NWL

FEB 2015

PROJECT ID: 8999-00-62

WITH: N/A

COUNTY: ST.CROIX

ORDER OF SHEETS

TOTAL SHEETS = 142

N

DESIGN DESIGNATION

A.A.D.T.	(2015)	= 2000
A.A.D.T.	(2035)	= 2800
D.H.V.		= 386
D.D.		= 58/42
T.		= 3.3%
DESIGN SPEED		= 30MPH
ESALS		= 219,000

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

CITY OF HUDSON, WISCONSIN STREET

(11TH STREET - VINE STREET)

ST. CROIX COUNTY
LOCAL STREET

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8999-00-62	WISC 2015100	1

STATE PROJECT NUMBER
8999-00-62

END PROJECT
STA 45+50.00
Y=343297.726
X=515991.969

BEGIN PROJECT
STA 15+05.00
Y=341530.588
X=514356.140

LAYOUT
SCALE 0 250

TOTAL NET LENGTH OF CENTERLINE = 0.577 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, ST. CROIX COUNTY, NAD83 (2014), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR:
CITY OF HUDSON
9/16/14 (DATE) Tom Zeul. (SIGNATURE)
Public Works Dir. (TITLE)

ORIGINAL PLANS PREPARED BY:
SHORT ELLIOTT HENDRICKSON, INC.

WISCONSIN PROFESSIONAL ENGINEER
DANIEL A. PENZKOVER
30248
RICE LAKE
WI
9/16/14

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SEH, INC.
Designer	SEH, INC.
Management Consultant	KNIGHT, E/A

APPROVED FOR THE DEPARTMENT
DATE 9/17/2014 Ryan B McKone (Management Consultant Signature)

E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\010101 TI.DWG

PLOT DATE : 9/5/2014 1:28 PM

PLOT BY : CRYSTAL RALEIGH

PLOT NAME :

WISDOT/CADDS SHEET 10

STANDARD ABBREVIATIONS

ABUT	ABUTMENT	HYD	HYDRANT
AC	ACRE	ID	INSIDE DIAMETER
AGG	AGGREGATE	INV	INVERT
AECPRC	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE	IP	IRON PIPE ON PIN
		LHF	LEFT-HAND FORWARD
ASPH	ASPHALTIC	L	LENGTH OF CURVE
AVG	AVERAGE	LF	LINEAR FOOT
ADT	AVERAGE DAILY TRAFFIC	LC	LONG CHORD OF CURVE
BF	BACK FACE	LS	LUMP SUM
BM	BENCH MARK	MH	MANHOLE
BR	BRIDGE	MOR	MID POINT OF RADIUS
CE	COMMERCIAL ENTRANCE	NC	NORMAL CROWN
CL OR C/L OR ℄	CENTER LINE	NO	NUMBER
△	CENTRAL ANGLE OR DELTA	OBLIT	OBLITERATE
CONC	CONCRETE	PAVT	PAVEMENT
CPRC	CULVERT PIPE REINFORCED CONCRETE	PE	PRIVATE ENTRANCE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	PVRC	POINT OF VERTICAL REVERSE CURVE
		QOR	QUARTER POINT OF RADIUS
CR	CREEK	R	RADIUS
CY	CUBIC YARD	REQ'D	REQUIRED
C & G	CURB AND GUTTER	RES	RESIDENCE OR RESIDENTIAL
D	DEGREE OF CURVE	RHF	RIGHT-HAND FORWARD
DHV	DESIGN HOUR VOLUME	R/W	RIGHT-OF-WAY
DISCH	DISCHARGE	R	RIVER
DG	DITCH GRADE	RDWY	ROADWAY
DWY	DRIVEWAY	R/L OR ℞	REFERENCE LINE
X	EAST GRID COORDINATE	SALV	SALVAGED
EAT	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	SAN	SANITARY SEWER
		SF	SQUARE FEET
EOR	END POINT OF RADIUS	SY	SQUARE YARD
EL	ELEVATION	SDD	STANDARD DETAIL DRAWINGS
ENT	ENTRANCE	STA	STATION
ESALS	EQUIVALENT SINGLE AXLE LOADS	SS	STORM SEWER
EXC	EXCAVATION	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
EBS	EXCAVATION BELOW SUBGRADE	SE	SUPERELEVATION RATE
EXIST	EXISTING	TC	TOP OF CURB
FC	FACE OF CURB	T OR TN	TOWN
FF	FACE TO FACE	T	TRUCKS (PERCENT OF)
FERT	FERTILIZE	TYP	TYPICAL
FE	FIELD ENTRANCE	VAR	VARIABLE
FL	FLOW LINE	VC	VERTICAL CURVE
FO	FIBER OPTIC	Y	NORTH GRID COORDINATE
CWT	HUNDREDWEIGHT	YD	YARD

GENERAL NOTES

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

ALL PRIVATE EXISTING UTILITIES ARE TO BE ADJUSTED BY THE UTILITIES CONCERNED. SANITARY AND STORM SEWER MANHOLE COVERS WILL BE ADJUSTED AND PAID FOR UNDER SEPARATE CONTRACT BID ITEMS.

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

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD PER THE CONTRACTORS EROSION CONTROL IMPLEMENTATION PLAN AND AS APPROVED BY THE ENGINEER.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND TRAIL CROSSING (STA 28+40) AT REMOVAL LIMITS.

DISTURBED ROADWAYS SHALL BE CONSTRUCTED WITH 4-INCH HMA, TYPE E-3 PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

2 1/4-INCH LOWER LAYER, 19.0 mm, PG64-28
1 3/4-INCH UPPER LAYER, 12.5 mm, PG64-34

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING OR PASSING LANE.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY ARE TO BE TOPSOILED, SEEDED, FERTILIZED, AND EROSION MAT AS SHOWN ON PLAN.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

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

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

SIGNS TO BE MOVED WILL BE STORED AND PROTECTED BY THE CONTRACTOR AT A LOCATION APPROVED BY THE ENGINEER, FREE FROM DAMAGE UNTIL SUCH TIME AS THEY ARE RE-INSTALLED.

CONSTRUCT INSIDE EDGE OF SIDEWALK 1/4 INCH HIGHER THAN THE TOP OF CURB, WHEN THEY ARE ADJACENT TO EACH OTHER.

TOP OF CASTING ELEVATIONS SHOWN FOR INLETS REFER TO THE CASTING ELEVATION AT THE FLOWLINE OF GRATE.

ALL STORM SEWER INVERTS, ELEVATIONS, PIPE LENGTHS, AND GRADES ARE COMPUTED CENTER-TO-CENTER OF STRUCTURES.

INLET PROTECTION TYPE A AND C ARE REQUIRED ON ALL INLETS WITHIN CURB LINES AS SHOWN ON PLAN.

UTILITY CONTACTS

COMCAST
3050 ECHO LAKE AVENUE
MAHTONEDI, MN 55115
TELEPHONE: 651.493.5127
ATTENTION: SCOTT RUPPERT
Scott_rupert@cable.comcast.com

CITY OF HUDSON, PUBLIC WORKS DIRECTOR
505 3RD STREET
HUDSON, WI 54016
TELEPHONE: 715.386.4767
ATTENTION: TOM ZEULI
tomzeuli@ci.hudson.wi.us

SCHOOL DISTRICT OF HUDSON, FACILITIES SUPERVISOR
644 BRAKKE DRIVE
HUDSON, WI 54016
TELEPHONE: 715.377.3700 EXT 8071
ATTENTION: NANCY TOLL
tollnl@hudson.k12.wi.us

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

XCEL ENERGY
1201 LIVINGSTONE ROAD
HUDSON, WI 54016
TELEPHONE: 715.386.4798 OFFICE
TELEPHONE: 715.410.3755 CELL
ATTENTION: DARREN NORDSKOG
Darren.M.Nordskog@xcelenergy.com

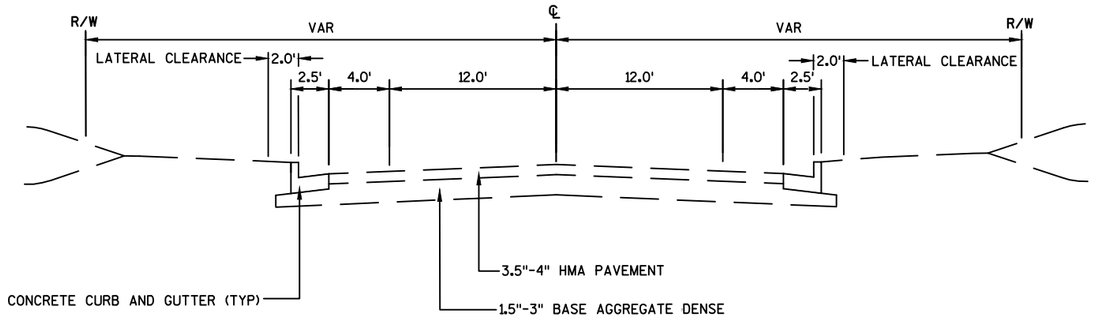
AT&T WISCONSIN
304 SOUTH DEWEY STREET
EAU CLAIRE, WI 54701
TELEPHONE: 715.839.5565
ATTENTION: RICK PODOLAK
Rp4514@att.com

WDNR CONTACT

WIS DNR
1300 W CLAIRMONT STREET
EAU CLAIRE, WI 54702
TELEPHONE: 715.839.1609
ATTENTION: CHRIS WILLGER
christopherj.willger@wisconsin.gov

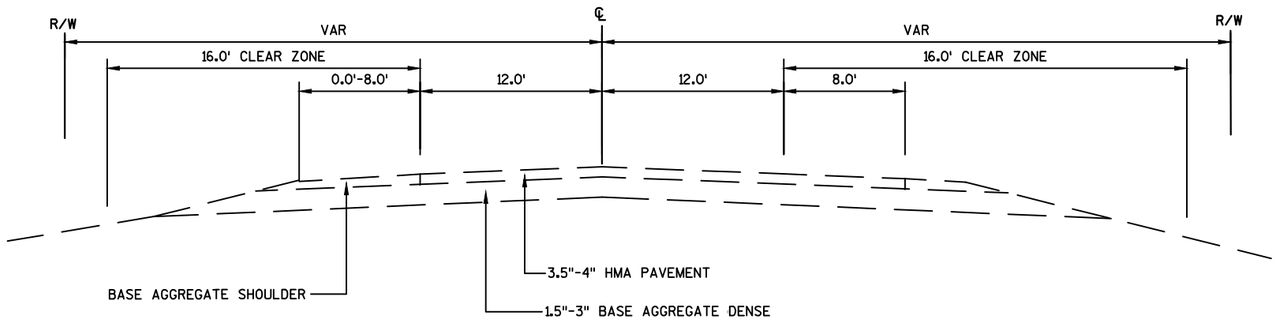
DESIGN CONTACTS

SEH INC.
1701 KNAPP STREET, STE B
RICE LAKE, WI 54868
TELEPHONE: 715.861.4926
ATTENTION: DAN PENZKOVER
dpenzkover@sehinc.com



TYPICAL EXISTING SECTION

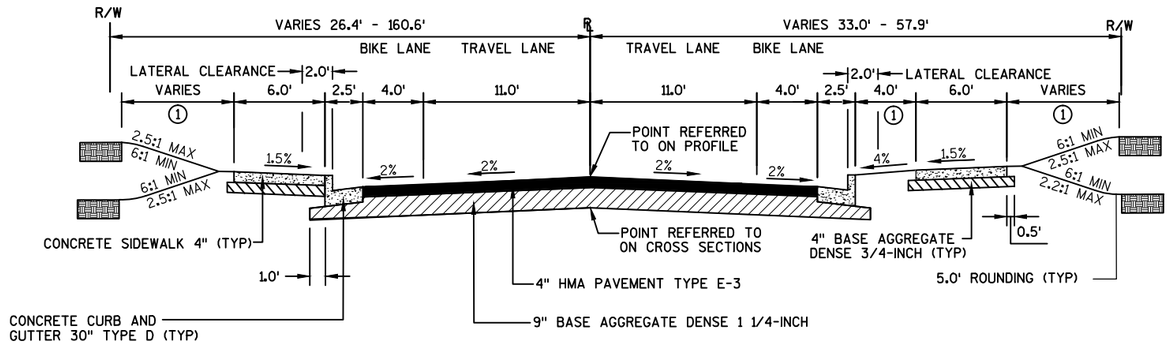
WISCONSIN STREET
STA 15+10 TO STA 15+96



TYPICAL EXISTING SECTION

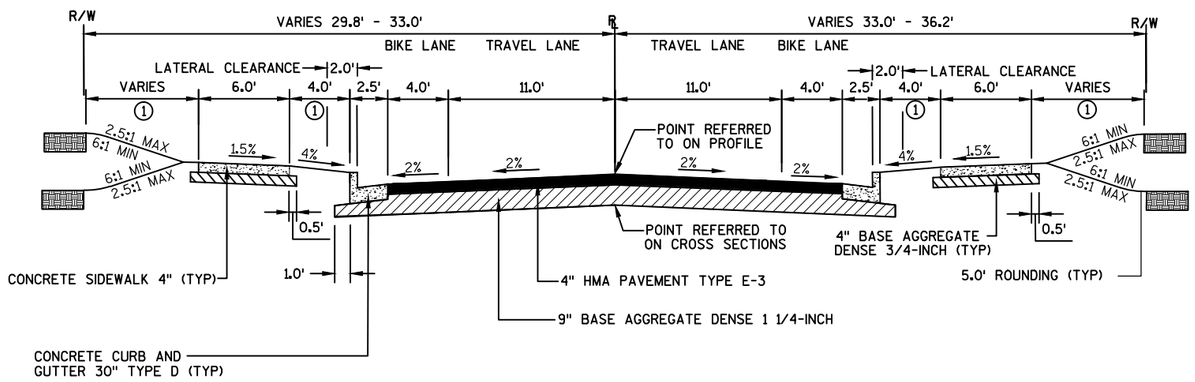
WISCONSIN STREET
STA 15+96 TO STA 45+50

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	TYPICAL SECTIONS	SHEET 3	E



TYPICAL FINISHED SECTION

WISCONSIN STREET
STA 15+05.00 TO STA 28+33.00

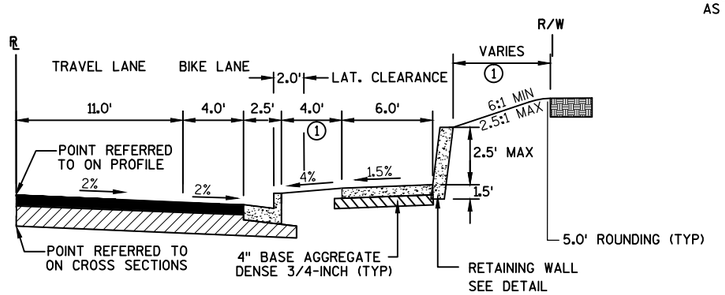


TYPICAL FINISHED SECTION

WISCONSIN STREET
STA 28+33.00 TO STA 42+50.00

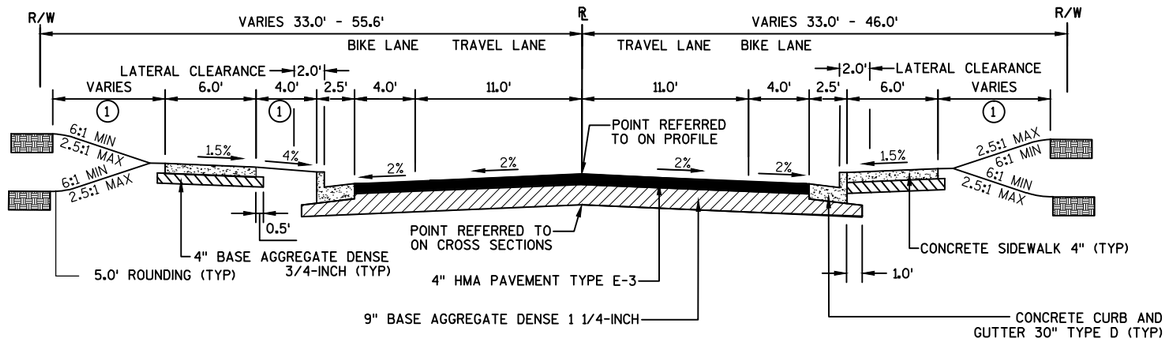
NOTES:

1. TOPSOIL, SEED, FERTILIZE, AND EROSION MAT URBAN CLASS 1 TYPE B AS SHOWN ON PLAN



WISCONSIN STREET - RETAINING WALL RIGHT
STA 34+18.22 TO STA 35+85.53

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	TYPICAL SECTIONS	SHEET 4	E

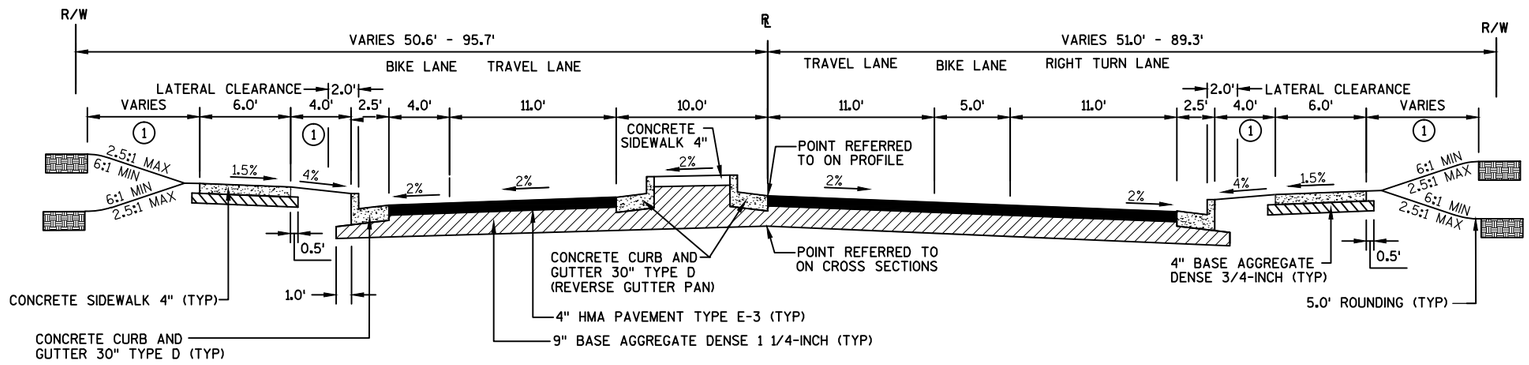


TYPICAL FINISHED SECTION

WISCONSIN STREET
STA 42+50.00 TO STA 44+88.42

NOTES:

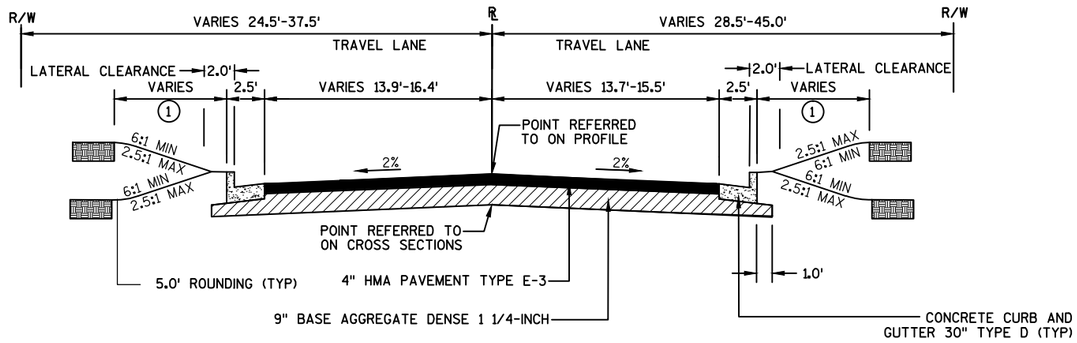
(1) TOPSOIL, SEED, FERTILIZE, AND EROSION MAT URBAN CLASS 1 TYPE B AS SHOWN ON PLAN



TYPICAL FINISHED SECTION

WISCONSIN STREET
STA 44+88.42 TO STA 45+50.00

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	TYPICAL SECTIONS	SHEET 5	E



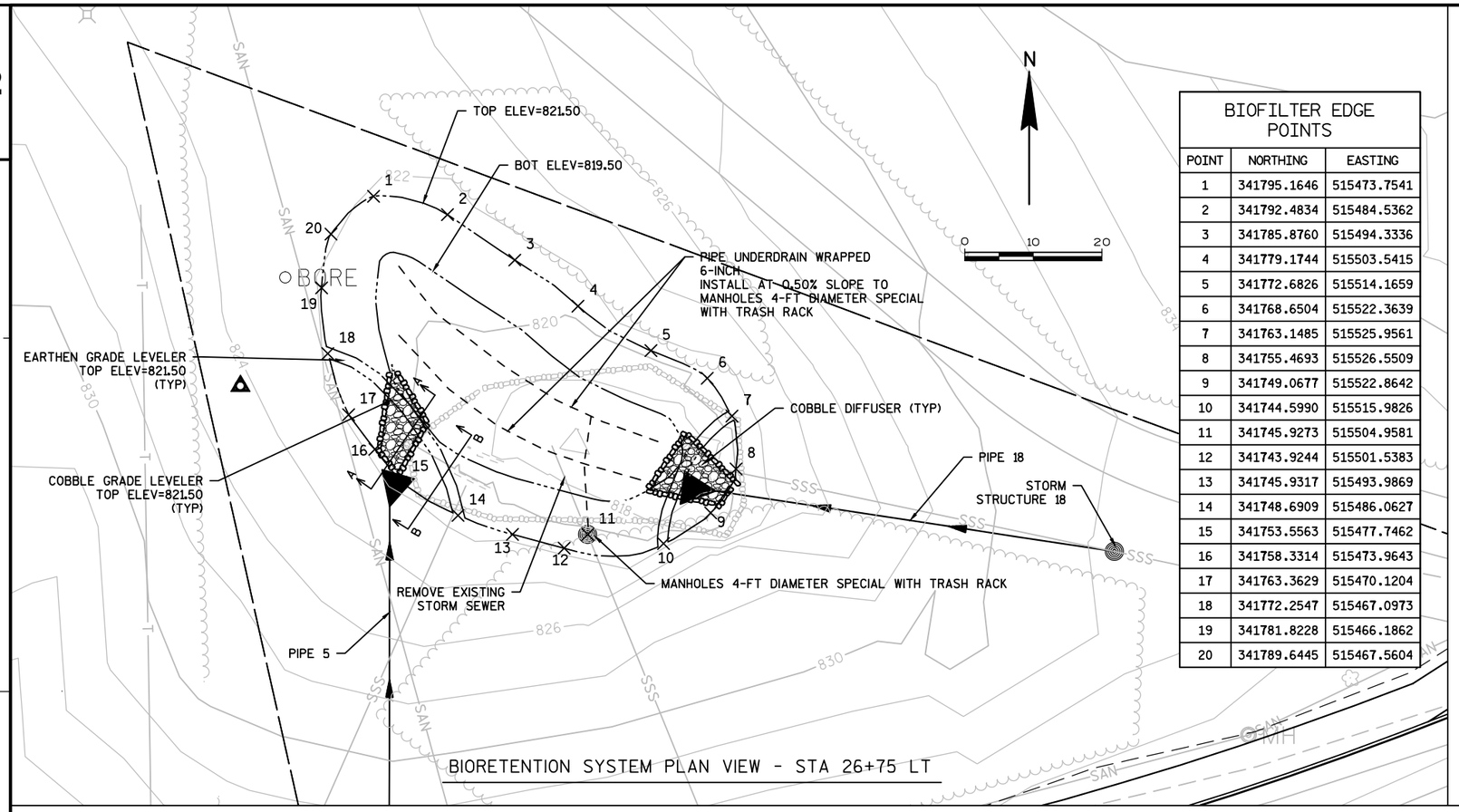
TYPICAL FINISHED SECTION

11TH STREET - STA 50+75 TO STA 51+06
13TH STREET - STA 60+25 TO STA 60+70
KNOLLWOOD DRIVE - STA 70+61 TO STA 71+35
WISCONSIN COURT - STA 90+50 TO STA 90+71
HUNTER HILL - STA 100+80 TO STA 101+14, STA 101+89 TO STA 102+40
SPRUCE STREET - STA 110+70 TO STA 111+00

NOTES:

(1) TOPSOIL, SEED, FERTILIZE, AND EROSION MAT URBAN CLASS 1 TYPE B AS SHOWN ON PLAN

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	TYPICAL SECTIONS	SHEET 6	E



BIOFILTER EDGE POINTS

POINT	NORTHING	EASTING
1	341795.1646	515473.7541
2	341792.4834	515484.5362
3	341785.8760	515494.3336
4	341779.1744	515503.5415
5	341772.6826	515514.1659
6	341768.6504	515522.3639
7	341763.1485	515525.9561
8	341755.4693	515526.5509
9	341749.0677	515522.8642
10	341744.5990	515515.9826
11	341745.9273	515504.9581
12	341743.9244	515501.5383
13	341745.9317	515493.9869
14	341748.6909	515486.0627
15	341753.5563	515477.7462
16	341758.3314	515473.9643
17	341763.3629	515470.1204
18	341772.2547	515467.0973
19	341781.8228	515466.1862
20	341789.6445	515467.5604

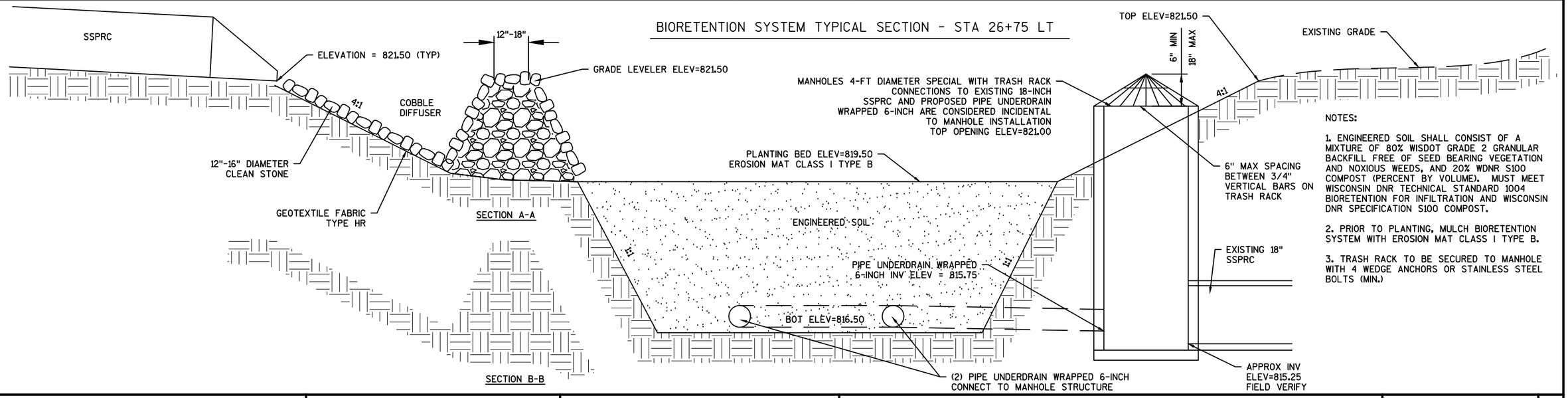
BIORETENTION SYSTEM PLAN VIEW - STA 26+75 LT

BIORETENTION SYSTEM (LS) ITEMS

ITEMS	UNITS	QTY
ENGINEERED SOIL	CY	75
COBBLES	CY	10

NOTE: ITEMS IN THIS TABLE ARE TO BE INCLUDED IN THE BIORETENTION SYSTEM (LS) UNIT PRICE.

BIORETENTION SYSTEM TYPICAL SECTION - STA 26+75 LT



NOTES:

1. ENGINEERED SOIL SHALL CONSIST OF A MIXTURE OF 80% WISDOT GRADE 2 GRANULAR BACKFILL FREE OF SEED BEARING VEGETATION AND NOXIOUS WEEDS, AND 20% WDNR S100 COMPOST (PERCENT BY VOLUME). MUST MEET WISCONSIN DNR TECHNICAL STANDARD 1004 BIORETENTION FOR INFILTRATION AND WISCONSIN DNR SPECIFICATION S100 COMPOST.

2. PRIOR TO PLANTING, MULCH BIORETENTION SYSTEM WITH EROSION MAT CLASS I TYPE B.

3. TRASH RACK TO BE SECURED TO MANHOLE WITH 4 WEDGE ANCHORS OR STAINLESS STEEL BOLTS (MIN.)

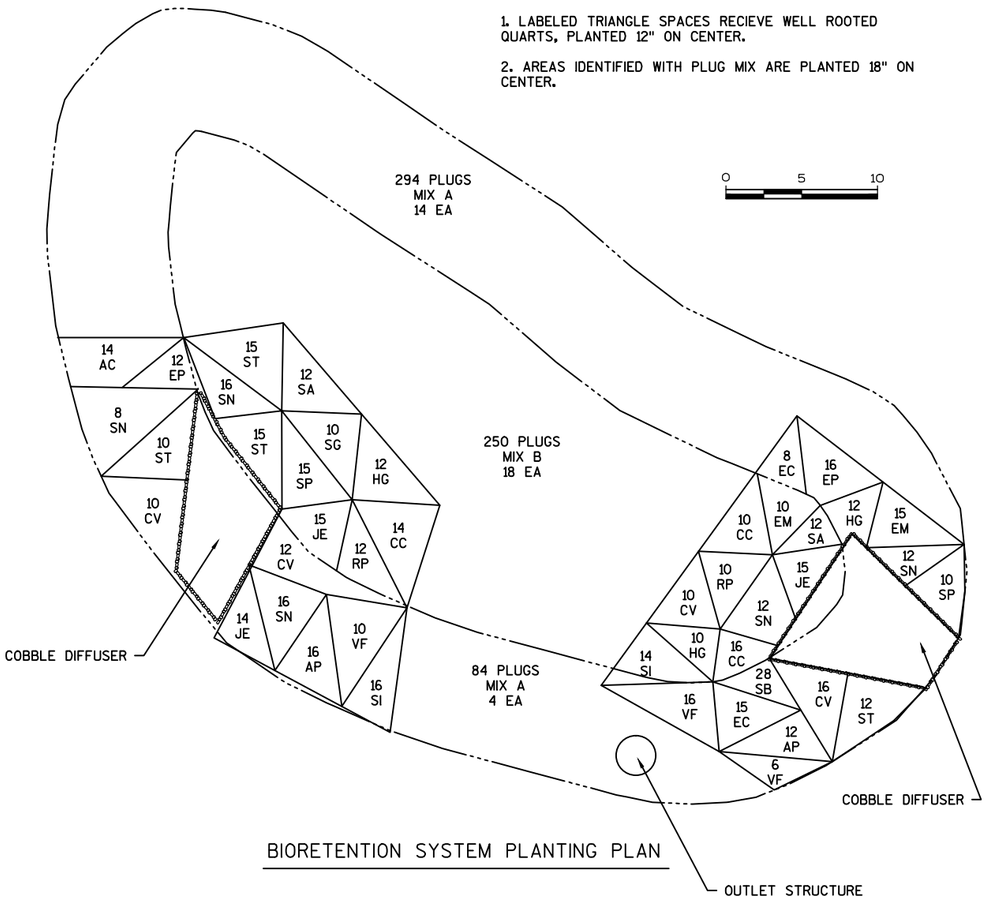
PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	BIORETENTION PLAN	SHEET 7	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\020401 PN.DWG
LAYOUT NAME - 020501 PN - 020501 PN
PLOT DATE : 12/10/2014 10:10 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 20'_XREF
WISDOT/CADDS SHEET 42

PLANTING NOTES:

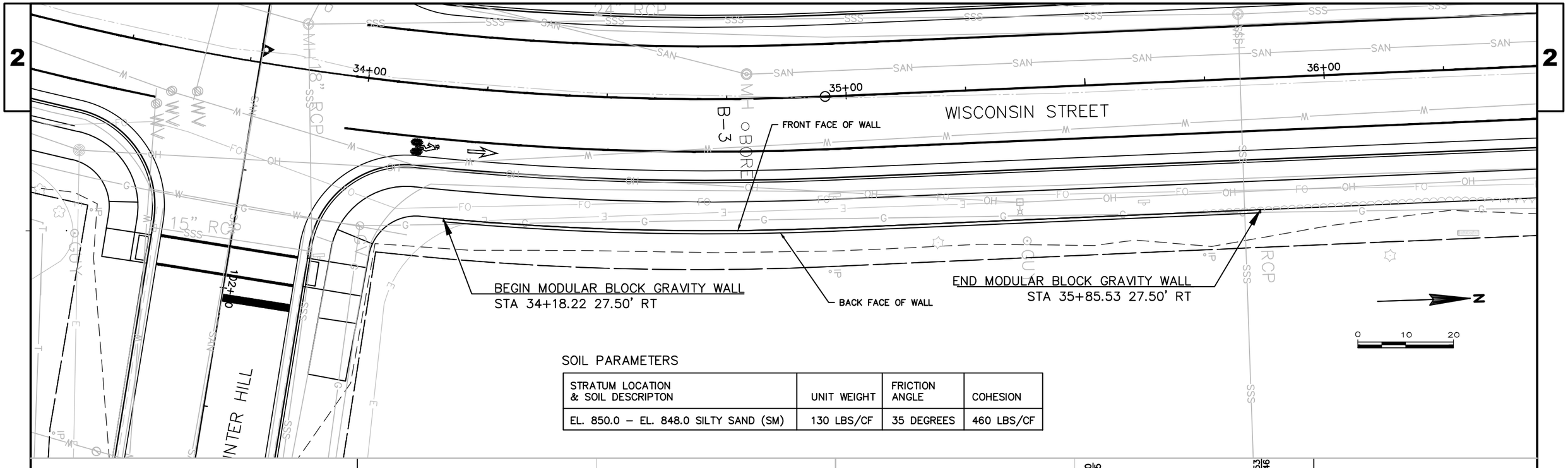
1. LABELED TRIANGLE SPACES RECIEVE WELL ROOTED QUARTS, PLANTED 12" ON CENTER.

2. AREAS IDENTIFIED WITH PLUG MIX ARE PLANTED 18" ON CENTER.



BIORETENTION SYSTEM PLANTING PLAN

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY	MIX
	GRASSES, SEDGES AND RUSHES				
	Bromus ciliatus	Fringed Brome	Plug	18	B
CC	Calmagrostis canadensis	Blue Joint Grass	Qt.	40	
	Calmagrostis canadensis	Blue Joint Grass	Plug	18	A
	Carex bebii	Bebb's Oval Sedge	Plug	18	B
	Carex bicknellii	Copper-Shouldered Oval Sedge	Plug	18	B
	Carex crawfordii	Crawford's Sedge	Plug	18	B
CV	Carex vulpinoidea	Brown Fox Sedge	Qt.	32	
	Carex vulpinoidea	Brown Fox Sedge	Plug	18	A
EC	Elymus canadensis	Canada Wild Rye	Qt.	23	
	Elymus canadensis	Canada Wild Rye	Plug	18	A
	Elymus virginicus	Virginia Wild Rye	Plug	18	A
	Hordeum jubatum	Squrrel-Tailed Barley	Plug	18	A
JE	Juncus effusus	Common Rush	Qt.	44	
	Juncus effusus	Common Rush	Plug	18	B
	Juncus tenuis	Path Rush	Plug	18	B
	Panicum virgatum	Swith Grass	Plug	18	A
	Scriptus acutus	Hard-Stem Bulrush	Plug	18	B
ST	Scriptus atrovirens	Dark Green Bulrush	Qt.		
	Scriptus atrovirens	Dark Green Bulrush	Plug	18	B
	Scriptus pendulus	Red Bulrush	Plug	18	B
	Scriptus pungens	Three-Square Bulrush	Plug	18	A
SN	Sorgastrum nutans	Indian Grass	Qt.	64	
	Sorgastrum nutans	Indian Grass	Plug	18	A
SP	Spartina pectinata	Prairie Cord Grass	Qt.	25	
	Spartina pectinata	Prairie Cord Grass	Plug	18	A
	WILDFLOWERS				
AC	Amorpha canensis	Lead Plant	Qt.	14	A
	Amorpha canensis	Lead Plant	Plug	18	B
	Aesclpias incarnata	Marsh Milkweed	Plug	18	A
	Aster azureus	Sky Blue Aster	Plug	18	A
	Aster novae-angliae	New England Aster	Plug	18	A
AP	Aster puniceus	Swamp Aster	Qt.	28	
	Aster puniceus	Swamp Aster	Plug	18	B
	Aster simplex	Panicled Aster	Plug	18	A
	Baptisia leucantha	White Wild Indigo	Plug	18	A
EM	Eupatorium maculatum	Spotted Joe Pye Weed	Qt.	25	
	Eupatorium maculatum	Spotted Joe Pye Weed	Plug	18	A
EP	Eupatorium perfoliatum	Boneset	Qt.	28	
	Eupatorium perfoliatum	Boneset	Plug	18	A
HG	Helianthus grosseserratus	Sawtooth Sunflower	Qt.	32	
	Helianthus grosseserratus	Sawtooth Sunflower	Plug	18	A
	Hypericum pyramidatum	Great St. John's Wort	Plug	18	A
	Liatris pycnostachya	Prairie Blazing Star	Plug	18	B
	Monarda fistulosa	Wild Bergamot	Plug	18	B
	Pycnantheum virginianum	Mountain Mint	Plug	18	B
RP	Ratibida pinnata	Yellow Coneflower	Qt.	22	
	Ratibida pinnata	Yellow Coneflower	Plug	18	A
SI	Silphium integrifolium	Rossin Weed	Qt.	30	
	Silphium integrifolium	Rossin Weed	Plug	18	A
	Silphium laciniatum	Compass Plant	Plug	18	A
	Silphium perfoliatum	Cup Plant	Plug	18	B
SB	Silphium terebinthiaceum	Prairie Dock	Qt.	28	
	Silphium terebinthiaceum	Prairie Dock	Plug	18	A
	Solidago graminifolia	Grass-Leaved Goldenrod	Plug	18	A
	Solidago ohioensis	Ohio Goldenrod	Plug	18	A
	Solidago riddellii	Riddell's Goldenrod	Plug	18	A
	Tradescantia ohiensis	Spiderwort	Plug	18	A
VF	Veronia fasciculata	Ironweed	Qt.	32	
	Veronia fasciculata	Ironweed	Plug	18	A
	Verbena hastata	Blue Vervain	Plug	18	A
	Veronicastrum virginicum	Culver's Root	Plug	18	A



SOIL PARAMETERS

STRATUM LOCATION & SOIL DESCRIPTON	UNIT WEIGHT	FRICTION ANGLE	COHESION
EL. 850.0 – EL. 848.0 SILTY SAND (SM)	130 LBS/CF	35 DEGREES	460 LBS/CF

NOTE: ELEVATIONS SHOWN ARE MINIMUMS. ACTUAL ELEVATIONS SHALL BE DETERMINED BY THE RETAINING WALL DESIGNER.

DESIGN DATA:

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK GRAVITY"

PLANS ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

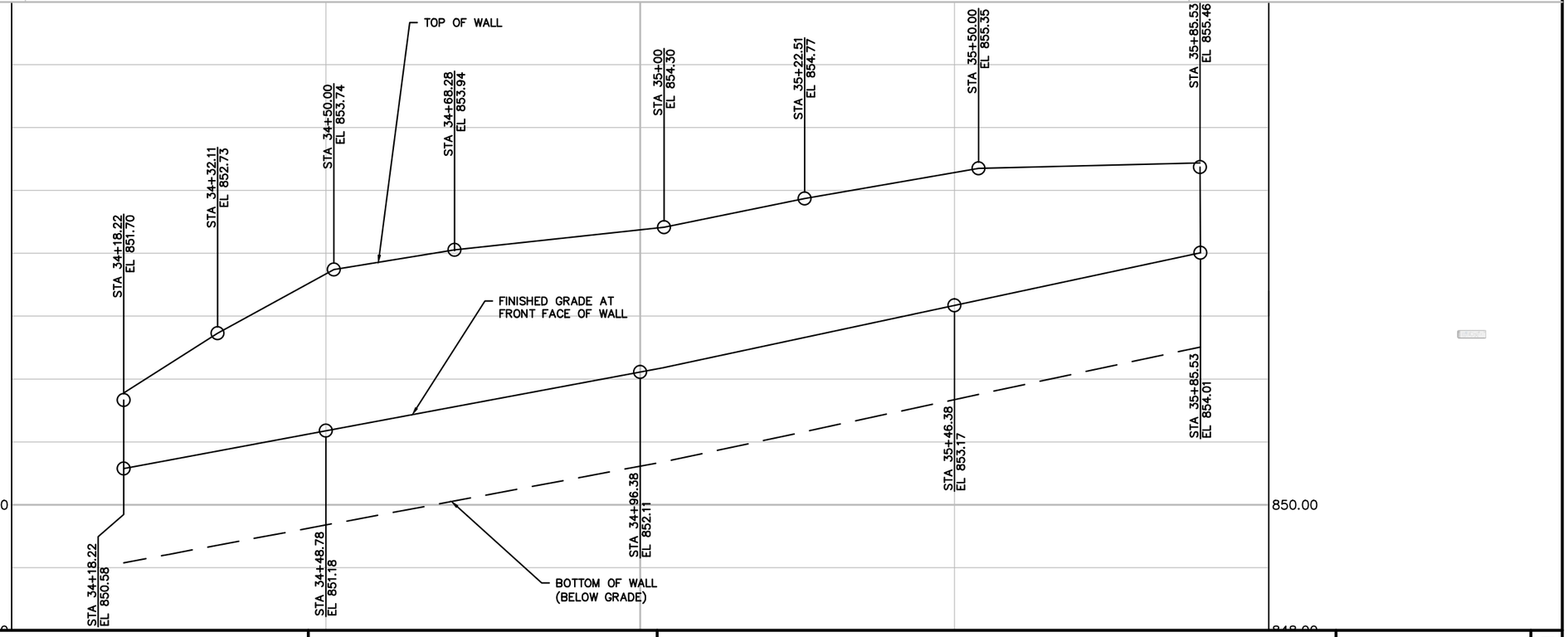
THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

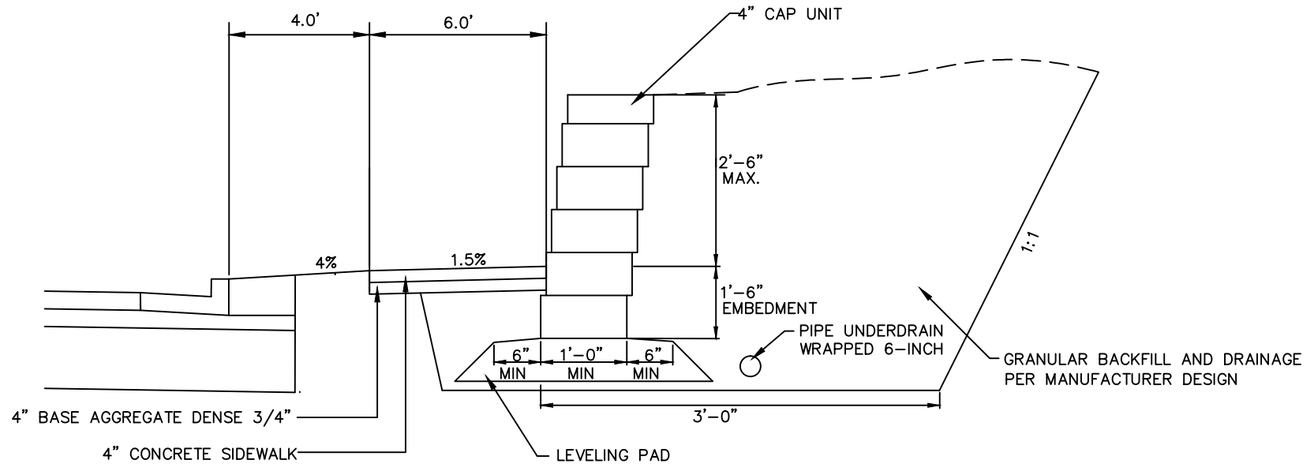
AESTHETIC TREATMENT TO WALL SHALL BE PER CITY DIRECTOR OF PUBLIC WORKS APPROVAL.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 100 PSF.

ALLOWABLE BEARING CAPACITY FOR WALL IS 3000 PSF.



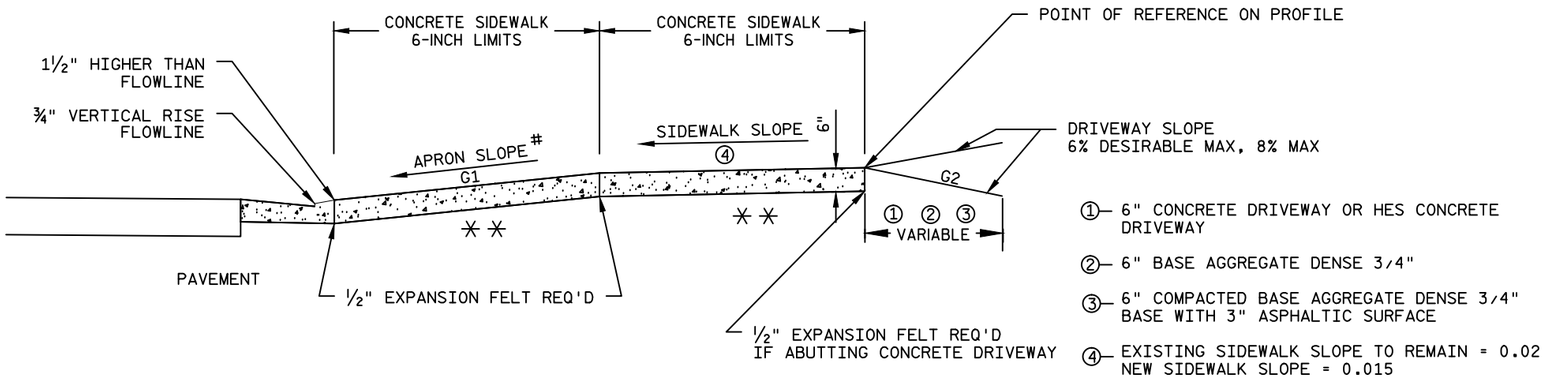
PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	RETAINING WALL	SHEET 9	E



WALL MODULAR BLOCK GRAVITY

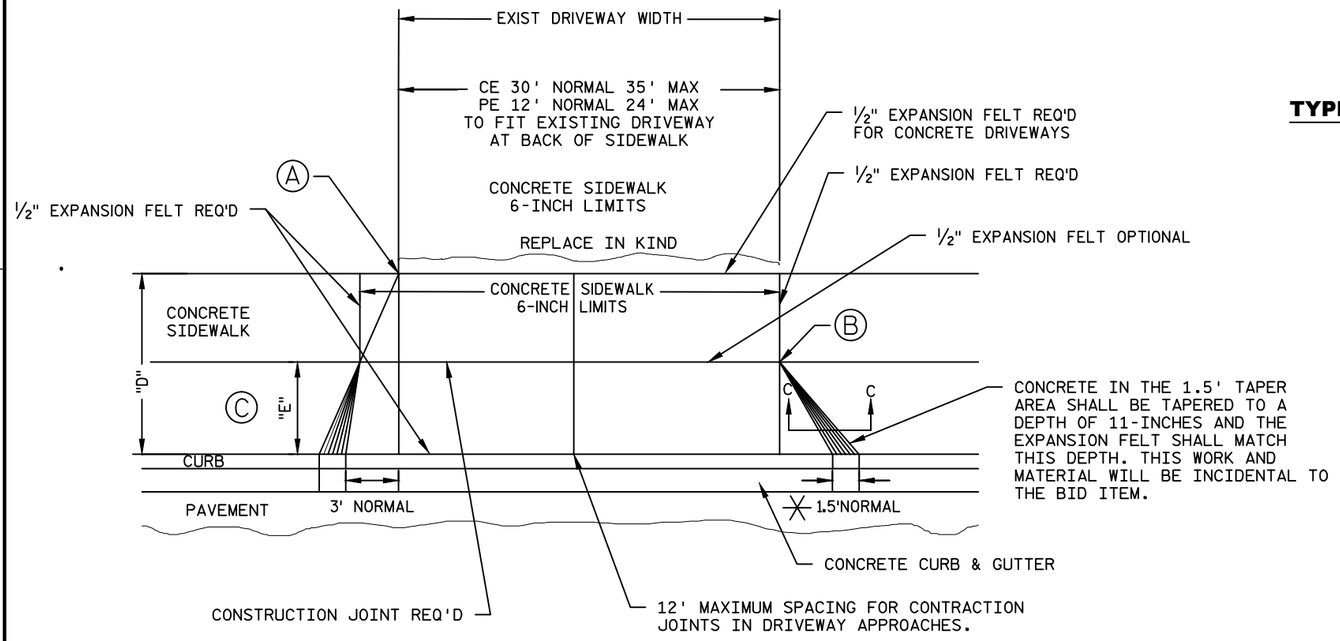
STA 34+18.22 TO STA 35+85.53

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER



TYPICAL SIDEWALK SECTION

PLAN VIEW

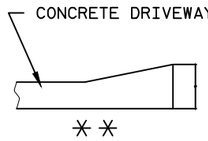


Ⓐ WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK

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

Ⓒ WHEN ENTRANCE IS WITHIN CURB & GUTTER LIMITS AND NO SIDEWALK IS PRESENT "E" SHALL BE 5.0'

** WHEN "E" =0 MAKE CURB TAPER 5'



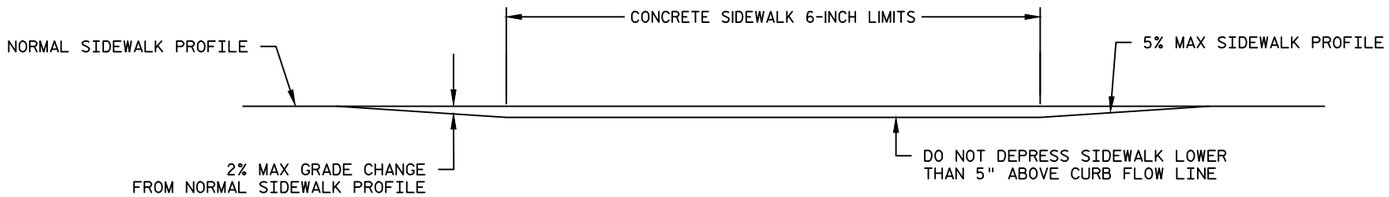
SECTION C-C

# #

TERRACE WIDTH	APRON SLOPE (G1)		
	MIN %	DESIRABLE %	MAX %
3 Ft	5.0	6.0	8.0
4 Ft	5.0	6.0	8.0
5 Ft	4.0	6.0	8.0
6 Ft	4.0	6.0	8.0
7 Ft	3.5	6.0	8.0
8 Ft	3.0	6.0	8.0

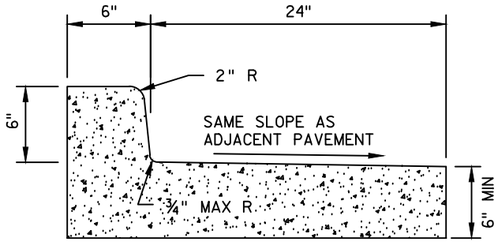
NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%

DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE



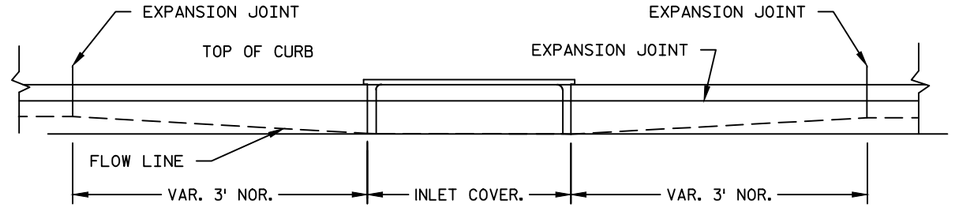
DEPRESSED SIDEWALK PROFILE

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN: CONSTRUCTION DETAILS	SHEET 11	E

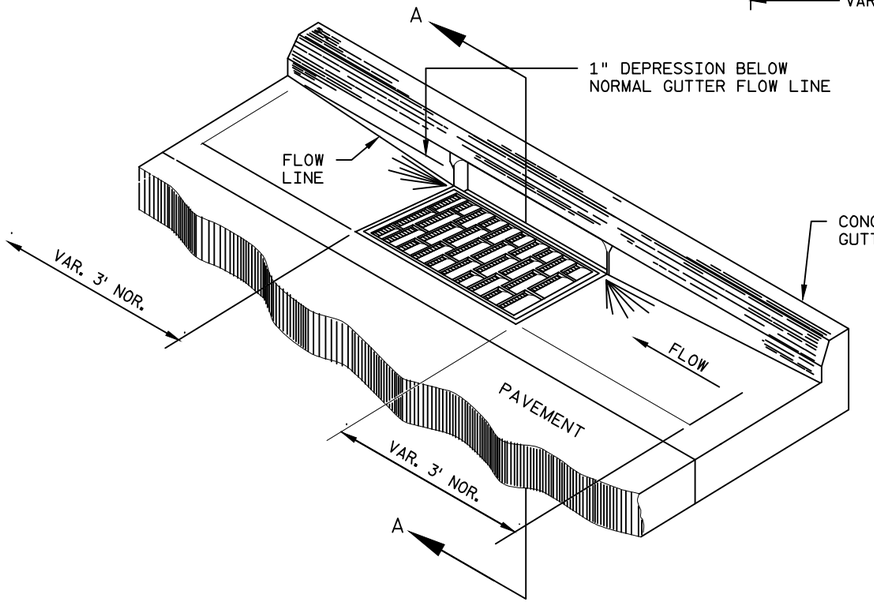


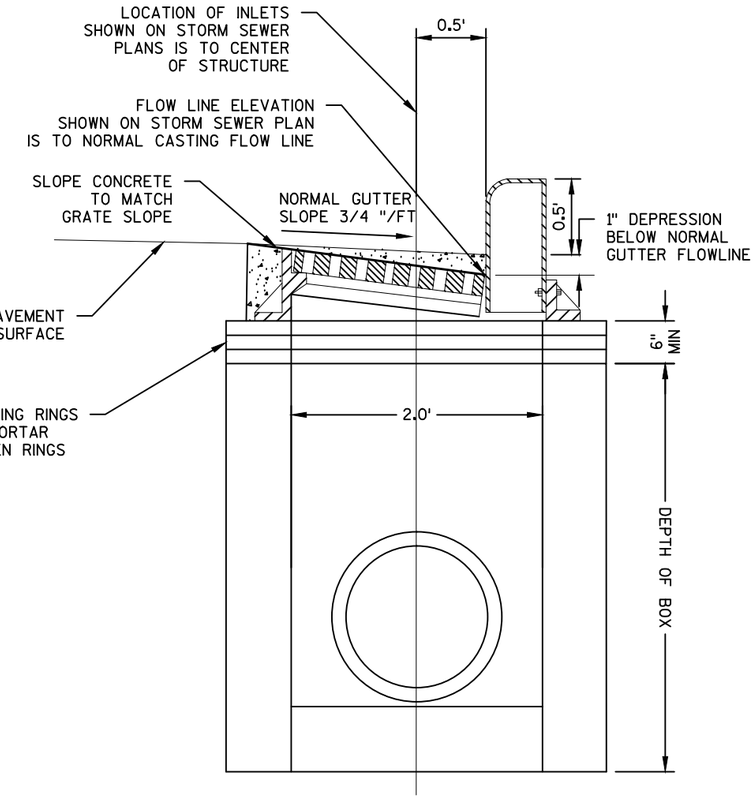
CONCRETE CURB & GUTTER
30-INCH TYPE D REVERSE GUTTER PAN

STA 44+88.32 TO STA 45+41.00



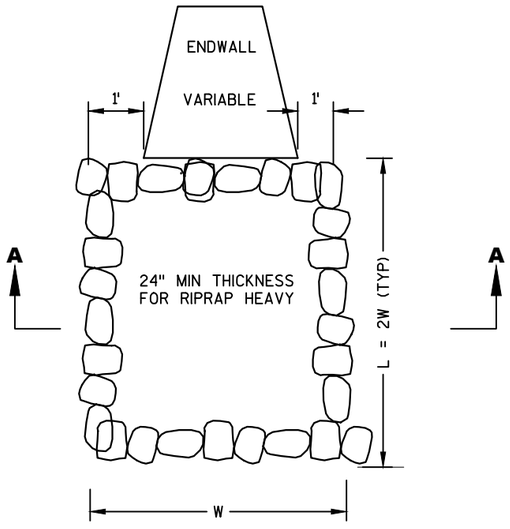
ELEVATION

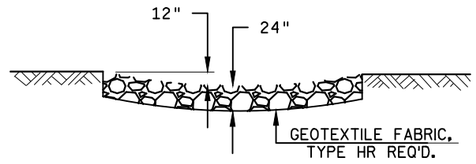




SECTION A-A

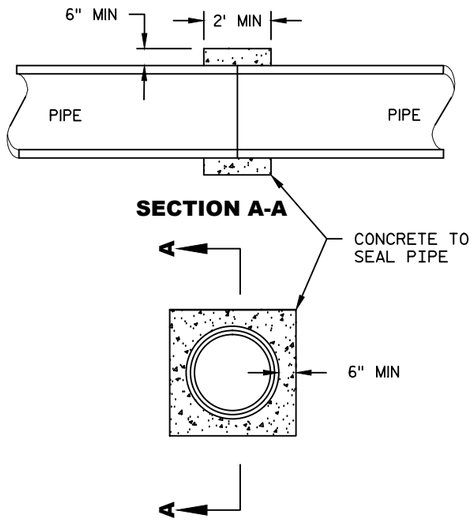
INLET



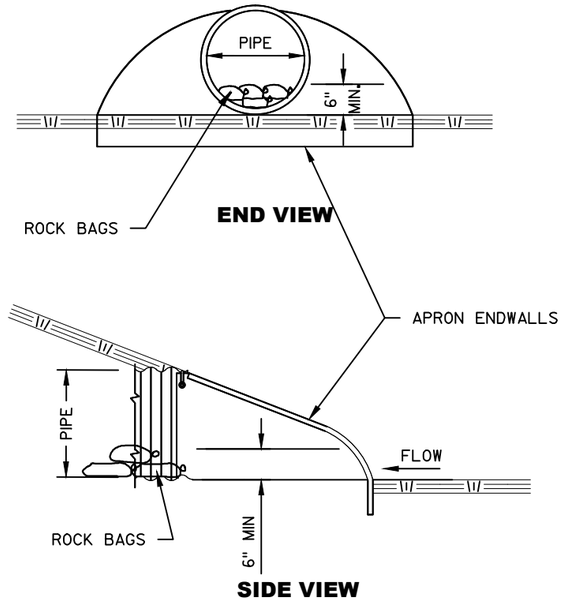


SECTION A-A

RIPRAP HEAVY TREATMENT AT CULVERTS



CONCRETE COLLARS FOR PIPE



CULVERT PIPE CHECKS

2

RADIUS POINTS TABLE
(RADIUS MEAS. TO BACK CURB)

POINT	STATION	OFFSET	NORTHING	EASTING	RADIUS
1	15+10.35	48.9'RT	341481.7382	514362.2651	30.0'
2	15+97.21	37.5'RT	341494.5642	514448.9391	20.0'

NOTE: ELEVATIONS SHOWN ARE TO FLOW LINE UNLESS NOTED OTHERWISE.

N

20 0 20 40
scale 10 feet

BEGIN PROJECT
STA 15+05.00
MATCH EXISTING
SAW CUT REQ'D

STA 15+59.35 WI ST =
STA 51+44.02 11TH ST

CURB RAMP
TYPE 7A

SLOPE INTERCEPT (TYP)

ROW

BP: 14+00.00

15+00

16+00

WISCONSIN ST

17+00

15.0'

600.0'

880.71

90°6'10"

879.54

RIM=879.90

880.10

880.18

51+00

655.4'

619.3'

CONCRETE CURB & GUTTER
30-INCH TYPE D

CURB RAMP
TYPE 4B1

CURB RAMP
TYPE 7B

CURB RAMP
TYPE 4B1

SLOPE INTERCEPT (TYP)

CONCRETE CURB & GUTTER
30-INCH TYPE D

1

2

11TH ST

BP: 50+00.00

50+00

END CONSTRUCTION
STA 50+75.00
MATCH EXISTING
SAW CUT REQ'D

RADIUS POINTS TABLE
(RADIUS MEAS. TO BACK CURB)

POINT	STATION	OFFSET	NORTHING	EASTING	RADIUS
3	21+55.40	32.5'RT	341530.7116	515011.3872	15.0'
4	22+24.24	37.5'RT	341539.9688	515079.8213	20.0'
5	22+00.83	37.5'LT	341608.5585	515041.4989	20.0'
6	22+68.87	32.5'LT	341617.6439	515109.1116	15.0'

NOTE: ELEVATIONS SHOWN ARE TO FLOW LINE UNLESS NOTED OTHERWISE.

N

20 0 20 40
scale 10 feet

EP: 71+75.00

71+75

KNOLLWOOD DR

END CONSTRUCTION
STA 71+35.00
MATCH EXISTING
SAW CUT REQ'D

641.3'

629.8'

71+00

SLOPE INTERCEPT (TYP)

CONCRETE CURB & GUTTER
30-INCH TYPE D

CONCRETE CURB & GUTTER
30-INCH TYPE D

CURB RAMP
TYPE 4A1

CURB RAMP
TYPE 4A1

CURB RAMP
TYPE 7A

5

6

837.63

RIM=836.90

RIM=837.00

835.67

ROW

600.0'

RIM=838.33

838.19

101°33'4"

21+00

22+00

23+00

WISCONSIN ST

STA 22+30.65 WI ST=
STA 70+30.25 KNOLLWOOD DR

70+30

STA 21+94.21 WI ST=
STA 61+01.46 13TH ST

61+00

101°12'0"

840.83

837.12

CURB RAMP
TYPE 4B1

3

RIM=
838.88

838.68

HP=838.85

4

EX RIM=838.66

CONCRETE CURB & GUTTER
30-INCH TYPE D

726.6'

766.4'

CURB RAMP
TYPE 7B

CONCRETE CURB & GUTTER
30-INCH TYPE D

CURB RAMP
TYPE 4B1

ROW

SLOPE INTERCEPT (TYP)

13TH ST

BP: 60+00.00

60+00

END CONSTRUCTION
STA 60+25.00
MATCH EXISTING
SAW CUT REQ'D

2

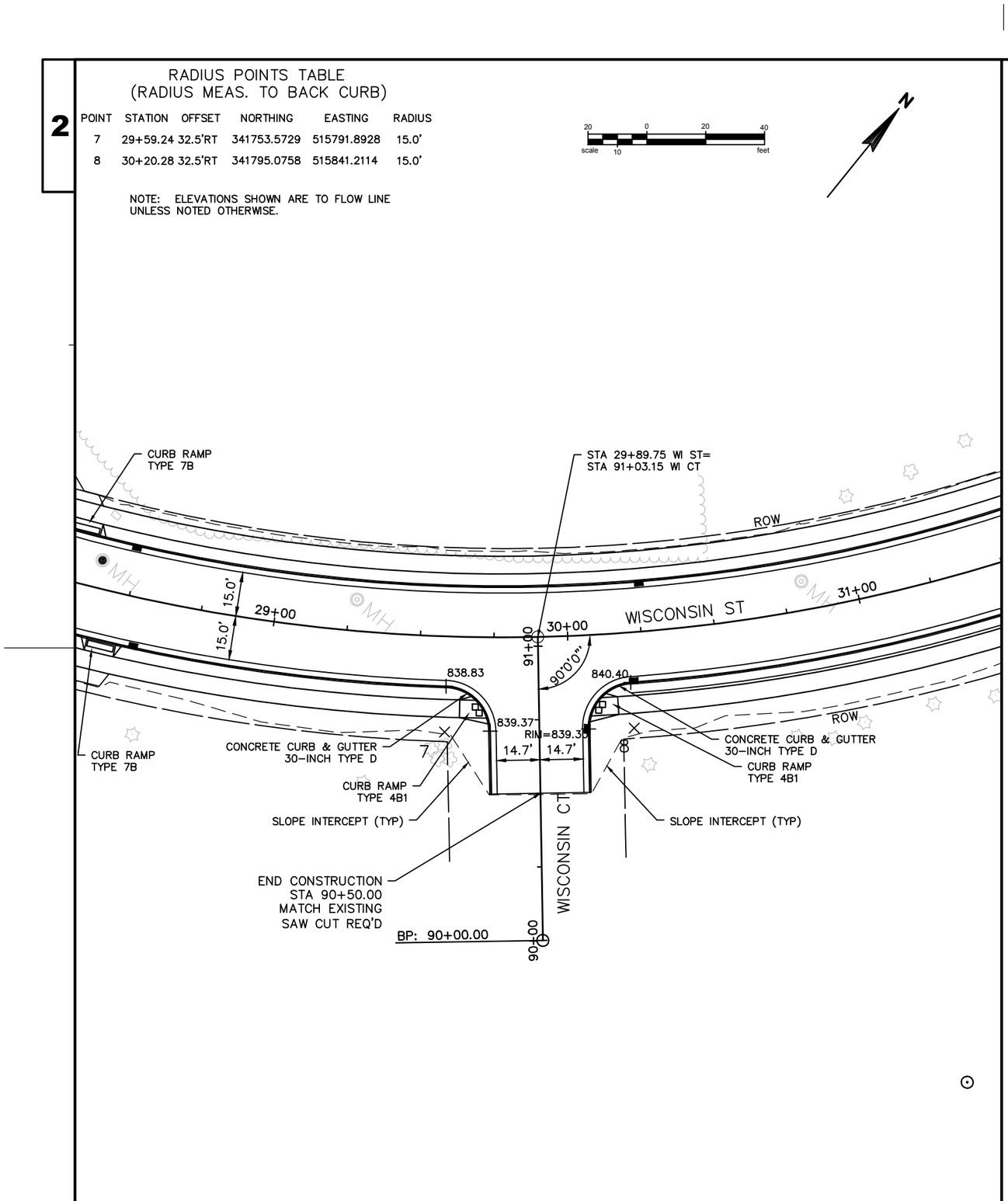
PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	INTERSECTION DETAILS – 11TH ST, 13TH ST, KNOLLWOOD DR	SHEET 14	E

2

RADIUS POINTS TABLE
(RADIUS MEAS. TO BACK CURB)

POINT	STATION	OFFSET	NORTHING	EASTING	RADIUS
7	29+59.24	32.5'RT	341753.5729	515791.8928	15.0'
8	30+20.28	32.5'RT	341795.0758	515841.2114	15.0'

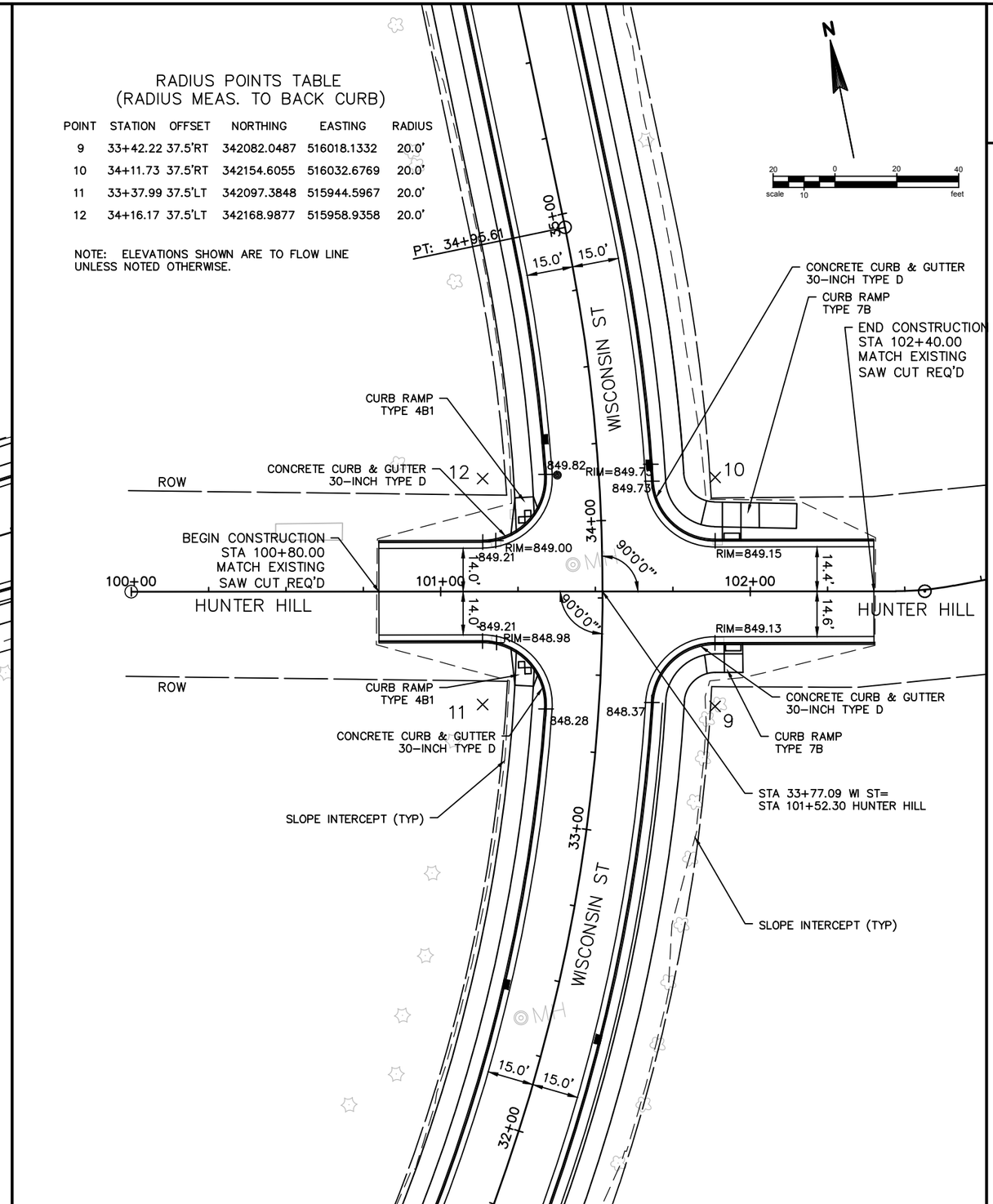
NOTE: ELEVATIONS SHOWN ARE TO FLOW LINE UNLESS NOTED OTHERWISE.



RADIUS POINTS TABLE
(RADIUS MEAS. TO BACK CURB)

POINT	STATION	OFFSET	NORTHING	EASTING	RADIUS
9	33+42.22	37.5'RT	342082.0487	516018.1332	20.0'
10	34+11.73	37.5'RT	342154.6055	516032.6769	20.0'
11	33+37.99	37.5'LT	342097.3848	515944.5967	20.0'
12	34+16.17	37.5'LT	342168.9877	515958.9358	20.0'

NOTE: ELEVATIONS SHOWN ARE TO FLOW LINE UNLESS NOTED OTHERWISE.



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	INTERSECTION DETAILS – WISCONSIN CT, HUNTER HILL	SHEET 15	E

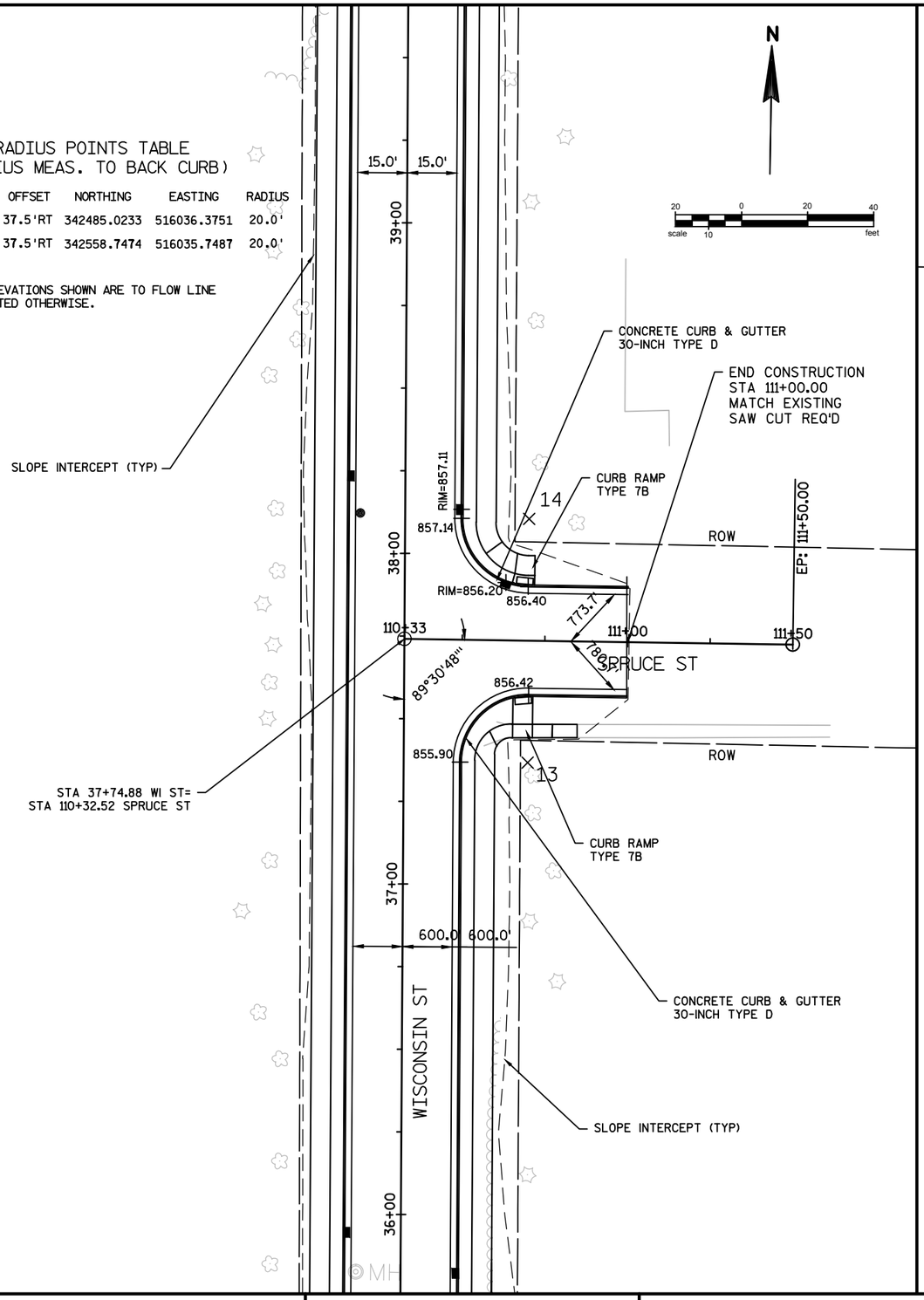
FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\021101 ID.DWG
LAYOUT NAME – 021101 ID – 021102
PLOT DATE : 9/29/2014 3:44 PM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : #########
WISDOT/CADDS SHEET 42

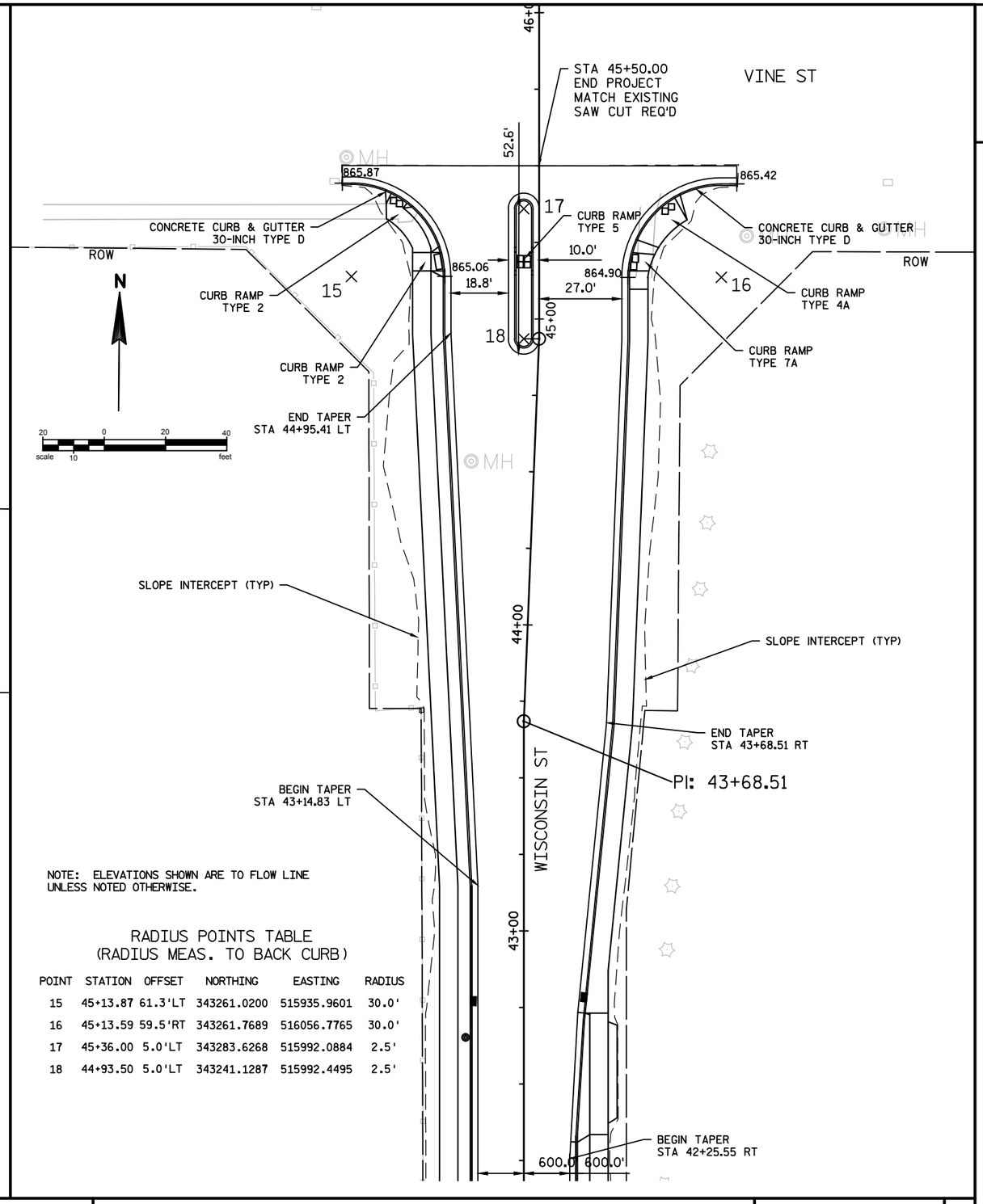
2

RADIUS POINTS TABLE
(RADIUS MEAS. TO BACK CURB)

POINT	STATION	OFFSET	NORTHING	EASTING	RADIUS
13	37+36.95	37.5'RT	342485.0233	516036.3751	20.0'
14	38+10.68	37.5'RT	342558.7474	516035.7487	20.0'

NOTE: ELEVATIONS SHOWN ARE TO FLOW LINE UNLESS NOTED OTHERWISE.





NOTE: ELEVATIONS SHOWN ARE TO FLOW LINE UNLESS NOTED OTHERWISE.

