WKE

NOV 12

PROJECT ID: 2810-04-70

WITH: N/A

COUNTY: RACINE

07

ORDER OF SHEETS

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

TOTAL SHEETS =

DESIGN DESIGNATION

A.A.D.T. 2013	=	8,200
A.A.D.T. 2033	=	10,700
D.H.V. 2033	=	1,898
D.D.	=	62/38
T.	=	5.8%
DESIGN SPEED	=	60 MPH STA 944+10 TO STA 1086+00 55 MPH STA 1086+00 TO STA 1141+00 45 MPH STA 1141+00 TO STA 1168+00 55 MPH STA 1168+00 TO STA 1212+20
ESALS	=	2,204,600 SECTION 1 2,489,300 SECTION 2

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
TEMPORARY LIMITED EASEMENT		SPECIAL DITCH	LABEL
EXISTING R/W LINE		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

BIG BEND ROAD

STH 36 TO N. CO. LINE

STH 164

RACINE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2810-04-70	WISC 2012604	1

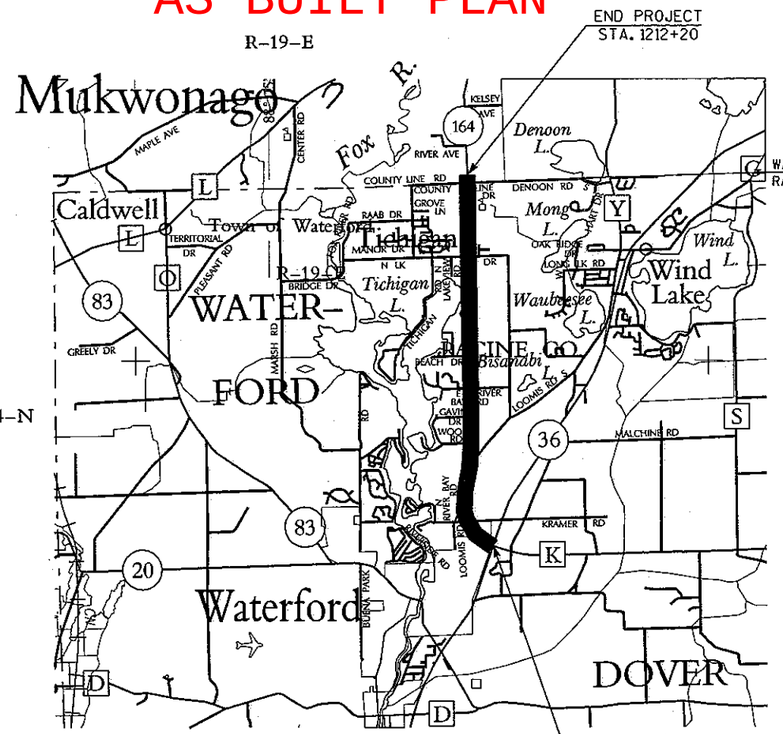
Supervisor: Anita Pusch
Project Manager: Traci Gengler
Project Leader: Brent Heim
Contractor: Michels Corp.
Work Started: April 1, 2013
Work Complete: December 17th, 2013

STATE PROJECT NUMBER
2810-04-70

AS BUILT PLAN

R-19-E

T-4-N



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 5.080 MI.

-"Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Racine County, NAD83(91) Elevations are based on NGVD(29)

SUBCONTRACTORS:
BARRICADE FLASHER SERVICE, INC.
BOTTONI TRUCKING, INC.
C.W. PURPERO, INC.
CENTURY FENCE COMPANY
CM SOBCZYK TRUCKING, INC
CROWLEY CONSTRUCTION CORP
E.J. MEYER TRUCKING
HIGHWAY LANDSCAPERS, INC.
J & O TRUCKING, INC.
JWE
K & B TRUCKING, INC.
MID-STATE CONCRETE CUTTING CO.
PATRIOT TRUCK SERVICE INC
PAYNE & DOLAN, INC. - KENOSHA
R & C TRUCKING, LLC
T-N-T TREE SERVICE, LLC
V2G SURVEYING, LLC
VANEK TRUCK SERVICE, LLC
WATERFORD TRUCK SERVICE, INC
WCW TRUCKING

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

4/23/12 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT/RASN
Designer	RASN
Project Manager	TRACI GENGLER
District Examiner	
District Supervisor	
C.O. Examiner	Carl Wanganowski

APPROVED FOR DISTRICT OFFICE
DATE: 4/27/12 Traci Gengler (Signature)

E

GENERAL NOTES

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

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LOCATION THAT ARE NOT SHOWN. ACTUAL UTILITY LOCATIONS MUST BE DETERMINED IN THE FIELD.

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

TEMPORARY STORAGE OF ANY MATERIAL WILL NOT BE PERMITTED IN WETLANDS.

ALL OPENINGS BELOW SUBGRADE RESULTING FROM REMOVALS OR ABANDONMENTS, SHALL BE BACKFILLED WITH BACKFILL GRANULAR. BACKFILL GRANULAR IS INCIDENTAL TO THE REMOVAL AND ABANDONMENT ITEMS.

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

PLACE SALVAGED TOPSOIL FROM SUBGRADE SHOULDER POINT TO 5' BEYOND SLOPE LIMITS ON CROSS SECTIONS.

RESTORATION OF EXPOSED SLOPES AND DITCHES SHALL TAKE PLACE NOT MORE THAN 7 CALENDAR DAYS AFTER GRADING IS COMPLETE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL LOCATIONS AS SHOWN IN THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

MAINTAIN ACCESS TO ALL DRIVEWAYS AND BUSINESSES AT ALL TIMES.

ALL SIGN LOCATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION.

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN AND THE ENGINEER IN THE FIELD.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

CONSTRUCT LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUAL TO THE SUPERELEVATION RATE WHEN GREATER THAN 4%. IF THE SUPER ELEVATION RATE IS LESS THAN OR EQUAL TO 4% THEN THE LOW SIDE SHOULDER SLOPE IS 4%. THE HIGH SIDE SHOULDER SLOPE EQUALS THE SUPERELEVATION RATE IN SUPERELEVATED SECTIONS.

SEE SUBSURFACE EXPLORATION REPORTS FOR SOIL BORING INFORMATION. REPORTS ARE AVAILABLE FROM THE SOUTHEAST REGION PROJECTS SECTION, PROJECT MANAGER TRACI GENGLER, PHONE 262-548-8727.

PIPE AND INLET ELEVATIONS SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER.

JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL REINFORCED CONCRETE APRON ENDWALL LOCATIONS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR CULVERT PIPE REINFORCED CONCRETE.

NO ADDITIONAL MEASUREMENT OR PAYMENT WILL BE MADE FOR EXCAVATION OR ASPHALTIC SURFACE REMOVAL AT DRIVEWAYS.

CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND THE RACINE COUNTY SURVEYOR NEILSON, MADSEN & BARBER (262)634-5588 AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

TRAFFIC SIGNAL PLANS PREPARED BY WISDOT.

EXISTING AND PERMANENT SIGNING PLANS PREPARED BY WISDOT.

ABBREVIATIONS

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABUT	ABUTMENT
AC	ACRE
AEW	APRON ENDWALL
AEWSS	APRON ENDWALLS FOR CULVERT PIPE SLOPED SECTION STEEL
ASPH	ASPHALT
BAD	BASE AGGREGATE DENSE
BF	BACK FACE
B.M.	BENCH MARK
B.O.C.	BACK OF CURB
CTR.	CENTER
C/L	CENTERLINE
COMM	COMMERCIAL ENTRANCE
CONC	CONCRETE
CMCP	CORRUGATED METAL CULVERT PIPE
CMCE	CORRUGATED METAL CULVERT ELLIPTICAL
CTH	COUNTY TRUNK HIGHWAY
CY	CUBIC YARD
CPCS	CULVERT PIPE CORRUGATED STEEL
CPPACS	CULVERT PIPE PIPE ARCH CORRUGATED STEEL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
C&G	CURB AND GUTTER
CWT	HUNDRED WEIGHT
D.D.	DIRECTIONAL LANE DISTRIBUTION
D.H.V.	DESIGN HOURLY VOLUME
DIA	DIAMETER
E	EAST
X	EAST GRID COORDINATE
EL. OR ELEV	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FERT	FERTILIZER
FE	FIELD ENTRANCE
FF	FRONT FACE
FT	FOOT
HP	HIGH POINT
HMA	HOT MIX ASPHALT
HW	HIGH WATER
HYD	HYDRANT
INL	INLET
IP	IRON PIPE
LB	POUND
LHF	LEFT HAND FORWARD
LT	LEFT
LP	LOW POINT
LS	LUMP SUM
MAX.	MAXIMUM
MGAL	MEGAGALLON
MIN.	MINIMUM
MPH	MILES PER HOUR
N	NORTH
Y	NORTH GRID COORDINATE
NORM	NORMAL
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PE	PRIVATE ENTRANCE
PL	PROPERTY LINE
PLE	PERMANENT LIMITED EASEMENT
R	RADIUS
RT	RIGHT
RSPC	REMOVING SMALL PIPE CULVERTS
REQ'D	REQUIRED
RDWY	ROADWAY
RHF	RIGHT HAND FORWARD
SE	SUPERELEVATION
SF	SQUARE FEET
SI	SLOPE INTERCEPT
STA	STATION
SY	SQUARE YARD
T.	PERCENT TRUCKS
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
V	DESIGN SPEED
WL	WETLAND

UTILITY CONTACTS

WE ENERGIES – GAS OPERATIONS
DAN SANDE
WE ENERGIES
333 W. EVERETT ST. - A279
MILWAUKEE, WI 53203
PHONE: (414) 221-4578

WE ENERGIES – ELECTRIC
DAN SANDE
WE ENERGIES
333 W. EVERETT ST. - A279
MILWAUKEE, WI 53203
PHONE: (414) 221-4578

TDS TELECOM
MICHAEL JOHNSON
TDS TELECOM
20875 CROSSROADS CIRCLE, STE 800
WAUKESHA, WI 53186
PHONE: (262) 754-3052

TIME WARNER CABLE
STEVE CRAMER
TIME WARNER CABLE
1320 N. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
PHONE: (414) 277-4045

WISDOT SIGNALS
JOHN HAUG
141 NW BARSTOW STREET
PO BOX 798
WAUKESHA, WI 53187
PHONE: (262) 521-5356

AT&T WISCONSIN
MARK EDER
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188
PHONE: (262) 896-7434

VILLAGE OF WATERFORD DPW
RANDY NIEWOLNY
WATER DEPARTMENT
123 N RIVER STREET
WATERFORD, WI 53185
PHONE: (262) 534-3801

TOWN OF WATERFORD SANITARY DISTRICT
NORM NELSON
SANITARY DISTRICT
415 N. MILWAUKEE STREET
WATERFORD, WI 53185
PHONE: (262) 534-4646

OTHER CONTACTS

DNR LIAISON
MR. CRAIG WEBSTER
141 NW BARSTOW STREET
WAUKESHA, WI 53188
PHONE: (262) 574-2141

VILLAGE OF WATERFORD DPW
MR. JEFF DOLEZAL, DIRECTOR
123 N. RIVER STREET
WATERFORD, WI 53185
PHONE: (262) 534-4069

TOWN OF WATERFORD
MR. ROBERT LANGMESSER, CHAIRMAN
415 N. MILWAUKEE STREET
WATERFORD, WI 53185
PHONE: (262) 534-2350

TOWN OF VERNON DPW
MR. DOUG SALENTINE, DIRECTOR
W249 S8910 CENTER DRIVE
PO BOX 309
BIG BEND, WI 53103
PHONE: (262) 662-7785

RACINE COUNTY DPW
JEFFREY KATZ
MANAGER OF PLANNING AND ENGINEERING SERVICES
14200 WASHINGTON AVE.
STURTEVANT, WI 53177
PHONE: (262) 886-8440

WAUKESHA COUNTY DPW
MR. GARY EVANS
1320 PEWAUKEE ROAD
WAUKESHA, WI 53188
PHONE: (262) 548-7746

RACINE COUNTY SURVEYOR
MARK MADSEN
NEILSEN, MADSEN & BARBER
53403 WASHINGTON AVE.
RACINE, WI 53401
PHONE : (262) 634-5588

WISDOT PROJECT MANAGER
TRACI GENGLER
PROJECT MANAGER
141 NW BARSTOW STREET
P.O. BOX 798
WAUKESHA, WI 53187
PHONE: (262) 548-8727

DESIGN CONTACT
RA SMITH NATIONAL, INC
16745 W BLUEMOUND ROAD
BROOKFIELD WI 53005
STEPHAN HOFFMANN
(262) 781-1000

ORDER OF SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
EROSION CONTROL
STORM SEWER
EXISTING/PERMANENT SIGNING
TRAFFIC SIGNALS
PAVEMENT MARKING
TRAFFIC CONTROL
DETOUR PLAN
ALIGNMENT PLAN

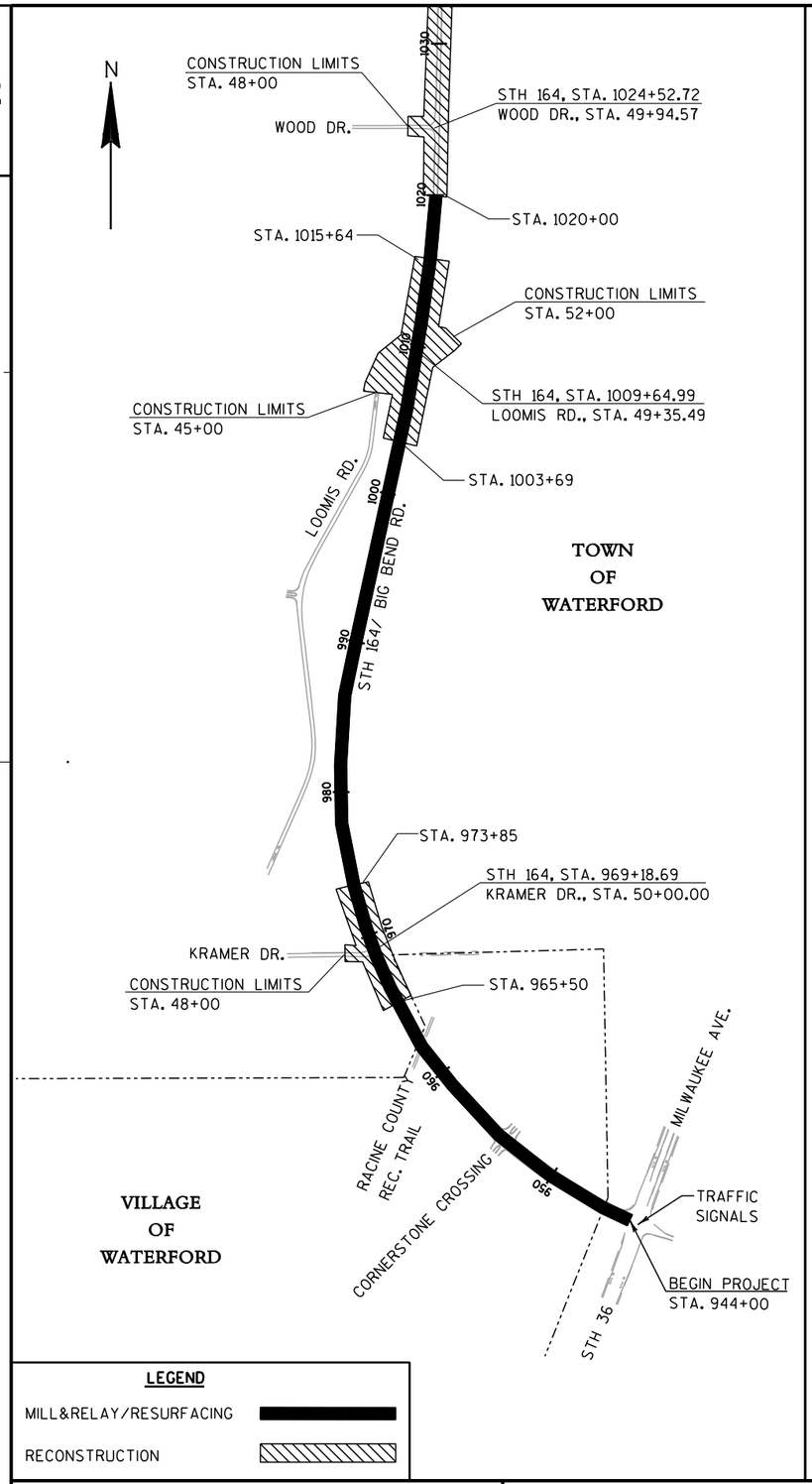
CONSTRUCT HMA PAVEMENT TYPE E-3 WITH THE FOLLOWING ASPHALTIC MATERIAL LAYERS AND GRADATIONS:

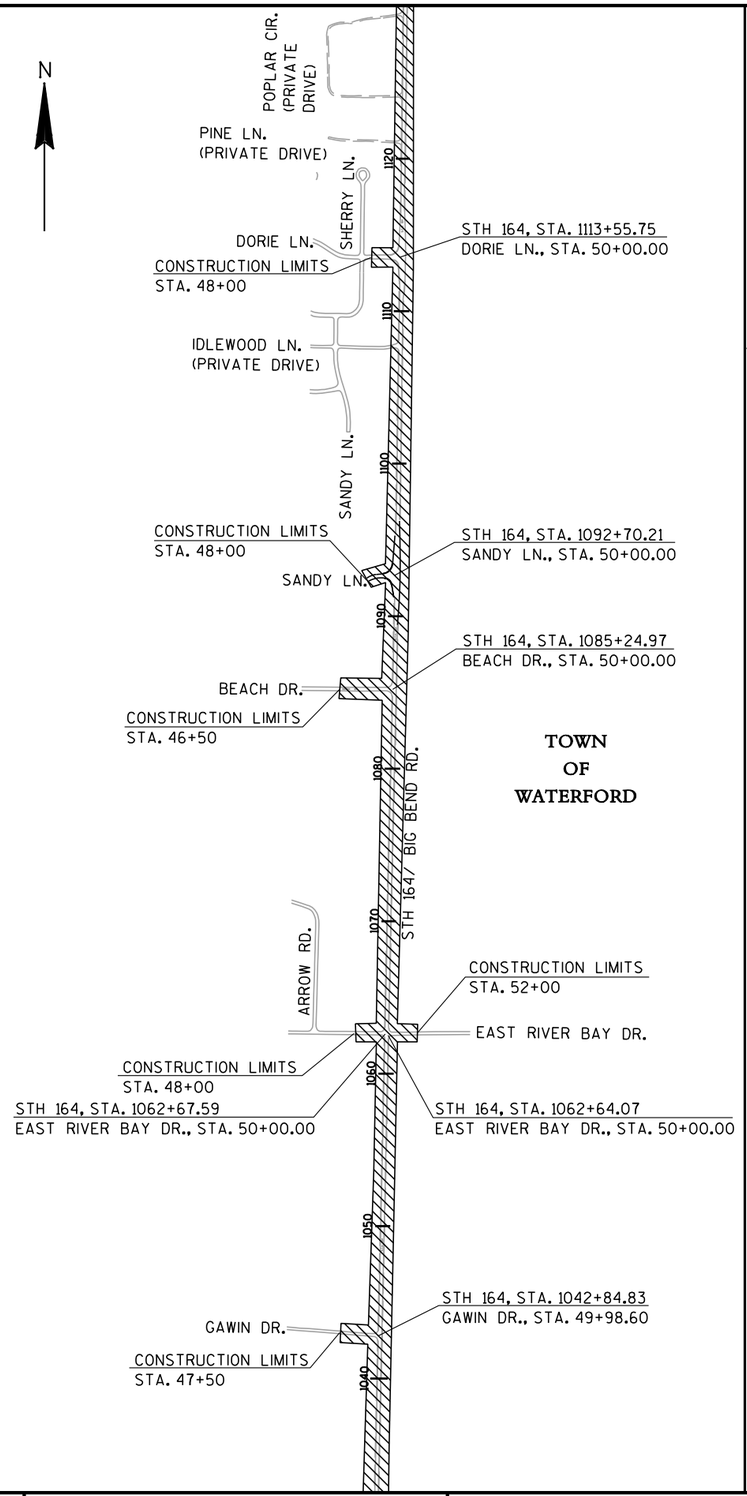
LOCATION	ASPHALTIC MATERIAL	NOMINAL SIZE	LOWER LAYER	UPPER LAYER
SIDE ROADS 4-INCH	PG 58-28	19.0 mm	2.25-inch	x
	PG 58-28	12.5 mm	x	1.75-inch
STH 164 REHAB 4.5-INCH	PG 58-28	19.0 mm	2.50-inch	x
	PG 58-28	12.5 mm	x	2.00-inch

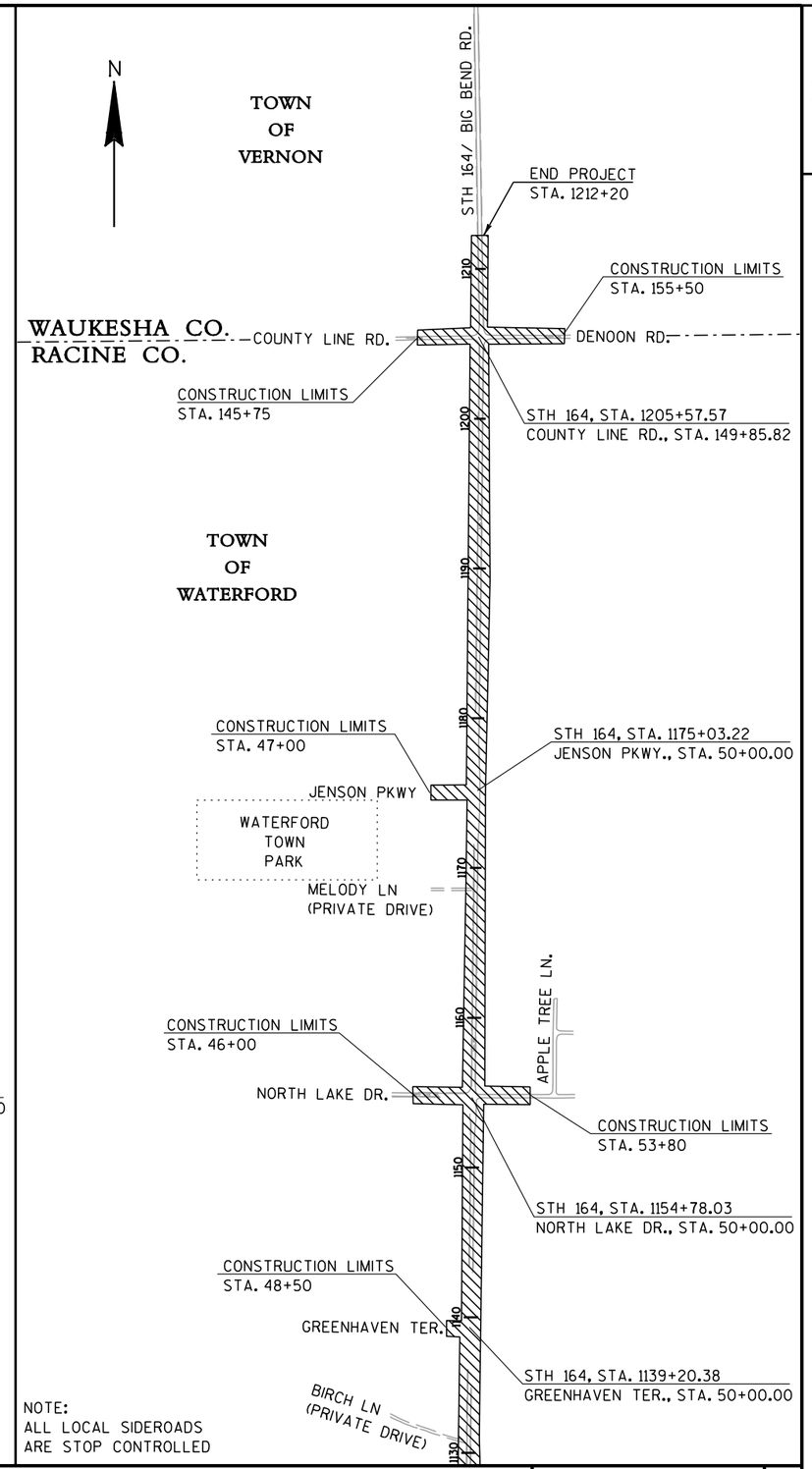
LOCATION	ASPHALTIC MATERIAL	NOMINAL SIZE	LOWER - LOWER LAYER	UPPER - LOWER LAYER	UPPER LAYER
STH 164 RECONSTRUCTION 6.25-INCH	PG 58-28	19.0 mm	2.25-inch	x	x
	PG 58-28	19.0 mm	x	2.25-inch	x
	PG 58-28	12.5 mm	x	x	1.75-inch

DIGGERS HOTLINE

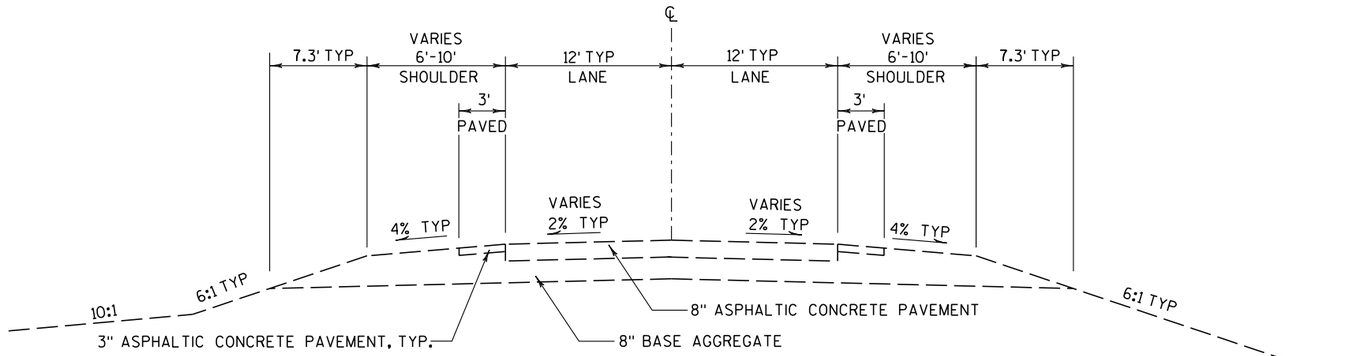
Call 811 3 Work Days Before You Dig
Or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com





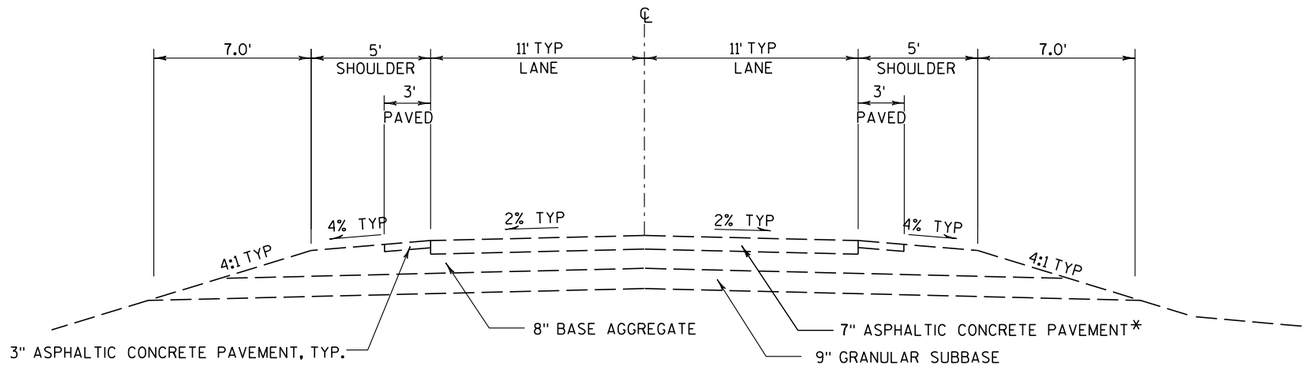


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PROJECT OVERVIEW	SHEET 4	E



EXISTING TYPICAL SECTION

STH 164
STA. 944+00 TO STA. 1027+23

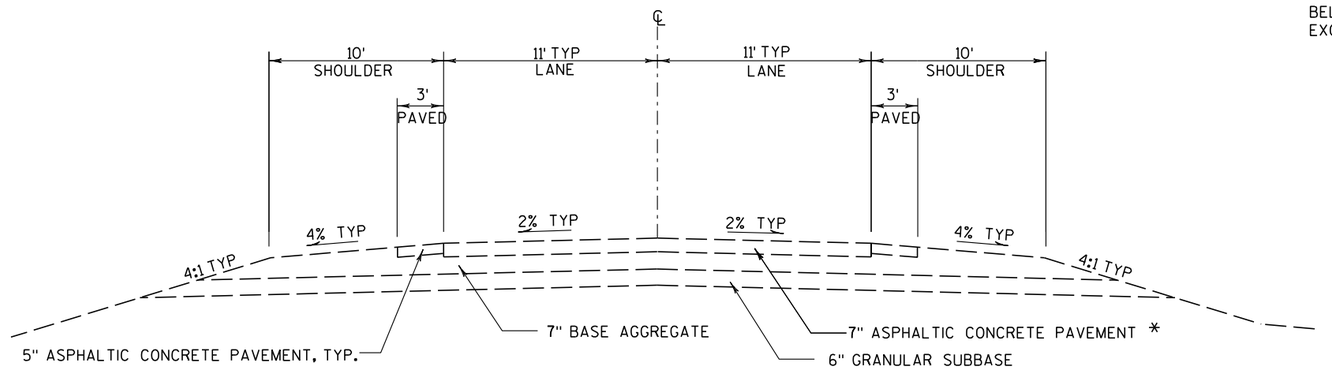


NOTES:

*ASPHALT DEPTHS VARY FROM 7" TO 30" FROM
±STA. 1046+00 TO ±STA. 1032+00
±STA. 1063+00 TO ±STA. 1084+00
REMOVE EXISTING PAVEMENT BELOW SUBGRADE. PAID AS EXCAVATION COMMON

EXISTING TYPICAL SECTION

STH 164
STA. 1027+23 TO STA. 1206+16

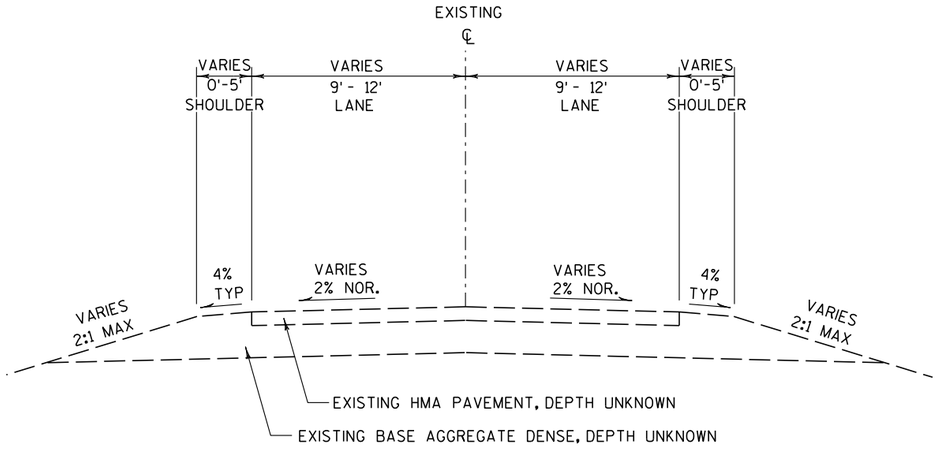


EXISTING TYPICAL SECTION

STH 164
STA. 1206+16 TO STA. 1212+20

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TYPICAL SECTION	SHEET 5	E

2

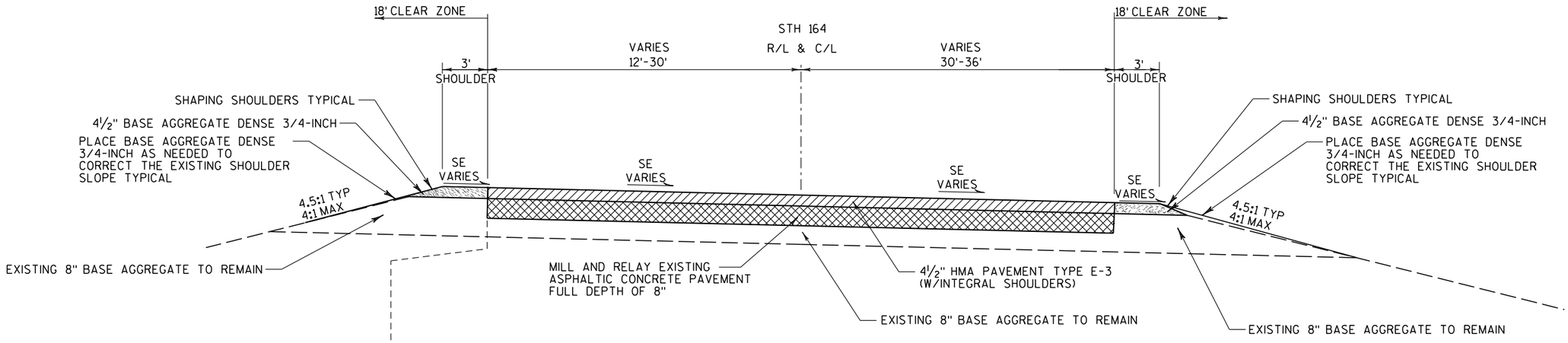


EXISTING TYPICAL SECTION - SIDEROADS

KRAMER DRIVE
LOOMIS ROAD
WOOD DRIVE
GAWIN DRIVE
EAST RIVER BAY DRIVE
BEACH DRIVE
SANDY LANE
DORIE LANE
GREENHAVEN TERRACE
NORTH LAKE DRIVE
JENSON PARKWAY
COUNTY LINE ROAD

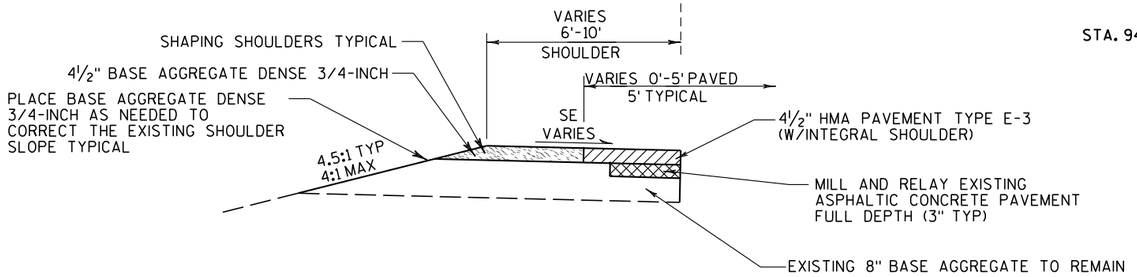
FILE NAME : t:\1102721.10\cadd\base files & sheets\020301_ts.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2



TYPICAL FINISHED RESURFACING SECTION

STH 164
STA. 944+00 TO STA. 953+00

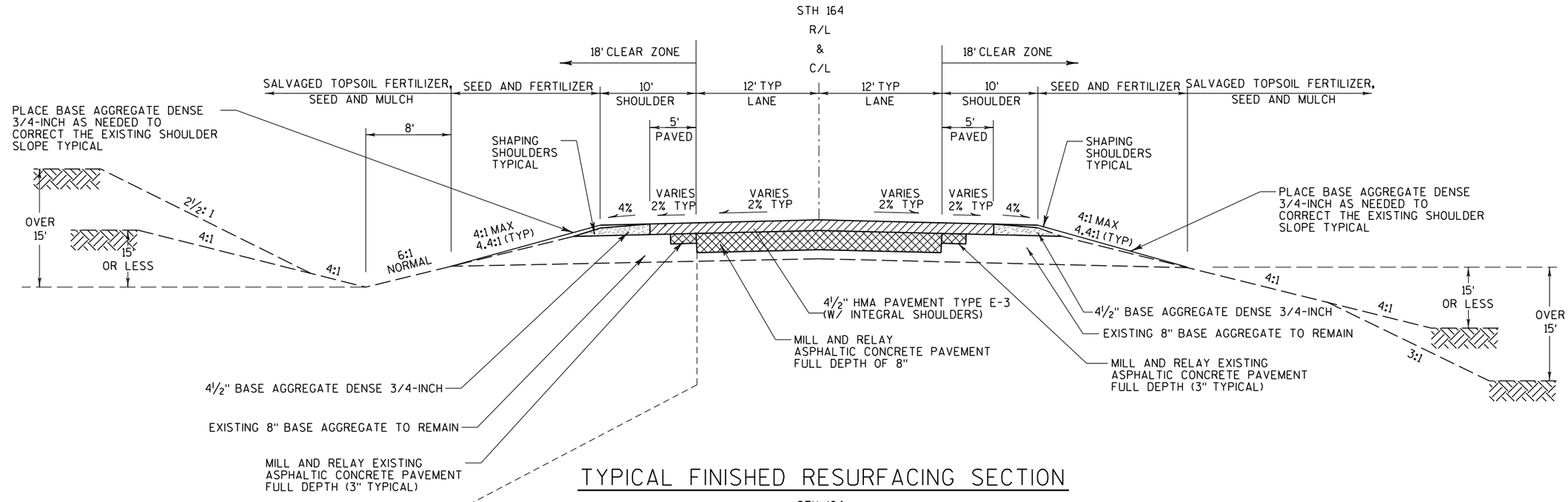


PAVED SHOULDER SECTION
BIKE ACCOMMODATIONS

STH 164
STA. 948+00 TO STA. 953+00 LT

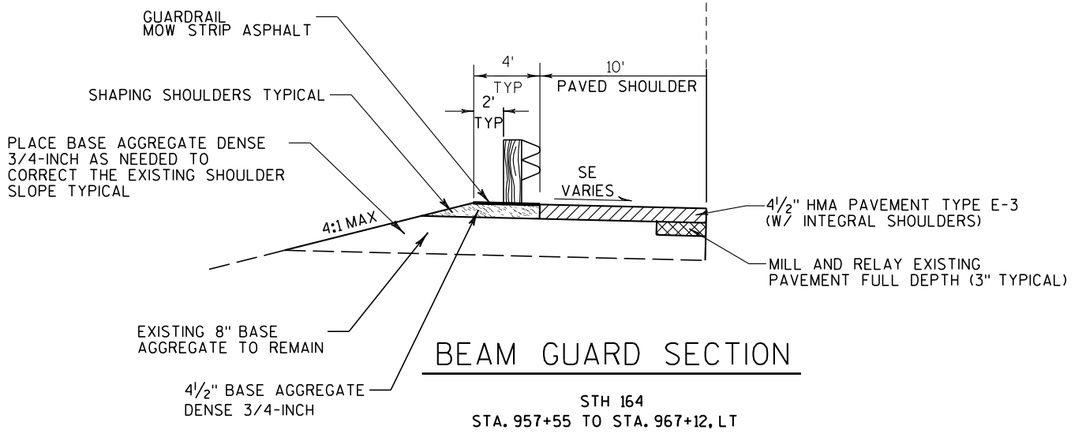
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TYPICAL SECTION	SHEET 7	E

2



TYPICAL FINISHED RESURFACING SECTION

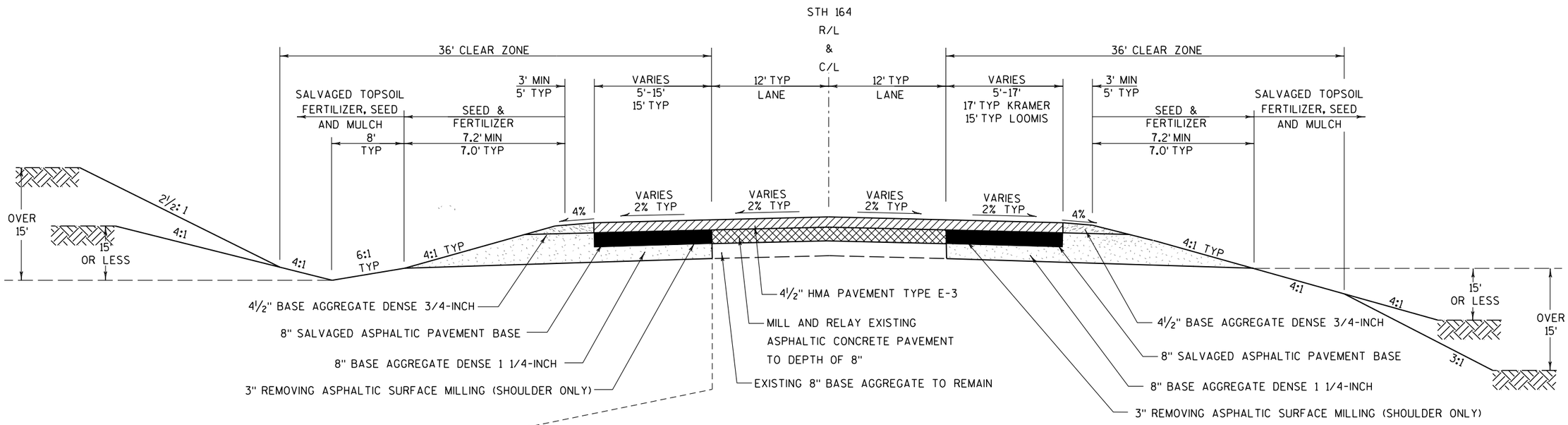
STH 164
STA. 953+00 TO 967+60 LT
STA. 953+00 TO STA. 965+50 RT
STA. 973+85 TO STA. 1007+47 LT
STA 973+46 TO STA 1003+69 RT
STA. 1015+64 TO STA. 1020+00 LT
STA. 1011+74 TO STA. 1020+00 RT



BEAM GUARD SECTION

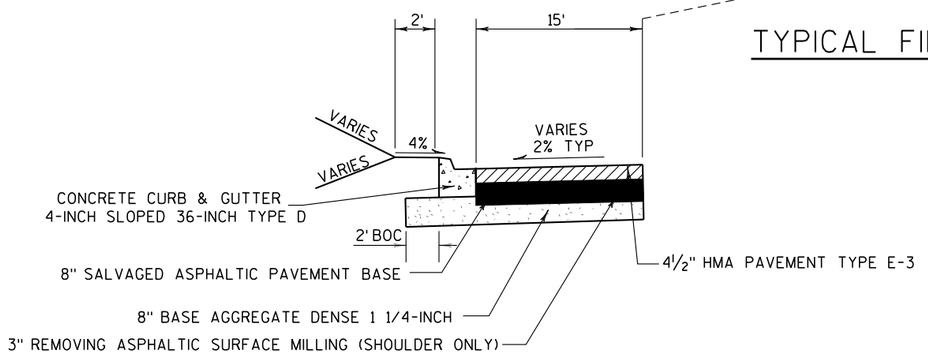
STH 164
STA. 957+55 TO STA. 967+12. LT

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TYPICAL SECTION	SHEET 8	E



TYPICAL FINISHED RECONSTRUCTION SECTION

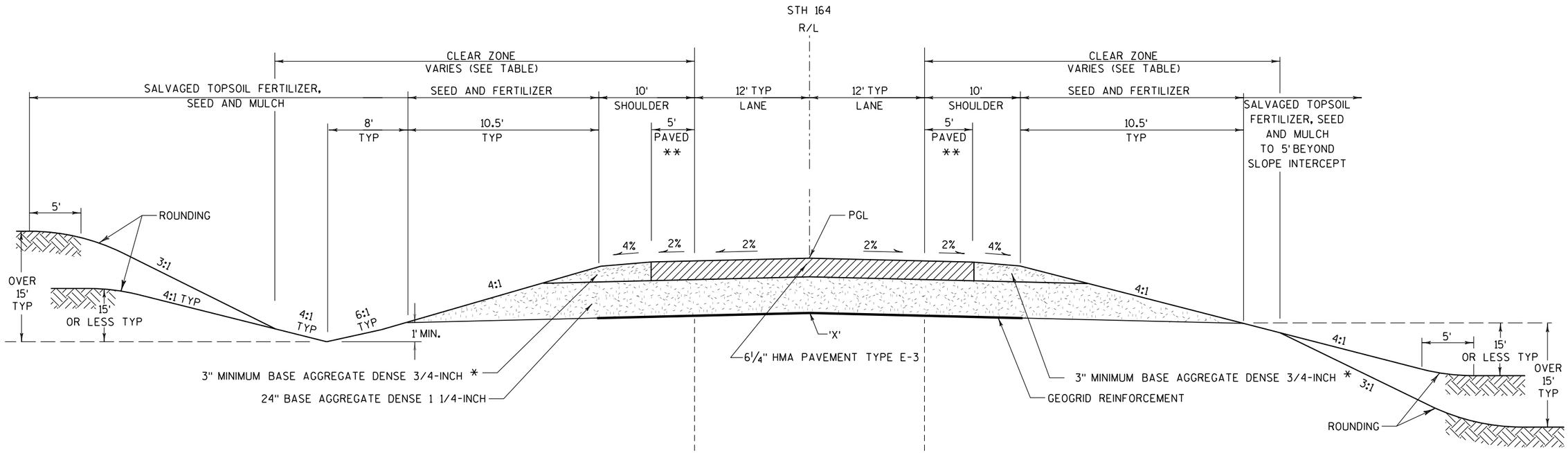
STH 164 (INTERSECTIONS @ KRAMER & LOOMIS)
STA. 967+60 TO STA. 973+85 LT
STA. 965+50 TO STA. 973+46 RT
STA 1007+47 TO STA 1015+64 LT
STA. 1003+69 TO STA. 1011+74 RT

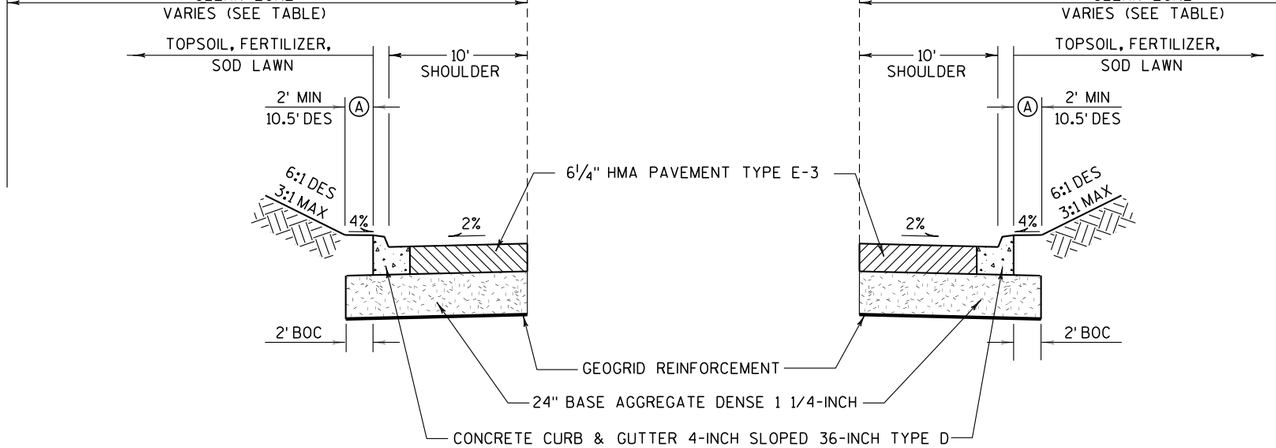


URBAN RIGHT TURN LANE

STH 164
STA. 970+00 TO STA. 972+00 LT

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TYPICAL SECTION	SHEET 9	E





'X' - SUBGRADE POINT REFERRED TO ON CROSS SECTIONS

STATION RANGE	DESIGN SPEED	CLEAR ZONE
1020+00 - 1086+00	60	36
1086+00 - 1141+00	55	30
1141+00 - 1168+00	45	26
1168+00 - END	55	30

URBAN SHOULDER SECTION
STA. 1052+25 TO 1054+00, LT (A=5')
STA. 1096+75 TO 1100+25, LT (A=2')
STA. 1164+40 TO 1168+00, LT (A=10.5')

URBAN SHOULDER SECTION
STA. 1052+00 TO 1054+30, RT (A=5')
STA. 1165+50 TO 1168+00, RT (A=10.5')

NOTES:

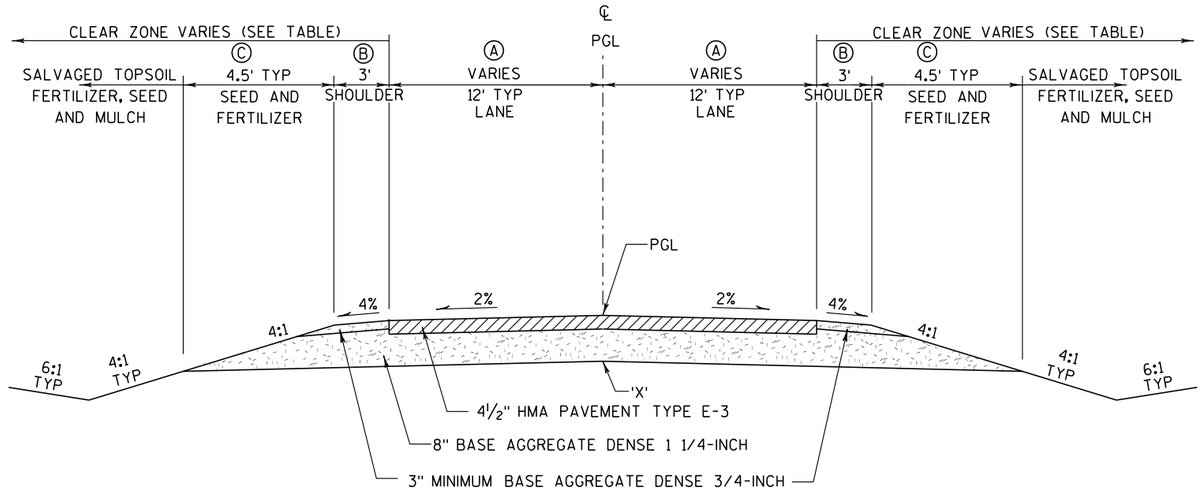
* BASE AGGREGATE DENSE 3/4-INCH MAY BE SUBSTITUTED FOR BASE AGGREGATE DENSE 1 1/4-INCH IN SHOULDER TO A MAXIMUM OVERALL DEPTH OF 6 ¼ INCHES.

** 9' PAVED FROM STA. 1088+86 TO STA. 1091+75 LT, STA. 1100+35 TO STA 1112+61 LT AND STA 1095+87 TO STA. 1110+61 RT.

TYPICAL FINISHED RECONSTRUCTION SECTION

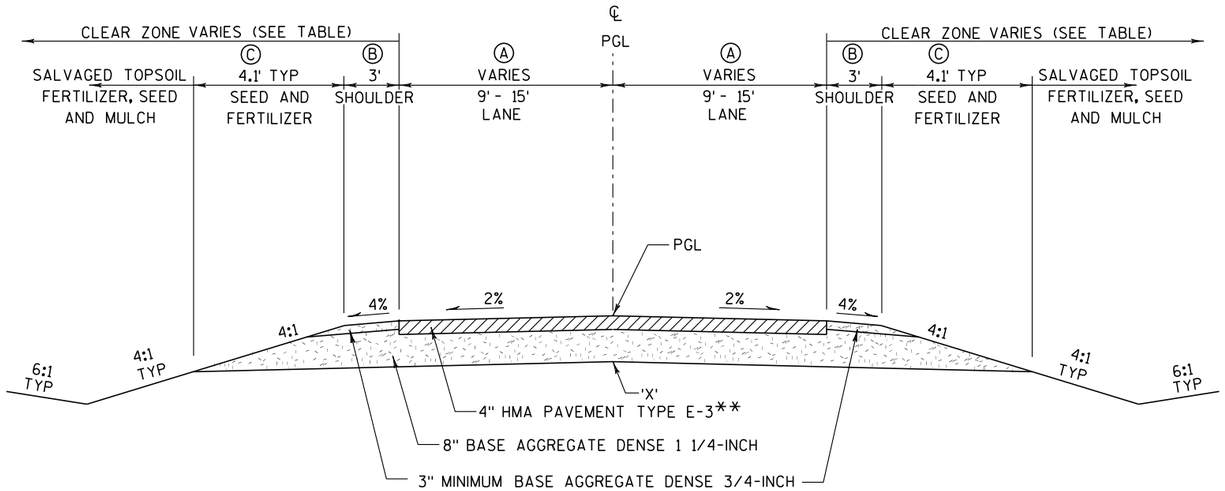
STH 164
STA. 1020+00 TO STA. 1212+20

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TYPICAL SECTION	SHEET 10	E



TYPICAL FINISHED RECONSTRUCT SECTION - SIDE ROAD

KRAMER DRIVE STA. 48+00 TO STA. 50+00
LOOMIS ROAD STA. 45+00 TO STA. 52+00

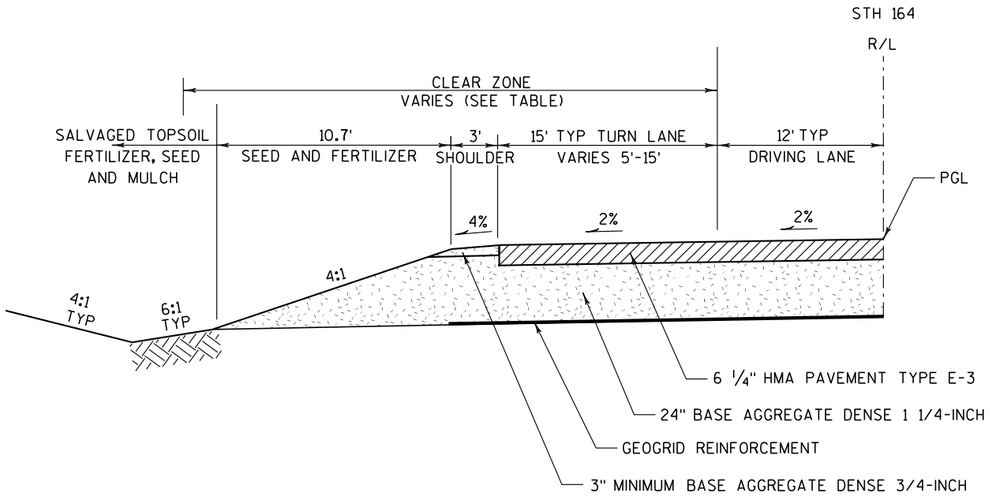


TYPICAL FINISHED RECONSTRUCT SECTION - SIDE ROAD

WOOD DRIVE STA. 48+00 TO STA. 49+94.57
GAWIN DRIVE STA. 47+50 TO STA. 49+98.60
EAST RIVER BAY DRIVE STA. 48+00 TO STA. 52+00
BEACH DRIVE STA. 46+50 TO STA. 50+00
SANDY LANE STA. 48+00 TO STA. 50+00
DORIE LANE STA. 48+00 TO STA. 50+00
GREENHAVEN TERRACE STA. 48+50 TO STA. 50+00
NORTH LAKE DRIVE STA. 46+00 TO STA. 53+80
JENSON PARKWAY STA. 47+00 TO STA. 50+00
COUNTY LINE ROAD/DENOON ROAD STA. 145+75 TO STA. 155+50

'X' - SUBGRADE POINT REFERRED TO ON CROSS SECTIONS

	CLEAR ZONE	TYPICAL WIDTHS		
		Ⓐ	Ⓑ	Ⓒ
KRAMER DRIVE	10'	12'	3'	4.52'
LOOMIS ROAD	16'	12'	3'	4.52'
WOOD DRIVE	10'	10'	3'	4.09'
GAWIN DRIVE	10'	9'	3'	4.09'
EAST RIVER BAY DRIVE (WEST OF STH 164)	10'	11'	3'	4.09'
EAST RIVER BAY DRIVE (EAST OF STH 164)	10'	9.5'	3'	4.09'
BEACH DRIVE	10'	12'	3'	4.09'
SANDY LANE	10'	12'	3'	4.09'
DORIE LANE	10'	12'	3'	4.09'
GREENHAVEN TERRACE	10'	12'	3'	4.09'
NORTH LAKE DRIVE	16'	11'	3'	4.09'
JENSON PARKWAY	10'	12'	3'	4.09'
COUNTY LINE ROAD/DENOON ROAD	16'	10'	3'	4.09'

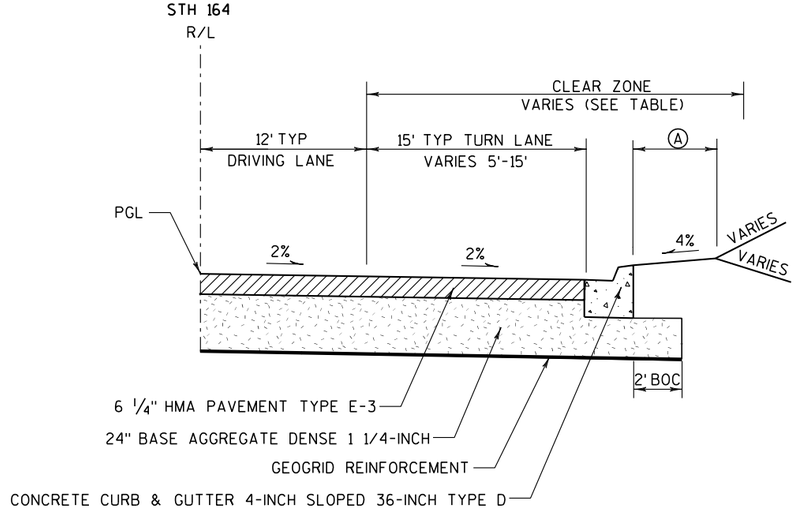


TYPICAL FINISHED RECONSTRUCT SECTION - RURAL RIGHT TURN LANE

(RIGHT IS MIRROR IMAGE OF LEFT)

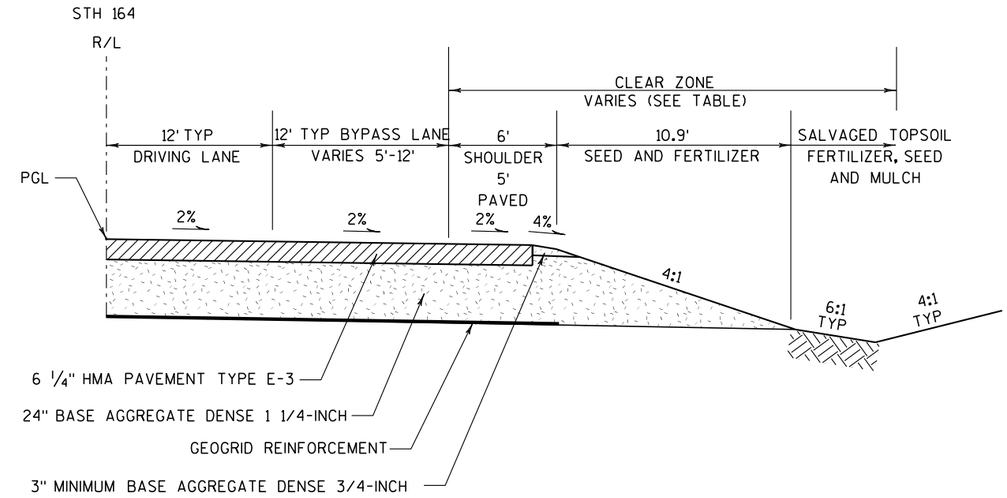
STH 164

STA. 1025+26 TO STA. 1029+13, LT
STA. 1043+60 TO STA. 1047+47, LT
STA. 1056+65 TO STA. 1062+02, RT
STA. 1063+31 TO STA. 1068+68, LT
STA. 1085+99 TO STA. 1089+86, LT
STA. 1093+45 TO STA. 1096+75, LT
STA. 1117+55 TO STA. 1118+18, LT
STA. 1143+10 TO STA. 1143+83, LT
STA. 1148+84 TO STA. 1153+00, RT
STA. 1155+41 TO STA. 1161+21, RT
STA. 1175+77 TO STA. 1179+65, LT
STA. 1199+57 TO STA. 1201+96, RT
STA. 1206+12 TO STA. 1211+00, LT



TYPICAL FINISHED RECONSTRUCT SECTION - URBAN RIGHT TURN LANE

STH 164 (LEFT IS MIRROR IMAGE OF RIGHT)	A
STA. 1114+30 TO STA. 1117+55, LT	(A=6')
STA. 1139+95 TO STA. 1143+10, LT	(A=10.5')
STA. 1153+00 TO STA. 1154+14, RT	(A=10.5')

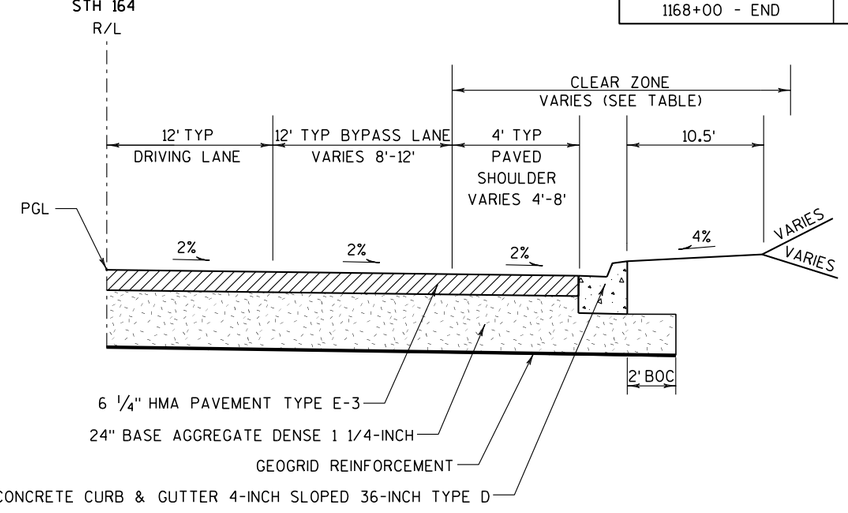


TYPICAL FINISHED RECONSTRUCT SECTION - RURAL BYPASS LANE

STH 164

STA. 1020+86 TO STA. 1028+78, RT
STA. 1039+18 TO STA. 1047+10, RT
STA. 1081+58 TO STA. 1096+95, RT
STA. 1109+89 TO STA. 1117+81, RT
STA. 1134+73 TO STA. 1138+90, RT
STA. 1143+75 TO STA. 1144+75, RT
STA. 1171+36 TO STA. 1179+28, RT

STATION RANGE	DESIGN SPEED	CLEAR ZONE
1020+00 - 1086+00	60	36
1086+00 - 1141+00	55	30
1141+00 - 1168+00	45	26
1168+00 - END	55	30

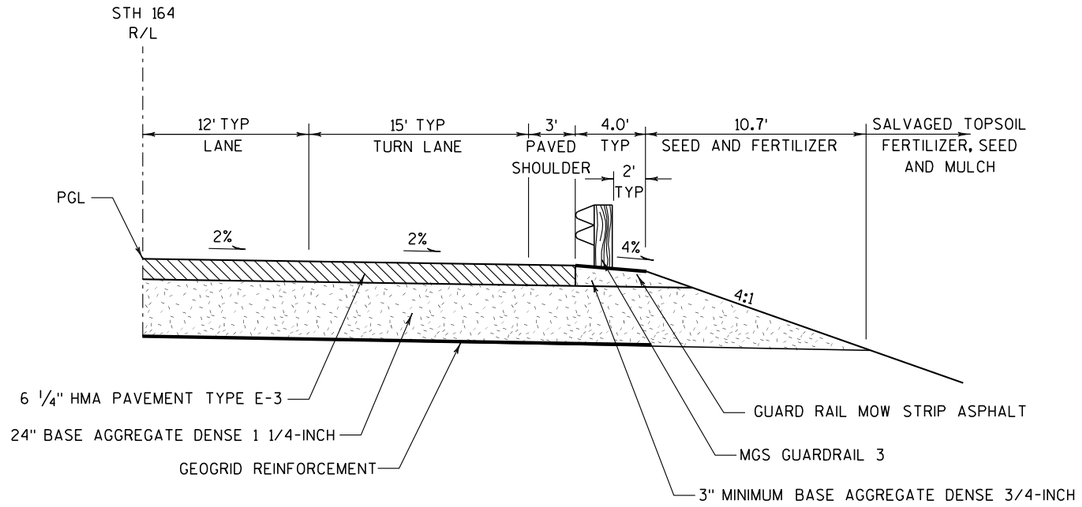


TYPICAL FINISHED RECONSTRUCT SECTION - URBAN BYPASS LANE

STH 164

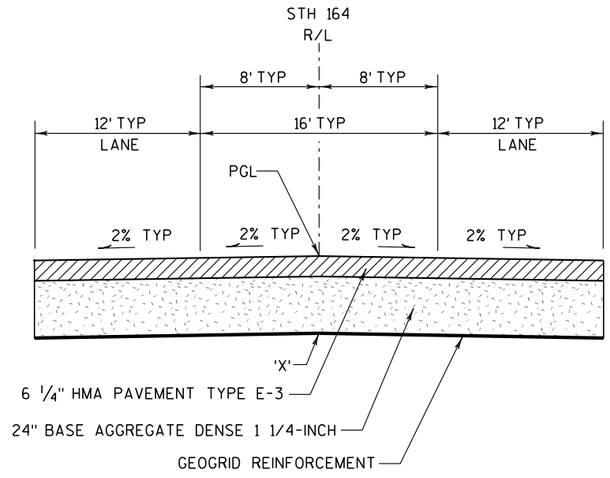
STA. 1138+90 TO STA. 1143+75, RT

2



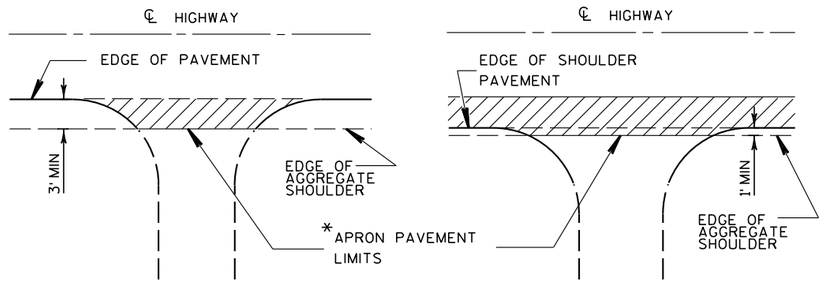
TYPICAL FINISHED RECONSTRUCT SECTION - RURAL RIGHT TURN LANE WITH BEAM GUARD

STH 164
STA. 1201+96 TO STA. 1204+45, RT



MEDIAN LEFT TURN LANE

STH 164
STA. 1148+84 TO STA. 1161+21

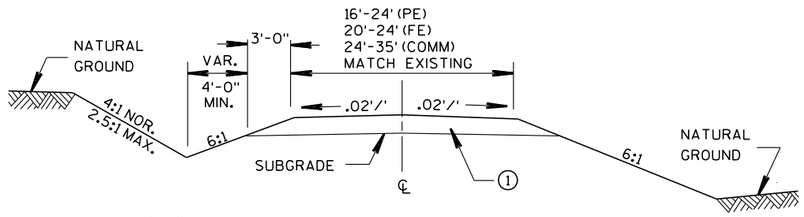


*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT, SAWCUT REQUIRED.

PLAN VIEW
(NO PAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL



IN CUT

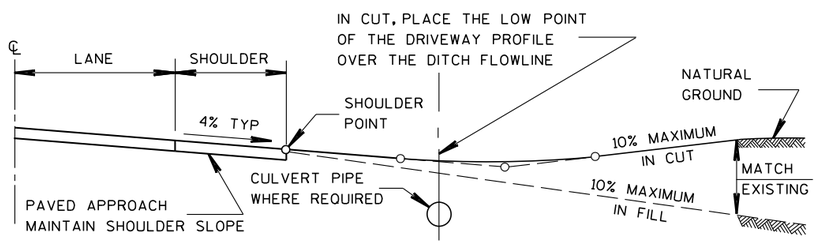
IN FILL

TYPICAL CROSS SECTION FOR RURAL PRIVATE DRIVE OR COMMERCIAL ENTRANCE OR FIELD ENTRANCE

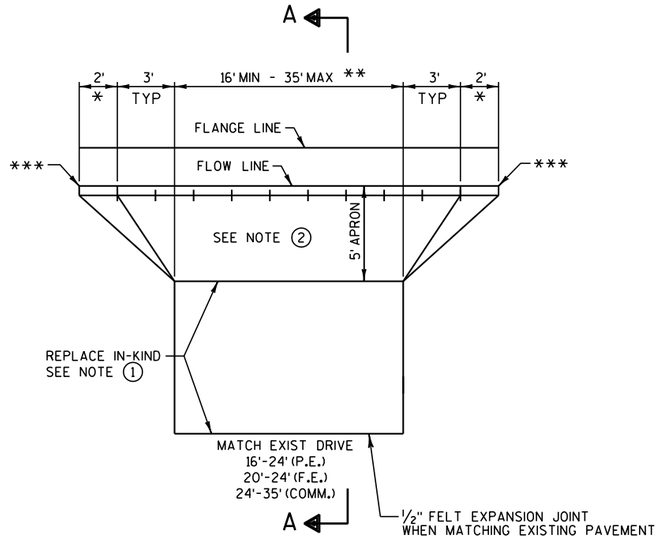
NOTES:

① DRIVEWAY SURFACE BEYOND APRON SHALL BE REPLACED IN-KIND WITH A MINIMUM SECTION OF:

3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 4" BASE AGGREGATE DENSE ¾-INCH
OR
CONCRETE DRIVEWAY HES 6-INCH OVER 4" BASE AGGREGATE DENSE ¾-INCH.
OR
6" BASE AGGREGATE DENSE ¾-INCH.



TYPICAL DRIVEWAY PROFILES



WITHOUT SIDEWALK

PLAN VIEW

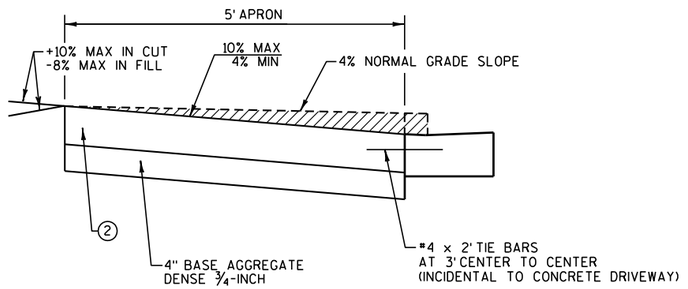
① DRIVEWAY SURFACE BEYOND APRON OR SIDEWALK SHALL BE REPLACED IN-KIND WITH A MINIMUM SECTION OF:

3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 4" BASE AGGREGATE DENSE ¾-INCH
OR
CONCRETE DRIVEWAY HES 6-INCH OVER 4" BASE AGGREGATE DENSE ¾-INCH.
OR
6" BASE AGGREGATE DENSE ¾-INCH.

② ALL URBAN DRIVEWAYS TO BACK OF APRON SHALL BE PAID FOR AS CONCRETE DRIVEWAY HES 6-INCH.

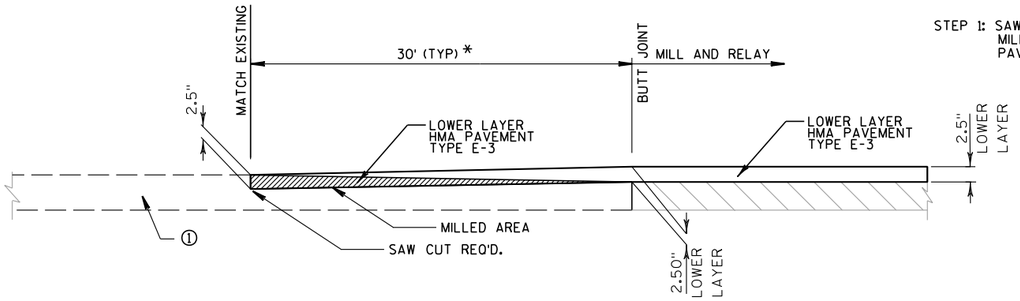
③ CONCRETE DRIVEWAY 6-INCH TO BACK OF SIDEWALK WHERE APPLICABLE.

④ SIDEWALK TO BE PAID FOR AS CONCRETE SIDEWALK 5-INCH AND 4" BASE AGGREGATE DENSE 3/4-INCH.

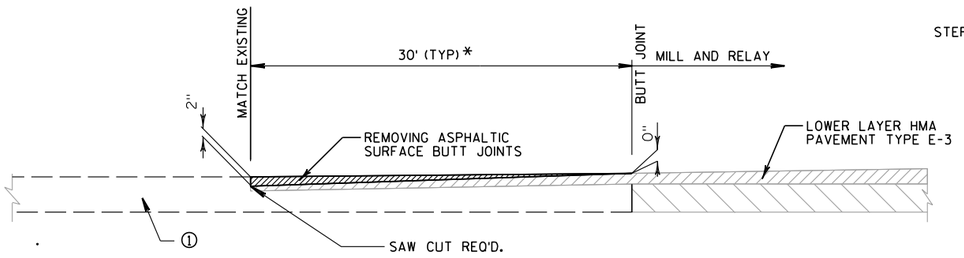


SECTION A-A
WITHOUT SIDEWALK

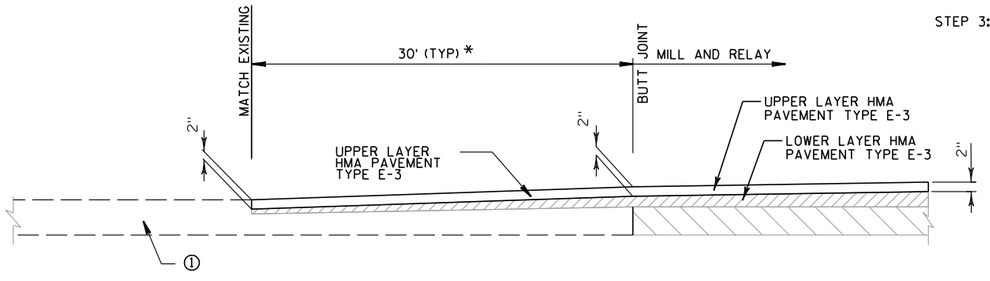
URBAN DRIVEWAY DETAIL



STEP 1: SAWCUT AT MATCHPOINT.
MILL BUTT JOINT.
PAVE LOWER LAYER OF HMA PAVEMENT.



STEP 2: MILL BUTT JOINT INTO LOWER LAYER.



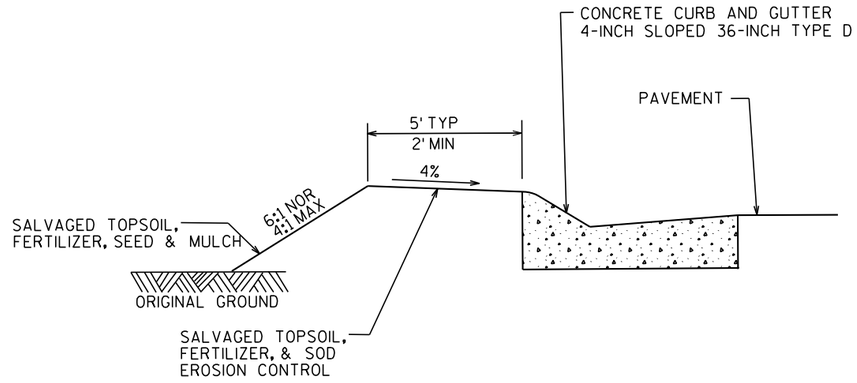
STEP 3: PAVE UPPER LAYER OF HMA PAVEMENT.

DETAIL OF ASPHALTIC SURFACE BUTT JOINT

* EXACT DIMENSIONS TO BE DETERMINED BY ENGINEER IN THE FIELD.

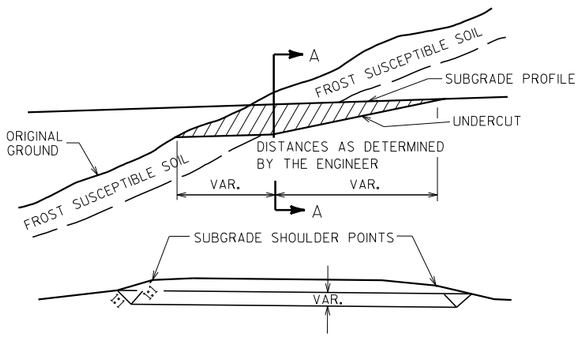
BUTT JOINTS:
STH 164/STH 36 INTERSECTION STA 944+00 TO STA 944+30
STH 164/CORNERSTONE CROSSING INTERSECTION

NOTE:
① EXISTING PAVEMENT TO REMAIN.



CONCRETE CURB AND GUTTER DETAIL

TO BE USED AT ALL INTERSECTIONS AND MEDIANS



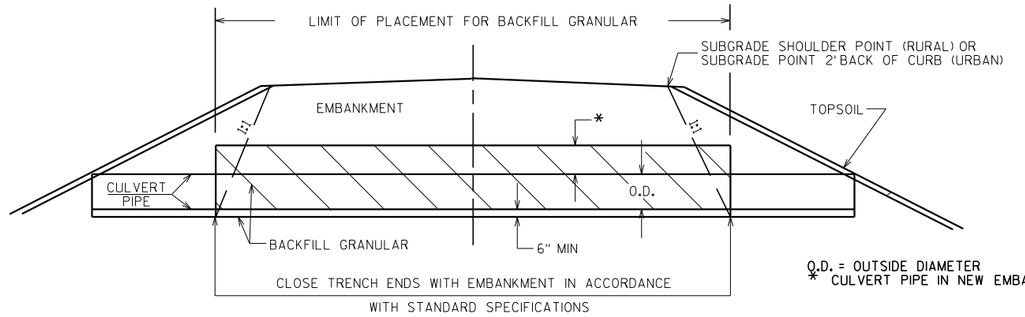
SECTION A-A

CROSS SECTION SHOWING UNDERCUT

DETAIL FOR EXCAVATION BELOW SUBGRADE AT CUTS

CONSTRUCTION NOTES:

1. EXACT LOCATIONS AND EXTENT OF EBS SECTIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. EBS AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER.
3. BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.
4. THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL EBS IS COMPLETED.

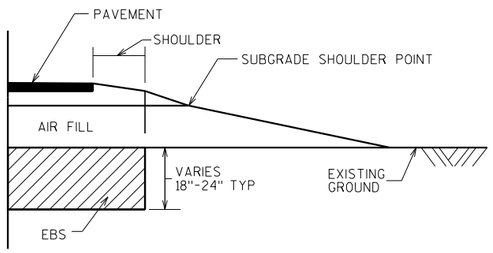


O.D. = OUTSIDE DIAMETER
* CULVERT PIPE IN NEW EMBANKMENT = 1' MIN

CULVERT BACKFILL DETAIL

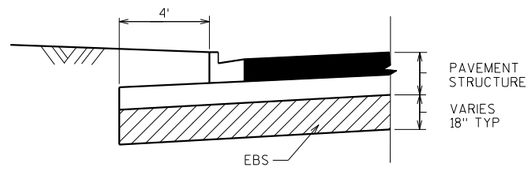
NOTE:

1. USE BACKFILL SLURRY IN PLACE OF BACKFILL GRANULAR WHERE CROSSINGS ARE CONSTRUCTED THROUGH EXISTING EMBANKMENTS.
   STA 957+60
   STA 969.72
   STA 986+22
   STA 1016+17
2. SEE CONSTRUCTION DETAILS "DETAIL FOR INSTALLATION OF CROSS CULVERT PIPES THROUGH EXISTING ROADWAY EMBANKMENT" FOR ADDITIONAL INFORMATION.



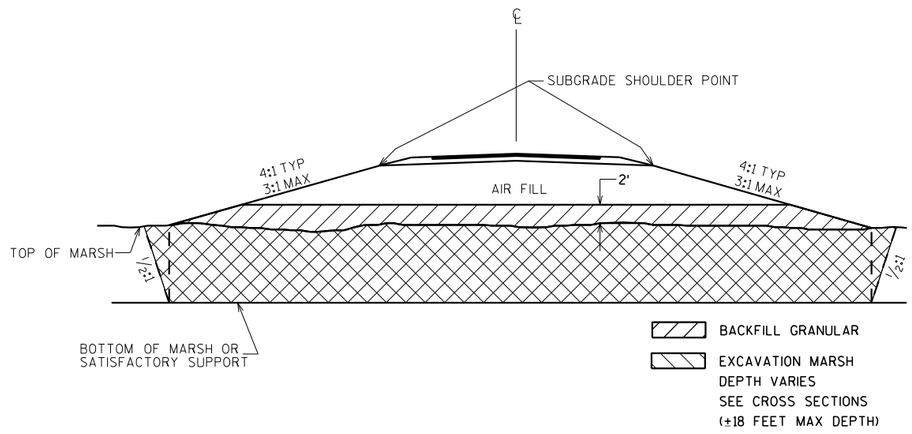
NOTES: 1. EBS SHALL BE PAID FOR AS EXCAVATION COMMON.
2. EXACT LOCATIONS AND EXTENT OF EBS SECTIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
3. FILL VOID WITH BREAKER RUN.

EXCAVATION BELOW SUBGRADE (EBS) - RURAL



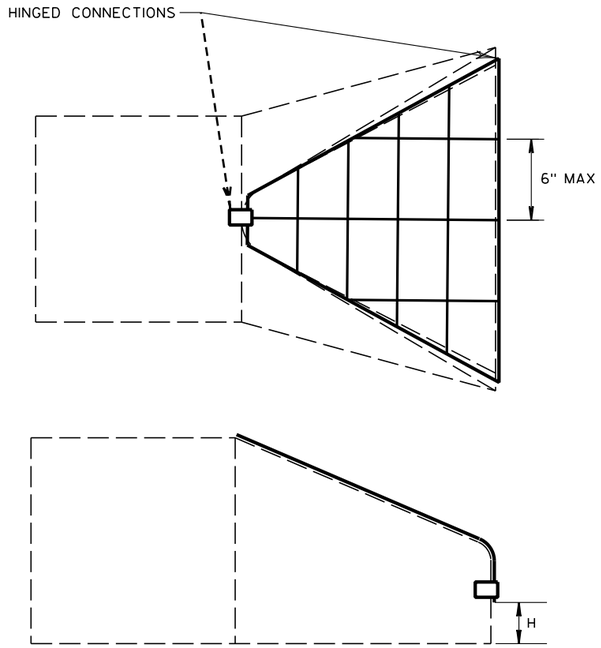
NOTES: 1. USE AS DIRECTED BY ENGINEER FOR AREAS OF UNSTABLE SUBGRADE.
2. EBS SHALL BE PAID FOR AS EXCAVATION COMMON.
3. FILL VOID WITH BREAKER RUN.

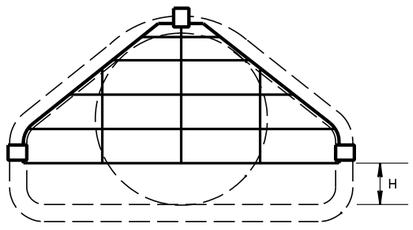
EXCAVATION BELOW SUBGRADE (EBS) - URBAN



TYPICAL MARSH EXCAVATION SECTION

STA 1069+00 - STA 1081+00



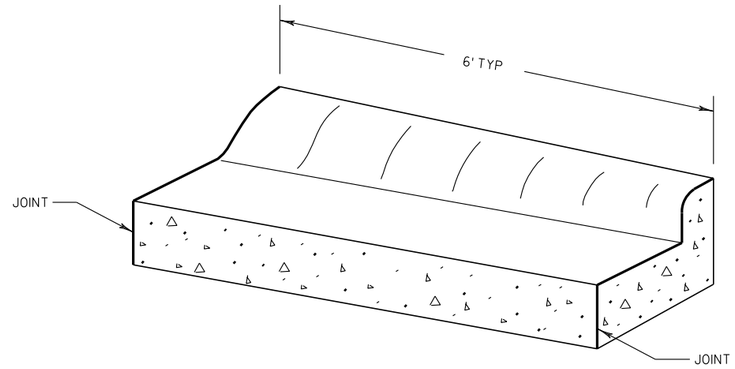


BAR SIZES				
STANDARD DESIGN				
	PIPE SIZE	HOLE DIA. REQ'D	BOLT DIA.	BAR SIZE
ROUND	12"-24"	3/4"	5/8"	5/8"
	27"-48"	7/8"	3/4"	3/4"
	54"-90"	1 1/8"	1"	1"
ELLIPTICAL SPAN	23"	3/4"	5/8"	5/8"
	30"-53"	7/8"	3/4"	3/4"
	60"-83"	1 1/8"	1"	1"
BOLT LG. = PIPEWALL THK. + 2 1/2"				

ROUND		ELLIPTICAL	
PIPE SIZE	H	PIPE SPAN	H
12"	2 1/2"	23"-30"	4"
15"	3"	38"-45"	5"
18"-24"	4"	53"-60"	6"
27"-36"	5"	68"-83"	7"
42"-54"	6"		
60"-72"	7"		
78"-90"	8"		

PIPE GRATES

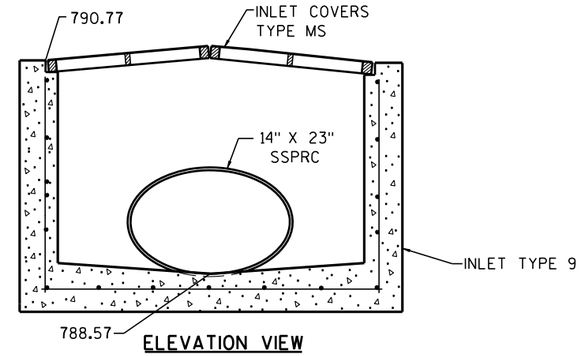
SEE MISCELLANEOUS QUANTITY TABLE FOR LOCATIONS



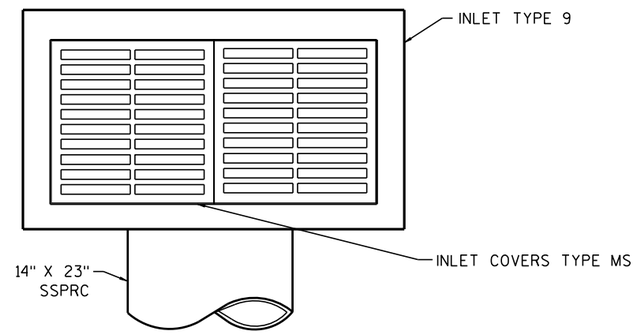
CURB TRANSITION DETAIL

TRANSITION FOR CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
TO CONCRETE CURB & GUTTER 30-INCH TYPE D

(TO BE MEASURED & PAID FOR AS CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D)

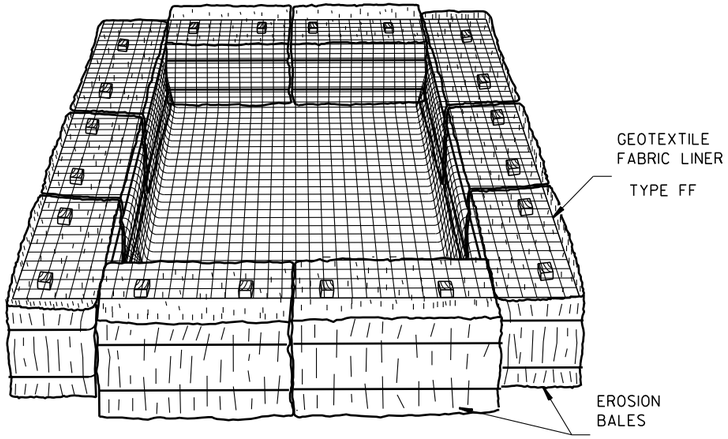


ELEVATION VIEW



PLAN DETAIL

STRUCTURE 114, COUNTY LINE ROAD, STA 152+00 RT



TEMPORARY SETTLING BASIN

(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

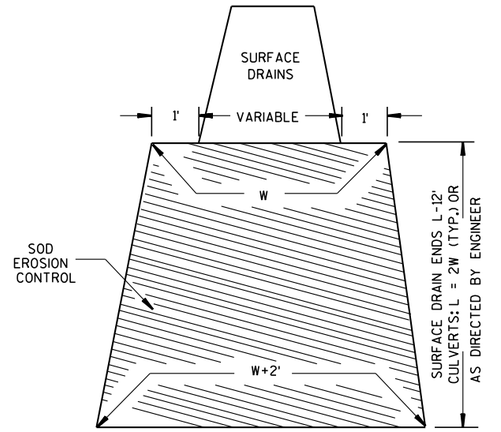
STORAGE VOLUME (C.F.) = 16 X GPM (PUMP RATE)

EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT.

SOLUTION:
SV (C.F.) = 16 X 50
SV = 800 C.F.
$\frac{800\ C.F.}{1.5\ FT.}$ = 533 S.F.
USE A 20 FT. X 27 FT. BASIN

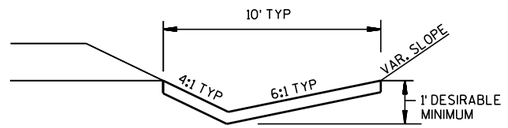
NOTES:

1. CONTRACTOR SHALL PUMP WATER FROM EXCAVATION TO BASIN PRIOR TO DISCHARGING TO THE WATERWAY.
2. BASIN SHALL BE KEPT LESS THAN 10% FULL OF SEDIMENT. GEOTEXTILE FABRIC AND SEDIMENTS SHALL BE DISPOSED BY THE CONTRACTOR OFF OF THE PROJECT SITE.
3. TEMPORARY SETTLING BASIN SHALL BE PAID FOR AS EROSION BALES AND GEOTEXTILE FABRIC TYPE FF.

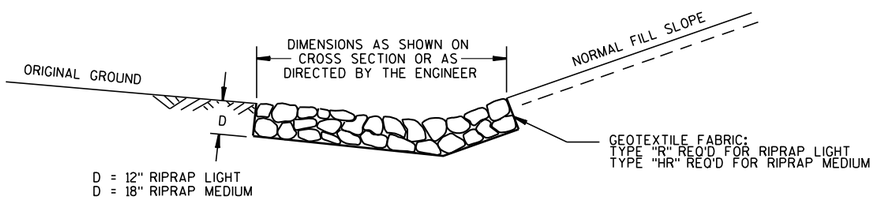


SOD EROSION CONTROL TREATMENT AT CULVERTS, AND CONCRETE SURFACE DRAINS

SEE EROSION CONTROL PLAN
FOR LOCATIONS

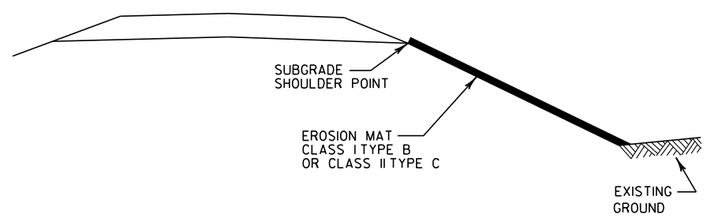


EROSION MAT DETAIL FOR DITCHES



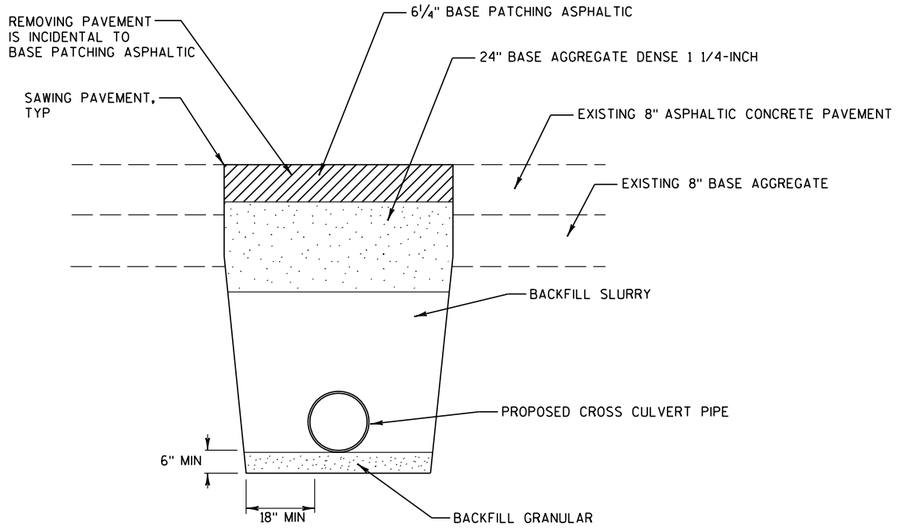
DETAIL FOR RIPRAP IN DITCHES

SEE EROSION CONTROL
PLAN FOR LOCATIONS



EROSION MAT DETAIL FOR SLOPES

SEE EROSION CONTROL
PLAN FOR LOCATIONS



DETAIL FOR INSTALLATION OF CROSS CULVERT PIPES

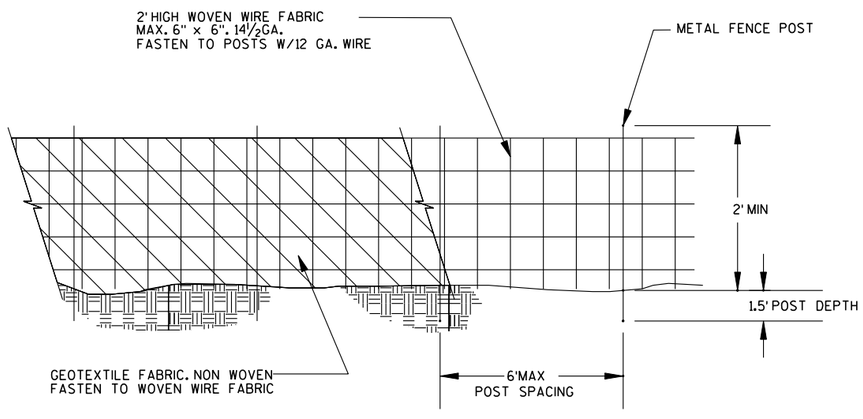
THROUGH EXISTING ROADWAY EMBANKMENT
STH 164 STA 944+00 TO STA 1020+00
STA 957+62
STA 969+72
STA 986+22
STA 1016+17

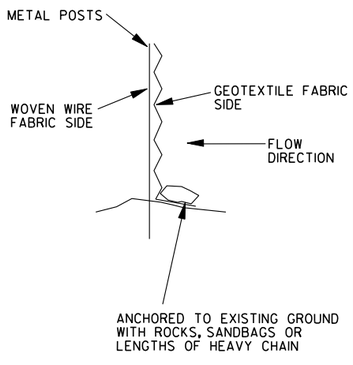
RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 60 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 73 ACRES

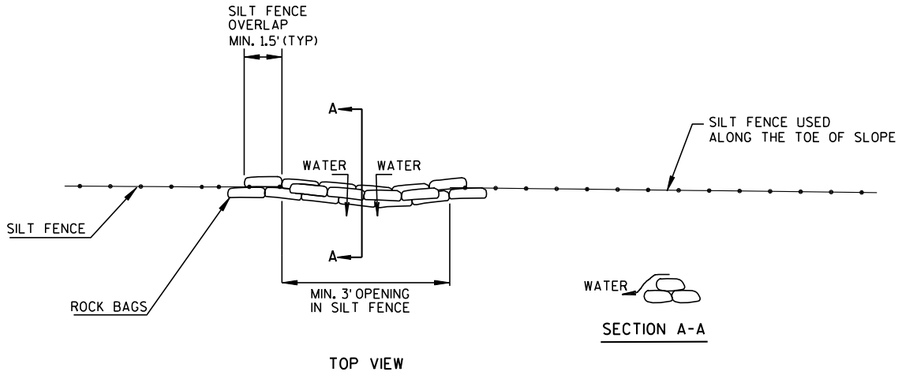
2





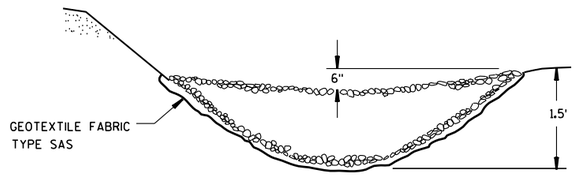
HEAVY DUTY SILT FENCE DETAIL

INSTALL AS NECESSARY AS
DIRECTED BY THE ENGINEER

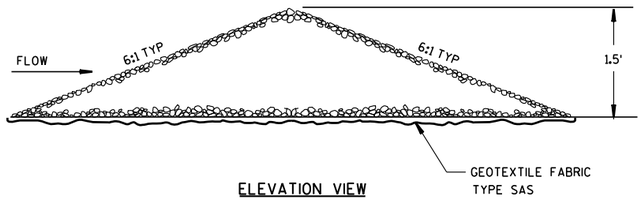


ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

INSTALL AS NECESSARY AS
DIRECTED BY THE ENGINEER



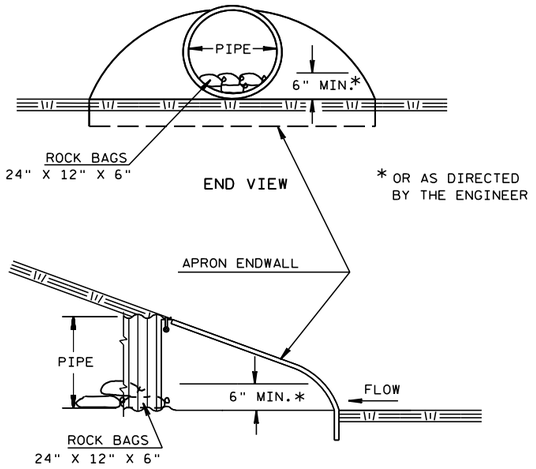
CROSS SECTIONAL VIEW



ELEVATION VIEW

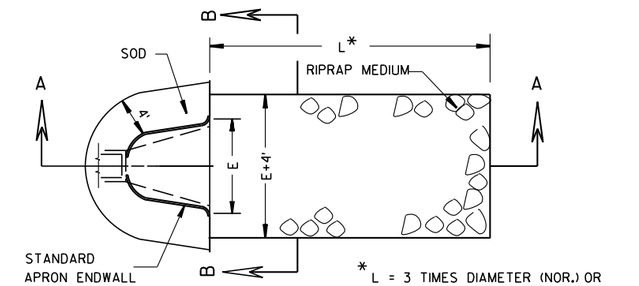
PERMANENT STONE OR ROCK DITCH CHECK DETAIL

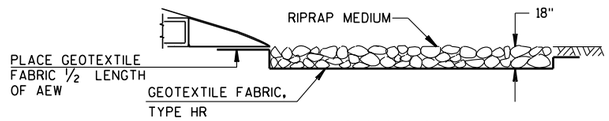
SEE EROSION CONTROL
PLAN FOR LOCATIONS



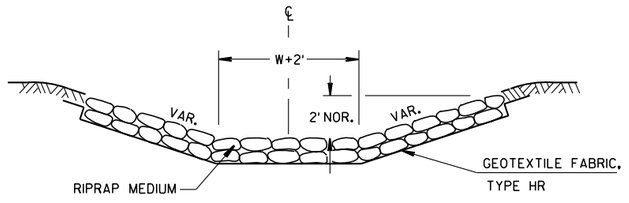
CULVERT PIPE CHECKS

PLACE AT UPSTREAM CULVERTS PIPE END





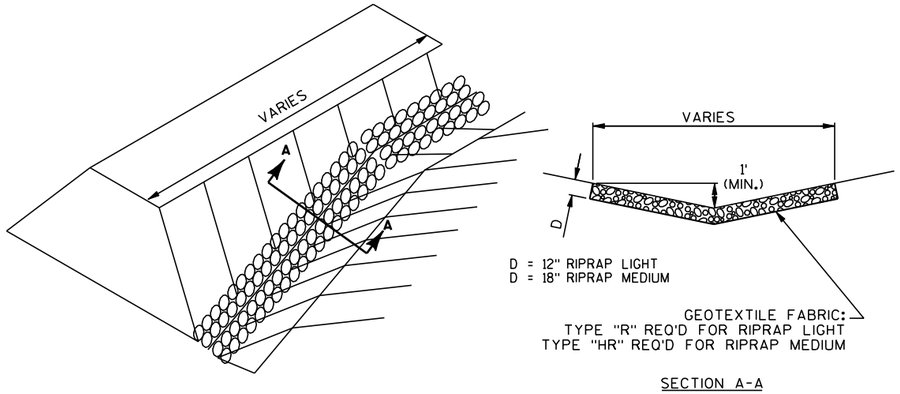
SECTION A-A



SECTION B-B

RIPRAP MEDIUM AND GEOTEXTILE FABRIC

SEE EROSION CONTROL
PLAN FOR LOCATIONS

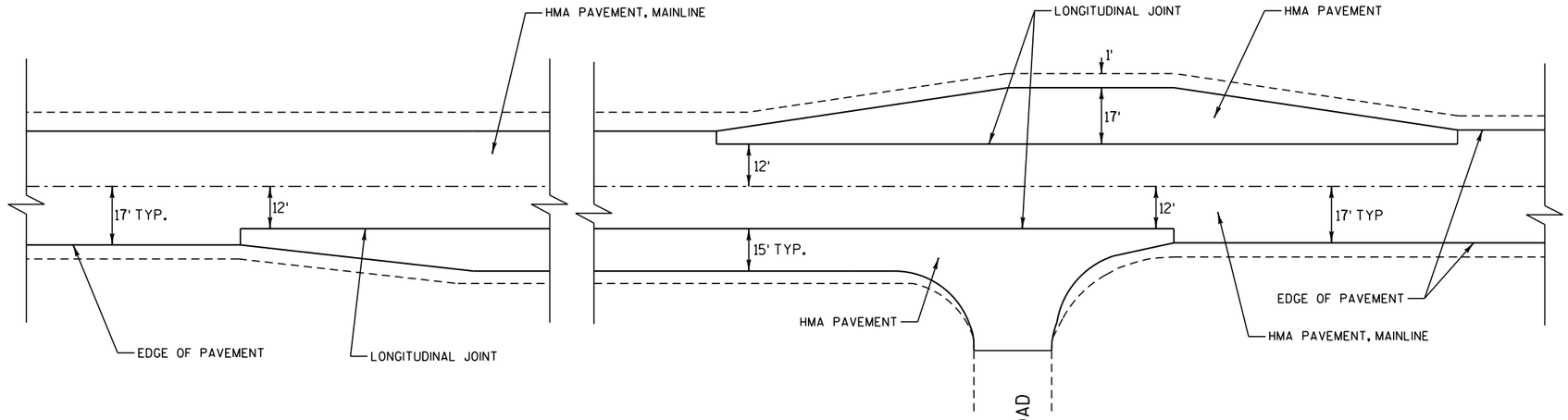


SECTION A-A

RIPRAP AND GEOTEXTILE FABRIC AT CUT TO FILL TRANSITION DETAIL

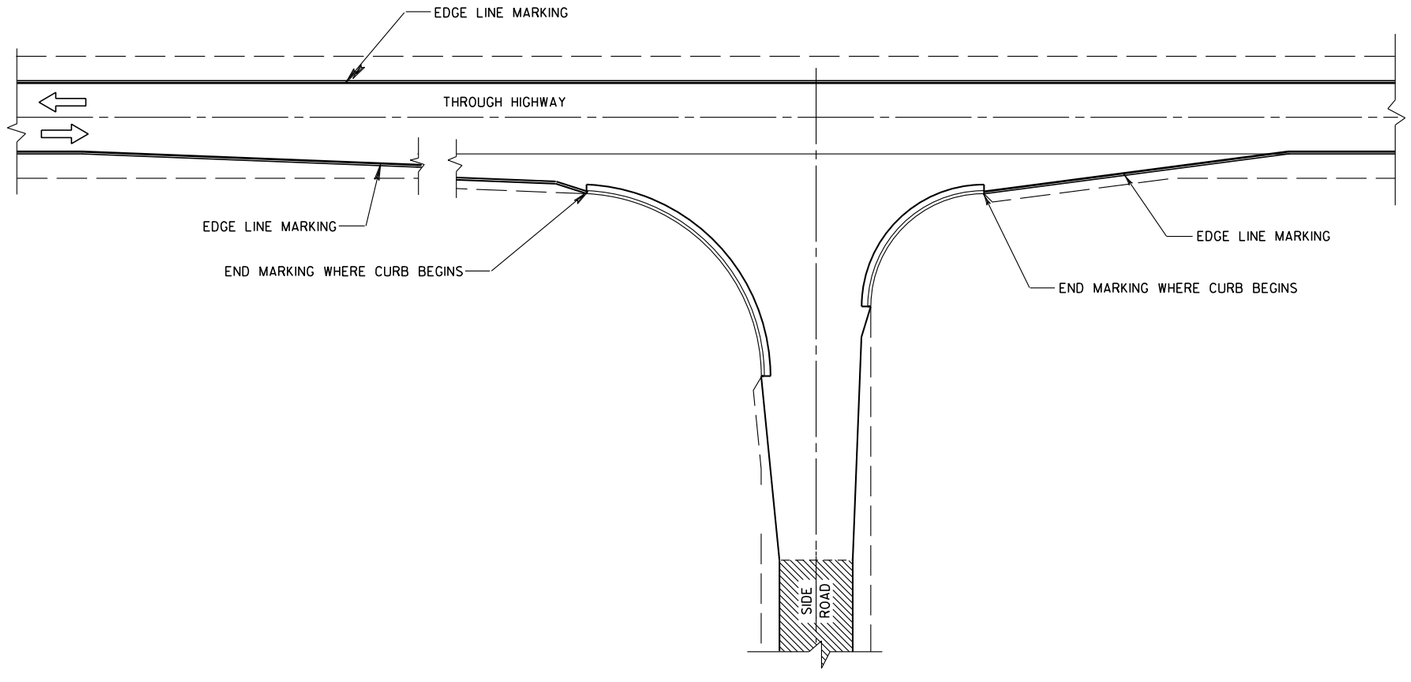
SEE EROSION CONTROL
PLAN FOR LOCATIONS

2



HMA LONGITUDINAL JOINT DETAIL

TO BE USED AT ALL INTERSECTIONS AND BYPASS

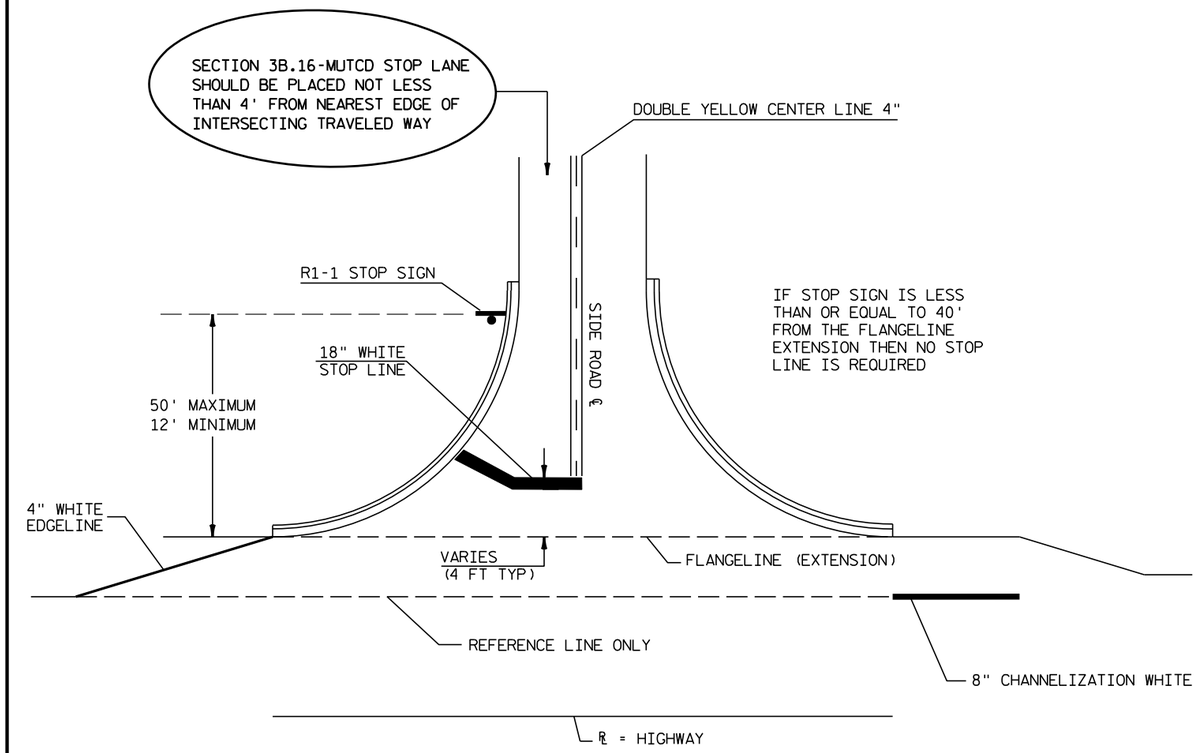


MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CONSTRUCTION DETAIL	SHEET 21	E

2



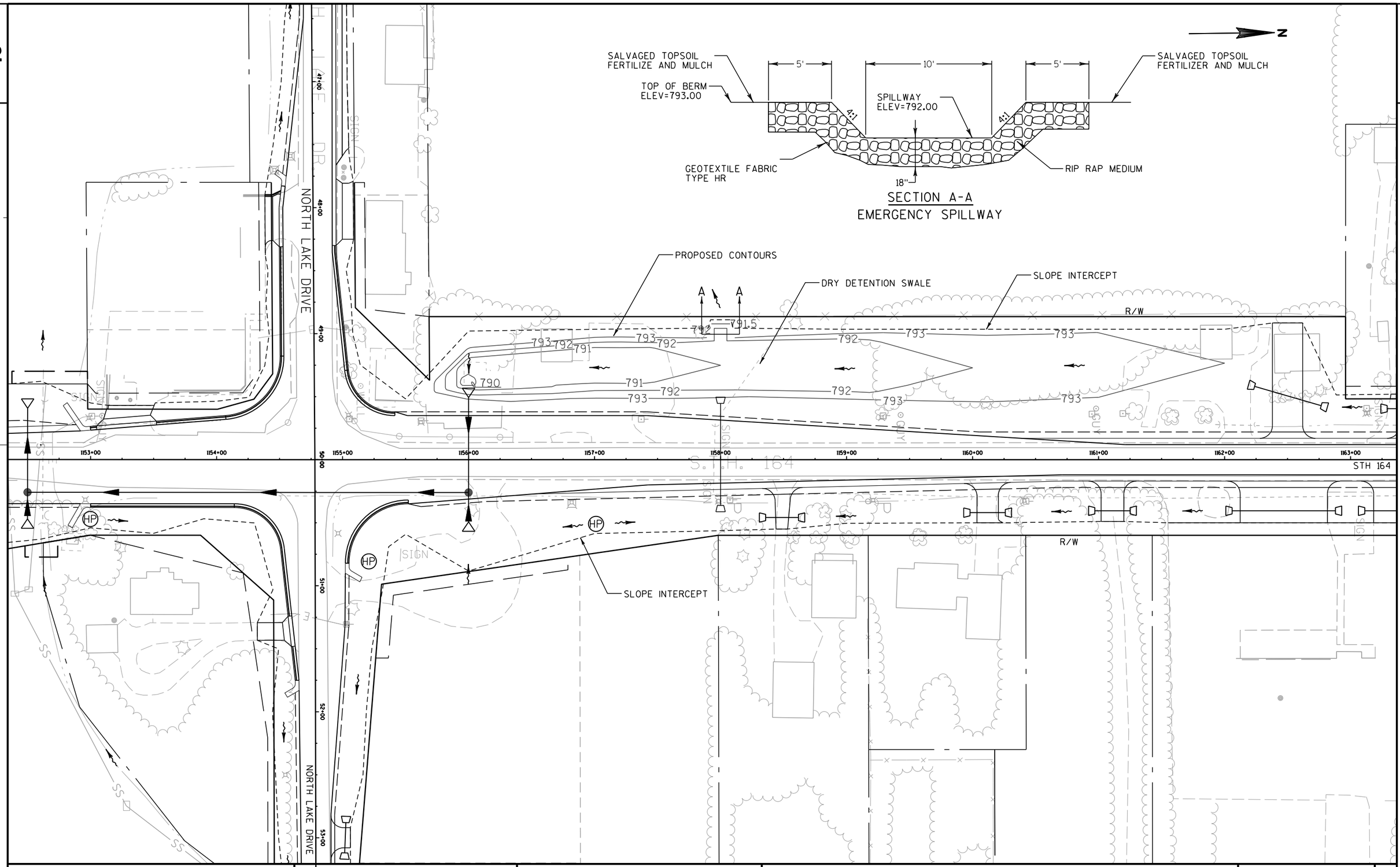
TYPICAL PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE

NOTES:

18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

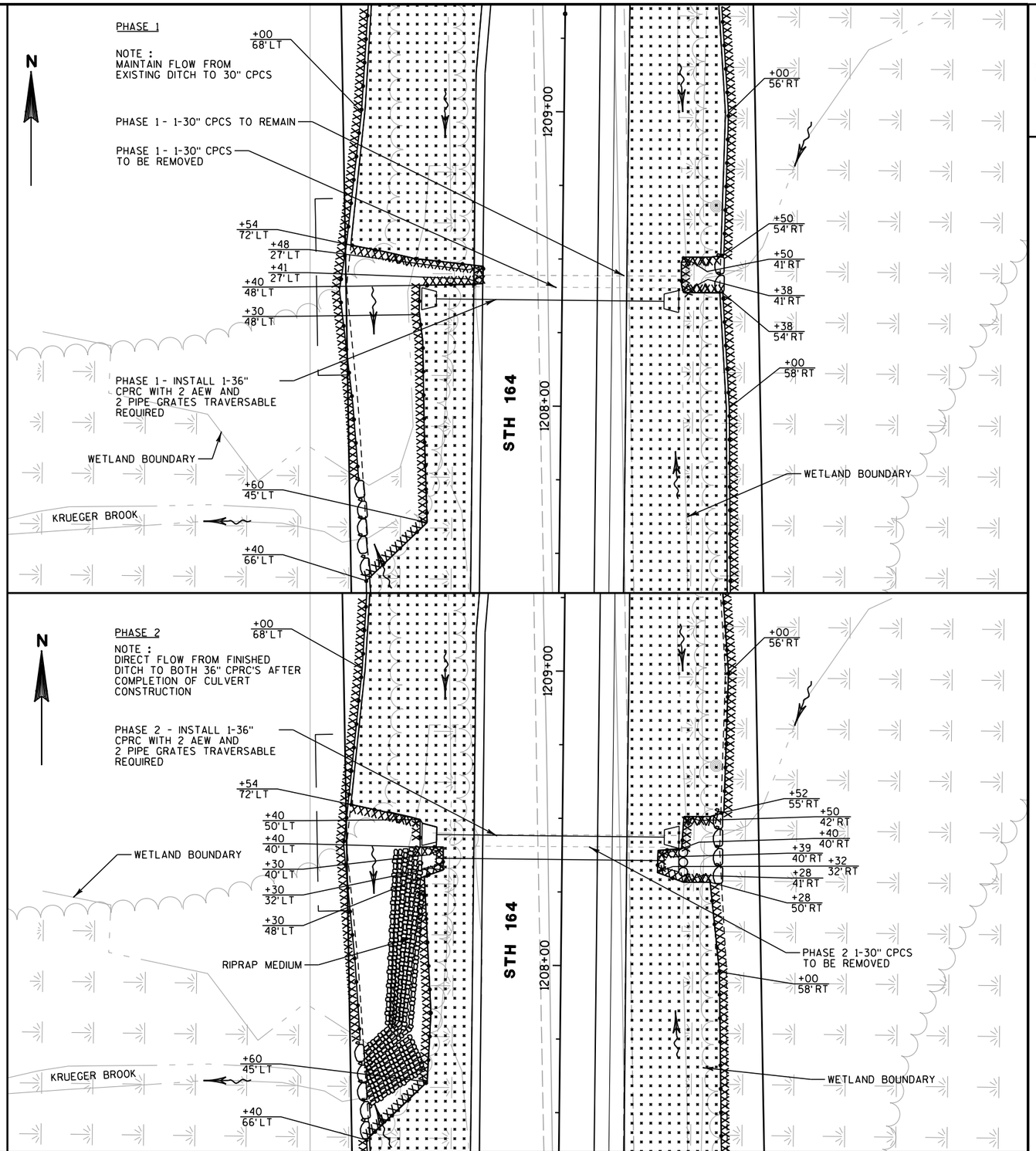
STOP LINES REQUIRED WHERE:

- CROSSWALK MARKINGS EXIST OR BEING PROVIDED
- LARGE RADII
- OFFSET LEFT TURNS WHERE STOP BAR FOR LEFT TURN IS SET BACK FROM THRU MOVEMENT.



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CONSTRUCTION DETAIL - DRY DETENTION SWALE	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\021002_cd.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



LEGEND

######	EROSION MAT CLASS I, TYPE B	Ⓐ ⊠	INLET PROTECTION TYPE A
⁘⁘⁘⁘⁘	EROSION MAT CLASS II, TYPE C	Ⓑ ⊠	INLET PROTECTION TYPE B
—•—•—	SILT FENCE	Ⓒ ⊠	INLET PROTECTION TYPE C
XXXXXXX	HEAVY DUTY SILT FENCE	⋯◂—◂—	TURBIDITY BARRIER
▭▭▭▭▭	RIPRAP OR STONE DITCH CHECK	⬭	ROCK BAGS
△△△	TEMPORARY DITCH CHECK		
○○○	CULVERT PIPE DITCH CHECK		
~→	SURFACE WATER FLOW		
▽	SOD EROSION CONTROL		

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CONSTRUCTION DETAIL - STREAM DIVERSION	SHEET 24	E

2

LEGEND:
X X X X SAWING

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

+99 27'LT

+81 22'LT

+06 17'LT

836.40

27'

MATCHLINE STA. 971+50

972+00

STH 164

973+00

STH 164 ℄ & ℄

+85 12'LT

5'

5'

12'

12'

5'

5'

+96 22'RT

+46 12'RT

HP

HP

MGS GUARDRAIL TERMINAL
ENERGY ABSORBING TERMINAL

MGS GUARDRAIL 3

GUARDRAIL MOW
STRIP ASPHALT

+62 26'LT

+11 29'LT

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D
STH 164,
STA. 968+59.31, 74.00'LT
KRAMER DR.,
STA. 49+38.45, 65.00'RT

CONCRETE SURFACE DRAIN

+60 12'LT

+00 17'LT

+15 22'LT

+15 24'LT

SI

50' R

834.35

835.16

4.1%

966+00

967+00

968+00

969+00

PI 50+00.00

970+00

971+00

STA. 971+50

MATCHLINE

STH 164 ℄ & ℄

+99 22'RT

+68 24'RT

+50 12'RT

HMA

50+00

27'

24'

5'

1'

SI

+18 24'RT

MATCH
+00

ASPH

WALL

WALL

48+00

841.00

+25 12'RT

12'

13'

SI

KRAMER DRIVE ℄

839.21

+47 13'LT

KRAMER DRIVE

SI

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

CONCRETE SURFACE DRAIN

49+00

837.43

+94 15'LT

PC 49+20.06

PI 49+39.93

836.32

50' R

155' R

STH 164, STA. 969+99.16, 82.00'LT
KRAMER RD., STA. 48+91.88, 70.00'LT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

CONCRETE SURFACE DRAIN

836.42

835.52

PT 49+72.08

+00 27'LT

835.67

4.1%

835.89

836.10

4.1%

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

SI

STH 164, STA. 969+18.69 =
KRAMER RD., STA. 50+00.00
TYPE B1 INTERSECTION

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & KRAMER DRIVE	SHEET 25	E

N

LOOMIS ROAD

43+00 44+00 45+00 46+00 47+00

ASPH HMA

MATCH +00

LOOMIS ROAD ℄ & ℄

PC 46+68.83

3' 12' 12' 3'

S/I

P1 47+63.42

R/W

+93 12' LT

+51 12' RT

3'

CONCRETE SIDEWALK 5-INCH

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D
STH 164, STA. 1008+23.67, 51.45' LT
LOOMIS RD., 48+05.66, 114.69' RT

98' R

+60.92
20.44' RT
LOOMIS RD.
3.5' R

LOOMIS ROAD

49+00

+23.68
26.83' LT
STH 164
4.5' R

+38.22
28.18' LT
STH 164
4.5' R

1009+00

STH 164

ISLAND DETAIL

LEGEND:
X X X X SAWING

48+00

5.8%

5.0%

CONCRETE
SURFACE
DRAIN

815.88

817.03
817.03G

2.9%

2.25%

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D
STH 164, STA. 1008+46.93, 74.00' LT
LOOMIS RD., 47+99.00, 82.66' RT

+16 34' RT

50' R

+84 17' LT

+99 22' LT

+47 24' LT

+47 12' LT

PC 1007+76.08

5'

817.03

816.44

1.5%

0.5%

0.5%

PT 48+93.51

1.0%

816.85

817.00
816.80G

816.91

0.5%

816.84

817.21

1004+00 1005+00 1006+00 1007+00 1008+00 1009+00

STH 164

5' 5'

27'

3'

+69 12' RT

+32 17' RT

+56 22' RT

+57 27' RT

STH 164 ℄ & ℄

817.98

+06 27' RT

817.48

CONCRETE
SURFACE
DRAIN

50' R

817.98

+92 27' RT

STH 164, STA. 1009+06.14, 77.00' RT
LOOMIS RD., STA. 49+91.51, 77.00' RT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

R/W

STH 164, STA. 1009+65.00 =
~~LOOMIS~~ RD., STA. 49+35.51
TYPE A1 INTERSECTION

HP

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & LOOMIS ROAD	SHEET 26R	E

STH 164, STA. 1009+65.00 =
LOOMIS RD., STA. 49+35.51
TYPE A1 INTERSECTION

STH 164, STA. 1010+24.84, 77.00'LT
LOOMIS RD., STA. 48+79.80, 77.00'LT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

CONCRETE SURFACE DRAIN

STH 164, STA. 1010+74.40, 74.00'RT
LOOMIS RD., STA. 50+56.70, 81.21'LT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

CONCRETE SURFACE DRAIN

LOOMIS ROAD ℄ & ℄

STH 164 ℄ & ℄

HMA

ASPH

R/W

SI

PC 49+35.51

PC 49+77.31

PT 53+12.59

PI 51+66.17

MATCH +00

1010+00 1011+00 1012+00 1013+00 1014+00 1015+00

50+00 51+00 52+00 53+00 54+00 55+00

817.32 816.45 816.22 817.39 817.35 817.29 817.26 817.18 816.50 817.15 817.15 815.81

+80 27' LT
+25 27' LT
+75 27' LT
+84 22' LT
+07 17' LT
+63.90 12.00' LT
+75 24' RT
+27 22' RT
+40 17' RT
+74 12' RT
+44 32' LT
+24 12' LT
+89 12' RT

49+00 50' R 50' R

27' 3' 5' 5' 5' 5' 12' 12' 3' 3' 3' 3' 3' 3'

1014+78.68 PI

S.T.H. 164 STH 164

CORN CRIB

SIGN

HP HP

LEGEND:
X X X X SAWING

1010+00 STH 164

+91.49
28.19' RT
STH 164
4.5' R

+06.10
26.83' RT
STH 164
4.5' R

CONCRETE SIDEWALK 5-INCH

98' R

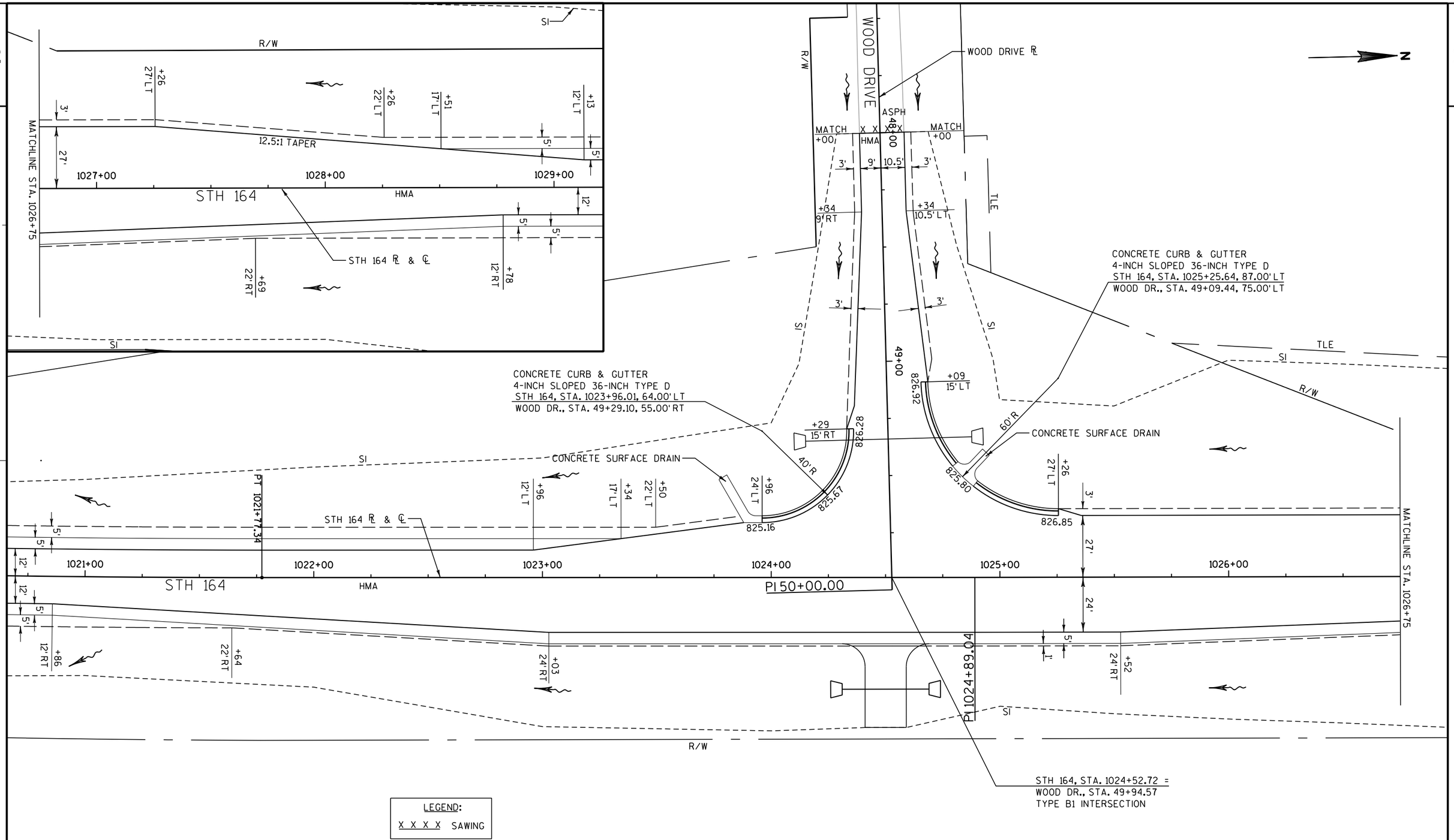
+08.75
20.02' LT
LOOMIS RD.
3.5' R

50+00 LOOMIS ROAD

ISLAND DETAIL

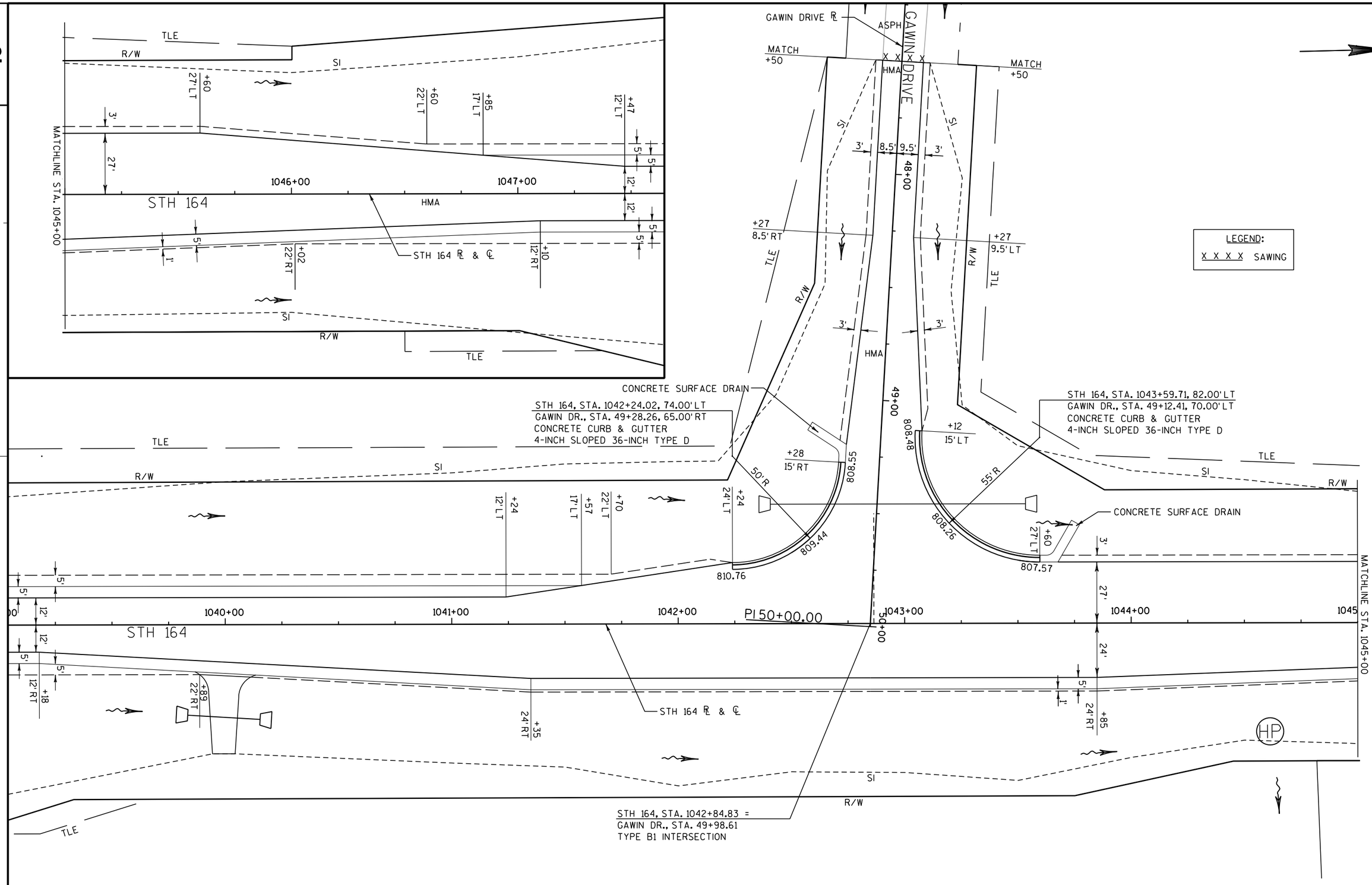
STH 164, STA 1011+03.63, 56.68' RT
LOOMIS RD, STA 50+55.33, 115.39' LT
CONCRETE CURB & GUTTER 4-INCH
SLOPE 36-INCH TYPE D

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & LOOMIS ROAD	SHEET 27	E



LEGEND:
X X X X SAWING

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & WOOD DRIVE	SHEET 28	E



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & GAWIN DRIVE	SHEET 29	E

2

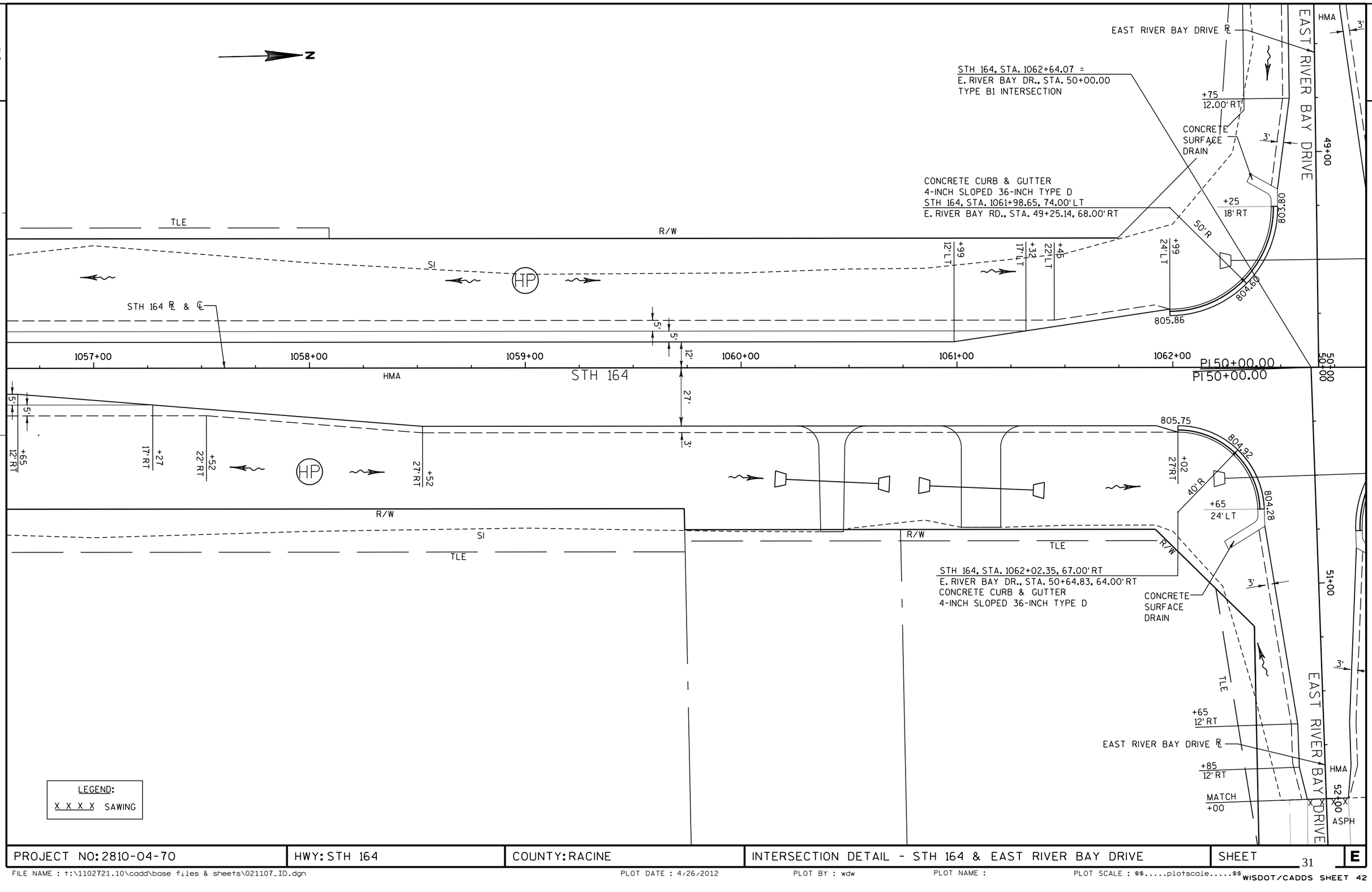
LEGEND:
X X X X SAWING

N

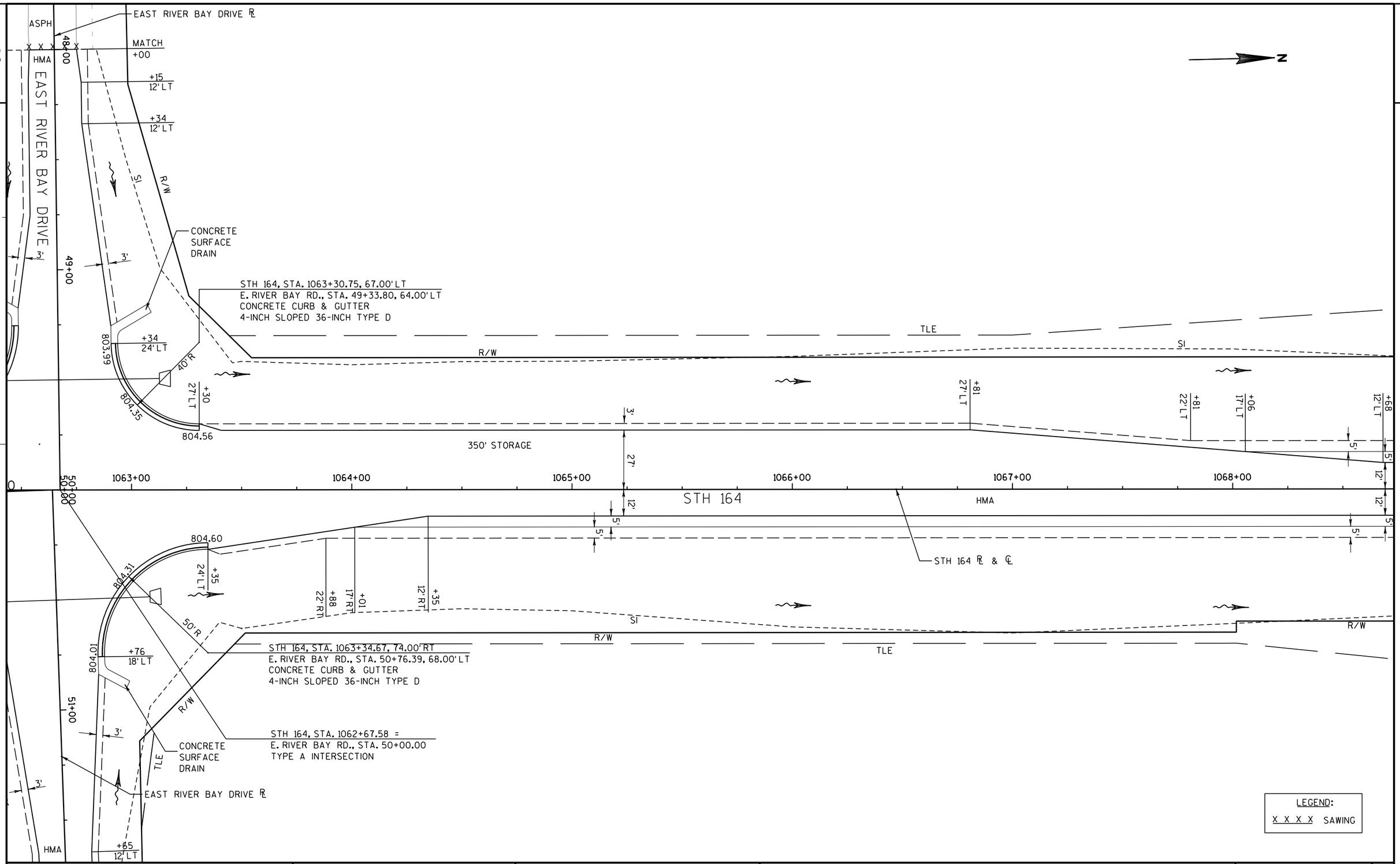
CONCRETE SURFACE DRAIN
CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
+25 20' LT
+00 20' LT
+50 17' LT
+00 17' LT
+75 17' LT
R/W
TLE
SI
STH 164 ℄ & ℄
HMA
STH 164
802.33
802.63
803.24
803.86
804.46
805.06
1052+00
1053+00
1054+00
1055+00
1056+00
1057+00
(Pipes were shifted to the north)
802.02
804.80
+50 17' RT
+00 20' RT
+25 20' RT
+30 20' RT
+80 17' RT
+00 17' RT
+65 12' RT
+27 17' RT
+52 22' RT
CONCRETE SURFACE DRAIN
CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
TLE
R/W
SI
TLE
5'
8'
12'
3'

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT DETAIL - STH 164	SHEET 30	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\021106_ID.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

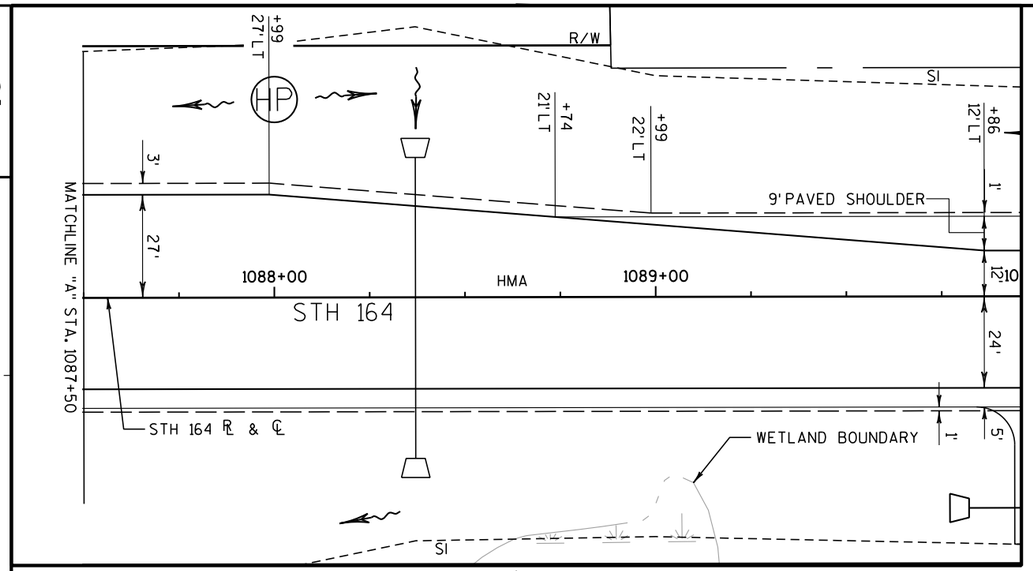


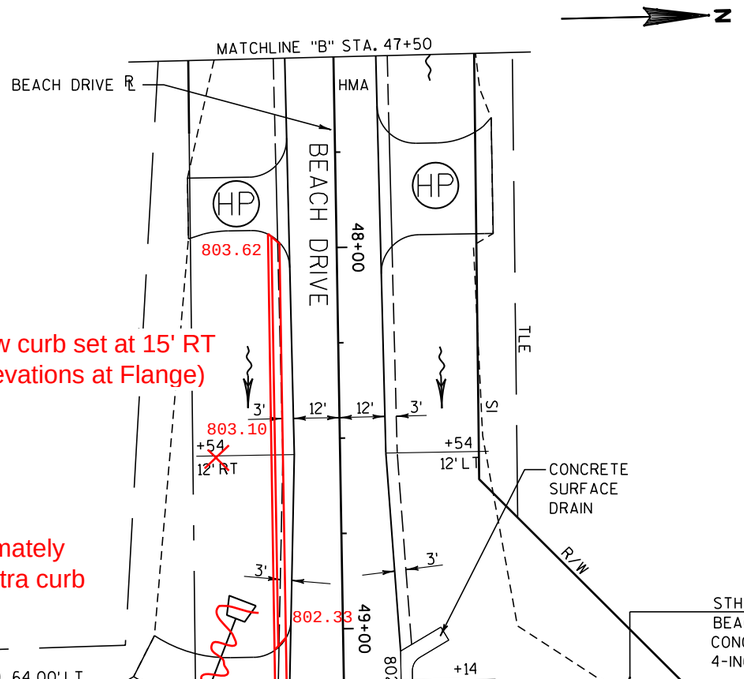
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & EAST RIVER BAY DRIVE	SHEET 31	E

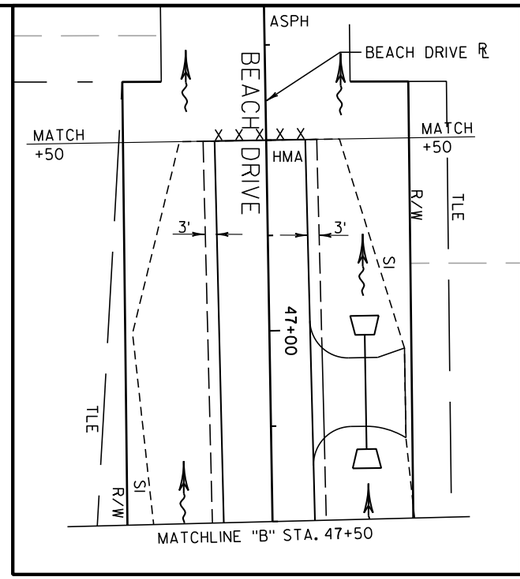


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & EAST RIVER BAY DRIVE	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\021108_ID.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42







LEGEND:
X X X X SAWING

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & BEACH DRIVE	SHEET 33A 33	E

2

N

SANDY LANE

ASPH

MATCH +00

SANDY LANE ℄

48+00

X X X X

HMA

3'

PC 48+01.85

MATCH +00

PI 48+52.03

WETLAND BOUNDARY

180' R

WETLAND BOUNDARY

CONCRETE SURFACE DRAIN

PT 48+98.70

49+00

CONCRETE SURFACE DRAIN

+06 12' RT

STH 164, STA. 1092+15.15, 64.00' LT
SANDY LN., STA. 49+35.95, 55.00' RT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

TLE

SI

+35 15' RT

808.77

40' R

808.52

+13 15' LT

TLE

SI

60' R

STH 164, STA. 1093+45.13, 87.00' LT
SANDY LN., STA. 49+13.06, 75.00' LT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

+45 27' LT

TLE

SI

R/W

LEGEND:
X X X X SAWING

+86 12' LT

SI

+15 12' LT

+62 22' LT

+75 21' LT

+15 24' LT

809.21

808.99

809.14

+45 27' LT

3'

810.34

STH 164 ℄ & ℄

9' PAVED SHOULDER

2'

12'

24'

1'

5'

27'

24'

1'

5'

1090+00

1091+00

1092+00

PI 50+00.00.

50+00

1093+00

1094+00

1095+00

HMA

STH 164

SI

R/W

TLE

STH 164, STA. 1092+70.21 =
SANDY LN., STA. 50+00.00
TYPE B1 INTERSECTION

SI

R/W

TLE

+70 24' RT

WETLAND BOUNDARY

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - SANDY LANE	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\021110_ID.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

N

LEGEND:
X X X X SAWING

CONCRETE SURFACE DRAIN

+45 27' LT

TLE

SI

R/W

+75 20' LT

+33 12' LT

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D

TLE

+25 20' LT

+35 21' LT

SI

+95 23' LT

+33 23' LT

3'

27'

813.28 813.50 813.93 814.36 814.78 815.19 815.56 815.92 816.08

8' 1' 9'

12' 12'

00 1096+00 1097+00 1098+00 1099+00 1100+00 1101+00

STH 164

12' 12'

9' 1'

+87 22' RT

+95 12' RT

STH 164 ℄ & ℄

SI

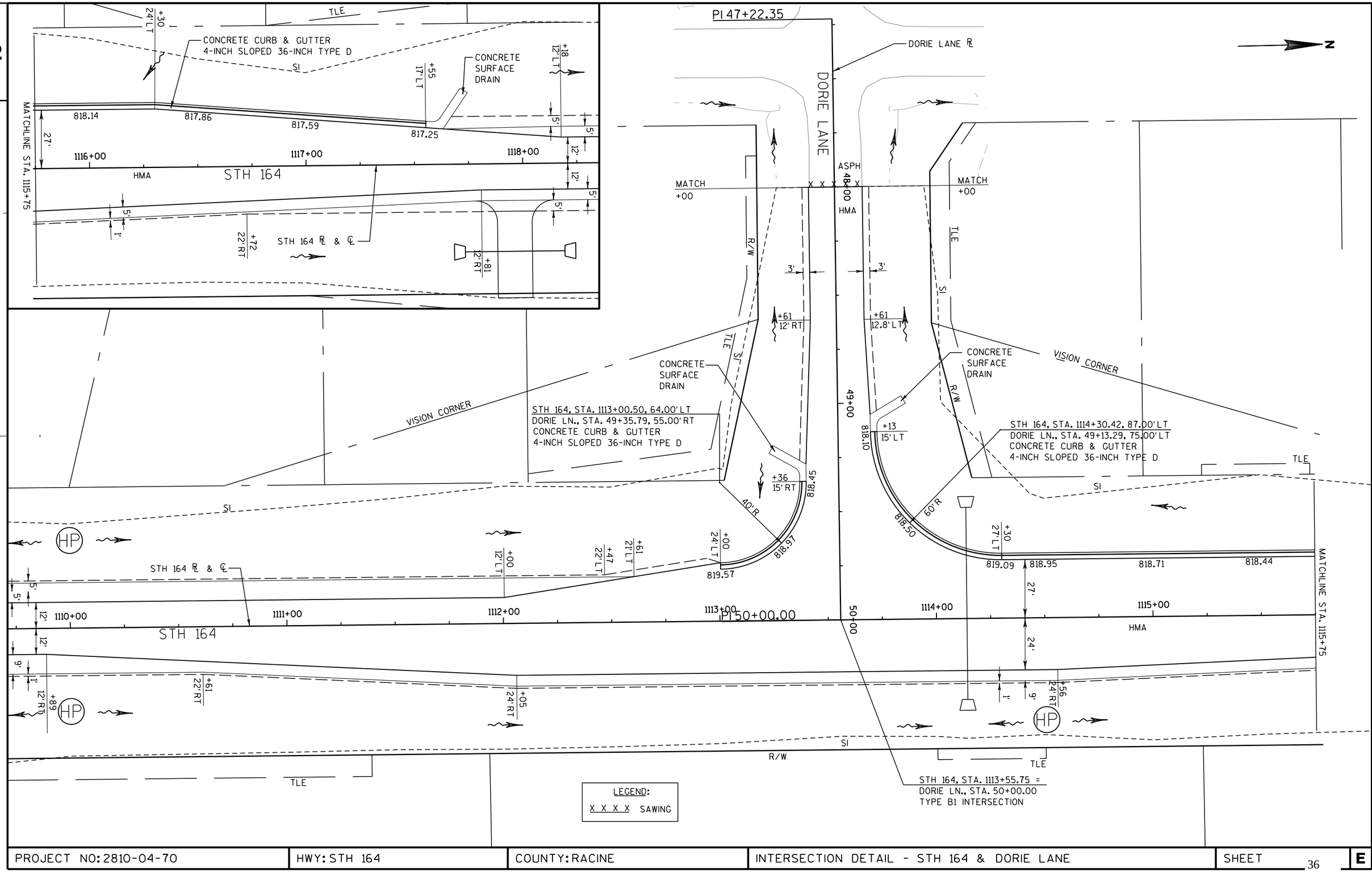
R/W

TLE

TLE

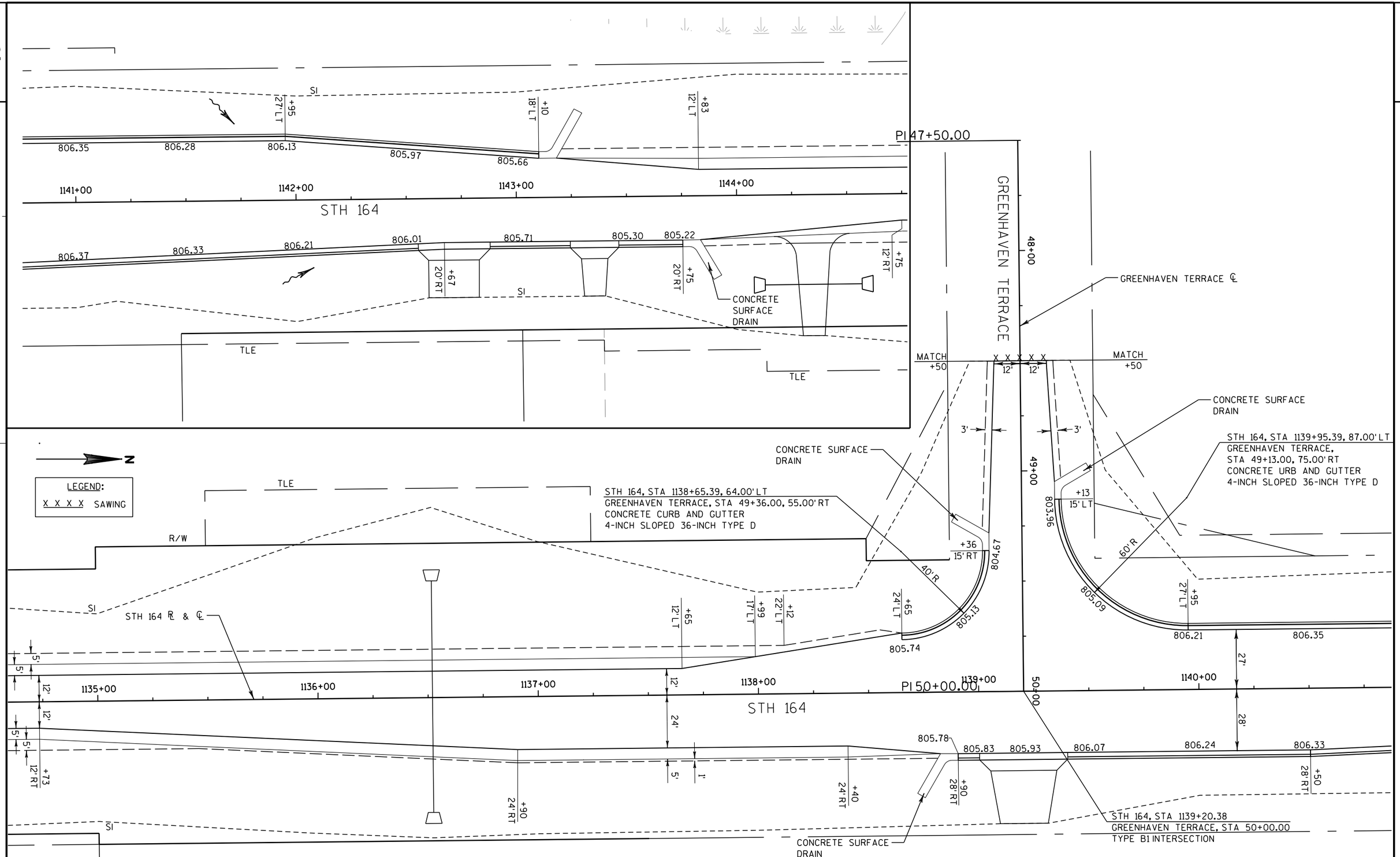
SI

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT DETAIL - STH 164	SHEET 35	E



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & DORIE LANE	SHEET 36	E

2



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & GREENHAVEN TERRACE	SHEET	E

FILE NAME : T:\1102721.10\Cadd\Base Files & Sheets\021112a_ID.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

N

LEGEND:
X X X X SAWING

WETLAND BOUNDARY

PLE

R/W

SL

STH 164 ℄ & ℄

+84 12' LT

+14 20' LT

+47 31' LT

1147+00

1148+00

1149+00

1150+00

1151+00

1152+00

HMA

STH 164

+84

5'

5'

12'

12'

5'

5'

35'

3'

+84 12' RT

+27 18' RT

+39 28' RT

+84 35' RT

+14 35' RT

SL

R/W

PLE

WETLAND BOUNDARY

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & NORTH LAKE DRIVE	SHEET 38	E

2

LEGEND:
X X X X SAWING

N

NORTH LAKE DRIVE

HMA

15'

NORTH LAKE DRIVE ℄

+35
15'LT

SEE NORTH LAKE DRIVE INTERSECTION
DETAIL FOR ELEVATIONS

PROPOSED CONTOURS

STH 164, STA. 1155+41.48, 75.00'LT
N. LAKE DR., STA. 49+25.47, 64.00'LT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

STH 164, STA. 1154+03.36, 81.84'LT
N. LAKE DR., STA. 49+17.56, 74.00'RT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

24'

49+00

CONCRETE
SURFACE
DRAIN

+00
23'LT

+18
24'RT

50' R

793.60

+07
32'LT

TLE

SI

R/W

793.90

794.12

793.88

793.70

HP

793.70

+29
24'LT

40' R

+42
35'LT

794.07

794.87

+75
35' LT

795.07

DRY DETENTION
SWALE

+41
35'LT

R/W

SI

792

791.5

793

792

791

790

791

792

793

3'

35'

STH 164 ℄ & ℄

1153+00

1154+00

1155+00

PI 50+00.00

1156+00

1157+00

1158+00

1159

STH 164

HMA

35'

793.54

793.73

794.21

794.07

HP

SI

+14
35'RT

40' R

+70
24'RT

793.89

793.69

R/W

TLE

35'RT

+00

CONCRETE
SURFACE
DRAIN

STH 164, STA. 1154+14.23, 74.83'RT
N. LAKE DR., STA. 50+74.63, 64.04'RT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

PI 1154+78.03

51+00

NORTH LAKE DRIVE

795.97

794.32

50' R

+52
32'RT

793.51

23'

+82
24'LT

3'

+32
23.6'LT

HP

+51
27'RT

20'

5'

5'

20'RT

+42

SI

R/W

TLE

STH 164, STA. 1155+52.23, 82.00'RT
N. LAKE DR., STA. 50+82.16, 74.00'LT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

CONCRETE
SURFACE
DRAIN

STH 164, STA. 1154+78.03 =
N. LAKE DR., STA. 50+00.00
TYPE B1 INTERSECTION

NORTH LAKE DRIVE ℄

+75
13'RT

CONCRETE
SURFACE
DRAIN

HMA

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & NORTH LAKE DRIVE	SHEET 39 E

2

N

LEGEND:
X X X X SAWING

R/W

SI

792

793

793

792

793

793

+38
17' LT

+21
12' LT

STH 164 ℄ & ℄

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

+90
17' LT

+40
20' LT

TLE

TLE

R/W

802.28

803.12

5'

5'

8"

12"

1159+00

1160+00

+71

1161+00

1162+00

1163+00

1164+00

1165+00

HMA

12"

5"

5"

STH 164

SI

R/W

+71
12' RT

WETLAND BOUNDARY

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & NORTH LAKE DRIVE	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\021115_ID.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

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LEGEND:
X X X X SAWING

STH 164 ℄ & ℄

793

790

1156+00

1155+00

PI 1154+78.03

50+00.00

STH 164, STA. 1155+41.48, 75.00' LT
N. LAKE DR., STA. 49+25.47, 64.00' LT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

40' R

+35
15' LT

+29
24' LT

CONCRETE SURFACE DRAIN

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

MATCH +00

TLE

R/W

SI

789.15 789.62 790.35 791.15 792.00 792.81 793.50 793.70

45+00 NORTH LAKE DRIVE 46+00 47+00 48+00 49+00 50+00 51+00

ASPH

HMA

16"

6"

3"

15'

24'

NORTH LAKE DRIVE ℄

MATCH +00

6.6' RT +50

SI

791.25 791.57 792.30 792.66 793.44 793.60

R/W

TLE

22' RT +83

24' RT +00

24' RT +18

50' R

+07
32' LT

STH 164, STA. 1154+03.36, 81.84' LT
N. LAKE DR., STA. 49+17.56, 74.00' RT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

STH 164, STA. 1154+78.03 =
N. LAKE DR., STA. 50+00.00
TYPE B1 INTERSECTION

WETLAND BOUNDARY

1154+00

1153+00

STH 164

HP

HP

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & NORTH LAKE DRIVE	SHEET 41 E

2

N

LEGEND:
X X X X SAWING

STH 164, STA. 1155+52.23, 82.00' RT
N. LAKE DR., STA. 50+82.16, 74.00' LT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

CONCRETE SURFACE DRAIN

TLE

R/W

SI

50' R

794.52

+82 23.5' LT

793.51

+32 23.6' LT

3'

23.5'

+82 12' LT

+80 MATCH

51+00

52+00

53+00

54+00

55+00

56+00

HMA

ASPH

NORTH LAKE DRIVE

NORTH LAKE DRIVE RP

Pl 1154+78.0

13'

793.43

793.89

793.69

794.07

+70 24' RT

40' R

R/W

+75 13' RT

CONCRETE SURFACE DRAIN

TLE

SI

+80 MATCH

STH 164, STA. 1154+14.23, 74.83' RT
N. LAKE DR., STA. 50+74.63, 64.04' RT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & NORTH LAKE DRIVE	SHEET 42	E

2

LEGEND:
X X X X SAWING

N

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

R/W

SI

+00
20' LT

STH 164 ℄ & ℄

803.82 804.52 805.22 805.92 806.55 807.10

8'

12'

12'

1166+00 1167+00 1168+00 1169+00 1170+00 1171+00

HMA

STH 164

5' 5' 5' 5'

803.82 804.52 805.22 805.92 806.55 807.10

+00
20' RT

+50
17' RT

SI

R/W

+50
20' RT

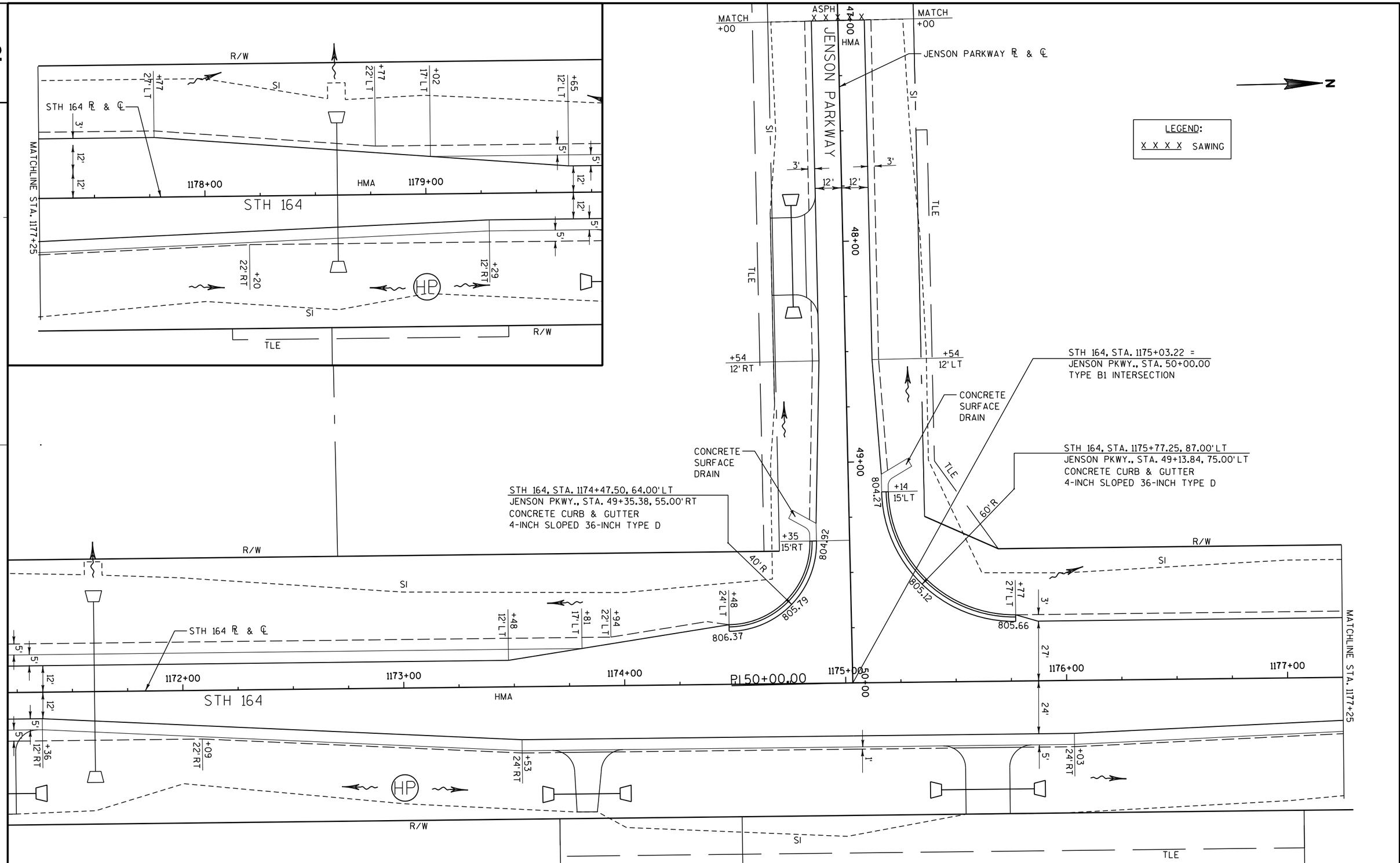
TLE

CONCRETE
SURFACE
DRAIN

TLE

CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT DETAIL - STH 164	SHEET 43	E



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL - STH 164 & JENSON PARKWAY	SHEET 44	E

N

LEGEND:
X X X X SAWING

COUNTY LINE ROAD ℄

148+00

TLE

SI

HMA

+21
12' RT

CONCRETE
SURFACE
DRAIN

R/W

3'

COUNTY LINE ROAD

149+00

STH 164, STA. 1205+57.57 =
COUNTY LINE RD., STA. 149+85.82
TYPE A1 INTERSECTION

STH 164, STA. 1204+86.44, 74.00' LT
COUNTY LINE RD., STA. 149+09.54, 68.84' RT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

+09
19' RT

792.62

50' R

TLE

R/W

SI

PI 1199+81.56

+86
12' LT

+20
17' LT

+86
24' LT

794.02

PT 149+55.43

795.23

STH 164 ℄

5'

12'

1200+00

1201+00

1202+00

1203+00

1204+00

1205+00

STH 164

HMA

PI 1201+75.20

30'

150+00

795.05

794.21

+57
12' RT

+15
17' RT

+40
22' RT

+45
27' RT

+96
27' RT

+96
38' RT

+09
27' RT

+46
30' RT

+95
30' RT

+32
27' RT

+45
27' RT

+95
27' RT

40' R

793.34

R/W
MGS GUARDRAIL
ENERGY ABSORBING
TERMINAL

MGS
GUARDRAIL 3

MGS GUARDRAIL
ENERGY ABSORBING
TERMINAL

SEE SDD "GUARDRAIL MOW STRIP"
(CONTROLLED LOW STRENGTH BACKFILL)

GUARDRAIL
MOW STRIP
ASPHALT

SEE SDD "GUARDRAIL MOW STRIP"
(CONTROLLED LOW STRENGTH BACKFILL)

792.99

PC 151+00.45

151+00

+26
24' RT

792.59

CONCRETE
SURFACE
DRAIN

DENOON ROAD ℄

DENOON ROAD

HMA

STH 164, STA. 1204+95.23, 67.00' RT
COUNTY LINE RD., STA. 150+51.24, 64.00' RT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL-STH 164 & COUNTY LINE ROAD/DENOON ROAD	SHEET 45	E

2

2

N

LEGEND:
X X X X SAWING

COUNTY LINE ROAD ℄

COUNTY LINE ROAD

HMA

148+00

149+00

150+00

151+00

TLE

R/W

SI

+21
12' RT

+21
12' LT

3'

PI 148+56.04

CONCRETE
SURFACE
DRAIN

STH 164,
STA. 1204+86.44,
74.00' LT
COUNTY LINE RD.,
STA. 149+08.78,
68.84' RT
CONCRETE
CURB & GUTTER
4-INCH SLOPED
36-INCH TYPE D

+09
19' RT

792.92

50' R

794.10

PT 149+55.43

795.23

+86
24' LT

793.19

+21
17' LT

40' R

793.57

+13
27' LT

793.93

STH 164, STA. 1206+12.81, 67.00' LT
COUNTY LINE RD., STA. 49+21.01, 57.00' LT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

WETLAND BOUNDARY

STH 164 ℄

+13
27' LT

+18
22' LT

+43
17' LT

PC 1209+33.29

27'

12'

5'

5'

1205+00

1206+00

1207+00

1208+00

1209+00

1210+00

STH 164

795.05

794.15

+45.23
27.00' RT

+95
27' RT

+51
24' RT

793.34

STH 164,
STA. 1204+95.23,
67.00' RT
COUNTY LINE RD.,
STA. 150+51.24,
64.00' RT
CONCRETE
CURB & GUTTER
4-INCH SLOPED
36-INCH TYPE D

DENOON ROAD ℄

792.99

PC 151+00.45

792.59

DENOON ROAD

+26
24' RT

CONCRETE
SURFACE
DRAIN

3'

+61
12' LT

HMA

793.91

793.63

+81
22' RT

+94
17' RT

+27
12' RT

50' R

793.36

+62
18' LT

CONCRETE
SURFACE
DRAIN

STH 164, STA. 1206+27.44, 74.00' RT
COUNTY LINE RD., STA. 50+61.54, 68.00' LT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

STH 164, STA. 1205+57.57 =
COUNTY LINE RD., STA. 149+85.82
TYPE B1 INTERSECTION

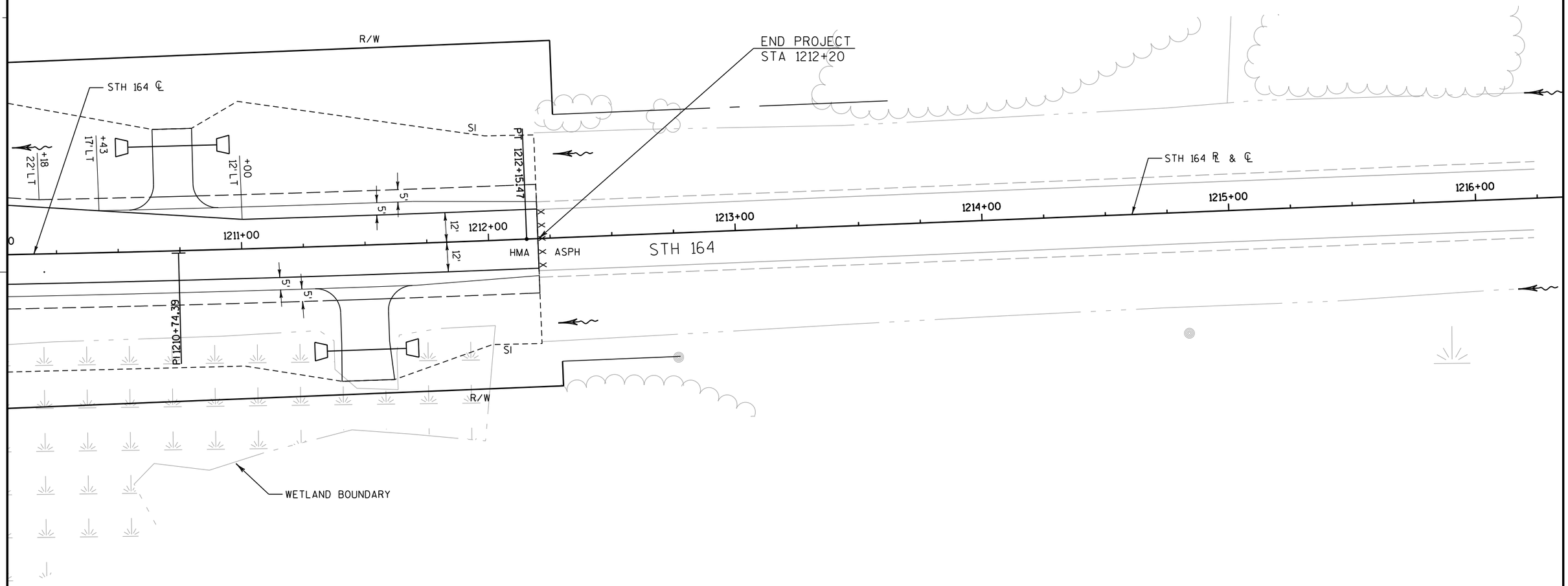
WETLAND BOUNDARY

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL-STH 164 & COUNTY LINE ROAD/DENOON ROAD	SHEET 46	E

2

N

LEGEND:
X X X X SAWING



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL-STH 164 & COUNTY LINE ROAD/DENOON ROAD	SHEET 47	E

N

LEGEND:
X X X X SAWING

STH 164

WETLAND BOUNDARY

STH 164, STA. 1206+12.81, 67.00'LT
COUNTY LINE RD., STA. 49+21.01, 57.00'LT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

CONCRETE SURFACE DRAIN

+13 27'LT

793.93

40'R

793.57

+21 17'LT

795.19

PI 148+56.04

3'

R/W

SI

+21 12'LT

PT 147+56.55

149+00

148+00

147+00

146+00

145+00

1207+00

1206+00

1205+00

1204+00

WETLAND BOUNDARY

COUNTY LINE ROAD ℄

COUNTY LINE ROAD

MICHIGAN

+75 MATCH

PC 145+77.04

+00 12'LT

12'

12'

ASPH

HMA

+00 12'RT

PI 146+66.83

PC 147+56.55

+21 12'RT

3'

792.92

+09 19'RT

794.02

PT 149+55.43

50'R

R/W

SI

TLE

CONCRETE SURFACE DRAIN

+86 24'LT

795.23

PC 145+00.00

STH 164, STA. 1204+86.44, 74.00'LT
COUNTY LINE RD., STA. 149+08.78, 68.84'RT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL-STH 164 & COUNTY LINE ROAD/DENOON ROAD	SHEET 48 E

2

LEGEND:
X X X X SAWING

N

STH 164, STA. 1206+27.44, 74.00' RT
COUNTY LINE RD., STA. 50+61.54, 68.00' LT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

R/W

WETLAND BOUNDARY

DENOON ROAD ℄

50'R

CONCRETE SURFACE DRAIN

793.63

793.36

18' LT

+69

12' LT

+19

3'

PI 152+11.00

PC 153+21.40

SI

PT 155+23.02

+50 MATCH

HMA

ASPH

151+00

152+00

153+00

154+00

155+00

156+00

DENOON ROAD

12'

12'

793.34

792.99

792.59

794.21

24' RT

+51

PC 151+00.45

3'

24' RT

+26

CONCRETE SURFACE DRAIN

PI 153+21.40

12' RT

+27

PI 154+22.27

SI

+50 MATCH

PI 156+01.03

40'R

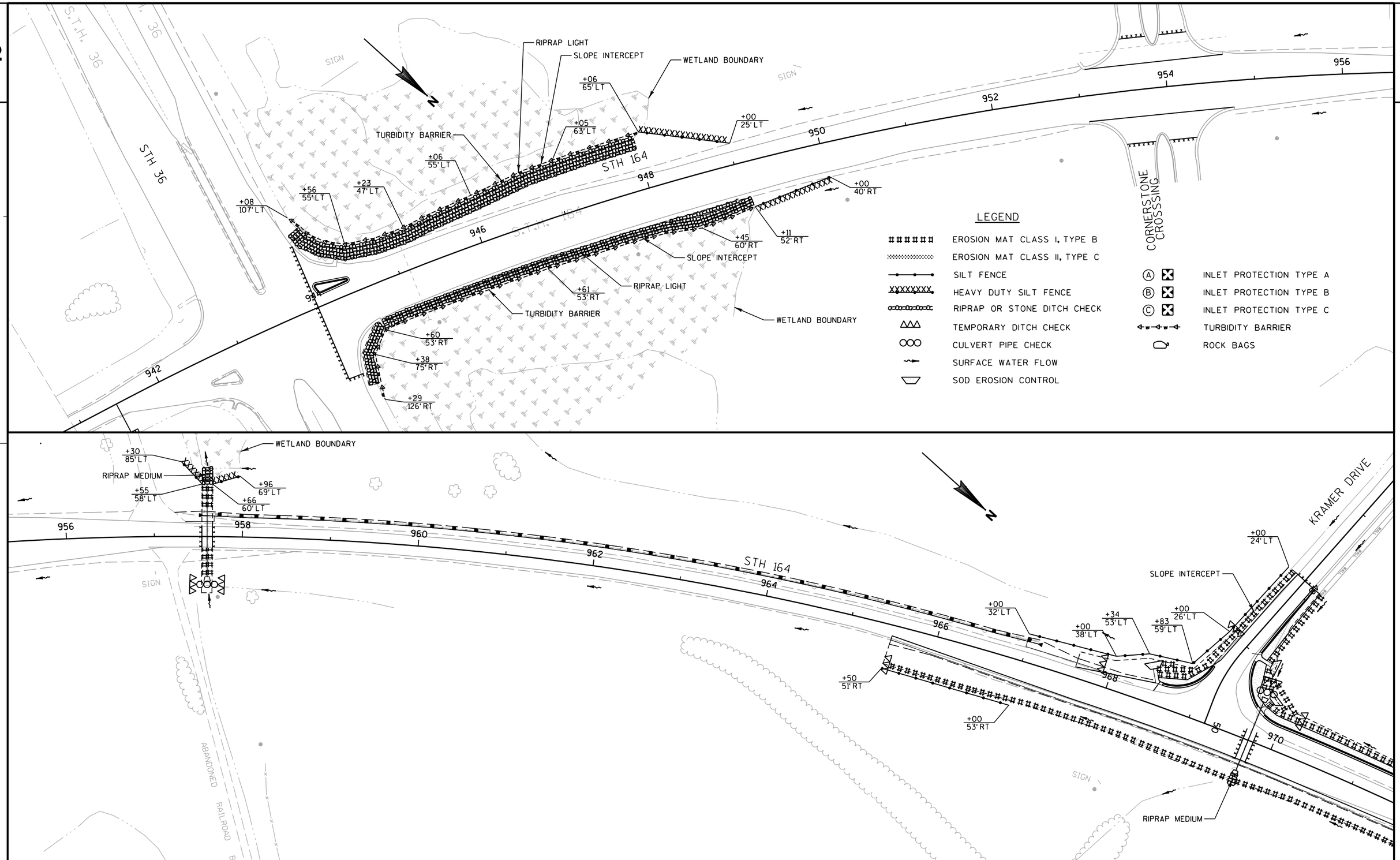
+95

27' RT

STH 164, STA. 1204+95.23, 67.00' RT
COUNTY LINE RD., STA. 150+51.24, 64.00' RT
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D

STH 164

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	INTERSECTION DETAIL-STH 164 & COUNTY LINE ROAD/DENOON ROAD	SHEET 49	E



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	EROSION CONTROL	SHEET 50	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\022001_EC.dgn PLOT DATE : 4/27/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

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N

SLOPE INTERCEPT

HP

STH 164

S.T.H. 164

970

972

974

976

978

980

982

984

WETLAND BOUNDARY

SIGN

LEGEND

EROSION MAT CLASS I, TYPE B	
EROSION MAT CLASS II, TYPE C	
SILT FENCE	Ⓐ INLET PROTECTION TYPE A
HEAVY DUTY SILT FENCE	Ⓑ INLET PROTECTION TYPE B
RIPRAP OR STONE DITCH CHECK	Ⓒ INLET PROTECTION TYPE C
TEMPORARY DITCH CHECK	TURBIDITY BARRIER
CULVERT PIPE CHECK	ROCK BAGS
SURFACE WATER FLOW	
SOD EROSION CONTROL	

N

WETLAND BOUNDARY

986

988

990

992

994

996

998

1000

PT 988+16.80

RIPRAP MEDIUM

STH 164

HP

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	EROSION CONTROL	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\022002_EC.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

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2

LOOMIS RD.

LOOMIS ROAD

STH 164

S.T.H. 164

SLOPE INTERCEPT

RIPRAP MEDIUM

SIGN

RIPRAP MEDIUM

LOOMIS ROAD

CORN CRIB

TOWER

WOOD DRIVE

SLOPE INTERCEPT

RIPRAP MEDIUM

STH 164

CORN CRIB

CORN CRIB

WETLAND BOUNDARY

LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION TYPE A
EROSION MAT CLASS II, TYPE C	INLET PROTECTION TYPE B
SILT FENCE	INLET PROTECTION TYPE C
HEAVY DUTY SILT FENCE	TURBIDITY BARRIER
RIPRAP OR STONE DITCH CHECK	ROCK BAGS
TEMPORARY DITCH CHECK	
CULVERT PIPE CHECK	
SURFACE WATER FLOW	
SOD EROSION CONTROL	

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	EROSION CONTROL	SHEET 52R	E

2

2

LEGEND

EROSION MAT CLASS I, TYPE B
EROSION MAT CLASS II, TYPE C
SILT FENCE
HEAVY DUTY SILT FENCE
RIPRAP OR STONE DITCH CHECK
TEMPORARY DITCH CHECK
CULVERT PIPE CHECK
SURFACE WATER FLOW
SOD EROSION CONTROL

Ⓐ INLET PROTECTION TYPE A
Ⓑ INLET PROTECTION TYPE B
Ⓒ INLET PROTECTION TYPE C
TURBIDITY BARRIER
ROCK BAGS

N

SLOPE INTERCEPT
STH 164
GAWIN DRIVE
RIPRAP MEDIUM
1030
1032
1034
1036
1038
1040
1042
1044
PL 30+00.00
+00 70' RT
+65 75' RT
+48 56' RT
+56 56' RT

N

RIPRAP MEDIUM
RIPRAP MEDIUM
+00 65' LT
+92 85' LT
+42 86' LT
+76 86' LT
WETLAND BOUNDARY
+05 83' LT
+00 80' LT
RIPRAP MEDIUM
+94 46' LT
+48 50' LT
STH 164
1046
1048
1050
1052
1054
1056
1058
S.T.H. 164
+48 56' RT
+00 56' RT
+56 56' RT
+00 50' RT
+25 75' RT
RIPRAP MEDIUM
+00 72' RT
+38 72' RT
+00 78' RT
SLOPE INTERCEPT
WETLAND BOUNDARY
WIRE BACK SILT FENCE
RIPRAP MEDIUM
+50 58' RT
SLOPE INTERCEPT

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	EROSION CONTROL	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\022004_EC.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

EAST RIVER BAY DRIVE

WETLAND BOUNDARY

PERMANENT STONE DITCH CHECK

RIPRAP MEDIUM

SLOPE INTERCEPT

PERMANENT STONE DITCH CHECK

RIPRAP MEDIUM

+00 66'LT

+35 61'LT

+00 60'LT

+00 53'LT

STH 164

1060 1062 1064 1066 1068 1070 1072 1074

BERM

PERMANENT STONE DITCH CHECK

RIPRAP MEDIUM

PERMANENT STONE DITCH CHECK

RIPRAP MEDIUM

+00 61'RT

+67 57'RT

WETLAND BOUNDARY

+00 56'RT

+00 53'RT

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIPRAP OR STONE DITCH CHECK
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SOD EROSION CONTROL
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- TURBIDITY BARRIER
- ROCK BAGS

BEACH DRIVE

POOL

PERMANENT STONE DITCH CHECK

WETLAND BOUNDARY

RIPRAP MEDIUM

RIPRAP MEDIUM

WETLAND BOUNDARY

+53 51'LT

+86 86'LT

+84 49'LT

+16 50'LT

+00 53'LT

+35 61'LT

+77 71'LT

1076 1078 1080 1082 1084 1086 1088 1090

STH 164

S.T.H. 164

+48 50'RT

+85 48'RT

+82 47'RT

+18 47'RT

+00 50'LT

+55 52'RT

+00 53'RT

WETLAND BOUNDARY

RIPRAP MEDIUM

PERMANENT STONE DITCH CHECK

SLOPE INTERCEPT

RIPRAP MEDIUM

+37 66'RT

WETLAND BOUNDARY

+93 68'RT

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	EROSION CONTROL	SHEET 54	E

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIPRAP OR STONE DITCH CHECK
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SOD EROSION CONTROL
- Ⓐ INLET PROTECTION TYPE A
- Ⓑ INLET PROTECTION TYPE B
- Ⓒ INLET PROTECTION TYPE C
- TURBIDITY BARRIER
- ROCK BAGS

N

SANDY LANE

+87 21' LT

+50 26' LT

WETLAND BOUNDARY

+94 24' RT

PERMANENT STONE DITCH CHECK

+16 27' RT

+00 32' RT

WETLAND BOUNDARY

+25 40' LT

1092 1094 1096 1098 STH 164 1100 1102 1104 1106

WETLAND BOUNDARY

SLOPE INTERCEPT

WETLAND BOUNDARY

RIPRAP MEDIUM

+30 56' LT

+16 58' LT

+58 58' LT

+00 62' LT

HSE HSE HSE HSE

Ⓐ Ⓑ

HP

N

IDLEWOOD LANE

DORIE LANE

PINE LANE

MH MH MH

W W

SIGNS

+00 54' LT

+05 58' LT

PERMANENT STONE DITCH CHECK

1106 1108 1110 1112 STH 164 1114 1116 1118 1120

S.T.H. 164

HP HP

SLOPE INTERCEPT

SEPV SEPV

SGN

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	EROSION CONTROL	SHEET 55	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\022006_EC.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

POPLAR CIRCLE

POPLAR CIRCLE

BIRCH LANE

N

SLOPE INTERCEPT

RIP RAP MEDIUM

RIPRAP MEDIUM

PERMANENT STONE DITCH CHECK

+17 58' LT

+90 58' LT

+04 53' LT

+00 51' LT

PI 1128+40.12

+46 64' LT

+98 73' LT

+29 72' LT

+00 72' LT

+69 61' LT

+00 45' LT

+00 78' LT

+35 87' LT

1122 1124 1126 1128 1130 1132 1134 1136

STH 164

+13 54' RT

+00 57' RT

PERMANENT STONE DITCH CHECK

RIPRAP MEDIUM

WETLAND BOUNDARY

N

GREENHAVEN TERRACE

RIPRAP MEDIUM

PERMANENT STONE DITCH CHECK

+67 86' LT

+98 49' LT

SLOPE INTERCEPT

1138 1140 1142 1144 1145 1148 1150

PI 50+00.00

STH 164

PERMANENT STONE DITCH CHECK

+51 52' RT

+64 54' RT

+63 55' RT

+00 58' RT

WETLAND BOUNDARY

SIGN

FLAG

BLDG

BLDG

FLAG

POOL

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIPRAP OR STONE DITCH CHECK
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SOD EROSION CONTROL
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- TURBIDITY BARRIER
- ROCK BAGS

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	EROSION CONTROL	SHEET 56 E

2

2

WETLAND BOUNDARY

NORTH LAKE ROAD

RIPRAP MEDIUM

+71 78'LT

+98 107'LT

+91 112'LT

+89 109'LT

+10 112'LT

+12 109'LT

SLOPE INTERCEPT

RIPRAP MEDIUM

+00 109'LT

+37 113'LT

RIP RAP MEDIUM

RIPRAP MEDIUM

RIPRAP MEDIUM

WETLAND BOUNDARY

S.T.H. 164

STH 164

1152 1154 1156 1158 1160 1162 1164 1166

CANOPY

FILLER CAPS

SIGN

HP

A B

+00 50'LT

+00 60'LT

+44 58'LT

+74 56'LT

+00 48'LT

+00 48'LT

+46 50'LT

+60 59'LT

JENSON PARKWAY

+97 30'LT

+50 36'LT

+00 38'LT

+98 38'LT

+62 54'LT

+00 54'LT

+00 59'LT

+00 59'LT

+45 51'LT

+75 49'LT

+75 49'LT

+00 45'LT

+90 53'LT

RIPRAP MEDIUM

SLOPE INTERCEPT

1168 1170 1172 1174 1176 1178 1180

STH 164

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIPRAP OR STONE DITCH CHECK
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SOD EROSION CONTROL
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- TURBIDITY BARRIER
- ROCK BAGS

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	EROSION CONTROL	SHEET 57 E

2

N

WETLAND BOUNDARY

RIPRAP MEDIUM

SLOPE INTERCEPT

+00 52'LT

+00 48'LT

+00 62'LT

+00 49'LT

+73 50'LT

+36 52'LT

+62 55'LT

+00 60'LT

+92 47'LT

+65 60'LT

+84 60'LT

+85 52'LT

+32 52'LT

+00 52'LT

1182 1184 1186 1188 1190 1192 1194 1196

STH 164

S.T.H. 164

+58 62'LT

WIRE BACK SILT FENCE

+00 46'LT

WETLAND BOUNDARY

+95 59'LT

POOL

POOL

N

SLOPE INTERCEPT

RIPRAP MEDIUM

COUNTY LINE ROAD

1198 1200 1202 1204

STH 164

+50 45'LT

WETLAND BOUNDARY

RIPRAP MEDIUM

+00 45'LT

+10 60'LT

+40 66'LT

+60 45'LT

+30 45'LT

+10 68'LT

+10 45'LT

+02 68'LT

+82 50'LT

+64 50'LT

+99 65'LT

1206 1208 1210 1212

150

+19 43'RT

+00 43'RT

+60 56'RT

+38 60'RT

+00 48'RT

+00 48'RT

+00 56'RT

+00 56'RT

+18 48'RT

+00 58'RT

+35 55'RT

+25 63'RT

+00 50'LT

WIRE BACK SILT FENCE

+50 44'LT

SEE STREAM DIVERSION CONSTRUCTION DETAIL

KRUEGER BROOK

DENOON ROAD

A B

+00 40'LT

RIPRAP MEDIUM

+50 34'LT

BLDG

FLAG

BLDG

BLDG

SIGN

A/C

HSE

HSE

GRGE

W

W

W

W

HP

HP

D

D

D

D

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIPRAP OR STONE DITCH CHECK
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SOD EROSION CONTROL
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- TURBIDITY BARRIER
- ROCK BAGS

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	EROSION CONTROL	SHEET 58	E

2

+00
108'LT

+70
78'LT

1156

MINIATURE GOLF COURSE

SIGN

SLOPE INTERCEPT

44 46 48 50 52 54 56

NORTH LAKE DR. NORTH LAKE DRIVE

POOL

A B

WETLAND BOUNDARY

1154

STH 164

N

+60
45'LT

KRUEGER BROOK

+40
60'LT

+00
58'RT

+35
55'RT

+25
63'RT

+00
50'LT

+50
44'LT

+00
40'LT

+50
34'LT

+70
78'LT

+24
36'LT

+03
40'LT

+75
28'LT

+50
32'LT

+00
43'LT

+50
45'LT

+00
45'LT

+10
60'LT

1206

150

148 154 156

TICHIGAN RD.

DENOON ROAD

COUNTY LINE ROAD

SLOPE INTERCEPT

BLDG

FLAG

A/C

ATHLETIC FIELD

LEGEND

#######	EROSION MAT CLASS I, TYPE B	Ⓐ	INLET PROTECTION TYPE A
⁘⁘⁘⁘⁘⁘⁘	EROSION MAT CLASS II, TYPE C	Ⓑ	INLET PROTECTION TYPE B
—•—•—	SILT FENCE	Ⓒ	INLET PROTECTION TYPE C
XXXXXXXX	HEAVY DUTY SILT FENCE	⇜⇝⇜⇝	TURBIDITY BARRIER
⊂⊃⊂⊃⊂⊃	RIPRAP OR STONE DITCH CHECK	⬭	ROCK BAGS
△△△	TEMPORARY DITCH CHECK		
○○○	CULVERT PIPE CHECK		
~	SURFACE WATER FLOW		
▽	SOD EROSION CONTROL		

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	EROSION CONTROL	SHEET 59	E

STA. 48+83.1, 23.30' RT
3J MANHOLE
104A

STA. 48+46.9, 96.76' RT
1-19"x30" APRON ENDWALL
1 PIPE GRATE (TRAVERSABLE)
104B

STA. 48+95.3, 34.41 RT
1S INLET
104

STA. 48+98.2, 16.41' RT
1S INLET
105

STA. 49+04.5, 63.08' LT
1-19"x30" APRON ENDWALL
1 PIPE GRATE (TRAVERSABLE)
103

STA. 49+77.5, 42.66' RT
1-19"x30" APRON ENDWALL
1 PIPE GRATE (TRAVERSABLE)
101B

STA. 49+97.8, 21.46' LT
3J MANHOLE
101A

STA. 50+15.0, 62.07' LT
1-19"x30" APRON ENDWALL
1 PIPE GRATE (TRAVERSABLE)
100

STA. 50+05.5, 18.54' LT
1S INLET
101

STA. 50+06.1, 22.34' LT
1S INLET
102

LOOMIS ROAD
STH 164
1008
1010
1012
19"x30"
PROP
HP
SIGN
FO
SAN
G
T

STA. 1098+44.8, 40.52' RT
1-18" APRON ENDWALL
1 PIPE GRATE (TRAVERSABLE)
106

STA. 1099+36.8, 40.52' RT
1-18" APRON ENDWALL
1 PIPE GRATE (TRAVERSABLE)
108

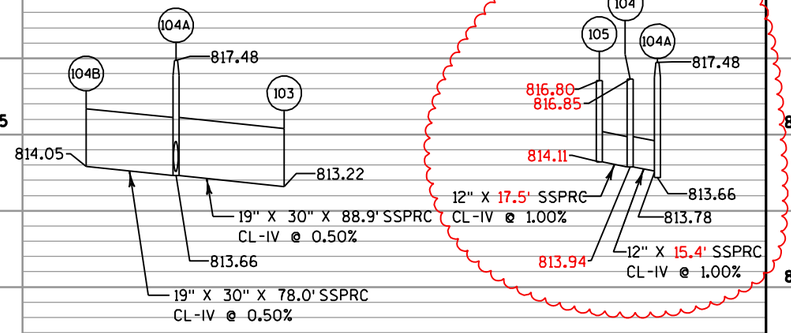
STA. 1098+90.8, 40.52' RT
8MS-A INLET
107

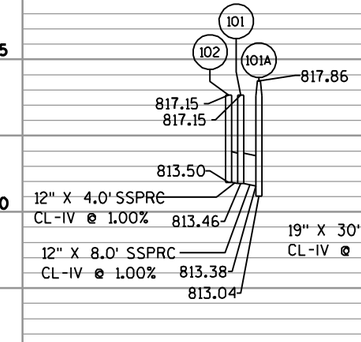
1096
1098
1100
STH 164
18"
PROP
BSH
SAN
W
D
E

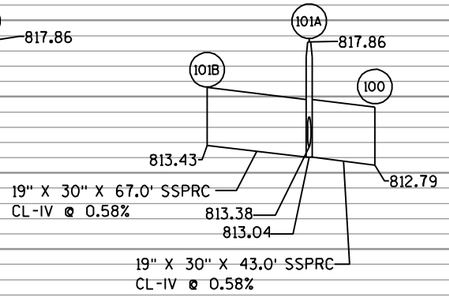
STA. 152+00.0, 34.67' RT
9MS-A INLET
1-14"X23" APRON ENDWALL
1 PIPE GRATE (TRAVERSABLE)
114

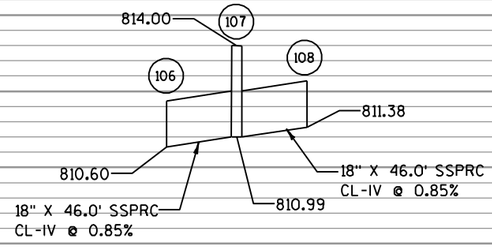
STA. 152+00.0, 23.34' LT
1-14" X 23" APRON ENDWALL
113

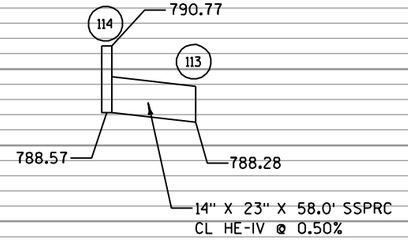
1204
1206
1208
STH 164
14"x23"
DENON RD.
150
154
BLDG
SIGN
SAN
A/C











PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	STORM SEWER	SHEET 60R	E

AEW shifted ~6' north to match pond slopes.

STA. 1152+50.0, 40.6'LT (109)
1-36" APRON ENDWALL
1 PIPE GRATE (TRAVERSABLE)

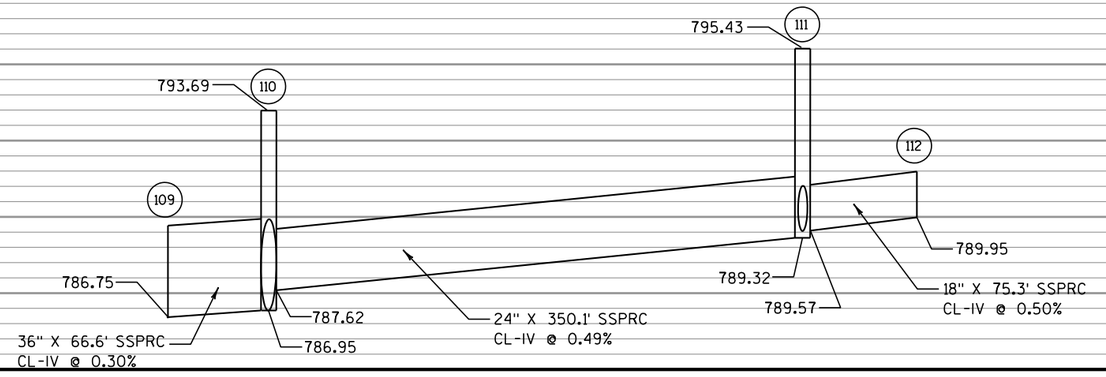
STA. 1152+50.0, 26.0'RT (110)
3J MANHOLE

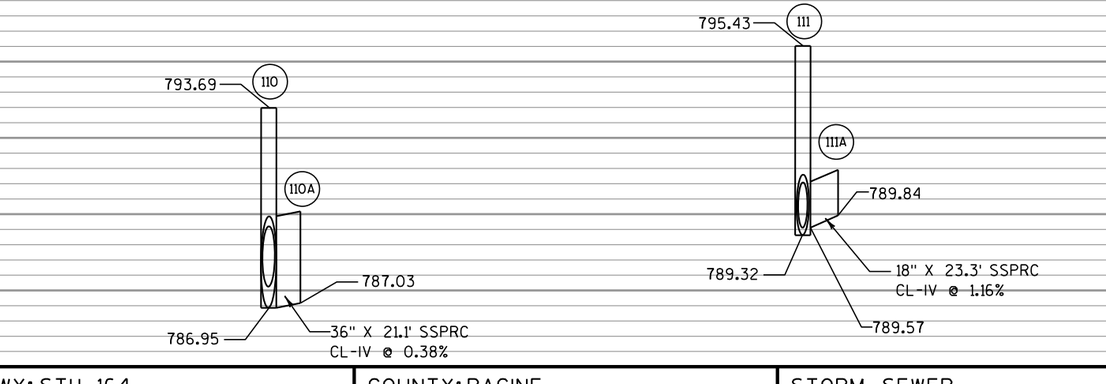
STA. 1152+50.0, 47.1'RT (110A)
1-36" APRON ENDWALL
1 PIPE GRATE (TRAVERSABLE)

STA. 1156+00.0, 49.3'LT (112)
1-18" APRON ENDWALL
1 PIPE GRATE (TRAVERSABLE)

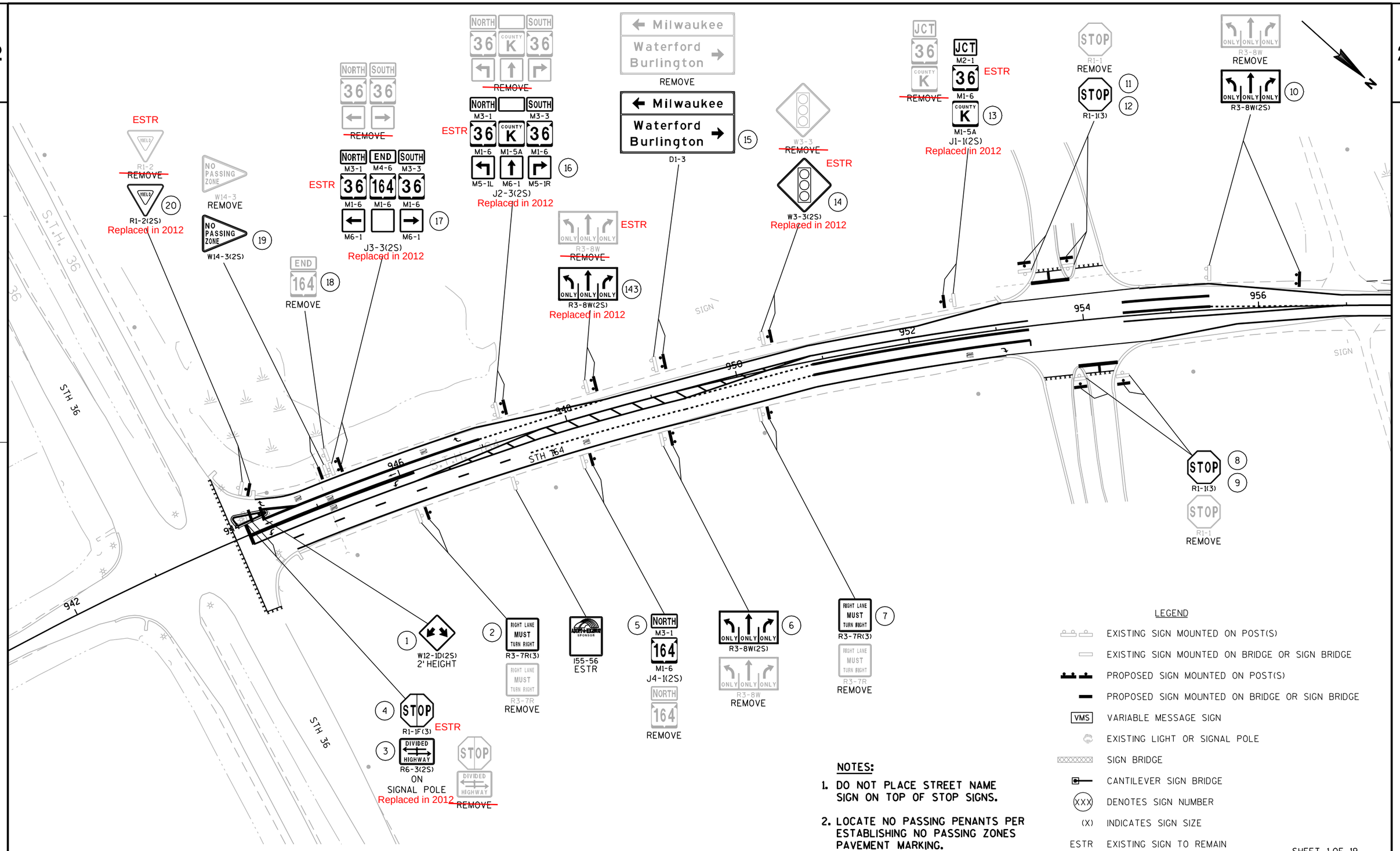
STA. 1156+00.0, 26.0'RT (111)
3J MANHOLE

STA. 1156+00.0, 49.3'RT (111A)
1-18" APRON ENDWALL
1 PIPE GRATE (TRAVERSABLE)



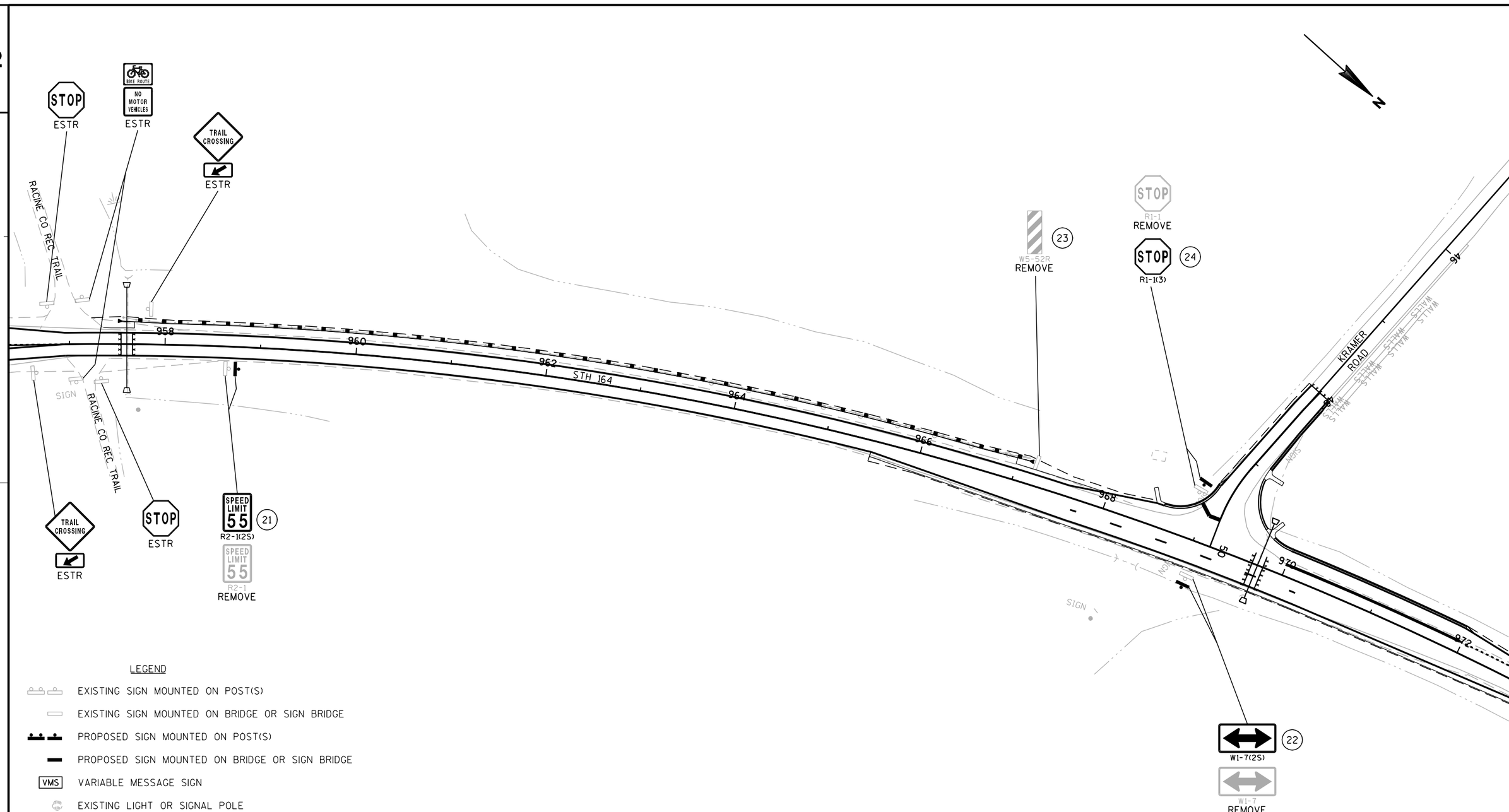


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	STORM SEWER	SHEET 61 E



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 62	E

FILE NAME : j:\projects\d2_281004164\Sign\023201_ps.dgn PLOT DATE : 12-APR-2012 14:36 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1



LEGEND

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

NOTES:

1. **DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.**
2. **LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.**

2

N

W2-2
REMOVE

W2-2(2S) 25

STH 164

972 974 976 978 980 982 984 986

SIGN

26 27 NO PASSING ZONE
W14-3(2S)

NO PASSING ZONE
W14-3
REMOVE

LEGEND

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

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.

