99 ELEV. 841.12 3-B611 @ 11" O.C. MAX. F.F. & B.F. 2-B423, TYP. ELEV. 841.26 ELEV. 841.39 2'-6 1/4" 10" 1-B504 3'-11 7/8" OPTIONAL CONSTRUCTION JOINT 4-B505 @ 11" O.C. MAX. = 2'-9" F.F. & B.F. 4-B612 11'-7 1/2"

APPROX. GROUND LINE 5'-0" 6-B501 ▲ @ 10" O.C. F.F. 6-B602 ▲ @ 1'-0" O.C. B.F. 6" ELEV. 838.75 3'-6" MIN. LAP BERM B424 SLOPE PAVING SELECT CRUSHED MATERIAL ELEV. 839.09 6-B501 ▲ @ 11" O.C. F.F. 5-B501 ▲ @ 1'-0" O.C. B.F. 5'-4 1/8" BERM 6-B509 @ 11" O.C. F.F. 6-B510 @ 11" O.C. B.F.

2'-11" MIN. LAP - B501 3'-6" MIN. LAP - B602 MATCH BOTTOM OF EXISTING ABUTMENT, TYP. AT WINGS ELEV. 833.75 ± CONSTRUCTION JOINT ROUGHEN EXISTING CONC. TO NEW CONC. SURFACES 1/4" MIN., TYP. 2'-11" MIN. LAP 9" LEVEL

11-B506 @ 11" O.C. MAX. F.F. & B.F. LAP WITH 11-B519 TOP & BOTTOM 3-B507 11" O.C. MAX. F.F. & B.F. 39'-0 1/2" ALONG ℄ OF BEARING 9-B503 @ 11" O.C. MAX. F.F. & B.F. 3"

ELEVATION - LOOKING NORTH

C B

SECTION B-B

3'-11" BACK FACE A517, B517 A503, B503 FRONT FACE OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2X6 A505, B505 11" O.C. MAX. F.F. & B.F. A19 A611, B611 @ 11" O.C. MAX. F.F. & B.F. 11'-7 1/2" A612, B612 2" CLR. 3" CLR. A501 B501 A501, A510, B501, B510 @ 9" O.C. B.F. A501, A509, B501, B509 @ 11" O.C. F.F. A510, B510 A509, B509 6" TO A501, B501 B.F. 6" TO A501, B501 4" TO A501, B501 F.F.

SECTION C-C

A519, B519 VARIES 2'-0" TO 3'-11" BACK FACE A518, B518 2" CLR. FRONT FACE OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2X6 A508, B508 11" O.C. MAX. F.F. & B.F. A19 A616, B616 11" O.C. MAX. B.F. A621, B621 A615 11" O.C. MAX. F.F. VARIES 10'-10 5/8" TO 7'-2 1/2" A506, B506 3" CLR. A602 B602 A602, B602 @ 1'-0" O.C. B.F., A616, B616 @ 10" O.C. B.F. A501 B501 A616 B616 A501, A615, B501, B615 @ 10" O.C. F.F. A615, B615 A519, B519 9" TO A602, B602 B.F. 6" TO A501, B501, A602, B602 4" TO A501, B501 F.F.

SECTION C-C

INCORPORATE EXISTING VERTICAL REINFORCEMENT INTO NEW WORK ✳

3'-11" 2'-8" 1'-3" 2'-1" ℄ BRG. A93 A423, B423 A522, ▲ B522 ▲ A611, A615 B611, B615 3" A19 A611, A616 B611, B616 VARIES A612, A621 EQ. SP. B612, B621 EQ. SP. A15 A19 4" MIN. CL. A424, B424 F.F. OF ABUT. 4" MIN. CL. 5'-0" BERM REMOVE EXISTING SLOPE PAVING (CONCRETE BLOCKS) AND REPLACE WITH SELECT CRUSHED MATERIAL. MATCH EXISTING SLOPE. B.F. OF ABUTMENT 2'-6" ± EXISTING ABUTMENT BODY

SECTION A-A

LEGEND

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A93) STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03"

△ 3/4" "V" GROOVE ON F.F. OF WING WALL. NOT REQUIRED IF CONSTRUCTION JOINT IS NOT USED.

▲ A501, B501 MASONRY ANCHORS TYPE L. MINIMUM PULLOUT CAPACITY OF 4.8 KIPS. EMBED 10 1/2" IN CONCRETE MINIMUM.

▲ A602, B602 MASONRY ANCHORS TYPE L. MINIMUM PULLOUT CAPACITY OF 7.5 KIPS. EMBED 1'-2" IN CONCRETE MINIMUM.

▲ A522, B522 MASONRY ANCHORS TYPE L. MINIMUM PULLOUT CAPACITY OF 4.8 KIPS. EMBED 5" IN CONCRETE MINIMUM.

NOTES

1. SEE SHEET 5 FOR RODENT SCREEN DETAILS.
2. ASSUMED EXISTING CONCRETE STRENGTH = 2,500 PSI

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

DRAWN BY AMZ | PLANS CK'D. JSR

NORTH ABUTMENT

SHEET 6 OF 22

371

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8

STATE PROJECT NUMBER
1130-33-71

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE.

SOUTH ABUTMENT - BILL OF BARS COATED TOTAL WEIGHT = 2960 LBS

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
A501	X	17	4'-0"			WINGS - CONCRETE MASONRY ANCHORS TYPE L
A602	X	5	4'-9"			WINGS - CONCRETE MASONRY ANCHORS TYPE L
A503	X	18	16'-3"		X	WING 1 - VERTICAL F.F. & B.F.
A504	X	1	17'-7"		X	WING 1 - VERTICAL F.F. & B.F.
A505	X	8	6'-7"			WING 1 - HORIZONTAL UPPER F.F & B.F.
A506	X	22	8'-7"	◓		WING 2 - VERTICAL F.F. & B.F
A507	X	6	10'-5"		X	WING 2 - VERTICAL F.F. & B.F
A508	X	8	7'-10"	◓		WING 2 - HORIZONTAL UPPER F.F & B.F.
A509	X	6	8'-3"			WING 1 - HORIZONTAL F.F.
A510	X	7	8'-3"			WING 1 - HORIZONTAL B.F.
A611	X	6	31'-0"			WING 1 & BODY - HORIZONTAL F.F. & B.F.
A612	X	4	31'-0"			WING 1 & BODY TOP - HORIZONTAL
A513	X	6	11'-5"			WING 2 - HORIZONTAL F.F.
A614	X	6	11'-5"			WING 2 - HORIZONTAL B.F.
A615	X	3	31'-1"		X	WING 2 & BODY - HORIZONTAL F.F.
A616	X	3	31'-0"			WING 2 & BODY - HORIZONTAL B.F.
A517	X	5	6'-7"			WING 1 - TOP
A518	X	5	10'-5"		X	WING 2 - TOP
A519	X	22	5'-7"	◓	X	WING 2 - VERTICAL TOP & BOTTOM
A621	X	4	31'-0"			WING 2 & BODY TOP - HORIZONTAL
A522	X	98	5'-6"		X	BODY - CONCRETE MASONRY ANCHORS TYPE L
A423	X	10	6'-2"			BODY - HORIZONTAI BETWEEN GIRDERS
A424	X	30	5'-5"		X	BODY - VERTICAL TOP

◓ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE.

NORTH ABUTMENT - BILL OF BARS COATED TOTAL WEIGHT = 2960 LBS

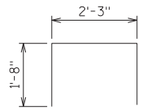
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
B501	X	17	4'-0"			WINGS - CONCRETE MASONRY ANCHORS TYPE L
B602	X	5	4'-9"			WINGS - CONCRETE MASONRY ANCHORS TYPE L
B503	X	18	16'-3"		X	WING 4 - VERTICAL F.F. & B.F.
B504	X	1	17'-7"		X	WING 4 - VERTICAL F.F. & B.F.
B505	X	8	6'-7"			WING 4 - HORIZONTAL UPPER F.F & B.F.
B506	X	22	8'-7"	◓		WING 3 - VERTICAL F.F. & B.F
B507	X	6	10'-5"		X	WING 3 - VERTICAL F.F. & B.F
B508	X	8	7'-10"	◓		WING 3 - HORIZONTAL UPPER F.F & B.F.
B509	X	6	8'-3"			WING 4 - HORIZONTAL F.F.
B510	X	7	8'-3"			WING 4 - HORIZONTAL B.F.
B611	X	6	31'-0"			WING 4 & BODY - HORIZONTAL F.F. & B.F.
B612	X	4	31'-0"			WING 4 & BODY TOP - HORIZONTAL
B513	X	6	11'-5"			WING 3 - HORIZONTAL F.F.
B614	X	6	11'-5"			WING 3 - HORIZONTAL B.F.
B615	X	3	31'-1"		X	WING 3 & BODY - HORIZONTAL F.F.
B616	X	3	31'-0"			WING 3 & BODY - HORIZONTAL B.F.
B517	X	5	6'-7"			WING 4 - TOP
B518	X	5	10'-5"		X	WING 3 - TOP
B519	X	22	5'-7"	◓	X	WING 3 - VERTICAL TOP & BOTTOM
B621	X	4	31'-0"			WING 3 & BODY TOP - HORIZONTAL
B522	X	98	5'-6"		X	BODY - CONCRETE MASONRY ANCHORS TYPE L
B423	X	10	6'-2"			BODY - HORIZONTAI BETWEEN GIRDERS
B424	X	30	5'-5"		X	BODY - VERTICAL TOP

◓ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

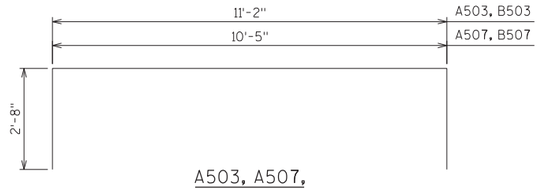
BAR SERIES TABLE

MARK	NO REQ'D	LENGTH
A506	2 SERIES OF 11	6'-10" TO 10'-4"
A508	2 SERIES OF 4	4'-1" TO 11'-7"
A519	2 SERIES OF 11	4'-10" TO 6'-4"

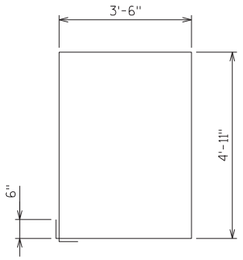
BUNDLE AND TAG EACH SERIES SEPARATELY.



A424, B424



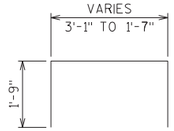
A503, A507,
B503, B507



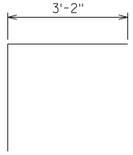
A504, B504



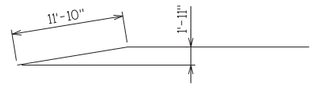
A518, B518



A519, B519



A522, B522



A615

BAR SERIES TABLE

MARK	NO REQ'D	LENGTH
B506	2 SERIES OF 11	6'-10" TO 10'-4"
B508	2 SERIES OF 4	4'-1" TO 11'-7"
B519	2 SERIES OF 11	4'-10" TO 6'-4"

BUNDLE AND TAG EACH SERIES SEPARATELY.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

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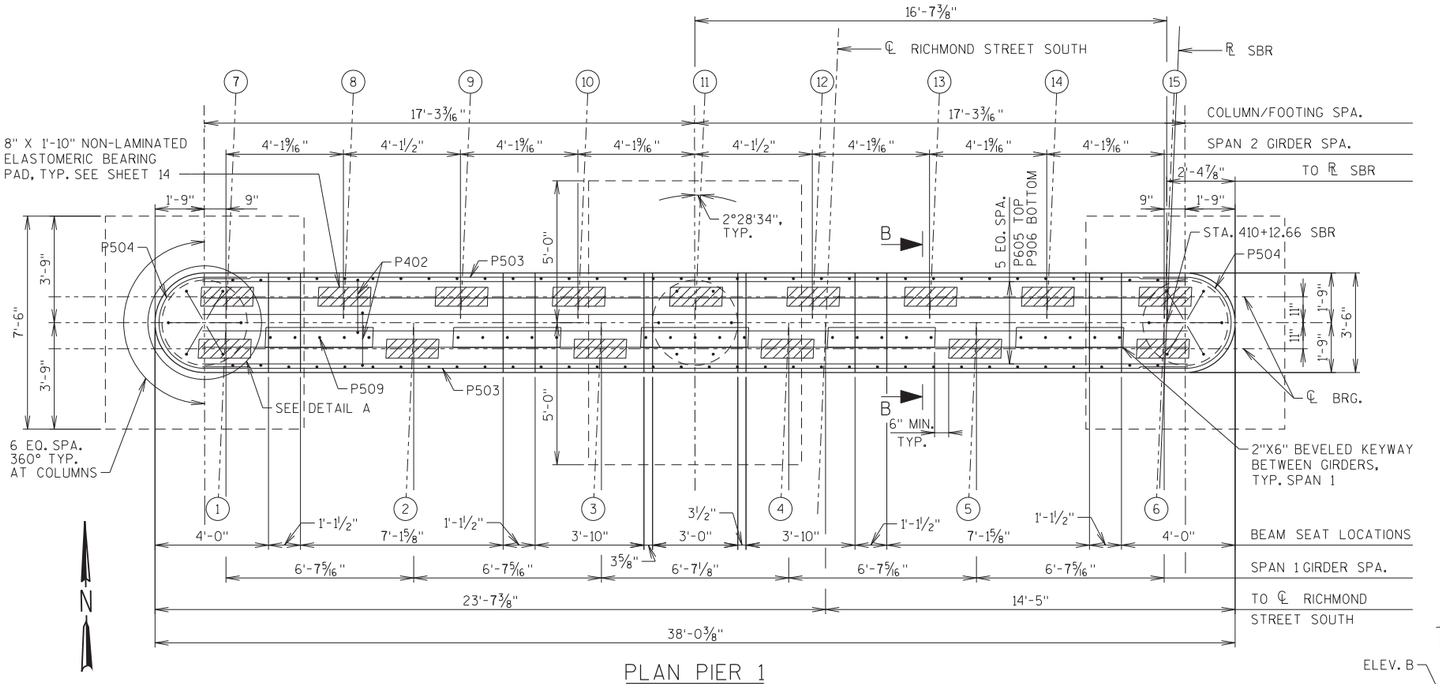
ABUTMENT
BILL OF BARS

SHEET 7 OF 22

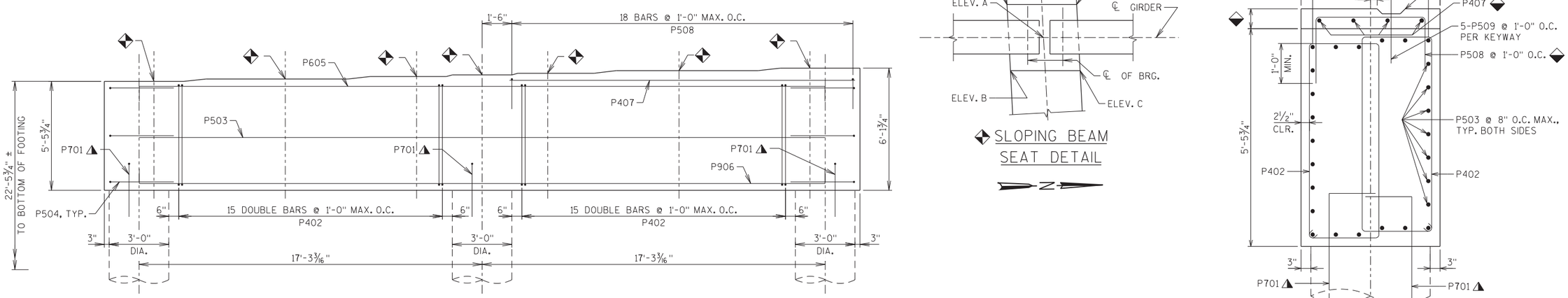
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STATE PROJECT NUMBER

1130-33-71

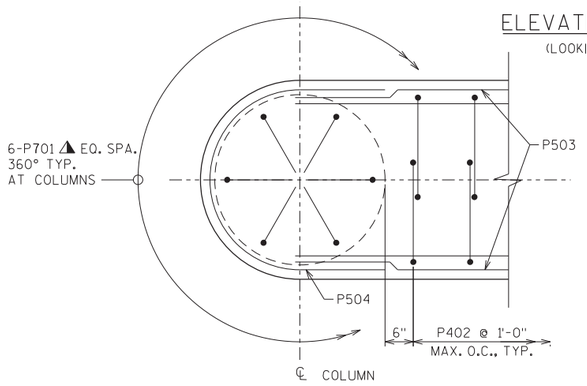


PLAN PIER 1



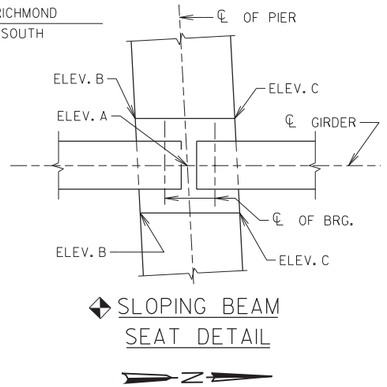
ELEVATION PIER 1

(LOOKING NORTH)

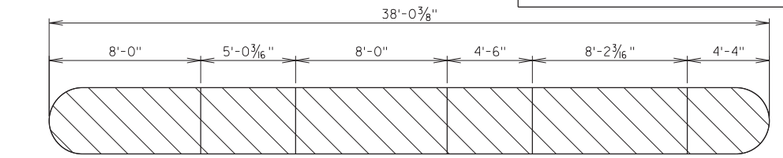


DETAIL A

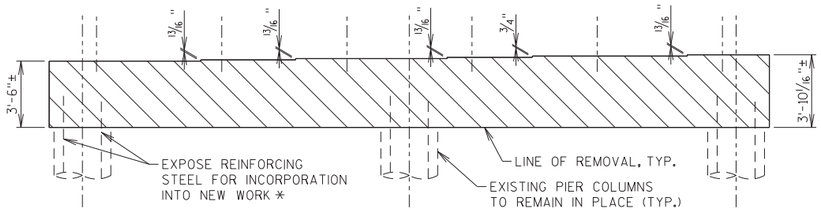
◈ SLOPING BEAM SEAT ELEVATION SCHEDULE			
GIRDER	A	B	C
1, 7	839.42	839.41	839.43
2, 8, 9	839.54	839.53	839.55
3, 10	839.67	839.66	839.68
11	839.75	839.74	839.76
4, 12	839.83	839.82	839.84
5, 13, 14	839.96	839.95	839.97
6, 15	840.09	840.08	840.10



◈ SLOPING BEAM SEAT DETAIL

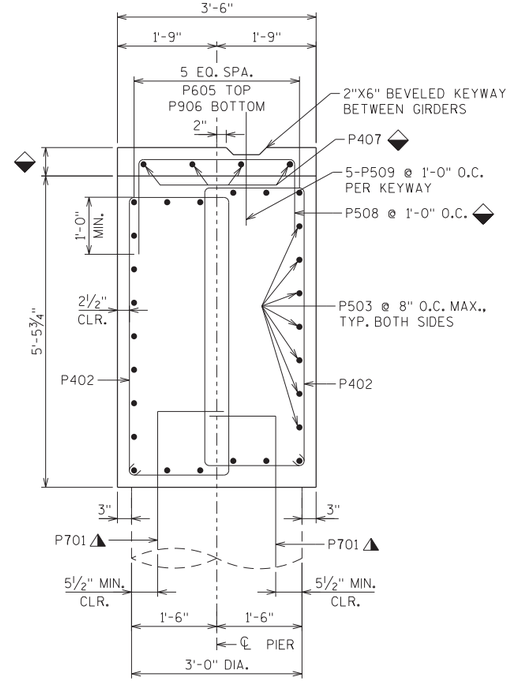


PLAN PIER 1 - SHOWING REMOVAL



ELEVATION PIER 1 - SHOWING REMOVAL

(LOOKING NORTH)



SECTION B-B THRU PIER CAP

LEGEND

= CONCRETE REMOVAL

* = EXTEND EXISTING BARS A MINIMUM OF 24 BAR DIAMETERS INTO NEW WORK.

◈ = WHEN THIS DIMENSION IS >4", THIS ADDITIONAL REINFORCEMENT SHALL BE ADDED.

◭ P701 MASONRY ANCHORS TYPE L NO. 7 BARS. MIN. PULLOUT CAPACITY = 7.3 KIPS. EMBED 1'-4" MINIMUM IN CONCRETE.

NOTE

1. EXISTING PIER COLUMNS ARE TO BE WATER BLAST CLEANED AND SEALED WITH PROTECTIVE SURFACE TREATMENT TO PROTECT FROM FUTURE EXPOSURE.
2. PLACE P508 BARS BEFORE CONCRETE HAS TAKEN INITIAL SET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

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PIER 1

SHEET 8 OF 22

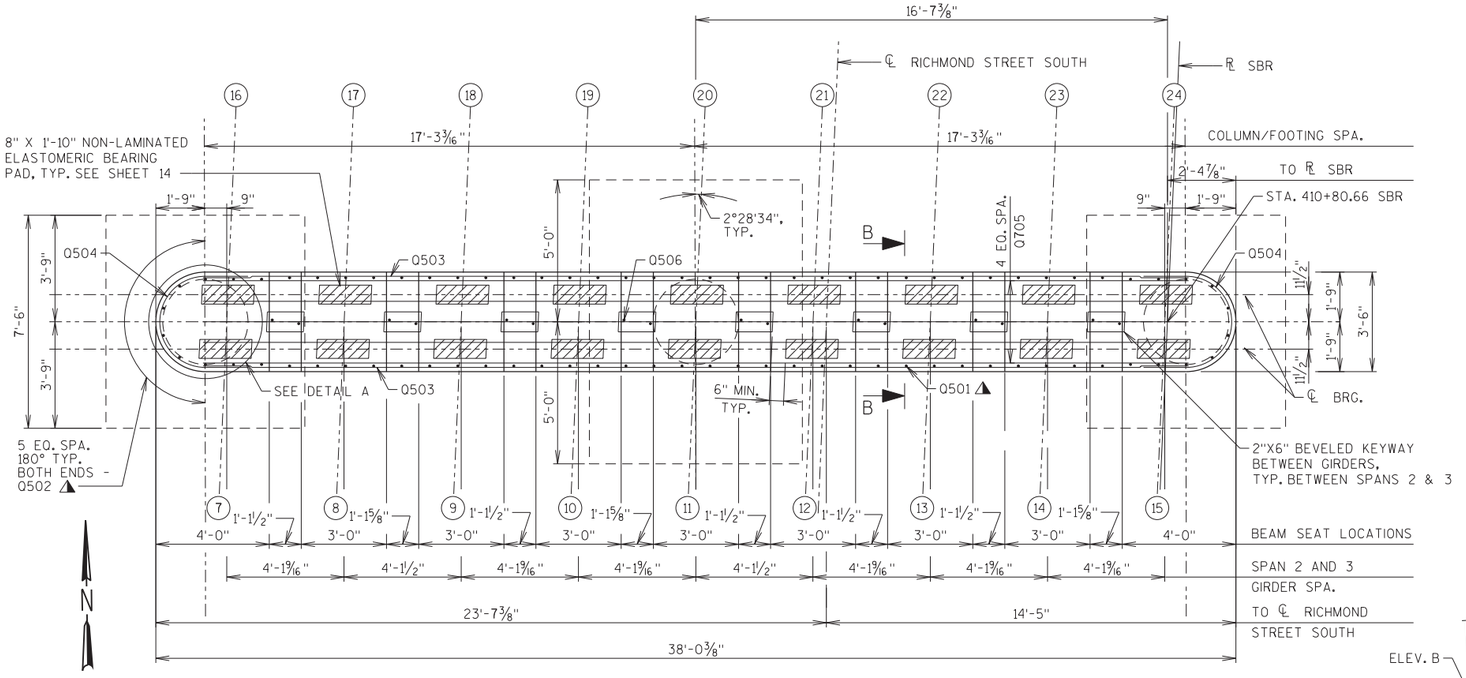
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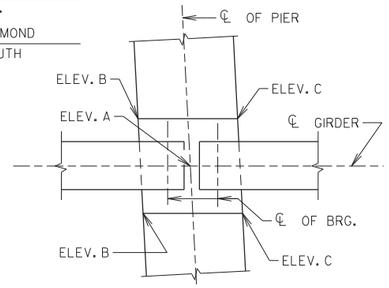
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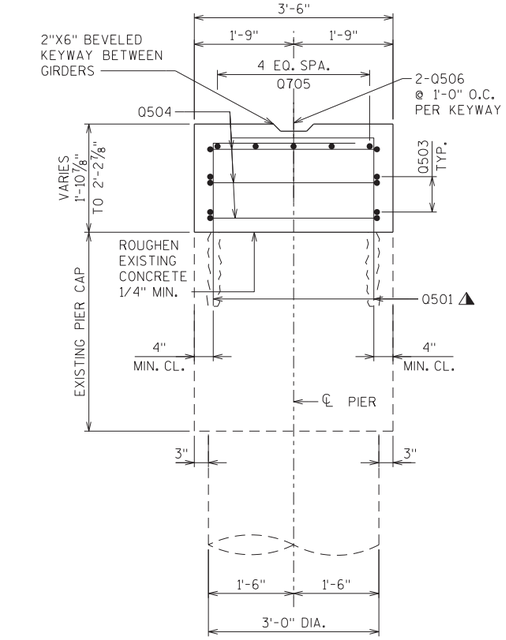
STATE PROJECT NUMBER
1130-33-71



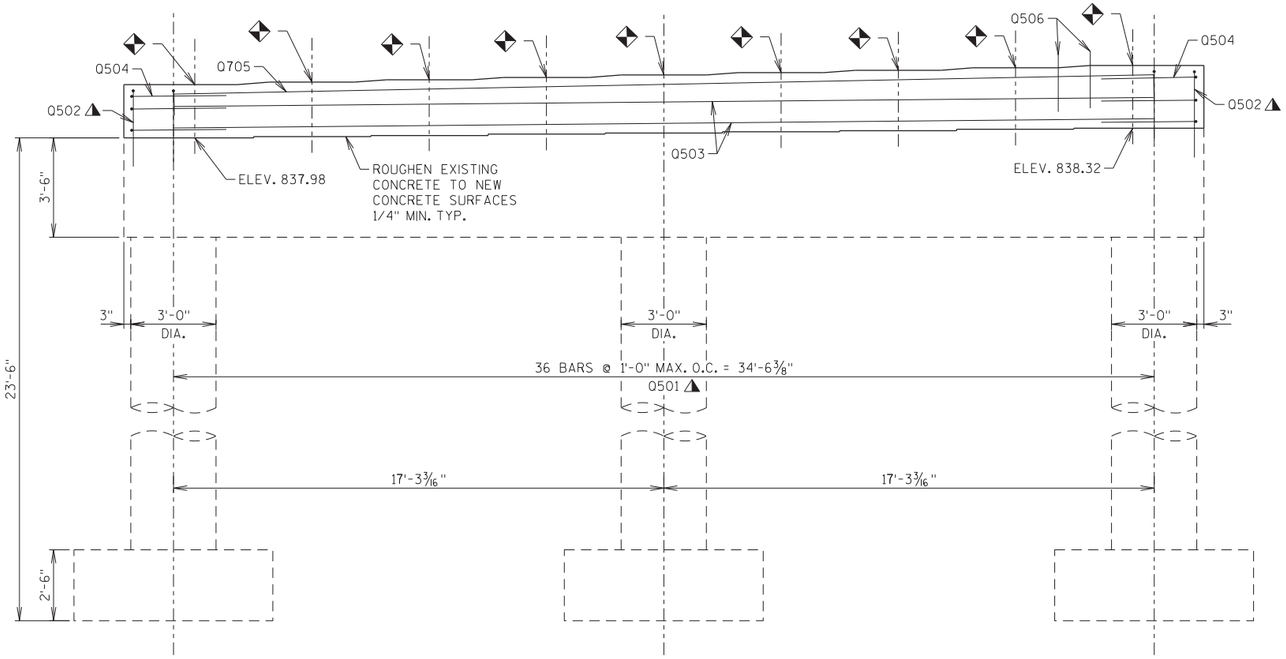
PLAN PIER 2



SLOPING BEAM SEAT DETAIL



SECTION B-B THRU PIER CAP

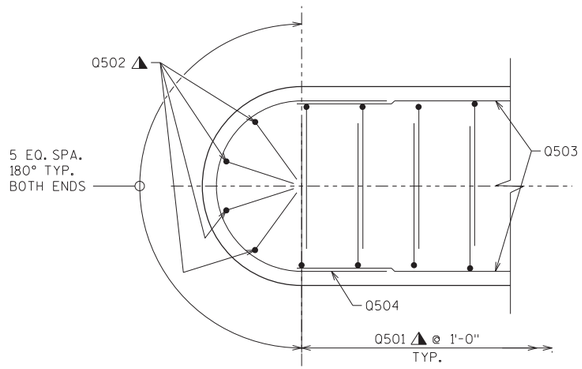


ELEVATION PIER 2

(LOOKING NORTH)

SLOPING BEAM SEAT ELEVATION SCHEDULE

GIRDER	A	B	C
7, 16	839.89	839.88	839.90
8, 17	839.98	839.97	839.99
9, 18	840.06	840.05	840.07
10, 19	840.14	840.13	840.15
11, 20	840.23	840.22	840.24
12, 21	840.31	840.30	840.32
13, 22	840.39	840.38	840.40
14, 23	840.48	840.47	840.49
15, 24	840.56	840.55	840.57



DETAIL A

LEGEND

⚠ 0501 MASONRY ANCHORS TYPE L #5 BARS. MIN.
0502 PULLOUT CAPACITY = 23.9 KIPS. EMBED 1'-0" MINIMUM IN CONCRETE.

NOTE

1. EXISTING PIER COLUMNS ARE TO BE WATER BLAST CLEANED AND SEALED WITH PROTECTIVE SURFACE TREATMENT TO PROTECT FROM FUTURE EXPOSURE.
2. PLACE 0506 BARS BEFORE CONCRETE HAS TAKEN INITIAL SET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

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PIER 2

SHEET 9 OF 22

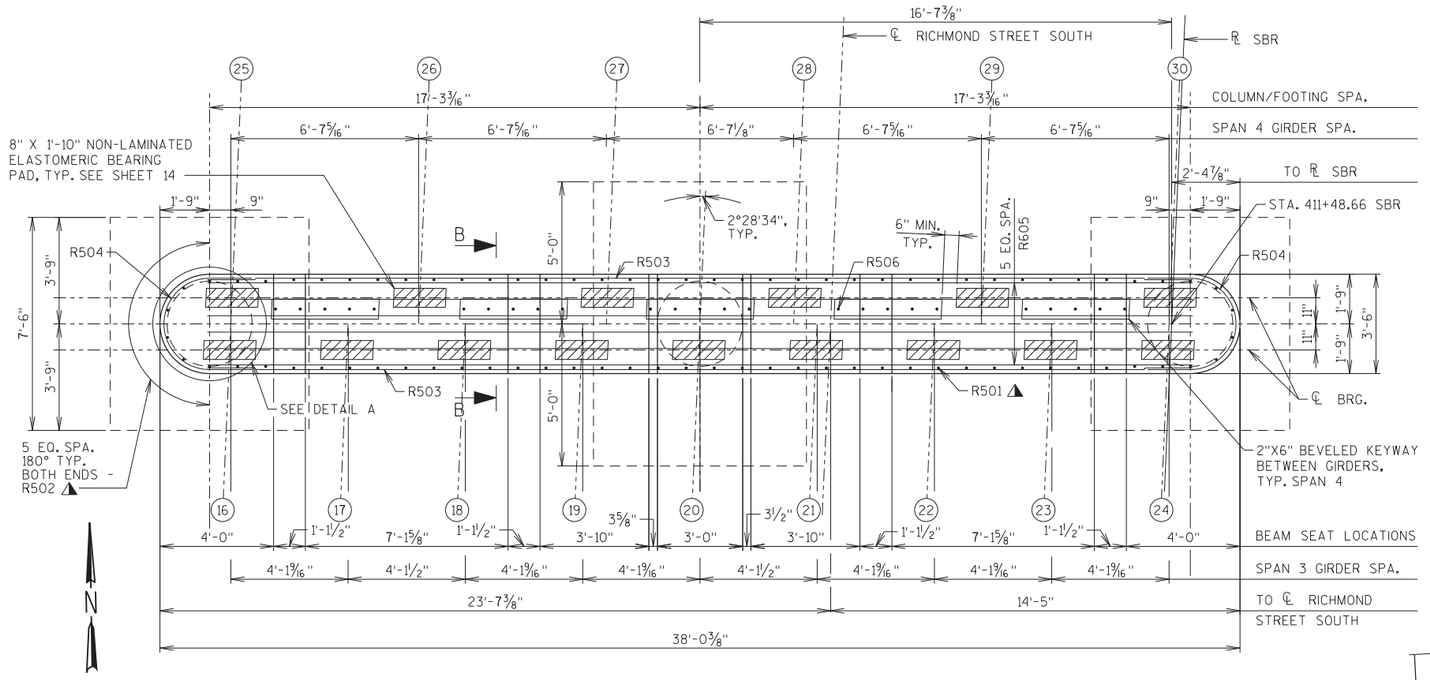
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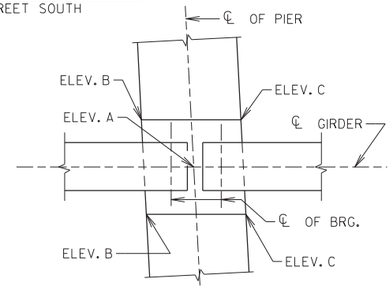
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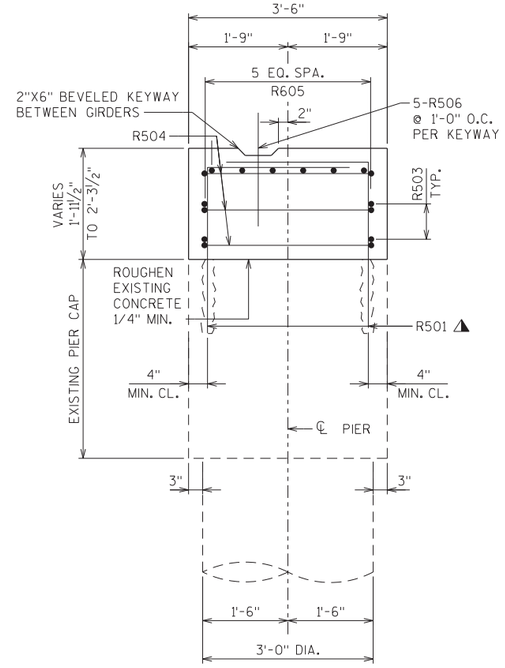
STATE PROJECT NUMBER
1130-33-71



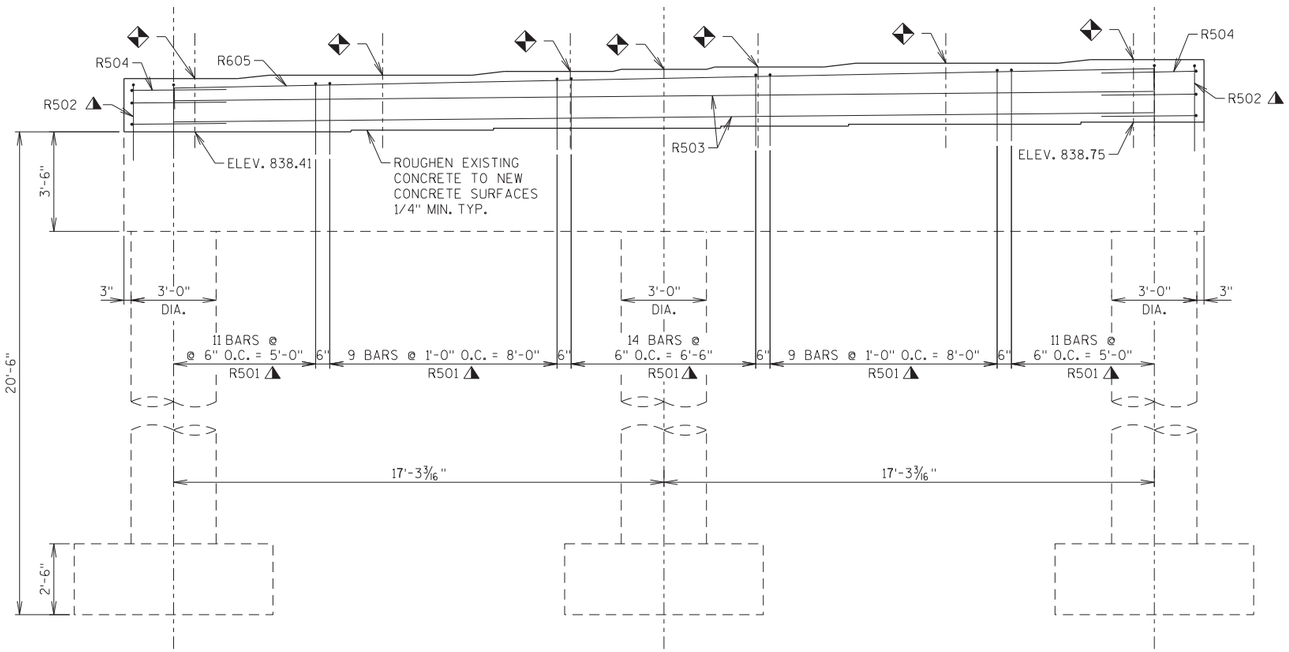
PLAN PIER 3



SLOPING BEAM SEAT DETAIL



SECTION B-B THRU PIER CAP

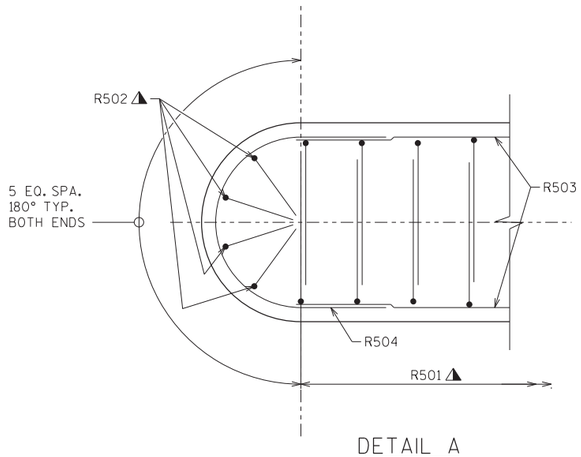


ELEVATION PIER 3

(LOOKING NORTH)

◈ SLOPING BEAM SEAT ELEVATION SCHEDULE

GIRDER	A	B	C
16, 25	840.37	840.36	840.38
17, 18, 26	840.49	840.48	840.50
19, 27	840.62	840.61	840.63
20	840.70	840.69	840.71
21, 28	840.78	840.77	840.79
22, 23, 29	840.91	840.90	840.92
24, 30	841.04	841.03	841.05



DETAIL A

LEGEND

⚠ R501 MASONRY ANCHORS TYPE L #5 BARS. MIN.
R502 PULLOUT CAPACITY = 12.0 KIPS. EMBED 1'-0" MINIMUM IN CONCRETE.

NOTE

1. EXISTING PIER COLUMNS ARE TO BE WATER BLAST CLEANED AND SEALED WITH PROTECTIVE SURFACE TREATMENT TO PROTECT FROM FUTURE EXPOSURE.
2. PLACE R506 BARS BEFORE CONCRETE HAS TAKEN INITIAL SET.

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

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PIER 3

SHEET 10 OF 22

375

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STATE PROJECT NUMBER
1130-33-71

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE.

PIER 1 - BILL OF BARS — **COATED TOTAL WEIGHT = 2670 LBS**

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
P701	X	18	3'-10"		X	CAP - CONCRETE MASONRY ANCHORS TYPE L
P402	X	60	14'-0"		X	CAP - STIRRUPS
P503	X	14	34'-6"			CAP - HORIZ. - SIDES
P504	X	18	8'-6"		X	CAP - HORIZ. - ENDS
P605	X	6	36'-2"		X	CAP - HORIZ. - TOP
P906	X	6	37'-2"		X	CAP - HORIZ. - BOTTOM
P407	X	4	17'-3"			CAP - HORIZ. - TOP
P508	X	18	6'-4"		X	CAP - VERTICAL - AT BEAM SEATS
P509	X	25	2'-0"			CAP - VERTICAL - DOWELS

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE.

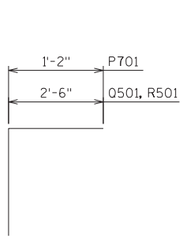
PIER 2 - BILL OF BARS — **COATED TOTAL WEIGHT = 1040 LBS**

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
Q501	X	72	5'-4"		X	CAP - CONCRETE MASONRY ANCHORS TYPE L
Q502	X	8	3'-10"		X	CAP - CONCRETE MASONRY ANCHORS TYPE L
Q503	X	4	34'-6"			CAP - HORIZ. - SIDES
Q504	X	6	8'-6"		X	CAP - HORIZ. - ENDS
Q705	X	5	36'-6"		X	CAP - HORIZ. - TOP
Q506	X	16	2'-0"			CAP - VERTICAL - DOWELS

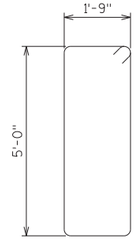
NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE.

PIER 3 - BILL OF BARS — **COATED TOTAL WEIGHT = 1220 LBS**

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
R501	X	108	5'-5"		X	CAP - CONCRETE MASONRY ANCHORS TYPE L
R502	X	8	3'-11"		X	CAP - CONCRETE MASONRY ANCHORS TYPE L
R503	X	4	34'-6"			CAP - HORIZ. - SIDES
R504	X	6	8'-6"		X	CAP - HORIZ. - ENDS
R605	X	6	36'-2"		X	CAP - HORIZ. - TOP
R506	X	25	2'-0"			CAP - VERTICAL - DOWELS



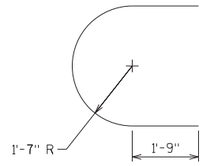
P701, Q501, R501



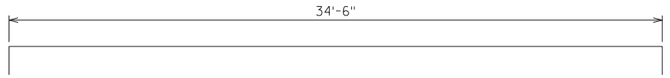
P402



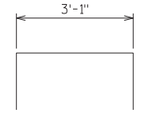
Q502, R502



P504, Q504, R504



P605, P906, Q705, R605



P508

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

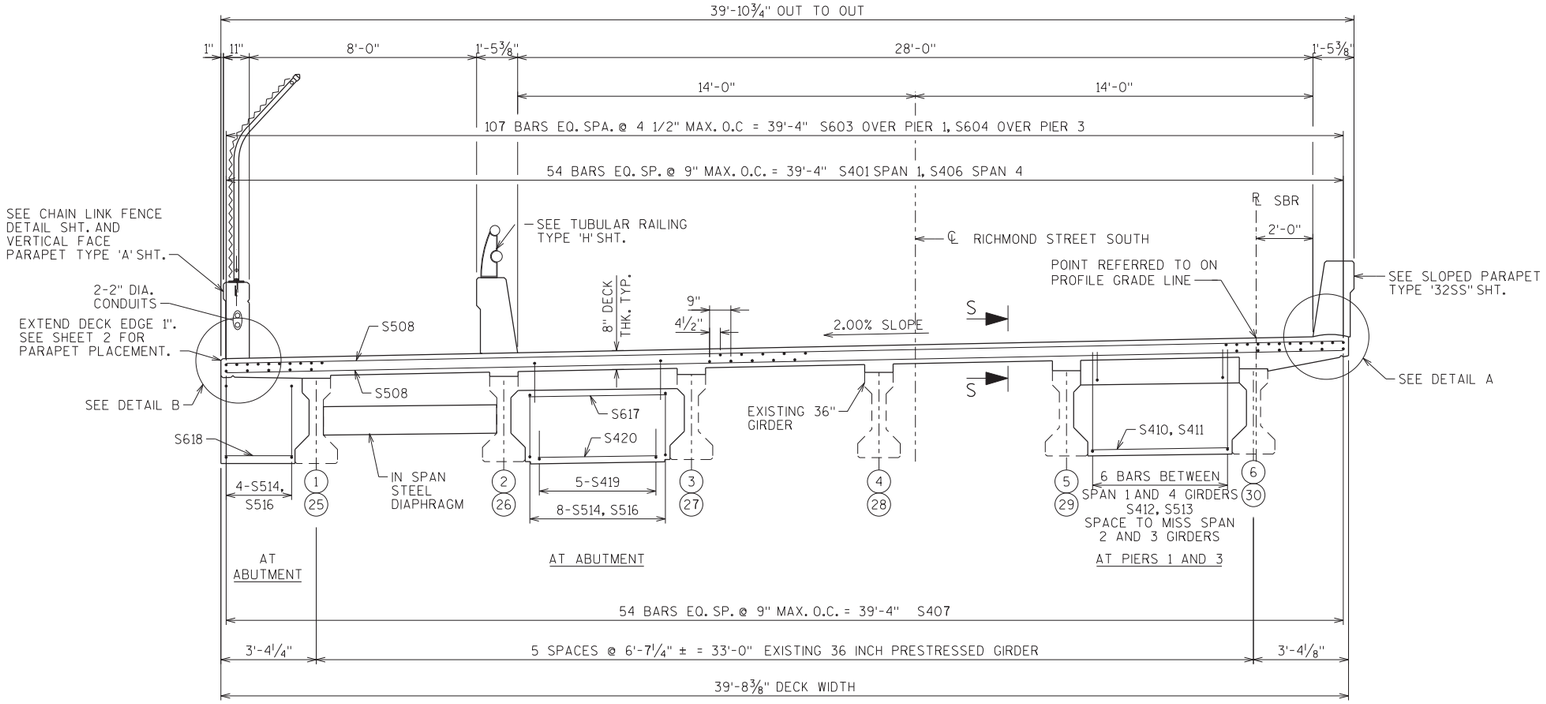
STRUCTURE B-44-35

DRAWN BY AMZ | PLANS CK'D. JSR

PIER
BILL OF BARS

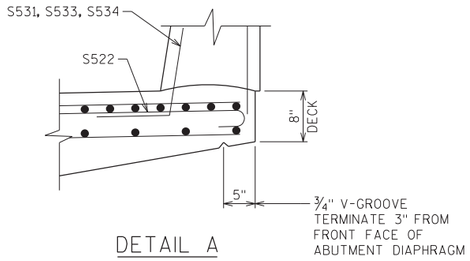
SHEET 11 OF 22
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STATE PROJECT NUMBER
1130-33-71

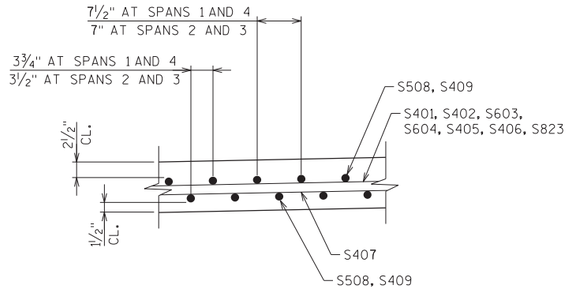


CROSS SECTION THRU ROADWAY - SPANS 1& 4

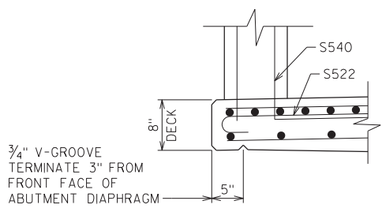
(LOOKING NORTH)



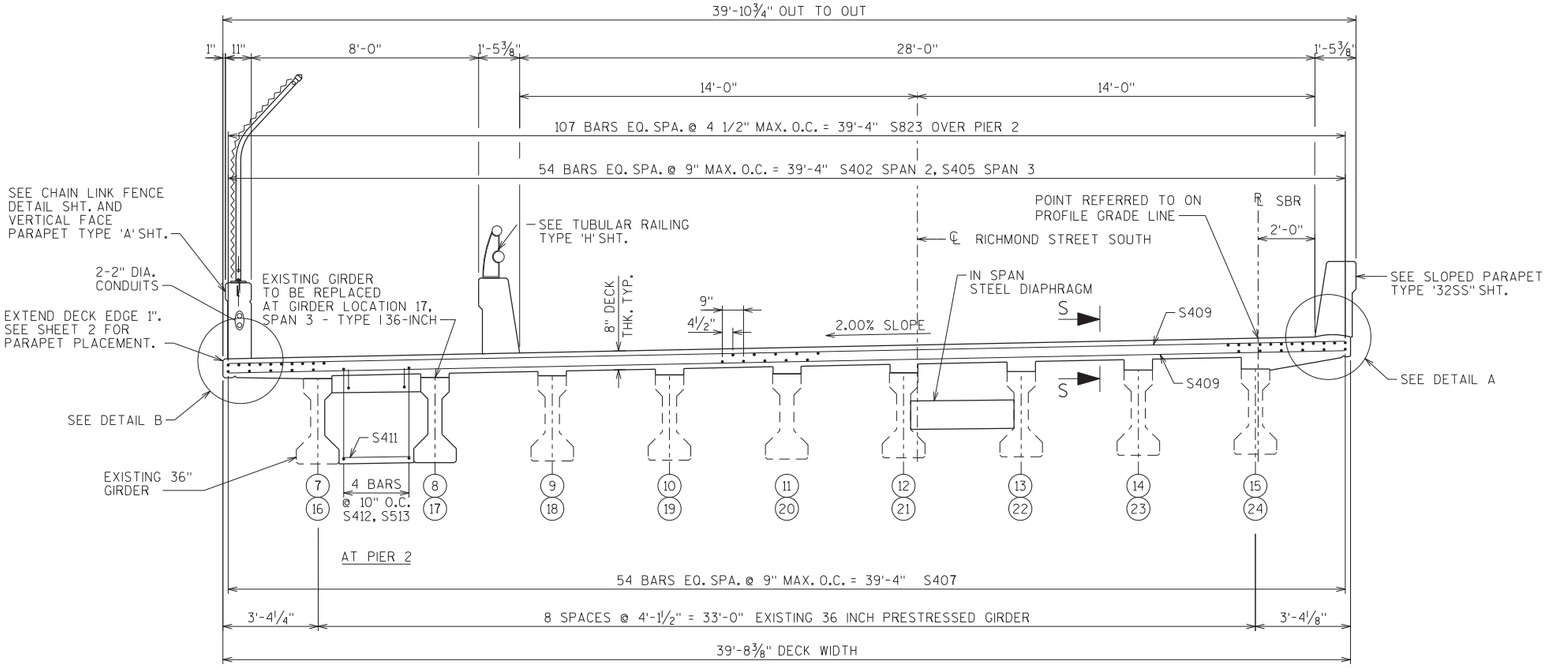
DETAIL A



SECTION S-S



DETAIL B



CROSS SECTION THRU ROADWAY - SPANS 2 & 3

(LOOKING NORTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

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SUPERSTRUCTURE CROSS SECTIONS

SHEET 12 OF 22

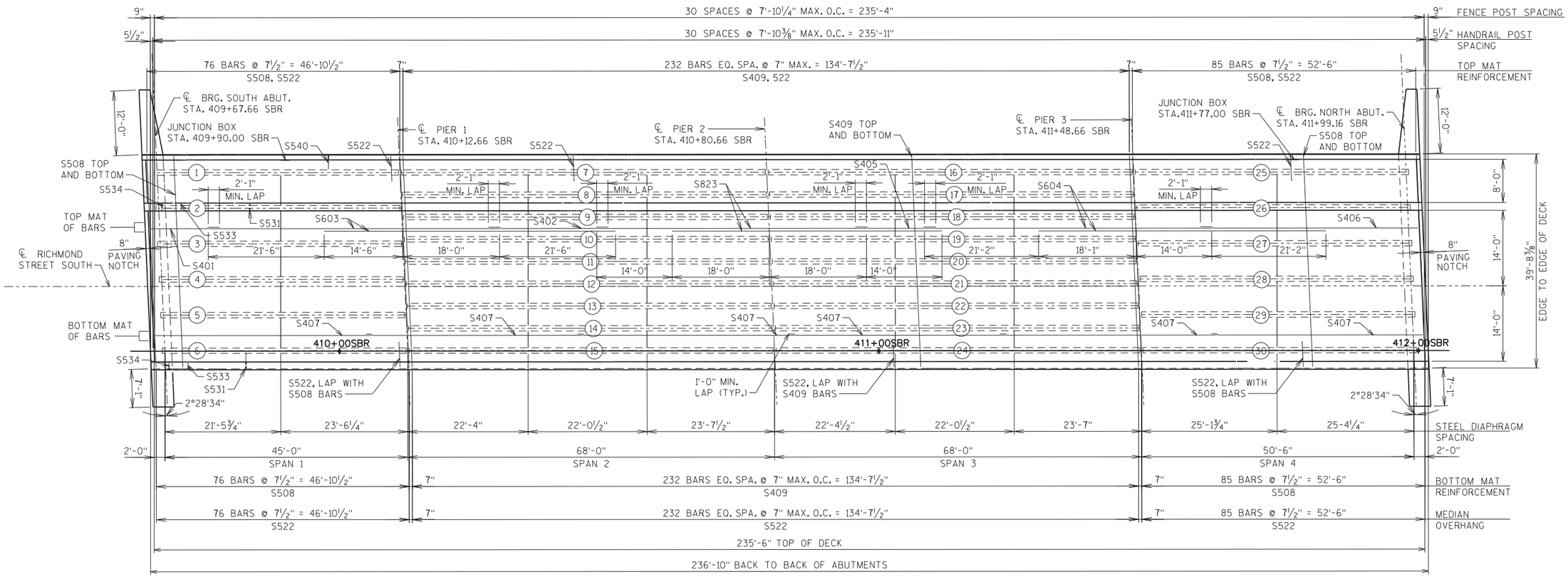
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STATE PROJECT NUMBER
1130-33-71



PLAN

TOP OF DECK ELEVATIONS - SPAN 1

	S. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER 1
OUTSIDE EOD	843.01	843.04	843.08	843.11	843.14	843.17	843.20	843.23	843.26	843.30	843.33
GIR. 1	843.06	843.09	843.12	843.15	843.19	843.22	843.25	843.28	843.31	843.34	843.37
GIR. 2	843.19	843.23	843.26	843.29	843.32	843.35	843.38	843.41	843.45	843.48	843.51
GIR. 3	843.33	843.36	843.39	843.42	843.45	843.49	843.52	843.55	843.58	843.61	843.64
GIR. 4	843.46	843.49	843.53	843.56	843.59	843.62	843.65	843.68	843.71	843.75	843.78
GIR. 5	843.60	843.63	843.66	843.69	843.72	843.75	843.79	843.82	843.85	843.88	843.91
GIR. 6/PGL	843.73	843.76	843.79	843.83	843.86	843.89	843.92	843.95	843.98	844.01	844.05
MEDIAN EOD	843.77	843.81	843.84	843.87	843.90	843.93	843.96	843.99	844.03	844.06	844.09

TOP OF DECK ELEVATIONS - SPAN 4

	PIER 3	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	N. ABUT.
OUTSIDE EOD	844.28	844.31	844.35	844.38	844.42	844.45	844.49	844.53	844.56	844.60	844.63
GIR. 25	844.32	844.36	844.40	844.43	844.47	844.50	844.54	844.57	844.61	844.65	844.68
GIR. 26	844.46	844.49	844.53	844.57	844.60	844.64	844.67	844.71	844.74	844.78	844.81
GIR. 27	844.59	844.63	844.66	844.70	844.74	844.77	844.81	844.84	844.88	844.91	844.95
GIR. 28	844.73	844.76	844.80	844.83	844.87	844.90	844.94	844.98	845.01	845.05	845.08
GIR. 29	844.86	844.90	844.93	844.97	845.00	845.04	845.07	845.11	845.15	845.18	845.22
GIR. 30/PGL	845.00	845.03	845.07	845.10	845.14	845.17	845.21	845.24	845.28	845.32	845.35
MEDIAN EOD	845.04	845.07	845.11	845.14	845.18	845.22	845.25	845.29	845.32	845.36	845.39

TOP OF DECK ELEVATIONS - SPANS 2 AND 3

	PIER 1	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER 2	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER 3
OUTSIDE EOD	843.33	843.37	843.42	843.47	843.52	843.56	843.61	843.66	843.71	843.75	843.80	843.85	843.90	843.94	843.99	844.04	844.09	844.13	844.18	844.23	844.28
GIR. 7 OR 16	843.37	843.42	843.47	843.52	843.56	843.61	843.66	843.71	843.75	843.80	843.85	843.90	843.94	843.99	844.04	844.09	844.13	844.18	844.23	844.28	844.32
GIR. 8 OR 17	843.46	843.51	843.55	843.60	843.65	843.70	843.74	843.79	843.84	843.89	843.93	843.98	844.03	844.08	844.12	844.17	844.22	844.27	844.31	844.36	844.41
GIR. 9 OR 18	843.54	843.59	843.64	843.69	843.73	843.78	843.83	843.88	843.92	843.97	844.02	844.07	844.11	844.16	844.21	844.26	844.30	844.35	844.40	844.44	844.49
GIR. 10 OR 19	843.63	843.67	843.72	843.77	843.82	843.86	843.91	843.96	844.01	844.05	844.10	844.15	844.20	844.24	844.29	844.34	844.39	844.43	844.48	844.53	844.58
GIR. 11 OR 20	843.71	843.76	843.81	843.85	843.90	843.95	844.00	844.04	844.09	844.14	844.19	844.23	844.28	844.33	844.38	844.42	844.47	844.52	844.57	844.61	844.66
GIR. 12 OR 21	843.79	843.84	843.89	843.94	843.98	844.03	844.08	844.13	844.17	844.22	844.27	844.32	844.36	844.41	844.46	844.51	844.55	844.60	844.65	844.70	844.74
GIR. 13 OR 22	843.88	843.93	843.97	844.02	844.07	844.12	844.16	844.21	844.26	844.31	844.35	844.40	844.45	844.50	844.54	844.59	844.64	844.69	844.73	844.78	844.83
GIR. 14 OR 23	843.96	844.01	844.06	844.10	844.15	844.20	844.25	844.29	844.34	844.39	844.44	844.48	844.53	844.58	844.63	844.67	844.72	844.77	844.82	844.86	844.91
GIR. 15 OR 24/PGL	844.05	844.09	844.14	844.19	844.24	844.28	844.33	844.38	844.43	844.47	844.52	844.57	844.62	844.66	844.71	844.76	844.81	844.85	844.90	844.95	845.00
MEDIAN EOD	844.09	844.14	844.18	844.23	844.28	844.33	844.37	844.42	844.47	844.52	844.56	844.61	844.66	844.71	844.75	844.80	844.85	844.90	844.94	844.99	845.04

NOTES

1. SEE SHEETS 12 AND 14 FOR CONCRETE DIAPHRAGM REINFORCEMENT.
2. SEE STEEL DIAPHRAGM SHEET FOR DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

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SHEET 13 OF 22

SUPERSTRUCTURE 378

8

STATE PROJECT NUMBER

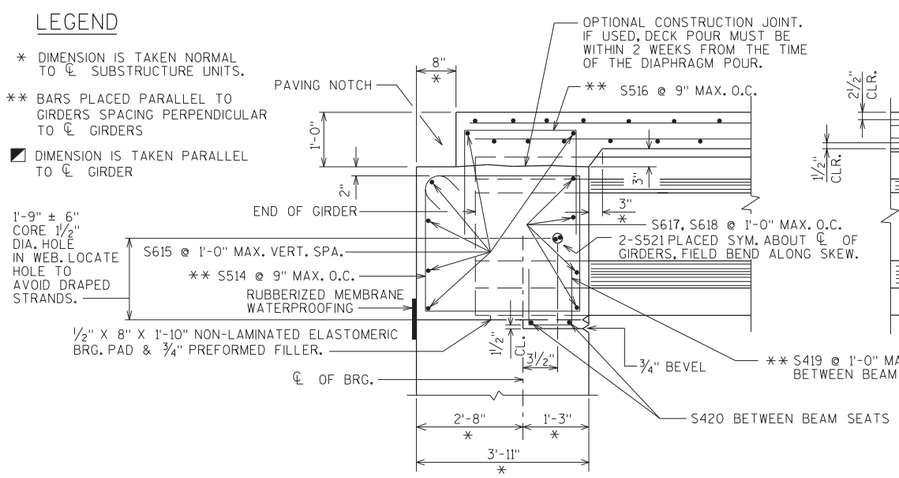
1130-33-71

LEGEND

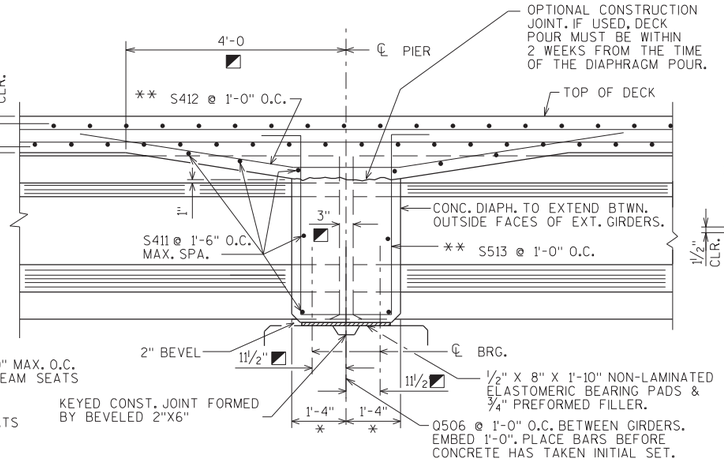
* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS

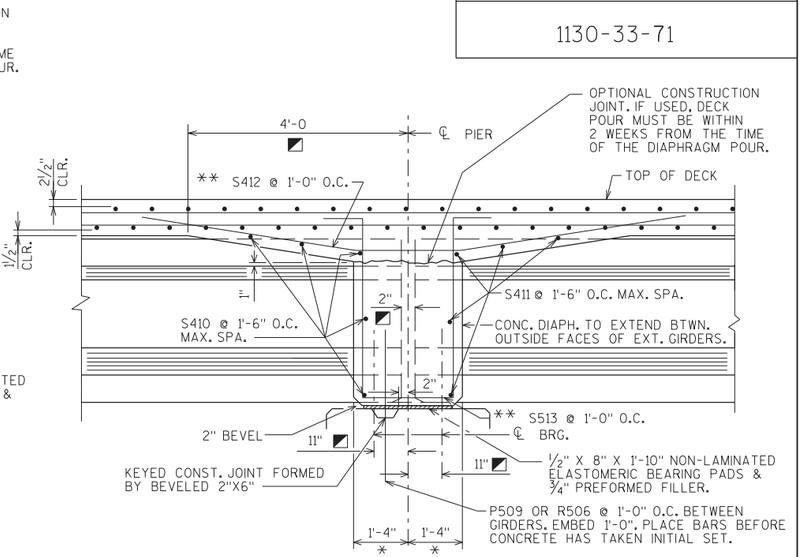
◪ DIMENSION IS TAKEN PARALLEL TO ℄ GIRDER



AT ABUTMENTS



AT PIER 2 DIAPHRAGM

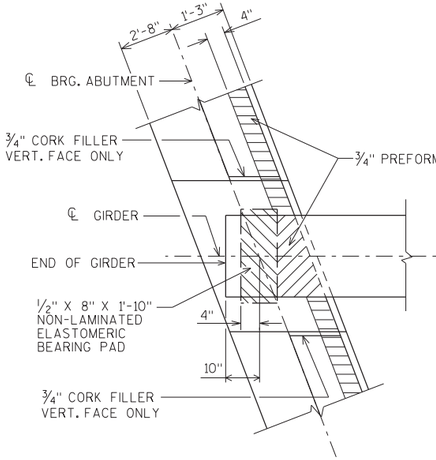


SPANS 1 AND 4 — AT PIERS 1 AND 3 DIAPHRAGM — SPANS 2 AND 3

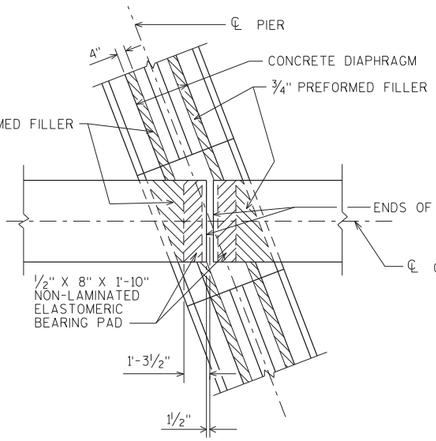
PART LONGIT. SECTION

SUPERSTRUCTURE - BILL OF BARS COATED TOTAL WEIGHT = 90860 LBS

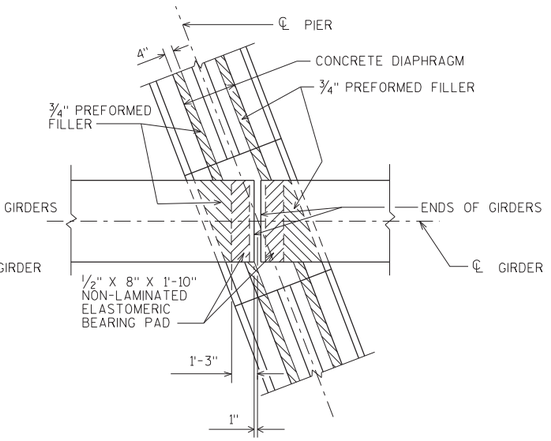
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
S401	X	54	11'-1"			DECK - TOP SPAN 1 - LONGIT.
S402	X	54	22'-3"			DECK - TOP SPAN 4 - LONGIT.
S603	X	107	54'-0"			DECK - TOP SPANS 2 & 3 - LONGIT.
S604	X	107	53'-3"			DECK - TOP OVER PIER 1 - LONGIT.
S405	X	54	15'-1"			DECK - TOP OVER PIER 3 - LONGIT.
S406	X	54	38'-9"			DECK - TOP OVER PIER 2 - LONGIT.
S407	X	324	40'-2"			DECK - BOTTOM LONGIT.
S508	X	322	39'-4"			DECK TRANSVERSE - SPANS 1 & 4 - TOP & BOT.
S409	X	464	39'-4"			DECK TRANSVERSE - SPANS 2 & 3 - TOP & BOT.
S410	X	50	4'-9"			PIER 1 &3 DIAPHRAGM - HORIZ.
S411	X	160	2'-3"			PIER 1, 2 & 3 DIAPHRAGM - HORIZ.
S412	X	62	9'-3"		X	PIER DIAPHRAGM - HORIZ.
S513	X	62	9'-5"		X	PIER DIAPHRAGM - VERT.
S514	X	96	12'-9"		X	ABUTMENT DIAPHRAGM - VERT.
S615	X	12	39'-5"			ABUTMENT DIAPHRAGM B.F. - HORIZ.
S516	X	96	6'-8"		X	ABUTMENT DIAPHRAGM - VERT.
S617	X	40	4'-9"			ABUTMENT DIAPHRAGM F.F - HORIZ.
S618	X	16	3'-0"			ABUTMENT DIAPHRAGM F.F - HORIZ.
S419	X	50	3'-5"		X	ABUTMENT DIAPHRAGM - VERT.
S420	X	20	3'-9"			ABUTMENT DIAPHRAGM - HORIZ.
S521	X	24	6'-0"			ABUTMENT DIAPHRAGM THRU GIRDER
S522	X	786	5'-4"		X	DECK TRANSVERSE OVERHANG REINFORCEMENT
S823	X	107	50'-0"			DECK - TOP OVER PIER 2 - LONGIT.
S531	X	659	4'-5"		X	SINGLE SLOPE PARAPET VERT.
S532	X	659	5'-0"		X	SINGLE SLOPE PARAPET VERT.
S533	X	48	2'-9"		X	SINGLE SLOPE PARAPET VERT.
S534	X	69	4'-4"		X	SINGLE SLOPE PARAPET VERT.
S535	X	45	4'-9"		X	SINGLE SLOPE PARAPET VERT.
S536	X	24	4'-10"		X	SINGLE SLOPE PARAPET VERT.
S537	X	3	48'-10"		X	SINGLE SLOPE PARAPET HORIZ.
S538	X	56	48'-10"			SINGLE SLOPE PARAPET HORIZ.
S539	X	1	49'-5"		X	SINGLE SLOPE PARAPET HORIZ. - AT WING 1
S540	X	246	6'-8"		X	VERTICAL FACE PARAPET VERT.
S441	X	36	40'-9"			VERTICAL FACE PARAPET HORIZ.