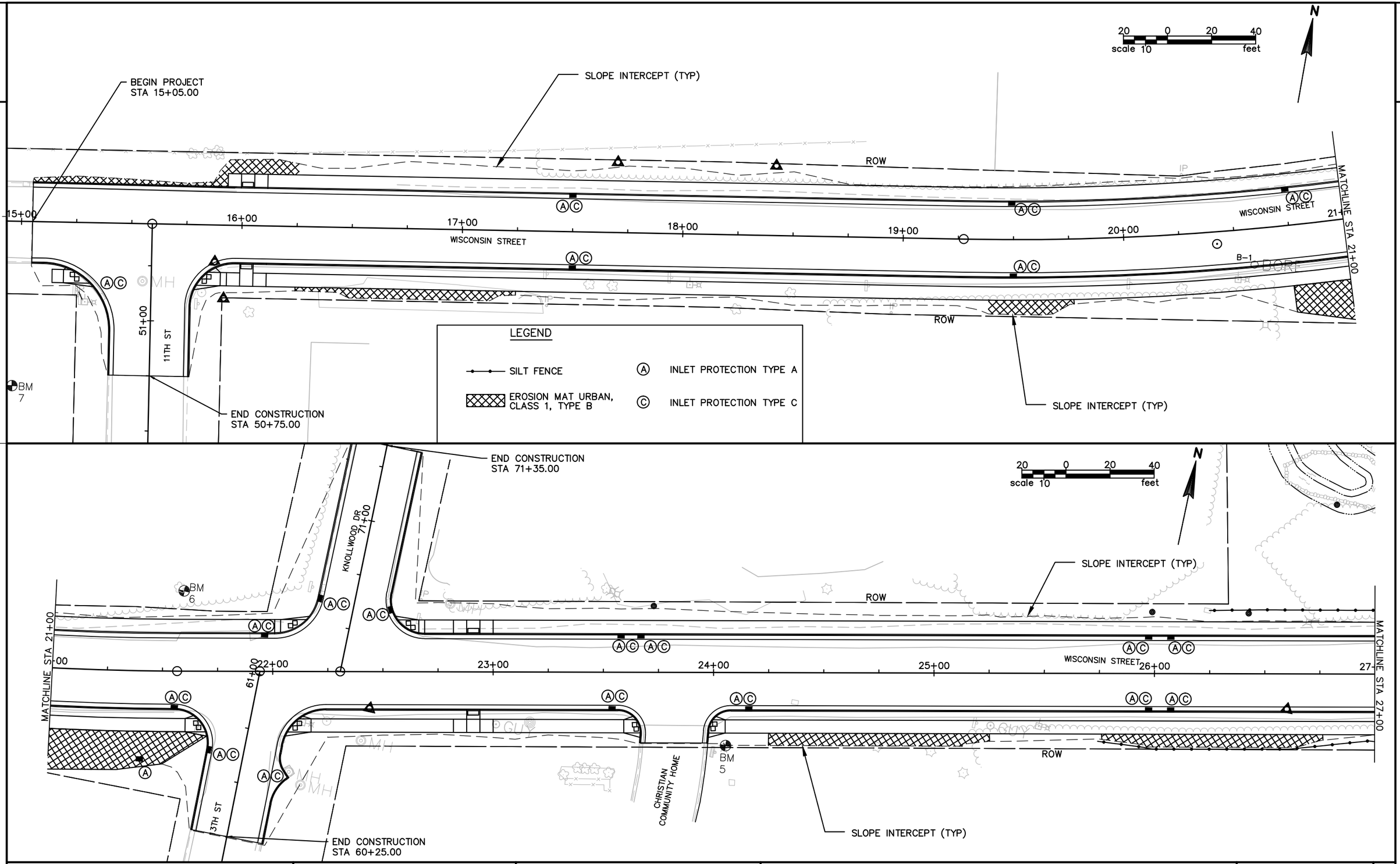
RADIUS POINTS TABLE
(RADIUS MEAS. TO BACK CURB)

POINT	STATION	OFFSET	NORTHING	EASTING	RADIUS
15	45+13.87	61.3'LT	343261.0200	515935.9601	30.0'
16	45+13.59	59.5'RT	343261.7689	516056.7765	30.0'
17	45+36.00	5.0'LT	343283.6268	515992.0884	2.5'
18	44+93.50	5.0'LT	343241.1287	515992.4495	2.5'

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	INTERSECTION DETAILS - SPRUCE ST, VINE ST	SHEET 16	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\021101 ID.DWG
LAYOUT NAME - 021101 ID - 021103
PLOT DATE : 10/1/2014 8:11 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	EROSION CONTROL	SHEET 17	E

2

20 0 20 40
scale 10 feet

MATCHLINE STA 27+00

28+00

29+00

30+00

31+00

32+00

MATCHLINE STA 33+00

33

WISCONSIN STREET

SLOPE INTERCEPT (TYP)

ROW

SLOPE INTERCEPT (TYP)

91+00

WISCONSIN CT.

END CONSTRUCTION
STA 90+50.00

LEGEND

SILT FENCE

EROSION MAT URBAN, CLASS 1, TYPE B

(A) INLET PROTECTION TYPE A

(C) INLET PROTECTION TYPE C

N

END CONSTRUCTION
STA 100+80.00

101+00

MATCHLINE STA 33+00

34+00

35+00

36+00

37+00

38+00

39

MATCHLINE STA 39+00

WISCONSIN STREET

SLOPE INTERCEPT (TYP)

ROW

102+00

HUNTER HILL

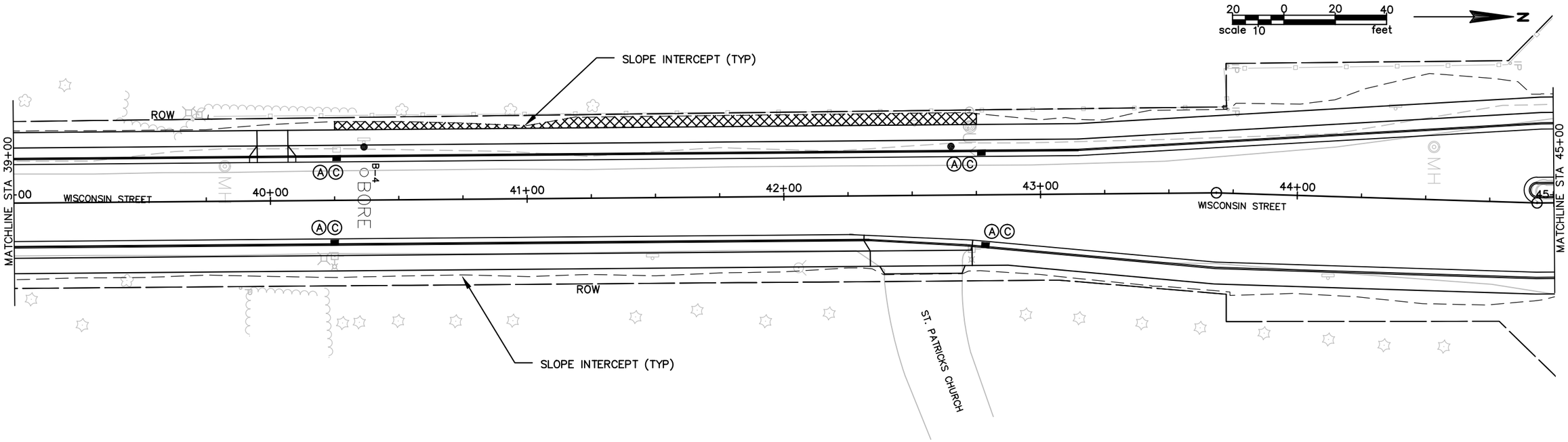
SPRUCE DR

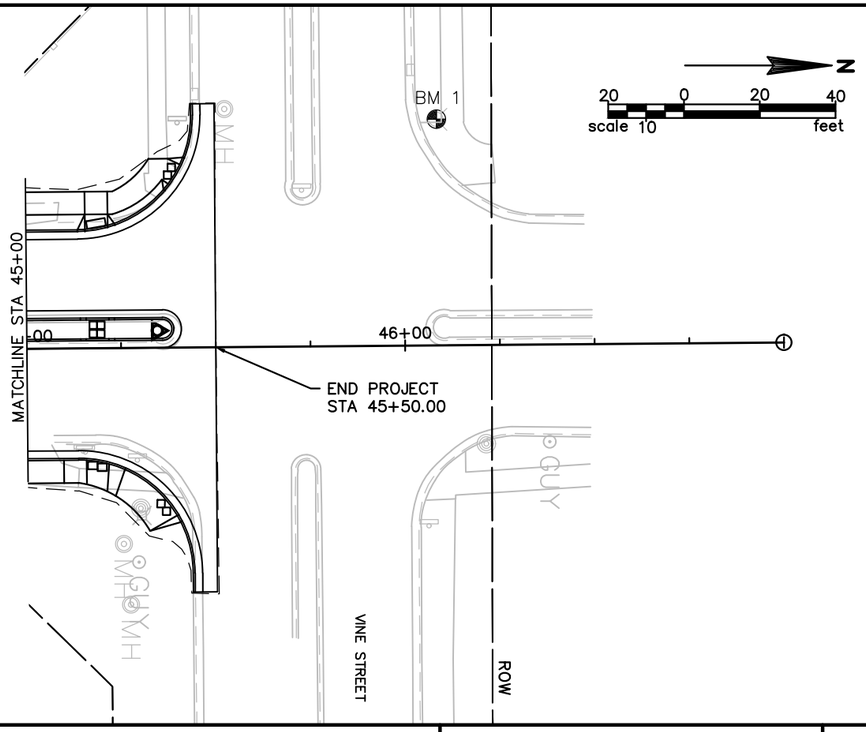
BM
2

END CONSTRUCTION
STA 102+40.00

END CONSTRUCTION
STA 110+75.00

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	EROSION CONTROL	SHEET 18	E





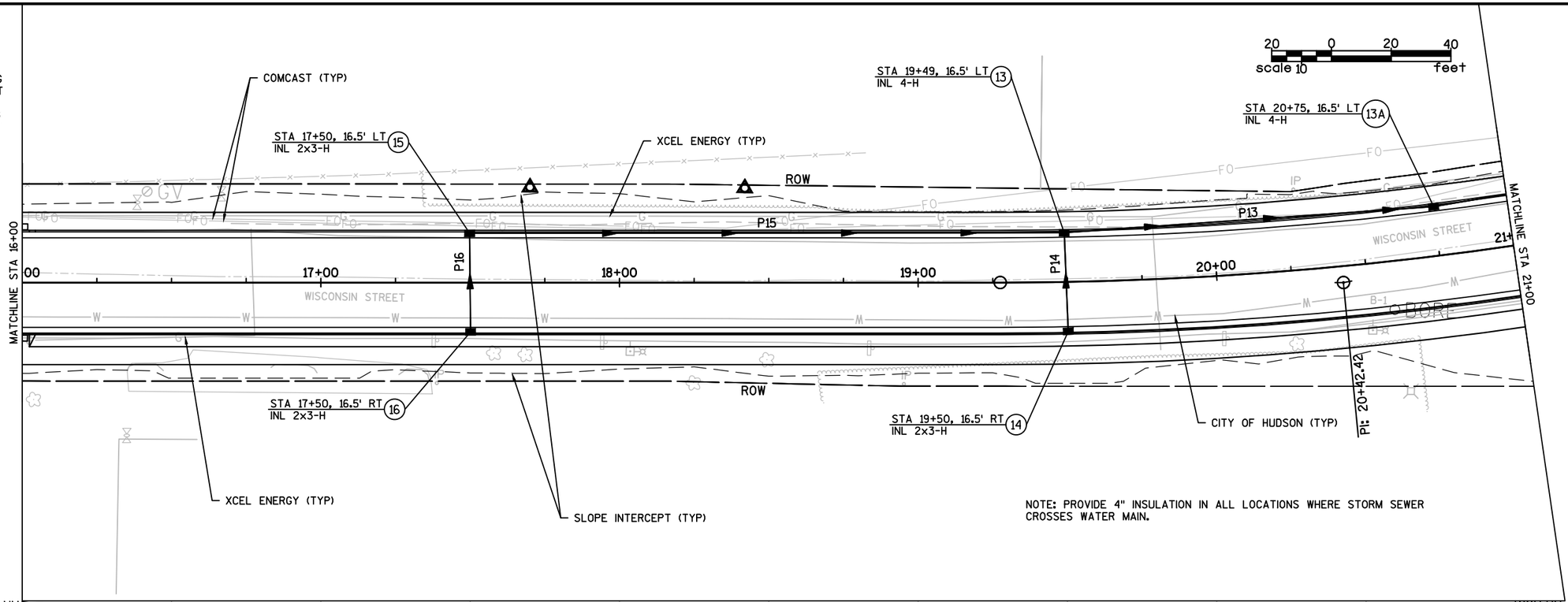
LEGEND

SILT FENCE	(A) INLET PROTECTION TYPE A
EROSION MAT URBAN, CLASS 1, TYPE B	(C) INLET PROTECTION TYPE C

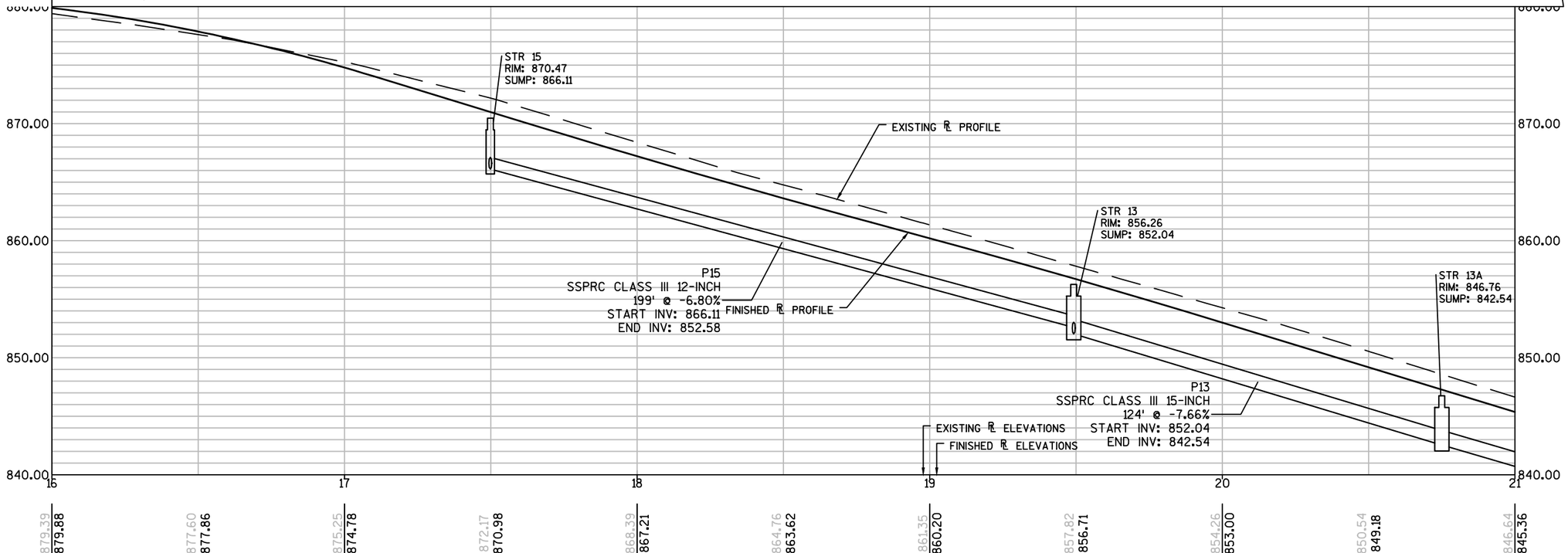
PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	EROSION CONTROL	SHEET 19	E

NOTES: ADJUST INL CASTING STA 15+37, 33.5' RT

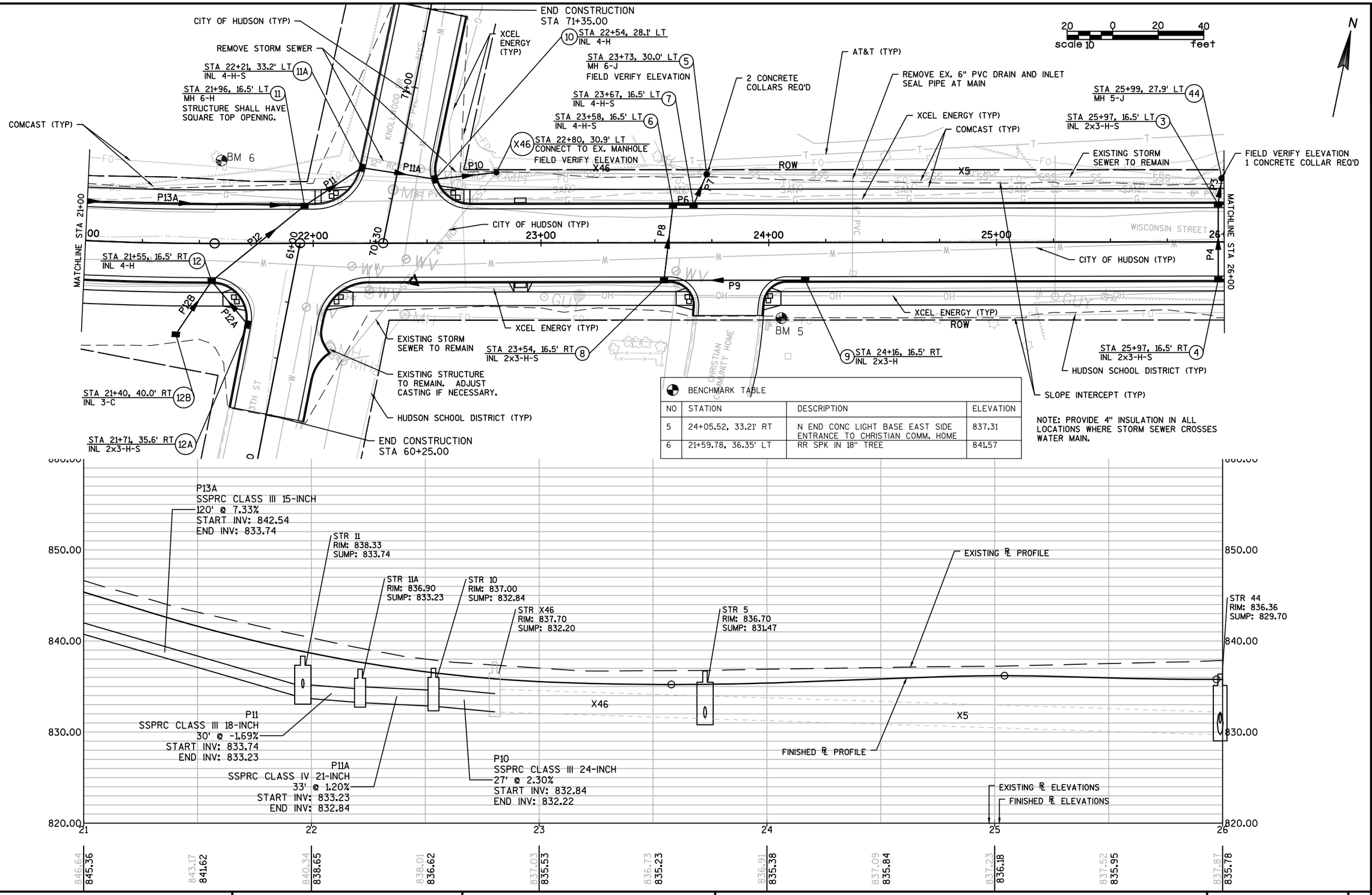
ADJUST MH CASTING STA 15+55, 26.1' RT



NOTE: PROVIDE 4" INSULATION IN ALL LOCATIONS WHERE STORM SEWER CROSSES WATER MAIN.



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	STORM SEWER	SHEET 20	E



BENCHMARK TABLE

NO	STATION	DESCRIPTION	ELEVATION
5	24+05.52, 33.21' RT	N END CONC LIGHT BASE EAST SIDE ENTRANCE TO CHRISTIAN COMM. HOME	837.31
6	21+59.78, 36.35' LT	RR SPK IN 18" TREE	841.57

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	STORM SEWER	SHEET 21	E

BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
4	27+92.62, 22.42' RT	DBL 16d SPK IN PP 18BB42	840.28
8	30+58.38, 86.37' RT		843.37

scale 10: 20 0 20 40 feet

N

NOTE: PROVIDE 4" INSULATION IN ALL LOCATIONS WHERE STORM SEWER CROSSES WATER MAIN.

AT&T (TYP)
REMOVE EXISTING STORM SEWER
XCEL ENERGY (TYP)
3A STA 26+07, 16.5' LT INL 2x3-H-S
EXISTING STORM SEWER TO REMAIN
1 STA 26+55, 86.6' LT 30" AEW
17 STA 27+02, 79.1' LT 24" AEW
REMOVE EX. STORM SEWER
18 STA 27+63, 56.0' LT MH 4-J
45 STA 26+43, 27.4' LT MH 6-J
XCEL ENERGY (TYP)
COMCAST (TYP)
1 CONCRETE COLLAR REQ'D FIELD VERIFY ELEVATION
STA 28+49, 16.5' LT 20 INL 2x3-H
REMOVE EX. 12" STORM SEWER AND INLET
STA 28+38, 9.6' LT 19 MH 4-J
EXISTING STORM SEWER TO REMAIN
MATCHLINE STA 26+00
MATCHLINE STA 31+00
P3A
P4A
P44
P45
P18
P20
P21
P24
P24A
X19
X23
X58
X59
ROW
27+00
28+00
29+00
30+00
31+00
2 CONCRETE COLLARS REQ'D
CITY OF HUDSON (TYP)
XCEL ENERGY (TYP)
COMCAST (TYP)
4A STA 26+07, 16.5' RT INL 2x3-H-S
BM 4
HUDSON SCHOOL DISTRICT (TYP)
21 STA 28+55, 16.5' RT INL 2x3-H
CITY OF HUDSON (TYP)
EXISTING STORM SEWER TO REMAIN
XCEL ENERGY (TYP)
SLOPE INTERCEPT (TYP)
STA 29+28, 10.6' LT X59 ADJUST CASTING
STA 30+26, 16.5' LT 23 MH 5-H
2 CONC. COLLARS REQ'D STRUCTURE SHALL HAVE SQUARE TOP OPENING.
EXISTING STORM SEWER TO REMAIN
STA 30+82, 9.8' LT X58 ADJUST CASTING
24 STA 30+21, 16.5' RT INL 2x3-H
24A STA 30+05, 31.8' RT INL 2x3-H
BM 8
SLOPE INTERCEPT (TYP)
END CONSTRUCTION STA 90+50.00

P44
SSPRC CLASS III 30-INCH
44' @ 0.87%
START INV: 829.70
END INV: 829.32
STR 45
RIM: 835.63
SUMP: 829.32
STR 18
RIM: 832.27
SUMP: 822.57
STR 19
RIM: 837.27
SUMP: 830.50
STR X59
RIM: 838.40
SUMP: 834.29
STR 23
RIM: 840.48
SUMP: 836.06
STR X58
RIM: 842.56
SUMP: 837.03
EXISTING ~ PROFILE
FINISHED ~ PROFILE
X19
X59
X23
X58
P45
SSPRC CLASS III 30-INCH
61' @ -12.92%
START INV: 829.32
END INV: 821.50
P18
SSPRC CLASS III 24-INCH
59' @ -1.82%
START INV: 822.57
END INV: 821.50
EXISTING ~ ELEVATIONS
FINISHED ~ ELEVATIONS
840.00
830.00
820.00
810.00
26 27 28 29 30 31

837.87	835.78	838.29	835.99	838.29	836.38	838.39	836.77	838.64	837.16	839.02	837.55
839.43	838.15	839.99	839.06	841.14	840.26	842.48	841.75	843.69	843.32		

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	STORM SEWER	SHEET	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\022501 SS.DWG PLOT DATE : 9/29/2014 4:28 PM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 44

BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
3	33+69.78, 177,12' RT	TOP NUT HYD 125' +/- E OF INT WI ST & HUNTER HILL, S SIDE	OF 860.84

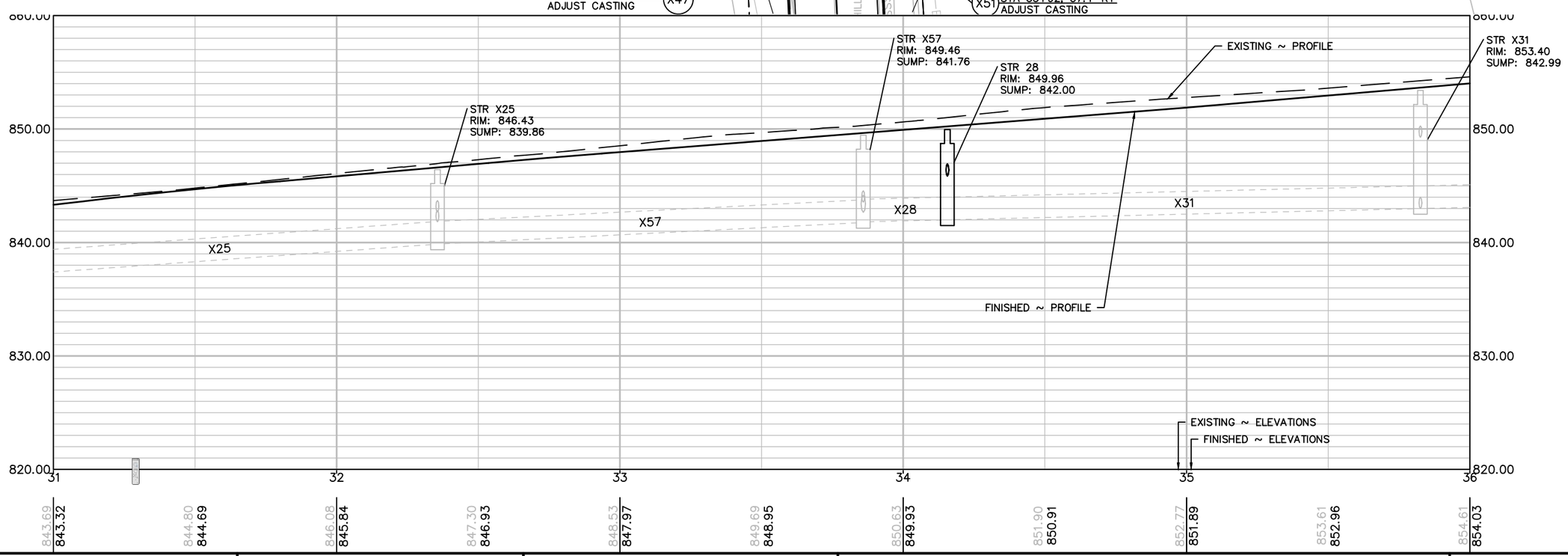
N

20 0 20 40
scale 10 feet

NOTE: PROVIDE 4" INSULATION IN ALL LOCATIONS WHERE STORM SEWER CROSSES WATER MAIN.

EX. STORM SEWER TO REMAIN
CITY OF HUDSON (TYP)
AT&T (TYP)
XCEL ENERGY (TYP)
COMCAST (TYP)
REMOVE EX. 12" STORM SEWER AND INLET
BEGIN CONSTRUCTION STA 100+80.00
MATCHLINE STA 31+00
MATCHLINE STA 36+00
WISCONSIN STREET
HUNTER HILL
ROW
HUDSON SCHOOL DISTRICT (TYP)
SLOPE INTERCEPT (TYP)
EX. STORM SEWER TO REMAIN

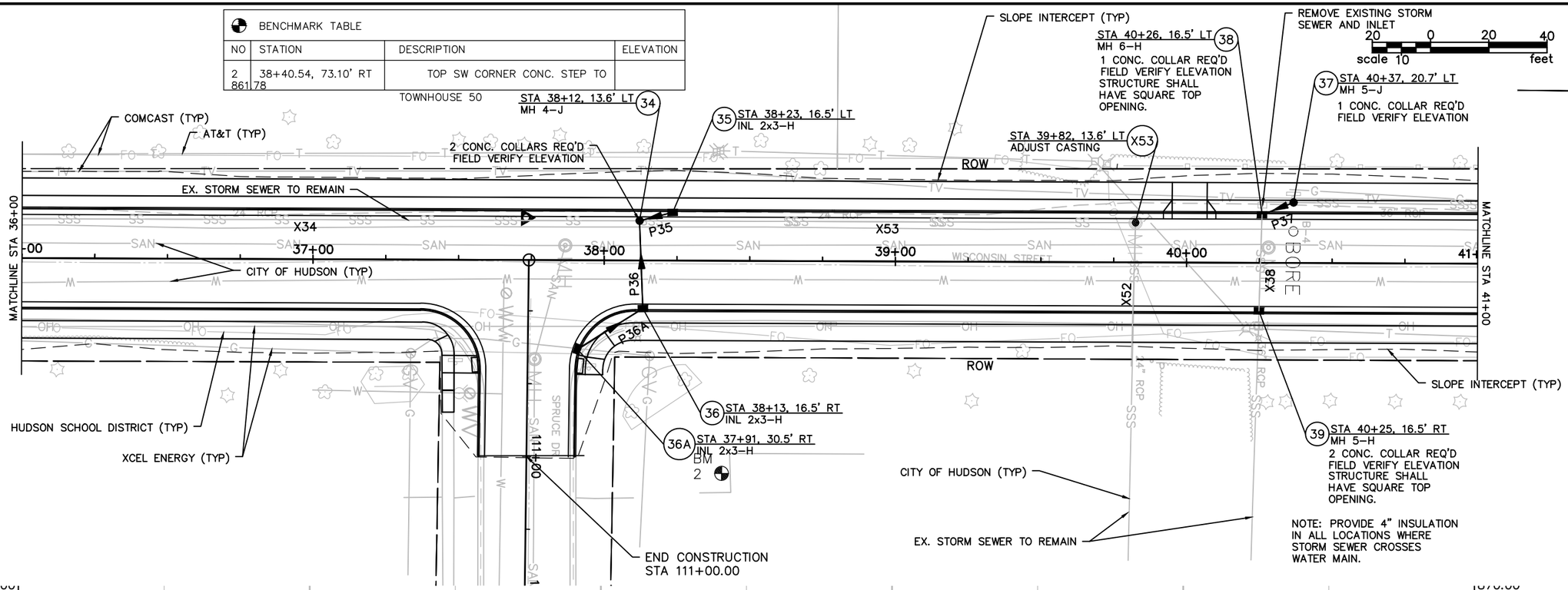
STA 32+45, 16.5' LT INL 2x3-H (26)
STA 32+36, 9.3' LT CONNECT TO EX. MANHOLE ADJUST CASTING FIELD VERIFY ELEVATION (X25)
STA 33+60, 34.1' LT ADJUST CASTING (X2)
STA 33+86, 9.5' LT ADJUST CASTING (X57)
STA 32+35, 16.5' RT INL 2x3-H (27)
STA 33+62, 37.9' RT ADJUST CASTING (X47)
STA 33+94, 34.2' LT ADJUST CASTING (X45)
STA 34+16, 13.3' LT MH 4-J 2 CONC. COLLARS REQ'D (28)
STA 34+28, 16.5' LT INL 2x3-H (29)
STA 34+17, 16.5' RT INL 2x3-H (30)
STA 33+92, 37.4' RT ADJUST CASTING (X51)
STA 35+83, 13.5' LT CONNECT TO EX. MANHOLE ADJUST CASTING FIELD VERIFY ELEVATION (X31)
STA 35+94, 16.5' LT INL 2x3-H (32)
STA 35+82, 16.5' RT INL 4-H 2 CONC. COLLARS REQ'D FIELD VERIFY ELEVATION (33)



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	STORM SEWER	SHEET 23	E

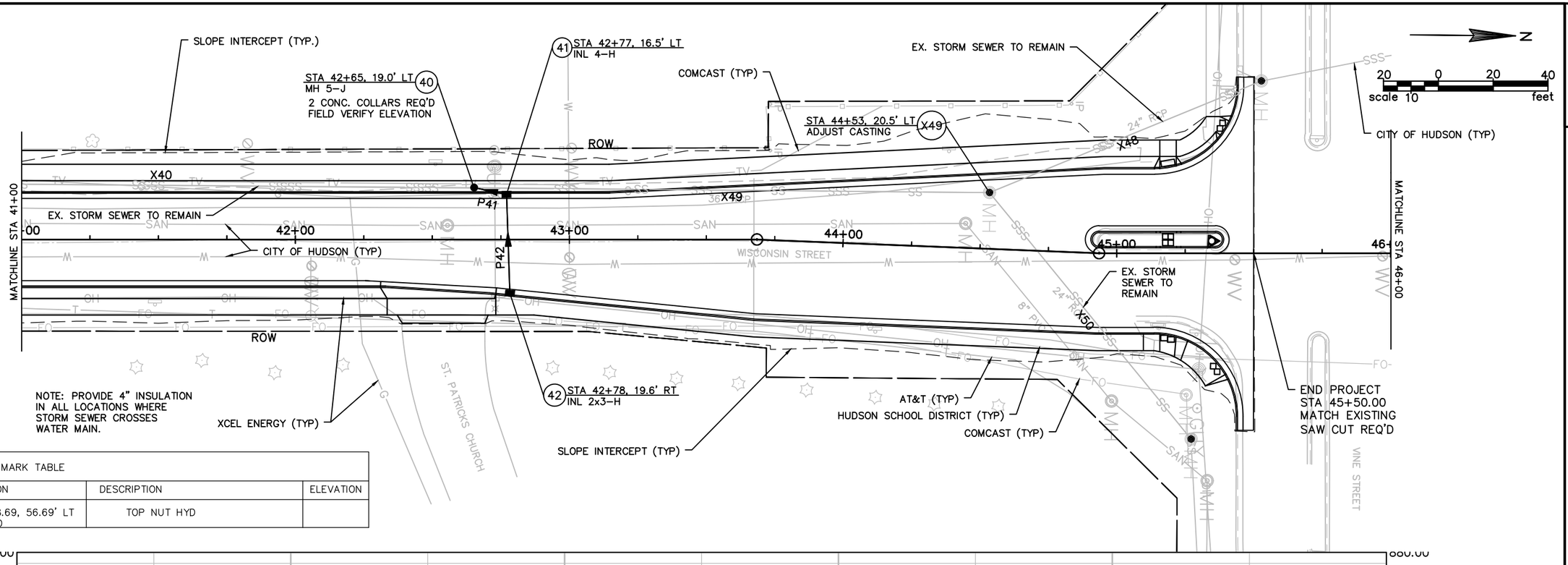
FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\022501 SS.DWG PLOT DATE : 9/29/2014 4:28 PM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF

BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
2	38+40.54, 73.10' RT	TOP SW CORNER CONC. STEP TO TOWNHOUSE 50	861.78

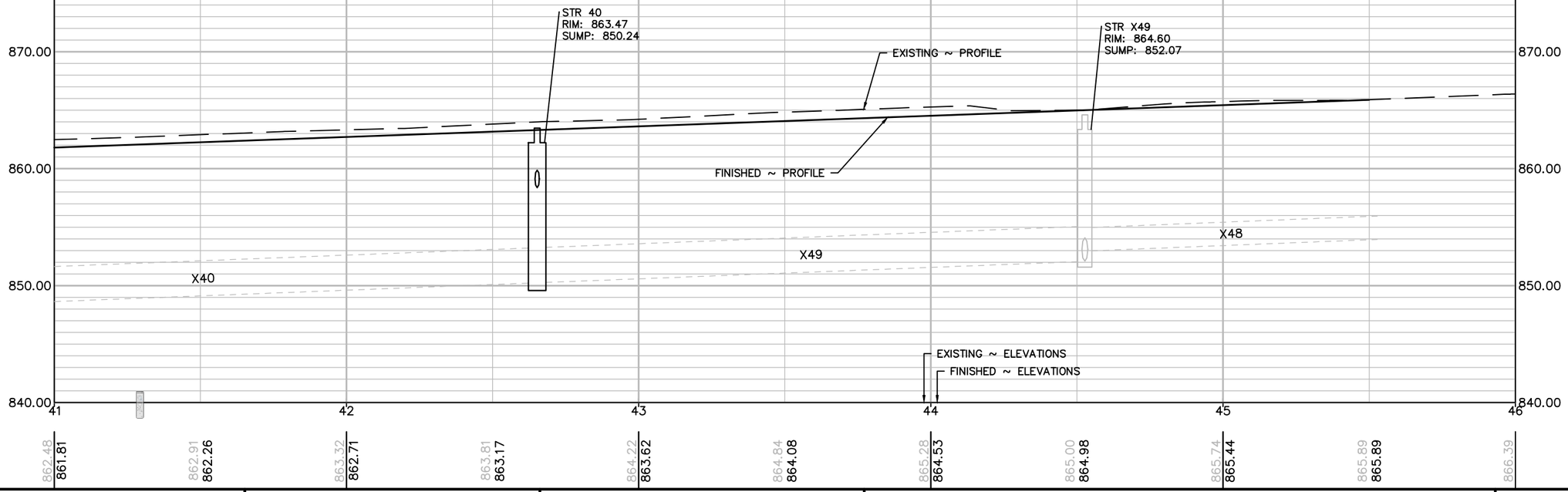


PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	STORM SEWER	SHEET E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\022501 SS.DWG PLOT DATE : 9/29/2014 4:28 PM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 44



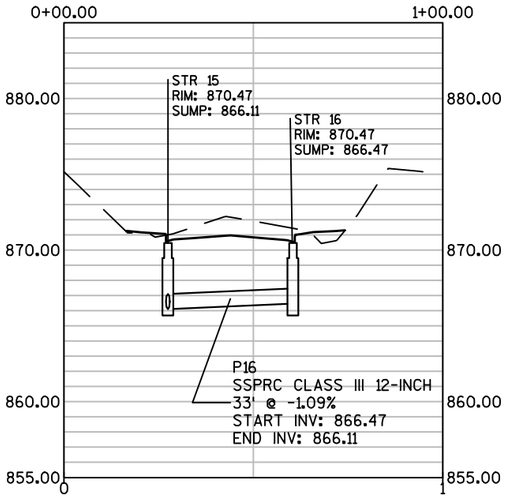
BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
1	46+08.69, 56.69' LT 868.90	TOP NUT HYD	



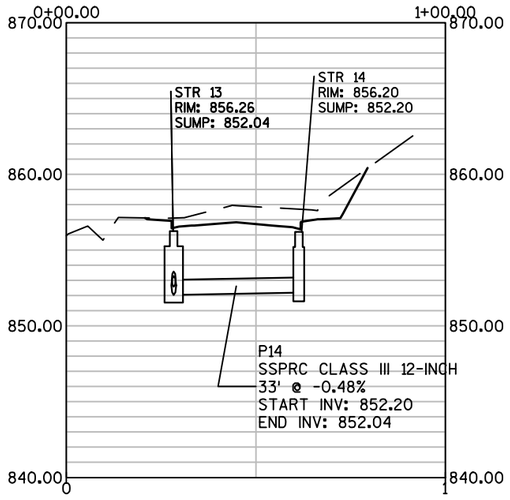
PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	STORM SEWER	SHEET E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\022501 SS.DWG PLOT DATE : 9/29/2014 4:28 PM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF

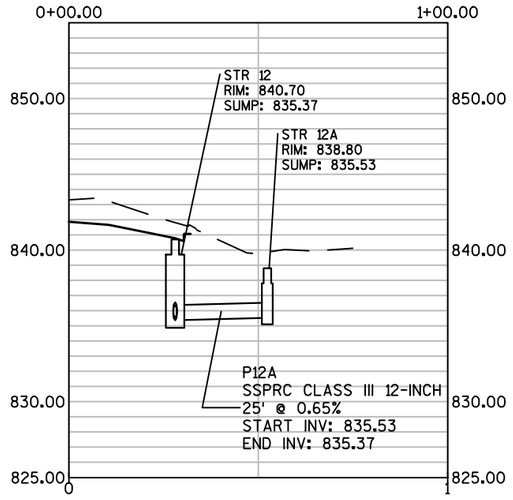
STA 17+50 APPROX.



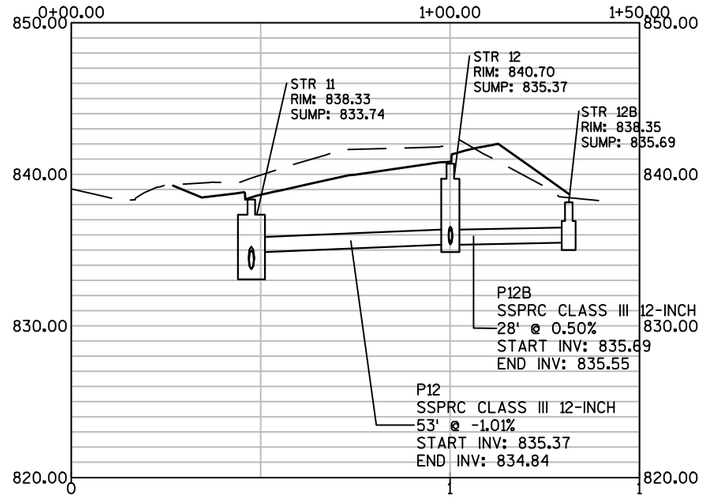
STA 19+50 APPROX.



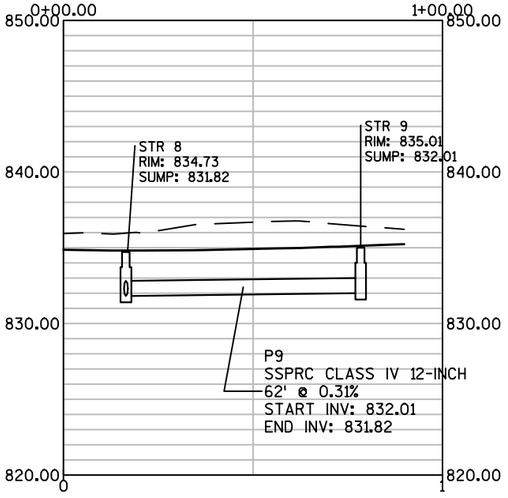
STA 21+65 RT APPROX.



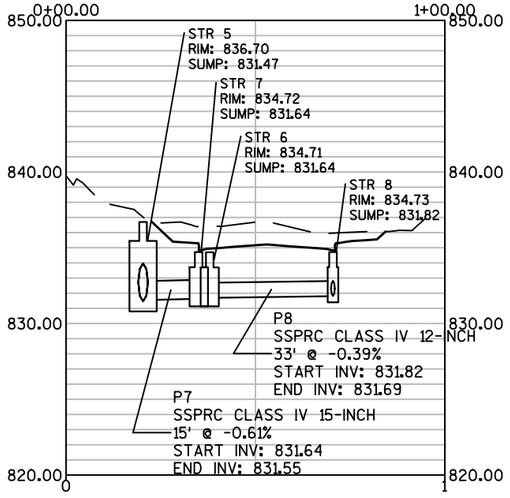
STA 21+75 APPROX.



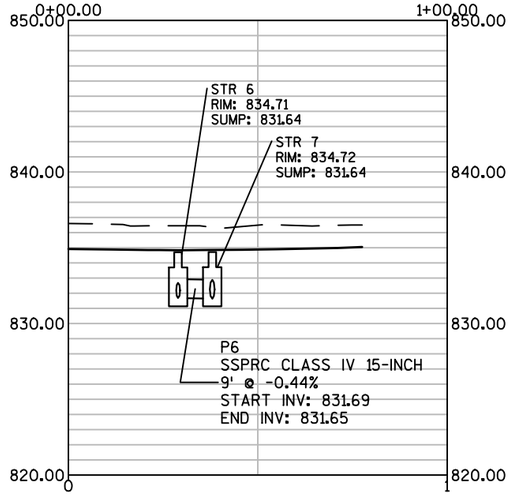
STA 23+80 RT APPROX.



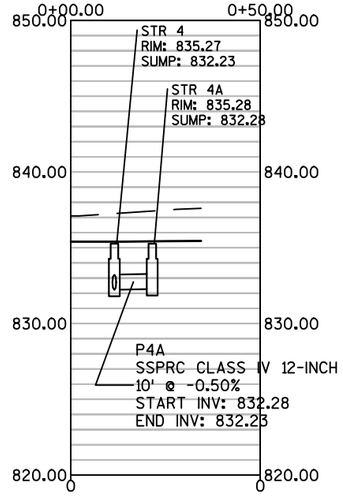
STA 23+50 APPROX.



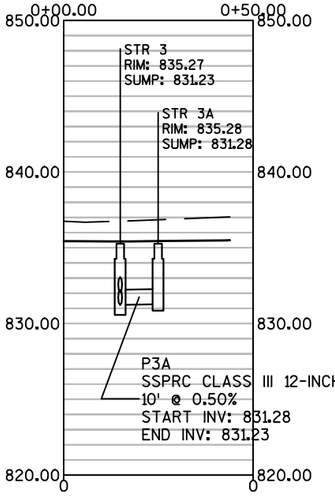
STA 23+60 LT APPROX.



STA 26+00 RT APPROX.



STA 26+00 LT APPROX.



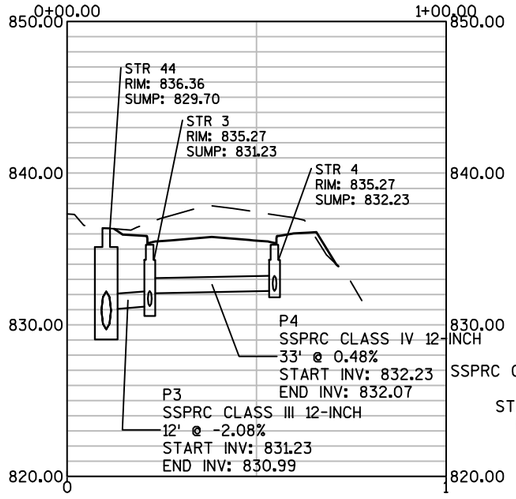
PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	STORM SEWER	SHEET 26	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\022501 SS.DWG
LAYOUT NAME - 022501 SS - 022507

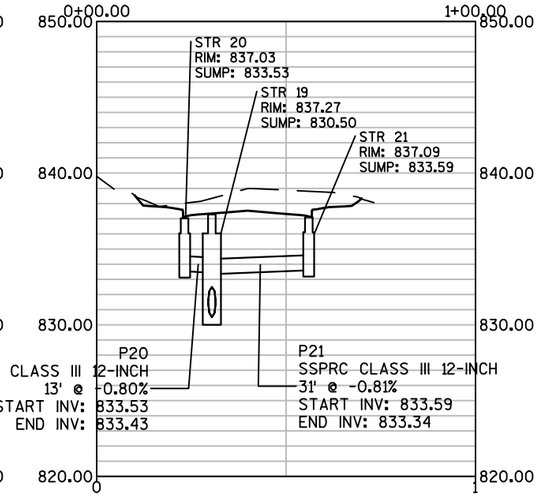
PLOT DATE : 9/9/2014 2:29 PM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

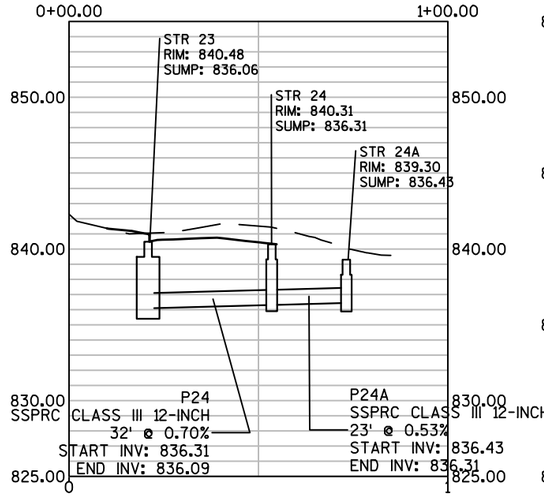
STA 26+00 APPROX.



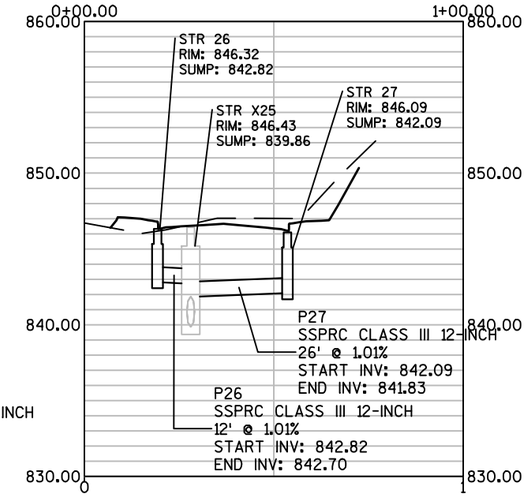
STA 28+50 APPROX.



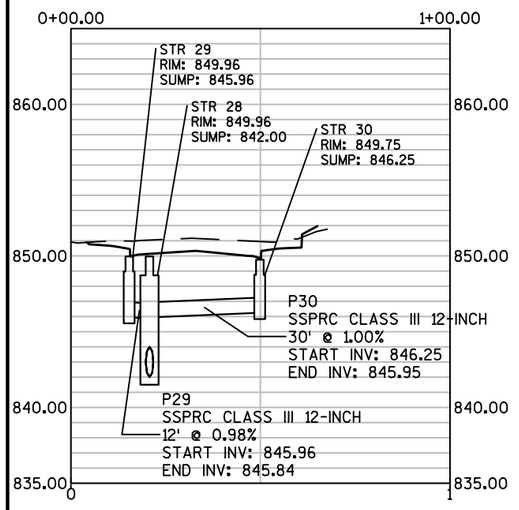
STA 30+15 APPROX.



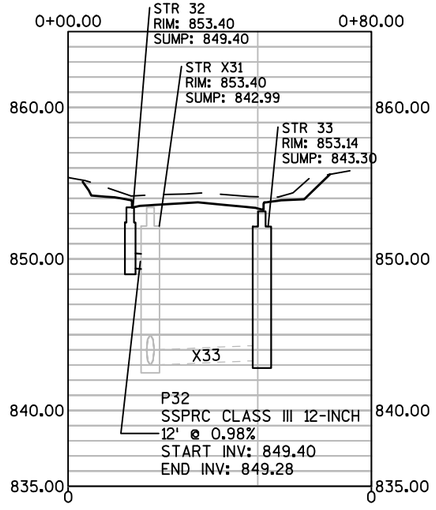
STA 32+40 APPROX.



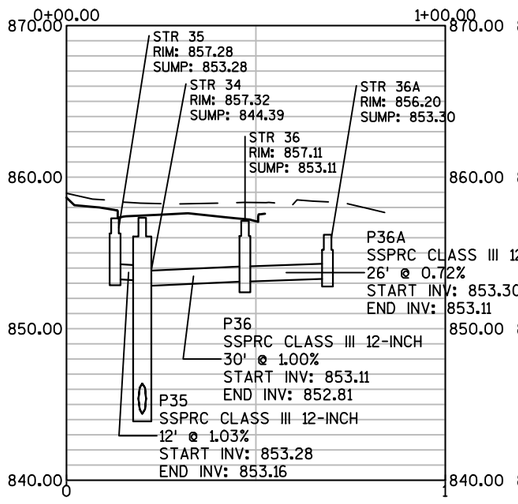
STA 34+20 APPROX.



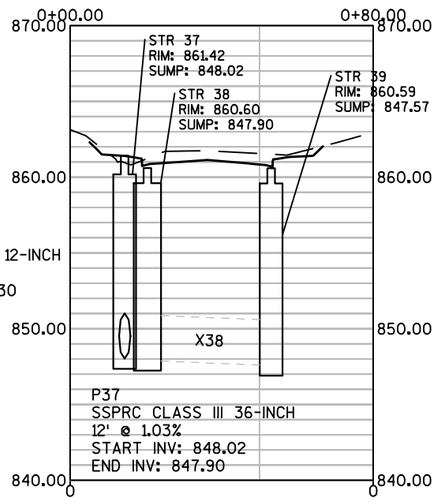
STA 35+90 APPROX.



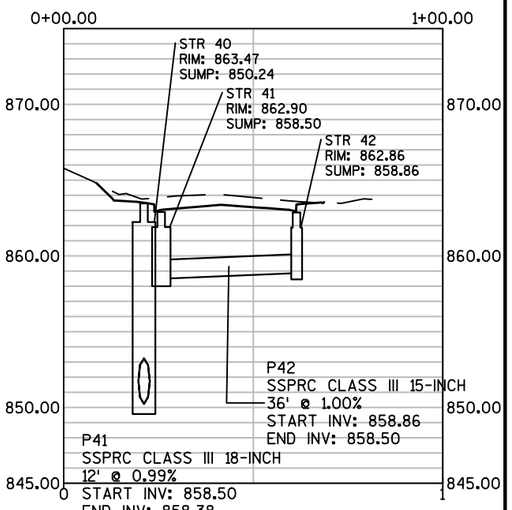
STA 38+10 APPROX.



STA 40+30 APPROX.

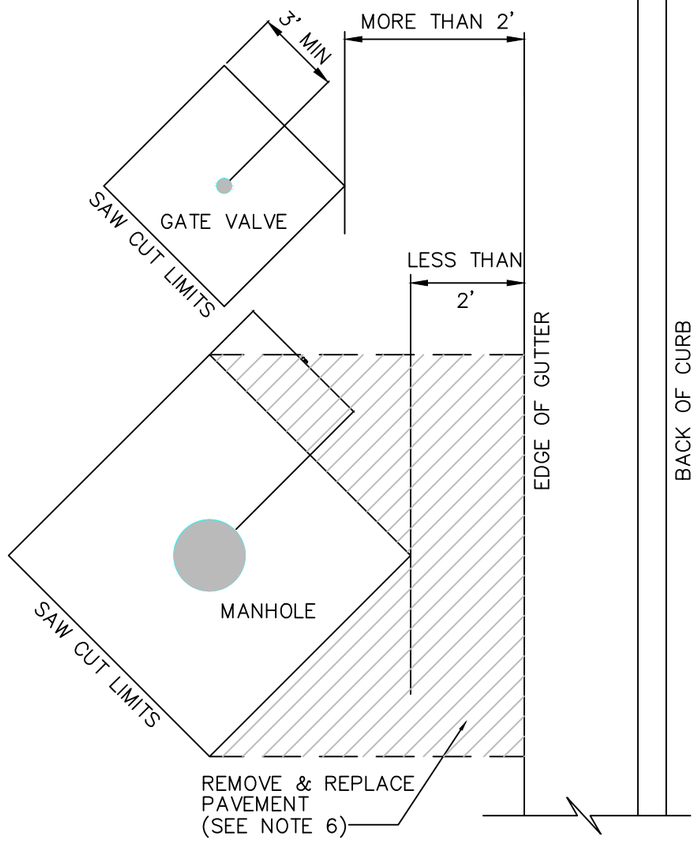


STA 42+70 APPROX.



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	STORM SEWER	SHEET 27	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\022501 SS.DWG
LAYOUT NAME - 022501 SS - 022508
PLOT DATE : 9/9/2014 2:30 PM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1:40_XREF
WISDOT/CADDS SHEET 42



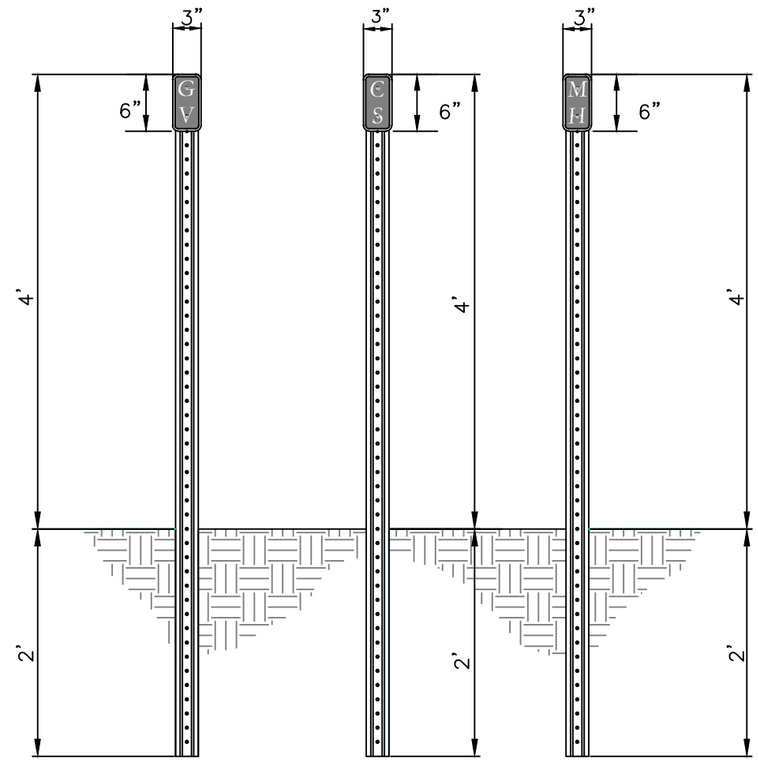
NOTES:
1. Saw cut full depth through bituminous and concrete pavement square (diamond–shaped relative to the roadway) a minimum of 4' from center for manholes and a minimum of 3' from center for gate valves.
2. These removal dimensions shall minimally allow for vibratory plate compaction to operate properly.
3. Adjust all sides of structures 1/2" lower than adjacent final grade, matching street grades and cross–slopes.
4. Utilize 1/2"–thick pucks on gate valves and 1/2"–thick circular plates on manholes for all paving of streets, driveways, paths and parking areas.
5. Clean all lids of all gravel, bituminous or concrete during paving operations while bituminous is hot and/or concrete is plastic.
6. Any saw cut closer than 2' to the edge of the gutter shall be extended to the edge of the gutter and that additional pavement removed and replaced, as directed by the city.

STRUCTURE ADJUSTMENT (BITUMINOUS OR CONCRETE)

HUDSON, WISCONSIN PLATE NO. STR–16

FEBRUARY 2012

NOTE: All manholes installed outside the roadway (such as right-of-ways and easements) shall be marked with a green metal sign labeled "MH" in white letters. All gate valves installed outside the roadway (such as right-of-ways and easements) shall be marked with a blue metal sign labeled "GV" in white letters. All curb boxes located in unimproved right-of-ways and easements shall be marked with a blue metal sign labeled "CS" in white letters. Signs shall be mounted to a U-style steel post 4' above grade with two sets of stainless steel bolts, washers and nuts. All metal sign shall be a minimum of 0.063" thick. All steel posts shall be a minimum of 1.2 LB/FT.

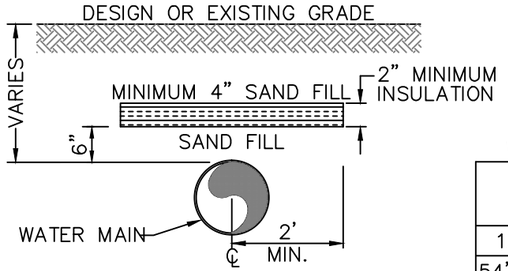


NOTE: Posts to be embedded 2' and located 18" behind gate valves and curb boxes. All markers shall face the structure.

GATE VALVE, CURB STAND, AND MANHOLE MARKERS WITH STEEL POSTS

HUDSON, WISCONSIN PLATE NO. WAT–11

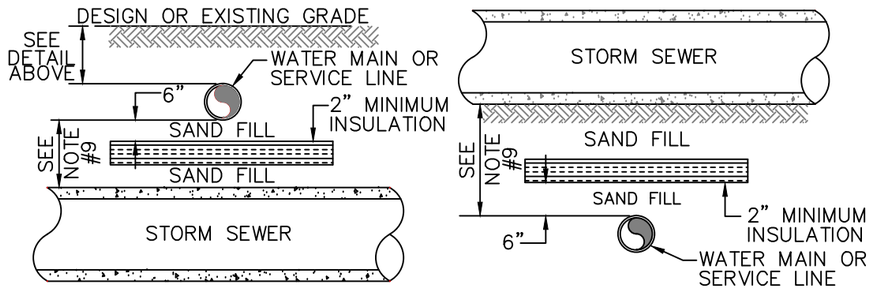
FEBRUARY 2012



SHALLOW BURY CONDITIONS
NO SCALE

WIDTH OF INSULATION BETWEEN WATER MAIN AND STORM SEWER

STORM SEWER	WATER LINE	
	1" TO 4"	6" TO 12"
12" TO 48"	2'	4'
54" & LARGER	4'	8'



STORM SEWER CROSSING BELOW
NO SCALE

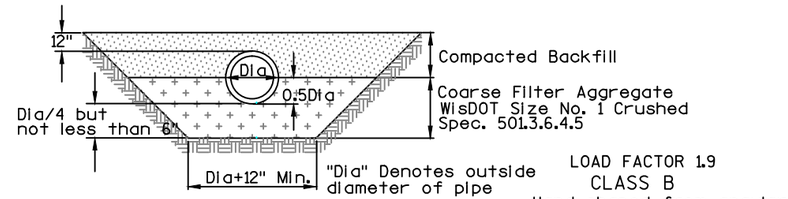
STORM SEWER CROSSING ABOVE
NO SCALE

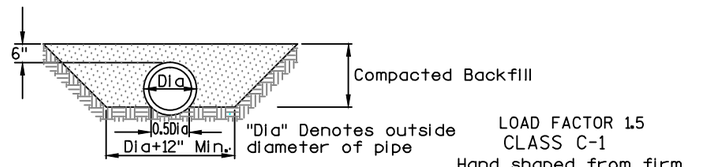
NOTES:
1. INSULATION SHALL BE CENTERED ON THE PIPE.
2. RIGID, EXTRUDED POLYSTYRENE BOARD INSULATION, CLOSED CELL (DOW CHEMICAL) OR APPROVED EQUAL.
3. THERMAL RESISTANCE (R): 5.0.
4. MINIMUM THICKNESS: 2 INCHES.
5. BOARD SIZE: 48"x96".
6. COMPRESSIVE STRENGTH: MINIMUM 25 psi.
7. WATER ABSORPTION IN ACCORDANCE WITH ANSI/ASTM D2842: 0.1 PERCENT BY VOLUME, MAXIMUM.
8. EDGES: SQUARE.
9. ALL STORM SEWER CONFLICTS OR INTERSECTIONS SHALL BE INSULATED AS APPROVED BY FIELD ENGINEER TO EQUATE TO 7 FEET OF MINIMUM COVER (1 INCH CLOSED CELL INSULATION = 1 FOOT OF SOIL).
10. INSULATION LENGTH ALONG WATER LINE SHALL BE A MINIMUM OF 4 FEET GREATER THAN THE OUTSIDE DIAMETER OF THE STORM SEWER PIPE.

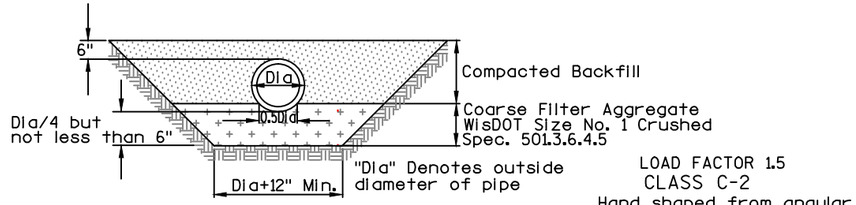
INSULATION DETAIL

HUDSON, WISCONSIN PLATE NO. WAT-4

FEBRUARY 2012





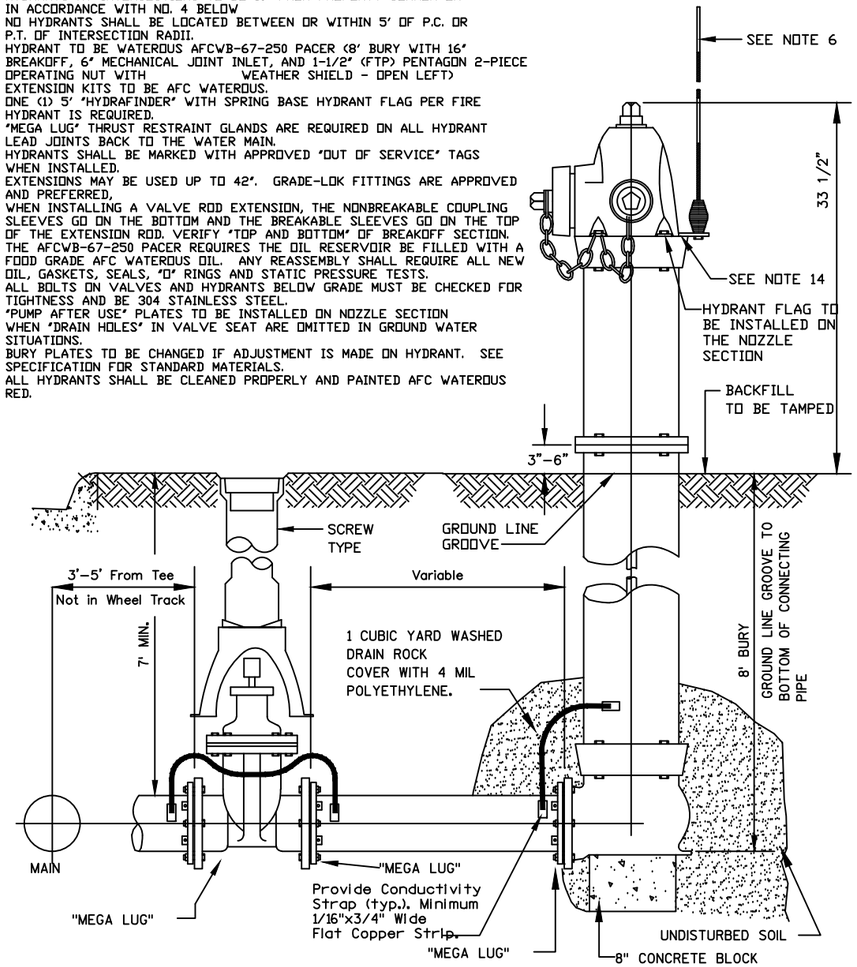


BEDDING METHODS FOR RCP, VCP AND DIP

HUDSON, WISCONSIN PLATE NO. BED-1

FEBRUARY 2012

NOTES:
1. ALL HYDRANT LEADS SHALL BE VALVED.
2. HYDRANTS TO BE 7' BEHIND BACK OF CURB.
3. HYDRANTS AT INTERSECTIONS TO BE 10' FROM PROPERTY CORNER OR IN ACCORDANCE WITH NO. 4 BELOW
4. NO HYDRANTS SHALL BE LOCATED BETWEEN OR WITHIN 5' OF P.C. OR P.T. OF INTERSECTION RADII.
5. HYDRANT TO BE WATEROUS AFCWB-67-250 PACER (8' BURY WITH 16' BREAKOFF, 6' MECHANICAL JOINT INLET, AND 1-1/2' (FTP) PENTAGON 2-PIECE OPERATING NUT WITH WEATHER SHIELD - OPEN LEFT) EXTENSION KITS TO BE AFC WATEROUS.
6. ONE (1) 5' 'HYDRAFINDER' WITH SPRING BASE HYDRANT FLAG PER FIRE HYDRANT IS REQUIRED.
7. 'MEGA LUG' THRUST RESTRAINT GLANDS ARE REQUIRED ON ALL HYDRANT LEAD JOINTS BACK TO THE WATER MAIN.
8. HYDRANTS SHALL BE MARKED WITH APPROVED 'OUT OF SERVICE' TAGS WHEN INSTALLED.
9. EXTENSIONS MAY BE USED UP TO 42'. GRADE-LOK FITTINGS ARE APPROVED AND PREFERRED,
10. WHEN INSTALLING A VALVE ROD EXTENSION, THE NONBREAKABLE COUPLING SLEEVES GO ON THE BOTTOM AND THE BREAKABLE SLEEVES GO ON THE TOP OF THE EXTENSION ROD. VERIFY 'TOP AND BOTTOM' OF BREAKOFF SECTION.
11. THE AFCWB-67-250 PACER REQUIRES THE OIL RESERVOIR BE FILLED WITH A FOOD GRADE AFC WATEROUS OIL. ANY REASSEMBLY SHALL REQUIRE ALL NEW OIL, GASKETS, SEALS, 'O' RINGS AND STATIC PRESSURE TESTS.
12. ALL BOLTS ON VALVES AND HYDRANTS BELOW GRADE MUST BE CHECKED FOR TIGHTNESS AND BE 304 STAINLESS STEEL.
13. 'PUMP AFTER USE' PLATES TO BE INSTALLED ON NOZZLE SECTION WHEN 'DRAIN HOLES' IN VALVE SEAT ARE OMITTED IN GROUND WATER SITUATIONS.
14. BURY PLATES TO BE CHANGED IF ADJUSTMENT IS MADE ON HYDRANT. SEE SPECIFICATION FOR STANDARD MATERIALS.
15. ALL HYDRANTS SHALL BE CLEANED PROPERLY AND PAINTED AFC WATEROUS RED.

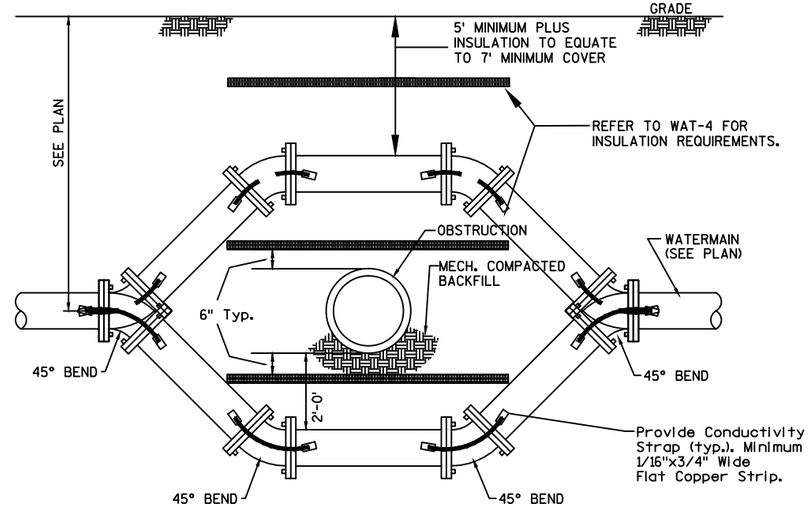


GATE VALVE & BOX HYDRANT INSTALLATION

HYDRANT WITH GATE VALVE & BOX INSTALLATION

HUDSON, WISCONSIN PLATE NO. WAT-2

FEBRUARY 2012



TIE ALL JOINTS WITH MEGALUGS (8 REQ.)

NOTE:
1. WATERMAIN OFFSET SHALL BE OVER OBSTRUCTION IF 5' MINIMUM COVER PLUS INSULATION TO EQUATE 7' COVER CAN BE ACHIEVED.
2. ADDITIONAL INSULATION BETWEEN WATERMAIN AND OBSTRUCTED PIPE MAY BE REQUIRED AS PER DETAIL PLATE WAT-4

WATERMAIN OFFSET WITH MEGALUGS

HUDSON, WISCONSIN PLATE NO. WAT-6

FEBRUARY 2012

2

2

20 0 20 40
scale 10 feet

N

BEGIN PROJECT
STA 15+05.00

SLOPE INTERCEPT (TYP)

ROW

PC: 19+27.49

MATCHLINE STA 21+00

15+00 16+00 17+00 18+00 19+00 20+00 21+00

WISCONSIN STREET

WISCONSIN STREET

B-1

ROW

51+00

11TH ST

STA 15+84.98, 33.2' RT
1 – REMOVE, SALVAGE, AND REINSTALL
EXISTING HYDRANT, VALVE, AND LEAD
12 LF 6" DIP

BM
7

END CONSTRUCTION
STA 50+75.00

SLOPE INTERCEPT (TYP)

END CONSTRUCTION
STA 71+35.00

20 0 20 40
scale 10 feet

N

KNOLLWOOD DR
71+00

PC: 24+56.65

BM
6

SLOPE INTERCEPT (TYP)

ROW

MATCHLINE STA 21+00

22+00 23+00 24+00 25+00 26+00 27+00

WISCONSIN STREET

MATCHLINE STA 27+00

61+00

STA 22+24.28, 30.3' RT
1 – 6" GV & BOX
1 – HYDRANT
11 LF 6" DIP

BM
5

CHRISTIAN
COMMUNITY HOME

ROW

3TH ST

END CONSTRUCTION
STA 60+25.00

SLOPE INTERCEPT (TYP)

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	UTILITY PLAN	SHEET 31	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\023004 UP.DWG
PROJECTSHEETDATA – 023004 UP – 023004 UP

PLOT DATE : 9/29/2014 4:32 PM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

2

20 0 20 40
scale 10 feet

MATCHLINE STA 27+00

PC: 27+06.50

SLOPE INTERCEPT (TYP)

28+00

29+00

30+00

31+00

WISCONSIN STREET

32+00

33

MATCHLINE STA 33+00

ROW

BM 4

91+00

WISCONSIN CT.

END CONSTRUCTION
STA 90+50.00

SLOPE INTERCEPT (TYP)

END CONSTRUCTION
STA 100+80.00

101+00

STA 33+51.87, 39.7' LT
1 – REMOVE, SALVAGE, AND REINSTALL
EXISTING HYDRANT, VALVE, AND LEAD
16 LF 6" DIP

34+95.61
PI

N

20 0 20 40
scale 10 feet

MATCHLINE STA 33+00

34+00

35+00

36+00

37+00

38+00

39+00

MATCHLINE STA 39+00

WISCONSIN STREET

B-3

ROW

102+00

HUNTER HILL

END CONSTRUCTION
STA 102+40.00

PC: 102+47.00

SLOPE INTERCEPT (TYP)

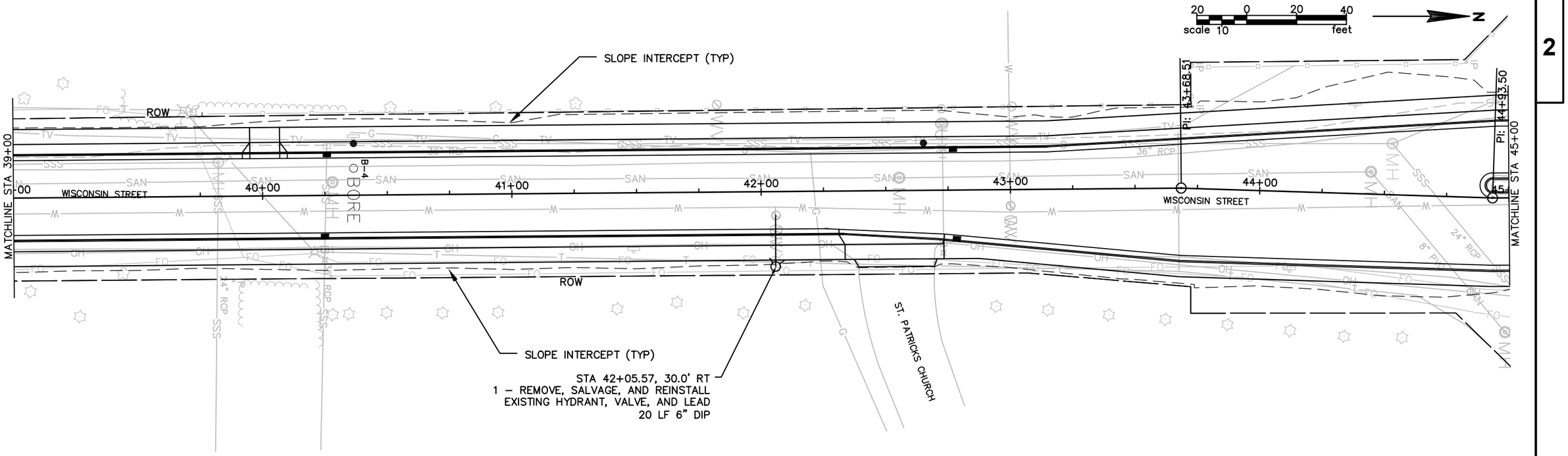
SPRUCE DR

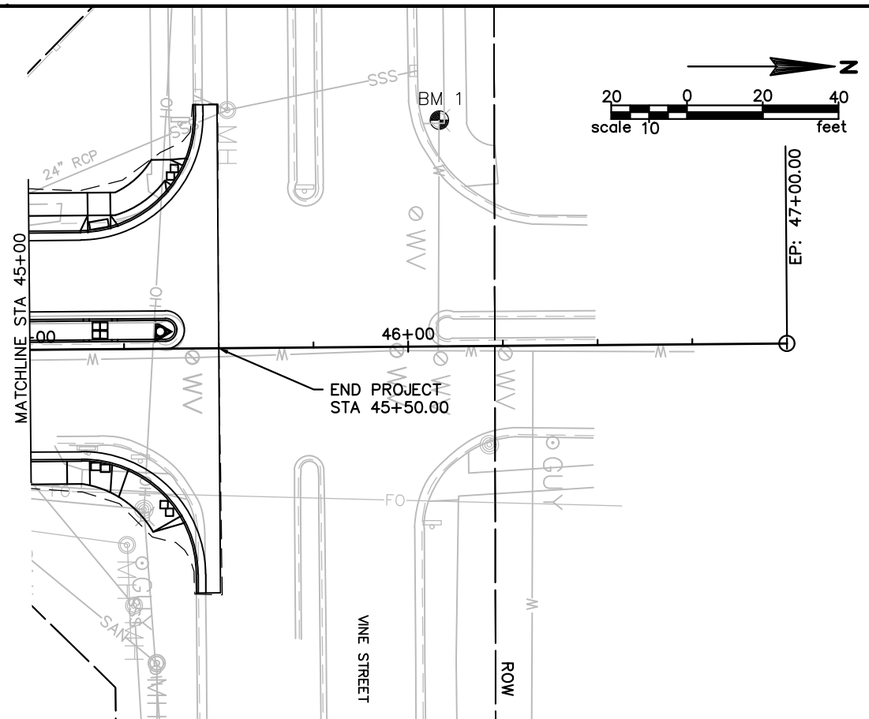
111+00

BM 2

END CONSTRUCTION
STA 111+00.00

PROJECT NO: 8999–00–62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	UTILITY PLAN	SHEET 32	E





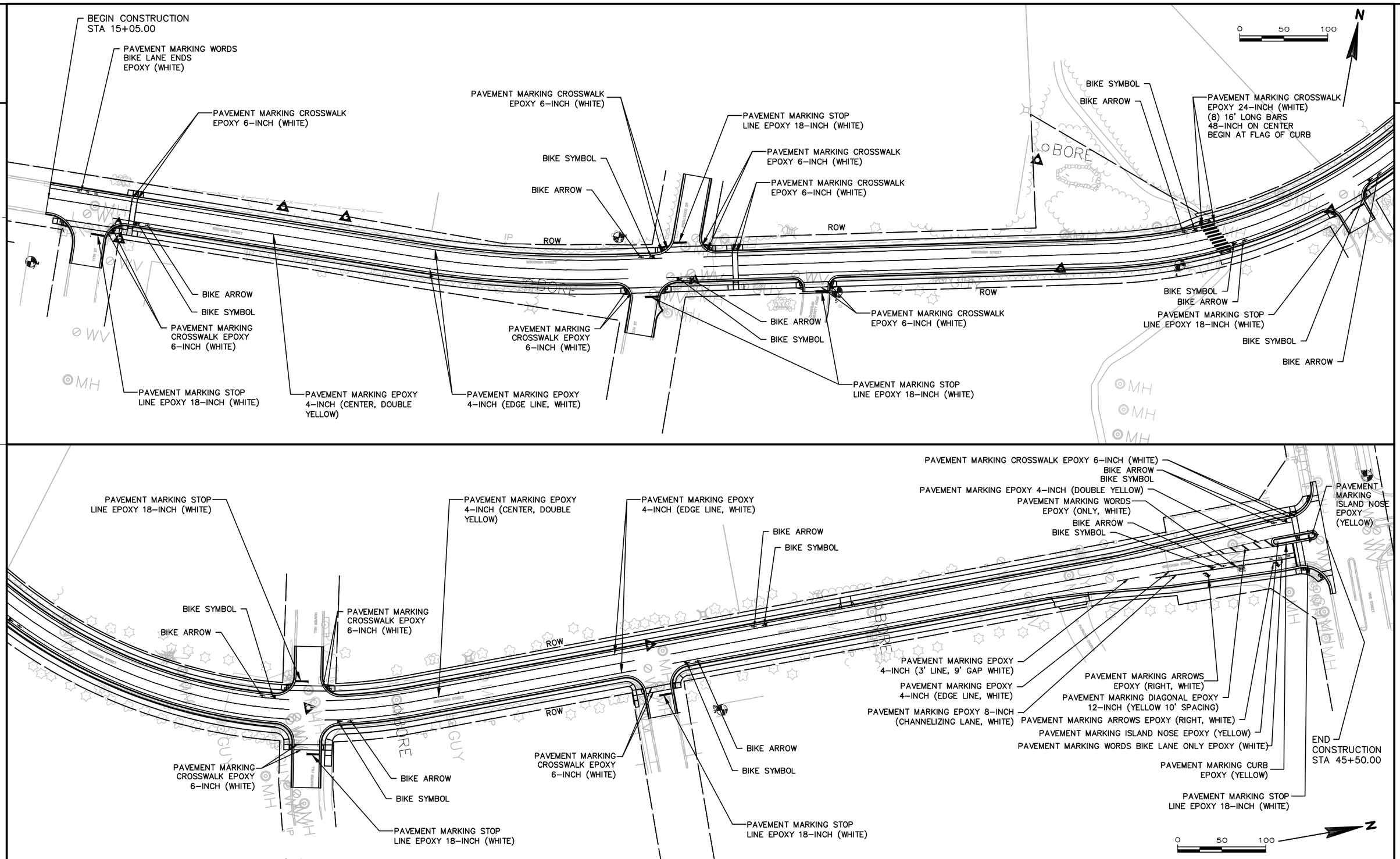
PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	UTILITY PLAN	SHEET 33	E

BEGIN PROJECT
STA 15+05.00

SIGN LEGEND
- SIGN ON ONE TUBULAR STEEL POST
- (XX) SIGN GROUP NUMBER

END PROJECT
STA 45+50.00

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PERMANENT SIGNING PLAN	SHEET 34 E



PROJECT NO: 8999–00–62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET 35	E

FILE NAME : P:\FJ\H\HUDSO\125230\5–FINAL–DSGN\51–DRAWINGS\10–CIVIL\C3D\89990061\SHEETSPLAN\024501 PM.DWG
PROJECTSHEETDATA – 024501 PM – PLAN DBL 1 IN 100 FT (2)
PLOT DATE : 9/29/2014 4:48 PM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

ELM ST.
8th ST.
9th ST.
VINE ST.
COLE ST.
TWELVE OAKS LA.
HICKORY RD.
WISCONSIN ST.
END PROJECT
STA 45+50.00
NOTE: DETOUR ROUTE SIGNING FOR INFORMATIONAL PURPOSES ONLY. CITY OF HUDSON TO DELIVER, INSTALL, AND MAINTAIN ALL REQUIRED SIGNS AND TRAFFIC CONTROL ITEMS FOR THE DETOUR ROUTE.
GRAND VIEW WAY
SPRUCE DR.
GRANDVIEW DR.
HUNTER HILL RD.
TAYLOR PL.
OAKWOOD CT.
KNOLLWOOD DR.
BRIARWOOD CT.
WALNUT ST.
BEGIN PROJECT
STA 15+05.00
KNOLLWOOD CT.
WISCONSIN CT.
13th ST.
IVERSON CIR.
KINNICKINNIC ST.
LAUREL AVE.