2

N

28
W1-2L(2M)

986 988 990 992 994 996 998 1000

STH 164

29
W2-1(2S)

W2-1
REMOVE

30
Loomis Rd
D1-61

LEGEND

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

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.

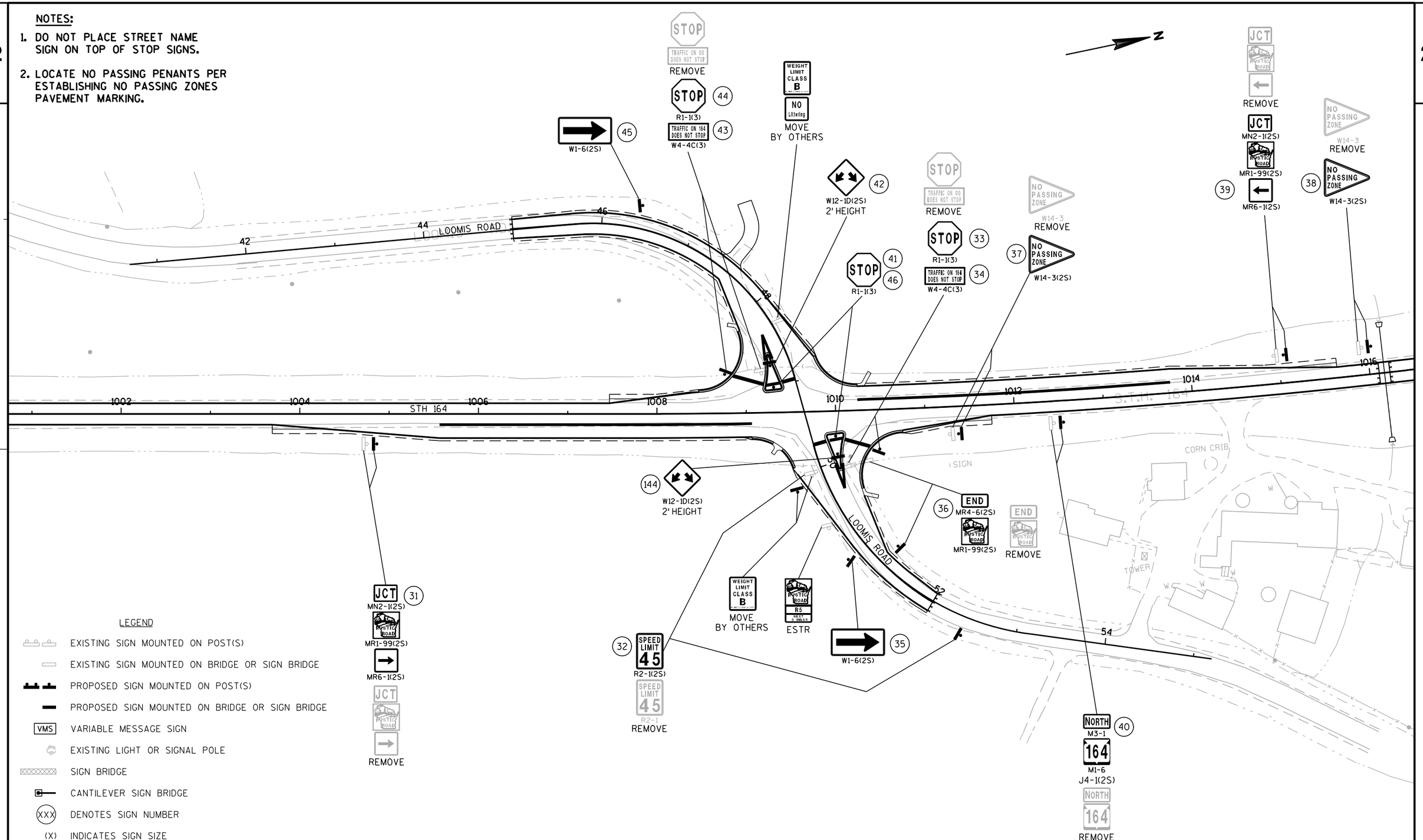
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 65	E

FILE NAME : j:\projects\d2_281004164\Sign\023204_ps.dgn PLOT DATE : 12-APR-2012 14:36 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.



LEGEND

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

SHEET 5 OF 19

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 66	E

FILE NAME : j:\projects\d2_281004164\Sign\023205_ps.dgn PLOT DATE : 12-APR-2012 14:36 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

46

WOOD DRIVE

48

SUN

W2-1
REMOVE

Loomis Rd
142
D1-61

48
W2-1(2S)

47
W1-2R(2M)

STOP
R1-1
REMOVE

50
STOP
R1-1(3)

1016
1018
1020
STH 164
1022
1024
1026
1028
1030

CORN CRIB
CORN CRIB

49
W1-7(2S)

LEGEND

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

NOTES:

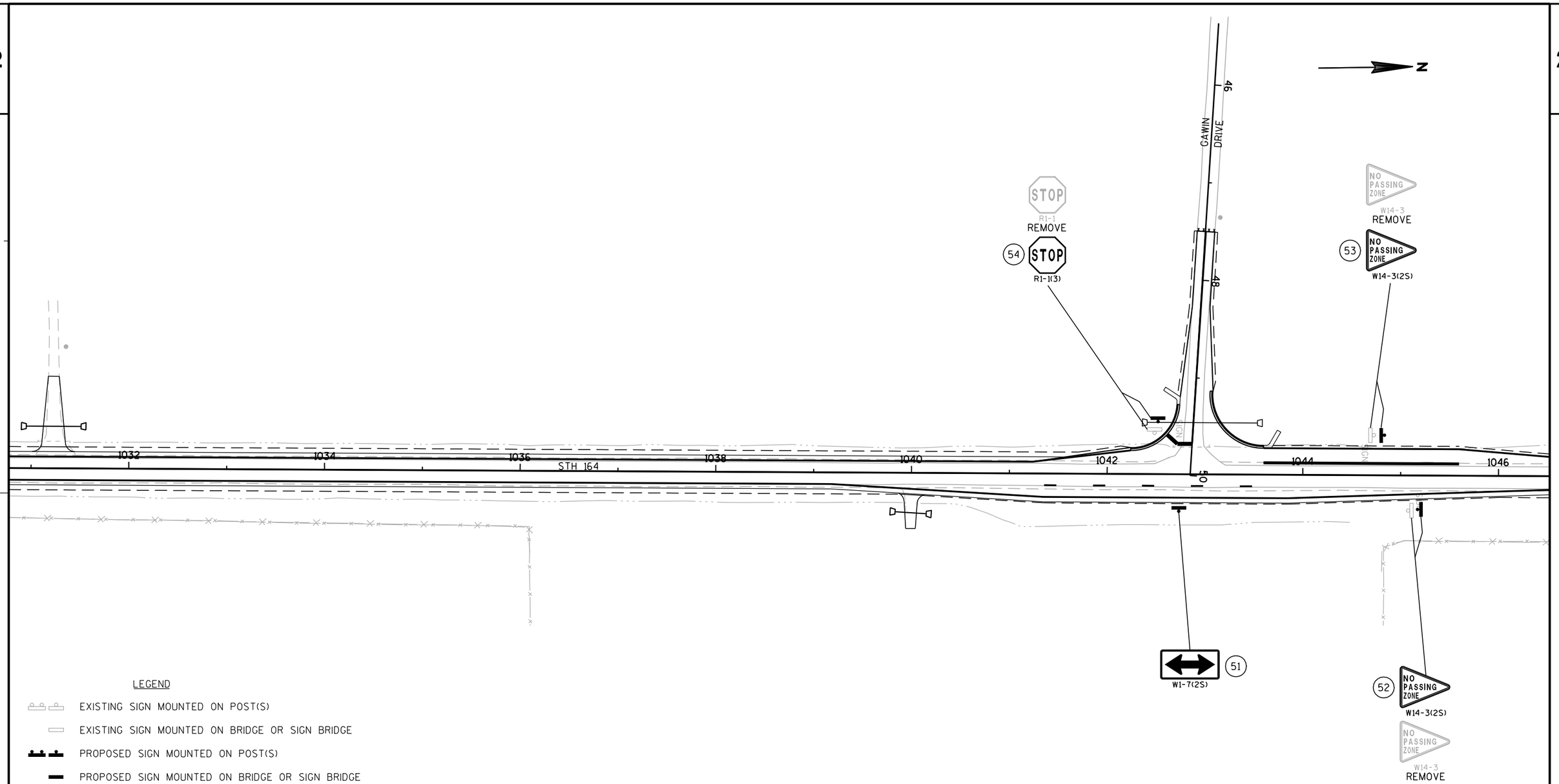
1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 67	E

FILE NAME : j:\projects\d2_281004164\Sign\023206_ps.dgn PLOT DATE : 12-APR-2012 14:37 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2



LEGEND

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

NOTES:

1. **DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.**
2. **LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.**

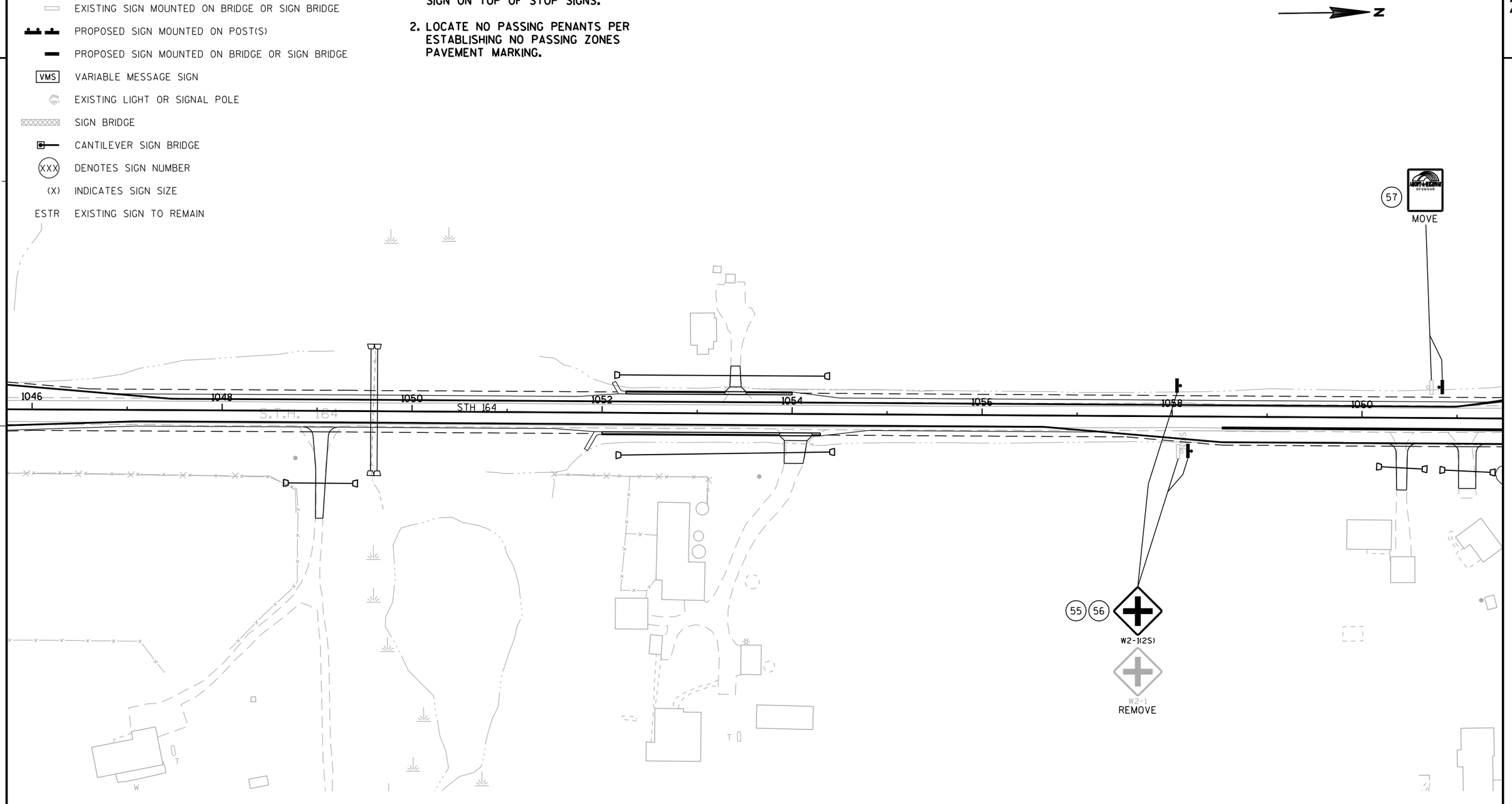
2

LEGEND

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

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.



SHEET 8 OF 19

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 69	E

FILE NAME : j:\projects\d2_281004164\Sign\023208_ps.dgn PLOT DATE : 12-APR-2012 14:37 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

EAST RIVER BAY ROAD

SIGN

46

48

52

54

STOP
R1-1
REMOVE

STOP 58
R1-1(3)

W2-1
REMOVE

60
W2-1(2S)

NO PASSING ZONE
W14-3
REMOVE

62
NO PASSING ZONE
W14-3(2S)

1062 1064 1066 1068 1070 STH 164 1072 1074 1076

STOP 59
R1-1(3)

STOP
R1-1
REMOVE

ESTR

61
NO PASSING ZONE
W14-3(2S)

NO PASSING ZONE
W14-3
REMOVE

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.

LEGEND

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

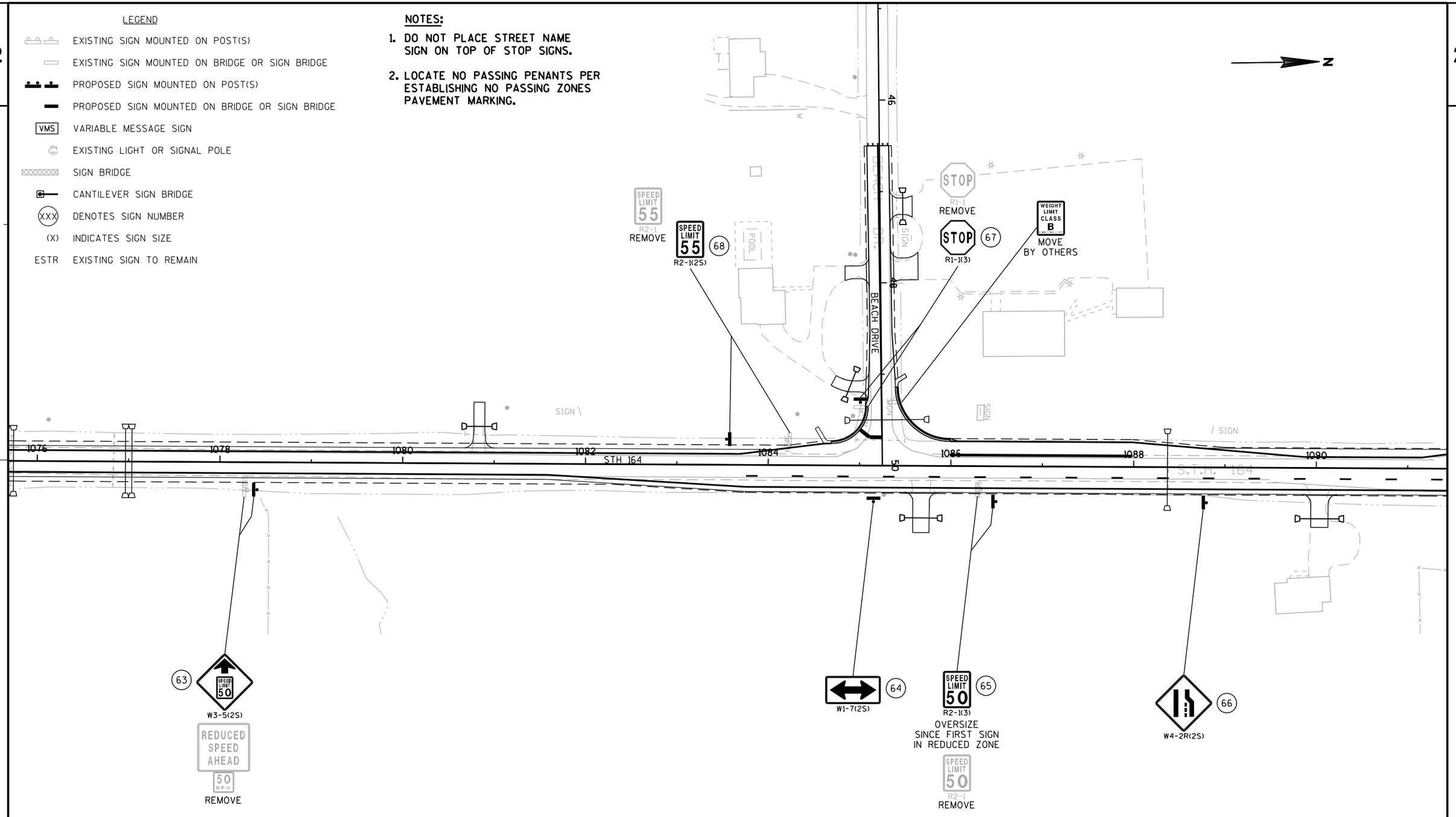
2

LEGEND

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

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.



SHEET 10 OF 19

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 71	E

FILE NAME : j:\projects\d2_281004164\Sign\023210_ps.dgn PLOT DATE : 12-APR-2012 14:37 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

SANDY LANE

STOP
R1-1
REMOVE

STOP (69)
R1-1(3)

(70)
W1-6(2S)

SPEED LIMIT 50
R2-1
REMOVE

SPEED LIMIT 50 (71) (72)
R2-1(2S)

1092 1094 1096 1098 1100 1102 1104 1106

STH 164

(74)
W1-7(2S)

(73)
NO PASSING ZONE
W14-3(2S)

NO PASSING ZONE
W14-3
REMOVE

LEGEND

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

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.

SHEET 11 OF 19

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 72	E

FILE NAME : j:\projects\d2_281004164\Sign\023211_ps.dgn PLOT DATE : 12-APR-2012 14:37 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

2

N

NO PASSING ZONE
W14-3
REMOVE

75 NO PASSING ZONE
W14-3(2S)

STOP
R1-1
REMOVE

76 STOP
R1-1(3)

SPEED LIMIT 50
R2-1
REMOVE

79 SPEED LIMIT 50
R2-1(2S)

STOP
R1-1
REMOVE

STOP 78
R1-1(3)

SPEED LIMIT 50 77
R2-1(2S)

SPEED LIMIT 50
R2-1
REMOVE

80
W1-7(2S)

SIGN
SIGNS
MH
W
DORIE LANE
STH 164
S.T.H. 164
SEPV
RUINS
1106
1108
1110
1112
1114
1116
1118
1120

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.

LEGEND

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

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 73	E

FILE NAME : j:\projects\d2_281004164\Sign\023212_ps.dgn PLOT DATE : 12-APR-2012 14:38 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

DO NOT REPLACE STOP SIGNS AT DRIVEWAY
THEY ARE BY OWNER OF PROPERTY.

N

STOP
ESTR

SPEED LIMIT 50
R2-1
REMOVE

SPEED LIMIT 50
82
R2-1(2S)

STOP
ESTR

STOP
ESTR

NO PASSING ZONE
W14-3
REMOVE

83
NO PASSING ZONE
W14-3(2S)

1122 1124 1126 1128 1130 1132 1134 1136

STH 164

SPEED LIMIT 50
81
R2-1(2S)

SPEED LIMIT 50
R2-1
REMOVE

LEGEND

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

NOTES:

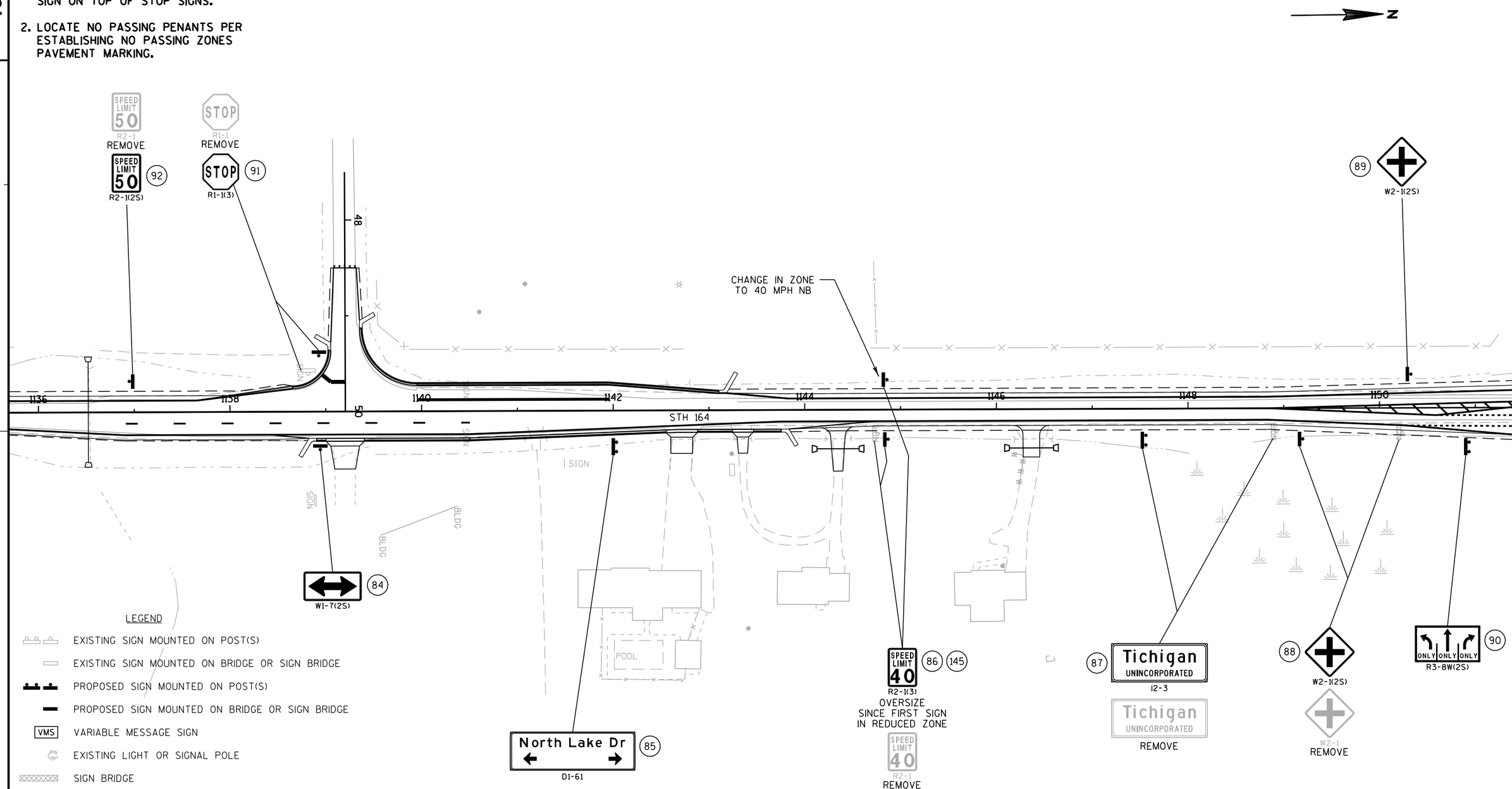
1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.

SHEET 13 OF 19

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 74	E

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
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- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
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- ESTR — EXISTING SIGN TO REMAIN

SHEET 14 OF 19

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 75	E

2

N

NORTH LAKE DRIVE

105 R3-8(2S)

SPEED LIMIT 40 R2-1 REMOVE

107 SPEED LIMIT 40 R2-1(2S)

STOP R1-1 REMOVE

106 STOP R1-1(3)

NO PARKING ANY TIME R7-1D REMOVE

104 NO PARKING ANY TIME R7-1D(2S)

103 SPEED LIMIT 40 R2-1 REMOVE

NO PARKING ANY TIME R7-1L REMOVE

102 NO PARKING ANY TIME R7-1L(2S)

NO PASSING ZONE W14-3 REMOVE

101 NO PASSING ZONE W14-3(2S)

100 ONLY ONLY ONLY R3-8W(2S)

SPEED LIMIT 40 R2-1 REMOVE

99 SPEED LIMIT 40 R2-1(2S)

93 NO PASSING ZONE W14-3(2S)

NO PASSING ZONE W14-3 REMOVE

95 STOP R1-1(3)

STOP R1-1 REMOVE

97 SPEED LIMIT 40 R2-1(2S)

SPEED LIMIT 40 R2-1 REMOVE

94 ONLY R3-8(2S)

96 W11-8(2S)

W11-8(2S) REMOVE

98 SPEED LIMIT 40 R2-1(2S)

SPEED LIMIT 40 R2-1 REMOVE

STH 164

SIGN

CANOPY

FILLER CAPS

1152 1154 1156 1158 1160 1162 1164 1166

790 791 791.5 792 793

48' 50' 52' 54'

LEGEND

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

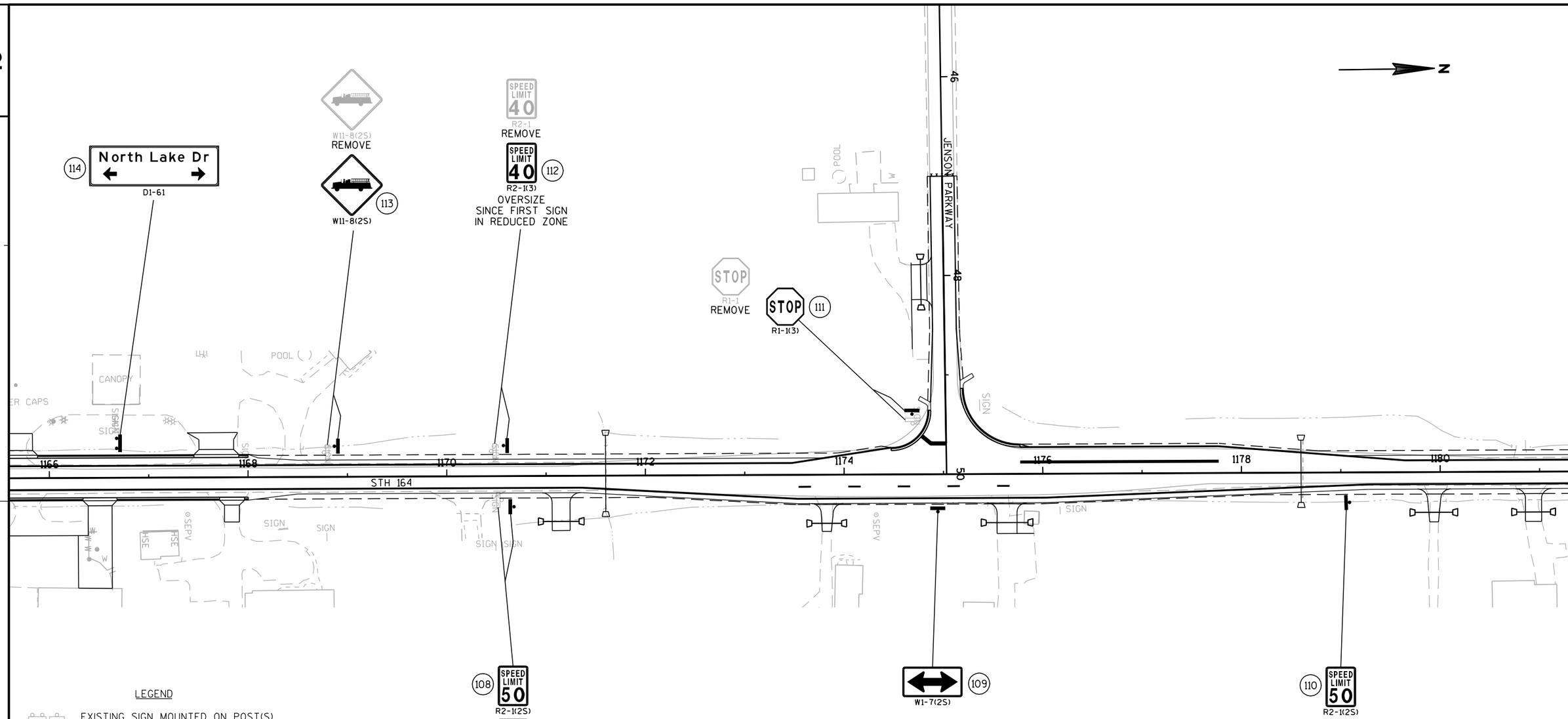
NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 76	E

FILE NAME : j:\projects\d2_281004164\Sign\023215_ps.dgn PLOT DATE : 12-APR-2012 14:38 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42



LEGEND

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

NOTES:

1. **DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.**
2. **LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.**

SHEET 16 OF 19

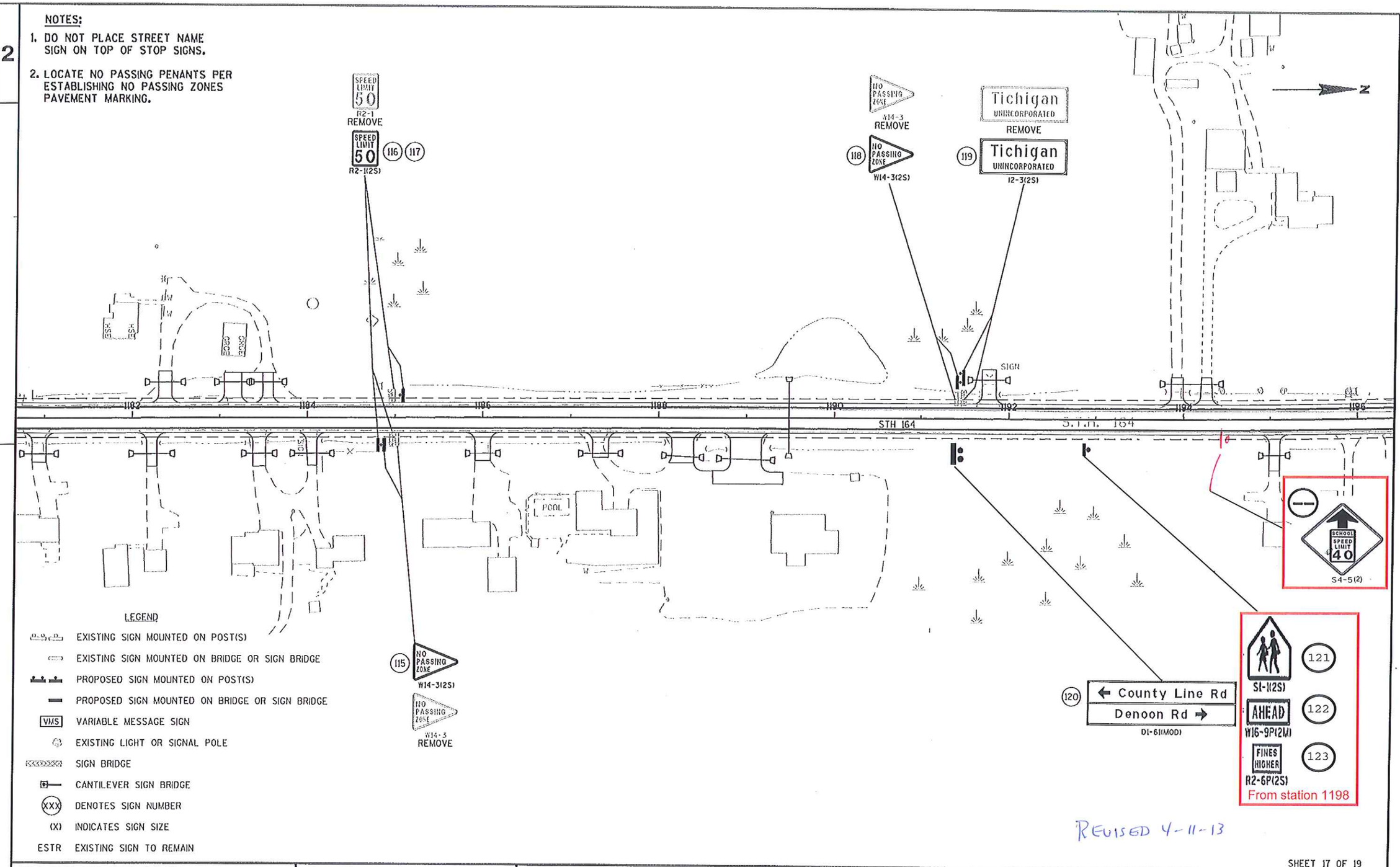
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 77	E

FILE NAME : j:\projects\d2_281004164\Sign\023216_ps.dgn PLOT DATE : 12-APR-2012 14:39 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

2

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.



LEGEND

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

REVISED 4-11-13

SHEET 17 OF 19

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 78A	E

FILE NAME : j:\projects\d2_281004164\Sign\023217_ps.dgn PLOT DATE : 12-APR-2012 14:39 PLOT BY : NSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
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- XXX — DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
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2

2

N

COUNTY LINE ROAD

STH 164

END SCHOOL ZONE (133)
S5-2(2)

MOVE (134)

SPEED LIMIT 50
R2-1
REMOVE

SPEED LIMIT 50 (132)
R2-1(3)
OVERSIZE
SINCE FIRST SIGN IN REDUCED ZONE

50 MPH zone starts here for southbound; school zone ends past school

Racine Co
REMOVE

Racine Co (131)
I2-2

STOP
R1-1
REMOVE

STOP (130)
R1-1(3)

1196 1198 1200 1202 1204 1206 1208 1210

150

SCHOOL
SPEED LIMIT 40
WHEN CHILDREN ARE PRESENT
S4-51(2)

AHEAD
REMOVE

Moved proposed sign to station1193+00

W2-1(2S) (124)

W2-1
REMOVE

Washington Caldwell School

DENOON ROAD

STOP
R1-1(3) (125)

STOP
R1-1
REMOVE

NO PASSING ZONE
W14-3(2S) (126)

NO PASSING ZONE
W14-3
REMOVE

Waukesha Co (128)
I2-2

NORTH
M3-1
164
M1-6
J4-1(2S) (129)

NORTH
164
Waukesha Co
REMOVE

MOVE (127)

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.

REVISED 4-11-13

SHEET 18 OF 19

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 79 A	E

FILE NAME : j:\projects\d2_281004164\Sign\023218_ps.dgn
PLOT DATE : 12-APR-2012 14:39
PLOT BY : MSCCXV
PLOT NAME :
PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

135 S1-1(2S)

136 AHEAD W16-9P(2M)

137 FINES HIGHER R2-6P(2S)

AHEAD REMOVE

SCHOOL SPEED LIMIT 40 WHEN CHILDREN ARE PRESENT S4-51(2)

Place 435 feet from intersection

Place 635 feet from intersection

SPEED LIMIT 50 R3-5 REMOVE

138 SCHOOL SPEED LIMIT 40 S4-5(2)

Place 935 feet from intersection

139 ← Denoon Rd / County Line Rd → D1-61(MOD)

1210 1212 1214 1216 1218 1220 1222 1224

STH 164

SIGN

SPEED LIMIT 55 141 R2-1(25)

END SCHOOL ZONE 140 S5-2(2)

SPEED LIMIT 55 R2-1 REMOVE

LEGEND

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

NOTES:

1. DO NOT PLACE STREET NAME SIGN ON TOP OF STOP SIGNS.
2. LOCATE NO PASSING PENANTS PER ESTABLISHING NO PASSING ZONES PAVEMENT MARKING.

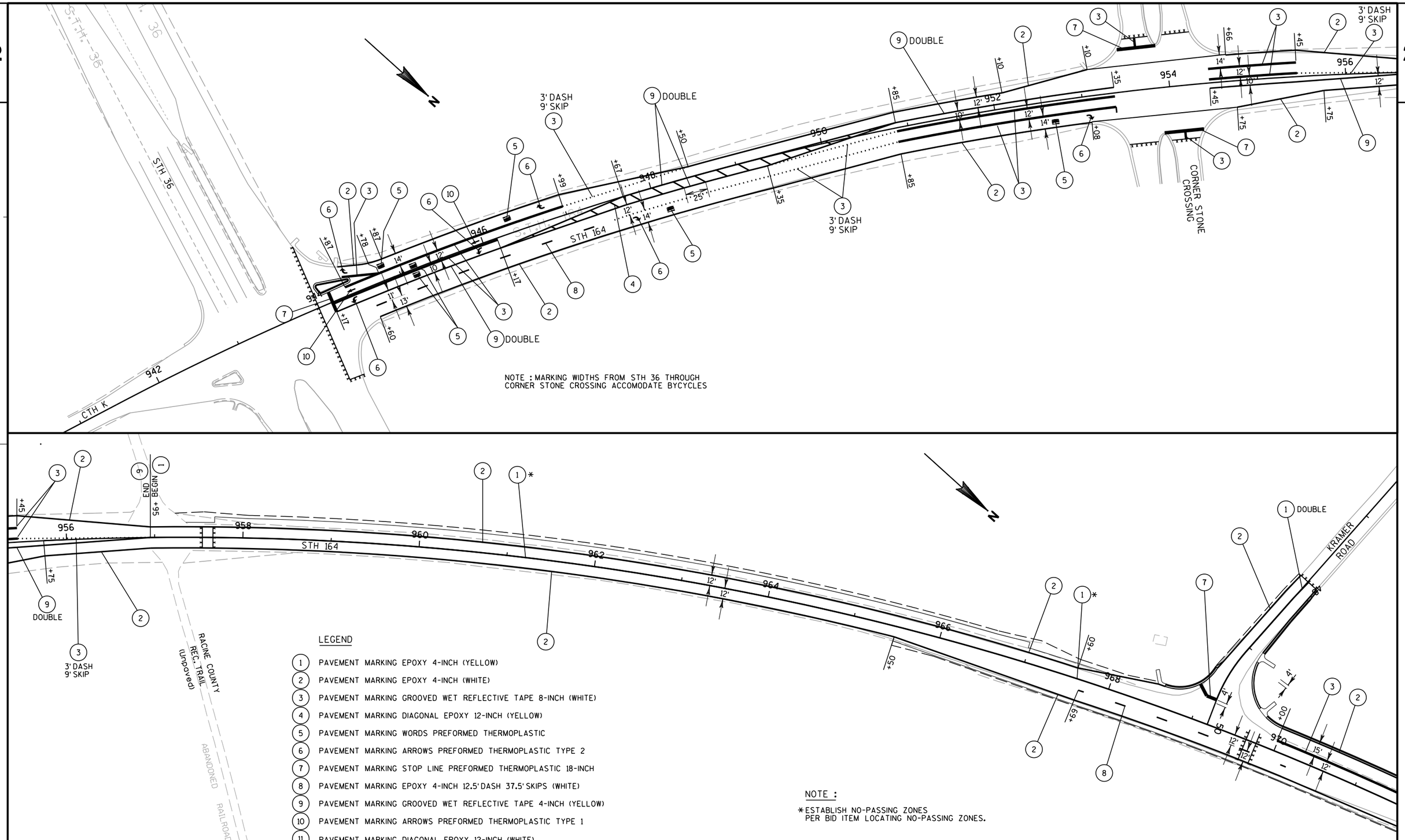
REVISED 4-11-13

SHEET 19 OF 19

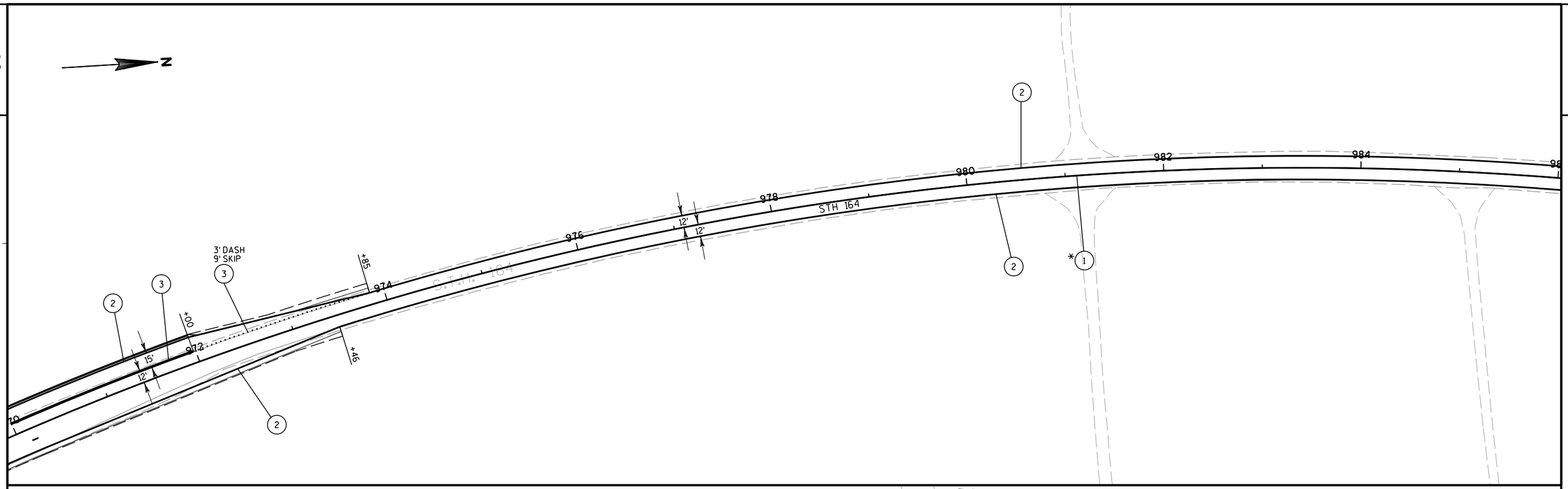
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PERMANENT SIGNING	SHEET 80 A	E

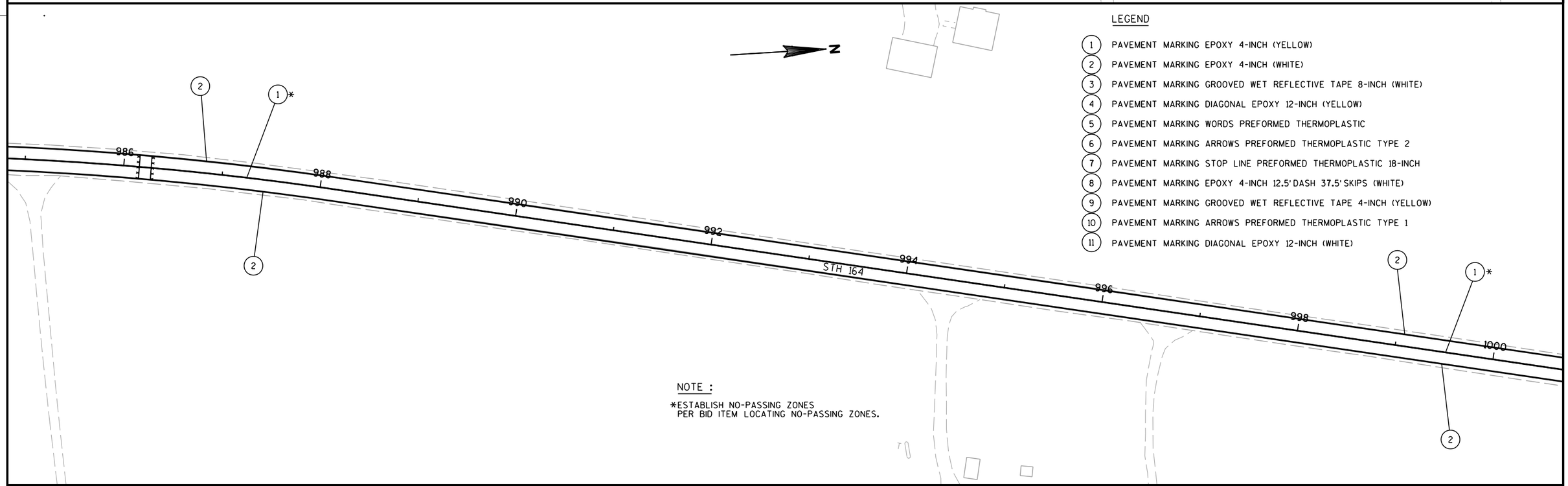
FILE NAME : J:\projects\d2_281004164\Sign\023219_ps.dgn PLOT DATE : 12-APR-2012 14:39 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT MARKING	SHEET 81 E





LEGEND

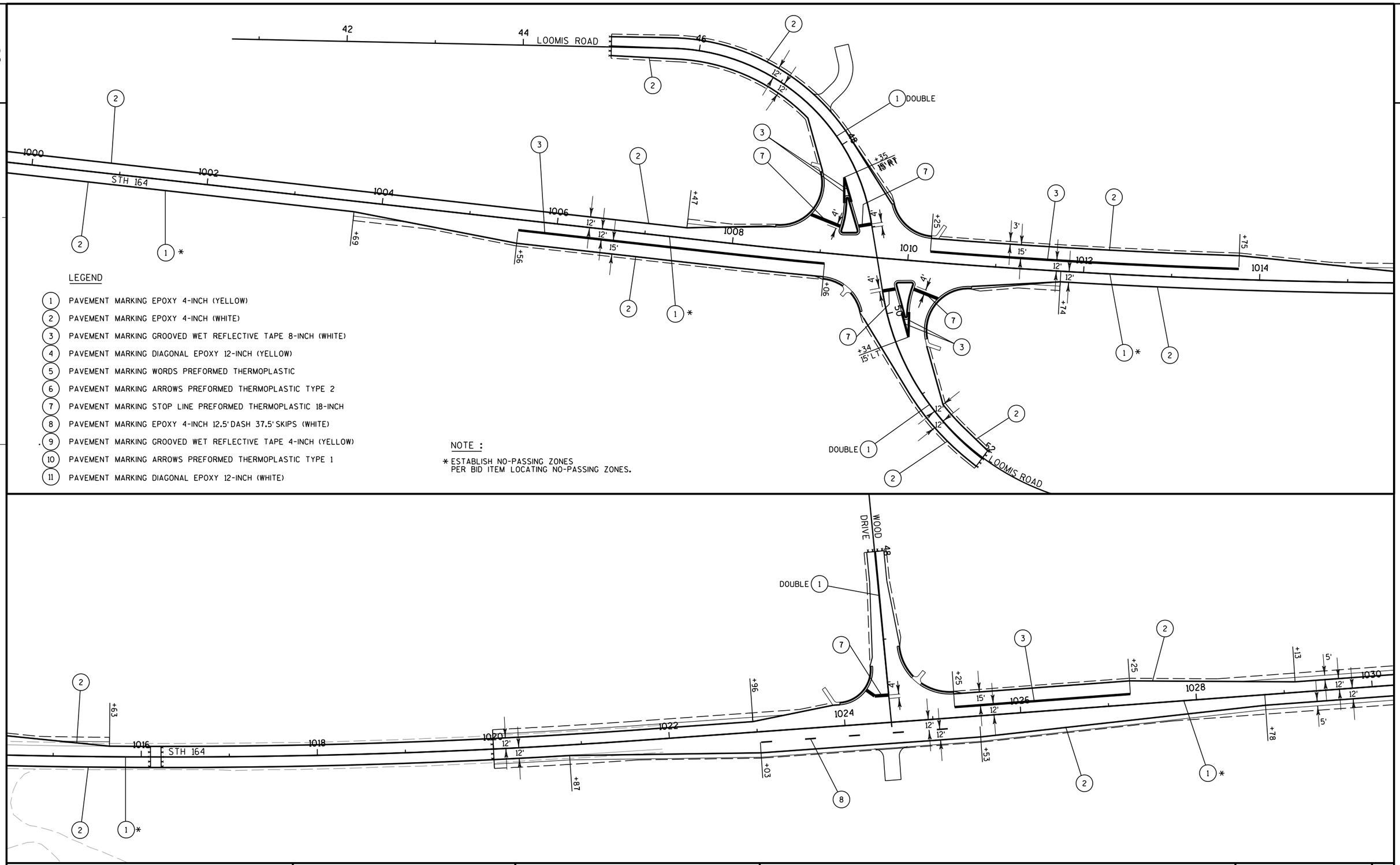
1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)
4. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
5. PAVEMENT MARKING WORDS PREFORMED THERMOPLASTIC
6. PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 2
7. PAVEMENT MARKING STOP LINE PREFORMED THERMOPLASTIC 18-INCH
8. PAVEMENT MARKING EPOXY 4-INCH 12.5' DASH 37.5' SKIPS (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (YELLOW)
10. PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 1
11. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)

NOTE :

*ESTABLISH NO-PASSING ZONES
PER BID ITEM LOCATING NO-PASSING ZONES.

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT MARKING	SHEET 82	E

2



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)
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5. PAVEMENT MARKING WORDS PREFORMED THERMOPLASTIC
6. PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 2
7. PAVEMENT MARKING STOP LINE PREFORMED THERMOPLASTIC 18-INCH
8. PAVEMENT MARKING EPOXY 4-INCH 12.5' DASH 37.5' SKIPS (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (YELLOW)
10. PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 1
11. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)

NOTE :

* ESTABLISH NO-PASSING ZONES PER BID ITEM LOCATING NO-PASSING ZONES.

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT MARKING	SHEET 83	E

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)
4. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
5. PAVEMENT MARKING WORDS PREFORMED THERMOPLASTIC
6. PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 2
7. PAVEMENT MARKING STOP LINE PREFORMED THERMOPLASTIC 18-INCH
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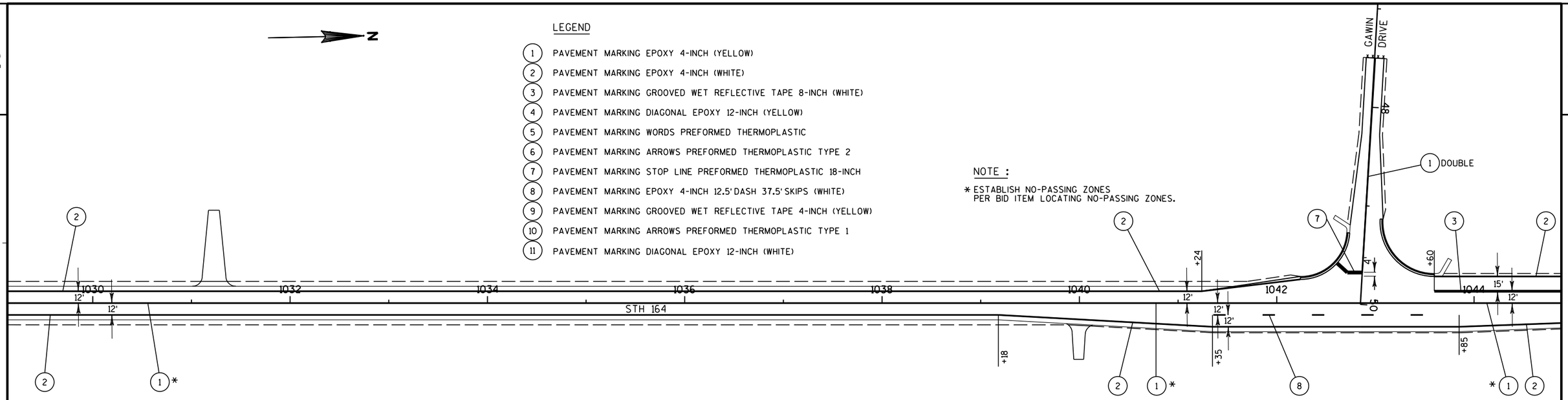
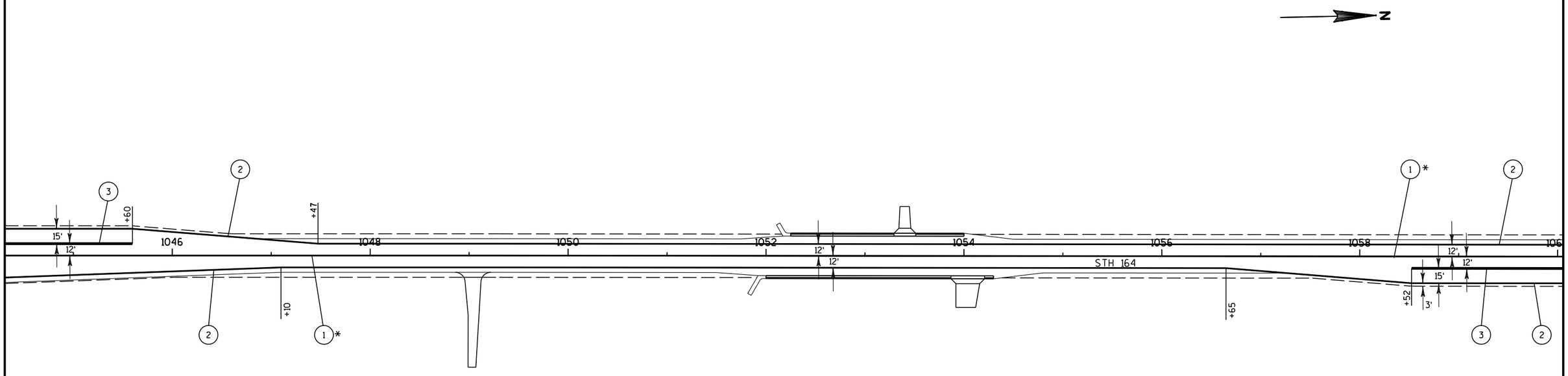
11. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)

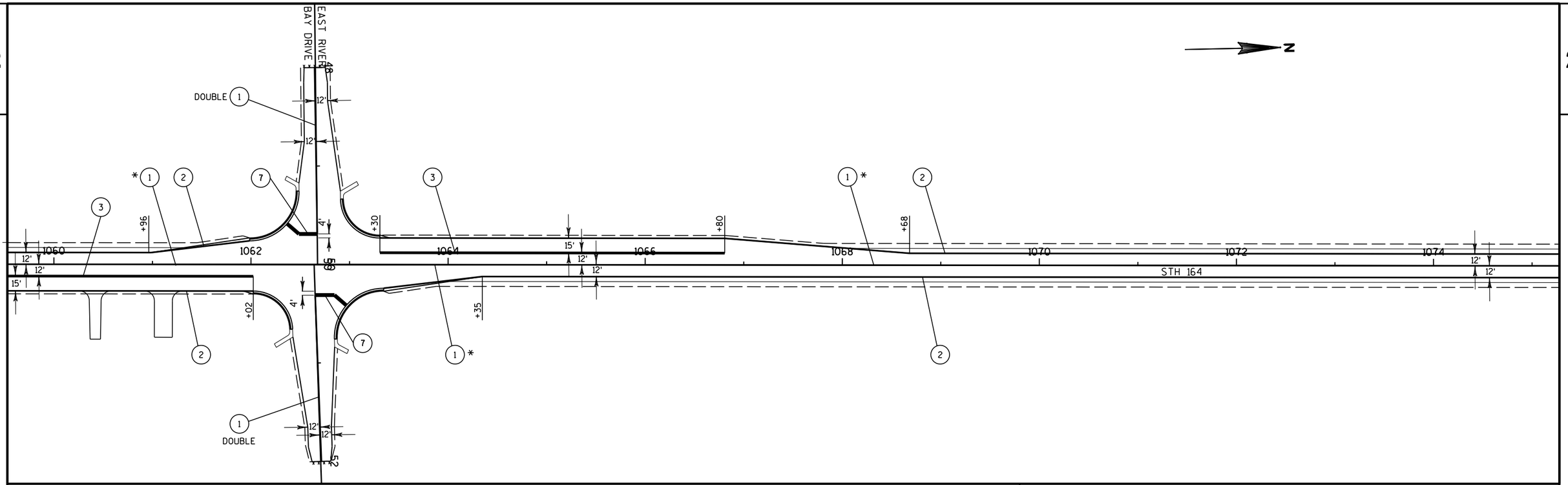
NOTE :

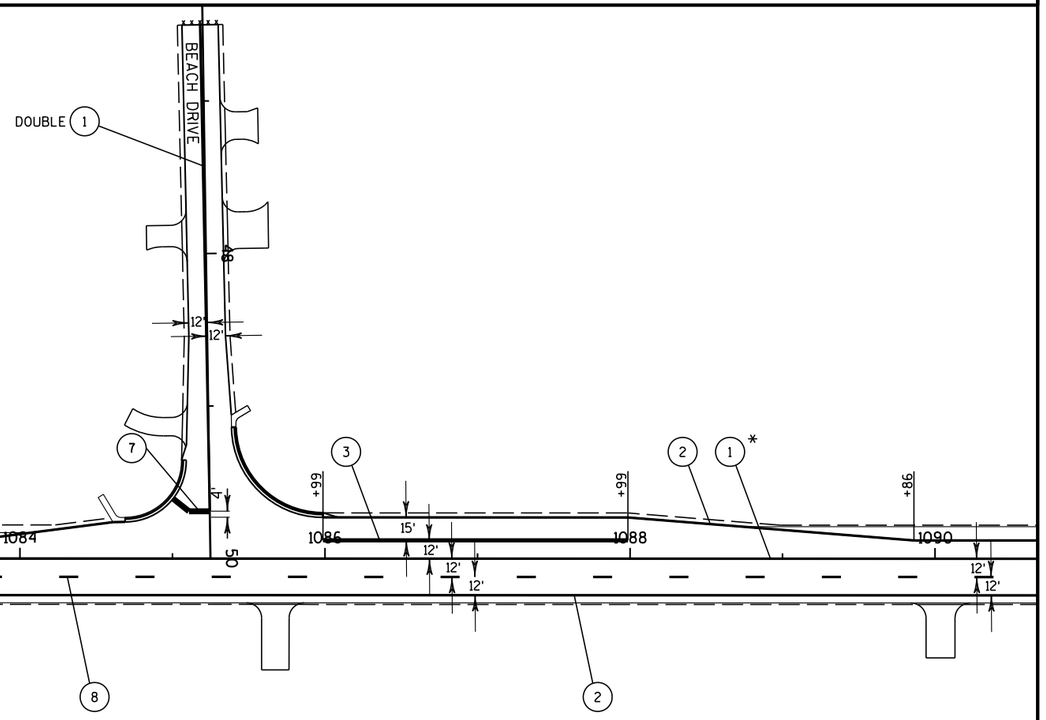
* ESTABLISH NO-PASSING ZONES PER BID ITEM LOCATING NO-PASSING ZONES.





PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT MARKING	SHEET 84	E





LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)
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NOTE :

* ESTABLISH NO-PASSING ZONES PER BID ITEM LOCATING NO-PASSING ZONES.

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT MARKING	SHEET 85	E

2

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)
4. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
5. PAVEMENT MARKING WORDS PREFORMED THERMOPLASTIC
6. PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 2
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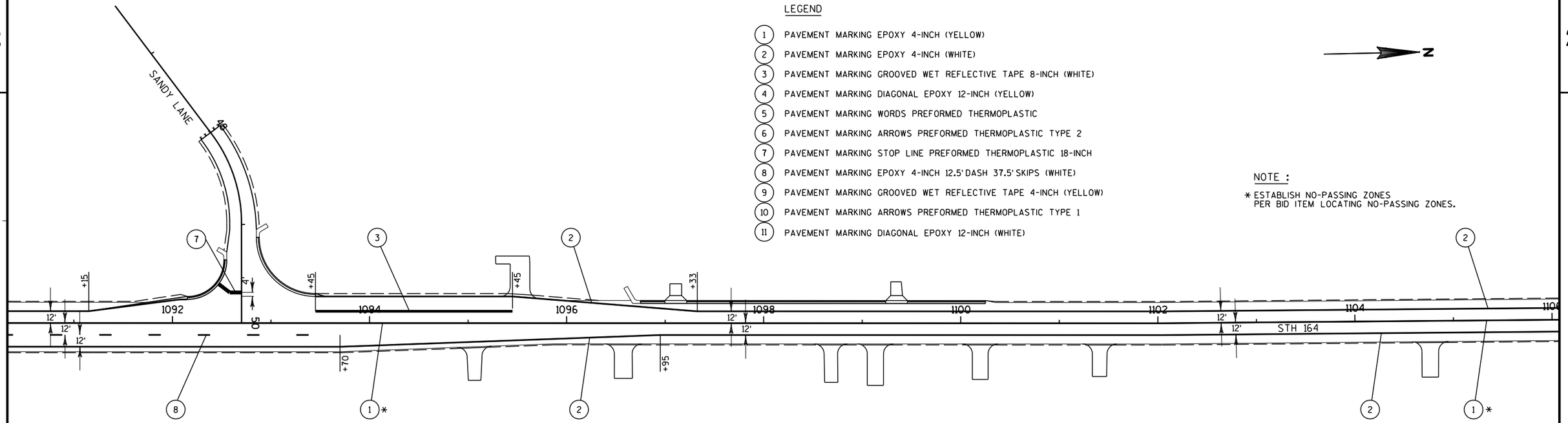
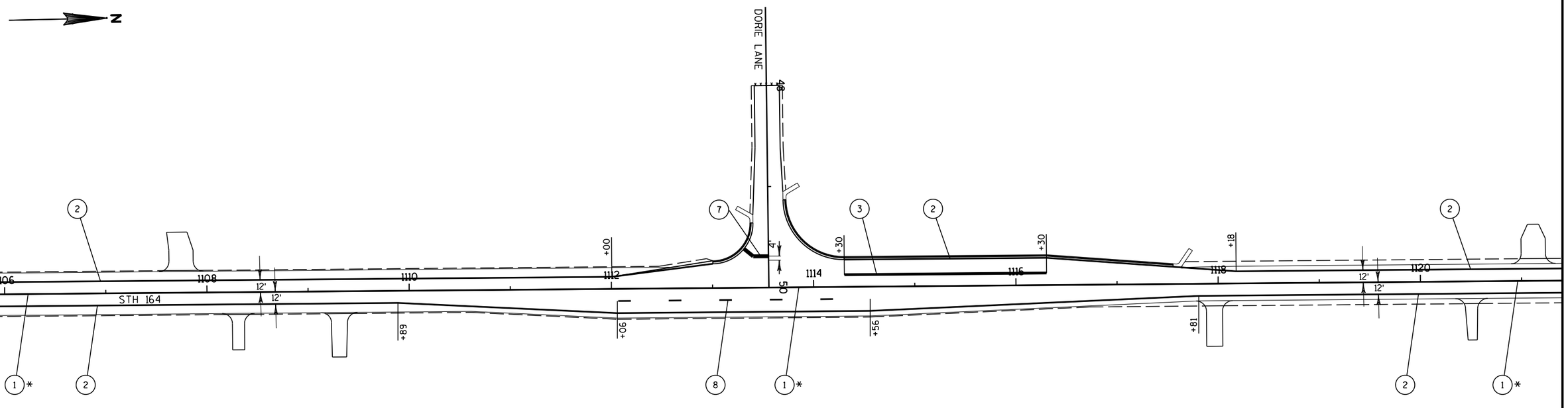
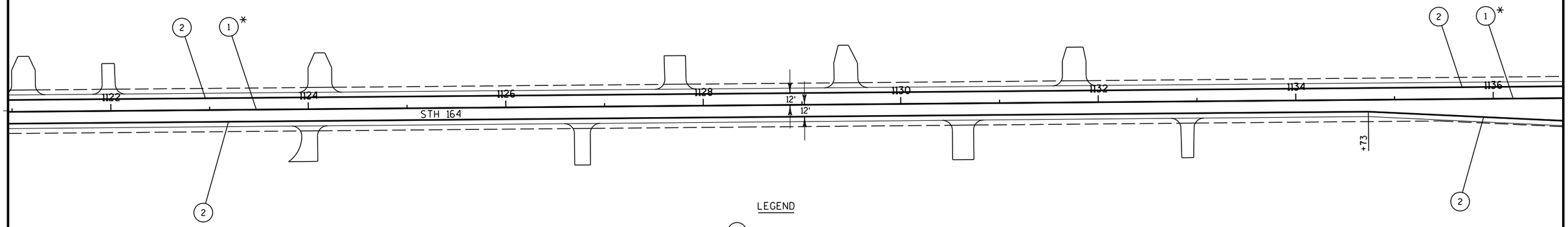
NOTE :

* ESTABLISH NO-PASSING ZONES PER BID ITEM LOCATING NO-PASSING ZONES.





PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT MARKING	SHEET 86	E



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
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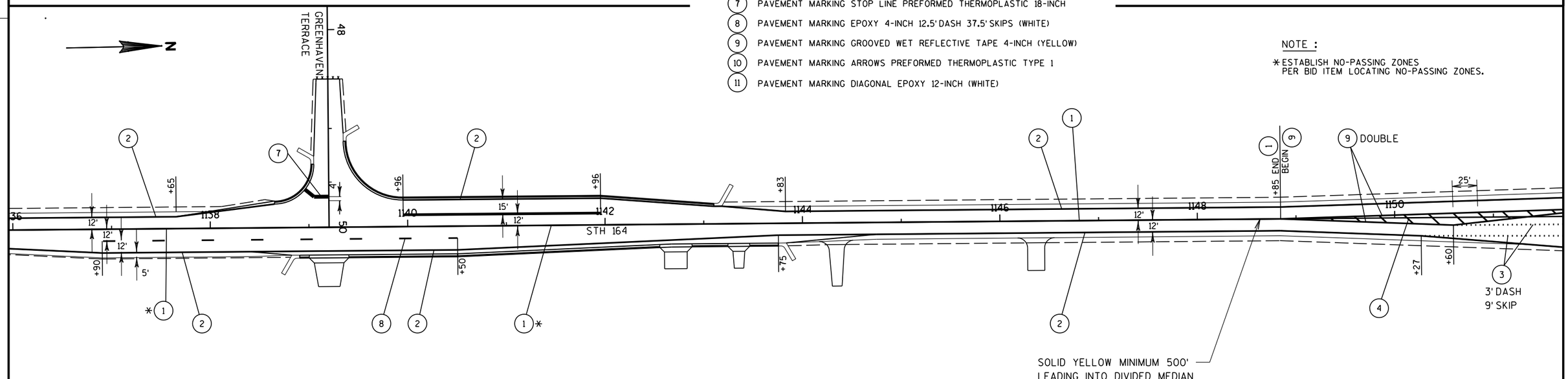
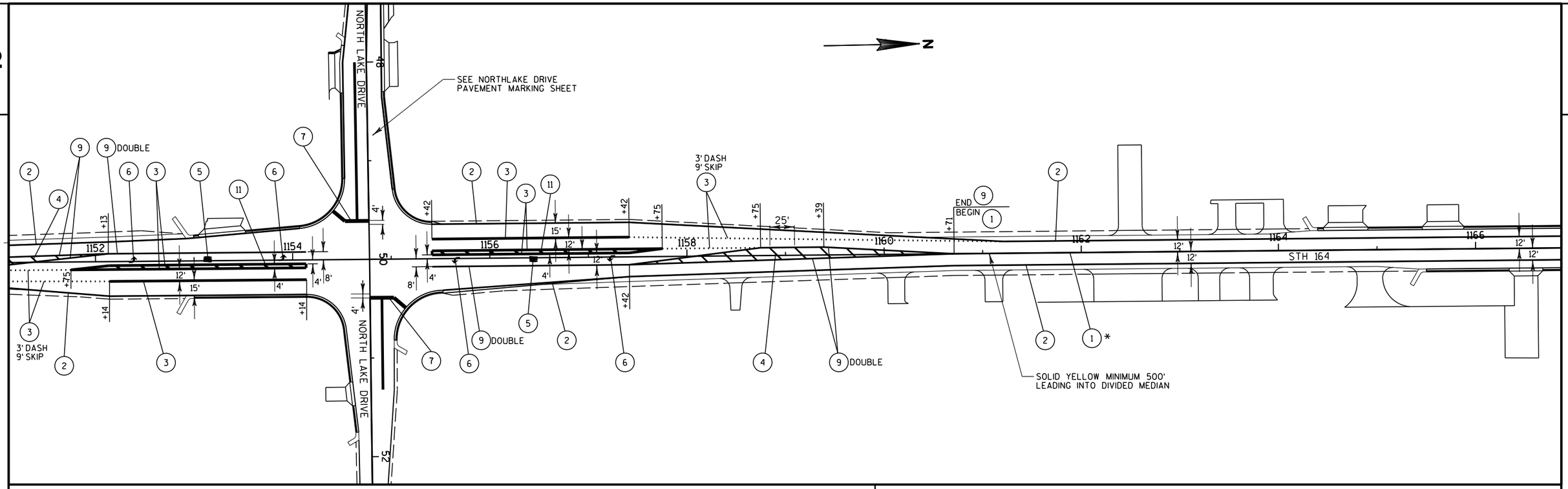
11. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)

NOTE :

* ESTABLISH NO-PASSING ZONES PER BID ITEM LOCATING NO-PASSING ZONES.



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT MARKING	SHEET 87	E



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
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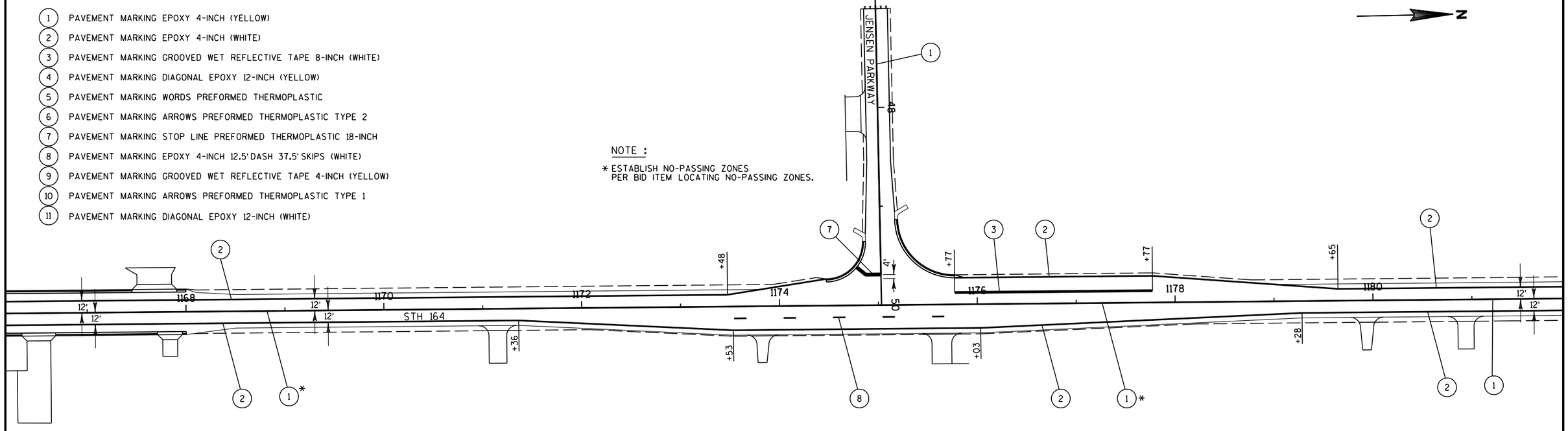
11. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)

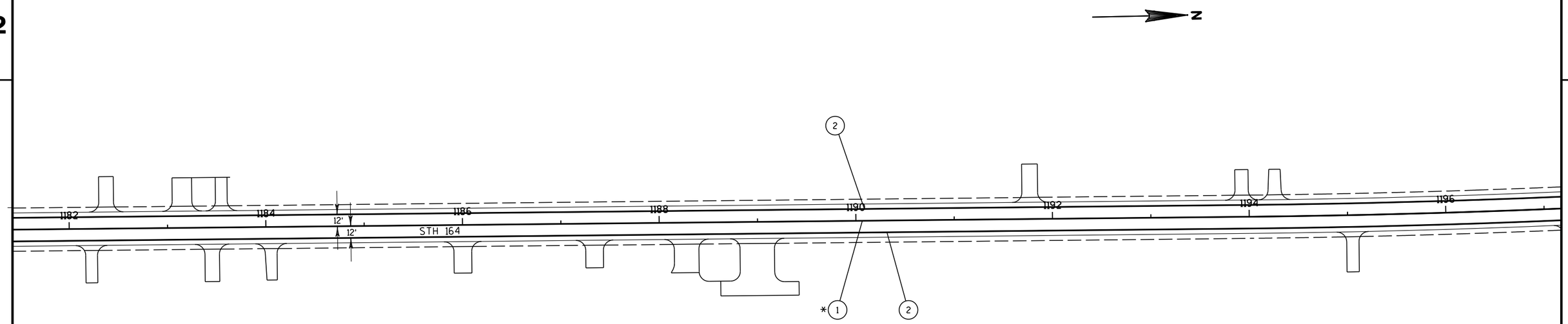
NOTE :

* ESTABLISH NO-PASSING ZONES PER BID ITEM LOCATING NO-PASSING ZONES.



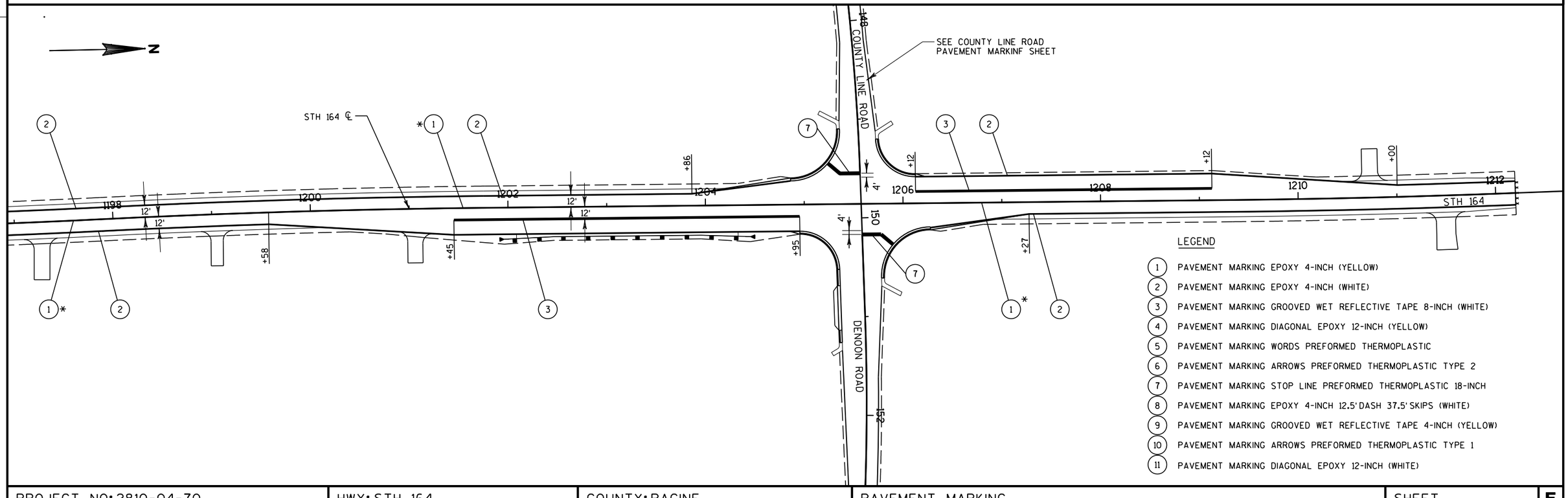
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT MARKING	SHEET 88	E

2



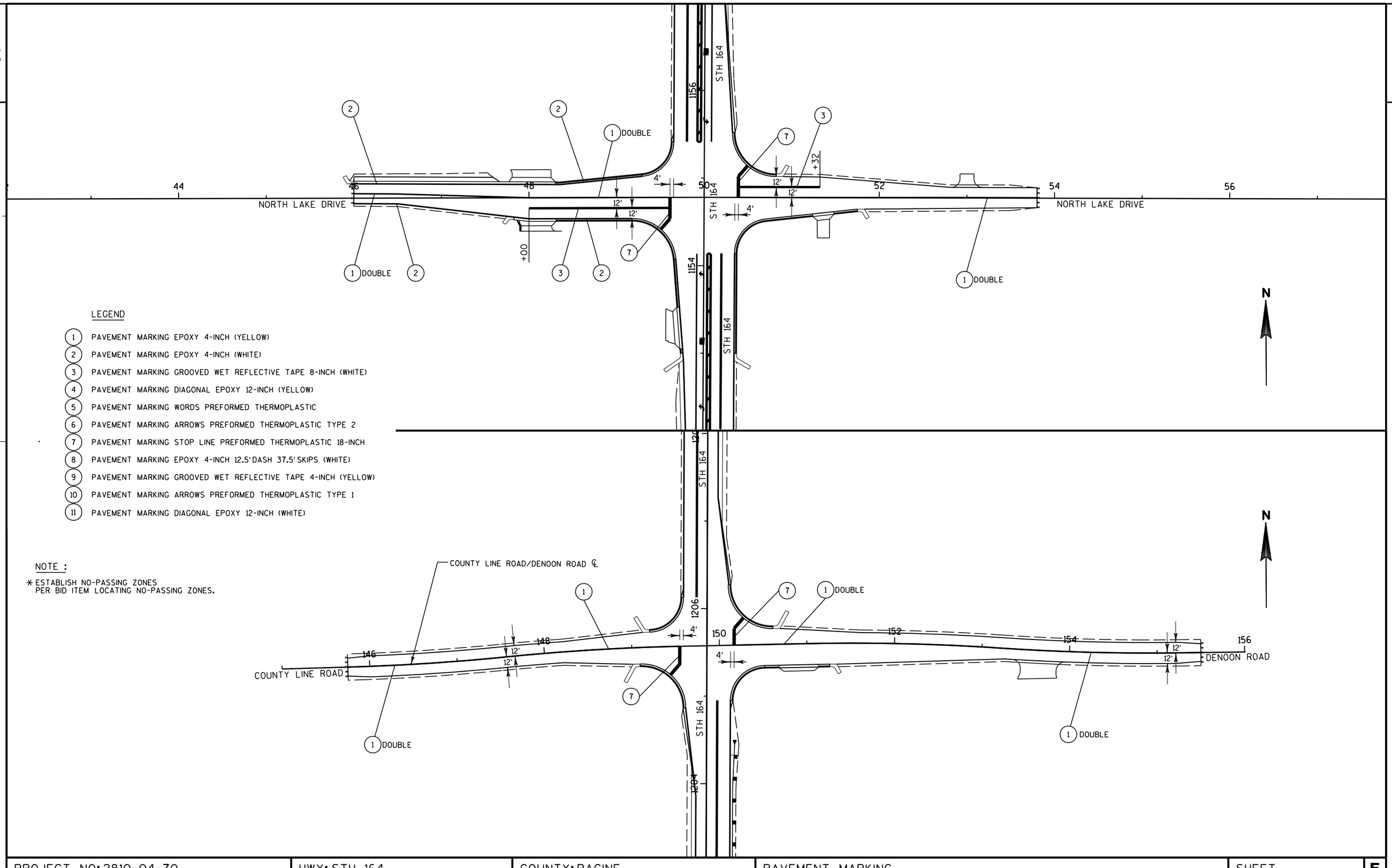
NOTE :

* ESTABLISH NO-PASSING ZONES
PER BID ITEM LOCATING NO-PASSING ZONES.



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT MARKING	SHEET 89	E

2



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
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8. PAVEMENT MARKING EPOXY 4-INCH 12.5'DASH 37.5'SKIPS (WHITE)
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10. PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 1
11. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)

NOTE :

* ESTABLISH NO-PASSING ZONES PER BID ITEM LOCATING NO-PASSING ZONES.

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PAVEMENT MARKING	SHEET 90	E

STH 164 & CTH K
-South End of job

P

90.5

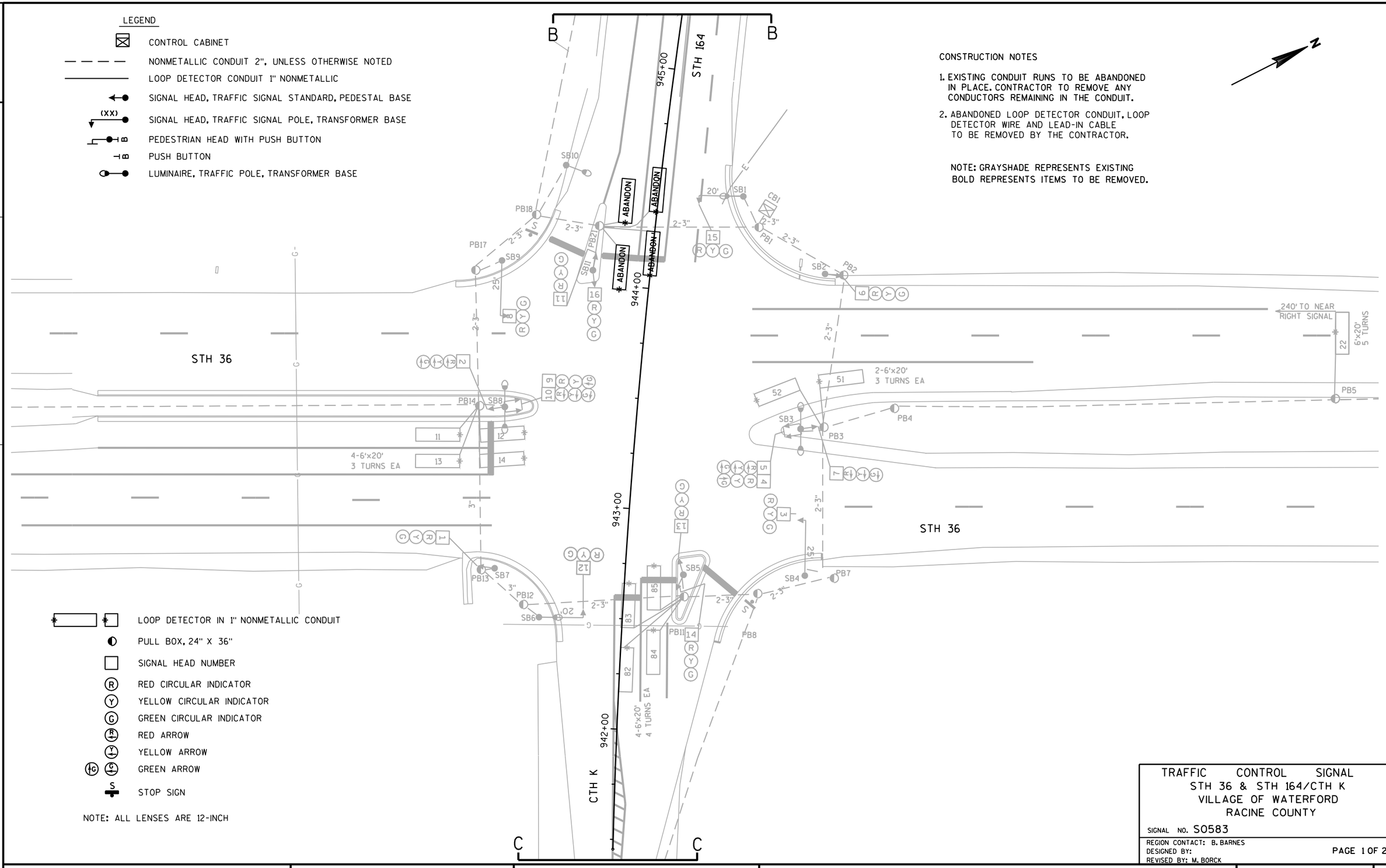
LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE

CONSTRUCTION NOTES

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT, LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.

NOTE: GRAYSHADE REPRESENTS EXISTING
BOLD REPRESENTS ITEMS TO BE REMOVED.



- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- S STOP SIGN

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 36 & STH 164/CTH K
VILLAGE OF WATERFORD
RACINE COUNTY

SIGNAL NO. S0583

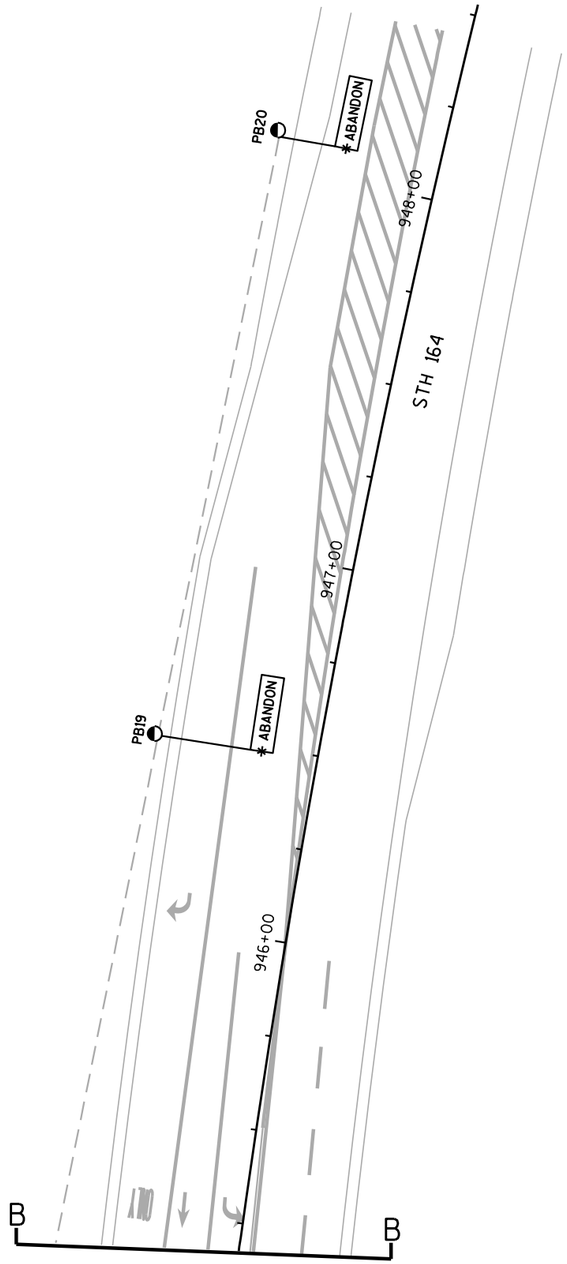
REGION CONTACT: B. BARNES
DESIGNED BY:
REVISED BY: M. BORCK

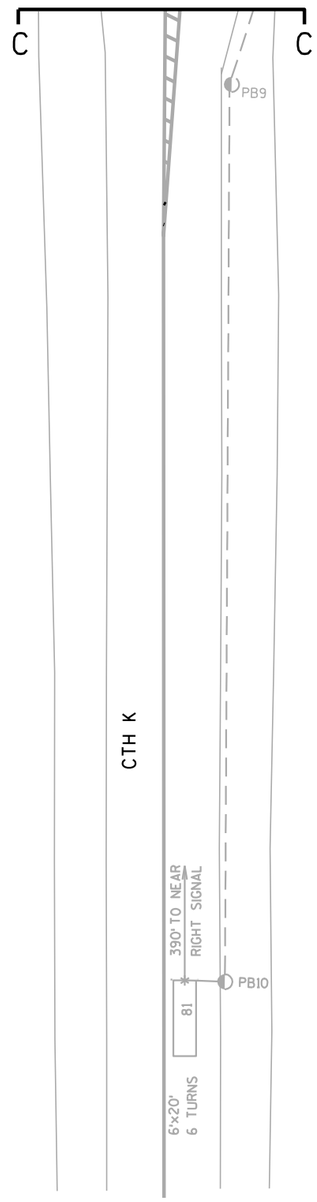
PAGE 1 OF 2

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 91	E

FILE NAME : j:\projects\d2_281004164\Sig\S0583_rem.dgn PLOT DATE : 01-FEB-2012 11:17 PLOT BY : MSCMWB PLOT NAME : PLOT SCALE : 40:1

2





TRAFFIC CONTROL SIGNAL
STH 36 & STH 164/CTH K
VILLAGE OF WATERFORD
RACINE COUNTY

SIGNAL NO. S0583

REGION CONTACT: B. BARNES
DESIGNED BY:
REVISED BY: M. BORCK

PAGE 2 OF 2

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 92	E

FILE NAME : j:\projects\d2_281004164\Sig\S0583_rem.dgn PLOT DATE : 01-FEB-2012 11:17 PLOT BY : MSCMWB PLOT NAME : PLOT SCALE : 40:1

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. ALL LUMINAIRES ARE 150 HPS UNLESS OTHERWISE NOTED.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
5. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
6. INSTALL LOOP DETECTOR LEAD IN CABLE TO THE PULL BOX NEAREST THE CABINET, PROVIDING ENOUGH LEAD IN CABLE TO REACH THE CABINET PLUS AN ADDITIONAL 6 FEET OF LEAD IN CABLE. WISDOT ELECTRICAL PERSONNEL WILL MAKE FINAL CONNECTIONS IN THE CONTROL CABINET.
7. WISDOT TO INSTALL SIGNAL HEADS 17 & 18.

N

STH 36

STH 164

CTH K

SPEED LIMIT= 55 MPH

945+00

944+00

943+00

942+00

4-6'x20' 3 TURNS EACH

2-6'x20' 3 TURNS EACH

4-6'x20' 4 TURNS EACH

240' TO NEAR RIGHT SIGNAL

6'x20' 5 TURNS

PB1 PB2 PB3 PB4 PB5 PB7 PB8 PB11 PB12 PB13 PB14 PB17 PB18 PB21

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10

CB1

- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (Ic) (G) GREEN ARROW
- Y YIELD SIGN

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

REVISION				
Rev. No.	REPLACE LOOPS 41-46 & ADD SIGNAL HEADS 17 & 18			
	APPROVAL RECOMMENDED		APPROVED	
4	REGION		CENTRAL OFFICE	
	Date	By	Date	By

1/24/12
ELIMINATE NB OUTSIDE LEFT TURN LANE WITH PAVEMENT MARKING

3/18/02
GEOMETRIC & SEQUENCE OF OPERATION CHANGES: APPROVALS

9/16/98
INSTALL DILEMMA ZONE DETECTION PHASES 2 & 6

TRAFFIC CONTROL SIGNAL

STH 36 & STH 164/CTH K
VILLAGE OF WATERFORD
RACINE COUNTY

SIGNAL NO. S0583 CONTROLLER TYPE: EPAC

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 7/27/95 GARY P. KNERR, REGION TRAFFIC ENGINEER

APPROVED
Date 8/7/95 R.I. MOE, STATE TRAFFIC ENGINEER

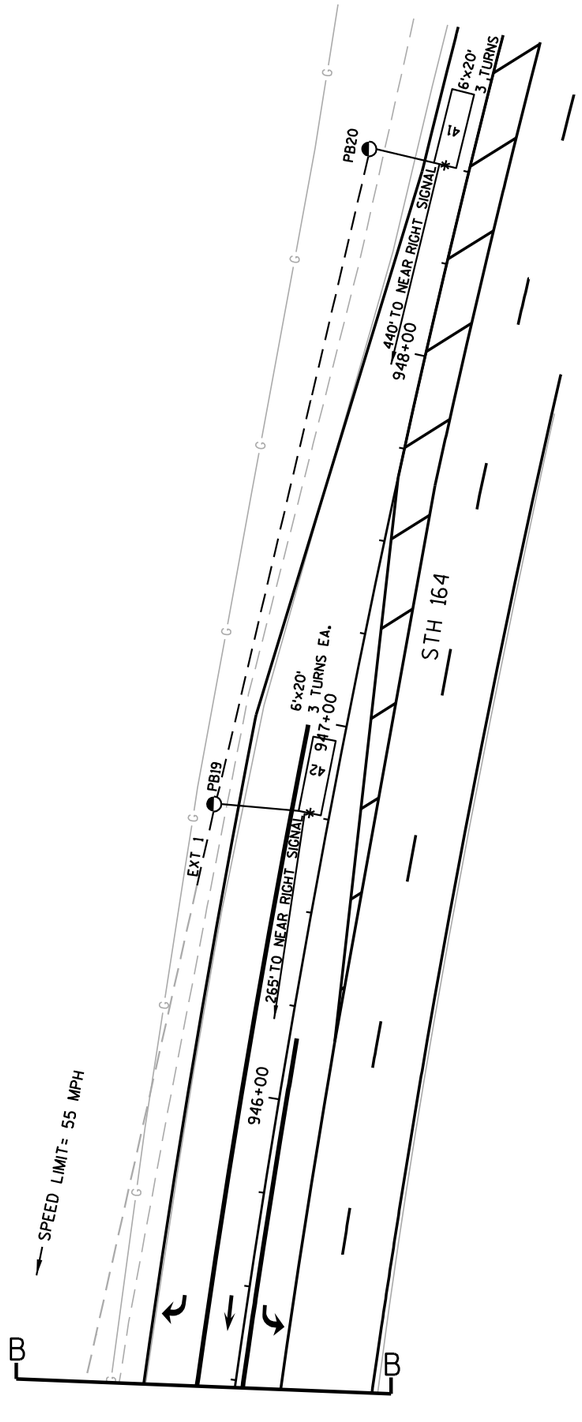
REGION CONTACT: B. BARNES
DESIGNED BY:
REVISED BY: M. BORCK

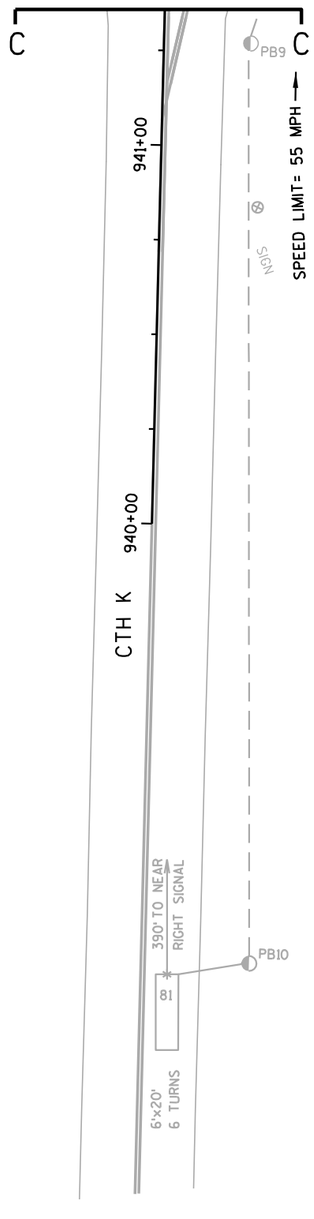
PAGE 1 OF 4

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET 93	E

FILE NAME : j:\projects\d2_281004164\Sig\S0583_D.dgn PLOT DATE : 01-FEB-2012 11:16 PLOT BY : MSCMWB PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42





TRAFFIC CONTROL SIGNAL
STH 36 & STH 164/CTH K
VILLAGE OF WATERFORD
RACINE COUNTY

SIGNAL NO. S0583

REGION CONTACT: B. BARNES
DESIGNED BY:
REVISED BY: M. BORCK

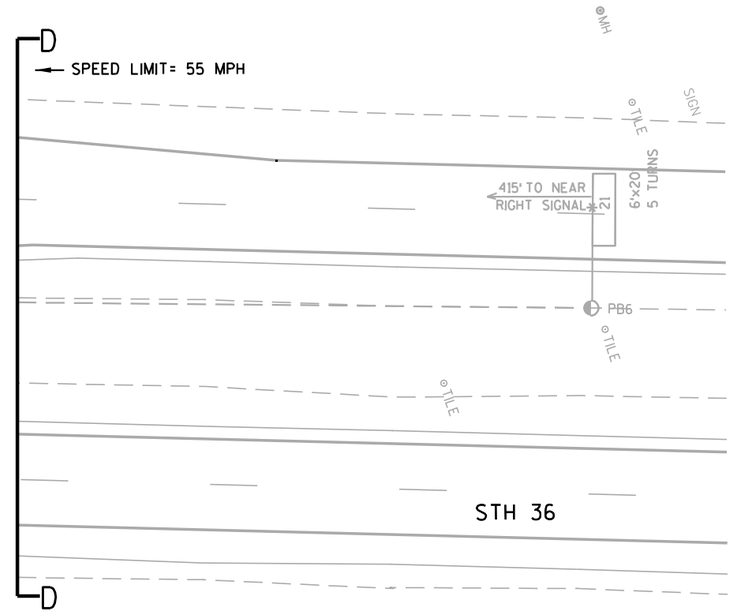
PAGE 2 OF 4

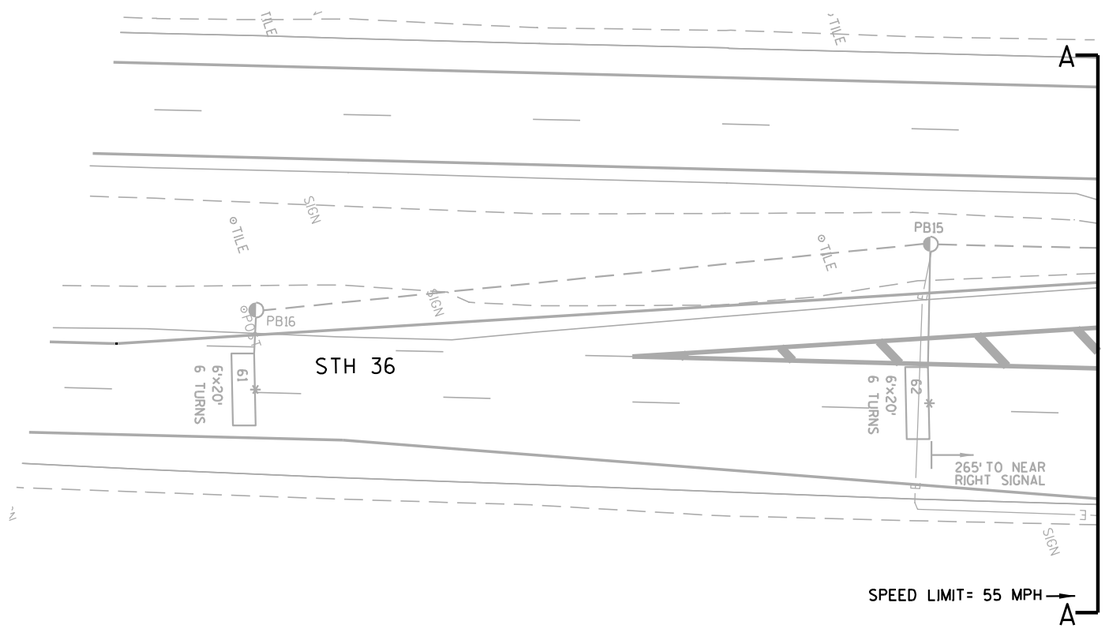
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET 94	E

FILE NAME : j:\projects\d2_281004164\Sig\S0583_D.dgn PLOT DATE : 01-FEB-2012 11:16 PLOT BY : MSCMWB PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2





TRAFFIC CONTROL SIGNAL
STH 36 & STH 164/CTH K
VILLAGE OF WATERFORD
RACINE COUNTY

SIGNAL NO. S0583

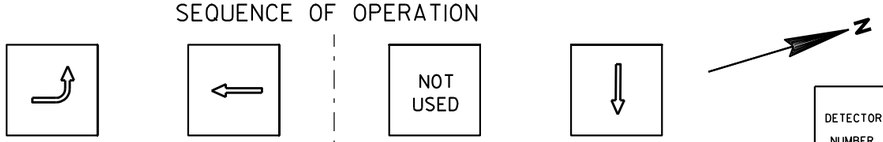
REGION CONTACT: B. BARNES
DESIGNED BY:
REVISED BY: M. BORCK

PAGE 3 OF 4

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET 95	E

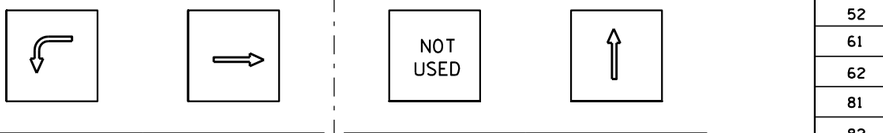
FILE NAME : j:\projects\d2_281004164\Sig\S0583_D.dgn PLOT DATE : 01-FEB-2012 11:16 PLOT BY : MSCMWB PLOT NAME : PLOT SCALE : 40:1

SEQUENCE OF OPERATION



RING 1

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



RING 2

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

BARRIER

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

CHART 1

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

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	1	X			1	1				6' X 20'	3
12	1	X			1	1				6' X 20'	3
13	2	X			1	1				6' X 20'	3
14	2	X			1	1				6' X 20'	3
21	3	X			2	2				6' X 20'	5
22	3	X			2	2				6' X 20'	5
41	4			X		4			X	6' X 20'	4
42	4			X		4			X	6' X 15'	4
43	5	X			4	4		X		6' X 20'	3
44	5	X			4	4		X		6' X 20'	3
45	6	X			4	4				6' X 20'	3
46	6	X			4	4				6' X 20'	3
51	7	X			5	5				6' X 20'	3
52	7	X			5	5				6' X 20'	3
61	8	X			6	6				6' X 20'	6
62	8	X			6	6				6' X 20'	6
81	9			X		8			X	6' X 20'	6
82	10	X			8	8		X		6' X 20'	4
83	10	X			8	8		X		6' X 20'	4
84	11	X			8	8				6' X 20'	4
85	11	X			8	8				6' X 20'	4

CONTROLLER LOGIC

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

OVERLAPS

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

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

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

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

GENERAL NOTES:

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

STH 36 & STH 164/CTH K
VILLAGE OF WATERFORD
RACINE COUNTY

SIGNAL NO. S0583

CONTROLLER TYPE: EPAC

DATE 1/12

FILE NAME : j:\projects\d2_281004164\Sig\S0583_D.dgn PLOT DATE : 01-FEB-2012 11:17 PLOT BY : MSCMWB PLOT NAME : PLOT SCALE : 40.000373:1
WISDOT/CADDS SHEET 42

2

TRAFFIC CONTROL GENERAL NOTES :

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

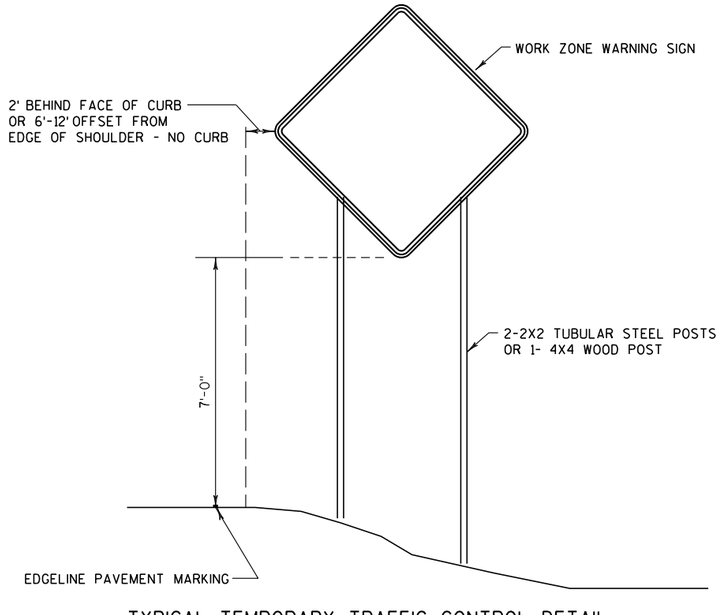
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

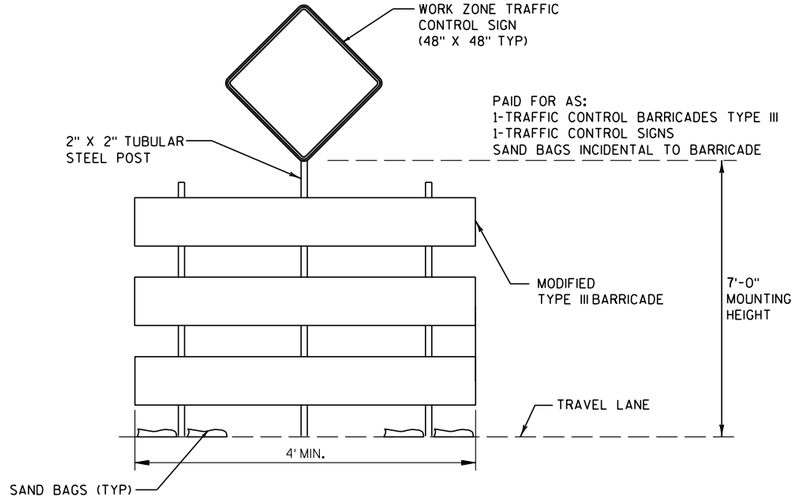
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER

INSTALL PERMANENT SIGNS AS SHOWN ON THE PLANS WHEN APPROPRIATE DURING STAGED CONSTRUCTION

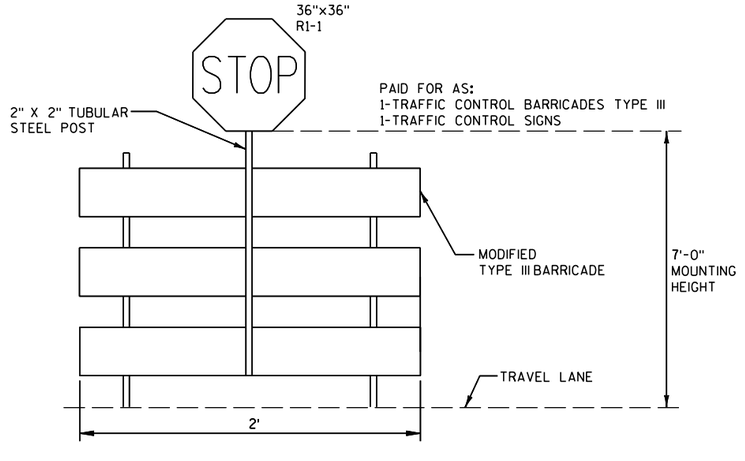


TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL
MOUNTING ON FIXED SUPPORT

LONG TERM
7 DAYS OR MORE

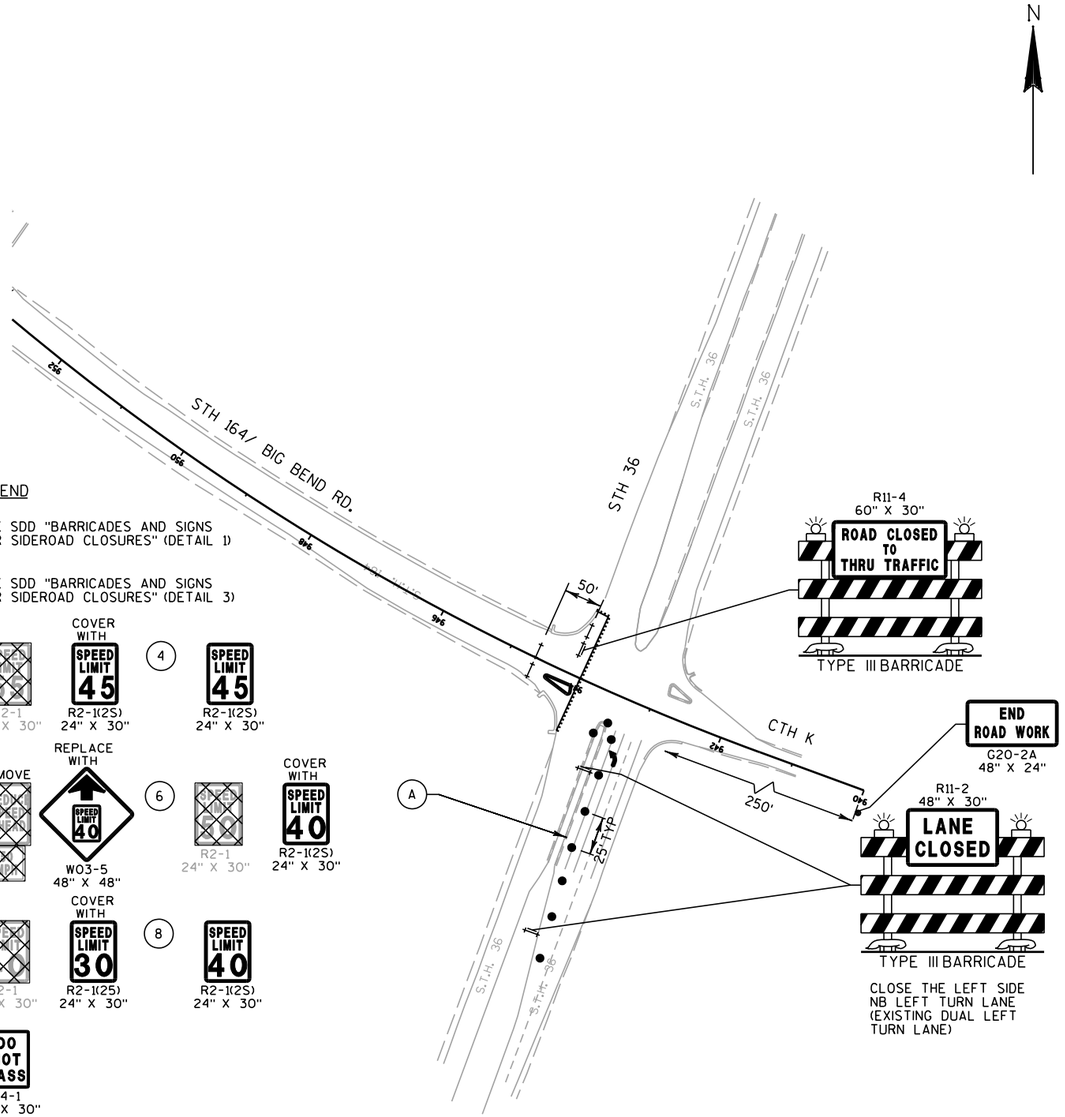


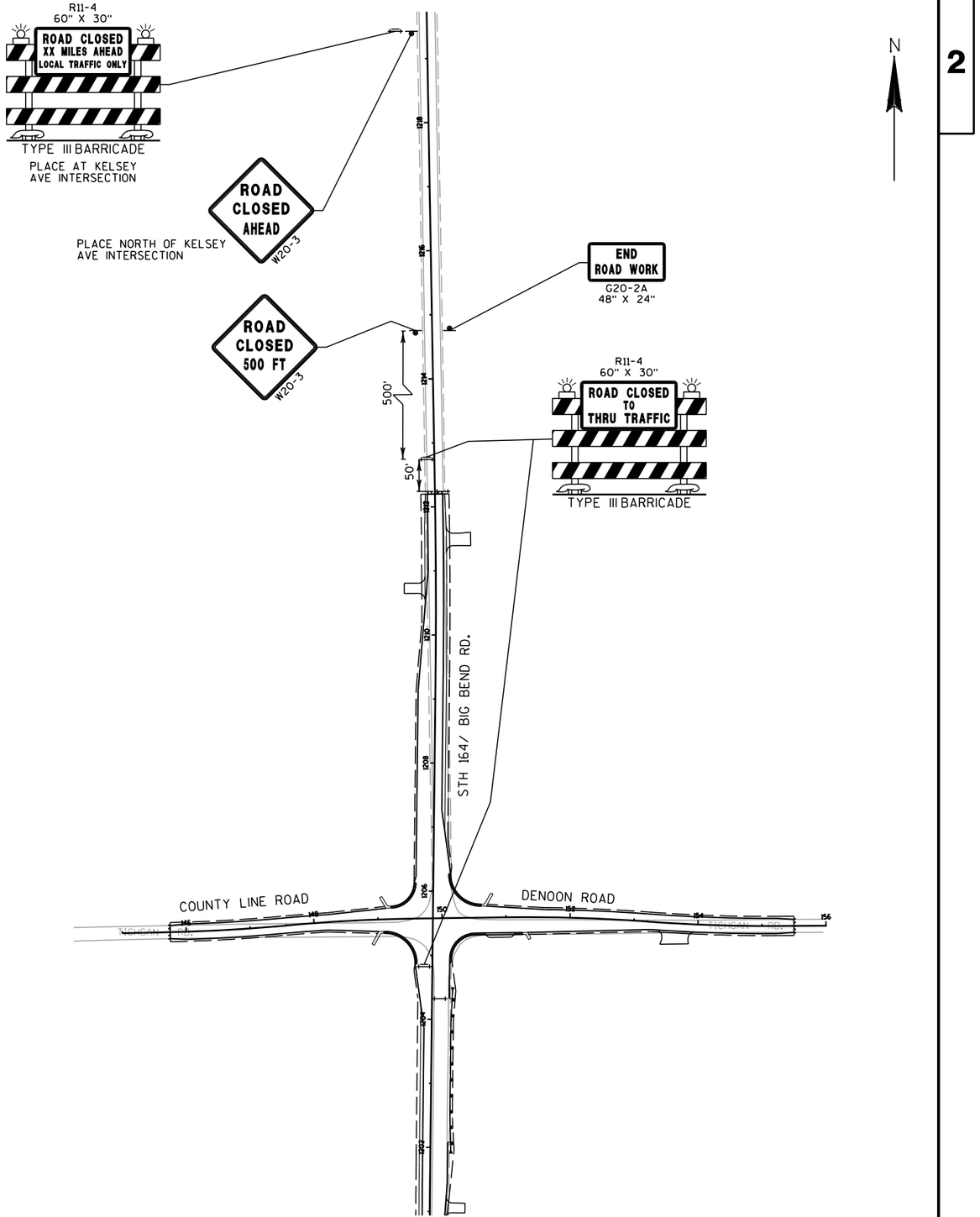
TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL
MOUNTING ON TEMPORARY SUPPORT

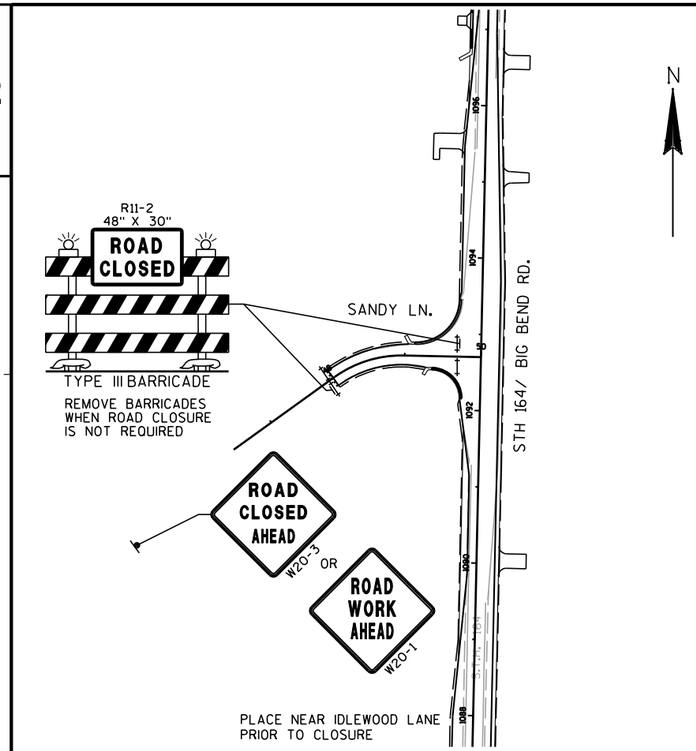


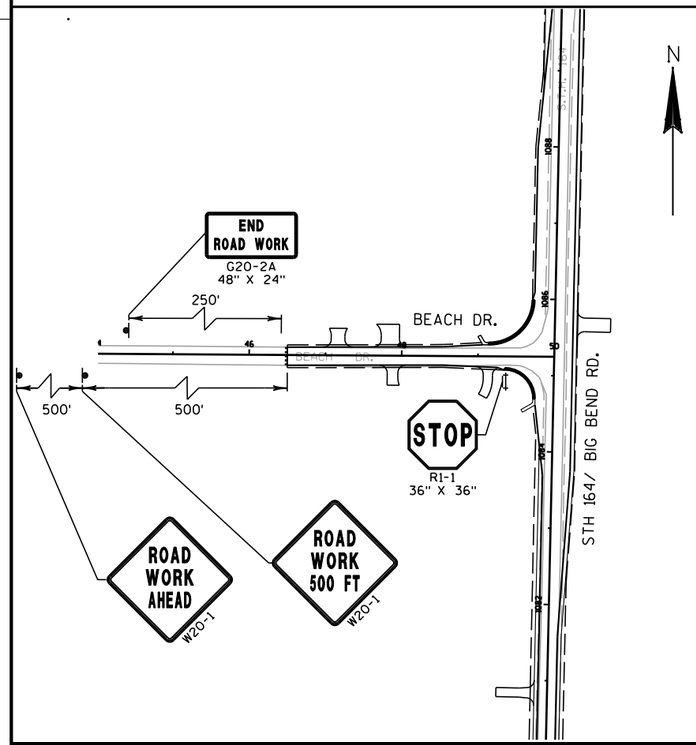
TEMPORARY STOP SIGN

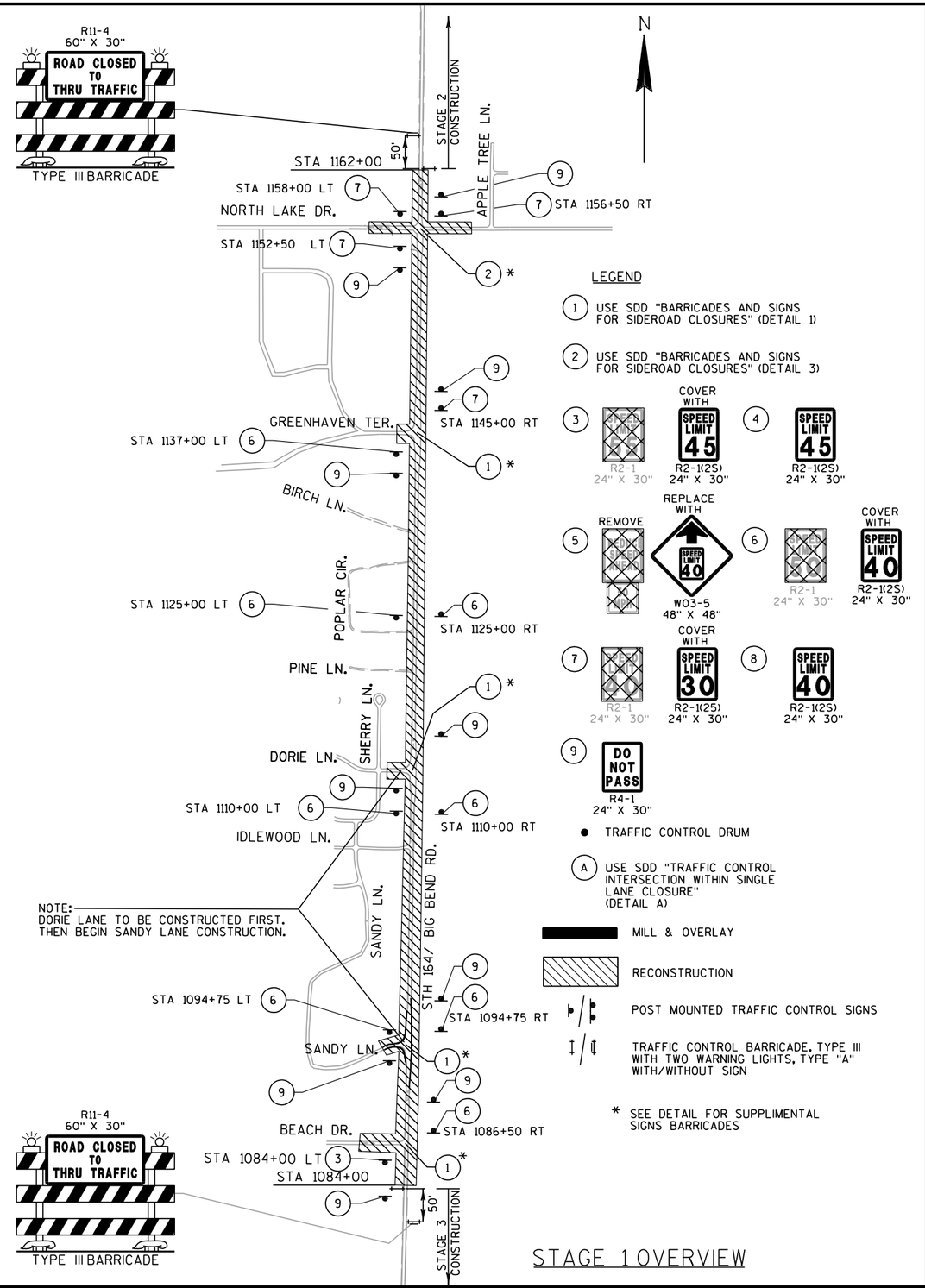
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TRAFFIC CONTROL - DETAILS AND NOTES	SHEET 97	E


N
STH 164/ BIG BEND RD.
STH 36
S.T.H. 36
S.T.H. 36
CTH K
50'
250'
25' TYP
R11-4
60" X 30"
ROAD CLOSED
TO
THRU TRAFFIC
TYPE III BARRICADE
END
ROAD WORK
G20-2A
48" X 24"
R11-2
48" X 30"
LANE
CLOSED
TYPE III BARRICADE
A
LEGEND
1 USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 1)
2 USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 3)
3
R2-1
24" X 30"
COVER WITH
SPEED LIMIT 45
R2-1(2S)
24" X 30"
4
SPEED LIMIT 45
R2-1(2S)
24" X 30"
REPLACE WITH
SPEED LIMIT 40
W03-5
48" X 48"
5
REMOVE
6
R2-1
24" X 30"
COVER WITH
SPEED LIMIT 40
R2-1(2S)
24" X 30"
7
R2-1
24" X 30"
COVER WITH
SPEED LIMIT 30
R2-1(2S)
24" X 30"
8
SPEED LIMIT 40
R2-1(2S)
24" X 30"
9
DO NOT PASS
R4-1
24" X 30"
TRAFFIC CONTROL DRUM
A USE SDD "TRAFFIC CONTROL INTERSECTION WITHIN SINGLE LANE CLOSURE" (DETAIL A)
MILL & OVERLAY
RECONSTRUCTION
POST MOUNTED TRAFFIC CONTROL SIGNS
TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
SEE DETAIL FOR SUPPLIMENTAL SIGNS BARRICADES
NOTE:
SEE DETOUR PLAN FOR ADDITIONAL ADVANCE TRAFFIC CONTROL SIGNING.
CLOSE THE LEFT SIDE NB LEFT TURN LANE (EXISTING DUAL LEFT TURN LANE)

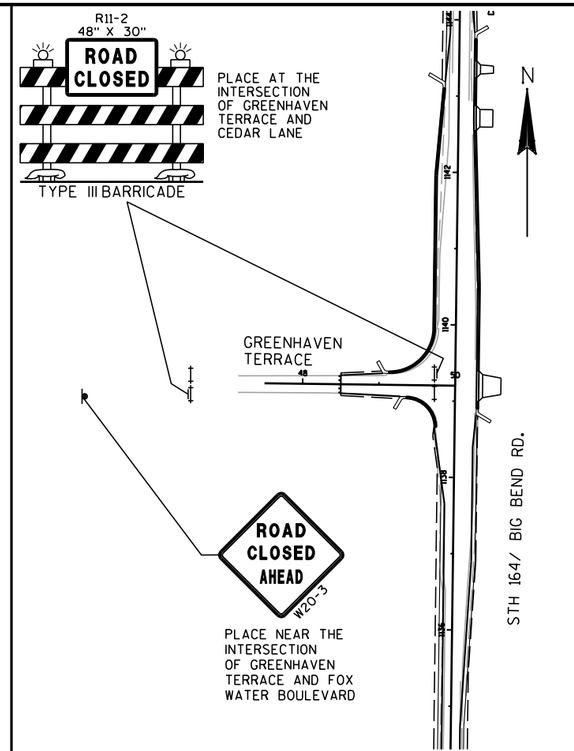

N
R11-4
60" X 30"
ROAD CLOSED
XX MILES AHEAD
LOCAL TRAFFIC ONLY
TYPE III BARRICADE
PLACE AT KELSEY AVE INTERSECTION
ROAD CLOSED AHEAD
W20-3
PLACE NORTH OF KELSEY AVE INTERSECTION
ROAD CLOSED 500 FT
W20-3
500'
50'
END
ROAD WORK
G20-2A
48" X 24"
R11-4
60" X 30"
ROAD CLOSED
TO
THRU TRAFFIC
TYPE III BARRICADE
STH 164/ BIG BEND RD.
COUNTY LINE ROAD
DENOON ROAD

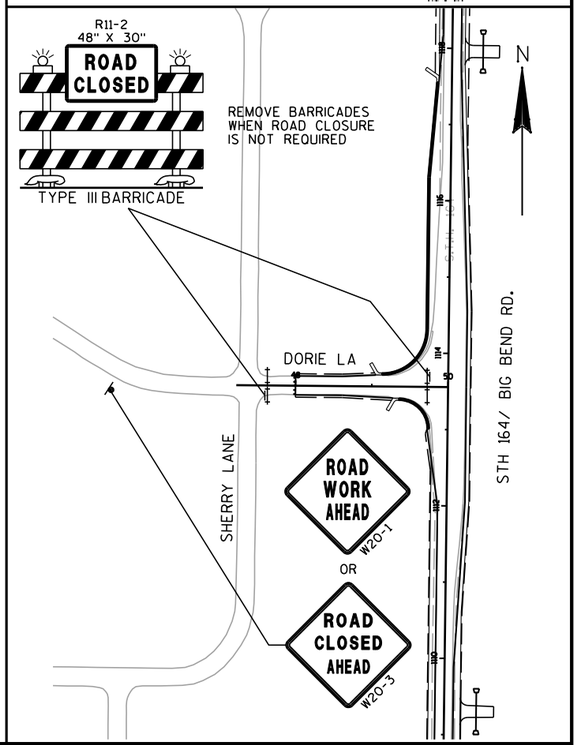






STAGE 1 OVERVIEW





LEGEND

(1) USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 1)

(2) USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 3)

(3) R2-1 24" X 30" — COVER WITH SPEED LIMIT 45 — R2-1(2S) 24" X 30"

(4) SPEED LIMIT 45 — R2-1(2S) 24" X 30"

(5) REMOVE SPEED LIMIT 40 — REPLACE WITH W03-5 48" X 48"

(6) R2-1 24" X 30" — COVER WITH SPEED LIMIT 40 — R2-1(2S) 24" X 30"

(7) R2-1 24" X 30" — COVER WITH SPEED LIMIT 30 — R2-1(25) 24" X 30"

(8) SPEED LIMIT 40 — R2-1(2S) 24" X 30"

(9) DO NOT PASS — R4-1 24" X 30"

● TRAFFIC CONTROL DRUM

(A) USE SDD "TRAFFIC CONTROL INTERSECTION WITHIN SINGLE LANE CLOSURE" (DETAIL A)

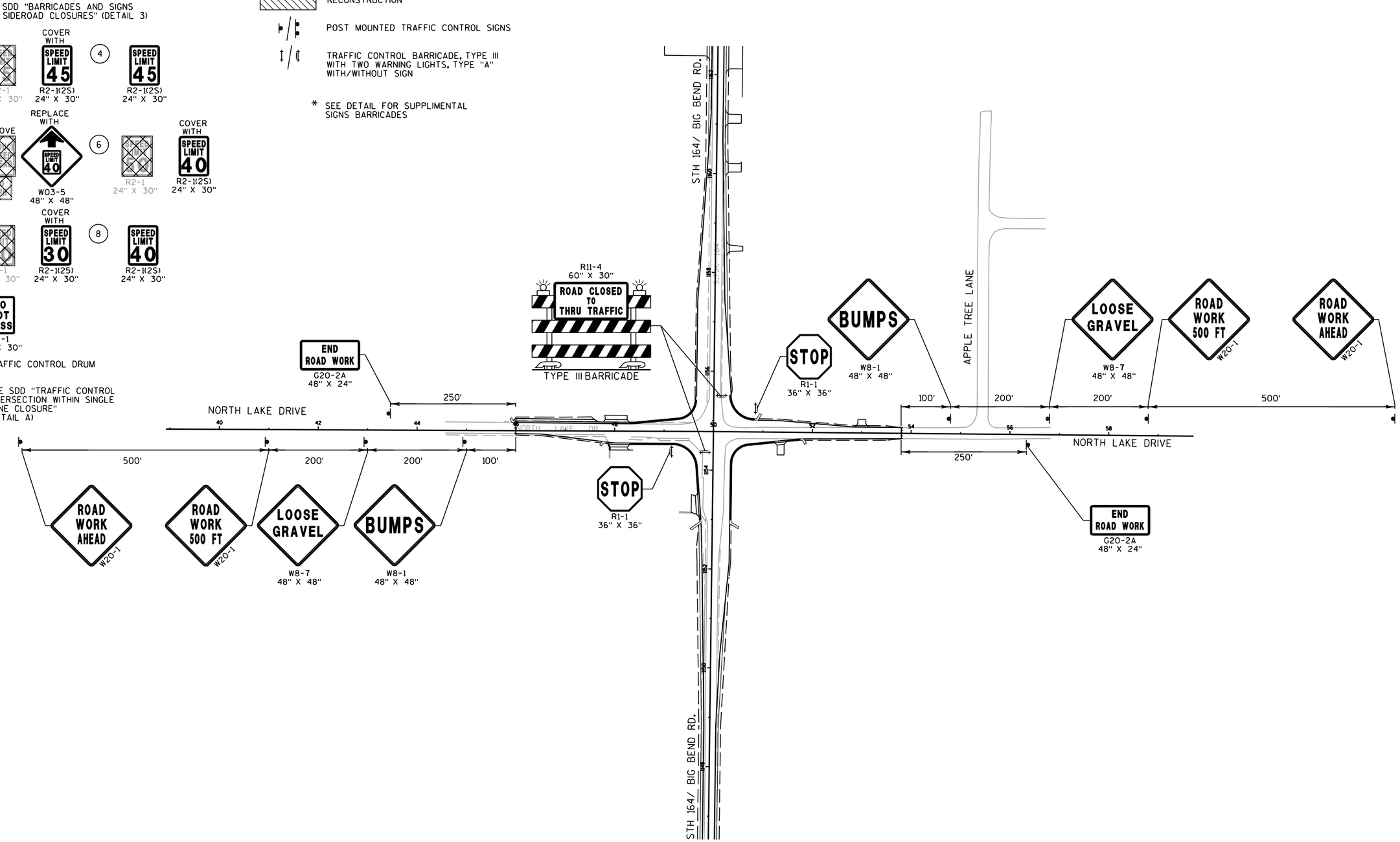
MILL & OVERLAY

RECONSTRUCTION

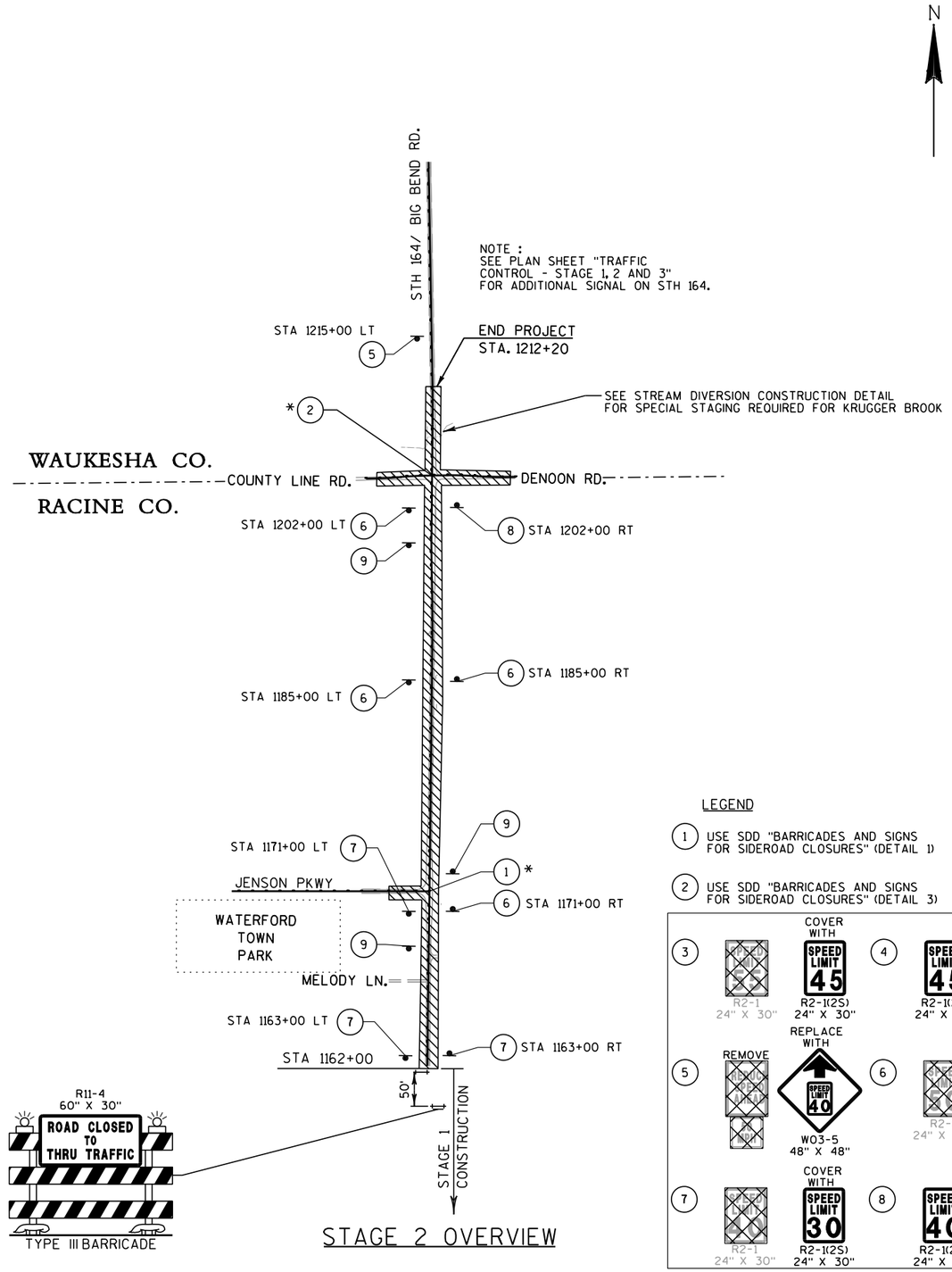
POST MOUNTED TRAFFIC CONTROL SIGNS

TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN

* SEE DETAIL FOR SUPPLIMENTAL SIGNS BARRICADES



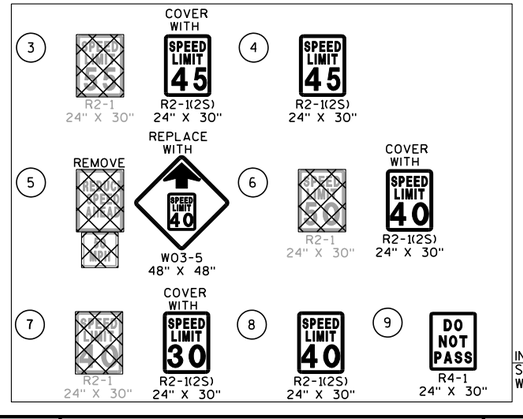
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TRAFFIC CONTROL - STAGE 1	SHEET 100	E

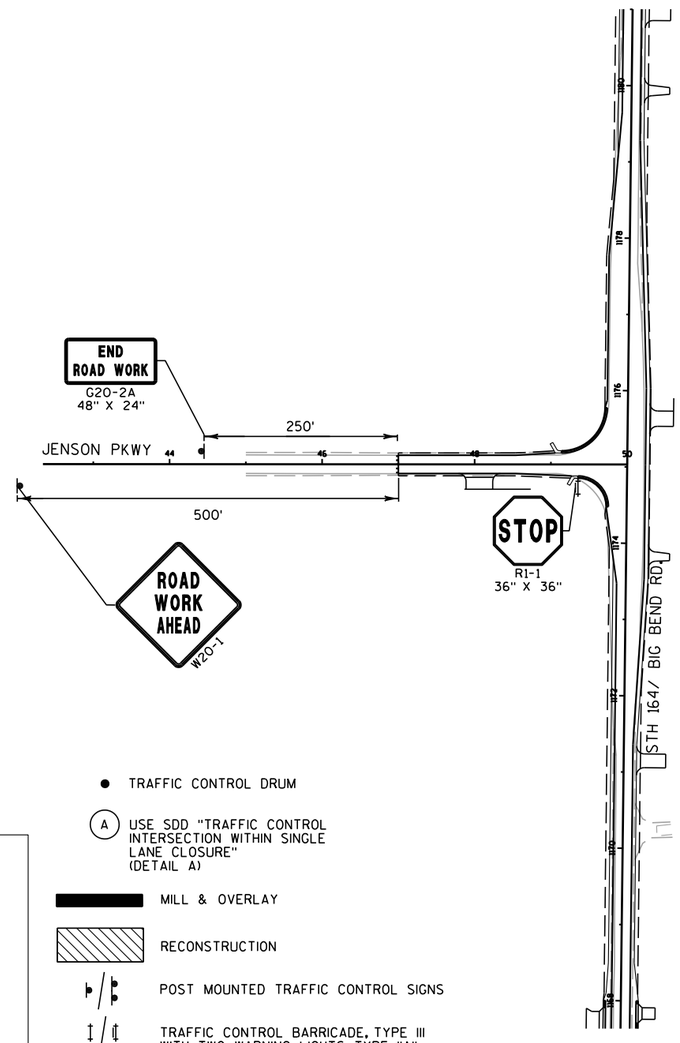


STAGE 2 OVERVIEW

LEGEND

1. USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 1)
2. USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 3)





- TRAFFIC CONTROL DRUM
- (A) USE SDD "TRAFFIC CONTROL INTERSECTION WITHIN SINGLE LANE CLOSURE" (DETAIL A)
- MILL & OVERLAY
- RECONSTRUCTION
- POST MOUNTED TRAFFIC CONTROL SIGNS
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- * SEE DETAIL FOR SUPPLIMENTAL SIGNS BARRICADES

INSTALL SPEED LIMIT REDUCTION SIGNS AND NO NOT PASS SIGNS WITH STAGE 1 CONSTRUCTION.

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TRAFFIC CONTROL - STAGE 2	SHEET 101	E

LEGEND

1. USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 1)
2. USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 3)

3. R2-1 24" X 30" — COVER WITH SPEED LIMIT 45 — R2-1(2S) 24" X 30"
4. SPEED LIMIT 45 — R2-1(2S) 24" X 30"
5. REMOVE SPEED LIMIT 40 — REPLACE WITH SPEED LIMIT 40 — W03-5 48" X 48"
6. R2-1 24" X 30" — COVER WITH SPEED LIMIT 40 — R2-1(2S) 24" X 30"
7. R2-1 24" X 30" — COVER WITH SPEED LIMIT 30 — R2-1(2S) 24" X 30"
8. SPEED LIMIT 40 — R2-1(2S) 24" X 30"
9. DO NOT PASS — R4-1 24" X 30"

● TRAFFIC CONTROL DRUM

(A) USE SDD "TRAFFIC CONTROL INTERSECTION WITHIN SINGLE LANE CLOSURE" (DETAIL A)

MILL & OVERLAY

RECONSTRUCTION

POST MOUNTED TRAFFIC CONTROL SIGNS

TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN

* SEE DETAIL FOR SUPPLIMENTAL SIGNS BARRICADES

INSTALL SPEED LIMIT REDUCTION SIGNS AND NO NOT PASS SIGNS WITH STAGE 1 CONSTRUCTION.

N

STH 164/ BIG BEND RD.

R11-4 60" X 30" — ROAD CLOSED TO THRU TRAFFIC — TYPE III BARRICADE

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

STOP R1-1 36" X 36"

COUNTY LINE ROAD

DENOON ROAD

MICHIGAN AVE.

250' 100' 200' 200' 500' 1000'

ROAD WORK 1000' W20-1 — BUMPS W8-1 48" X 48" — LOOSE GRAVEL W8-7 48" X 48" — ROAD WORK 500 FT W20-1 — ROAD WORK AHEAD W20-1

STOP R1-1 36" X 36"

1000' 500' 200' 200' 100'

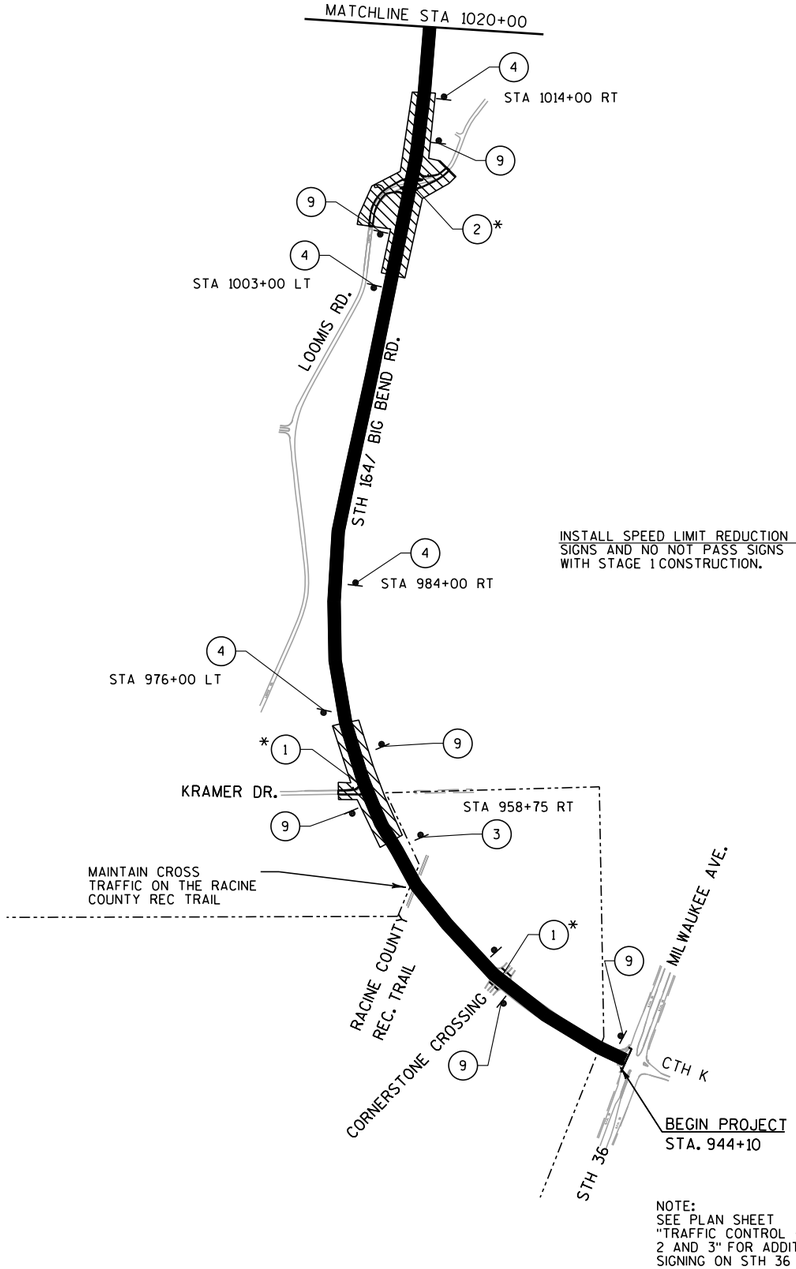
ROAD WORK AHEAD W20-1 — ROAD WORK 1000' W20-1 — ROAD WORK 500 FT W20-1 — LOOSE GRAVEL W8-7 48" X 48" — BUMPS W8-1 48" X 48"

250'

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

NOTE :
SEE PLAN SHEET "TRAFFIC CONTROL - STAGE 1,2 AND 3" FOR ADDITIONAL SIGNING ON STH 164.

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TRAFFIC CONTROL - STAGE 2	SHEET 102	E



N

INSTALL SPEED LIMIT REDUCTION SIGNS AND NO NOT PASS SIGNS WITH STAGE 1 CONSTRUCTION.

LEGEND

1. USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 1)
2. USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 3)

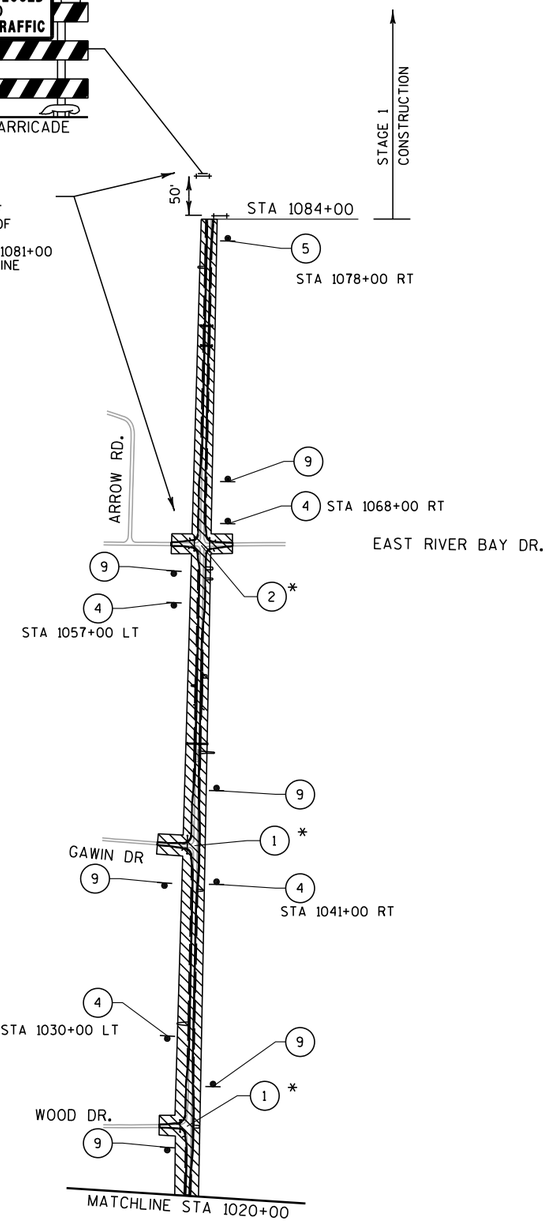
3. R2-1 24" X 30"
4. COVER WITH SPEED LIMIT 45 — R2-1(2S) 24" X 30"
4. SPEED LIMIT 45 — R2-1(2S) 24" X 30"
5. REMOVE R2-1 24" X 30"
5. REPLACE WITH SPEED LIMIT 40 — W03-5(2S) 48" X 48"
6. R2-1 24" X 30"
6. COVER WITH SPEED LIMIT 40 — R2-1(2S) 24" X 30"
7. R2-1 24" X 30"
7. COVER WITH SPEED LIMIT 30 — R2-1(2S) 24" X 30"
8. SPEED LIMIT 40 — R2-1(2S) 24" X 30"
9. DO NOT PASS — R4-1 24" X 30"

- TRAFFIC CONTROL DRUM
- (A) USE SDD "TRAFFIC CONTROL INTERSECTION WITHIN SINGLE LANE CLOSURE" (DETAIL A)
- MILL & OVERLAY
- RECONSTRUCTION
- POST MOUNTED TRAFFIC CONTROL SIGNS
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN
- * SEE DETAIL FOR SUPPLIMENTAL SIGNS BARRICADES

NOTE:
SEE PLAN SHEET "TRAFFIC CONTROL - STAGE 1, 2 AND 3" FOR ADDITIONAL SIGNING ON STH 36 AND CTH K.

STAGE 3 OVERVIEW

INSTALL FULL MAINLINE CLOSURE JUST SOUTH OF BEACH DRIVE AND JUST NORTH OF EAST RIVER BAY DRIVE FOR THE DURATION OF THE MARSH EXCAVATION AND EMBANKMENT CONSTRUCTION FROM STA 1069+00 TO STA 1081+00 SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURE" DETAIL D.



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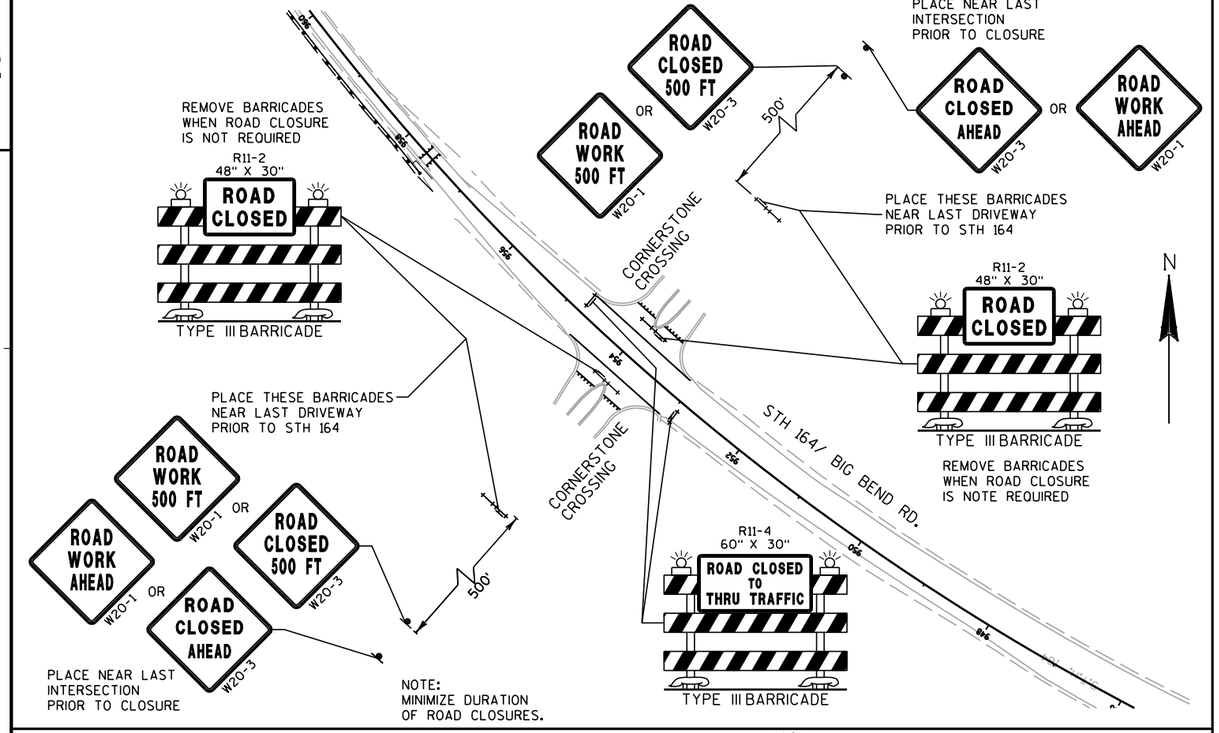
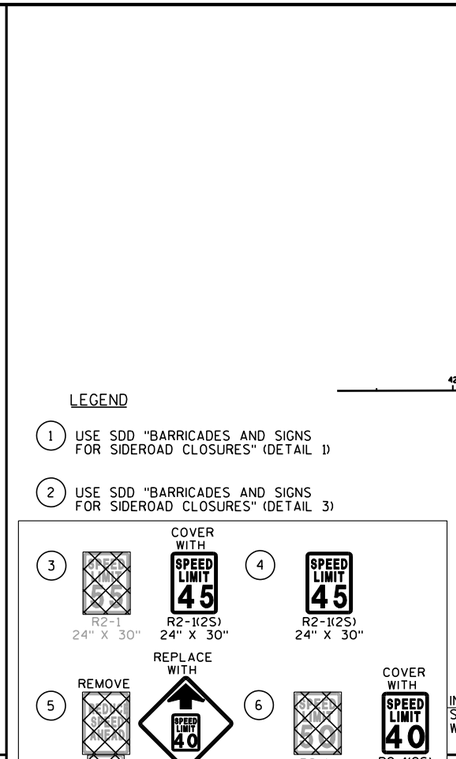
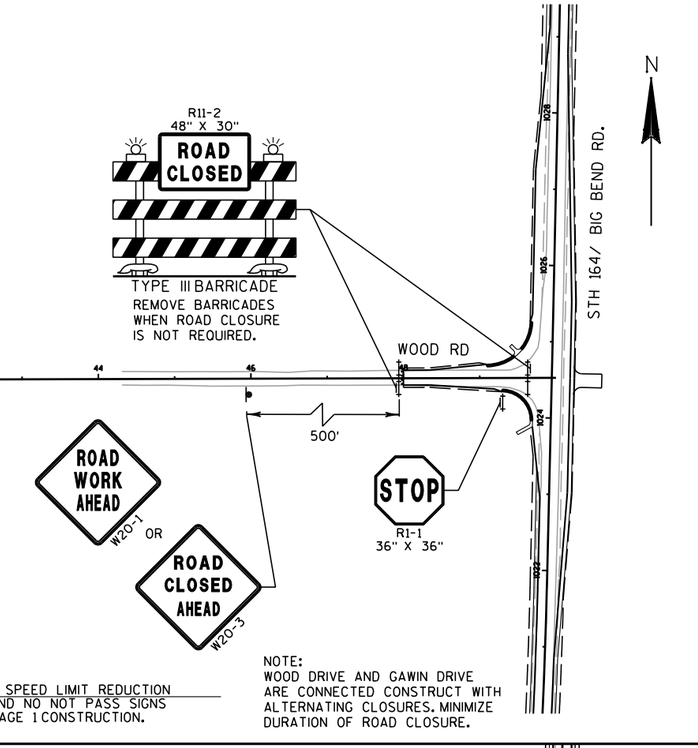
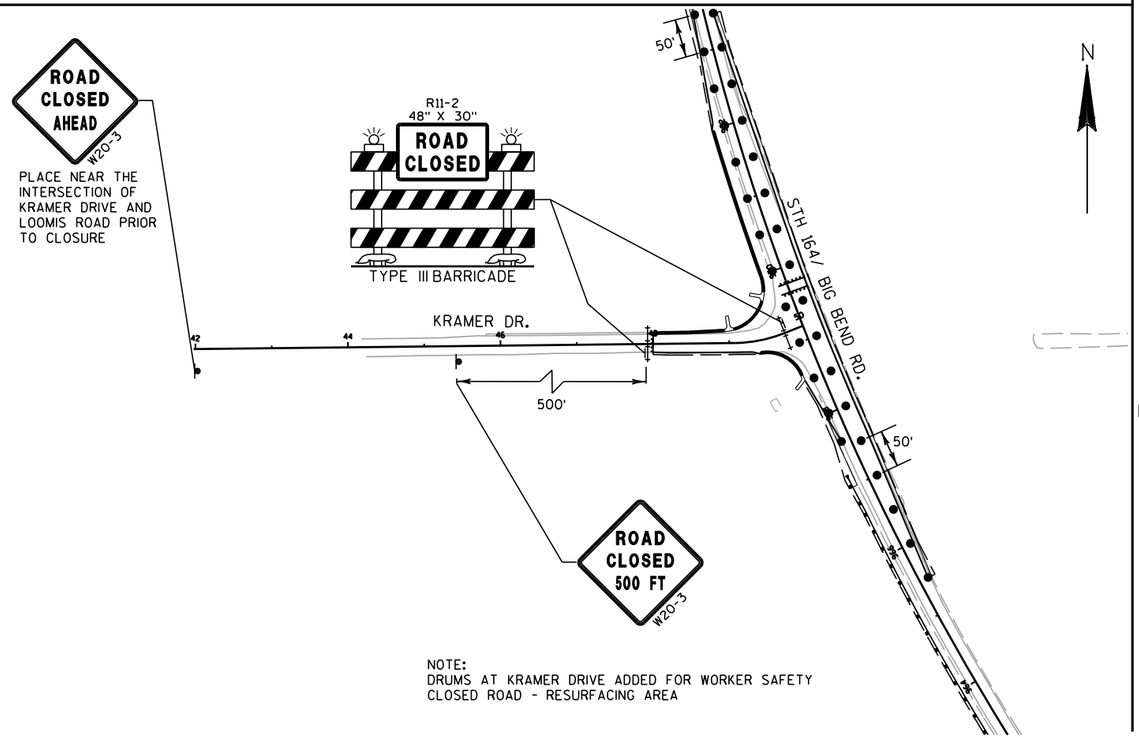
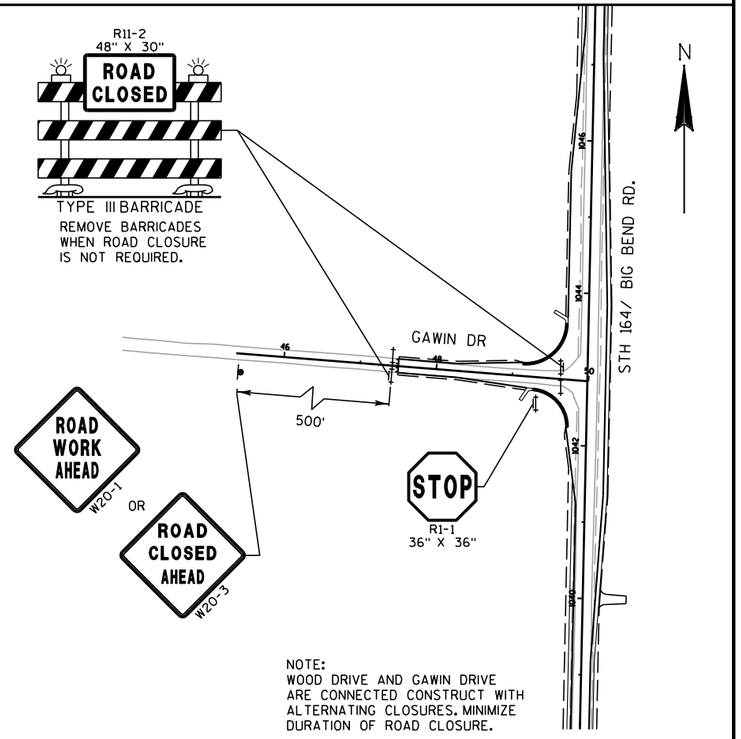










PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TRAFFIC CONTROL - STAGE 3	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\026008_s3.dgn PLOT DATE : 4/27/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

LEGEND

1. USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 1)
2. USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 3)
3. R2-1 24" X 30" — COVER WITH SPEED LIMIT 45 R2-1(2S) 24" X 30"
4. SPEED LIMIT 45 R2-1(2S) 24" X 30"
5. REMOVE R2-1 24" X 30" — REPLACE WITH SPEED LIMIT 40 W03-5 48" X 48"
6. R2-1 24" X 30" — COVER WITH SPEED LIMIT 40 R2-1(2S) 24" X 30"
7. R2-1 24" X 30" — COVER WITH SPEED LIMIT 30 R2-1(25) 24" X 30"
8. SPEED LIMIT 40 R2-1(2S) 24" X 30"
9. DO NOT PASS R4-1 24" X 30"

INSTALL SPEED LIMIT REDUCTION SIGNS AND NO NOT PASS SIGNS WITH STAGE 1 CONSTRUCTION.

- TRAFFIC CONTROL DRUM

A. USE SDD "TRAFFIC CONTROL INTERSECTION WITHIN SINGLE LANE CLOSURE" (DETAIL A)

MILL & OVERLAY

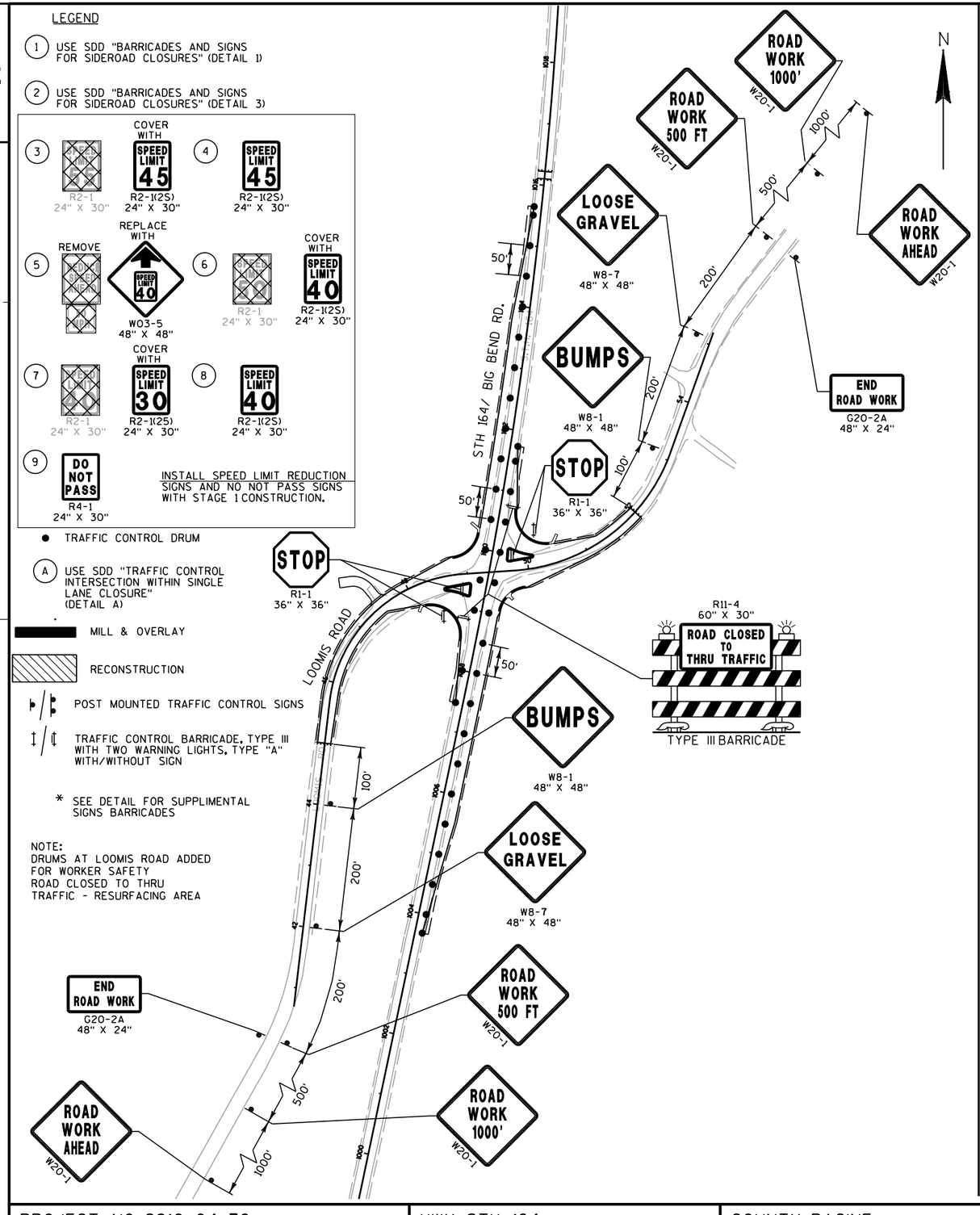
RECONSTRUCTION

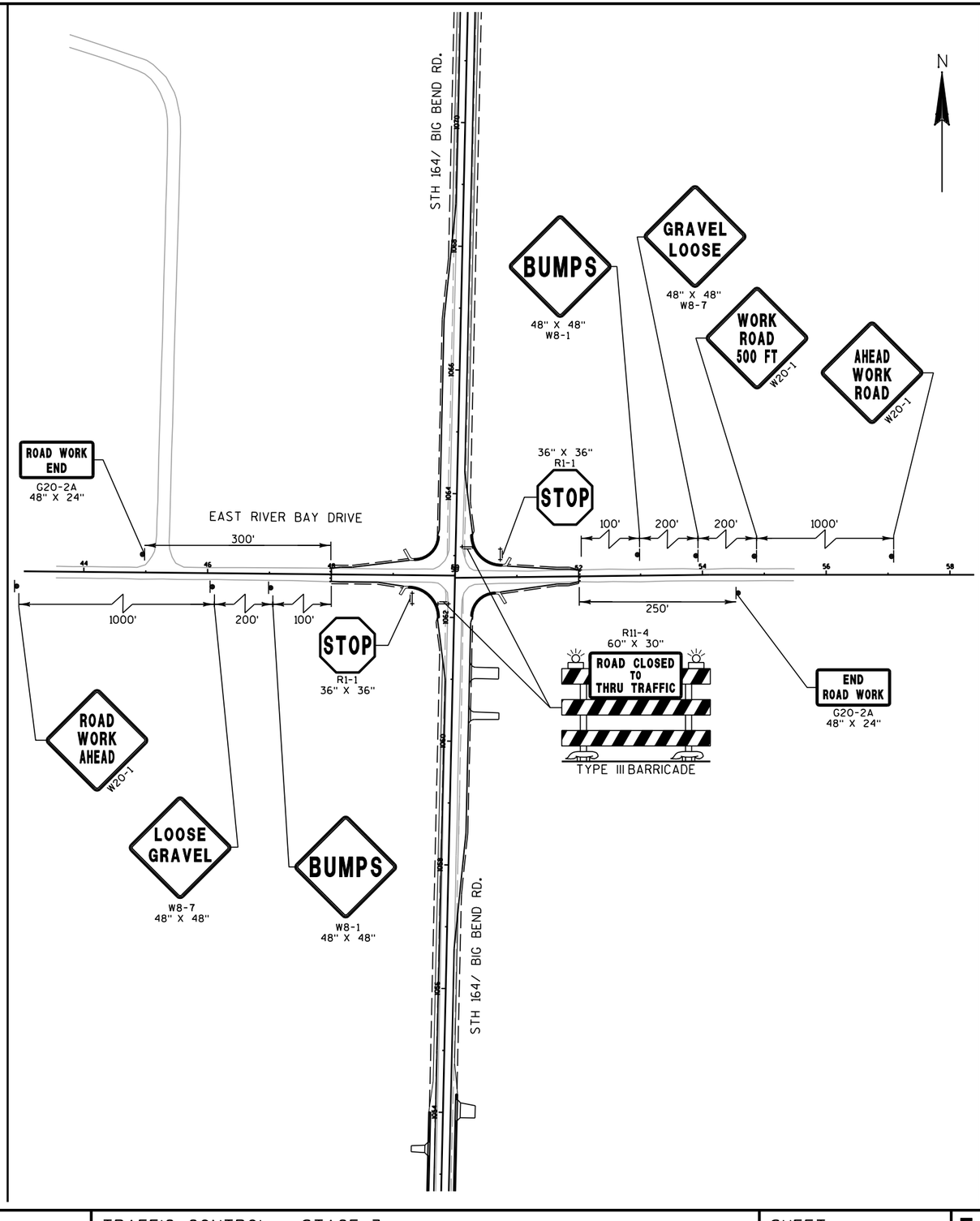
POST MOUNTED TRAFFIC CONTROL SIGNS

TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT SIGN

* SEE DETAIL FOR SUPPLIMENTAL SIGNS BARRICADES

NOTE:
DRUMS AT LOOMIS ROAD ADDED FOR WORKER SAFETY
ROAD CLOSED TO THRU TRAFFIC - RESURFACING AREA





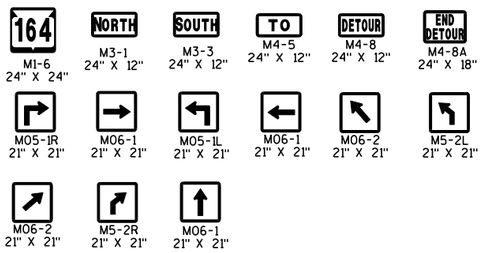
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	TRAFFIC CONTROL - STAGE 3	SHEET E

FILE NAME : t:\1102721.10\cadd\base files & sheets\026009_s3.dgn PLOT DATE : 4/27/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

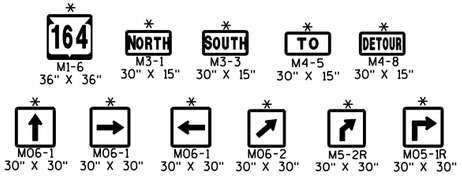
LEGEND

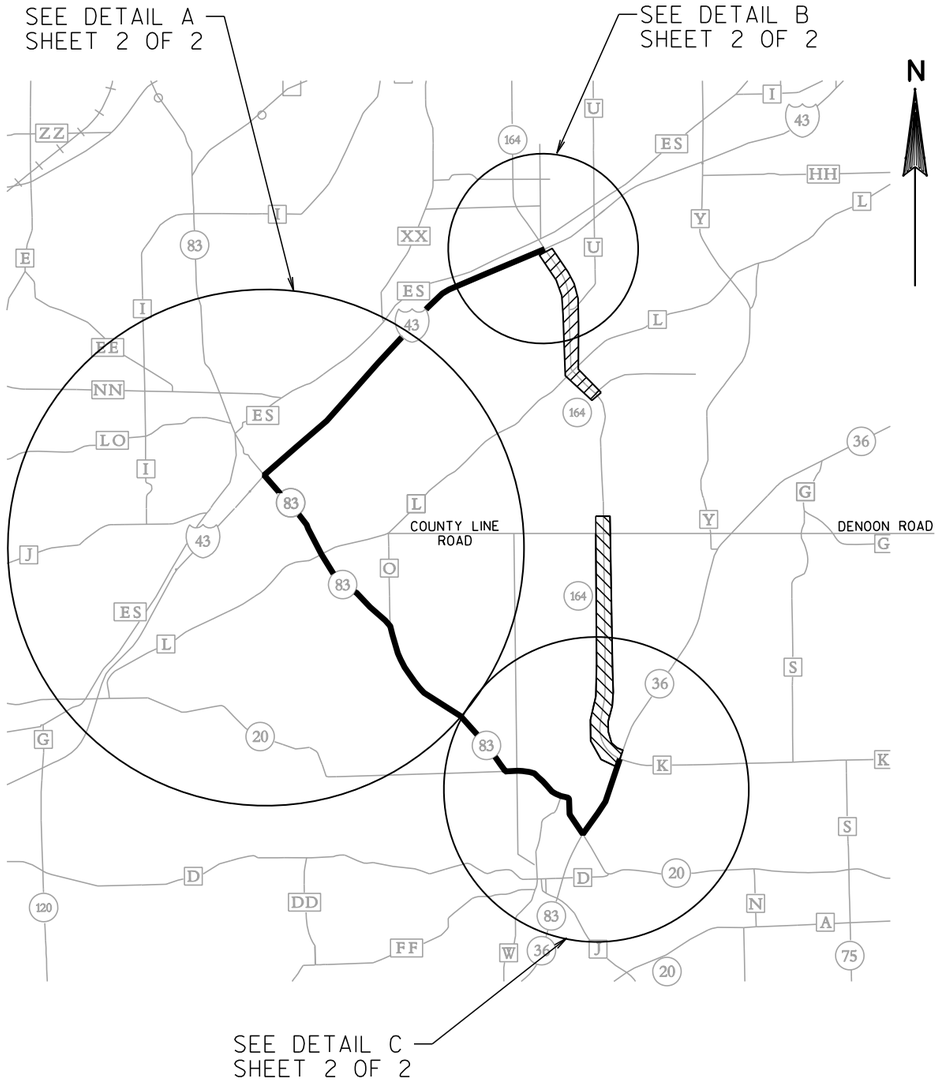
- DETOUR ROUTE
- ID 2810-06-70 WORK ZONE BY OTHERS
- ID 2810-04-70 WORK ZONE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TRAFFIC CONTROL BARRICADE, TYPE III WITH TWO WARNING LIGHTS, TYPE "A" WITH/WITHOUT ATTACHED SIGN
- EAST EXISTING SIGN MOUNTED ON POST(S)
- EAST PROPOSED SIGN MOUNTED ON POST(S)
- TRAFFIC CONTROL COVERING SIGNS TYPE I
- (#) SIGN NUMBER
- [#] FIXED MESSAGE SIGN NUMBER

SIGNING LEGEND - NON EXPRESSWAY SIGNS



SIGNING LEGEND - EXPRESSWAY SIGNS





DETOUR SIGNING - GENERAL NOTES

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

2) THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

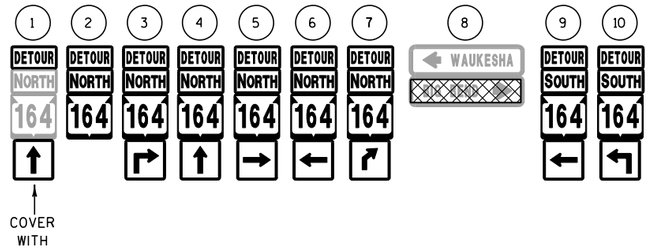
3) ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

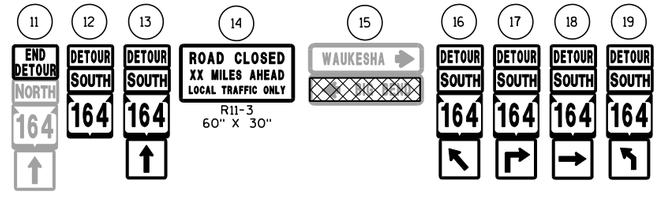
4) ALL SIGNS ARE SIZE 2 UNLESS NOTED AS SIZE 3 WITH A *.

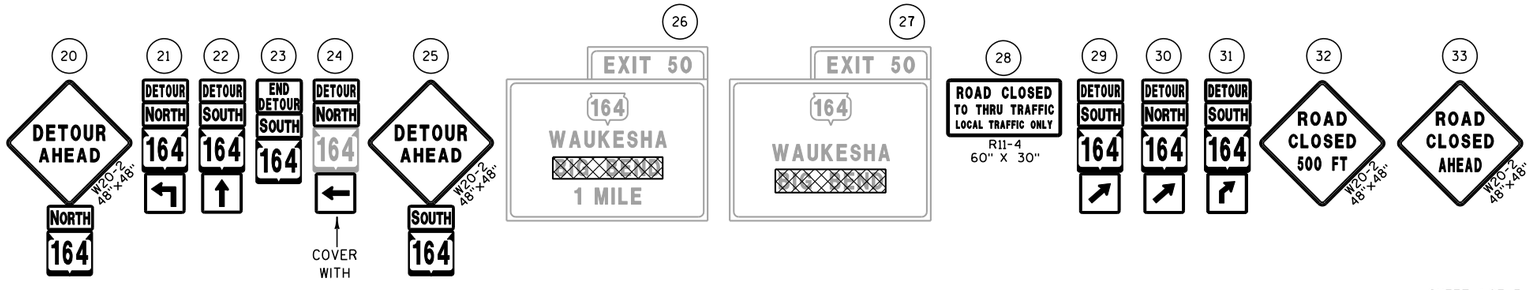
5) A PROPOSED DETOUR SIGN ASSEMBLY MAY BE INSTALLED NEAR THE EXISTING J-ASSEMBLY AS AN ALTERNATIVE TO BEING ADDED ONTO THE EXISTING J-ASSEMBLY AND VISE VERSA.

6) ALL M3 SERIES SIGNS (NORTH, SOUTH, EAST, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKERS, SIGNING, ASSEMBLY OR ATTACHED TO A WARNING SIGN SHALL BE BLACK LETTERING ON WHITE BACKGROUND.

7) PLACE TRAFFIC CONTRAOL SIGNS PROTABLE CHANGEABLE MESSAGE AT THE SOUTH AND NORTH DETOUR LIMIT 14 DAYS PRIOR TO CONSTRUCTION.

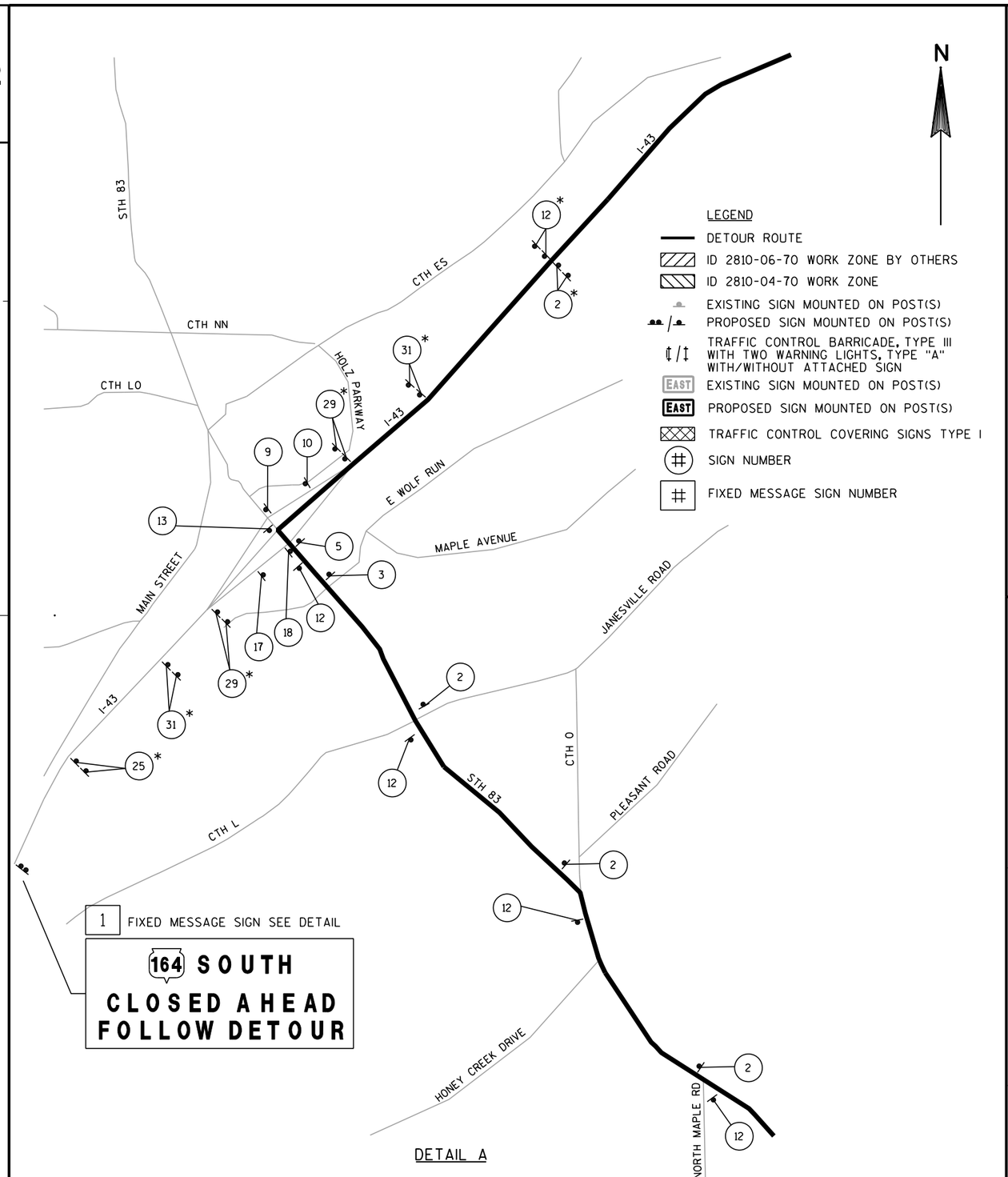




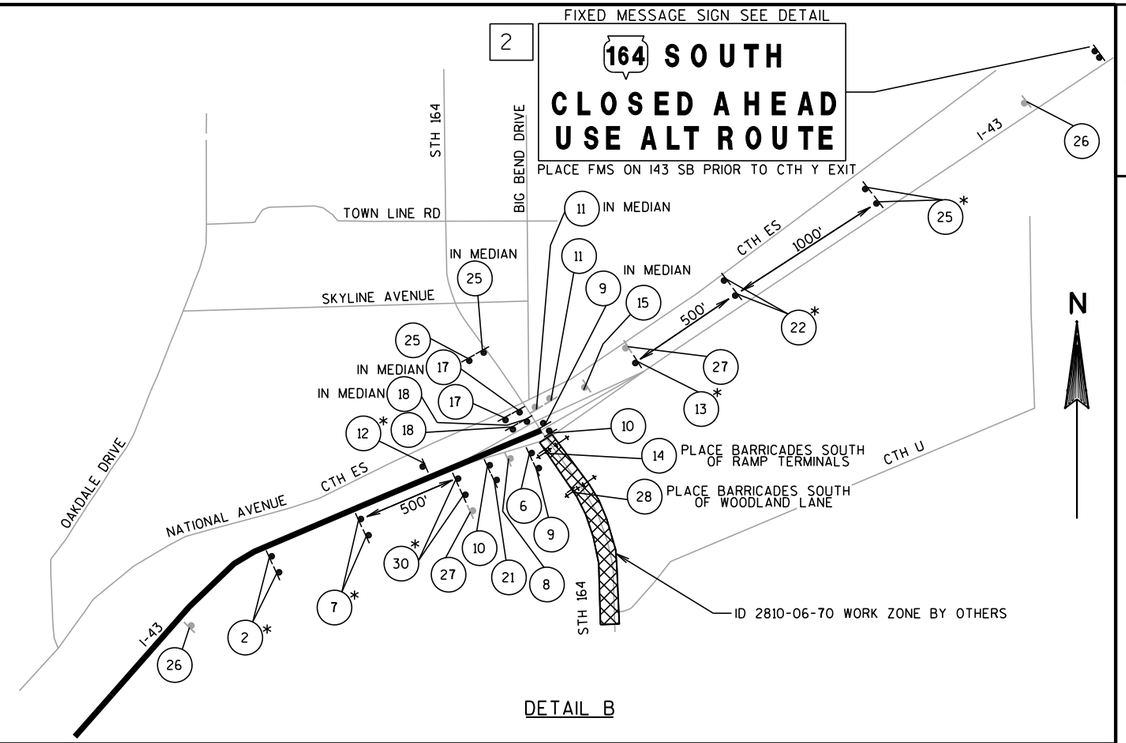


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	DETOUR PLAN	SHEET 106 E

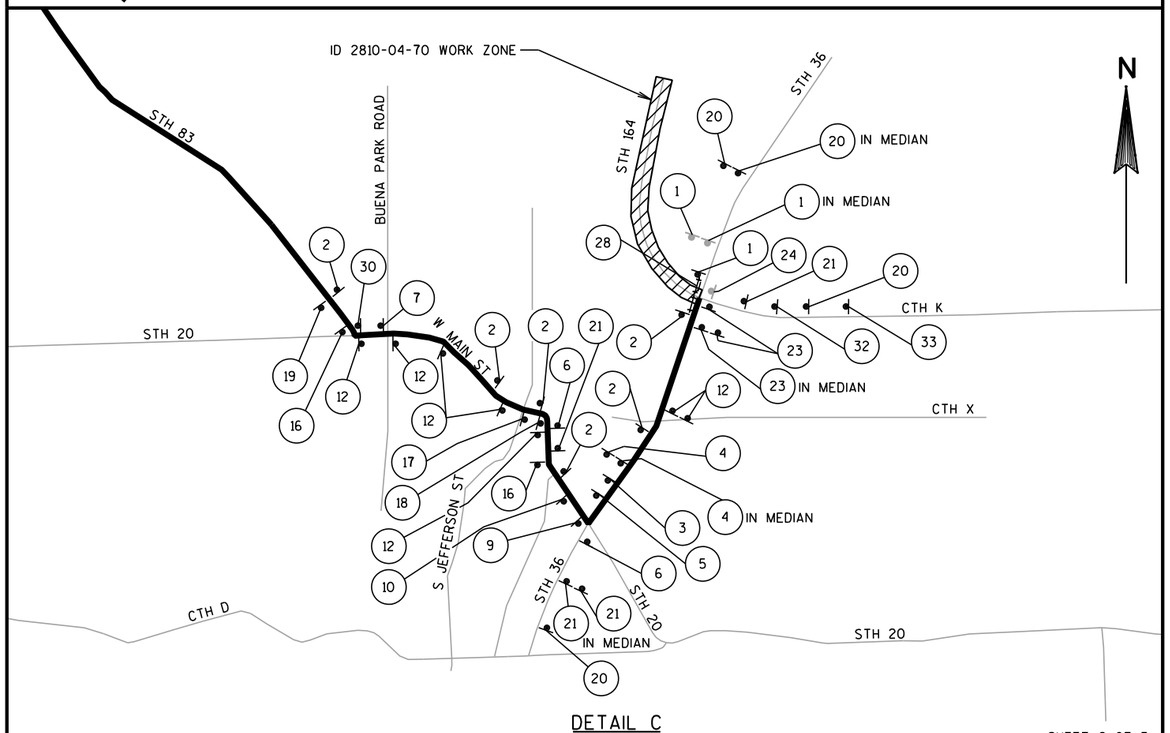
FILE NAME : t:\1102721.10\Cadd\Base Files & Sheets\027000_DT 111.DGN PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



DETAIL A



DETAIL B



DETAIL C

SHEET 2 OF 3

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	DETOUR PLAN	SHEET 107 E

NOTES

1) ALL SIGNS TO HAVE STANDARD REFLECTIVE SHEETING - REFERENCE: "WISDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION." LATEST EDITION.

2) AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.

3) ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"X6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN. STEEL POSTS (2"X2") MAY BE USED FOR SIGNS ON SURFACE STREETS. SIGNS WHERE NO POSTS ARE SHOWN TO BE MOUNTED ON EXISTING SIGNS.

4) POSTS SHALL MEET THE BREAKAWAY REQUIREMENTS OF SECTON 643.2.9.1 OF THE STANDARD SPECIFICATIONS AND SIGN PLATE A4-11.

5) SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "TRAFFIC CONTROL SIGNS FIXED MESSAGE".

6) SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND UNLESS OTHERWISE NOTED.

7) ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS:
12" CAPS SHALL BE SERIES "D"
8" CAPS SHALL BE SERIES "D"
6" CAPS SHALL BE SERIES "C"

8) BEGIN XXX XX SIGNS SHALL BE SEPARATE PANELS, BUT SHALL BE CONSIDERED AS PART OF THE SIGN AND SHOULD BE REMOVED OR COVERED AFTER THEIR EFFECTIVE DATE. THE MONTH AND DAY SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD.

9) CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.

10) SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 637.2.1.2.

11) BEGIN XXX XX SIGNS TO BE IN PLACE 10 DAYS PRIOR TO CONSTRUCTION.

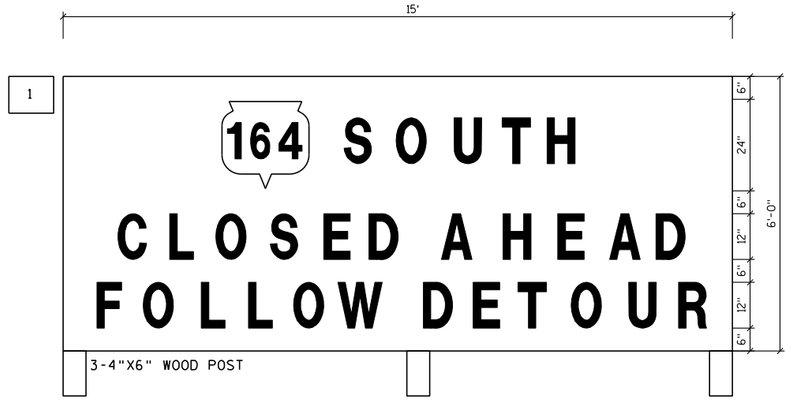
12) DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

NOTES: FIXED MESSAGE SIGNS

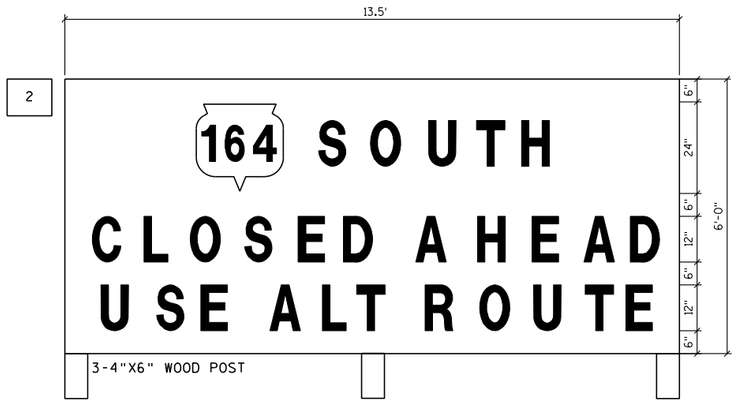
1) CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE "I" SIGNS.
2) ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.
3) SEE FIXED MESSAGE SIGNS AND SPECIAL MESSAGE SIGN LAYOUT SHEETS FOR MORE INFORMATION.
4) COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO WORK ZONE TRAFFIC CONTROL SIGNING.
5) SIGNS TO BE PLACED 10 DAYS PRIOR TO CONSTRUCTION.