AT ABUTMENTS

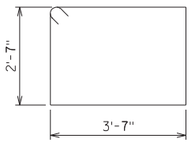


AT PIER 2

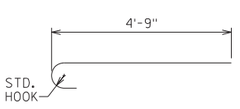


AT PIERS 1 AND 3

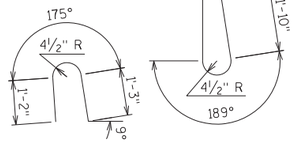
BEARING PAD DETAIL



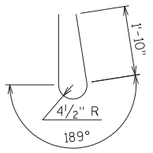
S514



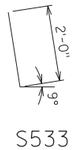
S522



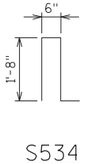
S531



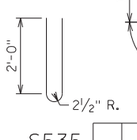
S532



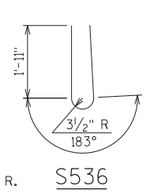
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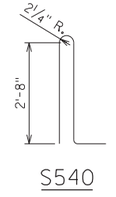
S534



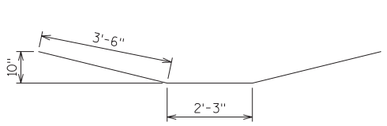
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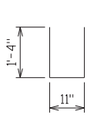
S536



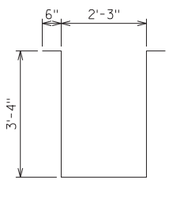
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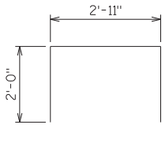
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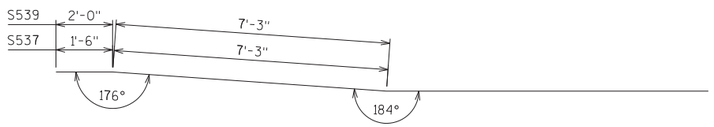
S419



S513



S516



S537, S539

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STRUCTURE B-44-35

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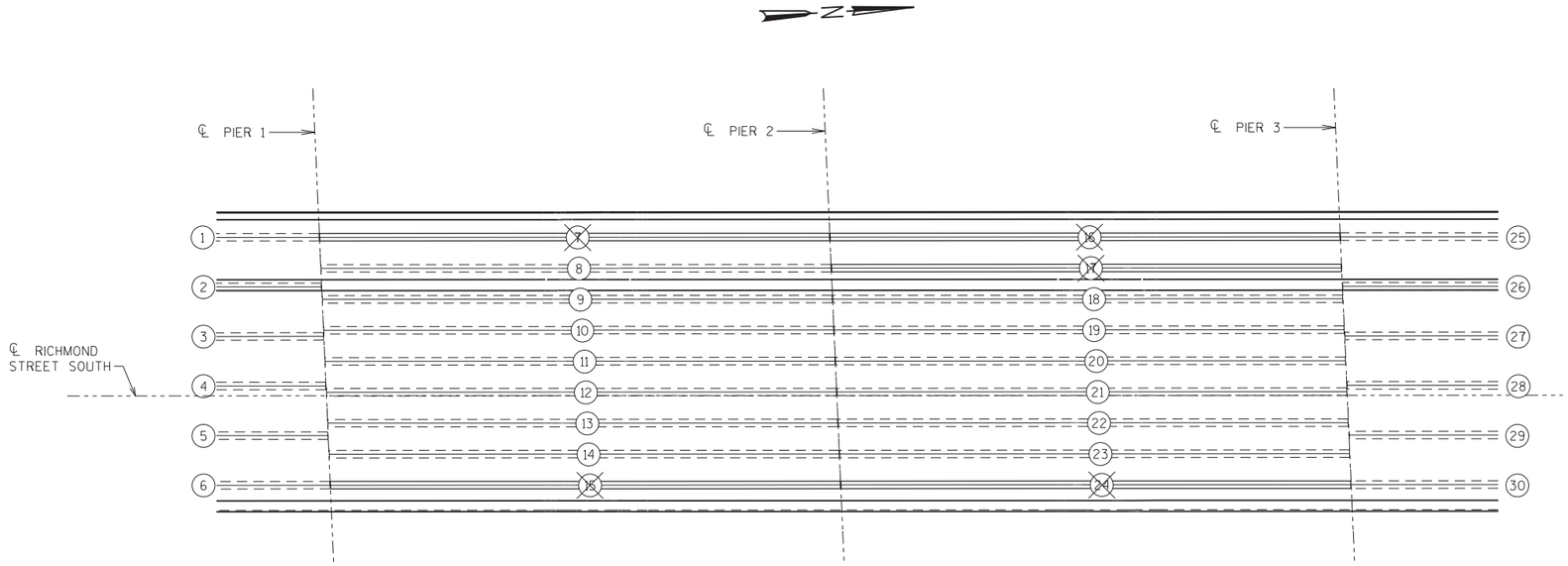
SUPERSTRUCTURE DETAILS

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GIRDER REPLACEMENT DIAGRAM

NEW GIRDER TO BE PLACED AT GIRDER LOCATIONS 7, 15, 16, 17, AND 24. SEE SHEET 16.

INDICATES EXISTING GIRDER TO BE DISCARDED

NOTE: ALL WORK AND TOOLS ASSOCIATED WITH THE REMOVING AND MOVING OF GIRDERS CONSIDERED INCIDENTAL TO "REMOVING OLD STRUCTURES".

8

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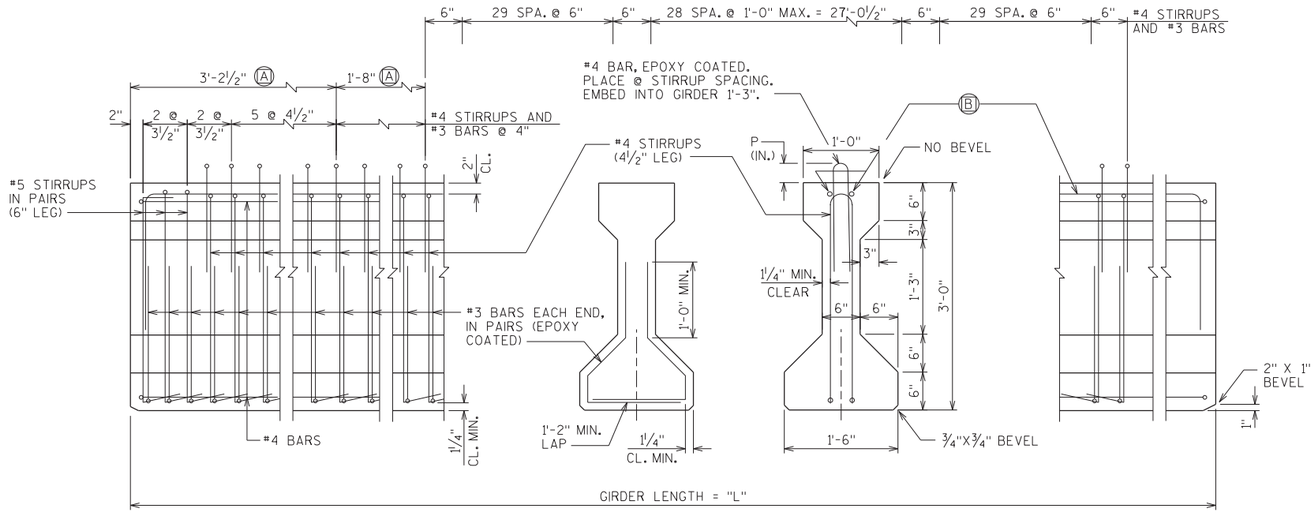
SUPERSTRUCTURE GIRDER REPLACEMENT

SHEET 15 OF 22

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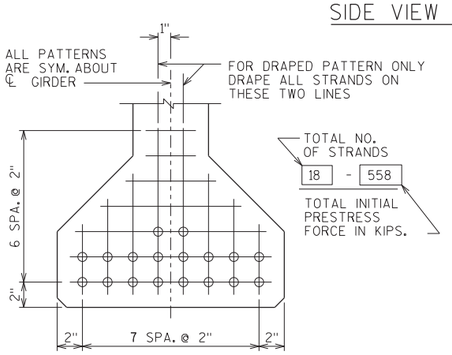
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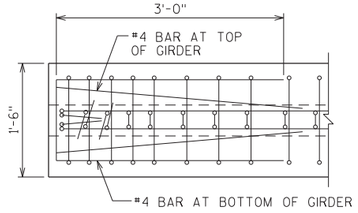
SIDE VIEW & TYP. SECTION IN SPAN

(A) DETAIL TYP. AT EACH END

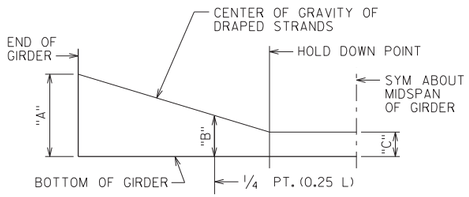
(B) 2-#5 BARS BEND DOWN 16 BAR DIA. AT ENDS



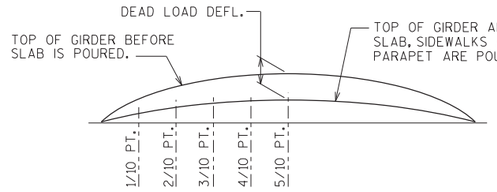
TYP. STRAND PATTERN



TOP VIEW OF GIRDER ENDS



DRAPED STRAND PROFILE



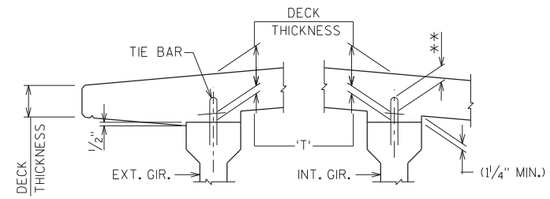
DEAD LOAD DEFLECTION DIAGRAM

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
2	1.5
3	1.5

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DECK HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
\- TOP OF GIRDER ELEVATION
\+ DEAD LOAD DEFLECTION
\- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL BE TROWEL FINISHED.

THE GIRDER SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER.

GIRDER SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, ONE OPTION IS AVAILABLE:

USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE 0.5" DIA. - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

BEND EACH END OF #4 STIRRUPS 4½" AND #5 STIRRUPS 6".

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *
2	7,15	67'-9½"	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	6000	7	7	7	0.5	18	4500	32	11"	14"	4	--	--
3	16,17,24	67'-9½"	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	6000	7	7	7	0.5	18	4500	32	11"	14"	4	--	--

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36" PRESTRESSED GIRDER DETAILS

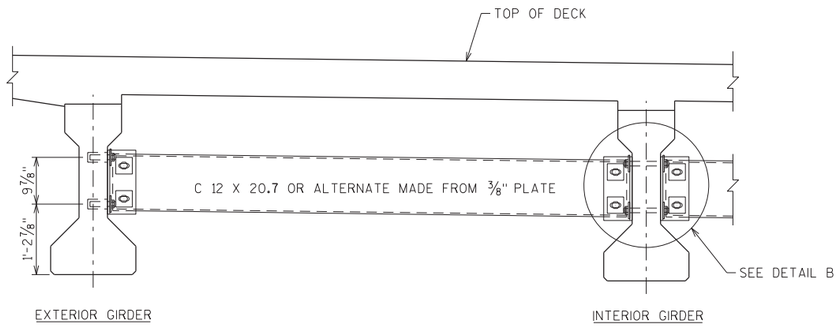
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PART TRANSVERSE SECTION AT DIAPHRAGM

NOTES

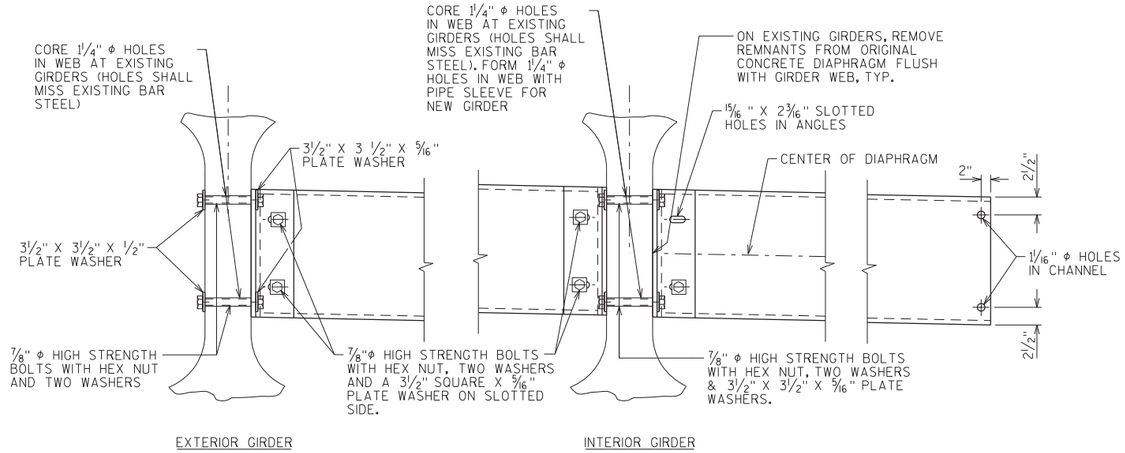
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-44-35", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

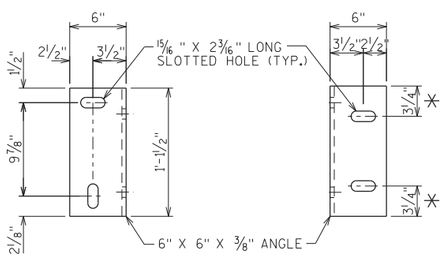
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

SEE SHEET 13 FOR DIAPHRAGM LOCATIONS.

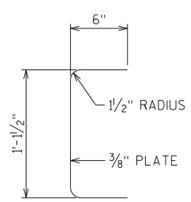


DETAIL B



DIAPHRAGM SUPPORT

✳ 2½" FOR ALTERNATE PLATE DIAPHRAGM



SECTION THRU ALTERNATE DIAPHRAGM

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STRUCTURE B-44-35

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STEEL DIAPHRAGM

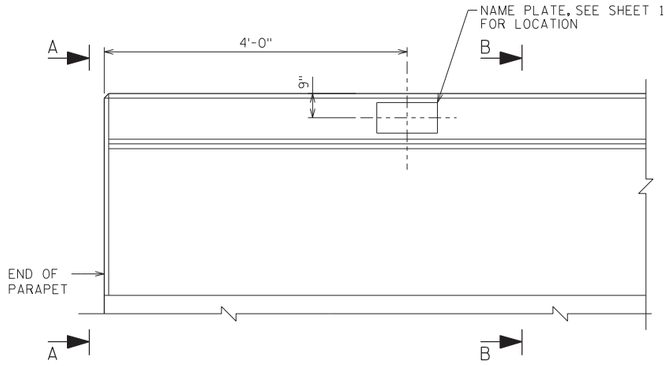
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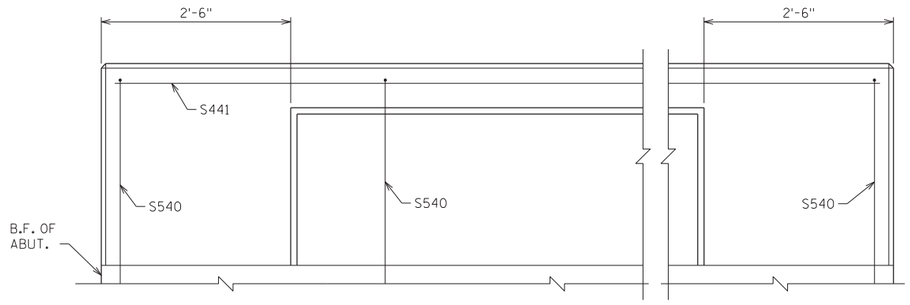
STATE PROJECT NUMBER

1130-33-71

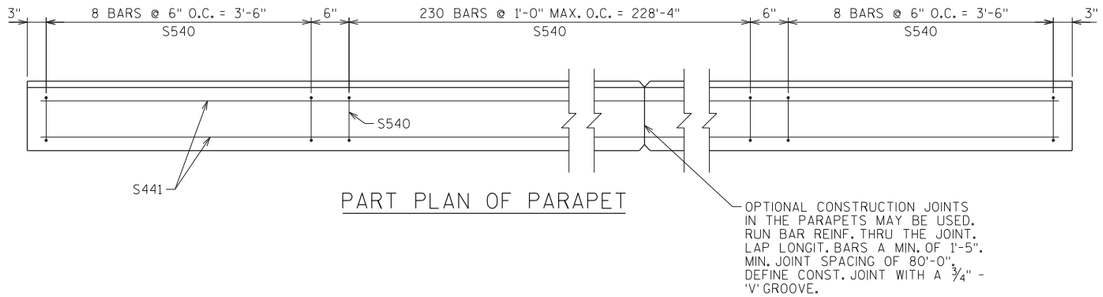


INSIDE ELEVATION OF WEST PARAPET

CHAIN LINK FENCE NOT SHOWN.
SEE SHEET 21 FOR DETAILS.

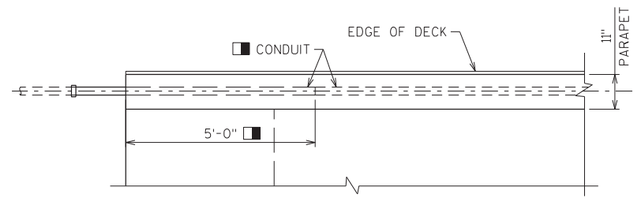


VIEW SHOWING OUTSIDE FACE OF PARAPET AND REINF.



PART PLAN OF PARAPET

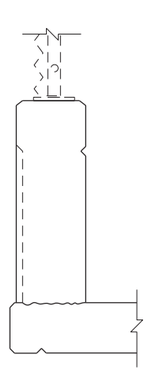
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-5". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



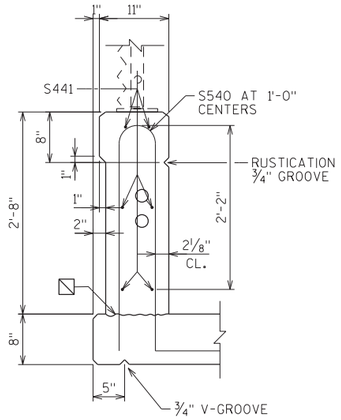
PLAN OF PARAPET AT ABUTMENT

LEGEND

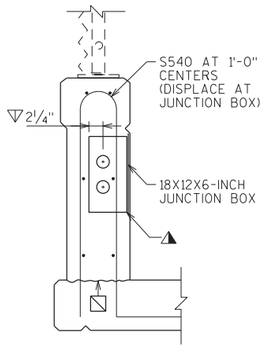
- HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- USE 2" ϕ RIGID NONMETALLIC CONDUIT EXCEPT AT END OF DECK. AT END OF DECK, USE RIGID METALLIC CONDUIT 5'-0" INTO PARAPET ON DECK TO A MINIMUM OF 6" BEYOND BACKFACE OF ABUTMENT (FOR GROUNDING PURPOSES).
- ▲ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- ▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.



VIEW A

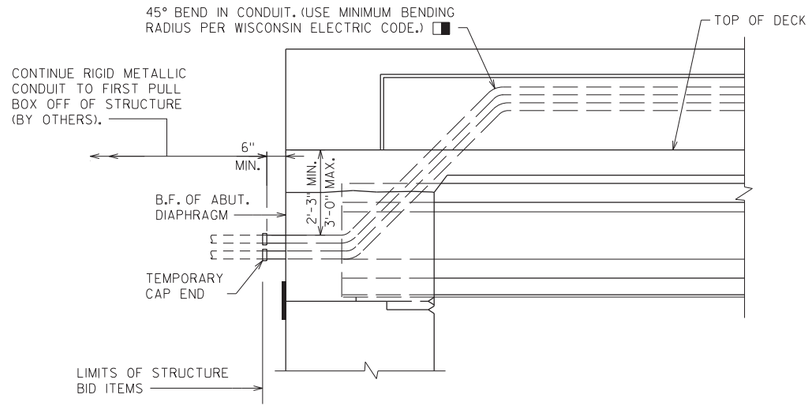


SECTION B



SECTION THRU PARAPET

AT STA. 409+90.00 SBR AND STA. 411+77.00 SBR



OUTSIDE ELEVATION OF PARAPET AT ABUTMENT

NOTES

BID ITEMS SHALL BE:
"JUNCTION BOXES 18X12X6-INCH", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH"

ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED.

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

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VERTICAL FACE PARAPET 'A'

SHEET 18 OF 22

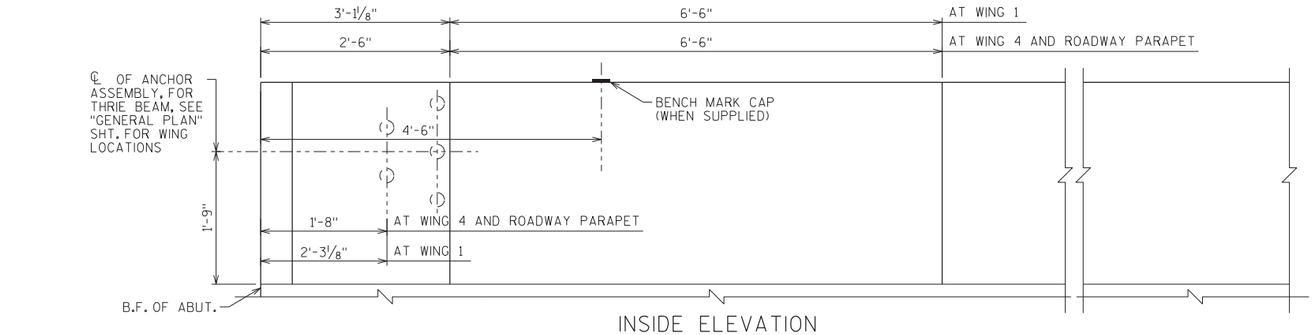
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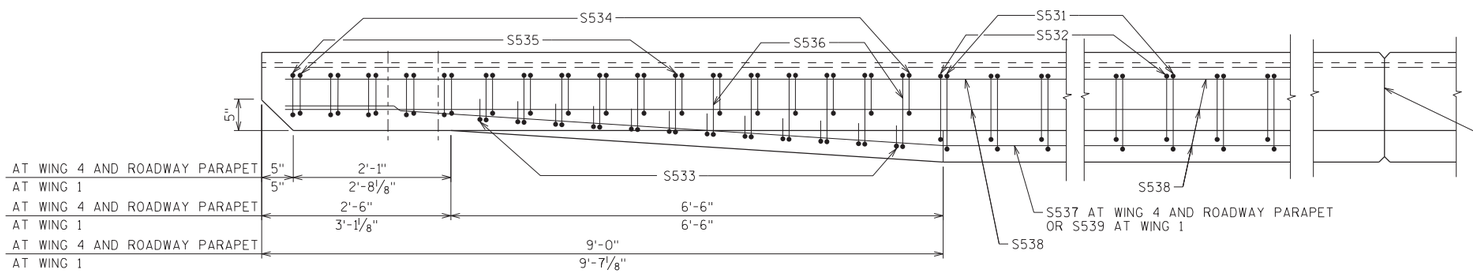
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1130-33-71

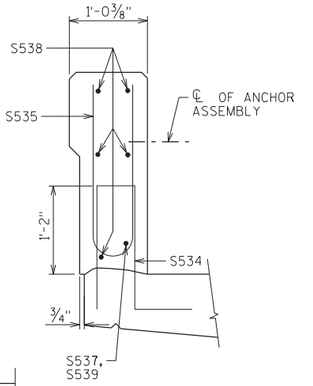


INSIDE ELEVATION

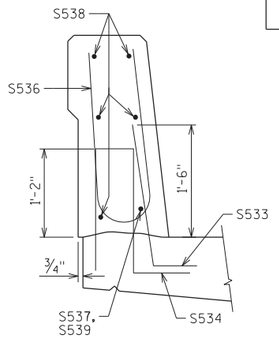


PLAN

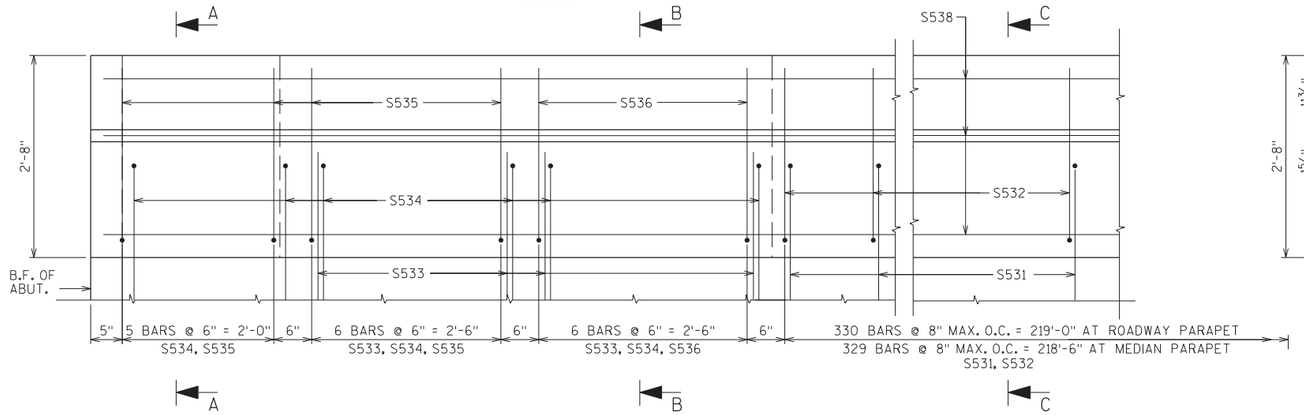
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



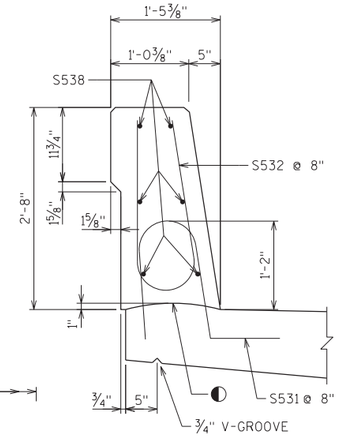
SECTION A



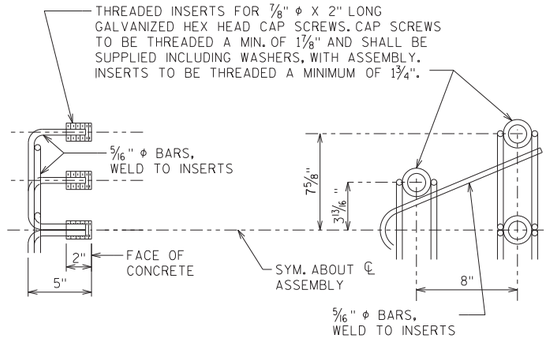
SECTION B



OUTSIDE ELEVATION AT WING 4 AND ROADWAY PARAPET



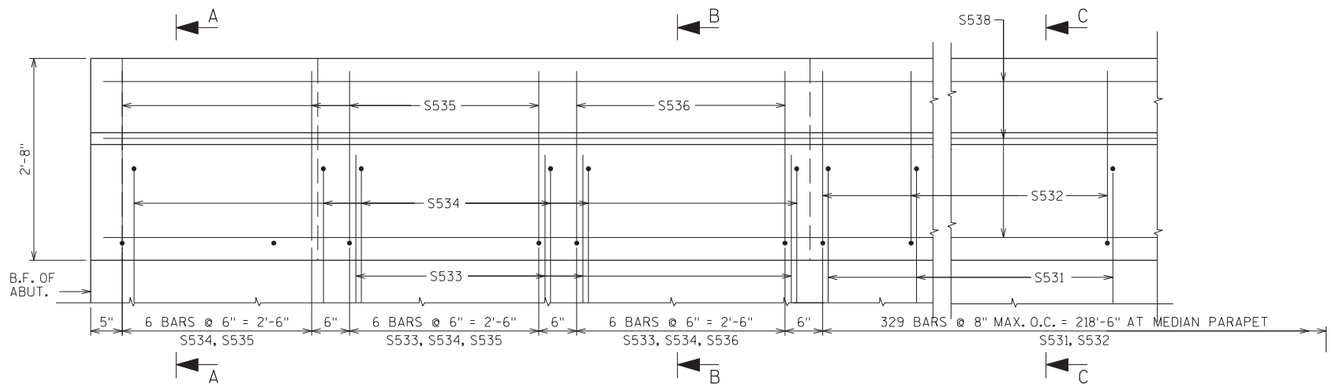
SECTION C



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY BID ITEM SHALL BE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



OUTSIDE ELEVATION AT WING 1

LEGEND

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

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SINGLE SLOPE PARAPET 32SS

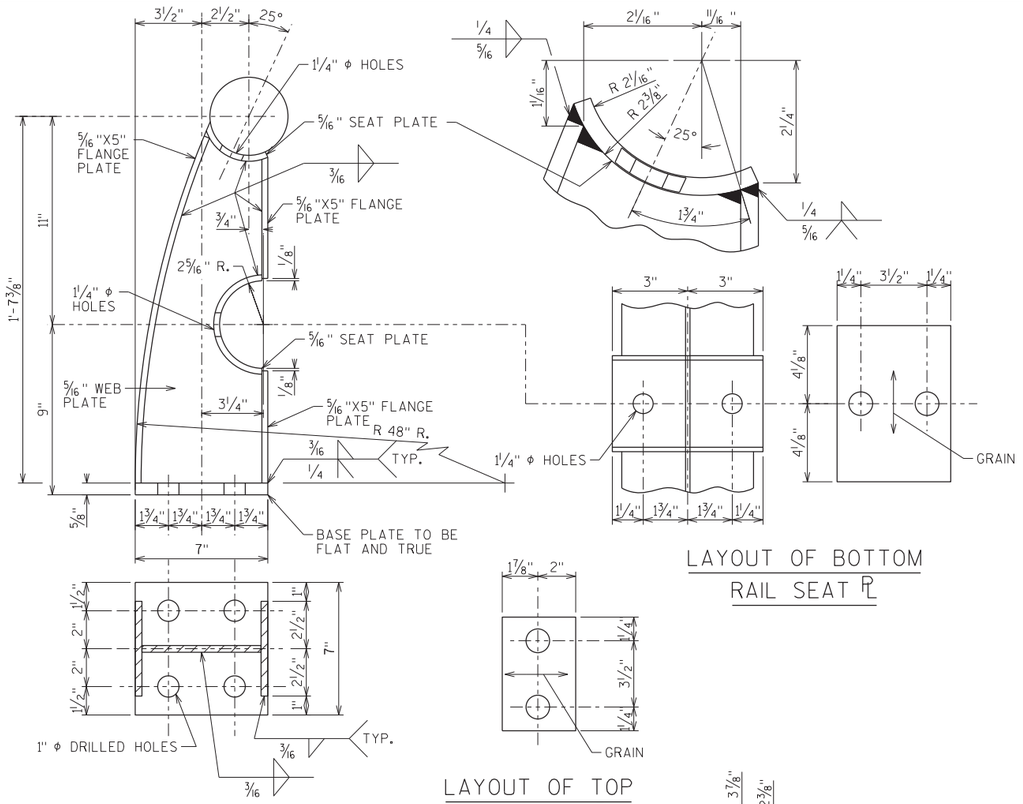
SHEET 19 OF 22

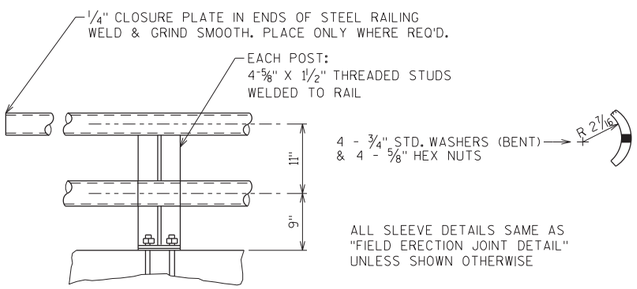
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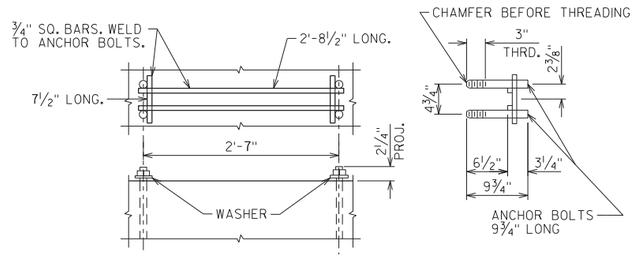
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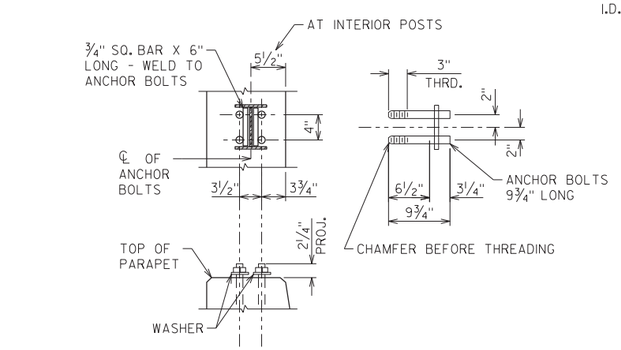
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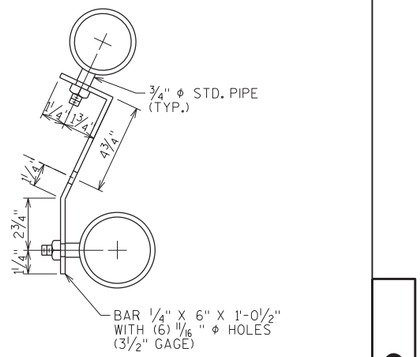
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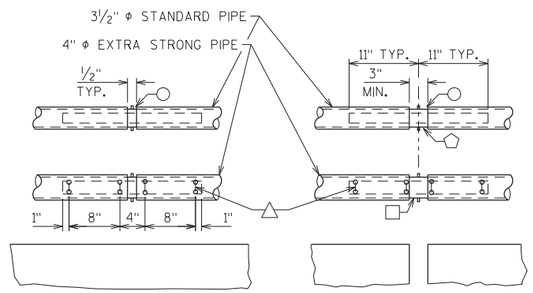


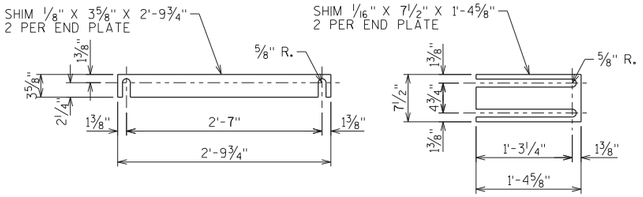


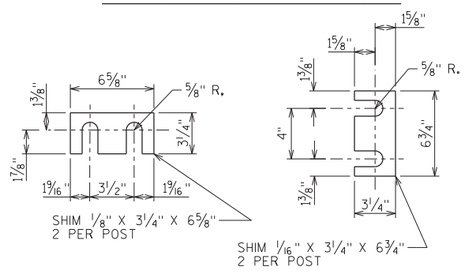












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GENERAL NOTES

BID ITEM SHALL BE "RAILING TUBULAR TYPE H B-44-35" WHICH INCLUDES ALL ITEMS SHOWN.

THE SHANK AND ROOT DIAMETER OF THREAD FOR ANCHOR BOLTS SHALL BE A MIN. OF ⅝".

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM A307. IF A307 IS USED ELECTRO-GALVANIZE NUTS, WASHERS & TOP 3½" OF ANCHOR BOLTS.

CLOSURE ENDS ON STEEL RAILING SHALL BE ¼" PLATE. WELD AND GRIND SMOOTH.

RAILINGS SHALL BE FABRICATED IN 2 AND 3 PANEL LENGTHS.

RAILING POSTS SHALL BE SET NORMAL TO GRADE LINE.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF THE POST BASE.

SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D. FOR ALIGNMENT.

FILL ALL EXPOSED OPENINGS BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

RAILS, POSTS & SHIMS SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709, GRADE 36.

ALL MATERIALS, EXCEPT ANCHORAGES, SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

RAILS SHALL BE BUILT STRAIGHT AND SPRUNG INTO PLACE FOR STRUCTURES CURVED UP TO 3°. FOR STRUCTURES CURVED GREATER THAN 3°, RAILS SHALL BE CURVED TO FIT.

LEGEND

- ○ 5/16" × 3/8" WELDED STUDS
- ⬠ 3" Φ STD. PIPE × 1'-10" LONG
- □ 3" Φ EXTRA STRONG PIPE × 1'-10" LONG
- △ ½" Φ WELD BEADS AT 1/3 PTS. ON PIPE 11" CIRCUMF. GRIND BEADS SO THAT SLEEVE FITS FREELY IN THE I.D. OF 4" Φ EXTRA STRONG PIPE.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

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TUBULAR RAILING TYPE "H" (STEEL)

SHEET 20 OF 22

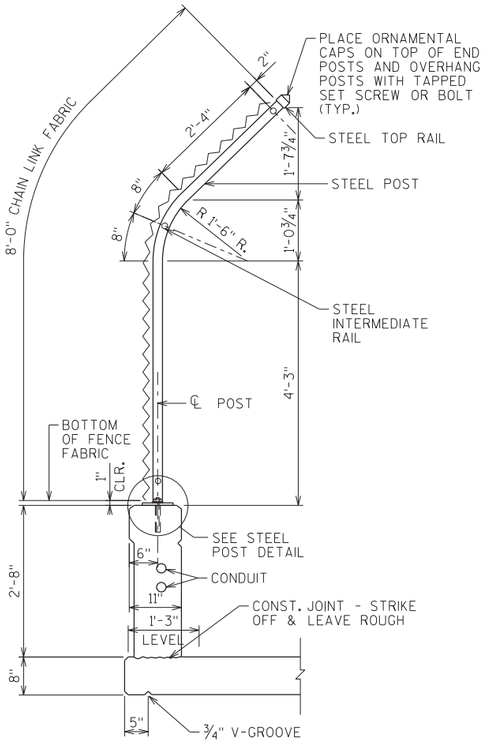
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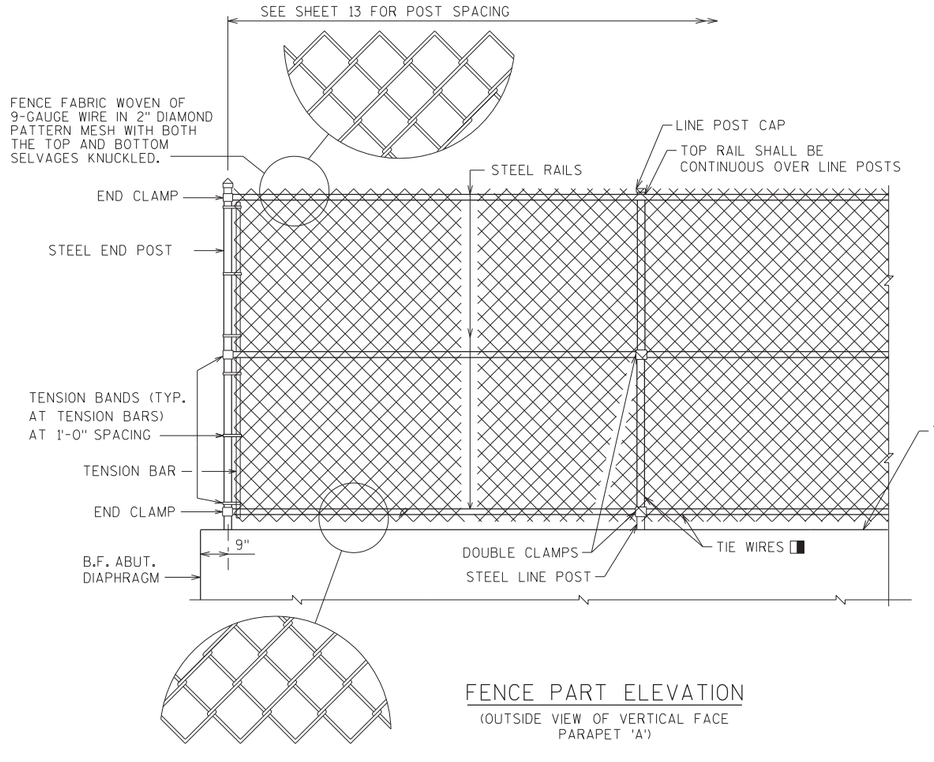
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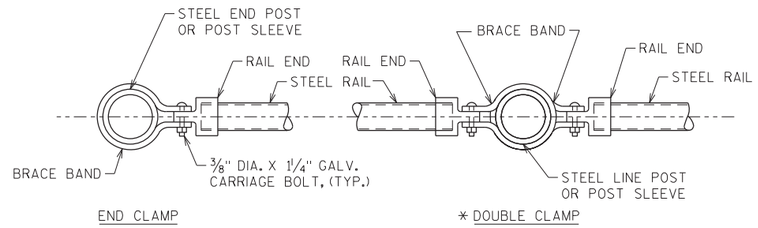


SECTION THRU FENCE ON PARAPET 'A'



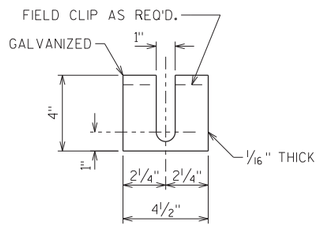
FENCE PART ELEVATION

(OUTSIDE VIEW OF VERTICAL FACE PARAPET 'A')



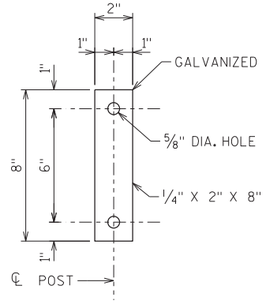
SECTION A-A

NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS

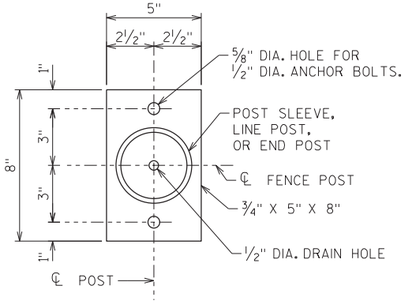


POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



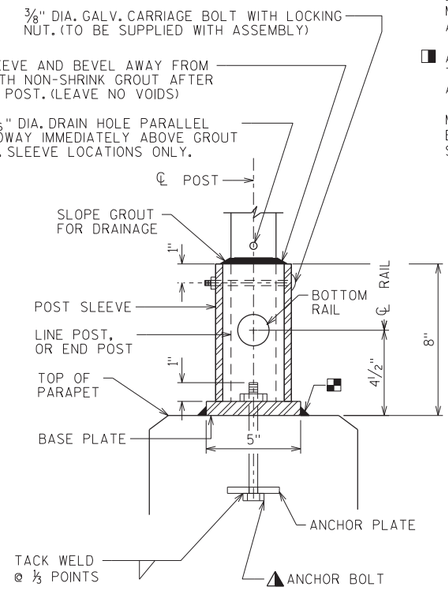
ANCHOR PLATE



BASE PLATE

FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



STEEL POST DETAILS

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 8 FT", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

* ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

⚠ ½" DIA. X 6⅞" LONG GALVANIZED HEX BOLT WITH NUT & WASHER, TYPE "S", ½" DIA. CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR ½" DIA. BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆

☆ ½" DIA. CONCRETE MASONRY ANCHOR, TYPE "S", 6" MIN. EMBEDMENT (EPOXY ANCHORED) INTO CONCRETE AND MINIMUM PULLOUT CAPACITY OF 10 KIPS. ANCHOR, WASHER AND NUT SHALL BE GALVANIZED.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR ¼ POINT OF POST SPACING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

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CHAIN LINK FENCE DETAILS

SHEET 21 OF 22

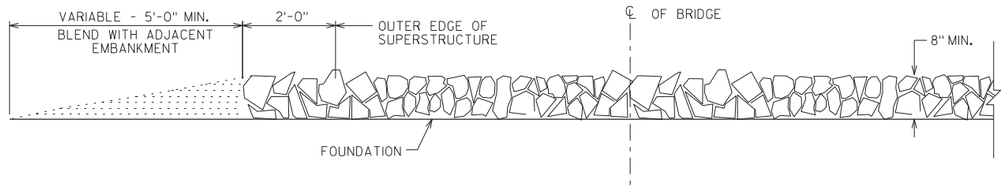
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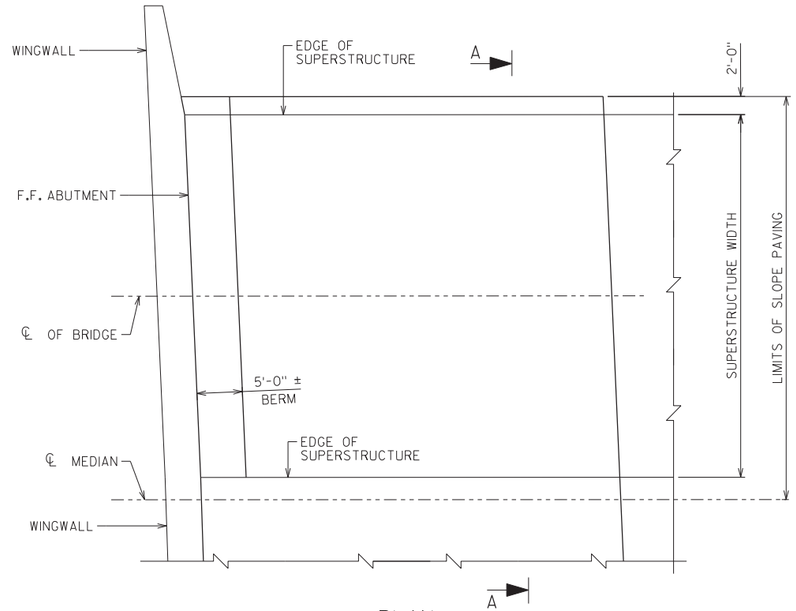
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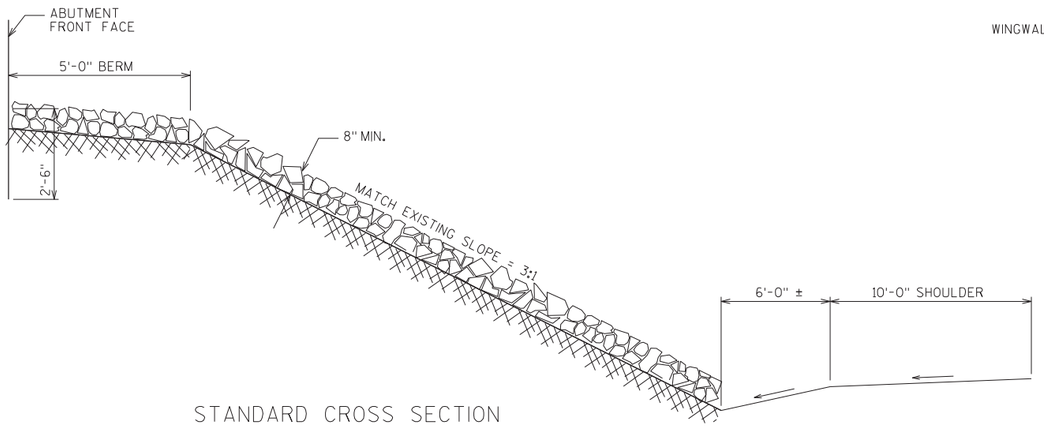
STATE PROJECT NUMBER
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SECTION A-A



PLAN



STANDARD CROSS SECTION

ASPHALTIC MATERIAL SHALL NOT BE APPLIED TO THE SURFACE OF CRUSHED MATERIAL.

NOTES

1. DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.
2. WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-35

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SLOPE PAVING (SELECT CRUSHED MATERIAL)

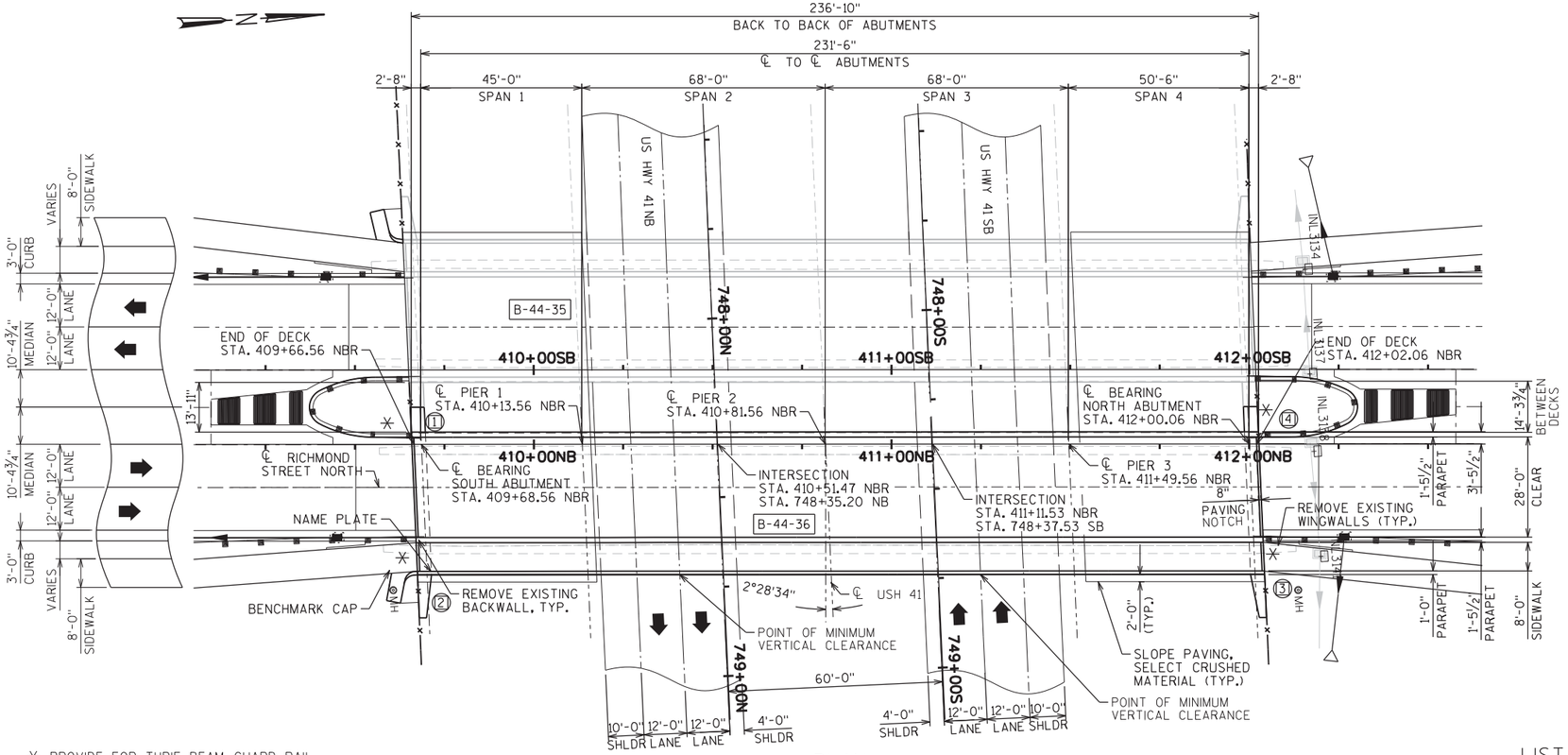
SHEET 22 OF 22

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1130-33-71

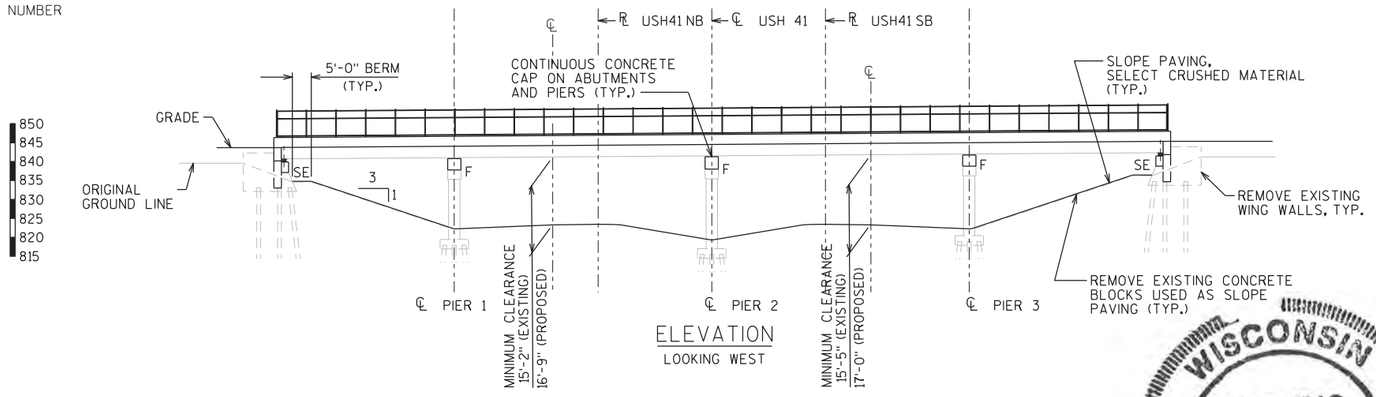


PLAN

4 SPAN 36" PRESTRESSED GIRDERS
REDECK AND RAISING

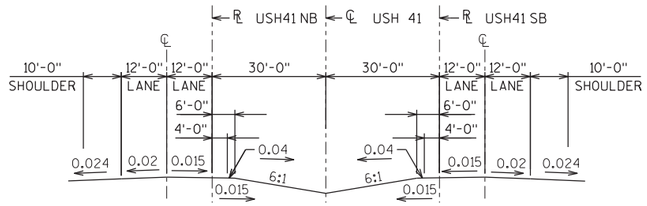
✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT TO BRIDGE PARAPET. SEE SHEET 17 FOR ANCHOR ASSEMBLY LOCATION.

⬡ INDICATES WING NUMBER



ELEVATION

LOOKING WEST



TYPICAL SECTION USH41

LOOKING WEST - NORMAL TO USH 41

DESIGN DATA

LIVE LOAD:
INVENTORY RATING: HS-19
OPERATING RATING: HS-32
WISCONSIN STANDARD PERMIT VEHICLE LOAD (WIS-SPV) = 220 KIPS.

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY
SUPERSTRUCTURE..... f'c = 4,000 PSI ALL OTHER..... f'c = 3,500 PSI

BAR STEEL REINFORCEMENT, GRADE 60 ..... fy = 60,000 PSI

36-INCH PRESTRESSED GIRDER, CONCRETE MASONRY..... f'c = 6,000 PSI
f'ci = 4,500 PSI

STRANDS - .05" Φ WITH ULTIMATE TENSILE STRENGTH OF 270,000 PSI

ULTIMATE DESIGN STRESSES (EXISTING WORK):
EXISTING CONCRETE MASONRY..... f'c = 2,500 PSI

EXISTING BAR STEEL REINFORCEMENT, GRADE 40 ..... fy = 40,000 PSI

TRAFFIC DATA RICHMOND STREET

AADT = 12,250 (2010)
= 18,050 (2030)

DESIGN SPEED = 40 MPH

TRAFFIC DATA USH41

AADT = 62,900 (2009)
= 87,900 (2029)

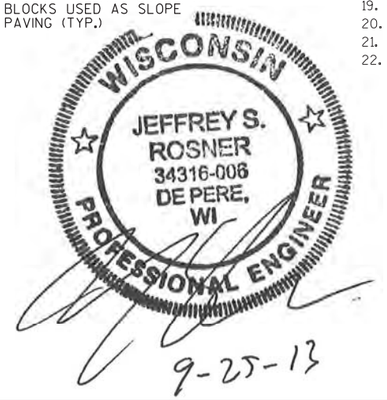
FOUNDATION DATA

EXISTING PILING AT ABUTMENTS IS TREATED TIMBER PILING. ESTIMATED 50'-0" LONG DRIVEN TO A MINIMUM BEARING OF 20 TONS PER PILE.

EXISTING PILING AT PIERS IS TREATED TIMBER PILING. ESTIMATED 40'-0" LONG DRIVEN TO A MINIMUM BEARING OF 20 TONS PER PILE.