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE
TYPE III BARRICADE
TYPE III BARRICADE
1

ROAD WORK AHEAD
W20-1-A
2

ROAD OPEN TO CHRISTIAN COMMUNITY CENTER
R10-61
60"X30"
3 (BY OTHERS)

ROAD CLOSED AHEAD
W20-3-A
4

WISCONSIN ST
DETOUR
M4-9L
30"X24"
5 (BY OTHERS)

WISCONSIN ST
DETOUR
M4-9R
30"X24"
6 (BY OTHERS)

WISCONSIN ST
DETOUR
M4-8
24"X12"
M6-1
21"X21"
7 (BY OTHERS)

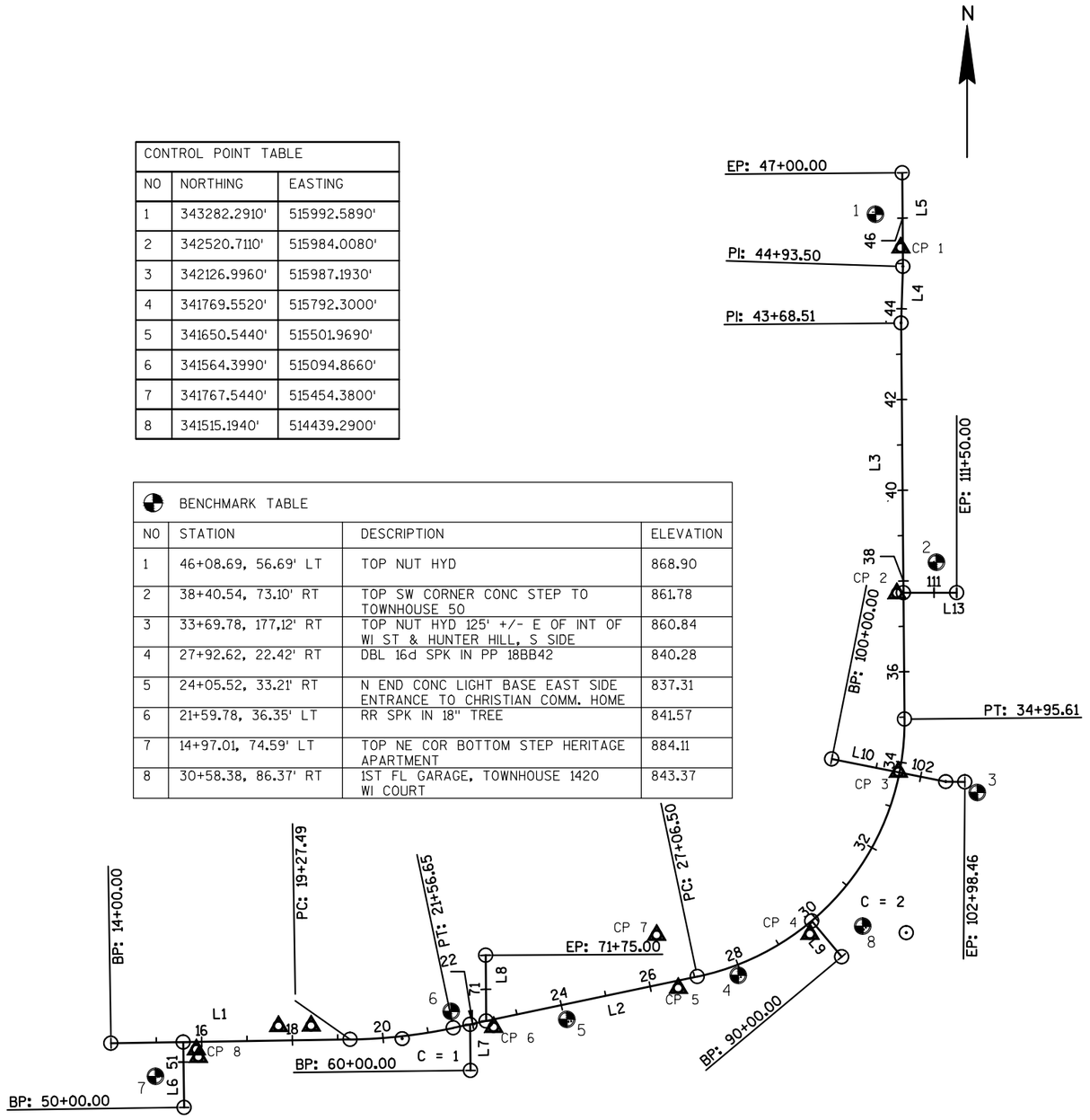
AS APPROPRIATE. SEE SPECS.
WISCONSIN ST
END DETOUR
M4-8A
24"X18"
8 (BY OTHERS)

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	TRAFFIC CONTROL	SHEET	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\027001 TC.DWG
PROJECTSHEETDATA - 027001 TC - PLAN 1 IN 300 FT
PLOT DATE : 9/10/2014 8:17 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : N/A
WISDOT/CADDS SHEET 42

CONTROL POINT TABLE		
NO	NORTHING	EASTING
1	343282.2910'	515992.5890'
2	342520.7110'	515984.0080'
3	342126.9960'	515987.1930'
4	341769.5520'	515792.3000'
5	341650.5440'	515501.9690'
6	341564.3990'	515094.8660'
7	341767.5440'	515454.3800'
8	341515.1940'	514439.2900'

BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
1	46+08.69, 56.69' LT	TOP NUT HYD	868.90
2	38+40.54, 73.10' RT	TOP SW CORNER CONC STEP TO TOWNHOUSE 50	861.78
3	33+69.78, 177.12' RT	TOP NUT HYD 125' +/- E OF INT OF WI ST & HUNTER HILL, S SIDE	860.84
4	27+92.62, 22.42' RT	DBL 16d SPK IN PP 18BB42	840.28
5	24+05.52, 33.21' RT	N END CONC LIGHT BASE EAST SIDE ENTRANCE TO CHRISTIAN COMM. HOME	837.31
6	21+59.78, 36.35' LT	RR SPK IN 18" TREE	841.57
7	14+97.01, 74.59' LT	TOP NE COR BOTTOM STEP HERITAGE APARTMENT	884.11
8	30+58.38, 86.37' RT	1ST FL GARAGE, TOWNHOUSE 1420 WI COURT	843.37



WISCONSIN STREET									
POINT ID	POINT	STATION	DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
L1		14+00.00				527.49	341528.9105	514251.1524	N 89° 05' 06" E
C = 1		19+27.49	010° 56' 29"	1200.00	114.93	229.16	341537.3330	514778.5751	
L2		21+56.65				549.85	341562.7810	515005.9647	N 78° 08' 37" E
C = 2		27+06.50	078° 37' 50"	575.00	470.89	789.11	341675.7529	515544.0863	
L3		34+95.61				872.90	342243.3710	516000.9270	N 00° 29' 12" W
L4		43+68.51				125.00	343116.2381	515993.5107	N 01° 48' 20" E
L5		44+93.50				206.50	343241.1748	515997.4493	N 00° 29' 12" W
EP		47+00.00					343447.6632	515995.6949	

11TH STREET									
POINT ID	POINT	STATION	DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
L6		50+00.00				144.02	341387.4508	514412.5172	N 00° 48' 43" W

13TH STREET									
POINT ID	POINT	STATION	DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
L7		60+00.00				101.46	341469.0484	515043.8891	N 00° 39' 23" W

KNOLLWOOD AVENUE									
POINT ID	POINT	STATION	DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
L8		70+30.25				144.75	341577.9858	515078.3897	N 00° 18' 19" W

WISCONSIN COURT									
POINT ID	POINT	STATION	DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
L9		90+00.00				103.15	341719.4567	515862.4022	N 39° 52' 16" W

HUNTER HILL									
POINT ID	POINT	STATION	DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
L10		100+00.00				256.46	342155.4108	515840.3999	S 78° 42' 41" E

SPRUCE STREET									
POINT ID	POINT	STATION	DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING
L13		110+32.52				117.48	342521.8663	515998.5607	N 90° 00' 00" E

DATE 10DEC14 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	8999-00-62 QUANTITY
0010	201.0105	CLEARING	STA	14.000	14.000
0020	201.0205	GRUBBING	STA	14.000	14.000
0030	203.0200	REMOVING OLD STRUCTURE (STATION) 01. 26+69	LS	1.000	1.000
0040	203.0200	REMOVING OLD STRUCTURE (STATION) 02. 27+01	LS	1.000	1.000
0050	204.0150	REMOVING CURB & GUTTER	LF	1,060.000	1,060.000
0060	204.0155	REMOVING CONCRETE SIDEWALK	SY	72.000	72.000
0070	204.0210	REMOVING MANHOLES	EACH	2.000	2.000
0080	204.0220	REMOVING INLETS	EACH	5.000	5.000
0090	204.0245	REMOVING STORM SEWER (SIZE) 01. 6-INCH	LF	44.000	44.000
0100	204.0245	REMOVING STORM SEWER (SIZE) 02. 12-INCH	LF	105.000	105.000
0110	204.0245	REMOVING STORM SEWER (SIZE) 03. 18-INCH	LF	14.000	14.000
0120	204.0245	REMOVING STORM SEWER (SIZE) 04. 24-INCH	LF	142.000	142.000
0130	204.0245	REMOVING STORM SEWER (SIZE) 05. 30-INCH	LF	124.000	124.000
0140	204.0245	REMOVING STORM SEWER (SIZE) 06. 36-INCH	LF	55.000	55.000
0150	204.0280	SEALING PIPES	EACH	1.000	1.000
0160	205.0100	EXCAVATION COMMON	CY	10,560.000	10,560.000
0170	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 01. STA 34+18.22 - STA 35+85.53	LS	1.000	1.000
0180	210.0100	BACKFILL STRUCTURE	CY	190.000	190.000
0190	213.0100	FINISHING ROADWAY (PROJECT) 01. 8999-00-62	EACH	1.000	1.000
0200	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	1,100.000	1,100.000
0210	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	8,260.000	8,260.000
0220	305.0410	AGGREGATE DETOURS	TON	400.000	400.000
0230	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	31.000	31.000
0240	440.4410.S	INCENTIVE IRI RIDE	DOL	2,310.000	2,310.000
0250	455.0120	ASPHALTIC MATERIAL PG64-28	TON	97.000	97.000
0260	455.0122	ASPHALTIC MATERIAL PG64-34	TON	77.000	77.000
0270	455.0605	TACK COAT	GAL	680.000	680.000
0280	460.1103	HMA PAVEMENT TYPE E-3	TON	2,875.000	2,875.000
0290	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	1,840.000	1,840.000
0300	465.0115	ASPHALTIC SURFACE DETOURS	TON	200.000	200.000
0310	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	25.000	25.000
0320	520.8000	CONCRETE COLLARS FOR PIPE	EACH	20.000	20.000
0330	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	1.000	1.000
0340	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	1.000	1.000
0350	532.0200.S	WALL MODULAR BLOCK GRAVITY	SF	560.000	560.000
0360	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	6,700.000	6,700.000
0370	602.0405	CONCRETE SIDEWALK 4-INCH	SF	34,900.000	34,900.000
0380	602.0415	CONCRETE SIDEWALK 6-INCH	SF	560.000	560.000
0390	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	296.000	296.000
0400	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	652.000	652.000
0410	608.0315	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	LF	280.000	280.000
0420	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	42.000	42.000
0430	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	166.000	166.000

3

DATE 10DEC14 E S T I M A T E O F Q U A N T I T I E S

LINE 8999-00-62

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8999-00-62 QUANTITY
0440	608.0330	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	129.000	129.000
0450	608.0336	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	60.000	60.000
0460	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	138.000	138.000
0470	608.0415	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	LF	24.000	24.000
0480	608.0421	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH	LF	33.000	33.000
0490	611.0530	MANHOLE COVERS TYPE J	EACH	9.000	9.000
0500	611.0612	INLET COVERS TYPE C	EACH	1.000	1.000
0510	611.0624	INLET COVERS TYPE H	EACH	27.000	27.000
0520	611.0639	INLET COVERS TYPE H-S	EACH	9.000	9.000
0530	611.2004	MANHOLES 4-FT DIAMETER	EACH	4.000	4.000
0540	611.2005	MANHOLES 5-FT DIAMETER	EACH	5.000	5.000
0550	611.2006	MANHOLES 6-FT DIAMETER	EACH	4.000	4.000
0560	611.3003	INLETS 3-FT DIAMETER	EACH	1.000	1.000
0570	611.3004	INLETS 4-FT DIAMETER	EACH	9.000	9.000
0580	611.3230	INLETS 2X3-FT	EACH	23.000	23.000
0590	611.8110	ADJUSTING MANHOLE COVERS	EACH	23.000	23.000
0600	611.8115	ADJUSTING INLET COVERS	EACH	5.000	5.000
0610	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	300.000	300.000
0620	612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	2.000	2.000
0630	612.0902.S	INSULATION BOARD POLYSTYRENE (INCH) 01. 2-INCH	SY	98.000	98.000
0640	619.1000	MOBILIZATION	EACH	1.000	1.000
0650	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	80.000	80.000
0660	623.0200	DUST CONTROL SURFACE TREATMENT	SY	3,000.000	3,000.000
0670	624.0100	WATER	MGAL	100.000	100.000
0680	625.0100	TOPSOIL	SY	7,000.000	7,000.000
0690	628.1504	SILT FENCE	LF	1,000.000	1,000.000
0700	628.1520	SILT FENCE MAINTENANCE	LF	1,000.000	1,000.000
0710	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	4.000	4.000
0720	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	4.000	4.000
0730	628.2004	EROSION MAT CLASS I TYPE B	SY	225.000	225.000
0740	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	1,500.000	1,500.000
0750	628.7005	INLET PROTECTION TYPE A	EACH	43.000	43.000
0760	628.7015	INLET PROTECTION TYPE C	EACH	42.000	42.000
0770	628.7504	TEMPORARY DITCH CHECKS	LF	50.000	50.000
0780	628.7555	CULVERT PIPE CHECKS	EACH	1.000	1.000
0790	628.7560	TRACKING PADS	EACH	2.000	2.000
0800	629.0210	FERTILIZER TYPE B	CWT	5.000	5.000
0810	630.0140	SEEDING MIXTURE NO. 40	LB	150.000	150.000
0820	630.0200	SEEDING TEMPORARY	LB	240.000	240.000
0830	633.5200	MARKERS CULVERT END	EACH	3.000	3.000
0840	634.0812	POSTS TUBULAR STEEL 2X2-INCH X 12-FT	EACH	9.000	9.000
0850	634.0814	POSTS TUBULAR STEEL 2X2-INCH X 14-FT	EACH	2.000	2.000
0860	637.2210	SIGNS TYPE II REFLECTIVE H	SF	58.860	58.860
0870	638.2102	MOVING SIGNS TYPE II	EACH	35.000	35.000
0880	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
0890	643.0100	TRAFFIC CONTROL (PROJECT) 01. 8999-00-62	EACH	1.000	1.000
0900	643.0300	TRAFFIC CONTROL DRUMS	DAY	3,600.000	3,600.000

3

DATE 10DEC14 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	8999-00-62 QUANTITY
0910	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	2,430.000	2,430.000
0920	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	4,860.000	4,860.000
0930	643.0900	TRAFFIC CONTROL SIGNS	DAY	2,250.000	2,250.000
0940	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	25.000	25.000
0950	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	11,880.000	11,880.000
0960	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	175.000	175.000
0970	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	2.000	2.000
0980	647.0206	PAVEMENT MARKING ARROWS BIKE LANE EPOXY	EACH	12.000	12.000
0990	647.0306	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY	EACH	12.000	12.000
1000	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	1.000	1.000
1010	647.0406	PAVEMENT MARKING WORDS BIKE LANE EPOXY	EACH	6.000	6.000
1020	647.0456	PAVEMENT MARKING CURB EPOXY	LF	85.000	85.000
1030	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	160.000	160.000
1040	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	2.000	2.000
1050	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	60.000	60.000
1060	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	LF	920.000	920.000
1070	647.0796	PAVEMENT MARKING CROSSWALK EPOXY 24-INCH	LF	128.000	128.000
1080	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	49.000	49.000
1090	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	3,577.000	3,577.000
1100	650.5000	CONSTRUCTION STAKING BASE	LF	3,577.000	3,577.000
1110	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	6,700.000	6,700.000
1120	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 8999-00-62	LS	1.000	1.000
1130	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	3,577.000	3,577.000
1140	690.0150	SAWING ASPHALT	LF	470.000	470.000
1150	690.0250	SAWING CONCRETE	LF	65.000	65.000
1160	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	1,200.000	1,200.000
1170	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	300.000	300.000
1180	SPV.0060	SPECIAL 01. CONNECT TO EXISTING INLETS OR MANHOLES	EACH	3.000	3.000
1190	SPV.0060	SPECIAL 02. ADJUST EXISTING GATE VALVE	EACH	14.000	14.000
1200	SPV.0060	SPECIAL 03. MANHOLES 4-FT DIAMETER SPECIAL WITH TRASH RACK	EACH	1.000	1.000
1210	SPV.0060	SPECIAL 04. REMOVE, SALVAGE, AND REINSTALL EXISTING HYDRANT, VALVE, AND LEAD	EACH	3.000	3.000
1220	SPV.0060	SPECIAL 05. 6-INCH GATE VALVE AND BOX	EACH	1.000	1.000
1230	SPV.0060	SPECIAL 06. HYDRANT	EACH	1.000	1.000
1240	SPV.0060	SPECIAL 07. LOWER WATER MAIN	EACH	1.000	1.000
1250	SPV.0085	SPECIAL 01. WATER MAIN FITTINGS	LB	100.000	100.000
1260	SPV.0090	SPECIAL 01. 6-INCH DUCTILE IRON WATER MAIN	LF	59.000	59.000
1270	SPV.0105	SPECIAL 01. CONSTRUCTION STAKING BIORETENTION SYSTEM	LS	1.000	1.000
1280	SPV.0105	SPECIAL 02. BIORETENTION SYSTEM	LS	1.000	1.000

3

3

3

CLEARING AND GRUBBING

STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
WISCONSIN STREET			
17+30 - 19+00	LT	2	2
18+70 - 20+60	RT	2	2
22+00 - 26+00	LT & RT	4	4
26+80 - 27+50	LT	1	1
25+20 - 28+00	RT	3	3
28+50 - 30+50	LT	2	2
ITEM TOTAL		14	14

REMOVING CURB & GUTTER

STATION	LOCATION	204.0150 LF
WISCONSIN STREET		
15+05 - 15+98	LT	93
23+67 - 23+98	RT	16
44+91 - 45+96	LT & RT	180
11TH STREET		
50+75 - 51+27	LT & RT	145
13TH STREET		
60+25 - 60+87	LT	120
KNOLLWOOD DRIVE		
70+64 - 71+35	LT & RT	145
WISCONSIN COURT		
90+50 - 90+66	LT & RT	32
HUNTER HILL ROAD		
100+80 - 101+31	LT & RT	100
101+84 - 102+40	LT & RT	112
SPRUCE DRIVE		
110+54 - 111+00	LT & RT	117
ITEM TOTAL		1060

REMOVING CONCRETE SIDEWALK

STATION	LOCATION	204.0155 SY
WISCONSIN STREET		
45+13 - 45+41	RT	16
45+31 - 45+41	LT	10
HUNTER HILL		
101+80 - 102+·	RT	32
SPRUCE DRIVE		
14+03 - 17+44	LT	14
ITEM TOTAL		72

REMOVING STORM SEWER

STATION	LOCATION	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER (6-INCH) LF	204.0245.02 REMOVING STORM SEWER (12-INCH) LF	204.0245.03 REMOVING STORM SEWER (18-INCH) LF	204.0245.04 REMOVING STORM SEWER (24-INCH) LF	204.0245.05 REMOVING STORM SEWER (30-INCH) LF	204.0245.06 REMOVING STORM SEWER (36-INCH) LF
WISCONSIN STREET									
22+55 - 22+80	LT				28				
23+73	LT							16	
24+37	RT		1	44					
25+99 - 26+67	LT		1					108	
26+78- 26+81	LT					14			
27+01 - 27+63	LT						62		
28+38	LT	1					16		
28+39	LT		1		17				
30+26	LT						16		
34+16	LT						16		
35+82 - 35+83	RT						16		
38+12	LT						16		
40+25 - 40+37	LT & RT	1							39
42+65	LT								16
KNOLLWOOD STREET									
70+66 - 70+71	LT & RT		2		60				
ITEM TOTALS		2	5	44	105	14	142	124	55

REMOVING OLD STRUCTURE

STATION	LOCATION	203.0200.01 LS
WISCONSIN STREET		
26+69	89' LT	1
ITEM TOTAL		1

REMOVING OLD STRUCTURE

STATION	LOCATION	203.0200.02 LS
WISCONSIN STREET		
27+01	84' LT	1
ITEM TOTAL		1

SEALING PIPES

STATION	LOCATION	204.0280 EACH
WISCONSIN STREET		
24+37	29' LT	1
ITEM TOTAL		1

EXCAVATION FOR STRUCTURES RETAINING WAL

STATION	LOCATION	206.3000 LS
WISCONSIN STREET		
34+18.22 - 35+85.53	RT	1
ITEM TOTAL		1

BACKFILL STRUCTURE

STATION	LOCATION	210.0100 CY
WISCONSIN STREET		
34+18.22 - 35+85.53	RT	190
ITEM TOTAL		190

EXCAVATION COMMON

STATION	LOCATION	205.0100 EXCAVATION COMMON CY	EXP (30%) FILL CY	WASTE CY
WISCONSIN STREET				
14+50 - 46+00	LT & RT	9688	100	9588
BIORETENTION		60	40	20
11TH STREET				
50+75 - 51+00	LT & RT	40	0	40
13TH STREET				
60+25 - 60+70	LT & RT	94	3	91
KNOLLWOOD DRIVE				
70+60 - 71+35	LT & RT	153	0	153
WISCONSIN COURT				
90+50 - 90+75	LT & RT	45	0	45
HUNTER HILL				
100+80 - 101+10	LT & RT	59	0	59
101+90 - 102+40	LT & RT	108	0	108
SPRUCE STREET				
110+70 - 111+00	LT & RT	60	0	60
UNDISTRIBUTED		253		253
ITEM TOTALS		10560	143	10417

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

FINISHING ROADWAY (PROJECT)

STATION	LOCATION	213.0100 EACH
01. 8999-00-62	WISCONSIN STREET	1
ITEM TOTAL		1

BASE AGGREGATE DENSE

STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	305.0410 DETOURS TON
WISCONSIN STREET				
15+05 - 45+50	LT & RT	1085	7000	
11TH STREET				
50+75 - 51+44.02	LT & RT		150	
13TH STREET				
60+40 - 61+01.46	LT & RT		150	
KNOLLWOOD DRIVE				
70+30.25 - 71+35.00	LT & RT		190	
WISCONSIN COURT				
90+50 - 91+03.15	LT & RT		105	
HUNTER HILL ROAD				
100+80 - 101+52.30	LT & RT		135	
101+52.30 - 102+40	LT & RT	10	190	
SPRUCE DRIVE				
110+32.52 - 111+00	LT & RT	5	140	
UNDISTRIBUTED			200	400
ITEM TOTALS		1100	8260	400

CONCRETE DRIVEWAY 6-INCH

STATION	LOCATION	416.0160 SY
WISCONSIN STREET		
40+00	LT	7
42+55	RT	24
ITEM TOTAL		31

ASPHALTIC CONCRETE PAVEMENT

STATION	LOCATION	440.4410.S INCENTIVE IRI RIDE DOLLAR	455.0120 ASPHALTIC MATERIAL PG64-28 TON	455.0122 ASPHALTIC MATERIAL PG64-34 TON	455.0605 TACK COAT GAL	460.1103 HMA PAVEMENT TYPE E-3 TON	465.0115 ASPHALTIC SURFACE DETOURS TON	465.0120 ASPHALTIC SURFACE DRIVEWAY TON
WISCONSIN STREET								
15+05 - 45+50	LT & RT	2310	84.8	67.5	590	2515		25
11TH STREET								
50+75 - 51+44.02	LT & RT		1.8	1.4	14	53		
13TH STREET								
60+15 - 61+01.46	LT & RT		1.8	1.4	14	54		
KNOLLWOOD DRIVE								
70+30.25 - 71+35.00	LT & RT		2.3	1.8	18	68		
WISCONSIN COURT								
90+50 - 91+03.15	LT & RT		1.1	0.9	8	33		
HUNTER HILL ROAD								
100+80 - 101+52.30	LT & RT		1.6	1.2	12	46		
101+52.30 - 102+40	LT & RT		2.1	1.6	14	61		
SPRUCE DRIVE								
110+32.52 - 111+00	LT & RT		1.5	1.2	10	45		
UNDISTRIBUTED							200	
ITEM TOTALS		2310.0	97.0	77.0	680	2875	200	25

CULVERT PIPE CONCRETE COLLAR

STATION	LOCATION	520.8000 EACH
WISCONSIN STREET		
23+73	30.0' LT	2
25+99	27.9' LT	1
27+63	56.0' LT	1
28+38	9.6' LT	2
30+26	16.5' LT	2
34+16	13.3' LT	2
35+82	16.5' RT	2
38+12	13.6' LT	2
40+25	16.5' RT	2
40+26	16.5' LT	1
40+37	20.7' LT	1
42+65	19.0' LT	2
ITEM TOTAL		20

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE

STATION	LOCATION	522.1024 24-INCH EACH	522.1030 30-INCH EACH
WISCONSIN STREET			
26+58	99.8' LT		1
27+02	79.1' LT	1	
ITEM TOTALS		1	1

WALL MODULAR BLOCK GRAVITY

STATION	LOCATION	532.0200.S SF
WISCONSIN STREET		
34+18.22 - 35+85.53	27.5' RT	560
ITEM TOTAL		560

CONCRETE CURB & GUTTER

STATION	LOCATION	601.0411 30-INCH TYPE D LF
WISCONSIN STREET		
15+05 - 25+00	LT & RT	1955
25+00 - 35+00	LT & RT	1967
35+00 - 45+46	LT & RT	2230
11TH STREET		
50+75 - 50+95.14	LT	20
50+75 - 51+06.55	RT	32
13TH STREET		
60+25 - 60+62.04	LT	37
60+25 - 60+66.64	RT	45
KNOLLWOOD DRIVE		
70+60.89 - 71+35	LT	75
70+69.85 - 71+35	RT	65
WISCONSIN COURT		
90+50 - 90+71.50	LT & RT	44
HUNTER HILL ROAD		
100+80 - 101+13.60	LT & RT	68
101+88.60 - 102+40	LT & RT	102
SPRUCE DRIVE		
110+69.70 - 111+00	LT & RT	60
ITEM TOTALS		6700

CONCRETE SIDEWALK

STATION	LOCATION	602.0405 4-INCH SF	602.0415 6-INCH SF
WISCONSIN STREET			
15+74 - 25+00	LT & RT	10632	0
25+00 - 35+00	LT & RT	11579	200
35+00 - 45+37	LT & RT	12305	360
HUNTER HILL ROAD			
101+79 - 102+15	LT	288	0
SPRUCE DRIVE			
110+62 - 110+85	RT	96	0
ITEM TOTALS		34900	560

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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CURB RAMP DETECTABLE WARNING FIELD YELLOW

STATION	LOCATION	602.0505 SF
WISCONSIN STREET		
15+25	RT	10
15+84	RT	10
16+02	LT & RT	20
21+66	RT	10
22+08	LT	10
22+12	RT	10
22+62	LT	10
22+91	LT	10
22+91	RT	10
23+65	RT	10
24+00	RT	10
28+30	LT	18
28+44	RT	18
29+70	RT	10
30+10	RT	10
33+52	LT	10
33+60	RT	10
33+93	RT	10
34+02	LT	10
37+55	RT	10
37+92	RT	10
45+19	LT & RT	40
45+35	LT & RT	20
ITEM TOTAL		296

STORM SEWER PIPE REINFORCED CONCRETE

STATION	PIPE	608.0312 CLASS III 12-INCH LF	608.0412 CLASS IV 12-INCH LF	608.0315 CLASS III 15-INCH LF	608.0415 CLASS IV 15-INCH LF	608.0318 CLASS III 18-INCH LF	608.0421 CLASS IV 21-INCH LF	608.0324 CLASS III 24-INCH LF	608.0330 CLASS III 30-INCH LF	608.0336 CLASS III 36-INCH LF
WISCONSIN STREET										
17+50	P - 16	33								
17+50 - 19+49	P - 15	199								
19+49 - 19+50	P - 14	33								
19+49 - 20+75	P - 13			124						
20+75 - 21+96	P - 13A			120						
21+40 - 21+55	P -12B	28								
21+55 - 21+96	P - 12	53								
21+55 - 21+71	P - 12A	25								
21+96 - 22+21	P - 11					30				
22+21 - 22+54	P - 11A						33			
22+54 - 22+80	P - 10							27		
23+54 - 23+58	P - 8		33							
23+67 - 23+73	P - 7				15					
23+54 - 24+16	P - 9		62							
23+58 - 23+67	P - 6				9					
23+73	P - X46 & P - X35								16	
25+97	P - 4		33							
25+97 - 25+99	P - 3	12								
26+07 - 25+97	P - 3A	10								
25+97 - 26+07	P - 4A		10							
25+99	P - X5								8	
25+99 - 26+43	P - 44								44	
26+43 - 26+58	P -45								61	
27+02 - 27+63	P - 18							59		
27+63	P - X19							8		
28+38	P - X19 & P - X59							16		
28+38 - 28+49	P - 20	13								
28+38 - 28+55	P - 21	31								
30+05 - 30+21	P - 24A	23								
30+21 - 30+26	P - 24	32								
30+26	P - X23 & P - X58							16		
32+35 - 32+36	P - 27	26								
32+36 - 32+45	P - 26	12								
34+16	P - X28							8		
34+16 - 34+17	P - 30	30								
34+16 - 34+28	P - 29	12								
35+82	P - X33							16		
35+83 - 35+94	P -32	12								
37+91 - 38+13	P - 36A	26								
38+12	P - X34							16		
38+12 - 38+13	P - 36	30								
38+12 - 38+23	P - 35	12								
40+25	P - X38									16
40+26	P - X38									8
40+26 - 40+37	P - 37 & P - X40									20
42+65	P - X40 & P - X49									16
42+65 - 42+77	P - 41					12				
42+77 - 42+78	P - 42			36						
ITEM TOTALS		652	138	280	24	42	33	166	129	60

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

STORM SEWER STRUCTURES

STATION	LOCATION	INVERT ELEVATION	RIM ELEVATION	611.0530 MANHOLE COVERS TYPE J EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.3003 INLETS 3-FT DIAMETER EACH	SPV.0060.03 MANHOLES 4-FT DIAMETER SPECIAL WITH TRASH RACK EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	REMARKS
WISCONSIN STREET																	
CATEGORY 0010																	
15+37	33.5' RT	EX	879.80													1	
15+55	26.1' RT	EX	880.49												1		
17+50	16.5' LT	866.11	870.47			1								1			
17+50	16.5' RT	866.47	870.47			1								1			
19+49	16.5' LT	852.04	856.26			1							1				
19+50	16.5' RT	852.20	856.20			1								1			
20+75	16.5' LT	842.54	846.76			1							1				
21+40	40.0' RT	835.69	838.35		1						1						
21+55	16.5' RT	835.37	840.70			1							1				
21+71	35.6' RT	835.53	838.80				1							1			
21+96	16.5' LT	833.74	838.33			1				1							PROVIDE 2'x3' TOP OPENING
22+21	33.2' LT	833.23	836.90				1						1				
22+54	28.1' LT	832.84	837.00			1							1				
22+80	30.9' LT	EX	837.70												1		
23+58	16.5' LT	831.64	834.71				1						1				
23+54	16.5' RT	831.82	834.73				1							1			
23+67	16.5' LT	831.64	834.72				1						1				
23+73	30.0' LT	831.47	836.70	1						1							
24+16	16.5' RT	832.01	835.01			1								1			
25+97	16.5' RT	832.23	835.27				1							1			
25+97	16.5' LT	831.23	835.27				1							1			
25+99	27.9' LT	829.70	836.36	1					1								
26+07	16.5' LT	831.28	835.28				1							1			
26+07	16.5' RT	832.28	835.28				1							1			
26+43	27.4' LT	829.32	835.63	1						1							
26+80	76.7' LT	815.25	821.00									1					CONNECT TO EXISTING 18-INCH SSPRC
27+63	56.0' LT	822.57	832.27	1				1									
28+38	9.6' LT	830.50	837.27	1				1									
28+49	16.5' LT	833.53	837.03			1								1			
28+55	16.5' RT	833.59	837.09			1								1			
29+28	10.6' LT	EX	838.40												1		
30+05	31.8' RT	836.43	839.30			1								1			
30+21	16.5' RT	836.31	840.31			1								1			
30+26	16.5' LT	836.06	840.48			1			1								PROVIDE 2'x3' TOP OPENING
30+82	9.8' LT	EX	842.56												1		
32+35	16.5' RT	842.09	846.09			1								1			
32+36	9.3' LT	EX	846.43												1		
32+45	16.5' LT	842.82	846.32			1								1			
33+60	34.1' LT	EX	848.98													1	
33+62	37.9' RT	EX	849.13													1	
33+86	9.5' LT	EX	849.46												1		
33+92	37.4' RT	EX	849.15													1	
33+94	34.2' LT	EX	849.00													1	
34+16	13.3' LT	842.00	849.96	1				1									
34+17	16.5' RT	846.25	849.75			1								1			
34+28	16.5' LT	845.96	849.96			1								1			
35+82	16.5' RT	843.30	853.14			1							1				
35+83	13.5' LT	EX	853.40												1		
35+94	16.5' LT	849.40	853.40			1								1			
37+91	30.5' RT	853.00	856.20			1								1			
38+12	13.6' LT	844.39	857.32	1				1									
38+13	16.5' RT	853.11	857.11			1								1			
38+23	16.5' LT	853.28	857.28			1								1			
39+82	13.6' LT	EX	860.88												1		
40+25	16.5' RT	EX	860.59			1			1								PROVIDE 2'x3' TOP OPENING
40+26	16.5' LT	847.90	860.60			1				1							PROVIDE 2'x3' TOP OPENING
40+37	20.7' LT	848.02	861.42	1					1								
42+65	19.0' LT	850.24	863.47	1					1								
42+77	16.5' LT	858.50	862.90			1							1				
42+78	19.6' RT	858.86	862.86			1								1			
44+53	20.5' LT	EX	864.60												1		
ITEM TOTALS				9	1	27	9	4	5	4	1	1	9	23	9	5	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

ADJUSTING MANHOLE COVERS

STATION	LOCATION	611.8110 EACH	REMARKS
WISCONSIN STREET			
CATEGORY 0020			
15+59	0.0' LT	1	SANITARY
22+35	23.2' LT	1	SANITARY
26+66	23.0' LT	1	SANITARY
27+74	24.5' LT	1	SANITARY
29+25	23.3' LT	1	SANITARY
30+76	22.8' LT	1	SANITARY
32+26	22.4' LT	1	SANITARY
33+78	22.8' LT	1	SANITARY
34+79	5.1' LT	1	SANITARY
37+86.50	5.0' LT	1	SANITARY
40+28	5.2' LT	1	SANITARY
42+55.50	5.1' LT	1	SANITARY
44+44	9.0' LT	1	SANITARY
SPRUCE DRIVE			
110+66.50	2.3' LT	1	SANITARY
ITEM TOTAL		14	

*CATEGORY 0020

INSULATION BOARD POLYSTYRENE (INCH)

STATION	LOCATION	612.0902.S 2-INCH SY
WISCONSIN STREET		
CATEGORY 0020		
17+50	11.9' RT	7
19+50	12.5' RT	7
21+84	8.9' RT	7
22+46	29.3' LT	7
23+55	6.7' RT	7
23+58	16.5' RT	7
25+97	0.2' RT	7
28+40	7.2' LT	7
30+23	3.0' RT	7
32+35	3.5' RT	7
34+17	16.5' RT	7
38+13	6.5' RT	7
40+25	6.3' RT	7
42+78	8.3' RT	7
ITEM TOTALS		98

*CATEGORY 0020

TURF ESTABLISHMENT

STATION	LOCATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LBS	630.0200 SEEDING TEMPORARY LBS
WISCONSIN STREET					
15+05 - 45+50	LT & RT	6651	4.19	125	190
UNDISTRIBUTED		349	0.81	25	50
ITEM TOTALS		7000	5.00	150	240

EROSION CONTROL MOBILIZATIONS

STATION	LOCATION	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
WISCONSIN STREET			
15+05 - 45+50	LT & RT	4	4
ITEM TOTALS		4	4

PIPE UNDERDRAIN WRAPPED

STATION	LOCATION	612.0406 6-INCH LF	REMARKS
WISCONSIN STREET			
26+75	LT	120	BIORETENTION
34+15 - 35+90	27.5' RT	180	
ITEM TOTALS		300	

CONCRETE MEDIAN SLOPED NOSE

STATION	LOCATION	620.0300 SF
WISCONSIN STREET		
44+92	5' LT	40
45+33	5' LT	40
ITEM TOTAL		80

APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE

STATION	LOCATION	612.0806 6-INCH EACH
WISCONSIN STREET		
34+15	27.5' RT	1
35+90	27.5' RT	1
ITEM TOTALS		2

DUST CONTROL SURFACE TREATMENT

STATION	LOCATION	623.0200 SY
WISCONSIN STREET		
UNDISTRIBUTED	LT & RT	3000
ITEM TOTAL		3000

WATER

STATION	LOCATION	624.0100 MGAL
WISCONSIN STREET		
UNDISTRIBUTED	LT & RT	100
ITEM TOTAL		100

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

EROSION CONTROL

STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE EACH	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	* 628.7560 TRACKING PADS EACH
WISCONSIN STREET								
15+05 - 45+05	LT & RT	500	500		1250		1	2
26+75	LT			225				
UNDISTRIBUTED	LT & RT	500	500		250	50		
ITEM TOTALS		1000	1000	225	1500	50	1	2

* TO BE LOCATED AT VINE STREET AND 11TH STREET AS DIRECTED BY PROJECT LEADER

INLET PROTECTION

STATION	LOCATION	628.7005 TYPE A EACH	68.7015 TYPE C EACH
WISCONSIN STREET			
15+38	33.6' RT	1	1
17+50	16.5' LT	1	1
17+50	16.5' RT	1	1
19+49	16.5' LT	1	1
19+50	16.5' RT	1	1
20+75	16.5' LT	1	1
21+41	39.0' RT	1	
21+52	16.5' RT	1	1
21+71	35.6' RT	1	1
21+96	16.5' LT	1	1
22+07	45.5 RT	1	1
22+21	33.2' LT	1	1
22+54	28.1' LT	1	1
23+54	16.5' RT	1	1
23+58	16.5' LT	1	1
23+68	16.5' LT	1	1
24+16	16.5' RT	1	1
25+97	16.5' LT	1	1
25+97	16.5' RT	1	1
26+07	16.5' LT	1	1
26+07	16.5' RT	1	1
28+49	16.5' LT	1	1
28+55	16.5' RT	1	1
30+05	31.8' RT	1	1
30+21	16.5' RT	1	1
30+26	16.5' LT	1	1
32+35	16.5' RT	1	1
32+45	16.5' LT	1	1
33+60	34.1' LT	1	1
33+62	37.9' RT	1	1
33+92	37.4' RT	1	1
33+94	34.2' LT	1	1
34+17	16.5' RT	1	1
34+28	16.5' LT	1	1
35+82	16.5' RT	1	1
35+94	16.5' LT	1	1
37+91	30.5' RT	1	1
38+13	16.5' RT	1	1
38+23	16.5' LT	1	1
40+25	16.5' RT	1	1
40+26	16.5' LT	1	1
42+77	16.5' LT	1	1
42+78	19.6' RT	1	1
ITEM TOTALS		43	42

MARKERS CULVERT END

STATION	LOCATION	633.5200 EACH
WISCONSIN STREET		
26+58	99.8' LT	1
26+79	90.3' LT	1
27+02	79.1' LT	1
ITEM TOTALS		3

TRAFFIC CONTROL (PROJECT)

STATION	LOCATION	643.0100 EACH
01. 8999-00-62	WISCONSIN STREET	1
ITEM TOTALS		1

TRAFFIC CONTROL

LOCATION	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS DAYS
WISCONSIN STREET 8999-00-62	3600	2430	4860	2250
ITEM TOTALS	3600	2430	4860	2250

GEOTEXTILE FABRIC TYPE HR

STATION	LOCATION	645.0120 SY
WISCONSIN STREET 26+75	LT	25
ITEM TOTALS		25

SIGNING ITEMS

SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIGN SIZE W X H (INCHES)	634.0812 POSTS STEEL X 12-FT EACH	634.0814 TUBULAR 2X2-INCH X 14-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	638.2102 MOVING SIGNS TYPE II EACH
1		STREET CROSSING					1
2		STOP					1
3	R7-1R	NO PARKING ANYTIME	18X24	1		3.00	
4		SPEED LIMIT 25					1
5		NO PARKING ANYTIME BIKE LANE					1
6		PEDESTRAIN CROSSING AHEAD					1
7		NO PARKING ANYTIME					1
8	R7-1R	NO PARKING ANYTIME	18X24	1		3.00	
9		PEDESTRAIN CROSSING AHEAD					1
10		STREET CROSSING STOP					1
11		STOP					1
12		STREET CROSSING PEDESTRAIN CROSSING AHEAD					1
13		STOP					1
14	R7-1R	NO PARKING ANYTIME	18X24	1		3.00	
15		NO PARKING ANYTIME BIKE LANE					1
16	W11-2 W16-9P	PEDESTRAIN CROSSING AHEAD	30X30 24X8	1		6.25 1.34	
17	W11-2 W16-9P	PEDESTRAIN CROSSING AHEAD	30X30 W16-9P	1		6.25 1.34	
18	R7-1R	NO PARKING ANYTIME	18X24	1		3.00	
19	R1-1	STOP	30X30	1		5.18	
20		PEDESTRAIN CROSSING ARROW					1
21		STOP					1
22		PEDESTRAIN CROSSING ARROW					1
23	R7-1R R3-17	NO PARKING ANYTIME BIKE LANE	18X24 30X24		1	3.00 5.00	
24		STREET CROSSING					1
25		NO PARKING ANYTIME BIKE LANE					1
26		PEDESTRAIN CROSSING AHEAD					1
27		STOP					1
28		STOP					1
29		STREET CROSSING					1
30	S4-51	SCHOOL SPEED LIMIT	24X48		1	8.00	
31		NO PARKING ANYTIME BIKE LANE					1
32	R7-1R	NO PARKING ANYTIME	18X24	1		3.00	
33		STREET CROSSING					1
34		STOP					1
35		NO PARKING ANYTIME BIKE LANE					1
36		NO PARKING ANYTIME					1
37		NO PARKING ANYTIME BIKE LANE					1
38		SPEED LIMIT 25 NO PARKING ANYTIME					1
39	R4-4	BEGIN RIGHT TURN LANE	36X30	1		7.50	
40		NO PARKING ANYTIME BIKE LANE					1
41		NO PARKING ANYTIME					1
42		STOP ALL WAY					1
43		STREET CROSSING					1
44		STOP ALL WAY					1
45		OBJECT MARKER					1
46		OBJECT MARKER					1
ITEM TOTALS				9	2	58.86	35

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

PAVEMENT MARKING

STATION	LOCATION	646.0106 EPOXY 4-INCH (YELLOW) LF	646.0126 EPOXY 8-INCH (WHITE) LF	647.0166 ARROWS EPOXY TYPE 2 (WHITE) EACH	647.0206 ARROWS BIKE LANE EPOXY (WHITE) EACH	647.0306 SYMBOLS BIKE LANE EPOXY (WHITE) EACH	647.0356 WORDS EPOXY (WHITE) EACH	647.0406 WORDS BIKE LANE EPOXY (WHITE) EACH	647.0456 CURB EPOXY (YELLOW) LF	647.0566 STOP LINE EPOXY 18-INCH (WHITE) LF	647.0606 ISLAND NOSE EPOXY (YELLOW) EACH	647.0726 DIAGONAL EPOXY 12-INCH (WHITE) LF	647.0766 CROSSWALK EPOXY 6-INCH (WHITE) LF	647.0796 CROSSWALK EPOXY 24-INCH (WHITE) LF	REMARKS
WISCONSIN STREET															
15+05 - 44+95	LT & RT	11880	175	2	12	12	1	6	85	48	2	60	355	128	6240 LF 4-INCH YELLOW
11TH STREET															
51+12 - 51+22	LT & RT									16			99		
13TH STREET															
60+69 - 60+79	LT & RT									16			72		
KNOLLWOOD DRIVE															
70+59 - 70+69	LT & RT									16			84		
WISCONSIN COURT															
90+71 - 90+81	LT & RT									16			70		
HUNTER HILL ROAD															
101+20 - 101+30	LT & RT									16			80		
101+74 - 101+84	LT & RT									16			80		
SPRUCE DRIVE															
110+55 - 110+65	LT & RT									16			80		
ITEM TOTALS		11880	175	2	12	12	1	6	85	160	2	60	920	128	

CONSTRUCTION STAKING

STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB AND GUTTER LF	650.9920 SLOPE STAKES LF
WISCONSIN STREET					
15+05 - 25+00	LT & RT	995	995	1955	995
25+00 - 35+00	LT & RT	1000	1000	1967	1000
35+00 - 45+50	LT & RT	1050	1050	2230	1050
11TH STREET					
50+75 - 51+44.02	LT & RT	69	69	52	69
13TH STREET					
60+25 - 61+01.46	LT & RT	77	77	82	77
KNOLLWOOD DRIVE					
70+30.25 - 71+35	LT & RT	105	105	140	105
WISCONSIN COURT					
90+50 - 91+03.15	LT & RT	53	53	44	53
HUNTER HILL ROAD					
100+80 - 102+40	LT & RT	160	160	170	160
SPRUCE DRIVE					
110+32.52 - 111+00	LT & RT	68	68	60	68
ITEM TOTALS		3577	3577	6700	3577

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

STATION	LOCATION	650.9910 LS
01. 8999-00-62	WISCONSIN STREET	1
ITEM TOTAL		1

SAWING

STATION	LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF	REMARKS
WISCONSIN STREET				
15+05	LT & RT	32	5	BEGIN PROJECT CURB AND GUTTER
23+82	RT	28	5	CURB AND GUTTER
28+25	LT	10		TRAIL
28+42	RT	12		TRAIL
42+50	RT	32		CHURCH ENTRANCE
45+35	LT		4	SIDEWALK REMOVAL
45+50	LT & RT	144	4	END PROJECT CURB AND GUTTER
11TH STREET				
50+75	LT & RT	32	5	CURB AND GUTTER
13TH STREET				
60+25	LT & RT	30	5	CURB AND GUTTER
KNOLLWOOD DRIVE				
71+35	LT & RT	30	5	CURB AND GUTTER
WISCONSIN COURT				
90+50	LT & RT	30	5	CURB AND GUTTER
HUNTER HILL ROAD				
100+80	LT & RT	30	5	CURB AND GUTTER
102+40	LT & RT	30	13	SIDEWALK REMOVAL & CURB AND GUTTE
SPRUCE DRIVE				
111+00	LT & RT	30	9	SIDEWALK REMOVAL & CURB AND GUTTE
ITEM TOTALS		470	65	

CONSTRUCTION STAKING STORM SEWER

STATION	LOCATION	650.4000 EACH
WISCONSIN STREET		
17+50	16.5' LT	1
17+50	16.5' RT	1
19+49	16.5' LT	1
19+50	16.5' RT	1
20+75	16.5' LT	1
21+40	40.0' RT	1
21+55	16.5' RT	1
21+71	35.6' RT	1
21+96	16.5' LT	1
22+21	33.2' LT	1
22+54	28.1' LT	1
23+54	16.5' RT	1
23+58	16.5' LT	1
23+67	16.5' LT	1
23+73	30.0' LT	1
24+16	16.5' RT	1
25+97	16.5' LT	1
25+97	16.5' RT	1
25+99	27.9' LT	1
26+07	16.5' LT	1
26+07	16.5' RT	1
26+43	27.4' LT	1
26+55	86.6' LT	1
27+02	79.1' LT	1
27+63	56.0' LT	1
28+38	9.6' LT	1
28+49	16.5' LT	1
28+55	16.5' RT	1
30+05	31.8' RT	1
30+21	16.5' RT	1
30+26	16.5' LT	1
32+35	16.5' RT	1
32+45	16.5' LT	1
33+86	9.5' LT	1
34+16	13.3' LT	1
34+17	16.5' RT	1
34+28	16.5' LT	1
35+82	16.5' RT	1
35+94	16.5' LT	1
37+91	30.5' RT	1
38+12	13.6' LT	1
38+13	16.5' RT	1
38+23	16.5' LT	1
40+25	16.5' RT	1
40+26	16.5' LT	1
40+37	20.7' LT	1
42+65	19.0' LT	1
42+77	16.5' LT	1
42+78	19.6' RT	1
ITEM TOTAL		49

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

CONNECTION TO EXISTING INLETS OR MANHOLE		
STATION	LOCATION	SPV.0060.01 EACH
WISCONSIN STREET		
22+80	30.9' LT	1
32+36	9.3' LT	1
35+83	13.5' LT	1
ITEM TOTAL		3

ADJUST EXISTING GATE VALVE		
STATION	LOCATION	SPV.0060.02 EACH
WISCONSIN STREET		
15+52	11.0' RT	1
22+17	10.0' RT	1
22+41	7.1' RT	1
23+59	12.5' RT	1
29+90	11.2' RT	1
33+57	12.3' RT	1
33+60	9.2' RT	1
33+65	8.3' RT	1
37+66	11.6' RT	1
43+00	6.5' RT	1
45+43	2.5' RT	1
13TH STREET		
60+74	8.1' RT	1
KNOLLWOOD DRIVE		
70+65	9.7' RT	1
SPRUCE DRIVE		
110+79	19.8' RT	1
ITEM TOTAL		14

*CATEGORY 0020

REMOVE, SALVAGE, AND REINSTALL EXISTING HYDRANT, VALVE, AND LEAD		
STATION	LOCATION	SPV.0060.04 EACH
WISCONSIN STREET		
15+85	33.2' RT	1
33+52	39.7' LT	1
42+06	30.0' RT	1
ITEM TOTAL		3

*CATEGORY 0020

6-INCH GATE VALVE AND BOX		
STATION	LOCATION	SPV.0060.05 EACH
WISCONSIN STREET		
22+24	30.3' RT	1
ITEM TOTAL		1

*CATEGORY 0020

HYDRANT		
STATION	LOCATION	SPV.0060.06 EACH
WISCONSIN STREET		
22+24	30.3' RT	1
ITEM TOTAL		1

*CATEGORY 0020

LOWER WATER MAIN		
STATION	LOCATION	SPV.0060.07 EACH
WISCONSIN STREET		
UNDISTRIBUTED	~	1
ITEM TOTAL		1

*CATEGORY 0020

WATER MAIN FITTINGS		
STATION	LOCATION	SPV.0085.01 LBS
WISCONSIN STREET		
UNDISTRIBUTED		100
ITEM TOTAL		100

*CATEGORY 0020

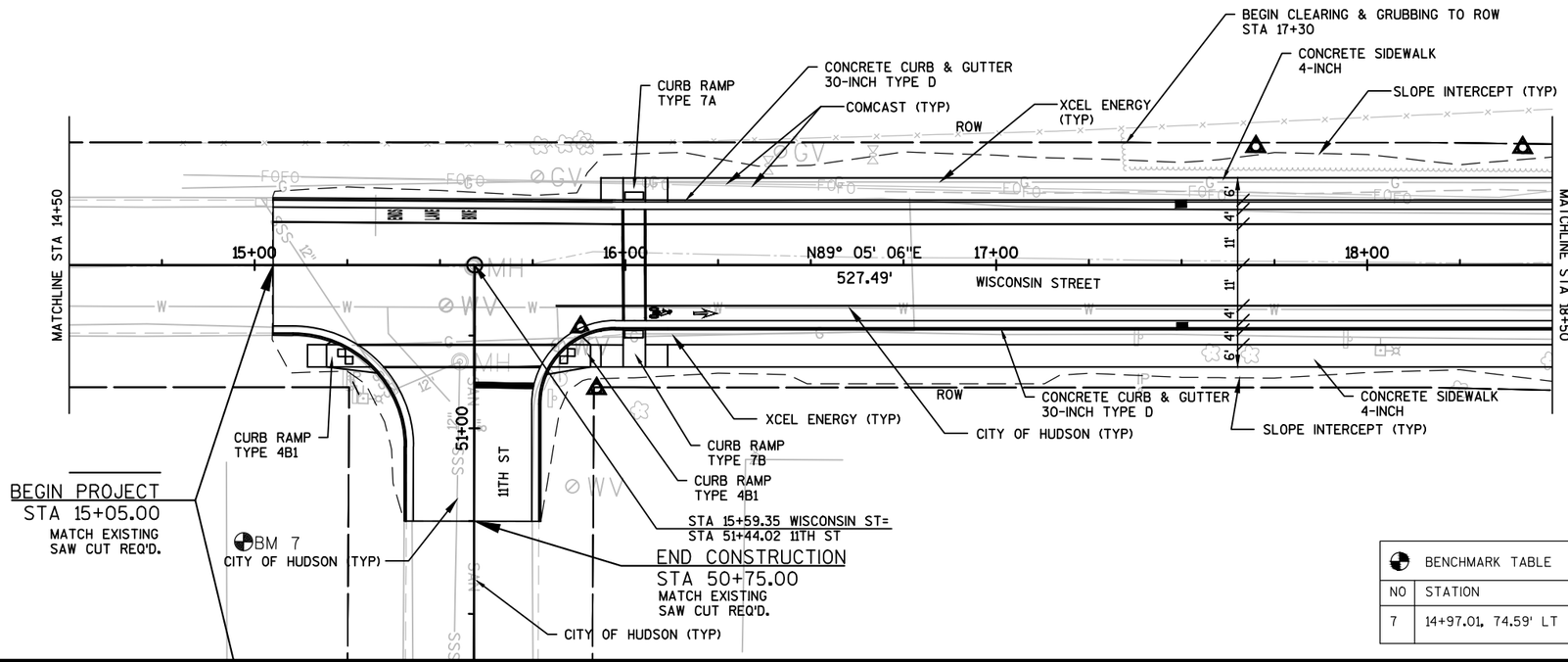
WATER MAIN 6-INCH		
STATION	LOCATION	SPV.0090.01 LF
WISCONSIN STREET		
15+85	33.2' RT	12
22+24	30.3' RT	11
33+52	39.7' LT	16
42+06	30.0' RT	20
ITEM TOTAL		59

*CATEGORY 0020

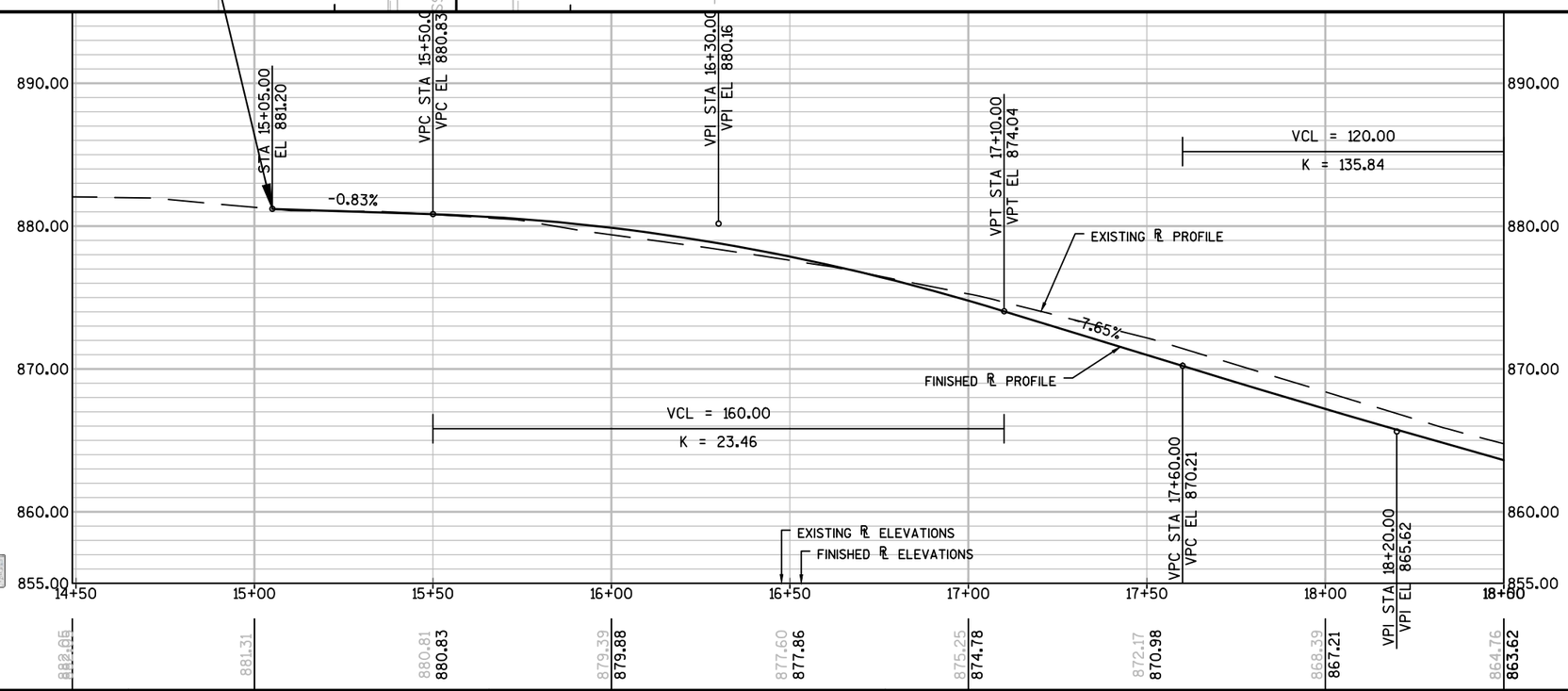
CONSTRUCTION STAKING BIORETENTION		
STATION	LOCATION	SPV.0105.01 LS
WISCONSIN STREET		
26+75	LT	1
ITEM TOTAL		1

BIORETENTION		
STATION	LOCATION	SPV.0105.02 LS
WISCONSIN STREET		
26+75	LT	1
ITEM TOTAL		1

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

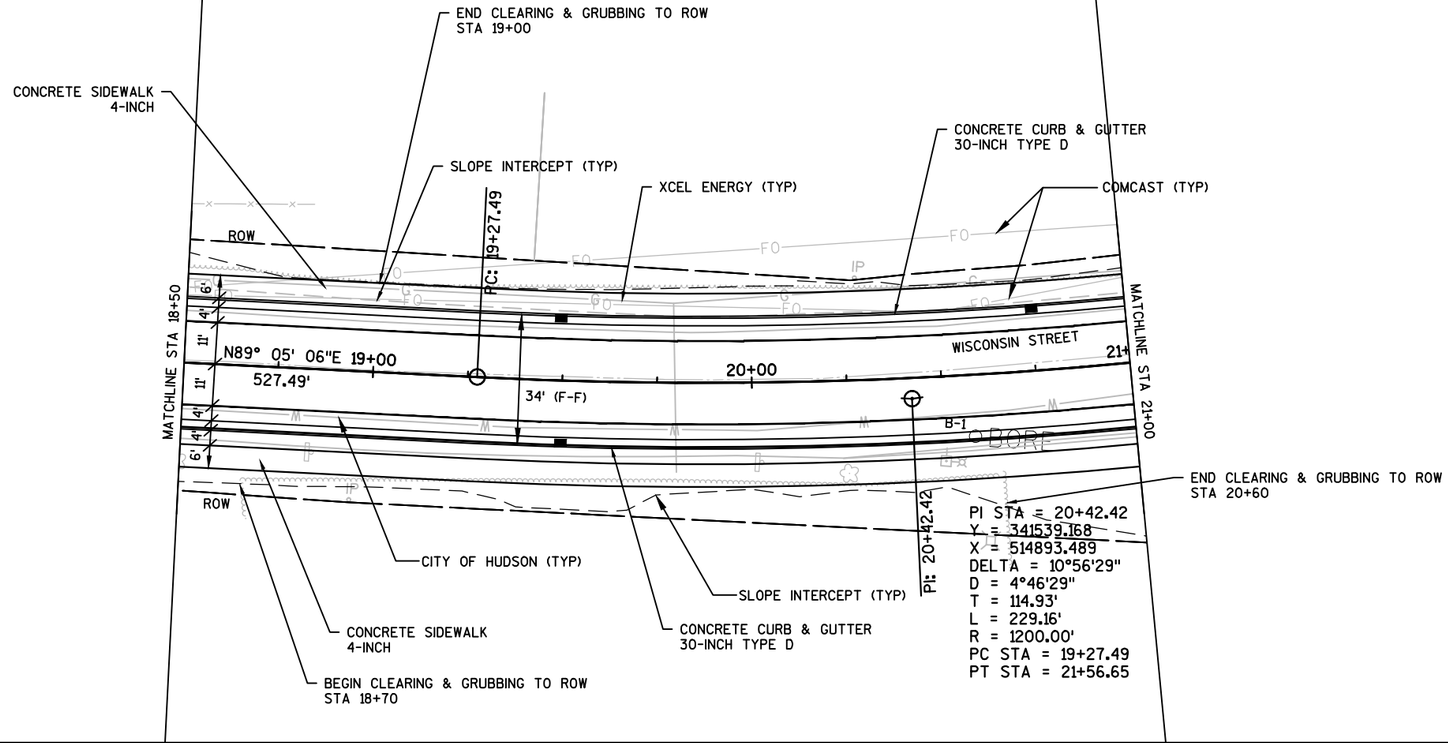


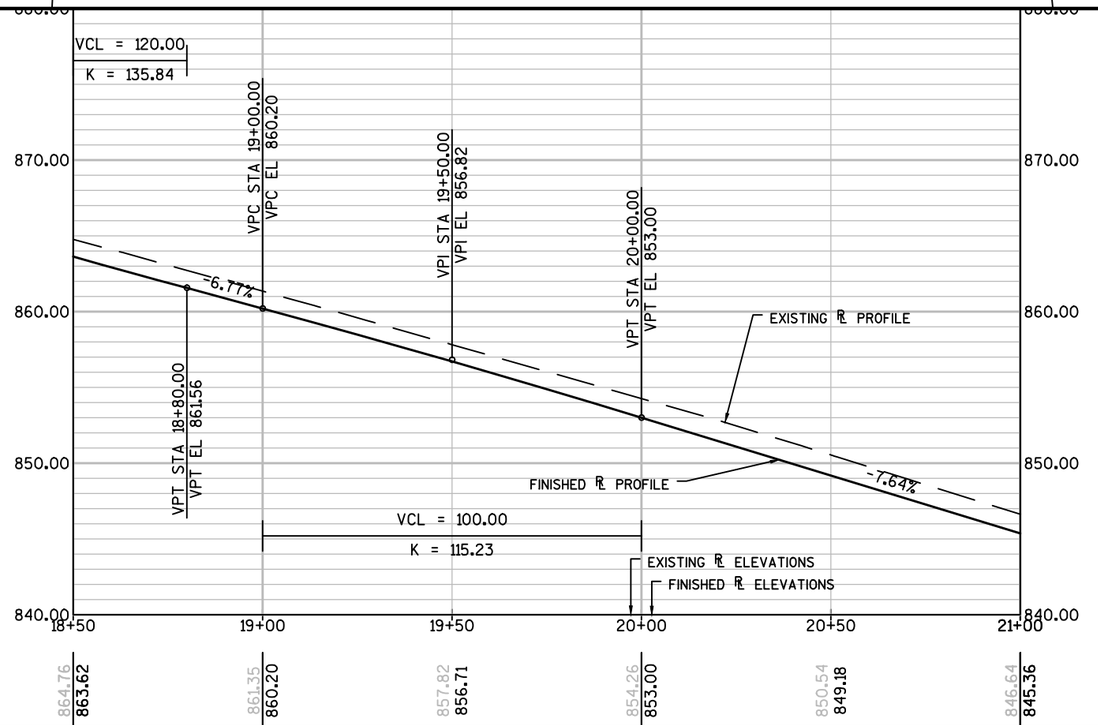
BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
7	14+97.01, 74.59' LT	TOP NE COR BOTTOM STEP HERITAGE APARTMENT	884.11



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: WISCONSIN STREET	SHEET E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\050101 PP-OPT 2.DWG PLOT DATE : 9/30/2014 7:18 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 44





PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: WISCONSIN STREET	SHEET	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\050101 PP-OPT 2.DWG PLOT DATE : 9/30/2014 7:18 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 44

END CONSTRUCTION
STA 71+35.00
MATCH EXISTING
SAW CUT REQ'D

END CLEARING & GRUBBING TO ROW STA 21+50
CLEAR & GRUB TO ROW STA 22+00
CURB RAMP TYPE 4A1
PT: 21+56.65
BM 6
CITY OF HUDSON (TYP)
KNOLLWOOD DR
71+00
XCEL ENERGY (TYP)
XCEL ENERGY (TYP)
CURB RAMP TYPE 4A1
BEGIN CLEARING & GRUBBING TO ROW STA 22+90
CITY OF HUDSON (TYP)
CURB RAMP TYPE 7A
ROW
AT&T (TYP)
XCEL ENERGY (TYP)
SLOPE INTERCEPT (TYP)
COMCAST (TYP)
CONCRETE CURB & GUTTER 30-INCH TYPE D
CONCRETE SIDEWALK 4-INCH
CLEARING & GRUBBING TO ROW STA 25+20 TO STA 26+00
XCEL ENERGY (TYP)
BIORETENTION - SEE DETAIL
AT&T (TYP)
CLEARING & GRUBBING STA 27+00
N
20 0 20 40
scale 10 feet

MATCHLINE STA 21+00
21+00
22+00
23+00
24+00
25+00
26+00
WISCONSIN STREET
MATCHLINE STA 27+00
61+00
70+30
34' (F-F)
11'
4'
6'

ROW
XCEL ENERGY (TYP)
CURB RAMP TYPE 7B
STA 22+30.65 WISCONSIN ST=
STA 70+30.25 KNOLLWOOD DR
CURB RAMP TYPE 4B1
HUDSON SCHOOL DISTRICT (TYP)
STA 21+94.21 WISCONSIN ST=
STA 61+01.46 13TH ST
CURB RAMP TYPE 4B1
13TH ST
CURB RAMP TYPE 4B1
CHRISTIAN COMMUNITY HOME
BM 5
XCEL ENERGY (TYP)
CURB RAMP TYPE 4B1
CONCRETE SIDEWALK 4-INCH
SLOPE INTERCEPT (TYP)
BEGIN CLEARING AND GRUBBING TO ROW STA 25+20
CONCRETE CURB & GUTTER 30-INCH TYPE D
CITY OF HUDSON (TYP)
HUDSON SCHOOL DISTRICT (TYP)
STA 23+82 RT
CONSTRUCT ASPH. PE

END CONSTRUCTION
STA 60+25.00
MATCH EXISTING
SAW CUT REQ'D
BP: 60+00.00

BENCHMARK TABLE

NO	STATION	DESCRIPTION	ELEVATION
5	24+05.52, 33.21' RT	N END CONC LIGHT BASE EAST SIDE ENTRANCE TO CHRISTIAN COMM. HOME	837.31
6	21+59.78, 36.35' LT	RR SPK IN 18" TREE	841.57

5

5

VCL = 180.00
K = 26.55
VCL = 100.00
K = 56.00
VCL = 100.00
K = 67.59
VCL = 60.00
K = 36.84

VPC STA 21+30.00
VPC EL 843.07
VPI STA 22+20.00
VPI EL 836.20
VPT STA 23+10.00
VPT EL 835.43
VPC STA 23+10.01
VPC EL 835.43
VPI STA 23+60.01
VPI EL 835.00
VPT STA 24+10.01
VPT EL 835.46
VPC STA 24+70.00
VPC EL 836.02
VPI STA 25+00.00
VPI EL 836.30
VPT STA 25+30.00
VPT EL 836.09
VPC STA 25+50.00
VPC EL 835.95
VPI STA 26+00.00
VPI EL 835.60
VPT STA 26+50.00
VPT EL 835.99

EXISTING ℄ PROFILE
FINISHED ℄ PROFILE
-0.86%
0.93%
-0.70%
EXISTING ℄ ELEVATIONS
FINISHED ℄ ELEVATIONS

850.00
840.00
830.00
820.00
815.00

21+00 21+50 22+00 22+50 23+00 23+50 24+00 24+50 25+00 25+50 26+00 26+50 27+00

846.64	843.17	840.34	838.01	837.03	836.73	836.91	837.09	837.23	837.52	837.87	838.29	838.29
845.36	841.62	838.65	836.62	835.53	835.23	835.38	835.84	836.18	835.95	835.78	835.99	836.38

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: WISCONSIN STREET	SHEET	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\050101 PP-OPT 2.DWG PLOT DATE : 9/30/2014 7:18 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 44

BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
4	27+92.62, 22.42' RT	DBL 16d SPK IN PP 18BB42	840.28

20 0 20 40
scale 10 feet

N

PI STA = 31+77.39
Y = 341772.501
X = 516004.928
DELTA = 78°37'50"
D = 9°57'52"
T = 470.89'
L = 789.11'
R = 575.00'
PC STA = 27+06.50
PT STA = 34+95.61

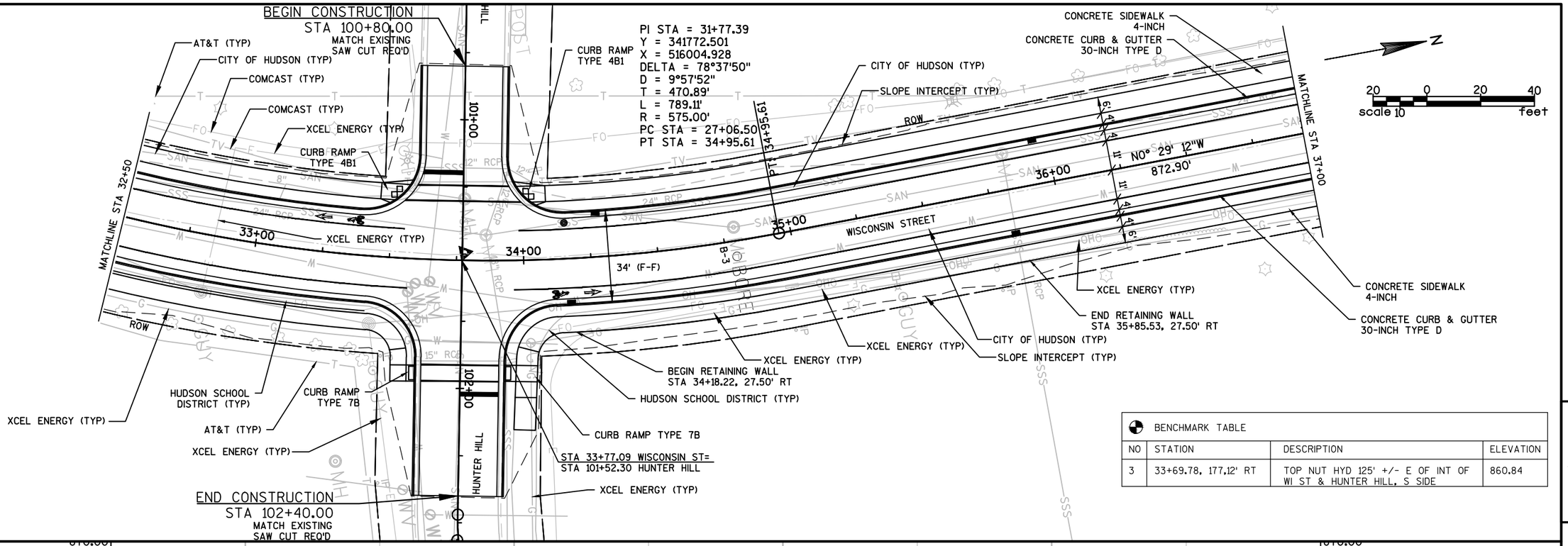
MATCHLINE STA 27+00
PC STA 27+06.50
XCEL ENERGY (TYP)
COMCAST (TYP)
STA 28+25 LT
CONST ASPH TRAIL
CURB RAMP
TYPE 7B
BEGIN CLEARING AND GRUBBING TO ROW
STA 28+50
SLOPE INTERCEPT (TYP)
STA 29+89.75 WISCONSIN ST=
STA 91+03.15 WISCONSIN CT
XCEL ENERGY (TYP)
END CLEARING &
GRUBBING TO ROW
STA 30+50
CONCRETE SIDEWALK
4-INCH
CONCRETE CURB & GUTTER
30-INCH TYPE D
CITY OF
HUDSON (TYP)
MATCHLINE STA 32+50
WISCONSIN STREET
28+00
29+00
30+00
31+00
32+00
91+16
ASPH.
ROW
COMCAST (TYP)
END CLEARING & GRUBBING TO ROW
STA 28+00
CITY OF HUDSON (TYP)
XCEL ENERGY (TYP)
CURB RAMP
TYPE 7B
STA 28+42 RT
CONST ASPH TRAIL
HUDSON SCHOOL DISTRICT (TYP)
CURB RAMP TYPE 4B1
SLOPE INTERCEPT (TYP)
XCEL ENERGY (TYP)
COMCAST (TYP)
CURB RAMP TYPE 4B1
END CONSTRUCTION
STA 90+50.00
MATCH EXISTING
SAW CUT REQ'D
XCEL ENERGY (TYP)
HUDSON SCHOOL DISTRICT (TYP)
CONCRETE SIDEWALK
4-INCH
CONCRETE CURB & GUTTER
30-INCH TYPE D
XCEL ENERGY (TYP)

VCL = 200.00
K = 83.17
VPC STA 30+80.00
VPC EL 842.71
VPI STA 31+30.00
VPI EL 844.30
VPT STA 31+80.00
VPT EL 845.40
2.19%
3.18%
0.78%
EXISTING ℄ PROFILE
FINISHED ℄ PROFILE
VPC STA 28+40.00
VPC EL 837.47
VPI STA 29+40.00
VPI EL 838.25
VPT STA 30+40.00
VPT EL 841.43
VCL = 100.00
K = 100.92
EXISTING ℄ ELEVATIONS
FINISHED ℄ ELEVATIONS
850.00
840.00
830.00
820.00
27+00 27+50 28+00 28+50 29+00 29+50 30+00 30+50 31+00 31+50 32+00 32+50

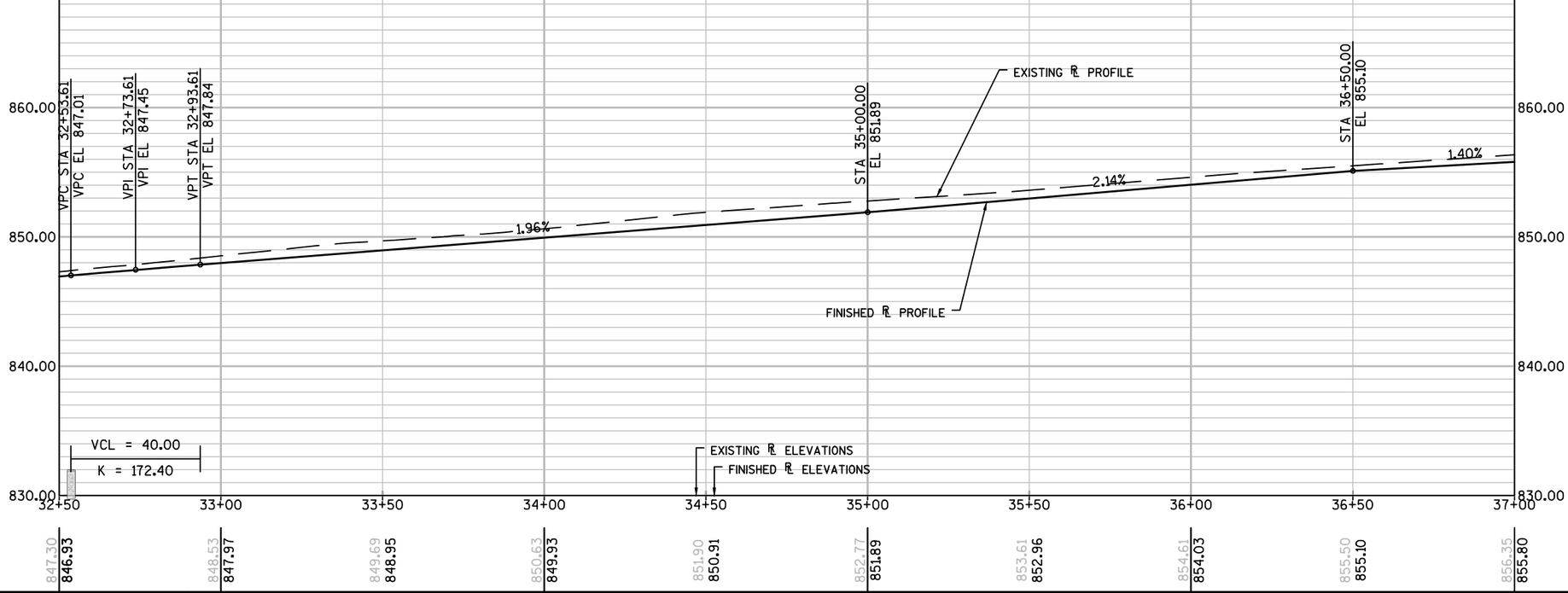
838.29	836.38	838.39	836.77	838.64	837.16	839.02	837.55	839.43	838.15	839.99	839.06	841.14	840.26	842.48	841.75	843.69	843.32	844.80	844.69	846.08	845.84	847.30	846.93