2

1



2



SHEET 3 OF 3

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	DETOUR PLAN	SHEET 108	E

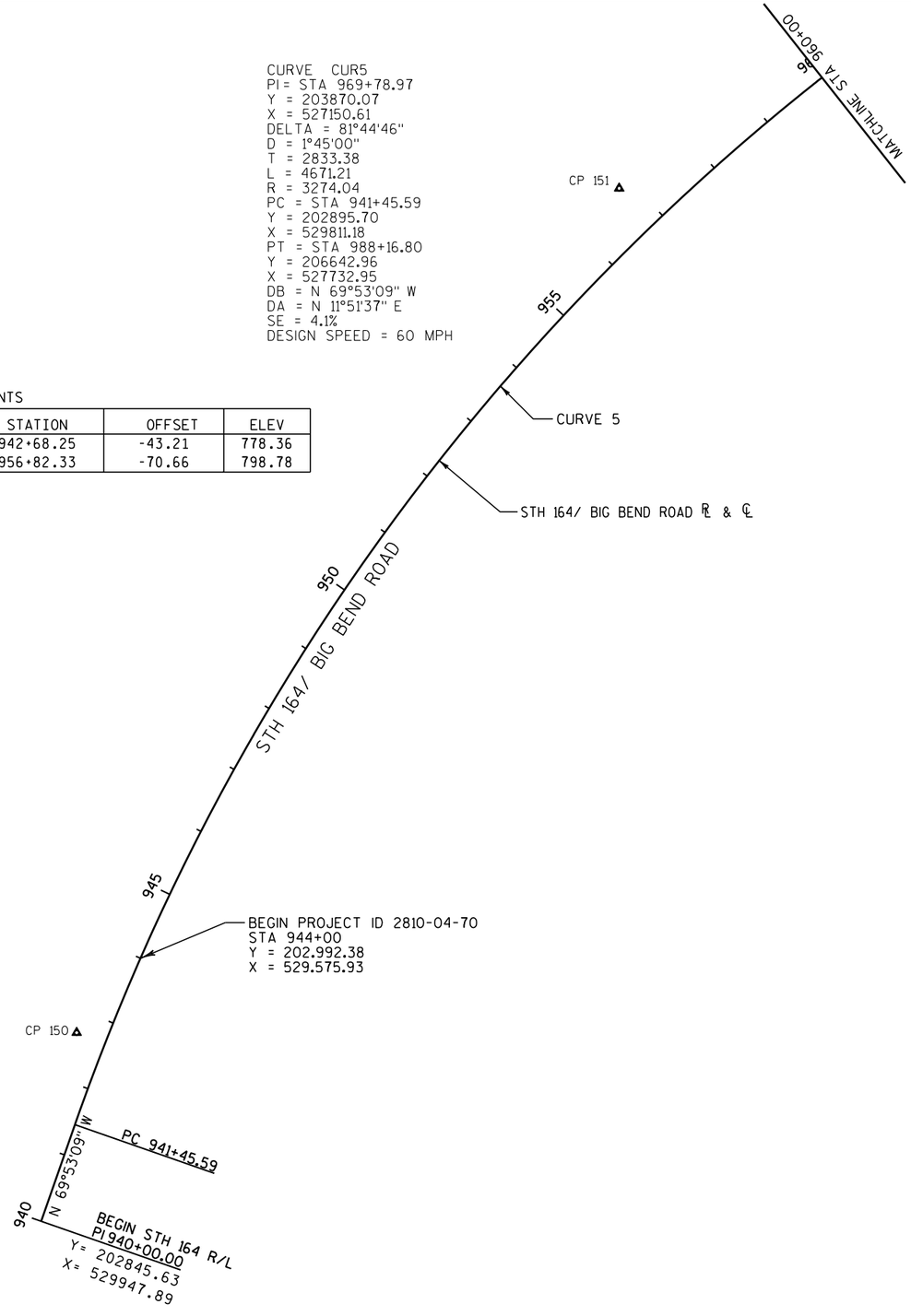
2

CURVE CUR5
PI = STA 969+78.97
Y = 203870.07
X = 527150.61
DELTA = 81°44'46"
D = 1°45'00"
T = 2833.38
L = 4671.21
R = 3274.04
PC = STA 941+45.59
Y = 202895.70
X = 529811.18
PT = STA 988+16.80
Y = 206642.96
X = 527732.95
DB = N 69°53'09" W
DA = N 11°51'37" E
SE = 4.1%
DESIGN SPEED = 60 MPH

N

CONTROL POINTS

CP NO.	N	E	STATION	OFFSET	ELEV
150	202900.043	529680.452	942+68.25	-43.21	778.36
151	203689.273	528490.651	956+82.33	-70.66	798.78



SUPERELEVATION TABLE - STH 164

SUPERELEVATION DESCRIPTION	STATION	SLOPE LEFT	SLOPE RIGHT
END FULL SUPER	987+81	4.10%	-4.10%
REMOVE CROWN	988+90	0.00%	-2.00%
BEGIN NORMAL CROWN	989+43	-2.00%	-2.00%

2

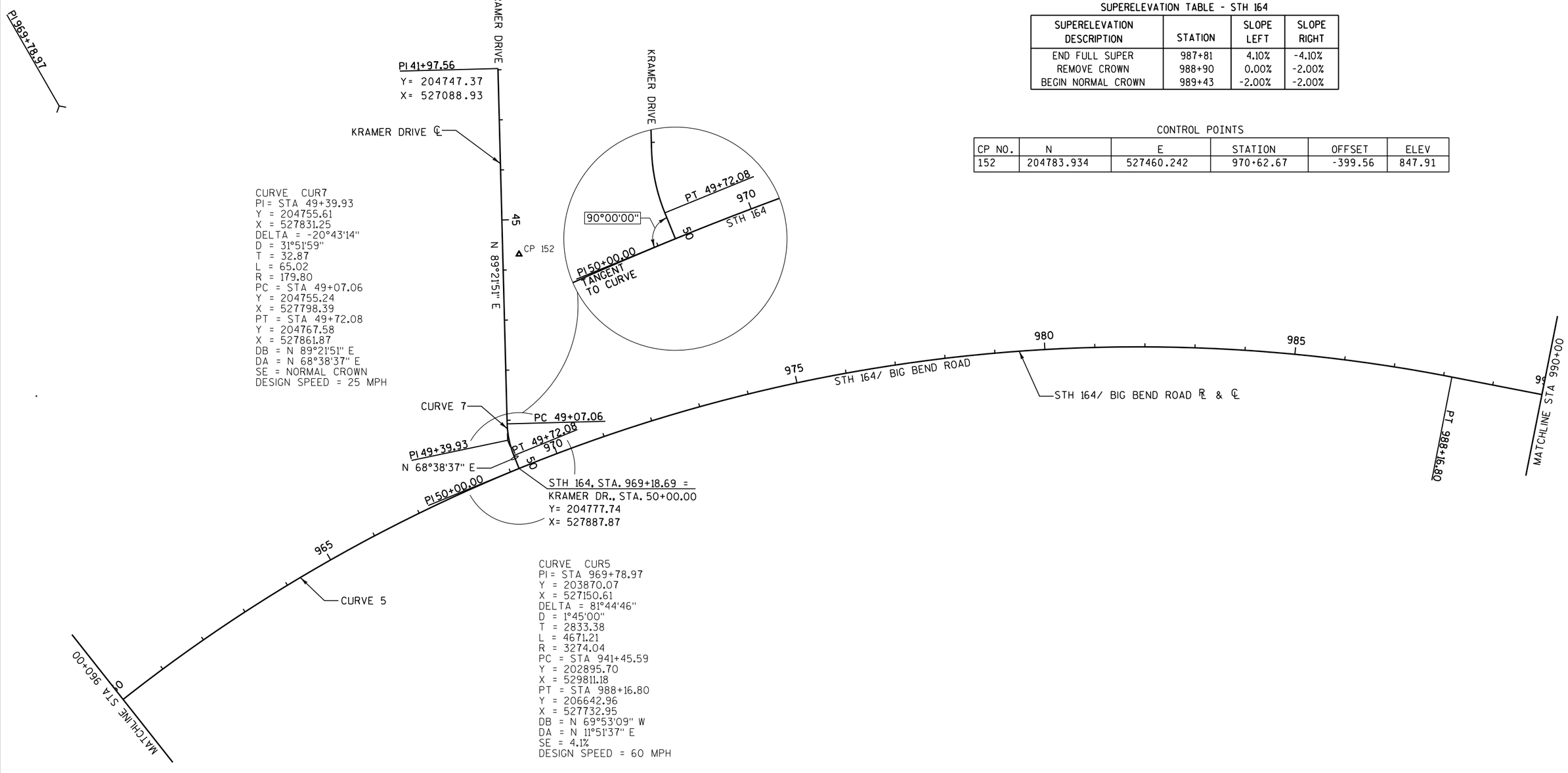
N

SUPERELEVATION TABLE - STH 164

SUPERELEVATION DESCRIPTION	STATION	SLOPE LEFT	SLOPE RIGHT
END FULL SUPER	987+81	4.10%	-4.10%
REMOVE CROWN	988+90	0.00%	-2.00%
BEGIN NORMAL CROWN	989+43	-2.00%	-2.00%

CONTROL POINTS

CP NO.	N	E	STATION	OFFSET	ELEV
152	204783.934	527460.242	970+62.67	-399.56	847.91



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET 110	E

SUPERELEVATION TABLE - LOOMIS ROAD

SUPERELEVATION DESCRIPTION	STATION	SLOPE LEFT	SLOPE RIGHT
MATCH EXISTING	45+00	2.60%	-2.60%
BEGIN FULL SUPER	46+00	5.80%	-5.80%
END FULL SUPER	48+00	5.80%	-5.80%
MATCH STH 164	49+10	-0.60%	0.60%
MATCH STH 164	49+60	-0.60%	0.60%
MATCH EXISTING	52+00	-6.60%	6.60%

CURVE LOOM1
PI = STA 47+63.42
Y = 208729.88
X = 527936.11
DELTA = 79°28'14"
D = 24°28'35"
T = 194.59
L = 324.68'
R = 234.09
PC = STA 45+68.83
Y = 208536.62
X = 527913.48
PT = STA 48+93.51
Y = 208742.94
X = 528130.26
DB = N 6°40'52" E
DA = N 86°09'07" E
SE = 5.8%
DESIGN SPEED = 25 MPH

N

CONTROL POINTS

CP NO.	N	E	STATION	OFFSET	ELEV
153	208466.874	528003.035	1006+57.29	-110.54	817.08

CURVE CUR6
PI = STA 1014+78.68
Y = 209248.02
X = 528280.03
DELTA = -10°30'34"
D = 0°45'00"
T = 702.60
L = 1401.26
R = 7639.44
PC = STA 1007+76.08
Y = 208560.41
X = 528135.63
PT = STA 1021+77.34
Y = 209950.42
X = 528296.60
DB = N 11°51'37" E
DA = N 1°21'03" E
SE = 2.1%
DESIGN SPEED = 60 MPH

MATCHLINE STA 990+00

N 11°51'37" E

995

STH 164/ BIG BEND ROAD ℄ & ℄

1000

STH 164/ BIG BEND ROAD

1005

PI 40+69.25
Y= 208040.43
X= 527855.35

LOOMIS ROAD ℄ & ℄

LOOMIS ROAD

N 06°40'52" E

45

CURVE LOOM1

PI 47+63.42

CP 153

PC 45+68.83

PC 1007+76.08

PT 48+93.51

N 86°09'07" E

1010

PI 49+35.51

STH 164, STA. 1009+65.00 =
LOOMIS RD., STA. 49+35.49
Y= 208745.76
X= 528172.17

50

PC 49+77.51

1015

CURVE 6

1020

MATCHLINE STA 1021+00

CTL4116
QUARTER SEC. COR.
CAS IRON MON.
W/BRASS CAP
Y 207426.06
X 528254.14

T 4 N
R 19 E
2.4 2.4
25 25

PT 48+93.51

75°42'30"

STH 164

TANGENT TO CURVE

1010 PI 49+35.51

TANGENT TO CURVE

75°42'30"

PC 49+77.51

50

LOOMIS ROAD

PI 51+66.77

CURVE LOOM2

PT 53+12.59

PI 1014+78.68

N 19°40'52" E

55

LOOMIS ROAD

PI 55+20.59
Y= 209135.33
X= 528536.69

CURVE LOOM2
PI = STA 51+66.77
Y = 208761.28
X = 528402.90
DELTA = -66°28'14"
D = 19°50'16"
T = 189.25
L = 335.07
R = 288.82
PC = STA 49+77.51
Y = 208748.58
X = 528214.07
PT = STA 53+12.59
Y = 208939.48
X = 528466.64
DB = N 86°09'07" E
DA = N 19°40'52" E
SE = 6.6%
DESIGN SPEED = 60 MPH

SUPERELEVATION TABLE - STH 164

SUPERELEVATION DESCRIPTION	STATION	SLOPE LEFT	SLOPE RIGHT
END NORMAL CROWN	1006+86	-2.00%	-2.00%
REMOVE CROWN	1007+39	-2.00%	0.00%
BEGIN FULL SUPER	1007+95	-2.10%	2.10%
END FULL SUPER	1021+58	-2.10%	2.10%
REMOVE CROWN	1022+14	-2.00%	0.00%
BEGIN NORMAL CROWN	1022+67	-2.00%	-2.00%

2

CTL41022
MEANDER COR.
CAST IRON MON.
W/BRASS CAP
Y 210054.81
X 526072.96

T 4 N
R 19 E
MC 24 24

WOOD DRIVE

PI 40+48.31
Y= 210223.15
X= 527356.83

WOOD DRIVE ℄

N 89°50'40" E

45

CP 154

PT 1021+77.34

STA 1021+00

STH 164, STA. 1024+52.72 =
WOOD DR., STA. 49+94.57
Y= 210225.72
X= 528303.09

88°29'37"

N 01°21'03" E

PI 50+00.00
Y= 210225.74
X= 528308.51

MATCHLINE

1025

1030

1035

STH 164/ BIG BEND ROAD ℄ & ℄

STH 164/ BIG BEND ROAD

N 01°13'50" E

1040

PI 50+00.00
Y= 212057.30
X= 528343.90

50

1045

1050

STA 1052+00

MATCHLINE

CONTROL POINTS

CP NO.	N	E	STATION	OFFSET	ELEV
154	210238.717	527905.995	1024+56.35	-397.29	843.68
155	212063.06	528073.829	1042+84.71	-268.74	812.25

N

CTL40892
MEANDER COR.
CAST IRON MON.
W/BRASS CAP
Y 212702.30
X 525948.54

T 4 N
R 19 E
MC 13 24

GAWIN DRIVE

PI 45+36.81
Y= 212094.06
X= 527882.16

GAWIN DRIVE ℄

CP 155

S 85°26'54" E

STH 164, STA. 1042+84.83 =
GAWIN DR., STA. 49+98.61
Y= 212057.41
X= 528342.51

86°40'43"

PI 1049+30.50
Y= 212702.93
X= 528356.37

CTL4090
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 212702.93
X 528356.37

T 4 N
R 19 E
13 13
24 24

PI 1024+89.04
Y= 210262.03
X= 528303.94

CTL4103
CENTER OF SEC.
CONCRETE MON.
W/BRASS CAP
Y 210064.83
X 528305.41

T 4 N
R 19 E
24

CTL4104
QUARTER SEC COR.
CAST IRON MON.
W/BRASS CAP
Y 210076.41
X 530946.40

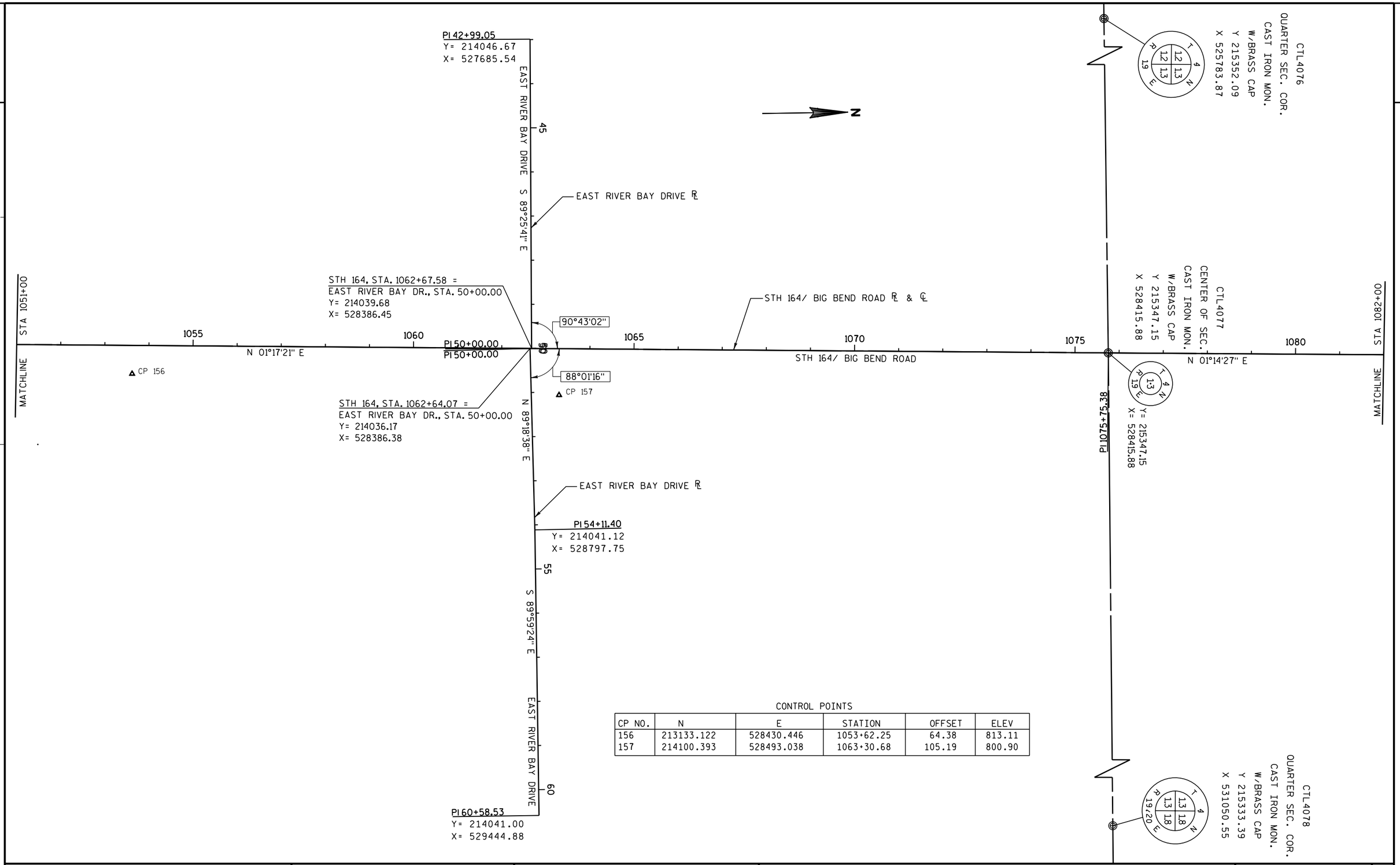
T 4 N
R 19,20 E
24 19
24 19

CTL4091
SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 212703.17
X 530996.28

T 4 N
R 19 E
13 18
24 19

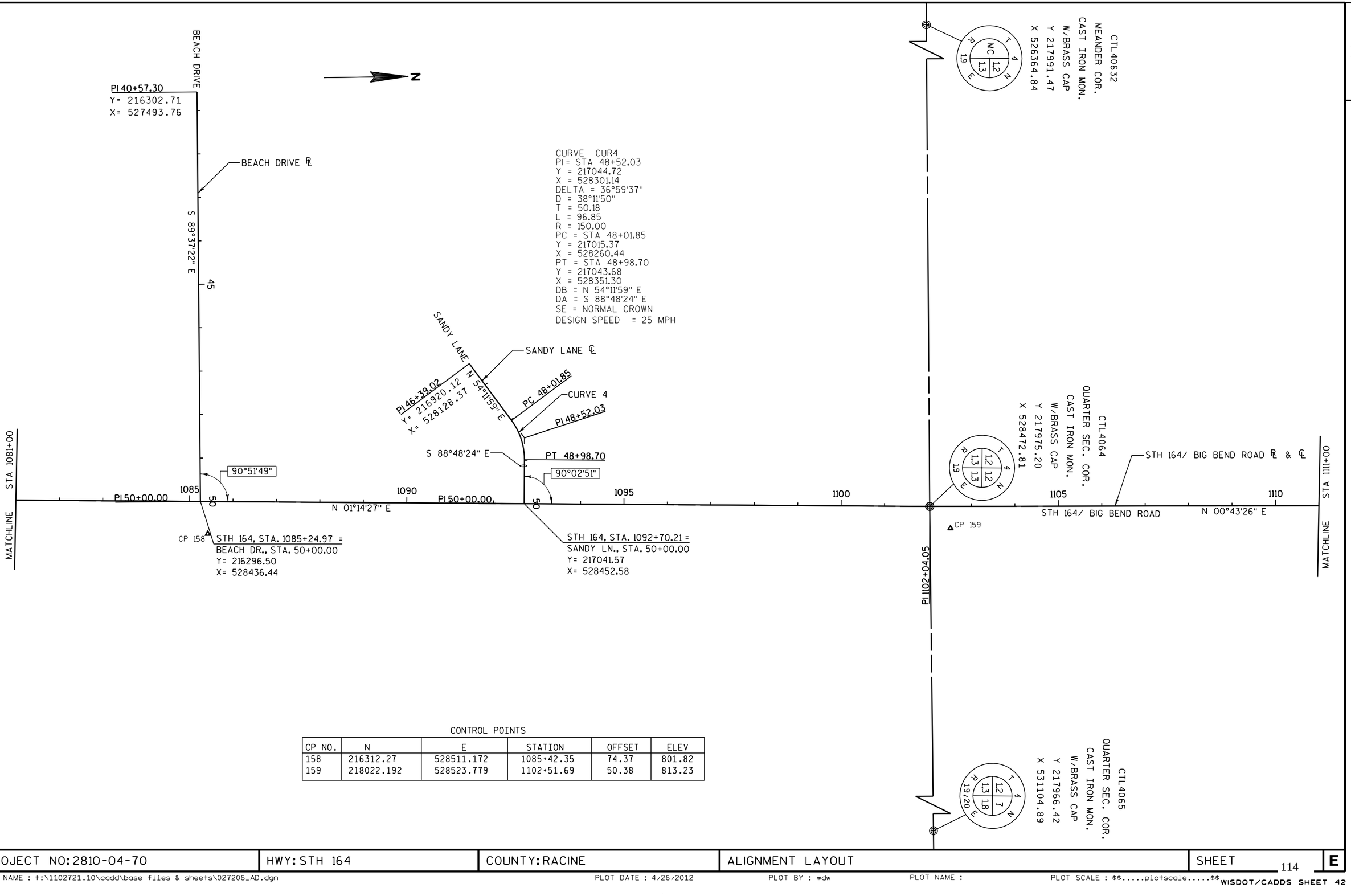
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\027204_AD.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



CONTROL POINTS

CP NO.	N	E	STATION	OFFSET	ELEV
156	213133.122	528430.446	1053+62.25	64.38	813.11
157	214100.393	528493.038	1063+30.68	105.19	800.90



CONTROL POINTS

CP NO.	N	E	STATION	OFFSET	ELEV
158	216312.27	528511.172	1085+42.35	74.37	801.82
159	218022.192	528523.779	1102+51.69	50.38	813.23

2

N

CONTROL POINTS

CP NO.	N	E	STATION	OFFSET	ELEV
160	219066.167	528397.987	1112+93.99	-88.59	820.16
161	220164.043	528571.745	1123+93.97	71.28	809.07
162	221817.671	528430.792	1140+45.69	-90.56	816.40

CTL4050
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 220629.16
X 525842.84

DORIE LANE

PI 47+22.35
Y= 219129.24
X= 528209.72

DORIE LANE ℄

S 89°29'47" E

CP 160

90°13'12"

STA 1111+00

MATCHLINE

PI 50+00.00

50

1115

1120

1125

STH 164/ BIG BEND ROAD ℄ & ℄

N 00°43'26" E

STH 164/ BIG BEND ROAD

CP 161

STH 164, STA. 1113+55.75 =
DORIE LN., STA. 50+00.00
Y= 219126.80
X= 528487.35

PI 1128+40.12
Y= 220611.06
X= 528506.11

CTL4051
CENTER OF SEC.
CAST IRON MON.
W/BRASS CAP
Y 220611.06
X 528506.11

1130

1135

GREENHAVEN TERRACE

PI 47+50.00
Y= 221694.39
X= 528269.78

S 89°16'33" E

CP 162

90°00'00"

GREENHAVEN TERRACE ℄

PI 50+00.00

1140

N 00°43'27" E

STH 164, STA. 1139+20.38 =
GREENHAVEN TER., STA. 50+00.00
Y= 221691.23
X= 528519.76

STA 1140+00

MATCHLINE

CTL4052
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 220594.44
X 531166.04

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET 115	E

2

MATCHLINE STA 39+00

40

NORTH LAKE DRIVE

NORTH LAKE DRIVE ℄

45

S 89°44'32" E

N

CONTROL POINTS

CP NO.	N	E	STATION	OFFSET	ELEV
163	223185.538	528617.974	1154+15.81	79.32	795.28
164	224496.006	528506.329	1167+24.80	-47.92	807.86

STA 1141+00

MATCHLINE

1145

1150

N 00°43'27" E

STH 164, STA. 1154+78.03 =
NORTH LAKE DR., STA. 50+00.00
Y= 223248.76
X= 528539.45

90°10'49"

CP 163

1155

90°25'19"

50

PI 50+00.00

1160

STH 164/ BIG BEND ROAD ℄ & ℄

1165

STH 164/ BIG BEND ROAD

CP 164

N 00°40'47" E

STA 1170+00

MATCHLINE

PI 54+78.03

S 89°27'22" E

55

NORTH LAKE DRIVE

MATCHLINE STA 58+00

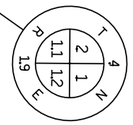
CTL4038
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 223248.76
X 528539.45

Y= 223248.76
X= 528539.45

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET 116	E

PI 23+34.05
Y= 223260.75
X= 525873.53

CTL4037
SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 223260.75
X 525873.53



25

NORTH LAKE DRIVE

S 89°44'32" E

30

NORTH LAKE DRIVE ℄

35

MATCHLINE STA 39+00

N

MATCHLINE STA 58+00

60

N

NORTH LAKE DRIVE ℄

S 89°27'22" E

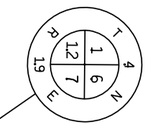
NORTH LAKE DRIVE

65

70

75

Y= 223223.26
X= 531224.20
PI 76+84.87



CTL4039
SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 223223.26
X 531224.20

2

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET E

FILE NAME : t:\1102721.10\cadd\base files & sheets\027209_AD.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

PI 35+47.21
Y= 225274.68
X= 527110.68

JENSON PARKWAY

40

S 89°57'55" E

45

JENSON PARKWAY ℞ & ℄

CTL 4024
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 225906.33
X 525909.04

T 4 N
R 19 E
2 2 1 1
1 4

N

CONTROL POINTS

CP NO.	N	E	STATION	OFFSET	ELEV
165	225555.365	528626.034	1177+85.51	59.21	802.77
166	227176.677	528524.694	1194+05.56	-60.22	796.40

CURVE CLEX2
PI= STA 1199+81.56
Y = 227751.90
X = 528576.23
DELTA = 2°13'09"
D = 0°34'23"
T = 193.69
L = 387.32
R = 10000.00
PC = STA 1197+87.87
Y = 227558.29
X = 528581.60
PT = STA 1201+75.20
Y = 227945.58
X = 528578.35
DB = N 1°35'26" W
DA = N 0°37'43" E
SE = NORMAL CROWN
DESIGN SPEED = 55 MPH

STH 164/ BIG BEND ROAD ℄

PT 1197+87.87 C/L

PI 1199+81.56 C/L

CURVE CLEX2

CURVE CLEX1

PC 1194+00.55 C/L

PC 1194+00.55 R/L

CP 166

STA 1170+00

MATCHLINE

0

PI 50+00.00

1175

50

1180

1185

1190

1195

200

100

STA 1201+00

MATCHLINE

90°38'42"

N 00°40'47" E

STH 164/ BIG BEND ROAD ℞ & ℄

STH 164/ BIG BEND ROAD

N 00°37'43" E

CP 165

STH 164, STA. 1175+03.22 =
JENSON PKWY., STA. 50+00.00
Y= 225273.80
X= 528563.47

CTL 4025
CENTER OF SEC.
CAST IRON MON.
W/BRASS CAP
Y 225906.33
X 528570.98

T 4 N
R 19 E
1

PI 1181+35.79
Y= 225906.33
X= 528570.98

CTL 4026
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 225873.38
X 531251.40

T 4 N
R 19 E
R 20 W
1 1 6 6
1 4

CURVE CLEX1
PI= STA 1195+94.24
Y = 227364.68
X = 528586.98
DELTA = -2°13'09"
D = 0°34'23"
T = 193.69
L = 387.32
R = 10000.00
PC = STA 1194+00.55
Y = 227171.01
X = 528584.85
PT = STA 1197+87.87
Y = 227558.29
X = 528581.60
DB = N 0°37'43" E
DA = N 1°35'26" W
SE = NORMAL CROWN
DESIGN SPEED = 55 MPH

PI 1195+94.24 R/L
Y=227364.68
X=528586.98

PC 1197+87.87 C/L

STH 164/ BIG BEND ROAD ℞

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET 118	E

CONTROL POINTS

CP NO.	N	E	STATION	OFFSET	ELEV
167	228240.245	528637.693	1204+70.30	41.11	794.61
168	229565.07	528539.866	1217+95.48	-35.92	793.32

N

CURVE COL5
PI= STA 146+66.83
Y = 228308.42
X = 528264.22
DELTA = -4°06'51"
D = 2°17'31"
T = 89.80
L = 179.51
R = 2500.00
PC = STA 145+77.04
Y = 228306.46
X = 528174.44
PT = STA 147+56.55
Y = 228316.81
X = 528353.62
DB = N 88°45'06" E
DA = N 84°38'15" E
SE = NORMAL CROWN
DESIGN SPEED = 25 MPH

T4N R19E T5N 35 36 2 1

CTL 4011
SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 228238.81
X 525935.46

CURVE COL6
PI= STA 148+56.04
Y = 228326.11
X = 528452.68
DELTA = 4°33'28"
D = 2°17'31"
T = 99.49
L = 198.87
R = 2500.00
PC = STA 147+56.55
Y = 228316.81
X = 528353.62
PT = STA 149+55.43
Y = 228327.51
X = 528552.16
DB = N 84°38'15" E
DA = N 89°11'43" E
SE = NORMAL CROWN
DESIGN SPEED = 25 MPH

COUNTY LINE ROAD 145

PI 145+00.00
Y= 228304.78
X= 528097.42

PI 145+00.00
N 88°45'06" E
PC 145+77.04
COUNTY LINE ROAD ℄
PI 146+66.83
CURVE COL5
COUNTY LINE ROAD ℄
PT 147+56.55
PC 147+56.55
CURVE COL6
PI 148+56.04

STH 164, STA. 1205+57.57 C/L =
COUNTY LINE RD., STA. 149+85.82 C/L
Y= 228327.93
X= 528582.54

PT 149+55.43

STH 164/ BIG BEND ROAD ℄

PC 1209+33.29

PT 1212+15.47

STATION EQUATION
STA C/L = 1212+15.47
STA R/L = 1212+15.50
Y = 228985.79
X = 528585.78

EQUATION

STH 164/ BIG BEND ROAD ℄ & ℄

CP 168

N 00°59'17" W

1205 1210 1215 1220 1225 1230

STH 164/ BIG BEND ROAD

N 00°37'43" E

PI 150+00.00

CURVE CLEX3

CURVE CLEX3
PI= STA 1210+74.39
Y = 228844.72
X = 528588.22
DELTA = -1°37'00"
D = 0°34'23"
T = 141.10
L = 282.17
R = 10000.00
PC = STA 1209+33.29
Y = 228703.63
X = 528586.67
PT = STA 1212+15.47
Y = 228985.79
X = 528585.78
DB = N 0°37'43" E
DA = N 0°59'17" W
SE = NORMAL CROWN
DESIGN SPEED = 55 MPH

PRL 17
CENTER OF SEC.
CAST IRON MON.
W/BRASS CAP
Y 230940.77
X 528552.06

T4N R19E T5N 36

PI 1231+70.77
PI1231+70.74
Y= 230940.77
X= 528552.06

STA 1201+00

MATCHLINE

PT 1201+75.20

CP 167
91°25'59"
N 89°11'43" E
PC 151+00.45

PI 1205+42.75

CTL 4012
STA 1205+42.75 R/L
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 228313.14
X 528597.38

PI 1210+74.39

PI 152+11.00

DENOON ROAD ℄

CURVE COL7

PT 153+21.40

PC 153+21.40

STH 164/ BIG BEND ROAD ℄

DENOON ROAD ℄

CURVE COL7
PI= STA 152+11.00
Y = 228331.09
X = 528807.70
DELTA = 5°03'50"
D = 2°17'31"
T = 110.55
L = 220.96
R = 2500.00
PC = STA 151+00.45
Y = 228329.54
X = 528697.16
PT = STA 153+21.40
Y = 228322.88
X = 528917.95
DB = N 89°11'43" E
DA = S 85°44'26" E
SE = NORMAL CROWN
DESIGN SPEED = 25 MPH

PI 154+22.27

CURVE COL8
PI= STA 154+22.27
Y = 228315.39
X = 529018.53
DELTA = -4°37'15"
D = 2°17'31"
T = 100.86
L = 201.62
R = 2500.00
PC = STA 153+21.40
Y = 228322.88
X = 528917.95
PT = STA 155+23.02
Y = 228316.03
X = 529119.39
DB = S 85°44'26" E
DA = N 89°38'19" E
SE = NORMAL CROWN
DESIGN SPEED = 25 MPH

COL8

PI 155+00.00

PT 155+23.02

N 89°38'19" E

PI 156+01.03
Y= 228316.52
X= 529197.40

DENOON ROAD ℄

T4N R19E T5N 36 31 1 6

CTL 4013
TOWNSHIP COR.
CAST IRON MON.
W/BRASS CAP
Y 228350.25
X 531239.21

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET 119	E

DATE 22AUG12 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	2810-04-70 QUANTITY
0010	201.0105	CLEARING	STA	125.000	125.000
0020	201.0205	GRUBBING	STA	125.000	125.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	103.000	103.000
0040	204.0100	REMOVING PAVEMENT	SY	315.000	315.000
0050	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	1,050.000	1,050.000
0060	204.0150	REMOVING CURB & GUTTER	LF	482.000	482.000
0070	204.0165	REMOVING GUARDRAIL	LF	1,154.000	1,154.000
0080	204.0170	REMOVING FENCE	LF	1,502.000	1,502.000
0090	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	47.000	47.000
0100	204.0185	REMOVING MASONRY	CY	14.000	14.000
0110	204.0195	REMOVING CONCRETE BASES	EACH	1.000	1.000
0120	204.0265	ABANDONING WELLS	EACH	2.000	2.000
0130	204.9165.S	REMOVING (ITEM DESCRIPTION) 01. BLOCK RETAINING WALL	SF	103.000	103.000
0140	205.0100	EXCAVATION COMMON	CY	177,388.000	177,388.000
0150	205.0400	EXCAVATION MARSH	CY	80,187.000	80,187.000
0160	209.0100	BACKFILL GRANULAR	CY	117,758.000	117,758.000
0170	211.0400	PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS	STA	110.000	110.000
0180	213.0100	FINISHING ROADWAY (PROJECT) 01. 2810-04-70	EACH	1.000	1.000
0190	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	14,327.000	14,327.000
0200	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	218,640.000	218,640.000
0210	305.0410	AGGREGATE DETOURS	TON	100.000	100.000
0220	305.0500	SHAPING SHOULDERS	STA	125.000	125.000
0230	306.0110	SALVAGED ASPHALTIC PAVEMENT BASE	TON	1,890.000	1,890.000
0240	311.0110	BREAKER RUN	TON	17,200.000	17,200.000
0250	330.0100	MILL AND RELAY	SY	30,700.000	30,700.000
0260	390.0201	BASE PATCHING ASPHALTIC	TON	69.000	69.000
0270	416.0260	CONCRETE DRIVEWAY HES 6-INCH	SY	563.000	563.000
0280	416.0610	DRILLED TIE BARS	EACH	41.000	41.000
0290	416.1010	CONCRETE SURFACE DRAINS	CY	45.000	45.000
0300	440.4410.S	INCENTIVE IRI RIDE	DOL	14,570.000	14,570.000
0310	455.0105	ASPHALTIC MATERIAL PG58-28	TON	2,458.000	2,458.000
0320	455.0605	TACK COAT	GAL	6,662.000	6,662.000
0330	460.1103	HMA PAVEMENT TYPE E-3	TON	44,525.000	44,525.000
0340	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	28,500.000	28,500.000
0350	465.0115	ASPHALTIC SURFACE DETOURS	TON	100.000	100.000
0360	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	895.000	895.000
0370	521.0115	CULVERT PIPE CORRUGATED STEEL 15-INCH	LF	94.000	94.000
0380	521.0118	CULVERT PIPE CORRUGATED STEEL 18-INCH	LF	2,475.000	2,475.000
0390	521.0124	CULVERT PIPE CORRUGATED STEEL 24-INCH	LF	675.000	675.000
0400	521.0130	CULVERT PIPE CORRUGATED STEEL 30-INCH	LF	36.000	36.000
0410	521.1015	APRON ENDWALLS FOR CULVERT PIPE STEEL 15-INCH	EACH	4.000	4.000
0420	521.1018	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	EACH	64.000	64.000
0430	521.1024	APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH	EACH	8.000	8.000
0440	521.1030	APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH	EACH	2.000	2.000
0450	521.1518	APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 6 TO 1	EACH	54.000	54.000

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DATE 22AUG12 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	2810-04-70 QUANTITY
0460	521.1524	APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 24-INCH 6 TO 1	EACH	12.000	12.000
0470	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	488.000	488.000
0480	522.0130	CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	363.000	363.000
0490	522.0148	CULVERT PIPE REINFORCED CONCRETE CLASS III 48-INCH	LF	211.000	211.000
0500	522.0324	CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	391.000	391.000
0510	522.0330	CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH	LF	306.000	306.000
0520	522.0336	CULVERT PIPE REINFORCED CONCRETE CLASS IV 36-INCH	LF	214.000	214.000
0530	522.0342	CULVERT PIPE REINFORCED CONCRETE CLASS IV 42-INCH	LF	78.000	78.000
0540	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	4.000	4.000
0550	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	20.000	20.000
0560	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	14.000	14.000
0570	522.1036	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	EACH	8.000	8.000
0580	522.1042	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH	EACH	2.000	2.000
0590	522.1048	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH	EACH	4.000	4.000
0600	523.0419	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH	LF	394.000	394.000
0610	523.0514	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 14X23-INCH	EACH	1.000	1.000
0620	523.0519	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH	EACH	14.000	14.000
0630	601.0553	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D	LF	6,247.000	6,247.000
0640	602.0410	CONCRETE SIDEWALK 5-INCH	SF	830.000	830.000
0650	606.0100	RIPRAP LIGHT	CY	610.000	610.000
0660	606.0200	RIPRAP MEDIUM	CY	1,091.000	1,091.000
0670	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	22.000	22.000
0680	608.0418	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	191.000	191.000
0690	608.0424	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	350.000	350.000
0700	608.0436	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 36-INCH	LF	88.000	88.000
0710	610.0414	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 14X23-INCH	LF	58.000	58.000
0720	610.0419	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH	LF	277.000	277.000
0730	611.0201	MANHOLES TYPE 1	EACH	2.000	2.000
0740	611.0210	MANHOLES TYPE 3	EACH	2.000	2.000
0750	611.0301	INLETS TYPE 1	EACH	4.000	4.000

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DATE 22AUG12 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	2810-04-70 QUANTITY
0760	611.0305	INLETS TYPE 8	EACH	1.000	1.000
0770	611.0307	INLETS TYPE 9	EACH	1.000	1.000
0780	611.0530	MANHOLE COVERS TYPE J	EACH	4.000	4.000
0790	611.0645	INLET COVERS TYPE MS-A	EACH	3.000	3.000
0800	611.0651	INLET COVERS TYPE S	EACH	4.000	4.000
0810	611.9800.S	PIPE GRATES	EACH	55.000	55.000
0820	612.0304	PIPE UNDERDRAIN DRAIN TILE 4-INCH	LF	50.000	50.000
0830	612.0306	PIPE UNDERDRAIN DRAIN TILE 6-INCH	LF	50.000	50.000
0840	612.0308	PIPE UNDERDRAIN DRAIN TILE 8-INCH	LF	50.000	50.000
0850	612.0310	PIPE UNDERDRAIN DRAIN TILE 10-INCH	LF	50.000	50.000
0860	612.0312	PIPE UNDERDRAIN DRAIN TILE 12-INCH	LF	50.000	50.000
0870	612.0700	DRAIN TILE EXPLORATION	LF	500.000	500.000
0880	614.0396	GUARDRAIL MOW STRIP ASPHALT	SY	482.000	482.000
0890	614.2300	MGS GUARDRAIL 3	LF	1,013.000	1,013.000
0900	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	4.000	4.000
0910	619.1000	MOBILIZATION	EACH	1.000	1.000
0920	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	53.000	53.000
0930	623.0200	DUST CONTROL SURFACE TREATMENT	SY	67,550.000	67,550.000
0940	624.0100	WATER	MGAL	923.000	923.000
0950	625.0100	TOPSOIL	SY	10,545.000	10,545.000
0960	625.0500	SALVAGED TOPSOIL	SY	89,910.000	89,910.000
0970	627.0200	MULCHING	SY	89,910.000	89,910.000
0980	628.1104	EROSION BALES	EACH	1,060.000	1,060.000
0990	628.1504	SILT FENCE	LF	8,152.000	8,152.000
1000	628.1520	SILT FENCE MAINTENANCE	LF	14,759.000	14,759.000
1010	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	15.000	15.000
1020	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	8.000	8.000
1030	628.2004	EROSION MAT CLASS I TYPE B	SY	48,600.000	48,600.000
1040	628.2027	EROSION MAT CLASS II TYPE C	SY	28,010.000	28,010.000
1050	628.6005	TURBIDITY BARRIERS	SY	2,190.000	2,190.000
1060	628.7005	INLET PROTECTION TYPE A	EACH	8.000	8.000
1070	628.7010	INLET PROTECTION TYPE B	EACH	3.000	3.000
1080	628.7015	INLET PROTECTION TYPE C	EACH	5.000	5.000
1090	628.7504	TEMPORARY DITCH CHECKS	LF	2,340.000	2,340.000
1100	628.7555	CULVERT PIPE CHECKS	EACH	153.000	153.000
1110	628.7560	TRACKING PADS	EACH	16.000	16.000
1120	628.7560.S	STONE OR ROCK DITCH CHECKS	CY	80.000	80.000
1130	628.7570	ROCK BAGS	EACH	82.000	82.000
1140	629.0210	FERTILIZER TYPE B	CWT	148.000	148.000
1150	630.0120	SEEDING MIXTURE NO. 20	LB	6,010.000	6,010.000
1160	630.0200	SEEDING TEMPORARY	LB	3,005.000	3,005.000
1170	631.0300	SOD WATER	MGAL	359.000	359.000
1180	631.1000	SOD LAWN	SY	10,545.000	10,545.000
1190	631.1100	SOD EROSION CONTROL	SY	4,510.000	4,510.000
1200	633.5200	MARKERS CULVERT END	EACH	64.000	64.000
1210	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	146.000	146.000
1220	637.0202	SIGNS REFLECTIVE TYPE II	SF	1,069.960	1,069.960
1230	637.0402	SIGNS REFLECTIVE FOLDING TYPE II	SF	7.460	7.460
1240	638.2102	MOVING SIGNS TYPE II	EACH	3.000	3.000
1250	638.2602	REMOVING SIGNS TYPE II	EACH	105.000	105.000
1260	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	100.000	100.000
1270	642.5401	FIELD OFFICE TYPE D	EACH	1.000	1.000
1280	643.0100	TRAFFIC CONTROL (PROJECT) 01. 2810-04-70	EACH	1.000	1.000

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DATE 22AUG12 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	2810-04-70 QUANTITY
1290	643.0300	TRAFFIC CONTROL DRUMS	DAY	11,960.000	11,960.000
1300	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	13,320.000	13,320.000
1310	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	26,640.000	26,640.000
1320	643.0900	TRAFFIC CONTROL SIGNS	DAY	13,880.000	13,880.000
1330	643.0910	TRAFFIC CONTROL COVERING SIGNS TYPE I	EACH	5.000	5.000
1340	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	19.000	19.000
1350	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	171.000	171.000
1360	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	28.000	28.000
1370	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 2810-04-70	EACH	1.000	1.000
1380	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	84,800.000	84,800.000
1390	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	2,340.000	2,340.000
1400	645.0130	GEOTEXTILE FABRIC TYPE R	SY	1,790.000	1,790.000
1410	645.0140	GEOTEXTILE FABRIC TYPE SAS	SY	405.000	405.000
1420	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	57,548.000	57,548.000
1430	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	45,515.000	45,515.000
1440	646.0881.S	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH	LF	3,365.000	3,365.000
1450	646.0883.S	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH	LF	6,612.000	6,612.000
1460	647.0158	PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 1	EACH	2.000	2.000
1470	647.0168	PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 2	EACH	10.000	10.000
1480	647.0358	PAVEMENT MARKING WORDS PREFORMED THERMOPLASTIC	EACH	8.000	8.000
1490	647.0568	PAVEMENT MARKING STOP LINE PREFORMED THERMOPLASTIC 18-INCH	LF	648.000	648.000
1500	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	530.000	530.000
1510	648.0100	LOCATING NO-PASSING ZONES	MI	4.750	4.750
1520	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	21.000	21.000
1530	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	25,134.000	25,134.000
1540	650.5000	CONSTRUCTION STAKING BASE	LF	25,134.000	25,134.000
1550	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	6,447.000	6,447.000
1560	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	98.000	98.000
1570	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	7,600.000	7,600.000
1580	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 2810-04-70	LS	1.000	1.000
1590	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 2810-04-70	LS	1.000	1.000
1600	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	25,134.000	25,134.000
1610	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	200.000	200.000
1620	652.0800	CONDUIT LOOP DETECTOR	LF	413.000	413.000
1630	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	2.000	2.000
1640	653.0900	ADJUSTING PULL BOXES	EACH	1.000	1.000
1650	653.0905	REMOVING PULL BOXES	EACH	2.000	2.000
1660	655.0700	LOOP DETECTOR LEAD IN CABLE	LF	890.000	890.000
1670	655.0800	LOOP DETECTOR WIRE	LF	1,137.000	1,137.000
1680	690.0150	SAWING ASPHALT	LF	1,885.000	1,885.000
1690	690.0250	SAWING CONCRETE	LF	105.000	105.000
1700	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR	HRS	3,600.000	3,600.000

3

DATE 22AUG12 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	2810-04-70 QUANTITY
1710	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	3,000.000	3,000.000
1720	SPV.0035	SPECIAL 01. BACKFILL SLURRY	CY	410.000	410.000
1730	SPV.0090	SPECIAL 01. HEAVY DUTY SILT FENCE	LF	6,607.000	6,607.000
1740	SPV.0090	SPECIAL 02. CONSTRUCTION STAKING SUPERELEVATION TRANSITIONS	LF	681.000	681.000
1750	SPV.0105	SPECIAL 01. TRANSPORTING AND INSTALLING TRAFFIC SIGN MATERIAL STH 36 & STH 164	LS	1.000	1.000
1760	SPV.0180	SPECIAL 01. GEOGRID REINFORCEMENT	SY	104,800.000	104,800.000
1770	SPV.0180	SPECIAL 02. GEOTEXTILE FABRIC TYPE FF	SY	2,065.000	2,065.000

EARTHWORK SUMMARY

ID 2810-04-70 CATEGORY 0010			A	B	C	D	E	F	G	H	I	J	K
			Item #205.0100		*	*	Item #311.0110	*	*	Item #205.0400	Item #209.0100	*	*
Division	From/To Station	Location	Excavation Common (1) CY		Salvaged/Unusable Pavement Material (5)	Available Material (6)	Breaker Run = EBS Backfill (3)(7) CY	Unexpanded Fill	Expanded Fill (8) CY	Excavation Marsh	Backfill Granular (9) CY	Mass Ordinate (10)	Waste
			Cut	EBS Excavation (2)(3)(4)			Factor		Factor		Factor		
			CY	CY	CY	CY	1.00	CY	1.30	CY	1.30	CY	CY
1	1084+00 to 1162+00	STH 164	58,262		4,580	53,682		4,123	5,360	0	0	48,322	
	46+50 to 49+50	Beach Drive	1,796		170	1,626		15	20	0	0	1,606	
	48+00 to 49+50	Sandy Lane	252		110	142		13	17	0	0	125	
	48+00 to 49+50	Dorie Lane	436		120	316		57	74	0	0	242	
	48+50 to 49+50	Greenhaven Terrace	333		90	243		19	25	0	0	219	
	46+00 to 53+80	North Lake Drive	3,672		360	3,312		6	8	0	0	3,304	
Division 1 Subtotals			64,751	3,300	5,430	59,321	3,300	4,233	5,503	0	0	53,818	57,118
2	1162+00 to 1212+20	STH 164	26,503		2,790	23,713		4,689	6,096	0	0	17,617	
	47+00 to 49+50	Jensen Parkway	342		170	172		42	55	0	0	117	
	145+75 to 155+50	County Line Road	1,082		430	652		579	752	0	0	-100	
Division 2 Subtotals			27,928	1,400	3,390	24,538	1,400	5,310	6,903	0	0	17,634	19,035
3	944+10 to 1084+00	STH 164	73,667		8,430	65,237		23,101	30,032	80,187	116,843	35,205	
	48+00 to 49+50	Kramer Drive	328		110	218		112	146	0	0	72	
	45+00 to 52+00	Loomis Road	747		320	427		465	605	0	0	-178	
	48+00 to 49+34	Wood Drive	320		90	230		50	65	0	0	164	
	47+50 to 49+50	Gawin Drive	354		90	264		131	170	0	0	94	
	48+00 to 52+00	East River Bay Drive	694		160	534		210	273	0	0	260	
Division 3 Subtotals			76,109	3,900	9,200	66,910	3,900	24,070	31,291	80,187	116,843	35,618	119,706
Grand Totals			168,788	8,600	18,020	150,769	8,600	33,613	43,697	80,187	116,843	107,070	195,859
		Total Excavation Common =	177,388				17,200 TON						

* = Not a bid item. Column shown for information only.

1) Excavation Common is the sum of the Cut (A) and EBS Excavation (B) columns. Item #205.0100

2) EBS Excavation (B) is assumed to be 5% of the total Cut (A) and is assumed to be undistributed unless otherwise noted. To be paid as Excavation Common (Item #205.0100)

3) EBS Excavation (B) to be backfilled with Breaker Run (E) (Item 311.0110).

4) It is assumed that all EBS excavation (B) will be wasted because this is a waste project.

5) Salvaged/Unusable Pavement Material (C) is included in Cut (A). This summary assumes that the existing pavement will be salvaged. The existing pavement structure is not shown in the cross sections.

6) Available Material (D) = Cut (A) - Salvaged/Unusable Pavement Material (C)

7) EBS Backfill (E) - It is assumed that EBS excavation will to be backfilled with Breaker Run. EBS Backfill is not included as part of the mass ordinate. Assumed unit weight of Breaker Run = 2.0 Tons/CY.

8) Expanded Fill (G) = Unexpanded Fill (F) * Fill Factor

9) Backfill Granular (I) = (Excavation Marsh (H) + Additional Backfill Granular to 2' above top of marsh - see cross sections and construction detail) x Fill Factor (1.30)

10) The Mass Ordinate (J) = Available Material (D) - Expanded Fill (G) + or - Qty calculated for the Division. Plus quantity indicates an excess of material. Minus quantity indicates a shortage of material.

11) Waste (K) = EBS Excavation (B) + Available Material (D) - Expanded Fill (G) + Excavation Marsh (H) + or - Qty calculated for the Division. Plus quantity indicates an excess of material. Minus quantity indicates a shortage of material.

REMOVALS

LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	204.0100 REMOVING PAVEMENT SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0150 REMOVING CURB & GUTTER LF	204.0165 REMOVING GUARDRAIL LF	204.0170 REMOVING FENCE LF	204.0180 REMOVING DELINEATORS AND MARKERS EACH	204.0185 REMOVING MASONRY CY	204.0195 REMOVING CONCRETE BASES EACH	204.0265 ABANDONING WELLS EACH	204.9165.S REMOVING BLOCK RETAINING WALL SF	330.0100 MILL AND RELAY SY
STAGE 1													
STH 164 STA 1084+00 - STA 1162+00	56	56	270	---	---	190	272	9	7	---	1	103	---
BEACH DRIVE	2	2	---	---	---	---	---	2	---	---	---	---	---
SANDY LANE	---	---	---	---	148	---	---	---	---	---	---	---	---
DORIE LANE	1	1	---	---	144	---	---	---	---	---	---	---	---
GREENHAVEN TERRACE	---	---	---	---	149	---	---	---	---	---	---	---	---
NORTH LAKE DRIVE	1	1	45	---	6	---	---	4	---	---	---	---	---
STAGE 2													
STH 164 STA 1162+00 - STA 1212+20	32	32	---	---	---	---	70	6	7	1	1	---	---
JENSEN PARKWAY	---	---	---	---	---	---	---	---	---	---	---	---	---
COUNTY LINE ROAD	8	8	---	---	---	---	---	3	---	---	---	---	---
STAGE 3													
STH 164 STA 944+00 - STA 1084+00	25	25	---	390	---	964	1,160	12	---	---	---	---	30,700
CORNERSTONE CROSSING	---	---	---	660	---	---	---	---	---	---	---	---	---
KRAMER DRIVE	---	---	---	---	35	---	---	1	---	---	---	---	---
LOOMIS ROAD	---	---	---	---	---	---	---	5	---	---	---	---	---
WOOD DRIVE	---	---	---	---	---	---	---	1	---	---	---	---	---
GAWIN DRIVE	---	---	---	---	---	---	---	---	---	---	---	---	---
EAST RIVER BAY DRIVE	---	---	---	---	---	---	---	4	---	---	---	---	---
TOTAL	**125**	**125**	**315**	**1,050**	**482**	**1,154**	**1,502**	**47**	**14**	**1**	**2**	**103**	**30,700**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

BASE AGGREGATE

LOCATION	BASE AGGREGATE ** 305.0110 DENSE 3/4-INCH TON	305.0120 DENSE 1 1/4-INCH TON	305.0410 AGGREGATE DETOURS TON	305.0500 SHAPING SHOULDERS STA	306.0110 SALVAGED ASPHALTIC PAVEMENT BASE TON	623.0200 DUST CONTROL SURFACE TREATMENT SY	624.0100 WATER MGAL	628.7560 TRACKING PADS EACH	SPV.0180.01 GEOGRID REINFORCEMENT SY
STAGE 1									
STH 164 STA 1084+00 - STA 1162+00	2,900	83,500	---	---	---	20,000	200	2	44,200
BEACH DRIVE	70	730	---	---	---	1,000	1.5	1	---
SANDY LANE	40	470	---	---	---	---	1.0	---	---
DORIE LANE	40	480	---	---	---	---	1.0	---	---
GREENHAVEN TERRACE	30	340	---	---	---	---	1.0	---	---
NORTH LAKE DRIVE	140	2,000	---	---	---	2,200	4.0	2	---
STAGE 2									
STH 164 STA 1162+00 - STA 1212+20	2,100	51,400	---	---	---	15,300	150	2	26,600
JENSEN PARKWAY	70	650	---	---	---	1,000	1.5	1	---
COUNTY LINE ROAD	260	2,250	---	---	---	2,600	4.5	2	---
STAGE 3									
STH 164 STA 944+00 - STA 1084+00	5,800	72,500	---	125	1,890	16,300	200	2	34,000
KRAMER DRIVE	30	460	---	---	---	---	1.0	---	---
LOOMIS ROAD	190	1,950	---	---	---	2,000	4.0	2	---
WOOD DRIVE	40	420	---	---	---	---	1.0	---	---
GAWIN DRIVE	60	520	---	---	---	---	1.0	---	---
EAST RIVER BAY DRIVE	90	970	---	---	---	1,000	1.0	2	---
UNDISTRIBUTED	---	---	100	---	---	6,150	350	---	---
TOTALS	**11,860**	**218,640**	**100**	**125**	**1,890**	**67,550**	**923**	**16**	**104,800**

** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "DRIVEWAYS" TABLE.

ASPHALT

LOCATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	390.0201 BASE PATCHING ASPHALTIC TON	440.4410.S INCENTIVE IRI RIDE DOL	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	455.0105 ASPHALTIC MATERIAL PG 58-28 TON	455.0605 TACK COAT GAL	460.1103 HMA PAVEMENT TYPE E-3 TON	465.0115 ASPHALTIC SURFACE DETOURS TON
STAGE 1								
STH 164 STA 1084+00 - STA 1162+00	---	---	5,910	8,550	735	1,900	13,360	---
BEACH DRIVE	---	---	---	157	14	27	245	---
SANDY LANE	---	---	---	96	9	17	150	---
DORIE LANE	---	---	---	99	9	17	155	---
GREENHAVEN TERRACE	---	---	---	77	7	13	120	---
NORTH LAKE DRIVE	---	---	---	448	39	76	700	---
STAGE 2								
STH 164 STA 1162+00 - STA 1212+20	---	---	3,810	4,979	428	1,100	7,780	---
JENSEN PARKWAY	---	---	---	138	12	23	215	---
COUNTY LINE ROAD	---	---	---	467	41	79	730	---
STAGE 3								
STH 164 STA 944+00 - STA 1084+00	110	69	4,850	12,480	1,073	3,250	19,500	---
KRAMER DRIVE	---	---	---	118	11	18	185	---
LOOMIS ROAD	---	---	---	461	40	69	720	---
WOOD DRIVE	---	---	---	93	10	16	145	---
GAWIN DRIVE	---	---	---	109	10	19	170	---
EAST RIVER BAY DRIVE	---	---	---	224	20	38	350	---
UNDISTRIBUTED	---	---	---	---	---	---	---	100
TOTALS	**110**	**69**	**14,570**	**28,500**	**2,458**	**6,662**	**44,525**	**100**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

DRIVEWAYS

LOCATION	** 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	416.0260 CONCRETE DRIVEWAY HES 6-INCH SY	** 416.0610 DRILLED TIE BARS EACH	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	690.0250 SAWING CONCRETE LF	** 690.0150 SAWING ASPHALT LF
STAGE 1						
STH 164 STA 1084+00 - STA 1162+00	850	335	32	320	91	240
BEACH DRIVE	63	---	---	57	---	82
SANDY LANE	---	---	---	---	---	---
DORIE LANE	---	---	---	---	---	---
GREENHAVEN TERRACE	---	---	---	---	---	---
NORTH LAKE DRIVE	58	92	5	8	14	56
STAGE 2						
STH 164 STA 1162+00 - STA 1212+20	1,090	92	---	450	---	545
JENSEN PARKWAY	33	---	---	6	---	---
COUNTY LINE ROAD	30	18	---	23	---	45
STAGE 3						
STH 164 STA 944+00 - STA 1084+00	290	26	---	29	---	11
KRAMER DRIVE	---	---	---	---	---	---
LOOMIS ROAD	53	---	---	2	---	---
WOOD DRIVE	---	---	---	---	---	---
GAWIN DRIVE	---	---	---	---	---	---
EAST RIVER BAY DRIVE	---	---	---	---	---	---
TOTALS	**2,467**	**563**	**37**	**895**	**105**	**979**

** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "BASE AGGREGATE", "CONCRETE" & "SAWING ASPHALT" TABLES.

CONCRETE

LOCATION	** 416.0610 DRILLED TIE BARS EACH	416.1010 CONCRETE SURFACE DRAINS CY	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	602.0410 CONCRETE SIDEWALK 5-INCH SF
STAGE 1				
STH 164 STA 1084+00 - STA 1162+00	---	9.9	1,700	---
BEACH DRIVE	---	0.8	~~152~~ 287	---
SANDY LANE	---	1.5	152	---
DORIE LANE	---	2.2	151	---
GREENHAVEN TERRACE	---	2.2	152	---
NORTH LAKE DRIVE	2	2.9	831	---
STAGE 2				
STH 164 STA 1162+00 - STA 1212+20	---	2.1	610	---
JENSEN PARKWAY	---	1.8	152	---
COUNTY LINE ROAD	---	4.6	348	---
STAGE 3				
STH 164 STA 944+00 - STA 1084+00	---	8.1	692	---
KRAMER DRIVE	2	1.4	236	---
LOOMIS ROAD	---	1.8	499	830
WOOD DRIVE	---	---	139	---
GAWIN DRIVE	---	1.1	160	---
EAST RIVER BAY DRIVE	---	4.2	273	---
TOTALS	**4**	**45**	**6,247**	**830**

** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "DRIVEWAYS" TABLE.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

CULVERT PIPE REINFORCED CONCRETE & ENDWALLS

INLET STATION	INLET OFFSET	INLET ELEV.	OUTLET STATION	OUTLET OFFSET	OUTLET ELEV.	LOCATION	NOTES	SLOPE (%)	203.0100 ** REMOVING SMALL PIPE CULVERTS EACH	521.0118 ** CULVERT PIPE CORRUGATED STEEL 18-INCH DESCRIPTION	18-INCH LF	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.0130 CLASS III 30-INCH LF	522.0148 CLASS III 48-INCH LF	522.0324 CLASS IV 24-INCH LF	522.0330 CLASS IV 30-INCH LF	522.0336 CLASS IV 36-INCH LF	522.0342 CLASS IV 42-INCH LF	523.0419 HORIZONTAL ELLIPTICAL CLASS HE-IV 19x30-INCH LF
STAGE 1																			
1088+37	42.25' RT	800.23	1088+37	36.67' LT	799.51	STH 164	CROSS DRAIN	0.91	1	52'-24" CMCP	---	---	---	---	---	79	---	---	---
1103+44	35.72' RT	811.77	1103+44	36.90' LT	811.09	STH 164	CROSS DRAIN	0.93	1	63'-24' CMCP	---	---	---	---	73	---	---	---	---
1114+14	37.40' RT	814.63	1114+14	51.36' LT	~~813.71~~ 814.19	STH 164	CROSS DRAIN	~~1.03~~ 0.50	1	82'-24" CMCP	---	---	---	---	---	---	---	---	89
1130+12	40.99' RT	792.52	1130+12	44.72' LT	791.16	STH 164	CROSS DRAIN	1.58	1	104'-48' CMCP	---	---	---	86	---	---	---	---	---
1136+52	52.12' RT	795.53	1136+52	52.96' LT	792.77	STH 164	CROSS DRAIN	2.60	1	99'-24' CMCP	---	106	---	---	---	---	---	---	---
1152+61	51.06' RT	---	1152+62	46.89' LT	---	STH 164	CROSS DRAIN	---	1	98'-36" CMCP	---	---	---	---	---	---	---	---	---
1158+00	36.27' RT	791.65	1158+00	44.67' LT	791.11	STH 164	CROSS DRAIN	0.67	1	55'-24" CMCP	---	81	---	---	---	---	---	---	---
1158+00	34.00' LT	---	1158+50	105.46' LT	---	STH 164	SIDE DRAIN	---	1	88'-24" CMCP	---	---	---	---	---	---	---	---	---
49+50	46.33, LT	798.37	49+50	35.33, RT	797.32	BEACH DRIVE	CROSS DRAIN	1.28	1	55'-24" CMCP	---	---	---	---	82	---	---	---	---
50+29	19.18' LT	---	50+29	28.86' RT	---	NORTH LAKE DRIVE	CROSS DRAIN	---	1	48'-24" CMCP	---	---	---	---	---	---	---	---	---
STAGE 2																			
1171+60	36.13' RT	801.34	1171+60	40.69' LT	800.21	STH 164	CROSS DRAIN	1.47	1	65'-24" CMCP	---	---	---	---	77	---	---	---	---
1178+60	30.01' RT	799.74	1178+60	32.70' LT	799.40	STH 164	CROSS DRAIN	0.54	1	61'-24" CMCP	---	---	---	---	---	---	---	---	63
1189+48	40.01' RT	791.43	1189+48	41.16' LT	791.09	STH 164	CROSS DRAIN	0.41	1	78'-24" CMCP	---	82	---	---	---	---	---	---	---
1201+50	38.71' RT	795.47	1201+50	32.50' LT	795.15	STH 164	CROSS DRAIN	0.44	---	---	---	---	---	---	---	---	---	---	72
1204+00	40.00' RT	793.52	1204+85	43.07' RT	791.85	STH 164	SIDE DRAIN	1.96	---	---	85	---	---	---	---	---	---	---	---
1205+00	37.32' RT	791.29	1205+00	47.81' LT	788.83	STH 164	CROSS DRAIN	2.86	---	---	---	---	---	---	---	---	---	---	86
1208+36	34.66' RT	785.51	1208+36	42.65' LT	785.38	STH 164	CROSS DRAIN	0.17	1	73'-30" CMCP	---	---	---	---	---	---	78	---	---
1208+44	34.66' RT	784.78	1208+44	42.65' LT	784.78	STH 164	CROSS DRAIN	0.00	1	73'-30" CMCP	---	---	---	---	---	---	---	78	---
150+54	34.18' RT	---	150+54	6.57' LT	---	COUNTY LINE ROAD	CROSS DRAIN	---	1	41'-24" CMCP	---	---	---	---	---	---	---	---	---
STAGE 3																			
957+60	45.75' RT	793.75	957+60	59.61' LT	788.87	STH 164	CROSS DRAIN	4.60	1	119'-24" CMCP	---	106	---	---	---	---	---	---	---
969+72	47.00' LT	832.30	969+72	37.00' RT	829.09	STH 164	CROSS DRAIN	3.82	1	65'-18"x30" CMCP	---	---	---	---	---	---	---	---	84
986+22	56.32' LT	800.41	986+22	48.32' RT	800.17	STH 164	CROSS DRAIN	0.23	1	120'-30" CMCP	---	---	105	---	---	---	---	---	---
1016+17	72.73' RT	801.99	1016+17	51.70' LT	800.39	STH 164	CROSS DRAIN	1.28	1	140'-48" CMCP	---	---	---	125	---	---	---	---	---
1049+57	62.72' RT	784.97	1049+57	65.68' LT	783.95	STH 164	CROSS DRAIN	0.79	1	110'-24" CMCP	---	---	129	---	---	---	---	---	---
1049+63	62.72' RT	784.97	1049+63	65.68' LT	783.95	STH 164	CROSS DRAIN	0.79	---	---	---	---	129	---	---	---	---	---	---
1075+66	33.37' RT	782.53	1075+66	33.79' LT	782.43	STH 164	CROSS DRAIN	0.15	1	63'-24" CMCP	---	---	---	---	---	---	68	---	---
1075+74	33.37' RT	782.53	1075+74	33.79' LT	782.43	STH 164	CROSS DRAIN	0.15	---	---	---	---	---	---	---	---	68	---	---
1076+97	34.53' RT	783.16	1076+97	35.87' LT	782.82	STH 164	CROSS DRAIN	0.48	1	60'-24" CMCP	---	---	---	---	---	71	---	---	---
1077+04	34.53' RT	783.16	1077+04	35.87' LT	782.82	STH 164	CROSS DRAIN	0.48	---	---	---	---	---	---	---	71	---	---	---
48+70	38.65' RT	---	48+86	11.87' LT	---	LOOMIS ROAD	CROSS DRAIN	---	1	53'-18" CMCP	---	---	---	---	---	---	---	---	---
49+92	17.50' RT	---	50+12	32.22' LT	---	LOOMIS ROAD	CROSS DRAIN	---	1	53'-18" CMCP	---	---	---	---	---	---	---	---	---
49+34	36.56' LT	821.79	49+34	36.09' RT	821.13	WOOD DRIVE	CROSS DRAIN	0.90	1	47'-18" CMCP	---	---	---	---	73	---	---	---	---
49+50	47.07' RT	804.31	49+42	65.44' LT	801.82	GAWIN DRIVE	CROSS DRAIN	2.20	1	39'-18" CMCP	---	113	---	---	---	---	---	---	---
49+50	40.00' RT	799.85	49+50	45.73' LT	799.48	EAST RIVER BAY DRIVE	CROSS DRAIN	0.43	---	---	---	---	---	---	86	---	---	---	---
50+50	41.78' RT	799.98	50+50	42.56' LT	799.13	EAST RIVER BAY DRIVE	CROSS DRAIN	1.00	1	35'-24" CMCP	---	---	---	---	---	85	---	---	---
TOTALS									**28**		**85**	**488**	**363**	**211**	**391**	**306**	**214**	**78**	**394**

** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "DRIVEWAY CULVERTS & ENDWALLS" AND "STORM SEWER PIPE REINFORCED CONCRETE & ENDWALLS".

1. STATIONS AND OFFSETS ARE TO THE END OF PIPE NOT TO THE END OF THE APRON ENDWALLS. FIELD VERIFY CULVERT PIPE LOCATIONS AND ELEVATIONS PRIOR TO INSTALLATION.
2. JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL REINFORCED CONCRETE APRON ENDWALL LOCATIONS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE CULVERT PIPE REINFORCED CONCRETE.

CONTINUED ON NEXT SHEET

ALL ITEMS CATEGORY 0010 UNLESS NOTED

CULVERT PIPE REINFORCED CONCRETE & ENDWALLS

	INLET		OUTLET					SLOPE	** 521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL	** APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE					** HORIZONTAL ELLIPTICAL	**	*	**	**		
										522.1024	522.1030	522.1036	522.1042	522.1048	523.0519	611.9800.S PIPE	JOINT	633.5200 MARKERS	650.6000 CONSTRUCTION STAKING PIPE	209.0100 BACKFILL	SPV.0035.01 BACKFILL
																GRATES	TIES	CULVERT END	CULVERTS	GRANULAR	SLURRY
STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.	LOCATION	NOTES	(%)	18-INCH EACH	24-INCH EACH	30-INCH EACH	36-INCH EACH	42-INCH EACH	48-INCH EACH	19x30-INCH EACH	EACH	EACH	EACH	EACH	CY	CY
STAGE 1																					
1088+37	42.25' RT	800.23	1088+37	36.67' LT	799.51	STH 164	CROSS DRAIN	0.91	---	---	2	---	---	---	---	2	12	2	1	40	---
1103+44	35.72' RT	811.77	1103+44	36.90' LT	811.09	STH 164	CROSS DRAIN	0.93	---	2	---	---	---	---	---	2	12	2	1	30	---
1114+14	37.40' RT	814.63	1114+14	51.36' LT	813.71	STH 164	CROSS DRAIN	1.03	---	---	---	---	---	---	2	2	12	2	1	40	---
1130+12	40.99' RT	792.52	1130+12	44.72' LT	791.16	STH 164	CROSS DRAIN	1.58	---	---	---	---	---	2	---	---	12	2	1	50	---
1136+52	52.12' RT	795.53	1136+52	52.96' LT	792.77	STH 164	CROSS DRAIN	2.60	---	2	---	---	---	---	---	---	12	2	1	35	---
1152+61	51.06' RT	---	1152+62	46.89' LT	---	STH 164	CROSS DRAIN	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1158+00	36.27' RT	791.65	1158+00	44.67' LT	791.11	STH 164	CROSS DRAIN	0.67	---	2	---	---	---	---	---	2	12	2	1	45	---
1158+00	34.00' LT	---	1158+50	105.46' LT	---	STH 164	SIDE DRAIN	---	---	---	---	---	---	---	---	---	---	---	---	---	---
49+50	46.33, LT	798.37	49+50	35.33, RT	797.32	BEACH DRIVE	CROSS DRAIN	1.28	---	2	---	---	---	---	---	2	12	2	1	30	---
50+29	19.18' LT	---	50+29	28.86' RT	---	NORTH LAKE DRIVE	CROSS DRAIN	---	---	---	---	---	---	---	---	---	---	---	---	---	---
STAGE 2								0.00													
1171+60	36.13' RT	801.34	1171+60	40.69' LT	800.21	STH 164	CROSS DRAIN	1.47	---	2	---	---	---	---	---	2	12	2	1	30	---
1178+60	30.01' RT	799.74	1178+60	32.70' LT	799.40	STH 164	CROSS DRAIN	0.54	---	---	---	---	---	---	2	2	12	2	1	35	---
1189+48	40.01' RT	791.43	1189+48	41.16' LT	791.09	STH 164	CROSS DRAIN	0.41	---	2	---	---	---	---	---	2	12	2	1	30	---
1201+50	38.71' RT	795.47	1201+50	32.50' LT	795.15	STH 164	CROSS DRAIN	0.44	---	---	---	---	---	---	2	2	12	2	1	40	---
1204+00	40.00' RT	793.52	1204+85	43.07' RT	791.85	STH 164	SIDE DRAIN	1.96	2	---	---	---	---	---	---	1	---	---	1	---	---
1205+00	37.32' RT	791.29	1205+00	47.81' LT	788.83	STH 164	CROSS DRAIN	2.86	---	---	---	---	---	---	2	2	12	2	1	35	---
1208+36	34.66' RT	785.51	1208+36	42.65' LT	785.38	STH 164	CROSS DRAIN	0.17	---	---	---	2	---	---	---	2	12	2	1	50	---
1208+44	34.66' RT	784.78	1208+44	42.65' LT	784.78	STH 164	CROSS DRAIN	0.00	---	---	---	---	2	---	---	2	12	2	1	50	---
150+54	34.18' RT	---	150+54	6.57' LT	---	COUNTY LINE ROAD	CROSS DRAIN	---	---	---	---	---	---	---	---	---	---	---	---	---	---
STAGE 3																					
957+60	45.75' RT	793.75	957+60	59.61' LT	788.87	STH 164	CROSS DRAIN	4.60	---	2	---	---	---	---	---	---	12	2	1	10	120
969+72	47.00' LT	832.30	969+72	37.00' RT	829.09	STH 164	CROSS DRAIN	3.82	---	---	---	---	---	---	2	2	12	2	1	10	10
986+22	56.32' LT	800.41	986+22	48.32' RT	800.17	STH 164	CROSS DRAIN	0.23	---	---	2	---	---	---	---	---	12	2	1	10	100
1016+17	72.73' RT	801.99	1016+17	51.70' LT	800.39	STH 164	CROSS DRAIN	1.28	---	---	---	---	---	2	---	1	12	2	1	10	180
1049+57	62.72' RT	784.97	1049+57	65.68' LT	783.95	STH 164	CROSS DRAIN	0.79	---	---	2	---	---	---	---	---	12	2	1	35	---
1049+63	62.72' RT	784.97	1049+63	65.68' LT	783.95	STH 164	CROSS DRAIN	0.79	---	---	2	---	---	---	---	---	12	2	1	35	---
1075+66	33.37' RT	782.53	1075+66	33.79' LT	782.43	STH 164	CROSS DRAIN	0.15	---	---	---	2	---	---	---	2	12	2	1	40	---
1075+74	33.37' RT	782.53	1075+74	33.79' LT	782.43	STH 164	CROSS DRAIN	0.15	---	---	---	2	---	---	---	2	12	2	1	40	---
1076+97	34.53' RT	783.16	1076+97	35.87' LT	782.82	STH 164	CROSS DRAIN	0.48	---	---	2	---	---	---	---	2	12	2	1	35	---
1077+04	34.53' RT	783.16	1077+04	35.87' LT	782.82	STH 164	CROSS DRAIN	0.48	---	---	2	---	---	---	---	2	12	2	1	35	---
48+70	38.65' RT	---	48+86	11.87' LT	---	LOOMIS ROAD	CROSS DRAIN	---	---	---	---	---	---	---	---	---	---	---	---	---	---
49+92	17.50' RT	---	50+12	32.22' LT	---	LOOMIS ROAD	CROSS DRAIN	---	---	---	---	---	---	---	---	---	---	---	---	---	---
49+34	36.56' LT	821.79	49+34	36.09' RT	821.13	WOOD DRIVE	CROSS DRAIN	0.90	---	2	---	---	---	---	---	2	12	2	1	25	---
49+50	47.07' RT	804.31	49+42	65.44' LT	801.82	GAWIN DRIVE	CROSS DRAIN	2.20	---	2	---	---	---	---	---	2	12	2	1	30	---
49+50	40.00' RT	799.85	49+50	45.73' LT	799.48	EAST RIVER BAY DRIVE	CROSS DRAIN	0.43	---	2	---	---	---	---	---	2	12	2	1	30	---
50+50	41.78' RT	799.98	50+50	42.56' LT	799.13	EAST RIVER BAY DRIVE	CROSS DRAIN	1.00	---	---	2	---	---	---	---	2	12	2	1	30	---
									2	**20**	**14**	**6**	**2**	**4**	**10**	**44**	**336**	**56**	**29**	**915**	**410**

* NON-BID ITEM, FOR INFORMATION ONLY.

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ALL ITEMS CATEGORY 0010 UNLESS NOTED

DRIVEWAY CULVERTS AND ENDWALLS

STATION	OFFSET	LOCATION	NOTES	203.0100** REMOVING SMALL PIPE CULVERTS EACH	COMMENTS	521.0115** CULVERT PIPE CORRUGATED STEEL 15-INCH LF	521.0118** CULVERT PIPE CORRUGATED STEEL 18-INCH LF	521.0124** CULVERT PIPE CORRUGATED STEEL 24-INCH LF	521.0130** CULVERT PIPE CORRUGATED STEEL 30-INCH LF	PIPE THICKNESS* STEEL IN	PIPE THICKNESS* ALUM IN	521.1015** APRON ENDWALLS FOR CULVERT PIPE STEEL 15-INCH EACH	521.1018** APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	521.1024** APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH EACH	521.1030** APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH EACH	521.1518** APRON ENDWALLS FOR CULVERT PIPE STEEL SLOPED SECTION STEEL 18-INCH EACH	521.1524** APRON ENDWALLS FOR CULVERT PIPE STEEL SLOPED SECTION STEEL 24-INCH EACH	650.6000** CONSTRUCTION STAKING PIPE CULVERTS EACH
STAGE 1																		
1085+69	57.05' RT	STH 164	FE, RT	1	26'-18" CMCP	---	---	---	~~36~~ 44	0.064	0.060	---	---	---	2	---	---	1
1090+00	55.49' RT	STH 164	PE, RT	1	21'-18' CMCP	---	---	~~43~~ 52	---	0.064	0.060	---	---	2	---	---	---	1
1095+05	43.48' RT	STH 164	PE, RT	1	37'-15" CMCP	---	~~40~~ 44	---	---	0.064	0.060	---	2	---	---	---	---	1
1095+52	48.15' LT	STH 164	PE, LT	1	27'-15" CMCP	---	~~44~~ 55	---	---	0.064	0.060	---	2	---	---	---	---	1
1096+53	40.58' RT	STH 164	FE, RT	1	25'-15" CMCP	---	~~40~~ 45	---	---	0.064	0.060	---	---	---	---	2	---	1
1097+11	24.13 LT	STH 164	PE, LT	1	26'-15" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1098+65	40.52' RT	STH 164	PE, RT	1	24'-15" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1099+11	40.52' RT	STH 164	PE, RT	1	23'-15" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1100+18	40.52' RT	STH 164	PE, RT	1	29'-15" CMCP	---	46	---	---	0.064	0.060	---	---	---	---	2	---	1
1101+41	40.52' RT	STH 164	PE, RT	1	22'-15" CMCP	---	~~54~~ 42	---	---	0.064	0.060	---	---	---	---	2	---	1
1104+75	47.47' RT	STH 164	PE, RT	1	27'-18' CMCP	---	~~32~~ 38	---	---	0.064	0.060	---	2	---	---	---	---	1
1107+75	45.00' LT	STH 164	PE, LT	1	35'-18" CMCP	---	~~56~~ 54	---	---	0.064	0.060	---	---	---	---	2	---	1
1108+32	45.03' RT	STH 164	PE, RT	1	22'-18" CMCP	---	~~42~~ 45	---	---	0.064	0.060	---	2	---	---	---	---	1
1109+32	42.08' RT	STH 164	PE, RT	1	26'-18' CMCP	---	~~50~~ 51	---	---	0.064	0.060	---	---	---	---	2	---	1
1117+96	40.52' RT	STH 164	PE, RT	1	34'-15" CMCP	---	46	---	---	0.064	0.060	---	---	---	---	2	---	1
1120+51	40.52' RT	STH 164	PE, RT	1	26'-15" CMCP	---	~~40~~ 41	---	---	0.064	0.060	---	---	---	---	2	---	1
1124+00	40.09' RT	STH 164	PE, RT	1	39'-15" CMCP	---	~~42~~ 43	---	---	0.064	0.060	---	---	---	---	2	---	1
1124+11	40.09' LT	STH 164	PE, LT	---	---	---	~~48~~ 42	---	---	0.064	0.060	---	---	---	---	2	---	1
1126+78	40.09' RT	STH 164	PE, RT	1	24'-15" CMCP	---	~~46~~ 44	---	---	0.064	0.060	---	---	---	---	2	---	1
1127+74	40.52' LT	STH 164	PE, LT	1	26'-15" CMCP	---	~~44~~ 43	---	---	0.064	0.060	---	---	---	---	2	---	1
1129+51	40.52' LT	STH 164	PE, LT	1	29'-15' CMCP	---	~~44~~ 41	---	---	0.064	0.060	---	---	---	---	2	---	1
1130+64	43.15' RT	STH 164	PE, RT	1	26-18" CMCP	---	~~48~~ 51	---	---	0.064	0.060	---	2	---	---	---	---	1
1131+75	46.84' LT	STH 164	PE, LT	1	44'-24" CMCP	---	~~60~~ 64	---	---	0.064	0.060	---	2	---	---	---	---	1
1132+87	40.47' RT	STH 164	FE, RT	1	24'-18" CMCP	---	~~46~~ 43	---	---	0.064	0.060	---	---	---	---	2	---	1
1139+20	45.90' RT	STH 164	CE, RT	1	61'-15" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1141+18	27.15' RT	STH 164	FE, RT	1	22'-15" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1142+74	29.05' RT	STH 164	PE, RT	1	26'-15" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1143+35	29.93' RT	STH 164	PE, RT	1	20'-15" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1144+34	40.73' RT	STH 164	PE, RT	1	30'-15" CMCP	---	~~44~~ 55	---	---	0.064	0.060	---	2	---	---	---	---	1
1146+43	40.52' RT	STH 164	PE, RT	1	41'-15" CMCP	---	~~46~~ 55	---	---	0.064	0.060	---	2	---	---	---	---	1
1153+26	28.61' LT	STH 164	CE, LT	1	47'-15" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1156+15	28.73' RT	STH 164	FE, RT	1	26'-18' CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1158+50	45.86' RT	STH 164	PE, RT	---	---	---	~~26~~ 33	---	---	0.064	0.060	---	2	---	---	---	---	1
1160+11	41.99' RT	STH 164	PE, RT	1	40'-15" CMCP	---	~~28~~ 22	---	---	0.064	0.060	---	2	---	---	---	---	1
1161+00	40.52' RT	STH 164	FE, RT	1	40'-18" CMCP	---	~~28~~ 33	---	---	0.064	0.060	---	2	---	---	---	---	1
47+16	24.99' LT	BEACH DRIVE	CE, LT	1	29'-12" CMCP	---	30	---	---	0.064	0.060	---	2	---	---	---	---	1
~~49+15~~	~~35.37' RT~~	~~BEACH DRIVE~~	~~PE, RT~~	~~1~~	~~29'-12" CMCP~~	~~---~~	~~30~~	~~---~~	~~---~~	~~0.064~~	~~0.060~~	~~---~~	~~2~~	~~---~~	~~---~~	~~---~~	~~---~~	~~1~~
48+05	25.34' RT	NORTH LAKE DRIVE	CE, RT	1	47'-15" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
53+00	23.09 LT	NORTH LAKE DRIVE	FE, LT	---	---	---	24	---	---	0.064	0.060	---	2	---	---	---	---	1

CONTINUED ON NEXT SHEET

ALL ITEMS CATEGORY 0010 UNLESS NOTED

DRIVEWAY CULVERTS AND ENDWALLS

STATION	OFFSET	LOCATION	NOTES	** 203.0100 REMOVING SMALL PIPE CULVERTS EACH	COMMENTS	** 521.0115 CULVERT PIPE CORRUGATED STEEL 15-INCH LF	** 521.0118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	521.0124 CULVERT PIPE CORRUGATED STEEL 24-INCH LF	521.0130 CULVERT PIPE CORRUGATED STEEL 30-INCH LF	* PIPE THICKNESS STEEL IN	PIPE THICKNESS ALUM IN	521.1015 APRON ENDWALLS FOR CULVERT PIPE STEEL 15-INCH EACH	** 521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH EACH	521.1030 APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH EACH	521.1518 APRON ENDWALLS FOR CULVERT PIPE STEEL SLOPED SECTION STEEL 18-INCH EACH	521.1524 APRON ENDWALLS FOR CULVERT PIPE STEEL SLOPED SECTION STEEL 24-INCH EACH	650.6000** CONSTRUCTION STAKING PIPE CULVERTS EACH
STAGE 2																		
1162+10	27.15' RT	STH 164	PE, LT	1	35'-15" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1162+50	40.52' RT	STH 164	CE, RT	1	195'-18" CMCP	---	~~82~~ 146	---	---	0.064	0.060	---	2	---	---	---	---	1
1162+55	47.58' LT	STH 164	FE, LT	---	---	---	~~55~~ 63	---	---	0.064	0.060	---	2	---	---	---	---	1
1163+28	40.52' RT	STH 164	CE, RT	1	---	---	*** ~~36~~	---	---	0.064	0.060	---	~~2~~	---	---	---	---	1
1163+55	40.52' LT	STH 164	CE, LT	1	29'-18" CMCP	---	38	---	---	0.064	0.060	---	2	---	---	---	---	1
1163+78	40.52' RT	STH 164	CE, RT	1	51'-15" CMCP	---	*** ~~38~~	---	---	0.064	0.060	---	~~2~~	---	---	---	---	1
1163+96	40.52' LT	STH 164	CE, LT	1	27'-18"CMCP	---	38	---	---	0.064	0.060	---	2	---	---	---	---	1
1164+64	28.10' LT	STH 164	CE, LT	1	30'-18" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1165+00	40.52' RT	STH 164	CE, RT	1	34'-15" CMCP	---	~~52~~ 60	---	---	0.064	0.060	---	2	---	---	---	---	1
1165+67	27.00' LT	STH 164	CE, LT	1	34'-18" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1165+78	28.38' RT	STH 164	CE, RT	1	26'-15" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1168+45	28.06' LT	STH 164	PE, LT	1	20'-12" RCCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1170+24	45.80' RT	STH 164	CE, RT	1	27'-15" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1171+15	45.99' RT	STH 164	CE, RT	---	---	---	~~36~~ 39	---	---	0.064	0.060	---	2	---	---	---	---	1
1173+82	48.87' RT	STH 164	PE, RT	1	26'-12" CMCP	---	~~30~~ 35	---	---	0.064	0.060	---	2	---	---	---	---	1
1175+60	48.87' RT	STH 164	PE, RT	1	26'-18" CMCP	---	~~42~~ 50	---	---	0.064	0.060	---	2	---	---	---	---	1
1179+95	40.52' RT	STH 164	PE, RT	1	26'-18" CMCP	---	~~38~~ 41	---	---	0.064	0.060	---	---	---	---	2	---	1
1180+88	40.52' RT	STH 164	PE, RT	1	23'-15" CMCP	---	34	---	---	0.064	0.060	---	---	---	---	2	---	1
1182+21	40.52' RT	STH 164	PE, RT	1	20'-15" CMCP	---	~~42~~ 43	---	---	0.064	0.060	---	---	---	---	2	---	1
1182+34	40.52' LT	STH 164	PE, LT	---	---	---	~~36~~ 49	---	---	0.064	0.060	---	---	---	---	2	---	1
1183+15	40.52' LT	STH 164	PE, LT	---	---	---	~~32~~ 70	---	---	0.064	0.060	---	---	---	---	2	---	1
1183+40	40.52' RT	STH 164	PE, RT	1	24'-15" CMCP	---	~~30~~ 29	---	---	0.064	0.060	---	---	---	---	2	---	1
1183+45	40.52' LT	STH 164	PE, LT	---	---	---	**** ~~32~~	---	---	0.064	0.060	---	---	---	---	~~2~~	---	1
1184+00	40.52' RT	STH 164	PE, RT	1	27'-15" CMCP	---	~~40~~ 38	---	---	0.064	0.060	---	---	---	---	2	---	1
1186+00	40.52' RT	STH 164	PE, RT	1	21'-15" CMCP	---	~~30~~ 32	---	---	0.064	0.060	---	---	---	---	2	---	1
1187+27	40.52' RT	STH 164	PE, RT	1	23'-15" CMCP	---	~~40~~ 38	---	---	0.064	0.060	---	---	---	---	2	---	1
1188+24	43.80' RT	STH 164	PE, RT	1	31'-15" RCCP	---	38	---	---	0.064	0.060	---	2	---	---	---	---	1
1189+00	46.92' RT	STH 164	PE, RT	---	---	---	~~56~~ 62	---	---	0.064	0.060	---	2	---	---	---	---	1
1191+77	44.04' LT	STH 164	FE, LT	1	23'-18" CMCP	---	~~38~~ 46	---	---	0.064	0.060	---	2	---	---	---	---	1
1193+91 1194+26	40.52' LT	STH 164	FE, LT PE, LT	1	23'-15" CMCP	---	~~62~~ 65	---	---	0.064 0.064	0.060 0.060	---	---	---	---	2	---	1
1195+00	40.52' RT	STH 164	PE, RT	---	---	---	~~26~~ 23	---	---	0.064	0.060	---	---	---	---	2	---	1
1197+28	45.90' RT	STH 164	PE, RT	---	---	---	~~32~~ 39	---	---	0.064	0.060	---	2	---	---	---	---	1
1201+08	45.40' RT	STH 164	PE, RT	1	22'-15" CMCP	---	~~28~~ 35	---	---	0.064	0.060	---	2	---	---	---	---	1
1203+78	40.49' RT	STH 164	FE, RT	1	9'-18" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1210+72	42.46' LT	STH 164	FE, LT	1	29'-24" CMCP	---	---	~~36~~ 37	---	0.064	0.060	---	---	---	---	---	2	1
1211+47	42.39' RT	STH 164	FE, RT	1	30'-24" CMCP	---	---	~~32~~ 35	---	0.064	0.060	---	---	---	---	---	2	1
48+20	23.09' RT	JENSEN PARKWARY	PE, RT	---	---	~~46~~ 43	---	---	---	0.064	0.060	2	---	---	---	---	---	1
153+50	22.59' RT	COUNTY LINE ROAD	PE, RT	1	45'-15" CMCP	~~48~~ 45	---	---	---	0.064	0.060	2	---	---	---	---	---	1
150+86	35.17' RT	COUNTY LINE ROAD	PE, RT	1	34'-12" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
STAGE 3																		
968+40	44.90' RT	STH 164	FE, RT	1	24'-24" CMCP	---	---	---	---	---	---	---	---	---	---	---	---	---
1024+50	48.87' RT	STH 164	FE, RT	1	28'-18" CMCP	---	~~38~~ 33	---	---	0.064	0.060	---	---	---	---	2	---	1
1031+25	42.93' LT	STH 164	PE, LT	1	32'-15" CMCP	---	~~56~~ 59	---	---	0.064	0.060	---	---	---	---	2	---	1
1040+00	40.89' RT	STH 164	FE, RT	1	13'-18' CMCP	---	---	~~32~~ 36	---	0.064	0.060	---	---	---	---	---	2	1
1049+06	76.02' RT	STH 164	PE, RT	---	---	---	---	~~68~~ 84	---	0.064	0.060	---	---	2	---	---	---	1
1053+40	40.00' LT	STH 164	PE, LT	1	26'-15" CMCP	---	---	216	---	0.064	0.060	---	---	2	---	---	2	1
1054+05	40.60' RT	STH 164	PE, RT	1	33'-18" CMCP	---	---	220	---	0.064	0.060	---	---	2	---	---	2	1
1060+42	52.72' RT	STH 164	PE, RT	1	27'-15" CMCP	---	~~43~~ 53	---	---	0.064	0.060	---	2	---	---	---	---	1
1061+07	55.60' RT	STH 164	PE, RT	1	31'-24" CMCP	---	~~48~~ 61	---	---	0.064	0.060	---	2	---	---	---	---	1
1080+81	40.52' LT	STH 164	FE, LT	1	26'-15" CMCP	---	---	~~28~~ 81*	---	0.064	0.060	*Includes New Residential ~~Driveway~~ at ~~STA~~ 1081+25 ~~LT~~					2	1
TOTALS				**75**		~~94~~ 88	~~2390~~2457	~~675~~761	~~36~~ 44			**4**	~~62~~ 58	**8**	**2**	~~54~~ 52	**12**	**69**

*** Pipe being replaced by storm sewer see page 132.5

* FOR INFORMATIONAL ONLY.

** ADDITIONAL QUANTITIES LISTED ELSWHERE, SEE "CULVERT PIPE REINFORCED CONCRETE & ENDWALLS" AND "STORM SEWER PIPES".

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PROJECT NO: 2810-04-70 | **HWY: STH 164** | **COUNTY: RACINE** | **MISCELLANEOUS QUANTITIES** | **SHEET NO: 132 A** | **E**

FILE NAME : T:\(Project #)\Cadd\Quants\030201_mq.ppt PLOT DATE : 4/25/2012 2:16 PM PLOT BY : PLOT NAME : 030201_mq PLOT SCALE : 1.000000:1.000000

**** Pipe combined with pipe at 1183+15 LT

STORM SEWER STRUCTURES

			611.0201 MANHOLES	611.0210 MANHOLES	611.0301 INLETS	611.0305 INLETS	611.0307 INLETS	611.0530 MANHOLE COVERS	611.0645 INLET COVERS	611.0651 INLET COVERS		
STRUCTURE NUMBER	STATION	OFFSET	TYPE 1 EACH	TYPE 3 EACH	TYPE 1 EACH	TYPE 8 EACH	TYPE 9 EACH	TYPE J EACH	TYPE MS-A EACH	TYPE S EACH	RIM OR FLANGE ELEV	STR DEPTH FEET
STAGE 1												
108	1099+36.8	40.52' RT	---	---	---	---	---	---	---	---	---	---
107	1098+90.8	40.52' RT	---	---	---	1	---	---	1	---	814.00	3.0
106	1098+44.8	40.52' RT	---	---	---	---	---	---	---	---	---	---
112	1156+00.0	49.30' LT	---	---	---	---	---	---	---	---	---	---
111A	1156+00.0	26.00' RT	---	---	---	---	---	---	---	---	---	---
111	1156+00.0	49.30' RT	---	1	---	---	---	1	---	---	795.43	5.0
110A	1152+50.0	47.10' RT	---	---	---	---	---	---	---	---	---	---
110	1152+50.0	26.00' RT	---	1	---	---	---	1	---	---	793.69	5.7
109	1152+50.0	40.60' LT	---	---	---	---	---	---	---	---	---	---
STAGE 2												
114	152+00.0	34.67' RT	---	---	---	---	1	---	2	---	790.77	2.2
113	152+00.0	23.34' LT	---	---	---	---	---	---	---	---	---	---
STAGE 3												
102	50+05.5	22.34' LT	---	---	1	---	---	---	---	1	817.13	2.8
101	50+06.1	18.54' LT	---	---	1	---	---	---	---	1	817.13	2.8
101B	49+77.5	42.66' RT	---	---	---	---	---	---	---	---	---	---
101A	49+97.8	21.46' LT	1	---	---	---	---	1	---	---	817.86	3.7
100	50+15.0	62.07' LT	---	---	---	---	---	---	---	---	---	---
105	48+98.2	16.41' RT	---	---	1	---	---	---	---	1	816.80	1.9
104	48+95.3	34.41' RT	---	---	1	---	---	---	---	1	816.85	2.1
104B	48+46.9	96.76' RT	---	---	---	---	---	---	---	---	---	---
104A	48+83.1	23.30' RT	1	---	---	---	---	1	---	---	817.48	2.7
103	49+04.5	63.08' LT	---	---	---	---	---	---	---	---	---	---
TOTALS			**2**	**2**	**4**	**1**	**1**	**4**	**3**	**4**		

1. RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE STRUCTURE FOR MANHOLES.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES OR TO THE END OF PIPE WHERE THERE IS AN ENDWALL.
3. JOINT TIES FOR STORM SEWER PIPE SHALL BE PROVIDED AT ALL REINFORCED CONCRETE APRON ENDWALL LOCATIONS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE STORM SEWER PIPE REINFORCED CONCRETE.
4. STR DEPTH = RIM ELEV - INV - CASTING HEIGHT - ADJUSTMENT
CASTING HEIGHT = 9" FOR TYPE J COVERS; AND 0" FOR MS AND S COVERS
ADJUSTMENT = 4" TYPICAL (NO ADJUSTMENT FOR TYPE 8 AND 9 INLETS)

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER PIPE REINFORCED CONCRETE & ENDWALLS

					608.0412	608.0418	608.0424	608.0436	610.0414	610.0419	522.1018	** 522.1036	523.0514	** 523.0519	** 611.9800.S	*	** 633.5200
					STORM SEWER PIPE REINFORCED CONCRETE						APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE				PIPE	JOINT	MARKERS
					CLASS IV				HORIZONTAL ELLIPTICAL CLASS HE-IV				HORIZONTAL ELLIPTICAL		GRATES	TIES	CULVERT END
FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE	12-INCH LF	18-INCH LF	24-INCH LF	36-INCH LF	14x23-INCH LF	19x30-INCH LF	18-INCH EACH	36-INCH EACH	14x23-INCH EACH	19x30-INCH EACH	EACH	EACH	EACH
STAGE 1																	
108	107	811.38	810.99	0.85%	---	46	---	---	---	---	1	---	---	---	1	6	---
107	106	810.99	810.60	0.85%	---	46	---	---	---	---	---	---	---	---	---	---	---
106	OUTFALL	810.60			---	---	---	---	---	---	1	---	---	---	1	6	---
112	111	789.95	789.57	0.50%	---	75	---	---	---	---	1	---	---	---	1	6	1
111A	111	789.84	789.57	1.16%	---	23	---	---	---	---	1	---	---	---	1	6	1
111	110	789.32	787.62	0.49%	---	---	350	---	---	---	---	---	---	---	---	---	---
110A	110	787.03	786.95	0.38%	---	---	---	21	---	---	---	1	---	---	1	6	1
110	109	786.95	786.75	0.30%	---	---	---	67	---	---	---	---	---	---	---	---	---
109	OUTFALL	786.75			---	---	---	---	---	---	---	1	---	---	1	6	1
STAGE 2																	
114	113	788.57	788.28	0.50%	---	---	---	---	---	---	---	---	---	---	---	---	---
113	OUTFALL	788.28			---	---	---	---	58	---	---	---	1	---	1	6	1
STAGE 3																	
102	101	813.50	813.46	1.00%	---	---	---	---	---	---	---	---	---	---	---	---	---
101	101A	813.46	813.38	1.00%	---	---	---	---	---	---	---	---	---	---	---	---	---
101B	101A	813.43	813.04	0.58%	---	---	---	---	---	67	---	---	---	1	1	6	1
101A	100	813.04	812.79	0.58%	---	---	---	---	---	43	---	---	---	---	---	---	---
100	OUTFALL	812.79			---	---	---	---	---	---	---	---	---	1	1	6	1
105	104	814.11	813.94	1.00%	18	---	---	---	---	---	---	---	---	---	---	---	---
104	104A	813.94	813.78	1.00%	15	---	---	---	---	---	---	---	---	---	---	---	---
104B	104A	814.05	813.66	0.50%	---	---	---	---	---	78	---	---	---	1	1	6	---
104A	103	813.66	813.22	0.50%	---	---	---	---	---	89	---	---	---	---	---	---	---
103	OUTFALL	813.22			---	---	---	---	---	---	---	---	---	1	1	6	1
TOTALS					**33**	**191**	**350**	**88**	**58**	**277**	**4**	**2**	**1**	**4**	**11**	**66**	**8**

* NON-BID ITEM, FOR INFORMATION ONLY.

** ADDITIONAL QUANTITIES LISTED ELSWHERE, SEE "CULVERT PIPE REINFORCED CONCRETE & ENDWALLS".

1. RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE STRUCTURE FOR MANHOLES.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES OR TO THE END OF PIPE WHERE THERE IS AN ENDWALL.
3. PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES.
4. JOINT TIES FOR STORM SEWER PIPE SHALL BE PROVIDED AT ALL REINFORCED CONCRETE APRON ENDWALL LOCATIONS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE STORM SEWER PIPE REINFORCED CONCRETE.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER						
STRUCTURE NUMBER	STATION	OFFSET	611.0305 INLETS TYPE 8 EACH	611.0645 INLET COVERS TYPE MS-A EACH	RIM ELEVATION	STRUCTURE DEPTH
115.1	1163+55	40.52' RT	1	1	799.00	2.02

STORM SEWER PIPE REINFORCED CONCRETE & ENDWALLS										
FROM STR	TO STR	STATION	OFFSET	INLET ELEV	DISCH ELEV	SLOPE %	608.0418 SSPRC CLASS IV 18-INCH LF	522.1018 APRON EW FOR CPRC 18-IN EACH	611.9800.S PIPE GRATES EACH	* JOINT TIES EACH
115.0	115.1	1163+96	40.52' RT	796.98	796.34	1.5	42	1	1	6
115.1	115.2	1163+13	40.52' RT	797.61	796.98	1.5	41	1	1	6

* Non-bid item information only

DRAIN TILE

LOCATION	612.0304 PIPE UNDERDRAIN 4-INCH LF	612.0306 PIPE UNDERDRAIN 6-INCH LF	612.0308 PIPE UNDERDRAIN 8-INCH LF	612.0310 DRAIN TILE 10-INCH LF	612.0312 DRAIN TILE 12-INCH LF	612.0700 DRAIN TILE EXPLORATION LF
STH 164						
UNDISTRIBUTED	50	50	50	50	50	500
TOTALS	**50**	**50**	**50**	**50**	**50**	**500**

3

GUARDRAIL ITEMS

LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.0396 GUARDRAIL MOW STRIP ASPHALT SY
STAGE 1			
STH 164 STA 1084+00 - STA 1162+00	---	---	---
BEACH DRIVE	---	---	---
SANDY LANE	---	---	---
DORIE LANE	---	---	---
GREENHAVEN TERRACE	---	---	---
NORTH LAKE DRIVE	---	---	---
STAGE 2			
STH 164 STA 1162+00 - STA 1212+20	150	2	96
JENSEN PARKWAY	---	---	---
COUNTY LINE ROAD	---	---	---
STAGE 3			
STH 164 STA 944+00 - STA 1084+00	863	2	387
KRAMER DRIVE	---	---	---
LOOMIS ROAD	---	---	---
WOOD DRIVE	---	---	---
GAWIN DRIVE	---	---	---
EAST RIVER BAY DRIVE	---	---	---
TOTALS	**1,013**	**4**	**482**

LANDMARK REFERENCE MONUMENTS

STATION	621.0100 LANDMARK REFERENCE MONUMENTS EACH	COMMENT
STH 164		
~~STA 941+45.59~~	~~1~~	~~PC~~
~~STA 988+16.80~~	~~1~~	~~PT~~
~~STA 1007+76.08~~	~~1~~	~~PC~~
~~STA 1014+78.68~~	~~1~~	~~PI~~
~~STA 1021+77.34~~	~~1~~	~~PT~~
STA 1022+91.93	5	Section Corner & 4 Witness Monuments
~~STA 1024+89.04~~	~~1~~	~~PI~~
STA 1049+30.50	5	PI & Section Corner & 4 Witness Monuments
STA 1075+75.38	5	PI & Section Corner & 4 Witness Monuments
STA 1102+04.05	5	PI & Section Corner & 4 Witness Monuments
STA 1128+40.12	5	PI & Section Corner & 4 Witness Monuments
STA 1154+78.03	5	PI & Section Corner & 4 Witness Monuments
STA 1181+35.79	5	PI & Section Corner & 4 Witness Monuments
~~STA 1194+00.55~~	~~1~~	~~PC~~
~~STA 1195.94.24~~	~~1~~	~~PI~~
~~STA 1197+87.87~~	~~1~~	~~PCC~~
~~STA 1199+81.56~~	~~1~~	~~PI~~
~~STA 1201+75.20~~	~~1~~	~~PT~~
STA 1205+42.93	5	Section Corner & 4 Witness Monuments
~~STA 1209+33.29~~	~~1~~	~~PC~~
~~STA 1210+74.39~~	~~1~~	~~PI~~
TOTAL	**53**	

*** INSTALL WITNESS MONUMENTS WITHIN 100-FEET OF SECTION CORNER MONUMENT

ALL ITEMS CATEGORY 0010 UNLESS NOTED

DETOUR SIGNS

	** 643.0420 BARRICADES TYPE III		** 643.0705 WARNING LIGHTS TYPE A		643.3000 TRAFFIC CONTROL DETOUR SIGNS		643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE		643.0910.S TRAFFIC CONTROL COVERING SIGNS TYPE I		SPV.0060.01 TRAFFIC CONTROL COVERING SIGNS TYPE II		* ESTIMATED DURATION
	* EACH	DAYS	* EACH	DAYS	* EACH	DAYS	* EACH	DAYS	* EACH	DAYS	* EACH	DAYS	
2810-04-70	6	1,200	12	2,400	339	67,800	2	28	4	800	15	3,000	200 DAYS
UNDISTRIBUTED	2	400	4	800	85	17,000	0	0	1	200	4	800	
TOTALS		**1,600**		**3,200**		**84,800**		**28**	**5**		**19**		

* FOR INFORMATION ONLY

** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "TRAFFIC CONTROL".

FIXED MESSAGE SIGN

SIGN NUMBER	CODE	* SIGN SIZE W X H (FT) X (FT)	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF
1	---	15 X 6	90
2	---	13.5 X 6	81
TOTAL			**171**

* FOR INFORMATION ONLY

EROSION CONTROL ITEMS

LOCATION	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	SPV.0090.01 HEAVY DUTY SILT FENCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION EACH	628.2004 EROSION MAT CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.6005 TURBITITY BARRIERS SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH
STAGE 1												
STH 164 STA 1084+00 - STA 1162+00	350	1,184	2,482	1,298	4	2	17,100	2,940	---	1	1	---
BEACH DRIVE	---	---	---	---	---	---	490	---	---	---	---	---
SANDY LANE	---	---	248	248	---	---	290	---	---	---	---	---
DORIE LANE	---	---	---	---	---	---	290	---	---	---	---	---
GREENHAVEN TERRACE	---	---	---	---	---	---	170	---	---	---	---	---
NORTH LAKE DRIVE	---	---	---	---	---	---	600	---	---	---	---	---
STAGE 2												
STH 164 STA 1162+00 - STA 1212+20	230	2,517	3,929	1,412	4	2	4,680	6,860	110	---	---	---
JENSEN PARKWAY	---	255	255	---	---	---	220	---	---	---	---	---
COUNTY LINE ROAD	40	---	715	715	---	---	920	---	---	1	1	---
STAGE 3												
STH 164 STA 944+00 - STA 1084+00	230	1,405	3,019	1,614	4	2	12,650	12,610	1,640	---	---	---
KRAMER DRIVE	---	160	160	---	---	---	270	---	---	---	---	---
LOOMIS ROAD	---	765	765	---	---	---	---	---	---	4	---	4
WOOD DRIVE	---	---	---	---	---	---	270	---	---	---	---	---
GAWIN DRIVE	---	180	180	---	---	---	380	---	---	---	---	---
EAST RIVER BAY DRIVE	---	56	56	---	---	---	550	---	---	---	---	---
UNDISTRIBUTED	210	1,630	2,950	1,320	3	2	9,720	5,600	440	2	1	1
TOTAL	**1,060**	**8,152**	**14,759**	**6,607**	**15**	**8**	**48,600**	**28,010**	**2,190**	**8**	**3**	**5**

CONTIUNED ON NEXT SHEET

ALL ITEMS CATEGORY 0010 UNLESS NOTED

EROSION CONTROL ITEMS

LOCATION	606.0100 RIPRAP LIGHT CY	606.0200 RIPRAP MEDIUM CY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7560.S STONE OR ROCK DITCH CHECKS CY	628.7570 ROCK BAGS EACH	631.0300 ** SOD WATER MGAL	631.1100 SOD EROSION CONTROL SY	645.0120 GEOTEXTILE FABRIC TYPE HR SY	645.0130 GEOTEXTILE FABRIC TYPE R SY	645.0140 GEOTEXTILE FABRIC TYPE SAS SY	SPV.0180.02 GEOTEXTILE FABRIC TYPE FF SY
STAGE 1												
STH 164 STA 1084+00 - STA 1162+00	---	89	750	43	20	---	10	440	195	---	110	680
BEACH DRIVE	---	6	20	1	---	---	3	110	15	---	---	---
SANDY LANE	---	---	15	---	4	---	3	110	---	---	25	---
DORIE LANE	---	---	25	---	---	---	7	300	---	---	---	---
GREENHAVEN TERRACE	---	---	---	---	---	---	7	300	---	---	---	---
NORTH LAKE DRIVE	---	---	35	---	---	---	9	400	---	---	---	---
STAGE 2												
STH 164 STA 1162+00 - STA 1212+20	---	140	200	42	---	44	6	270	295	---	---	450
JENSEN PARKWAY	---	---	25	---	---	---	4	140	---	---	---	---
COUNTY LINE ROAD	---	6	40	---	---	---	6	240	15	---	---	75
STAGE 3												
STH 164 STA 944+10 - STA 1084+00	490	594	650	30	36	18	5	200	1,260	1,430	190	450
KRAMER DRIVE	---	---	15	---	---	---	9	410	---	---	---	---
LOOMIS ROAD	---	12	30	2	---	---	6	230	30	---	---	---
WOOD DRIVE	---	6	30	1	---	---	4	130	15	---	---	---
GAWIN DRIVE	---	6	15	1	---	---	4	130	15	---	---	---
EAST RIVER BAY DRIVE	---	12	20	3	---	---	5	200	30	---	---	---
UNDISTRIBUTED	120	220	470	30	20	20	20	900	470	360	80	410
TOTAL	**610**	**1,091**	**2,340**	**153**	**80**	**82**	**108**	**4,510**	**2,340**	**1,790**	**405**	**2,065**

** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "LANDSCAPING".

ALL ITEMS CATEGORY 0010 UNLESS NOTED

CONSTRUCTION STAKING

LOCATION	650.4000 STORM SEWER EACH	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.8000 RESURFACING REFERENCE LF	650.9920 SLOPE STAKES LF	SPV.0090.02 SUPERELEVATION TRANSITIONS LF
STAGE 1							
STH 164 STA 1084+00 - STA 1162+00	9	7,800	7,800	1,700	---	7,800	---
BEACH DRIVE	---	300	300	152	---	300	---
SANDY LANE	---	150	150	152	---	150	---
DORIE LANE	---	150	150	151	---	150	---
GREENHAVEN TERRACE	---	100	100	152	---	100	---
NORTH LAKE DRIVE	---	680	680	831	---	680	---
*** CONCRETE CORRUGATED MEDIAN	---	---	---	200	---	---	---
STAGE 2							
STH 164 STA 1162+00 - STA 1212+20	---	5,020	5,020	610	---	5,020	---
JENSEN PARKWAY	---	250	250	152	---	250	---
COUNTY LINE ROAD	2	825	825	348	---	825	---
STAGE 3							
STH 164 STA 944+00 - STA 1084+00	---	8,575	8,575	692	7,600	8,575	271
KRAMER DRIVE	---	150	150	236	---	150	---
LOOMIS ROAD	10	500	500	499	---	500	410
WOOD DRIVE	---	134	134	139	---	134	---
GAWIN DRIVE	---	200	200	160	---	200	---
EAST RIVER BAY DRIVE	---	300	300	273	---	300	---
TOTALS	**21**	**25,134**	**25,134**	**6,447**	**7,600**	**25,134**	**681**

***CONCRETE CORRUGATED MEDIAN PAID FOR AS CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER.

SAWING

LOCATION	** 690.0150 SAWING ASPHALT LF
STAGE 1	
STH 164 STA 1084+00 - STA 1162+00	---
BEACH DRIVE	24
SANDY LANE	24
IDLEWOOD DRIVE	84
DORIE LANE	25
GREENHAVEN TERRACE	24
NORTH LAKE DRIVE	45
STAGE 2	
STH 164 STA 1162+00 - STA 1212+20	24
JENSEN PARKWAY	24
COUNTY LINE ROAD	41
STAGE 3	
STH 164 STA 944+00 - STA 1084+00	321
CORNERSTONE CROSSING	126
KRAMER DRIVE	24
LOOMIS ROAD	43
WOOD DRIVE	19
GAWIN DRIVE	18
EAST RIVER BAY DRIVE	40
TOTALS	**906**

** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "DRIVEWAYS".

LANDSCAPING

LOCATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	** 631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
STAGE 1								
STH 164 STA 1084+00 - STA 1162+00	4,500	23,000	23,000	38	1,600	800	110	4,500
BEACH DRIVE	---	660	660	1	40	20	---	---
SANDY LANE	---	80	80	1	15	8	---	---
DORIE LANE	---	390	390	1	25	13	---	---
GREENHAVEN TERRACE	---	110	110	1	9	5	---	---
NORTH LAKE DRIVE	410	500	500	1	35	18	10	410
STAGE 2								
STH 164 STA 1162+00 - STA 1212+20	1,600	12,300	12,300	21	900	450	36	1,600
JENSEN PARKWAY	---	690	690	1	30	15	---	---
COUNTY LINE ROAD	25	2,500	2,500	3	110	55	1	25
STAGE 3								
STH 164 STA 944+00 - STA 1084+00	1,800	28,800	28,800	44	1,900	950	41	1,800
KRAMER DRIVE	100	0	0	1	6	3	3	100
LOOMIS ROAD	---	2,200	2,200	2	70	35	---	---
WOOD DRIVE	---	240	240	1	20	10	---	---
GAWIN DRIVE	---	180	180	1	20	10	---	---
EAST RIVER BAY DRIVE	---	280	280	1	30	15	---	---
UNDISTRIBUTED	2,110	17,980	17,980	30	1,200	600	50	2,110
TOTALS	**10,545**	**89,910**	**89,910**	**148**	**6,010**	**3,005**	**251**	**10,545**

** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "EROSION CONTROL ITEMS".

ALL ITEMS CATEGORY 0010 UNLESS NOTED

TRAFFIC CONTROL

	643.0300 DRUMS **		643.0420 BARRICADES TYPE III **		643.0705 WARNING LIGHTS TYPE A **		643.0900 SIGNS		* ESTIMATED DURATION
	* EACH	DAYS	* EACH	DAYS	* EACH	DAYS	* EACH	DAYS	
STAGE 1	9	720	32	2,560	64	5,120	65	5,200	80 DAYS
STAGE 2	9	360	17	680	34	1,360	43	1,720	40 DAYS
STAGE 3	76	6,080	46	3,680	92	7,360	87	6,960	80 DAYS
UNDISTRIBUTED	24	4,800	24	4,800	48	9,600	49	9,800	
TOTAL		**11,960**		**11,720**		**23,440**		**13,880**	**200 DAYS**

* FOR INFORMATION ONLY

** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "DETOUR SIGNS".

PAVEMENT MARKING

LOCATION	646.0106 EPOXY 4-INCH WHITE SOLID LF	646.0106 EPOXY 4-INCH WHITE 12.5' DASH LF	646.0106 EPOXY 4-INCH WHITE 3' DASH LF	646.0406 EPOXY 4-INCH YELLOW LF	646.0881.S GROOVED WET REFLECTIVE TAPE 4-INCH LF	646.0883.S GROOVED WET REFLECTIVE TAPE 8-INCH LF	647.0158 ARROWS PREFORMED THERMOPLASTIC TYPE 1 EACH	647.0168 ARROWS PREFORMED THERMOPLASTIC TYPE 2 EACH	647.0358 WORDS PREFORMED THERMOPLASTIC EACH	647.0568 STOP LINE PREFORMED THERMOPLASTIC 18-INCH LF	647.0726 DIAGONAL EPOXY 12-INCH LF	648.0100 LOCATING NO-PASSING ZONES MI
STAGE 1												
STH 164 STA 1084+00 - STA 1162+00	14,830	1,580	790	11,700	1,725	2,160	---	4	2	---	350	1.50
BEACH DRIVE	---	---	---	640	---	---	---	---	---	27	---	---
SANDY LANE	---	---	---	---	---	---	---	---	---	26	---	---
DORIE LANE	---	---	---	---	---	---	---	---	---	27	---	---
GREENHAVEN TERRACE	---	---	---	---	---	---	---	---	---	27	---	---
NORTH LAKE DRIVE	650	---	---	1,405	---	255	---	---	---	80	---	---
STAGE 2												
STH 164 STA 1162+00 - STA 1212+20	9,670	250	---	7,530	---	850	---	---	---	---	---	1.00
JENSEN PARKWAY	---	---	---	270	---	---	---	---	---	27	---	---
COUNTY LINE ROAD	---	---	---	1,830	---	---	---	---	---	70	---	---
STAGE 3												
STH 164 STA 944+00 - STA 1084+00	26,580	1,063	830	19,100	1,640	3,205	2	6	6	24	180	2.25
CORNER STONE CROSSING	---	---	---	---	---	22	---	---	---	89	---	---
KRAMER DRIVE	240	---	---	340	---	---	---	---	---	27	---	---
LOOMIS ROAD	1,065	---	---	1,250	---	120	---	---	---	96	---	---
WOOD DRIVE	---	---	---	330	---	---	---	---	---	28	---	---
GAWIN DRIVE	---	---	---	440	---	---	---	---	---	29	---	---
EAST RIVER BAY DRIVE	---	---	---	680	---	---	---	---	---	71	---	---
SUBTOTAL	53,035	2,893	1,620	45,515	3,365	6,612	2	10	8	648	530	4.75
TOTAL		**57,548**		**45,515**	**3,365**	**6,612**	**2**	**10**	**8**	**648**	**530**	**4.75**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

SIGN NO.	SIGN CODE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	637.0402 SIGNS REFLECTIVE FOLDING TYPE II SF	638.2102 MOVE SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS
1	W12-1D(2S)	DOUBLE DOWN ARROWS	24 x 24	4.000	--	--	--	--	1	--	2' MOUNTING HEIGHT
2	R3-7R(3)	RIGHT LANE MUST TURN RT	36 x 36	9.000	1	1	--	--	1	--	--
3	R6-3(2S)	DIVIDED HIGHWAY	30 x 24	5.000	1	--	--	--	--	--	--
4	R1-1F(3)	FOLDING STOP	36 x 36	--	--	--	7.460	--	--	--	MOUNT ON SIGNAL POLE
5	J4-1(2S)		24 x 36	6.000	1	1	--	--	1	--	--
	M3-1	NORTH	24 x 12								
	M1-6	STH 164	24 x 24								
6	R3-8W(2S)	LANE CONTROL	54 x 30	11.250	1	1	--	--	2	--	--
7	R3-7R(3)	RIGHT LANE MUST TURN RT	36 x 36	9.000	1	1	--	--	1	--	--
8	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
9	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
10	R3-8W(2S)	LANE CONTROL	54 x 30	11.250	1	1	--	--	2	--	--
11	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
12	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
13	J1-2(2S)		24 x 51	8.500	1	1	--	--	1	--	--
	M2-1	JCT	21 x 15								
	M1-6	STH 36	24 x 12								
	M1-5A	CTH K	24 x 24								
14	W3-3(2S)	SIGNAL AHEAD	36 x 36	9.000	1	1	--	--	1	--	--
15	D1-3	[A] MILWAUKEE	78 x 42	22.750	1	2		--	2	--	--
		WATERFORD [A]									
		BURLINGTON									
16	J2-3(2S)		72 x 57	28.500	1	2		--	2	--	--
	M3-1	NORTH	24 x 12								
	M1-6	STH 36	24 x 24								
	M5-1L	ADV LEFT ARROW	21 x 21								
	M1-5A	CTH K	24 x 24								
	M6-1	ARROW	21 x 21								
	M3-3	SOUTH	24 x 12								
	M1-6	STH 36	24 x 24								
	M5-1R	ADV RIGHT ARROW	21 x 21								
17	J3-3(2S)		72 x 57	28.500	1	1		--	2	--	--
	M3-1	NORTH	24 x 12								
	M1-6	STH 36	24 x 24								
	M6-1	ARROW	21 x 21								
	M4-6	END	24 x 12								
	M1-6	STH 164	24 x 24								
	M3-3	SOUTH	24 x 12								
	M1-6	STH 36	24 x 24								
	M6-1	ARROW	21 x 21								
18	J3-1		-- x --	--	1	1		--	--	--	--
	M4-6	END	x								
	M1-6	STH 164	x								
19	W14-3(2S)	NO PASSING	48 x 36	6.000	1	--	--	--	--	#17	--
20	R1-2(2S)	YIELD	36 x 31	3.880	1	1	--	--	1	--	--
21	R2-1(2S)	SPEED LIMIT 55	24 x 30	5.000	--	--	--	--	1	--	--
22	W1-7(2S)	NIGHT ARROW DOUBLE	48 x 24	8.000	1	1	--	--	1	--	--
23	W5-52R	CLEARANCE STRIPER	-- x --	--	1	1	--	--	--	--	--

TYPE II PERMANENT SIGNING -

2810-04-70 STH 164

SIGN NO.	SIGN CODE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	637.0402 SIGNS REFLECTIVE FOLDING TYPE II SF	638.2102 MOVE SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS
24	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
25	W2-2(2S)	SIDE ROAD 90 DEGREE	30 x 30	6.250	1	1	--	--	1	--	--
26	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
27	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
28	W1-2L(2M)	LEFT CURVE	36 x 36	9.000	--	--	--	--	1	--	--
29	W2-1(2S)	CROSSROAD	30 x 30	6.250	1	1	--	--	1	--	--
30	D1-61	LOOMIS RD [A] [A]	60 x 24	10.000	--	--	--	--	2	--	--
31	J1-1(2S)		24 x 60	10.000	1	1		--	1	--	--
	MN2-1	JCT	21 x 15								
	MR1-99	RUSTIC ROAD	24 x 24								
	MR6-1	ARROW	21 x 21								
32	R2-1(2S)	SPEED LIMIT 45	24 x 30	5.000	1	1	--	--	1	--	--
33	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
34	W4-4C(3)	TRAF ON 164 DOES NOT STOP	36 x 15	3.750	1	--	--	--	--	#33	--
35	W1-6(2S)	NIGHT ARROW SINGLE	48 x 24	8.000	--	--	--	--	1	--	--
36	J3-1(2S)		24 x 36	6.000	1	1		--	1	--	--
	MR4-6	END	24 x 12								
	MR1-99	RUSTIC ROAD	24 x 24								
37	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
38	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
39	J1-1(2S)		24 x 60	10.000	1	1		--	1	--	--
	MN2-1	JCT	21 x 15								
	MR1-99	RUSTIC ROAD	24 x 24								
	MR6-1	ARROW	21 x 21								
40	J4-1(2S)		24 x 36	6.000	1	1	--	--	1	--	--
	M3-1	NORTH	24 x 12								
	M1-6	STH 164	24 x 24								
41	R1-1(3)	STOP	36 x 36	7.460	--	--	--	--	1	--	--
42	W12-1D(2S)	DOUBLE DOWN ARROWS	24 x 24	4.000	--	--	--	--	1	--	2' MOUNTING HEIGHT
43	W4-4C(3)	TRAF ON 164 DOES NOT STOP	36 x 15	3.750	1	--	--	--	--	#44	--
44	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
45	W1-6(2S)	NIGHT ARROW SINGLE	48 x 24	8.000	--	--	--	--	1	--	--
46	R1-1(3)	STOP	36 x 36	7.460	--	--	--	--	1	--	--
47	W1-2R(2M)	RIGHT CURVE	36 x 36	9.000	--	--	--	--	1	--	--
48	W2-1(2S)	CROSSROAD	30 x 30	6.250	1	1	--	--	1	--	--
49	W1-7(2S)	NIGHT ARROW DOUBLE	48 x 24	8.000	--	--	--	--	1	--	--
50	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
51	W1-7(2S)	NIGHT ARROW DOUBLE	48 x 24	8.000	--	--	--	--	1	--	--
52	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
53	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
54	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
55	W2-1(2S)	CROSSROAD	30 x 30	6.250	1	1	--	--	1	--	--
56	W2-1(2S)	CROSSROAD	30 x 30	6.250	--	--	--	--	1	--	--
57	I55-56	ADOPT-A-HWY	-- x --	--	--	--	--	1	1	--	--
58	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
59	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
60	W2-1(2S)	CROSSROAD	30 x 30	6.250	1	1	--	--	1	--	--

SIGN NO.	SIGN CODE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	637.0402 SIGNS REFLECTIVE FOLDING TYPE II SF	638.2102 MOVE SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS
61	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
62	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
63	W3-5(2S)	SPEED LIMIT 50 AHEAD	36 x 36	9.000	2	1	--	--	1	--	--
64	W1-7(2S)	NIGHT ARROW DOUBLE	48 x 24	8.000	--	--	--	--	1	--	--
65	R2-1(3)	SPEED LIMIT 50	36 x 48	12.000	1	1	--	--	1	--	--
66	W4-2R(2S)	LANE REDUCTION	36 x 36	9.000	--	--	--	--	1	--	--
67	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
68	R2-1(2S)	SPEED LIMIT 55	24 x 30	5.000	1	1	--	--	1	--	--
69	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
70	W1-6(2S)	NIGHT ARROW SINGLE	48 x 24	8.000	--	--	--	--	1	--	--
71	R2-1(2S)	SPEED LIMIT 50	24 x 30	5.000	1	1	--	--	1	--	--
72	R2-1(2S)	SPEED LIMIT 50	24 x 30	5.000	1	1	--	--	1	--	--
73	W14-3(2S)	NO PASSING	48 x 36	6.000	1	--	--	--	--	#71	--
74	W1-7(2S)	NIGHT ARROW DOUBLE	48 x 24	8.000	--	--	--	--	1	--	--
75	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
76	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
77	R2-1(2S)	SPEED LIMIT 50	24 x 30	5.000	1	1	--	--	1	--	--
78	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
79	R2-1(2S)	SPEED LIMIT 50	24 x 30	5.000	1	1	--	--	1	--	--
80	W1-7(2S)	NIGHT ARROW DOUBLE	48 x 24	8.000	--	--	--	--	1	--	--
81	R2-1(2S)	SPEED LIMIT 50	24 x 30	5.000	1	1	--	--	1	--	--
82	R2-1(2S)	SPEED LIMIT 50	24 x 30	5.000	1	1	--	--	1	--	--
83	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
84	W1-7(2S)	NIGHT ARROW DOUBLE	48 x 24	8.000	--	--	--	--	1	--	--
85	D1-61	NORTH LAKE DR [A] [A]	78 x 24	13.000	--	--	--	--	2	--	--
86	R2-1(3)	SPEED LIMIT 40	36 x 48	12.000	1	1	--	--	1	--	--
87	I2-3	TICHIGAN UNINCORPORATED	60 x 24	10.000	1	2	--	--	2	--	--
88	W2-1(2S)	CROSSROAD	30 x 30	6.250	1	1	--	--	1	--	--
89	W2-1(2S)	CROSSROAD	30 x 30	6.250	--	--	--	--	1	--	--
90	R3-8W(2S)	LANE CONTROL	54 x 30	11.250	--	--	--	--	2	--	--
91	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
92	R2-1(2S)	SPEED LIMIT 50	24 x 30	5.000	1	1	--	--	1	--	--
93	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
94	R3-8(2S)	LANE CONTROL	36 x 30	7.500	--	--	--	--	1	--	--
95	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
96	W11-8(2S)	FIRE TRUCK X-ING	30 x 30	6.250	1	1	--	--	1	--	--
97	R2-1(2S)	SPEED LIMIT 40	24 x 30	5.000	1	1	--	--	1	--	--
98	R2-1(2S)	SPEED LIMIT 40	24 x 30	5.000	1	1	--	--	1	--	--
99	R2-1(2S)	SPEED LIMIT 40	24 x 30	5.000	1	1	--	--	1	--	--
100	R3-8W(2S)	LANE CONTROL	54 x 30	11.250	--	--	--	--	2	--	--
101	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
102	R7-1L(2S)	NO PARKING	18 x 24	3.000	1	1	--	--	1	--	--
103	R2-1	SPEED LIMIT 40	-- x --	--	1	1	--	--	--	--	--
104	R7-1D(2S)	NO PARKING	18 x 24	3.000	1	1	--	--	1	--	--
105	R3-8(2S)	LANE CONTROL	36 x 30	7.500	--	--	--	--	1	--	--
106	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
107	R2-1(2S)	SPEED LIMIT 40	24 x 30	5.000	1	1	--	--	1	--	--

TYPE II PERMANENT SIGNING -

2810-04-70 STH 164

SIGN NO.	SIGN CODE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	637.0402 SIGNS REFLECTIVE FOLDING TYPE II SF	638.2102 MOVE SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS
108	R2-1(2S)	SPEED LIMIT 50	24 x 30	5.000	1	1	--	--	1	--	--
109	W1-7(2S)	NIGHT ARROW DOUBLE	48 x 24	8.000	--	--	--	--	1	--	--
110	R2-1(2S)	SPEED LIMIT 50	24 x 30	5.000	--	--	--	--	1	--	--
111	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
112	R2-1(3)	SPEED LIMIT 40	36 x 48	12.000	1	1	--	--	1	--	--
113	W11-8(2S)	FIRE TRUCK X-ING	30 x 30	6.250	1	1	--	--	1	--	--
114	D1-61	NORTH LAKE DR [A] [A]	78 x 24	13.000	--	--	--	--	2	--	--
115	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
116	R2-1(2S)	SPEED LIMIT 50	24 x 30	5.000	1	1	--	--	1	--	--
117	R2-1(2S)	SPEED LIMIT 50	24 x 30	5.000	1	--	--	--	--	#115	--
118	W14-3(2S)	NO PASSING	48 x 36	6.000	1	--	--	--	--	#119	--
119	I2-3	TICHIGAN UNINCORPORATED	60 x 24	10.000	1	2	--	--	2	--	--
120	D1-61(MOD)	[A] COUNTY LINE RD DENOON RD [A]	102 x 30	21.250	--	--	--	--	2	--	--
121	S1-1(2S)	SCHOOL ADVANCE	36 x 36	9.000	1	1	--	--	1	--	--
122	W16-9P(2M)	AHEAD	30 x 18	3.750	1	--	--	--	--	#121	--
123	R2-6P(2S)	FINES HIGHER	24 x 18	3.000	--	--	--	--	--	#121	--
124	W2-1(2S)	CROSSROAD	30 x 30	6.250	1	1	--	--	1	--	--
125	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
126	W14-3(2S)	NO PASSING	48 x 36	6.000	1	1	--	--	1	--	--
127	I55-56	ADOPT-A-HWY	-- x --	--	--	--	--	1	1	--	--
128	I2-2	WAUKESHA CO.	72 x 27	13.500	1	2	--	--	2	--	--
129	J4-1(2S) M3-1 M1-6	 NORTH STH 164	24 x 36 24 x 12 24 x 24	6.000	1	--	--	--	1	--	--
130	R1-1(3)	STOP	36 x 36	7.460	1	1	--	--	1	--	--
131	I2-2	RACINE CO.	60 x 27	11.250	1	2	--	--	2	--	--
132	R2-1(3)	SPEED LIMIT 50	36 x 48	12.000	1	1	--	--	1	--	--
133	S5-2(2)	END SCHOOL ZONE	24 x 30	5.000	--	--	--	--	--	#132	--
134	I55-56	ADOPT-A-HWY	-- x --	--	--	--	--	1	1	--	--
135	S1-1(2S)	SCHOOL ADVANCE	36 x 36	9.000	1	1	--	--	1	--	--
136	W16-9P(2M)	AHEAD	30 x 18	3.750	1	--	--	--	--	#135	--
137	R2-6P(2S)	FINES HIGHER	24 x 18	3.000	--	--	--	--	--	#135	--
138	W3-5(2S)	SPEED LIMIT 50 AHEAD	36 x 36	9.000	1	1	--	--	1	--	--
139	D1-61(MOD)	[A] DENOON RD COUNTY LINE RD [A]	102 x 30	21.250	--	--	--	--	2	--	--
140	S5-2(2)	END SCHOOL ZONE	24 x 30	5.000	--	--	--	--	--	#141	--
141	R2-1(2S)	SPEED LIMIT 55	24 x 30	5.000	1	1	--	--	1	--	--
142	D1-61	LOOMIS RD [A] [A]	60 x 24	10.000	--	--	--	--	2	--	SHEET 6 OF 19
143	R3-8W(2S)	LANE CONTROL	54 x 30	11.250	1	1	--	--	2	--	SHEET 1 0F 19
144	W12-1D(2S)	DOUBLE DOWN ARROWS	24 x 24	4.000	--	--	--	--	1	--	2' MOUNTING HEIGHT. SHEET 5 OF 19
145	R2-1(3)	SPEED LIMIT 40	36 x 48	12.000	--	--	--	--	1	--	SHEET 14 OF 19
	TOTALS			1069.960	105	100	7.460	3	146		

3

SUMMARY OF STATE FURNISHED MATERIALS

EACH	DESCRIPTION
2	TRAFFIC SIGNAL FACES, 3-12" VERTICAL, LED MODULES
2	TRAFFIC SIGNAL FACE, ARROW, RED, LED MODULES
2	TRAFFIC SIGNAL FACE, ARROW, YELLOW, LED MODULES
2	TRAFFIC SIGNAL FACE, ARROW, GREEN, LED MODULES
2	BACKPLATES, 3 SECTION, 12" SIGNAL FACES
1	TRAFFIC SIGNAL MOUNTING HARDWARE

NOTE: THIS TABLE IS FOR INFORMATION ONLY

TRAFFIC SIGNAL FACES, 3-12 INCH VERTICAL, LED MODULES
TRAFFIC SIGNAL FACE, ARROW, RED, LED MODULES
TRAFFIC SIGNAL FACE, ARROW, YELLOW, LED MODULES
TRAFFIC SIGNAL FACE, ARROW, GREEN, LED MODULES
BACKPLATES, 3 SECTION, 12-INCH SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	3-12" VERT. EACH	RED ARROW EACH	YELLOW ARROW EACH	GREEN ARROW EACH	BCKPLT 3-SEC. EACH
17	SB2	1	1	1	1	1
18	SB7	1	1	1	1	1

TRAFFIC SIGNAL MOUNTING HARDWARE

LOCATION	SPV.0105.01 SIGNAL MOUNTING HARDWARE L.S.
STH 36 & STH 164 VILLAGE OF WATERFORD RACINE COUNTY	1
TOTAL	1

PULL BOXES

PULL BOX NO.	LOCATION*	653.0135 PULL BOXES 24"x36" EACH	653.0900 ADJUSTING PULL BOXES EACH
19	946+74, 30.5' LT	1	
20	948+50, 27.0' LT	1	
21	944+34, 17.0' LT		1
	TOTAL	2	1

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

CONDUIT

LOC.	TO	LOC.	652.0225 CONDUIT NONMET. 2-INCH L.F.
EXT 1		PB19	20
PB19		PB20	180
		TOTAL	200

REMOVING PULL BOXES

PULL BOX NO.	653.0905 REMOVING PULL BOX EACH
19	1
20	1
TOTAL	2

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
41	20	948+50, 6.5' LT	6 X 20	3	ASPHALTIC	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	70	534	192
42	19	946+76, 5.0' LT	6 X 20	3	ASPHALTIC	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	73	356	198
43	21	944+39.5, 7.0' RT	6 X 20	3	ASPHALTIC	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	73	0	198
44	21	944+11.5, 7.0' RT	6 X 20	3	ASPHALTIC	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	73	0	198
45	21	944+40, 5.0' LT	6 X 20	3	ASPHALTIC	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	63	0	177
46	21	944+12, 5.0' LT	6 X 20	3	ASPHALTIC	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	61	0	174
						TOTAL	413	890	1137

* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
* * FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL ITEMS ON THIS PAGE ARE CATEGORY 0020 SHEET 1 OF 1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT
TITLE SHEET
PROJECT 2810-04-20
STH 164
BIG BEND ROAD
STH 36 TO RACINE NORTH COUNTY LINE
RACINE COUNTY

4

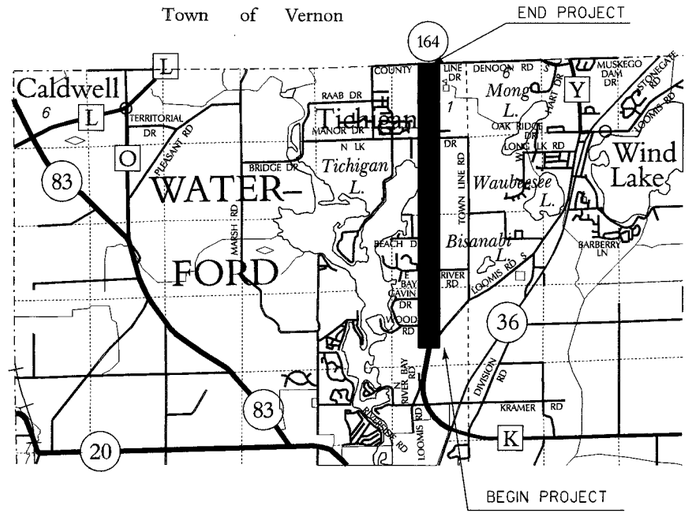
The most current Right of Way information should be viewed in DOTView using the Real Estate project ID. The plat information contained in this as-built plan may not be the final record.

R-19-E

Town of Vernon

T-4-N

Town of East Troy



GN

SEE DOCUMENT #2308819
AFFIDAVIT OF CORRECTION

LAYOUT
SCALE, FEET
0 1 MILE

THE NOTES, CONVENTIONAL SYMBOLS, AND VARIOUS ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT OF PROJECT 2810-04-20.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (1991) ADJUSTMENT AND ARE REFERENCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLEs ARE TO TERMINATE ON DECEMBER 31, 2012 OR THE DATE THE CONSTRUCTION OF THIS PROJECT IS COMPLETED, WHICHEVER OCCURS FIRST.

A **PERMANENT LIMITED EASEMENT** (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

AN **EASEMENT FOR HIGHWAY PURPOSES** (HE), AS LONG AS SO USED, INCLUDES THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	TRANSIT LINE	T/L
CONVEYANCE OF RIGHTS	CR	VOLUME	V.
DISTANCE BETWEEN CORS.	(DIST.)		
DOCUMENT	DOC.		
EASEMENT	EASE.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	I.P. ● (1" UNLESS NOTED)
R/W MONUMENT	○ (SET)
R/W STANDARD	△ (SET)
SIGN	| SIGN
SECTION CORNER MONUMENT	⊕
SECTION CORNER SYMBOL	
FEE (HATCH VARIES)	
TEMPORARY LIMITED EASEMENT	
PERMANENT LIMITED EASEMENT	
R/W BOUNDARY POINT	RWB20
PARCEL NUMBER	102
SIGN NUMBER (OFF PREMISES)	21-1
BUILDING	
PROPOSED R/W LINE	
EXISTING H.E. LINE	
PROPERTY LINE	
LOT & TIE LINES	
SLOPE INTERCEPTS	
CORPORATE LIMITS	
ACCESS RESTRICTED (BY PREVIOUS PROJECT/CONTROL)	
NO ACCESS (BY ACQUISITION)	
NO ACCESS (BY STATUTORY AUTHORITY)	
SECTION LINE	
QUARTER LINE	
SIXTEENTH LINE	
EXISTING CENTERLINE	
PROPOSED REFERENCE LINE	
PARALLEL OFFSET	

CONVENTIONAL UTILITY SYMBOLS

	NON COMPENSABLE	COMPENSABLE
WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
POWER POLE	○	●
TELEPHONE POLE	⌀	⌀
TELEPHONE PEDESTAL	▯	▮
ELECTRIC TOWER	⊠	

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.11
PAGE 2 OF 2

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN _____ COUNTY, WISCONSIN AT ____:____ _M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

145

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.01
AMENDMENT NO. 2

AMENDS TPP SHEET 2810-04-20 - 4.01 AMENDMENT NO.1 RECORDED AS DOCUMENT 2286287 BY REVISING UTILITY EASEMENT DATA

THAT PART OF THE NW1/4-SE1/4, THE SW1/4-SE1/4, AND THE NE1/4-SW1/4, SECTION 24, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER STH 164 BIG BEND ROAD. STH 36 TO RACINE NORTH COUNTY LINE.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, (ENGLISH), NAD 1983 (1991) ADJUSTMENT, AND ARE REFERNCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

TDS TELECOM (204)
PARCEL 1 V.1397, P.396, DOC.1008741

AT&T WISCONSIN (200)
PARCEL 2 V.1333, P.237, DOC. 982642

CURVE INFORMATION

STH 164 ℄ SUB CUR3		PARCEL 2 RW7	
L	1212.34'	L	535.59'
R	7639.44'	R	7569.44'
LCH	1211.07'	LCH	535.48'
CB	N 5°53'50" E	CB	N 6°03'08" E

TOWN OF WATERFORD

STA 1009+65.00 STH 164 ℄ = STA 49+35.51 OLD LOOMIS RD ℄

N6°51'47"E PL 72.15'

PC 45+68.83

PL 1/16TH = PL

47+21.45 PROP1314 102.44'
47+44.91 TLE253 79.16'
47+48.84 TLE254 87.63'
PLAT 47+63.42

N 82°26'37" E 50'

47+82.32 TLE255 64.40'
47+79.09 TLE256 55.25'
48+31.03 RWB500 35.11'
RWB500 1009+61.83 115.82'

PL N89°40'28"E 147.47'

CUR A

PC 1007+76.58

48+19.69 PROP1313 18.97'

PT 48+93.51

1008

SE-SW

65'

48'

20.5'

N89°09'07"E 42.00' ℄

PROP1312 1012+80.22 70'

PL N17°33'39"E 317.81'

1010

1012

1014

1016

1018

1020

CUR RW7

SUB CUR3

STH 164 ℄ CUR3

OF

PARCEL 2 RW7

L	535.59'
R	7569.44'
LCH	535.48'
CB	N 6°03'08" E

PARCEL 1 RW1

L	386.38'
R	7709.44'
LCH	386.34'
CB	N 2°58'54" E

PARCEL 1 RW8

L	60.42'
R	283.00'
LCH	60.30'
CB	N 68°04'48" E

CURVE INFORMATION

STH 164 ℄ CUR3		OLD LOOMIS RD ℄ CUR A		OLD LOOMIS ℄ CUR B	
PI	1014+78.68	PI	47+63.42	PI	51+66.77
Y	209248.02	Y	208729.88	Y	208761.28
X	528280.03	X	527936.12	X	528402.90
DELTA	-1°30'34"	DELTA	79°28'14"	DELTA	66°28'14" LT
D	0°45'00"	D	24°28'35"	D	19°50'16"
T	702.60'	T	194.59'	T	189.25'
L	1401.26'	L	324.68'	L	335.07'
R	7639.44'	R	234.09'	R	288.82'
LCH	1399.30'	LCH	299.27'	LCH	316.60'
CB	N 6°36'20" E	CB	N 46°25'00" E	CB	N 52°55'00" E

PROP1310 1018+20.77 70'

NE-SW

PROP1000 1020+03.44 76.22'

PL N01°22'18"E 181.03'

N7°45'31"W PL 286.71'

PROP1324 1022+88.28 123.57'

W. 1/4 LINE (2232.47') N89°44'35"E

CTL41022 MEANDER COR. CAST IRON MON. W/BRASS CAP Y 210054.81 X 526072.96

T 4 N R 19 E MC 2.4 2.4

129.73' TO COR.

PT 1021+76.84

STH 164 ℄ N01°21'03"E 114.41'

1022

S. 1/4 LINE N01°06'47"E (2639.27')

STA 50+44.79 ℄

261.67' PL

33'

CORN CRIB

1013+97.95 PROP1028 83'

PI 1014+78.67 N9°32'26"E PL 201.90'

NO1°22'26"E PL 200.00'

PROP1027 1015+97.25 93.89'

CORN CRIBS

PROP1030 1017+93.99 69.92'

PROP1026 1017+94.61 81.38'

S88°53'13"E 11.48'

CUR RW1 PL

NO1°13'50"E PL 116.91'

PROP1009 1021+76.84 71.21'

1022+93.74 PROP1325 70.96'

E. 1/4 LINE N89°44'55"E (1320.51')

CTL4104 QUARTER SEC COR. CAST IRON MON. W/BRASS CAP Y 210076.41 X 530946.40

T 4 N R 19/20 E 24 19

CENTER OF SEC. CONCRETE MON. W/BRASS CAP Y 210064.83 X 528305.41

CTL4103

IDENTICAL POINTS

S89°44'35"W W. 1/4 LINE 6.11'

STH 164 ℄

S. 1/4 LINE

ESTABLISHED BY BRG-BRG INT.
JOHN H. NIELSEN RLS
(1970)

N19°16'52"E PL 62.50'

RWB501 50+50.74 41.54'

N56°30'20"E 75'

CUR RW8

N18°24'36"W 144.28'

RWB502 51+16.85 30.30'

PI 51+66.77

1/16TH LINE

1304.24'

1011+41.57 PROP1029 115.10'

CUR B

PT 53+42.59

53'

54

PL

SW-SE

CTL4116 QUARTER SEC. COR. CAS IRON MON. W/BRASS CAP Y 207426.06 X 528254.14

T 4 N R 19 E 24 25 25 24

B

H

C

NW-SE

OLD LOOMIS ROAD

PL 99 PL

GN

SCALE, FEET
0 50 100

T-4-N R-19-E

SHEET LOCATION

BEGIN PROJECT

END PROJECT

WATERFORD Tichigan L. Tichigan L. Meng L.

LOOMIS RD DIVISION RD KRAMER BEACH DR RIVER RD TOWN LINE RD LOOMIS RD S DENOON RD COUNTY LINE 164 36 K

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 2126733, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

ACCESS PER PROJECT 2810-1-71 (1976)

HWY	BASIS OF EXISTING R/W	YEAR
STH 164	PROJECT 2810-1-71	1976
STH 164	PROJECT S 0475 (1)	1958
OLD LOOMIS RD	PROJECT S 0475 (1)	1958

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
1	WILLIAM M. BUCKHOLTZ, ET AL	FEE	0.01	0.00	0.01		
2	J. MICHAEL MALCHINE, ET AL	FEE,TLE	0.03	0.00	0.03	0.01	
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
204	TDS TELECOM	RELEASE OF RIGHTS					

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.01 AMENDMENT NO. 2 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

03/02/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

3/8/12
ROBERT L. DUFFECK, RLS DATE:

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS.

RESERVED FOR REGISTER OF DEEDS
TPP NUMBER 2810-04-20-4.01
AMENDMENT NO. 2

DOCUMENT # 2312247
RACINE COUNTY REGISTER OF DEEDS
March 29, 2012 7:07 AM
TYSON FETTES
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 125.00
Pages: 1

Vol 1 Pg 222

146

FILE NAME : S:\5164894\Plat (RASN)\040401A2_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 3/7/2012 PLOT BY : gak PLOT NAME : PLOT SCALE : $$.....plotscale.....$$
CONST. 2810-04-70 RW 2810-04-20 4.01 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.02 AMENDMENT NO. 2

AMENDS TPP SHEET 2810-04-20 - 4.02 AMENDMENT NO.1 RECORDED AS DOCUMENT 2286288
BY REVISING UTILITY EASEMENT DATA

THAT PART OF THE SE1/4-NW1/4 AND THE SW1/4-NE1/4, SECTION 24, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER STH 164 BIG BEND ROAD. STH 36 TO RACINE NORTH COUNTY LINE.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

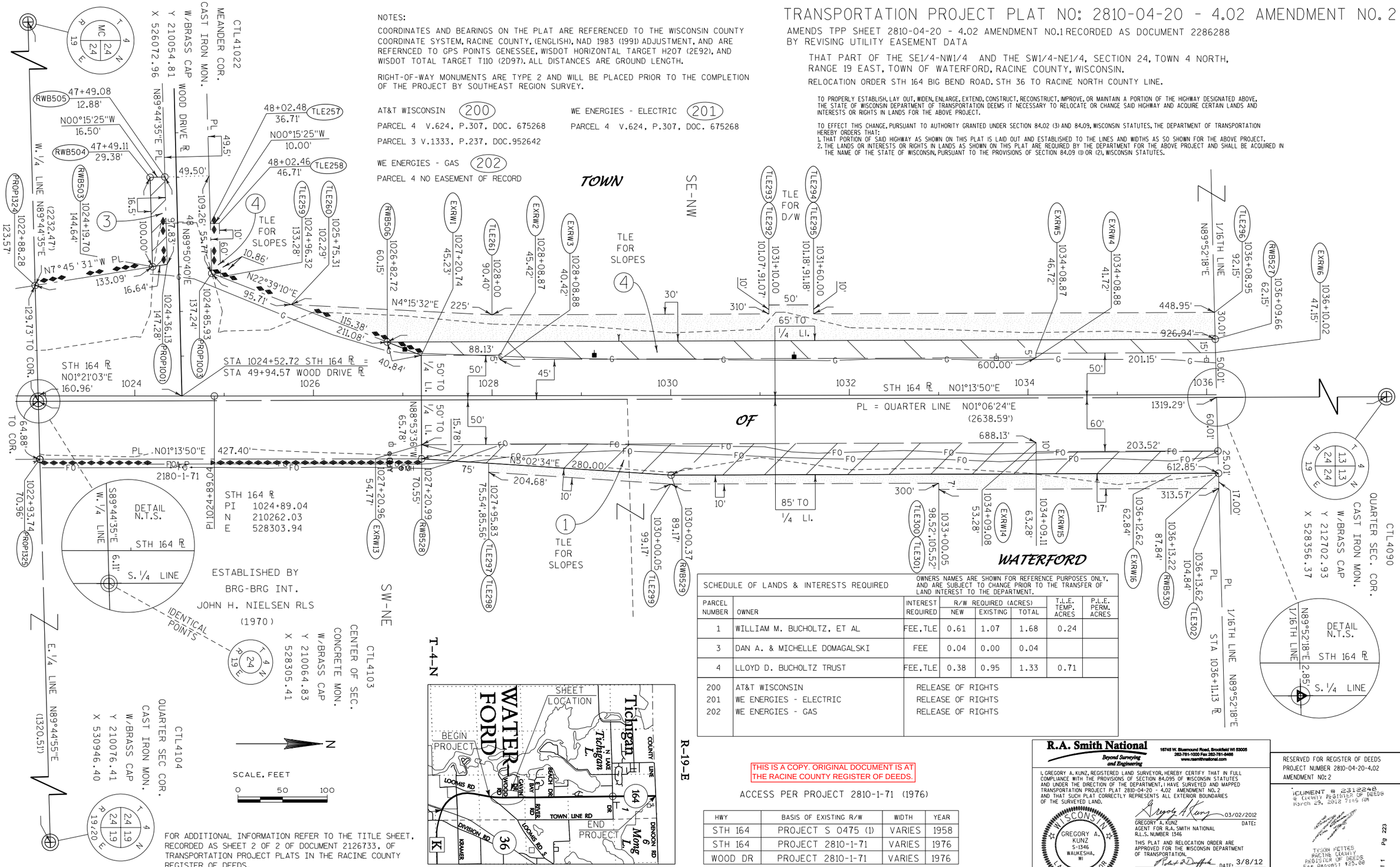
COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, (ENGLISH), NAD 1983 (1991) ADJUSTMENT, AND ARE REFERNCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

AT&T WISCONSIN (200)
PARCEL 4 V.624, P.307, DOC. 675268
PARCEL 3 V.1333, P.237, DOC.952642

WE ENERGIES - ELECTRIC (201)
PARCEL 4 V.624, P.307, DOC. 675268

WE ENERGIES - GAS (202)
PARCEL 4 NO EASEMENT OF RECORD



SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.					
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
1	WILLIAM M. BUCHOLTZ, ET AL	FEE,TLE	0.61	1.07	1.68	0.24	
3	DAN A. & MICHELLE DOMAGALSKI	FEE	0.04	0.00	0.04		
4	LLOYD D. BUCHOLTZ TRUST	FEE,TLE	0.38	0.95	1.33	0.71	
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
201	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS					
202	WE ENERGIES - GAS	RELEASE OF RIGHTS					

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS.

ACCESS PER PROJECT 2810-1-71 (1976)

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 164	PROJECT S 0475 (1)	VARIES	1958
STH 164	PROJECT 2810-1-71	VARIES	1976
WOOD DR	PROJECT 2810-1-71	VARIES	1976

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.02 AMENDMENT NO. 2 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

03/02/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 3/8/12
ROBERT L. DUFFECK, RLS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.02
AMENDMENT NO: 2

DOCUMENT # 2311248
RECEIVED FOR RECORD
March 29, 2012 7:45 AM
TYSON FETTES
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 25.00
Vol 1 Pg 223

FILE NAME : S:\5164894\Plat (RASN)\040402A2_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 3/7/2012
PLOT DATE gak
PLOT NAME :
$$.....plotscale.....$$ PLOT SCALE :
CONST. 2810-04-70 R/W 2810-04-20 4.02 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.03 AMENDMENT NO. 2

AMENDS TPP SHEET 2810-04-20 - 4.03 AMENDMENT NO.1 RECORDED AS DOCUMENT 2286289
BY REVISING UTILITY EASEMENT DATA

ESTABLISHED BY
BRG-BRG INT.
JOHN H. NIELSEN RLS
(1970)

THAT PART OF LOTS 1 AND 2 OF CSM 1145, AND ALSO THE NE1/4-NW1/4 AND THE NW1/4-NE1/4, SECTION 24, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER STH 164 BIG BEND ROAD. STH 36 TO RACINE NCL RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:
COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, (ENGLISH), NAD 1983 (1991) ADJUSTMENT, AND ARE REFERNCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

AT&T WISCONSIN (200)
PARCELS 5/105 V.2081, P.456, DOC. 1345180
PARCELS 6/106 V.2066, P.316, DOC. 1337873
WE ENERGIES - ELECTRIC (201)
PARCELS 4/104 V.624, P.307, DOC. 675268
WE ENERGIES - GAS (202)
PARCEL 4 NO EASEMENT OF RECORD

TOWN OF WATERFORD

CTL4103 CENTER OF SEC. CONCRETE MON. W/BRASS CAP Y 210064.83 X 528305.41

CTL40892 MEANDER COR. CAST IRON MON. W/BRASS CAP Y 212702.30 X 525948.54

CTL4090 QUARTER SEC. COR. CAST IRON MON. W/BRASS CAP Y 212702.93 X 528356.37

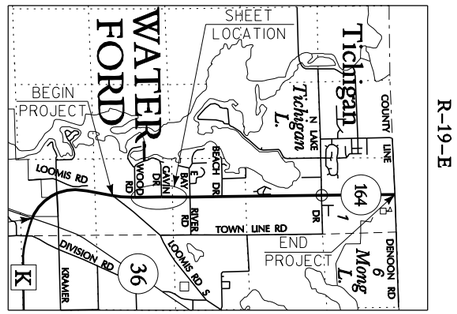
CTL4091 SEC. COR. CAST IRON MON. W/BRASS CAP Y 212703.17 X 530996.28

GAWIN DRIVE ℄=R
S85°26'54"E
N04°33'06"E 24.75'
N04°33'06"E 8.25'
47+50.00 33',24.75'
47+50.00 24.75',33',43'
RWB539 RWB540 RWB541 RWB542 TLE314
TLE316 RWB544 RWB546 RWB545 EXRW10
TLE315 RWB543 EXRW9 TLE500
48+93.85 43'
49+00.00 33'
1043+11.46 31.66'
1043+82 74.08'
1043+88.32 79.40'
1046+00.36 65.29'
1046+00.42 32.29'
59.83'
N74°37'12"W 95.00'
N64°47'02"W 177'
N31°06'47"W 63.04'
R=126'
248.61' TO STH 164 ℄ 211.42'
612.22'
652.02'
645.75' ℄ TO COR.
N01°06'24"E 869.04'
N01°06'24"E 219.28'
N01°06'24"E 719.06'
N01°06'24"E 231.17'
N01°06'24"E 328.71'
N01°06'24"E 288.96'
N01°06'24"E 212.04'
N3°04'34"W 329.11'
N3°32'08"E 218.53'
N4°13'48"E 212.33'
S88°53'36"E 6.00'
S88°53'36"E 65.50'
N14°55'36"E 104.69'
EXRW18 +00.58
500.32'
442.15'
255.62'
N10°58'55"W 71.62'
N89°02'21"E
PL N89°02'21"E
STH 164 ℄ = 1/4 LINE
STA 1049+30.49
SEC. LINE N89°59'06"E (2407.83')
PL STA 1049+30.49 ℄ 1049+28.54 90.00'
1049+29.06 66.00'
EXRW12
24.01'
90.02'
66.01'
85.02'
60.01'
25.01'
50.80'
130.00'
50'
37'
37.12'
85'
85.00'
1049+32.41
1049+31.85
EXRW20
RWB536
PL N89°59'41"E (2639.91')
PL-SEC. LINE
TLE FOR D/W 122.11'
1049+33.25
TLE309
1048+82.33
85.11',122.11'
TLE307 TLE308
1048+00 85.28'
RWB535
1047+37.23 69.42'
TLE503
1047+00.62 60.50'
RWB534
1046+50 60.61',69.61'
TLE501 TLE502
TLE FOR SLOPES
LOT 1 CSM 1145 V 3, P 361
(6)
(4)
(104)
(106)
1319.29'
PL = QUARTER LINE (2638.59')
STH 164 ℄ N01°13'50"E
1038 1040 1042 1044 1046 1048
1042+62.28 38.56'
EXRW8
1040+15.53 61.98'
TLE306
1039+81.56 62.05'
RWB532
1039+32.85 76.20'
RWB701
1044+45 61.05'
RWB702
1039+00.37 87.22'
RWB531
1039+18.11 92.19'
TLE305
1037+00.05 92.66',104.66'
TLE304 TLE303
1036+13.62 104.84'
TLE302
1036+13.22 87.84'
RWB530
1036+12.27 47.85'
EXRW17
1036+10.25 37.15'
EXRW7
1036+09.19 82.15'
TLE305
1036+09.66 62.15'
RWB527
1037+09.19 82.36',77.36'
TLE311 TLE312
1042+21.87 63.47'
RWB537
1042+23.02 78.47'
TLE313
N89°52'18"E 1/16TH LINE
STA 1036+11.20 ℄
PL 1/16TH LINE N89°52'18"E
513.84'
287.15'
218.06'
86.43'
N15°59'52"W 102'
N15°59'52"W 50.84'
34.00'
S85°26'54"E 1.40'
℄=℄
S. 1/4 LINE
NO1°06'24"E
STH 164 ℄
NO1°13'50"E
GAWIN RD.
DETAIL N.T.S.
STA 1042+84.83 STH 164 ℄ = STA 49+98.61 GAWIN DRIVE ℄
DETAIL N.T.S.
N89°52'18"E 2.85'
1/16TH LINE
STH 164 ℄
S. 1/4 LINE
TLE FOR SLOPES
LOT 2 CSM 1145 V 3, P 361
(5)
(105)
NW-NE
NE-NW
T-4-N
R-19-E
WATERFORD
FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 2126733, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
4	LLOYD D. BUCHOLTZ TRUST	FEE,TLE	0.78	1.60	2.38	0.34	
5	JAMES E. JR & DONNA M. REGNER	FEE,TLE	0.49	0.90	1.39	0.08	
6	ROBERT A. & LIANE E. DUFEK	FEE,TLE	0.18	0.54	0.72	0.04	
104	LLOYD D. BUCHOLTZ TRUST	TLE				0.02	
105	JAMES E. JR & DONNA M. REGNER	FEE	0.16	0.00	0.16		
106	ROBERT A. & LIANE E. DUFEK	TLE				0.01	
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
201	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS					
202	WE ENERGIES - GAS	RELEASE OF RIGHTS					



HWY	BASIS OF EXISTING R/W	YEAR
STH 164	PROJECT S 0475 (1)	1958
GAWIN DR	HILLSIDE BEACH SUB	

GN
SCALE, FEET
0 50 100

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS.

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.03 AMENDMENT NO. 2 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

03/02/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

3/8/12
ROBERT L. DUFFECK, RLS DATE:

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.03
AMENDMENT NO: 2

DOCUMENT # 2312249
RACINE COUNTY REGISTER OF DEEDS
MARCH 29, 2012 7:46 AM
TYSON FEITEN
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Pages: 1
Vol 1 Pg 224
148

FILE NAME : S:\5164894\Plat (RASN)\040403A2_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 3/7/2012
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
CONST. 2810-04-70 RW 2810-04-20 4.03 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.04 AMENDMENT NO. 2

AMENDS TPP SHEET 2810-04-20-4.04 AMENDMENT NO.1 RECORDED AS DOCUMENT 2286290
BY REVISING UTILITY EASEMENT DATA

THAT PART OF LOT 2, CSM 2870 AND ALSO THAT PART OF THE SE1/4-SW1/4 AND THE SW1/4-SE1/4, SECTION 13, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN

RELOCATION ORDER STH 164 BIG BEND ROAD, STH 36 TO RACINE NCL RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

AT&T WISCONSIN (200)
PARCEL 8 V. 624 P. 309, DOC. 675269
PARCEL 9 V.2066, P.314, DOC. 1337872
PARCEL 10/110 V.2041, P.438, DOC. 1345171
PARCEL 11/111 V.2066, P.306, DOC. 1337868

WE ENERGIES - ELECTRIC (201)
PARCEL 8 V.624, P.309, DOC. 675269
PARCEL 8 CSM 2870 DOC. 2145683

WE ENERGIES - GAS (202)
PARCELS 8 & 11/111 NO EASEMENT OF RECORD

NOTES:

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, (ENGLISH), NAD 1983 (1991) ADJUSTMENT, AND ARE REFERNCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

HWY	BASIS OF EXISTING R/W	YEAR
STH 164	PROJECT S 0475 (1)	1958
STH 164	CSM 2870 V.9, P.226 DOC.2143683	2007
E. RIVER BAY RD	CSM 2870 V.9, P.226, DOC.2143683	2007
E. RIVER BAY RD	TOWN RECORDS #1, P.210	1887
E. RIVER BAY RD	TOWN RECORDS #2, P.170	1901

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
7	DOUGLAS F. & RENEE A. ROTH	FEE	0.15	0.59	0.74		
8	LORRAINE G. BARANOWSKI TRUST	FEE,TLE	0.28	0.00	0.28	0.06	
9	THOMAS J. & DIANE S. OBERHART	FEE,TLE	0.30	1.36	1.66	0.31	
10	ROBERT L. HALVORSEN	FEE,TLE	0.05	0.10	0.15	0.03	
11	DAVID G. WEILAND	FEE,TLE	0.10	0.38	0.48	0.06	
110	JEFFREY J. LANCASTER	FEE	0.02	0.00	0.02		
111	DAVID G. WEILAND	FEE	0.03	0.00	0.03		
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
201	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS					
202	WE ENERGIES - GAS	RELEASE OF RIGHTS					

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 2126733, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.04 AMENDMENT NO. 2 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN — GREGORY A. KUNZ S-1346 WAUKESHA, WI — LAND SURVEYOR

03/02/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 3/8/12
ROBERT L. DUFFECK, RLS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.04
AMENDMENT NO: 2

DOCUMENT # 2312250
RACINE COUNTY REGISTER OF DEEDS
March 29, 2012 7:46 AM
TYSON FETTES
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Vol 1 Pg 225

Waterford Records #1 Page 210 1887 — 1½ rods on N/S of ⅛ sec. line

Waterford Records #2 Page 170 1901 — 3 rods on N/S of ⅛ sec. line

FILE NAME : S:\5164894\Plat (RASN)\040404A2_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 3/7/2012
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
CONST. 2810-04-70 R/W 2810-04-20 4.04 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.05 AMENDMENT NO. 2

AMENDS TPP SHEET 2810-04-20-4.05 AMENDMENT NO. 1 RECORDED AS DOCUMENT 2286291
BY REVISING UTILITY EASEMENT DATA

THAT PART OF THE NE1/4-SW1/4 AND THE NW1/4-SE1/4, SECTION 13, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER STH 164 BIG BEND ROAD. STH 36 TO RACINE NCL RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

Waterford Records #2 Page 170 1901
3 rods on N/S of 1/8 sec. line

CTL4076
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 215552.09
X 525783.87

CTL4077
CENTER OF SEC.
CAST IRON MON.
W/BRASS CAP
Y 215347.15
X 528415.88

CTL4078
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 215333.39
X 531050.55

STA 1062+52.94 ℄ - QUARTER SEC. COR.

46' RIVER BAY RD ℄=℄ OF R/W

PL

LOT 1 LOT 2 LOT 3

RAYMAR LAKE ESTATES

TOWN

NE-SW

NW-SE

N01°17'21"E 49.50'

47+55.39 32.60' RWB595

48+16.20 33.16' RWB596

49.5'

60.81'

245.06' PL 1/16TH LINE S89°57'13"E

48'

RWB597 1063+26.10 88.11'

TLE356 1063+44.43 70.00'

RWB598 1063+54.56 60.00'

EXRW152 1063+70.30 44.46'

EXRW143 1062+99.97 113.91'

100.00' N75°14'00"E

70.31'

14.25'

25.77'

36.73' N45°55'50"E 40.00'

22.12'

NOTES:

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, (ENGLISH), NAD 1983 (1991) ADJUSTMENT, AND ARE REFERNCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

TLE FOR SLOPES 12 60' 10'

355.57'

1067+00 70.00' TLE357

NO2°31'30"W 300.67'

TLE360 1070+00 90.00'

S88°34'22"E

88.50' 485.03' 30' 15.82' 733.87' 485.72'

TLE FOR SLOPES AND MARSH EXCAVATION 13 30' 60'

RWB600 1075+74.14 60.00'

TLE362 1075+73.52 90.00'

EXRW154 1075+74.47 44.00'

W. 1/4 LINE N89°53'33"W (2632.01') STA 1075+75.38 ℄ PL

30.01'

NO1°18'39"E 718.09' 44.18' NO1°18'39"E 486.09'

1322.44' TO 1/16TH LINE

1064 1066 1068 1070 1072 1074

835.34' PL 1310.07' PL

STH 164 ℄=℄= S. 1/4 LINE N01°17'21"E (2644.89')

487.10' PL

44.01'

60.01'

EXRW202 1062+80.44 137.60'

RWB590 1063+03.59 113.97'

N01°18'39"E 416.67'

N01°18'39"E 777.00'

774.82'

676.76'

44.04'

68.57' N44°16'55"W

1063+46.70' 70' TLE355

1063+51.60 65.00' RWB591

1063+82.43 33.55' EXRW155

450.00'

454.90'

N7°05'31"E 98.91'

1067+99.09 33.71' 40.71' EXRW156 EXRW157

1068+01.60 60.65' 70' RWB593 RWB592 TLE358

S88°42'39"E 5.00'

1069+00 80.00' TLE359

TLE FOR SLOPES

14 TLE FOR SLOPES AND MARSH EXCAVATION

20' 60'

1075+76.05 41' EXRW158

1075+76.37 60' RWB594

1075+76.70 80' TLE363

E. 1/4 LINE S89°42'03"E (2634.70')

DETAIL N.T.S. 12

PL=1/16TH LINE S89°57'13"E

PL=℄=℄=S. 1/4 LI. 1337.09'

NO1°17'21"E STH 164

1333.22'

S89°57'13"E 1/16TH LINE

12.38'

RIVER BAY RD

S89°25'41"E ℄=℄

N89°43'08"E ℄=℄

S89°51'12"E PL 295.16'

STA 1062+67.58 STH 164 ℄ = STA 50+00.00 RIVER BAY RD. ℄

STA 1062+64.07 STH 164 ℄ = STA 50+00.00 RIVER BAY RD. ℄

Waterford Records #1 Page 210 1887
1 1/2 rods on N/S of 1/8 sec. line

36.00' N00°08'48"E

24.75' 12.38' 36' 157.29' 140.45'

DETAIL N.T.S. 14

N44°16'55"W 33.08'

S89°51'12"E 40'

S81°12'50"E 47.54'

1063+04.39'

153.96'

1063+10.59 106.83' TLE354 RWB590 TLE353

23.63'

52+95.45 35.39' RWB589

52+95.28 11.77' RWB588

RIVER BAY RD ℄=℄ OF R/W

1/16TH LINE S89°57'13"E

WATERFORD

AT&T WISCONSIN 200
PARCEL 14 V.2066, P.300, DOC.1337865
PARCEL 12 V.624, P.309, DOC. 675269
PARCEL 13 V.624, P.309, DOC. 675269

WE ENERGIES - ELECTRIC 201
PARCEL 13 V.624, P.309, DOC. 675269
PARCEL 12 V.624, P.309, DOC. 675269
PARCEL 14 V.366, P.64, DOC. 447015
PARCEL 14 V.341, P.524, DOC. 430503

GN

SCALE, FEET
0 50 100

T-4-N

R-19-E

SHEET LOCATION

BEGIN PROJECT

END PROJECT

WATERFORD Tichigan L. Mong L.

LOOMIS RD TOWN LINE RD DIVISION RD KRAMER RD LOOMIS RD S DENOON RD RIVER RD BEACH DR CAVIN DR WOOD RD N LAKE DR COUNTY LINE

164 36 K

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.					
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
12	PAUL E. & SUZANNE M. THOMAS	FEE,TLE	0.28	1.14	1.42	0.28	
13	SUBURBAN LAND DEV., INC.	FEE,TLE	0.18	0.49	0.67	0.33	
14	RALPH & MELVIN BROWN	FEE,TLE	0.74	1.34	2.08	0.40	
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
201	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS					

HWY	BASIS OF EXISTING R/W	YEAR
STH 164	NO RECORD, STATUTE 82.31(2)	
STH 164	PROJECT S 0475 (1)	1958
E. RIVER BAY DR	TOWN RECORDS #1, P.210	1887
E. RIVER BAY DR	TOWN RECORDS #2, P.170	1901

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 2126733, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.05 AMENDMENT NO. 2 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

Gregory A. Kunz 03/02/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

Robert L. Duffeck DATE: 3/8/12
ROBERT L. DUFFECK, RLS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.05
AMENDMENT NO: 2

DOCUMENT # 2312251
RACINE COUNTY REGISTER OF DEEDS
March 29, 2012 7:46 AM

TYSON FEITES
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Pages: 1

Vol 1 Pg 325

150

FILE NAME : S:\5164894\Plat (RASN)\040405A2_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 3/7/2012
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
CONST. 2810-04-70 R/W 2810-04-20 4.05 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.06 AMENDMENT NO. 2

AMENDS TPP SHEET 2810-04-20-4.06 AMENDMENT NO. 1 RECORDED AS DOCUMENT 2286292
BY REVISING THE UTILITY EASEMENT DATA

THAT PART OF LOT 1, CSM 1690, AND ALSO THE SE1/4-NW1/4 AND THE SW1/4-NE1/4, SECTION 13, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER STH 164 BIG BEND ROAD. STH 36 TO RACINE NCL RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

CTL4076 QUARTER SEC. COR. CAST IRON MON. W/BRASS CAP Y 215352.09 X 525783.87

CENTER OF SEC. CAST IRON MON. W/BRASS CAP Y 215347.15 X 528415.88

CTL4077

QUARTER SEC. COR. CAST IRON MON. W/BRASS CAP Y 215333.39 X 531050.55

CTL4078

CTL4064 QUARTER SEC. COR. CAST IRON MON. W/BRASS CAP Y 217975.20 X 528472.81

WE ENERGIES - ELECTRIC (201)
PARCEL 14 V.366, P.64, DOC. 447015
PARCEL 14 V.341, P.524, DOC430503
PARCEL 15 V.624, P.317, DOC. 675273
PARCEL 17 V.624, P.313, DOC. 675271
PARCEL 17 V.268, P.68, DOC. 365277
PARCELS 18/118 V.624, P.313, DOC. 675271
PARCELS 18/118 V.268, P.68, DOC. 365277

AT&T WISCONSIN (200)
PARCEL 14 V.2066, P.300, DOC.1337865
PARCEL 17 V.624, P.313, DOC. 675271
PARCELS 18/118 V.624, P.313, DOC. 675271

NOTES:

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, (ENGLISH), NAD 1983 (1991) ADJUSTMENT, AND ARE REFERNCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 2126733, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

SCALE. FEET 0 50 100

T-4-N R-19-E

SHEET LOCATION

BEGIN PROJECT

END PROJECT

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.					
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
14	RALPH & MELVIN BROWN	FEE,TLE	0.56	1.43	1.99	0.42	
15	BECKY L. STORM	FEE,TLE	0.25	0.54	0.79	0.44	
16	ELIMINATED						
17	JONATHAN E. WEBER, ET AL	FEE,TLE	0.10	0.00	0.10	0.16	
18	TICHIGAN LAKE LIONS CLUB, INC.	FEE,TLE	0.18	0.72	0.90	0.09	
118	TICHIGAN LAKE LIONS CLUB, INC.	TLE				0.05	
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
201	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS					

HWY	BASIS OF EXISTING R/W	YEAR
BEACH DRIVE	TOWN RECORDS #4, P.92	1928
STH 164 & BEACH DR	PROJECT S 0475 (1)	1958
STH 164 & BEACH DR	CSM 1690, V5, P172	1994

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS.

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.06 AMENDMENT NO. 2 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

03/02/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 3/8/12
ROBERT L. DUFFECK, RLS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.06
AMENDMENT NO: 2

DOCUMENT # 2312252
RACINE COUNTY REGISTER OF DEEDS
March 29, 2012 7:46 AM
TYSON FETTES
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Pages: 1
Vol 1 Pg 227
151

FILE NAME : S:\5164894\Plat (RASN)\040406A2_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 3/7/2012
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
CONST. 2810-04-70 R/W 2810-04-20 4.06 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.07 AMENDMENT NO. 2

AMENDS TPP SHEET 2810-04-20-4.07 AMANDME TNO. 1 RECORDED AS DOCUMENT 2286293
BY REVISING UTILITY EASEMENT DATA AND ADDING PARCEL 203

THAT PART OF OUTLOTS 1 AND 2 OF STONEGATE ESTATES SUBDIVISION, AND ALSO THAT PART OF LOT 1, CSM 1566, LOTS 1-4, CSM 1655, LOTS 1 & 2 CSM 1784 AND ALSO THE SE1/4-NW1/4 AND THE SW1/4-NE1/4, SECTION 13, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN.
RELOCATION ORDER STH 164 (BIG BEND ROAD). OLD LOOMIS ROAD TO RACINE NORTH COUNTY LINE RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
19	STONEGATE ESTATES	FEE,TLE	0.01	0.00	0.00	0.03	
20	NORMAN A. BROWN	FEE,TLE	0.17	0.20	0.37	0.06	
21	DAVID J. & CATHY L. NELSON	FEE,TLE	0.01	0.00	0.01	0.03	
22	DANIEL T. & ERIN M. RAUSCH	TLE				0.03	
23	DAVID C. & SHARON CHRISTOPHER	FEE	0.12	0.00	0.12		
24	THOMAS A. & SUSAN P. RAUSCH	FEE,TLE	0.25	0.45	0.70	0.03	
25	RAUSCH, ET AL	FEE,TLE	0.08	0.23	0.31	0.01	
26	JAMES R. & TANYA L. MANEY	FEE,TLE	0.04	0.00	0.04	0.01	
27	KIM M. SCHULTE	FEE,TLE	0.04	0.00	0.04	0.02	
28	PATRICK J. & APRIL M. SUTHERLAND	FEE,TLE	0.04	0.00	0.04	0.01	
120	NORMAN A. BROWN	TLE				0.02	
122	DANIEL T. & ERIN M. RAUSCH	TLE				0.01	
124	THOMAS A. & SUSAN P. RAUSCH	TLE				0.04	
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
201	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS					
202	WE ENERGIES - GAS	RELEASE OF RIGHTS					
203	TN. OF WATERFORD SAN. DIST. #1	RELEASE OF RIGHTS					
204	TDS TELECOM	RELEASE OF RIGHTS					
205	TIME WARNER CABLE	RELEASE OF RIGHTS					

CTL40632
MEANDER COR.
CAST IRON MON.
W/BRASS CAP
Y 217991.47
X 526364.84

CTL4064
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 217975.20
X 528472.81

CTL4077
CENTER OF SEC.
CAST IRON MON.
W/BRASS CAP
Y 215347.15
X 528415.88

CTL4065
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 217966.42
X 531104.89

SEC. LINE=PL = STA 1102+04.05 R
(2108.03') S89°33'28"E

SEC. LINE=PL (2632.10') S89°48'32"E

STA 1088+89.72 R

1/16TH LINE S89°45'18"E

STH 164 ℄=R=N. 1/4 LINE NO1°14'27"E (2628.67')

T-4-N

R-19-E

SW-NE

SE-NW

GN

SCALE, FEET
0 50 100

HWY	BASIS OF EXISTING R/W	YEAR
STH 164	PROJECT S 0475 (1)	1958
SANDY LANE	STONEGATE ESTATES SUB.	2001
STH 164	STONEGATE ESTATES SUB.	2001

NOTES:
COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, (ENGLISH), NAD 1983 (1991) ADJUSTMENT, AND ARE REFERNCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

PARCEL 19
TLE1
L 25.66'
R 117.00'
LCH 25.61'
CB N 84°58'38" E

TLE FOR SLOPES

OUTLOT 1

OUTLOT 2

DRAINAGE EASE. AREA PER SUBDIVISION

DRAINAGE EASE. DETENTION AREA PER SUBDIVISION

NO ACCESS PER SUBDIVISION

STONEGATE ESTATES

LOT 1 CSM 1566 V 4, P 804

LOT 2 CSM 1784 V 5, P 436

LOT 1 CSM 1784 V 5, P 436

STONEGATE ESTATES LOT 21

LOT 4 CSM 1655 V 5, P 69

LOT 3 CSM 1655 V 5, P 69

LOT 2 CSM 1655 V 5, P 69

LOT 1 CSM 1655 V 5, P 69

WATERFORD

TOWN OF WATERFORD

AT&T WISCONSIN (200)
PARCEL 19 V.624, P.315, DOC.675272
PARCELS 20/120 V.624, P.315, DOC.675272
PARCEL 21 V.624, P.315, DOC.675272
PARCELS 22/122 V.624, P.315, DOC.675272
PARCEL 23 V.2066, P.312, DOC.1337871
PARCEL 23 V.2090, P.923, DOC.1349837
PARCELS 24/124 V.2066, P.312, DOC.1337871
PARCELS 24/124 V.2090, P.923, DOC.1349837
PARCEL 25 V.2090, P.923, DOC.1349837
PARCEL 26 V.2090, P.923, DOC.1349837
PARCEL 27 V.2090, P.923, DOC.1349837
PARCEL 28 V.2090, P.923, DOC.1349837
PARCEL 29 V.2090, P.923, DOC.1349837

WE ENERGIES - ELECTRIC (201)
PARCEL 19 V.624, P.315, DOC.675272
PARCEL 19 V.624, P.323, DOC.675276
PARCEL 19 V.3276, P.945, DOC.1796015
PARCEL 20 V.624, P.315, DOC.675272
PARCEL 20 V.624, P.323, DOC.675276
PARCEL 21 V.624, P.315, DOC.675272
PARCEL 21 V.624, P.323, DOC.675276
PARCEL 22 V.624, P.315, DOC.675272
PARCEL 22 V.624, P.323, DOC.675276

TDS TELECOM (204)
PARCEL 19 V.3276, P.945, DOC.1796015

TIME WARNER CABLE (205)
PARCEL 19 V.3276, P.945, DOC.1796015

WE ENERGIES - GAS (202)
PARCEL 19 NO RECORD OF EASEMENT

TN. OF WATERFORD S.D.#1 (203)
PARCEL 19 NO RECORD OF EASEMENT

SHEET LOCATION

BEGIN PROJECT

END PROJECT

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 2126733, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS.

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.07 AMENDMENT NO. 2 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

03/02/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 3/8/12
ROBERT L. DUFFECK, RLS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.07
AMENDMENT NO: 2

DOCUMENT # 2312253
RACINE COUNTY REGISTER OF DEEDS
March 29, 2012 7:46 AM
TYSON FEITES
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 25.00
Pages: 1
Vol 1 Pg 228

FILE NAME : S:\5164894\Plat (RASN)\040407A2_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 3/7/2012
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
CONST. 2810-04-70 R/W 2810-04-20 4.07 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.08 AMENDMENT NO. 2

AMENDS TPP SHEET 2810-04-20-4.08 AMENDMENT NO. 1 RECORDED AS DOCUMENT 2286294
BY REVISING UTILITY EASEMENT DATA AND ADDING PARCEL 205

THAT PART OF LOTS 1, 9 AND 10 OF TICHIGAN TRAIL ESTATES SUBDIVISION, LOTS 27, 28, AND 34 OF HIDDEN HARBOR ADDITION NO. 1, ALSO THAT PART OF LOTS 1 AND 2 OF CSM 2351, AND ALSO THE SE1/4-SW1/4 AND THE SW1/4-SE1/4, SECTION 12, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER STH 164 (BIG BEND ROAD). OLD LOOMIS ROAD TO RACINE NORTH COUNTY LINE RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:
COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO WISCONSIN COUNTY COORDIATE SYSTEM, RACINE COUNTY, (ENGLISH), NAD 1983 (1991) ADJUSTMENT, AND ARE REFERENCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97).ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

HWY	BASIS OF EXISTING R/W	YEAR
STH 164	PROJECT S 0475 (1)	1958
STH 164	HIDDEN HARBOR ADD. NO.1	1993
SANDY LN & DORIE LN	HIDDEN HARBOR ADD. NO.1	1993
STH 164	CSM 2351 V7, P263	2001

(200) AT&T WISCONSIN
PARCEL 30 V.2090, P.923, DOC.1349837
PARCEL 31 V.2090, P.923, DOC.1349837
PARCEL 32 V.2066, P.310, DOC.1337870
PARCEL 33 V.2066, P.310, DOC.1337870
PARCEL 35 V.624, P.315, DOC.675272
PARCELS 38/138 V.624, P.319, DOC.675274
PARCELS 38/138 V.2472, P.807-809, DOC.1512012
PARCELS 39/139 V.624, P.319, DOC.675274
PARCELS 39/139 V.2472, P.807-809, DOC.1512012

(201) WE ENERGIES - ELECTRIC
PARCEL 35 V.624, P.315, DOC.675272
PARCELS 38/138 V.624, P.319, DOC.675274
PARCELS 38/138 V.2472, P.807-809, DOC.1512012
PARCELS 39/139 V.624, P.319, DOC.675274
PARCELS 39/139 V.2472, P.807-809, DOC.1512012

(205) TIME WARNER CABLE
PARCELS 39/139 NO RECORD OF EASEMENT

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.					
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
30	NICK & CAREY RAUSCH	FEE	0.08	0.38	0.46		
31	KETTERHAGEN TRUST 11/23/02	FEE,TLE	0.08	0.38	0.46	0.01	
32	LAWRENCE M. & LINDA A. BALZER	FEE,TLE	0.15	0.00	0.15	0.06	
33	JUSTIN L. KREGER	FEE,TLE	0.13	0.00	0.13	0.01	
34	ELIMINATED						
35	JONATHAN D. & PATRICIA A. HORN	TLE				0.11	
36	ERVIN J. & MARCELL D. SOLLAZO	TLE				0.01	
37	ANTHONY L. & ALAYNA M. OBLUCK	TLE				0.002	
38	TOMISLAV A. & JOAN M. DUGANDZIC	FEE,TLE	0.03	0.00	0.03	0.03	
39	JAY A. & CHRISTINE M. WALKOWSKI	FEE,TLE	0.06	0.00	0.06	0.02	
138	TOMISLAV A. & JOAN M. DUGANDZIC	TLE				0.01	
139	JAY A. & CHRISTINE M. WALKOWSKI	TLE				0.01	
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
201	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS					
205	TIME WARNER CABLE	RELEASE OF RIGHTS					

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET,RECORDED AS SHEET 2 OF 2 OF DOCUMENT 2126733, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTYREGISTER OF DEEDS.

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS.

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.08 AMENDMENT NO.2 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

Gregory A. Kunz 03/02/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

Robert L. Duffeck DATE: 3/8/12
ROBERT L. DUFFECK, RLS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.08
AMENDMENT NO: 2

DOCUMENT # 2312254
RACINE COUNTY REGISTER OF DEEDS
March 23, 2012 7:16 AM
TYSON PETTES
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Pages: 1

Vol 1 Pg 232
153

FILE NAME : S:\5164894\Plat (RASN)\040408A2_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 3/7/2012
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
CONST. 2810-04-70 R/W 2810-04-20 4.08 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.09 AMENDMENT NO. 2

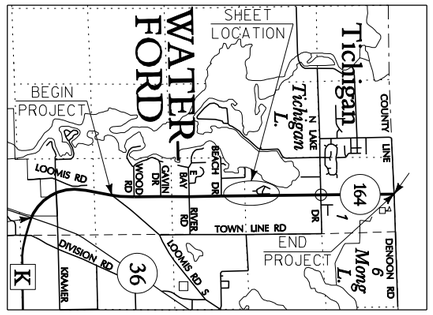
AMENDS TPP SHEET 2810-04-20-4.09 AMENDMENT NO. 1 RECORDED AS DOCUMENT 2286295
BY REVISING UTILITY EASEMENT DATA AND ADDING PARCELS 202 & 205

THAT PART OF LOTS 22, 23, 24, AND 26 OF HIDDEN HARBOR ADDITION NO. 1, ALSO THAT PART OF LOTS 1, 2, AND 3 OF CSM 2352, AND ALSO THE NE1/4-SW1/4 AND THE NW1/4-SE1/4, SECTION 12, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER STH 164 (BIG BEND ROAD). OLD LOOMIS ROAD TO RACINE NORTH COUNTY LINE RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.



GN

SCALE, FEET
0 50 100

TLE FOR SLOPES

NO ACCESS PER SUB.

TOWN

ACCESS EASEMENT V 2040, P 533 DOC 1324283

PINE LANE

NE-SW

POPLAR CIRCLE V 482, P 308, DOC 541555

S89°55'17"E PL

S89°55'17"E

SHERRY LANE (66')

LOT 26 LOT 25 LOT 24 LOT 23 LOT 22 LOT 1

HIDDEN HARBOR ADDITION NO. 1

VISION CORNER PER SUB

STH 164 ℄=R= S.1/4 LINE N00°43'26"E (2636.07')

N89°24'26"E PL

W.1/4 LINE S89°36'38"E (2663.32')

CTL4050 QUARTER SEC. COR. CAST IRON MON. W/BRASS CAP
Y 220629.16
X 525842.84

CTL4051 CENTER OF SEC. CAST IRON MON. W/BRASS CAP
Y 220611.06
X 528506.11

CTL4064 QUARTER SEC. COR. CAST IRON MON. W/BRASS CAP
Y 212702.93
X 528356.37

1/16TH LINE S89°43'30"E PL STA 1115+22.09 R

E.1/4 LINE S89°38'31"E (2659.99') PL STA 1128+40.13 R

NW-SE

TLE FOR SLOPES

WATERFORD

OF

LOT 3 CSM 2352 V 7, P 270

LOT 2 CSM 2352 V 7, P 270

LOT 1 CSM 2352 V 7, P 270

1 A.P. PER CSM 2352

200
AT&T WISCONSIN
PARCEL 40 V.2066, P.310, DOC. 1337870
PARCELS 41/141 V.2066, P.310, DOC. 1337870
PARCEL 42 V.2066, P.310, DOC. 1337870
PARCEL 43 V.2066, P.310, DOC. 1337870
PARCEL 44 V.624, P.319, DOC.675274
PARCEL 45 V.624, P.319, DOC.675274
PARCEL 46 V.624, P.319, DOC.675274
PARCEL 47 V.624, P.319, DOC.675274
PARCEL 48 V.626, P.43, DOC.676779
PARCEL 49 V.626, P.41, DOC.676778
PARCEL 50 V.626, P.41, DOC.676778

201
WE ENERGIES - ELECTRIC
PARCEL 40 NO EASEMENT OF RECORD
PARCEL 42 V.3527, P.527, DOC. 1853195
PARCEL 43 V.703, P. 335, DOC.721722
PARCEL 44 V.624, P.319, DOC.675274
PARCEL 45 V.624, P.319, DOC.675274
PARCEL 46 V.624, P.319, DOC.675274
PARCEL 47 V.624, P.319, DOC.675274
PARCEL 48 V.626, P.43, DOC. 676779
PARCEL 49 V. 626, P.41, DOC. 676778
PARCEL 50 V.626, P.41, DOC. 676778

202
WE ENERGIES - GAS
PARCEL 48 NO EASEMENT OF RECORD

205
TIME WARNER CABLE
PARCEL 49 NO EASEMENT OF RECORD
PARCEL 50 NO EASEMENT OF RECORD

SCHEDULE OF LANDS & INTERESTS REQUIRED			OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
			R/W REQUIRED (ACRES)			T.L.E.	P.L.E.
PARCEL NUMBER	OWNER	INTEREST REQUIRED	NEW	EXISTING	TOTAL	TEMP. ACRES	PERM. ACRES
40	DANIEL W. & CARLEEN M. FITCH	FEE,TLE	0.11	0.00	0.11	0.02	
41	TROY A. LOOMIS	FEE,TLE	0.14	0.00	0.14	0.02	
42	LINDA M. REINKE	FEE,TLE	0.15	0.00	0.15	0.01	
43	DANIEL J. HEINZE	FEE,TLE	0.15	0.30	0.45	0.04	
44	ANDREW R. & MICHELLE K. GLISCH	TLE				0.01	
45	LORA J. REDEL	TLE				0.01	
46	GREGORY S. & BLANCA ROUSE	TLE				0.02	
47	GREGORY S. & NANCY J. BEASTON	TLE				0.02	
48	JEFFERY J. & JUDITH A. KREGER	FEE	0.15	0.27	0.42		
49	RONALD D. STRASSER JOINT TRUST	FEE	0.16	0.20	0.36		
50	CHAD A. & MONICA L. DEGROOT	FEE	0.10	0.12	0.22		
141	TROY A. LOOMIS	TLE				0.01	
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
201	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS					
202	WE ENERGIES - GAS	RELEASE OF RIGHTS					
205	TIME WARNER CABLE	RELEASE OF RIGHTS					

HWY	BASIS OF EXISTING R/W	YEAR
STH 164	PROJECT S 0475 (1)	1958
STH 164	HIDDEN HARBOR ADD. NO.1	1993
STH 164	CSM 2352 V7, P270	2001
POPLAR CIRCLE	PETERSON SUB.	

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 2126733, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

NOTES:

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, (ENGLISH), NAD 1983 (1991) ADJUSTMENT, AND ARE REFERNCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS.

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax: 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.09 AMENDMENT NO. 2 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

Gregory A. Kunz 03/02/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

Robert L. Duffeck DATE: 3/8/12
ROBERT L. DUFFECK, RLS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.09
AMENDMENT NO: 2

DOCUMENT # 2312255
RACINE COUNTY REGISTER OF DEEDS
March 29, 2012 7:50 AM
TYSON FETTES
RACINE COUNTY
REGISTER OF DEEDS
FEE AMOUNT: 425.00
Vol 1 Pg 230

154

FILE NAME : S:\5164894\Plat (RASN)\040409A2_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 3/7/2012
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
CONST. 2810-04-70 R/W 2810-04-20 4.09 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.10 AMENDMENT NO. 2

AMENDS TPP SHEET 2810-04-20-4.10 AMENDMENT NO. 1 RECORDED AS DOCUMENT 2286296 BY REVISING UTILITY EASEMENT DATA AND ADDING PARCEL 205

THAT PART OF OF LOTS 1,2,3, AND OUTLOT 1 OF CSM 1484, AND ALSO THE SE1/4-NW1/4 AND THE SW1/4-NE1/4, SECTION 12, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER STH 164 BIG BEND ROAD. STH 36 TO RACINE NCL RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

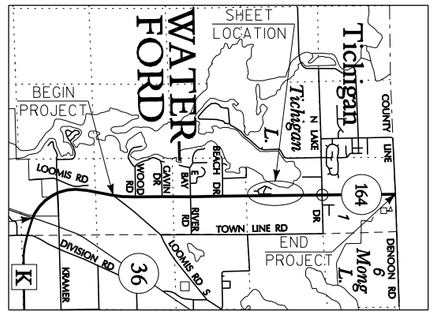
TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, (ENGLISH), NAD 1983 (1991) ADJUSTMENT, ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

SHEET LOCATION



SCALE, FEET
0 50 100

GN

TOWN

GRAND VIEW ADDITION

RESERVE

HIGHWAY CONVEYANCE
V.614, P.9, DOC.665181
V.614, P.113, DOC.666102
1957

WE ENERGIES - ELECTRIC (201)
PARCEL 50 V.626, P.41, DOC. 676778
PARCELS 53/153 V.624, P.325, DOC. 675277
PARCEL 53 V. 481, P. 663, DOC. 541074

TIME WARNER CABLE (205)
PARCELS 53/153 NO RECORD OF EASEMENT

BIRCH LANE (PRIVATE DRIVEWAY PER GRANDVIEW ADD. SUB.)

POPLAR CIRCLE

GREENHAVEN TERRACE

PRIVATE DRIVEWAY

FOXWATER BAY

TLE FOR SLOPES

VISION COR. PER SUBDIVISION

OF

SE-NW

SW-NE

STH 164 ℄=R=N. 1/4 LINE NO0°43'28"E

1/16TH LINE S89°40'36"E

OUTLOT 1 CSM 1484 V 4, P 581

66' RESERVED FOR ROAD PURPOSES PER CSM 1484

LOT 1 CSM 1484 V 4, P 581

LOT 2 CSM 1484 V 4, P 581

LOT 3 CSM 1484 V 4, P 581

DETAIL NOT TO SCALE

SEE TPP SHEET 2810-04-20-4.11

AT&T WISCONSIN (200)
PARCELS 51/151 V.2081, P.444, DOC. 1345174
PARCELS 52/152 V.2081, P.442, DOC. 1345173
PARCEL 50 V.626, P.41, DOC. 676778
PARCELS 53/153 V.624, P.325, DOC. 675277

WATERFORD

CTL4050 QUARTER SEC. COR. CAST IRON MON. W/BRASS CAP Y 220629.16 X 525842.84

CTL4051 CENTER OF SEC. CAST IRON MON. W/BRASS CAP Y 220611.06 X 528506.11

CTL4052 QUARTER SEC. COR. CAST IRON MON. W/BRASS CAP Y 220594.44 X 531166.04

CTL4038 QUARTER SEC. COR. CAST IRON MON. W/BRASS CAP Y 223248.76 X 528539.45

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.					
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
50	CHAD A. & MONICA L. DEGROOT	FEE	0.06	0.08	0.14		
51	DENNIS B. & KRISTI A. SMITH	FEE,TLE	0.06	0.00	0.06	0.03	
52	KEVIN L. MALCHINE	FEE,TLE	0.20	0.00	0.20	0.03	
53	L & T DEVELOPMENT, LLC	FEE,TLE	0.21	1.22	1.43	0.14	
151	DENNIS B. & KRISTI A. SMITH	TLE				0.05	
152	KEVIN L. MALCHINE	TLE				0.01	
153	L & T DEVELOPMENT, LLC	TLE				0.07	
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
201	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS					
205	TIME WARNER CABLE	RELEASE OF RIGHTS					

HWY	BASIS OF EXISTING R/W	YEAR
STH 164	PROJECT S 0475 (1)	1958
STH 164	CSM 1484 V4, P581	1990
STH 164	DEED DOC. 2134243	2007
STH 164	DEED DOC. 2134244	2007
POPLAR CIRCLE	PETERSON SUB.	
GREENHAVEN TERR.	FOXWATER BAY SUB.	2007

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 2126733, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS.

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.10 AMENDMENT NO. 2 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

03/02/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 3/8/12
ROBERT L. DUFFECK, RLS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.10
AMENDMENT NO: 2

DOCUMENT # 2312256
RACINE COUNTY REGISTER OF DEEDS
March 25, 2012 7:50 AM

TY-JON FETTES
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 25.00
Pages 1

Vol 1 Pg 123

FILE NAME : S:\5164894\Plat (RASN)\040410A2_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 3/7/2012
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
CONST. 2810-04-70 R/W 2810-04-20 4.10 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.11
AMENDMENT NO: 4

AMENDS TPP SHEET 2810-04-20-4.11 AMENDMENT NO. 3 RECORDED AS DOCUMENT 2303990 BY REVISING UTILITY EASEMENT DATA.

THAT PART OF OF THE NE1/4-NW1/4 AND THE NW1/4-NE1/4, SECTION 12, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER STH 164 BIG BEND ROAD. STH 36 TO RACINE NCL RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

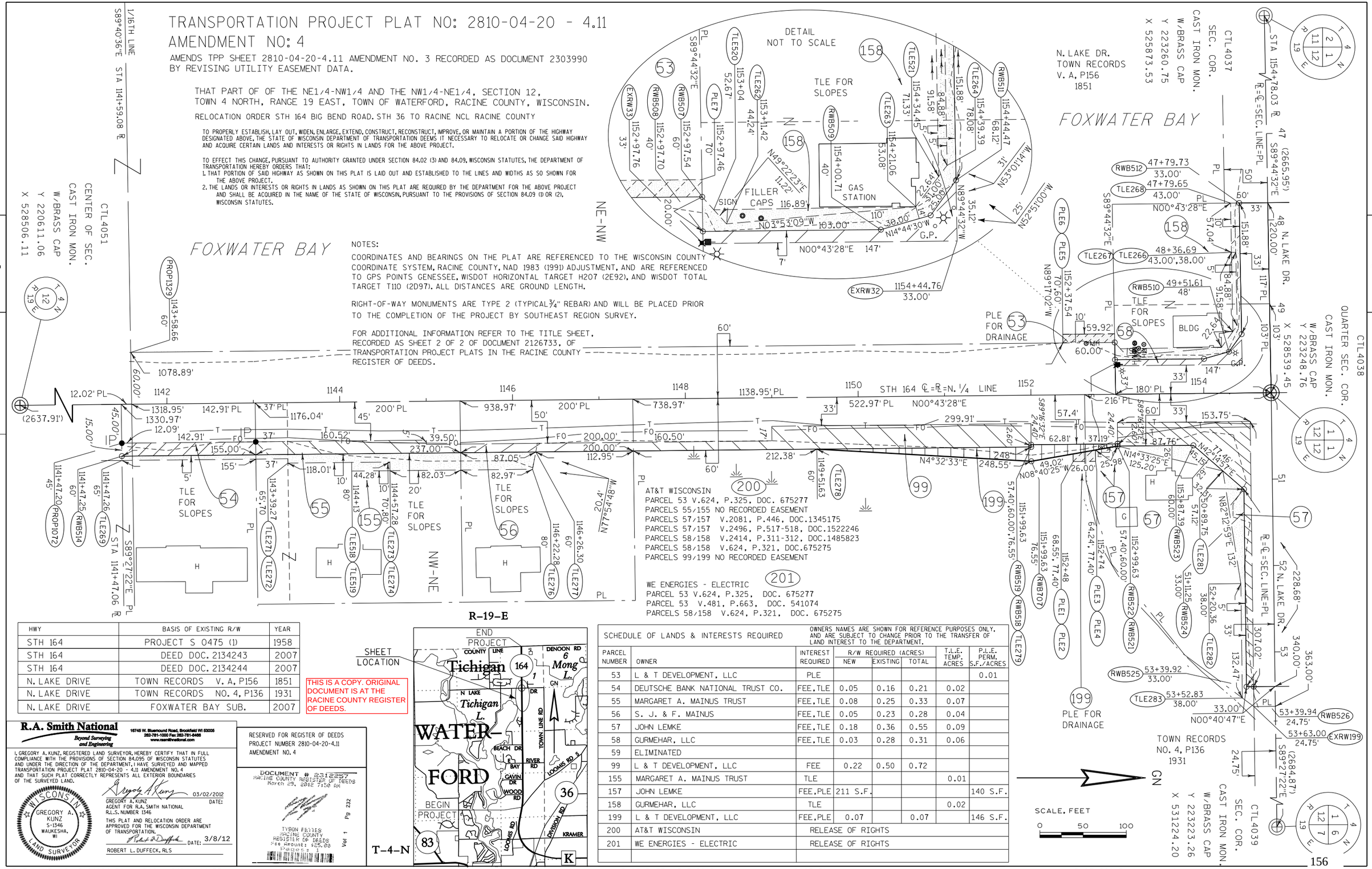
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, NAD 1983 (1991) ADJUSTMENT, AND ARE REFERENCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 2126733, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.


DETAIL NOT TO SCALE
TLE FOR SLOPES
FILLER CAPS
GAS STATION
SIGN
FOXWATER BAY
N. LAKE DR. TOWN RECORDS V. A. P156 1851
CTL4037 SEC. COR. CAST IRON MON. W/BRASS CAP Y 223260.75 X 525873.53
CTL4038 QUARTER SEC. COR. CAST IRON MON. W/BRASS CAP Y 223248.76 X 528539.45
CTL4051 CENTER OF SEC. CAST IRON MON. W/BRASS CAP Y 220611.06 X 528506.11
1/16TH LINE S89°40'36"E STA 1141+59.08 R
STA 1154+78.03 R = ℄=SEC. LINE=PL
(2665.95') S89°44'32"E
(2637.91')
1078.89'
1318.95'
1330.97'
(2684.87') S89°27'22"E
STA 1141+47.06 R
STH 164 ℄=R=N. 1/4 LINE
N00°43'28"E
522.97' PL
299.91'
738.97'
938.97'
1138.95' PL
1176.04'
142.91' PL
155.00'
237.00'
200.00'
112.95'
212.38'
248.55'
153.75'
180' PL
216' PL
PROP1329
PROP1072
RWB514
TLE269
TLE271
TLE272
TLE518
TLE519
TLE273
TLE274
TLE276
TLE277
TLE278
TLE279
TLE281
TLE282
TLE283
RWB523
RWB524
RWB525
RWB526
RWB527
RWB528
RWB529
RWB530
RWB531
RWB532
RWB533
RWB534
RWB535
RWB536
RWB537
RWB538
RWB539
RWB540
RWB541
RWB542
RWB543
RWB544
RWB545
RWB546
RWB547
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RWB552
RWB553
RWB554
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RWB559
RWB560
RWB561
RWB562

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.12 AMENDMENT NO. 5

AMENDS TPP SHEET 2810-04-20-4.12 AMENDMENT NO. 4 RECORDED AS DOCUMENT 2303991
BY REVISING UTLITY EASEMENT DATA.

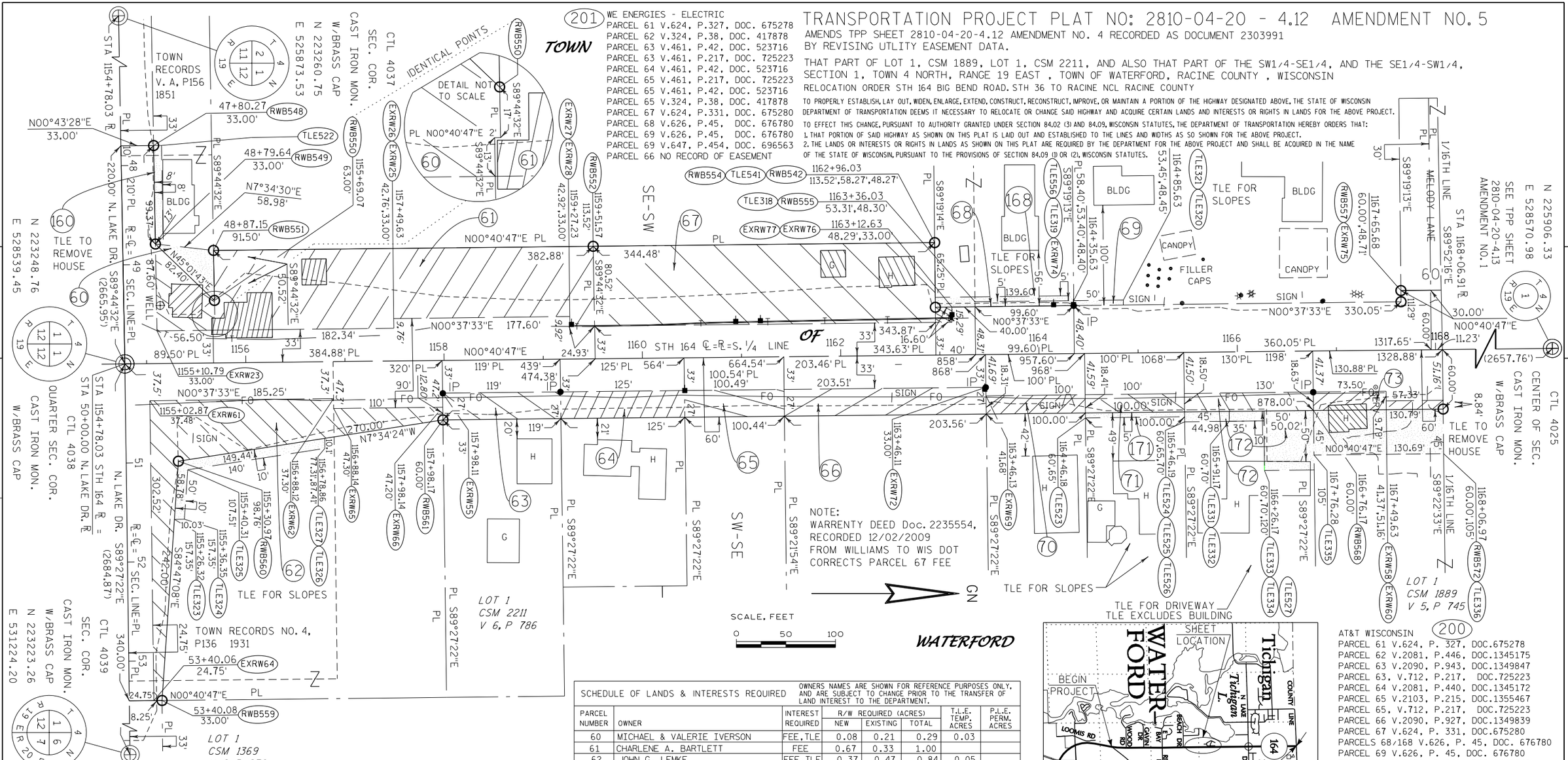
THAT PART OF LOT 1, CSM 1889, LOT 1, CSM 2211, AND ALSO THAT PART OF THE SW1/4-SE1/4, AND THE SE1/4-SW1/4, SECTION 1, TOWN 4 NORTH, RANGE 19 EAST , TOWN OF WATERFORD, RACINE COUNTY , WISCONSIN
RELOCATION ORDER STH 164 BIG BEND ROAD. STH 36 TO RACINE NCL RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

201 WE ENERGIES - ELECTRIC
PARCEL 61 V.624, P.327, DOC. 675278
PARCEL 62 V.324, P.38, DOC. 417878
PARCEL 63 V.461, P.42, DOC. 523716
PARCEL 63 V.461, P.217, DOC. 725223
PARCEL 64 V.461, P.42, DOC. 523716
PARCEL 65 V.461, P.217, DOC. 725223
PARCEL 65 V.461, P.42, DOC. 523716
PARCEL 65 V.324, P.38, DOC. 417878
PARCEL 67 V.624, P.331, DOC. 675280
PARCEL 68 V.626, P.45, DOC. 676780
PARCEL 69 V.626, P.45, DOC. 676780
PARCEL 69 V.647, P.454, DOC. 696563
PARCEL 66 NO RECORD OF EASEMENT


TOWN
SE-SW
SW-SE
OF
IDENTICAL POINTS
DETAIL NOT TO SCALE
STA 1154+78.03 PL
TOWN RECORDS V. A, P156 1851
CTL 4037 SEC. COR.
CAST IRON MON. W/BRASS CAP
N 223260.75 E 525873.53
47+80.27 33.00' RWB548
48+79.64 33.00' RWB549
48+87.15 91.50' RWB551
TLE522
RWB550
RWB552
EXRW25
EXRW26
EXRW27
EXRW28
EXRW74
EXRW75
EXRW76
EXRW77
RWB554
TLE541
RWB542
TLE318
RWB555
TLE319
TLE320
TLE321
TLE556
RWB557
1162+96.03 113.52',58.27',48.27'
1163+36.03 53.31',48.30'
1163+12.63 48.29',33.00
1164+85.63 53.45',48.45'
1164+35.63 58.40',53.40',48.40'
1167+65.68 60.00',48.71'
N00°43'28"E 33.00'
N7°34'30"E 58.98'
N45°01'43"E 82.40'
N00°40'47"E PL
N00°37'33"E 177.60'
N00°37'33"E 330.05'
N00°40'47"E 30.00'
N00°40'47"E 11.23'
S89°44'32"E 80.52'
S89°44'32"E 50.52'
S89°44'32"E 65.25' PL
S89°44'32"E 17'
S89°44'32"E 13'
S89°44'32"E 2'
S89°44'32"E 99.37'
S89°44'32"E 87.60' WELL
S89°44'32"E (2665.95')
S89°44'32"E 344.48'
S89°44'32"E 382.88'
S89°44'32"E 384.88' PL
S89°44'32"E 182.34'
S89°44'32"E 56.50'
S89°44'32"E 89.50' PL
S89°44'32"E 37.5'
S89°44'32"E 185.25'
S89°44'32"E 149.44'
S89°44'32"E 302.52'
S89°44'32"E 242.00'
S89°44'32"E (2684.87')
S89°44'32"E 340.00'
S89°44'32"E 24.75'
S89°44'32"E 8.25'
S89°44'32"E 24.93'
S89°44'32"E 9.76'
S89°44'32"E 9.92'
S89°44'32"E 12.80'
S89°44'32"E 47.2'
S89°44'32"E 47.3'
S89°44'32"E 47.20'
S89°44'32"E 47.30'
S89°44'32"E 37.30'
S89°44'32"E 77.31'
S89°44'32"E 98.76'
S89°44'32"E 107.51'
S89°44'32"E 157.35'
S89°44'32"E 157.35'
S89°44'32"E 60.00'
S89°44'32"E 42.76',33.00'
S89°44'32"E 42.92',33.00'
S89°44'32"E 113.52'
S89°44'32"E 47.27'
S89°44'32"E 47.31'
S89°44'32"E 47.41'
S89°44'32"E 47.47'
S89°44'32"E 47.48'
S89°44'32"E 47.49'
S89°44'32"E 47.50'
S89°44'32"E 47.51'
S89°44'32"E 47.52'
S89°44'32"E 47.53'
S89°44'32"E 47.54'
S89°44'32"E 47.55'
S89°44'32"E 47.56'
S89°44'32"E 47.57'
S89°44'32"E 47.58'
S89°44'32"E 47.59'
S89°44'32"E 47.60'
S89°44'32"E 47.61'
S89°44'32"E 47.62'
S89°44'32"E 47.63'
S89°44'32"E 47.64'
S89°44'32"E 47.65'
S89°44'32"E 47.66'
S89°44'32"E

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.13 AMENDMENT NO. 3

AMENDS TPP SHEET 2810-04-20-4.13 AMENDMENT NO. 2 RECORDED AS DOCUMENT 2286299
BY REVISING UTILITY EASEMENT DATA AND ADDING PARCEL 205.

