PROJECT ID: 6999-18-71

WITH: N/A

COUNTY: MARATHON

ORDER OF SHEETS

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

TOTAL SHEETS = 334

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

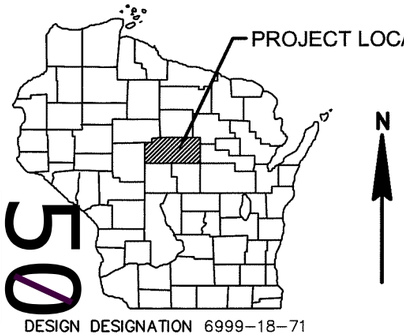
C WAUSAU, TOWNLINE ROAD

GRAND AVENUE TO EASTHILL DRIVE

LOCAL STREET

MARATHON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6999-18-71	WISC 2019191	1



DESIGN DESIGNATION 6999-18-71

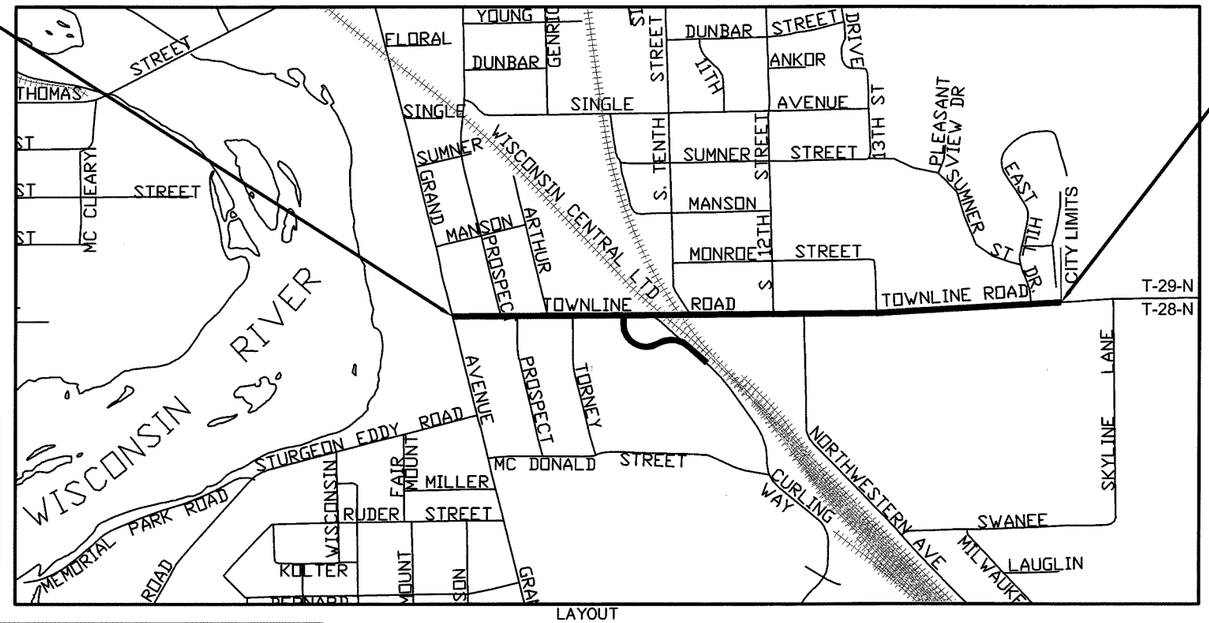
A.A.D.T. (2019)	=	7700
A.A.D.T. (2039)	=	8700
D.H.V. (2039)	=	1032
D.D. (%)	=	59/41
T.	=	5.1%
DESIGN SPEED	=	30mph (GRAND AVE – S. 10TH STREET) 40mph (S. 10TH STREET – EASTHILL DRIVE)
ESALS	=	740,000

BEGIN PROJECT 6999-18-71
STA. 11+05.69
Y= 196,701.51
X= 283,809.33

STATE PROJECT NUMBER
6999-18-71

R-8-E / R-7-E

END PROJECT 6999-18-71
STA. 50+56.64



LAYOUT
SCALE IN FEET
0 500 1000

TOTAL NET LENGTH OF CENTERLINE = 0.748 MI.

CONVENTIONAL SIGNS

COMBUSTIBLE FLUIDS WARNING	CAUTION
PROPERTY LINE (P.L.)	
SLOPE INTERCEPT	
INLET	
EXISTING HYDRANT	
WATER VALVE W/BOX	
WATER CURB STOP	
EXISTING GAS VALVE OR TEST STATION	
EXISTING SIGN	
EXISTING POWER POLE W/LIGHT MAST	
EXISTING LIGHT POLE	
EXISTING MAILBOX	MAIL
SAWCUT REQUIRED	
EXISTING IRON PIPE	
EXISTING TREE OR SHRUB	
EXISTING MANHOLES	D STORM, S SANITARY, LS LIFT STATION, W WATER, E ELECTRICAL, T TELEPHONE, G NATURAL GAS, FO FIBER OPTIC

UNDERGROUND UTILITIES

CABLE TV	TV
SANITARY SEWER	SA
STORM SEWER	SS
WATER	W
GAS	G
ELECTRIC	E
TELEPHONE	T
FIBER OPTIC CABLE	FO
OVERHEAD UTILITY	OH
SERVICE PEDESTAL	
GUY WIRE	
POWER POLE	

PROPOSED TEXT .20
EXISTING TEXT .04

EXISTING POST	
EXISTING WELL	W
EXISTING SEPTIC SYSTEM	SEPTIC
EXISTING SEPTIC VENT	SVT
EXISTING RAILROAD SWITCH	RR SW
EXISTING RAILROAD SIGNAL	RR

NOTE: WATER LATERALS AND SANITARY SEWER LATERALS TO BE REPLACED BY CONTRACTOR. (TYPICAL)

APPROVAL REQUIRED FROM ENGINEER BEFORE REMOVING TREE. (TYPICAL)

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MARATHON COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL ELEVATIONS ON THIS PROJECT ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), 2012 ADJUSTMENT

ACCEPTED FOR
CITY OF WAUSAU, WISCONSIN

DATE: 10-19-18 Robert B Mielke
(Signature of Official)

MAYOR
(Title of Official)

ORIGINAL PLANS PREPARED BY:
CITY OF WAUSAU, WISCONSIN
ENGINEERING DEPARTMENT

WISCONSIN ALLEN M. WESOLOWSKI E-33685 BIRNAMWOOD, WIS. PROFESSIONAL ENGINEER

DATE: 10/19/18 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CITY OF WAUSAU
Designer	CITY OF WAUSAU
Project Manager	ALLEN WESOLOWSKI
Management Consultant	CEDAR CORPORATION

APPROVED FOR THE DEPARTMENT

DATE: 10-30-2018 (Signature)

E

2

COMMUNICATIONS

CHARTER COMMUNICATIONS
SCOTT OLSON
853 MCINTOSH STREET
PO. BOX 1818
WAUSAU, WI. 54402-1818
715-216-6204
EMAIL: SCOTT.OLSON@CHARTERCOM.COM

FRONTIER COMMUNICATIONS
CALVIN KLADE
521 FOURTH STREET
WAUSAU, WI. 54403
715-573-2110
EMAIL: CALVIN.KLADE@FTR.COM

NET-LEC
DENNIS LAFAVE
1700 INDUSTRIAL DRIVE
GREEN BAY, WI 54302
920-619-9774
EMAIL: DLAFAVE@MI-TECH.US

WINDSTREAM NTI
DENNIS RUESS
1858 WRIGHT STREET
MADISON, WI. 53704
608-512-5587
EMAIL: DENNIS.RUESS@WINDSTREAM.COM

ELECTRIC/GAS

WISCONSIN PUBLIC SERVICE CORP. - GAS DIVISION
DENA ANDRE
2850 S. ASHLAND AVENUE
GREEN BAY, WI 54304-5304
920-617-5092 OR 231-649-1486
EMAIL: DENA.ANDRE@WISCONSINPUBLICSERVICE.COM
EMERGENCIES - 24 HOURS
1-800-450-7280

WISCONSIN PUBLIC SERVICE CORP. - ELECTRIC DIVISION
CLAYTON VIRCKS
1700 SHERMAN STREET - P.O. BOX 1166
WAUSAU, WI. 54402-1166
715-848-7317 OR 715-573-7806
EMAIL: CLAYTON.VIRCKS@WISCONSINPUBLICSERVICE.COM
EMERGENCIES - 24 HOURS
1-800-450-7280

WISCONSIN PUBLIC SERVICE CORP. - SUBSTATION
KEITH BROCK
CONST. SUPERVISOR - WPS S&T OPERATIONS WEST
715-848-7325 OR 715-573-0138
EMAIL: KRBROCK@WISCONSINPUBLICSERVICE.COM
EMERGENCIES - 24 HOURS
1-800-450-7280

CALL 800-450-7240 FOR ELECTRIC EMERGENCIES
CALL THE WPS BUSINESS SERVICE CENTER AT
877-444-0888 FOR SERVICE NEEDS SUCH AS
TEMPORARY OR PERMANENT SERVICE APPLICATIONS OR
ANY OTHER REQUEST NOT EMERGENCY RELATED.

CALL 800-450-7280 FOR GAS EMERGENCIES

UTILITIES WITHIN PROJECT LIMITS

NOTE:

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

W.D.N.R. CONTACTS:

WIDOT LIASON CONTACT
DNR SERVICE CENTER
CASEY JONES
473 GRIFFITH DRIVE
WISCONSIN RAPIDS, WI 54494
715-421-7867
EMAIL: CASEY.JONES@WISCONSIN.GOV

WISCONSIN CENTRAL LTD (CN) CONTACT:

JACKIE MACEWICZ
1625 DEPOT STREET
STEVENS POINT, WI 54481
715-345-2503
EMAIL: JACKIE.MACEWICZ@CN.CA

WAUSAU MUNICIPAL UTILITY CONTACTS:

WATER UTILITY
SHANNON LANE
715-261-7265 OR 715-571-9774
EMAIL: SHANNON.LANE@CI.WAUSAU.WI.US

SEWER UTILITY
KEN RYE
715-261-6530 OR 715-574-3149
EMAIL: KEN.RYE@CI.WAUSAU.WI.US

DESIGN CONTACTS:

CITY OF WAUSAU - ENGINEERING DEPARTMENT
CITY HALL
407 GRANT STREET
WAUSAU, WISCONSIN 54403-4783
OFFICE 715-261-6740 FAX 715-261-6759 AFTER HOURS 715-849-7798
EMAIL: ENGINEERING@.CI.WAUSAU.WI.US

ERIC LINDMAN - DIRECTOR OF PUBLIC WORKS & UTILITIES
EMAIL: ERIC.LINDMAN@CI.WAUSAU.WI.US
OFFICE 715-261-6745

ALLEN WESOLOWSKI - CITY ENGINEER
EMAIL: ALLEN.WESOLOWSKI@CI.WAUSAU.WI.US
OFFICE 715-261-6762

DAVID HUEMPFNER - CITY SURVEYOR
EMAIL: DAVID.HUEMPFNER@CI.WAUSAU.WI.US
OFFICE 715-261-6754

VISIT US ON THE WEB AT: www.ci.wausau.wi.us

DIGGERS HOTLINE
www.DiggersHotline.com
CALL 811 or 1-800-242-8511
WIS. STATUTE 182.0175 (1974)
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE

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

CN CALL BEFORE YOU DIG
CN IS NOT PART OF DIGGERS HOTLINE
CALL 734-783-4533

UNDERGROUND UTILITIES

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY INDIVIDUALS OR ENTITIES NOT IN THE EMPLOY OF THE CITY. IN ADDITION, SOME UTILITIES HAVE BEEN LOCATED BASED UPON MAPS THAT HAVE BEEN PROVIDED BY INDIVIDUALS OR ENTITIES NOT IN THE EMPLOY OF THE CITY.

FOR THE ABOVE REASONS, THE LOCATIONS OF ALL UTILITIES DESCRIBED IN THESE DRAWINGS ARE APPROXIMATE, AND ***THE SPECIFIC LOCATION OF A PARTICULAR UTILITY, PIPE LINE, OR OTHER APPURTENANT MAY VARY FROM THE LOCATION REFERRED TO ON THESE DRAWINGS.***

GENERAL NOTES

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

THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATIONS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

THE APPROXIMATE LOCATION OF THE SANITARY SEWER AND WATER LATERALS AS SHOWN ON THE PLANS ARE BASED ON TELEVISED SEWER REPORTS, SURVEY AND AS-BUILT DRAWINGS. THE ACTUAL LOCATION OF THE LATERALS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR.

DISTURBED AREAS WITHIN THE PROJECT LIMITS EXCEPT PAVED AREAS ARE TO BE RESTORED WITH 4" OF TOPSOIL, SEED, FERTILIZER AND MULCH OR EROSION MAT UNLESS OTHERWISE NOTED.

ALL EXISTING UTILITIES SHOWN ARE BASED ON INFORMATION RECEIVED FROM THE RESPECTIVE UTILITY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING UTILITIES PRIOR TO ANY EXCAVATION.

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

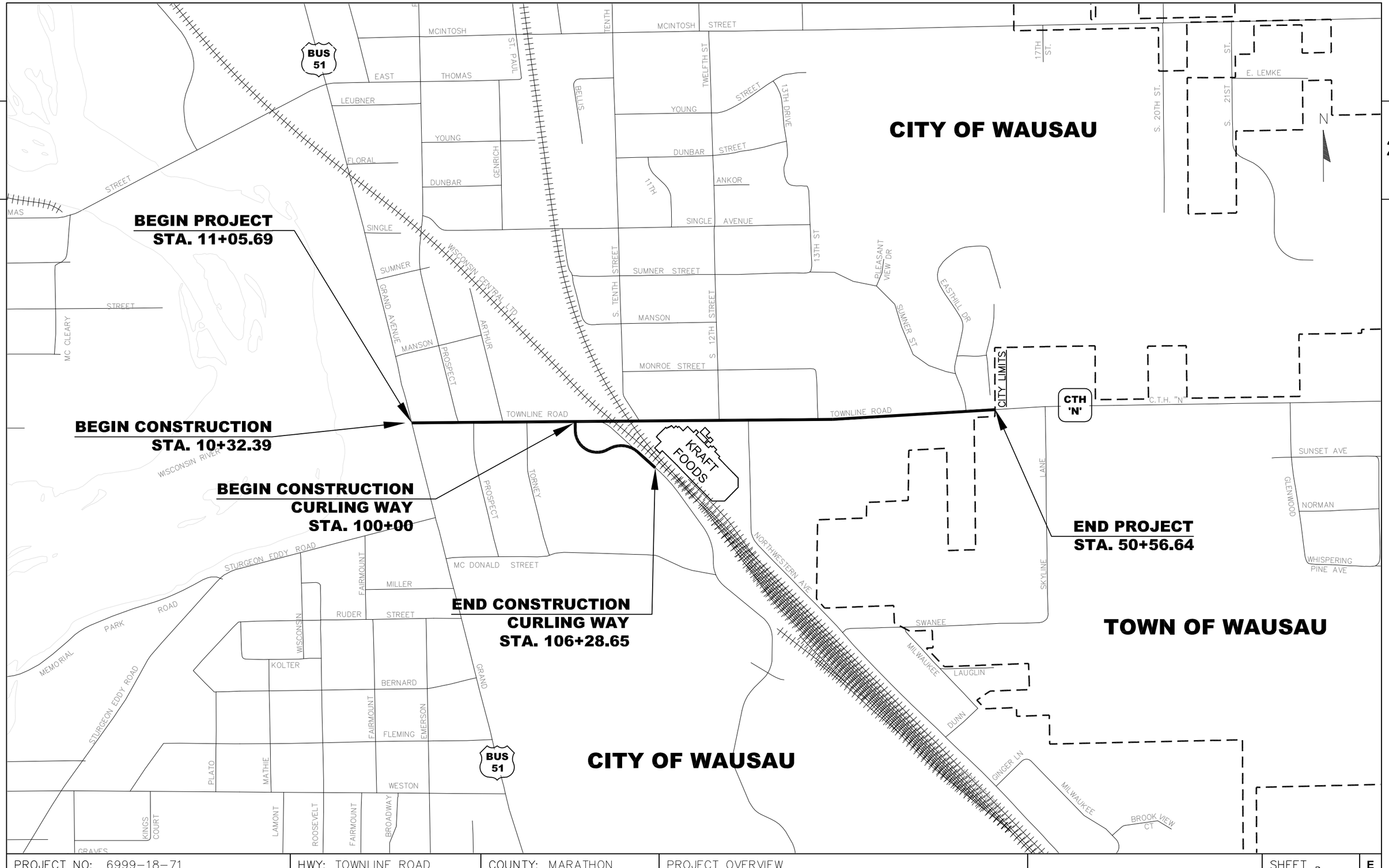
CURVE DATA SHOWN ON THE PLAN IS "ARC DEFINITION".

HMA PAVEMENTS SHALL BE 12.5mm FOR UPPER LAYER AD 19.0mm FOR LOWER LAYER.

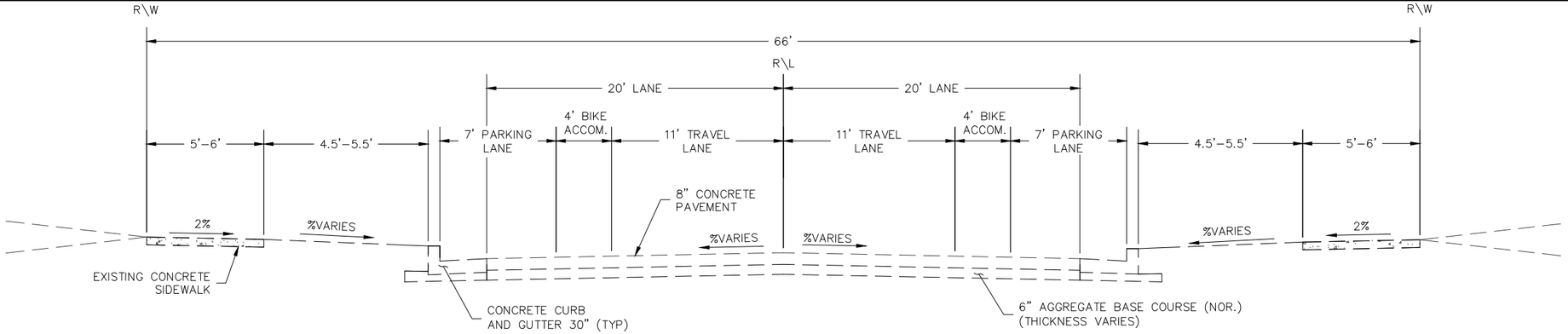
ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVING DETAILS
EROSION CONTROL
STORM SEWER PLAN
UTILITY PLAN
SIGNING AND MARKING
LIGHTING PLAN
TRAFFIC CONTROL
DETOUR
ALIGNMENT

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_NotesAbbrevOverviewSectionsDetails.dwg, 10/19/2018 9:19:08 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

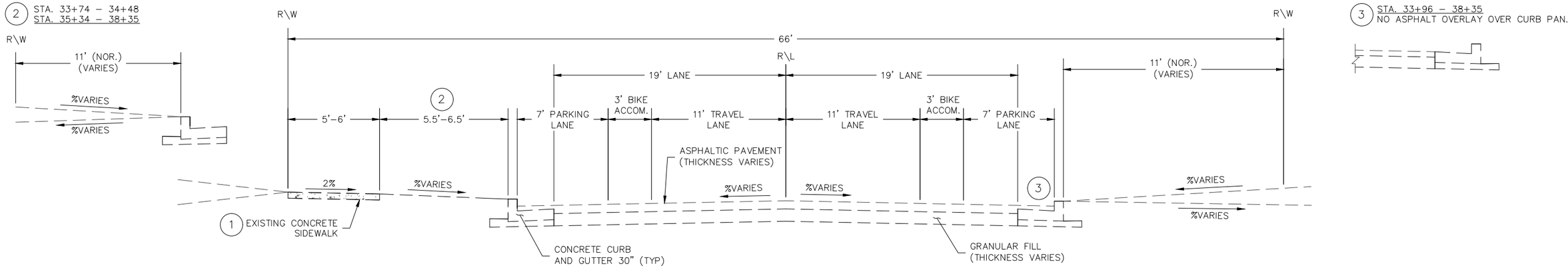


PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PROJECT OVERVIEW		SHEET 3	E



EXISTING TYPICAL SECTION – TOWNLINE ROAD (GRAND AVENUE TO S. 12TH STREET)

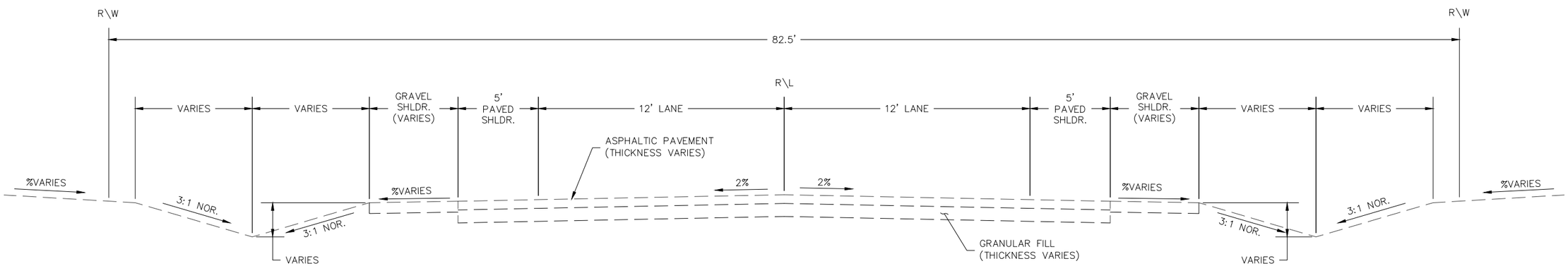
STA. 11+05.69 – STA. 31+75



EXISTING TYPICAL SECTION – TOWNLINE ROAD (S. 12TH STREET TO S. 13TH STREET)

STA. STA. 31+75 – STA. 38+35

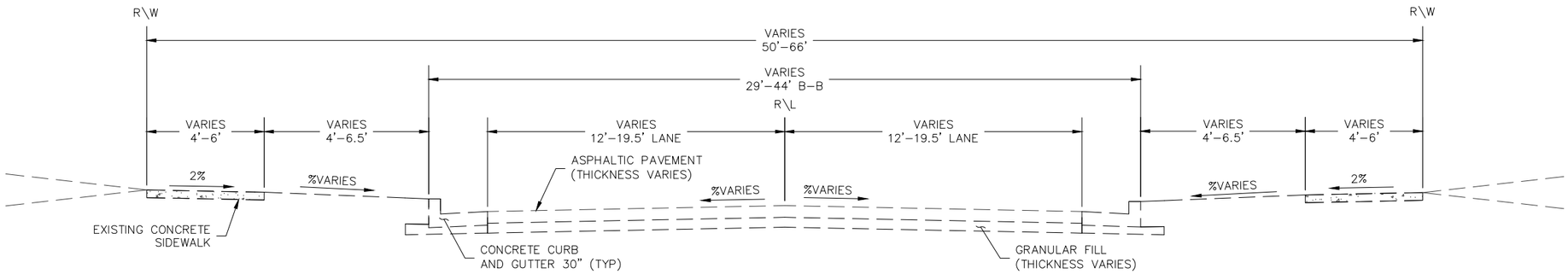
1 SIDEWALK ENDS AT STA. 33+74
SIDEWALK RESUMES STA. 34+48 – 35+34



EXISTING TYPICAL SECTION – TOWNLINE ROAD (S. 13TH STREET TO EASTHILL DRIVE)

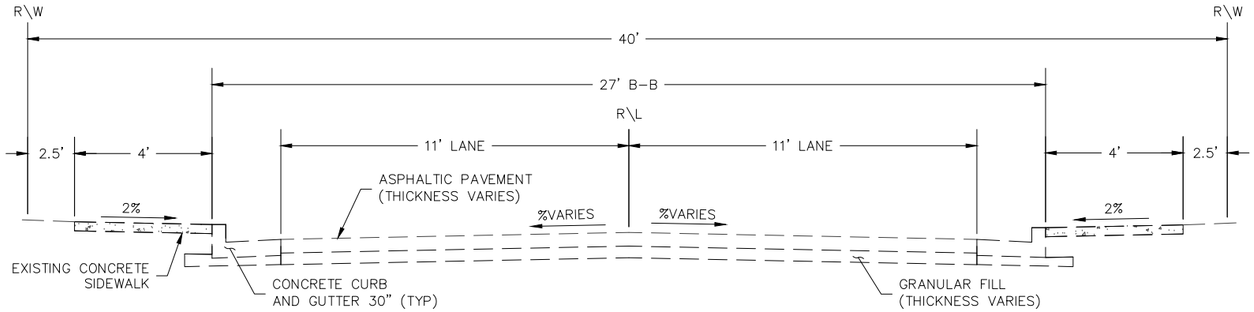
STA. STA. 38+35 – STA. 50+56.64

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	TYPICAL SECTIONS		SHEET 4	E



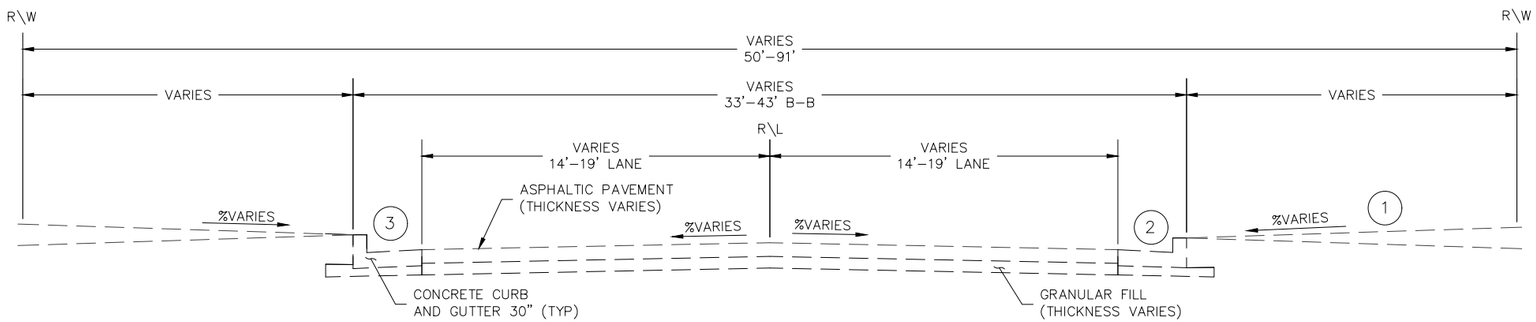
EXISTING TYPICAL SECTION – SIDE ROADS

PROSPECT AVENUE & ARTHUR STREET

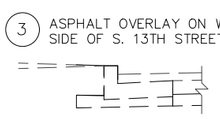


EXISTING TYPICAL SECTION – SIDE ROAD

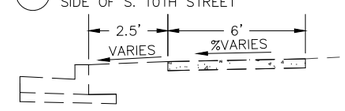
TORNEY AVENUE



3 ASPHALT OVERLAY ON WEST SIDE OF S. 13TH STREET



1 CONCRETE SIDEWALK ON EAST SIDE OF S. 10TH STREET

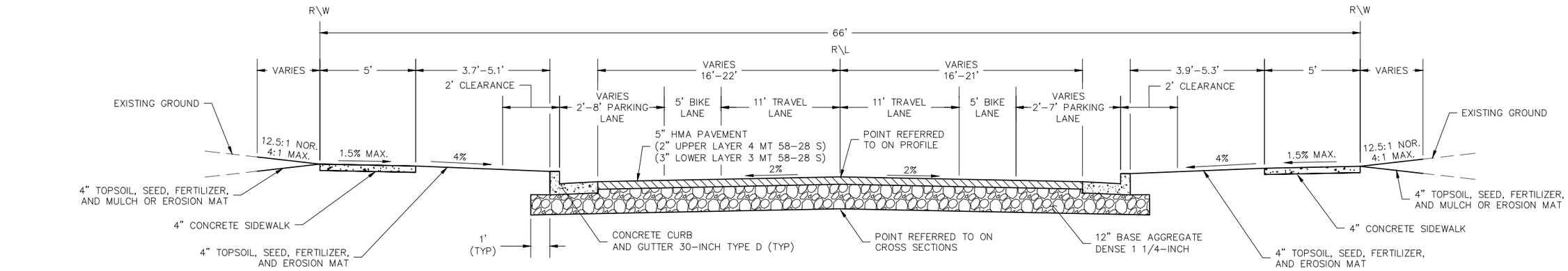


2 NO CURB & GUTTER ON EAST SIDE OF S. 13TH STREET. NO CURB & GUTTER ON CURLING WAY.

EXISTING TYPICAL SECTION – SIDE ROADS

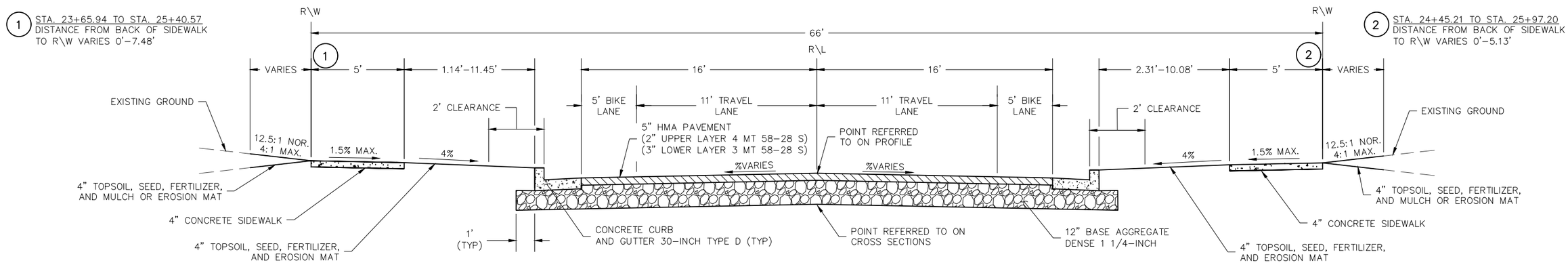
CURLING WAY, S. 10TH STREET, S. 12TH STREET, NORTHWESTERN AVE, S. 13TH STREET & EASTHILL DRIVE

PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	TYPICAL SECTIONS		SHEET 5	E



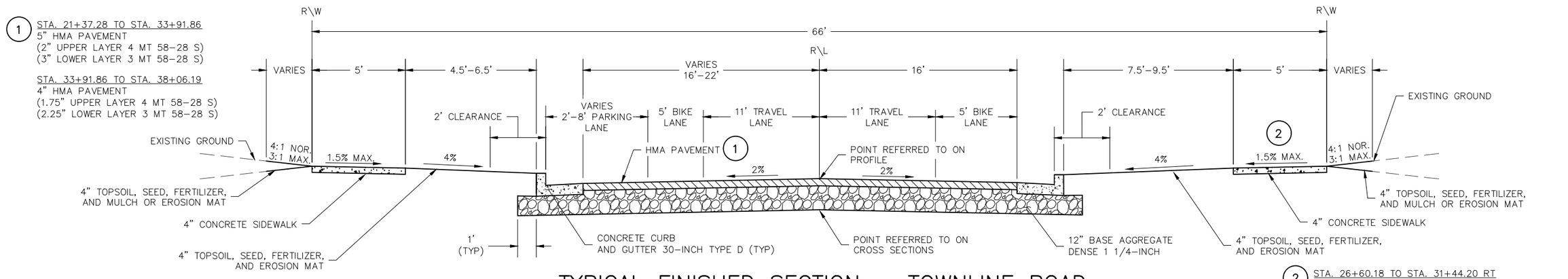
TYPICAL FINISHED SECTION – TOWNLINE ROAD

STA. 11+05.69 – STA. 23+25.00



TYPICAL FINISHED SECTION – TOWNLINE ROAD

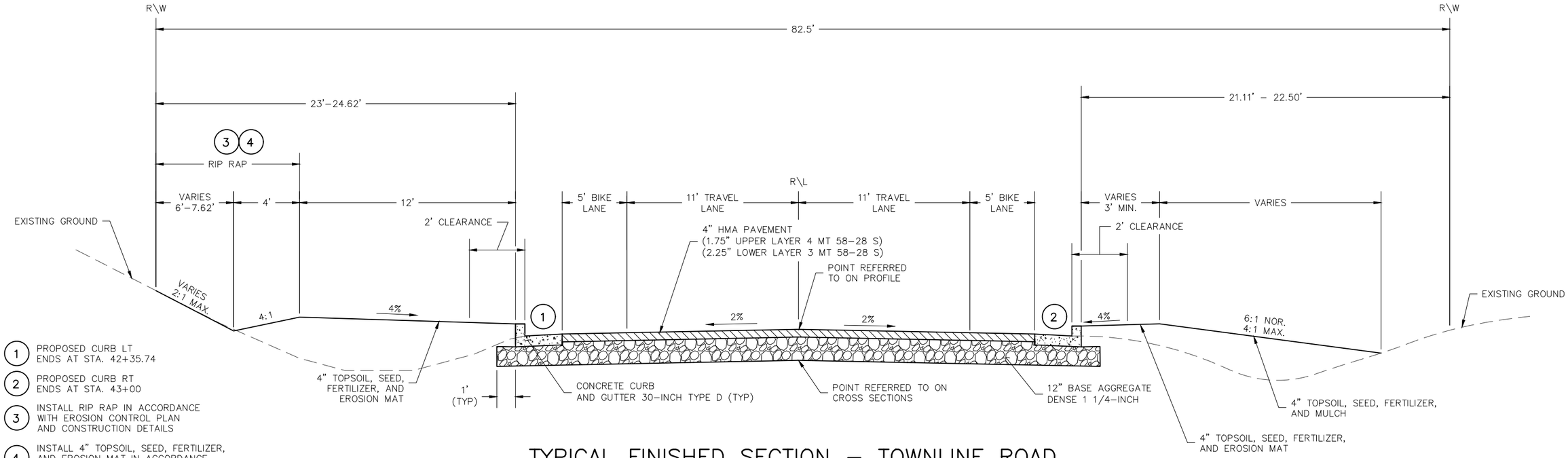
STA. 23+25.00 – STA. 25+48.66



TYPICAL FINISHED SECTION – TOWNLINE ROAD

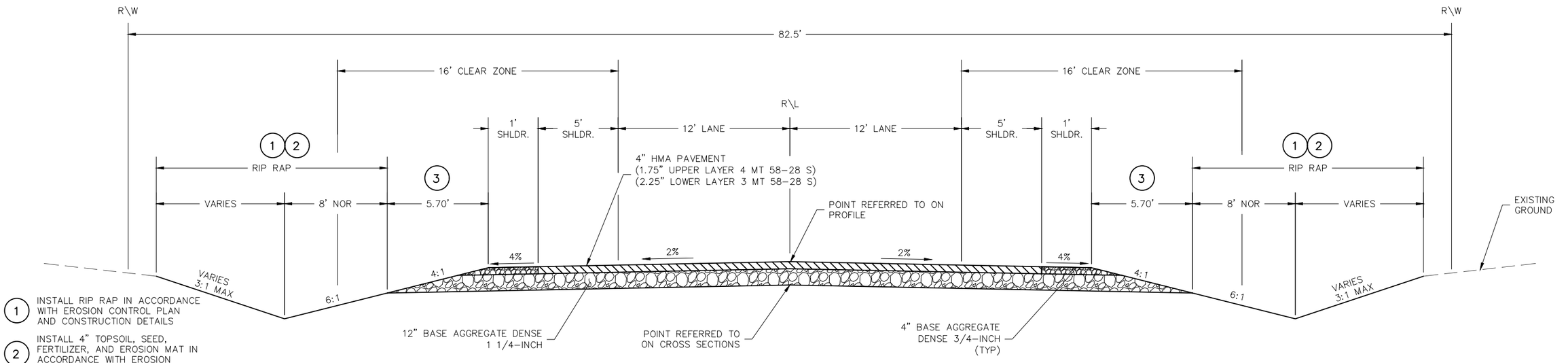
STA. 25+48.66 – STA. 38+06.19

PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	TYPICAL SECTIONS	SCALE, FEET –NOT TO SCALE	SHEET 6	E



TYPICAL FINISHED SECTION – TOWNLINE ROAD

STA. 38+06.19 – STA. 43+00

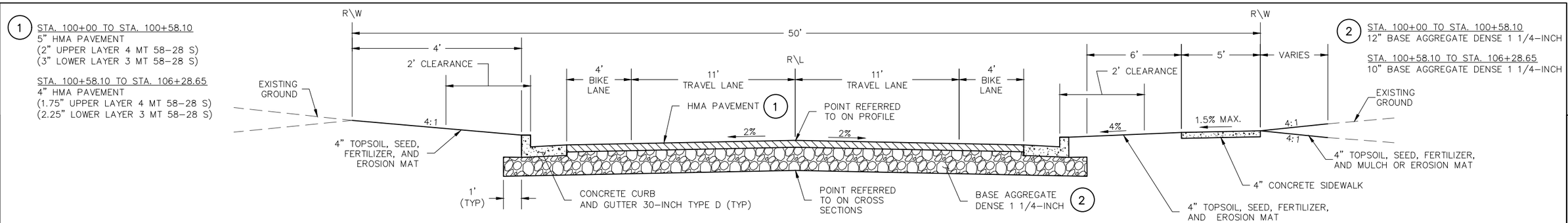


TYPICAL FINISHED SECTION – TOWNLINE ROAD

STA. 43+00 – STA. 50+56.64

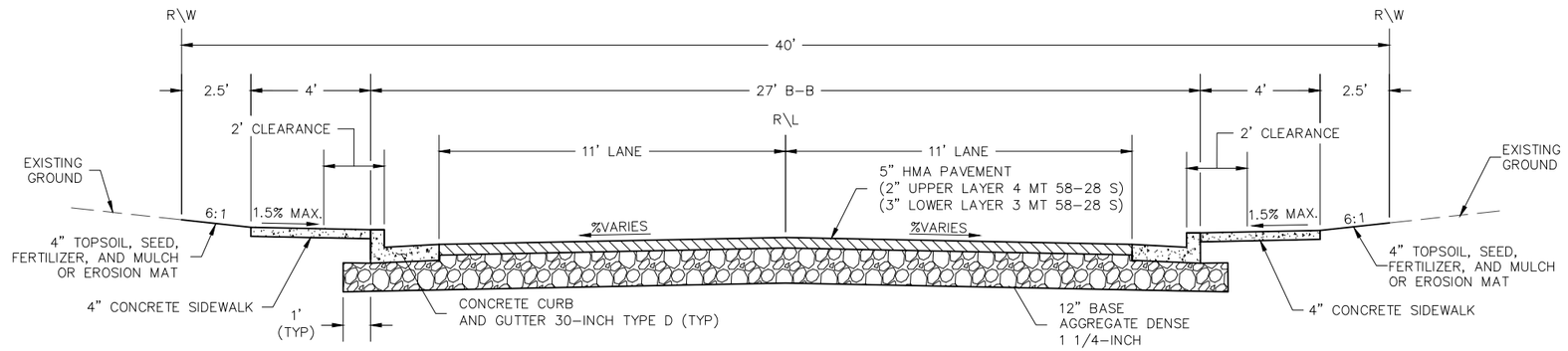
PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	TYPICAL SECTIONS	SCALE, FEET –NOT TO SCALE	SHEET 7	E

2



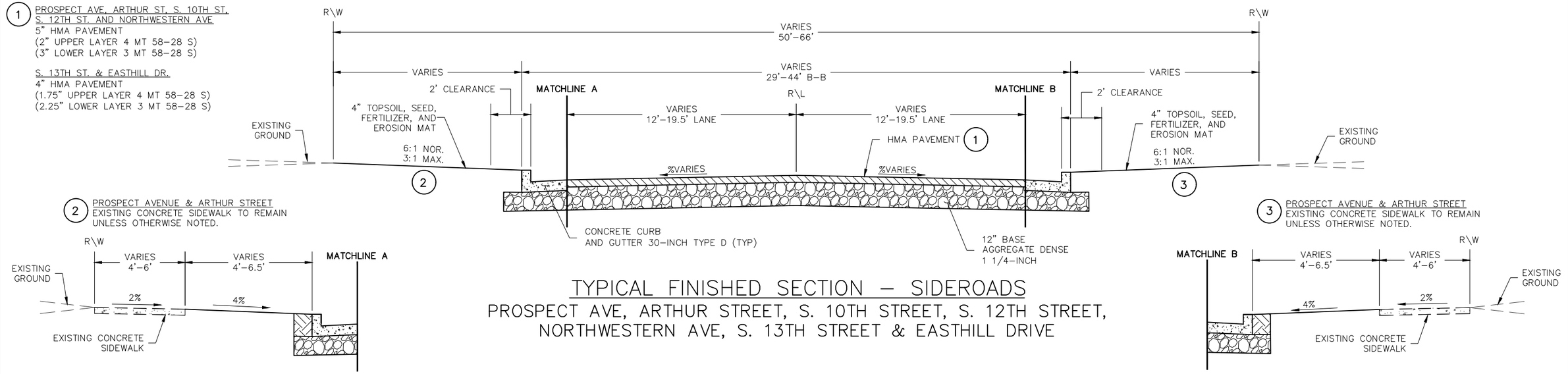
TYPICAL FINISHED SECTION – PROPOSED CURLING WAY REALIGNMENT

STA. 100+00 – STA. 106+28.65



TYPICAL FINISHED SECTION – SIDEROAD

TORNEY AVENUE



TYPICAL FINISHED SECTION – SIDEROADS

PROSPECT AVE, ARTHUR STREET, S. 10TH STREET, S. 12TH STREET, NORTHWESTERN AVE, S. 13TH STREET & EASTHILL DRIVE

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	TYPICAL SECTIONS	SCALE, FEET –NOT TO SCALE	SHEET 8	E

2

2

EXISTING RAILROAD BUNGALOW

RAILROAD TO RELOCATE EXISTING SIGNAL AND GATE

CLOSE EXISTING DRIVEWAY

PROPOSED 6'X6' RAILROAD BUNGALOW BY RAILROAD

EXISTING RAILROAD BUNGALOW TO BE REMOVED BY RAILROAD

S. 10TH ST

WISCONSIN CENTRAL LTD. RR

EXISTING RAILROAD SIGNAL TO BE REMOVED BY RAILROAD

RELOCATED RAILROAD SIGNAL AND GATE INSTALLED BY RAILROAD

TOWNLINE ROAD

23+50 23+75 24+00 24+25 24+50 24+75 25+00 25+25 25+50 25+75 26+00 26+25

PI: 23+62.24

PI: 25+03.88

NEW RR CROSSING SURFACE INSTALLED BY RAILROAD

ASPHALTIC SURFACE PATCHING 5-INCH (TYP)

EXISTING RAILROAD SIGNAL TO BE REMOVED BY RAILROAD

SLOPE INTERCEPT (TYP)

RELOCATED RAILROAD SIGNAL AND GATE INSTALLED BY RAILROAD

RAILROAD TO RELOCATE EXISTING SIGNAL AND GATE

WISCONSIN CENTRAL LTD. RR

CURLING WAY

EXISTING SIDEROAD TO BE OBLITERATED

N

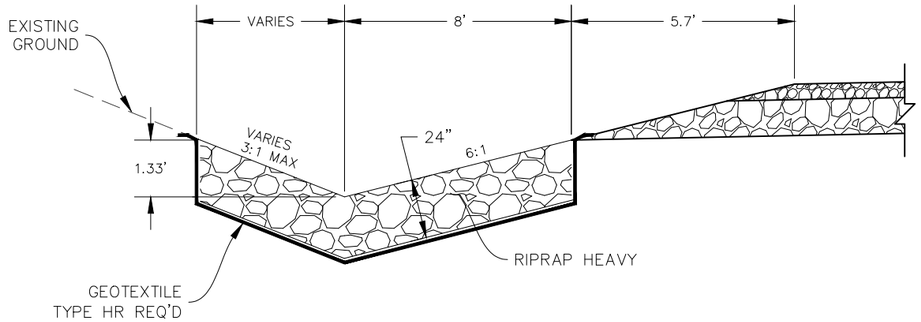
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CONSTRUCTION DETAIL – RAILROAD WORK (BY OTHERS)		SHEET 9	E

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT		
LAND USE	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	0.08	0.16	0.22	0.12	0.20	0.27	0.15	0.24	0.33	0.19	0.28	0.38
	0.22	0.30	0.38	0.26	0.34	0.44	0.30	0.37	0.50	0.34	0.41	0.56
MEDIAN STRIP-TURF	0.19	0.20	0.24	0.19	0.22	0.26	0.20	0.23	0.30	0.20	0.25	0.30
	0.24	0.26	0.30	0.25	0.28	0.33	0.26	0.30	0.37	0.27	0.32	0.40
SIDE SLOPE-TURF			0.25			0.27			0.28			0.30
			0.32			0.34			0.36			0.38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 9.9 ACRES

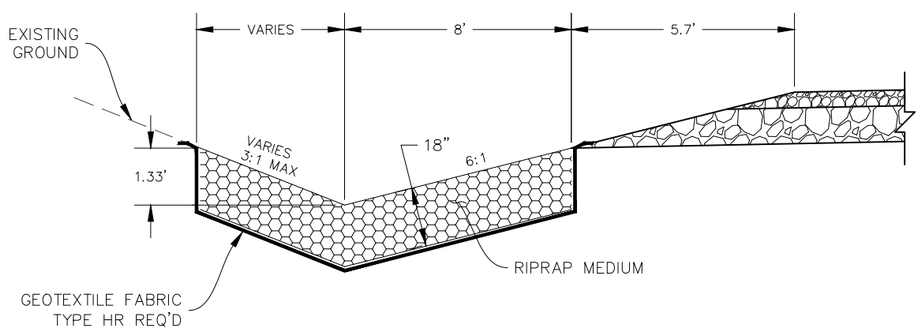
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 8.2 ACRES (GRADING AREA)

RUNOFF COEFFICIENT TABLE



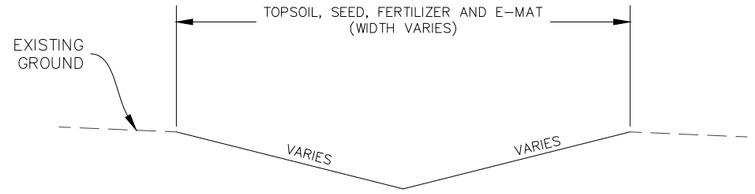
RIPRAP HEAVY DETAIL FOR DITCHES

(SEE EROSION CONTROL PLANS FOR ADDITIONAL INFORMATION)



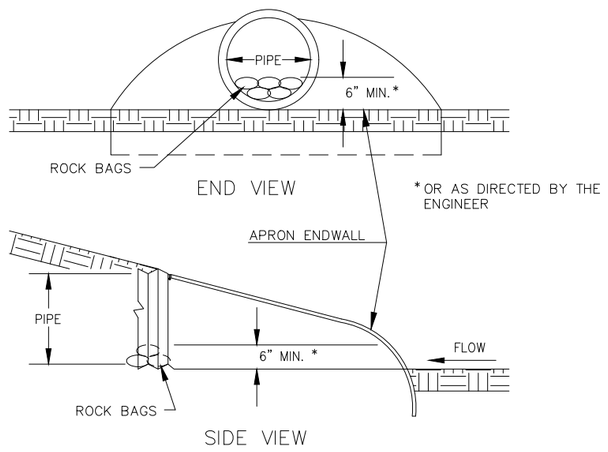
RIPRAP MEDIUM DETAIL FOR DITCHES

(SEE EROSION CONTROL PLANS FOR ADDITIONAL INFORMATION)



DITCH DETAIL

CURLING WAY – STA. 104+72 LT – 106+09 LT

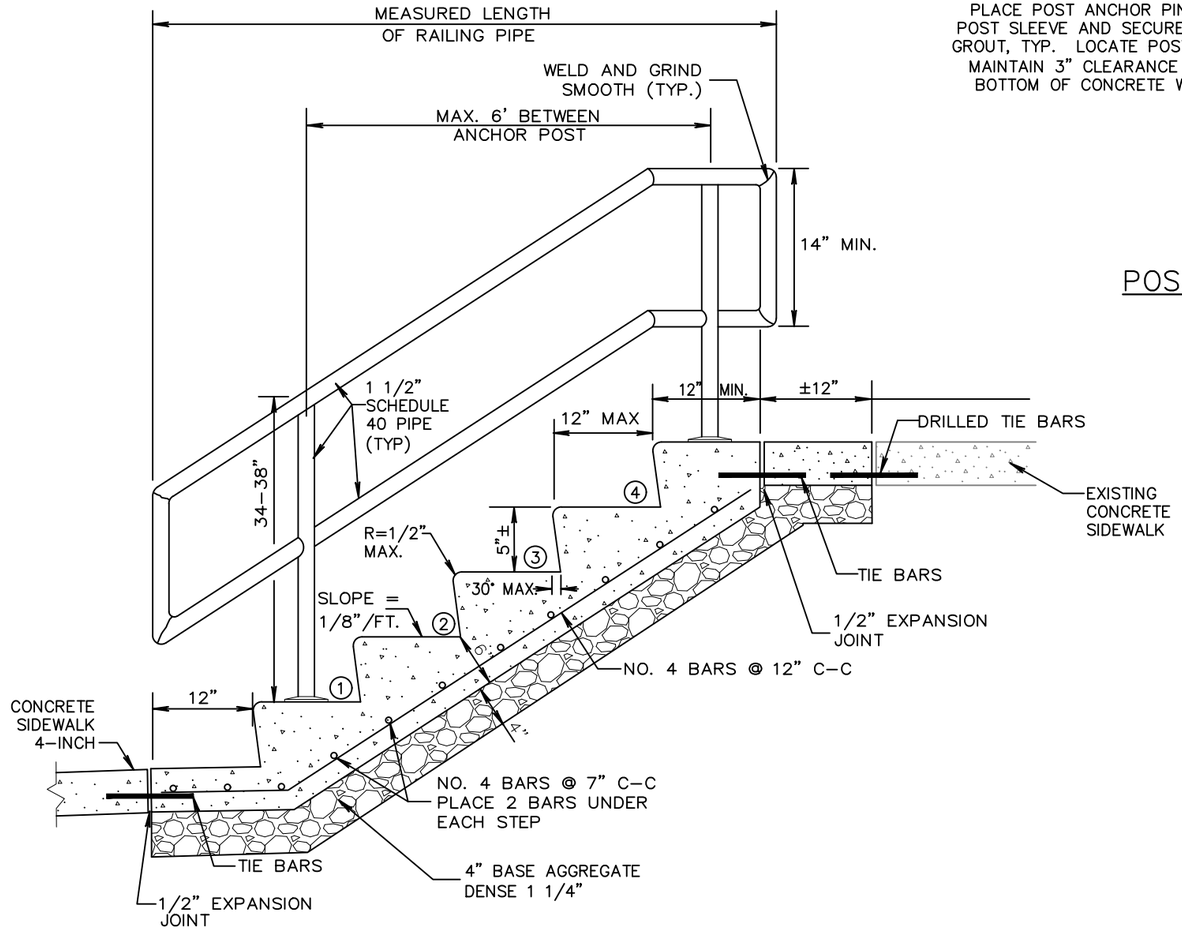


CULVERT PIPE CHECKS

INSTALL ON INLET END

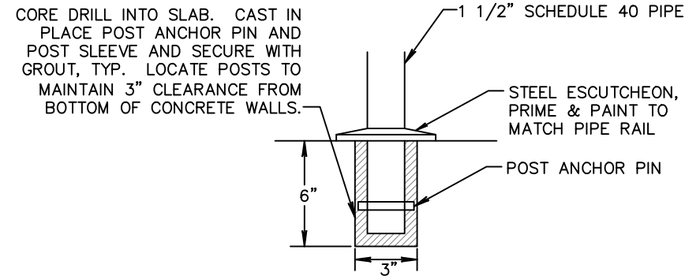
(SEE EROSION CONTROL PLANS FOR ADDITIONAL INFORMATION)

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CONSTRUCTION DETAILS		SHEET 10	E



CONCRETE STEPS DETAIL

(TOWNLINE ROAD – STA. 37+45 LT)



POST INSTALLATION DETAIL

NOTES:

THE EXACT LOCATION, WIDTHS AND NUMBER OF STEPS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

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

HANDRAIL SHALL BE AT A CONSISTENT HEIGHT ABOVE WALKING SURFACES, STAIR NOSINGS AND RAMP SURFACES.

CLEARANCE BETWEEN HANDRAIL GRIPPING SURFACE AND ADJACENT SURFACES SHALL BE 1 1/2"MINIMUM.

MEDIUM BROOM FINISH STEPS PARALLEL TO TREAD (TYP)

REBAR TO BE COVERED BY 2" CONCRETE MINIMUM.

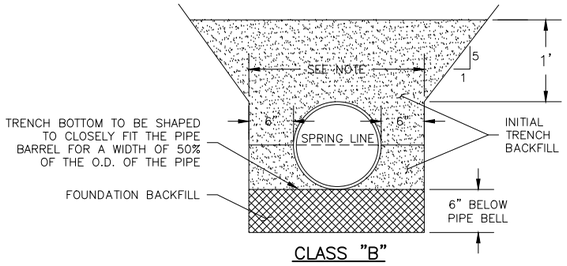
MINIMUM WIDTH OF STEPS EQUALS 4 FEET.

CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL BE ENGINEER PRIOR TO CONSTRUCTION.

2

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_NotesAbbrevOverviewSectionsDetails.dwg, 8/22/2018 12:41:21 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

2



CLASS "B"

NOTE:
THE TRENCH WIDTH IS TO BE TAKEN AS THE HORIZONTAL DISTANCE AT THE OUTSIDE TOP OF THE PIPE.

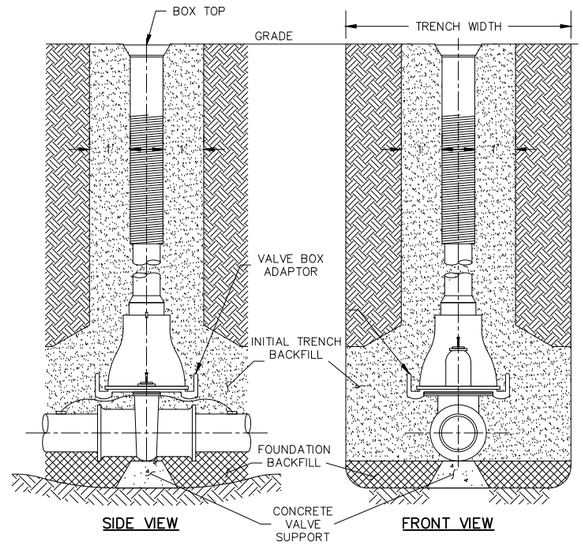
NATIVE SOILS CONFORMING TO THE FOUNDATION OR INITIAL BACKFILL SPECIFICATIONS MAY BE USED.

THE MAXIMUM ALLOWABLE WIDTH SHALL BE:

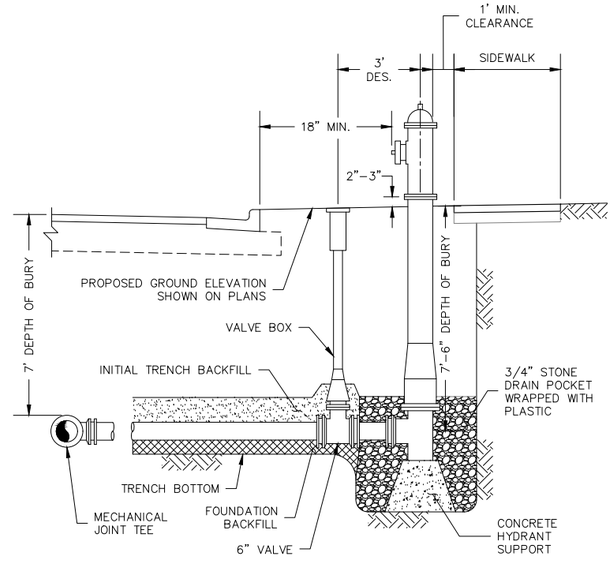
1.) 3.0' GREATER THAN OUTSIDE DIA. FOR 36" OR LARGER PIPE
2.) 2.0' GREATER THAN OUTSIDE DIA. FOR PIPES LESS THAN 36" IN DIA.

FLEXIBLE & RIGID PIPE BEDDING CLASSIFICATIONS

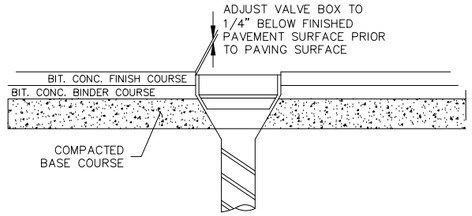
FOR SANITARY SEWER AND WATERMAIN ITEMS



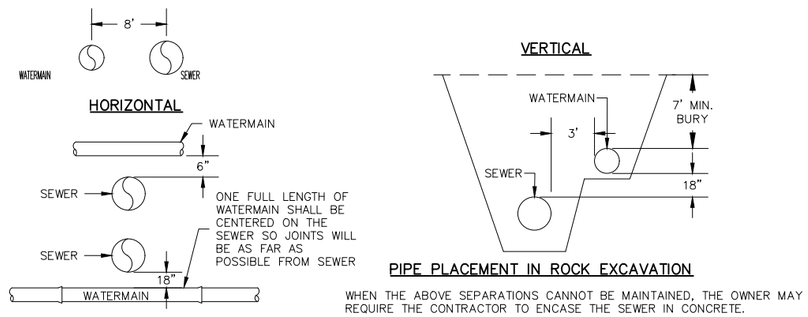
VALVE BOX SETTING



TYPICAL HYDRANT



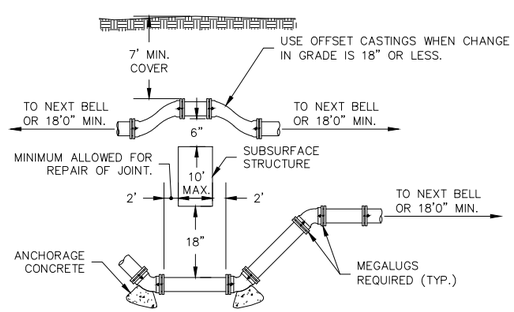
WATER VALVE BOX ADJUSTMENT



PIPE PLACEMENT IN ROCK EXCAVATION

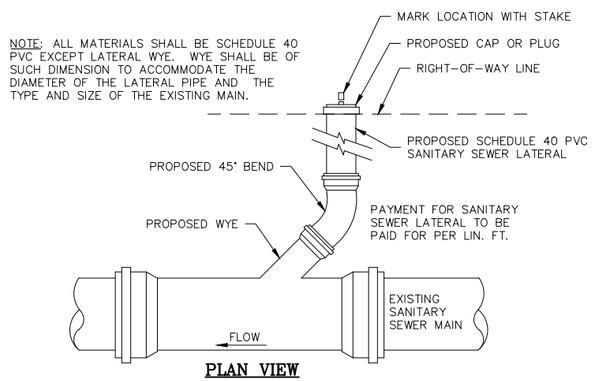
WHEN THE ABOVE SEPARATIONS CANNOT BE MAINTAINED, THE OWNER MAY REQUIRE THE CONTRACTOR TO ENCASE THE SEWER IN CONCRETE.

STORM AND SANITARY SEWER/WATERMAIN SEPARATION DISTANCE



TYPICAL WATERMAIN OFFSETS 6" THRU 12"

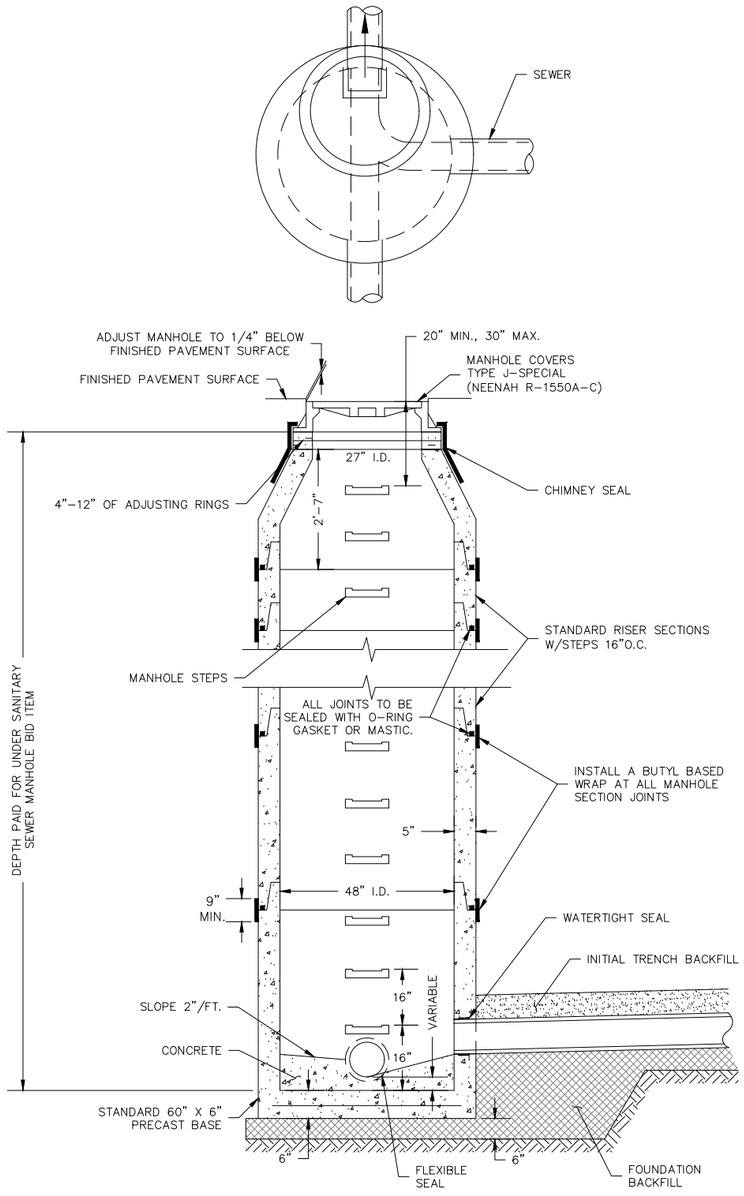
NOTE: MEGALUG AND REACTION BACKING PROVIDED BY CONTRACTOR



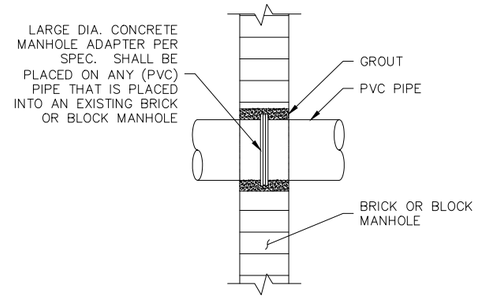
PLAN VIEW

TYPICAL SANITARY SEWER LATERAL

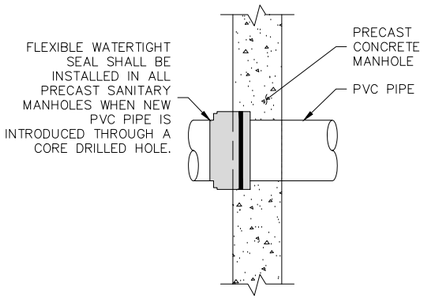
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_NotesAbbrevOverviewSectionsDetails.dwg, 8/22/2018 12:41:26 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



DETAIL OF MANHOLES SANITARY 4-FT DIAMETER (PRECAST)



BRICK OR BLOCK MANHOLE ADAPTER



PRECAST CONCRETE MANHOLE CONNECTOR

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_NotesAbbrevOverviewSectionsDetails.dwg, 8/22/2018 12:41:31 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

2

2

NOTES:

ALL SERVICE WALKS BEHIND THE PROPERTY LINE TO BE TRANSITIONED AS DIRECTED BY THE ENGINEER OR INSPECTOR IN THE FIELD WITH A 4" THICK P.C. CONCRETE OVER COMPACTED SUBGRADE.

ALL EXISTING PAVEMENT, ASPHALT, AND CONCRETE TO BE REMOVED WILL BE SAWCUT, FULL DEPTH, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

CURB AND GUTTER ELEVATIONS AND RADIUS POINTS ARE ALONG THE FLANGE LINE UNLESS OTHERWISE NOTED.

ALL SIDEWALK IS CONCRETE SIDEWALK 4-INCH.

ALL CURB AND GUTTER IS CONCRETE CURB AND GUTTER 30-INCH TYP D, UNLESS OTHERWISE NOTED; HES LOCATIONS ARE SHOWN ON PLANS AND MISCELLANEOUS QUANTITIES.

PAVE CONCRETE DRIVEWAYS AT A DEPTH OF 6" HES LOCATIONS ARE SHOWN ON PLANS AND MISCELLANEOUS QUANTITIES.

CONSTRUCT DRIVEWAY PAVEMENTS BEHIND THE SIDEWALK TO THE DEPTHS SHOWN ON THE APPLICABLE SDD'S.

PAVE ALL ROADWAY HMA PAVEMENTS AT THE DEPTHS SHOWN ON THE CROSS SECTIONS EXCEPT THAT THE PATCH IN THE GRAND AVENUE INTERSECTION SHALL BE CONSTRUCTED WITH ASPHALTIC SURFACE PATCHING 5" OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH

DRIVEWAYS WITH CURB AND GUTTER RETURNS SHALL HAVE 24-INCH CURB AND GUTTER TO MATCH EXISTING CURB AND GUTTER DIMENSIONS WITH 6-INCH CURB HEAD AND 18-INCH PAN.

LEGEND



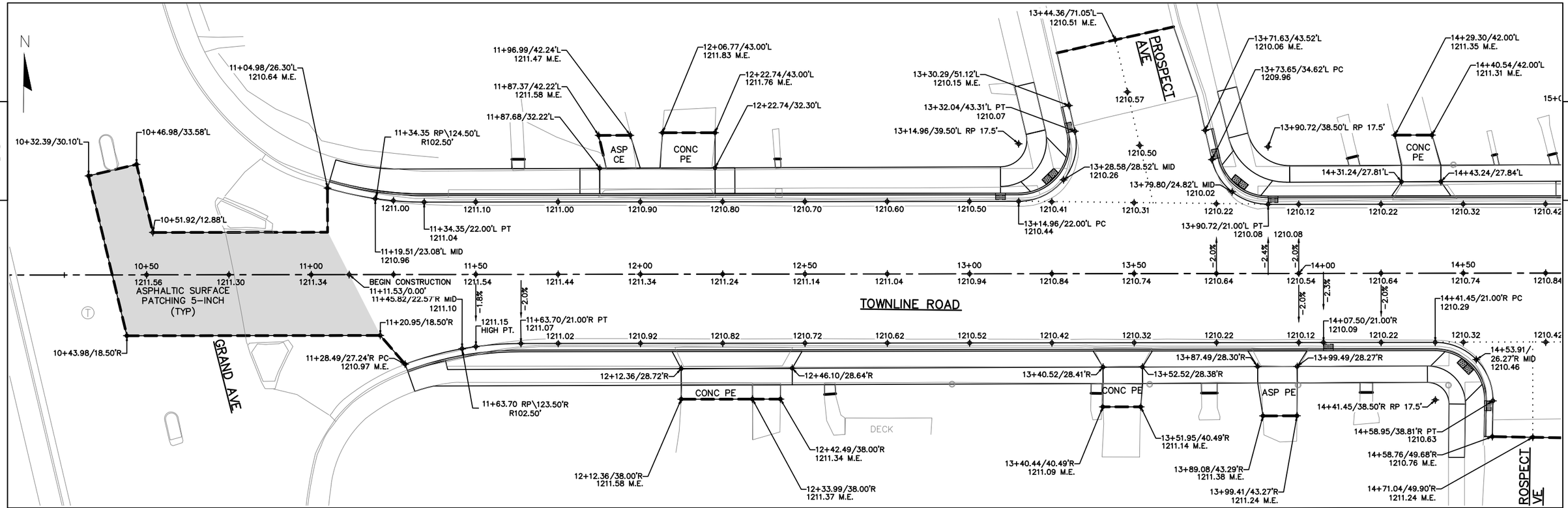
SAWCUT REQUIRED. MATCH EXISTING

ASPHALTIC SURFACE PATCHING 5-INCH

CURB RAMP DETECTABLE WARNING FIELD PATINA

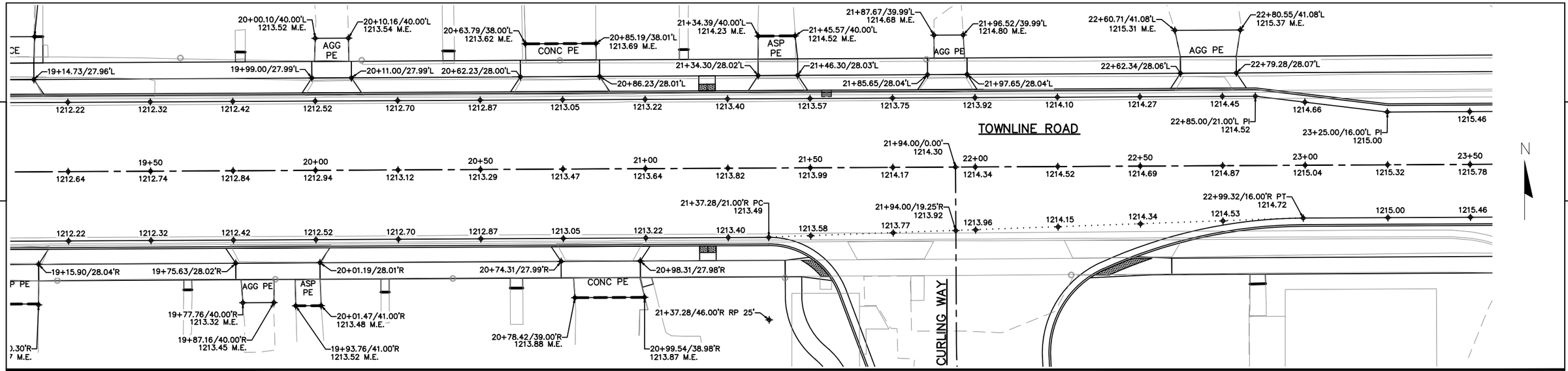
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES		SHEET 14	E

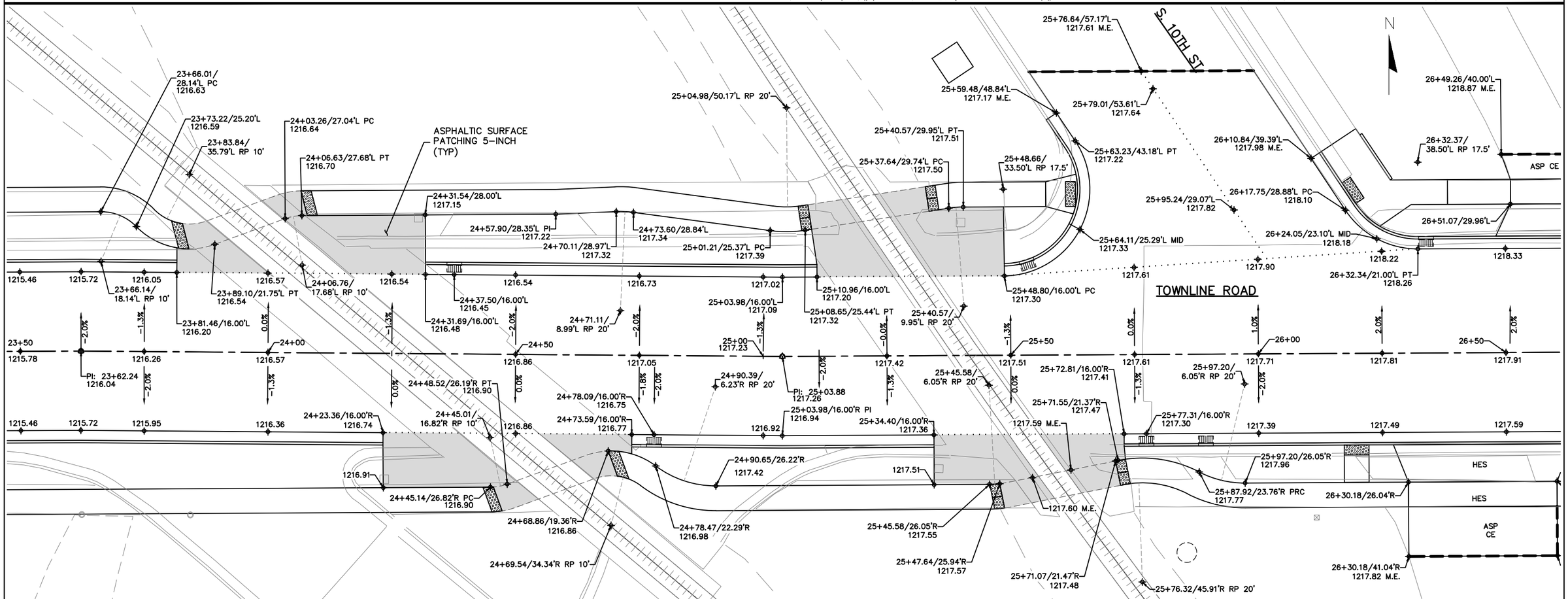
WISDOT/CADDS SHEET 44



PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES		SHEET 15	E

2





PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES		SHEET 16	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVING GRADES.dwg, 8/23/2018 10:03:26 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

2

26+32.37/
38.50'L RP 17.5'

26+40.00'L
1218.87 M.E.

26+66.13/40.00'L
1219.22 M.E.

ASP CE

26+68.50/29.96'L

.07/29.96'L

1218.33 1218.43 1218.60 1218.93 1219.40 1219.95 1220.50 1221.05 1221.60 1222.15 1222.70 1223.25 1223.80 1224.35 1224.90 1225.45 1226.00 1226.55 1227.10

28+10.48/47.96'L
1222.78 M.E.

28+20.48/47.96'L
1223.10 M.E.

ASP PE

28+56.05/57.96'L
1224.64 M.E.

28+64.48/57.96'L
1224.96 M.E.

ASP PE

28+05.34/29.96'L

28+20.30/29.97'L

28+54.40/29.96'L

28+66.40/29.96'L

29+08.89/47.97'L
1225.23 M.E.

29+19.89/47.97'L
1225.43 M.E.

ASP PE

29+08.49/29.97'L

29+20.49/29.97'L

30+19.85/47.97'L
1226.96 M.E.

30+09.84/47.97'L
1227.36 M.E.

CONC PE

30+08.57/29.97'L

30+20.57/29.97'L

TOWNLINE ROAD

26+50 27+00 27+50 28+00 28+50 29+00 29+50 30+00 30+50 31+00

2.0% 2.0% 2.0%

1217.91 1218.01 1218.18 1218.51 1218.98 1219.53 1220.08 1220.63 1221.18 1221.73 1222.28 1222.83 1223.38 1223.93 1224.48 1225.03 1225.58 1226.13 1226.68

1217.59 1217.69 1217.86 1218.19 1218.66 1219.21 1219.76 1220.31 1220.86 1221.41 1221.96 1222.51 1223.06 1223.61 1224.16 1224.71 1225.26 1225.81 1226.36

HES

HES

ASP CE

26+60.18/26.04'R

26+60.18/41.04'R
1218.44 M.E.

27+50.53/26.19'R

HES

HES

ASP CE

27+80.22/26.29'R

27+40.48/36.04'R
1219.45 M.E.

27+90.24/36.04'R
1220.21 M.E.

28+65.03/26.14'R

HES

HES

29+07.57/26.18'R

GUARDRAIL

GUARDRAIL

N

31+58.45/56.33'L
1230.12 M.E.

S. 12TH ST

31+42.79/44.84'L
1228.89 M.E.

31+74.79/46.02'L
1230.04 M.E.

31+25.51/
38.50'L RP 17.5'

31+42.99/39.37'L PT
1228.68

31+75.01/38.02'L PC
1229.91

31+92.51/38.50'L RP 17.5'

31+38.19/26.44'L MID
1228.17

31+80.30/25.96'L MID
1229.43

1227.10 1228.24 1228.92 1229.70 1230.58 1231.57 1232.65 1233.84 1235.12 1236.51 1238.00 1239.59 1241.28 1243.07 1244.97 1246.96 1249.05 1251.25

31+25.51/21.00'L PC
1227.66

31+92.51/21.00'L PT
1229.45

32+36.60/52.98'L
1233.35 M.E.

32+46.43/52.98'L
1233.42 M.E.

ASP PE

32+35.50/29.98'L

32+47.50/29.98'L

33+11.10/45.00'L
1235.35 M.E.

32+94.59/45.00'L
1234.95 M.E.

AGG PE

32+94.35/29.98'L

33+09.12/29.98'L

33+58.25/42.00'L
1238.02 M.E.

33+73.36/42.00'L
1238.48 M.E.

ASP PE

33+58.31/29.98'L

33+73.21/29.98'L

35+09.04/50.00'L
1250.44 M.E.

35+33.62/50.00'L
1251.78 M.E.

ASP PE

35+11.42/29.99'L

35+33.64/29.99'L

TOWNLINE ROAD

31+00 31+50 32+00 32+50 33+00 33+50 34+00 34+50 35+00 35+50

2.0% 2.0% 2.0%

1226.68 1227.23 1227.81 1228.50 1229.28 1230.16 1231.15 1232.23 1233.42 1234.70 1236.09 1237.58 1239.17 1240.86 1242.65 1244.55 1246.54 1248.63 1250.83

1226.36 1226.91 1227.49 1228.18 1228.96 1229.84 1230.83 1231.91 1233.10 1234.38 1235.77 1237.26 1238.85 1240.54 1242.33 1244.23 1246.22 1248.31 1250.51

33+19.87/16.00'R PC
1234.11

33+35.52/22.34'R MID
1235.06

33+91.86/16.00'R PT
1238.32

33+79.33/21.28'R MID
1237.48

HES

HES

31+44.20/26.03'R

31+80.11/26.02'R

GUARDRAIL

GUARDRAIL

34+70.77/26.01'R

34+90.77/26.01'R

AGG CE

33+91.86/33.50'R RP 17.5'

33+19.87/38.50'R RP 22.5'

33+74.36/33.95'R PC
1237.14

34+70.77/40.01'R
1244.45 M.E.

34+90.74/40.01'R
1244.46 M.E.

33+42.36/37.78'R PT
1236.37

33+74.48/38.71'R
1237.02 M.E.