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: WISCONSIN STREET	SHEET	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\050101 PP-OPT 2.DWG PLOT DATE : 9/30/2014 7:19 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF

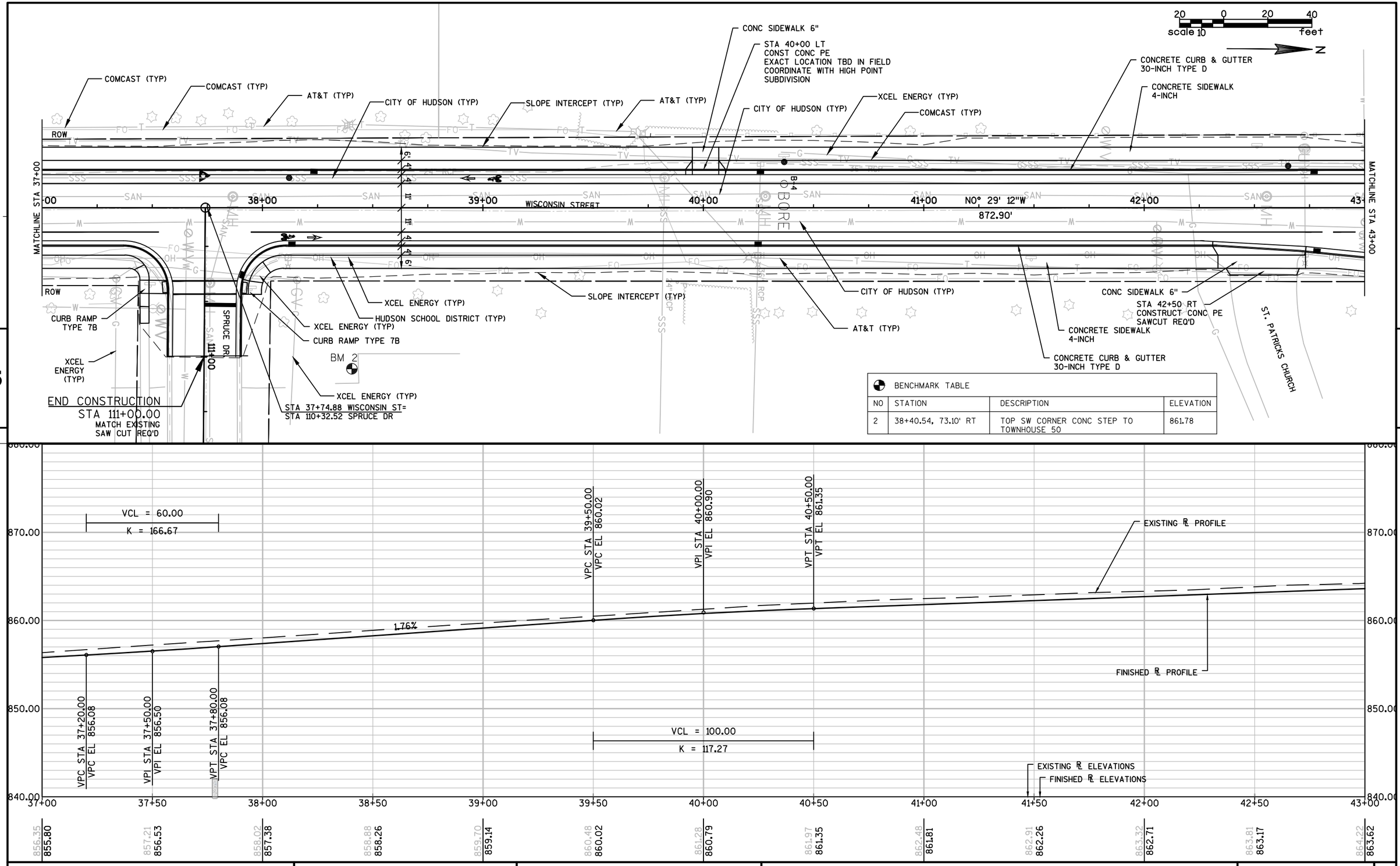


BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
3	33+69.78, 177.12' RT	TOP NUT HYD 125' +/- E OF INT OF WI ST & HUNTER HILL, S SIDE	860.84



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: WISCONSIN STREET	SHEET E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\050101 PP-OPT 2.DWG PLOT DATE : 9/30/2014 7:19 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 44



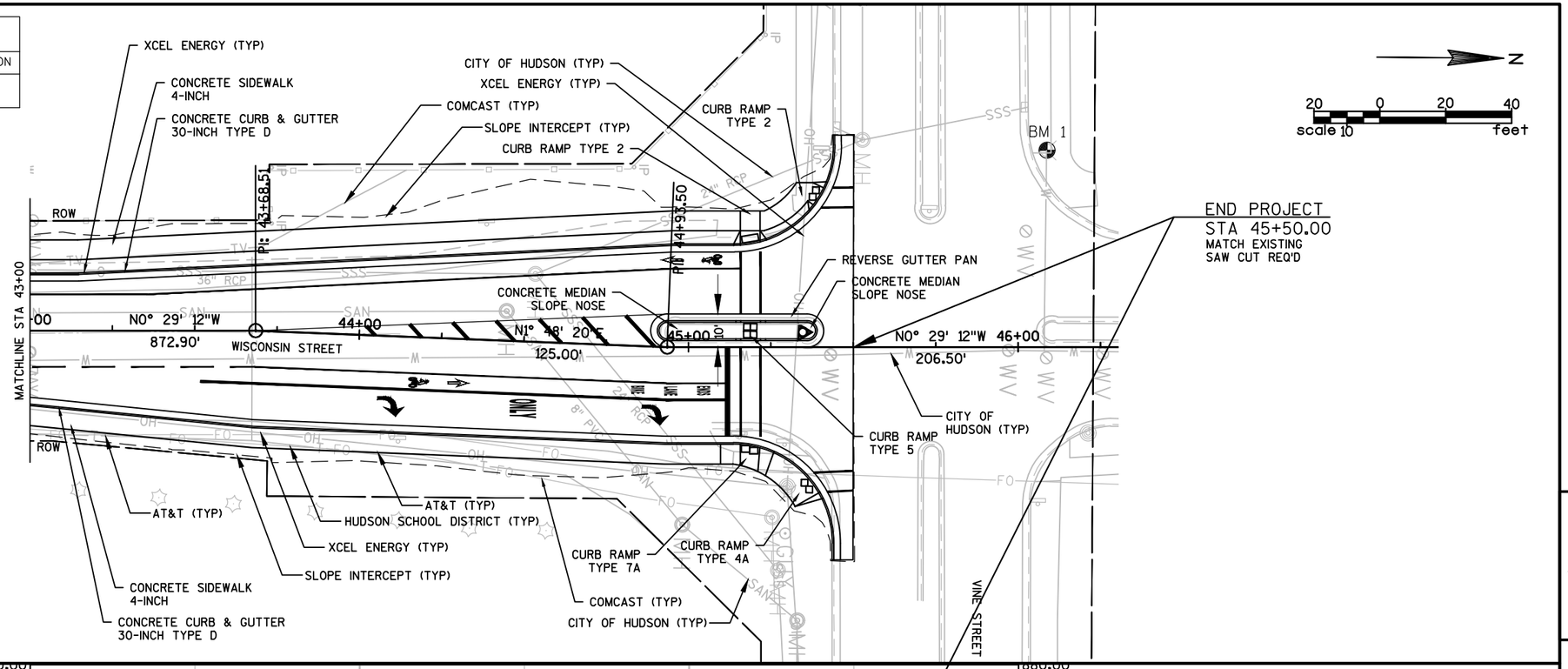
5

5

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: WISCONSIN STREET	SHEET	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\050101 PP-OPT 2.DWG PLOT DATE : 9/30/2014 7:19 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 44

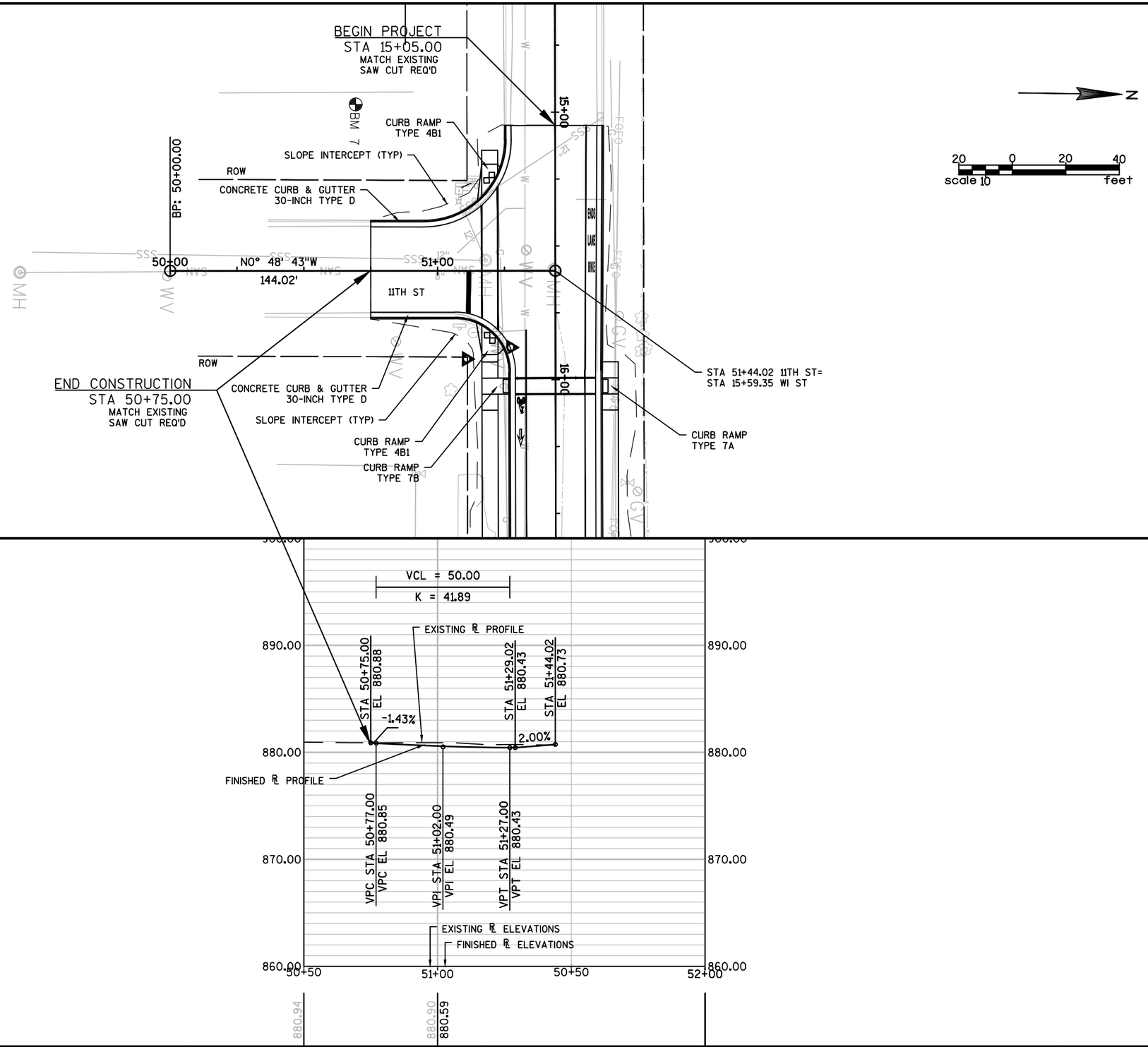
BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
1	46+08.69, 56.69' LT	TOP NUT HYD	868.90



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: WISCONSIN STREET	SHEET E

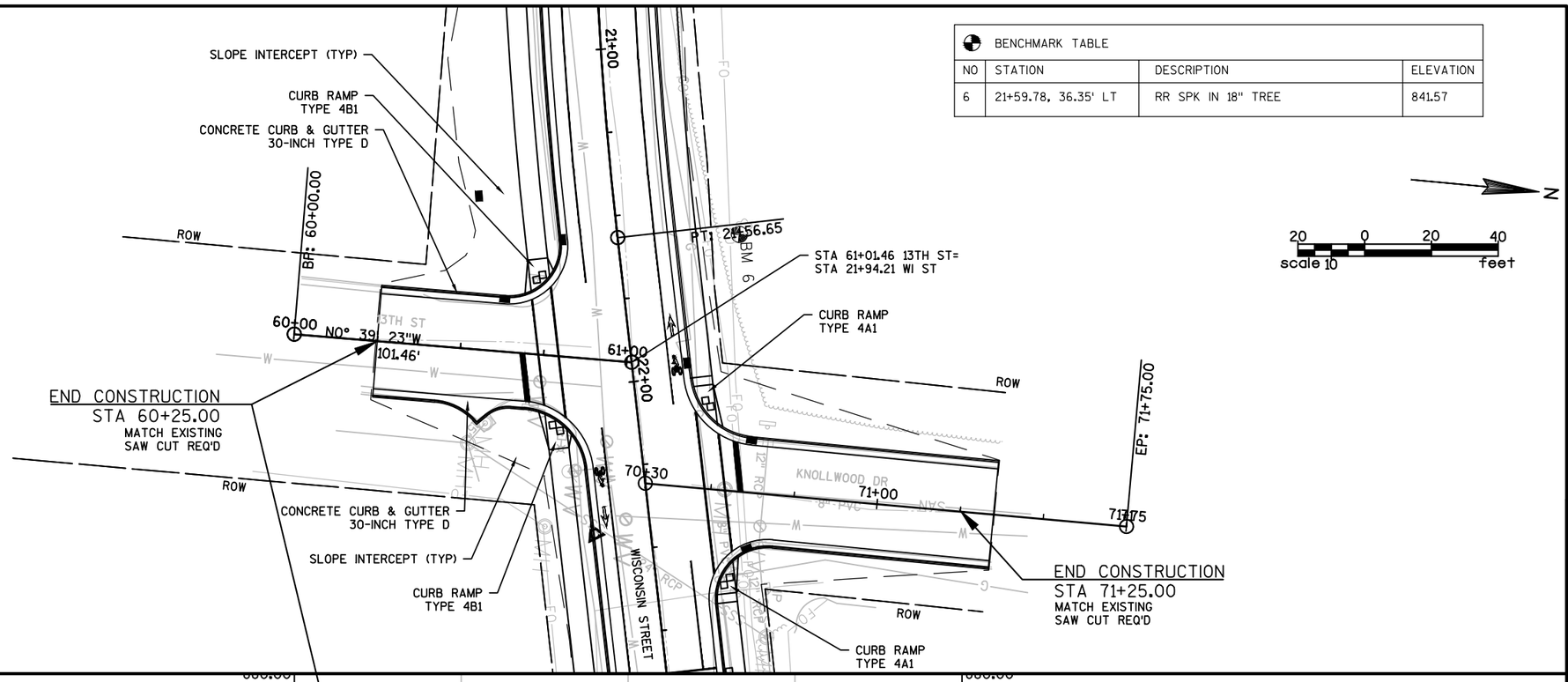
BENCHMARK TABLE

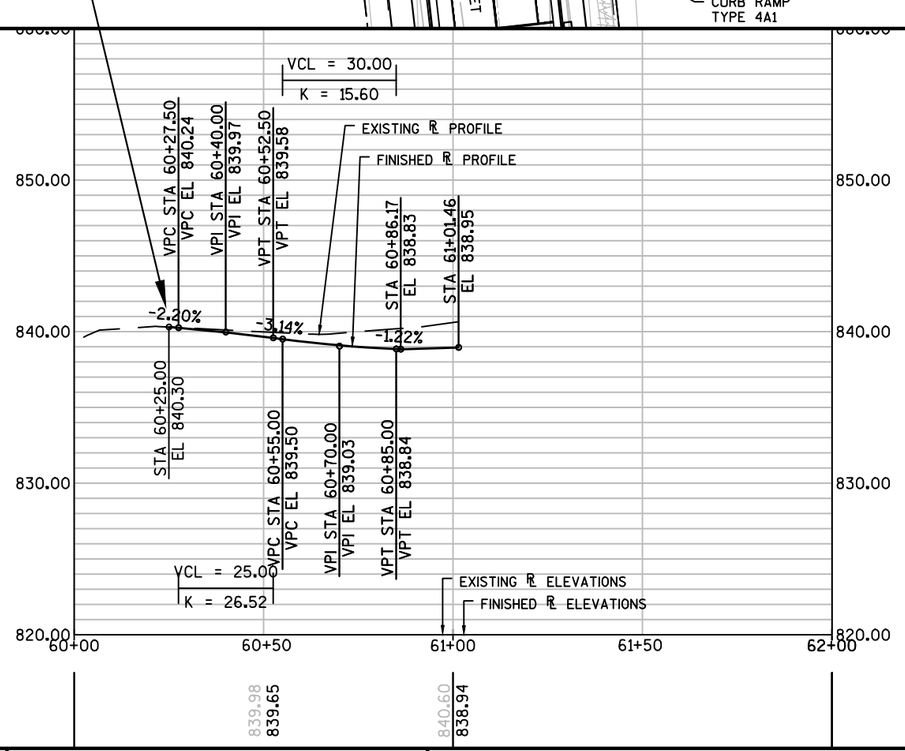
NO	STATION	DESCRIPTION	ELEVATION
7	50+69.31, 62.20' LT	TOP NE COR BOTTOM STEP HERITAGE APARTMENT	884.11



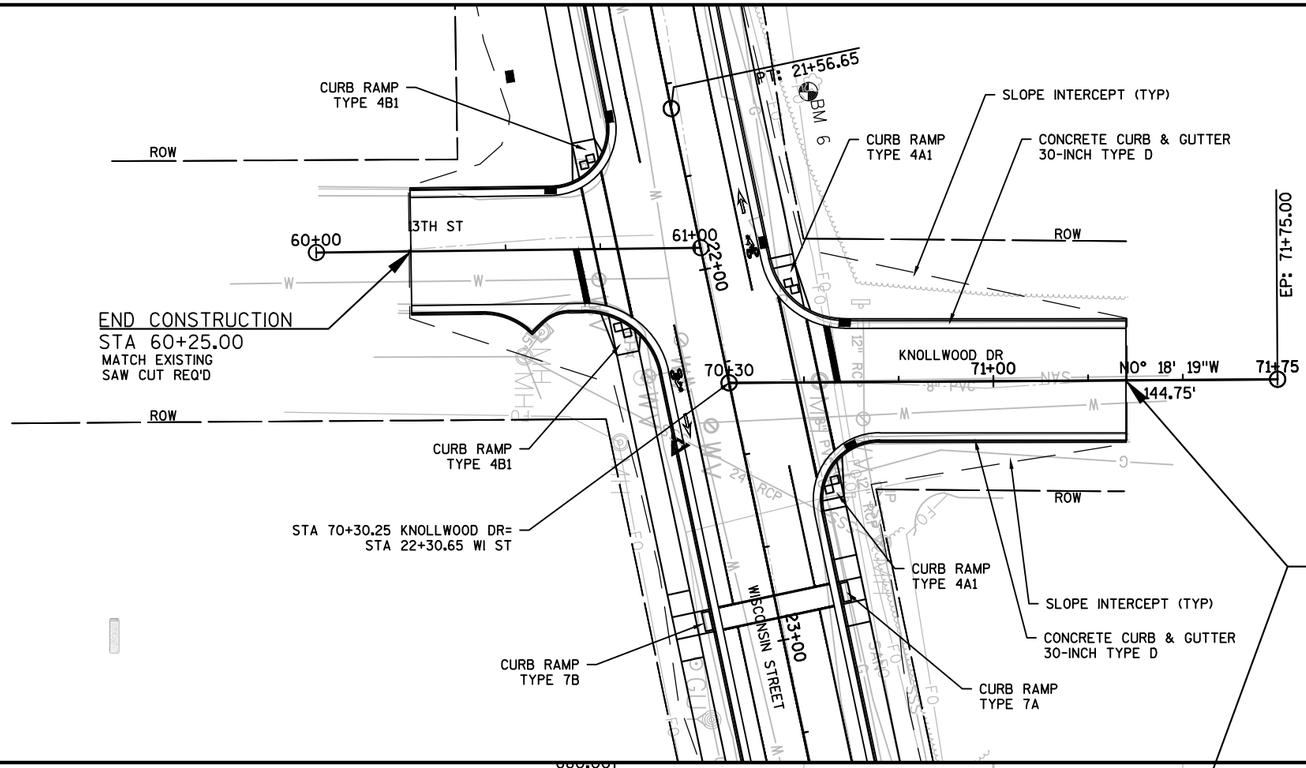
PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: 11TH STREET	SHEET	E

BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
6	21+59.78, 36.35' LT	RR SPK IN 18" TREE	841.57





PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: 13TH STREET	SHEET 57 E

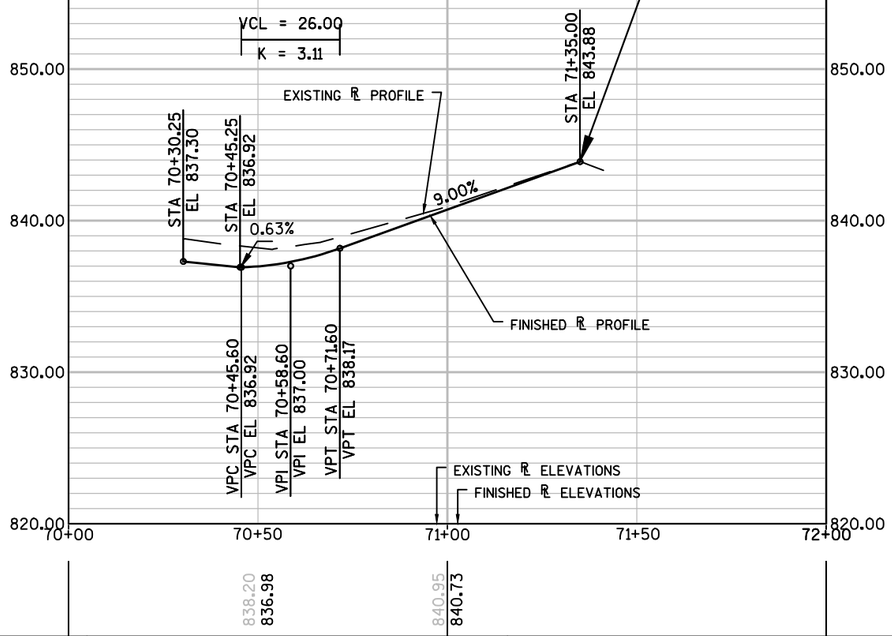


N

20 0 20 40

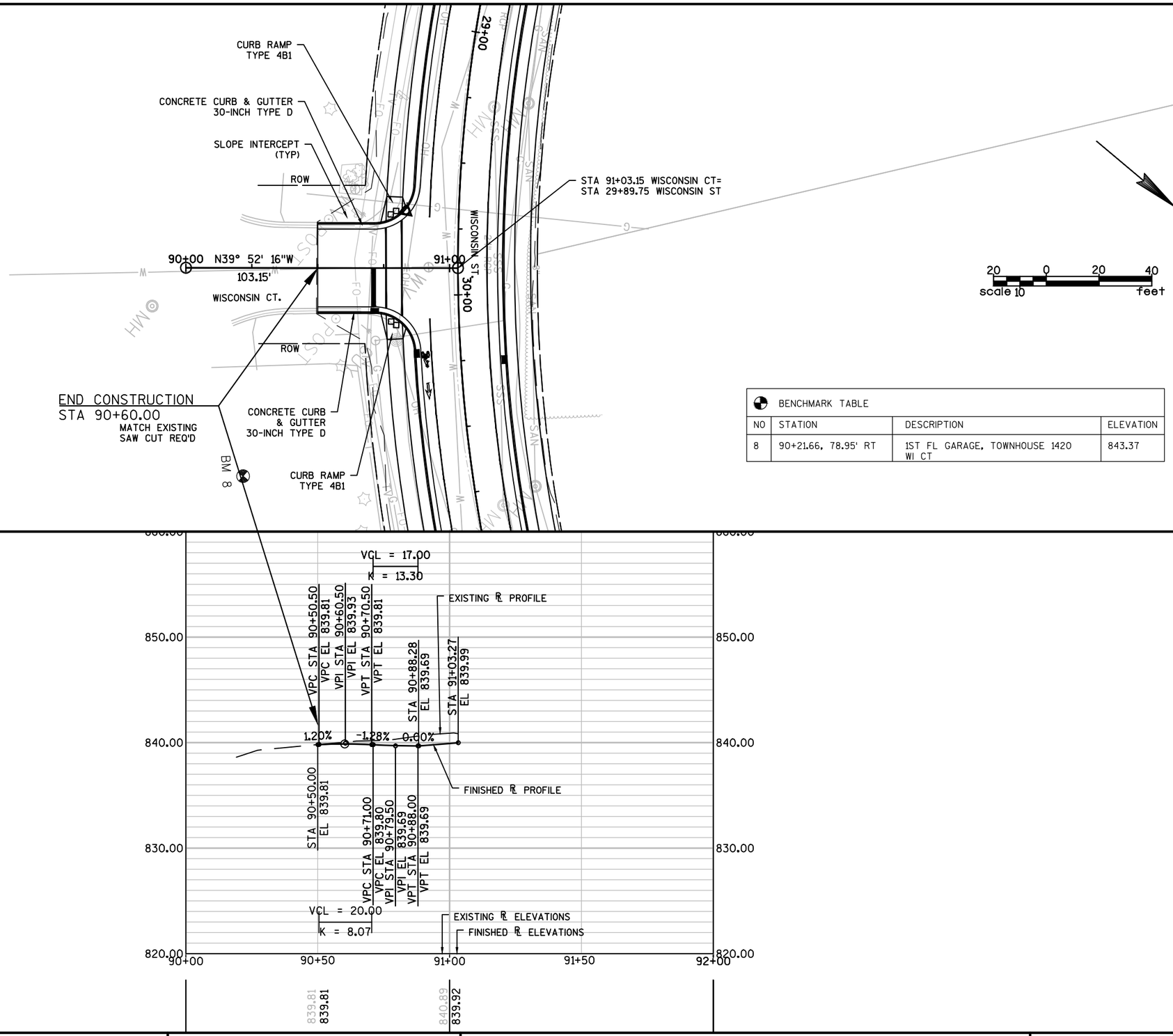
scale 10 feet

BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
6	70+51.17, 77.05' LT	RR SPK IN 18" TREE	841.57



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: KNOLLWOOD DRIVE	SHEET	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\050101 PP-KNOLLWOOD.DWG PLOT DATE : 9/30/2014 7:29 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF



BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
8	90+21.66, 78.95' RT	1ST FL GARAGE, TOWNHOUSE 1420 WI CT	843.37

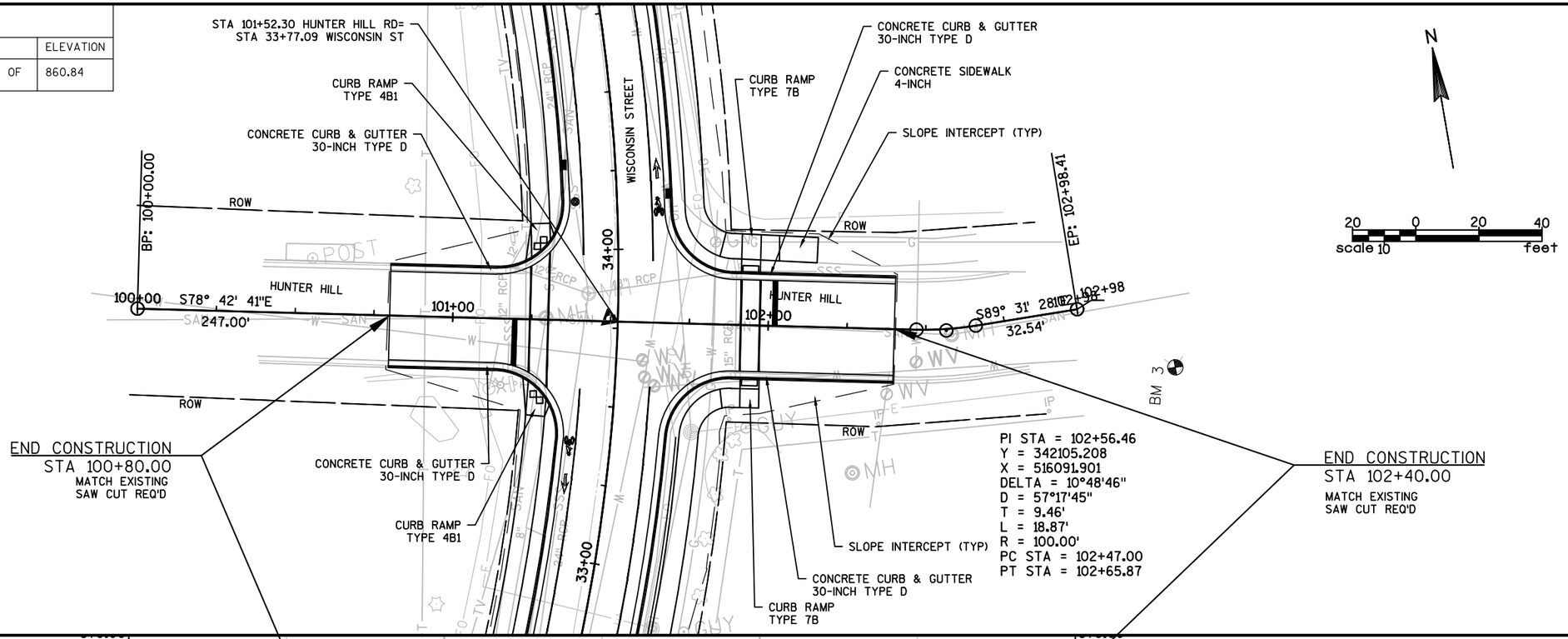
5

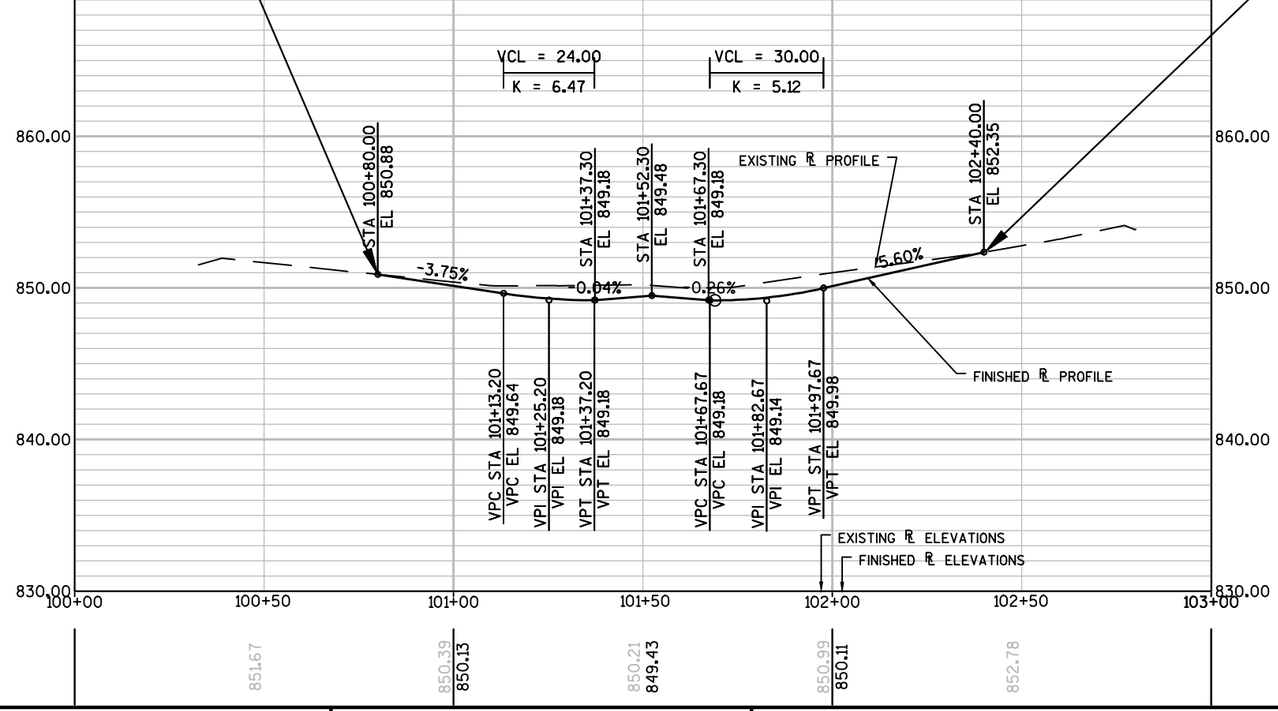
5

PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: WISCONSIN COURT	SHEET	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\050101 PP-WI CT.DWG PLOT DATE : 9/8/2014 3:54 PM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 44

BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
3	103+25.79, 23.18' RT	TOP NUT HYD 125' +/- E OF INT OF WI ST & HUNTER HILL, S SIDE	860.84

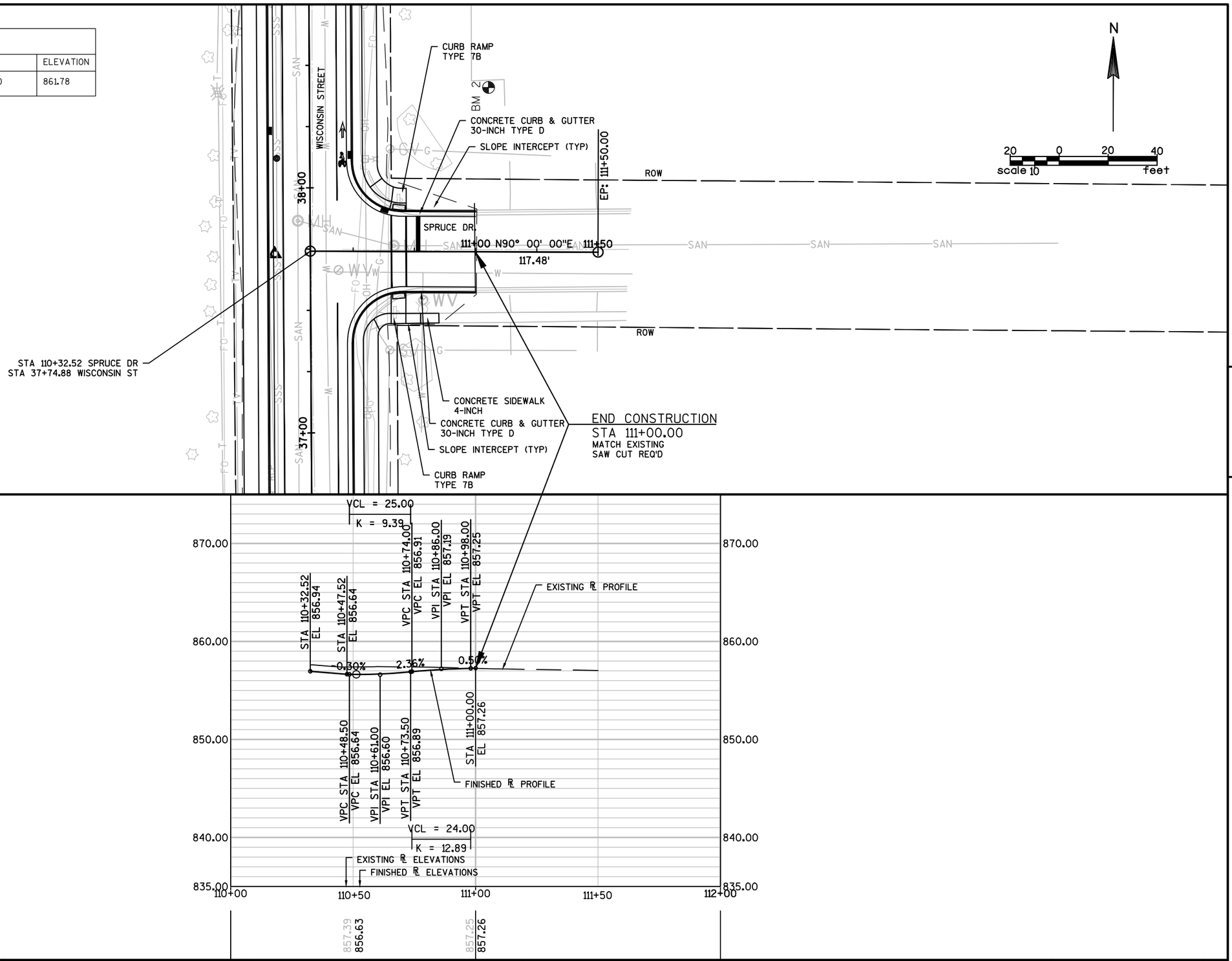




PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: HUNTER HILL	SHEET E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\050101 PP-HUNTER HILL.DWG PLOT DATE : 9/30/2014 7:36 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 44

BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
2	111+05.26, 66.06' LT	TOP SW CORNER CONC STEP TO TOWNHOUSE 50	861.78

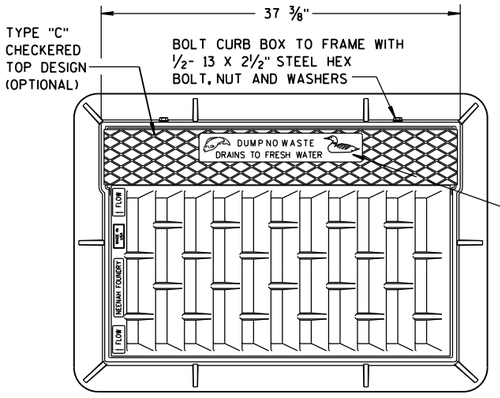


PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	PLAN AND PROFILE: SPRUCE DRIVE	SHEET E

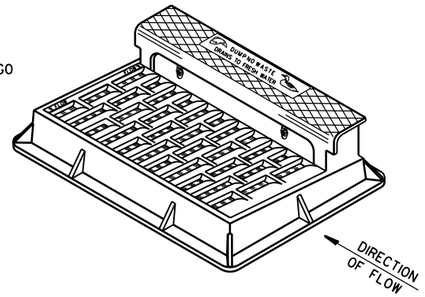
FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\050101 PP-SPRUCE.DWG PLOT DATE : 9/30/2014 7:40 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

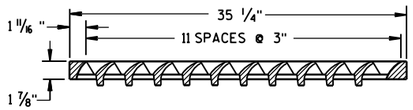
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F05-01	CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
11B02-02	CONCRETE MEDIAN NOSE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C29-03A	BICYCLE LANE MARKING
15C29-03C	URBAN BICYCLE LANE MARKING
15C29-03D	URBAN BICYCLE LANE MARKING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE

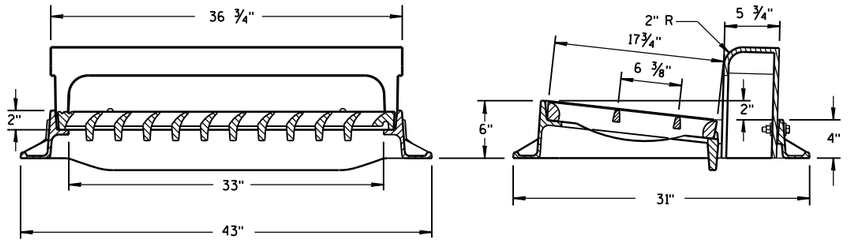


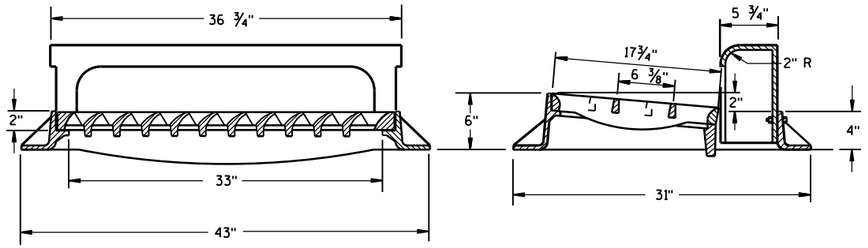
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

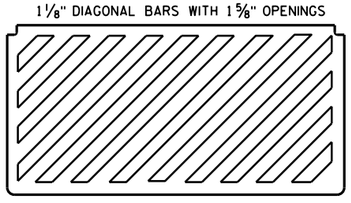






TYPE "H"

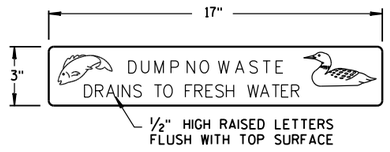
NOTE: EITHER CASTING IS ACCEPTABLE



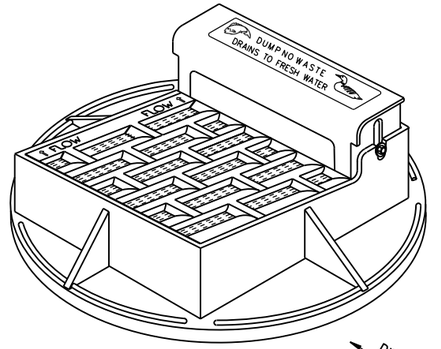
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

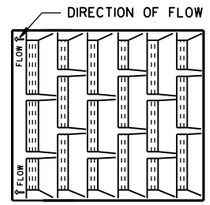
NOTE:
GRATE IS REVERSIBLE.

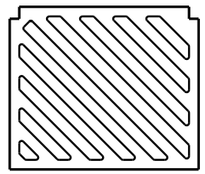
GENERAL NOTES

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.

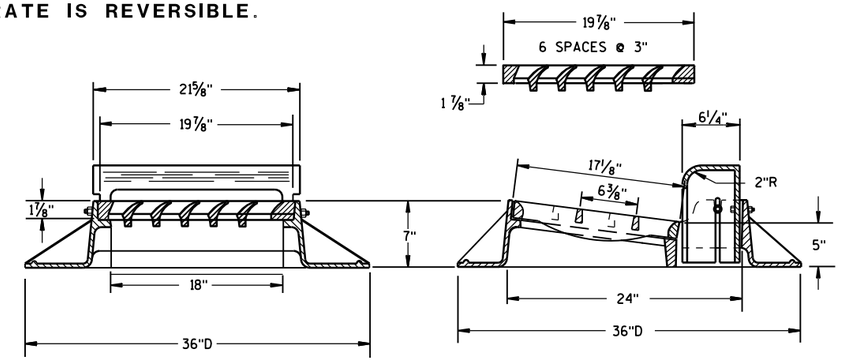




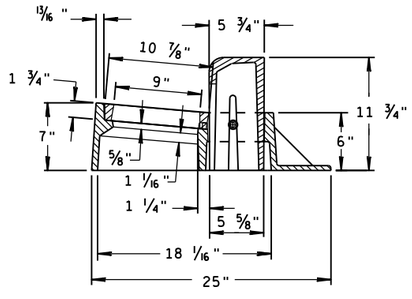
SPECIAL GRATE FOR TYPE "A" COVER

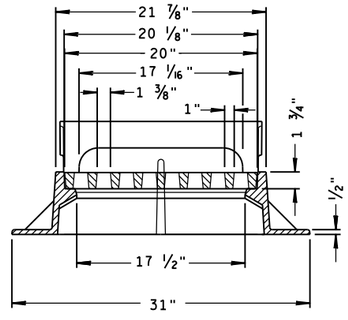
(MEASURES 19 3/4" X 17" X 1 7/8")

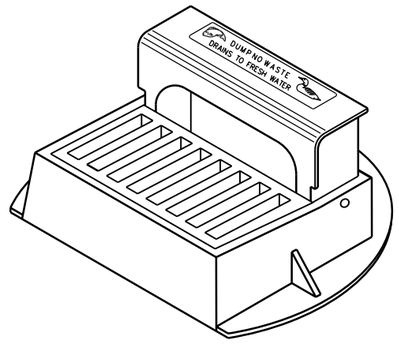
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"







TYPE "Z"

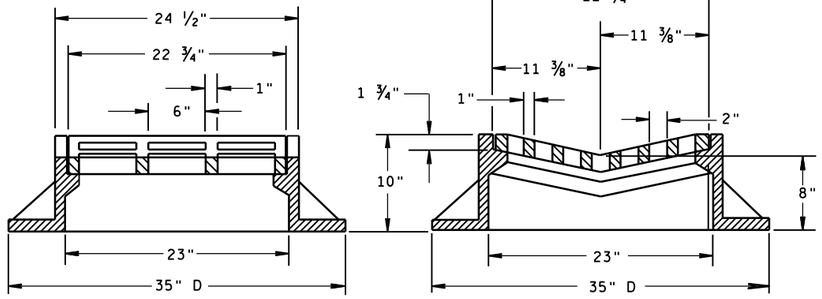
INLET COVERS
TYPE A, H, A-S, H-S & Z

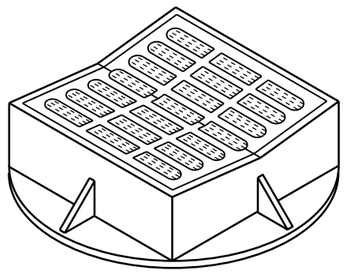
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

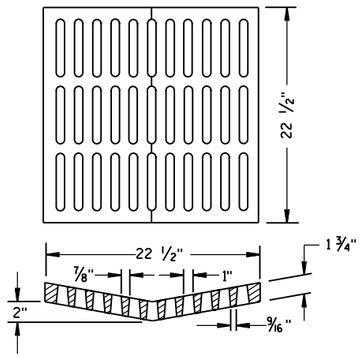
6

S.D.D. 8 A 5-19a



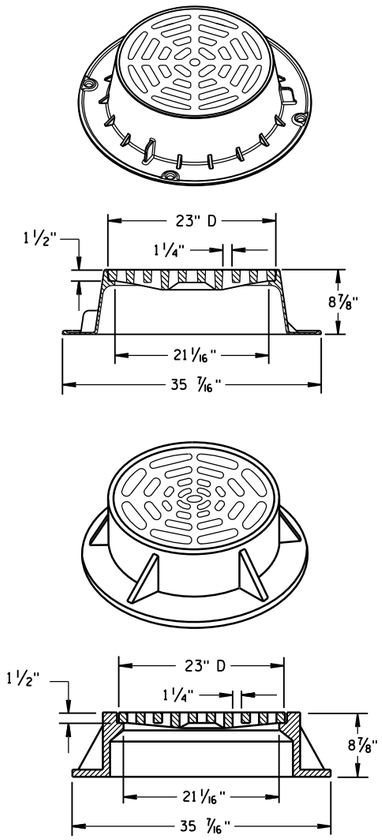


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

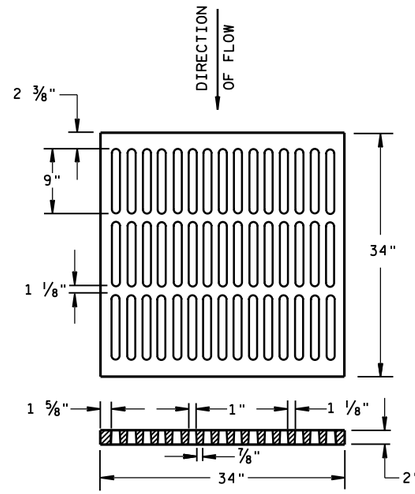
NOTE: EITHER CASTING IS ACCEPTABLE

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.

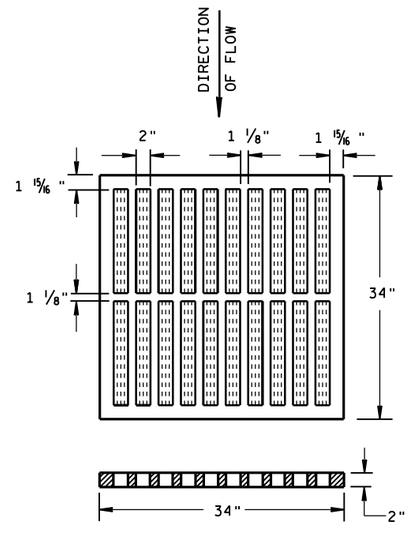
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



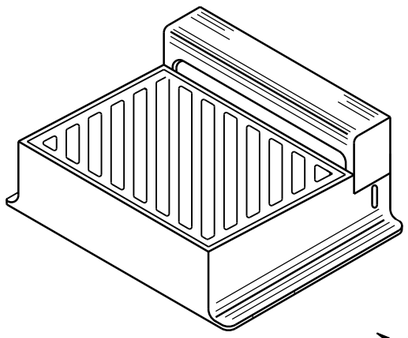
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



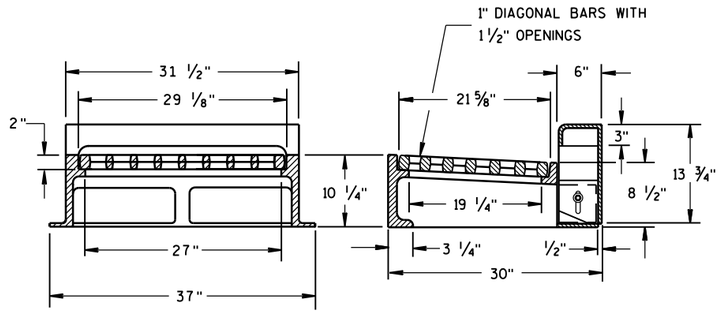
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

STATE OF WISCONSIN
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11/27/2013 — DATE
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FHWA

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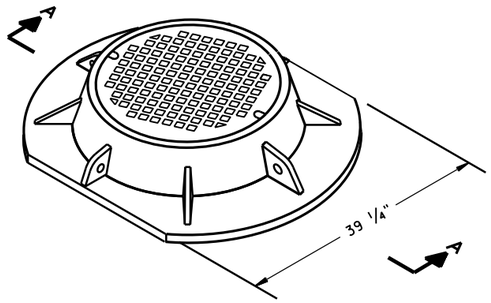
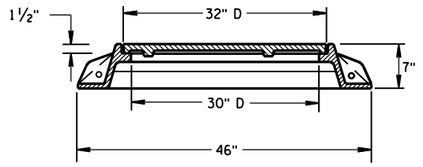
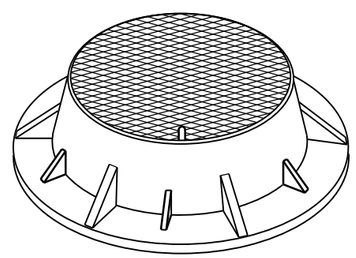
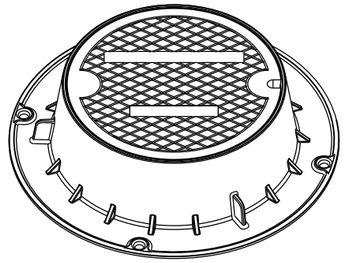
S.D.D. 8 A 5-19b

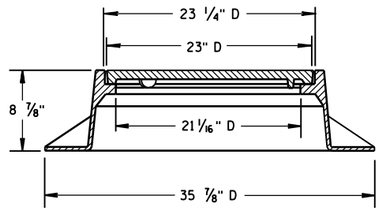


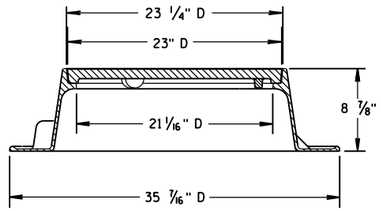


SECTION A-A
TYPE "K"









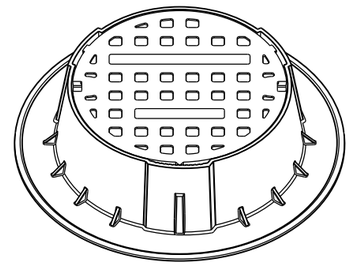
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

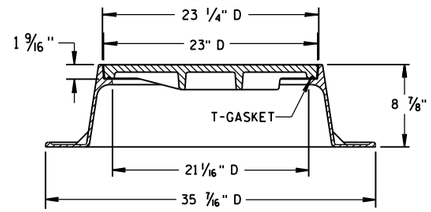
GENERAL NOTES

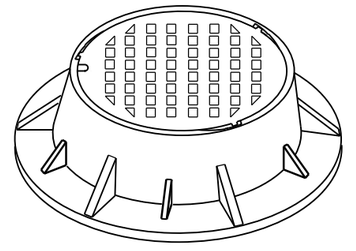
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

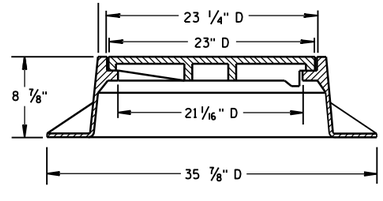
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

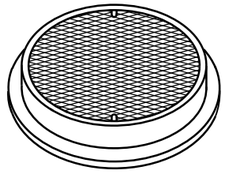


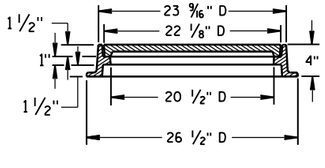




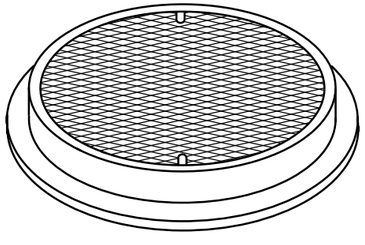


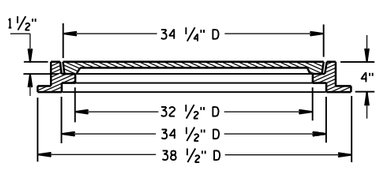
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



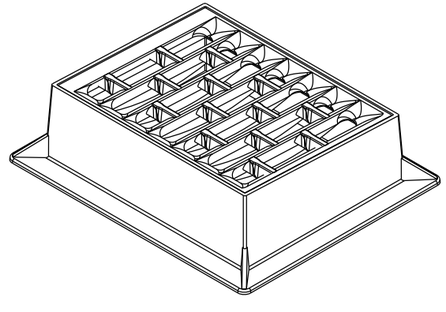


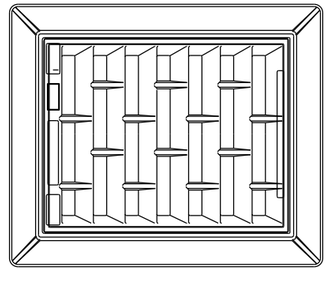
TYPE "L"

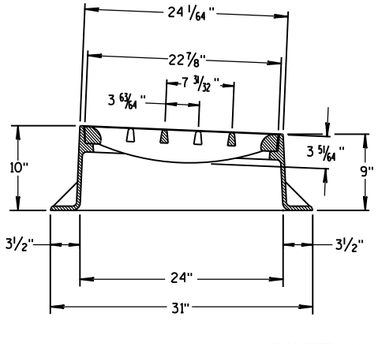


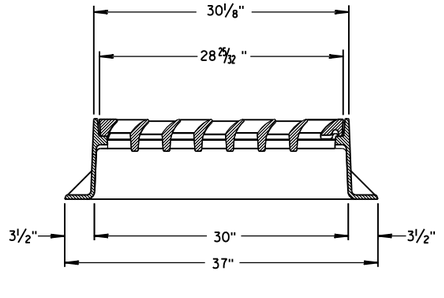


TYPE "M"









INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
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APPROVED
11/27/2013
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FHWA

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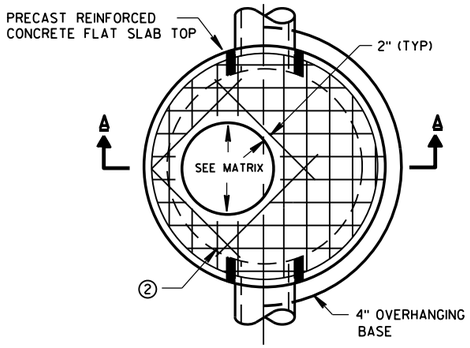
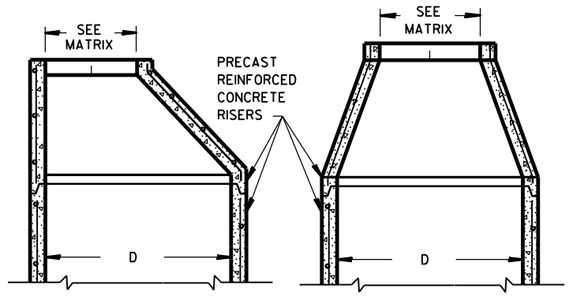
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

S.D.D. 8 A 5-19d

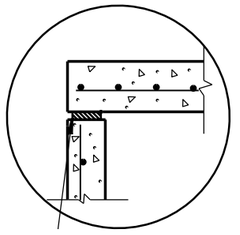


PLAN VIEW CIRCULAR OPENING

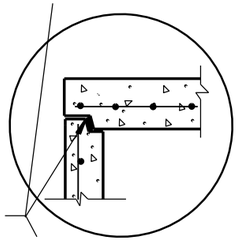


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

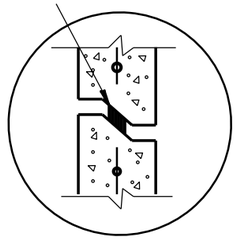


TOP WITH PLAIN END JOINT



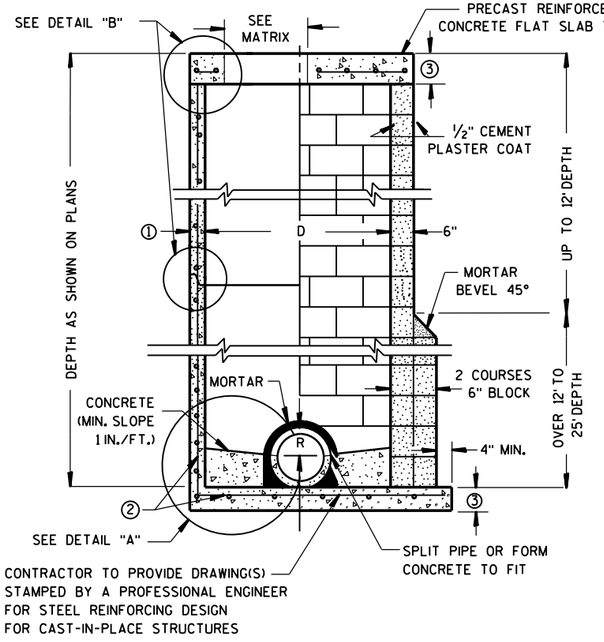
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



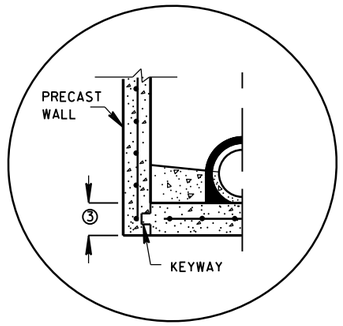
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

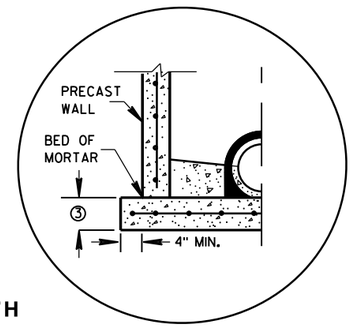


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

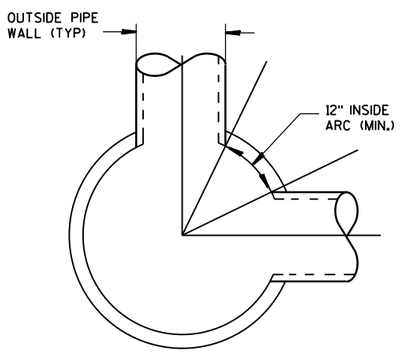


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE 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 SEPARATE 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

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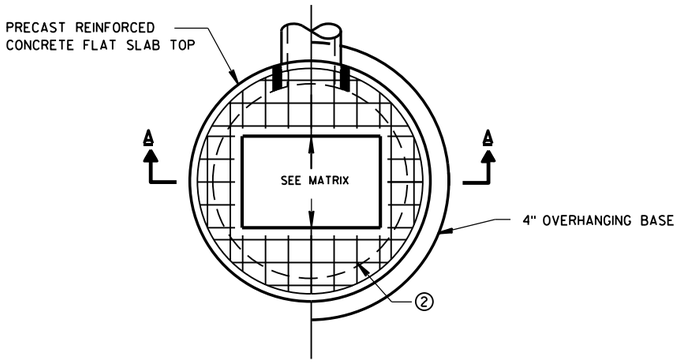
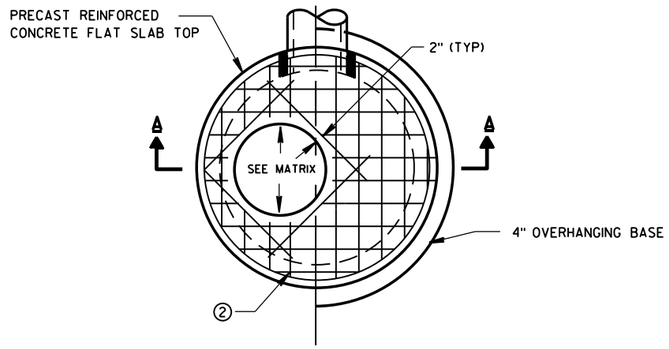
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

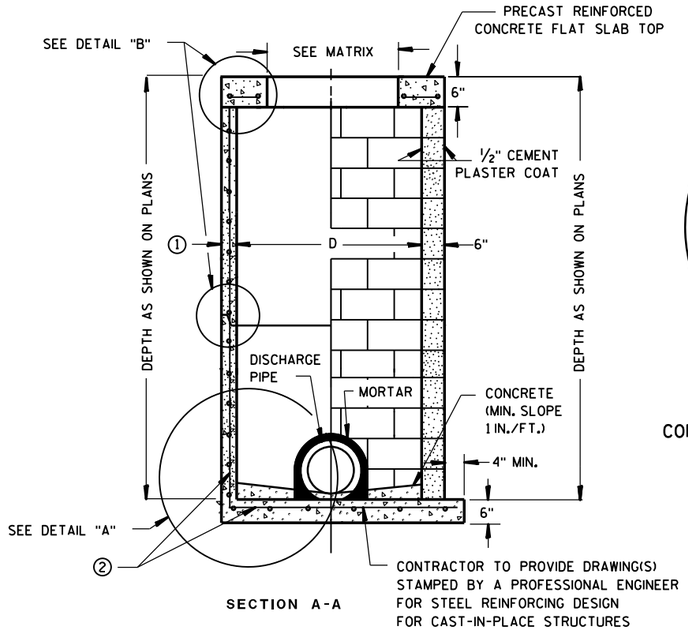
S.D.D. 8 B 9-1



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

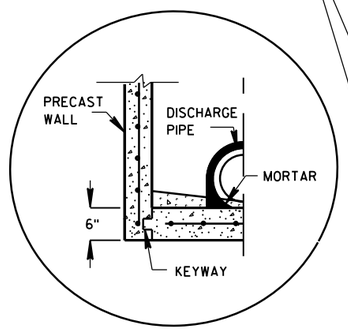


SECTION A-A

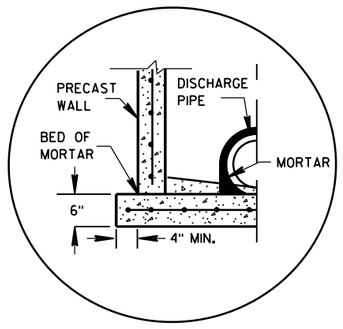
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

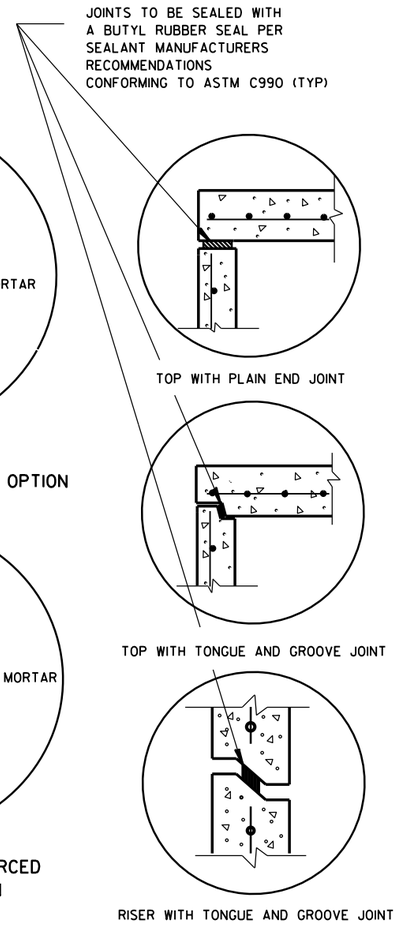


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

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

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 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.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

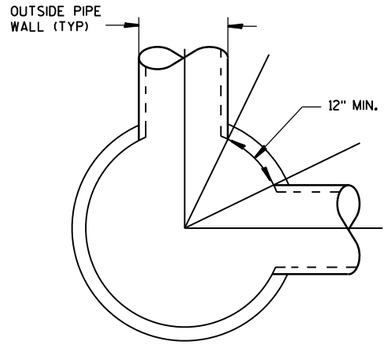
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

INLET SIZE	INLET COVER TYPE / OPENING SIZE (FT)	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
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ROADWAY STANDARDS DEVELOPMENT ENGINEER

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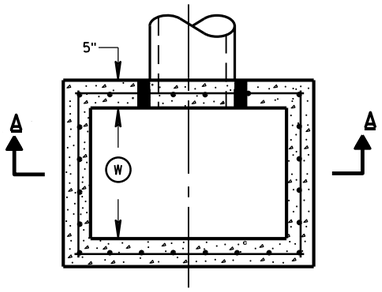
S.D.D. 8 C 6-1

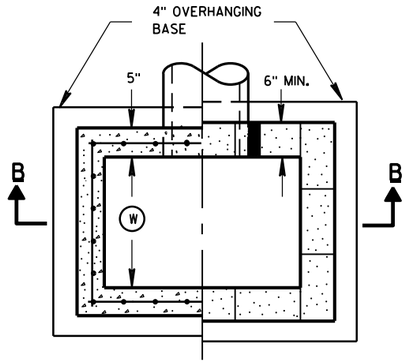
6

S.D.D. 8 C 6-1

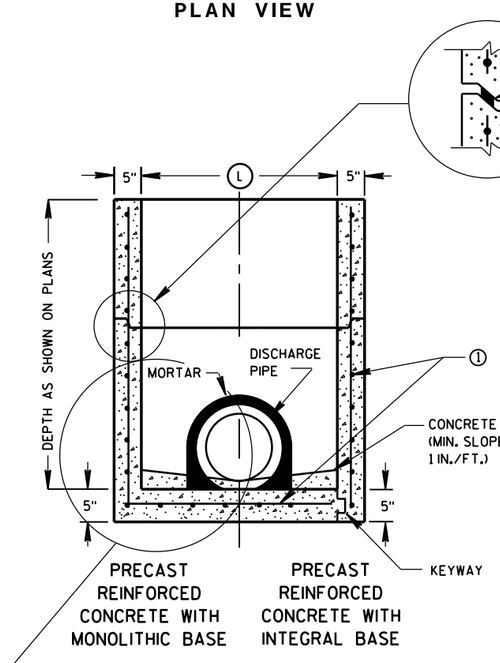
INLETS 3-FT AND 4-FT DIAMETER



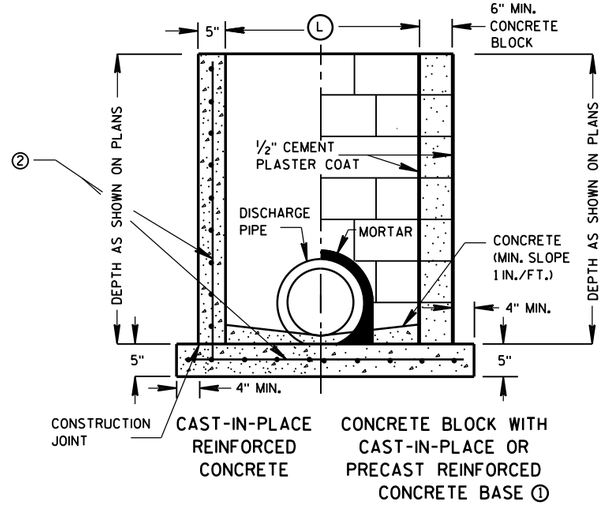
PLAN VIEW



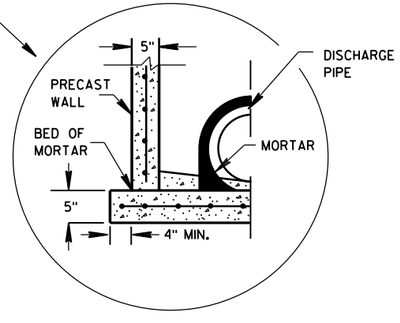
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE 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 SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

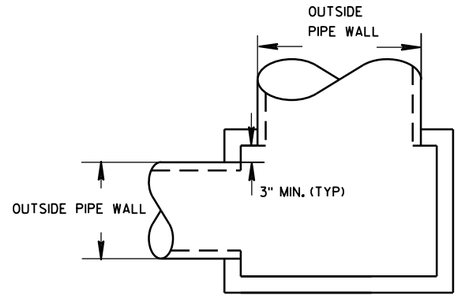
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

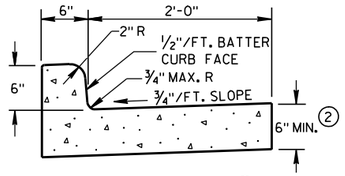
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

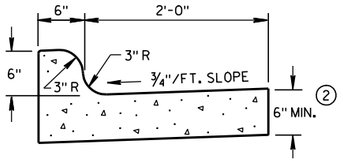
APPROVED
6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER

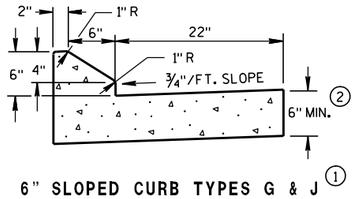
6
S.D.D. 8 C 7-1



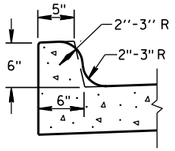
TYPES A & D (1)



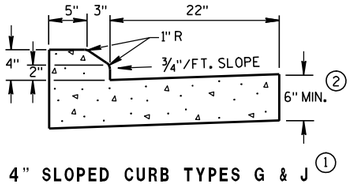
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

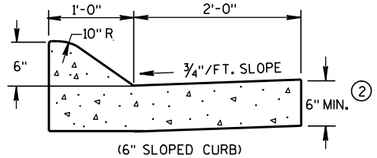


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

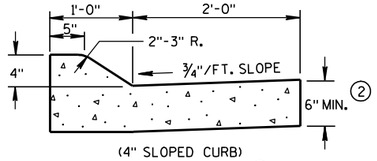


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

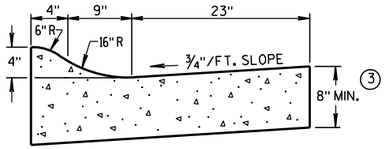


(6" SLOPED CURB)



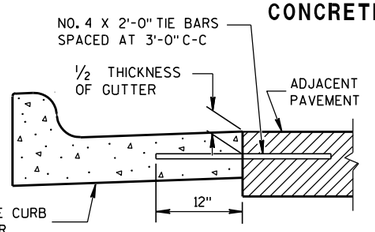
(4" SLOPED CURB)

TYPES A & D (1)

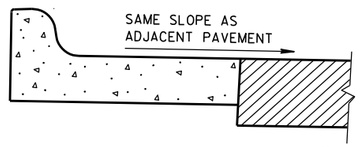


4" SLOPED CURB TYPES R & T (1) (4)

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.

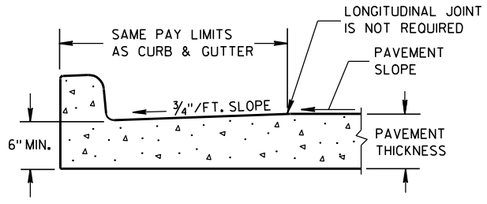
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

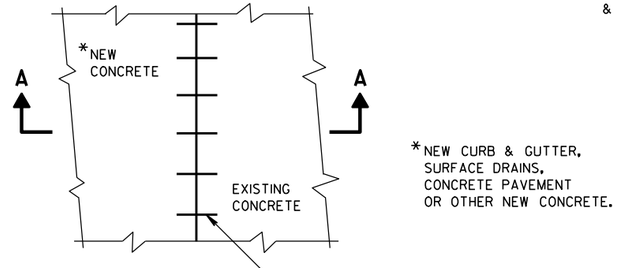
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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.