LIST OF DRAWINGS

1. DECK REPLACEMENT AND RAISING
2. CROSS SECTIONS AND GENERAL NOTES
3. QUANTITIES AND PROFILE
4. ABUTMENT REMOVAL DETAILS
5. SOUTH ABUTMENT
6. NORTH ABUTMENT
7. ABUTMENT BILL OF BARS
8. PIER 1
9. PIER 2
10. PIER 3
11. PIER DETAILS
12. SUPERSTRUCTURE CROSS SECTIONS
13. SUPERSTRUCTURE
14. SUPERSTRUCTURE DETAILS
15. STEEL DIAPHRAGM
16. VERTICAL FACE PARAPET 'A'
17. SINGLE SLOPE PARAPET 32SS
18. TUBULAR RAILING TYPE "H" (STEEL)
19. CHAIN LINK FENCE DETAILS
20. SLOPE PAVING (SELECT CRUSHED MATERIAL)
21. SUPERSTRUCTURE GIRDER REPLACEMENT
22. 36" PRESTRESSED GIRDER DETAILS



BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER, P.E. 608-266-8489

CONSULTANT CONTACT:
JEFFREY S. ROSNER, P.E. 920-592-9440

NO.	DATE	REVISION	BY

GRAEF
1150 Springhurst Drive, Suite 201
Green Bay, WI 54304
920-592-9440
920-662-9445 fax
www.graef-usa.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 09/26/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-44-36

RICHMOND STREET (STH 47 NB) OVER U.S.H. 41

COUNTY	TOWN
OUTAGAMIE	GRAND CHUTE

DESIGN SPEC.
REHABILITATION N/A

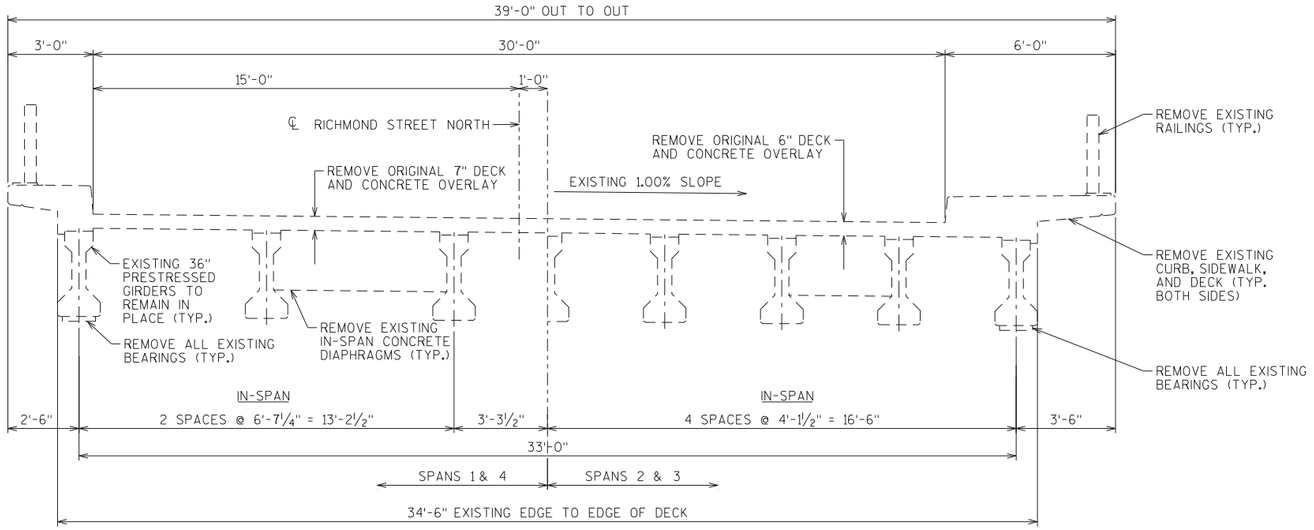
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JSR	SAC	AMZ	JSR

DECK REPLACEMENT AND RAISING

SHEET 1 OF 22

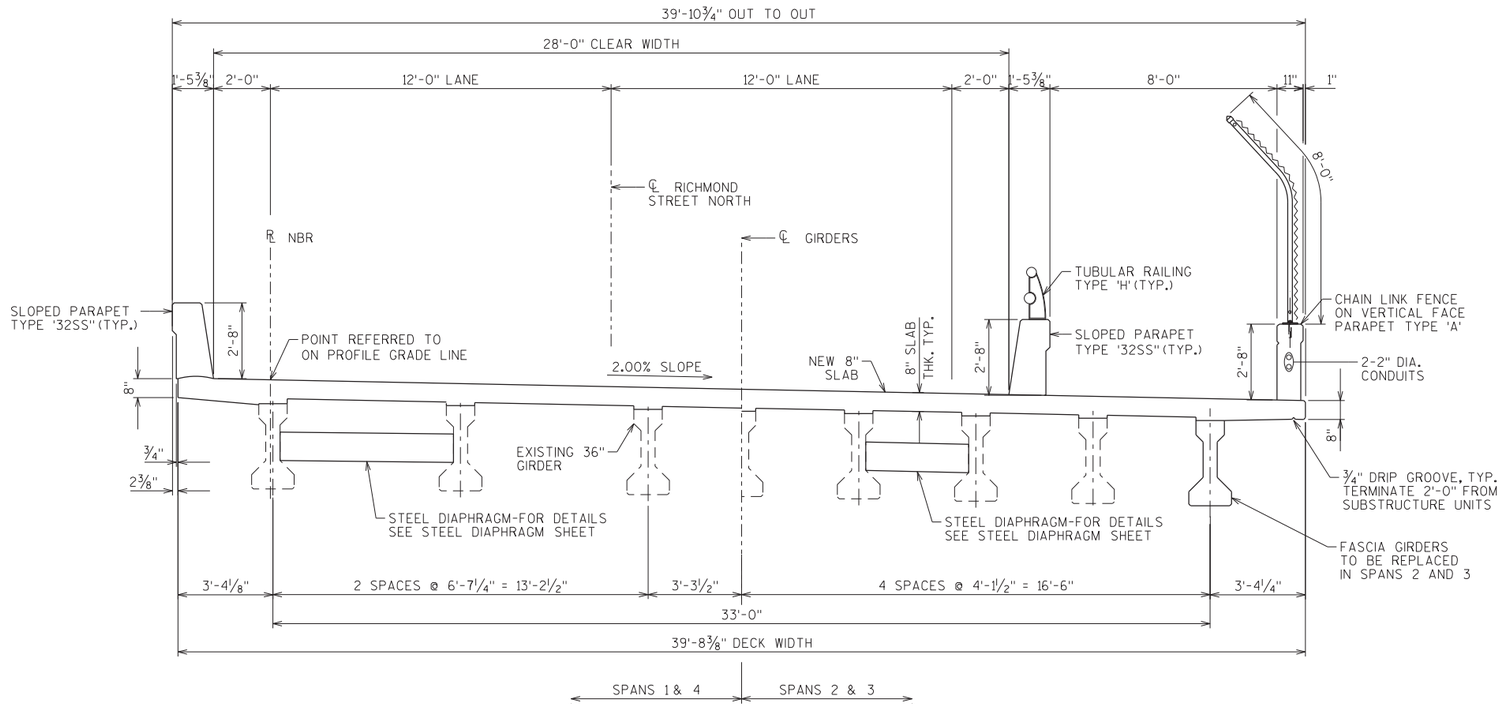
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EXISTING CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



CROSS SECTION THRU ROADWAY

(LOOKING NORTH)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

ALL DETAILS, MATERIALS AND FABRICATION SHALL CONFORM TO THE CURRENT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE SPECIFICATIONS OF THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE AND THE FRONT FACE AND THE TOP OF THE PARAPET. PROTECTIVE SURFACE TREATMENT SHALL ALSO BE APPLIED TO PIERS 1, 2 AND 3 FROM THE EXISTING GROUND LINE TO THE BOTTOM OF THE PIER CAP AFTER WATER BLAST CLEANING THE PIER COLUMNS.

THE EXISTING GROUND LINE OR ROADWAY SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION.

VARIATIONS TO THE NEW GRADE LINE OVER 1/4" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEETS 1 AND 20.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

CONCRETE SURFACE REPAIR AS DIRECTED BY ENGINEER. QUANTITIES SHOWN ARE APPROXIMATE.

SOUTH ABUTMENT	20 S.F.
PIER 1	50 S.F. ON PIER CAP
PIER 2	60 S.F. ON PIER CAP
PIER 3	40 S.F. ON PIER CAP
NORTH ABUTMENT	30 S.F.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

THE CONTRACTOR SHALL SUBMIT A REMOVAL AND BRIDGE JACKING PLAN TO THE ENGINEER FOR APPROVAL.

CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAILED DRAWINGS. THE NEW NAME PLATE SHALL SHOW THE ORIGINAL CONSTRUCTION YEAR OF 1961.

THE EXISTING STRUCTURE, B-44-36, IS A 4-SPAN PRESTRESSED GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 39'-0" AND AN OVERALL LENGTH OF 236'-10". THE ENTIRE DECK, ABUTMENT BACKWALL, WINGWALLS, AND GIRDER BEARINGS WILL BE REMOVED AND REPLACED. THE EXISTING GIRDERS WILL BE RAISED TO INCREASE CLEARANCE.

ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER FRICTION TYPE HIGH-TENSILE STRENGTH BOLTS UNLESS SHOWN OR NOTED OTHERWISE.

THE SUPERSTRUCTURE CONCRETE QUANTITY INCLUDES VOLUME FOR OVERHANG TRIANGULAR AREA, DIAPHRAGMS, AND THE AVERAGE ESTIMATED HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

REMOVING OLD STRUCTURE SHALL INCLUDE THE REMOVAL OF THE EXISTING RAILING, DECK, CONCRETE DIAPHRAGMS, ABUTMENT BACKWALLS, AND WINGWALLS.

THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE DECK SHALL BE PLACED WITH 2 1/2" OF CLEAR COVER.

STATE PROJECT NUMBER
1130-33-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

DRAWN BY AMZ | PLANS CK'D. JSR

CROSS SECTIONS AND GENERAL NOTES | SHEET 2 OF 22

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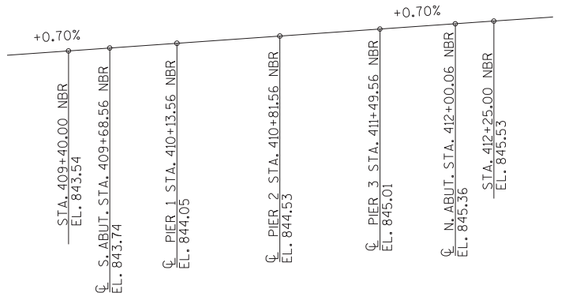
STATE PROJECT NUMBER
1130-33-71

BENCH MARKS

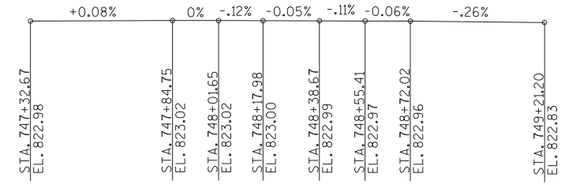
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
620	409+60.91 NBR	36.73' RT.	BRONZE DISC IN THE SE END OF THE WHEEL GUARD ON STRUCTURE B-44-36	841.97
621	412+00.53 SBR	32.12' LT.	BRONZE DISC IN THE NW END OF THE WHEEL GUARD ON STRUCTURE B-44-35	843.68

ESTIMATED QUANTITIES

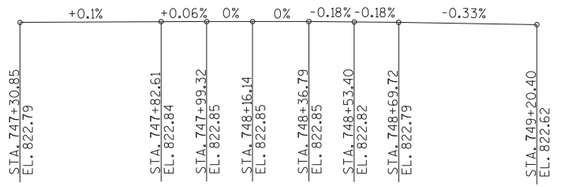
ITEM NO.	BID ITEMS	UNIT	SUPER	S ABUT	N ABUT	PIER 1	PIER 2	PIER 3	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 410+81.56 NBR	LS	--	--	--	--	--	--	1
203.0225.S	DEBRIS CONTAINMENT STRUCTURE B-44-36	LS	--	--	--	--	--	--	1
204.0175	REMOVING CONCRETE SLOPE PAVING	SY	--	215	242	--	--	--	457
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-44-36	LS	--	--	--	--	--	--	1
210.0100	BACKFILL STRUCTURE	CY	--	177	177	--	--	--	354
502.0100	CONCRETE MASONRY BRIDGES	CY	414	38	38	11	11	11	523
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1279	--	--	--	--	--	1279
502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	--	115	115	116	80	116	542
502.5010	MASONRY ANCHORS TYPE L NO. 6 BARS	EACH	--	5	5	--	--	--	10
503.0136	PRESTRESSED GIRDER TYPE I 36-INCH	LF	271	--	--	--	--	--	271
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	90,860	2960	2960	1220	1040	1220	100,260
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	--	6	6	15	18	15	60
506.4000	STEEL DIAPHRAGMS B-44-36	EACH	42	--	--	--	--	--	42
506.7050.S	REMOVING BEARINGS, B-44-36	EACH	60	--	--	--	--	--	60
506.7060.S	BRIDGE, JACKING, B-44-36	LS	--	--	--	--	--	--	1
509.1500	CONCRETE SURFACE REPAIR	SF	--	20	30	50	60	40	200
513.4055	RAILING TUBULAR TYPE H B-44-36	LS	--	--	--	--	--	--	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	--	22	22	--	--	--	44
604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL	SY	--	258	290	--	--	--	548
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	--	75	75	--	--	--	150
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	--	--	--	--	--	4
616.0208	FENCE CHAIN LINK 8-FT	LF	236	--	--	--	--	--	236
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	25	--	--	--	--	--	25
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	457	--	--	--	--	--	457
653.0222	JUNCTION BOXES 18 X 12 X 6-INCH	EACH	2	--	--	--	--	--	2
	NON-BID ITEMS								
	PREFORMED JOINT FILLER								¾"



RICHMOND STREET PROFILE GRADE LINE



USH41 SB PROFILE GRADE LINE



USH41 NB PROFILE GRADE LINE

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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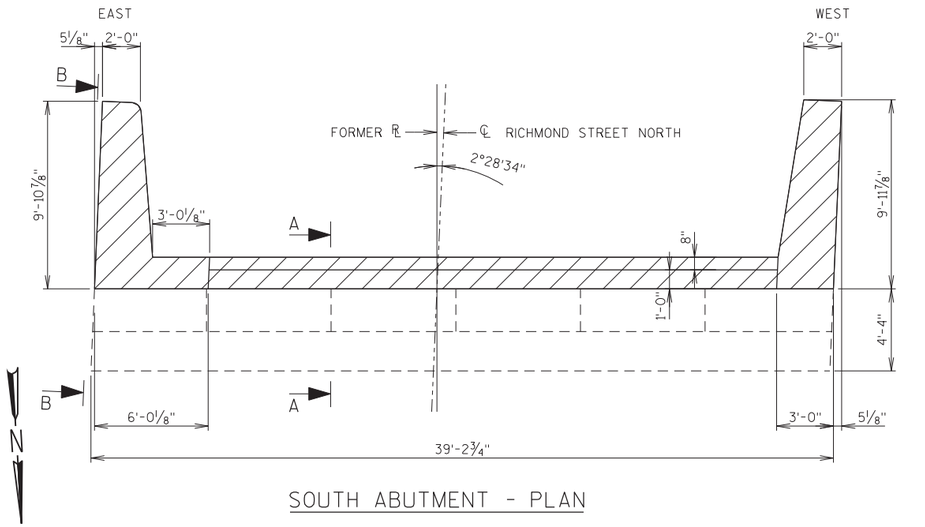
QUANTITIES AND PROFILE

SHEET 3 OF 22

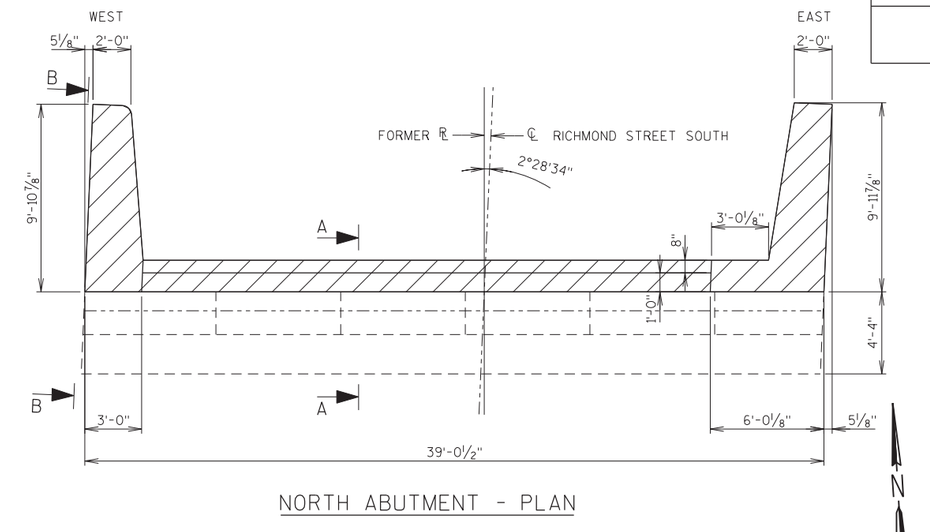
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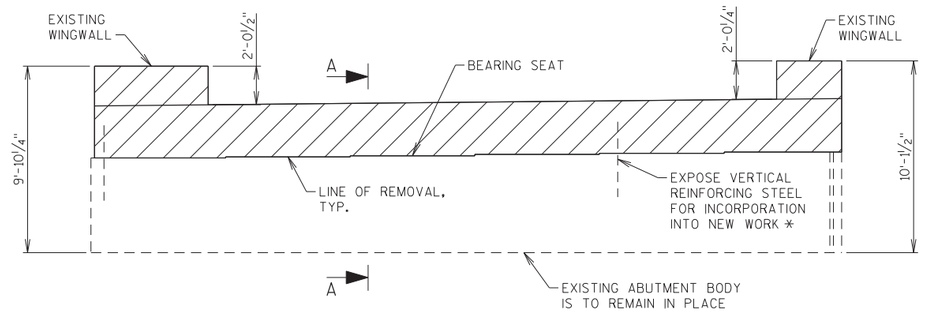
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SOUTH ABUTMENT - PLAN

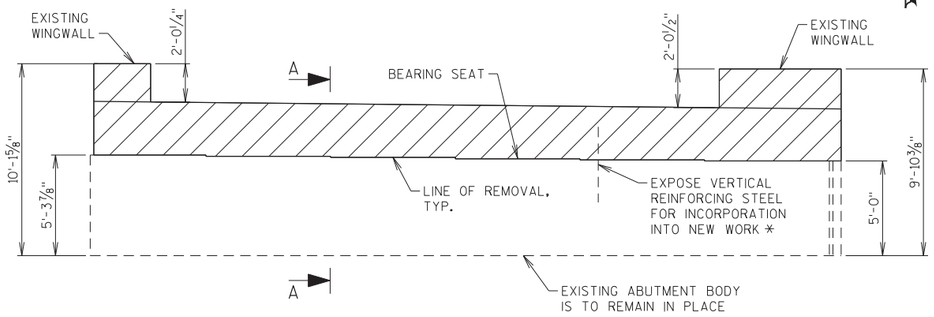


NORTH ABUTMENT - PLAN



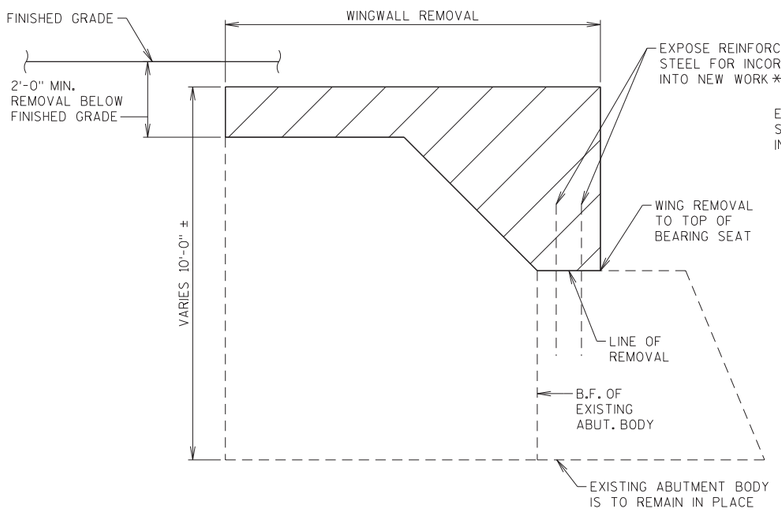
SOUTH ABUTMENT - ELEVATION

(LOOKING SOUTH)

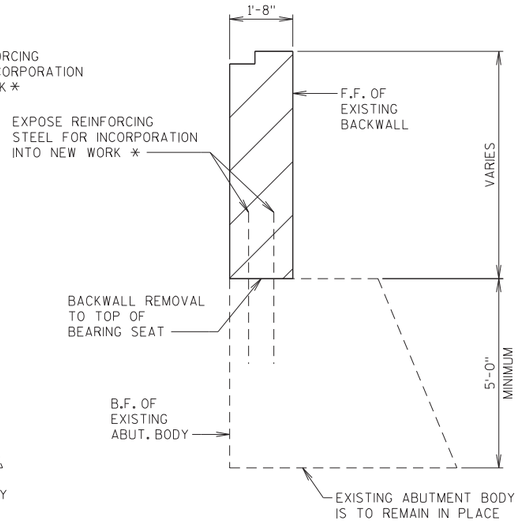


NORTH ABUTMENT - ELEVATION

(LOOKING NORTH)



SECTION B-B -
SHOWING WINGWALL REMOVAL



SECTION A-A -
SHOWING BACKWALL REMOVAL

LEGEND

= CONCRETE REMOVAL

* = EXTEND EXISTING BARS A MINIMUM OF 24 BAR DIAMETERS INTO NEW WORK. BENDS AT THE TOP ARE ALLOWED TO BE CUT OFF.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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ABUTMENT REMOVAL DETAILS

SHEET 4 OF 22

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STATE PROJECT NUMBER

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LEGEND

* = EXTEND EXISTING BARS A MINIMUM OF 24 BAR DIAMETERS INTO NEW WORK.

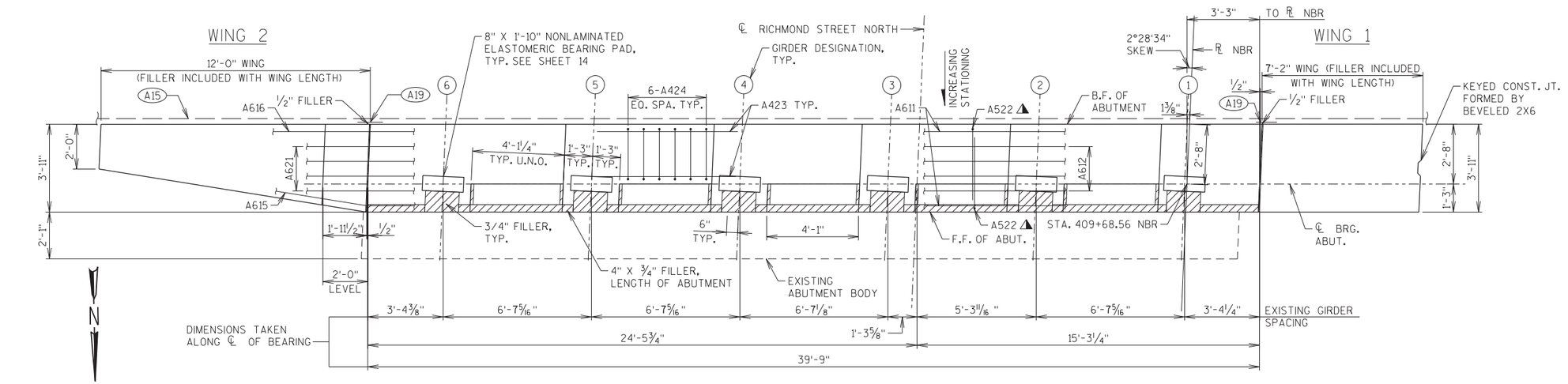
(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

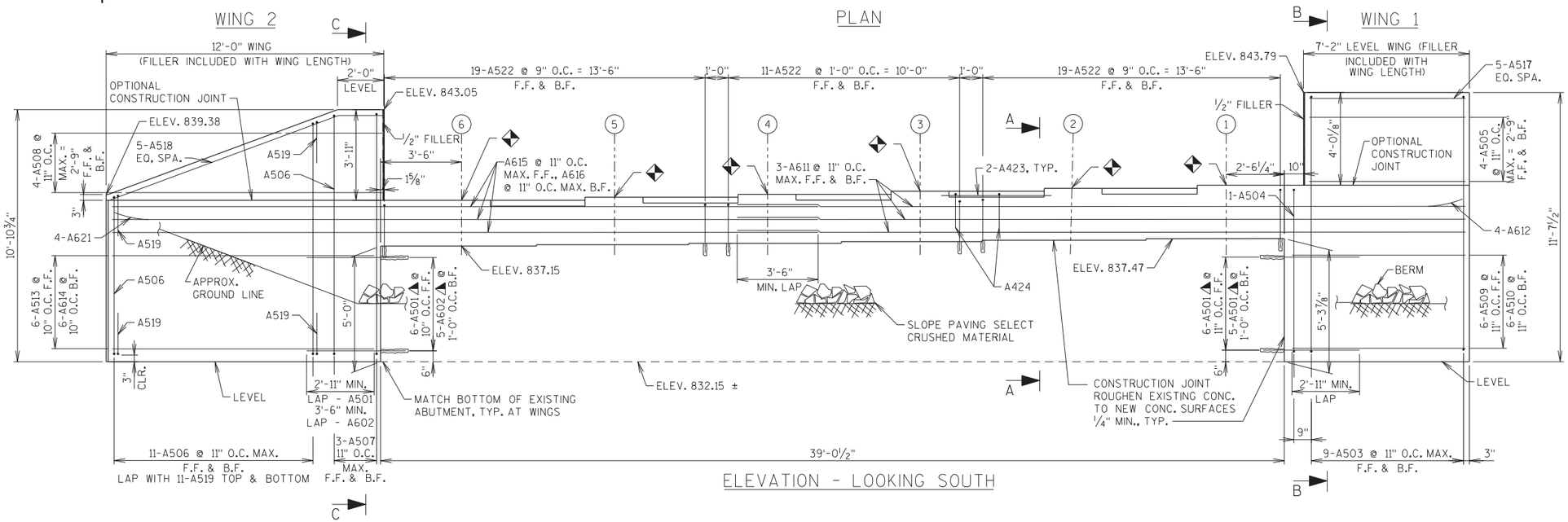
◭ A501 MASONRY ANCHORS TYPE L. MINIMUM PULLOUT CAPACITY OF 4.8 KIPS. EMBED 10½" IN CONCRETE MINIMUM.

◭ A602 MASONRY ANCHORS TYPE L. MINIMUM PULLOUT CAPACITY OF 7.5 KIPS. EMBED 1'-2" IN CONCRETE MINIMUM.

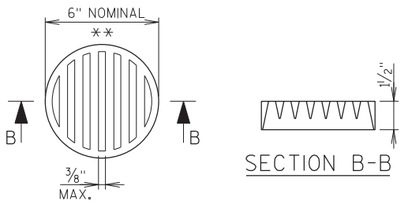
◭ A522 MASONRY ANCHORS TYPE L. MINIMUM PULLOUT CAPACITY OF 4.8 KIPS. EMBED 5" IN CONCRETE MINIMUM.



PLAN



ELEVATION - LOOKING SOUTH



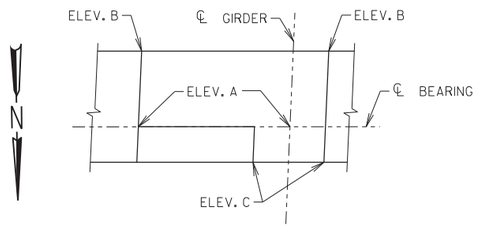
SECTION B-B

RODENT SCREEN DETAIL

** DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH SHEET METAL SCREWS.



◈ BEARING SEAT ELEVATION PLAN

◈ BEARING SEAT ELEVATION SCHEDULE

GIRDER	A	B	C
1	839.78	839.75	839.79
2	839.65	839.62	839.66
3	839.52	839.49	839.53
4	839.39	839.36	839.40
5	839.26	839.23	839.27
6	839.13	839.10	839.14

NOTES

1. FOR SECTIONS A-A, B-B AND C-C, SEE SHEET 6.
2. ASSUMED EXISTING CONCRETE STRENGTH = 2,500 PSI.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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SOUTH ABUTMENT

SHEET 5 OF 22

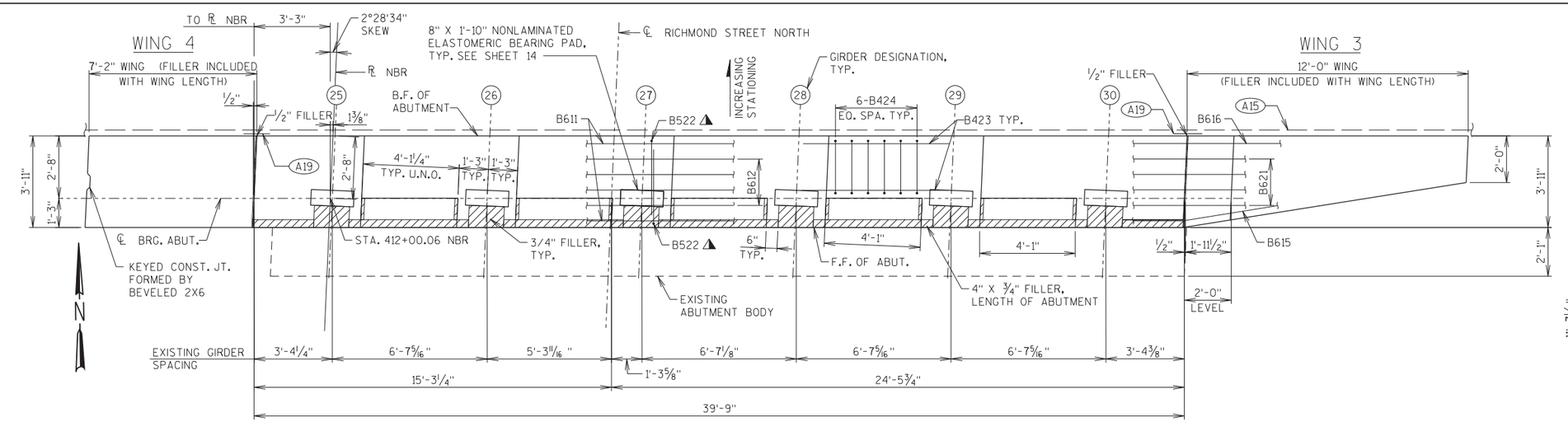
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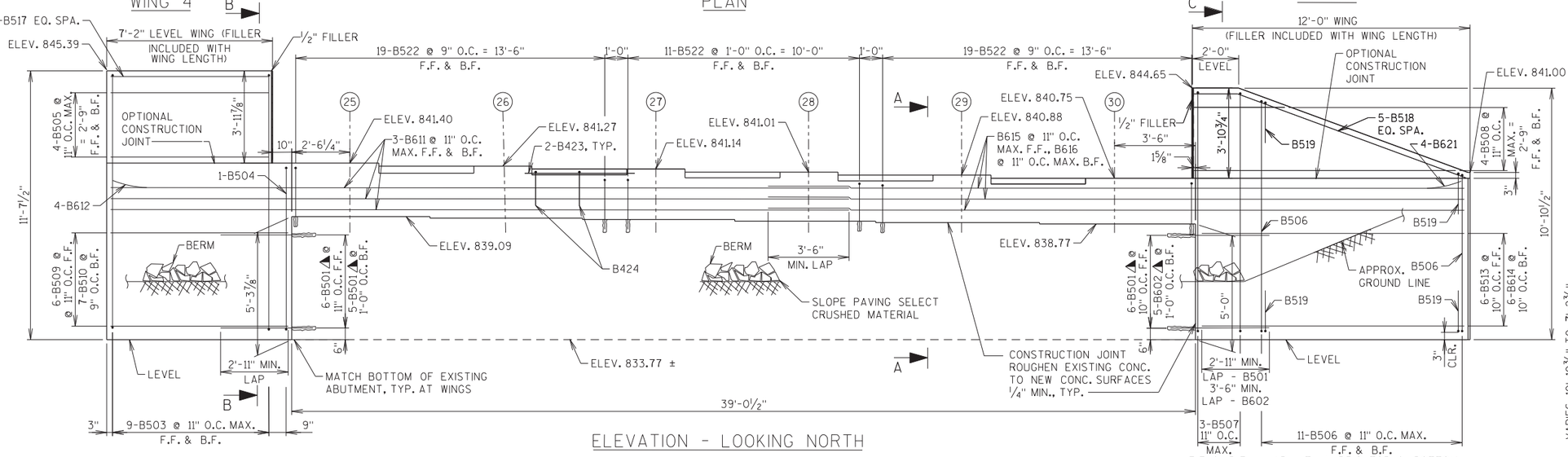
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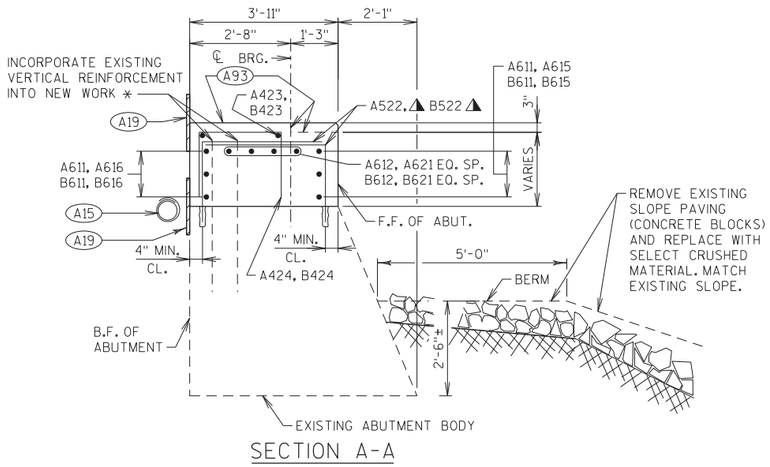
STATE PROJECT NUMBER
1130-33-71



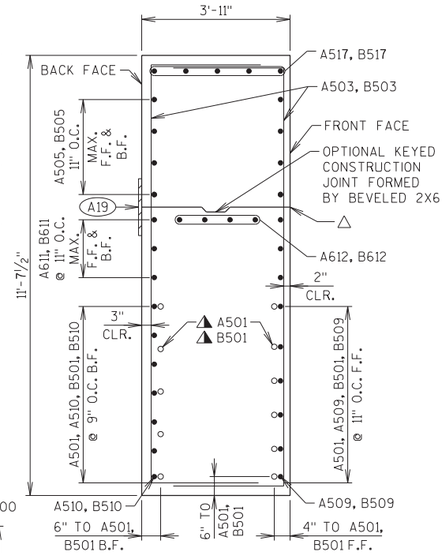
PLAN



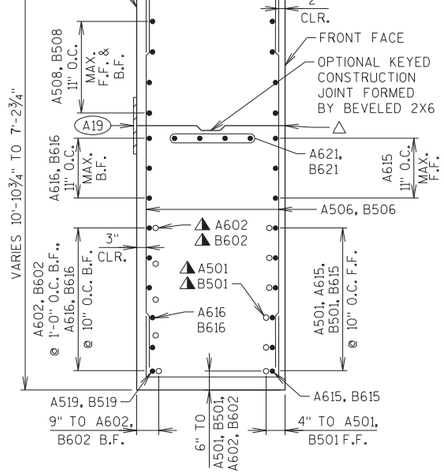
ELEVATION - LOOKING NORTH



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

- (A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A93) STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03"
- △ ¾" "V" GROOVE ON F.F. OF WING WALL. NOT REQUIRED IF CONSTRUCTION JOINT IS NOT USED.
- ◭ A501, B501 MASONRY ANCHORS TYPE L. MINIMUM PULLOUT CAPACITY OF 4.8 KIPS. EMBED 10½" IN CONCRETE MINIMUM.
- ◭ A602, B602 MASONRY ANCHORS TYPE L. MINIMUM PULLOUT CAPACITY OF 7.5 KIPS. EMBED 1'-2" IN CONCRETE MINIMUM.
- ◭ A522, B522 MASONRY ANCHORS TYPE L. MINIMUM PULLOUT CAPACITY OF 4.8 KIPS. EMBED 5" IN CONCRETE MINIMUM.

NOTES

1. SEE SHEET 5 FOR RODENT SCREEN DETAILS.
2. ASSUMED EXISTING CONCRETE STRENGTH = 2,500 PSI

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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NORTH ABUTMENT

SHEET 6 OF 22

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STATE PROJECT NUMBER
1130-33-71

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE.

SOUTH ABUTMENT - BILL OF BARS COATED TOTAL WEIGHT = 2960 LBS

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
A501	X	17	4'-0"			WINGS - CONCRETE MASONRY ANCHORS TYPE L
A602	X	5	4'-9"			WINGS - CONCRETE MASONRY ANCHORS TYPE L
A503	X	18	16'-3"		X	WING 1 - VERTICAL F.F. & B.F.
A504	X	1	17'-7"		X	WING 1 - VERTICAL F.F. & B.F.
A505	X	8	6'-7"			WING 1 - HORIZONTAL UPPER F.F & B.F.
A506	X	22	8'-7"	◓		WING 2 - VERTICAL F.F. & B.F
A507	X	6	10'-5"		X	WING 2 - VERTICAL F.F. & B.F
A508	X	8	7'-10"	◓		WING 2 - HORIZONTAL UPPER F.F & B.F.
A509	X	6	8'-3"			WING 1 - HORIZONTAL F.F.
A510	X	7	8'-3"			WING 1 - HORIZONTAL B.F.
A611	X	6	31'-0"			WING 1 & BODY - HORIZONTAL F.F. & B.F.
A612	X	4	31'-0"			WING 1 & BODY TOP - HORIZONTAL
A513	X	6	11'-5"			WING 2 - HORIZONTAL F.F.
A614	X	6	11'-5"			WING 2 - HORIZONTAL B.F.
A615	X	3	31'-1"		X	WING 2 & BODY - HORIZONTAL F.F.
A616	X	3	31'-0"			WING 2 & BODY - HORIZONTAL B.F.
A517	X	5	6'-7"			WING 1 - TOP
A518	X	5	10'-5"		X	WING 2 - TOP
A519	X	22	5'-7"	◓	X	WING 2 - VERTICAL TOP & BOTTOM
A621	X	4	31'-0"			WING 2 & BODY TOP - HORIZONTAL
A522	X	98	5'-6"		X	BODY - CONCRETE MASONRY ANCHORS TYPE L
A423	X	10	6'-2"			BODY - HORIZONTAL BETWEEN GIRDERS
A424	X	30	5'-5"		X	BODY - VERTICAL TOP

◓ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE.

NORTH ABUTMENT - BILL OF BARS COATED TOTAL WEIGHT = 2960 LBS

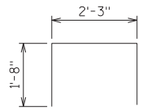
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
B501	X	17	4'-0"			WINGS - CONCRETE MASONRY ANCHORS TYPE L
B602	X	5	4'-9"			WINGS - CONCRETE MASONRY ANCHORS TYPE L
B503	X	18	16'-3"		X	WING 4 - VERTICAL F.F. & B.F.
B504	X	1	17'-7"		X	WING 4 - VERTICAL F.F. & B.F.
B505	X	8	6'-7"			WING 4 - HORIZONTAL UPPER F.F & B.F.
B506	X	22	8'-7"	◓		WING 3 - VERTICAL F.F. & B.F
B507	X	6	10'-5"		X	WING 3 - VERTICAL F.F. & B.F
B508	X	8	7'-10"	◓		WING 3 - HORIZONTAL UPPER F.F & B.F.
B509	X	6	8'-3"			WING 4 - HORIZONTAL F.F.
B510	X	7	8'-3"			WING 4 - HORIZONTAL B.F.
B611	X	6	31'-0"			WING 4 & BODY - HORIZONTAL F.F. & B.F.
B612	X	4	31'-0"			WING 4 & BODY TOP - HORIZONTAL
B513	X	6	11'-5"			WING 3 - HORIZONTAL F.F.
B614	X	6	11'-5"			WING 3 - HORIZONTAL B.F.
B615	X	3	31'-1"		X	WING 3 & BODY - HORIZONTAL F.F.
B616	X	3	31'-0"			WING 3 & BODY - HORIZONTAL B.F.
B517	X	5	6'-7"			WING 4 - TOP
B518	X	5	10'-5"		X	WING 3 - TOP
B519	X	22	5'-7"	◓	X	WING 3 - VERTICAL TOP & BOTTOM
B621	X	4	31'-0"			WING 3 & BODY TOP - HORIZONTAL
B522	X	98	5'-6"		X	BODY - CONCRETE MASONRY ANCHORS TYPE L
B423	X	10	6'-2"			BODY - HORIZONTAL BETWEEN GIRDERS
B424	X	30	5'-5"		X	BODY - VERTICAL TOP

◓ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

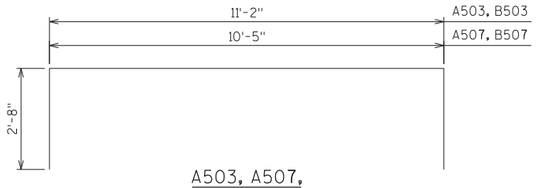
BAR SERIES TABLE

MARK	NO REQ'D	LENGTH
A506	2 SERIES OF 11	6'-10" TO 10'-4"
A508	2 SERIES OF 4	4'-1" TO 11'-7"
A519	2 SERIES OF 11	4'-10" TO 6'-4"

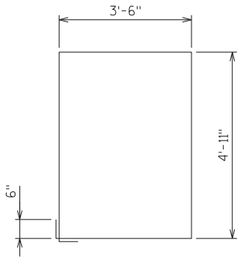
BUNDLE AND TAG EACH SERIES SEPARATELY.



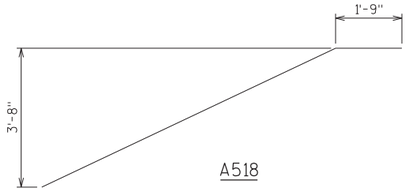
A424, B424



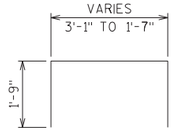
A503, A507,
B503, B507



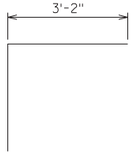
A504, B504



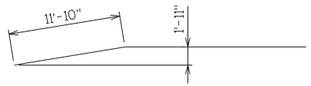
A518



A519, B519



A522, B522



A615

BAR SERIES TABLE

MARK	NO REQ'D	LENGTH
B506	2 SERIES OF 11	6'-10" TO 10'-4"
B508	2 SERIES OF 4	4'-1" TO 11'-7"
B519	2 SERIES OF 11	4'-10" TO 6'-4"

BUNDLE AND TAG EACH SERIES SEPARATELY.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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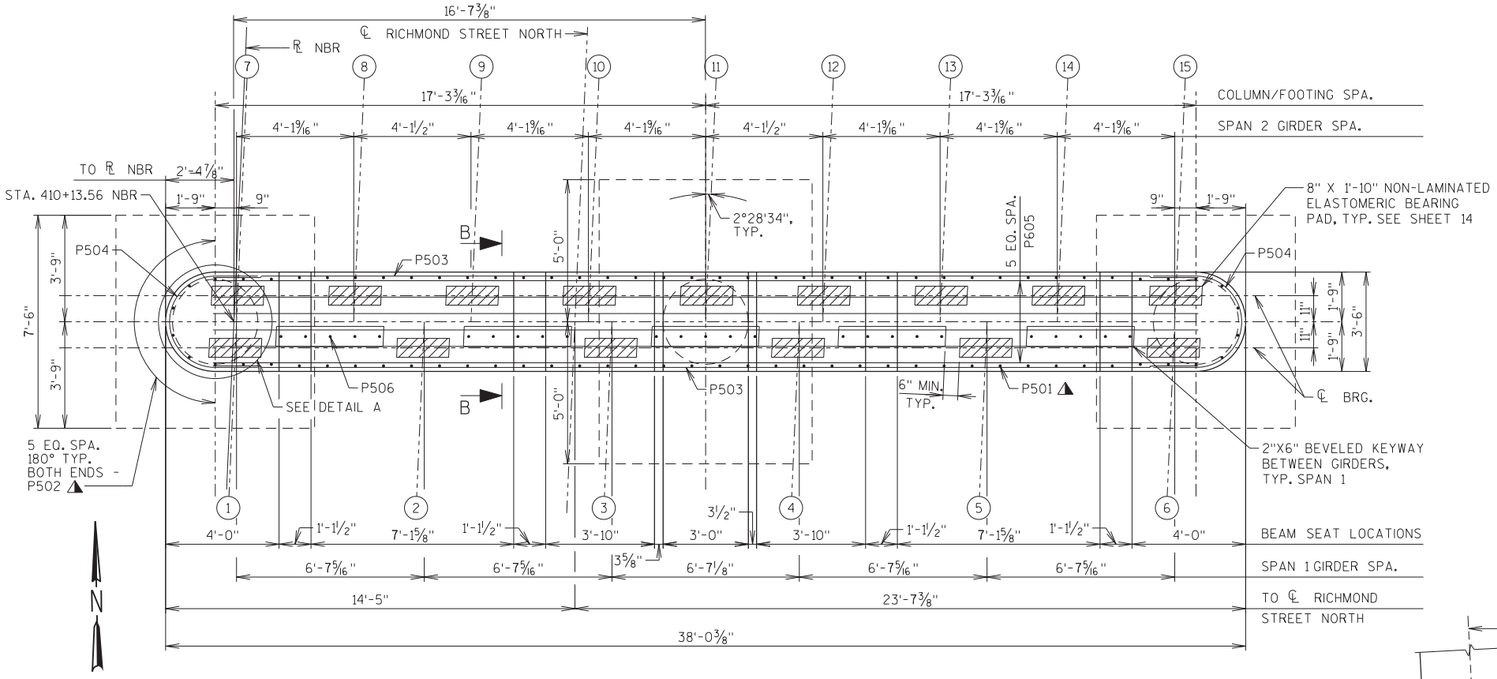
ABUTMENT
BILL OF BARS

SHEET 7 OF 22

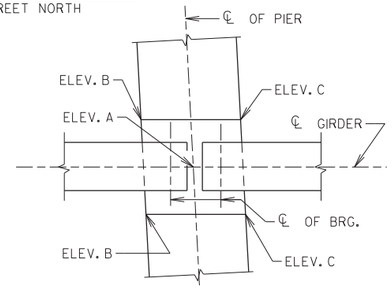
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STATE PROJECT NUMBER

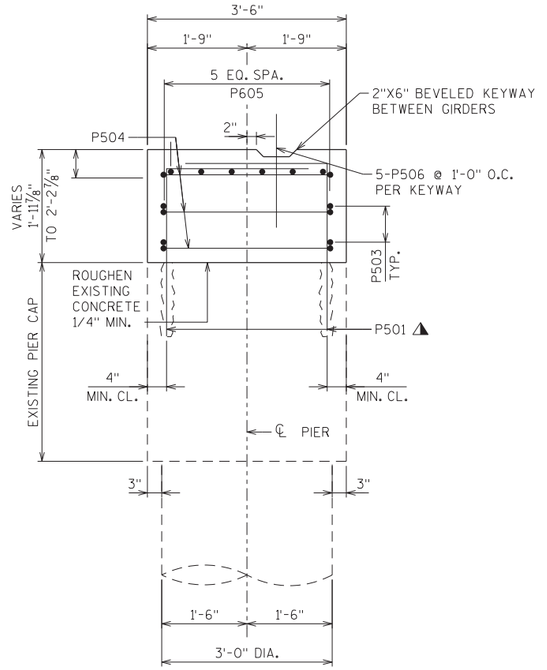
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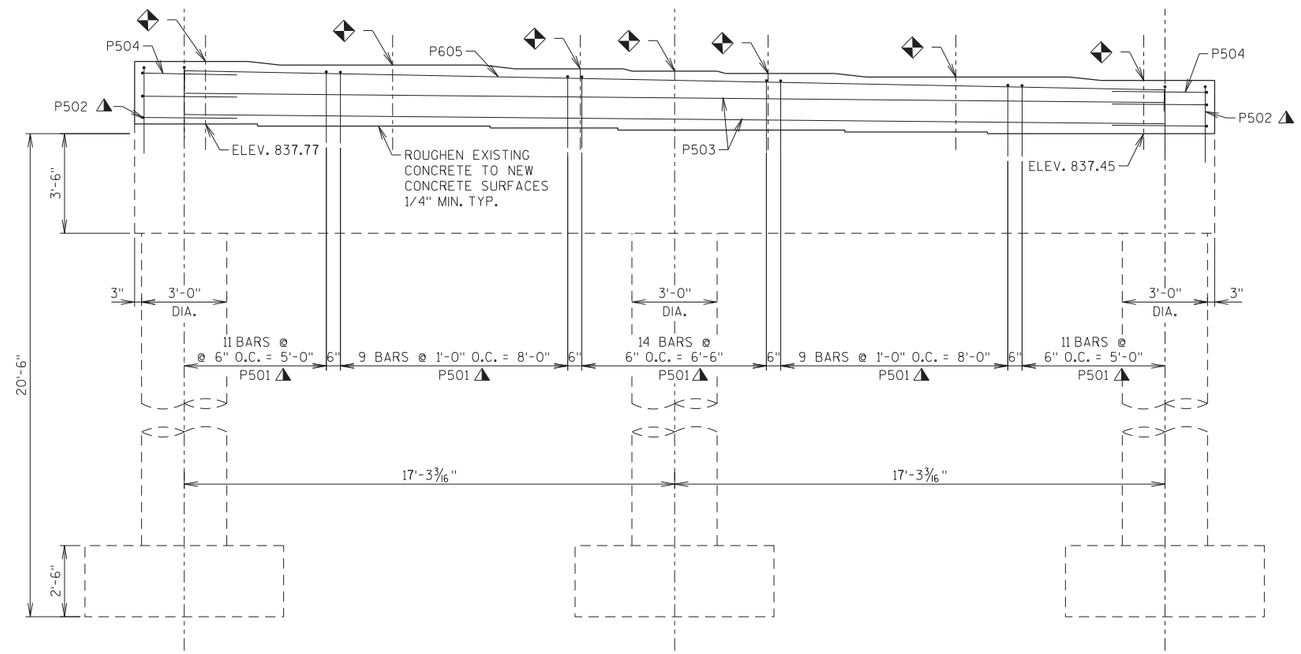
PLAN PIER 1



◈ SLOPING BEAM SEAT DETAIL



SECTION B-B THRU PIER CAP



ELEVATION PIER 1

(LOOKING NORTH)

◈ SLOPING BEAM SEAT ELEVATION SCHEDULE

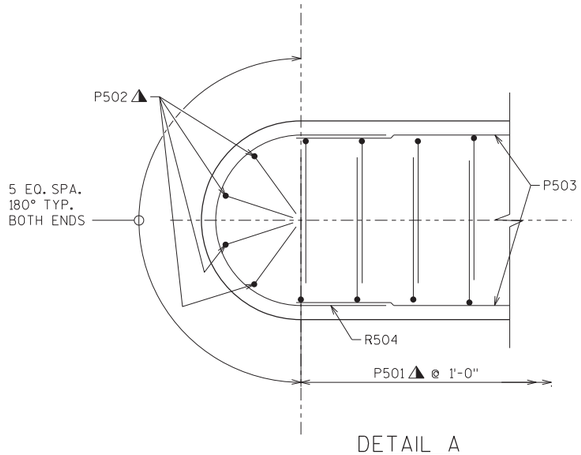
GIRDER	A	B	C
1, 7	840.09	840.08	840.10
2, 8, 9	839.97	839.96	839.98
3, 10	839.84	839.83	839.85
11	839.77	839.76	839.78
4, 12	839.70	839.69	839.71
5, 13, 14	839.57	839.56	839.58
6, 15	839.44	839.43	839.45

LEGEND

⚠ P501 MASONRY ANCHORS TYPE L #5 BARS. MIN.
P502 PULLOUT CAPACITY = 12.0 KIPS. EMBED 1'-0" MINIMUM IN CONCRETE.

NOTE

1. EXISTING PIER COLUMNS ARE TO BE WATER BLAST CLEANED AND SEALED WITH PROTECTIVE SURFACE TREATMENT TO PROTECT FROM FUTURE EXPOSURE.
2. PLACE P506 BARS BEFORE CONCRETE HAS TAKEN INITIAL SET.



DETAIL A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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PIER 1

SHEET 8 OF 22

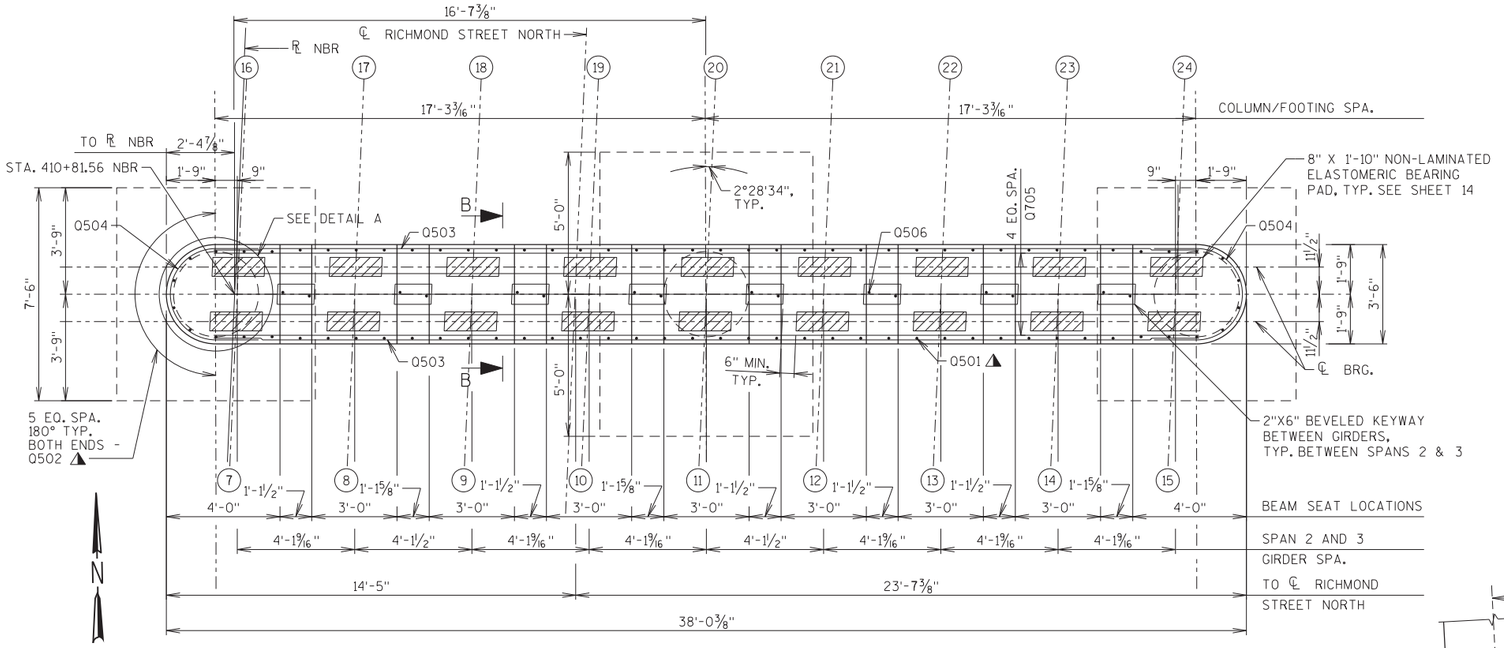
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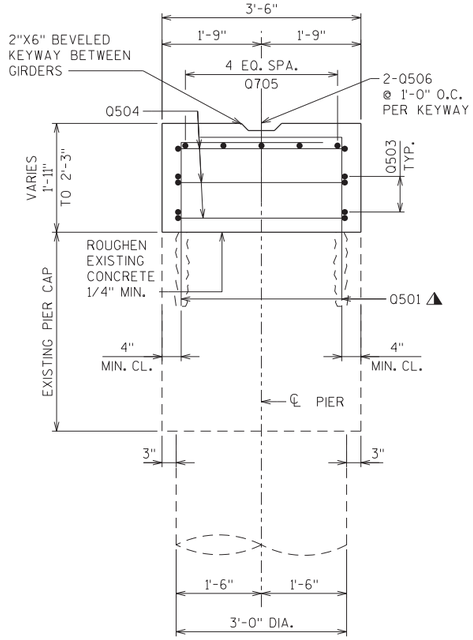
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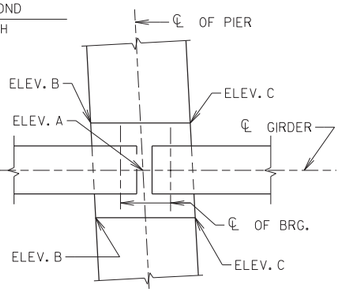
STATE PROJECT NUMBER
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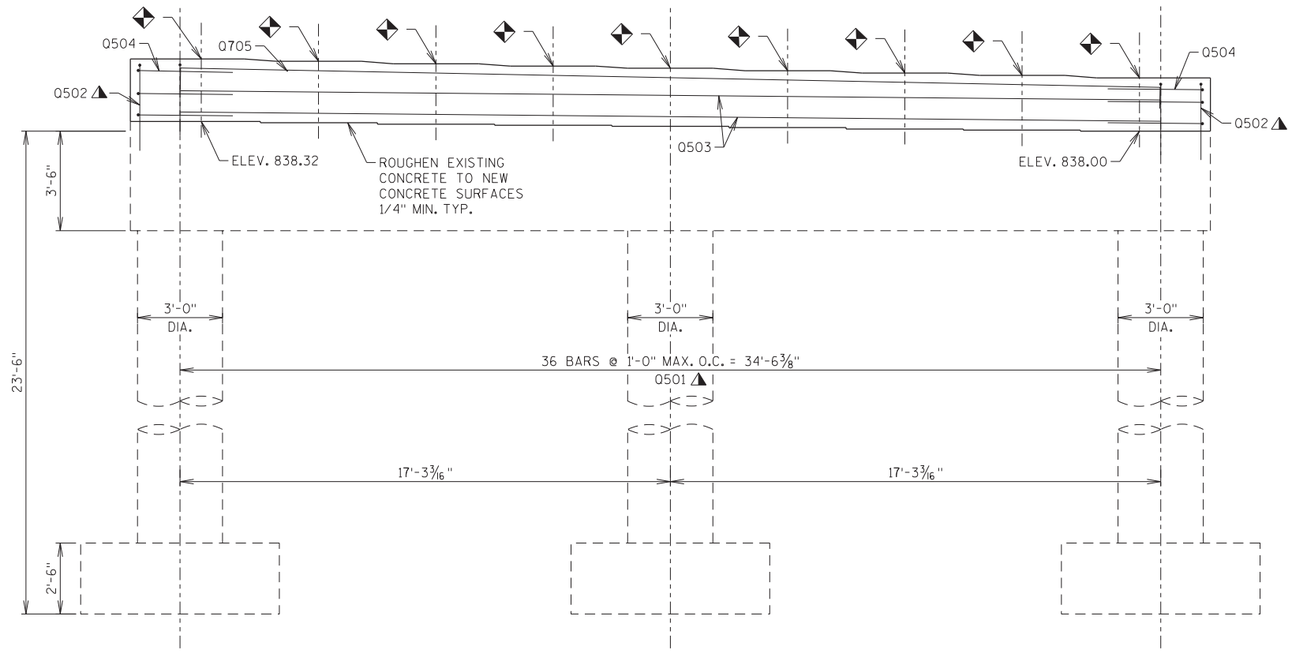
PLAN PIER 2



SECTION B-B THRU PIER CAP

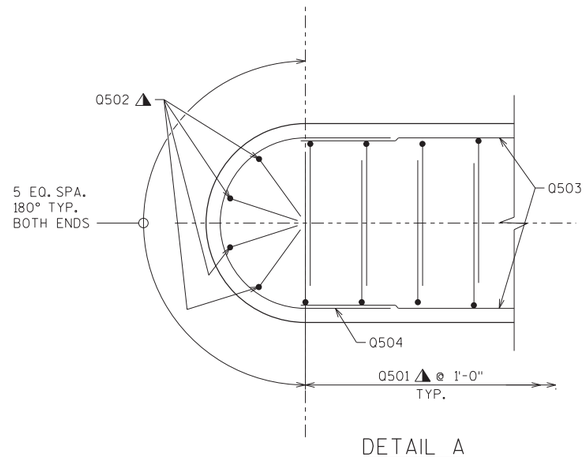


◆ SLOPING BEAM SEAT DETAIL



ELEVATION PIER 2
(LOOKING NORTH)

SLOPING BEAM SEAT ELEVATION SCHEDULE			
GIRDER	A	B	C
7, 16	840.57	840.56	840.58
8, 17	840.49	840.48	840.50
9, 18	840.41	840.40	840.42
10, 19	840.32	840.31	840.33
11, 20	840.24	840.23	840.25
12, 21	840.16	840.15	840.17
13, 22	840.08	840.07	840.09
14, 23	840.00	839.99	840.01
15, 24	839.92	839.91	839.93



DETAIL A

LEGEND

⚠ Q501 MASONRY ANCHORS TYPE L #5 BARS. MIN.
Q502 PULLOUT CAPACITY = 23.9 KIPS. EMBED 1'-0" MINIMUM IN CONCRETE.