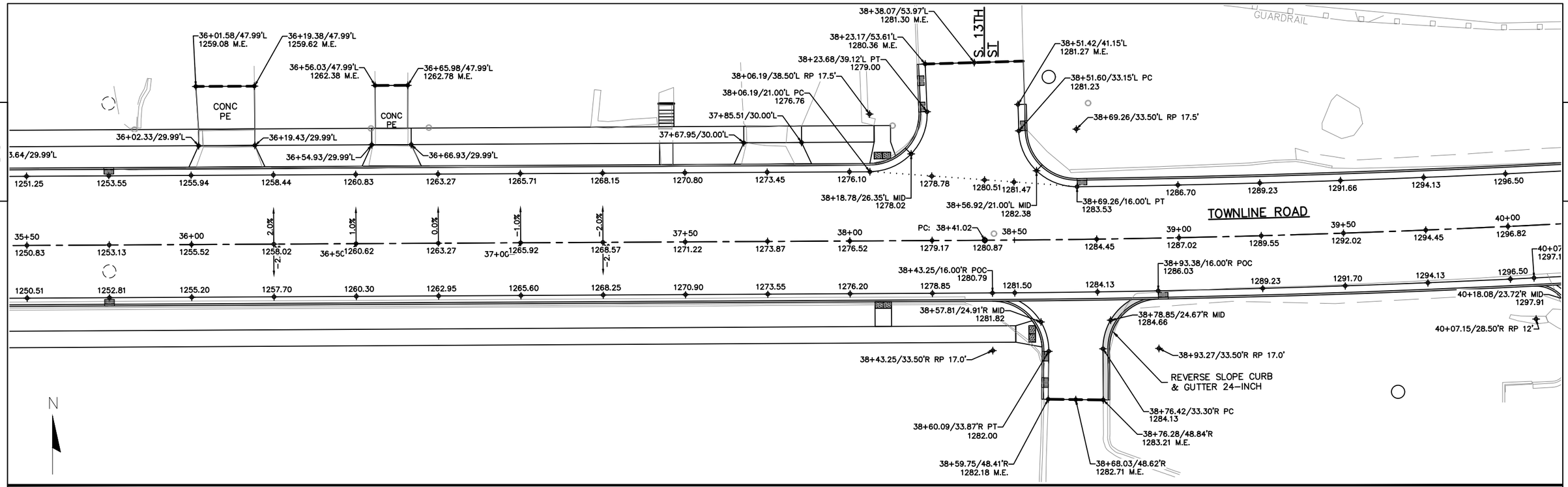
33+42.41/39.25'R
1236.49 M.E.

33+58.44/38.98'R
1236.90 M.E.

NORTH-WESTERN AVE

N

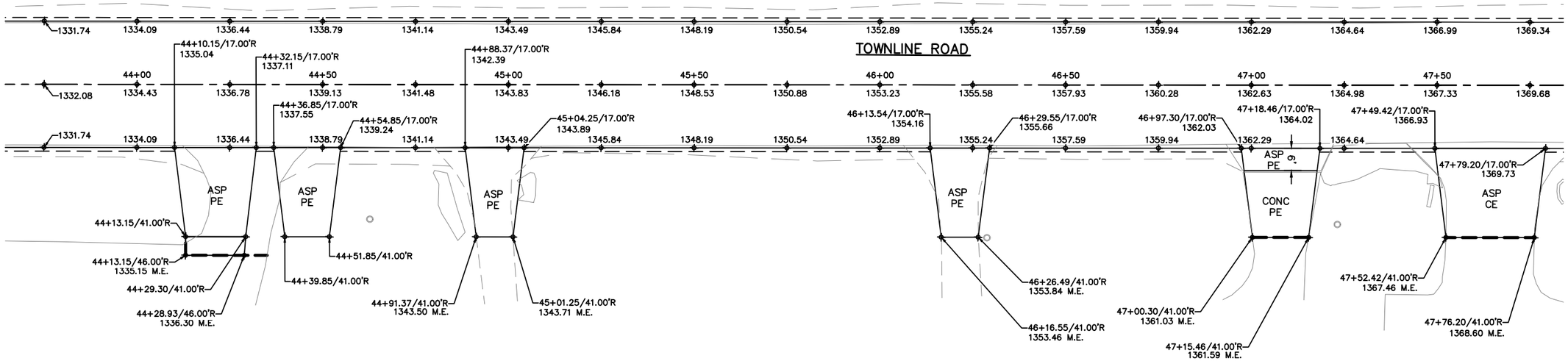
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES		SHEET 17	E

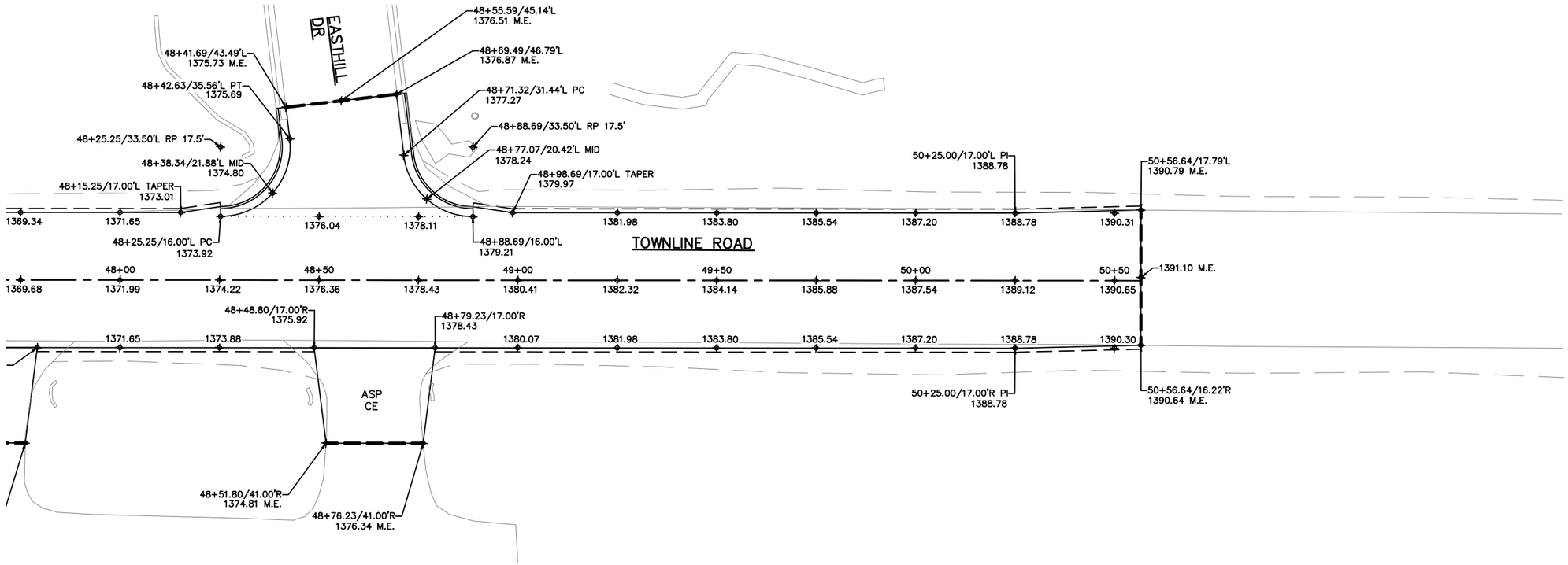


PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES		SHEET 18	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVING GRADES.dwg, 8/23/2018 10:04:36 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

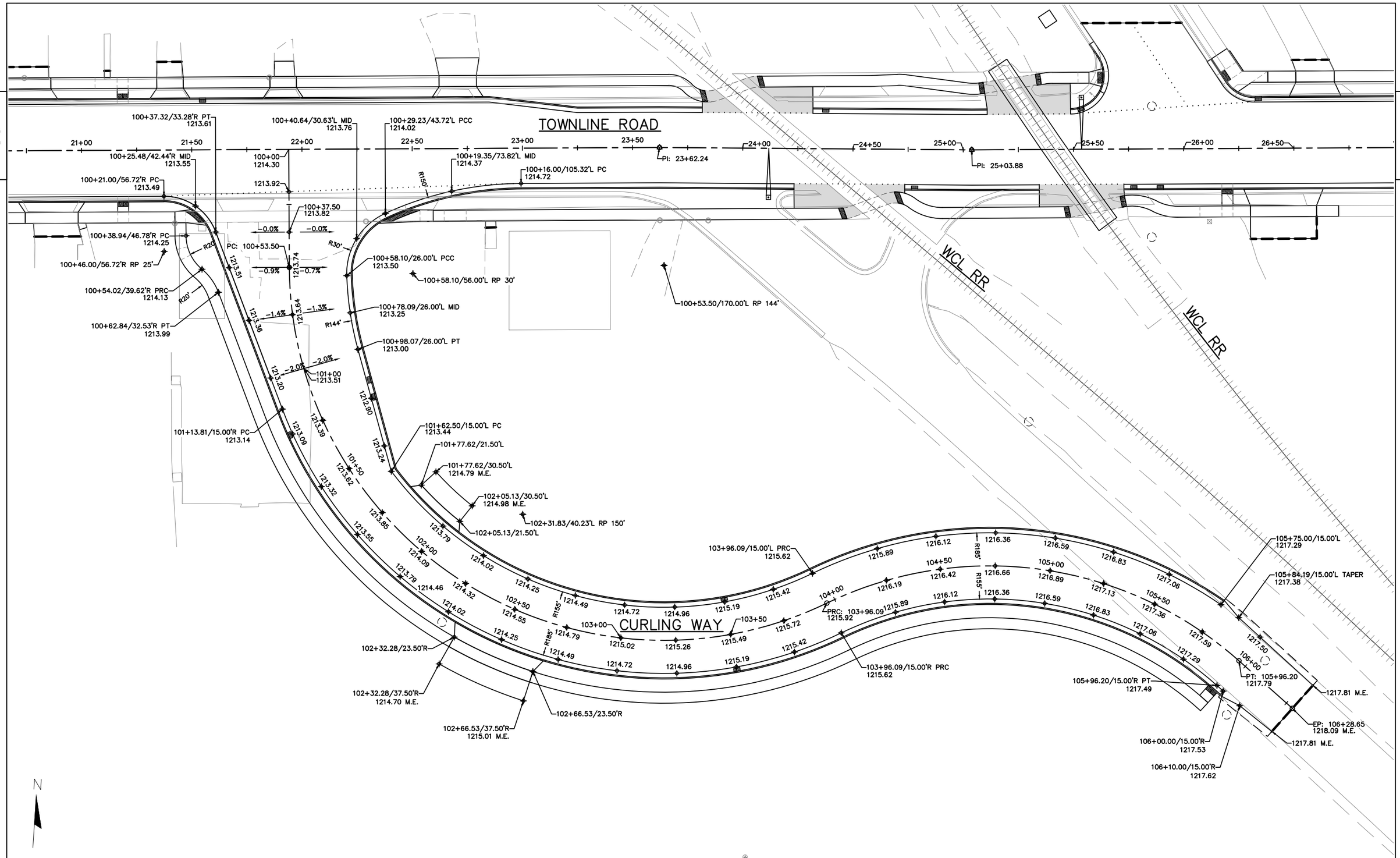
2





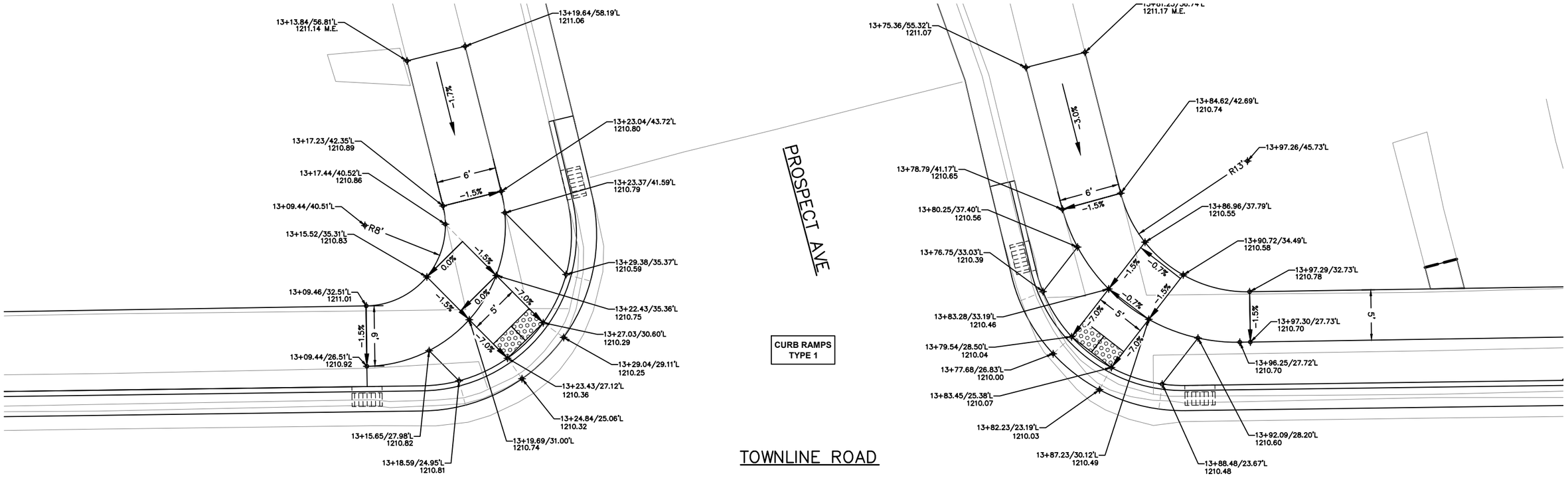
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES		SHEET 19	E

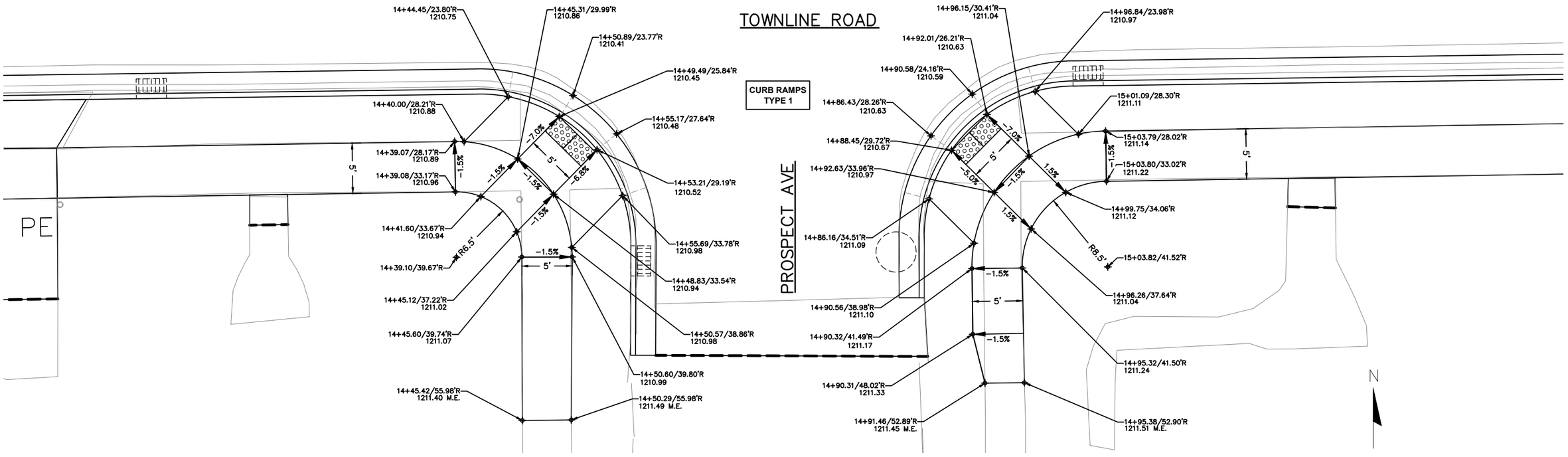
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVING GRADES.dwg, 8/23/2018 10:05:12 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES		SHEET 20	E

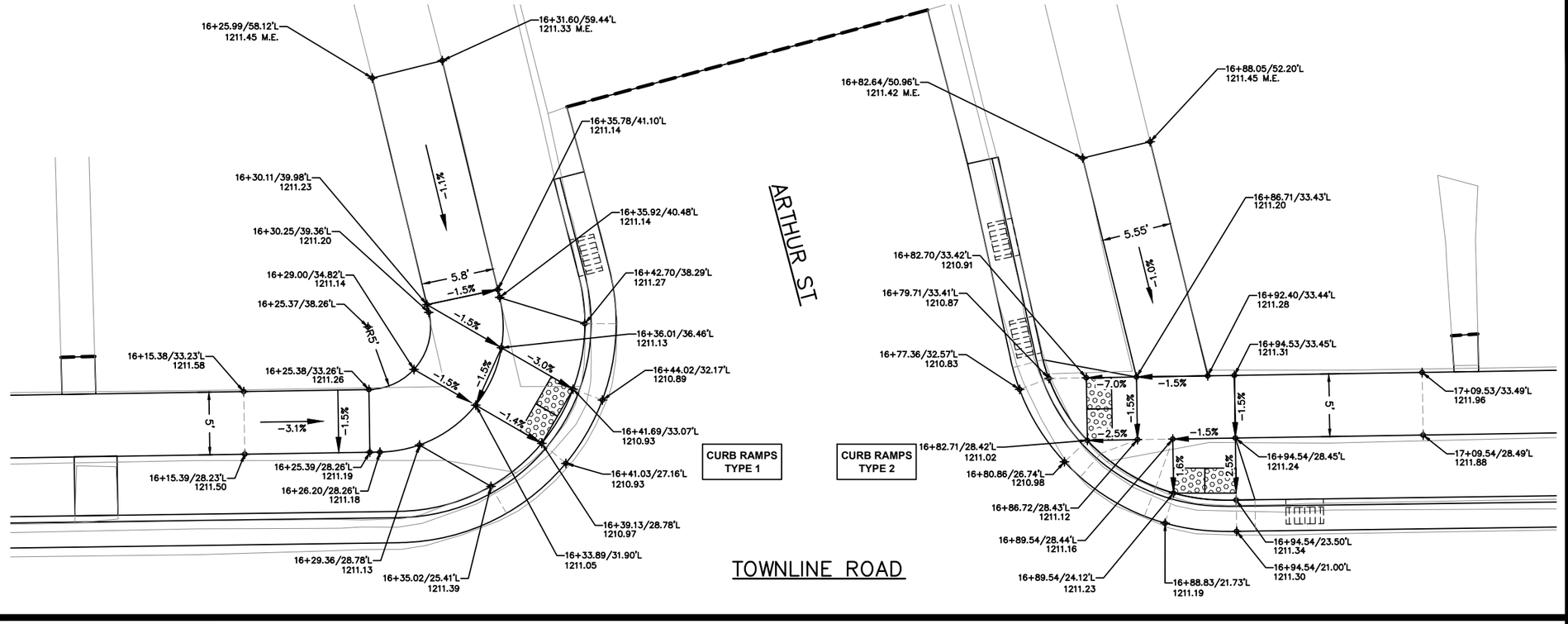
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVING GRADES.dwg, 8/23/2018 10:05:43 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel





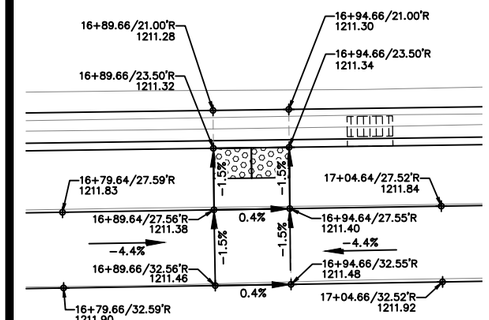
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES - CURB RAMP DETAILS		SHEET 21	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVING GRADES.dwg, 8/22/2018 12:58:19 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



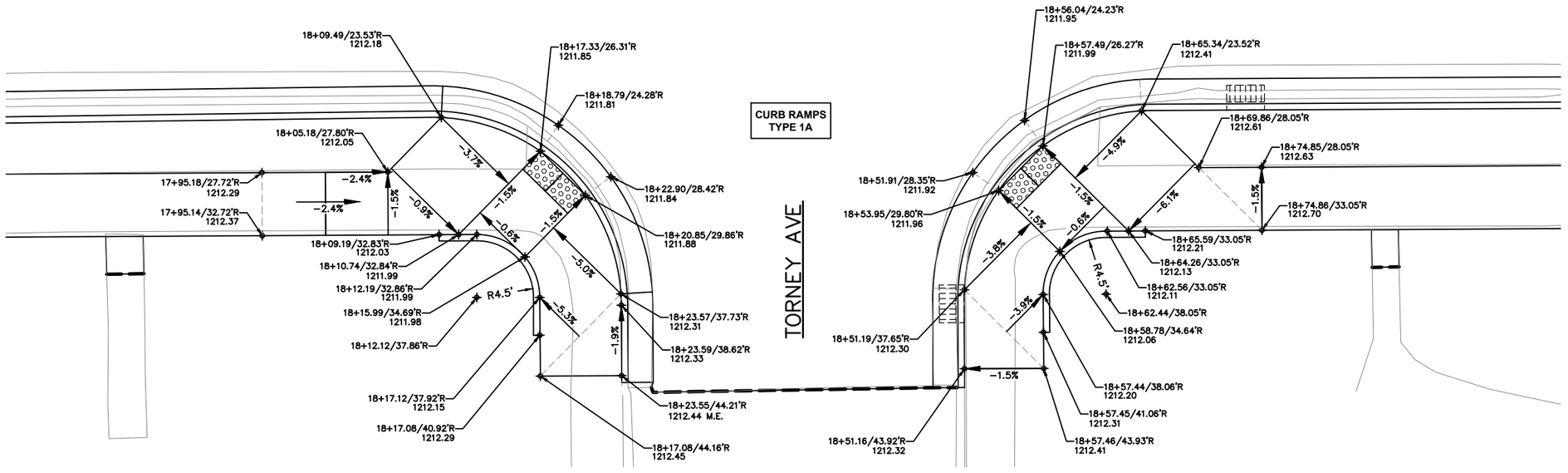
TOWNLINE ROAD

CURB RAMPS TYPE 7B



2

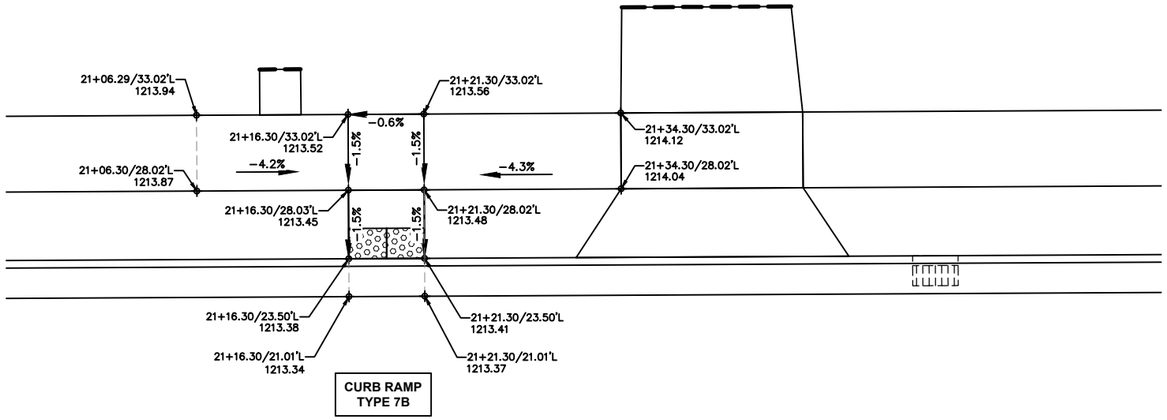
TOWNLINE ROAD

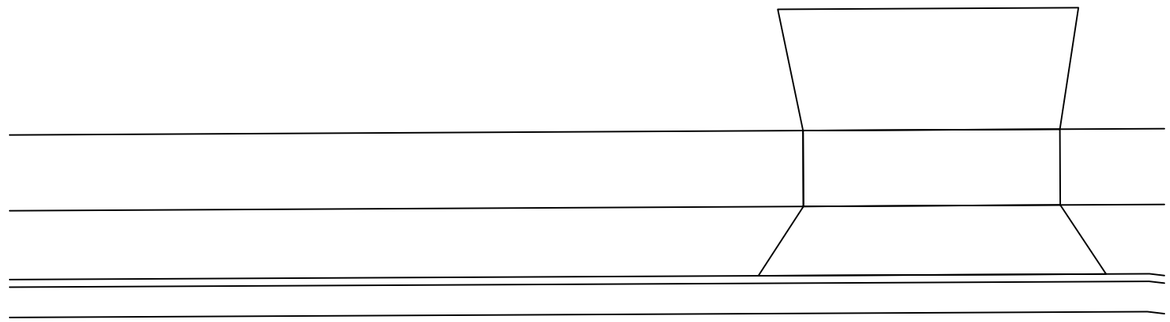


N

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES - CURB RAMP DETAILS		SHEET 22	E

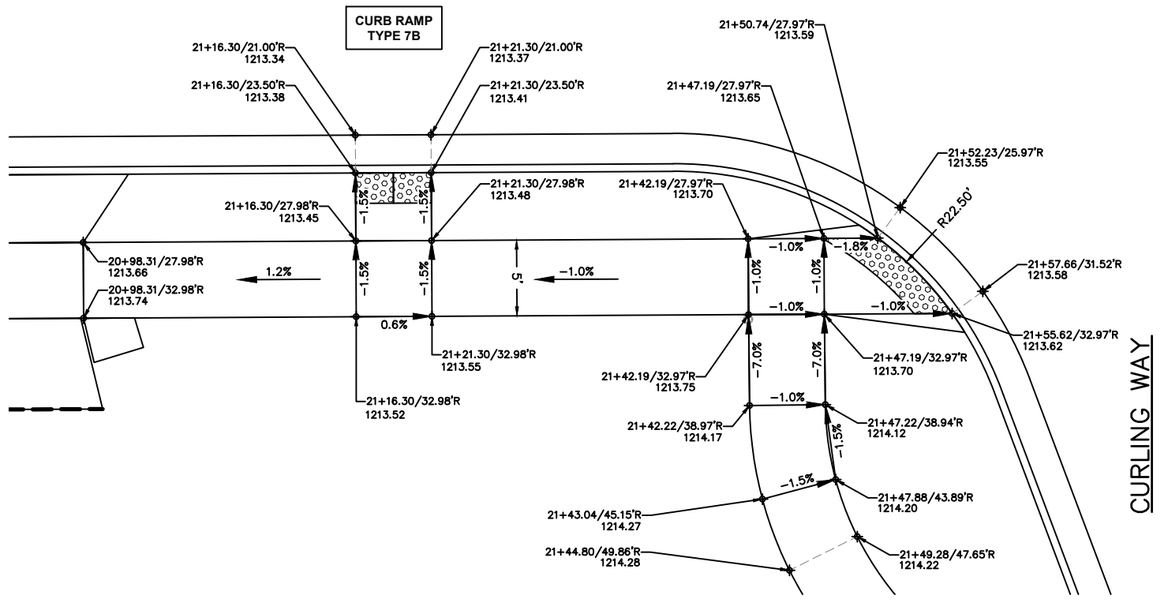
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVING GRADES.dwg, 8/22/2018 12:59:14 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel





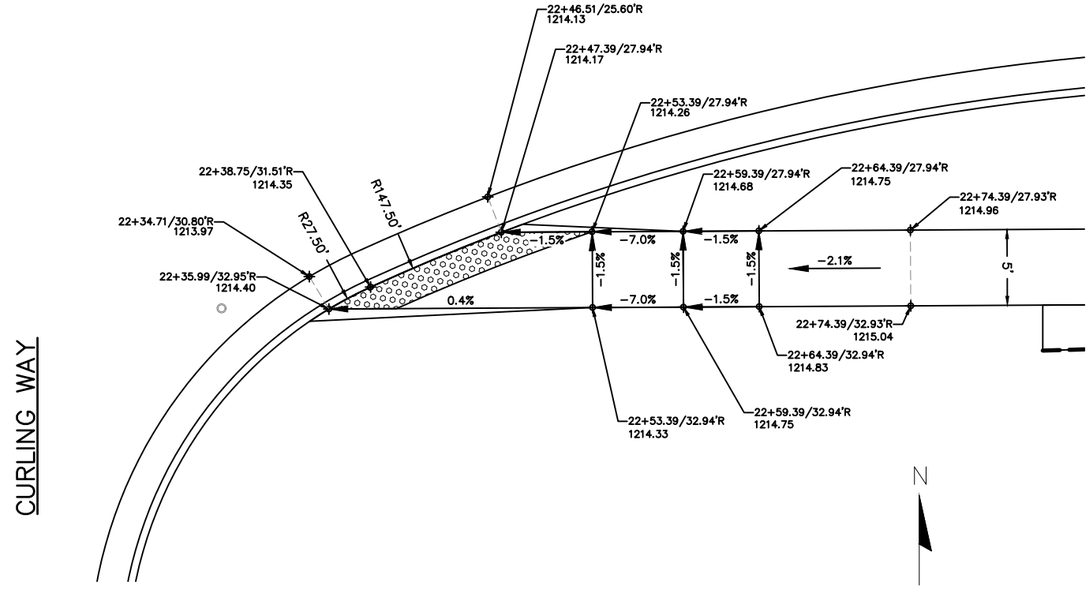
TOWNLINE ROAD

CURB RAMP TYPE 4A1 (MOD)
BOC RADIUS = 22.5'
CURB RAMP LANDING LENGTH ('XR') = 13.43'
RADIAL CHORD LENGTH = 6.99'
FIELD VERIFY PRIOR TO INSTALLING
RADIAL WARNING FIELDS

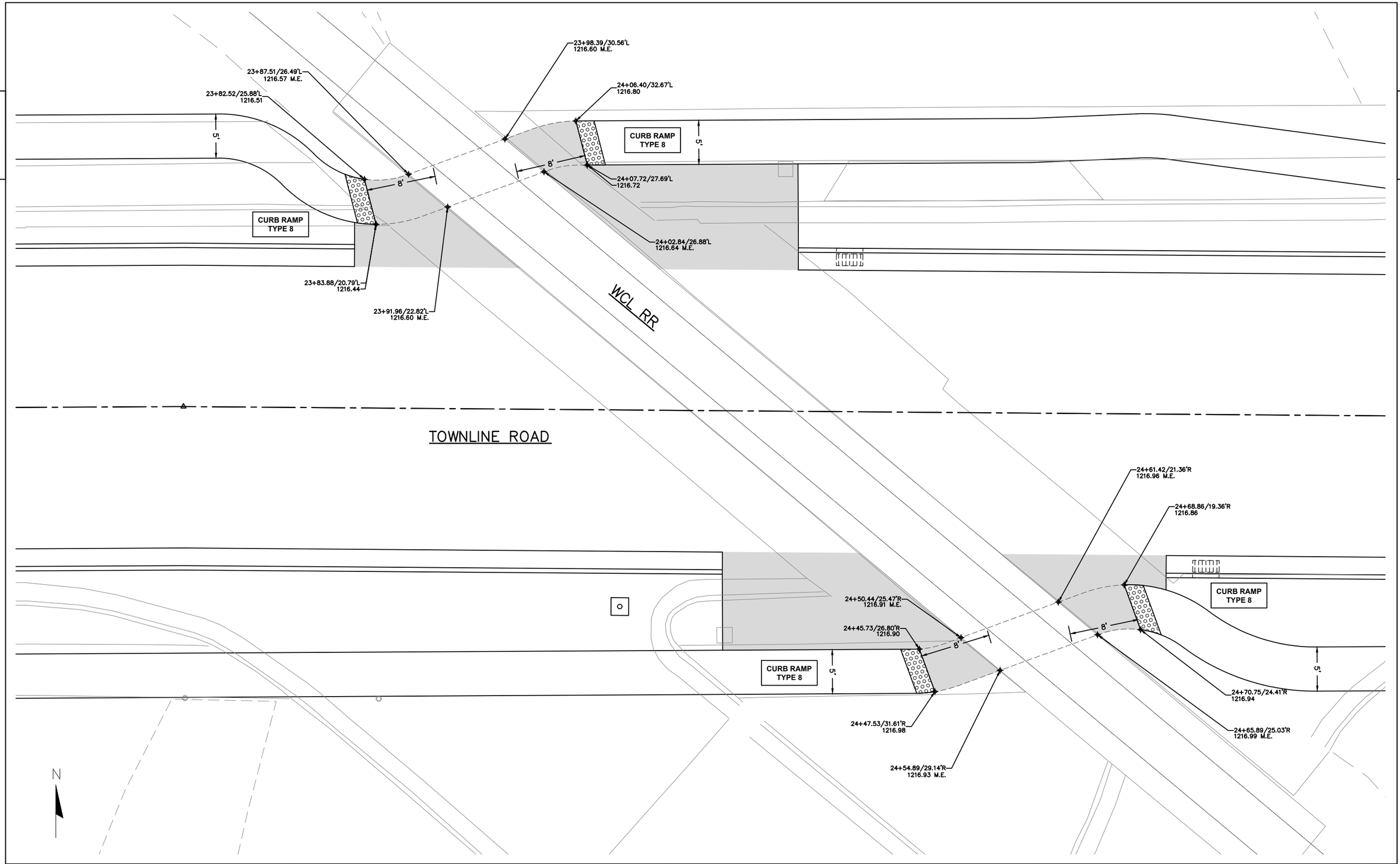


CURB RAMP TYPE 4A1
BOC RADIUS = 147.5'
CURB RAMP LANDING LENGTH ('XR') = 17.4'
RADIAL CHORD LENGTH = 12.45'
FIELD VERIFY PRIOR TO INSTALLING
RADIAL WARNING FIELDS

TOWNLINE ROAD

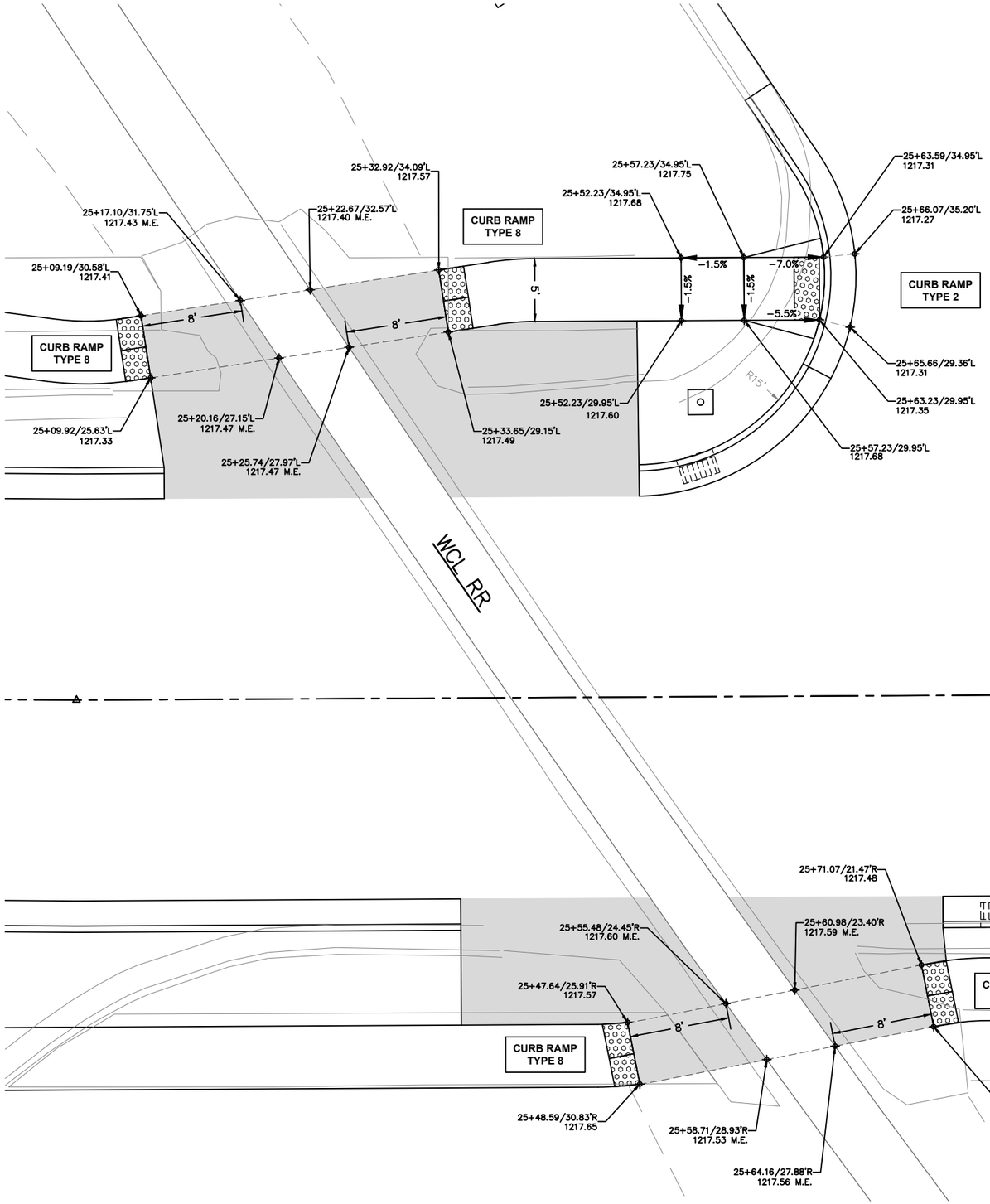


2



PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES – CURB RAMP DETAILS		SHEET 24	E

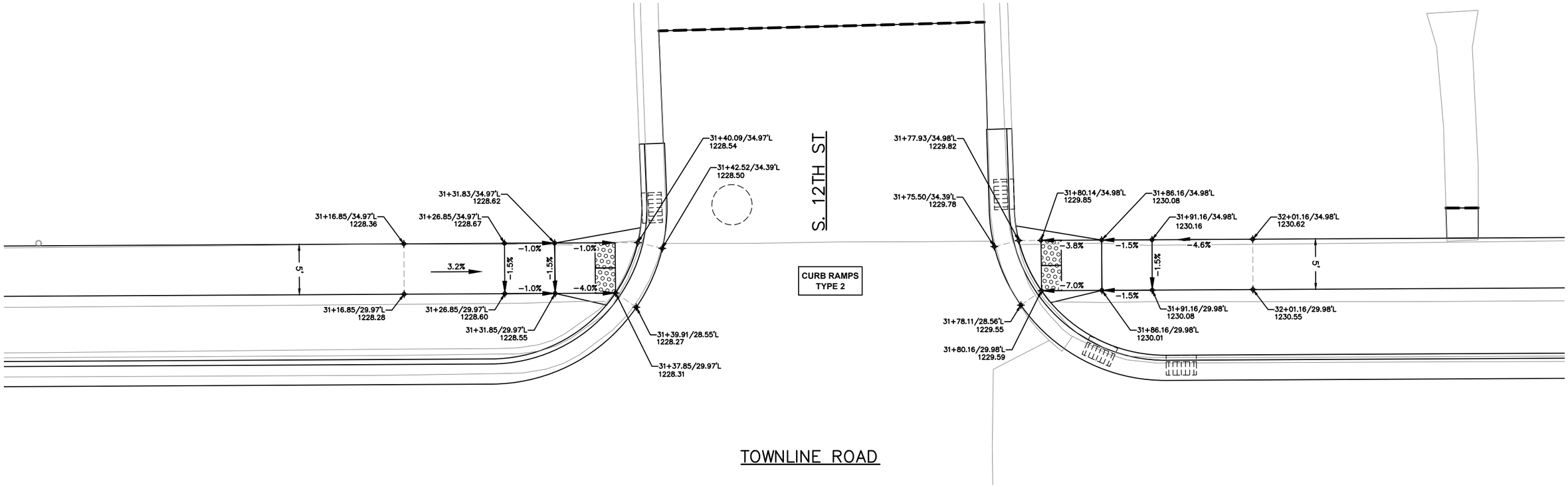
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVING GRADES.dwg, 8/22/2018 1:00:39 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES – CURB RAMP DETAILS		SHEET 25	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVING GRADES.dwg, 8/22/2018 1:01:00 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

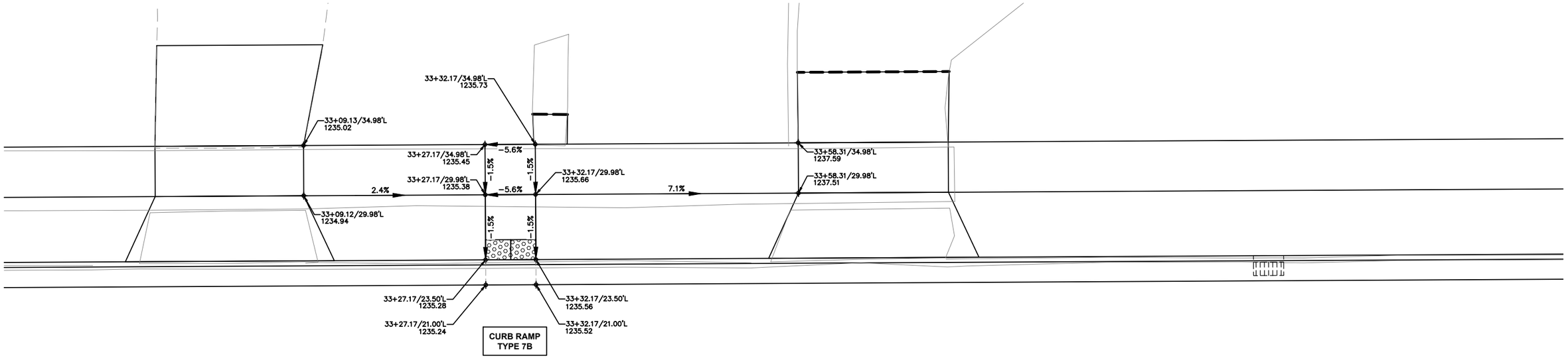
2



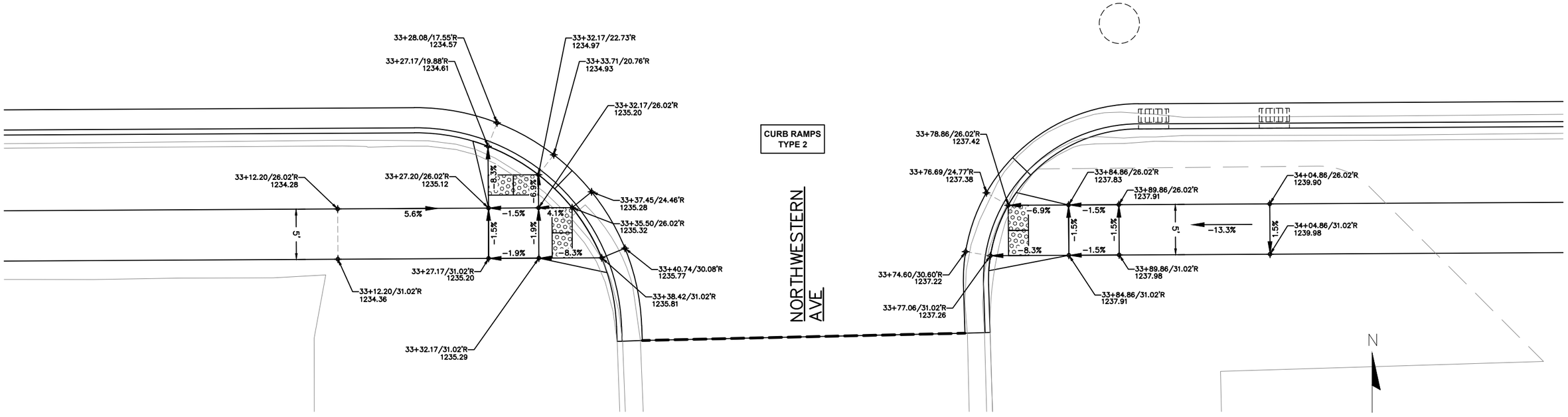
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES – CURB RAMP DETAILS		SHEET 26	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVING GRADES.dwg, 8/22/2018 1:01:24 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

2



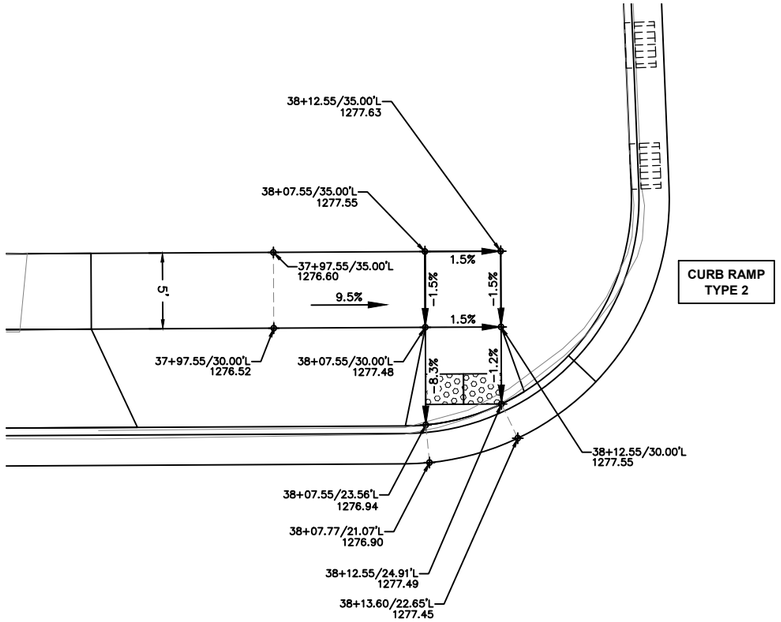
TOWNLINE ROAD



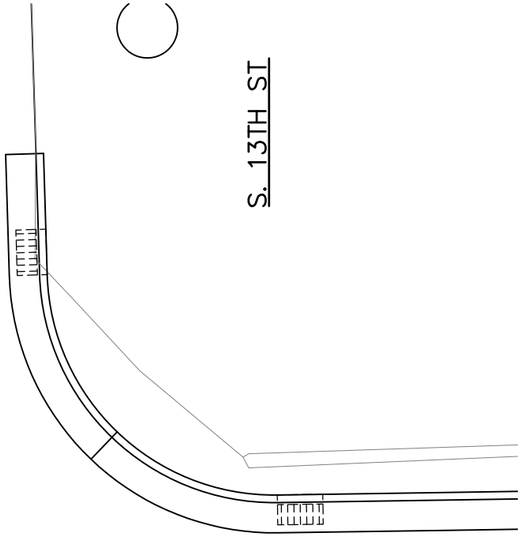
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES – CURB RAMP DETAILS		SHEET 27	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVING GRADES.dwg, 8/22/2018 1:01:44 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

2

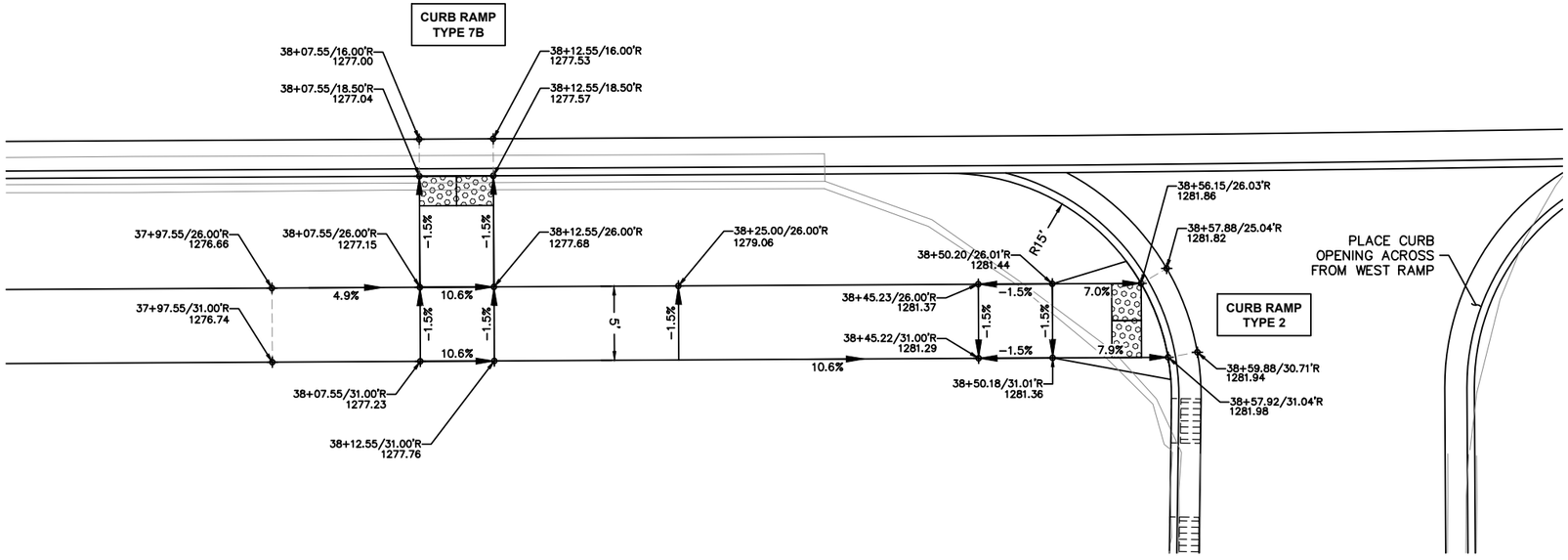


CURB RAMP
TYPE 2



TOWNLINE ROAD

CURB RAMP
TYPE 7B



CURB RAMP
TYPE 2

PLACE CURB
OPENING ACROSS
FROM WEST RAMP

N

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PAVING GRADES - CURB RAMP DETAILS		SHEET 28	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVING GRADES.dwg, 8/22/2018 1:02:04 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

2

GRAND AVE

PROSPECT AVE

TOWNLINE ROAD

ABANDONED

ABAN

DECK

PROSPECT AVE

ARTHUR ST

TOWNLINE ROAD

TORNEY AVE

CONC. FOUND MON.

LEGEND

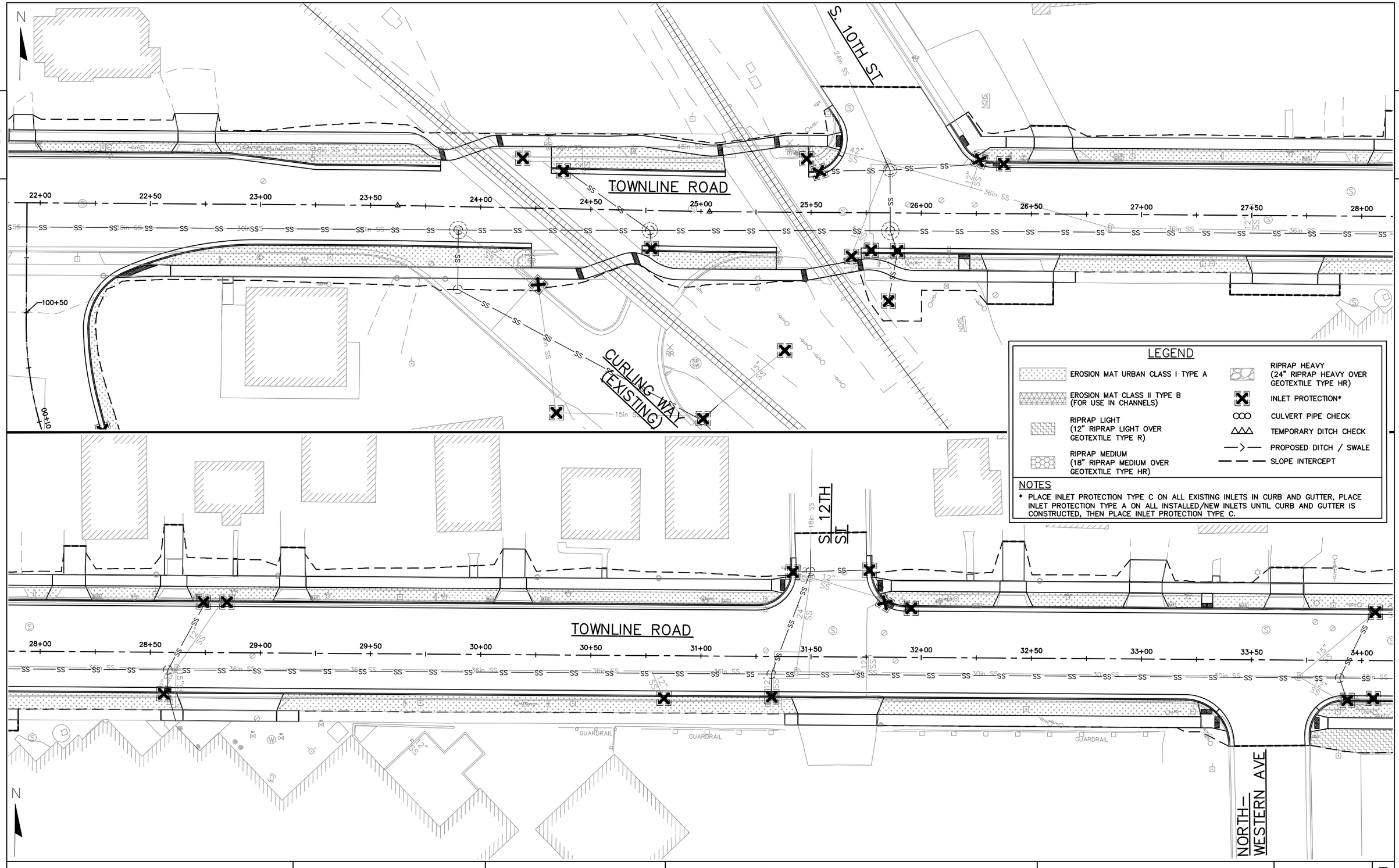
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE B (FOR USE IN CHANNELS)
- RIPRAP LIGHT (12" RIPRAP LIGHT OVER GEOTEXTILE TYPE R)
- RIPRAP MEDIUM (18" RIPRAP MEDIUM OVER GEOTEXTILE TYPE HR)
- RIPRAP HEAVY (24" RIPRAP HEAVY OVER GEOTEXTILE TYPE HR)
- INLET PROTECTION*
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- PROPOSED DITCH / SWALE
- SLOPE INTERCEPT

NOTES

* PLACE INLET PROTECTION TYPE C ON ALL EXISTING INLETS IN CURB AND GUTTER, PLACE INLET PROTECTION TYPE A ON ALL INSTALLED/NEW INLETS UNTIL CURB AND GUTTER IS CONSTRUCTED, THEN PLACE INLET PROTECTION TYPE C.

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	EROSION CONTROL		SHEET 29	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_EROSION.dwg, 8/22/2018 1:21:54 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



LEGEND

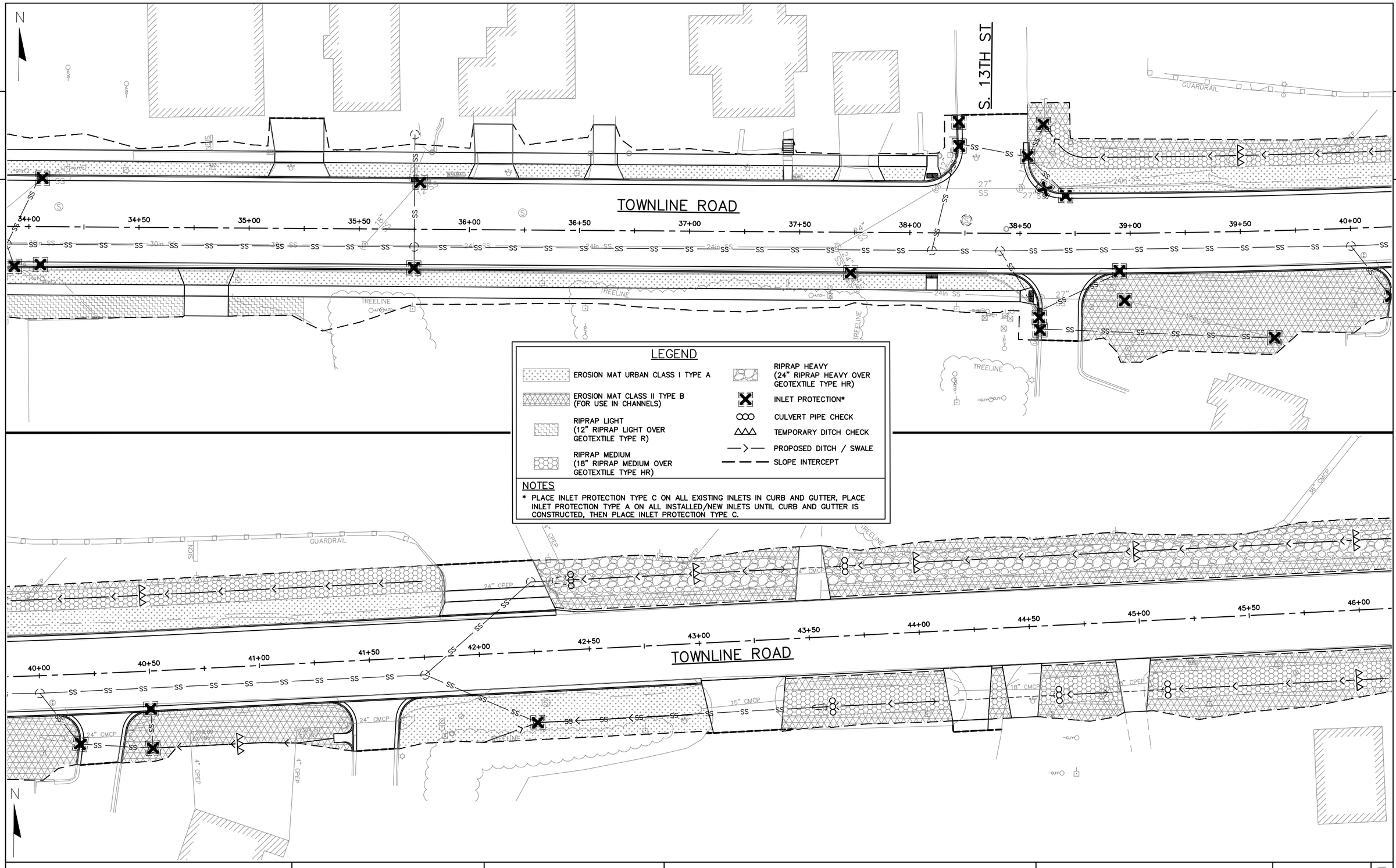
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE B (FOR USE IN CHANNELS)
- RIPRAP LIGHT (12" RIPRAP LIGHT OVER GEOTEXTILE TYPE R)
- RIPRAP MEDIUM (18" RIPRAP MEDIUM OVER GEOTEXTILE TYPE HR)
- RIPRAP HEAVY (24" RIPRAP HEAVY OVER GEOTEXTILE TYPE HR)
- INLET PROTECTION*
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- PROPOSED DITCH / SWALE
- SLOPE INTERCEPT

NOTES

* PLACE INLET PROTECTION TYPE C ON ALL EXISTING INLETS IN CURB AND GUTTER, PLACE INLET PROTECTION TYPE A ON ALL INSTALLED/NEW INLETS UNTIL CURB AND GUTTER IS CONSTRUCTED, THEN PLACE INLET PROTECTION TYPE C.

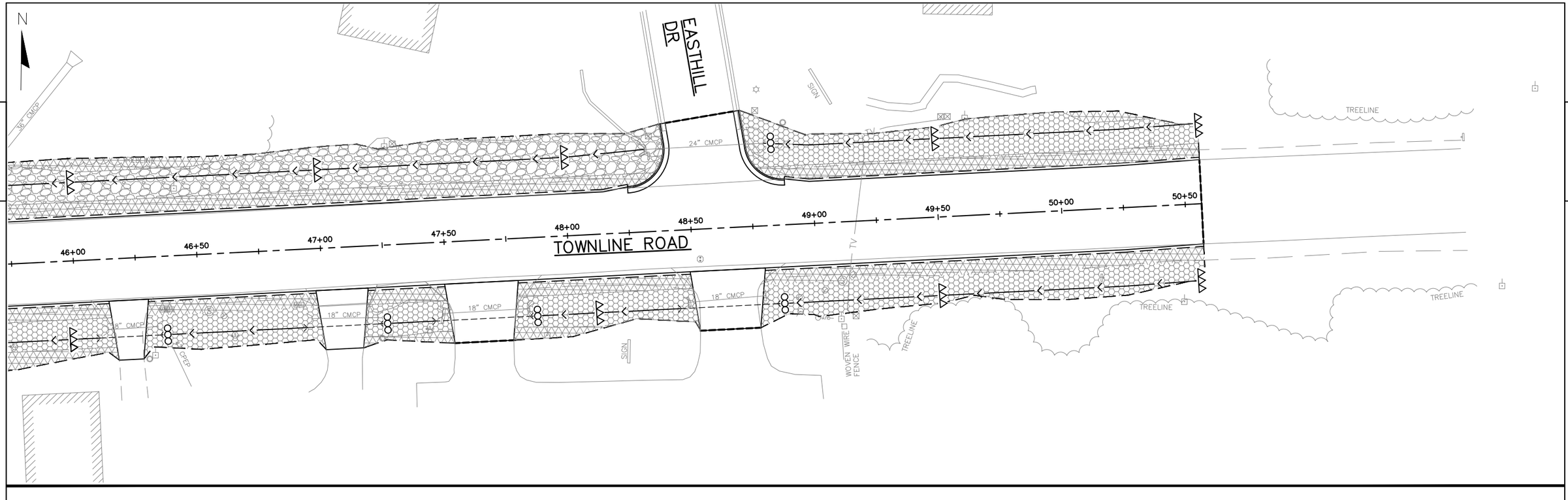
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	EROSION CONTROL		SHEET 30	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_EROSION.dwg, 8/22/2018 1:22:35 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	EROSION CONTROL		SHEET 31 E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_EROSION.dwg, 8/22/2018 1:23:15 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE B (FOR USE IN CHANNELS)
- RIPRAP LIGHT (12" RIPRAP LIGHT OVER GEOTEXTILE TYPE R)
- RIPRAP MEDIUM (18" RIPRAP MEDIUM OVER GEOTEXTILE TYPE HR)
- RIPRAP HEAVY (24" RIPRAP HEAVY OVER GEOTEXTILE TYPE HR)
- INLET PROTECTION*
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- PROPOSED DITCH / SWALE
- SLOPE INTERCEPT

NOTES

* PLACE INLET PROTECTION TYPE C ON ALL EXISTING INLETS IN CURB AND GUTTER, PLACE INLET PROTECTION TYPE A ON ALL INSTALLED/NEW INLETS UNTIL CURB AND GUTTER IS CONSTRUCTED, THEN PLACE INLET PROTECTION TYPE C.

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	EROSION CONTROL		SHEET 32	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_EROSION.dwg, 8/22/2018 1:23:47 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

TOWNLINE ROAD

CURLING WAY (EXISTING)

EXISTING CURLING WAY TO BE OBLITERATED. TOPSOIL, FERTILIZER AND SEED

SILT FENCE (TYP)

CURLING WAY

N

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE B (FOR USE IN CHANNELS)
- RIPRAP LIGHT (12" RIPRAP LIGHT OVER GEOTEXTILE TYPE R)
- RIPRAP MEDIUM (18" RIPRAP MEDIUM OVER GEOTEXTILE TYPE HR)
- RIPRAP HEAVY (24" RIPRAP HEAVY OVER GEOTEXTILE TYPE HR)
- INLET PROTECTION*
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- PROPOSED DITCH / SWALE
- SLOPE INTERCEPT

NOTES

* PLACE INLET PROTECTION TYPE C ON ALL EXISTING INLETS IN CURB AND GUTTER, PLACE INLET PROTECTION TYPE A ON ALL INSTALLED/NEW INLETS UNTIL CURB AND GUTTER IS CONSTRUCTED, THEN PLACE INLET PROTECTION TYPE C.

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	EROSION CONTROL – CURLING WAY		SHEET 33	E

2

GRAND AVE

PROSPECT AVE

TOWNLINE ROAD

ABANDONED

PROSPECT AVE

N

BEGIN PROJECT
STA. 11+05.69
X = 283,809.33
Y = 196,701.51

(A22.2)
STA:13+29.27/44.23'L (BC)
CATCH BASINS 2'X3', TYPE H

(A22.3)
STA:13+09.42/24.50'L (BC)
CATCH BASINS 2'X3', TYPE H

CONNECT TO EX. 18"SS W/CONCRETE COLLAR

(A22.1)
STA:13+75.76/36.64'L (BC)
CATCH BASINS 5FT-DIA.,
TYPE H (2'X3' OPENING)

(A22.4)
STA:13+92.22/23.50'L (BC)
CATCH BASINS 2'X3', TYPE H

(A23)
STA:14+79.94/16.99'L
MANHOLES 7FT-DIA., TYPE J-S

PROP. 48"SS

CONNECT TO EX. 48"SS W/CONCRETE COLLAR

PROP. 12"SS

PROP. 18"SS

(A22)
STA:13+65.66/17.55'L
MANHOLES 7FT-DIA., TYPE J-S

CONNECT TO EX. 48"SS W/CONCRETE COLLAR

(A22.5)
STA:14+08.99/23.50'R (BC)
CATCH BASINS 2'X3', TYPE H

(A23.2)
STA:14+56.42/40.27'R (BC)
CATCH BASINS 2'X3', TYPE H

(A23.3)
STA:15+02.12/23.50'R (BC)
CATCH BASINS 2'X3', TYPE H

(A23.1)
STA:14+82.80/39.74'R
MANHOLES 6FT-DIA.,
TYPE H (2'X3' OPENING)

CONNECT TO EX. 18"SS W/CONCRETE COLLAR

10+00 10+50 11+00 11+50 12+00 12+50 13+00 13+50 14+00 14+50 15+00 15+50 16+00

1220 1216 1212 1208 1204 1200 1196 1192 1188 1184

EX. STORM SEWER MH(0927-21)
STA:10+12/-9.47'L
RIM ELEV = 1211.04
DEPTH = 17.65'
INV ELEV = 1193.39-48"E

EX. STORM SEWER MH(0927-1)
STA:10+95/-17.07'L
RIM ELEV = 1210.91
DEPTH = 17.10'
INV ELEV = 1193.81-48"W
INV ELEV = 1193.81-48"E
INV ELEV = 1205.76-12"NE
INV ELEV = 1204.96-12"S

PROPOSED ℄ PROFILE

PROPOSED WATERMAIN (TYP)

EXISTING GROUND PROFILE

PROPOSED SANITARY SEWER (TYP)

EX. 83' of 48" STORM SEWER @ 0.50%

EX. 270' of 48" STORM SEWER @ 0.45% **(TO REMAIN)**

(TO BE REMOVED)
EX. STORM SEWER MH(0927-2)
STA:13+66/-17.55'L
RIM ELEV = 1210.45
DEPTH = 15.42'
INV ELEV = 1195.03-48"W
INV ELEV = 1195.15-48"E
INV ELEV = 1204.55-12"NW
INV ELEV = 1204.90-12"NE
INV ELEV = 1205.35-12"E
INV ELEV = 1206.00-12"SW
INV ELEV = 1197.85-18"N

(A22)
STA:13+65.66/17.55'L
RIM ELEV = 1210.33
INV ELEV = 1204.78-18"NE
INV ELEV = 1197.85-18"N
INV ELEV = 1195.15-48"E
INV ELEV = 1195.03-48"W

EX. 114' of 48" STORM SEWER @ 0.76% **(TO REMAIN)**

PROP. 10' of 48" STORM SEWER @ 0.45%
CONNECT TO EX. 48"SS

PROP. 10' of 48" STORM SEWER @ 0.76%
CONNECT TO EX. 48"SS

EXISTING GROUND PROFILE

PROPOSED ℄ PROFILE

PROP. 10' of 48" STORM SEWER @ 0.76%
CONNECT TO EX. 48"SS

(A23)
STA:14+79.94/16.99'L
RIM ELEV = 1210.52
INV ELEV = 1203.73-18"S
INV ELEV = 1196.02-48"W
INV ELEV = 1196.02-48"E

(TO BE REMOVED)
EX. STORM SEWER MH(0927-22)
STA:14+82/32.95'R
RIM ELEV = 1210.81
DEPTH = 6.62'
INV ELEV = 1204.19-18"N
INV ELEV = 1205.76-12"NE
INV ELEV = 1206.01-12"SE
INV ELEV = 1205.26-12"W
INV ELEV = 1204.35-18"S

(A23.1)
STA:14+82.80/39.74'R
RIM ELEV = 1210.71
INV ELEV = 1204.30-18"N
INV ELEV = 1206.71-12"W
INV ELEV = 1206.19-15"NE
INV ELEV = 1204.30-18"S

PROP. 179' of 48"
STORM SEWER @ 0.76%

(TO BE REMOVED)
EX. 179' of 48"
STORM SEWER @ 0.26%

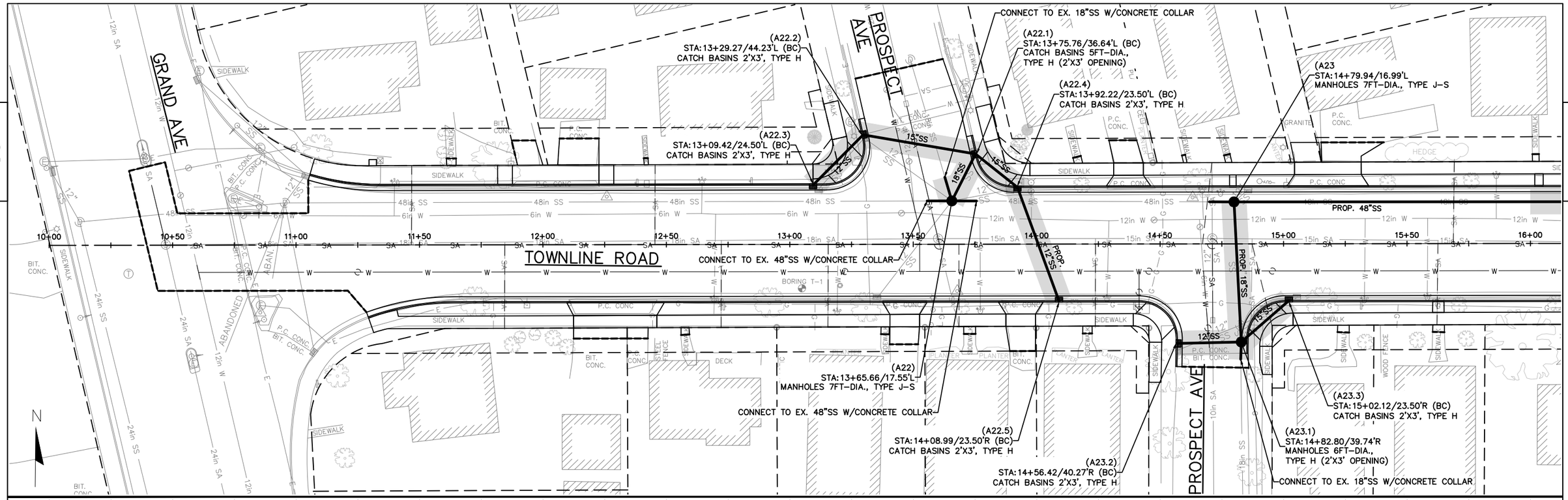
(TO BE REMOVED)
EX. STORM SEWER MH(0927-3)
STA:14+80/-16.99'L
RIM ELEV = 1210.46
DEPTH = 14.44'
INV ELEV = 1196.02-48"W
INV ELEV = 1196.02-48"E
INV ELEV = 1202.32-18"S
INV ELEV = 1206.16-12"NE

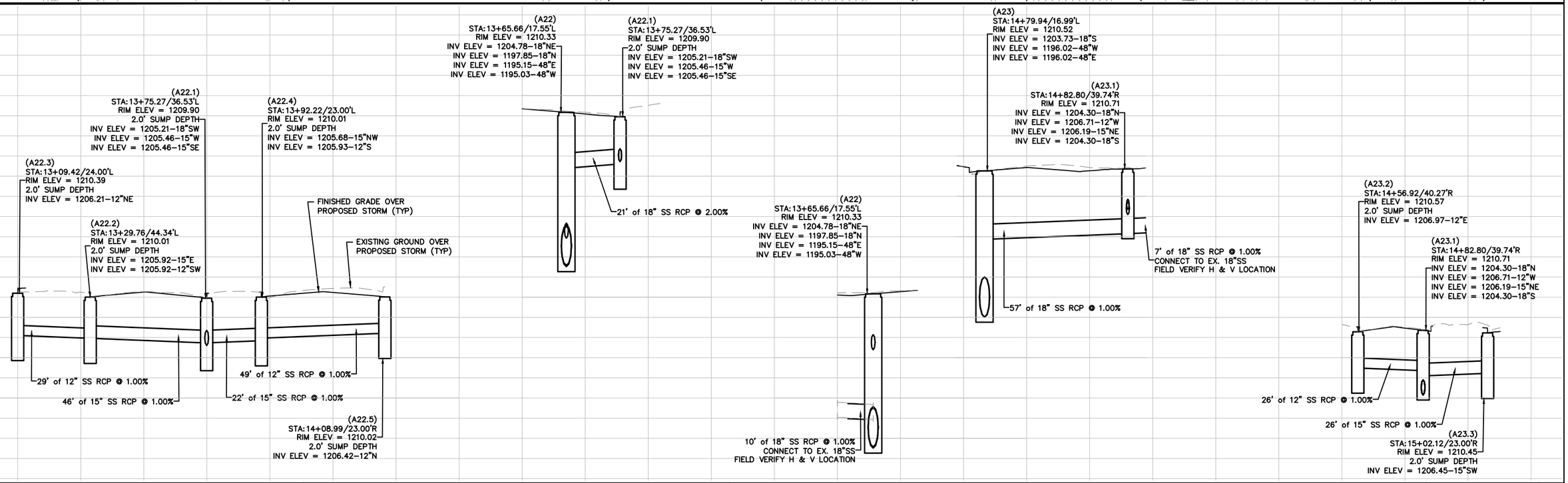
1211.6 1211.3 1211.3 1211.4/1211.44 1211.4/1211.54 1211.4/1211.44 1211.3/1211.34 1211.2/1211.24 1211.2/1211.14 1211.1/1211.04 1211.0/1210.94 1210.8/1210.84 1210.7/1210.74 1210.7/1210.64 1210.8/1210.54 1210.9/1210.64 1211.0/1210.74 1211.0/1210.84 1211.1/1210.94 1211.1/1211.04 1211.2/1211.14 1211.3/1211.24 1211.4/1211.34

10+00 10+50 11+00 11+50 12+00 12+50 13+00 13+50 14+00 14+50 15+00 15+50 16+00

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 34	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_STORM.dwg, 8/23/2018 11:13:26 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel





PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 35	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_STORM.dwg, 8/23/2018 11:14:17 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

2

(A24.3)
STA: 16+41.92/43.51'L (BC)
CATCH BASINS 2'X3', TYPE H

(A24.2)
STA: 16+77.21/44.77'L (BC)
CATCH BASINS 2'X3', TYPE H

(A24.1)
STA: 16+78.83/36.93'L (BC)
CATCH BASINS 6FT-DIA.,
TYPE H (2'X3' OPENING)

(A24.4)
STA: 17+00.00/23.50'L (BC)
CATCH BASINS 2'X3', TYPE H

REMOVING STORM SEWER 48-INCH

(A27.1)
STA: 21+55.00/23.50'L (BC)
CATCH BASINS 2'X3', TYPE H

ARTHUR ST

TORNEY AVE

TOWNLINE ROAD

PROP. 48"SS

PROP. 15"SS

PROP. 30"SS

PI: 18+37.36

BORING T-2

(A24)
STA: 16+59.16/16.85'L
MANHOLES 7FT-DIA., TYPE J-S

(A25)
STA: 17+00.00/11.00'R
MANHOLES 7FT-DIA., TYPE J-S

(A25.1)
STA: 17+00.00/23.50'R (BC)
CATCH BASINS 2'X3', TYPE H

CONNECT TO EX. 15"SS W/CONCRETE COLLAR

(A26)
STA: 18+33.72/11.00'R
MANHOLES 7FT-DIA., TYPE J-S

(A26.1)
STA: 18+33.64/32.95'R
MANHOLES 4FT-DIA., TYPE J-S

(A26.2)
STA: 18+51.16/38.76'R (BC)
CATCH BASINS 2'X3', TYPE H

(A26.3)
STA: 18+73.60/23.50'R (BC)
CATCH BASINS 2'X3', TYPE H

(A27)
STA: 21+55.00/11.00'R
MANHOLES 8FT-DIA., TYPE J-S

PC: 100

N

(A24)
STA: 16+59.16/16.85'L
RIM ELEV = 1211.24
INV ELEV = 1197.38-48"W
INV ELEV = 1203.98-48"SE
INV ELEV = 1205.99-18"NE

(TO BE REMOVED)
EX. STORM SEWER MH(0927-4)
STA: 16+59/-16.85'L
RIM ELEV = 1211.33
DEPTH = 14.85'
INV ELEV = 1196.48-48"W
INV ELEV = 1203.48-48"E
INV ELEV = 1197.33-30"SE
INV ELEV = 1204.98-12"NE
INV ELEV = 1205.53-12"W
INV ELEV = 1207.43-12"S

(A25)
STA: 17+00.00/11.00'R
RIM ELEV = 1211.52
INV ELEV = 1204.23-48"NW
INV ELEV = 1204.23-48"E
INV ELEV = 1207.54-12"S

(A26)
STA: 18+33.72/11.00'R
RIM ELEV = 1212.06
INV ELEV = 1204.90-48"W
INV ELEV = 1204.90-48"E
INV ELEV = 1207.40-15"S

(A26.1)
STA: 18+33.64/32.95'R
RIM ELEV = 1211.93
INV ELEV = 1207.95-15"N
INV ELEV = 1207.95-15"S
INV ELEV = 1208.20-12"E

(TO BE REMOVED)
EX. STORM SEWER MH(0927-5)
STA: 18+36/-16.93'L
RIM ELEV = 1211.94
DEPTH = 6.76'
INV ELEV = 1205.18-48"W
INV ELEV = 1205.18-48"E
INV ELEV = 1206.61-18"S
INV ELEV = 1207.54-12"SE

(A27)
STA: 21+55.00/11.00'R
RIM ELEV = 1213.81
INV ELEV = 1206.51-48"W
INV ELEV = 1206.51-48"E
INV ELEV = 1207.25-30"S
INV ELEV = 1209.60-12"N