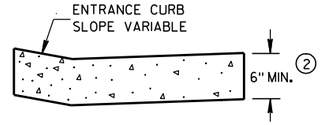
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



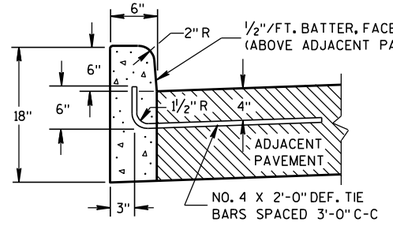
PLAN VIEW

SECTION A-A

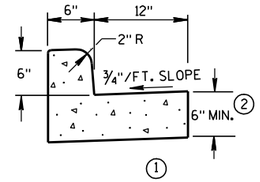
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

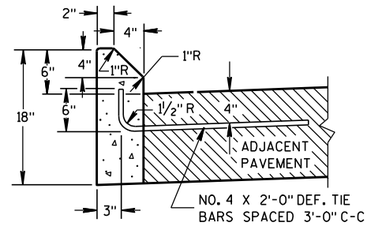


(1) TYPES A & D

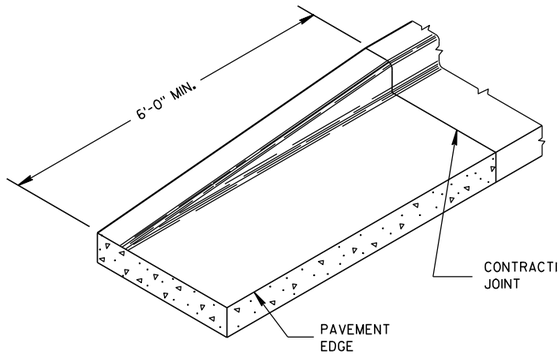


(1) TYPES A & D

CONCRETE CURB & GUTTER 18"



(1) TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

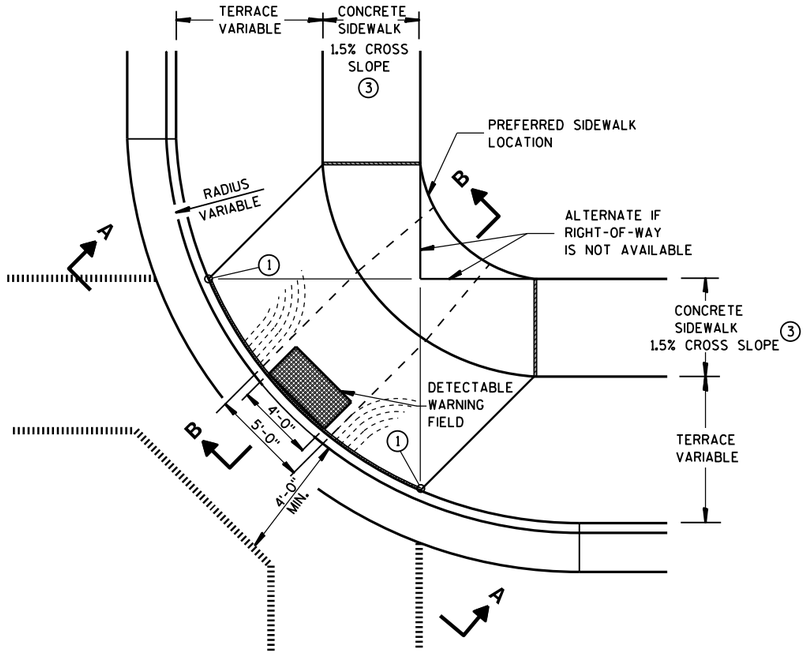
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA

6

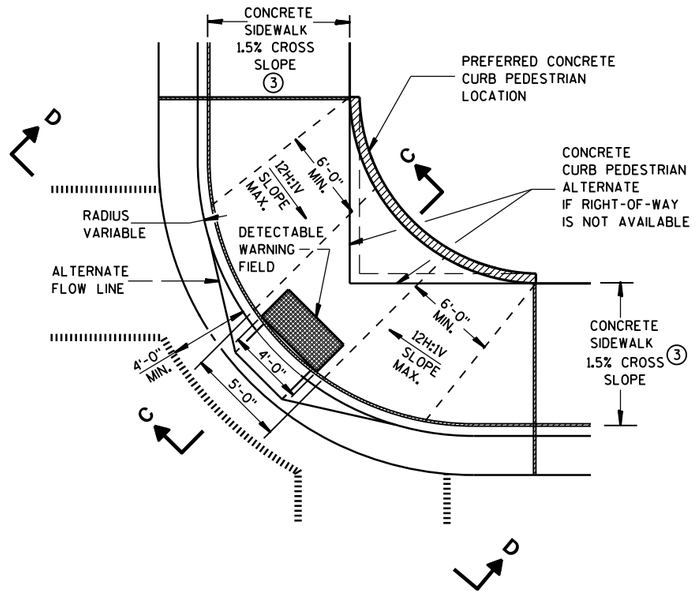
S.D.D. 8 D 1-17



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

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

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

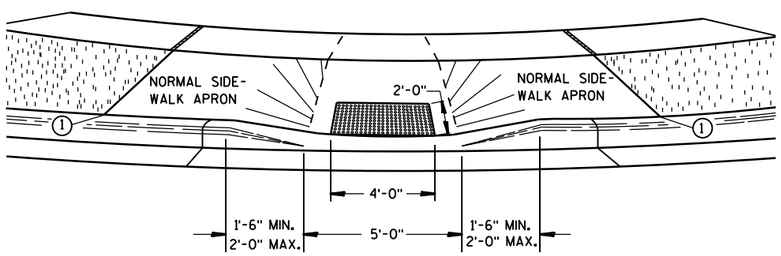
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

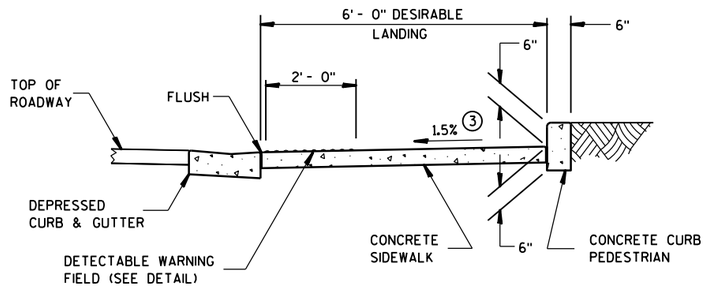
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

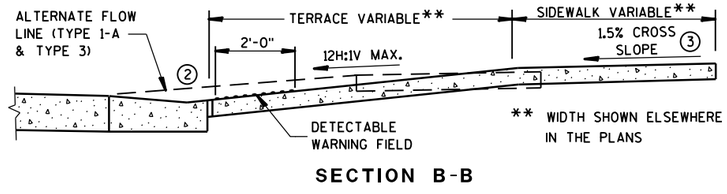
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



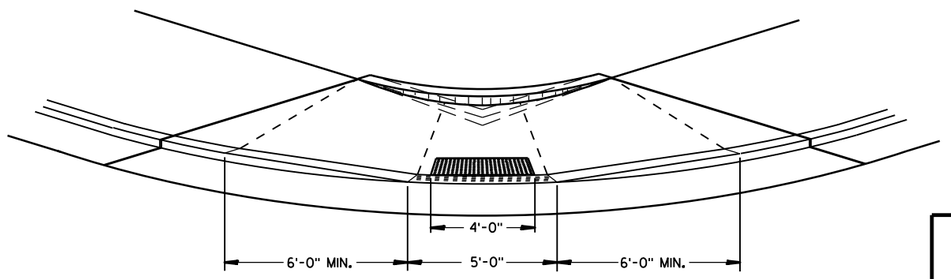
VIEW A-A



SECTION C-C



SECTION B-B



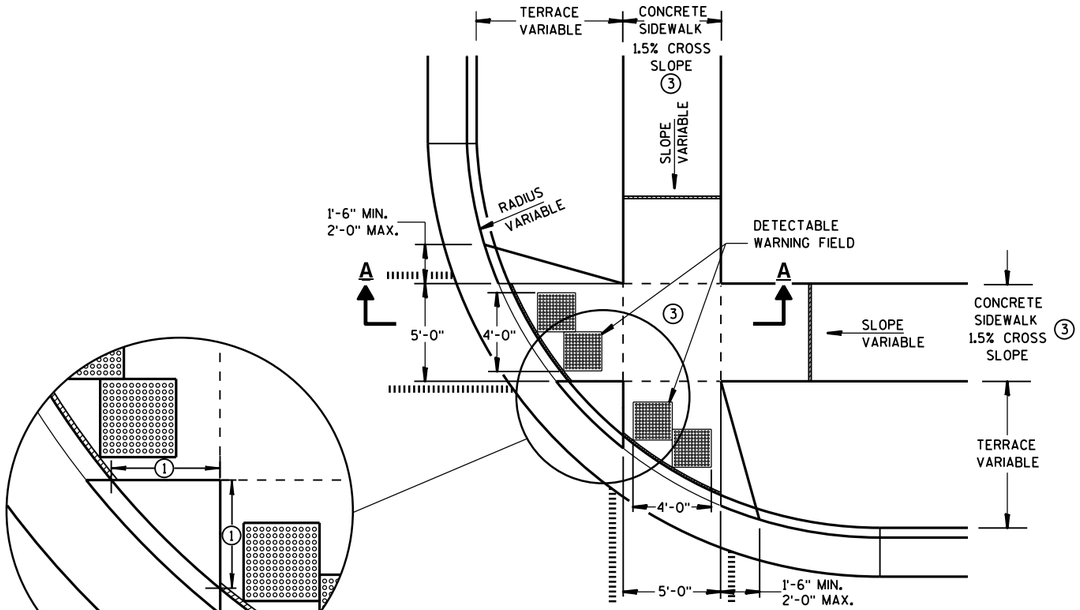
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

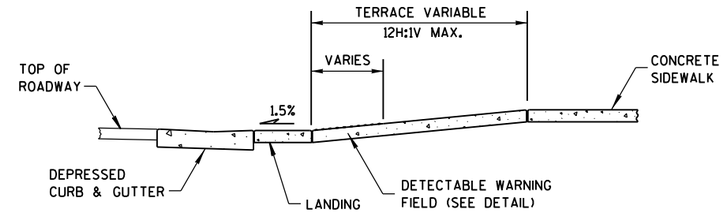
S.D.D. 8 D 5-15a



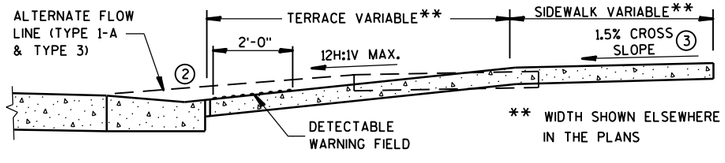
PLAN VIEW

TYPE 2 RAMP

(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

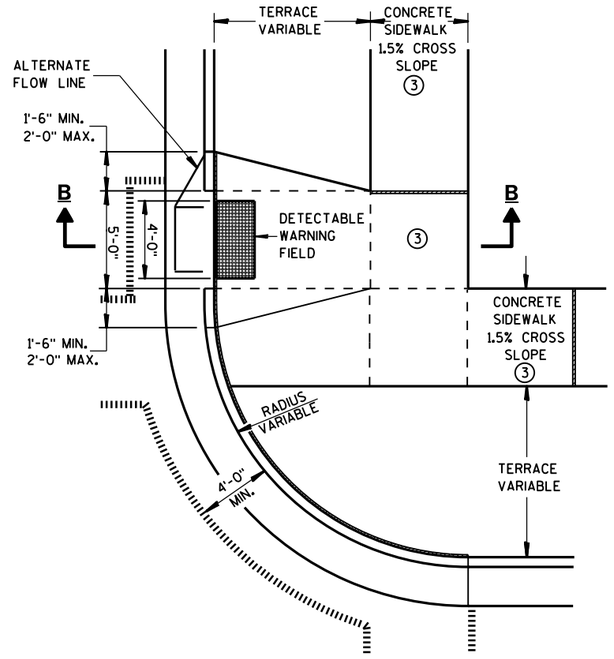
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

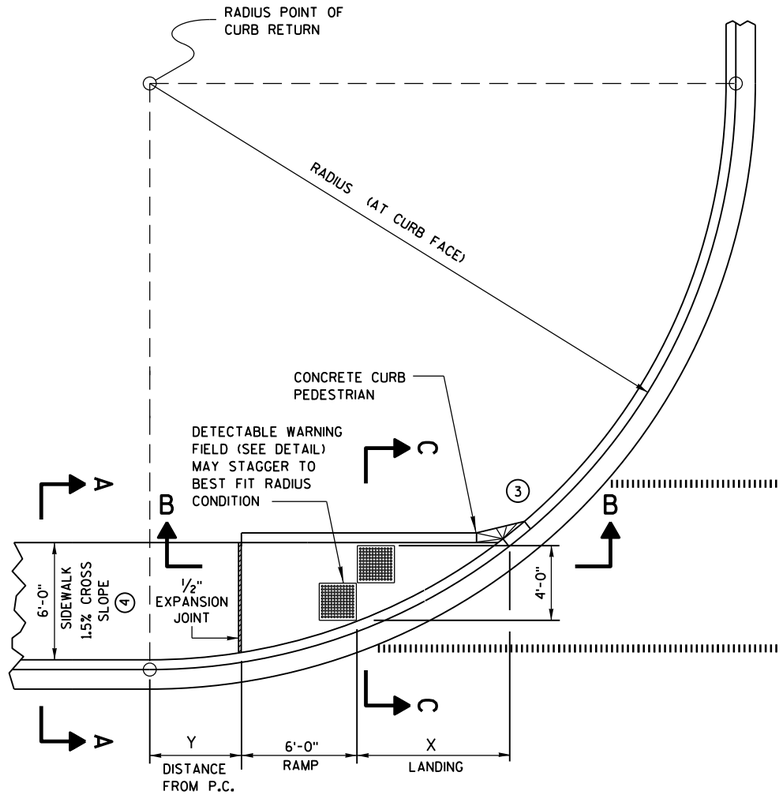
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

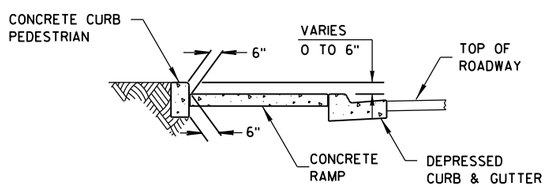
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

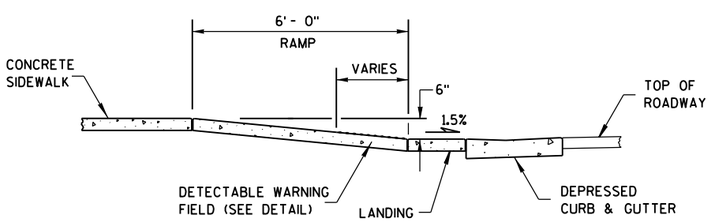
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



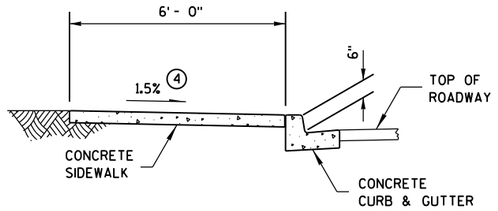
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

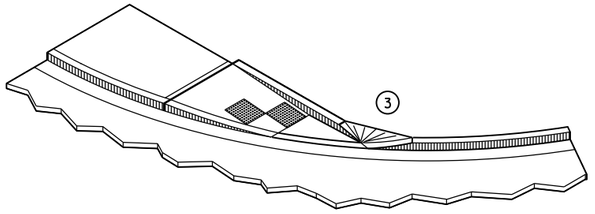
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

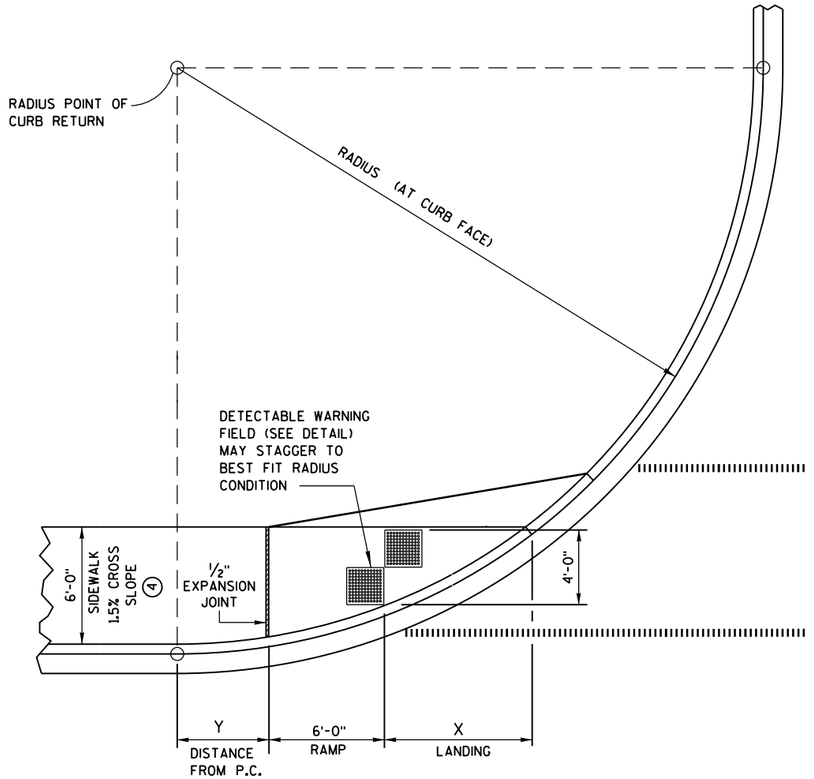
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

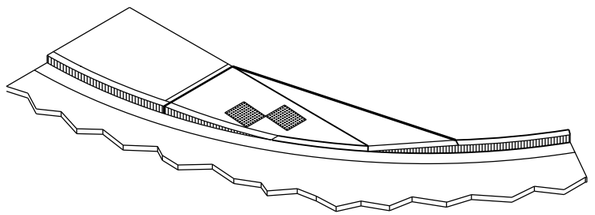
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

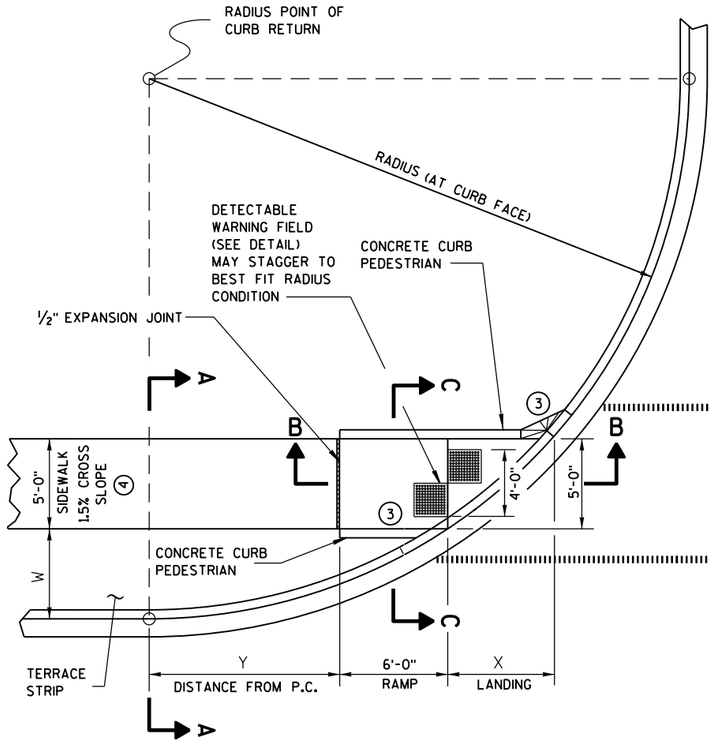
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

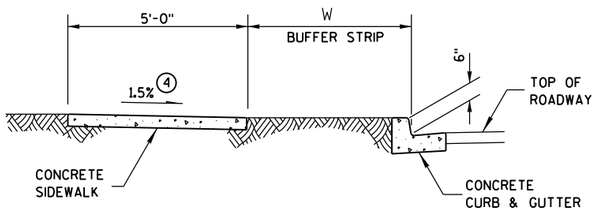
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

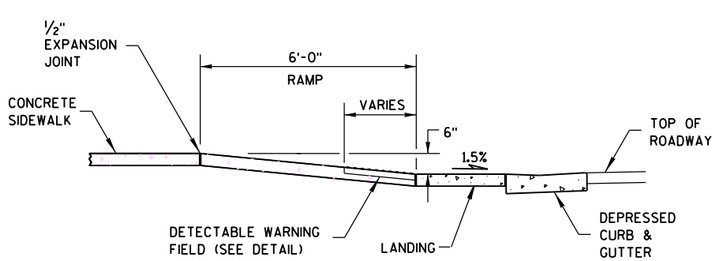
S.D.D. 8 D 5-15c



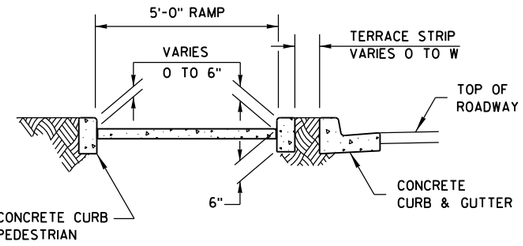
CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



SECTION B-B FOR TYPE 4B



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

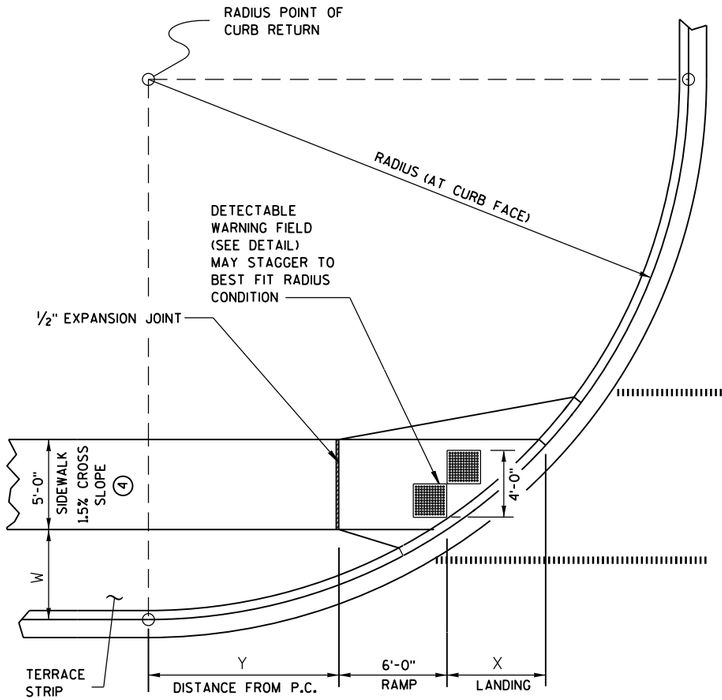
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

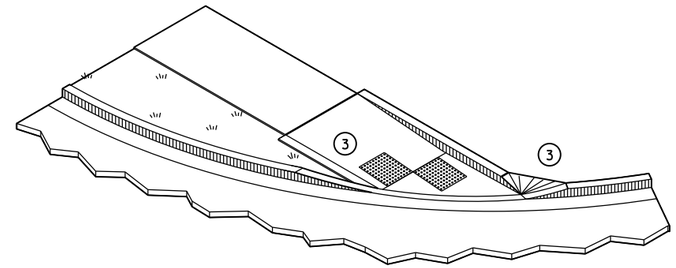
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

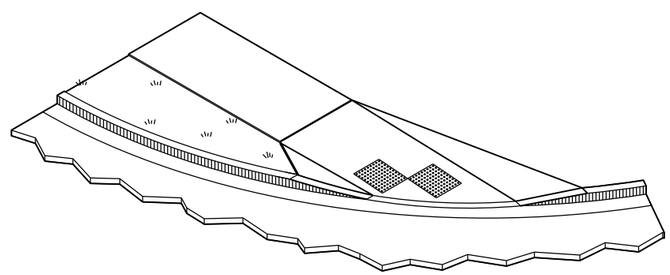
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



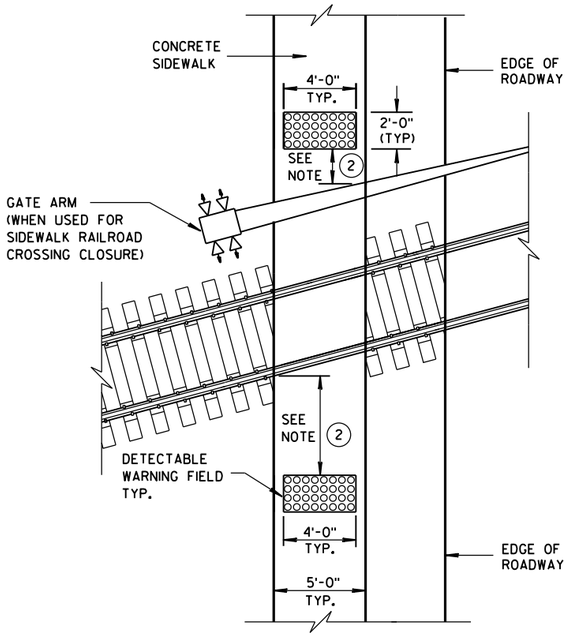
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

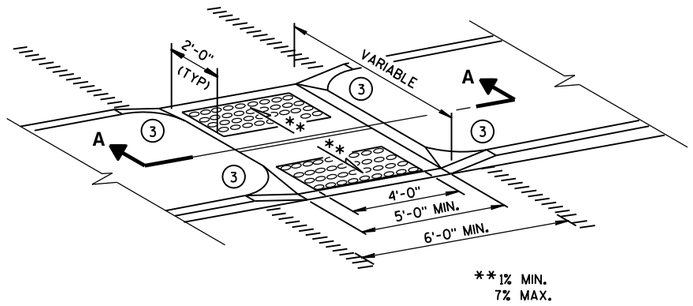
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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%.

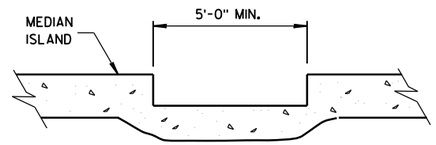
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

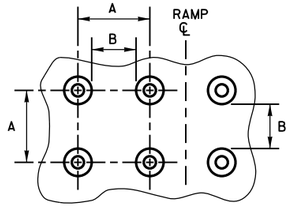
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET 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.



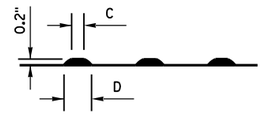
SECTION A-A



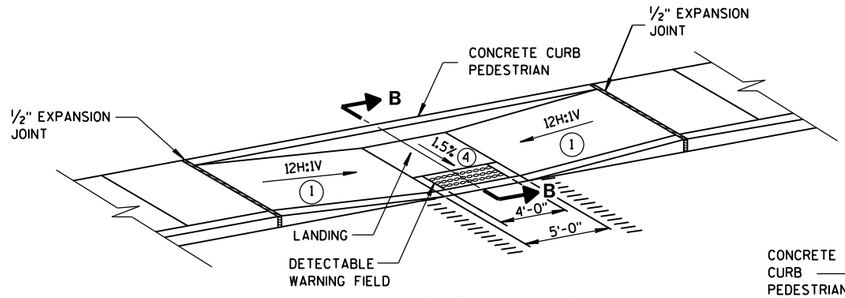
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

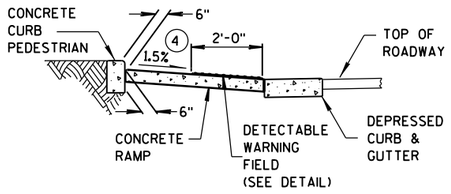
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

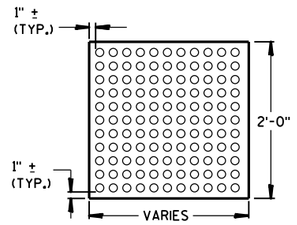


MID-BLOCK CROSSING
TYPE 7A



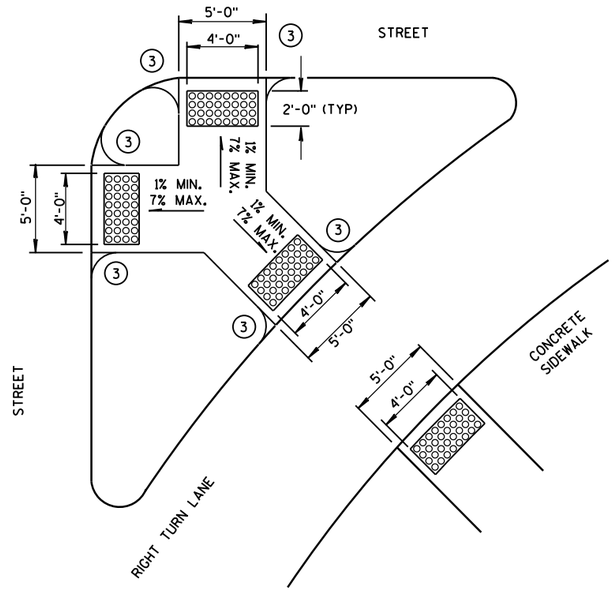
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

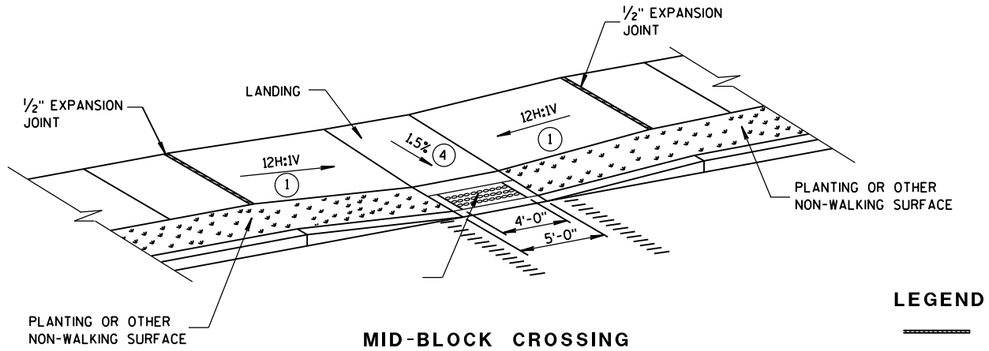


PLAN VIEW

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)

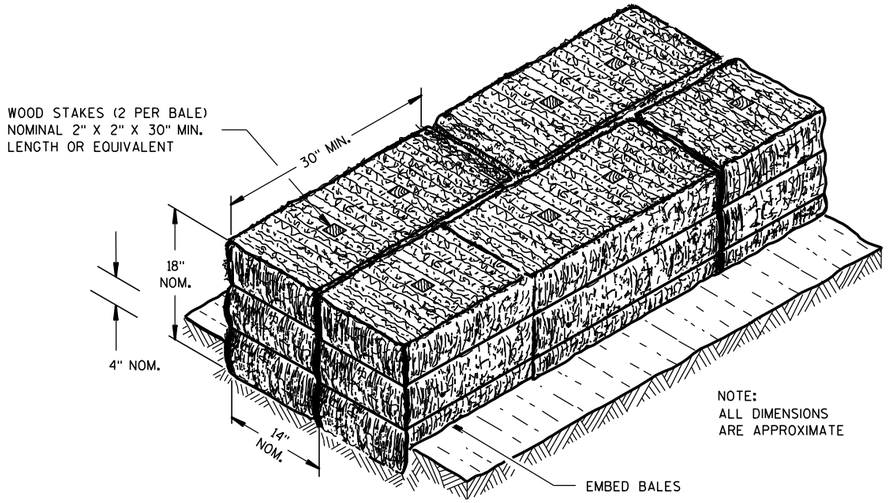
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

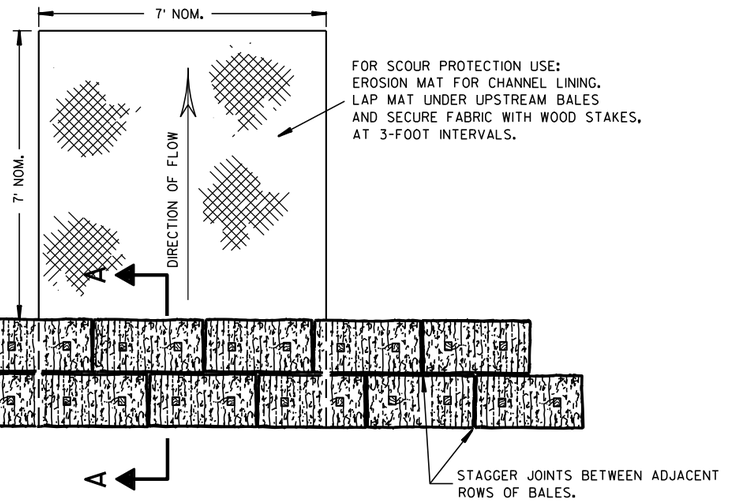
APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS [illegible]ENT ENGINEER
FHWA

6

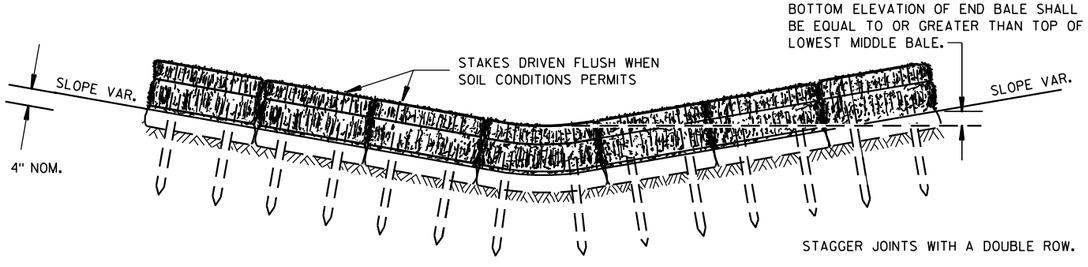
S.D.D. 8 D 5-15e



SECTION A-A



PLAN VIEW



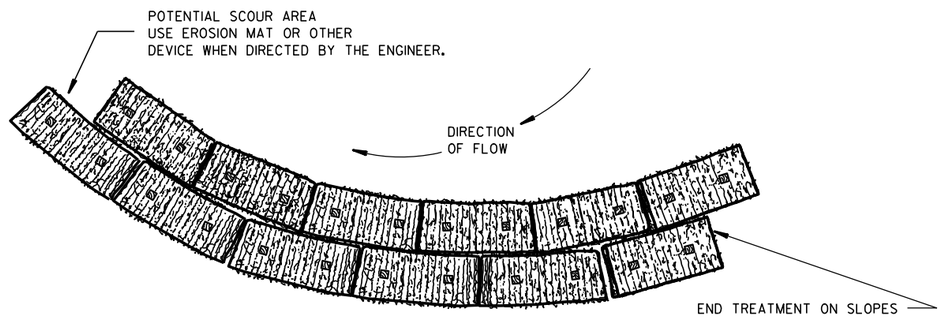
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

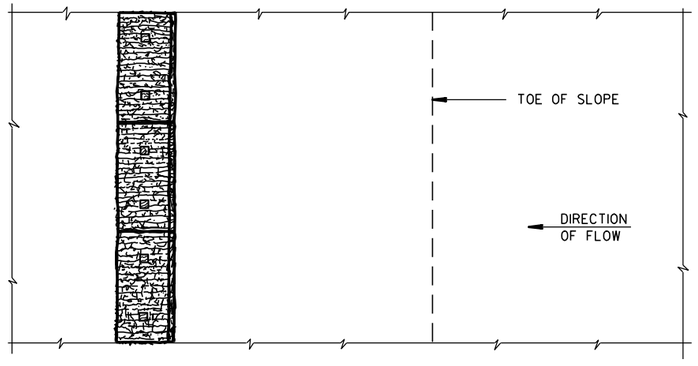
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

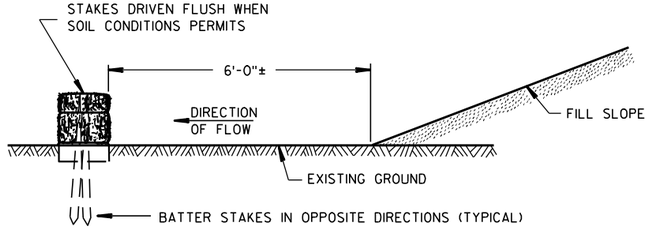


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

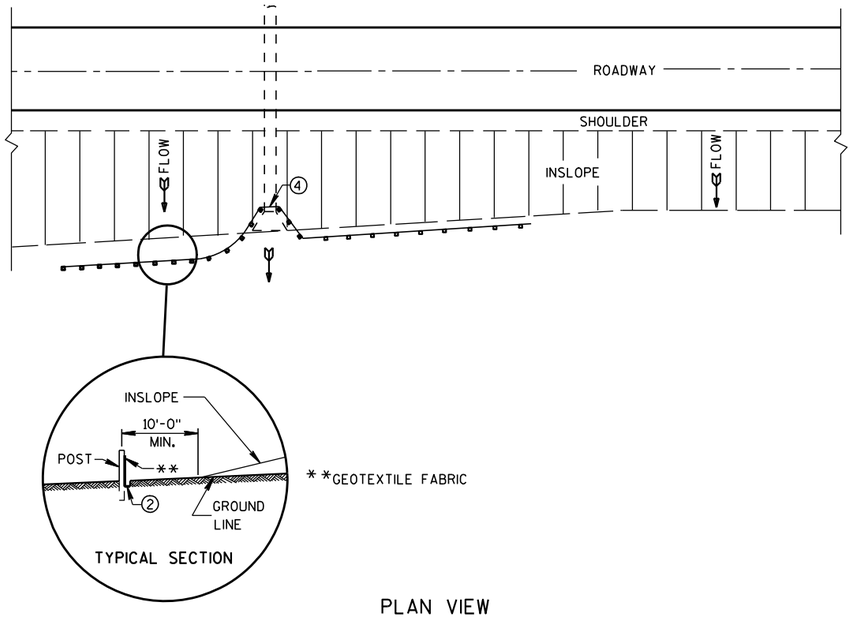
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

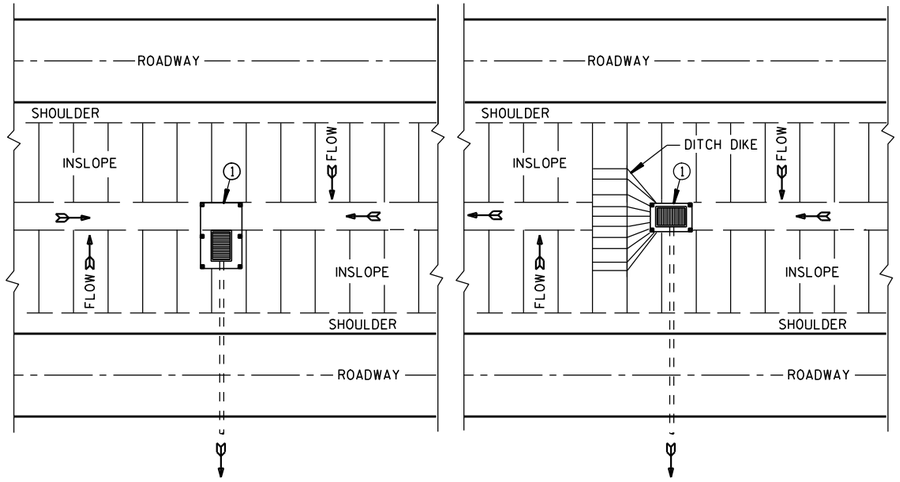
6

S.D.D. 8 E 8-3



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.

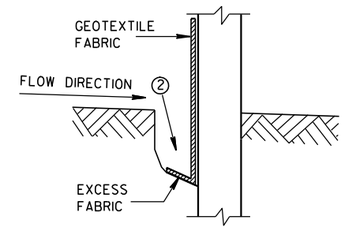
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

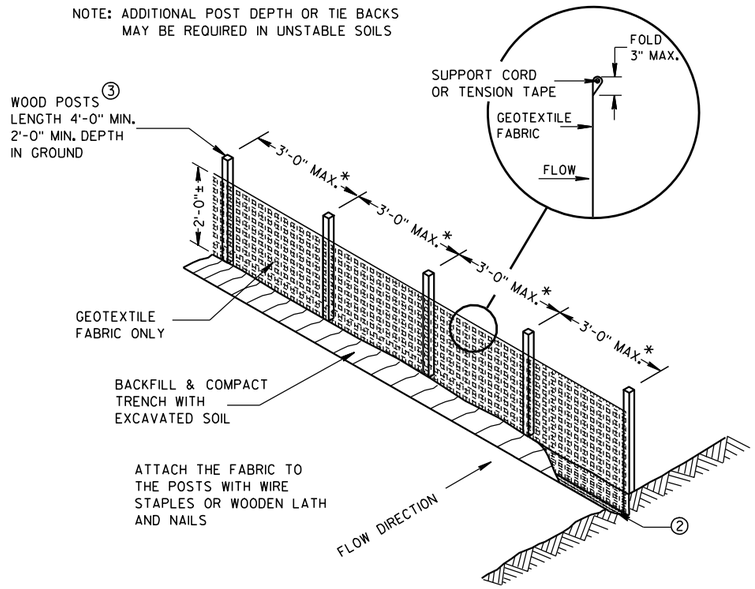
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

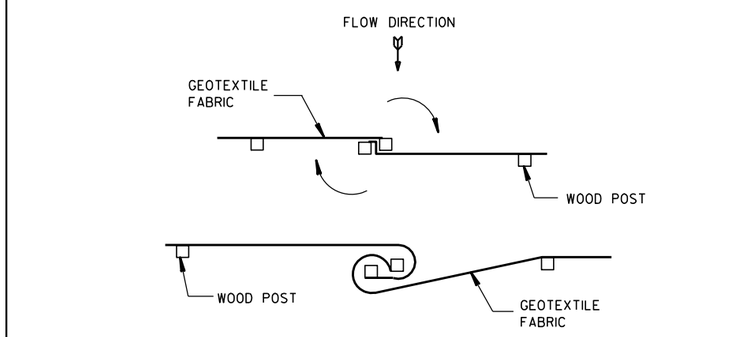
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



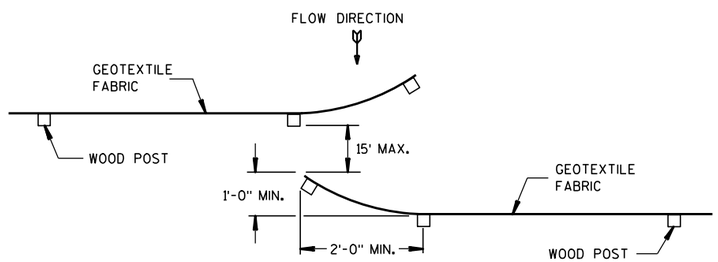
TRENCH DETAIL



SILT FENCE

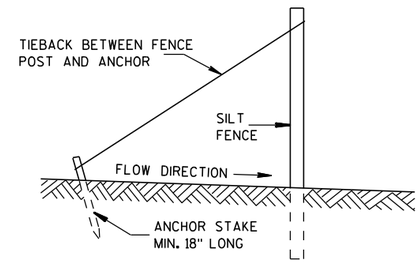


TWIST METHOD



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

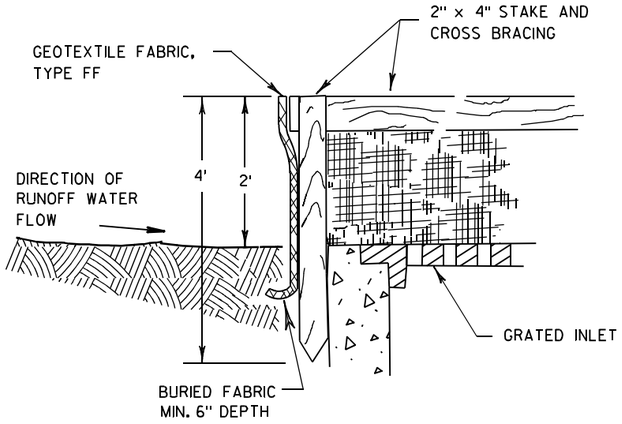
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

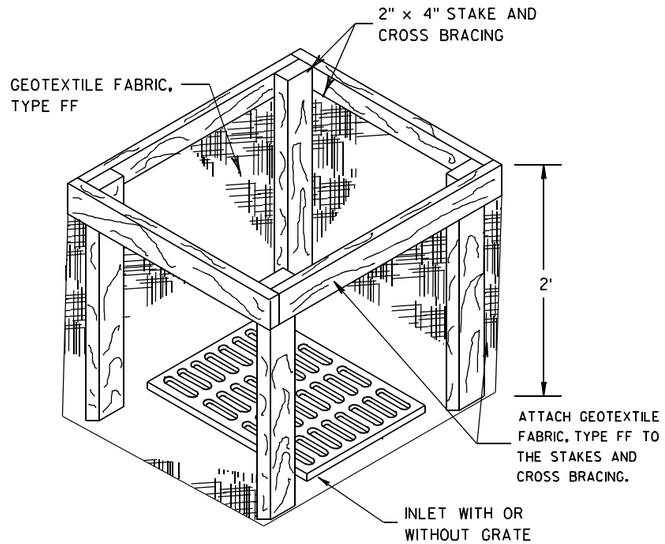
6

S.D.D. 8 E 9-6

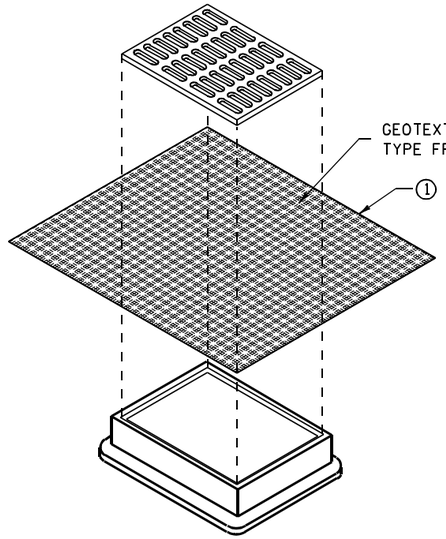
6

S.D.D. 8 E 9-6



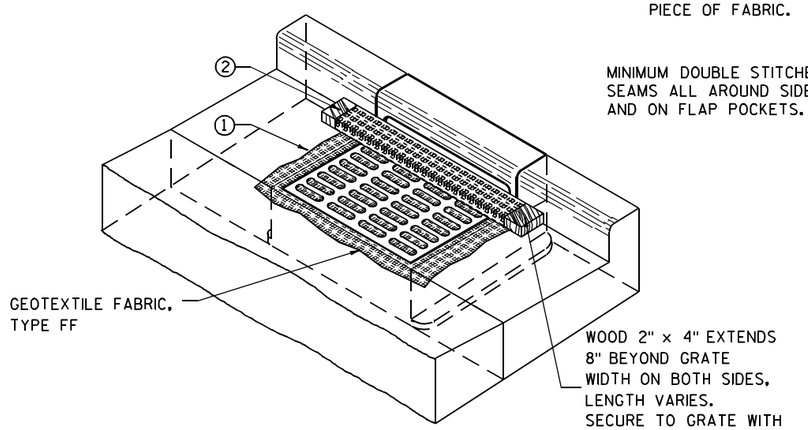


INLET PROTECTION, TYPE A

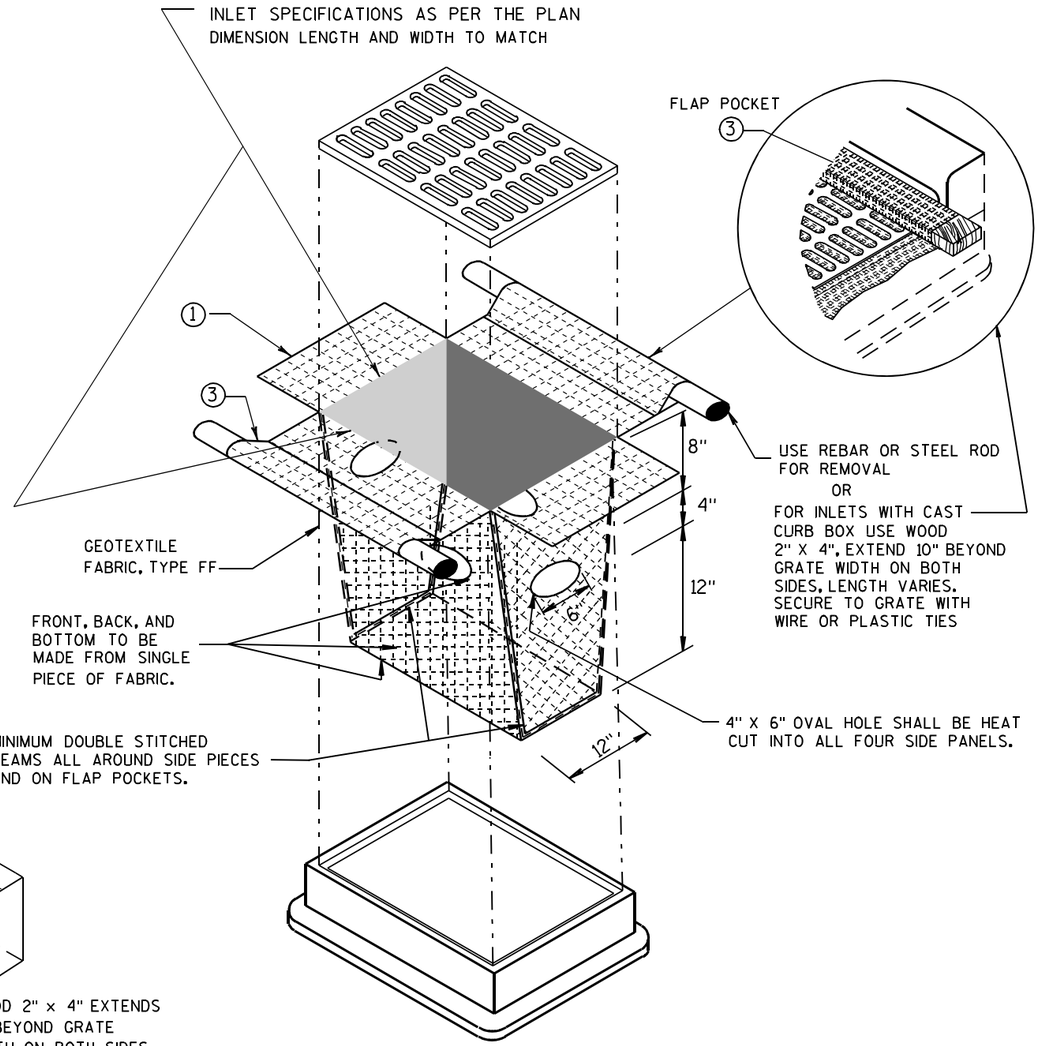


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

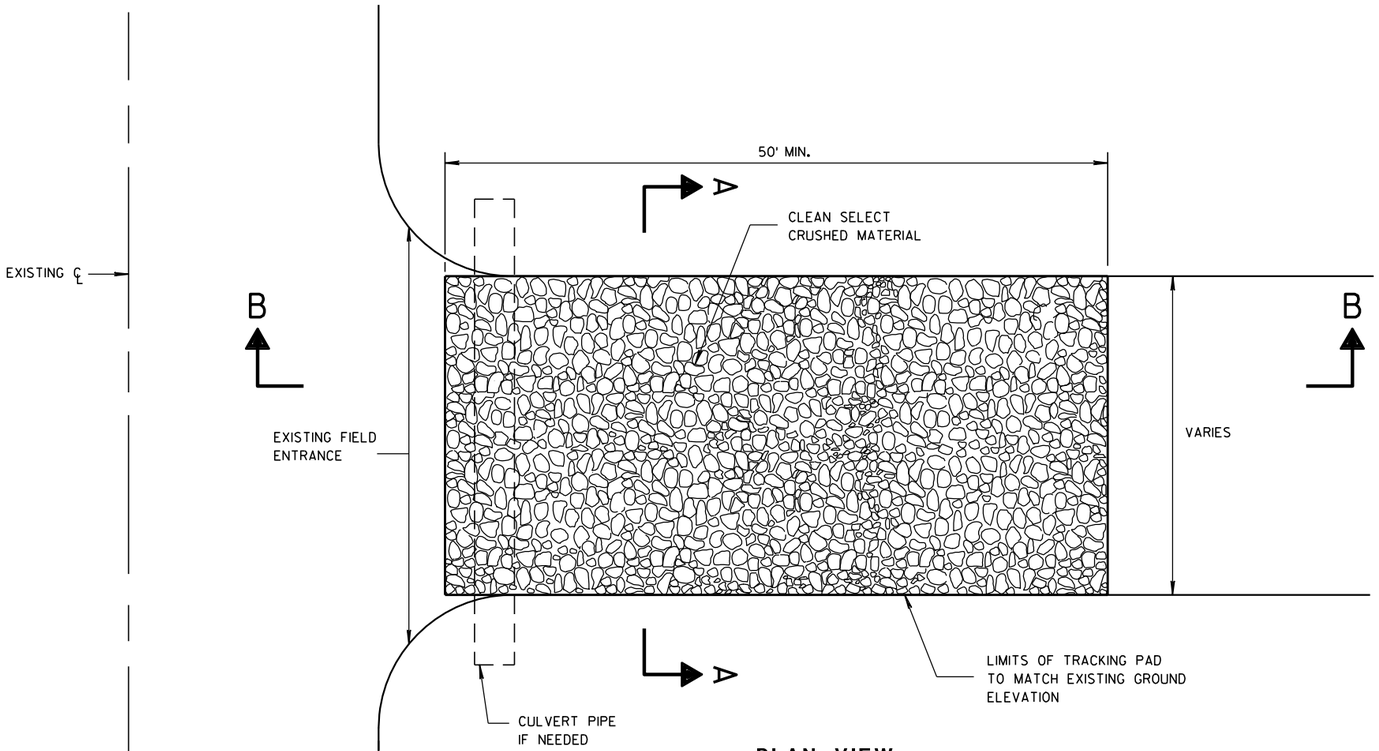
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

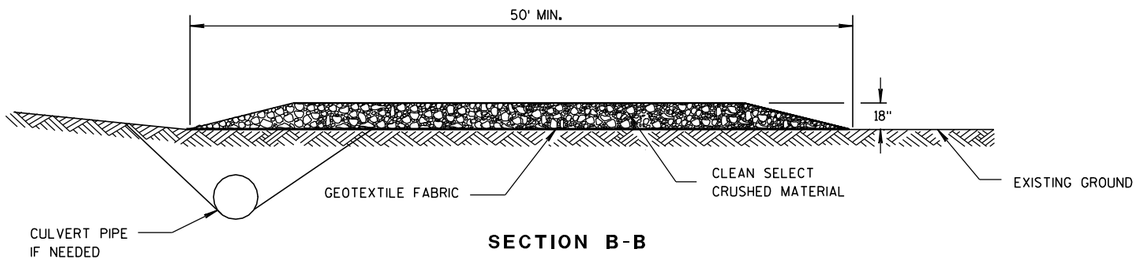
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



PLAN VIEW



SECTION B-B

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

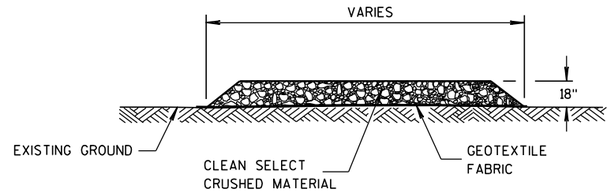
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/24/2011 DATE FHWA	/S/ Jerry H. Zona ROADWAY STANDARDS ENGINEER
78	ENT

6
S.D.D. 8 E 14-1

METAL APRON ENDWALLS

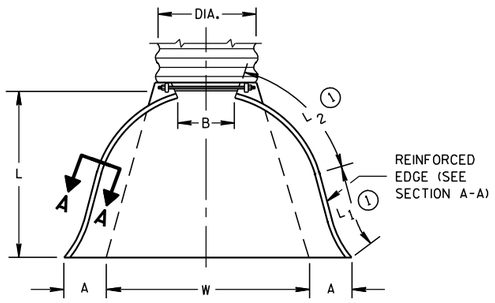
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

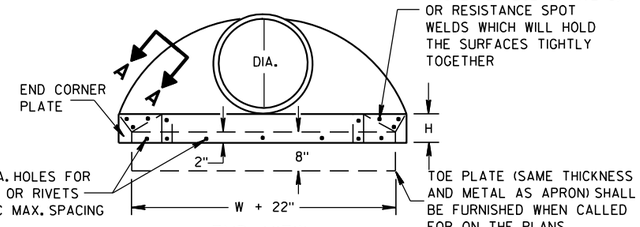
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

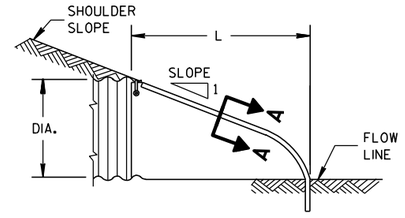
*MINIMUM
**MAXIMUM



PLAN VIEW

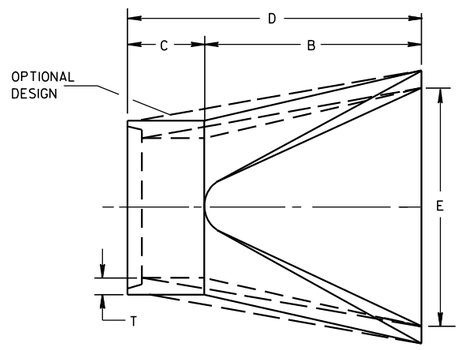


END VIEW

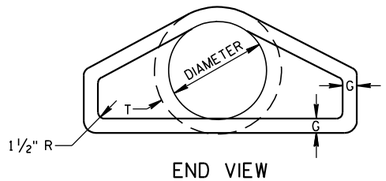


SIDE ELEVATION

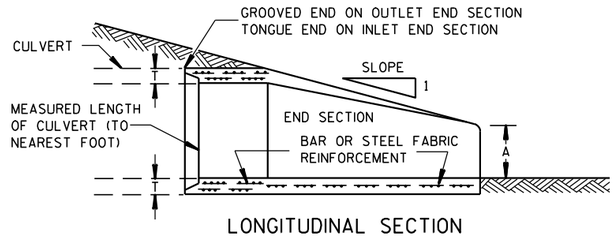
METAL ENDWALLS



PLAN

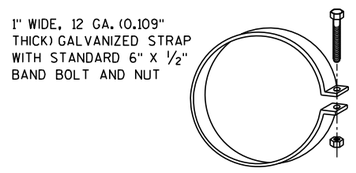


END VIEW



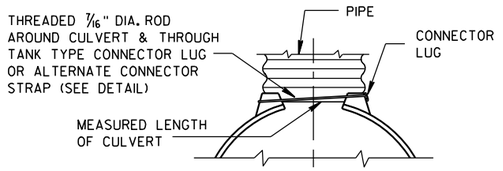
LONGITUDINAL SECTION

CONCRETE ENDWALLS

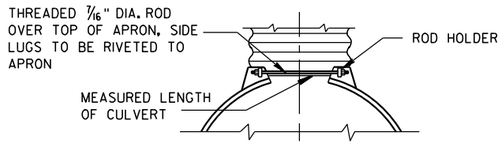


ALTERNATE FOR TYPE 1 CONNECTION

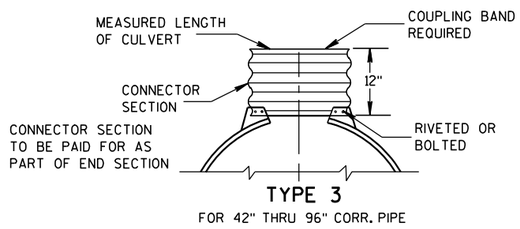
END SECTION CONNECTOR STRAP



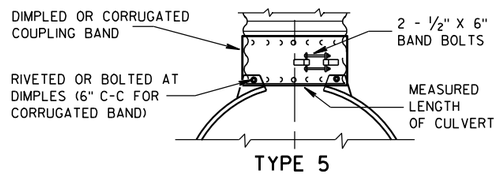
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

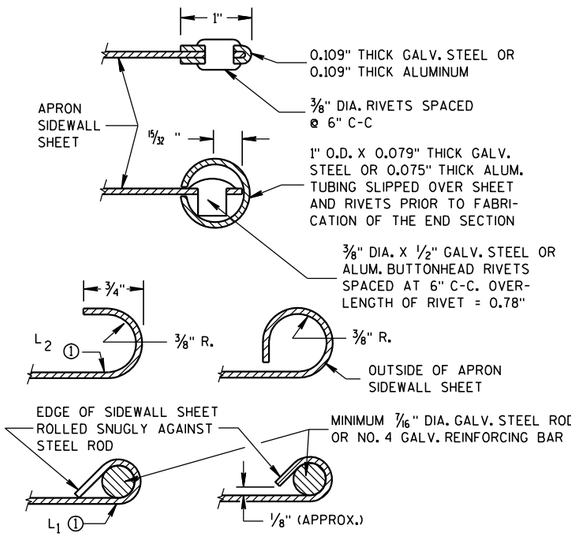
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

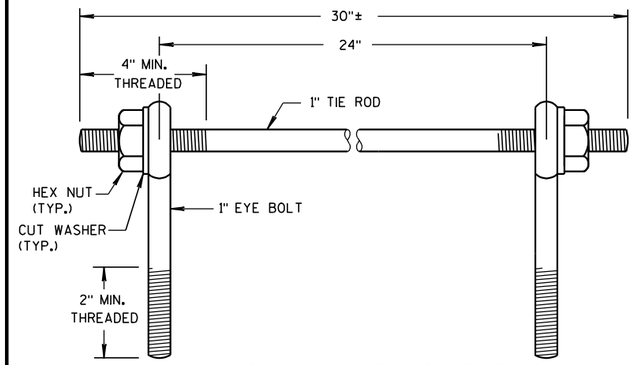
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

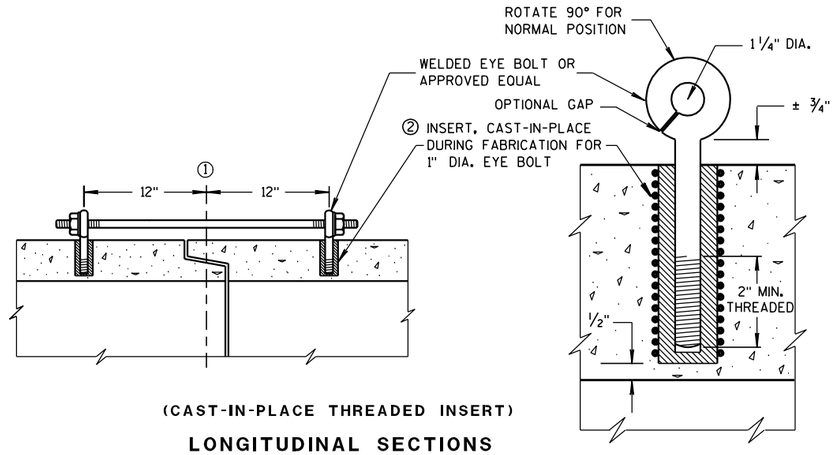
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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.

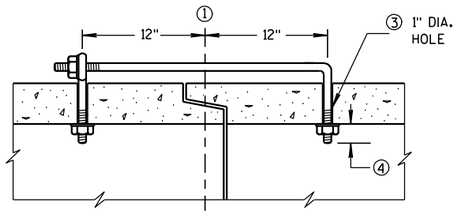
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

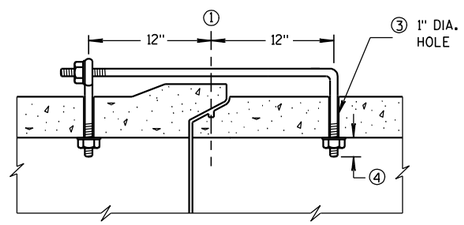
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

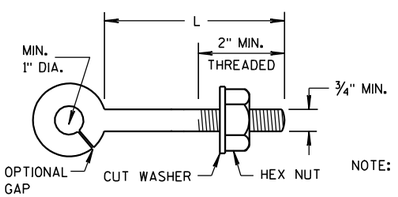


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

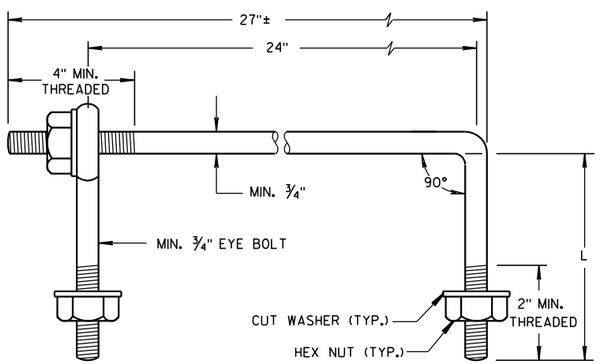
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

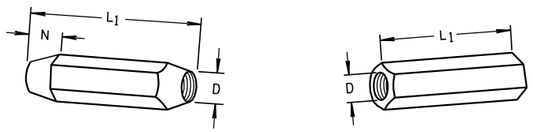
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

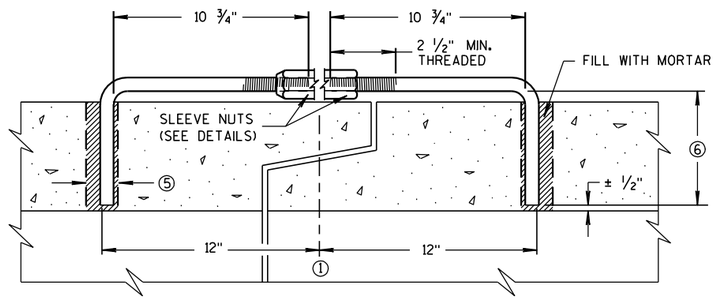
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

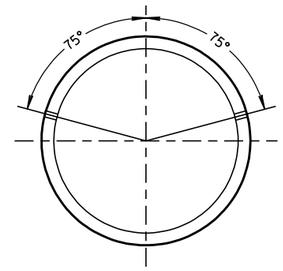
SLEEVE NUTS



LONGITUDINAL SECTION

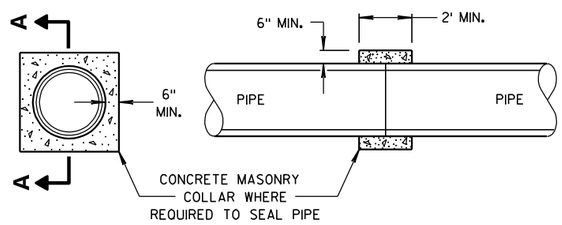
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
80
FHWA

6

S.D.D. 8 F 4-7

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S.D.D. 8 F 4-7

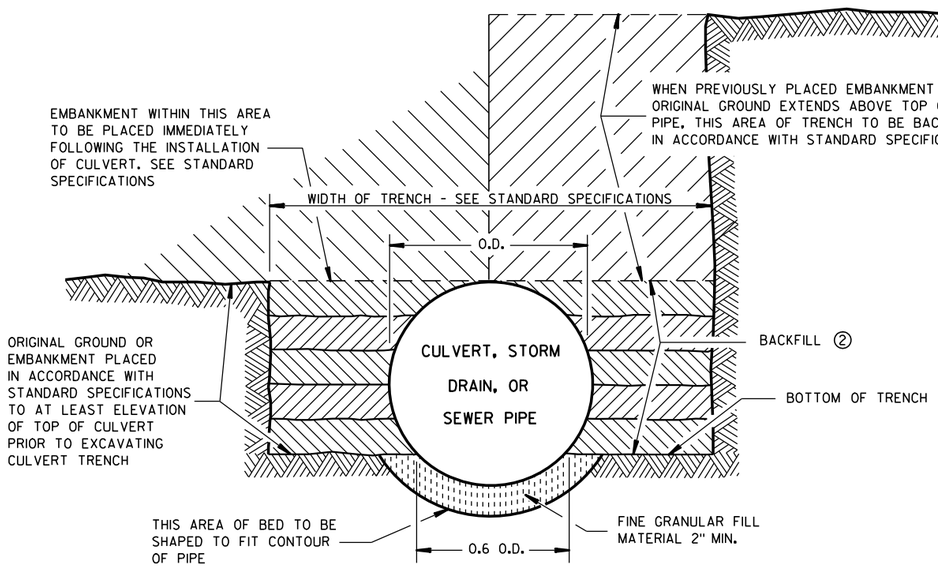
GENERAL NOTES

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

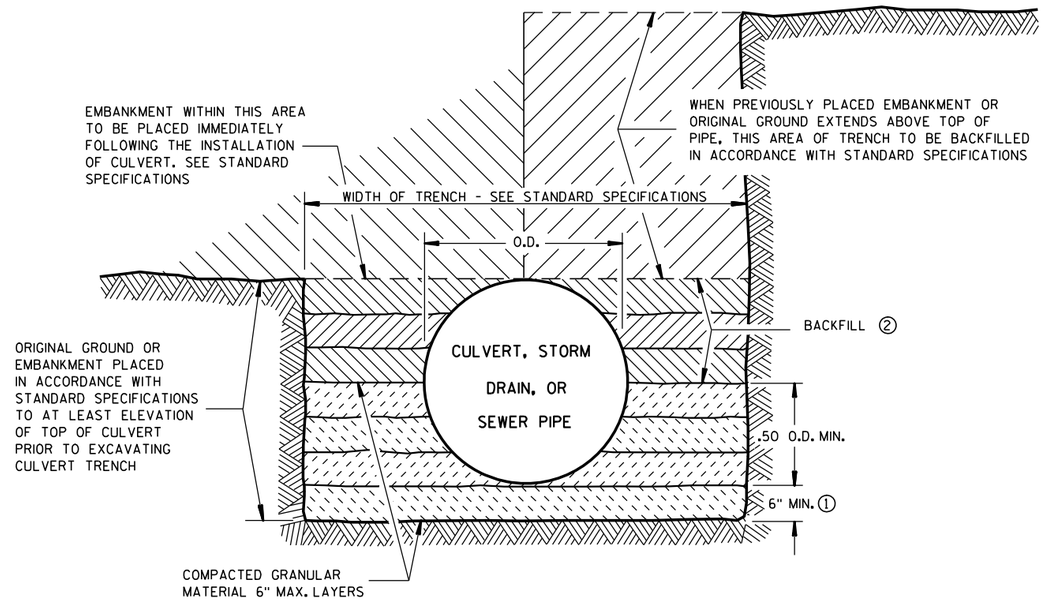
THE SHAPED SUBGRADE WITH GRANULAR FOUNDATION IS AN EQUAL ALTERNATE TO THE GRANULAR FOUNDATION EXCEPT WHERE ROCK IS ENCOUNTERED.

① WHERE ROCK, HARD PAN OR FRAGMENTED MATERIAL IS ENCOUNTERED, THE TRENCH SHALL BE EXCAVATED BELOW THE BOTTOM OF THE PIPE AN AMOUNT EQUAL TO ½ INCH PER FOOT OF PROPOSED EMBANKMENT ABOVE THE TOP OF THE PIPE, BUT NOT LESS THAN 6 INCHES.

② TRENCH SHALL BE BACKFILLED AS REQUIRED BY STANDARD SPECIFICATIONS; SECTION 520 FOR PIPE CULVERTS AND SECTION 607 FOR STORM SEWERS.



SHAPED SUBGRADE WITH GRANULAR FOUNDATION



GRANULAR FOUNDATION

CLASS "B" BEDDING

CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/7/83 DATE	/S/ D. L. Strand STATE DESIGN ENGINEER
FHWA	HWYS

6

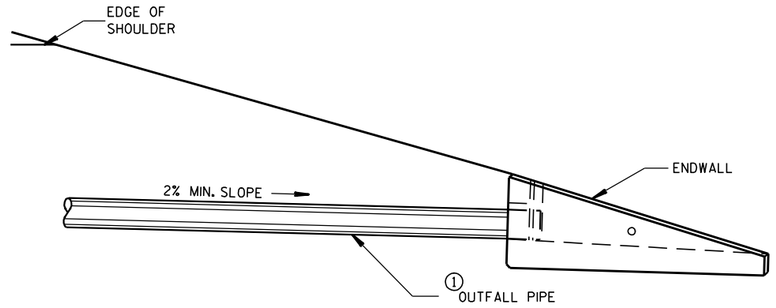
S.D.D. 8 F 5-1

6

S.D.D. 8 F 5-1

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION 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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

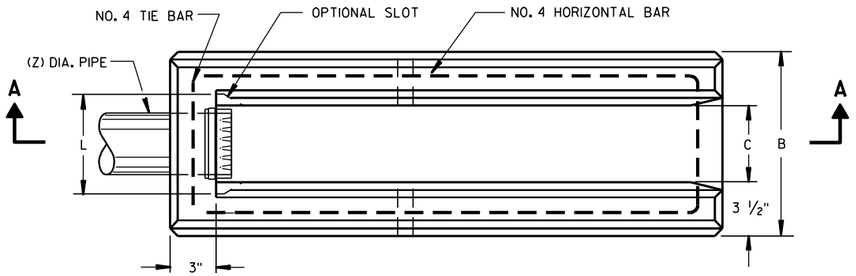
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

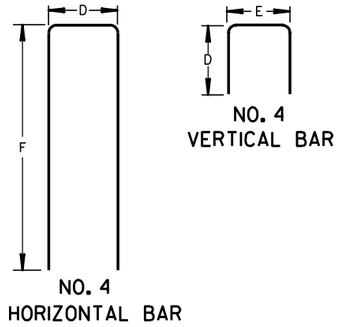
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

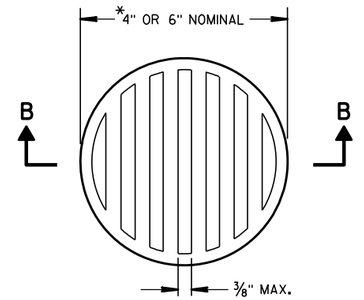
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



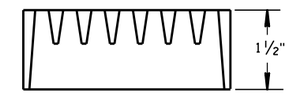
PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS



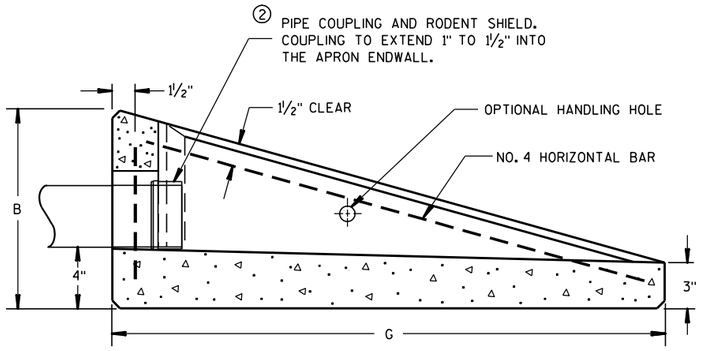
NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.



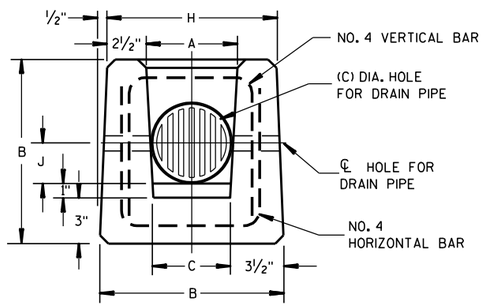
SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN

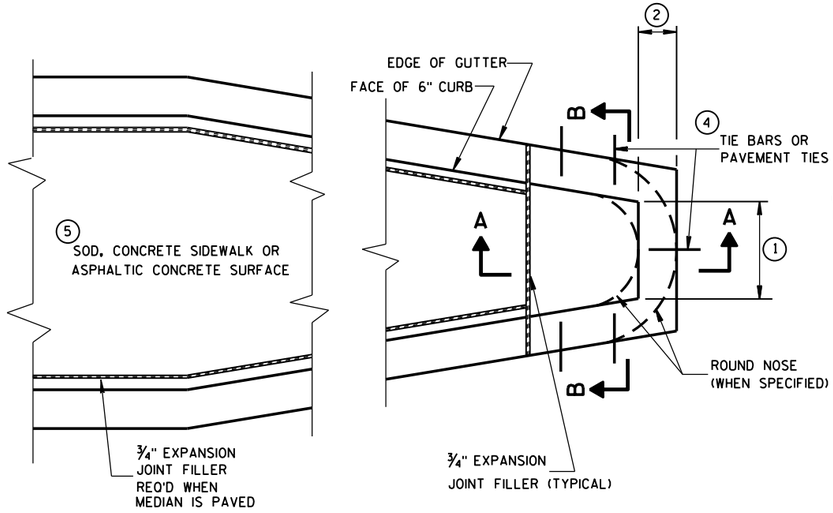
REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

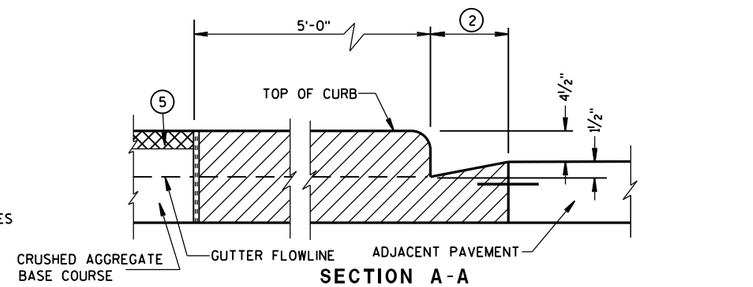
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

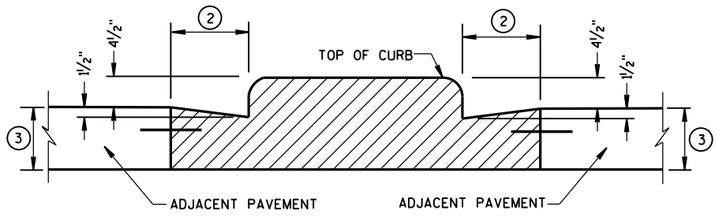
APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 6-4







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.

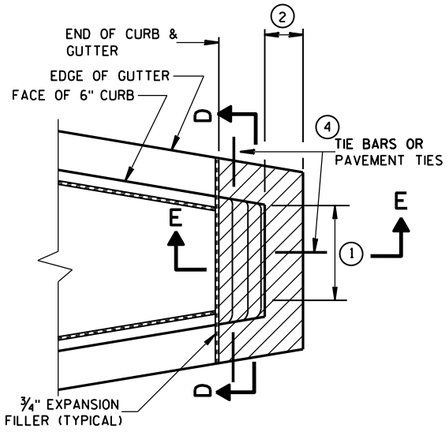
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

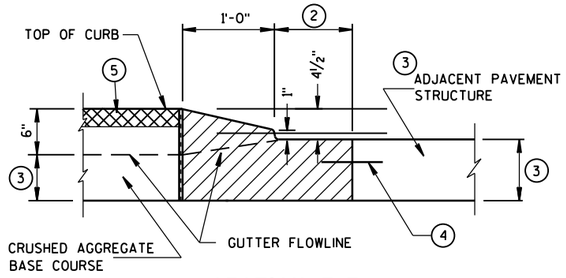
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(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.