NOTE

1. EXISTING PIER COLUMNS ARE TO BE WATER BLAST CLEANED AND SEALED WITH PROTECTIVE SURFACE TREATMENT TO PROTECT FROM FUTURE EXPOSURE.
2. PLACE Q506 BARS BEFORE CONCRETE HAS TAKEN INITIAL SET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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PIER 2

SHEET 9 OF 22
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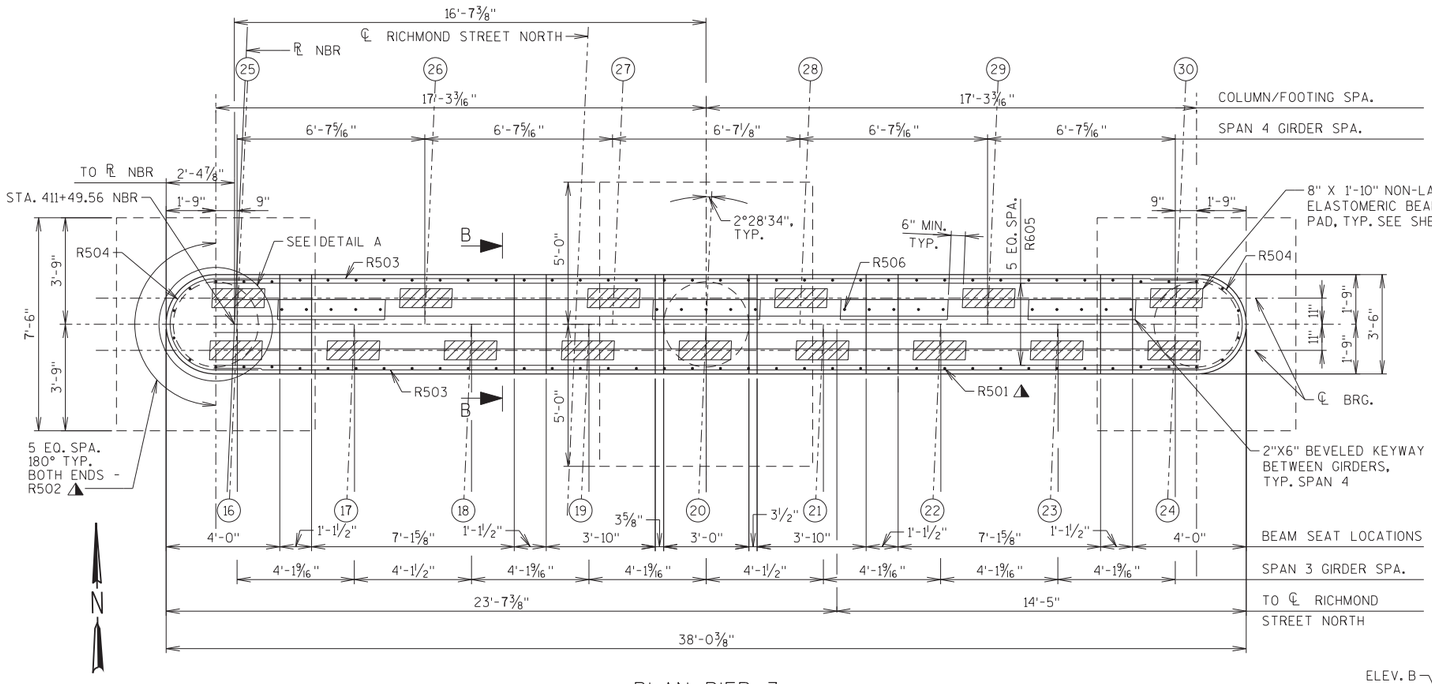
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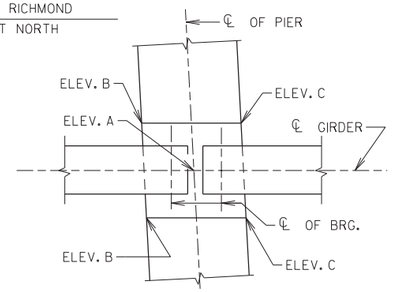
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STATE PROJECT NUMBER

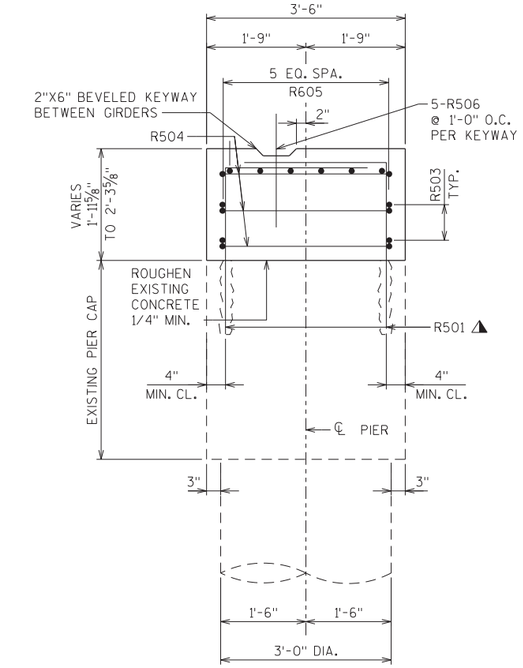
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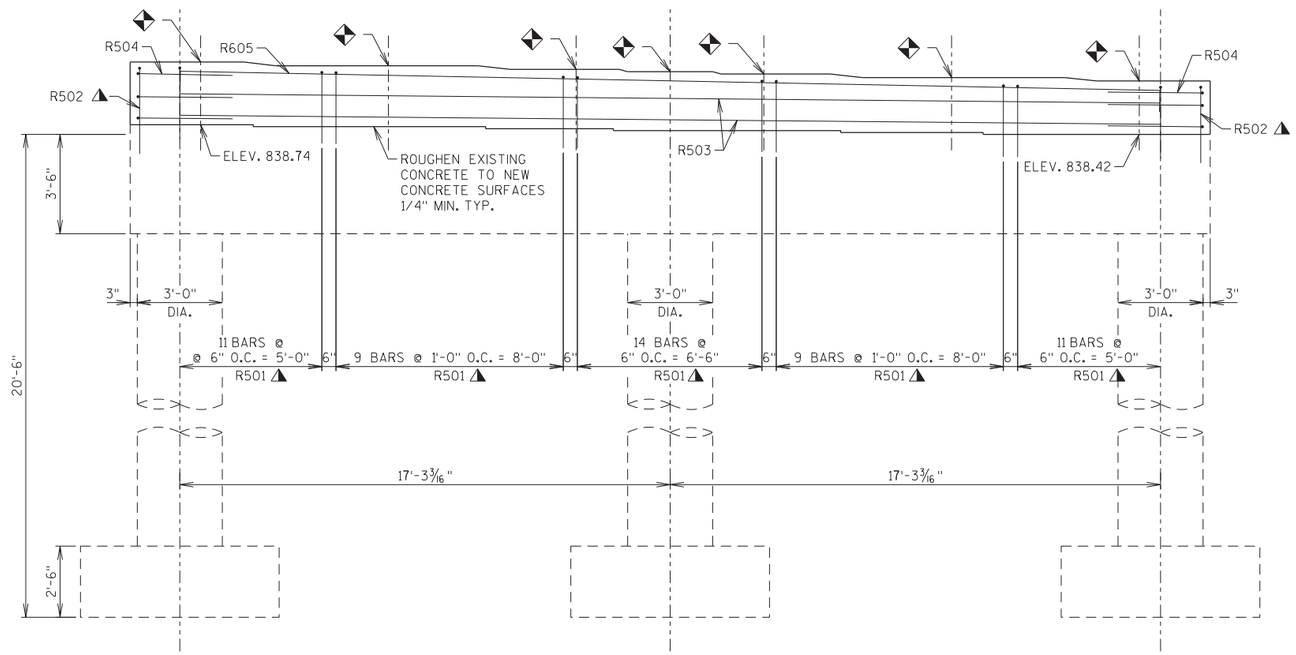
PLAN PIER 3



SLOPING BEAM SEAT DETAIL



SECTION B-B THRU PIER CAP



ELEVATION PIER 3

(LOOKING NORTH)

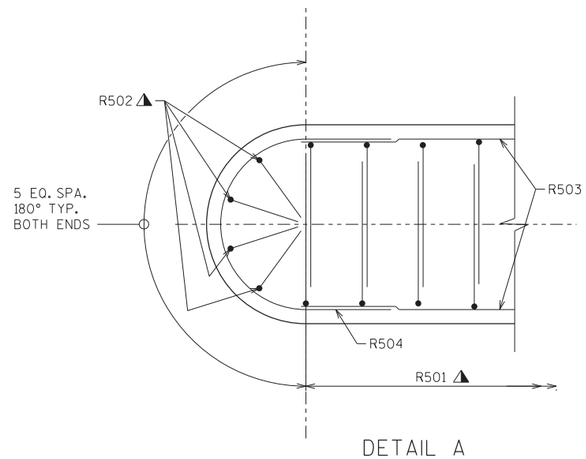
SLOPING BEAM SEAT ELEVATION SCHEDULE			
GIRDER	A	B	C
16, 25	841.04	841.03	841.05
17, 18, 26	840.92	840.91	840.93
19, 27	840.79	840.78	840.80
20	840.72	840.71	840.73
21, 28	840.64	840.63	840.65
22, 23, 29	840.52	840.51	840.53
24, 30	840.39	840.38	840.40

LEGEND

▲ R501 MASONRY ANCHORS TYPE L #5 BARS. MIN.
R502 PULLOUT CAPACITY = 12.0 KIPS. EMBED 1'-0" MINIMUM IN CONCRETE.

NOTE

1. EXISTING PIER COLUMNS ARE TO BE WATER BLAST CLEANED AND SEALED WITH PROTECTIVE SURFACE TREATMENT TO PROTECT FROM FUTURE EXPOSURE.
2. PLACE R506 BARS BEFORE CONCRETE HAS TAKEN INITIAL SET.



DETAIL A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

DRAWN BY AMZ | PLANS CK'D. JSR

PIER 3

SHEET 10 OF 22

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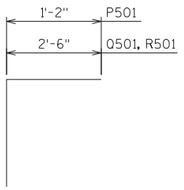
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NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE.

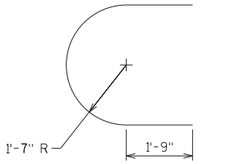
PIER 1 - BILL OF BARS						COATED TOTAL WEIGHT = 1220 LBS
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
P501	X	108	5'-5"		X	CAP - CONCRETE MASONRY ANCHORS TYPE L
P502	X	8	3'-11"		X	CAP - CONCRETE MASONRY ANCHORS TYPE L
P503	X	4	34'-6"			CAP - HORIZ. - SIDES
P504	X	6	8'-6"		X	CAP - HORIZ. - ENDS
P605	X	6	36'-2"		X	CAP - HORIZ. - TOP
P506	X	25	2'-0"			CAP - VERTICAL - DOWELS



P501, Q501, R501



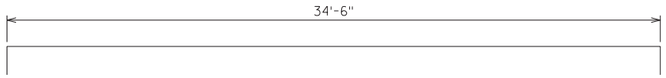
P502, Q502, R502



P504, Q504, R504

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE.

PIER 2 - BILL OF BARS						COATED TOTAL WEIGHT = 1040 LBS
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
Q501	X	72	5'-4"		X	CAP - CONCRETE MASONRY ANCHORS TYPE L
Q502	X	8	3'-10"		X	CAP - CONCRETE MASONRY ANCHORS TYPE L
Q503	X	4	34'-6"			CAP - HORIZ. - SIDES
Q504	X	6	8'-6"		X	CAP - HORIZ. - ENDS
Q705	X	5	36'-6"		X	CAP - HORIZ. - TOP
Q506	X	16	2'-0"			CAP - VERTICAL - DOWELS



P605, Q705, R605

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE.

PIER 3 - BILL OF BARS						COATED TOTAL WEIGHT = 1220 LBS
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
R501	X	108	5'-5"		X	CAP - CONCRETE MASONRY ANCHORS TYPE L
R502	X	8	3'-11"		X	CAP - CONCRETE MASONRY ANCHORS TYPE L
R503	X	4	34'-6"			CAP - HORIZ. - SIDES
R504	X	6	8'-6"		X	CAP - HORIZ. - ENDS
R605	X	6	36'-2"		X	CAP - HORIZ. - TOP
R506	X	25	2'-0"			CAP - VERTICAL - DOWELS

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NO.	DATE	REVISION	BY

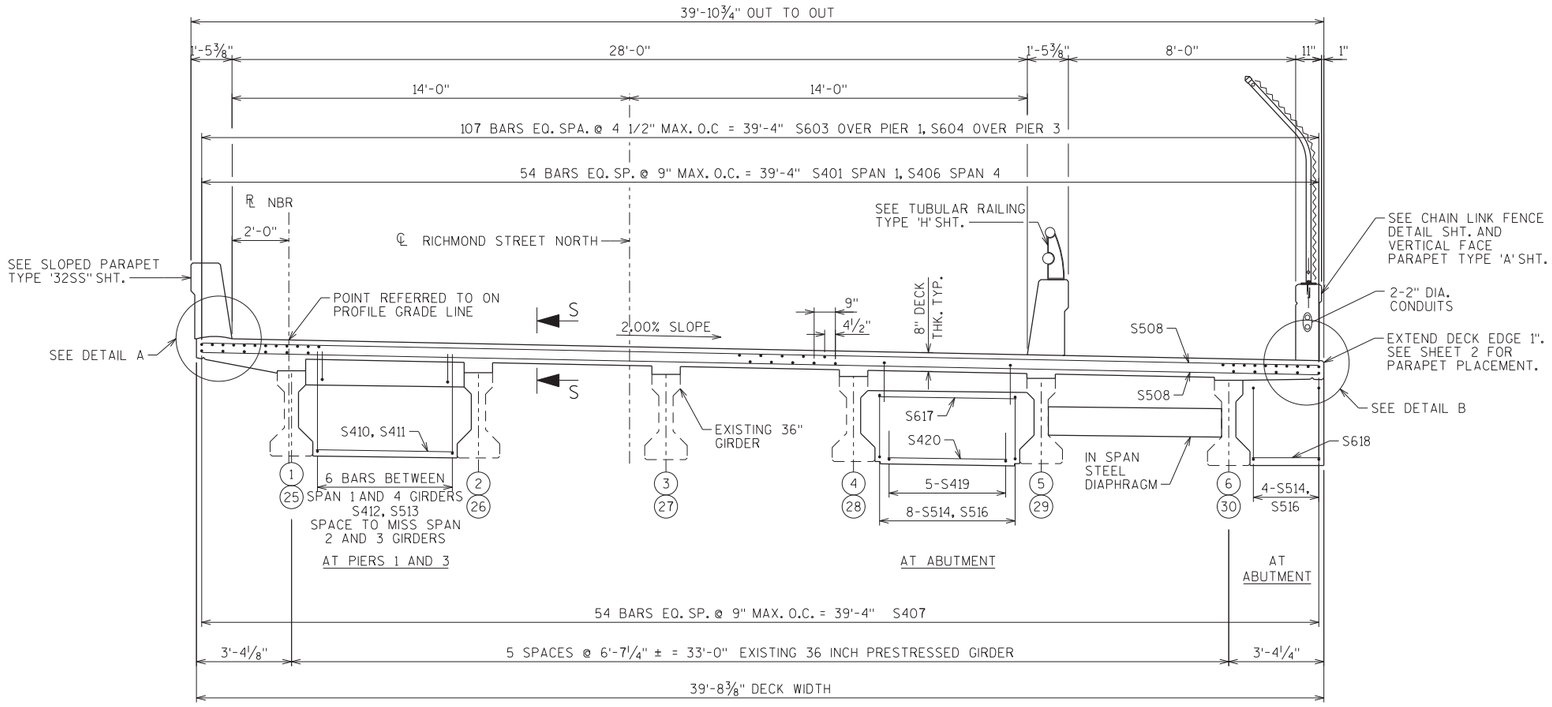
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

DRAWN BY AMZ | PLANS CK'D. JSR

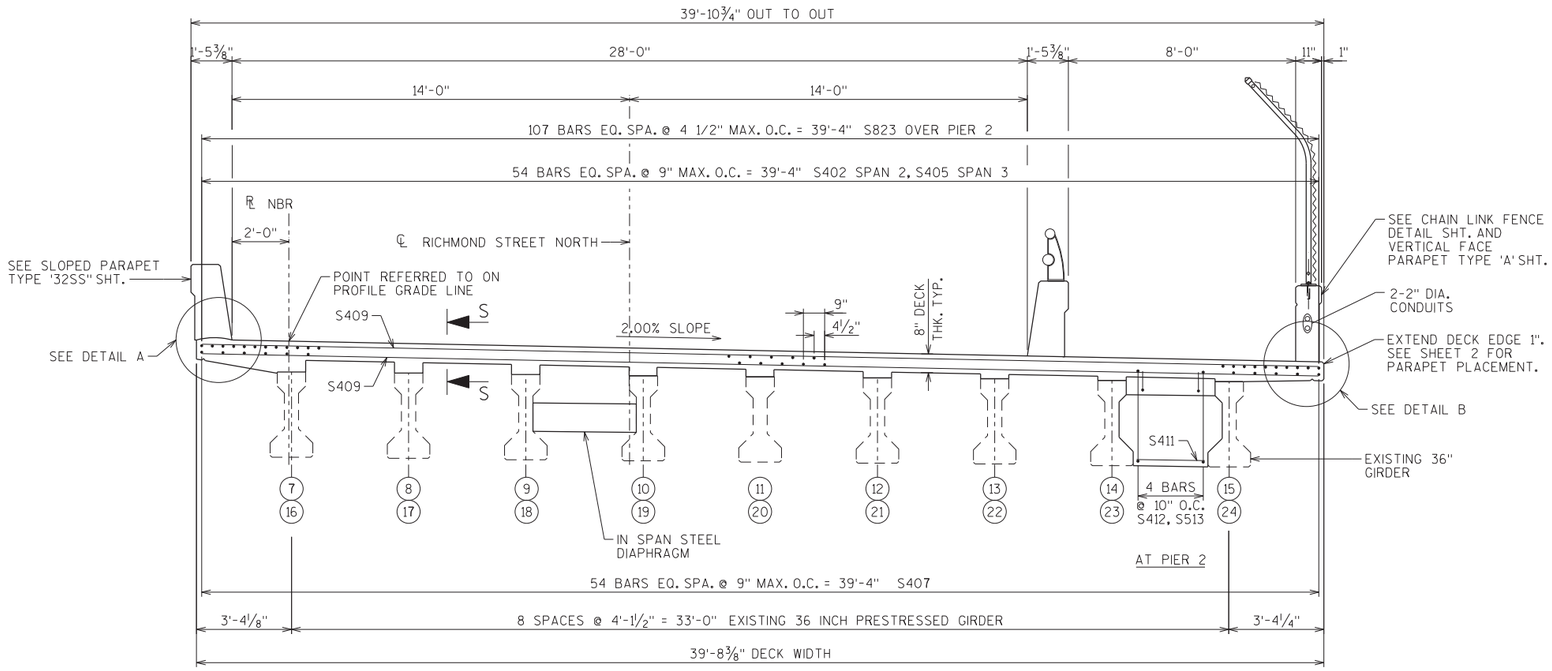
PIER
BILL OF BARS

STATE PROJECT NUMBER
1130-33-71



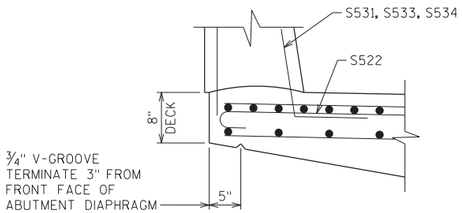
CROSS SECTION THRU ROADWAY - SPANS 1 & 4

(LOOKING NORTH)

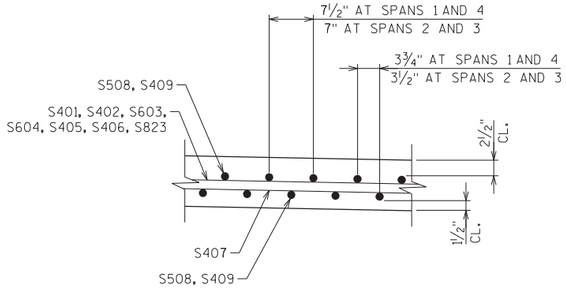


CROSS SECTION THRU ROADWAY - SPANS 2 & 3

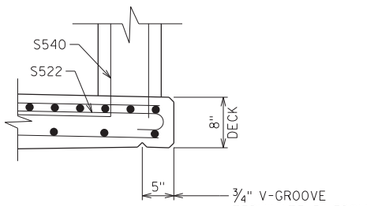
(LOOKING NORTH)



DETAIL A



SECTION S-S



DETAIL B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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SUPERSTRUCTURE CROSS SECTIONS

SHEET 12 OF 22

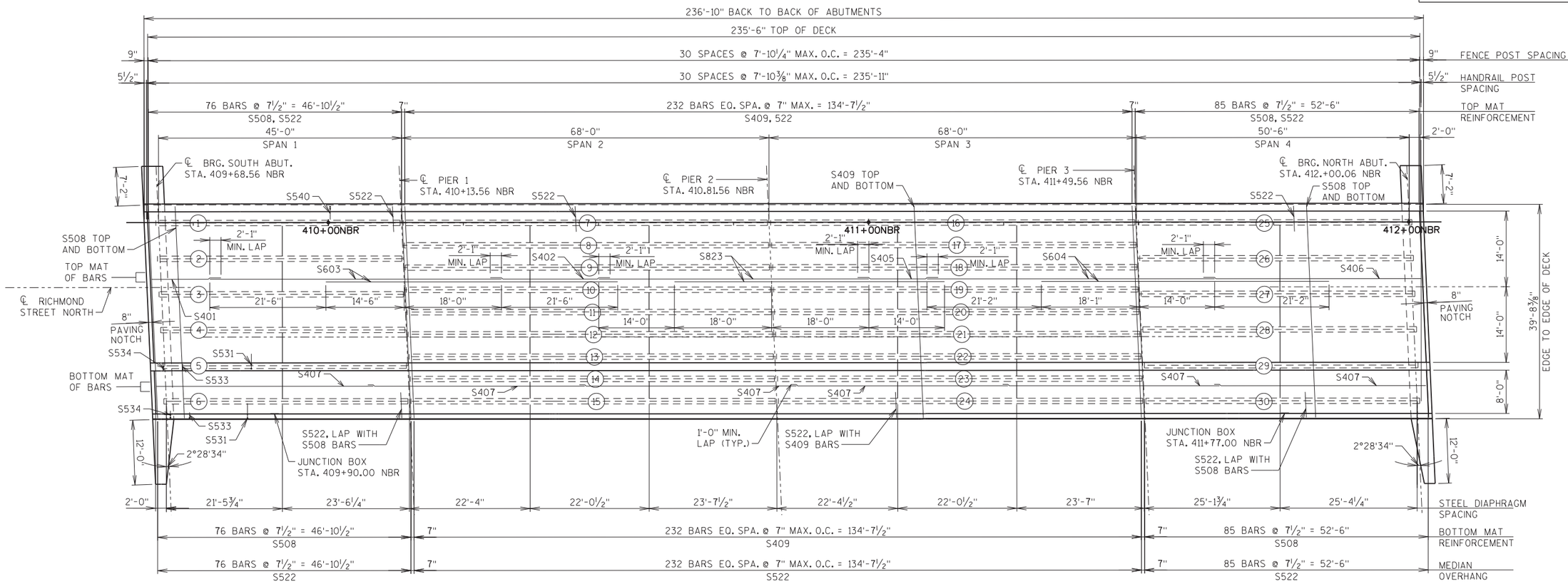
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STATE PROJECT NUMBER
1130-33-71



PLAN

TOP OF DECK ELEVATIONS - SPAN 1

	S. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER 1
MEDIAN EOD	843.78	843.81	843.84	843.87	843.90	843.94	843.97	844.00	844.03	844.06	844.09
GIR. 1/PGL	843.74	843.77	843.80	843.83	843.86	843.89	843.93	843.96	843.99	844.02	844.05
GIR. 2	843.61	843.64	843.67	843.70	843.73	843.76	843.80	843.83	843.86	843.89	843.92
GIR. 3	843.48	843.51	843.54	843.57	843.60	843.63	843.67	843.70	843.73	843.76	843.79
GIR. 4	843.35	843.38	843.41	843.44	843.47	843.50	843.54	843.57	843.60	843.63	843.66
GIR. 5	843.22	843.25	843.28	843.31	843.34	843.37	843.41	843.44	843.47	843.50	843.53
GIR. 6	843.09	843.12	843.15	843.18	843.21	843.24	843.28	843.31	843.34	843.37	843.40
OUTSIDE EOD	843.04	843.07	843.10	843.14	843.17	843.20	843.23	843.26	843.29	843.32	843.36

TOP OF DECK ELEVATIONS - SPAN 4

	PIER 3	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	N. ABUT.
MEDIAN EOD	845.04	845.08	845.11	845.15	845.18	845.22	845.25	845.29	845.32	845.36	845.40
GIR. 25/PGL	845.00	845.04	845.07	845.11	845.14	845.18	845.21	845.25	845.28	845.32	845.35
GIR. 26	844.87	844.91	844.94	844.98	845.01	845.05	845.08	845.12	845.15	845.19	845.22
GIR. 27	844.74	844.78	844.81	844.85	844.88	844.92	844.95	844.99	845.02	845.06	845.09
GIR. 28	844.61	844.65	844.68	844.72	844.75	844.79	844.82	844.86	844.89	844.93	844.96
GIR. 29	844.48	844.52	844.55	844.59	844.62	844.66	844.69	844.73	844.76	844.80	844.83
GIR. 30	844.35	844.39	844.42	844.46	844.49	844.53	844.56	844.60	844.63	844.67	844.70
OUTSIDE EOD	844.30	844.34	844.38	844.41	844.45	844.48	844.52	844.55	844.59	844.62	844.66

TOP OF DECK ELEVATIONS - SPANS 2 AND 3

	PIER 1	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER 2	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER 3
MEDIAN EOD	844.09	844.14	844.19	844.24	844.28	844.33	844.38	844.43	844.47	844.52	844.57	844.62	844.66	844.71	844.76	844.81	844.85	844.90	844.95	845.00	845.04
GIR. 7 OR 16/PGL	844.05	844.10	844.15	844.19	844.24	844.29	844.34	844.38	844.43	844.48	844.53	844.57	844.62	844.67	844.72	844.76	844.81	844.86	844.91	844.95	845.00
GIR. 8 OR 17	843.97	844.02	844.07	844.11	844.16	844.21	844.26	844.30	844.35	844.40	844.45	844.49	844.54	844.59	844.64	844.68	844.73	844.78	844.83	844.87	844.92
GIR. 9 OR 18	843.89	843.94	843.98	844.03	844.08	844.13	844.17	844.22	844.27	844.32	844.36	844.41	844.46	844.51	844.55	844.60	844.65	844.70	844.74	844.79	844.84
GIR. 10 OR 19	843.81	843.86	843.90	843.95	844.00	844.05	844.09	844.14	844.19	844.24	844.28	844.33	844.38	844.43	844.47	844.52	844.57	844.62	844.66	844.71	844.76
GIR. 11 OR 20	843.73	843.77	843.82	843.87	843.92	843.96	844.01	844.06	844.11	844.15	844.20	844.25	844.30	844.34	844.39	844.44	844.49	844.53	844.58	844.63	844.68
GIR. 12 OR 21	843.65	843.69	843.74	843.79	843.84	843.88	843.93	843.98	844.03	844.07	844.12	844.17	844.22	844.26	844.31	844.36	844.41	844.45	844.50	844.55	844.60
GIR. 13 OR 22	843.56	843.61	843.66	843.71	843.75	843.80	843.85	843.90	843.94	843.99	844.04	844.09	844.13	844.18	844.23	844.28	844.32	844.37	844.42	844.47	844.51
GIR. 14 OR 23	843.48	843.53	843.58	843.63	843.67	843.72	843.77	843.82	843.86	843.91	843.96	844.01	844.05	844.10	844.15	844.20	844.24	844.29	844.34	844.39	844.43
GIR. 15 OR 24	843.40	843.45	843.50	843.54	843.59	843.64	843.69	843.73	843.78	843.83	843.88	843.92	843.97	844.02	844.07	844.11	844.16	844.21	844.26	844.30	844.35
OUTSIDE EOD	843.36	843.40	843.45	843.50	843.55	843.59	843.64	843.69	843.73	843.78	843.83	843.88	843.92	843.97	844.02	844.07	844.11	844.16	844.21	844.26	844.30

NOTES

1. SEE SHEETS 12 AND 14 FOR CONCRETE DIAPHRAGM REINFORCEMENT.
2. SEE STEEL DIAPHRAGM SHEET FOR DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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SHEET 13 OF 22

SUPERSTRUCTURE 400

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STATE PROJECT NUMBER

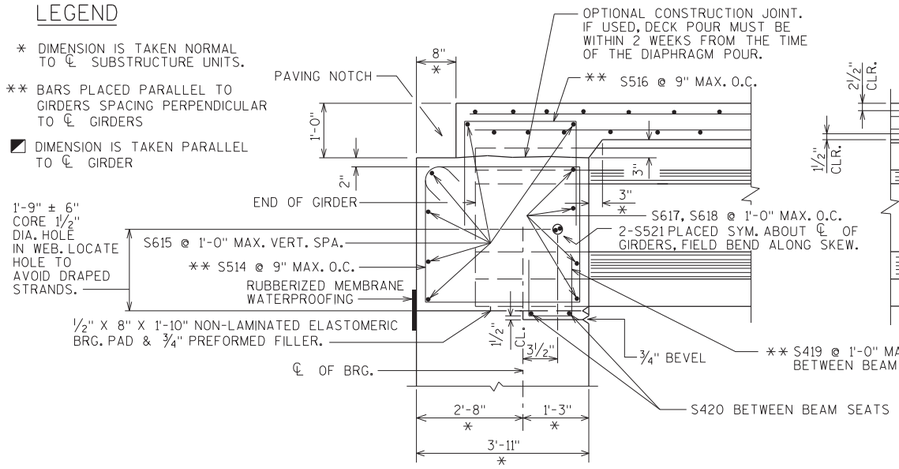
1130-33-71

LEGEND

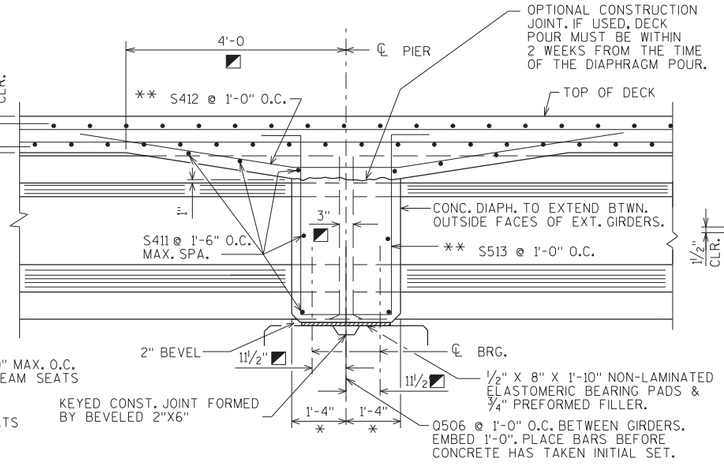
* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS

◪ DIMENSION IS TAKEN PARALLEL TO ℄ GIRDER

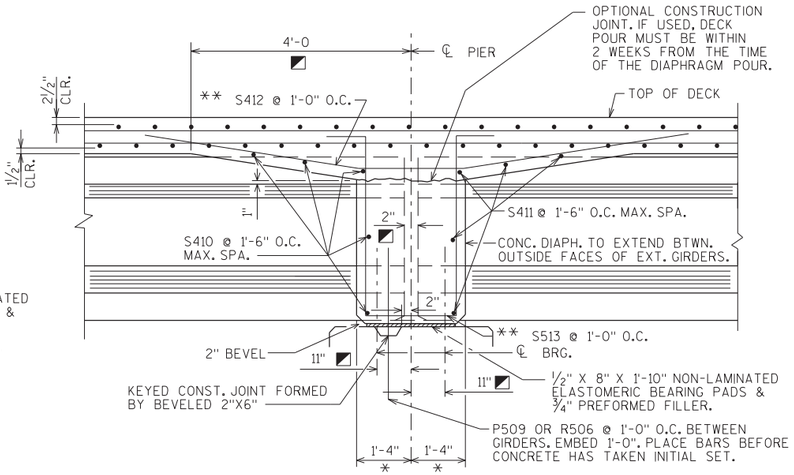


AT ABUTMENTS



AT PIER 2 DIAPHRAGM

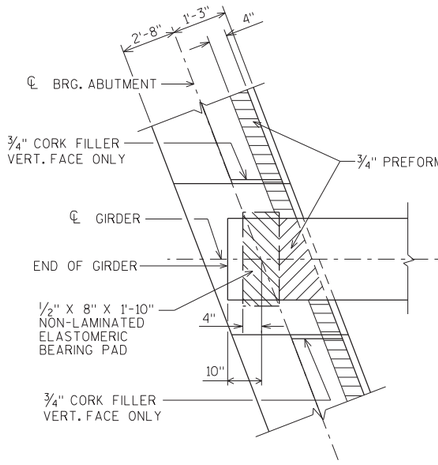
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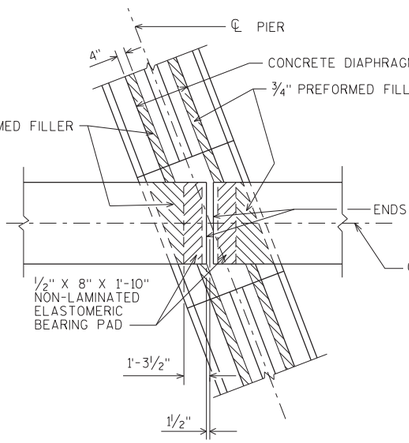
SPANS 1 AND 4 — AT PIERS 1 AND 3 DIAPHRAGM — SPANS 2 AND 3

SUPERSTRUCTURE - BILL OF BARS COATED TOTAL WEIGHT = 90860 LBS

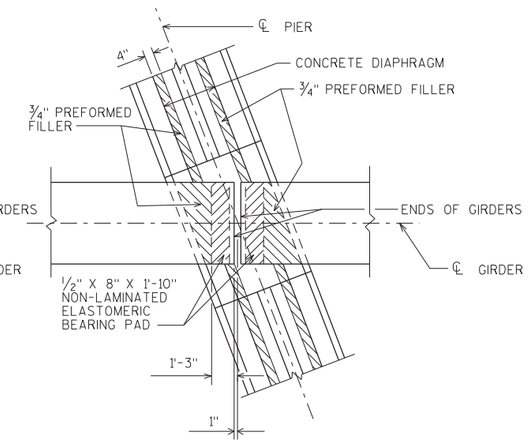
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
S401	X	54	11'-1"			DECK - TOP SPAN 1 - LONGIT.
S402	X	54	22'-3"			DECK - TOP SPAN 4 - LONGIT.
S603	X	107	54'-0"			DECK - TOP SPANS 2 & 3 - LONGIT.
S604	X	107	53'-3"			DECK - TOP OVER PIER 1 - LONGIT.
S405	X	54	15'-1"			DECK - TOP OVER PIER 3 - LONGIT.
S406	X	54	38'-9"			DECK - TOP OVER PIER 2 - LONGIT.
S407	X	324	40'-2"			DECK - BOTTOM LONGIT.
S508	X	322	39'-4"			DECK TRANSVERSE - SPANS 1 & 4 - TOP & BOT.
S409	X	464	39'-4"			DECK TRANSVERSE - SPANS 2 & 3 - TOP & BOT.
S410	X	50	4'-9"			PIER 1 &3 DIAPHRAGM - HORIZ.
S411	X	160	2'-3"			PIER 1, 2 & 3 DIAPHRAGM - HORIZ.
S412	X	62	9'-3"		X	PIER DIAPHRAGM - HORIZ.
S513	X	62	9'-5"		X	PIER DIAPHRAGM - VERT.
S514	X	96	12'-9"		X	ABUTMENT DIAPHRAGM - VERT.
S615	X	12	39'-5"			ABUTMENT DIAPHRAGM B.F. - HORIZ.
S516	X	96	6'-8"		X	ABUTMENT DIAPHRAGM - VERT.
S617	X	40	4'-9"			ABUTMENT DIAPHRAGM F.F - HORIZ.
S618	X	16	3'-0"			ABUTMENT DIAPHRAGM F.F - HORIZ.
S419	X	50	3'-5"		X	ABUTMENT DIAPHRAGM - VERT.
S420	X	20	3'-9"			ABUTMENT DIAPHRAGM - HORIZ.
S521	X	24	6'-0"			ABUTMENT DIAPHRAGM THRU GIRDER
S522	X	786	5'-4"		X	DECK TRANSVERSE OVERHANG REINFORCEMENT
S823	X	107	50'-0"			DECK - TOP OVER PIER 2 - LONGIT.
S531	X	659	4'-5"		X	SINGLE SLOPE PARAPET VERT.
S532	X	659	5'-0"		X	SINGLE SLOPE PARAPET VERT.
S533	X	48	2'-9"		X	SINGLE SLOPE PARAPET VERT.
S534	X	69	4'-4"		X	SINGLE SLOPE PARAPET VERT.
S535	X	45	4'-9"		X	SINGLE SLOPE PARAPET VERT.
S536	X	24	4'-10"		X	SINGLE SLOPE PARAPET VERT.
S537	X	3	48'-10"		X	SINGLE SLOPE PARAPET HORIZ.
S538	X	56	48'-10"			SINGLE SLOPE PARAPET HORIZ.
S539	X	1	49'-7"		X	SINGLE SLOPE PARAPET HORIZ. - AT WING 4
S540	X	246	6'-8"		X	VERTICAL FACE PARAPET VERT.
S441	X	36	40'-9"			VERTICAL FACE PARAPET HORIZ.



AT ABUTMENTS

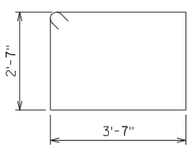


AT PIER 2

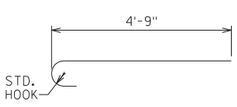


AT PIERS 1 AND 3

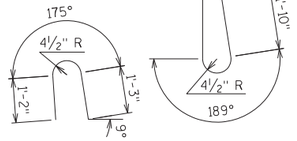
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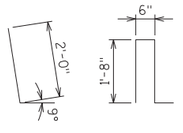
S514



S522

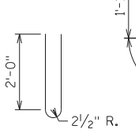


S531 S532

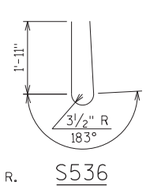


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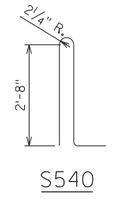
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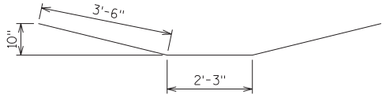
S535



S536



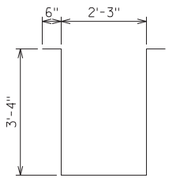
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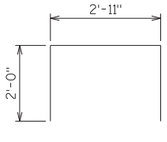
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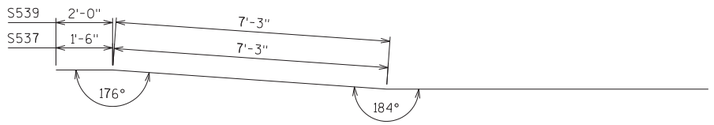
S419



S513



S516



S537, S539

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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SUPERSTRUCTURE DETAILS

SHEET 14 OF 22

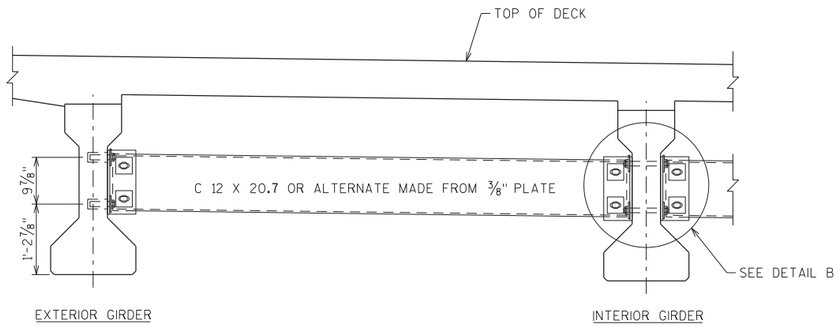
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STATE PROJECT NUMBER
1130-33-71



PART TRANSVERSE SECTION AT DIAPHRAGM

NOTES

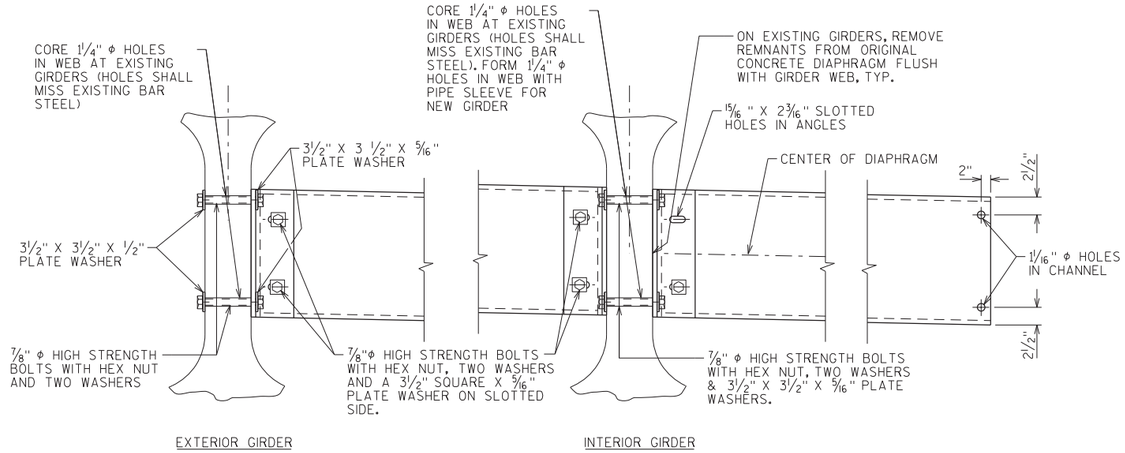
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-44-36", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

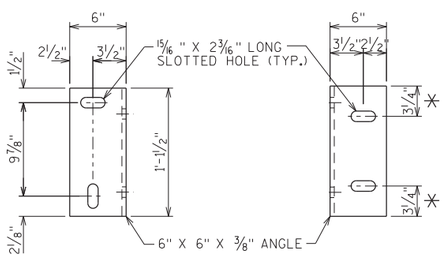
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

SEE SHEET 13 FOR DIAPHRAGM LOCATIONS.

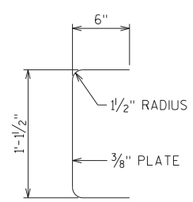


DETAIL B



DIAPHRAGM SUPPORT

✳ 2½" FOR ALTERNATE PLATE DIAPHRAGM



SECTION THRU ALTERNATE DIAPHRAGM

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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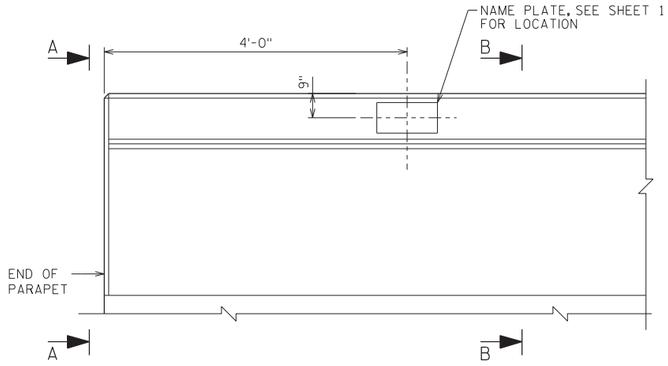
STEEL DIAPHRAGM

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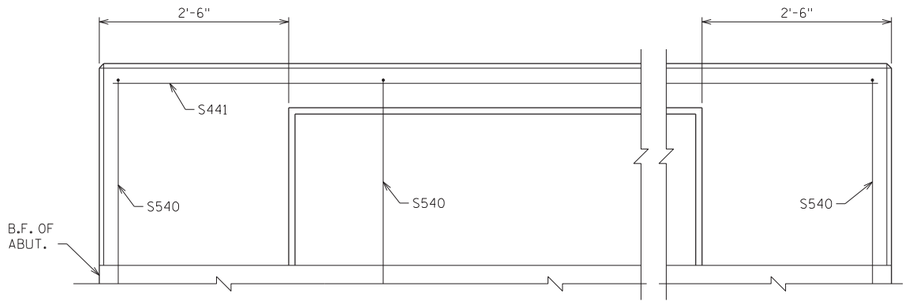
STATE PROJECT NUMBER

1130-33-71

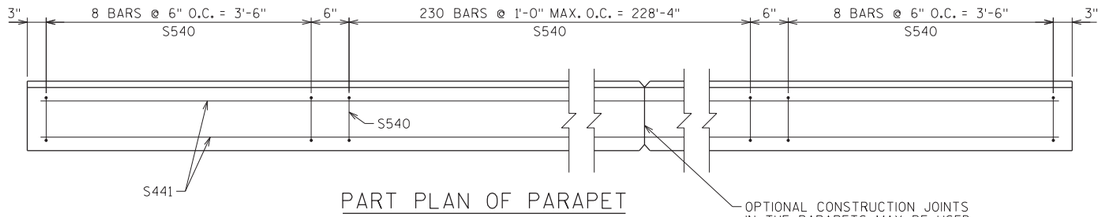


INSIDE ELEVATION OF WEST PARAPET

CHAIN LINK FENCE NOT SHOWN.
SEE SHEET 21 FOR DETAILS.

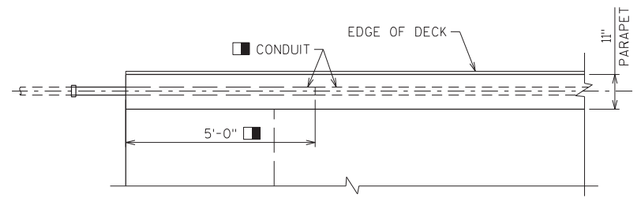


VIEW SHOWING OUTSIDE FACE OF PARAPET AND REINF.



PART PLAN OF PARAPET

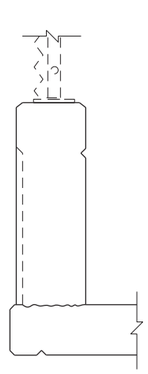
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-5". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



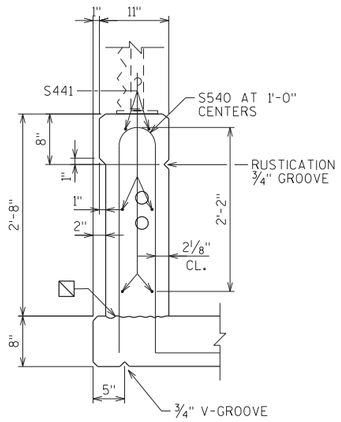
PLAN OF PARAPET AT ABUTMENT

LEGEND

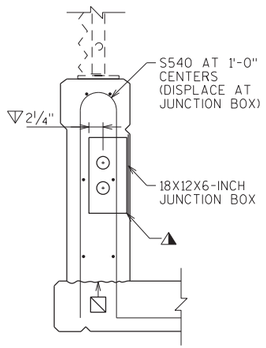
- HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- USE 2" ϕ RIGID NONMETALLIC CONDUIT EXCEPT AT END OF DECK. AT END OF DECK, USE RIGID METALLIC CONDUIT 5'-0" INTO PARAPET ON DECK TO A MINIMUM OF 6" BEYOND BACKFACE OF ABUTMENT (FOR GROUNDING PURPOSES).
- CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.



VIEW A

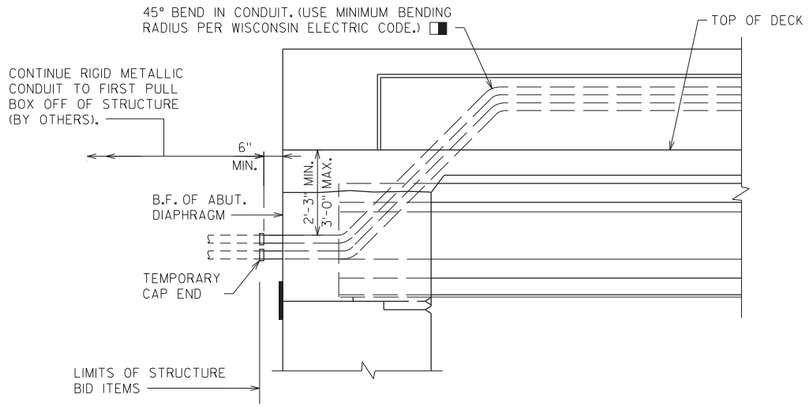


SECTION B



SECTION THRU PARAPET

AT STA. 409+90.00 NBR AND STA. 411+77.00 NBR



OUTSIDE ELEVATION OF PARAPET AT ABUTMENT

NOTES

BID ITEMS SHALL BE:
"JUNCTION BOXES 18X12X6-INCH", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH"

ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED.

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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VERTICAL FACE PARAPET 'A'

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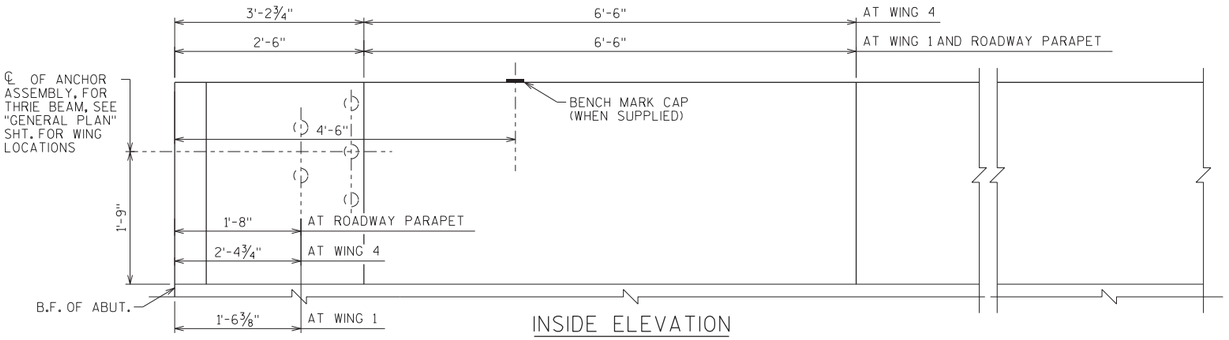
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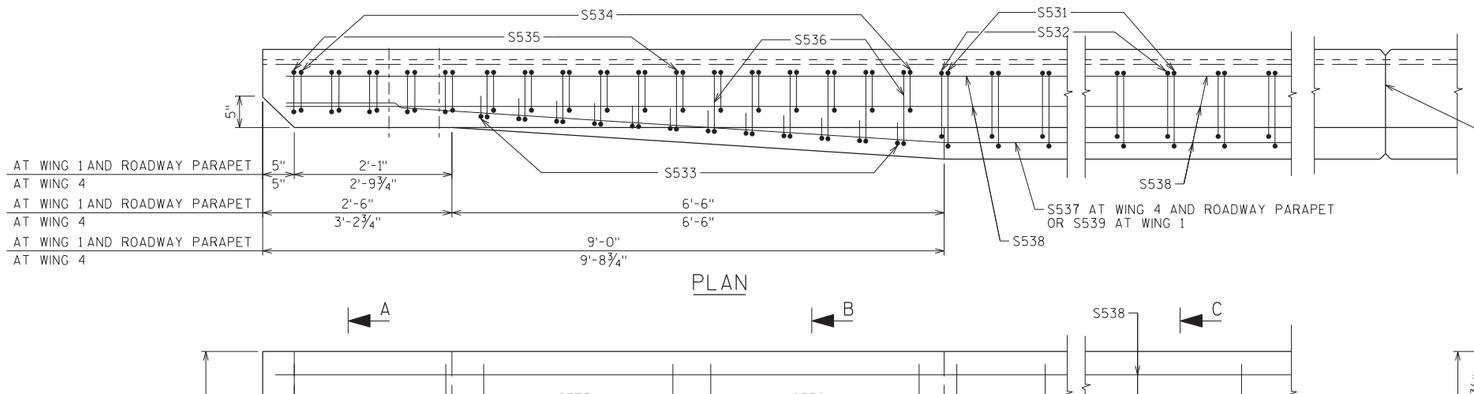
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STATE PROJECT NUMBER

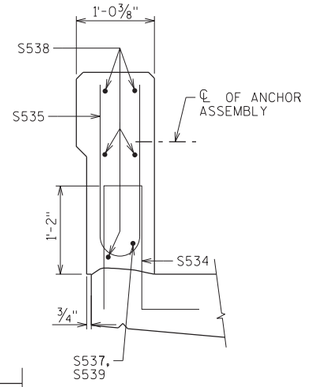
1130-33-71



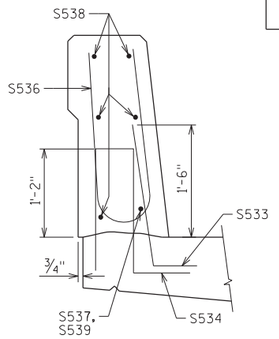
INSIDE ELEVATION



PLAN

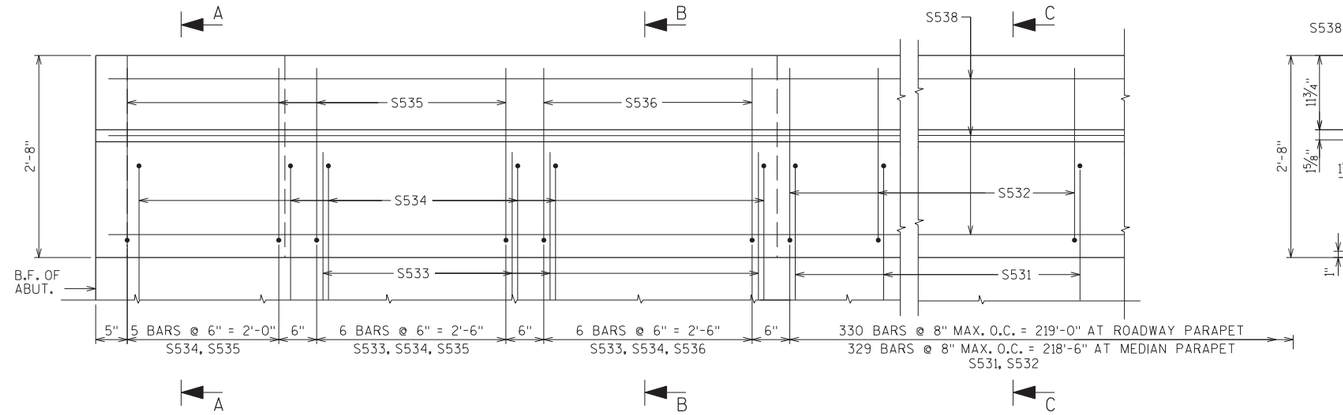


SECTION A



SECTION B

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



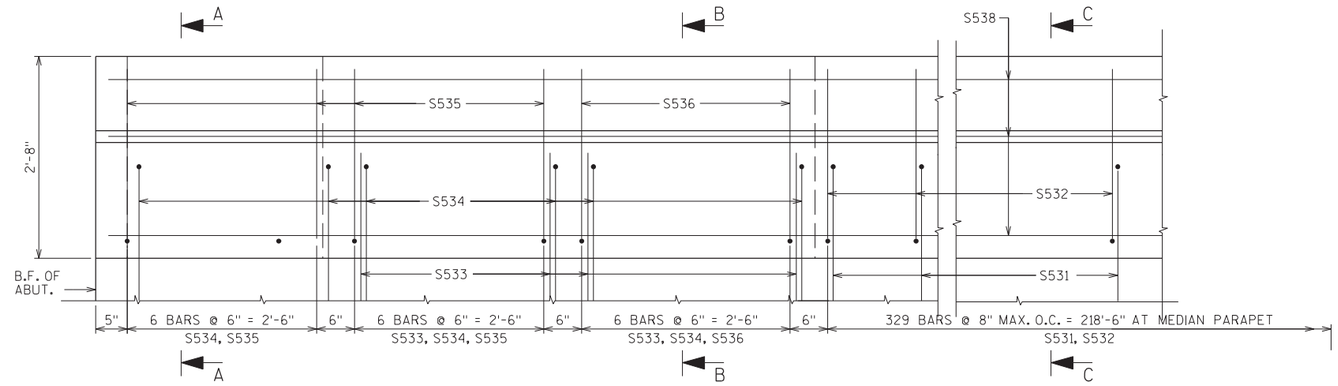
OUTSIDE ELEVATION AT WING 1 AND ROADWAY PARAPET

SECTION C

DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY BID ITEM SHALL BE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



OUTSIDE ELEVATION AT WING 4

LEGEND

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

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STRUCTURE B-44-36

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SINGLE SLOPE PARAPET 32SS

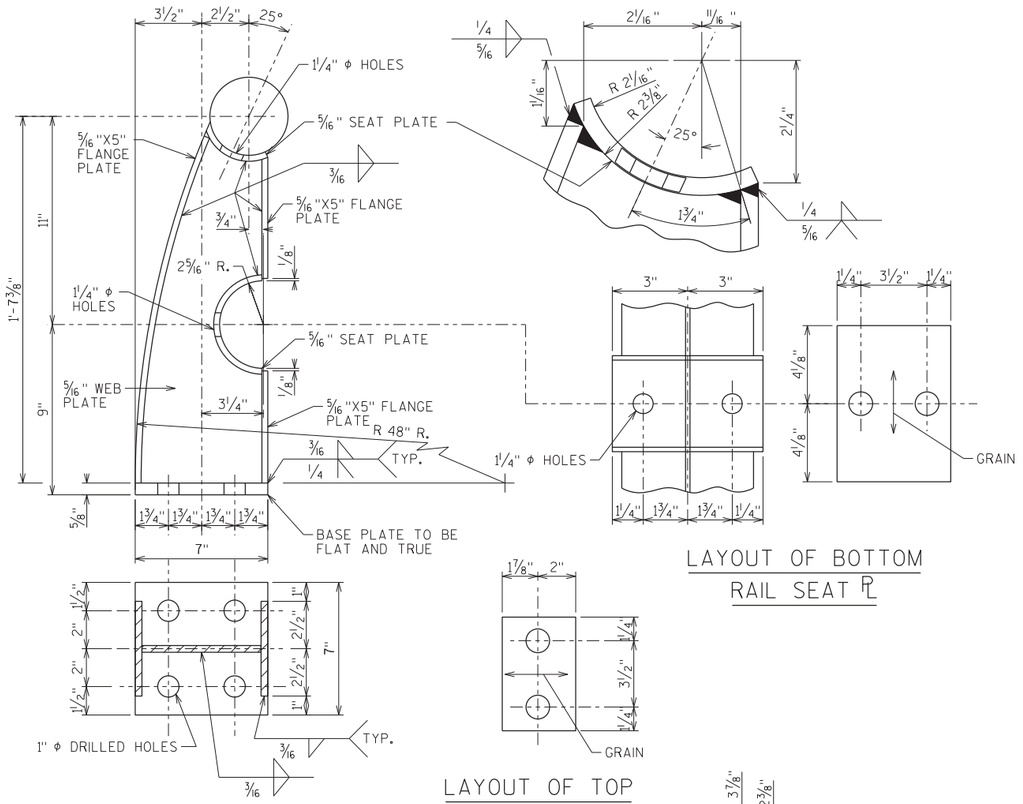
SHEET 17 OF 22

404

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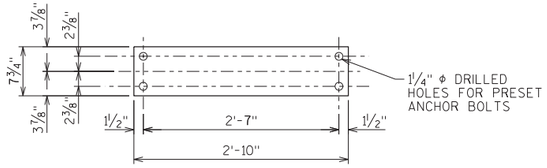
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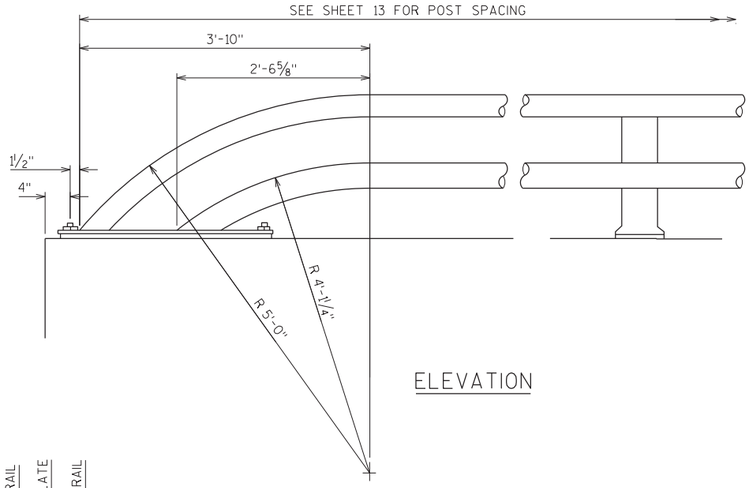
STEEL POST DETAILS

LAYOUT OF BOTTOM RAIL SEAT ℄

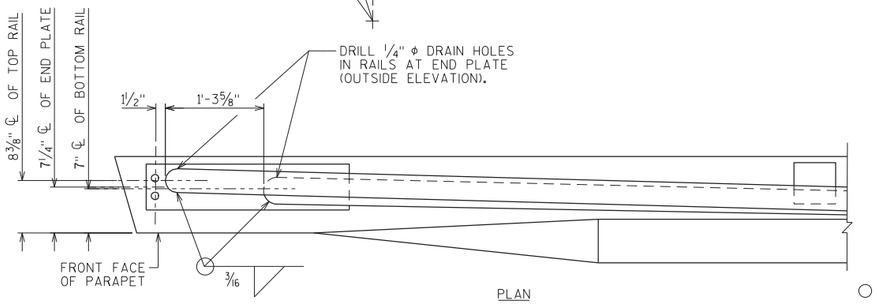
LAYOUT OF TOP RAIL SEAT ℄



END PLATE



ELEVATION



PLAN
SLOPED FACE PARAPET '32SS'

DETAIL OF RAIL BEND AT ABUMENTS

GENERAL NOTES

BID ITEM SHALL BE "RAILING TUBULAR TYPE H B-44-36" WHICH INCLUDES ALL ITEMS SHOWN.

THE SHANK AND ROOT DIAMETER OF THREAD FOR ANCHOR BOLTS SHALL BE A MIN. OF ⅝".

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM A307. IF A307 IS USED ELECTRO-GALVANIZE NUTS, WASHERS & TOP 3½" OF ANCHOR BOLTS.

CLOSURE ENDS ON STEEL RAILING SHALL BE ¼" PLATE. WELD AND GRIND SMOOTH.

RAILINGS SHALL BE FABRICATED IN 2 AND 3 PANEL LENGTHS.

RAILING POSTS SHALL BE SET NORMAL TO GRADE LINE.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF THE POST BASE.

SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D. FOR ALIGNMENT.

FILL ALL EXPOSED OPENINGS BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

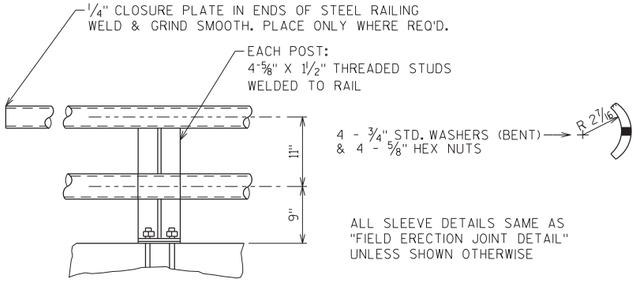
RAILS, POSTS & SHIMS SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709, GRADE 36.