THAT PART OF LOT 1 OF CSM 1889 AND ALSO THE NE1/4-SW1/4 AND THE NW1/4-SE1/4, SECTION 1, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COOUNTY, WISCONSIN

RELOCATION ORDER STH 164 BIG BEND ROAD. STH 36 TO RACINE NCL RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
73	HAROLD E. SENFT L.C. TO	FEE	0.02	0.11	0.13		
	HAROLD R & SANDRA A SENFT						
74	HAROLD E. SENFT FAMILY TRUST	FEE	0.08	0.43	0.51		
75	MICHAEL H. LOKER	FEE,TLE	0.04	0.08	0.12	0.01	
76	LEONARD E. LEWINS	FEE	0.02	0.18	0.20		
77	LORETTA M. KRIPLIN	FEE	0.05	0.42	0.47		
78	JOSEPH JR & NANCY M DUFFEK	FEE,TLE	0.03	0.00	0.03	0.04	
79	ANDREW & MARY DELIMAT	FEE,TLE	0.14	0.21	0.35	0.01	
80	JAMES K KINDLER	FEE,TLE	0.06		0.06	0.01	
81	MARY JANE STRYCZAK	FEE	0.03	0.10	0.13		
82	CHARLOTTE D RICHTER, LLC	FEE,TLE	0.21	0.62	0.83	0.03	
101	WADE J REX AND XUEFEN REX	FEE,TLE	0.05		0.05	208 S.F.	
173	HAROLD R. & SANDRA A. SENFT	FEE	0.02	0.12	0.14		
175	MICHAEL H. LOKER	TLE				0.02	
179	ANDREW & MARY DELIMAT	TLE				0.09	
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
201	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS					
205	TIME WARNER CABLE	RELEASE OF RIGHTS					

G

WE ENERGIES - ELECTRIC (201)
PARCEL 76 V.626, P.45, DOC. 676780
PARCEL 76 V.647, P.454, DOC. 696563
PARCEL 77 V.626, P.45, DOC. 676780
PARCEL 77 V.647, P.454, DOC. 696563
PARCEL 78 V.647, P.454, DOC. 696563
PARCEL 78 V.626, P.45, DOC. 676780
PARCEL 82 V.624, P.329, DOC. 675279
PARCELS 73/173 V.3092, P.630, DOC. 1749919

AT&T WISCONSIN (200)
PARCELS 75/175 V.2066, P.302, DOC.1337866
PARCELS 75/175 V.2066, P.308, DOC.1337869
PARCEL 76 V.624, P. 331, DOC.676780
PARCEL 77 V.626, P. 45, DOC. 676780
PARCEL 78 V.626, P. 45, DOC. 676780
PARCELS 79/179 V. 2066, P.302, DOC.1337866
PARCEL 80 V.2090, P.931, DOC.1349841
PARCEL 81 V.2081, P.448, DOC.1345176
PARCEL 82 V.624, P.329, DOC.675279
PARCELS 73/173 V. 2090, P.937, DOC.1349844
PARCEL 74 V.2090 P.939, DOC. 1349845

TIME WARNER CABLE (205)
PARCEL 76 NO RECORD OF EASEMENT
PARCEL 77 NO RECORD OF EASEMENT
PARCEL 78 NO RECORD OF EASEMENT
PARCEL 82 NO RECORD OF EASEMENT

LOT 1 CSM 1889 V 5, P 745 L. C. DOC. 1556129

TOWN

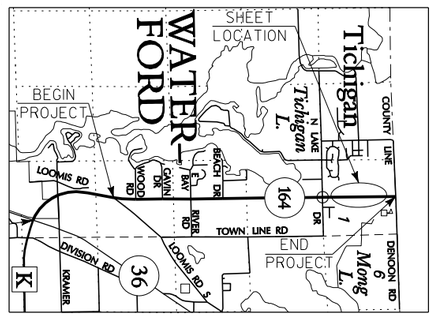
WATERFORD

SCALE, FEET 0 50 100

NOTES:

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, NAD 1983 (1991) ADJUSTMENT, AND ARE REFERNCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.



FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 2126733, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

HWY	BASIS OF EXISTING R/W	YEAR
STH 164	PROJECT S 0475(1)	1958
STH 164	DEED V2009, P451	1990
MELODY LANE	DEED V1375, P527	1977
JENSEN PKWY	DEED V1996, P245	1990
JENSEN PKWY	DEED V2324, P457	1993

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE RACINE COUNTY OF DEEDS.

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.09 AMENDMENT NO. 3 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

03/02/2012
GREGORY A. KUNZ DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 3/8/12
ROBERT L. DUFFECK, RLS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.13
AMENDMENT NO: 3

DOCUMENT # 2312259
RACINE COUNTY REGISTER OF DEEDS
March 29, 2012 7:58 AM
Pages: 1 Fee Amount: 25.00
TYSON FEITES
RACINE COUNTY
REGISTER OF DEEDS
Pg 234 Vol L

FILE NAME : S:\5164894\Plat (RASN)\040413A3_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 3/9/2012
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
CONST. 2810-04-70 R/W 2810-04-20 4.13 AMENDMENT NO. 3

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.14 AMENDMENT NO. 3

AMENDS TPP SHEET 2810-04-20-4.14 AMENDMENT NO. 2 RECORDED AS DOCUMENT 2292198 BY REVISING UTILITY EASEMENT DATA.

THAT PART OF LOT 1 OF CSM 31 AND ALSO THE SE1/4-NW1/4 AND THE SW1/4-NE1/4, SECTION 1, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN.

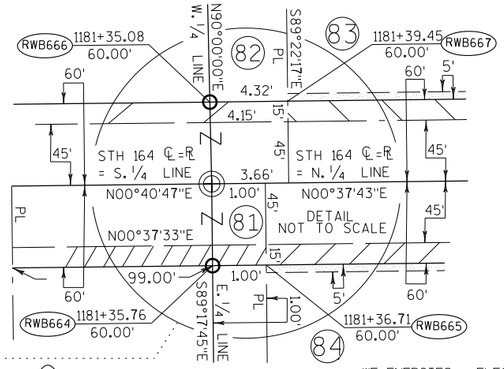
RELOCATION ORDER STH 164 BIG BEND ROAD. STH 36 TO RACINE NCL RACINE COUNTY

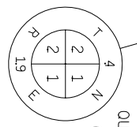
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.					
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
82	CHARLOTTE D RICHTER, LLC	FEE,TLE	0.28	0.34	0.62	0.01	
83	AARON J. DEKARSKE	FEE,TLE	0.10	0.00	0.10	0.01	
84	LANG & MCDONALD TRUST	FEE,TLE	0.04	0.13	0.17	0.01	
85	MICHAEL J & PAMELA A LANG	FEE,TLE	0.04	0.13	0.17	0.02	
86	JOAN M MCDONALD TRUST	FEE	0.05	0.09	0.14		
87	THOMAS J & DANIELLE L BRIEN	FEE	0.07	0.15	0.22		
88	MAURICE G & LAVERNE A HIGH	FEE	0.07	0.15	0.22		
89	DAVID R MASON	FEE,TLE	0.24	0.36	0.60	0.01	
90	MAURICE G. & LAVERNE A. HIGH	FEE,TLE		0.28	0.28	0.05	
91	ANN MILAM & MARY A. BAKER	FEE,TLE	0.26	0.59	0.85	0.12	
191	ELIMINATED						
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
201	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS					
203	TN. OF WATERFORD SAN. DIST. #1	RELEASE OF RIGHTS					





W. 1/4 LINE STA 1181+35.79 R
N90°00'00"E (2661.94')
CTL 4024
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 225906.33
X 525909.04

FOR PARCELS 81 & 82
SEE TPP SHEET 2810-04-20-4.13

CTL 4025
CENTER OF SEC.
CAST IRON MON.
W/BRASS CAP
Y 225906.33
X 528570.98

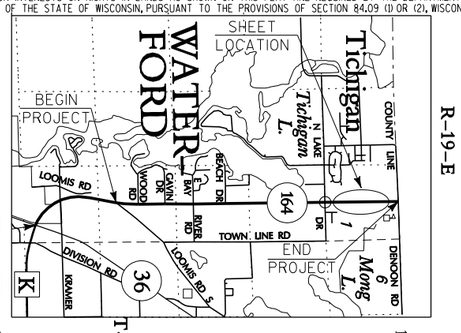
CTL 4026
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 225873.38
X 531251.40

E. 1/4 LINE
S89°17'45"E (2680.63')

CTL 4012
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 228313.14
X 528597.38

STA 1194+10.48 R
N89°58'29"E PL
1194+09.80
60.00'

1/16TH LINE
S89°12'00"W
1190+93.79
100.60'50.33'



LOT 1
CSM 1539
V 4, P 726

TOWN OF WATERFORD
SANITARY DISTRICT NO. 1
PARCEL 91 V.1852, P.315, DOC. 1223004
PARCEL 91 V.1873, P.890, DOC. 1234482
203

WE ENERGIES - ELECTRIC
PARCEL 81 V.520, P.455, DOC. 576626
PARCEL 82 V.624, P.329, DOC. 675279
PARCEL 83 V.624, P.329, DOC. 675279
PARCEL 84 V.520, P.455, DOC. 576626
PARCEL 85 V.520, P.455, DOC. 576626
PARCEL 86 V.520, P.455, DOC. 576626
PARCEL 86 V.561, P.728, DOC. 618345
PARCEL 87 V.520, P.455, DOC. 576626
PARCEL 88 V.520, P.455, DOC. 576626
PARCEL 89 V.520, P.455, DOC. 576626
PARCEL 90 V.520, P.455, DOC. 576626
PARCEL 91 V.491, P.134, DOC. 549255
PARCEL 91 V.626, P.39, DOC. 676777
201

AT&T WISCONSIN
PARCEL 82 V.624, P.329, DOC. 675279
PARCEL 83 V.624, P.329, DOC. 675279
PARCEL 91 V.626, P.39, DOC. 676777
200

GN

SCALE, FEET
0 50 100

TOWN

S1/2-SE1/4-NW1/4 EXC. CSM 31
82

LOT 1
CSM 31
V 1, P 91

PL S89°22'17"E

TLE FOR SLOPES

SE-NW

SW-NE

N90°00'00"E PL

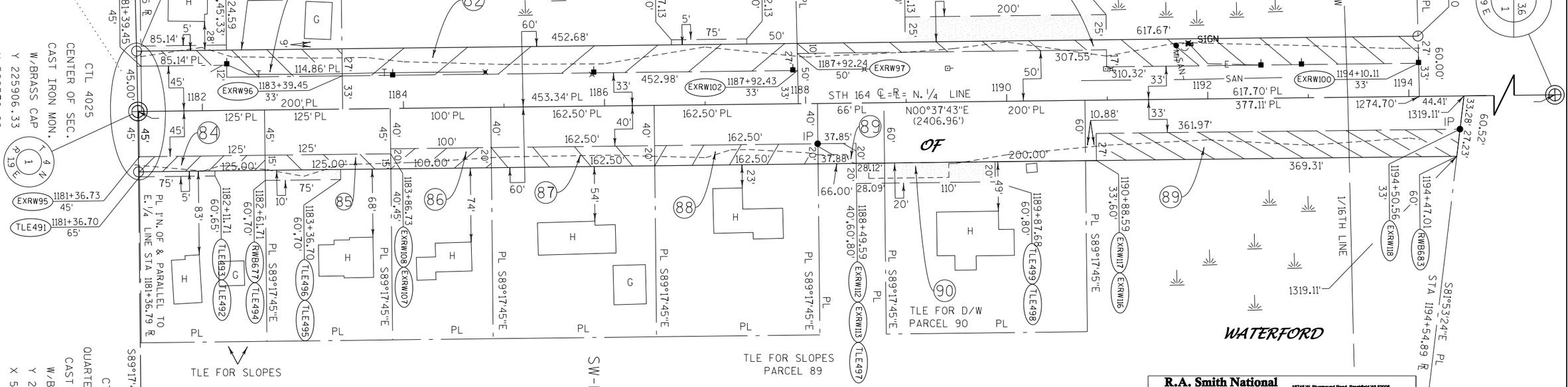
TLE FOR SLOPES

TLE FOR SLOPES
PARCEL 89

TLE FOR D/W
PARCEL 90

OF

WATERFORD


TLE481 TLE482 PROP1124 PROP1143 EXRW86 TLE480 TLE484 TLE483 TLE485 TLE486 TLE488 TLE487 TLE489 TLE490 EXRW98 EXRW99
1182+39.45 65' 1182+24.59 65',60',45',33' 1186+67.13 65',60' 1187+42.13 65',60' 1187+42.13 25' 1190+93.79 100',60',50',33'
1181+39.45 45'
1187+92.24 50' EXRW97
1187+92.43 33' EXRW102
1183+39.45 33' EXRW96
1194+10.11 33' EXRW100
1194+09.80 60.00' RWB676
1181+36.73 45' EXRW95
1181+36.70 65' TLE491
1182+11.71 60',65' TLE493 TLE492
1182+61.71 60',70' RWB677 TLE494
1183+36.70 60',70' TLE496 TLE495
1183+86.73 40',45' EXRW108 EXRW107
1188+49.59 40',60',80' EXRW112 EXRW113 TLE497
1189+87.68 60',80' TLE499 TLE498
1190+88.59 33',60' EXRW117 EXRW116
1194+50.56 33' EXRW118
1194+47.01 60' RWB683
1194+54.89 R
S81°53'24"E PL
STA 1194+54.89 R
1194+50.56 33'
1274.70'
1319.11'
1319.11'
1/16TH LINE
STA 1194+10.48 R
N89°58'29"E PL
60.00'
44.41'
33.28'
27.23'
60.52'
617.67'
SIGN
307.55'
310.32'
617.70' PL
377.11' PL
361.97'
369.31'
10.88'
200'
200.00'
452.68'
452.98'
453.34' PL
STH 164 ℄=R = N. 1/4 LINE
N00°37'43"E (2406.96')
66' PL
200' PL
85.14' PL
114.86' PL
125' PL
100' PL
162.50' PL
162.50'
125.00'
100.00'
75'
83'
68'
74'
54'
23'
49'
110'
66.00'
28.09'
28.12'
37.85'
37.88'
1187+92.24
1187+92.43
1188+49.59
1189+87.68
1190+88.59
1194+50.56
1194+47.01
1194+54.89
1182+39.45
1183+39.45
1183+86.73
1182+61.71
1182+11.71
1183+36.70
1186+67.13
1187+42.13
1188+49.59
1189+87.68
1190+88.59
1194+50.56
1194+47.01
1194+54.89
1182
1184
1186
1188
1190
1192
1194
84
85
86
87
88
89
90
91
TLE FOR SLOPES
PL I'N. OF & PARALLEL TO E.1/4 LINE STA 1181+36.79 R
PL S89°17'45"E
PL S89°22'17"E
PL S89°17'45"E
PL S89°17'45"E
PL S89°17'45

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.15 AMENDMENT NO. 3

AMENDS TPP SHEET 2810-04-20-4.15 AMENDMENT NO. 2 RECORDED AS DOCUMENT 2292199
BY REVISING UTILITY EASEMENT DATA.

THAT PART OF LOT 1 OF CSM 1539, LOTS 1 & 2 OF CSM 1657, LOTS 1 & 2 OF CSM 1779, AND ALSO THE NE1/4-NW1/4 AND THE NW1/4-NE1/4, SECTION 1, TOWN 4 NORTH, RANGE 19 EAST, TOWN OF WATERFORD, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER STH 164 BIG BEND ROAD. STH 36 TO RACINE NCL RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

CTL 4011
SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 228238.81
X 525935.46

AT&T WISCONSIN (200)
PARCELS 91/191 V.626, P.39, DOC. 676777
PARCEL 92 V.626, P.39, DOC. 676777

WE ENERGIES - ELECTRIC (201)
PARCELS 91/191 V.626, P.39, DOC. 676777
PARCELS 91/191 V.491, P.134, DOC. 549255
PARCEL 92 V.626, P.39, DOC. 676777
PARCEL 92 V.491, P.134, DOC. 549255
PARCEL 93 V.491, P.134, DOC. 549255
PARCEL 94 V.491, P.134, DOC. 549255
PARCEL 95 V.491, P.134, DOC. 549255
PARCEL 96 V.491, P.134, DOC. 549255

WE ENERGIES - GAS (202)
PARCEL 92 NO RECORD OF EASEMENTS

LOT 1 CSM 1539 V 4, P 726

STA 1205+42.74 STH 164 ℄ = STA 50+00.00 DENOON RD. ℄
STA 50+00.00 COUNTY LINE RD. ℄

CTL 4012
QUARTER SEC. COR.
CAST IRON MON.
W/BRASS CAP
Y 228313.14
X 528597.38

CTL 4013
TOWNSHIP COR.
CAST IRON MON.
W/BRASS CAP
Y 228350.25
X 531239.21

CTL 4025
CENTER OF SEC.
CAST IRON MON.
W/BRASS CAP
Y 225906.33
X 528570.98

TLE FOR DRIVEWAY

LOT 2 CSM 1657 V 5, P 76

LOT 1 CSM 1657 V 5, P 76

LOT 2 CSM 1779 V 5, P 421

LOT 1 CSM 1779 V 5, P 421

TLE FOR SLOPES

SCHOOL

SCALE, FEET 0 50 100

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

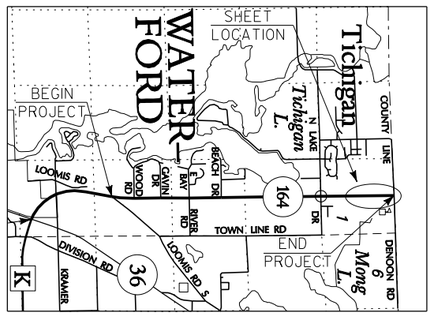
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
91	ANN MILAM & MARY A. BAKER	FEE,TLE	0.38	1.00	1.38	0.04	
92	TIMOTHY R BAKER	FEE	0.14	0.18	0.32		
93	ROBERT R & CHERYL R BRUCHU	FEE,TLE	0.10	0.00	0.10	0.06	
94	RONALD B & JOYCE A THOENNES	FEE	0.12	0.00	0.12		
95	ANTHONY L. SCHOPP	FEE	0.12	0.14	0.26		
96	JAMIE STRASSER	FEE,TLE	0.12	0.15	0.27	0.01	
97	ELIMINATED						
191	ANN MILAM & MARY A. BAKER	FEE,TLE	0.25	0.00	0.25	0.09	
192	ELIMINATED						
200	AT&T WISCONSIN	RELEASE OF RIGHTS					
201	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS					
202	WE ENERGIES - GAS	RELEASE OF RIGHTS					

NOTES:

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, NAD 1983 (1991) ADJUSTMENT, AND ARE REFERNCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

HWY	BASIS OF EXISTING R/W	YEAR
STH 164	PROJECT S 0475(1)	1958
STH 164	CSM 1657 V.5, P.76	1993
CTY LINE RD	SS 82.31(2)	
DENOON RD	SS 82.31(2)	



T-4-N

R-19-E

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 2126733, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS.

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.15 AMENDMENT NO. 3 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GREGORY A. KUNZ S-1346 WAUKESHA, WI LAND SURVEYOR

GREGORY A. KUNZ — DATE: 03/02/2012
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

ROBERT L. DUFFECK, RLS — DATE: 3/8/12

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.15
AMENDMENT NO: 3

DOCUMENT # 2312261
RACINE COUNTY REGISTER OF DEEDS
March 29, 2012 7:50 AM
TYSON FELTES
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Pages: 1
Vol 1 Pg 236

160

FILE NAME : S:\5164894\Plat (RASN)\040415A3_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 3/7/2012
PLOT BY : gak
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
CONST. 2810-04-70 R/W 2810-04-20 4.15 AMENDMENT NO. 3

TRANSPORTATION PROJECT PLAT NO: 2810-04-20 - 4.16
AMENDMENT NO. 1

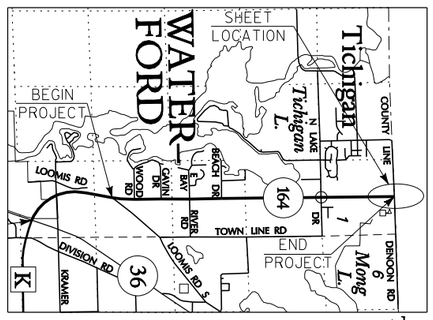
AMENDS TPP SHEET 2810-04-20-4.16 RECORDED AS DOCUMENT 3580920 BY REVISING PARCEL 98 AND ADDING PARCEL 100

THAT PART OF THE SE1/4-SW1/4 AND SW1/4-SE1/4, SECTION 36, TOWN 5 NORTH, RANGE 19 EAST, TOWN OF VERNON, WAUKESHA COUNTY, WISCONSIN.

RELOCATION ORDER STH 164 BIG BEND ROAD. STH 36 TO RACINE NCL RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.



CONVENTIONAL SYMBOLS AND ABBREVIATIONS

STATE, COUNTY, or TOWN LINE	
SECTION LINE	
QUARTER LINE	
SIXTEENTH LINE	
PROPOSED REFERENCE LINE	
PROPOSED R/W LINE	
EXISTING H.E. LINE	
PROPERTY LINE	
EASEMENT LINE	
CORPORATE LIMITS	
EXISTING CENTERLINE	
LOT & TIE LINES	
UTILITIES (TELEPHONE, GAS, ELECTRIC, CABLE TV, FIBER OPTIC)	FO (TYPE)
ACCESS RESTRICTED (BY PREVIOUS PROJECT/CONTROL)	
NO ACCESS (BY ACQUISITION)	
NO ACCESS (BY STATUTORY AUTHORITY)	
FEE (HATCH VARIES)	
TEMPORARY LIMITED EASEMENT	
PERMANENT LIMITED EASEMENT	
PARCEL NUMBER	102
SIGN NUMBER (OFF PREMISE)	21-1
BUILDING	
FOUND IRON PIPE/PIN	LP ●(1" UNLESS NOTED)
R/W MONUMENT	○ ●(SET)
R/W STANDARD	△ ▲(SET)
SIGN	| SIGN ⚲ SIGN

ACCESS POINT	AP
ACCESS RIGHTS	AR
ACRES	AC.
AND OTHERS	ET.AL.
CENTERLINE	C/L
CERTIFIED SURVEY MAP	CSM
DOCUMENT	DOC.
HIGHWAY EASEMENT	H.E.
LAND CONTRACT	LC
MONUMENT	MON.
PAGE	P.
PROPERTY LINE	PL
PERMANENT LIMITED EASEMENT	PLE
RECORDED AS	(100')
REFERENCE LINE	R/L
REMAINING	REM.
RIGHT-OF-WAY	R/W
SECTION	SEC.
SQUARE FEET	SQ.FT.
STATION	STA.
TEMPORARY LIMITED EASEMENT	TLE
VOLUME	V.

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

	NON COMPENSABLE	COMPENSABLE
POWER POLE	⊡	■
TELEPHONE POLE	⌀	●
TELEPHONE PEDESTAL	⌘	▣

SECTION CORNER

NOTES:

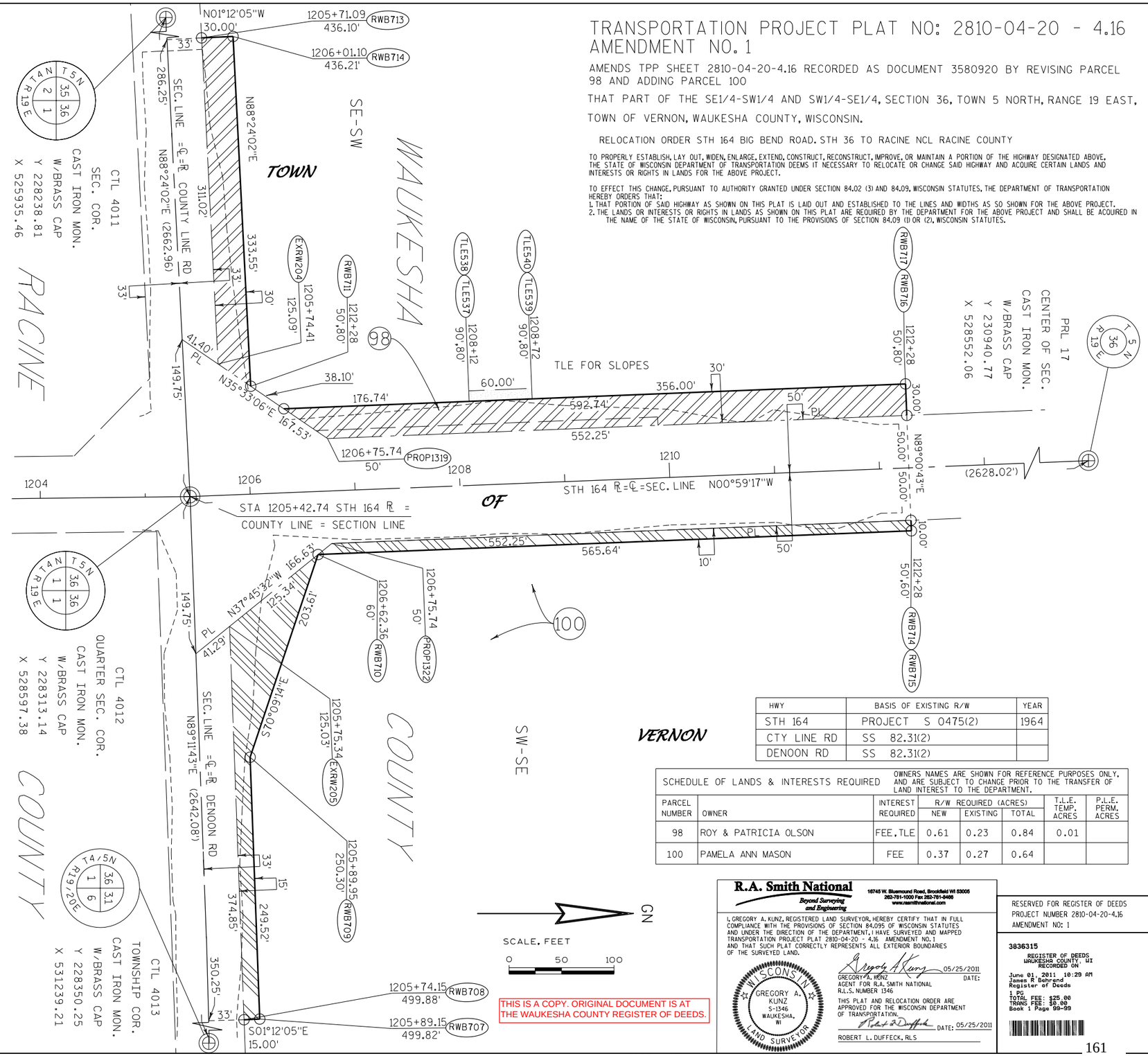
COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, NAD 1983 (1991) ADJUSTMENT, AND ARE REFERNCED TO GPS POINTS GENESSEE, WISDOT HORIZONTAL TARGET H207 (2E92), AND WISDOT TOTAL TARGET T110 (2D97). ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF RECORD.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. EXCLUDING RIGHT-OF-WAY BOUNDARIES, THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL. THIS EASEMENT IS TO TERMINATE ON (DECEMBER, 31, 2013) OR THE DATE THE CONSTRUCTION OF THE PROJECT IS COMPLETED, WHICHEVER OCCURS FIRST.



HWY	BASIS OF EXISTING R/W	YEAR
STH 164	PROJECT S 0475(2)	1964
CTY LINE RD	SS 82.31(2)	
DENOON RD	SS 82.31(2)	

SCHEDULE OF LANDS & INTERESTS REQUIRED — OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
98	ROY & PATRICIA OLSON	FEE,TLE	0.61	0.23	0.84	0.01	
100	PAMELA ANN MASON	FEE	0.37	0.27	0.64		

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WAUKESHA COUNTY REGISTER OF DEEDS.

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

I, GREGORY A. KUNZ, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 2810-04-20 - 4.16 AMENDMENT NO. 1 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN — GREGORY A. KUNZ — S-1346 — WAUKESHA, WI — LAND SURVEYOR

Gregory A. Kunz 05/25/2011
GREGORY A. KUNZ — DATE:
AGENT FOR R.A. SMITH NATIONAL
R.L.S. NUMBER 1346

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

Robert L. Duffeck DATE: 05/25/2011
ROBERT L. DUFFECK, RLS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2810-04-20-4.16
AMENDMENT NO: 1

3836315
REGISTER OF DEEDS
WAUKESHA COUNTY, WI
RECORDED ON
June 01, 2011 10:29 AM
James R Behrend
Register of Deeds
1 PG
TOTAL FEE: $25.00
TRANS FEE: $0.00
Book 1 Page 99-99

FILE NAME : S:\5164894\Plat (RASN)\040416A1_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 5/24/2011
PLOT BY : nav
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
CONST. 2810-04-70 R/W 2810-04-20 4.16 AMENDMENT NO. 1

Pipe 1: Inlet STA 945+15.79 48.90 RT Elev 774.00 - same location as existing pipe.
Outlet STA 945+15.79 52.00 LT Elev 773.00
Pipe 2: Inlet STA 945+08.94 48.90 RT Elev 774.00 - adjacent to existing pipe, closer to 36 intersection.
Outlet STA 945+08.94 52.00 LT Elev 773.00
Pipe lengths include endwalls. Therefore each crossing is 11 pipe plus endwalls.
Please verify the endwalls will fit, may need to separate pipe more. Other option, masonry endwalls.

LEGEND:
X CLEARING & GRUBBING
SAWING

Flange Elev 778.58
Flange Elev 778.57
Flange Elev 778.31
CONCRETE CURB & GUTTER 4-INCH SLOPE 36-INCH TYPE D
CONCRETE SIDEWALK 5-INCH
+9.03, 21.41' LT STH 164 4.5' R
+41.28, 16.55' LT STH 164 3.5' R
+9.25, 16.57' LT STH 164 4.5' R
944
STH 164
ISLAND DETAIL

WATERFORD CENTRE LLC
ABANDONED RAILROAD BED
CORNERSTONE CROSSING
PROPOSED 5' PAVED SHOULDER & EXISTING AGGREGATE SHOULDER NOT SHOWN SEE TYPICALS
LIMITS OF MILL AND RELAY
STH 164 R & C
ASPH
CURVE 5
HMA
1%
6%
30'
STA 956+75
MATCHLINE
Overlay curb pan 2" depth
ASPHALTIC SURFACE BUTT JOINTS

STH 36
S.T.H.
SIGN
POND
RIPRAP AREA
WETLAND BOUNDARY
Temporary Sediment Basin and Filter Bag
Silt Fence
Pump
Turbidity Barrier
Sandbags wrapped in plastic
2 x 100.90' of 24" RCP
EXISTING 18" CMP TO REMAIN
5' PAVED SHOULDER NOT SHOWN SEE TYPICALS
Sawcut Loops into the mill/overlay section
Revise sawcut line to be parallel with STH 36 thru lanes (allow enough room to place the curb)
BEGIN RESURFACE
STA. 944+00
Y = 202,992.38
X = 529,575.93
CTH K
PC 941+45.59
2" Mill/Overlay Match - 944+70
Old culvert was abandoned at the edge of rip rap/shoreline.
15" CMCP shown on asbuilt 34' upstation from existing 24" culvert and 1.89' lower flowline.
942
946
948
950
952
954
956
24'
36'
12'
WATERFORD CENTRE LLC
MILWAUKEE AVE.
INL

CURVE CUR5
PI = STA 969+78+97
RADIUS = 3274.04'
SE = 4.1%
DESIGN SPEED = 60 MPH

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
1	957+90	RRSP SE SIDE OF 3RD GUARD	804.80
		RAIL POST ± 1400' W OF STH 36	
150	942+68.25	24" FENO SPIKES W/PLASTIC	778.36
		CAPS (BERNTSEN)	
151	956+82.33	24" FENO SPIKES W/PLASTIC	798.78
		CAPS (BERNTSEN)	

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
1	957+75,	RRSP SE SIDE OF 3RD GUARD	804.80
	LT	RAIL POST ± 1400' W OF STH 36	
2	968+27,	RRSP NW FACE PP# 97-17126	832.27
	RT	E OF INT STH 164 & KRAMER RD	
151	956+82.33	24" FENO SPIKES W/PLASTIC	798.78
		CAPS (BERNTSEN)	

WATERFORD CENTRE LLC

FULL WIDTH PAVED SHOULDER

GUARDRAIL MOW STRIP

MGS GUARDRAIL TERMINAL EA STA 957+56 LT

WETLAND BOUNDARY

MGS GUARDRAIL 3

REMOVE GUARDRAIL

MGS GUARDRAIL TERMINAL EAT STA 967+12 LT

END RESURFACE

BEGIN RIGHT TURN LANE RECONSTRUCTION STA 967+60

CAUTION

KRAMER DRIVE

KRAMER DR. ℄

RETAINING WALL TO REMAIN

MATCH CURB & GUTTER AT STA. 48+00, LT

REMOVE CURB & GUTTER

CAUTION

PI 49+39.93

PC 49+07.06

PT 49+72.08

SI

PI 50+00.00

STH 164

STH 164 ℞ & ℄

CURVE 5

4.0'

10'

12'

12'

HMA

27'

24'

5'11"

SD

SI

MATCHLINE STA 956+75

MATCHLINE STA 972+00

+55 25' LT

+95 12' RT

BM1

STA. 957+60
RSPC (24" CMCP)
1-24" CPRC CLASS III
2 AEW REQUIRED

RACINE COUNTY REC. TRAIL

PROPOSED 5' PAVED SHOULDER & EXISTING AGGREGATE SHOULDER NOT SHOWN SEE TYPICALS

END RESURFACE

BEGIN BYPASS LANE RECONSTRUCTION STA 965+50

STA. 968+45
REMOVE ACCESS
FE BAD

RSPC (24" CMCP)

BM2

STA. 969+72
RSPC (18" X 30" CMCP)
1-19" X 30" CPRC CLASS HE-IV
2 AEW REQUIRED AND 2 PIPE GRATES
TRAVERSABLE REQUIRED

CURVE CUR5
PI = STA 969+78+97
RADIUS = 3274.04'
SE = 4.1%
DESIGN SPEED = 60 MPH

WATERFORD CENTRE LLC

WATERFORD CENTRE LLC

WATERFORD CENTRE LLC

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
3	981+00,	RRSP E FACE PP# 97-17030	824.49
	LT	± 1200'N OF KRAMER RD	
		AT FIELD ENT	

LOOMIS ROAD

GREIL FAMILY TRUST

END RIGHT TURN LANE RECONSTRUCTION STA 973+85

BEGIN RESURFACE

PROPOSED 5' PAVED SHOULDER & EXISTING AGGREGATE SHOULDER NOT SHOWN SEE TYPICALS

TNGF TRANSITION TRUST

STA. 986+22
RSPC (30" CMCP)
1-30" CPRC CLASS III
2 AEW REQUIRED

WETLAND BOUNDARY

CURVE 5

BM3

STH 164

STH 164 ℞ & ℄

SI

HMA

MATCHLINE STA 972+00

MATCHLINE STA 987+00

END BYPASS LANE RECONSTRUCTION STA 973+46

BEGIN RESURFACE

LEGEND:
X CLEARING & GRUBBING
SAWING

TNGF TRANSITION

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN SHEET	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050102_PL.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 44

GOLEMBIEWSKI

BUCHOLTZ

LOOMIS ROAD

PROPOSED 5' PAVED SHOULDER & EXISTING AGGREGATE SHOULDER NOT SHOWN SEE TYPICALS

BM4

STH 164 ℞ & ℄

MATCHLINE STA 987+00

988 990 992 994 996 998 1000 10

40+69.25

MATCHLINE STA 1002+00

HMA

STH 164 12' 12'

PT 988+16.80

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
4	996+10,	RRSP E FACE PP# 97-08620	819.45
	LT	± 1300' S OF OLD LOOMIS RD	
5	1007+18,	RRSP E FACE PP# 97-08787	817.53
	LT	± 200' S OF OLD LOOMIS RD	
153	1006+57.29	24" FENO SPIKES W/PLASTIC	817.08
		CAPS (BERNTSEN)	

BUCHOLTZ

LEGEND:
X CLEARING & GRUBBING
SAWING

LOOMIS ROAD ℞ & ℄

R/W

STA. 47+50
FE 81', LT
BAD

CURVE CUR6
PI= STA 1014+78+68
RADIUS = 7639.44'
SE = 2.10%
DESIGN SPEED = 60 MPH

MALCHINE - MALCHINE

END RIGHT TURN LANE RECONSTRUCTION STA 1015+64

BEGIN RESURFACE

STA. 1016+17
RSPC (48" CMCP)
1-48" CPRC CLASS III
2 AEW REQUIRED AND
1 PIPE GRATE
(TRAVERSABLE)
REQUIRED LEFT

RACINE COUNTY

END RESURFACE

CP 153

PC 45+68.83

BEGIN RIGHT TURN LANE RECONSTRUCTION STA 1007+47

PC 1007+16.08

BM5

PT 48+93.51

PI 49+35.51

PROPOSED 5' PAVED SHOULDER & EXISTING AGGREGATE SHOULDER NOT SHOWN SEE TYPICALS

PI 40+69.25

MATCHLINE STA 1002+00

1002 1004 1006 1008 1010 1012 1014 1016

12' 27' 3'

SI

END RESURFACE

BEGIN RIGHT TURN LANE RECONSTRUCTION STA 1003+69

R/W

BUCHOLTZ

PC 49+77.51

END RIGHT TURN LANE RECONSTRUCTION STA 1011+74

BEGIN RESURFACE

PI 1014+78.68

WETLAND BOUNDARY

PROPOSED 5' PAVED SHOULDER & EXISTING AGGREGATE SHOULDER NOT SHOWN SEE TYPICALS

LOOMIS ROAD ℞ & ℄

PI 53+12.

BUCHOLTZ

STH 164 ℞ & ℄

HMA STH 164

CORN CRIB

TOWER

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN SHEET	SHEET 164R	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050104_PL.dgn PLOT DATE : 3/25/2013 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

LEGEND:
X CLEARING & GRUBBING
xxxx SAWING

N

CURVE CUR6
PI = STA 1014+78+68
RADIUS = 7639.44'
SE = 2.10%
DESIGN SPEED = 60 MPH

PROPOSED 5' PAVED SHOULDER & EXISTING AGGREGATE SHOULDER NOT SHOWN SEE TYPICALS

END RESURFACE
SEE PLAN SHEETS

BEGIN RECONSTRUCTION
STA 1020+00

DOMAGALSKI

WOOD DRIVE

WOOD DRIVE ℄

R/W

TLE

SI

HMA

CAUTION

PI 1021+77.14

STH 164 ℄ & ℄

CURVE 6

5' 5' 12' 12' 5' 5'

1018 1020 1022 1024 1026 1028 1030 1032

STH 164

HMA

PI 50+00.00

WETLAND BOUNDARY

18"

PI 1024+89.04

STA. 1024+50
FE 65.63', RT
BAD
18" CPCS REQ'D
2 AEW SLOPED SECTION REQ'D
RSPC

REMOVE FENCE
STA 1027+20 TO STA 1036+11 RT

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
154	1024+56.35	24" FENO SPIKES W/PLASTIC CAPS (BERNTSEN)	843.68

BUCHOLTZ

STA 1031+25
PE 94' LT
BAD
18" CPCS WITH
2 AEW SLOPED SECTION REQ'D
RSPC

BUCHHOLTZ

CRIB
CORN CRIB

END RESURFACE
BEGIN RECONSTRUCTION
STA. 1020+00

FO MH HP

5 5

845 840 835 830 825 820 815 810 805

℄ WOOD DRIVE

VPI STA 1032+00

VPC STA 1024+00.000
VPC EL825.69

EXISTING PROFILE AT STH 164 ℄

FINISHED PROFILE AT STH 164 ℄

1029+94.947
830.24

+1.53 %

K = 389.17
VCL 1600.00

VPOT STA 1020+00.000
VPOT EL819.58

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

1017	1017+50	1018	1018+50	1019	1019+50	1020	1020+50	1021	1021+50	1022	1022+50	1023	1023+50	1024	1024+50	1025	1025+50	1026	1026+50	1027	1027+50	1028	1028+50	1029	1029+50	1030	1030+50	1031	1031+50	1032
815.51	815.96	816.41	817.01	817.60	818.40	819.20	819.99	820.78	821.60	822.41	823.19	823.97	824.80	825.63	826.35	826.99	827.66	828.40	829.29	830.17	830.69	831.22	831.56	831.90	832.19	832.49	832.59	832.70	832.55	832.38
819.58	820.34	821.11	821.87	822.64	823.40	824.17	824.93	825.69	826.43	827.10	827.70	828.24	828.71	829.12	829.47	829.75	829.97	830.13	830.22	830.24	830.20	830.10	829.93	829.70

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE	SHEET E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050106_PP.dgn PLOT DATE : 4/27/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

LEGEND:
X CLEARING & GRUBBING
SAWING

N

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
7	1036+00.	RRSP E FACE OF PP# 97-07524	830.04
	LT	± 500' S OF GAWIN	
155	1042+84.71	24" FENO SPIKES W/PLASTIC	812.25
		CAPS (BERNTSEN)	

BUCHOLTZ

CP 155

GAWIN DRIVE

TLE

R/W

GAWIN DRIVE ℄

BUCHOLTZ

TLE

SI

R/W

BM7

5' 5' 12' 12' 5' 5'

1032 1034 1036 1038 1040 1042 1044 1046

PT 50+00.00

STH 164 HMA

24"

STA 1040+00
FE 57', RT
BAD
24" CPCS WITH
2 AEW SLOPE SECTION REQ'D
RSPC

CAUTION

R/W

STH 164 ℄ & ℄

TLE

SI

TLE

REMOVE FENCE
STA 1027+20 TO STA 1036+11 RT

BUCHOLTZ

REGNER

DUFEK

5

5

VPT STA 1040+00.000
VPT EL817.26

EXISTING PROFILE AT STH 164 ℄

FINISHED PROFILE AT STH 164 ℄

℄ GAWIN DRIVE

2.58 %

VCL 700.00
K = 184.22

VPC STA 1044+25.000
VPC EL806.29

830 825 820 815 810 805 800 795 790

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

1032	1032+50	1033	1033+50	1034	1034+50	1035	1035+50	1036	1036+50	1037	1037+50	1038	1038+50	1039	1039+50	1040	1040+50	1041	1041+50	1042	1042+50	1043	1043+50	1044	1044+50	1045	1045+50	1046	1046+50	1047
832.38	832.01	831.65	831.32	830.99	830.28	829.58	828.72	827.87	826.96	826.04	825.02	824.00	822.70	821.41	819.90	818.38	816.70	815.01	813.42	811.91	810.46	809.03	807.68	806.45	805.19	803.81	802.47	801.13	800.21	799.29
829.70	829.41	829.05	828.62	828.13	827.58	826.97	826.28	825.54	824.73	823.86	822.92	821.92	820.85	819.72	818.52	817.26	815.97	814.68	813.39	812.10	810.81	809.52	808.23	806.93	805.66	804.50	803.48	802.60	801.85	801.24

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050107_PP.dgn PLOT DATE : 4/27/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

LEGEND:
X CLEARING & GRUBBING
SAWING

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
9	1058+92,	RRSP E FACE OF PP# 97-05298	805.09
	LT	± 200' S OF RIVER BAY RD	
156	1053+62.25	24" FENO SPIKES W/PLASTIC	813.11
		CAPS (BERNTSEN)	

N

BARANOWSKI TRUST

STA 1049+57.63
RSPC (24" CMPC)
2-30" CPRC CLASS III
4 AEW REQUIRED

ROTH

WETLAND BOUNDARY

PI 1049+00.00

R/W

SI

STA 1053+40
PE 50', LT
BAD
24" CPCS WITH
2 AEW SLOPED SECTION REQ'D
RSPC

CAUTION

STH 164 ℄ & ℄

TLE

BM9

1048 1050 1052 1054 1056 1058 1060 1062

PI 50+00.00

STH 164 S.T.H. 164 4090 SEC HMA

24"

8'

5' 5'

12' 12'

5' 5'

18"

REMOVE FENCE
STA 1048+00 TO
STA 1048+75 RT

STA 1049+06
PE 113' RT
BAD
24" CPCS WITH
2 AEW REQ'D

WETLAND BOUNDARY

REMOVE FENCE
STA 1051+48 TO
STA 1051+95

CP 156

STA 1054+05
PE 52' RT
ASPH APPROACH
BAD DRIVEWAY
24" CPCS WITH
2 AEW SLOPED SECTION REQ'D
RSPC

STA 1060+42
PE 76' RT
ASPH
18" CPCS WITH
2 AEW REQ'D
RSPC

HALVERSON

STA 1061+07
PE 74, RT
BAD
18" CPCS WITH
2 AEW REQ'D
RSPC

BERM

DUFEK

OBERHART

WEILAND

5

820 815 810 805 800 795 790 785 780

VCL 700.00
K = 184.22

EXISTING PROFILE AT STH 164 ℄

FINISHED PROFILE AT STH 164 ℄

VPC STA 1054+25.000
VPC EL805.16

VPI STA 1058+75.000
VPI EL810.64

1049+00.754
800.15

+1.22 %

1058+67.636
807.86

K = 363.63
VCL 900.00

VPI STA 1047+75.000
VPI EL797.25

VPT STA 1051+25.000
VPT EL801.51

STA. 1049+57
STA. 1049+65
2-30" CPRC

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

1047	1047+50	1048	1048+50	1049	1049+50	1050	1050+50	1051	1051+50	1052	1052+50	1053	1053+50	1054	1054+50	1055	1055+50	1056	1056+50	1057	1057+50	1058	1058+50	1059	1059+50	1060	1060+50	1061	1061+50	1062
799.29	801.24	798.78	800.76	798.27	800.42	797.92	800.22	797.70	800.15	797.69	800.21	798.01	800.41	798.53	800.75	799.05	801.22	800.27	801.81	801.49	802.42	802.58	803.03	803.68	803.64	804.74	804.25	805.74	804.86	806.50	805.46	807.26	806.00	807.68	806.47	808.09	806.87	808.24	807.21	808.39	807.47	808.24	807.67	808.10	807.79	807.79	807.85	807.48	807.84	807.20	807.76	806.91	807.62	806.63	807.40	806.36	807.11	806.10	806.76	805.70	806.34

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050108_PP.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
10	51+23,	RRSP N FACE PP# 97-00833	806.57
	RT	± 200'E OF STH 164 ON RIVER BAY DR	
11	1073+18,	RRSP E FACE PP# 97-08794	783.58
	LT	± 1000'N OF RIVER BAY DR	
157	1063+30.68	24" FENO SPIKES W/PLASTIC	800.90
		CAPS (BERNTSEN)	

N

STA. 1075+66 & 1075+74
RSPC (24" CMCP)
2-36" CPRC CLASS IV
4 AEW REQUIRED AND
4 PIPE GRATES (TRAVERSABLE) REQUIRED

EAST RIVER BAY DRIVE ℄
EAST RIVER BAY DRIVE
THOMAS
SUBURBAN LAND DEV INC
WETLAND BOUNDARY
STH 164 ℄ & ℄
TLE
R/W
SI
CAUTION
BM11
+85
1062
1064
1066
1068
1070
1072
1074
1076
PI 50+00.00
PI 50+00.00
HMA
STH 164
SEC 4077
PI 1075+75.38
35' deep sheeting installed @ 32' o/s from CL
5'
12'
BERM
CP 157
BM10
WETLAND BOUNDARY
BROWN - BROWN

LEGEND:
X CLEARING & GRUBBING
SAWING

5

EAST RIVER BAY DR. ℄
VPT STA 1063+25.000
VPT EL804.98
EAST RIVER BAY DR. ℄
K = 363.63
VCL 900.00
-1.26 %
EXISTING PROFILE AT STH 164 ℄
FINISHED PROFILE AT STH 164 ℄
VCL 500.00
K = 161.04
1076+27.551
789.87
VPC STA 1074+25.000
VPC EL791.14
STA. 1075+66 &
STA. 1075+74
2-36" CPRC
STA 1076+75.000
VPI EL788.00

EXISTING PROFILE ELEVATIONS
FINISHED PROFILE ELEVATIONS

| | | |

LEGEND:
X CLEARING & GRUBBING
SAWING

BUCHOLTZ

STA. 1076+97 & STA. 1077+04
RSPC (24" CMCP)
2-30" CPRC CLASS IV
4 AEW REQUIRED AND
4 PIPE GRATES TRAVERSABLE REQUIRED

WETLAND BOUNDARY

STORM

STA. 1080+81
FE 67', LT
BAD
24" CPCS WITH
2 AEW SLOPES SECTION REQ'D
RSPC

WEBER

POOL

BEACH DRIVE

BEACH DRIVE ℄

TICH LAKE
LIONS CLUB INC

SIGN TO BE MOVED BY OTHERS

STONEGATE ESTATES

WETLAND BOUNDARY

STA. 1088+37
RSPC (24" CMPC)
1-30" CPRC CLASS IV
2 AEW REQUIRED AND
2 PIPE GRATES (TRAVERSABLE) REQUIRED

PC 48+01.85
PT 48+98.70

HOMA

SANDY LANE

BM12

+50

STH 164

HMA

STH 164 ℄ & ℄

35" deep sheeting installed
@ 32' o/s from CL

REMOVE FENCE
(TO R/W)

WETLAND BOUNDARY
BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
12	1084+92,	RRSP E FACE PP# 97-05281	803.94
	LT	SW CORNER OF STH 164 &	
		BEACH DR	
158	1085+42.35	24" FENO SPIKES W/PLASTIC	801.82
		CAPS (BERNTSEN)	

BROWN - BROWN

STA. 1085+69
FE 73', RT
BAD
30" CPCS WITH
2 AEW REQ'D
RSPC

WETLAND BOUNDARY

STA. 1090+00
PE 68', RT
BAD
24" CPCS WITH
2 AEW REQ'D
RSPC

CRISTOPHER

WETLAND BOUNDARY

RAUSCH

S.T.H. 164 ℄

PI 50+00.00

PI 50+00.00

FINISHED PROFILE AT STH 164 ℄

EXISTING PROFILE AT STH 164 ℄

VCL 500.00
K = 161.04

+1.85 %

+0.87 %

VPC STA 1083+25.000
VPC EL800.01

VPI STA 1085+25.000
VPI EL803.70

VPT STA 1087+25.000
VPT EL805.44

K = 408.47
VCL 400.00

℄
BEACH DRIVE

STA. 1079+25.000
VPT EL792.62

STA. 1076+97 &
STA. 1077+04
2-30" CPRC

STA. 1088+37
1-30" CPRC

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

1077	1077+50	1078	1078+50	1079	1079+50	1080	1080+50	1081	1081+50	1082	1082+50	1083	1083+50	1084	1084+50	1085	1085+50	1086	1086+50	1087	1087+50	1088	1088+50	1089	1089+50	1090	1090+50	1091	1091+50	1092
787.91	790.03	788.16	790.34	788.42	790.79	788.96	791.41	789.50	792.18	790.72	793.08	791.94	794.00	794.93	794.90	795.85	796.48	796.77	798.07	797.70	799.35	798.62	800.56	799.54	801.58	800.46	802.33	801.32	802.97	802.12	803.36	802.86	803.97	803.54	804.40	804.16	804.73	804.72	805.20	805.21	805.75	805.65	806.20	806.09	806.58	806.52	806.97	806.95	807.38	807.39	807.80	807.82	808.21	808.26	808.61	808.69	808.97	809.12	809.34	809.56

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE	SHEET 169	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050110_PP.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

LEGEND:
X CLEARING & GRUBBING
XXXX SAWING

BENCHMARKS			
NO.	STATION	DESCRIPTION	ELEV.
13	1092+31,	RRSP E FACE PP# 03-05917 SW	808.56
	LT	CORNER OF STH 164 & SANDY LN	
14	1102+06,	RRSP N FACE PP# 93-14212	812.17
	LT	± 900' N OF SANDY LN	
		RBM FOR SEC S12-4-19	
159	1102+51.69	24" FENO SPIKES W/PLASTIC	813.23
		CAPS (BERNTSEN)	

SANDY LANE
SANDY LANE ℄
WETLAND BOUNDARY
STONEGATE ESTATES
WETLAND BOUNDARY
PC 48+01.85
PI 48+52.03
PT 48+98.70
BM13
BROWN
STA. 1095+52
PE 68', LT
ASPH APPROACH/BAD DRIVEWAY
18" CPCS WITH
2 AEW REQ'D
RSPC
FENCE TO REMAIN
STA. 1097+11
PE 40', LT
BAD
NELSON
RAUSCH
STA. 1099+35
PE 42', LT
BAD
WERNER
TOMRELL
HORN
POND
WETLAND BOUNDARY
BM14
SIGNS
PI 1092+50.00
HMA
STH 164
PI 1102+04.05
CP 159
STH 164 ℄ & ℄
REMOVE CURB & GUTTER
STA. 1095+05
PE 58' RT
BAD
18" CPCS WITH
2 AEW REQ'D
RSPC
RAUSCH
STA. 1096+53
FE 56' RT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC
RAUSCH
REMOVE FENCE BY OTHERS
STA. 1098+65
PE 60' RT
BAD
RSPC
SEE STORM SEWER PLAN
MANEY
STA. 1099+11
PE 63' RT
BAD
ASPH APPROACH/ CONC DRIVEWAY
RSPC
SCHULTE
STA. 1100+18
PE 57' RT
ASPH APPROACH/ CONC DRIVEWAY
18" CPCS WITH
2 AEW SLOPE
SECTION REQ'D
RSPC
SUTHERLAND
STA. 1101+41
PE 54' RT
ASPH
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC
JOCHIMS
STA. 1103+44
RSPC (24" CPMC)
1-24" CPRC CLASS IV
2 AEW REQUIRED AND
2 PIPE GRATES
(TRAVERSABLE) REQUIRED
RAUSCH
STA. 1104+75
PE 57' RT
BAD
18" CPCS WITH
2 AEW REQ'D
RSPC
KETTERHAGEN TRUST
CAUTION

VPC STA 1098+00.000
VPC EL814.76
VPI STA 1100+00.000
VPI EL816.50
VPT STA 1102+00.000
VPT EL817.51
VPC STA 1105+50.000
VPC EL819.27
+0.87 %
+0.87 %
+0.50 %
K = 1097.84
VCL 400.00
K = 938.97
VCL 1800.00
FINISHED PROFILE AT STH 164 ℄
EXISTING PROFILE AT STH 164 ℄
STA. 1103+44
1-24" CPRC
EXISTING PROFILE ELEVATIONS
FINISHED PROFILE ELEVATIONS

1092	1092+50	1093	1093+50	1094	1094+50	1095	1095+50	1096	1096+50	1097	1097+50	1098	1098+50	1099	1099+50	1100	1100+50	1101	1101+50	1102	1102+50	1103	1103+50	1104	1104+50	1105	1105+50	1106	1106+50	1107
809.34	809.56	809.84	809.99	810.30	810.43	810.74	810.86	811.19	811.29	811.66	811.73	812.14	812.16	812.62	812.59	813.00	813.03	813.39	813.46	813.80	813.90	814.25	814.33	814.66	814.76	814.97	815.19	815.29	815.59	815.59	815.96	815.84	816.32	816.16	816.65	816.48	816.96	816.80	817.24	817.03	817.51	817.19	817.76	817.36	818.01	817.49	818.26	817.80	818.51	818.02	818.77	818.25	819.02	818.55	819.27	818.85	819.51	819.19	819.72	819.52	819.90

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE	SHEET 170 E

DORIE LANE

IDLEWOOD LAN (PRIVATE DRIVE)

PINE LANE (PRIVATE DRIVE)

CALLAN | HECHT | KONWENT | MC QUILLAN | DUGANDZIC | WALKOWSKI | GLISCH | LOPPNOW | REDEL | ROUSE | BEASTON | KNIPRATH | KREGER

STA. 1107+75
PE 60' LT
ASPH
18" CPCS WITH
2 AEW SLOPED SECTION REQ'D
RSPC

SIGN TO BE MOVED BY OTHERS

REMOVE CURB & GUTTER

CP 160

BM15

REMOVE CURB & GUTTER

REMOVE FENCE BY OTHERS

STA. 1121+09
PE 55' LT
ASPH

STA. 1122+00
PE 48' LT
BAD

BM16

CAUTION

TLE

SI

R/W

HP

18"

9' 1' 12' 12' 9' 1'

1108 | 1110 | 1112 | P150+00.00 | 1114 | 1116 | 1118 | 1120 | 1122

HMA

STH 164

STH 164 ℄ & ℄

LIGHT POST TO BE MOVED BY OTHERS

KETTERHAGEN TRUST

STA. 1108+32
PE 57' RT
ASPH
18" CPCS WITH
2 AEW REQ'D
RSPC

STA. 1109+32
PE 65' RT
ASPH
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

BALZER

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
15	1113+35,	RRSP E FACE PP* 99-05118	819.59
	LT	SW CORNER STH 164 & DORIE LN	
16	1122+18,	RRSP E FACE PP* 58-0031	810.68
	LT	BETWEEN PINE LN & POPLAR CIR S	
160	1112+93.99	24" FENO SPIKES W/PLASTIC	820.16
		CAPS (BERNTSEN)	

STA. 1114+14
RSPC (24" CPMC)
1-19" X 30" CPRC CLASS HE-IV
2 AEW REQUIRED AND
2 PIPE GRATES
(TRAVERSABLE) REQUIRED

KREGER

CAUTION

FITCH

STA. 1117+96
PE 62' RT
ASPH
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

LOOMIS

RUINS

STA. 1120+51
PE 58' RT
ASPH
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

LEGEND:
X CLEARING & GRUBBING
SAWING

5

840 | 835 | 830 | 825 | 820 | 815 | 810 | 805 | 800

VPI STA 1114+50.000
VPI EL 823.80

EXISTING PROFILE AT STH 164 ℄

℄ DORIE LANE

+0.50 % -1.41 %

FINISHED PROFILE AT STH 164 ℄

1110+22.721
820.46

STA. 1114+14
1-19" X 30" CPRC

K = 938.97
VCL 1800.00

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

1107	1107+50	1108	1108+50	1109	1109+50	1110	1110+50	1111	1111+50	1112	1112+50	1113	1113+50	1114	1114+50	1115	1115+50	1116	1116+50	1117	1117+50	1118	1118+50	1119	1119+50	1120	1120+50	1121	1121+50	1122
819.52	819.90	819.81	820.06	819.97	820.19	820.05	820.30	820.20	820.38	820.30	820.43	820.35	820.46	820.35	820.45	820.35	820.43	820.34	820.37	820.36	820.29	820.36	820.18	820.27	820.05	820.15	819.89	819.94	819.70	819.71	819.49	819.33	819.25	819.31	818.98	819.04	818.68	818.79	818.36	818.58	818.02	818.29	817.64	818.01	817.24	817.64	816.81	817.28	816.36	816.77	815.88	816.27	815.37	815.74	814.84	815.22	814.28	814.76	813.69	814.28	813.08

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050112_PP.dgn | PLOT DATE : 4/26/2012 | PLOT BY : wdw | PLOT NAME : | PLOT SCALE : $$.....plotscale.....$$ | WISDOT/CADDS SHEET 40

KREGER

KREGER

POPLAR CR. (PRIVATE DRIVE)

STRASSER JOINT TRUST

SIGN TO BE MOVED BY OTHERS

SIGN TO BE MOVED BY OTHERS

DEGROOT

POPLAR CR. (PRIVATE DRIVE)

SCHMIDT & ENKOSK

BETZ & GREENLEE

BIRCH LANE (PRIVATE DRIVE)

L&T DEVELOPMENT LLC

WETLAND BOUNDARY

STA. 1136+50
RSPC (24" CPMC)
1-24" CPRC CLASS III
2 AEW REQUIRED

STA. 1124+11
PE 56', LT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D

STA. 1127+74
PE 51', LT
ASPH APPROACH/
CONC DRIVEWAY
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

STA. 1129+51
PE 59', LT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

STA. 1131+75
PE 55', LT
ASPH
18" CPCS WITH
2 AEW REQ'D
RSPC

BM16

BM17

P.I. 1128+40.12

CAUTION

CAUTION

CAUTION

CAUTION

CAUTION

STH 164 ℄ & ℄

TLE

R/W

SI

18"

5'

12'

1122

1124

1126

1128

1130

1132

1134

1136

HMA

STH 164

REINKE

BENCHMARKS

STA. 1124+00
PE 53', RT
BAD

CP 161
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

WETLAND BOUNDARY

REMOVE FENCE
STA. 1125+10 TO
STA. 1127+14
REMOVE MASONRY

REMOVE MASONRY

STA. 1126+78
PE 59', RT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

HEINZE

STA. 1130+12
RSPC (48"CMPC)
1-48" CPRC CLASS IV
2 AEW REQUIRED

SMITH

STA. 1130+64
PE 57', RT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

REMOVE
FENCE
(TO R/W)

MALCHINE

STA. 1132+87
PE 57', RT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

MALCHINE

MALCHINE

NO.	STATION	DESCRIPTION	ELEV.
16	1122+18,	RRSP E FACE PP# 58-0031	810.68
	LT	BETWEEN PINE LN & POPLAR CIR S	
17	1128+68,	CONC WITNESS MON; RBM FOR SEC CEN 12-4-19	801.05
	LT	SW CORNER OF STH 164 & POPLAR CIR N	
161	1123+93.97	24" FENO SPIKES W/PLASTIC	809.07
		CAPS (BERNTSEN)	

LEGEND:
X CLEARING & GRUBBING
SAWING

825 820 815 810 805 800 795 790 785

VPT STA 1123+50.000
VPT EL811.08

EXISTING PROFILE AT STH 164 ℄

-1.41 %

K = 938.97
VCL 1800.00

VCL 400.00
K = 209.04

1130+95.482
802.63

FINISHED PROFILE AT STH 164 ℄

+0.50 %

VPC STA 1128+00.000
VPC EL804.72

VPI STA 1130+00.000
VPI EL801.89

STA. 1130+12
1-48" CPRC

VPT STA 1132+00.000
VPT EL802.89

STA. 1136+52
1-24" CPRC

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

1122	1122+50	1123	1123+50	1124	1124+50	1125	1125+50	1126	1126+50	1127	1127+50	1128	1128+50	1129	1129+50	1130	1130+50	1131	1131+50	1132	1132+50	1133	1133+50	1134	1134+50	1135	1135+50	1136	1136+50	1137
814.28	813.08	813.80	812.44	813.32	811.77	812.60	811.08	811.88	810.37	811.34	809.66	810.52	808.96	809.60	808.25	808.68	807.54	807.75	806.84	806.82	806.13	806.05	805.42	805.26	804.72	804.56	804.07	803.87	803.54	803.34	803.13	802.90	802.85	802.84	802.68	802.89	802.63	803.06	802.70	803.21	802.89	803.44	803.14	803.67	803.39	803.84	803.64	804.00	803.89	804.15	804.14	804.30	804.39	804.43	804.64	804.56	804.89	804.83	805.14	805.14	805.39

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050113_PP.dgn PLOT DATE : 4/27/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
19	1143+24.	RRSP W FACE PP# 94-13733	807.07
	RT	± 1000' S OF NORTH LAKE DR	
162	1140+45.69	24" FENO SPIKES W/PLASTIC	816.40
		CAPS (BERNTSEN)	

LEGEND:
X CLEARING & GRUBBING
SAWING

GREENHAVEN TERRACE ℄
REMOVE CURB & GUTTER
REMOVE FENCE (INSIDE TLE)
REMOVE CURB & GUTTER
CAUTION
CP 162
CAUTION
CAUTION
L&T DEVELOPMENT LLC
WETLAND BOUNDARY
CAUTION
STH 164 ℄ & ℄
TLE
R/W
SI
PI 50+00.00
STH 164
1138
1140
1142
1144
1146
1148
1150
1152
HMA
STA. 1139+20
COMM 60', RT
ASPH
RSPC
STA. 1141+18
REMOVE ACCESS
FE BAD
RSPC
STA. 1142+74
PE 45', RT
ASPH
RSPC
REMOVE MASONRY
BM19
STA. 1143+35
PE 45', RT
BAD
RSPC
STA. 1144+34
PE 64', RT
BAD
18" CPCS WITH
2 AEW REQ'D
RSPC
MAINUS
REMOVE BLOCK
RETAINING WALL
STA. 1146+43
PE 50', RT
BAD
18" CPCS WITH
2 AEW REQ'D
RSPC
REMOVE RETAINING WALL
MAINUS
WETLAND BOUNDARY
MAINUS
L&T DEVELOPMENT LLC
SHAW
5'
12'
18"
FLAG
SIGN
BLDG
HP
FO
SAN
SS
T
G

EXISTING PROFILE AT STH 164 ℄
FINISHED PROFILE AT STH 164 ℄
VPC STA 1139+25.000
VPC EL806.52
VPI STA 1143+25.000
VPI EL808.52
VPT STA 1147+25.000
VPT EL800.12
VPC STA 1147+75.000
VPC EL799.07
VPI STA 1150+75.000
VPI EL792.77
+0.50 %
-2.10 %
VCL 600.00
K = 222.22
K = 307.69
VCL 800.00
1140+78.846
806.90
GREENHAVEN TERRACE ℄
EXISTING PROFILE ELEVATIONS
FINISHED PROFILE ELEVATIONS

820 815 810 805 800 795 790 785 780

1137	1137+50	1138	1138+50	1139	1139+50	1140	1140+50	1141	1141+50	1142	1142+50	1143	1143+50	1144	1144+50	1145	1145+50	1146	1146+50	1147	1147+50	1148	1148+50	1149	1149+50	1150	1150+50	1151	1151+50	1152
805.14	805.39	805.57	805.64	806.00	805.89	806.30	806.14	806.60	806.39	806.78	806.63	806.97	806.80	806.99	806.89	807.01	806.89	806.79	806.82	806.57	806.66	806.27	806.42	805.98	806.10	805.48	805.70	804.97	805.22	804.34
804.66	803.71	804.02	803.01	803.29	802.31	802.49	801.40	801.60	800.48	800.63	799.57	799.59	798.65	798.55	797.98	797.62	797.32	796.79	796.79	796.08	796.27	795.48	795.92	794.99	795.58	794.62	795.34	794.35	795.11	794.20

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE	SHEET 173 E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050114_PP.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

NORTH LAKE DRIVE
WETLAND BOUNDARY
GURMENAR LLC
NORTH LAKE DRIVE
CAUTION
ABANDON WELL
FENCE TO REMAIN
STA. 1158+00 SENFT
RSPC (24" CMPC)
1-24" CPRC CLASS III
2 AEW REQUIRED
2 PIPE GRATES (TRAVERSABLE) REQUIRED
LEGEND:
CLEARING & GRUBBING
SAWING
SIGN TO BE MOVED BY OTHERS
STA. 1163+55
COMM 52', LT
ASPH
18" CPCS WITH
2 AEW REQ'D
RSPC
SIGN TO BE MOVED BY OTHERS
BLIGHT
STA. 1163+96
COMM 52', LT
ASPH
18" CPCS WITH
2 AEW REQ'D
RSPC
STA. 1162+50
FE 108', LT
BAD
18" CPCS WITH
2 AEW REQ'D
ABANDON WELL
STA. 1152+61
RSPC
(36" CMPC)
36.50'
STA. 1153+25
COMM 43', LT
ASPH RSPC
IVERSON
BARTLETT
PROPOSED CONTOURS
WILLMS
STA. 1162+10
REMOVE ACCESS
PE BAD RSPC
STA. 1164+66 COMM 45', LT
ASPH APPROACH/CONC DRIVEWAY
RSPC
STA. 1165+67 STRASSER
COMM 45', LT
ASPH RSPC
CP 164
PI 50+00.00
HMA
STH 164
BM21
SEE STORM SEWER PLAN
CP 163
PI 1154+78.03
TLE
REMOVE GUARDRAIL
STA. 51+00
REMOVE ACCESS
FE BAD
SIGN TO MOVED BY OTHERS
STA. 1156+15
REMOVE ACCESS
FE BAD RSPC
STA. 1158+50
PE 55', RT
ASPH
18" CPCS WITH
2 AEW REQ'D
STA. 1160+1
PE 50', RT
BAD
18" CPCS WITH
2 AEW REQ'D
RSPC
STA. 1161+00
FE 49', RT
BAD
18" CPCS WITH
2 AEW REQ'D
RSPC
STA. 1162+50
COMM 50', RT
ASPH
18" CPCS WITH
2 AEW REQ'D
RSPC
STA. 1163+28
COMM 50', RT
ASPH
18" CPCS WITH
2 AEW REQ'D
STA. 1163+78
COMM 50', RT
ASPH
18" CPCS WITH
2 AEW REQ'D
RSPC
STA. 1165+00
COMM 58', RT
ASPH
18" CPCS WITH
2 AEW REQ'D
RSPC
STA. 1165+78
REMOVE ACCESS
PE ASPH
STA. 1166+50
COMM 111', RT
ASPH
SCHLIDT
LEMKE
KURLOWSKI
REYES
WETLAND BOUNDARY
PETERSON
STA. 1161+78
REMOVE ACCESS
CE ASPH
TICHIGAN
FIRE DEPT.
STOLPA
SCHMUHL
SEIDLER
POOL
SEN
REMOVE 8" CONCRETE UNDERDRAIN INCIDENTIAL TO CONSTRUCTION
SIGN TO MOVED BY OTHERS
SIGN TO BE MOVED BY OTHERS
SIGN TO MOVED BY OTHERS
LEMKE
NORTH LAKE DRIVE
BUILDINGS TO BE REMOVED BY OTHERS PRIOR TO CONSTRUCTION

BENCHMARKS			
NO.	STATION	DESCRIPTION	ELEV.
163	1154+15.81	24" FENO SPIKES W/PLASTIC	795.28
		CAPS (BERNTSEN)	
21	1162+57,	CHSL X W EDGE MH RIM	797.50
	RT	± 800'N OF NORTH LAKE DR	
		(FIRE DEPT LOT)	
164	1167+24.80	24" FENO SPIKES W/PLASTIC	807.86
		CAPS (BERNTSEN)	

VCL 600.00
K = 222.22
1152+41.667
794.17
FINISHED PROFILE AT STH 164 ℄
+0.60 %
VPT STA 1153+75.000
VPT EL794.57
STA. 1152+61
1-36" SSPRC
NORTH LAKE DRIVE ℄
STA. 1156+00
1-18" SSPRC
STA. 1158+00
1-24" CPRC
EXISTING PROFILE AT STH 164 ℄
+0.60 %
VCL 100.00
K = 125.00
VPC STA 1161+75.000
VPC EL799.37
VPI STA 1162+25.000
VPI EL799.67
VPT STA 1162+75.000
VPT EL800.37
+1.40 %

	1152	1152+50	1153	1153+50	1154	1154+50	1155	1155+50	1156	1156+50	1157	1157+50	1158	1158+50	1159	1159+50	1160	1160+50	1161	1161+50	1162	1162+50	1163	1163+50	1164	1164+50	1165	1165+50	1166	1166+50	1167
EXISTING PROFILE ELEVATIONS	795.11	794.99	794.98	795.02	795.22	795.48	795.73	795.85	796.01	796.35	796.69	797.06	797.44	797.65	797.86	798.02	798.19	798.28	798.34	798.72	799.09	799.53	800.29	800.78	801.76	802.79	803.80	804.61	805.41	806.18	806.95
FINISHED PROFILE ELEVATIONS	794.20	794.17	794.24	794.43	794.72	795.02	795.32	795.62	795.92	796.22	796.52	796.82	797.12	797.42	797.72	798.02	798.32	798.62	798.92	799.22	799.54	800.04	800.72	801.42	802.12	802.82	803.52	804.22	804.92	805.62	806.32

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050115_PP.dgn PLOT DATE : 4/27/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

LEGEND:
CLEARING & GRUBBING
SAWING

BENCHMARKS			
NO.	STATION	DESCRIPTION	ELEV.
23	1174+51, RT	RRSP W FACE PP# 58-50058 SE OF INT OF STH 164 & JENSEN PKWY	805.39
164	1167+24.80	24" FENO SPIKES W/PLASTIC CAPS (BERNTSEN)	807.86
165	1177+85.51	24" FENO SPIKES W/PLASTIC CAPS (BERNTSEN)	802.77

STA. 1167+67
COMM 45', LT
ASPH

STA. 1168+45
REMOVE ACCESS
PE BAD
RSPC

STA. 1167+84
COMM 45', RT
ASPH

STA. 1170+24
REMOVE ACCESS
COMM BAD
RSPC

STA. 1171+15
COMM 55', RT
BAD
18" CPCS WITH
2 AEW REQ'D

STA. 1171+60
RSPC (24" CMPC)
1-24" CPRC CLASS IV
2 AEW REQUIRED AND
2 PIPE GRATES TRAVERSABLE
REQUIRED

STA. 1173+82
PE 57', RT
ASPH
18" CPCS WITH
2 AEW REQ'D
RSPC

STA. 1175+60
PE 60', RT
BAD
18" CPCS WITH
2 AEW REQ'D
RSPC

STA. 1178+60
RSPC (24" CPMC)
1-19" X 30" CPRC CLASS HE-IV
2 AEW REQUIRED AND
2 PIPE GRATES
TRAVERSABLE REQUIRED

STA. 1179+95
PE 50', RT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

STA. 1180+88
PE 50', RT
ASPH
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

STA. 1180+88
REMOVE ACCESS
FE BAD

SIGN TO BE MOVED BY OTHERS

SIGN TO BE MOVED BY OTHERS
REMOVE 1 CONCRETE BASE

SIGN TO BE REMOVED BY OTHERS

SIGN TO BE REMOVED BY OTHERS

BUILDINGS TO BE REMOVED BY OTHERS PRIOR TO CONSTRUCTION

STRASSER
CP 164

STH 164 ℄ & ℄

JENSON PARKWAY ℄ & ℄

PI 50+00.00

PI 1181+35.79

BM23

CP 165

LEWINS

KRIPLIN

DUFFEK

RICHTER

DEKA

MELODY LANE (PRIVATE DRIVE)

SENFT

SENFT

SENFT FAMILY TRUST

LOKER

DELIMAT

KINDLER

STRYCZAK

LANG & MCDONALD TRU

RUINS

HMA

R/W

TLE

CAUTION

VPC STA 1167+00.000
VPC EL 806.32

VPI STA 1169+25.000
VPI EL 809.47

VPT STA 1171+50.000
VPT EL 808.34

1170+31.579
808.64

K = 236.84
VCL 450.00

EXISTING PROFILE AT STH 164 ℄

FINISHED PROFILE AT STH 164 ℄

-0.50 %

-0.50 %

STA. 1171+60
1-24" CPRC

STA. 1178+60
1-19" X 30" CPRC

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

| | | |

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
24	1187+00,	RRSP W FACE PP# 74-7902	798.80
	RT	± 1200' N OF JENSEN PKWY	
166	1194+05.56	24" FENO SPIKES W/PLASTIC	796.40
		CAPS (BERNTSEN)	

STA. 1182+34
PE 53', LT
DEKARSKE
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D

STA. 1183+15
PE 51', LT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D

STA. 1183+45
PE 51', LT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D

WETLAND BOUNDARY

RICHTER

STA. 1189+48
RSPC (24" CPRC)
1-24" CPRC CLASS III
2 AEW REQUIRED AND
2 PIPE GRATES
(TRAVERSABLE)
REQUIRED

REMOVE FENCE
STA 1187+91 TO
STA 1188+63

WETLAND BOUNDARY

BAKER - MILAM

STA. 1191+77
PE 56', LT
BAD
18" CPCS WITH
2 AEW REQ'D
RSPC

STA. 1193+91
PE 48', LT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

REMOVE MASONRY

BAKER

REMOVE MASONRY

STA. 1194+26
PE 48', LT
ASPH
RSPC

CAUTION

CAUTION

CAUTION

CAUTION

CAUTION

CP 166 PC 1194+05.56

TLE

R/W

SI

STH 164 ℄

STH 164

HMA

18"

1182 1184 1186 1188 1190 1192 1194 1196

5' 5' 12' 12' 5' 5'

STA. 1182+21
PE 59', RT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

LANG &
MCDONALD TRUST

STA. 1183+40
PE 55', RT
ASPH
18" CPCS WITH
2 AEW SLOPES
SECTION REQ'D
RSPC

LANG

STA. 1184+00
PE 54', RT
ASPH
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

MC DONALD
TRUST

STA. 1186+00
PE 49', RT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

BRIEN

SIGN TO BE REMOVED
BY OTHERS

BM24

STA. 1187+27
PE 45', RT
BAD
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D

HIGH

STA. 1188+24
PE 51', RT
BAD
18" CPCS WITH
2 AEW REQ'D

MASON

STA. 1189+00
PE 75', RT
BAD
18" CPCS WITH
2 AEW REQ'D

HIGH

STH 164 R & ℄

MASON

WETLAND BOUNDARY

STA. 1195+00
PE 55.72', RT
ASPH
18" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

BRUCHU

CURVE CLEX1

PI 1195+94.24

STA. 1196+40
REMOVE ACCESS
FE BAD

STA. 1195+88
REMOVE ACCESS
PE BAD

THOENNES

LEGEND:
X CLEARING & GRUBBING
SAWING

CURVE CLEX1
PI = STA 1195+94.24
RADIUS = 10000.00
SE = NC
DESIGN SPEED = 55 MPH

820 815 810 805 800 795 790 785 780

VCL 300.00
K = 260.11

FINISHED PROFILE AT STH 164 ℄

EXISTING PROFILE AT STH 164 ℄

-0.50 %

-0.50 %

+0.65 %

1191+80.058
798.51

STA. 1189+48
1-24" CPRC

VPC STA 1190+50.000
VPC EL 798.84

VPI STA 1192+00.000
VPI EL 798.09

VPT STA 1193+50.000
VPT EL 799.07

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

1182	1182+50	1183	1183+50	1184	1184+50	1185	1185+50	1186	1186+50	1187	1187+50	1188	1188+50	1189	1189+50	1190	1190+50	1191	1191+50	1192	1192+50	1193	1193+50	1194	1194+50	1195	1195+50	1196	1196+50	1197
803.10	803.09	802.94	802.84	802.78	802.59	799.63	802.34	802.28	802.09	802.05	801.84	801.81	801.59	801.50	801.34	801.19	801.09	800.82	800.84	800.45	800.59	800.01	800.34	799.57	800.09	799.13	799.84	798.70	799.59	798.46	799.34	798.01	799.09	797.92	798.84	797.84	798.64	797.91	798.53	797.98	798.52	798.23	798.61	798.48	798.79	798.97	799.07	799.46	799.39	800.10	799.72	800.51	800.04	801.02	800.37	801.52	800.69	801.91	801.02	802.30	801.34

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050117_PP.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
25	1200+04,	LG NAIL E FACE PP* 96-05599	802.83
	LT	± 500' S OF COUNTY LINE RD	
26	1205+11,	RRSP E FACE PP* 70-24959	792.57
	RT	RBM FOR SEC N 1-4-19 SE COR	
		OF STH 164 & COUNTY LINE RD	
167	1204+70.30	24" FENO SPIKES W/PLASTIC	794.61
		CAPS (BERNTSEN)	

CURVE CLEX1
PI = STA 1195+94.24
RADIUS = 10000.00'
SE = NC
DESIGN SPEED = 55 MPH

CURVE CLEX2
PI = STA 1199+81.56
RADIUS = 10000.00'
SE = NC
DESIGN SPEED = 55 MPH

CURVE CLEX3
PI = STA 1210+74.39
RADIUS = 10000.00'
SE = NC
DESIGN SPEED = 55 MPH

COUNTY LINE ROAD ℄

BAKER - MILAM

STA. 1201+50
1-19" X 30" CPRC CLASS HE-IV
2 AEW REQUIRED AND
2 PIPE GRATES
(TRAVERSABLE) REQUIRED

STA. 1205+00
1-19" X 30" CPRC CLASS HE-IV
2 AEW REQUIRED AND
2 PIPE GRATES
(TRAVERSABLE) REQUIRED

STA. 1208+36 + STA 1208+44
RSPC (1-30" CMCP)
1-36" CPRC CLASS IV
2 AEW REQUIRED AND
1-PIPE GRATE (TRAVERSABLE)
REQUIRED

BRANE LLC

LEGEND:
X CLEARING & GRUBBING
SAWING

CURVE CLEX3

WETLAND BOUNDARY

STA. 1210+72
PE 49.41', LT
BAD
24" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC

PT 1197+87.87
PC 1197+87.87
PI 1199+81.56
PT 1201+75.20
PC 147+56.55
PT 147+56.55
PI 148+56.04
PC 1209+33.29
PT 1212+15.47
PI 1210+74.39
PT 149+55.43
PC 151+00.45
PI 152+11.00

CURVE CLEX2
TLE
R/W
SI
BM25
STH 164 ℄
STH 164
CP 167
BM26
HMA
SEC 4012
COUNTY LINE RD.
DENOON RD.
DENOON ROAD ℄
WETLAND BOUNDARY
KRUEGER BROOK
MASON
THOENNES
SCHOPP & KISSINGER
STRASSER
WASHINGTON CALDWELL SCHOOL

STA. 1197+28
PE 58.38', RT
ASPH
18" CPCS WITH
2 AEW REQ'D

STA. 1199+07
PE 52.22', RT
ASPH

STA. 1201+08
PE 54.78', RT
BAD
18" CPCS WITH
2 AEW REQ'D
RSPC

STA. 1203+78
REMOVE ACCESS
PE BAD

MGS GUARDRAIL

MGS GUARDRAIL
TERMINAL EAT
STA 1204+45

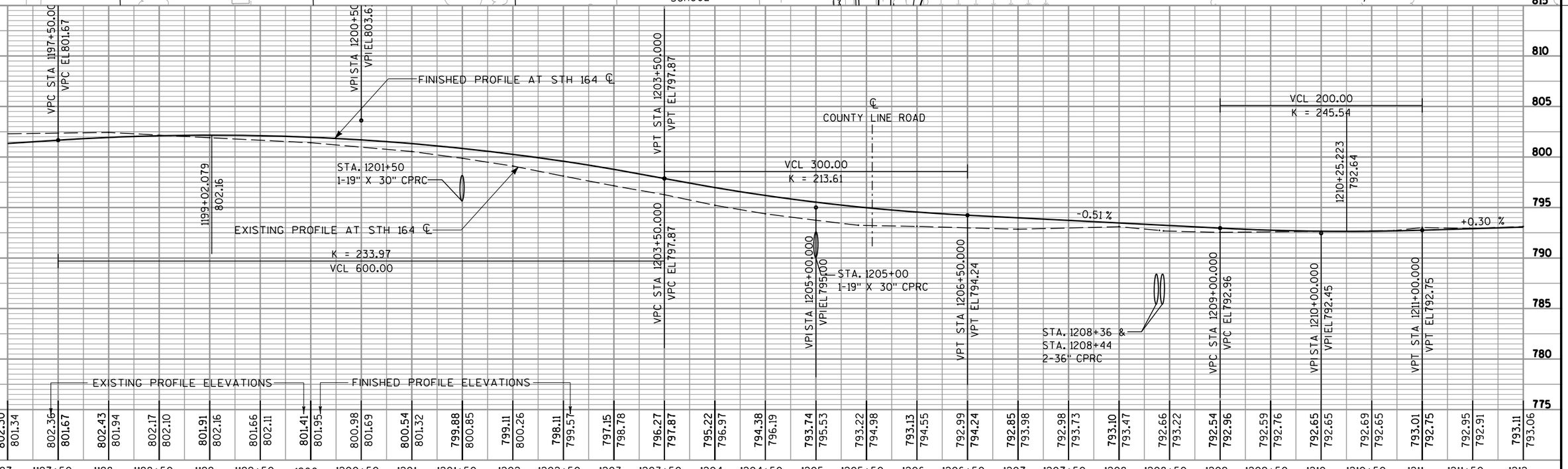
FENCE TO REMAIN

MGS GUARDRAIL
TERMINAL EAT
STA 1201+96

STA 1204+00 - STA 1204+85
1-18" CPCS
2 AEW REQUIRED
1-PIPE GRATE (TRAVERSABLE)
REQUIRED

STA. 1208+44
RSPC (1-30" CMCP)
1-42" CPRC CLASS IV
2 AEW REQUIRED AND
1-PIPE GRATE (TRAVERSABLE) REQUIRED
PIPE FLOW LINE HAS BEEN SET 6 INCHES
BELOW THE EXISTING STREAM FLOWLINE
AS REQUESTED BY WDNR

STA. 1211+47
FE 54.81', RT
BAD
24" CPCS WITH
2 AEW SLOPED
SECTION REQ'D
RSPC



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE	SHEET 177	E

LEGEND:
X CLEARING & GRUBBING
SAWING

N

PT 1212+15.47

STH 164 ℄ & ℄

CP 168

1212 1214 1216 1218 1220 1222 1224 1226

HMA ASPH STH 164

G

FO FO

WETLAND BOUNDARY

END PROJECT
STA. 1212+20
Y = 228,990.3214
X = 528,585.7036

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
26	1205+11.	RRSP E FACE PP# 70-24959	792.57
	RT	RBM FOR SEC N 1-4-19 SE COR	
		OF STH 164 & COUNTY LINE RD	
168	1217+95.48	24" FENO SPIKES W/PLASTIC	793.32
		CAPS (BERNTSEN)	

815 810 805 800 795 790 785 780 775

EXISTING PROFILE AT STH 164 ℄

FINISHED PROFILE AT STH 164 ℄

VPOT STA 1212+20.000
VPOT EL 793.12

FINISHED PROFILE ELEVATIONS

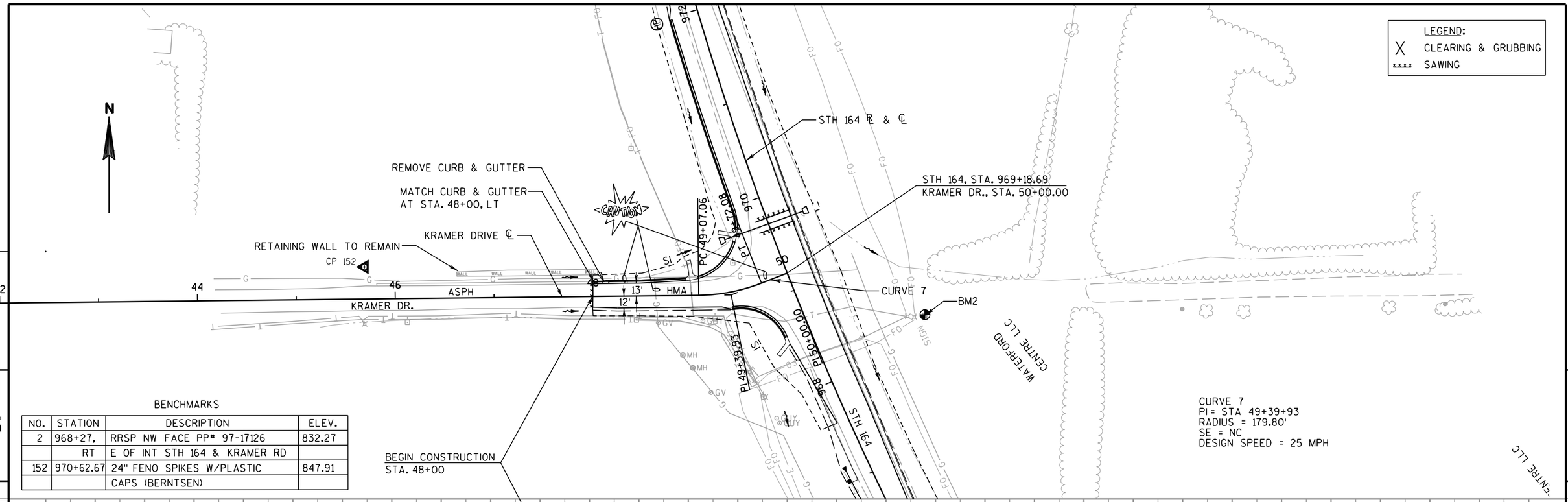
EXISTING PROFILE ELEVATIONS

793.11 793.06 793.03 793.09

1212 1212+50 1213 1213+50 1214 1214+50 1215 1215+50 1216

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050119_PP.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE - KRAMER DRIVE	SHEET E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050120_PP.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

N

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
5	1007+18.	RRSP E FACE PP* 97-08787	817.53
	LT	± 200' S OF OLD LOOMIS RD	
153	1006+57.29	24" FENO SPIKES W/PLASTIC	817.08
		CAPS (BERNTSEN)	

LEGEND:
X CLEARING & GRUBBING
xxxx SAWING

STH 164, STA. 1009+64.99
LOOMIS RD., STA. 49+35.49
SEE STORM SEWER PLAN
STA. 48+75
RSPC (18" CMCP)
CURVE LOOM 1
PI 47+63.42
R/W
CAUTION
HMA
LOOMIS ROAD
LOOMIS ROAD ℄ & ℄
BM5
PC 45+68.83
PC 1007+76.08
PI 48+93.51
STH 164 ℄ & ℄
CP 153
ASPH
BEGIN CONSTRUCTION
STA. 45+00
BUCHOLTZ
PI 49+35.51
PC 49+77.51
CURVE LOOM 2
PI 51+66.77
STA. 50+50
RSPC (18" CMCP)
SEE STORM SEWER PLAN
LOOMIS ROAD ℄ & ℄
END CONSTRUCTION
STA. 52+00

CURVE LOOM1
PI= STA 47+63.42
RADIUS = 234.09'
SE = 5.80%
DESIGN SPEED = 25 MPH

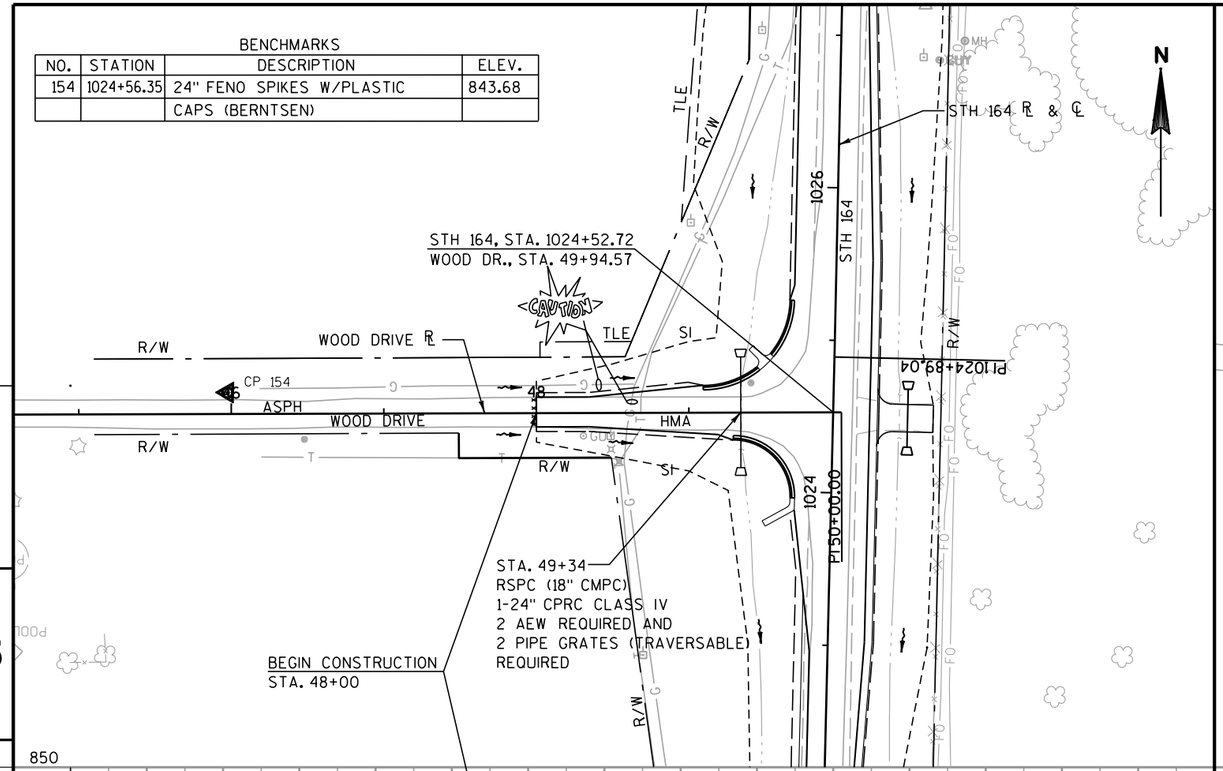
CURVE LOOM2
PI= STA 51+66.77
RADIUS = 288.82'
SE = 6.60%
DESIGN SPEED = 60 MPH

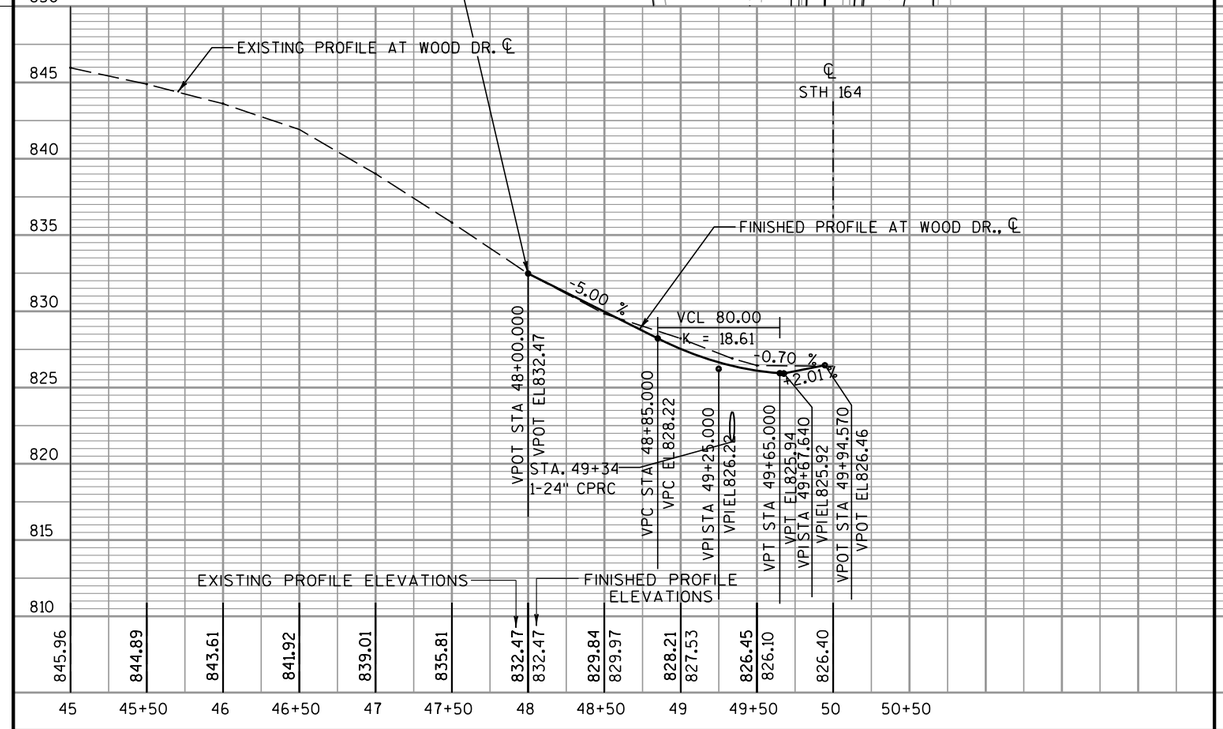
EXISTING PROFILE AT LOOMIS ROAD ℄
FINISHED PROFILE AT LOOMIS ROAD ℄
-0.36 %
+2.18 %
-1.81 %
VPOT STA 45+00.000
VPOT EL818.71
VPI STA 49+10.740
VPI EL817.24
VPI STA 49+60.280
VPI EL818.32
VPOT STA 52+00.000
VPOT EL813.97
SEE STORM SEWER PLAN
SEE STROM SEWER PLAN
EXISTING PROFILE ELEVATIONS
FINISHED PROFILE ELEVATIONS

| | | |

BENCHMARKS

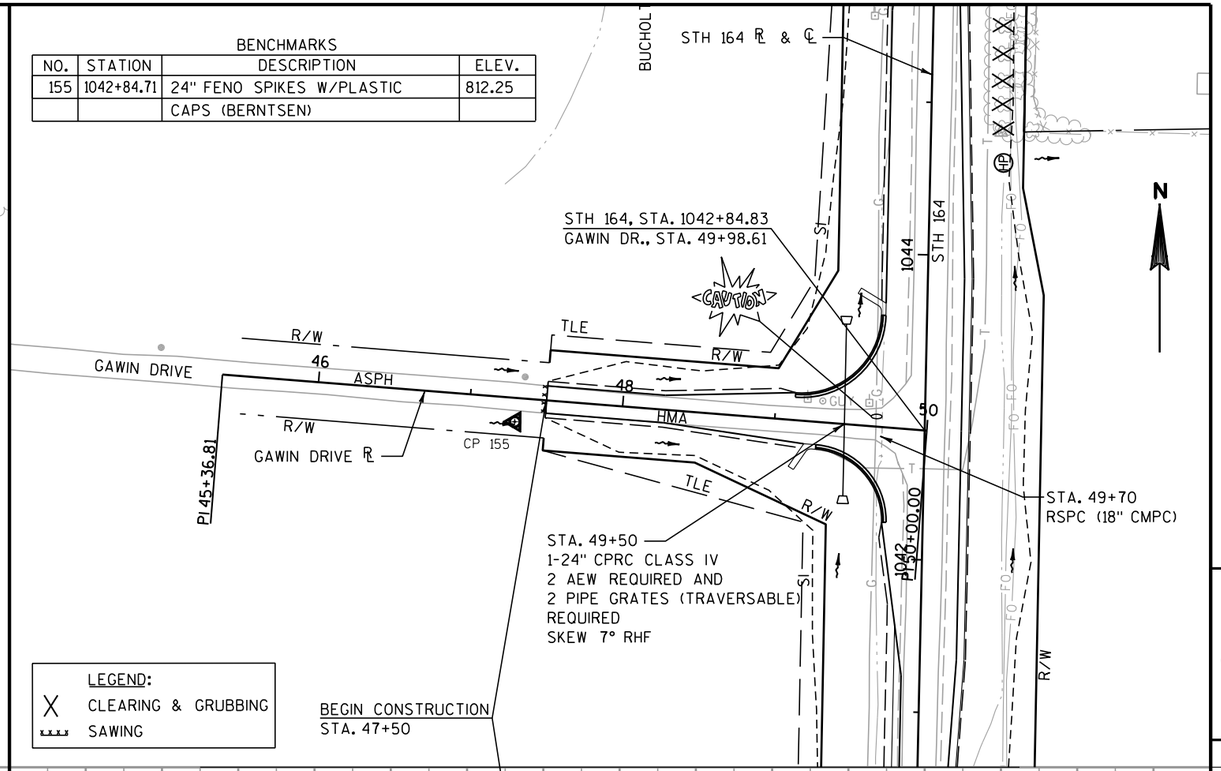
NO.	STATION	DESCRIPTION	ELEV.
154	1024+56.35	24" FENO SPIKES W/PLASTIC	843.68
		CAPS (BERNTSEN)	

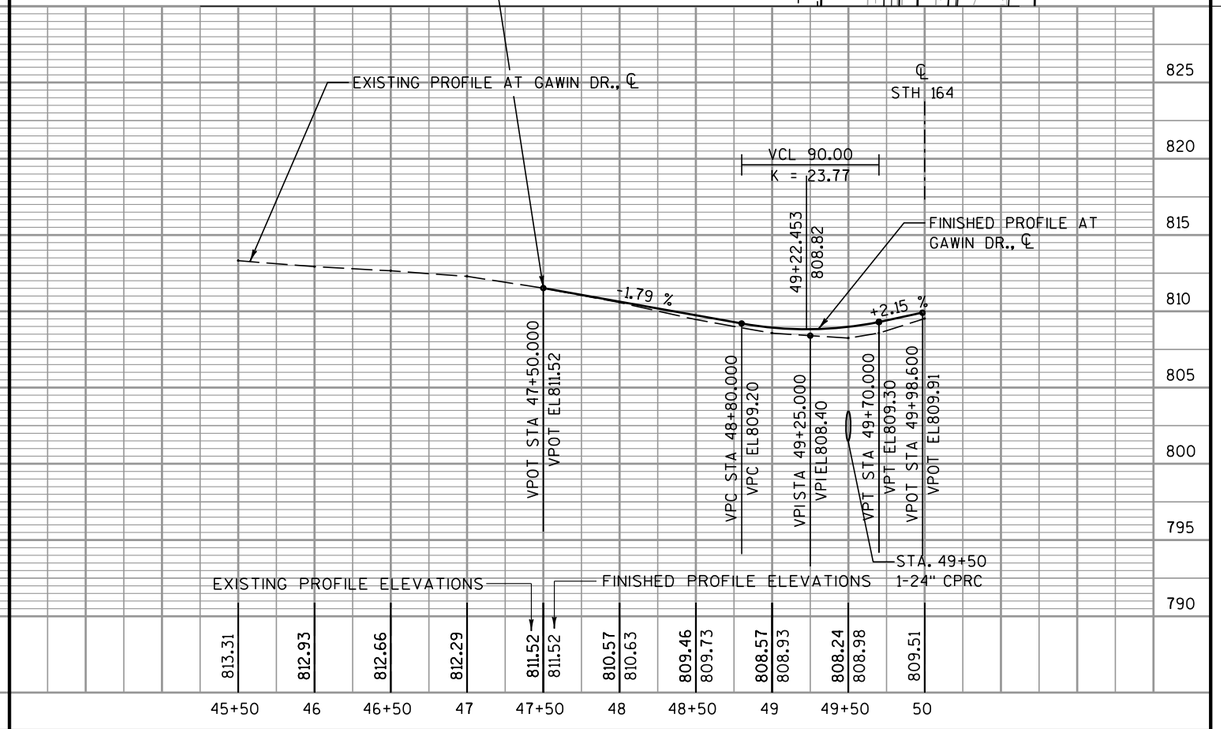




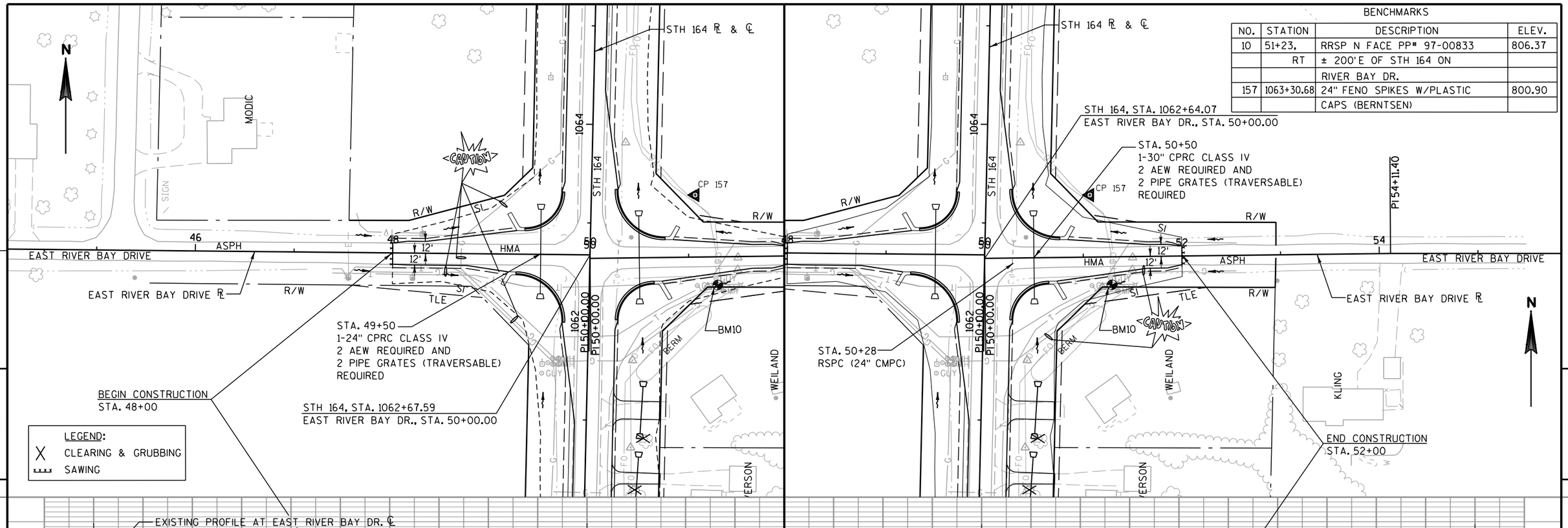
BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
155	1042+84.71	24" FENO SPIKES W/PLASTIC	812.25
		CAPS (BERNTSEN)	





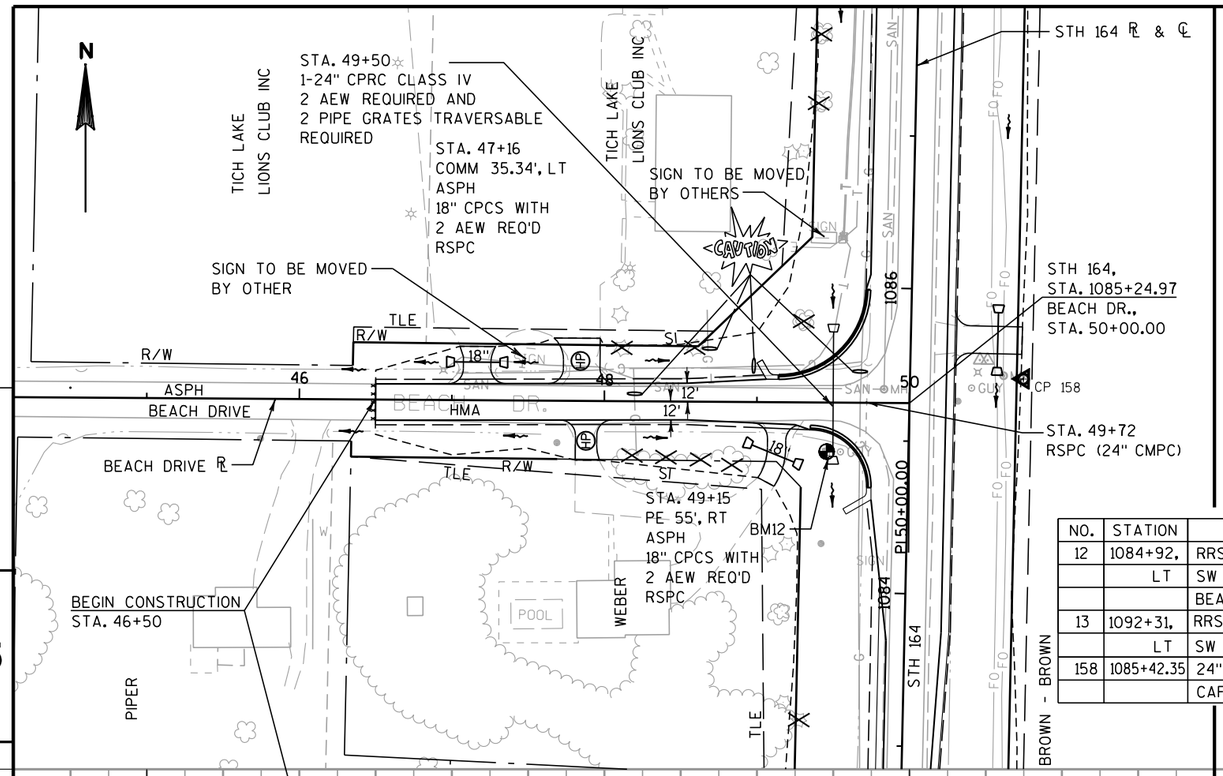
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE, WOOD DR. & GAWIN DR.	SHEET 181 E



BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
10	51+23,	RRSP N FACE PP# 97-00833	806.37
	RT	± 200'E OF STH 164 ON	
		RIVER BAY DR.	
157	1063+30.68	24" FENO SPIKES W/PLASTIC	800.90
		CAPS (BERNTSEN)	

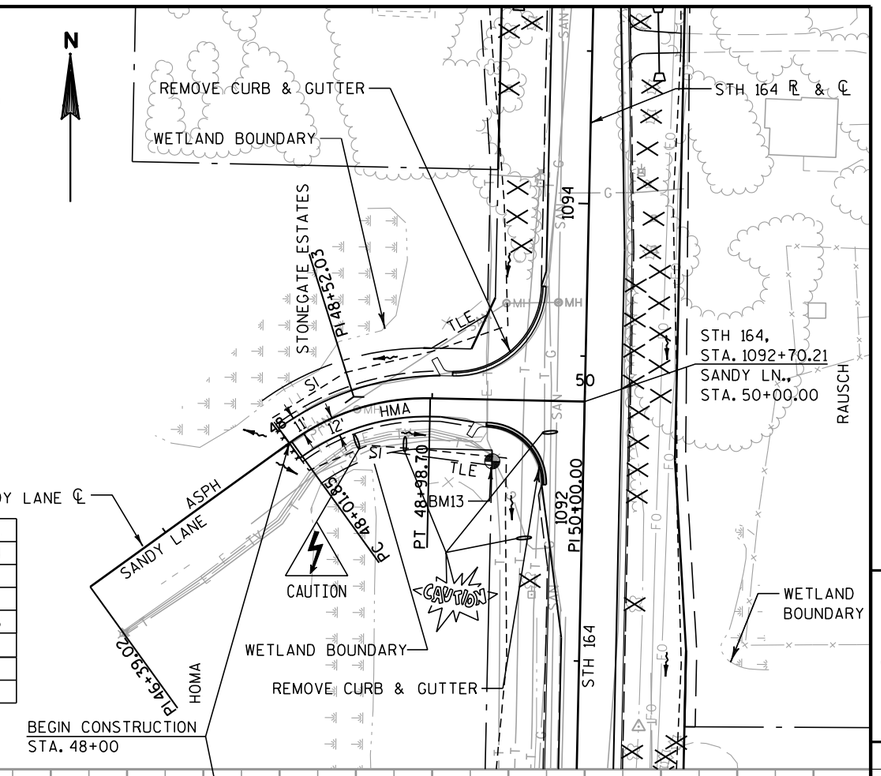
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE, E. RIVER BAY DR. (WEST), E. RIVER BAY DR. (EAST)	SHEET 182 E



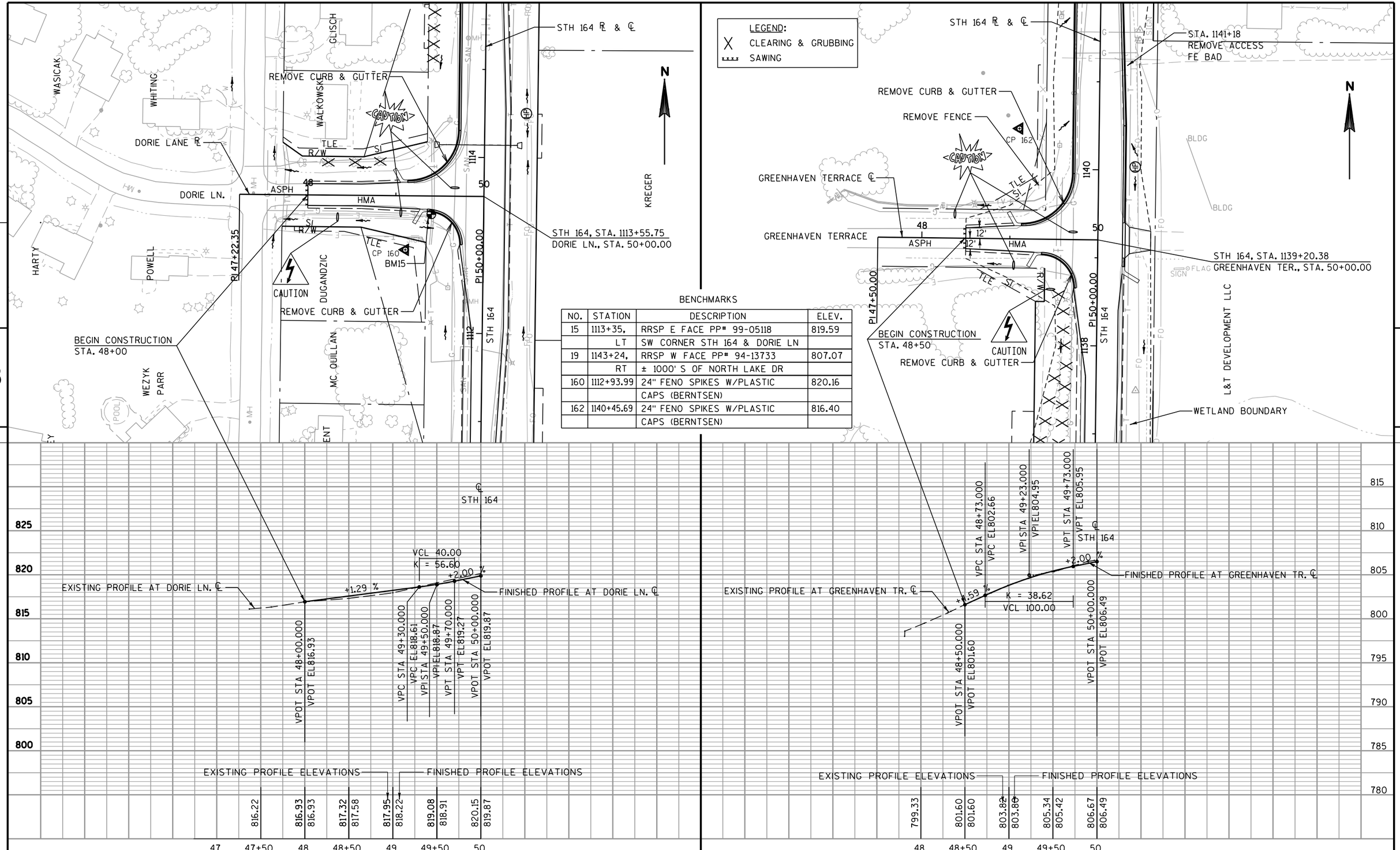
LEGEND:
X CLEARING & GRUBBING
SAWING

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
12	1084+92,	RRSP E FACE PP# 97-05281	803.94
	LT	SW CORNER OF STH 164 &	
		BEACH DR	
13	1092+31,	RRSP E FACE PP# 03-05917	808.56
	LT	SW CORNER OF STH 164 & SANDY LN	
158	1085+42.35	24" FENO SPIKES W/PLASTIC	801.82
		CAPS (BERNTSEN)	



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE, BEACH DR. & SANDY LN.	SHEET 183 E



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE, DORIE LN., GREENHAVEN TER.	SHEET 184 E

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
163	1154+15.81	24" FENO SPIKES W/PLASTIC	795.28
		CAPS (BERNTSEN)	

STH 164 R & ℄

STH 164, STA. 1154+78.03
NORTH LAKE DR., STA. 50+00.00

CAUTION

STA. 1156+15
REMOVE ACCESS
FE BAD

SIGN TO BE MOVED
BY OTHERS

STA. 51+00
REMOVE ACCESS
FE BAD

STA. 53+00
FE 31.50', LT
BAD

LEMKE

SEIDLER

APPLETREE LANE

MILLER

POOL

MINIATURE GOLF COURS

IVERSON

STA. 48+00
COMM 32', LT
BAD

NORTH LAKE DRIVE R

NORTH LAKE DR.

ASPH

HMA

TLE

R/W

SI

SAN

SIGN

MH

44 46 48 50 52 54 56

PI 50+00.00

PI 1154+78.03

12'

11'

MATCH CURB & GUTTER
AT STA 47+91.38' RT

REMOVE 6' OF
CURB & GUTTER

STA. 48+00
FE 38.20', RT
ASPH
RSPC

REMOVE
GUARDRAIL

GURMENAR LLC

1154

1156

STH 164

CP 163

STA. 51+37
PE 46', RT
ASPH

SCHLIDT

BEGIN CONSTRUCTION
STA. 46+00

END CONSTRUCTION
STA. 53+80

WETLAND BOUNDARY

LEGEND:
X CLEARING & GRUBBING
SAWING

BUILDINGS TO BE REMOVED
BY OTHERS PRIOR TO
CONSTRUCTION

N

5

EXISTING PROFILE AT NORTH LAKE DR. ℄

FINISHED PROFILE AT NORTH LAKE DR. ℄

VPOT STA 46+00.000
VPOT EL789.38
VPC STA 46+25.000
VPC EL789.58
VPI STA 46+50.000
VPI EL789.78
VPT STA 46+75.000
VPT EL790.20

VCL 50.00
+0.80K%= 56.82
+1.68 %

VPC STA 48+75.000
VPC EL793.56
VPI STA 49+00.000
VPI EL793.98
VPT STA 49+25.000
VPT EL794.17

K = 54.90
VCL 50.00
+0.71 %

VPI STA 49+65.000
VPI EL794.48

VPI STA 50+00.000
VPI EL795.18
+2.00 %

VPI STA 50+35.000
VPI EL794.48
+2.00 %

-0.57 %

STA. 53+80
1-18" CMCP
TO REMAIN
STA. 53+85
1-18" CMCP
TO REMAIN

VPOT STA 53+80.000
VPOT EL792.53

℄ STH 164

805 800 795 790 785 780

EXISTING PROFILE ELEVATIONS

788.71	788.95	789.38	789.38	790.11	789.83	791.11	790.62	792.20	791.46	793.08	792.30	793.65	793.14	794.19	793.92	795.39	794.36	795.68	795.18	795.50	794.40	795.56	794.11	795.36	793.83	794.84	793.55	794.35	793.26	793.68	792.98	792.94	792.70	792.44	792.69	793.18

FINISHED PROFILE ELEVATIONS

44+50 45 45+50 46 46+50 47 47+50 48 48+50 49 49+50 50 50+50 51 51+50 52 52+50 53 53+50 54 54+50 55 55+50

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE, NORTH LAKE DR.	SHEET	E

FILE NAME : t:\1102721.10\cadd\base files & sheets\050126_PP.dgn PLOT DATE : 4/27/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

STH 164 ℄ & ℄

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
23	1174+51,	RRSP W FACE PP* 58-50058	805.39
	RT	SE OF INT STH 164	
		& JENSEN PKWY	

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
26	1205+11,	RRSP E FACE PP* 70-24959	792.57
	RT	RBM FOR SEC N 1-4-19 SE COR	
		OF STH 164 & COUNTY LINE RD	
167	1204+70.30	24" FENO SPIKES W/PLASTIC	794.61
		CAPS (BERNTSEN)	

STH 164, STA. 1175+03.22
JENSON PKWY., STA. 50+00.00

CAUTION

JENSON PKWY. ℄ & ℄

JENSON PKWY. ASPH

R/W

TLE

SI

12' ASPH

12' HMA

48

50

15"

STA. 48+20
PE 32.50', RT
BAD
15" CPCS WITH
2 AEW REQ'D

DUFFEK

BEGIN CONSTRUCTION
STA. 47+00

STH 164

BM23

PI 50+00.00

1174

1176

KRUEGER BROOK

WETLAND BOUNDARY

STH 164 ℄

STH 164, STA. 1205+57.57
COUNTY LINE RD., STA. 149+85.82

COUNTY LINE ROAD ℄

PC 145+77.04

PI 146+66.83

PC 147+56.55

PI 148+56.04

COUNTY LINE RD.

146

148

150

152

154

156

1206

1204

CURVE COL6

CURVE COL5

BEGIN CONSTRUCTION
STA. 145+75

PT 149+59.55

LEGEND:
X CLEARING & GRUBBING
SAWING

WETLAND BOUNDARY

SEE STORM SEWER PLAN

PI 152+11.00

DENOON ROAD ℄

PC 153+21.40

PT 155+23.02

TECHNICAL RD.

DENOON RD.

BM26

CP 167

PC 151+00.45

STA. 150+88
PE 31', RT
ASPH
RSPC

CURVE COL7

PT 153+21.40

STA. 153+50
PE 34', RT
ASPH
15" CPCS WITH
2 AEW REQ'D
RSPC

PI 154+22.27

CHAIN LINK
FENCE
TO REMAIN

PI 156+01.03

WASHINGTON CALDWELL
SCHOOL

BLDG

FLAG

CURVE COL5
PI= STA 146+66.83
RADIUS = 2500.00'
SE = NC
DESIGN SPEED = 25 MPH

CURVE COL6
PI= STA 148+56.04
RADIUS = 2500.00'
SE = NC
DESIGN SPEED = 25 MPH

CURVE COL7
PI= STA 152+11.00
RADIUS = 2500.00'
SE = NC
DESIGN SPEED = 25 MPH

END CONSTRUCTION
STA. 155+50

EXISTING PROFILE AT JENSON RD. ℄

FINISHED PROFILE AT JENSON RD. ℄

VPOT STA 47+00.000 VPOT EL799.86
VPC STA 47+50.000 VPC EL800.65
VPI STA 48+00.000 VPI EL801.45
VPT STA 48+50.000 VPT EL802.83
VPC STA 49+30.000 VPC EL805.03
VPI STA 49+50.000 VPI EL805.58
VPT STA 49+70.000 VPT EL805.98
VPOT STA 50+00.000 VPOT EL806.58

+1.59 %
+2.75 %
+2.00 %

VCL 100.00
K = 86.01

K = 53.10
VCL 40.00

STH 164

EXISTING PROFILE ELEVATIONS
FINISHED PROFILE ELEVATIONS

799.34	799.86	800.63	801.42	802.25	802.83	803.62	804.87	805.90
799.86	800.65	801.60	802.83	804.20	805.54	806.58		
46+50	47	47+50	48	48+50	49	49+50	50	

FINISHED PROFILE AT COUNTY LINE RD. ℄

VCL 200.00
K = 140.93

EXISTING PROFILE AT COUNTY LINE RD. ℄

VCL 150.00
K = 117.55

VCL 46.00
K = 35.26

VCL 150.00
K = 206.69

VPOT STA 145+75.000 VPOT EL787.96
VPC STA 146+75.000 VPC EL789.23
VPI STA 147+50.000 VPI EL790.19
VPT STA 148+25.000 VPT EL791.69
VPC STA 149+59.000 VPC EL794.37
VPI STA 149+86.000 VPI EL794.91
VPT STA 150+13.000 VPT EL794.37
VPC STA 150+36.000 VPC EL793.91
VPI STA 150+59.000 VPI EL793.75
VPT STA 151+00.000 VPT EL793.47
VPC STA 151+97.966 VPC EL793.12
VPI STA 152+00.000 VPI EL792.77
VPT STA 153+00.000 VPT EL793.49
VPC STA 153+75.000 VPC EL794.04
VPI STA 154+50.000 VPI EL794.58
VPT STA 155+25.000 VPT EL796.08
VPOT STA 155+50.000 VPOT EL796.58

+1.27 %
+2.00 %
+2.00 %
-0.70 %
+0.72 %
+2.00 %

STH 164

EXISTING PROFILE ELEVATIONS
FINISHED PROFILE ELEVATIONS

787.61	788.29	788.85	789.63	790.25	790.97	791.39	791.62	792.26	793.44	792.82	792.14	792.01	792.41	792.63	793.00	793.43	794.04	794.73	795.80	796.58	797.57			
788.28	788.92	789.57	790.33	791.21	792.19	793.19	794.19	794.63	793.82	793.47	793.21	793.12	793.22	793.49	793.86	794.24	794.82	795.61	796.58					
145+50	146	146+50	147	147+50	148	148+50	149	149+50	150	150+50	151	151+50	152	152+50	153	153+50	154	154+50	155	155+50	156			

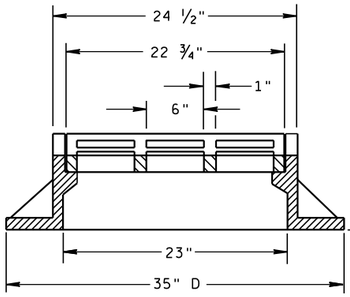
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	PLAN & PROFILE, JENSON PKWY. & COUNTY LINE RD.	SHEET	E

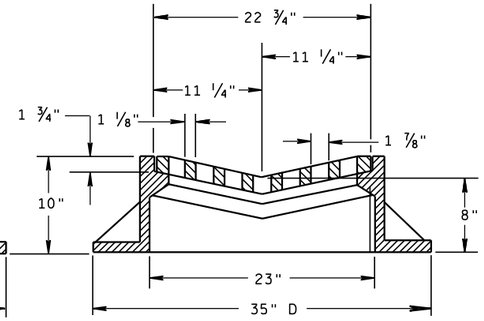
FILE NAME : t:\1102721.10\cadd\base files & sheets\050127_PP.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

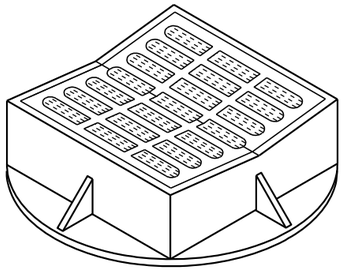
Standard Detail Drawing List

08A05-16B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-17C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-17D	INLET COVER, TYPE Z MANHOLE COVERS, TYPE K, J, J-S, J-H, J-H-S, L & M
08B06-04	MANHOLES TYPE 1
08B07-04	MANHOLES TYPE 2 & 3
08C01-05	INLETS TYPE 1, 2, 3 & 4
08C05-02	INLETS TYPE 8, 9, 10, AND 11
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-06	JOINT TIES FOR CONCRETE PIPE
08F08-01	SLOPED STEEL ENDWALLS FOR CULVERT PIPE AND PIPE ARCH CROSS DRAINS
09A01-12A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-12B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
09B02-07	CONDUIT
09B04-09	PULL BOX
09F15-03A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-03B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
14B28-02	GUARDRAIL MOW STRIP
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A03-01	MARKER POSTS, FLEXIBLE, FOR CULVERT END
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-01	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-14A	PAVEMENT MARKING (MAINLINE)
15C08-14B	PAVEMENT MARKING (INTERSECTIONS)
15C08-14E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-14F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT
15D21-01	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D29-02	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

6



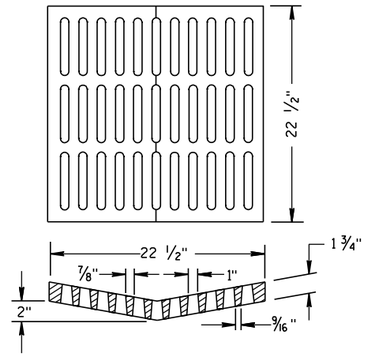




TYPE "B"

(APPROXIMATE WEIGHT 395 LBS.)

FRAME..... 285 LBS.
GRATE..... 110 LBS.

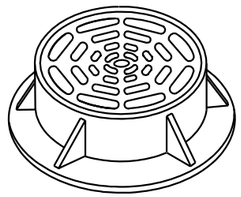


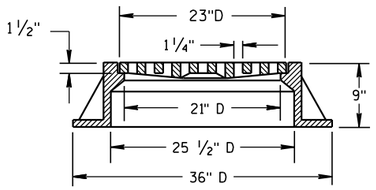
ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 125 LBS.)
GRATE.....125 LBS.

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE





TYPE "C"

(APPROXIMATE WEIGHT 340 LBS.)

FRAME..... 235 LBS.
GRATE..... 105 LBS.

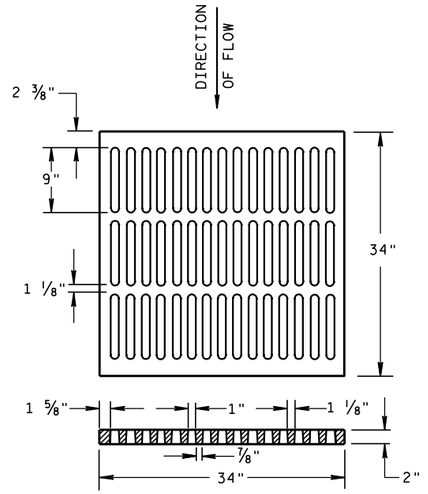
GENERAL NOTES

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

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

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

THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

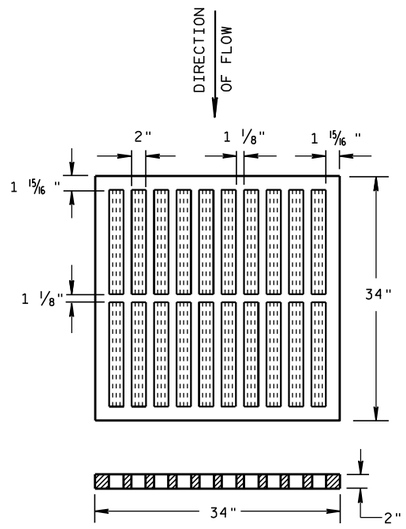


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 365 LBS.)
GRATE.....365 LBS.

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

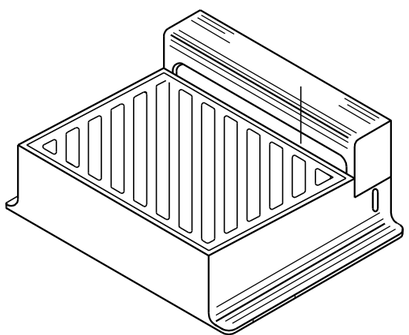


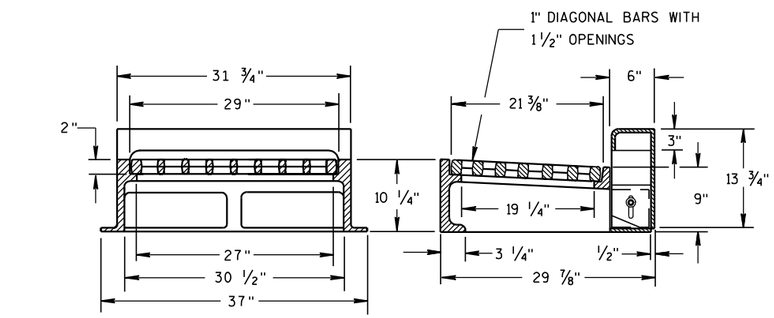
TYPE "MS"

(APPROXIMATE GRATE WEIGHT 270 LBS.)
GRATE.....270 LBS.

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE





NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

DIRECTION OF FLOW

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

TYPE "WM"

(APPROXIMATE WEIGHT 670 LBS.)

FRAME..... 360 LBS.
GRATE..... 160 LBS.
CURB BOX..... 150 LBS.

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

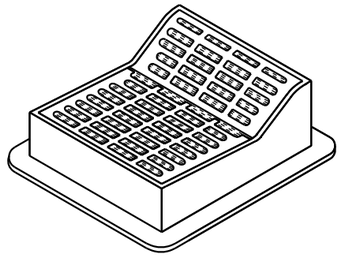
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

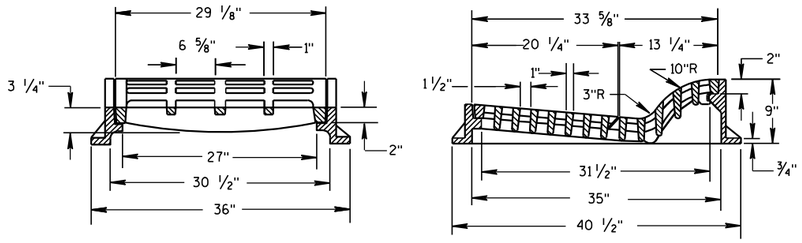
APPROVED

10/4/1999
DATE

/S/ Rory L. Rhinesmith
CHEIF ROADWAY DEVELOPMENT ENGINEER

FHWA



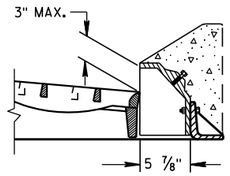


TYPE "F"

(APPROXIMATE WEIGHT 645 LBS.)

FRAME.....300 LBS.
GRATE..... 165 LBS.
GRATE..... 180 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT 79 LBS.)
CURB BOX.....79 LBS.

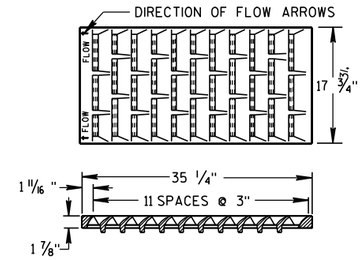
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

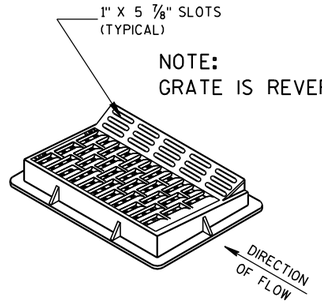
GENERAL NOTES

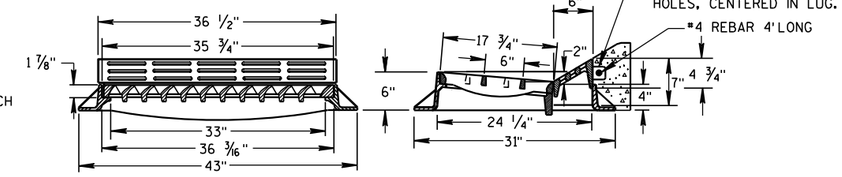
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.







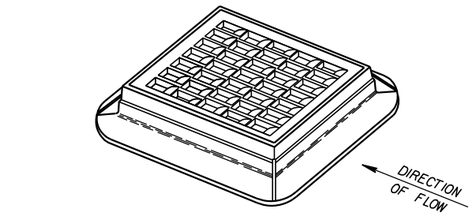
TYPE "HM"

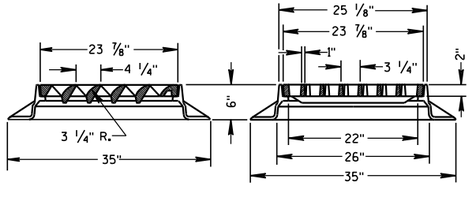
(APPROXIMATE WEIGHT 375 LBS.)
FRAME.....175 LBS.
GRATE..... 138 LBS.
CURB BOX..... 62 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

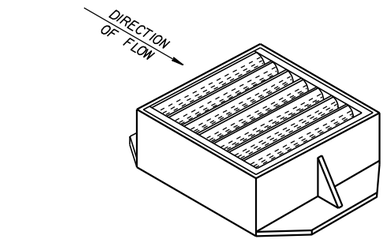


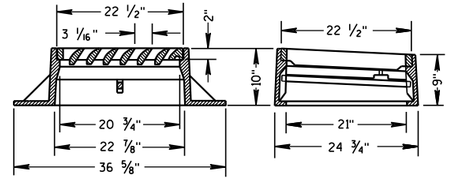


TYPE "S"

(APPROXIMATE WEIGHT 334 LBS.)

FRAME.....165 LBS.
GRATE..... 169 LBS.

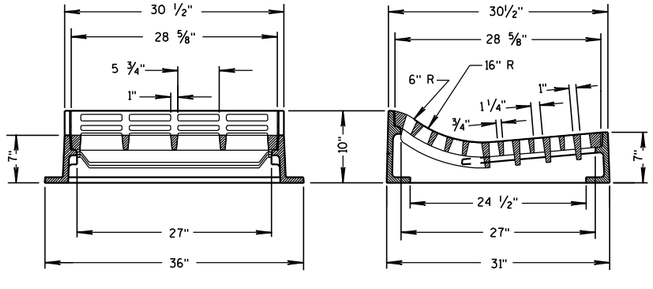


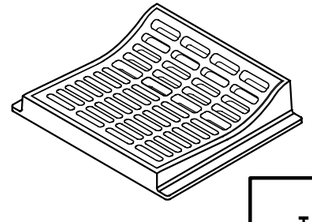


TYPE "V"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 270 LBS.
GRATE..... 130 LBS.
SAFETY BAR..... 5 LBS.





TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)
FRAME.....270 LBS.
GRATE.....260 LBS.
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/7/08 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS DEVELOPMENT ENGINEER

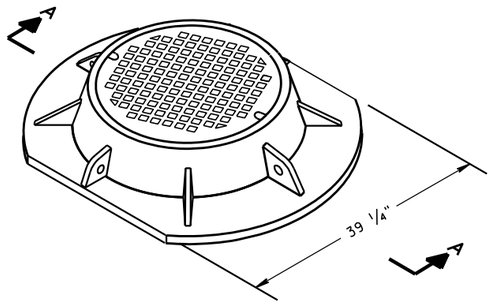
FHWA

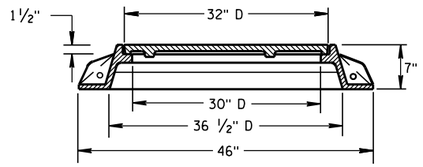
6

S.D.D. 8 A 5-17c

6

S.D.D. 8 A 5-17c



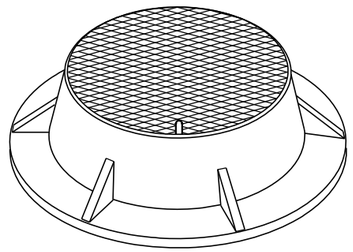


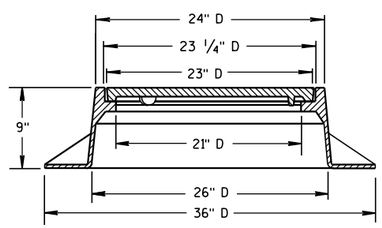
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 415 LBS.)

FRAME.....210 LBS.
LID.....205 LBS.

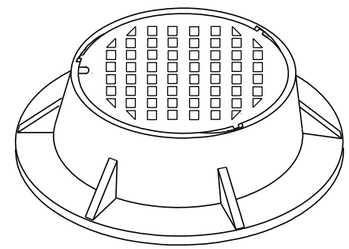


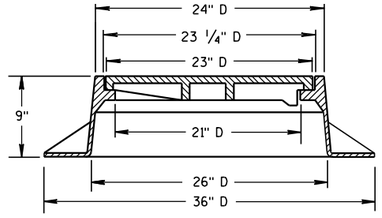


TYPE "J"

(APPROXIMATE WEIGHT 250 LBS.)

FRAME.....135 LBS.
LID.....115 LBS.





TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 245 LBS.)

FRAME.....145 LBS.
LID.....100 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

GENERAL NOTES

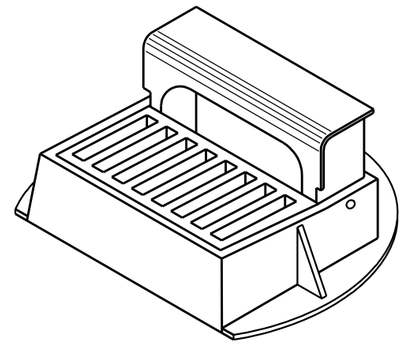
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

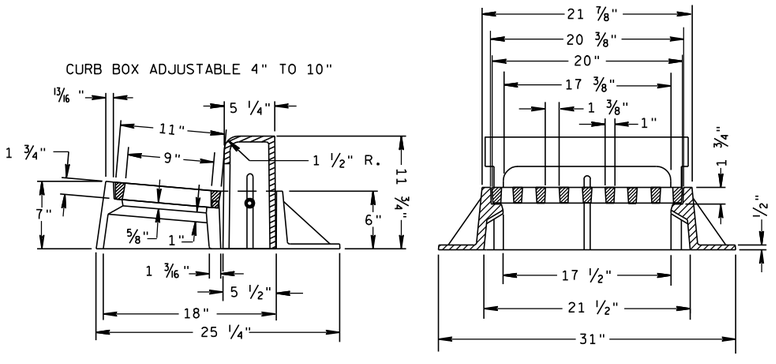
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

(1) MANUFACTURER MAY PROVIDE ADDITIONAL SEALS OR GASKETS.

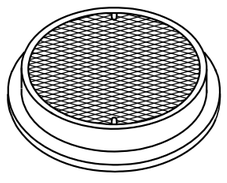


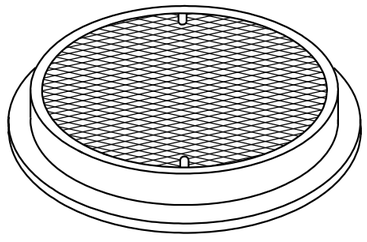


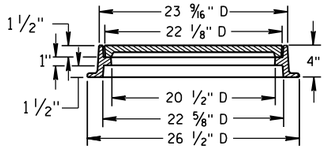
INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 340 LBS.)

FRAME.....198 LBS.
GRATE.....50 LBS.
CURB BOX.....92 LBS.



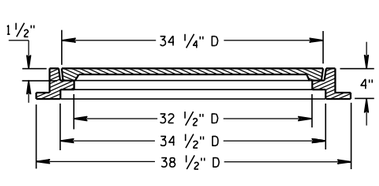




TYPE "L"

(APPROXIMATE WEIGHT 145 LBS.)

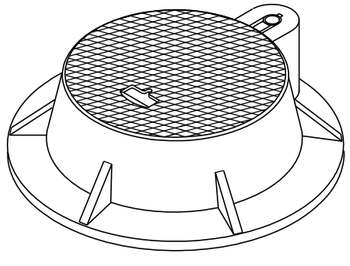
FRAME.....75*
LID.....70*

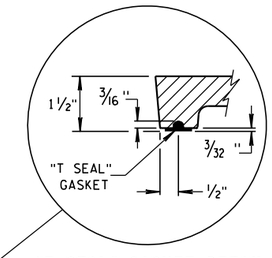


TYPE "M"

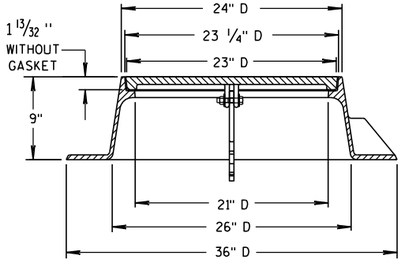
(APPROXIMATE WEIGHT 385 LBS.)

FRAME..... 125*
LID..... 260*





"T SEAL" GASKET DETAIL



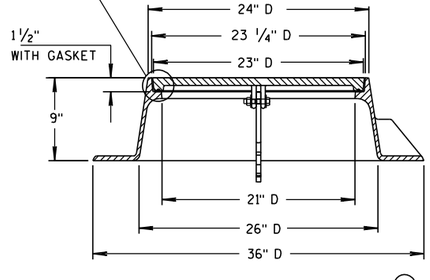
TYPE "J" HINGED

LID WITHOUT "T SEAL" GASKET

(APPROXIMATE WEIGHT 310 LBS.)

FRAME.....190 LBS.
LID.....120 LBS.

(NOTED AS TYPE J-H ON THE DRAINAGE TABLE)



TYPE "J" HINGED-SPECIAL (1)

LID WITH "T SEAL" GASKET

(APPROXIMATE WEIGHT 310 LBS.)

FRAME.....190 LBS.
LID.....120 LBS.

(NOTED AS TYPE J-S-H ON THE DRAINAGE TABLE)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/24/2005 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

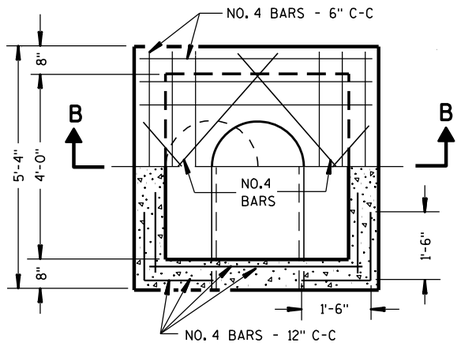
FHWA

6

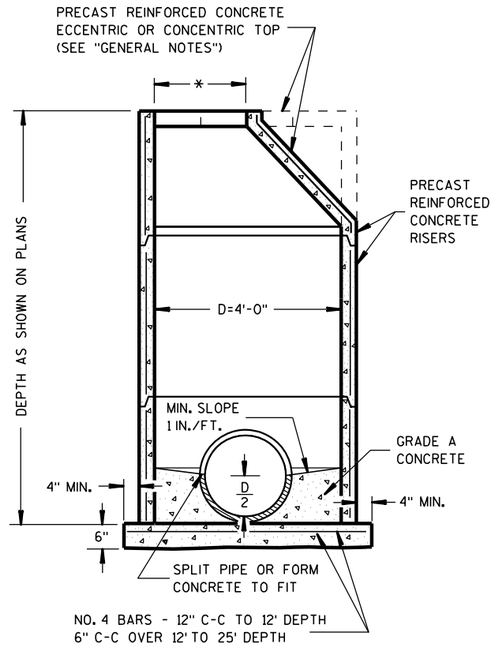
S.D.D. 8 A 5-17d

6

S.D.D. 8 A 5-17d



HALF SECTION A-A



PRECAST REINFORCED CONCRETE

GENERAL NOTES

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

DETAILED DRAWINGS 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 1-C", "CATCH BASINS 1-B", "INLETS 3-H", ETC. THE FIRST DIGIT DESIGNATES THE MASONRY PORTION OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

PRECAST REINFORCED 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) 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 CONFORMING TO AASHTO M 199 SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH.

SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT.

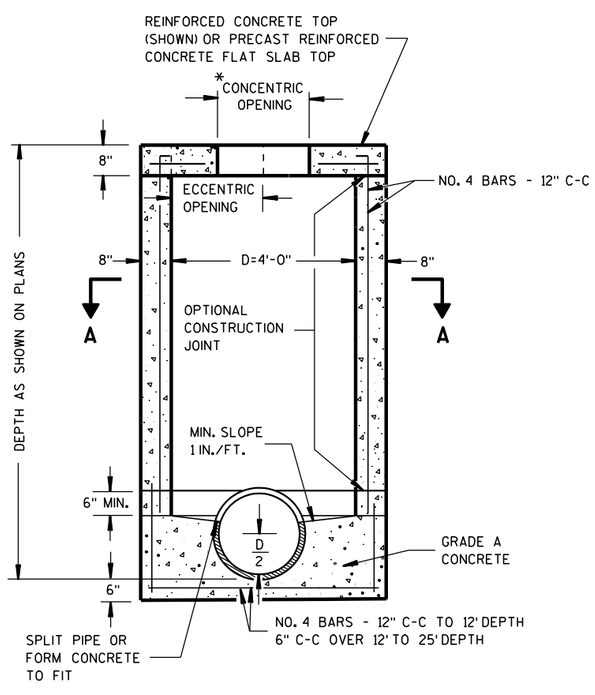
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED CONCRETE RISERS MAY BE PLACED WITH TONGUE UP OR DOWN.

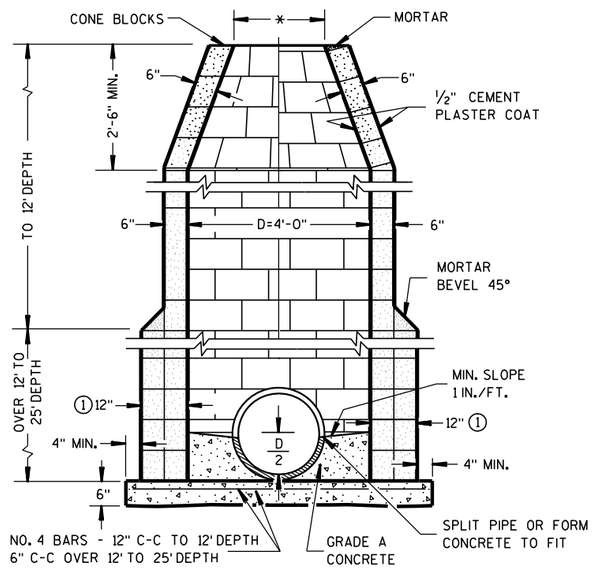
ALL PRECAST INLET UNITS AND MANHOLES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

* USE 2'-0" DIAMETER OPENING WITH TYPE "C", "L" AND "J" COVERS, OR 3'-0" DIAMETER WITH TYPE "K" AND "M" COVERS.

① 2 COURSES 6" BLOCK.



SECTION B-B
REINFORCED CONCRETE



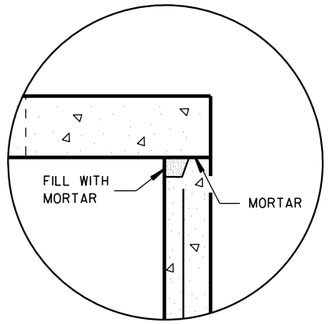
CONCRETE BLOCK

MANHOLES TYPE 1

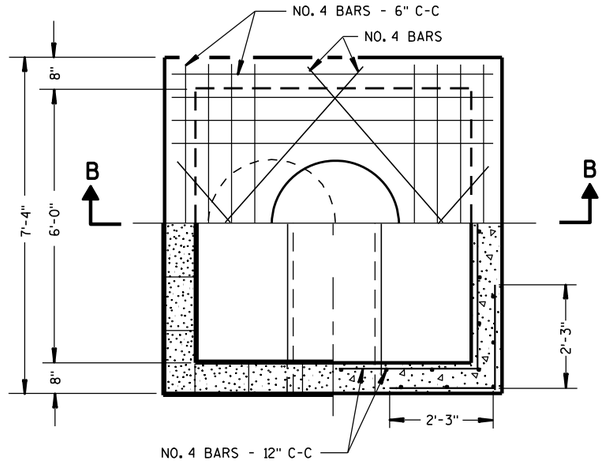
MANHOLES TYPE 1	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9/9/05 DATE FHWA	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER

6

S.D.D. 8 B 6-4



DETAIL "A"



HALF 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.

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 1-C", "CATCH BASINS 1-B", "INLETS 3-H", ETC. THE FIRST DIGIT DESIGNATES THE MASONRY PORTION OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

PRECAST REINFORCED 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.

STEPS CONFORMING TO AASHTO M 199 SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH.

SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT.

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

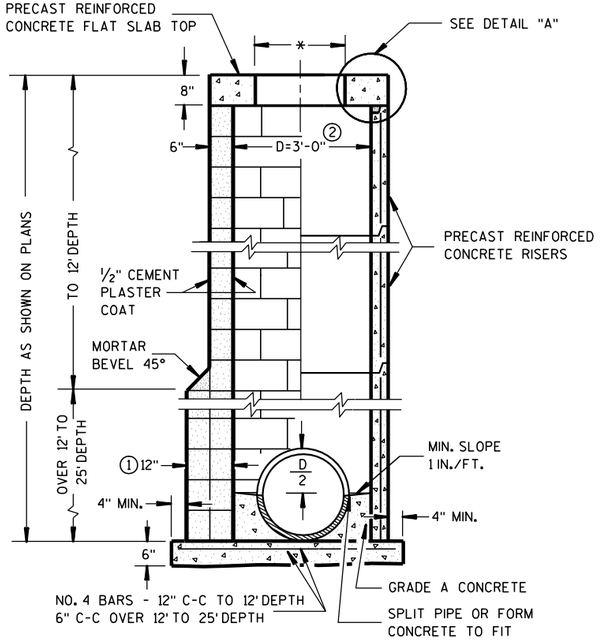
PRECAST REINFORCED CONCRETE RISERS MAY BE PLACED WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS AND MANHOLES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

* USE 2'-0" DIAMETER OPENING WITH TYPE "C", "L" AND "J" COVERS, OR 3'-0" DIAMETER WITH TYPE "K" AND "M" COVERS.

(1) 2 COURSES 6" BLOCK.

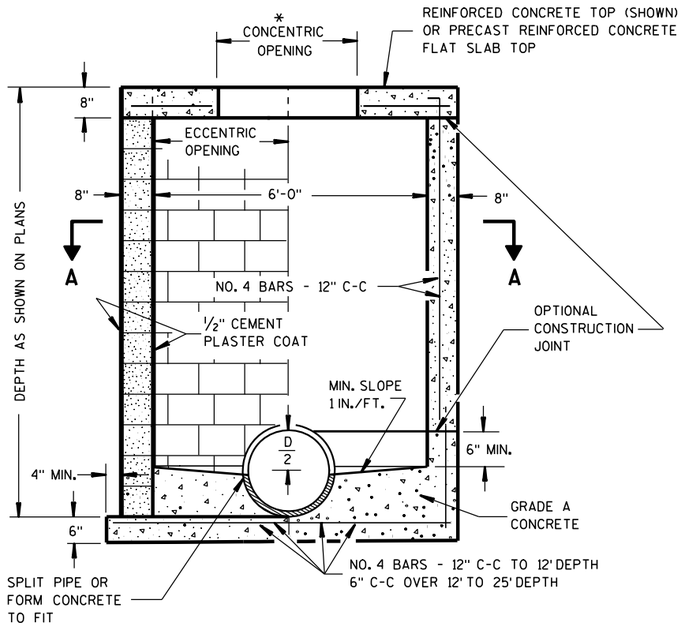
(2) WHEN CONNECTING PIPES ARE 24" OR LARGER THE PRECAST MANHOLES MAY BE INCREASED TO 42" DIAMETER.



(1) CONCRETE BLOCK

(2) PRECAST REINFORCED CONCRETE

MANHOLES TYPE 2

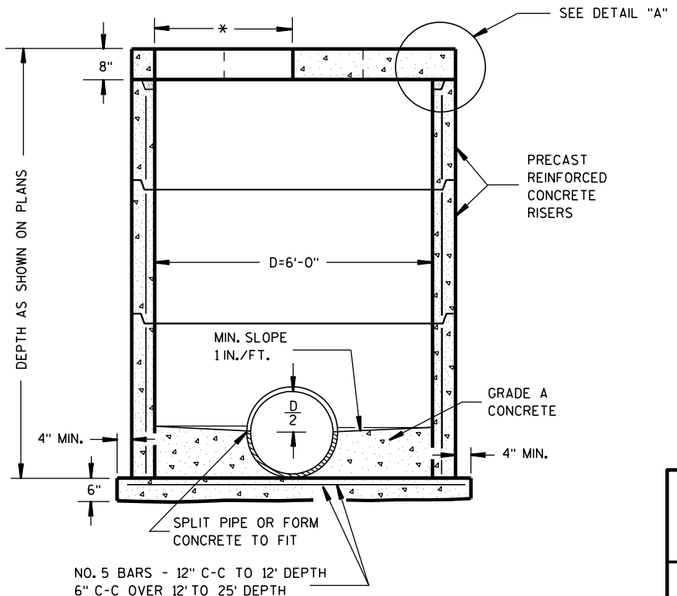


SECTION B-B

CONCRETE BLOCK

REINFORCED CONCRETE

MANHOLES TYPE 3



PRECAST REINFORCED CONCRETE

MANHOLES TYPE 2 & 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

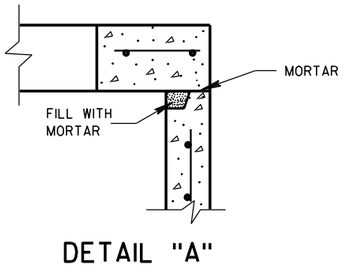
9/9/05 DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

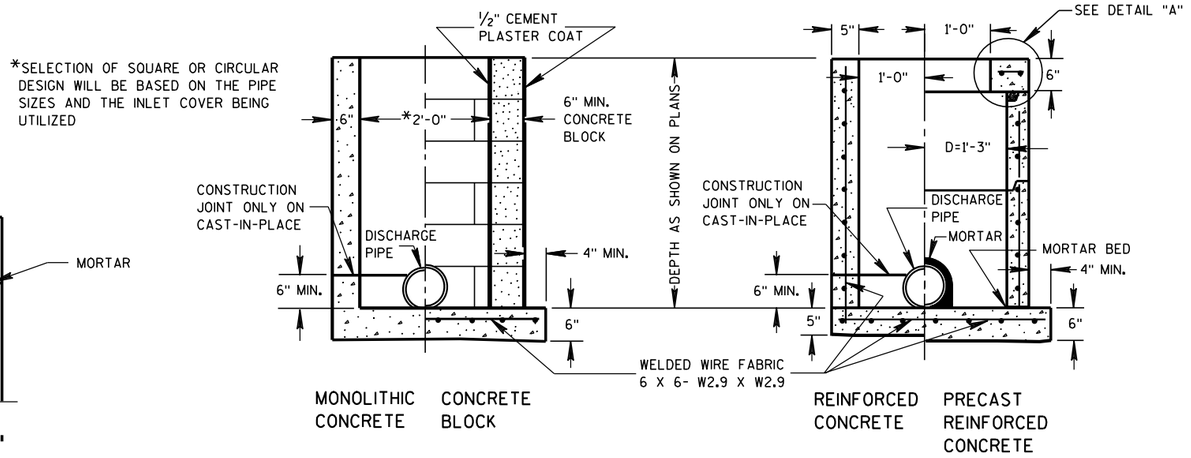
FHWA

6

S.D.D. 8 B 7-4



DETAIL "A"



INLETS TYPE 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.

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 AASHTO DESIGNATION M 199.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 1-C", "CATCH BASINS 1-B", "INLETS 3-H", ETC. THE FIRST DIGIT DESIGNATES THE MASONRY PORTION OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

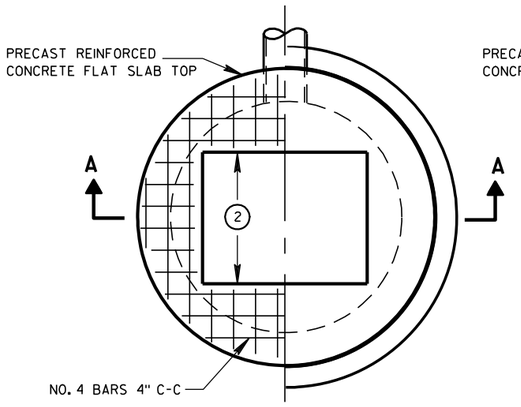
PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

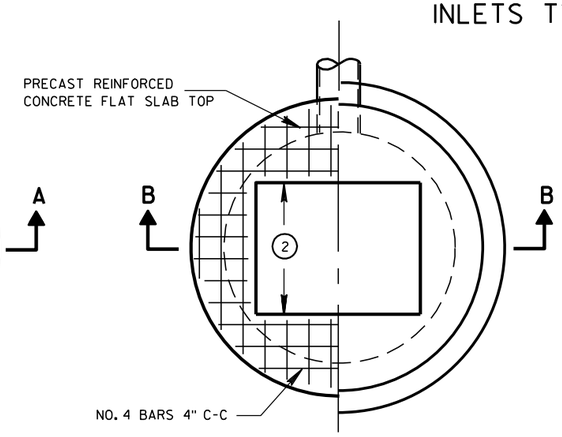
PRECAST REINFORCED CONCRETE RISERS SHALL BE PLACED WITH TONGUE DOWN.

(1) USE 2'-6" OPENING FOR TYPE 2 INLETS, 3'-0" OPENING FOR TYPE 3 INLETS, AND 2'-11" FOR TYPE 4 INLETS.

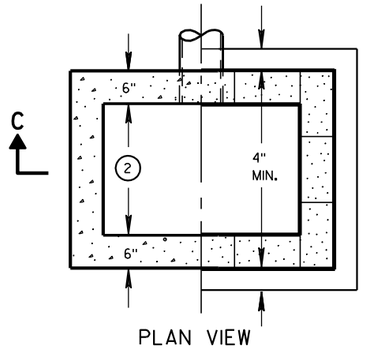
(2) USE 2'-0" OPENING FOR TYPE 1, 2 & 3 INLETS, 2'-6 1/2" OPENING FOR TYPE 4 INLETS.



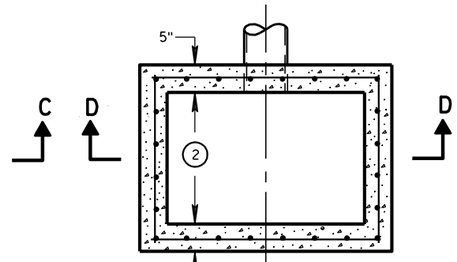
PLAN VIEW



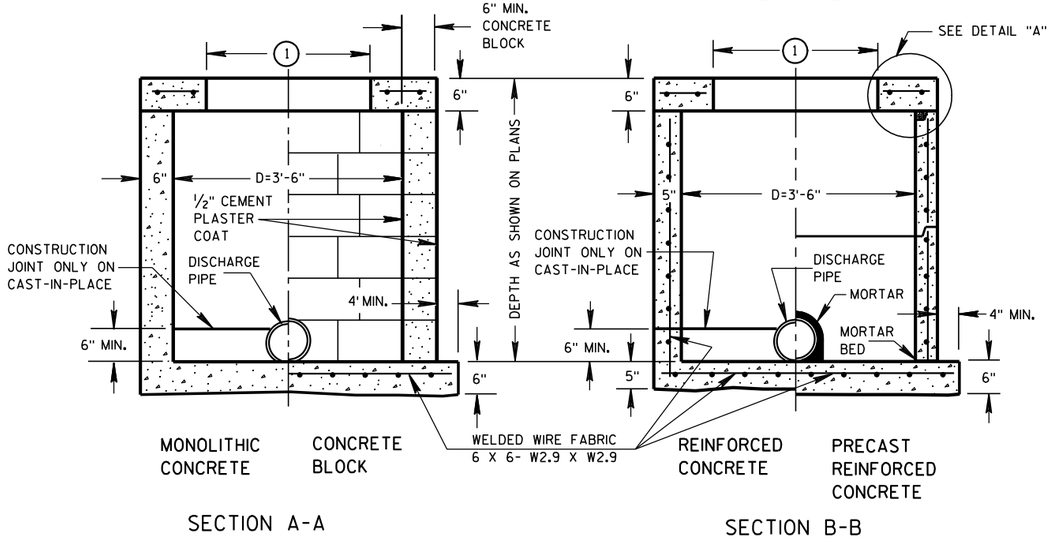
PLAN VIEW



PLAN VIEW

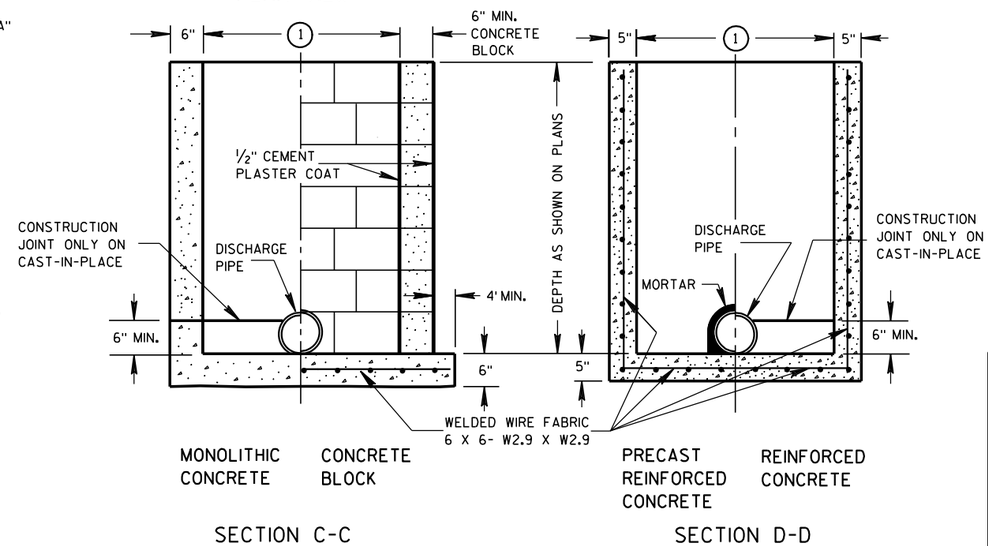


PLAN VIEW



SECTION A-A

SECTION B-B



SECTION C-C

SECTION D-D

INLETS TYPE 2, 3 & 4

INLETS TYPE 1, 2, 3 & 4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

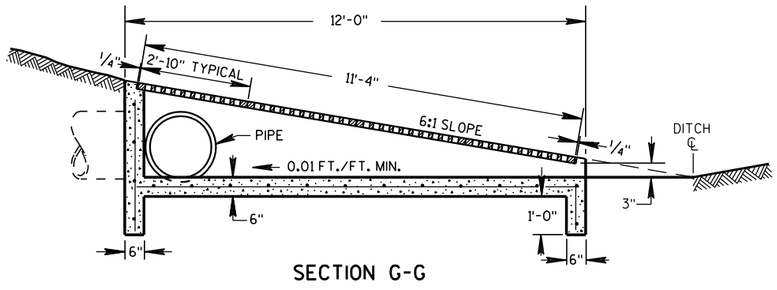
1/31/95
DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

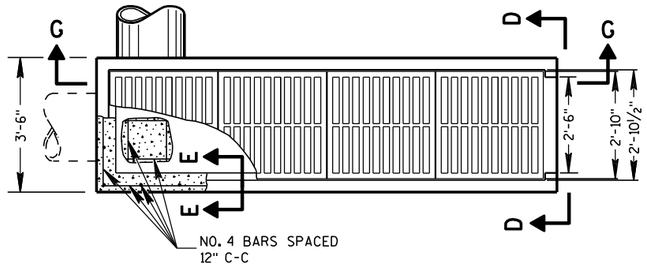
FHWA

6

S.D.D. 8 C 1-5

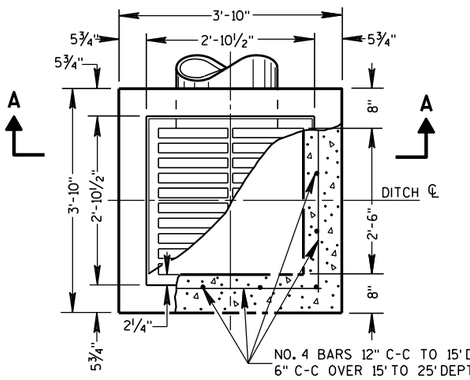


SECTION G-G

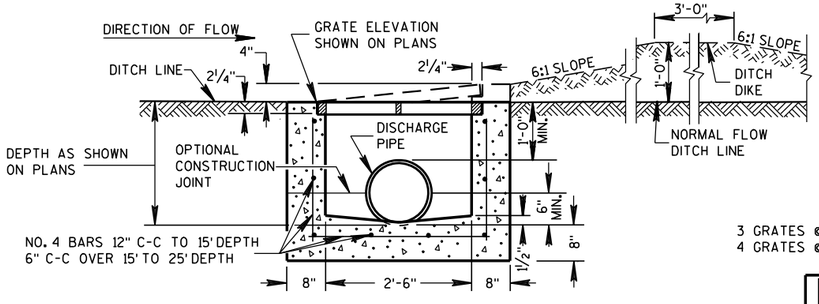


PLAN VIEW

REINFORCED CONCRETE INLET TYPE 11

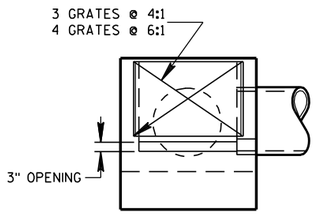


PLAN VIEW



SECTION A-A

REINFORCED CONCRETE INLET TYPE 8



SECTION D-D

GENERAL NOTES

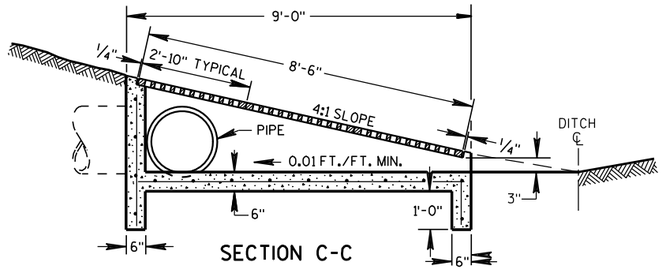
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

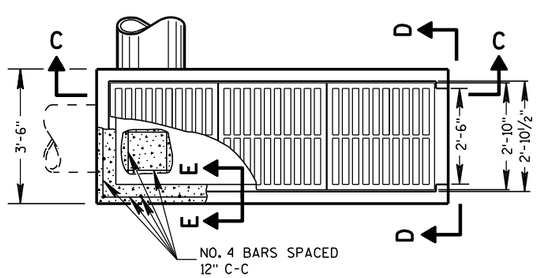
PRECAST REINFORCED CONCRETE INLET UNITS, IF USED, SHALL CONFORM TO THE REQUIREMENTS OF THE CATCH BASINS, MANHOLES AND INLETS SECTION OF THE STANDARD SPECIFICATIONS. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A CORRECTED LIST OF SIZES IS FURNISHED BY THE ENGINEER.

ALL INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 8-MS", ETC. THIS DESIGNATION IS INTERPRETED TO MEAN THAT THE NUMBER, OR FIRST DIGIT DESIGNATES THE MASONRY PORTION OF THE STRUCTURE AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER OR IRON CASTING TO BE USED THEREWITH TO COMPRISE THE COMPLETE UNIT.

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

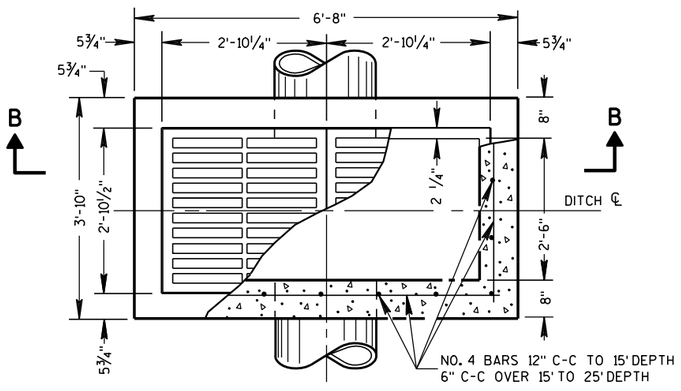


SECTION C-C

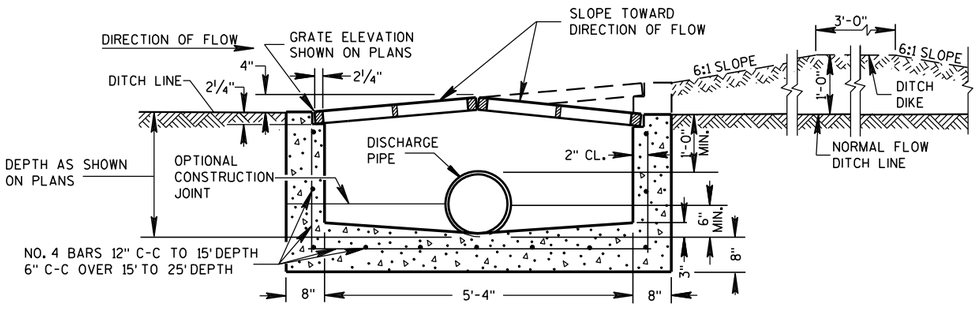


PLAN VIEW

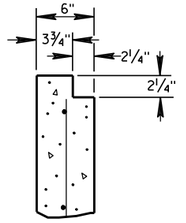
REINFORCED CONCRETE INLET TYPE 10



PLAN VIEW



SECTION B-B



SECTION E-E

REINFORCED CONCRETE INLET TYPE 9

INLETS TYPE 8, 9, 10 & 11

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/10/94 DATE
/S/ Rory L. Rhin[illegible] CHIEF ROADWAY DEVELC 194 IGINEER
FHWA

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S.D.D. 8 C 5-2

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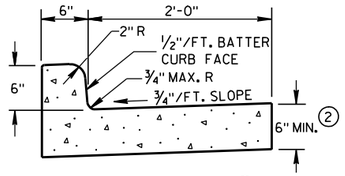
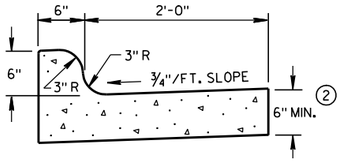
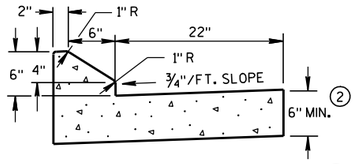
S.D.D. 8 C 5-2



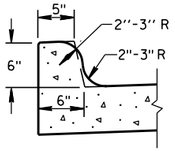
TYPES A & D (1)



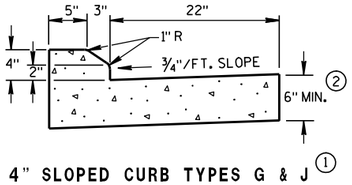
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

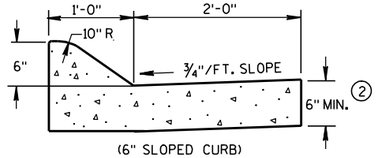


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

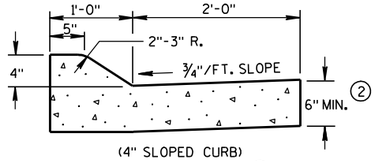


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

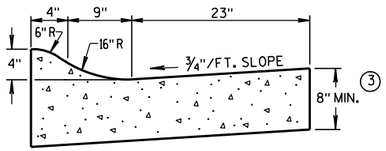


(6" SLOPED CURB)



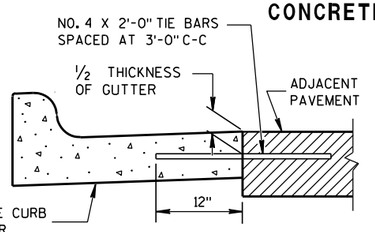
(4" SLOPED CURB)

TYPES A & D (1)

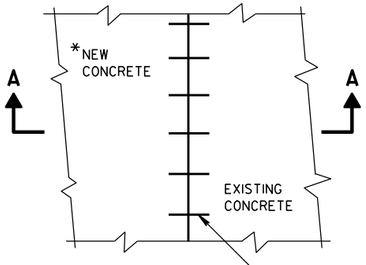


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

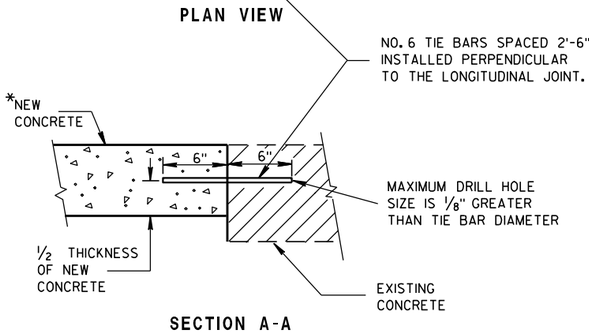


TYPICAL TIE BAR LOCATION (1)



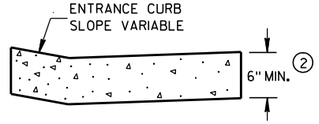
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW

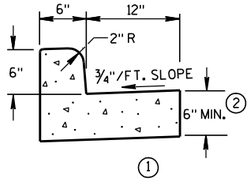


SECTION A-A

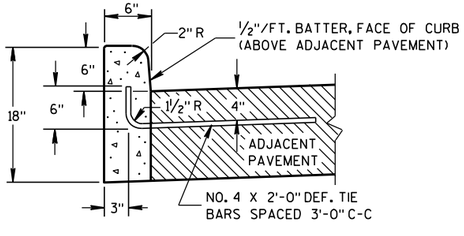
TIE BARS DRILLED INTO EXISTING PAVEMENT



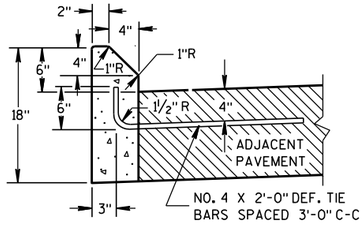
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



(1)
TYPES A & D
CONCRETE CURB & GUTTER 18"



(1)
TYPES A & D



(1)
TYPES G & J

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.

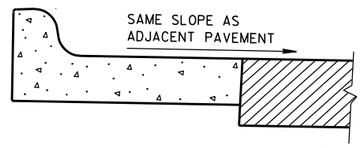
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

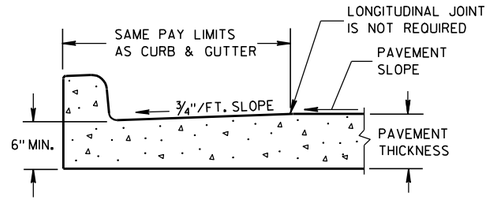
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

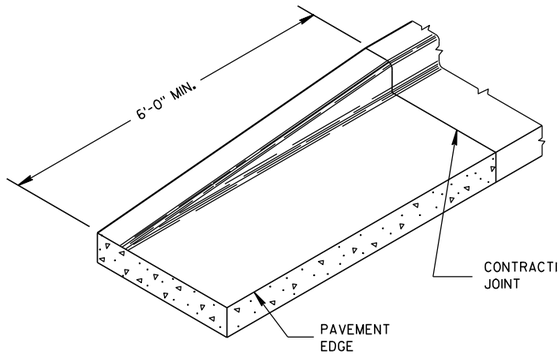
(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



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

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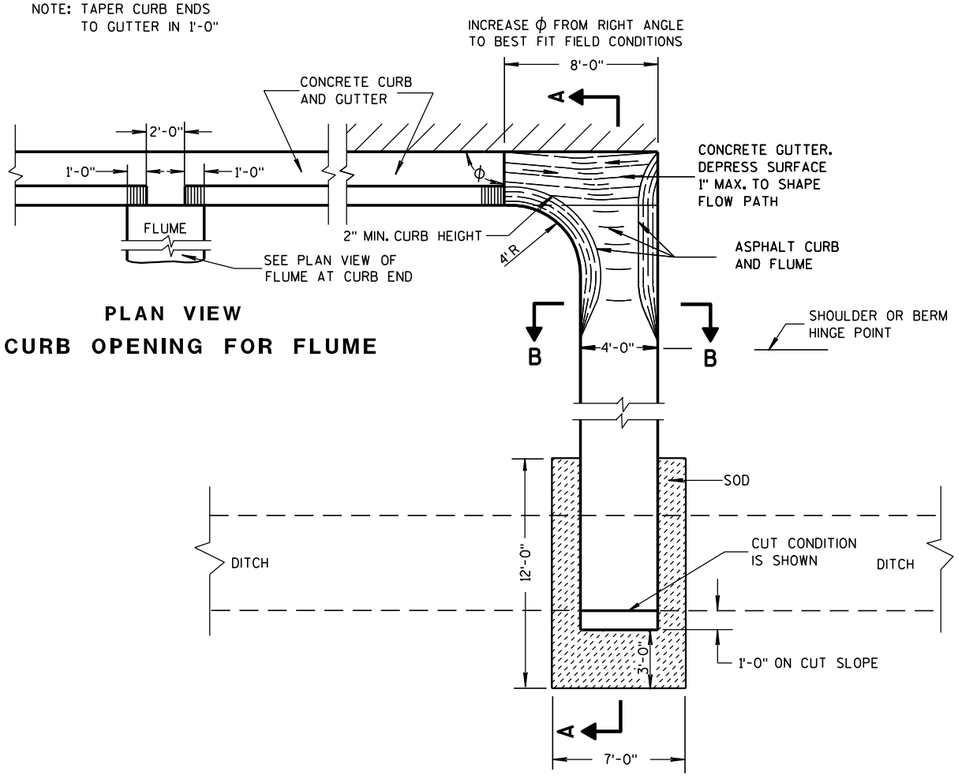
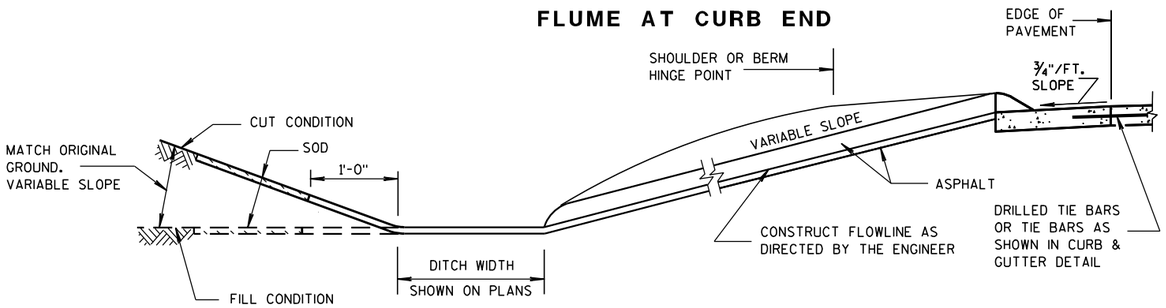
S.D.D. 8 D 1-17

ASPHALTIC FLUME

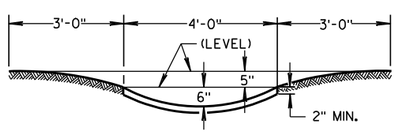


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

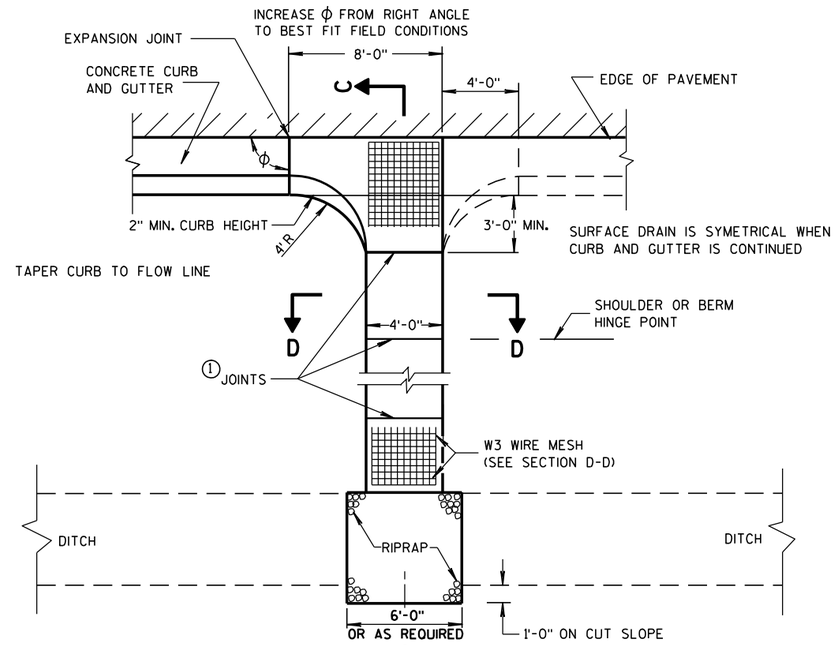
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

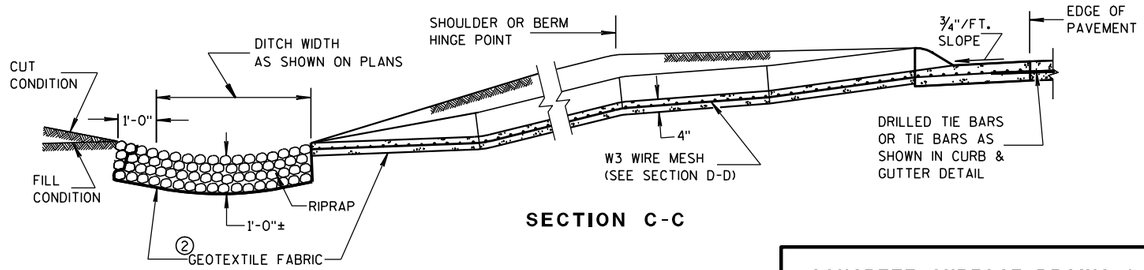
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

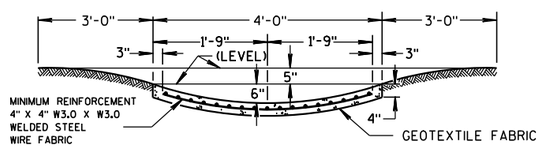
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
196
[illegible]MENT
FHWA

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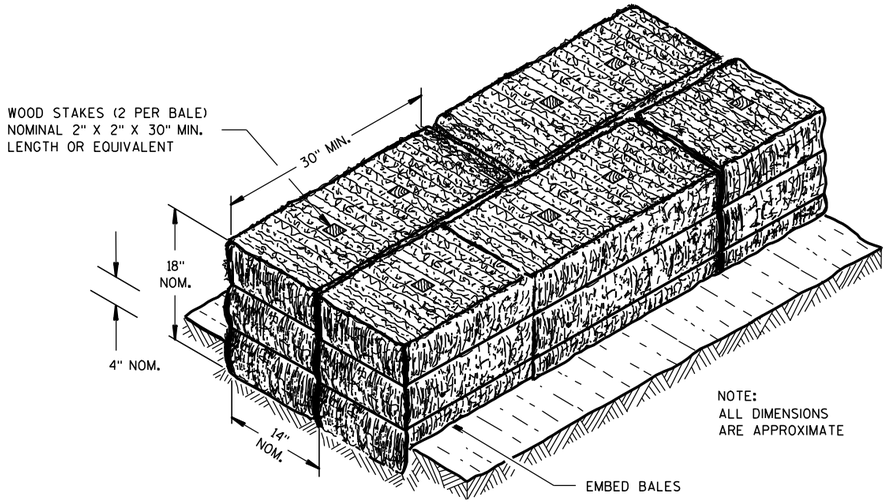
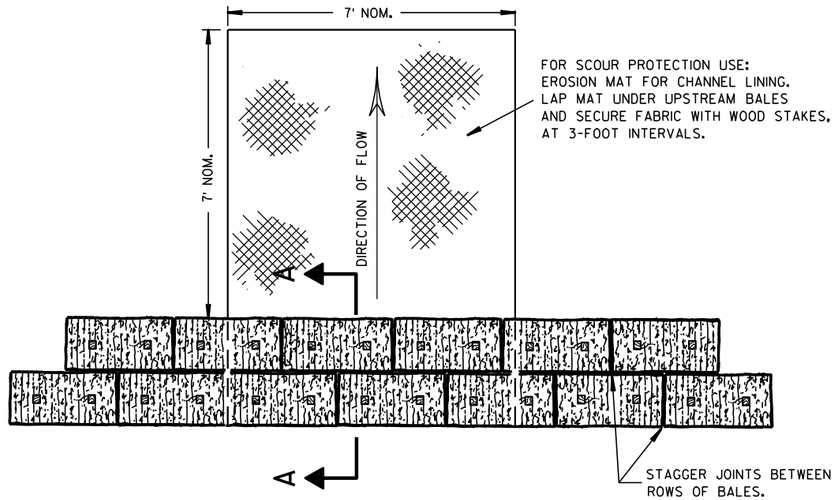
S.D.D. 8 D 4-5

6

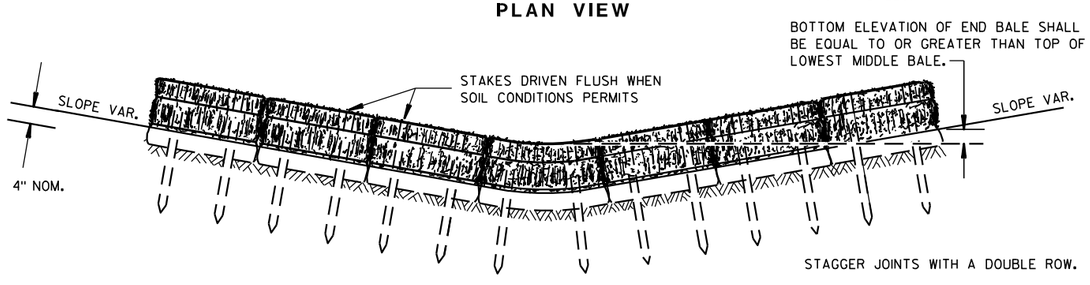
S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



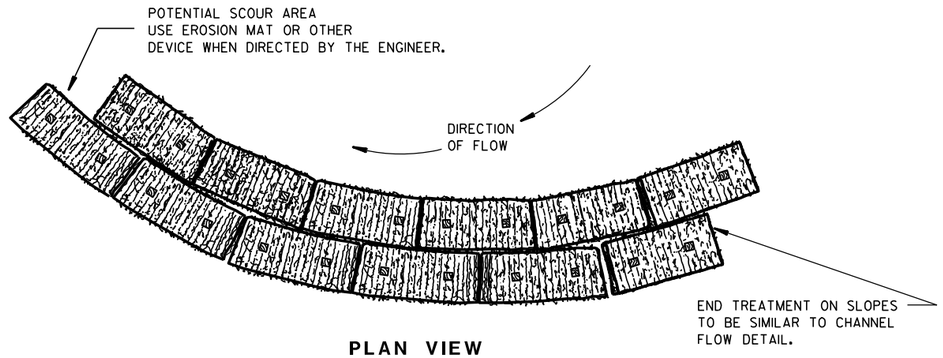
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

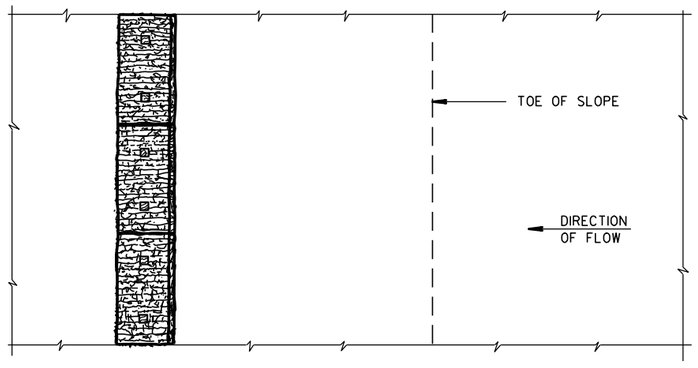
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

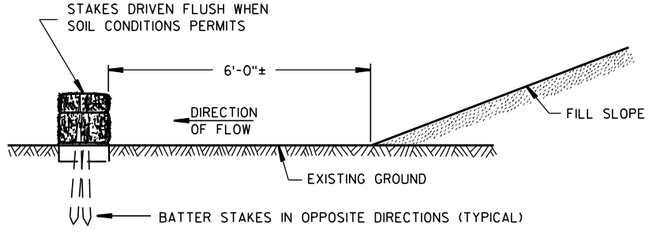


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

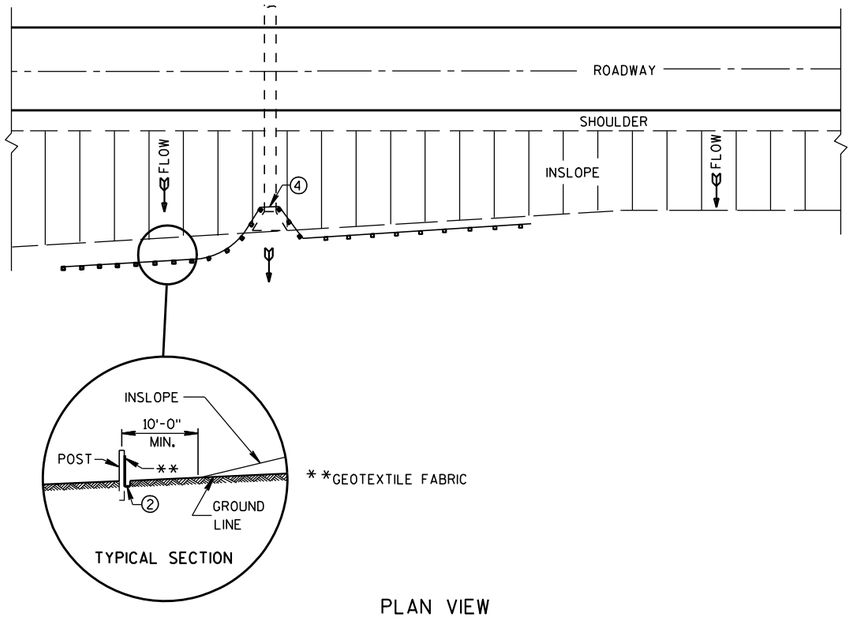
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

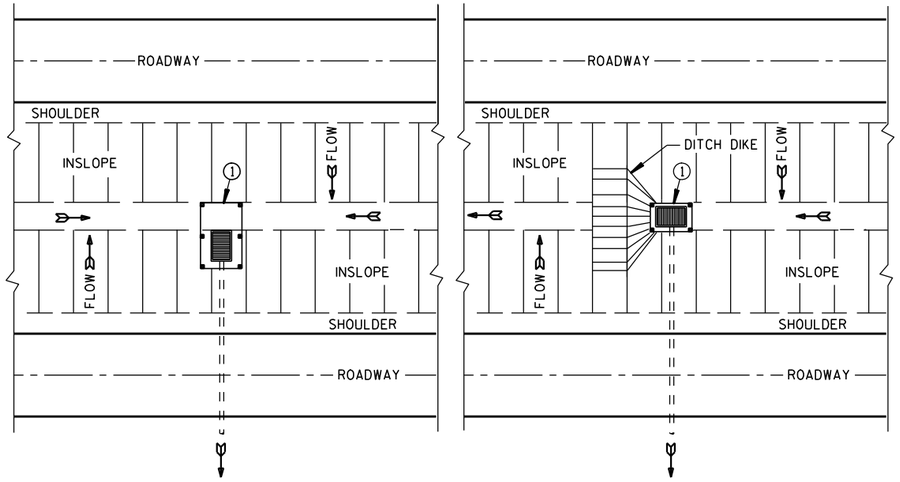
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

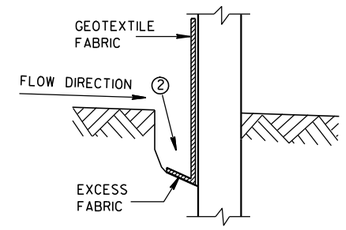
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

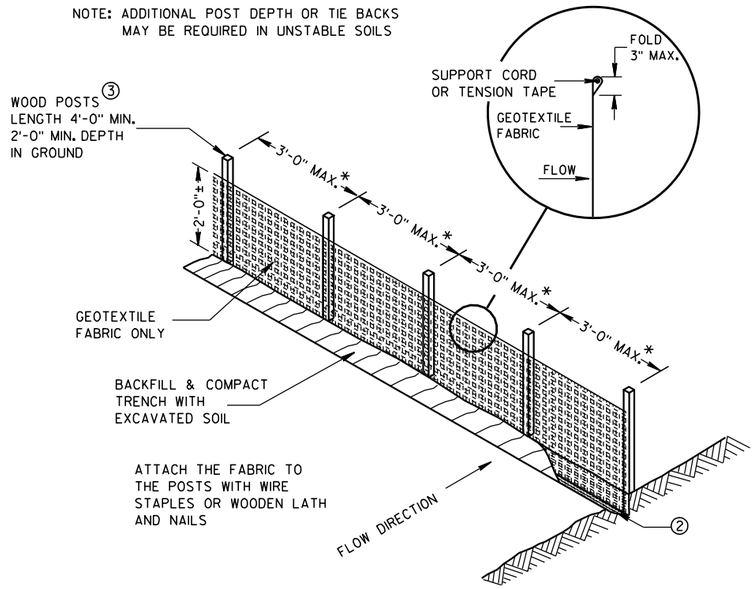
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

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

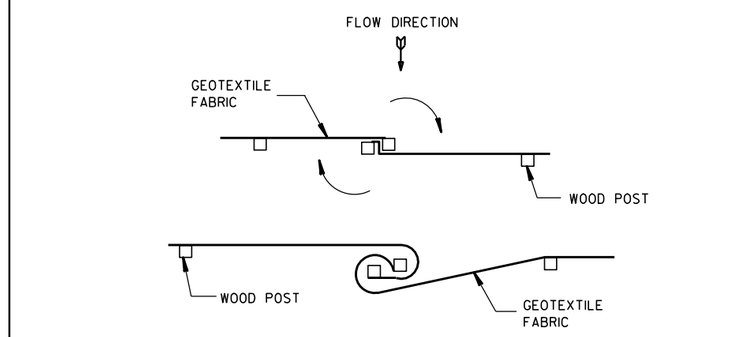


TRENCH DETAIL

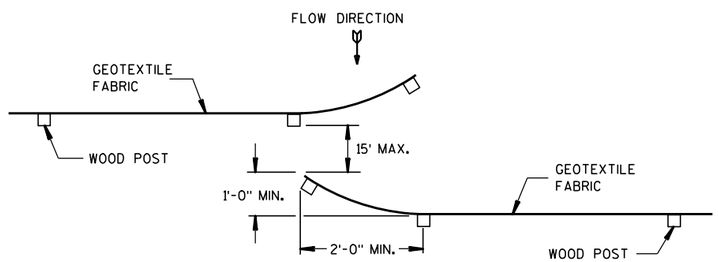


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

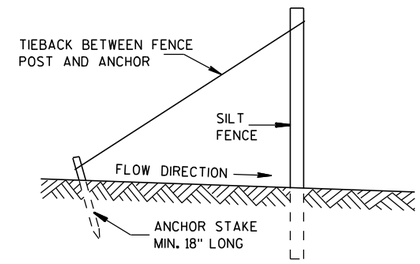


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

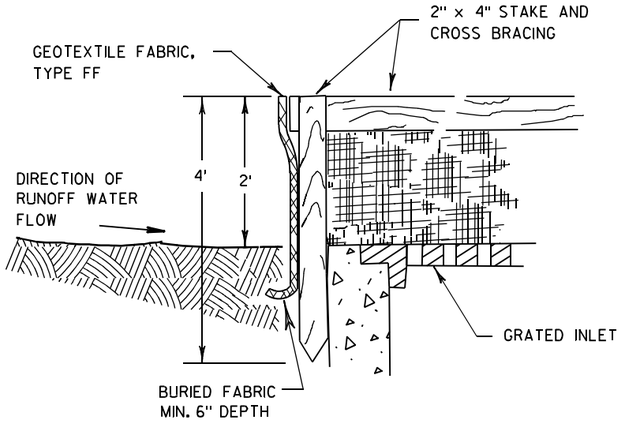
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

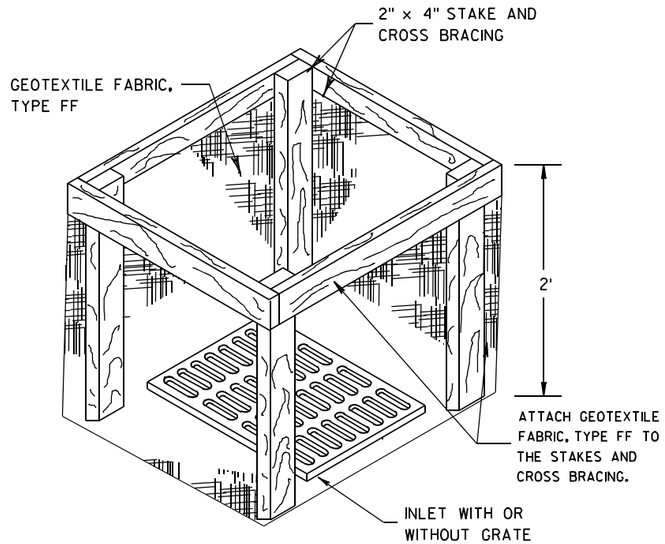
6

S.D.D. 8 E 9-6

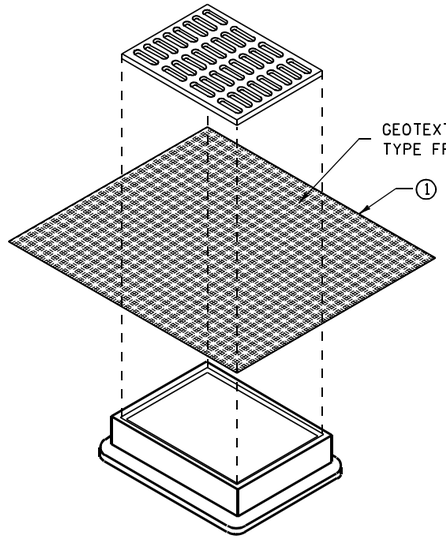
6

S.D.D. 8 E 9-6



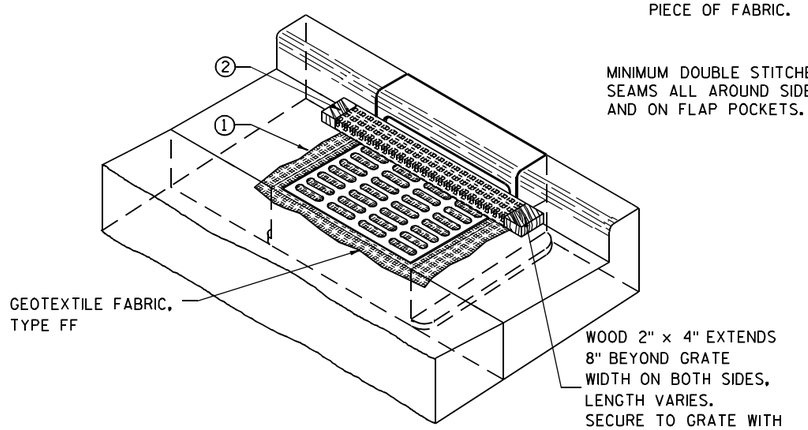


INLET PROTECTION, TYPE A

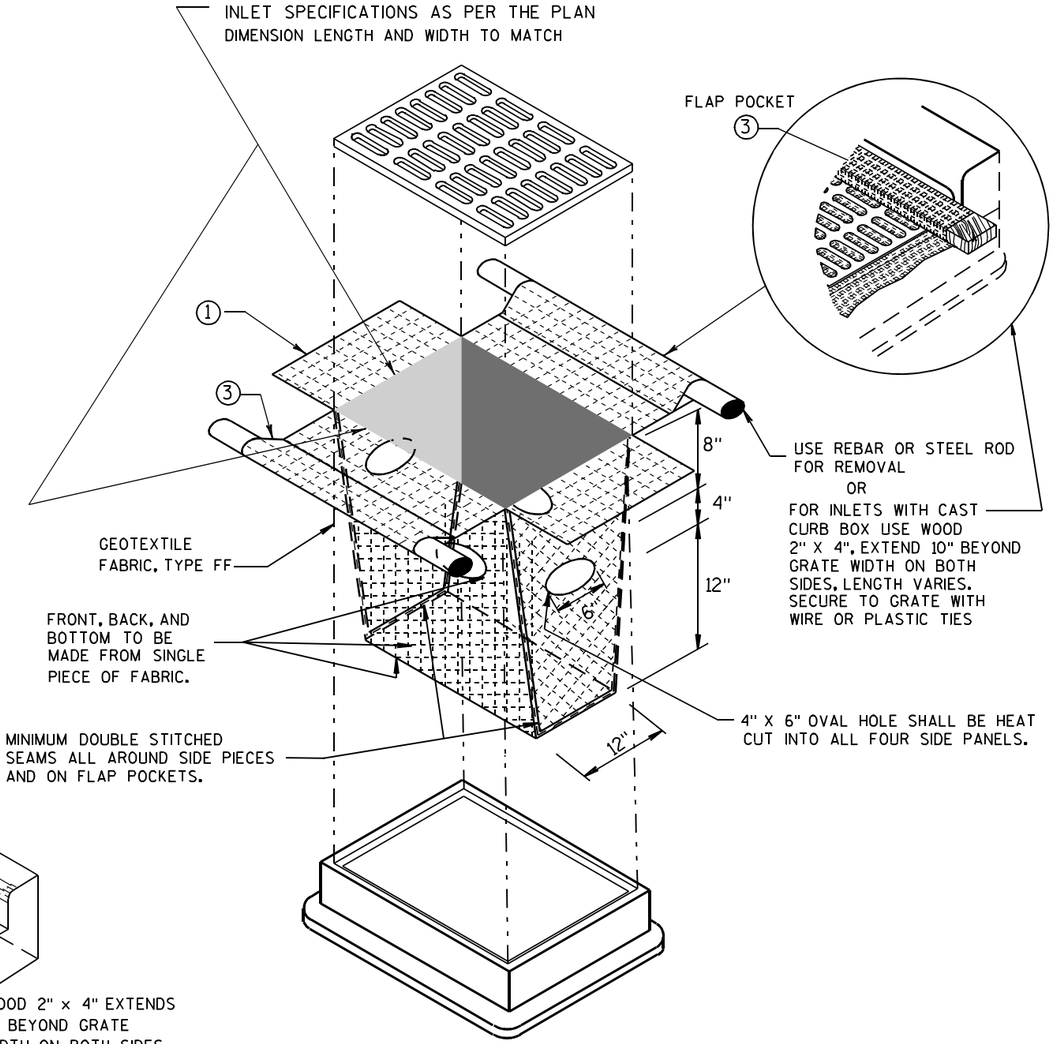


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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.