(TO BE REMOVED)
EX. STORM SEWER MH(0927-18)
STA: 20+92/11.04'R
RIM ELEV = 1213.38
DEPTH = 14.42'
INV ELEV = 1198.96-30"W
INV ELEV = 1198.98-30"E
INV ELEV = 1207.83-12"N
INV ELEV = 1208.83-12"SE

EXISTING GROUND PROFILE
PROPOSED ℄ PROFILE

(TO BE REMOVED)
EX. 179' of 48" STORM SEWER @ 0.26%

PROP. 179' of 48" STORM SEWER @ 0.76%

(TO BE REMOVED)
EX. 43' of 30" STORM SEWER @ 1.79%

PROP. 49' of 48" STORM SEWER @ 0.50%

(TO BE REMOVED)
EX. 177' of 48" STORM SEWER @ 0.96%

PROP. 134' of 48" STORM SEWER @ 0.50%

(TO BE REMOVED)
EX. 399' of 30" STORM SEWER @ 0.22%

PROP. 321' of 48" STORM SEWER @ 0.50%

PROP. 235' of 48" STORM SEWER @ 0.50%

PROPOSED WATERMAIN (TYP)

PROPOSED SANITARY SEWER (TYP)

(TO BE REMOVED)
EX. STORM SEWER MH(0927-17)
STA: 16+93/8.59'R
RIM ELEV = 1211.69
DEPTH = 13.60'
INV ELEV = 1198.09-30"NW
INV ELEV = 1198.09-30"E

EXISTING GROUND PROFILE
PROPOSED ℄ PROFILE

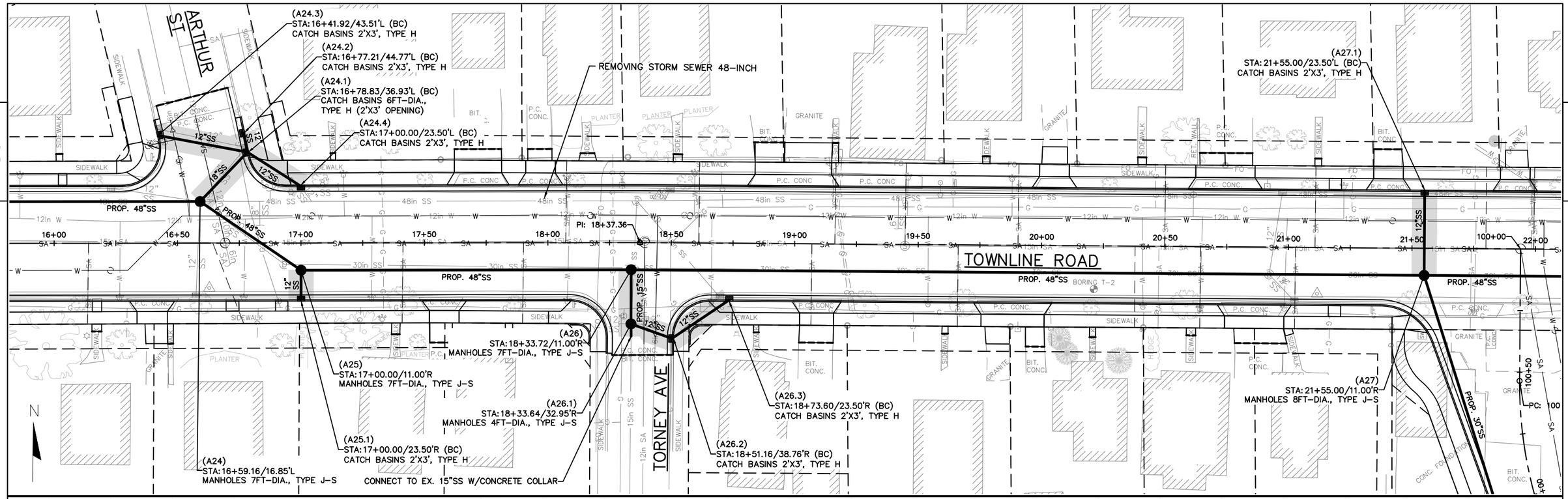
1228 1224 1220 1216 1212 1208 1204 1200 1196 1192 1188

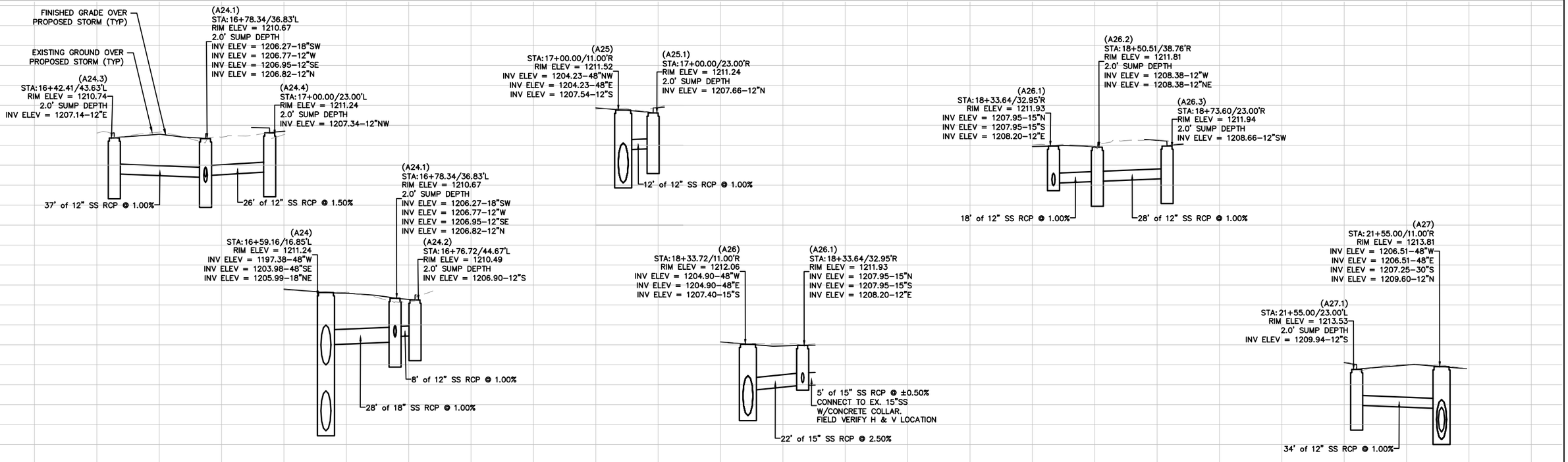
1211.4 1211.34 | 1211.4 1211.44 | 1211.5 1211.54 | 1211.5 1211.64 | 1211.6 1211.74 | 1211.7 1211.84 | 1211.9 1211.94 | 1211.9 1212.04 | 1212.1 1212.14 | 1212.2 1212.24 | 1212.3 1212.34 | 1212.4 1212.44 | 1212.6 1212.54 | 1212.7 1212.64 | 1212.8 1212.74 | 1212.9 1212.84 | 1213.0 1212.94 | 1213.2 1213.12 | 1213.3 1213.29 | 1213.5 1213.47 | 1213.6 1213.64 | 1213.8 1213.82 | 1214.0 1213.99 | 1214.2 1214.17 | 1214.4 1214.34

16+00 16+50 17+00 17+50 18+00 18+50 19+00 19+50 20+00 20+50 21+00 21+50 22+00

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 36	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_STORM.dwg, 8/23/2018 11:15:06 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel





PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 37	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_STORM.dwg, 8/23/2018 11:15:57 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

2

STA: 23+93.97
BEGIN OPEN CUT INSTALLATION
OF STEEL PIPE 48–INCH

STA. 23+50 – 25+46
ABANDON EX. 48" STORM
SEWER IN PLACE.
CONCRETE SLURRY FILLED

REMOVING STORM SEWER 48–INCH

STA: 25+13.50
END OPEN CUT INSTALLATION
OF STEEL PIPE 48–INCH.
BEGIN JACK & BORING
OF STEEL PIPE 48–INCH

ABANDONING STORM SEWER 48–INCH
STA. 23+67 – 24+19
STA. 24+92–25+50

(A29)
STA: 24+76.96/9.03'R
MANHOLES 8FT–DIA., TYPE J–S

(A29.1)
STA: 24+37.50/18.50'L (BC)
CATCH BASINS 2'X3', TYPE H

S. 10TH ST

(A30.4)
STA: 25+53.22/19.21'L (BC)
CATCH BASINS 2'X3', TYPE H

CONNECT TO EX. 24"SS W/CONCRETE COLLAR

(A30.3)
STA: 25+85.72/19.39'L
MANHOLES 6FT–DIA., TYP J–S

(A30.5)
STA: 26+33.99/23.50'L (BC)
CATCH BASINS 2'X3', TYPE H

STA: 27+50.33/6.58'R
CONTRACTOR TO FIELD VERIFY H&V
LOCATION OF EX. 12"SS AND TO
RECONNECT IF ACTIVE

TOWNLINE ROAD

RECEIVING PIT

BORE PIT

PROP. 48"SS

PROP. 36"SS

PROP. 18"SS

(A28)
STA: 23+90.00/10.64'R
MANHOLES 7FT–DIA., TYPE J–S

(A28.1)
STA: 23+90.35/37.54'R
MANHOLES 4FT–DIA., TYPE J–S

(A29.2)
STA: 24+78.09/18.50'R (BC)
CATCH BASINS 2'X3', TYPE H

STA: 25+81.50
END JACK & BORING
OF STEEL PIPE 48–INCH

(A30.1)
STA: 25+77.31/18.50'R (BC)
CATCH BASINS 2'X3', TYPE H

(A30.2)
STA: 25+85.34/40.00'R
CATCH BASINS 3FT–DIA., TYPE C

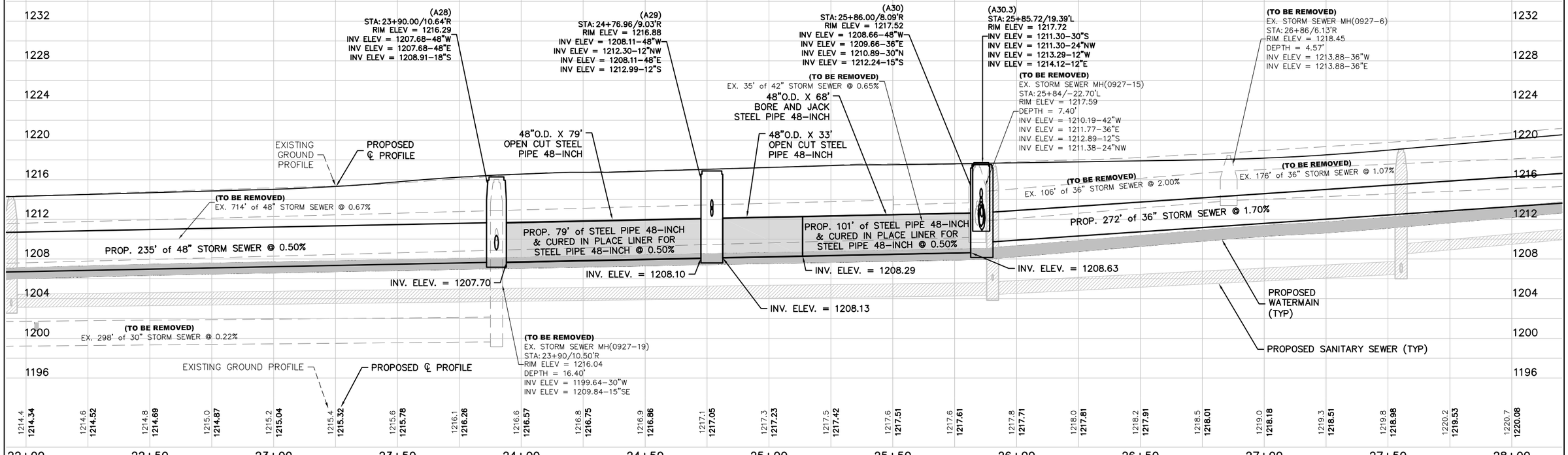
(A30)
STA: 25+86.00/8.09'R
MANHOLES 8FT–DIA., TYPE J–S

(A30.6)
STA: 25+89.31/18.50'R (BC)
CATCH BASINS 2'X3', TYPE H

PC: 100+53.50

CONCRETE SIDEWALK

CONCRETE SIDEWALK



PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 38	E

2

ABANDONING STORM SEWER 48–INCH
STA. 23+67 – 24+19
STA. 24+92–25+50

REMOVING STORM SEWER 48–INCH

(A29)
STA: 24+76.96/9.03'R
MANHOLES 8FT–DIA., TYPE J–S

(A29.1)
STA: 24+37.50/18.50'L (BC)
CATCH BASINS 2'X3', TYPE H

(A30.4)
STA: 25+53.22/19.21'L (BC)
CATCH BASINS 2'X3', TYPE H

CONNECT TO EX. 24"SS W/CONCRETE COLLAR

(A30.3)
STA: 25+85.72/19.39'L
MANHOLES 6FT–DIA., TYP J–S

(A30.5)
STA: 26+33.99/23.50'L (BC)
CATCH BASINS 2'X3', TYPE H

STA: 27+50.33/6.58'R
CONTRACTOR TO FIELD VERIFY H&V
LOCATION OF EX. 12"SS AND TO
RECONNECT IF ACTIVE

S. 10TH ST

TOWNLINE ROAD

PROP. 48"SS

PROP. 36"SS

PROP. 18"SS

(A28)
STA: 23+90.00/10.64'R
MANHOLES 7FT–DIA., TYPE J–S

(A28.1)
STA: 23+90.35/37.54'R
MANHOLES 4FT–DIA., TYPE J–S

(A29.2)
STA: 24+78.09/18.50'R (BC)
CATCH BASINS 2'X3', TYPE H

(A30.1)
STA: 25+77.31/18.50'R (BC)
CATCH BASINS 2'X3', TYPE H

(A30.2)
STA: 25+85.34/40.00'R
CATCH BASINS 3FT–DIA., TYPE C

(A30)
STA: 25+86.00/8.09'R
MANHOLES 8FT–DIA., TYPE J–S

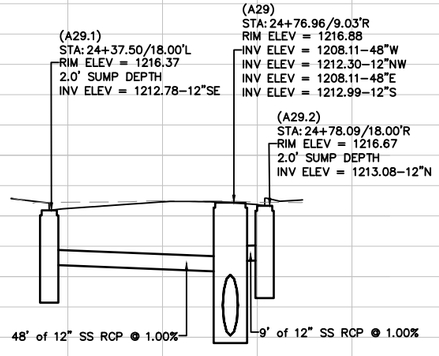
(A30.6)
STA: 25+89.31/18.50'R (BC)
CATCH BASINS 2'X3', TYPE H

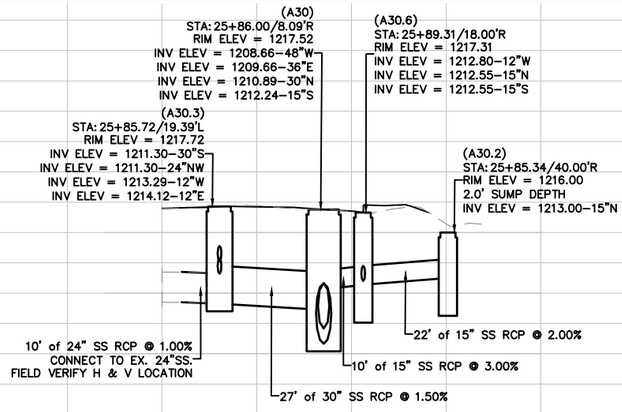
PC: 100+53.50

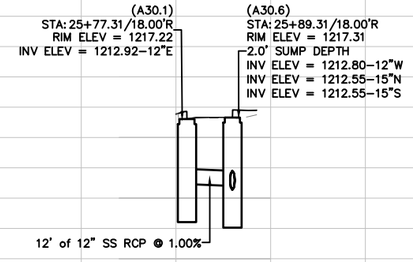
CONCRETE SIDEWALK

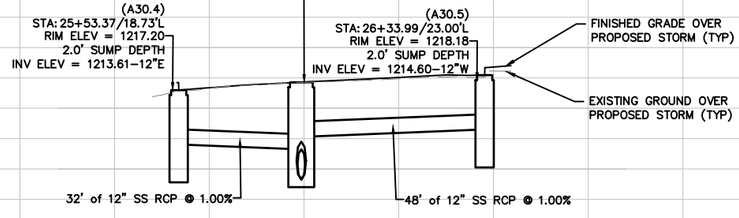
CONCRETE SIDEWALK

N



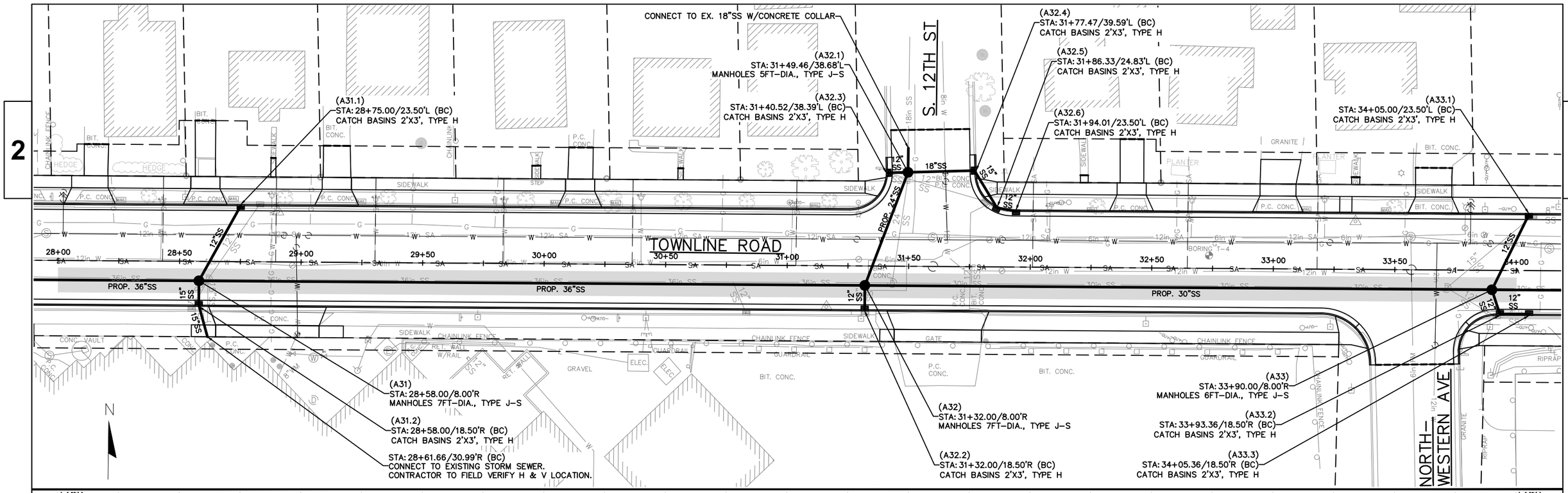






PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 39	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_STORM.dwg, 8/23/2018 11:17:37 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 40	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_STORM.dwg, 8/23/2018 11:18:26 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

2

CONNECT TO EX. 18"SS W/CONCRETE COLLAR

(A31.1)
STA: 28+75.00/23.50'L (BC)
CATCH BASINS 2'X3', TYPE H

(A32.1)
STA: 31+49.46/38.68'L
MANHOLES 5FT-DIA., TYPE J-S

(A32.3)
STA: 31+40.52/38.39'L (BC)
CATCH BASINS 2'X3', TYPE H

(A32.4)
STA: 31+77.47/39.59'L (BC)
CATCH BASINS 2'X3', TYPE H

(A32.5)
STA: 31+86.33/24.83'L (BC)
CATCH BASINS 2'X3', TYPE H

(A32.6)
STA: 31+94.01/23.50'L (BC)
CATCH BASINS 2'X3', TYPE H

(A33.1)
STA: 34+05.00/23.50'L (BC)
CATCH BASINS 2'X3', TYPE H

S. 12TH ST

TOWNLINE ROAD

NORTH-WESTERN AVE

PROP. 36"SS

PROP. 36"SS

PROP. 24"SS

PROP. 30"SS

(A31)
STA: 28+58.00/8.00'R
MANHOLES 7FT-DIA., TYPE J-S

(A31.2)
STA: 28+58.00/18.50'R (BC)
CATCH BASINS 2'X3', TYPE H

STA: 28+61.66/30.99'R (BC)
CONNECT TO EXISTING STORM SEWER.
CONTRACTOR TO FIELD VERIFY H & V LOCATION.

(A32)
STA: 31+32.00/8.00'R
MANHOLES 7FT-DIA., TYPE J-S

(A32.2)
STA: 31+32.00/18.50'R (BC)
CATCH BASINS 2'X3', TYPE H

(A33)
STA: 33+90.00/8.00'R
MANHOLES 6FT-DIA., TYPE J-S

(A33.2)
STA: 33+93.36/18.50'R (BC)
CATCH BASINS 2'X3', TYPE H

(A33.3)
STA: 34+05.36/18.50'R (BC)
CATCH BASINS 2'X3', TYPE H

N

(A32)
STA: 31+32.00/8.00'R
RIM ELEV = 1227.23
INV ELEV = 1220.47-36"W
INV ELEV = 1220.97-30"E
INV ELEV = 1221.47-24"N
INV ELEV = 1223.30-12"S

(A32.1)
STA: 31+49.46/38.68'L
RIM ELEV = 1228.94
INV ELEV = 1223.80-18"N
INV ELEV = 1223.30-24"S
INV ELEV = 1224.91-12"W
INV ELEV = 1224.63-18"E
INV ELEV = 1223.80-18"N

(A32.2)
STA: 31+32.00/18.00'R
RIM ELEV = 1226.99
2.0' SUMP DEPTH
INV ELEV = 1223.40-12"N

10' of 18" SS RCP @ 4.80%
CONNECT TO EX. 18"SS
FIELD VERIFY H & V LOCATION

50' of 24" SS RCP @ 3.67%

10' of 12" SS RCP @ 1.00%

EXISTING GROUND OVER
PROPOSED STORM (TYP)

FINISHED GRADE OVER
PROPOSED STORM (TYP)

(A31)
STA: 28+58.00/8.00'R
RIM ELEV = 1221.20
INV ELEV = 1214.28-36"W
INV ELEV = 1214.71-36"E
INV ELEV = 1217.61-12"NE
INV ELEV = 1215.84-15"S

(A31.1)
STA: 28+75.00/23.00'L
RIM ELEV = 1222.07
2.0' SUMP DEPTH
INV ELEV = 1218.32-12"SW

(A31.2)
STA: 28+58.00/17.86'R
RIM ELEV = 1220.96
2.0' SUMP DEPTH
INV ELEV = 1215.94-15"N
INV ELEV = 1215.94-15"S

35' of 12" SS RCP @ 2.00%

10' of 15" SS RCP @ 1.00%

14' of 15" SS RCP @ 1.00%
CONNECT TO EX. 15"SS.
FIELD VERIFY H & V LOCATION

(A32.4)
STA: 31+76.83/39.57'L
RIM ELEV = 1229.86
2.0' SUMP DEPTH
INV ELEV = 1225.13-18"W
INV ELEV = 1225.38-15"SE

(A32.1)
STA: 31+49.46/38.68'L
RIM ELEV = 1228.94
INV ELEV = 1223.80-18"N
INV ELEV = 1223.30-24"S
INV ELEV = 1224.91-12"W
INV ELEV = 1224.63-18"E
INV ELEV = 1223.80-18"N

(A32.5)
STA: 31+86.12/24.37'L
RIM ELEV = 1229.14
2.0' SUMP DEPTH
INV ELEV = 1225.56-15"NW
INV ELEV = 1225.56-12"E

(A32.6)
STA: 31+94.01/23.00'L
RIM ELEV = 1229.42
2.0' SUMP DEPTH
INV ELEV = 1225.64-12"W

(A32.3)
STA: 31+41.17/38.41'L
RIM ELEV = 1228.57
2.0' SUMP DEPTH
INV ELEV = 1224.99-12"E

8' of 12" SS RCP @ 1.00%

27' of 18" SS RCP @ 1.81%

18' of 15" SS RCP @ 1.00%

8' of 12" SS RCP @ 1.00%

(A33)
STA: 33+90.00/8.00'R
RIM ELEV = 1238.37
INV ELEV = 1231.29-30"W
INV ELEV = 1231.79-30"E
INV ELEV = 1234.28-12"NE
INV ELEV = 1234.06-12"S

(A33.2)
STA: 33+93.36/18.00'R
RIM ELEV = 1238.34
2.0' SUMP DEPTH
INV ELEV = 1234.75-12"N
INV ELEV = 1234.75-12"E

(A33.1)
STA: 34+05.00/23.00'L
RIM ELEV = 1239.85
2.0' SUMP DEPTH
INV ELEV = 1236.26-12"SW

(A33.3)
STA: 34+05.36/18.00'R
RIM ELEV = 1239.13
2.0' SUMP DEPTH
INV ELEV = 1235.53-12"W

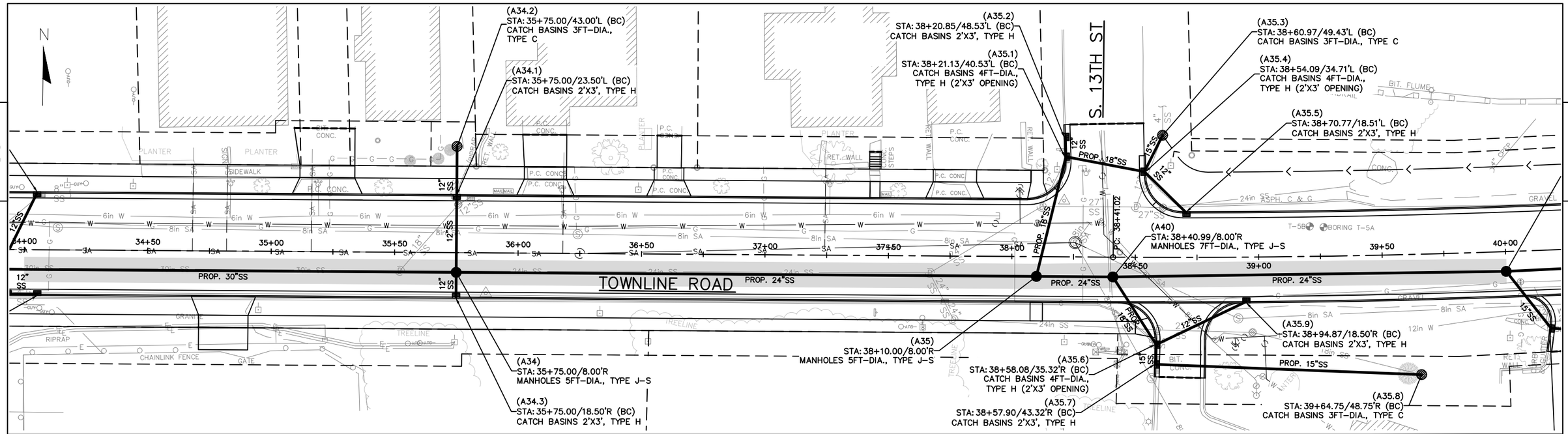
34' of 12" SS RCP @ 5.75%

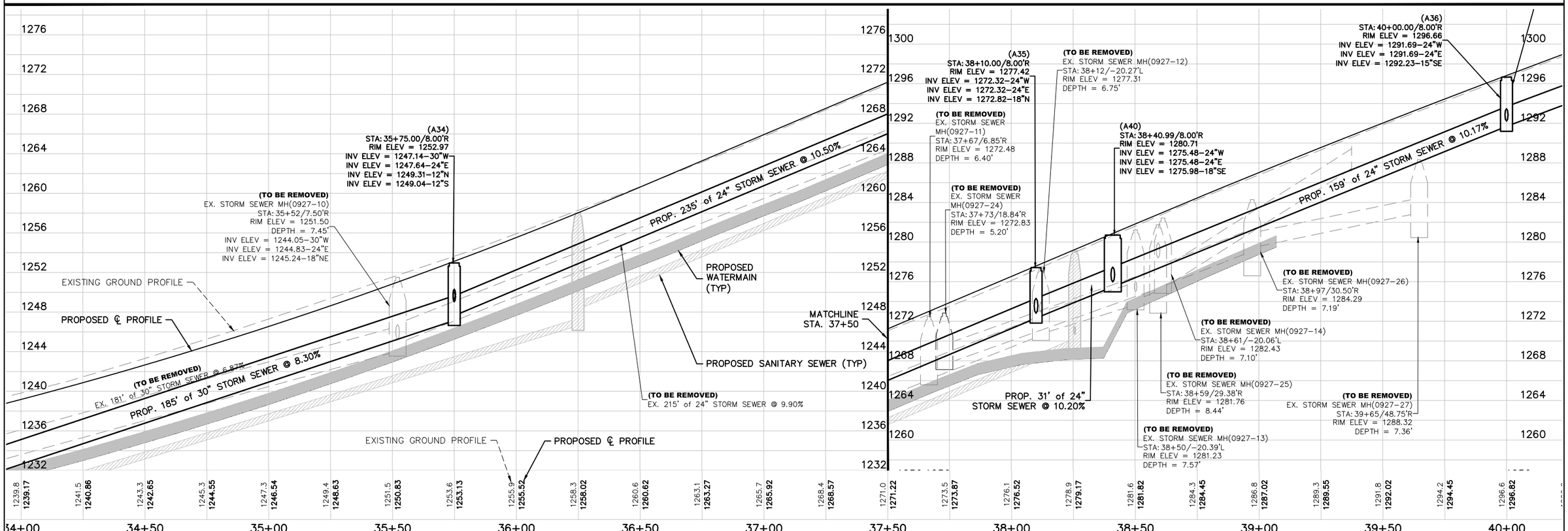
12' of 12" SS RCP @ 6.50%

11' of 12" SS RCP @ 6.50%

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 41	E

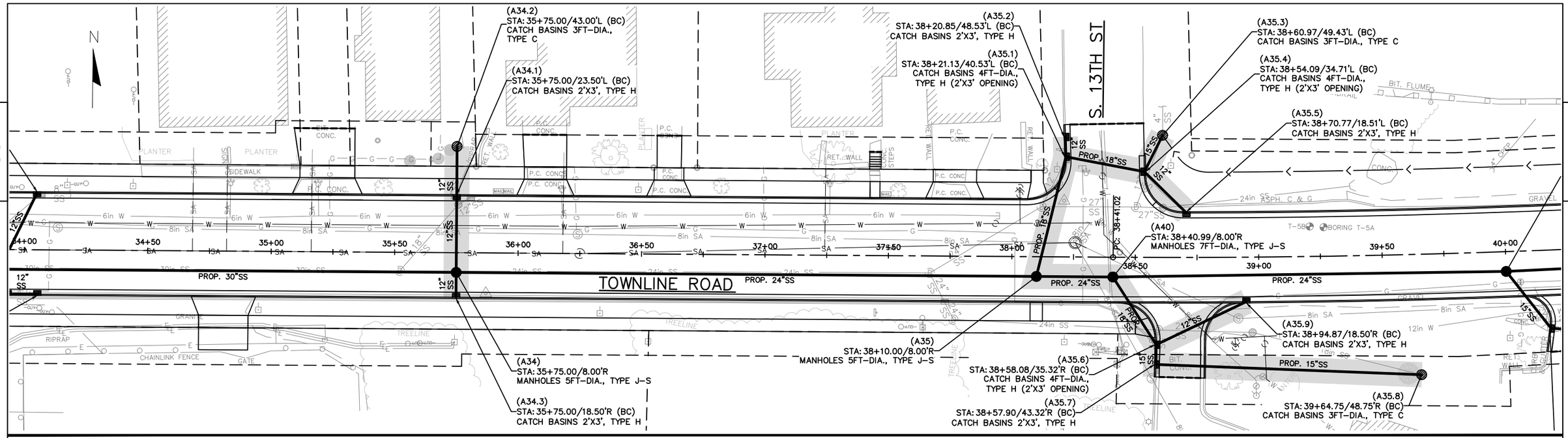
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_STORM.dwg, 8/23/2018 11:19:17 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

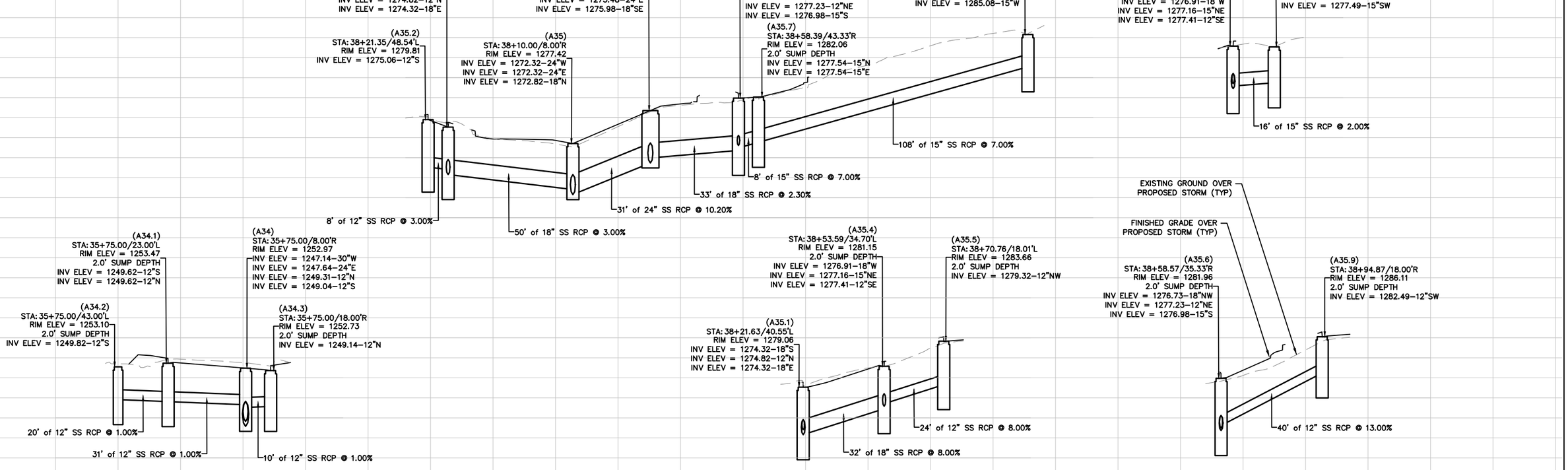




PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 42	E

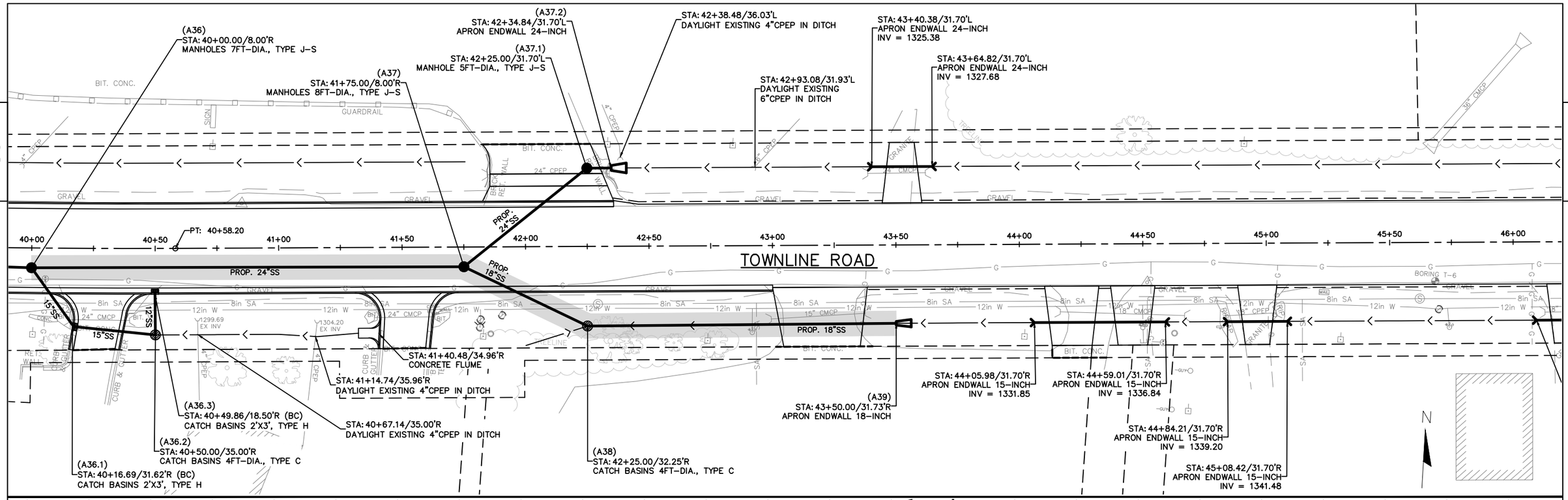
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_STORM.dwg, 8/23/2018 11:20:16 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel





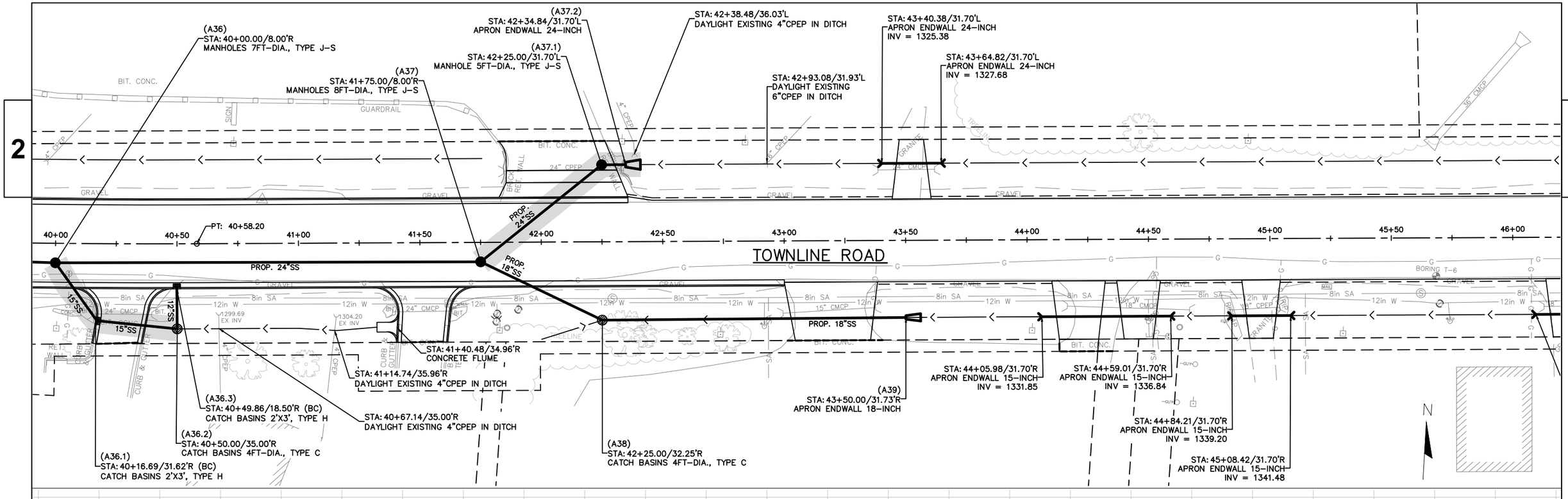
PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 43	E

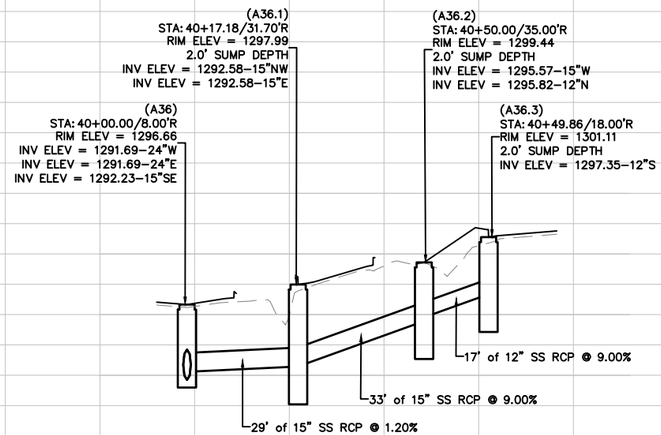
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_STORM.dwg, 8/23/2018 11:21:17 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

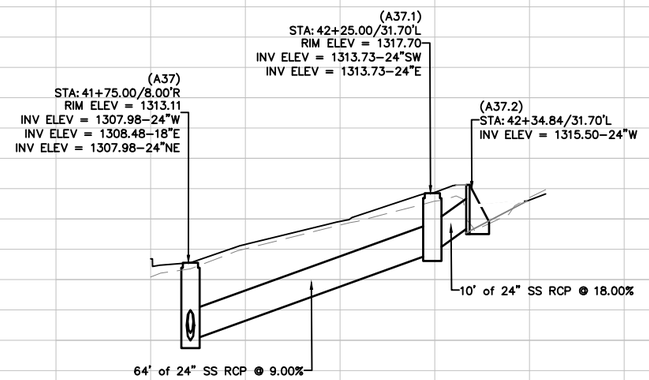


PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 44	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_STORM.dwg, 8/23/2018 11:22:17 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel







PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 45	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_STORM.dwg, 8/23/2018 11:23:19 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

2

EASTHILL DR

TOWNLINE ROAD

WAUSAU CITY LIMITS

STA: 46+36.27/31.70'R
DAYLIGHT EXISTING 4"CPEP IN DITCH

STA: 46+33.68/31.70'R
APRON ENDWALL 15-INCH
INV = 1352.76

STA: 46+09.39/31.70'R
APRON ENDWALL 15-INCH
INV = 1350.97

STA: 46+93.14/31.70'R
APRON ENDWALL 12-INCH
INV = 1358.85

STA: 47+22.63/31.70'R
APRON ENDWALL 12-INCH
INV = 1360.81

STA: 47+45.25/31.70'R
APRON ENDWALL 12-INCH
INV = 1363.74

STA: 47+83.37/31.70'R
APRON ENDWALL 12-INCH
INV = 1367.32

STA: 48+44.64/31.70'R
APRON ENDWALL 12-INCH
INV = 1372.77

STA: 48+83.39/31.70'R
APRON ENDWALL 12-INCH
INV = 1375.67

END PROJECT
STA. 50+56.64
Y = 196,790.54
X = 287,758.04

N

EXISTING GROUND PROFILE

PROPOSED ℄ PROFILE

MATCHLINE
STA. 47+61.3

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN	SCALE, FEET 0 10 20 40	SHEET 46	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_STORM.dwg, 8/23/2018 11:24:17 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

TOWNLINE ROAD

BEGIN CONSTRUCTION
STA. 100+00.00
X = 284,897.566
Y = 196,713.28

END CONSTRUCTION
STA. 106+28.65
Y = 196459.48
X = 285352.58

(A27) STA: 21+55.00/11.00'R MANHOLES 8FT–DIA., TYPE J–S

(A27.2) STA: 101+25.00/17.00'R MANHOLES 6FT–DIA., TYPE H (2'X3' OPENING)

(A27.3) STA: 102+25.00/20.50'R MANHOLES 5FT–DIA., TYPE J–S

STA: 102+29.07/33.20'R STUB 13LF – 30"SS @ 1.0%

(A27.4) STA: 103+50.00/17.50'R (BC) CATCH BASINS 2'X3', TYPE H

(A27.5) STA: 103+50.00/17.50'L (BC) CATCH BASINS 2'X3', TYPE H

(A27.6) STA: 101+25.09/26.69'L (BC) CATCH BASINS 2'X3', TYPE H

(A27.7) STA: 101+15.65/27.74'L (BC) CATCH BASINS 2'X3', TYPE H

(A28) STA: 23+90.00/10.64'R MANHOLES 7FT–DIA., TYPE J–S

(A28.1) STA: 23+90.35/37.54'R MANHOLES 4FT–DIA., TYPE J–S

(A28.2) STA: 104+65.81/94.04'L MANHOLES 4FT–DIA., TYPE J–S

(A28.3) STA: 104+85.29/66.07'L CATCH BASINS 3FT–DIA., TYPE C

(A28.4) STA: 106+05.00/8.00'L MANHOLES 4FT–DIA., TYPE J–S

(A28.5) STA: 106+08.33/21.97'R CATCH BASINS 3FT–DIA., TYPE C

(A29.2) STA: 24+78.09/18.50'R (BC) CATCH BASINS 2'X3', TYPE H

(A30) STA: 25+86.00/8.09'R MANHOLES 8FT–DIA., TYPE J–S

(A30.1) STA: 25+77.31/18.50'R (BC) CATCH BASINS 2'X3', TYPE H

(A30.2) STA: 25+85.34/40.00'R CATCH BASINS 3FT–DIA., TYPE C

(A30.6) STA: 25+89.31/18.50'R (BC) CATCH BASINS 2'X3', TYPE H

PC: 100+53.50

PRC: 103+96.09

PT: 105+96.20

EP: 106+28.65

CONNECT TO EX. 15"SS W/CONCRETE COLLAR

CURLING WAY

EXISTING CURLING WAY (TO BE REALIGNED)

PROP. 48"SS

PROP. 36"SS

PROP. 30"SS

PROP. 18"SS

PROP. 15"SS

PROP. 12"SS

GRANITE

CONCRETE SIDEWALK

SIDEWALK

BIT. CONC.

P.C. CONC.

CONC. FOUNDATION

GRAVEL

BORING N–1

N

(A27) STA: 21+55.00/11.00'R RIM ELEV = 1213.81 INV ELEV = 1206.51–48"W INV ELEV = 1206.51–48"E INV ELEV = 1207.25–30"S INV ELEV = 1209.60–12"N

(A27.2) STA: 101+25.00/17.00'R RIM ELEV = 1213.01 INV ELEV = 1207.62–30"N INV ELEV = 1207.62–30"SE INV ELEV = 1208.54–15"NE

(A27.3) STA: 102+25.00/20.50'R RIM ELEV = 1214.56 INV ELEV = 1207.95–30"NW INV ELEV = 1209.63–15"E INV ELEV = 1207.95–30"S

(A27.4) STA: 103+50.00/17.00'R RIM ELEV = 1215.11 INV ELEV = 1210.99–15"W INV ELEV = 1211.18–12"N

(A28.4) STA: 106+05.00/8.00'L RIM ELEV = 1217.71 INV ELEV = 1211.74–15"NW INV ELEV = 1211.99–12"SW

(A28.5) STA: 106+08.33/21.97'R RIM ELEV = 1216.50 INV ELEV = 1212.22–12"NE

GRADE BREAK STA = 100+19.28 ELEV = 1213.91

GRADE BREAK STA = 101+25.00 ELEV = 1213.39

GRADE BREAK STA = 100+00.00 ELEV = 1214.30

GRADE BREAK STA = 106+28.65 ELEV = 1218.09

–2.00%

–0.50%

0.93%

PROP. 125' of 30" STORM SEWER @ 0.30%

PROP. 109' of 30" STORM SEWER @ 0.30%

PROP. 136' of 15" STORM SEWER @ 1.00%

PROPOSED ℄ PROFILE

EXISTING GROUND PROFILE

PROPOSED WATERMAIN (TYP)

PROPOSED SANITARY SEWER (TYP)

1214.30 1214.5 1213.89 1214.3 1213.76 1214.3 1213.64 1214.2 1213.51 1214.4 1213.39 1214.5 1213.62 1214.5 1213.85 1214.6 1214.09 1215.0 1214.32 1215.4 1214.55 1215.7 1214.79 1215.8 1215.02 1215.9 1215.26 1214.7 1215.49 1214.0 1215.72 1213.2 1215.96 1212.6 1216.19 1213.0 1216.42 1215.3 1216.66 1216.0 1216.89 1216.9 1217.13 1217.5 1217.36 1217.8 1217.59 1218.0 1217.83 1218.1 1218.06

1216 1212 1208 1204 1200

+00 100+50 101+00 101+50 102+00 102+50 103+00 103+50 104+00 104+50 105+00 105+50 106+00

PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN – CURLING WAY	SCALE, FEET 0 10 20 40	SHEET 47	E

TOWNLINE ROAD

CURLING WAY

EXISTING CURLING WAY (TO BE REALIGNED)

(A27) STA: 21+55.00/11.00'R MANHOLES 8FT–DIA., TYPE J–S

(A27.2) STA: 101+25.00/17.00'R MANHOLES 6FT–DIA., TYPE H (2'X3' OPENING)

(A27.3) STA: 102+25.00/20.50'R MANHOLES 5FT–DIA., TYPE J–S

STA: 102+29.07/33.20'R STUB 13LF – 30"SS @ 1.0%

(A27.4) STA: 103+50.00/17.50'R (BC) CATCH BASINS 2'X3', TYPE H

(A27.5) STA: 103+50.00/17.50'L (BC) CATCH BASINS 2'X3', TYPE H

(A27.6) STA: 101+25.09/26.69'L (BC) CATCH BASINS 2'X3', TYPE H

(A27.7) STA: 101+15.65/27.74'L (BC) CATCH BASINS 2'X3', TYPE H

(A28) STA: 23+90.00/10.64'R MANHOLES 7FT–DIA., TYPE J–S

(A28.1) STA: 23+90.35/37.54'R MANHOLES 4FT–DIA., TYPE J–S

(A28.2) STA: 104+65.81/94.04'L MANHOLES 4FT–DIA., TYPE J–S

(A28.3) STA: 104+85.29/66.07'L CATCH BASINS 3FT–DIA., TYPE C

(A28.4) STA: 106+05.00/8.00'L MANHOLES 4FT–DIA., TYPE J–S

(A28.5) STA: 106+08.33/21.97'R CATCH BASINS 3FT–DIA., TYPE C

(A29.2) STA: 24+78.09/18.50'R (BC) CATCH BASINS 2'X3', TYPE H

(A30) STA: 25+86.00/8.09'R MANHOLES 8FT–DIA., TYPE J–S

(A30.1) STA: 25+77.31/18.50'R (BC) CATCH BASINS 2'X3', TYPE H

(A30.2) STA: 25+85.34/40.00'R CATCH BASINS 3FT–DIA., TYPE C

(A30.6) STA: 25+89.31/18.50'R (BC) CATCH BASINS 2'X3', TYPE H

PC: 100+53.50

PRC: 103+96.09

PT: 105+96.20

EP: 106+28.65

PROP. 48"SS

PROP. 36"SS

PROP. 30"SS

PROP. 18"SS

PROP. 15"SS

PROP. 12"SS

CONNECT TO EX. 15"SS W/CONCRETE COLLAR

BORING N–1

CONCRETE SIDEWALK

GRANITE

BIT. CONC.

P.C. CONC.

CONC. FOUNDATION

GRAVEL

SIDEWALK

N

(A27.2) STA: 101+25.00/17.00'R RIM ELEV = 1213.01 INV ELEV = 1207.62–30"N INV ELEV = 1207.62–30"SE INV ELEV = 1208.54–15"NE

(A27.6) STA: 101+25.00/26.20'L RIM ELEV = 1212.82 2.0' SUMP DEPTH INV ELEV = 1208.97–15"SW INV ELEV = 1209.22–12"N

(A27.7) STA: 101+15.59/27.24'L RIM ELEV = 1212.98 2.0' SUMP DEPTH INV ELEV = 1209.30–12"S

8' of 12" SS RCP @ 1.00%

43' of 15" SS RCP @ 1.00%

(A27.4) STA: 103+50.00/17.00'R RIM ELEV = 1215.11 2.0' SUMP DEPTH INV ELEV = 1210.99–15"W INV ELEV = 1211.18–12"N

(A27.5) STA: 103+50.00/17.00'L RIM ELEV = 1215.11 2.0' SUMP DEPTH INV ELEV = 1211.52–12"S

34' of 12" SS RCP @ 1.00%

(A28) STA: 23+90.00/10.64'R RIM ELEV = 1216.29 INV ELEV = 1207.68–48"W INV ELEV = 1207.68–48"E INV ELEV = 1208.91–18"S

(A28.1) STA: 23+90.35/37.54'R RIM ELEV = 1215.63 INV ELEV = 1209.11–18"N INV ELEV = 1209.11–18"SE

27' of 18" SS RCP @ 0.75%

(A28.2) STA: 104+65.81/94.04'L RIM ELEV = 1216.00 INV ELEV = 1210.05–18"NW INV ELEV = 1210.30–15"SE INV ELEV = 1210.30–15"NE

126' of 18" SS RCP @ 0.75%

(A28.3) STA: 104+85.29/66.07'L RIM ELEV = 1214.90 2.0' SUMP DEPTH INV ELEV = 1210.60–15"NW INV ELEV = 1210.60–15"SE

40' of 15" SS RCP @ 0.75%

(A28.4) STA: 106+05.00/8.00'L RIM ELEV = 1217.71 INV ELEV = 1211.74–15"NW INV ELEV = 1211.99–12"SW

152' of 15" SS RCP @ 0.75%

(A28.5) STA: 106+08.33/21.97'R RIM ELEV = 1216.50 2.0' SUMP DEPTH INV ELEV = 1212.22–12"NE

30' of 12" SS RCP @ 0.75%

PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	STORM SEWER PLAN – CURLING WAY	SCALE, FEET 0 10 20 40	SHEET 48	E

WISDOT/CADDS SHEET 44

STA:10+41.48/24.3'L
CONNECT TO EXISTING 12" SANITARY SEWER WITH NON-SHEAR COUPLING.
CONTRACTOR TO FIELD VERIFY HORIZONTAL & VERTICAL LOCATION.

STA:13+49.84/17.5'L
4-12" 45° BEND (VERTICAL WM OFFSET)
PROVIDE 64SF - 2" INSULATION
IF MIN. 7' OF COVER IS NOT OBTAINED

STA:13+47.48/55.8'L
INV ELEV = 1201.46±
CONNECT TO EX. 10" PVC SANITARY SEWER.
FIELD VERIFY HORIZONTAL & VERTICAL LOCATION.

STA. 10+79 - 11+15
ABANDON EX. 6" WATERMAIN IN PLACE.
CONCRETE SLURRY FILLED

STA:12+91.01/0.0'
2-12" 45° BEND
(VERTICAL WM OFFSET)

GRAND AVE

PROSPECT AVE

TOWNLINE ROAD

PROP. 12" SAN. SEWER

PROP. 18" SAN. SEWER

PROP. 12" WATERMAIN

PROP. 15" SAN. SEWER

PROP. 10" SAN. SEWER

REMOVE

ABANDONED

STA:11+25.00/11.0'R
12" VALVE & VALVE BOX

STA:10+60.50/11.0'R
12"X12"X12" TEE & 2-12" CONNECTIONS
NOTE: RECORDS INDICATE EXISTING 12" WATERMAIN
IS CAST IRON. CONTRACTOR TO PROVIDE
ALL NECESSARY PARTS TO MAKE THE CONNECTION.

STA:10+47.28/0.0'
CONNECT TO EX. SANITARY SEWER MANHOLE.
INSTALL SAN TYPE J-S MH COVER & CHIMNEY SEAL
CONTRACTOR SHALL FIELD VERIFY HORZ. & VERT. LOCATION.

STA:13+22.26/11.0'R
12" VALVE & VALVE BOX

STA:13+52.61/11.0'R
12"X12"X12" TEE
12" 11.25°BEND
75' - 12" D.I. WATERMAIN
4-12" 45° BEND (VERTICAL WM OFFSET)
CONNECT TO EXISTING 12" VALVE

STA:14+41.47/26.6'R
12"X12"X6" TEE
16' - 6" D.I. WATERMAIN
6" VALVE & VALVE BOX
STANDARD HYDRANT

STA:14+45.45/11.0'R
12" VALVE & VALVE BOX

STA:14+67.54/11.0'R
12"X12"X8" TEE
8" VALVE & VALVE BOX
26' - 8" D.I. WATERMAIN
8"X6" REDUCER
1 - 6" CONNECTION
NOTE: RECORDS INDICATE 6" WATERMAIN IS CAST IRON.
CONTRACTOR SHALL FIELD VERIFY AND SUPPLY ALL
NECESSARY PARTS TO MAKE THE CONNECTION.

STA:14+95.45/11.0'R
12" VALVE & VALVE BOX

STA:14+71.28/32.0'R
CONNECT TO EX. 10" SANITARY SEWER
W/NON-SHEAR COUPLING.
FIELD VERIFY HORZ. & VERT. LOCATION.

CONTRACTOR TO
FIELD VERIFY
LOCATION AND
REPLACE SANITARY
LATERAL IF FOUND
WITHIN PROJECT
LIMITS.

NAVI J DOWTY
1225 GRAND AVE
29129073630068

CREATIVE HOME FINANCE
1228 PROSPECT AVE
29129073640197

TIM L DOERR
702 TOWNLINE RD
29129073640214

BRAMWELL J JARVIS
708 TOWNLINE RD
29129073640213

ROGER G DUBBLE
714 TOWNLINE RD
29129073640215

ERIC JONES
1303 GRAND AVE
29128070110942

WIEMAN FAMILY
615 TOWNLINE RD
29128070110943

BARBARA E VANDER LEEST
617 TOWNLINE RD
29128070110944

GARY JOHNSON
621 TOWNLINE RD

MARLENE M DEININGER
701 TOWNLINE RD
29128070110946

TGC HOLDINGS 101 LLC
707 TOWNLINE RD
29128070110968

SEAN P POPELKA
711 TOWNLINE RD
29128070110967

BORING T-1

PROP. SAN. SEWER MH(0927-31)
STA:13+60.58/0.00'
RIM ELEV = 1210.70
DEPTH = 9.49'
INV ELEV = 1201.22-18"W
INV ELEV = 1201.32-15"E
INV ELEV = 1201.32-10"N

(TO BE REMOVED)
EX. SAN. SEWER MH(0927-2)
STA:13+60/2.26'L
RIM ELEV = 1210.62
DEPTH = 9.10'
INV ELEV = 1201.62-18"W
INV ELEV = 1201.62-15"E
INV ELEV = 1201.52-12"N
INV ELEV = 1202.32-8"S

PROP. SAN. SEWER MH(0927-32)
STA:14+71.15/0.00'
RIM ELEV = 1210.83
DEPTH = 9.34'
INV ELEV = 1201.49-15"W
INV ELEV = 1201.59-15"E
INV ELEV = 1201.59-10"S

(TO BE REMOVED)
EX. SAN. SEWER MH(0927-3)
STA:14+71/2.21'L
RIM ELEV = 1210.89
DEPTH = 9.24'
INV ELEV = 1201.65-15"W
INV ELEV = 1201.65-15"E
INV ELEV = 1201.65-12"S

EX. SAN. SEWER MH(0927-30)
STA:10+47/0.00'
PROP. RIM ELEV = 1211.54
DEPTH = 10.70'
INV ELEV = 1200.73-12"N
INV ELEV = 1200.70-24"S
PROP. INV ELEV = 1200.84-18"E
PROP. INV ELEV = 1200.73-12"N

EXISTING GROUND PROFILE
PROPOSED ℄ PROFILE
PROPOSED WATERMAIN
7' MIN. BURY (TYP)

(TO BE REMOVED)
EX. 313' of 18" SAN. SEWER @ 0.25%
PROP. 313' of 18" SAN. SEWER @ 0.12%
1.5' MIN. SEPARATION
(TO BE REMOVED)
EX. 111' of 15"
SAN. SEWER @ 0.03%
PROP. 111' of 15" SAN. SEWER @ 0.15%
(TO BE REMOVED)
EX. 198' of 15" SAN. SEWER @ 0.13%
PROP. 198' of 15" SAN. SEWER @ 0.15%

EXISTING STORM SEWER(TYP)
PROPOSED STORM SEWER MANHOLE (TYP)

EXISTING GROUND PROFILE
PROPOSED ℄ PROFILE

1211.6 1211.3 1211.3 1211.4 1211.44 1211.4 1211.54 1211.4 1211.44 1211.3 1211.34 1211.2 1211.24 1211.2 1211.14 1211.1 1211.04 1211.0 1210.94 1210.8 1210.84 1210.7 1210.74 1210.7 1210.64 1210.8 1210.54 1210.9 1210.64 1211.0 1210.74 1211.0 1210.84 1211.1 1210.94 1211.1 1211.04 1211.2 1211.14 1211.3 1211.24 1211.4 1211.34

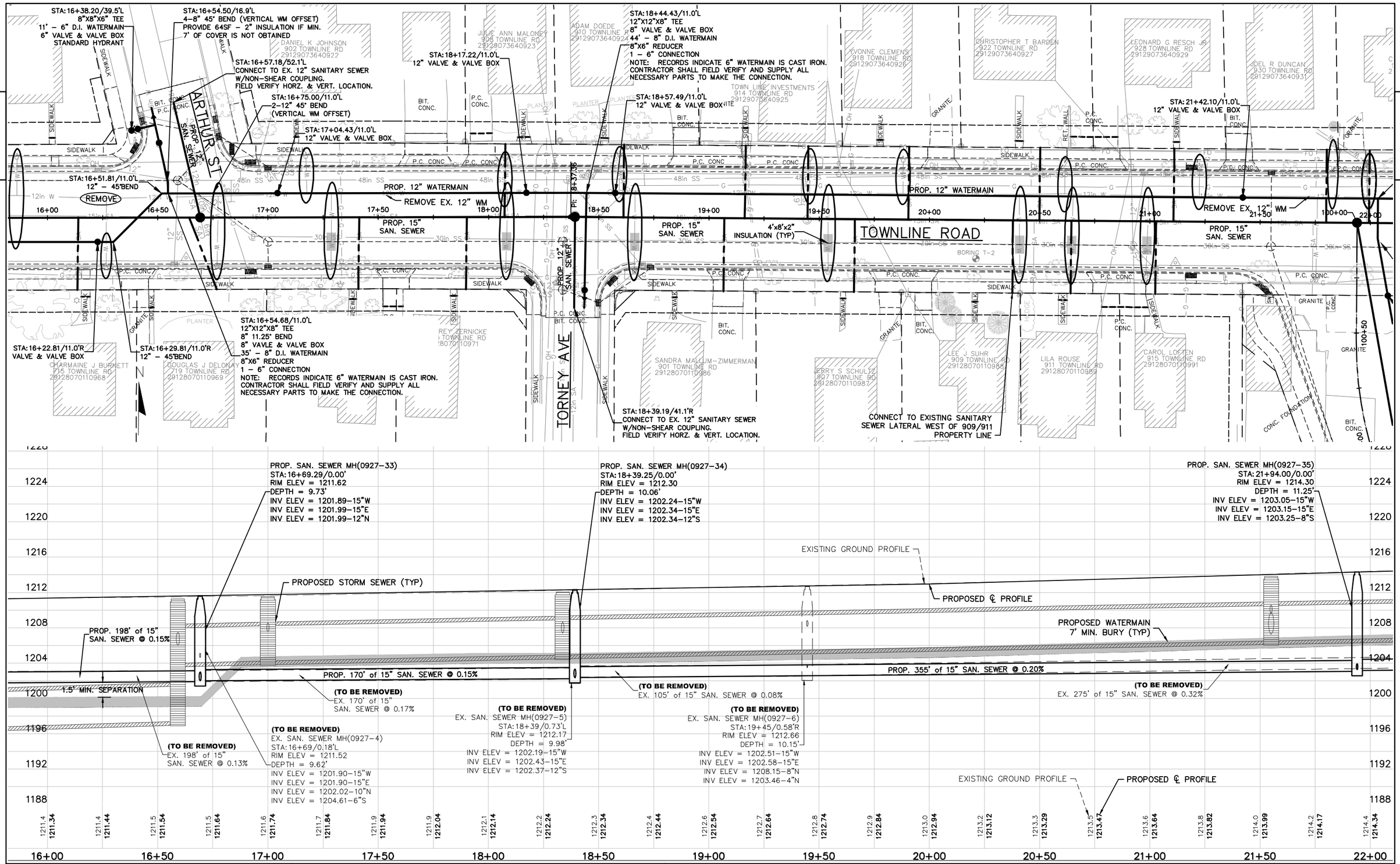
10+00 10+50 11+00 11+50 12+00 12+50 13+00 13+50 14+00 14+50 15+00 15+50 16+00

1228 1224 1220 1216 1212 1208 1204 1200 1196 1192 1188

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	UTILITY PLAN	SCALE, FEET 0 10 20 40	SHEET 49	E

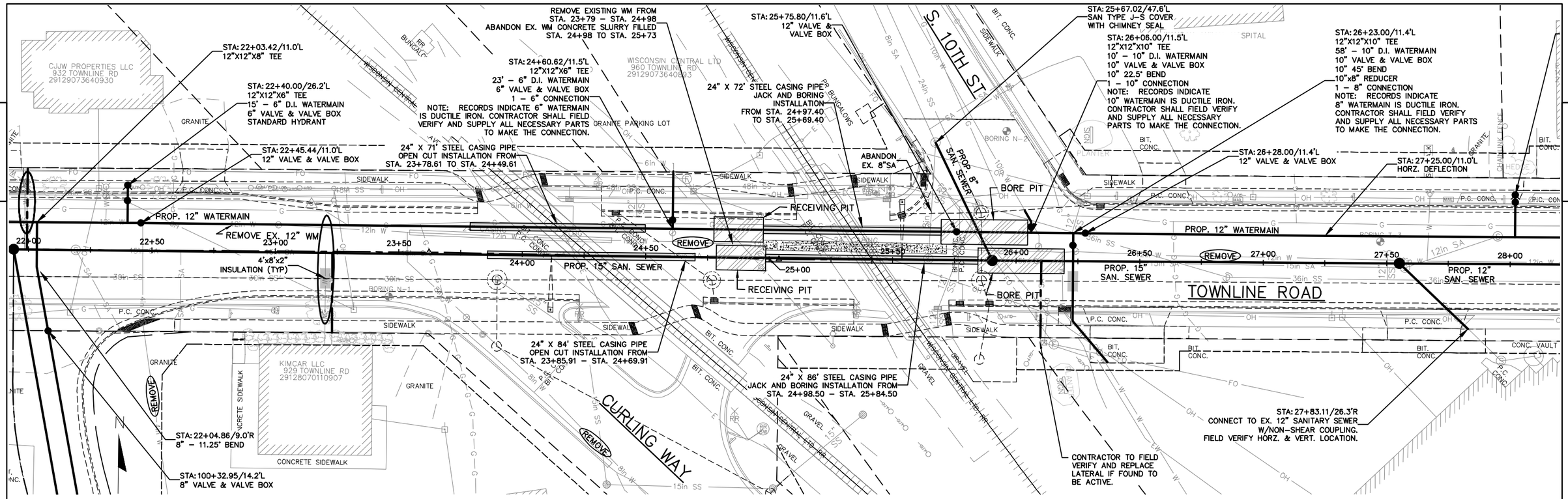
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_□T□□□ES.dwg, 11/6/2018 8:00:02 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

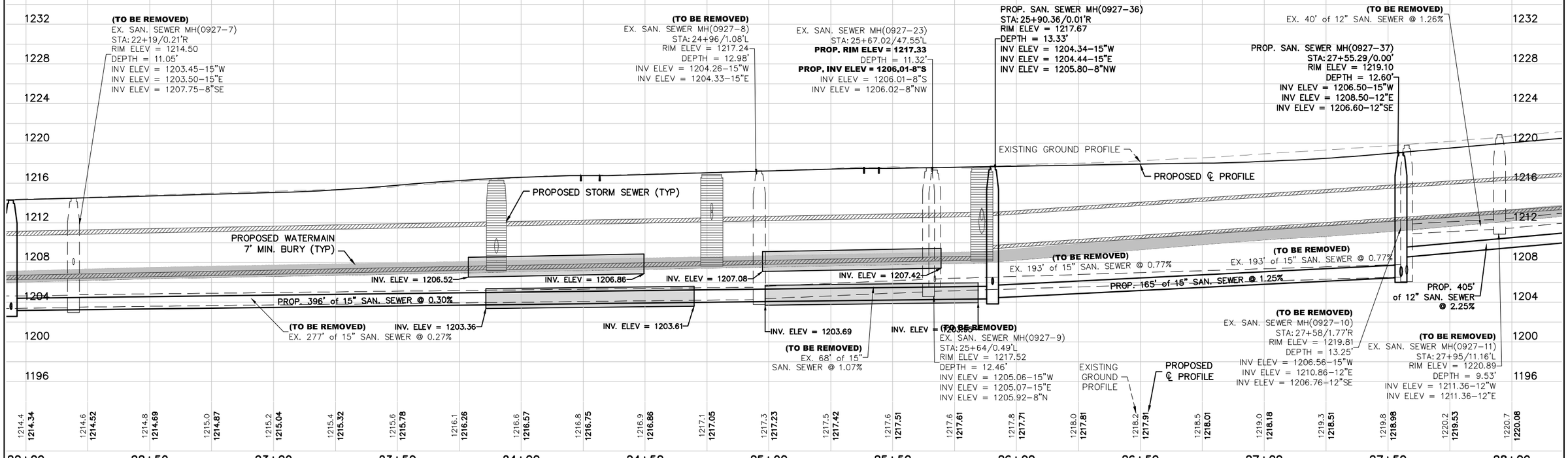
WISDOT/CADDS SHEET 44



PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	UTILITY PLAN	SCALE, FEET 0 10 20 40	SHEET 50	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_□T□□□ES.dwg, 11/6/2018 8:01:15 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel





PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	UTILITY PLAN	SCALE, FEET 0 10 20 40	SHEET 51	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_□T□□ES.dwg, 11/6/2018 8:02:30 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

STA: 28+02.00/28.1'L
12"X12"X6" TEE
17' – 6" D.I. WATERMAIN
6" VALVE & VALVE BOX
STANDARD HYDRANT

STA: 28+92.94/11.0'L
12" VALVE & VALVE BOX

STA: 28+97.88/11.0'L
12"X12"X10" TEE
10" VALVE & VALVE BOX
42' – 10" D.I. WATERMAIN
1 – 10"X8" REDUCER
1 – 8" CONNECTION
NOTE: RECORDS INDICATE 8" WATERMAIN IS DUCTILE IRON. CONTRACTOR SHALL FIELD VERIFY AND SUPPLY ALL NECESSARY PARTS TO MAKE THE CONNECTION

STA: 29+02.94/11.0'L
12" VALVE & VALVE BOX

STA: 31+65.82/11.0'L
12"X12"X12" TEE
12" VALVE & VALVE BOX
27' – 12" D.I. WATERMAIN
12"X8" REDUCER
1 – 8" CONNECTION
NOTE: RECORDS INDICATE 8" WATERMAIN IS DUCTILE IRON. CONTRACTOR SHALL FIELD VERIFY AND SUPPLY ALL NECESSARY PARTS TO MAKE THE CONNECTION.

STA: 31+28.57/11.0'L
12" VALVE & VALVE BOX

STA: 31+88.58/11.0'L
12" VALVE & VALVE BOX

STA: 33+67.34/11.0'L
12"X12"X12" TEE
12" VALVE & VALVE BOX
42' – 12" D.I. WATERMAIN
1 – 12" CONNECTION
NOTE: RECORDS INDICATE 12" WATERMAIN IS DUCTILE IRON. CONTRACTOR SHALL FIELD VERIFY AND SUPPLY ALL NECESSARY PARTS TO MAKE THE CONNECTION.

STA: 33+23.22/11.0'L
12" VALVE & VALVE BOX

STA: 33+89.24/11.0'L
12" VALVE & VALVE BOX

STA: 33+81.09/28.0'L
12"X12"X6" TEE
17' – 6" D.I. WATERMAIN
6" VALVE & VALVE BOX
STANDARD HYDRANT

EDWIN J WOLF JR
1016 TOWNLINE RD
29129073640356

DOUGLAS M RISTE
1018 TOWNLINE RD
29129073640357

WILLIAM D SIMS
1104 TOWNLINE RD
29129073640358

THOMAS J GERUM
1108 TOWNLINE RD
29129073640359

ROBERT C BRANDT
1110 TOWNLINE RD
29129073640360

DAVID H SCHMIDT
1316 12TH ST
29129073640361

ROMANS 12 ENTERPRISES
1204 TOWNLINE RD
29129073640380

THOMAS ROGER L & JODINE
1206 TOWNLINE RD
29129073640381

LORNA M LUTZKE
1210 TOWNLINE RD
29129073640382

WIS PUBLIC SERVICE CORP
1216 TOWNLINE RD
29129073640383

KRAFT FOODS GROUP,INC
1007 TOWNLINE RD
29128070110998

S. 12TH ST

TOWNLINE ROAD

NORTH–WESTERN AVE

PROP. 12" WATERMAIN

PROP. 12" SAN. SEWER

PROP. 12" SAN. SEWER

PROP. 8" SAN. SEWER

REMOVE EX. 6"WM

REMOVE

REMOVE

REMOVE

BORING T-4

STA: 33+56.93/5.0'R
CONNECT TO EX. 6" DUCTILE IRON FORCEMAIN W/RESTRAINED COUPLING.
CONTRACTOR SHALL FIELD VERIFY HORZ. & VERT. LOCATION AND SUPPLY ALL NECESSARY PARTS TO MAKE THE CONNECTION.

STA: 28+98.28/8.0'R
4–10" 45° BEND (VERTICAL WM OFFSET)
PROVIDE 64SF – 2" INSULATION IF MIN.
7' OF COVER IS NOT OBTAINED

PROP. SAN. SEWER MH(0927–38)
STA: 31+60.00/0.00'
RIM ELEV = 1228.09
DEPTH = 10.50'
INV ELEV = 1217.59–12"W
INV ELEV = 1217.69–12"E

PROP. SAN. SEWER MH(0927–39)
STA: 33+56.81/0.00'
RIM ELEV = 1236.49
DEPTH = 10.93'
INV ELEV = 1225.56–12"W
INV ELEV = 1226.00–8"E
INV ELEV = 1228.62–6"S

(TO BE REMOVED)
EX. 197' of 12" SAN. SEWER @ 4.14%

PROPOSED WATERMAIN
7' MIN. BURY (TYP)

EXISTING GROUND PROFILE

PROPOSED ℄ PROFILE

PROPOSED STORM SEWER (TYP)

PROP. 197' of 12" SAN. SEWER @ 4.00%

(TO BE REMOVED)
EX. SAN. SEWER MH(0927–13)
STA: 33+56/13.56'L
RIM ELEV = 1237.14
DEPTH = 8.91'
INV ELEV = 1228.23–12"W
INV ELEV = 1228.24–12"E
INV ELEV = 1228.62–6"S

(TO BE REMOVED)
EX. SAN. SEWER MH(0927–12)
STA: 31+60/11.96'L
RIM ELEV = 1228.93
DEPTH = 8.85'
INV ELEV = 1220.08–12"W
INV ELEV = 1220.08–12"E

(TO BE REMOVED)
EX. 365' of 12" SAN. SEWER @ 2.39%

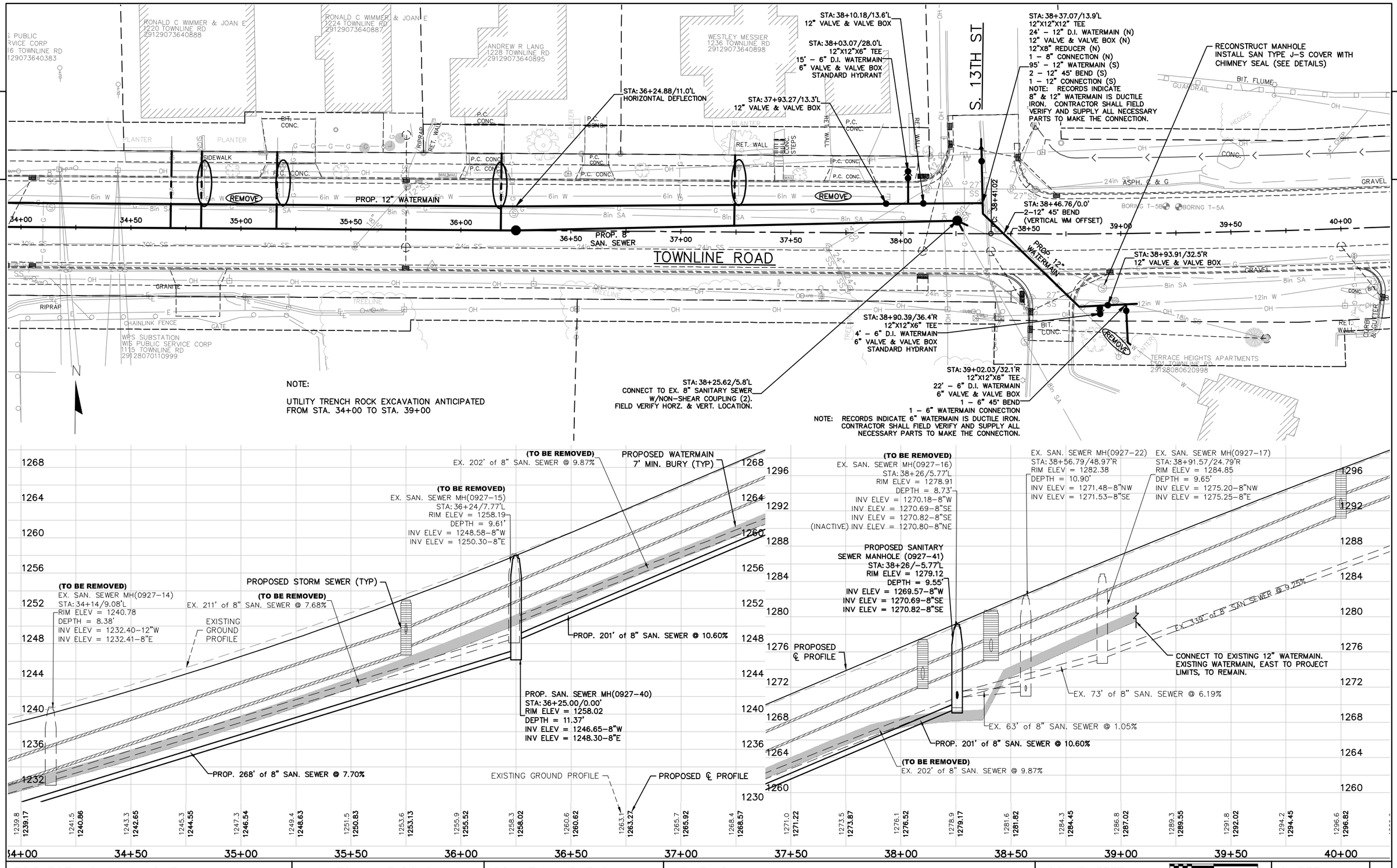
(TO BE REMOVED)
EX. 57' of 12" SAN. SEWER @ 7.27%

PROP. 405' of 12" SAN. SEWER @ 2.25%

PROP. 268' of 8" SAN. SEWER @ 7.70%

PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	UTILITY PLAN	SCALE, FEET 0 10 20 40	SHEET 52	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_□T□□□ES.dwg, 11/6/2018 8:03:45 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	UTILITY PLAN	SCALE, FEET 0 10 20 40	SHEET 53	E

:OVER WITH
ILS)

BIT. CONC.