ALL MATERIALS, EXCEPT ANCHORAGES, SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

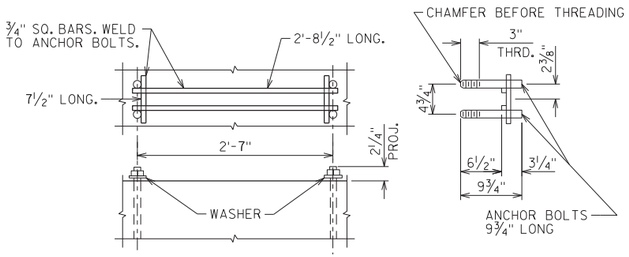
RAILS SHALL BE BUILT STRAIGHT AND SPRUNG INTO PLACE FOR STRUCTURES CURVED UP TO 3°. FOR STRUCTURES CURVED GREATER THAN 3°, RAILS SHALL BE CURVED TO FIT.

LEGEND

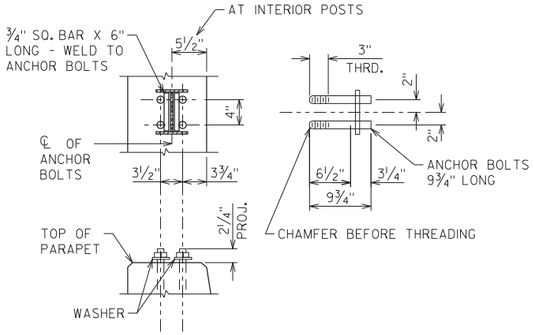
- ○ 5/16" × 3/8" WELDED STUDS
- ⬠ 3" Φ STD. PIPE × 1'-10" LONG
- □ 3" Φ EXTRA STRONG PIPE × 1'-10" LONG
- △ ½" Φ WELD BEADS AT 1/3 PTS. ON PIPE 11" CIRCUMF. GRIND BEADS SO THAT SLEEVE FITS FREELY IN THE I.D. OF 4" Φ EXTRA STRONG PIPE.



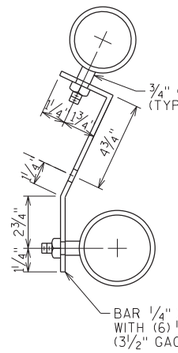
RAIL TO POST CONN.



ANCHOR BOLTS AT END PLATE

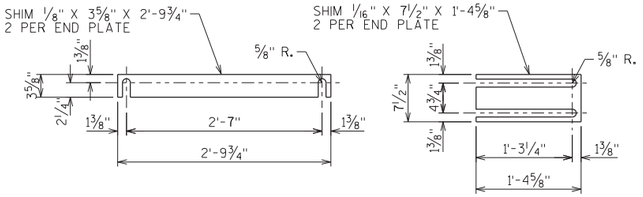


ANCHOR BOLTS AT POSTS

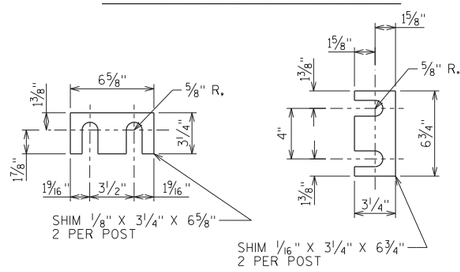


SHIPPING BAR

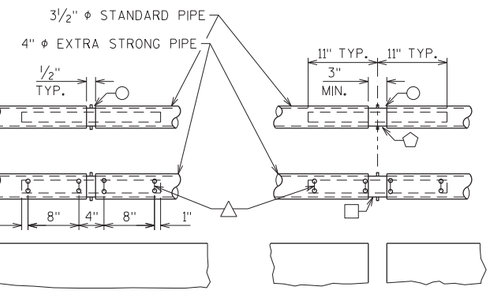
END SECTION ONLY



END PLATE SHIM DETAILS



POST SHIM DETAILS



FIELD ERECTION JOINT DETAIL

DETAIL AT RAIL OPENING

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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TUBULAR RAILING TYPE "H" (STEEL)

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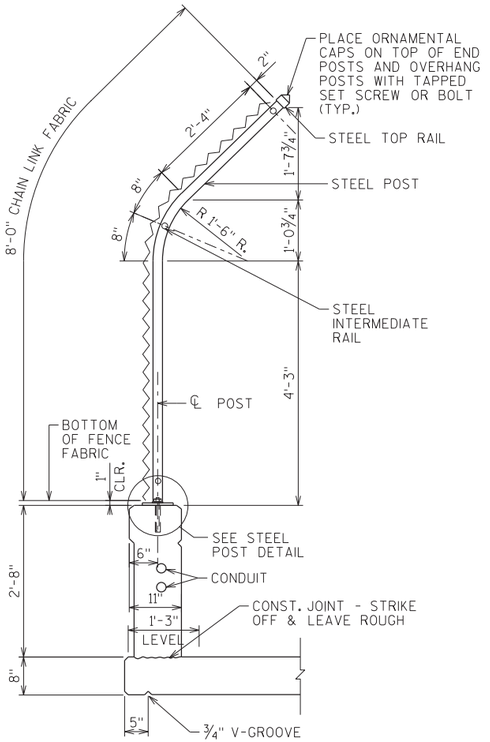
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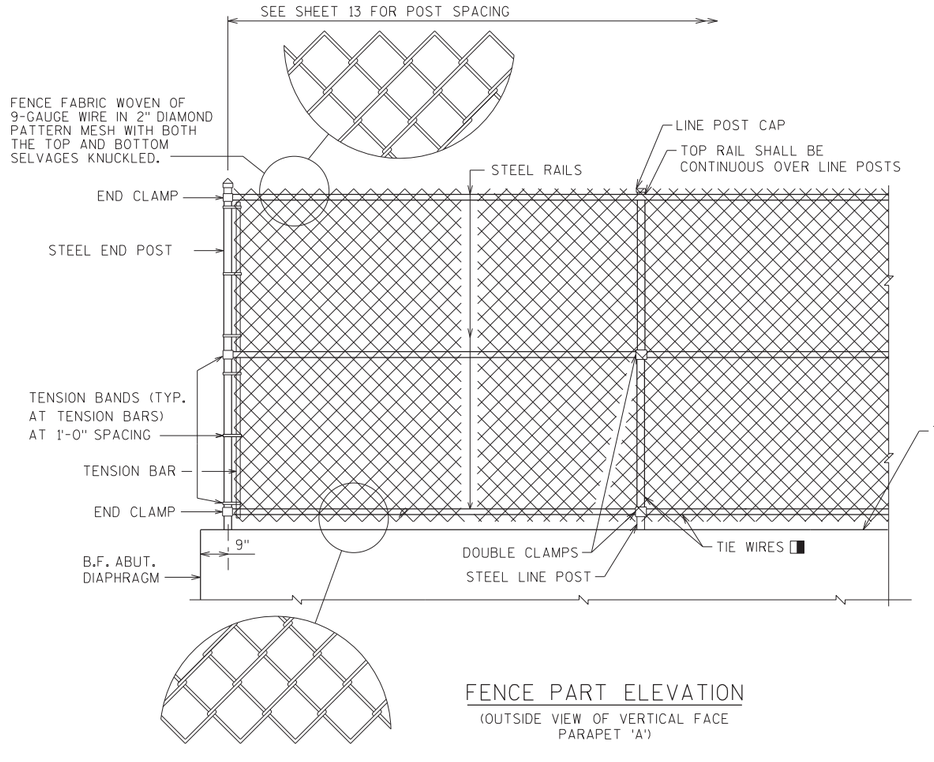
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STATE PROJECT NUMBER

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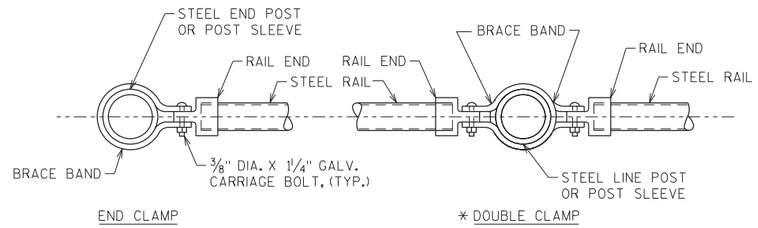


SECTION THRU FENCE ON PARAPET 'A'



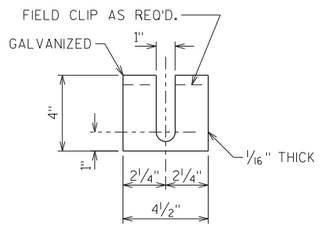
FENCE PART ELEVATION

(OUTSIDE VIEW OF VERTICAL FACE PARAPET 'A')



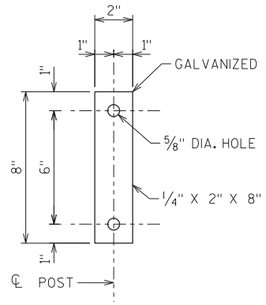
SECTION A-A

NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS

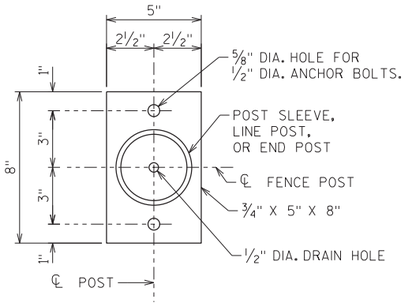


POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



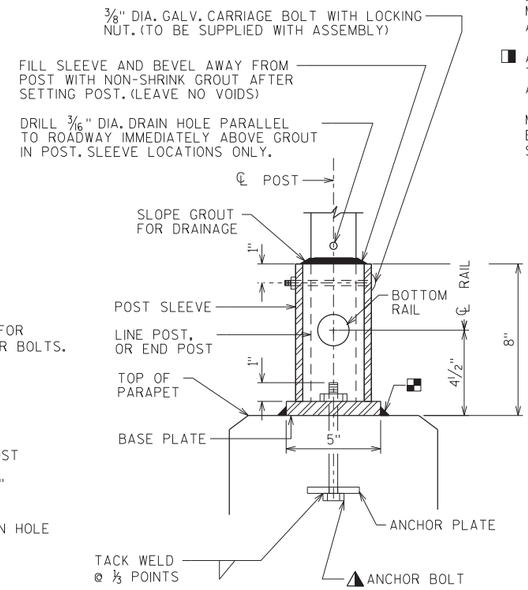
ANCHOR PLATE



BASE PLATE

FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



STEEL POST DETAILS

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 8 FT", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

◩ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

* ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

◭ ½" DIA. X 6⅞" LONG GALVANIZED HEX BOLT WITH NUT & WASHER, TYPE "S", ½" DIA. CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR ½" DIA. BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆

☆ ½" DIA. CONCRETE MASONRY ANCHOR, TYPE "S", 6" MIN. EMBEDMENT (EPOXY ANCHORED) INTO CONCRETE AND MINIMUM PULLOUT CAPACITY OF 10 KIPS. ANCHOR, WASHER AND NUT SHALL BE GALVANIZED.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR ¼ POINT OF POST SPACING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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CHAIN LINK FENCE DETAILS

SHEET 19 OF 22

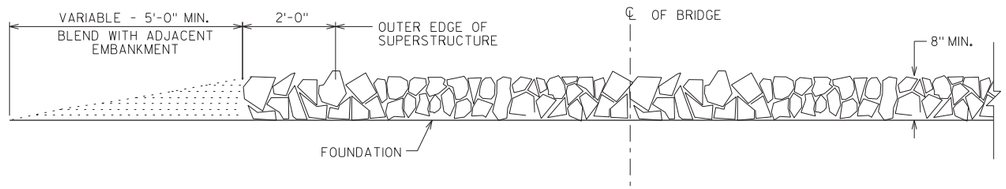
406

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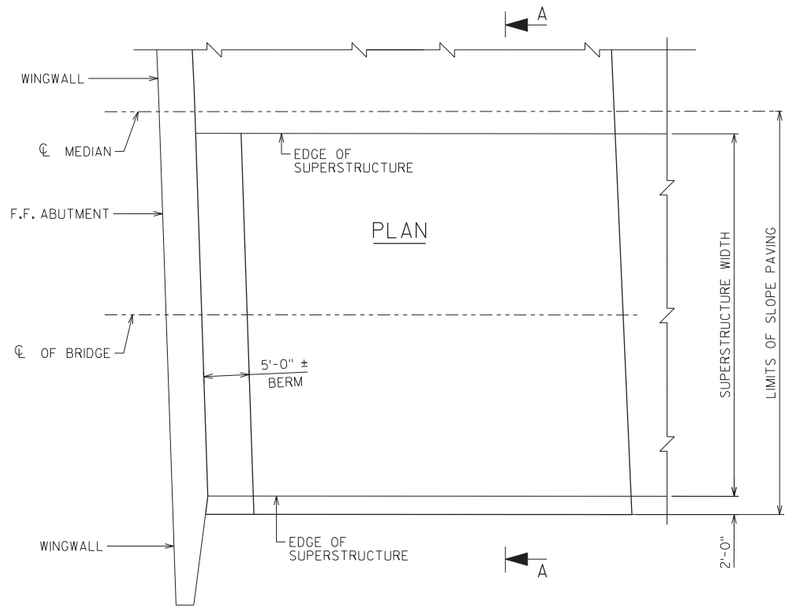
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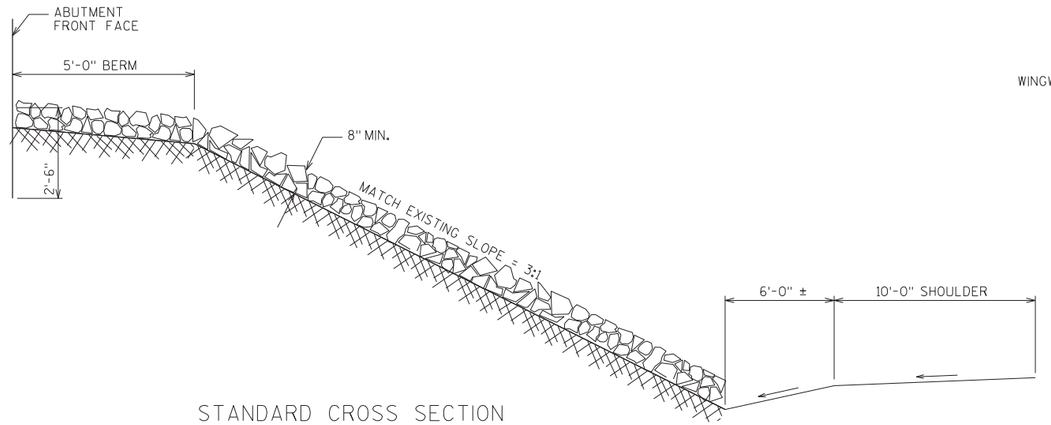
STATE PROJECT NUMBER
1130-33-71



SECTION A-A



PLAN



STANDARD CROSS SECTION

ASPHALTIC MATERIAL SHALL NOT BE APPLIED TO THE SURFACE OF CRUSHED MATERIAL.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

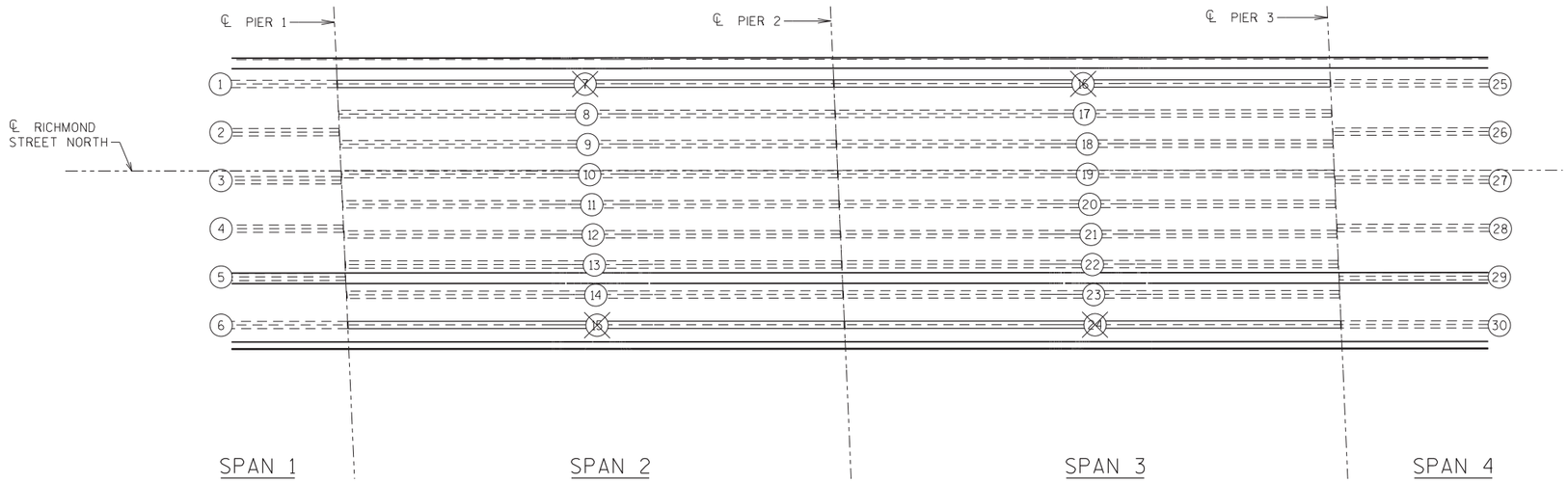
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SLOPE PAVING (SELECT CRUSHED MATERIAL)

SHEET 20 OF 22

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STATE PROJECT NUMBER
1130-33-71



GIRDER REPLACEMENT DIAGRAM

NEW GIRDER TO BE PLACED AT GIRDER LOCATIONS 7, 15, 16, AND 24. SEE SHEET 22.

X INDICATES EXISTING GIRDER TO BE DISCARDED

NOTE: ALL WORK AND TOOLS ASSOCIATED WITH THE REMOVING AND MOVING OF GIRDERS CONSIDERED INCIDENTAL TO "REMOVING OLD STRUCTURES".

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NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

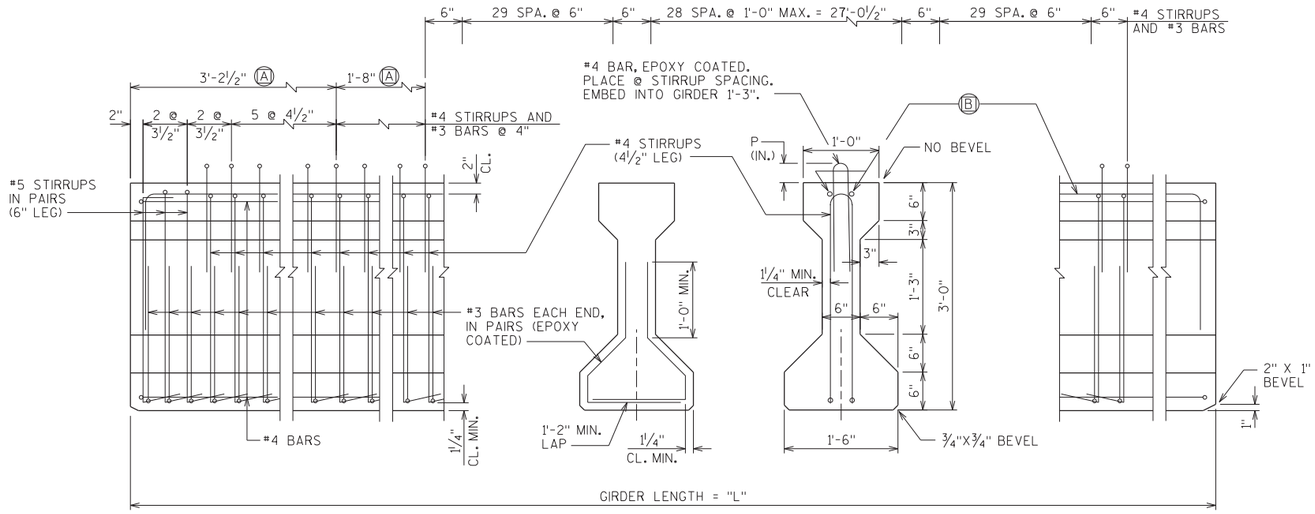
DRAWN BY AMZ | PLANS CK'D. JSR

SUPERSTRUCTURE GIRDER REPLACEMENT

SHEET 21 OF 22

J:\Jobs2012\20122047\CAD\Structural\dgn\00\B-44-36\21-36GIRDER REPLACEMENT.dgn 9/25/2013 10:19:46 AM

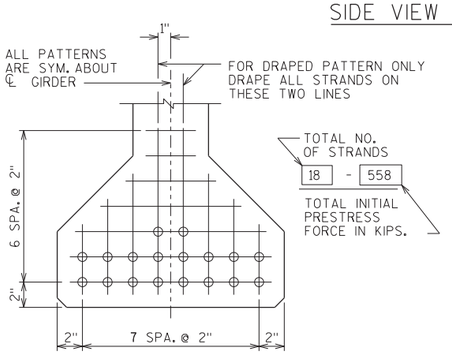
STATE PROJECT NUMBER
1130-33-71



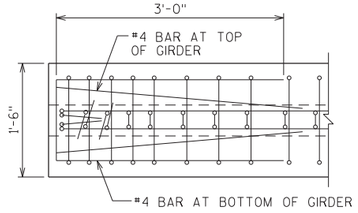
SIDE VIEW & TYP. SECTION IN SPAN

(A) DETAIL TYP. AT EACH END

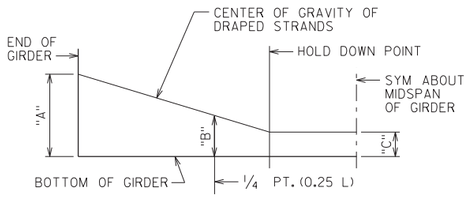
(B) 2-#5 BARS BEND DOWN 16 BAR DIA. AT ENDS



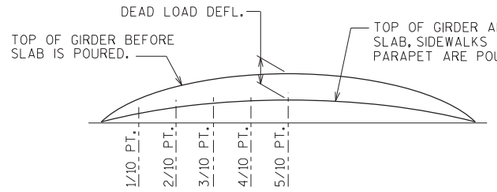
TYP. STRAND PATTERN



TOP VIEW OF GIRDER ENDS



DRAPED STRAND PROFILE



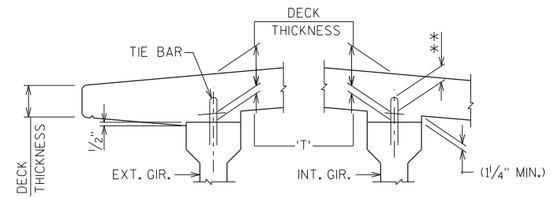
DEAD LOAD DEFLECTION DIAGRAM

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
2	1.5
3	1.5

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DECK HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
\- TOP OF GIRDER ELEVATION
\+ DEAD LOAD DEFLECTION
\- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL BE TROWEL FINISHED.

THE GIRDER SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER.

GIRDER SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, ONE OPTION IS AVAILABLE:

USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE 0.5" DIA. - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

BEND EACH END OF #4 STIRRUPS 4½" AND #5 STIRRUPS 6".

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *
2	7,15	67'-9½"	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	6000	7	7	7	0.5	18	4500	32	11"	14"	4	--	--
3	16,24	67'-9½"	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	6000	7	7	7	0.5	18	4500	32	11"	14"	4	--	--

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-36

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36" PRESTRESSED GIRDER DETAILS

SHEET 22 OF 22

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DIVISION 1-1: STAGE 1 CONSTRUCTION - TEMPORARY CROSSOVER CONSTRUCTION 'NBR'

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Cut 1.00 Note 1	Expanded Fill 1.33	Note 4
399+94		9.39	9.39	0.00						
400+00	6	9.39	9.39	0.00	2	2	0	2	0	0
400+25	25	9.63	9.63	0.00	9	9	0	11	0	0
400+50	25	9.88	9.88	0.00	9	9	0	20	0	0
400+75	25	9.81	9.81	0.00	9	9	0	29	0	0
401+00	25	12.71	12.71	0.00	10	10	0	39	0	0
401+25	25	16.04	16.04	0.00	13	13	0	53	0	0
401+50	25	18.28	18.28	0.00	16	16	0	69	0	0
401+75	25	18.32	18.32	0.00	17	17	0	86	0	0
402+00	25	18.55	18.55	0.00	17	17	0	103	0	0
402+25	25	18.80	18.80	0.00	17	17	0	120	0	0
402+50	25	19.05	19.05	0.00	18	18	0	138	0	0
402+75	25	19.28	19.28	0.00	18	18	0	155	0	0
402+80	5	19.30	19.30	0.00	4	4	0	159	0	0
417+00		16.50	0	0.00						
417+25	25	27.50	13	0.00	20	6	0	179	0	14
417+50	25	27.50	13	0.00	25	12	0	205	0	28
417+75	25	27.50	13	0.00	25	12	0	230	0	41
418+00	25	27.50	13	0.00	25	12	0	256	0	55
418+25	25	27.50	14.5	0.00	25	13	0	281	0	67
418+50	25	27.50	14.5	0.00	25	13	0	307	0	79
418+75	25	27.50	14.5	0.00	25	13	0	332	0	91
419+00	25	27.50	14.5	0.00	25	13	0	357	0	103
419+25	25	38.50	21.5	0.00	31	17	0	388	0	117
419+50	25	38.50	21.5	0.00	36	20	0	424	0	133
419+75	25	38.50	21.5	0.00	36	20	0	459	0	149
420+00	25	38.50	21.5	0.00	36	20	0	495	0	165
420+25	25	38.50	21.5	0.00	36	20	0	531	0	180
420+50	25	16.50	7.5	0.00	25	13	0	556	0	192
420+65	15	16.50	7.5	0.00	9	4	0	565	0	197
					565	368	0			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 2-1: STAGE 2 CONSTRUCTION - STH 47 NB 'NBR' (SOUTH OF USH 41 BRIDGE)

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Cut 1.00 Note 1	Expanded Fill 1.33	Note 4
402+80		89.28	39.88	0.63						
402+85	5	89.42	41.08	0.60	17	7	0	17	0	9
403+00	15	90.08	42.29	0.42	50	23	0	66	1	35
403+25	25	91.11	43.50	0.29	84	40	0	150	1	79
403+50	25	88.60	44.71	0.20	83	41	0	233	1	121
403+75	25	93.80	45.92	0.00	84	42	0	318	1	163
404+00	25	83.87	47.13	0.00	82	43	0	400	1	203
404+25	25	87.94	48.33	0.00	80	44	0	480	1	238
404+50	25	88.84	49.54	0.00	82	45	0	562	1	274
404+75	25	89.80	50.75	0.00	83	46	0	644	1	311
405+00	25	83.02	51.96	0.89	80	48	0	724	2	343
405+25	25	81.63	53.17	1.86	76	49	1	801	4	368
405+50	25	80.74	54.38	2.91	75	50	2	876	7	391
405+75	25	79.30	48.75	3.97	74	48	3	950	11	413
406+00	25	81.33	48.75	6.79	74	45	5	1024	17	436
406+25	25	78.39	48.75	4.50	74	45	5	1098	24	457
406+50	25	41.28	28.17	0.00	55	36	2	1153	27	475
406+75	25	44.45	32.50	2.48	40	28	1	1193	29	485
407+00	25	46.76	36.83	0.00	42	32	1	1235	30	493
407+25	25	45.82	39.00	0.00	43	35	0	1278	30	501
407+50	25	39.00	39.00	14.95	39	36	7	1318	39	495
407+75	25	39.00	39.00	33.62	36	36	22	1354	69	465
408+00	25	45.50	45.50	61.53	39	39	44	1393	128	406
408+25	25	50.92	50.92	60.43	45	45	56	1437	203	331
408+50	25	46.58	46.58	33.04	45	45	43	1483	261	274
408+75	25	43.33	43.33	41.89	42	42	35	1524	307	228
409+00	25	39.00	39.00	145.54	38	38	87	1562	422	112
409+25	25	34.67	34.67	198.25	34	34	159	1596	634	-99
409+50	25	31.33	30.33	279.48	31	30	221	1627	928	-393
409+65	15	27.00	26.00	512.27	16	16	220	1643	1220	-685
					1,643	1108	918			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 2-2: STAGE 2 CONSTRUCTION - USH 41 NE ON-RAMP 'NE'

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Cut 1.00 Note 1	Expanded Fill 1.33	Note 4
748+49		0.00	0.00	0.00						
748+50	1	36.25	36.25	25.74	1	1	0	1	1	-1
749+00	50	36.25	36.25	38.90	67	67	60	68	80	-80
749+50	50	132.22	36.25	57.54	156	67	89	224	199	-110
750+00	50	107.05	29.00	15.58	222	60	68	445	289	-39
750+50	50	99.97	29.00	1.95	192	54	16	637	311	77
751+00	50	101.89	29.00	1.45	187	54	3	824	315	206
751+50	50	105.03	29.00	0.42	192	54	2	1016	317	342
					1,016	356	238			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 2-3: STAGE 2 CONSTRUCTION - STH 47 NB RT TURN 'RTA'

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Cut 1.00 Note 1	Expanded Fill 1.33	Note 4
406+35		34.39	0.00	11.84						
406+50	15	31.47	0.00	14.17	18	0	7	18	10	9
406+75	25	28.68	0.00	18.29	28	0	15	46	30	17
407+00	25	26.47	0.00	29.21	26	0	22	72	59	13
407+25	25	24.89	0.00	36.56	24	0	30	95	99	-4
407+50	25	29.70	21.75	33.76	25	10	33	121	143	-32
407+75	25	27.65	21.75	47.36	27	20	38	147	193	-76
408+00	25	29.95	21.75	43.63	27	20	42	174	249	-125
408+25	25	38.26	21.75	20.95	32	20	30	206	288	-153
408+50	25	25.65	21.75	0.00	30	20	10	235	301	-157
408+53	3	0.00	0.00	0.00	1	1	0	237	301	-157
					237	92	227			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 3-1: STAGE 2 CONSTRUCTION - STH 47 NB 'NBR' (NORTH OF USH 41 BRIDGE)

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Cut 1.00 Note 1	Expanded Fill 1.33	Note 4
412+03		40.00	26.00	469.41						
412+25	22	30.33	30.33	275.53	29	23	303	29	404	-398
412+50	25	34.67	34.67	172.34	30	30	207	59	679	-674
412+75	25	39.00	39.00	175.68	34	34	161	93	894	-888
413+00	25	43.33	43.33	41.23	38	38	100	131	1027	-1022
413+25	25	44.42	44.42	41.12	41	41	38	172	1078	-1072
413+50	25	45.50	45.50	40.98	42	42	38	213	1129	-1123
413+75	25	32.50	32.50	28.52	36	36	32	249	1171	-1166
414+00	25	32.50	32.50	29.16	30	30	27	279	1207	-1201
414+25	25	32.50	32.50	75.13	30	30	48	310	1271	-1265
414+50	25	32.50	32.50	62.29	30	30	64	340	1356	-1350
414+75	25	32.50	32.50	51.96	30	30	53	370	1426	-1420
415+00	25	26.00	26.00	46.43	27	27	46	397	1487	-1481
415+25	25	26.00	26.00	40.59	24	24	40	421	1540	-1534
415+50	25	27.78	26.00	34.18	25	24	35	446	1586	-1580
415+75	25	43.33	43.33	24.65	33	32	27	479	1622	-1615
416+00	25	43.33	43.33	16.45	40	40	19	519	1648	-1640
416+25	25	36.62	26.00	7.37	37	32	11	556	1662	-1650
416+50	25	40.45	26.00	5.65	36	24	6	592	1670	-1647
416+75	25	43.85	26.00	2.42	39	24	4	631	1675	-1637
417+00	25	44.17	26.00	0.68	41	24	1	671	1677	-1622
417+25	25	58.38	26.00	0.00	47	24	0	719	1678	-1599
417+50	25	67.89	26.00	0.00	58	24	0	777	1678	-1564
417+75	25	92.19	26.00	0.00	74	24	0	851	1678	-1514
418+00	25	76.10	26.00	1.14	78	24	1	929	1678	-1461
418+25	25	81.36	15.17	0.27	73	19	1	1002	1679	-1408
418+50	25	83.23	16.33	0.68	76	15	0	1078	1680	-1347
418+75	25	104.70	17.50	0.02	87	16	0	1165	1680	-1276
419+00	25	107.37	18.67	0.00	98	17	0	1264	1680	-1195
419+25	25	109.20	19.83	0.00	100	18	0	1364	1680	-1112
419+50	25	128.45	14.00	0.00	110	16	0	1474	1680	-1018
419+75	25	121.43	14.00	0.00	116	13	0	1589	1680	-915
420+00	25	120.74	14.00	0.00	112	13	0	1702	1680	-816
420+25	25	124.15	14.00	0.00	113	13	0	1815	1680	-716
420+50	25	37.05	0.00	0.00	75	6	0	1890	1680	-648
420+75	25	5.53	0.00	0.00	20	0	0	1909	1680	-628
421+00	25	2.28	0.00	0.00	4	0	0	1913	1680	-624
421+25	25	1.90	0.00	0.07	2	0	0	1915	1680	-622
421+50	25	4.46	0.00	0.00	3	0	0	1918	1680	-620
421+75	25	4.53	0.00	0.00	4	0	0	1922	1680	-615
422+00	25	3.36	0.00	0.00	4	0	0	1926	1680	-612
422+11	11	3.36	0.00	0.00	1	0	0	1927	1680	-610
					1,927	857	1,263			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 3-2: STAGE 2 CONSTRUCTION - USH 41 NW OFF-RAMP 'NW'

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Cut 1.00 Note 1	Expanded Fill 1.33	Note 4
748+49		48.33	48.33	41.16						
748+50	1	48.33	48.33	40.89	2	2	2	2	2	-2
749+00	50	48.33	48.33	207.53	90	90	230	91	308	-308
749+50	50	36.25	36.25	200.55	78	78	378	170	811	-811
750+00	50	41.89	36.25	101.03	72	67	279	242	1182	-1177
750+50	50	81.71	29.00	110.66	114	60	196	356	1443	-1383
751+00	50	83.50	29.00	101.78	153	54	197	509	1704	-1546
751+50	50	92.15	29.00	84.39	163	54	172	672	1933	-1666
752+00	50	95.32	29.00	69.65	174	54	143	846	2123	-1736
752+50	50	107.93	29.00	64.21	188	54	124	1034	2288	-1766
753+00	50	122.38	29.00	61.47	213	54	116	1247	2443	-1761
753+50	50	114.73	29.00	52.77	220	54	106	1467	2583	-1736
754+00	50	129.70	29.00	35.74	226	54	82	1693	2692	-1673
754+50	50	132.75	29.00	26.48	243	54	58	1936	2769	-1560
755+00	50	130.83	29.00	29.46	244	54	52	2180	2838	-1438
755+50	50	128.40	29.00	19.55	240	54	45	2420	2898	-1313
756+00	50	99.73	29.00	40.78	211	54	56	2631	2973	-1229
756+50	50	87.92	29.00	15.07	174	54	52	2805	3041	-1178
					2,805	942	2,287			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 3-3: STAGE 2 CONSTRUCTION - USH 41 NW OFF-RAMP RTL 'RTB'

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Cut 1.00 Note 1	Expanded Fill 1.33	Note 4
748+36		0.00	0.00	0.00						
748+50	14	34.67	18.13	3.12	9	5	1	9	1	3
749+00	50	22.03	18.13	6.79	53	34	9	61	13	10
749+50	50	26.58	0.00	25.21	45	17	30	106	53	-1
750+00	50	28.73	0.00	19.19	51	0	41	158	107	-5
750+35	35	33.83	0.00	23.63	41	0	28	198	144	-1
					198	55	108			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 4-1: STAGE 3 CONSTRUCTION - STH 47 SB 'SBR' (SOUTH OF USH 41 BRIDGE)

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Expanded Fill	
		(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	1.00 Note 1	1.33	Note 4
402+79		88.77	39.88	0.01						
403+00	21	89.65	39.88	0.01	69	31	0	69	0	38
403+25	25	84.30	39.88	0.08	81	37	0	150	0	82
403+50	25	82.67	39.88	0.17	77	37	0	227	0	122
403+75	25	72.50	39.88	0.70	72	37	0	299	1	157
404+00	25	69.86	39.88	0.10	66	37	0	365	1	185
404+25	25	63.07	39.88	0.58	62	37	0	427	2	209
404+50	25	70.02	39.88	0.04	62	37	0	488	2	234
404+75	25	73.75	39.88	2.56	67	37	1	555	4	262
405+00	25	47.20	39.88	0.01	56	37	1	611	5	279
405+25	25	51.34	39.88	0.01	46	37	0	656	5	288
405+50	25	51.93	39.88	0.00	48	37	0	704	5	299
405+75	25	69.86	39.00	0.53	56	37	0	760	6	318
406+00	25	72.27	42.25	0.00	66	38	0	826	6	346
406+25	25	69.77	43.33	0.02	66	40	0	892	6	372
406+50	25	62.18	44.42	0.64	61	41	0	953	6	392
406+75	25	53.81	45.50	4.68	54	42	2	1007	10	401
407+00	25	53.61	36.83	7.27	50	38	6	1057	17	405
407+25	25	53.07	37.92	16.91	49	35	11	1106	32	405
407+50	25	49.53	39.00	49.09	48	36	31	1153	72	376
407+75	25	40.08	40.08	11.76	41	37	28	1195	110	344
408+00	25	41.17	41.17	17.41	38	38	14	1233	128	326
408+25	25	45.50	45.50	14.74	40	40	15	1273	148	306
408+50	25	46.58	46.58	30.16	43	43	21	1315	175	278
408+75	25	47.67	47.67	38.50	44	44	32	1359	218	236
409+00	25	39.00	39.00	160.55	40	40	92	1399	340	114
409+25	25	34.67	34.67	238.28	34	34	185	1433	586	-132
409+50	25	31.33	30.33	317.91	31	30	257	1464	928	-474
409+65	15	29.00	26.00	575.96	17	16	248	1480	1258	-803
					1,480	1025	946			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 4-3: STAGE 3 CONSTRUCTION - USH 41 SE OFF-RAMP RTL 'RTD'

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Expanded Fill	
		(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	1.00 Note 1	1.33	Note 4
746+21		32.12	0.00	0.00						
746+50	29	26.19	0.00	20.61	31	0	11	31	15	17
747+00	50	24.66	0.00	13.36	47	0	31	78	57	22
747+50	50	29.32	21.75	9.70	50	20	21	128	85	23
748+00	50	89.30	21.75	2.84	110	40	12	238	100	77
748+14	14	89.30	0.00	2.84	46	6	1	285	102	116
					285	66	77			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 4-2: STAGE 3 CONSTRUCTION - USH 41 SE OFF-RAMP 'SE'

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Expanded Fill	
		(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	1.00 Note 1	1.33	Note 4
739+70		95.42	29.00	5.45						
740+00	30	89.54	29.00	8.13	103	32	8	103	10	60
740+50	50	85.69	29.00	42.53	162	54	47	265	72	107
741+00	50	76.37	29.00	33.08	150	54	70	415	166	110
741+50	50	67.05	29.00	60.46	133	54	87	548	281	74
742+00	50	57.69	29.00	74.37	116	54	125	663	447	-30
742+50	50	47.79	29.00	98.47	98	54	160	761	660	-199
743+00	50	42.21	29.00	132.31	83	54	214	844	944	-454
743+50	50	35.73	29.00	153.42	72	54	265	917	1296	-787
744+00	50	36.81	29.00	143.80	67	54	275	984	1662	-1140
744+50	50	39.14	29.00	137.07	70	54	260	1054	2008	-1469
745+00	50	45.62	29.00	115.63	78	54	234	1132	2319	-1756
745+50	50	52.43	29.00	118.88	91	54	217	1223	2608	-2007
746+00	50	57.25	29.00	119.78	102	54	221	1325	2901	-2253
746+50	50	36.25	36.25	51.70	87	60	159	1411	3113	-2438
747+00	50	50.45	36.25	169.87	80	67	205	1492	3386	-2698
747+50	50	60.25	36.25	174.98	103	67	319	1594	3810	-3087
748+00	50	60.25	36.25	22.19	112	67	183	1706	4053	-3286
748+01	1	60.25	36.25	22.10	2	1	1	1708	4054	-3286
					1,708	940	3,048			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 4-4: STAGE 3 CONSTRUCTION - ASSOCIATION DRIVE 'ASN'

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Expanded Fill	
		(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	1.00 Note 1	1.33	Note 4
99+45		36.25	36.25	3.21						
99+50	5	98.84	36.25	2.24	13	7	1	13	1	5
99+75	25	189.28	60.42	0.00	133	45	1	146	2	92
99+76	1	188.25	60.42	0.00	7	2	0	153	2	97
					153	54	2			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 5-1: STAGE 3 CONSTRUCTION - STH 47 SB 'SBR' (NORTH OF USH 41 BRIDGE)

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Expanded Fill	
		(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	1.00 Note 1	1.33	Note 4
412+02		32.00	26.00	531.87						
412+25	23	36.58	33.58	259.20	29	25	337	29	448	-444
412+50	25	40.08	40.08	201.13	35	34	213	65	732	-726
412+75	25	46.58	46.58	108.15	40	40	143	105	922	-917
413+00	25	45.50	45.50	42.89	43	43	70	147	1015	-1010
413+25	25	52.00	52.00	45.70	45	45	41	193	1070	-1064
413+50	25	47.67	47.67	72.62	46	46	55	239	1142	-1137
413+75	25	39.00	39.00	56.86	40	40	60	279	1222	-1217
414+00	25	39.00	39.00	50.64	36	36	50	315	1288	-1283
414+25	25	39.00	39.00	42.19	36	36	43	351	1345	-1340
414+50	25	39.00	39.00	20.99	36	36	29	387	1384	-1379
414+75	25	39.00	39.00	19.76	36	36	19	423	1409	-1404
415+00	25	39.00	39.00	18.34	36	36	18	459	1433	-1428
415+25	25	39.00	39.00	17.61	36	36	17	496	1455	-1450
415+50	25	40.78	39.00	4.88	37	36	10	532	1469	-1463
415+75	25	49.83	49.83	41.84	42	41	22	574	1498	-1491
416+00	25	49.83	49.83	17.59	46	46	28	621	1534	-1527
416+25	25	53.91	39.00	3.92	48	41	10	669	1548	-1534
416+50	25	58.90	39.00	2.70	52	36	3	721	1552	-1522
416+75	25	63.16	36.83	1.84	57	35	2	777	1554	-1503
417+00	25	61.02	34.67	1.35	57	33	1	835	1556	-1481
417+25	25	56.15	19.50	23.34	54	25	11	889	1572	-1467
417+50	25	90.59	17.33	0.00	68	17	11	957	1586	-1430
417+75	25	112.04	15.17	0.00	94	15	0	1051	1586	-1351
418+00	25	110.95	13.00	0.00	103	13	0	1154	1586	-1261
418+25	25	105.31	7.00	0.00	100	9	0	1254	1586	-1170
418+50	25	68.54	7.00	0.47	80	6	0	1335	1586	-1097
418+75	25	58.96	7.00	2.69	59	6	1	1394	1588	-1046
419+00	25	57.56	7.00	0.74	54	6	2	1448	1590	-1001
419+25	25	54.03	7.00	1.39	52	6	1	1499	1592	-957
419+50	25	55.77	7.00	0.93	51	6	1	1550	1593	-914
419+75	25	57.33	7.00	1.27	52	6	1	1602	1594	-869
420+00	25	59.14	7.00	1.43	54	6	1	1656	1596	-824
420+25	25	60.54	7.00	1.65	55	6	1	1712	1598	-777
420+50	25	0.27	0.00	1.21	28	3	1	1740	1600	-753
420+75	25	0.29	0.00	1.31	0	0	1	1740	1601	-755
421+00	25	0.00	0.00	2.46	0	0	2	1740	1604	-757
421+25	25	0.00	0.00	3.12	0	0	3	1740	1607	-760
421+50	25	0.00	0.00	9.99	0	0	6	1740	1615	-768
421+75	25	0.01	0.00	55.44	0	0	30	1740	1655	-809
422+00	25	0.00	0.00	31.76	0	0	40	1740	1709	-862
422+10	10	0.00	0.00	31.76	0	0	12	1740	1725	-878
					1,740	894	1,297			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 5-2: STAGE 3 CONSTRUCTION - USH 41 SW ON-RAMP 'SW'

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Expanded Fill	
		(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	1.00 Note 1	1.33	Note 4
744+25		102.77	29.00	0.17						
744+50	25	96.63	29.00	0.55	92	27	0	92	0	65
745+00	50	86.57	29.00	1.66	170	54	2	262	3	178
745+50	50	75.66	29.00	1.06	150	54	3	412	7	271
746+00	50	63.87	29.00	4.80	129	54	5	541	14	340
746+50	50	57.14	36.25	22.62	112	60	25	653	47	358
747+00	50	96.07	36.25	52.55	142	67	70	795	140	340
747+50	50	60.25	36.25	30.29	145	67	77	940	242	315
747+99	49	60.25	36.25	23.65	109	66	49	1049	307	294
					1,049	448	231			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

DIVISION 5-3: STAGE 3 CONSTRUCTION - USH 41 SW ON-RAMP RTL 'RTC'

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Expanded Fill	
		(SF)	(SF)	(SF)	Note 1 (CY)	Note 2 (CY)	Note 3 (CY)	1.00 Note 1	1.33	Note 4
413+10		0.00	0.00	0.00						
413+25	15	46.16	21.75	11.03	13	6	3	13	4	3
413+50	25	61.58	21.75	32.98	50	20	20	63	31	5
413+75	25	21.75	21.75	70.56	39	20	48	101	95	-40
414+00	25	21.75	21.75	63.37	20	20	62	121	177	-122
414+25	25	10.46	0.00	16.94	15	10	37	136	227	-167
414+50	25	21.92	0.00	1.43	15	0	9	151	238	-163
414+75	25	19.10	0.00	3.81	19	0	2	170	241	-148
415+00	25	18.83	0.00	8.13	18	0	6	188	249	-137
415+25	25	18.89	0.00	5.94	17	0	7	205	257	-129
415+29	4	18.76	0.00	5.68	3	0	1	208	259	-127
					208	77	194			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

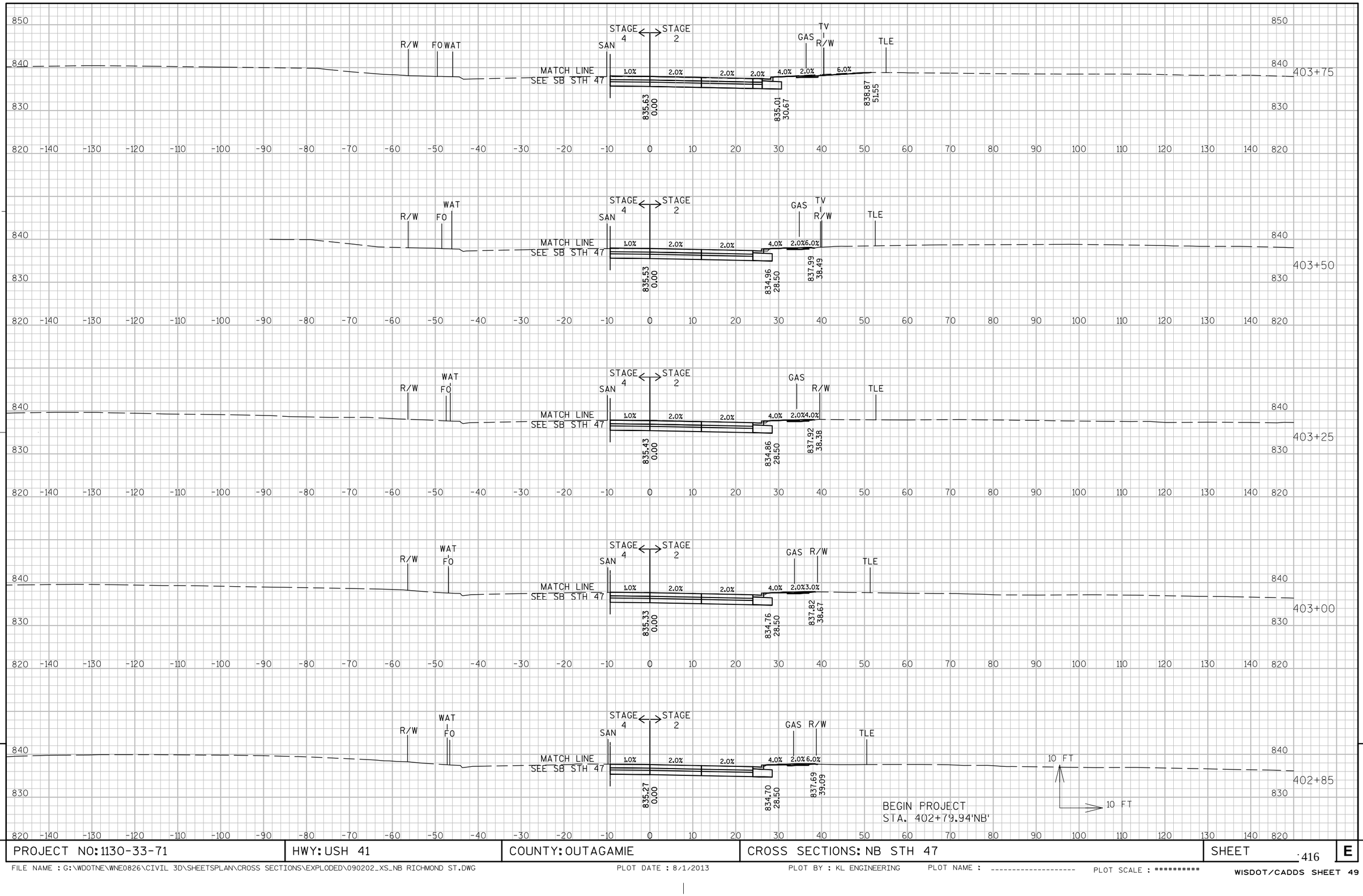
DIVISION 6-1: STAGE 4 CONSTRUCTION - TEMPORARY CROSSOVER REMOVAL 'NBR'

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Cut 1.00 Note 1	Expanded Fill 1.33	Note 4
399+94		0.00	0.00	0.00						
400+00	6	5.12	0.00	0.00	1	0	0	1	0	1
400+25	25	5.26	0.00	0.00	5	0	0	5	0	5
400+50	25	5.39	0.00	0.00	5	0	0	10	0	10
400+75	25	5.35	0.00	0.00	5	0	0	15	0	15
401+00	25	6.94	0.00	0.00	6	0	0	21	0	21
401+25	25	8.75	0.00	0.00	7	0	0	28	0	28
401+50	25	9.97	0.00	0.00	9	0	0	37	0	37
401+75	25	10.00	0.00	0.00	9	0	0	46	0	46
402+00	25	10.12	0.00	0.00	9	0	0	55	0	55
402+25	25	10.26	0.00	0.00	9	0	0	65	0	65
402+50	25	10.39	0.00	0.00	10	0	0	74	0	74
402+75	25	10.52	0.00	0.00	10	0	0	84	0	84
402+80	5	10.53	0.00	0.00	2	0	0	86	0	86
403+00	20	0.00	0.00	0.00	4	0	0	90	0	90
403+25	25	0.00	0.00	0.00	0	0	0	90	0	90
403+50	25	0.00	0.00	0.00	0	0	0	90	0	90
403+75	25	0.00	0.00	0.00	0	0	0	90	0	90
404+00	25	0.00	0.00	1.92	0	0	1	90	1	89
404+25	25	0.00	0.00	3.25	0	0	2	90	4	86
404+50	25	0.00	0.00	5.11	0	0	4	90	10	80
404+75	25	0.00	0.00	7.27	0	0	6	90	17	73
405+00	25	0.00	0.00	8.48	0	0	7	90	27	63
405+25	25	0.00	0.00	8.70	0	0	8	90	37	53
405+50	25	0.00	0.00	8.86	0	0	8	90	48	42
405+75	25	0.00	0.00	7.78	0	0	8	90	58	31
406+00	25	0.00	0.00	7.89	0	0	7	90	68	22
406+25	25	0.00	0.00	9.72	0	0	8	90	79	11
406+50	25	0.00	0.00	12.15	0	0	10	90	92	-2
406+75	25	0.00	0.00	13.84	0	0	12	90	108	-18
407+00	25	0.00	0.00	9.39	0	0	11	90	123	-33
407+25	25	0.00	0.00	12.82	0	0	10	90	136	-46
407+50	25	0.00	0.00	15.69	0	0	13	90	154	-64
407+75	25	0.00	0.00	18.93	0	0	16	90	175	-85
408+00	25	0.00	0.00	21.30	0	0	19	90	200	-110
408+25	25	13.01	0.00	0.00	6	0	10	96	213	-117
408+50	25	7.81	0.00	0.00	10	0	0	106	213	-108
408+75	25	5.21	0.00	0.29	6	0	0	112	213	-102
409+00	25	2.08	0.00	1.28	3	0	1	115	214	-99
409+25	25	0.00	0.00	3.59	1	0	2	116	217	-101
409+50	25	0.00	0.00	25.61	0	0	14	116	235	-119
409+66	16	0.00	0.00	25.61	0	0	15	116	255	-139
Subtotals					116	0	192			

DIVISION 6-1: STAGE 4 CONSTRUCTION - TEMPORARY CROSSOVER REMOVAL 'NBR' (CONTINUED)

STATION	Distance	Area			Incremental Volume (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Cut 1.00 Note 1	Expanded Fill 1.33	Note 4
		Continued from previous			116	0	192			
412+03		0.00	0.00	28.31						
412+25	22	0.00	0.00	28.31	0	0	23	0	31	-31
412+50	25	0.00	0.00	2.45	0	0	14	0	50	-50
412+75	25	0.00	0.00	3.18	0	0	3	0	53	-53
413+00	25	0.00	0.00	1.77	0	0	2	0	56	-56
413+25	25	0.00	0.00	0.87	0	0	1	0	58	-58
413+50	25	0.00	0.00	14.96	0	0	7	0	68	-68
413+75	25	0.00	0.00	29.88	0	0	21	0	95	-95
414+00	25	0.00	0.00	31.90	0	0	29	0	133	-133
414+25	25	0.00	0.00	28.28	0	0	28	0	170	-170
414+50	25	0.00	0.00	29.06	0	0	27	0	206	-206
414+75	25	0.00	0.00	28.32	0	0	27	0	241	-241
415+00	25	0.00	0.00	26.88	0	0	26	0	275	-275
415+25	25	0.00	0.00	23.35	0	0	23	0	306	-306
415+50	25	0.00	0.00	22.76	0	0	21	0	334	-334
415+75	25	0.00	0.00	29.63	0	0	24	0	366	-366
416+00	25	0.00	0.00	24.68	0	0	25	0	400	-400
416+25	25	0.00	0.00	18.33	0	0	20	0	426	-426
416+50	25	0.00	0.00	17.66	0	0	17	0	449	-449
416+75	25	0.00	0.00	17.51	0	0	16	0	470	-470
416+92	17	9.00	0.00	13.57	3	0	10	3	483	-480
417+00	8	15.00	0.00	9.23	4	0	3	6	488	-481
417+25	25	15.00	0.00	4.96	14	0	7	20	496	-476
417+50	25	15.00	0.00	2.06	14	0	3	34	501	-467
417+75	25	15.00	0.00	0.54	14	0	1	48	502	-454
418+00	25	15.00	0.00	0.37	14	0	0	62	503	-441
418+25	25	15.00	0.00	0.24	14	0	0	76	503	-427
418+50	25	15.00	0.00	0.00	14	0	0	90	503	-414
418+75	25	15.00	0.00	0.00	14	0	0	104	503	-400
419+00	25	21.00	0.00	0.00	17	0	0	120	503	-383
419+25	25	21.00	0.00	0.00	19	0	0	140	503	-364
419+50	25	21.00	0.00	0.00	19	0	0	159	503	-344
419+75	25	21.00	0.00	0.00	19	0	0	179	503	-325
420+00	25	21.00	0.00	0.00	19	0	0	198	503	-305
420+25	25	9.00	0.00	0.00	14	0	0	212	503	-291
420+29	4	9.00	0.00	0.00	1	0	0	213	503	-290
Totals					329	0	571			

Notes:
1 - Cut: Cut includes Salvaged/Unusable Pavement Material
2 - Salvaged/Unusable Pavement Material: This does not show up in cross sections
3 - Fill: Does not include Unusable Pavement Exc volume
4 - Mass Ordinate: [(Cut) - (Fill * Fill Factor)]

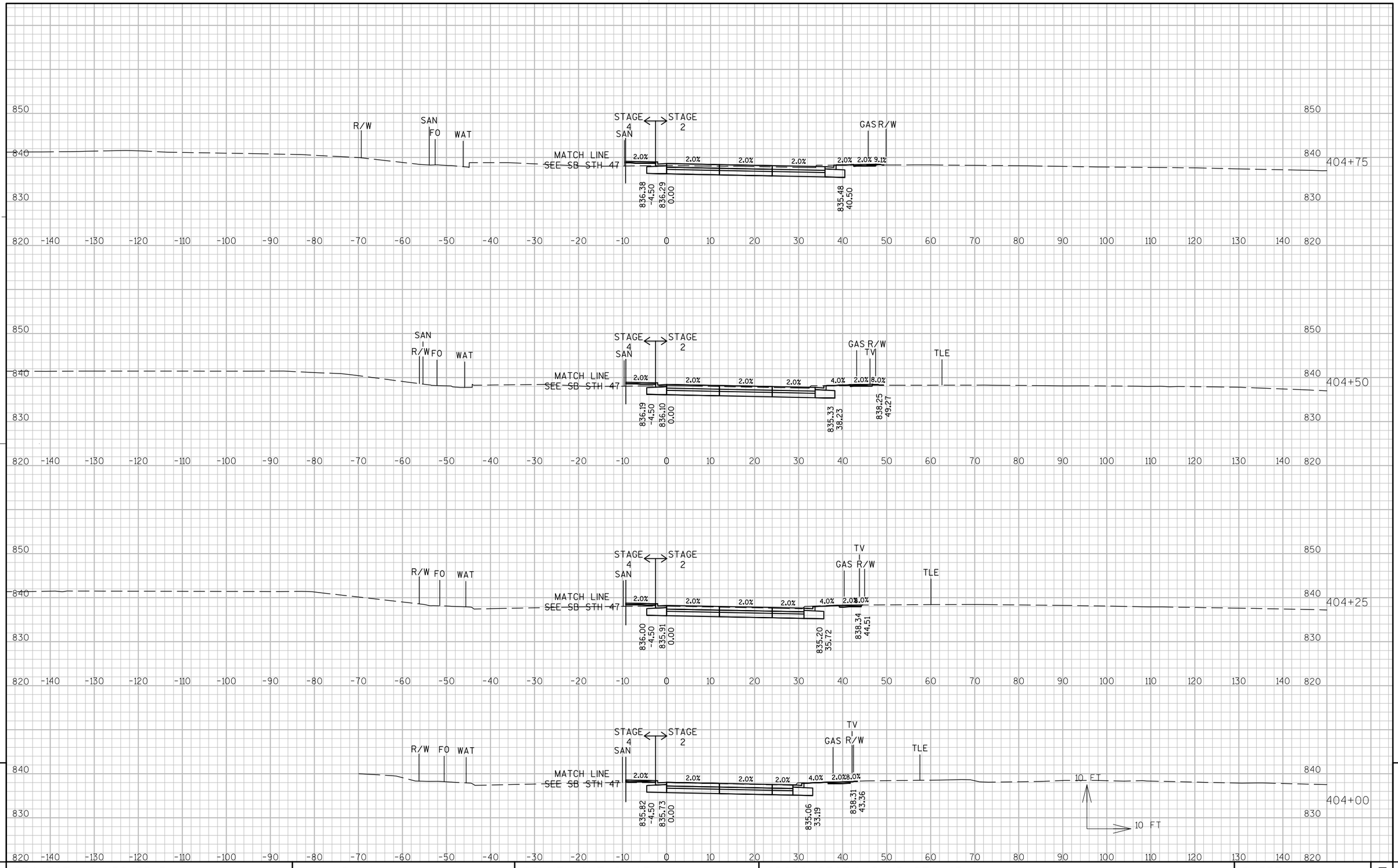


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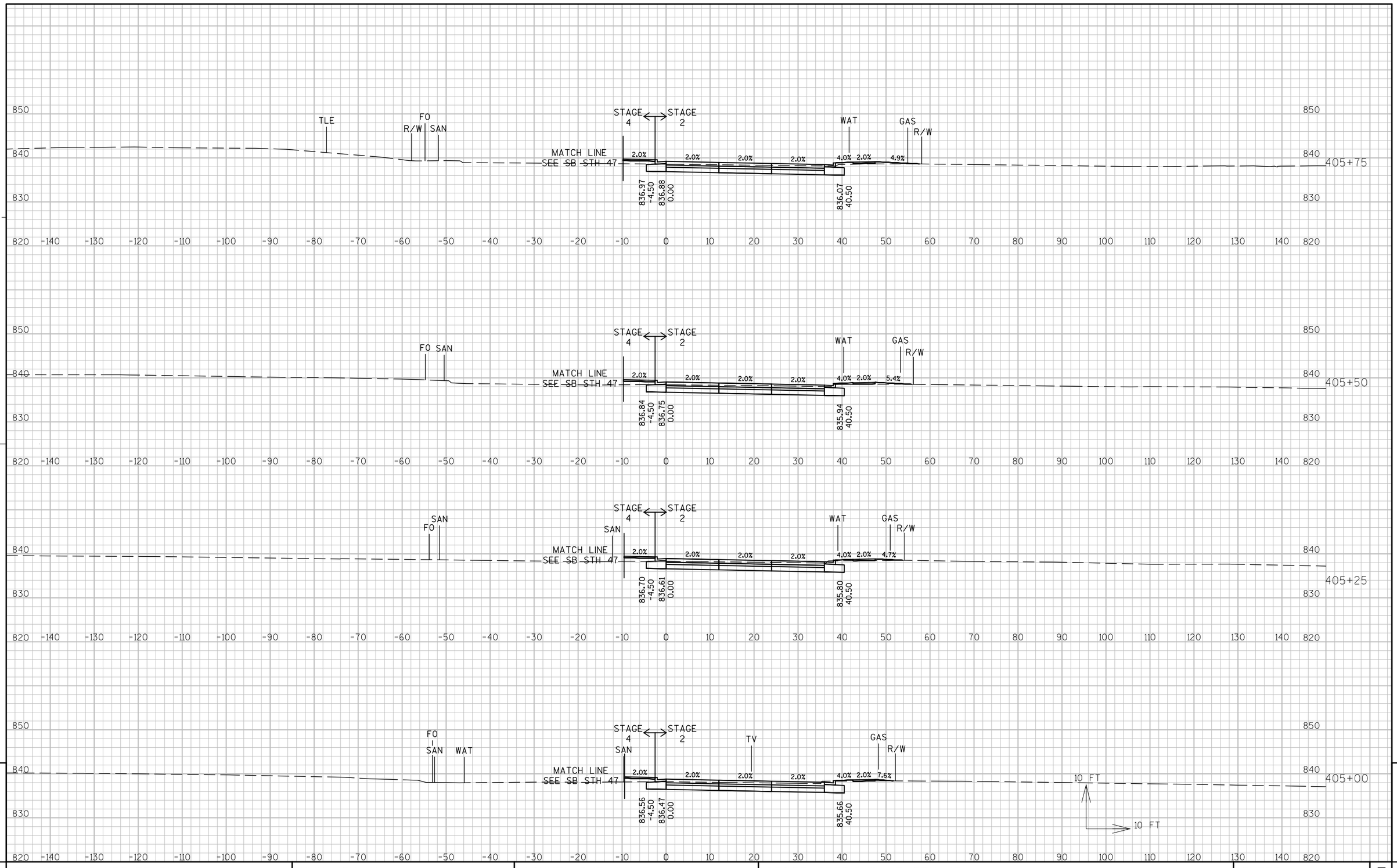
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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47	SHEET 416	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\EXPLODED\090202_XS_NB RICHMOND ST.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47	SHEET 417	E