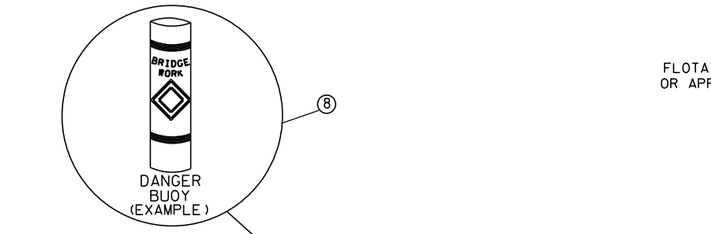
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

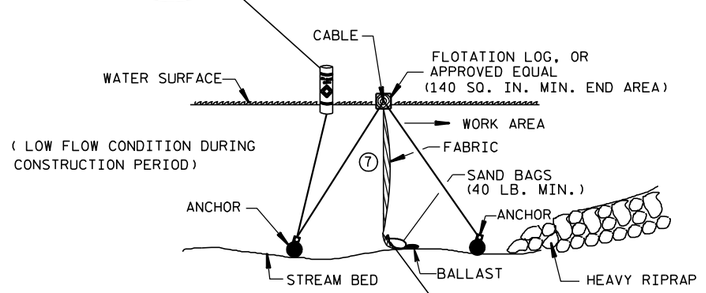
INLET PROTECTION
TYPE A, B, C, AND D

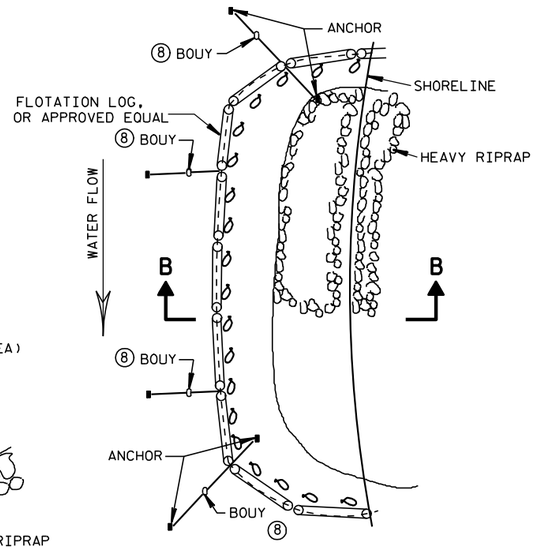
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

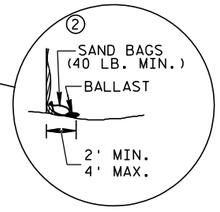
6
S.D.D. 8 E 10-2



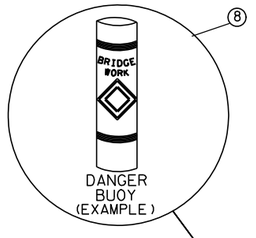


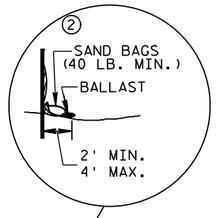


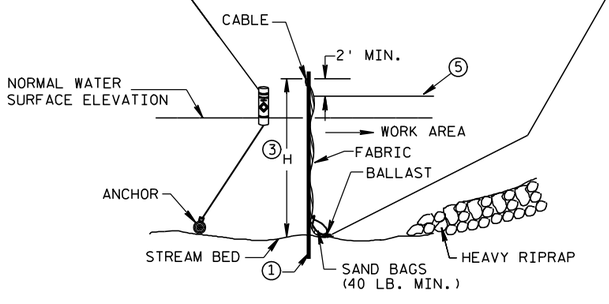
SECTION B-B



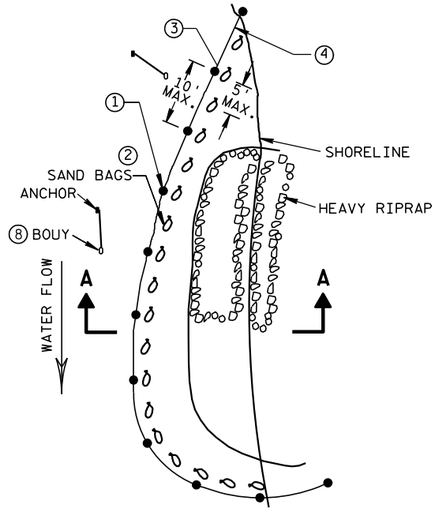
TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6







SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

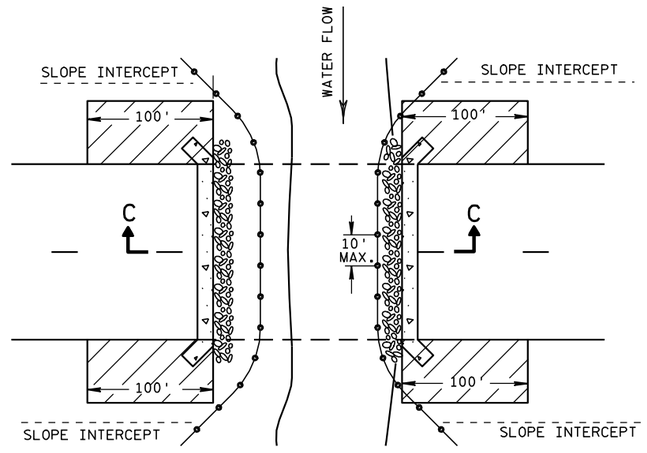
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

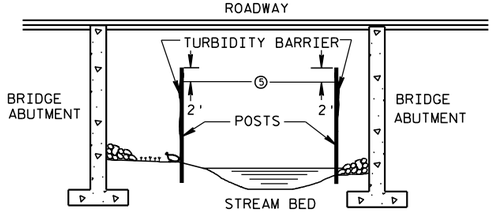
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

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 11-2

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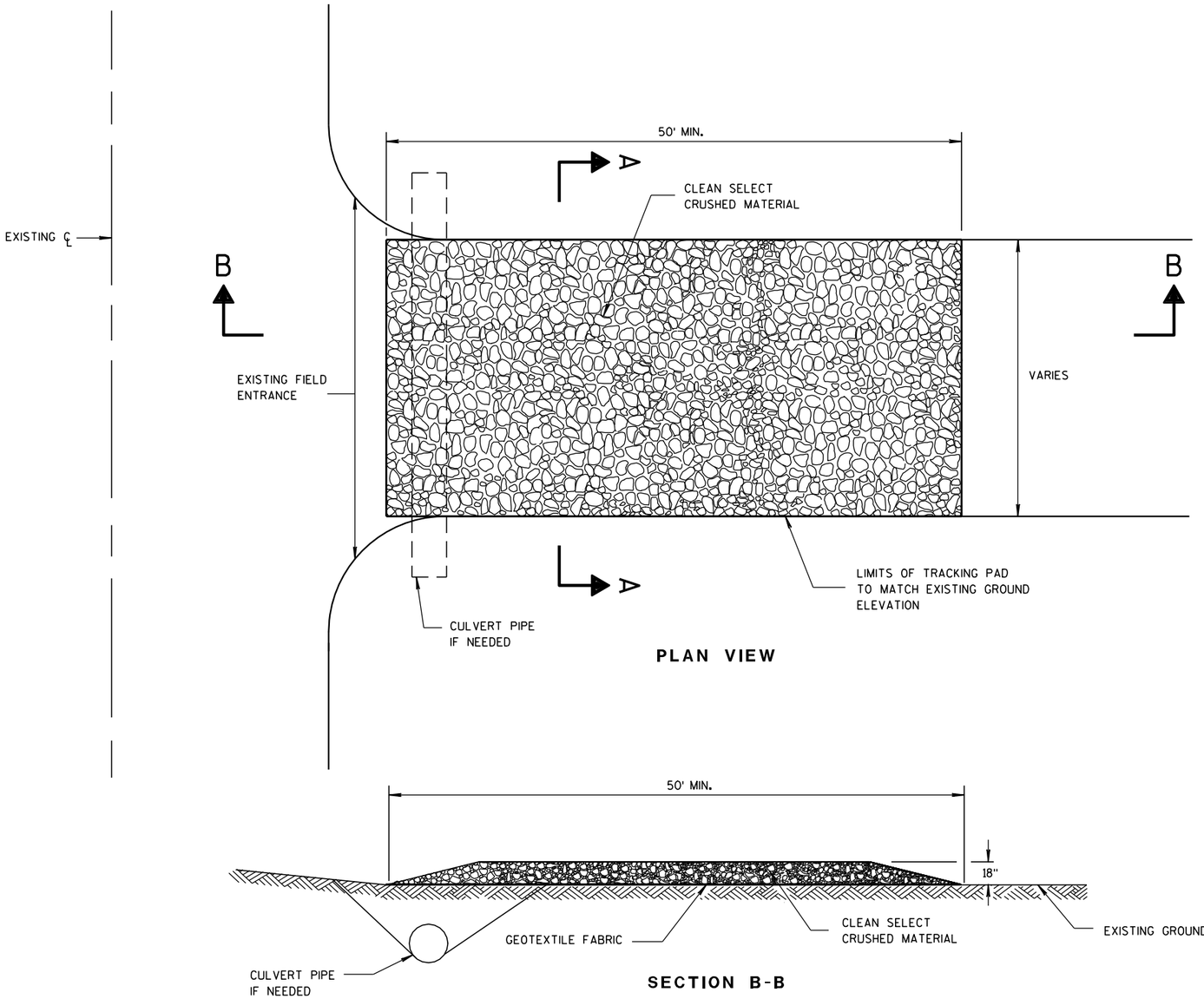
S.D.D. 8 E 11-2



PLAN VIEW

SECTION B-B

GENERAL NOTES

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

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

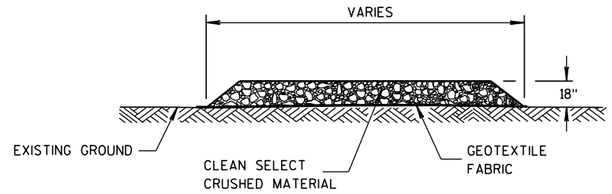
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



SECTION A-A

TRACKING PAD

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

6

S.D.D. 8 E 14-1

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

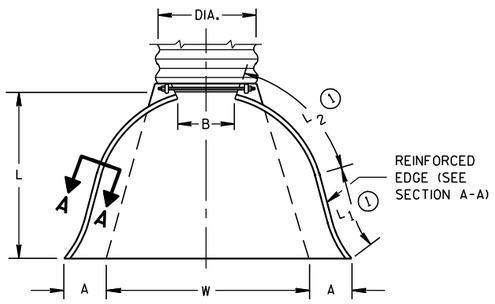
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

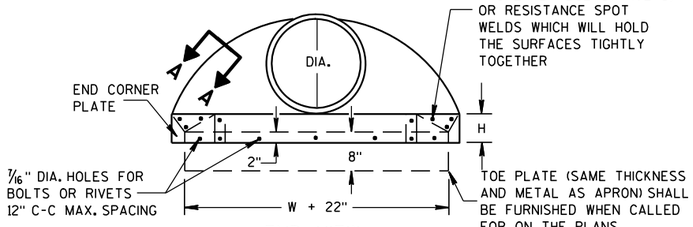
REINFORCED CONCRETE APRON ENDWALLS

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

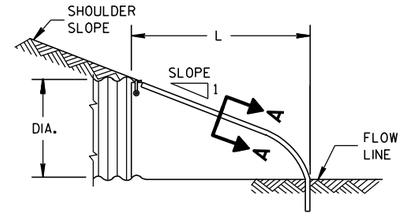
*MINIMUM
**MAXIMUM



PLAN VIEW

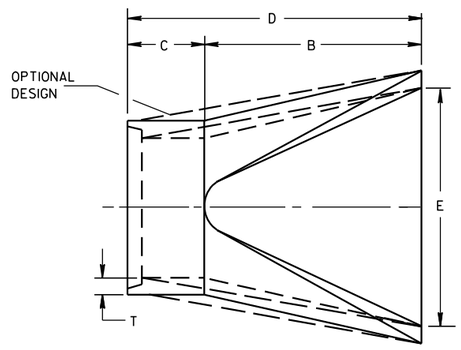


END VIEW

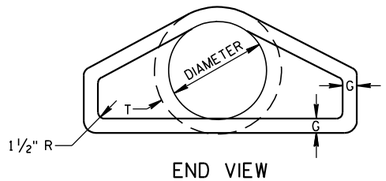


SIDE ELEVATION

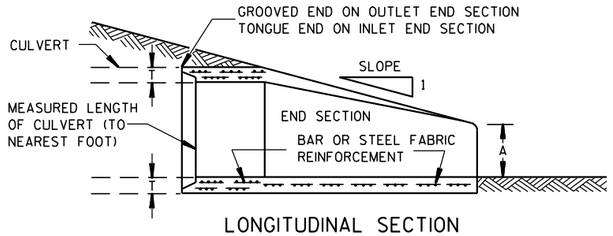
METAL ENDWALLS



PLAN

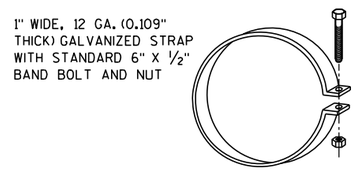


END VIEW



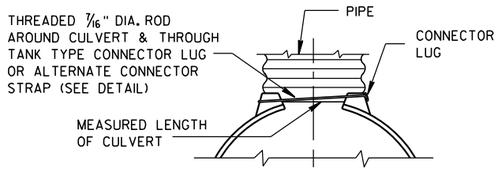
LONGITUDINAL SECTION

CONCRETE ENDWALLS

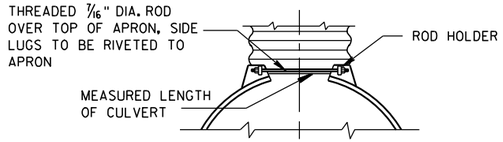


ALTERNATE FOR TYPE 1 CONNECTION

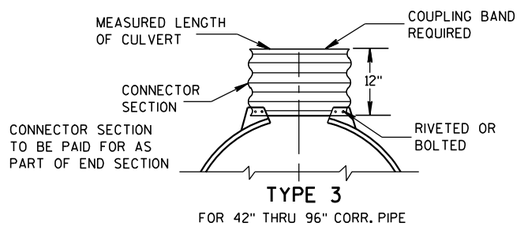
END SECTION CONNECTOR STRAP



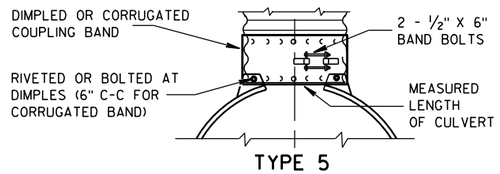
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

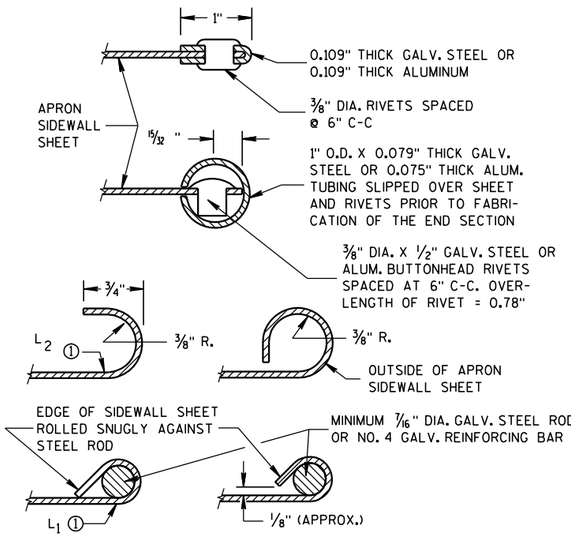
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

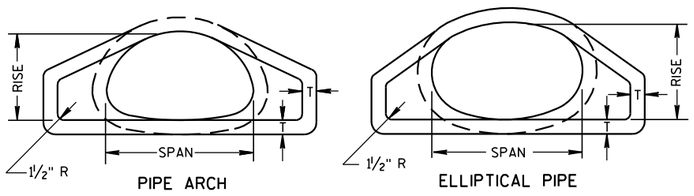
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

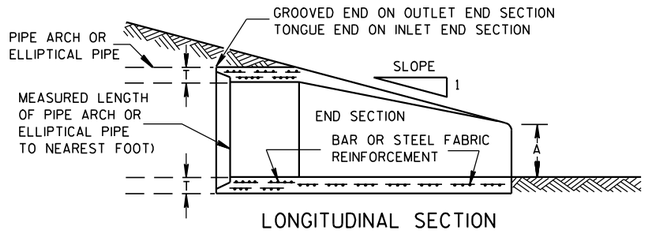
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

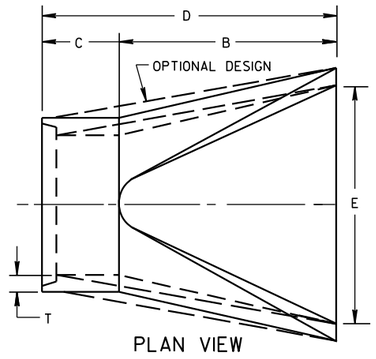
6
S.D.D. 8 F 1-11



END VIEW

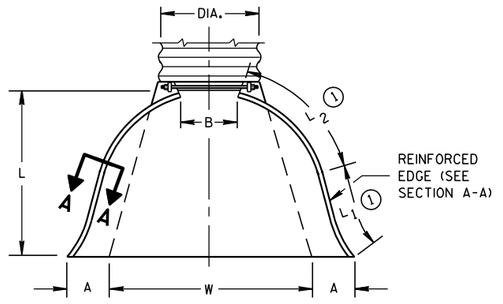


LONGITUDINAL SECTION

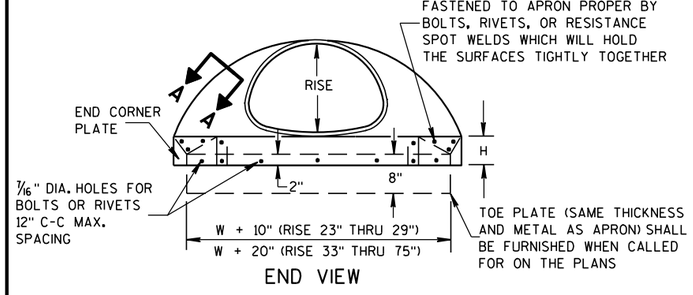


PLAN VIEW

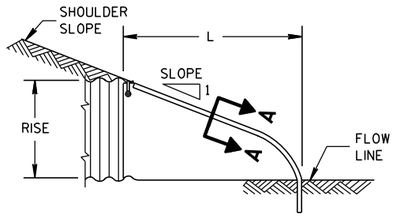
CONCRETE ENDWALLS



PLAN VIEW

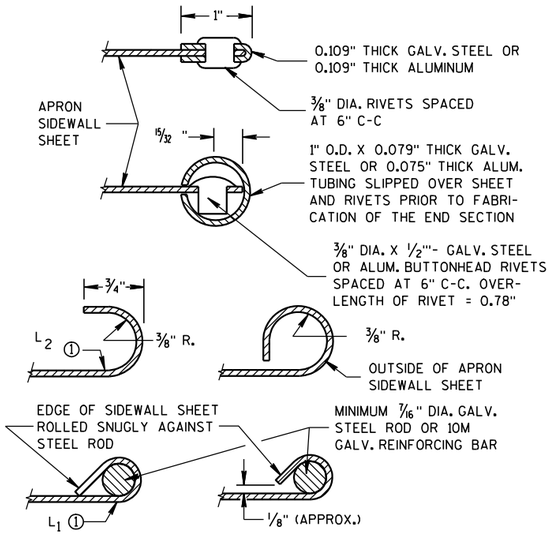


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	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
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	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
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

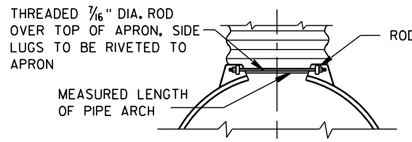
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

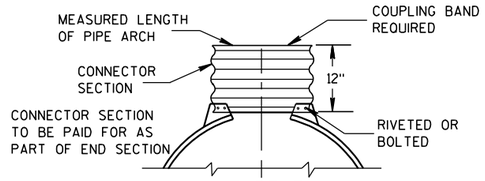
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



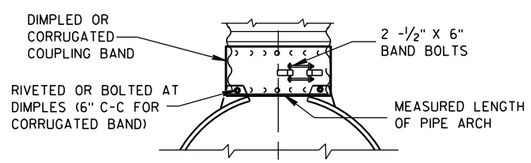
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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 ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

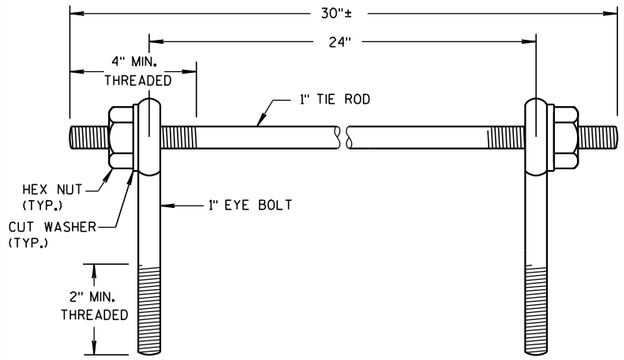
FHWA

6

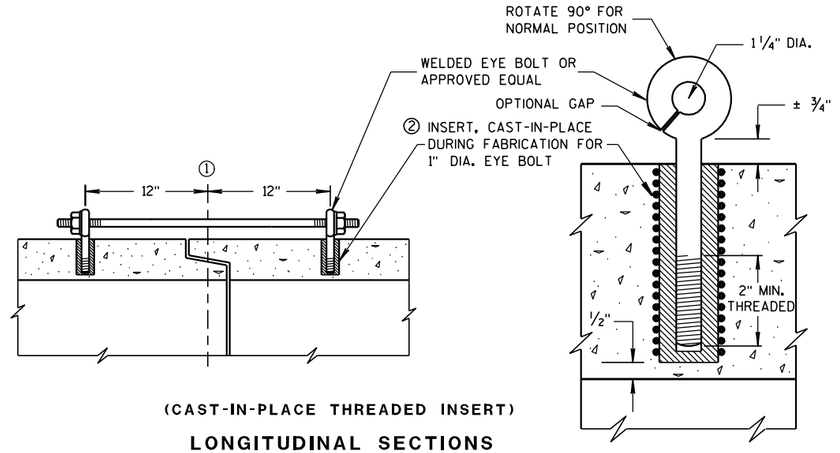
S.D.D. 8 F 2-1

6

S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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 PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED ON 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 CULVERT PIPE AS INDICTED ON THE PLANS AND BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO CILVERT PIPE, REINFORCED CONCRETE CULVERT PIPE, OR REINFORCED CONCRETE PIPE CATTLE PASS.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

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.

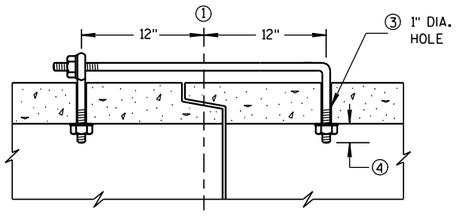
③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

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

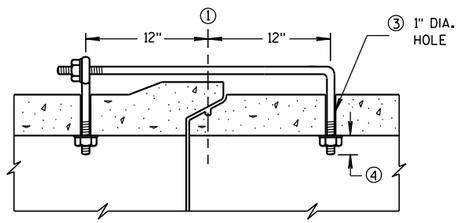
⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



(TONGUE & GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

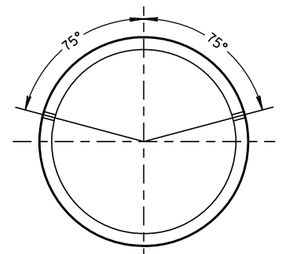
EYE BOLT DIMENSION TABLE

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"	

ADJUSTABLE TIE ROD TABLE

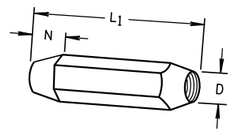
PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



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

TRANSVERSE SECTION



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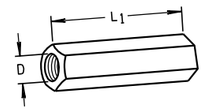
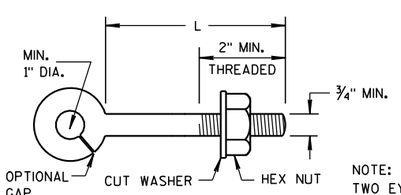


PLAIN

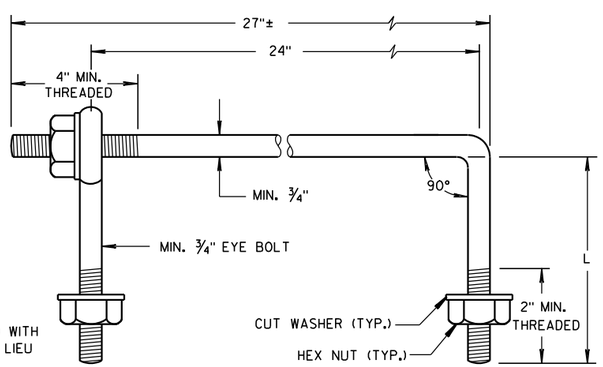
RIGHT AND LEFT THREADS

SLEEVE NUTS



EYE BOLT

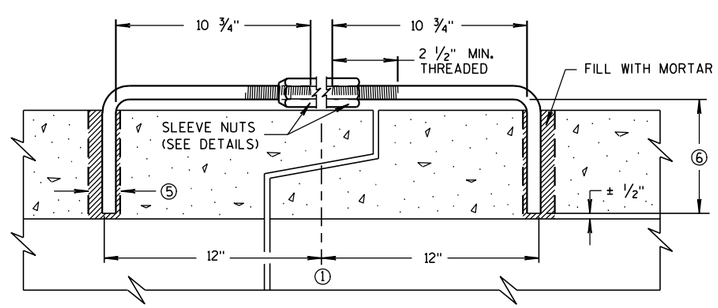
NOTE:
TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

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

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



LONGITUDINAL SECTION

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

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)

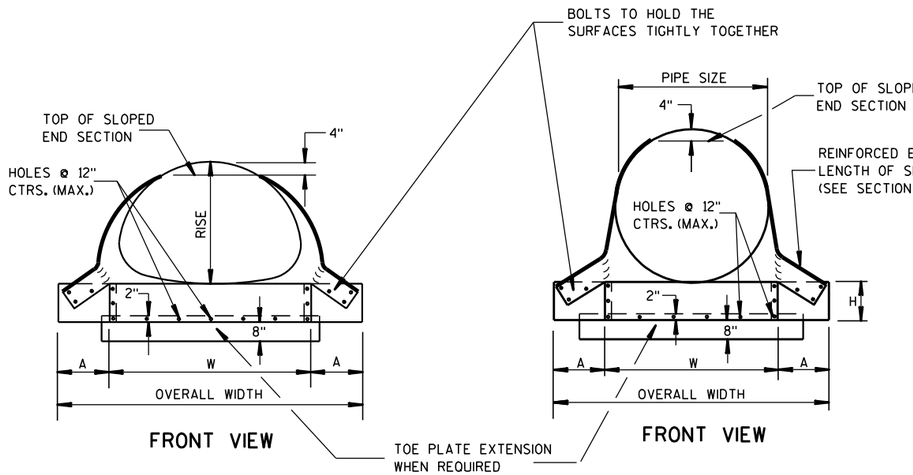
JOINT TIES FOR CONCRETE PIPE

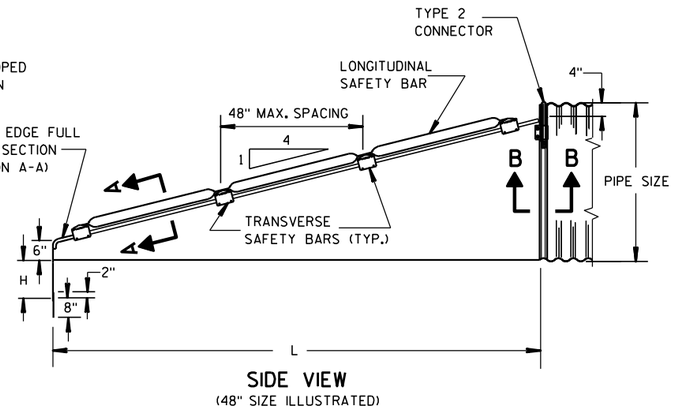
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/17/07 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 F 4-6





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.

SAFETY GRATES SHALL BE FABRICATED FROM 3-INCH DIAMETER GALVANIZED PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL. THE LONGITUDINAL BAR SHALL BE WELDED TO THE TRANSVERSE BARS WHERE THE BARS CROSS. THE NUMBER OF TRANSVERSE BARS REQUIRED WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

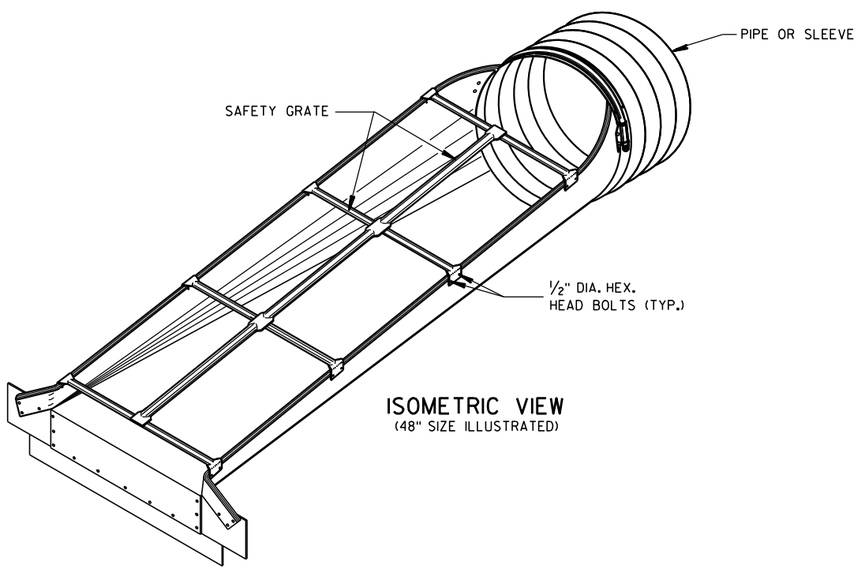
SLOPED STEEL ENDWALLS LOCATED AT THE ENDS OF CONCRETE CULVERT PIPE SHALL BE FURNISHED WITH STEEL ADAPTER SLEEVES.

SLOPED STEEL ENDWALLS FOR CULVERT PIPE CROSS DRAINS

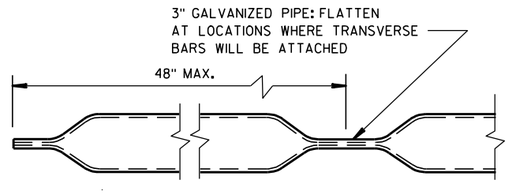
PIPE DIA. (IN.)	MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS	
	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES
36	.109	12	12	9	42	66	4:1	104
42	.109	12	16	12	48	80	4:1	128
48	.109	12	16	12	54	86	4:1	152
54	.109	12	16	12	60	92	4:1	176
60	.109	12	16	12	66	98	4:1	200

SLOPED STEEL ENDWALLS FOR PIPE ARCH CROSS DRAINS

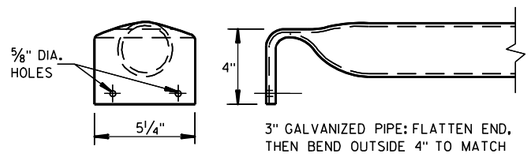
EQUIV. DIA. (IN.)	INCHES		MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS	
	SPAN	RISE	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES
36	42	29	.079	12	12	9	48	72	4:1	76
42	49	33	.109	12	16	12	55	87	4:1	92
48	57	38	.109	12	16	12	63	95	4:1	112
54	64	43	.109	12	16	12	70	102	4:1	132
60	71	47	.109	12	16	12	77	109	4:1	148



ISOMETRIC VIEW
(48" SIZE ILLUSTRATED)



LONGITUDINAL SAFETY BAR

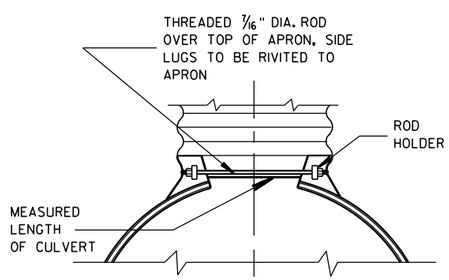


TRANSVERSE SAFETY BAR

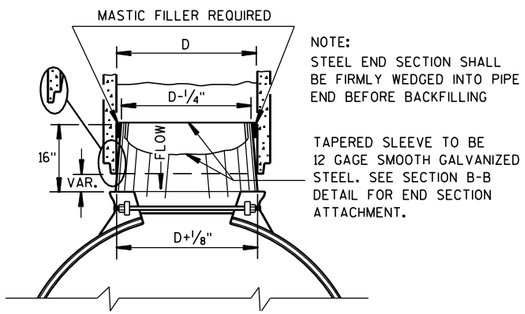
DESIGN NOTE: (WILL NOT APPEAR ON CONTRACT PLANS)

THE INTENDED APPLICATION OF SLOPED STEEL ENDWALLS IS A SAFETY TREATMENT FOR CROSS DRAIN CULVERT PIPES/ARCHES LOCATED WITHIN THE CLEAR ZONE AND RECOVERY AREA OF RURAL HIGHWAYS. THIS SAFETY TREATMENT MAY BE A COST-EFFECTIVE ALTERNATIVE TO EXTENDING CULVERT PIPE OR SHIELDING THE CULVERT ENDS WITH TRAFFIC BARRIER. SLOPED STEEL ENDWALLS SHOULD NOT BE USED IF SIGNIFICANT HYDRAULIC CAPACITY OR CLOGGING PROBLEMS COULD RESULT.

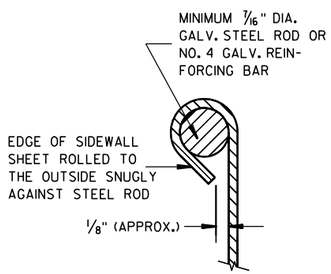
USE 90.XXX BID ITEMS: SLOPED STEEL ENDWALL FOR CULVERT PIPE. CROSS DRAIN. (SIZE); OR SLOPED STEEL ENDWALL FOR PIPE ARCH. CROSS DRAIN. (SIZE).



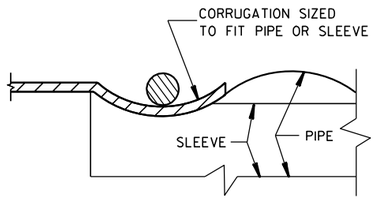
TYPE 2 CONNECTOR DETAIL



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



SECTION A-A



SECTION B-B

SLOPED STEEL ENDWALLS FOR CULVERT PIPE AND PIPE ARCH CROSS DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/6/90 DATE

/S/ J. Dress
STATE DESIGN ENGINE

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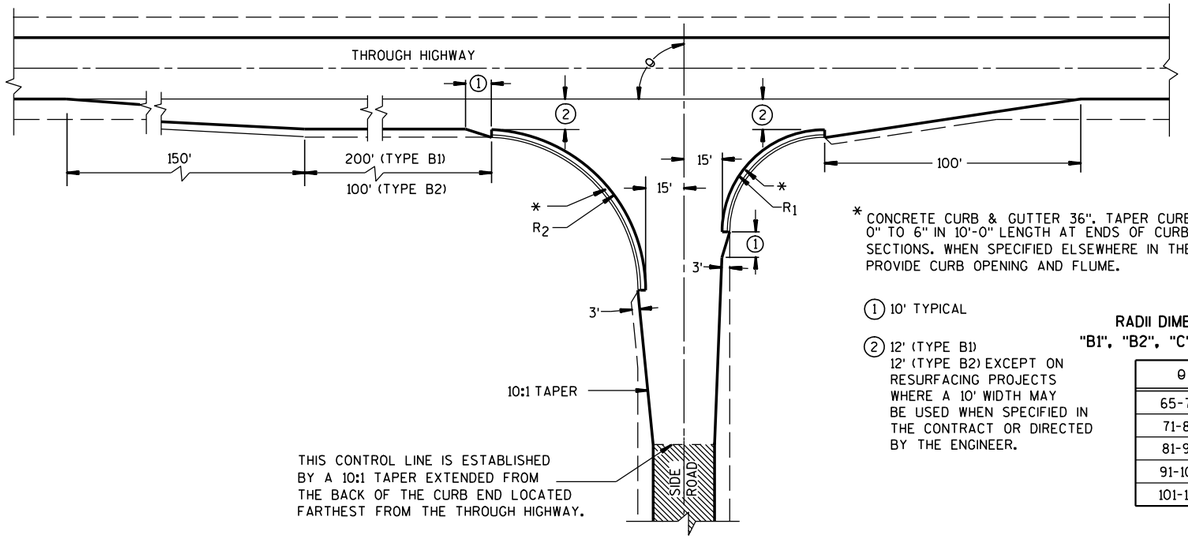


TYPE "B1" AND "B2"

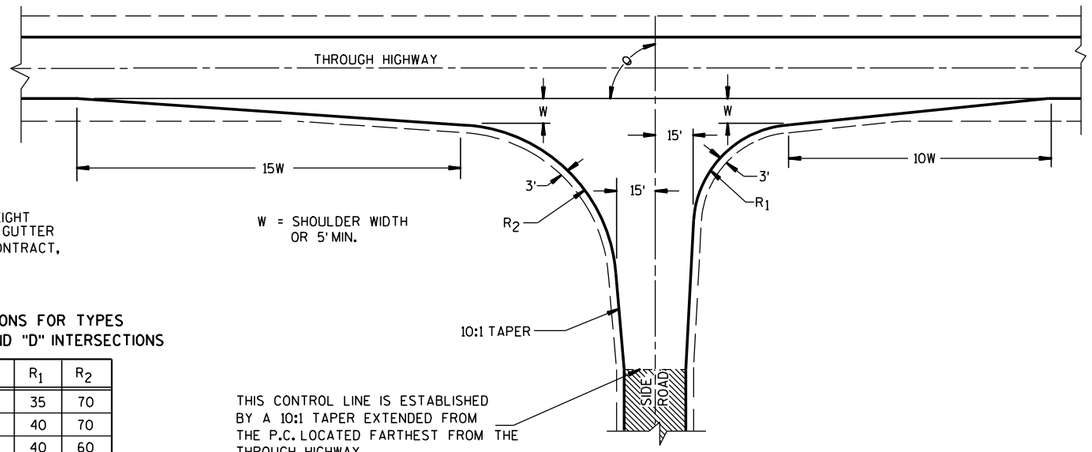
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10' TYPICAL

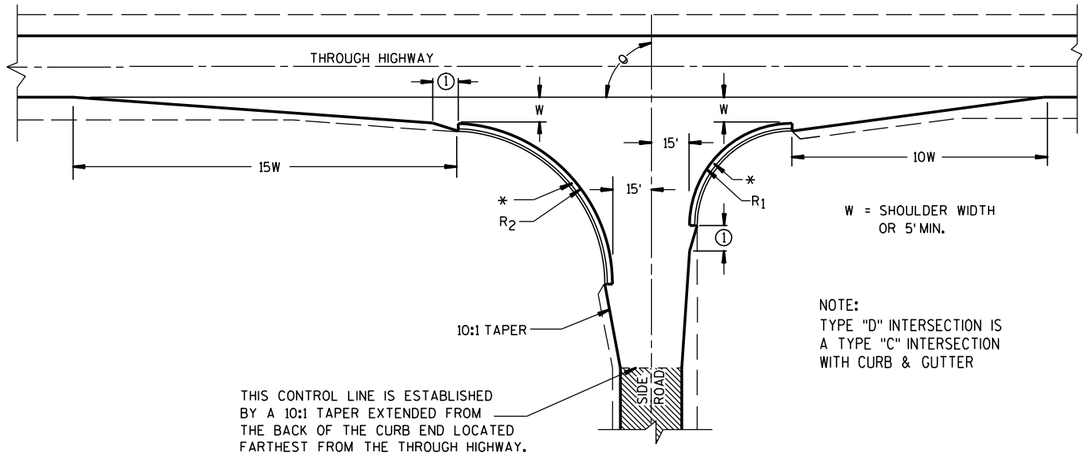
② 12' (TYPE B1)
12' (TYPE B2) EXCEPT ON RESURFACING PROJECTS WHERE A 10' WIDTH MAY BE USED WHEN SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

NOTE:
TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB & GUTTER

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

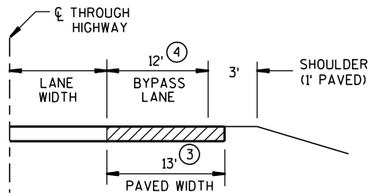
SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

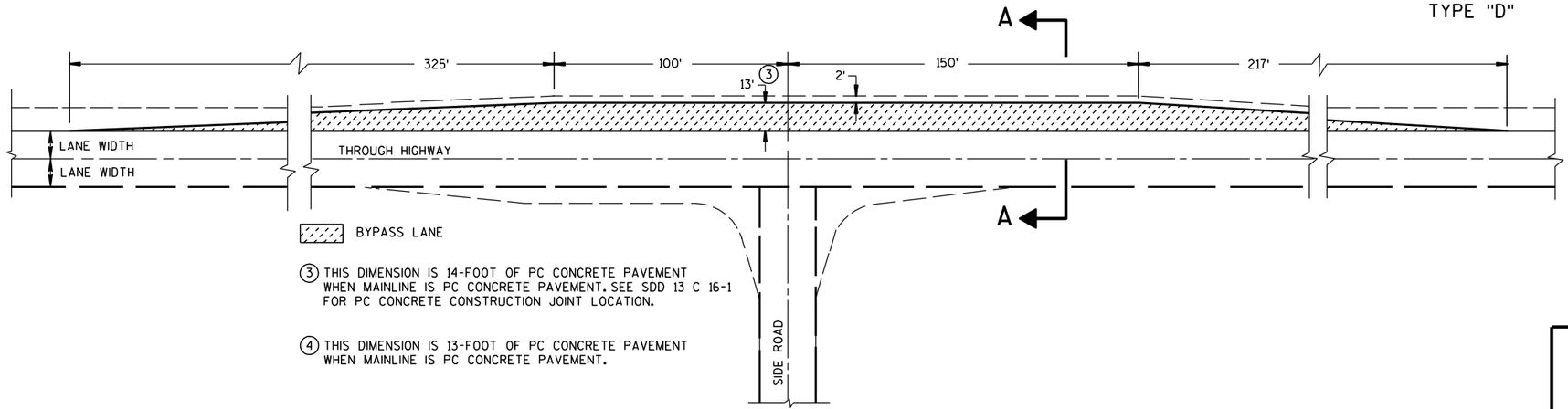
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

▨ EXISTING SURFACE



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



③ THIS DIMENSION IS 14-FOOT OF PC CONCRETE PAVEMENT WHEN MAINLINE IS PC CONCRETE PAVEMENT. SEE SDD 13 C 16-1 FOR PC CONCRETE CONSTRUCTION JOINT LOCATION.

④ THIS DIMENSION IS 13-FOOT OF PC CONCRETE PAVEMENT WHEN MAINLINE IS PC CONCRETE PAVEMENT.

TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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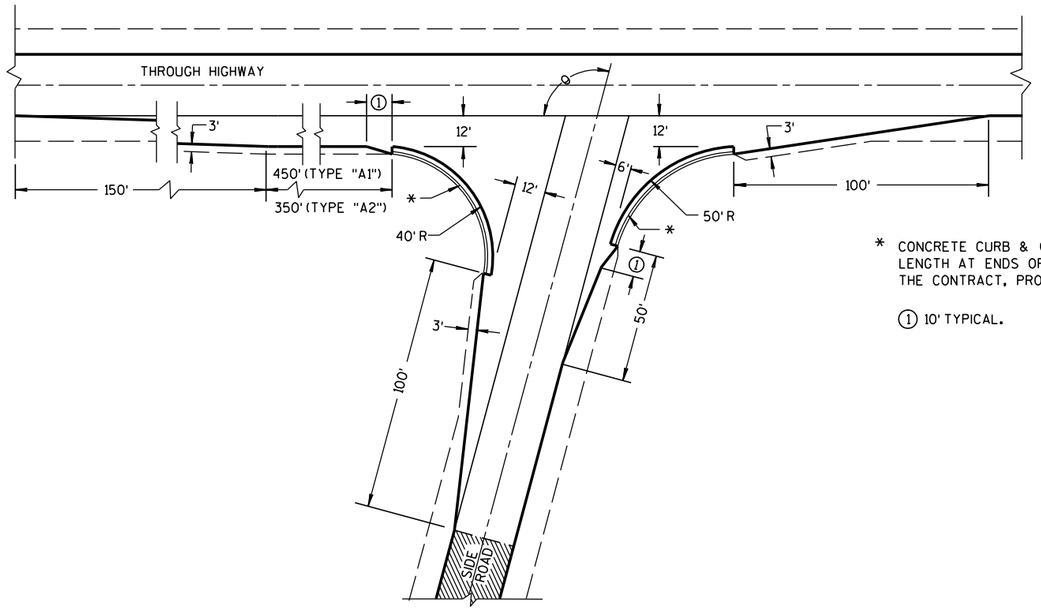
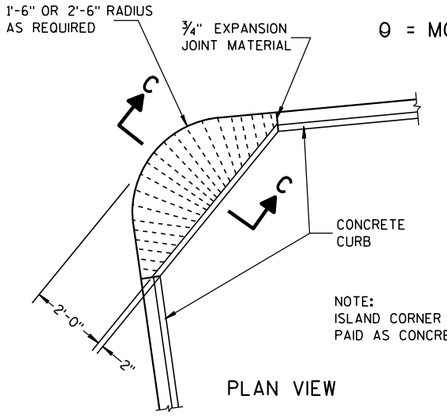
S.D.D. 9 A 1-12a

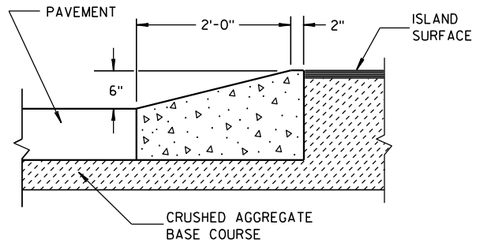


θ = MORE THAN 80°

EXISTING SURFACE



PLAN VIEW



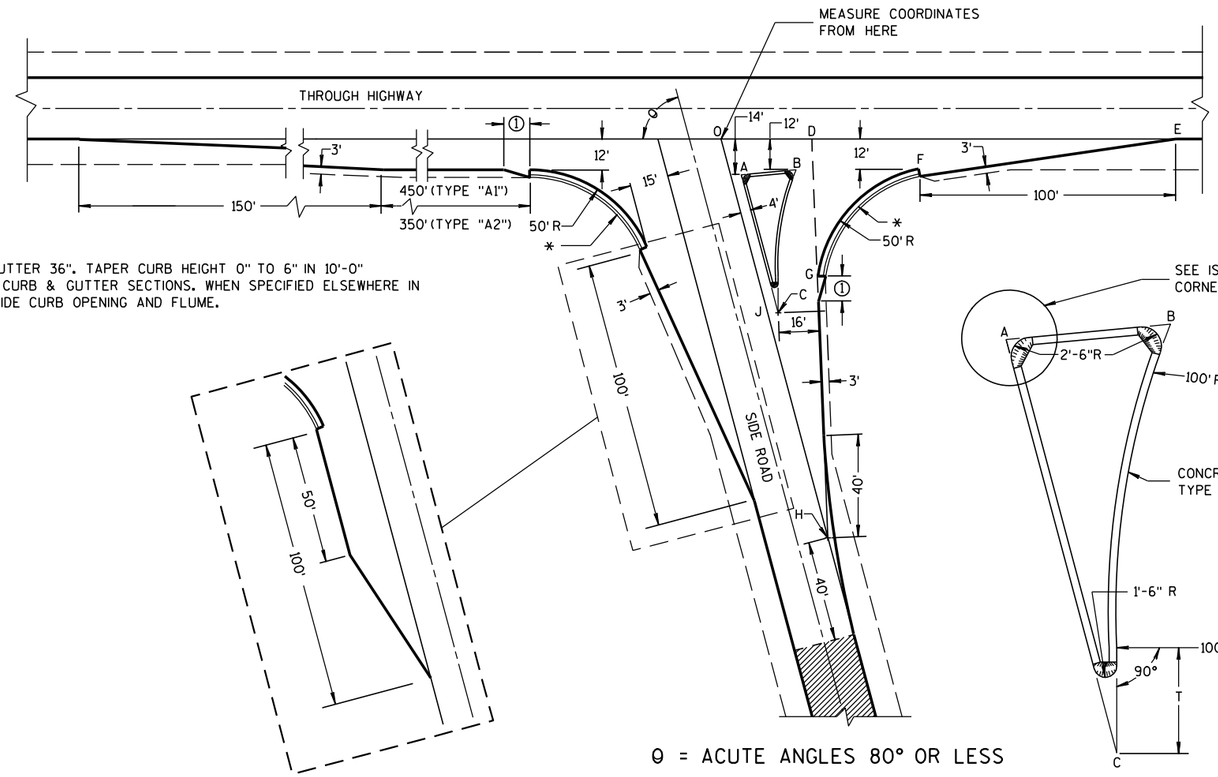
SECTION C-C

ISLAND CORNER DETAIL

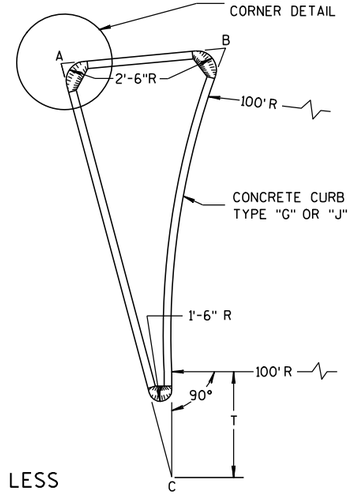
(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10' TYPICAL.



θ = ACUTE ANGLES 80° OR LESS



SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O") X / Y								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 / -14.0	44.9 / -12.0	46.4 / -72.4	41.9 / 0.0	205.0 / 0.0	104.6 / -12.0	64.0 / -75.5	85.0 / -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 / -14.0	39.0 / -12.0	37.8 / -71.6	39.4 / 0.0	196.1 / 0.0	95.7 / -12.0	54.1 / -71.5	70.5 / -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 / -14.0	33.9 / -12.0	29.8 / -70.1	37.4 / 0.0	188.3 / 0.0	87.8 / -12.0	45.6 / -67.5	56.1 / -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 / -14.0	29.3 / -12.0	22.3 / -67.9	35.7 / 0.0	181.2 / 0.0	80.7 / -12.0	38.2 / -63.4	41.8 / -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 / -14.0	25.4 / -12.0	15.6 / -65.2	34.4 / 0.0	174.8 / 0.0	74.4 / -12.0	31.8 / -59.3	27.6 / -156.5	18.9	52.0	15.6	66.9	158.9

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
12/17/02 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

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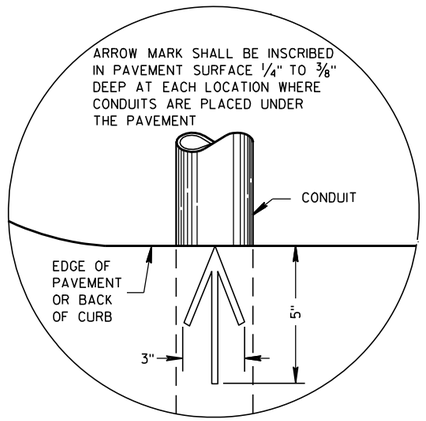
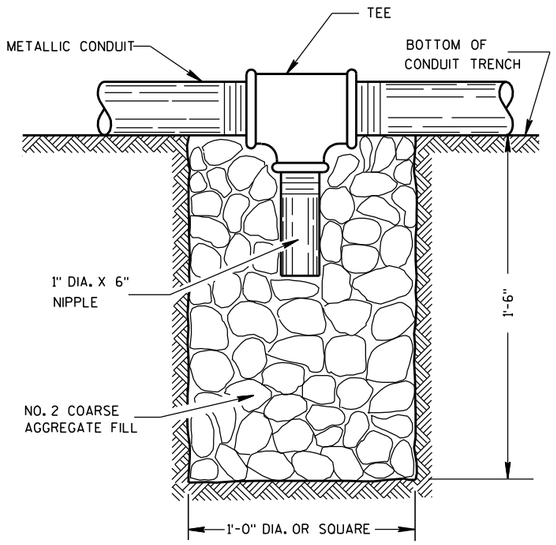
S.D.D. 9 A 1-12b



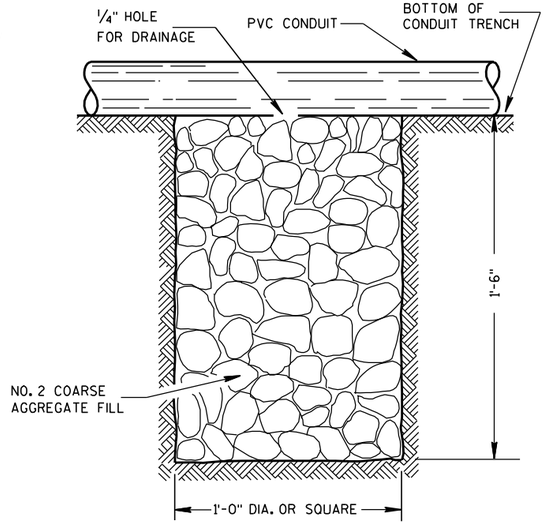
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

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

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

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

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

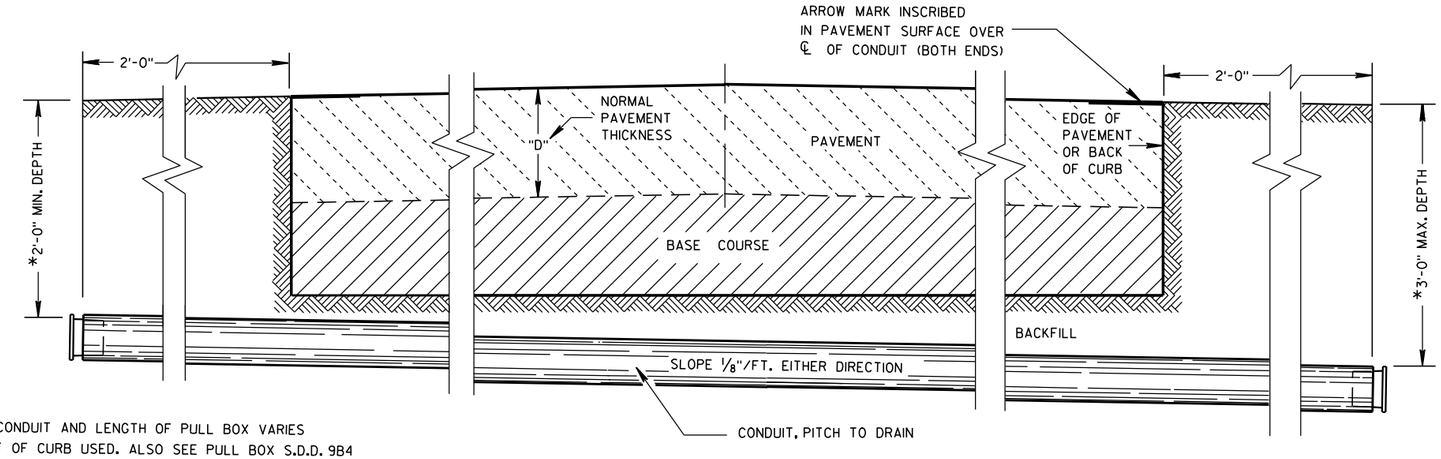
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 — DATE

/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI

FHWA

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S.D.D. 9 B 2-7

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE. THE MECHANICAL CONNECTION (INSIDE AND OUTSIDE) TO THE PULL BOX, SHALL BE TOTALLY AND PERMANENTLY SEALED WITH A SILICONE OR RUBBERIZED CAULKING COMPOUND AS APPROVED BY THE ENGINEER.

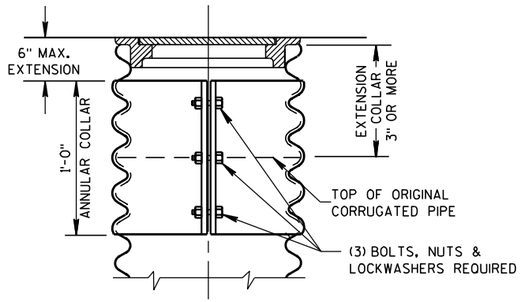
GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

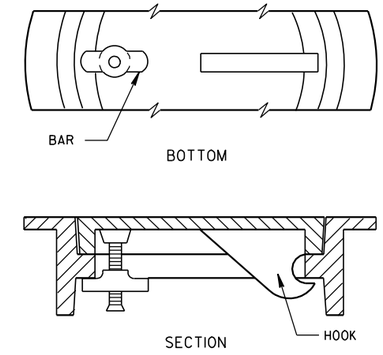
S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

IF PULL BOX EQUIPMENT GROUNDING IS REQUIRED USING AN EQUIPMENT GROUNDING ELECTRODE IN EACH PULL BOX, THE EQUIPMENT GROUNDING ELECTRODE SHALL BE 5/8" X 8'-0", COPPERCLAD AND BE EXOTHERMICALLY WELDED TO A #4 AWG, COPPER, STRANDED WIRE (BARE OR GREEN INSULATED). THE #4 AWG WIRE SHALL BE 4 FEET IN LENGTH, NEATLY COILED, TAPED AND AVAILABLE FOR USE WHEN REQUIRED.

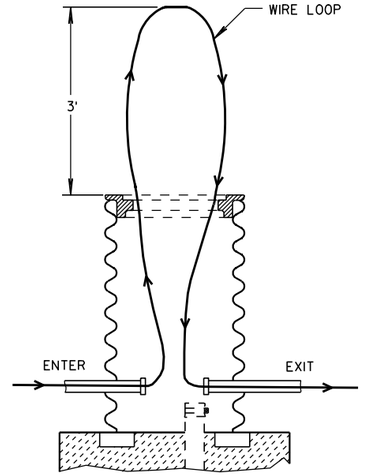


CORRUGATED PIPE EXTENDER

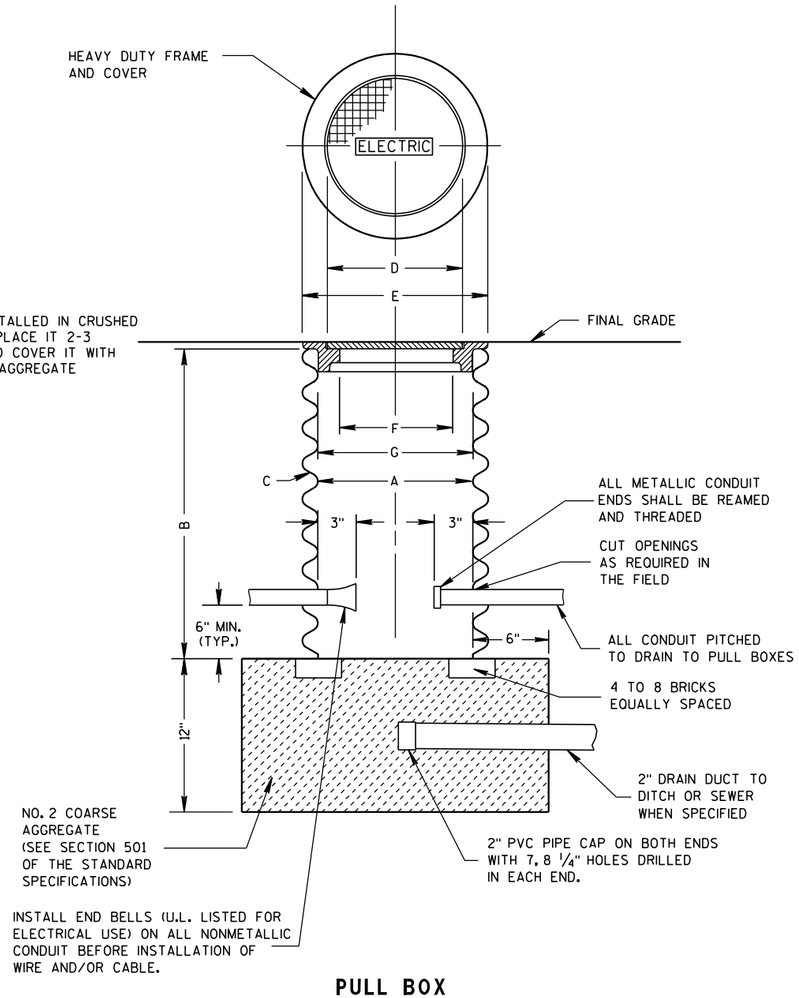


ALTERNATE COVER (LOCKING)

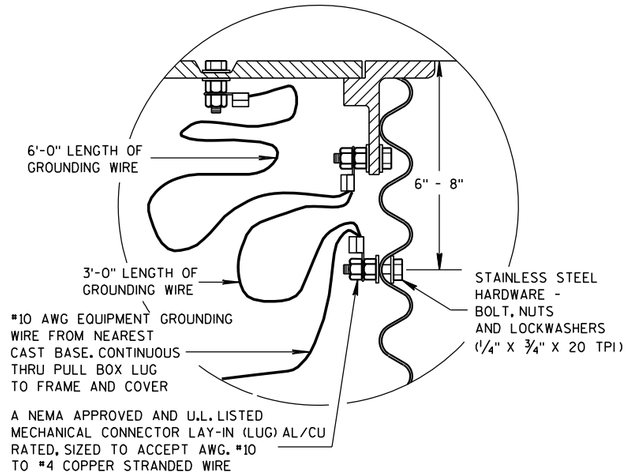
TIGHTENING BAR TYPE



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
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9/27/06 DATE
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI
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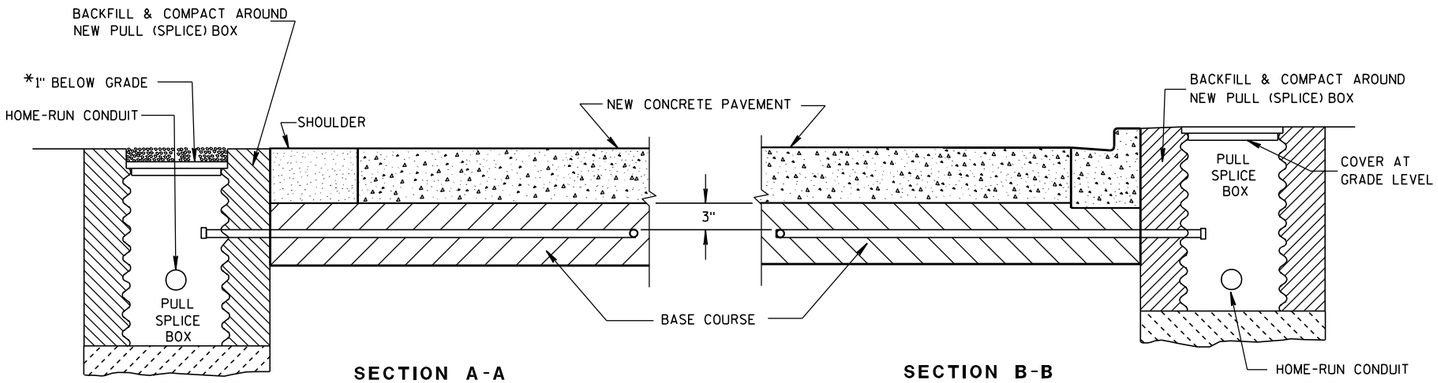


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

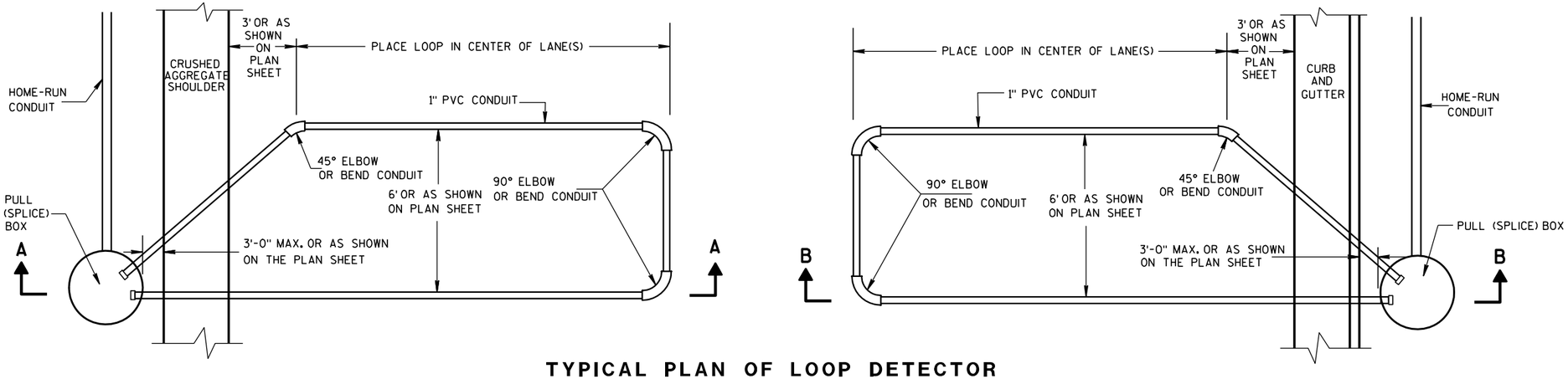
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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6/7/06 — DATE
/S/ Balu Aganthangarayangan — STATE ELECTRICAL ENGI
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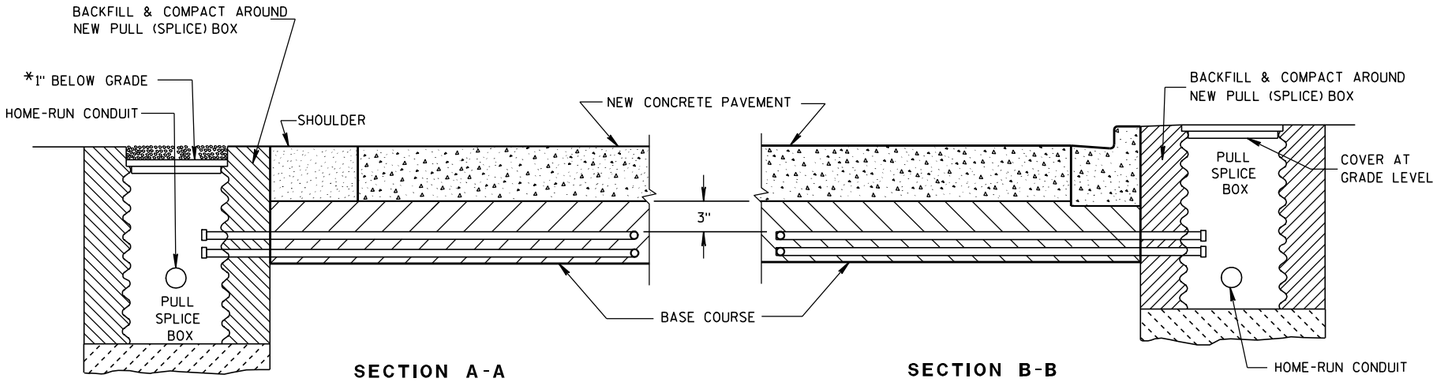
S.D.D. 9 F 15-3a



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

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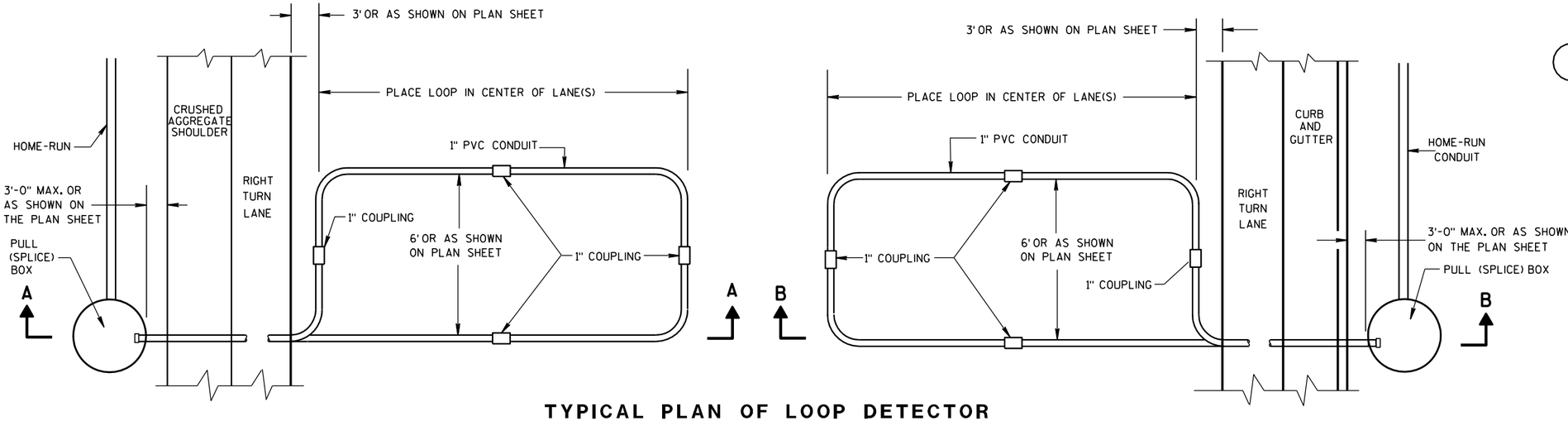
SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

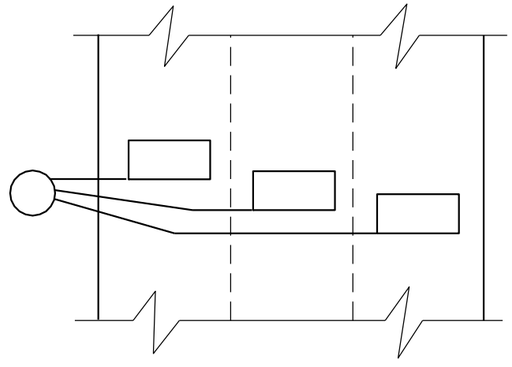
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/7/06 DATE
/S/ Balu Anantharaman
STATE ELECTRICAL ENGI
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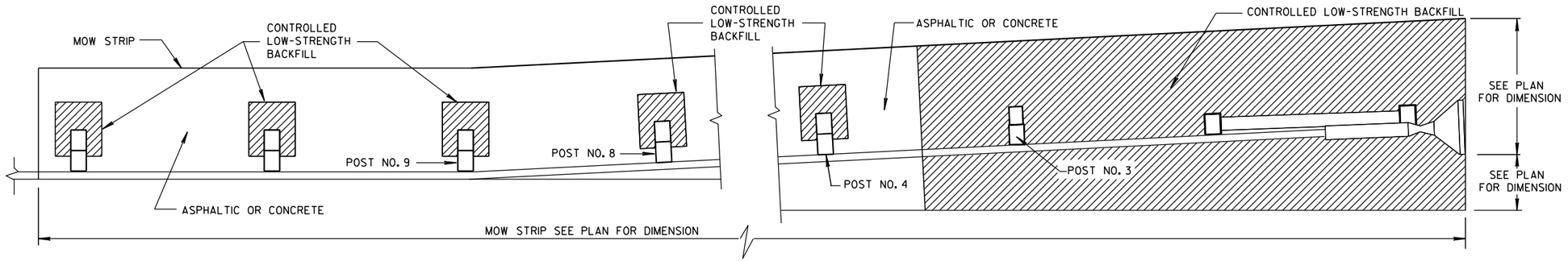
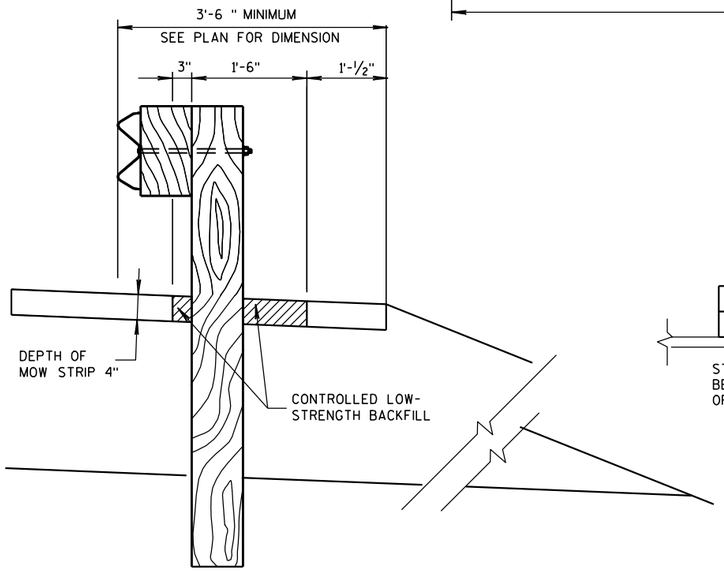
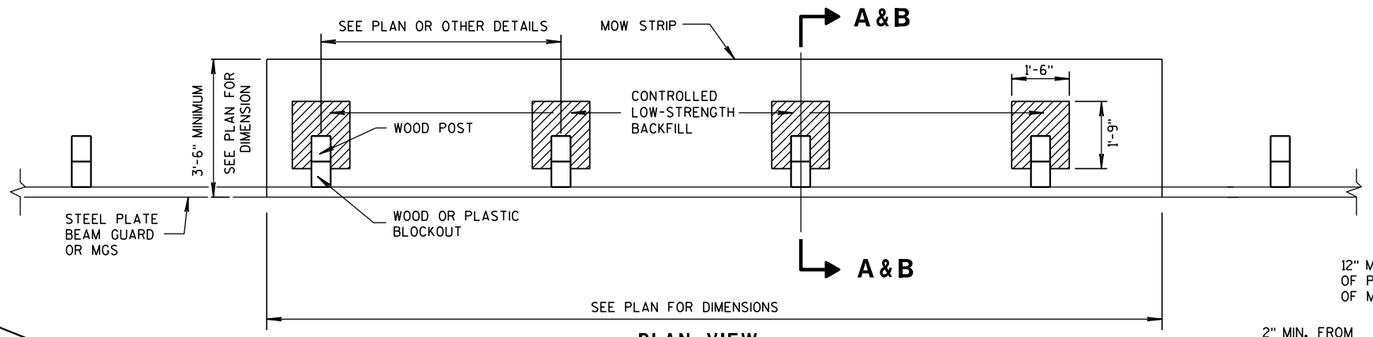


PLAN VIEW

MOW STRIP FOR STEEL PLATE BEAM GUARD ENERGY ABORBING TERMINAL

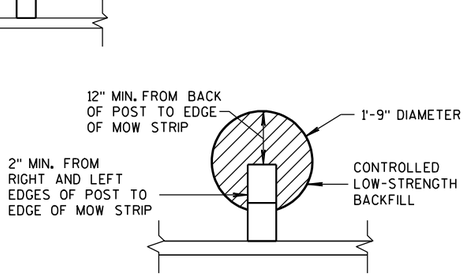


SECTION A-A

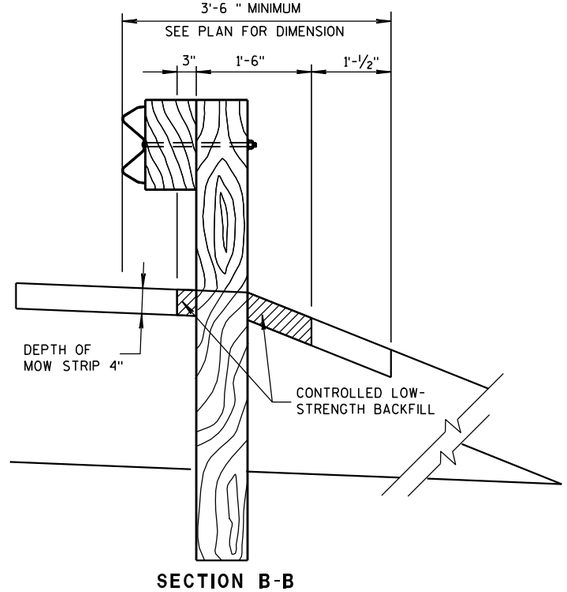


PLAN VIEW

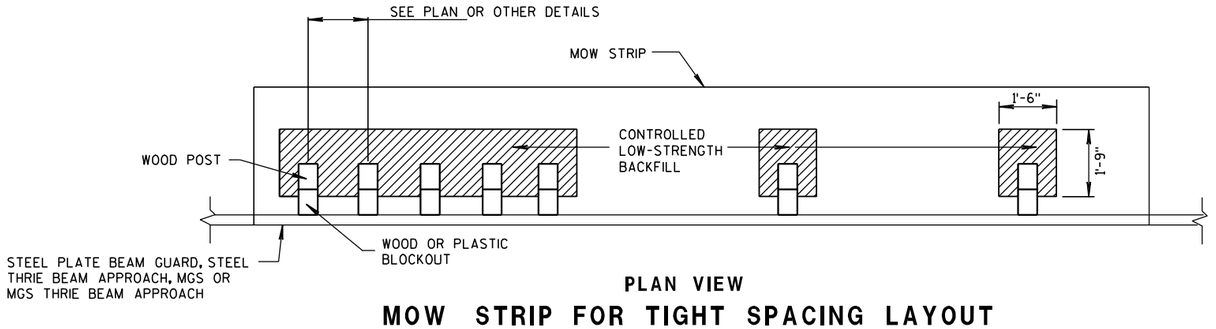
MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT



ALTERNATIVE HMA
MOW STRIP DESIGN

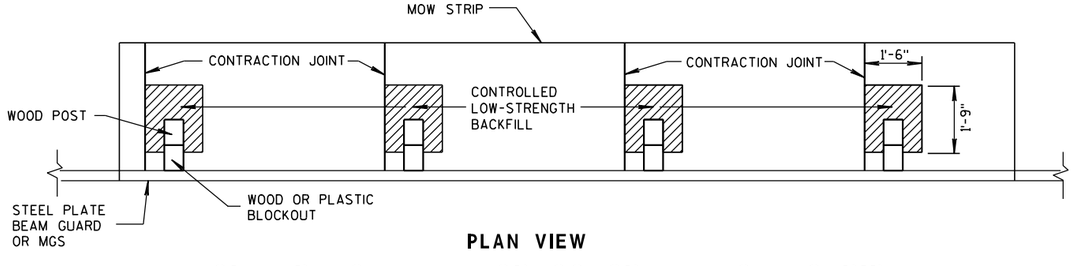


SECTION B-B



PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/27/12
DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS 1212 ENGINEER

FHWA

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S.D.D. 14 B 28-2

GENERAL NOTES

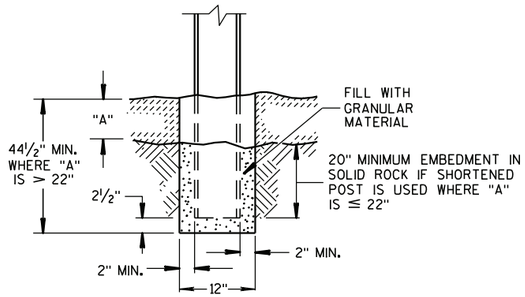
(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

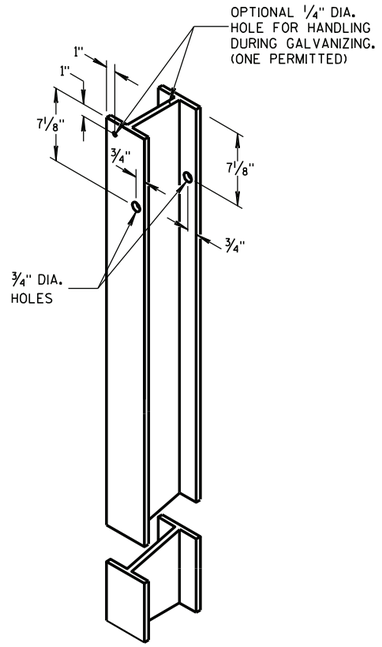
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

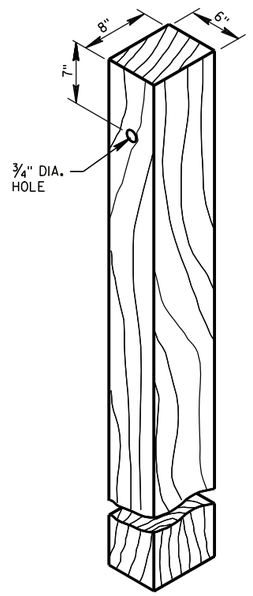
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".



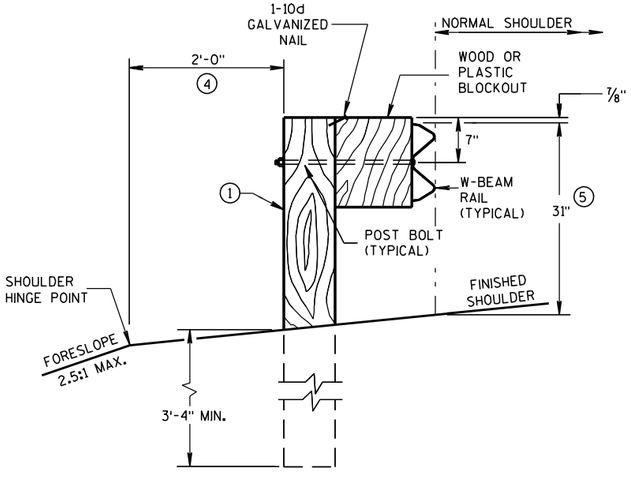
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)

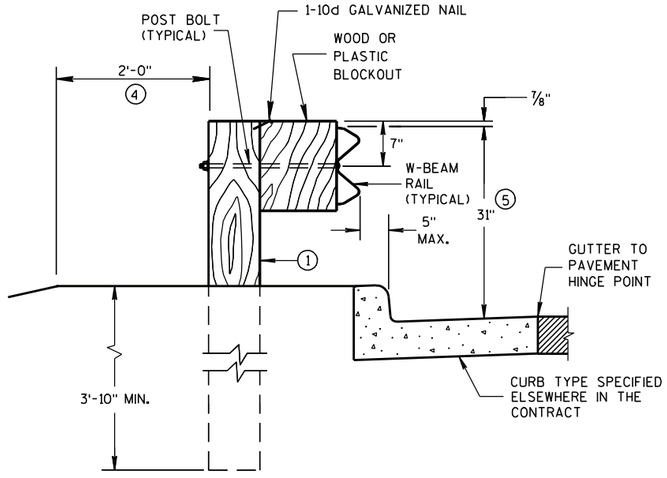


WOOD POST
(6" X 8") NOMINAL (1)



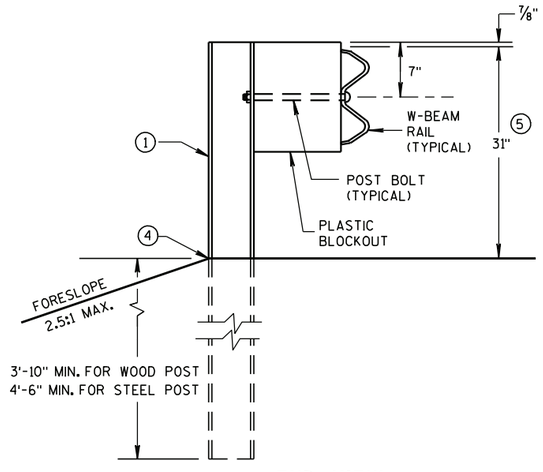
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



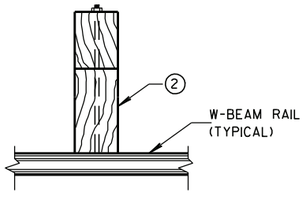
END VIEW

LOCATED ALONG A CURBED ROADWAY

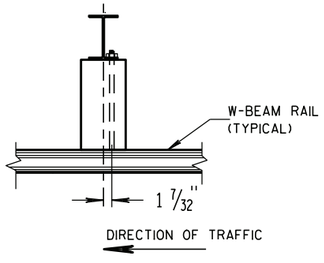


END VIEW

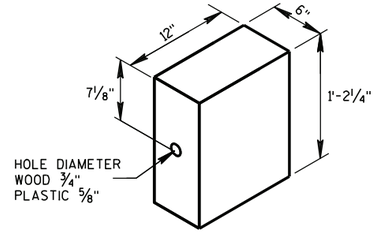
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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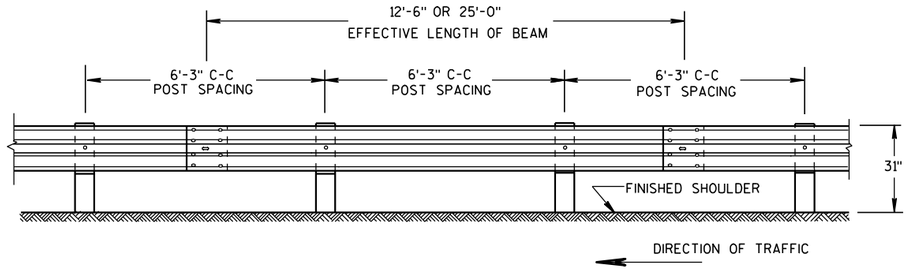
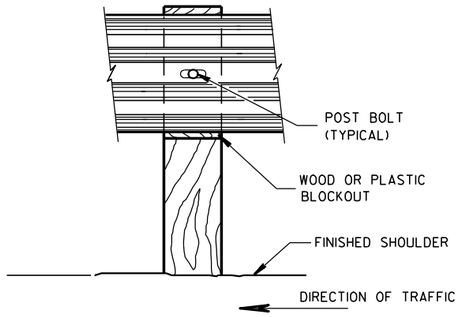
S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



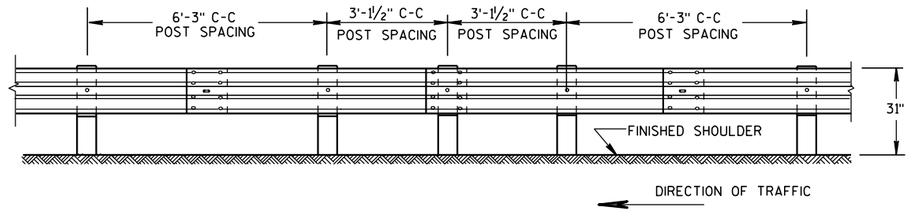
FRONT VIEW AT WOOD POST

GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

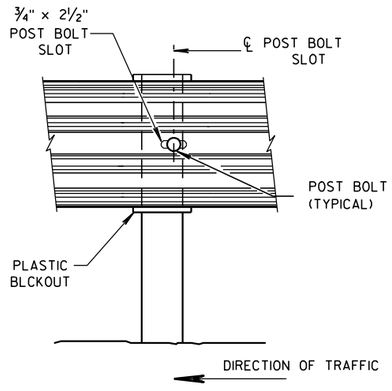
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

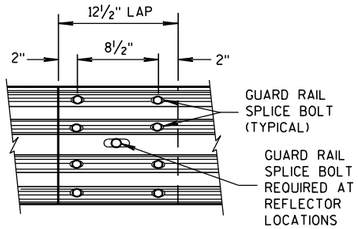


FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

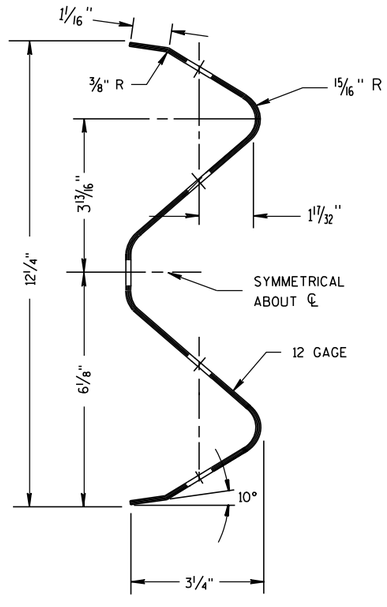


FRONT VIEW AT STEEL POST

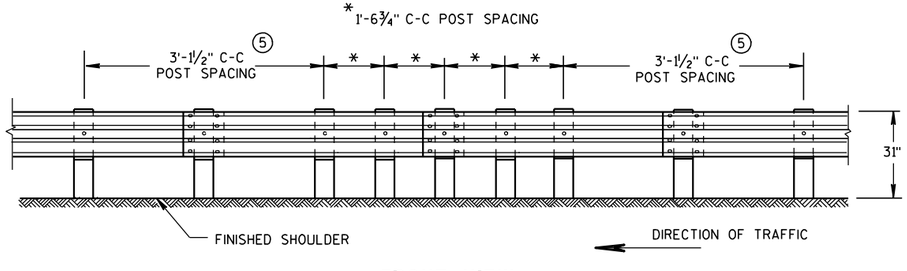


FRONT VIEW

MID-SPAN BEAM SPLICE

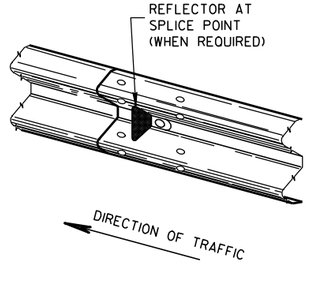


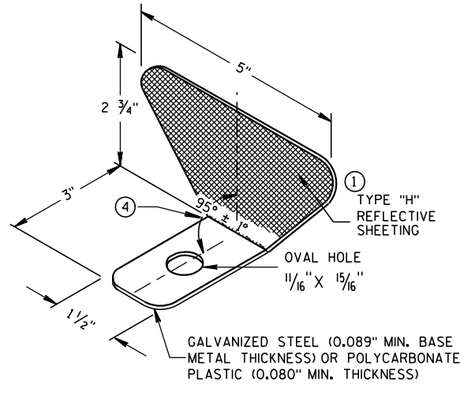
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

REFLECTOR SPACING ②

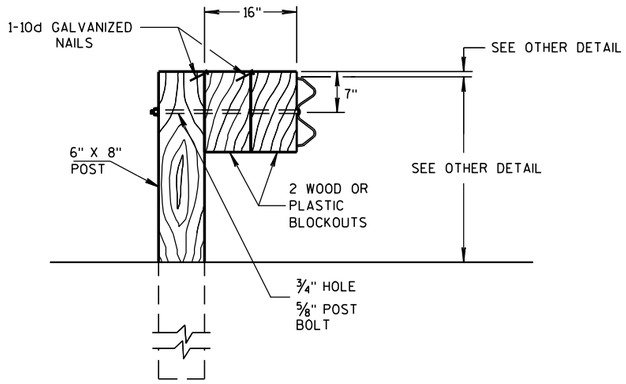
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 1 ③	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ④	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

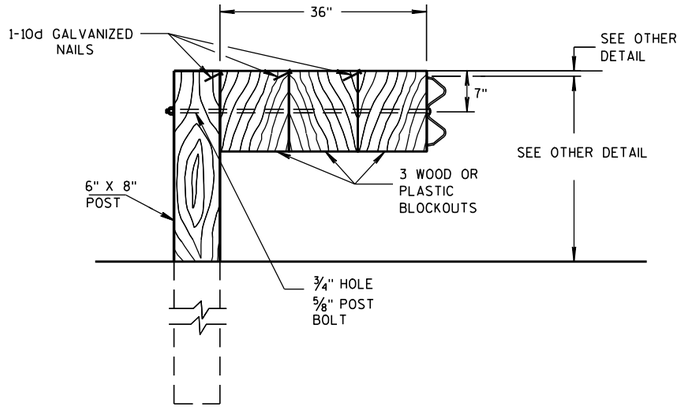
S.D.D. 14 B 42-2b

6



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

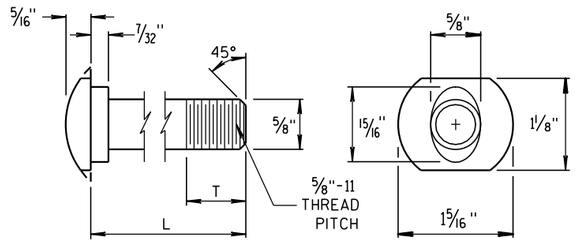


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

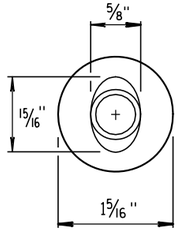
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

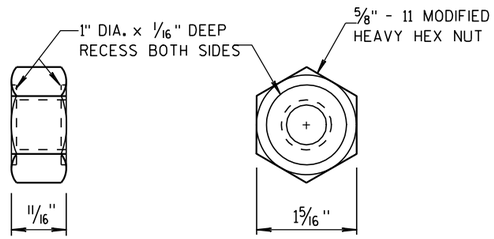


POST BOLT TABLE

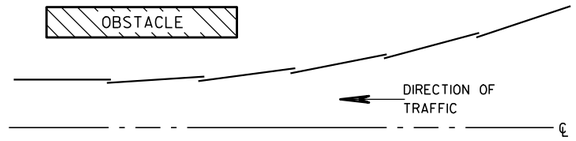
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

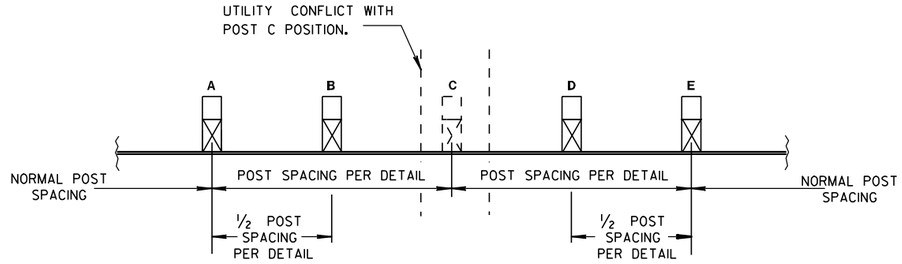


POST BOLT AND RECESS NUT

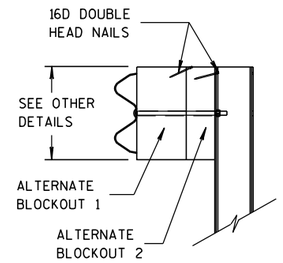


PLAN VIEW

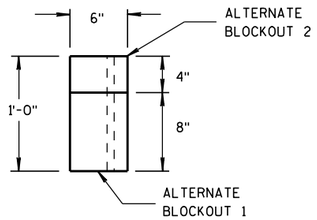
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

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S.D.D. 14 B 42-2c

6

S.D.D. 14 B 42-2c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

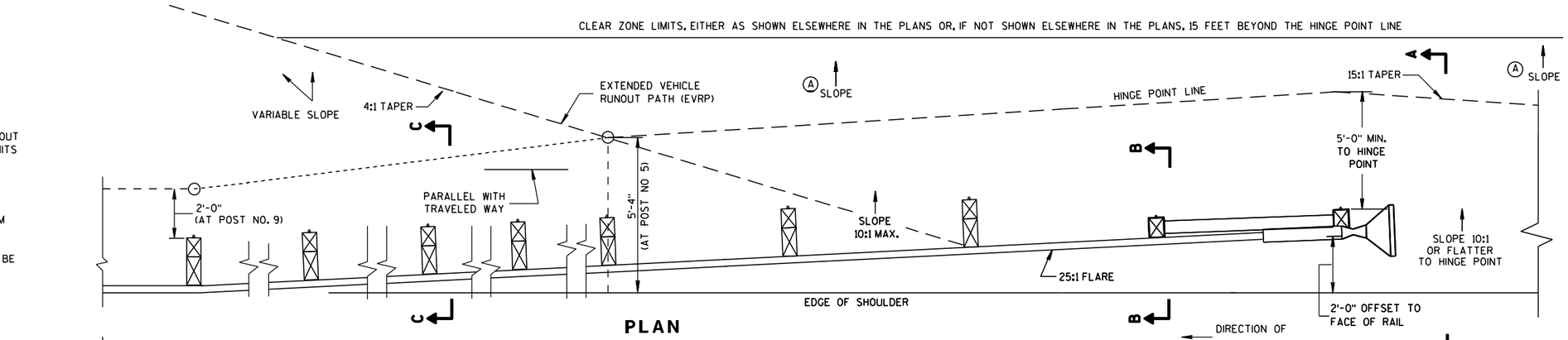
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

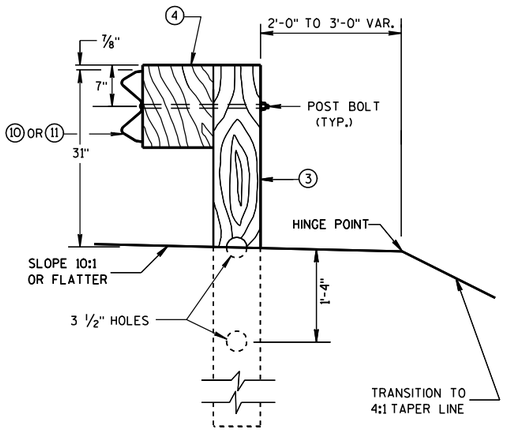
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

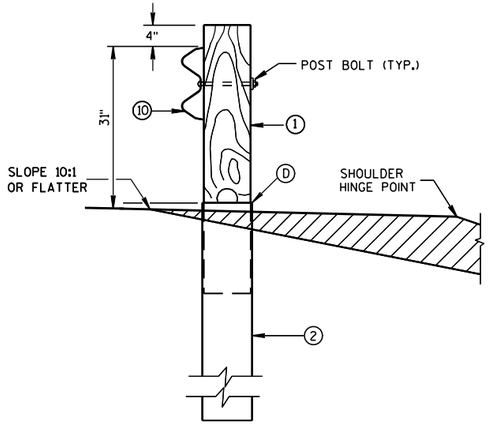
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

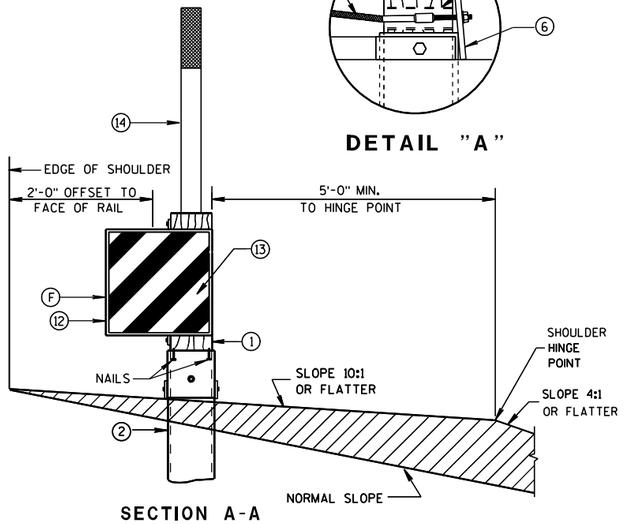




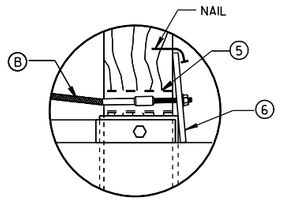
SECTION C-C
TYPICAL AT POST NOS. 3-9



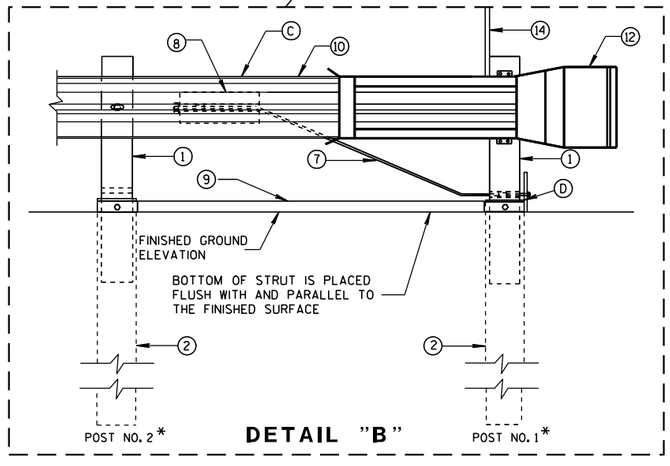
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"

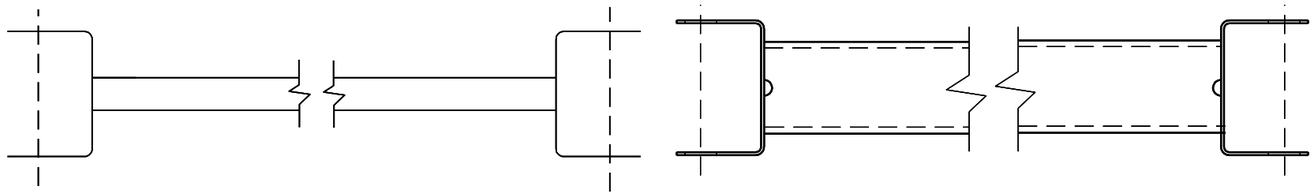


DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

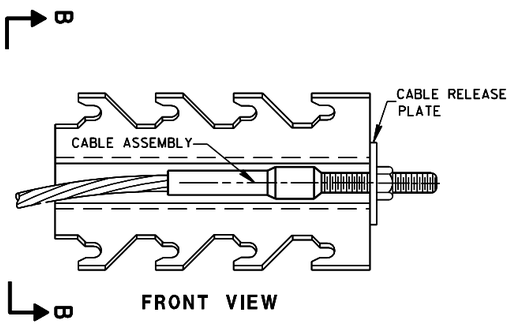
6
S.D.D. 14 B 44-1a



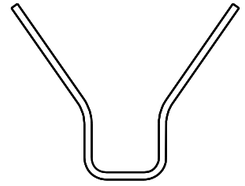
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

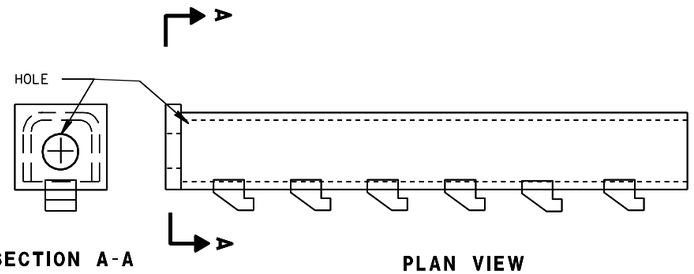
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



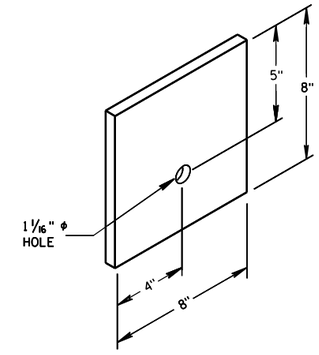
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



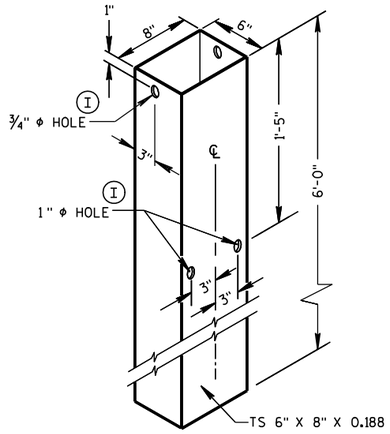
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

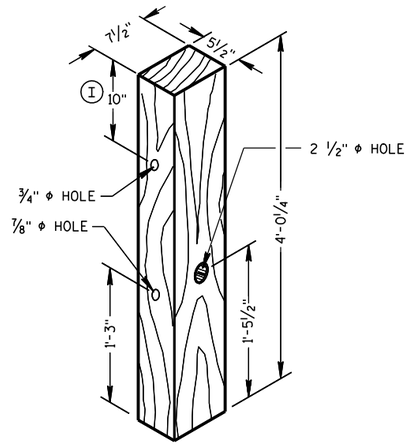
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

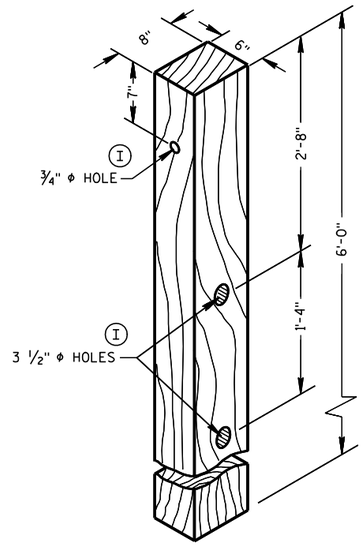


FOUNDATION TUBE (2)



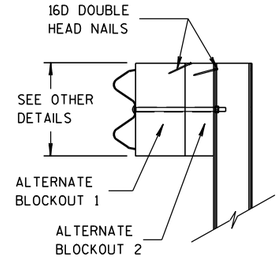
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

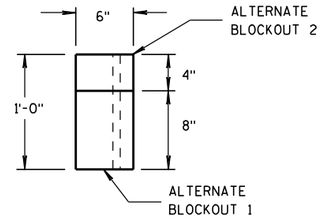


POSTS NUMBER 3-9

WOOD CRT POST (3)

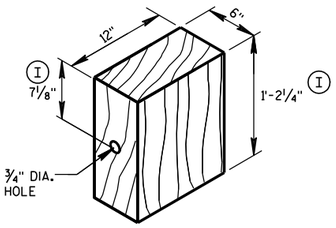


SIDE VIEW



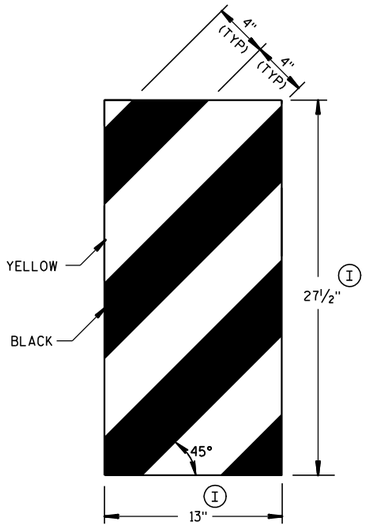
TOP VIEW

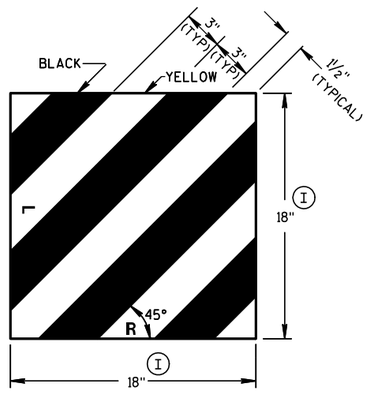
ALTERNATE WOOD BLOCKOUT DETAIL



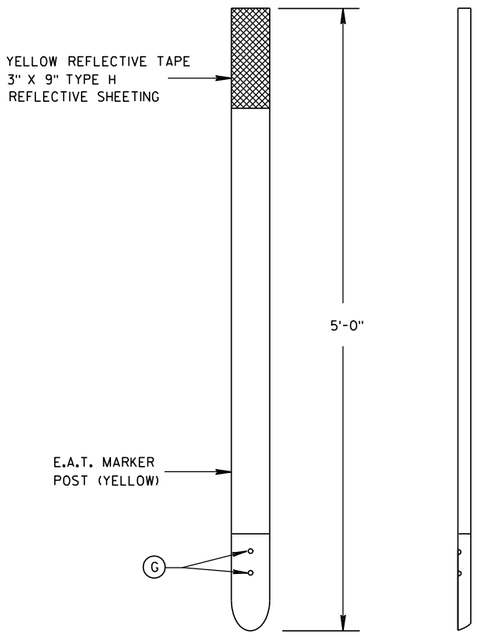
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





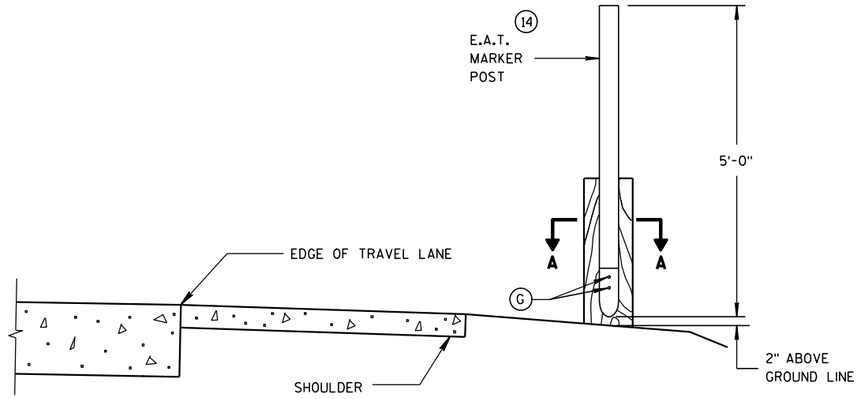
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

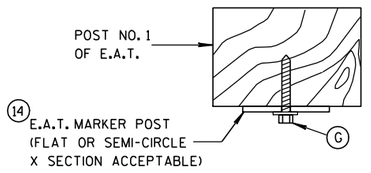
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

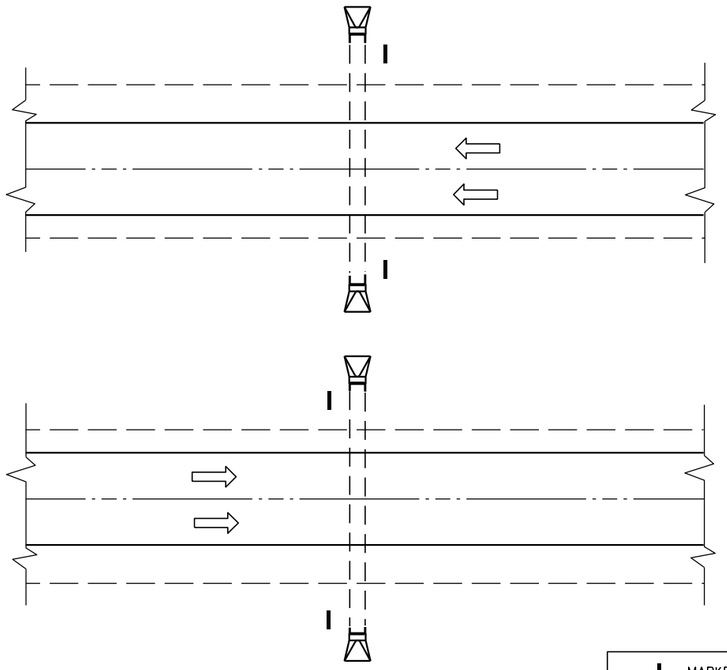
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

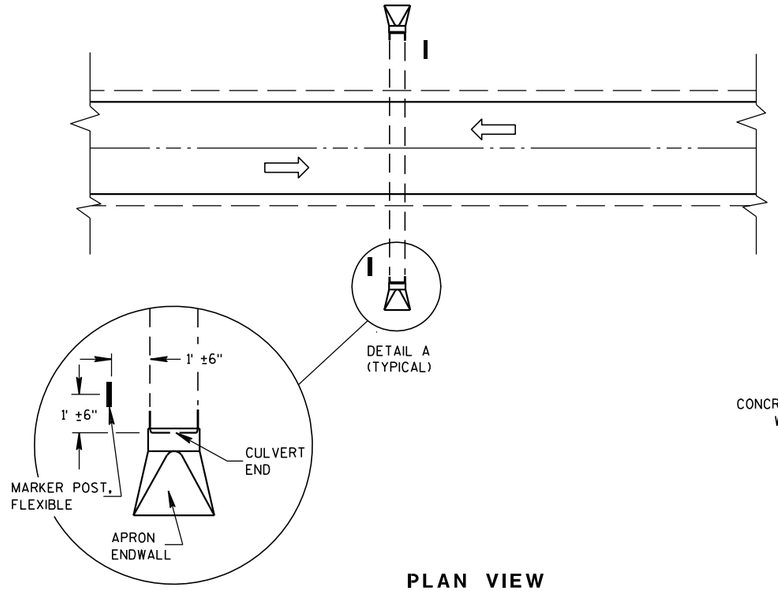
6

S.D.D. 14 B 44-1c



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

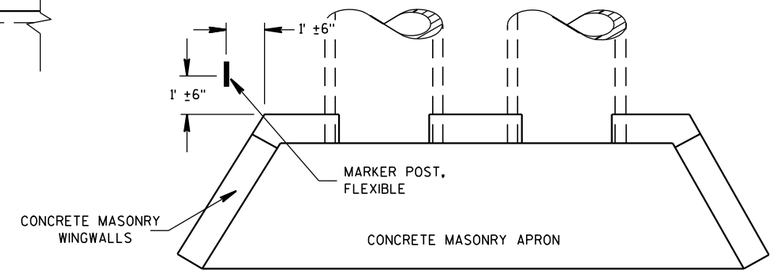
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

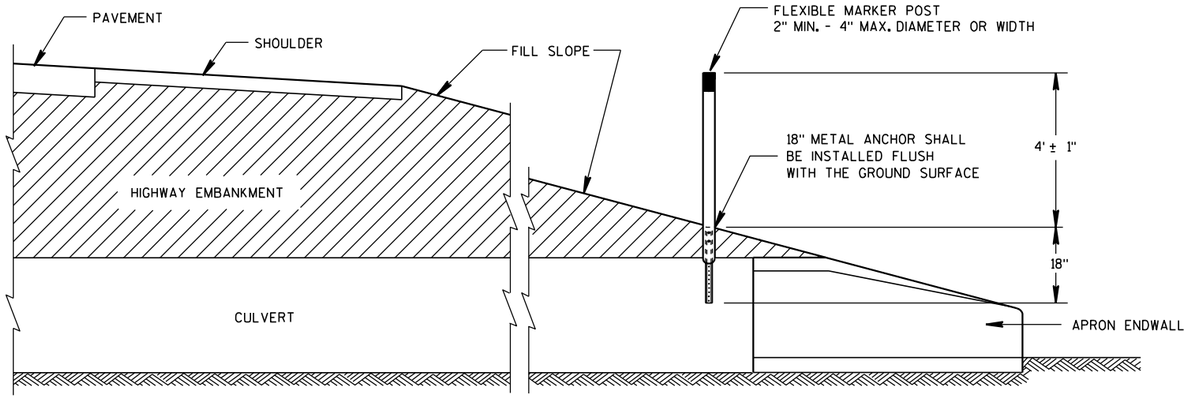
GENERAL NOTES

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

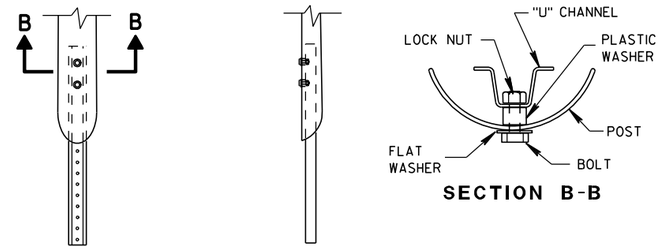
CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH



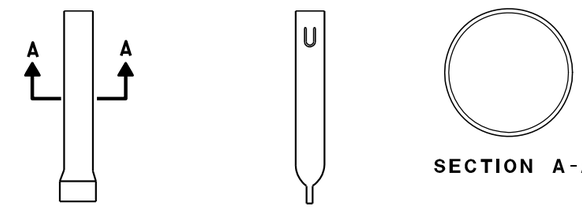
CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST LOCATION

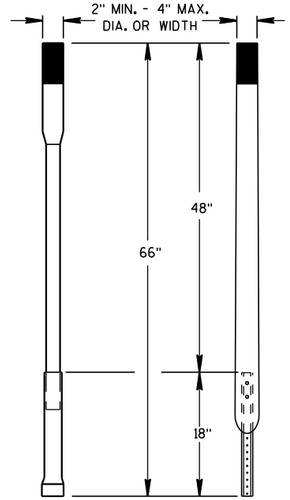


FRONT VIEW SIDE VIEW
CURVED MARKER



FRONT VIEW SIDE VIEW
ROUND MARKER

FLEXIBLE MARKER POST ANCHORS



ALTERNATE 1 ALTERNATE 2

FLEXIBLE MARKER POST

MARKER POST, FLEXIBLE, FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/1/98
DATE

/S/ Rory L. Rhinesmith
CHEIF ROADWAY DEVELOP ENGINEER

FHWA

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S.D.D. 15 A 3-1

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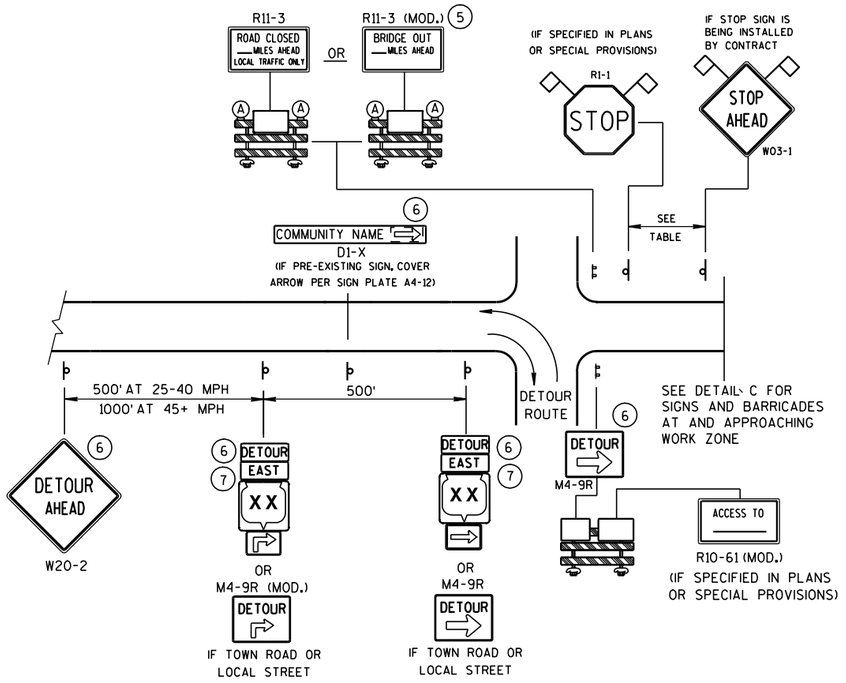
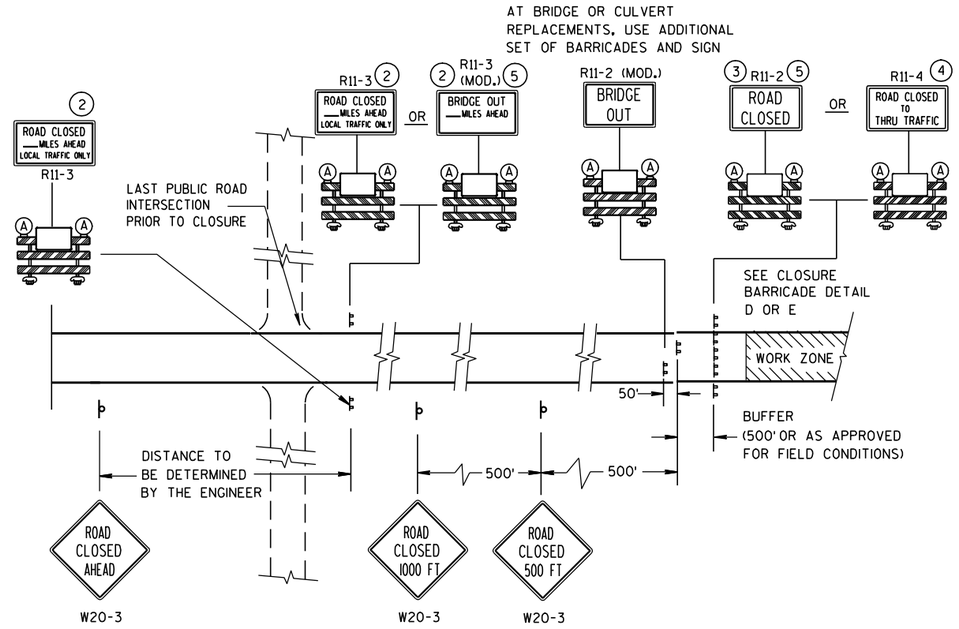
S.D.D. 15 A 3-1



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

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

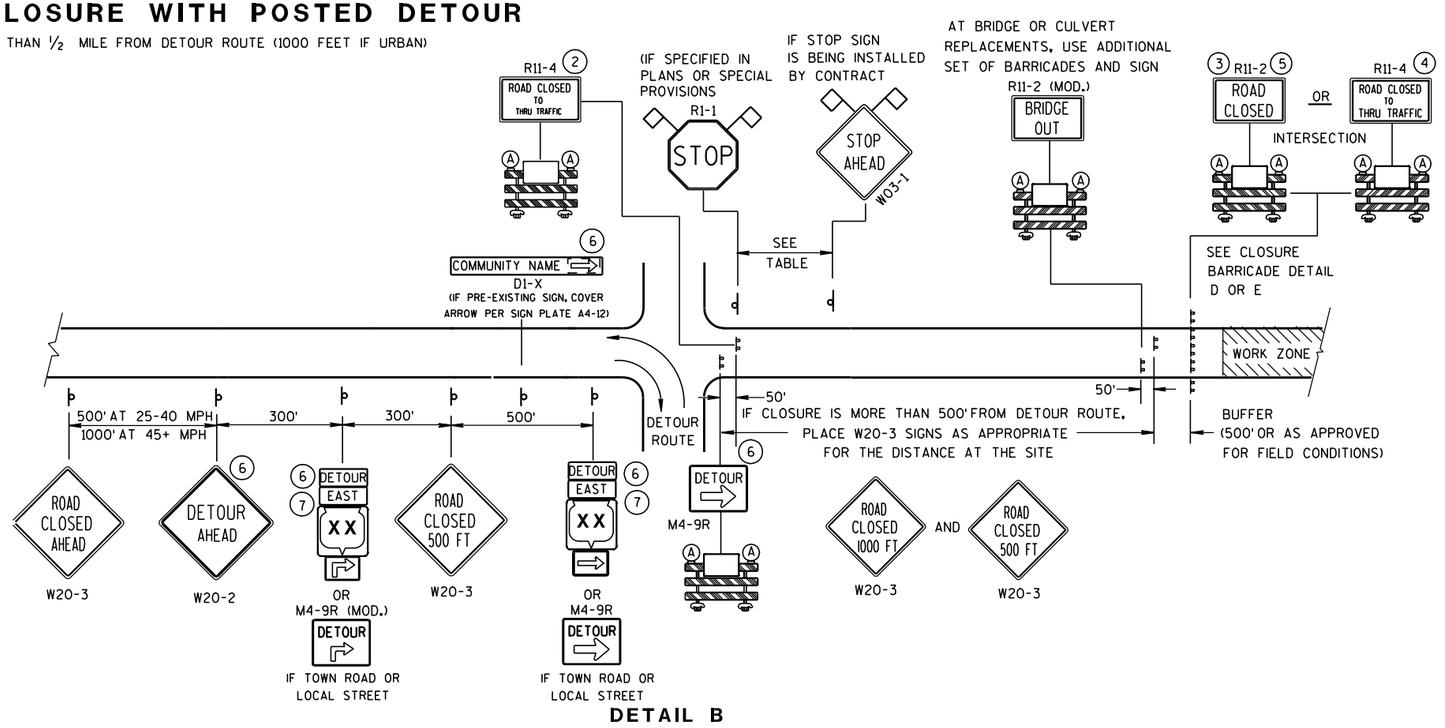


DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1; M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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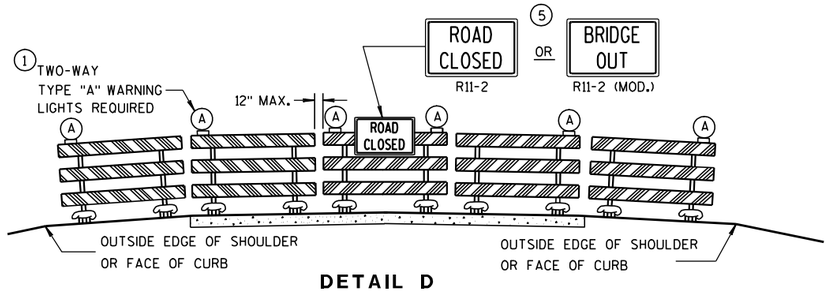
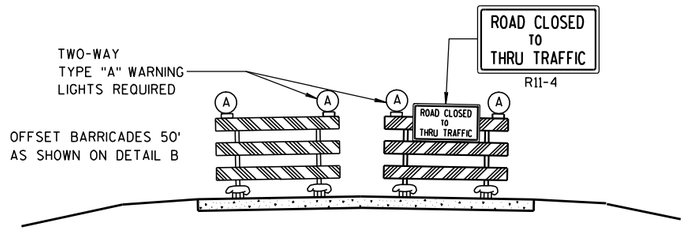
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/16/03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MAR[illegible]INEER

FHWA

6

S.D.D. 15 C 2-4b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

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

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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

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

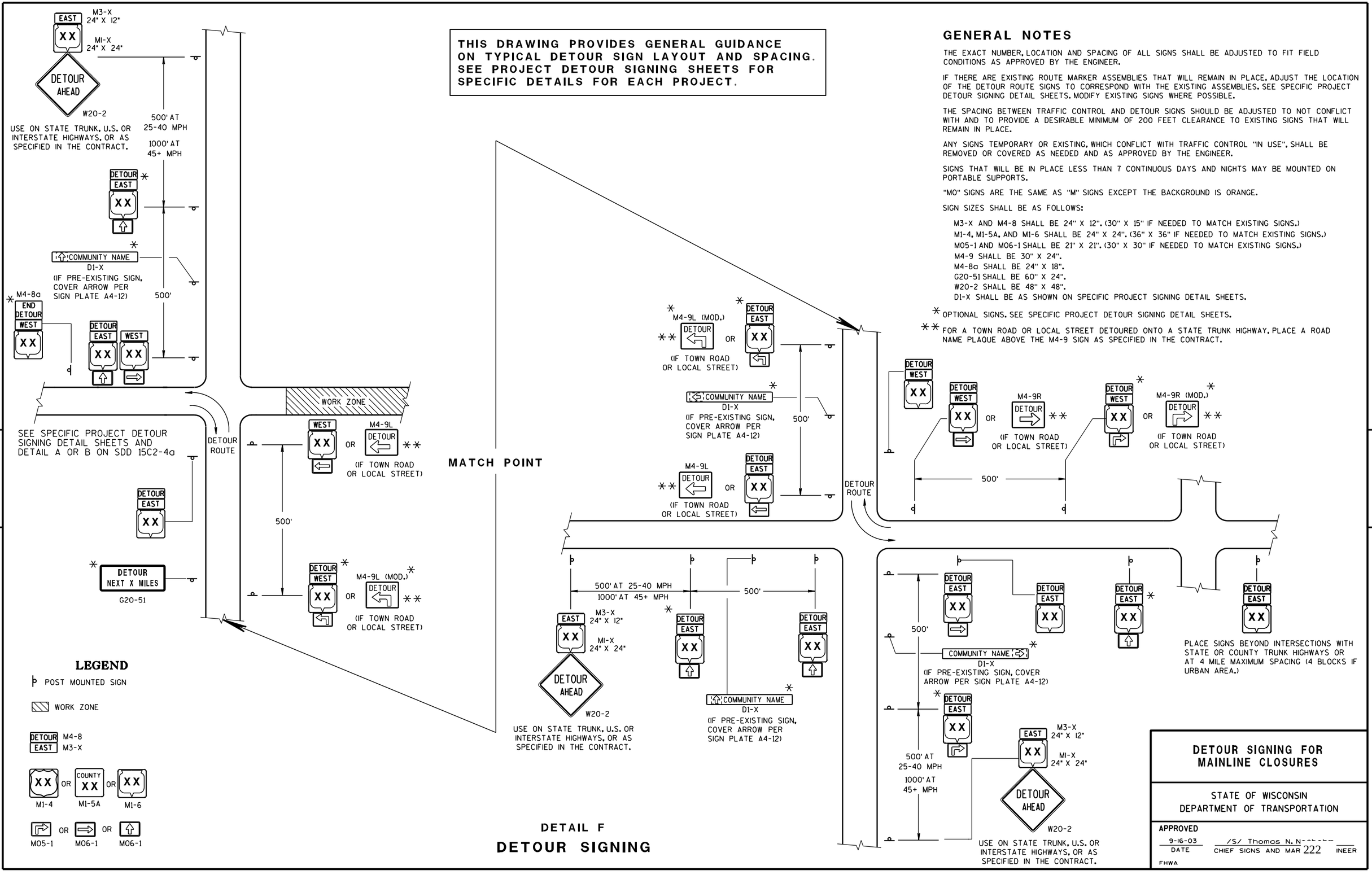
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
M4-9 SHALL BE 30" X 24".
M4-8a SHALL BE 24" X 18".
G20-51 SHALL BE 60" X 24".
W20-2 SHALL BE 48" X 48".
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



LEGEND

- POST MOUNTED SIGN
- WORK ZONE
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- MO5-1 OR MO6-1 OR MO6-1

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-16-03 DATE
/S/ Thomas N. [illegible] CHIEF SIGNS AND MAR 222 INEER
FHWA

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S.D.D. 15 C 2-4c

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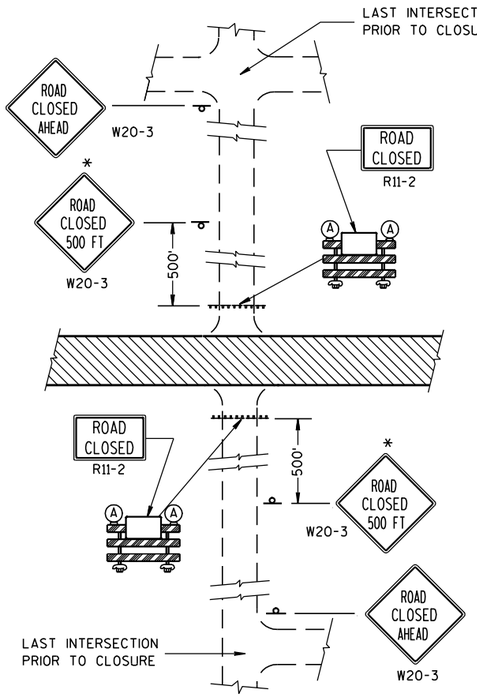
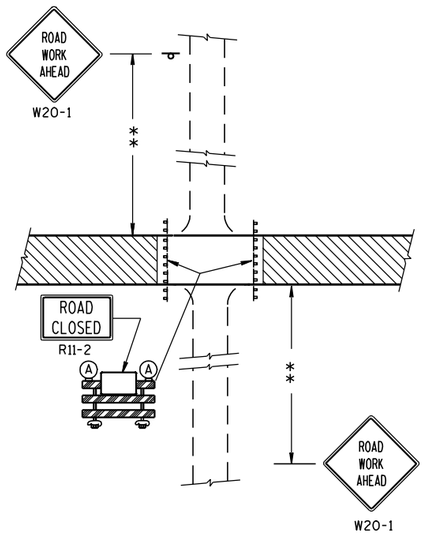
S.D.D. 15 C 2-4c



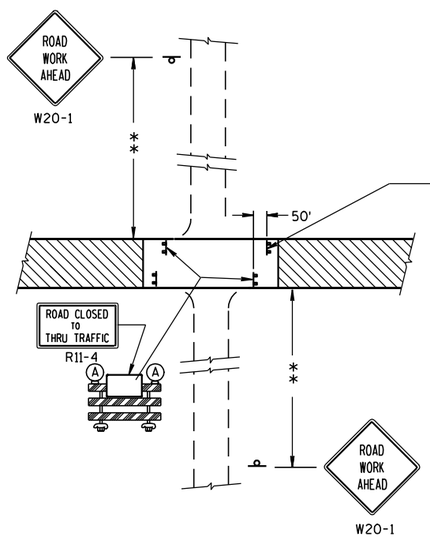
DETAIL 1

(NO ACCESS TO PROJECT)



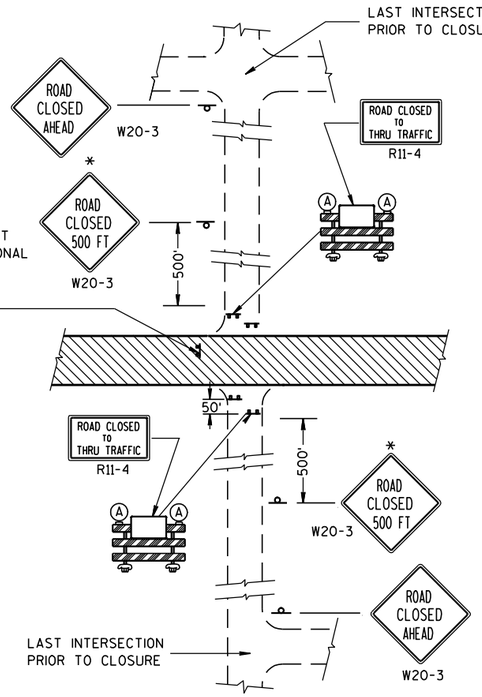
DETAIL 2

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



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- POST MOUNTED WARNING SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-03 DATE

/S/ Thomas N. N[illegible] CHIEF SIGNS AND MAR[illegible] INEER

FHWA

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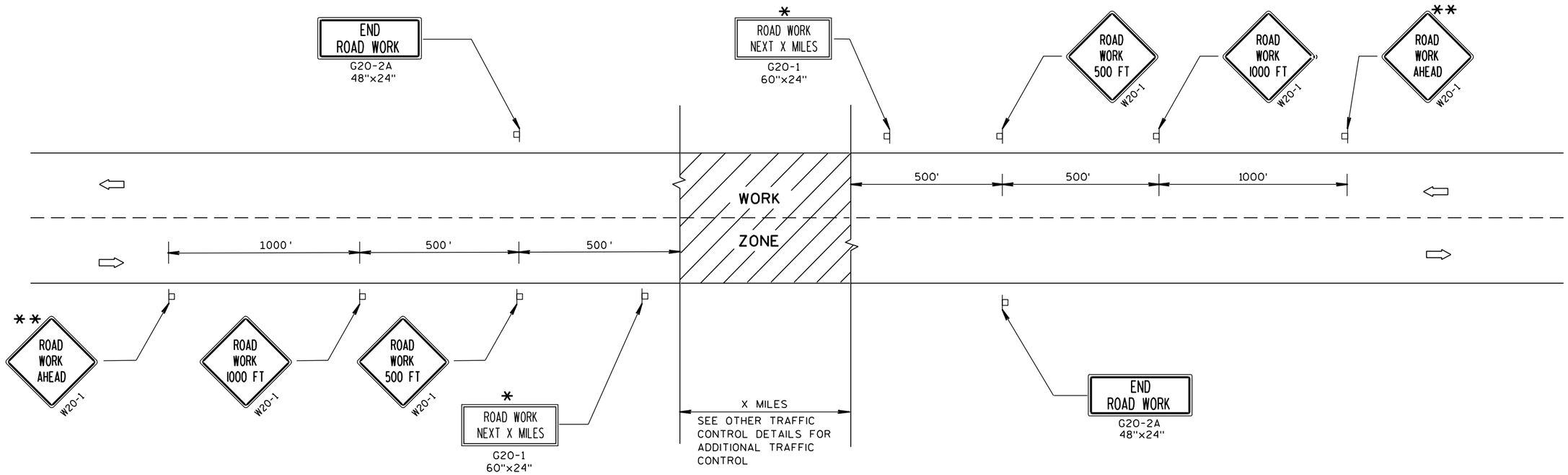
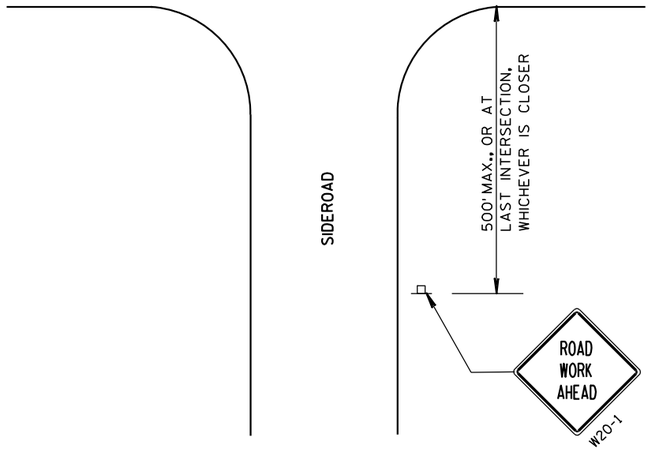
S.D.D. 15 C 3-1



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING.

LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

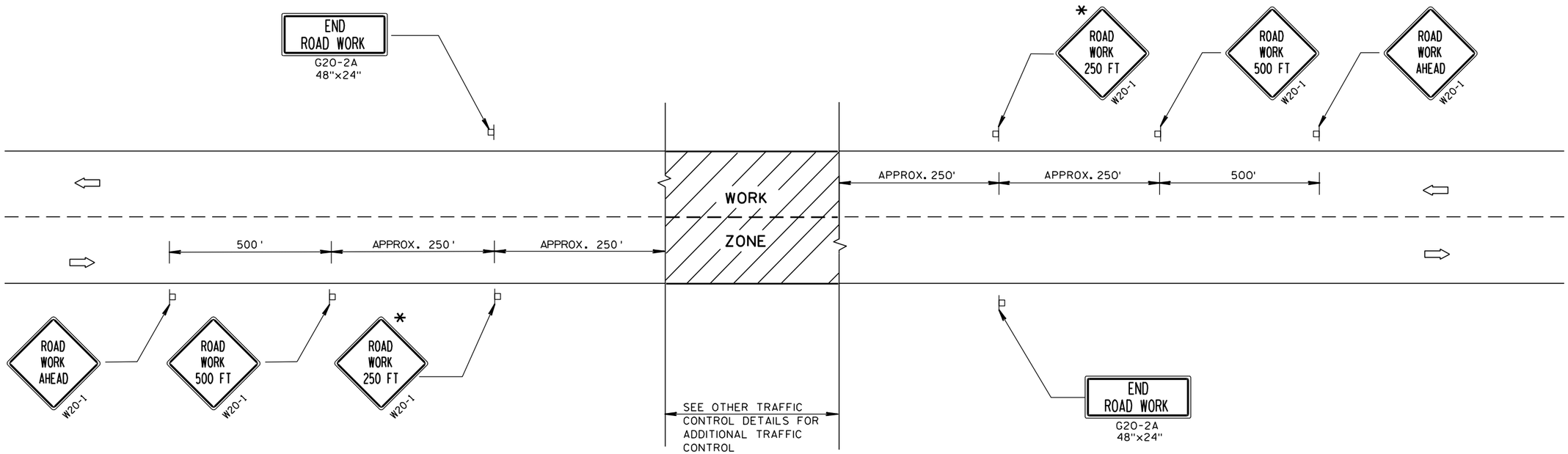
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

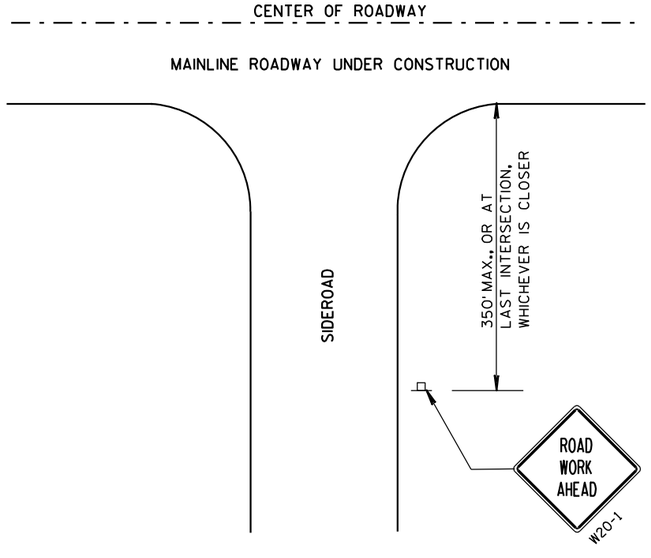
5/23/00 DATE

/S/ Chester J. [illegible] NEER
CHIEF SIGNS AND MARK 224

FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

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

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

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

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

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

LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKING ENGINEER

FHWA

6

S.D.D. 15 C 5-1

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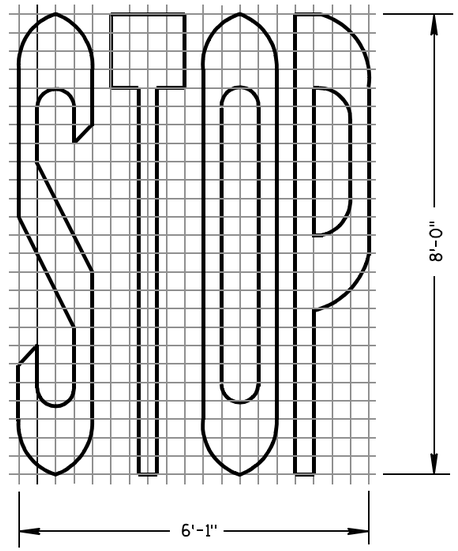
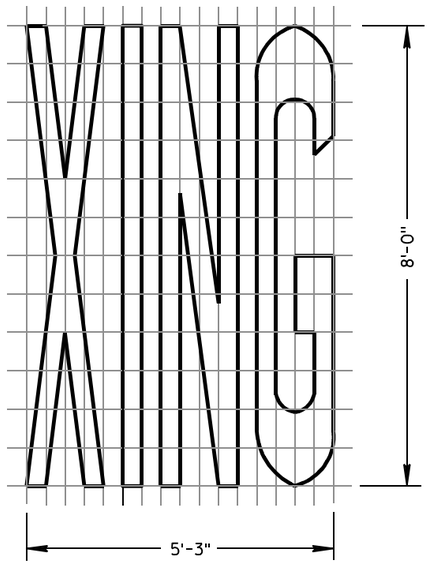
S.D.D. 15 C 5-1

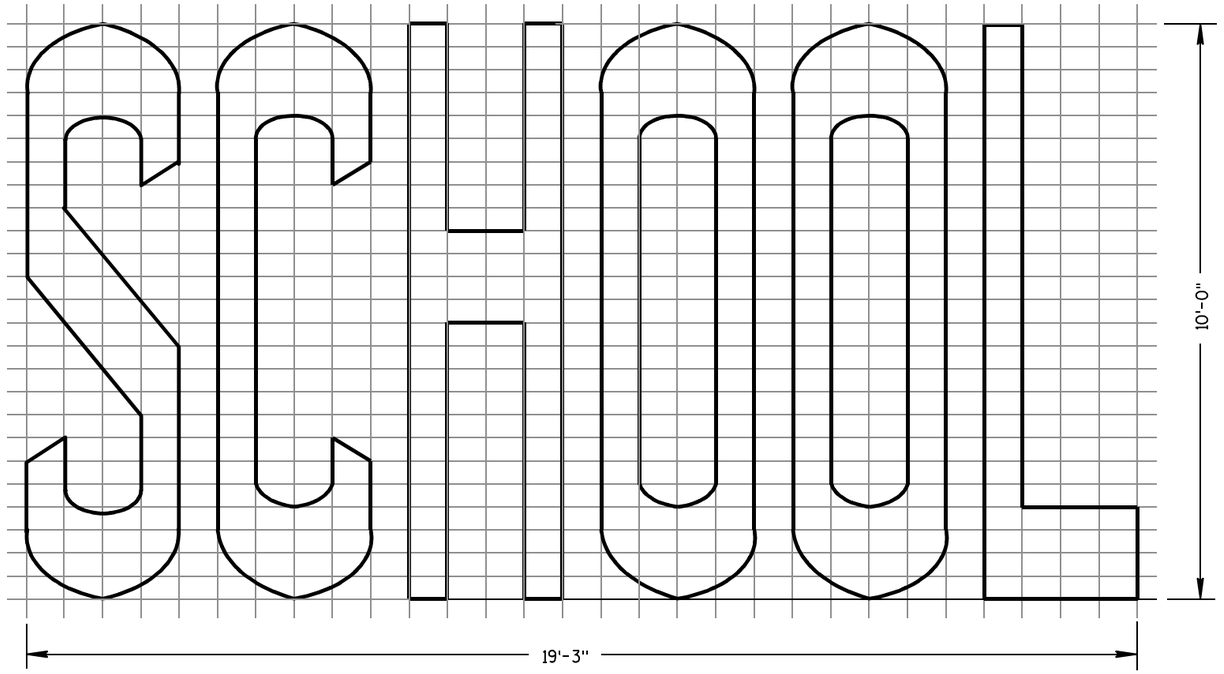
GENERAL NOTES

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

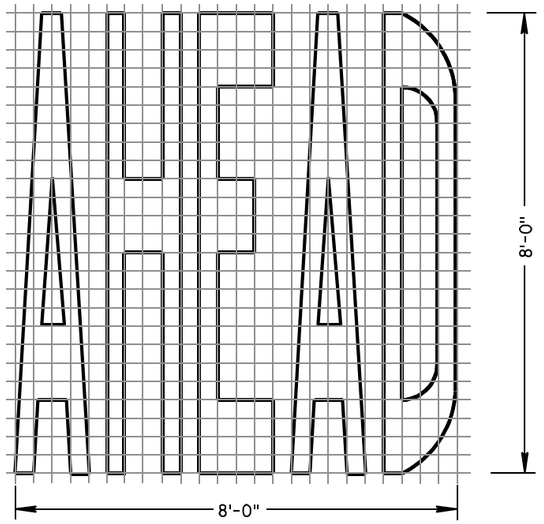
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

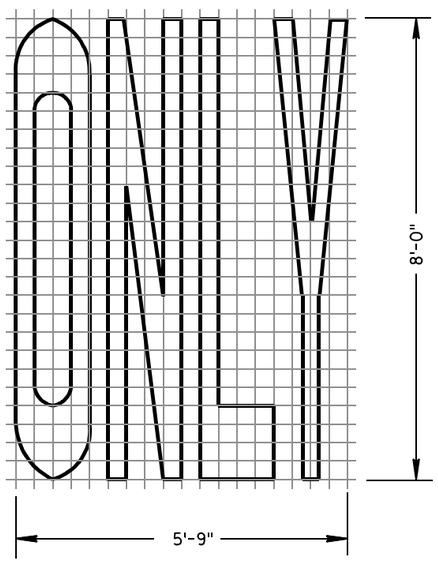


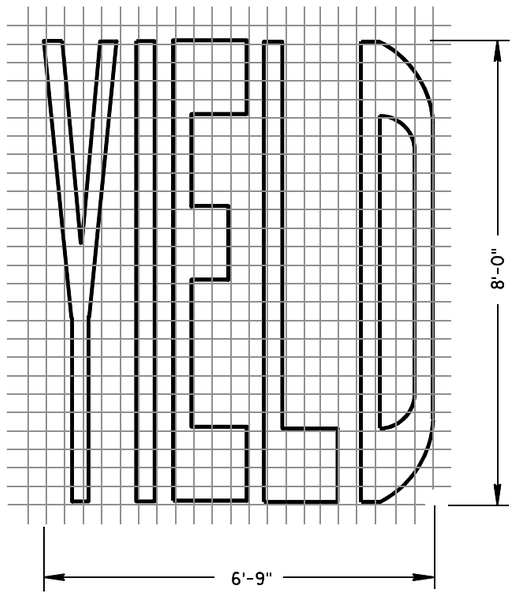


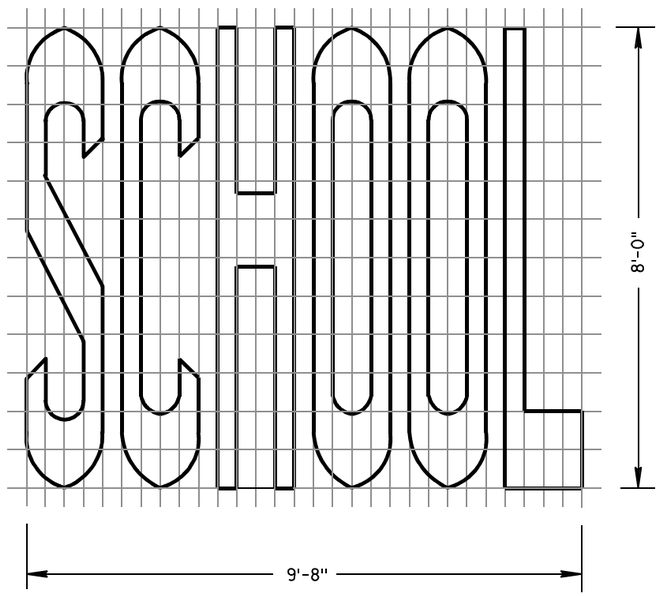


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

FHWA

IGN

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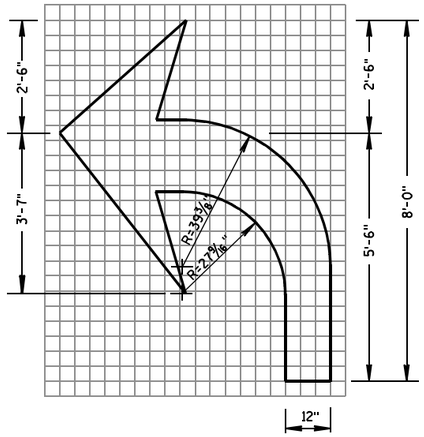
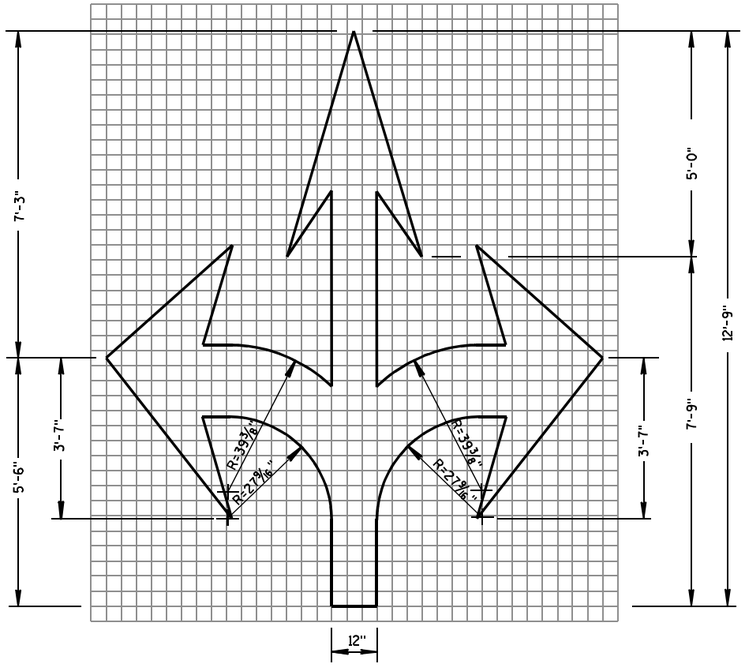
S.D.D. 15 C 7-12b



TYPE 2



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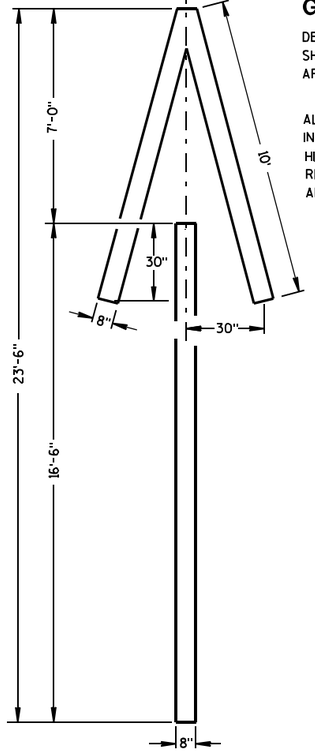
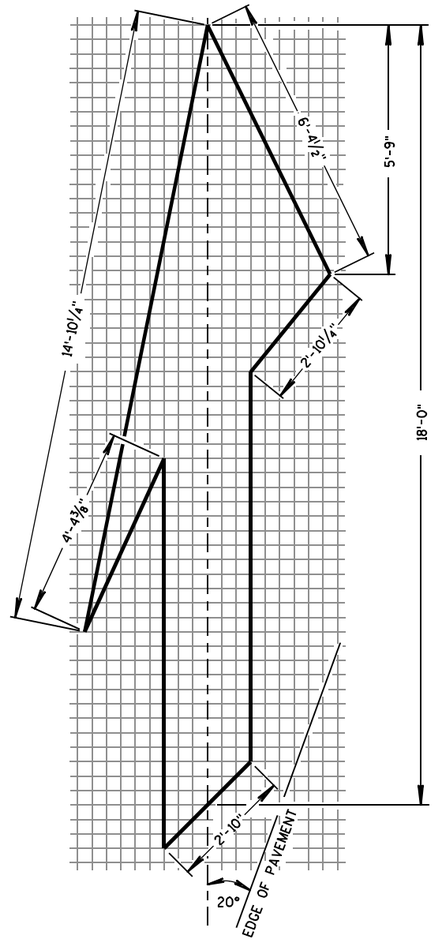


TYPE 4

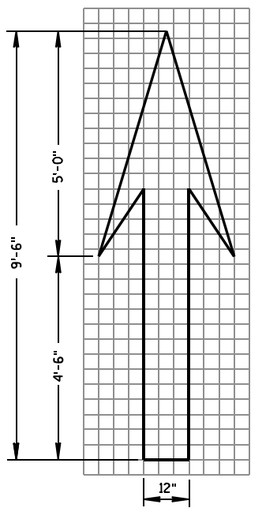
GENERAL NOTES

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.

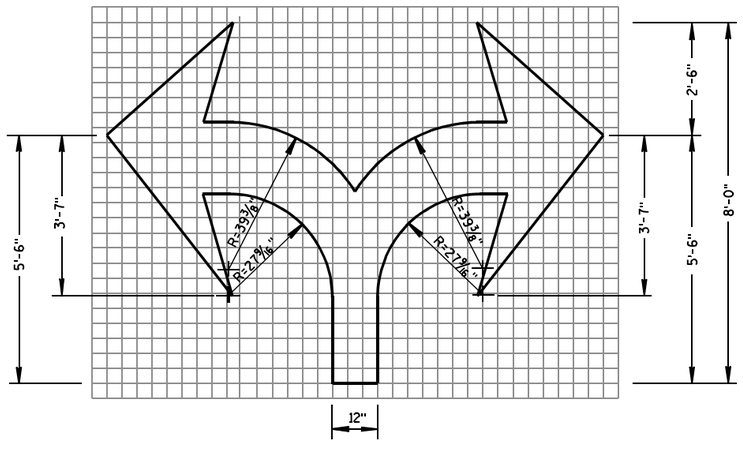
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



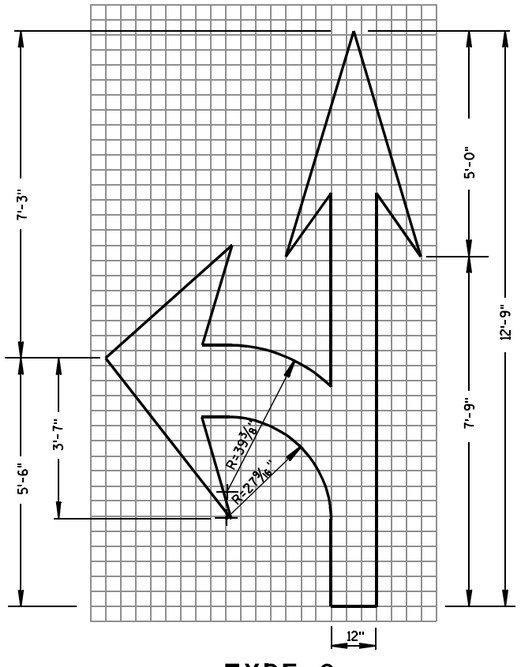
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

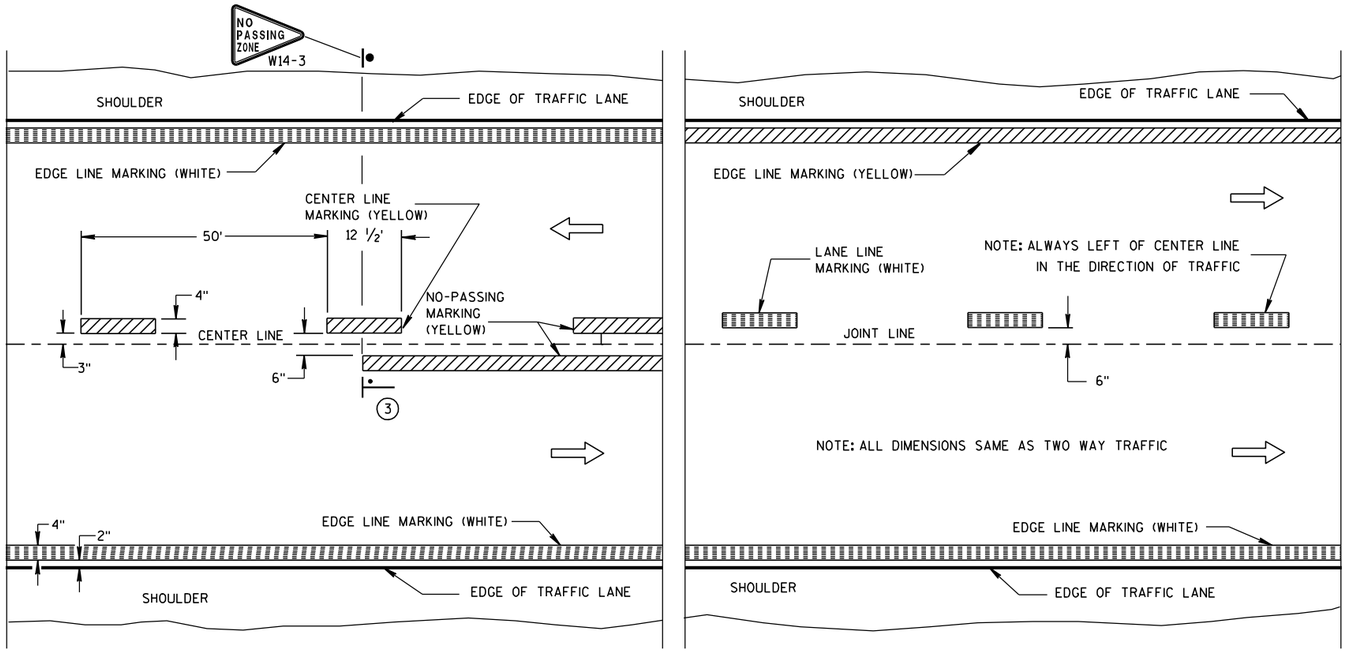
FHWA

6

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

6

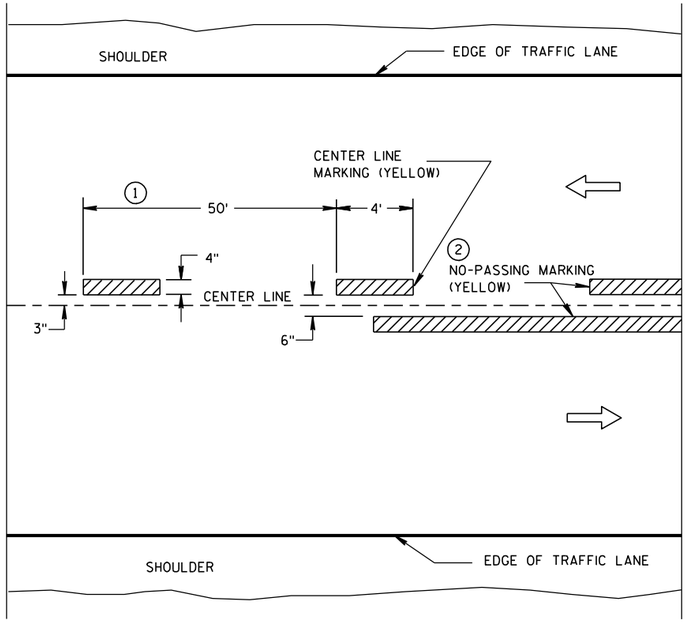
S.D.D. 15 C 7-12c



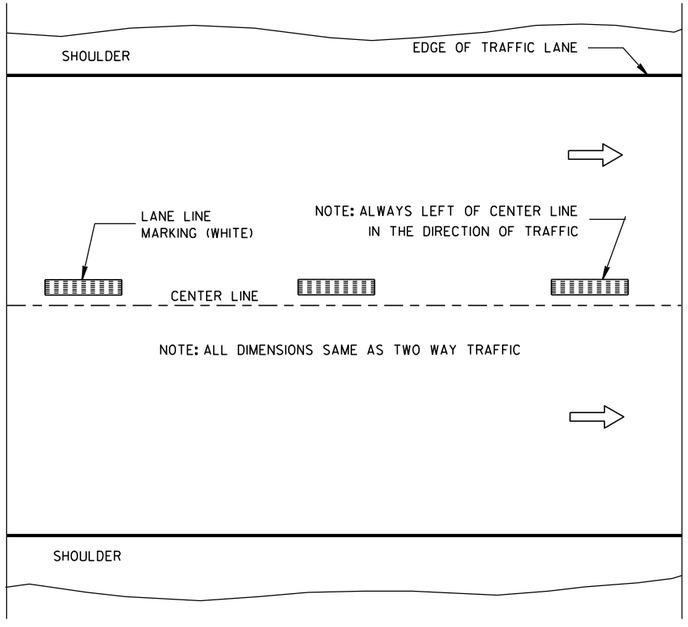
TWO WAY TRAFFIC

ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

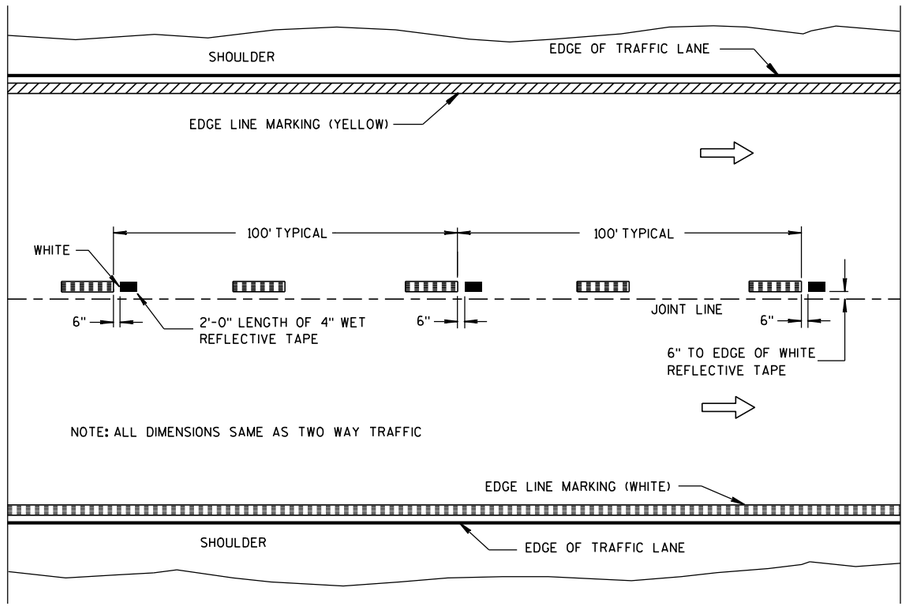
GENERAL NOTES

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

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

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

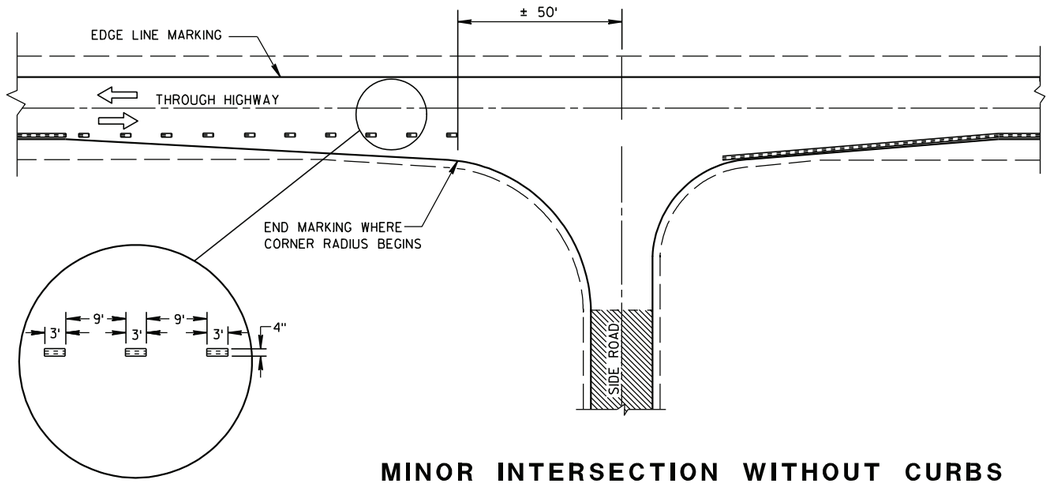
APPROVED
6-23-11 DATE
/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER
228
FHWA

6

S.D.D. 15 C 8-14a

6

S.D.D. 15 C 8-14a



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.

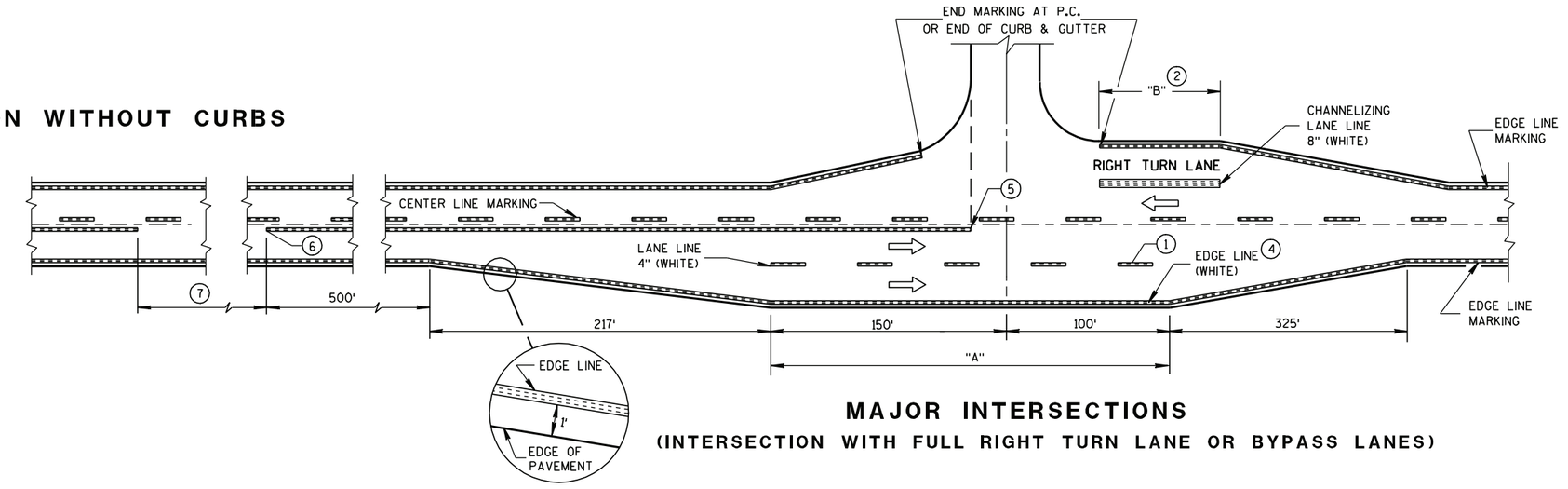
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

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

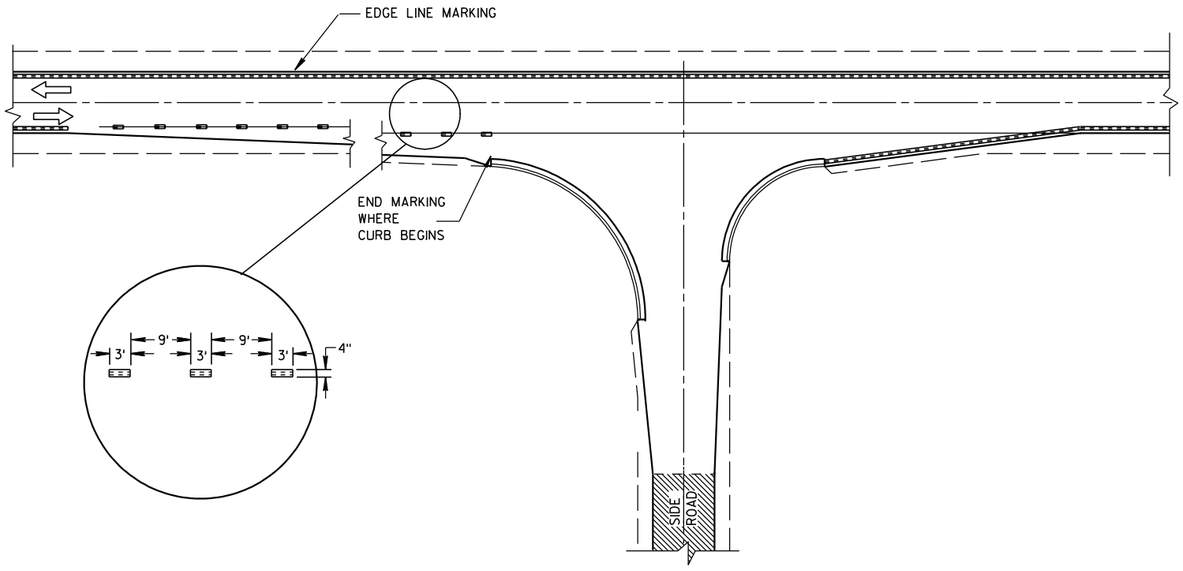
ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

(7)

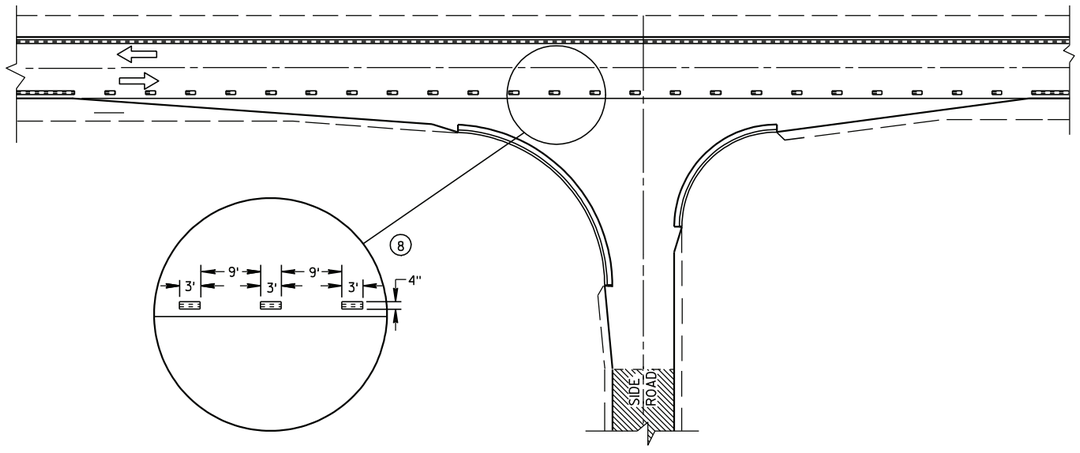
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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)

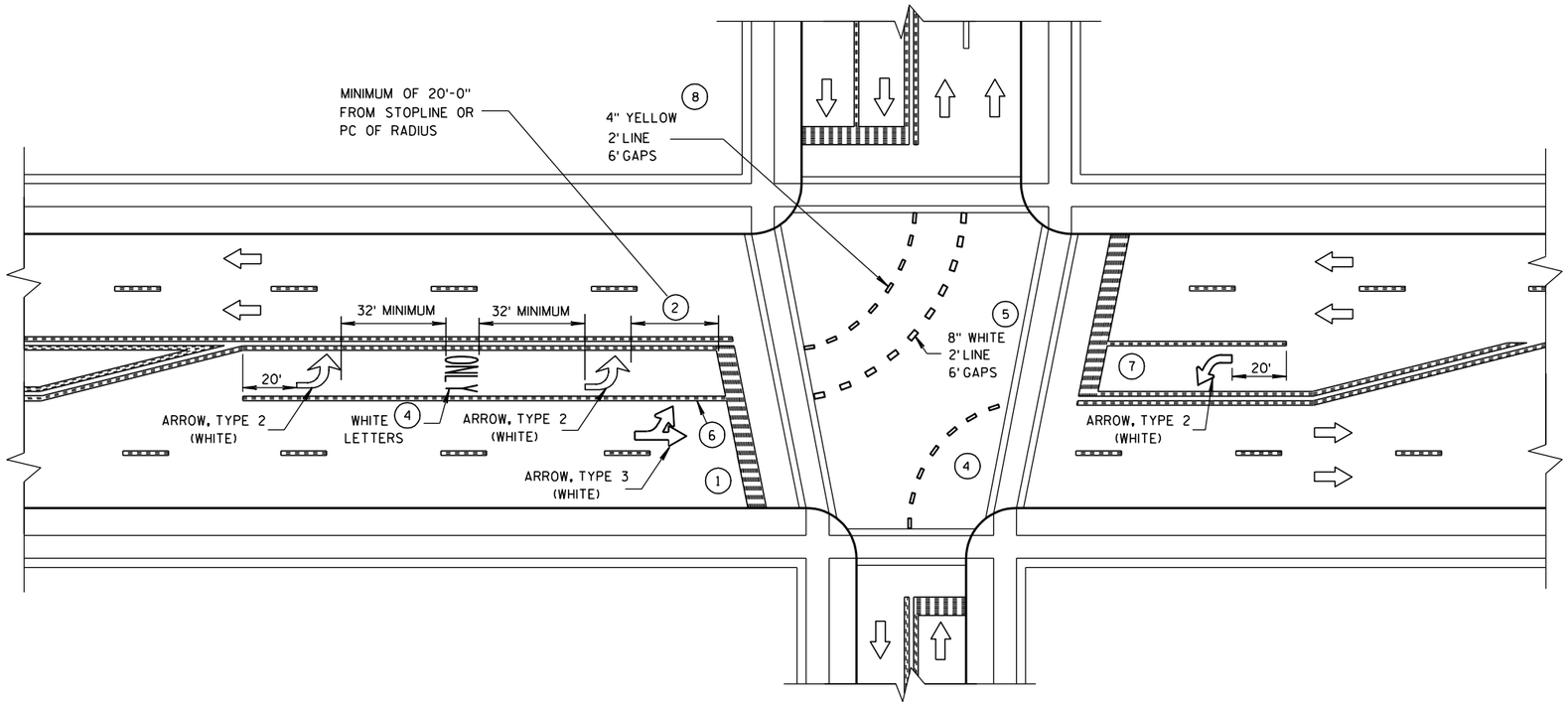
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 8-14b

6

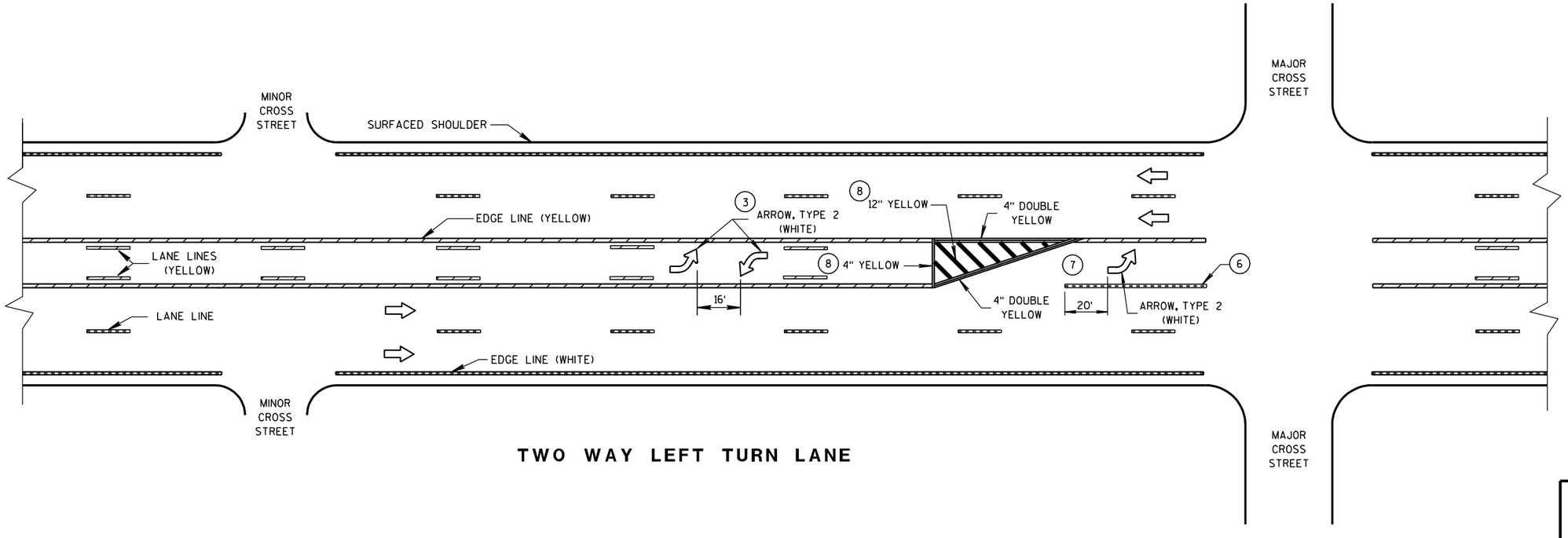
S.D.D. 15 C 8-14b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400' OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA ARROW AND ONLY PER 160' OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108'.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



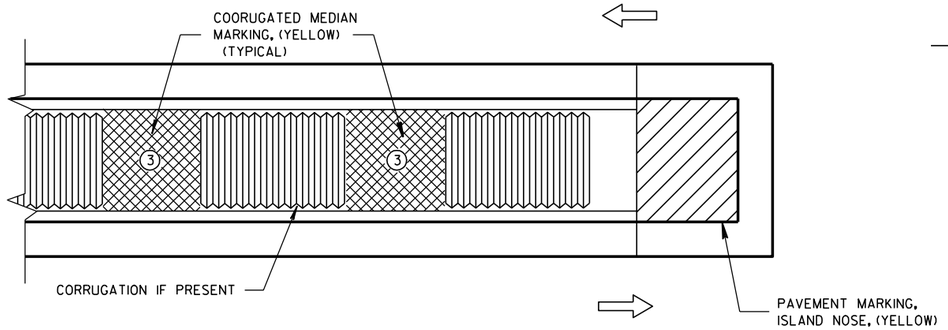
TWO WAY LEFT TURN LANE

PAVEMENT MARKING
(LEFT TURN LANE)

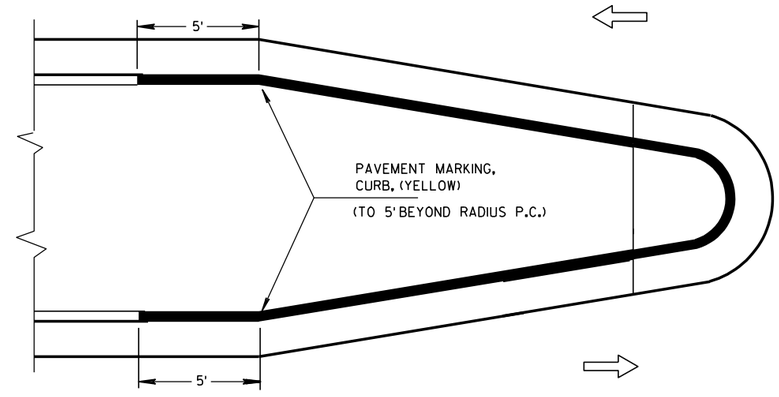
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

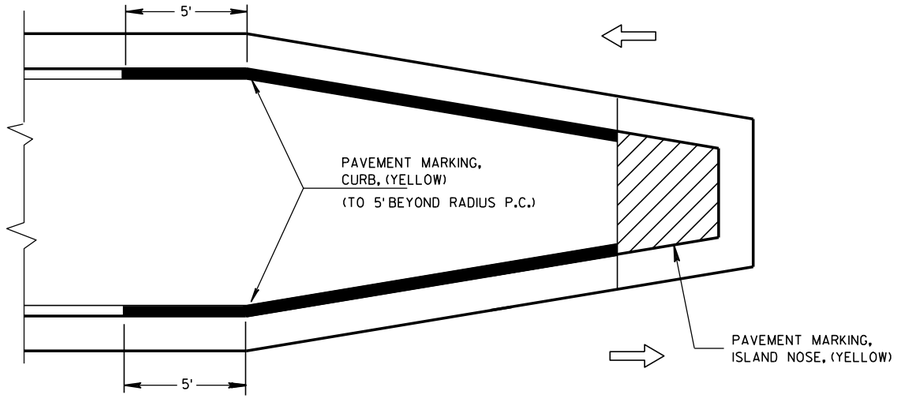
S.D.D. 15 C 8-14e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

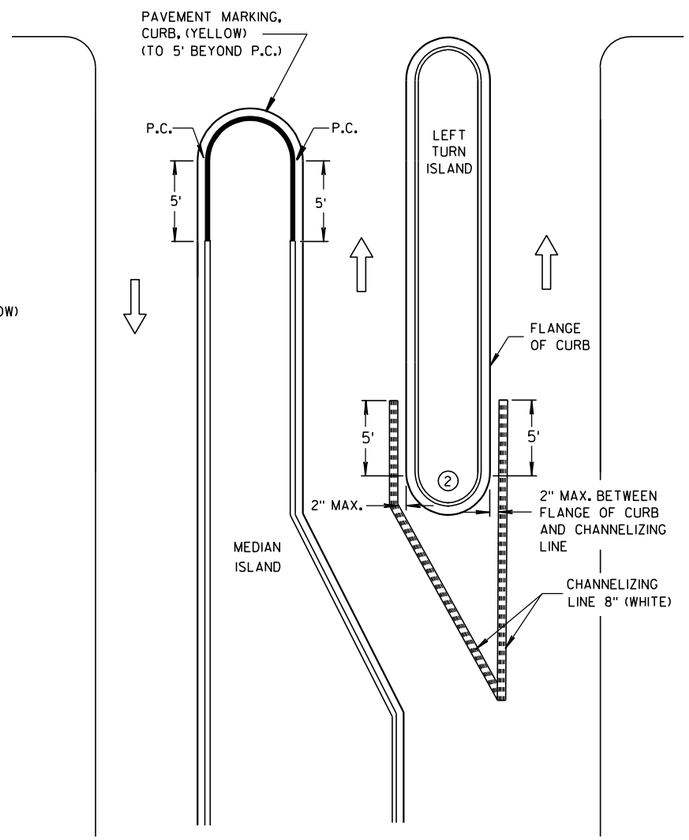


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

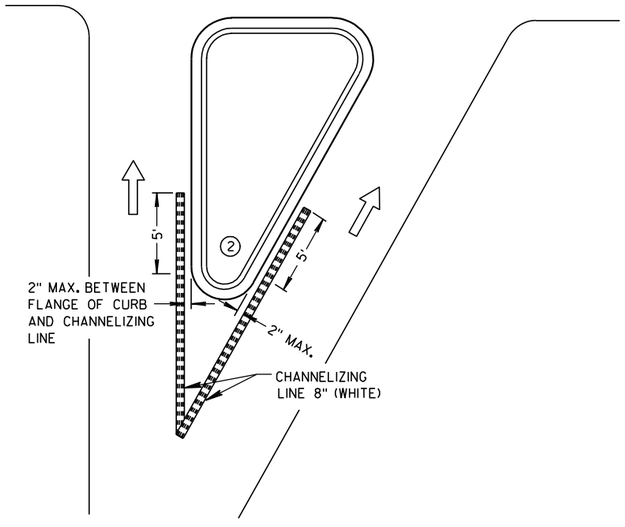
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



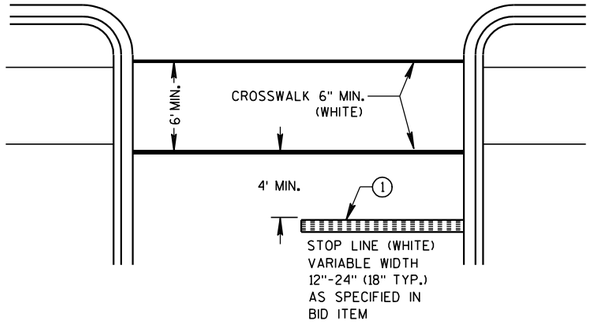
LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
3. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND



STOP LINE AND CROSSWALK

LEGEND

- ISLAND NOSE MARKING
- CURB MAKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 8-14f

6

S.D.D. 15 C 8-14f

TWO-LANE ROADWAY

SYMBOLS

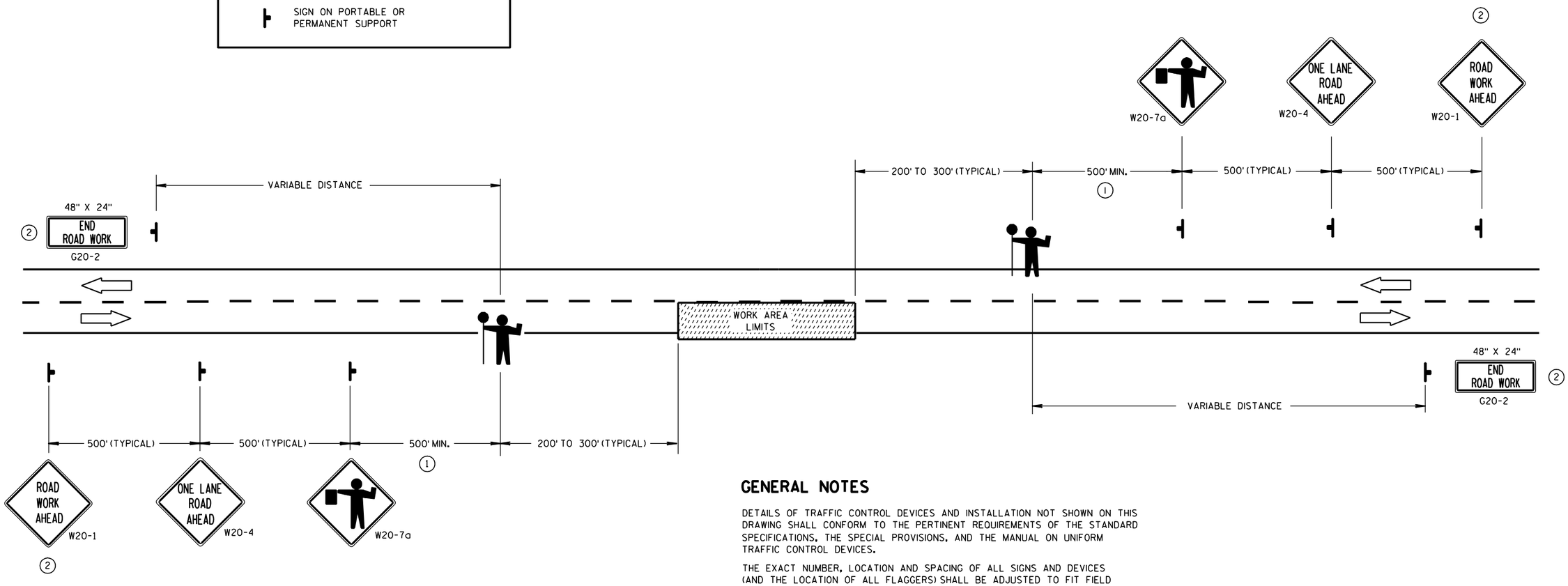
WORK AREA

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

SIGN ON PORTABLE OR PERMANENT SUPPORT

W3-4

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



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

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

GENERAL NOTES

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

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/5/06 — DATE

/S/ Thomas N. Nathaam — STATE TRAFFIC ENGINEER

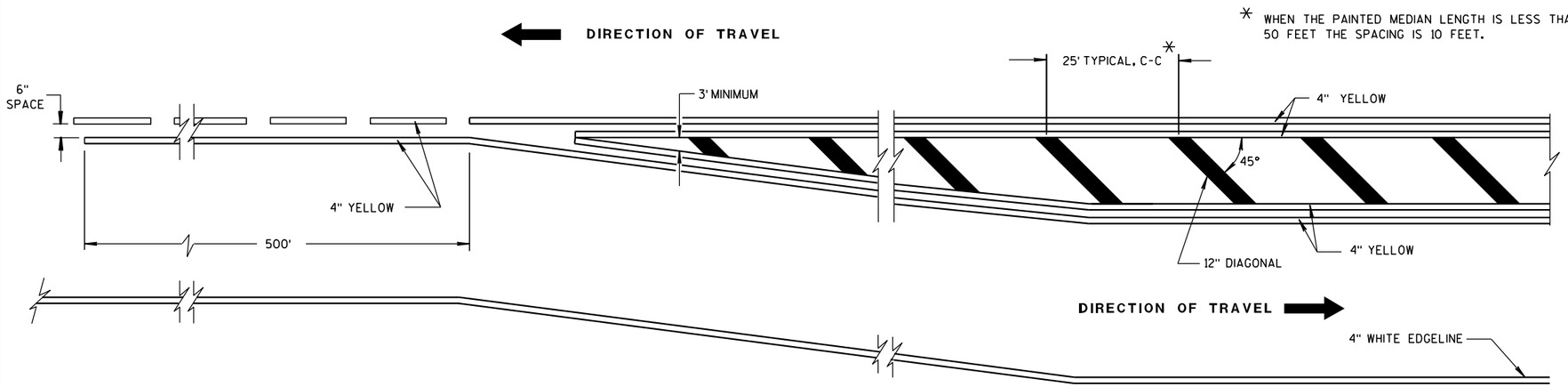
FHWA

6

S.D.D. 15 C 12-3

6

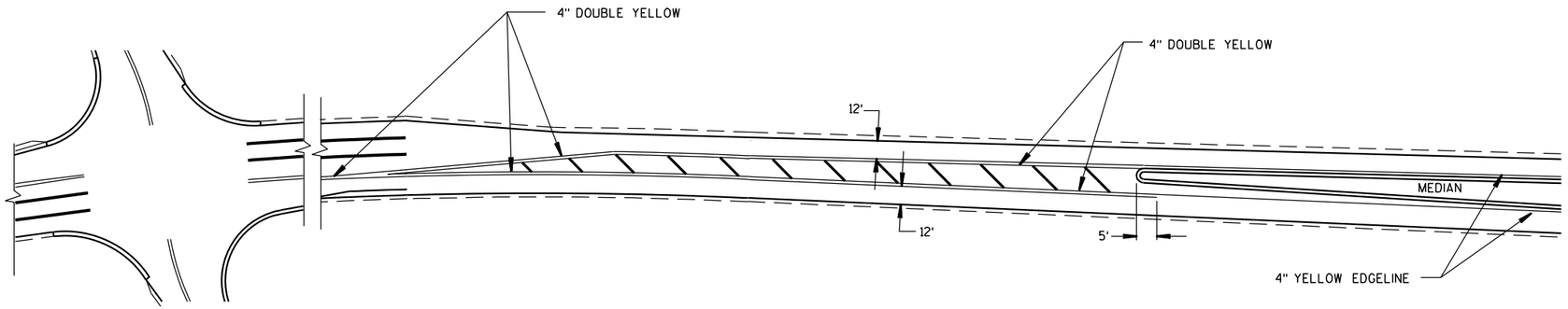
S.D.D. 15 C 12-3



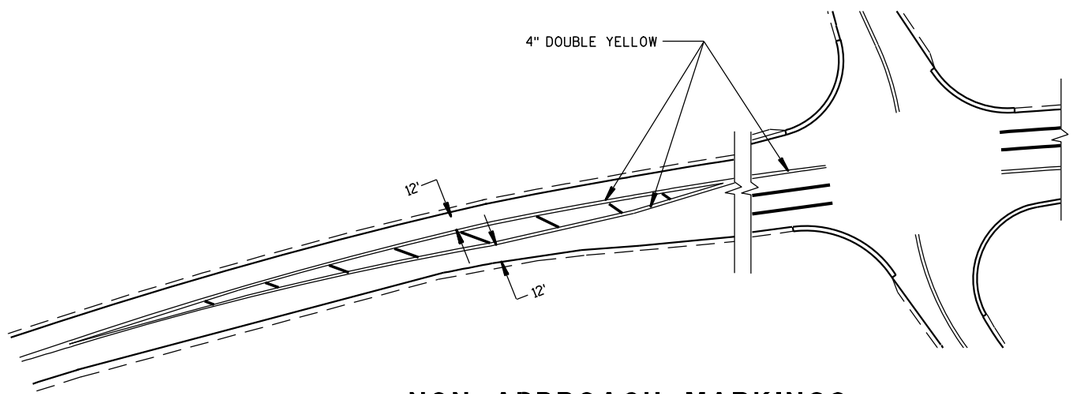
MEDIAN ISLAND DETAIL

GENERAL NOTE

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



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER 233 IGN
FHWA	

6

S.D.D. 15 C 18-3

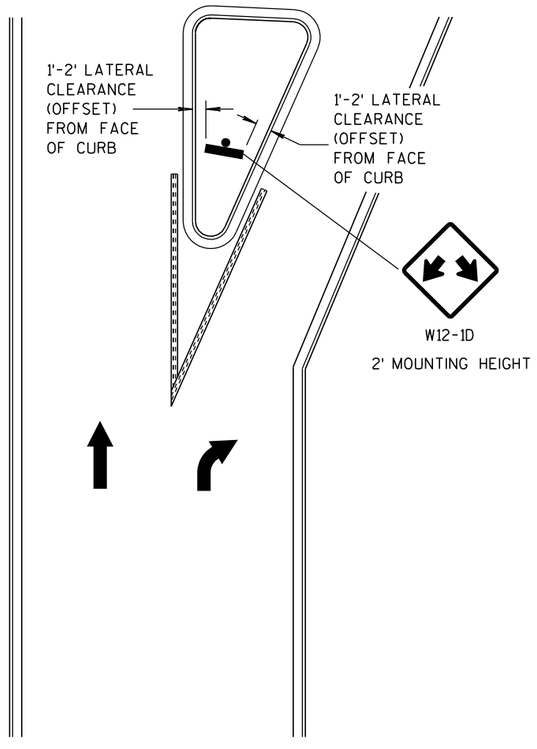
6

S.D.D. 15 C 18-3

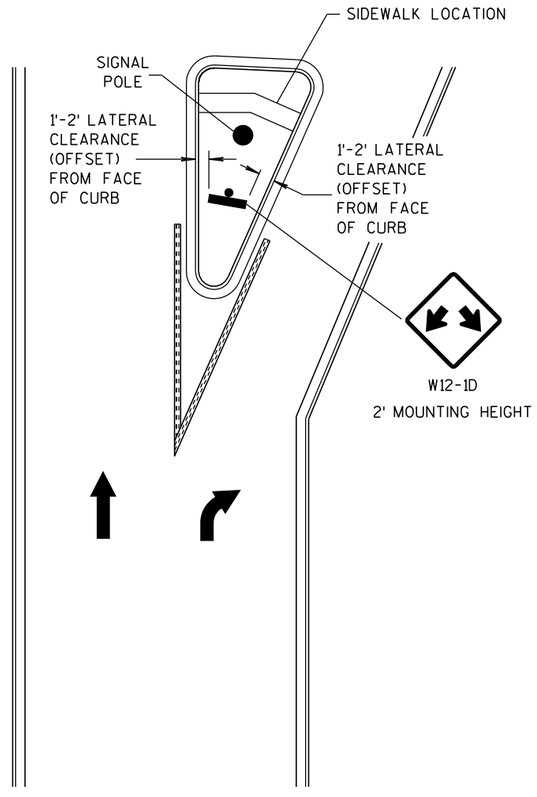
GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

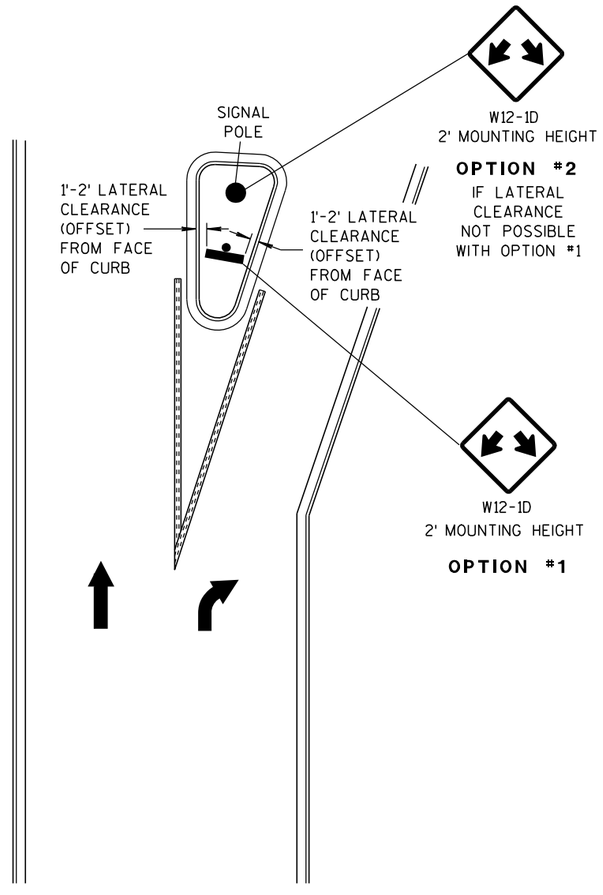
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.