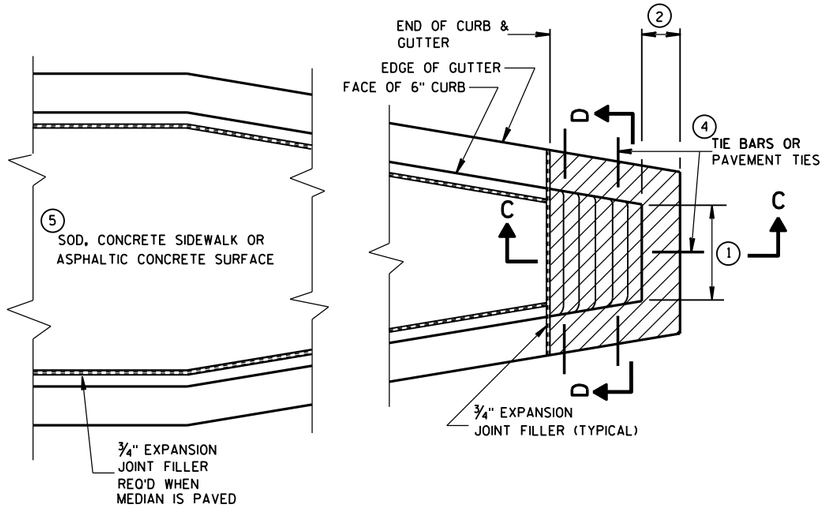
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



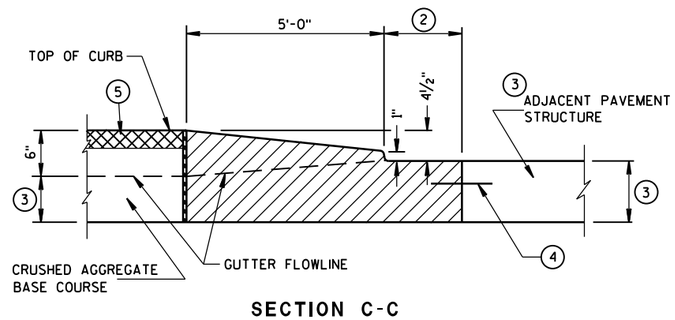


SECTION E-E

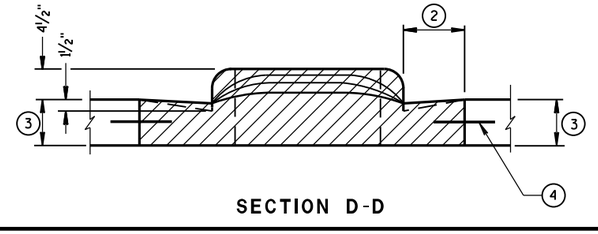
CONCRETE MEDIAN SLOPED NOSE TYPE 2



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

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

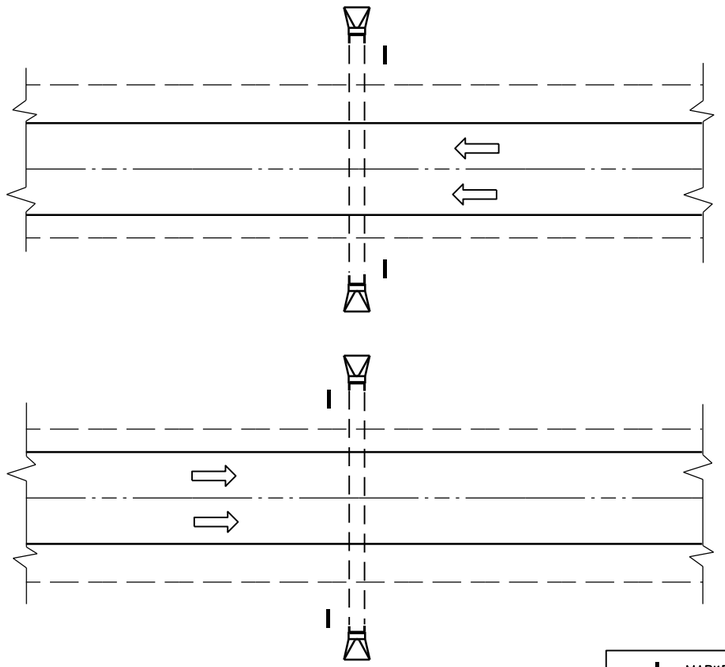
FHWA

6

S.D.D. 11 B 2-2

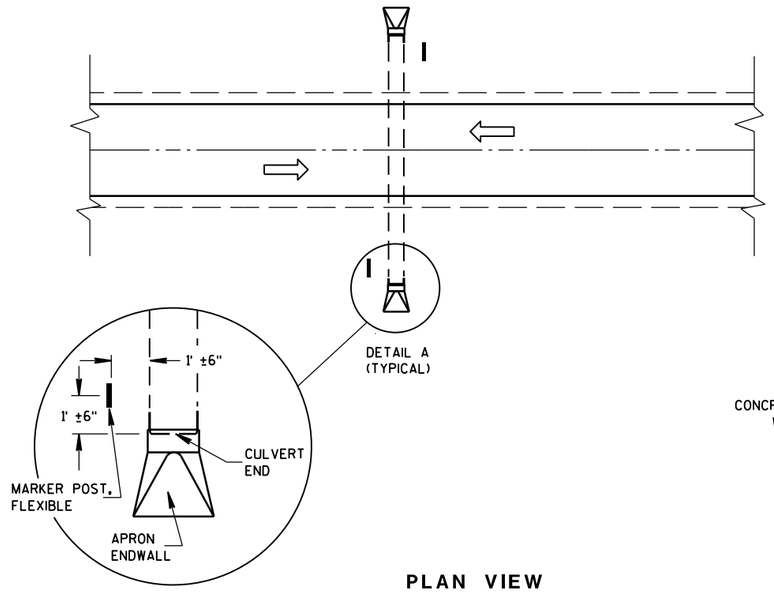
6

S.D.D. 11 B 2-2



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

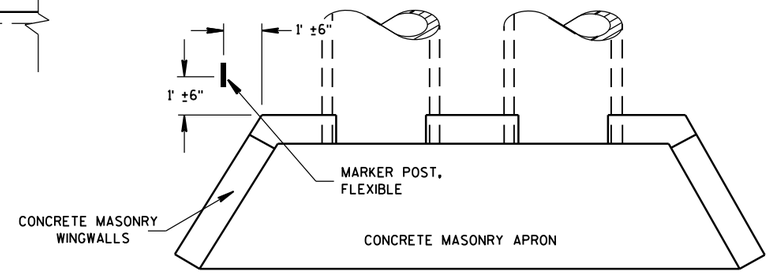
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

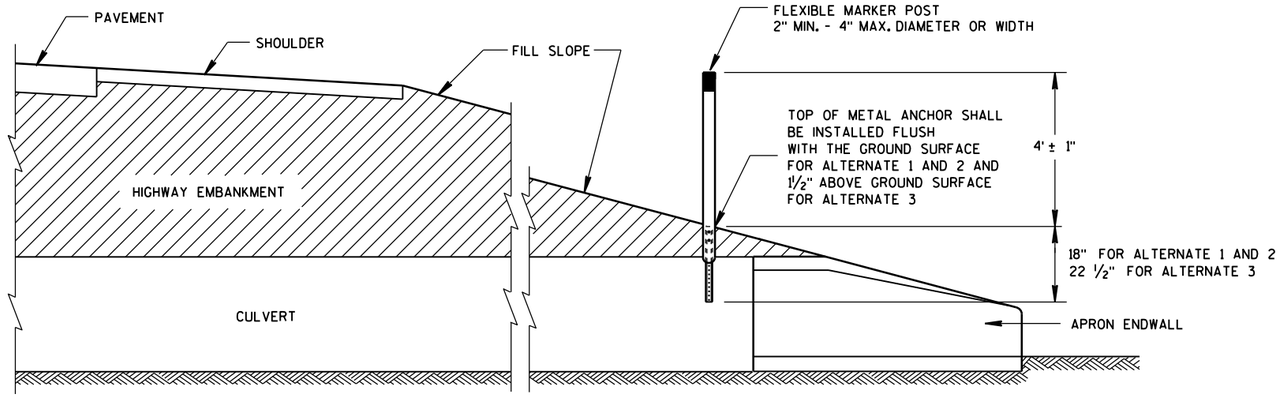
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

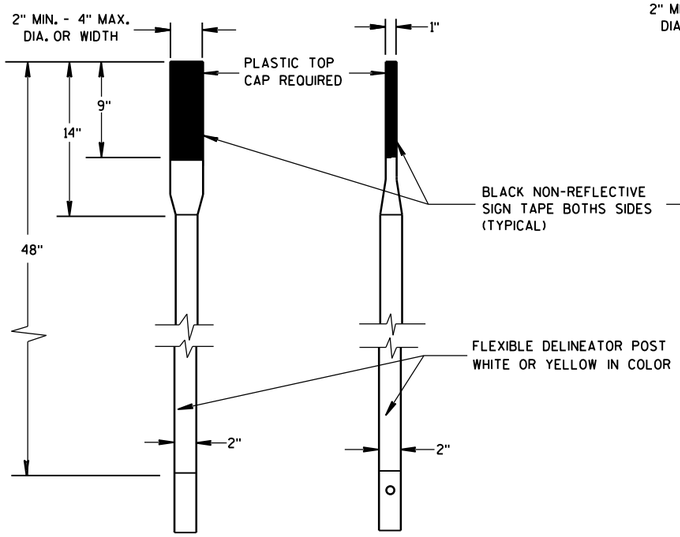
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

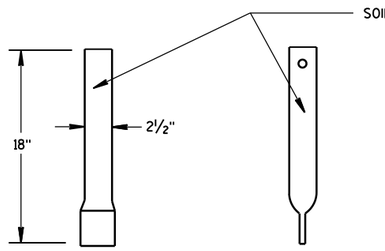
6

S.D.D. 15 A 3-2a

6

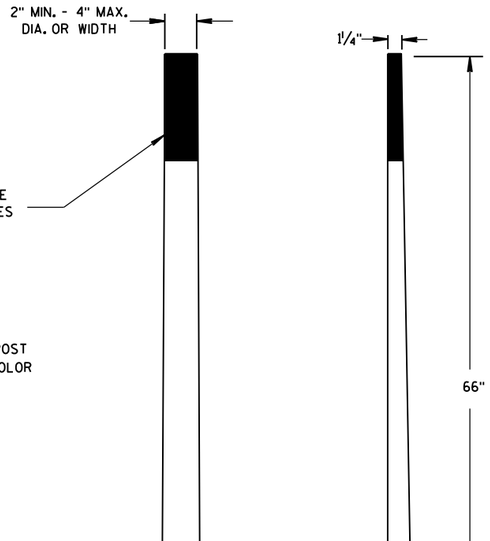
S.D.D. 15 A 3-2a





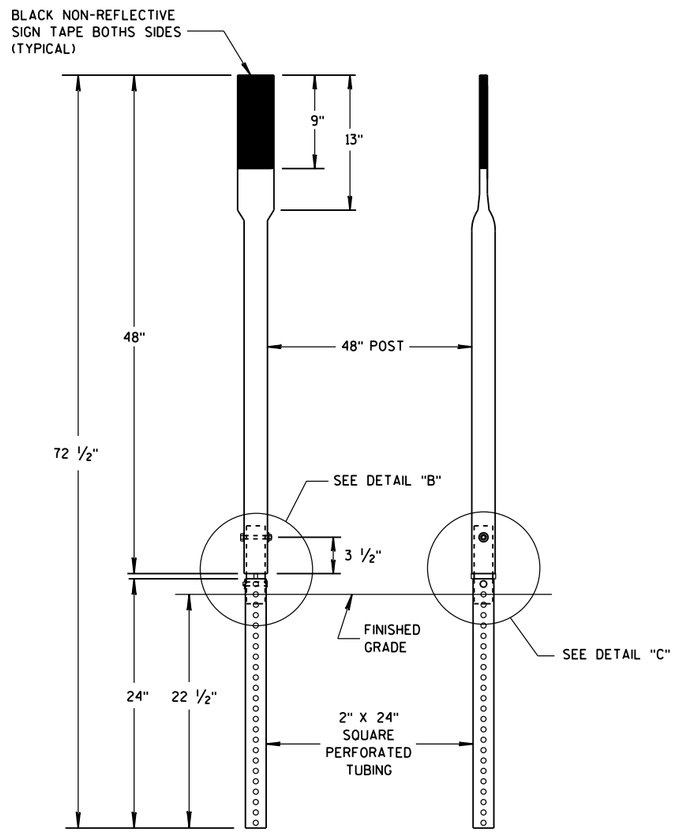
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

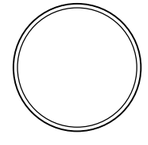
ALTERNATE 2



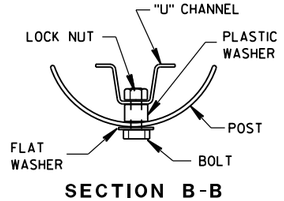
FRONT VIEW SIDE VIEW

ALTERNATE 3

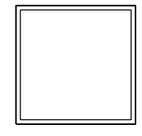
FLEXIBLE MARKER POSTS



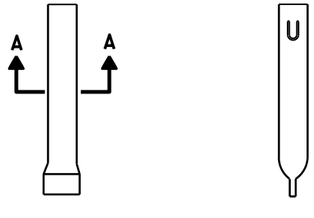
SECTION A-A



SECTION B-B

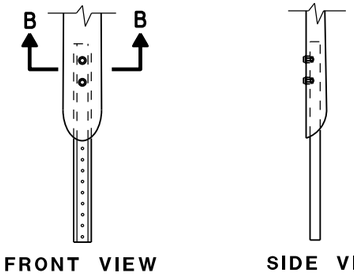


SECTION C-C



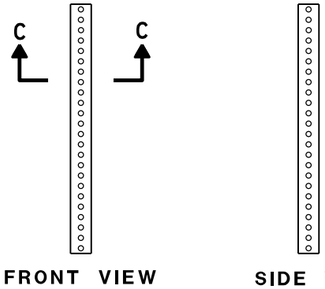
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

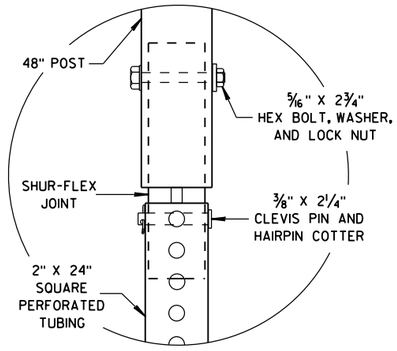
ALTERNATE 2



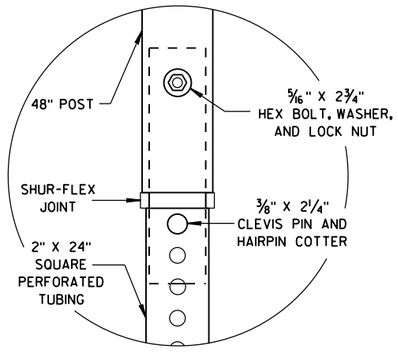
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

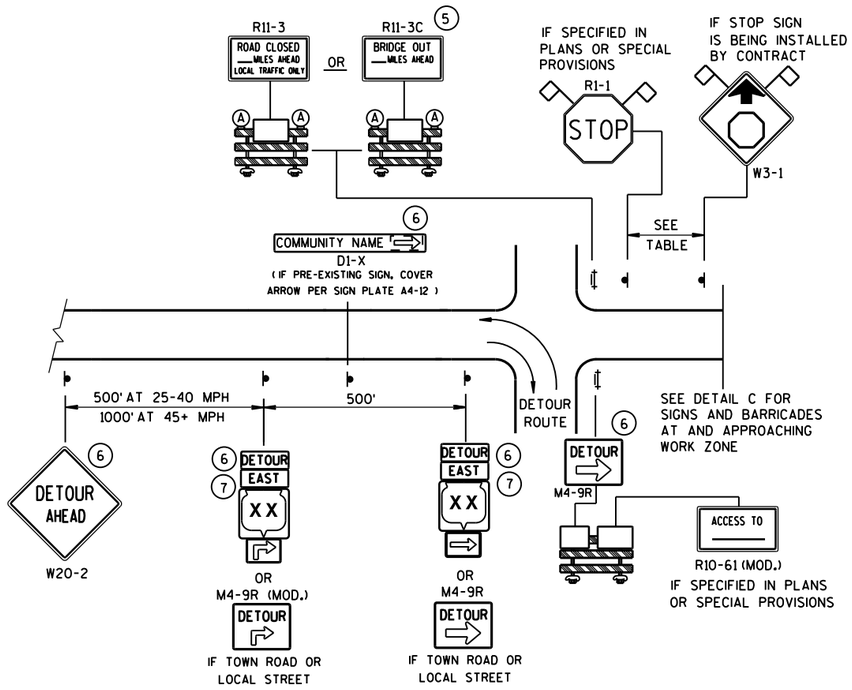
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 3-2b

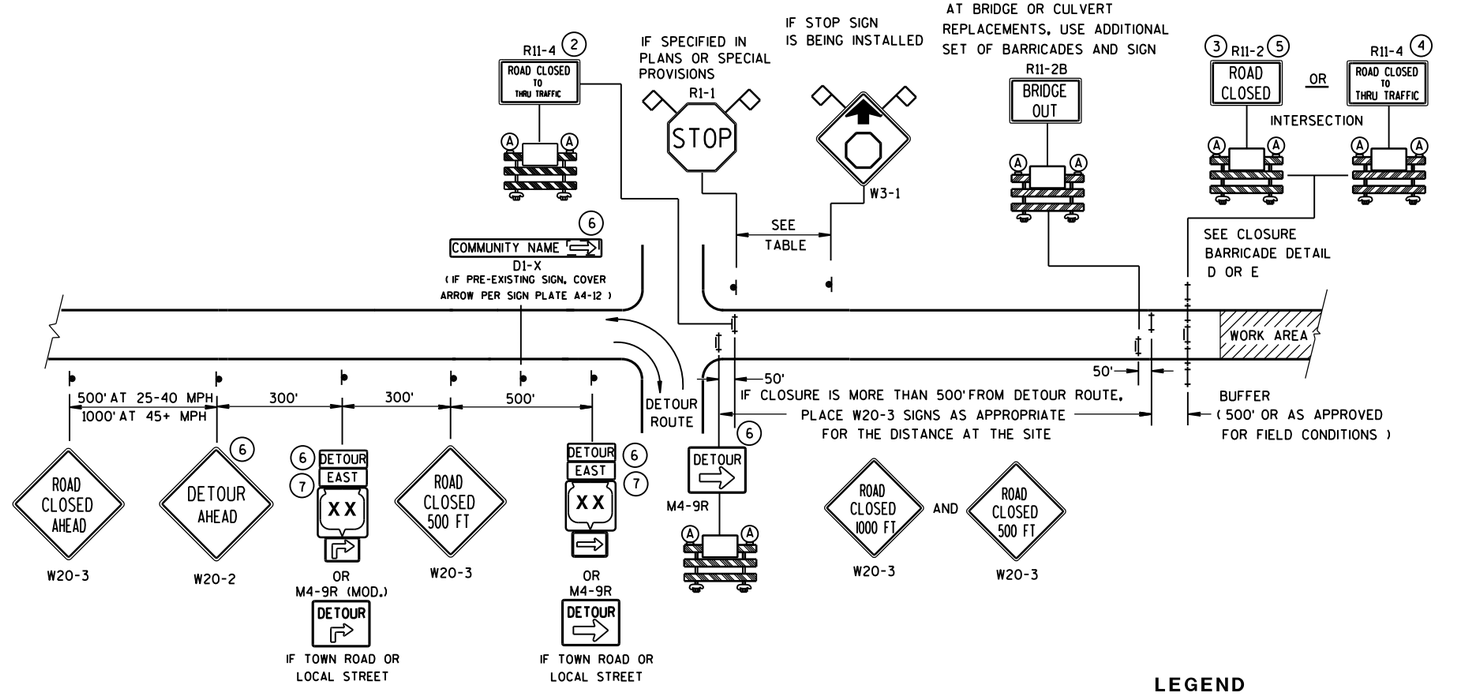
6

S.D.D. 15 A 3-2b



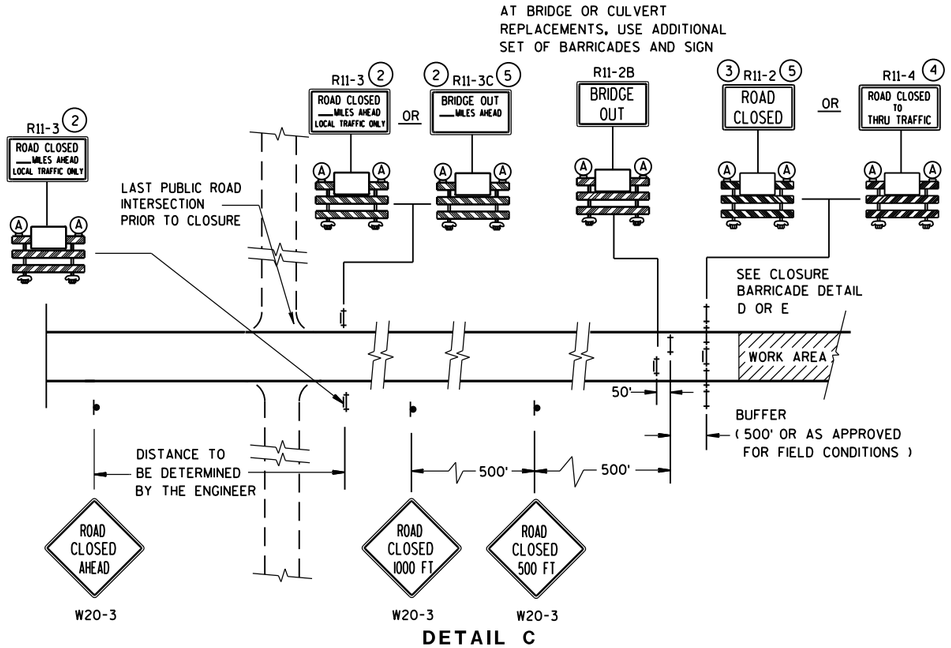
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS 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-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

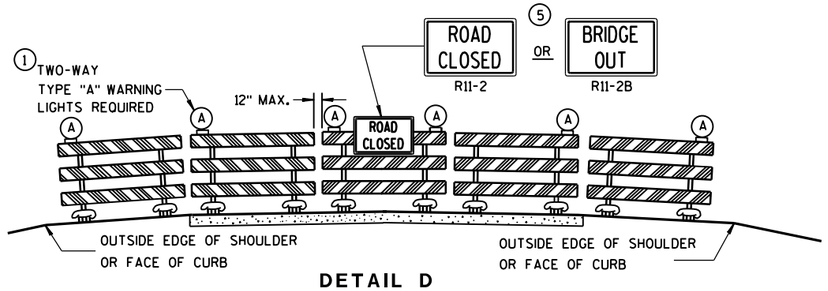
8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

6

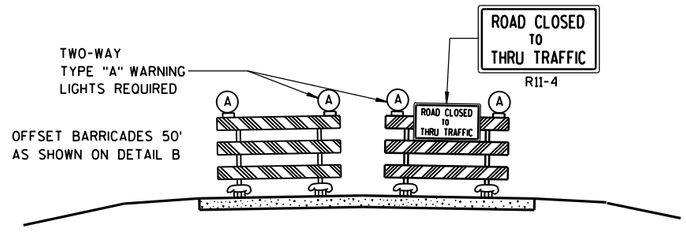
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" 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.

"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 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- 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

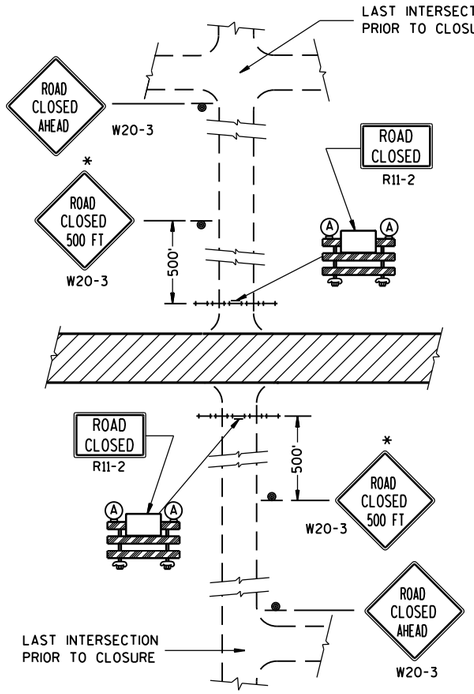
8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

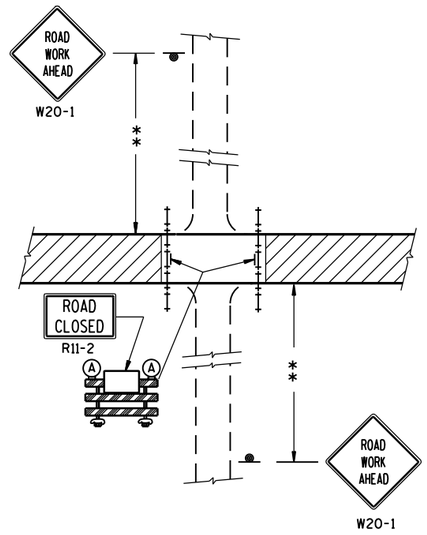
6

S.D.D. 15 C 2-5b



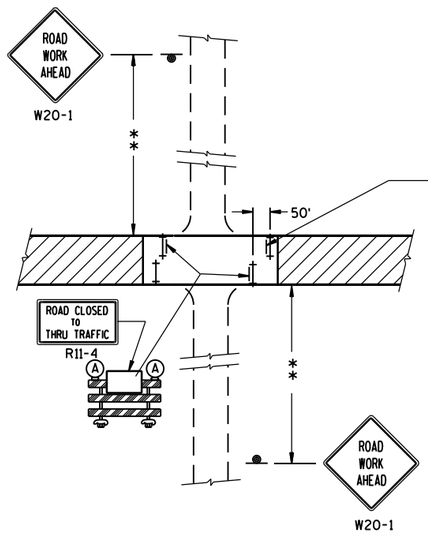
DETAIL 1

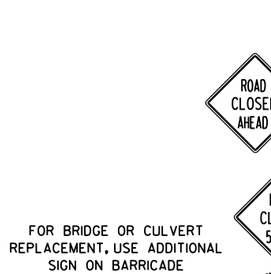
(NO ACCESS TO PROJECT)



DETAIL 2

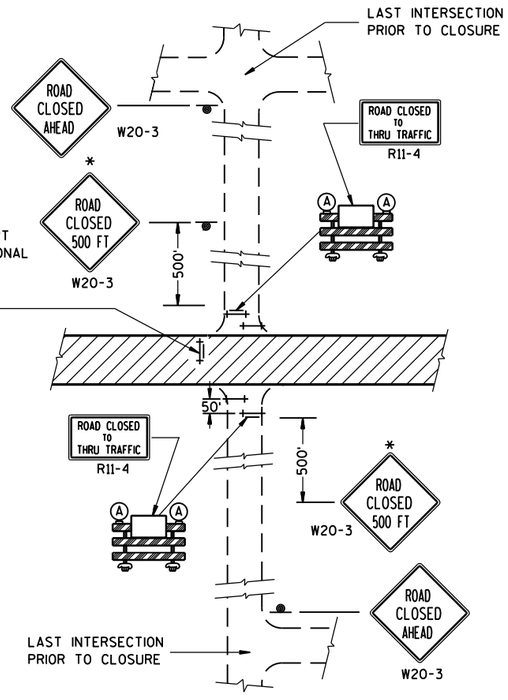
(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).





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.

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

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

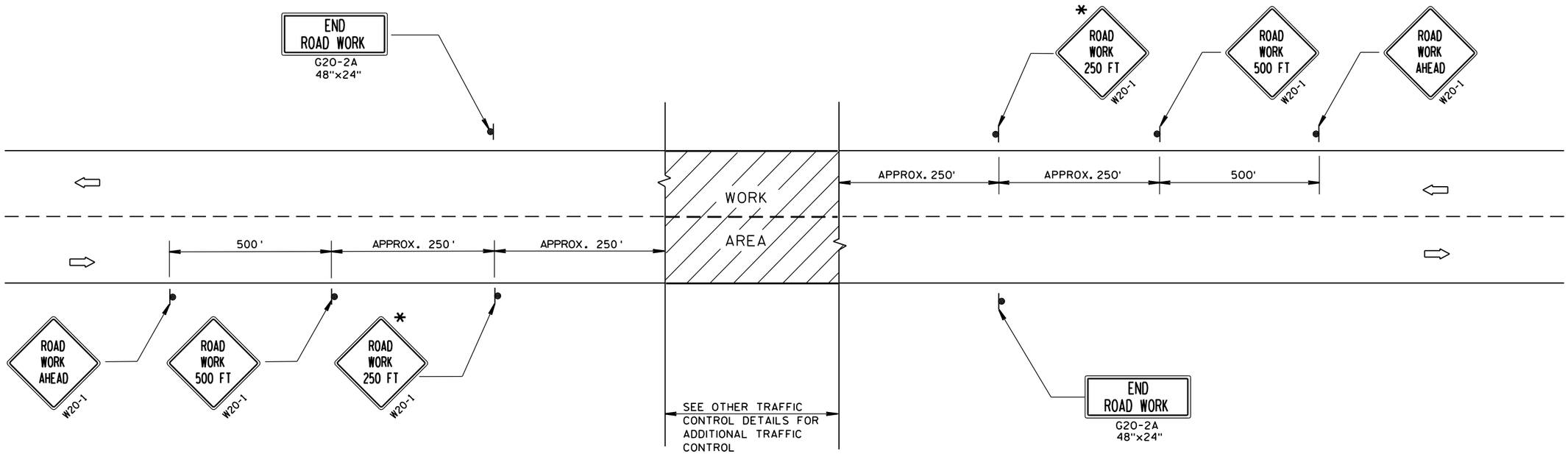
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

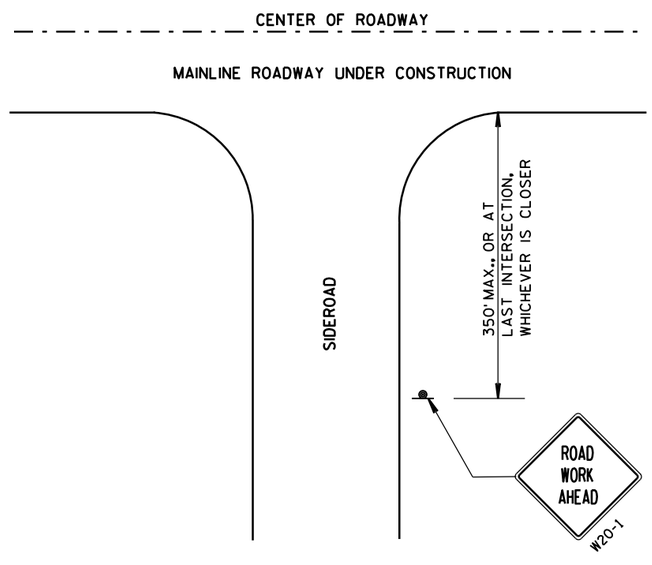
S.D.D. 15 C 3-2

6

S.D.D. 15 C 3-2



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

SIGN

S.D.D. 15 C 5-2

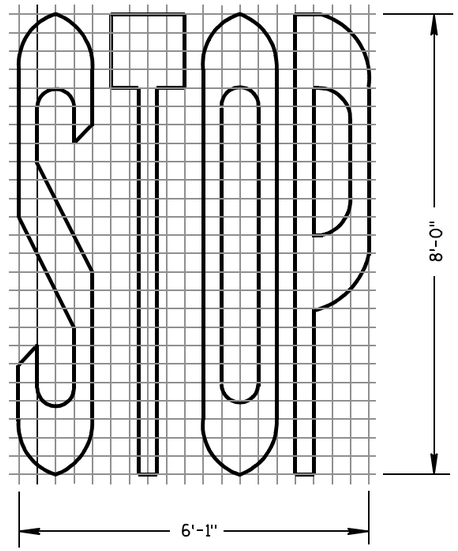
6

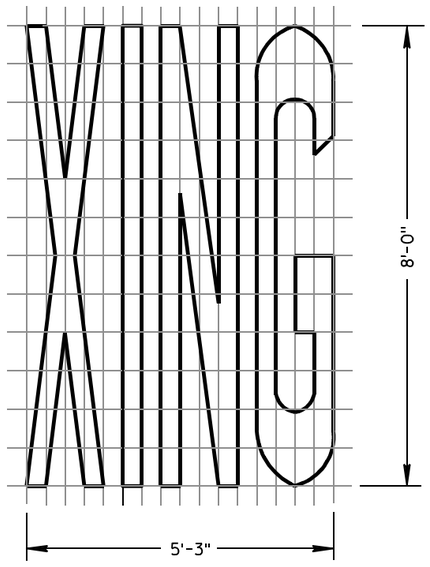
S.D.D. 15 C 5-2

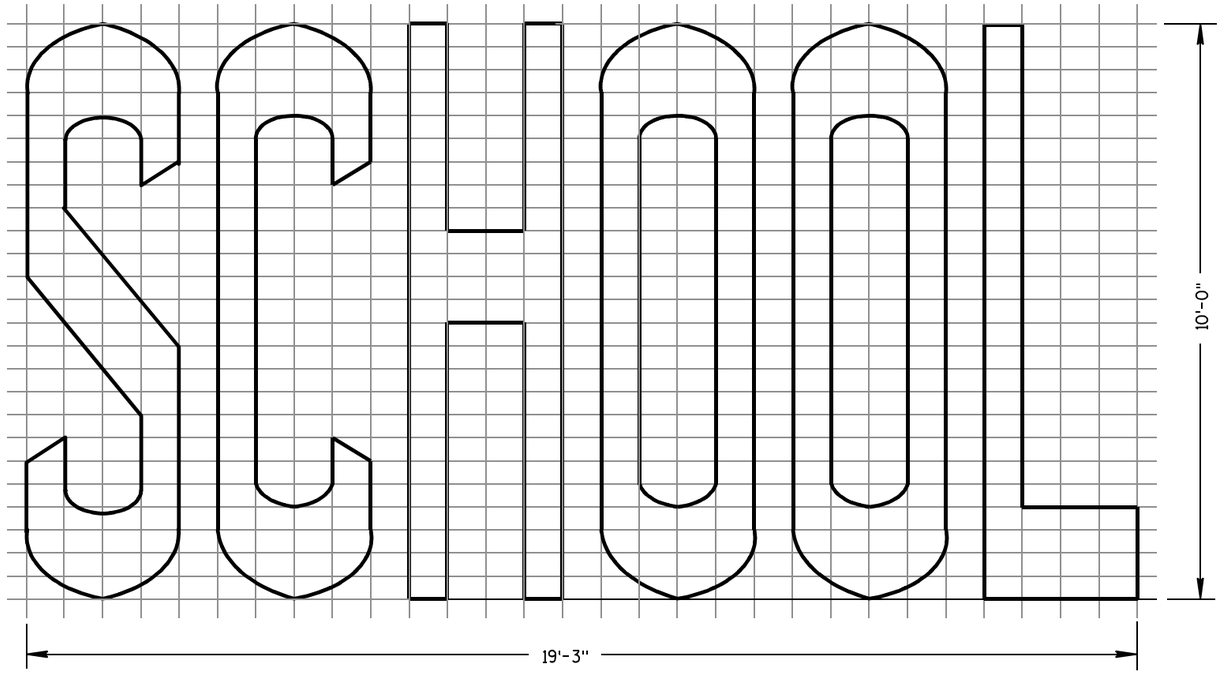
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

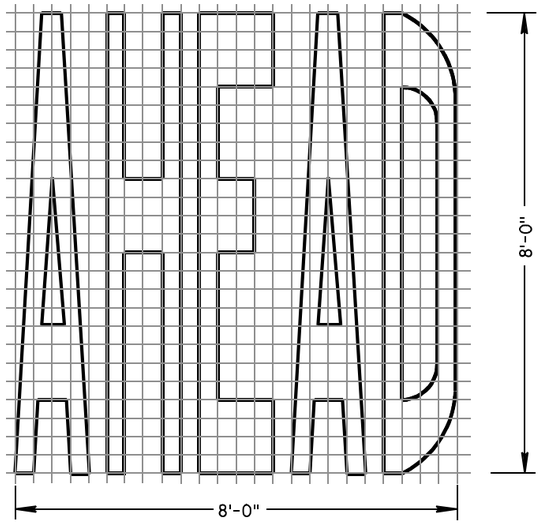
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

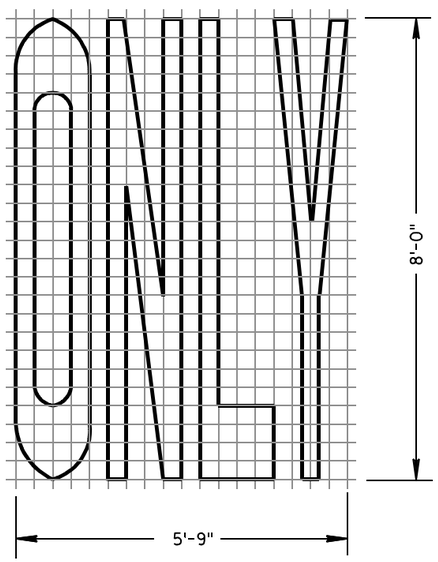


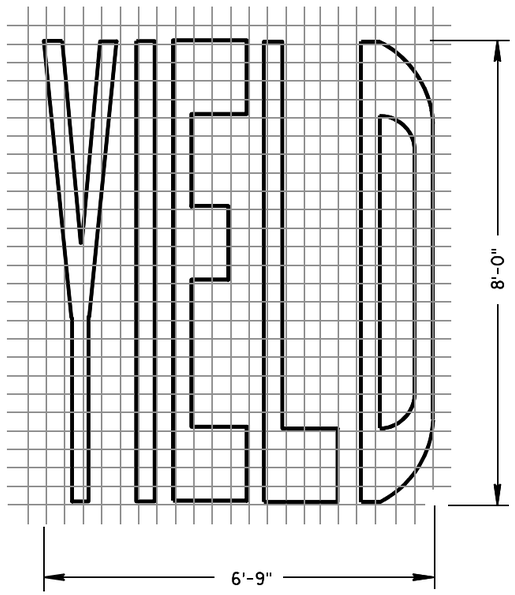


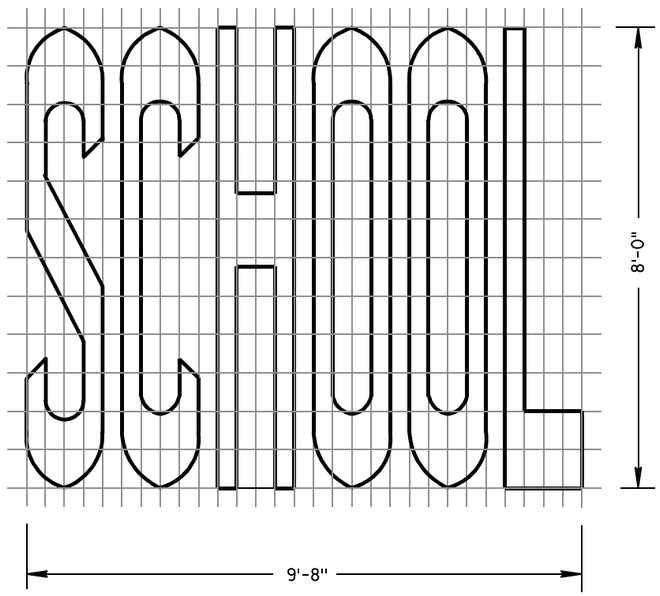


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER — IGN

FHWA

S.D.D. 15 C 7-12b

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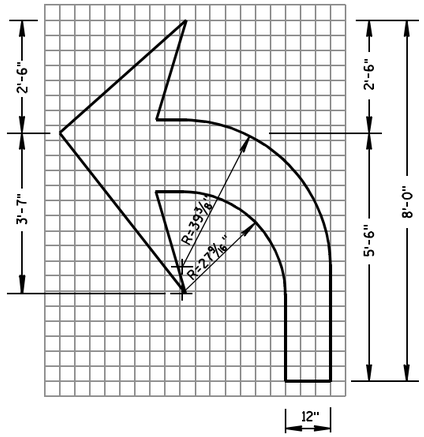
S.D.D. 15 C 7-12b

6

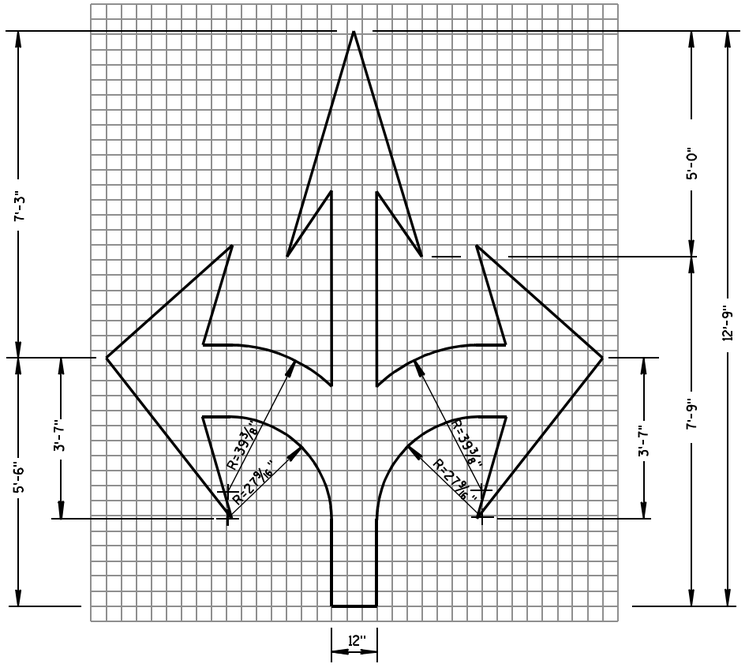
GENERAL NOTES

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.

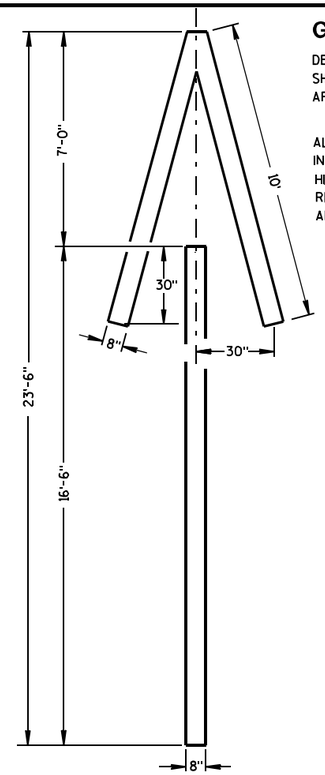
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



TYPE 2



TYPE 6



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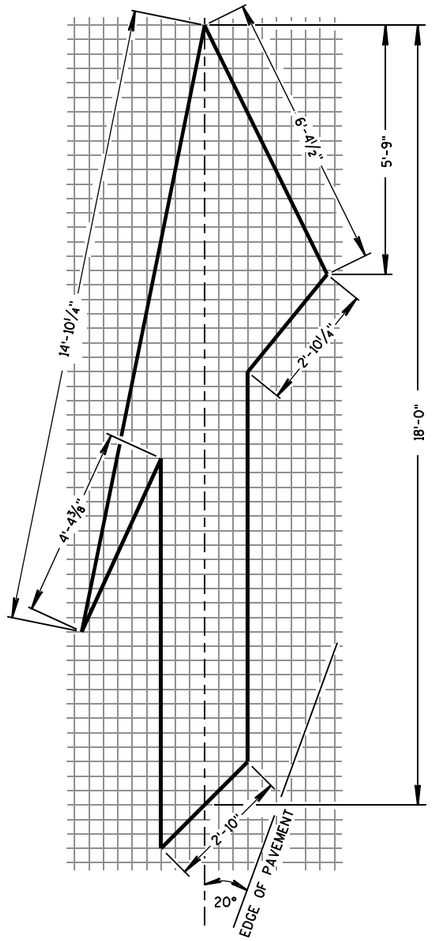
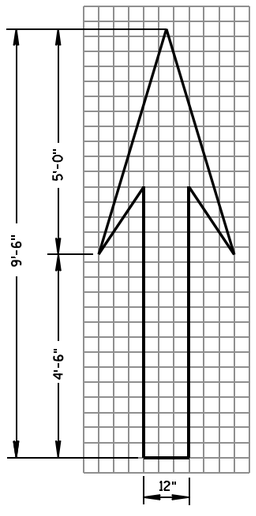
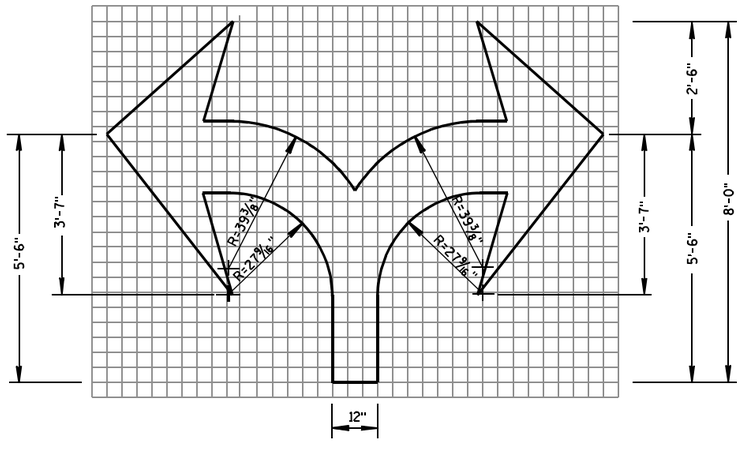


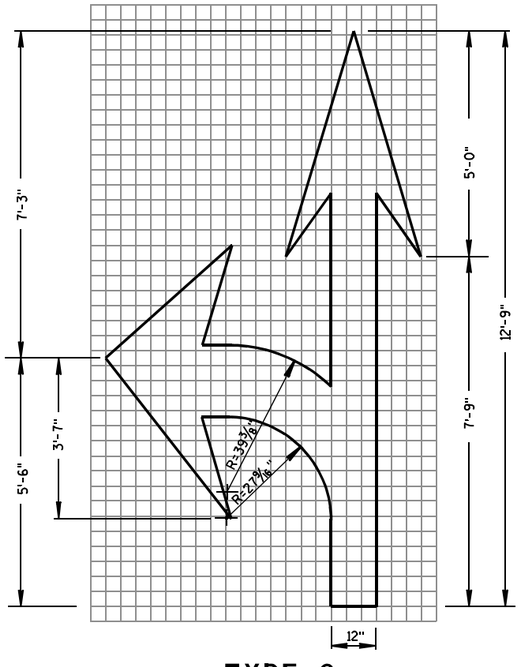
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nathaam — STATE TRAFFIC ENGINEER

FHWA

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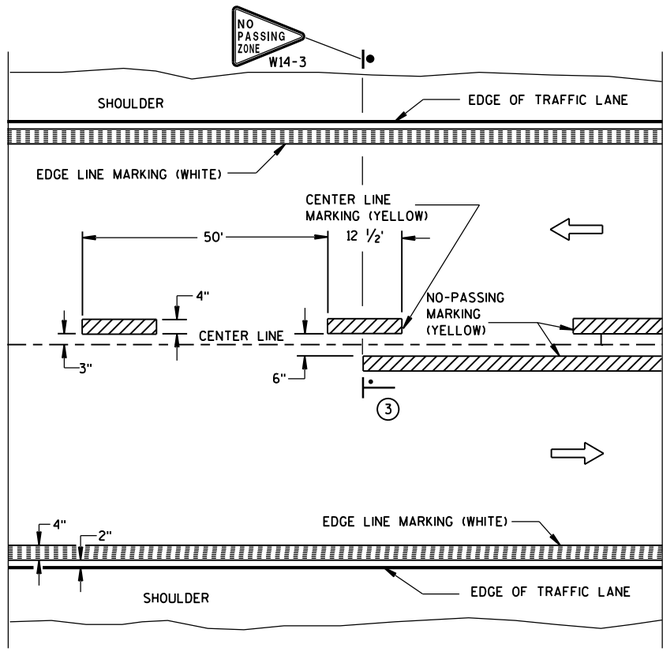
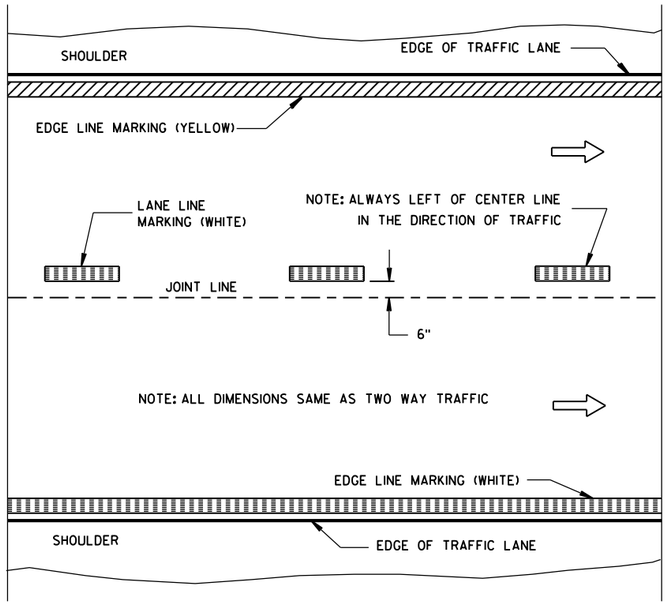
S.D.D. 15 C 7-12c

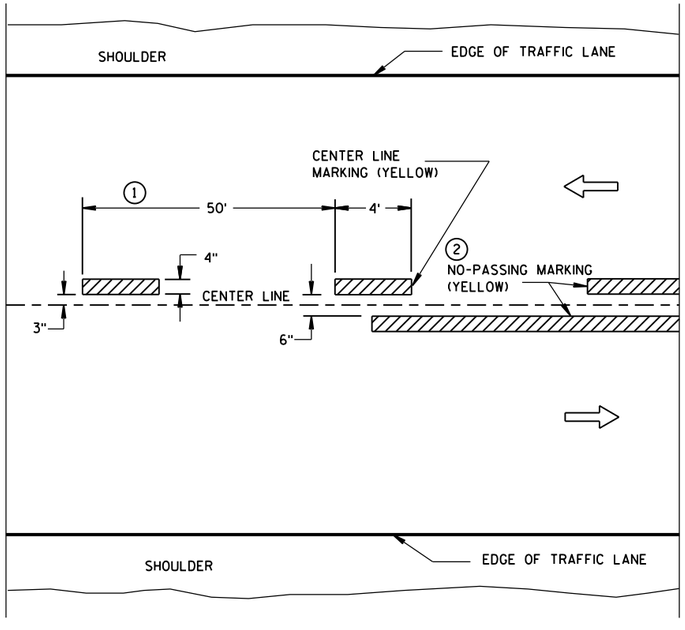


TWO WAY TRAFFIC

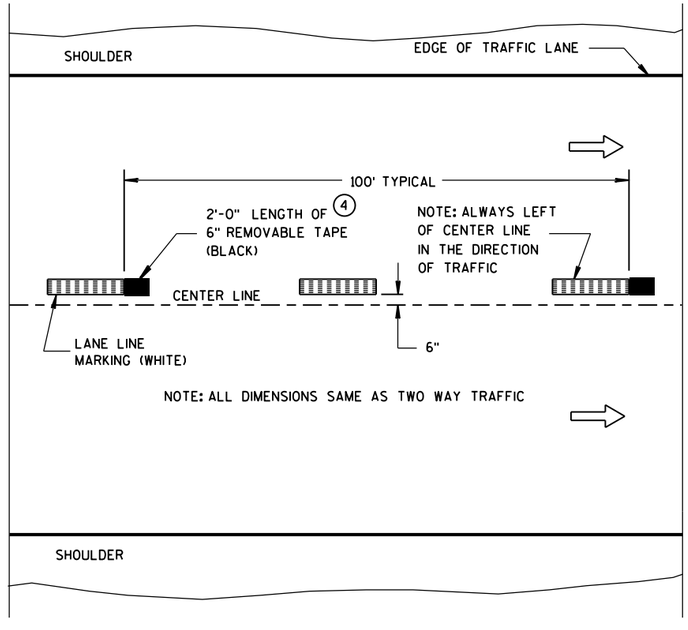


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

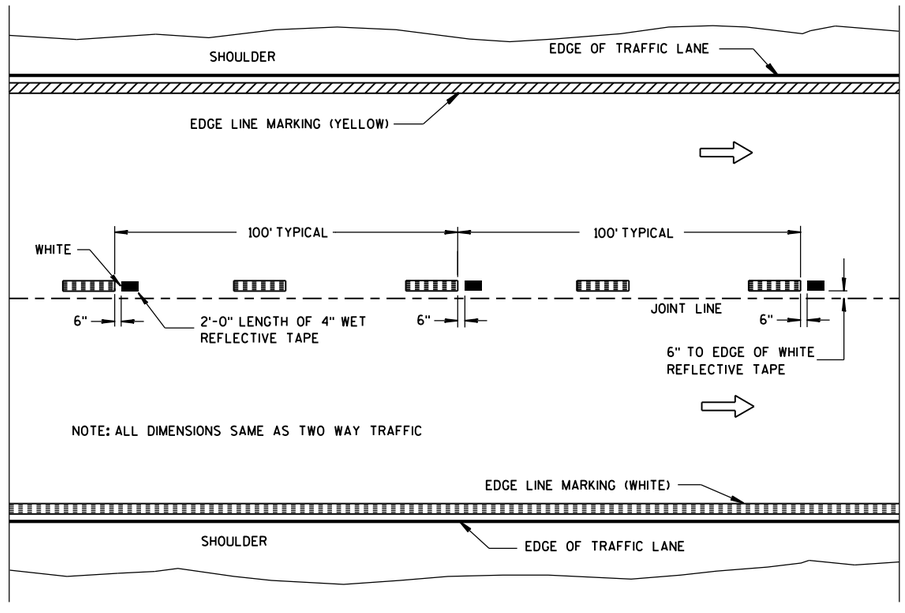
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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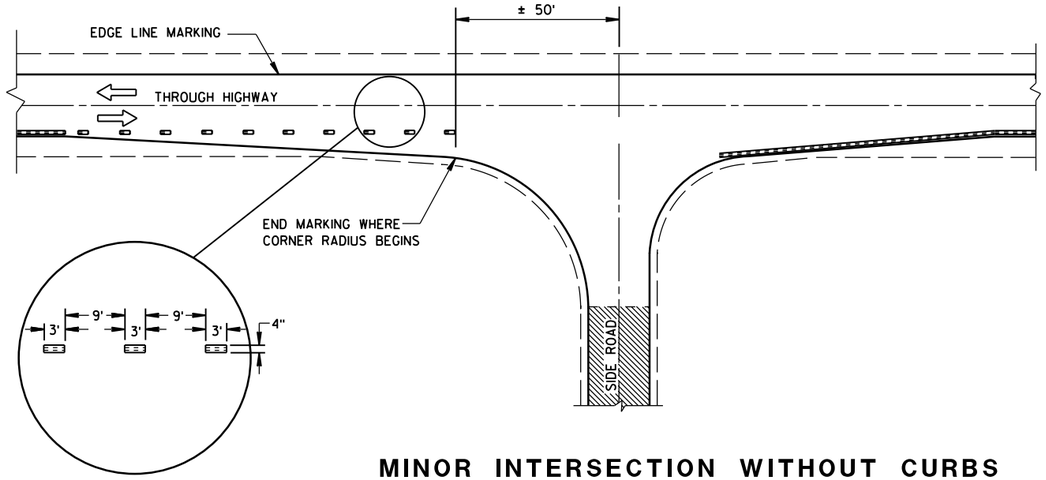
S.D.D. 15 C 8-16a

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.

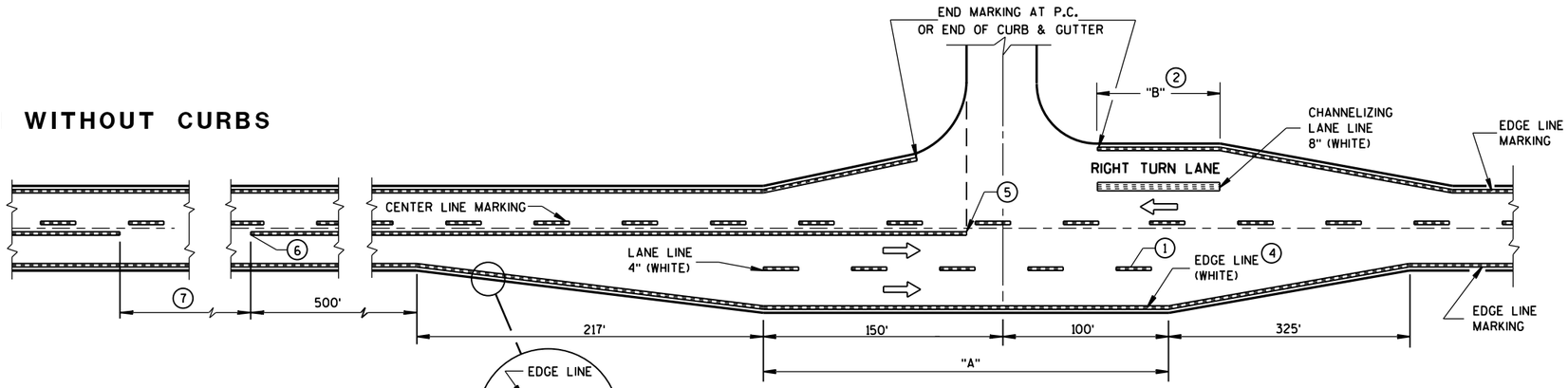
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

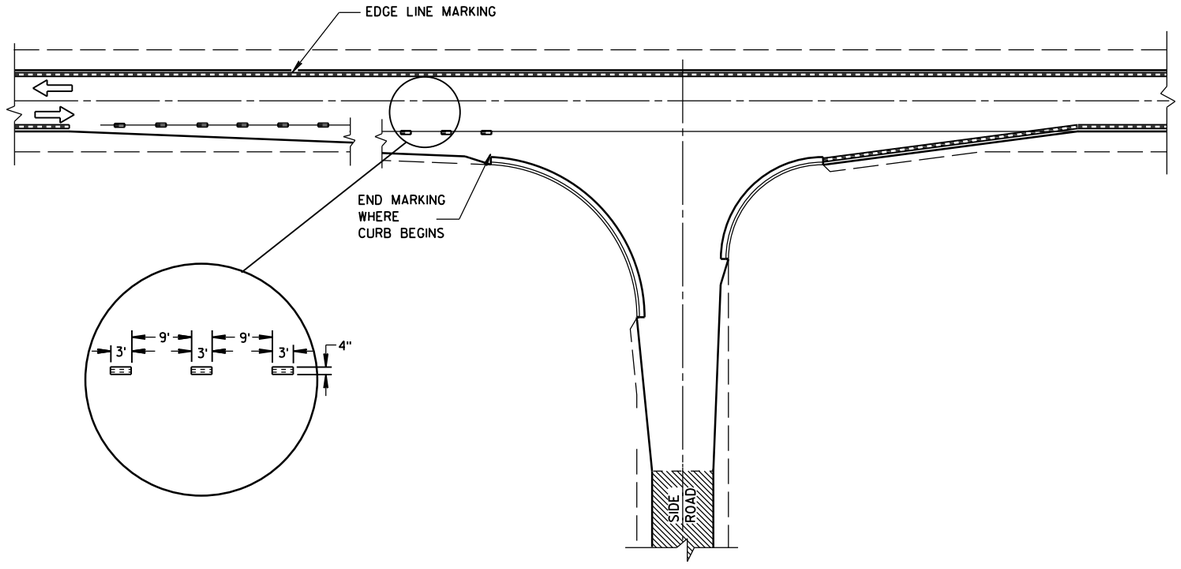
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



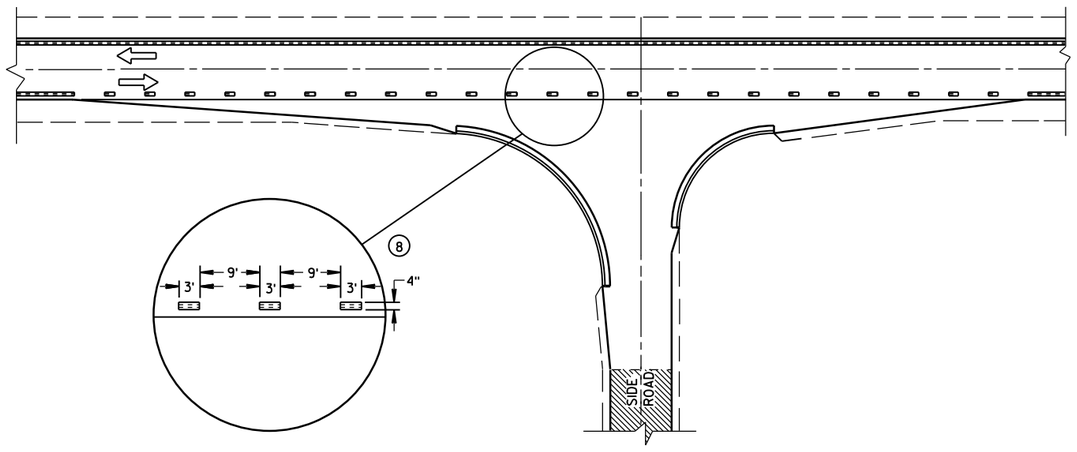
MAJOR INTERSECTIONS

(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

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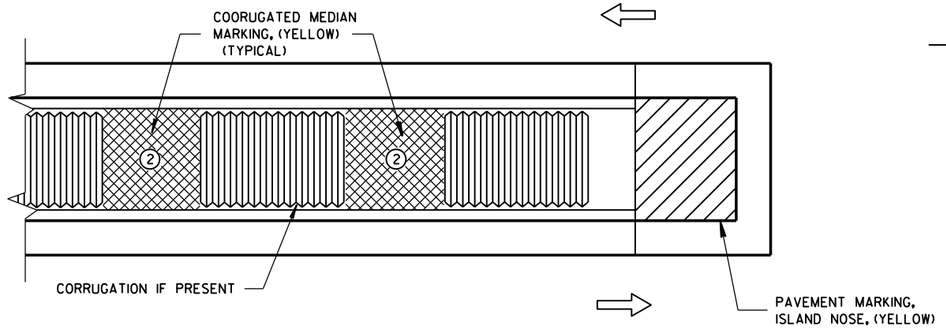
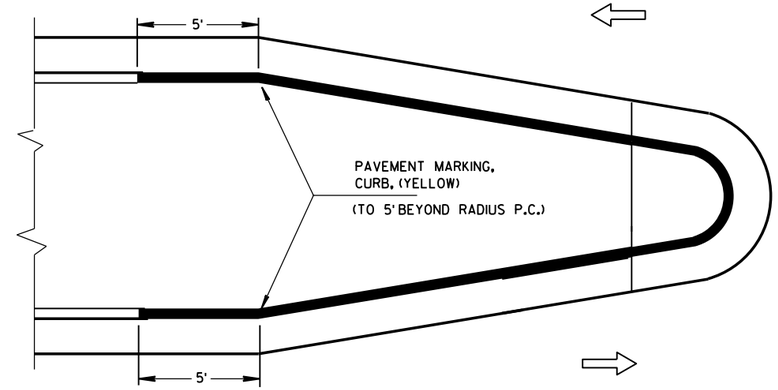
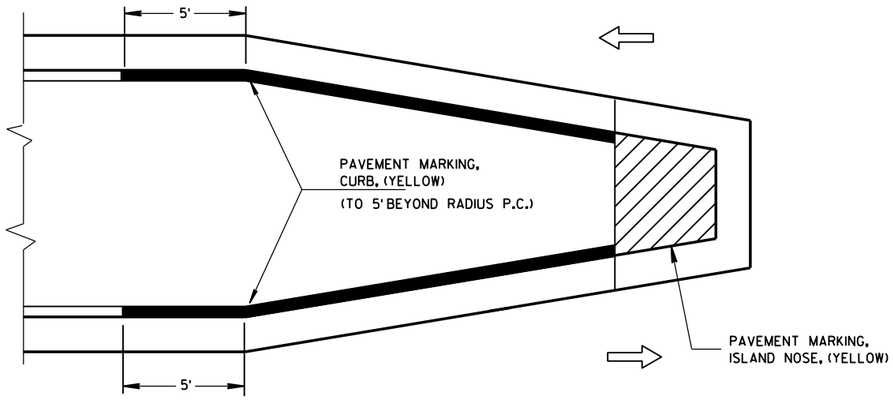
S.D.D. 15 C 8-16b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

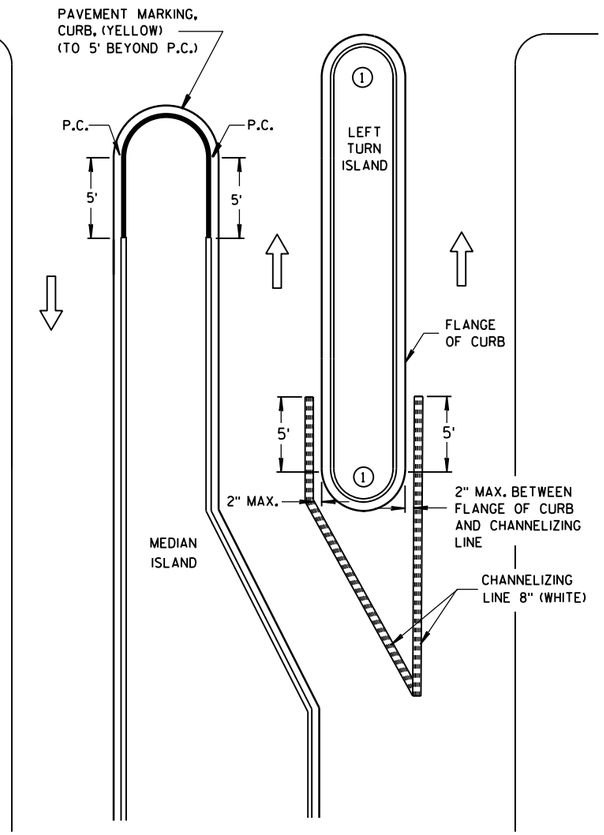


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

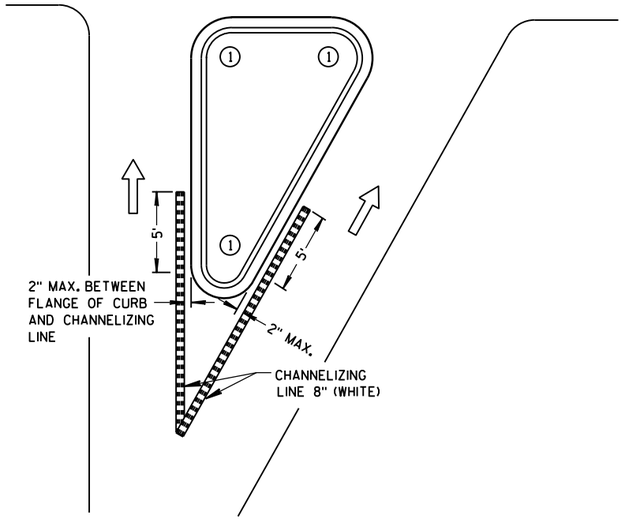


LEFT TURN & MEDIAN ISLAND

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

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S.D.D. 15 C 8-16f

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

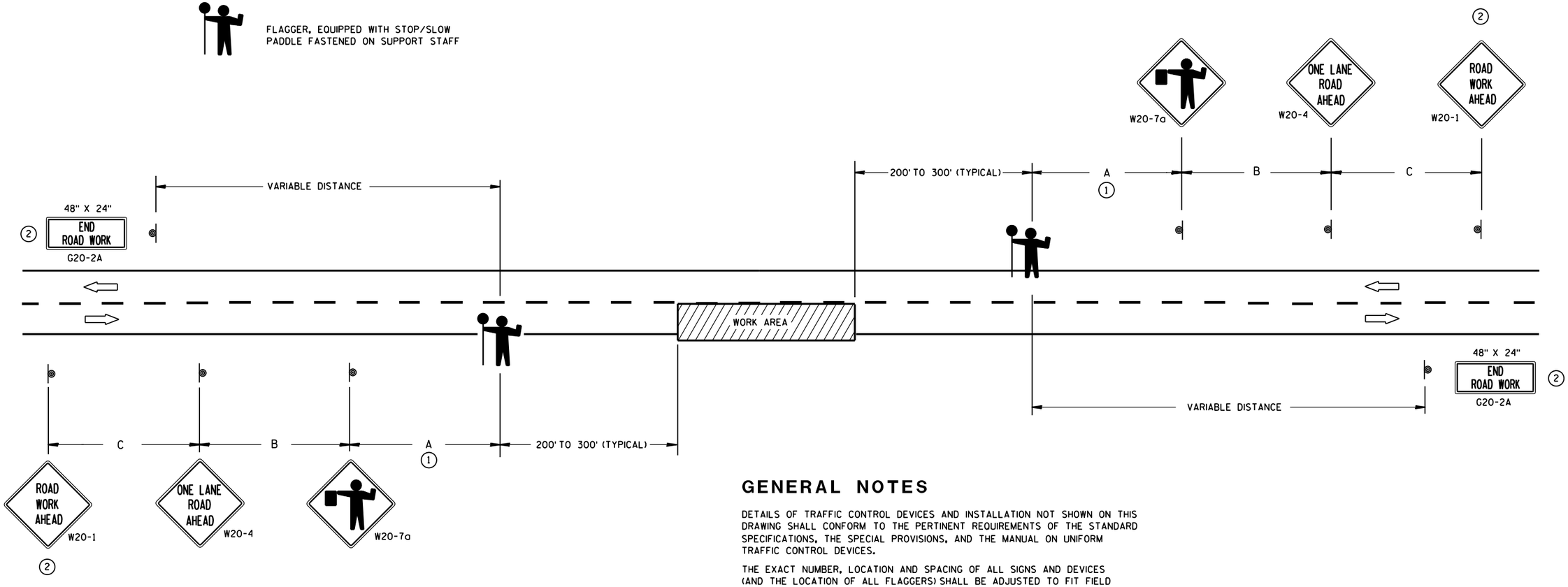
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 C 12-4

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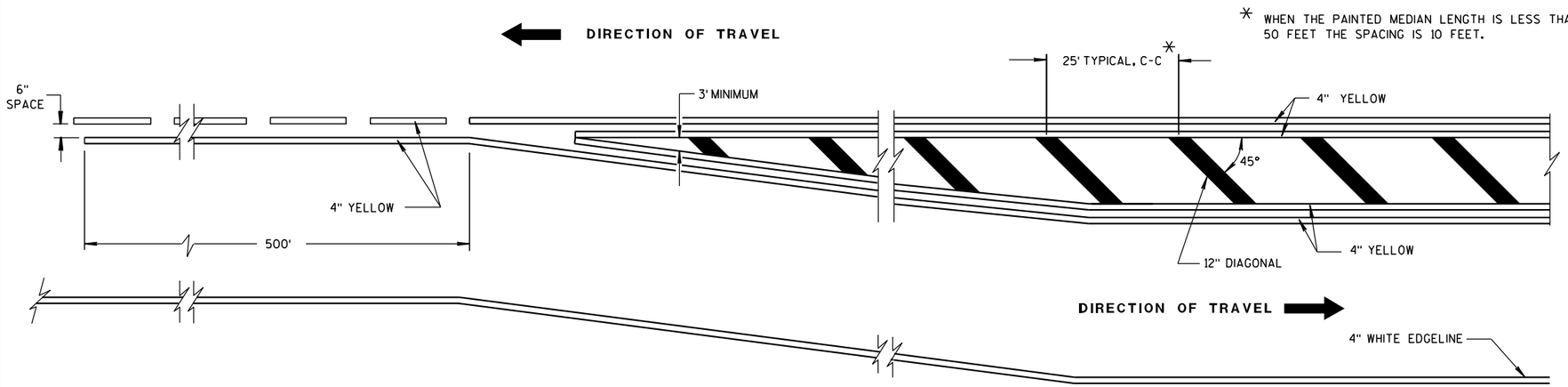
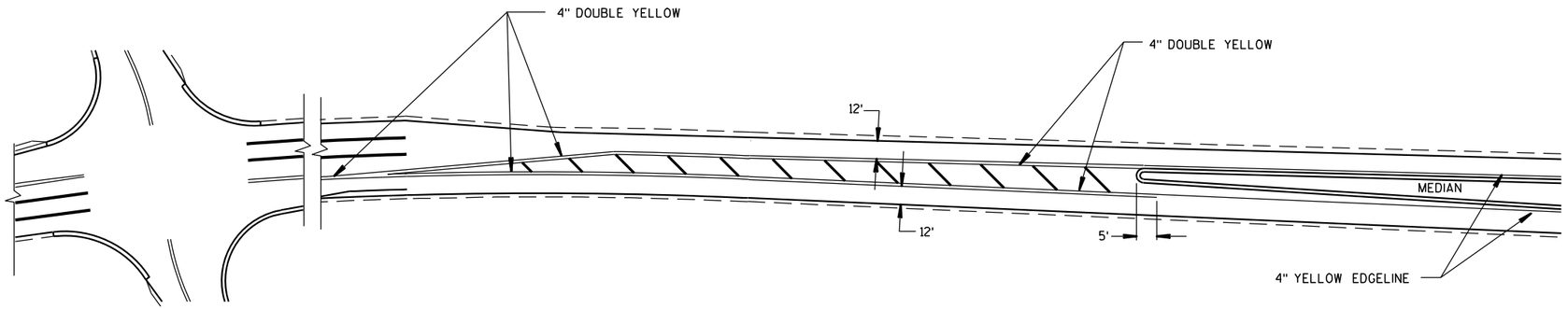
S.D.D. 15 C 12-4



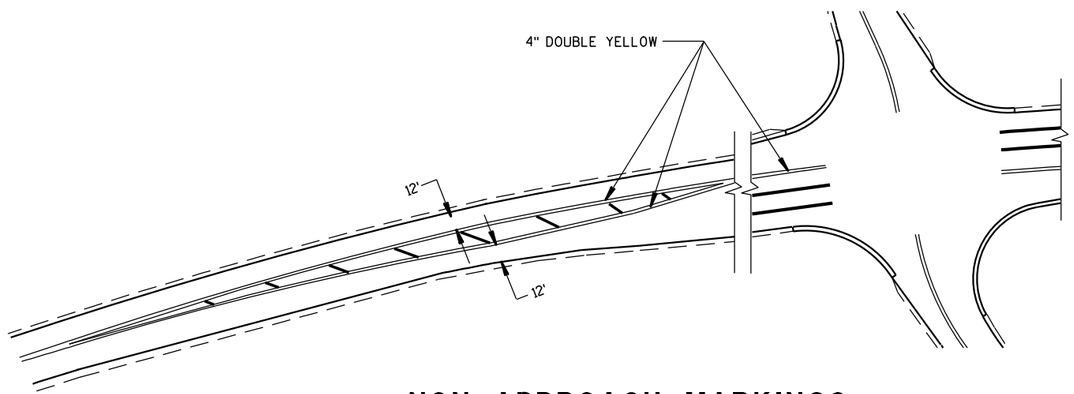
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	

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S.D.D. 15 C 18-3

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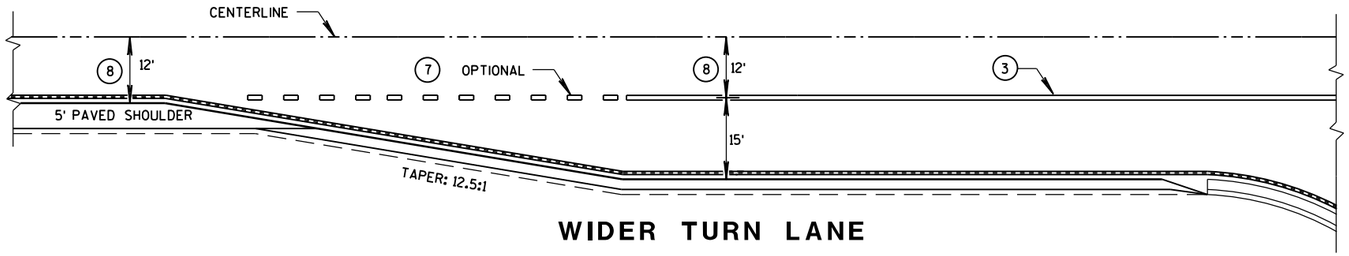
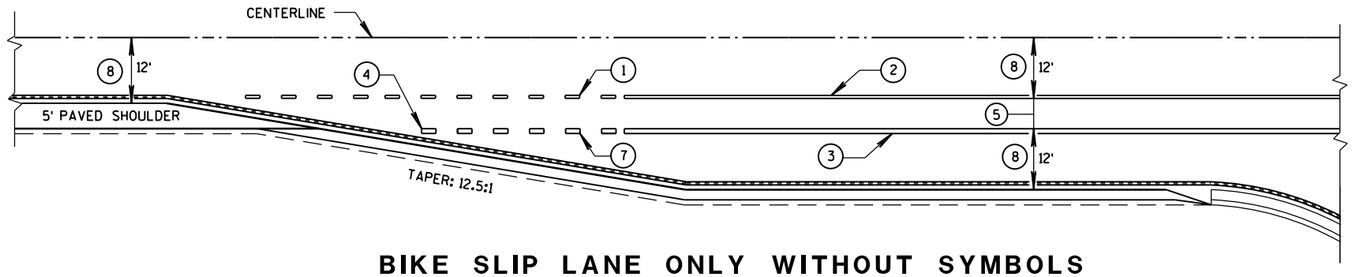
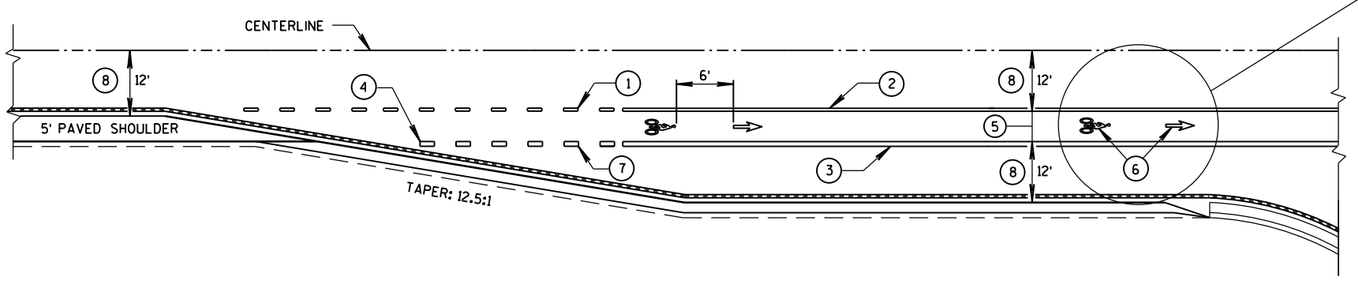
S.D.D. 15 C 18-3



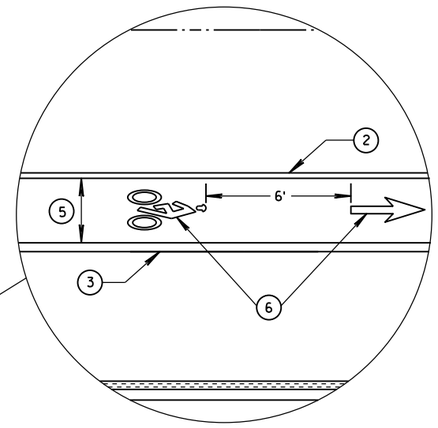
WIDER TURN LANE



BIKE SLIP LANE ONLY WITHOUT SYMBOLS



BIKE LANE WITH SYMBOLS



GENERAL NOTES

1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
   BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥ 45 MPH.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.
8. REFER TO CONTRACT PLANS.

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

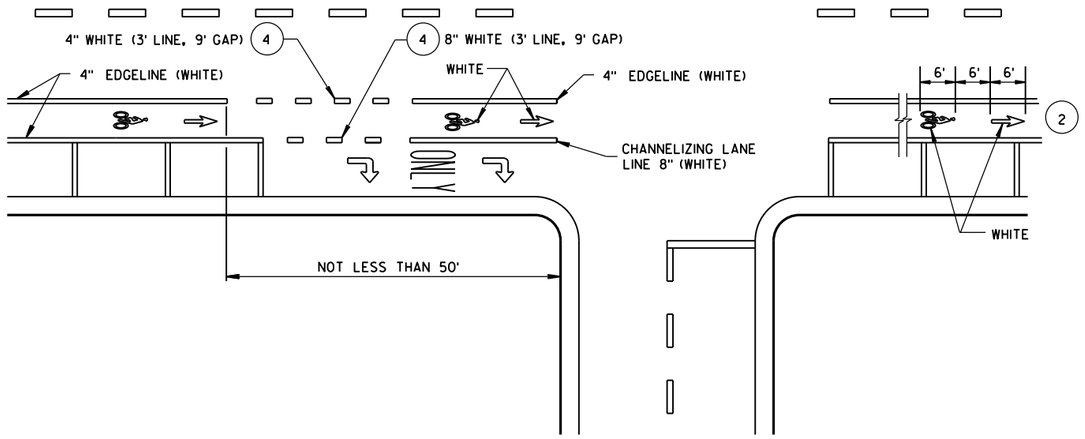
4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

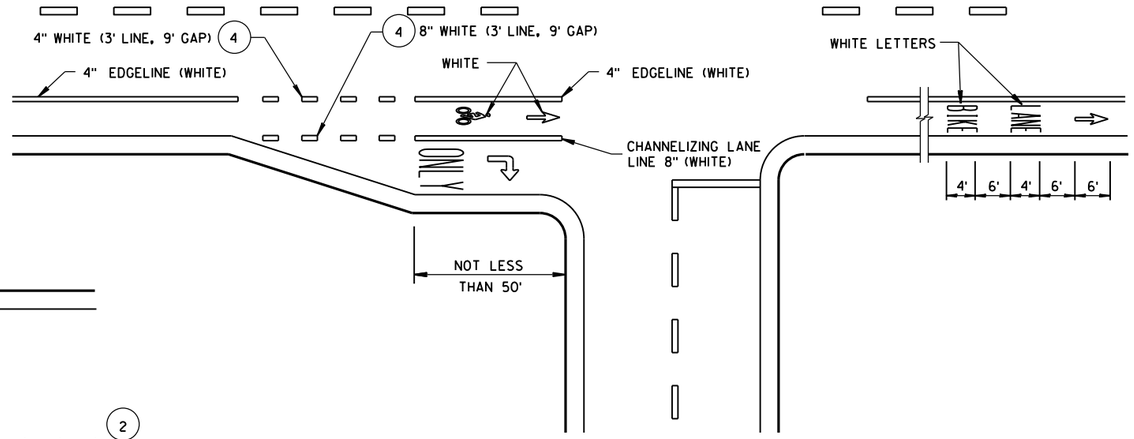
S.D.D. 15 C 29-3a



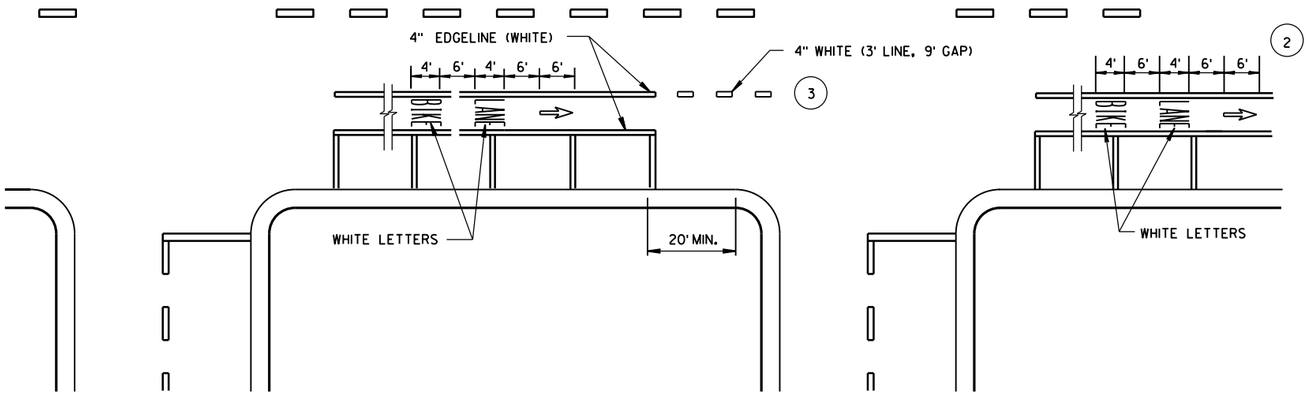
DESIGNATED BICYCLE LANE

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. WHEN SPECIFIED IN THE CONTRACT.



DESIGNATED BICYCLE LANE
NO PARKING, RIGHT TURN LANE



DESIGNATED BICYCLE LANE
WITH PARKING, NO RIGHT TURN LANE

URBAN BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 DATE
/S/ Travis Feltes
STATE TRAFFIC E
FHWA

6

S.D.D. 15 C 29-3c

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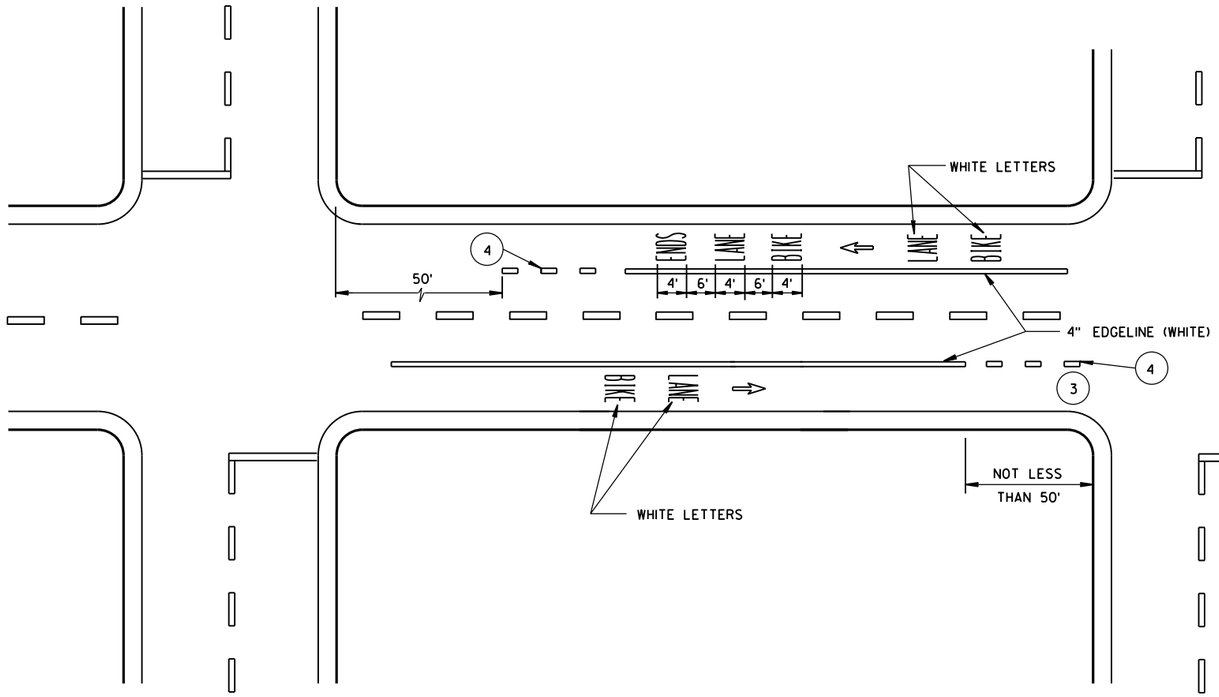
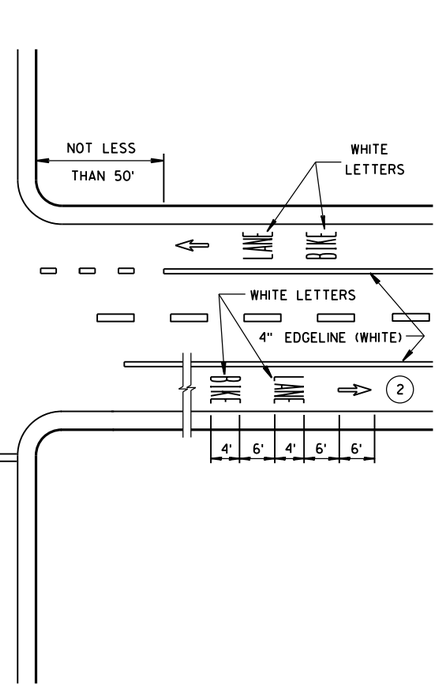
S.D.D. 15 C 29-3c

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. 3' LINE, 9' GAP - 4" WIDE, WHITE.