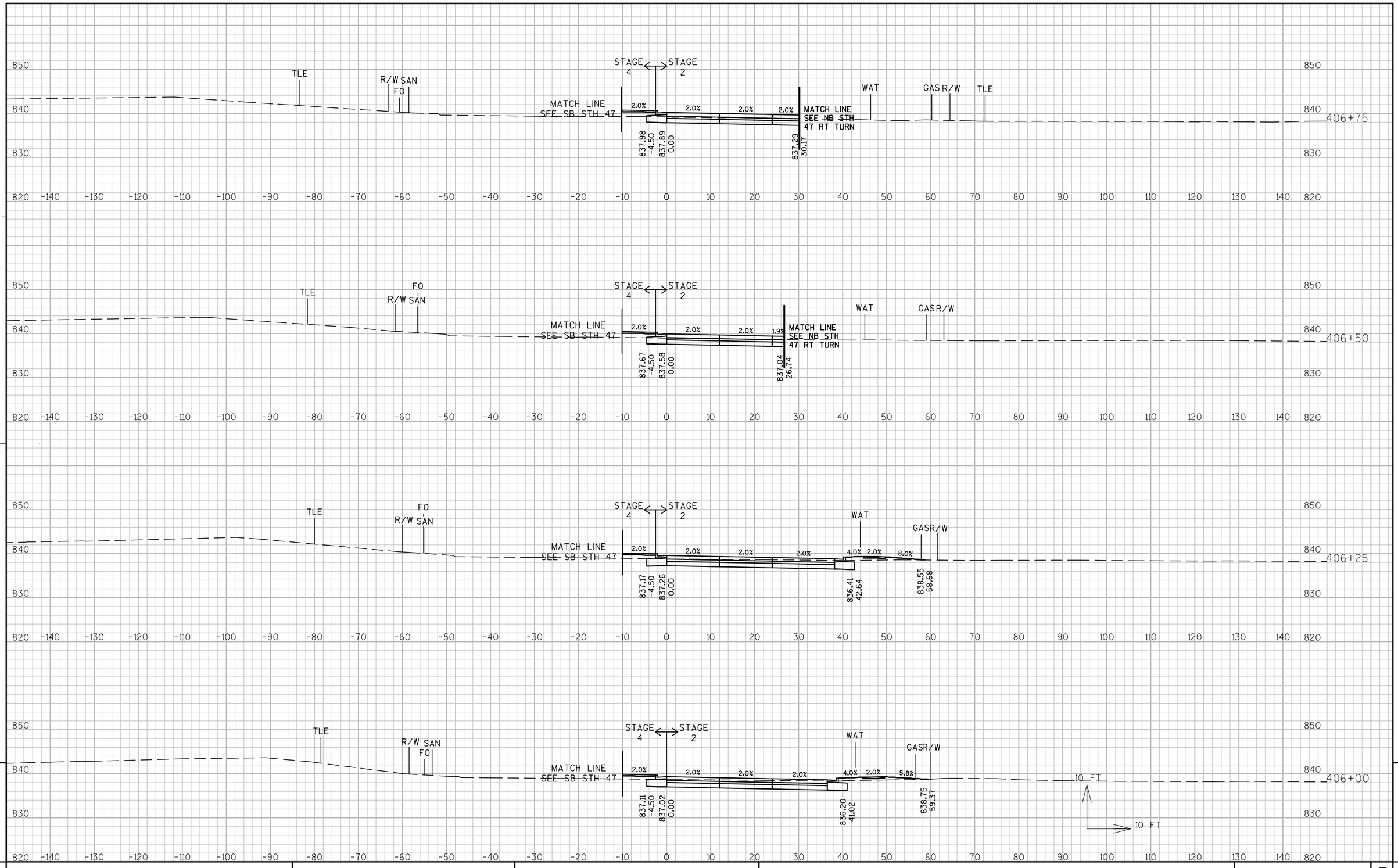


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47	SHEET 418	E

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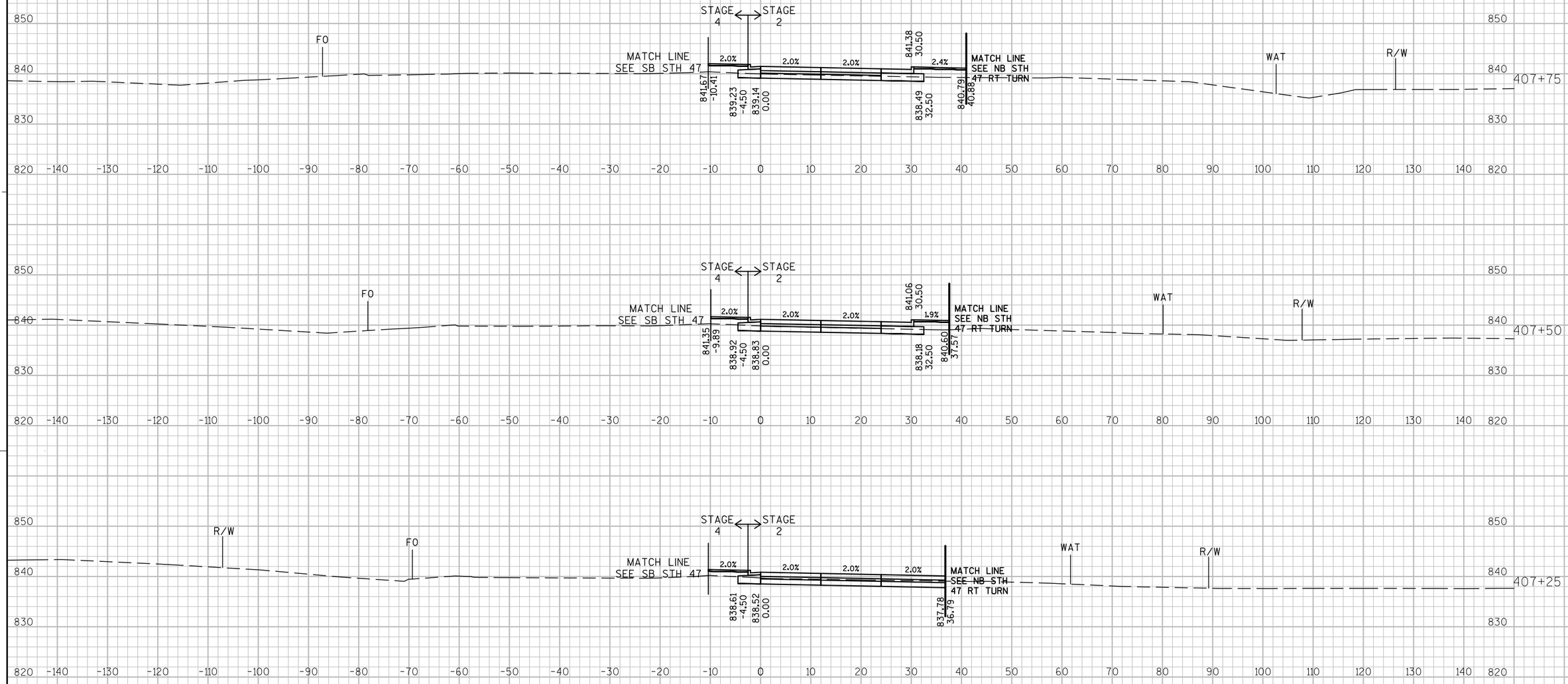


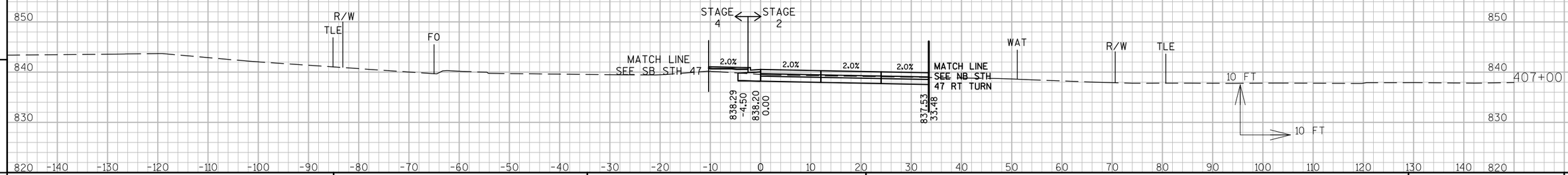
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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47	SHEET 419	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\EXPLODED\090202_XS_NB RICHMOND ST.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********



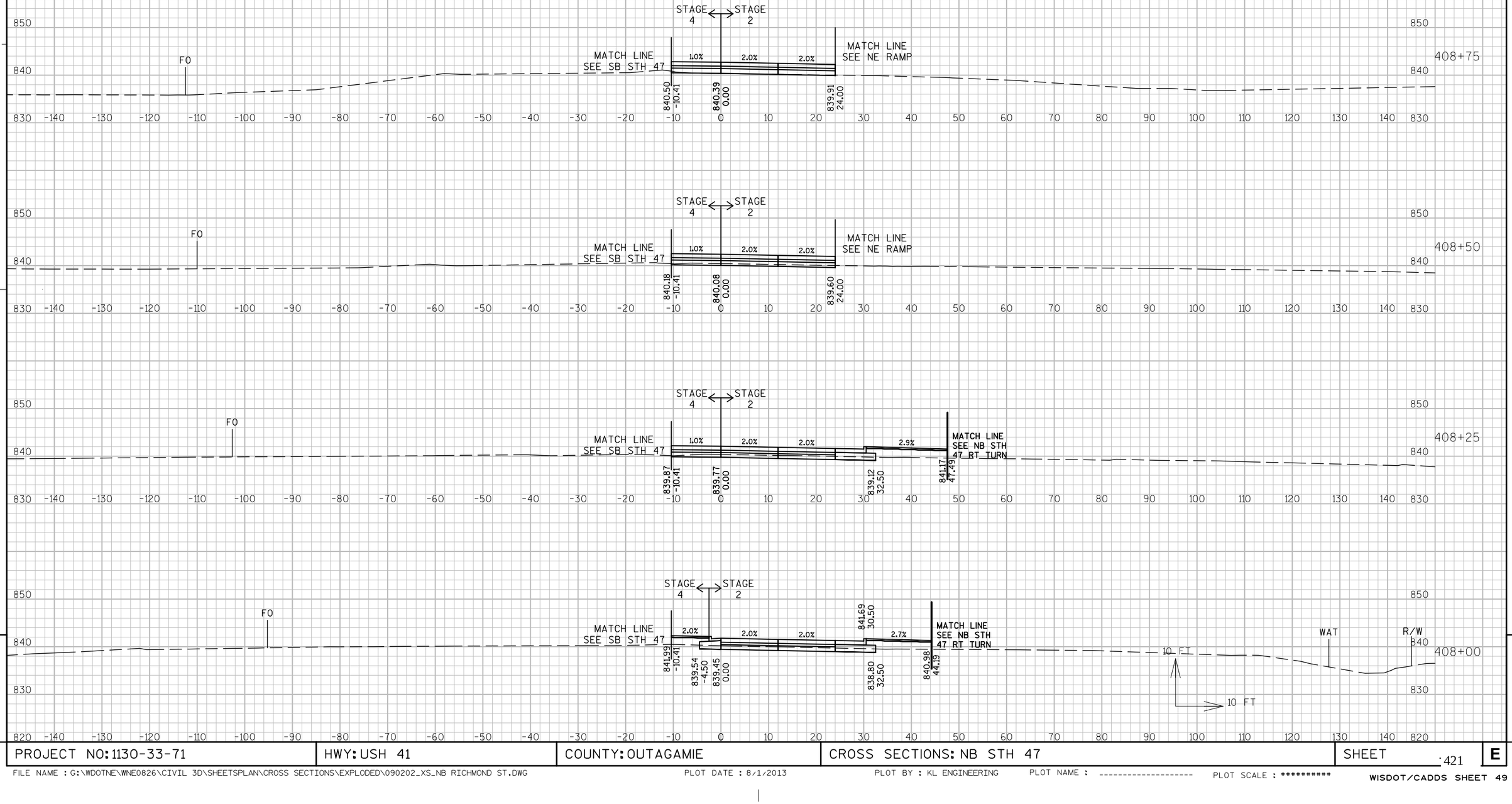


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47	SHEET 420	E

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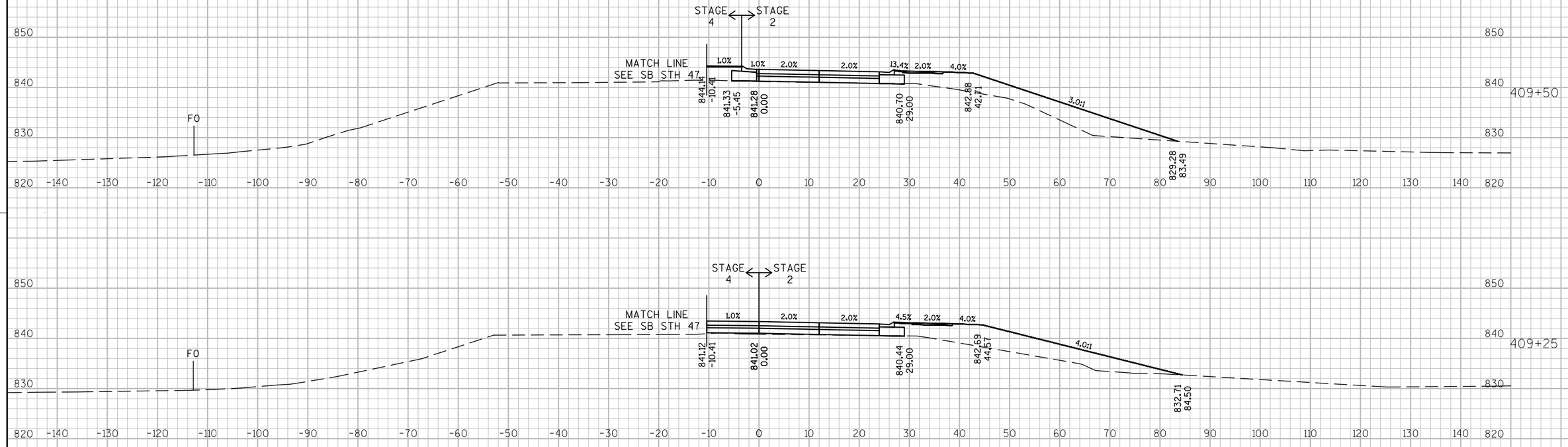


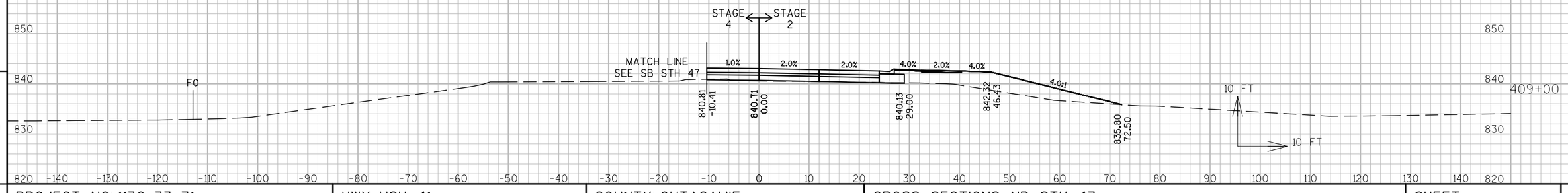
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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47	SHEET 421	E

STA 409+65.89 - STA 412+02.72
STR B-44-36 REQ'D
4 SPAN - 36"W PRESTRESSED CONCRETE GIRDER
STRUCTURE WIDTH WIDENED FROM 39FT TO 40FT
SKEW 2°28'34" LHF
MINIMUM VERTICAL CLEARANCE RAISED FROM 15.05FT TO 16.75FT
SEE STRUCTURAL PLANS



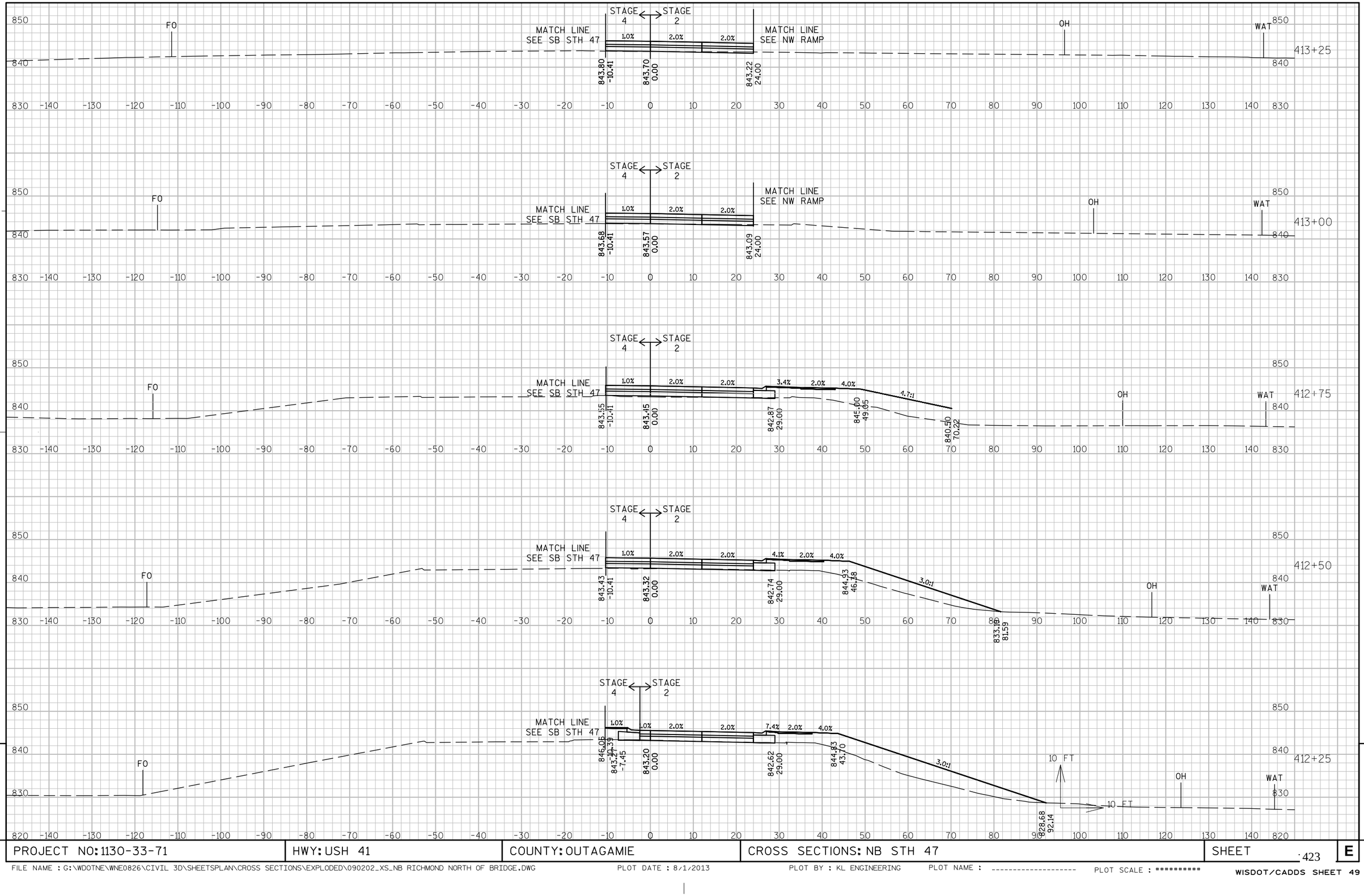


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47	SHEET 422	E

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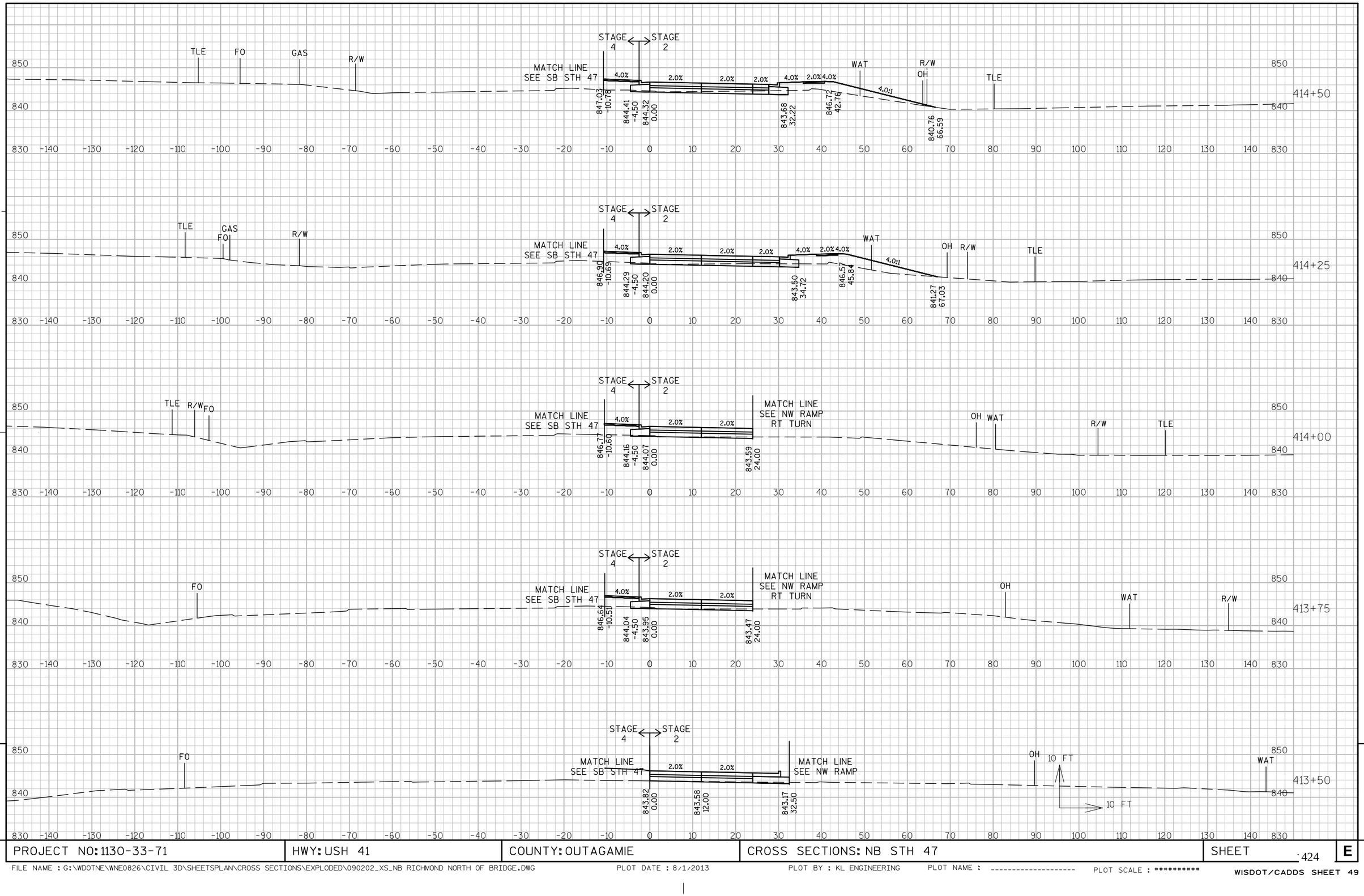


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47	SHEET 423	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\EXPLODED\090202_XS_NB RICHMOND NORTH OF BRIDGE.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49

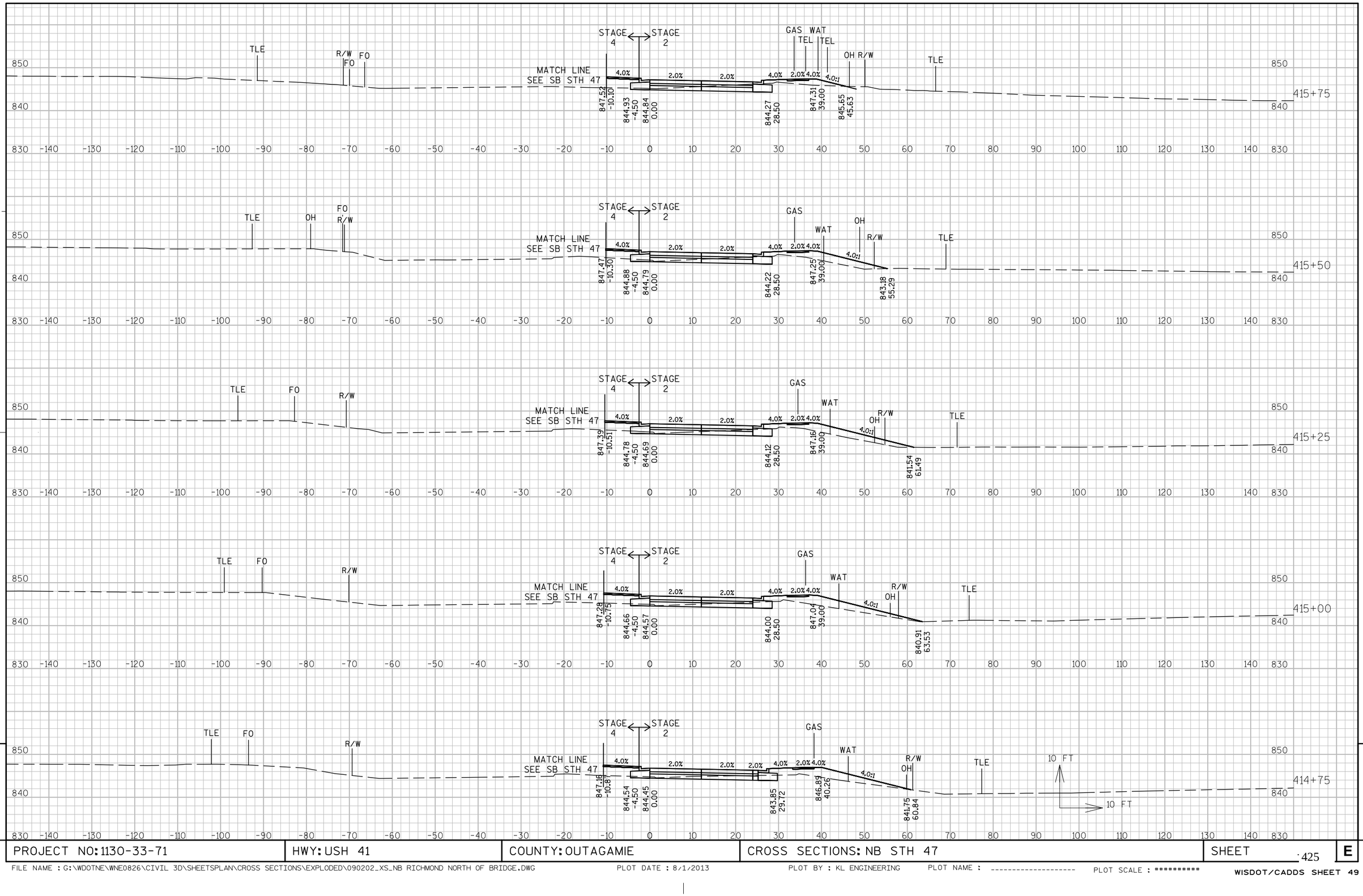


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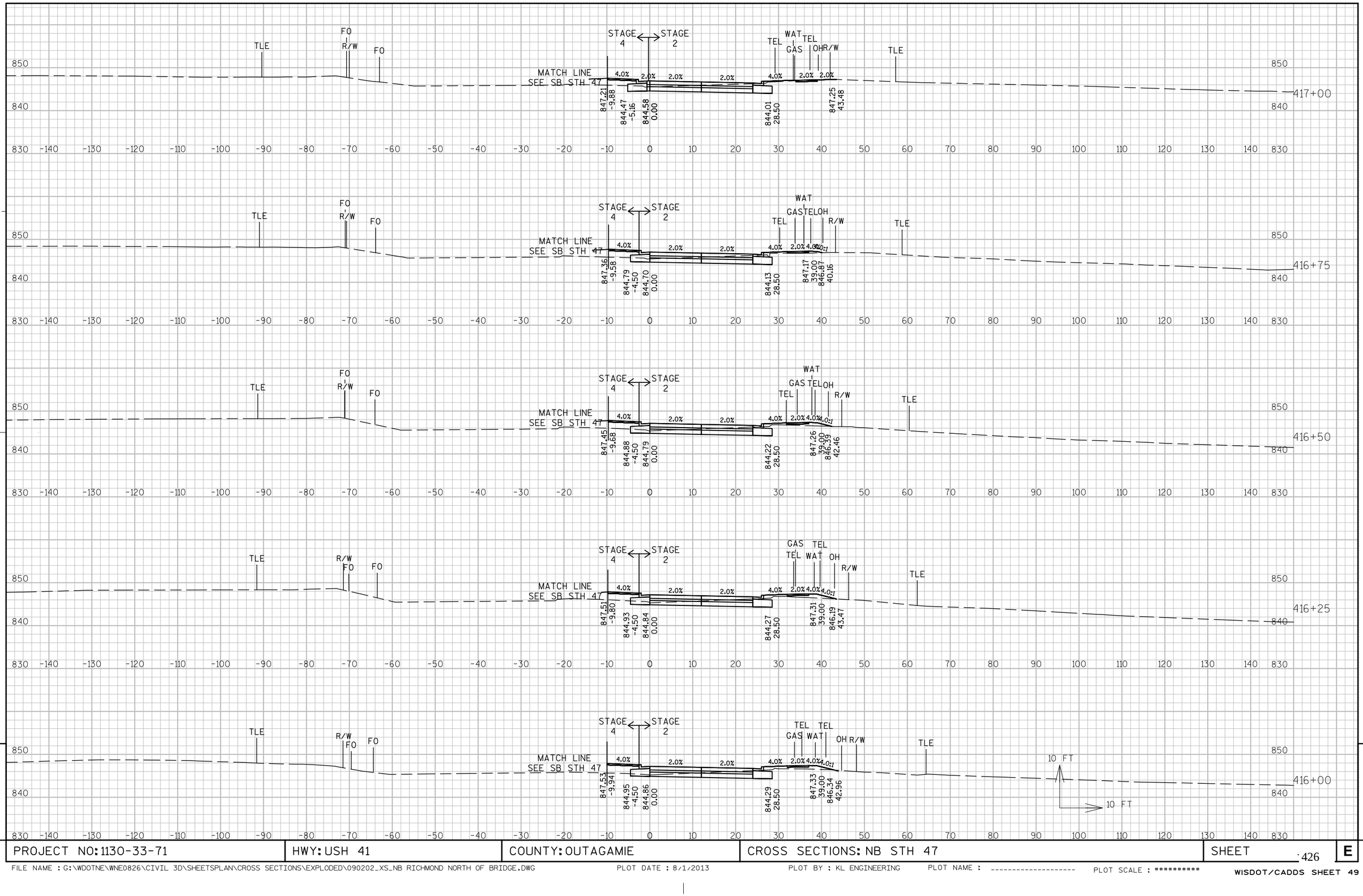


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47	SHEET 425	E

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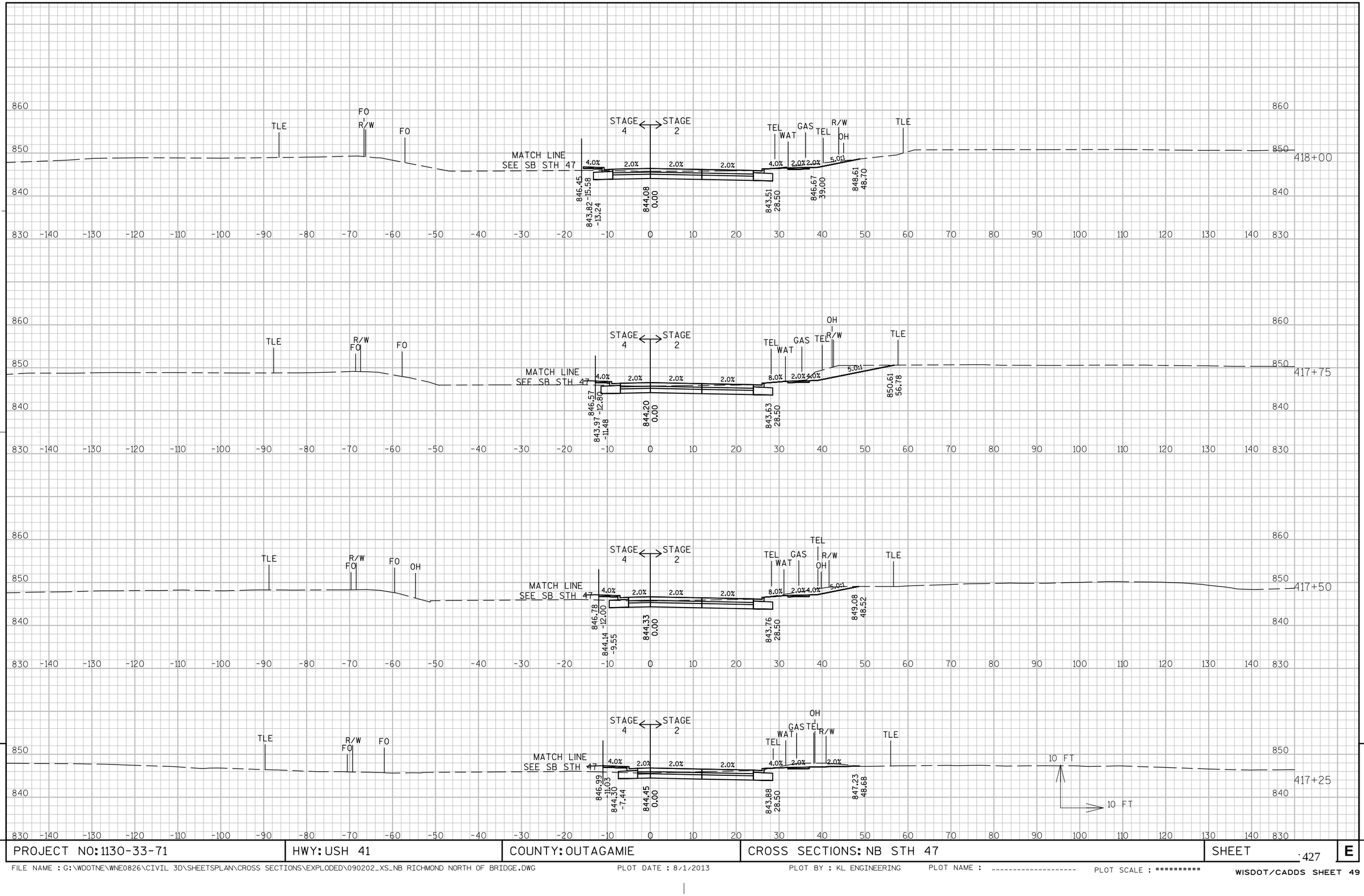


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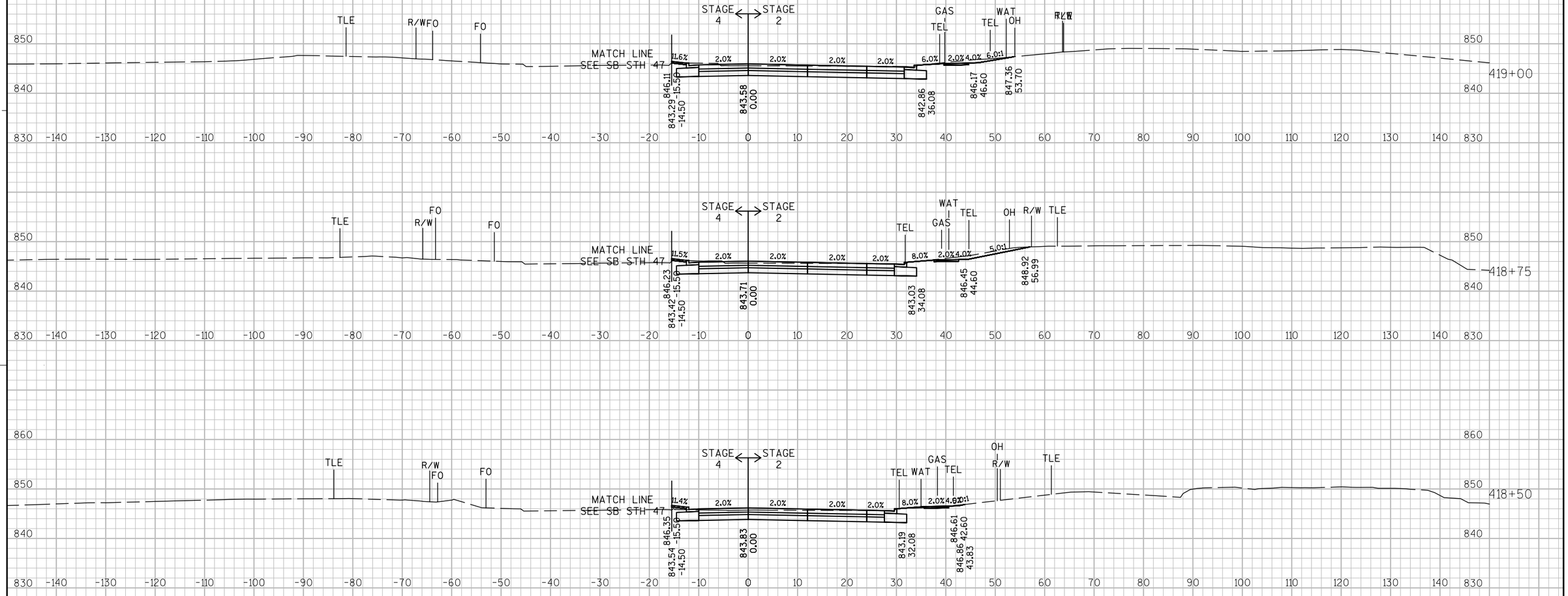
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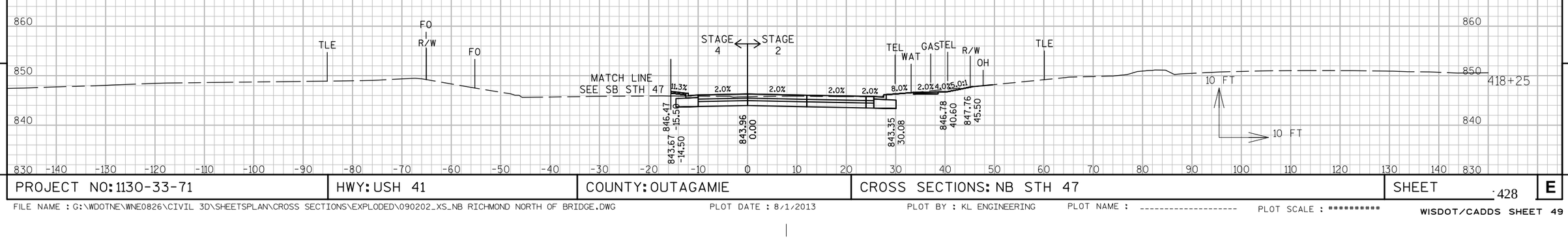
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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47	SHEET 427 E



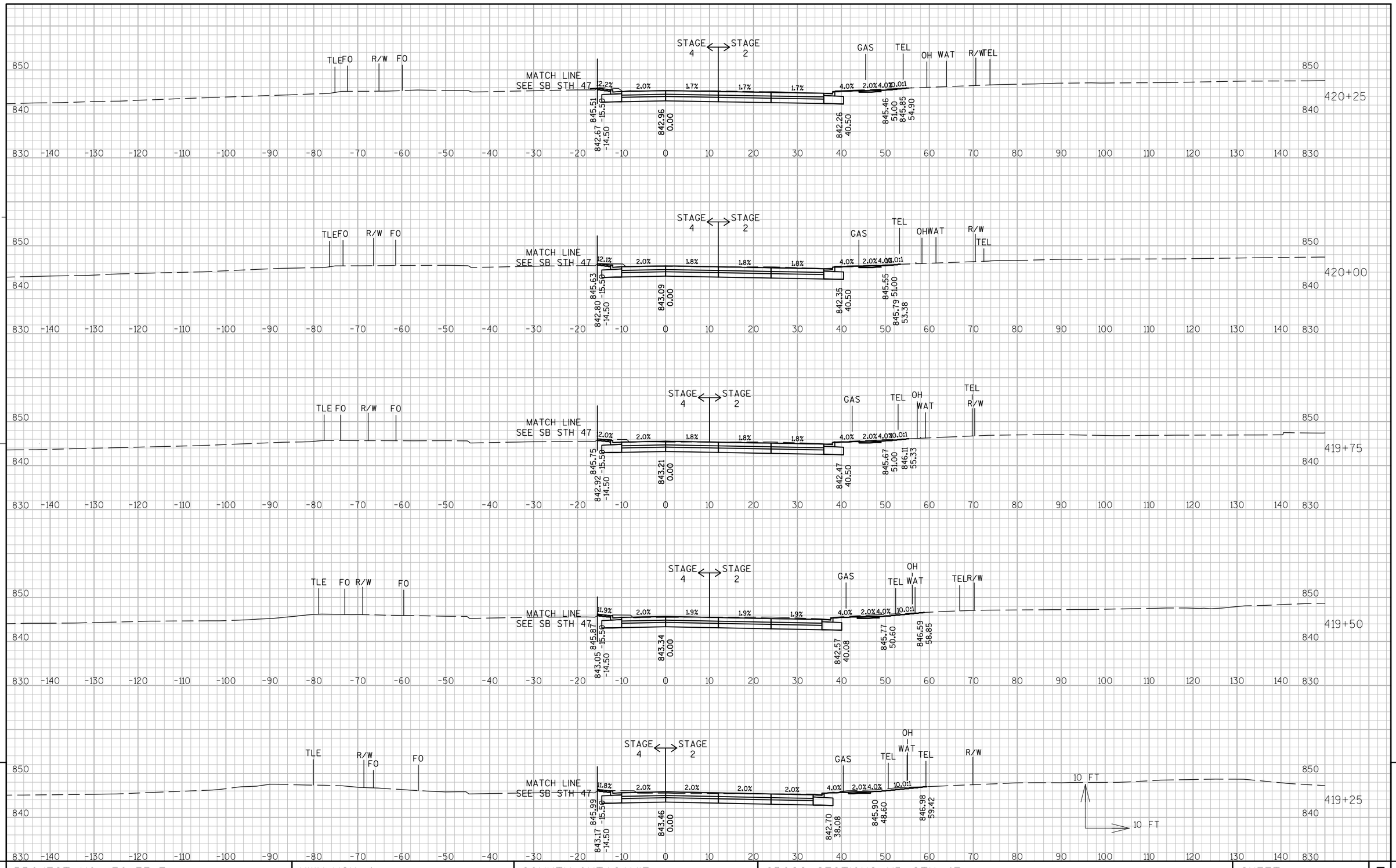


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47	SHEET 428	E

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WISDOT/CADDS SHEET 49

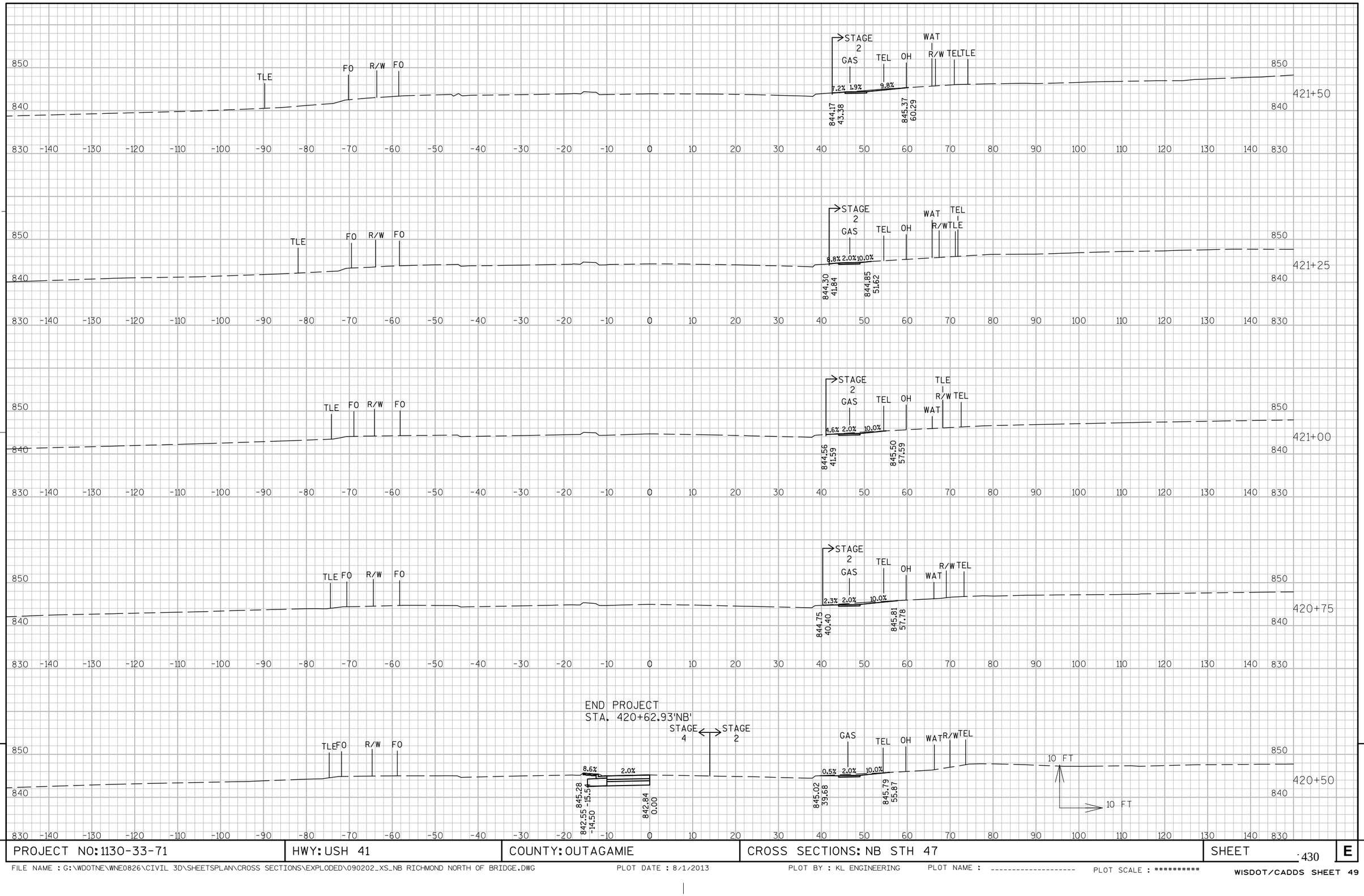


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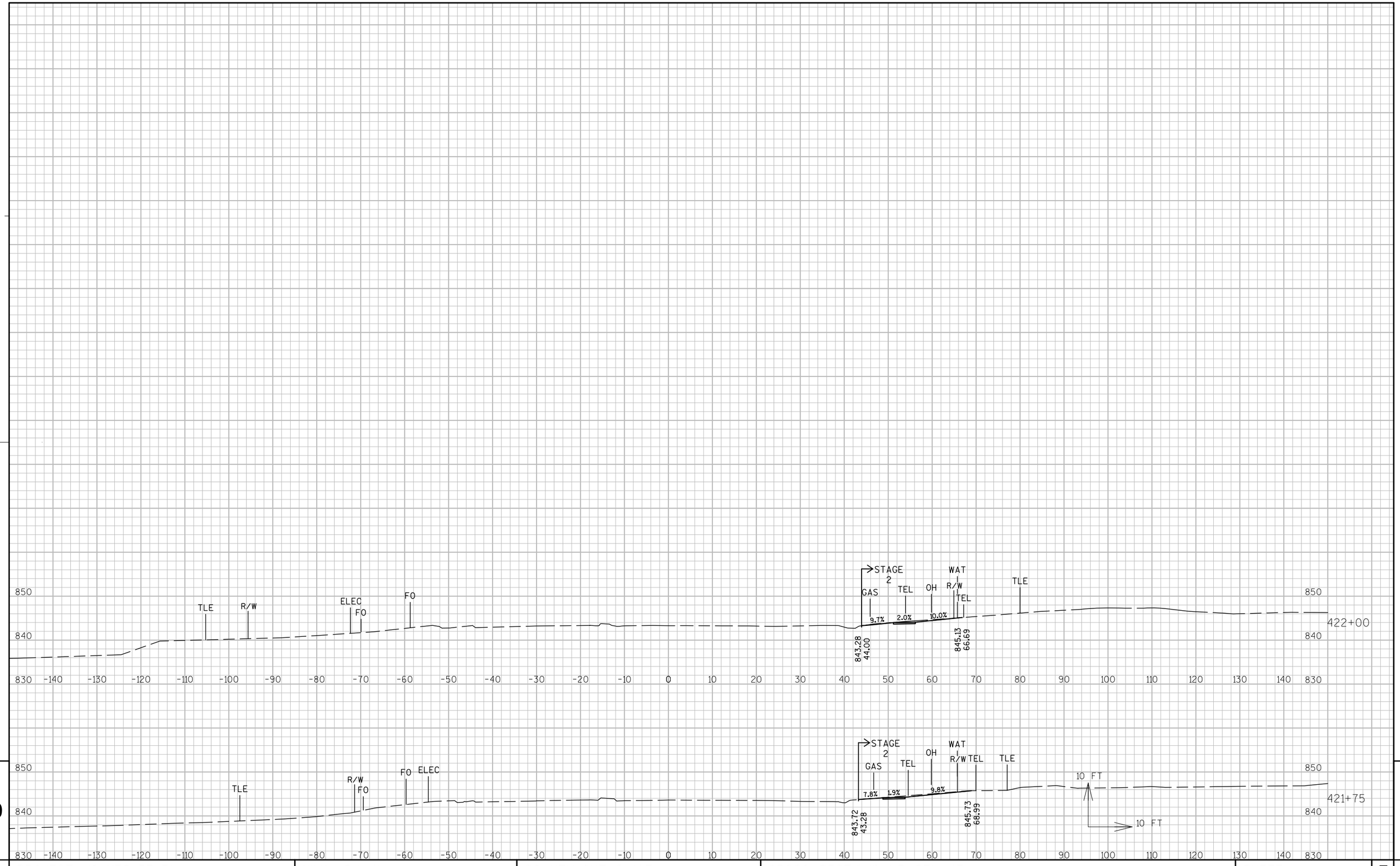
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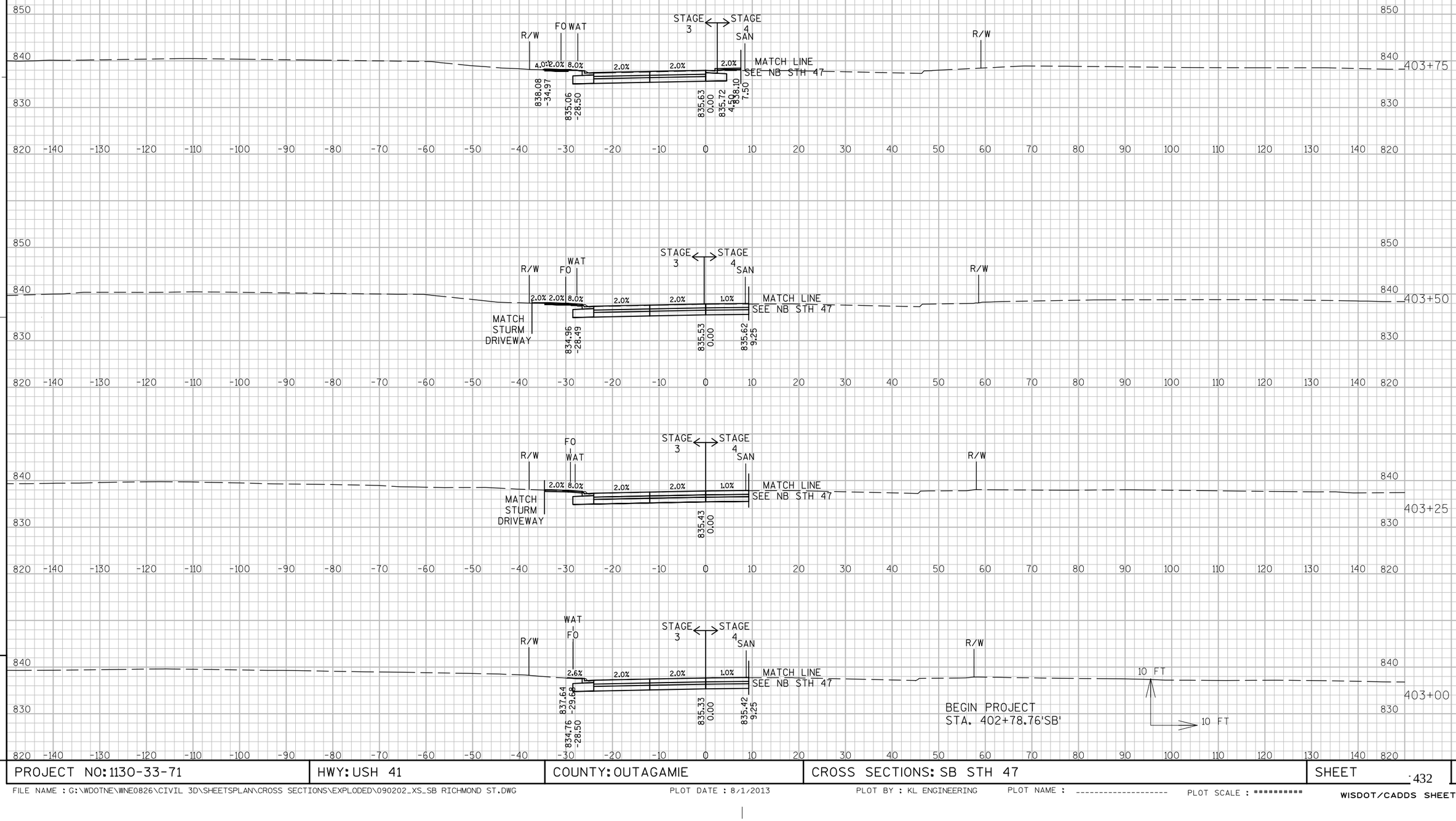
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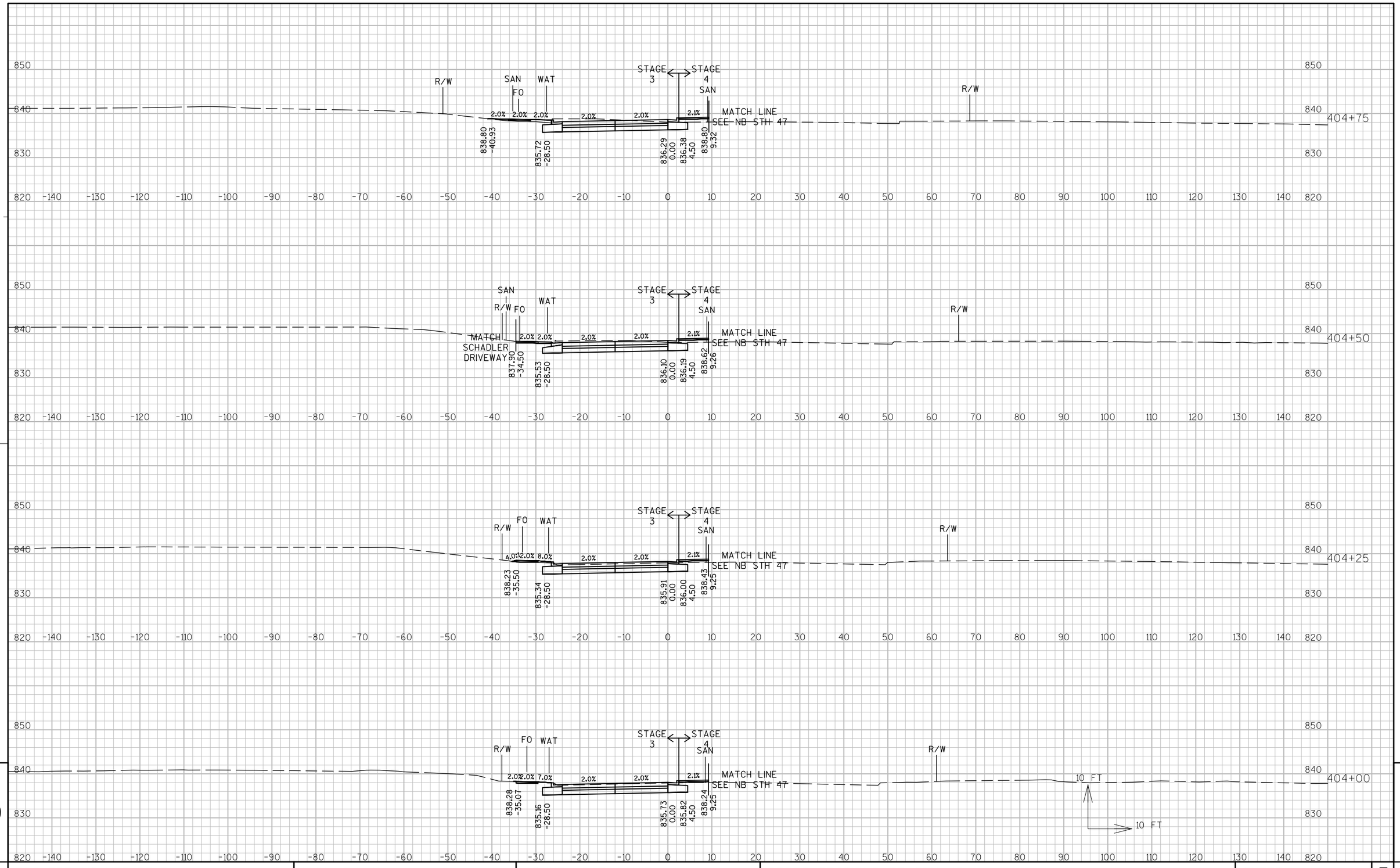
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WISDOT/CADDS SHEET 49