LARGE RIGHT TURN ISLAND



LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE



SMALL RIGHT TURN ISLAND

DOUBLE ARROW WARNING SIGN PLACEMENT

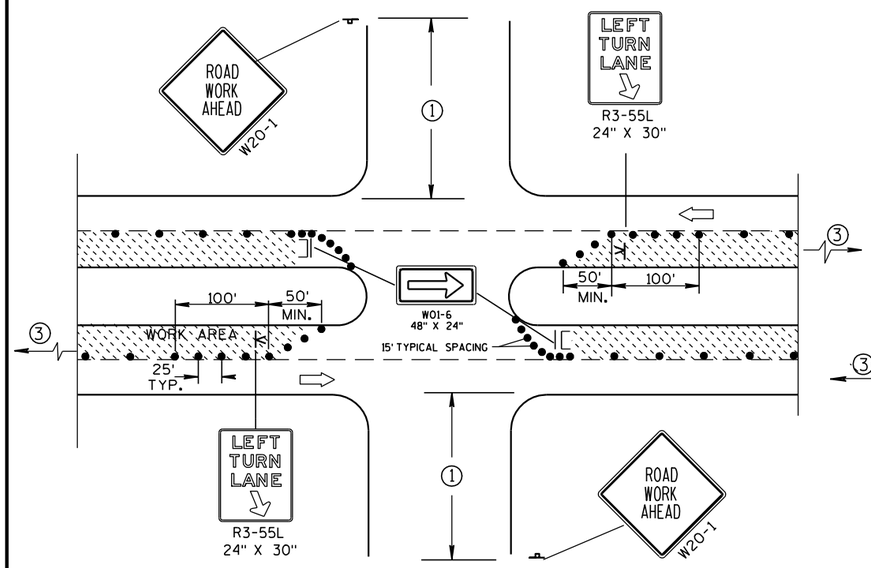
DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-08 DATE	/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER 234 IGN
FHWA	

6

S.D.D. 15 C 27-1

6

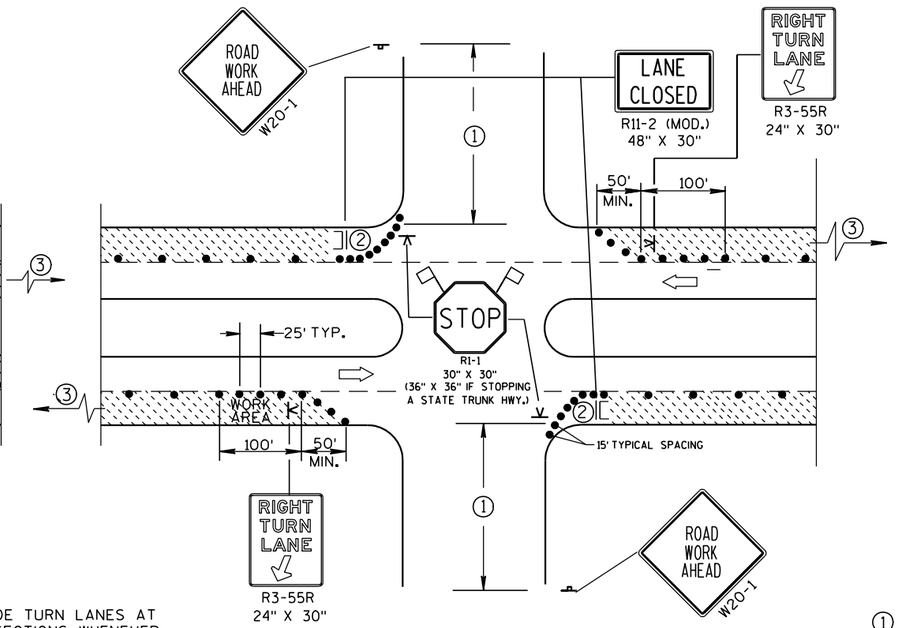
S.D.D. 15 C 27-1



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

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

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

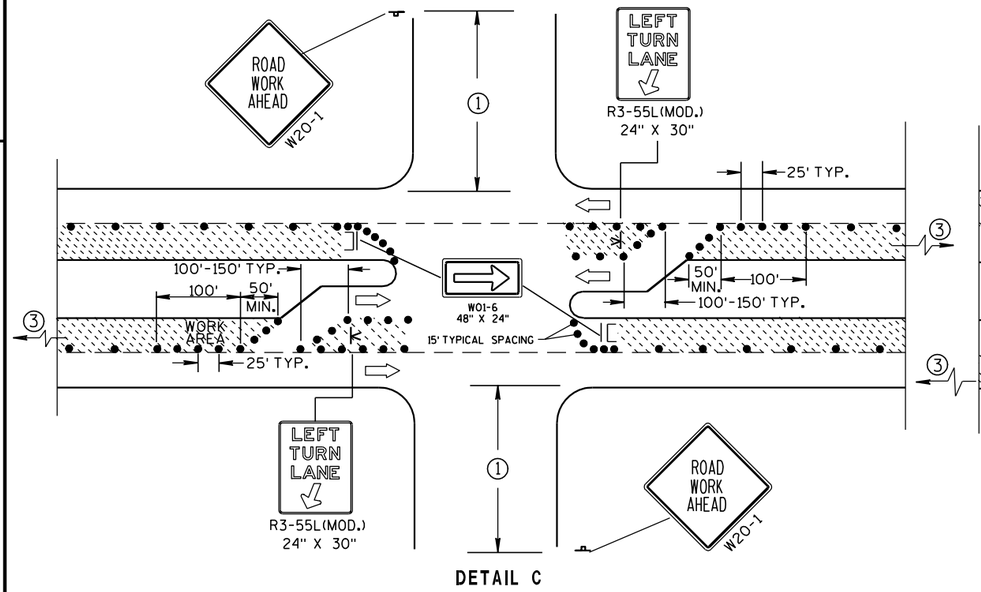
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

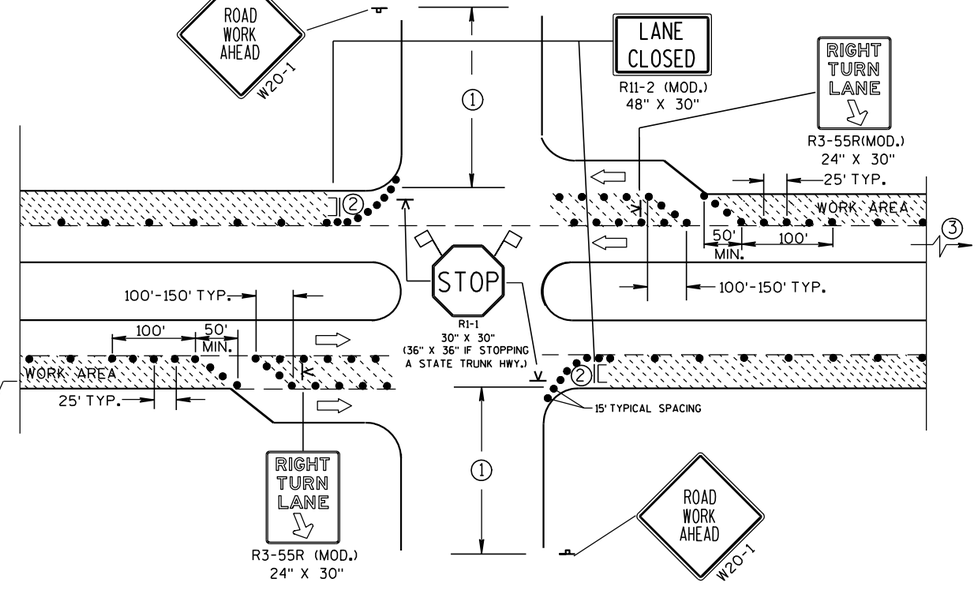
② ALSO USE BARRICADE AND 15' TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- DRUM
- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHT, TYPE A (FLASHING) WITH SIGN
- DIRECTION OF TRAFFIC FLOW
- FLAGS, 16" X 16" MIN., ORANGE

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00 — DATE

/S/ Chester J. Spang — CHIEF SIGNS AND MARKING ENGINEER

FHWA

6

S.D.D. 15 D 21-1

GENERAL NOTES

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

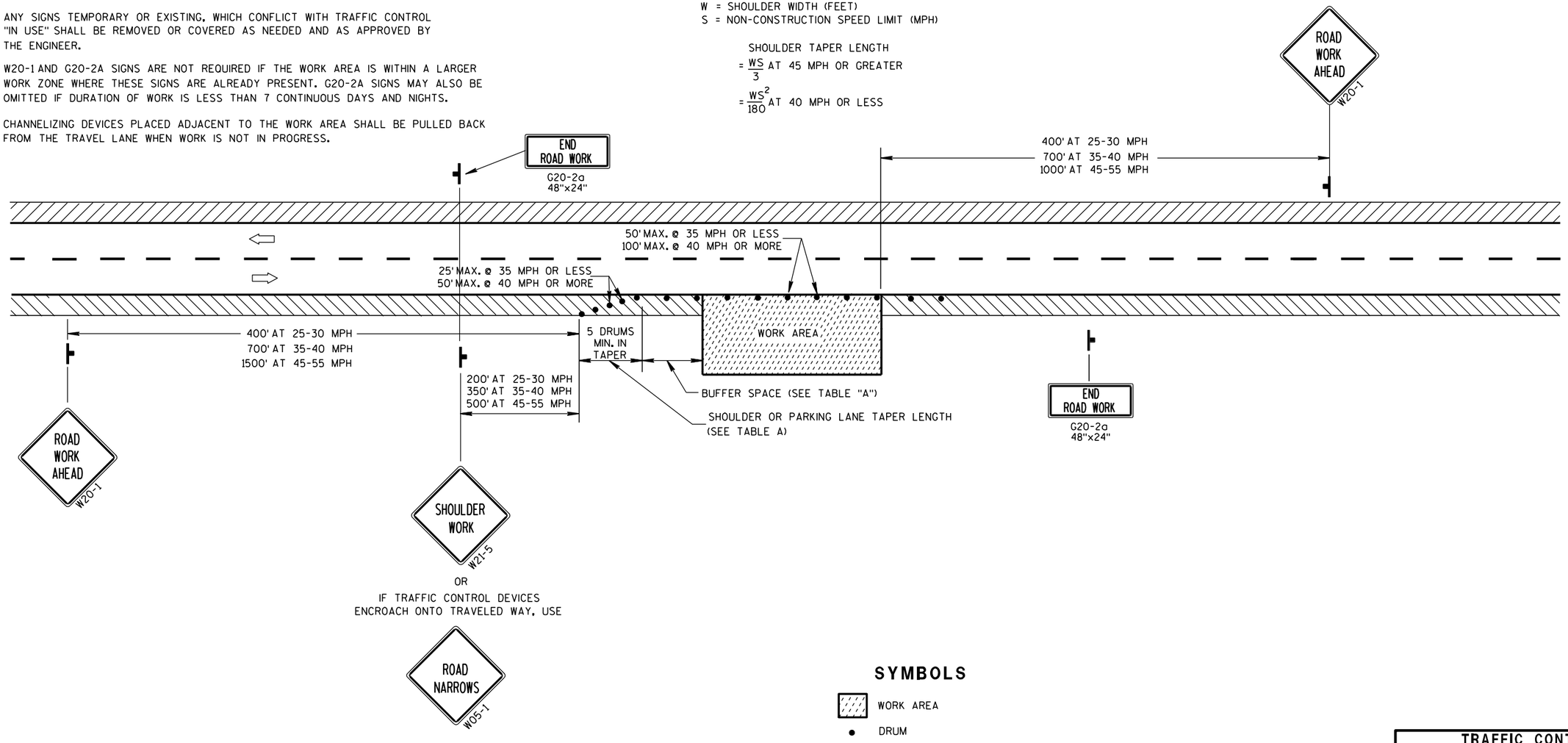
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
$= \frac{WS}{3}$ AT 45 MPH OR GREATER
$= \frac{WS^2}{180}$ AT 40 MPH OR LESS



SYMBOLS

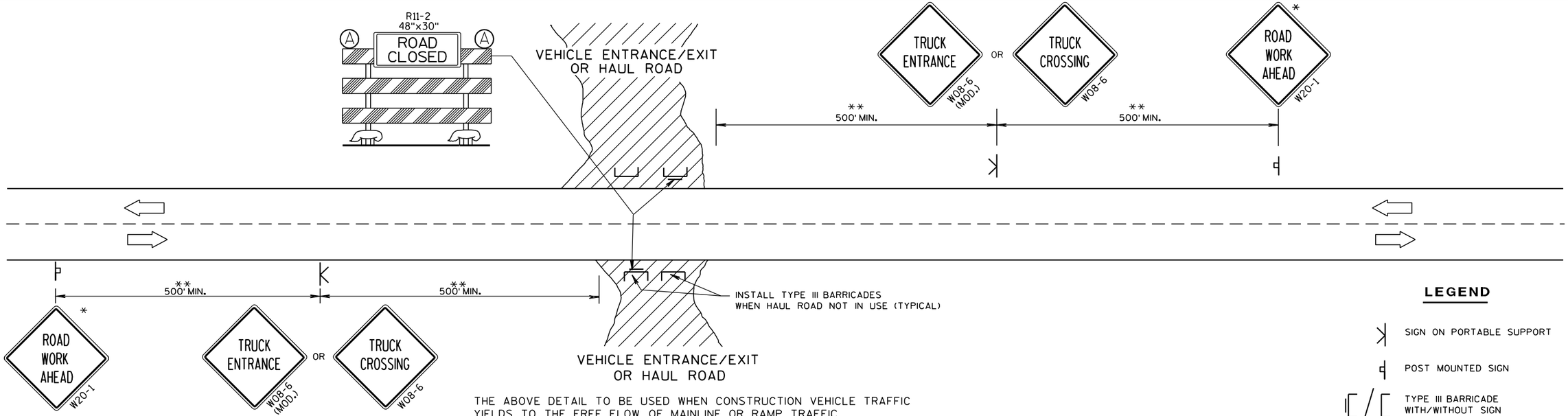
- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER
FHWA

6
S.D.D. 15 D 28-1



THE ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC

GENERAL NOTES

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

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

* THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE **ENTRANCE/EXIT CONDITIONS ARE SEPARATED BY MORE THAN 2 MILES** FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.

** 500' SHOWN IS FOR ROADWAYS WITH A NON-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350'. FOR 25-30 MPH, USE 200'. USE 1000'/1500' FOR EXPRESSWAY/FREEWAY.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

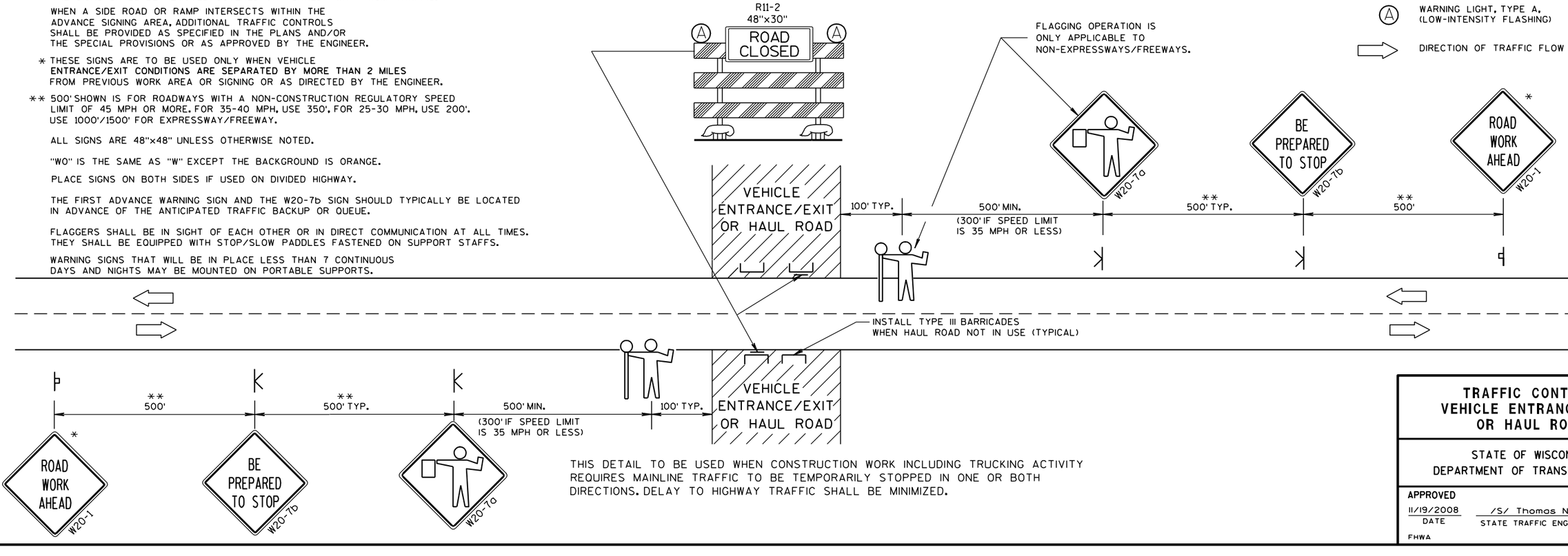
THE FIRST ADVANCE WARNING SIGN AND THE W20-7b SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS.

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

LEGEND

- SIGN ON PORTABLE SUPPORT
- POST MOUNTED SIGN
- TYPE III BARRICADE WITH/WITHOUT SIGN
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- (A) WARNING LIGHT, TYPE A, (LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC FLOW



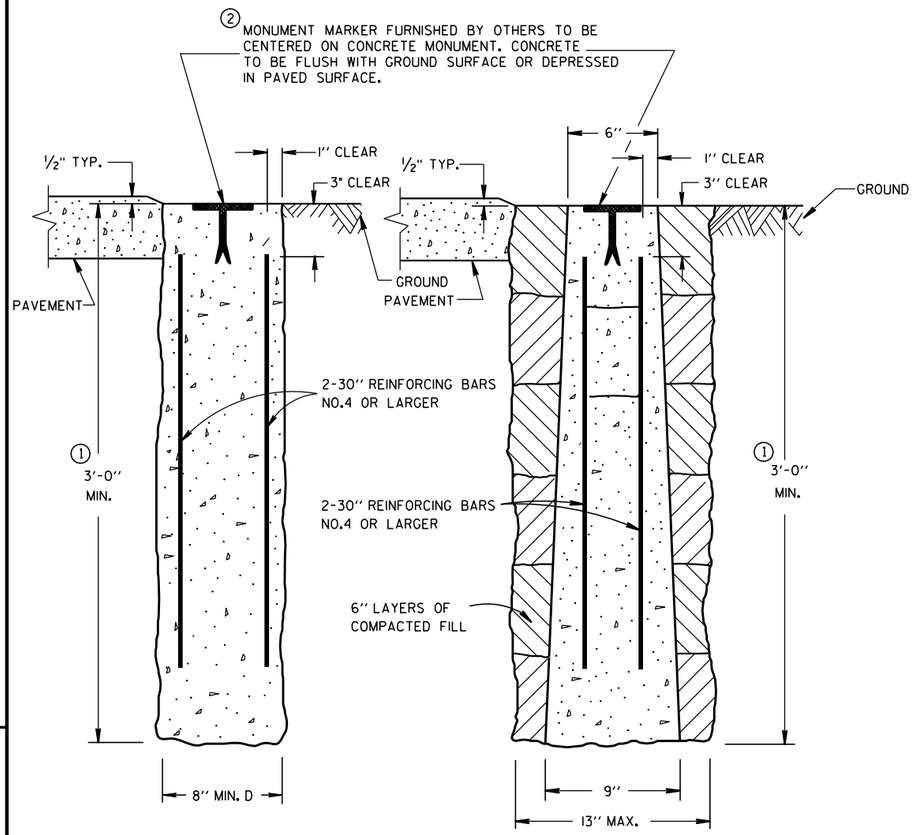
THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/19/2008 DATE
/S/ Thomas N. N[illegible]
STATE TRAFFIC ENGINE[illegible] SIGN
FHWA

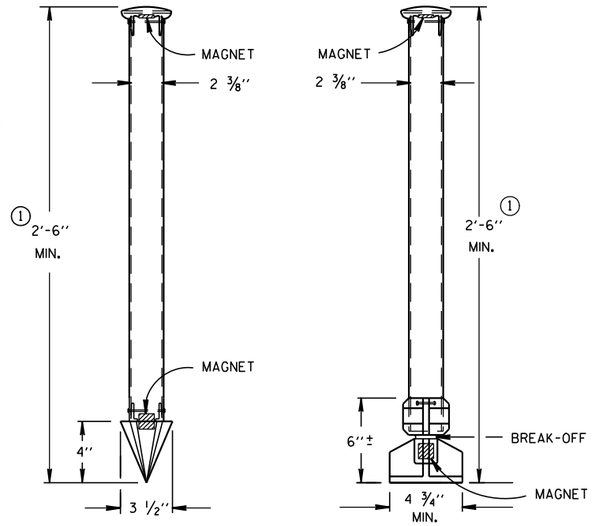
6
S.D.D. 15 D 29-2



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C DRIVE-IN MONUMENT

TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

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

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

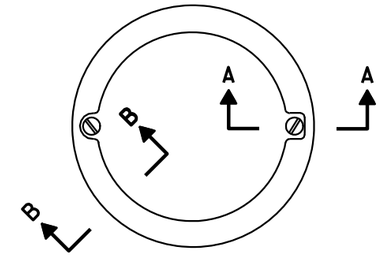
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

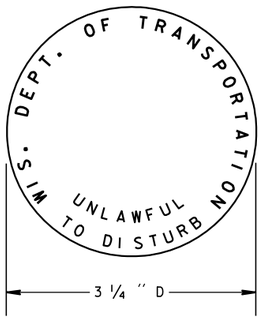
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

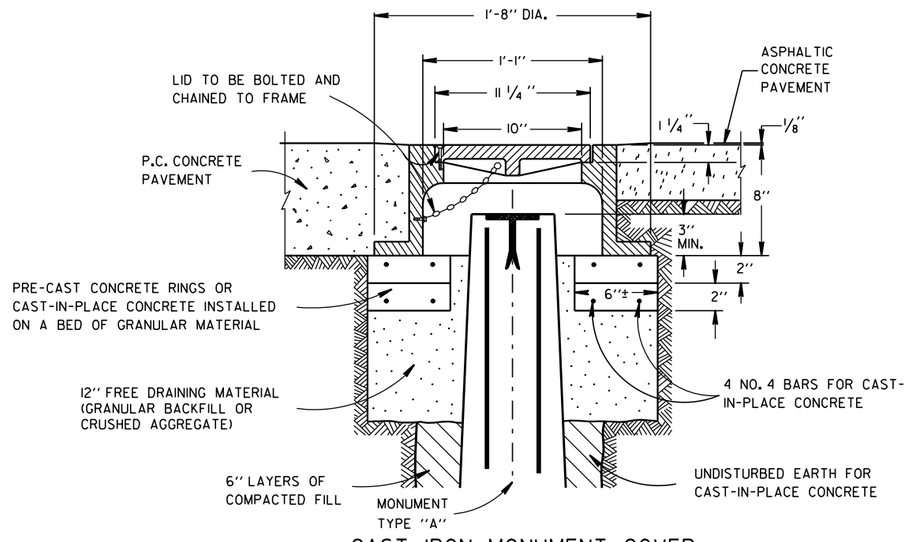
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

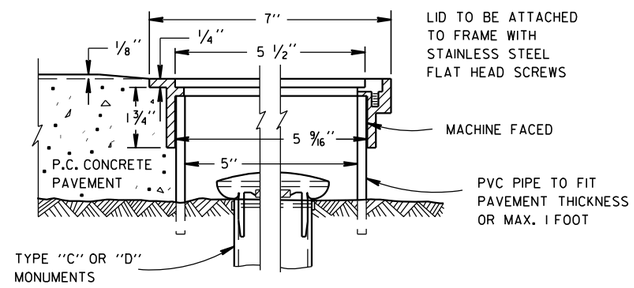


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

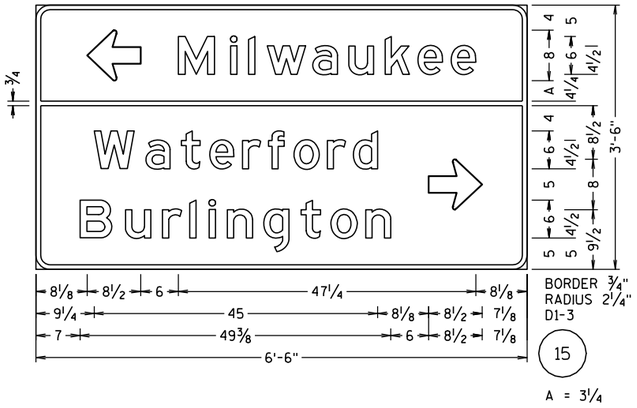
LANDMARK REFERENCE MOUNMENTS AND COVERS

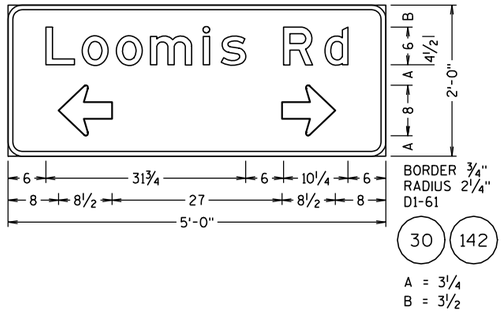
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

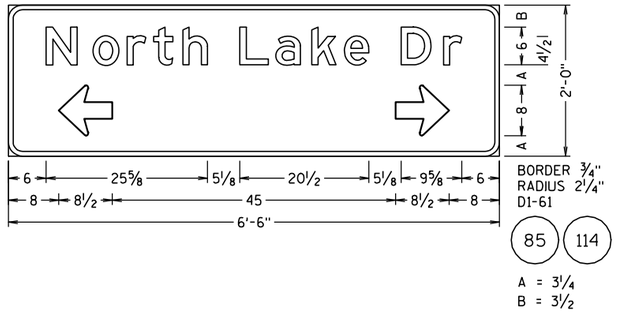
APPROVED
9/22/1999 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

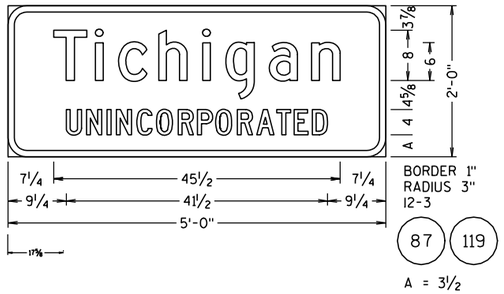
6

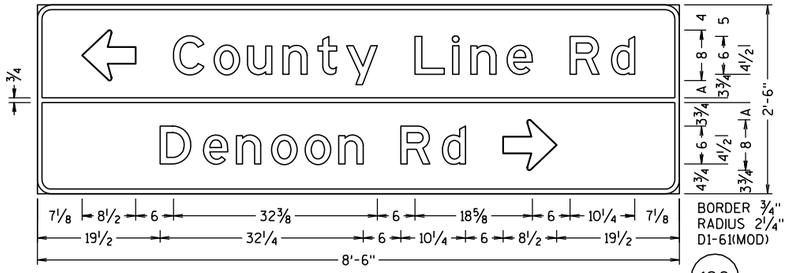
S.D.D. 16 A 1-6











GENERAL NOTES:

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

2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE II".

3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.

4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.

5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.

6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"

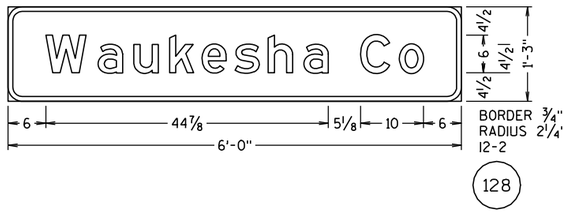
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

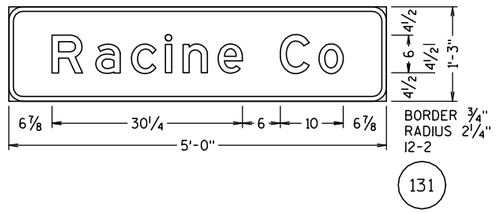
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

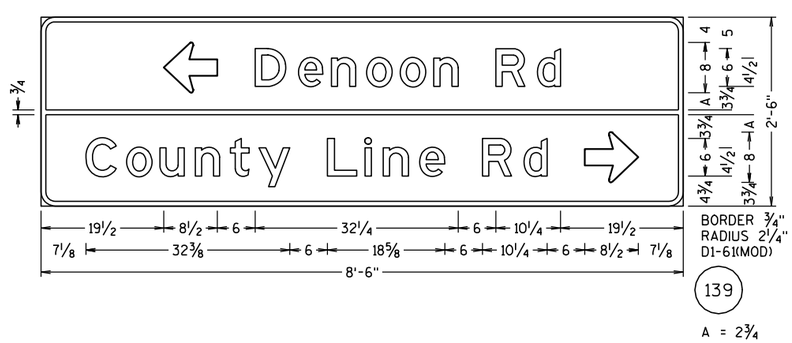
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES ALL-7 AND ALL-10

11. DO NOT SCALE.







SHEET 1 OF 1

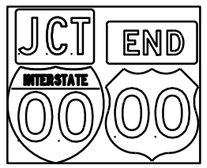
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	SIGNING DETAIL - TYPE II SIGNS	SCALE: 0 1/2" 1"	SHEET 239	E

FILE NAME : j:\projects\d2_281004164\Sign\070101_ms.dgn PLOT DATE : 13-APR-2012 08:08 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1

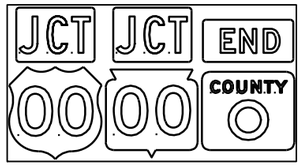
WISDOT/CADDS SHEET 47

TYPICAL ASSEMBLIES

J1-1

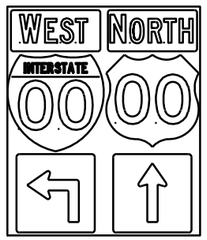


J1-2

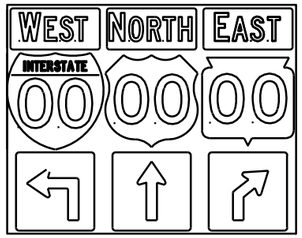


J1-3

J2-1

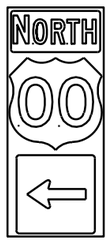


J2-2

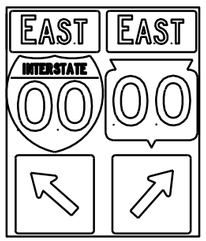


J2-3

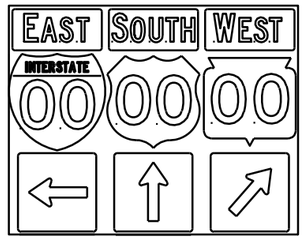
JV



J3-1

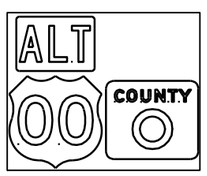


J3-2

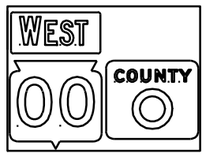


J3-3

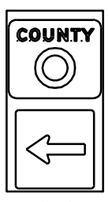
J4-1



J4-2



J4-2



J13-1

J12-1

J32-1

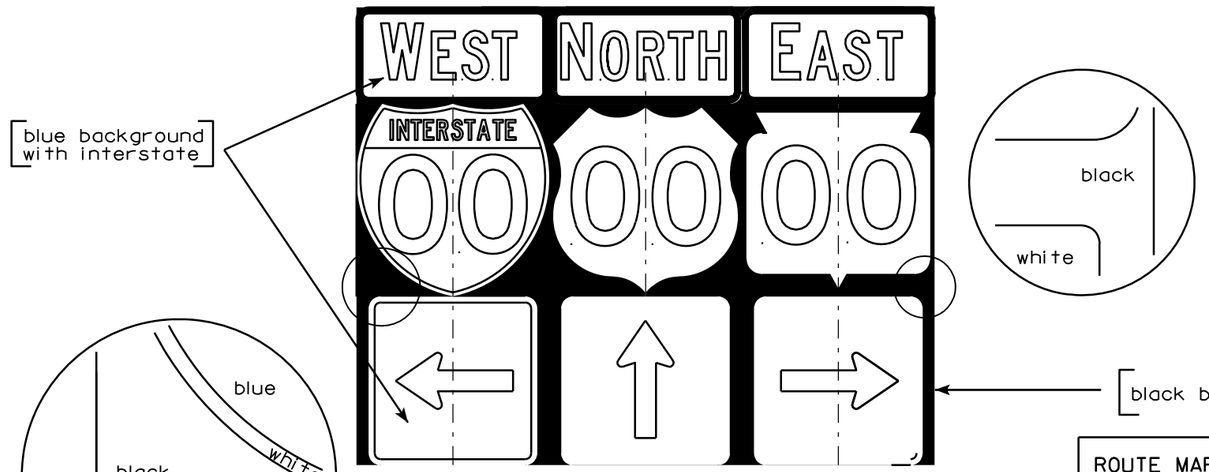
J33-1

J23-1

J22-1

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square since base material is plywood.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.



ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

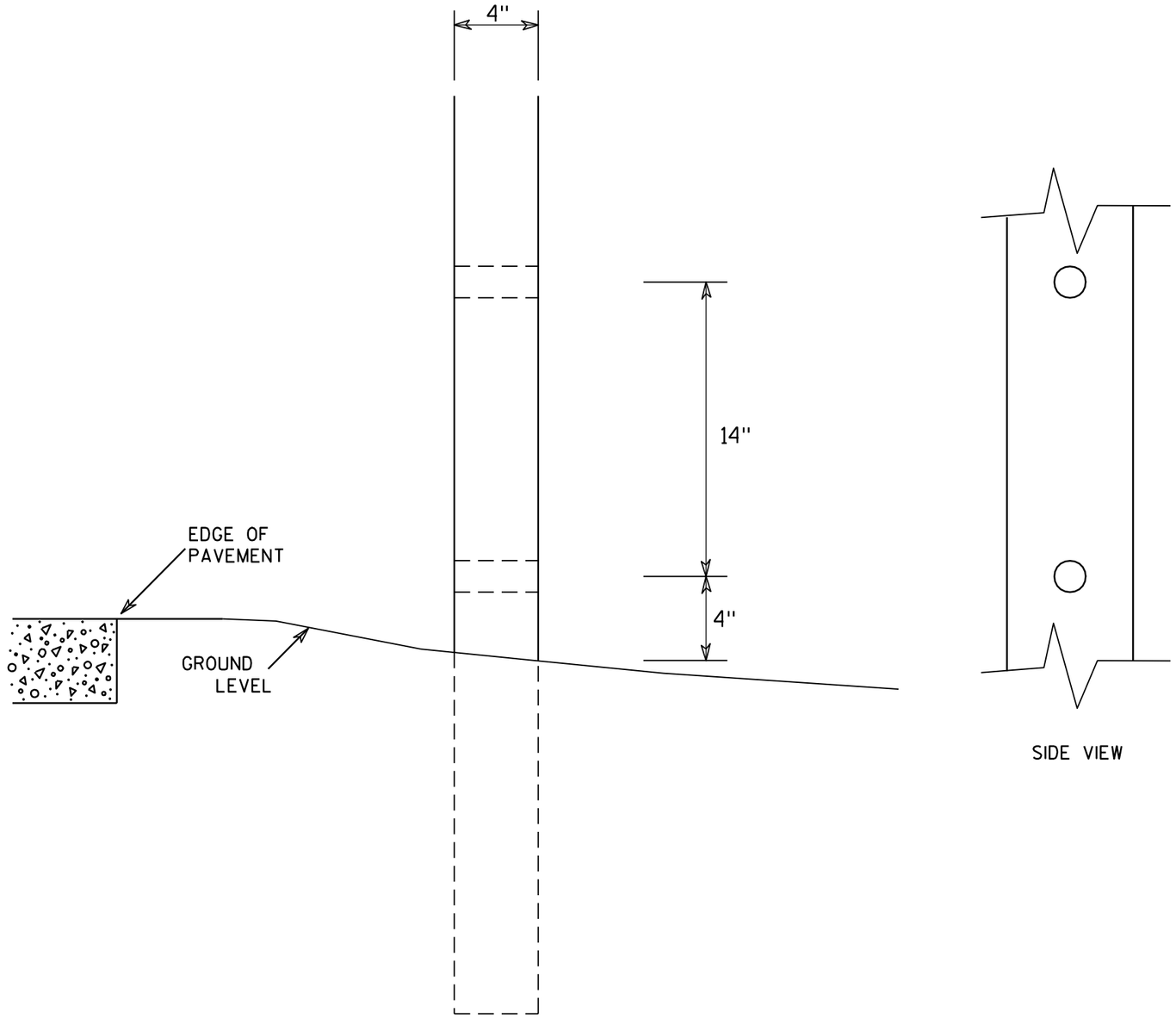
DATE 10/21/09 PLATE NO. A2-1S.6

7

7

PROJECT NO:

SHEET NO: 240 E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

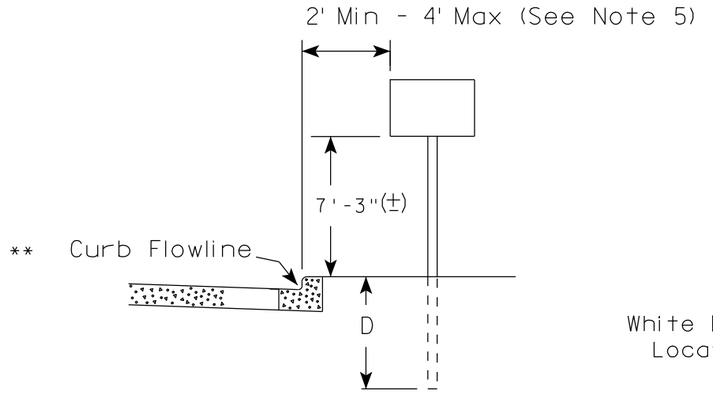
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

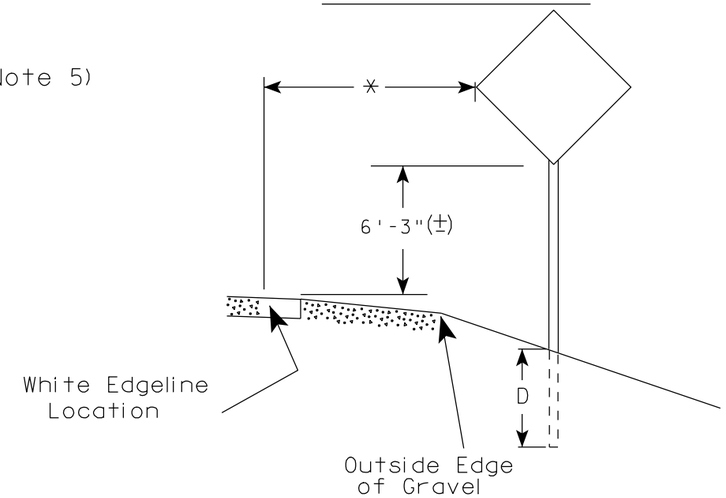
DATE 3/27/97 PLATE NO. A4-11.2

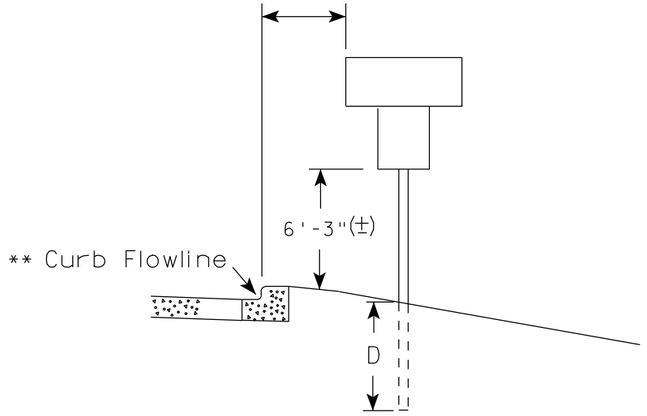
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 241	E

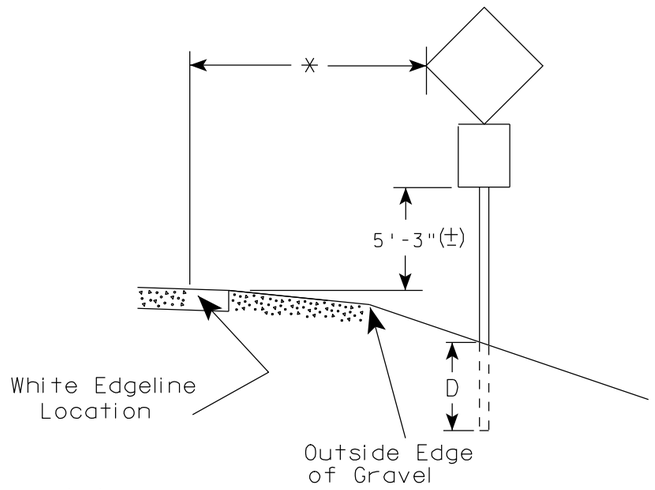
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

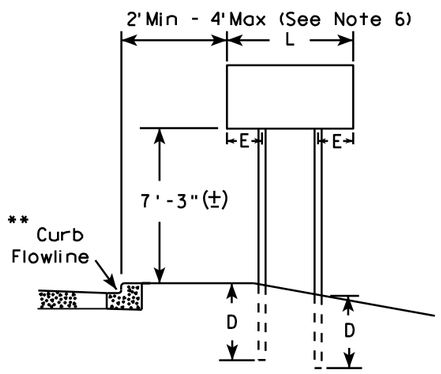
DATE 9/21/2011 PLATE NO. A4-3.16

7

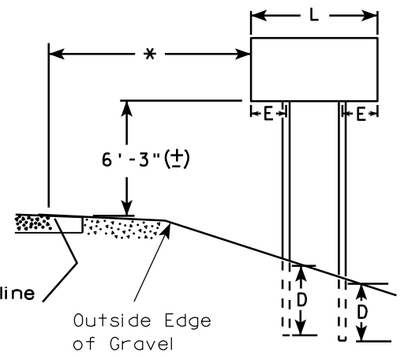
7

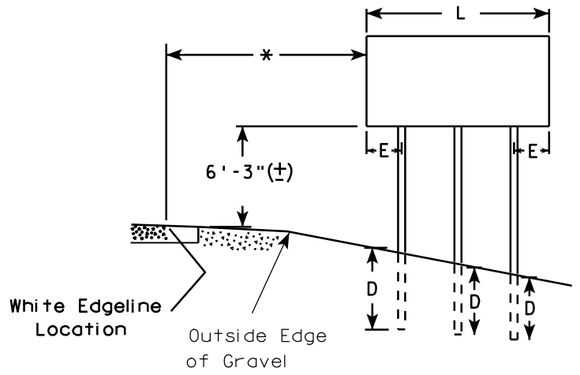
PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 242 | E

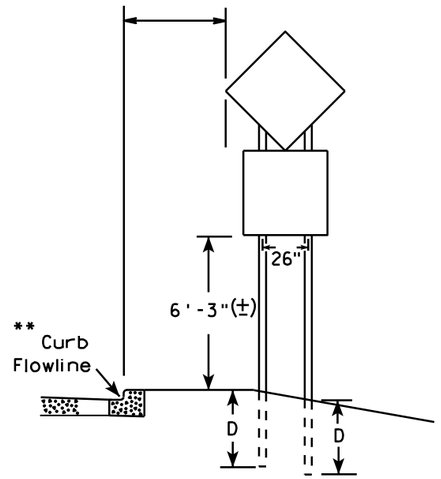
URBAN AREA



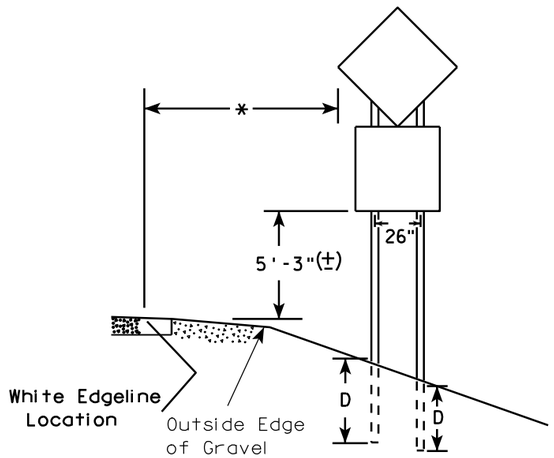
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. For multiple post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

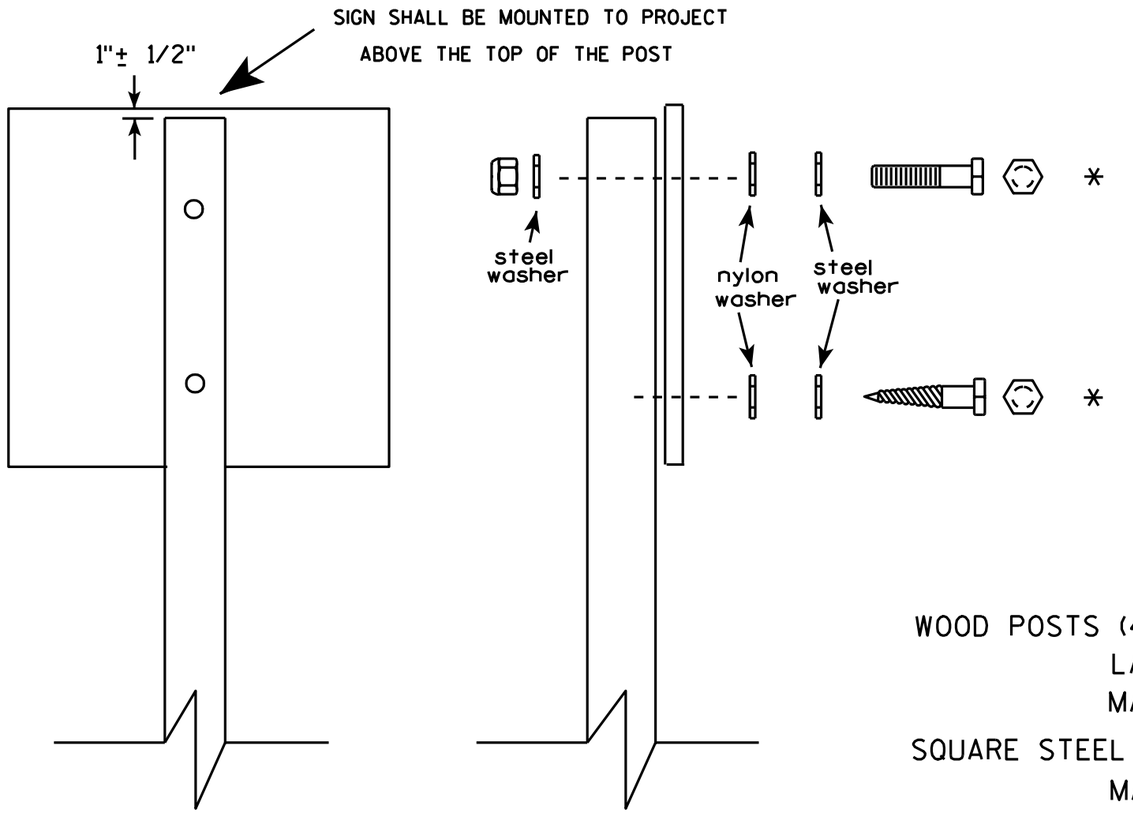
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 243	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

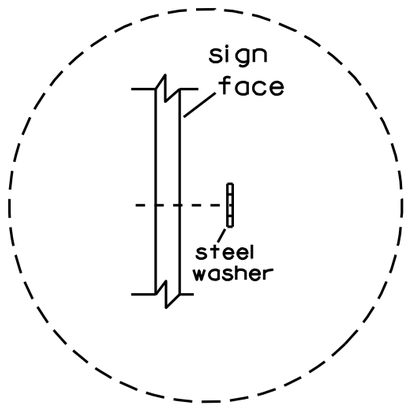
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

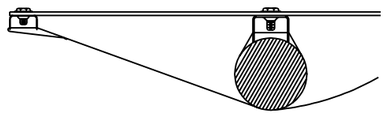
7

7

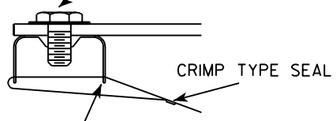
PROJECT NO:

SHEET NO: 244 E

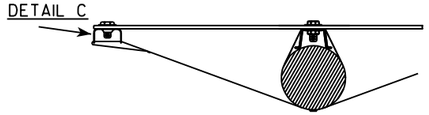
BRACE BANDING

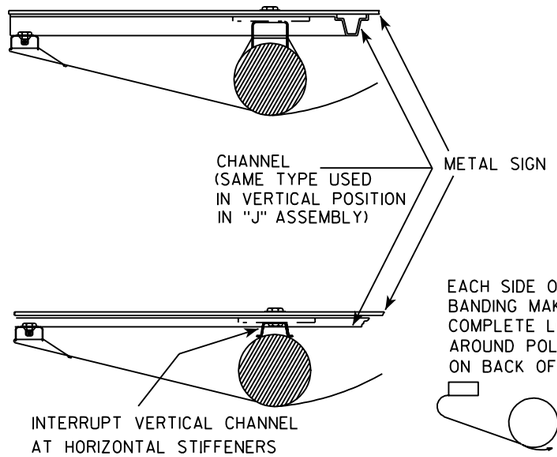


DETAIL C
CADMIUM PLATED STEEL BOLT
THROUGH BLACK BORDER



DETAIL C

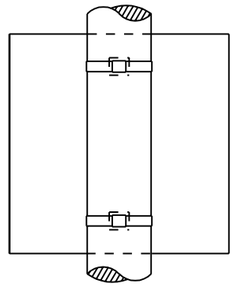


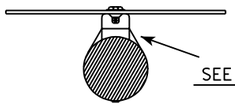


EACH SIDE OF BRACE
BANDING MAKES ONE
COMPLETE LOOP
AROUND POLE-SEAL
ON BACK OF POLE

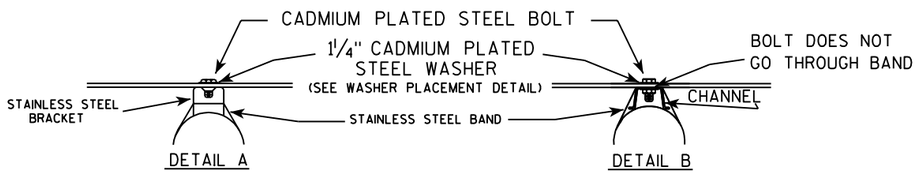
BRACKET BANDING

SINGLE SIGN





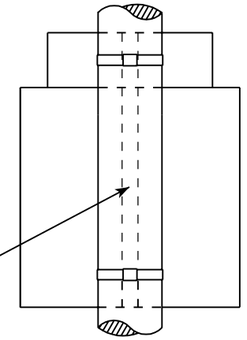
SEE DETAIL A



DETAIL A

DETAIL B

"J" ASSEMBLY

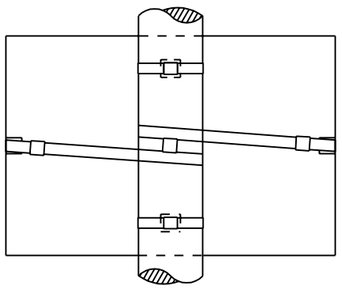


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

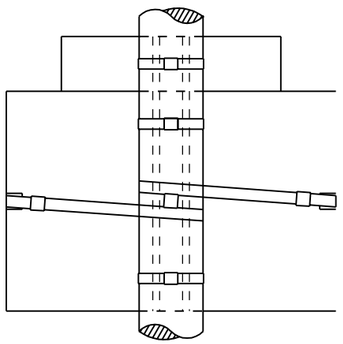
GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

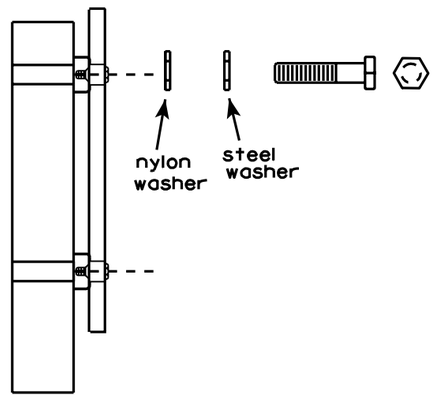


BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY BUT NOT SO TIGHT AS TO APPRECIABLY CURVE FACE OF SIGN.



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2

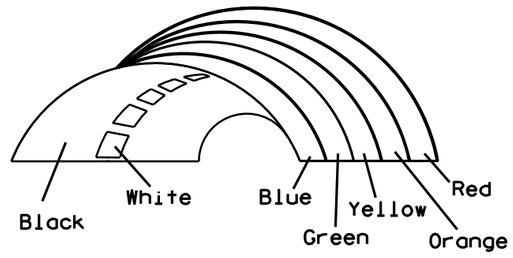
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 245	E

* VARIES

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - (See Note 5)
3. Message Series - (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. Border - Blue
   Line 1 - Red
   Line 2 - Black
   Line 3-5 - Blue
6. Line 1 - Dutch 8011L
   Line 2 - Series E
   Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

STANDARD SIGN
I55-56

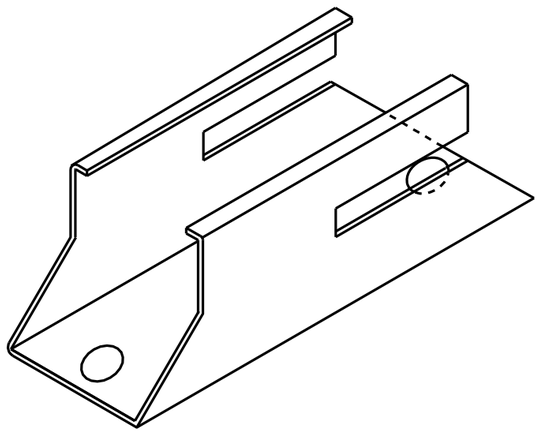
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/27/11 PLATE NO. 155-56.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 246

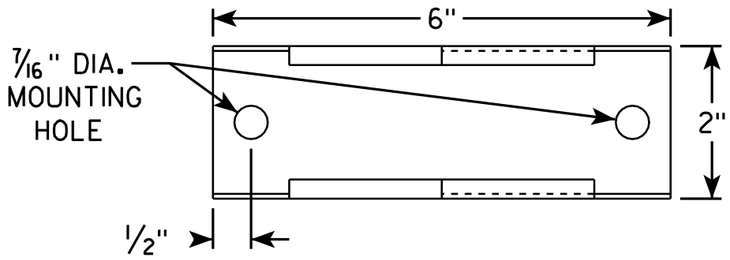
ISOMETRIC VIEW



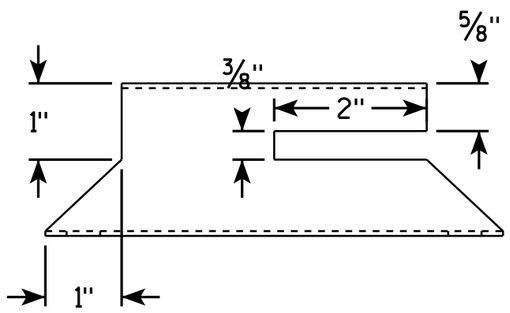
NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

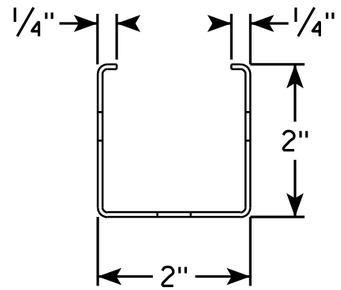
TOP VIEW



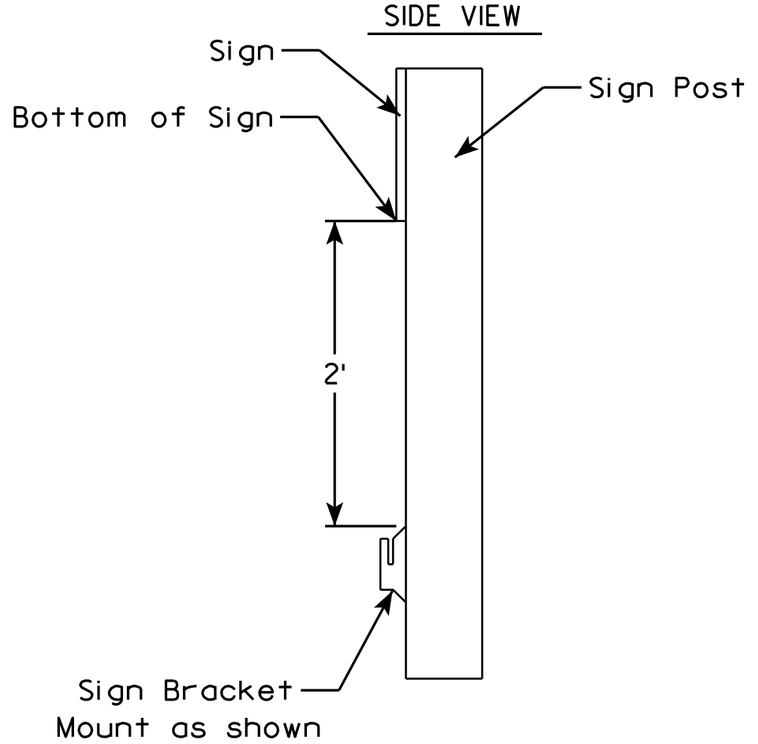
SIDE VIEW



END VIEW



SIDE VIEW



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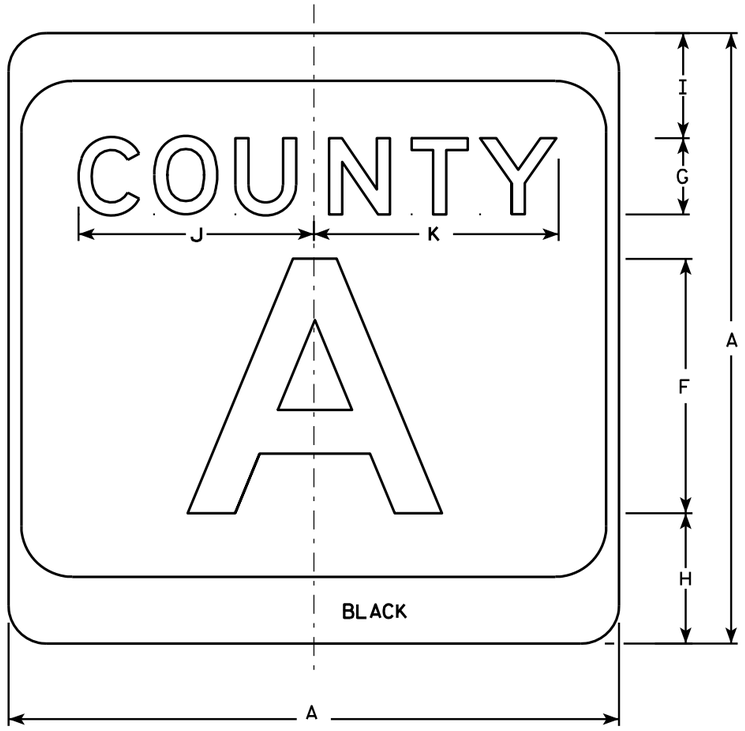
ROLLUP SIGN BRACKET I55-56B

WISCONSIN DEPT OF TRANSPORTATION

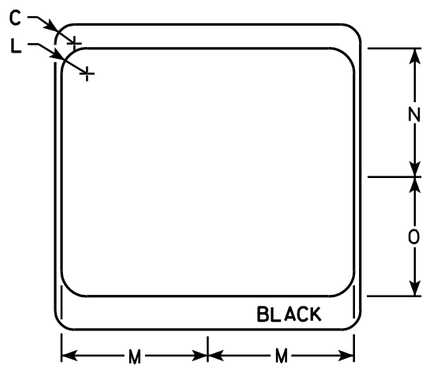
APPROVED Matthew R Rauch for State Traffic Engineer

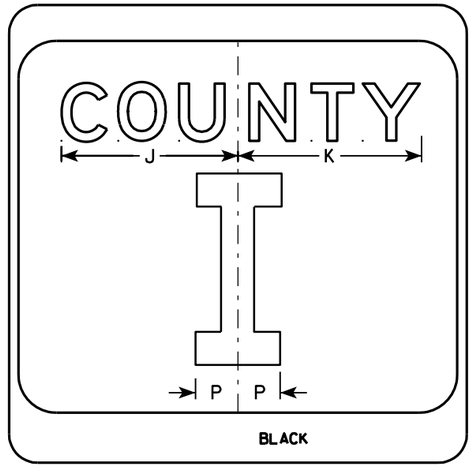
DATE 2/5/10 PLATE NO. I55-56B.1

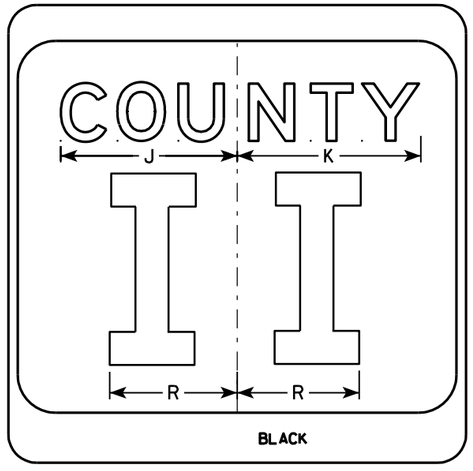
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 247	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

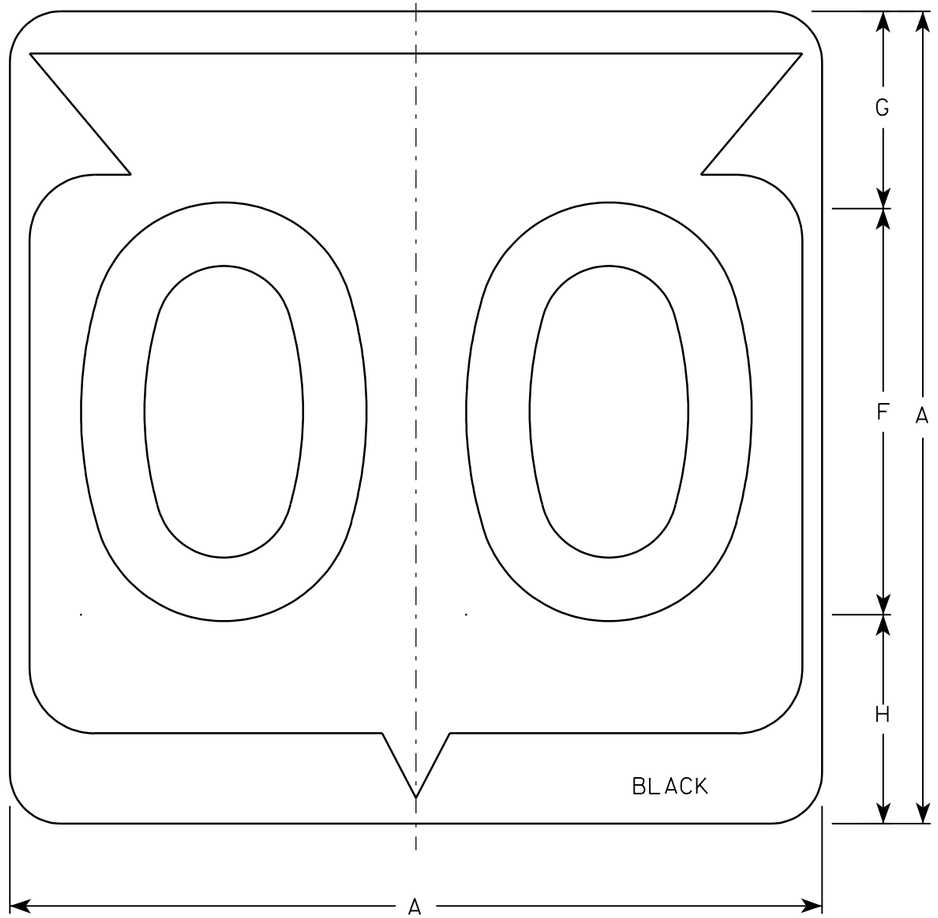
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

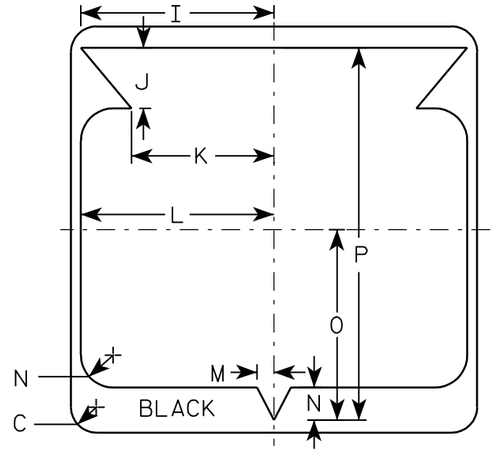
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 248 | E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

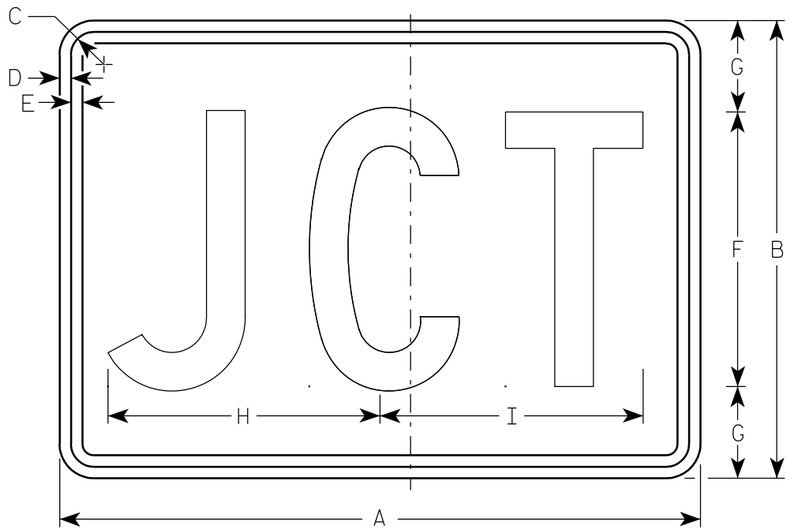
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

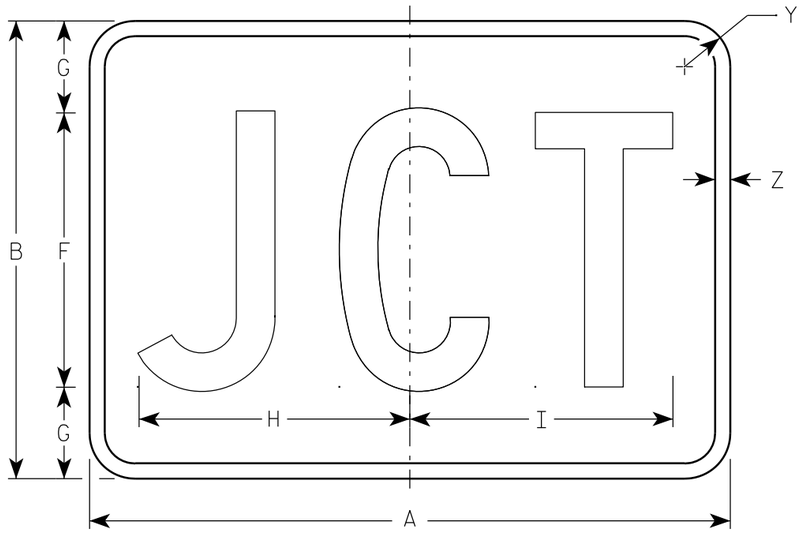
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 249	E



M2-1
MK2-1
MM2-1
MR2-1



MB2-1
MG2-1
MN2-1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   Message - Black
   MB2-1 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   MG2-1 Background - Green
   Message - White - Type H Reflective
   MK2-1 Background - Green
   Message - White - Type H Reflective
   MM2-1 Background - White - Type H Reflective
   Message - Green
   MN2-1 Background - Brown
   Message - White - Type H Reflective
   MR2-1 Background - Brown
   Message - Yellow - Type H Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

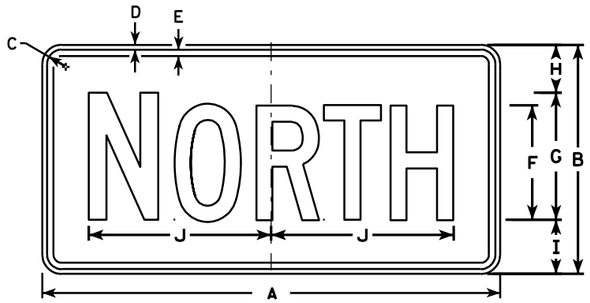
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

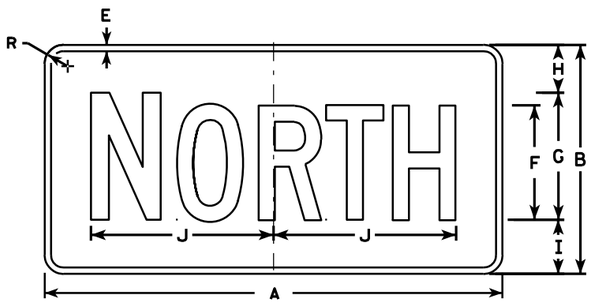
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 250	E

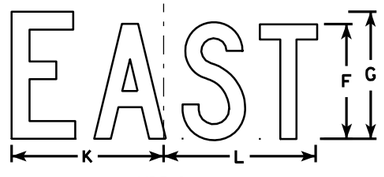


M3-1
MK3-1
MO3-1

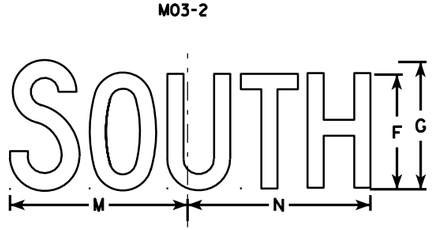


MB3-1
MG3-1
MM3-1
MN3-1

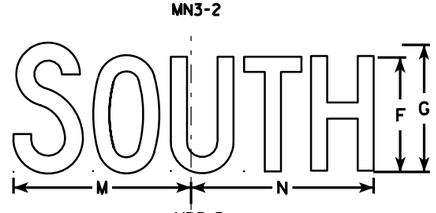
M3-2
MK3-2
MO3-2



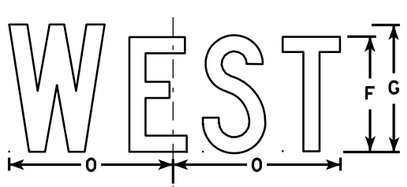
MB3-2
MG3-2
MM3-2
MN3-2



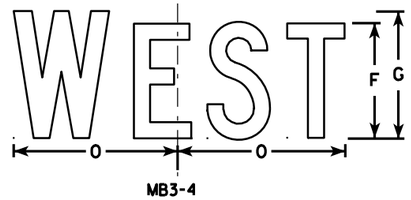
M3-3
MK3-3
MO3-3



MB3-3
MG3-3
MM3-3
MN3-3



M3-4
MK3-4
MO3-4



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green
   Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green
   Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective
   Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

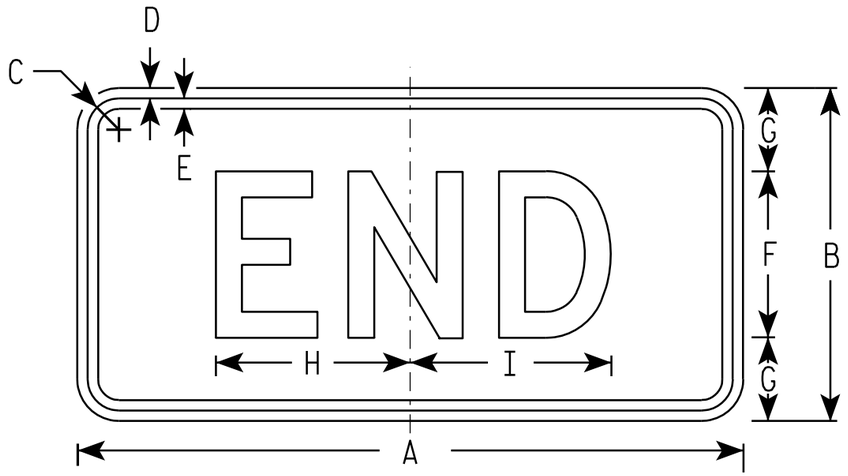
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

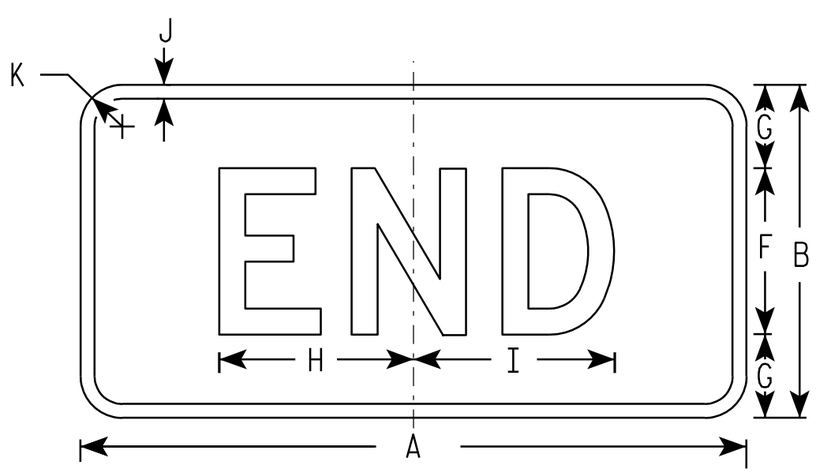
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 251	E



M4-6
MK4-6
MM4-6
MR4-6



MB4-6
MG4-6
MN4-6

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-6 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
   Message - Black

   MB4-6 Background - Blue
   Message - White - Type H Reflective (Detour or temporary Signs - Reflective)

   MG4-6 Background - Green
   Message - White - Type H Reflective

   MK4-6 Background - Green
   Message - White - Type H Reflective

   MM4-6 Background - White - Type H Reflective
   Message - Green

   MN4-6 Background - Brown
   Message - White - Type H Reflective

   MR4-6 Background - Brown
   Message - Yellow - Type H Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-6

WISCONSIN DEPT OF TRANSPORTATION

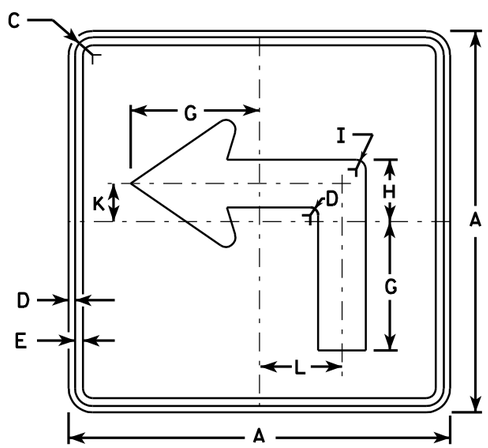
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-6.7

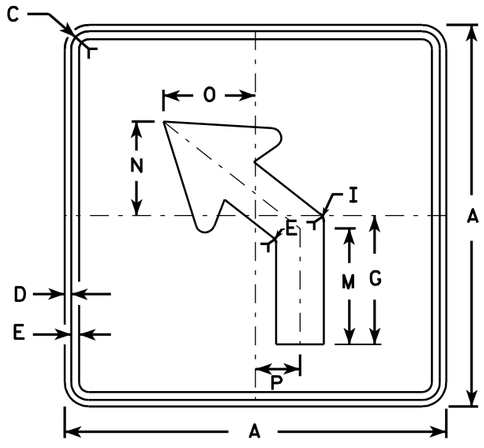
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 252 | E

7

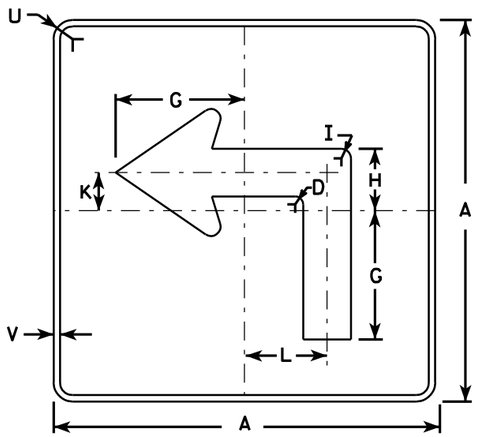
FILE NAME : C:\Users\PROJECTS\tr_stdplate\M46.DGN PLOT DATE : 10-NOV-2010 12:57 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 5.462457:1.000000
WISDOT/CADDS SHEET 42



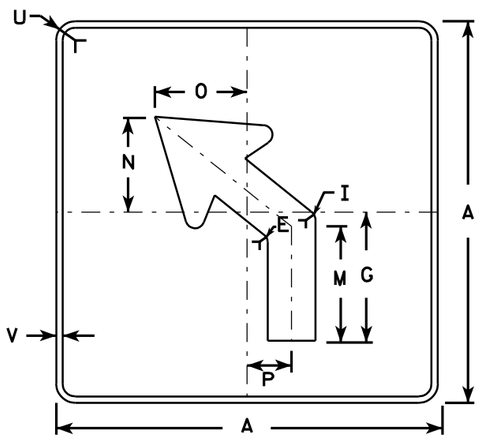
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



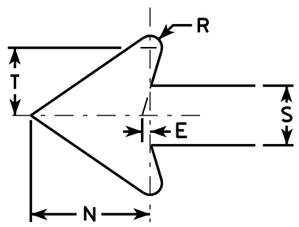
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
   MB5-1 and MB5-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG5-1 and MG5-2 Background - Green Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective Message - Green
   MN5-1 and MN5-2 Background - Brown Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Reflective Message - Black
   MR5-1 and MR5-2 Background - Brown Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m²
1																												
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56

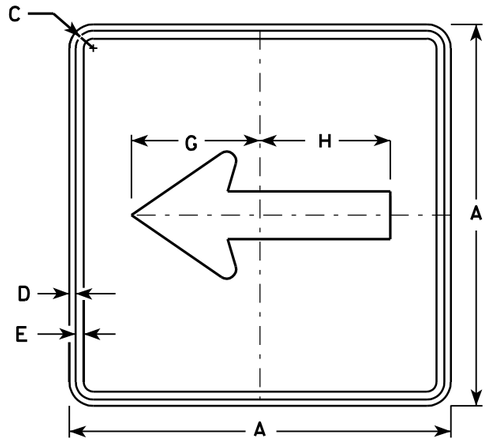
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

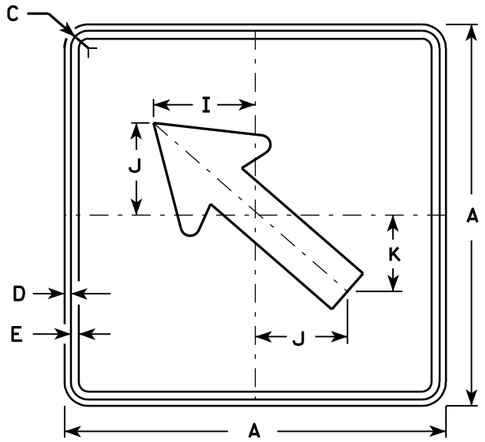
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M5-1.11

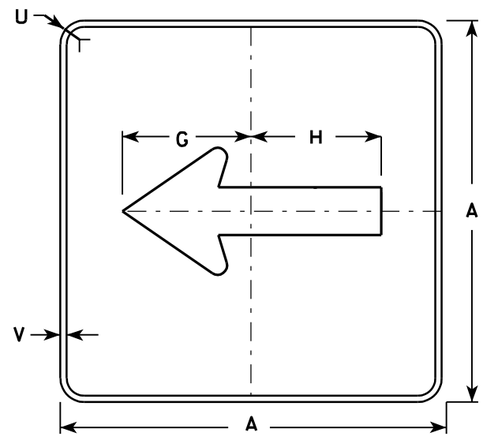
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 253	E



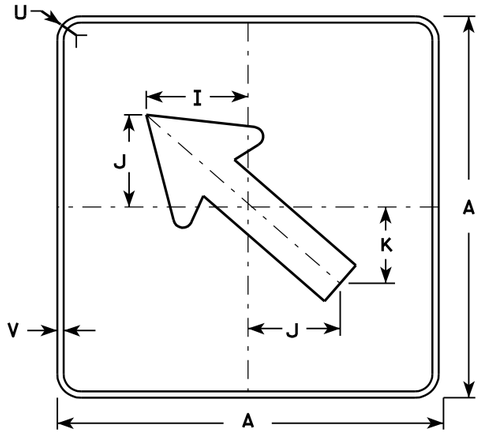
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MR6-2



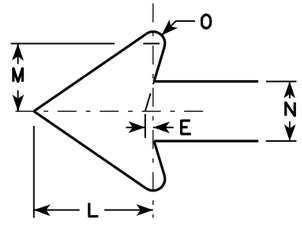
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
   MB6-1 and MB6-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG6-1 and MG6-2 Background - Green Message - White - Type H Reflective
   MK6-1 and MK6-2 Background - Green Message - White - Type H Reflective
   MM6-1 and MM6-2 Background - White - Type H Reflective Message - Green
   MN6-1 and MN6-2 Background - Brown Message - White - Type H Reflective
   MO6-1 and MO6-2 Background - Orange - Reflective Message - Black
   MR6-1 and MR6-2 Background - Brown Message - Yellow - Type H Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

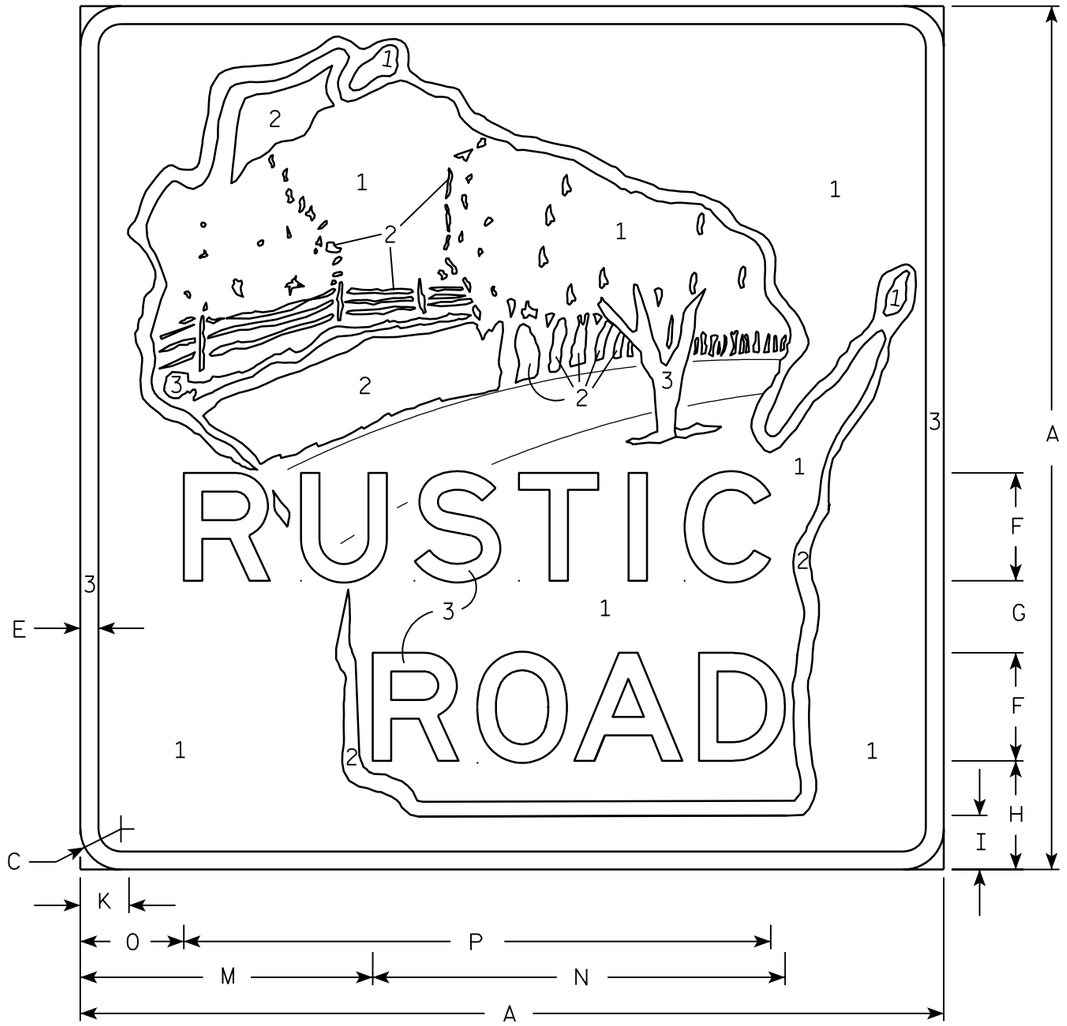
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 254	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 - See note 5
   Message - See note 5.
3. Message Series - Modified E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The sign will be color coded by numerical designation Numeral *1 Brown
   2 Type H Reflective White
   3 Reflective Yellow

   Exact color descriptions will be furnished upon request.

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	
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		1 1/8		1/2	3	2	3	1 1/2		1 3/8		8 1/8	11 1/4	2 7/8	16 1/4											4.0	0.36
3																												
4																												
5																												

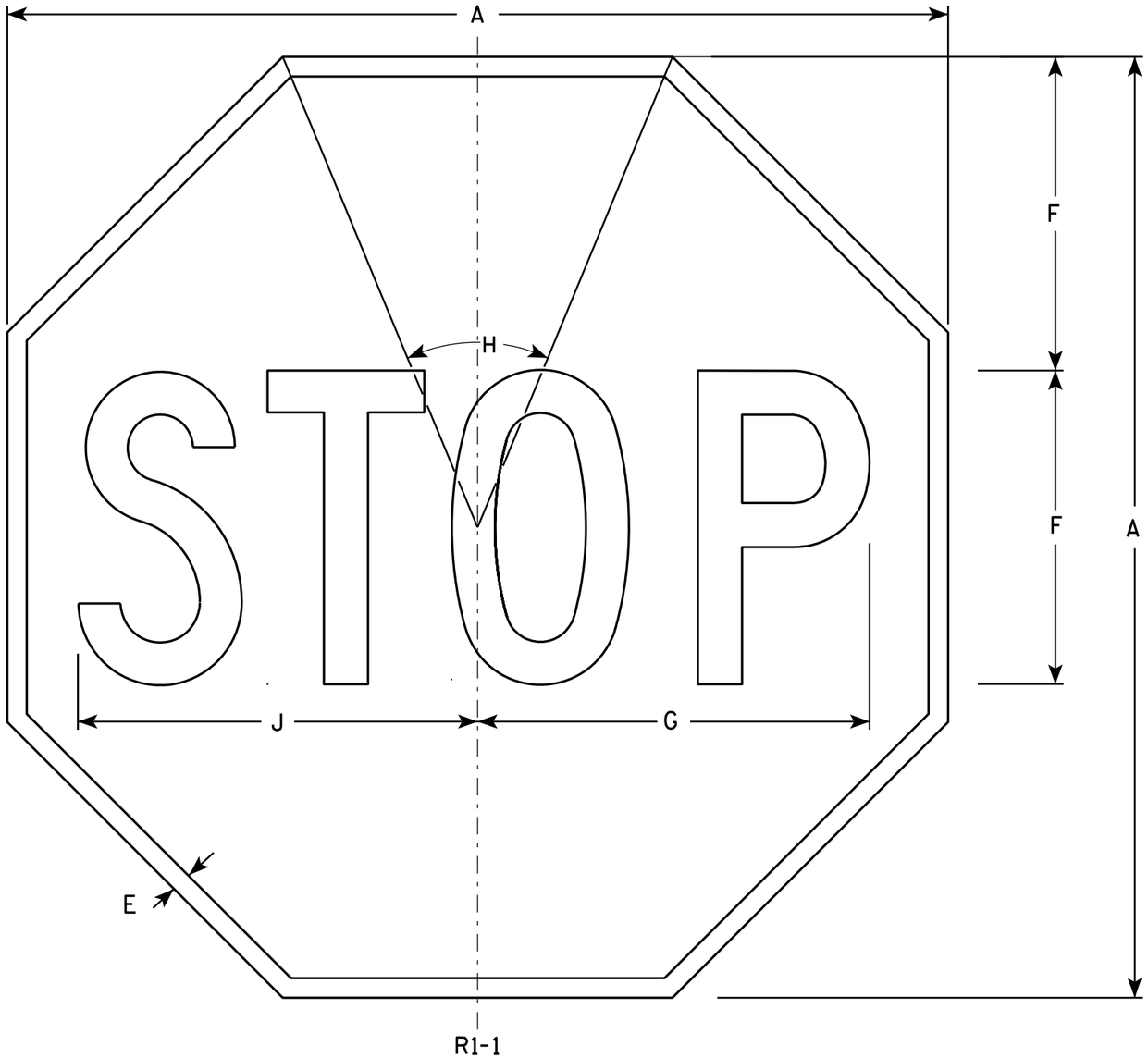
STANDARD SIGN
MR1-99

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/05 PLATE NO. MR1-99.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 255	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

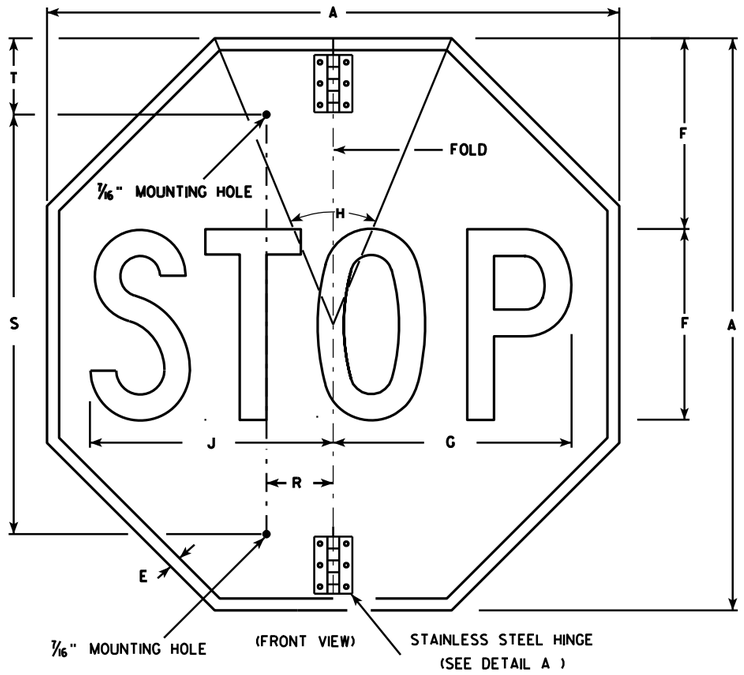
STANDARD SIGN
R1-1

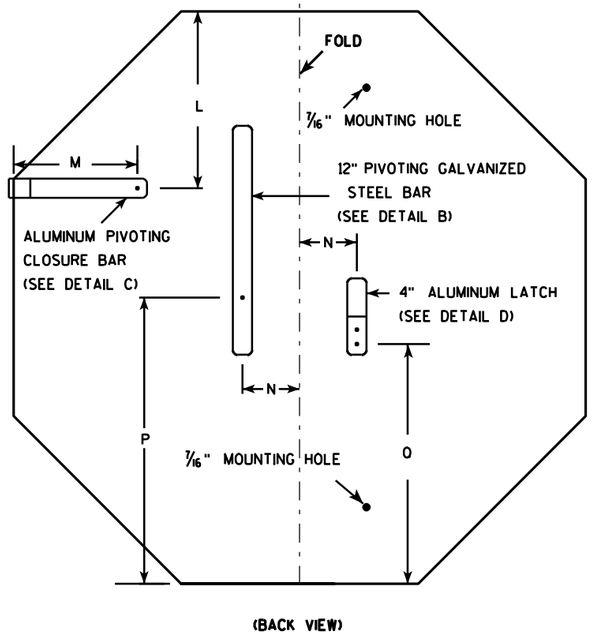
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

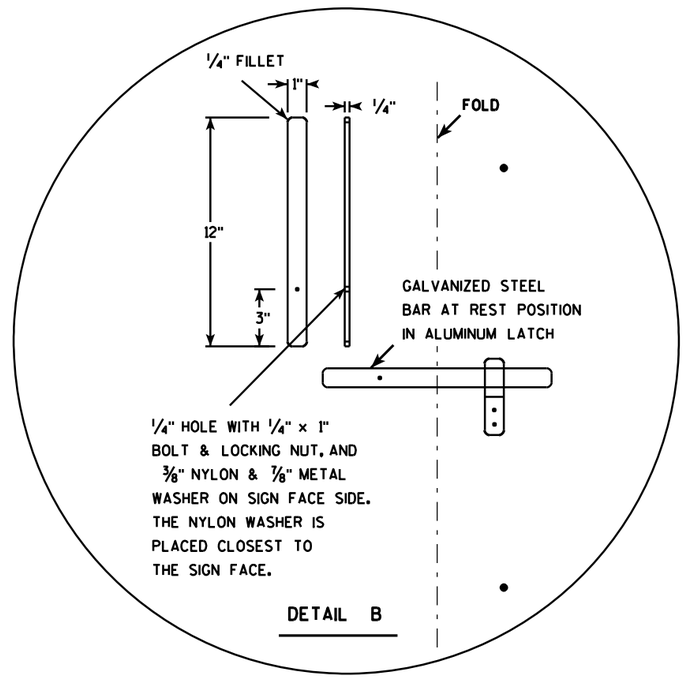
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 256	E

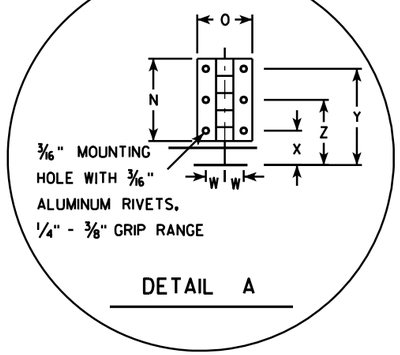


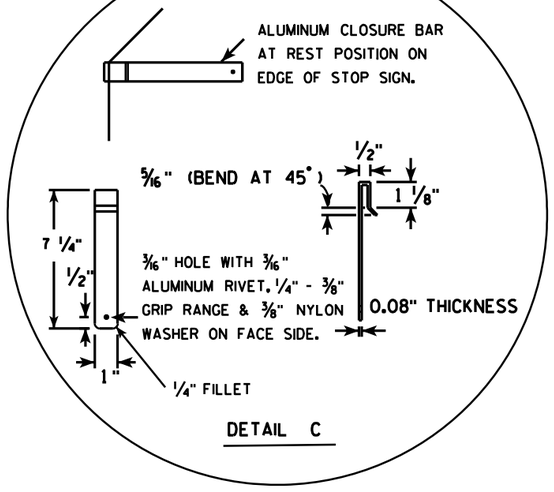


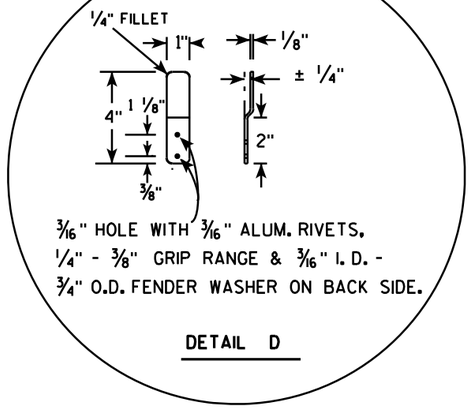
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

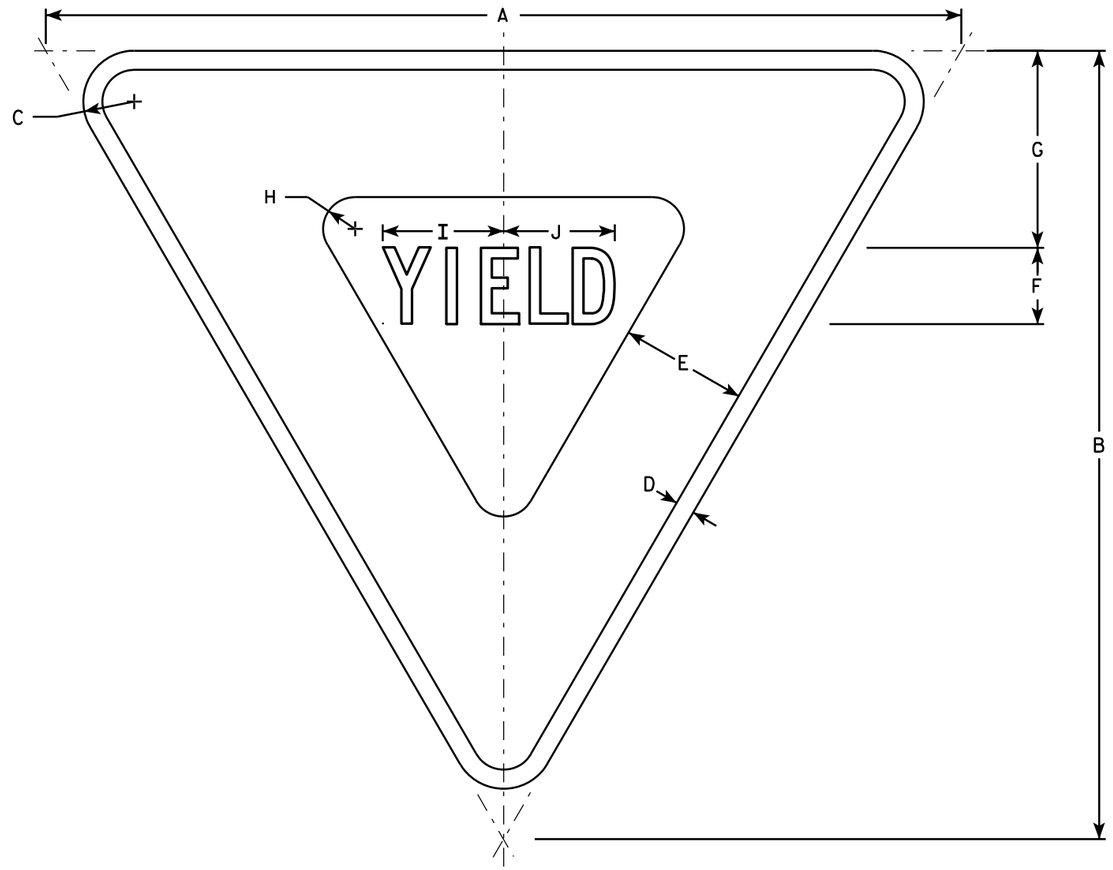
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 257	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

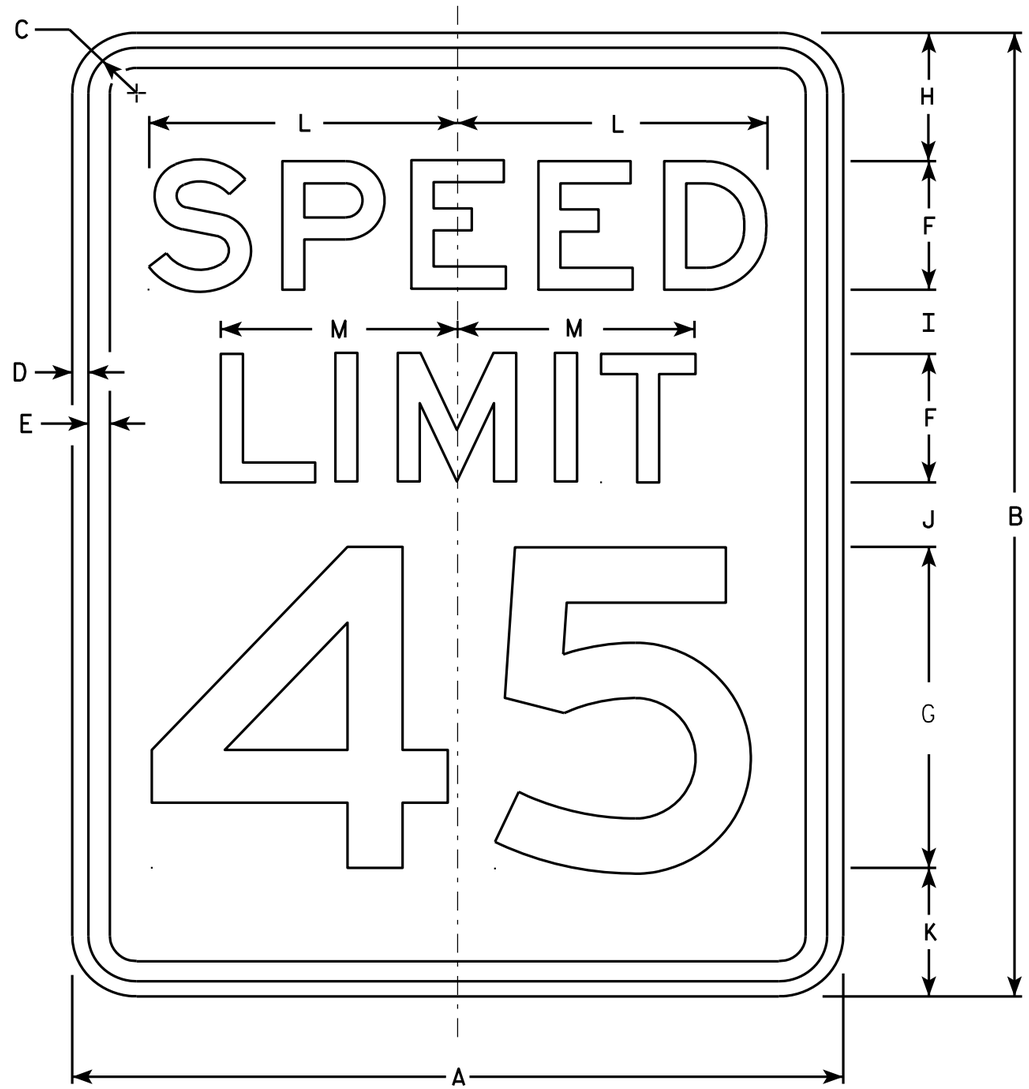
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 258 | E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

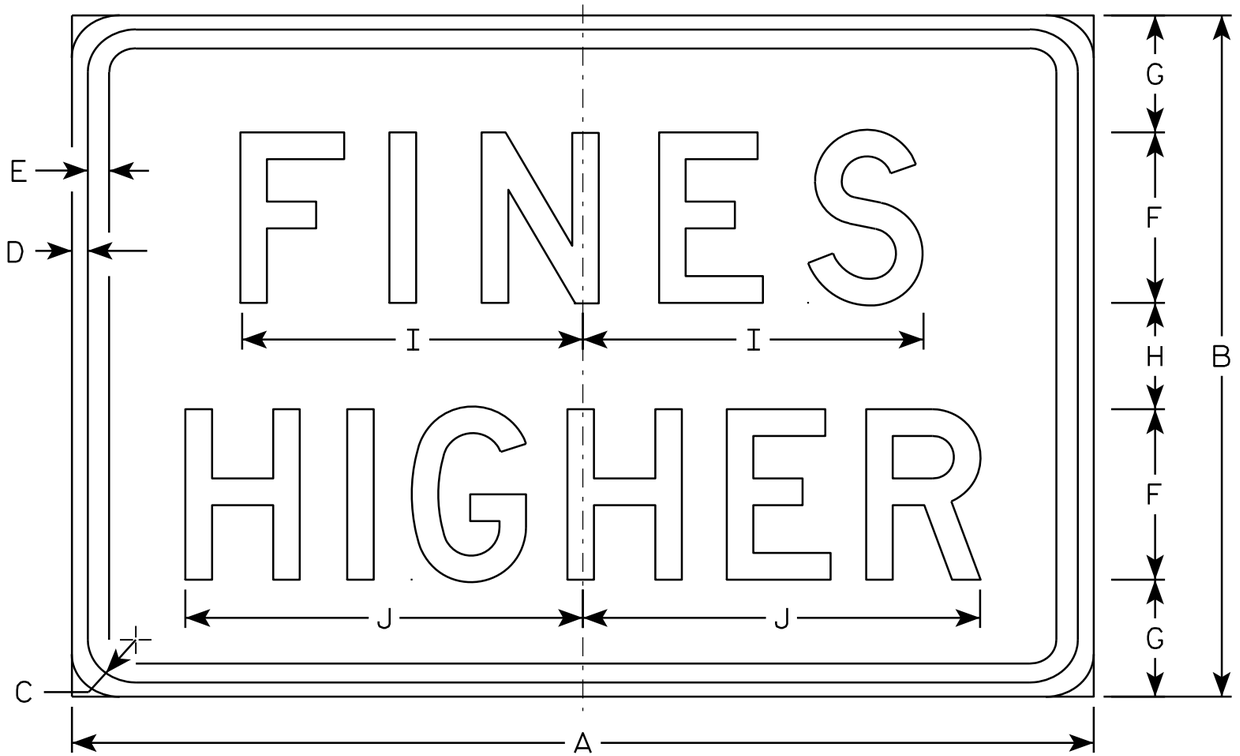
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 259 | E



R2-6P

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

STANDARD SIGN
R2-6P

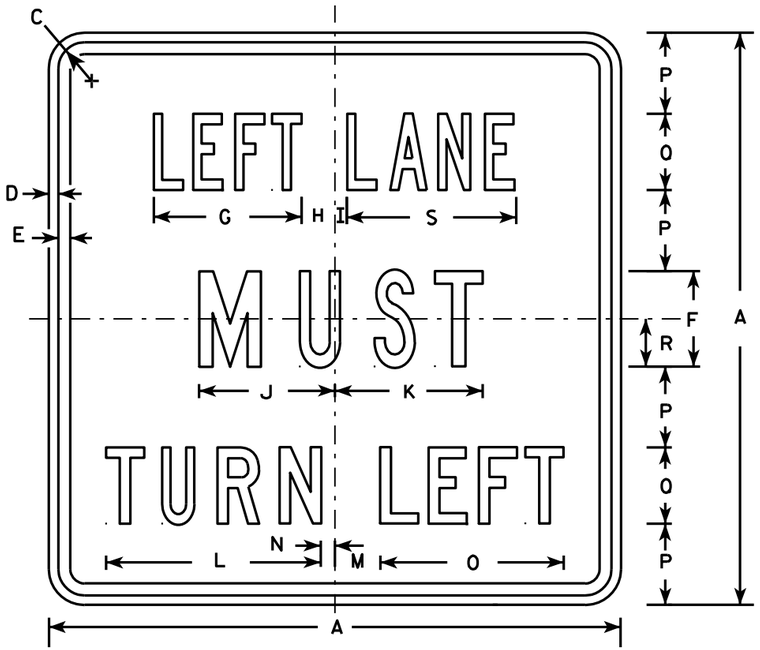
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

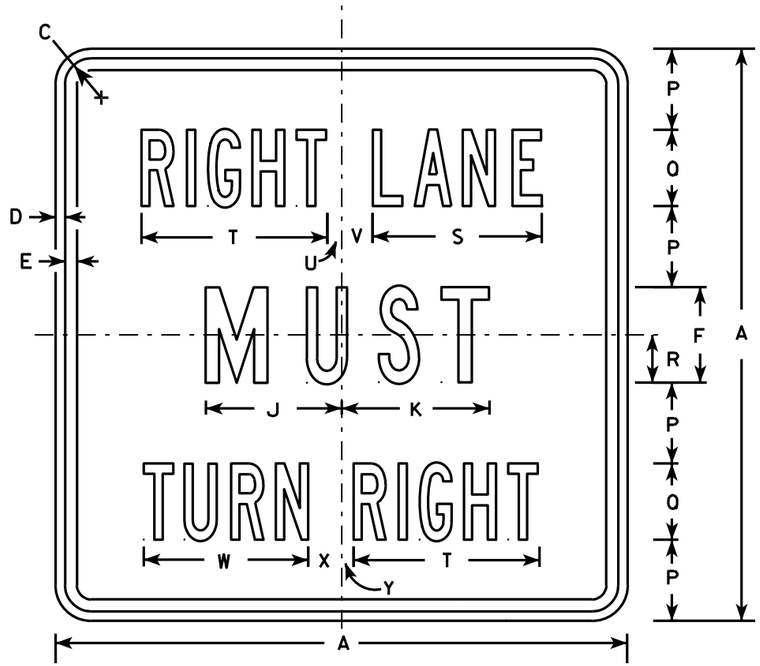
DATE 12/20/10 PLATE NO. R2-6P.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 260 | E

7



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

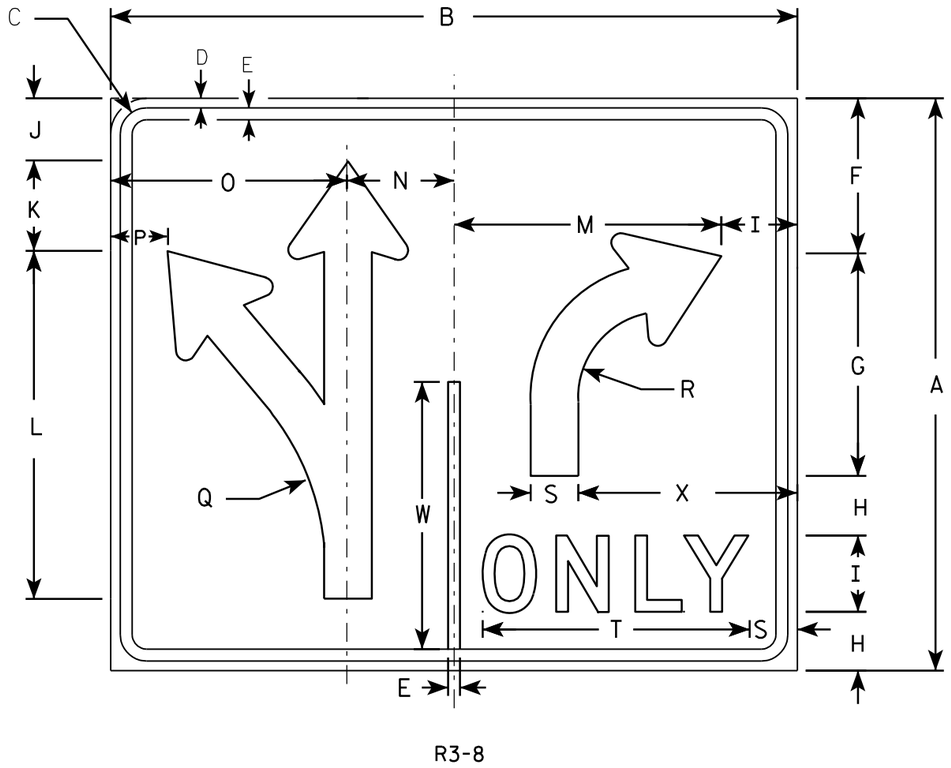
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

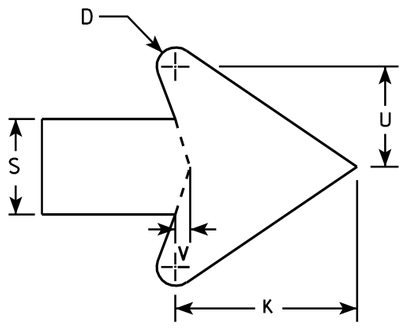
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 261	E



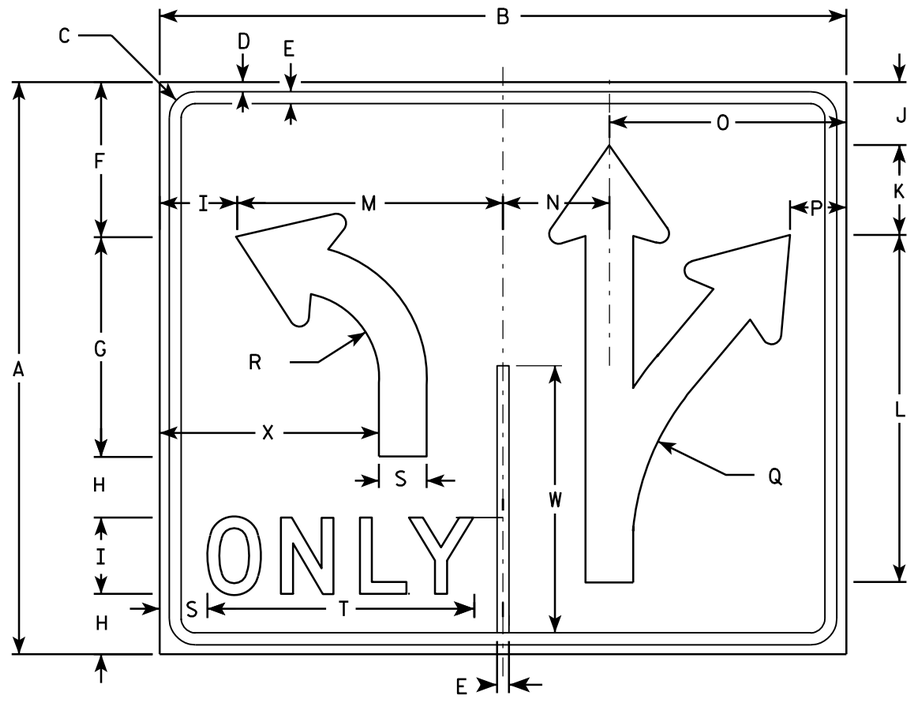
R3-8



ARROW DETAIL

NOTES

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



R3-8A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14	5 5/8	12 3/8	3	13 1/4	4 1/2	2 1/2	14	2 5/8	3/8	14	11 1/2			7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14	5 5/8	12 3/8	3	13 1/4	4 1/2	2 1/2	14	2 5/8	3/8	14	11 1/2			7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	21	8 3/8	18 5/8	4 3/8	21 7/8	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	17 1/4			18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	21	8 3/8	18 5/8	4 3/8	21 7/8	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	17 1/4			18.0

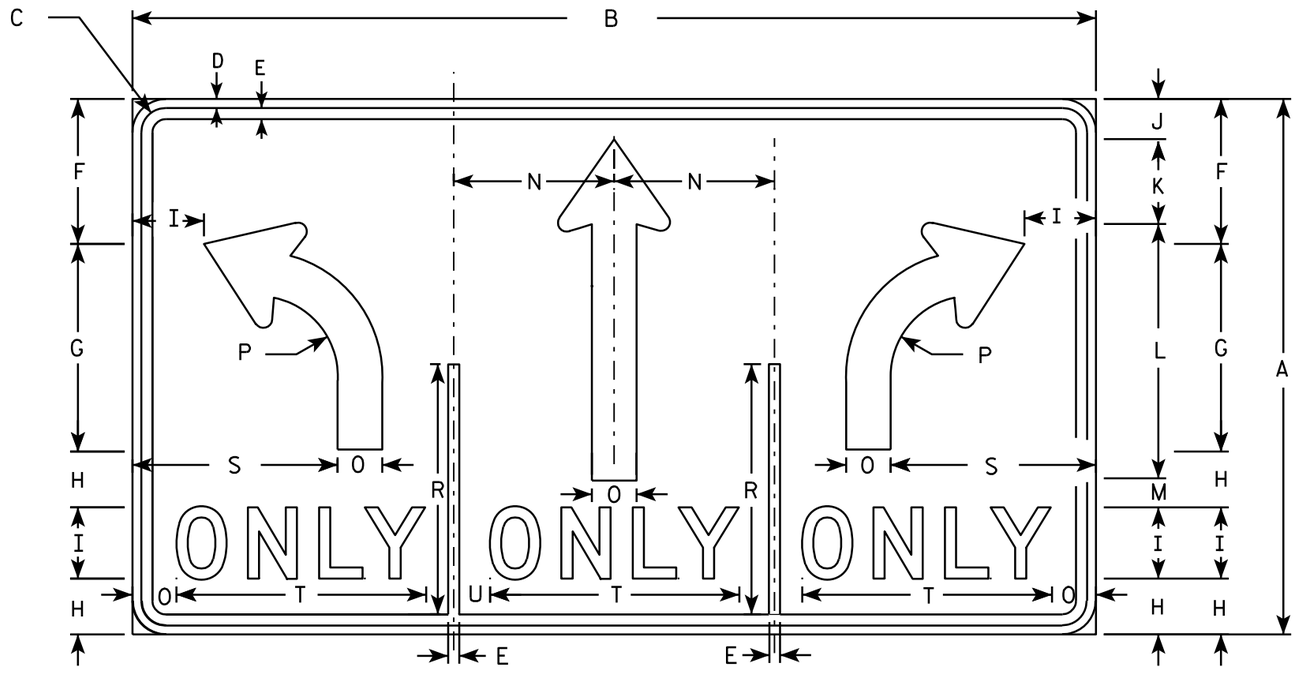
STANDARD SIGN
R3-8 & R3-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8.5

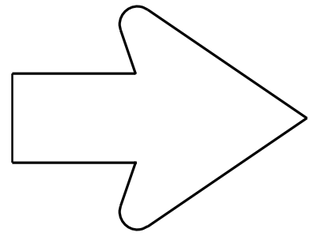
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 262	E



R3-8W

NOTES

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



SEE R3-8 FOR ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
2M	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
3																											
4	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 3/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0
5	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 7/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0

STANDARD SIGN
R3-8W

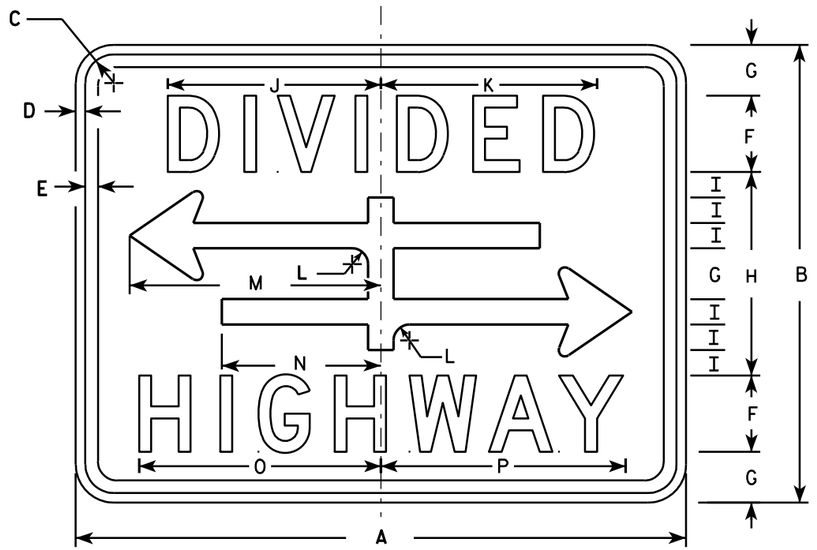
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-8W.4

PROJECT NO:

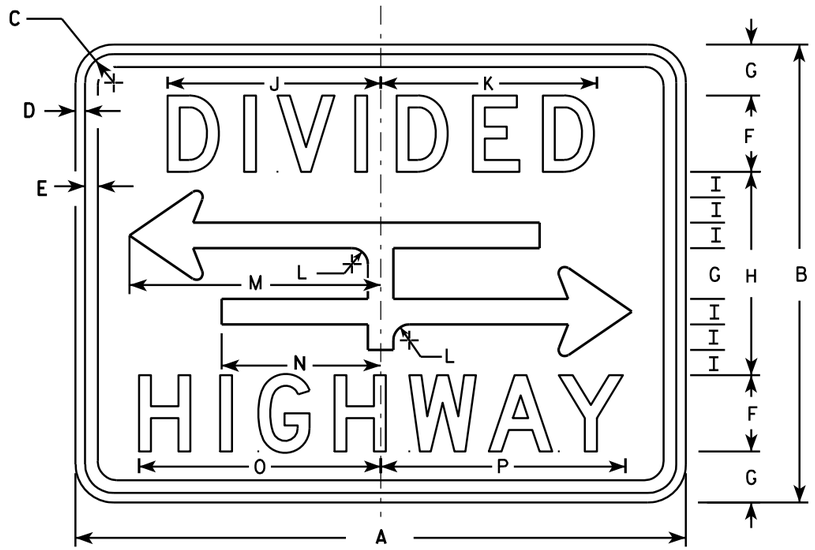
SHEET NO: 263 E



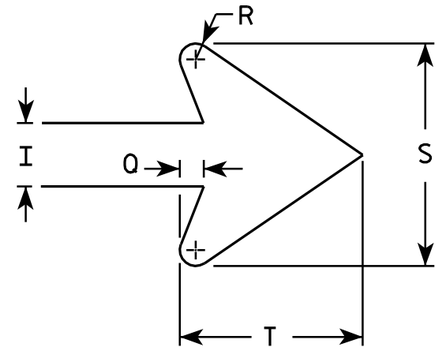
R6-3

NOTES

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



R6-3A



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

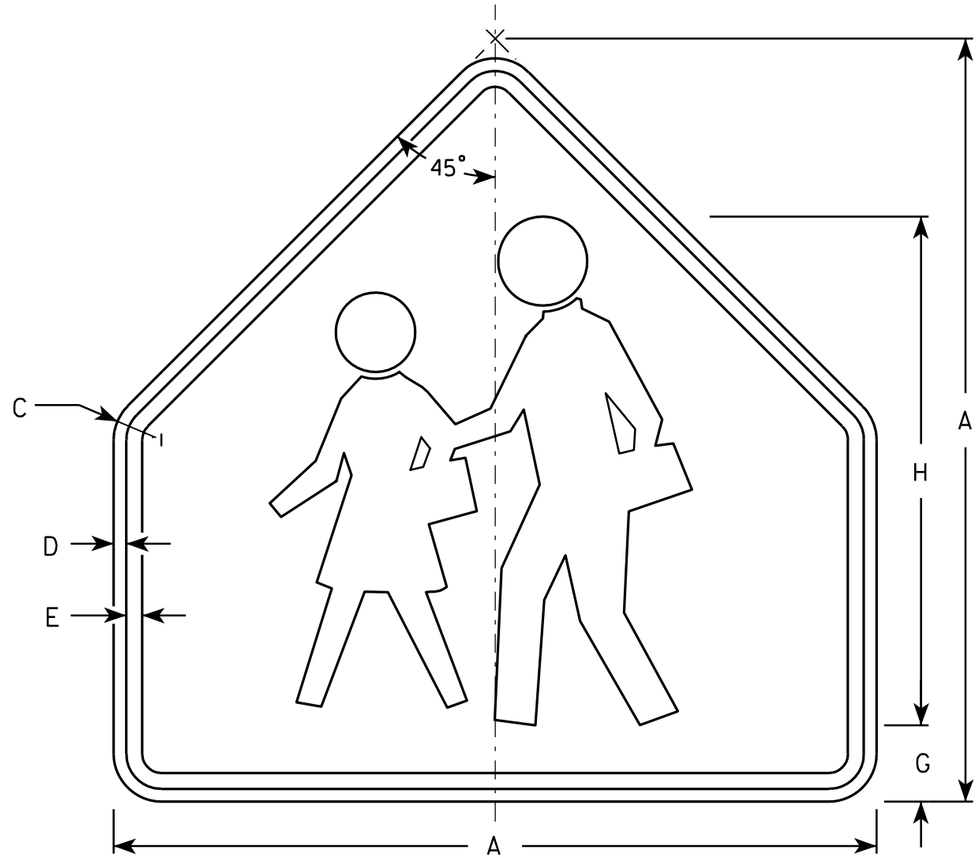
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 264 E



S1-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

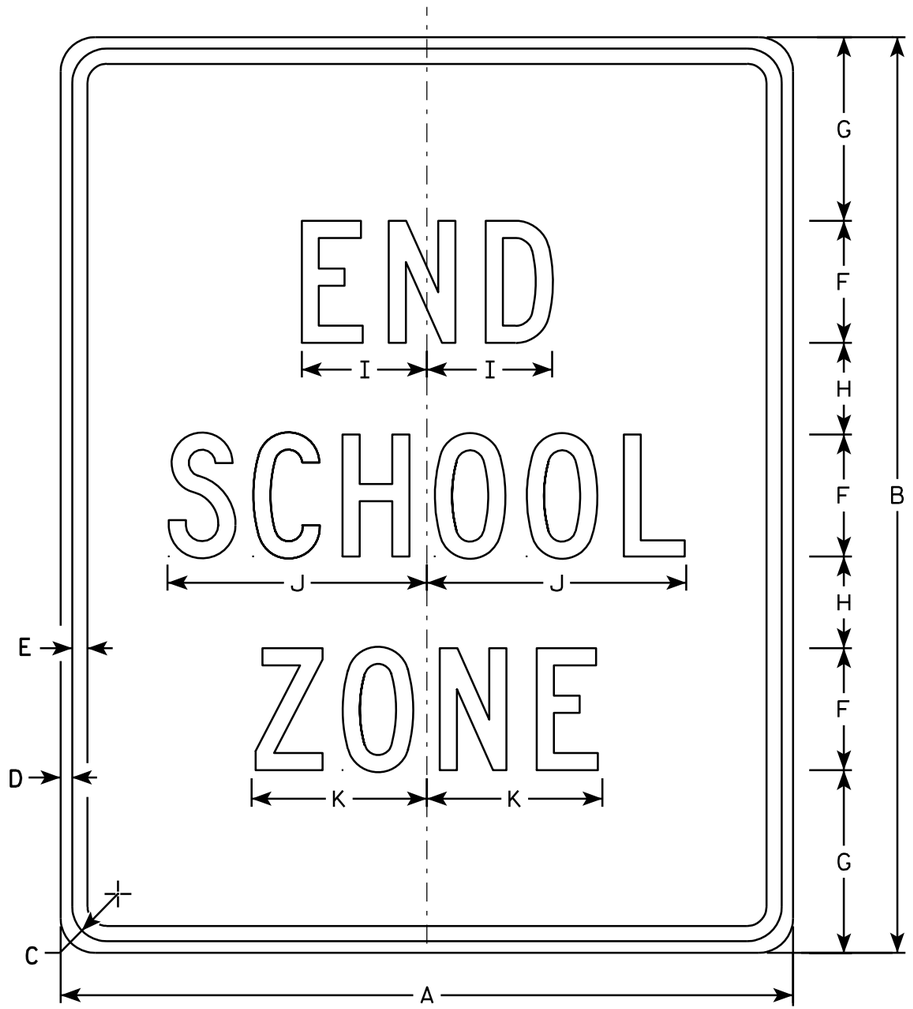
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 265	E



S5-2

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

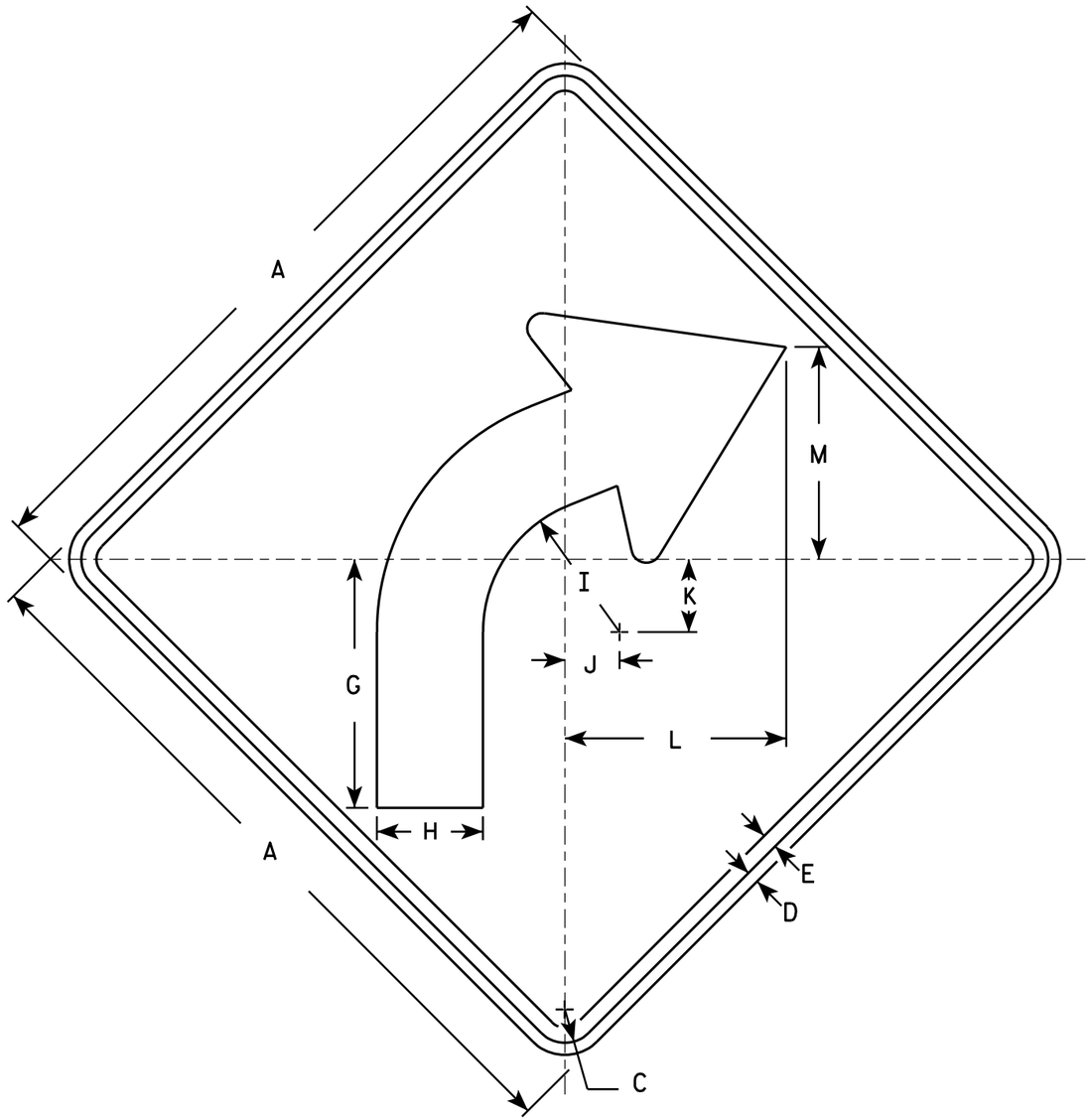
DATE 3/8/11 PLATE NO. S5-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 266 | E

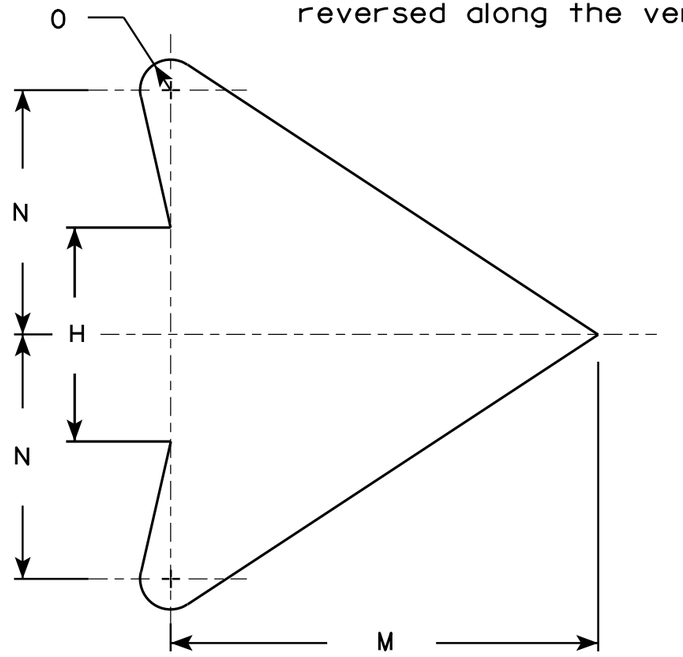
7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

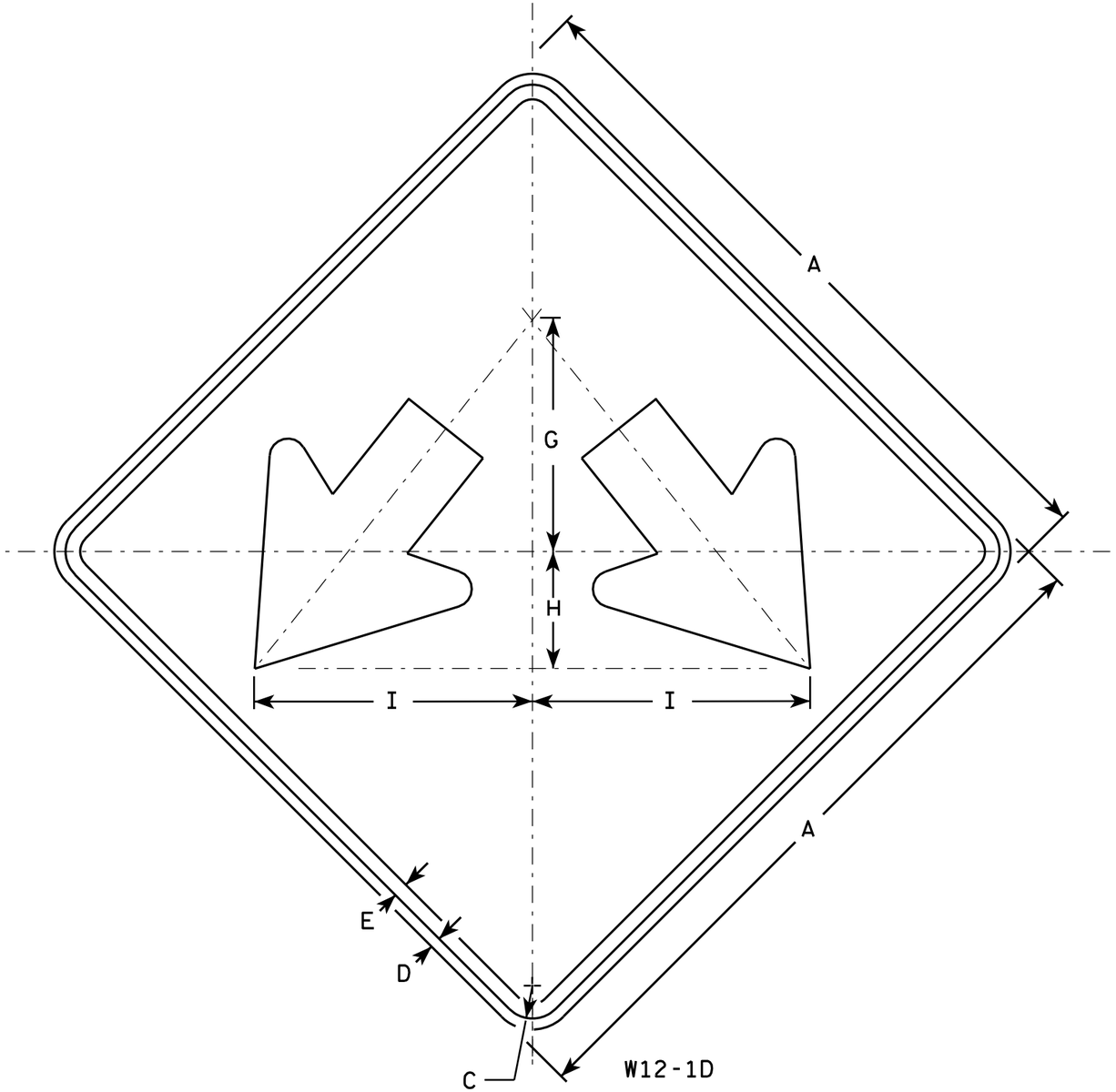
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

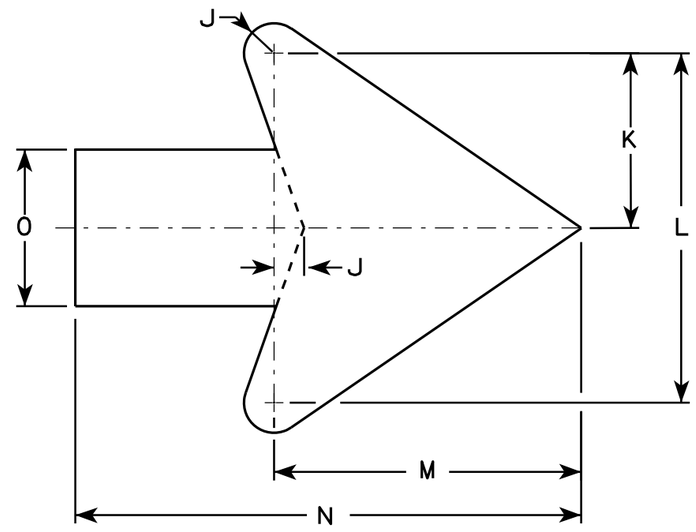
DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 267	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 - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/11 PLATE NO. W12-1D.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 268	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W121D.DGN PLOT DATE : 16-MAR-2011 14:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.717577:1.000000

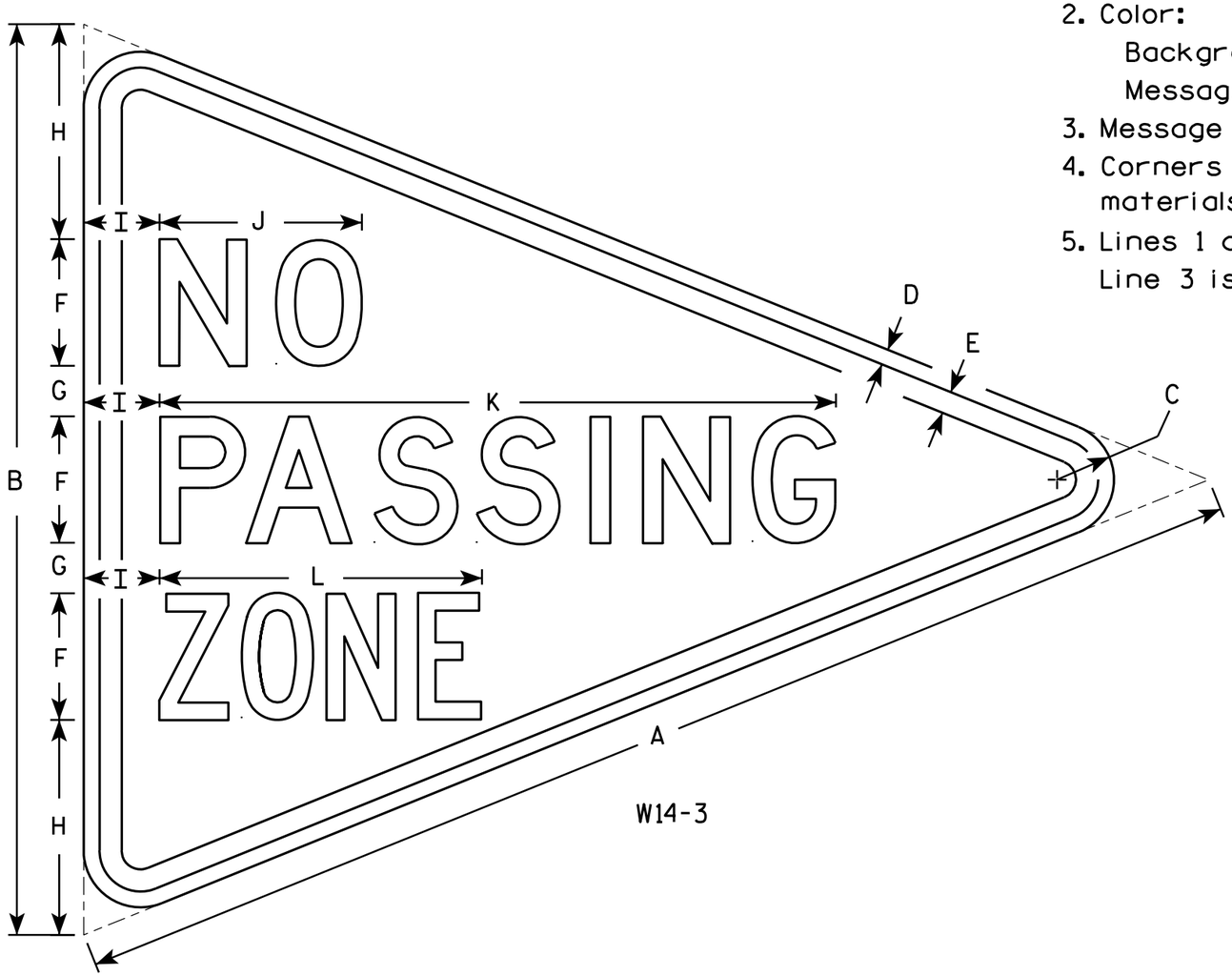
WISDOT/CADDS SHEET 42

7

7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.



W14-3

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

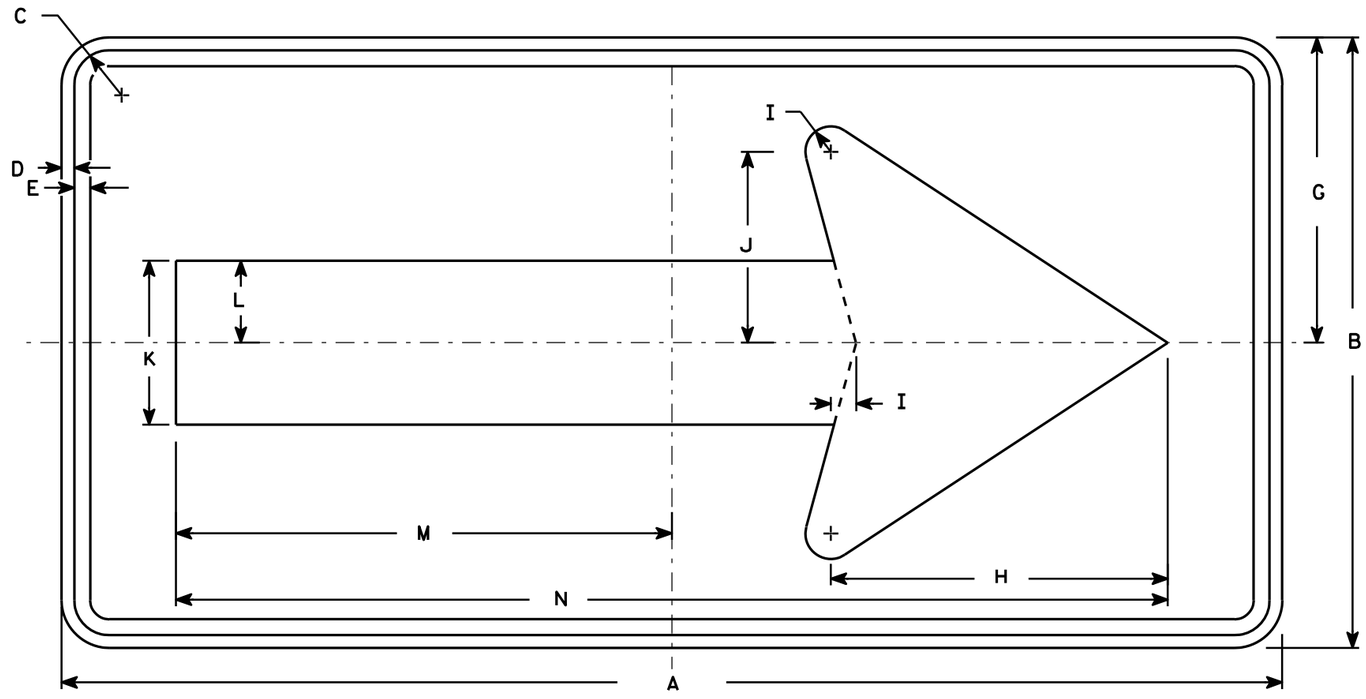
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 269	E

NOTES

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



W1-6

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	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

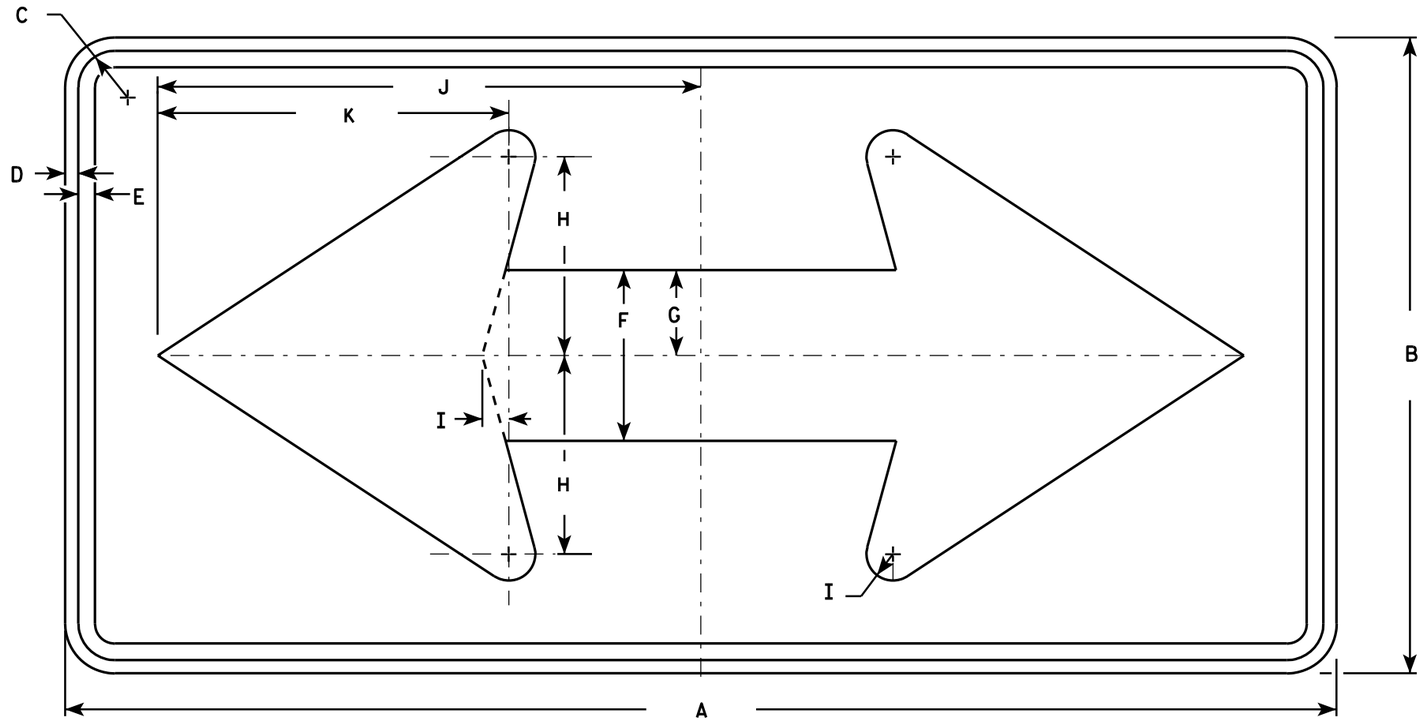
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 270



W1-7

NOTES

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

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	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

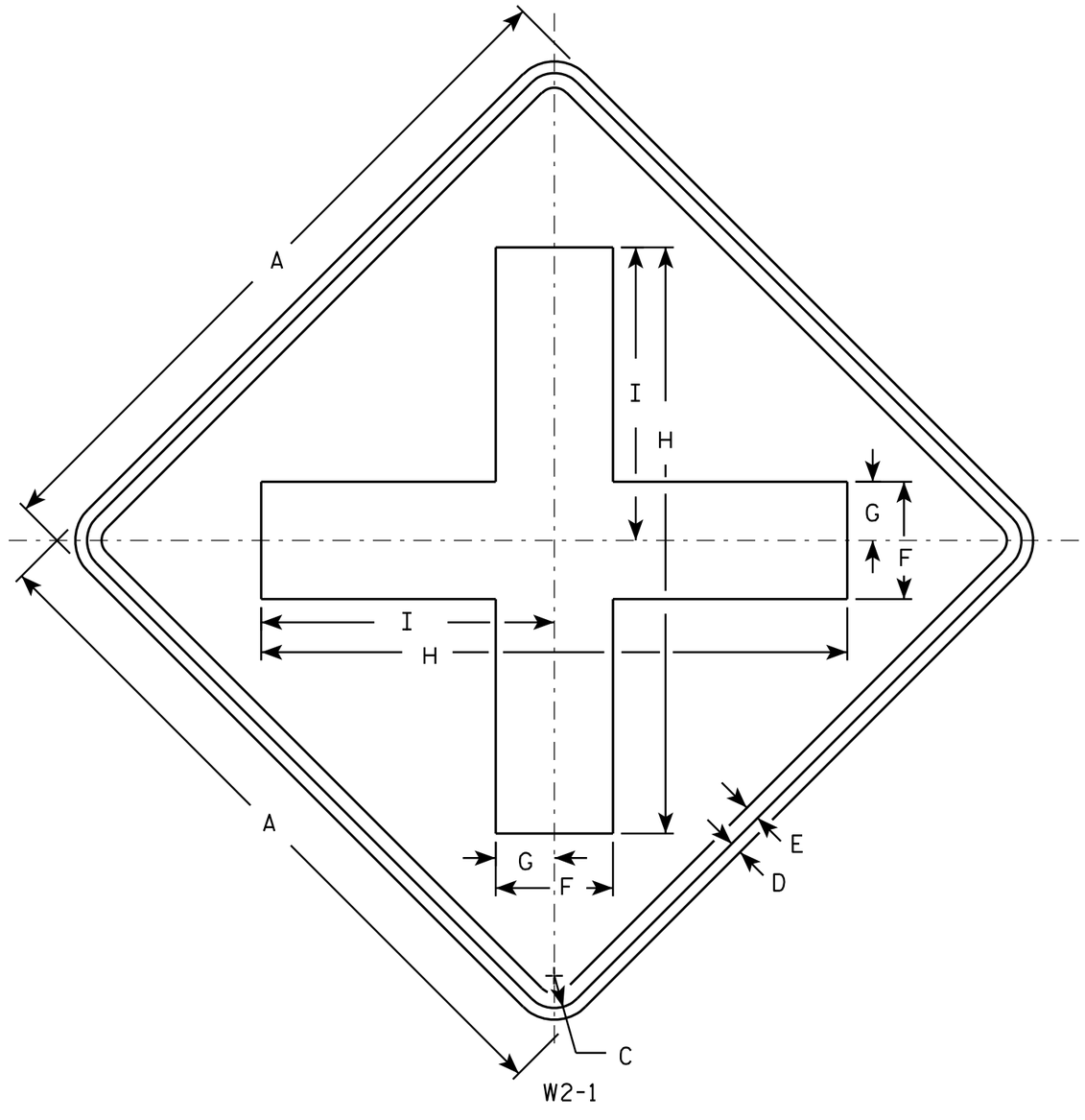
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 271 | E



NOTES

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

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	4	2	20	10																		4.0
2S	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3	30	15																		9.0
4	48		2 1/4	3/4	1	8	4	40	20																		16.0
5																											

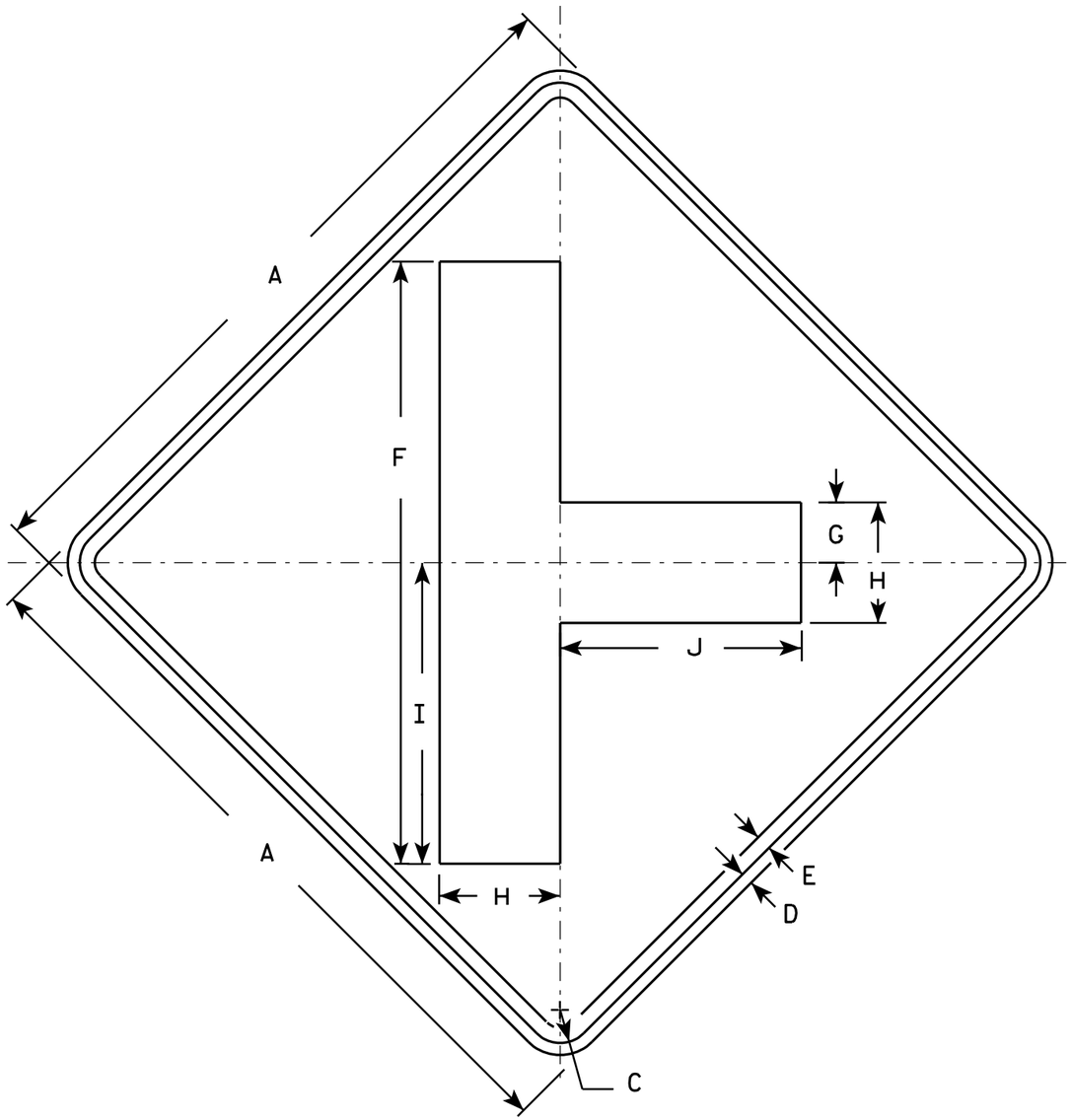
STANDARD SIGN
W2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 272	E



W2-2

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	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

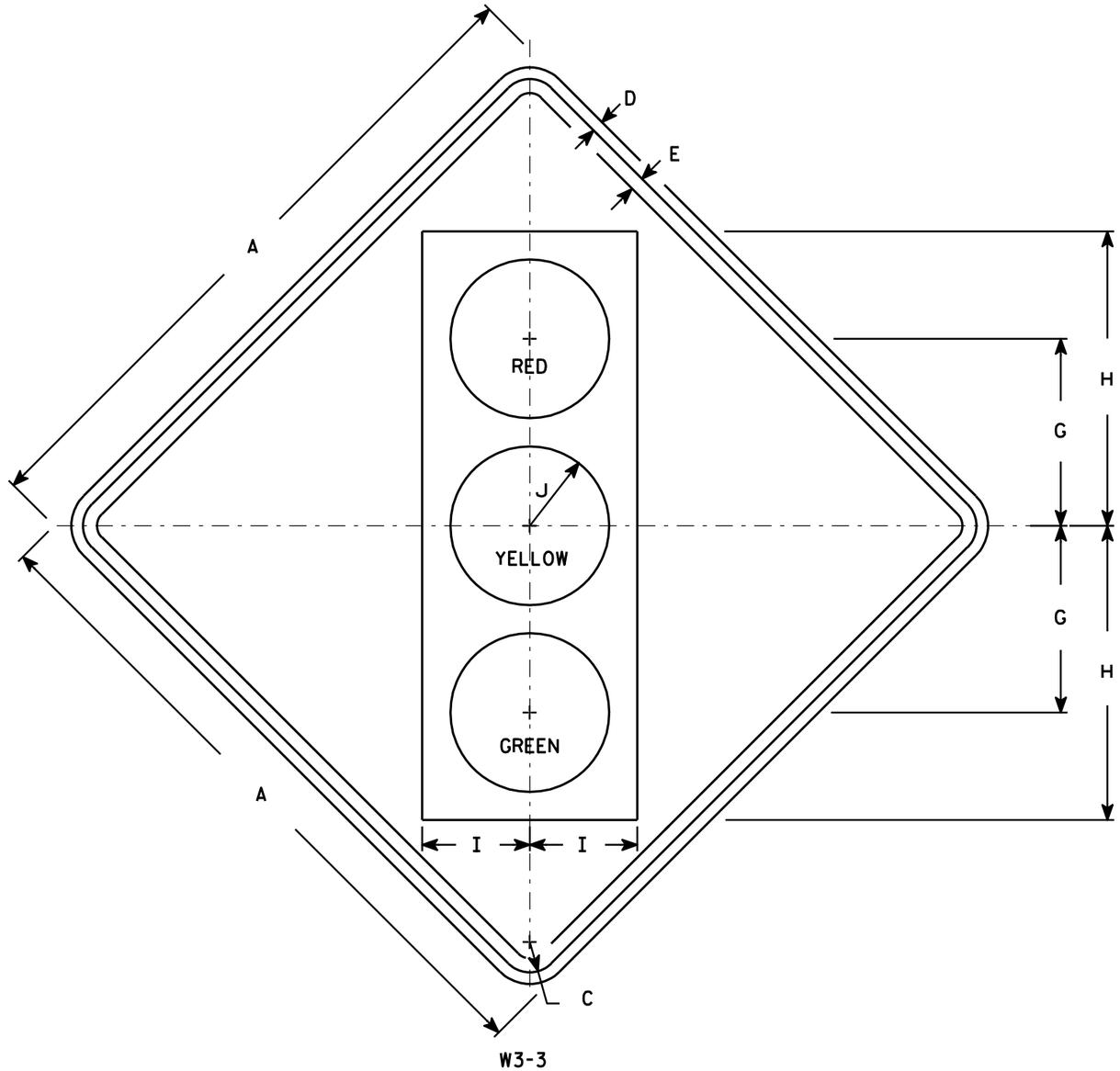
STANDARD SIGN
W2-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-2.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 273	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

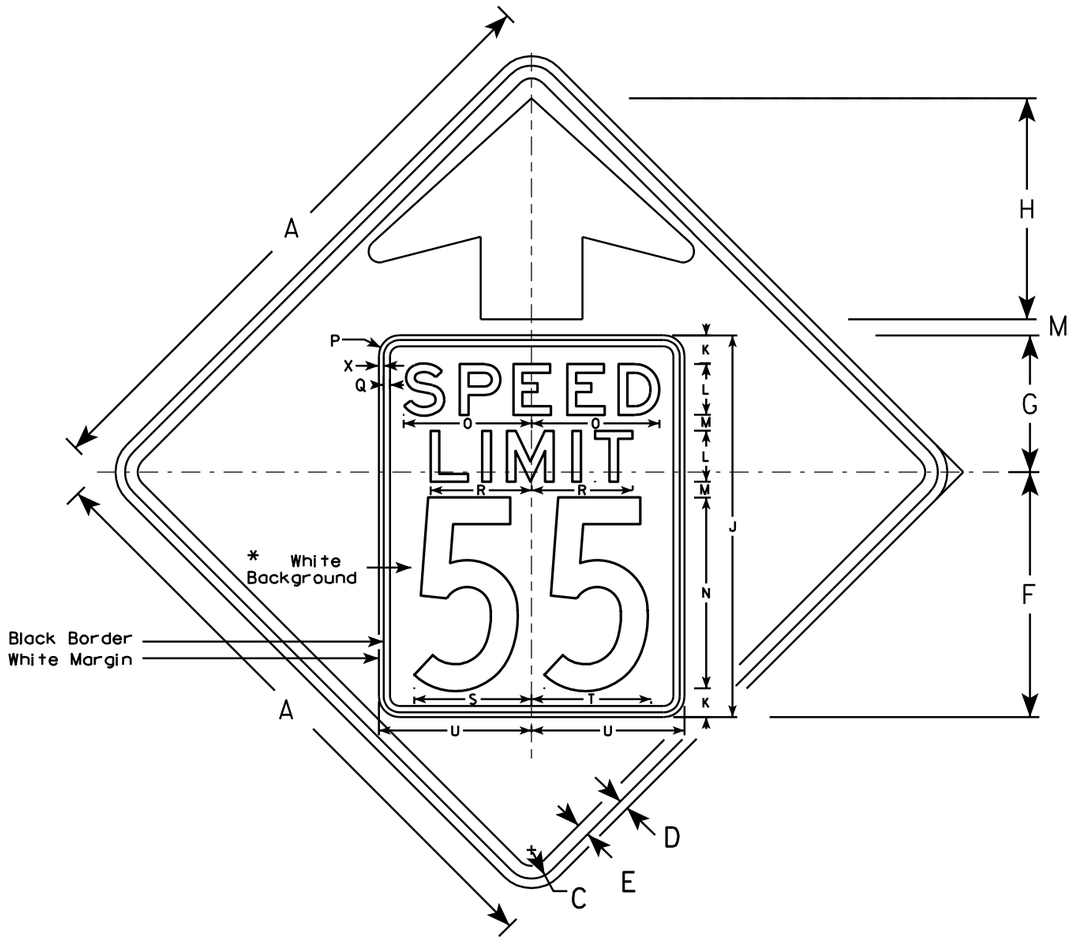
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 274 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000
WISDOT/CADDS SHEET 42

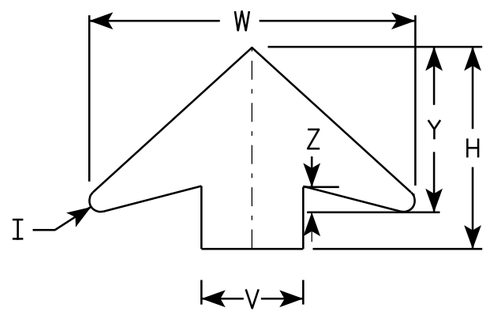


W3-5

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 for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

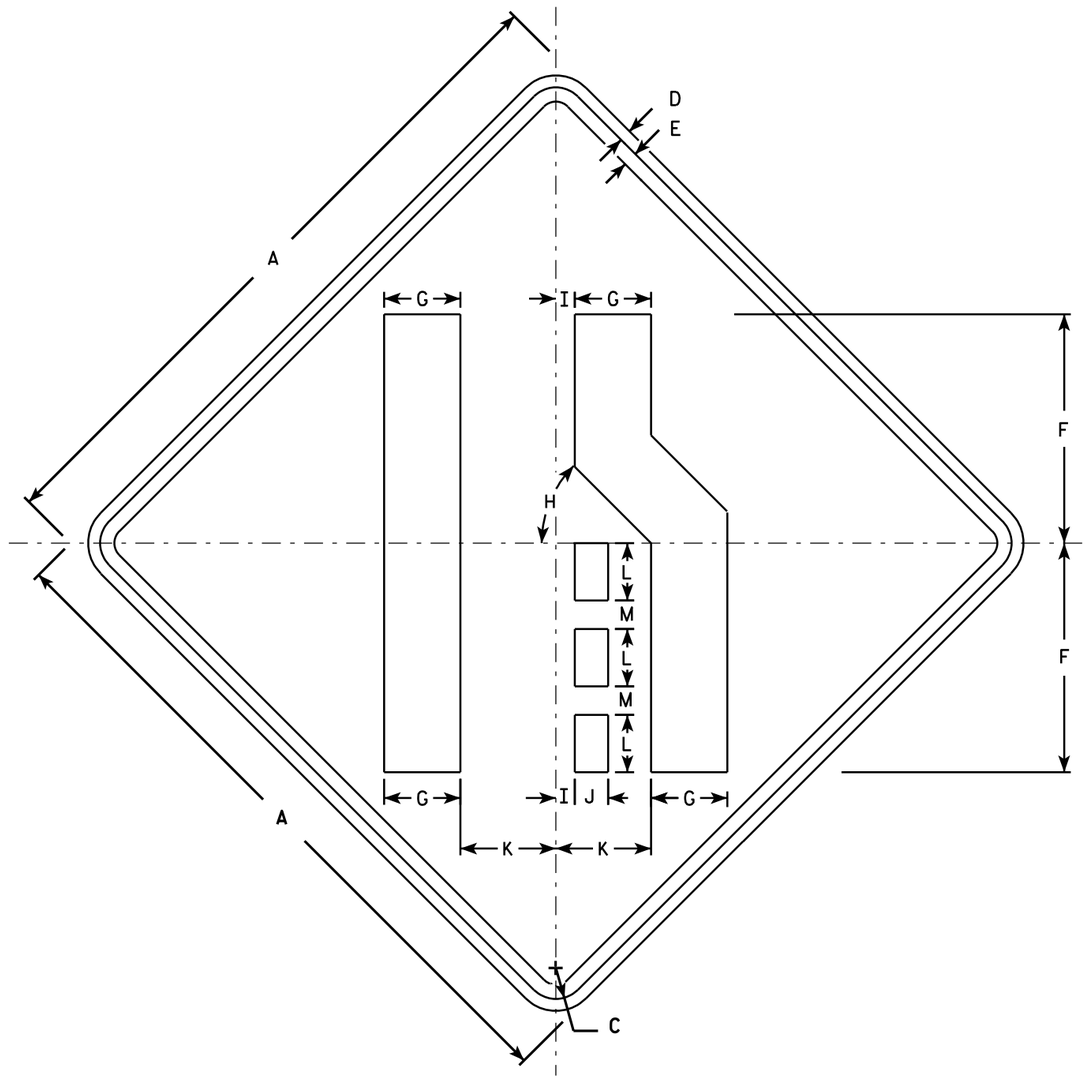
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 275 E



W4-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

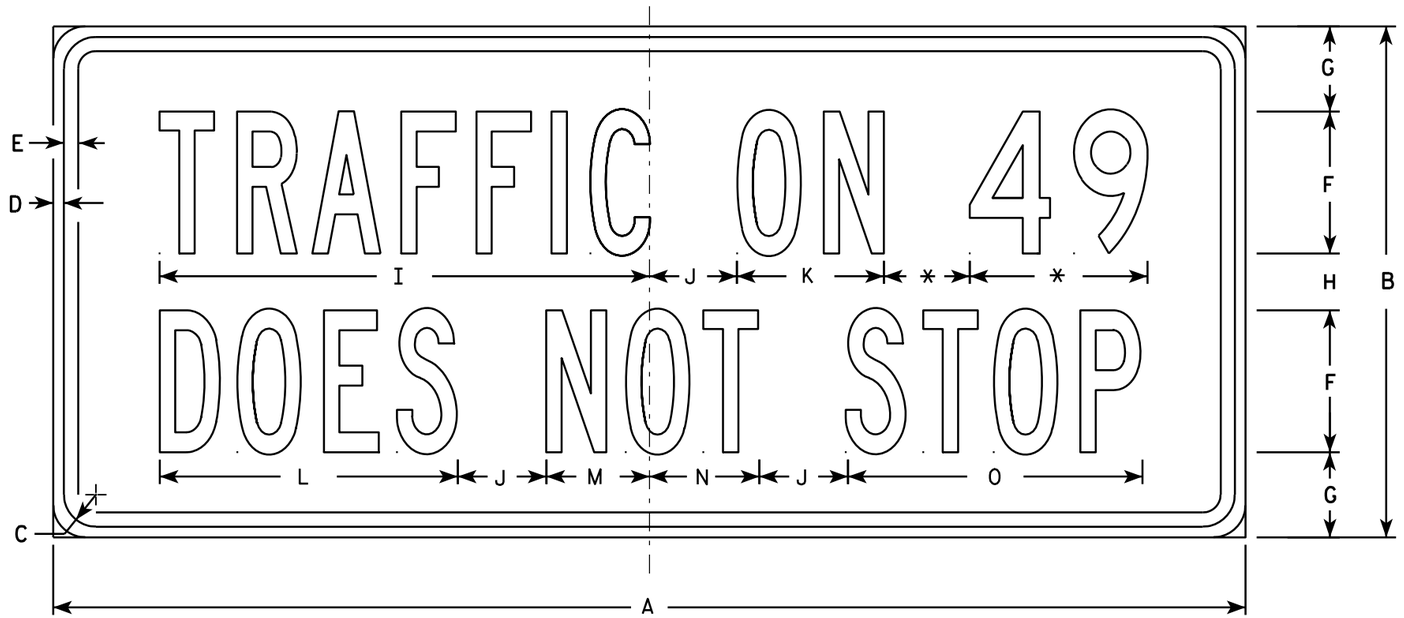
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/29/2012 PLATE NO. W4-2.13

PROJECT NO:

SHEET NO: 276 E



W4-4C

* VARIES

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - B (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. Highway Number usually Series D. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	3 1/8	6 1/4	2 1/4	2 1/4	6 1/4												2.0
2M	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	3 1/8	6 1/4	2 1/4	2 1/4	6 1/4												2.0
3	36	15	1 1/8	3/8	1/2	4	2 5/8	1 3/4	13 7/8	2 3/8	4 1/4	8 3/8	3 1/8	3 1/8	8 3/8												3.75
4	42	18	1 1/8	3/8	1/2	5	3	2	17 1/4	3 1/8	5 1/8	10 1/2	3 7/8	3 7/8	10 3/8												5.25
5																											

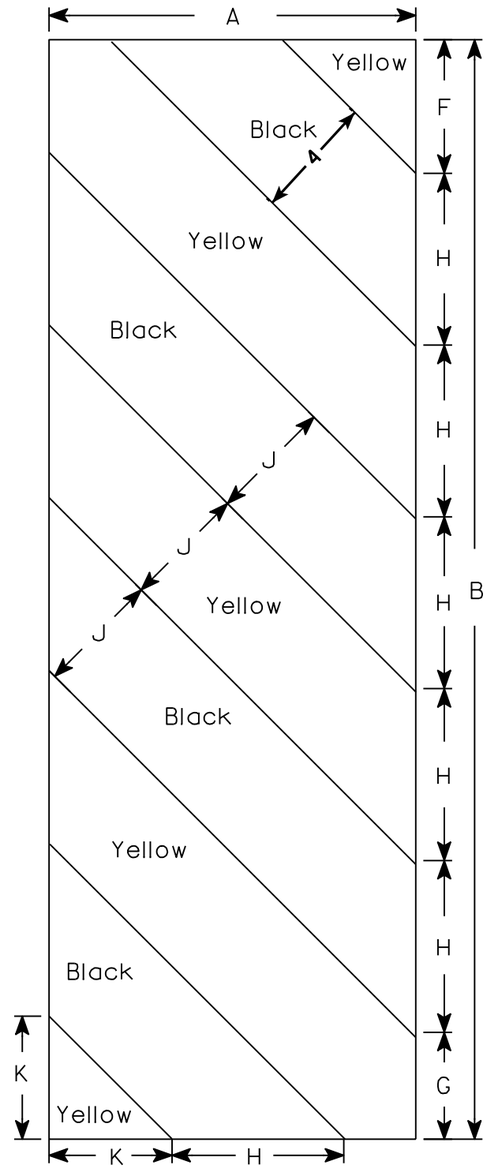
STANDARD SIGN
W4-4C

WISCONSIN DEPT OF TRANSPORTATION

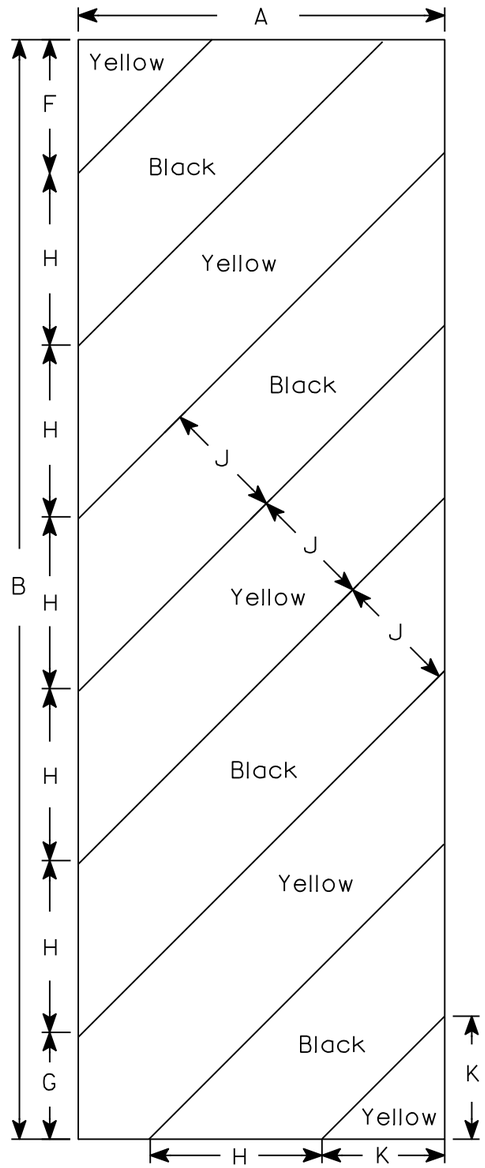
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/22/10 PLATE NO. W4-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 277	E



W5-52L



W5-52R

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

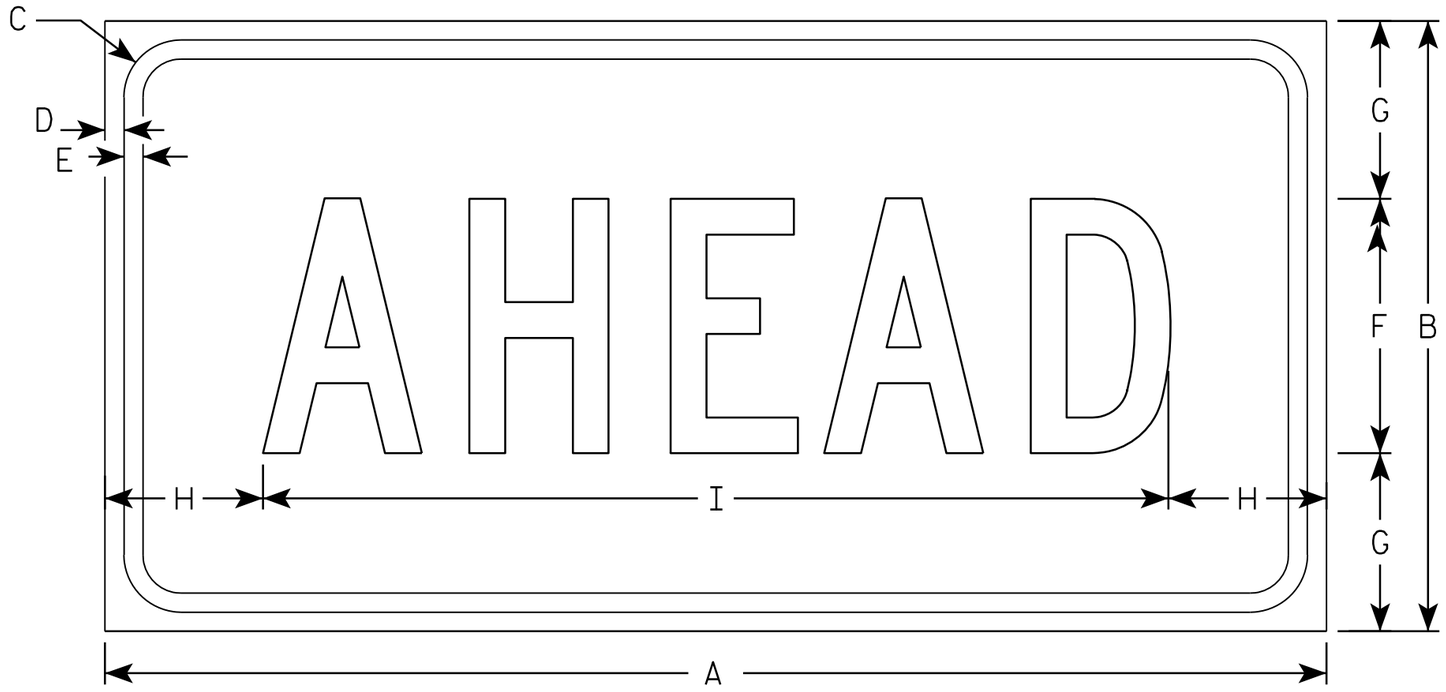
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 278	E



WF16-9P

NOTES

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

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

STANDARD SIGN
WF16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/29/2012 PLATE NO. WF16-9P.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 279	E

STH 164 - Division 1, Stage 1 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
1084+00 AHEAD	0	471.5	0.0	0	0	0	0	0
1084+50	50	481.7	0.0	883	0	883	0	883
1085+00	50	343.2	2.8	764	3	1646	3	1643
1085+50	50	281.7	2.7	579	5	2225	10	2215
1086+00	50	355.6	4.8	590	7	2815	19	2796
1086+50	50	334.6	0.0	639	4	3454	25	3429
1087+00	50	278.2	0.0	567	0	4021	25	3997
1087+50	50	238.8	1.2	479	1	4500	26	4474
1088+00	50	205.5	14.6	411	15	4911	45	4867
1089+00	100	180.8	8.0	715	42	5627	99	5528
1090+00	100	174.4	24.5	658	60	6285	177	6107
1091+00	100	146.7	24.8	595	91	6879	296	6583
1092+00	100	114.3	42.8	483	125	7363	459	6904
1093+00	100	127.0	0.8	447	81	7810	564	7246
1094+00	100	152.7	0.0	518	2	8328	566	7762
1095+05	105	192.5	3.3	671	6	8999	574	8425
1096+00	95	239.8	0.0	760	6	9759	582	9178
1096+95	95	161.4	9.9	706	17	10465	604	9861
1098+00	105	170.1	5.1	645	29	11110	642	10468
1099+00	100	158.6	5.9	609	20	11718	668	11050
1100+00	100	137.1	17.6	548	43	12266	725	11541
1101+00	100	104.3	8.9	447	49	12713	788	11924
1102+00	100	90.1	30.3	360	73	13073	883	12190
1103+00	100	90.5	30.7	334	113	13407	1030	12378
1104+00	100	82.3	46.9	320	144	13727	1217	12511
1105+00	100	83.4	45.6	307	171	14034	1439	12595
1106+00	100	89.8	58.6	321	193	14355	1690	12665
1107+00	100	114.2	19.2	378	144	14733	1877	12856
1107+50	50	151.6	3.1	246	21	14979	1904	13075
1108+00	50	196.3	1.0	322	4	15301	1909	13392
1109+00	100	235.9	0.0	800	2	16101	1911	14190
1110+00	100	180.1	1.1	770	2	16872	1914	14958
1111+00	100	213.3	0.0	728	2	17600	1916	15684
1111+50	50	232.4	0.0	413	0	18013	1916	16097
1112+00	50	261.4	0.0	457	0	18470	1916	16554
1112+50	50	252.6	0.0	476	0	18946	1916	17030
1113+00	50	244.1	13.9	460	13	19406	1933	17473
1113+56	56	172.1	3.4	432	18	19838	1956	17881
1114+00	44	174.8	8.9	283	10	20120	1969	18151
1114+50	50	168.2	39.6	318	45	20438	2028	18410
1115+00	50	179.3	52.5	322	85	20760	2139	18621
1115+50	50	171.9	55.4	325	100	21085	2268	18817
1116+00	50	172.5	39.1	319	87	21404	2382	19022
1116+50	50	180.8	16.7	327	52	21731	2449	19282
1117+00	50	193.7	17.4	347	32	22078	2490	19587
1118+00	100	299.7	9.2	914	49	22991	2554	20437
1119+00	100	372.0	0.0	1244	17	24235	2577	21658
1120+00	100	249.7	0.0	1151	0	25386	2577	22810

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

STH 164 - Division 1, Stage 1 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
1121+09	109	210.4	0.0	929	0	26315	2577	23738
1122+00	91	215.4	0.0	718	0	27032	2577	24456
1123+00	100	235.2	0.0	835	0	27867	2577	25290
1124+00	100	240.4	0.0	881	0	28747	2577	26171
1125+00	100	348.5	0.0	1090	0	29838	2577	27261
1126+00	100	299.9	0.0	1201	0	31039	2577	28462
1127+00	100	273.4	0.0	1062	0	32100	2577	29524
1128+00	100	251.1	0.0	971	0	33072	2577	30495
1129+00	100	211.5	0.0	857	0	33928	2577	31352
1130+00	100	151.0	1.3	671	2	34600	2580	32020
1131+00	100	264.0	2.5	769	7	35368	2589	32779
1132+00	100	233.8	0.1	922	5	36290	2595	33695
1133+00	100	238.6	0.0	875	0	37165	2595	34570
1134+00	100	208.9	0.2	829	0	37993	2596	35398
1135+00	100	157.8	11.6	679	22	38673	2624	36049
1136+00	100	91.8	143.1	462	286	39135	2996	36138
1137+00	100	125.2	81.5	402	416	39537	3537	36000
1138+00	100	187.3	0.0	579	151	40115	3733	36382
1139+00	100	173.0	2.9	667	5	40783	3740	37043
1140+00	100	173.2	12.1	641	28	41424	3776	37648
1141+00	100	186.5	0.6	666	23	42090	3806	38284
1142+00	100	136.5	17.5	598	33	42688	3850	38839
1143+00	100	111.6	67.1	460	157	43148	4053	39094
1144+00	100	240.6	0.0	652	124	43800	4215	39585
1145+00	100	310.9	0.0	1021	0	44821	4215	40607
1146+00	100	273.9	4.4	1083	8	45904	4225	41679
1147+00	100	123.8	18.8	737	43	46641	4281	42359
1148+00	100	124.1	34.3	459	98	47100	4409	42691
1149+00	100	161.4	1.9	529	67	47629	4497	43132
1150+00	100	227.7	0.2	721	4	48349	4502	43847
1151+00	100	223.5	0.4	836	1	49185	4503	44681
1152+00	100	199.8	18.3	784	35	49969	4548	45420
1153+00	100	183.9	40.0	711	108	50679	4689	45990
1153+50	50	227.7	0.7	381	38	51060	4738	46322
1154+00	50	253.7	0.0	446	1	51506	4739	46767
1154+50	50	205.1	0.0	425	0	51931	4739	47192
1155+00	50	199.6	0.0	375	0	52305	4739	47567
1155+50	50	225.2	0.0	393	0	52699	4739	47960
1156+00	50	695.2	0.0	852	0	53551	4739	48812
1157+00	100	374.1	0.0	1980	0	55531	4739	50792
1158+00	50	163.0	52.6	497	49	56028	4802	51226
1158+50	50	11.3	12.0	161	60	56190	4880	51310
1159+00	50	184.0	31.6	181	40	56370	4932	51438
1160+11	111	144.2	38.5	675	144	57045	5119	51926
1161+00	89	128.5	34.8	449	121	57495	5276	52219
1162+00 BACK	100	285.9	0.0	767	64	58262	5360	52902

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

Beach Drive - Division 1, Stage 1 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
46+50 AHEAD	0	29.6	1.6	0	0	0	0	0
47+00	50	63.9	4.4	87	6	87	7	79
47+50	50	101.0	0.0	153	4	239	12	227
48+00	50	124.4	0.0	209	0	448	12	435
48+50	50	150.3	0.0	254	0	702	12	690
49+00	50	215.3	0.0	338	0	1041	12	1028
49+50 BACK	50	600.4	6.2	755	6	1796	20	1776

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

Sandy Lane - Division 1, Stage 1 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
48+00 AHEAD	0	32.1	0.0	0	0	0	0	0
48+50	50	33.4	0.0	61	0	61	0	61
49+00	50	38.2	1.4	66	1	127	2	125
49+50 BACK	50	96.5	10.9	125	11	252	17	235

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

Dorie Lane - Division 1, Stage 1 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
48+00 AHEAD	0	45.7	0.8	0	0	0	0	0
48+50	50	60.5	0.8	98	2	98	2	96
49+00	50	86.3	2.2	136	3	234	6	229
49+50 BACK	50	131.3	54.4	201	52	436	74	362

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

Greenhaven Terrace - Division 1, Stage 1 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
48+50 AHEAD	0	31.3	0.0	0	0	0	0	0
49+00	50	92.6	0.0	115	0	115	0	115
49+50 BACK	50	143.6	20.5	219	19	333	25	309

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

North Lake Drive - Division 1, Stage 1 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
46+00 AHEAD	0	34.4	0.0	0	0	0	0	0
46+50	50	84.6	0.0	110	0	110	0	110
47+00	50	104.0	0.0	175	0	285	0	285
47+50	50	122.9	0.0	210	0	495	0	495
48+00	50	79.3	0.0	187	0	682	0	682
48+50	50	196.3	0.0	255	0	938	0	938
49+00	50	90.1	0.0	265	0	1203	0	1203
49+50 BACK	50	138.3	0.0	211	0	1414	0	1414
	0	0.0	0.0	0	0	1414	0	1414
	0	0.0	0.0	0	0	1414	0	1414
50+50 AHEAD	0	78.0	0.0	0	0	1414	0	1414
51+03	53	374.4	0.0	444	0	1858	0	1858
51+50	47	40.4	0.0	361	0	2219	0	2219
52+00	50	263.6	0.0	282	0	2501	0	2501
52+50	50	238.6	0.0	465	0	2966	0	2966
53+00	50	172.8	0.4	381	0	3347	1	3346
53+50	50	95.9	3.1	249	3	3596	5	3591
53+80	30	35.4	1.6	73	3	3669	8	3661
53+85 BACK	5	2.4	0.0	4	0	3672	8	3664

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

STH 164 - Division 2, Stage 2 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
1162+00 AHEAD	0	285.9	0.0	0	0	0	0	0
1162+50	50	93.8	96.5	352	89	352	116	235
1163+00	50	143.0	2.9	219	92	571	236	335
1163+55	55	89.8	27.0	237	30	808	275	533
1164+30	75	169.3	0.1	360	38	1168	324	844
1165+00	70	153.1	16.8	418	22	1586	353	1233
1166+00	100	141.8	29.7	546	86	2132	464	1668
1167+00	100	172.9	12.0	583	77	2715	565	2150
1168+00	100	129.7	10.9	560	42	3275	620	2655
1169+00	100	133.9	1.2	488	22	3763	649	3114
1170+00	100	71.2	47.2	380	90	4143	766	3378
1171+00	100	47.5	87.8	220	250	4363	1091	3272
1172+00	100	51.3	80.0	183	311	4546	1495	3051
1173+00	100	74.6	43.5	233	229	4779	1792	2987
1174+00	100	131.0	3.7	381	87	5160	1905	3255
1175+00	100	206.0	0.0	624	7	5784	1914	3870
1176+00	100	145.4	8.0	651	15	6434	1933	4501
1177+00	100	127.0	27.7	504	66	6939	2020	4919

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

STH 164 - Division 2, Stage 2 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
1178+00	100	114.8	32.4	448	111	7387	2164	5222
1179+00	100	113.1	12.9	422	84	7809	2273	5536
1180+00	100	129.0	6.1	448	35	8257	2319	5938
1181+00	100	175.4	0.3	564	12	8821	2334	6486
1182+00	100	284.8	0.0	852	1	9673	2335	7338
1183+00	100	262.4	0.0	1013	0	10686	2335	8351
1184+00	100	165.8	2.5	793	5	11479	2341	9138
1185+00	100	150.0	0.2	585	5	12064	2347	9716
1186+00	100	124.9	11.4	509	21	12573	2375	10198
1187+00	100	181.7	0.1	568	21	13141	2403	10738
1188+00	100	116.4	2.6	552	5	13693	2410	11283
1189+00	100	71.6	96.6	348	184	14041	2648	11392
1190+00	100	61.4	97.3	246	359	14287	3115	11172
1191+00	100	67.4	53.8	239	280	14526	3479	11047
1192+00	100	128.2	9.0	362	116	14888	3630	11258
1193+00	100	98.5	28.3	420	69	15308	3719	11588
1194+00	100	132.5	19.6	428	89	15735	3835	11901
1195+00	100	162.1	14.3	545	63	16281	3916	12365
1196+00	100	258.9	0.0	780	26	17060	3950	13110
1197+00	100	295.2	0.0	1026	0	18086	3950	14136
1198+00	100	267.5	0.0	1042	0	19129	3950	15178
1199+00	100	214.7	0.0	893	0	20022	3950	16071
1200+00	100	259.6	0.0	878	0	20900	3950	16950
1201+00	100	175.8	0.7	806	1	21706	3952	17754
1201+50	50	200.6	0.0	349	1	22055	3953	18102
1202+00	50	123.2	0.9	300	1	22355	3954	18401
1202+50	50	80.4	17.5	189	17	22543	3976	18567
1203+00	50	66.2	27.0	136	41	22679	4030	18649
1203+50	50	65.8	25.8	122	49	22801	4093	18708
1204+00	50	54.9	54.2	112	74	22913	4190	18723
1204+50	50	54.5	53.3	101	100	23014	4319	18695
1205+00	50	46.6	95.5	94	138	23108	4498	18610
1206+00	100	64.9	101.2	206	364	23314	4972	18342
1207+00	100	119.3	50.1	341	280	23655	5336	18319
1208+00	100	142.9	66.9	486	217	24141	5618	18523
1209+00	100	147.7	37.1	538	193	24679	5868	18811
1210+00	100	164.8	16.6	579	99	25258	5997	19260
1211+00	100	165.4	11.9	612	53	25869	6066	19803
1212+00	100	126.0	0.5	540	23	26409	6096	20313
1212+20 BACK	20	128.5	0.0	94	0	26503	6096	20407

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

Jensen Parkway - Division 2, Stage 2 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
47+00 AHEAD	0	39.5	0.0	0	0	0	0	0
47+50	50	49.5	0.0	82	0	82	0	82
48+00	50	39.9	4.7	83	4	165	6	160
48+50	50	30.3	0.0	65	4	230	11	219
49+00	50	31.3	0.1	57	0	287	11	276
49+50 BACK	50	27.9	36.1	55	34	342	55	287

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

County Line Road/Denoon Drive - Division 2, Stage 2 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
145+75 AHEAD	0	26.2	8.9	0	0	0	0	0
146+00	25	25.1	16.7	24	12	24	15	8
146+50	50	25.4	19.0	47	33	71	58	12
147+00	50	45.1	11.6	65	28	136	95	41
147+50	0	55.2	16.7	0	0	136	95	41
148+00	50	65.8	26.8	112	40	248	147	100
148+50	0	64.1	36.2	0	0	248	147	100
149+00 BACK	50	41.7	57.0	98	86	346	259	86
	0	0.0	0.0	0	0	346	259	86
	0	0.0	0.0	0	0	346	259	86
	0	0.0	0.0	0	0	346	259	86
150+50 AHEAD	0	46.1	126.7	0	0	346	259	86
151+00	50	27.6	52.9	68	166	414	476	-62
151+50	50	48.9	31.0	71	78	485	577	-92
152+00	50	46.8	19.3	89	47	573	637	-64
152+50	50	33.7	15.8	75	32	648	679	-31
153+00	50	28.5	8.4	58	22	705	708	-3
153+50	50	22.1	13.0	47	20	752	734	18
154+00	50	46.8	0.1	64	12	816	750	66
154+50	50	49.8	0.9	89	1	906	751	154
155+00	50	50.8	0.0	93	1	999	752	247
155+25	25	44.7	0.0	44	0	1043	752	291
155+50 BACK	25	40.0	0.0	39	0	1082	752	330

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

STH 164 - Division 3, Stage 3 Construction

STATION	Distance	AREA (SF)				Unadjusted Incremental Vol (CY)				Cumulative Vol (CY)				Mass Ordinate CY
		Cut	Fill	Excavation Marsh	Backfill Granular	Cut *Note 1	Fill *Note 3	Excavation Marsh	Backfill Granular	Cut *Note 1	Expanded Fill 1.30 *Note 8	Excavation Marsh	Backfill Granular 1.30 *Note 9	
965+67 AHEAD	0	12.0	0.0	0	0	0	0	0	0	0	0	0	0	0
966+00	33	15.9	0.2	0	0	17	0	0	0	17	0	0	0	17
967+00	100	16.9	3.4	0	0	61	7	0	0	78	9	0	0	69
968+00	100	39.6	2.0	0	0	105	10	0	0	182	22	0	0	160
969+00	100	50.3	8.0	0	0	167	18	0	0	349	46	0	0	303
970+00	100	34.1	31.0	0	0	156	72	0	0	505	140	0	0	366
971+00	100	32.9	21.4	0	0	124	97	0	0	629	266	0	0	364
972+00	100	32.6	19.6	0	0	121	76	0	0	751	364	0	0	386
973+00	100	38.3	0.0	0	0	131	36	0	0	882	412	0	0	470
973+20 BACK	20	12.0	0.0	0	0	19	0	0	0	901	412	0	0	489
	0	0.0	0.0	0	0	0	0	0	0	901	412	0	0	489
1003+69 AHEAD	0	12.0	0.0	0	0	0	0	0	0	901	412	0	0	489
1004+00	31	20.7	0.0	0	0	19	0	0	0	919	412	0	0	508
1005+00	100	20.7	0.3	0	0	77	1	0	0	996	412	0	0	584
1006+00	100	22.9	1.3	0	0	81	3	0	0	1077	416	0	0	661
1007+00	100	23.0	1.7	0	0	85	6	0	0	1162	423	0	0	739
1008+00	100	31.1	9.8	0	0	100	21	0	0	1262	451	0	0	811
1009+00	100	42.1	47.6	0	0	136	106	0	0	1397	589	0	0	808
1010+00	100	30.8	49.0	0	0	135	179	0	0	1532	822	0	0	711
1011+00	100	30.9	12.8	0	0	114	114	0	0	1647	970	0	0	676
1012+00	100	21.6	8.5	0	0	97	39	0	0	1744	1021	0	0	722
1013+00	100	24.3	8.3	0	0	85	31	0	0	1829	1062	0	0	767
1014+00	100	14.1	13.5	0	0	71	40	0	0	1900	1114	0	0	786
1015+00	100	14.2	1.2	0	0	53	27	0	0	1953	1149	0	0	803
1015+63 BACK	63	12.0	0.0	0	0	31	1	0	0	1983	1151	0	0	832
	0	0.0	0.0	0	0	0	0	0	0	1983	1151	0	0	832
1020+00 AHEAD	0	106.0	2.0	0	0	0	0	0	0	1983	1151	0	0	832
1021+00	100	122.0	0.0	0	0	422	4	0	0	2405	1156	0	0	1249
1022+00	100	150.7	0.0	0	0	505	0	0	0	2910	1156	0	0	1754
1023+00	100	205.2	0.0	0	0	659	0	0	0	3570	1156	0	0	2413
1024+00	100	176.6	26.0	0	0	707	48	0	0	4277	1219	0	0	3058
1024+50	50	184.7	16.1	0	0	335	39	0	0	4611	1269	0	0	3342
1025+00	50	207.5	17.5	0	0	363	31	0	0	4974	1310	0	0	3665
1025+50	50	244.8	0.0	0	0	419	16	0	0	5393	1331	0	0	4062
1026+00	50	385.9	0.0	0	0	584	0	0	0	5977	1331	0	0	4646
1026+50	50	494.9	0.0	0	0	816	0	0	0	6793	1331	0	0	5462
1027+00	50	596.2	0.0	0	0	1010	0	0	0	7803	1331	0	0	6472
1028+00	100	587.6	0.0	0	0	2192	0	0	0	9995	1331	0	0	8664
1029+00	100	700.7	0.0	0	0	2386	0	0	0	12381	1331	0	0	11050
1030+00	100	747.5	0.0	0	0	2682	0	0	0	15063	1331	0	0	13732
1031+00	100	714.5	0.0	0	0	2707	0	0	0	17770	1331	0	0	16439
1032+00	100	762.6	0.0	0	0	2735	0	0	0	20506	1331	0	0	19175
1033+00	100	725.6	0.0	0	0	2756	0	0	0	23261	1331	0	0	21930
1034+00	100	781.5	0.0	0	0	2791	0	0	0	26052	1331	0	0	24721
1035+00	100	958.6	0.0	0	0	3222	0	0	0	29275	1331	0	0	27944
1036+00	100	768.1	0.0	0	0	3198	0	0	0	32472	1331	0	0	31141
1037+00	100	541.3	0.0	0	0	2425	0	0	0	34897	1331	0	0	33566
1038+00	100	512.0	0.0	0	0	1951	0	0	0	36848	1331	0	0	35517
1039+00	100	470.2	0.0	0	0	1819	0	0	0	38667	1331	0	0	37336
1040+00	100	313.2	0.0	0	0	1451	0	0	0	40117	1331	0	0	38786
1041+00	100	260.0	12.3	0	0	1062	23	0	0	41179	1361	0	0	39818
1041+50	50	214.2	35.8	0	0	439	45	0	0	41618	1419	0	0	40200
1042+00	50	163.2	37.0	0	0	349	67	0	0	41968	1506	0	0	40461
1042+50	50	97.9	98.8	0	0	242	126	0	0	42209	1670	0	0	40540
1043+00	50	101.8	59.7	0	0	185	147	0	0	42394	1860	0	0	40534
1043+50	50	88.3	119.6	0	0	176	166	0	0	42570	2076	0	0	40494
1044+00	50	112.2	67.1	0	0	186	173	0	0	42756	2301	0	0	40455
1044+50	50	120.9	37.8	0	0	216	97	0	0	42972	2427	0	0	40545
1045+00	50	102.9	13.1	0	0	207	47	0	0	43179	2488	0	0	40691
1046+00	100	53.5	45.8	0	0	290	109	0	0	43469	2630	0	0	40838

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

STH 164 - Division 3, Stage 3 Construction

STATION	Distance	AREA (SF)				Unadjusted Incremental Vol (CY)				Cumulative Vol (CY)				Mass Ordinate CY
		Cut	Fill	Marsh Exc	Backfill Granular	Cut *Note 1	Fill *Note 3	Excavation Marsh	Backfill Granular	Cut *Note 1	Expanded Fill 1.30 *Note 8	Excavation Marsh	Backfill Granular 1.30 *Note 9	
1047+00	100	31.4	100.6	0	0	157	271	0	0	43626	2983	0	0	40643
1048+00	100	21.5	233.4	0	0	98	619	0	0	43724	3787	0	0	39937
1048+81	81	29.1	262.7	0	0	76	744	0	0	43800	4754	0	0	39045
1050+00	119	17.0	404.0	0	0	102	1469	0	0	43901	6664	0	0	37237
1051+00	100	18.2	376.4	0	0	65	1445	0	0	43966	8543	0	0	35423
1052+00	100	66.9	68.0	0	0	158	823	0	0	44124	9613	0	0	34511
1053+00	100	127.5	54.1	0	0	360	226	0	0	44484	9906	0	0	34577
1054+00	100	184.3	9.2	0	0	577	117	0	0	45061	10059	0	0	35002
1055+00	100	487.1	0.0	0	0	1243	17	0	0	46305	10081	0	0	36223
1056+00	100	404.3	0.0	0	0	1651	0	0	0	47955	10081	0	0	37874
1057+00	100	451.6	0.0	0	0	1585	0	0	0	49540	10081	0	0	39459
1058+00	100	332.1	0.0	0	0	1451	0	0	0	50992	10081	0	0	40911
1059+00	100	247.1	7.1	0	0	1073	13	0	0	52065	10098	0	0	41966
1060+00	100	218.0	5.6	0	0	861	23	0	0	52926	10129	0	0	42797
1060+50	50	207.9	12.8	0	0	394	17	0	0	53320	10151	0	0	43170
1060+85	35	157.0	12.7	0	0	237	17	0	0	53557	10172	0	0	43385
1061+50	65	176.7	10.5	0	0	402	28	0	0	53958	10208	0	0	43750
1062+00	50	135.6	90.9	0	0	289	94	0	0	54248	10330	0	0	43917
1063+00	100	83.4	41.0	0	0	405	244	0	0	54653	10648	0	0	44005
1063+50	50	103.0	18.4	0	0	173	55	0	0	54826	10719	0	0	44106
1064+00	50	84.7	27.1	0	0	174	42	0	0	54999	10774	0	0	44225
1064+50	50	78.8	25.0	0	0	151	48	0	0	55151	10837	0	0	44314
1065+00	50	73.3	21.3	0	0	141	43	0	0	55292	10892	0	0	44399
1066+00	100	109.3	12.4	0	0	338	62	0	0	55630	10973	0	0	44656
1067+00	100	80.6	48.9	0	0	352	114	0	0	55982	11121	0	0	44860
1068+00	100	30.8	177.7	0	0	206	420	0	0	56188	11667	0	0	44521
1069+00	100	395.8	419.2	680.5	945.3	790	1105	1260	1751	56978	13104	1260	2276	43874
1070+00	100	388.9	454.5	1089.0	1391.4	1453	1618	3277	4327	58431	15207	4537	7901	43224
1071+00	100	317.2	446.3	1467.0	1746.1	1308	1668	4733	5810	59739	17375	9270	15455	42363
1072+00	100	262.7	424.1	2114.0	2354.1	1074	1612	6631	7593	60813	19471	15902	25326	41342
1073+00	100	356.7	356.7	2068.5	2274.3	1147	1446	7745	8571	61960	21351	23647	36468	40609
1074+00	100	232.8	269.3	2018.0	2210.2	1092	1159	7568	8305	63051	22857	31215	47264	40194
1075+00	100	208.7	236.5	2060.5	2259.2	818	937	7553	8277	63869	24075	38768	58024	39794
1076+00	100	140.5	224.1	2193.5	2399.2	647	853	7878	8627	64516	25184	46645	69238	39332
1077+00	100	203.0	333.0	2550.5	2550.5	636	1032	8785	9166	65152	26525	55431	81154	38627
1078+00	100	224.9	142.2	2418.5	2653.6	793	880	9202	9637	65944	27669	64632	93682	38275
1079+00	100	253.4	188.4	1401.0	1630.1	886	612	7073	7933	66830	28465	71706	103995	38365
1080+00	100	324.1	213.3	1125.5	1389.4	1069	744	4679	5592	67899	29432	76384	111264	38467
1081+00	100	85.9	17.8	464.0	464.0	759	428	2944	3432	68659	29989	79328	115726	38670
1082+00	100	495.9	0.0	0	0	1077	33	859	859	69736	30032	80187	116843	39704
1082+50	50	571.2	0.0	0	0	988	0	0	0	70724	30032	80187	116843	40692
1083+00	50	567.2	0.0	0	0	1054	0	0	0	71778	30032	80187	116843	41746
1083+50	50	500.5	0.0	0	0	989	0	0	0	72767	30032	80187	116843	42735
1084+00 BACK	50	471.5	0.0	0	0	900	0	0	0	73667	30032	80187	116843	43635

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

Kramer Drive - Division 3, Stage 3 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
48+00 AHEAD	0	36.2	0.0	0	0	0	0	0
48+50	50	68.4	1.0	97	1	97	1	96
49+00	50	59.4	14.6	118	14	215	20	195
49+50 BACK	50	62.9	90.1	113	97	328	146	182

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

Loomis Road - Division 3, Stage 3 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
45+00 AHEAD	0	33.5	0.1	0	0	0	0	0
45+50	50	28.2	3.5	57	3	57	4	53
46+00	50	34.5	9.4	58	12	115	20	95
46+50	50	42.3	22.1	71	29	186	58	128
47+00	50	40.6	48.6	77	66	263	143	120
47+50	50	50.5	2.9	84	48	347	205	142
48+00	50	43.4	26.2	87	27	434	240	194
48+50 BACK	50	19.7	48.9	58	70	493	330	162
	0	0.0	0.0	0	0	493	330	162
	0	0.0	0.0	0	0	493	330	162
50+00 AHEAD	0	51.7	170.5	0	0	493	330	162
50+50	50	25.9	22.0	72	178	565	562	2
51+00	50	31.7	6.4	53	26	618	596	22
51+50	50	35.0	0.4	62	6	680	604	75
52+00 BACK	50	37.7	0.0	67	0	747	605	142

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

Wood Drive - Division 3, Stage 3 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
48+00 AHEAD	0	29.7	0.0	0	0	0	0	0
48+50	50	47.6	0.0	72	0	72	0	72
49+00	50	105.5	0.0	142	0	213	0	213
49+34 BACK	34	63.3	79.4	106	50	320	65	254

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

Gawin Drive - Division 3, Stage 3 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
47+50 AHEAD	0.0	24.0	0.0	0	0	0	0	0
48+00	50.0	49.4	0.0	68	0	68	0	68
48+50	50.0	22.8	15.0	67	14	135	18	117
49+00	50.0	55.4	35.1	72	46	207	78	129
49+50 BACK	50.0	103.0	41.6	147	71	354	170	184

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

East River Bay Drive - Division 3, Stage 3 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY
		Cut	Fill	Cut *Note 1	Fill *Note 3	Cut *Note 1	Expanded Fill 1.30 *Note 8	
48+00 AHEAD	0	43.9	0.1	0	0	0	0	0
48+50	50	50.3	0.8	87	1	87	1	86
49+00	50	36.0	16.2	80	16	167	21	146
49+50 BACK	50	86.6	110.1	113	117	280	173	107
	0	0.0	0.0	0	0	280	173	107
	0	0.0	0.0	0	0	280	173	107
	0	0.0	0.0	0	0	280	173	107
50+50 AHEAD	0	164.6	63.1	0	0	280	173	107
51+00	50	78.4	6.8	225	65	505	257	248
51+50	50	48.2	3.0	117	9	623	269	353
52+00 BACK	50	28.4	0.5	71	3	694	273	420

*See Earthwork Summary in Miscellaneous Quantities for earthwork notes.