CHRIST LUTHERAN CHURCH
1300 TOWNLINE RD
291290831307B2

CYNTHIA S WITTH
1575 SUMNER ST
291290831309

GUARDRAIL

SIGN

BIT. CONC.

BRICK RET. WALL

STONE RET. WALL

24" CPEP

4" CPEP

36" CMCP

GRANITE

24" CMCP

GRAVEL

PT: 40+58.20

40+00 40+50 41+00 41+50 42+00 42+50 43+00 43+50 44+00 44+50 45+00 45+50 46+00

TOWNLINE ROAD

BORING T-6

8in SA

12in W

24" CMCP

15" CMCP

18" CMCP

1299.69
EX INV

1304.20
EX INV

CONC. RET. WALL

CURB & GUTTER

BIT. CONC.

RET. WALL

RIP RAP

GUY

TERRACE HEIGHTS APARTMENTS
1301 TOWNLINE RD
29128080620998

WAUSAU AREA 4TH OF JULY
1425 TOWNLINE RD
29128080620997

TAMMY ANN STENCIL
1429 TOWNLINE RD
29128080620996

PHYLLIS KOLTZ
1503 TOWNLINE RD
29128080620995

UNITED
1405 TOWNLINE RD
29128080620991

N

STA: 41+81.66/29.4'R
REPLACE WATER VALVE BOX
(RAISE ±2.2')

STA: 41+81.41/32.5'R
ADJUST EXISTING HYDRANT
TO FINISHED GRADE
(RAISE ±2.4')

STA: 41+90.41/27.7'R
REPLACE WATER VALVE BOX
(RAISE ±2.9')

STA: 42+29.22/23.4'R
RECONSTRUCT MANHOLE
INSTALL SAN TYPE J-S COVER WITH
CHIMNEY SEAL (SEE DETAILS)

STA: 45+62.12/22.7'R
RECONSTRUCT MANHOLE
INSTALL SAN TYPE J-S COVER WITH
CHIMNEY SEAL (SEE DETAILS)

STA: 45+69.84/27.1'R
REPLACE WATER VALVE BOX
(RAISE ±0.1')

EX. SAN. SEWER MH(0927-18)
STA: 42+29.22/23.40'R
RIM ELEV = 1317.28
DEPTH = 10.70'
INV ELEV = 1306.58-8"W
INV ELEV = 1306.60-8"E

PROPOSED
STORM SEWER (TYP)

EX. 339' of 8" SAN SEWER @ 9.25%

EXISTING
GROUND
PROFILE

PROPOSED ℄ PROFILE

EX. 333' of 8" SAN SEWER @ 9.01%

EX. SAN. SEWER MH(0927-19)
STA: 45+62.12/22.74'R
RIM ELEV = 1348.42
DEPTH = 11.82'
INV ELEV = 1336.61-8"W
INV ELEV = 1336.68-8"E

EXISTING GROUND PROFILE

PROPOSED ℄ PROFILE

1296.6 1296.82 | 1299.0 1299.17 | 1301.3 1301.52 | 1303.6 1303.87 | 1306.0 1306.22 | 1308.4 1308.57 | 1310.7 1310.92 | 1313.0 1313.27 | 1315.4 1315.62 | 1317.8 1317.97 | 1320.2 1320.32 | 1322.6 1322.67 | 1325.0 1325.02 | 1327.4 1327.38 | 1329.8 1329.73 | 1332.1 1332.08 | 1334.5 1334.43 | 1336.8 1336.78 | 1339.1 1339.13 | 1341.5 1341.48 | 1343.8 1343.83 | 1346.2 1346.18 | 1348.5 1348.53 | 1350.9 1350.88 | 1353.2 1353.23

40+00 40+50 41+00 41+50 42+00 42+50 43+00 43+50 44+00 44+50 45+00 45+50 46+00

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	UTILITY PLAN	SCALE, FEET 0 10 20 40	SHEET 54	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_□T□□□ES.dwg, 11/6/2018 8:07:06 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

2

CYNTHIA S WITTKE
1575 SUMNER ST
29129083130930

EASTHILL CONDOMINIUM
1650 TOWNLINE RD
29129083130800

EASTHILL DR

CURB & GUTTER

STONE RET. WALL

PLANTER

RIPRAP

BIT. CONC.

24" CMCP

KEVIN P NOEL
08029083130995

TREELINE

GRAVEL

TOWNLINE ROAD

46+00 46+50 47+00 47+50 48+00 48+50 49+00 49+50 50+00 50+50

EP: 50+56.64

8in SA

8in W

12in W

18" CMCP

BLOCK RET. WALL

P.C. CONC.

GRANITE

SIGN

WIRE FENCE

LIGHTHOUSE PENTECOSTAL
1525 TOWNLINE RD
29128080620993

DANIEL B JACKSON
1324 SKYLINE LN
08228080620999

STA: 46+59.71/25.3'R
REPLACE WATER VALVE BOX
(RAISE ±0.1')

STA: 46+53.89/23.0'R
RECONSTRUCT MANHOLE
INSTALL SAN TYPE J-S COVER WITH
CHIMNEY SEAL (SEE DETAILS)

STA: 48+92.33/29.5'R
REPLACE WATER VALVE BOX
(RAISE ±0.2')

STA: 48+92.60/35.2'R
ADJUST EXISTING HYDRANT
TO FINISHED GRADE
(RAISE ±0.1')

STA: 49+14.68/21.5'R
REPLACE WATER VALVE BOX
(RAISE ±0.3')

STA: 49+10.11/23.7'R
RECONSTRUCT MANHOLE
INSTALL SAN TYPE J-S COVER WITH
CHIMNEY SEAL (SEE DETAILS)

STA: 49+02.86/27.2'R
REPLACE WATER VALVE BOX
(RAISE ±0.5')

N

EX. SAN. SEWER MH(0927-20)
STA: 46+53.89/23.00'R
RIM ELEV = 1357.08
DEPTH = 12.12'
INV ELEV = 1344.96-8"W
INV ELEV = 1345.00-8"E
INV ELEV = 1345.30-8"N

EXISTING GROUND PROFILE

PROPOSED ℄ PROFILE

Ex. 156' of 8" SAN. SEWER @ 9.02%

Ex. 131' of 8" SAN. SEWER @ 9.02%

1376 1372 1368 1364 1360 1356 1352 1348 1344 1340

1353.2 1353.23 | 1355.6 1355.58 | 1357.9 1357.93 | 1360.2 1360.28 | 1362.6 1362.63 | 1365.0 1364.98 | 1367.3 1367.33 | 1369.6 1369.68 | 1371.8 1371.99 | 1374.0 1374.22 | 1376.1 1376.36

46+00 46+50 47+00 47+50 48+00 48+50

EX. SAN. SEWER MH(0927-21)
STA: 49+10.11/23.72'R
RIM ELEV = 1379.27
DEPTH = 11.00'
INV ELEV = 1368.27-8"W
INV ELEV = 1368.29-8"N

EXISTING GROUND PROFILE

PROPOSED ℄ PROFILE

1396 1392 1388 1384 1380 1376 1372 1368 1364 1360

1378.1 1378.43 | 1380.1 1380.41 | 1382.0 1382.32 | 1383.9 1384.14 | 1385.7 1385.88 | 1387.5 1387.54 | 1389.1 1388.12 | 1390.7 1390.65

49+00 49+50 50+00 50+50 51+00

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	UTILITY PLAN	SCALE, FEET 0 10 20 40	SHEET 55	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_□T□□□ES.dwg, 11/6/2018 8:09:00 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

STA: 21+42.10/11.0'L
2" VALVE & VALVE BOX

PROP. 12" WATERMAIN

REMOVE EX. 12"

INSULATION (TYP)
4'x8'x2"

TOWNLINE RD

REMOVE EX. 12" WM

PROP. 15" SAN. SEWER

CURLING WAY

OPEN CUT INSTALLATION FROM
STA. 23+85.91 – STA. 24+69.91

WISCONSIN CENTRAL LTD RR

KRAFT WOODS GROUP,II
1007 TOWNLINE RD
291280701110923

KIMCAR LLC
929 TOWNLINE RD
291280701110907

CAROL LOFTEN
915 TOWNLINE RD
291280701210991

SCWT ENTERPRISES INC
1328 CURLING WAY
291280701110908

STA: 22+04.86/9.0'R
8" – 11.25° BEND

STA: 100+32.95/14.2'L
8" VALVE & VALVE BOX

STA: 101+50.63/8.4'L
8" – 22.50° BEND

STA: 103+24.94/8.1'L
8" – 22.50° BEND

STA: 102+24.44/3.4'R
8" – 45° BEND

STA: 104+75.48/8.4'L
8" – 11.25° BEND
8" – 22.50° BEND

STA: 105+47.32/3.1'R
8" – 22.50° BEND

EP: 106+28.65

STA: 106+03.65/12.4'R
8" VALVE & VALVE BOX
8"X4" REDUCER
1 – 4" CONNECTION

NOTE: RECORDS INDICATE 4" WATERMAIN IS CAST IRON. CONTRACTOR SHALL FIELD VERIFY AND SUPPLY ALL NECESSARY PARTS TO MAKE THE CONNECTION.

N

PROP. SAN. SEWER MH(0927–35)
STA: 21+94.00/0.00'
RIM ELEV = 1214.30
DEPTH = 11.25'
INV ELEV = 1203.05–15"W
INV ELEV = 1203.15–15"E
INV ELEV = 1203.25–8"S

(TO BE REMOVED)
EX. SAN. SEWER MH(0927–7)
STA: 22+19/0.21'R
RIM ELEV = 1214.50
DEPTH = 11.05'
INV ELEV = 1203.45–15"W
INV ELEV = 1203.50–15"E
INV ELEV = 1207.75–8"SE

PROP. SAN. SEWER MH(0927–42)
STA: 101+50.00/0.00'
RIM ELEV = 1213.69
DEPTH = 9.85'
INV ELEV = 1203.84–8"N
INV ELEV = 1203.94–8"SE

PROP. SAN. SEWER MH(0927–43)
STA: 102+24.73/11.96'R
RIM ELEV = 1214.38
DEPTH = 10.13'
INV ELEV = 1204.25–8"NW
INV ELEV = 1204.35–8"E

PROP. SAN. SEWER MH(0927–44)
STA: 103+25.00/0.00'
RIM ELEV = 1215.28
DEPTH = 10.52'
INV ELEV = 1204.76–8"W
INV ELEV = 1204.86–8"E

PROP. SAN. SEWER MH(0927–45)
STA: 104+75.00/0.00'
RIM ELEV = 1216.66
DEPTH = 11.20'
INV ELEV = 1205.46–8"W
INV ELEV = 1205.56–8"E

PROP. SAN. SEWER MH(0927–46)
STA: 106+00.00/0.04'R
RIM ELEV = 1217.77
DEPTH = 11.72'
INV ELEV = 1206.05–8"W

EXISTING GROUND PROFILE
PROPOSED ℄ PROFILE
PROPOSED STORM SEWER (TYP)
PROPOSED WATERMAIN
7' BURY (TYP)

PROP. 147' of 8" SAN. SEWER @ 0.40%
PROP. 78' of 8" SAN. SEWER @ 0.40%
PROP. 103' of 8" SAN. SEWER @ 0.40%
PROP. 149' of 8" SAN. SEWER @ 0.40%
PROP. 122' of 8" SAN. SEWER @ 0.40%

100+00	100+50	101+00	101+50	102+00	102+50	103+00	103+50	104+00	104+50	105+00	105+50	106+00
1214.4	1214.5	1214.3	1214.3	1214.2	1214.4	1214.5	1214.5	1214.6	1215.0	1215.4	1215.7	1215.8
1214.30	1213.89	1213.76	1213.64	1213.51	1213.39	1213.62	1213.85	1214.09	1214.32	1214.55	1214.79	1215.02

1215.9	1214.7	1214.0	1213.2	1212.6	1213.0	1215.3	1216.0	1216.9	1217.5	1217.8	1218.0	
1215.26	1215.49	1215.72	1215.96	1216.19	1216.42	1216.66	1216.89	1217.13	1217.36	1217.59	1217.83	

PROJECT NO: 6999–18–71	HWY: CURLING WAY	COUNTY: MARATHON	UTILITY PLAN	SCALE, FEET 0 10 20 40	SHEET 56	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_□□□ES.dwg, 11/6/2018 8:10:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

WISDOT/CADDS SHEET 44

LEGEND – SIGNS

SIGNS TYPE II ON POST TUBULAR STEEL (WITH BOX OUT WHEN PLACED IN PAVED SURFACE)

(1) CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY THE CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS.

2

2

TOWNLINE ROAD

PROSPECT AVE

GRAND AVE

ARTHUR ST

TORNEY AVE

CURLING WAY

N

SIGN # 1-03 W11-1 30"X30"

SHARE THE ROAD SIGN # 1-04 W16-1P 24"X30"

BIKE ROUTE REMOVE (1)

SIGN # 1-05 COUNTY N M1-5A 24"X24"

SIGN # 1-06 M6-1 21"X21"

DOWNTOWN
ART MUSEUM
INDUSTRIAL PARK
UWMC CAMPUS
NTC CAMPUS
HEALTH CARE CENTER
COUNTY N
REMOVE (1)

SIGN # R1-01

NO PARKING ON THIS SIDE R7-53R 18"X24" (1)

SIGN # 1-07 STOP R1-1 30"X30"

PROSPECT AVE TOWNLINE RD STOP SIGN # R1-02 REMOVE (1)

BIKE ROUTE REMOVE (1)

PLASTIC FENCE

BIKE LANE SIGN # 1-10 R3-17 30"X24"

ENDS SIGN # 1-11 R3-17B 30"X12"

AHEAD SIGN # 1-12 R3-17A 30"X12"

SIGN # 1-15 R5-2 24"X24"

SIGN # 1-16 R3-2 24"X24"

YIELD LINE EPOXY 18-INCH (TYP)

SYMBOL EPOXY (TYP)

ARROW EPOXY (TYP)

WORD EPOXY (TYP)

EPOXY 8-INCH (WHITE)

CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (TYP)

EPOXY 4-INCH (DOUBLE YELLOW) (TYP)

ONLY

ENDS LANE BIKE

WORD EPOXY (TYP)

SYMBOL EPOXY (TYP)

ARROW EPOXY (TYP)

EPOXY 4-INCH (WHITE) (TYP)

EPOXY 4-INCH (WHITE) (3'LINES, 9' GAPS) (TYP)

STOP LINE EPOXY 12-INCH (TYP)

10+00 10+50 11+00 11+50 12+00 12+50 13+00 13+50 14+00 14+50 15+00 15+50 16+00

YIELD REMOVE

HOSPITAL H REMAIN

BIKE ROUTE REMAIN

YIELD RIGHT TURNS OBEY THIS SIGN REMAIN

SIGN # 1-01 BIKE LANE R3-17 30"X24"

AHEAD SIGN # 1-02 R3-17A 30"X12"

DECK

(1) BIKE ROUTE REMOVE

(1) NO PARKING BACK TO CORNER

(1) BUS STOP REMOVE

NO PARKING BACK TO CORNER (1)

SIGN # 1-08 R5-2 24"X24"

SIGN # R1-03

NO RIGHT TURN REMOVE

SIGN # 1-09 R3-1 24"X24"

PROSPECT AVE TOWNLINE RD STOP SIGN # R1-04 REMOVE (1)

SIGN # 1-13 STOP R1-1 30"X30"

SIGN # 1-14 SPEED LIMIT 25 R2-1 24"X30"

SIGN # R1-05 SPEED LIMIT 25 REMOVE

SIGN # 1-17 STOP R1-1 30"X30"

ARTHUR ST TOWNLINE RD STOP SIGN # R1-06 REMOVE

BUS STOP SIGN # R1-07 REMOVE

SIGN # R1-10 SPEED LIMIT 25 REMOVE

CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (TYP)

EPOXY 4-INCH (WHITE) (TYP)

EPOXY 4-INCH (DOUBLE YELLOW) (TYP)

EPOXY 4-INCH (WHITE) (3'LINES, 9' GAPS) (TYP)

STOP LINE EPOXY 12-INCH (TYP)

16+00 16+50 17+00 17+50 18+00 18+50 19+00 19+50 20+00 20+50 21+00 21+50 22+00

SIGN # 1-18 R5-2 24"X24"

NO RIGHT TURN REMOVE

SIGN # 1-19 R3-1 24"X24"

SIGN # R1-08

(1) TORNEY AVE TOWNLINE RD STOP SIGN # R1-09

STOP R1-1 30"X30" SIGN # 1-20

NO TRUCKS (1)

BUS STOP (1) REMOVE

R R SIGN # R1-11

NO TRAIN HORN 7:00 p.m.-7:00 a.m. REMOVE

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PERMANENT SIGNING & PAVEMENT MARKING		SHEET 57	E

LEGEND – SIGNS

SIGNS TYPE II ON POST TUBULAR STEEL (WITH BOX OUT WHEN PLACED IN PAVED SURFACE)

(1) CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY THE CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS.

TOWNLINE ROAD

S. 10TH ST

CURLING WAY

CURLING WAY (EXISTING)

S. 12TH ST

NORTHWESTERN AVE

ARROW EPOXY (TYP)

EPOXY 4–INCH (WHITE) (TYP)

SYMBOL EPOXY (TYP)

STOP LINE EPOXY 12–INCH (TYP)

CROSSWALK EPOXY TRANSVERSE LINE 6–INCH (TYP)

EPOXY 4–INCH (DOUBLE YELLOW) (TYP)

RAILROAD CROSSING EPOXY (TYP)

EPOXY 4–INCH (WHITE) (3'LINES, 9' GAPS) (TYP)

GUARDRAIL

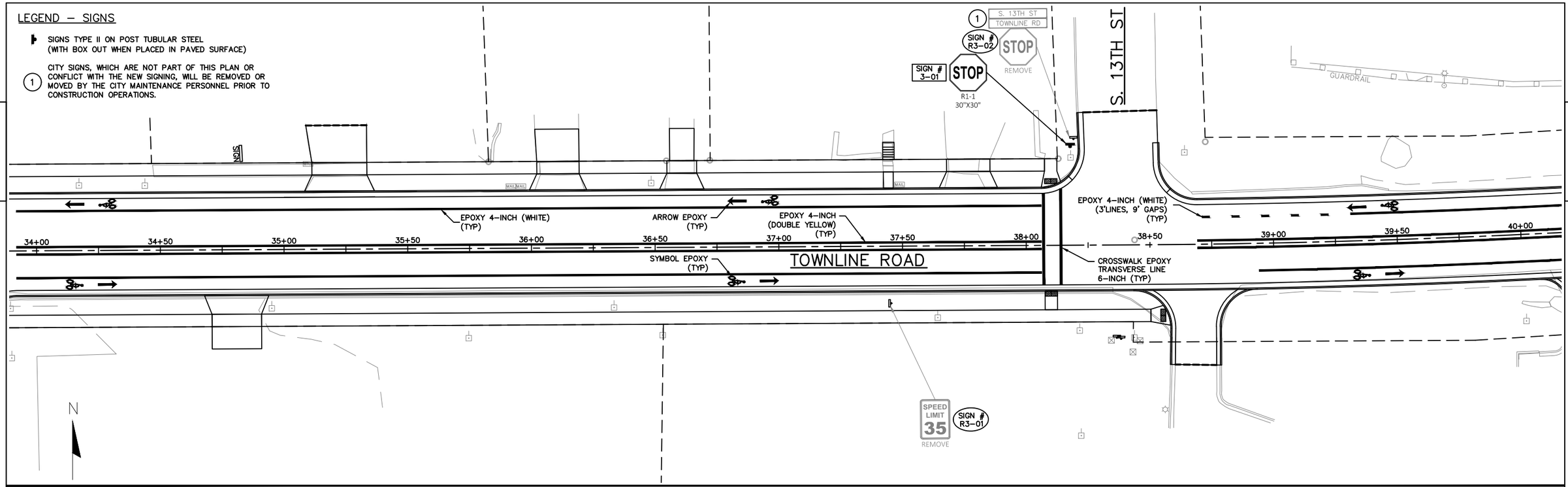
PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PERMANENT SIGNING & PAVEMENT MARKING		SHEET 58	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVEMENTMARKING_SIGNAGE.dwg, 8/23/2018 1:22:15 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

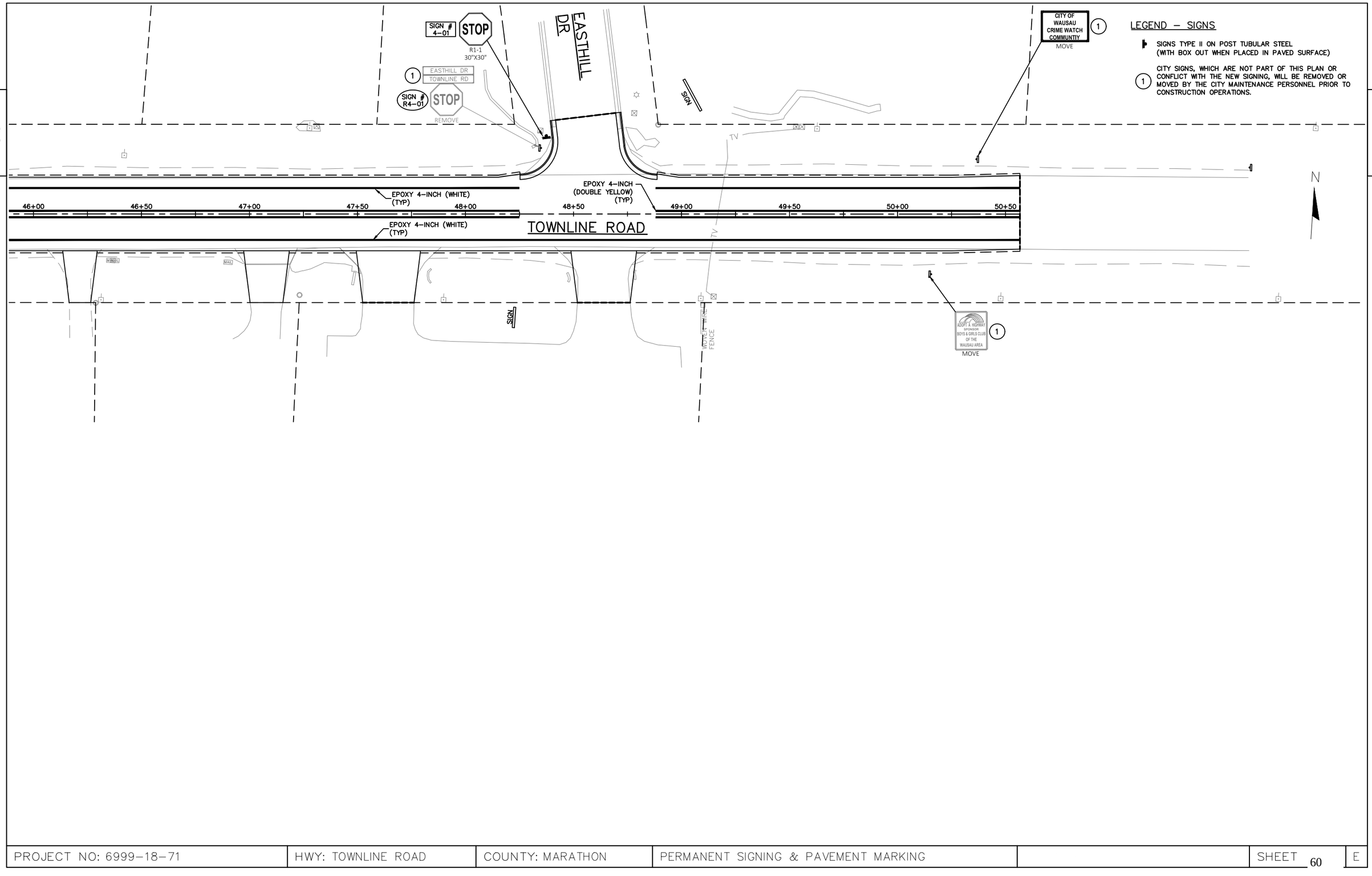
LEGEND – SIGNS

SIGNS TYPE II ON POST TUBULAR STEEL
(WITH BOX OUT WHEN PLACED IN PAVED SURFACE)

(1) CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY THE CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS.



PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PERMANENT SIGNING & PAVEMENT MARKING		SHEET 59	E



2

2

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PERMANENT SIGNING & PAVEMENT MARKING		SHEET 60	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PAVEMENTMARKING_SIGNAGE.dwg, 8/22/2018 2:23:11 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

2

1+00
21+50
22+00
22+50
23+00
23+50
24+00
24+50
25+00
25+50
26+00
26+50
27+00

TOWNLINE ROAD

CROSSWALK EPOXY TRANSVERSE LINE 6–INCH (TYP)

STOP
SIGN # 5–01
R1-1
30"X30"

STOP LINE EPOXY 12–INCH (TYP)

EPOXY 4–INCH (WHITE) (TYP)

EPOXY 4–INCH (WHITE) (3'LINES, 9' GAPS)

CURLING WAY

CURLING WAY (EXISTING)

50+00
100+00
101+50
102+00
102+50
103+00
103+50
104+00
104+50
105+00
105+50
106+00

EPOXY 4–INCH (DOUBLE YELLOW) (TYP)

EPOXY 4–INCH (WHITE) (TYP)

EPOXY 4–INCH (WHITE) (TYP)

SIGN

SIGN # R5–01
REMOVE

W3-1
36"X36"
SIGN # 5–02

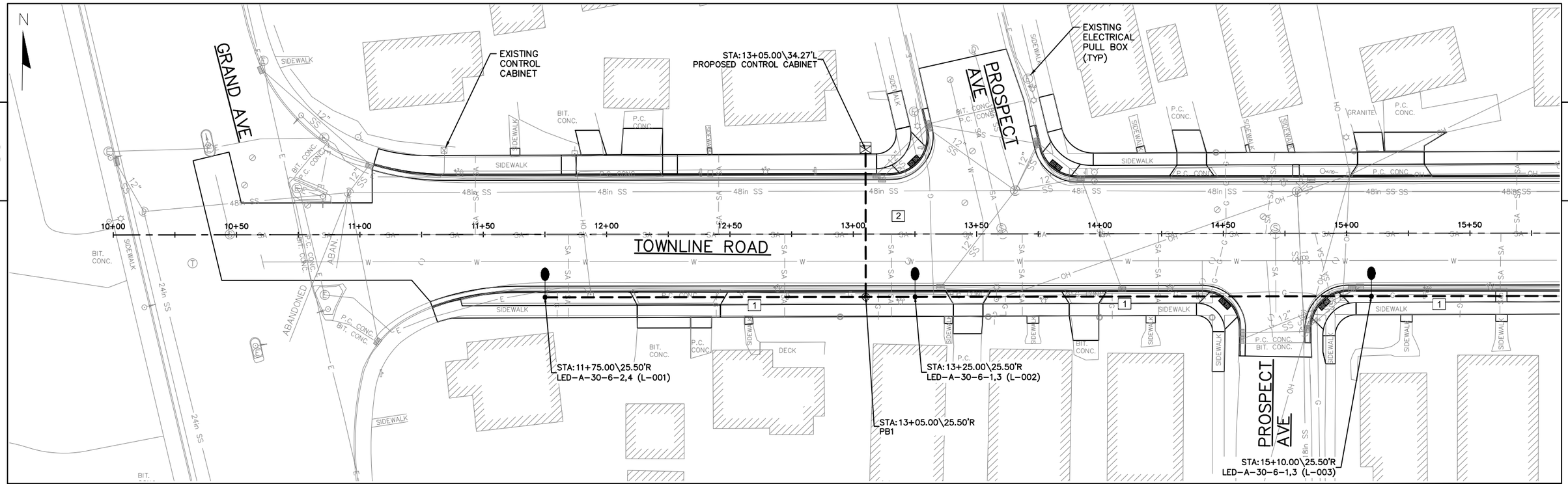
LEGEND – SIGNS

SIGNS TYPE II ON POST TUBULAR STEEL (WITH BOX OUT WHEN PLACED IN PAVED SURFACE)

(1) CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY THE CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS.

N

PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PERMANENT SIGNING & PAVEMENT MARKING – CURLING WAY		SHEET 61	E



LEGEND

- LIGHTING CONTROL CABINET (240) (24) WITH TYPE L24 BASE
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 1.5-INCH
- POLES TYPE 5 – ALUMINUM TRANSFORMER BASE TYPE 5 CONCRETE BASE
- PULL BOXES STEEL, 24x42-INCH

STA. XX+XX, XX' LT — STATION LOCATION
LED-A-30-6-X,X (L-XXX)
- POLE NUMBER
- LIGHTING CIRCUITS
- LUMINAIRE ARM LENGTH (FT)
- NOMINAL MOUNTING HEIGHT (FT)
- LUMINAIRES UTILITY LED CATEGORY

ELECTRICAL WIRE LIGHTING (AWG)

1 (2)#6 AND (1)#6 GROUND

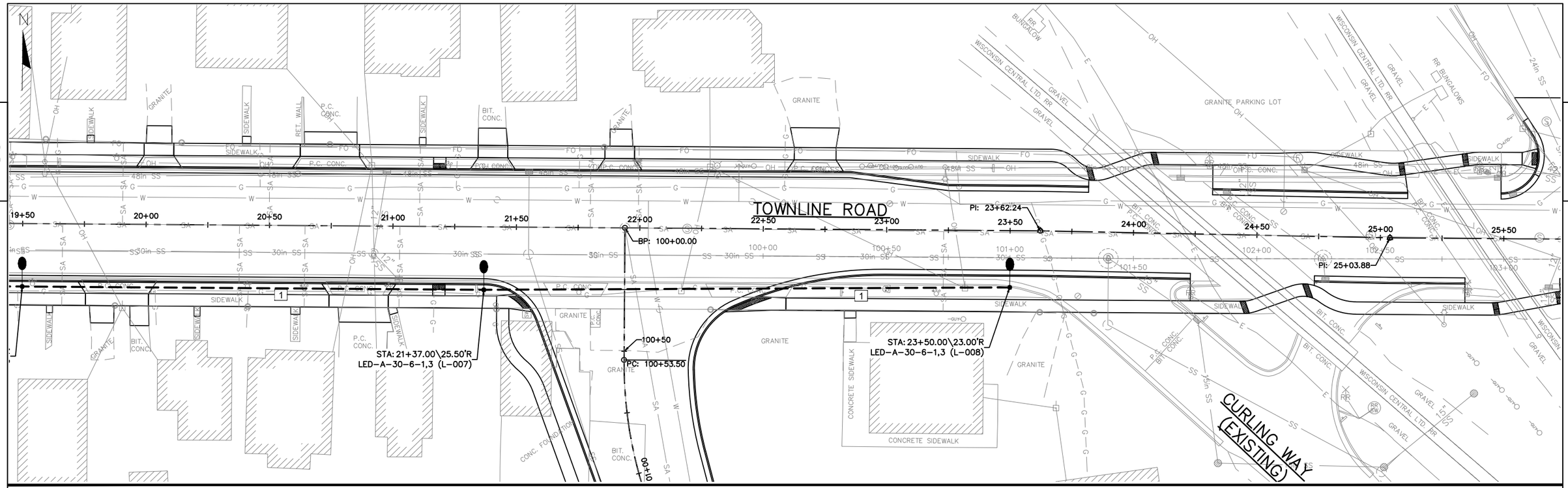
2 (4)#6 AND (2)#6 GROUND

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED BY THE ENGINEER 5 WORKING DAYS PRIOR TO PLACING LIGHTING CABLE INTO SYSTEM.
2. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
3. THE CITY OF WAUSAU WILL INSTALL ROAM NODES ON EVERY LUMINAIRE.

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	LIGHTING PLAN		SHEET 62	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_LIGHTING.dwg, 8/22/2018 3:49:02 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



LEGEND

- LIGHTING CONTROL CABINET (240) (24) WITH TYPE L24 BASE
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 1.5-INCH
- POLES TYPE 5 – ALUMINUM TRANSFORMER BASE TYPE 5 CONCRETE BASE
- PULL BOXES STEEL, 24x42-INCH

STA. XX+XX, XX' LT — STATION LOCATION

LED-A-30-6-X,X (L-XXX)

- (L-XXX) — POLE NUMBER
- X,X — LIGHTING CIRCUITS
- 6 — LUMINAIRE ARM LENGTH (FT)
- 30 — NOMINAL MOUNTING HEIGHT (FT)
- A — LUMINAIRES UTILITY LED CATEGORY

ELECTRICAL WIRE LIGHTING (AWG)

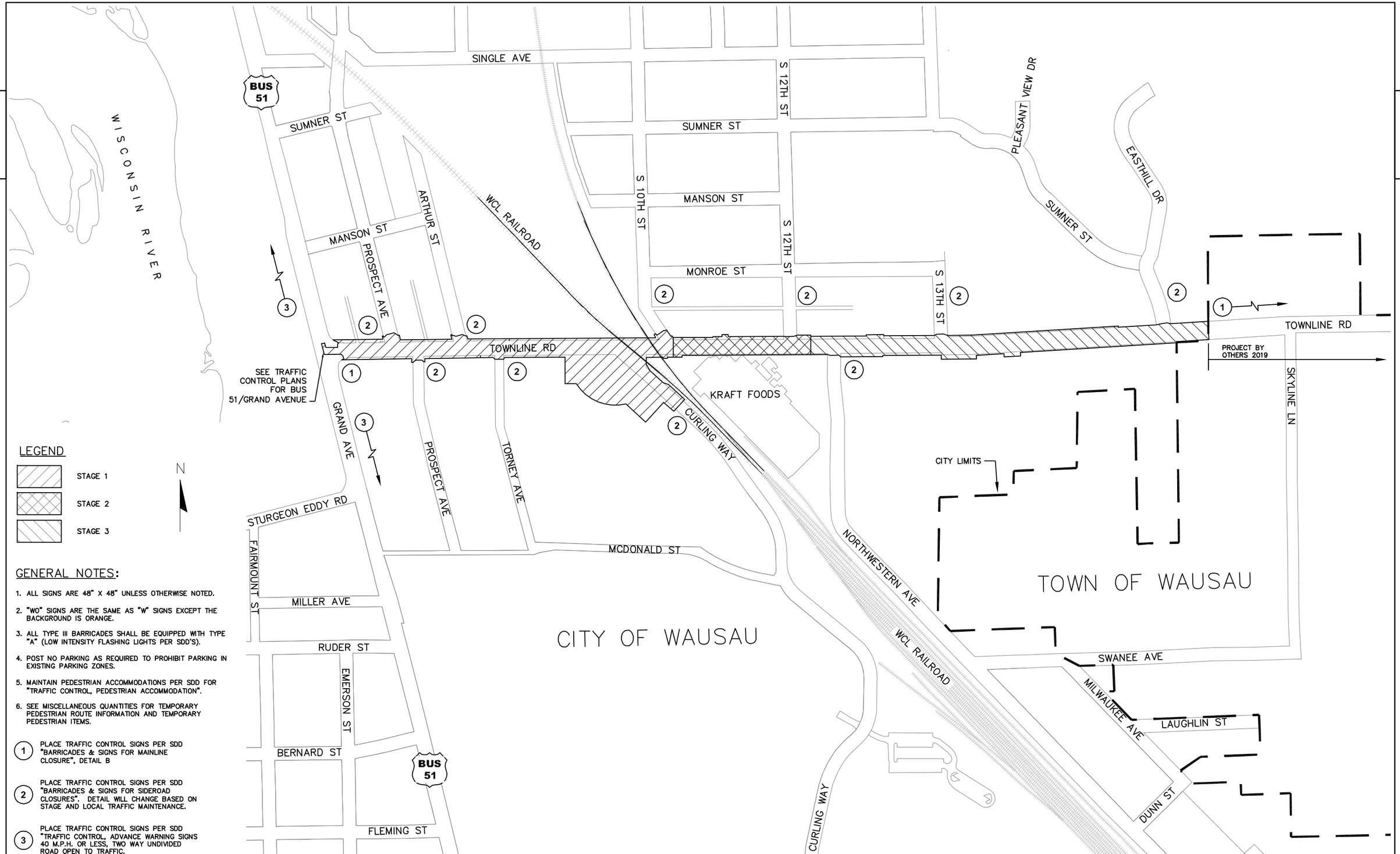
1. (2)#6 AND (1)#6 GROUND
2. (4)#6 AND (2)#6 GROUND

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED BY THE ENGINEER 5 WORKING DAYS PRIOR TO PLACING LIGHTING CABLE INTO SYSTEM.
2. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
3. THE CITY OF WAUSAU WILL INSTALL ROAM NODES ON EVERY LUMINAIRE.

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	LIGHTING PLAN		SHEET 63	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_LIGHTING.dwg, 8/22/2018 3:49:49 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



GENERAL NOTES:

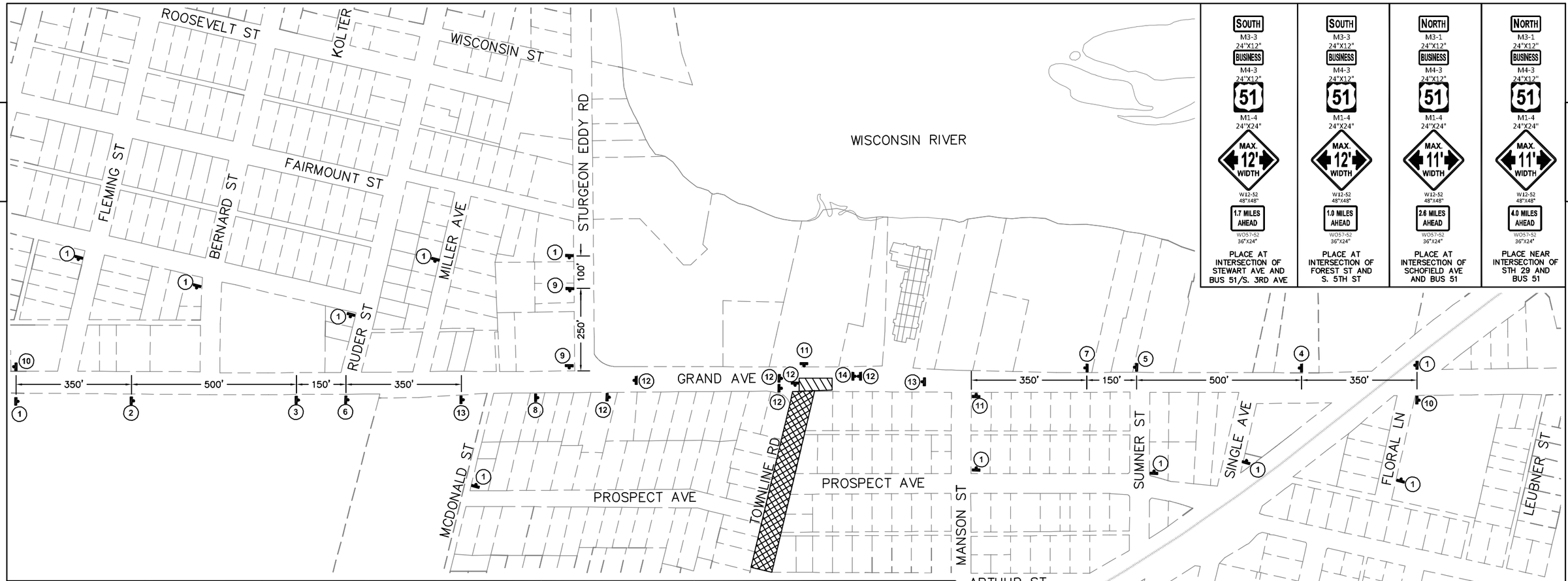
1. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
2. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
3. ALL TYPE III BARRICADES SHALL BE EQUIPPED WITH TYPE "A" (LOW INTENSITY FLASHING LIGHTS PER SDD'S).
4. POST NO PARKING AS REQUIRED TO PROHIBIT PARKING IN EXISTING PARKING ZONES.
5. MAINTAIN PEDESTRIAN ACCOMMODATIONS PER SDD FOR "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION".
6. SEE MISCELLANEOUS QUANTITIES FOR TEMPORARY PEDESTRIAN ROUTE INFORMATION AND TEMPORARY PEDESTRIAN ITEMS.

(1) PLACE TRAFFIC CONTROL SIGNS PER SDD "BARRICADES & SIGNS FOR MAINLINE CLOSURE", DETAIL B

(2) PLACE TRAFFIC CONTROL SIGNS PER SDD "BARRICADES & SIGNS FOR SIDEROAD CLOSURES". DETAIL WILL CHANGE BASED ON STAGE AND LOCAL TRAFFIC MAINTENANCE.

(3) PLACE TRAFFIC CONTROL SIGNS PER SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC.

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	TRAFFIC CONTROL – OVERVIEW		SHEET 64	E



2

2

1 ROAD WORK AHEAD W20-1A

2 RIGHT LANE CLOSED 1000 FT W20-5C

3 RIGHT LANE CLOSED 500 FT W20-5D

4 LEFT LANE CLOSED 1000 FT W20-5C

5 LEFT LANE CLOSED 500 FT W20-5D

6 WO4-2R

7 WO4-2L

8 W12-2L 25 MPH WO13-1 18"X18"

9 RIGHT LANE MUST TURN RIGHT R3-7R 30"X30"

10 END ROAD WORK G20-2A 48"X24"

11 R3-2 24"X24"

12 R11-2L 48" X 30" LANE CLOSED TYPE III BARRICADE

13 TRAFFIC CONTROL ARROW BOARD

14 WO1-6R 48" X 24" TYPE III BARRICADE

N

LEGEND

- BUS 51/GRAND AVE WORK ZONE
- TOWNLINE ROAD WORK ZONE
- TRAFFIC CONTROL DRUM (USE TYPE C LIGHTS IN TAPERS)
- TRAFFIC FLOW ARROW

NOTES:

ALL PROPOSED SIGNS ON SHEET ARE PAID FOR AS TRAFFIC CONTROL SIGNS.

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

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

ALL TYPE III BARRICADES SHALL BE EQUIPPED WITH TYPE "A" (LOW INTENSITY FLASHING LIGHTS).

REMOVE AND REPLACE PAVEMENT MARKING IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

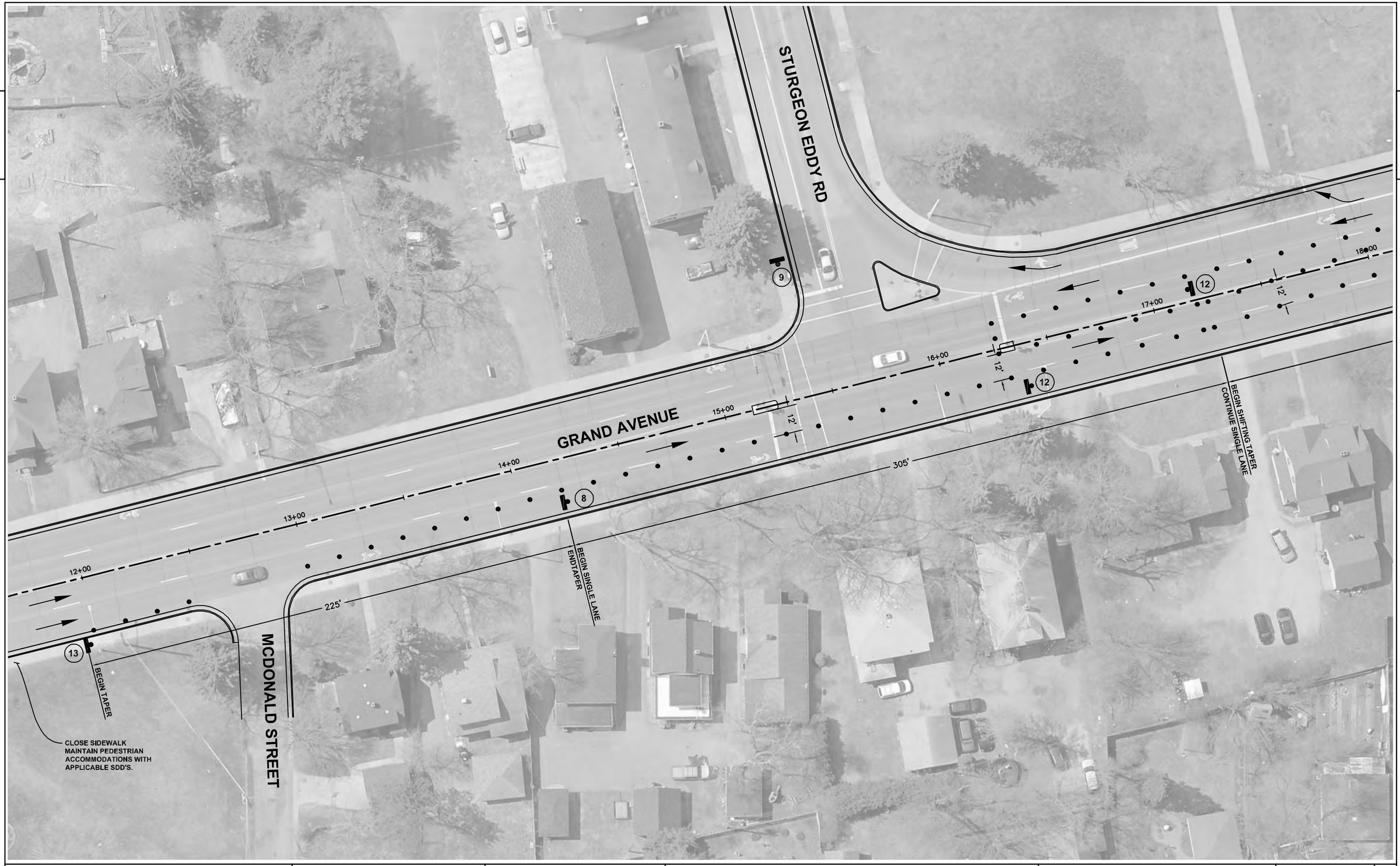
MAINTAIN PEDESTRIAN ACCOMMODATIONS PER SDD FOR "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATIONS."

SEE MISCELLANEOUS QUANTITIES FOR TEMPORARY PEDESTRIAN ROUTE INFORMATION AND TEMPORARY PEDESTRIAN ITEMS.

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	TRAFFIC CONTROL – GRAND AVENUE OVERVIEW		SHEET 65	E

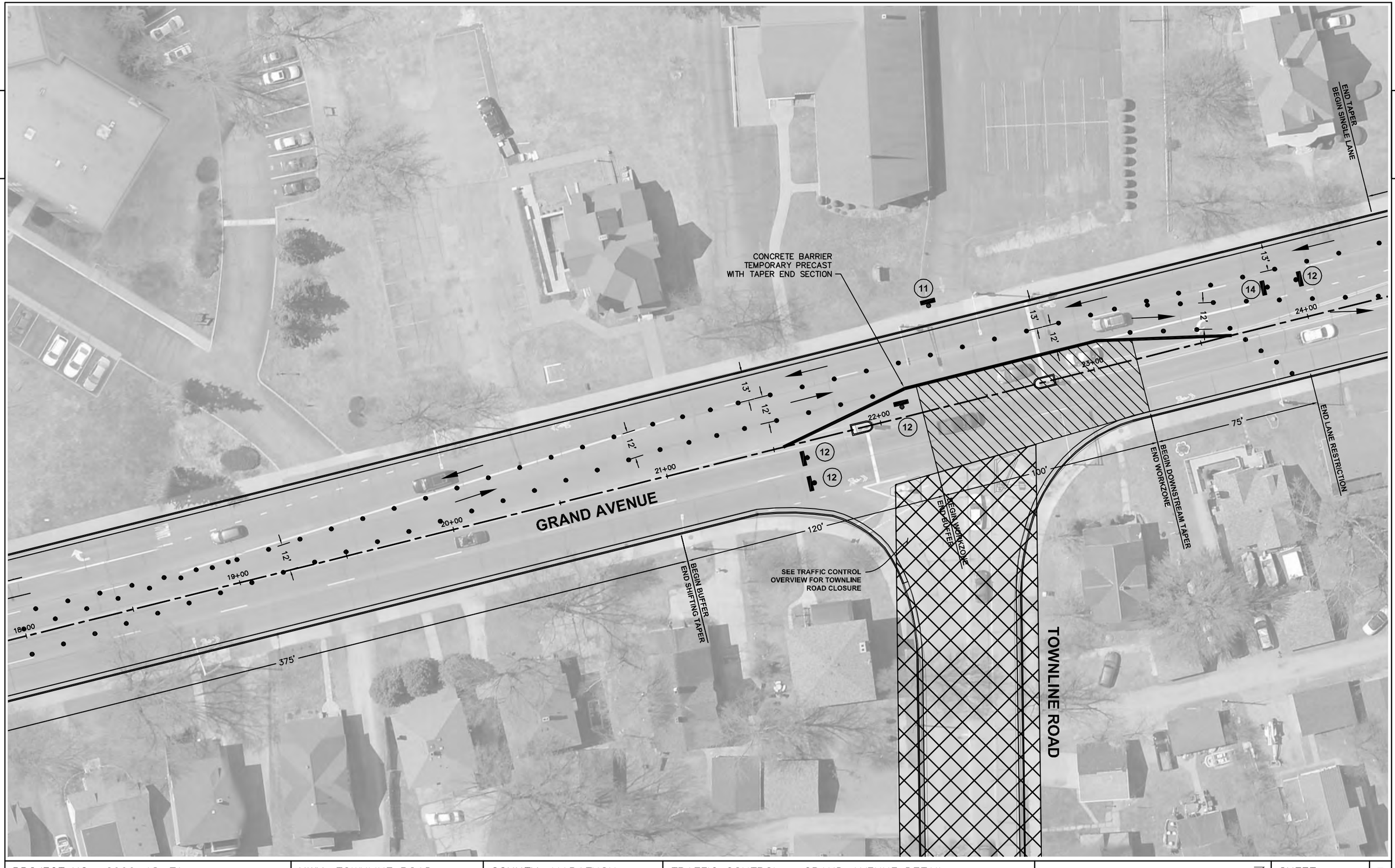
2

2



PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	TRAFFIC CONTROL – GRAND AVENUE DETAIL	N	SHEET 66	E

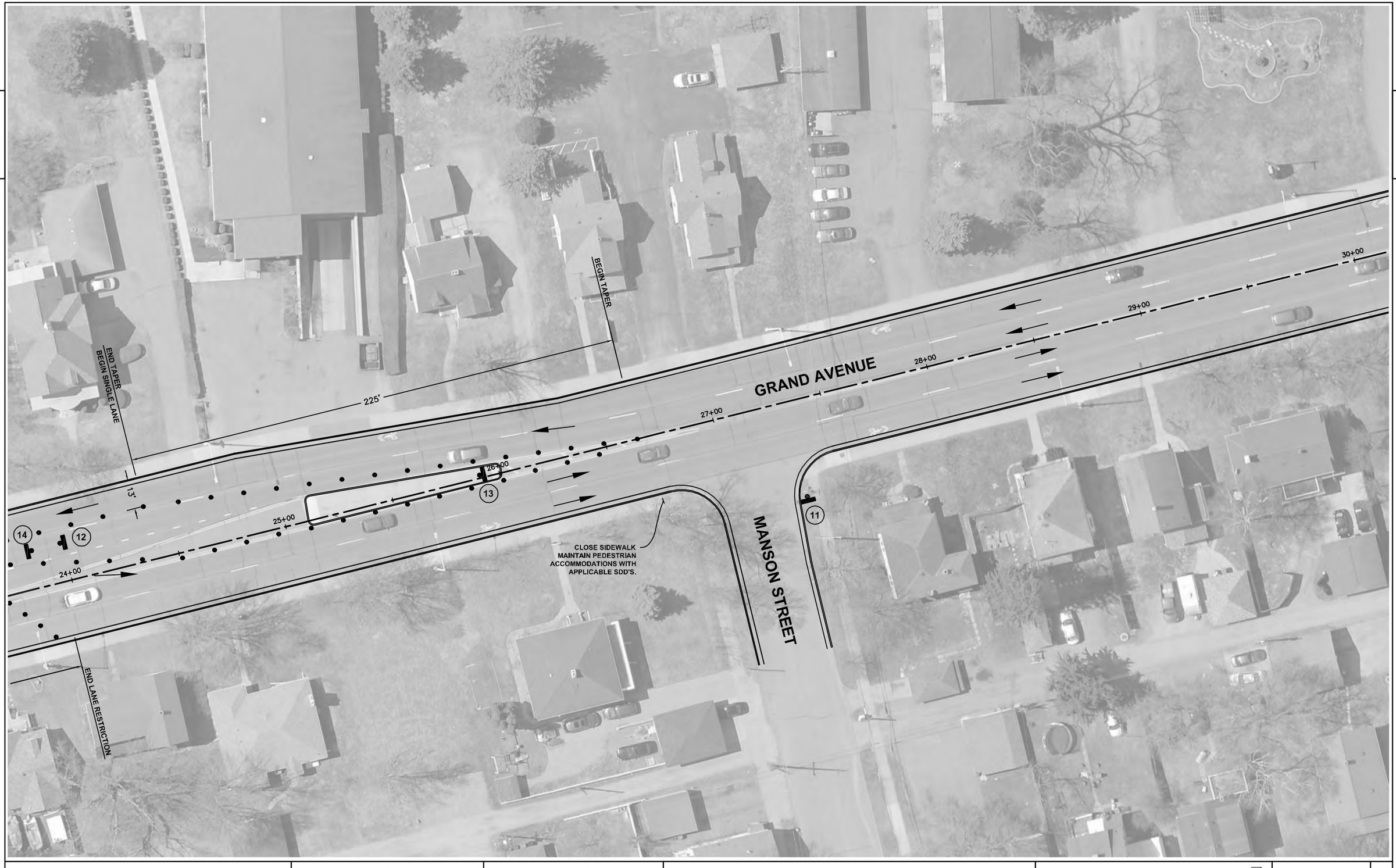
2



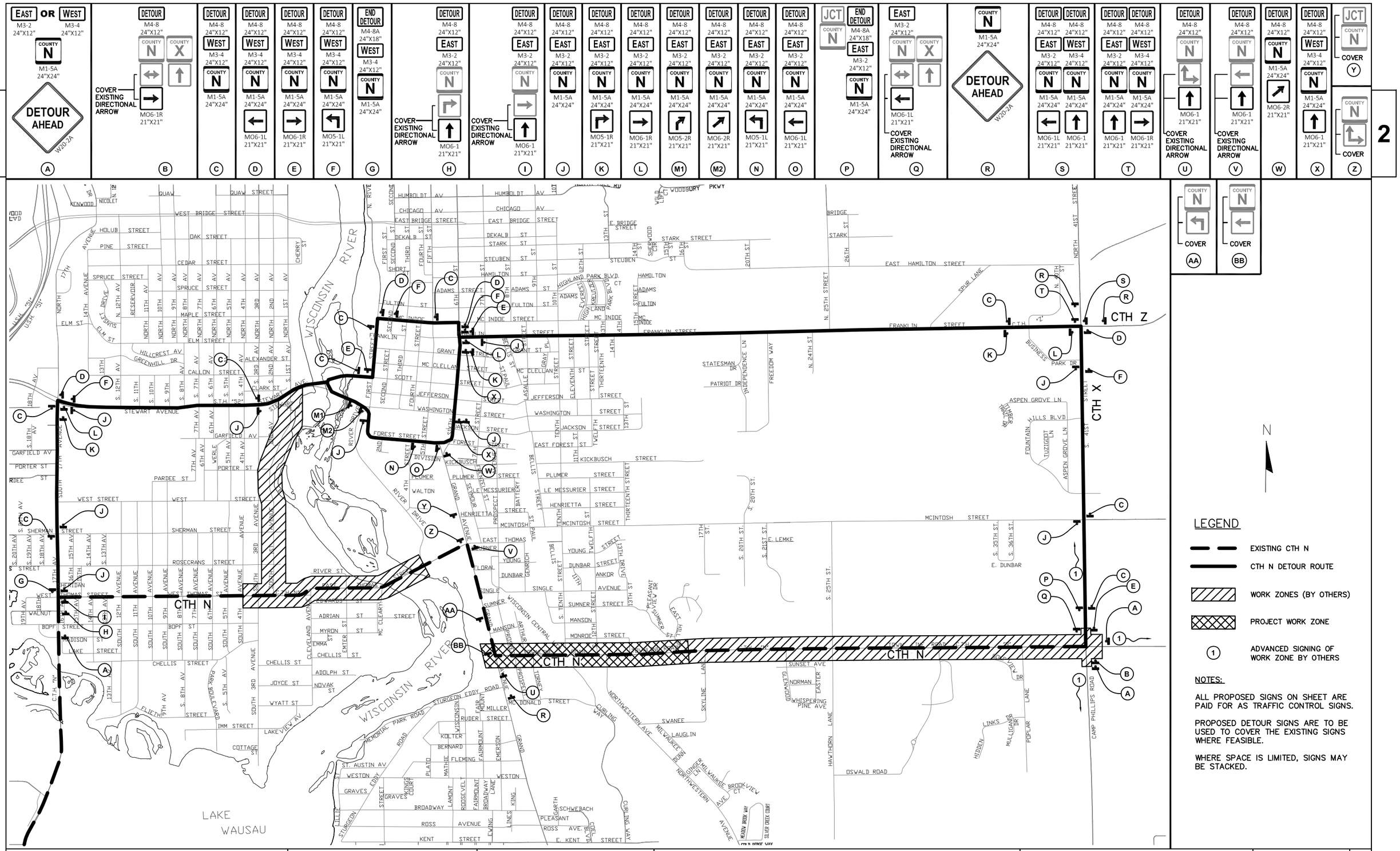
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	TRAFFIC CONTROL – GRAND AVENUE DETAIL	N	SHEET 67	E

2

2



PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	TRAFFIC CONTROL – GRAND AVENUE DETAIL	N	SHEET 68	E


EAST OR WEST
M3-2 24"X12"
M3-4 24"X12"
COUNTY N
M1-5A 24"X24"
DETOUR AHEAD
W20-2A
A
DETOUR
M4-8 24"X12"
COUNTY N
COUNTY X
COVER EXISTING DIRECTIONAL ARROW
MO6-1R 21"X21"
B
WEST
M3-4 24"X12"
M1-5A 24"X24"
C
MO6-1L 21"X21"
D
MO6-1R 21"X21"
E
MO5-1L 21"X21"
F
END DETOUR
M4-8A 24"X18"
G
EAST
M3-2 24"X12"
MO6-1 21"X21"
H
I
J
MO5-1R 21"X21"
K
L
M1
M2
MO5-2R 21"X21"
MO6-2R 21"X21"
N
O
JCT
P
Q
R
S
T
U
V
MO6-2L 21"X21"
W
X
Y
Z
COVER
AA
BB
LEGEND
EXISTING CTH N
CTH N DETOUR ROUTE
WORK ZONES (BY OTHERS)
PROJECT WORK ZONE
ADVANCED SIGNING OF WORK ZONE BY OTHERS
NOTES:
ALL PROPOSED SIGNS ON SHEET ARE PAID FOR AS TRAFFIC CONTROL SIGNS.
PROPOSED DETOUR SIGNS ARE TO BE USED TO COVER THE EXISTING SIGNS WHERE FEASIBLE.
WHERE SPACE IS LIMITED, SIGNS MAY BE STACKED.
CTH N
CTH Z
CTH X
WISCONSIN RIVER
LAKE WAUSAU
STEWART AVENUE
WEST STREET
SHERMAN STREET
ROSECRANS STREET
WEST THOMAS STREET
BOPF STREET
WALNUT STREET
MADISON STREET
LAKE STREET
GARFIELD AV
PORTER ST
PARDEE ST
RIDEE ST
FRANKLIN STREET
WASHINGTON STREET
JEFFERSON STREET
SCOTT STREET
CLARK ST
CALLON STREET
ALEXANDER ST
HILLCREST AV
GREENHILL DR
ELM ST
MAPLE STREET
SPRUCE STREET
PINE STREET
OAK STREET
CEDAR STREET
HOLUB STREET
QUAW STREET
WEST BRIDGE STREET
EAST BRIDGE STREET
HUMBOLDT AV
CHICAGO AV
DEKALB ST
STARK STREET
STEUBEN ST
HAMILTON ST
ADAMS STREET
FULTON ST
MC INDOE STREET
GRANT ST
MC CLELLAN STREET
FOREST STREET
DIVISION
KICKBUSCH STREET
PLUMER STREET
LE MESSURIER STREET
HENRIETTA STREET
MCINTOSH STREET
EAST THOMAS
YOUNG
DUNBAR
FLORAL
SINGLE AVENUE
SUMNER STREET
MANSON
MONROE STREET
EAST HAMILTON STREET
HIGHLAND PARK BLVD.
E. BRIDGE STREET
STARK STREET
BRIDGE ST
STATESMAN DR
PATRIOT DR
INDEPENDENCE LN
FREEDOM WAY
N. 24TH ST
N. 25TH STREET
SPUR LANE
ASPEN GROVE LN
LUMBER BARON DR
HILLS BLVD
FOUNTAIN
TUZIGOOT LN
ASPEN GROVE LN
S. 41ST STREET
S. 20TH ST.
S. 21ST ST.
S. 25TH ST.
S. 35TH ST.
S. 36TH ST.
E. DUNBAR
E. LEMKE
MCINTOSH STREET
SUNSET AVE
NORMAN
WHISPERING PINE AVE
HAWTHORN LANE
OSWALD ROAD
LINKS DR
MULLIGAN DR
POPLAR LANE
HIDDEN
CAMP PHILLIPS ROAD
SKYLINE
GUBLING WAY
NORTHWESTERN AVE.
MILWAUKEE
LAUGLIN
SWANEE
MEMORIAL PARK ROAD
STURGEON EDDY ROAD
MC DONALD STREET
E. KENT STREET
KENT STREET
ROSS AVENUE
PLEASANT
SCHWEBACH
BROADWAY
GRAVES
WESTON
ST. AUSTIN AV
FLEMING
BERNARD
KOLTER
RUDER STREET
MILLER
FAIRMOUNT
CHELLIS ST
ADOLPH ST
JOYCE ST
NOVAK ST
WYATT ST
IMM STREET
LAKEVIEW AV
COTTAGE ST
CLEVELAND AVE
ADRIAN ST
MYRON ST
EMMA ST
EMERY ST
MC CLEARY
RIVER ST
RIVER DRIVE
WISCONSIN CENTRAL
BNSF
WOODBURY PKWY
N. 12
KENWOOD
NICOLET
USH "51"
N. 17TH AVENUE
N. 13TH AV
N. 12TH AV
N. 11TH AV
N. 10TH AV
N. 9TH AV
N. 8TH AV
N. 7TH AV
N. 6TH AV
N. 5TH AV
N. 4TH AV
N. 3RD AV
N. 2ND AV
N. 1ST AV
S. 18TH AV
S. 17TH AV
S. 13TH AV
S. 12TH AV
S. 11TH AV
S. 10TH AV
S. 9TH AV
S. 8TH AV
S. 7TH AV
S. 6TH AV
S. 5TH AV
S. 4TH AV
S. 3RD AV
S. 2ND AV
S. 1ST AV
S. 20TH AV
S. 19TH AV
S. 18TH AV
S. 14TH AV
S. 13TH AV
S. 1ST STREET
S. 2ND AVENUE
S. 3RD AVENUE
S. 4TH AVENUE
S. 5TH AVENUE
S. 6TH AVENUE
S. 7TH AVENUE
S. 8TH AVENUE
S. 9TH AVENUE
S. 10TH AVENUE
S. 11TH AVENUE
S. 12TH AVENUE
S. 13TH AVENUE
S. 14TH AVENUE
S. 15TH AVENUE
S. 16TH AVENUE
S. 17TH AVENUE
S. 18TH AVENUE
S. 19TH AVENUE
S. 20TH AVENUE
S. 1ST STREET
S. 2ND STREET
S. 3RD STREET
S. 4TH STREET
S. 5TH STREET
S. 6TH STREET
S. 7TH STREET
S. 8TH STREET
S. 9TH STREET
S. 10TH STREET
S. 11TH STREET
S. 12TH STREET
S. 13TH STREET
S. 14TH STREET
S. 15TH STREET
S. 16TH STREET
S. 17TH STREET
S. 18TH STREET
S. 19TH STREET
S. 20TH STREET
N
PROJECT NO: 6999-18-71
HWY: TOWNLINE ROAD
COUNTY: MARATHON
DETOUR
SHEET 69
E
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_DETOUR.dwg, 9/26/2018 12:08:03 PM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel
WISDOT/CADDS SHEET 44

2

STA. 21+94.00 TOWNLINE RD =
STA. 100+00 CURLING WAY
Y = 196713.28
X = 284897.56

CURVE 1

PI STA. 39+49.64
Y = 196720.86
X = 286653.17
L=217.17
Δ=3°17'31"
R=3780.00
D = 1°30'57"
T = 108.62
PC 38+41.02
Y= 196720.28
X= 286544.56
PT 40+58.20
Y= 196727.68
X= 286761.58
BK: N89°41'26"E
AH: N86°23'56"E

CURVE 2

PI STA. 103+22.74
Y = 196390.54
X = 284899.22
L=342.59
Δ=115°27'46"
R=170.00
D = 33°42'12"
T = 269.24
PC 100+53.50
Y= 196659.78
X= 284897.84
PRC 103+96.09
Y= 196507.55
X= 285141.71
BK: S00°17'42"E

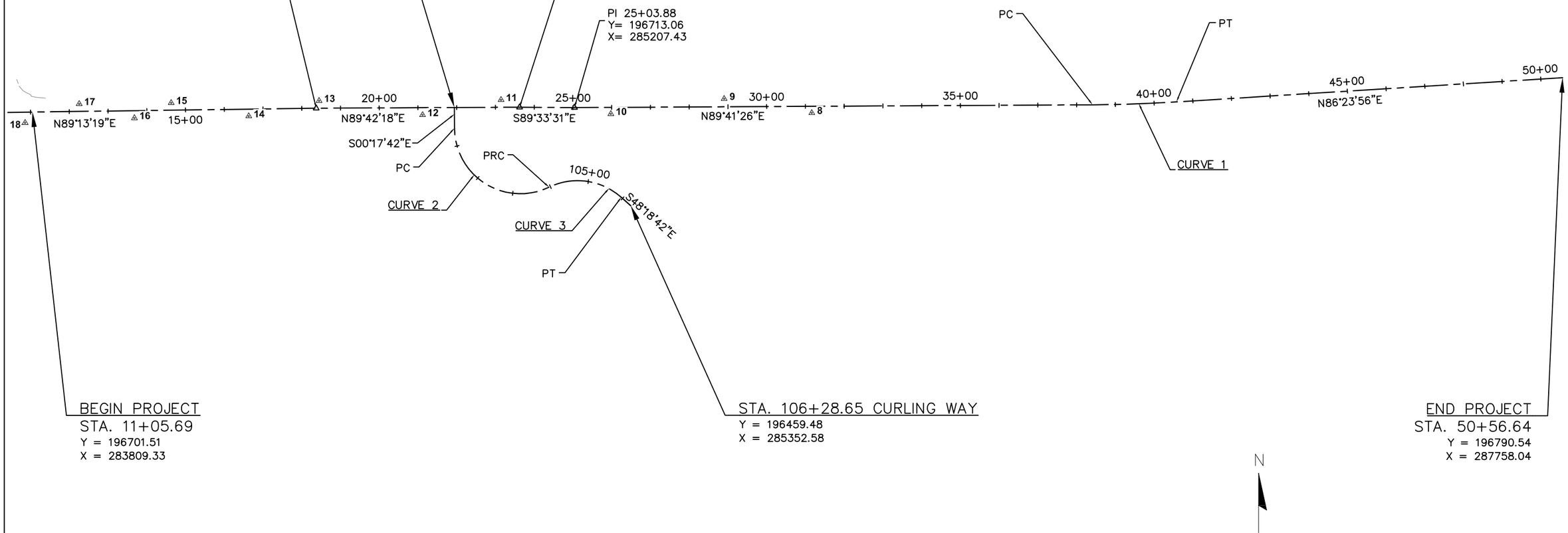
CURVE 3

PI STA. 105+09.56
Y = 196556.86
X = 285243.91
L=200.12
Δ=67°26'46"
R=170.00
D = 33°42'12"
T = 113.47
PRC 103+96.09
Y= 196507.55
X= 285141.71
PT 105+96.20
Y= 196481.39
X= 285328.65
AH: S48°18'42"E

Control Points				
Point #	Northing	Easting	Elevation	Description
8	196699.43	285819.86	1226.91	CP CUT X
9	196735.81	285593.82	1223.05	CP CUT X
10	196696.86	285301.24	1217.50	CP CUT X
11	196732.93	285017.89	1215.08	CP CUT X
12	196694.09	284815.36	1213.37	CP CUT X
13	196730.50	284548.36	1211.90	CP CUT X
14	196690.87	284366.66	1211.41	CP CUT X
15	196725.17	284166.54	1210.34	CP CUT X
16	196686.09	284071.65	1210.59	CP CUT X
17	196722.54	283929.23	1210.44	CP CUT X
18	196673.89	283789.49	1211.57	CP CUT X

NOTE:

CONTACT CITY OF WAUSAU ENGINEERING DEPARTMENT FOR ADDITIONAL CONTROL



PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	ALIGNMENT		SHEET 70	E

6999-18-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0120	Clearing	ID	400.000	400.000
0004	201.0220	Grubbing	ID	400.000	400.000
0006	203.0100	Removing Small Pipe Culverts	EACH	11.000	11.000
0008	204.0100	Removing Pavement	SY	11,396.000	11,396.000
0010	204.0150	Removing Curb & Gutter	LF	1,694.000	1,694.000
0012	204.0155	Removing Concrete Sidewalk	SY	2,558.000	2,558.000
0014	204.0185	Removing Masonry	CY	4.000	4.000
0016	204.0210	Removing Manholes	EACH	22.000	22.000
0018	204.0215	Removing Catch Basins	EACH	43.000	43.000
0020	204.0245	Removing Storm Sewer (size) 01. 8-Inch	LF	23.000	23.000
0022	204.0245	Removing Storm Sewer (size) 02. 12-Inch	LF	784.000	784.000
0024	204.0245	Removing Storm Sewer (size) 03. 15-Inch	LF	246.000	246.000
0026	204.0245	Removing Storm Sewer (size) 04. 18-Inch	LF	262.000	262.000
0028	204.0245	Removing Storm Sewer (size) 05. 24-Inch	LF	499.000	499.000
0030	204.0245	Removing Storm Sewer (size) 06. 27-Inch	LF	87.000	87.000
0032	204.0245	Removing Storm Sewer (size) 07. 30-Inch	LF	1,149.000	1,149.000
0034	204.0245	Removing Storm Sewer (size) 08. 36-Inch	LF	564.000	564.000
0036	204.0245	Removing Storm Sewer (size) 09. 42-Inch	LF	35.000	35.000
0038	204.0245	Removing Storm Sewer (size) 10. 48-Inch	LF	990.000	990.000
0040	204.0280	Sealing Pipes	EACH	1.000	1.000
0042	204.0291.S	Abandoning Sewer	CY	51.000	51.000
0044	204.9060.S	Removing (item description) 01. Apron Endwall	EACH	1.000	1.000
0046	204.9060.S	Removing (item description) 02. Hydrants	EACH	6.000	6.000
0048	204.9060.S	Removing (item description) 03. Sanitary Manholes	EACH	15.000	15.000
0050	204.9090.S	Removing (item description) 01. Watermain	LF	4,000.000	4,000.000
0052	204.9090.S	Removing (item description) 02. Sanitary Sewer	LF	3,115.000	3,115.000
0054	205.0100	Excavation Common	CY	13,349.000	13,349.000
0056	208.0100	Borrow	CY	1,024.000	1,024.000
0058	213.0100	Finishing Roadway (project) 01. 6999-18-71	EACH	1.000	1.000
0060	214.0100	Obliterating Old Road	STA	3.000	3.000
0062	305.0110	Base Aggregate Dense 3/4-Inch	TON	121.000	121.000
0064	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	16,470.000	16,470.000
0066	416.0160	Concrete Driveway 6-Inch	SY	918.000	918.000
0068	416.0260	Concrete Driveway HES 6-Inch	SY	295.000	295.000
0070	416.0610	Drilled Tie Bars	EACH	4.000	4.000
0072	416.1010	Concrete Surface Drains	CY	1.000	1.000
0074	455.0605	Tack Coat	GAL	1,375.000	1,375.000
0076	460.2000	Incentive Density HMA Pavement	DOL	3,460.000	3,460.000
0078	460.6223	HMA Pavement 3 MT 58-28 S	TON	3,235.000	3,235.000
0080	460.6224	HMA Pavement 4 MT 58-28 S	TON	2,160.000	2,160.000

6999-18-71

Line	Item	Item Description	Unit	Total	Qty
0082	465.0110	Asphaltic Surface Patching	TON	116.000	116.000
0084	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	105.500	105.500
0086	513.2001	Railing Pipe 01. Concrete Steps	LF	7.000	7.000
0088	520.8000	Concrete Collars for Pipe	EACH	10.000	10.000
0090	522.0412	Culvert Pipe Reinforced Concrete Class IV 12-Inch	LF	106.000	106.000
0092	522.0415	Culvert Pipe Reinforced Concrete Class IV 15-Inch	LF	102.000	102.000
0094	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	24.000	24.000
0096	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	6.000	6.000
0098	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	6.000	6.000
0100	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	1.000	1.000
0102	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	3.000	3.000
0104	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	6,901.000	6,901.000
0106	601.0600	Concrete Curb Pedestrian	LF	38.000	38.000
0108	602.0405	Concrete Sidewalk 4-Inch	SF	24,834.000	24,834.000
0110	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	280.000	280.000
0112	602.0615	Curb Ramp Detectable Warning Field Radial Natural Patina	SF	87.000	87.000
0114	602.1500	Concrete Steps	SF	30.000	30.000
0116	603.8000	Concrete Barrier Temporary Precast Delivered	LF	225.000	225.000
0118	603.8125	Concrete Barrier Temporary Precast Installed	LF	225.000	225.000
0120	606.0100	Riprap Light	CY	51.000	51.000
0122	606.0200	Riprap Medium	CY	715.000	715.000
0124	606.0300	Riprap Heavy	CY	645.000	645.000
0126	608.0005	Storm Sewer Rock Excavation	CY	35.000	35.000
0128	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	100.000	100.000
0130	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	319.000	319.000
0132	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	227.000	227.000
0134	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	35.000	35.000
0136	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	27.000	27.000
0138	608.0348	Storm Sewer Pipe Reinforced Concrete Class III 48-Inch	LF	209.000	209.000
0140	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	656.000	656.000

6999-18-71

Line	Item	Item Description	Unit	Total	Qty
0142	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	451.000	451.000
0144	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	382.000	382.000
0146	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	714.000	714.000
0148	608.0430	Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	LF	690.000	690.000
0150	608.0436	Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	LF	546.000	546.000
0152	608.0448	Storm Sewer Pipe Reinforced Concrete Class IV 48-Inch	LF	739.000	739.000
0154	611.0535	Manhole Covers Type J-Special	EACH	25.000	25.000
0156	611.0612	Inlet Covers Type C	EACH	8.000	8.000
0158	611.0624	Inlet Covers Type H	EACH	48.000	48.000
0160	611.1003	Catch Basins 3-FT Diameter	EACH	7.000	7.000
0162	611.1004	Catch Basins 4-FT Diameter	EACH	6.000	6.000
0164	611.1230	Catch Basins 2x3-FT	EACH	41.000	41.000
0166	611.2003	Manholes 3-FT Diameter	EACH	1.000	1.000
0168	611.2004	Manholes 4-FT Diameter	EACH	4.000	4.000
0170	611.2005	Manholes 5-FT Diameter	EACH	4.000	4.000
0172	611.2006	Manholes 6-FT Diameter	EACH	4.000	4.000
0174	611.2007	Manholes 7-FT Diameter	EACH	10.000	10.000
0176	611.2008	Manholes 8-FT Diameter	EACH	4.000	4.000
0178	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-Inch	SY	355.000	355.000
0180	616.0700.S	Fence Safety	LF	300.000	300.000
0182	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6999-18-71	EACH	1.000	1.000
0184	619.1000	Mobilization	EACH	1.000	1.000
0186	623.0200	Dust Control Surface Treatment	SY	19,680.000	19,680.000
0188	624.0100	Water	MGAL	216.000	216.000
0190	625.0100	Topsoil	SY	12,855.000	12,855.000
0192	627.0200	Mulching	SY	6,315.000	6,315.000
0194	628.1504	Silt Fence	LF	1,125.000	1,125.000
0196	628.1520	Silt Fence Maintenance	LF	1,125.000	1,125.000
0198	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0200	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0202	628.2006	Erosion Mat Urban Class I Type A	SY	5,040.000	5,040.000
0204	628.2023	Erosion Mat Class II Type B	SY	1,500.000	1,500.000
0206	628.7005	Inlet Protection Type A	EACH	58.000	58.000
0208	628.7010	Inlet Protection Type B	EACH	13.000	13.000