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 432	E

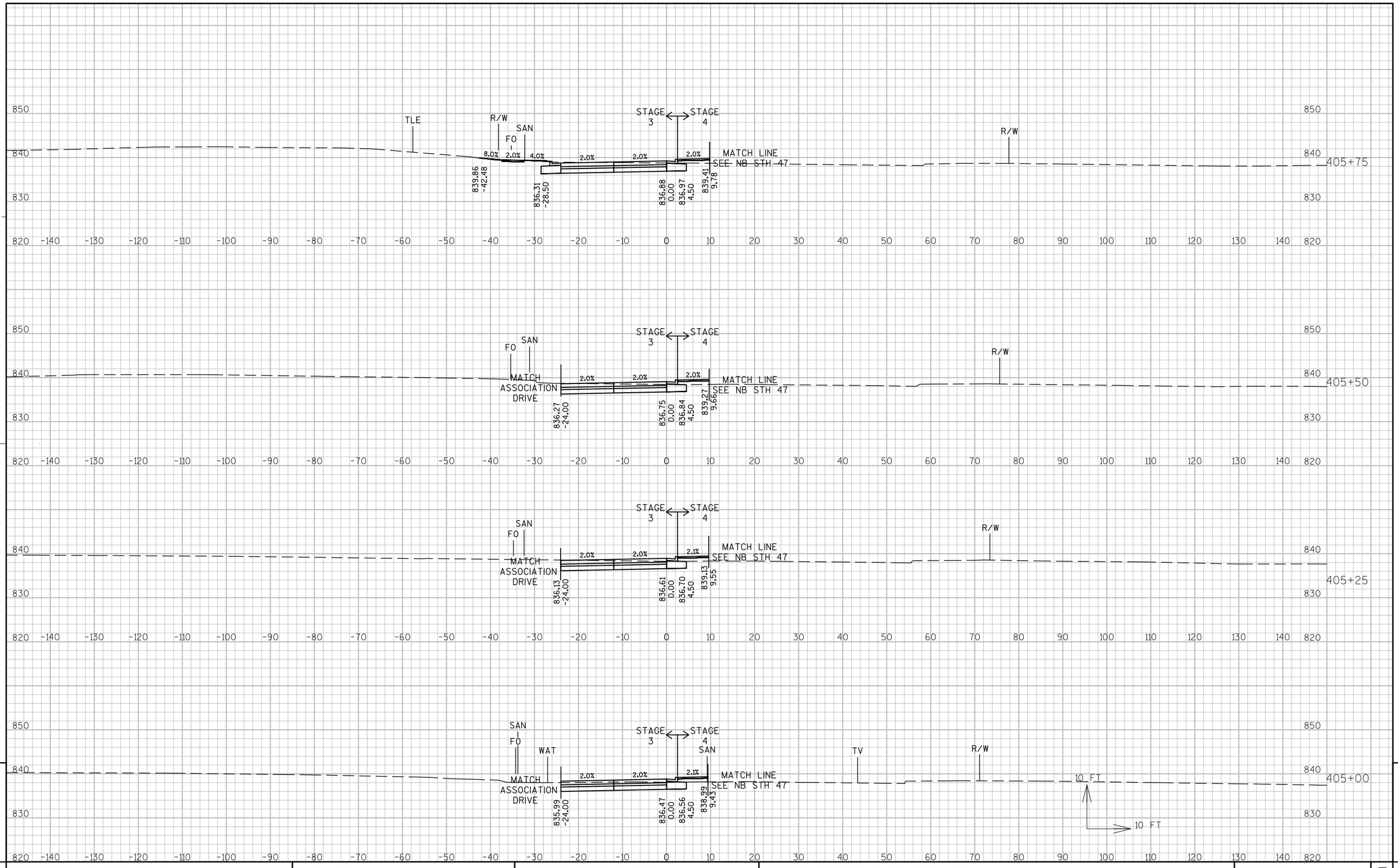


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 433	E

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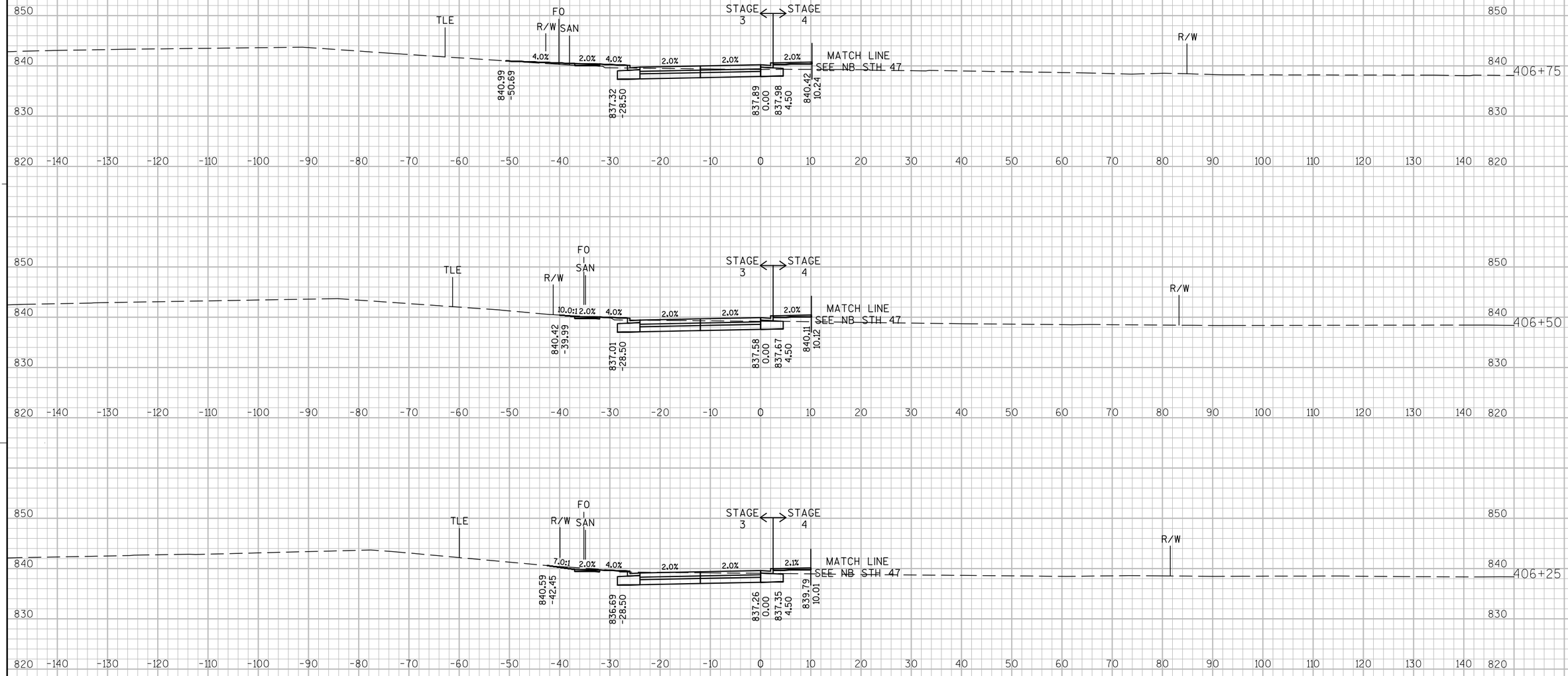


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 434	E

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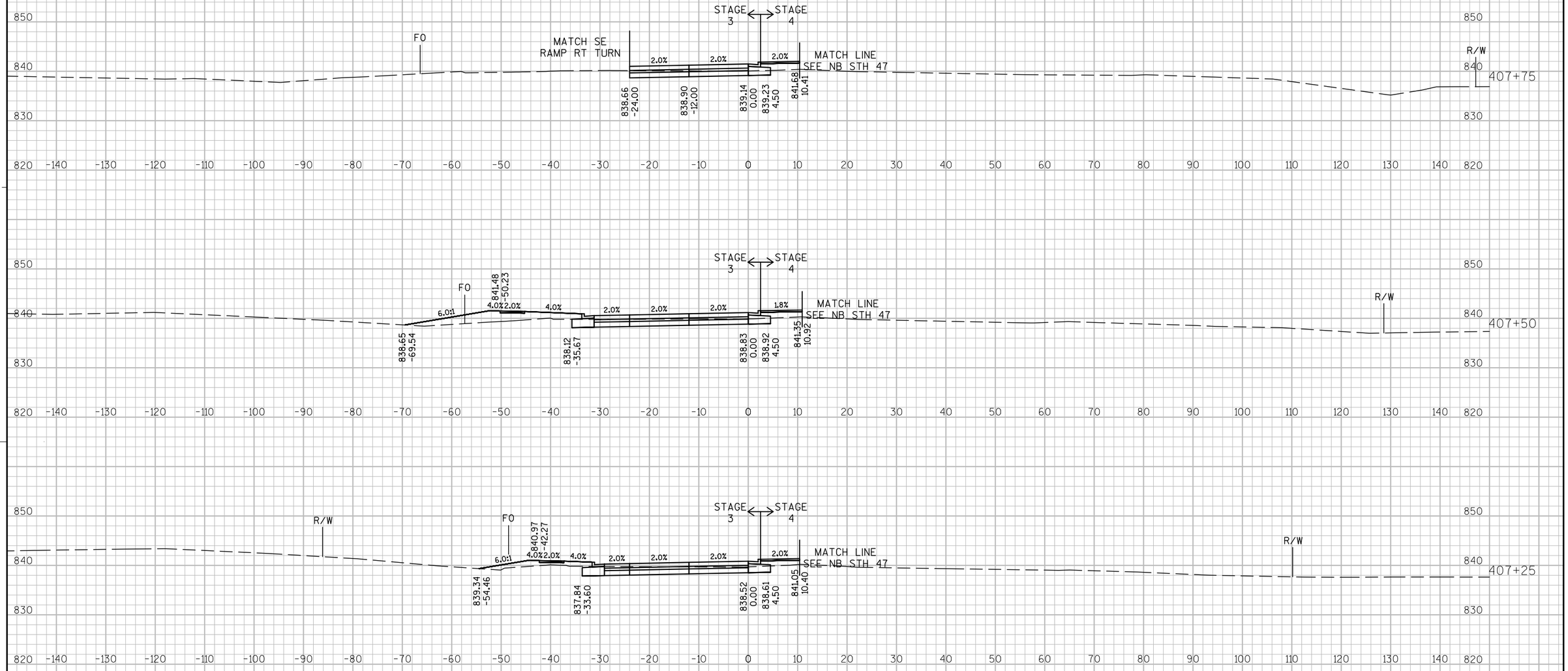


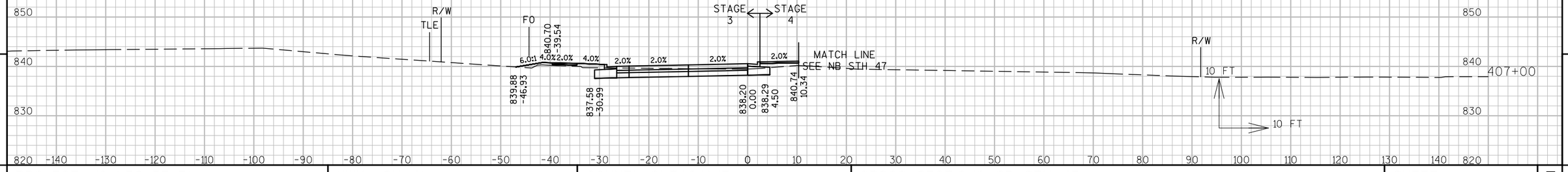
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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 435	E

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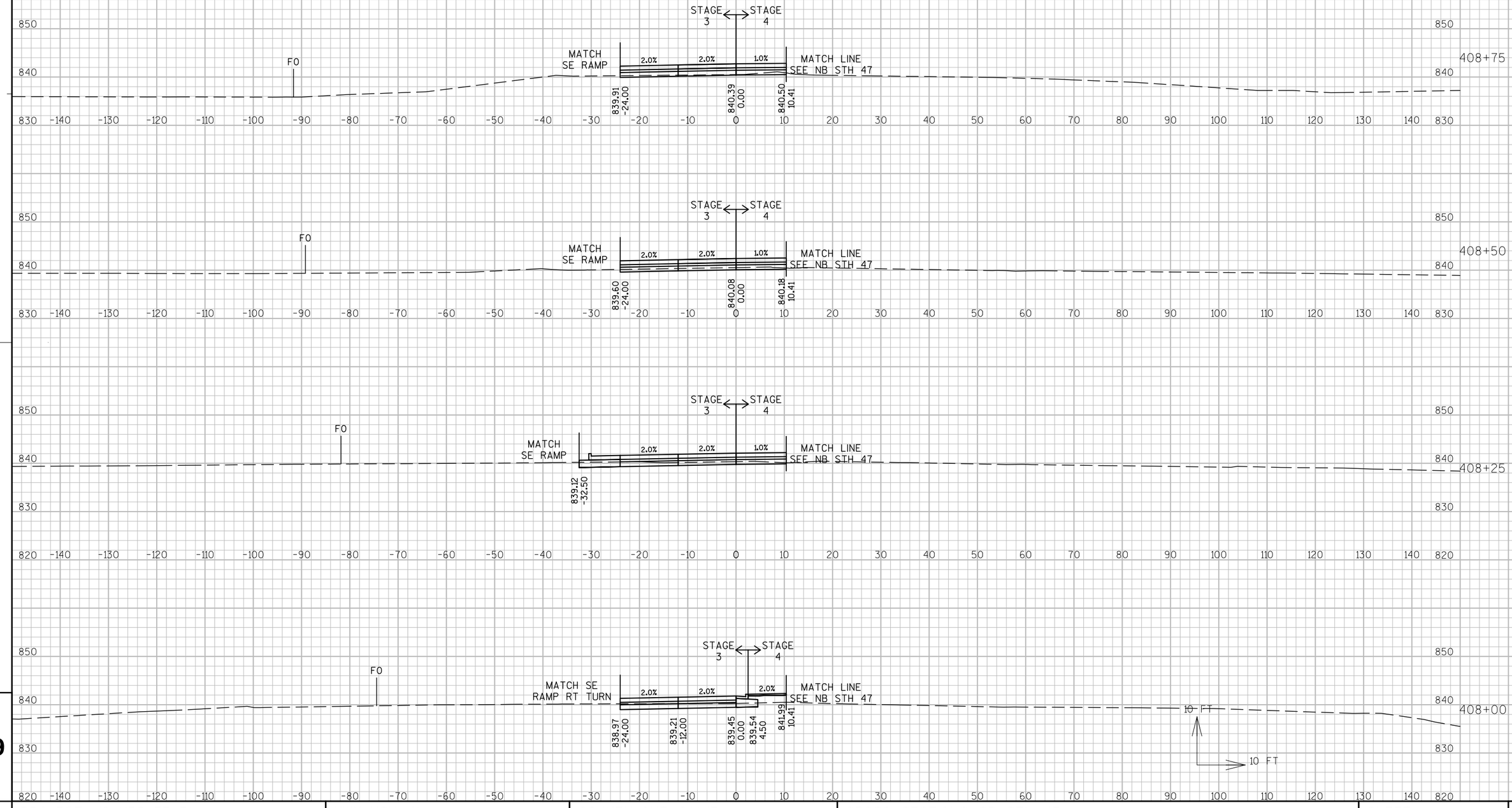




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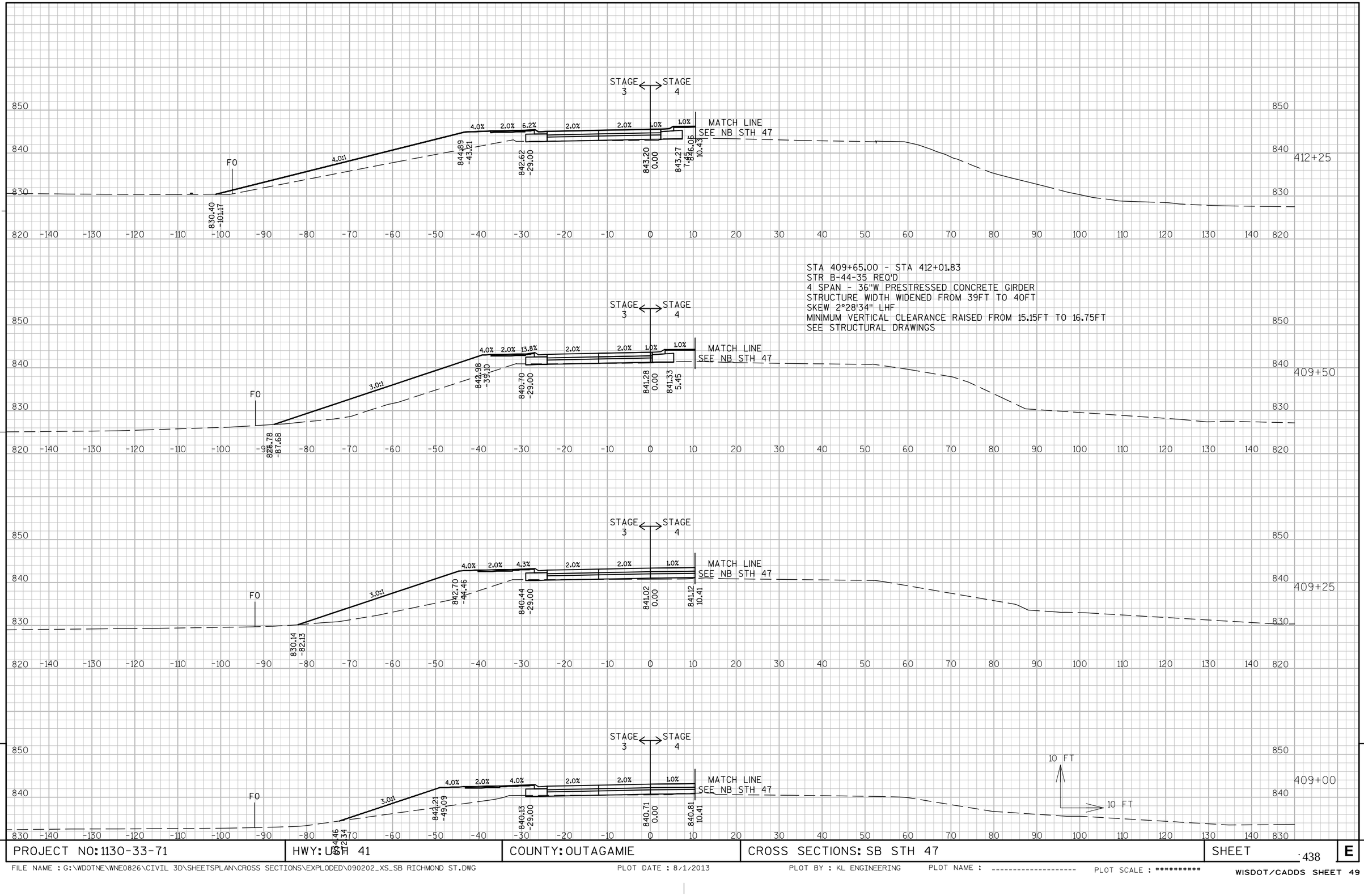
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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 436	E

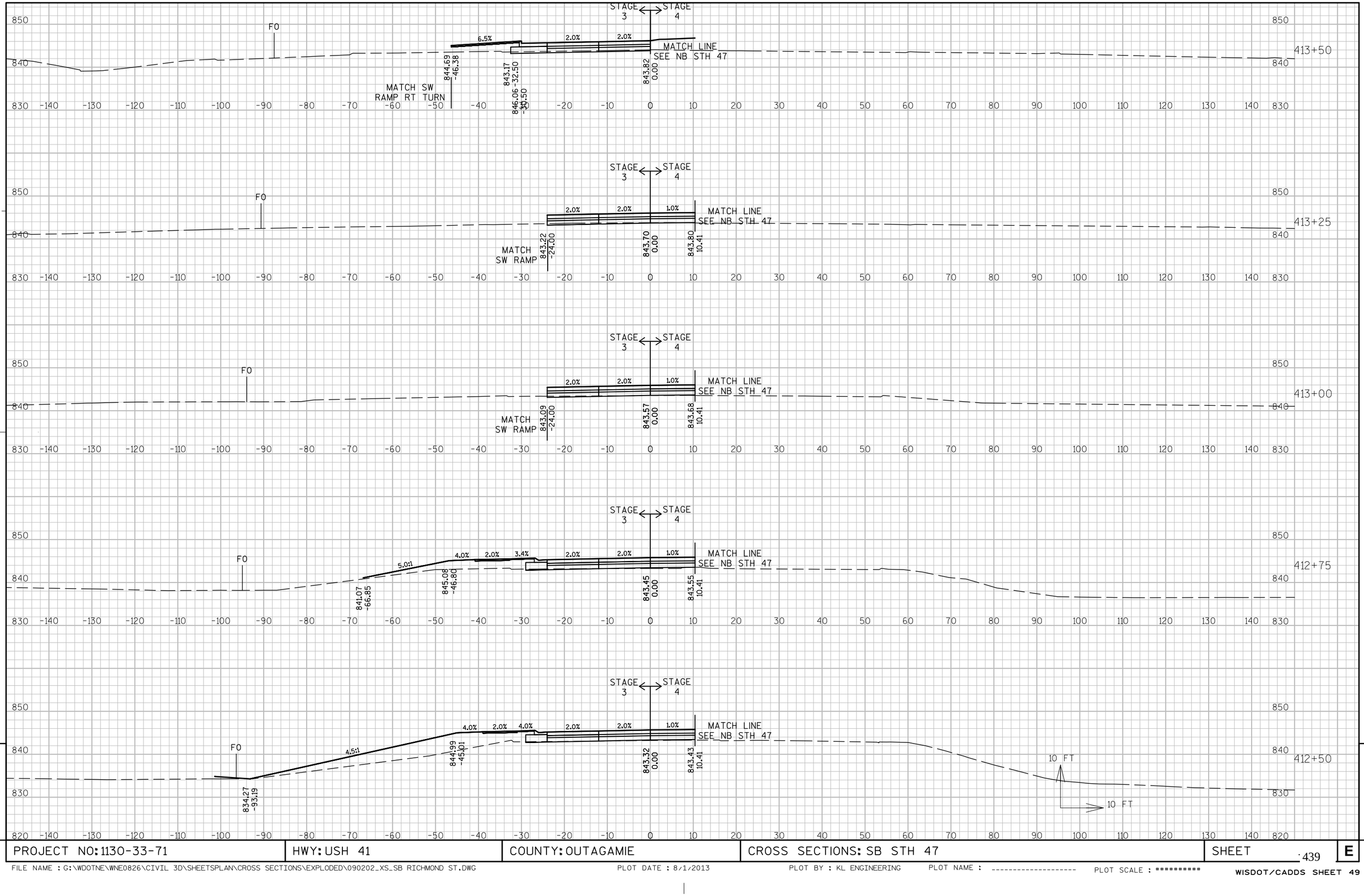


PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 437	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\EXPLODED\090202_XS_SB RICHMOND ST.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49

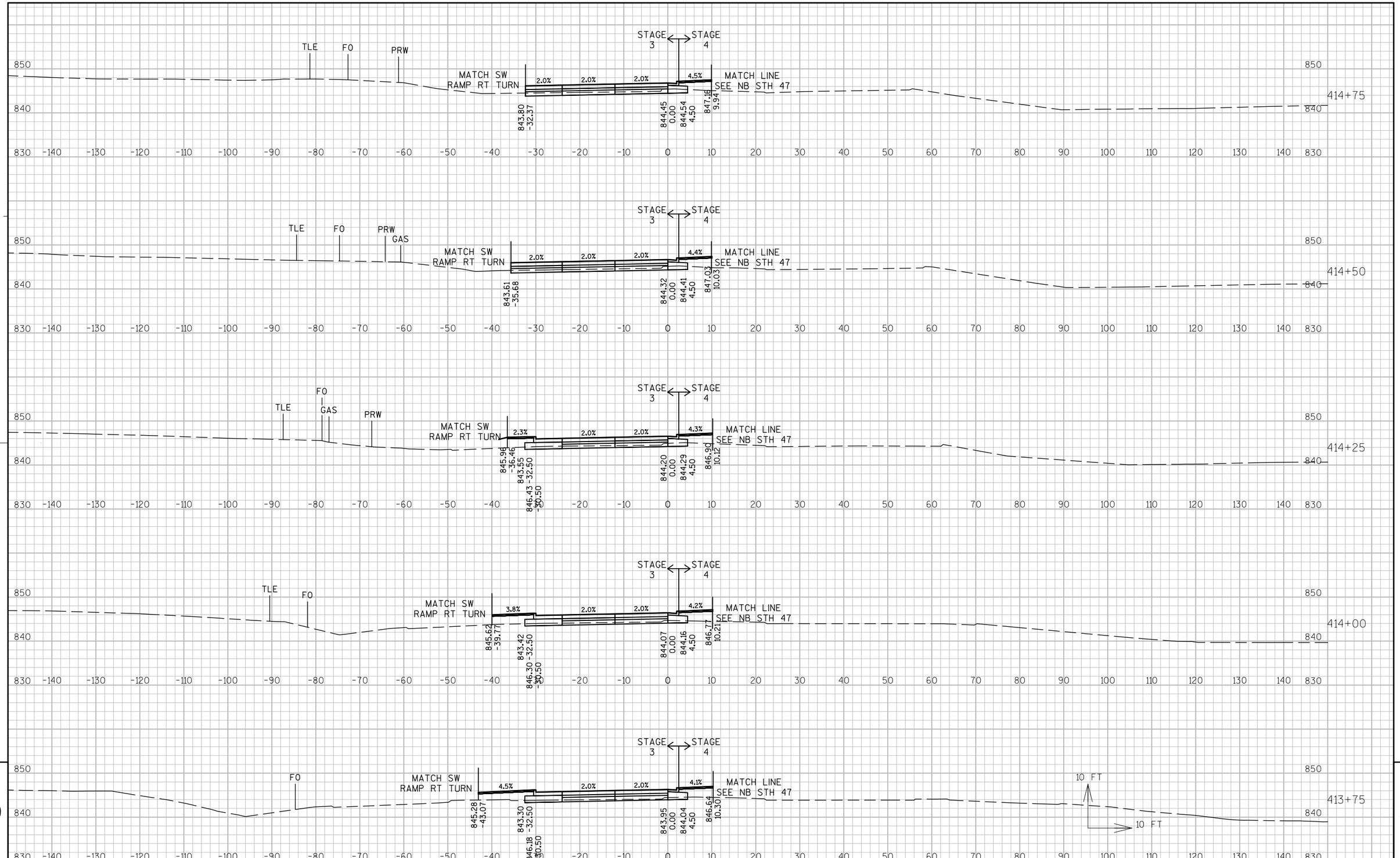


PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 438	E



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 439	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\EXPLODED\090202_XS_SB RICHMOND ST.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49

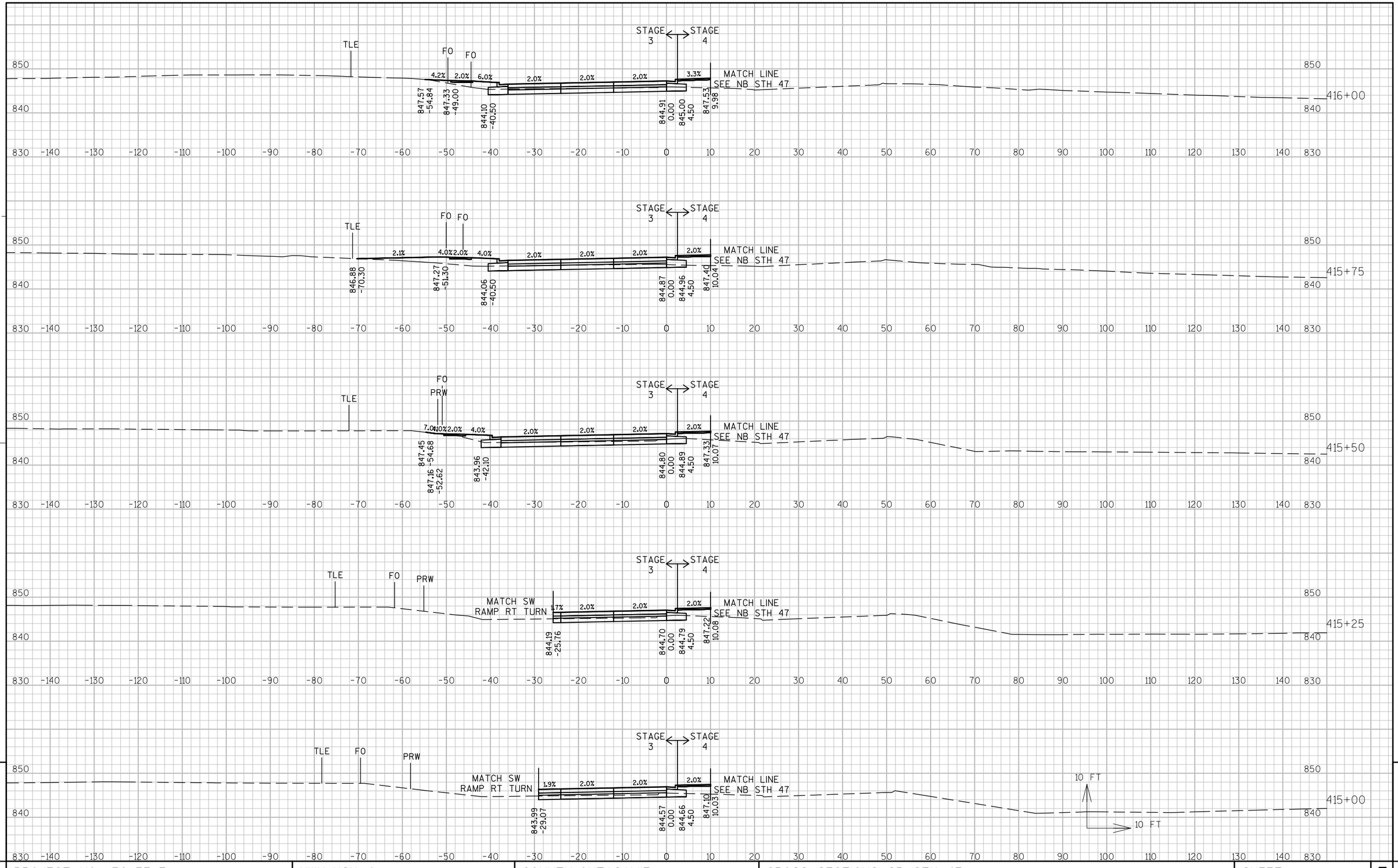


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 440	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\EXPLODED\090202_XS_SB RICHMOND ST.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49

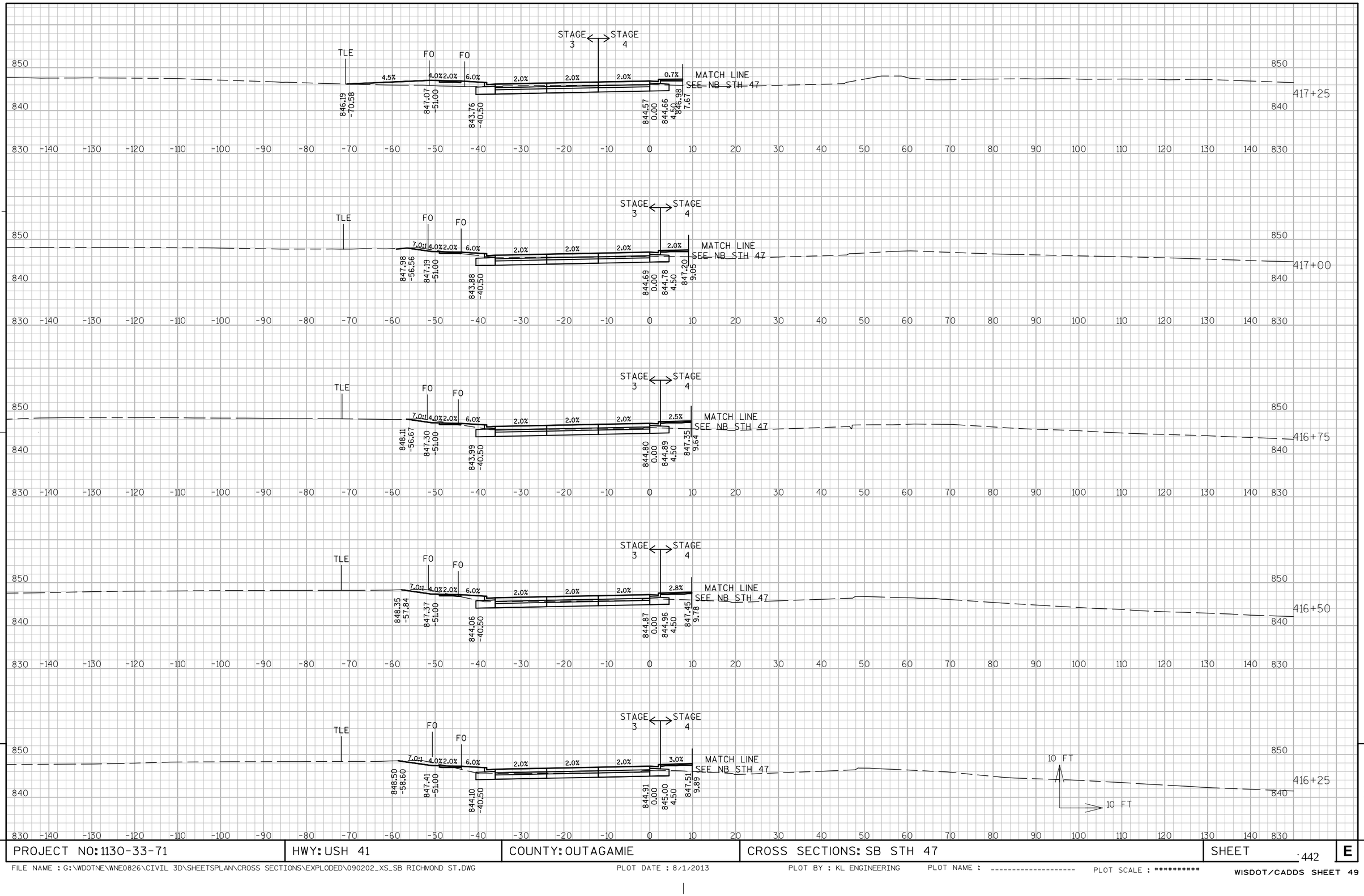


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 441	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\EXPLODED\090202_XS_SB RICHMOND ST.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

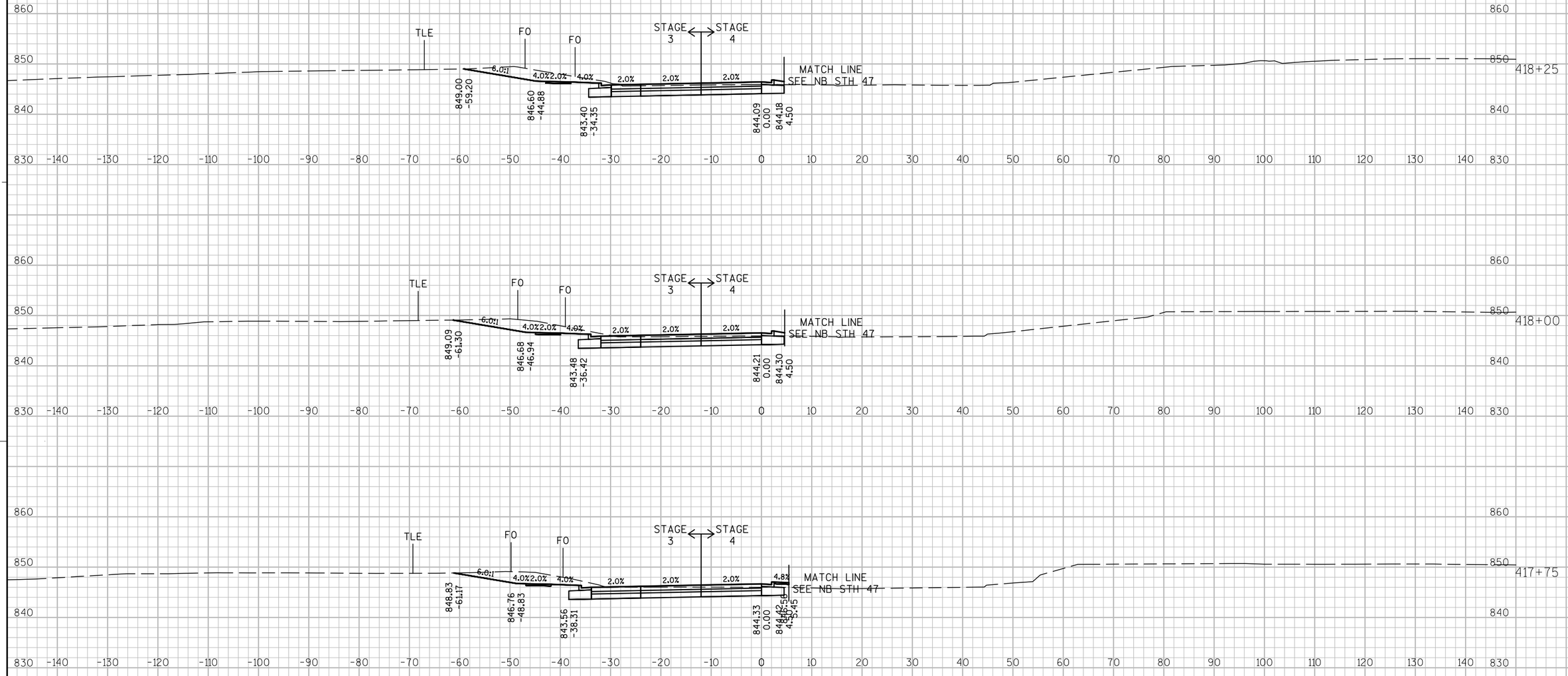


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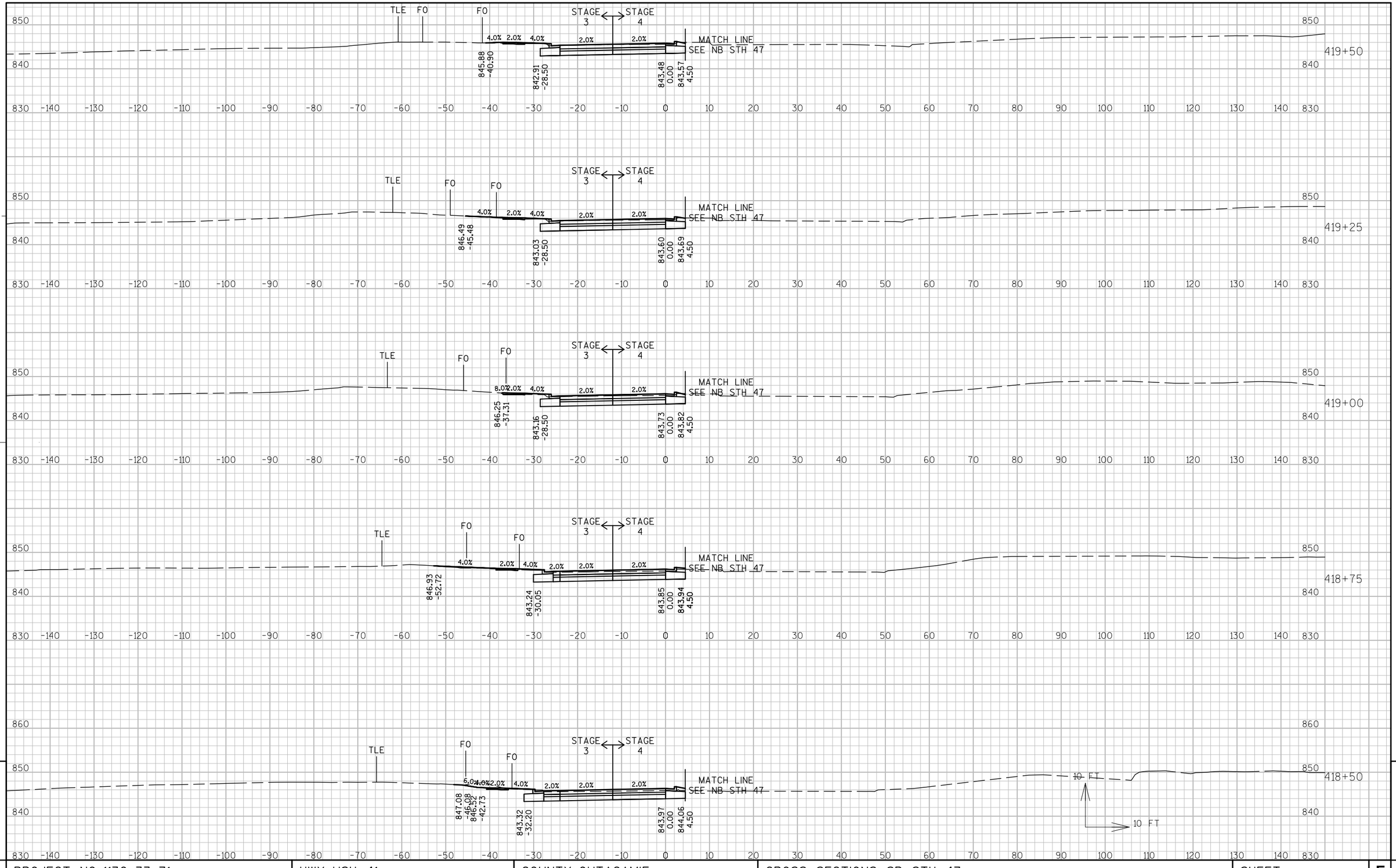
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 442	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\EXPLODED\090202_XS_SB RICHMOND ST.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 443	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\EXPLODED\090202_XS_SB RICHMOND ST.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49

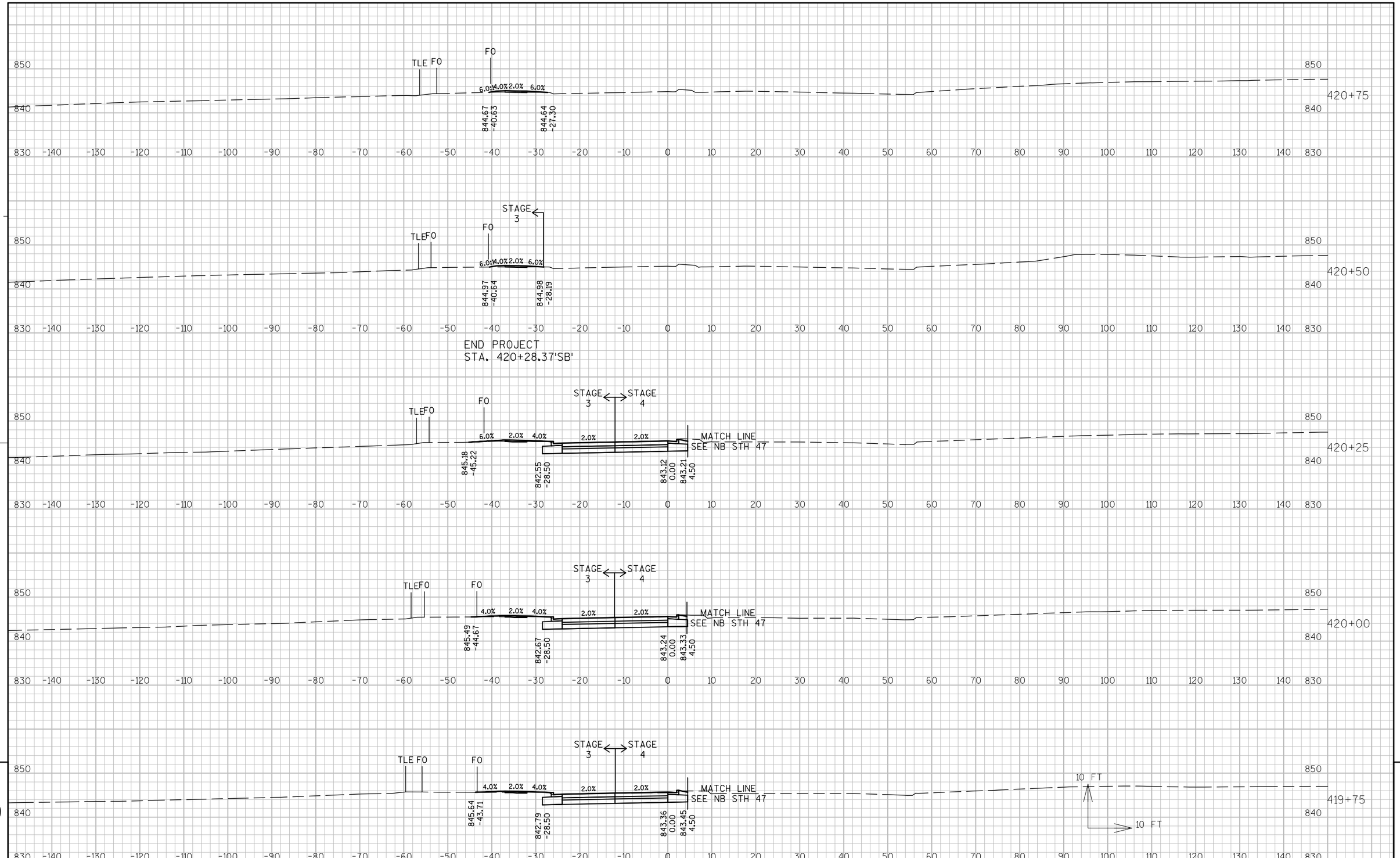


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 444	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\EXPLODED\090202_XS_SB RICHMOND ST.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49

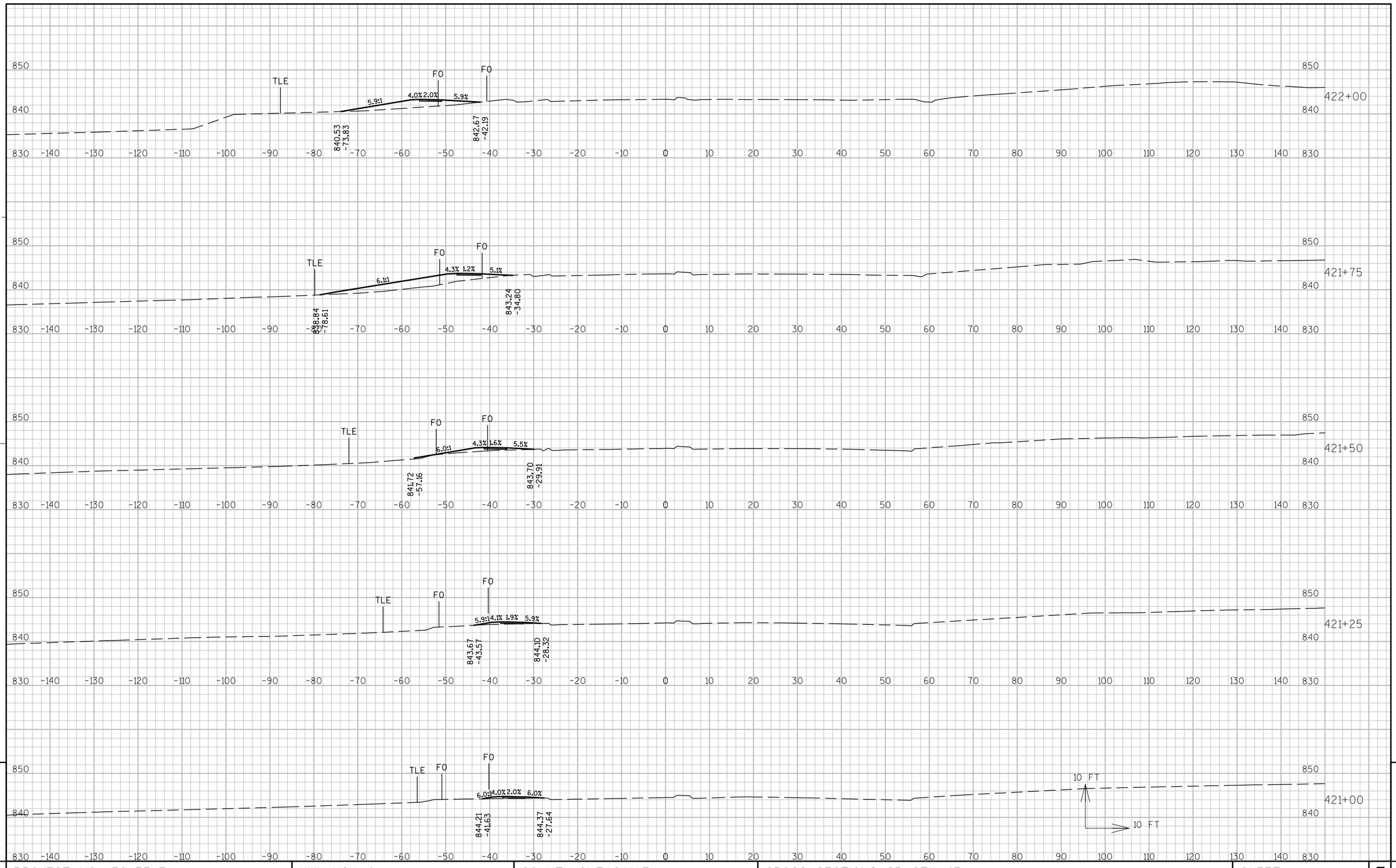


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 445	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\EXPLODED\090202_XS_SB RICHMOND ST.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49

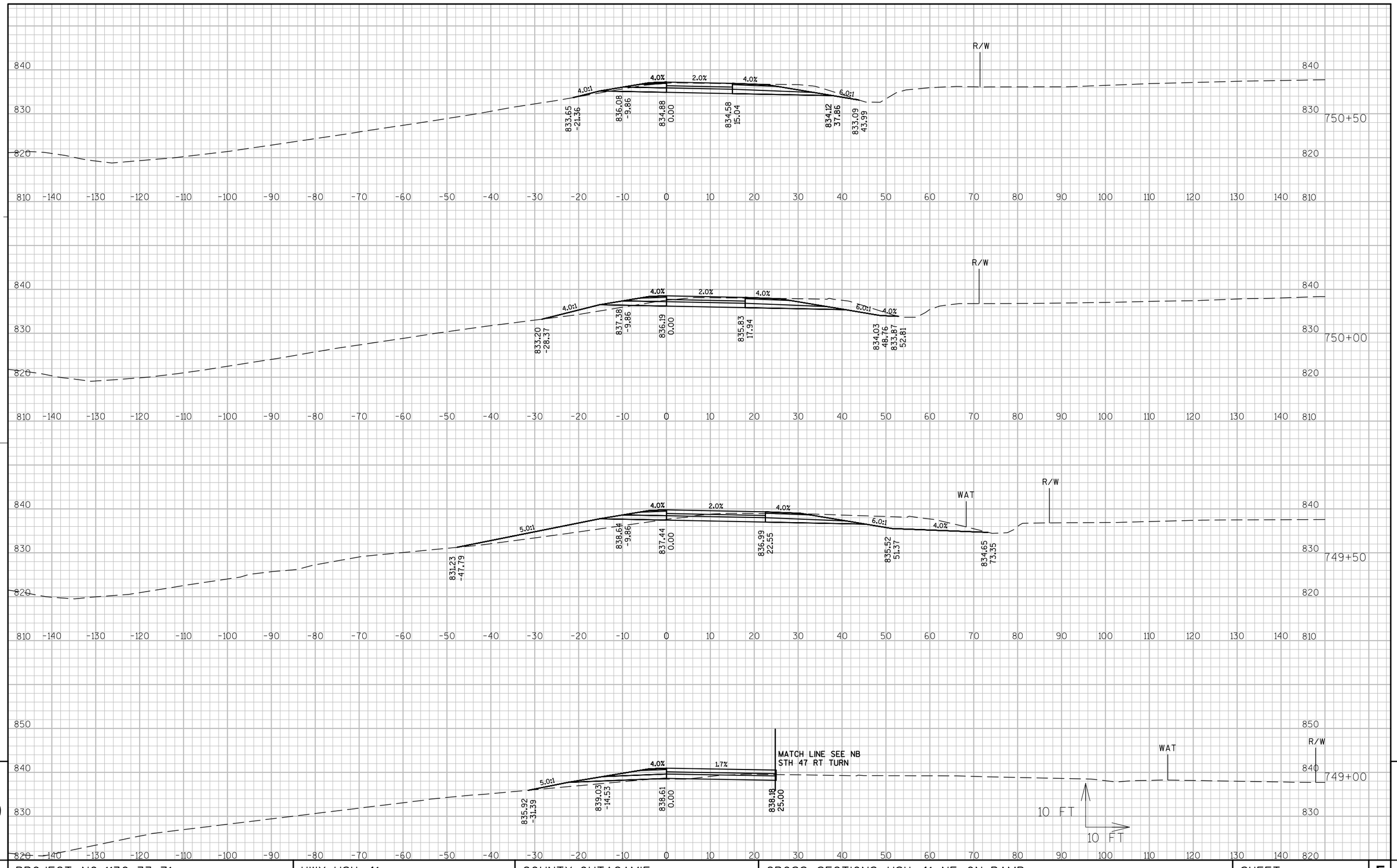


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47	SHEET 446	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\EXPLODED\090202_XS_SB RICHMOND ST.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********



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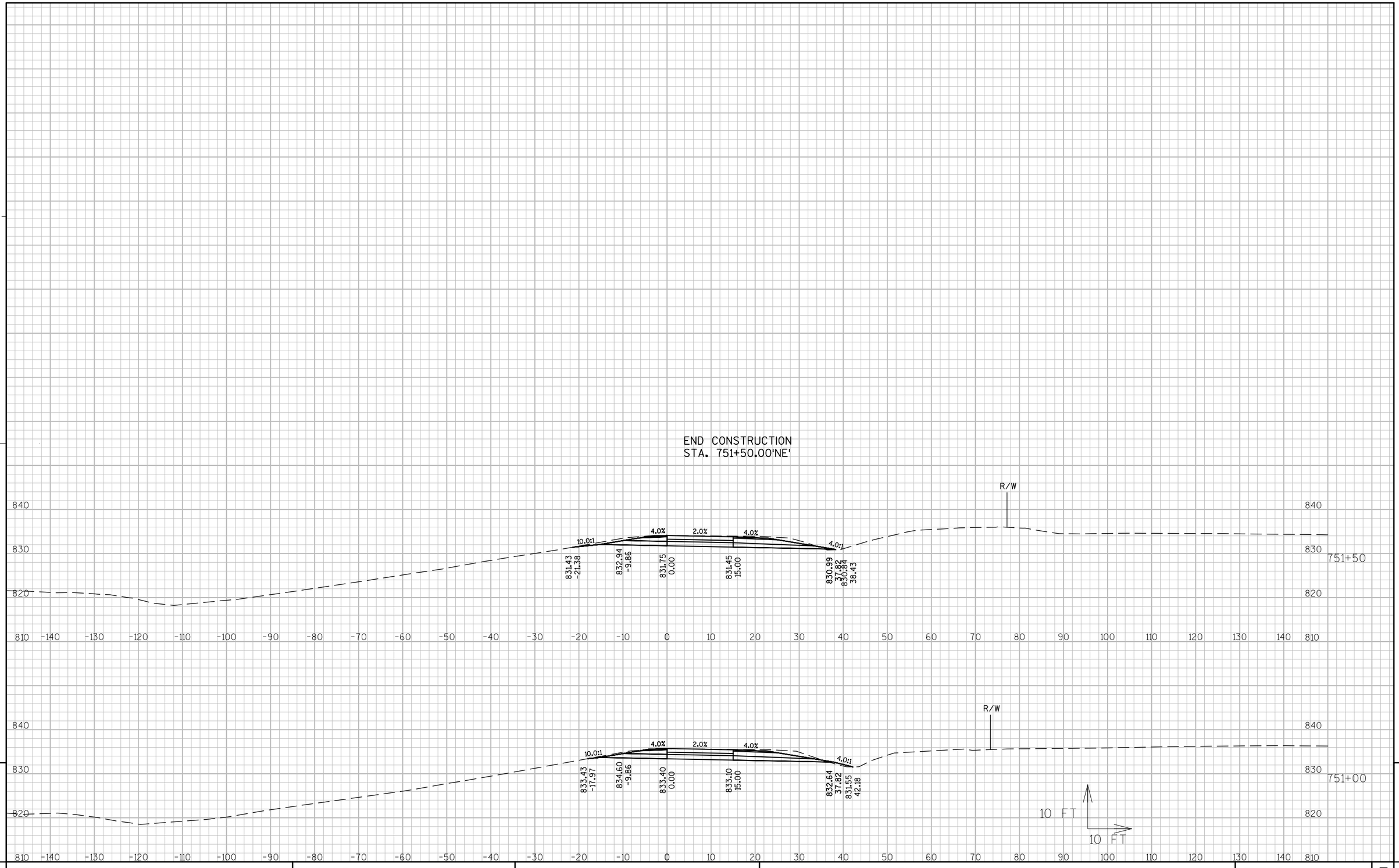
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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 NE ON-RAMP	SHEET 447	E

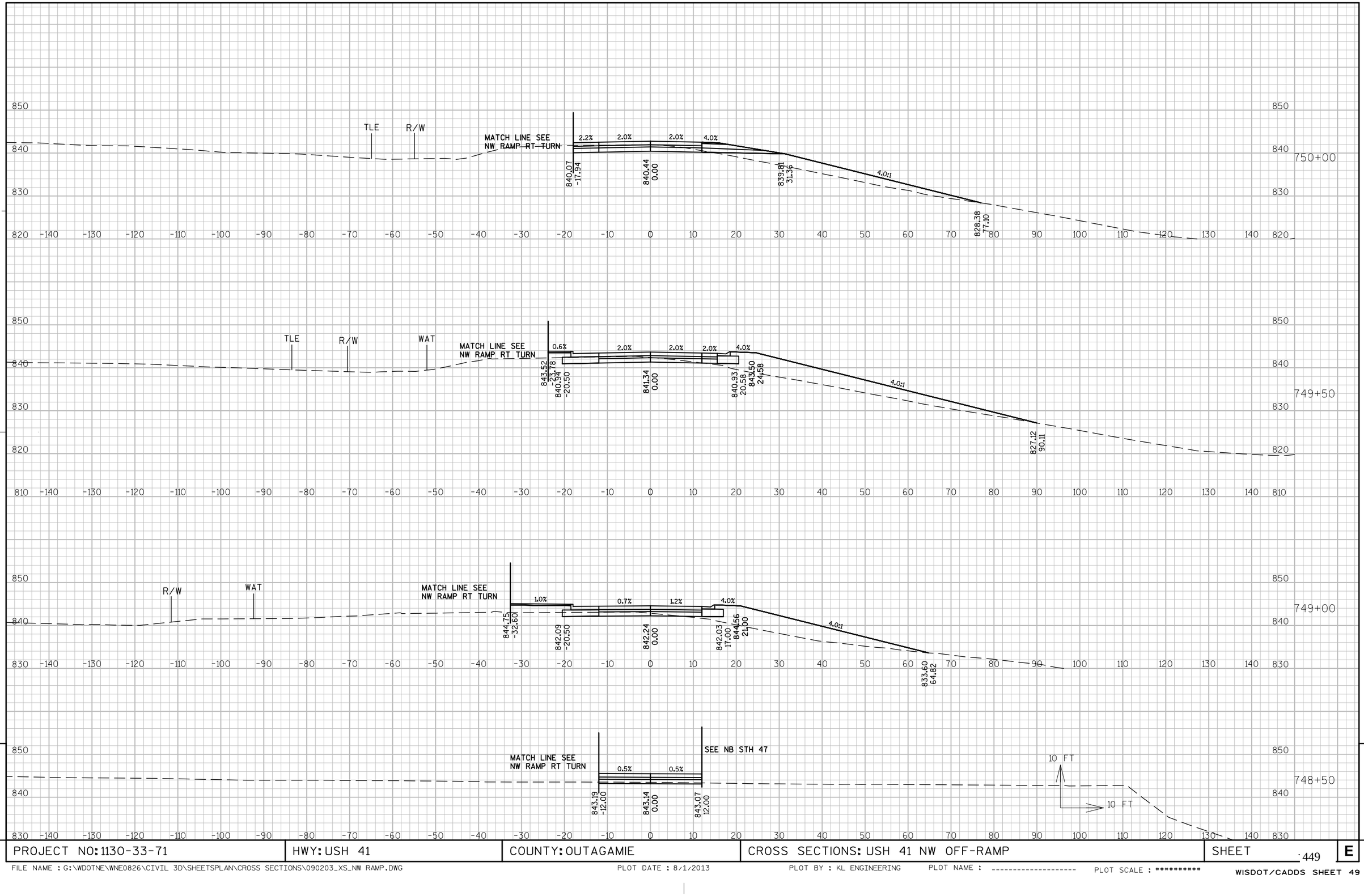
FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090201_XS_NE RAMP.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA. 751+50.00'NE'

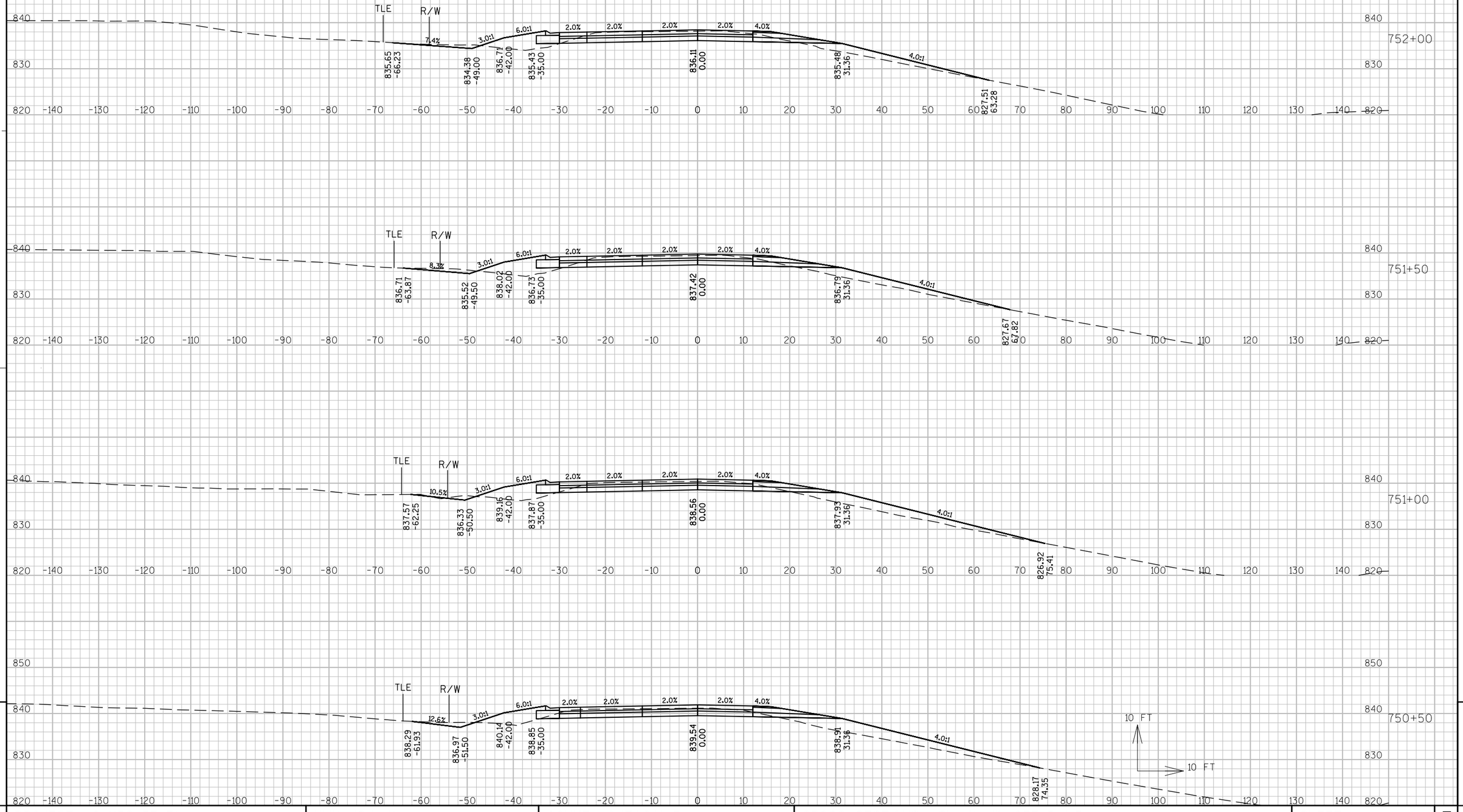


PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 NE ON-RAMP	SHEET 448	E



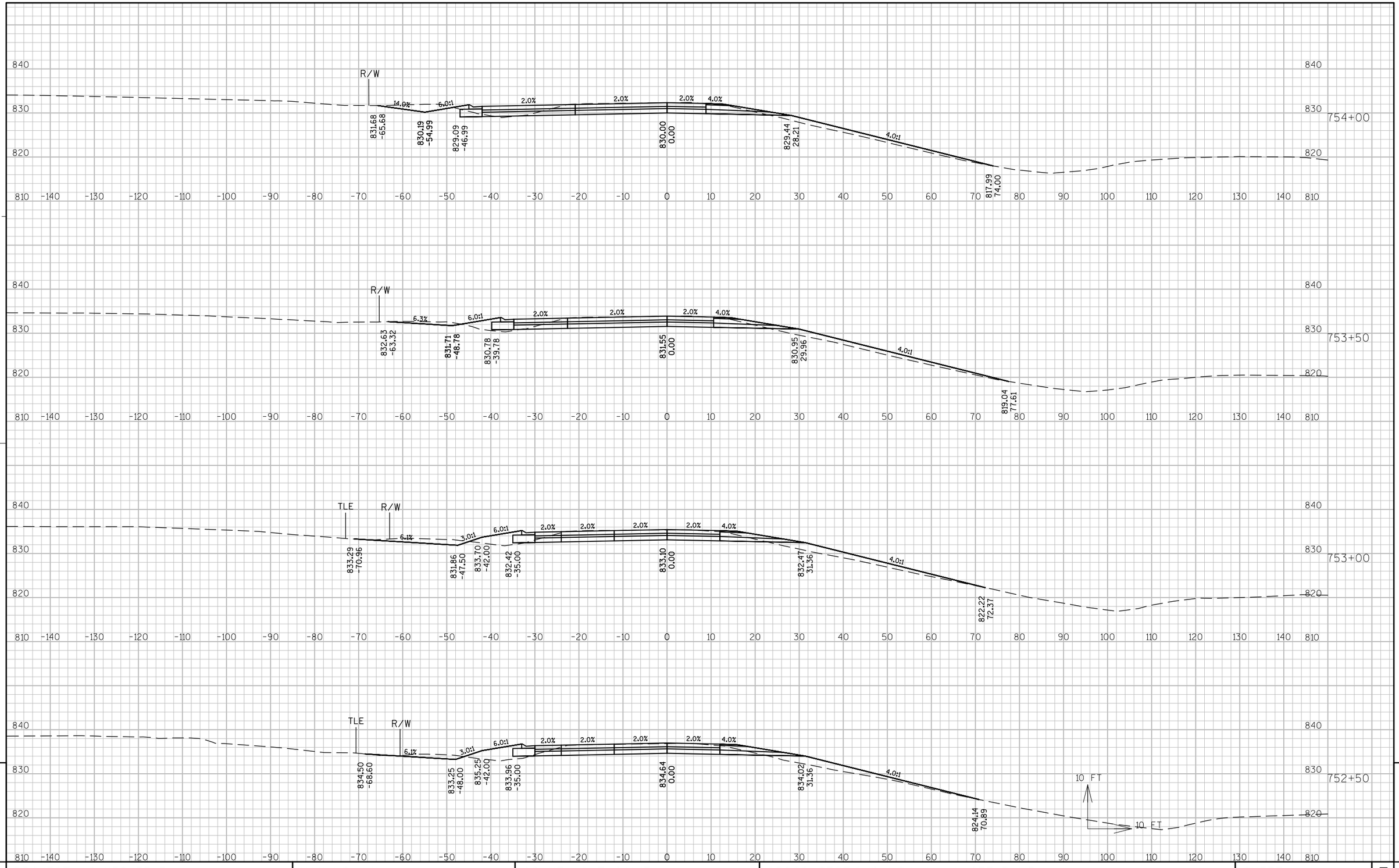
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 NW OFF-RAMP	SHEET 449	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_NW RAMP.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 NW OFF-RAMP	SHEET 450	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_NW RAMP.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