DESIGNATED BICYCLE LANE
NO PARKING

URBAN BICYCLE LANE MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/30/2013 DATE	/S/ Travis Feltes STATE TRAFFIC EN
FHWA	

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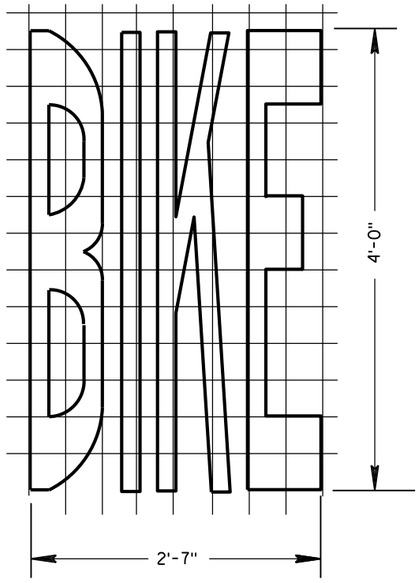
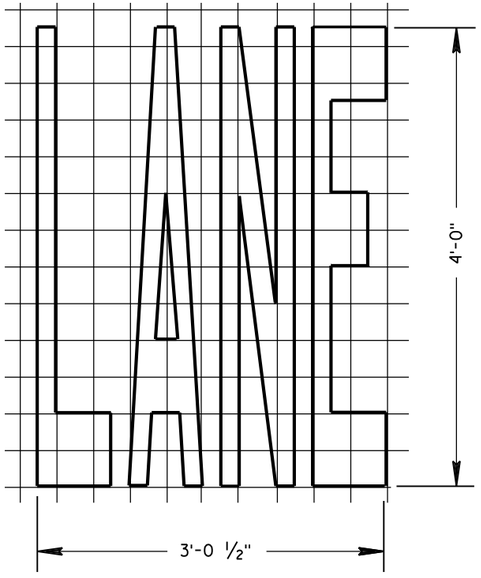
S.D.D. 15 C 29-3d

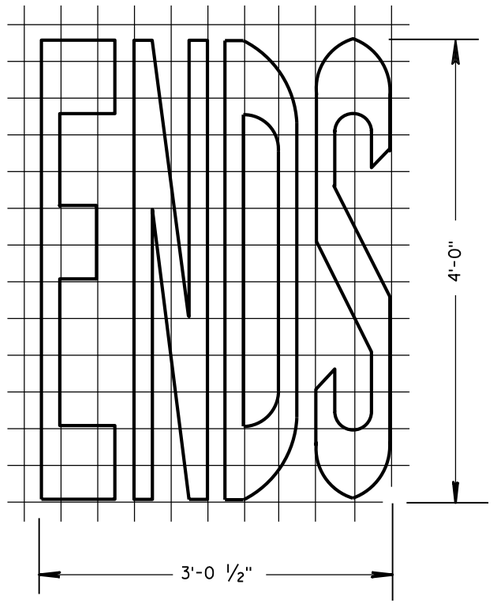
GENERAL NOTES

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.

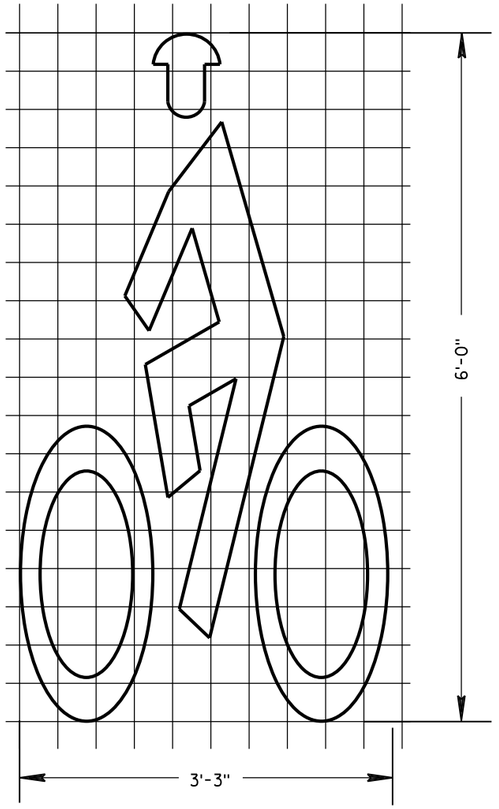
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



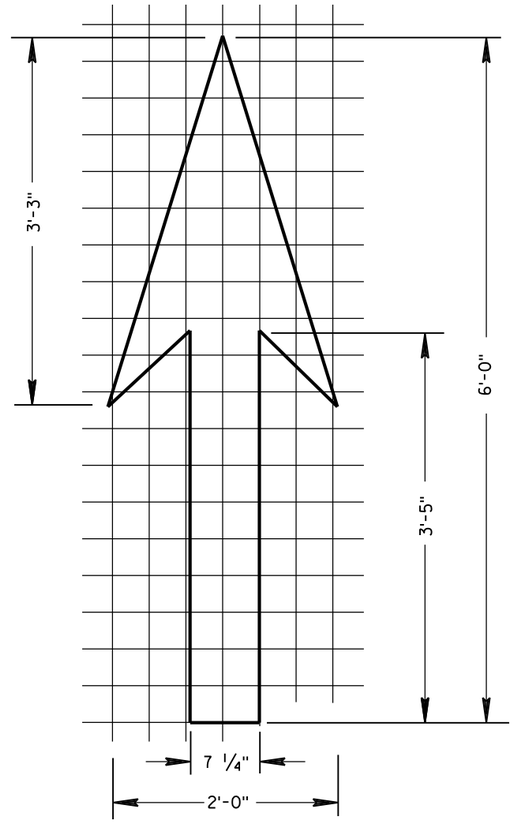




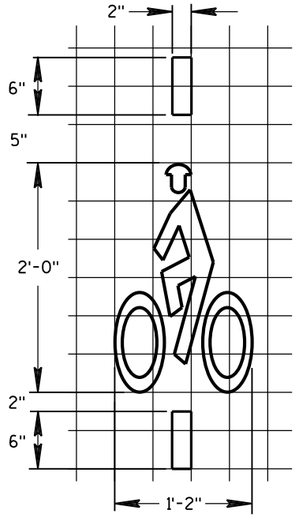
BIKE LANE WORDS



BIKE LANE SYMBOL



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC EN

FHWA

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S.D.D. 15 C 29-3e

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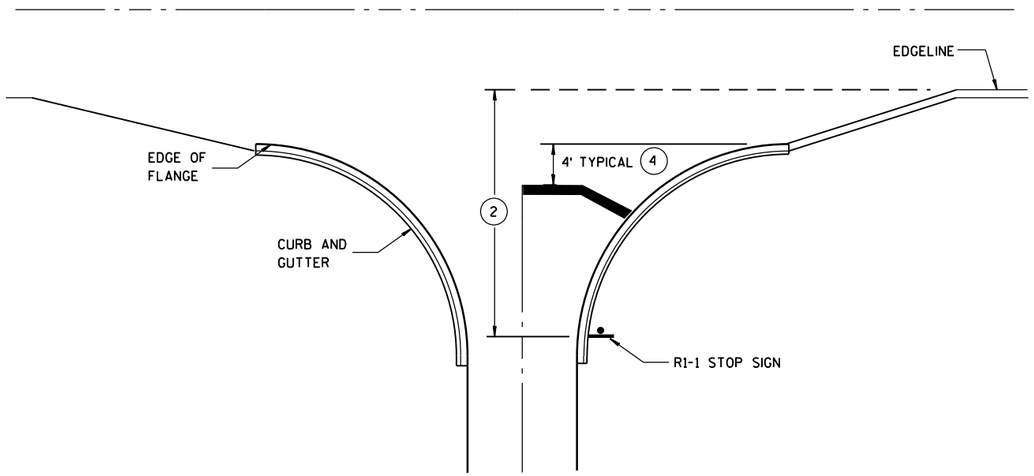
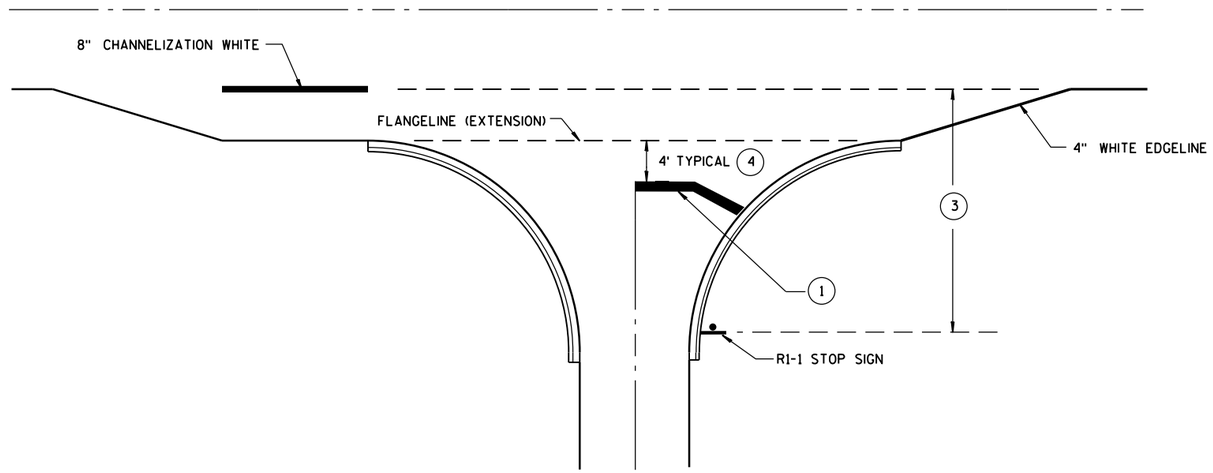
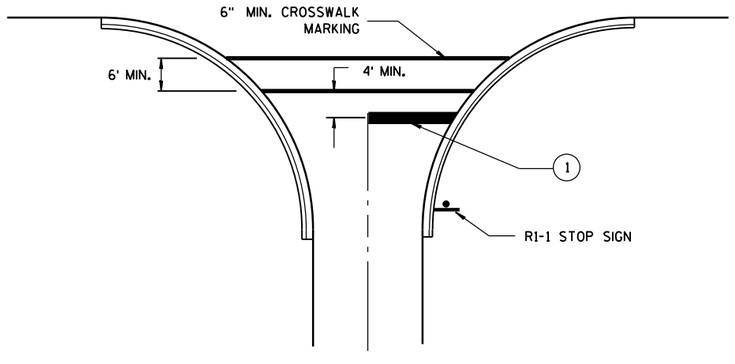
S.D.D. 15 C 29-3e



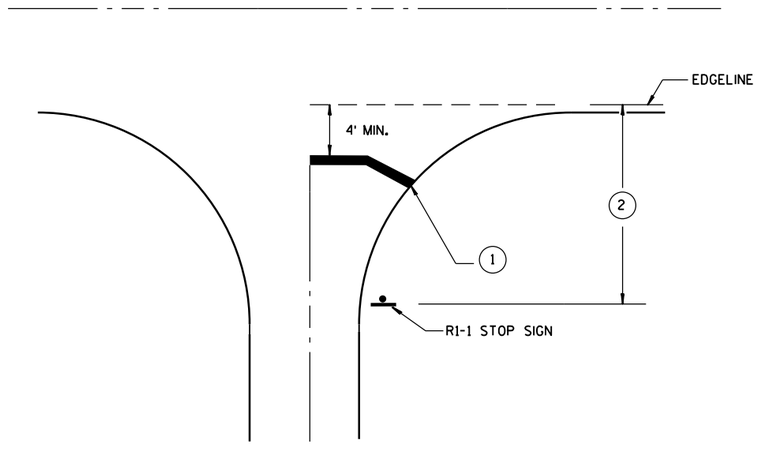
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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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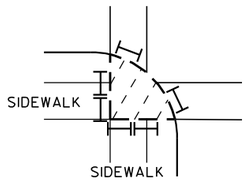
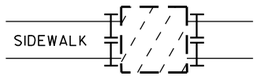
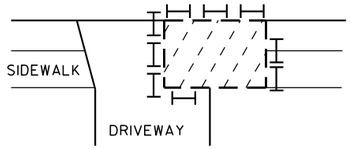
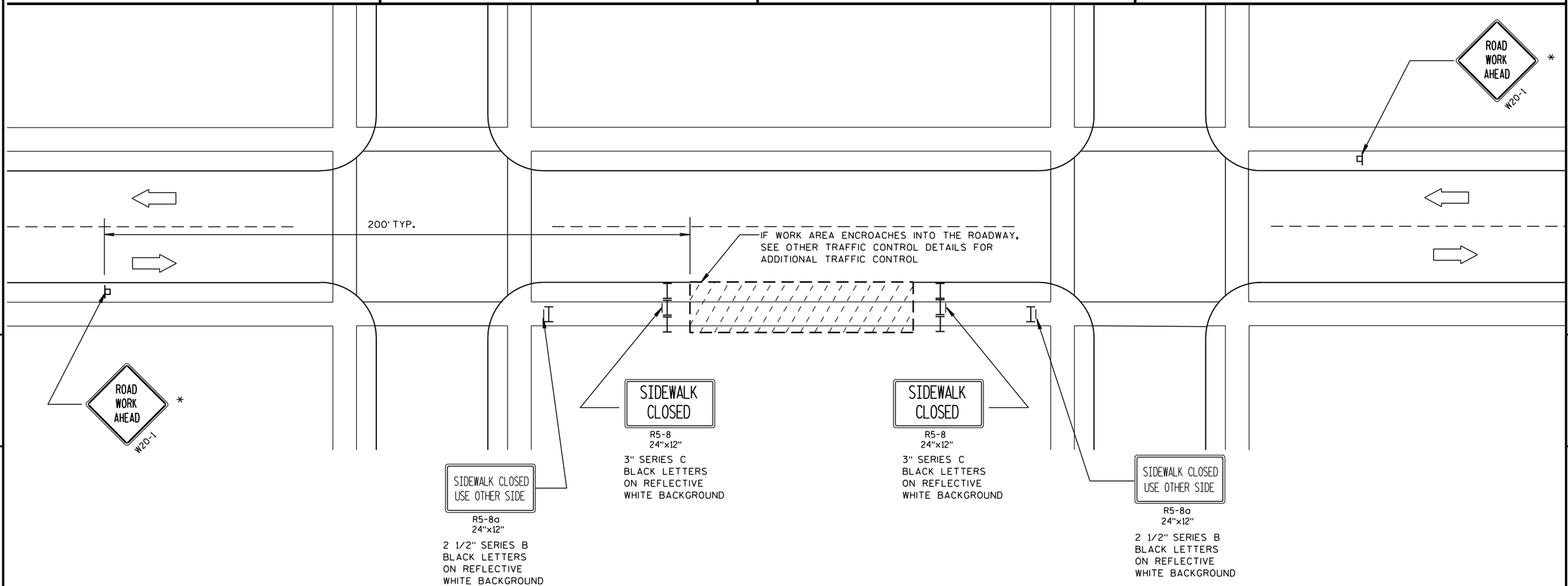
S.D.D. 15 C 33-1
S.D.D. 15 C 33-1

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

THE EXACT LOCATION AND PLACEMENT OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

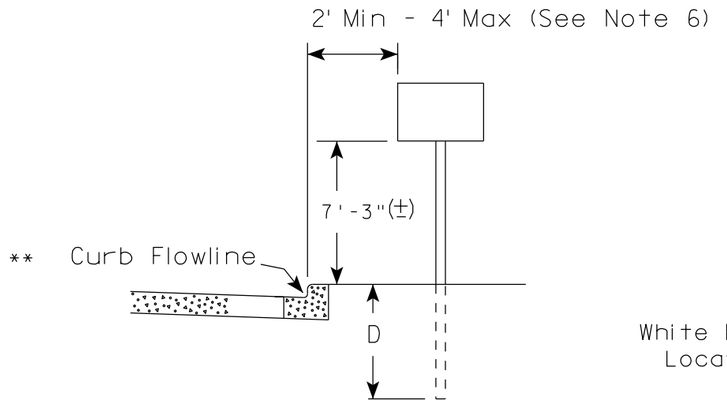
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible]NEER
FHWA

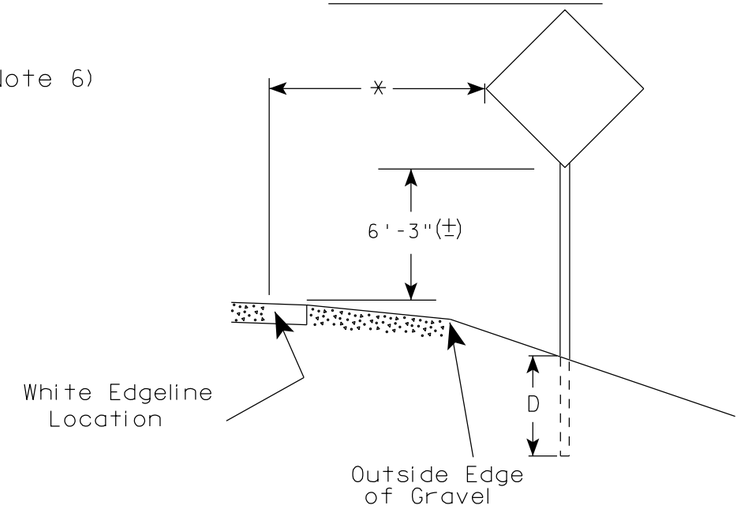
6

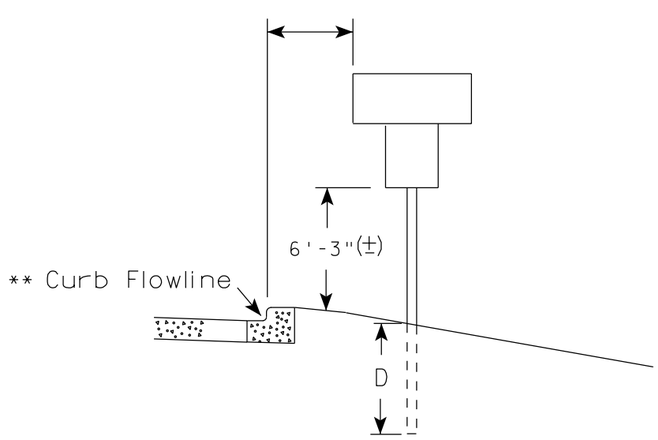
S.D.D. 15 D 30-1

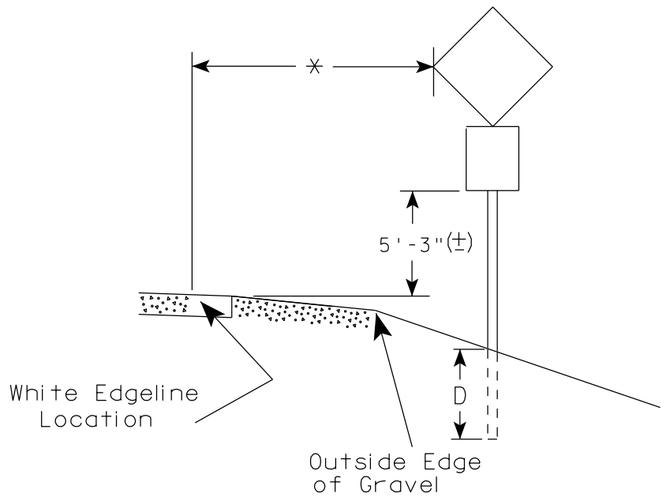
URBAN AREA



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

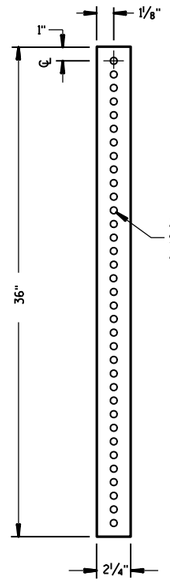
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18

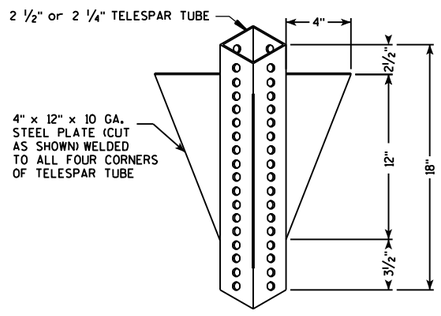
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

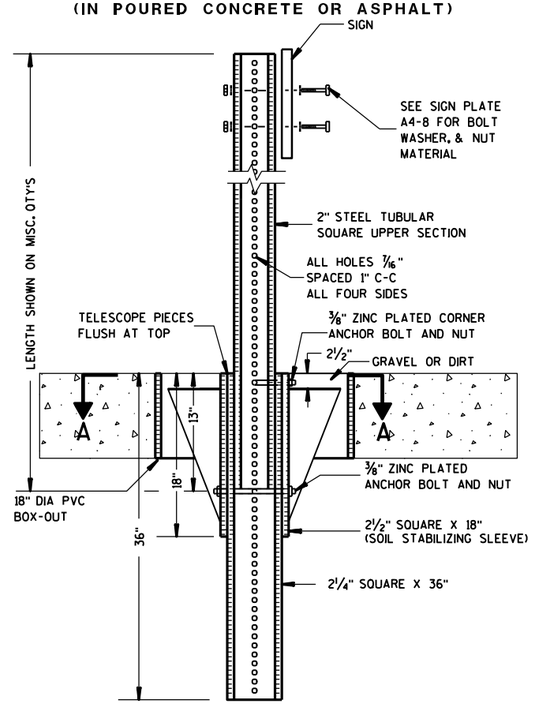
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



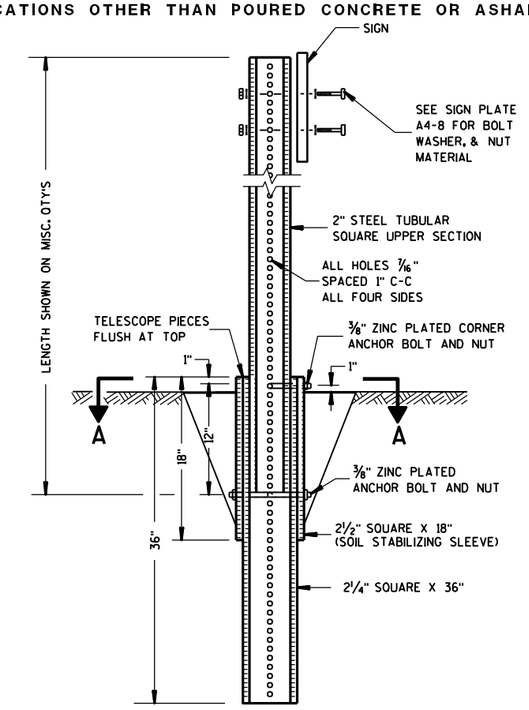
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

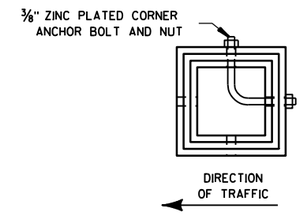


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

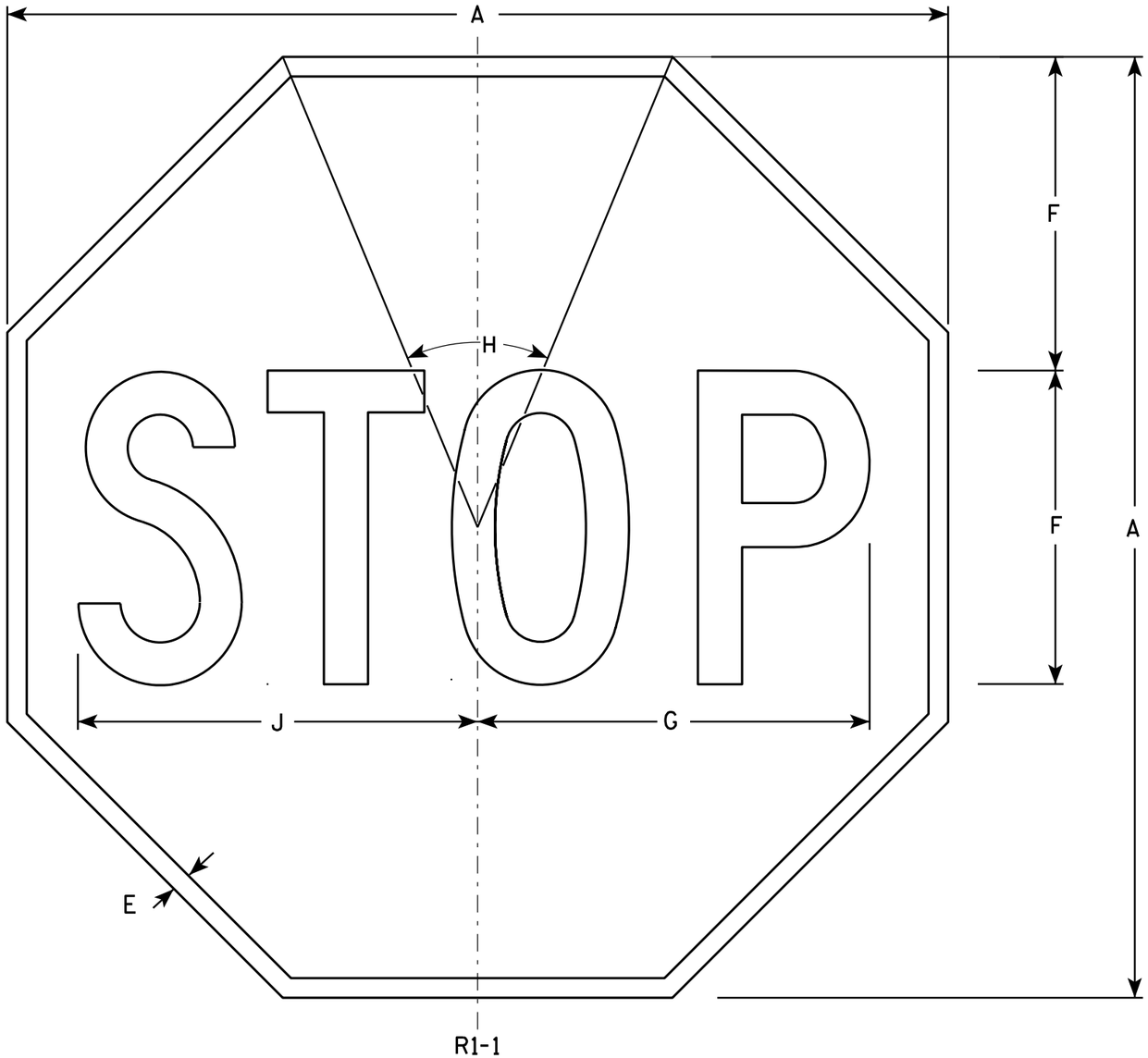
TUBULAR STEEL SIGN POST A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 104	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

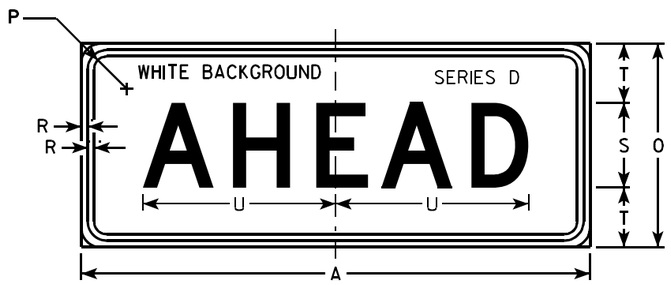
DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 105	E

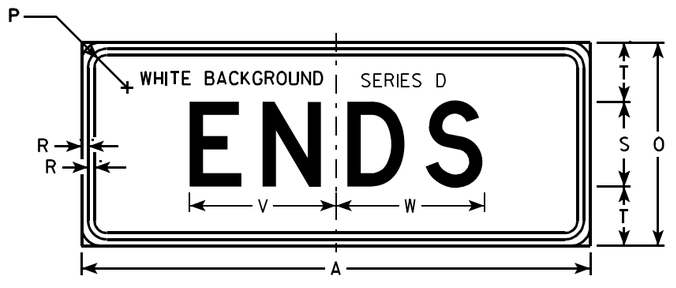
R3-17

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 SHOWN
   Message - BLACK
3. Message Series - C or as noted on the Signs.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R3-17ap



R3-17bp

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	R3-17 Area sq. ft.	R3-17ap Area sq. ft.	R3-17bp Area sq. ft.
1																													
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
3																													
4																													
5																													

STANDARD SIGN
R3-17 & R3-17a&bp

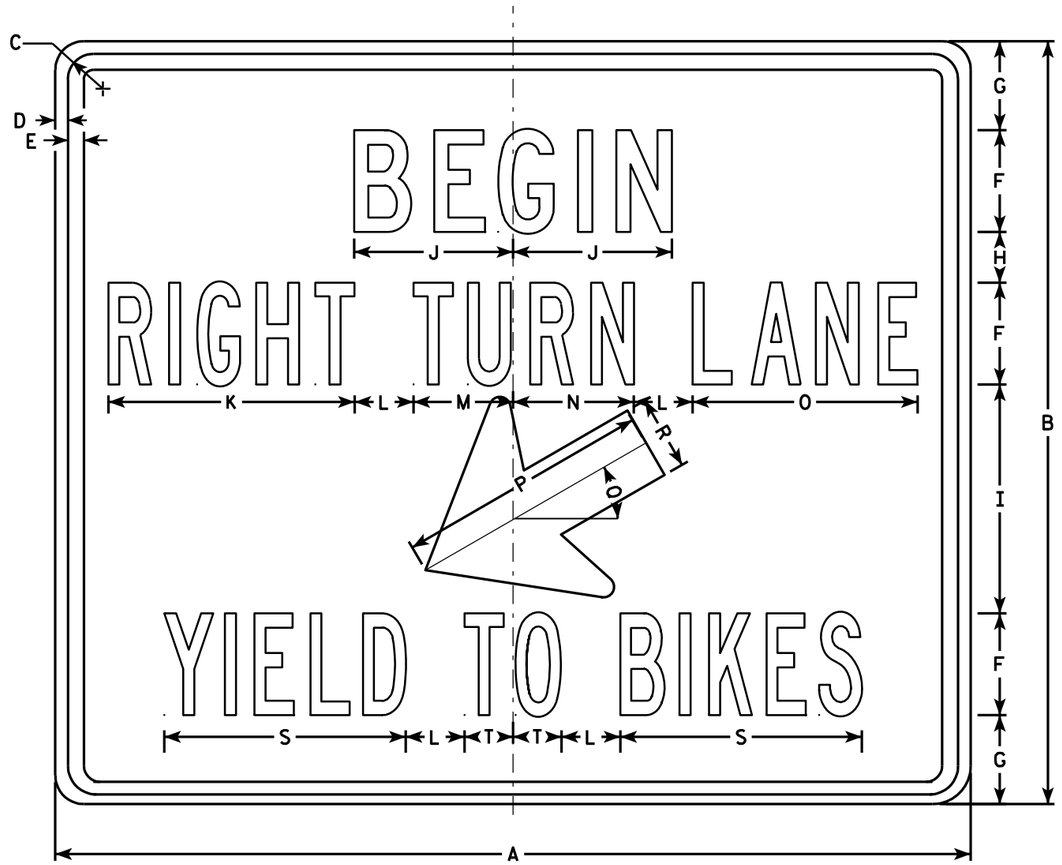
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/12/2011 PLATE NO. R3-17.2

PROJECT NO:

SHEET NO: 106 E



R4-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C
   Lines 2 & 3 are Series B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
2M	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
3																											
4																											
5																											

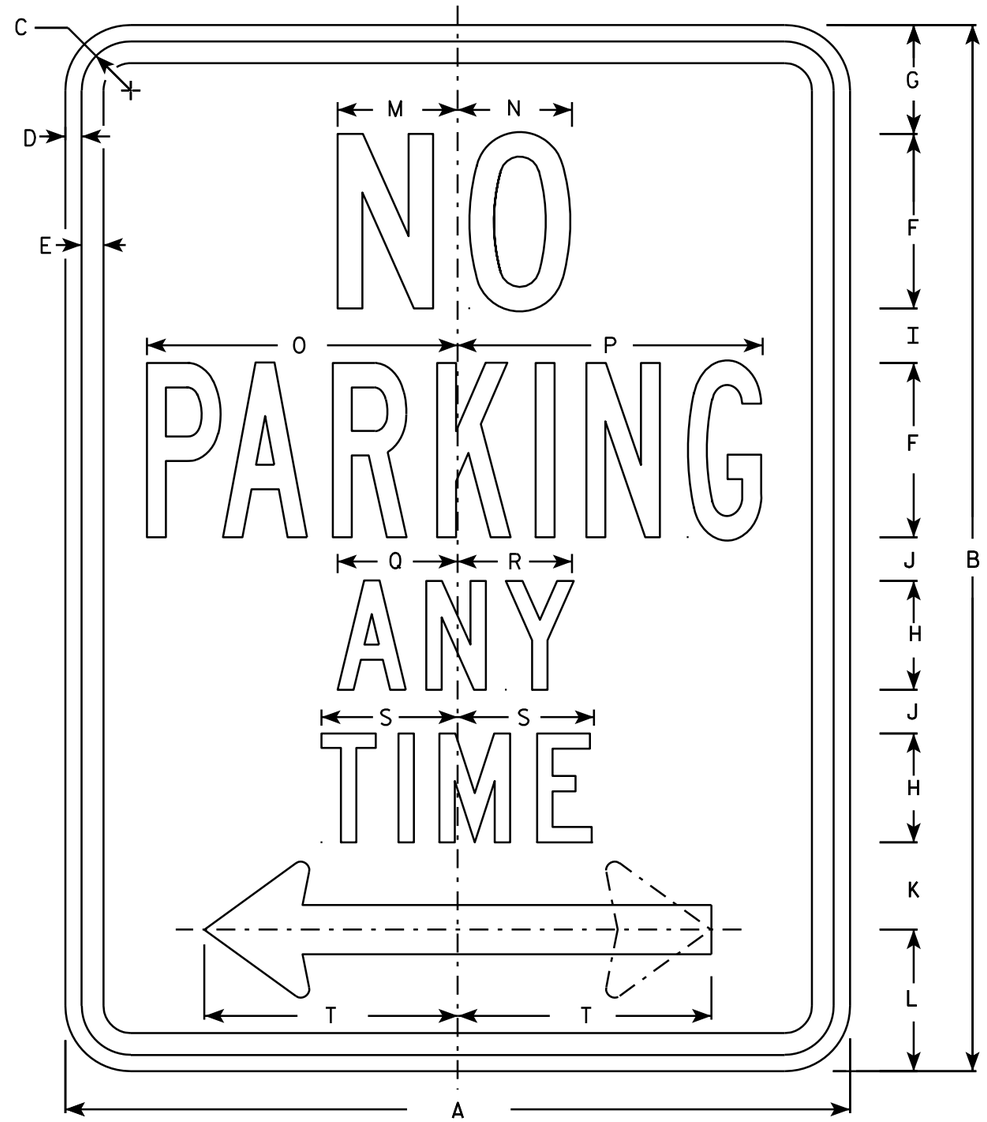
STANDARD SIGN
R4-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-4.2

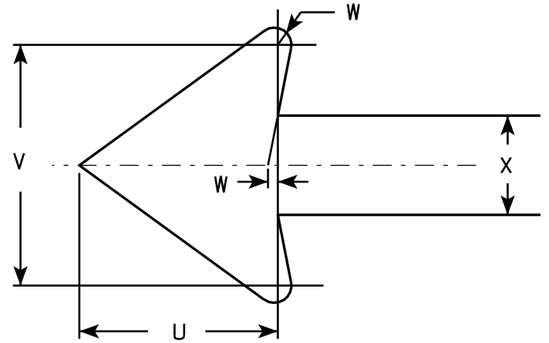
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 107 | E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

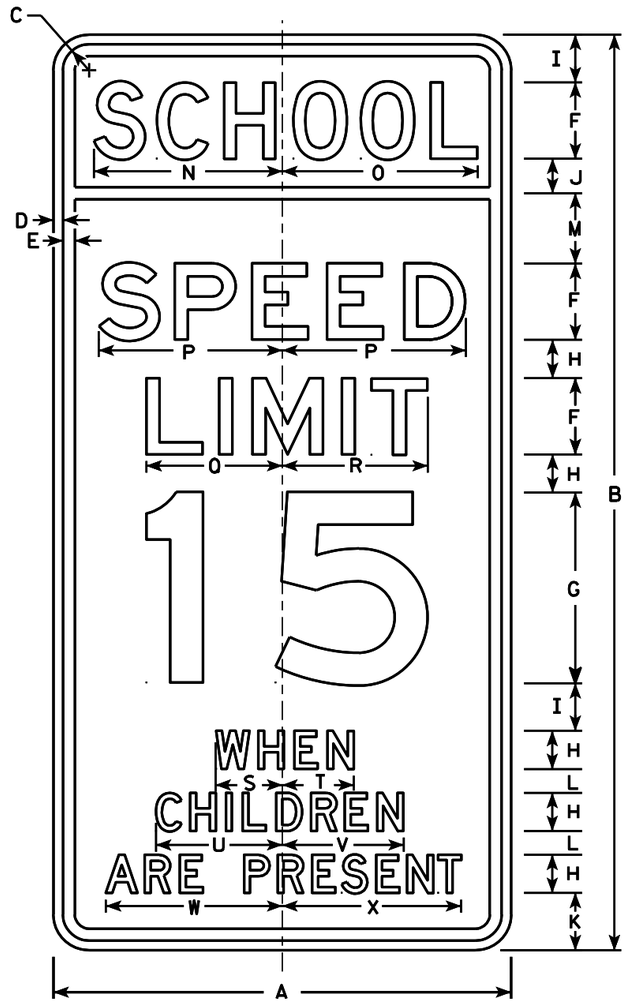
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 108 | E



S4-51

NOTES

1. Sign is Type II - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. (See note 5).
2. Color:
   Background - See note 5
   Message - Black
3. Message Series - See note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Top panel (SCHOOL) background - Yellow Green -Type F Reflective.
   Lower panel background - White -Type H Reflective.
6. From top to bottom:
   Lines 1, 5, 6 & 7 are series D
   Lines 2, 3 & 4 are series E
7. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	48	1 3/8	1/2	5/8	4	10	2	2 1/2	1 3/4	3	1 1/4	3 3/4	9 7/8	10 1/4	9 5/8	7 1/8	7 5/8	3 1/2	3 3/8	6 5/8	6 3/8	9 1/4	9 3/8			8.00	0.72
3	36	72	2 1/4	3/4	1	6	15	3	3 3/4	2 3/4	4 1/2	1 7/8	5 1/2	15	15 1/4	14 1/2	11 1/4	11 1/2	5 1/2	5 3/4	10	9 3/4	14	14 1/8			18.00	1.62
4																												
5																												

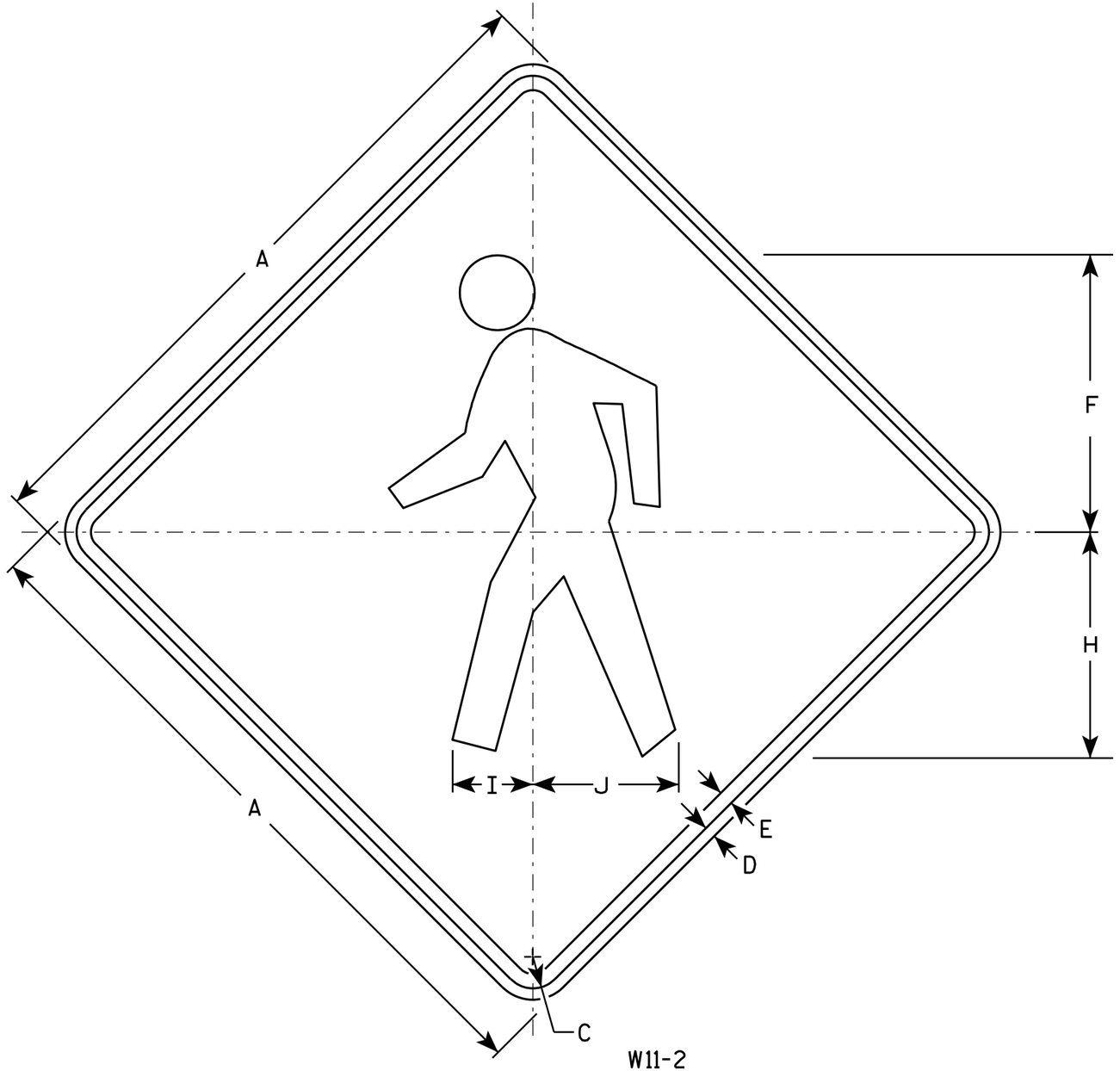
STANDARD SIGN
S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/26/10 PLATE NO. S4-51.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 109	E



W11-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

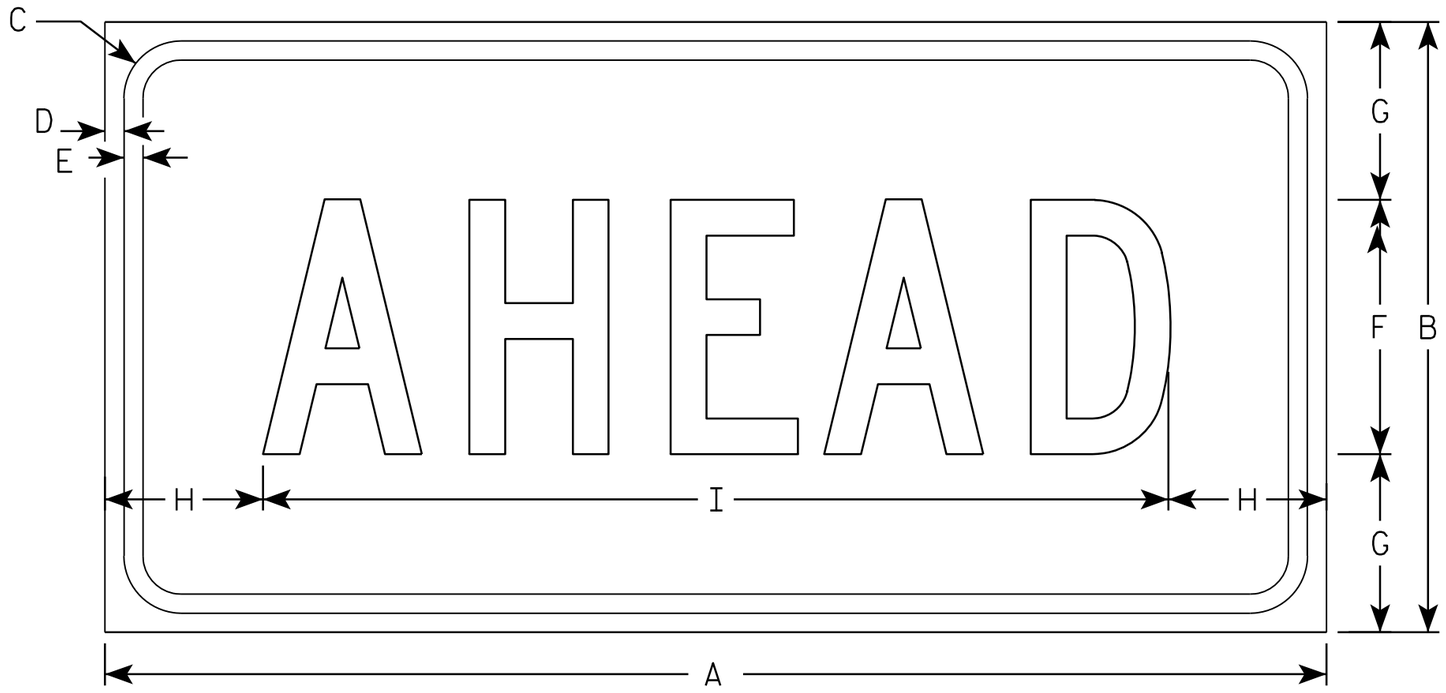
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 110	E



W16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
W16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 111 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W169P.DGN PLOT DATE : 28-DEC-2010 13:39 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 2.979524:1.000000
WISDOT/CADDS SHEET 42

WISCONSIN STREET

Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.30 Note 3	Mass Ordinate Note 4
14+50	0	0	0	0	0	0	0	0
15+05.02	55	44	0	45	0	45	0	45
15+50	45	40	0	70	0	115	0	115
16+00	50	26	5	61	4	176	6	170
16+50	50	35	3	56	7	231	14	217
17+00	50	55	2	82	5	314	20	294
17+50	50	77	1	121	3	435	24	411
18+00	50	77	0	142	1	577	25	553
18+50	50	84	0	149	0	726	25	701
19+00	50	86	0	157	0	883	25	858
19+27.49	27	87	0	88	0	971	25	946
19+50	23	101	0	79	0	1049	25	1025
20+00	50	89	0	177	0	1226	25	1201
20+50	50	99	0	175	0	1400	25	1375
21+00	50	95	1	180	1	1580	27	1554
21+50	50	99	4	180	5	1761	33	1728
21+56.65	7	100	3	25	1	1785	34	1751
22+00	43	93	0	155	2	1940	37	1903
22+50	50	86	0	166	0	2106	37	2069
23+00	50	114	0	185	0	2291	37	2254
23+50	50	111	0	209	0	2500	37	2463
24+00	50	124	0	218	0	2718	37	2681
24+50	50	97	0	205	0	2923	37	2886
25+00	50	93	0	177	0	3100	37	3063
25+50	50	109	0	187	0	3287	37	3250
26+00	50	124	1	216	1	3503	39	3464
26+50	50	133	2	238	4	3741	43	3697
27+00	50	124	0	238	2	3979	46	3932
27+50	50	111	0	217	0	4196	47	4149
28+00	50	103	0	198	0	4394	47	4346
28+50	50	108	0	196	0	4589	47	4542
29+00	50	110	0	202	0	4791	47	4744
29+50	50	93	0	188	0	4979	47	4932
30+00	50	67	0	148	0	5128	47	5080
30+50	50	84	1	140	1	5268	48	5219
31+00	50	71	2	144	3	5412	52	5360
31+50	50	58	3	120	5	5531	58	5473
32+00	50	62	4	111	6	5642	66	5576

WISCONSIN STREET EARTHWORK - CONT'D

32+50	50	69	5	121	8	5763	77	5686
33+00	50	76	2	134	6	5897	85	5813
33+50	50	56	0	122	2	6020	87	5932
34+00	50	56	0	103	0	6123	87	6036
34+50	50	102	0	146	0	6269	87	6182
34+95.61	46	93	0	165	0	6434	87	6347
35+00	4	93	0	15	0	6449	87	6362
35+50	50	89	0	168	0	6617	87	6530
36+00	50	82	0	159	0	6776	87	6689
36+50	50	69	0	140	0	6916	87	6829
37+00	50	81	0	139	0	7056	88	6968
37+50	50	70	0	140	0	7195	88	7108
38+00	50	74	0	133	0	7329	88	7241
38+50	50	90	0	152	0	7481	88	7393
39+00	50	81	0	158	0	7639	88	7551
39+50	50	75	0	144	0	7783	88	7695
40+00	50	72	0	135	0	7918	88	7830
40+50	50	75	1	136	1	8054	90	7964
41+00	50	80	0	143	1	8197	91	8107
41+50	50	84	0	152	0	8349	91	8259
42+00	50	77	0	150	0	8499	91	8408
42+50	50	82	0	148	0	8647	91	8556
43+00	50	83	0	153	0	8800	91	8710
43+50	50	100	0	169	0	8970	91	8878
44+00	50	111	0	195	1	9165	92	9073
44+50	50	95	2	190	2	9355	95	9260
45+00	50	95	1	175	3	9530	99	9431
45+50	50	38	0	123	1	9653	100	9553
46+00	50	0	0	35	0	9688	100	9588

Notes: 1) Salvaged/Unusable Pavement Material is included in Cut.
2) Does not include Unusable Pavement Excavation volume.
3) Will be backfilled with Cut or Borrow.
4) Plus quantity indicates an excess of material. Minus indicates a shortage of material.

9

9

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090101 EW.DWG
LAYOUT NAME - 090101 EW - WI STREET
PLOT DATE : 9/10/2014 8:23 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : N/A
WISDOT/CADDS SHEET 49

11TH STREET

Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.30 Note 3	Mass Ordinate Note 4
50+75	0	40	0	0	0	0	0	0
51+00	25	48	0	40	0	40	0	40

Notes: 1) Salvaged/Unusable Pavement Material is included in Cut.
2) Does not include Unusable Pavement Excavation volume.
3) Will be backfilled with Cut or Borrow.
4) Plus quantity indicates an excess of material. Minus indicates a shortage of material.

13TH STREET

Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.30 Note 3	Mass Ordinate Note 4
60+25	0	40	1	0	0	0	0	0
60+70	45	73	1	94	2	94	3	91

Notes: 1) Salvaged/Unusable Pavement Material is included in Cut.
2) Does not include Unusable Pavement Excavation volume.
3) Will be backfilled with Cut or Borrow.
4) Plus quantity indicates an excess of material. Minus indicates a shortage of material.

KNOLLWOOD

Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.30 Note 3	Mass Ordinate Note 4
70+60	0	76	0	0	0	0	0	0
71+00	40	49	0	93	0	93	0	93
71+35	35	44	0	60	0	153	0	153

Notes: 1) Salvaged/Unusable Pavement Material is included in Cut.
2) Does not include Unusable Pavement Excavation volume.
3) Will be backfilled with Cut or Borrow.
4) Plus quantity indicates an excess of material. Minus indicates a shortage of material.

WISCONSIN COURT

Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.30 Note 3	Mass Ordinate Note 4
90+50	0	40	0	0	0	0	0	0
90+75	25	57	0	45	0	45	0	45

Notes: 1) Salvaged/Unusable Pavement Material is included in Cut.
2) Does not include Unusable Pavement Excavation volume.
3) Will be backfilled with Cut or Borrow.
4) Plus quantity indicates an excess of material. Minus indicates a shortage of material.

HUNTER HILL

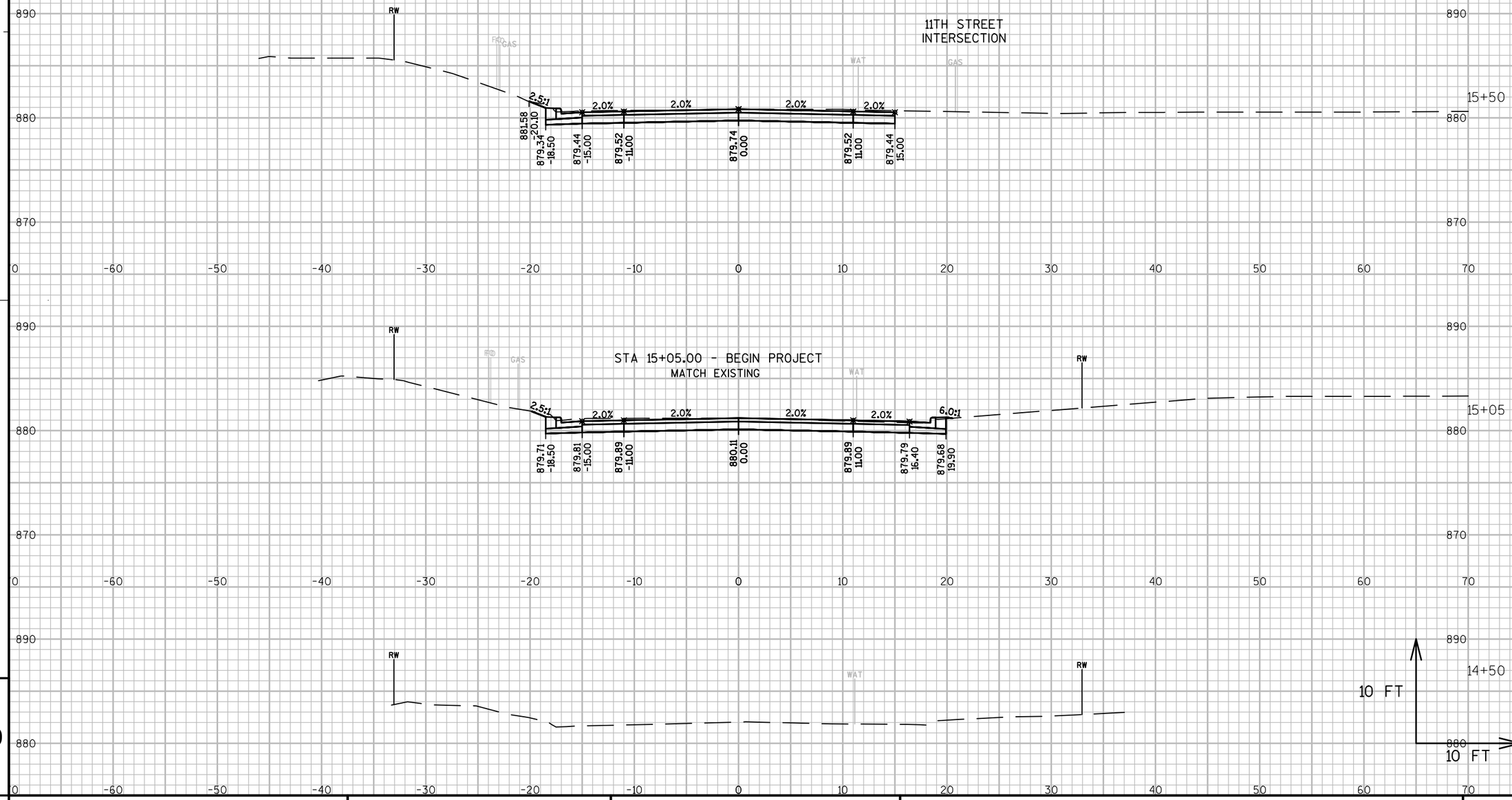
Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.30 Note 3	Mass Ordinate Note 4
100+80	0	42	0	0	0	0	0	0
101+10	30	65	0	59	0	59	0	59
101+90	0	77	0	0	0	59	0	59
102+40	50	39	0	107	0	167	0	167

Notes: 1) Salvaged/Unusable Pavement Material is included in Cut.
2) Does not include Unusable Pavement Excavation volume.
3) Will be backfilled with Cut or Borrow.
4) Plus quantity indicates an excess of material. Minus indicates a shortage of material.

SPRUCE STREET

Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 2	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.30 Note 3	Mass Ordinate Note 4
110+70	0	67	0	0	0	0	0	0
111+00	30	41	0	60	0	60	0	60

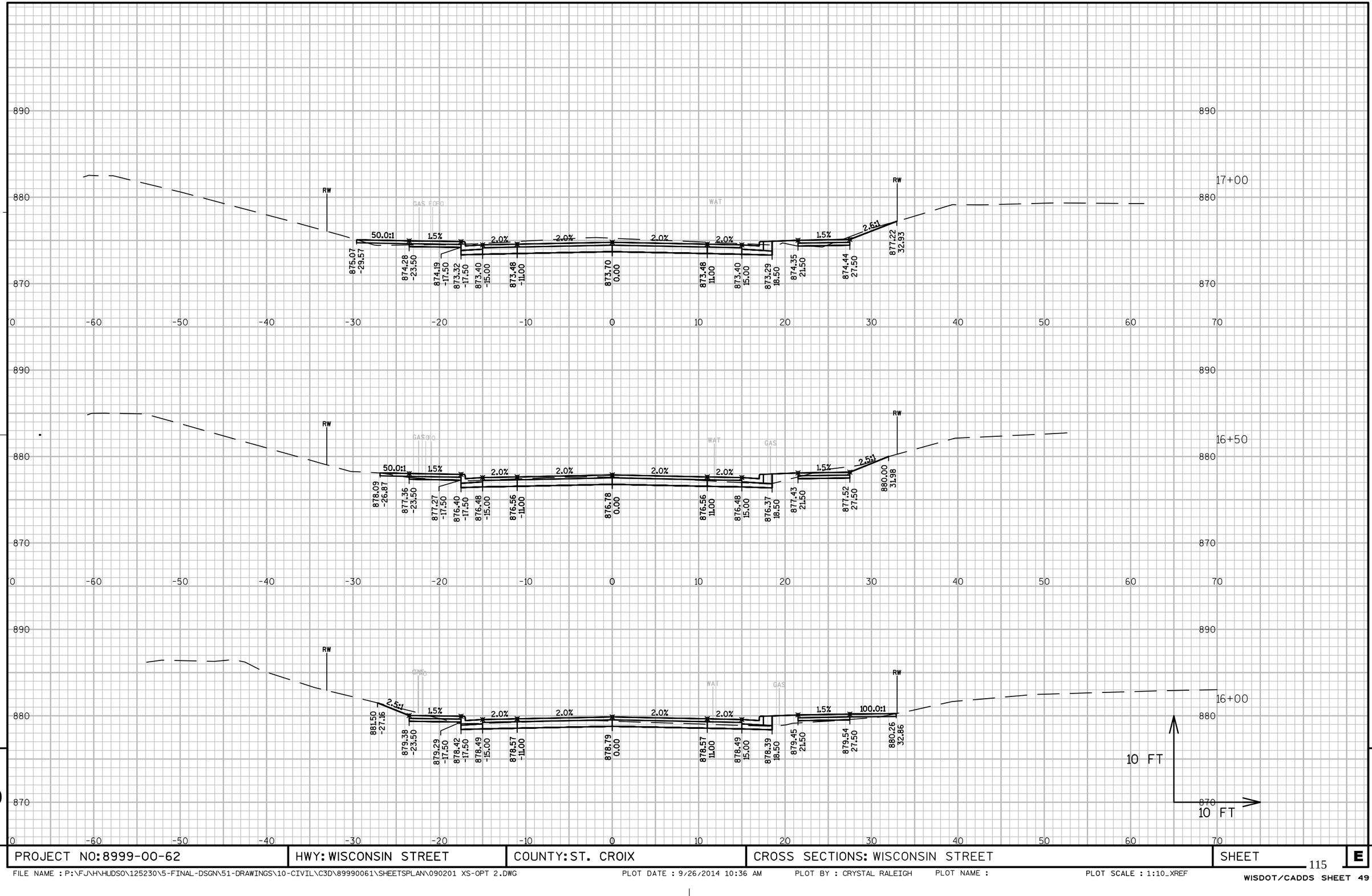
Notes: 1) Salvaged/Unusable Pavement Material is included in Cut.
2) Does not include Unusable Pavement Excavation volume.
3) Will be backfilled with Cut or Borrow.
4) Plus quantity indicates an excess of material. Minus indicates a shortage of material.



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET	E

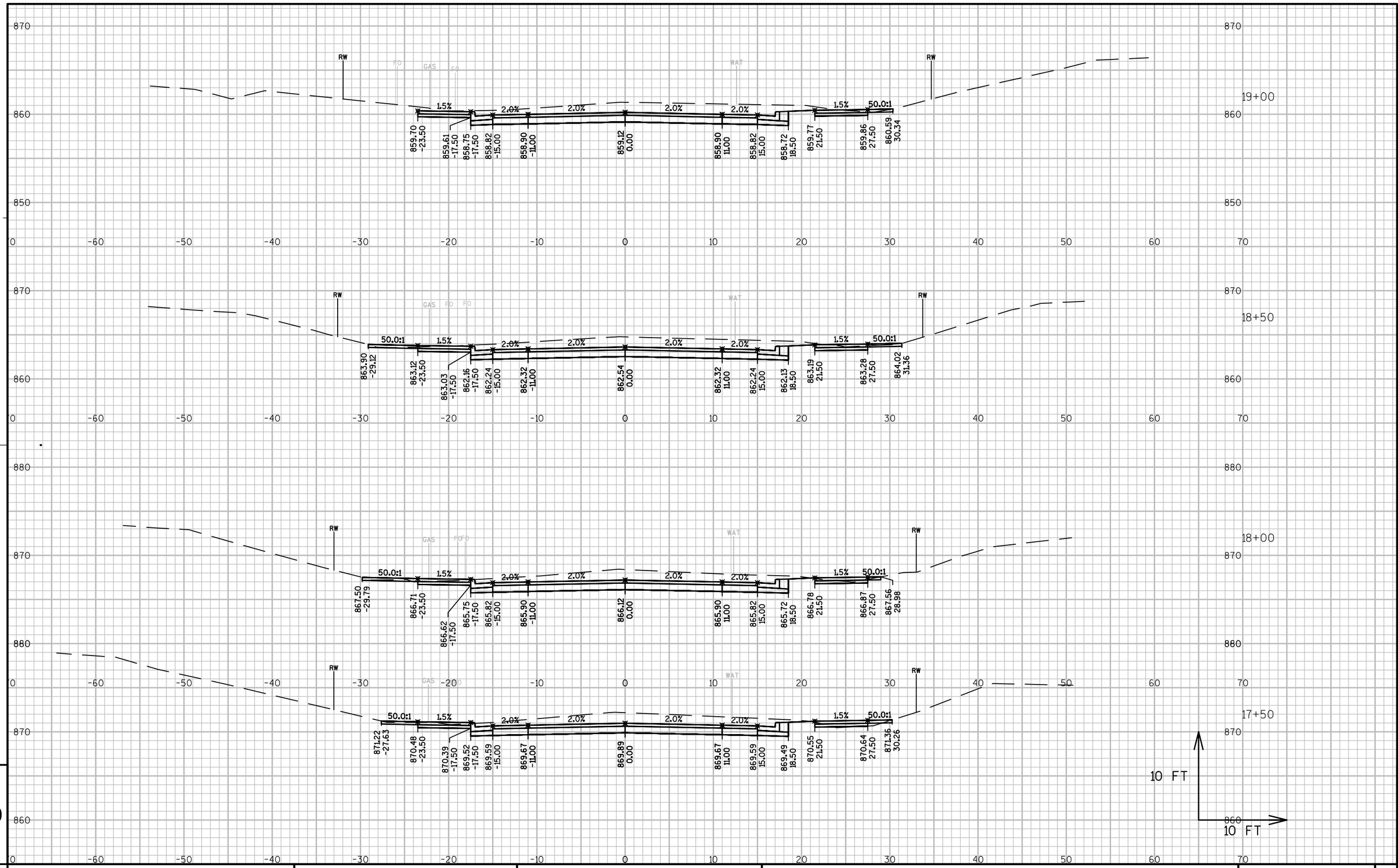
FILE NAME : P:\FJ\HH\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090201 XS-OPT 2.DWG PLOT DATE : 9/26/2014 10:36 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

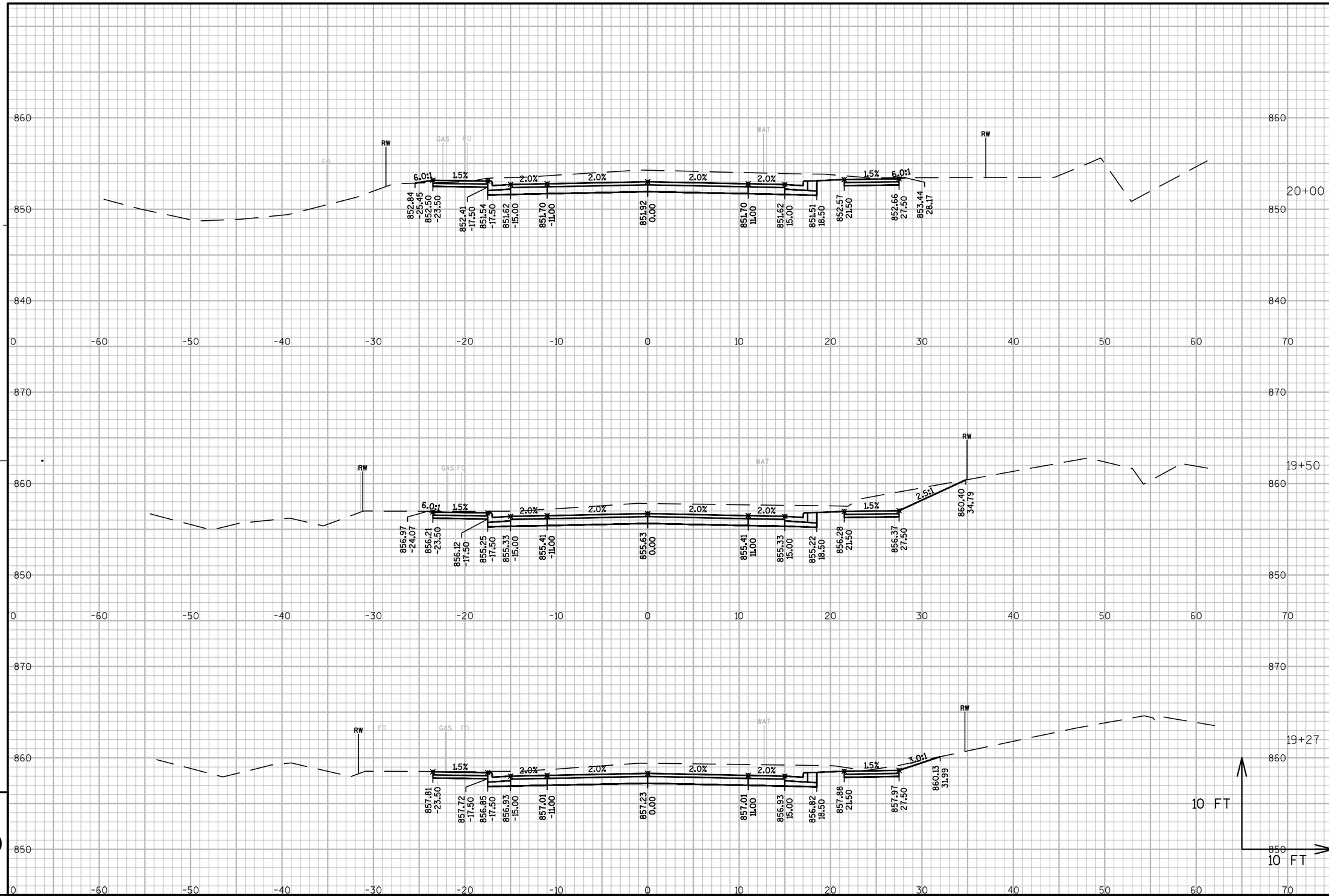


PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090201 XS-OPT 2.DWG
PLOT DATE : 9/26/2014 10:36 AM
PLOT BY : CRYSTAL RALEIGH
PLOT NAME :
PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

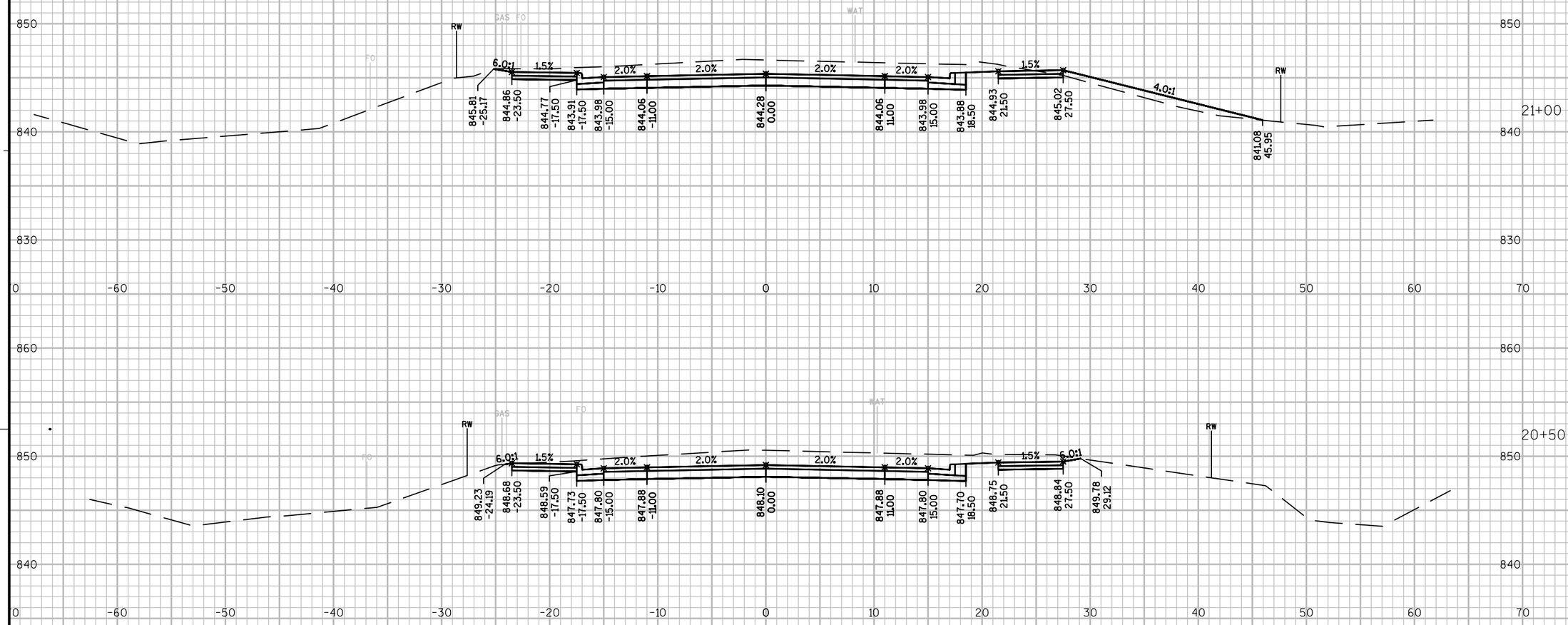


PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET E



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090201 XS-OPT 2.DWG
PLOT DATE : 9/26/2014 10:36 AM
PLOT BY : CRYSTAL RALEIGH
PLOT NAME :
PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET	E

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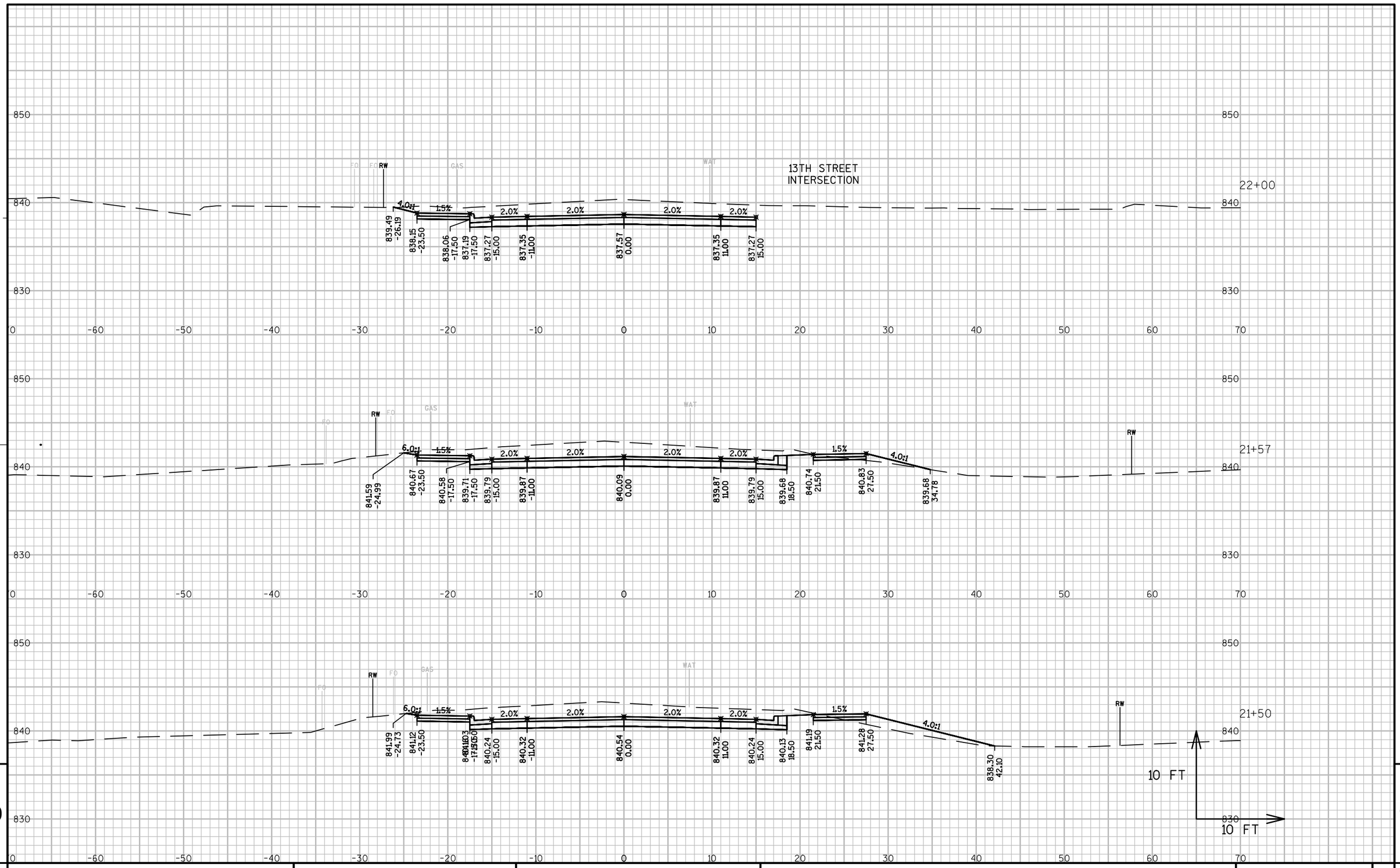
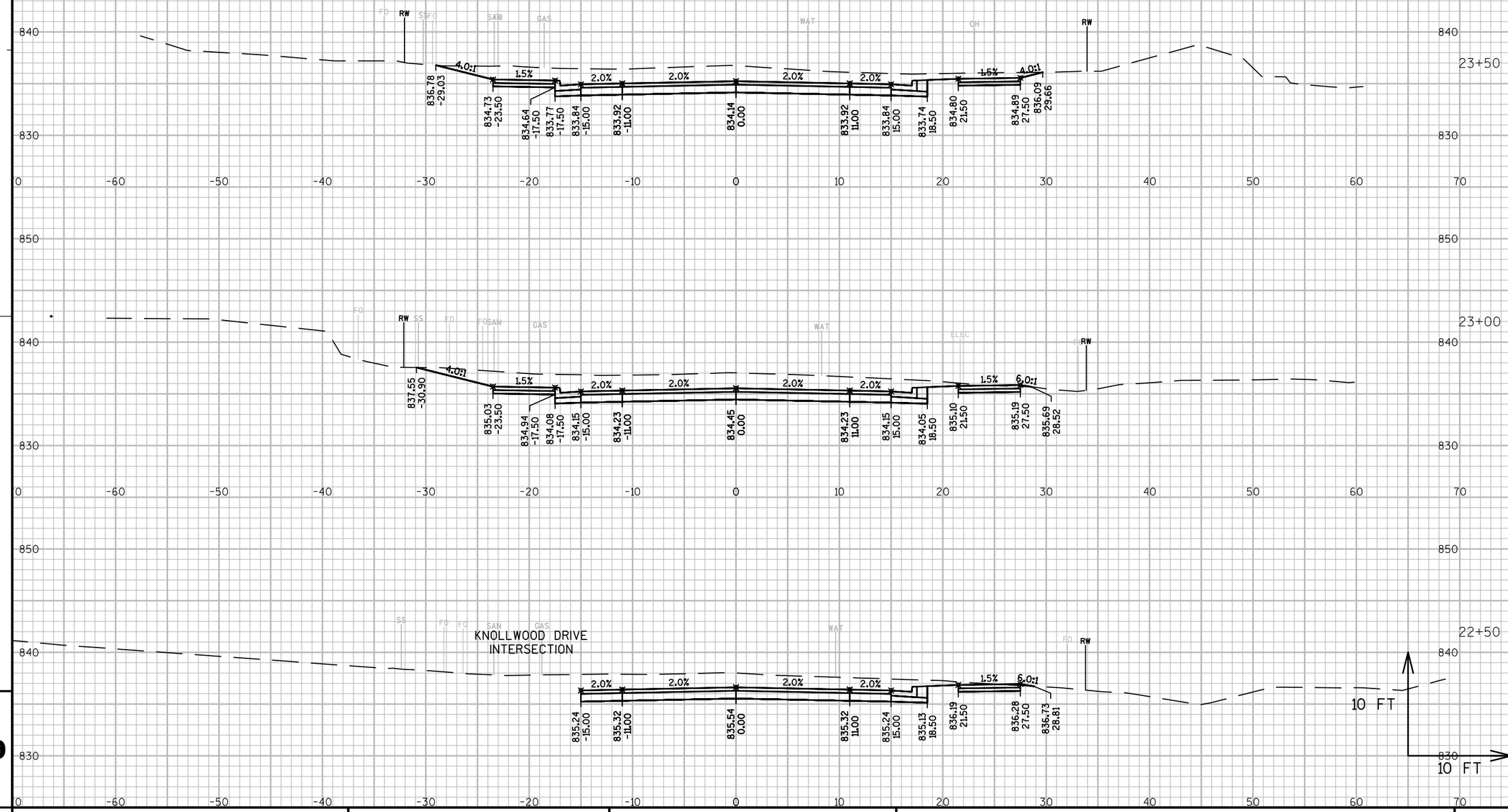
WISDOT/CADDS SHEET 49



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090201 XS-OPT 2.DWG PLOT DATE : 9/26/2014 10:37 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1:10_XREF