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

NO R/W SHOWN FROM
STA 944+00 TO LOOMIS ROAD

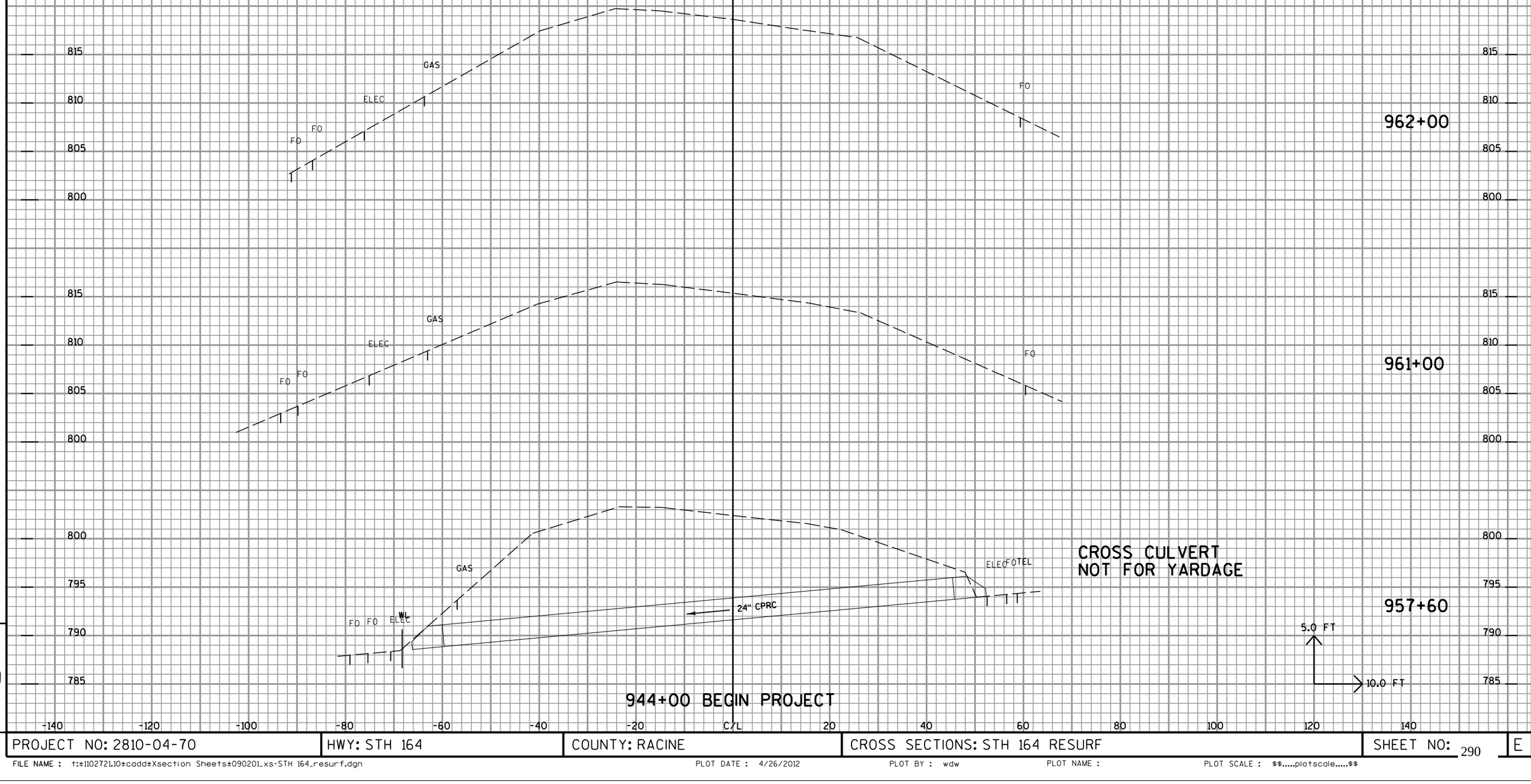
962+00

961+00

957+60

CROSS CULVERT
NOT FOR YARDAGE

944+00 BEGIN PROJECT

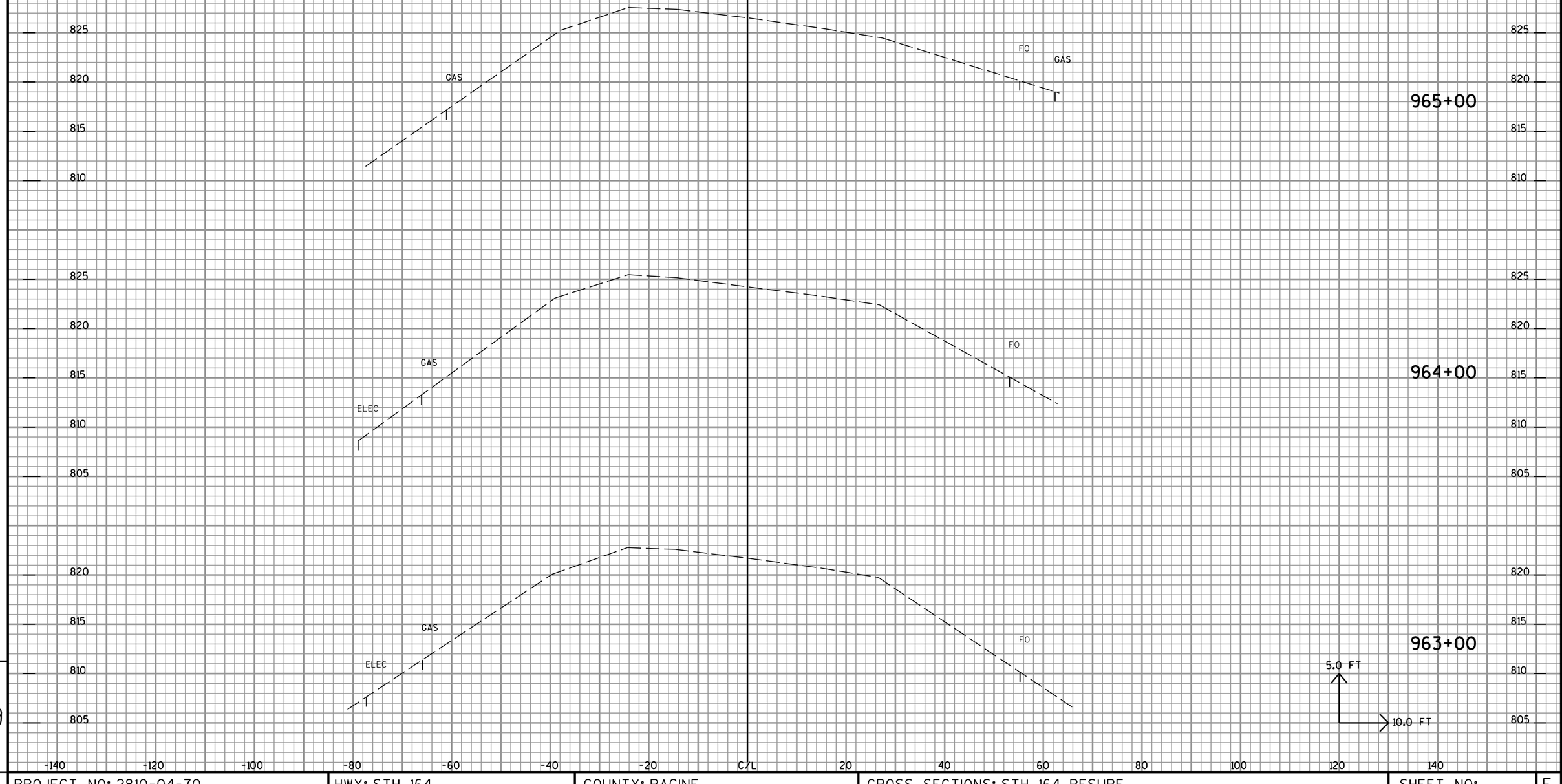


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164 RESURF	SHEET NO: 290	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090201_xs-STH 164_resurf.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

NO R/W SHOWN FROM
STA 944+00 TO LOOMIS ROAD



9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164 RESURF	SHEET NO: 291	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090201_xs-STH 164_resurf.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

NO R/W SHOWN FROM
STA 944+00 TO LOOMIS ROAD

CROSS CULVERT
NOT FOR YARDAGE

KRAMER DRIVE

969+72

969+00

968+00

967+00

966+00

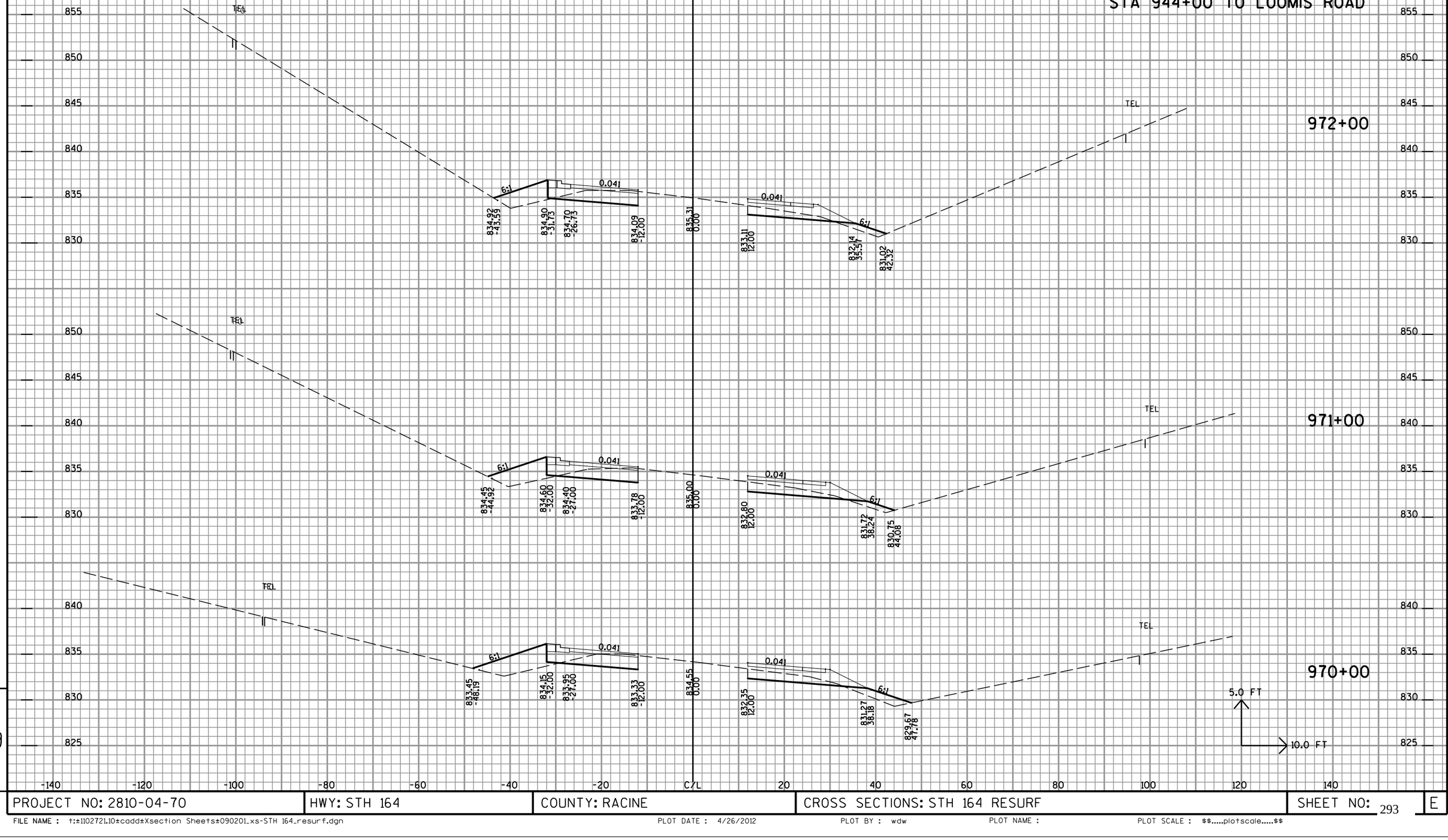
5.0 FT
10.0 FT

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164 RESURF	SHEET NO: 292 E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090201_xs-STH 164_resurf.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

NO R/W SHOWN FROM
STA 944+00 TO LOOMIS ROAD



9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164 RESURF	SHEET NO: 293	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090201_xs-STH 164_resurf.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

NO R/W SHOWN FROM
STA 944+00 TO LOOMIS ROAD

975+00

974+00

973+00

TEL

0.041

7.7:1

834.05
-38.70

834.76
-30.23

834.23
-17.45

834.01
-12.00

835.23
0.00

833.02
12.00

832.28
30.18

831.00
40.00

5.0 FT

10.0 FT

-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

845 840 835 830 850 855

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164 RESURF	SHEET NO: 294	E

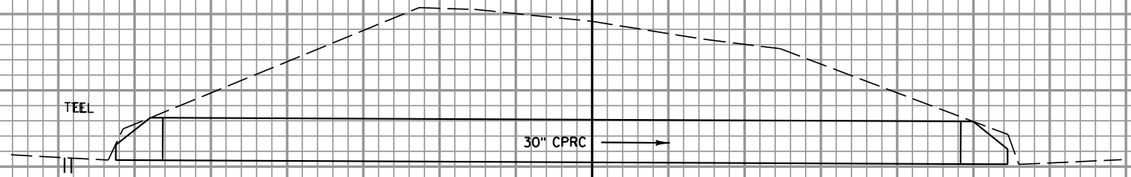
FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090201_xs-STH 164_resurf.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

NO R/W SHOWN FROM
STA 944+00 TO LOOMIS ROAD

1001+00

1000+00



CROSS CULVERT
NOT FOR YARDAGE

986+22

976+00

5.0 FT
10.0 FT

825 820 815 825 820 815 810 805 800 795 845 840 835 830 825

-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

9

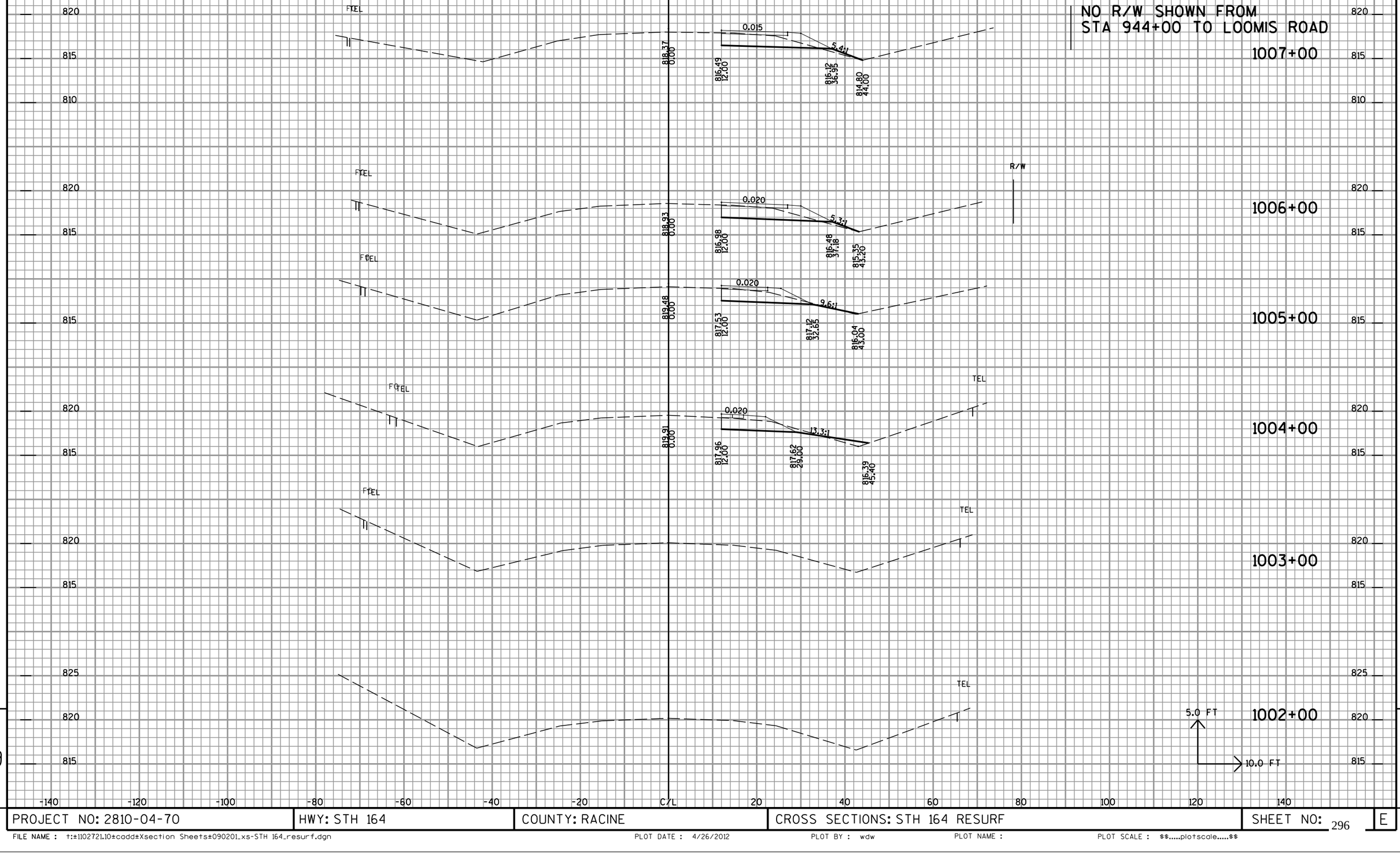
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164 RESURF	SHEET NO: 295	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090201_xs-STH 164_resurf.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

R/W
NO R/W SHOWN FROM
STA 944+00 TO LOOMIS ROAD



9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164 RESURF	SHEET NO: 296	E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090201_xs-STH 164_resurf.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

1012+00

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

1011+00

NO R/W SHOWN FROM
STA 944+00 TO LOOMIS ROAD

LOOMIS ROAD

1010+00

LOOMIS ROAD

1009+00

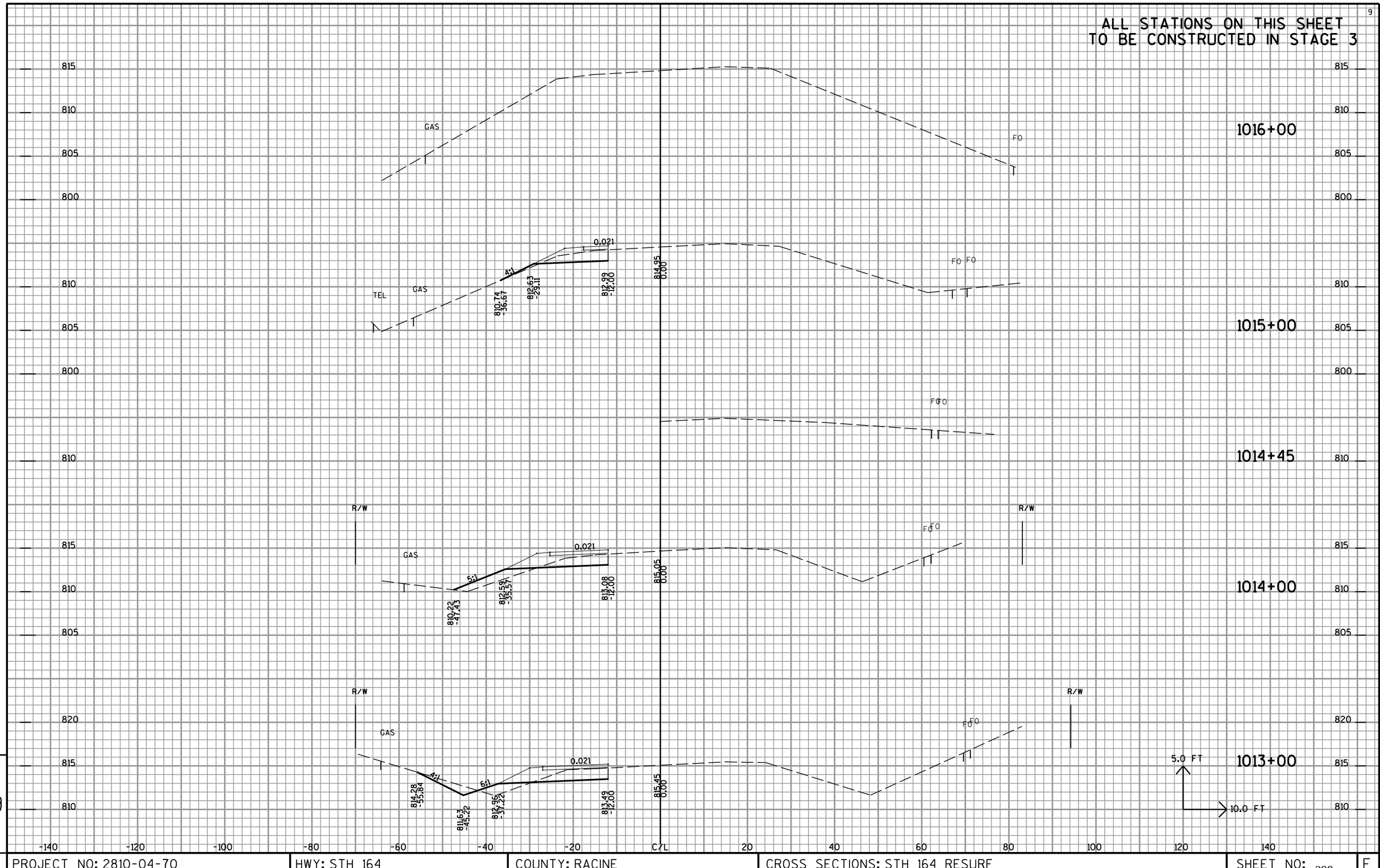
1008+00

5.0 FT
10.0 FT

PROJECT NO: 2810-04-70 | HWY: STH 164 | COUNTY: RACINE | CROSS SECTIONS: STH 164 RESURF | SHEET NO: 297R | E

FILE NAME : T:\1102721.10\Cadd\Xsection Sheets\090201_xs-STH 164_resurf.dgn
PLOT DATE : 3/25/2013
PLOT BY : wdw
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164 RESURF	SHEET NO: 298	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090201_xs-STH 164_resurf.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

10

1018+00

1017+00

1016+17

CROSS CULVERT
NOT FOR YARDAGE

815
810
805
800

R/W
GAS
TEL
WL
R/W
WL
GAS
TEL
48" CPRC
FO
FO
5.0 FT
10.0 FT

-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

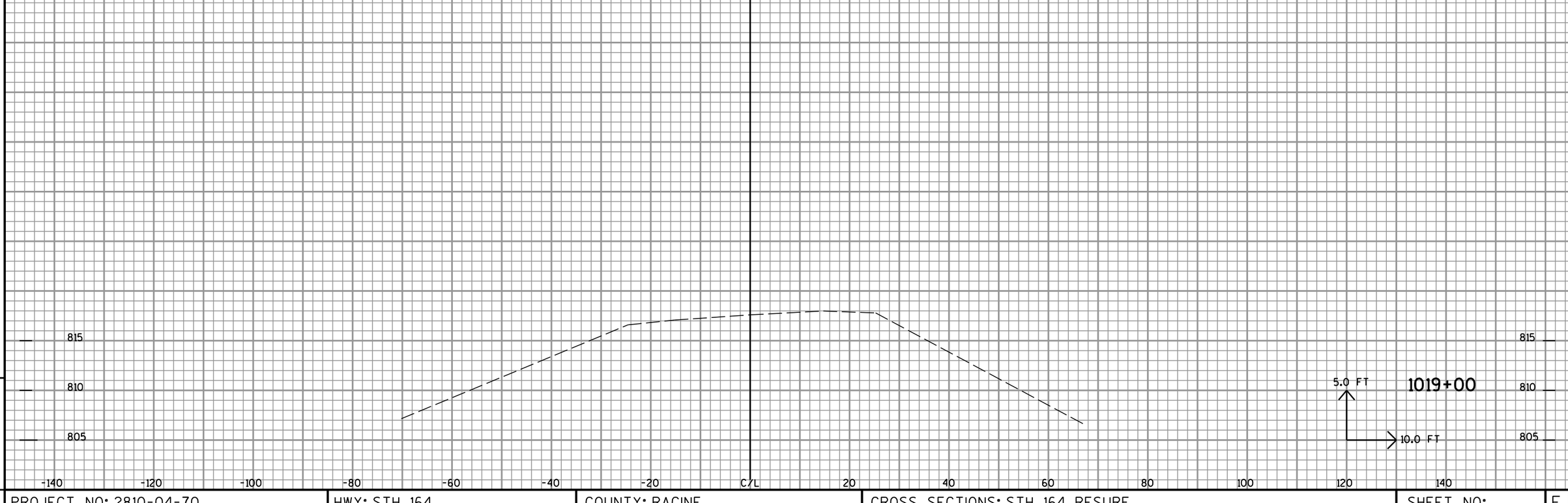
9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164 RESURF	SHEET NO: 299	E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090201_xs-STH 164_resurf.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

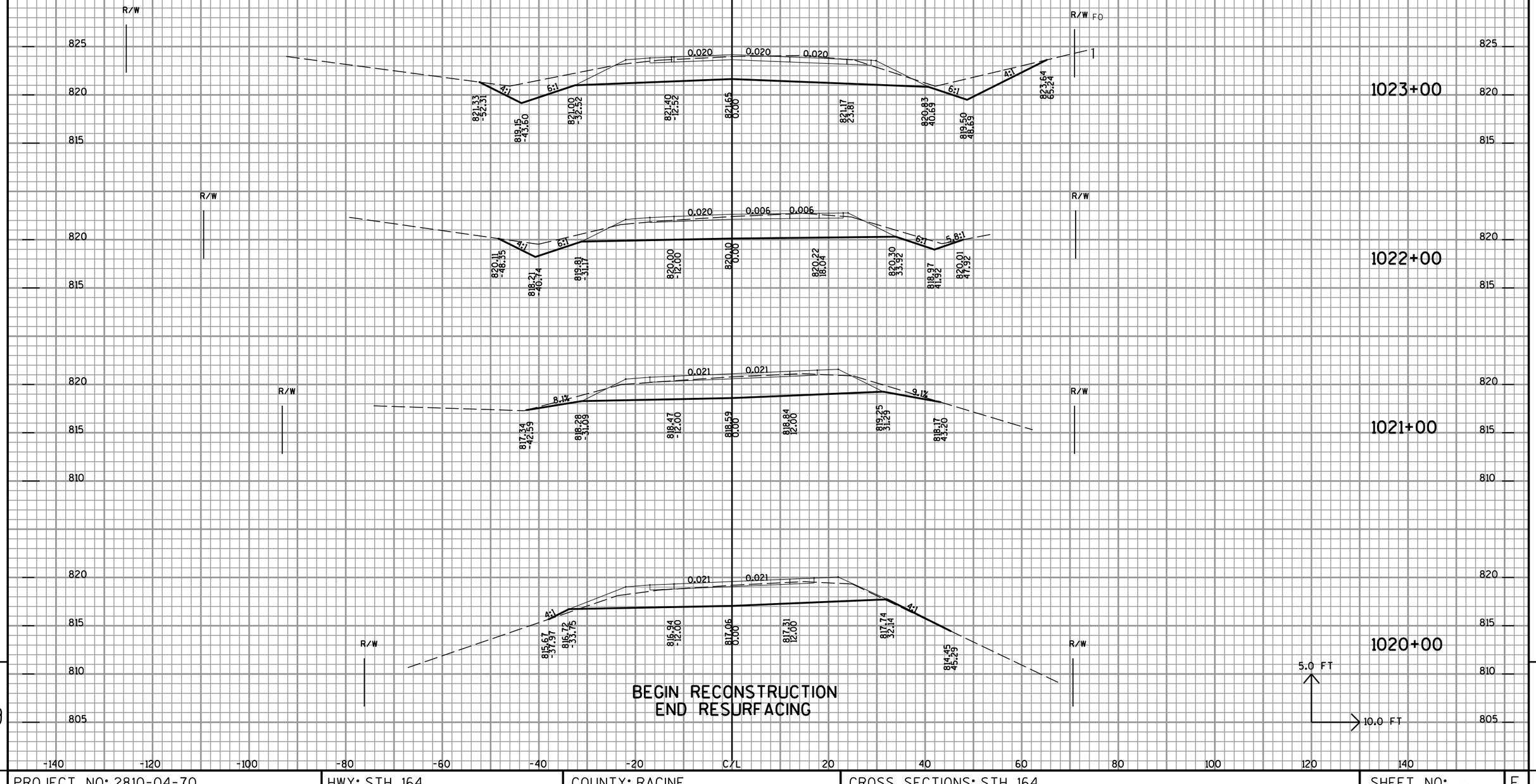
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3



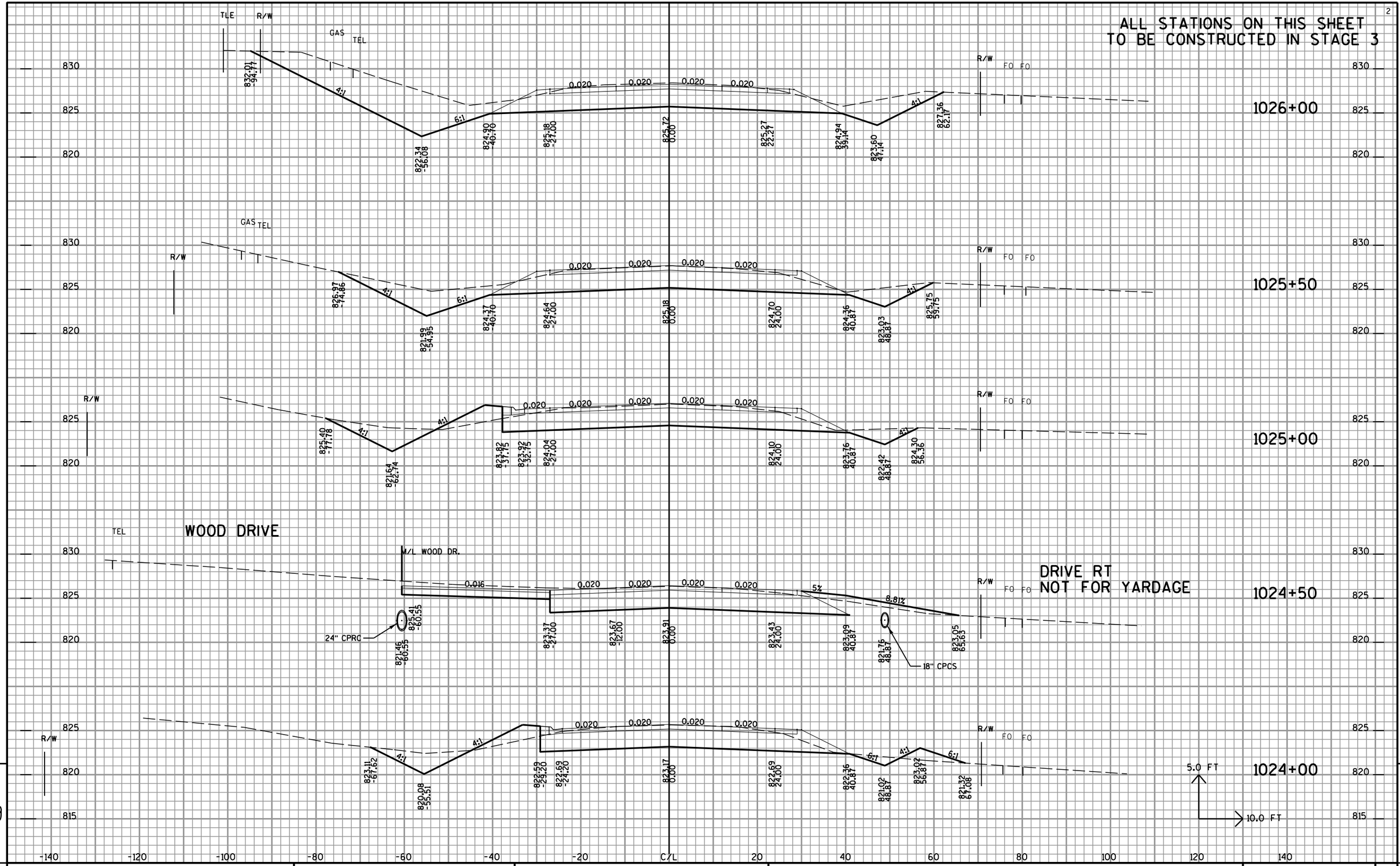
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164 RESURF	SHEET NO: 300 E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090201_xs-STH 164_resurf.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3


R/W
R/W
R/W

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

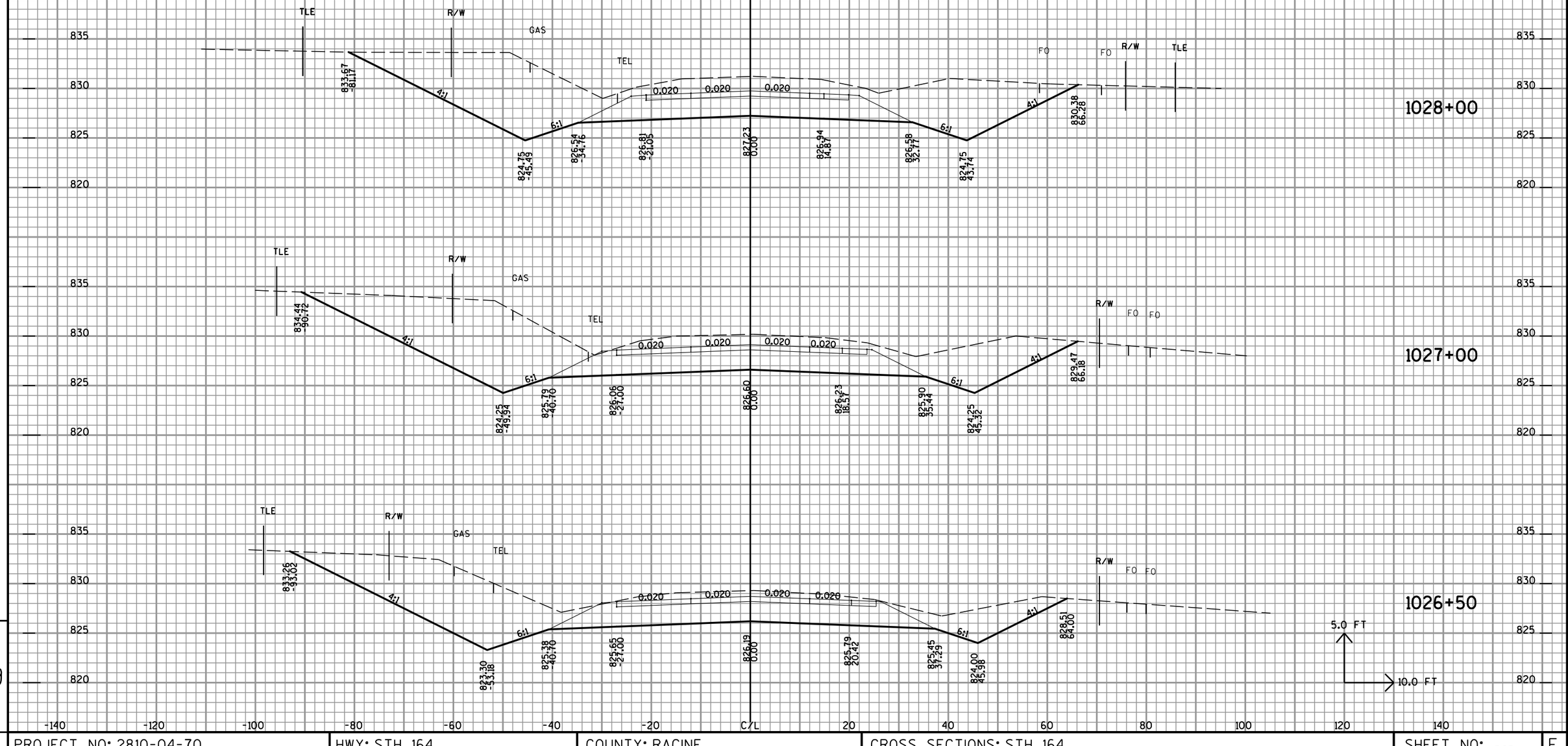


9 9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 302 E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3



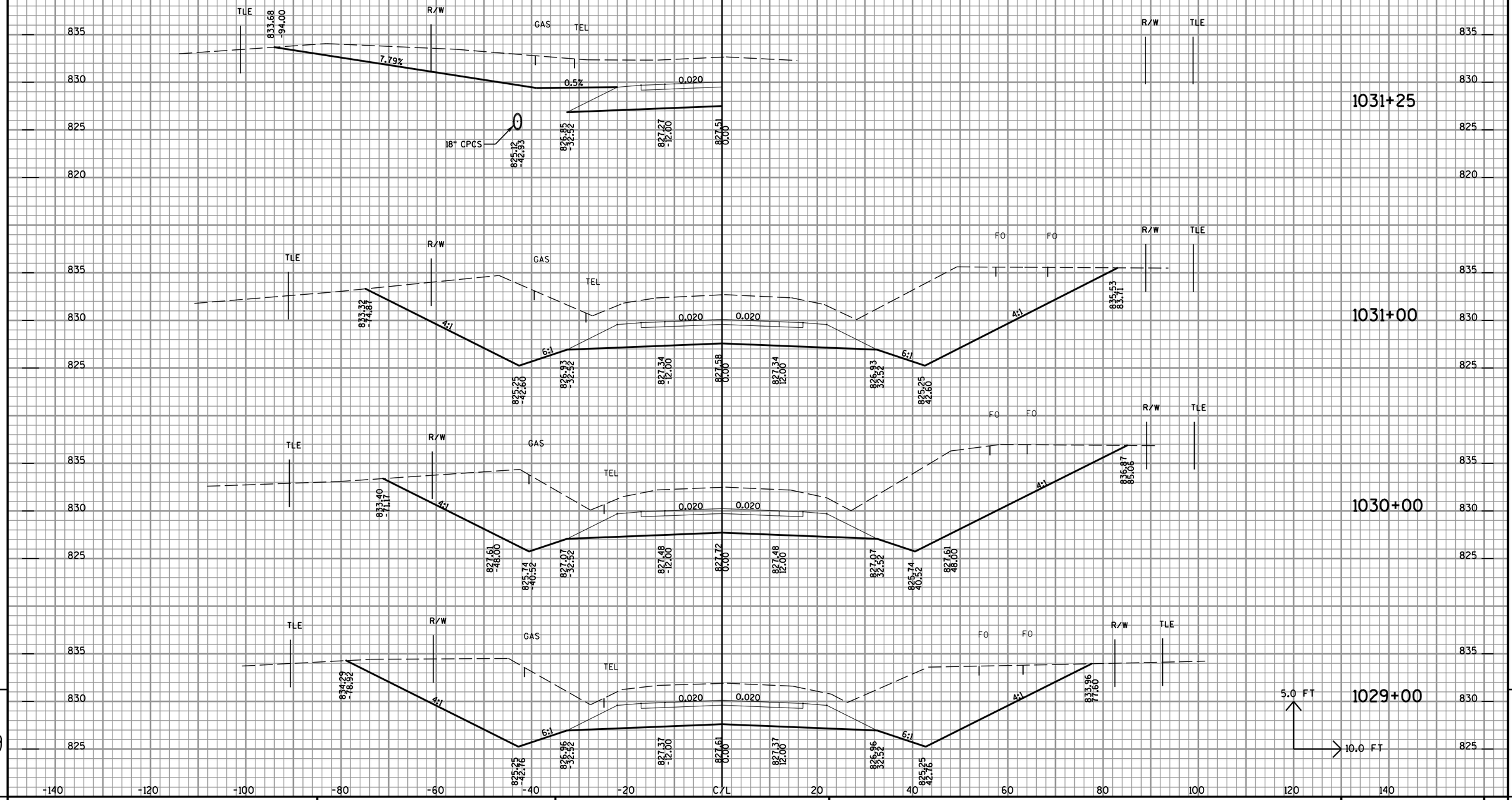
9 9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 303 E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

DRIVE LT
NOT FOR YARDAGE



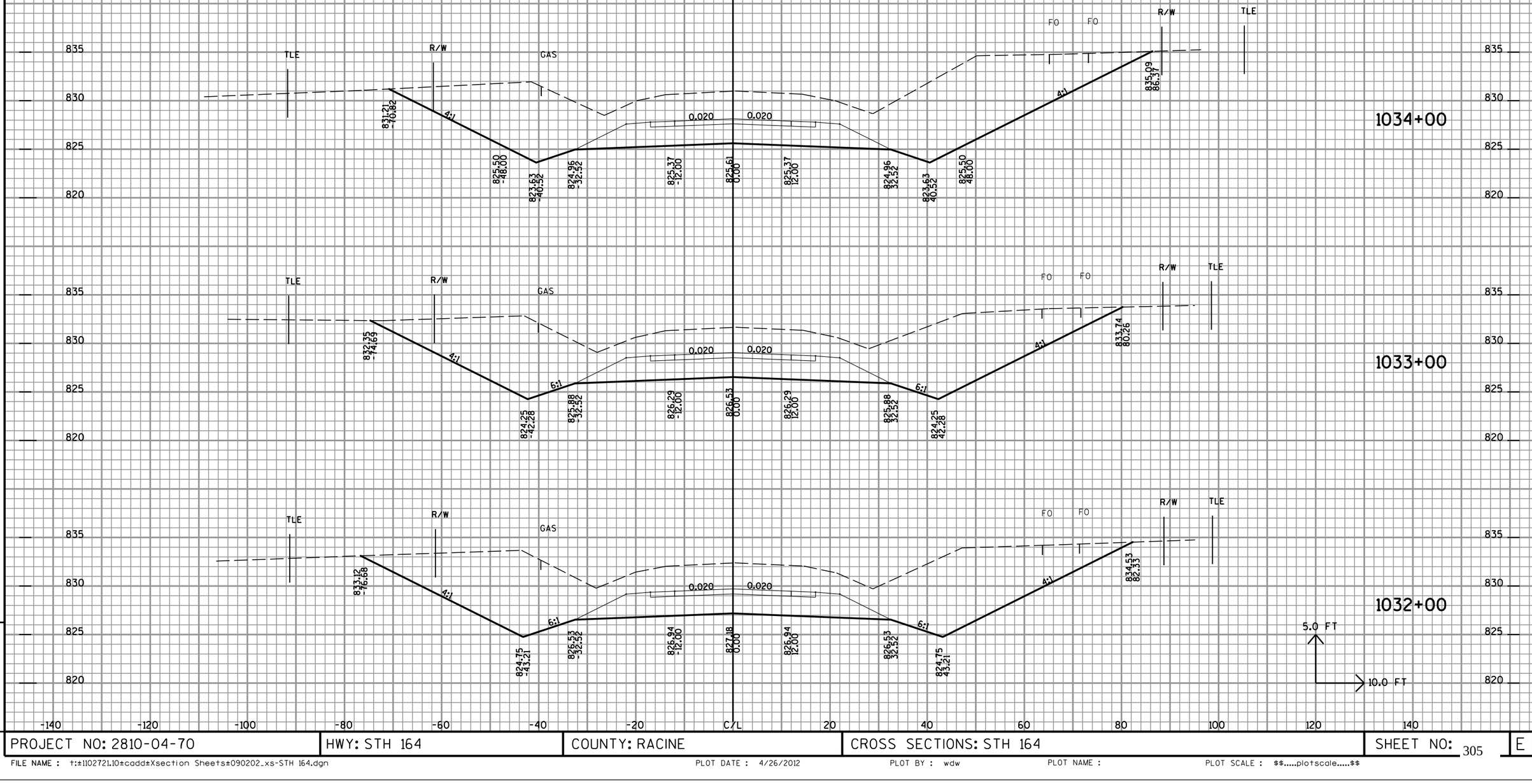
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 304	E

FILE NAME : t:\110272\1.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

9

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3



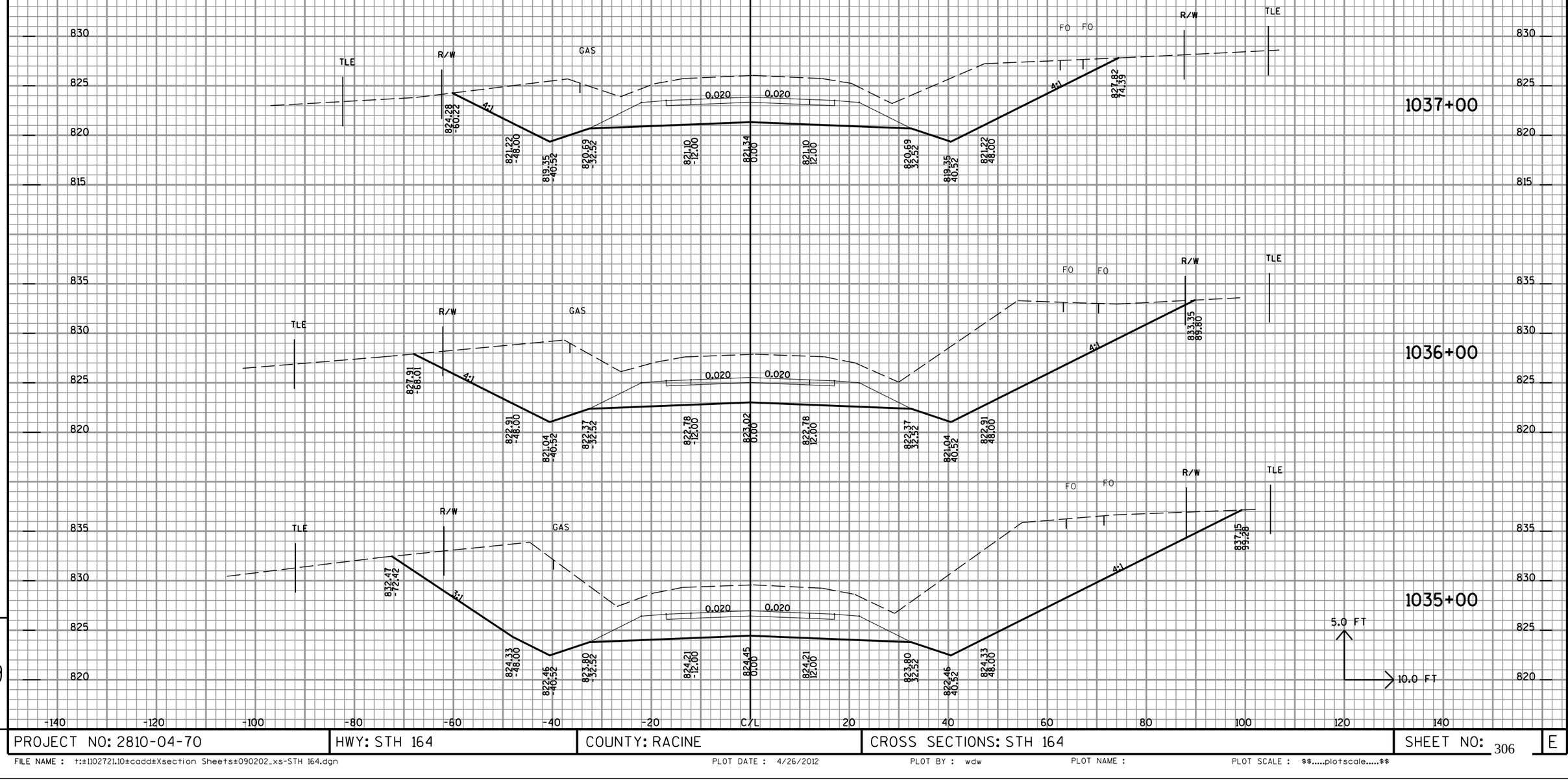
9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 305	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

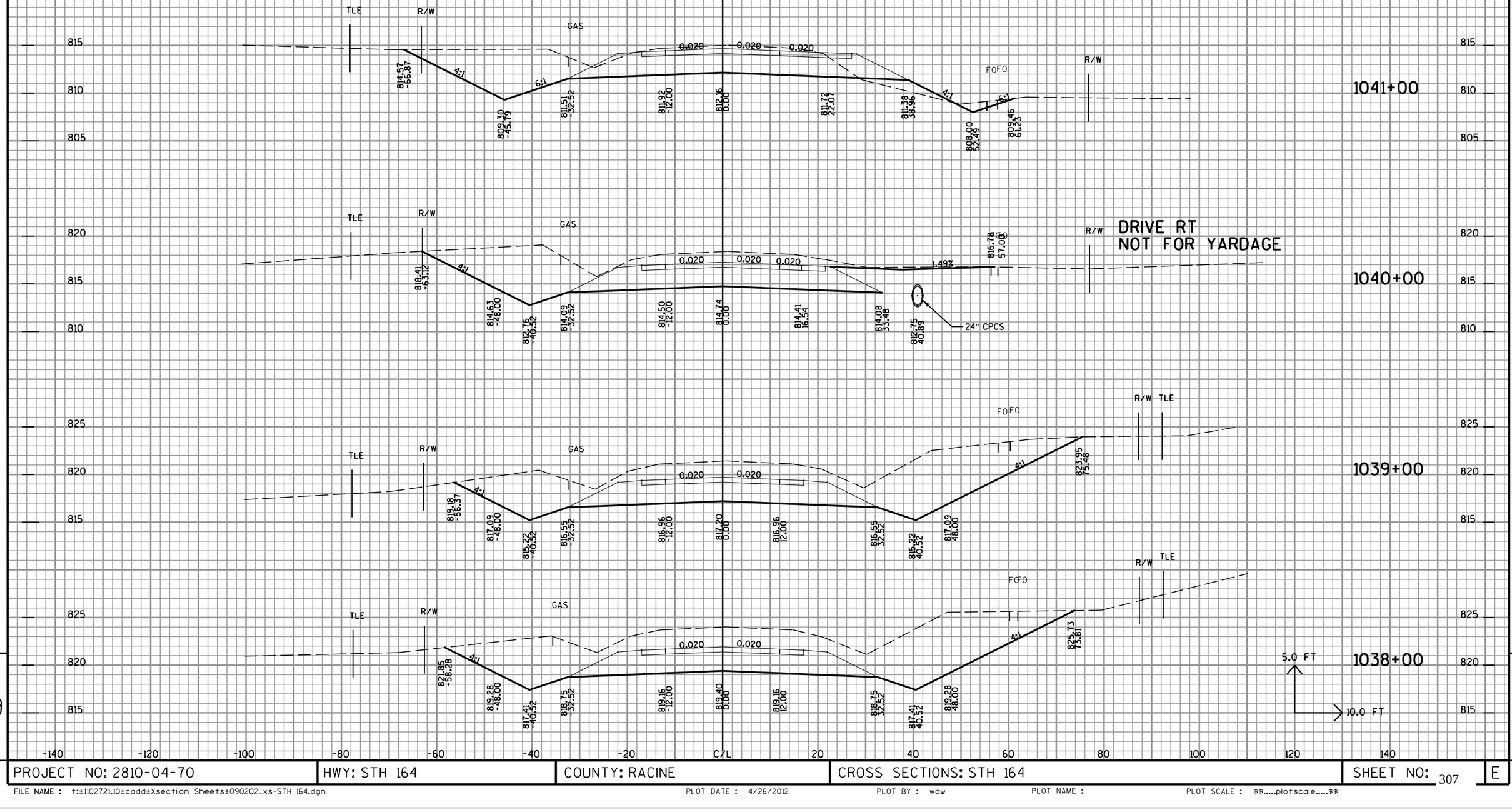


9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 306 E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3



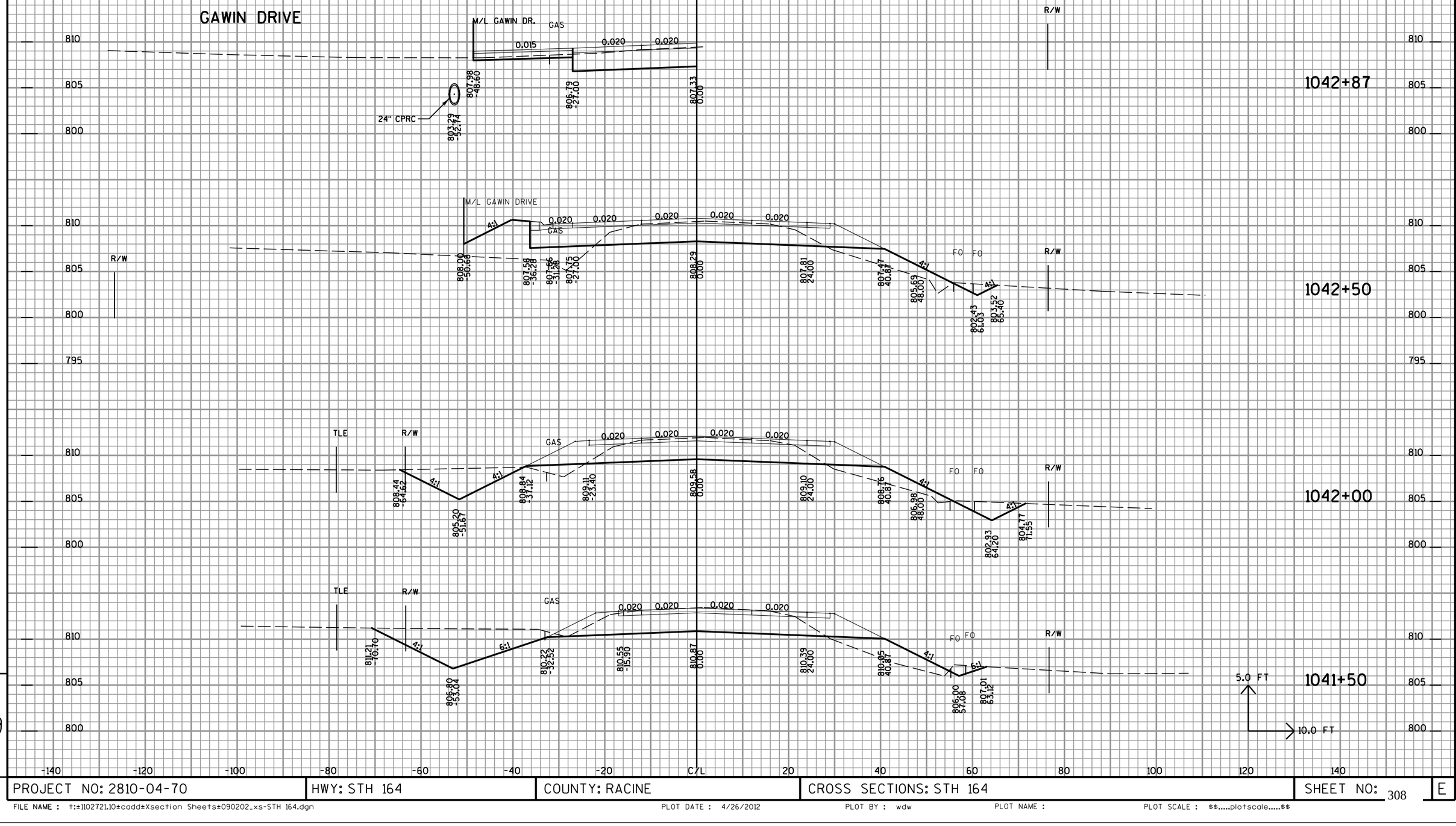
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 307	E

FILE NAME : t:\102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

GAWIN DRIVE

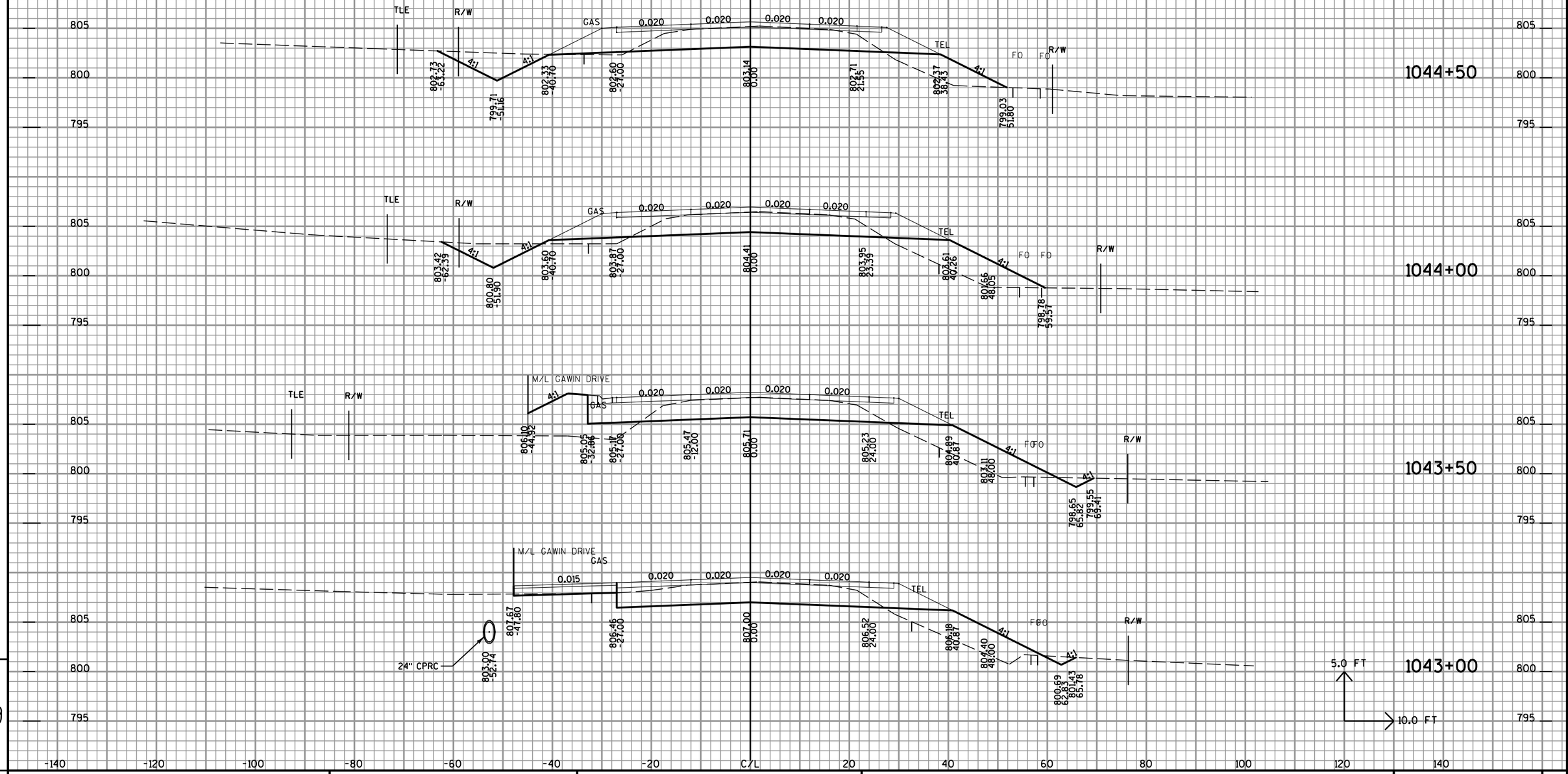


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 308 E

FILE NAME : t:\2102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn | PLOT DATE : 4/26/2012 | PLOT BY : wdw | PLOT NAME : | PLOT SCALE : $$.....plotscale.....$$

9 9

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

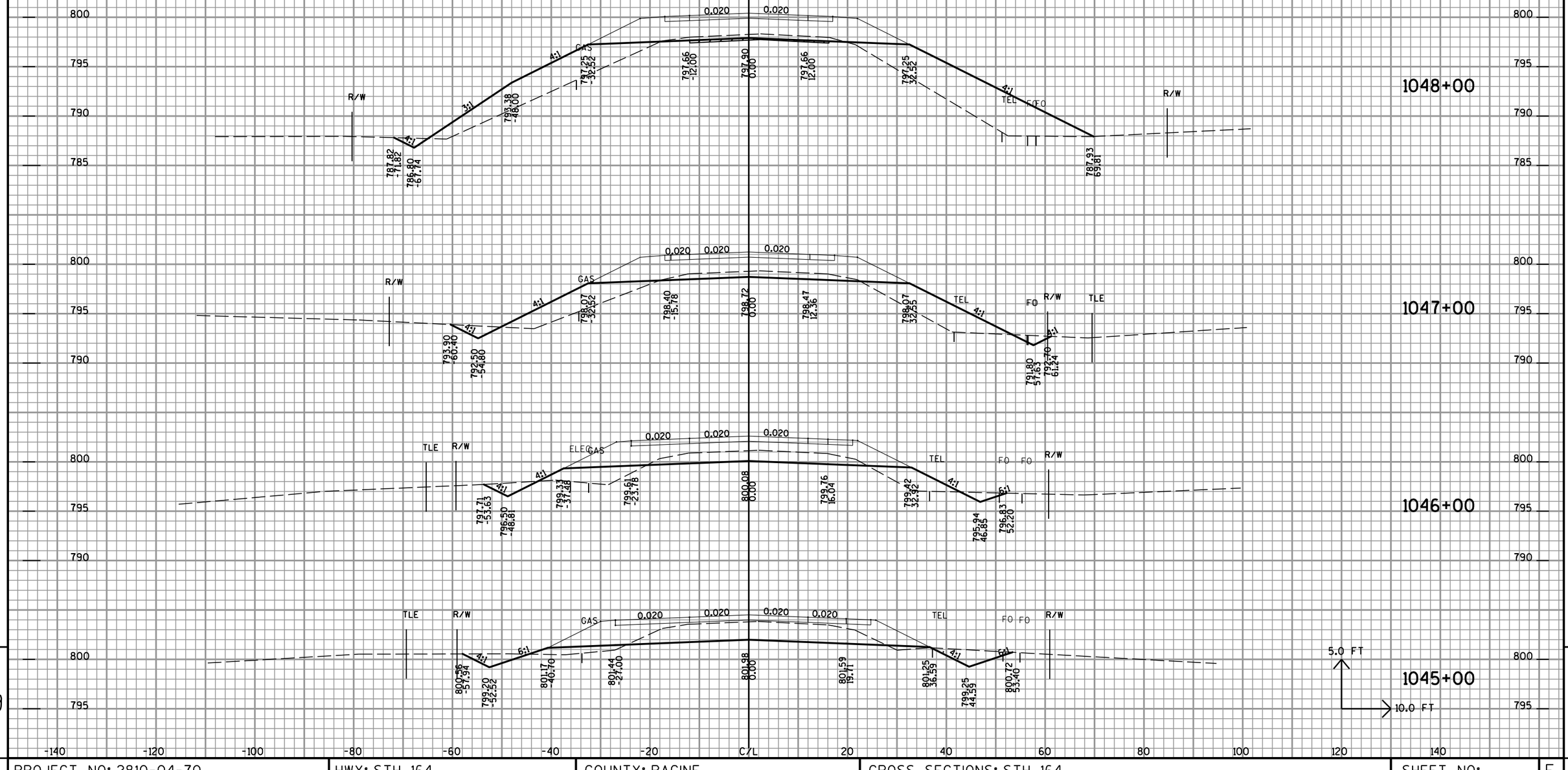


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 309 E

FILE NAME : t:\110272l.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

REMOVE EXISTING PAVEMENT
PAID AS EXCAVATION COMMON
BACKFILL WITH AVAILABLE MATERIAL
INCLUDED IN CUT END AREA ON
EARTHWORK TABLE

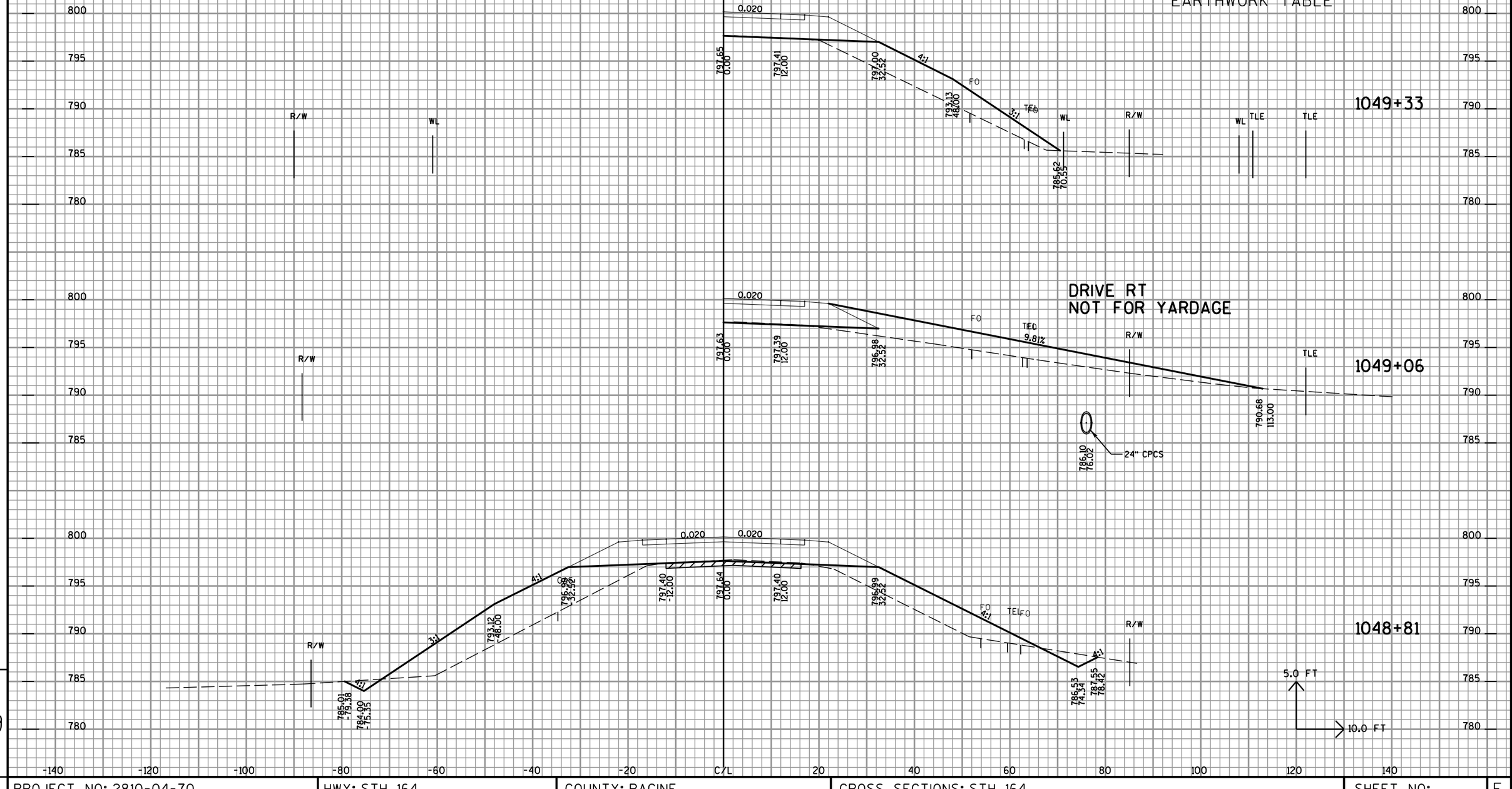


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 310 E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

REMOVE EXISTING PAVEMENT
PAID AS EXCAVATION COMMON
BACKFILL WITH AVAILABLE MATERIAL
INCLUDED IN CUT END AREA ON
EARTHWORK TABLE

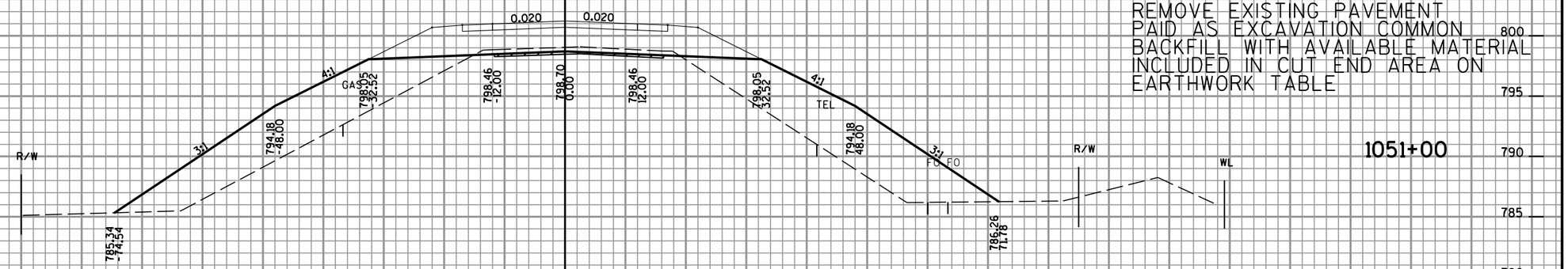


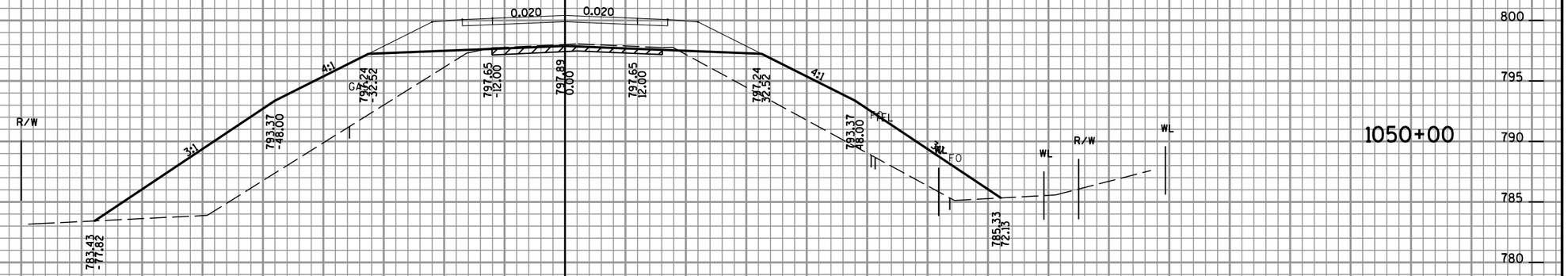
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 311	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

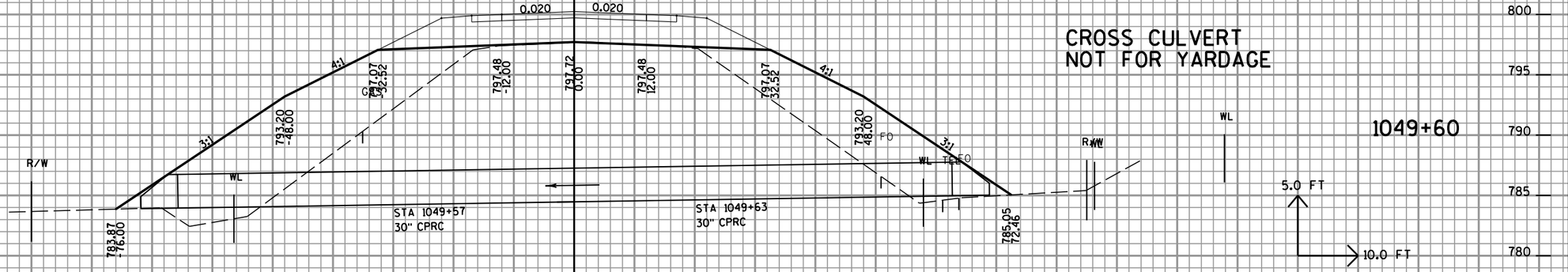
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

REMOVE EXISTING PAVEMENT
PAID AS EXCAVATION COMMON
BACKFILL WITH AVAILABLE MATERIAL
INCLUDED IN CUT END AREA ON
EARTHWORK TABLE





CROSS CULVERT
NOT FOR YARDAGE



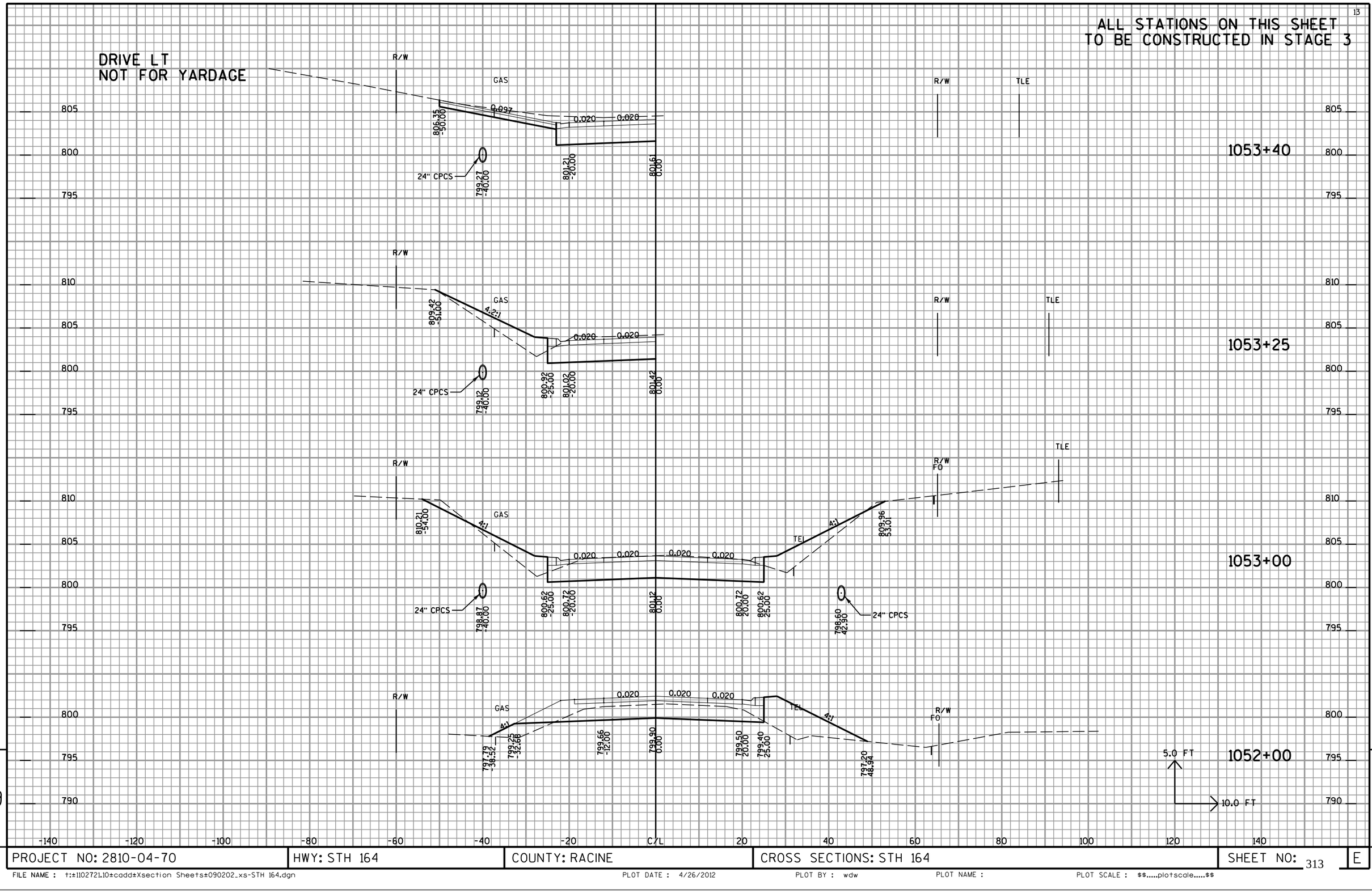
-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 312	E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

DRIVE LT
NOT FOR YARDAGE



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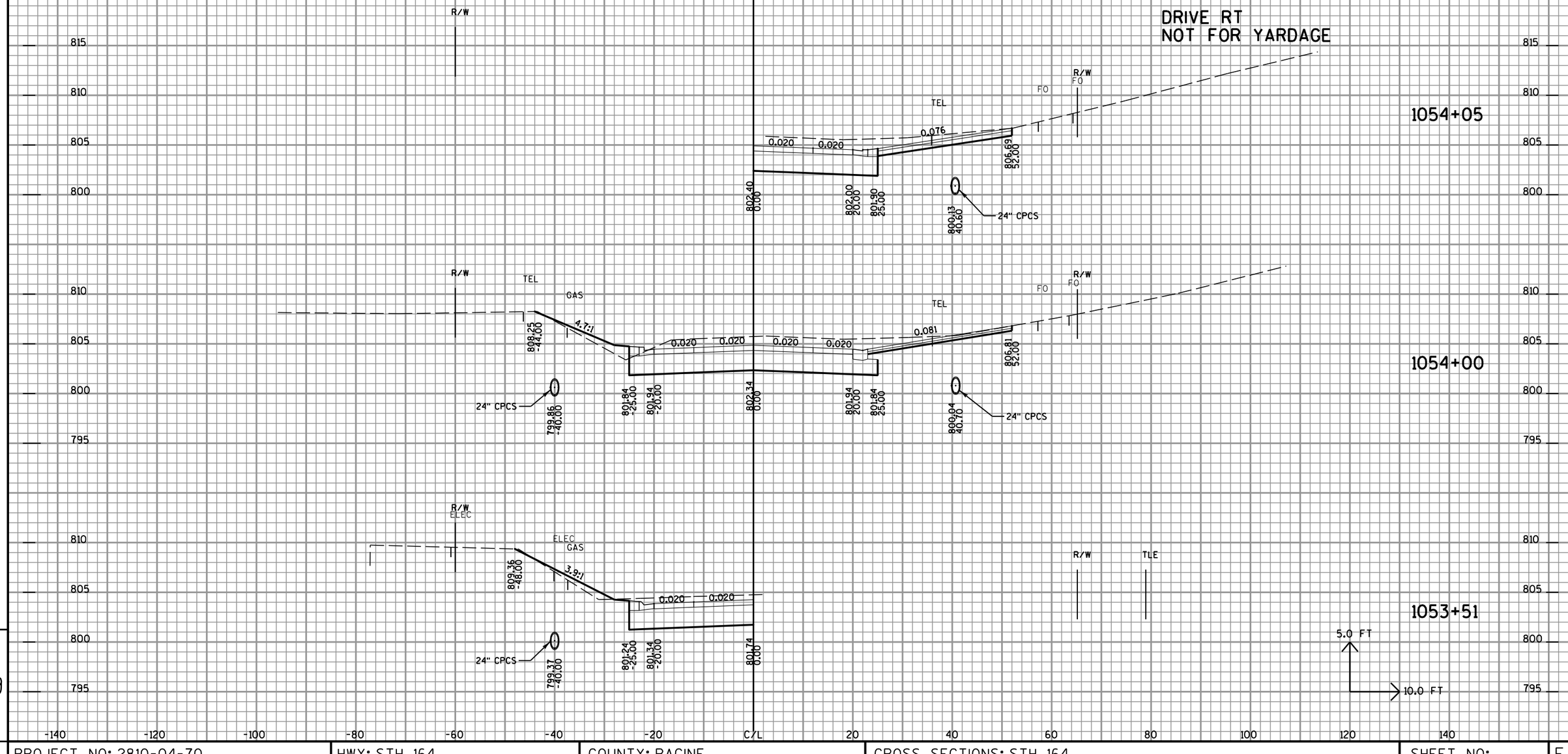
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 313	E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3



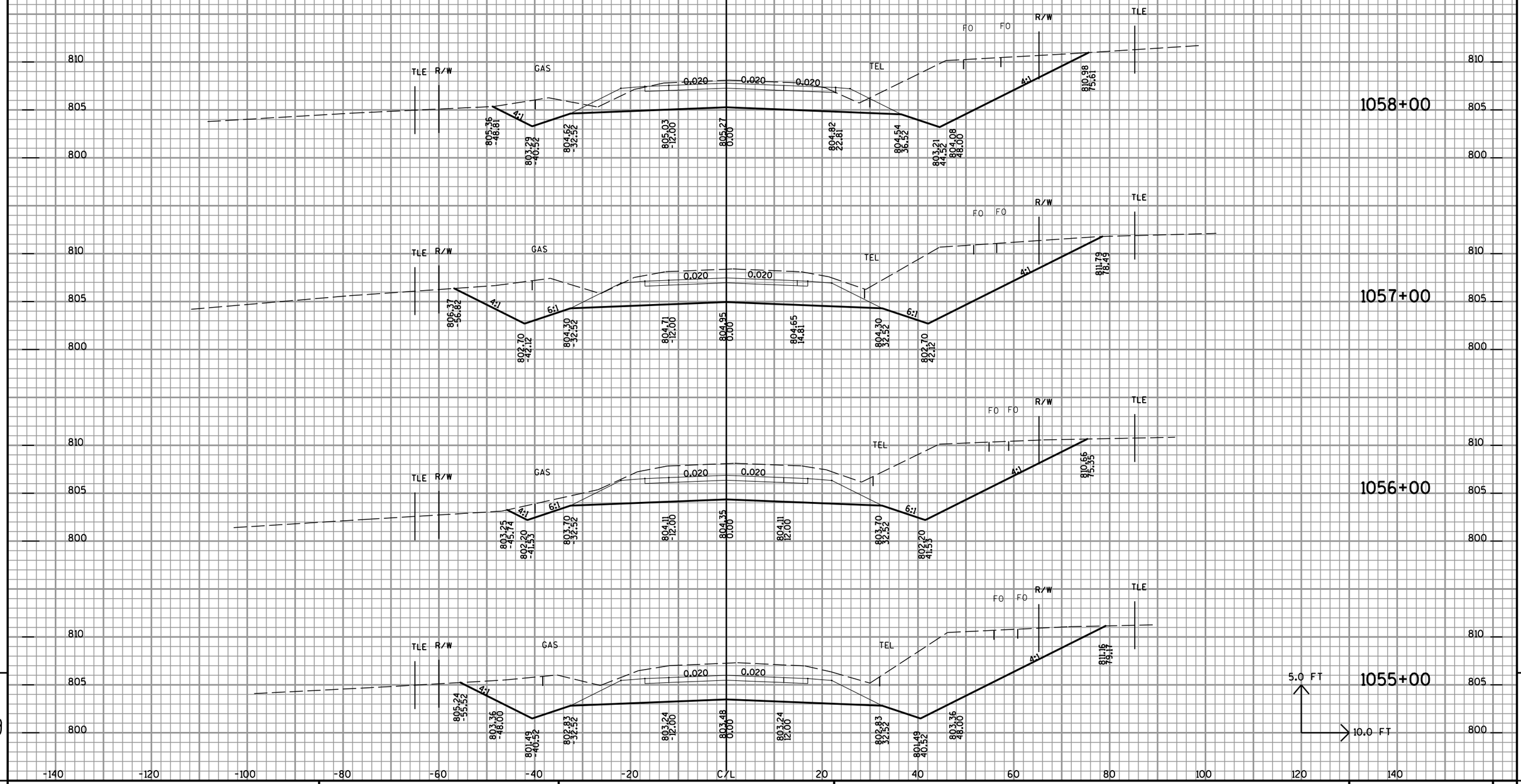
9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 314	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

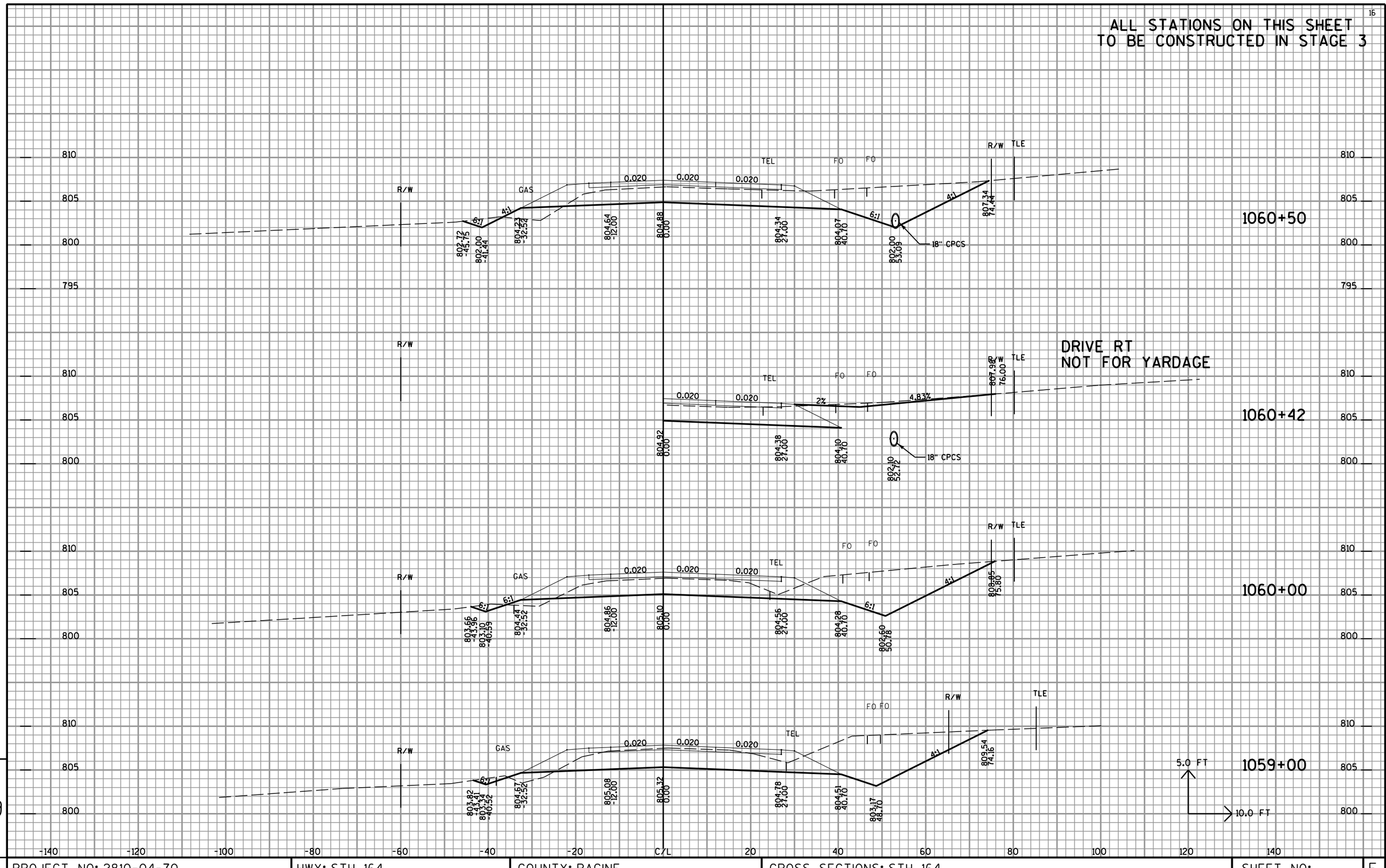
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 315	E

FILE NAME : t:\102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3



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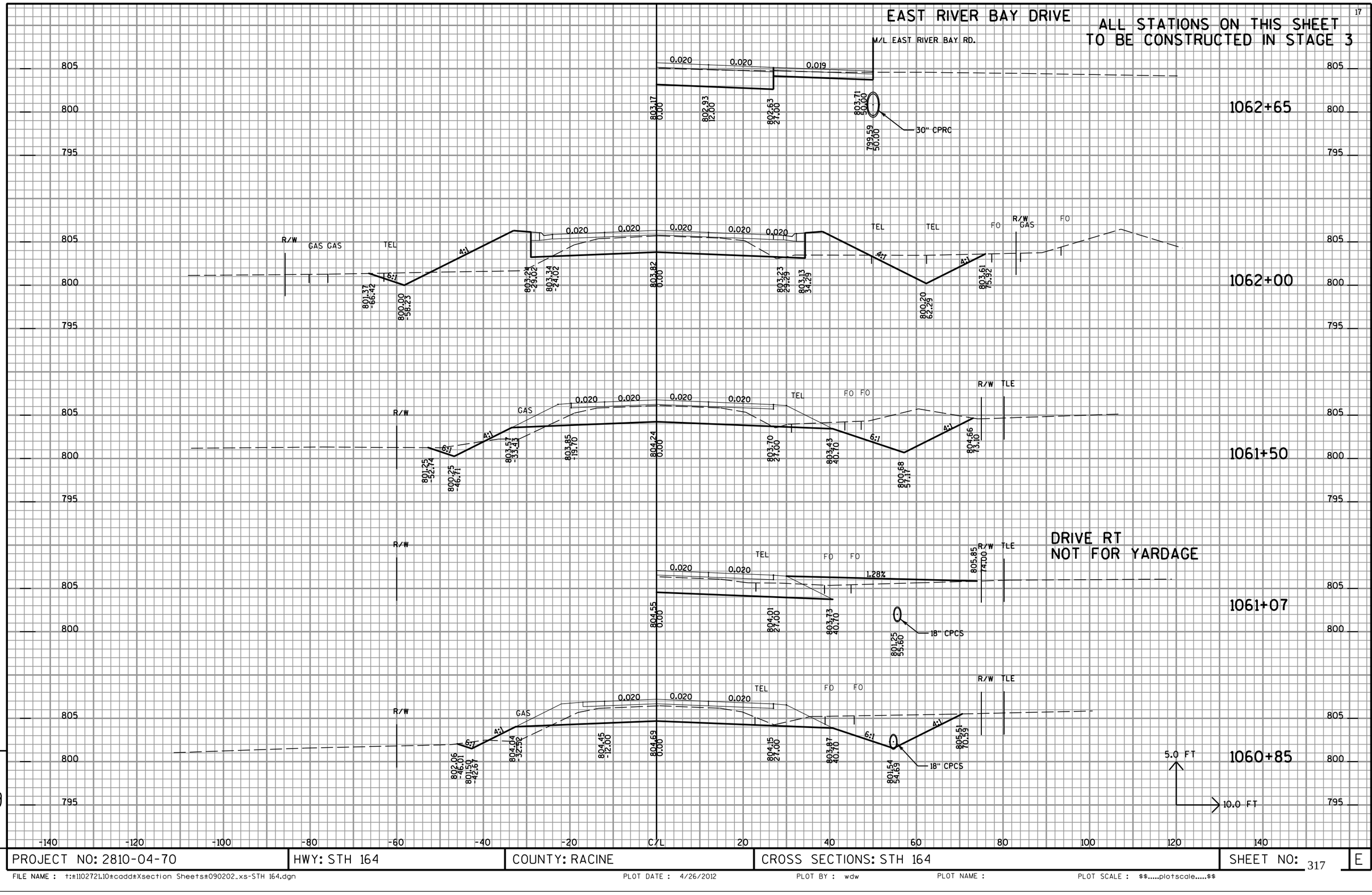
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 316 E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

EAST RIVER BAY DRIVE

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

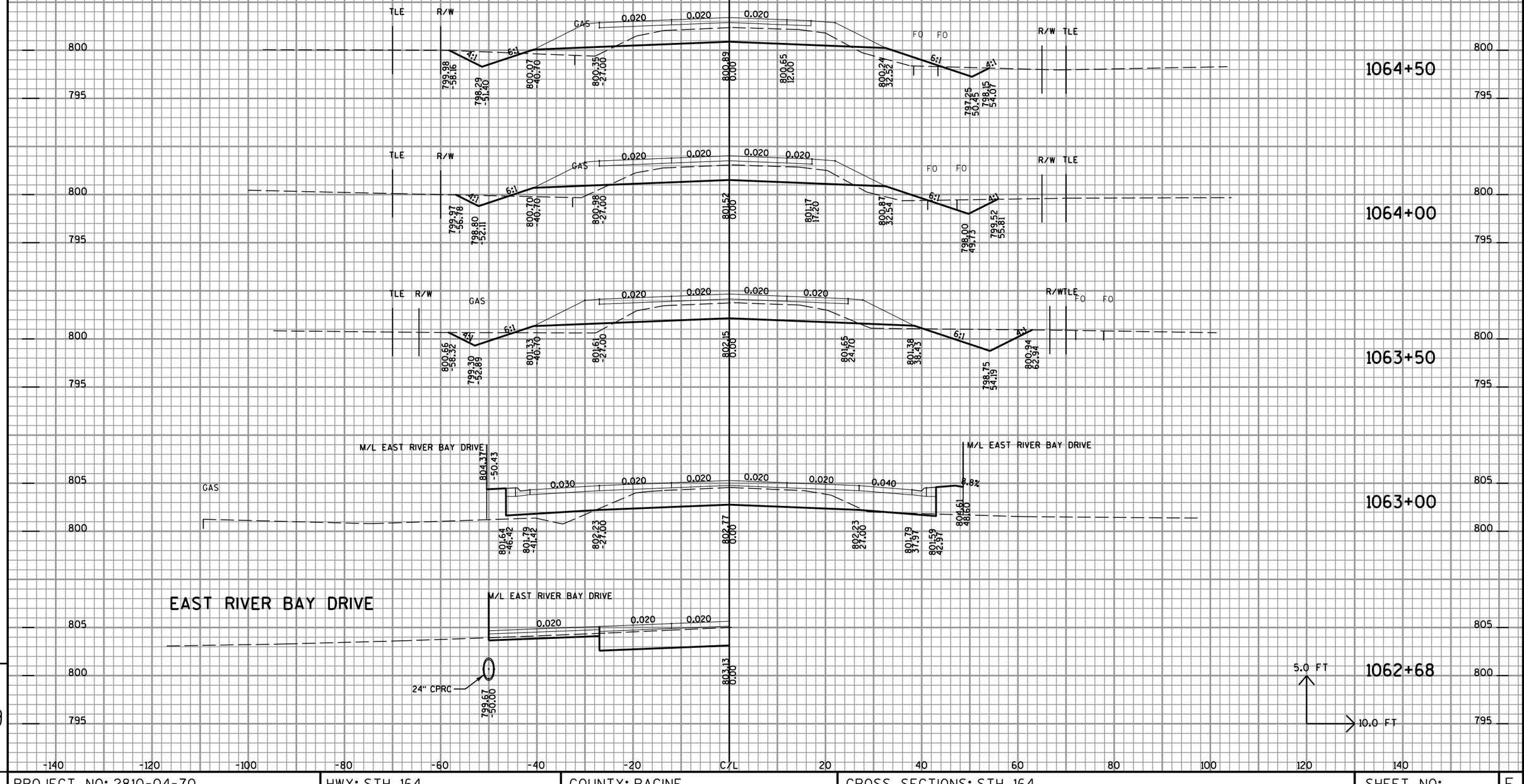
DRIVE RT
NOT FOR YARDAGE



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 317	E

FILE NAME : t:\110272l.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3



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PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 318	E

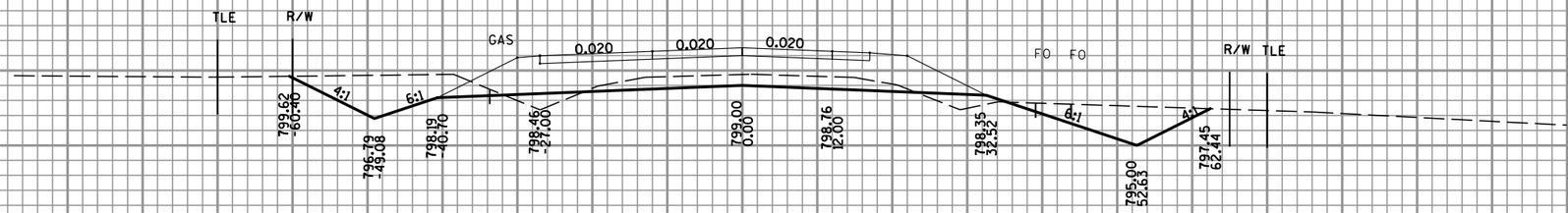
FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

REMOVE EXISTING PAVEMENT PAID AS EXCAVATION COMMON BACKFILL WITH AVAILABLE MATERIAL INCLUDED IN CUT END AREA ON EARTHWORK TABLE

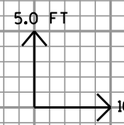
1068+00

1067+00



1066+00

1065+00



-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

9

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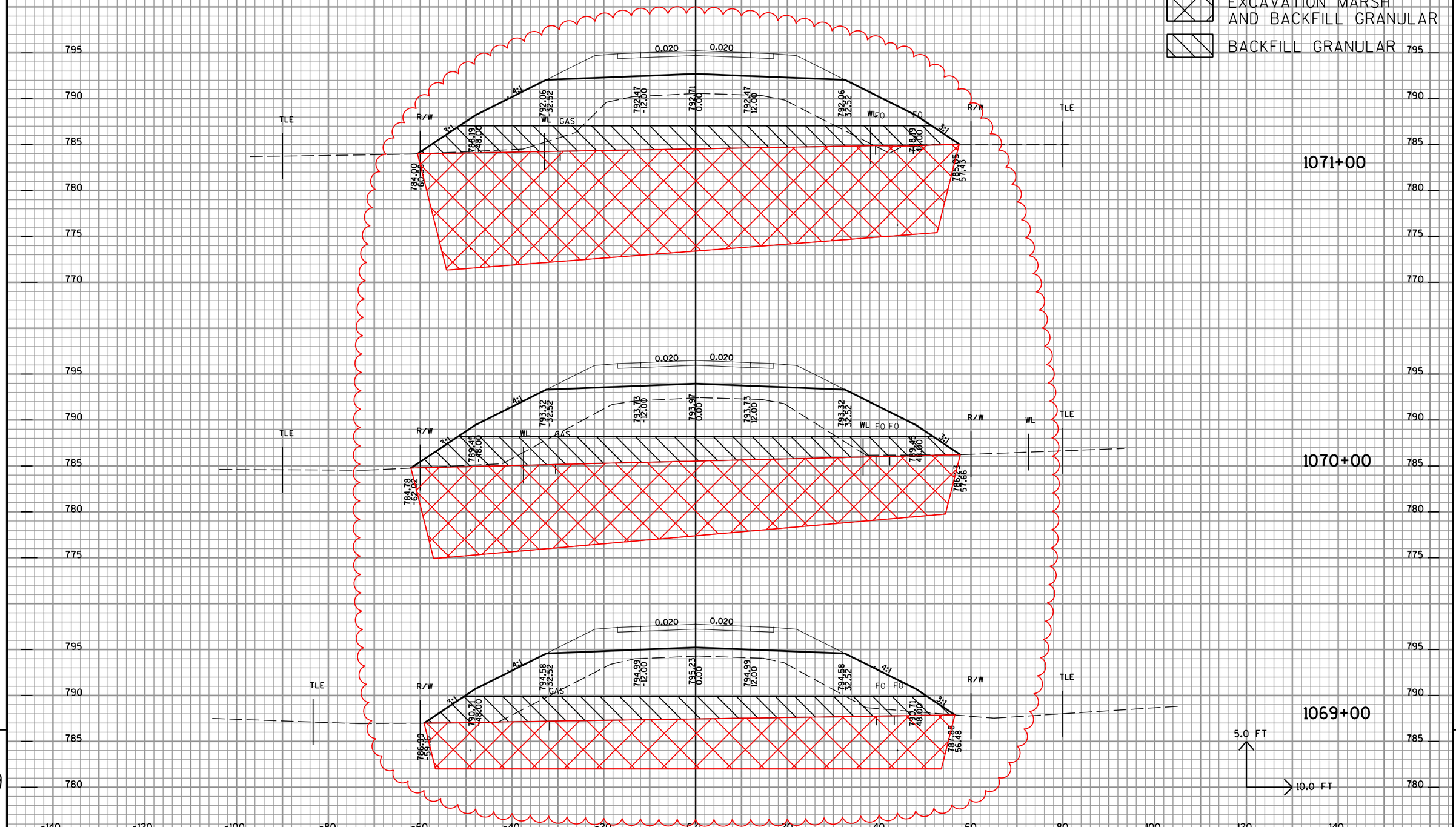
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 319	E

FILE NAME : t:\110272l.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

EXCAVATION MARSH AND BACKFILL GRANULAR

BACKFILL GRANULAR



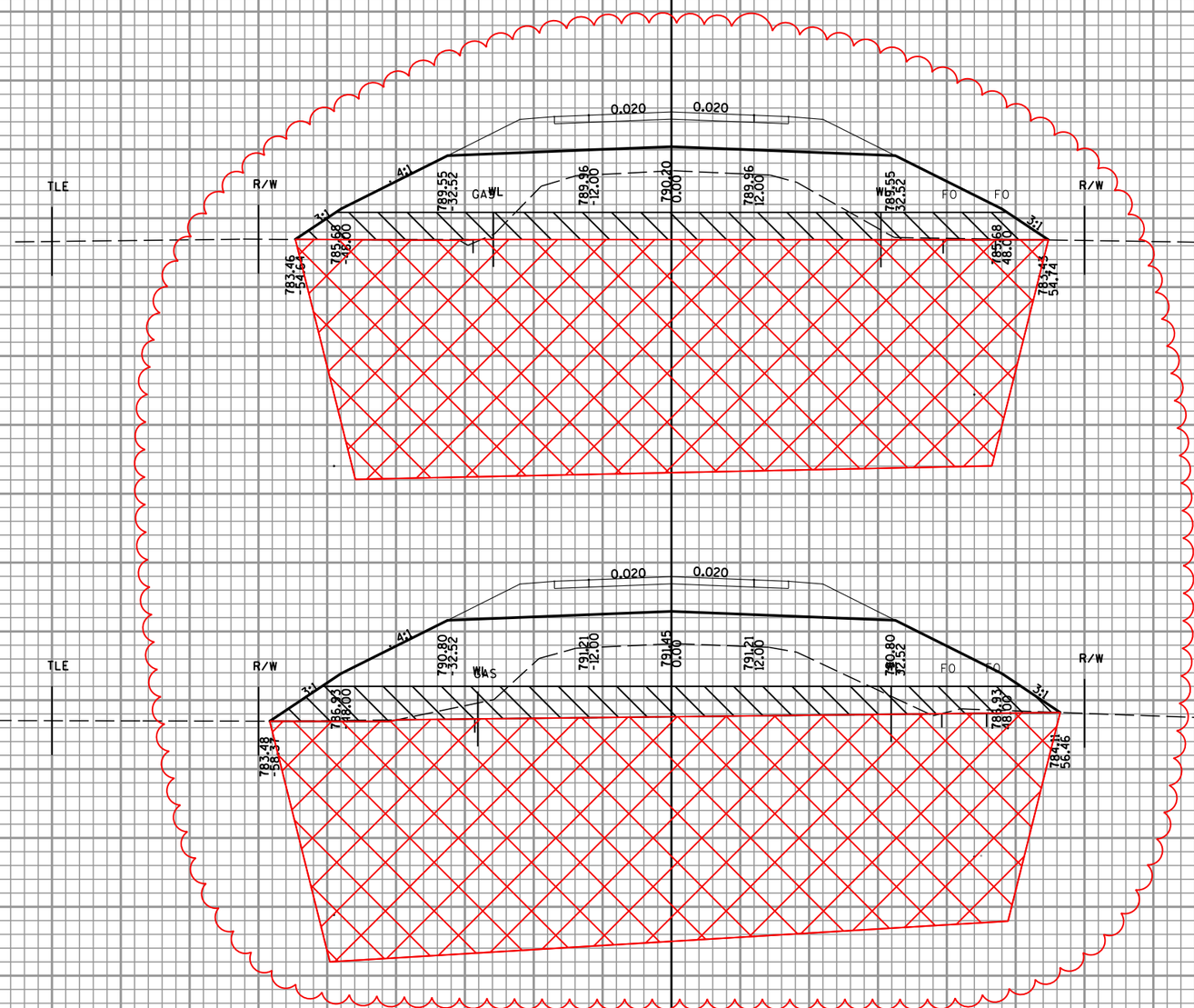
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 320R	E

FILE NAME : T:±1102721.10±Cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/17/2013 PLOT BY : Wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

EXCAVATION MARSH
AND BACKFILL GRANULAR

BACKFILL GRANULAR



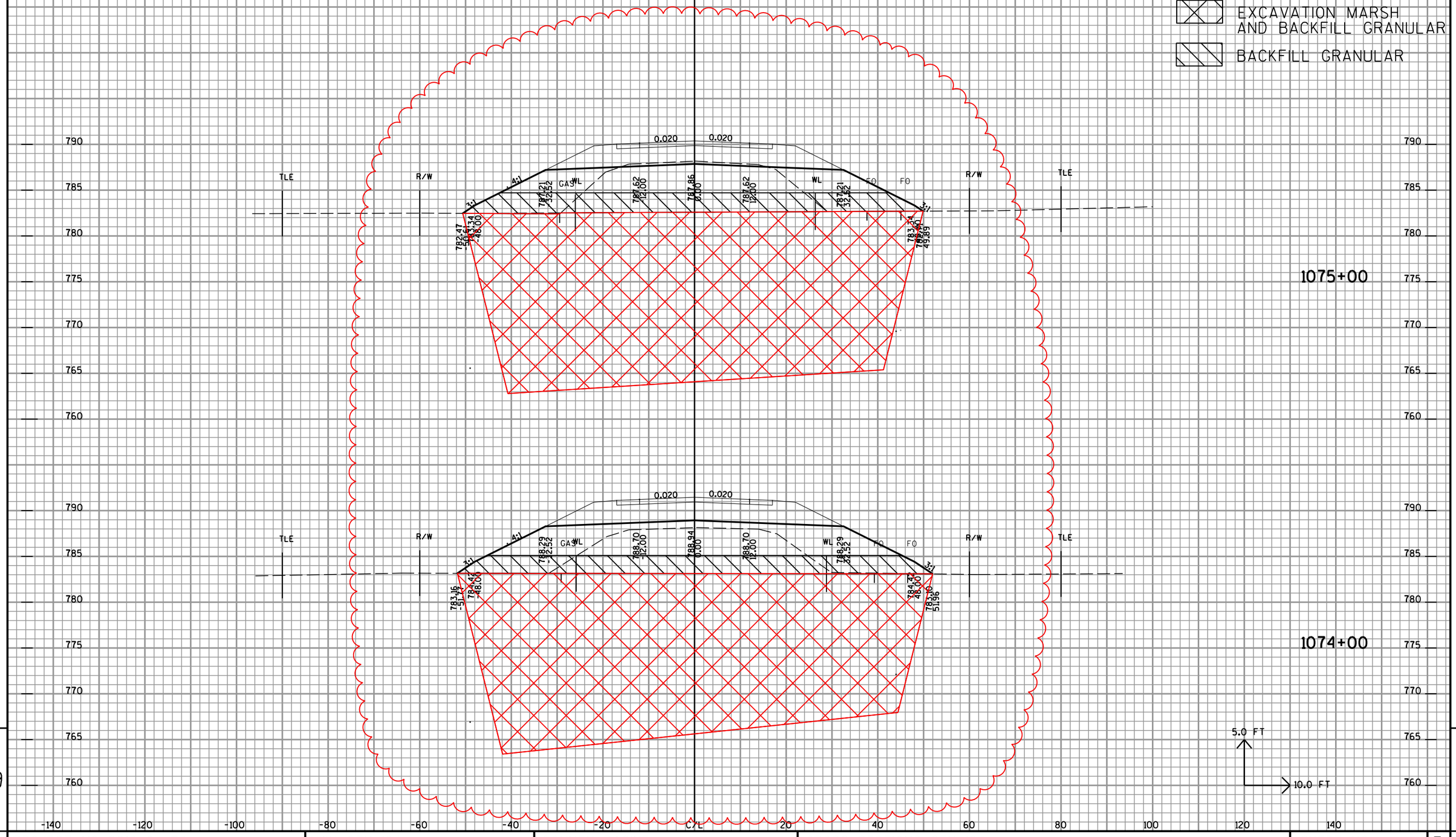
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 321R	E

FILE NAME : T:±1102721.10±Cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/17/2013 PLOT BY : Wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

EXCAVATION MARSH
AND BACKFILL GRANULAR

BACKFILL GRANULAR



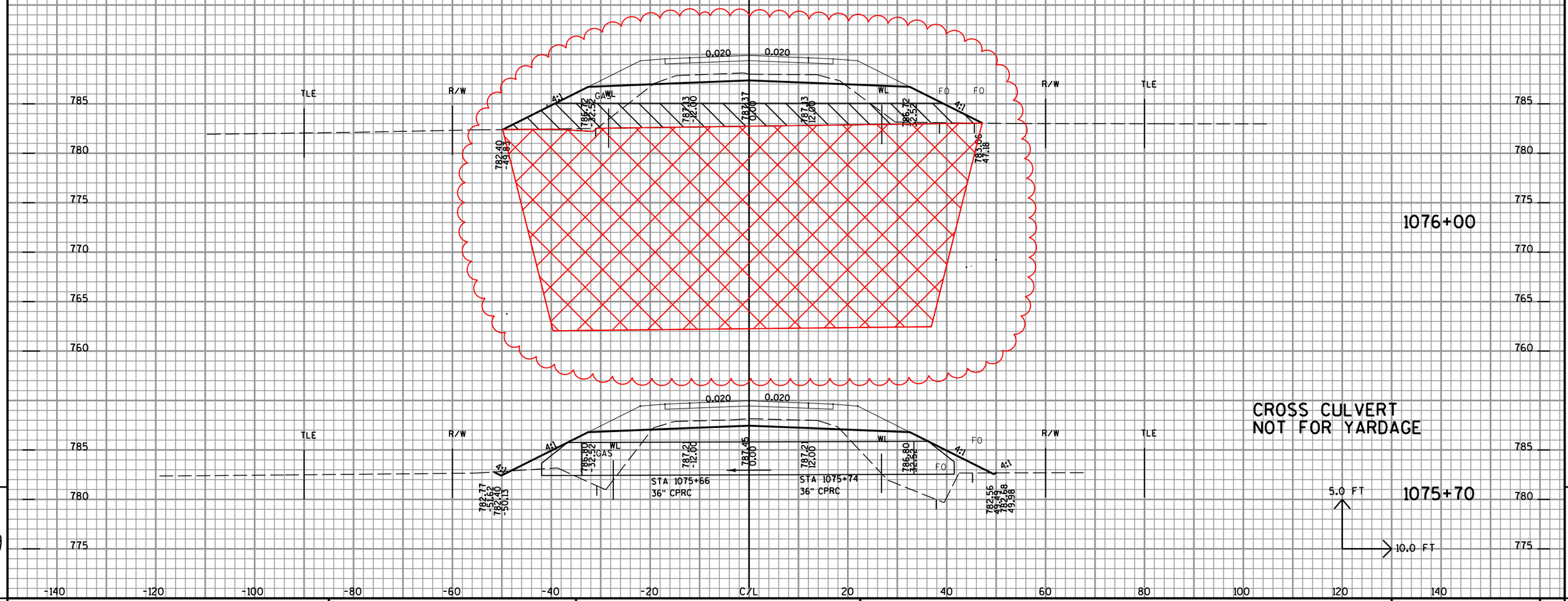
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 322R	E

FILE NAME : T:±1102721.10±Cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/17/2013 PLOT BY : Wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

EXCAVATION MARSH AND BACKFILL GRANULAR

BACKFILL GRANULAR



CROSS CULVERT
NOT FOR YARDAGE

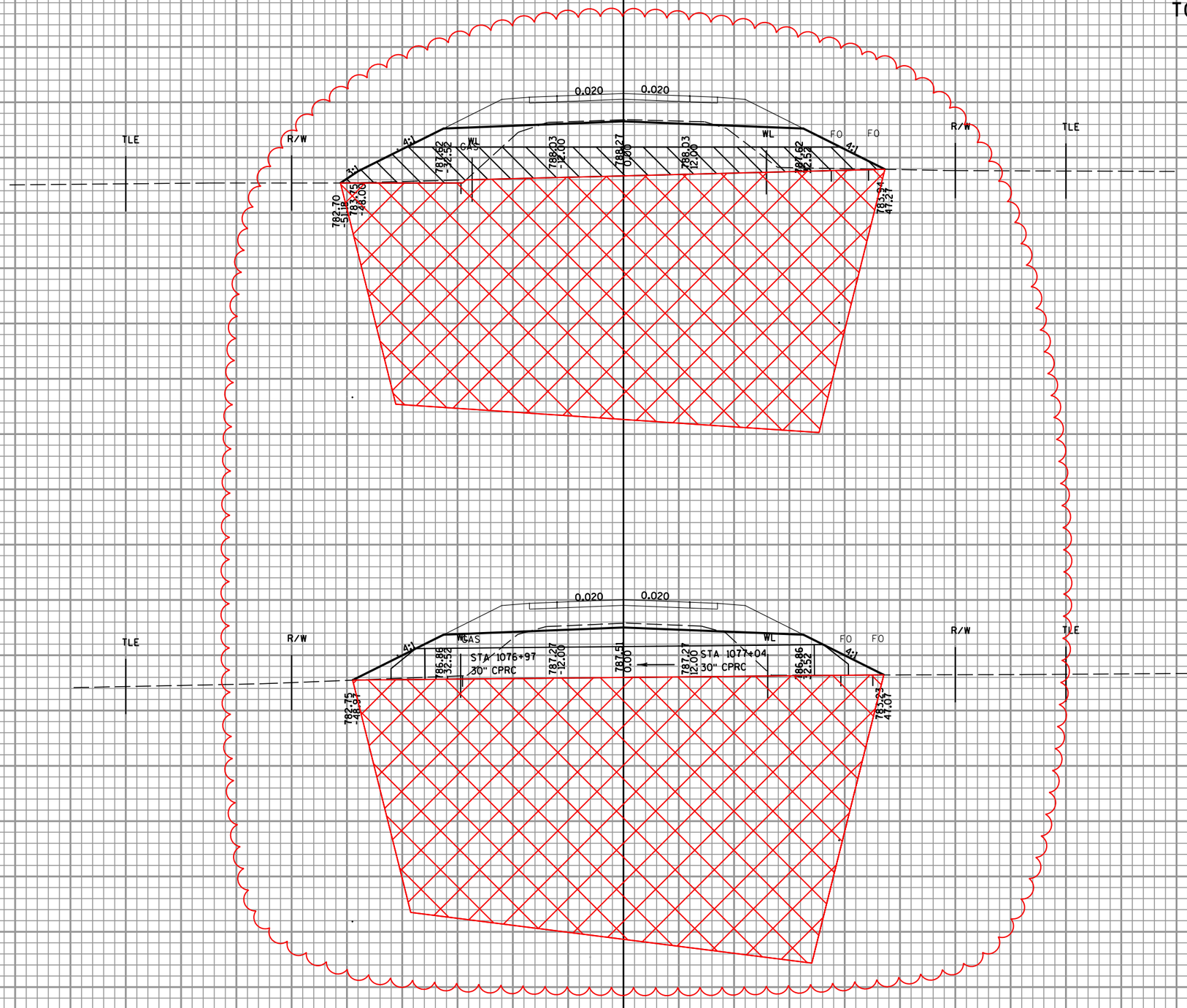
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 323R	E

FILE NAME : T:±1102721.10±Cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/17/2013 PLOT BY : Wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

EXCAVATION MARSH AND BACKFILL GRANULAR

BACKFILL GRANULAR



9

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PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 324R	E

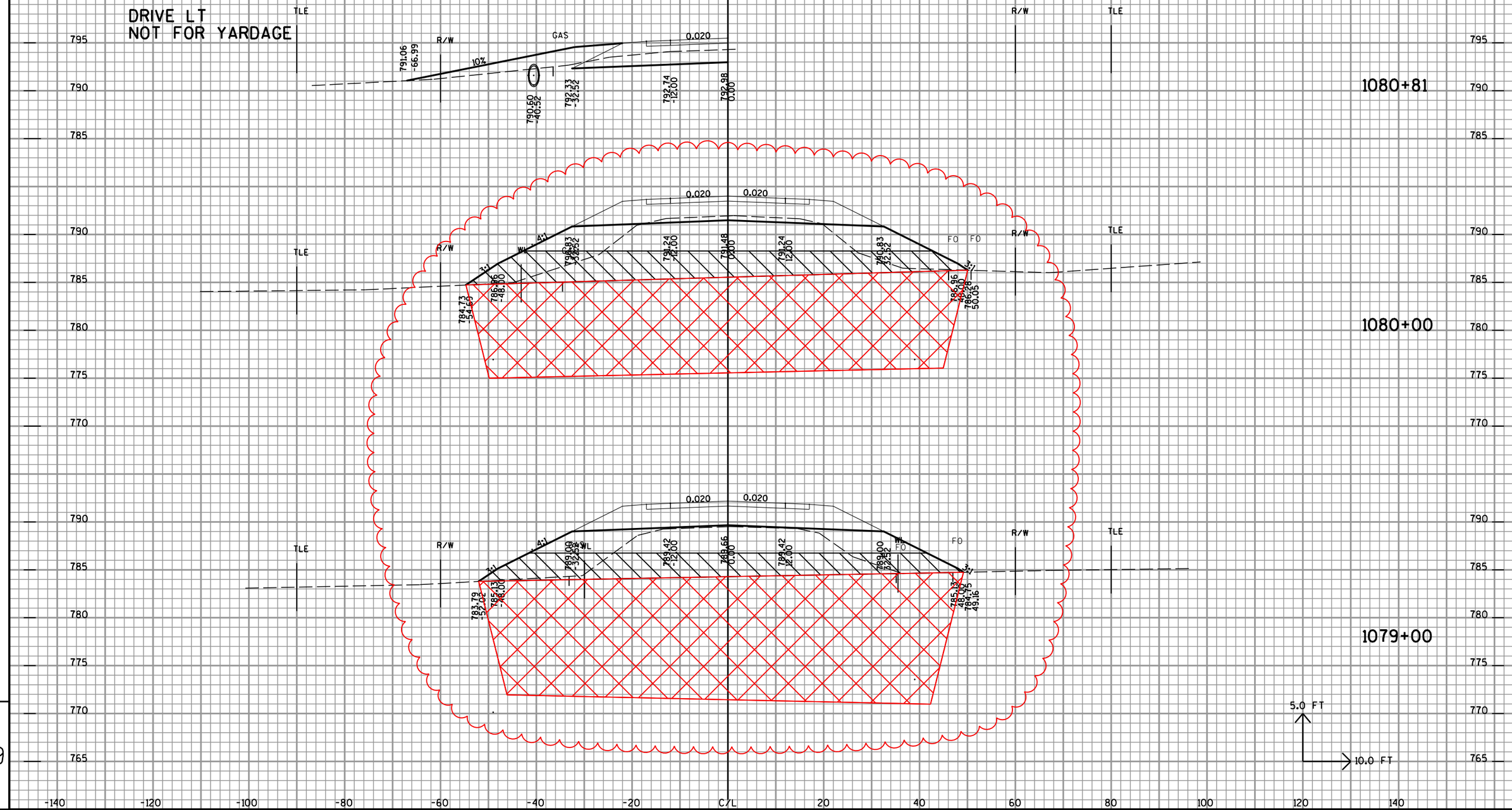
FILE NAME : T:±1102721.10±Cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/17/2013 PLOT BY : Wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

EXCAVATION MARSH AND BACKFILL GRANULAR

BACKFILL GRANULAR

DRIVE LT
NOT FOR YARDAGE



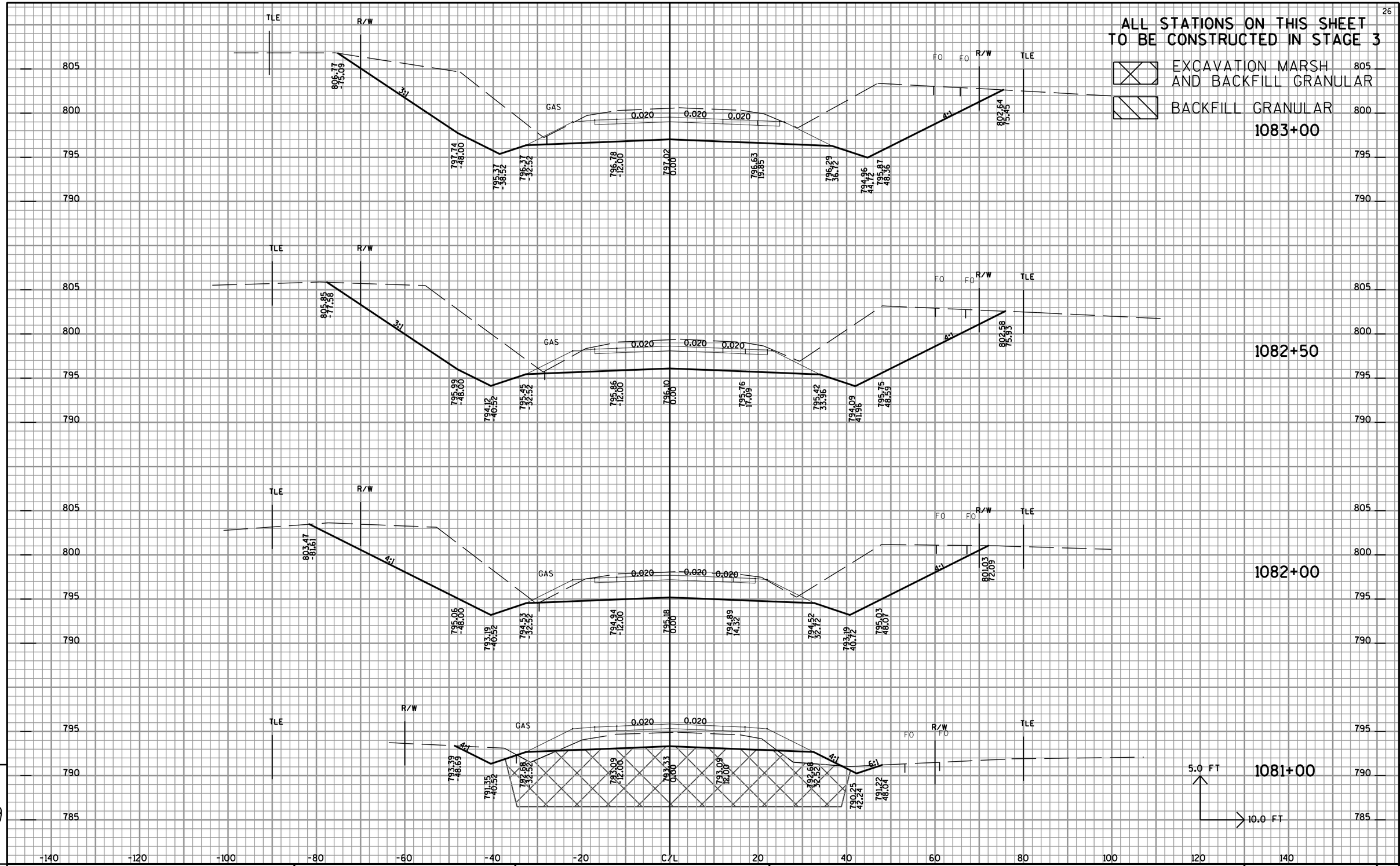
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 325R	E

FILE NAME : T:±1102721.10±Cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/17/2013 PLOT BY : Wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

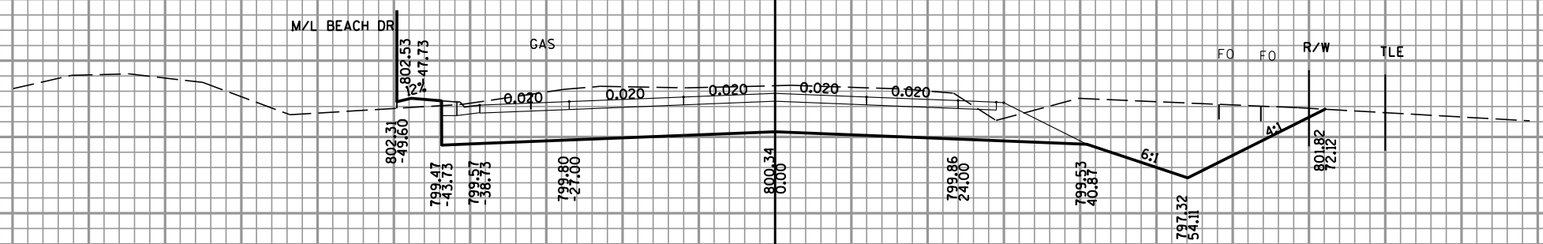
EXCAVATION MARSH AND BACKFILL GRANULAR

BACKFILL GRANULAR

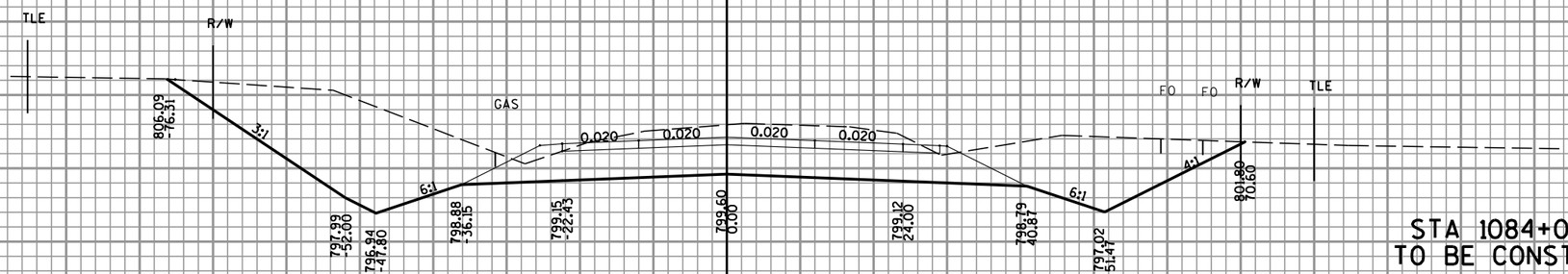


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 326 E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 8/22/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



1085+00

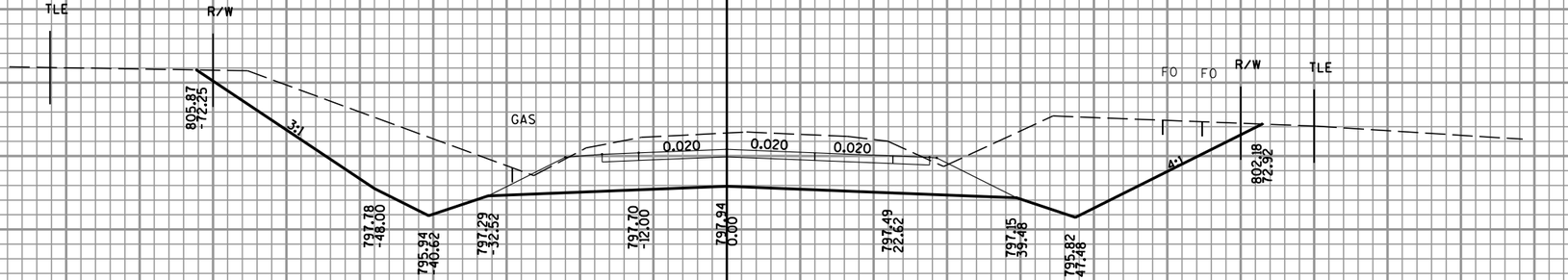


1084+50

STA 1084+00 TO STA 1162+00
TO BE CONSTRUCTED IN STAGE 1

STA 944+00 TO STA 1084+00
TO BE CONSTRUCTED IN STAGE 3

1084+00



1083+50

5.0 FT
10.0 FT

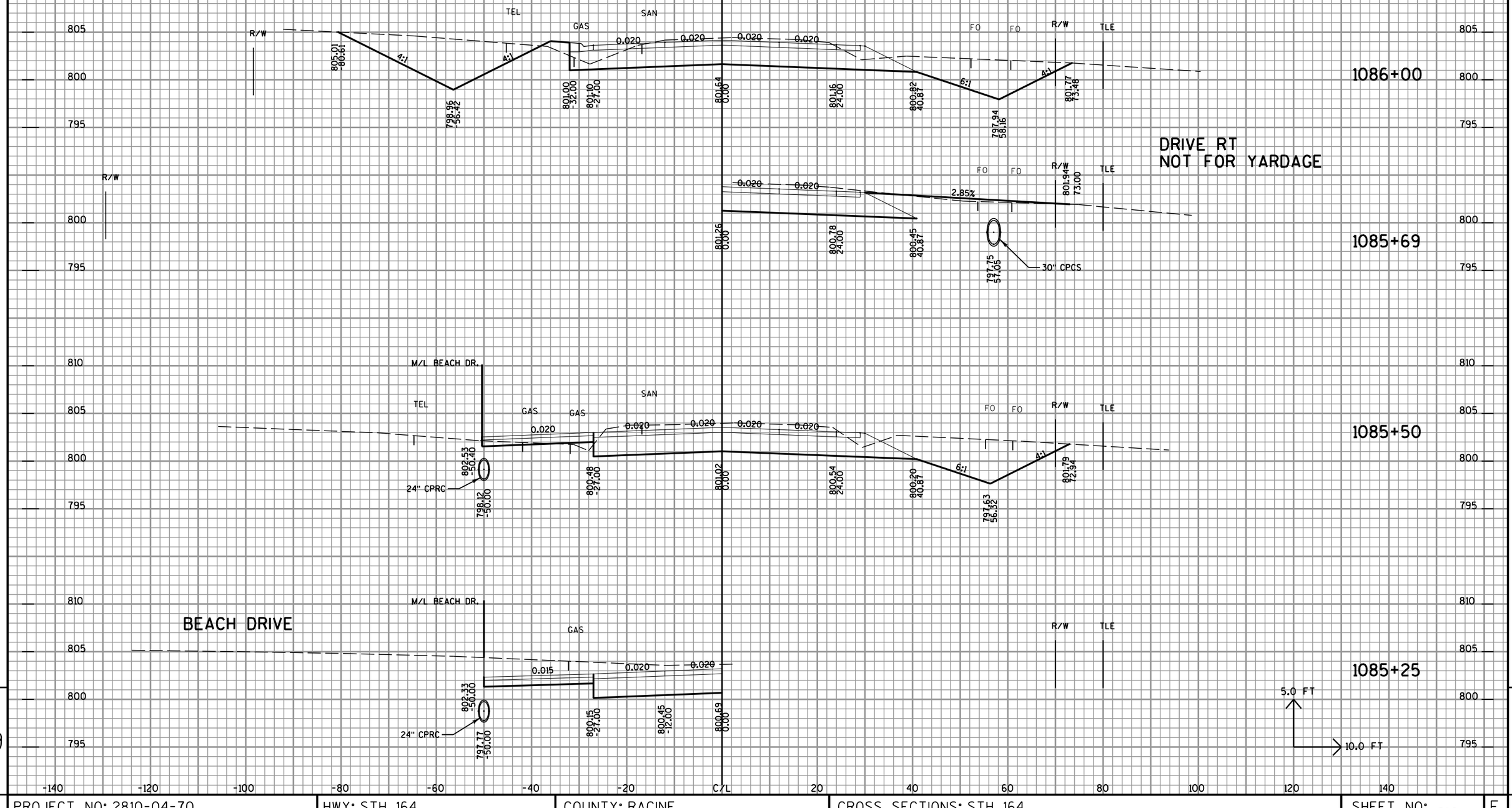
-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

9 9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 327	E

FILE NAME : t:\102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 328	E

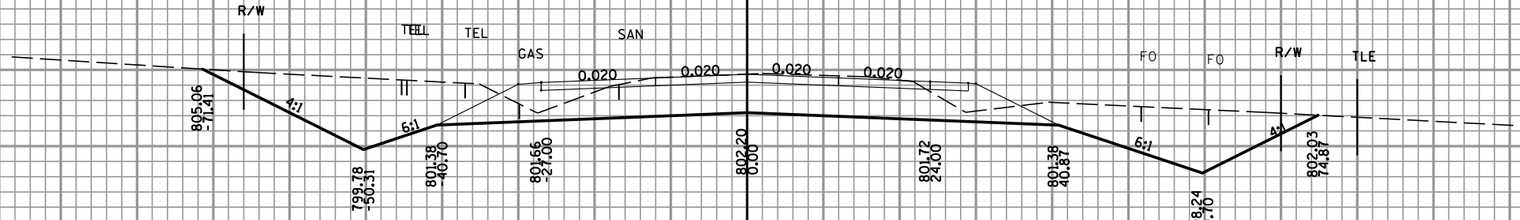
FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

1088+00

1087+50

1087+00



1086+50

5.0 FT
10.0 FT

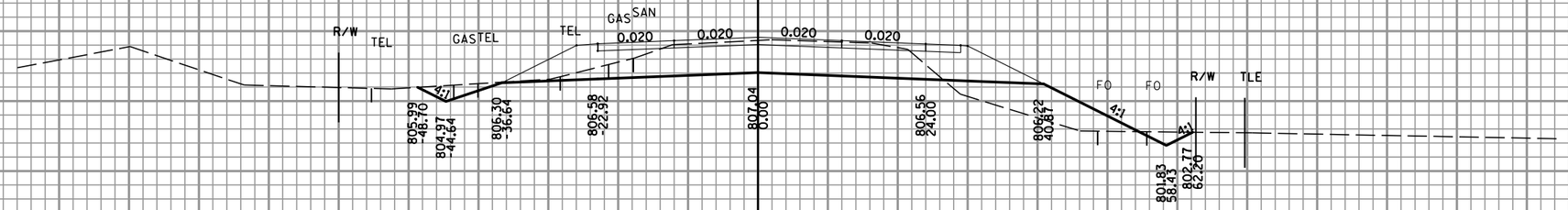
-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

9 9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 329 E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

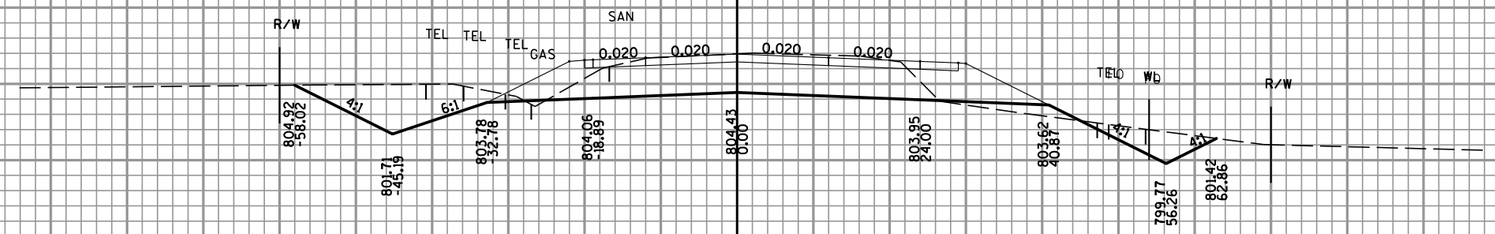


1092+00

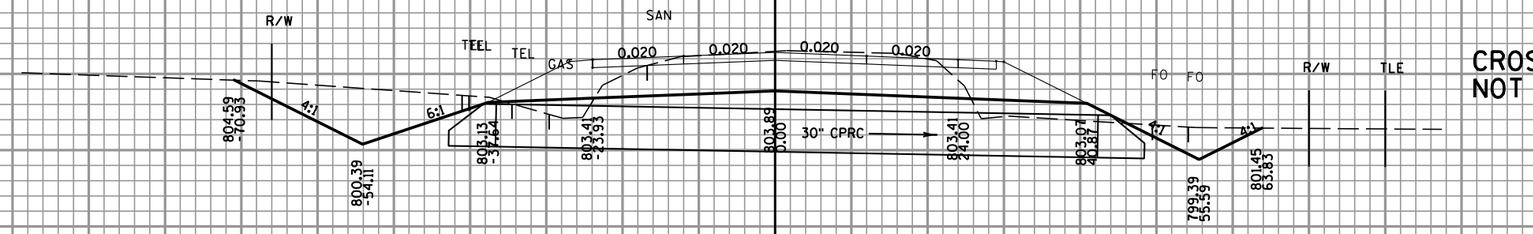
1091+00

1090+00

DRIVE RT
NOT FOR YARDAGE



1089+00



1088+37

CROSS CULVERT
NOT FOR YARDAGE

5.0 FT
10.0 FT

-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

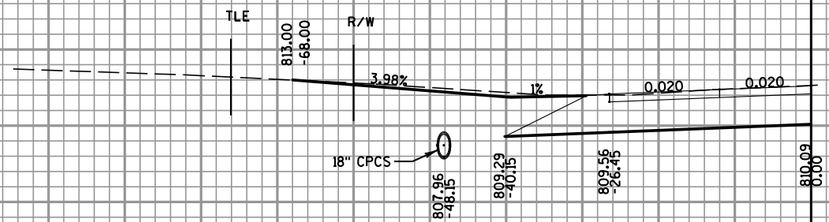
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 330	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

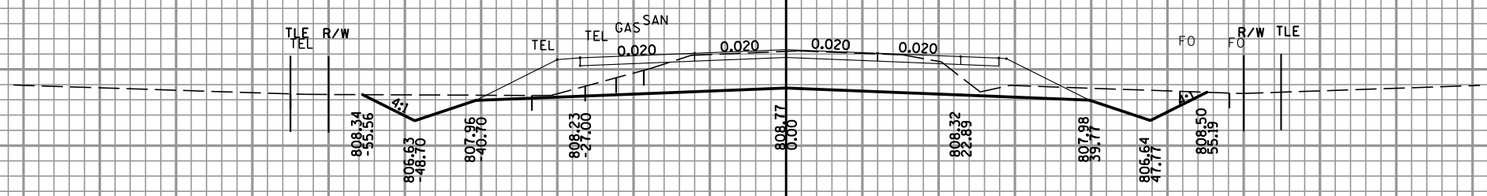
DRIVE LT
NOT FOR YARDAGE



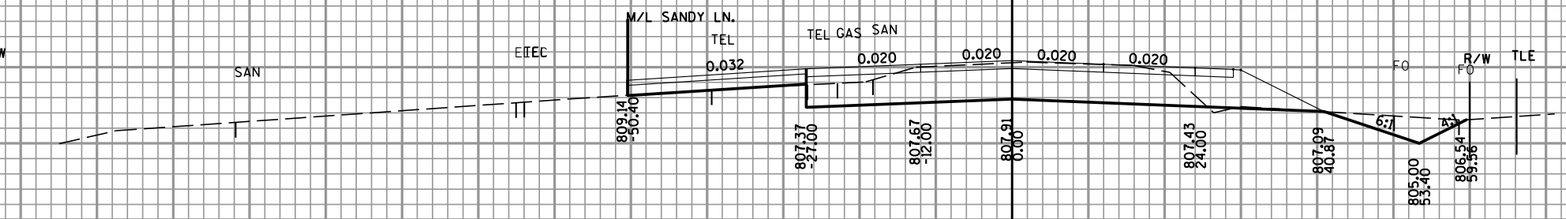
1095+52

DRIVE RT
NOT FOR YARDAGE

1095+05



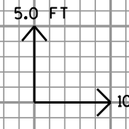
1094+00



1093+00

SANDY LANE

1092+69



-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

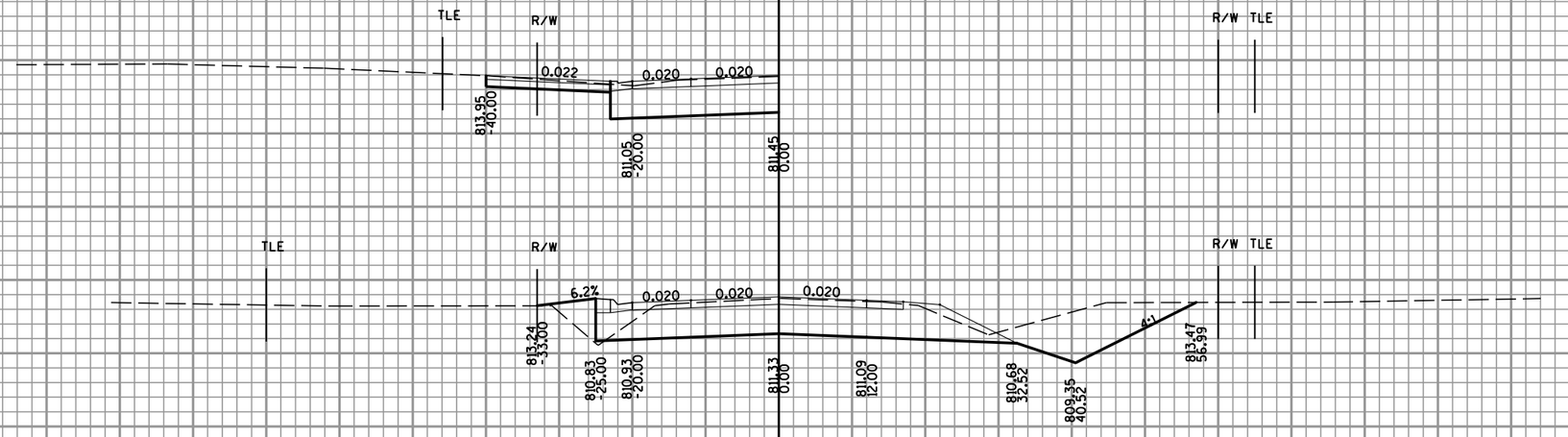
9 9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 331	E

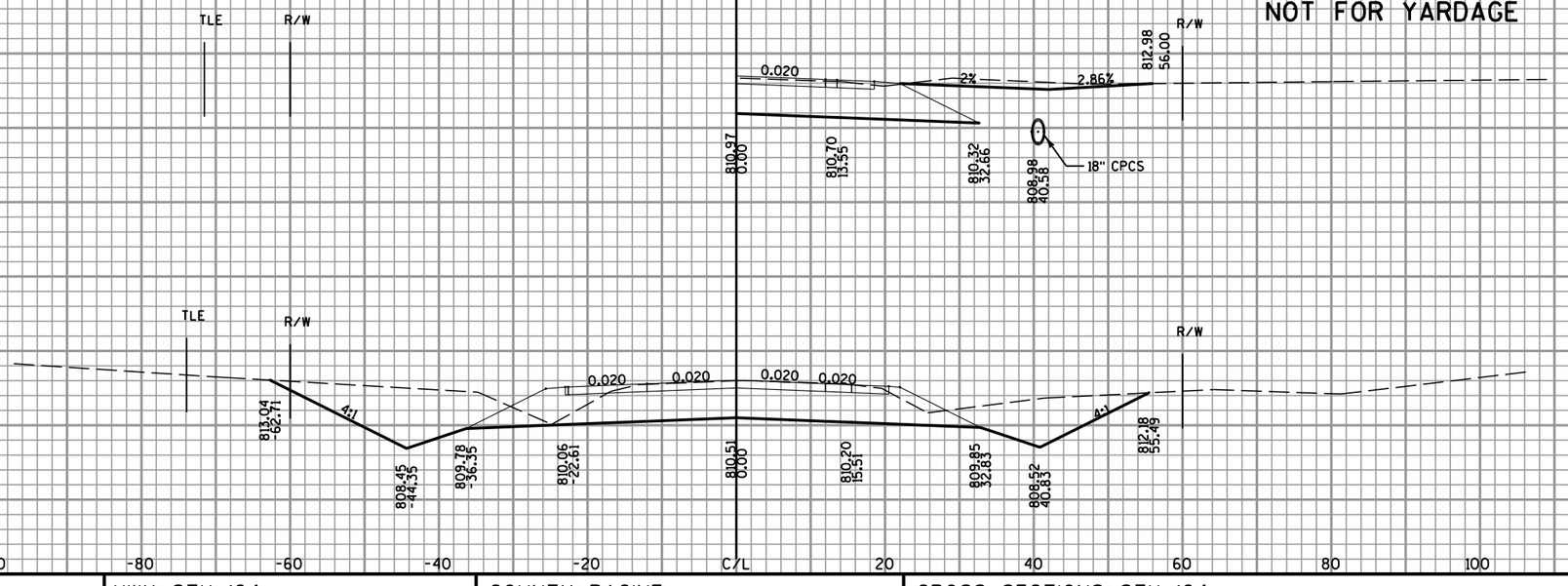
FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

DRIVE LT
NOT FOR YARDAGE



DRIVE RT
NOT FOR YARDAGE



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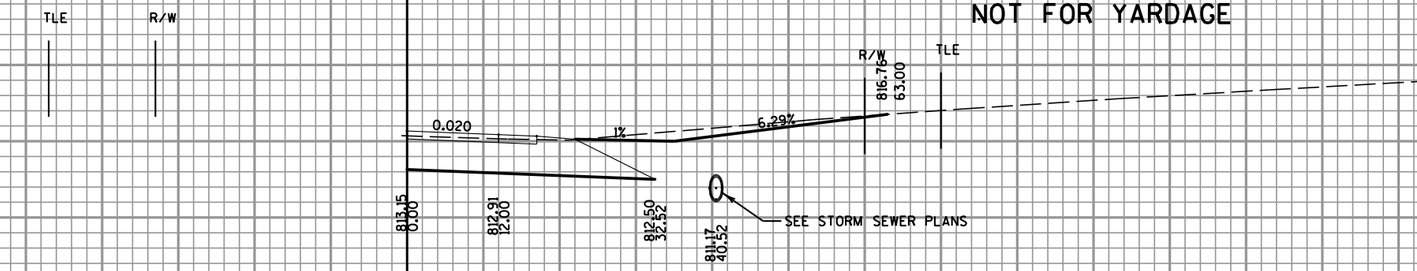
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 332	E

FILE NAME : t:\e1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

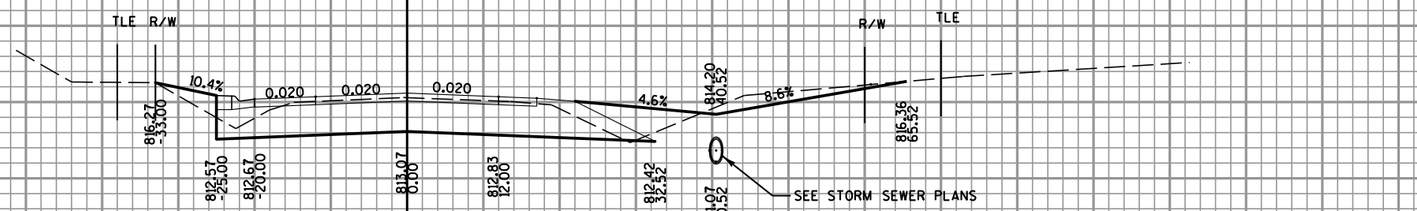
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

DRIVE RT
NOT FOR YARDAGE

1099+11



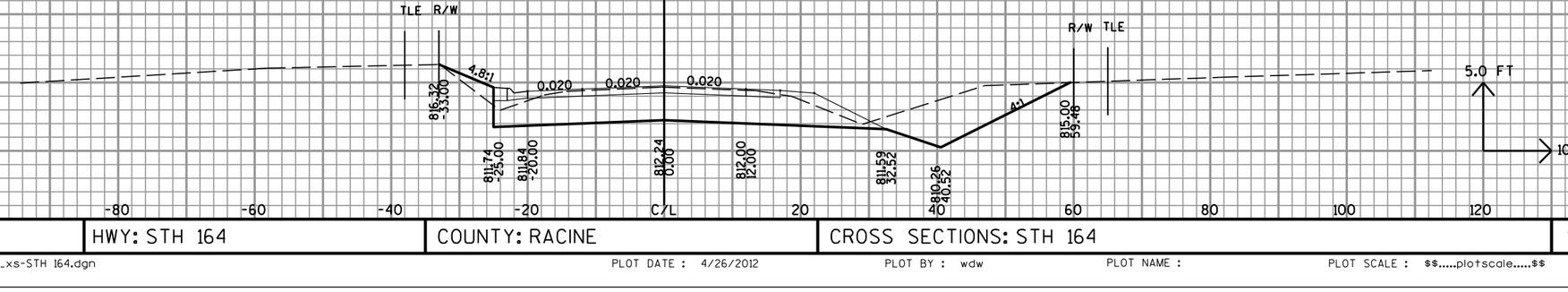
1099+00



DRIVE RT
NOT FOR YARDAGE

1098+65

1098+00



9

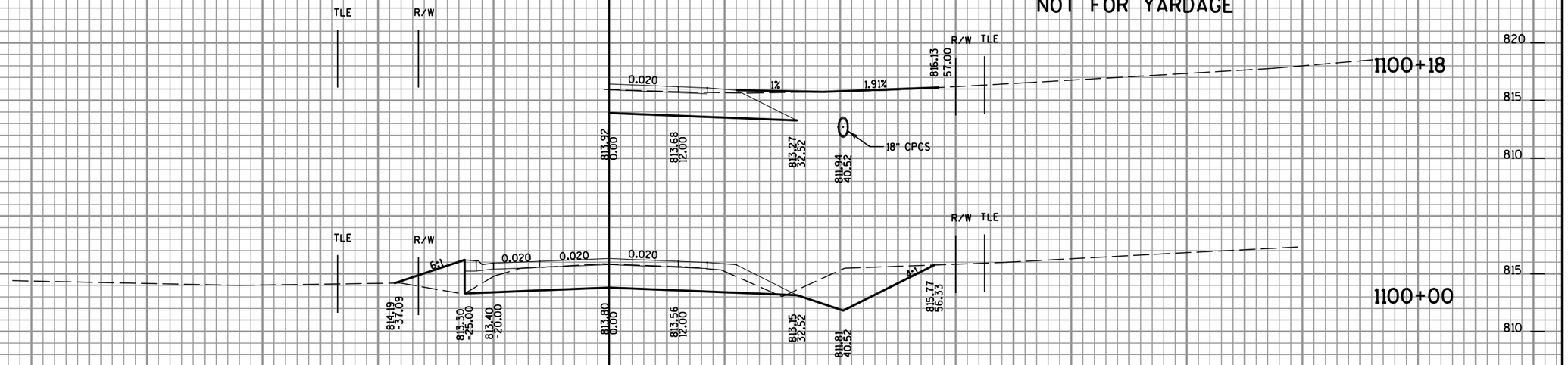
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 333	E

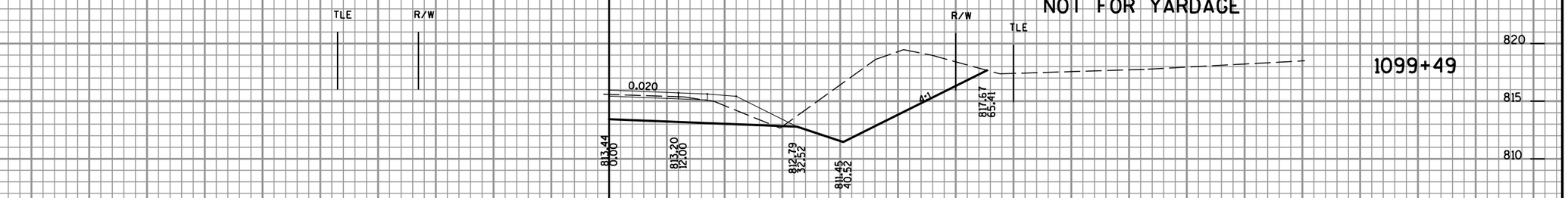
FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

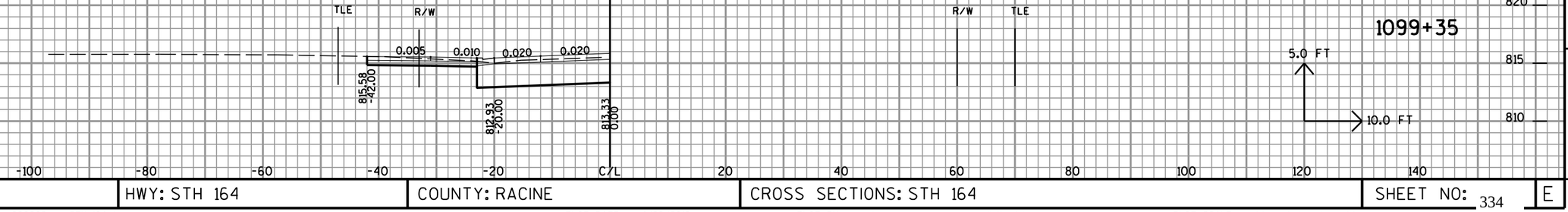
DRIVE RT
NOT FOR YARDAGE



SECTION AT BERM
NOT FOR YARDAGE



DRIVE LT
NOT FOR YARDAGE



-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

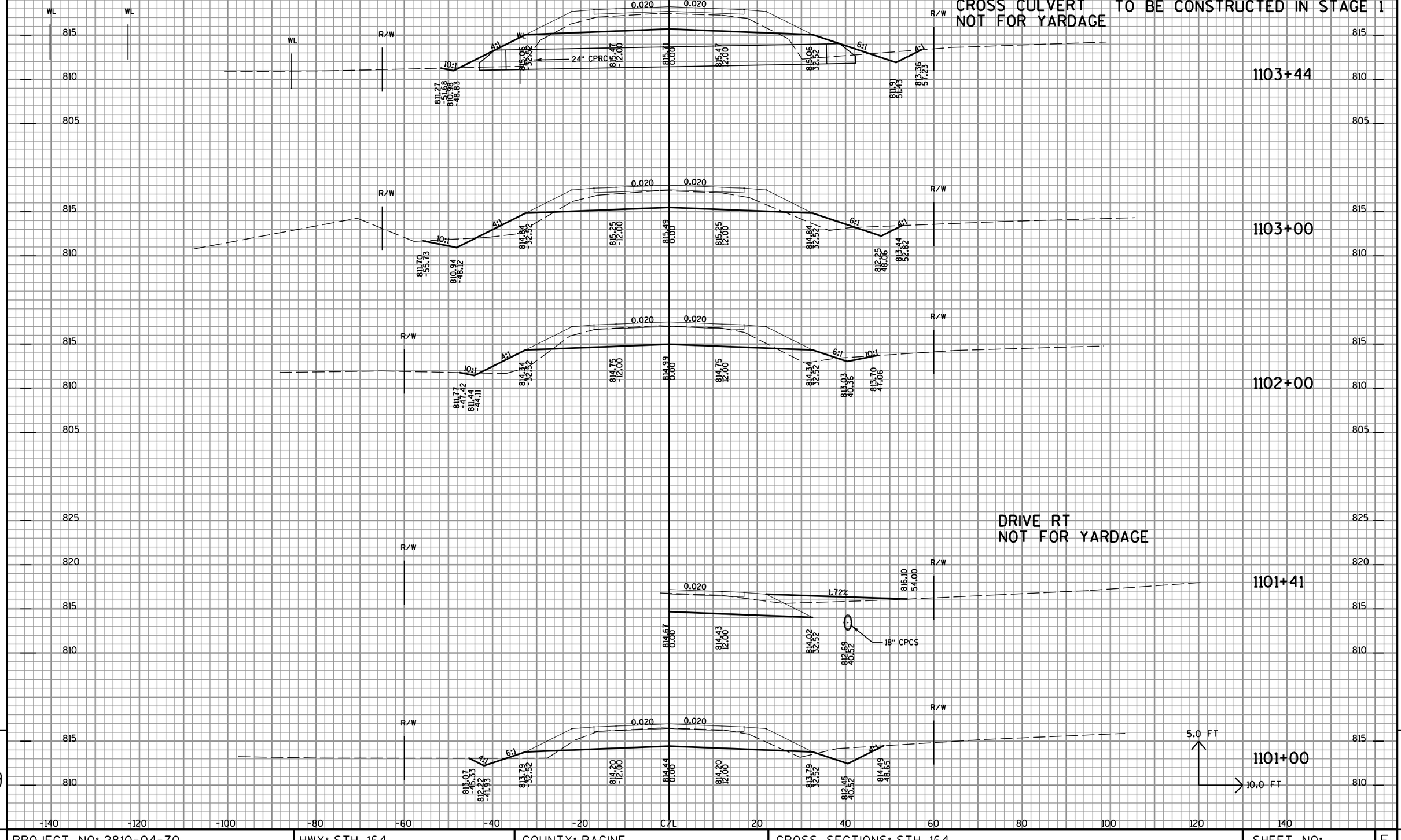
9 9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 334	E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

CROSS CULVERT
NOT FOR YARDAGE



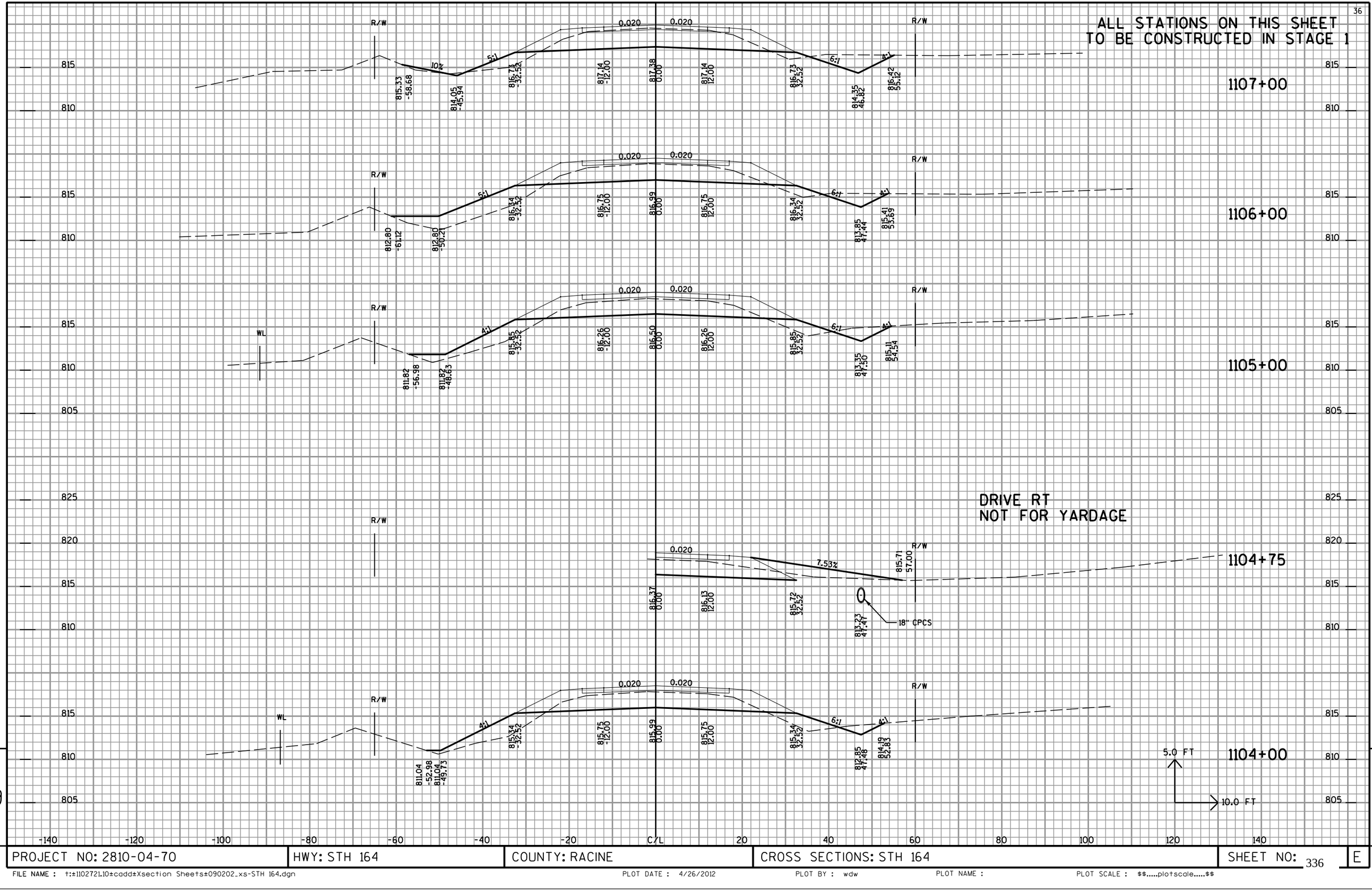
9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 335	E

FILE NAME : t:\r1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

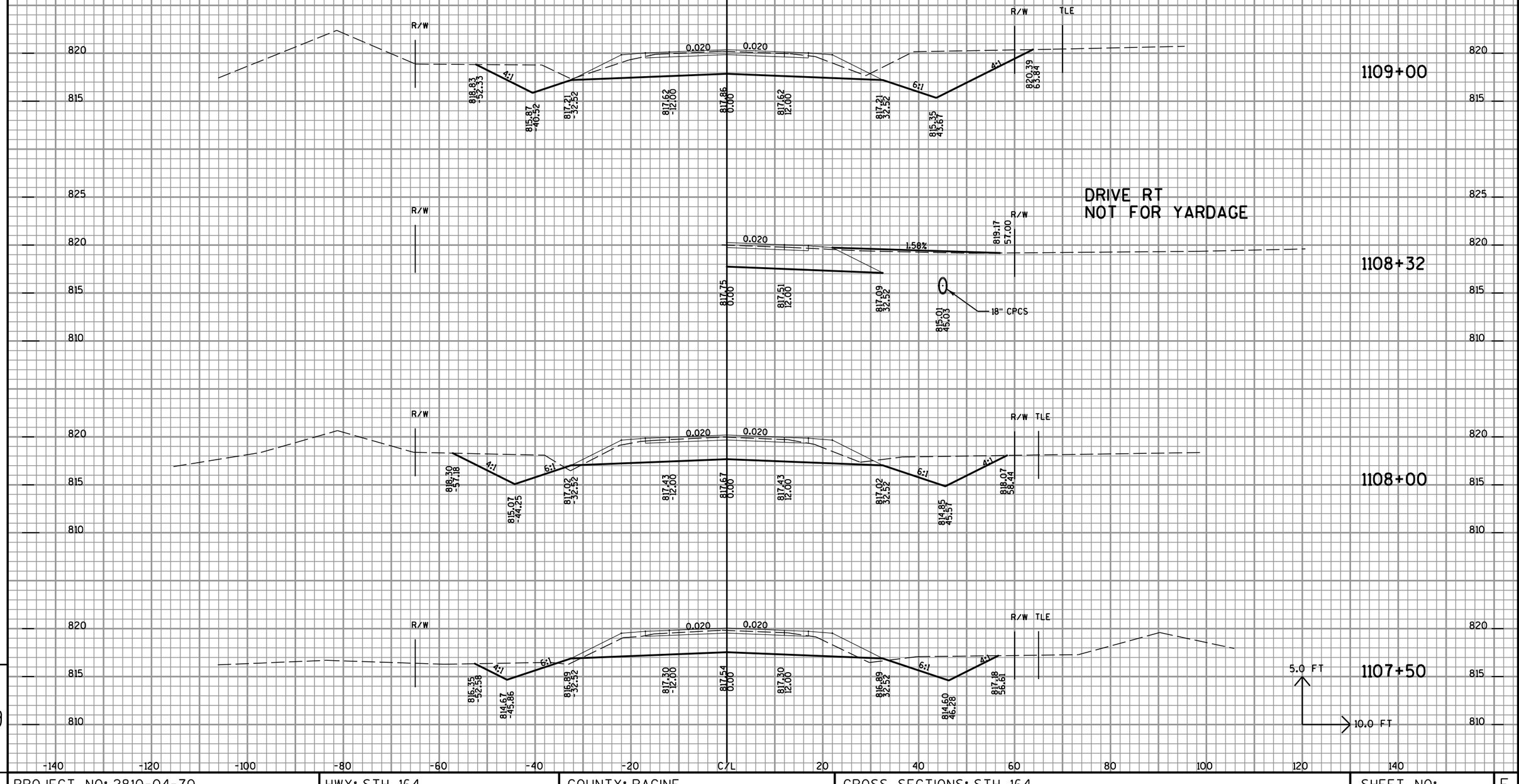
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 336	E

FILE NAME : t:\2102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

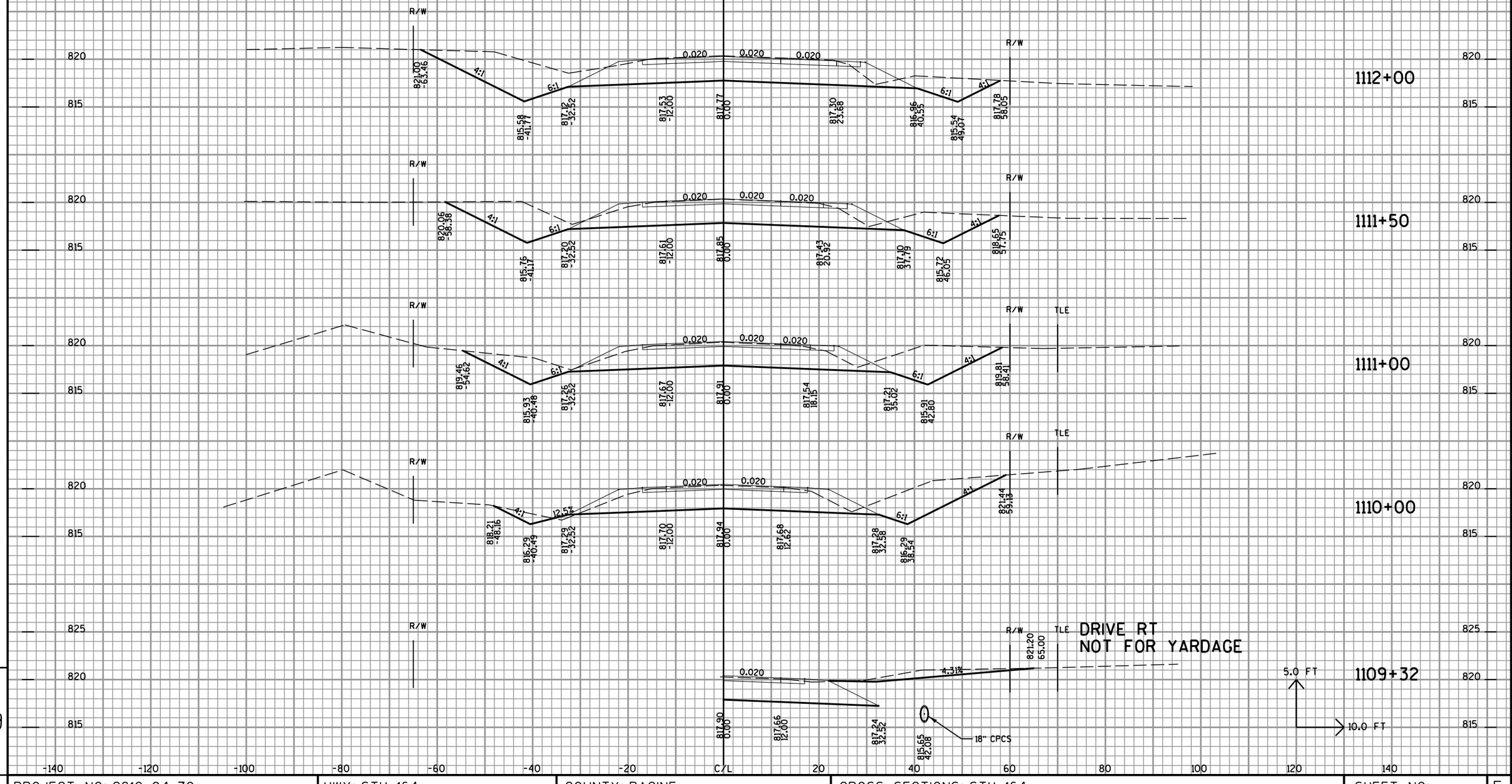
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 337	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



9

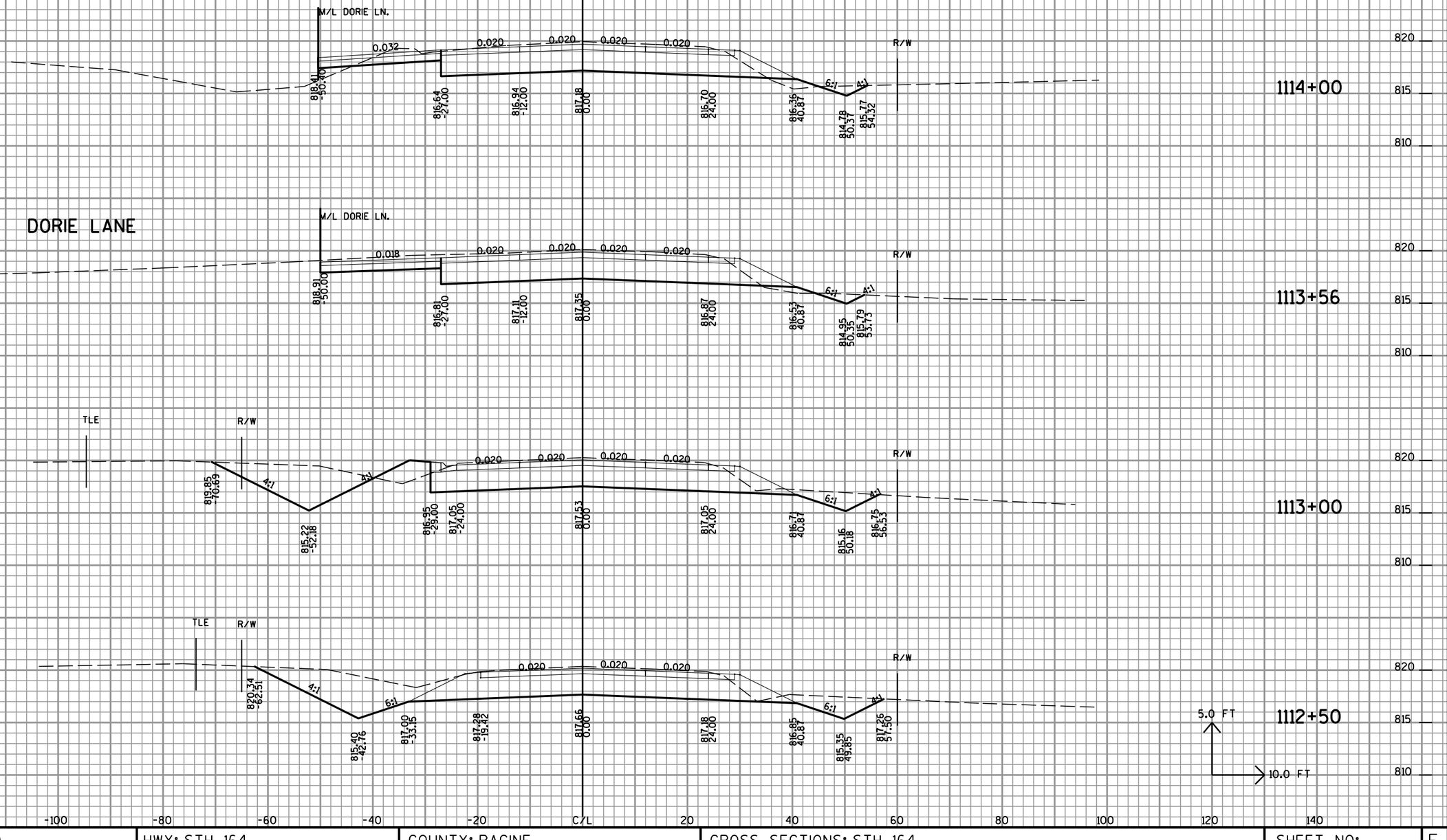
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 338	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

DORIE LANE



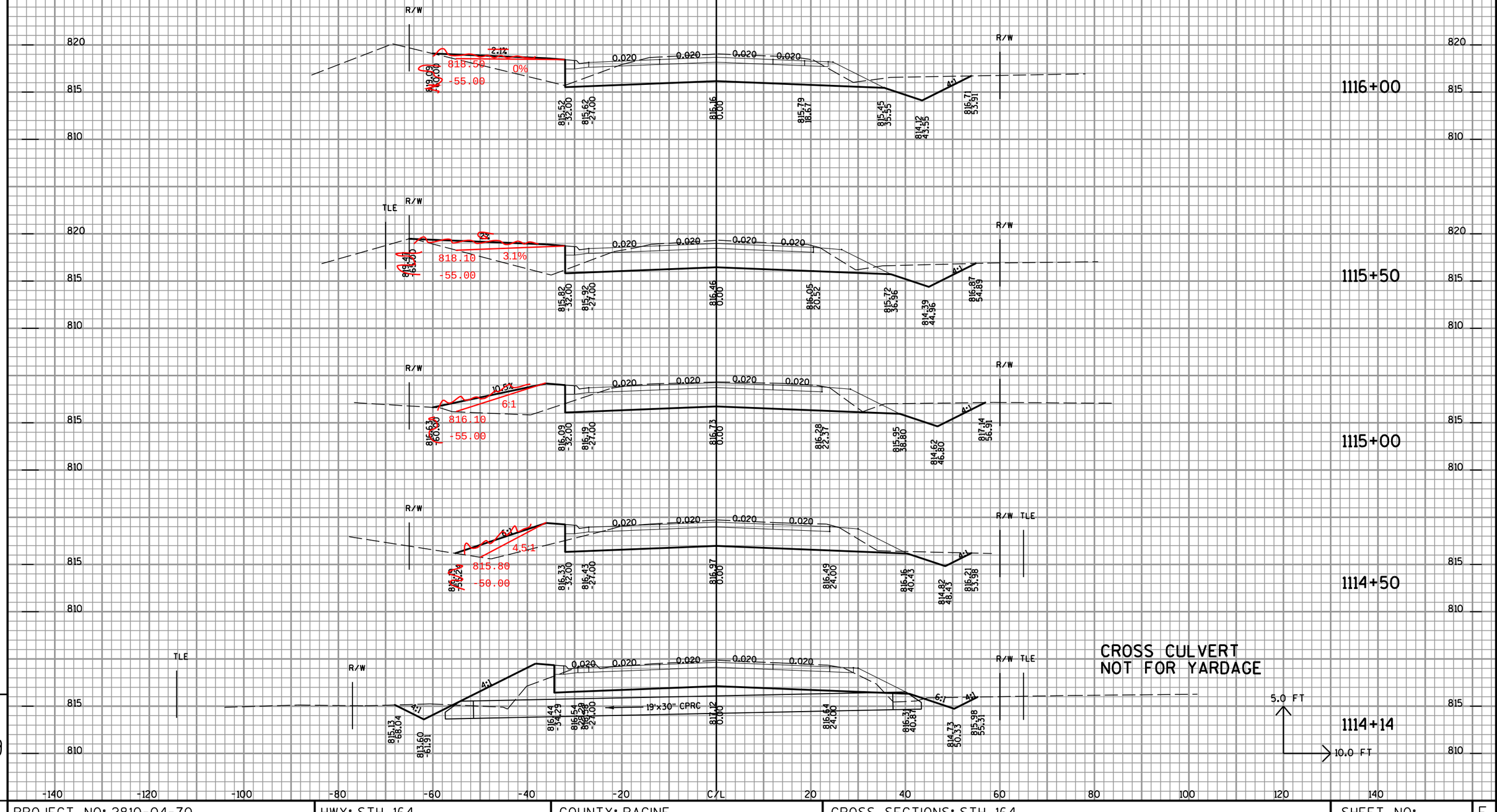
9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 339	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

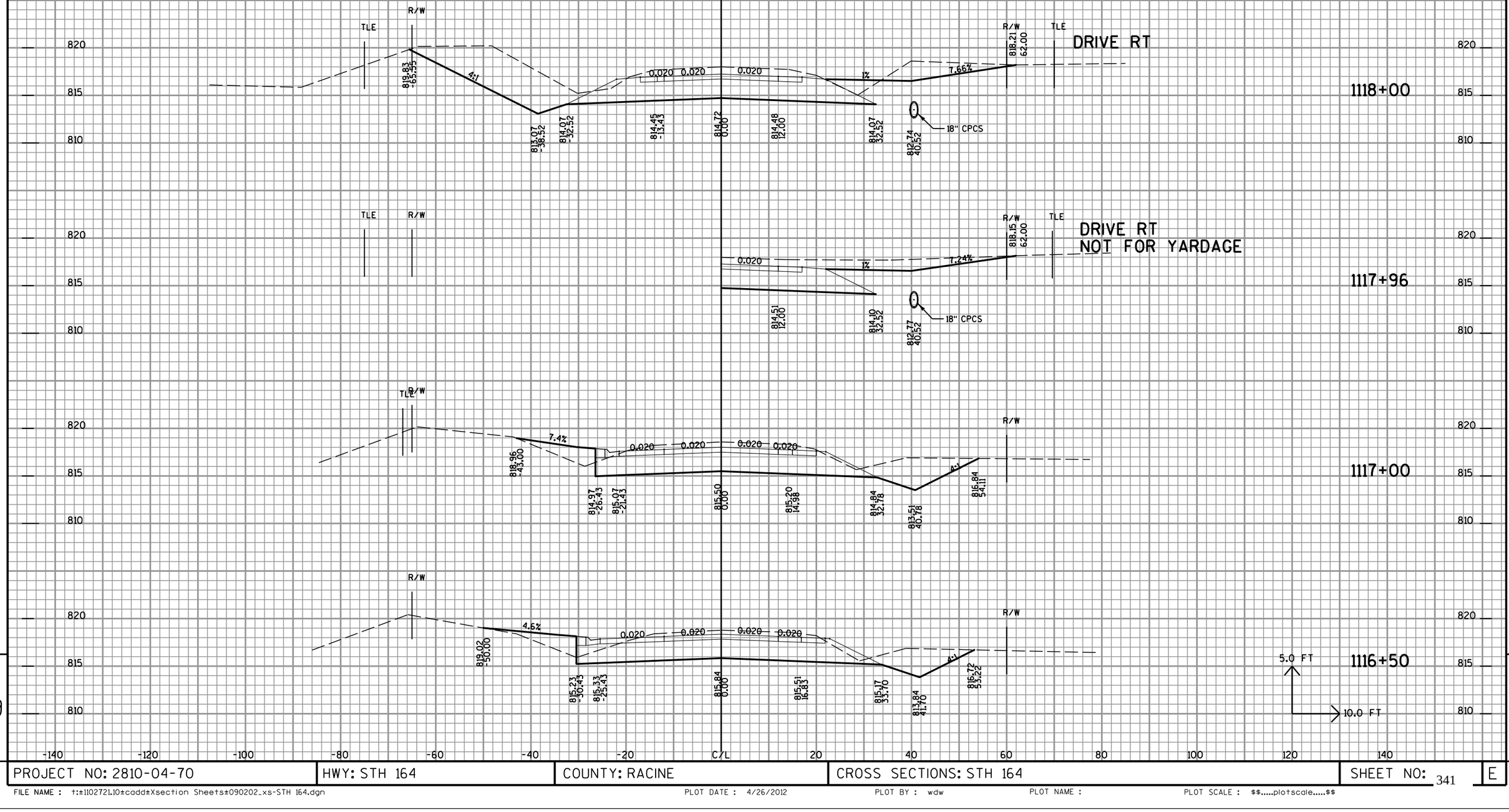
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 340 A	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



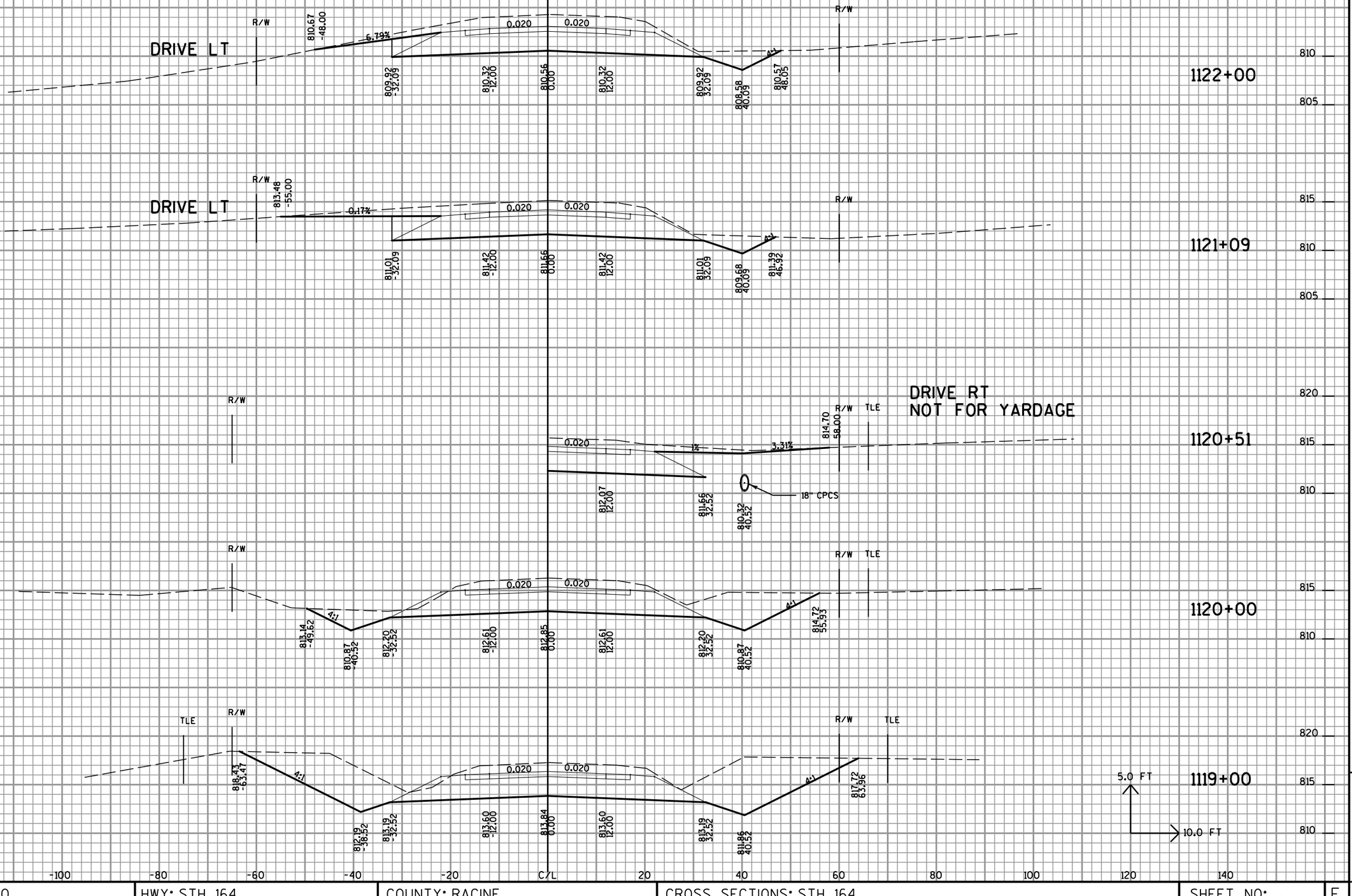
9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 341	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

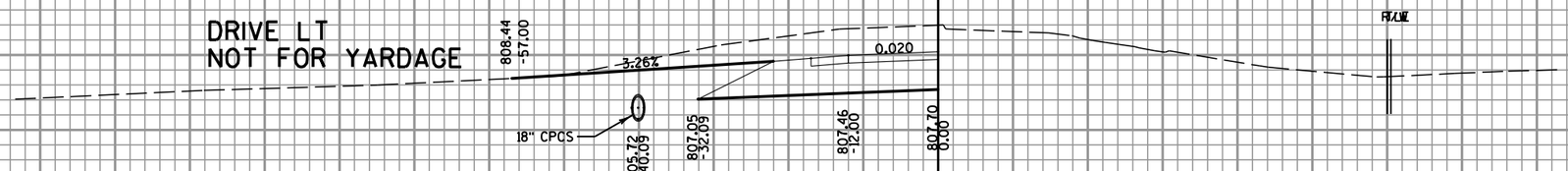


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 342	E

FILE NAME : t:\e1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

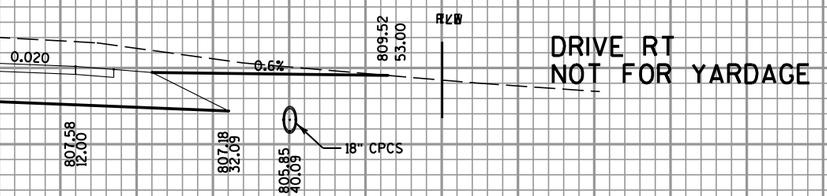
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

DRIVE LT
NOT FOR YARDAGE



1124+11

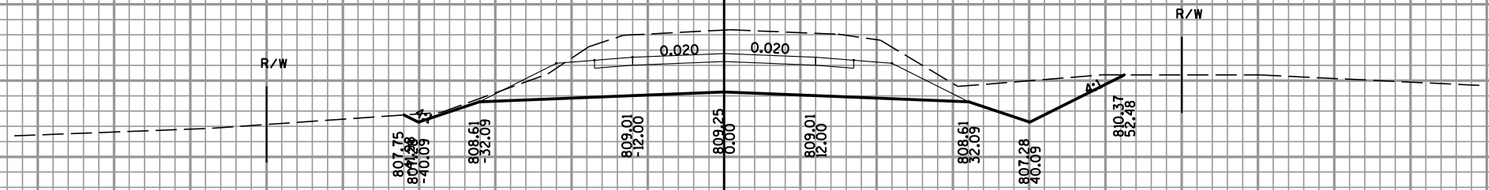
DRIVE RT
NOT FOR YARDAGE



1124+02

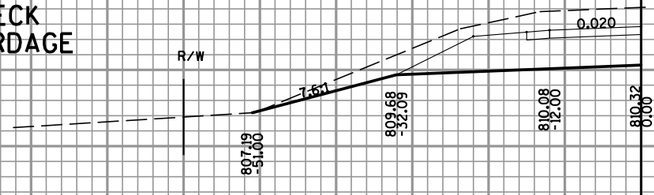
DRIVE RT

1124+00



1123+00

DRAINAGE CHECK
NOT FOR YARDAGE



1122+19

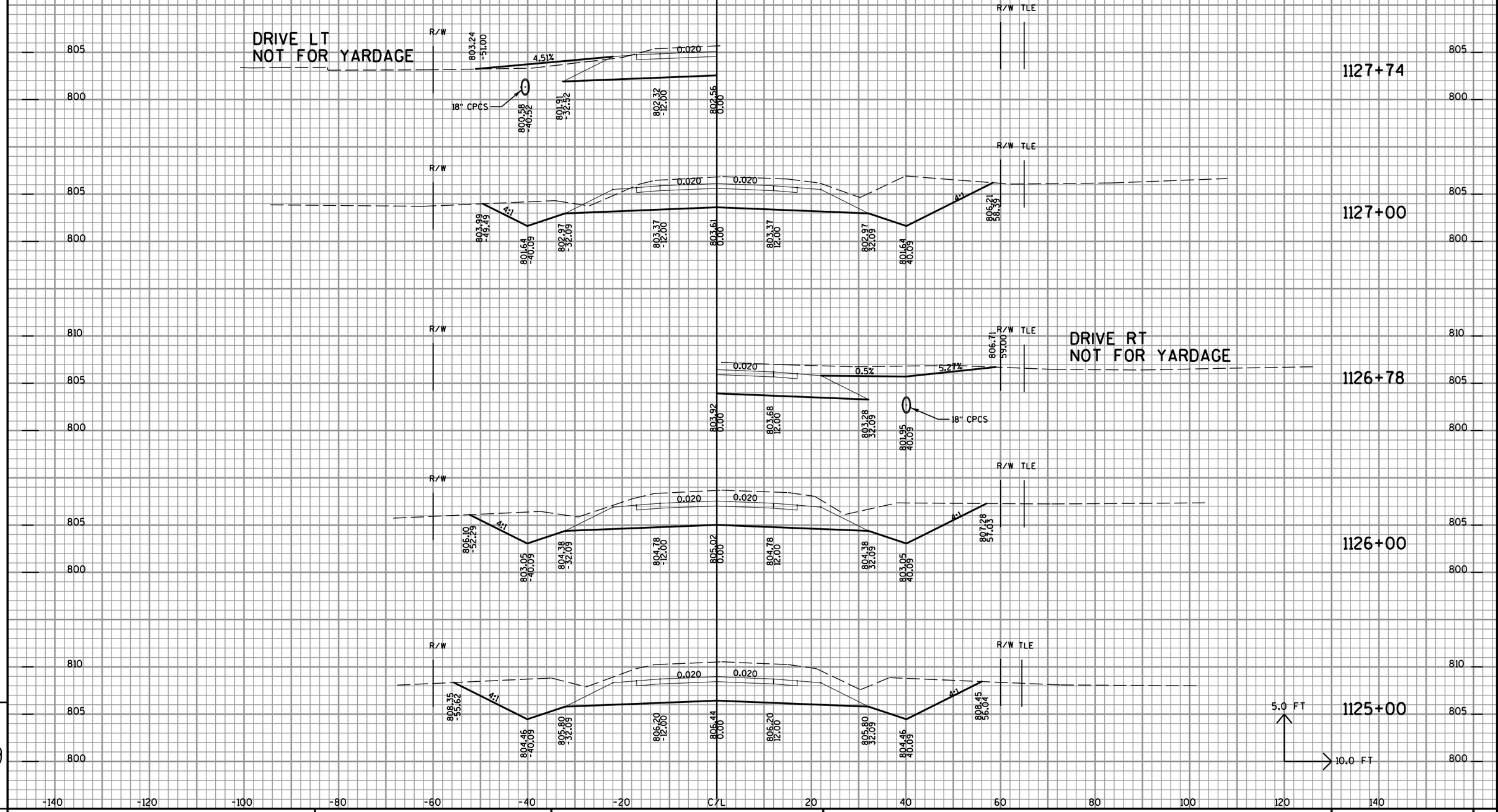
5.0 FT
10.0 FT

-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 343	E

FILE NAME : t:\2102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



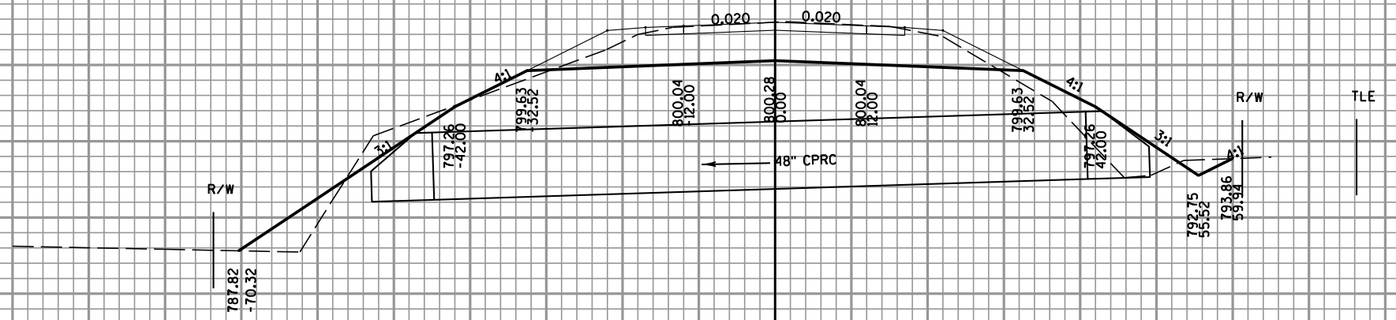
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 344	E

FILE NAME : t:\102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

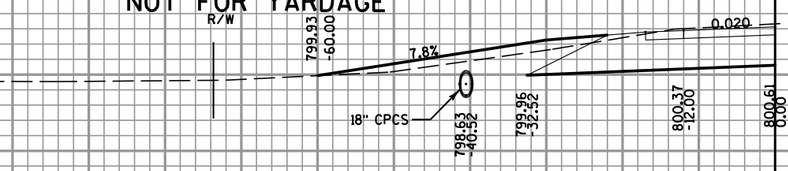
CROSS CULVERT
NOT FOR YARDAGE



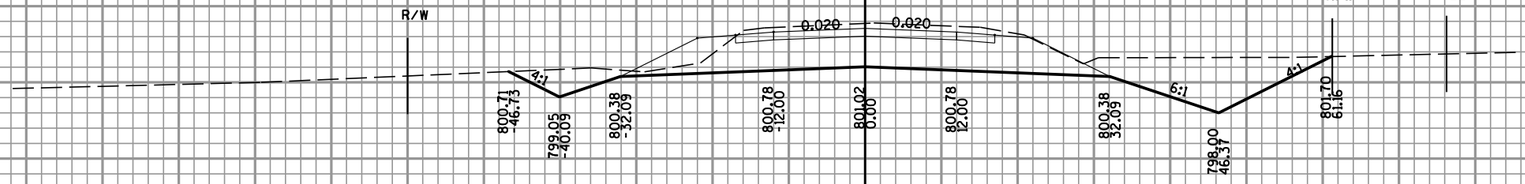
1130+12

1130+00

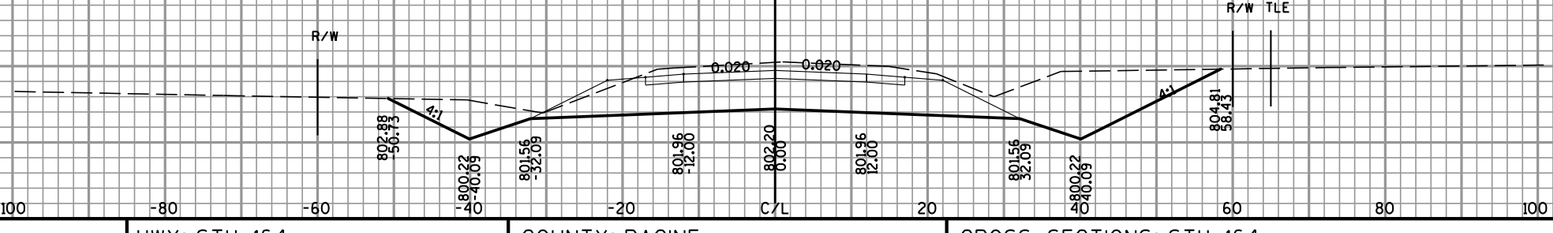
DRIVE LT
NOT FOR YARDAGE



1129+51



1129+00



1128+00

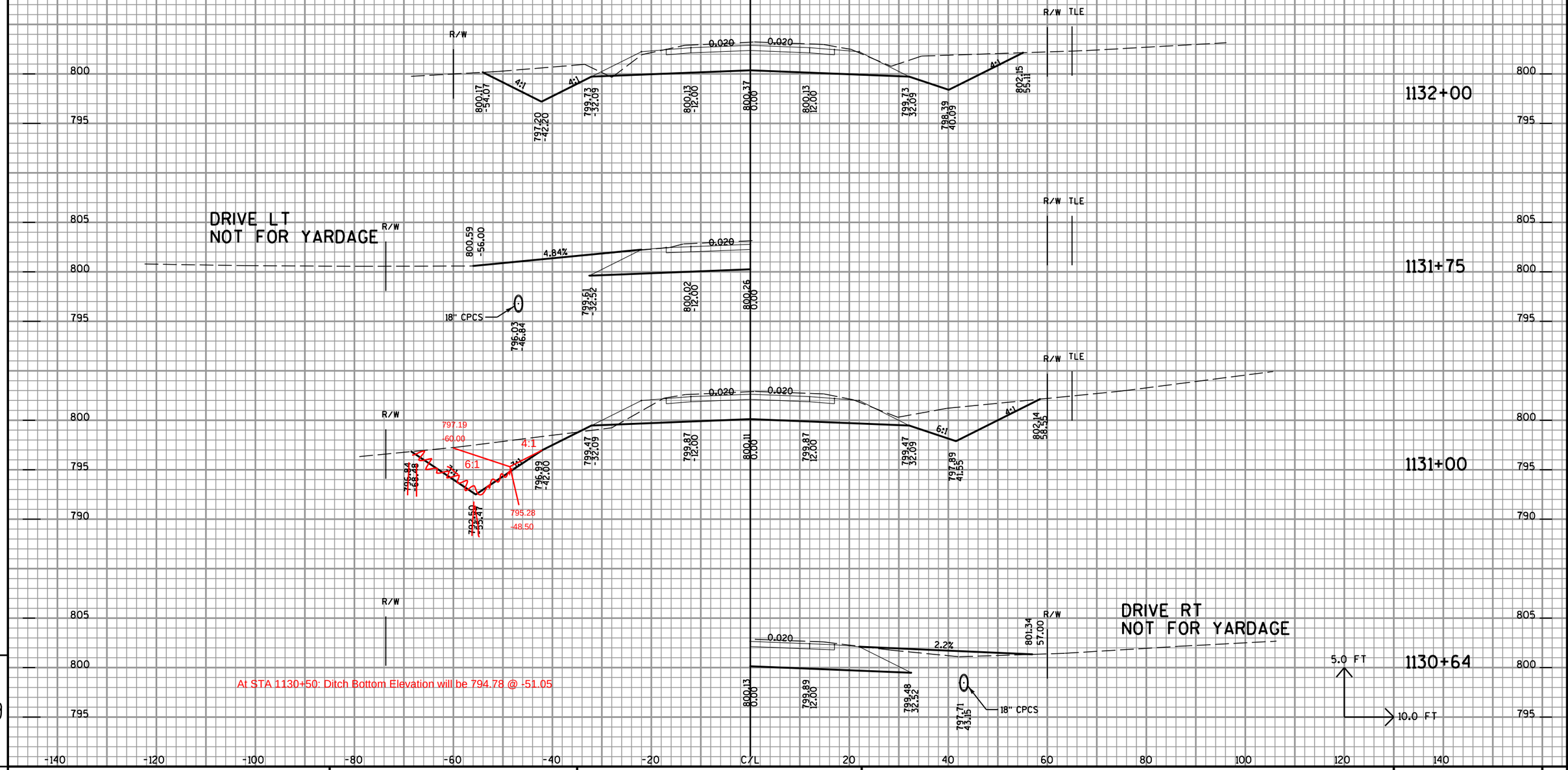
-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 345	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

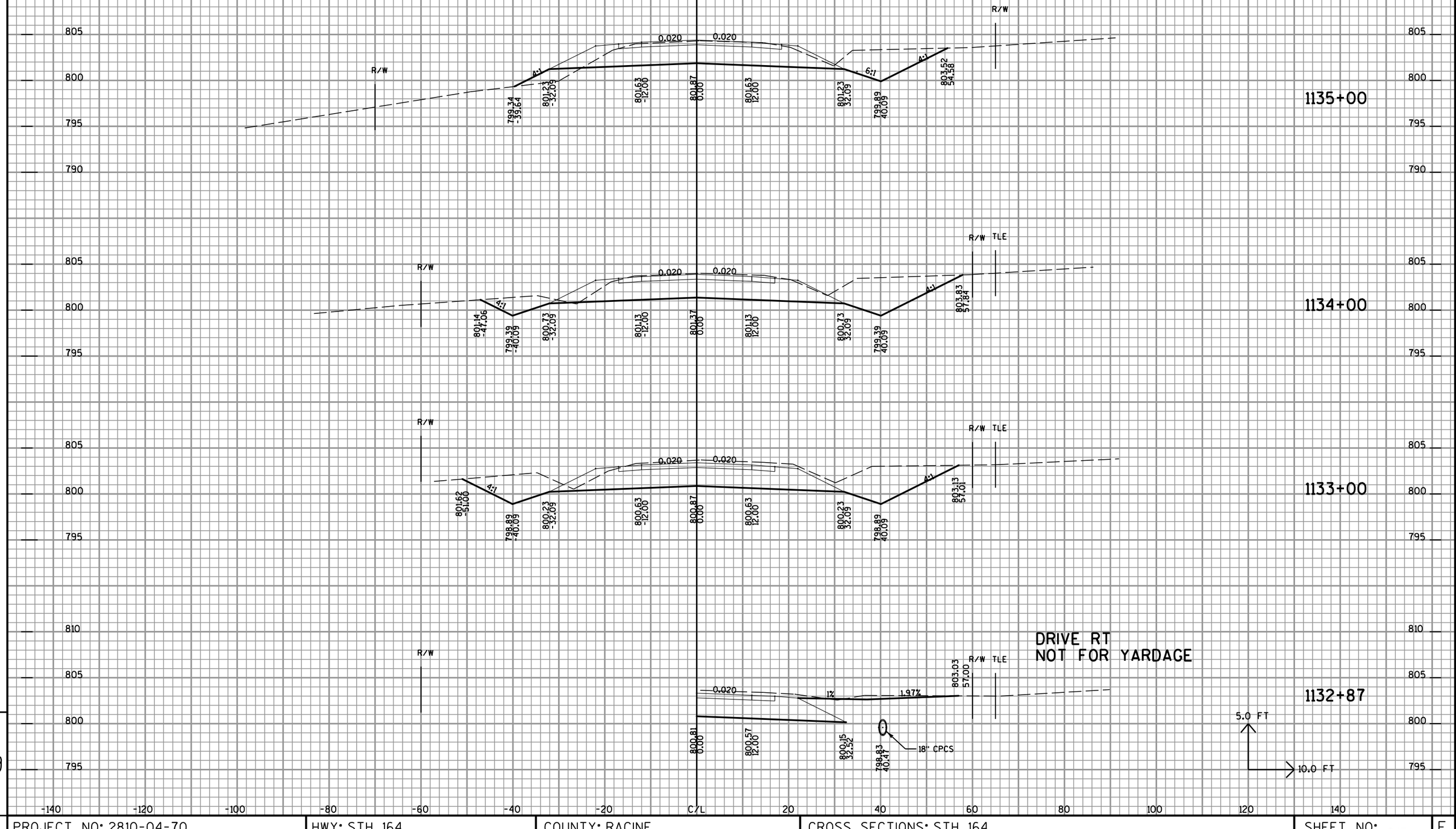
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 346 A	E