6999-18-71

Line	Item	Item Description	Unit	Total	Qty
0210	628.7015	Inlet Protection Type C	EACH	81.000	81.000
0212	628.7504	Temporary Ditch Checks	LF	255.000	255.000
0214	628.7555	Culvert Pipe Checks	EACH	80.000	80.000
0216	628.7570	Rock Bags	EACH	100.000	100.000
0218	629.0210	Fertilizer Type B	CWT	0.500	0.500
0220	630.0130	Seeding Mixture No. 30	LB	4.000	4.000
0222	630.0140	Seeding Mixture No. 40	LB	98.000	98.000
0224	631.0300	Sod Water	MGAL	305.000	305.000
0226	634.0812	Posts Tubular Steel 2x2-Inch X 12-FT	EACH	23.000	23.000
0228	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	5.000	5.000
0230	637.2210	Signs Type II Reflective H	SF	196.250	196.250
0232	638.2602	Removing Signs Type II	EACH	30.000	30.000
0234	638.3000	Removing Small Sign Supports	EACH	28.000	28.000
0236	642.5001	Field Office Type B	EACH	1.000	1.000
0238	643.0300	Traffic Control Drums	DAY	2,470.000	2,470.000
0240	643.0310.S	Temporary Portable Rumble Strips	LS	1.000	1.000
0242	643.0410	Traffic Control Barricades Type II	DAY	350.000	350.000
0244	643.0420	Traffic Control Barricades Type III	DAY	5,922.000	5,922.000
0246	643.0705	Traffic Control Warning Lights Type A	DAY	9,802.000	9,802.000
0248	643.0715	Traffic Control Warning Lights Type C	DAY	500.000	500.000
0250	643.0800	Traffic Control Arrow Boards	DAY	10.000	10.000
0252	643.0900	Traffic Control Signs	DAY	36,661.000	36,661.000
0254	643.0920	Traffic Control Covering Signs Type II	EACH	4.000	4.000
0256	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0258	643.5000	Traffic Control	EACH	1.000	1.000
0260	644.1420.S	Temporary Pedestrian Surface Plywood	SF	2,800.000	2,800.000
0262	644.1601.S	Temporary Curb Ramp	EACH	50.000	50.000
0264	645.0120	Geotextile Type HR	SY	2,990.000	2,990.000
0266	645.0130	Geotextile Type R	SY	200.000	200.000
0268	646.1020	Marking Line Epoxy 4-Inch	LF	16,973.000	16,973.000
0270	646.3020	Marking Line Epoxy 8-Inch	LF	237.000	237.000
0272	646.5020	Marking Arrow Epoxy	EACH	32.000	32.000
0274	646.5120	Marking Word Epoxy	EACH	8.000	8.000
0276	646.5220	Marking Symbol Epoxy	EACH	29.000	29.000
0278	646.5320	Marking Railroad Crossings Epoxy	EACH	2.000	2.000
0280	646.6020	Marking Stop Line Epoxy 12-Inch	LF	158.000	158.000
0282	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	14.000	14.000
0284	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	1,245.000	1,245.000
0286	650.4000	Construction Staking Storm Sewer	EACH	83.000	83.000
0288	650.4500	Construction Staking Subgrade	LF	4,560.000	4,560.000

6999-18-71

Line	Item	Item Description	Unit	Total	Qty
0290	650.5000	Construction Staking Base	LF	4,560.000	4,560.000
0292	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	7,329.000	7,329.000
0294	650.8500	Construction Staking Electrical Installations (project) 01. 6999-18-71	LS	1.000	1.000
0296	650.9910	Construction Staking Supplemental Control (project) 01. 6999-18-71	LS	1.000	1.000
0298	650.9920	Construction Staking Slope Stakes	LF	4,560.000	4,560.000
0300	652.0220	Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	LF	1,237.000	1,237.000
0302	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	25.000	25.000
0304	653.0140	Pull Boxes Steel 24x42-Inch	EACH	1.000	1.000
0306	654.0105	Concrete Bases Type 5	EACH	8.000	8.000
0308	654.0224	Concrete Control Cabinet Bases Type L24	EACH	1.000	1.000
0310	655.0610	Electrical Wire Lighting 12 AWG	LF	1,104.000	1,104.000
0312	655.0625	Electrical Wire Lighting 6 AWG	LF	3,981.000	3,981.000
0314	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. 13+13 LT	LS	1.000	1.000
0316	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	8.000	8.000
0318	657.0322	Poles Type 5-Aluminum	EACH	8.000	8.000
0320	657.0610	Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	EACH	8.000	8.000
0322	659.1115	Luminaires Utility LED A	EACH	8.000	8.000
0324	659.2124	Lighting Control Cabinets 120/240 24-Inch	EACH	1.000	1.000
0326	690.0150	Sawing Asphalt	LF	872.000	872.000
0328	690.0250	Sawing Concrete	LF	1,055.000	1,055.000
0330	740.0440	Incentive IRI Ride	DOL	2,994.000	2,994.000
0332	999.1500.S	Crack and Damage Survey	LS	1.000	1.000
0334	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0336	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0338	SPV.0030	Special 01. Fertilizer for Lawn Type Turf	CWT	47.000	47.000
0340	SPV.0035	Special 01. Utility Trench Rock Excavation	CY	325.000	325.000
0342	SPV.0035	Special 02. Abandoning Watermain	CY	3.000	3.000
0344	SPV.0060	Special 01. Research and Locate Existing Land Parcel Monuments	EACH	102.000	102.000
0346	SPV.0060	Special 02. Verify and Replace Existing Land Parcel Monuments	EACH	102.000	102.000
0348	SPV.0060	Special 03. Manholes Sanitary 4-FT Diameter	EACH	16.000	16.000
0350	SPV.0060	Special 04. Sanitary Manhole Covers Type J-Special	EACH	23.000	23.000
0352	SPV.0060	Special 05. Reconstructing Sanitary Manholes	EACH	5.000	5.000
0354	SPV.0060	Special 06. Sanitary Sewer PVC Wyes	EACH	45.000	45.000
0356	SPV.0060	Special 07. 8x8x6-Inch Tee	EACH	1.000	1.000
0358	SPV.0060	Special 08. 12x12x6-Inch Tee	EACH	8.000	8.000
0360	SPV.0060	Special 09. 12x12x8-Inch Tee	EACH	4.000	4.000

6999-18-71

Line	Item	Item Description	Unit	Total	Qty
0362	SPV.0060	Special 10. 12x12x10-Inch Tee	EACH	3.000	3.000
0364	SPV.0060	Special 11. 12x12x12-Inch Tee	EACH	5.000	5.000
0366	SPV.0060	Special 12. 8-Inch 11.25 Degree Bend	EACH	3.000	3.000
0368	SPV.0060	Special 13. 12-Inch 11.25 Degree Bend	EACH	1.000	1.000
0370	SPV.0060	Special 14. 8-Inch 22.5 Degree Bend	EACH	4.000	4.000
0372	SPV.0060	Special 15. 10-Inch 22.5 Degree Bend	EACH	1.000	1.000
0374	SPV.0060	Special 16. 6-Inch 45 Degree Bend	EACH	1.000	1.000
0376	SPV.0060	Special 17. 8-Inch 45 Degree Bend	EACH	7.000	7.000
0378	SPV.0060	Special 18. 10-Inch 45 Degree Bend	EACH	5.000	5.000
0380	SPV.0060	Special 19. 12-Inch 45 Degree Bend	EACH	18.000	18.000
0382	SPV.0060	Special 20. 8x4-Inch Reducer	EACH	1.000	1.000
0384	SPV.0060	Special 21. 8x6-Inch Reducer	EACH	3.000	3.000
0386	SPV.0060	Special 22. 10x8-Inch Reducer	EACH	2.000	2.000
0388	SPV.0060	Special 23. 12x8-Inch Reducer	EACH	2.000	2.000
0390	SPV.0060	Special 24. 6-Inch Valve & Valve Box	EACH	7.000	7.000
0392	SPV.0060	Special 25. 8-Inch Valve & Valve Box	EACH	5.000	5.000
0394	SPV.0060	Special 26. 10-Inch Valve & Valve Box	EACH	3.000	3.000
0396	SPV.0060	Special 27. 12-Inch Valve & Valve Box	EACH	24.000	24.000
0398	SPV.0060	Special 28. Standard Hydrant	EACH	6.000	6.000
0400	SPV.0060	Special 29. Replacing Water Valve Boxes	EACH	7.000	7.000
0402	SPV.0060	Special 30. Adjusting Hydrants	EACH	2.000	2.000
0404	SPV.0090	Special 01. Sanitary Sewer PVC-SDR35 6-Inch	LF	5.000	5.000
0406	SPV.0090	Special 02. Sanitary Sewer PVC-SDR35 8-Inch	LF	1,131.000	1,131.000
0408	SPV.0090	Special 03. Sanitary Sewer PVC-SDR35 10-Inch	LF	91.000	91.000
0410	SPV.0090	Special 04. Sanitary Sewer PVC-SDR35 12-Inch	LF	761.000	761.000
0412	SPV.0090	Special 05. Sanitary Sewer PVC-SDR35 15-Inch	LF	1,225.000	1,225.000
0414	SPV.0090	Special 06. Sanitary Sewer PVC-SDR35 18-Inch	LF	313.000	313.000
0416	SPV.0090	Special 07. Sanitary Sewer PVC-SDR35 15-Inch in Casing	LF	170.000	170.000
0418	SPV.0090	Special 08. Sanitary Sewer Laterals	LF	1,530.000	1,530.000
0420	SPV.0090	Special 09. 6-Inch DI Watermain	LF	148.000	148.000
0422	SPV.0090	Special 10. 8-Inch DI Watermain	LF	719.000	719.000
0424	SPV.0090	Special 11. 10-Inch DI Watermain	LF	110.000	110.000
0426	SPV.0090	Special 12. 12-Inch DI Watermain	LF	2,985.000	2,985.000
0428	SPV.0090	Special 13. 12-Inch DI Water Main in Casing	LF	71.000	71.000
0430	SPV.0090	Special 14. Water Laterals	LF	1,240.000	1,240.000
0432	SPV.0090	Special 15. Open Cut Steel Casing Pipe 24-Inch	LF	155.000	155.000
0434	SPV.0090	Special 16. Bore and Jack Steel Casing Pipe 24-Inch	LF	158.000	158.000
0436	SPV.0090	Special 17. Open Cut Steel Pipe 48-Inch	LF	112.000	112.000
0438	SPV.0090	Special 18. Bore and Jack Steel Pipe 48-Inch	LF	68.000	68.000

6999-18-71

Line	Item	Item Description	Unit	Total	Qty
0440	SPV.0090	Special 19. Cured in Place Liner for Steel Pipe 48-Inch	LF	180.000	180.000
0442	SPV.0090	Special 20. Concrete Curb and Gutter 24-Inch Type D	LF	175.000	175.000
0444	SPV.0090	Special 21. Concrete Curb and Gutter HES 30-Inch Type D	LF	253.000	253.000
0446	SPV.0105	Special 01. Temporary Water Service	LS	1.000	1.000
0448	SPV.0180	Special 01. Preparing Topsoil for Lawn Type Turf	SY	12,705.000	12,705.000

CLEARING AND GRUBBING ITEMS

CATEGORY	STATION	OFFSET	201.0120 CLEARING ID	201.0220 GRUBBING ID
0010	11+72.29	RT	15	15
	11+81.33	LT	24	24
	12+91.67	RT	15	15
	13+30.88	RT	15	15
	14+18.35	LT	8	8
	14+65.74	LT	15	15
	15+15.75	RT	16	16
	15+42.27	LT	4	4
	15+71.07	RT	4	4
	16+59.41	RT	11	11
	17+07.78	LT	3	3
	17+41.16	RT	15	15
	18+12.03	LT	8	8
	18+55.46	LT	6	6
	19+28.47	RT	14	14
	19+68.29	RT	14	14
	20+27.59	LT	4	4
	20+58.83	RT	15	15
	21+50.83	RT	16	16
	21+96.42	RT	13	13
	22+10.63	LT	12	12
	22+52.89	LT	12	12
	23+18.65	RT	15	15
	28+37.21	LT	5	5
	28+93.21	LT	8	8
	29+35.73	LT	5	5
	29+92.40	LT	9	9
	30+27.38	LT	12	12
	30+57.10	LT	9	9
	30+83.31	LT	6	6
	31+17.28	LT	5	5
	32+27.60	LT	8	8
	33+49.83	LT	4	4
	34+96.10	LT	4	4
	35+45.42	LT	9	9
	37+53.89	LT	6	6
	44+51.09	LT	18	18
	44+52.50	LT	18	18
PROJECT TOTALS			400	400

REMOVAL ITEMS

CATEGORY	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	204.0100 REMOVING PAVEMENT SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0185 REMOVING MASONRY CY
0010	TOWNLINE RD	10+32.39	RT/LT	-	27+00	RT/LT	7,532	70	1,730	--
	TOWNLINE RD	27+00	RT/LT	-	34+00	RT/LT	2,407	371	657	--
	TOWNLINE RD	34+00	RT/LT	-	50+56.64	RT/LT	--	842	55	--
	TOWNLINE RD	39+44.55	LT		39+57.01	LT	--	--	--	4
	PROSPECT AVE	13+16.21	LT	-	13+87.54	LT	163	7	34	--
	PROSPECT AVE	14+44.74	RT	-	15+00	RT	94	3	22	--
	ARTHUR ST	16+27.82	LT	-	16+91.26	LT	141	3	29	--
	TORNEY AVE	18+09.22	RT	-	18+68.05	RT	97	--	23	--
	EX CURLING WAY	23+44.25	RT	-	24+19.65	RT	159	145	--	--
	S 10TH ST	25+52.11	LT	-	26+30.26	LT	--	45	8	--
	S 12TH ST	31+28	LT	-	31+83	LT	64	21	--	--
	NORTHWESTERN AVE	27+00	LT	-	34+00	LT	--	56	--	--
	S 13TH ST	27+00	RT	-	34+00	RT	--	40	--	--
	EASTHILL DR	48+25.25	LT	-	48+88.69	LT	--	11	--	--
	DRIVEWAYS	10+32.39	LT	-	27+00	LT	199	--	--	--
	DRIVEWAYS	10+32.39	RT	-	27+00	RT	171	--	--	--
	DRIVEWAYS	27+00	LT	-	34+00	LT	62	--	--	--
	DRIVEWAYS	27+00	RT	-	34+00	RT	176	--	--	--
	DRIVEWAYS	34+00	LT	-	50+56.64	LT	95	--	--	--
	DRIVEWAYS	34+00	RT	-	50+56.64	RT	36	80	--	--
PROJECT TOTALS							11,396	1,694	2,558	4

OBLITERATING OLD ROAD

CATEGORY	LOCATION	214.0100 OBLITERATING OLD ROAD STA
0010	EX CURLING WAY	3
	PROJECT TOTAL	3

REMOVING WATERMAIN ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	ALIGNMENT	204.9060.S.02 REMOVING HYDRANTS EACH	204.9090.S.01 REMOVING WATERMAIN LF	COMMENTS
0020	TOWNLINE RD	10+55	-	13+51	TOWNLINE	--	236	6-INCH MAIN
	TOWNLINE RD	13+51	-	27+00	TOWNLINE	--	1,275	12-INCH MAIN
	PROSPECT AVE	13+39	-	13+51	TOWNLINE	--	53	12-INCH MAIN
	TOWNLINE RD	13+97	-	13+98	TOWNLINE	1	15	MAIN TO HYDRANT
	PROSPECT AVE	14+65	-	14+70	TOWNLINE	--	53	6-INCH MAIN
	ARTHUR ST	16+39	-	16+49	TOWNLINE	1	10	MAIN TO HYDRANT
	ARTHUR ST	16+47	-	16+56	TOWNLINE	--	42	6-INCH MAIN
	TORNEY AVE	18+44	-	18+44	TOWNLINE	--	53	6-INCH MAIN
	TOWNLINE RD	22+31	-	22+32	TOWNLINE	1	15	MAIN TO HYDRANT
	CURLING WAY	22+46	-	23+43	TOWNLINE	--	435	4-INCH MAIN
	EX CURLING WAY	23+53	-	25+08	TOWNLINE	--	222	8-INCH MAIN
	EX CURLING WAY	104+69	-	106+00	CURLING	--	158	4-INCH MAIN
	S 10TH ST	26+03	-	26+09	TOWNLINE	--	18	10-INCH MAIN
	TOWNLINE RD	26+18	-	26+37	TOWNLINE	1	51	MAIN TO HYDRANT
	TOWNLINE RD	27+00	-	28+97	TOWNLINE	--	197	12-INCH MAIN
	TOWNLINE RD	28+97	-	34+00	TOWNLINE	--	506	6-INCH MAIN
	TOWNLINE RD	28+98	-	28+98	TOWNLINE	--	30	8-INCH MAIN
	S 12TH ST	31+64	-	31+65	TOWNLINE	--	5	8-INCH MAIN
	S 12TH ST	31+65	-	31+66	TOWNLINE	--	35	12-INCH MAIN
	NORTHWESTERN AVE	33+67	-	33+68	TOWNLINE	--	30	12-INCH MAIN
	TOWNLINE RD	33+78	-	33+79	TOWNLINE	1	12	MAIN TO HYDRANT
	TOWNLINE RD	34+00	-	37+95	TOWNLINE	--	395	6-INCH MAIN
	S 13TH ST	38+36	-	38+38	TOWNLINE	--	30	8-INCH MAIN
	TOWNLINE RD	38+38	-	38+99	TOWNLINE	1	95	8-INCH MAIN
	TOWNLINE ROAD	38+81	-	39+07	TOWNLINE	--	29	12-INCH MAIN
	PROJECT TOTALS					6	4,000	

REMOVING SANITARY ITEMS

CATEGORY	LOCATION	FROM		TO	204.0280 SEALING PIPES EACH	204.9060.S.03 REMOVING SANITARY MANHOLES EACH	204.9090.S.02 REMOVING SANITARY SEWER LF	COMMENTS
0020	TOWNLINE RD	0927-30	-	0927-2	--	--	313	18-INCH
	PROSPECT AVE	0927-2	-	EXIST	--	--	55	12-INCH
	TOWNLINE RD	0927-2	-	0927-3	--	1	111	15-INCH
	PROSPECT AVE	0927-3	-	EXIST	--	--	34	10-INCH
	TOWNLINE RD	0927-3	-	0927-4	--	1	198	15-INCH
	ARTHUR ST	0927-4	-	EXIST	--	--	53	10 AND 12-INCH
	TOWNLINE RD	0927-4	-	0927-5	--	1	170	15-INCH
	TORNEY AVE	0927-5	-	EXIST	--	--	41	12-INCH
	TOWNLINE RD	0927-5	-	0927-6	--	1	105	15-INCH
	TOWNLINE RD	0927-6	-	0927-7	--	1	275	15-INCH
	TOWNLINE RD	0927-7	-	0927-8	--	1	277	15-INCH
	TOWNLINE RD	0927-8	-	0927-9	--	1	68	15-INCH
	S 10TH ST	0927-9	-	0927-23	--	--	47	8-INCH
	TOWNLINE RD	0927-9	-	0927-10	--	1	193	15-INCH
	TOWNLINE RD	0927-10	-	EXIST	1	--	28	8-INCH
	TOWNLINE RD	0927-10	-	EXIST	--	--	36	12-INCH
	TOWNLINE RD	0927-10	-	0927-11	--	1	40	12-INCH
	TOWNLINE RD	0927-11	-	0927-12	--	1	365	12-INCH
	TOWNLINE RD	0927-12	-	0927-13	--	1	197	12-INCH
	NORTHWESTERN AVE	0927-13	-	EXIST	--	--	19	6-INCH FORCE MAIN
	TOWNLINE RD	0927-13	-	0927-14	--	1	57	12-INCH
	TOWNLINE RD	0927-14	-	0927-15	--	1	211	8-INCH
	TOWNLINE RD	0927-15	-	0927-16	--	1	202	8-INCH
	TOWNLINE RD	0927-16	-	EXIST	--	1	10	8-INCH
	TOWNLINE RD	0927-16	-	EXIST	--	--	5	8-INCH
	TOWNLINE RD	0927-16	-	EXIST	--	--	5	8-INCH
	PROJECT TOTALS				1	15	3,115	

3

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	203.0100 EACH	COMMENTS
0010	40+27	29' RT	1	24-INCH CPCM
	41+52	28' RT	1	24-INCH CPCM
	42+10	29' LT	1	24-INCH CPCPE
	43+18	28' RT	1	15-INCH CPCM
	43+53	29' LT	1	24-INCH CPCM
	44+40	28' RT	1	18-INCH CPCM
	44+96	29' RT	1	18-INCH CPCPE
	46+24	28' RT	1	18-INCH CPCM
	47+08	28' RT	1	18-INCH CPCM
	47+64	28' RT	1	18-INCH CPCM
	48+64	28' RT	1	18-INCH CPCM
	PROJECT TOTAL		11	

REMOVING MANHOLES

CATEGORY	STATION	LOCATION	204.0210 EACH
0010	13+66	18' LT	1
	14+80	17' LT	1
	14+83	33' RT	1
	16+59	17' LT	1
	16+94	9' RT	1
	18+33	33' RT	1
	18+36	17' LT	1
	20+92	11' RT	1
	23+90	11' RT	1
	25+85	23' LT	1
	26+86	6' RT	1
	28+62	8' RT	1
	31+43	7' RT	1
	31+50	36' LT	1
	33+71	8' RT	1
	35+52	8' RT	1
	37+67	7' RT	1
	37+77	26' RT	1
	38+12	20' LT	1
	38+51	20' LT	1
	38+60	30' RT	1
	38+61	20' LT	1
	PROJECT TOTAL		22

NOTE: ITEM IS FOR STORM SEWER MANHOLES

ABANDONING SEWER

CATEGORY	STATION	TO	STATION	LOCATION	204.0291.S CY	COMMENTS
0010	23+67	-	24+19	LT	24	48-INCH SS UNDER RR
	24+92	-	25+50	LT	27	48-INCH SS UNDER RR
	PROJECT TOTAL				51	

REMOVING APRON ENDWALL

CATEGORY	STATION	LOCATION	204.9060.S.01 EACH	COMMENTS
0010	39+38	28' LT	1	24-INCH SS INFALL
	PROJECT TOTAL		1	

REMOVING CATCH BASINS

CATEGORY	STATION	LOCATION	204.0215 EACH
0010	13+11	22' LT	1
	13+30	43' LT	1
	13+35	22' RT	1
	13+74	37' LT	1
	13+90	22' LT	1
	14+57	43' RT	1
	14+85	38' RT	1
	14+85	22' LT	1
	15+06	22' RT	1
	16+22	22' LT	1
	16+42	46' LT	1
	16+57	22' RT	1
	16+78	38' LT	1
	17+00	22' LT	1
	18+47	22' LT	1
	18+51	39' RT	1
	18+69	22' RT	1
	20+98	22' LT	1
	21+03	22' RT	1
	24+19	23' LT	1
	24+27	35' RT	1
	24+36	93' RT	1
	25+04	92' RT	1
	25+48	25' LT	1
	25+69	20' RT	1
	26+26	24' LT	1
	28+55	20' RT	1
	28+83	24' LT	1
	30+83	20' RT	1
	31+32	20' RT	1
	31+41	38' LT	1
	31+82	27' LT	1
	33+90	19' RT	1
	34+07	23' LT	1
	35+75	19' LT	1
	35+81	23' LT	1
	37+73	19' RT	1
	38+22	40' LT	1
	38+58	43' RT	2
	38+61	49' LT	1
	38+98	31' RT	1
	39+65	49' RT	1
	PROJECT TOTAL		43

REMOVING STORM SEWER

CATEGORY	STATION	TO	STATION	LOCATION	204.0245.01 8-INCH LF	204.0245.02 12-INCH LF	204.0245.03 15-INCH LF	204.0245.04 18-INCH LF	204.0245.05 24-INCH LF	204.0245.06 27-INCH LF	204.0245.07 30-INCH LF	204.0245.08 36-INCH LF	204.0245.09 42-INCH LF	204.0245.10 48-INCH LF
0010	13+11	-	13+30	LT	-	28	-	-	-	-	-	-	-	-
	13+30	-	13+66	LT	-	44	-	-	-	-	-	-	-	-
	13+35	-	13+66	LT/RT	-	50	-	-	-	-	-	-	-	-
	13+56	-	13+66	LT	-	-	-	-	-	-	-	-	-	10
	13+63	-	13+66	LT	-	-	-	10	-	-	-	-	-	-
	13+66	-	13+74	LT	-	22	-	-	-	-	-	-	-	-
	13+66	-	13+90	LT	-	24	-	-	-	-	-	-	-	-
	13+66	-	13+76	LT	-	-	-	-	-	-	-	-	-	10
	14+57	-	14+83	RT	-	27	-	-	-	-	-	-	-	-
	14+70	-	14+80	LT	-	-	-	-	-	-	-	-	-	10
	14+80	-	14+83	LT/RT	-	-	-	50	-	-	-	-	-	-
	14+80	-	14+85	LT	-	8	-	-	-	-	-	-	-	-
	14+80	-	16+59	LT	-	-	-	-	-	-	-	-	-	179
	14+83	-	-	RT	-	-	-	19	-	-	-	-	-	-
	14+83	-	14+85	RT	-	6	-	-	-	-	-	-	-	-
	14+83	-	15+06	RT	-	26	-	-	-	-	-	-	-	-
	16+22	-	16+59	LT	-	36	-	-	-	-	-	-	-	-
	16+42	-	16+77	LT	-	37	-	-	-	-	-	-	-	-
	16+57	-	16+59	LT/RT	-	38	-	-	-	-	-	-	-	-
	16+59	-	16+77	LT	-	29	-	-	-	-	-	-	-	-
	16+59	-	18+36	LT	-	-	-	-	-	-	-	-	-	177
	16+59	-	16+94	LT/RT	-	-	-	-	-	-	43	-	-	-
	16+94	-	20+92	RT	-	-	-	-	-	-	399	-	-	-
	17+00	-	17+04	LT	-	7	-	-	-	-	-	-	-	-
	18+33	-	18+33	RT	-	-	6	-	-	-	-	-	-	-
	18+33	-	18+36	LT/RT	-	-	-	50	-	-	-	-	-	-
	18+36	-	23+67	LT	-	-	-	-	-	-	-	-	-	531
	18+36	-	18+69	LT/RT	-	52	-	-	-	-	-	-	-	-
	18+47	-	18+50	LT	6	-	-	-	-	-	-	-	-	-
	18+51	-	18+69	RT	-	26	-	-	-	-	-	-	-	-
	20+92	-	20+98	LT/RT	-	34	-	-	-	-	-	-	-	-
	20+92	-	23+90	RT	-	-	-	-	-	-	298	-	-	-
	20+92	-	21+03	RT	-	15	-	-	-	-	-	-	-	-
	23+90	-	24+27	RT	-	-	44	-	-	-	-	-	-	-
	24+19	-	24+19	LT	-	6	-	-	-	-	-	-	-	-
	24+19	-	24+92	LT	-	-	-	-	-	-	-	-	-	73
	24+27	-	24+36	RT	-	-	59	-	-	-	-	-	-	-
	24+36	-	25+04	RT	-	-	67	-	-	-	-	-	-	-
	25+48	-	25+48	LT	-	6	-	-	-	-	-	-	-	-
	25+50	-	25+85	LT	-	-	-	-	-	-	-	-	35	-
SUBTOTALS					6	521	176	129	0	0	740	0	35	990

3

REMOVING STORM SEWER (CONTINUED)

CATEGORY	STATION	TO	STATION	LOCATION	204.0245.01 8-INCH LF	204.0245.02 12-INCH LF	204.0245.03 15-INCH LF	204.0245.04 18-INCH LF	204.0245.05 24-INCH LF	204.0245.06 27-INCH LF	204.0245.07 30-INCH LF	204.0245.08 36-INCH LF	204.0245.09 42-INCH LF	204.0245.10 48-INCH LF
0010	25+69	-	25+85	LT/RT	-	46	-	-	-	-	-	-	-	-
	25+81	-	25+85	LT	-	-	-	-	8	-	-	-	-	-
	25+85	-	26+86	LT/RT	-	-	-	-	-	-	-	106	-	-
	26+23	-	26+26	LT	-	13	-	-	-	-	-	-	-	-
	26+86	-	28+62	RT	-	-	-	-	-	-	-	176	-	-
	28+55	-	28+62	RT	-	14	-	-	-	-	-	-	-	-
	28+62	-	28+62	RT	-	-	23	-	-	-	-	-	-	-
	28+62	-	28+83	LT/RT	-	38	-	-	-	-	-	-	-	-
	28+62	-	31+43	RT	-	-	-	-	-	-	-	282	-	-
	30+78	-	30+83	RT	-	14	-	-	-	-	-	-	-	-
	31+32	-	31+32	RT	-	13	-	-	-	-	-	-	-	-
	31+41	-	31+50	LT	-	9	-	-	-	-	-	-	-	-
	31+43	-	31+50	LT/RT	-	-	-	-	43	-	-	-	-	-
	31+43	-	33+71	LT	-	-	-	-	-	-	228	-	-	-
	31+50	-	31+50	LT	-	-	-	10	-	-	-	-	-	-
	31+50	-	31+82	LT	-	33	-	-	-	-	-	-	-	-
	33+71	-	34+07	LT/RT	-	-	47	-	-	-	-	-	-	-
	33+71	-	35+52	RT	-	-	-	-	-	-	181	-	-	-
	33+71	-	33+90	RT	-	24	-	-	-	-	-	-	-	-
	35+52	-	35+75	LT/RT	-	-	-	36	-	-	-	-	-	-
	35+75	-	35+81	LT	-	6	-	-	-	-	-	-	-	-
	35+75	-	35+81	LT	17	-	-	-	-	-	-	-	-	-
	35+52	-	37+67	RT	-	-	-	-	215	-	-	-	-	-
	37+67	-	38+12	LT/RT	-	-	-	-	53	-	-	-	-	-
	37+67	-	37+73	RT	-	-	-	-	13	-	-	-	-	-
	37+73	-	37+77	RT	-	-	-	-	8	-	-	-	-	-
	37+77	-	38+60	RT	-	-	-	-	83	-	-	-	-	-
	38+12	-	38+22	LT	-	22	-	-	-	-	-	-	-	-
	38+12	-	38+51	LT	-	-	-	-	-	38	-	-	-	-
	38+51	-	38+61	LT	-	31	-	-	-	-	-	-	-	-
	38+51	-	38+61	LT	-	-	-	-	-	11	-	-	-	-
	38+58	-	38+60	RT	-	-	-	16	-	-	-	-	-	-
	38+60	-	38+98	RT	-	-	-	-	-	38	-	-	-	-
	38+61	-	39+38	LT	-	-	-	-	76	-	-	-	-	-
	38+98	-	39+65	RT	-	-	-	71	-	-	-	-	-	-
SUBTOTALS					17	263	70	133	499	87	409	564	0	0
PROJECT TOTALS					23	784	246	262	499	87	1,149	564	35	990

3

EARTHWORK SUMMARY

DIVISION	STATION	-	STATION	LOCATION	205.0100 EXCAVATION COMMON (CY)	SALVAGED/ UNUSABLE PAVEMENT (CY)	AVAILABLE MATERIAL	UNEXPANDED FILL	EXPANDED FILL FACTOR 1.25	MASS ORDINATE +/-	WASTE	208.0100 BORROW (CY)
1	11+06	-	27+00	TOWNLINE RD	5,210	1,732	3,478	96	120	3,358	3,358	--
	27+00	-	34+00	TOWNLINE RD	2,775	702	2,073	9	11	2,062	2,062	--
	34+00	-	50+57	TOWNLINE RD	3,978	1,350	2,628	1,006	1,258	1,370	1,370	--
SUBTOTAL					11,963	3,784	8,179	1,111	1,389	6,790	6,790	--
2	100+38	-	106+29	CURLING WAY	1,385	48	1,338	1,889	2,362	-1,024	--	1,024
SUBTOTAL					1,385	48	1,338	1,889	2,362	-1,024	--	1,024
TOTALS					13,349	3,832	9,516	3,000	3,750	5,766	6,790	1,024

NOTES

1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS THE EXISTING CONCRETE AND ASPHALT PAVEMENT VOLUME, NOT AVAILABLE FOR FILL

3) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL

4) EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR

5) MASS ORDINATE = AVAILABLE MATERIAL - EXPANDED FILL

6) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

BASE AGGREGATE ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	305.0110* BASE AGGREGATE DENSE 3/4-INCH TON	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON
0010	TOWNLINE RD	10+74	-	27+00	--	5,230
		27+00	-	34+00	--	2,220
		34+00	-	50+57	59	5,140
	PROSPECT AVE	13+15	-	13+90	--	180
		14+41	-	15+01	--	80
	ARTHUR ST	16+28	-	16+94	--	120
	TORNEY AVE	18+09	-	18+66	--	70
	CURLING WAY	100+19	-	106+29	--	1,850
	S 10TH ST	25+45	-	26+32	--	170
	S 12TH ST	31+26	-	31+93	--	120
	NORTHWESTERN AVE	33+20	-	33+92	--	90
	S 13TH ST	38+06	-	38+66	--	110
	EASTHILL DR	48+25	-	48+89	--	90
	UNDISTRIBUTED	--		--	--	300
	TOTALS				59	15,770
	PROJECT TOTALS				121	16,470

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE: SEE DRIVEWAY ITEMS TABLE

NOTE: UNDISTRIBUTED QTYS ARE FOR TRAFFIC MAINTENANCE

CONCRETE SURFACE DRAINS

CATEGORY	STATION	OFFSET	416.1010 CONCRETE SURFACE DRAINS CY
0010	41+37	29' RT	1
	PROJECT TOTAL		1

ASPHALTIC ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	465.0110 ASPHALTIC SURFACE PATCHING TON
0010	TOWNLINE RD	10+74	-	27+00	487	765	1,147	116
		27+00	-	34+00	201	317	475	--
		34+00	-	50+57	438	689	1,034	--
	PROSPECT AVE	13+15	-	13+90	16	26	39	--
		14+41	-	15+01	7	10	16	--
	ARTHUR ST	16+28	-	16+94	10	16	24	--
	TORNEY AVE	18+09	-	18+66	5	8	12	--
	CURLING WAY	100+19	-	106+29	163	257	385	--
	S 10TH ST	25+45	-	26+32	15	24	36	--
	S 12TH ST	31+26	-	31+93	10	16	23	--
	NORTHWESTERN AVE	33+20	-	33+92	7	11	17	--
	S 13TH ST	38+06	-	38+66	9	12	16	--
	EASTHILL DR	48+25	-	48+89	7	10	13	--
	PROJECT				--	--	--	--
	PROJECT TOTALS				1,375	2,160	3,235	116

3

DRIVEWAY ITEMS

				305.0110*	305.0120*	416.0160	416.0260	465.0120
CATEGORY	LOCATION	STATION	OFFSET	BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON	CONCRETE DRIVEWAY 6-INCH SY	CONCRETE DRIVEWAY HES 6-INCH SY	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0010	TOWNLINE RD	12+00	LT	--	20	50	--	1.3
		12+25	RT	--	18	44	--	1.2
		13+50	RT	--	8	24	--	--
		13+90	RT	--	9	15	--	1.4
		14+40	LT	--	9	26	--	--
		15+25	LT	3	16	47	--	--
		16+40	RT	3	5	14	--	--
		17+60	RT	--	7	21	--	--
		17+75	LT	--	11	23	--	1.1
		18+00	LT	--	7	20	--	--
		19+00	LT	6	15	--	34	1.3
		19+10	RT	--	9	16	--	1.3
		19+80	RT	3	12	29	--	0.8
		20+10	LT	3	5	14	--	--
		20+75	LT	--	13	39	--	--
		20+90	RT	--	14	41	--	--
		21+40	LT	--	8	14	--	1.1
		21+90	LT	2	5	14	--	--
		22+70	LT	5	7	20	--	--
		26+40	RT	--	26	--	44	3.7
		26+60	LT	--	11	24	--	1.1
		27+60	RT	--	24	--	44	3.1
		28+10	LT	--	12	21	--	1.6
		28+60	LT	--	13	17	--	2.4
		28+80	RT	--	21	--	62	--
		29+15	LT	--	11	17	--	1.9
		30+15	LT	--	11	32	--	--
SUBTOTALS				25	327	582	184	23.3

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE: SEE BASE AGGREGATE TABLE

DRIVEWAYS ITEMS (CONTINUED)

CATEGORY	LOCATION	STATION	OFFSET	305.0110* BASE AGGREGATE DENSE 3/4-INCH TON	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	416.0160 CONCRETE DRIVEWAY 6-INCH SY	416.0260 CONCRETE DRIVEWAY HES 6-INCH SY	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0010	TOWNLINE RD	31+60	RT	--	17	--	52	--
		32+40	LT	--	12	17	--	2.2
		33+00	LT	6	7	21	--	--
		33+65	LT	--	11	21	--	1.4
		34+80	RT	7	10	30	--	--
		35+25	LT	--	23	31	--	4.4
		36+10	LT	--	16	49	--	--
		36+65	LT	--	11	32	--	--
		37+75	LT	--	8	25	--	--
		38+51	RT	--	21	--	--	7.2
		40+14	RT	--	15	--	--	5.2
		41+37	RT	--	16	--	--	5.4
		42+10	LT	--	39	--	59	6.6
		43+20	RT	--	31	--	--	10.4
		43+50	LT	--	12	--	--	4.0
		44+25	RT	--	20	--	--	6.7
		44+50	RT	--	13	--	--	4.5
		44+95	RT	--	11	--	--	3.9
		46+20	RT	--	12	--	--	3.9
		47+10	RT	--	16	48	--	--
		47+65	RT	--	24	--	--	8.0
		48+60	RT	--	24	--	--	8.4
	CURLING WAY	101+90	LT	9	4	12	--	--
		102+50	RT	15	--	50	--	--
SUBTOTALS				37	373	336	111	82.2
TOTALS				62	700	918	295	105.5
PROJECT TOTALS				121	16,470	918	295	105.5

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE: SEE BASE AGGREGATE TABLE

CONCRETE CURB & GUTTER ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	SPV.0090.20 CONCRETE CURB & GUTTER 24-INCH TYPE D LF	SPV.0090.21 CONCRETE CURB & GUTTER HES 30-INCH TYPE D LF	601.0600 CONCRETE CURB PEDESTRIAN LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF
0010	TOWNLINE RD	10+74	-	27+00	2,748	--	73	38	2,821
		27+00	-	34+00	1,260	--	127	--	1,387
		34+00	-	50+57	1,692	175	53	--	1,920
	CURLING WAY	100+21	-	106+00	1,201	--	--	--	1,201
	PROJECT TOTALS				6,901	175	253	38	7,329

3

CONCRETE SIDEWALK ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.1500 CONCRETE STEPS SF	416.0610 DRILLED TIE BARS EACH	513.2001.01 RAILING PIPE (CONCRETE STEPS) LF	COMMENTS
0010	TOWNLINE RD	10+74	-	13+50	LT	1,393	--	--	--	
		13+50	-	16+50	LT	1,197	--	--	--	
		16+50	-	24+00	LT	2950	--	--	--	
		24+00	-	26+00	LT	632	--	--	--	
		26+00	-	27+00	LT	221	--	--	--	
		27+00	-	31+50	LT	1,950	--	--	--	
		31+50	-	34+00	LT	880	--	--	--	
		34+00	-	38+25	LT	1,746	30	4	7	
		10+74	-	14+75	RT	1,401	--	--	--	
		14+75	-	18+30	RT	1,551	--	--	--	
		18+30	-	22+00	RT	1061	--	--	--	
		22+00	-	24+50	RT	948	--	--	--	
		24+50	-	26+50	RT	699	--	--	--	
		31+25	-	34+00	RT	841	--	--	--	
		34+00	-	38+50	RT	2151	--	--	--	
	PROSPECT AVE	13+25	--	--	LT	210	--	--	--	CURB RAMP
		13+85	--	--	LT	207	--	--	--	CURB RAMP
		14+50	--	--	RT	164	--	--	--	CURB RAMP
		14+90	--	--	RT	176	--	--	--	CURB RAMP
	ARTHUR ST	16+40	--	--	LT	173	--	--	--	CURB RAMP
		16+90	--	--	LT	118	--	--	--	CURB RAMP
		16+90	--	--	RT	21	--	--	--	CURB RAMP
	TORNEY AVE	18+20	--	--	RT	218	--	--	--	CURB RAMP
		18+60	--	--	RT	219	--	--	--	CURB RAMP
	CURLING WAY	100+33	-	105+98	RT	2,773	--	--	--	
		105+96	--	--	RT	29	--	--	--	CURB RAMP
		21+20	--	--	LT	23	--	--	--	CURB RAMP
		21+20	--	--	RT	23	--	--	--	CURB RAMP
		21+50	--	--	RT	65	--	--	--	CURB RAMP
		22+50	--	--	RT	101	--	--	--	CURB RAMP
	S 10TH ST	25+60	--	--	LT	41	--	--	--	CURB RAMP
		26+20	--	--	LT	206	--	--	--	CURB RAMP
		26+20	--	--	RT	38	--	--	--	CURB RAMP
	S 12TH ST	31+40	--	--	LT	47	--	--	--	CURB RAMP
		31+80	--	--	LT	47	--	--	--	CURB RAMP
	NORTHWESTERN AVE	33+30	--	--	LT	33	--	--	--	CURB RAMP
		33+30	--	--	RT	89	--	--	--	CURB RAMP
		33+80	--	--	RT	45	--	--	--	CURB RAMP
	S 13TH ST	38+10	--	--	LT	63	--	--	--	CURB RAMP
		38+10	--	--	RT	38	--	--	--	CURB RAMP
		38+55	--	--	RT	46	--	--	--	CURB RAMP
PROJECT TOTALS						24,834	30	4	7	

CURB RAMP DETECTABLE WARNING FIELDS

CATEGORY	LOCATION	STATION	OFFSET	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	602.0615 CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA SF
0010	TOWNLINE RD	13+25	LT	10	--
		13+80	LT	10	--
		14+50	RT	10	--
		14+90	RT	10	--
		16+40	LT	10	--
		16+90	LT	20	--
		16+90	RT	10	--
		18+20	RT	10	--
		18+60	RT	10	--
		21+20	LT	10	--
		21+20	RT	10	--
		23+80	LT	--	11
		24+10	LT	--	11
		24+46	RT	--	11
		24+70	RT	--	12
		25+08	LT	10	--
		25+33	LT	10	--
		25+46	RT	10	--
		25+63	LT	10	--
		25+72	RT	10	--
		26+17	LT	10	--
		26+17	RT	10	--
		31+36	LT	10	--
		31+81	LT	10	--
		33+30	LT	10	--
		33+30	RT	20	--
		33+80	RT	10	--
		38+10	LT	10	--
		38+10	RT	10	--
		38+50	RT	10	--
	CURLING WAY	100+30	LT	--	15
		100+30	RT	--	27
PROJECT TOTALS				280	87

3

3

DRIVEWAY CULVERT PIPE ITEMS

CATEGORY	STATION	LOCATION	**** JOINT TIES EACH	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1015 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH EACH	522.1024* APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.0412 CULVERT PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	522.0415 CULVERT PIPE REINFORCED CONCRETE CLASS IV 15-INCH LF	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	COMMENTS
0010	43+53	31.7' LT	10	-	-	2	-	-	24	CE
	44+28	31.7' RT	12	-	2	-	-	54	-	CE
	44+96	31.7' RT	10	-	2	-	-	24	-	PE
	46+24	31.7' RT	10	-	2	-	-	24	-	PE
	47+08	31.7' RT	10	2	-	-	30	-	-	PE
	47+64	31.7' RT	12	2	-	-	38	-	-	CE
	48+64	31.7' RT	12	2	-	-	38	-	-	CE
	SUBTOTAL			6	6	2	106	102	24	
	PROJECT TOTALS			6	6	3	106	102	24	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE: SEE STORM SEWER STRUCTURE ITEMS

****NOT A BID ITEM. QUANTITY SHOWN FOR INFORMATION ONLY.

STORM SEWER ROCK EXCAVATION

CATEGORY	STATION	TO	STATION	OFFSET	608.0005 CY	COMMENT
0010	38+10	-	40+00	RT	9	24-INCH TRUNK LINE
	38+10	-	38+54	LT/RT	7	S. 13TH AVE STORM SEWER
	38+10	-	39+65	RT	10	
	40+00	-	41+75	RT	4	24-INCH TRUNK LINE
	UNDISTRIBUTED				5	
	PROJECT TOTAL				35	

3

STORM SEWER PIPE ITEMS

CATEGORY	STRUCTURE FROM	STRUCTURE TO	520.8000 CONCRETE COLLARS FOR PIPE EACH	608.0312 REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 15-INCH LF	608.0318 18-INCH LF	608.0324 24-INCH LF	608.0330 30-INCH LF	608.0348 48-INCH LF	608.0412 REINFORCED CONCRETE CLASS IV 12-INCH LF	608.0415 15-INCH LF	608.0418 18-INCH LF	608.0424 24-INCH LF	608.0430 30-INCH LF	608.0436 36-INCH LF	608.0448 48-INCH LF	SPV.0090.17 OPEN CUT STEEL PIPE 48-INCH LF	SPV.0090.18 BORE AND JACK STEEL PIPE 48-INCH LF	SPV.0090.19 CURED IN PLACE LINER FOR STEEL PIPE 48-INCH LF	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT	COMMENTS
0010	A22	EX-48"	1	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	1195.03	1194.99	0.0045	CONNECT TO EX 48-INCH CPRC ALONG TOWNLINE RD
	EX-48"	A22	1	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	1195.23	1195.15	0.0076	CONNECT TO EX 48-INCH CPRC ALONG TOWNLINE RD
	EX-18"	A22	1	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	1197.95	1197.85	0.0100	CONNECT TO EX 18-INCH CPRC ALONG PROSPECT AVE
	A22.1	A22	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	1205.21	1204.79	0.0200	
	A22.2	A22.1	-	-	-	-	-	-	-	-	46	-	-	-	-	-	-	-	-	1205.92	1205.46	0.0100	
	A22.3	A22.2	-	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1206.21	1205.92	0.0100	
	A22.4	A22.1	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1205.68	1205.46	0.0100	
	A22.5	A22.4	-	-	-	-	-	-	-	49	-	-	-	-	-	-	-	-	-	1206.42	1205.93	0.0100	
	A23	EX-48"	1	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	1196.02	1195.94	0.0076	CONNECT TO EX 48-INCH CPRC ALONG TOWNLINE RD
	A23.1	A23	-	-	-	57	-	-	-	-	-	-	-	-	-	-	-	-	-	1204.30	1203.73	0.0100	
	EX-18"	A23.1	1	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	1204.37	1204.30	0.0100	CONNECT TO EX 18-INCH CPRC ALONG PROSPECT AVE
	A23.2	A23.1	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	1206.97	1206.71	0.0100	
	A23.3	A23.1	-	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	1206.45	1206.19	0.0100	
	A24	A23	-	-	-	-	-	-	179	-	-	-	-	-	-	-	-	-	-	1197.38	1196.02	0.0076	
	A24.1	A24	-	-	-	-	-	-	-	-	-	28	-	-	-	-	-	-	-	1206.27	1205.99	0.0100	
	A24.2	A24.1	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	1206.90	1206.82	0.0100	
	A24.3	A24.1	-	-	-	-	-	-	-	37	-	-	-	-	-	-	-	-	-	1207.14	1206.77	0.0100	
	A24.4	A24.1	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	1207.34	1206.95	0.0150	
	A25	A24	-	-	-	-	-	-	-	-	-	-	-	-	-	49	-	-	-	1204.23	1203.98	0.0050	
	A25.1	A25	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	1207.66	1207.54	0.0100	
	A26	A25	-	-	-	-	-	-	-	-	-	-	-	-	-	134	-	-	-	1204.90	1204.23	0.0050	
	A26.1	A26	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	1207.95	1207.40	0.0250	
	EX-15"	A26.1	1	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	1207.98	1207.95	0.0050	CONNECT TO EX 15-INCH CPRC ALONG TORNEY AVE
	A26.2	A26.1	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	1208.38	1208.20	0.0100	
	A26.3	A26.2	-	-	-	-	-	-	-	28	-	-	-	-	-	-	-	-	-	1208.66	1208.38	0.0100	
	A27	A26	-	-	-	-	-	-	-	-	-	-	-	-	-	321	-	-	-	1206.51	1204.90	0.0050	
	A27.1	A27	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	1209.94	1209.60	0.0100	
	A27.2	A27	-	-	-	-	-	-	-	-	-	-	-	125	-	-	-	-	-	1207.62	1207.25	0.0030	
	A27.3	A27.2	-	-	-	-	-	-	-	-	-	-	-	109	-	-	-	-	-	1207.95	1207.62	0.0030	
	STUB	A27.3	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	1208.08	1207.95	0.0100	
	SUBTOTALS		6	29	22	74	0	0	209	238	99	49	0	247	0	504	0	0	0				

STORM SEWER PIPE ITEMS (CONTINUED)

	STRUCTURE		520.8000 CONCRETE COLLARS	608.0312	608.0315	608.0318	608.0324	608.0330	608.0348	608.0412	608.0415	608.0418	608.0424	608.0430	608.0436	608.0448	SPV.0090.17 OPEN CUT STEEL PIPE	SPV.0090.18 BORE AND JACK STEEL PIPE	SPV.0090.19 CURED IN PLACE LINER FOR STEEL				
				REINFORCED CONCRETE CLASS III						REINFORCED CONCRETE CLASS IV												
				12-INCH	15-INCH	18-INCH	24-INCH	30-INCH	48-INCH	12-INCH	15-INCH	18-INCH	24-INCH	30-INCH	36-INCH	48-INCH	48-INCH	48-INCH	PIPE 48-INCH	INLET	DISCHARGE	SLOPE	
CATEGORY	FROM	TO	FOR PIPE EACH	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	ELEVATION	ELEVATION	FT/FT	COMMENTS
0010	A27.4	A27.3	-	-	-	-	-	-	-	-	136	-	-	-	-	-	-	-	-	1210.99	1209.63	0.0100	
	A27.5	A27.4	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	1211.52	1211.18	0.0100	
	A27.6	A27.2	-	-	-	-	-	-	-	-	43	-	-	-	-	-	-	-	-	1208.97	1208.54	0.0100	
	A27.7	A27.6	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	1209.30	1209.22	0.0100	
	A28	A27	-	-	-	-	-	-	-	-	-	-	-	-	-	235	-	-	-	1207.68	1206.51	0.0050	
	A28.1	A28	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	1209.11	1208.91	0.0075	
	A28.2	A28.1	-	-	-	126	-	-	-	-	-	-	-	-	-	-	-	-	-	1210.05	1209.11	0.0075	
	EX-15"	A28.2	1	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1210.40	1210.30	0.0100	CONNECT TO EX 15-INCH CPRC
	A28.3	A28.2	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1210.60	1210.30	0.0075	
	A28.4	A28.3	-	-	152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1211.74	1210.60	0.0075	
	A28.5	A28.4	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1212.22	1211.99	0.0075	
	A29	A28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	-	79	1208.10	1207.70	0.0050	
	A29.1	A29	-	-	-	-	-	-	-	48	-	-	-	-	-	-	-	-	-	1212.78	1212.30	0.0100	
	A29.2	A29	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	1213.08	1212.99	0.0100	
	A30	A29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	68	101	1208.63	1208.13	0.0050	
	A30.1	A30.6	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	1212.92	1212.80	0.0100	
	A30.2	A30.6	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1213.00	1212.55	0.0200	
	A30.3	A30	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	1211.30	1210.89	0.0150	
	EX-24"	A30.3	1	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	1211.40	1211.30	0.0100	CONNECT TO EX 24-INCH CPRC ALONG S. 10TH ST
	A30.4	A30.3	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-	-	1213.61	1213.29	0.0100	
	A30.5	A30.3	-	-	-	-	-	-	-	48	-	-	-	-	-	-	-	-	-	1214.60	1214.12	0.0100	
	A30.6	A30	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	1212.55	1212.24	0.0300	
	A31	A30	-	-	-	-	-	-	-	-	-	-	-	-	272	-	-	-	-	1214.28	1209.66	0.0170	
	A31.1	A31	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	1218.32	1217.61	0.0200	
	EX-15"	A31.2	1	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1216.08	1215.94	0.0100	CONNECT TO EX 15-INCH STORM SEWER
	A31.2	A31	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1215.94	1215.84	0.0100	
	A32	A31	-	-	-	-	-	-	-	-	-	-	-	-	274	-	-	-	-	1220.47	1214.71	0.0210	
	A32.1	A32	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	1223.80	1221.47	0.0467	
	EX-18"	A32.1	1	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	1224.27	1223.80	0.0467	CONNECT TO EX 18-INCH CPRC ALONG S. 12TH ST
	A32.2	A32	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	1223.40	1223.30	0.0100	
	A32.3	A32.1	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	1224.99	1224.91	0.0100	
	A32.4	A32.1	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	1225.13	1224.63	0.0181	
	A32.5	A32.4	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	1225.56	1225.38	0.0100	
	A32.6	A32.5	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	1225.64	1225.56	0.0100	
	A33	A32	-	-	-	-	-	-	-	-	-	-	-	258	-	-	-	-	-	1231.29	1220.97	0.0400	
	A33.1	A33	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	1236.26	1234.28	0.0575	
	A33.2	A33	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	1234.75	1234.06	0.0650	
	A33.3	A33.2	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	1235.53	1234.75	0.0650	
	A34	A33	-	-	-	-	-	-	-	-	-	-	-	185	-	-	-	-	-	1247.14	1231.79	0.0830	
	A34.1	A34	-	-	-	-	-	-	-	31	-	-	-	-	-	-	-	-	-	1249.62	1249.31	0.0100	
	A34.2	A34.1	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	1249.82	1249.62	0.0100	
	A34.3	A34	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	1249.14	1249.04	0.0100	
	A35	A34	-	-	-	-	-	-	-	-	-	-	235	-	-	-	-	-	-	1272.32	1247.64	0.1050	
	A35.1	A35	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	1274.32	1272.82	0.0300	
	A35.2	A35.1	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	1275.06	1274.82	0.0300	
	A35.3	A35.4	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1277.48	1277.16	0.0200	
	A35.4	A35.1	-	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	1276.91	1274.32	0.0800	
	A35.5	A35.4	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1279.32	1277.41	0.0800	
	A35.6	A40	-	-	-	-	-	-	-	-	-	33	-	-	-	-	-	-	-	1276.73	1275.98	0.0230	
	A35.7	A35.6	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	1277.54	1276.98	0.0700	
SUBTOTALS			4	54	264	153	10	27	0	378	215	152	285	443	546	235	112	68	180				

3

STORM SEWER PIPE ITEMS (CONTINUED)

	STRUCTURE		520.8000 CONCRETE COLLARS FOR PIPE	608.0312 REINFORCED CONCRETE CLASS III 12-INCH	608.0315 REINFORCED CONCRETE CLASS III 15-INCH	608.0318 REINFORCED CONCRETE CLASS III 18-INCH	608.0324 REINFORCED CONCRETE CLASS III 24-INCH	608.0330 REINFORCED CONCRETE CLASS III 30-INCH	608.0348 REINFORCED CONCRETE CLASS III 48-INCH	608.0412 REINFORCED CONCRETE CLASS IV 12-INCH	608.0415 REINFORCED CONCRETE CLASS IV 15-INCH	608.0418 REINFORCED CONCRETE CLASS IV 18-INCH	608.0424 REINFORCED CONCRETE CLASS IV 24-INCH	608.0430 REINFORCED CONCRETE CLASS IV 30-INCH	608.0436 REINFORCED CONCRETE CLASS IV 36-INCH	608.0448 REINFORCED CONCRETE CLASS IV 48-INCH	SPV.0090.17 OPEN CUT STEEL PIPE 48-INCH	SPV.0090.18 BORE AND JACK STEEL PIPE 48-INCH	SPV.0090.19 CURED IN PLACE LINER FOR STEEL PIPE 48-INCH				
CATEGORY	FROM	TO	EACH	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT	COMMENTS
0010	A35.8	A35.7	-	-	-	-	-	-	-	-	108	-	-	-	-	-	-	-	-	-	1285.08	1277.54	0.0700	
	A35.9	A35.6	-	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	1282.49	1277.23	0.1300	
	A36	A40	-	-	-	-	-	-	-	-	-	-	159	-	-	-	-	-	-	-	1291.69	1275.48	0.1017	
	A36.1	A36	-	-	-	-	-	-	-	-	29	-	-	-	-	-	-	-	-	-	1292.58	1292.23	0.0120	
	A36.2	A36.1	-	-	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1295.57	1292.58	0.0900	
	A36.3	A36.2	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1297.35	1295.82	0.0900	
	A37	A36	-	-	-	-	-	-	-	-	-	-	175	-	-	-	-	-	-	-	1307.98	1291.70	0.0930	
	A37.1	A37	-	-	-	-	-	-	-	-	-	-	64	-	-	-	-	-	-	-	1312.96	1307.98	0.0780	
	A37.2	A37.1	-	-	-	-	25	-	-	-	-	-	-	-	-	-	-	-	-	-	1317.18	1312.96	0.1690	
	A38	A37	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	1313.65	1308.48	0.0930	
	A39	A38	-	-	-	-	-	-	-	-	-	125	-	-	-	-	-	-	-	-	1326.53	1313.65	0.1030	
	A40	A35	-	-	-	-	-	-	-	-	-	-	31	-	-	-	-	-	-	-	1275.48	1272.32	0.1020	
SUBTOTALS			0	17	33	0	25	0	0	40	137	181	429	0	0	0	0	0	0					
PROJECT TOTALS			10	100	319	227	35	27	209	656	451	382	714	690	546	739	112	68	180					

STORM SEWER STRUCTURE ITEMS

CATEGORY	STRUCTURE	STATION	OFFSET	**** JOINT TIES EACH*	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 24-INCH EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 TYPE H EACH	611.1003 CATCH BASINS 3-FT DIAMETER EACH	611.1004 4-FT DIAMETER EACH	611.1230 2X3-FT EACH	611.2003 MANHOLES 3-FT DIAMETER EACH	611.2004 4-FT DIAMETER EACH	611.2005 5-FT DIAMETER EACH	611.2006 6-FT DIAMETER EACH	611.2007 7-FT DIAMETER EACH	611.2008 8-FT DIAMETER EACH	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH FT
0010	A22	13+66	17.6' LT	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1210.33	1195.03	15.30
	A22.1	13+76	36.6' LT	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	1209.90	1203.21	6.69
	A22.2	13+29	44.2' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1210.01	1203.92	6.09
	A22.3	13+09	24.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1210.39	1204.21	6.18
	A22.4	13+92	23.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1210.01	1203.68	6.33
	A22.5	14+09	23.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1210.02	1204.42	5.60
	A23	14+80	17.0' LT	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1210.52	1196.02	14.50
	A23.1	14+83	39.7' RT	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	1210.71	1204.30	6.41
	A23.2	14+56	40.3' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1210.57	1204.97	5.60
	A23.3	15+02	23.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1210.45	1204.45	6.00
	A24	16+59	16.9' LT	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1211.24	1197.38	13.86
	A24.1	16+79	36.9' LT	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	1210.67	1204.27	6.40
	A24.2	16+77	44.8' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1210.49	1204.90	5.59
	A24.3	16+42	43.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1210.74	1205.14	5.60
	A24.4	17+00	23.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1211.24	1205.34	5.90
	A25	17+00	11.0' RT	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1211.52	1204.23	7.29
	A25.1	17+00	23.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1211.24	1205.66	5.58
	A26	18+34	11.0' RT	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1212.06	1204.90	7.16
	A26.1	18+34	33.0' RT	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	1211.93	1207.95	3.98
	A26.2	18+51	38.8' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1211.81	1206.38	5.43
	A26.3	18+74	23.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1211.94	1206.66	5.28
	A27	21+55	11.0' RT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	1213.81	1206.51	7.30
	A27.1	21+55	23.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1213.53	1207.94	5.59
	A27.2	101+25	17.0' RT	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	1213.01	1207.62	5.39
	A27.3	102+25	20.5' RT	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	1214.56	1207.95	6.61
	A27.4	103+50	17.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1215.11	1208.99	6.12
	A27.5	103+50	17.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1215.11	1209.52	5.59
	A27.6	101+25	26.7' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1212.82	1206.97	5.85
	A27.7	101+16	27.7' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1212.98	1207.30	5.68
	A28	23+90	10.6' RT	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1216.29	1207.68	8.61
	A28.1	23+90	37.5' RT	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	1215.63	1209.11	6.52
	A28.2	104+66	94.0' LT	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	1216.00	1210.05	5.95
	A28.3	104+85	66.1' LT	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1214.90	1208.60	6.30
	A28.4	106+05	8.0' LT	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	1217.71	1211.74	5.97
	A28.5	106+08	22.0' RT	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1216.50	1210.22	6.28
	A29	24+77	9.0' RT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	1216.88	1208.11	8.77
	A29.1	24+38	18.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1216.37	1210.78	5.59
	A29.2	24+78	18.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1216.67	1211.08	5.59
	A30	25+86	8.1' RT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	1217.52	1208.66	8.86
	A30.1	25+77	18.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1217.22	1210.77	6.45
	A30.2	25+85	40.0' RT	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1216.00	1211.00	5.00
	A30.3	25+86	19.4' LT	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	1217.72	1211.30	6.42
	A30.4	25+53	19.2' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1217.20	1211.61	5.59
	A30.5	26+34	23.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1218.18	1212.60	5.58
	A30.6	25+89	18.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1217.31	1211.72	5.59
	A31	28+58	8.0' RT	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1221.20	1214.28	6.92
	A31.1	28+75	23.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1222.07	1216.32	5.75
	A31.2	28+58	18.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1220.96	1213.94	7.02
	A32	31+32	8.0' RT	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1227.23	1220.47	6.76
	A32.1	31+49	38.7' LT	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	1229.01	1223.80	5.21
	A32.2	31+32	18.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1226.99	1221.40	5.59
	A32.3	31+41	38.4' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1228.57	1222.99	5.58
	A32.4	31+77	39.6' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1229.86	1223.13	6.73
	SUBTOTALS			0	0	0	18	3	32	3	2	28	0	4	2	3	8	3			

STORM SEWER STRUCTURE ITEMS (CONTINUED)

					522.1018	522.1024*	611.0535	611.0612	611.0624	611.1003	611.1004	611.1230	611.2003	611.2004	611.2005	611.2006	611.2007	611.2008			
				****	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE		MANHOLE COVERS TYPE	INLET COVERS		CATCH BASINS			MANHOLES								
				JOINT																	
				TIES	18-INCH	24-INCH	J-SPECIAL	TYPE C	TYPE H	3-FT DIAMETER	4-FT DIAMETER	2X3-FT	3-FT DIAMETER	4-FT DIAMETER	5-FT DIAMETER	6-FT DIAMETER	7-FT DIAMETER	8-FT DIAMETER	RIM**	INVERT***	DEPTH
CATEGORY	STRUCTURE	STATION	OFFSET	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	ELEVATION	ELEVATION	FT
0010	A32.5	31+86	24.8' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1229.14	1223.56	5.58
	A32.6	31+94	23.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1229.42	1223.64	5.78
	A33	33+90	8.0' RT	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	1238.37	1231.79	6.58
	A33.1	34+05	23.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1239.85	1234.26	5.59
	A33.2	33+93	18.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1238.34	1232.75	5.59
	A33.3	34+05	18.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1239.13	1233.53	5.60
	A34	35+75	8.0' RT	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	1252.97	1247.14	5.83
	A34.1	35+75	23.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1253.47	1247.62	5.85
	A34.2	35+75	43.0' LT	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1253.10	1247.82	5.28
	A34.3	35+75	18.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1252.73	1247.14	5.59
	A35	38+10	8.0' RT	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	1277.42	1272.32	5.10
	A35.1	38+21	40.5' LT	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	1279.06	1272.32	6.74
	A35.2	38+21	48.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1279.81	1273.06	6.75
	A35.3	38+61	49.4' LT	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1281.08	1275.32	5.76
	A35.4	38+54	34.7' LT	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	1281.15	1274.91	6.24
	A35.5	38+71	18.5' LT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1283.66	1277.32	6.34
	A35.6	38+58	35.3' RT	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	1281.96	1274.73	7.23
	A35.7	38+58	43.3' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1282.06	1275.54	6.52
	A35.8	39+65	48.8' RT	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1288.32	1283.08	5.24
	A35.9	38+95	18.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1286.11	1280.49	5.62
	A36	40+00	8.0' RT	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1296.66	1291.70	4.96
	A36.1	40+17	31.7' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1297.99	1290.58	7.41
	A36.2	40+50	35.0' RT	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1299.44	1293.57	5.87
	A36.3	40+50	18.5' RT	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1301.11	1295.35	5.76
	A37	41+75	8.0' RT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	1313.11	1307.98	5.13
	A37.1	42+25	31.7' LT	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	1317.70	1312.96	4.74
	A37.2	42+50	31.7' LT	12	-	1	-	-	-	-	-	-	-	-	-	-	-	-	---	1317.18	---
	A38	42+25	32.3' RT	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	1316.97	1311.65	5.32
	A39	43+50	31.7' RT	12	1	-	-	-	-	-	-	-	-	-	-	-	-	-	---	1326.53	---
	A40	38+41	8.0' RT	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1280.71	1275.48	5.23
SUBTOTALS				24	1	1	7	5	16	4	4	13	1	0	2	1	2	1			
TOTALS				24	1	1	25	8	48	7	6	41	1	4	4	4	10	4			
PROJECT TOTALS					1	3	25	8	48	7	6	41	1	4	4	4	10	4			

*ADDITIONAL QUANTITIES LISTED ELSEWHERE: SEE DRIVEWAY CULVERT PIPE ITEMS

**RIM ELEVATION IS GIVEN TO THE FLOW LINE FOR STRUCTURES PLACED IN THE CURB & GUTTER.

***FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE.

****NOT A BID ITEM. QUANTITY SHOWN FOR INFORMATION ONLY.

RIPRAP ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	606.0100 RIPRAP LIGHT CY	606.0200 RIPRAP MEDIUM CY	606.0300 RIPRAP HEAVY CY	645.0120 GEOTEXTILE TYPE HR SY	645.0130 GEOTEXTILE TYPE R SY
0010	TOWNLINE RD	38+55	-	41+85	LT	--	176	--	502	--
		42+25	-	43+45	LT	--	--	130	208	--
		43+55	-	48+40	LT	--	--	515	826	--
		48+70	-	50+55	LT	--	136	--	363	--
		33+77	-	34+70	RT	39	--	--	--	150
		34+91	-	35+25	RT	12	--	--	--	50
		43+36	-	44+13	RT	--	50	--	138	--
		44+29	-	44+40	RT	--	5	--	19	--
		44+53	-	44+91	RT	--	25	--	70	--
		45+02	-	46+16	RT	--	75	--	206	--
		46+27	-	47+00	RT	--	56	--	151	--
		47+16	-	47+52	RT	--	25	--	70	--
		47+77	-	48+52	RT	--	52	--	143	--
		48+76	-	50+57	RT	--	115	--	294	--
	PROJECT TOTALS					51	715	645	2,990	200

DUST CONTROL SURFACE TREATMENT

CATEGORY	LOCATION	623.0200 SY
0010	PROJECT	19,680
	PROJECT TOTAL	19,680

EROSION CONTROL MOBILIZATION

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT	8	5
	PROJECT TOTALS	8	5

EROSION CONTROL ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.2023 EROSION MAT CLASS II TYPE B SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH
0010	TOWNLINE RD	10+74	-	13+50	LT	--	--	20	--	2	--	3	--	--	--
		13+50	-	16+50	LT	--	--	120	--	3	--	5	--	--	--
		16+50	-	24+00	LT	--	--	310	--	3	--	5	--	--	--
		24+00	-	26+00	LT	--	--	90	--	2	--	4	--	--	--
		26+00		27+00	LT	--	--	40		1	--	2	--	--	--
		27+00	-	31+50	LT	--	--	270	--	2	--	3	--	--	--
		31+50	-	34+00	LT	--	--	110	--	3	--	3	--	--	--
		34+00		38+25	LT	--	--	230	--	3	--	4	--	--	--
		38+25	-	42+00	LT	--	--	390	130	2	1	3	25	--	--
		42+00	-	43+50	LT	--	--	--	30	--	--	--	13	3	--
		43+50	-	46+75	LT	--	--	--	110	--	--	--	38	3	--
		46+75		48+50	LT	--	--	--	10	--	--	--	38	--	--
		48+50	-	50+57	LT	--	--	--	10	--	--	--	25	3	--
		11+25	-	14+75	RT	--	--	140	--	2	--	4	--	--	--
		14+75	-	18+30	RT	--	--	130	--	3	--	4	--	--	--
		18+30	-	22+00	RT	--	--	100	--	2	--	3	--	--	--
		22+00	-	25+50	RT	--	--	210	--	1	--	1	--	--	--
		25+50	-	27+00	RT	--	--	70	--	2	1	3	--	--	--
		27+00		34+00	RT			430	--	3	--	4			
		34+00	-	38+75	RT	--	--	390	--	4	--	5	--	--	--
		38+75	-	43+10	RT	--	--	350	710	3	3	3	13	--	--
		43+10		49+10	RT	--	--	--	200	--	--	--	25	--	--
		49+10	-	50+57	RT	--	--	--	--	--	--	--	25	21	--
	CURLING WAY	100+30	-	106+29	LT	450	450	220	--	2	1	2	--	--	--
		100+30	-	106+29	RT	450	450	410	--	3	--	3	--	--	--
	EX CURLING WAY	--		--	--	--	--	--	--	--	4	1	--	--	--
	UNDISTRIBUTED					225	225	1,010	300	12	3	16	53	50	100
	PROJECT TOTALS					1,125	1,125	5,040	1,500	58	13	81	255	80	100

3

RESTORATION ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0140 SEEDING MIXTURE NO. 40 LB	SPV.0030.01 FERTILIZER FOR LAWN TYPE TURF CWT	SPV.0180.01 PREPARING TOPSOIL FOR LAWN TYPE TURF SY	631.0300 SOD WATER MGAL	COMMENTS
0010	TOWNLINE RD	10+74	-	13+50	LT	88	74	--	--	0.6	0.1	88	2	
		13+50	-	16+50	LT	244	123	--	--	1.8	0.2	243	6	
		16+50	-	24+00	LT	592	278	--	--	4.3	0.4	591	14	
		24+00	-	26+00	LT	102	9	--	--	0.7	0.1	101	3	
		26+00	-	27+00	LT	50	13	--	--	1.0	--	50	2	
		27+00	-	31+50	LT	426	161	--	--	3.1	0.3	426	10	
		31+50	-	34+00	LT	184	70	--	--	1.3	0.1	184	5	
		34+00	-	38+25	LT	360	128	--	--	2.6	0.2	360	9	
		38+25	-	42+00	LT	525	--	--	--	3.8	0.3	524	12	
		42+00	-	43+50	LT	26	--	--	--	0.7	0.1	26	1	
		43+50	-	46+75	LT	109	--	0.2	2.3	--	--	--	--	
		46+75	-	48+50	LT	6	--	--	--	0.7	0.1	6	1	
		48+50	-	50+57	LT	12	--	--	--	0.9	0.1	11	1	
		10+74	-	14+75	RT	243	102	--	--	1.7	0.2	242	6	
		14+75	-	18+30	RT	270	140	--	--	1.9	0.2	269	7	
		18+30	-	22+00	RT	195	96	--	--	1.4	0.1	195	5	
		22+00	-	25+50	RT	293	83	--	--	2.1	0.2	292	7	
		25+50	-	27+00	RT	135	68	--	--	1.0	0.1	134	4	
		27+00	-	34+00	RT	446	17	--	--	3.2	0.3	446	11	
		34+00	-	38+75	RT	551	164	--	--	4.0	0.3	550	13	
		38+75	-	43+10	RT	1,055		--	--	7.6	0.7	1,055	24	
		43+10	-	49+10	RT	200	--	--	--	3.4	0.3	198	5	
		49+10	-	50+57	RT	5	--	0.1	0.8	--	--	5	1	
	CURLING WAY	100+00	-	106+29	LT	984	762	--	--	7.1	0.6	984	23	
		100+00	-	106+29	RT	1,776	1,372	--	--	12.8	1.1	1,776	40	
	EX CURLING WAY	--	--	--	--	1,408	1,408	--	--	10.1	31.6	1,408	32	OBLITERATING ROADWAY
	UNDISTRIBUTED					2,570	1,252	0.2	0.9	20.2	9.3	2,541	61	
	PROJECT TOTALS					12,855	6,315	0.5	4.0	98.0	47.0	12,705	305	

TYPE II SIGNS AND SUPPORTS

CATEGORY	SIGN NUMBER	STATION	OFFSET	SIGN CODE	SIGN SIZE	SIGN TYPE	SIGN DIMENSION IN	X	IN	DESCRIPTION	634.0812 POSTS TUBULAR STEEL 2X2-INCH X 12-FT EACH	634.0814 POSTS TUBULAR STEEL 2X2-INCH X 14-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	SIGN MOUNTED ON SAME POST AS SIGN NO.
0010	1-01	11+28	RT	R3-17	2S	II	30	X	24	BIKE LANE (BIKE SYMBOL)	1	--	5.00	
	1-02	11+28	RT	R3-17A	2S	II	30	X	12	BIKE LANE AHEAD PLAQUE	--	--	2.50	1-01
	1-03	11+73	LT	W11-1	2S	II	30	X	30	BIKE WARNING SIGN	--	1	6.25	
	1-04	11+73	LT	W16-1P	2S	II	24	X	30	SHARE THE ROAD	--	--	5.00	1-03
	1-05	12+50	LT	M1-5A	2S	II	24	X	24	COUNTY N	1	--	4.00	
	1-06	12+50	LT	M6-1	2S	II	21	X	21	ARROW RIGHT	1	--	3.06	1-05
	1-07	13+27	LT	R1-1	2S	II	30	X	30	STOP SIGN	1	--	5.18	
	1-08	14+38	RT	R5-2	2S	II	24	X	24	NO TRUCKS SYMBOL	1	--	4.00	
	1-09	14+38	RT	R3-1	2S	II	24	X	24	NO RIGHT TURN	--	--	4.00	1-08
	1-10	14+54	LT	R3-17	2S	II	30	X	24	BIKE LANE (BIKE SYMBOL)	1	--	5.00	
	1-11	14+54	LT	R3-17B	2S	II	30	X	12	BIKE LANE ENDS PLAQUE	--	--	2.50	1-10
	1-12	14+54	LT	R3-17A	2S	II	30	X	12	BIKE LANE AHEAD PLAQUE	--	--	2.50	1-10
	1-13	14+88	RT	R1-1	2S	II	30	X	30	STOP SIGN	1	--	5.18	
	1-14	15+35	RT	R2-1	2S	II	24	X	30	SPEED LIMIT 25	1	--	5.00	
	1-15	15+45	LT	R5-2	2S	II	24	X	24	NO TRUCKS SYMBOL	1	--	4.00	
	1-16	15+45	LT	R3-2	2S	II	24	X	24	NO LEFT TURN	--	--	4.00	1-15
	1-17	16+38	LT	R1-1	2S	II	30	X	30	STOP SIGN	1	--	5.18	
	1-18	18+08	RT	R5-2	2S	II	24	X	24	NO TRUCKS SYMBOL	1	--	4.00	
	1-19	18+08	RT	R3-1	2S	II	24	X	24	NO RIGHT TURN	--	--	4.00	1-18
	1-20	18+56	RT	R1-1	2S	II	30	X	30	STOP SIGN	1	--	5.18	
	2-01	22+70	RT	W10-1	2S	II	36	X	36	RAILROAD CROSSING	--	1	7.07	
	2-02	22+70	RT	W10-9P	2S	II	30	X	24	NO TRAIN HORN	--	--	5.00	2-01
	2-03	22+70	RT	--	2S	II	24	X	12	7 PM TO 7 AM	--	--	2.00	2-01
	2-04	25+55	LT	R1-1	2S	II	30	X	30	STOP SIGN	1	--	5.18	
	2-05	26+11	RT	W11-2	2S	II	30	X	30	PEDESTRIAN CROSSING	1	--	6.25	
	2-06	26+11	RT	S16-7L	2S	II	24	X	12	ARROW DOWN LEFT	--	--	2.00	2-05
	2-07	26+32	LT	W11-2	2S	II	30	X	30	PEDESTRIAN CROSSING	1	--	6.25	
	2-08	26+32	LT	S16-7L	2S	II	24	X	12	ARROW DOWN LEFT	--	--	2.00	2-07
	2-09	27+37	LT	W10-1	2S	II	36	X	36	RAILROAD CROSSING	--	1	7.07	
	2-10	27+37	LT	W10-9P	2S	II	30	X	24	NO TRAIN HORN	--	--	5.00	2-09
	2-11	27+37	LT	--	2S	II	24	X	12	7 PM TO 7 AM	--	--	2.00	2-09
	2-12	27+99	LT	R7-5R	2S	II	18	X	24	2 HOUR PARKING 8 AM - 6 PM	1	--	3.00	
	2-13	29+64	RT	R2-1	2S	II	24	X	30	SPEED LIMIT 35	1	--	5.00	
	2-14	29+80	LT	R2-1	2S	II	24	X	30	SPEED LIMIT 25	--	1	5.00	
	2-15	29+80	LT	R7-5R	2S	II	18	X	24	2 HOUR PARKING 8 AM - 6 PM	--	--	3.00	2-14
	2-16	31+38	LT	R1-1	2S	II	30	X	30	STOP SIGN	1	--	5.18	
	2-17	33+80	RT	R1-1	2S	II	30	X	30	STOP SIGN	1	--	5.18	
	3-01	38+18	LT	R1-1	2S	II	30	X	30	STOP SIGN	1	--	5.18	
	3-02	42+50	RT	R3-17	2S	II	30	X	24	BIKE LANE (BIKE SYMBOL)	1	--	5.00	
	3-03	42+50	RT	R3-17B	2S	II	30	X	12	BIKE LANE ENDS PLAQUE	--	--	2.50	3-02
	3-04	42+50	RT	R3-17A	2S	II	30	X	12	BIKE LANE AHEAD PLAQUE	--	--	2.50	3-02
	4-01	48+37	LT	R1-1	2S	II	30	X	30	STOP SIGN	1	--	5.18	
	5-01	22+33	RT	R1-1	2S	II	30	X	30	STOP SIGN	1	--	5.18	
	5-02	105+75	LT	W3-1	2S	II	36	X	36	STOP AHEAD	--	1	9.00	
PROJECT TOTALS											23	5	196.25	

NOTE: SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE PLACED PER MUTCD REQUIREMENTS AND AS DIRECTED BY THE ENGINEER