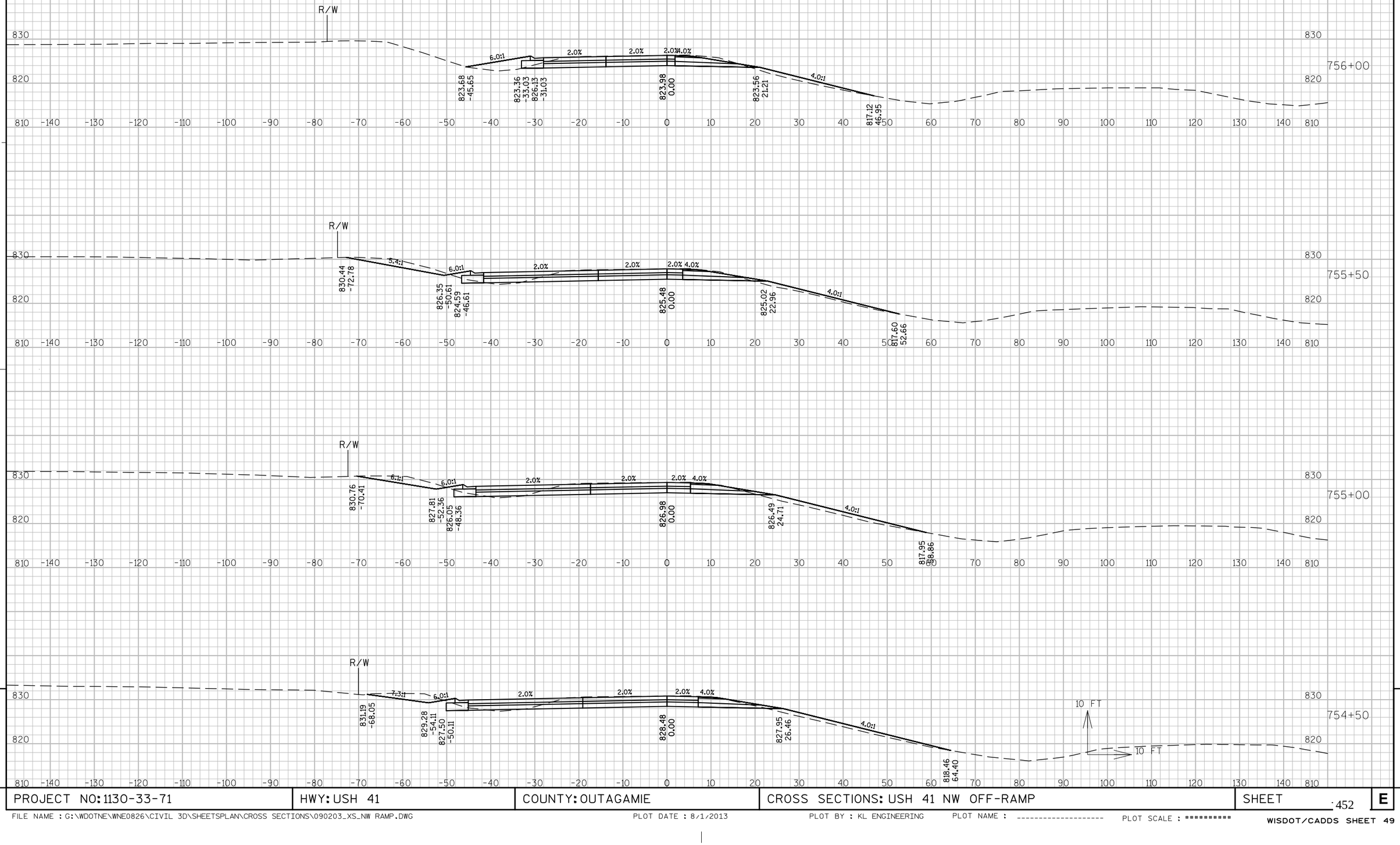


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 NW OFF-RAMP	SHEET 451	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_NW RAMP.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********



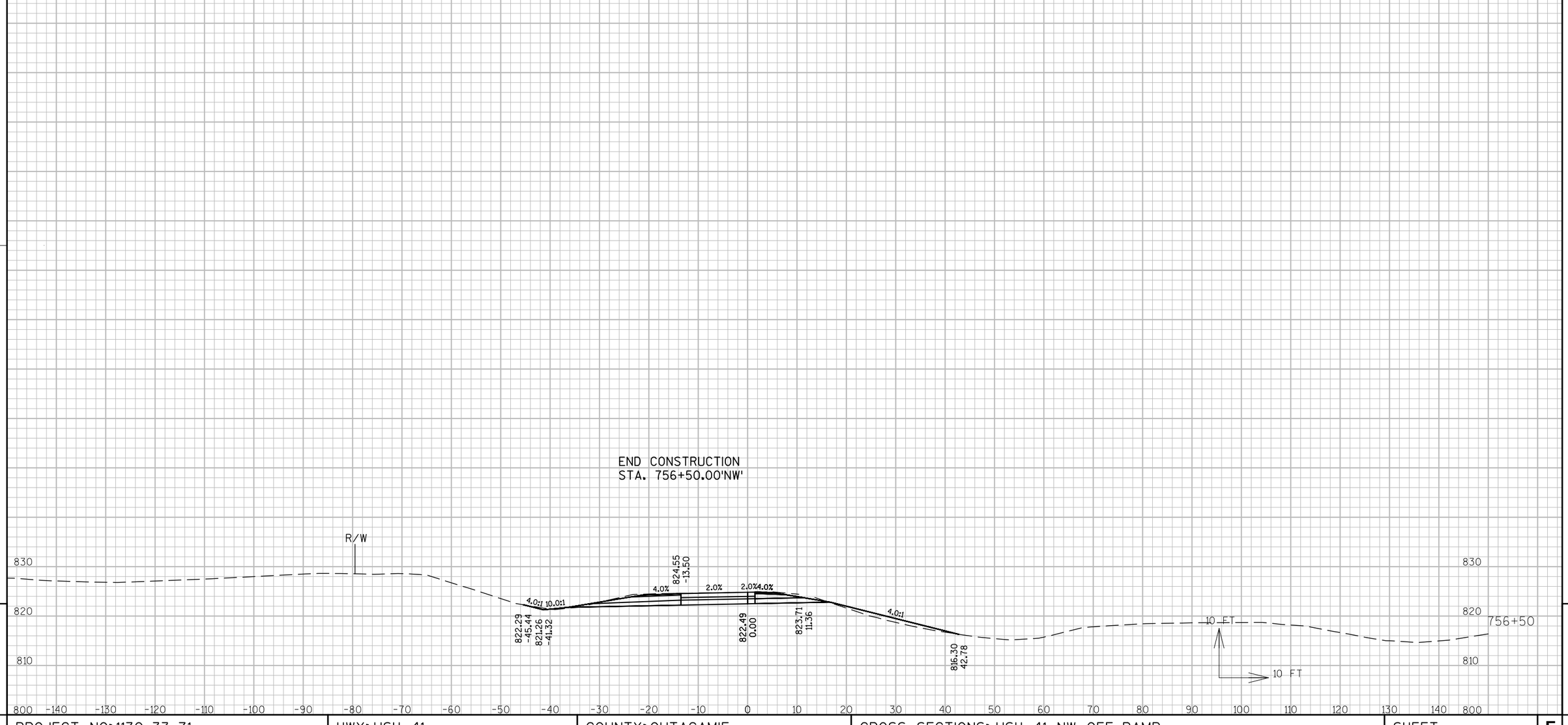
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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 NW OFF-RAMP	SHEET 452	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_NW RAMP.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA. 756+50.00'NW'

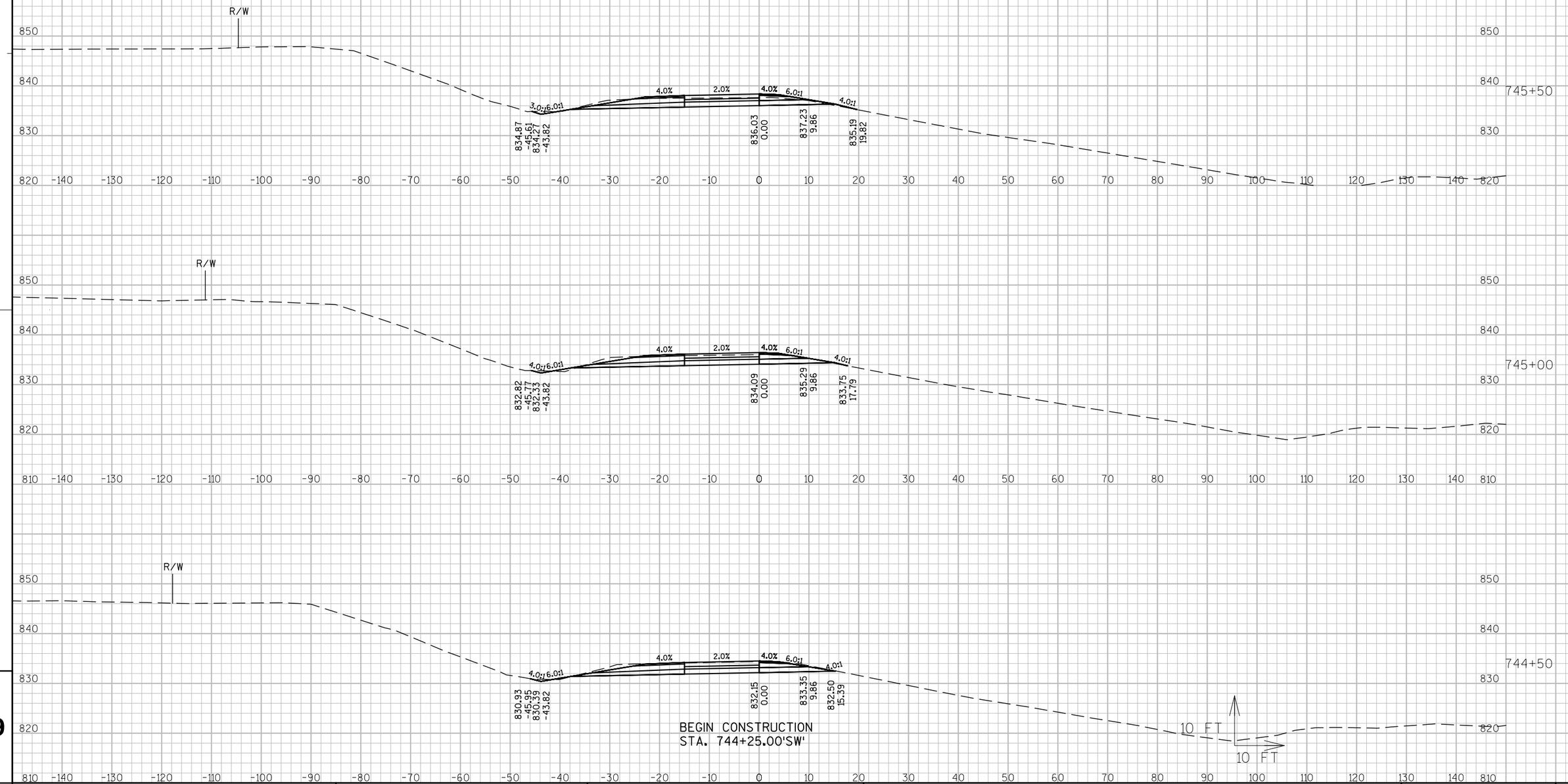


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 NW OFF-RAMP	SHEET 453	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_NW RAMP.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********



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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 SW ON-RAMP	SHEET 454	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_SW RAMP.DWG

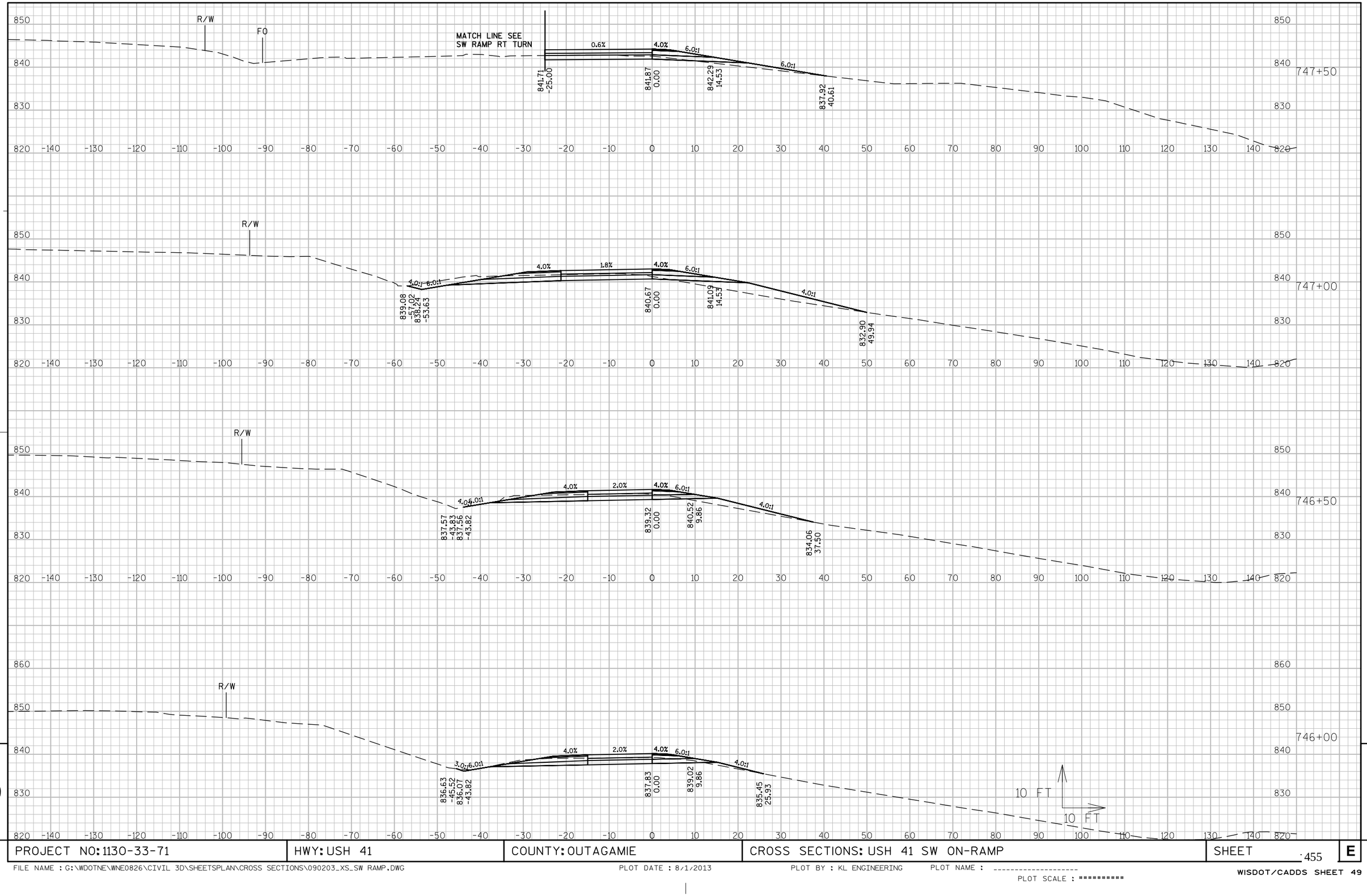
PLOT DATE : 8/1/2013

PLOT BY : KL ENGINEERING

PLOT NAME : ----------

PLOT SCALE : **********

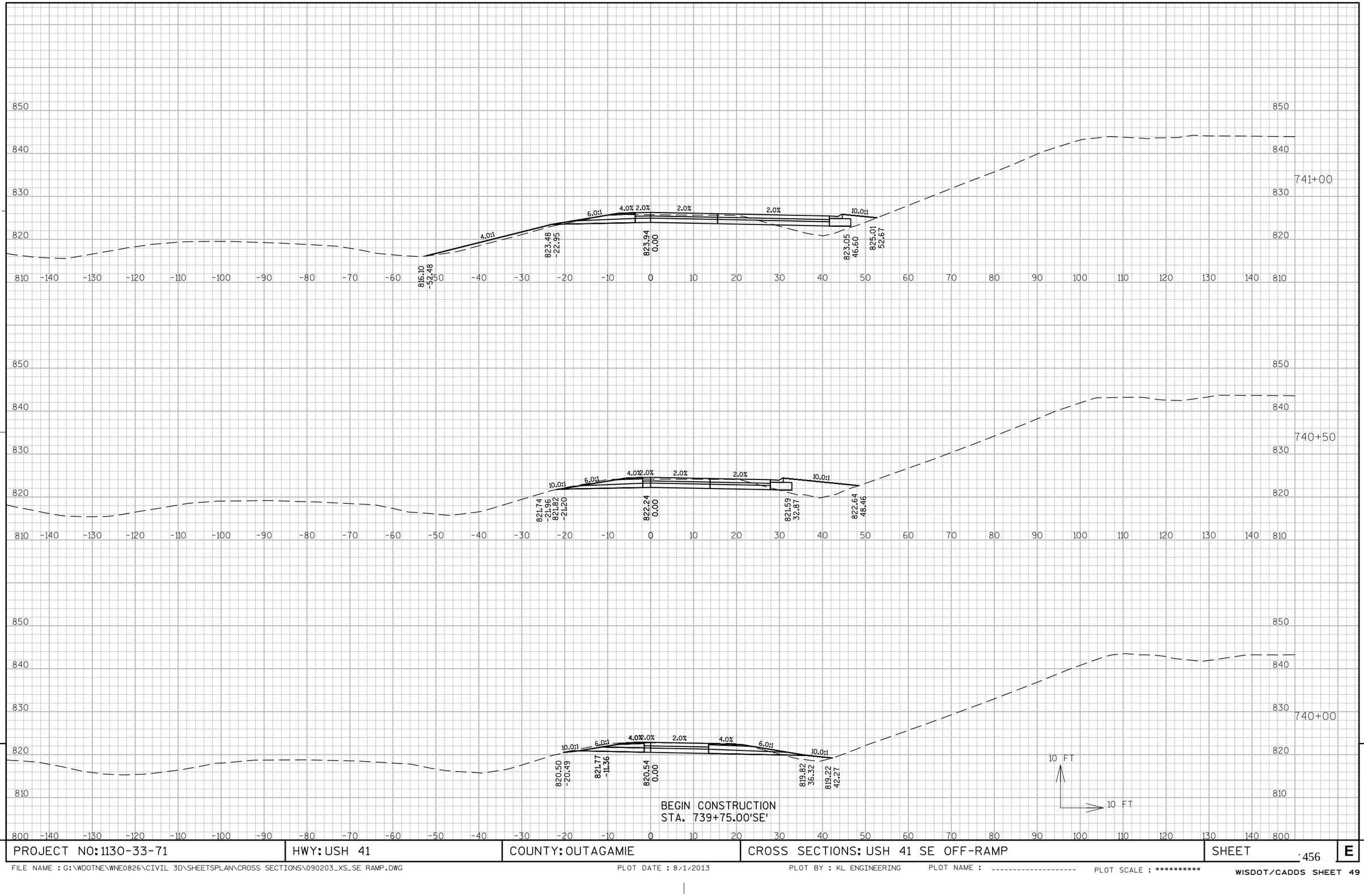
WISDOT/CADDS SHEET 49



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 SW ON-RAMP	SHEET 455	E

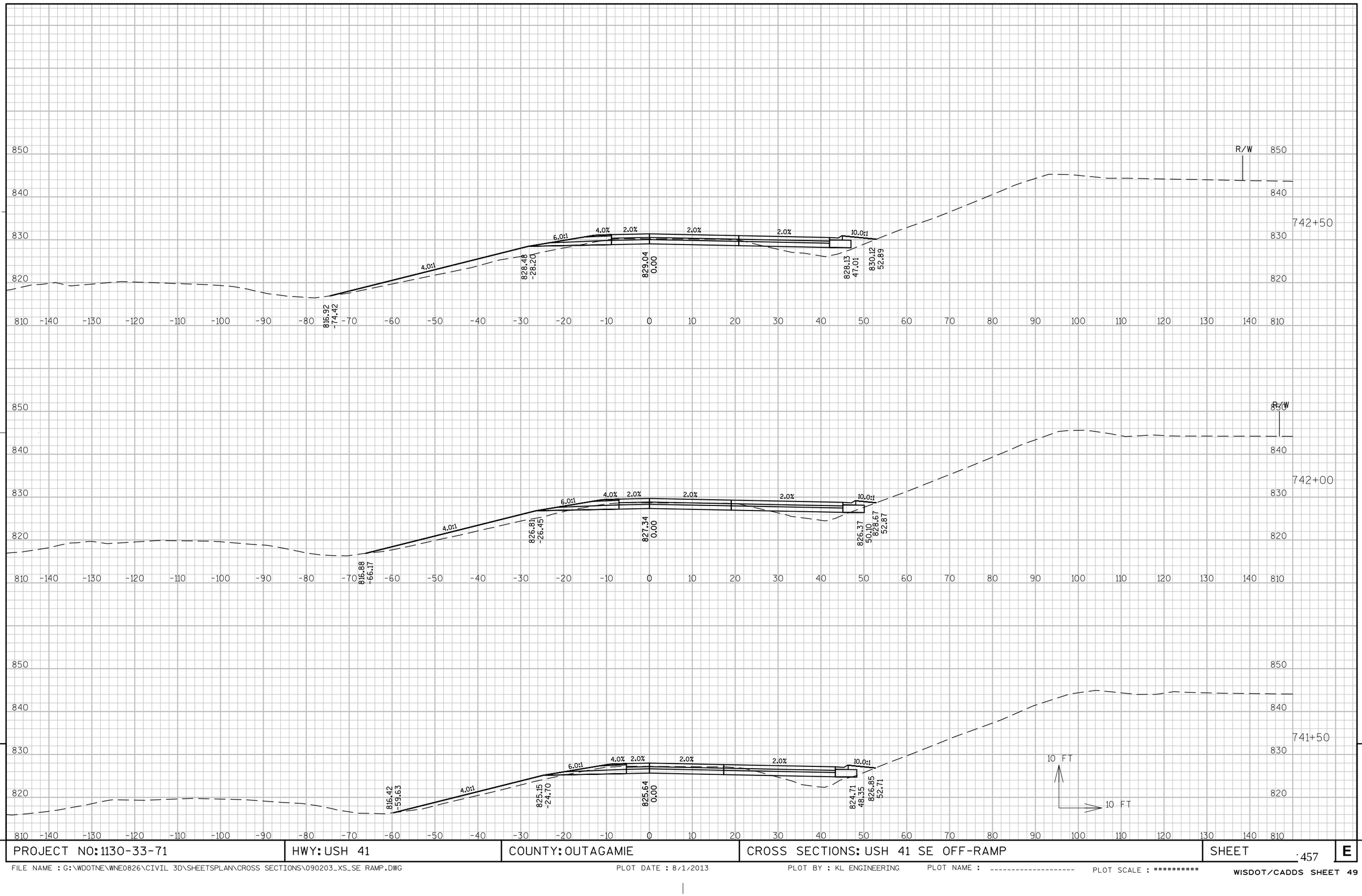
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WISDOT/CADDS SHEET 49



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 SE OFF-RAMP	SHEET 456	E

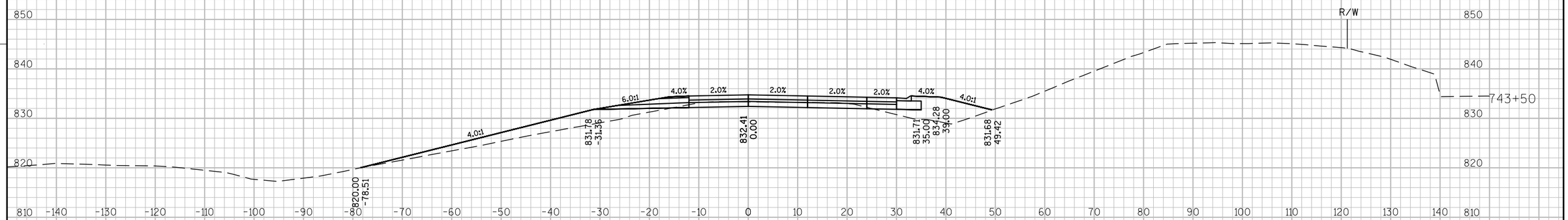
FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_SE RAMP.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49

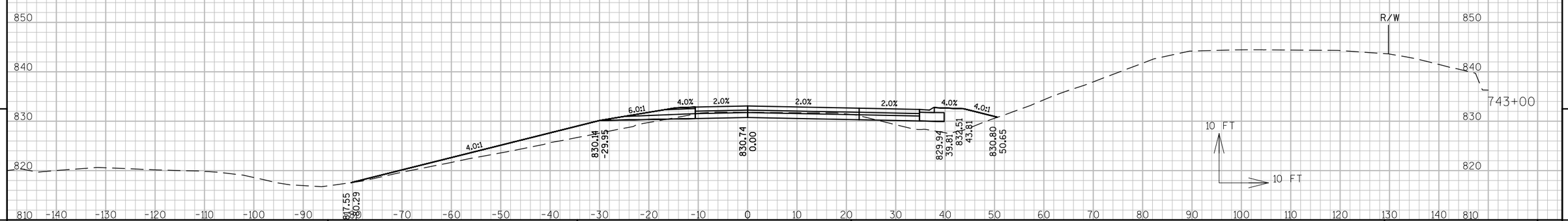


PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 SE OFF-RAMP	SHEET 457	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_SE RAMP.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49





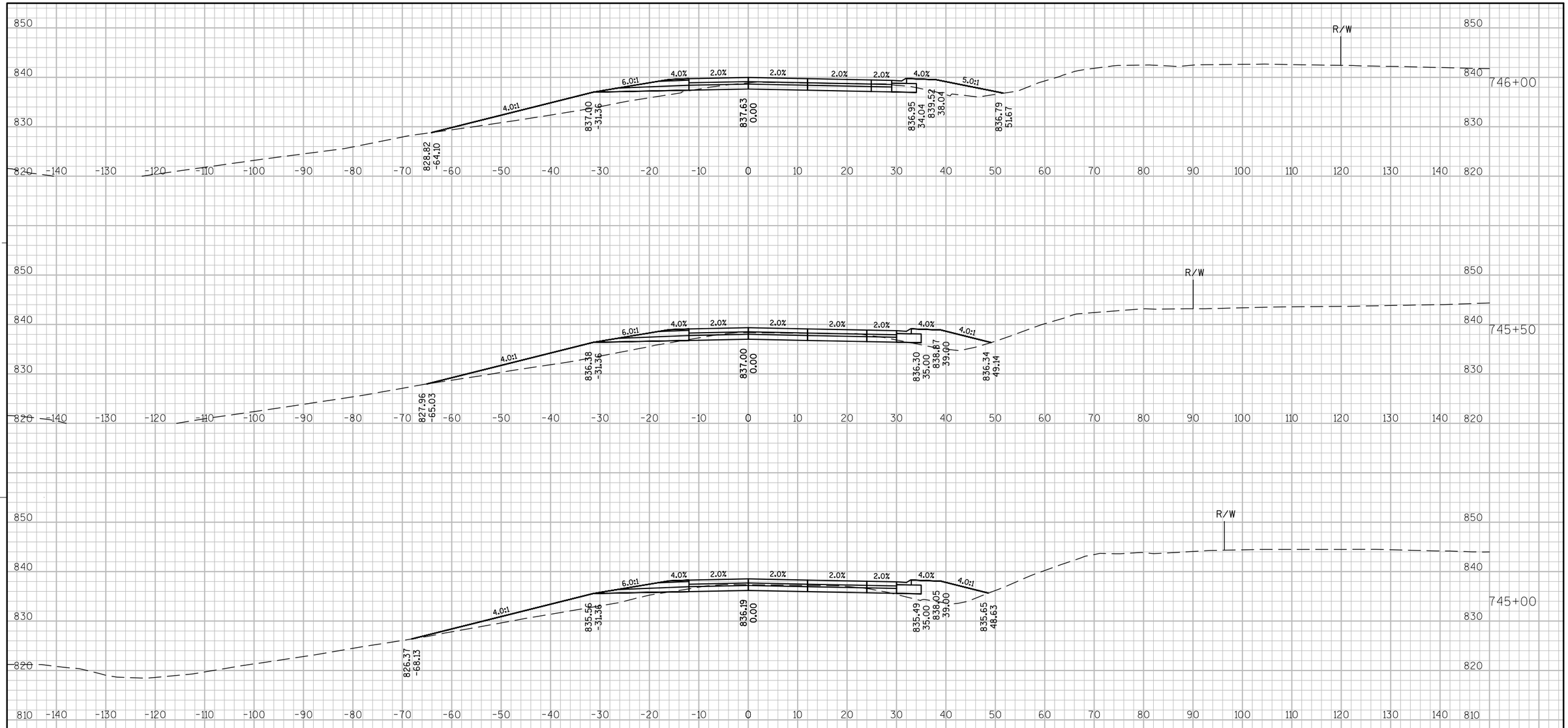


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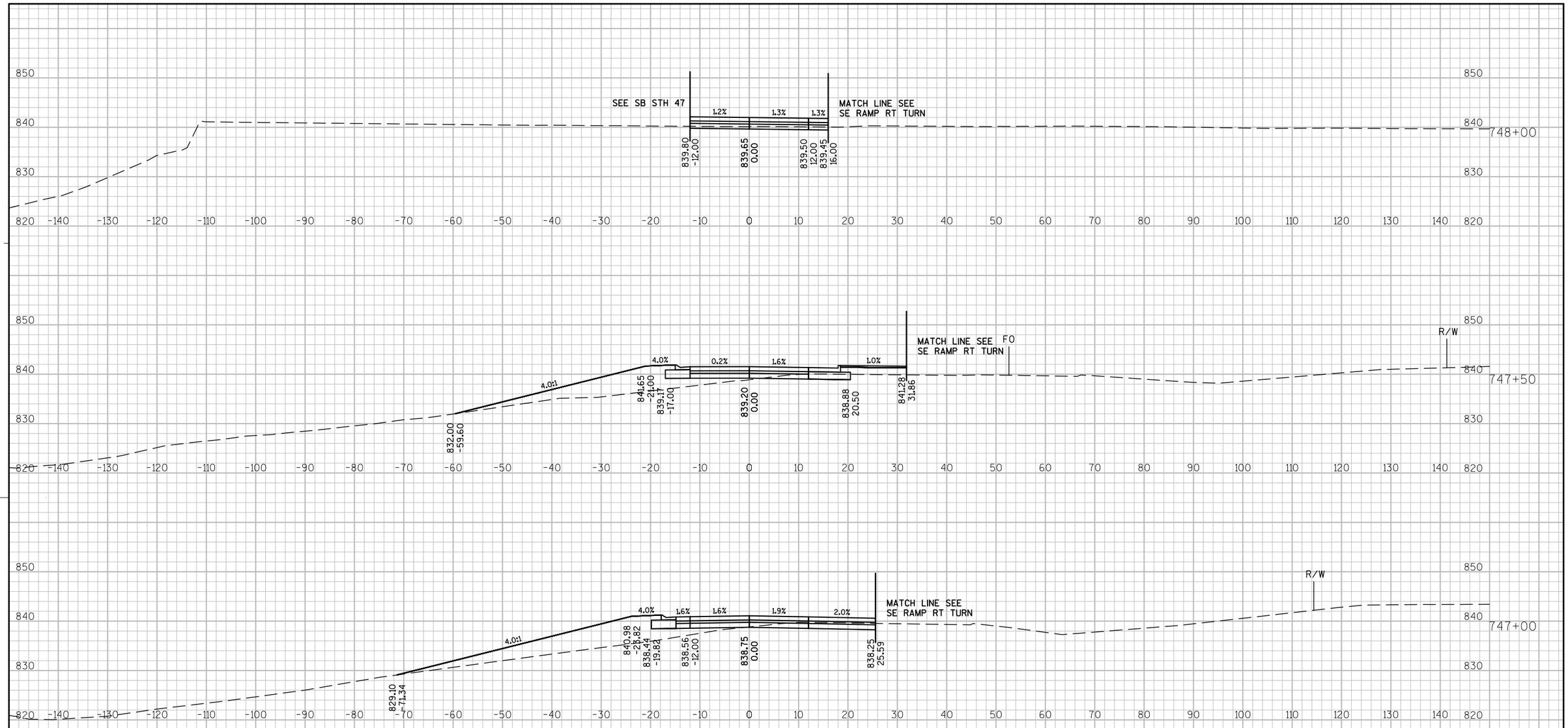
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FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_SE RAMP.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 SE OFF-RAMP	SHEET 459	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_SE RAMP.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

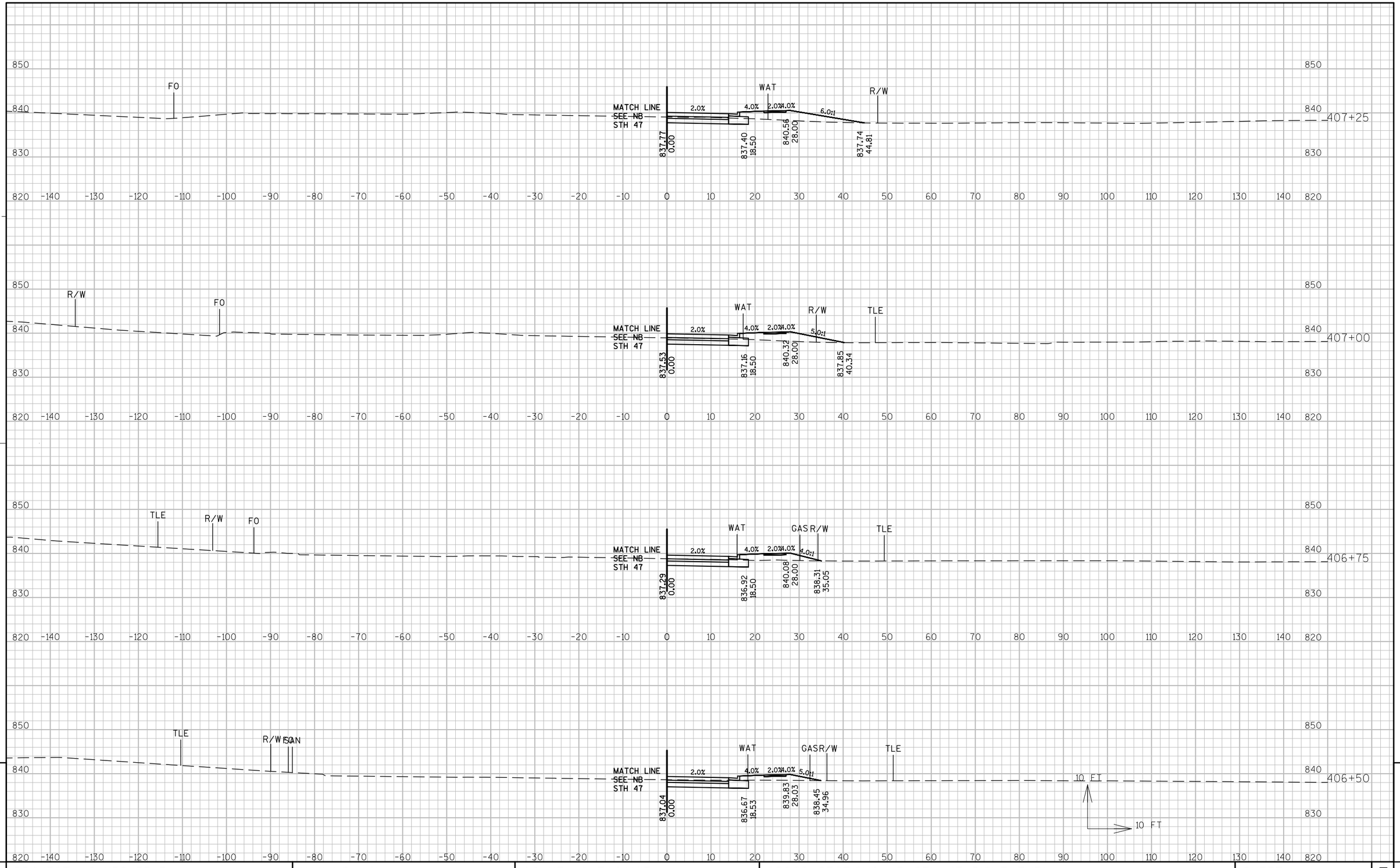


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 SE OFF-RAMP	SHEET 460	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_SE RAMP.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

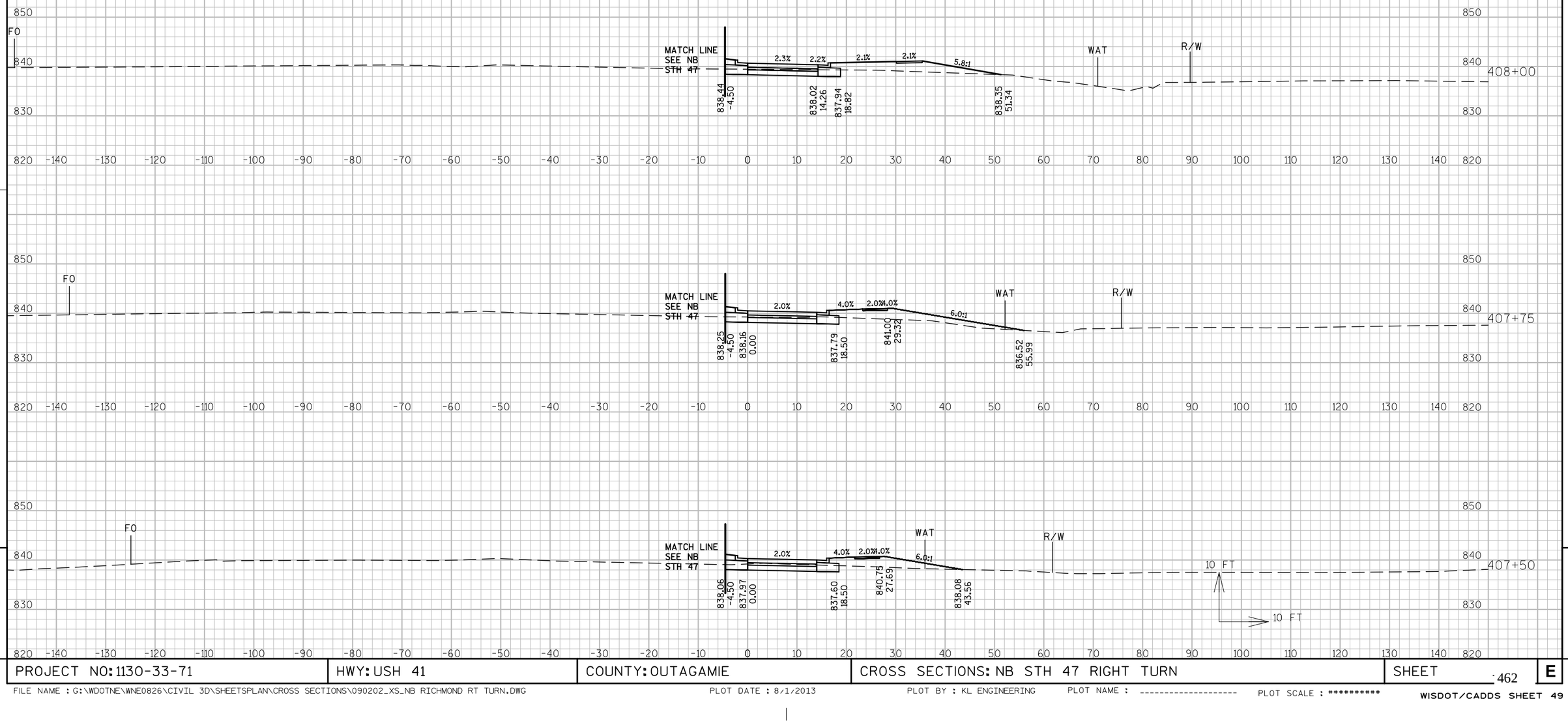


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47 RIGHT TURN	SHEET 461	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090202_XS_NB RICHMOND RT TURN.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********



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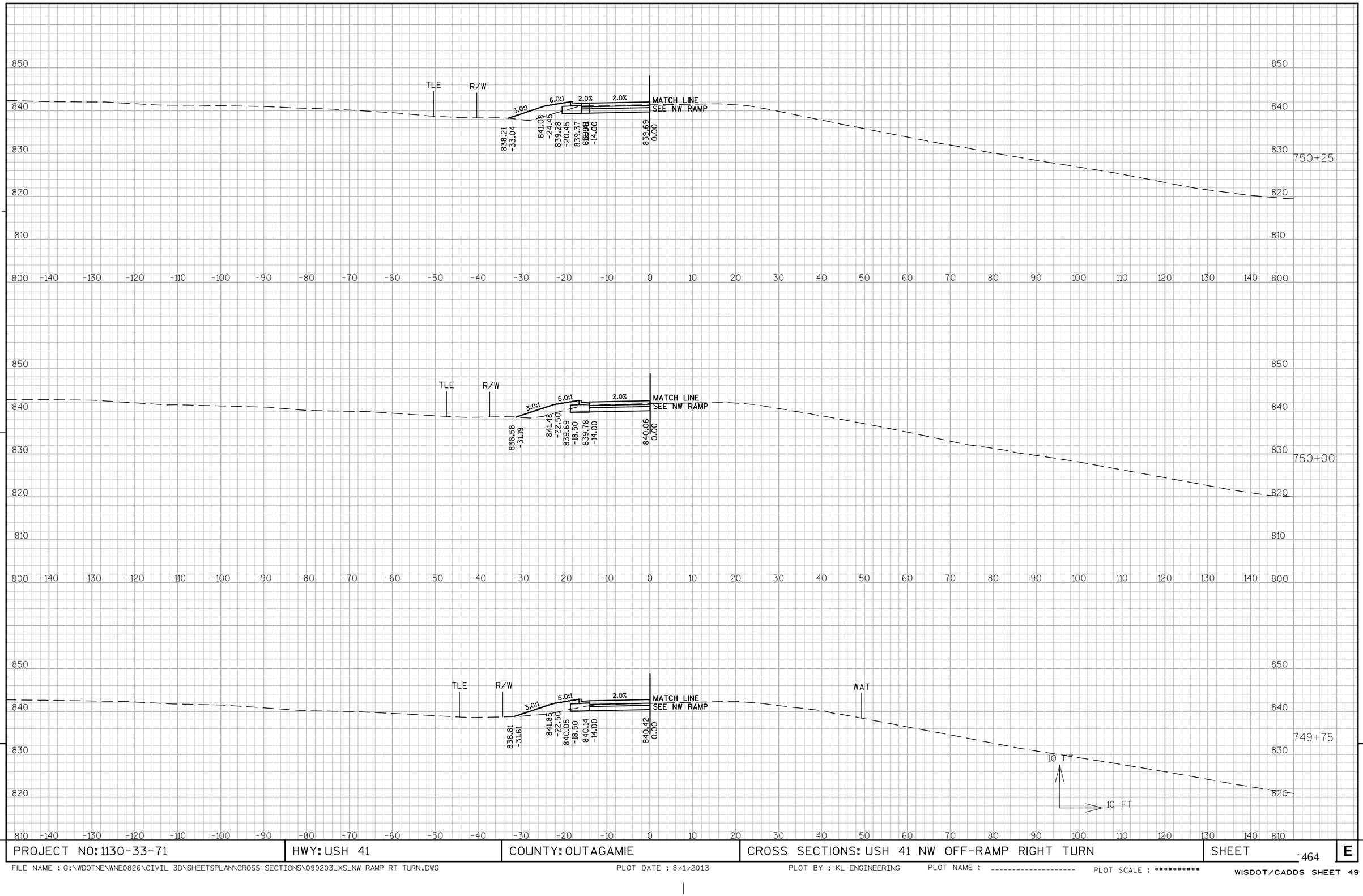
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: NB STH 47 RIGHT TURN	SHEET 462	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090202_XS_NB RICHMOND RT TURN.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 NW OFF-RAMP RIGHT TURN	SHEET 463	E

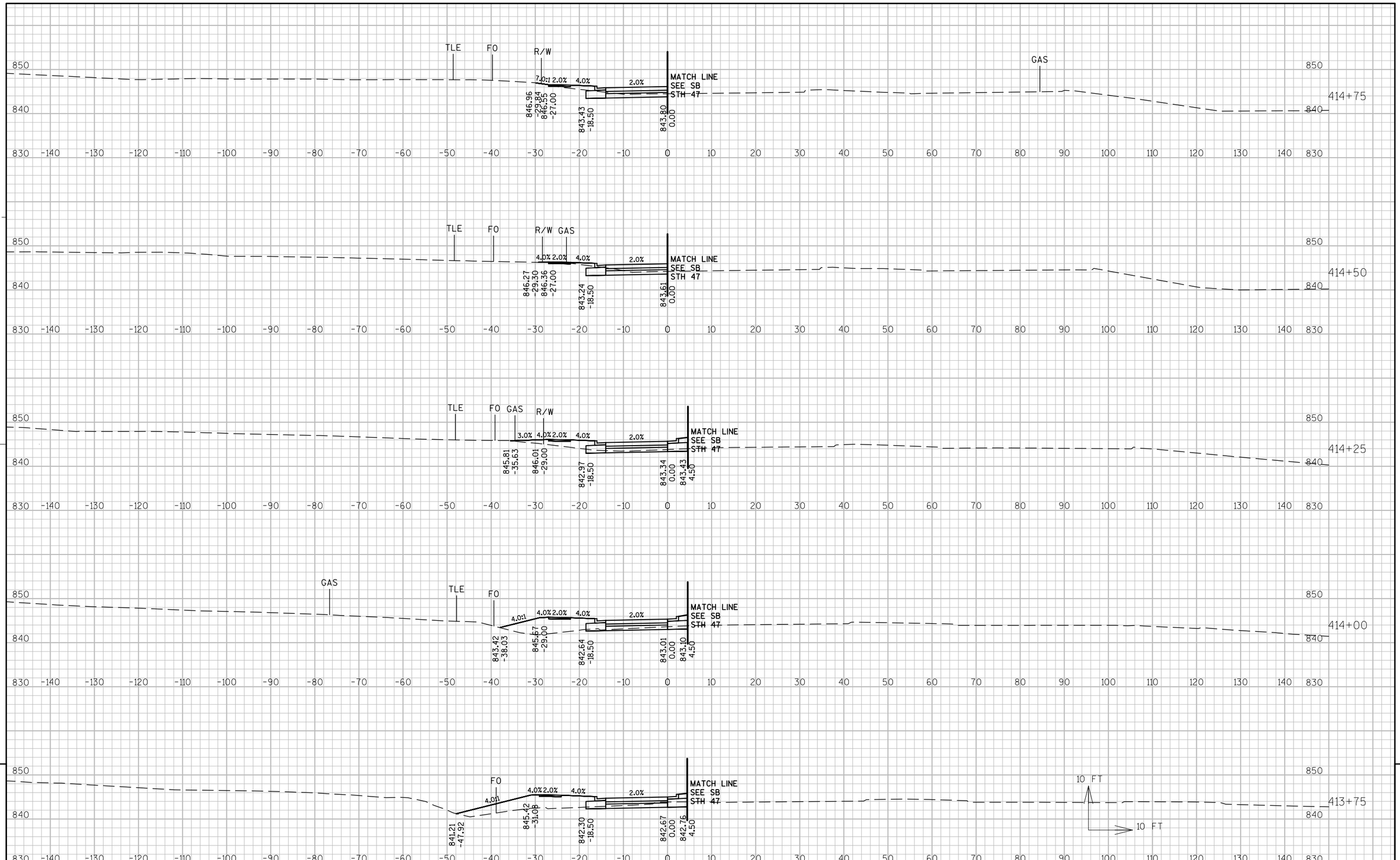
FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_NW RAMP RT TURN.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 49



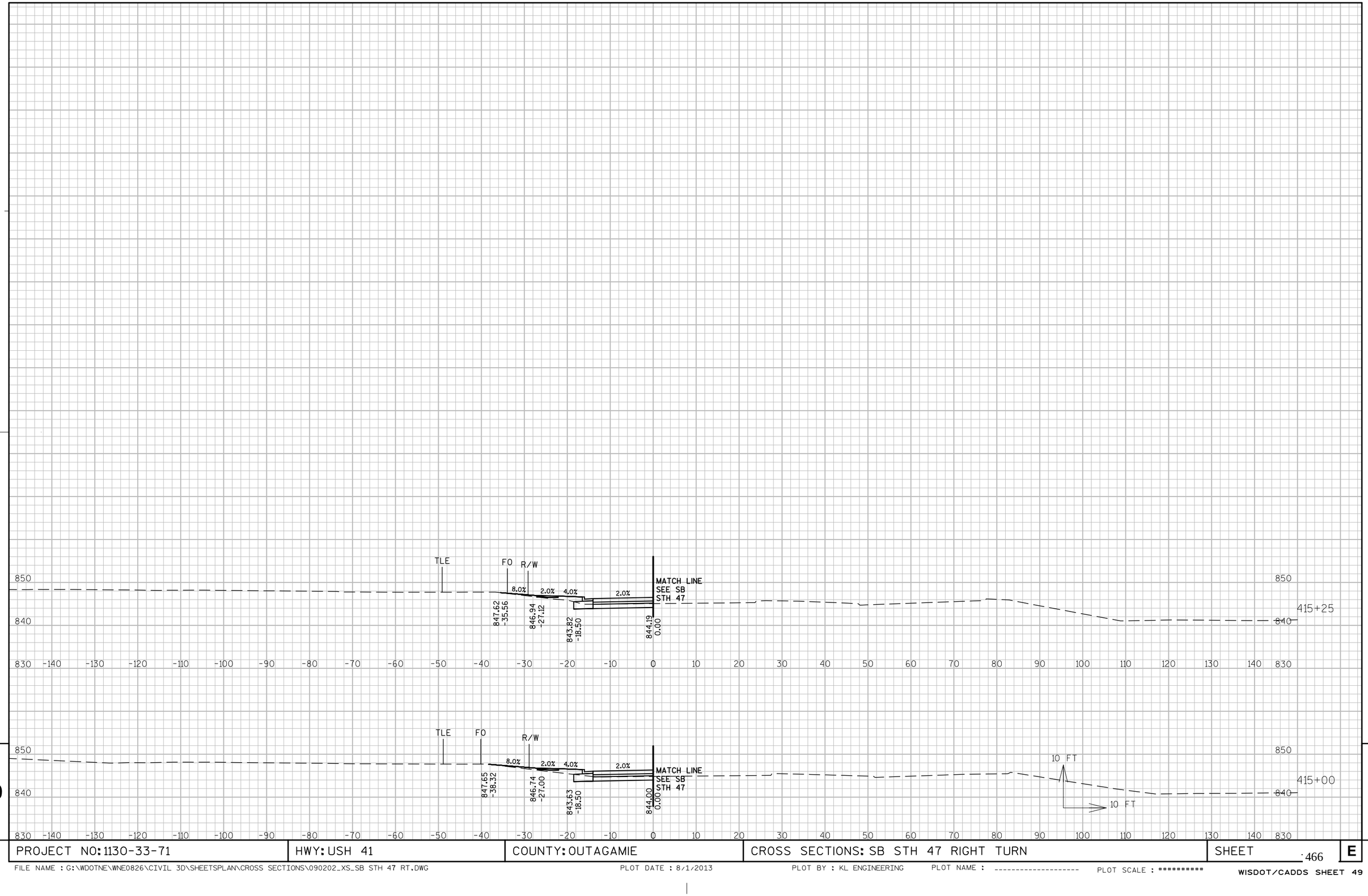
PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 NW OFF-RAMP RIGHT TURN	SHEET 464	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_NW RAMP RT TURN.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47 RIGHT TURN	SHEET 465 E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090202_XS_SB STH 47 RT.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49

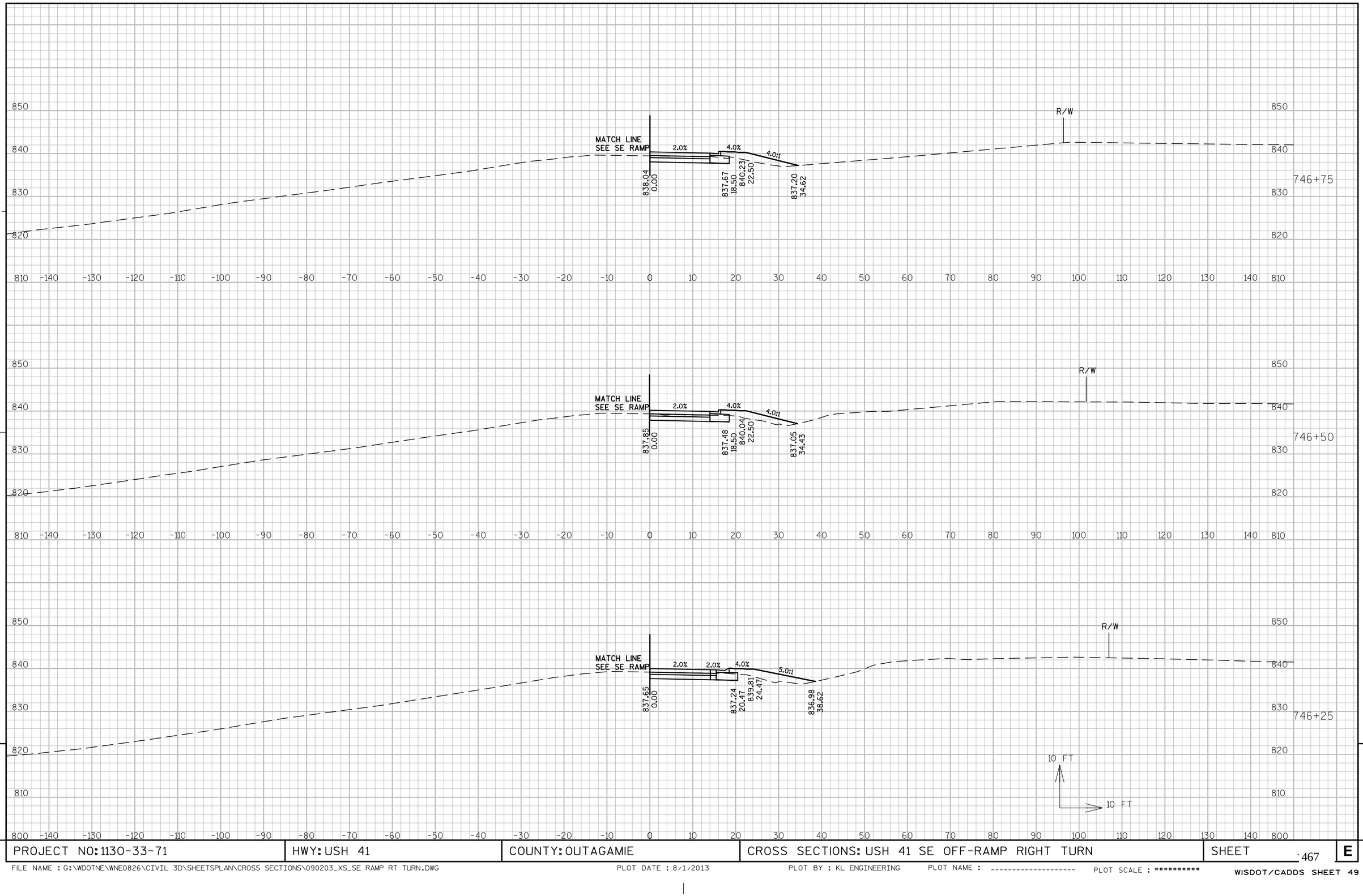


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: SB STH 47 RIGHT TURN	SHEET 466	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090202_XS_SB STH 47 RT.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

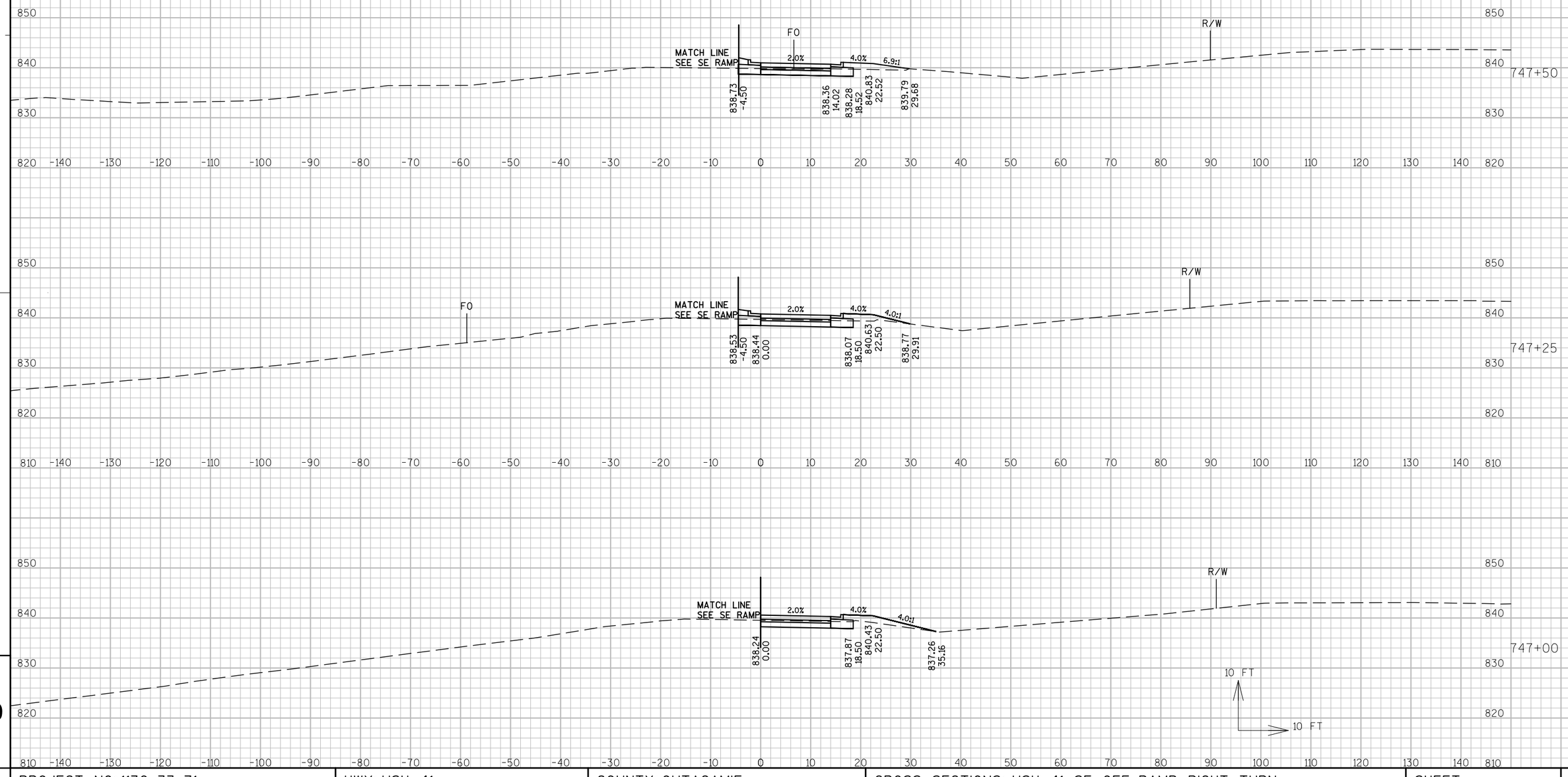


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PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 SE OFF-RAMP RIGHT TURN	SHEET 467	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_SE RAMP RT TURN.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : ********** WISDOT/CADDS SHEET 49



PROJECT NO: 1130-33-71	HWY: USH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: USH 41 SE OFF-RAMP RIGHT TURN	SHEET 468	E

FILE NAME : G:\WDOTNE\WNE0826\CIVIL 3D\SHEETSPLAN\CROSS SECTIONS\090203_XS_SE RAMP RT TURN.DWG PLOT DATE : 8/1/2013 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

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Notes

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