FILE NAME : t:\110272\1.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



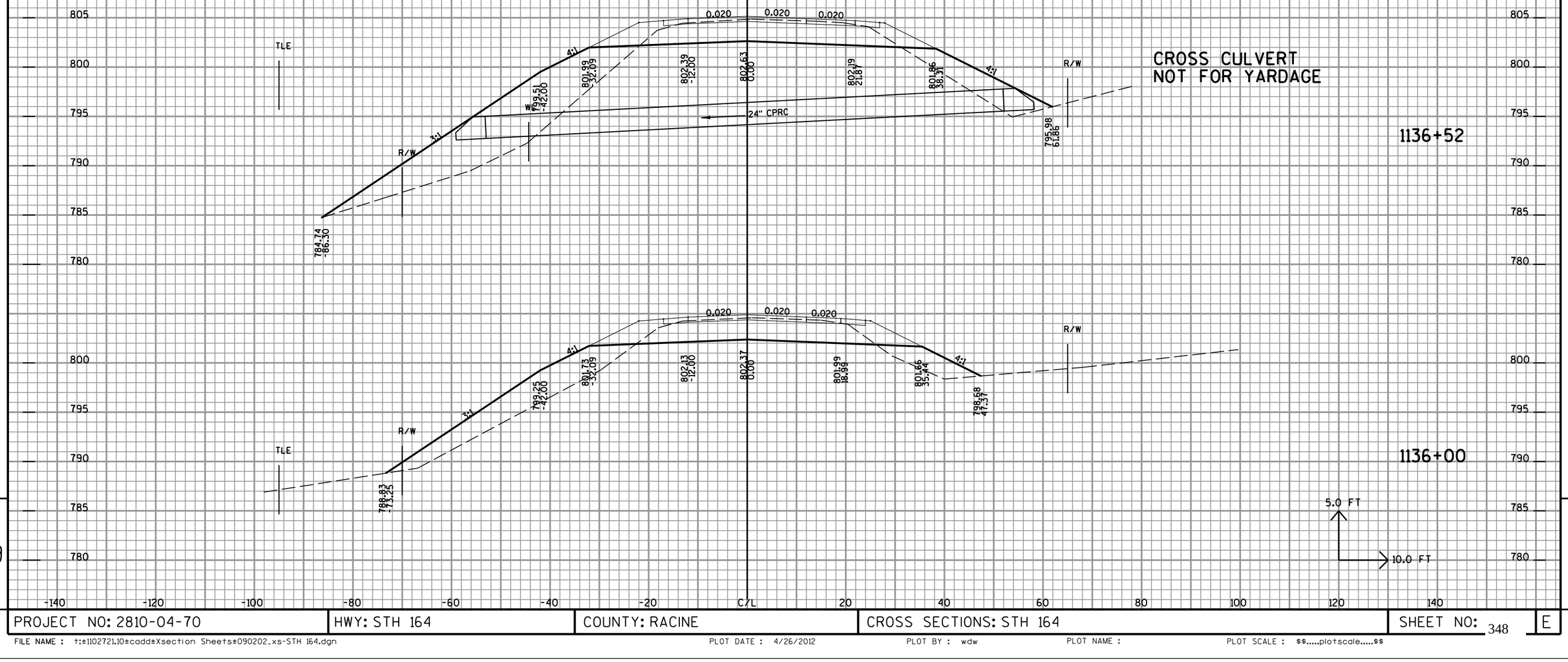
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 347	E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

9

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



CROSS CULVERT
NOT FOR YARDAGE

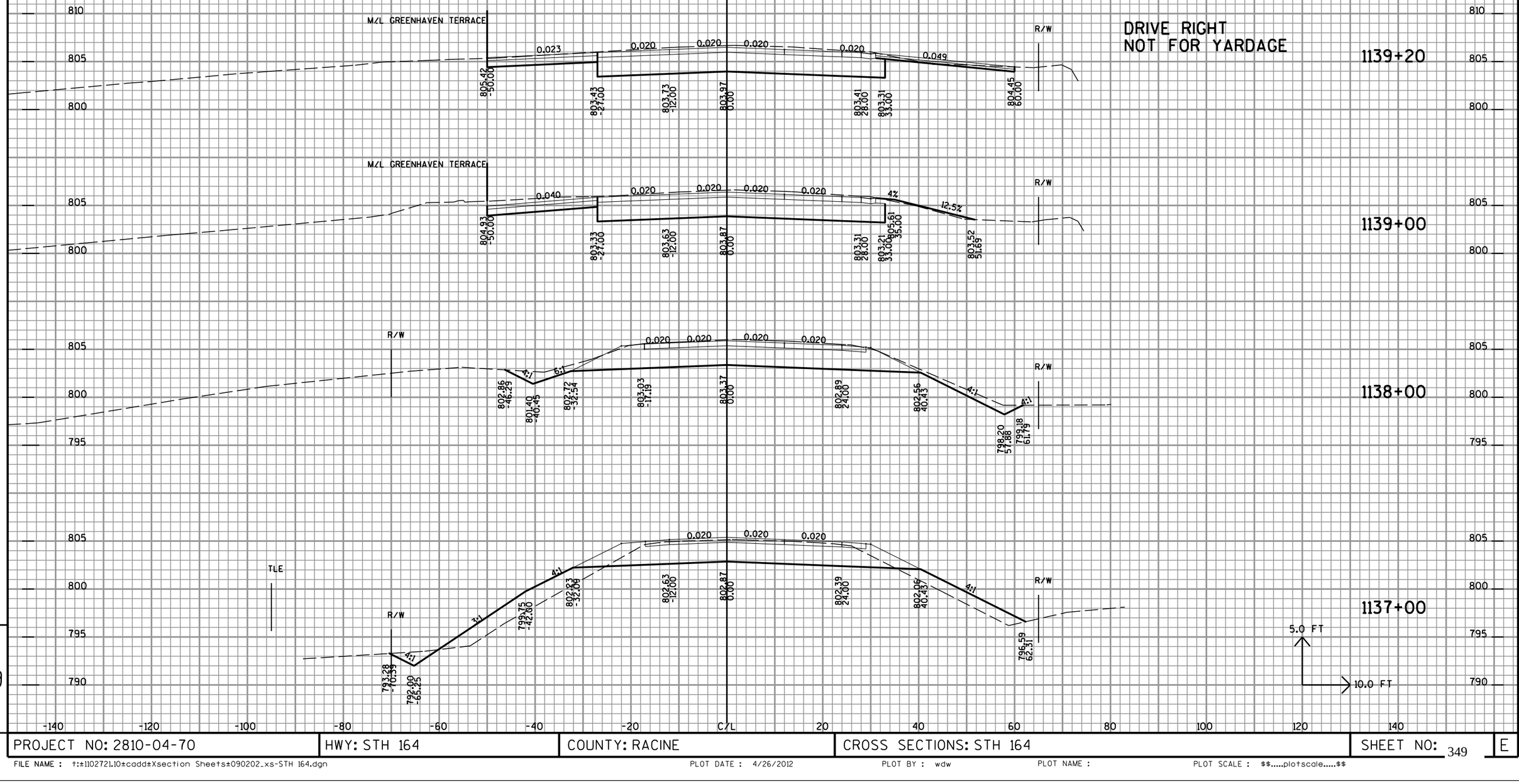
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 348	E

FILE NAME : t:\2102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

GREENHAVEN TERRACE

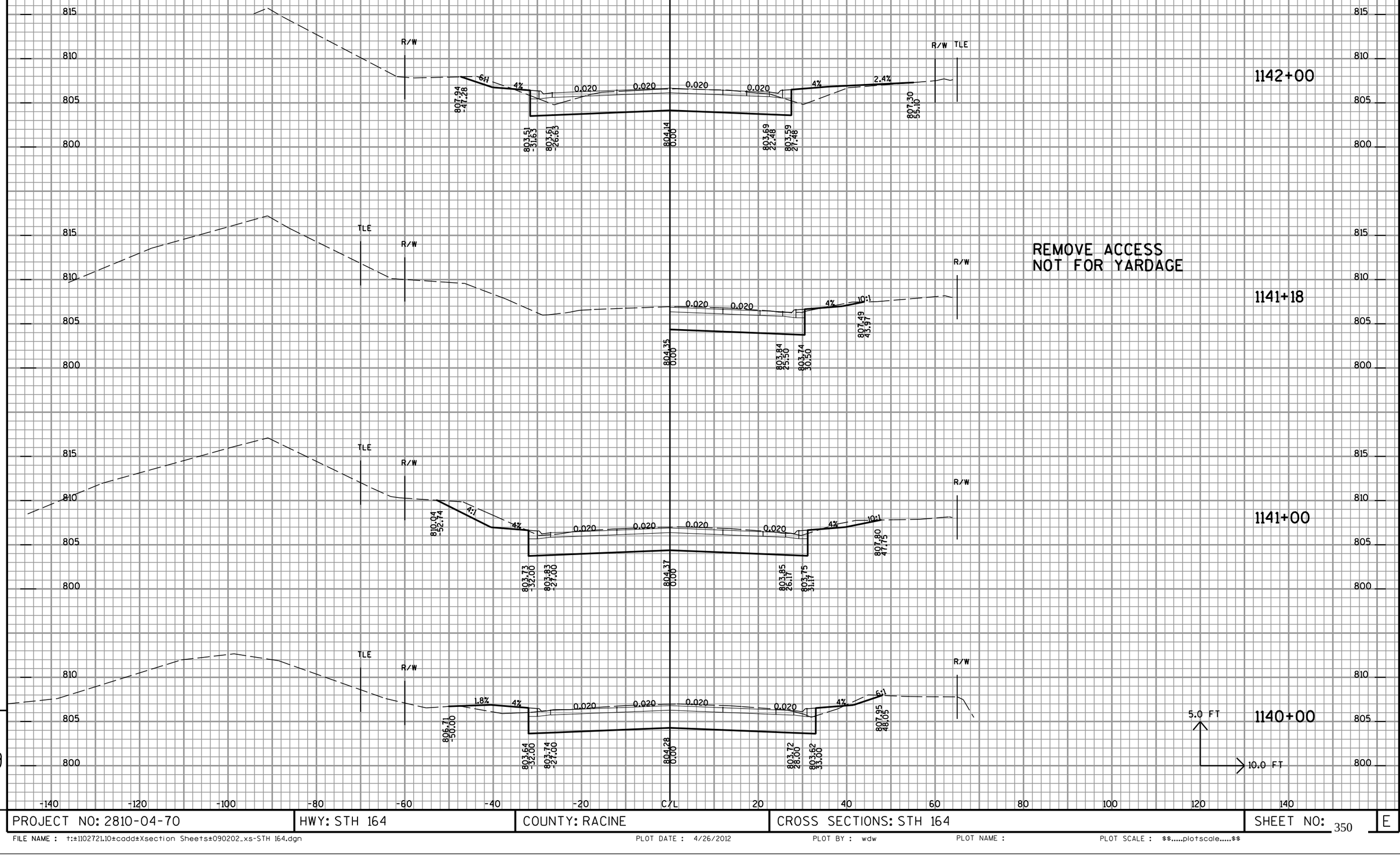


9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 349 E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

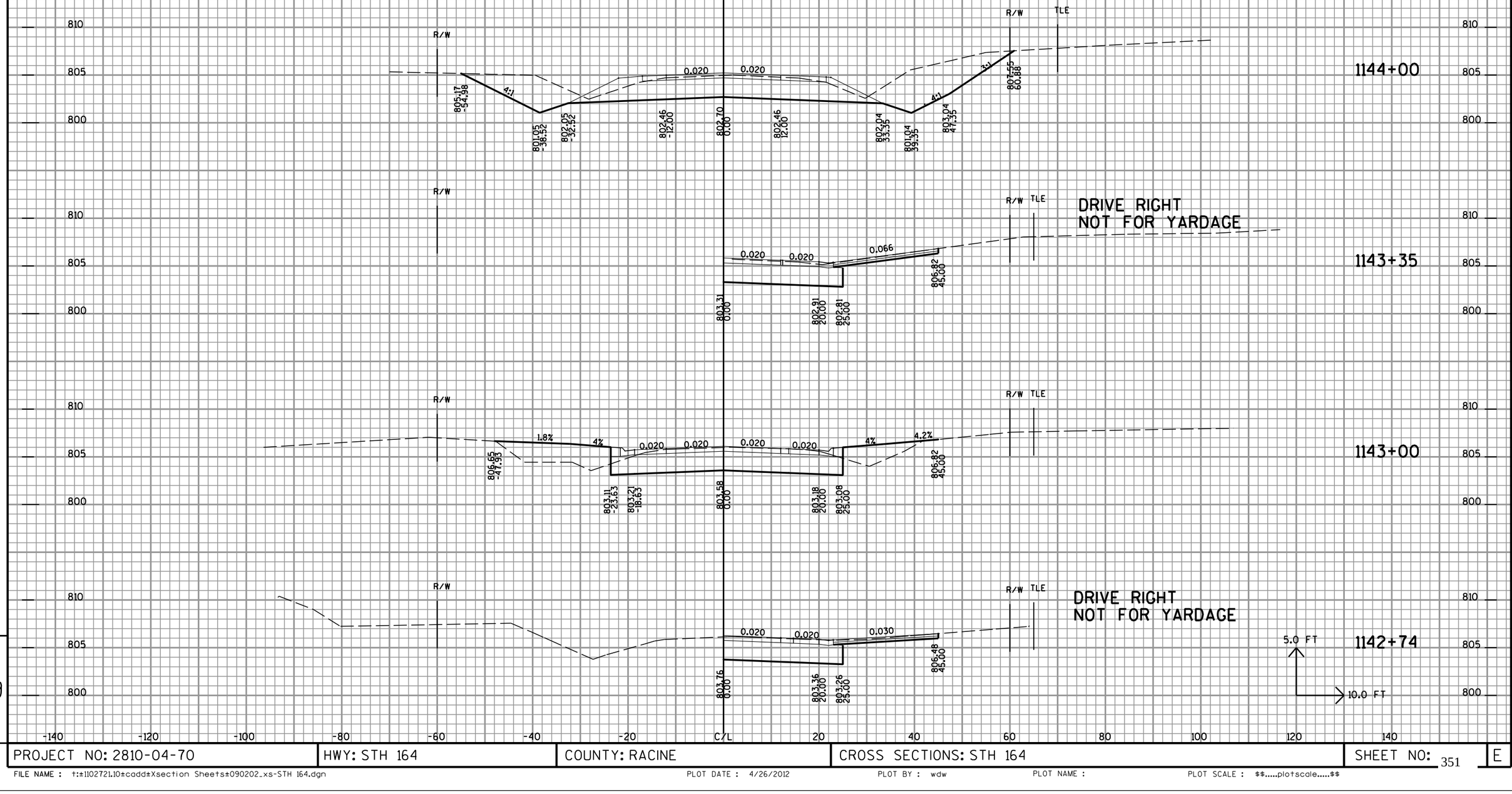


9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 350	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



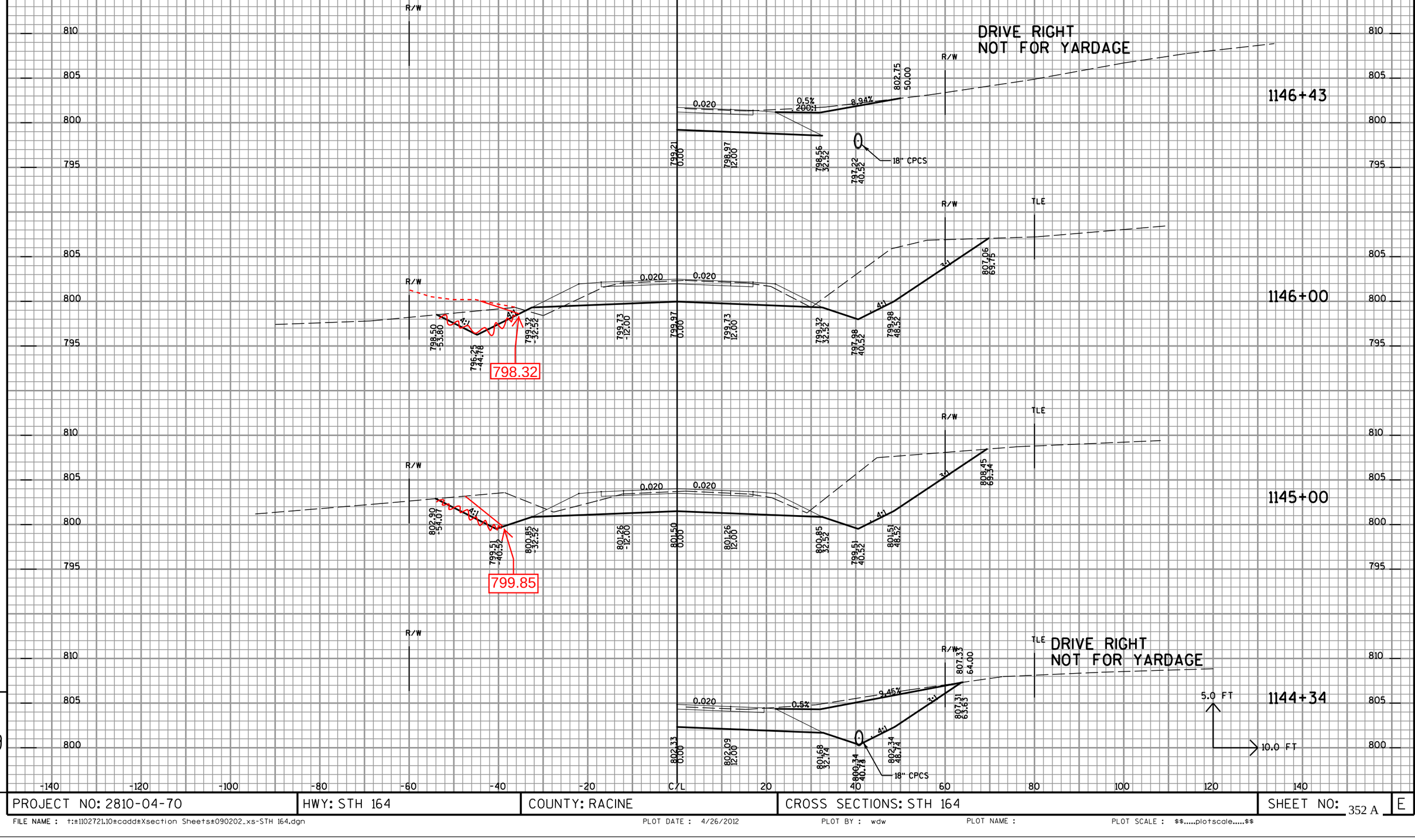
9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 351	E

FILE NAME : t:\2102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



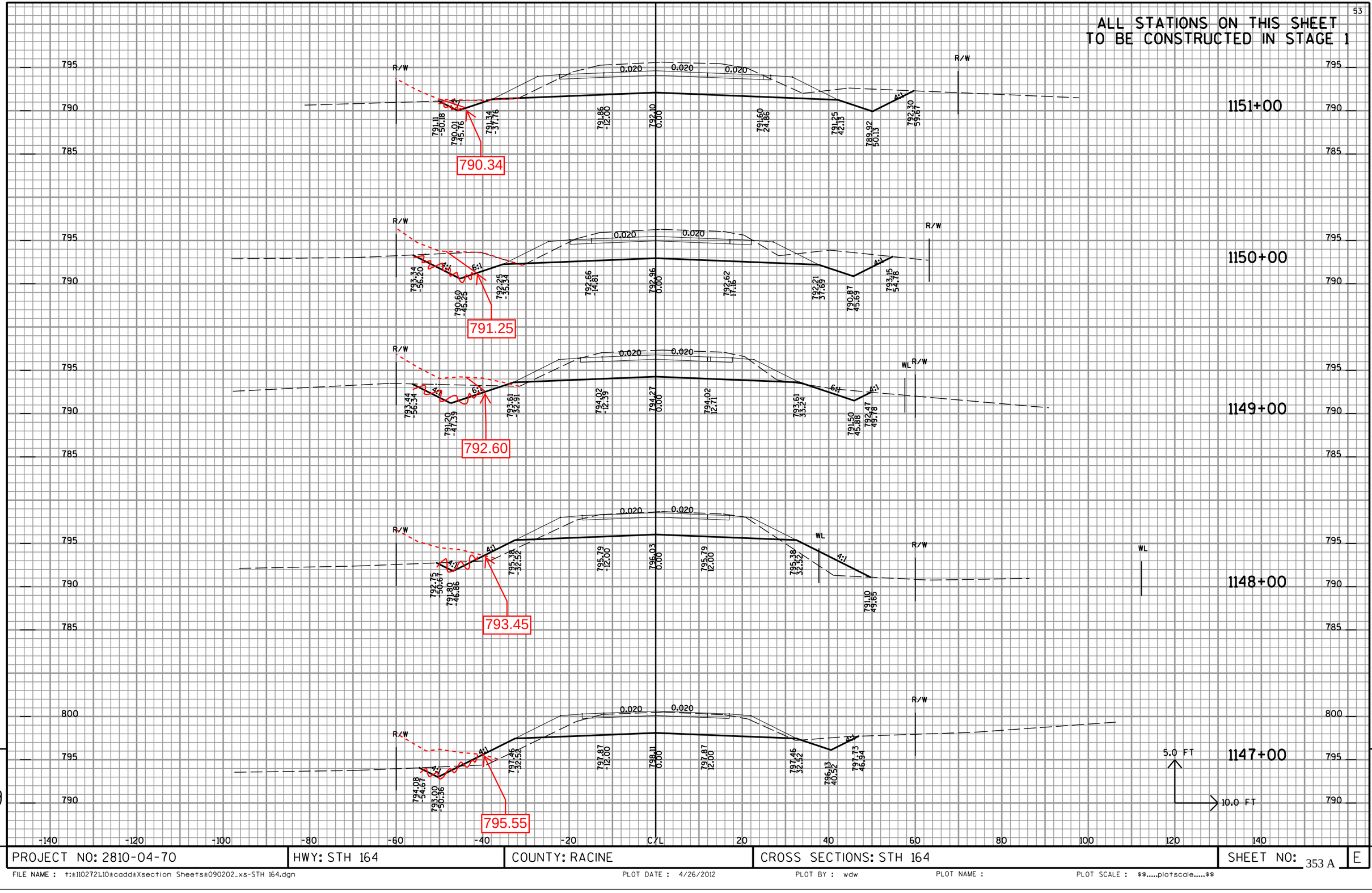
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 352 A	E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

9

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



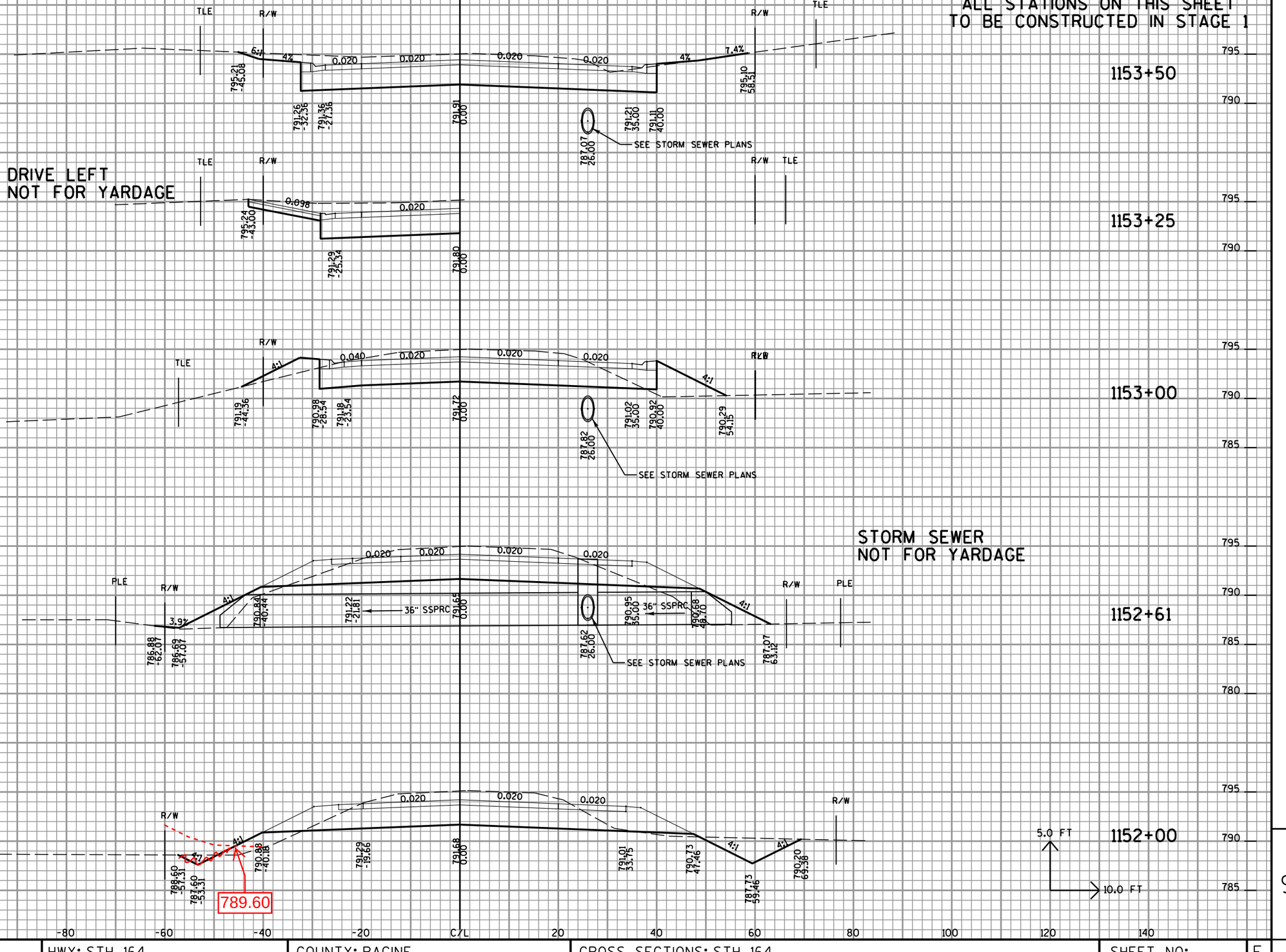
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 353 A	E

FILE NAME : t:\102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

DRIVE LEFT
NOT FOR YARDAGE

STORM SEWER
NOT FOR YARDAGE

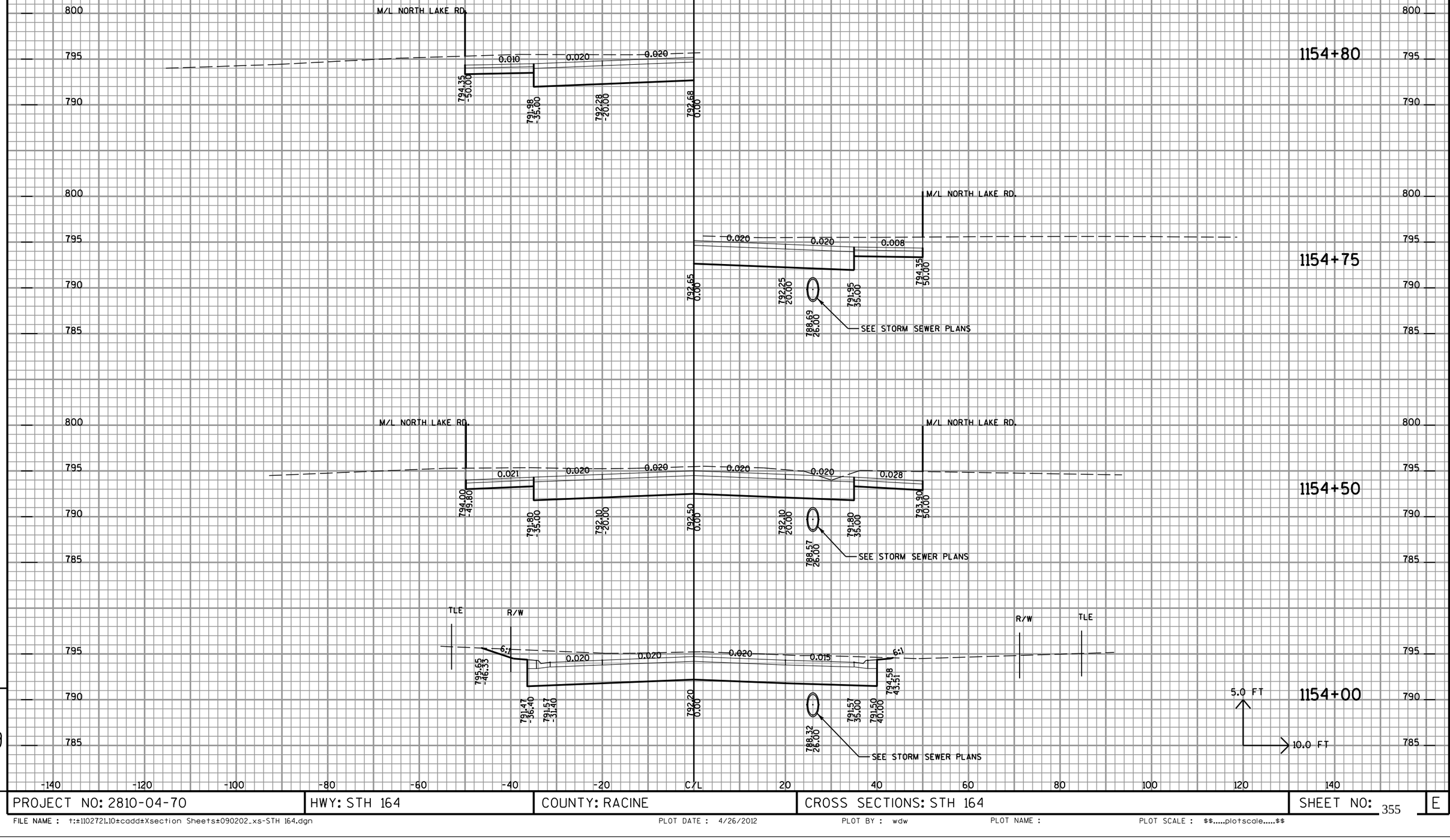


9 9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 354 A	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 355 E

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

CROSS CULVERT

1158+00

R/W
4:1
2%
2%
6:1
0.020
0.020
0.020
24" CPRC
6:1
4:1
R/W
791.42 -111.53
793.31 -105.00
792.31 97.45
791.31 -90.45
791.00 -74.95
791.31 -59.45
793.69 -45.15
793.97 -31.45
794.60 0.00
794.22 18.60
793.81 39.12
791.75 51.50
792.94 56.27
RIPRAP MEDIUM
SPILLWAY EL. = 792.00

1157+00

R/W
4:1
2%
2%
6:1
0.020
0.020
0.020
6:1
6:1
R/W
794.61 -103.51
790.76 -88.12
790.50 -75.20
790.76 -62.27
793.02 -48.76
793.30 -35.00
794.00 0.00
793.53 23.35
793.16 41.56
792.16 47.58
793.99 58.56

STORM SEWER

1156+00

R/W
4:1
2%
0.020
0.020
0.020
0.020
4:1
18" SSPRC
6:1
18" SSPRC
R/W
TLE
4:1
796.78 -102.11
790.36 -76.43
790.00 -58.38
792.42 -48.76
792.70 -35.00
793.40 0.00
792.77 31.22
792.50 44.93
789.32 26.00
SEE STORM SEWER PLANS
790.00 59.91
797.10 88.29

1155+50

TLE
R/W
0.020
0.020
0.020
0.020
10:1
R/W
TLE
795.59 -48.28
792.39 -40.00
792.40 -35.00
793.10 0.00
792.45 32.04
792.35 37.04
796.99 59.11
789.07 28.00
SEE STORM SEWER PLANS

NORTH LAKE DRIVE

1155+00

M/L NORTH LAKE RD.
0.029
0.020
0.020
0.020
0.020
0.018
M/L NORTH LAKE RD.
794.17 -50.20
792.10 -35.00
792.40 -20.00
792.80 0.00
792.40 20.00
792.10 35.00
794.35 50.00
788.82 28.00
SEE STORM SEWER PLANS
5.0 FT
10.0 FT

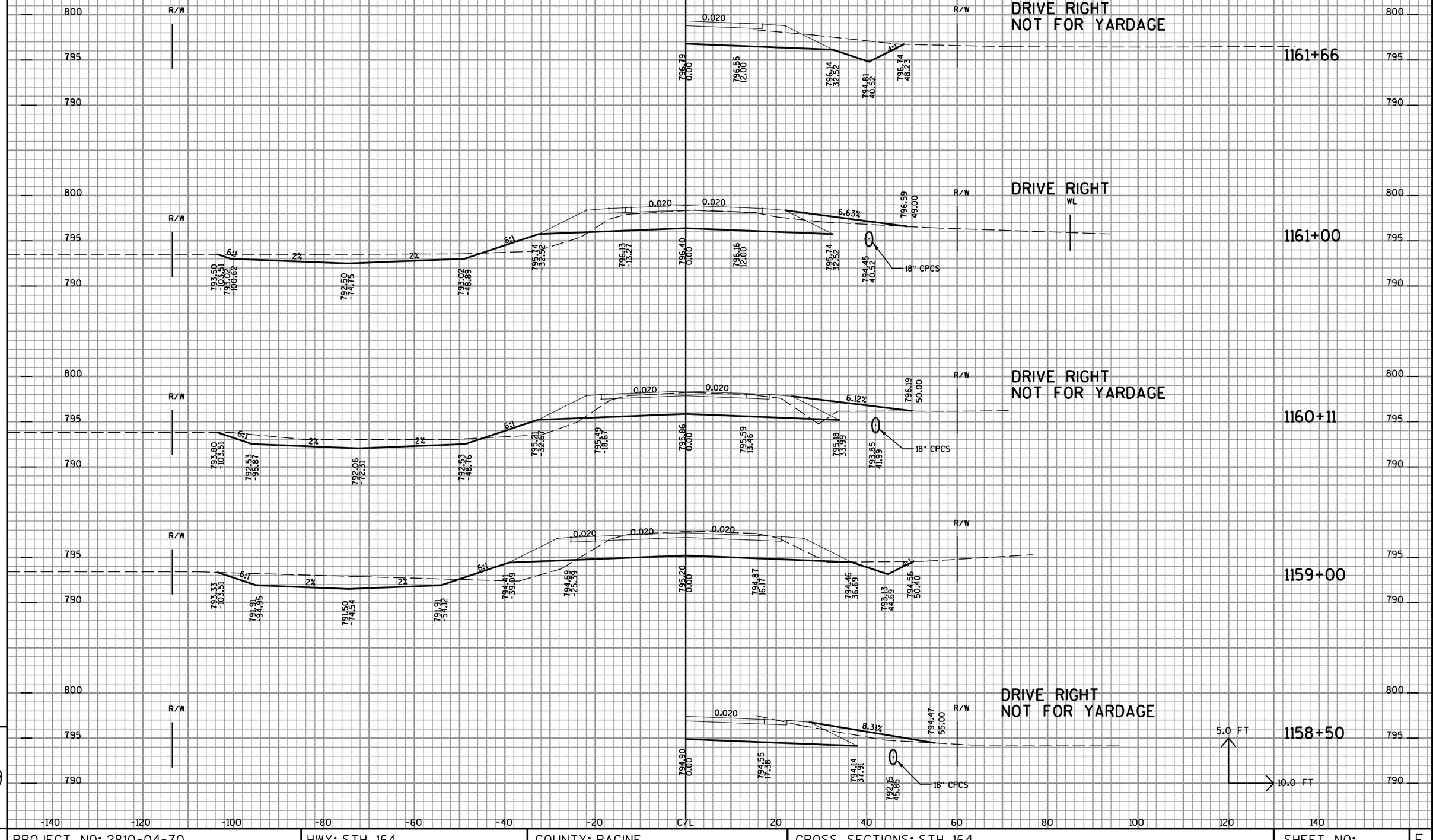
NORTH LAKE DRIVE

795
790
785
-140
-120
-100
-80
-60
-40
-20
C/L
20
40
60
80
100
120
140

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 356	E

FILE NAME : t:\102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn
PLOT DATE : 4/26/2012
PLOT BY : wdw
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 357	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

DRIVE RIGHT
NOT FOR YARDAGE

1163+28

805 / 800 / 795

R/W

0.020

6.77%

798.67
50.00

798.59
0.00

798.35
12.00

797.94
32.52

796.60
40.52

R/W

R/W

R/W

0.020

0.020

6:1

6:1

4:1

797.04
-51.38

795.72
-43.47

797.54
-32.52

797.96
-12.00

798.20
0.00

797.96
12.00

797.54
32.52

796.21
40.52

798.49
49.55

1163+00

800 / 795 / 790

DRIVE LT
NOT FOR YARDAGE

805 / 800 / 795 / 790

R/W

1.3%

0.020

0.020

6.38%

798.38
-108.52

18" CPCS

794.36
-47.58

796.87
-32.52

797.28
-12.00

797.52
0.00

797.28
12.00

796.87
32.52

795.54
40.52

18" CPCS

797.71
50.00

R/W

DRIVE RIGHT
NOT FOR YARDAGE

1162+50

805 / 800 / 795 / 790

STA 1062+00 TO STA 1212+20
TO BE CONSTRUCTED IN STAGE 2

STA 1084+00 TO STA 1162+00
TO BE CONSTRUCTED IN STAGE 1

R/W

0.020

0.020

6:1

6:1

2%

2%

4:1

795.80
-103.51

793.39
-89.02

793.00
-69.72

793.39
-50.42

796.37
-32.52

796.78
-12.00

797.02
0.00

796.78
12.00

796.37
32.52

795.04
40.52

797.19
49.15

DRIVE RIGHT

1162+00

5.0 FT

10.0 FT

800 / 795 / 790

-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

9

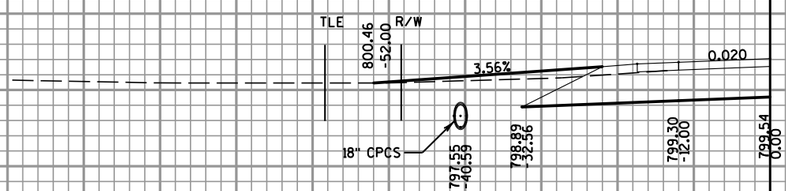
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 358	E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

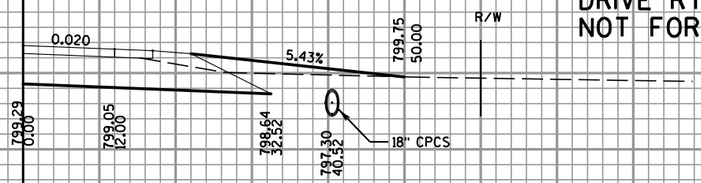
DRIVE LT
NOT FOR YARDAGE



1163+96

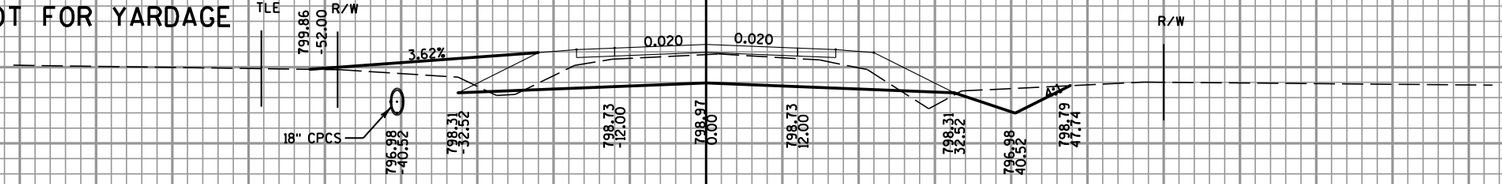
R/W

DRIVE RT
NOT FOR YARDAGE



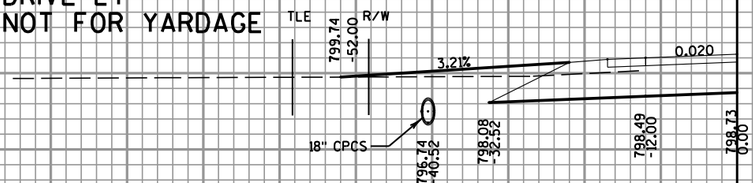
1163+78

DRIVE LT
NOT FOR YARDAGE

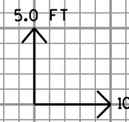


1163+55

DRIVE LT
NOT FOR YARDAGE



1163+38



-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

9 9

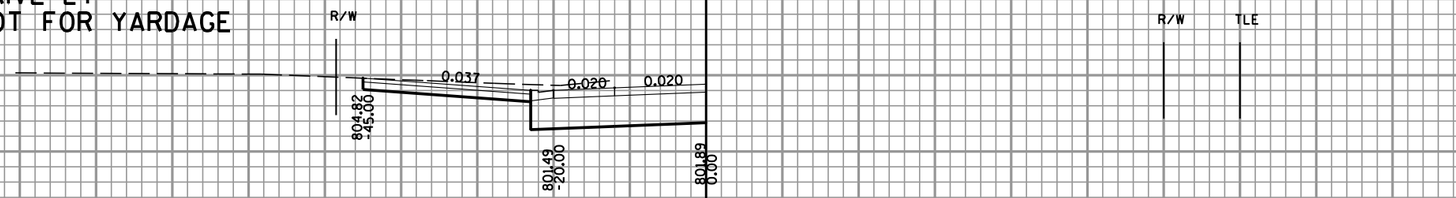
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 359	E

FILE NAME : t:\110272l.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

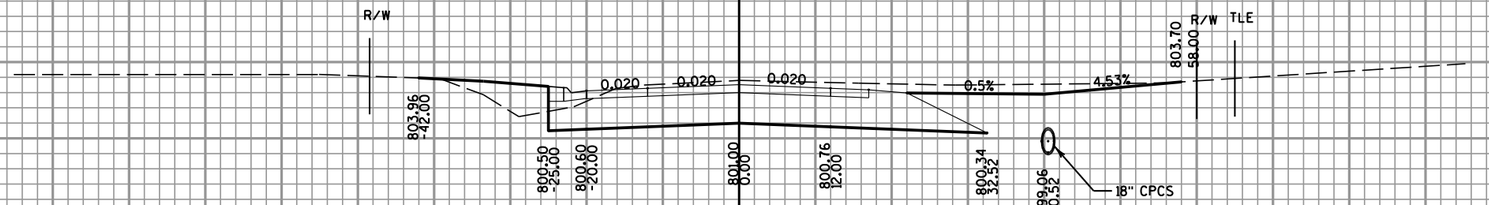
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

1166+00

DRIVE LT
NOT FOR YARDAGE

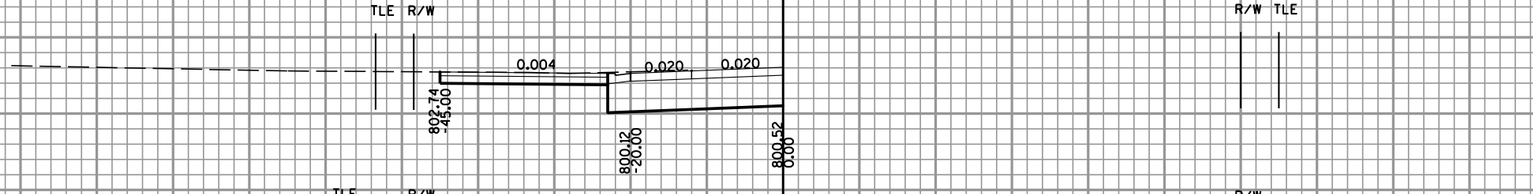


1165+64

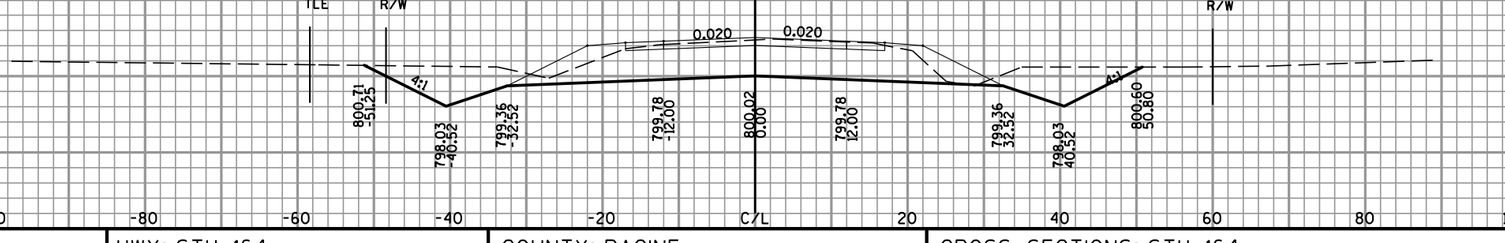


1165+00

DRIVE LT
NOT FOR YARDAGE



1164+66



1164+30

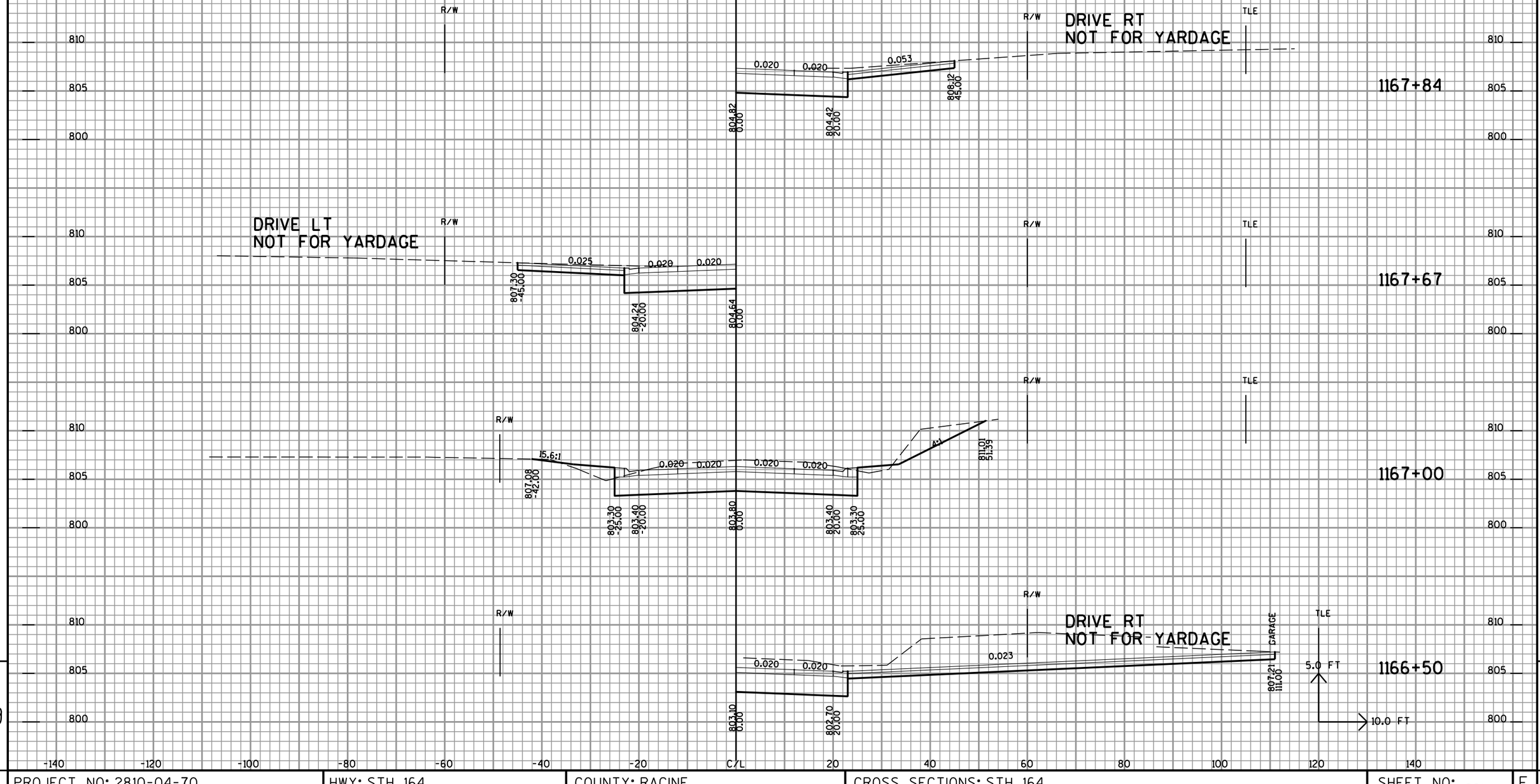
-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

9 9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 360	E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2



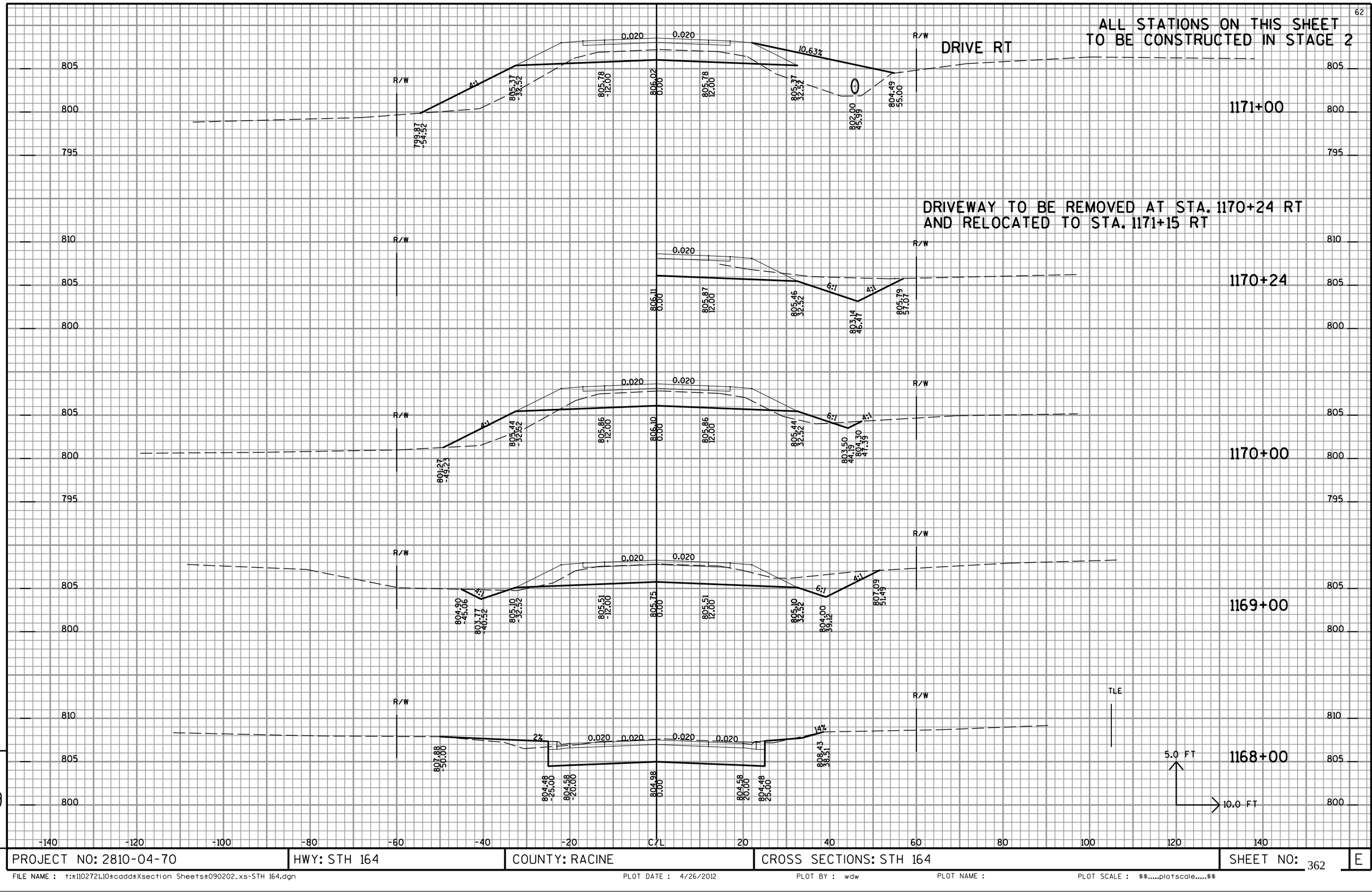
9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 361	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2



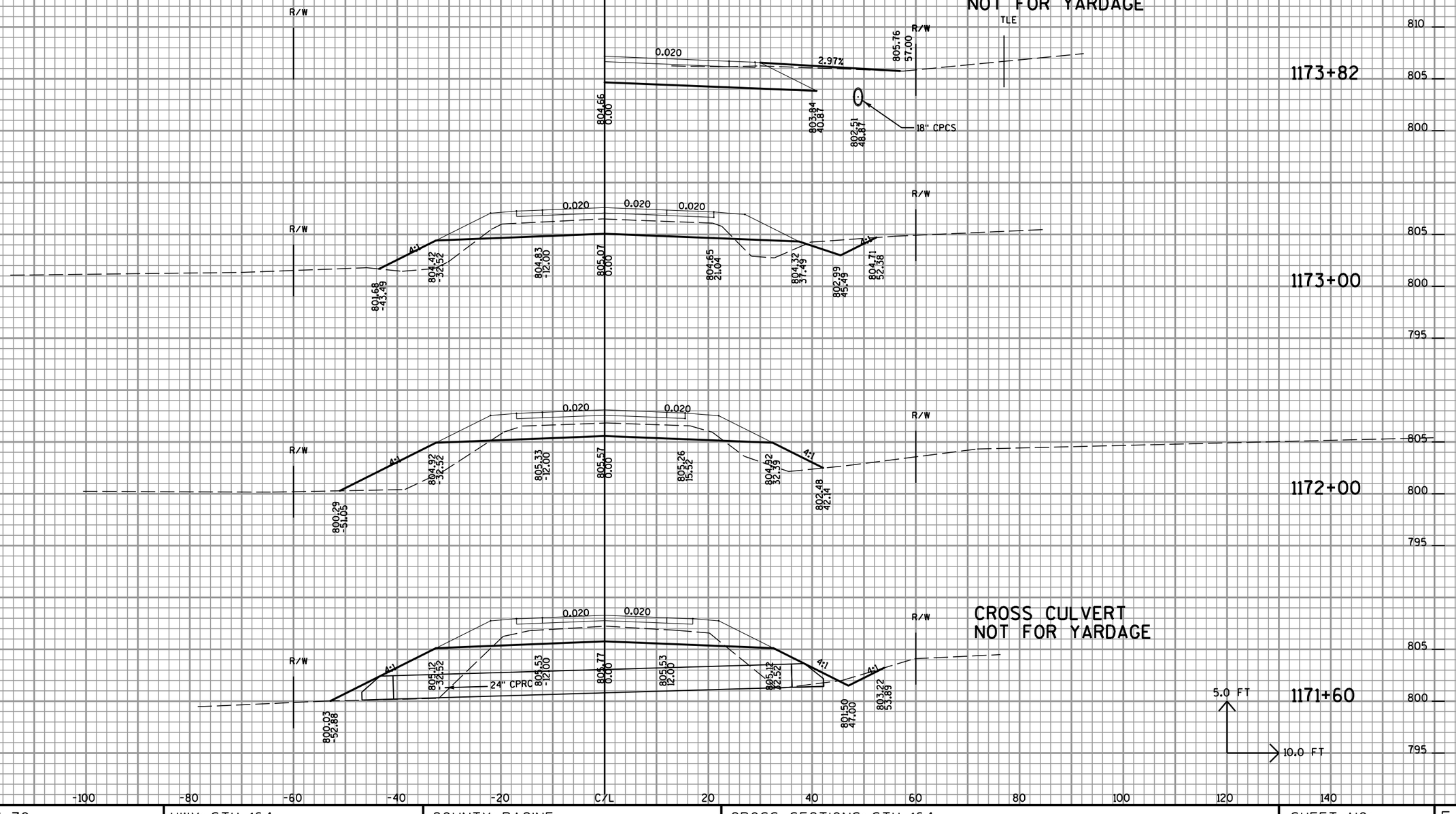
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 362	E

FILE NAME : t:\102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

DRIVE RT
NOT FOR YARDAGE



9

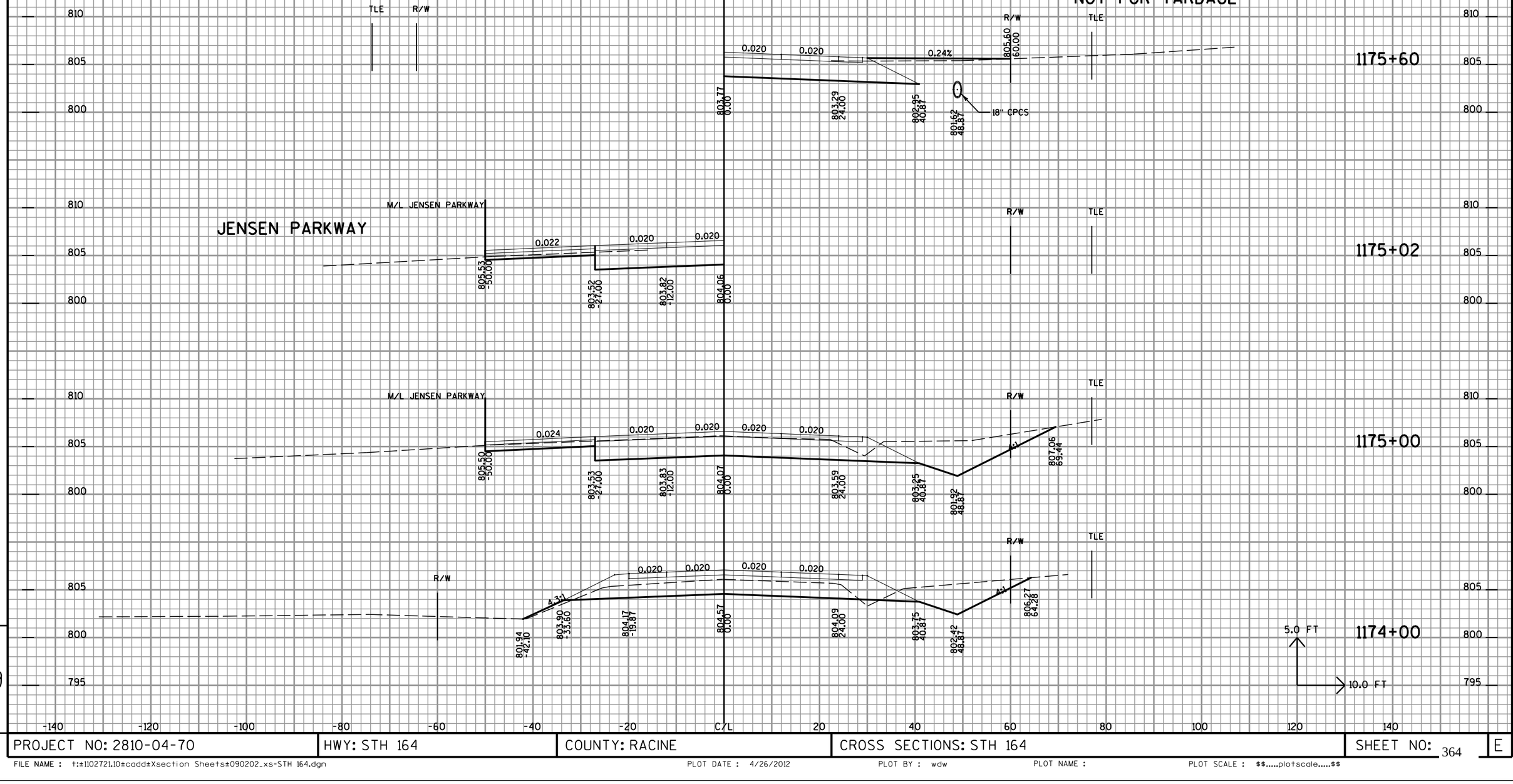
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 363	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

DRIVE RT
NOT FOR YARDAGE

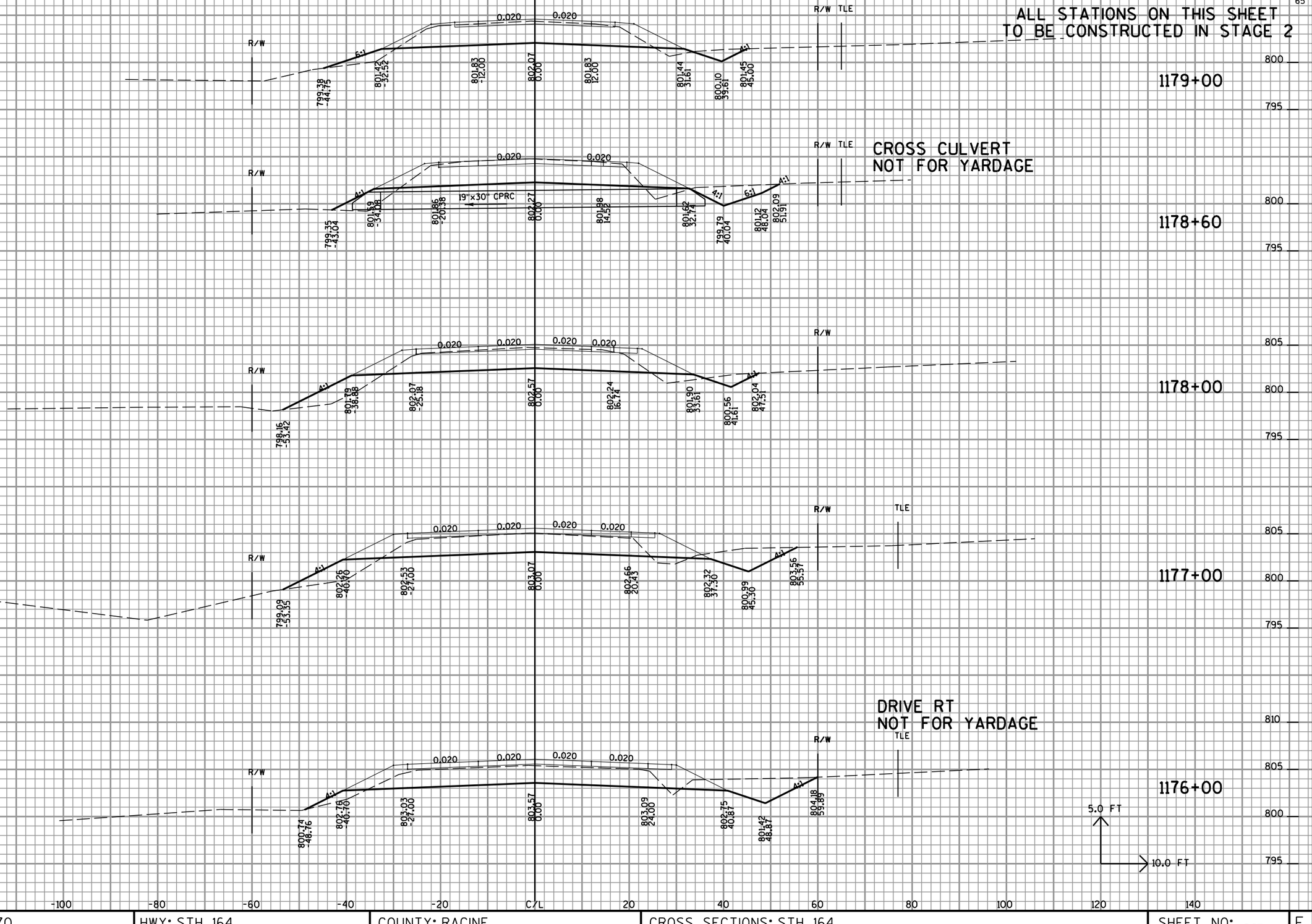


9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 364	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2



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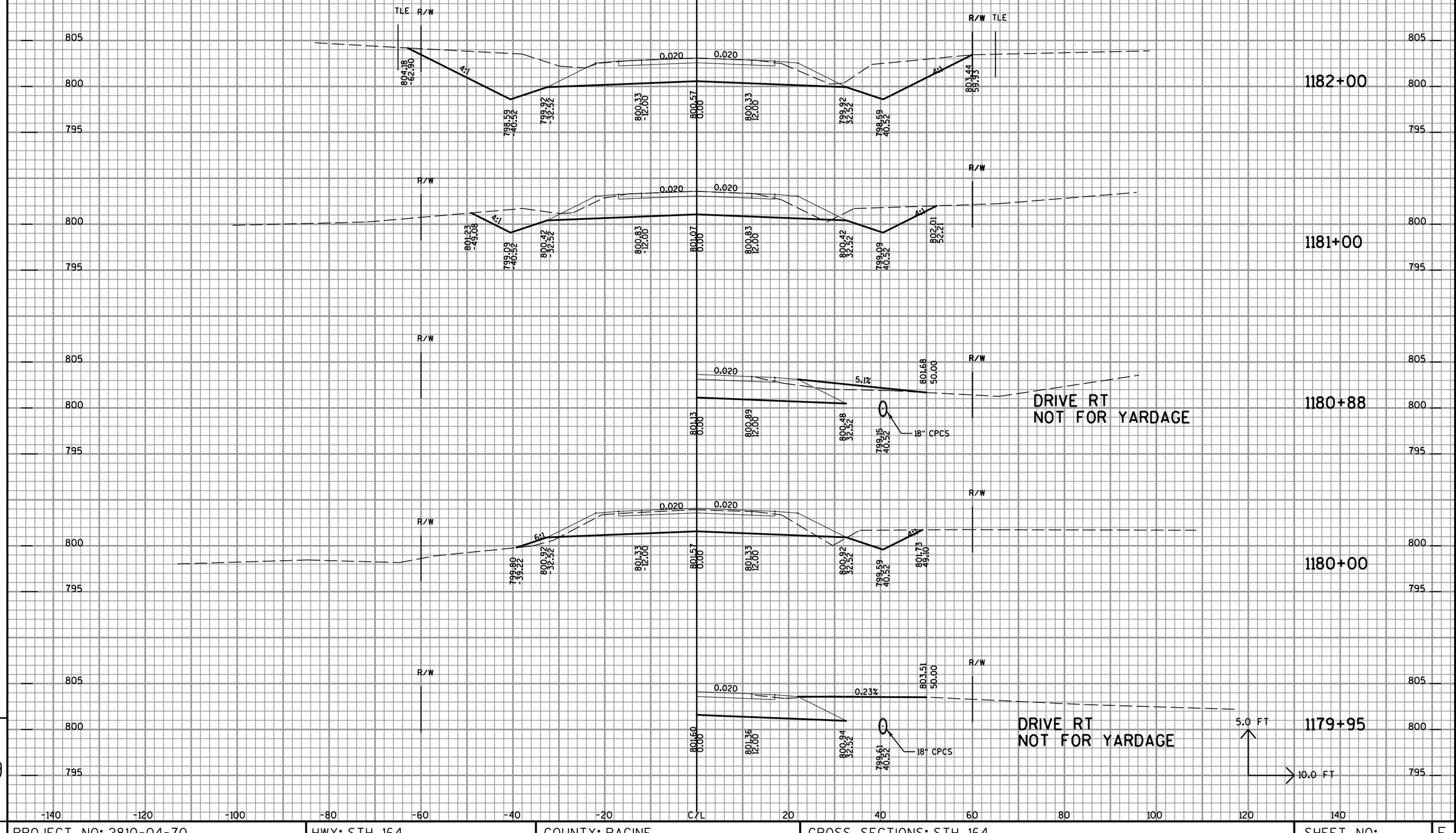
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 365	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2



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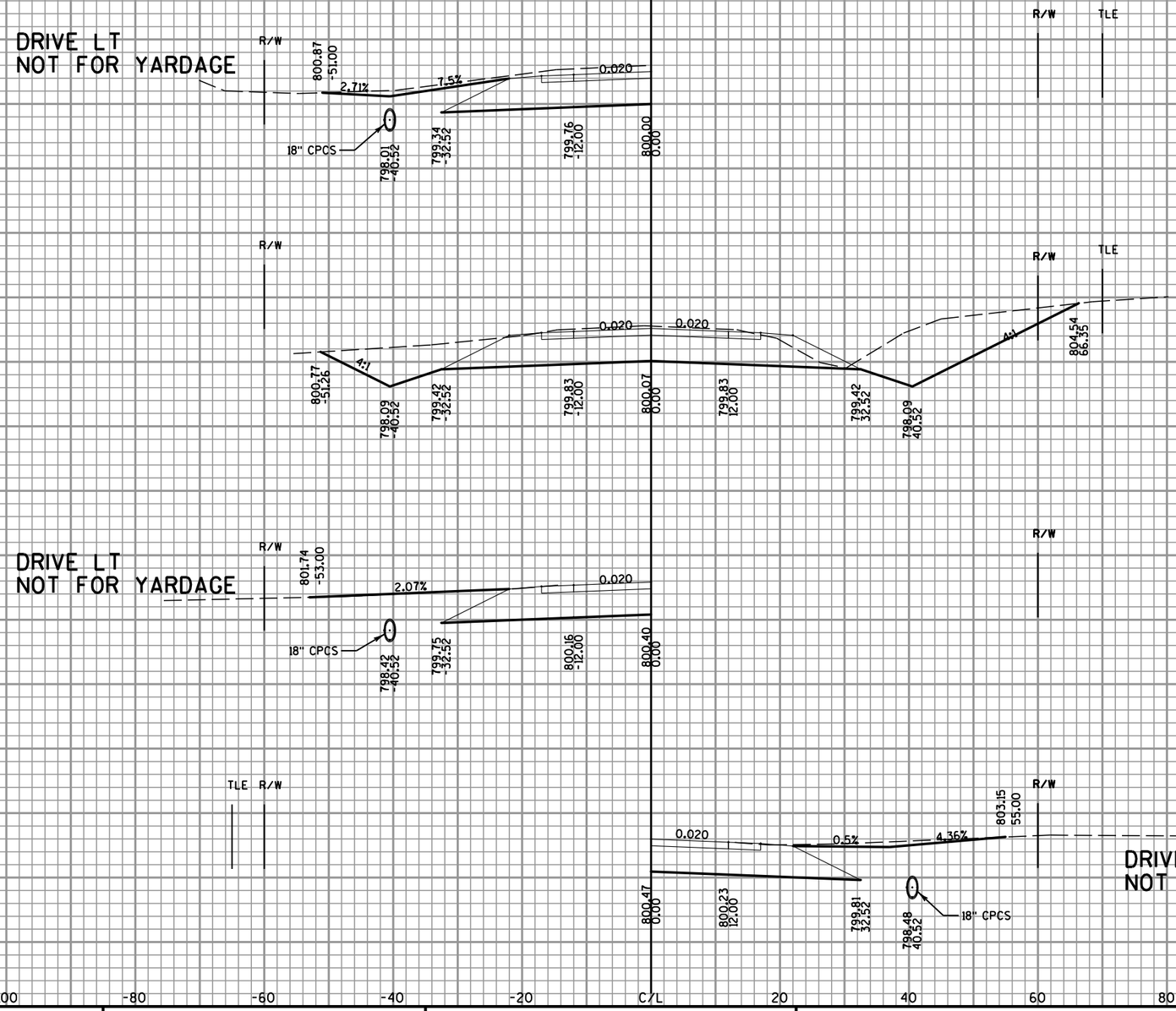
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 366	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

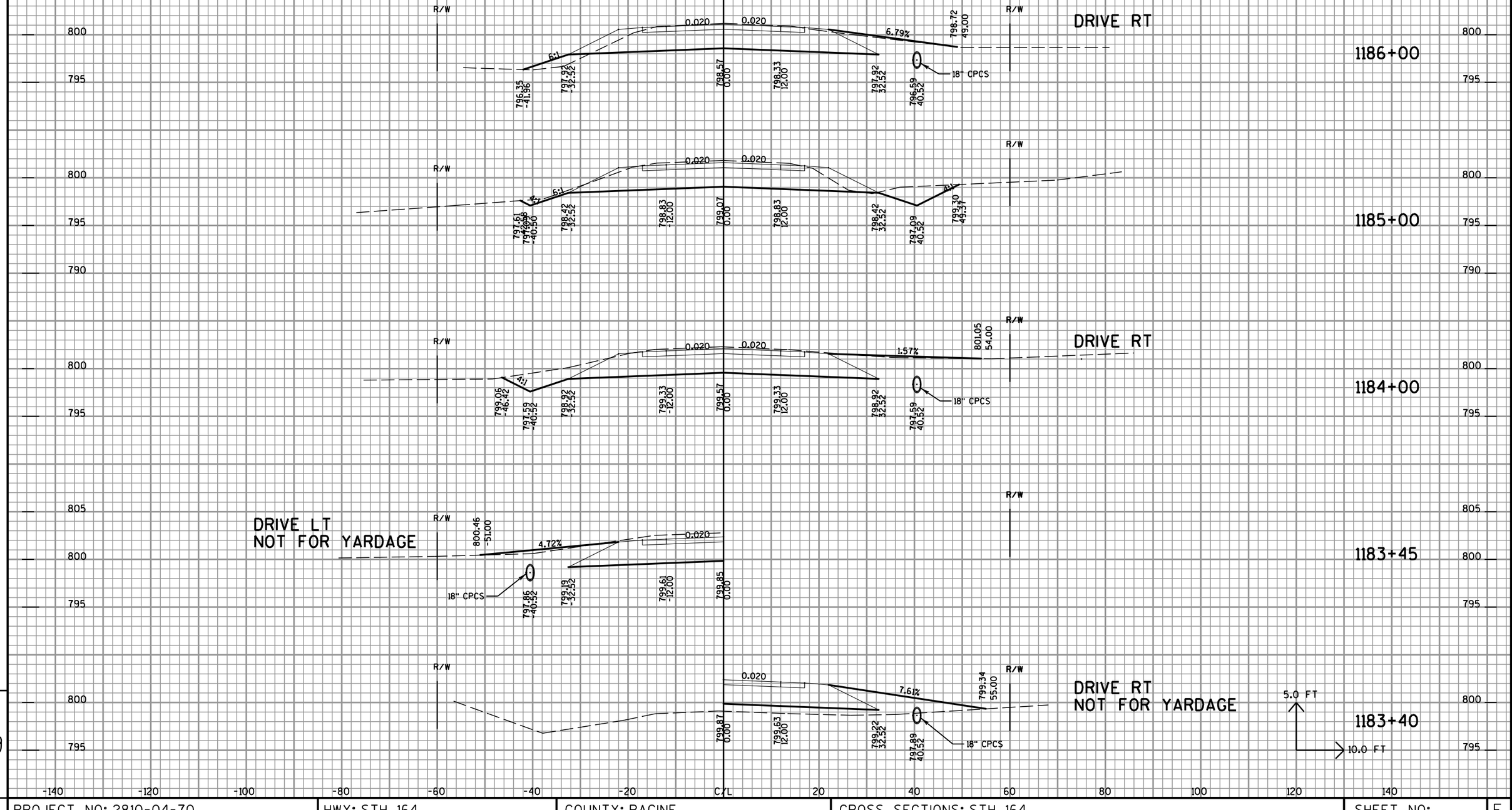


9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 367	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2



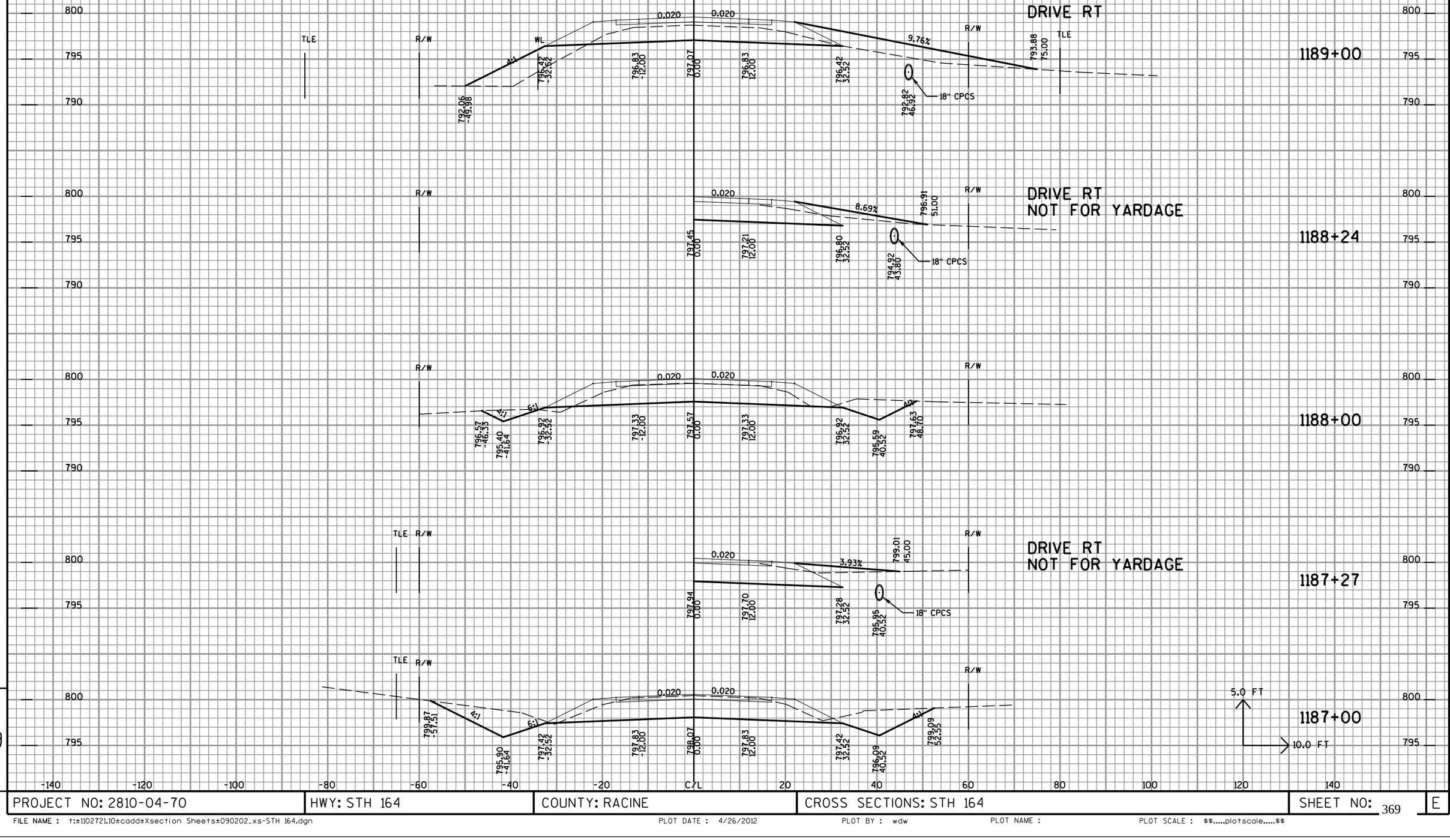
9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 368	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

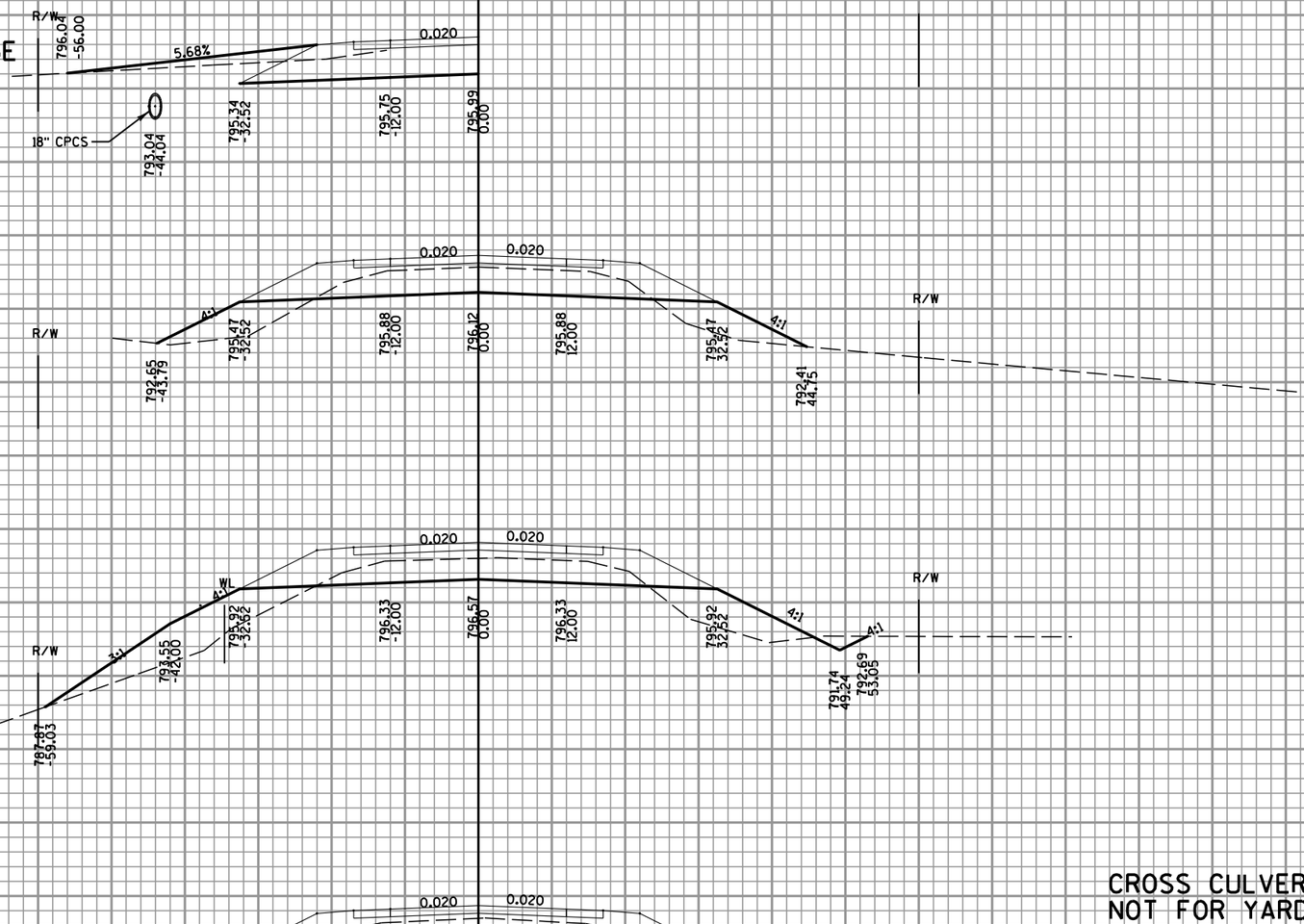


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 369	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

DRIVE LT
NOT FOR YARDAGE

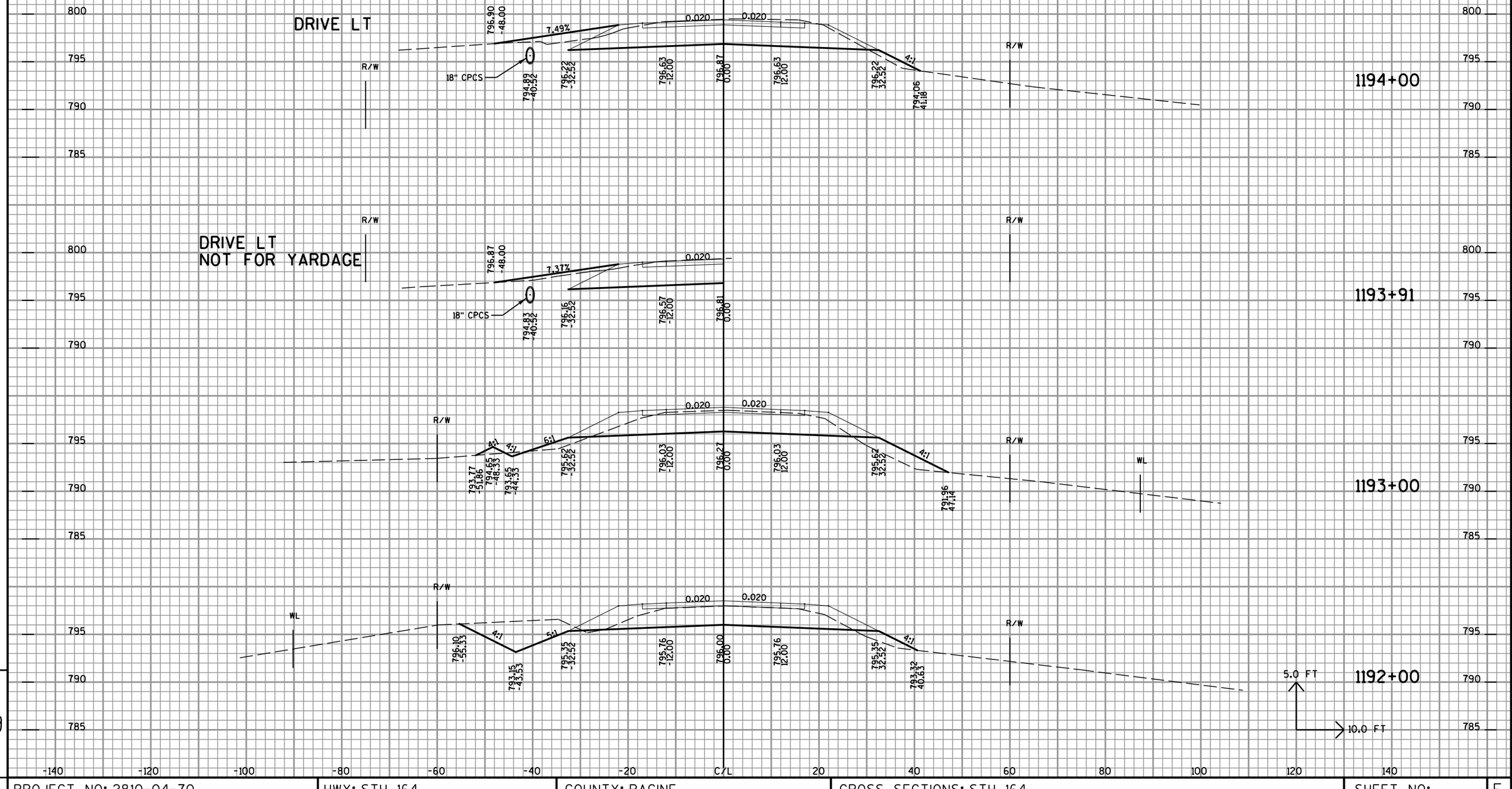


9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 370	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2



9

9

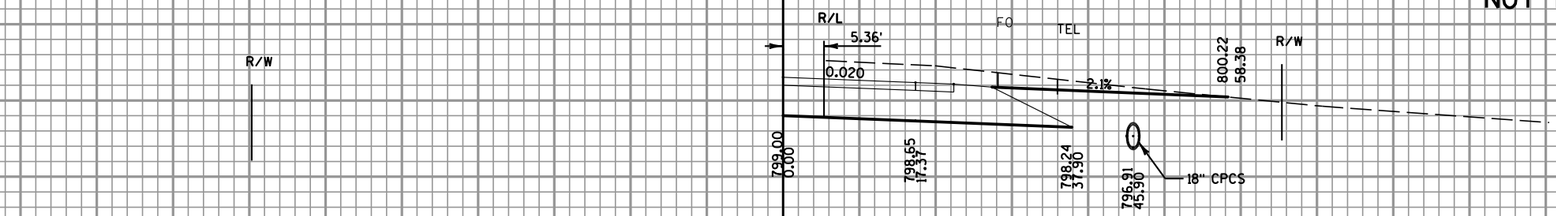
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 371	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090202_xs-STH 164.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

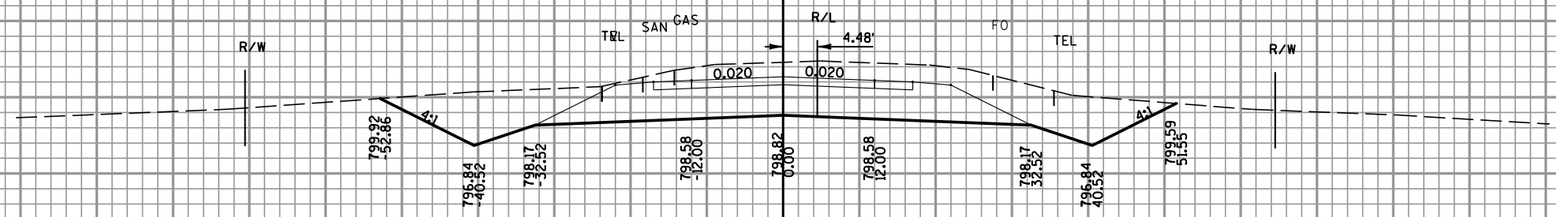
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

DRIVE RT
NOT FOR YARDAGE

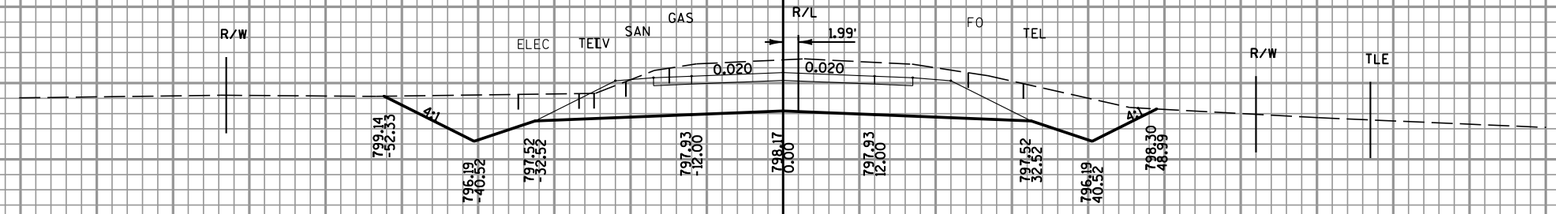
1197+28



1197+00

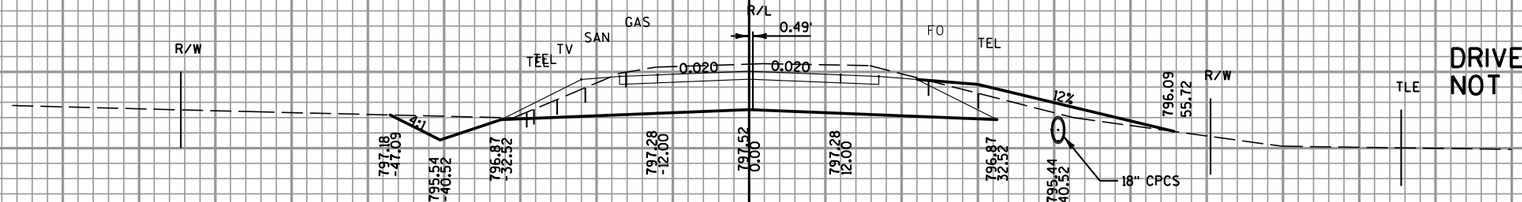


1196+00



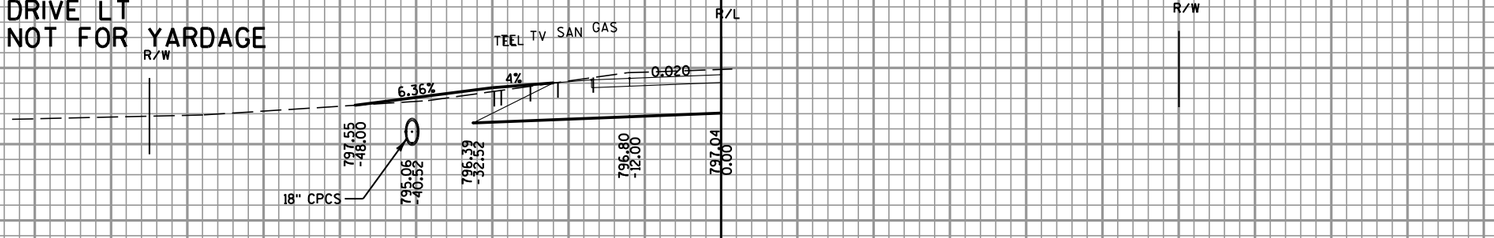
DRIVE RT
NOT FOR YARDAGE

1195+00



DRIVE LT
NOT FOR YARDAGE

1194+26



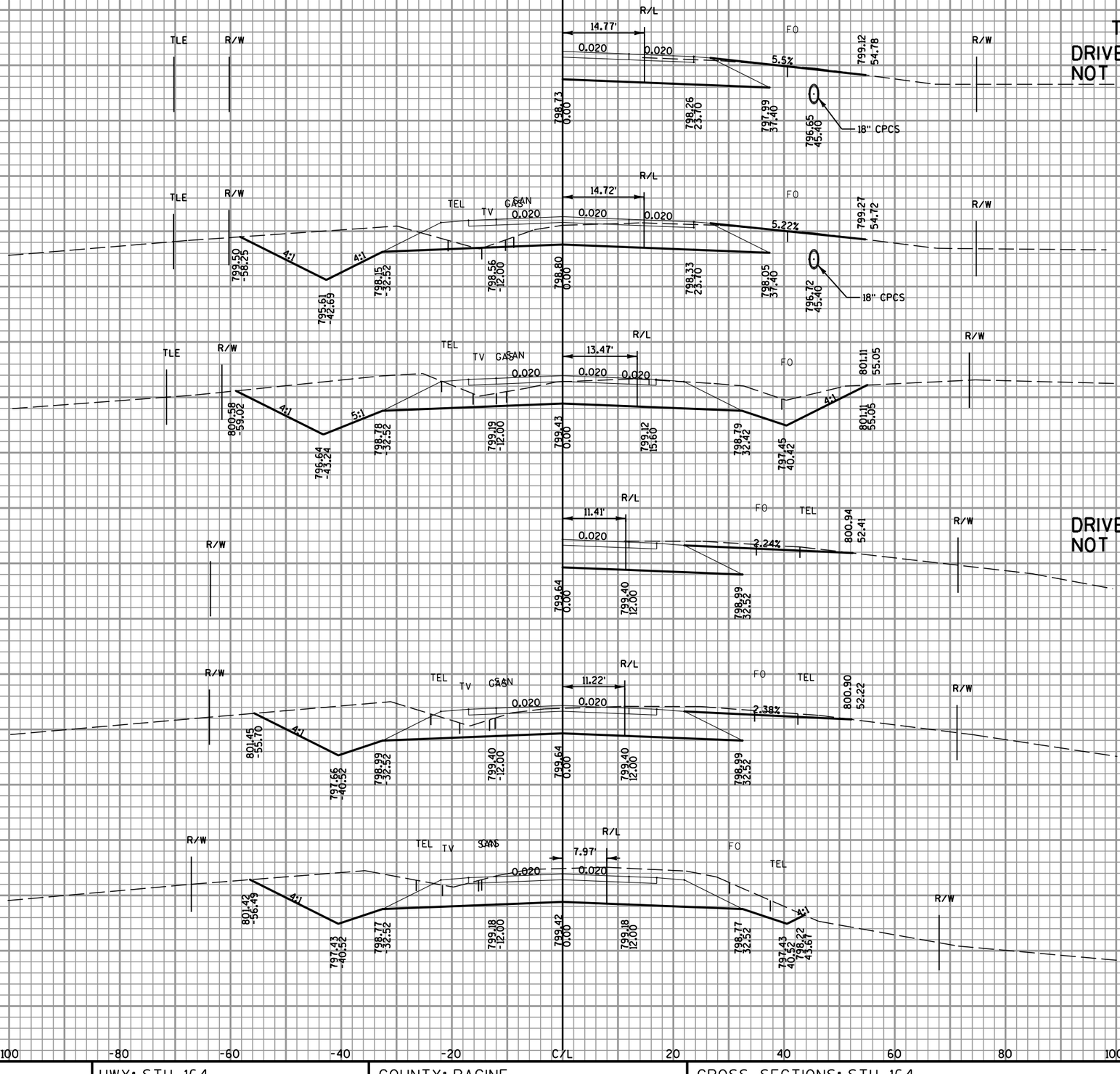
-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 372 E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090203_xs-STH 164_north.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

DRIVE RT
NOT FOR YARDAGE



DRIVE RT
NOT FOR YARDAGE

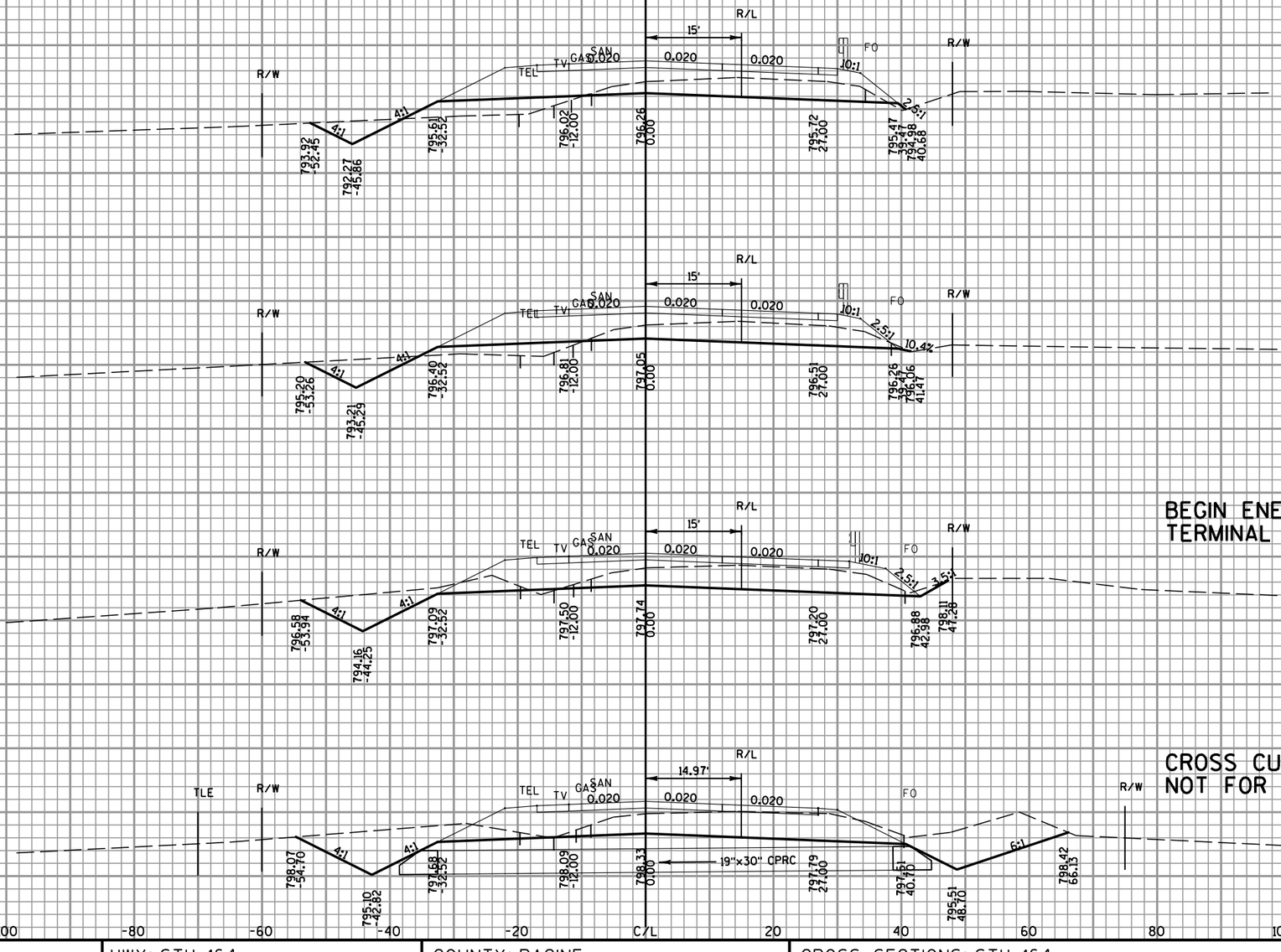
9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 373	E

FILE NAME : t:\s\1102721.10\cadd\Xsection Sheets\090203_xs-STH 164_north.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

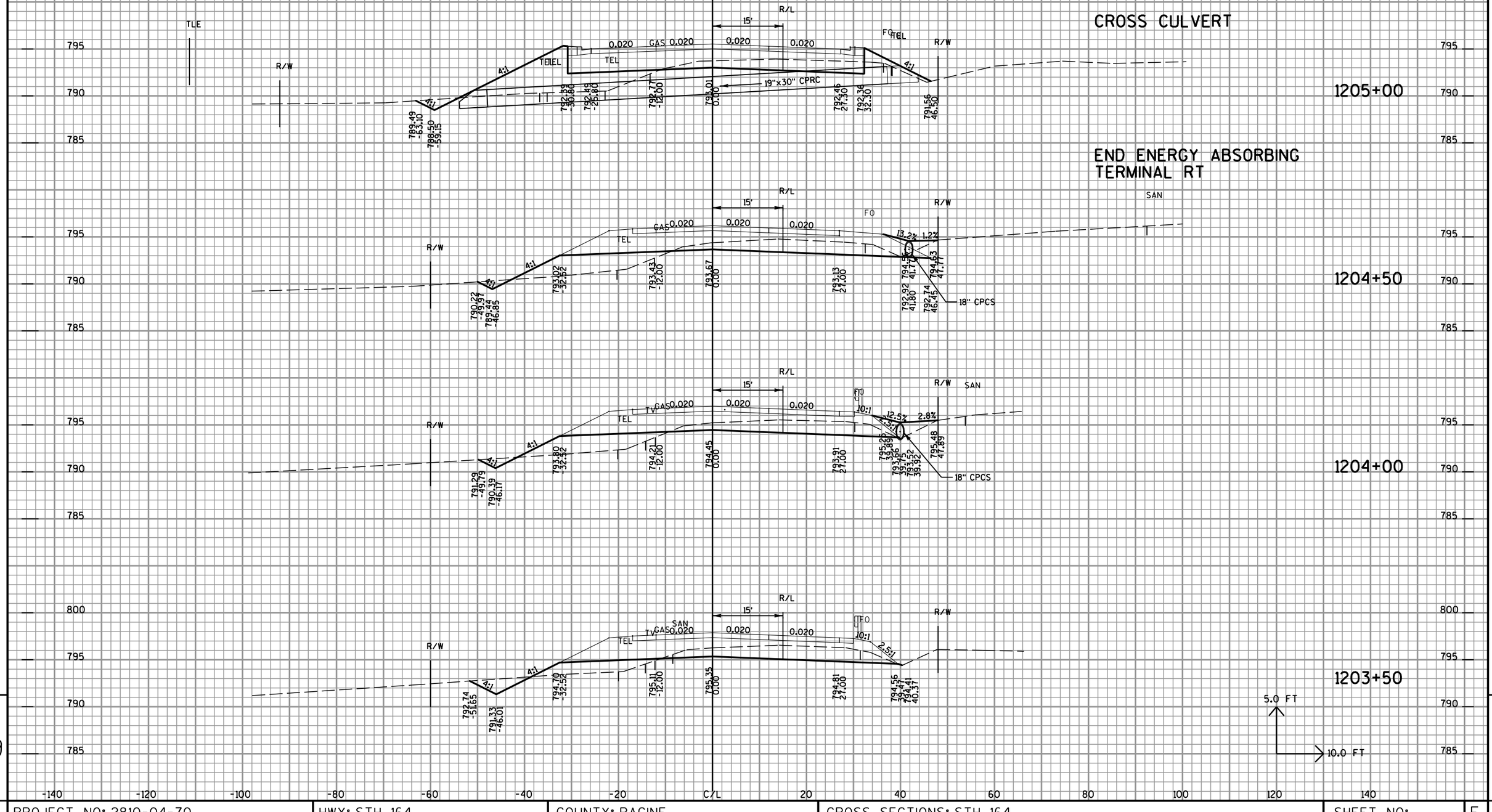


9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 374	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090203_xs-STH 164_north.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

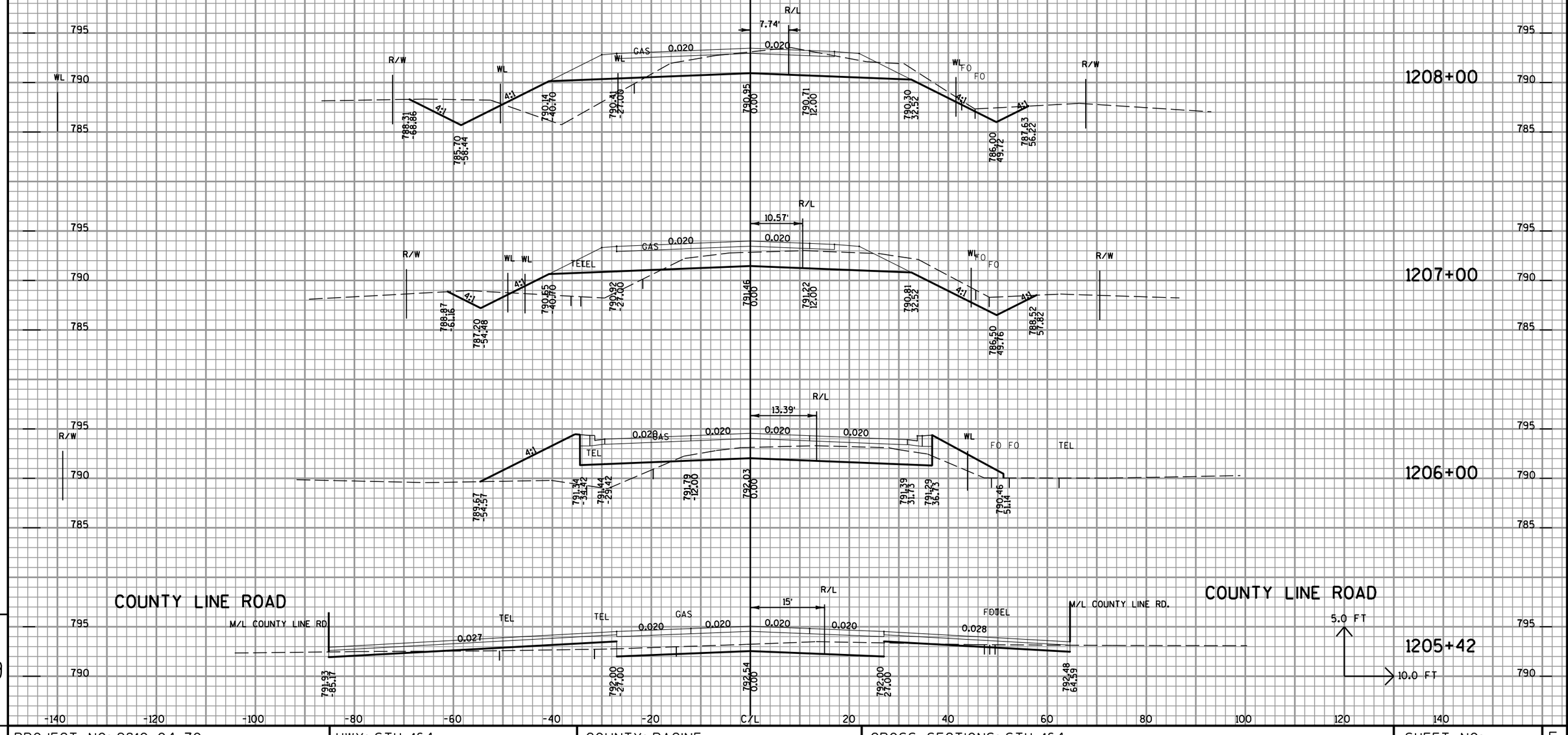
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 375 E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090203_xs-STH 164_north.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

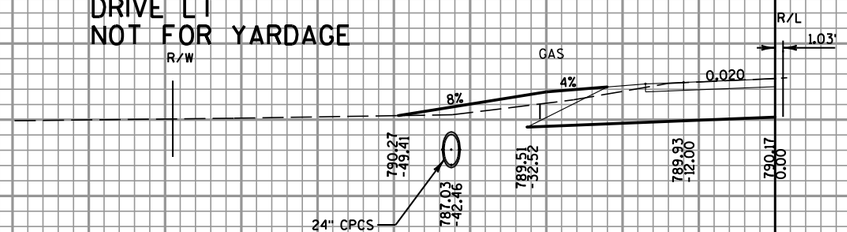
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2



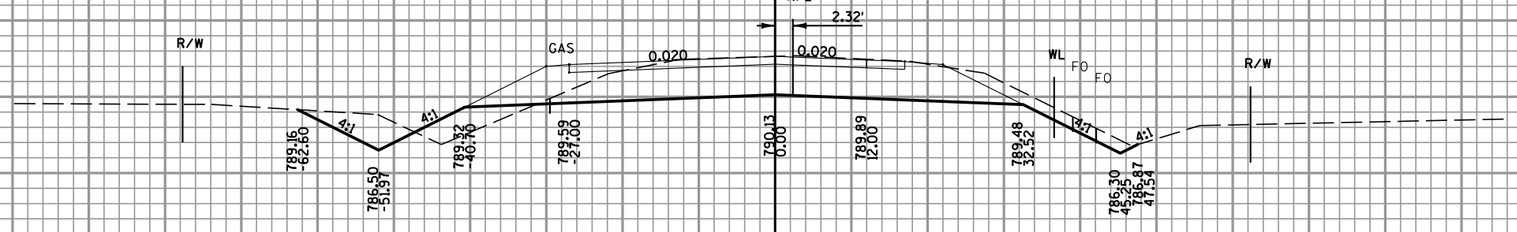
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 376 E

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

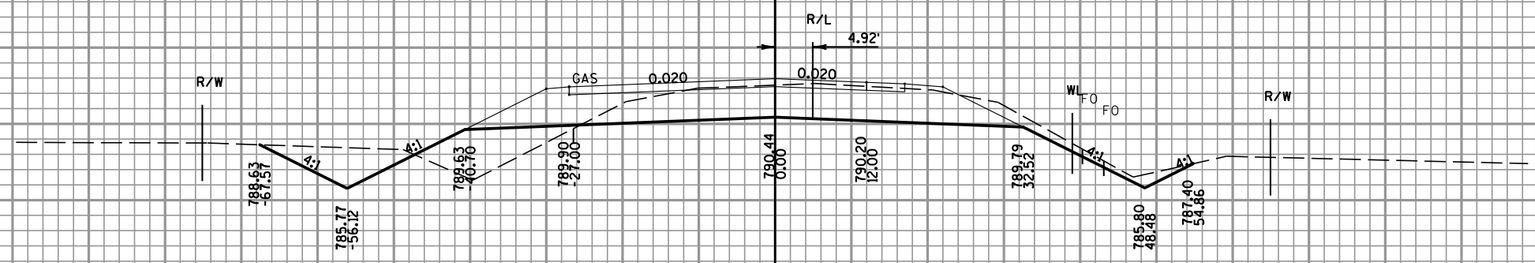
DRIVE LT
NOT FOR YARDAGE



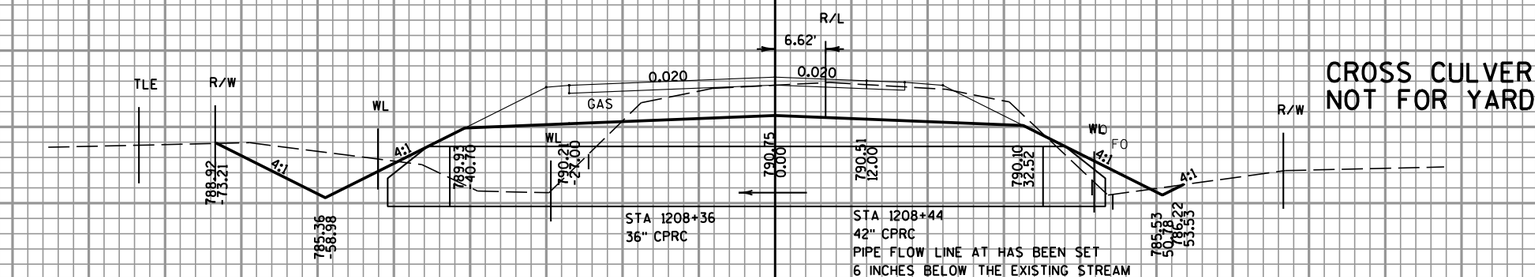
1210+72



1210+00



1209+00



1208+40

CROSS CULVERT
NOT FOR YARDAGE

STA 1208+36
36" CPRC

STA 1208+44
42" CPRC
PIPE FLOW LINE AT HAS BEEN SET
6 INCHES BELOW THE EXISTING STREAM
FLOWLINE AS REQUESTED BY WDNR.

5.0 FT
10.0 FT

-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

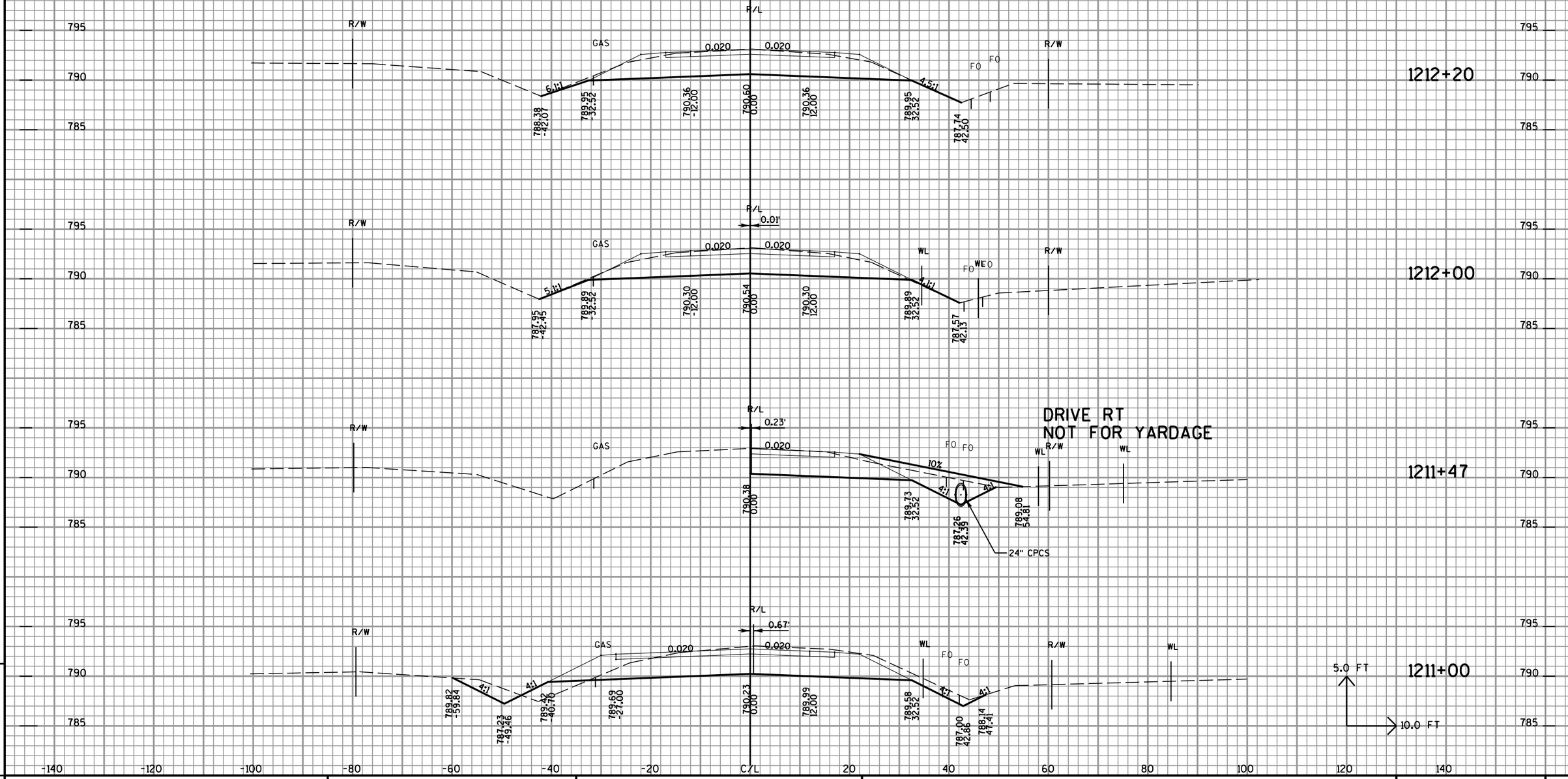
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 377	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090203_xs-STH 164_north.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

END PROJECT



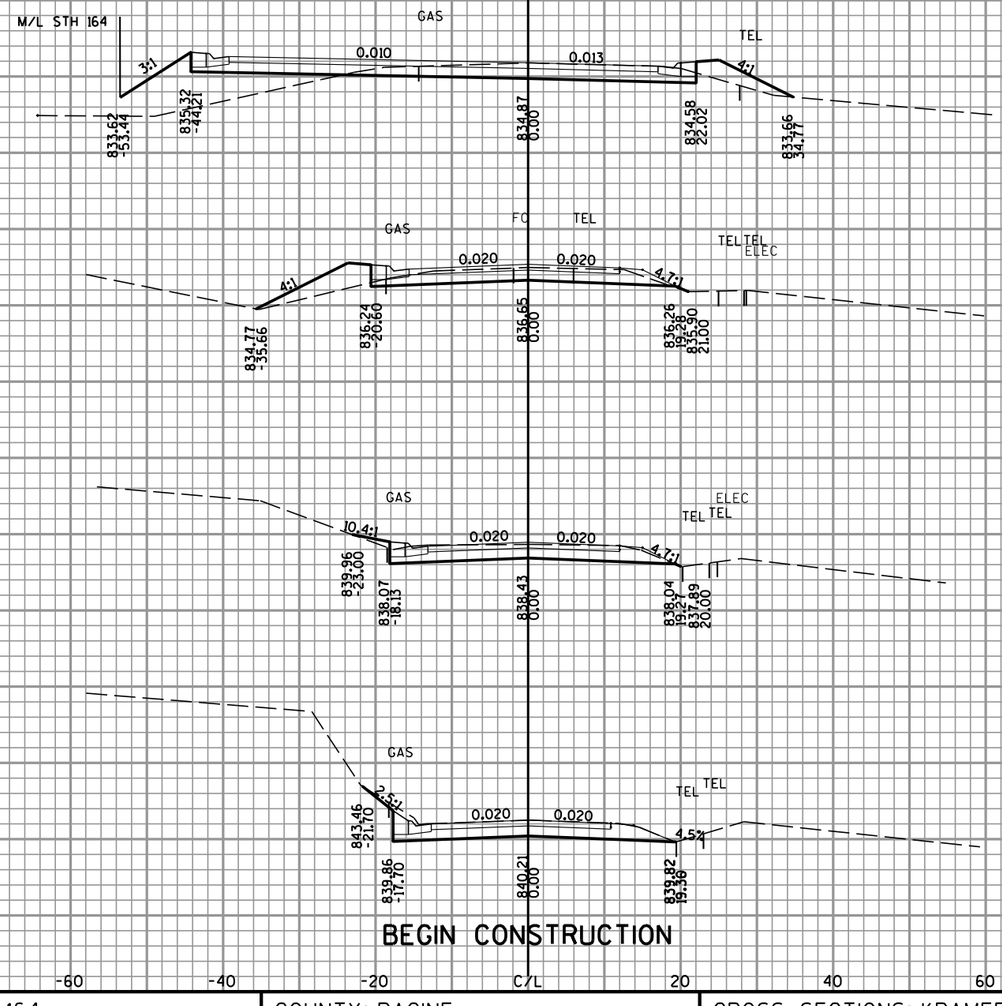
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: STH 164	SHEET NO: 378	E

FILE NAME : t:\102721.10\cadd\Xsection Sheets\090203_xs-STH 164_north.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

STH 164 INTERSECTION

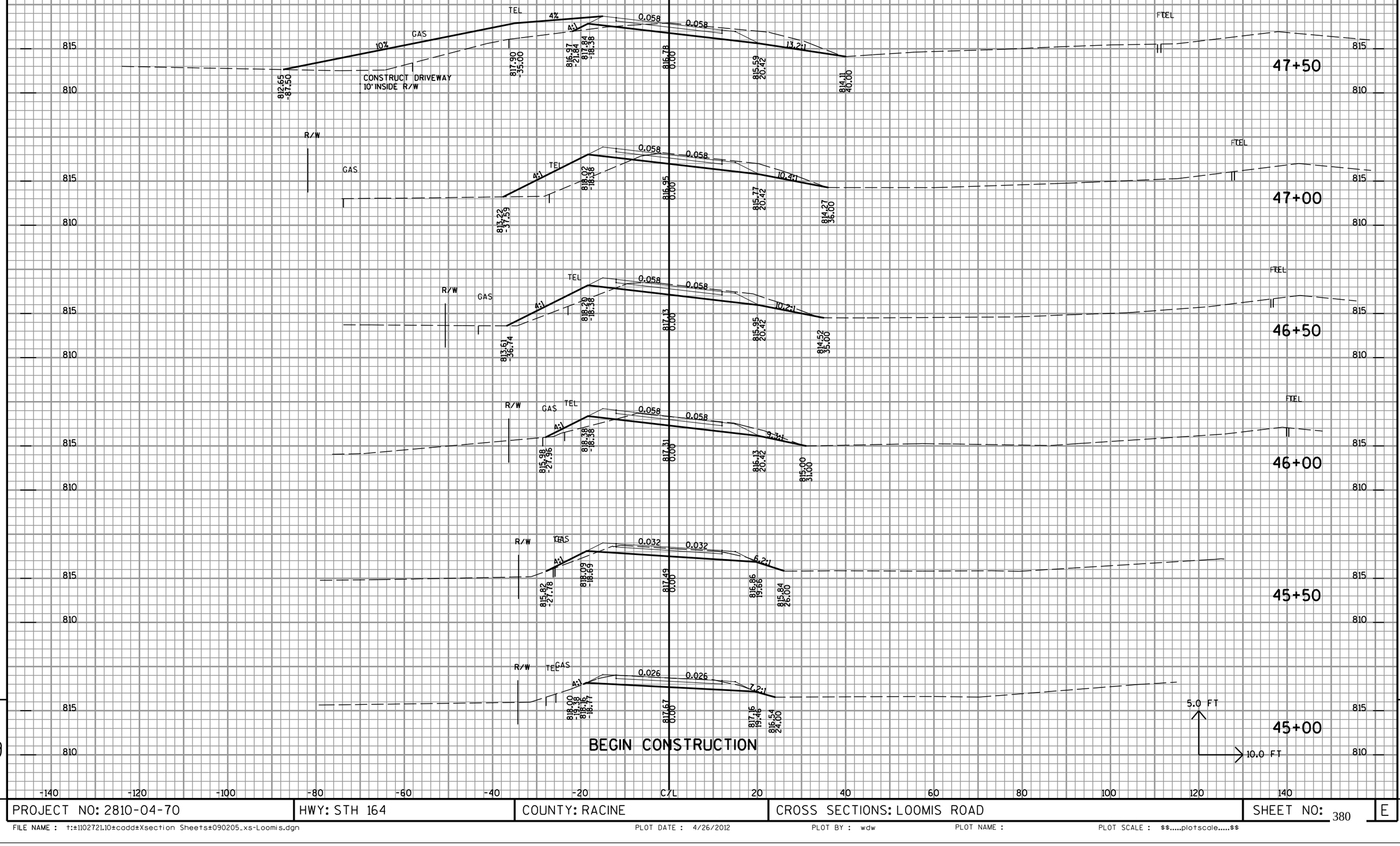


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: KRAMER DRIVE	SHEET NO: 379	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090204_xs-Kramer.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

DRIVE LT
NOT FOR YARDAGE

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3



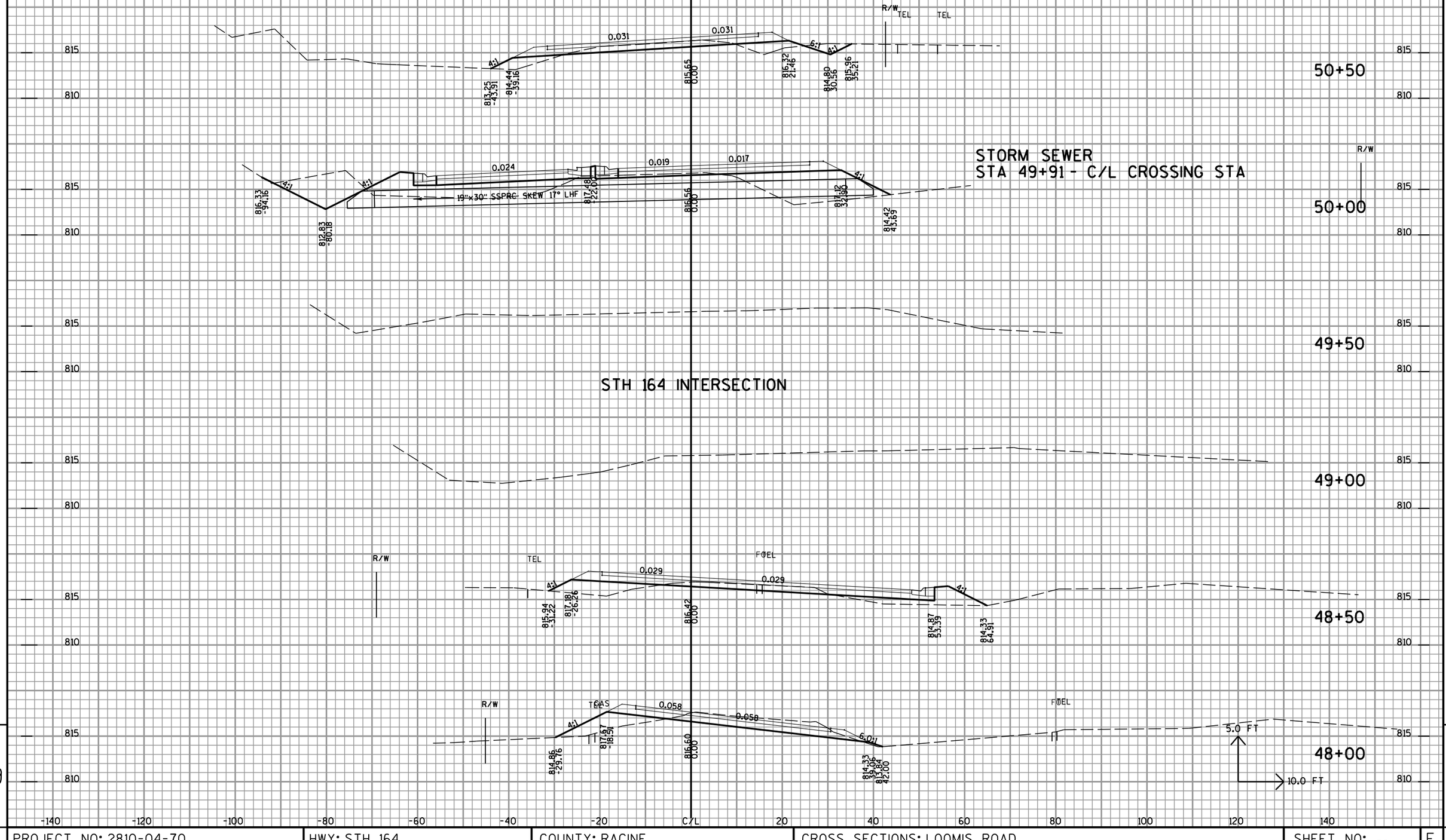
9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: LOOMIS ROAD	SHEET NO: 380 E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090205_xs-Loomis.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: LOOMIS ROAD	SHEET NO: 381 E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090205_xs-Loomis.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

3

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

END CONSTRUCTION

GAS

FO

R/W

TEL

52+00

51+50

51+00

5.0 FT

10.0 FT

815

810

805

0.066

0.059

0.045

4:1

811.38
-24.50

812.93
0.00

814.20
19.18

814.25
19.48

812.32
-23.34

812.50
-22.59

813.84
0.00

814.90
18.03

813.36
21.20

811.99
-34.56

813.45
-28.73

814.74
0.00

815.57
18.38

813.99
24.72

814.69
28.91

-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

9

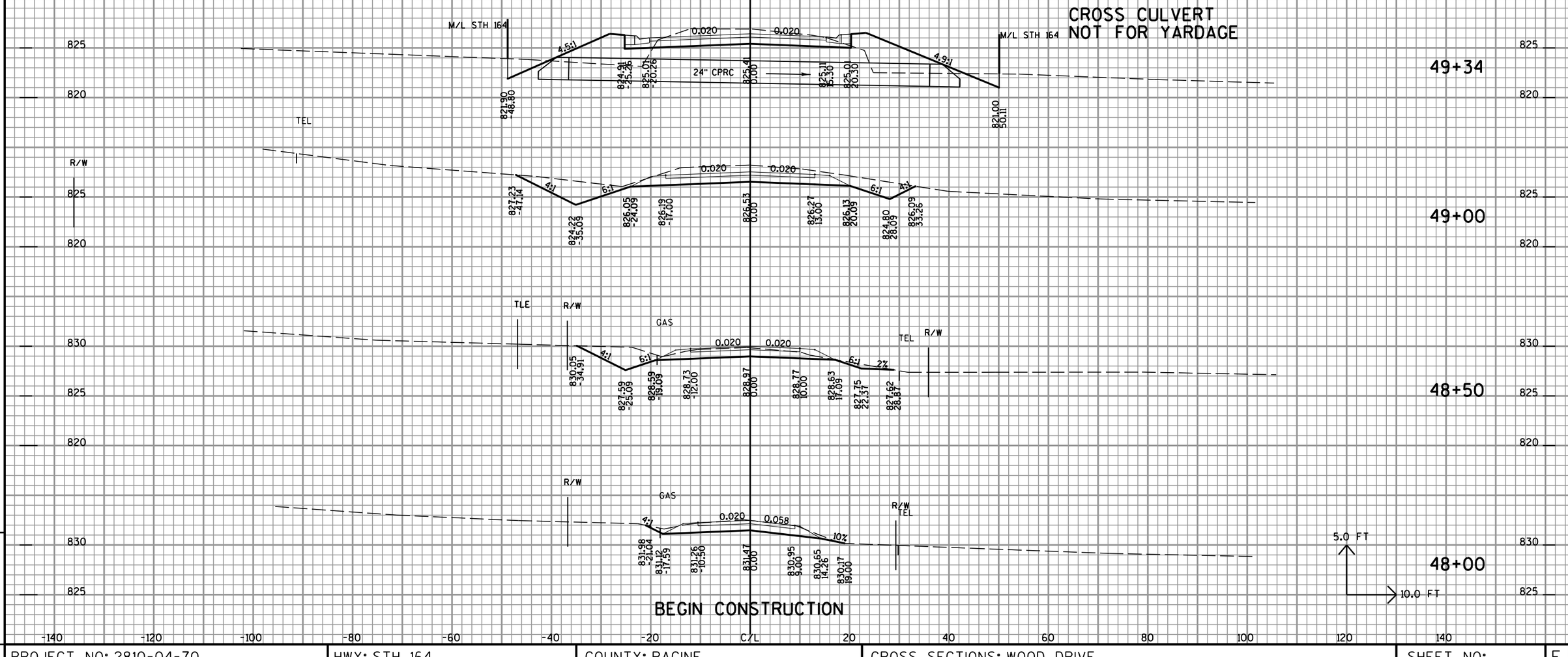
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: LOOMIS ROAD	SHEET NO: 382	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090205_xs-Loomis.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

STH 164 INTERSECTION



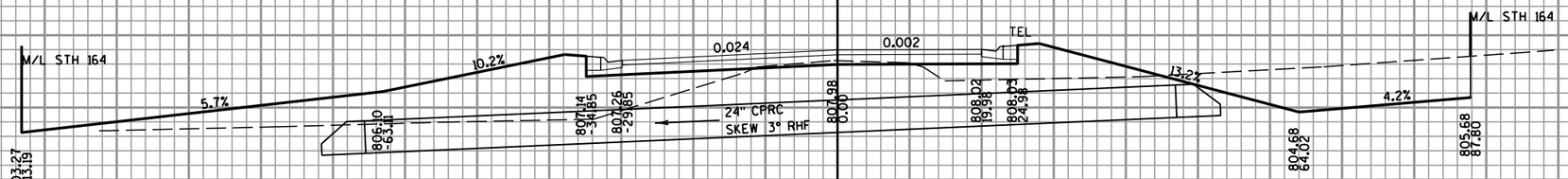
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: WOOD DRIVE	SHEET NO: 383	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090206_xs-Wood.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

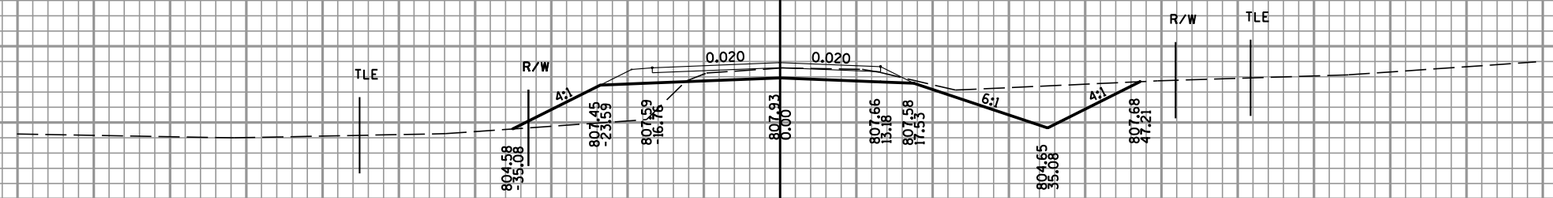
STH 164 INTERSECTION

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

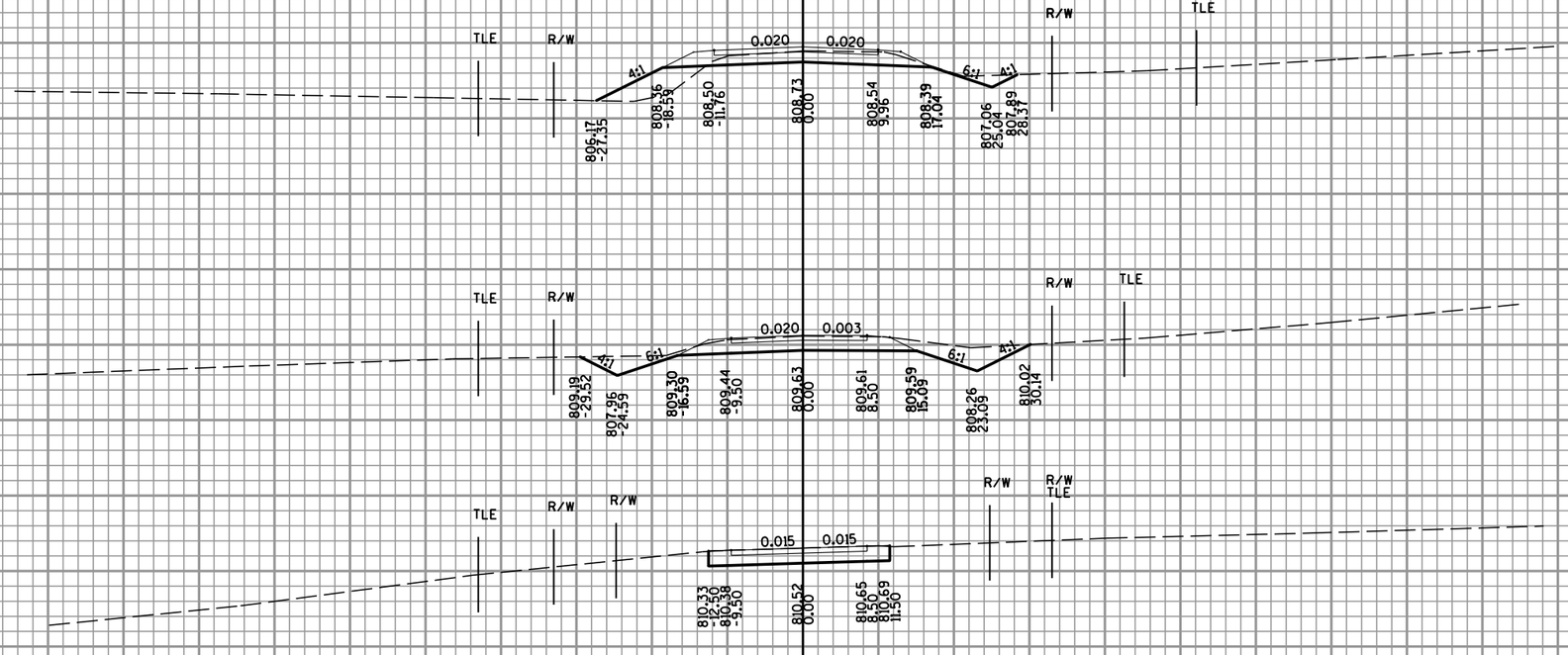
CROSS CULVERT
STA 49+46 - C/L CROSSING STA



49+50



49+00



48+50

48+00

47+50

5.0 FT
10.0 FT

BEGIN CONSTRUCTION

-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

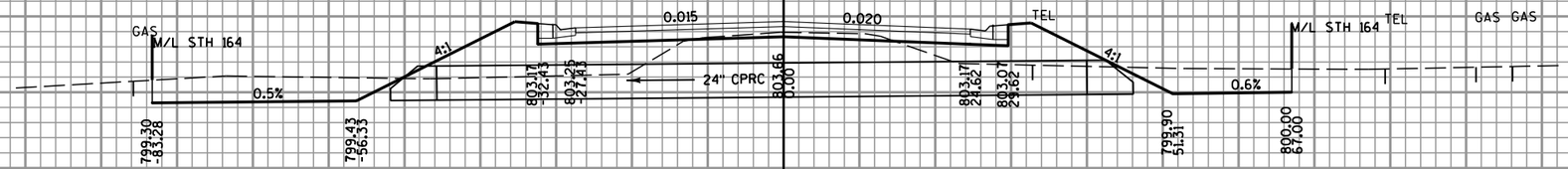
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: GAWIN DRIVE	SHEET NO: 384	E

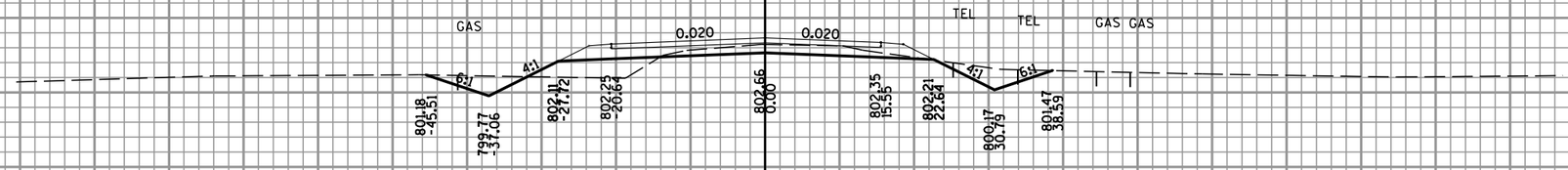
FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090207_xs-Gawin.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

STH 164 INTERSECTION

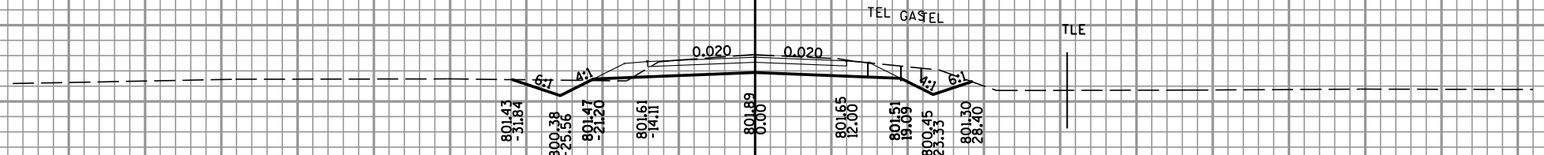
CROSS CULVERT



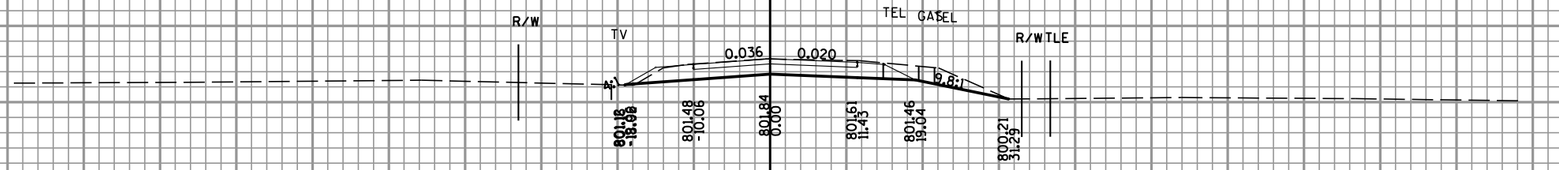
49+50



49+00



48+50



48+00

BEGIN CONSTRUCTION

-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

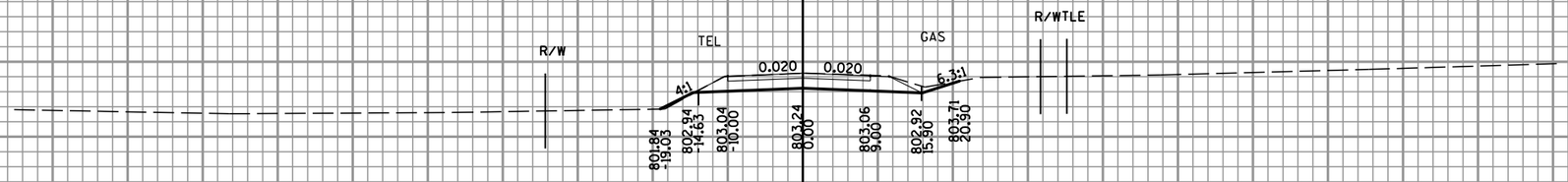
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: EAST RIVER BAY DRIVE	SHEET NO: 385	E

FILE NAME : t:\2102721.10\cadd\Xsection Sheets\090208_xs-WRBE.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

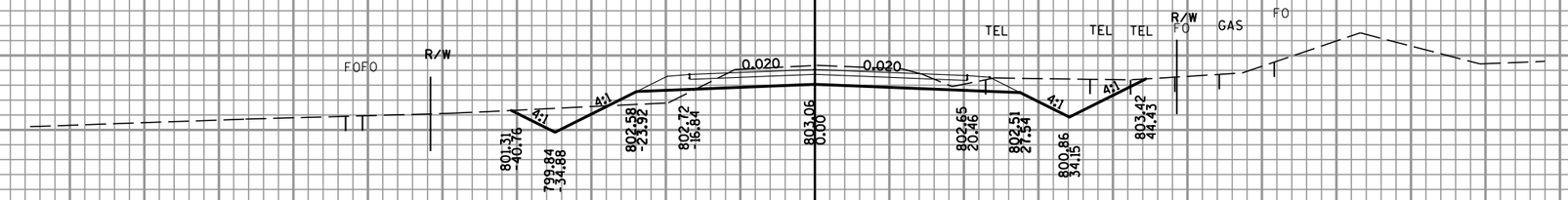
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 3

END CONSTRUCTION



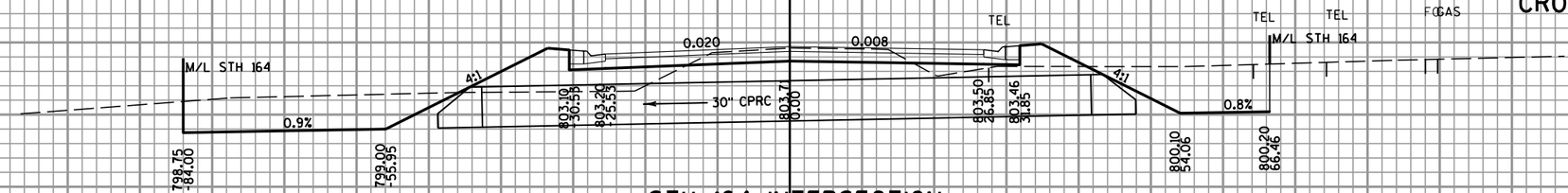
52+00

51+50



51+00

CROSS CULVERT



50+50

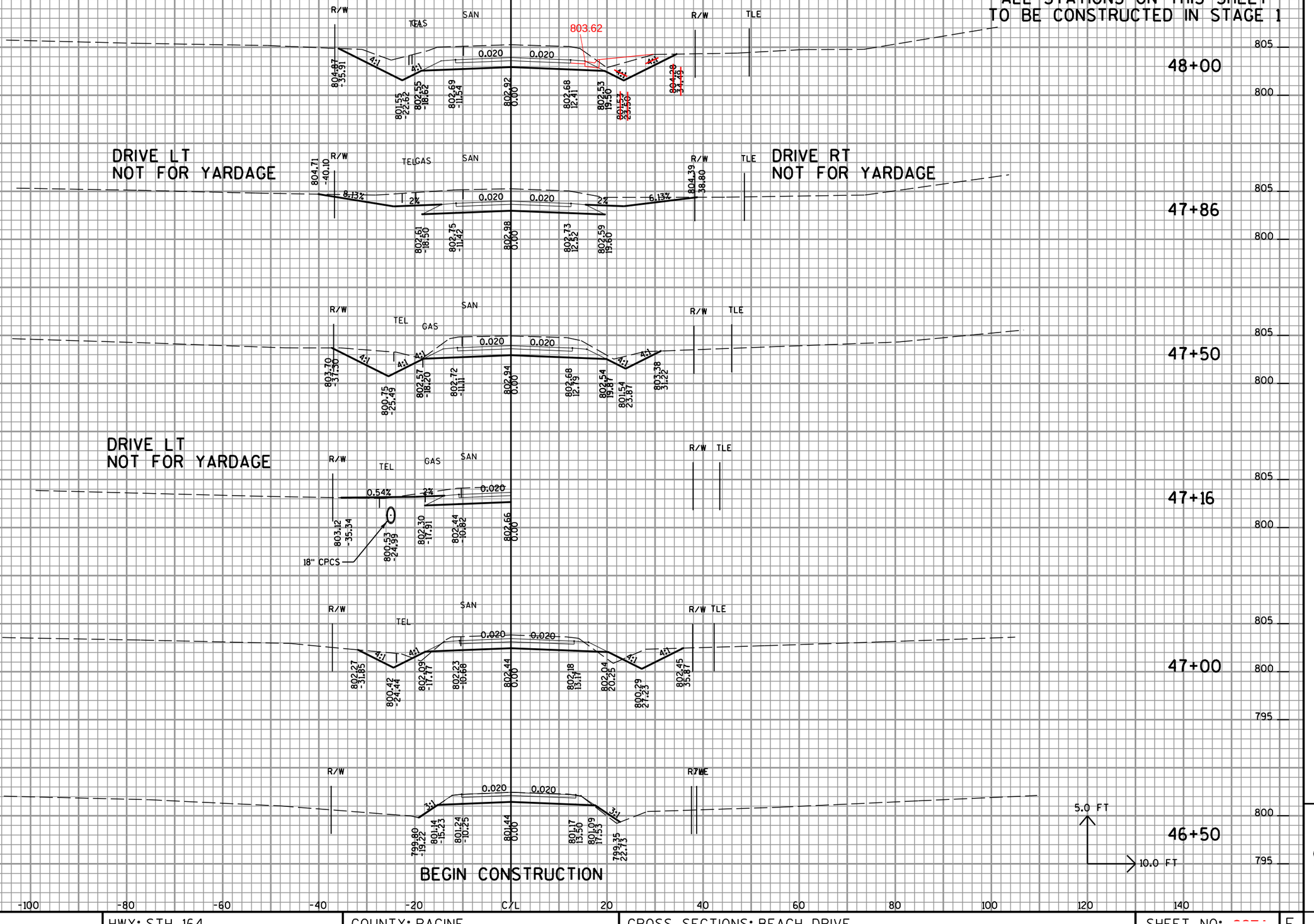
STH 164 INTERSECTION

-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: EAST RIVER BAY DRIVE	SHEET NO: 386 E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090209_xs-ERBE.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

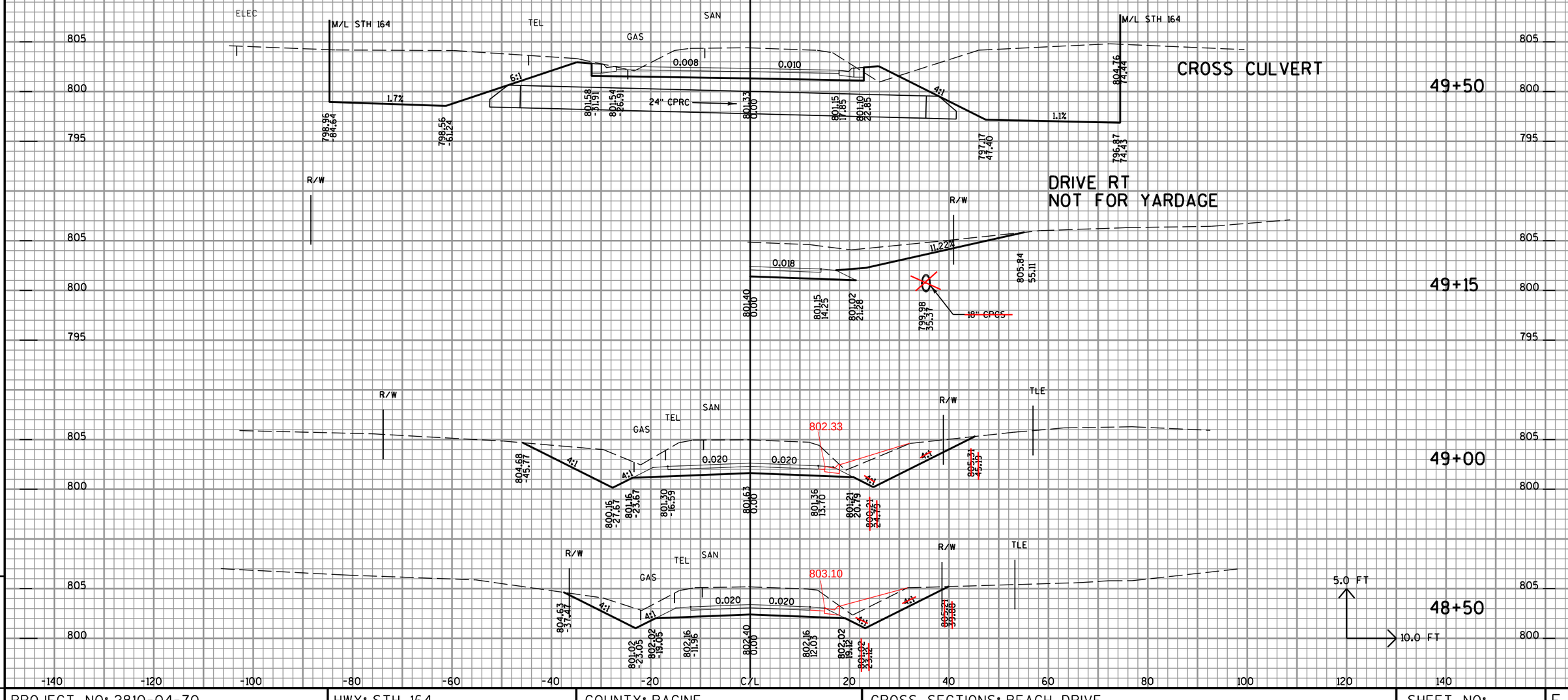


PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: BEACH DRIVE	SHEET NO: 387 E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090210_xs-Beach.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

STH 164 INTERSECTION



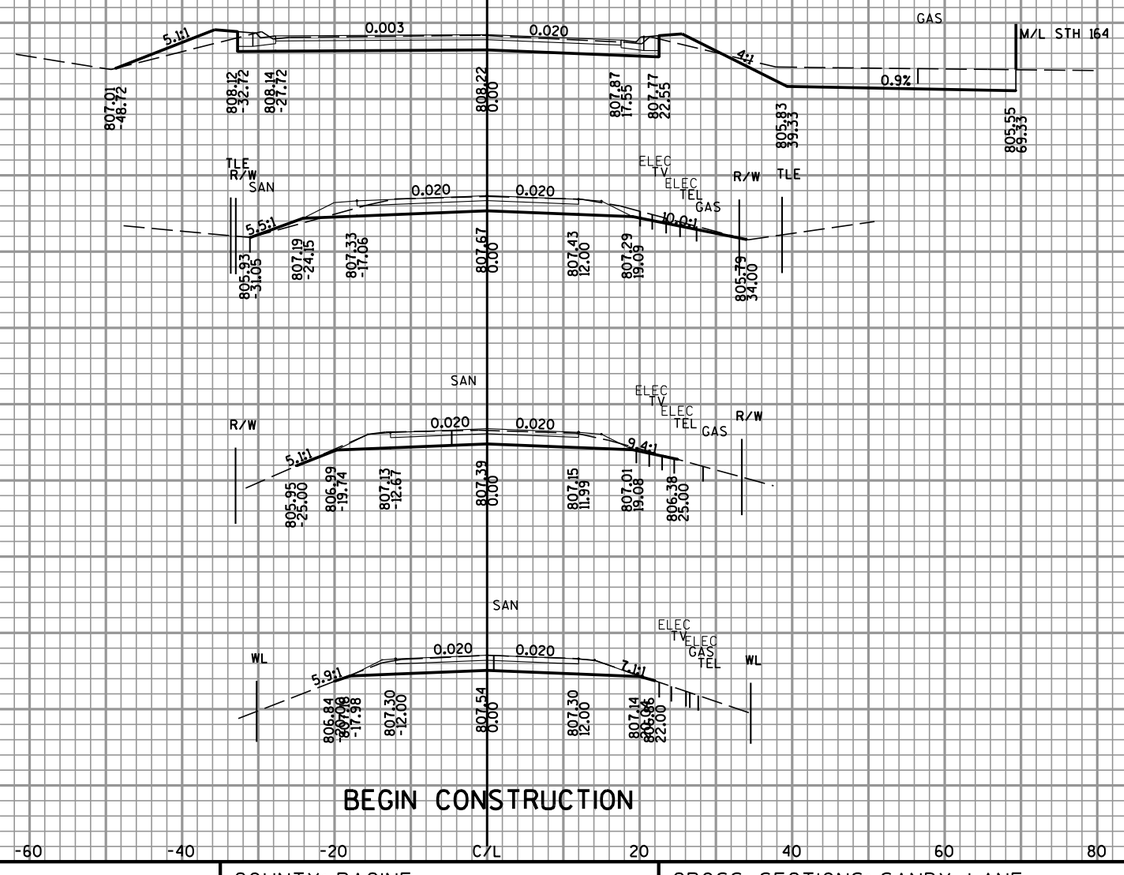
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: BEACH DRIVE	SHEET NO: 388 E

FILE NAME : t:\e1102721.10\cadd\Xsection Sheets\090210_xs-Beach.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

STH 164 INTERSECTION



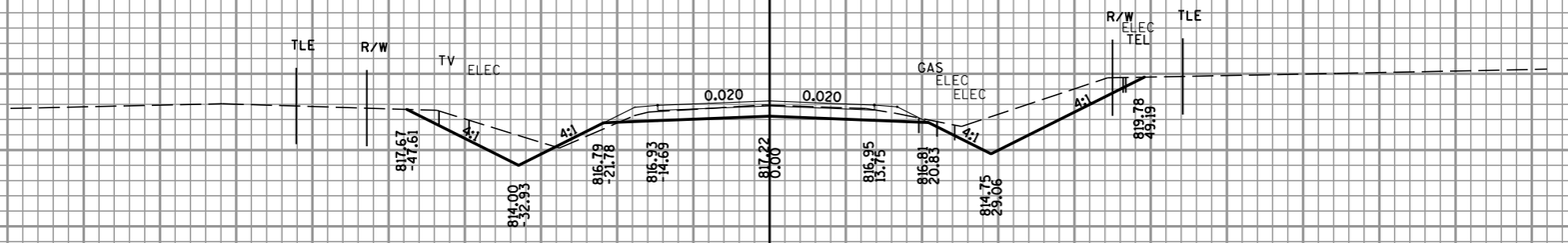
PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: SANDY LANE	SHEET NO: 389	E

FILE NAME : t:\2102721.10\cadd\Xsection Sheets\090211_xs-Sandy.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

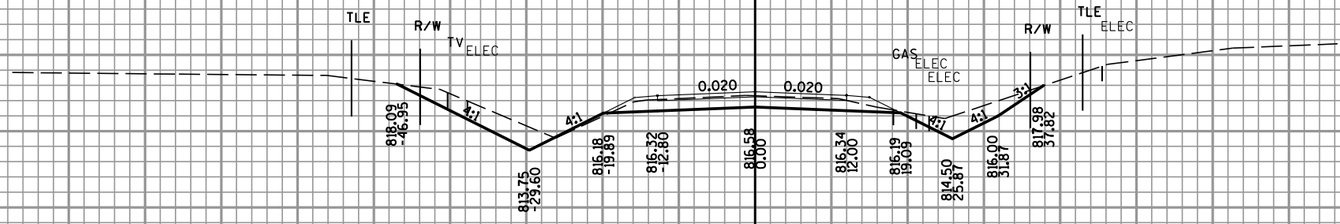
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

STH 164 INTERSECTION

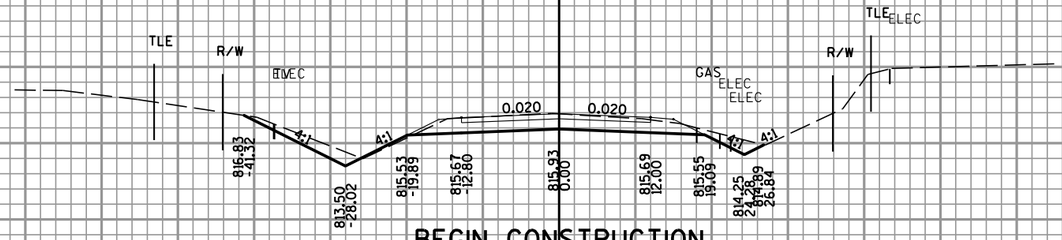
49+50



49+00



48+50



48+00

BEGIN CONSTRUCTION

5.0 FT
10.0 FT

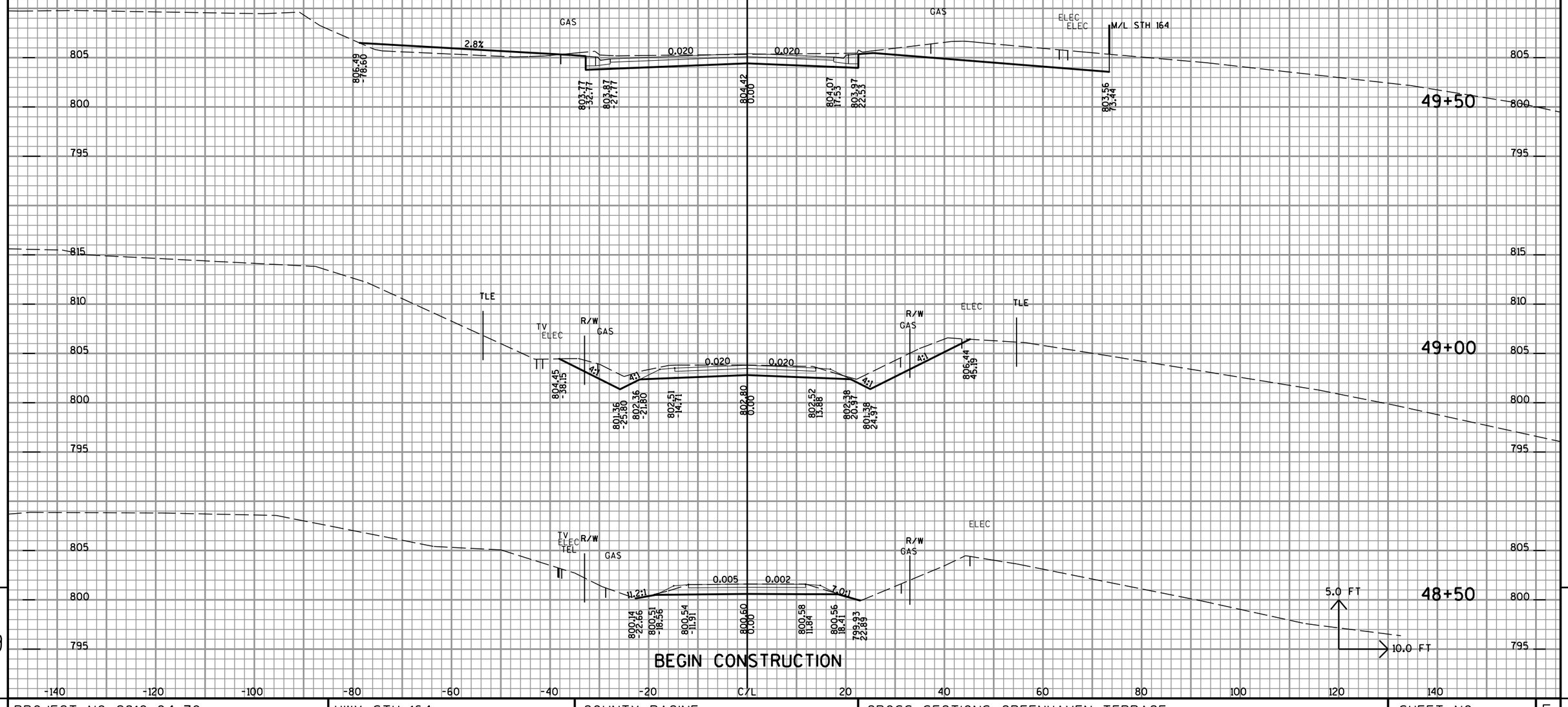
-140 -120 -100 -80 -60 -40 -20 C/L 20 40 60 80 100 120 140

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: DORIE LANE	SHEET NO: 390 E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090212_xs-Dorie.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

STH 164 INTERSECTION



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: GREENHAVEN TERRACE	SHEET NO: 391 E

FILE NAME : t:\2102721.10\cadd\Xsection Sheets\090213_xs-Green.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

DRIVE LEFT
NOT FOR YARDAGE

48+00

47+64

47+50

47+00

46+50

46+00

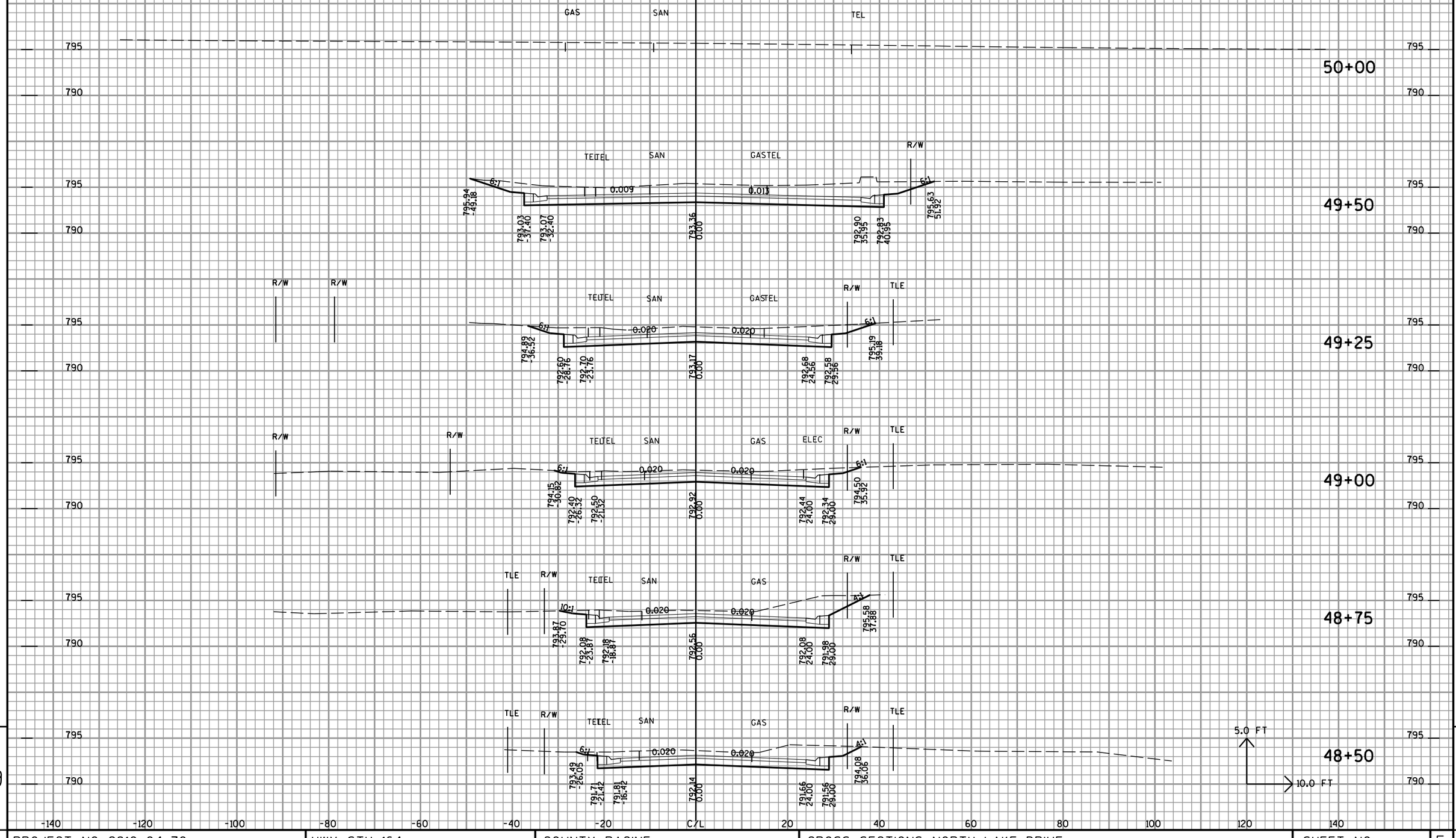
BEGIN CONSTRUCTION

5.0 FT
10.0 FT

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: NORTH LAKE DRIVE	SHEET NO: 392	E

FILE NAME : t:\2102721.10\cadd\Xsection Sheets\090214_xs-Nlake.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



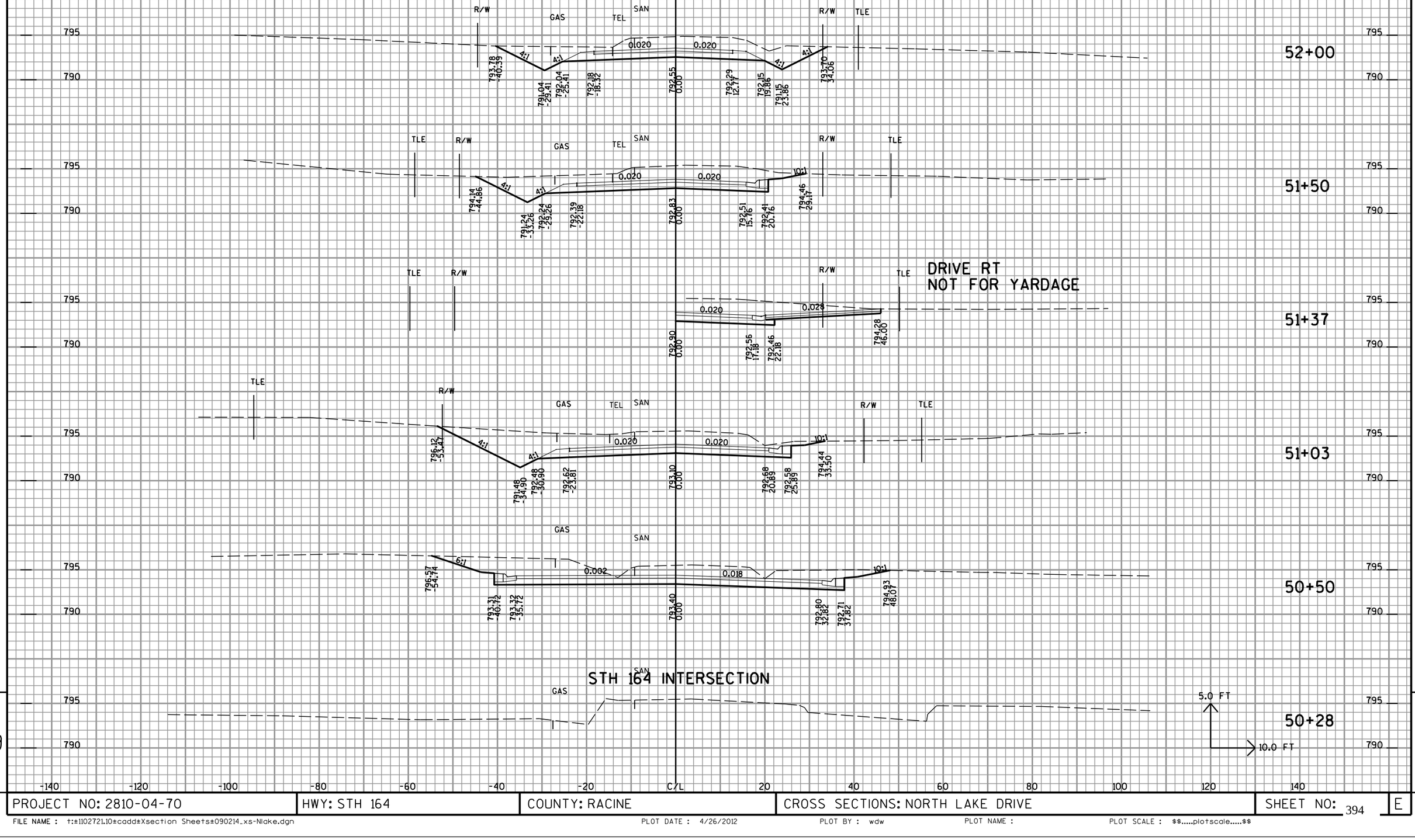
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: NORTH LAKE DRIVE	SHEET NO: 393	E

FILE NAME : t:*1102721.10*cadd*Xsection Sheets*090214_xs-Nlake.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

9

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1



9

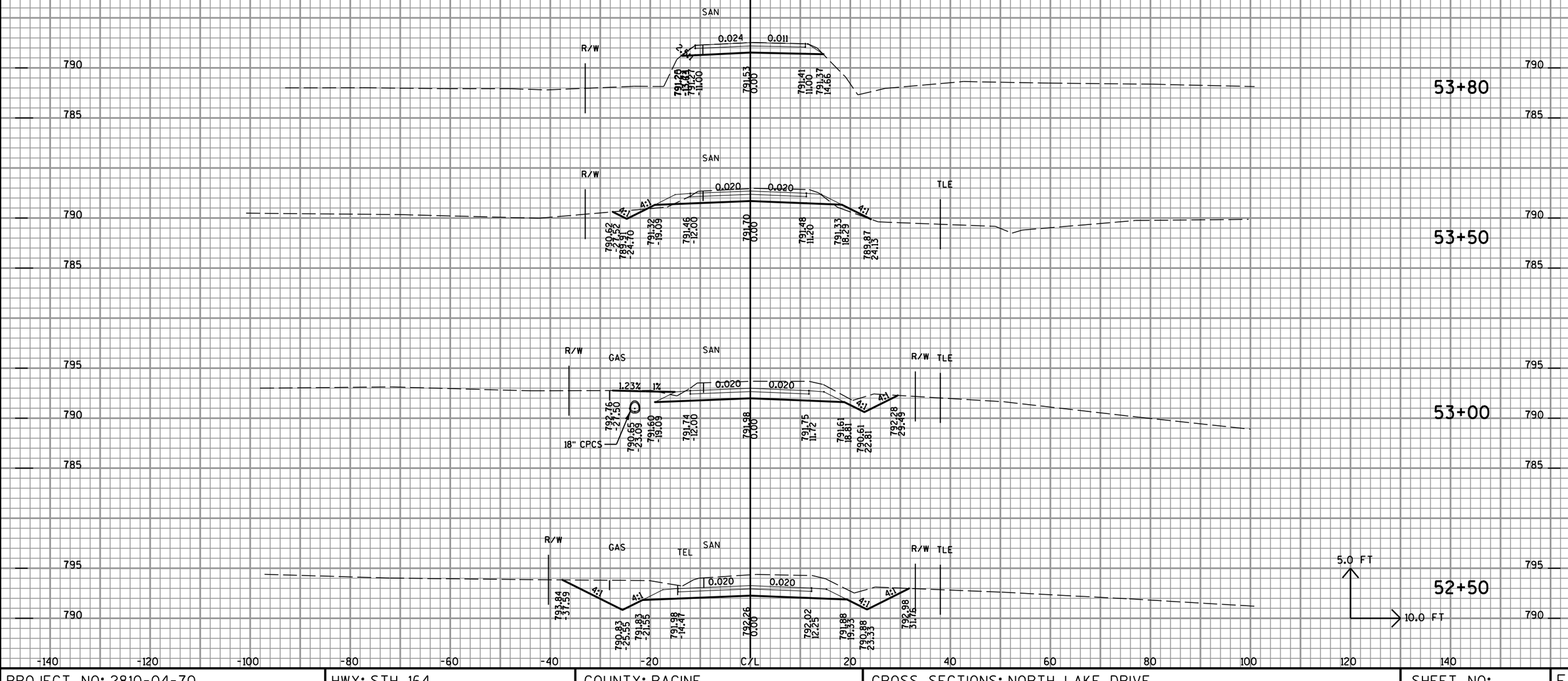
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: NORTH LAKE DRIVE	SHEET NO: 394	E

FILE NAME : t:\s1102721.10\cadd\Xsection Sheets\090214_xs-Nlake.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 1

END CONSTRUCTION



9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: NORTH LAKE DRIVE	SHEET NO: 395	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090214_xs-Nlake.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

DRIVE RT
NOT FOR YARDAGE

49+00

48+50

48+39

48+00

47+50

47+00

BEGIN CONSTRUCTION

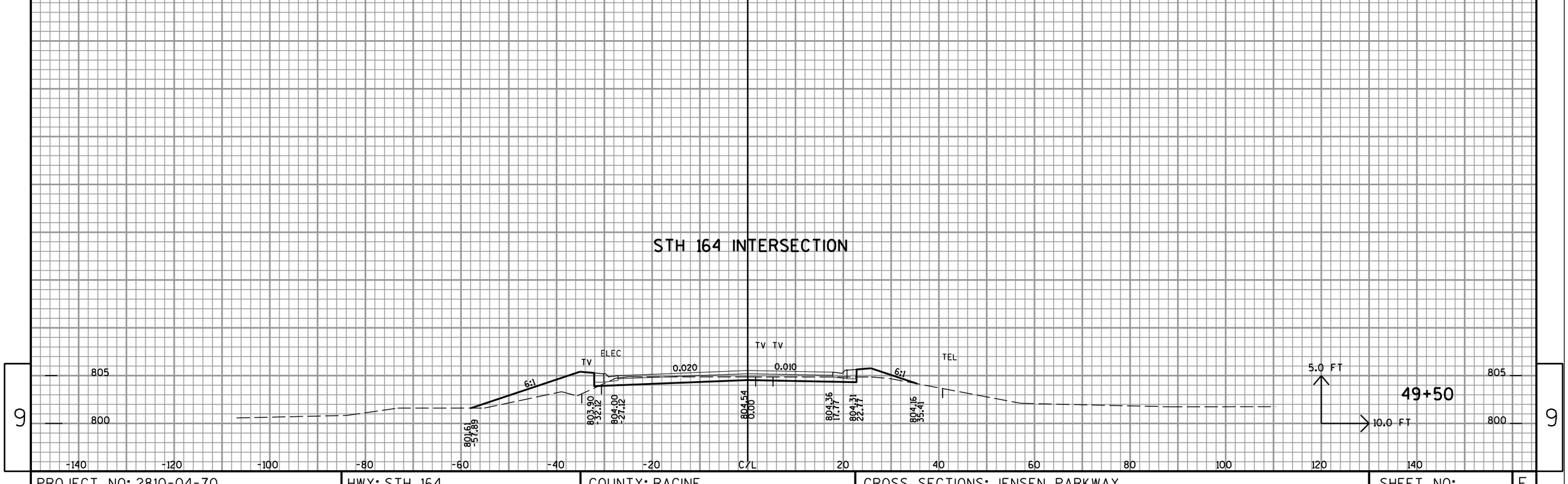
5.0 FT
10.0 FT

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: JENSEN PARKWAY	SHEET NO: 396 E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090215_xs-Jensen.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

STH 164 INTERSECTION

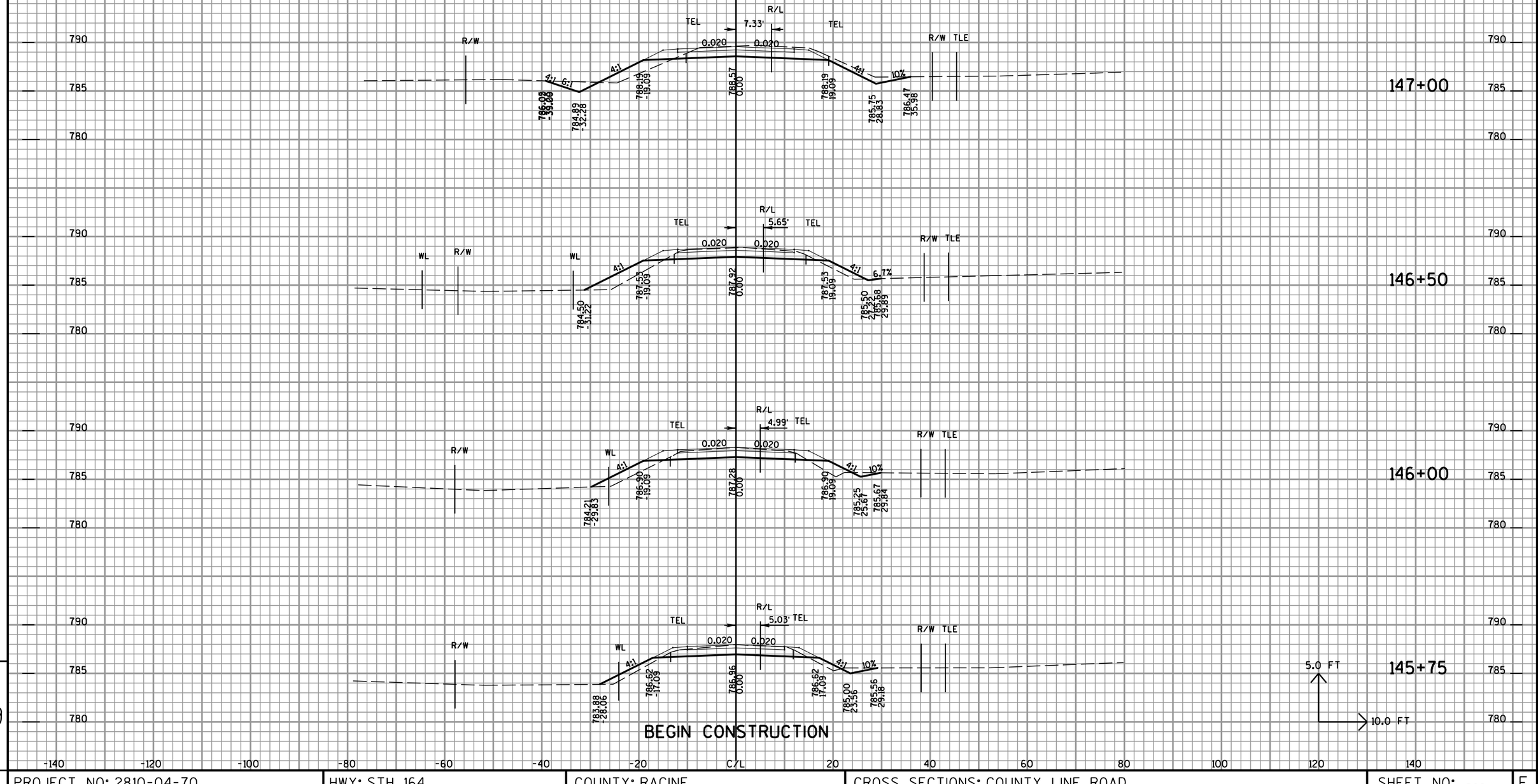


9 9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: JENSEN PARKWAY	SHEET NO: 397	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090215_xs-Jensen.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

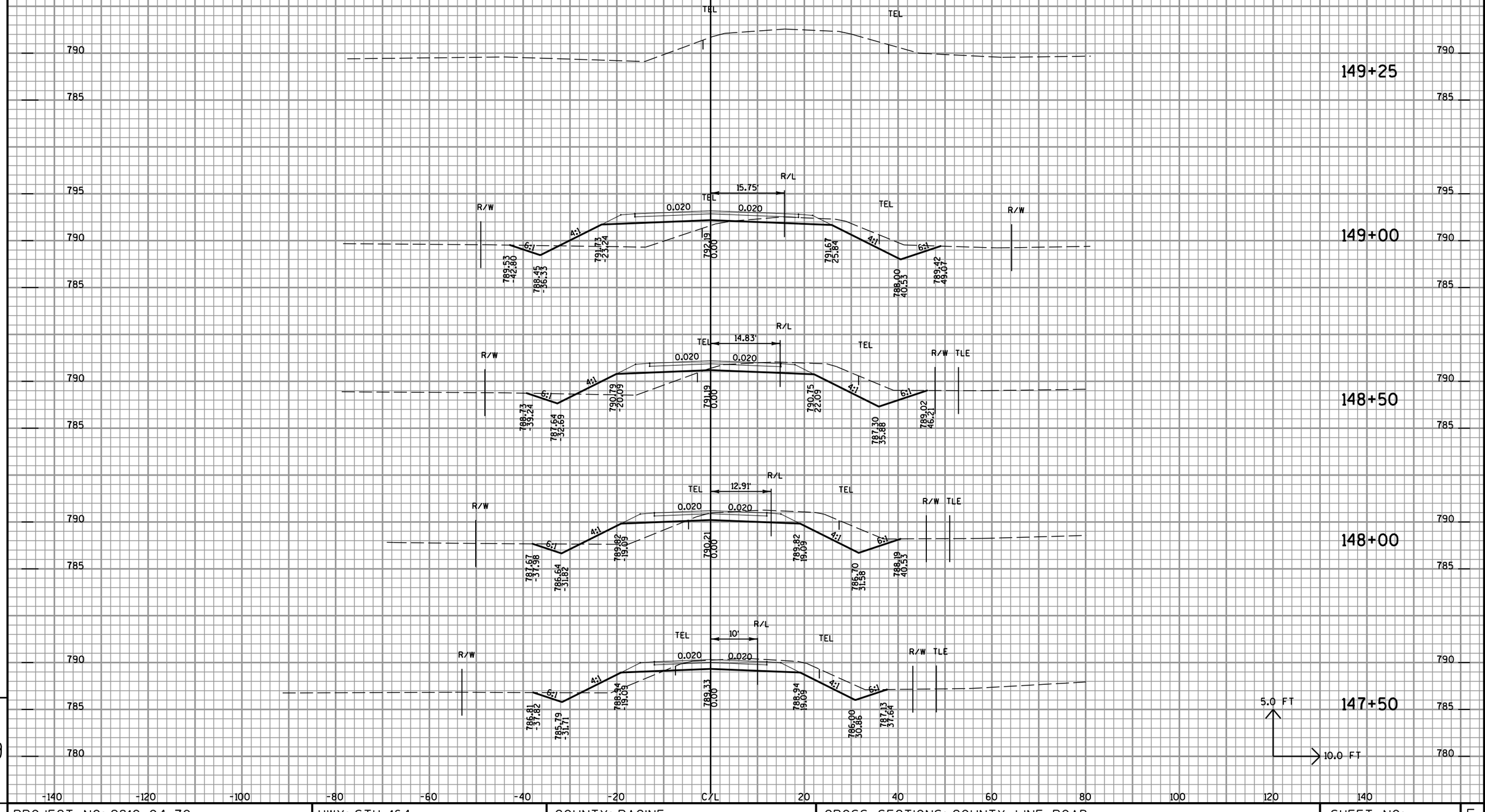
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: COUNTY LINE ROAD	SHEET NO: 398	E

FILE NAME : t:\102721.10\cadd\Xsection Sheets\090216_xs-County Line.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

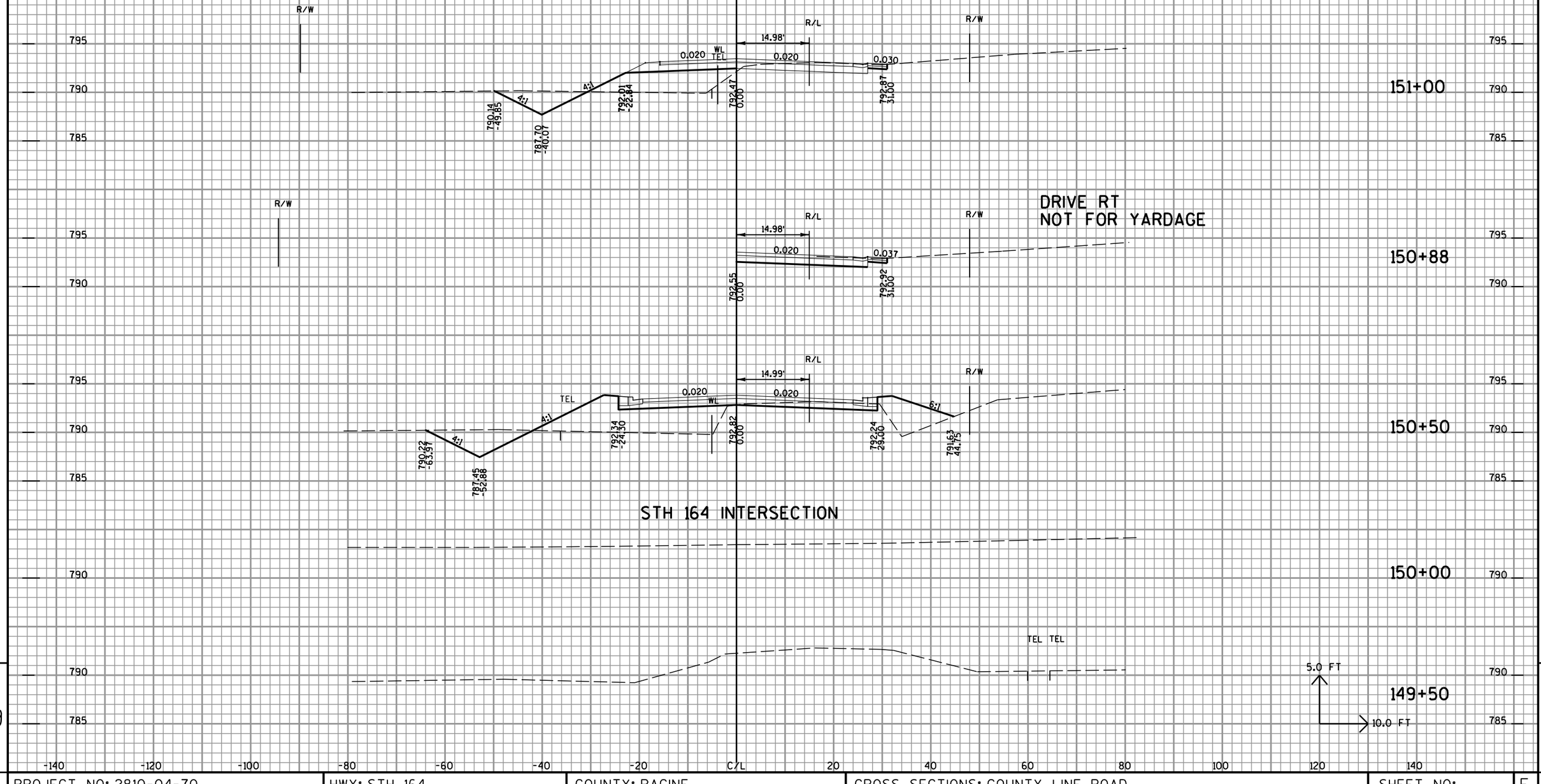


9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: COUNTY LINE ROAD	SHEET NO: 399	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090216_xs-County Line.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2



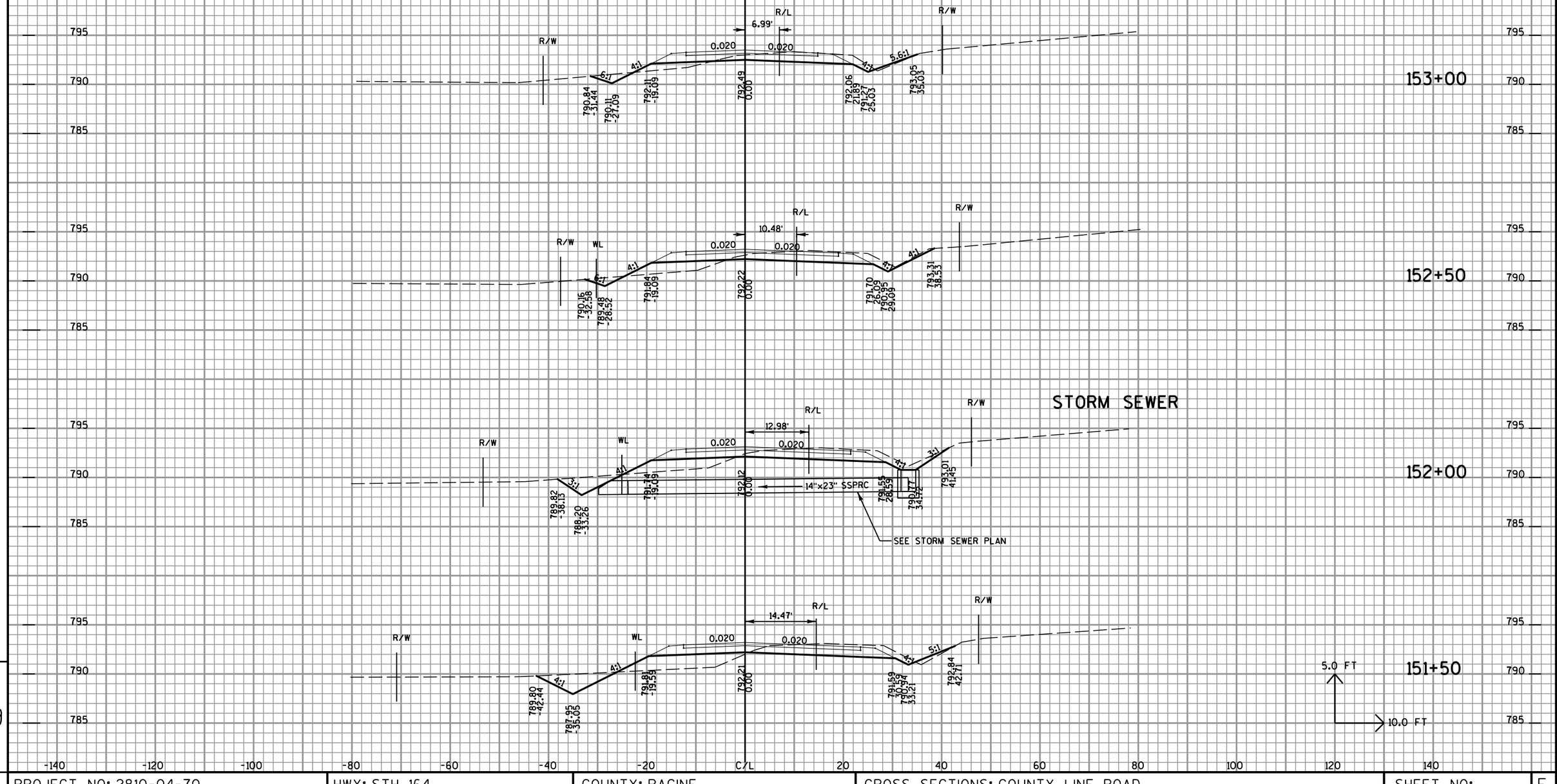
9

9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: COUNTY LINE ROAD	SHEET NO: 400	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090216_xs-County Line.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

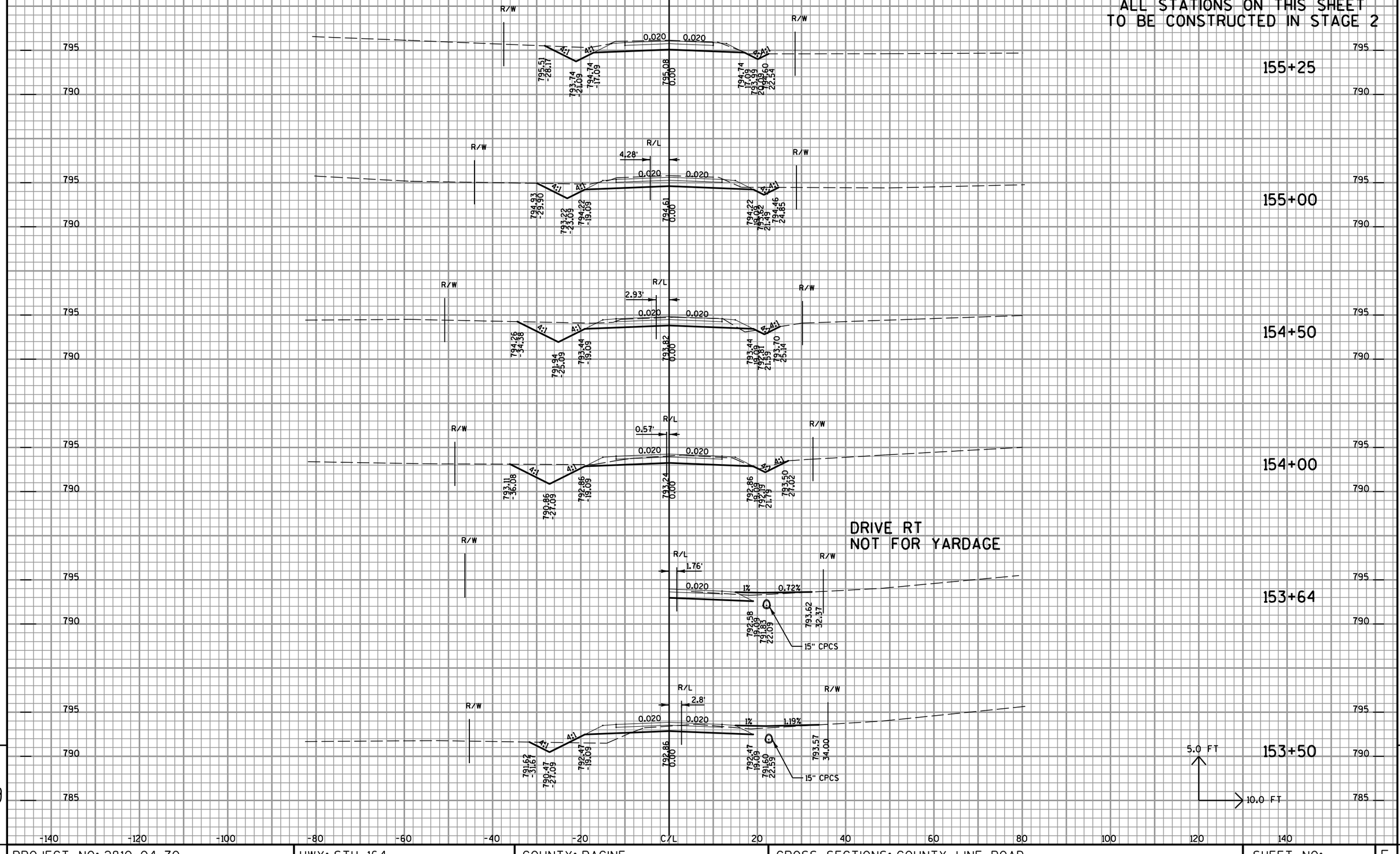
ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: COUNTY LINE ROAD	SHEET NO: 401 E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090216_xs-County Line.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2



9

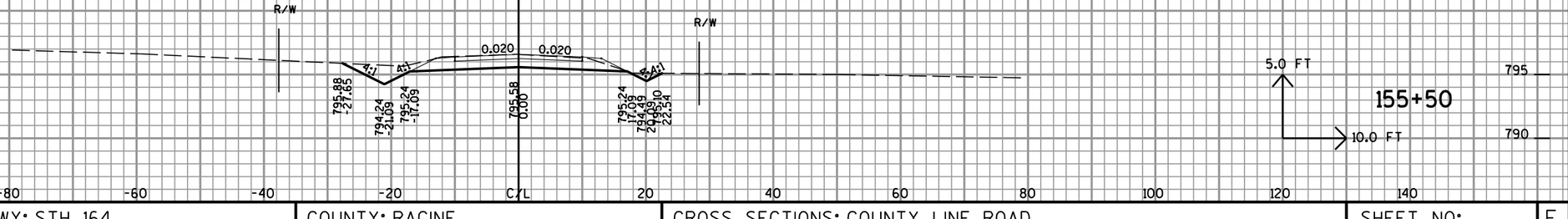
9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: COUNTY LINE ROAD	SHEET NO: 402	E

FILE NAME : t:±1102721.10±cadd±Xsection Sheets±090216_xs-County Line.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

ALL STATIONS ON THIS SHEET
TO BE CONSTRUCTED IN STAGE 2

END CONSTRUCTION



9 9

PROJECT NO: 2810-04-70	HWY: STH 164	COUNTY: RACINE	CROSS SECTIONS: COUNTY LINE ROAD	SHEET NO: 403	E

FILE NAME : t:\1102721.10\cadd\Xsection Sheets\090216_xs-County Line.dgn PLOT DATE : 4/26/2012 PLOT BY : wdw PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

Wisconsin Department of Transportation

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TRAFFIC CONTROL

	643.0300 DRUMS		643.0420 ** BARRICADES TYPE III		643.0705 ** WARNING LIGHTS TYPE A		643.0900 SIGNS		
	* EACH	DAYS	* EACH	DAYS	* EACH	DAYS	* EACH	DAYS	* ESTIMATED DURATION
STAGE 1	9	720	32	2,560	64	5,120	65	5,200	80 DAYS
STAGE 2	9	360	17	680	34	1,360	43	1,720	40 DAYS
STAGE 3	76	6,080	46	3,680	92	7,360	87	6,960	80 DAYS
UNDISTRIBUTED	24	4,800	24	4,800	48	9,600	49	9,800	
TOTAL		**11,960**		**11,720**		**23,440**		**13,880**	**200 DAYS**

* FOR INFORMATION ONLY

** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "DETOUR SIGNS".

PAVEMENT MARKING

	646.0106 EPOXY 4-INCH WHITE			646.0406 EPOXY 4-INCH YELLOW	646.0881.S GROOVED WET REFLECTIVE TAPE 4-INCH	646.0883.S GROOVED WET REFLECTIVE TAPE 8-INCH	SPV.0060.01 GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 1	SPV.0060.02 GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2	SPV.0060.03 GROOVED PREFORMED THERMOPLASTIC WORDS	SPV.0090.03 GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH	647.0726 DIAGONAL EPOXY 12-INCH	648.0100 LOCATING NO-PASSING ZONES
LOCATION	SOLID LF	12.5' DASH LF	3' DASH LF	LF	LF	LF	EACH	EACH	EACH	LF	LF	MI
STAGE 1												
STH 164 STA 1084+00 - STA 1162+00	14,830	1,580	790	11,700	1,725	2,160	---	4	2	---	350	1.50
BEACH DRIVE	---	---	---	640	---	---	---	---	---	27	---	---
SANDY LANE	---	---	---	---	---	---	---	---	---	26	---	---
DORIE LANE	---	---	---	---	---	---	---	---	---	27	---	---
GREENHAVEN TERRACE	---	---	---	---	---	---	---	---	---	27	---	---
NORTH LAKE DRIVE	650	---	---	1,405	---	255	---	---	---	80	---	---
STAGE 2												
STH 164 STA 1162+00 - STA 1212+20	9,670	250	---	7,530	---	850	---	---	---	---	---	1.00
JENSEN PARKWAY	---	---	---	270	---	---	---	---	---	27	---	---
COUNTY LINE ROAD	---	---	---	1,830	---	---	---	---	---	70	---	---
STAGE 3												
STH 164 STA 944+00 - STA 1084+00	26,580	1,063	830	19,100	1,640	3,205	2	6	6	24	180	2.25
CORNER STONE CROSSING	---	---	---	---	---	22	---	---	---	89	---	---
KRAMER DRIVE	240	---	---	340	---	---	---	---	---	27	---	---
LOOMIS ROAD	1,065	---	---	1,250	---	120	---	---	---	96	---	---
WOOD DRIVE	---	---	---	330	---	---	---	---	---	28	---	---
GAWIN DRIVE	---	---	---	440	---	---	---	---	---	29	---	---
EAST RIVER BAY DRIVE	---	---	---	680	---	---	---	---	---	71	---	---
SUBTOTAL	53,035	2,893	1,620	45,515	3,365	6,612	2	10	8	648	530	4.75
TOTAL		**57,548**		**45,515**	**3,365**	**6,612**	**2**	**10**	**8**	**648**	**530**	**4.75**

Addendum No. 1
ID 2810-04-70
Revised Sheet 139
November 5, 2012

ALL ITEMS CATEGORY 0010 UNLESS NOTED