REMOVING SIGNS AND SUPPORTS

CATEGORY	LOCATION	STATION	OFFSET	SIGN NUMBER	SIGN MESSAGE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
0010	TOWNLINE RD	12+83	LT	R1-01	COUNTY N	1	1	
	TOWNLINE RD	12+83	LT	--	RIGHT ARROW	--	--	SAME POST AS R1-01
	PROSPECT AVE	13+28	LT	R1-02	STOP	1	1	
	TOWNLINE RD	14+40	RT	R1-03	NO TRUCKS	1	1	
	TOWNLINE RD	14+40	RT	--	NO RIGHT TURN	--	--	SAME POST AS R1-03
	PROSPECT AVE	14+88	RT	R1-04	STOP	1	1	
	TOWNLINE RD	15+32	RT	R1-05	SPEED LIMIT 25	1	1	
	ARTHUR ST	16+40	LT	R1-06	STOP	1	1	
	TOWNLINE RD	16+96	LT	R1-07	BUS STOP	1	--	SIGN ON LIGHT POLE
	TOWNLINE RD	18+11	RT	R1-08	NO TRUCKS	1	1	
	TOWNLINE RD	18+11	RT	--	NO RIGHT TURN	--	--	SAME POST AS R1-08
	TORNEY AVE	18+55	RT	R1-09	STOP	1	1	
	TORNEY AVE	18+55	RT	--	BUS STOP	--	--	SAME POST AS R1-09
	TOWNLINE RD	19+64	LT	R1-10	SPEED LIMIT 25	1	1	
	TOWNLINE RD	21+35	RT	R1-11	RAILROAD CROSSING	1	1	
	TOWNLINE RD	21+35	RT	--	NO TRAIN HORN	--	--	SAME POST AS R1-11
	TOWNLINE RD	21+35	RT	--	7 PM TO 7 AM	--	--	SAME POST AS R1-11
	EX CURLING WAY	24+29	RT	R2-01	STOP	1	1	
	EX CURLING WAY	24+86	RT	R2-02	STOP	1	1	
	EX CURLING WAY	25+00	RT	R2-03	DO NOT ENTER	1	1	
	S 10TH ST	25+53	LT	R2-04	STOP	1	1	
	TOWNLINE RD	25+82	RT	R2-05	SCHOOL CROSSING	1	1	
	TOWNLINE RD	26+09	RT	R2-06	NO PARKING ON THIS SIDE	1	1	
	TOWNLINE RD	26+40	LT	R2-07	SCHOOL CROSSING	1	1	
	TOWNLINE RD	27+36	LT	R2-08	RAILROAD CROSSING	1	1	
	TOWNLINE RD	27+36	LT	--	NO TRAIN HORN	--	--	SAME POST AS R2-08
	TOWNLINE RD	27+36	LT	--	7 PM TO 7 AM	--	--	SAME POST AS R2-08
	TOWNLINE RD	27+97	LT	R2-09	2 HOUR PARKING 8 A.M. TO 8 P.M.	1	1	
	TOWNLINE RD	28+58	RT	R2-10	NO PARKING ANY TIME	1	--	SIGN ON UTILITY POLE
	TOWNLINE RD	29+66	RT	R2-11	SPEED LIMIT 35	1	1	
	TOWNLINE RD	29+79	LT	R2-12	SPEED LIMIT 25	1	1	
	TOWNLINE RD	29+79	LT	--	2 HOUR PARKING 8 A.M. TO 6 P.M.	--	--	SAME POST AS R2-12
	TOWNLINE RD	30+31	RT	R2-13	NO PARKING ON THIS SIDE	1	1	
	TOWNLINE RD	30+31	RT	--	BUS STOP	--	--	SAME POST AS R2-13
	S 12TH ST	31+38	LT	R2-14	STOP	1	1	
	NORTHWESTERN AVE	33+80	RT	R2-15	STOP	1	1	
	TOWNLINE RD	37+45	RT	R3-01	SPEED LIMIT 35	1	1	
	S 13TH ST	38+20	LT	R3-02	STOP	1	1	
	EASTHILL DR	48+35	LT	R4-01	STOP	1	1	
	CURLING WAY	105+62	LT	R5-01	RAILROAD CROSSING	1	1	
	PROJECT TOTALS					30	28	

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	DURATION DAYS	643.0310.S TEMPORARY PORTABLE RUMBLE STRIPS LS	643.5000 TRAFFIC CONTROL EACH	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 DAY	643.0420* TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420* DAY	643.0705* TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705* DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C NO.	643.0715 DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS NO.	643.0800 DAY	643.0900* TRAFFIC CONTROL SIGNS NO.	643.0900* DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS NO.	643.1050 DAY	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	COMMENTS
0010	PROJECT	7	--	--	10	70	--	--	--	--	--	--	--	--	--	--	2	14	--	--	PRIOR TO PROJECT, PLACE AT EACH END OF TOWNLINE RD
	ADV SIGNING	140	--	--	--	--	38	5,320	62	8,680	--	--	--	--	48	6,720	--	--	--	--	INCLUDES MAINLINE & SIDE ROAD CLOSURES
	DETOUR	140	--	--	10	1,400	1	140	2	280	--	--	--	--	208	29,120	--	--	--	--	CLOSE SB BUS 51/GRAND AVE LT TURN LANE
	GRAND AVE/BUS 51	5	--	--	200	1,000	6	30	12	60	100	500	2	10	51	255	--	--	225	225	
	PROJECT	140	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	SUBTOTALS		1	1		2,470		5,490		9,020		500		10		36,095		14	225	225	
	PROJECT TOTALS		1	1		2,470		5,922		9,802		500		10		36,661		14	225	225	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE: SEE TEMPORARY PEDESTRIAN ITEMS

TEMPORARY PEDESTRIAN ITEMS

CATEGORY	STAGE	LOCATION	DURATION DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II NO.	643.0410 DAY	643.0420* TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420* DAY	643.0705* TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705* DAY	643.0900* TRAFFIC CONTROL SIGNS NO.	643.0900* DAY	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1601.S TEMPORARY CURB RAMP EACH	COMMENTS
0010	1	BUS 51/GRAND AVE UTILITY WORK	5	7	35	4	20	11	55	9	45	--	--	USE WEST SIDE OF BUS 51/GRAND AVE
	1	PROSPECT AVE NW RAMP	7	3	21	4	28	7	49	5	35	180	3	USE E SIDE OF PROSPECT AVE & S SIDE OF TOWNLINE RD
	1	PROSPECT AVE NE RAMP	7	3	21	4	28	7	49	5	35	180	3	USE W SIDE OF PROSPECT AVE & S SIDE OF TOWNLINE RD
	1	PROSPECT AVE SW RAMP	7	3	21	4	28	7	49	5	35	180	3	USE E SIDE OF PROSPECT AVE & N SIDE OF TOWNLINE RD
	1	PROSPECT AVE SE RAMP	7	3	21	4	28	7	49	5	35	180	3	USE W SIDE OF PROSPECT AVE & N SIDE OF TOWNLINE RD
	1	ARTHUR NW RAMP	7	3	21	4	28	7	49	5	35	180	3	USE E SIDE OF ARTHUR ST & S SIDE OF TOWNLINE RD
	1	ARTHUR NE RAMP	7	3	21	4	28	7	49	5	35	180	3	USE W SIDE OF ARTHUR ST & S SIDE OF TOWNLINE RD
	1	TORNEY AVE SW RAMP	7	3	21	4	28	7	49	5	35	180	5	USE E SIDE OF TORNEY AVE & N SIDE OF TOWNLINE RD
	1	TORNEY AVE SE RAMP	7	3	21	4	28	7	49	5	35	180	5	USE W SIDE OF TORNEY AVE & N SIDE OF TOWNLINE RD
	1	RAILROAD CROSSING	14	2	28	4	56	6	84	4	56	240	4	COMPLETE ON SIDE AT A TIME
	1	S 10TH ST NW RAMP	7	3	21	4	28	7	49	5	35	180	3	USE E SIDE OF S 10TH ST & S SIDE OF TOWNLINE RD
	1	S 10TH ST NE RAMP	7	3	21	4	28	7	49	5	35	350	4	USE E SIDE OF S 10TH ST & S SIDE OF TOWNLINE RD
	2	S 12TH ST NW RAMP	7	2	14	4	28	6	42	4	28	240	4	USE S SIDE OF TOWNLINE RD (NEW SIDEWALK)
	2	S 12TH ST NE RAMP	7	2	14	4	28	6	42	4	28	240	4	USE S SIDE OF TOWNLINE RD (NEW SIDEWALK)
	3	S 13TH ST NW RAMP	7	4	28	2	14	6	42	5	35	--	--	USE S SIDE OF TOWNLINE RD (NEW SIDEWALK)
		UNDISTRIBUTED	--	--	21	--	6	--	27	--	24	110	3	
	SUBTOTALS				350		432		782		566	2,800	50	
	PROJECT TOTALS				350		5,922		9,802		36,661	2,800	50	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE: SEE TRAFFIC CONTROL ITEMS

3

TRAFFIC CONTROL COVERING SIGNS

CATEGORY	LOCATION	NUMBER OF CYCLES	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II NO.	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	COMMENTS
0010	JCT N ON BUS 51/GRAND AVE	1	1	1	DETOUR SIGN Y
	CTH N DIRECTIONAL ON BUS 51/GRAND AV	1	1	1	DETOUR SIGN Z
	CTH N DIRECTIONAL ON BUS 51/GRAND AV	1	1	1	DETOUR SIGN AA
	CTH N DIRECTIONAL ON BUS 51/GRAND AV	1	1	1	DETOUR SIGN BB
	PROJECT TOTAL			4	

FENCE SAFETY

CATEGORY	LOCATION	616.0700.S FENCE SAFETY LF
0010	UNDISTRIBUTED	300
	PROJECT TOTAL	300

WATER

CATEGORY	LOCATION	624.0100 WATER MGAL
0010	BASE AGG COMPACTION	157
	COMMON EXCAVATION	54
	BORROW	5
	PROJECT TOTAL	216

3

CONSTRUCTION STAKING

CATEGORY	LOCATION	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.8500.01 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (6999-18-71) LS	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (6999-18-71) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	PROJECT	83	--	--	1	1	--
	TOWNLINE RD	--	3,951	3,951	--	--	3,951
	CURLING WAY	--	609	609	--	--	609
	PROJECT TOTALS	83	4,560	4,560	1	1	4,560

LONG LINE PAVEMENT MARKING ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	646.1020 MARKING LINE EPOXY 4-INCH 3' LINE 9' SKIP LF	646.1020 MARKING LINE EPOXY 4-INCH SOLID YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH SOLID WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH SOLID WHITE LF
0010	TOWNLINE RD	10+50	-	27+00	135	2,207	3,539	237
		27+00	-	33+80	45	1,106	1,505	--
		33+80	-	50+57	15	3,075	3,058	--
	CURLING WAY	100+40	-	106+00	30	1,128	1,130	--
	PROJECT TOTALS					16,973		237

3

MISCELLANEOUS PAVEMENT MARKING ITEMS

					646.5020	646.5120	646.5220	646.5320	646.6020	646.6220	646.7420	
CATEGORY	STATION	TO	STATION	OFFSET	MARKING ARROW EPOXY EACH	MARKING WORD EPOXY EACH	MARKING SYMBOL EPOXY EACH	MARKING RAILROAD CROSSING EPOXY EACH	MARKING STOP LINE EPOXY 12-INCH LF	MARKING YIELD LINE EPOXY 18-INCH EACH	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	COMMENTS
0010	10+50	-	11+00	RT/LT	--	--	--	--	--	--	150	CROSSWALKS
	10+50	-	13+50	LT	4	2	1	--	11	14	--	RT/LT TURN LANES
	11+63	-	14+50	RT	2	--	2	--	--	--	--	BIKE LANE
	13+24	-	13+79	LT	--	--	--	--	21	--	97	PROSPECT AVE
	13+90	-	16+28	LT	1	3	1	--	--	--	--	BIKE LANE
	14+54	-	14+88	RT	--	--	--	--	13	--	58	PROSPECT AVE
	15+00	-	18+15	RT	2	--	2	--	--	--	--	BIKE LANE
	16+41	-	16+81	LT	--	--	--	--	16	--	157	ARTHUR ST
	16+96	-	24+00	LT	3	--	3	--	--	--	--	BIKE LANE
	18+21	-	18+53	RT	--	--	--	--	12	--	55	TORNEY AVE
	18+66	-	21+38	RT	2	--	2	--	--	--	--	BIKE LANE
	21+15	-	21+22	RT/LT	--	--	--	--	--	--	84	TOWNLINE
	21+53	-	22+43	RT	--	--	--	--	32	--	161	CURLING WAY
	22+50	-	24+00	RT	1	--	1	1	--	--	--	RR MARKING AND BIKE LANE
	24+22	-	25+43	RT/LT	2	--	2	--	--	--	--	BIKE LANES THRU RR
	25+65	-	26+24	RT/LT	--	--	--	--	19	--	183	S 10TH ST
	26+24	-	33+26	RT	3	--	3	--	--	--	--	BIKE LANE
	26+24	-	31+26	LT	3	--	3	1	--	--	--	RR MARKING AND BIKE LANE
	31+39	-	31+79	LT	--	--	--	--	17	--	72	S 12TH ST
	31+92	-	33+26	LT	1	--	1	--	--	--	--	BIKE LANE
	33+26	-	33+77	RT/LT	--	--	--	--	17	--	152	NORTHWESTERN AVE
	33+91	-	38+06	RT/LT	4	--	4	--	--	--	--	BIKE LANES
	38+06	-	38+54	RT/LT	--	--	--	--	--	--	76	S 13TH ST
	38+54	-	50+57	LT	2	--	2	--	--	--	--	BIKE LANE
	38+93	-	50+57	RT	2	3	2	--	--	--	--	BIKE LANE
	PROJECT TOTALS				32	8	29	2	158	14	1,245	

3

LIGHTING - PULL BOXES

CATEGORY	LOCATION	STATION	OFFSET	653.0140 PULL BOXES STEEL 24X42-INCH EACH
0010	PB1	13+13.69	25.5' RT	1
	PROJECT TOTAL			1

LIGHTING - WIRE AND CONDUIT ITEMS

CATEGORY	FROM	TO	652.0220 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF	COMMENTS
0010	L-001	PB1	139	--	427	
	PB1	L-002	12	--	46	
	CONTROL CABINET	SERVICE	--	25	--	STUB OUT FOR SERVICE
	CONTROL CABINET	PB1	60	--	370	
	L-002	L-003	185	--	565	
	L-003	L-004	150	--	460	
	L-004	L-005	142	--	436	
	L-005	L-006	148	--	454	
	L-006	L-007	187	--	571	
	L-007	L-008	214	--	652	
	PROJECT TOTALS		1,237	25	3,981	

3

LIGHTING - POLES

CATEGORY	POLE ID	654.0105 CONCRETE BASES TYPE 5 EACH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0322 POLES TYPE 5-ALUMINUM EACH
0010	L-001	1	138	1	1
	L-002	1	138	1	1
	L-003	1	138	1	1
	L-004	1	138	1	1
	L-005	1	138	1	1
	L-006	1	138	1	1
	L-007	1	138	1	1
	L-008	1	138	1	1
	PROJECT TOTALS	8	1,104	8	8

LIGHTING - ARMS AND LUMINAIRES

CATEGORY	POLE ID	657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT EACH	659.1115 LUMINAIRES UTILITY LED A EACH
0010	L-001	1	1
	L-002	1	1
	L-003	1	1
	L-004	1	1
	L-005	1	1
	L-006	1	1
	L-007	1	1
	L-008	1	1
	PROJECT TOTALS	8	8

LIGHTING - CONTROL CABINET AND SERVICE ITEMS

CATEGORY	LOCATION	654.0224 CONCRETE CONTROL CABINET BASES TYPE L24 EACH	656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS	659.2124 LIGHTING CONTROL CABINETS 120/240 24-INCH EACH
0010	STA 13+13, LT	1	1	1
	PROJECT TOTALS	1	1	1

SAWING

CATEGORY	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
0010	TOWNLINE RD	10+32.39	LT	-	11+28.49	RT	--	246
	DRIVEWAY	11+87.37	LT	-	11+97	LT	16	--
	DRIVEWAY	12+06.77	LT	-	12+22.74	LT	--	16
	DRIVEWAY	12+12.36	RT	-	12+42.50	RT	22	8
	PROSPECT AVE	13+26.63	LT	-	13+62.09	LT	36	--
	DRIVEWAY	13+40.33	RT	-	13+52.05	RT	--	12
	DRIVEWAY	13+88.97	RT	-	13+99.45	RT	10	
	DRIVEWAY	14+29.30	LT	-	14+40.54	LT	--	11
	PROSPECT AVE	14+58.76	RT	-	14+84.92	RT	26	--
	DRIVEWAY	15+15.42	LT	-	15+35.42	LT	--	20
	ARTHUR ST	16+41.50	LT	-	16+70.42	LT	30	--
	DRIVEWAY	17+52.29	RT	-	17+61.23	RT	--	9
	DRIVEWAY	17+62.15	LT	-	17+81.21	LT	19	--
	DRIVEWAY	17+91.87	LT	-	18+01.69	LT	--	10
	DRIVEWAY	18+83.31	LT	-	18+95.63	LT	12	--
	DRIVEWAY	19+02.10	RT	-	19+15.93	RT	14	--
	DRIVEWAY	19+93.60	RT	-	20+01.34	RT	8	--
	DRIVEWAY	20+63.79	LT	-	20+85.19	LT	--	21
	DRIVEWAY	20+78.22	RT	-	20+98.83	RT	--	21
	DRIVEWAY	21+34.39	LT	-	21+45.57	LT	11	--
	S 10TH AVE	25+53.94	LT	-	25+99.34	LT	45	--
	DRIVEWAY	26+25.50	RT	-	26+60.18	RT	51	--
	DRIVEWAY	26+49.26	LT	-	26+66.20	LT	17	--
	DRIVEWAY	27+50.53	RT	-	27+80.22	RT	34	--
	DRIVEWAY	28+10.46	LT	-	28+20.23	LT	10	--
SUBTOTALS							204	374

SAWING (CONTINUED)

CATEGORY	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
0010	DRIVEWAY	28+56.11	LT	-	28+64.49	LT	8	--
	DRIVEWAY	29+08.98	LT	-	29+20.03	LT	12	--
	DRIVEWAY	30+09.83	LT	-	30+19.77	LT	--	10
	S 12TH ST	31+42.59	LT	-	31+74.84	LT	32	--
	DRIVEWAY	31+44.20	RT	-	31+80.05	RT	--	66
	DRIVEWAY	32+36.68	LT	-	32+46.46	LT	12	--
	NORTHWESTERN AVE	33+42.21	RT	-	33+74.48	RT	32	--
	DRIVEWAY	33+58.25	LT	-	33+73.36	LT	15	--
	DRIVEWAY	35+09.04	LT	-	35+33.64	LT	25	--
	DRIVEWAY	36+01.67	LT	-	36+19.41	LT	--	18
	DRIVEWAY	36+56.05	LT	-	36+65.92	LT	--	10
	S 13TH ST	38+23.17	LT	-	38+53.16	LT	30	--
	DRIVEWAY	38+59.80	RT	-	38+76.30	RT	18	4
	DRIVEWAY	40+17.11	RT	-	40+33.78	RT	17	4
	DRIVEWAY	41+42	RT	-	41+58.94	RT	17	4
	DRIVEWAY	41+82.77	LT	-	42+26.43	LT	44	--
	DRIVEWAY	43+01.24	RT	-	43+40.40	RT	39	--
	DRIVEWAY	44+13.15	RT	-	44+35.08	RT	25	--
	DRIVEWAY	47+00	RT	-	47+15.46	RT	--	15
	DRIVEWAY	47+52.42	RT	-	47+76.20	RT	24	--
	EASTHILL DR	48+41.62	LT	-	48+69.63	LT	28	--
	DRIVEWAY	48+51.80	RT	-	48+76.23	RT	24	--
	TOWNLINE RD	50+56.64	RT	-	50+56.64	LT	34	--
	CURLING WAY	106+28.65	LT	-	106+28.65	RT	28	--
	OUTWALKS	10+30	LT/RT	-	50+57	LT/RT	--	176
SUBTOTALS							668	681
PROJECT TOTALS							872	1,055

INCENTIVES

CATEGORY	LOCATION	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	740.0440 INCENTIVE IRI RIDE DOL
0010	PROJECT	3,460	2,994
	PROJECT TOTALS	3,460	2,994

MONUMENT ITEMS

CATEGORY	LOCATION	SPV.0060.01 RESEARCH AND LOCATE EXISTING PROPERTY MONUMENTS EACH	SPV.0060.02 VERIFY AND REPLACE EXISTING PROPERTY MONUMENTS EACH
0010	PROJECT	102	102
	PROJECT TOTALS	102	102

3

SANITARY SEWER MAIN AND LATERALS

CATEGORY	LOCATION	FROM	TO	SPV.0060.06 SANITARY SEWER PVC WYES LF	SPV.0090.01 SANITARY SEWER PVC-SDR35 6-INCH LF	SPV.0090.02 SANITARY SEWER PVC-SDR35 8-INCH LF	SPV.0090.03 SANITARY SEWER PVC-SDR35 10-INCH LF	SPV.0090.04 SANITARY SEWER PVC-SDR35 12-INCH LF	SPV.0090.05 SANITARY SEWER PVC-SDR35 15-INCH LF	SPV.0090.06 SANITARY SEWER PVC-SDR35 18-INCH LF	SPV.0090.07 SANITARY SEWER PVC-SDR35 15-INCH IN CASING LF	SPV.0090.15* OPEN CUT STEEL CASING PIPE 24-INCH LF	SPV.0090.16* BORE AND JACK STEEL CASING PIPE 24-INCH LF	SPV.0090.08 SANITARY SEWER LATERALS LF	SPV.0035.01* UTILITY TRENCH ROCK EXCAVATION CY	COMMENTS
0020	TOWNLINE RD	EXISTING	30	--	--	--	--	25	--	--	--	--	--	--	--	CONNECT TO EXISTING
	TOWNLINE RD	30	31	5	--	--	--	--	--	313	--	--	--	170	--	CONNECT TO EX SAN MH
	TOWNLINE RD	31	32	3	--	--	--	--	111	--	--	--	--	100	--	
	TOWNLINE RD	32	33	5	--	--	--	--	198	--	--	--	--	170	--	
	TOWNLINE RD	33	34	3	--	--	--	--	170	--	--	--	--	100	--	
	TOWNLINE RD	34	35	12	--	--	--	--	355	--	--	--	--	400	--	
	TOWNLINE RD	35	36	2	--	--	--	--	226	--	170	84	86	70	--	
	TOWNLINE RD	36	37	1	--	--	--	--	165	--	--	--	--	30	--	
	TOWNLINE RD	37	38	6	--	--	--	405	--	--	--	--	--	210	--	
	TOWNLINE RD	37	EXISTING	--	--	--	--	39	--	--	--	--	--	--	--	CONNECT TO EX 12-INCH SAN
	TOWNLINE RD	38	39	3	--	--	--	197	--	--	--	--	--	110	--	
	TOWNLINE RD	39	40	4	--	268	--	--	--	--	--	--	--	140	136	
	TOWNLINE RD	40	41	1	--	201	--	--	--	--	--	--	--	30	92	
	TOWNLINE RD	41	EXISTING	--	--	5	--	--	--	--	--	--	--	--	--	CONNECT TO EX 8-INCH SAN
	TOWNLINE RD	41	EXISTING	--	--	5	--	--	--	--	--	--	--	--	--	CONNECT TO EX 8-INCH SAN
	PROSPECT AVE	31	EXISTING	--	--	--	58	--	--	--	--	--	--	--	--	CONNECT TO EX 10-INCH SAN
	PROSPECT AVE	32	EXISTING	--	--	--	33	--	--	--	--	--	--	--	--	CONNECT TO EX 10-INCH SAN
	ARTHUR ST	33	EXISTING	--	--	--	--	54	--	--	--	--	--	--	--	CONNECT TO EX 12-INCH SAN
	TORNEY AVE	34	EXISTING	--	--	--	--	41	--	--	--	--	--	--	--	CONNECT TO EX 12-INCH SA N
	S 10TH ST	36	EXISTING	--	--	53	--	--	--	--	--	--	--	--	--	CONNECT TO EX SAN MH
	NORTHWESTERN AVE	39	EXISTING	--	5	--	--	--	--	--	--	--	--	--	--	CONNECT TO EX 6-INCH FORCEMAIN
	CURLING WAY	35	42	--	--	147	--	--	--	--	--	--	--	--	--	
	CURLING WAY	42	43	--	--	78	--	--	--	--	--	--	--	--	--	
	CURLING WAY	43	44	--	--	103	--	--	--	--	--	--	--	--	--	
	CURLING WAY	44	45	--	--	149	--	--	--	--	--	--	--	--	--	
	CURLING WAY	45	46	--	--	122	--	--	--	--	--	--	--	--	--	
	UNDISTRIBUTED														22	
	SUBTOTALS			45	5	1,131	91	761	1,225	313	170	84	86	1,530	250	
	PROJECT TOTALS			45	5	1,131	91	761	1,225	313	170	155	158	1,530	325	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE: SEE WATERMAIN ITEMS

SANITARY SEWER STRUCTURES

CATEGORY	LOCATION	STRUCTURE	SPV.0060.03 MANHOLE SANITARY 4-FT DIAMETER EACH	SPV.0060.04 SANITARY MANHOLE COVERS TYPE J-SPECIAL EACH	SPV.0060.05 RECONSTRUCTING SANITARY MANHOLES EACH	COMMENTS
0020	TOWNLINE RD	31	1	1	--	
	TOWNLINE RD	32	1	1	--	
	TOWNLINE RD	33	1	1	--	
	TOWNLINE RD	34	1	1	--	
	TOWNLINE RD	35	1	1	--	
	TOWNLINE RD	36	1	1	--	
	TOWNLINE RD	37	1	1	--	
	TOWNLINE RD	38	1	1	--	
	TOWNLINE RD	39	1	1	--	
	TOWNLINE RD	40	1	1	--	
	TOWNLINE RD	41	1	1	--	
	TOWNLINE RD	--	--	1	--	STA 10+47.21, 0.00' RT
	TOWNLINE RD	--	--	1	--	STA 25+67.02, 47.6' LT
	TOWNLINE RD	--	--	1	1	STA 38+91.57', 24.8' RT
	TOWNLINE RD	--	--	1	1	STA 42+29.22, 23.4' RT
	TOWNLINE RD	--	--	1	1	STA 45+62.12, 22.7' RT
	TOWNLINE RD	--	--	1	1	STA 46+53.89, 23.0' RT
	TOWNLINE RD	--	--	1	1	STA 49+10.11, 23.7' RT
	CURLING WAY	42	1	1	--	
	CURLING WAY	43	1	1	--	
	CURLING WAY	44	1	1	--	
	CURLING WAY	45	1	1	--	
	CURLING WAY	46	1	1	--	
PROJECT TOTALS			16	23	5	

WATERMAIN TEES

CATEGORY	LOCATION	STATION	OFFSET	SPV.0060.07 8X8X6-INCH EACH	SPV.0060.08 12X12X6-INCH EACH	SPV.0060.09 12X12X8-INCH EACH	SPV.0060.10 12X12X10-INCH EACH	SPV.0060.11 12X12X12-INCH EACH
0020	TOWNLINE RD	10+61	RT	--	--	--	--	1
	TOWNLINE RD	13+53	RT	--	--	--	--	1
	TOWNLINE RD	14+41	RT	--	1	--	--	--
	TOWNLINE RD	14+68	RT	--	--	1	--	--
	ARTHUR ST	16+38	LT	1	--	--	--	--
	TOWNLINE RD	16+55	LT	--	--	1	--	--
	TOWNLINE RD	18+44	LT	--	--	1	--	--
	TOWNLINE RD	22+03	LT	--	--	1	--	--
	TOWNLINE RD	22+40	LT	--	1	--	--	--
	TOWNLINE RD	24+61	LT	--	1	--	--	--
	TOWNLINE RD	26+06	LT	--	--	--	1	--
	TOWNLINE RD	26+23	LT	--	--	--	1	--
	TOWNLINE RD	28+02	LT	--	1	--	--	--
	TOWNLINE RD	28+98	LT	--	--	--	1	--
	TOWNLINE RD	31+66	LT	--	--	--	--	1
	TOWNLINE RD	33+67	LT	--	--	--	--	1
	TOWNLINE RD	33+81	LT	--	1	--	--	--
	TOWNLINE RD	38+03	LT	--	1	--	--	--
	TOWNLINE RD	38+37	LT	--	--	--	--	1
	TOWNLINE RD	38+90	RT	--	1	--	--	--
	TOWNLINE RD	39+02	RT	--	1	--	--	--
PROJECT TOTALS				1	8	4	3	5

WATERMAIN REDUCERS

CATEGORY	LOCATION	STATION	STATION	SPV.0060.20 8X4-INCH REDUCER EACH	SPV.0060.21 8X6-INCH REDUCER EACH	SPV.0060.22 10X8-INCH REDUCER EACH	SPV.0060.23 12X8-INCH REDUCER EACH
0020	PROSPECT AVE	14+68	RT	--	1	--	--
	ARTHUR ST	16+55	LT	--	1	--	--
	TORNEY AVE	18+44	RT	--	1	--	--
	TOWNLINE RD	26+23	RT	--	--	1	--
	TOWNLINE RD	28+98	RT	--	--	1	--
	S 12TH ST	31+66	LT	--	--	--	1
	S 13TH ST	38+37	LT	--	--	--	1
	CURLING WAY	106+04	RT	1	--	--	--
	PROJECT TOTALS			1	3	2	2

TEMPORARY WATER SERVICE

CATEGORY	LOCATION	SPV.0105.01 TEMPORARY WATER SERVICE LS
0020	PROJECT	1
	PROJECT TOTAL	1

WATERMAIN AND LATERALS

CATEGORY	LOCATION	STATION	TO	STATION	SPV.0090.09 6-INCH DI WATERMAIN LF	SPV.0090.10 8-INCH DI WATERMAIN LF	SPV.0090.11 10-INCH DI WATERMAIN LF	SPV.0090.12 12-INCH DI WATERMAIN LF	SPV.0090.13 12-INCH DI WATERMAIN IN CASING LF	SPV.0090.15* OPEN CUT STEEL CASING PIPE 24-INCH LF	SPV.0090.16* BORE AND JACK STEEL CASING PIPE 24-INCH LF	SPV.0090.14 WATER LATERALS LF	SPV.0035.01* UTILITY TRENCH ROCK EXCAVATION CY	SPV.0035.02 ABANDONING WATER MAIN CY	COMMENTS
0020	TOWNLINE RD	10+60	-	10+62	--	--	--	6	--	--	--	--	--	--	3 FT NORTH/3 FT SOUTH
	TOWNLINE RD	10+61	-	38+37	--	--	--	2,716	71	71	72	--	51	3	
	TOWNLINE RD	38+37	-	39+07	--	--	--	95	--	--	--	--	12	--	CONNECT TO EX
	PROSPECT AVE	13+40	-	13+53	--	--	--	75	--	--	--	--	--	--	CONNECT TO EX
	TOWNLINE RD	14+42	-	14+42	16	--	--	--	--	--	--	--	--	--	FIRE HYDRANT
	PROSPECT AVE	14+67	-	14+70	--	26	--	--	--	--	--	--	--	--	CONNECT TO EX
	ARTHUR ST	16+38	-	16+49	11	--	--	--	--	--	--	--	--	--	HYDRANT ON ARTHUR
	ARTHUR ST	16+47	-	16+55	3	35	--	--	--	--	--	--	--	--	CONNECT TO EX
	TORNEY AVE	18+44	-	18+45	3	48	--	--	--	--	--	--	--	--	CONNECT TO EX
	TOWNLINE RD	22+40	-	22+40	15	--	--	--	--	--	--	--	--	--	FIRE HYDRANT
	TOWNLINE RD	24+60	-	24+60	23	--	--	--	--	--	--	--	--	--	CONNECT TO EX
	S 10TH ST	26+03	-	26+06	--	--	10	--	--	--	--	--	--	--	CONNECT TO EX
	TOWNLINE RD	26+23	-	26+38	--	--	58	--	--	--	--	--	--	--	CONNECT TO EX
	TOWNLINE RD	28+02	-	28+02	17	--	--	--	--	--	--	--	--	--	FIRE HYDRANT
	TOWNLINE RD	28+98	-	28+99	--	--	42	--	--	--	--	--	--	--	CONNECT TO EX
	S 12TH ST	31+65	-	31+66	3	--	--	27	--	--	--	--	--	--	CONNECT TO EX
	NORTHWESTERN AVE	33+67	-	33+68	--	--	--	42	--	--	--	--	--	--	CONNECT TO EX
	TOWNLINE RD	33+81	-	33+82	17	--	--	--	--	--	--	--	--	--	FIRE HYDRANT
	TOWNLINE RD	37+93	-	37+94	15	--	--	--	--	--	--	--	--	--	FIRE HYDRANT
	S 13TH ST	38+36	-	38+37	3	--	--	24	--	--	--	--	--	--	CONNECT TO EX
	TOWNLINE RD	39+02	-	39+04	22	--	--	--	--	--	--	--	--	--	CONNECT TO EX
	CURLING WAY	100+00	-	106+09	--	610	--	--	--	--	--	--	--	--	CONNECT TO EX
	TOWNLINE RD	10+60	-	27+00	--	--	--	--	--	--	--	920	--	--	
	TOWNLINE RD	27+00	-	34+00	--	--	--	--	--	--	--	220	--	--	
	TOWNLINE RD	34+00	-	58+57	--	--	--	--	--	--	--	100	--	--	
	UNDISTRIBUTED	--		--	--	--	--	--	--	--	--	--	12	--	
	SUBTOTALS				148	719	110	2,985	71	71	72	1,240	75	3	
	PROJECT TOTALS				148	719	110	2,985	71	155	158	1,240	325	3	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE: SEE SANITARY SEWER ITEMS

WATER MAIN BENDS AND INSULATION

CATEGORY	LOCATION	STATION	OFFSET	612.0902.S.01 INSULATION BOARD POLYSTYRENE (2-INCH) SY	SPV.0060.12 8-INCH 11.25 DEGREE BEND EACH	SPV.0060.13 12-INCH 11.25 DEGREE BEND EACH	SPV.0060.14 8-INCH 22.5 DEGREE BEND EACH	SPV.0060.15 10-INCH 22.5 DEGREE BEND EACH	SPV.0060.16 6-INCH 45 DEGREE BEND EACH	SPV.0060.17 8-INCH 45 DEGREE BEND EACH	SPV.0060.18 10-INCH 45 DEGREE BEND EACH	SPV.0060.19 12-INCH 45 DEGREE BEND EACH
0020	TOWNLINE RD	12+91	RT	--	--	--	--	--	--	--	--	2
	TOWNLINE RD	13+53	RT	--	--	--	--	--	--	--	--	4
	TOWNLINE RD	13+53	LT	--	--	1	--	--	--	--	--	--
	TOWNLINE RD	13+50	LT	64	--	--	--	--	--	--	--	4
	TOWNLINE RD	16+30	RT	--	--	--	--	--	--	--	--	1
	TOWNLINE RD	16+52	LT	--	--	--	--	--	--	--	--	1
	ARTHUR ST	16+55	LT	64	1	--	--	--	--	4	--	--
	TOWNLINE RD	16+75	LT	--	--	--	--	--	--	--	--	2
	TOWNLINE RD	22+05	RT	--	1	--	--	--	--	--	--	--
	S 10TH ST	26+06	LT	--	--	--	--	1	--	--	--	--
	TOWNLINE RD	26+23	RT	--	--	--	--	--	--	--	1	--
	TOWNLINE RD	28+98	RT	64	--	--	--	--	--	--	4	--
	TOWNLINE RD	38+37	LT	--	--	--	--	--	--	--	--	1
	TOWNLINE RD	38+47	--	--	--	--	--	--	--	--	--	2
	TOWNLINE RD	38+81	RT	--	--	--	--	--	--	--	--	1
	TOWNLINE RD	39+02	RT	--	--	--	--	--	1	--	--	--
	CURLING WAY	100+20	LT	--	--	--	--	--	--	2	--	--
	CURLING WAY	101+51	LT	--	--	--	1	--	--	--	--	--
	CURLING WAY	102+24	RT	--	--	--	--	--	--	1	--	--
	CURLING WAY	103+25	LT	--	--	--	1	--	--	--	--	--
	CURLING WAY	104+75	LT	--	1	--	1	--	--	--	--	--
	CURLING WAY	105+47	RT	--	--	--	1	--	--	--	--	--
	SERVICES	--	--	163	--	--	--	--	--	--	--	--
	PROJECT TOTALS			355	3	1	4	1	1	7	5	18

WATER VALVE BOXES AND HYDRANTS

CATEGORY	LOCATION	STATION	OFFSET	SPV.0060.24 6-INCH VALVE & VALVE BOX EACH	SPV.0060.25 8-INCH VALVE & VALVE BOX EACH	SPV.0060.26 10-INCH VALVE & VALVE BOX EACH	SPV.0060.27 12-INCH VALVE & VALVE BOX EACH	SPV.0060.28 STANDARD HYDRANT EACH	SPV.0060.29 REPLACING WATER VALVE BOXES EACH	SPV.0060.30 ADJUSTING HYDRANTS EACH	COMMENTS
0020	TOWNLINE RD	11+25	RT	--	--	--	1	--	--	--	
	TOWNLINE RD	13+22	RT	--	--	--	1	--	--	--	
	TOWNLINE RD	14+41	RT	1	--	--	--	1	--	--	
	TOWNLINE RD	14+45	RT	--	--	--	1	--	--	--	
	PROSPECT AVE	14+68	RT	--	1	--	--	--	--	--	
	TOWNLINE RD	14+95	RT	--	--	--	1	--	--	--	
	TOWNLINE RD	16+23	RT	--	--	--	1	--	--	--	
	ARTHUR ST	16+38	LT	1	--	--	--	1	--	--	
	ARTHUR ST	16+55	LT	--	1	--	--	--	--	--	
	TOWNLINE RD	17+04	LT	--	--	--	1	--	--	--	
	SUBTOTALS			2	2	0	6	2	0	0	

3

WATER VALVE BOXES AND HYDRANTS (CONTINUED)

CATEGORY	LOCATION	STATION	OFFSET	SPV.0060.24 6-INCH VALVE & VALVE BOX EACH	SPV.0060.25 8-INCH VALVE & VALVE BOX EACH	SPV.0060.26 10-INCH VALVE & VALVE BOX EACH	SPV.0060.27 12-INCH VALVE & VALVE BOX EACH	SPV.0060.28 STANDARD HYDRANT EACH	SPV.0060.29 REPLACING WATER VALVE BOXES EACH	SPV.0060.30 ADJUSTING HYDRANTS EACH	COMMENTS
0020	TOWNLINE RD	18+17	LT	--	--	--	1	--	--	--	
	TORNEY AVE	18+44	RT	--	1	--	--	--	--	--	
	TOWNLINE RD	18+57	LT	--	--	--	1	--	--	--	
	TOWNLINE RD	21+42	LT	--	--	--	1	--	--	--	
	TOWNLINE RD	22+40	LT	1	--	--	--	1	--	--	
	TOWNLINE RD	22+45	LT	--	--	--	1	--	--	--	
	TOWNLINE RD	24+61	LT	1	--	--	--	--	--	--	
	TOWNLINE RD	25+76	LT	--	--	--	1	--	--	--	
	S 10TH ST	26+06	LT	--	--	1	--	--	--	--	
	TOWNLINE RD	26+23	LT	--	--	1	--	--	--	--	
	TOWNLINE RD	26+28	LT	--	--	--	1	--	--	--	
	TOWNLINE RD	28+02	LT	1	--	--	--	1	--	--	
	TOWNLINE RD	28+93	LT	--	--	--	1	--	--	--	
	TOWNLINE RD	28+98	LT	--	--	1	--	--	--	--	
	TOWNLINE RD	29+03	LT	--	--	--	1	--	--	--	
	TOWNLINE RD	31+29	LT	--	--	--	1	--	--	--	
	S 12TH ST	31+66	LT	--	--	--	1	--	--	--	
	TOWNLINE RD	31+89	LT	--	--	--	1	--	--	--	
	TOWNLINE RD	33+23	LT	--	--	--	1	--	--	--	
	NORTHWESTERN AVE	33+67	RT	--	--	--	1	--	--	--	
	TOWNLINE RD	33+81	LT	1	--	--	--	1	--	--	
	TOWNLINE RD	33+89	LT	--	--	--	1	--	--	--	
	TOWNLINE RD	37+93	LT	--	--	--	1	--	--	--	
	TOWNLINE RD	38+03	LT	1	--	--	--	1	--	--	
	TOWNLINE RD	38+10	LT	--	--	--	1	--	--	--	
	S 13TH ST	38+37	LT	--	--	--	1	--	--	--	
	TOWNLINE RD	38+94	RT	--	--	--	1	--	--	--	
	TOWNLINE RD	41+82	RT	--	--	--	--	--	1	--	RAISE +/- 2.2 FT
	TOWNLINE RD	41+82	RT	--	--	--	--	--	--	1	RAISE +/- 2.8 FT
	TOWNLINE RD	41+90	RT	--	--	--	--	--	1	--	RAISE +/- 2.9 FT
	TOWNLINE RD	45+70	RT	--	--	--	--	--	1	--	RAISE +/- 0.1 FT
	TOWNLINE RD	46+60	RT	--	--	--	--	--	1	--	RAISE +/- 0.1 FT
	TOWNLINE RD	48+92	RT	--	--	--	--	--	1	--	RAISE +/- 0.2 FT
	TOWNLINE RD	48+93	RT	--	--	--	--	--	--	1	RAISE +/- 0.1 FT
	TOWNLINE RD	49+03	RT	--	--	--	--	--	1	--	RAISE +/- 0.5 FT
	TOWNLINE RD	49+15	RT	--	--	--	--	--	1	--	RAISE +/- 0.3 FT
	CURLING WAY	100+33	LT	--	1	--	--	--	--	--	
	CURLING WAY	106+04	RT	--	1	--	--	--	--	--	
	SUBTOTALS			5	3	3	18	4	7	2	
	PROJECT TOTALS			7	5	3	24	6	7	2	

COMPOSITE DRAWING, ORIGINAL ON FILE AT THE REGISTER OF DEEDS



STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

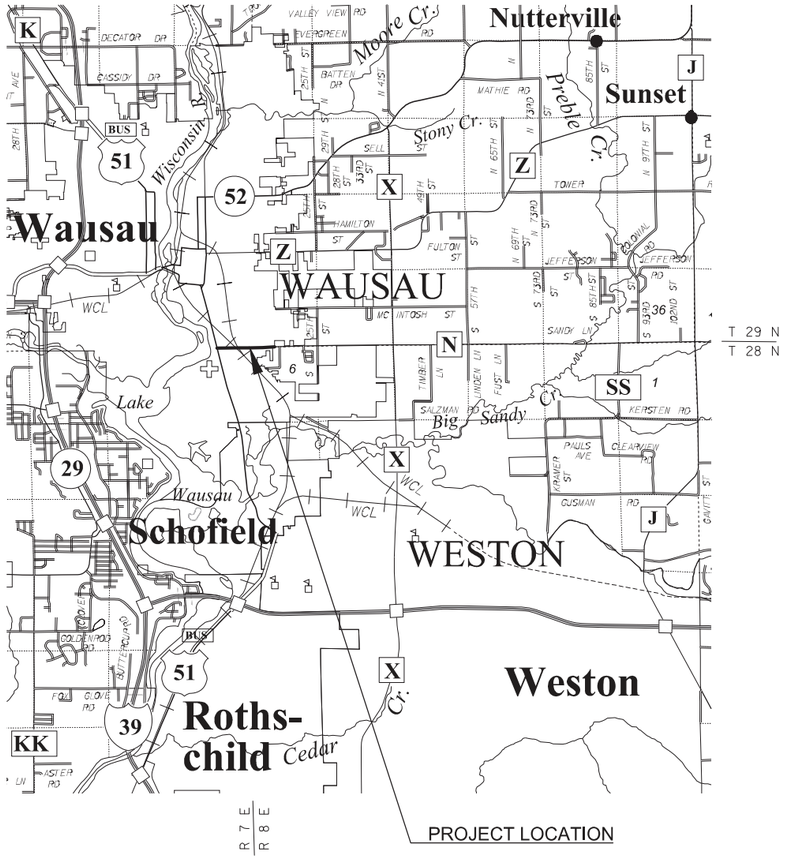
6999-18-01

C WAUSAU, TOWNLINE ROAD

GRAND AVENUE TO EASTHILL DRIVE

LOCAL STREET

MARATHON COUNTY



LAYOUT
SCALE 0 1 MI.

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT

SECTION CORNER
NOTATION FOR COMBUSTABLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
ELECTRIC POLE
TELEPHONE POLE
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)
ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT, CONTROL OR DOCUMENT)
BRIDGE

R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.)
SIGN
OFF-PREMISE SIGN
COMPENSABLE
NON-COMPENSABLE
PARCEL NUMBER (25)
UTILITY NUMBER (40)

GN

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RIGHT	RT
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC VENT	SEPV
COUNTY	CO	SQUARE FEET	SF
COUNTY TRUNK HIGHWAY	CTH	STATE TRUNK HIGHWAY	STH
DISTANCE	DIST	STATION	STA
CORNER	COR	SUBDIVISION	SUBD
DOCUMENT NUMBER	DOC	TANGENT	TAN
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV	TRANSPORTATION PROJECT PLAT	TPP
GRID NORTH	GN	UNITED STATES HIGHWAY	USH
HIGHWAY EASEMENT	HE	VOLUME	V
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATA

LONG CHORD	LC
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 6999-18-01.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES, (WISCRS) MARATHON COUNTY, NAD 83 (1991) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS,

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

THE PLATTED ℄ MAY NOT BE THE SAME AS THE CONSTRUCTION ℄.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, 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 DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS 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, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

NO EXISTING ACCESS CONTROL ALONG CTH N/TOWNLINE ROAD EXISTS.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: RW PLAT 6140-09-73, PLAN & PROFILE 9439-01-70, NO1.1958, ELIZABETH SINGLES ADDITION, PLEASANT VIEW PARK SUBDIVISION, CSM 14714, CSM 14846, CSM 2945, CSM 494, CSM 383, CSM 1562, CSM 4159, CSM 15666, CSM 16492, CSM 10712, CSM 3643, CSM 2957, CSM 4382, CSM 2621, CSM 8867, CSM 14462, CSM 4381, CSM 4320, CSM 4212, CSM 8712, CSM 979, VARIOUS PLAT OF SURVEYS FILED AT COUNTY SURVEYORS OFFCIE AND EXISTING CENTERLINE.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-18-01
SHEET 2 OF 2
AMENDMENT NO:

FILE NAME : P:\49XX\4993.DP.16.TOWNLINE RD NEPA\CADDS********\SHEETSPLAN\040100-RP-TITLE.DWG
APPRAISAL PLAT DATE :
PLOT DATE : 12/14/2012 7:46 PM
PLOT BY : TIM RUTZEN
PLOT NAME : ----------
6999-18-01-4.01

LAYOUT NAME - ****

COMPOSITE DRAWING, ORIGINAL ON FILE AT THE REGISTER OF DEEDS OFFICE

TRANSPORTATION PROJECT PLAT NO: 6999-18-01-4.01

THAT PART OF LOTS 7 & 8, BLOCK 2, LOTS 8 & 9, BLOCK 3 OF ELIZABETH SINGLES ADDITION AND LOT 1 CSM OF 14714, LOCATED IN GOVERNMENT LOT 3, SECTION 36, TOWNSHIP 29 NORTH, RANGE 7 EAST; ALSO PART OF LOT 1 OF CSM 14846, LOT 1 OF CSM 2945, LOT 1 OF CSM 2937, LOT 1 OF CSM 494, LOT 1 OF CSM 383 AND LOT 1 OF CSM 1562, LOCATED IN THE FRACTIONAL NW 1/4 OF THE NE 1/4, SECTION 1, TOWNSHIP 28 NORTH, RANGE 7 EAST, ALL IN THE CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER C WAUSAU, TOWNLINE RD (GRAND AVENUE TO EASTHILL DRIVE), MARATHON COUNTY

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

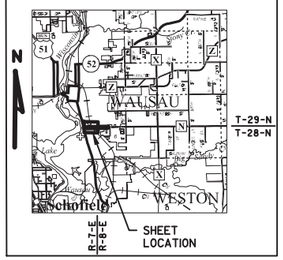
TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE CITY.

PARCEL		INTEREST	R/W ACRES REQUIRED			PLE	TLE
NUMBER	OWNERS	REQUIRED	NEW	EXISTING	TOTAL	ACRES	ACRES
1	NAVASU PROPERTIES, LLC	TLE	---	---	---	---	0.031
2	S & Q RENTALS, LLC	FEE/PLE/TLE	0.001	---	0.001	0.001	0.040
3	S & Q RENTALS, LLC	FEE/TLE	0.001	---	0.001	---	0.015
4	BRAMWELL J & SHERRY M JARVIS	TLE	---	---	---	---	0.012
6	VISION REAL ESTATE, INC	FEE/TLE	0.001	---	0.001	---	0.028
7	DANIEL K & CORINNE JOHNSON	TLE	---	---	---	---	0.024
8	DEAN RAYMOND & SARA OTT HEINZ	TLE	---	---	---	---	0.009
9	ADAM DOEDE	TLE	---	---	---	---	0.015
11	TOWN LINE INVESTMENTS, LLC	TLE	---	---	---	---	0.015
12	ROYCE L & ISABELLE R BROWN	TLE	---	---	---	---	0.012
13	CHRISTOPHER T & KIMBERLY C BARDEN	TLE	---	---	---	---	0.140
14	DANIEL GIFFIN & KAELEIGH M ROESLER	TLE	---	---	---	---	0.022
16	LLOYD H WIEMAN & MAVOURNEEN J WIEMAN, CO-TRUSTERS OF THE WIEMAN FAMILY IRREVOCABLE TRUST	TLE	---	---	---	---	0.014
17	BARBARA E VANDER LEEST, AS TRUSTEE OR HER SUCCESSORS	TLE	---	---	---	---	0.014
18	GARY D JOHNSON OR BARBARA J JOHNSON, TRUSTEES OF THE GARY AND BARBARA JOHNSON TRUST	TLE	---	---	---	---	0.010
19	SYLVESTER R DEININGER AND MARLENE M DEININGER, LIFE TENANTS AND ANN M RUSCH, THERESE J ZOROMSKI, MARIA L GRAVEEN, JOHN P DEININGER AND ANTHONY R DEININGER, AS REMAINDERMEN	FEE/TLE	0.001	---	0.001	---	0.012
21	TCG HOLDINGS 101, LLC	FEE/TLE	0.001	---	0.001	---	0.010
22	SEAN P & BECKY A POPELKA	TLE	---	---	---	---	0.010
23	THE CHARMAINE J BURNETT REVOCABLE TRUST	TLE	---	---	---	---	0.014
24	DOUG J DELONAY	TLE	---	---	---	---	0.014
26	EVELYN J PLAUTZ	TLE	---	---	---	---	0.014
27	JEFFREY ZERNICKE	FEE/TLE	0.001	---	0.001	---	0.013
28	SANDRA L MALLUM	FEE/TLE	0.001	---	0.001	---	0.014
29	JERRY S & MARY SCHULTZ	TLE	---	---	---	---	0.015
31	LEE J & LAURA A SUHR	TLE	---	---	---	---	0.012
32	LILA J ROUSE, AS TRUSTEE OF THE LILA ROUSE REVOCABLE TRUST	TLE	---	---	---	---	0.010

LOCATION SKETCH NOT TO SCALE



STATE OF WISCONSIN - MARATHON COUNTY
RECORDED
03/01/2018 3:31:33 PM
DEAN J. STRATZ, REGISTER OF DEEDS
DOC# 1754170
Received for Record this 1st
day of March A.D. 19 2018
at 3 o'clock 31 M. in Plat
Cabinet No. 3 on page 56&57
Jean J. Stratz
REGISTAR

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-18-01-4.01
AMENDMENT NO:---
SHEET 1 OF 2

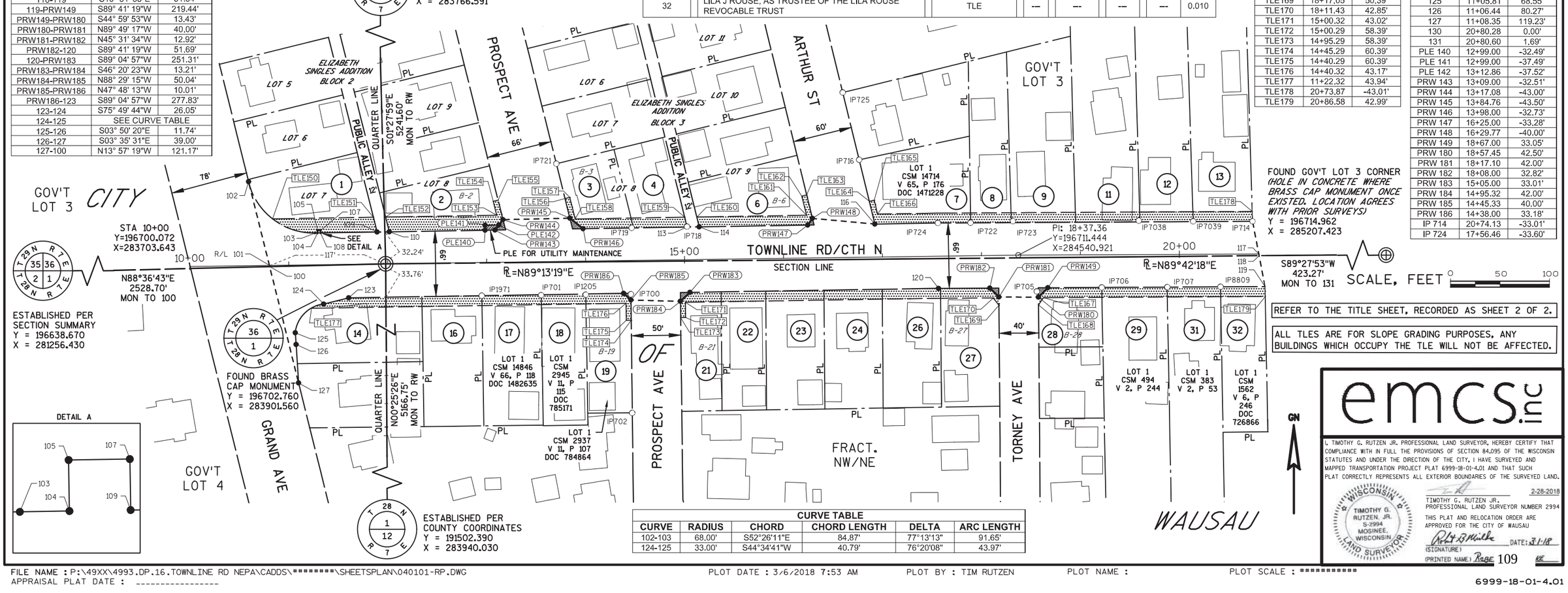
COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	N13° 57' 19"W	1.28'
101-102	N13° 57' 19"W	87.00'
102-103	SEE CURVE TABLE	
103-104	N89° 04' 57"E	2.43'
104-105	N00° 55' 00"W	2.50'
105-107	N89° 05' 00"E	3.00'
107-108	S00° 55' 00"E	2.50'
108-109	N89° 04' 57"E	57.12'
109-110	N89° 04' 57"E	12.32'
110-PLE140	N89° 04' 57"E	96.96'
PLE140-PLE141	N00° 46' 41"W	5.00'
PLE141-PLE142	N89° 04' 57"E	13.86'
PLE142-PRW144	N36° 49' 11"E	6.92'
PRW144-PRW145	N88° 47' 55"E	67.69'
PRW145-PRW146	S51° 38' 24"E	17.07'
PRW146-113	N89° 04' 57"E	105.03'
113-114	N89° 04' 57"E	12.31'
114-PRW147	N89° 04' 57"E	109.65'
PRW147-PRW148	N34° 35' 22"E	8.24'
PRW148-116	S84° 50' 47"E	63.43'
116-IP 724	N89° 04' 57"E	63.60'
IP 724-IP 714	N89° 41' 19"E	317.95'
IP714-117	S10° 51' 35"E	33.58'
117-118	S10° 51' 35"E	1.72'
118-119	S10° 51' 35"E	31.84'
119-PRW149	S89° 41' 19"W	219.44'
PRW149-PRW180	S44° 59' 53"W	13.43'
PRW180-PRW181	N89° 49' 17"W	40.00'
PRW181-PRW182	N45° 31' 34"W	12.92'
PRW182-120	S89° 41' 19"W	51.69'
120-PRW183	S89° 04' 57"W	251.31'
PRW183-PRW184	S46° 20' 23"W	13.21'
PRW184-PRW185	N88° 29' 15"W	50.04'
PRW185-PRW186	N47° 48' 13"W	10.01'
PRW186-123	S89° 04' 57"W	277.83'
123-124	S75° 49' 44"W	26.05'
124-125	SEE CURVE TABLE	
125-126	S03° 50' 20"E	11.74'
126-127	S03° 35' 31"E	39.00'
127-100	N13° 57' 19"W	121.17'

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP 718	196740.271	284206.086	1.5" OD IRON PIPE
IP 719	196739.038	284150.129	1.5" OD IRON PIPE
IP 722	196744.199	284492.592	CHISELED "X"
IP 723	196745.861	284535.449	0.5" OD IRON PIPE
IP 724	196743.942	284459.578	CHISELED "X"
IP 7038	196746.322	284662.577	1.0" OD IRON PIPE
IP 7039	196745.607	284717.553	1.0" OD IRON PIPE
IP 714	196745.670	284777.521	1.0" OD IRON PIPE
IP 705	196674.832	284559.539	2.37" OD IRON PIPE
IP 706	196678.850	284625.211	1.25" OD IRON PIPE
IP 707	196679.240	284691.436	1.25" OD IRON PIPE
IP 8809	196679.517	284745.168	1.0" OD IRON PIPE
IP 700	196672.043	284149.446	1.25" OD IRON PIPE
IP 701	196671.077	284058.737	1.25" OD IRON PIPE
IP 702	196552.038	284150.722	MAGNAIL
IP 1971	196670.519	283998.717	1.0" OD IRON PIPE
IP 721	196803.811	284074.034	1.5" OD IRON PIPE
IP 716	196807.875	284380.103	0.75" REBAR
IP 725	196875.780	284363.425	1.25" OD IRON PIPE
IP 1205	196671.587	284103.839	1.0" OD IRON PIPE

BUILDING NO.	DISTANCE (FT) TO FEE/PLE
B-2	13'
B-3	10'
B-6	25.5'
B-19	14'
B-21	17.5'
B-27	24'
B-28	14'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE150	10+84.38	-46.97'
TLE151	11+86.19	-47.21'
TLE152	11+98.51	-47.24'
TLE153	13+10.88	-47.52'
TLE154	13+07.56	-61.61'
TLE155	13+12.42	-62.76'
TLE156	13+80.06	-63.47'
TLE157	13+84.93	-64.61'
TLE158	13+90.09	-42.71'
TLE159	15+00.71	-42.98'
TLE160	15+13.02	-43.01'
TLE161	16+23.88	-43.28'
TLE162	16+19.42	-62.61'
TLE163	16+24.29	-63.74'
TLE164	16+87.54	-56.49'
TLE165	16+92.41	-57.61'
TLE166	16+95.68	-43.45'
TLE167	18+62.43	43.05'
TLE168	18+57.47	50.39'
TLE169	18+17.05	50.39'
TLE170	18+11.43	42.85'
TLE171	15+00.32	43.02'
TLE172	15+00.29	58.39'
TLE173	14+95.29	58.39'
TLE174	14+45.29	60.39'
TLE175	14+40.29	60.39'
TLE176	14+40.32	43.17'
TLE177	11+22.32	43.94'
TLE178	20+73.87	-43.01'
TLE179	20+86.58	42.99'

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
100	10+80.73	1.25'
101	10+80.44	0.00'
102	10+60.60	-84.72'
103	11+27.17	-32.07'
104	11+29.60	-32.08'
105	11+29.59	-34.58'
107	11+32.59	-34.58'
108	11+32.60	-32.08'
109	11+89.72	-32.22'
110	12+02.04	-32.25'
113	15+03.03	-32.98'
114	15+15.35	-33.01'
116	16+92.86	-33.45'
117	20+80.28	0.00'
118	20+80.60	1.69'
119	20+86.44	32.99'
120	17+56.31	32.40'
123	11+60.17	33.85'
124	11+34.83	39.89'
125	11+05.81	68.55'
126	11+06.44	80.27'
127	11+08.35	119.23'
130	20+80.28	0.00'
131	20+80.60	1.69'
PLE 140	12+99.00	-32.49'
PLE 141	12+99.00	-37.49'
PLE 142	13+12.86	-37.52'
PRW 143	13+09.00	-32.51'
PRW 144	13+17.08	-43.00'
PRW 145	13+84.76	-43.50'
PRW 146	13+98.00	-32.73'
PRW 147	16+25.00	-33.28'
PRW 148	16+29.77	-40.00'
PRW 149	18+67.00	33.05'
PRW 180	18+57.45	42.50'
PRW 181	18+17.10	42.00'
PRW 182	18+08.00	32.82'
PRW 183	15+05.00	33.01'
PRW 184	14+95.32	42.00'
PRW 185	14+45.33	40.00'
PRW 186	14+38.00	33.18'
IP 714	20+74.13	-33.01'
IP 724	17+56.46	-33.60'



FOUND GOV'T LOT 3 CORNER *(HOLE IN CONCRETE WHERE BRASS CAP MONUMENT ONCE EXISTED. LOCATION AGREES WITH PRIOR SURVEYS)* Y = 196714.962 X = 285207.423

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2.

ALL TLES ARE FOR SLOPE GRADING PURPOSES, ANY BUILDINGS WHICH OCCUPY THE TLE WILL NOT BE AFFECTED.

CURVE TABLE					
CURVE	RADIUS	CHORD	CHORD LENGTH	DELTA	ARC LENGTH
102-103	68.00'	S52°26'11"E	84.87'	77°13'13"	91.65'
124-125	33.00'	S44°34'41"W	40.79'	76°20'08"	43.97'

emcs.inc

I, TIMOTHY G. RUTZEN JR. PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT COMPLIANCE WITH IN FULL THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6999-18-01-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY G. RUTZEN, JR. S-2994 MOSINEE, WISCONSIN LAND SURVEYOR

2-28-2018

TIMOTHY G. RUTZEN JR.
PROFESSIONAL LAND SURVEYOR NUMBER 2994

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU

(SIGNATURE) DATE: 3-1-18

(PRINTED NAME) Peggy Rusch

FILE NAME : P:\49XX\4993.DP.16.TOWNLINE RD NEPA\CADDS********\SHEETSPLAN\040101-RP.DWG
PLOT DATE : 3/6/2018 7:53 AM
PLOT BY : TIM RUTZEN
PLOT NAME :
PLOT SCALE : **********
APPRAISAL PLAT DATE : ----------

6999-18-01-4.01

COMPOSITE DRAWING, ORIGINAL ON FILE AT THE REGISTER OF DEEDS

TRANSPORTATION PROJECT PLAT NO: 6999-18-01-4.02
AMENDMENT NO.1

AMENDMENT ADDS ACCESS CONTROL AND REMOVES PARCEL 37 OF TRANSPORTATION PROJECT PLAT NO: 6999-18-01-4.02, RECORDED AS DOC. 1754406 IN PLAT CABINET 3, PAGE 563B.

THAT PART OF LOT 1 OF CSM 4159 AND LOT 1 CSM 15666, LOCATED IN GOVERNMENT LOT 3, ALSO PART OF LOTS 7-12, LOTS 18-22, BLOCK 10 AND LOTS 12-14, BLOCK 11 OF PLEASANT VIEW PARK SUBDIVISION, LOCATED IN THE THE SE 1/4 OF THE SE 1/4, SECTION 36, TOWNSHIP 29 NORTH, RANGE 7 EAST; ALSO PART OF LOT 1 OF CSM 16492 OF THE FRACTIONAL NW 1/4 OF THE NE 1/4, ALSO PART OF THE FRACTIONAL NE 1/4 OF THE NE 1/4, SECTION 1, TOWNSHIP 28 NORTH, RANGE 7 EAST, ALL IN THE CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER C WAUSAU, TOWNLINE RD (GRAND AVENUE TO EASTHILL DRIVE), MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU 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 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU 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 CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS, AS DOCUMENT NO. 1754170 FOR ADDITIONAL INFORMATION.

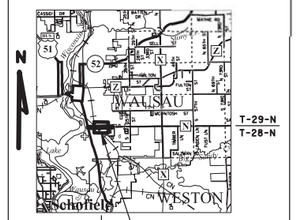
ALL TLES ARE FOR SLOPE GRADING PURPOSES, ANY BUILDINGS WHICH OCCUPY THE TLE WILL NOT BE AFFECTED.

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TOWNLINE RD ALIGNMENT		
200	20+80.60	1.69'
201	20+80.28	0.00'
203	26+28.03	-34.96'
204	31+29.05	-34.97'
205	31+89.07	-34.98'
206	33+82.21	-34.98'
207	33+84.70	-1.97'
208	33+84.85	0.00'
209	33+87.18	31.02'
210	33+27.17	31.02'
211	25+03.88	31.05'
215	20+86.44	32.99'
PLE291	26+00.41	31.05'
PLE292	26+00.41	49.05'
PLE293	25+83.00	49.00'
PLE294	25+70.00	31.05'
HE236	25+50.00	-34.95'
HE237	25+61.65	-40.00'
IP 714	20+74.13	-33.00'
IP 7043	23+62.67	33.00'

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
CURLING WAY ALIGNMENT		
212	104+67.55	-99.17'
213	106+39.00	-24.17'
214	106+38.65	0.00'
234	104+66.09	-32.17'
PRW220	106+38.28	25.82'
PRW221	105+98.24	28.52'
PRW222	103+96.09	28.50'
PRW223	101+13.81	28.50'
PRW224	100+32.97	51.81'
PRW225	100+32.94	-71.00'
PRW226	100+35.16	-46.39'
PRW227	100+58.10	-32.50'
PRW229	100+98.07	-32.50'
PRW230	101+63.91	-21.50'
PRW231	103+96.09	-21.50'
PRW232	104+33.91	-21.50'
PRW233	100+65.00	36.97'
PRW235	100+55.00	51.68'
IP 726	104+57.14	-43.08'

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP 7042	196680.593	284932.639	1.0" OD IRON PIPE
IP 7043	196681.147	285065.970	0.75" REBAR
IP 708	196680.958	285087.828	CHISELED "X"
IP 713	196745.709	284888.839	1.0" OD IRON PIPE
IP 714	196745.670	284777.521	1.0" OD IRON PIPE
IP 726	196566.653	285196.347	1.25" OD IRON PIPE
IP 1513	196682.499	285328.830	1.5" OD IRON PIPE
IP 729	196751.246	285783.896	0.75" REBAR
IP 730	196750.507	285666.805	0.5 OD IRON PIPE
IP 731	196750.128	285611.102	0.75" REBAR
IP 732	196749.498	285500.346	0.75" REBAR
IP 9076	196750.140	285555.822	1.25" OD IRON PIPE
IP 9078	196751.115	285728.815	1.0" OD IRON PIPE (BENT)
IP 736	196752.192	285956.973	0.5" OD IRON PIPE
IP 8808	196679.723	284845.893	1.0" OD IRON PIPE

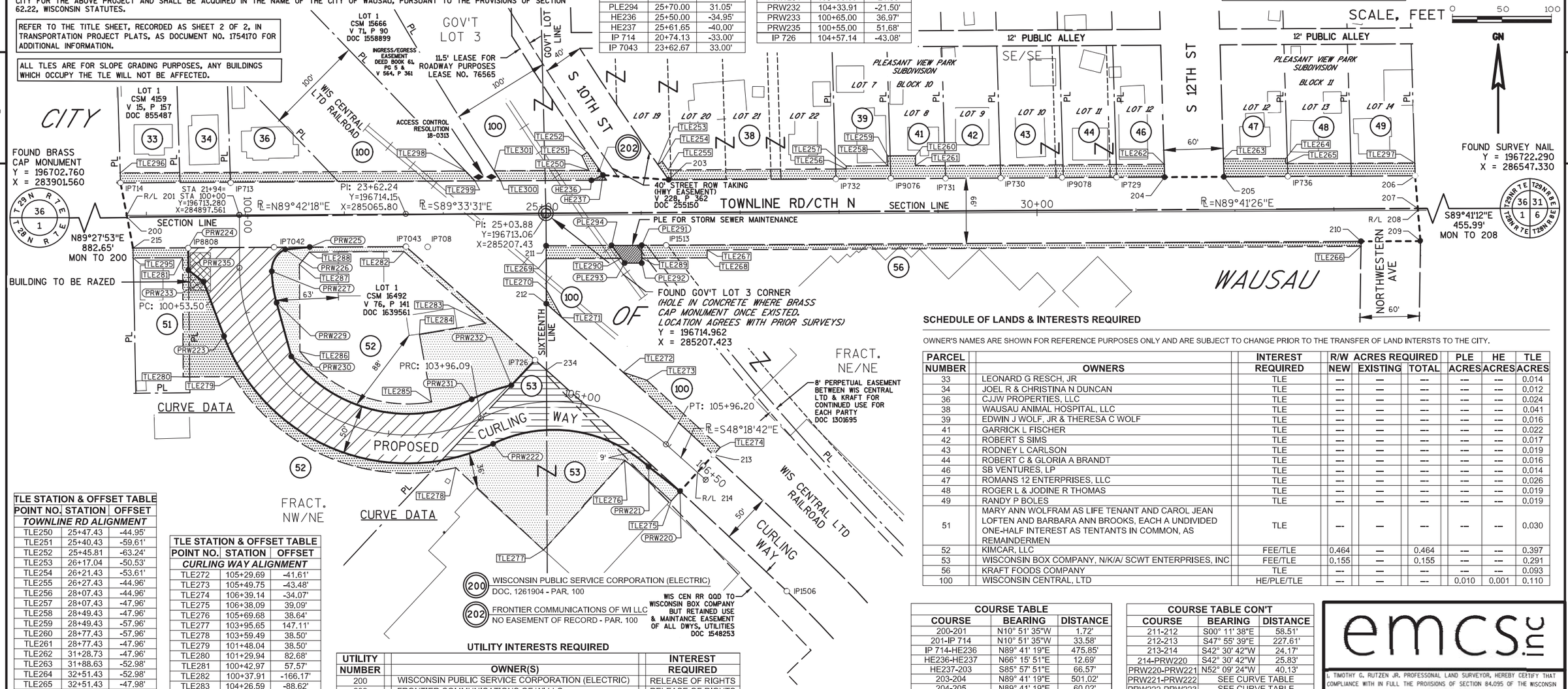
LOCATION SKETCH NOT TO SCALE



STATE OF WISCONSIN - MARATHON COUNTY
RECORDED DOC# 1757797 PAGES: 1
May 03, 2018 11:13 AM
DEAN J. STRATZ, REGISTER OF DEEDS

REGISTER OF DEEDS
Marathon County, Wis.
Received for Record this 3rd
Day of MAY A.D. 20 18
AT 11:13 O'CLOCK A M
In Plat cabinet no. 3 on page 565A
Dean J. Stratz
REGISTAR

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-18-01-4.02
AMENDMENT NO: 1



TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TOWNLINE RD ALIGNMENT		
TLE250	25+47.43	-44.95'
TLE251	25+40.43	-59.61'
TLE252	25+45.81	-63.24'
TLE253	26+17.04	-50.53'
TLE254	26+21.43	-53.61'
TLE255	26+27.43	-44.96'
TLE256	28+07.43	-44.96'
TLE257	28+07.43	-47.96'
TLE258	28+49.43	-47.96'
TLE259	28+49.43	-57.96'
TLE260	28+77.43	-57.96'
TLE261	28+77.43	-47.96'
TLE262	31+28.73	-47.96'
TLE263	31+88.63	-52.98'
TLE264	32+51.43	-52.98'
TLE265	32+51.43	-47.98'
TLE266	33+27.08	36.02'
TLE267	26+66.43	36.04'
TLE268	26+66.43	44.04'
TLE269	25+03.88	44.05
TLE270	104+67.77	-113.36'
TLE271	104+77.81	-85.19'
TLE298	24+22.20	-43.88'
TLE299	24+31.84	-34.01'
TLE300	24+57.82	-34.35'
TLE301	24+51.10	-44.26'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
CURLING WAY ALIGNMENT		
TLE272	105+29.69	-41.61'
TLE273	105+49.75	-43.48'
TLE274	106+39.14	-34.07'
TLE275	106+38.09	39.09'
TLE276	105+69.68	38.64'
TLE277	103+95.65	147.11'
TLE278	103+59.49	38.50'
TLE279	101+48.04	38.50'
TLE280	101+29.94	82.68'
TLE281	100+42.97	57.57'
TLE282	100+37.91	-166.17'
TLE283	104+26.59	-88.62'
TLE284	103+48.47	-100.71'
TLE285	103+49.25	-31.50'
TLE286	101+65.66	-31.50'
TLE287	100+50.39	-60.43'
TLE288	100+37.94	-70.43'
TLE289	26+00.41	44.05'
TLE290	25+79.41	44.05'
TLE295	20+86.58	42.99'
TLE296	20+73.87	-43.01'
TLE297	33+81.89	-47.98'

UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WISCONSIN PUBLIC SERVICE CORPORATION (ELECTRIC)	RELEASE OF RIGHTS
202	FRONTIER COMMUNICATIONS OF WI LLC	RELEASE OF RIGHTS

CURVE TABLE					
CURVE	RADIUS	CHORD	CHORD LENGTH	DELTA	ARC LENGTH
PRW221-PRW222	141.50'	N81°37'23"W	158.80'	68°16'10"	168.60'
PRW222-PRW223	198.50'	N68°11'24"W	293.02'	95°08'09"	329.60'
PRW226-PRW227	23.50'	S31°48'22"W	26.05'	67°18'16"	27.61'
PRW227-PRW229	137.50'	S08°34'52"E	32.25'	13°28'12"	32.33'
PRW230-PRW231	148.50'	S76°37'58"E	187.41'	78°15'01"	202.81
PRW231-PRW232	191.50'	N70°36'58"E	42.52'	12°44'54"	42.61'

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE CITY.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	PLE ACRES	HE ACRES	TLE ACRES
33	LEONARD G RESCH, JR	TLE	---	---	---	---	---	0.014
34	JOEL R & CHRISTINA N DUNCAN	TLE	---	---	---	---	---	0.012
36	CJJW PROPERTIES, LLC	TLE	---	---	---	---	---	0.024
38	WAUSAU ANIMAL HOSPITAL, LLC	TLE	---	---	---	---	---	0.041
39	EDWIN J WOLF, JR & THERESA C WOLF	TLE	---	---	---	---	---	0.016
41	GARRICK L FISCHER	TLE	---	---	---	---	---	0.022
42	ROBERT S SIMS	TLE	---	---	---	---	---	0.017
43	RODNEY L CARLSON	TLE	---	---	---	---	---	0.019
44	ROBERT C & GLORIA A BRANDT	TLE	---	---	---	---	---	0.016
46	SB VENTURES, LP	TLE	---	---	---	---	---	0.014
47	ROMANS 12 ENTERPRISES, LLC	TLE	---	---	---	---	---	0.026
48	ROGER L & JODINE R THOMAS	TLE	---	---	---	---	---	0.019
49	RANDY P BOLES	TLE	---	---	---	---	---	0.019
51	MARY ANN WOLFRAM AS LIFE TENANT AND CAROL JEAN LOFTEN AND BARBARA ANN BROOKS, EACH A UNDIVIDED ONE-HALF INTEREST AS TENTANTS IN COMMON, AS REMAINDERMEN	TLE	---	---	---	---	---	0.030
52	KIMCAR, LLC	FEE/TLE	0.464	---	0.464	---	---	0.397
53	WISCONSIN BOX COMPANY, N/K/A/ SCWT ENTERPRISES, INC	FEE/TLE	0.155	---	0.155	---	---	0.291
56	KRAFT FOODS COMPANY	TLE	---	---	---	---	---	0.093
100	WISCONSIN CENTRAL, LTD	HE/PLE/TLE	---	---	---	0.010	0.001	0.110

COURSE TABLE		
COURSE	BEARING	DISTANCE
200-201	N10° 51' 35"W	1.72'
201-IP 714	N10° 51' 35"W	33.58'
IP 714-HE236	N89° 41' 19"E	475.85'
HE236-HE237	N66° 15' 51"E	12.69'
HE237-203	S85° 57' 51"E	66.57'
203-204	N89° 41' 19"E	501.02'
204-205	N89° 41' 19"E	60.02'
205-206	N89° 41' 19"E	193.14'
206-207	S04° 36' 59"E	33.11'
207-208	S04° 36' 59"E	1.97'
208-209	S04° 36' 59"E	31.10'
209-210	S89° 41' 19"W	60.01'
210-PLE291	S89° 41' 19"W	726.76'
PLE291-PLE292	S00° 18' 34"E	18.00'
PLE292-PLE293	N89° 50' 19"W	17.41'
PLE293-PLE294	N36° 13' 00"W	22.17'
PLE294-211	S89° 41' 19"W	66.19'

COURSE TABLE CON'T		
COURSE	BEARING	DISTANCE
211-212	S00° 11' 38"E	58.51'
212-213	S47° 55' 39"E	227.61'
213-214	S42° 30' 42"W	24.17'
214-PRW220	S42° 30' 42"W	25.83'
PRW220-PRW221	N52° 09' 24"W	40.13'
PRW221-PRW222	SEE CURVE TABLE	
PRW222-PRW223	SEE CURVE TABLE	
PRW223-PRW233	N20° 37' 20"W	58.61'
PRW233-PRW235	N51° 52' 21"W	19.36'
PRW235-PRW224	N00° 39' 23"W	22.48'
PRW224-215	S89° 41' 19"W	55.75'
215-200	N10° 51' 35"W	31.84'
PRW225-PRW226	S84° 32' 50"W	24.71'
PRW229-PRW230	S15° 18' 58"E	56.09'
PRW232-IP726	N43° 01' 45"E	35.02'

emcs inc

I, TIMOTHY G. RUTZEN JR. PROFESSONAL LAND SURVEYOR, HEREBY CERTIFY THAT COMPLIANCE WITH IN FULL THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6999-18-01-4.02-A1 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY G. RUTZEN, JR. S-2994 MOSINEE, WISCONSIN LAND SURVEYOR

5-1-2018

TIMOTHY G. RUTZEN JR.
PROFESSIONAL LAND SURVEYOR NUMBER 2994
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU
(SIGNATURE) DATE: 5/2/18
(PRINTED NAME) ROB 110

FILE NAME : P:\49XX\4993.DP.16.TOWNLINE RD NEPA\CADDS********\SHEETSPLAN\040102-RP - AMENDMENT 1.DWG
APPRAISAL PLAT DATE : ----------
PLOT DATE : 5/8/2018 7:35 AM
PLOT BY : TIM RUTZEN
PLOT NAME :
PLOT SCALE : **********

6999-18-01-4.02-A1

COMPOSITE DRAWING, ORIGINAL ON FILE AT THE REGISTER OF DEEDS OFFICE

TRANSPORTATION PROJECT PLAT NO: 6999-18-01-4.02

THAT PART OF LOT 1 OF CSM 4159 AND LOT 1 CSM 15666, LOCATED IN GOVERNMENT LOT 3, ALSO PART OF LOTS 7-12, LOTS 18-22, BLOCK 10 AND LOTS 12-14, BLOCK 11 OF PLEASANT VIEW PARK SUBDIVISION, LOCATED IN THE THE SE 1/4 OF THE SE 1/4, SECTION 36, TOWNSHIP 29 NORTH, RANGE 7 EAST; ALSO PART OF LOT 1 OF CSM 16492 OF THE FRACTIONAL NW 1/4 OF THE NE 1/4, ALSO PART OF THE FRACTIONAL NE 1/4 OF THE NE 1/4, SECTION 1, TOWNSHIP 28 NORTH, RANGE 7 EAST, ALL IN THE CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER C WAUSAU, TOWNLINE RD (GRAND AVENUE TO EASTHILL DRIVE), MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU 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 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU 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 CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS, AS DOCUMENT NO. 1754170 FOR ADDITIONAL INFORMATION.