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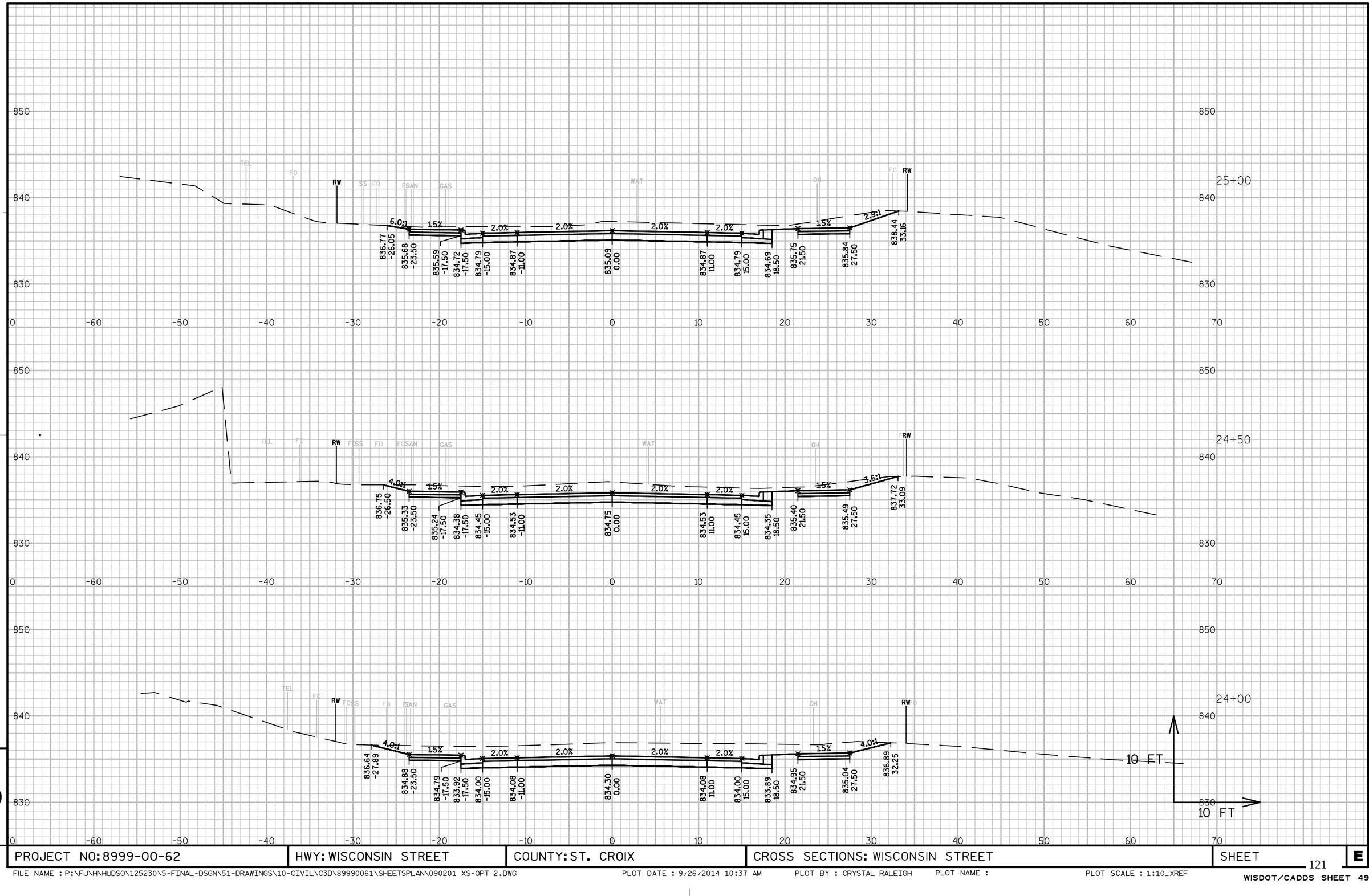
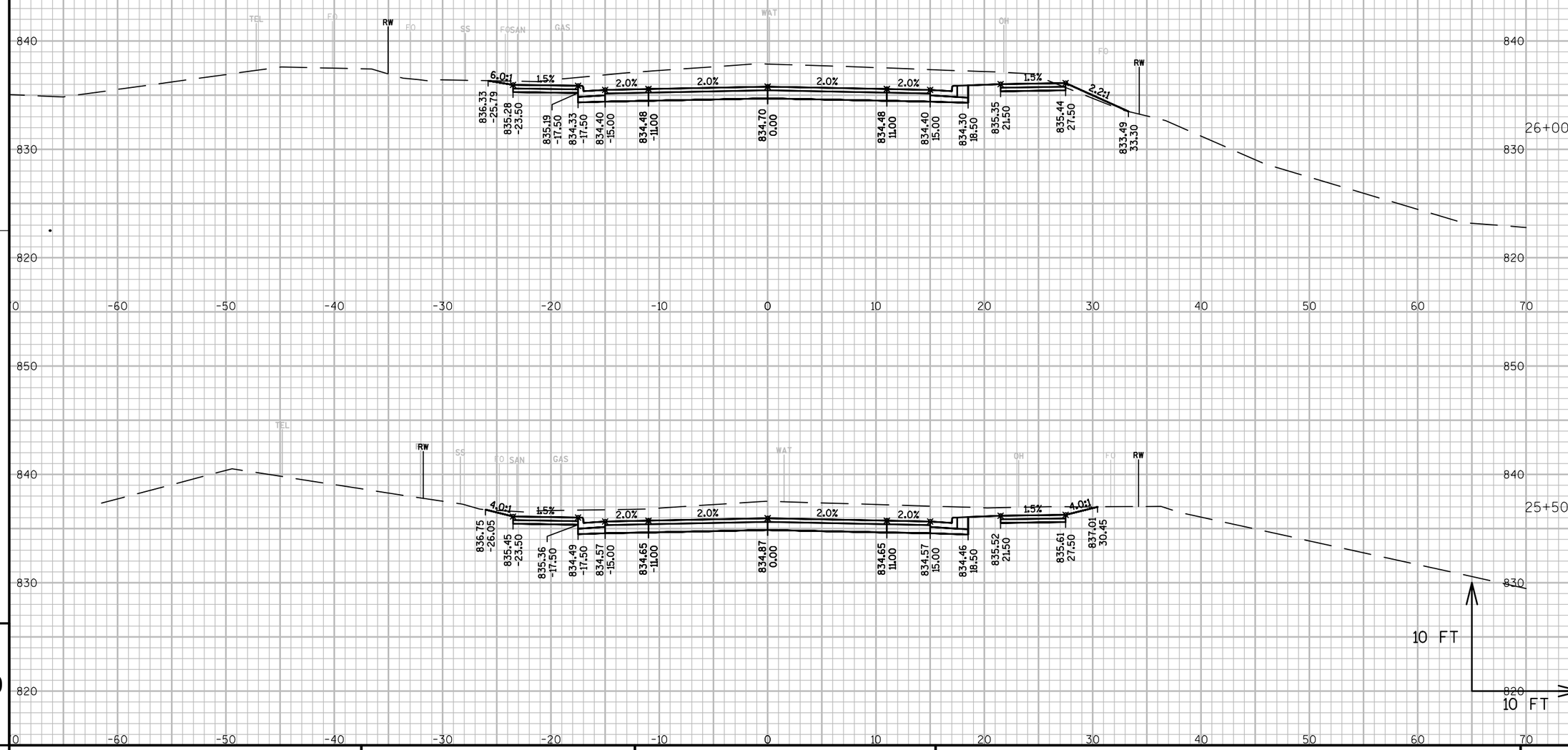
PLOT BY : CRYSTAL RALEIGH
PLOT NAME :
PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET	E

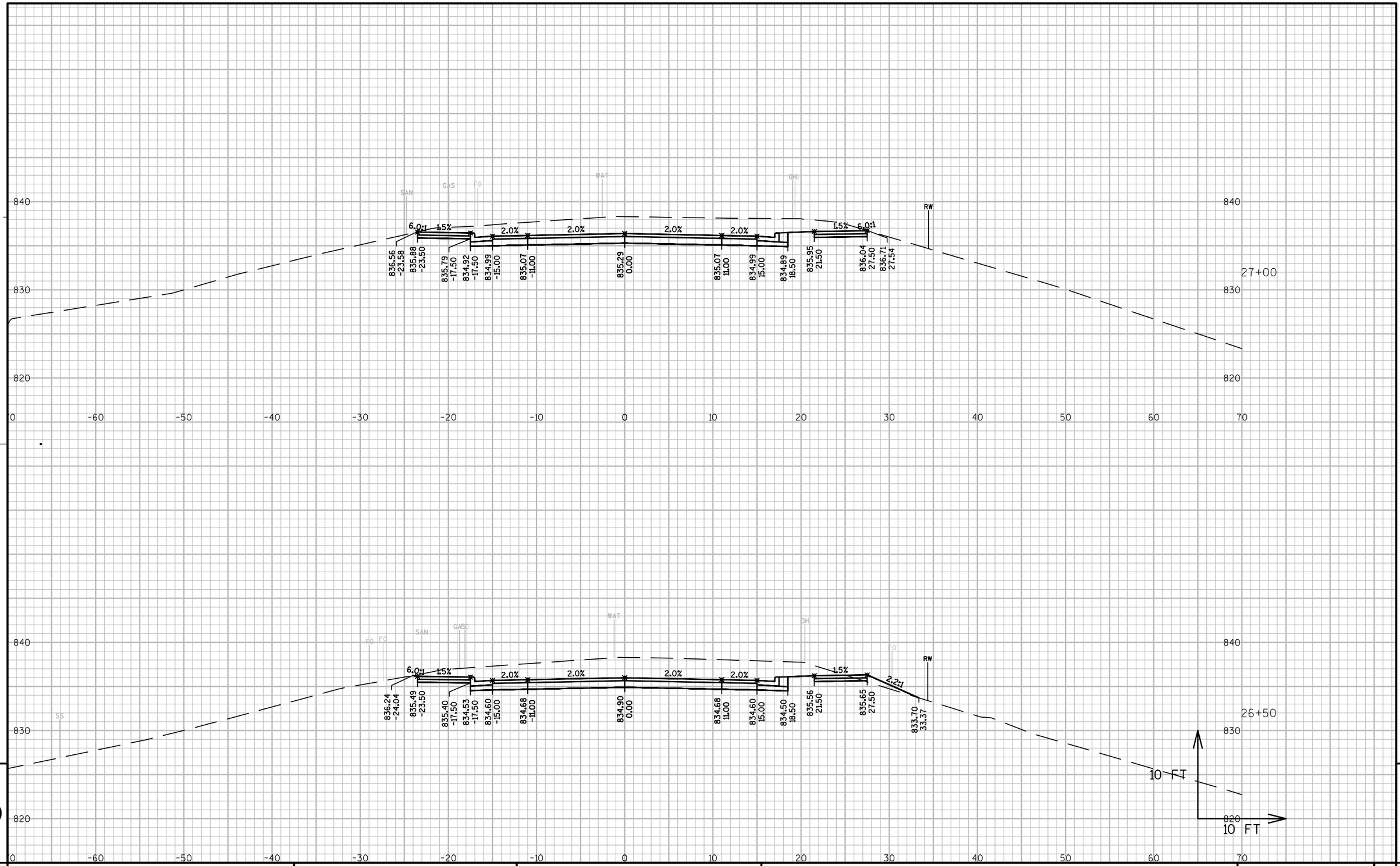
FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090201 XS-OPT 2.DWG PLOT DATE : 9/26/2014 10:37 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090201 XS-OPT 2.DWG PLOT DATE : 9/26/2014 10:37 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET	E

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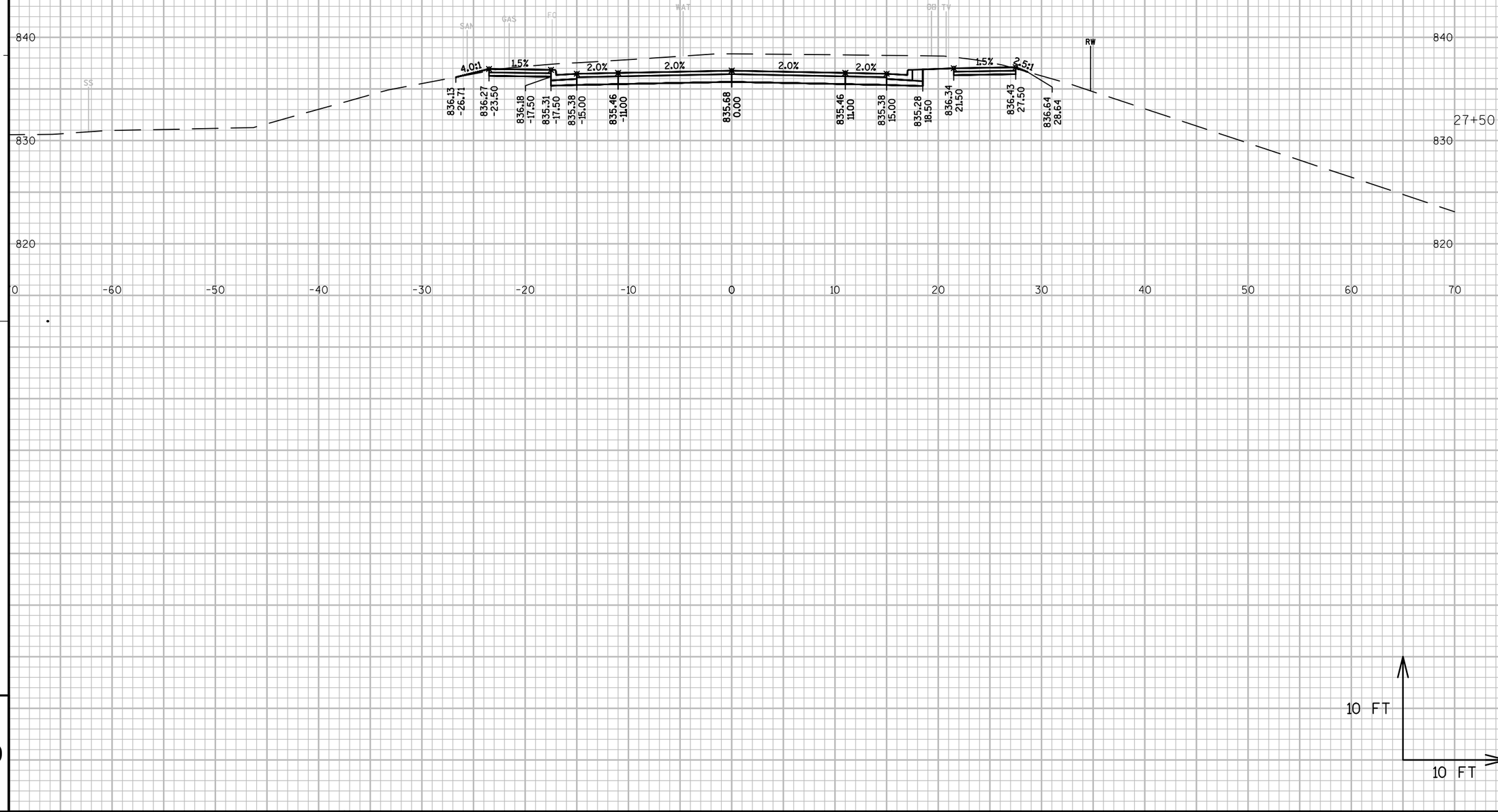
WISDOT/CADDS SHEET 49



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PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET	E

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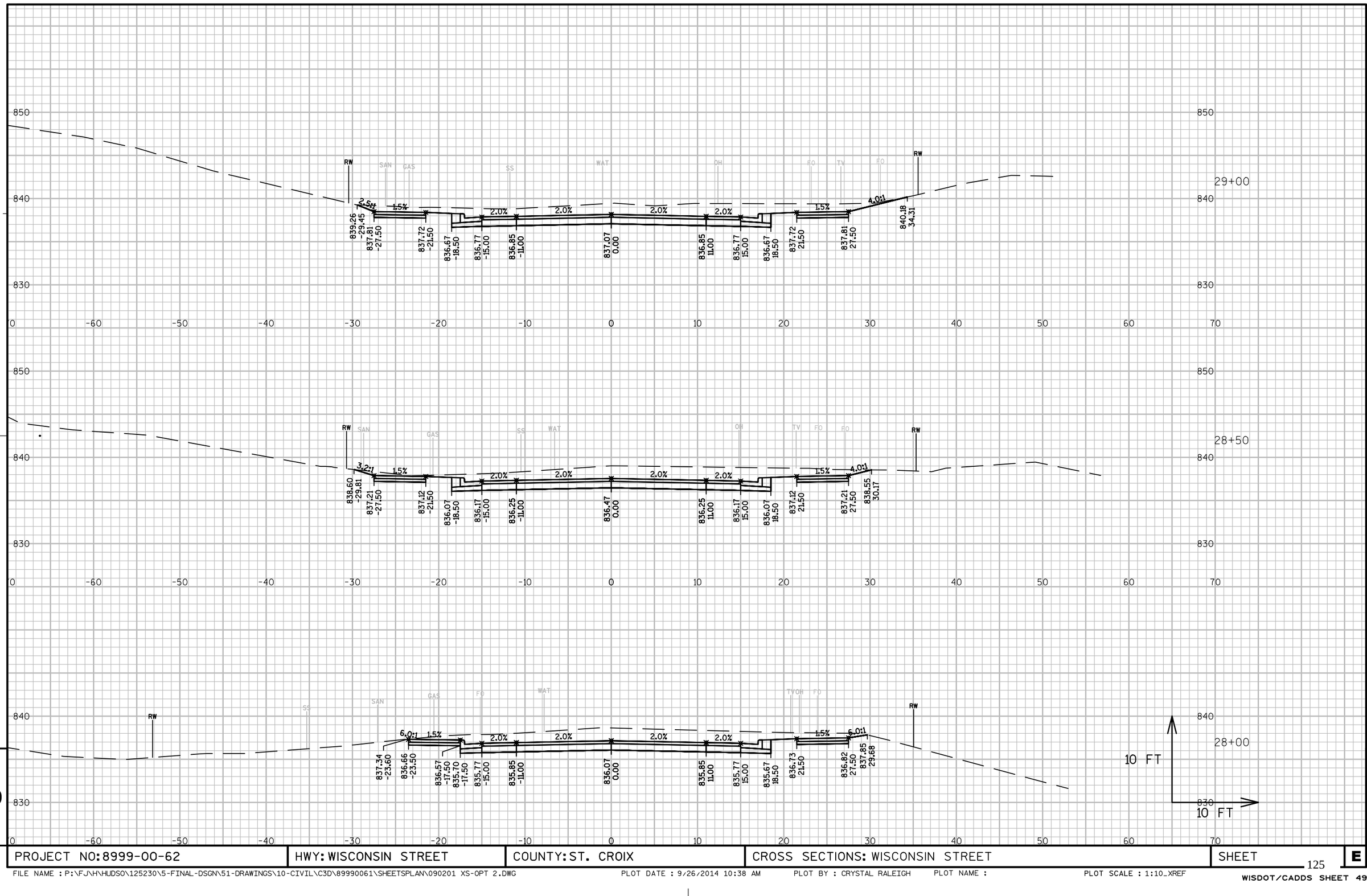
PLOT BY : CRYSTAL RALEIGH
PLOT NAME :
PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



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PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET	E

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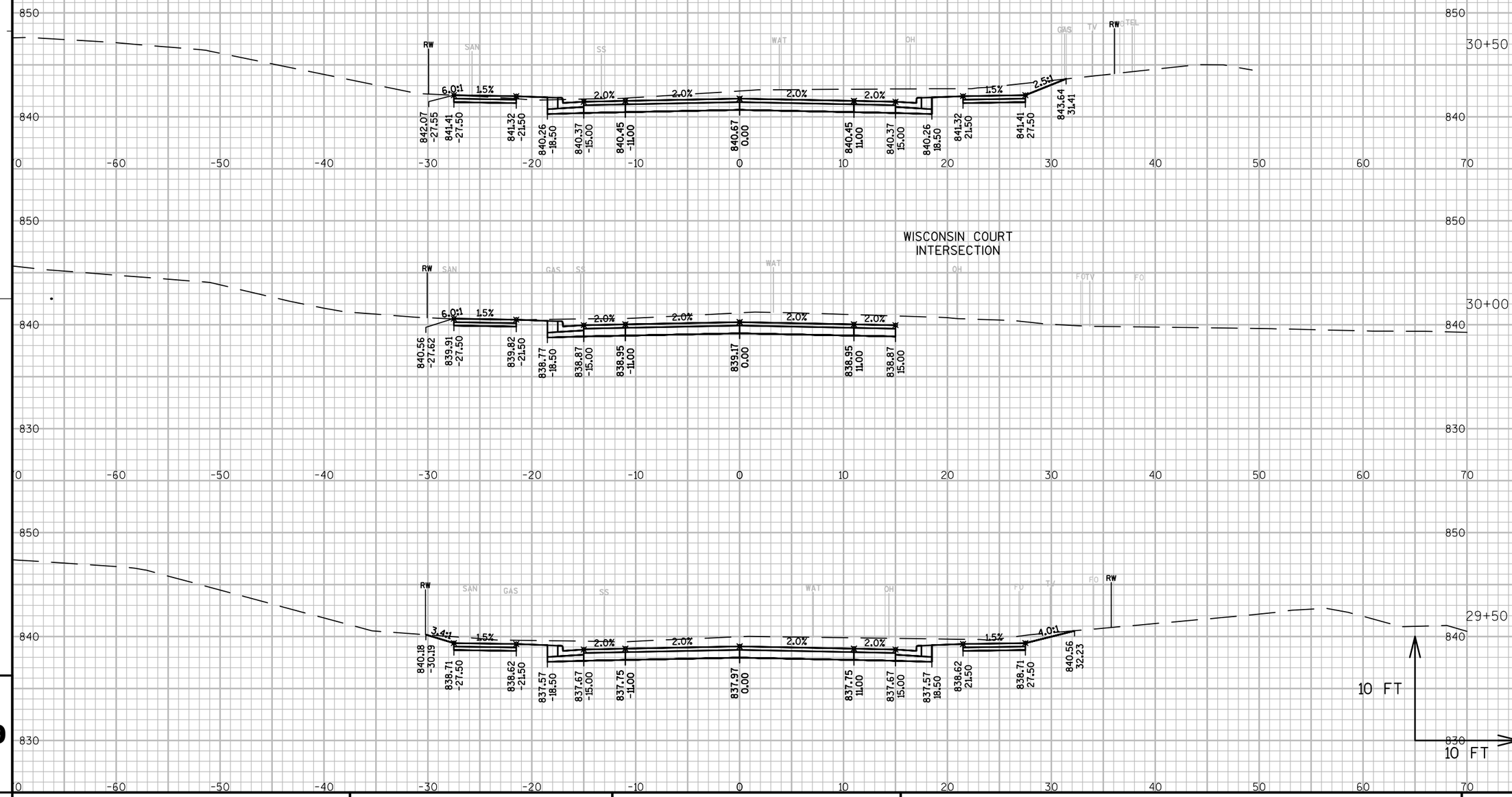

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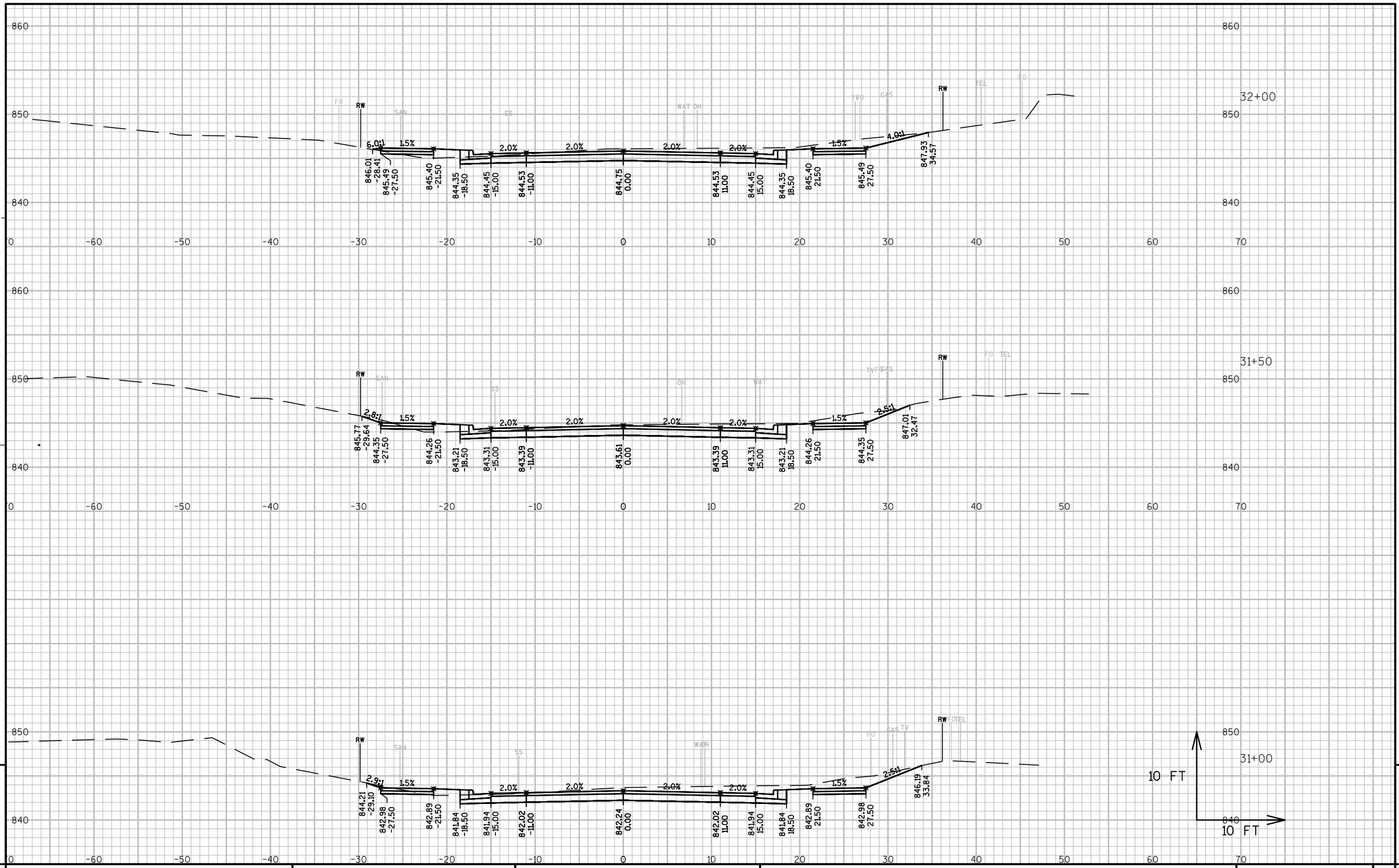

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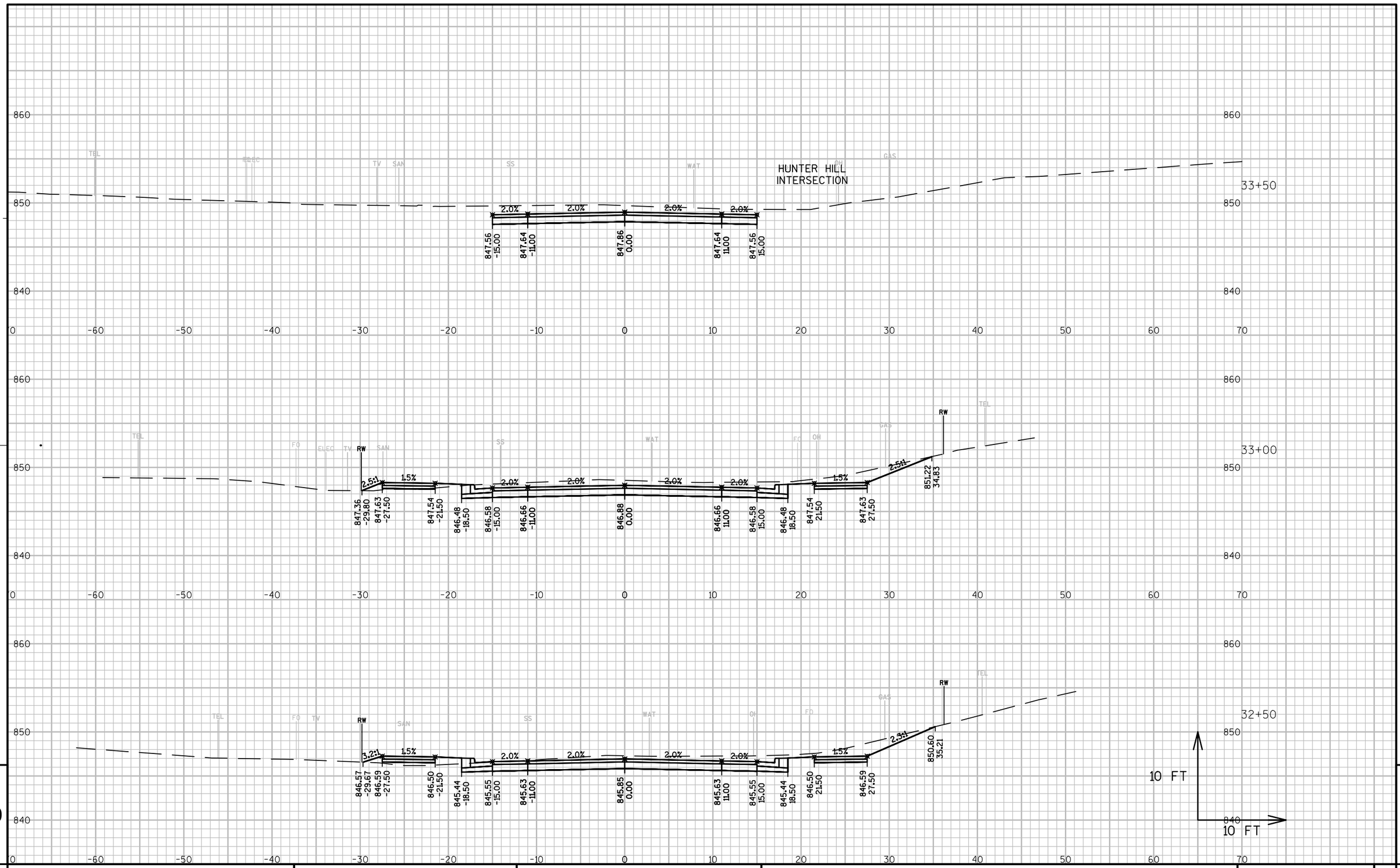

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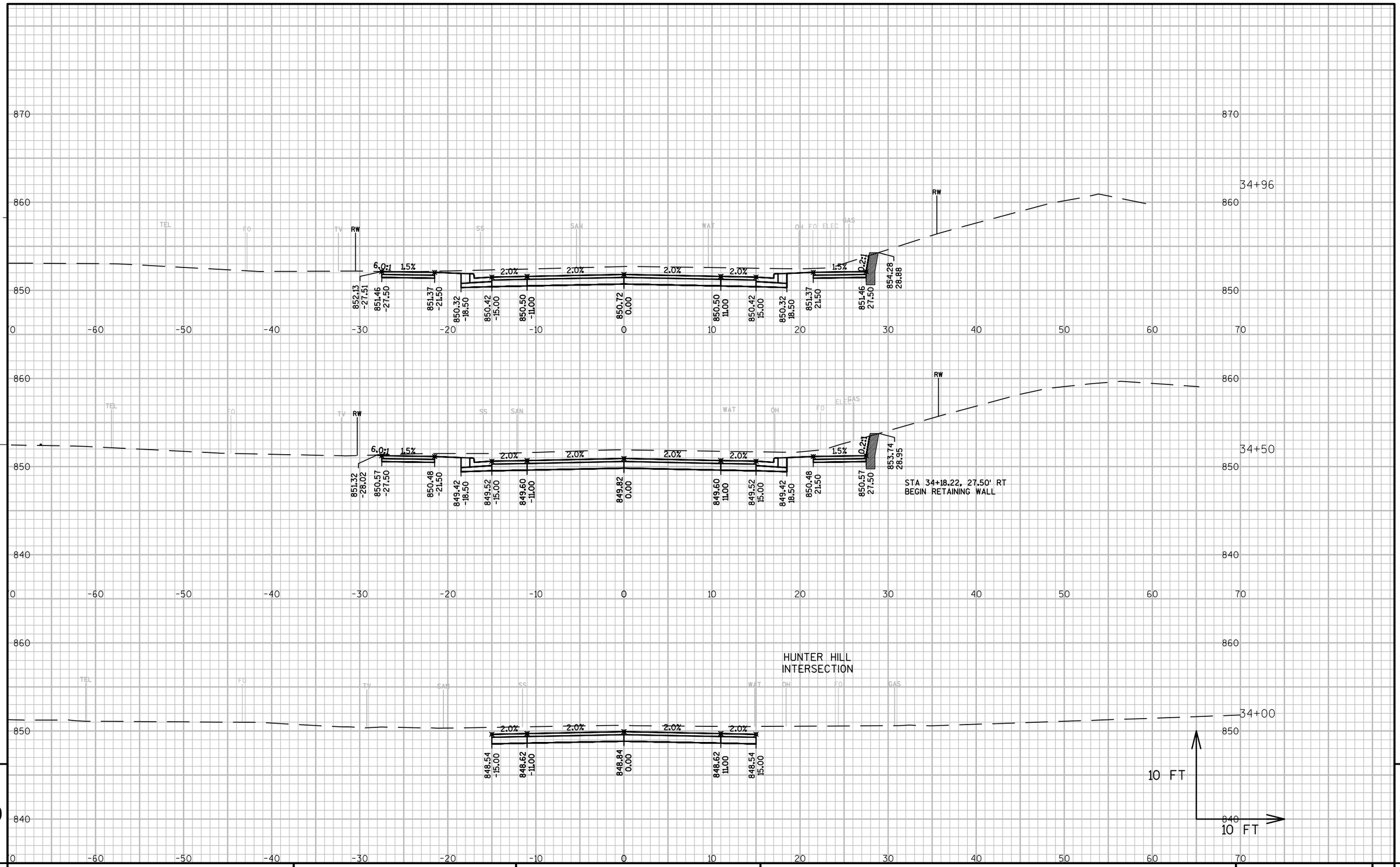
FILE NAME : P:\FJ\HH\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090201 XS-OPT 2.DWG PLOT DATE : 9/26/2014 10:38 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1:10_XREF



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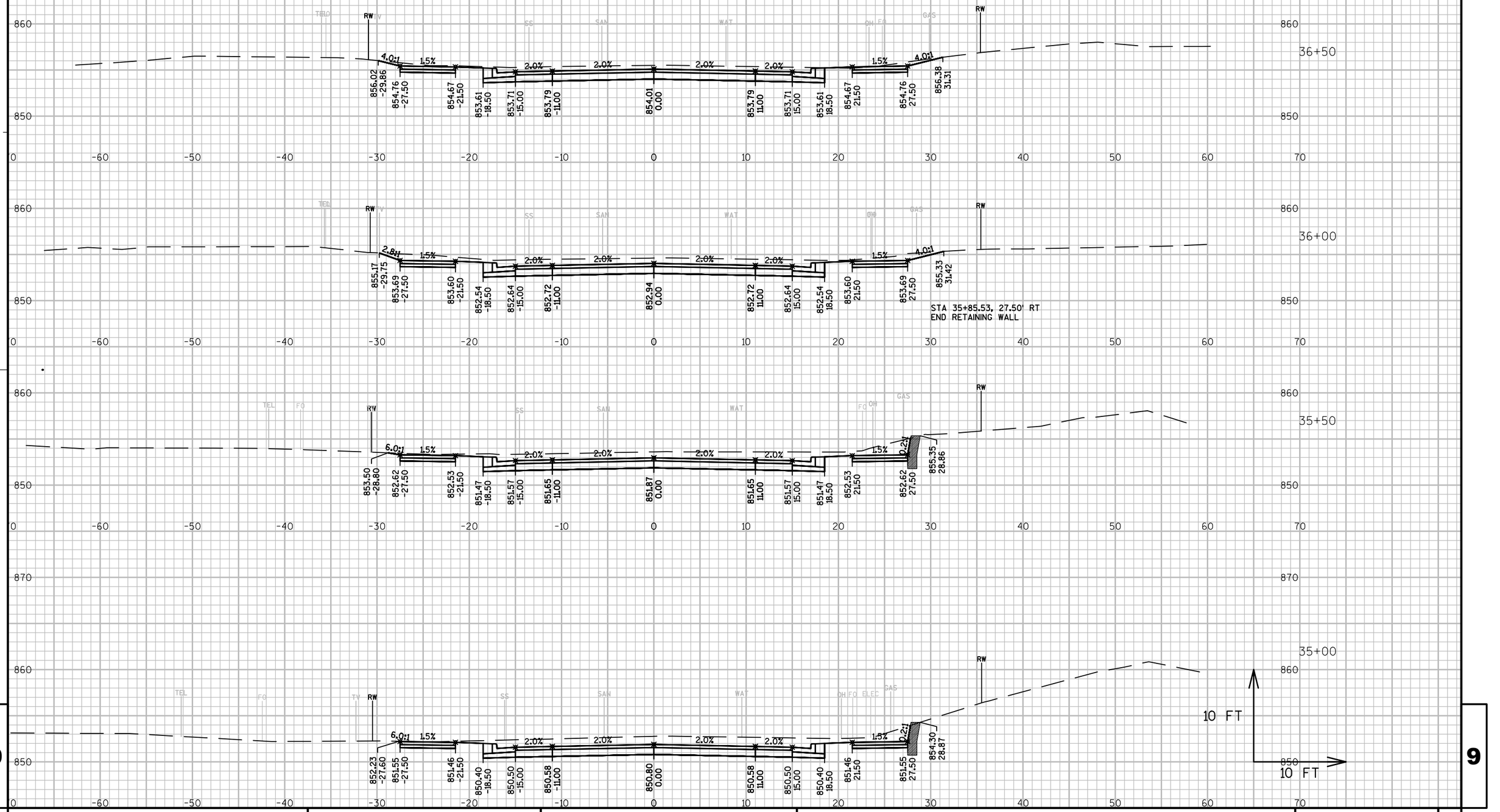

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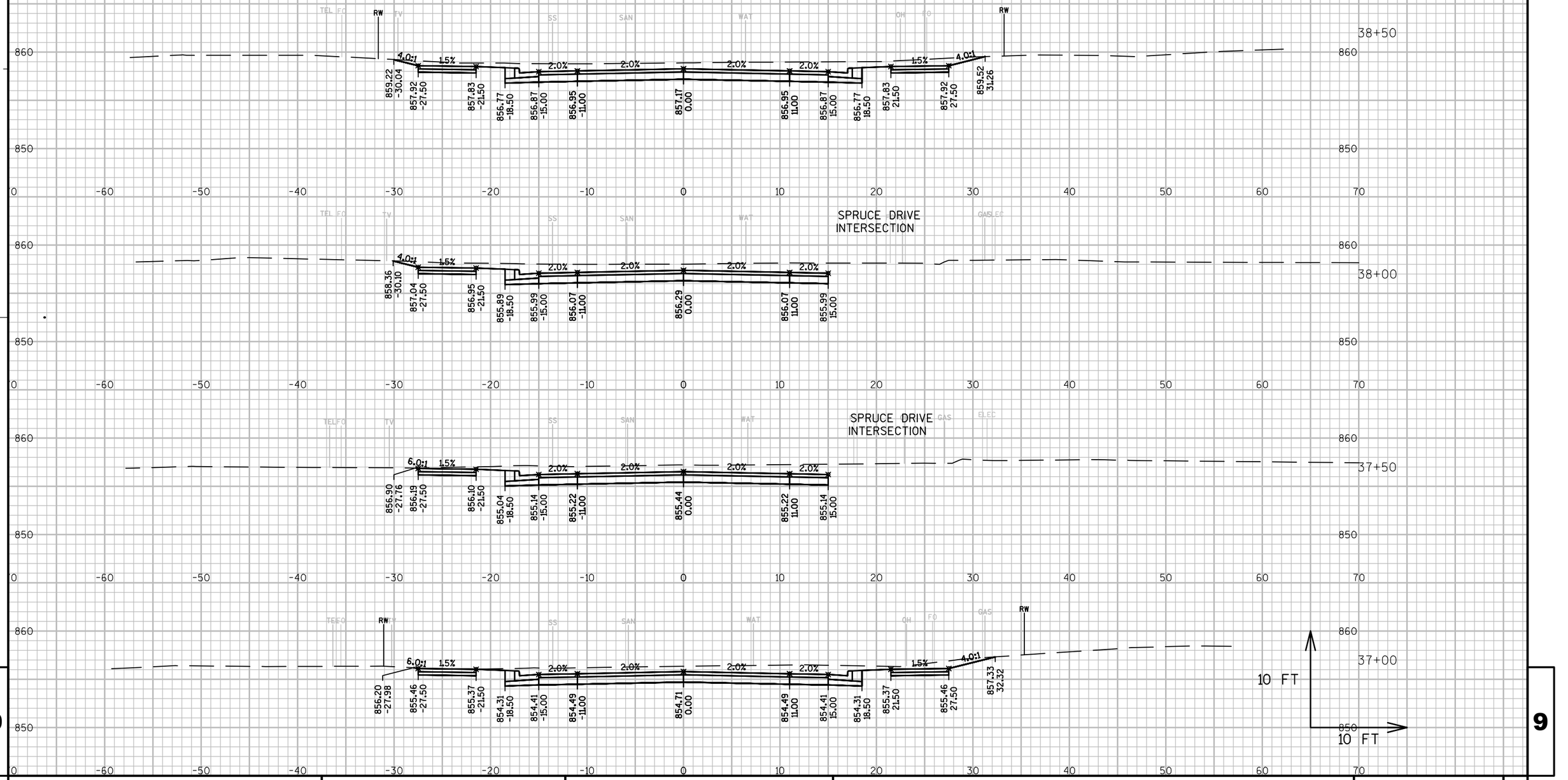
FILE NAME : P:\FJ\HH\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090201 XS-OPT 2.DWG PLOT DATE : 9/26/2014 10:39 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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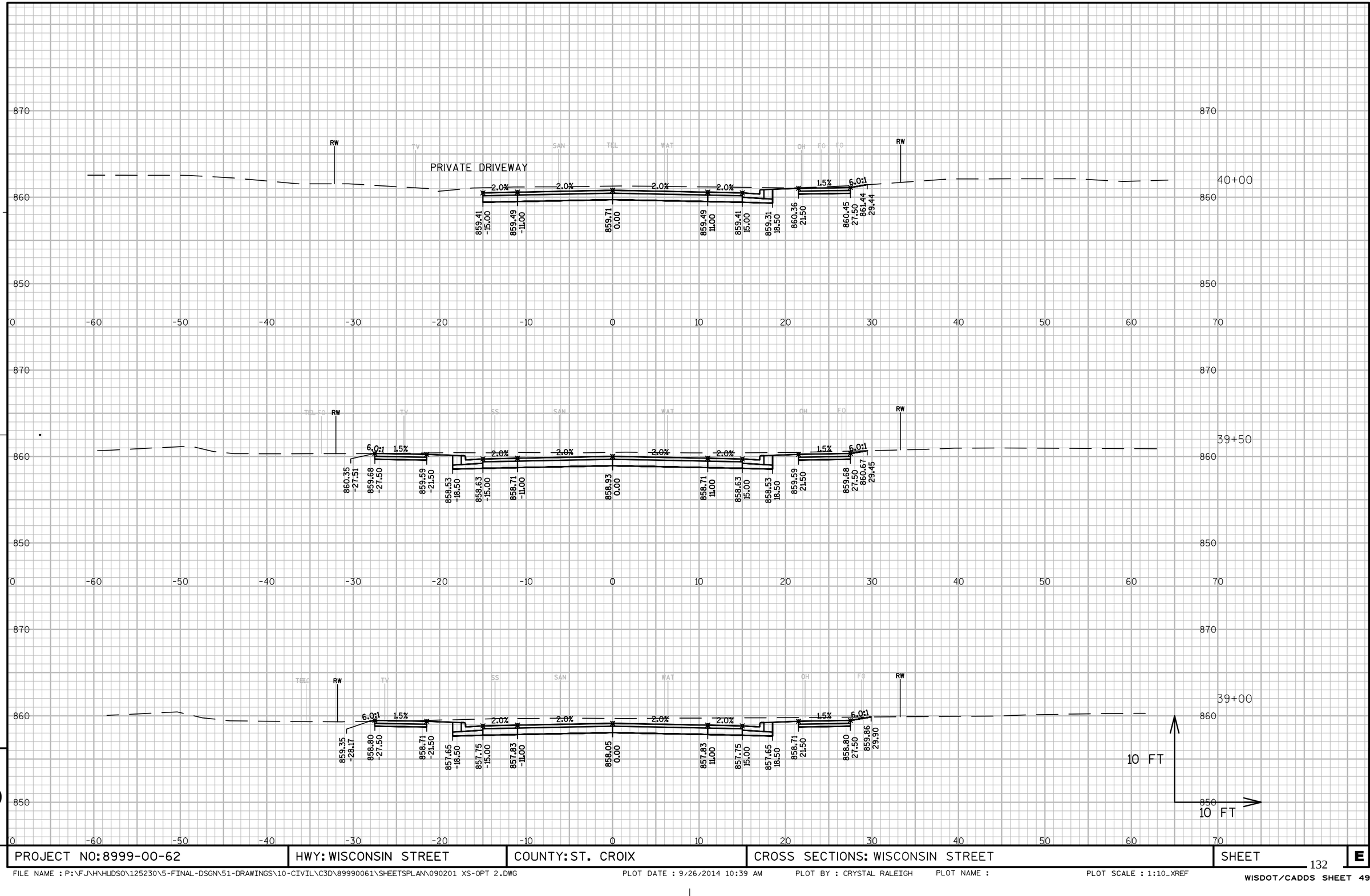

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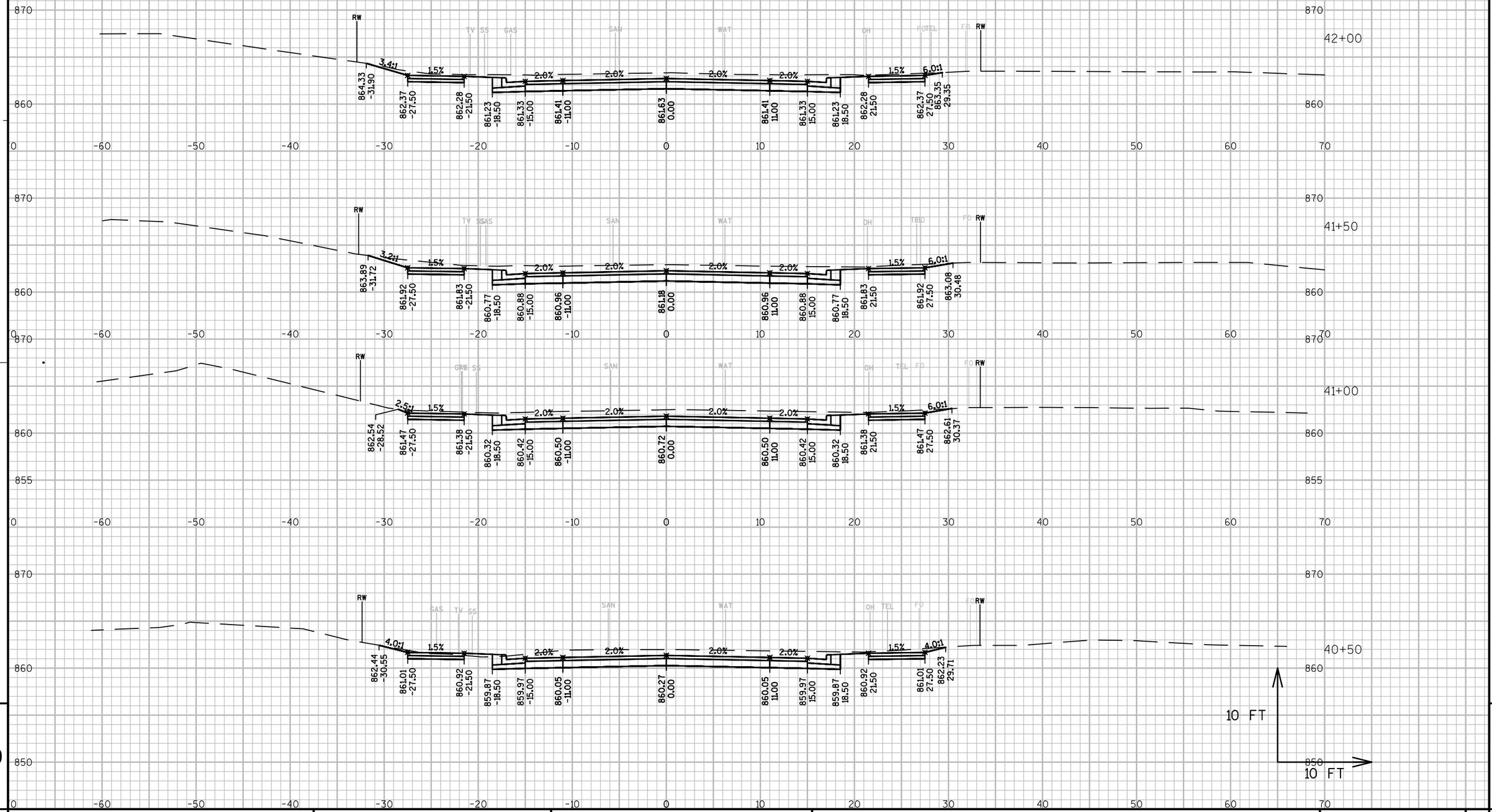
PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090201 XS-OPT 2.DWG
PLOT DATE : 9/26/2014 10:39 AM
PLOT BY : CRYSTAL RALEIGH
PLOT NAME :
PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



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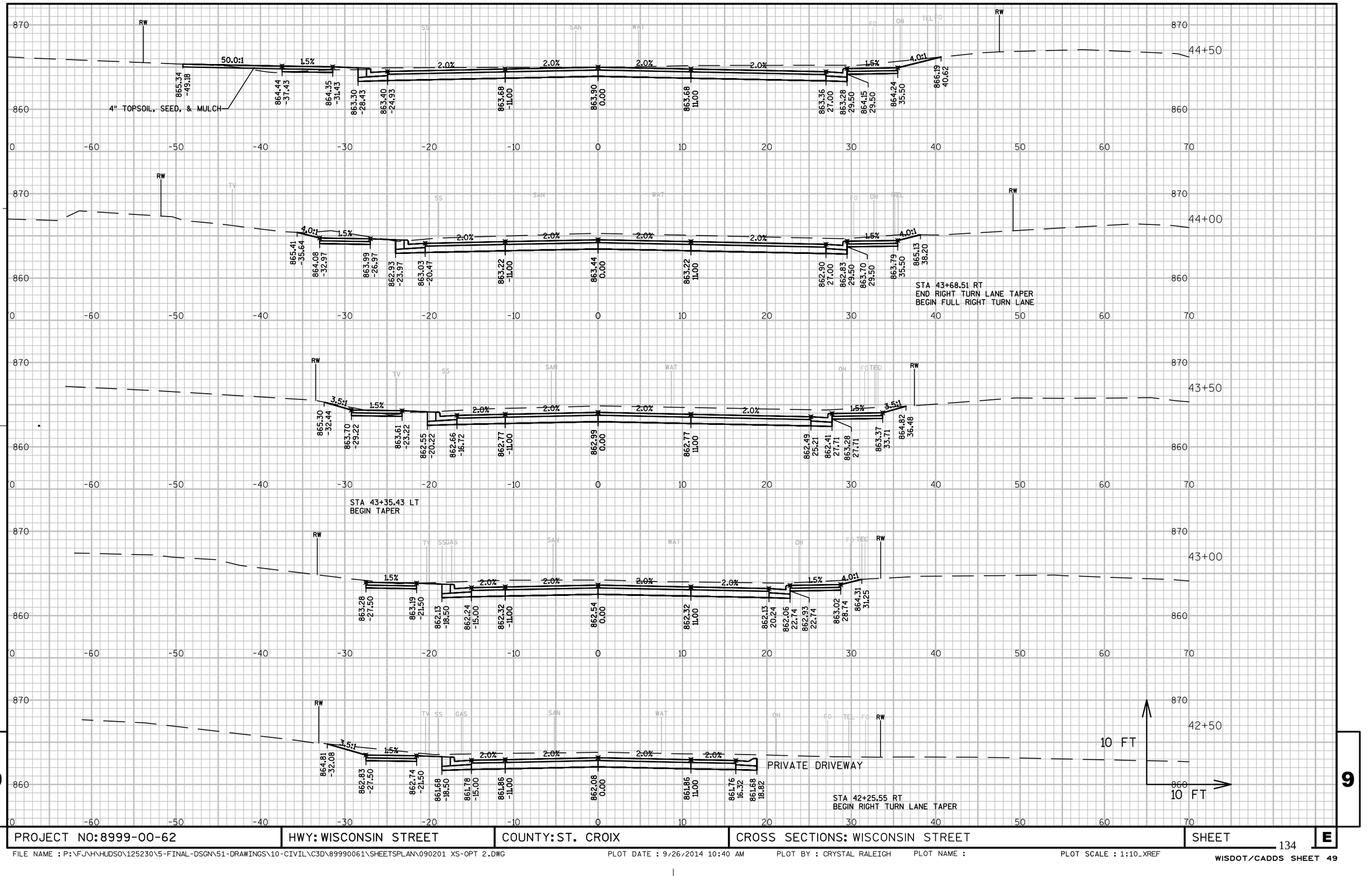

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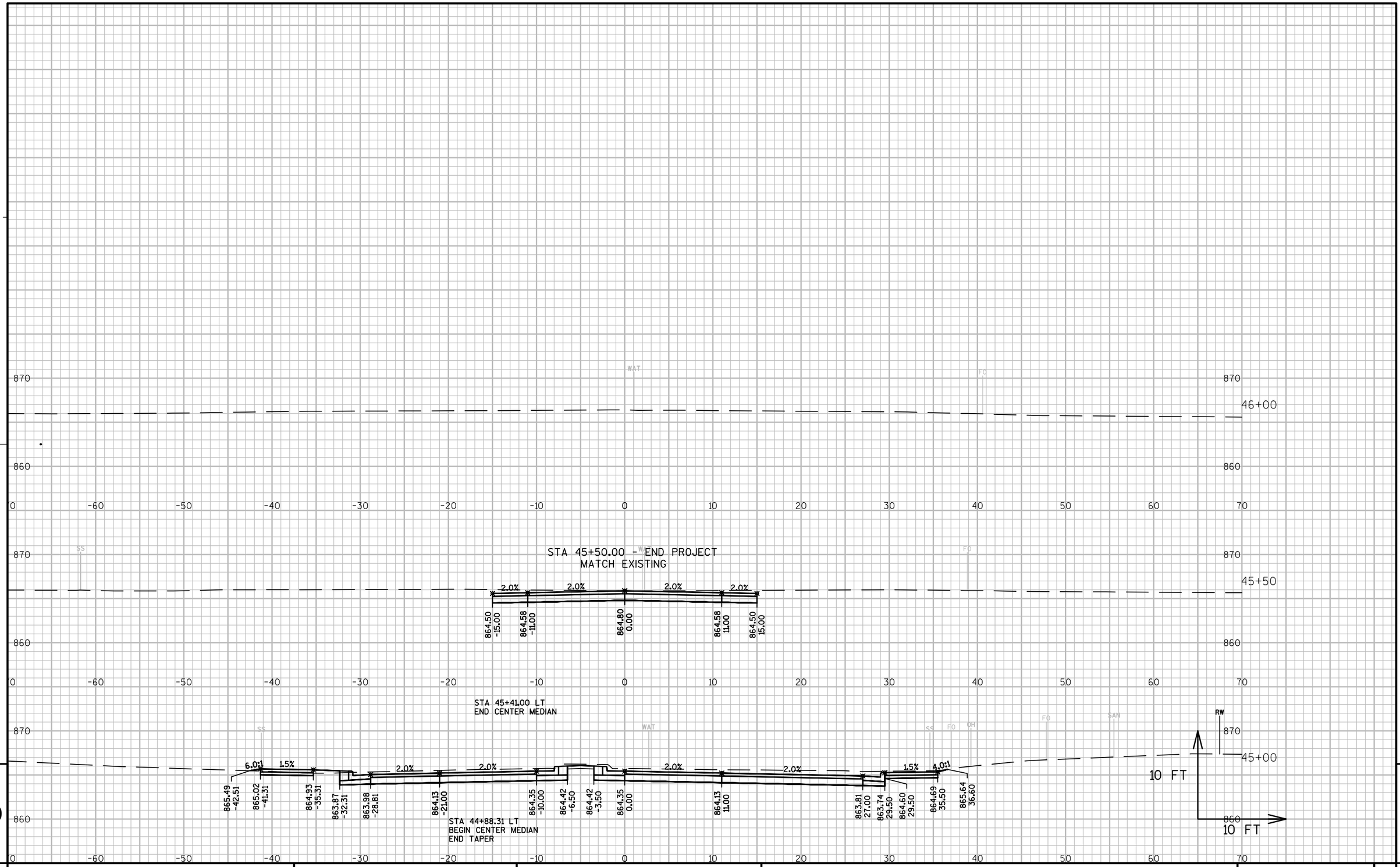
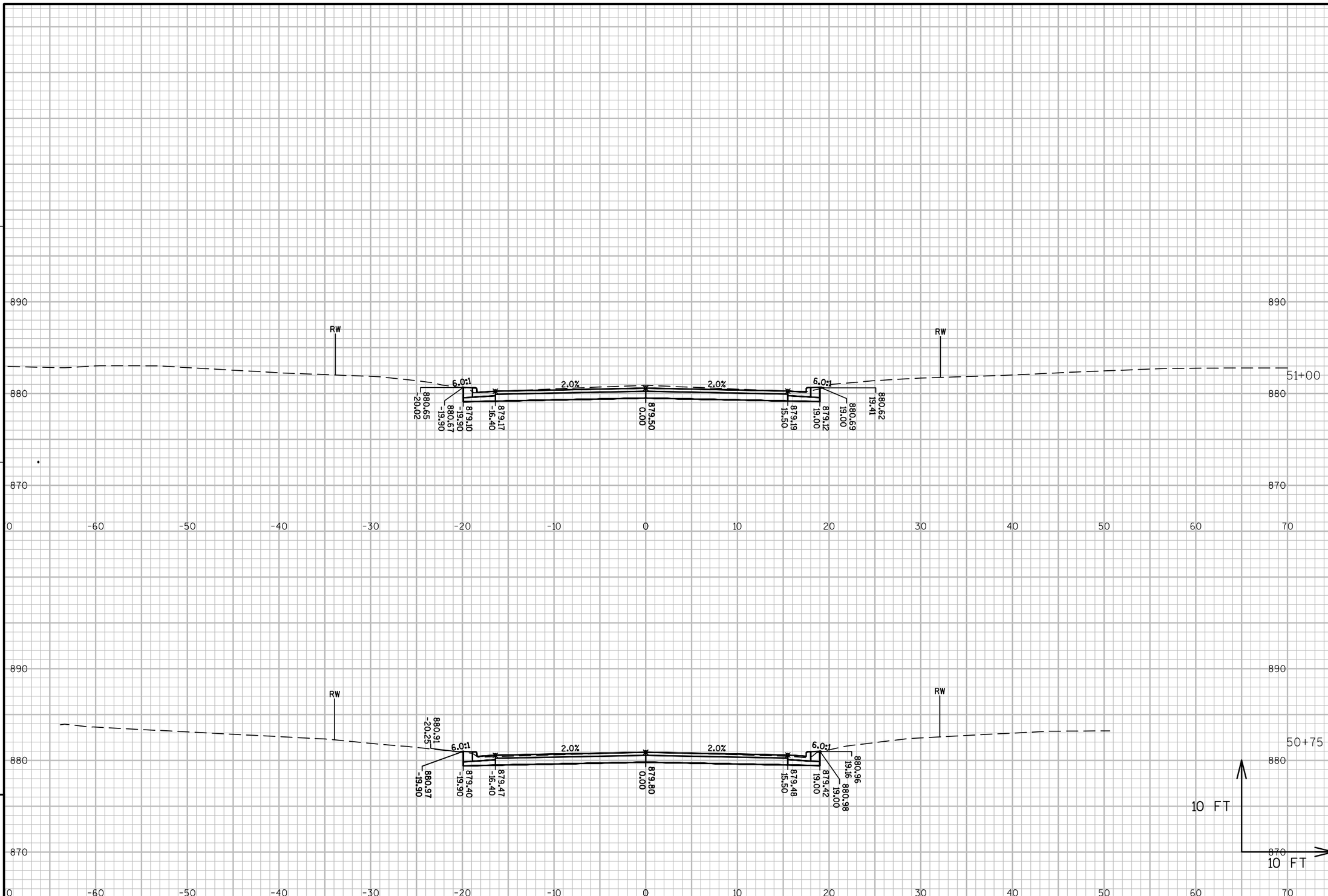
PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET	E



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN STREET	SHEET	E

FILE NAME : P:\FJ\HH\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090201 XS-OPT 2.DWG PLOT DATE : 9/26/2014 10:40 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1:10_XREF

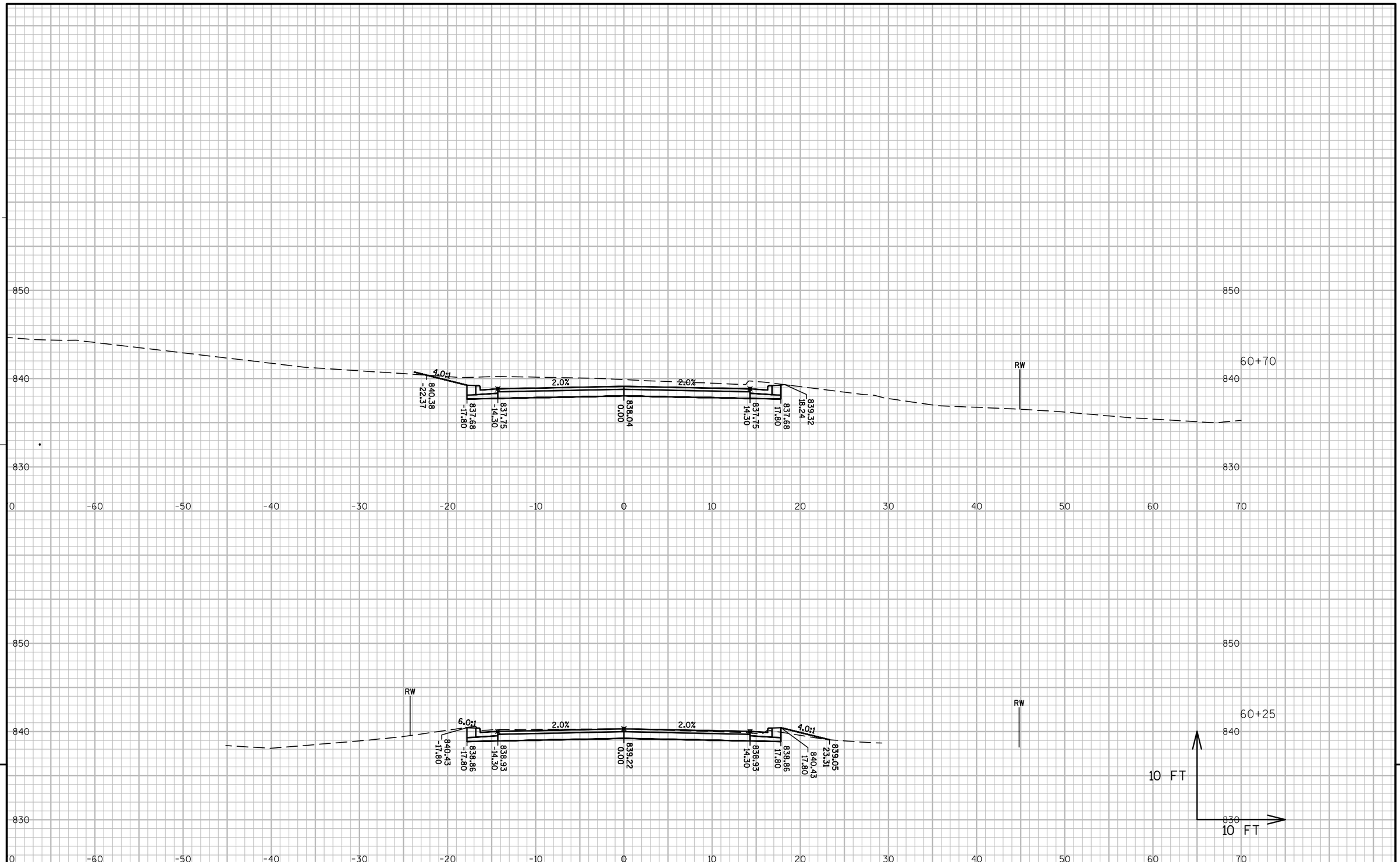


PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: 11TH STREET	SHEET 136 E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090202 XS-11TH.DWG
LAYOUT NAME - 090202 XS-11TH - SECTION SHEET - (1)

PLOT DATE : 9/10/2014 8:29 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

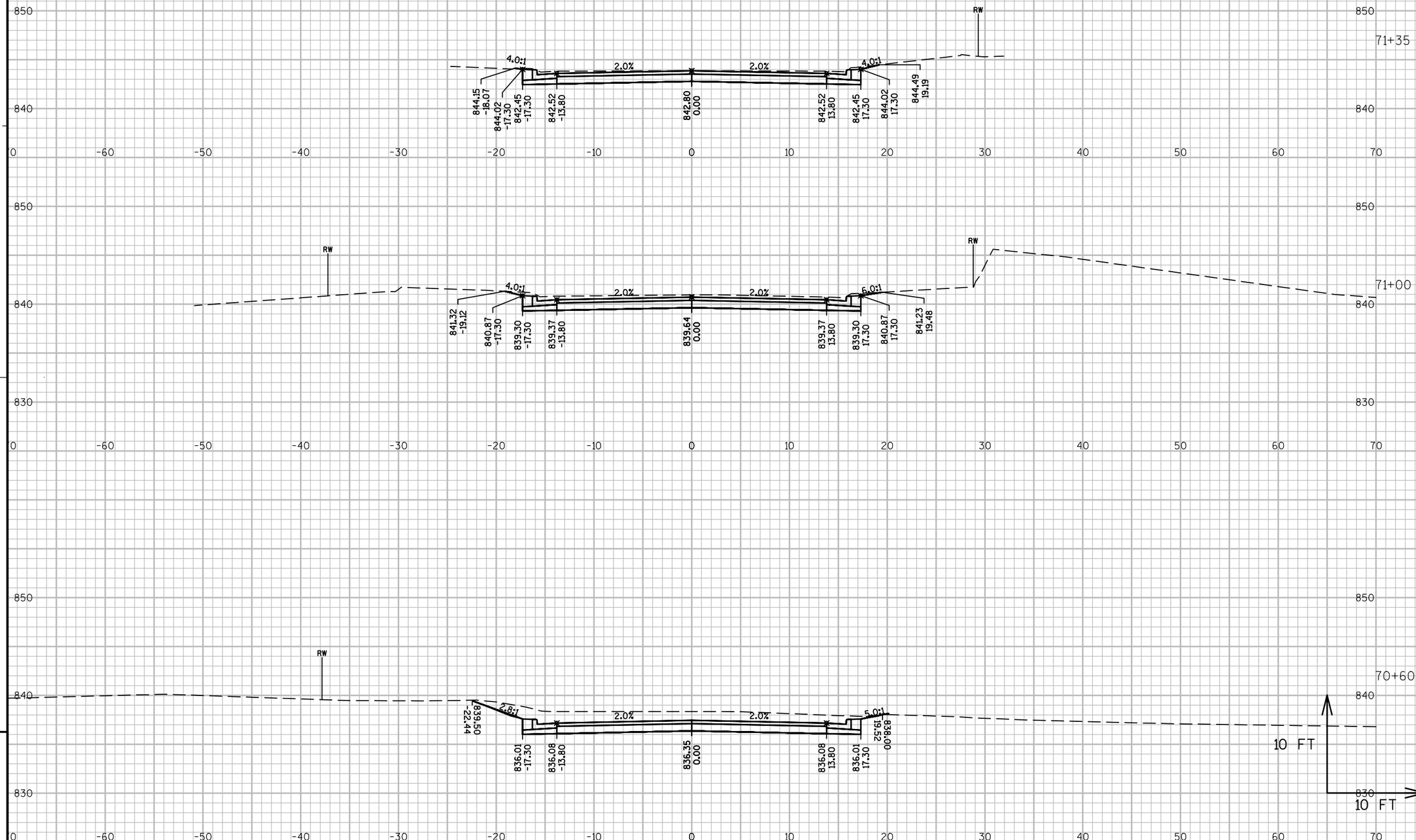


PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: 13TH STREET	SHEET 137 E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090203 XS-13TH.DWG
LAYOUT NAME - 090203 XS-13TH - SECTION SHEET - (1)

PLOT DATE : 9/10/2014 8:30 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

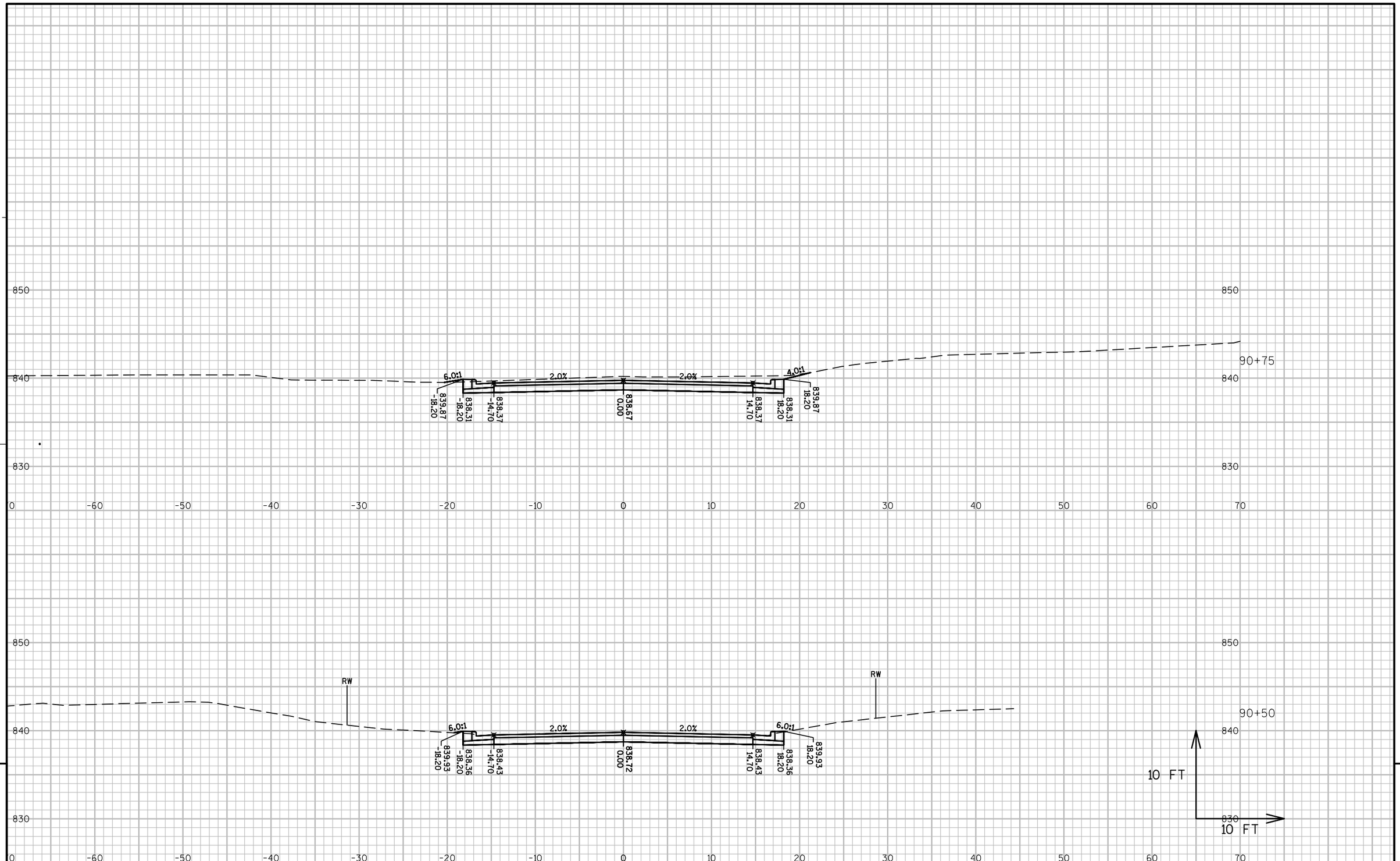


PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: KNOLLWOOD AVENUE	SHEET 138	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090204 XS-KNOLLWOOD.DWG
LAYOUT NAME - 090204 XS-KNOLLWOOD - SECTION SHEET - (1)

PLOT DATE : 9/26/2014 11:52 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

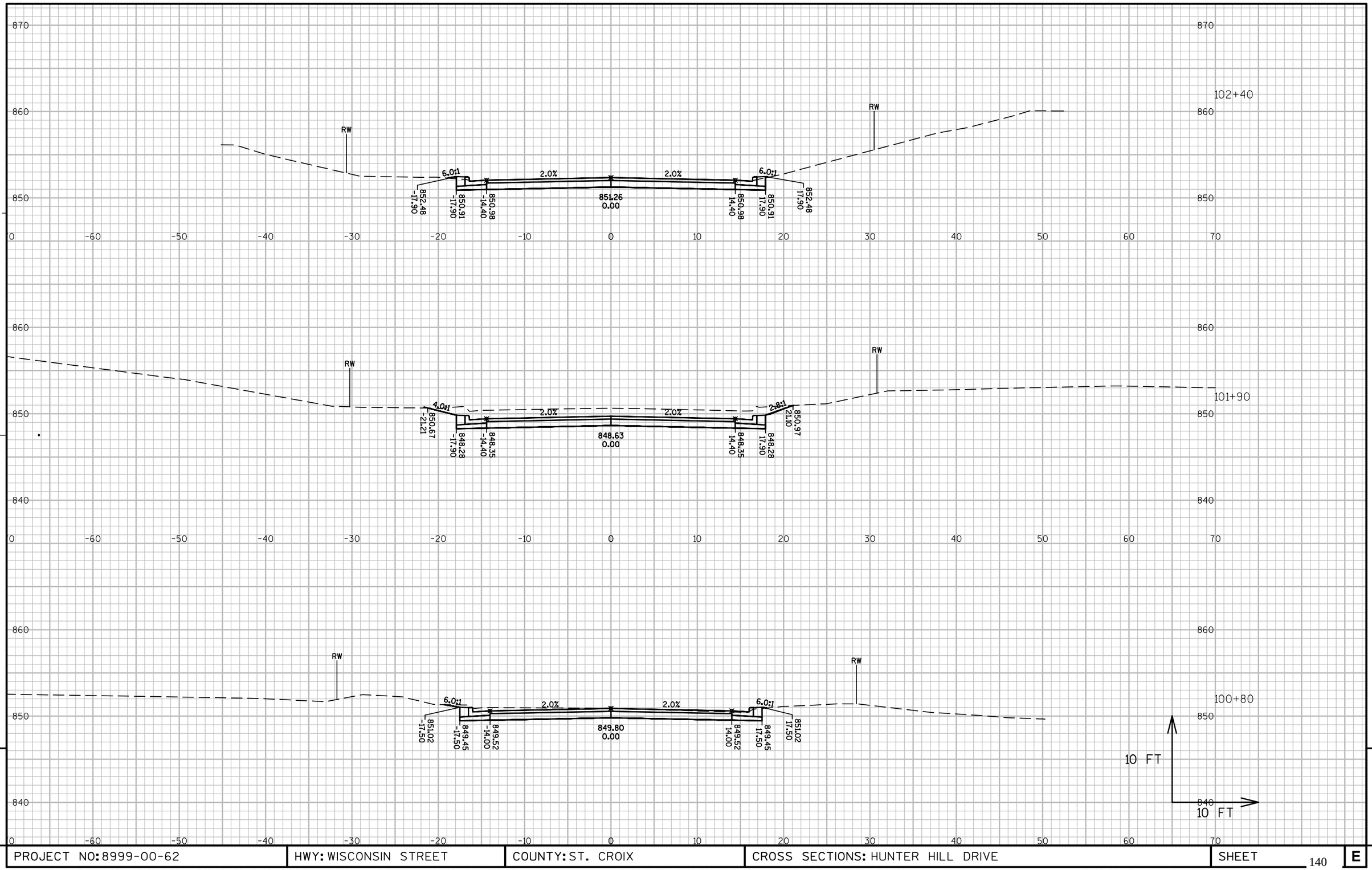


PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN COURT	SHEET 139 E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090205 XS-WI CT.DWG
LAYOUT NAME - 090205 XS-WI CT - SECTION SHEET - (1)

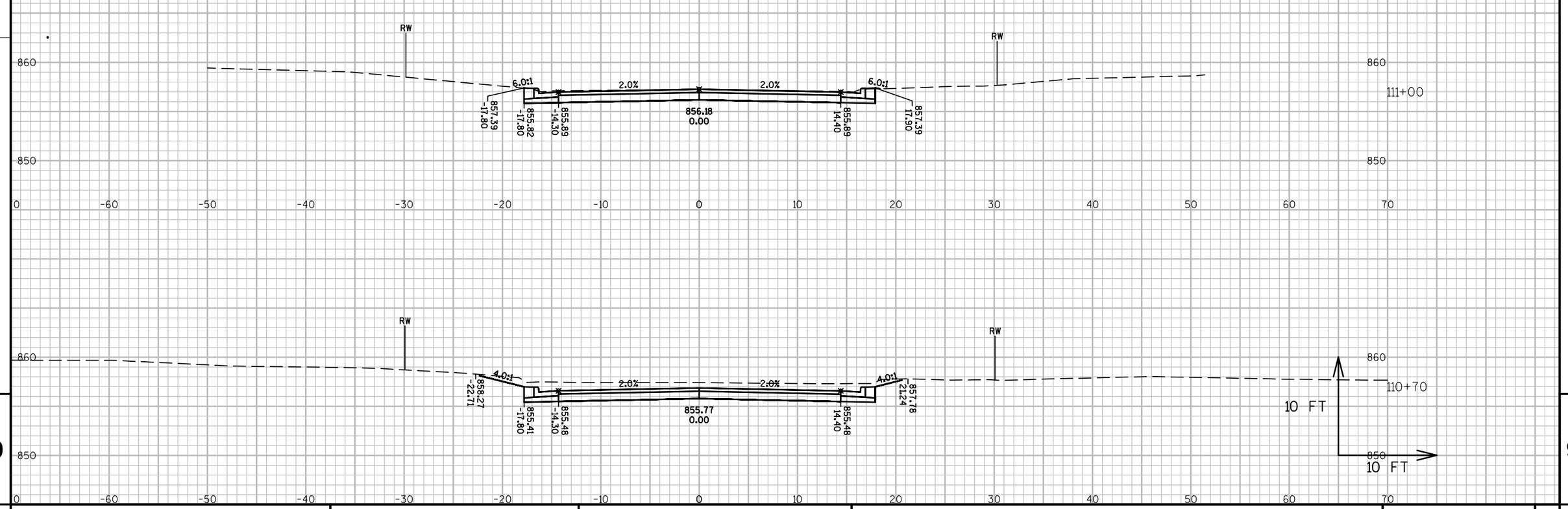
PLOT DATE : 9/10/2014 8:31 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: HUNTER HILL DRIVE	SHEET 140 E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090206 XS-HUNTER HILL.DWG
LAYOUT NAME - 090206 XS-HUNTER HILL - SECTION SHEET - (1)
PLOT DATE : 9/10/2014 8:31 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 8999-00-62	HWY: WISCONSIN STREET	COUNTY: ST. CROIX	CROSS SECTIONS: SPRUCE STREET	SHEET 141	E

FILE NAME : P:\FJ\H\HUDSO\125230\5-FINAL-DSGN\51-DRAWINGS\10-CIVIL\C3D\89990061\SHEETSPLAN\090207 XS-SPRUCE.DWG
LAYOUT NAME - 090207 XS-SPRUCE - SECTION SHEET - (1)

PLOT DATE : 9/10/2014 8:32 AM PLOT BY : CRYSTAL RALEIGH PLOT NAME : PLOT SCALE : 1" = 10'_XREF

Wisconsin Department of Transportation

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