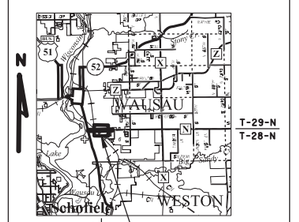
ALL TLES ARE FOR SLOPE GRADING PURPOSES, ANY BUILDINGS WHICH OCCUPY THE TLE WILL NOT BE AFFECTED.

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TOWNLINE RD ALIGNMENT		
200	20+80.60	1.69'
201	20+80.28	0.00'
203	26+28.03	-34.96'
204	31+29.05	-34.97'
205	31+89.07	-34.98'
206	33+82.21	-34.98'
207	33+84.70	-1.97'
208	33+84.85	0.00'
209	33+87.18	31.02'
210	33+27.17	31.02'
211	25+03.88	31.05'
215	20+86.44	32.99'
PLE291	26+00.41	31.05'
PLE292	26+00.41	49.05'
PLE293	25+83.00	49.00'
PLE294	25+70.00	31.05'
HE236	25+50.00	-34.95'
HE237	25+61.65	-40.00'
IP 714	20+74.13	-33.00'
IP 7043	23+62.67	33.00'

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
CURLING WAY ALIGNMENT		
212	104+67.55	-99.17'
213	106+39.00	-24.17'
214	106+38.65	0.00'
234	104+66.09	-32.17'
PRW220	106+38.28	25.82'
PRW221	105+98.24	28.52'
PRW222	103+96.09	28.50'
PRW223	101+13.81	28.50'
PRW224	100+32.97	51.81'
PRW225	100+32.94	-71.00'
PRW226	100+35.16	-46.39'
PRW227	100+58.10	-32.50'
PRW229	100+98.07	-32.50'
PRW230	101+63.91	-21.50'
PRW231	103+96.09	-21.50'
PRW232	104+33.91	-21.50'
PRW233	100+65.00	36.97'
PRW235	100+55.00	51.68'
IP 726	104+57.14	-43.08'

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP 7042	196680.593	284932.639	1.0" OD IRON PIPE
IP 7043	196681.147	285065.970	0.75" REBAR
IP 708	196680.958	285087.828	CHISELED "X"
IP 713	196745.709	284888.839	1.0" OD IRON PIPE
IP 714	196745.670	284777.521	1.0" OD IRON PIPE
IP 726	196566.653	285196.347	1.25" OD IRON PIPE
IP 1513	196682.499	285328.830	1.5" OD IRON PIPE
IP 729	196751.246	285783.896	0.75" REBAR
IP 730	196750.507	285666.805	0.5 OD IRON PIPE
IP 731	196750.128	285611.102	0.75" REBAR
IP 732	196749.498	285500.346	0.75" REBAR
IP 9076	196750.140	285555.822	1.25" OD IRON PIPE
IP 9078	196751.115	285728.815	1.0" OD IRON PIPE (BENT)
IP 736	196752.192	285956.973	0.5" OD IRON PIPE
IP 8808	196679.723	284845.893	1.0" OD IRON PIPE

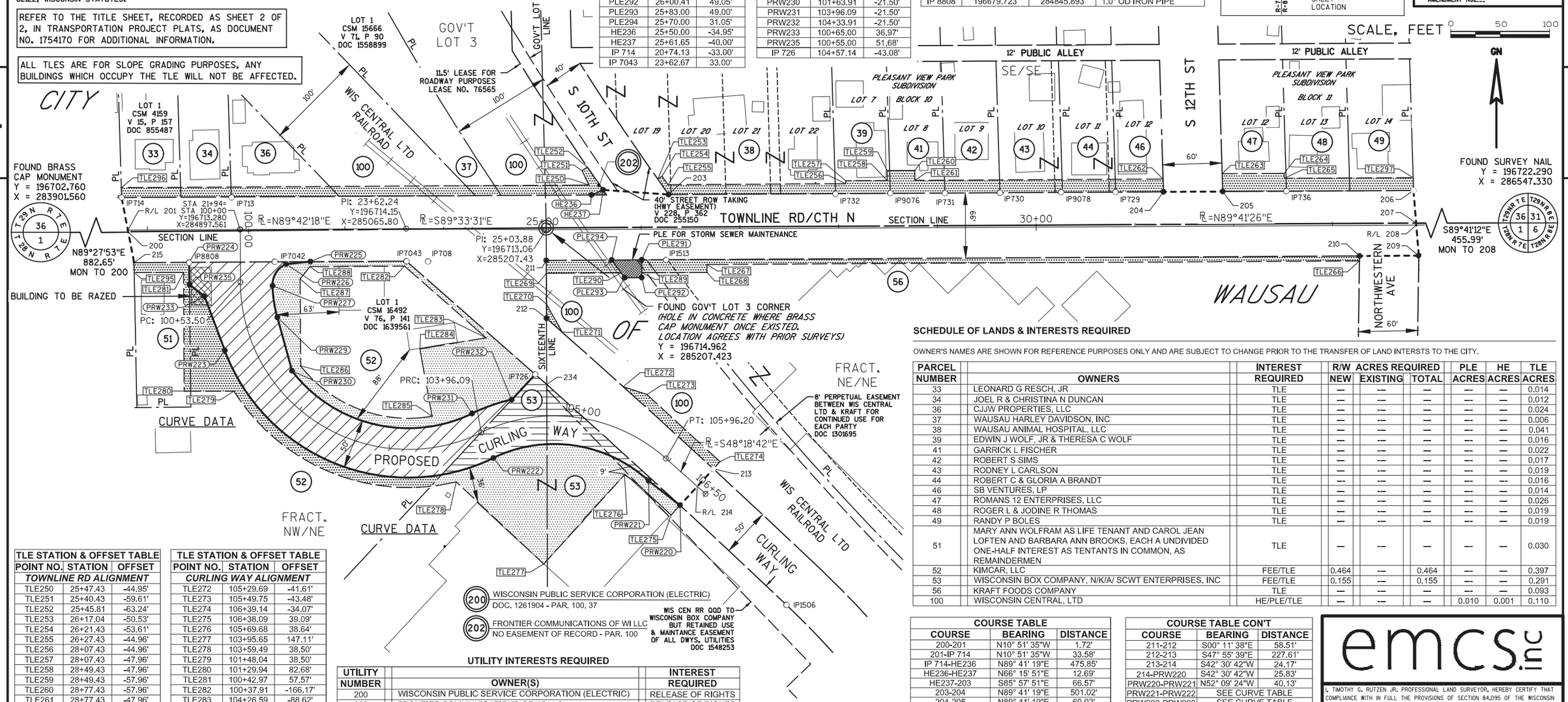
LOCATION SKETCH NOT TO SCALE



STATE OF WISCONSIN - MARATHON COUNTY RECORDED 03/06/2018 7:54:36 PM DEAN J. STRATZ, REGISTER OF DEEDS 000-1754406

REGISTER OF DEEDS
Marathon County, Wis.
Received for Record this 5th day of March A.D. 2018 at 2 o'clock 51 M. in Plat Cabinet No. 3 on page 5638
Dean J. Stratz
REGISTRAR

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-18-01-4.02
AMENDMENT NO:---



TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TOWNLINE RD ALIGNMENT		
TLE250	25+47.43	-44.95'
TLE251	25+40.43	-59.61'
TLE252	25+45.81	-63.24'
TLE253	26+17.04	-50.53'
TLE254	26+21.43	-53.61'
TLE255	26+27.43	-44.96'
TLE256	28+07.43	-44.96'
TLE257	28+07.43	-47.96'
TLE258	28+49.43	-47.96'
TLE259	28+49.43	-57.96'
TLE260	28+77.43	-57.96'
TLE261	28+77.43	-47.96'
TLE262	31+28.73	-47.96'
TLE263	31+88.63	-52.98'
TLE264	32+51.43	-52.98'
TLE265	32+51.43	-47.98'
TLE266	33+27.08	36.02'
TLE267	26+66.43	36.04'
TLE268	26+66.43	44.04'
TLE269	25+03.88	44.05
TLE270	104+67.77	-113.36'
TLE271	104+77.81	-85.19'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
CURLING WAY ALIGNMENT		
TLE272	105+29.69	-41.61'
TLE273	105+49.75	-43.48'
TLE274	106+39.14	-34.07'
TLE275	106+38.09	39.09'
TLE276	105+69.68	38.64'
TLE277	103+95.65	147.11'
TLE278	103+59.49	38.50'
TLE279	101+48.04	38.50'
TLE280	101+29.94	82.68'
TLE281	100+42.97	57.57'
TLE282	100+37.91	-166.17'
TLE283	104+26.59	-88.62'
TLE284	103+48.47	-100.71'
TLE285	103+49.25	-31.50'
TLE286	101+65.66	-31.50'
TLE287	100+50.39	-60.43'
TLE288	100+37.94	-70.43'
TLE289	26+00.41	44.05'
TLE290	25+79.41	44.05'
TLE295	20+86.58	42.99'
TLE296	20+73.87	-43.01'
TLE297	33+81.89	-47.98'

UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WISCONSIN PUBLIC SERVICE CORPORATION (ELECTRIC)	RELEASE OF RIGHTS
202	FRONTIER COMMUNICATIONS OF WI LLC	RELEASE OF RIGHTS

CURVE TABLE					
CURVE	RADIUS	CHORD	CHORD LENGTH	DELTA	ARC LENGTH
PRW221-PRW222	141.50'	N81°37'23"W	158.80'	68°16'10"	168.60'
PRW222-PRW223	198.50'	N68°11'24"W	293.02'	95°08'09"	329.60'
PRW226-PRW227	23.50'	S31°48'22"W	26.05'	67°18'16"	27.61'
PRW227-PRW229	137.50'	S08°34'52"E	32.25'	13°28'12"	32.33'
PRW230-PRW231	148.50'	S76°37'58"E	187.41'	78°15'01"	202.81
PRW231-PRW232	191.50'	N70°36'58"E	42.52'	12°44'54"	42.61'

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE CITY.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	PLE ACRES	HE ACRES	TLE ACRES
33	LEONARD G RESCH, JR	TLE	—	---	—	---	—	0.014
34	JOEL R & CHRISTINA N DUNCAN	TLE	—	---	—	---	—	0.012
36	CJJW PROPERTIES, LLC	TLE	—	---	—	---	—	0.024
37	WAUSAU HARLEY DAVIDSON, INC	TLE	—	---	—	---	—	0.006
38	WAUSAU ANIMAL HOSPITAL, LLC	TLE	—	---	—	---	—	0.041
39	EDWIN J WOLF, JR & THERESA C WOLF	TLE	—	---	—	---	—	0.016
41	GARRICK L FISCHER	TLE	—	---	—	---	—	0.022
42	ROBERT S SIMS	TLE	—	---	—	---	—	0.017
43	RODNEY L CARLSON	TLE	—	---	—	---	—	0.019
44	ROBERT C & GLORIA A BRANDT	TLE	---	---	—	---	—	0.016
46	SB VENTURES, LP	TLE	—	---	—	---	—	0.014
47	ROMANS 12 ENTERPRISES, LLC	TLE	—	---	—	---	—	0.026
48	ROGER L & JODINE R THOMAS	TLE	—	---	—	---	—	0.019
49	RANDY P BOLES	TLE	—	---	—	---	—	0.019
51	MARY ANN WOLFRAM AS LIFE TENANT AND CAROL JEAN LOFTEN AND BARBARA ANN BROOKS, EACH A UNDIVIDED ONE-HALF INTEREST AS TENTANTS IN COMMON, AS REMAINDERMEN	TLE	—	---	—	---	—	0.030
52	KIMCAR, LLC	FEE/TLE	0.464	---	0.464	---	—	0.397
53	WISCONSIN BOX COMPANY, N/K/A/ SCWT ENTERPRISES, INC	FEE/TLE	0.155	---	0.155	---	—	0.291
56	KRAFT FOODS COMPANY	TLE	—	---	—	---	—	0.093
100	WISCONSIN CENTRAL, LTD	HE/PLE/TLE	—	---	—	0.010	0.001	0.110

COURSE TABLE		
COURSE	BEARING	DISTANCE
200-201	N10° 51' 35"W	1.72'
201-IP 714	N10° 51' 35"W	33.58'
IP 714-HE236	N89° 41' 19"E	475.85'
HE236-HE237	N66° 15' 51"E	12.69'
HE237-203	S85° 57' 51"E	66.57'
203-204	N89° 41' 19"E	501.02'
204-205	N89° 41' 19"E	60.02'
205-206	N89° 41' 19"E	193.14'
206-207	S04° 36' 59"E	33.11'
207-208	S04° 36' 59"E	1.97'
208-209	S04° 36' 59"E	31.10'
209-210	S89° 41' 19"W	60.01'
210-PLE291	S89° 41' 19"W	726.76'
PLE291-PLE292	S00° 18' 34"E	18.00'
PLE292-PLE293	N89° 50' 19"W	17.41'
PLE293-PLE294	N36° 13' 00"W	22.17'
PLE294-211	S89° 41' 19"W	66.19'

COURSE TABLE CON'T		
COURSE	BEARING	DISTANCE
211-212	S00° 11' 38"E	58.51'
212-213	S47° 55' 39"E	227.61'
213-214	S42° 30' 42"W	24.17'
214-PRW220	S42° 30' 42"W	25.83'
PRW220-PRW221	N52° 09' 24"W	40.13'
PRW221-PRW222	SEE CURVE TABLE	
PRW222-PRW223	SEE CURVE TABLE	
PRW223-PRW233	N20° 37' 20"W	58.61'
PRW233-PRW235	N51° 52' 21"W	19.36'
PRW235-PRW224	N00° 39' 23"W	22.48'
PRW224-215	S89° 41' 19"W	55.75'
215-200	N10° 51' 35"W	31.84'
PRW225-PRW226	S84° 32' 50"W	24.71'
PRW229-PRW230	S15° 18' 58"E	56.09'
PRW232-IP726	N43° 01' 45"E	35.02'

emcs.inc

I, TIMOTHY G. RUTZEN JR. PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT COMPLIANCE WITH IN FULL THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6999-18-01-4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY G. RUTZEN, JR. S-2994 MOSINEE, WISCONSIN LAND SURVEYOR

3-2-2014

TIMOTHY G. RUTZEN JR. PROFESSIONAL LAND SURVEYOR NUMBER 2994

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU

(SIGNATURE) DATE: 3/5/18

(PRINTED NAME) Rob 111 iclke

FILE NAME : P:\49XX\4993.DP.16.TOWNLINE RD NEPA\CADDS********\SHEETSPLAN\040102-RP.DWG
APPRAISAL PLAT DATE : ----------
PLOT DATE : 3/6/2018 7:54 AM PLOT BY : TIM RUTZEN PLOT NAME : PLOT SCALE : **********

6999-18-01-4.02

COMPOSITE DRAWING, ORIGINAL ON FILE AT THE REGISTER OF DEEDS OFFICE

TRANSPORTATION PROJECT PLAT NO: 6999-18-01-4.03

THAT PART OF LOT 15, BLOCK 11 OF PLEASANT VIEW PARK SUBDIVISION, LOTS 1 & 2 OF CSM 10712 AND LOT 1 OF CSM 3643, LOCATED IN THE SE 1/4 OF THE SE 1/4, SECTION 36, TOWNSHIP 29 NORTH, RANGE 7 EAST; ALSO PART OF LOT 1 OF CSM 2957 AND LOT 1 OF CSM 4382, SECTION 31, TOWNSHIP 29 NORTH, RANGE 8 EAST; ALSO PART OF LOT 1 OF CSM 2621, LOTS 2 & 4 OF CSM 8867 AND LOT 1 OF CSM 14462, LOCATED IN THE FRACTIONAL NW 1/4 OF THE NW 1/4, SECTION 6, TOWNSHIP 28 NORTH, RANGE 8 EAST, PART OF THE FRACTIONAL NE 1/4 OF THE NE 1/4 OF SECTION 1, TOWNSHIP 28 NORTH, RANGE 7 EAST, ALL IN THE CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER C WAUSAU, TOWNLINE RD (GRAND AVENUE TO EASTHILL DRIVE), MARATHON COUNTY

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

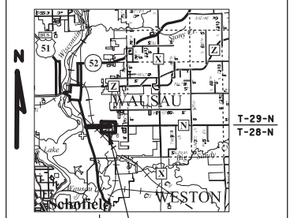
TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

COURSE TABLE		
COURSE	BEARING	DISTANCE
300-301	N04° 36' 59"W	33.11'
301-PLE340	N89° 41' 19"E	182.22'
PLE340-PLE341	N00° 18' 34"W	18.00'
PLE341-PLE342	N89° 41' 19"E	17.87'
PLE342-IP 9082	S02° 01' 54"E	18.01'
IP 9082-302	N89° 41' 19"E	229.91'
302-303	N81° 49' 48"E	30.17'
303-304	N81° 49' 48"E	30.17'
304-305	N89° 41' 19"E	106.43'
305-306	N86° 23' 56"E	580.43'
306-307	S03° 00' 39"E	40.82'
307-315	N86° 59' 21"E	66.21'
315-308	N86° 59' 21"E	1.66'
308- IP 9102	S03° 00' 39"E	40.99'
IP 9102-310	S86° 23' 56"W	649.82'
310-311	S89° 41' 19"W	138.31'
311-312	N00° 47' 04"E	8.25'
312-313	S89° 41' 19"W	455.99'
313-314	N04° 36' 59"W	31.10'
314-300	N04° 36' 59"W	1.97'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE320	35+01.43	-47.99'
TLE321	35+01.43	-52.99'
TLE323	35+82.45	-47.99'
TLE324	38+12.35	-47.99'
TLE325	38+72.93	-48.12'
TLE326	39+80.53	-45.71'
TLE327	41+99.42	46.00'
TLE328	41+99.42	61.00'
TLE329	41+24.42	61.00'
TLE330	41+24.42	46.00'
TLE331	40+00.00	46.45'
TLE332	40+00.00	62.64'
TLE334	38+42.61	59.25'
TLE335	38+42.96	41.00'
TLE336	35+77.43	41.00'
TLE337	35+77.43	46.01'
TLE338	33+86.90	46.02'
TLE343	33+81.89	-47.98'
TLE344	45+61.70	-46.50'
TLE345	46+28.74	46.00'

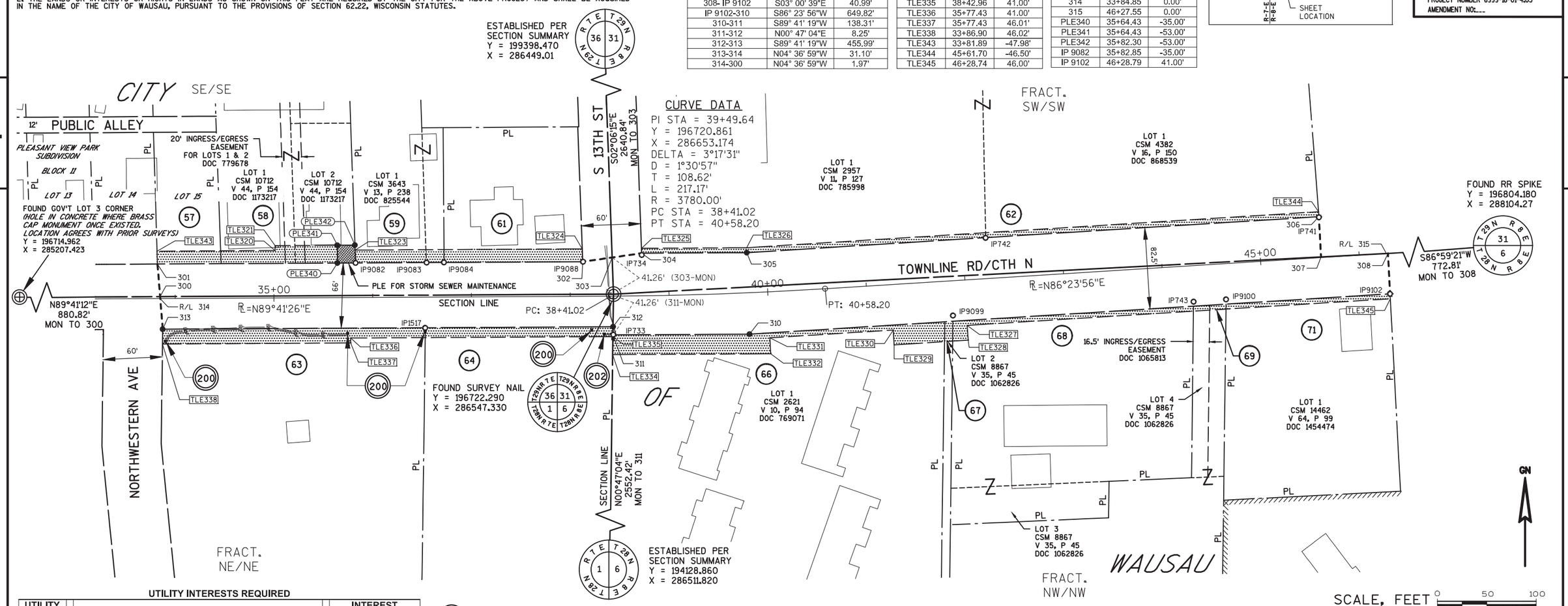
STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
300	33+84.70	-1.97'
301	33+82.21	-34.98'
302	38+12.76	-35.00'
303	38+42.66	-39.13'
304	38+72.89	-43.12'
305	39+80.49	-40.71'
306	45+61.76	-41.50'
307	45+61.34	-0.68'
308	46+29.21	0.02'
310	39+79.83	41.82'
311	38+43.00	39.25'
312	38+43.16	31.00'
313	33+87.18	31.02'
314	33+84.85	0.00'
315	46+27.55	0.00'
PLE340	35+64.43	-35.00'
PLE341	35+64.43	-53.00'
PLE342	35+82.30	-53.00'
IP 9082	35+82.85	-35.00'
IP 9102	46+28.79	41.00'

LOCATION SKETCH NOT TO SCALE



STATE OF WISCONSIN - MARATHON COUNTY
RECORDED
05/29/2018 2:31:34 PM
DEAN J. STRATZ, REGISTER OF DEEDS
DOC - 1754407
REGISTER OF DEEDS
Marathon County, Wis.
Received for Record this 29th
day of March A.D. 2018
at 2:51 o'clock P M. in Plat
Cabinet No. 3 on page 5104-A
Dean J. Stratz
REGISTRAR

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-18-01-4.03
AMENDMENT NO:---



UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WISCONSIN PUBLIC SERVICE CORPORATION (ELECTRIC)	RELEASE OF RIGHTS
201	WISCONSIN PUBLIC SERVICE CORPORATION (GAS)	RELEASE OF RIGHTS
202	FRONTIER COMMUNICATIONS OF WI LLC	RELEASE OF RIGHTS

EXISTING MONUMENTS

POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP 9082	196753.842	286286.220	1.25" OD IRON PIPE
IP 9083	196754.220	286358.070	1.25" OD IRON PIPE
IP 9084	196754.469	286375.648	1.25" OD IRON PIPE
IP 9088	196755.084	286516.517	2" OD IRON PIPE
IP 734	196761.882	286575.906	1.25" OD IRON PIPE
IP 742	196779.308	286924.075	IRON (UNDER ASPHALT)
IP 741	196800.124	287261.606	1.25" OD IRON PIPE
IP 9100	196716.903	287167.584	1.0" OD IRON PIPE
IP 743	196714.638	287134.647	RR SPIKE
IP 9099	196700.578	286891.108	1.0" OD IRON PIPE
IP 733	196681.220	286547.078	2.5" OD IRON PIPE
IP 1517	196688.085	286356.684	4"X4" CONCRETE MONUMENT W/STEEL PLATE

(200) WISCONSIN PUBLIC SERVICE CORPORATION (ELECTRIC)
DOC. 250195A - PAR. 62
DOC. 299953 - PAR. 62
DOC. 683938 - PAR. 64
NO EASEMENT OF RECORD - PAR. 63

(201) WISCONSIN PUBLIC SERVICE CORPORATION (GAS)
DOC. 783725 - PAR. 66

(202) FRONTIER COMMUNICATIONS OF WI LLC
DOC. 749686 - PAR. 66
DOC. 1157950 - PAR. 64

ALL TLES ARE FOR SLOPE GRADING PURPOSES, ANY BUILDINGS WHICH OCCUPY THE TLE WILL NOT BE AFFECTED.

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS, AS DOCUMENT NO. 1754170 FOR ADDITIONAL INFORMATION.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE CITY.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	PLE ACRES	TLE ACRES
57	WISCONSIN PUBLIC SERVICE CORPORATION	TLE	---	---	---	---	0.019
58	WAUSAU 28, LLC AN UNDIVIDED 50% INTEREST, AND MCS PROPERTIES II, LLC AND UNDIVIDED 50% INTEREST	PLE/TLE	---	---	---	0.007	0.042
59	MATHEW J GATES	TLE	---	---	---	---	0.027
61	WESTLEY MESSIER	TLE	---	---	---	---	0.042
62	CHRIST LUTHERAN CHURCH OF WAUSAU	TLE	---	---	---	---	0.079
63	WISCONSIN PUBLIC SERVICE CORPORATION	TLE	---	---	---	---	0.083
64	KRAFTCO CORPORATION	TLE	---	---	---	---	0.044
66	TERRACE HEIGHTS APARTMENTS ASSOCIATES, LP	TLE	---	---	---	---	0.112
67	LEA HEROUX	TLE	---	---	---	---	0.004
68	WAUSAU AREA JAYCEES, INC	TLE	---	---	---	---	0.033
69	TAMMY ANN SCHUMACHER, A/K/A TAMMY A STENCIL	TLE	---	---	---	---	0.004
71	PHYLLIS KOLTZ	TLE	---	---	---	---	0.019

emcs.inc

I, TIMOTHY G. RUTZEN JR. PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT COMPLIANCE WITH IN FULL THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6999-18-01-4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY G. RUTZEN, JR. S-2994 MOSINEE, WISCONSIN LAND SURVEYOR

3-2-2014
TIMOTHY G. RUTZEN JR.
PROFESSIONAL LAND SURVEYOR NUMBER 2994

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU
(SIGNATURE) DATE: 3/5/18
(PRINTED NAME) Rob 112 ickle

FILE NAME : P:\49XX\4993.DP.16.TOWNLINE RD NEPA\CADDS********\SHEETSPLAN\040103-RP.DWG
APPRAISAL PLAT DATE : ----------
PLOT DATE : 3/6/2018 8:19 AM PLOT BY : TIM RUTZEN PLOT NAME : PLOT SCALE : **********

6999-18-01-4.03

COMPOSITE DRAWING, ORIGINAL ON FILE AT THE REGISTER OF DEEDS OFFICE

TRANSPORTATION PROJECT PLAT NO: 6999-18-01-4.04

THAT PART OF LOT 1 OF CSM 4381, LOCATED IN PART OF THE FRACTIONAL SW 1/4, SECTION 31, TOWNSHIP 29 NORTH, RANGE 8 EAST; ALSO PART OF LOT 1 OF CSM 8712 AND LOT 1 OF CSM 979, LOCATED IN PART OF THE FRACTIONAL NW 1/4 OF SECTION 6, TOWNSHIP 28 NORTH, RANGE 8 EAST, ALL IN THE CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER C WAUSAU, TOWNLINE RD (GRAND AVENUE TO EASTHILL DRIVE), MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU 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 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU 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 CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

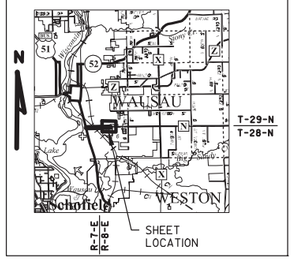
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERSTS TO THE CITY.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
72	CYNTHIA S H WITTKE	TLE	---	---	---	0.010
73	ANDREW J MAYER A/K/A ANDREW JOSEPH MAYER & MICHEL R MAYER	TLE	---	---	---	0.011
74	UNITED PENTECOSTAL CHURCH, WAUSAU, WI	TLE	---	---	---	0.022

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN TRANSPORTATION PROJECT PLATS, AS DOCUMENT NO. 1754170 FOR ADDITIONAL INFORMATION.

ALL TLES ARE FOR SLOPE GRADING PURPOSES, ANY BUILDINGS WHICH OCCUPY THE TLE WILL NOT BE AFFECTED.

LOCATION SKETCH NOT TO SCALE



STATE OF WISCONSIN - MARATHON COUNTY RECORDED
03/06/2018 2:51:26 PM
DEAN J. STRATZ, REGISTER OF DEEDS
200 1754408
REGISTER OF DEEDS
Marathon County, Wis.
Received for Record this 6th day of March A.D. 2018 at 2:51 o'clock P.M. in Plat Cabinet No. 3 on page 5246
Dean J. Stratz
REGISTRAR

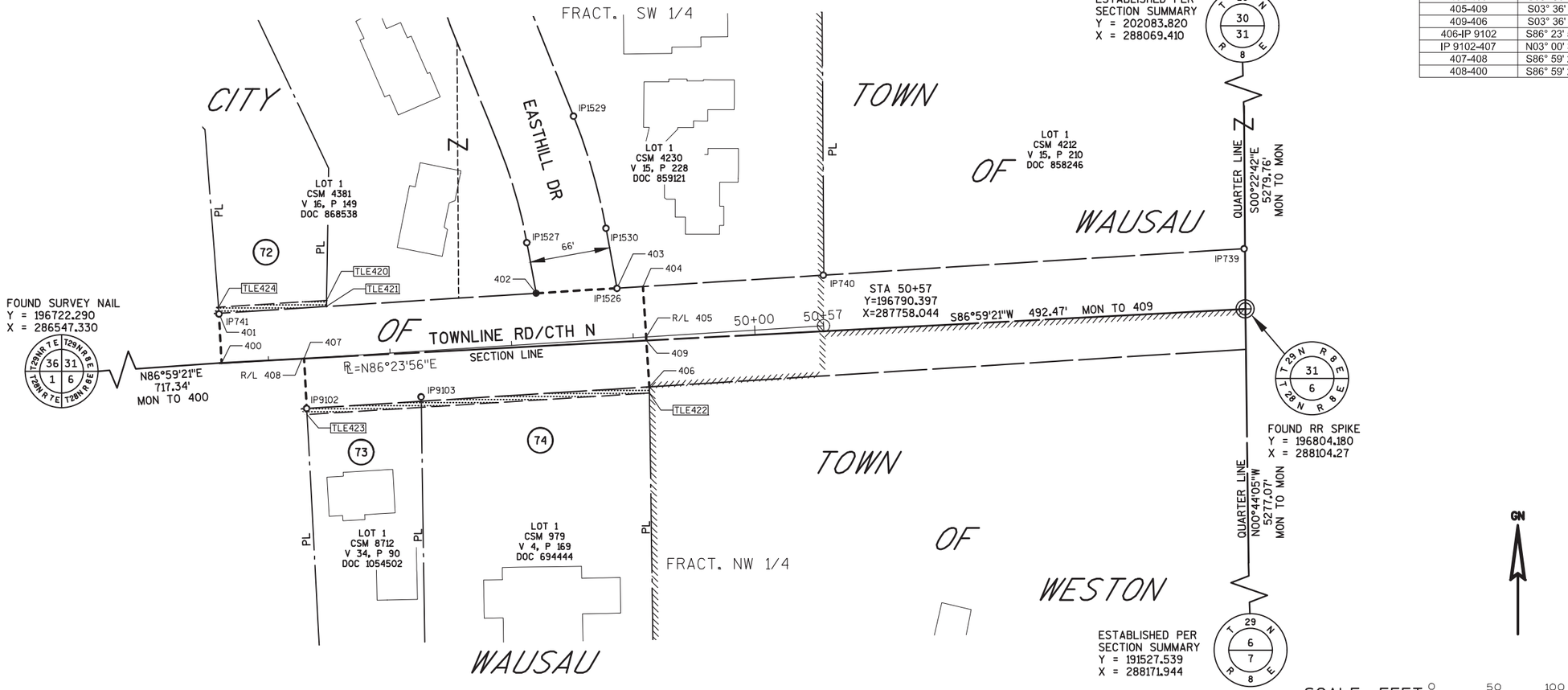
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-18-01-4.04
AMENDMENT NO:---

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP 741	196800.124	287261.606	1.25" OD IRON PIPE
IP 1526	196821.096	287588.410	0.75" REBAR
IP 1527	196858.608	287514.338	0.75" REBAR
IP 1529	196962.276	287552.733	0.75" REBAR
IP 1530	196870.396	287579.391	0.75" REBAR
IP 740	196831.885	287757.773	1.25" OD IRON PIPE
IP 739	196853.548	288103.281	1.25" OD IRON PIPE (LEANING WEST)
IP 9102	196722.605	287333.617	1.0" OD IRON PIPE
IP 9103	196732.014	287427.613	1.0" OD IRON PIPE

COURSE TABLE		
COURSE	BEARING	DISTANCE
400-401	N03° 00' 39"W	40.82'
401-402	N86° 23' 56"E	260.97'
402-403	N86° 23' 56"E	66.46'
403-404	N86° 23' 56"E	21.41'
404-405	S03° 36' 04"E	41.50'
405-409	S03° 36' 04"E	2.92'
409-406	S03° 36' 04"E	38.08'
406-IP 9102	S86° 23' 56"W	281.81'
IP 9102-407	N03° 00' 39"W	40.99'
407-408	S86° 59' 21"W	1.66'
408-400	S86° 59' 21"W	66.21'

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
400	45+61.34	-0.68'
401	45+61.76	-41.50'
402	48+22.73	-41.50'
403	48+89.19	-41.50'
404	49+10.60	-41.50'
405	49+10.60	0.00'
406	49+10.60	41.00'
407	46+29.21	0.02'
408	46+27.55	0.00'
409	49+10.60	2.92'
IP 9102	46+28.79	41.00'

TLE STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
420	46+50.59	-46.50'
421	46+50.19	-41.50'
422	49+10.36	46.00'
423	46+28.74	46.00'
424	45+61.70	-46.50'



emcs.inc

I, TIMOTHY G. RUTZEN JR. PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT COMPLIANCE WITH IN FULL THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6999-18-01-4.04 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TIMOTHY G. RUTZEN, JR. S-2994 MOSINEE, WISCONSIN LAND SURVEYOR

3-2-2014

TIMOTHY G. RUTZEN JR.
PROFESSIONAL LAND SURVEYOR NUMBER 2994

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU

(SIGNATURE) DATE: 3/5/18

(PRINTED NAME) Rob 113 ickc

FILE NAME : P:\49XX\4993.DP.16.TOWNLINE RD NEPA\CADDS********\SHEETSPLAN\040104-RP.DWG
APPRAISAL PLAT DATE : ----------
PLOT DATE : 3/6/2018 8:21 AM
PLOT BY : TIM RUTZEN
PLOT NAME :
PLOT SCALE : **********

LANDMARK REFERENCE MONUMENTS (BY OTHERS)

T29N R7E S1 S36

SLOPE INTERCEPT (TYP)

END CONSTRUCTION MATCH EXISTING 72.31'L SAWCUT REQ'D

WAUSAU ELECTRIC DEPT.

NAVI J DOWTY
1225 GRAND AVE
29129073630068

CREATIVE HOME FINANCE
1228 PROSPECT AVE
29129073640197

TIM L DOERR
702 TOWNLINE RD
29129073640214

BRAMWELL J JARVIS
708 TOWNLINE RD
29129073640213

ROGER G DUBBLE
714 TOWNLINE RD
29129073640215

STA:12+05/LT CONSTRUCT DRIVEWAY TYPE X (35.1')

STA:14+37/LT CONSTRUCT DRIVEWAY TYPE Y (12')

STA:15+18/LT CONSTRUCT DRIVEWAY TYPE Y (27')

TLE (TYP)

PLE (TYP)

WPS–ELECTRIC

FRONTIER COMM.
CHARTER COMM.

PROSPECT AVE

BM 1

10+00 10+50 11+00 11+50 12+50 13+00 13+50 14+00 14+50 15+00 15+50 16+00

N89°13'19"E

TOWNLINE ROAD

WAUSAU WATER WORKS

STA. 10+39.57
BEGIN CONSTRUCTION OF SANITARY SEWER AND WATERMAIN.
SEE UTILITY PLAN

BORING T-1

WPS–GAS

WPS–ELECTRIC

ERIC JONES
1303 GRAND AVE
29128070110942

WIEMAN FAMILY
615 TOWNLINE RD
29128070110943

BARBARA E VANDER LEEST
617 TOWNLINE RD
29128070110944

GARY JOHNSON
621 TOWNLINE RD
29128070110945

MARLENE M DEININGER
701 TOWNLINE RD
29128070110946

TGC HOLDINGS 101 LLC
707 TOWNLINE RD
29128070110966

SEAN P POPELKA
711 TOWNLINE RD
29128070110967

GRAND AVE

ABANDONED

STA:12+29/RT CONSTRUCT DRIVEWAY TYPE Y (33.7')

CLEAR AND GRUB – I.D. (TYP)

STA:13+47/RT CONSTRUCT DRIVEWAY TYPE Y (12')

STA:13+93/RT CONSTRUCT DRIVEWAY TYPE Y (12')

END CONSTRUCTION MATCH EXISTING 49.97'R SAWCUT REQ'D

N

BEGIN PROJECT
STA. 11+05.69
X = 283,809.33
Y = 196,701.51

22' 48° B–B 21'

21' 47° B–B 21'

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEV.
1	13+97.81/24.9'LT	HYDRANT ARROW @ NE SIDE TOWNLINE RD & PROPSECT AVE (#463HA)	1213.62

GRADE BREAK STA = 11+05.69
ELEV = 1211.37

GRADE BREAK STA = 11+50.00
ELEV = 1211.54

GRADE BREAK STA = 14+00.00
ELEV = 1210.54

0.40% −0.40% 0.40%

STA. 13+04.92
BORING T1
(BORING ENDED AT 16.5')

EXISTING GROUND PROFILE

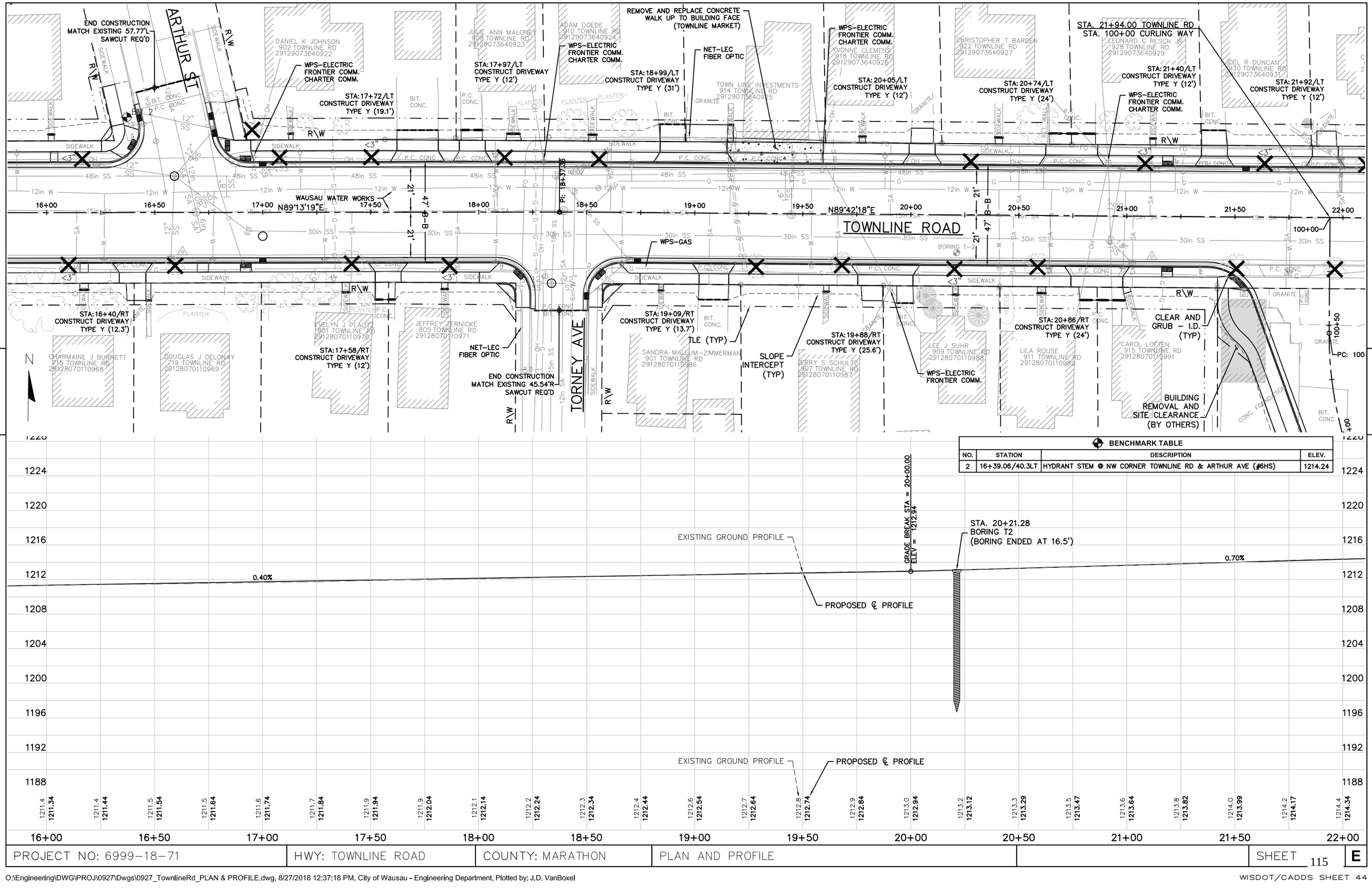
PROPOSED ℄ PROFILE

1224 1220 1216 1212 1208 1204 1200 1196 1192 1188

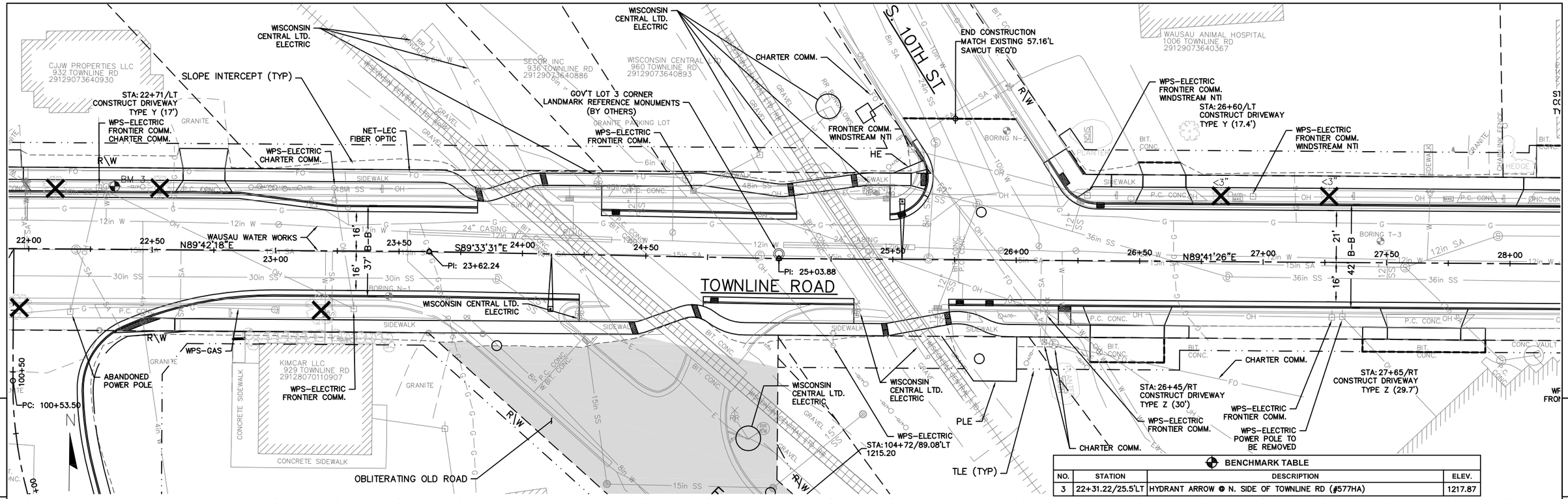
1211.6 1211.3 1211.3 1211.4 1211.44 1211.4 1211.54 1211.4 1211.44 1211.3 1211.34 1211.2 1211.24 1211.2 1211.14 1211.1 1211.04 1211.0 1210.94 1210.8 1210.84 1210.7 1210.74 1210.7 1210.64 1210.8 1210.54 1210.9 1210.64 1211.0 1210.74 1211.0 1210.84 1211.1 1210.94 1211.1 1211.04 1211.2 1211.14 1211.3 1211.24 1211.4 1211.34

10+00 10+50 11+00 11+50 12+00 12+50 13+00 13+50 14+00 14+50 15+00 15+50 16+00

PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PLAN AND PROFILE		SHEET 114 E



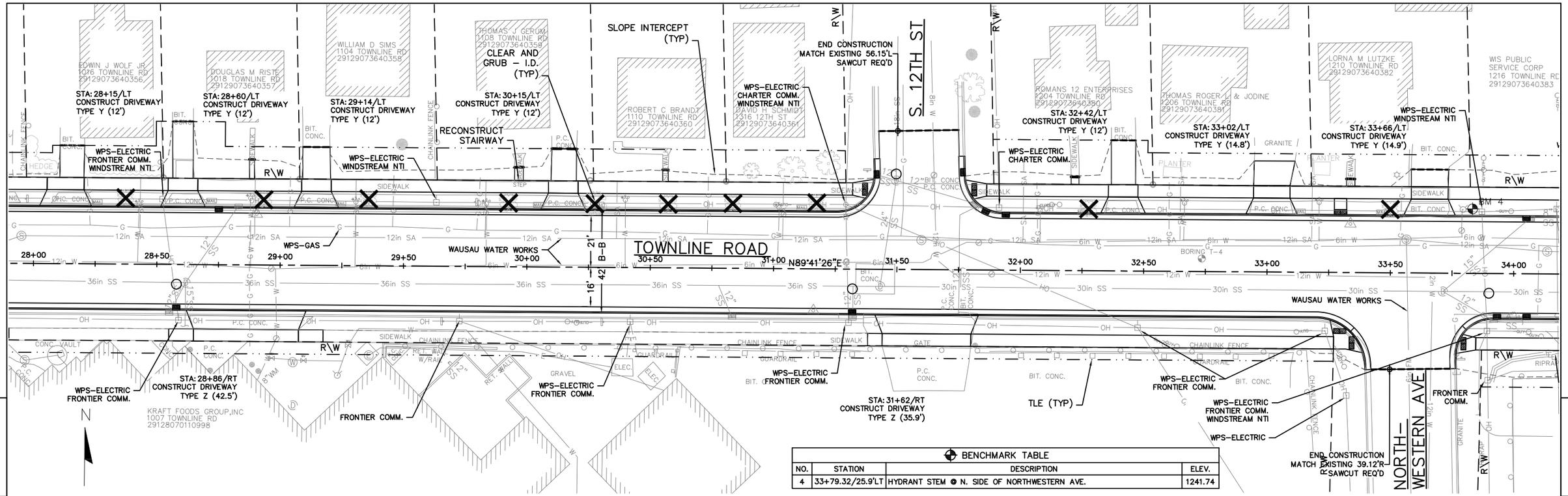
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PLAN AND PROFILE		SHEET 115 E



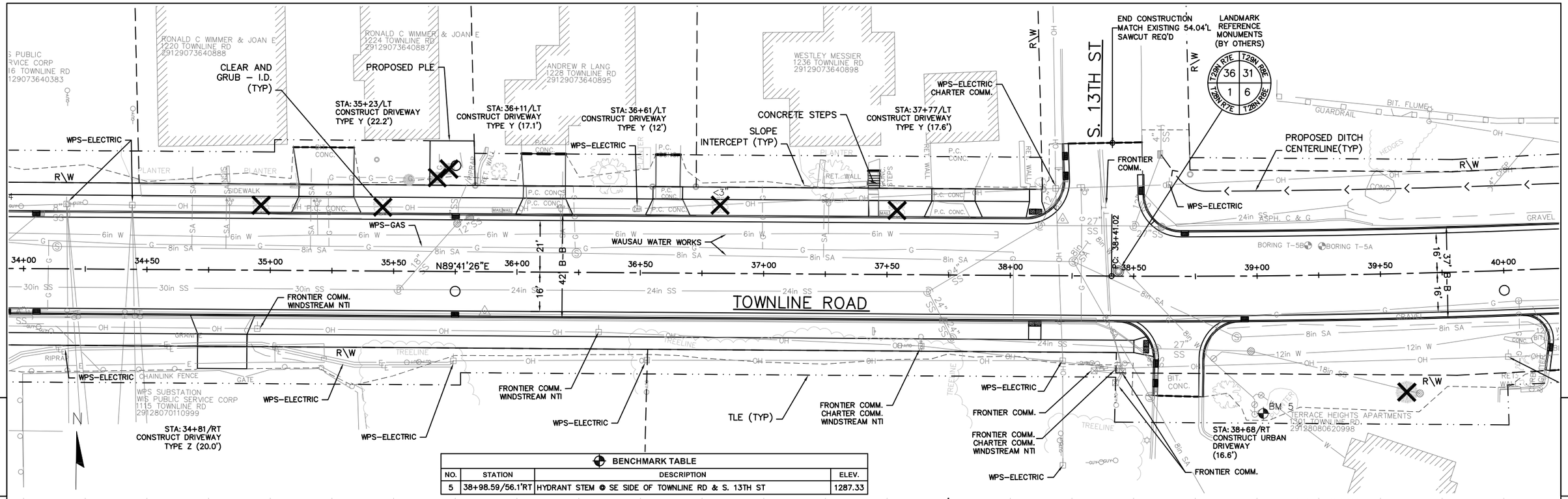
PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PLAN AND PROFILE		SHEET 116	E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PLAN & PROFILE.dwg, 10/19/2018 11:17:42 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

WISDOT/CADDS SHEET 44



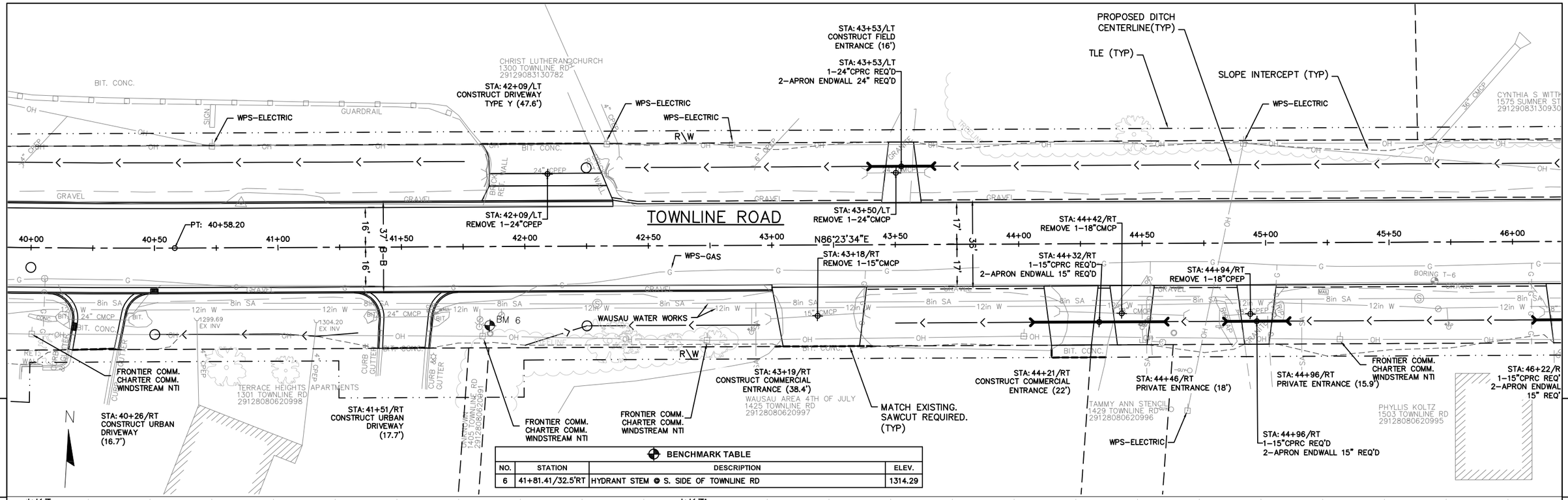
PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PLAN AND PROFILE		SHEET 117	E



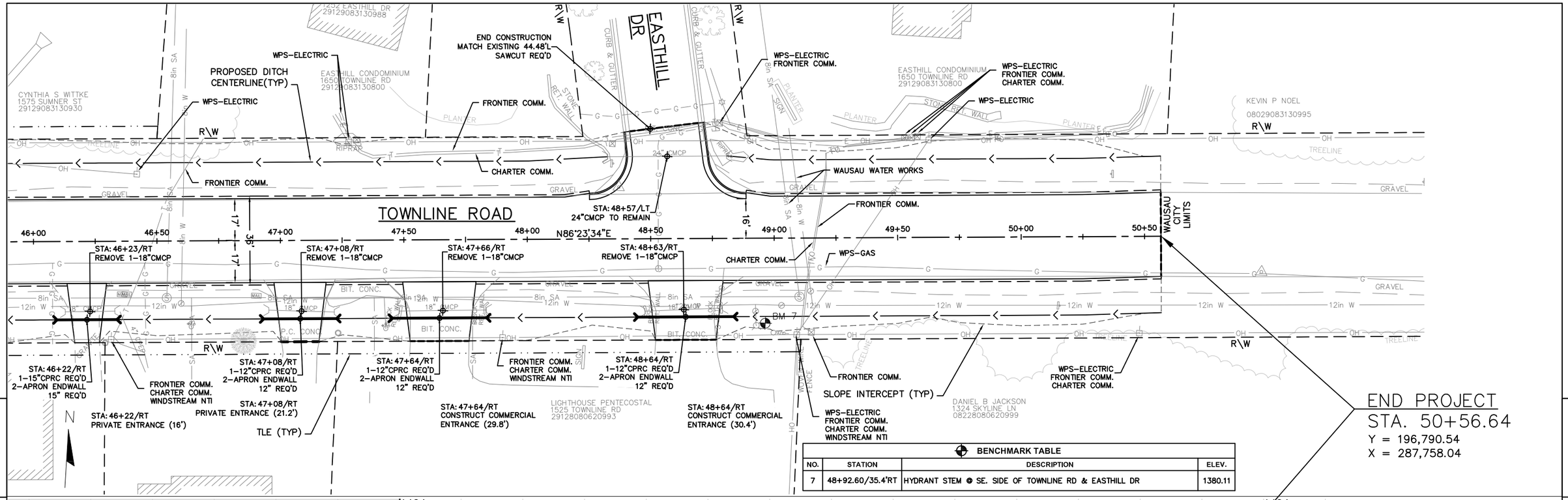
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PLAN AND PROFILE		SHEET 118 E

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_PLAN & PROFILE.dwg, 10/19/2018 11:22:13 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

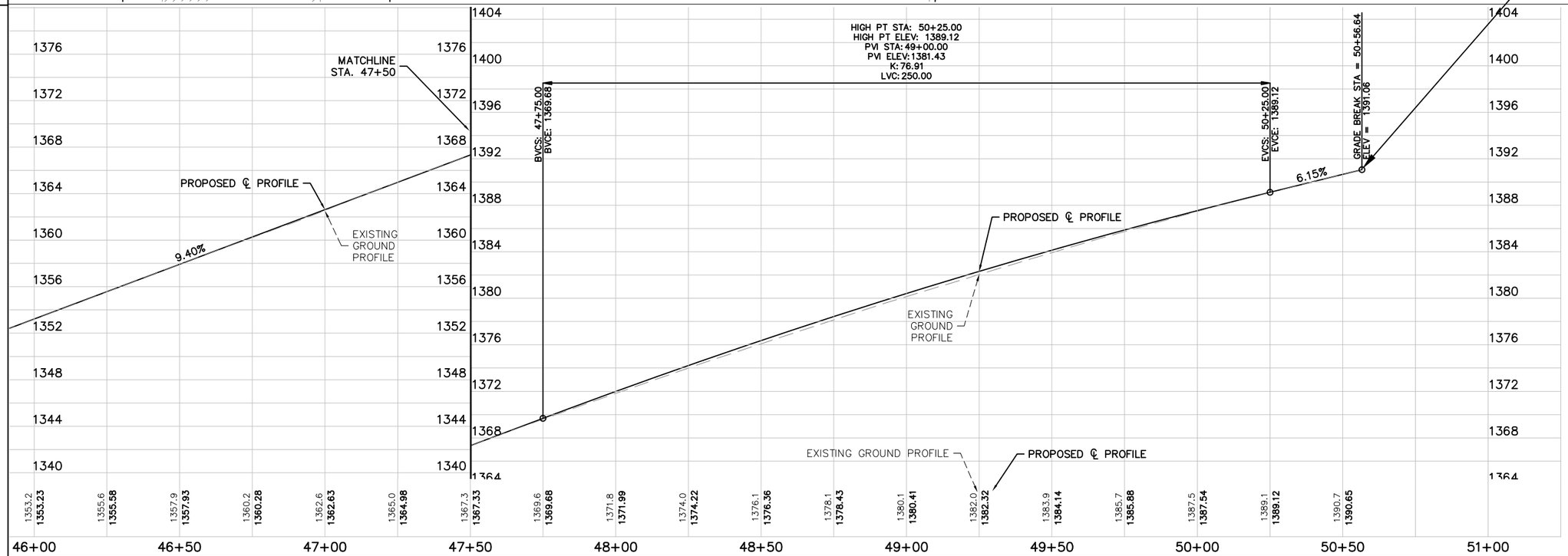
WISDOT/CADDS SHEET 44



PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PLAN AND PROFILE		SHEET 119	E



BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEV.
7	48+92.60/35.4'RT	HYDRANT STEM @ SE. SIDE OF TOWNLINE RD & EASTHILL DR	1380.11



PROJECT NO: 6999–18–71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PLAN AND PROFILE		SHEET 120	E

STA. 21+94.00 TOWNLINE RD
STA. 100+00.00 CURLING WAY

TOWNLINE ROAD

PI: 23+62.24

THE 48" STEEL CASING

BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEV.
3	22+31.22/25.5'LT	HYDRANT ARROW @ N. SIDE OF TOWNLINE RD (#577HA)	1217.87

STA: 104+72/89.08'LT
1215.20

STA: 104+85/66.07'LT
1214.90

PROPOSED DITCH
(SEE CONSTRUCTION DETAILS)

STA: 105+12/56.46'LT
1215.26

EX. CURLING WAY
(TO BE REALIGNED)

WAUSAU WATER WORKS

STA. 105+75
END CURB AND GUTTER.
BEGIN GRAVEL SHOULDER
AND DITCH

STA: 105+75/28.59'LT
1216.04

STA: 106+09/22.06'LT
1216.40

OBLITERATING
OLD ROAD

KIMCAR LLC
929 TOWNLINE RD
291280701110907

CONCRETE SIDEWALK

GRANITE

R\W

PC: 100+53.50

WAUSAU WATER WORKS

SLOPE INTERCEPT (TYP)

PRC: 103+96.09

PT: 105+96.20

S48°18'42"E

CAROL LOFTEN
915 TOWNLINE RD
291280701110991

STA: 100+50 RT
REMOVE BUILDING
(BY OTHERS)

STA: 101+91/LT
CONSTRUCT DRIVEWAY
TYPE Y

TLE (TYP)

AGG CE

CURLING WAY

END CONSTRUCTION
MATCH EXISTING.
SAWCUT REQ'D

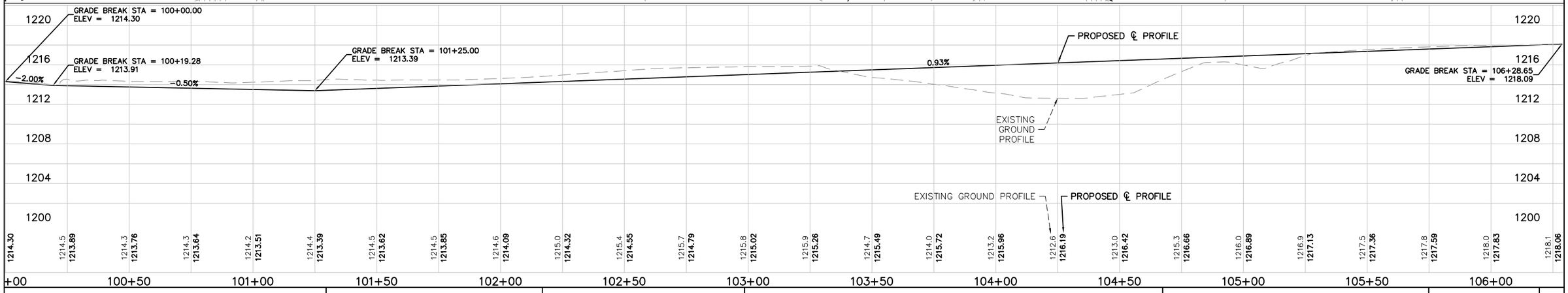
KRAFT TODDS GROUP,INC
1007 TOWNLINE RD
291280701110923

SCWT ENTERPRISES INC
1328 CURLING WAY
291280701109908

TLE (TYP)

STA: 102+49/RT
CONSTRUCT DRIVEWAY
TYPE Y

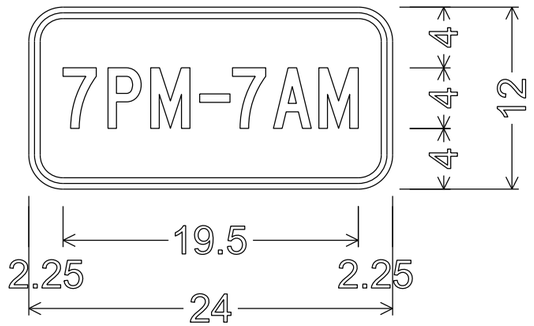
END CONSTRUCTION
STA. 106+28.65
Y=196,459.48
X=285,352.58



PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	PLAN AND PROFILE – CURLING WAY		SHEET 121	E

NOTES

1. Signs are Type II- Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C



2.250" Radius, 0.375" Border, 0.375" Indent

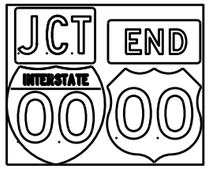
7

7

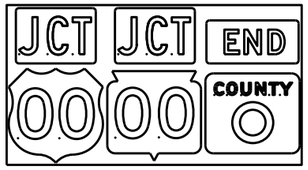
TYPICAL ASSEMBLIES



J1-1



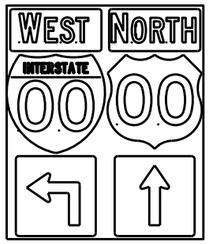
J1-2



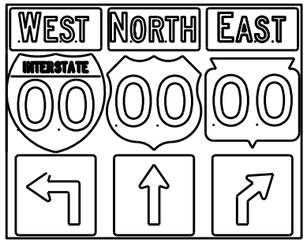
J1-3



J2-1



J2-2

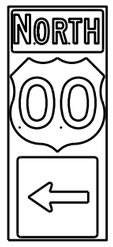


J2-3

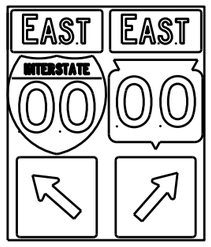


JV

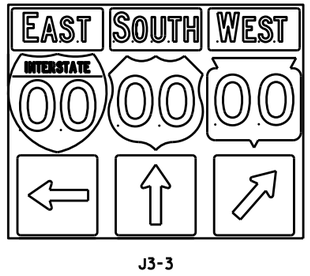
(Typical Vertical J-Assembly
See Note 10 and 11)



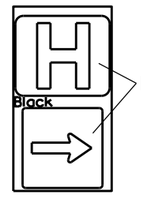
J3-1



J3-2



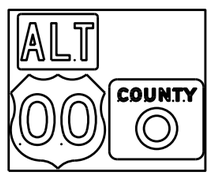
J3-3



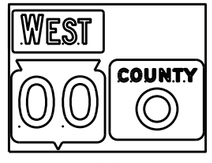
JH-1



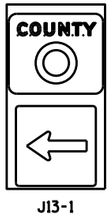
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

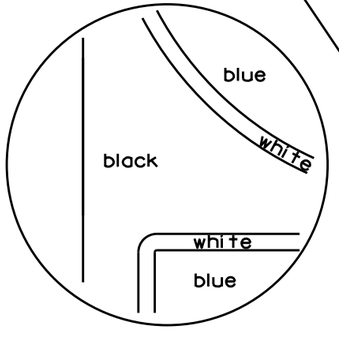


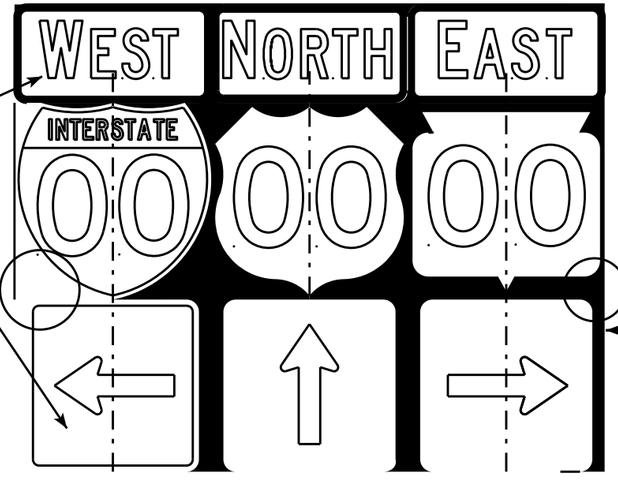
J23-1

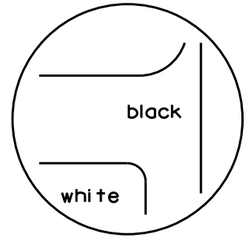


J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

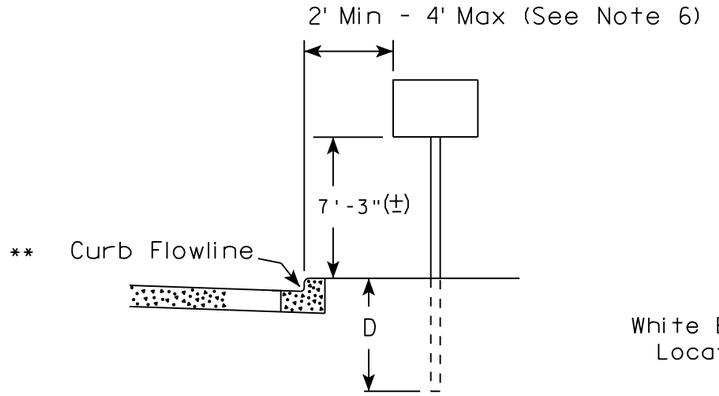
APPROVED Matthew R Rauch
for State Traffic Engineer

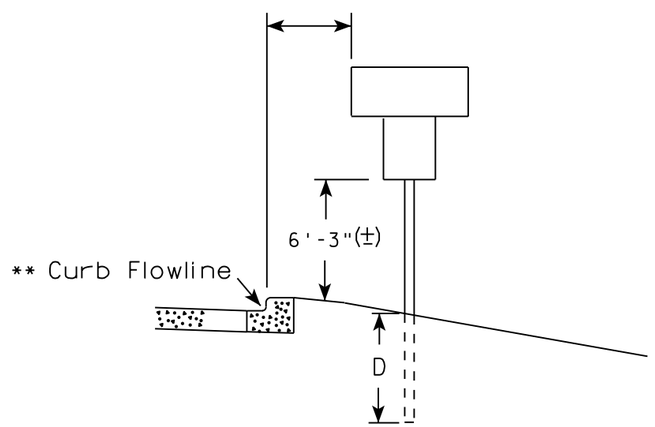
DATE 2/06/14 PL A2-1S.8

PROJECT NO: SHEET NO: E

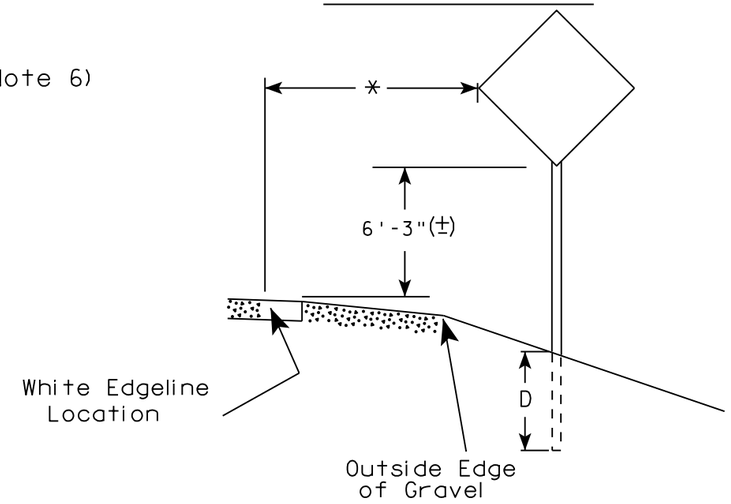
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42

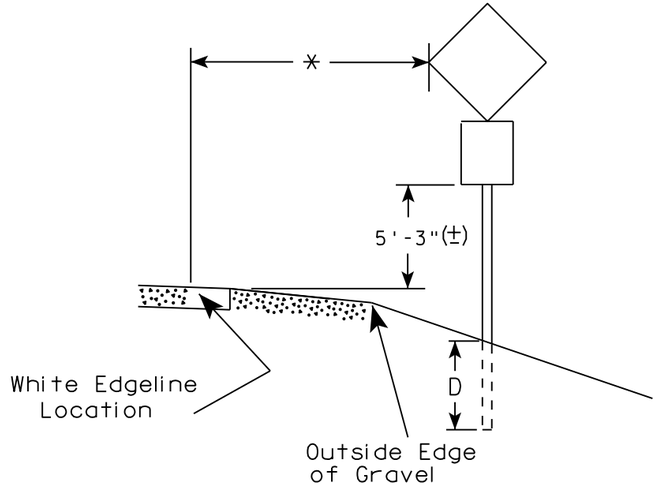
URBAN AREA





RURAL AREA (See Note 2)





GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
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 signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

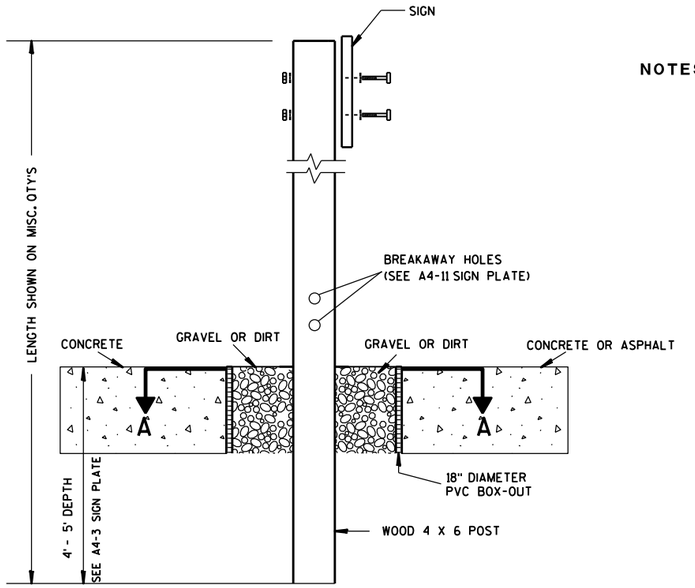
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

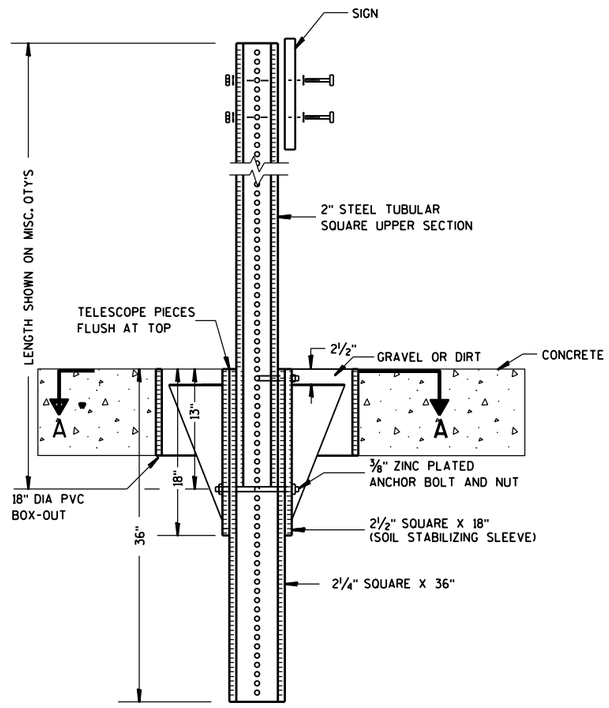
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 124	E



ELEVATION VIEW

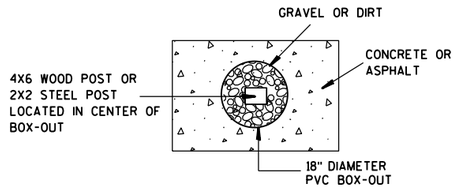
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

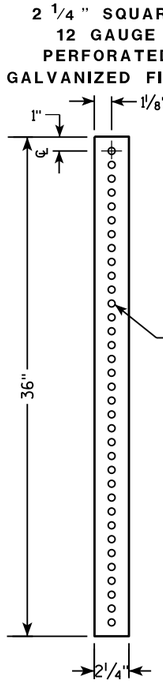
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

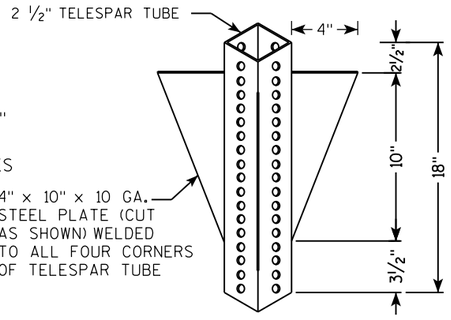
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

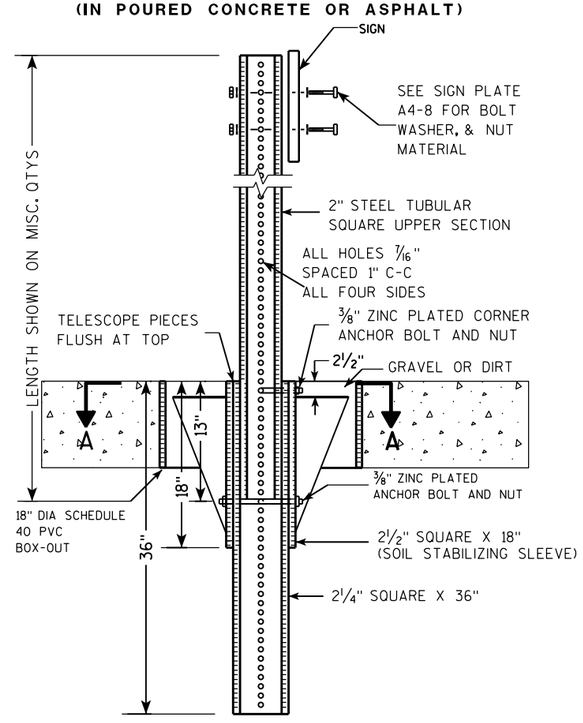
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



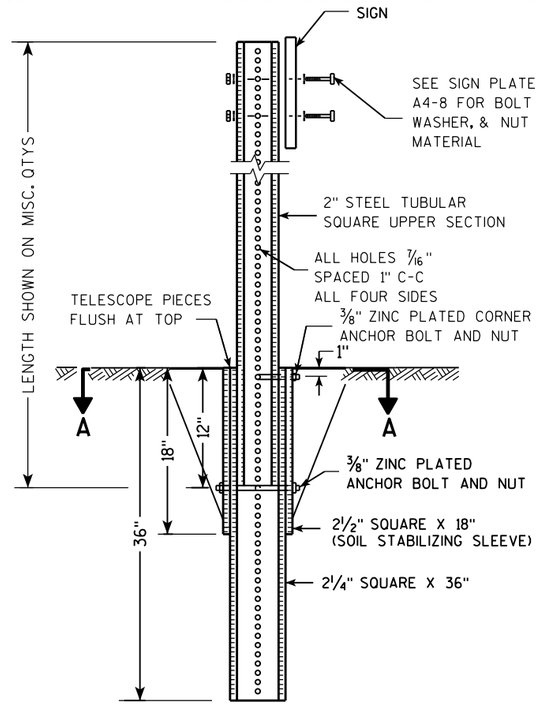
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

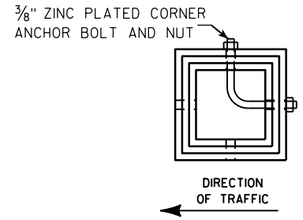


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

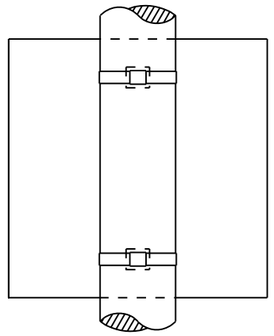
DATE 2/05/15 PLATE A4-9.9

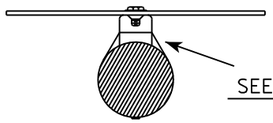
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

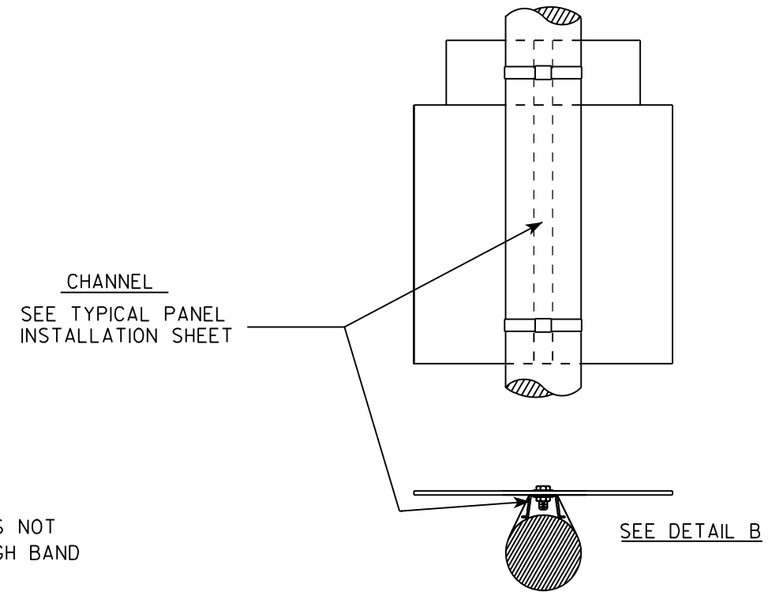
BANDING

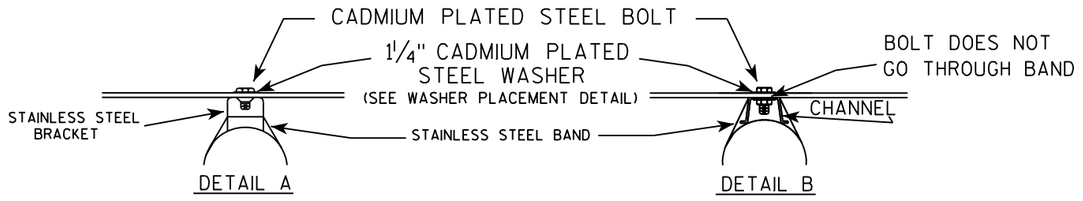
SINGLE SIGN



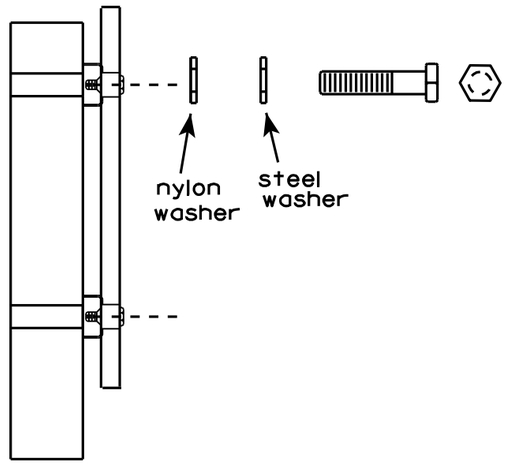


"J" ASSEMBLY





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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

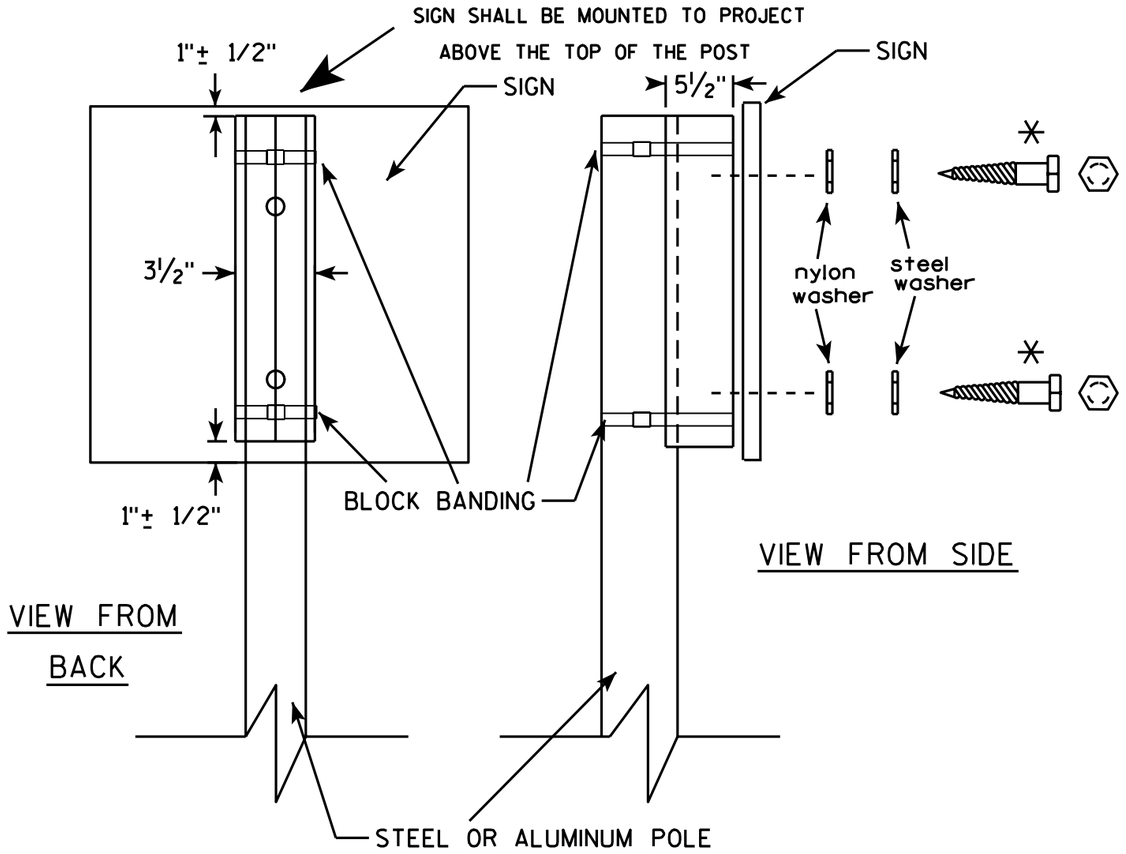
STANDARD SIGN
SIGN BANDING DETAILS

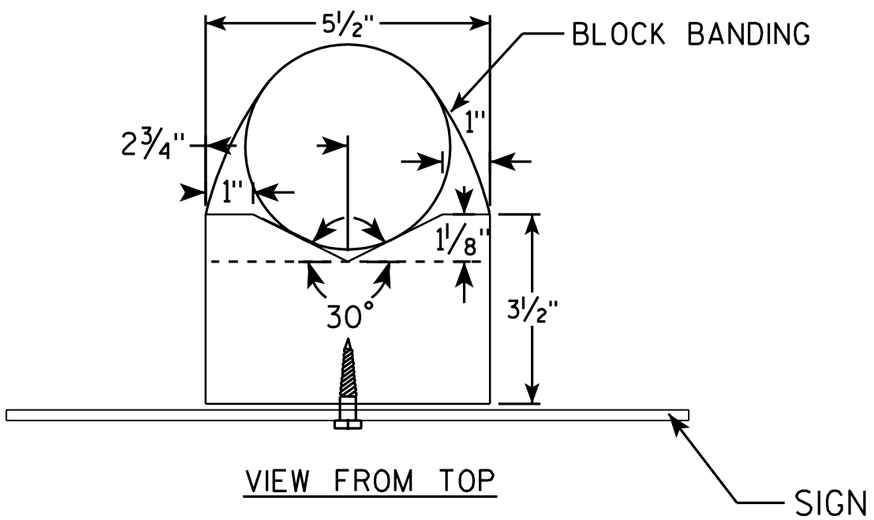
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 127	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

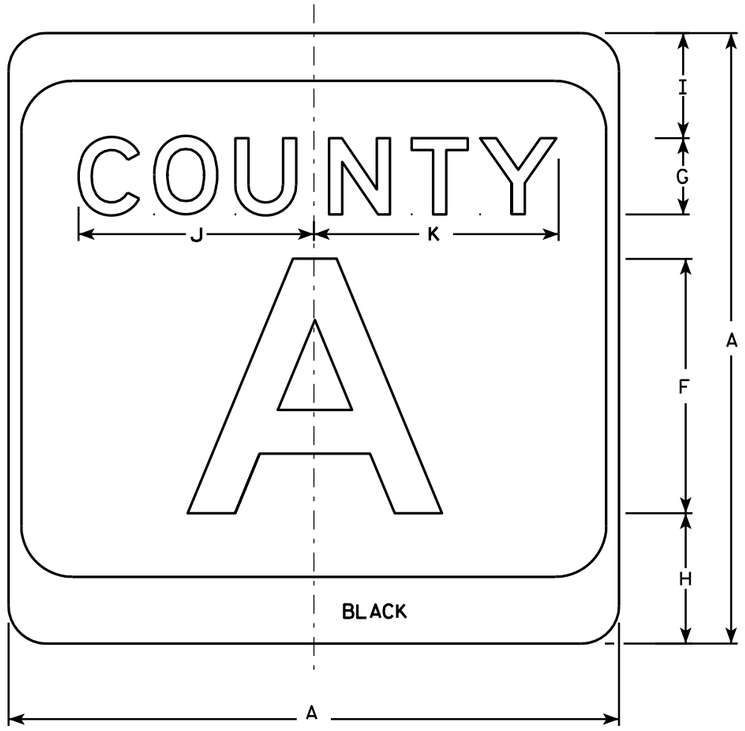
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

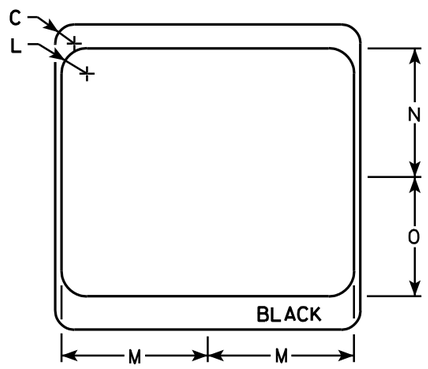
SHEET NO: 128 E

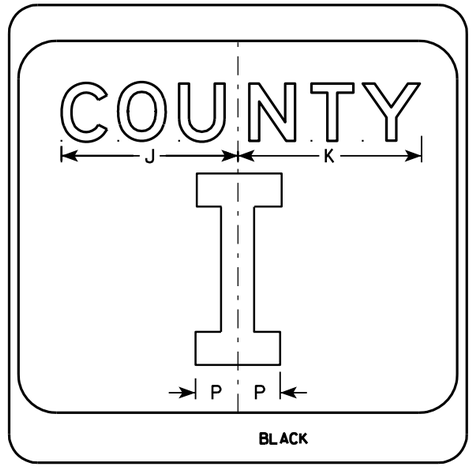
FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

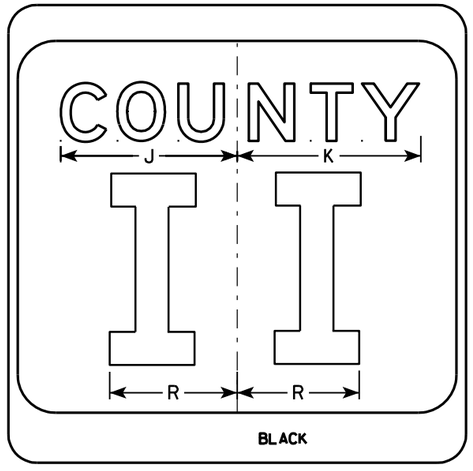
WISDOT/CADDS SHEET 42



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

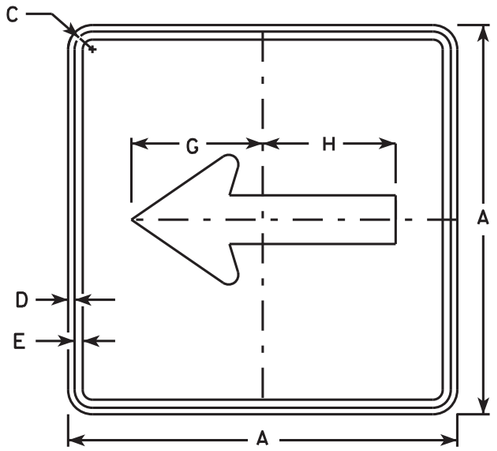
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

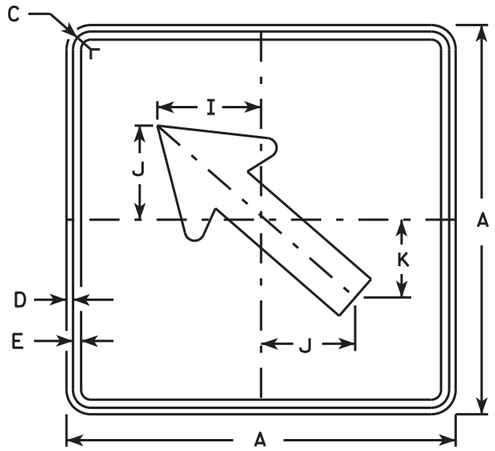
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 129 | E



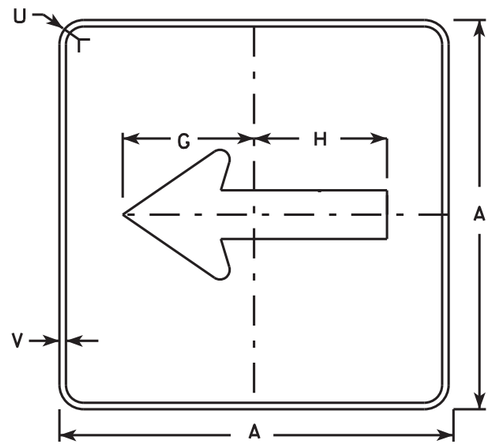
M6-1
MM6-1
MO6-1
MP6-1



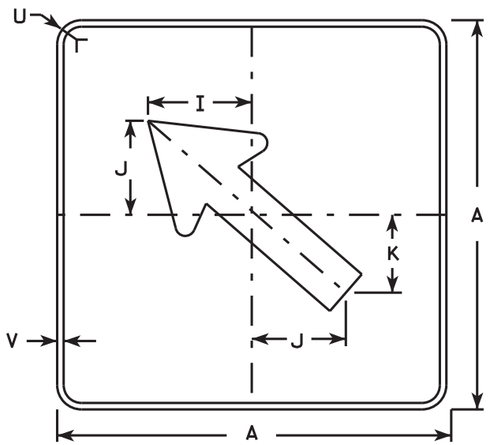
M6-2
MM6-2
MO6-2
MP6-2

NOTES

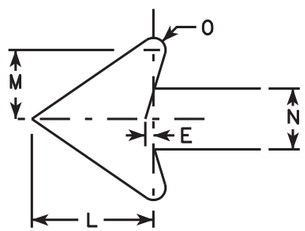
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

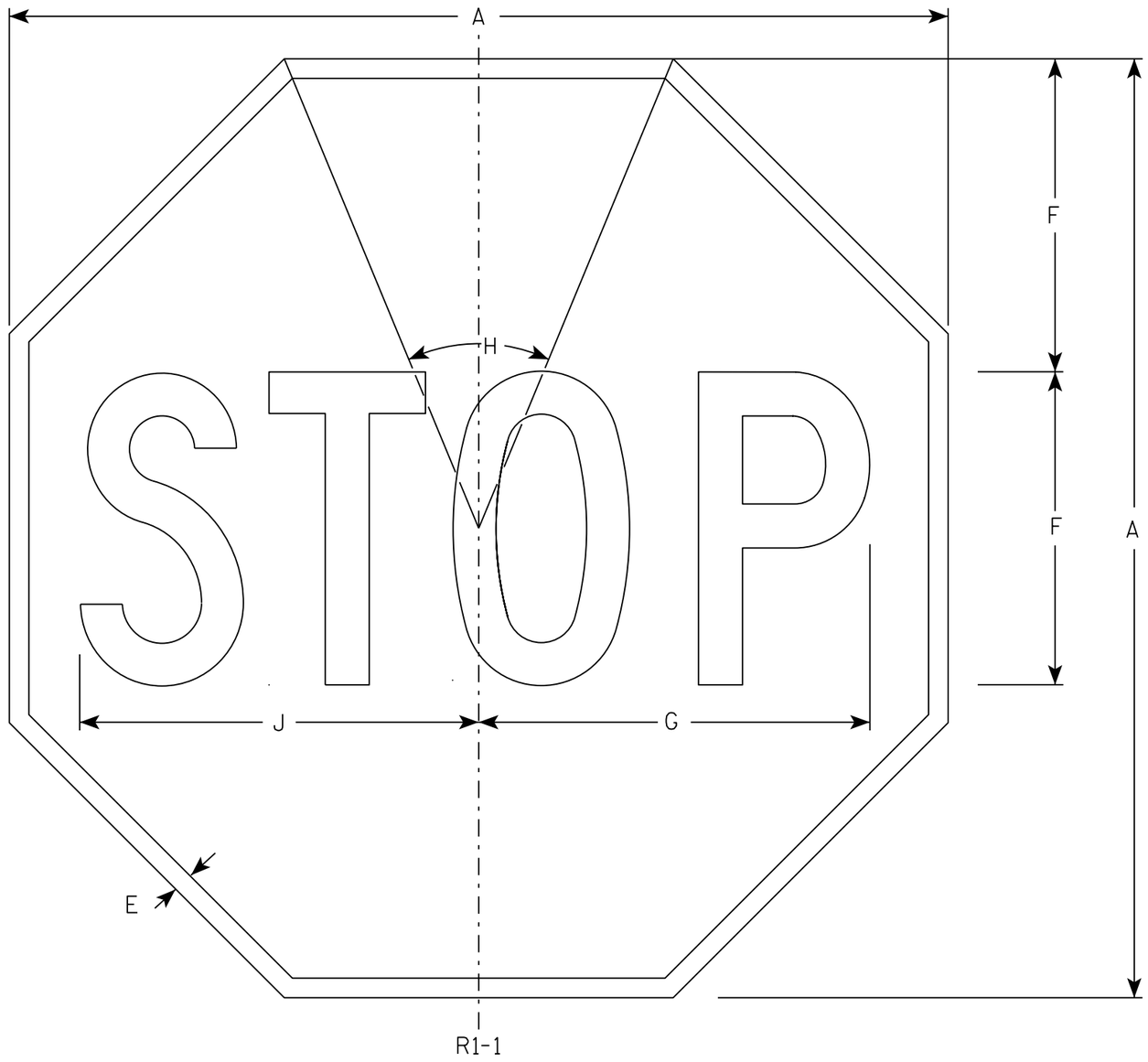
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO. 130 | E

7

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 15-OCT-2015 13:17 PLOT BY : ss...plotuser...ss PLOT NAME : PLOT SCALE : 18.607113:1.000000
WISDOT/CADDS SHEET 42



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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
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

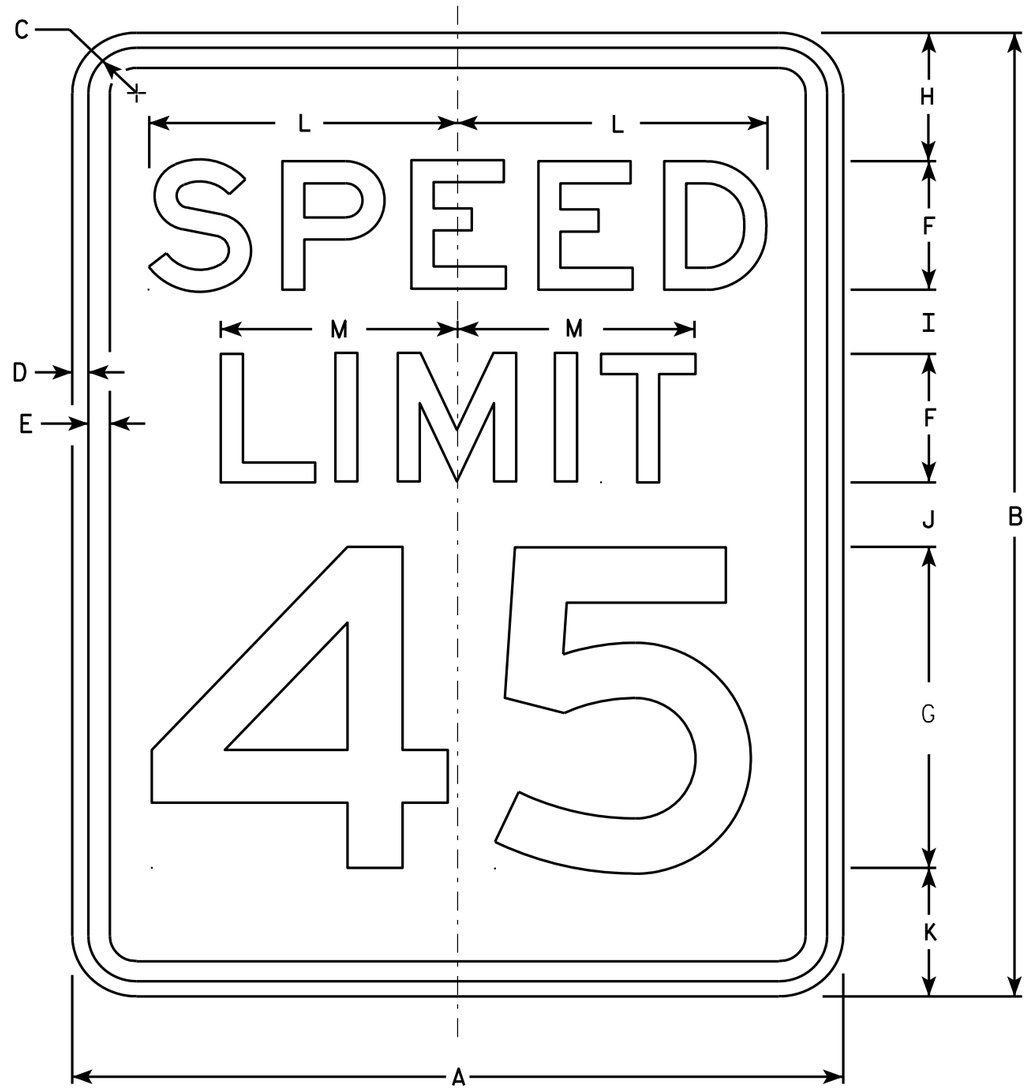
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 131	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

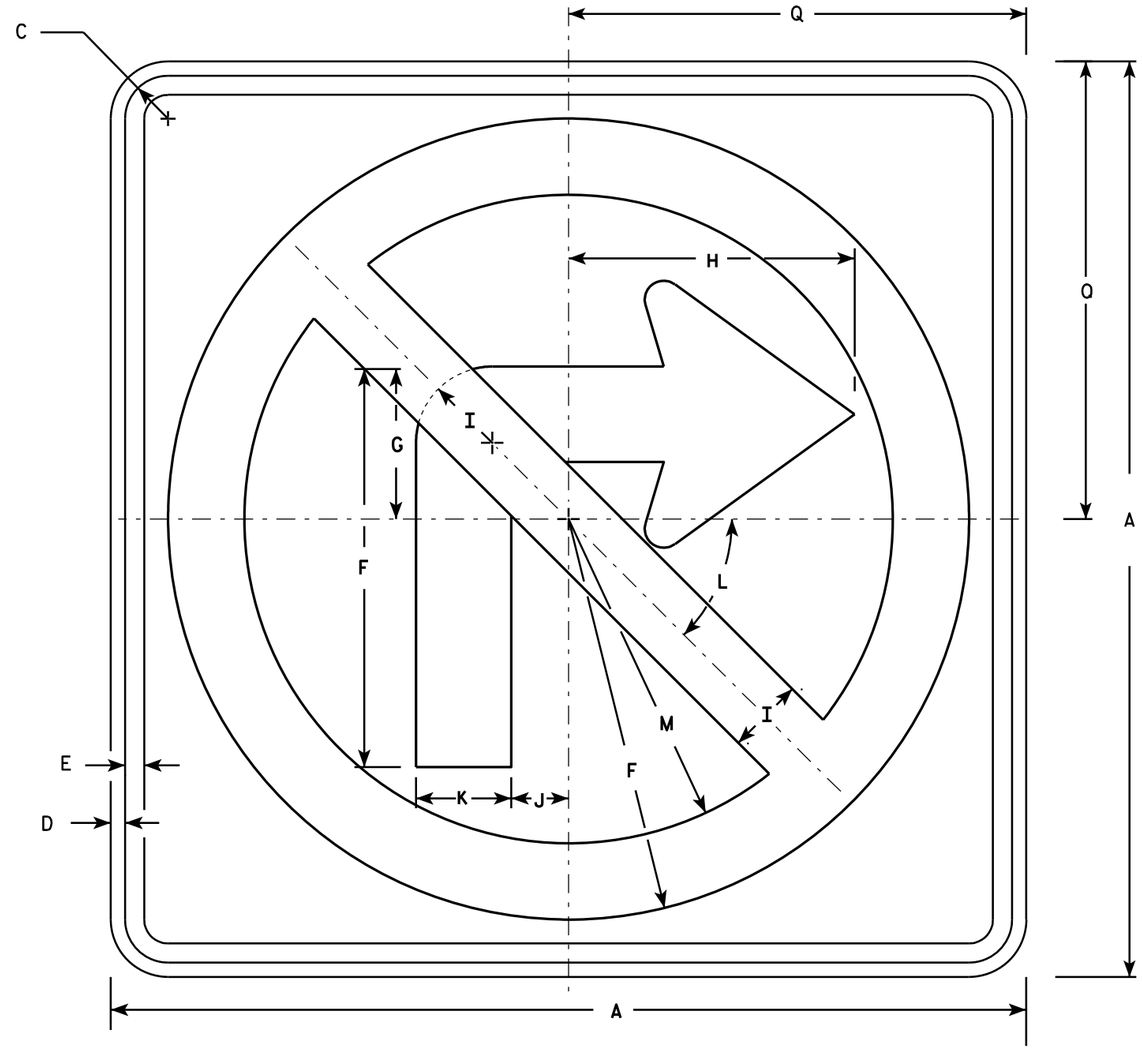
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

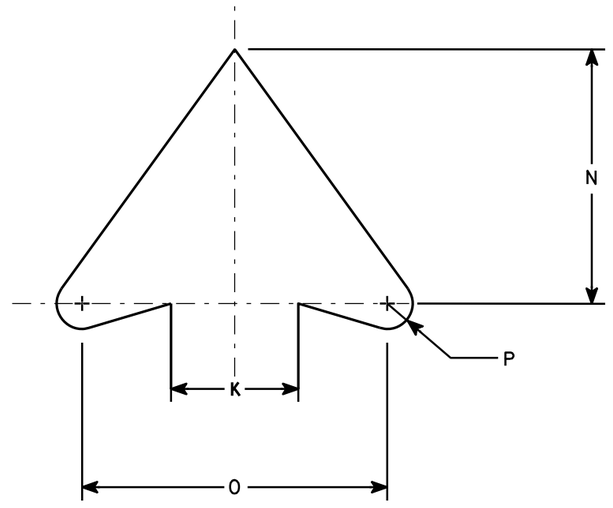
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 132 | E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

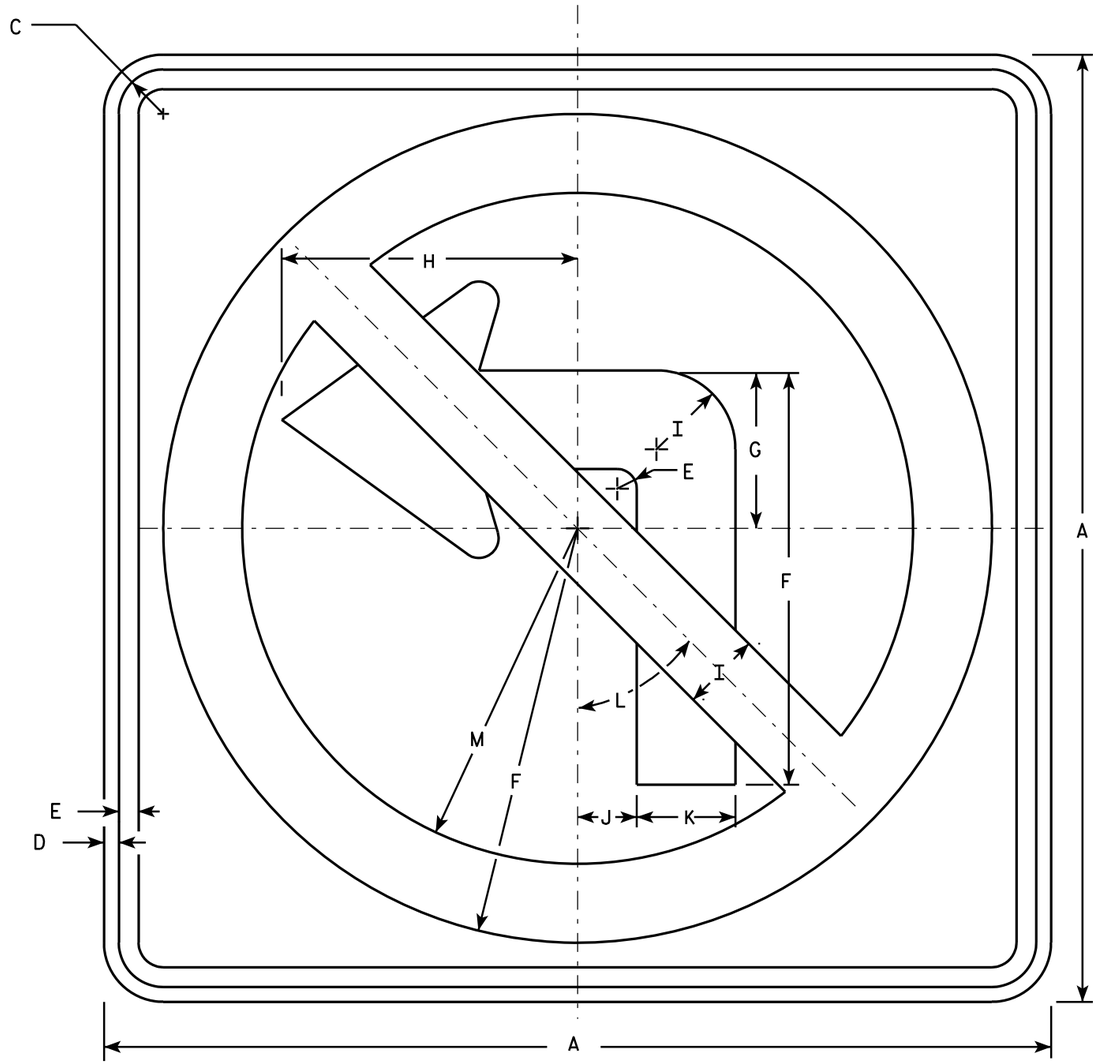
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

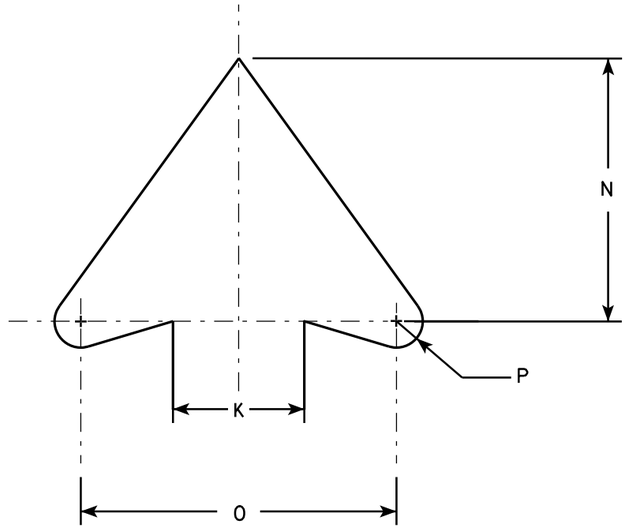
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 133	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

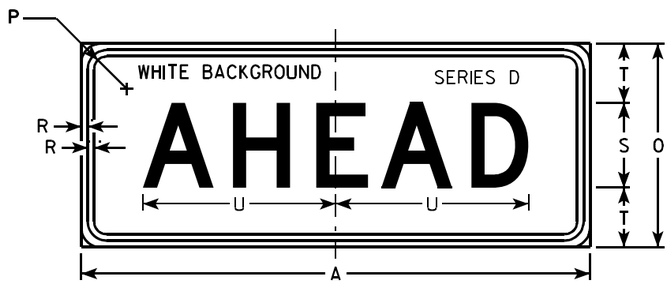
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 134	E



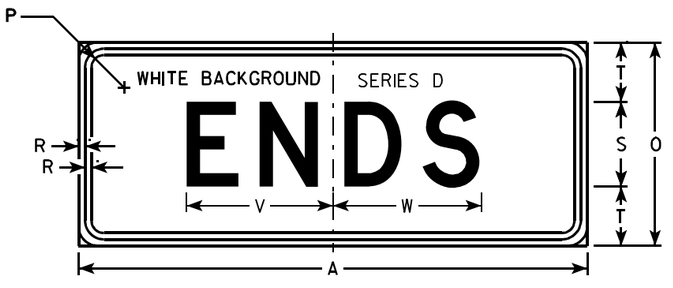
R3-17

NOTES

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



R3-17ap



R3-17bp

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	R3-17 Area sq. ft.	R3-17ap Area sq. ft.	R3-17bp Area sq. ft.
1																													
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
3																													
4																													
5																													

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

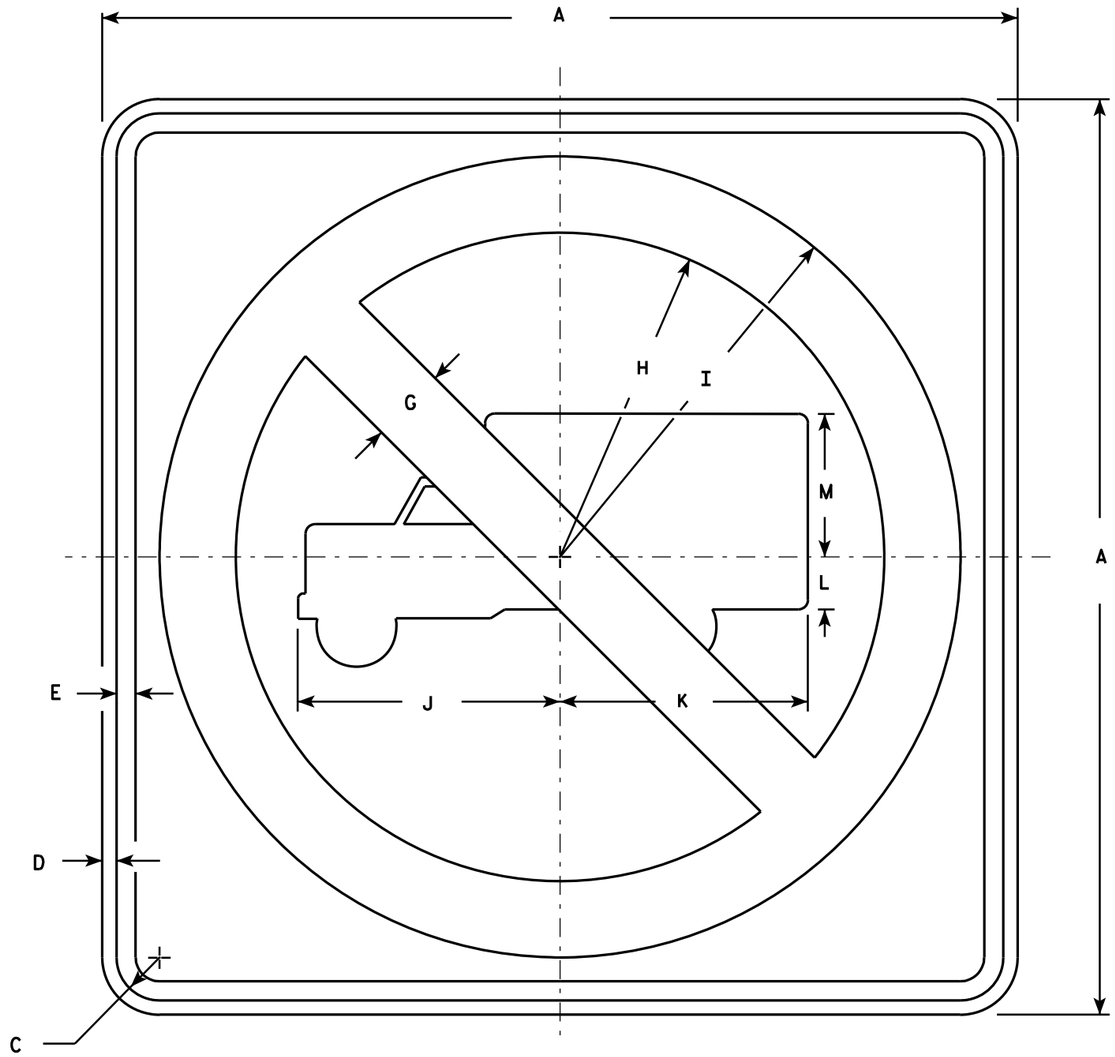
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 135 E



R5-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Circle & Diagonal - Reflective red.
   Truck Symbol & Border - Non-reflective black.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
2M	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
3	30		1 3/8	1/2	5/8		2 1/2	10 5/8	13 1/8	8 1/2	8 1/8	1 5/8	4 3/4														6.25
4	36		1 5/8	5/8	3/4		3	12 3/4	15 3/4	10 1/4	9 3/4	2	5 3/4														9.0
5	48		2 1/4	3/4	1		4	17	21	13 5/8	13	2 5/8	7 5/8														16.0

STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 136	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R52.DGN PLOT DATE : 29-MAR-2011 11:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

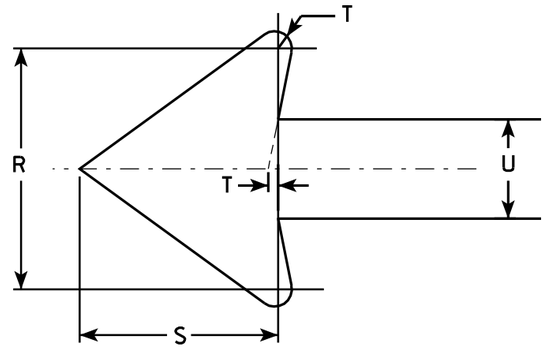
7



R7-5

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Green
3. Message Series - See Note 7
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals as required & adjust spacing to achieve proper balance.
6. R7-5D (double arrow)
   R7-5L (left arrow)
   R7-5R (right arrow)
7. Lines 1, 2 & 3 are series C Copy
   Line 4 Series B Copy.



* - See Note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	2	2	2 1/4	1 1/4	4	2 1/2	2 1/8	2	2 7/8	4 5/8	4 1/2	3 7/8	1 3/4	1 1/2	1/8	3/4						1.5
2S	18	24	1 1/8	3/8	1/2	3	3	2 5/8	1 1/4	5 5/8	3 1/4	3 1/8	3 1/8	4 1/4	6 7/8	6 3/4	5 7/8	2 5/8	2 1/4	1/4	1 1/8						3.0
2M	24	30	1 1/8	3/8	1/2	4	3	3	2	6	3 1/2	4 1/4	4 1/8	5 3/4	9 1/8	9 1/8	7 3/4	3 1/2	3	1/4	1 1/2						5.0
3	24	30	1 1/8	3/8	1/2	4	3	3	2	6	3 1/2	4 1/4	4 1/8	5 3/4	9 1/8	9 1/8	7 3/4	3 1/2	3	1/4	1 1/2						5.0
4																											
5																											

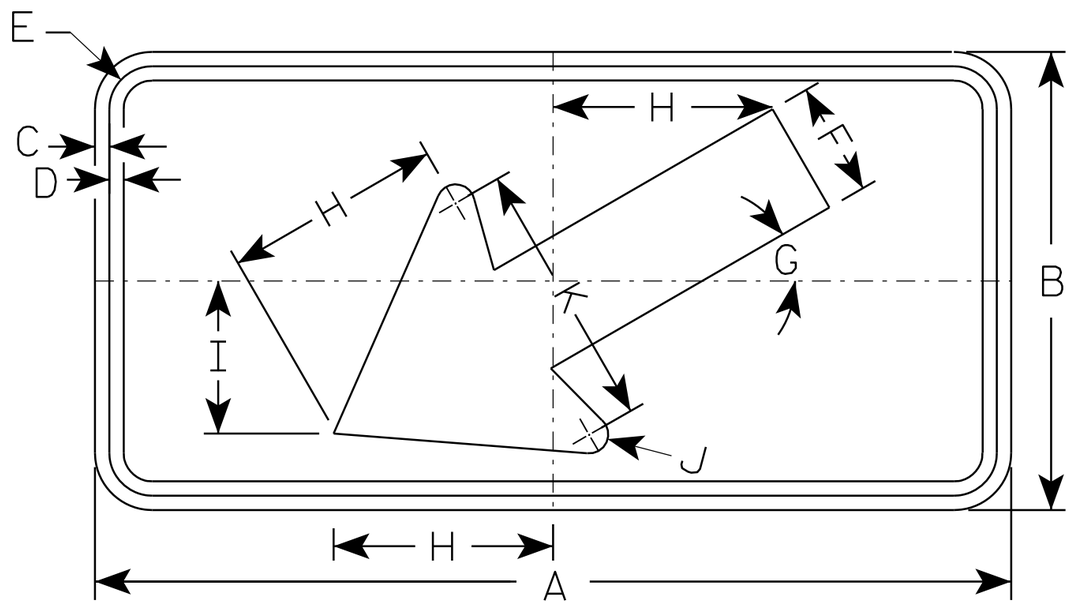
STANDARD SIGN
R7-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/31/2011 PLATE NO. R7-5.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 137	E



S16-7L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. S16-7R are the same as S16-7L except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2S	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
5																											

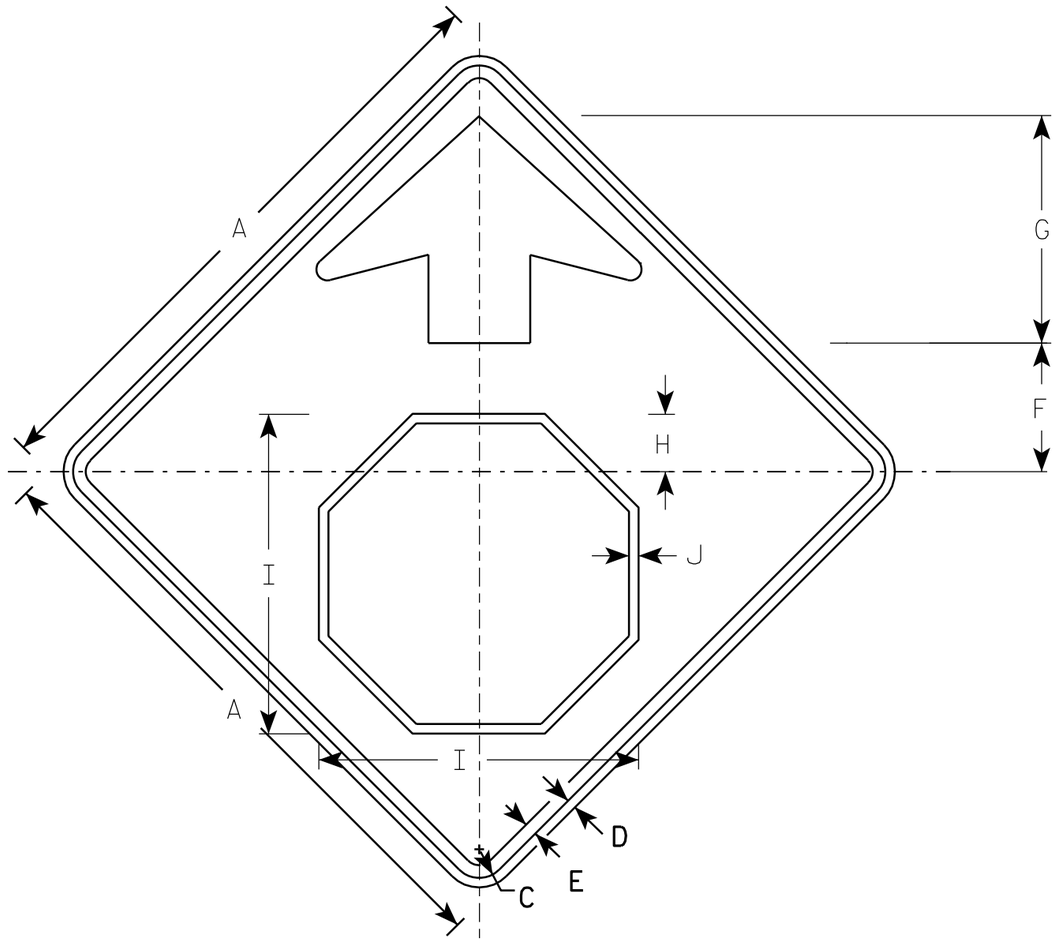
STANDARD SIGN
S16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-7.1

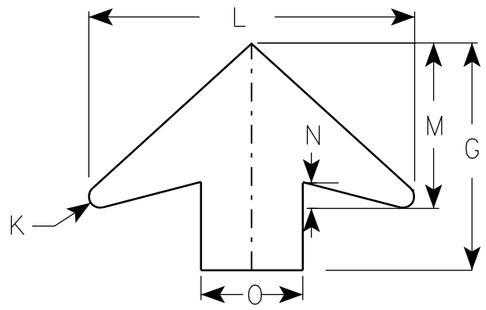
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 138 | E



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

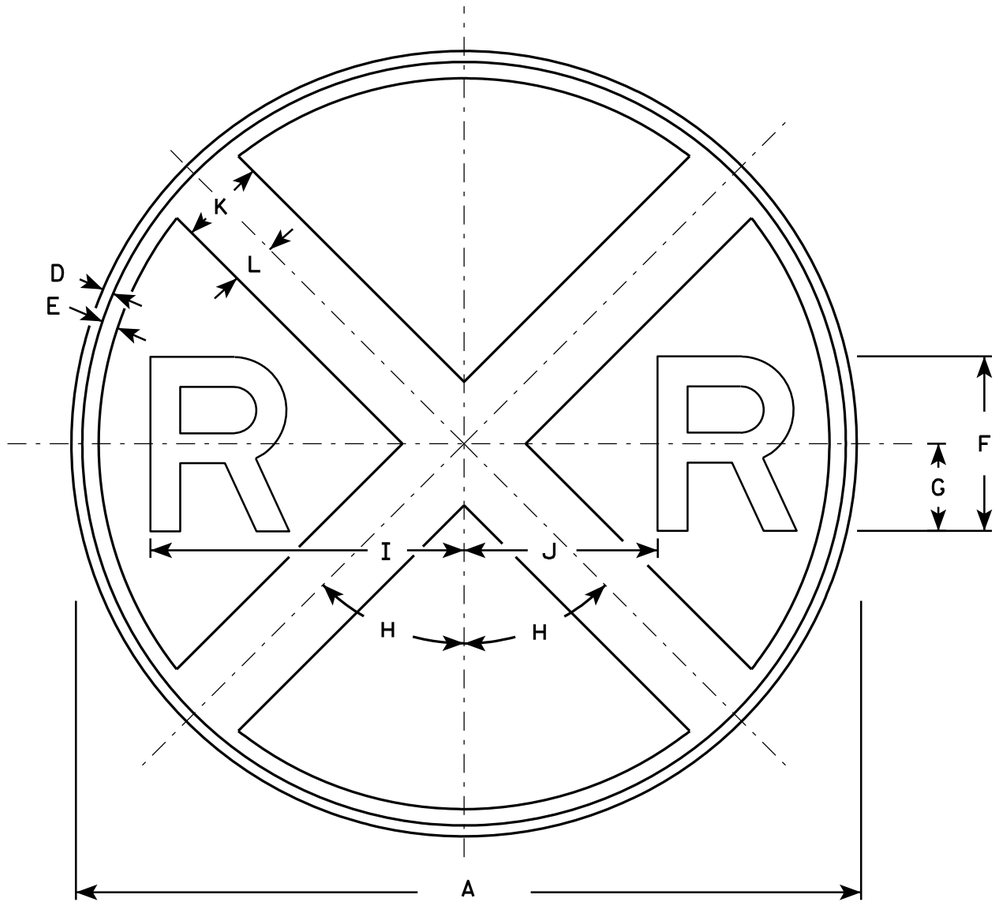
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 139 E



W10-1

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
   Message - Black
3. Message Series - E

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			3/8	5/8	7	3 1/2	45°	12 3/8	7 1/8	3	1 1/2															4.91
2S	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
2M	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
3																											
4	48			3/4	1 1/4	10	5	45°	18 3/8	11 5/8	5	2 1/2															12.57
5																											

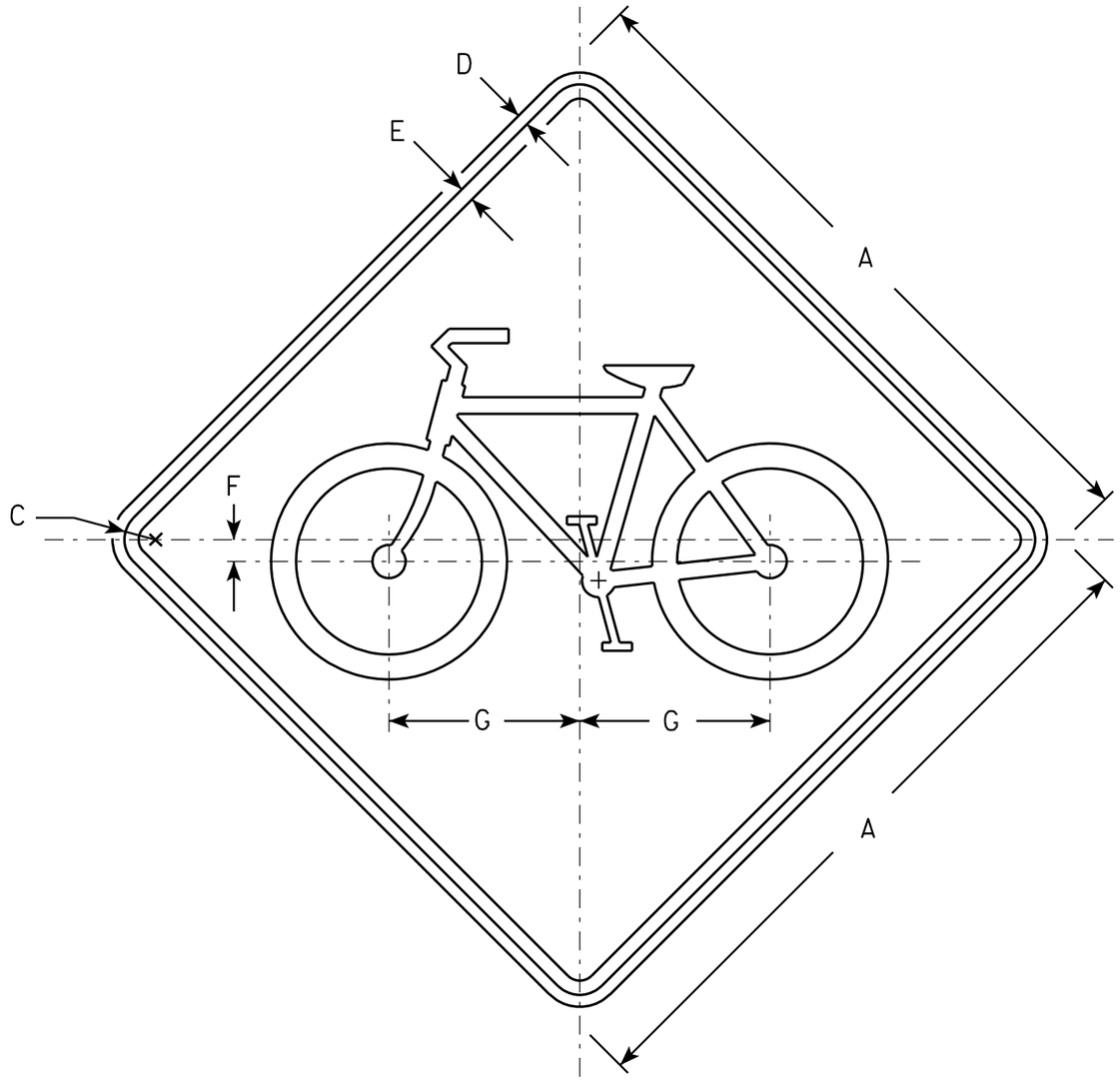
STANDARD SIGN
W10-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/13/13 PLATE NO. W10-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 140	E



W11-1

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
   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	3/4	1/2	3/4	6 5/8																				4.0
2S	30		1 3/8	1/2	5/8	1	8 1/2																				6.25
2M	36		1 5/8	5/8	3/4	1 1/4	10																				9.0
3	36		1 5/8	5/8	3/4	1 1/4	10																				9.0
4	48		2 1/4	3/4	1	1 5/8	13 3/8																				16.0
5																											16.0

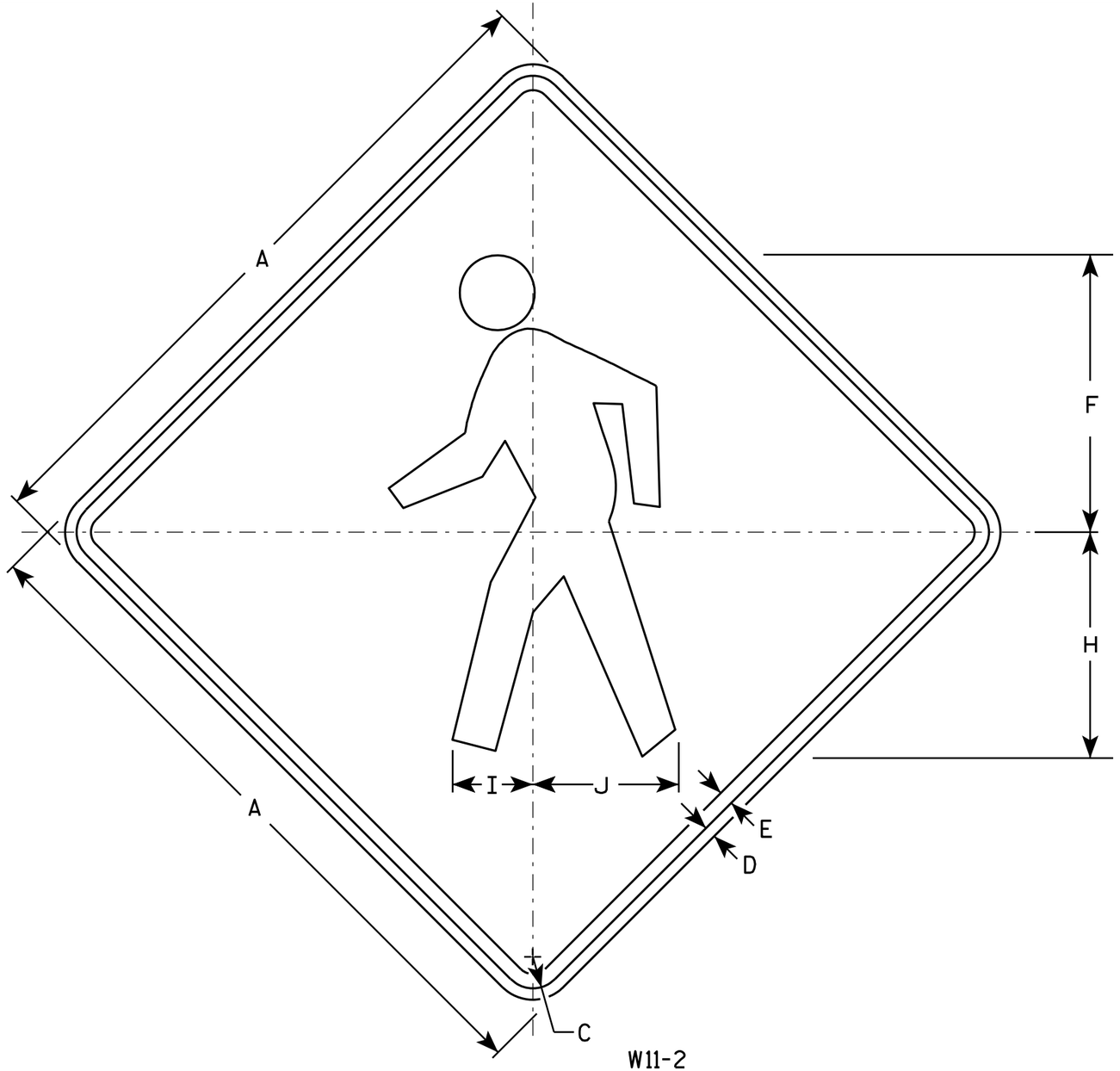
STANDARD SIGN
W11-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/21/10 PLATE NO. W11-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 141 | E



W11-2

NOTES

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

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

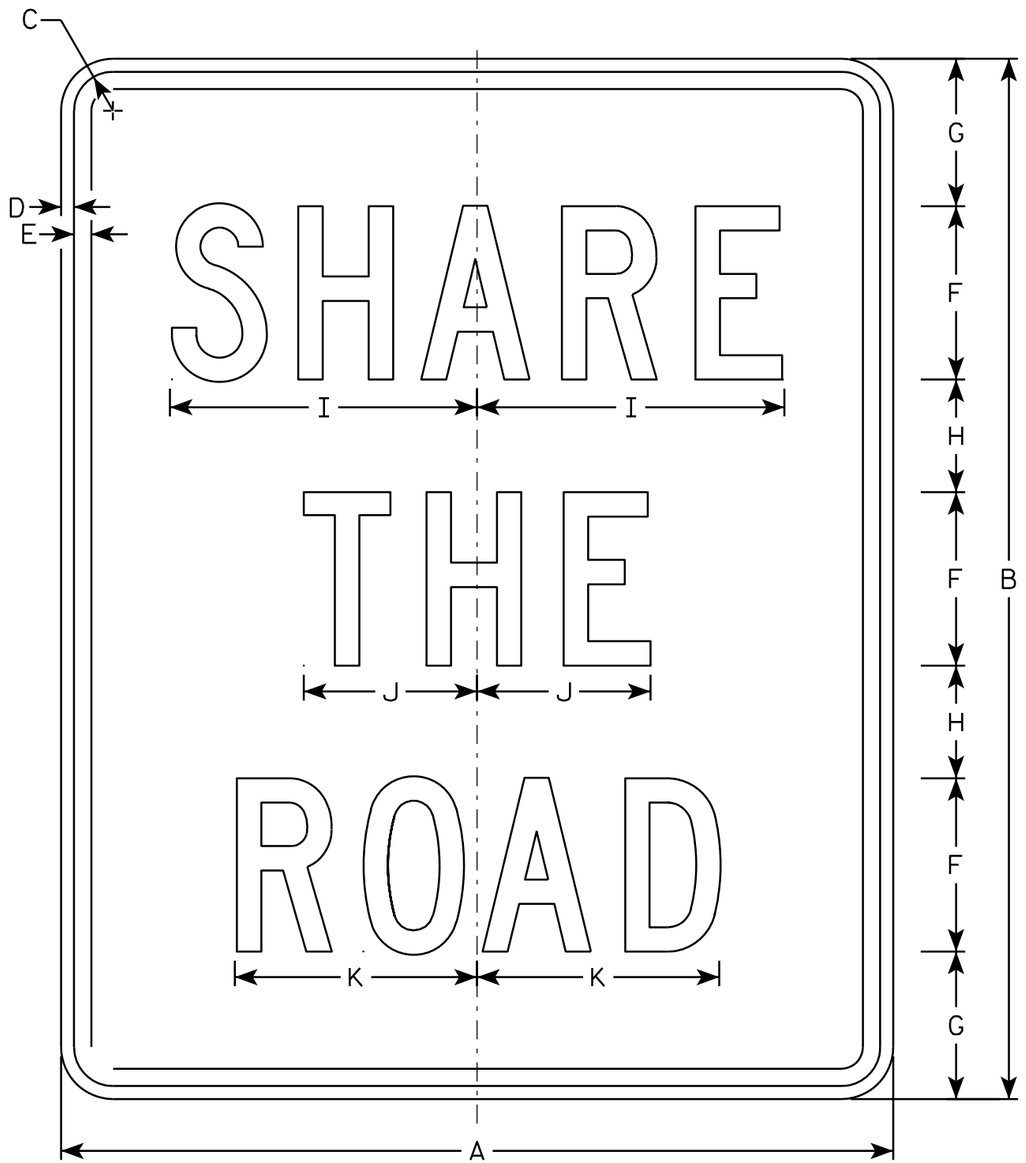
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 142	E



W16-1P

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18	24	1 1/8	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
2M	18	24	1 1/8	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
3	24	30	1 1/8	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
4	24	30	1 1/8	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
5																											

STANDARD SIGN
W16-1P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/2/10 PLATE NO. W16-1P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 143 | E

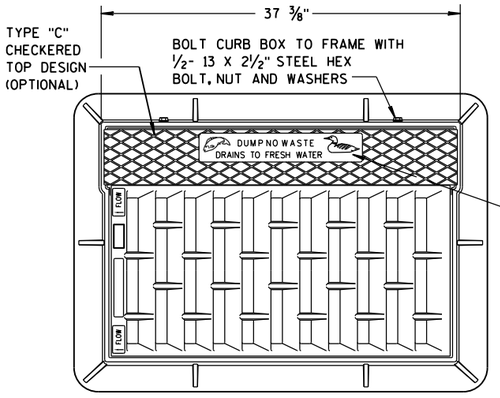
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08A09-02	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-02	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-02	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08D20-01	DRIVEWAYS WITH CURB & GUTTER RETURNS
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C14-02	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-02	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-14D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
13B01-10	PAVEMENT DETAILS FOR RAILROAD APPROACH
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C07-14E	PAVEMENT MARKING FOR BIKE LANES
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19B	PAVEMENT MARKING (TURN LANES)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C09-11A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C20-02	YIELD MARKING
15C29-06A	BICYCLE LANE MARKING
15C29-06B	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-06	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

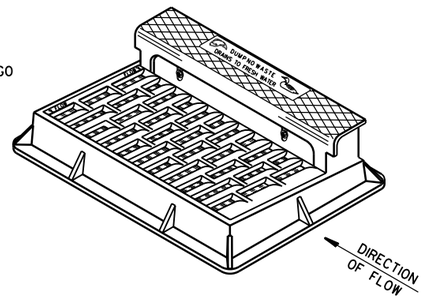
6

Standard Detail Drawing List

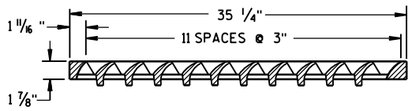
15D30-04A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-04B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-04C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D40-01	TRAFFIC CONTROL, LANE SHIFT, MULTILANE DIVIDED OR ONE WAY ROAD

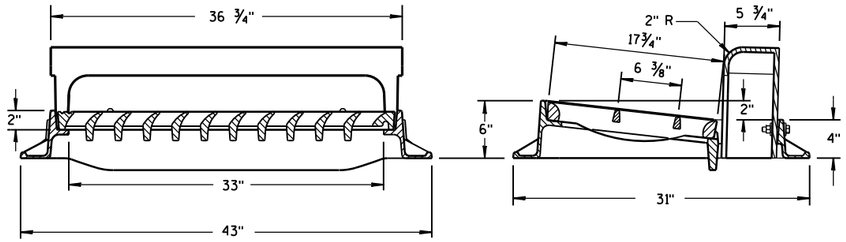


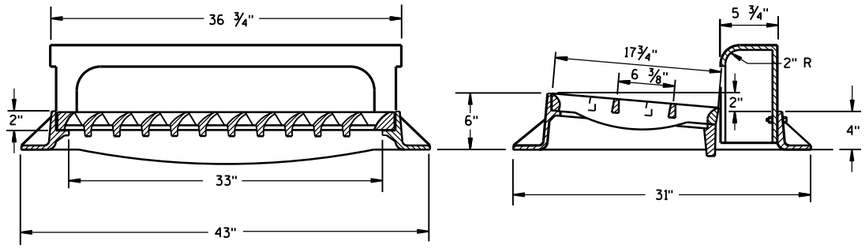
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

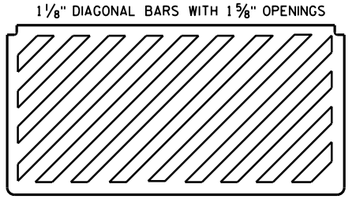






TYPE "H"

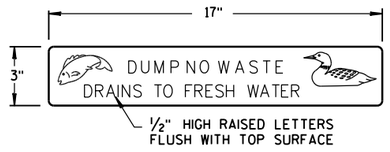
NOTE: EITHER CASTING IS ACCEPTABLE



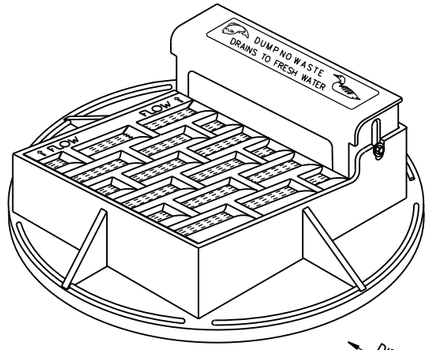
SPECIAL GRATE FOR TYPE "H" COVER

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

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

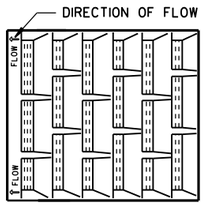
NOTE:
GRATE IS REVERSIBLE.

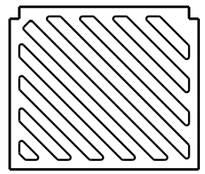
GENERAL NOTES

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

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

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

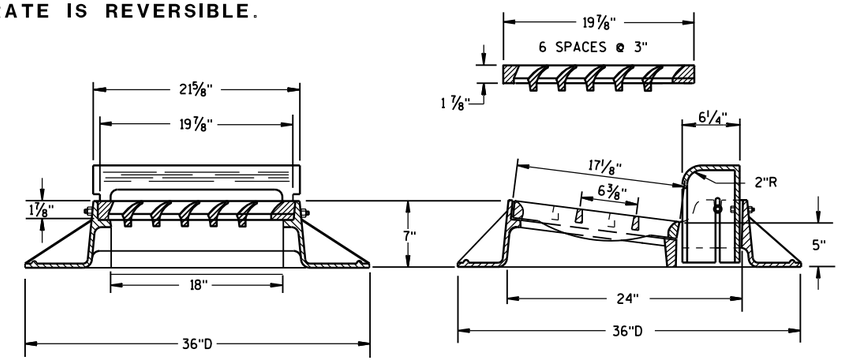




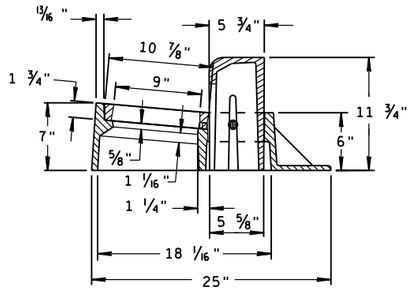
SPECIAL GRATE FOR TYPE "A" COVER

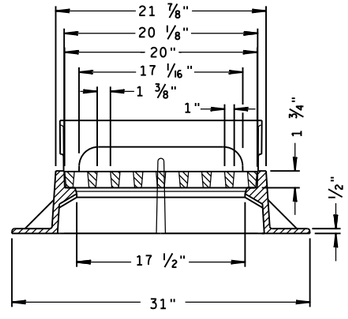
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

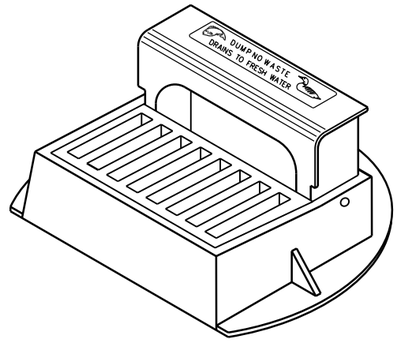


TYPE "A"





TYPE "Z"



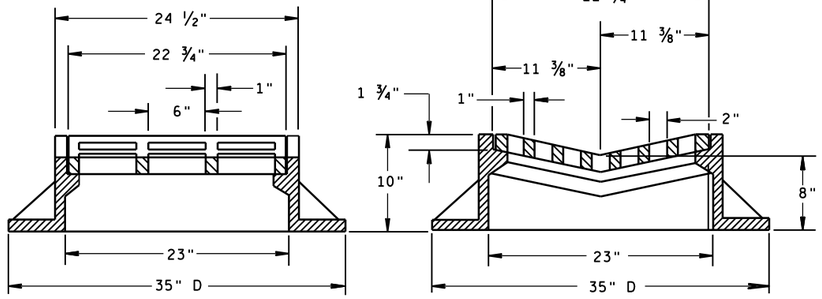
INLET COVERS
TYPE A, H, A-S, H-S & Z

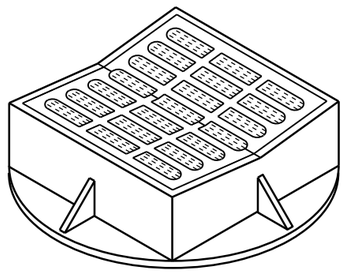
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

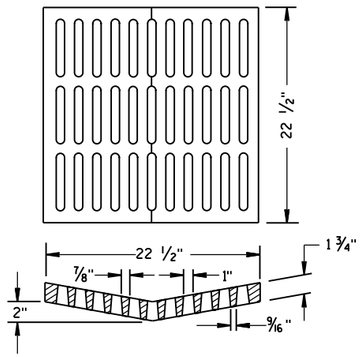
6

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



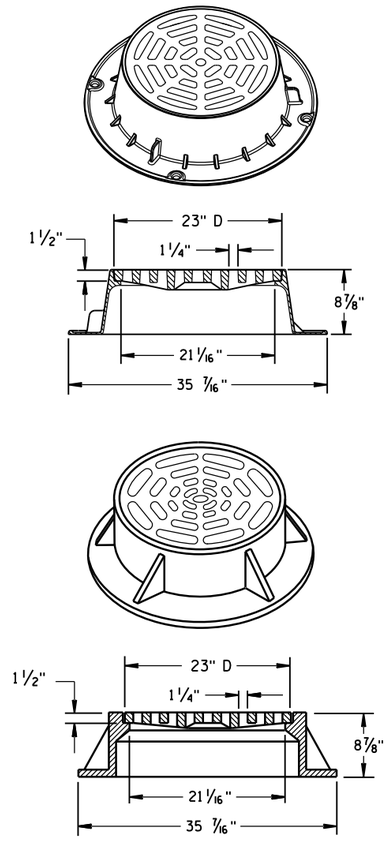


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

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



TYPE "C"

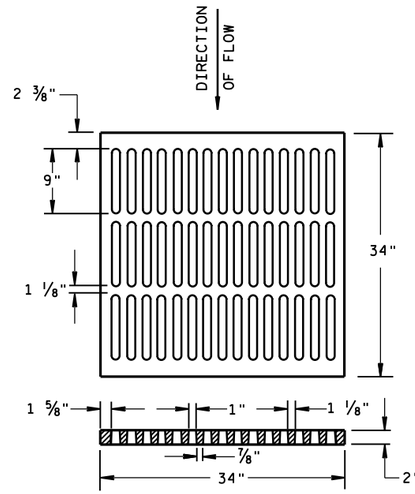
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

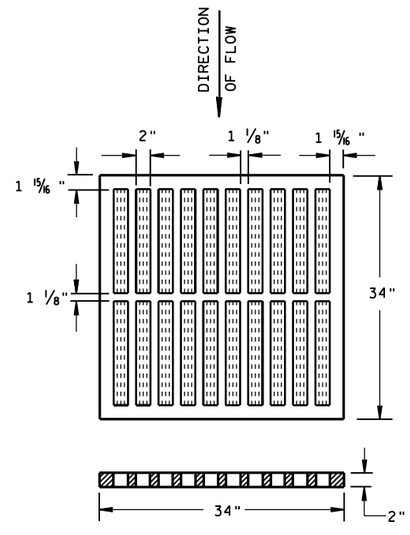
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



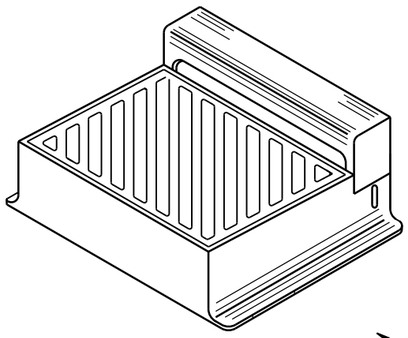
ALTERNATIVE TYPE "MS"

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

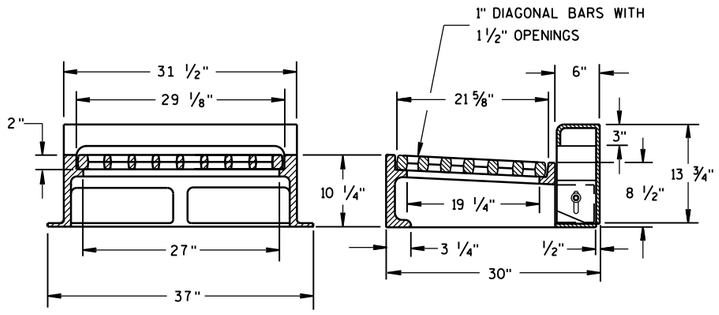


TYPE "MS"

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



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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

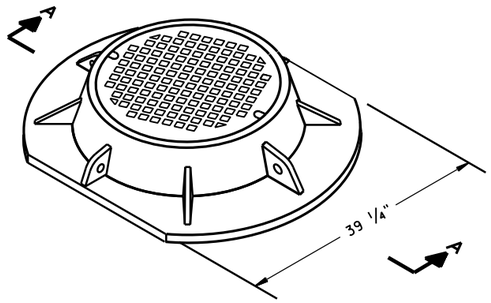
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

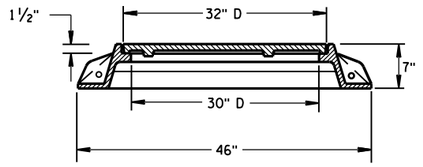
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

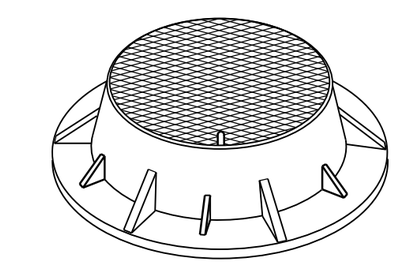
6

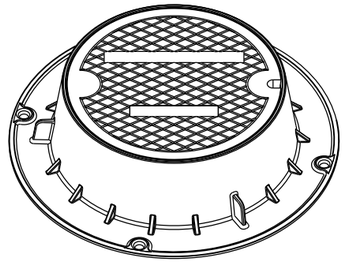
S.D.D. 8 A 5-19b

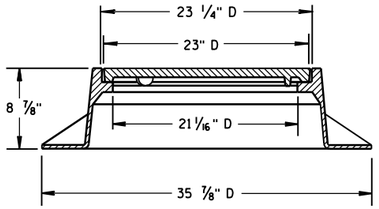


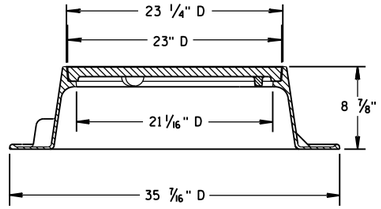


SECTION A-A
TYPE "K"









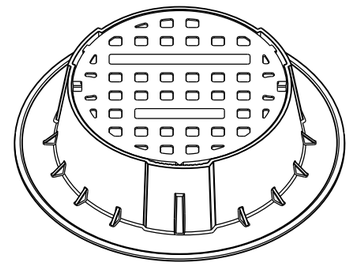
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

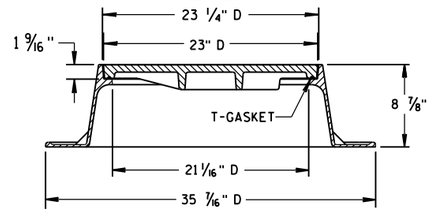
GENERAL NOTES

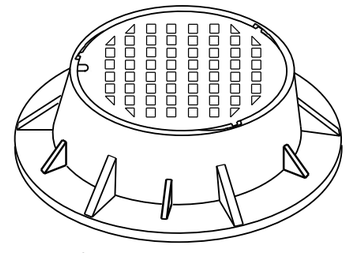
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

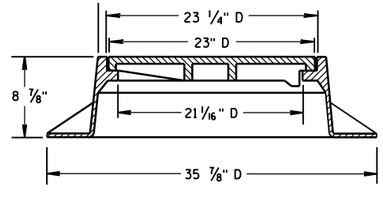
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

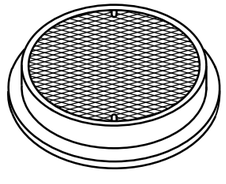


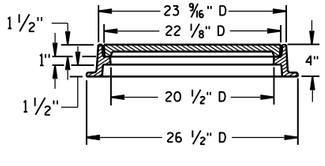




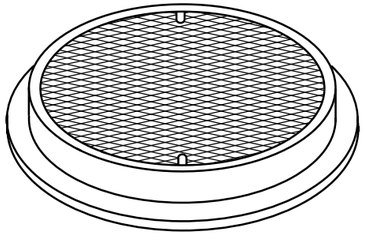


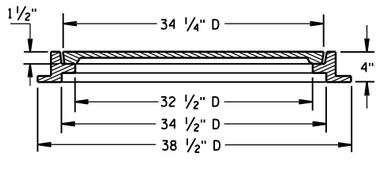
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



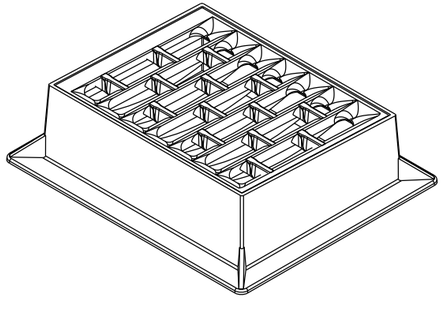


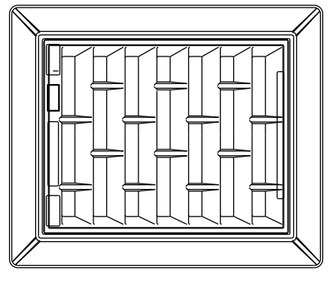
TYPE "L"

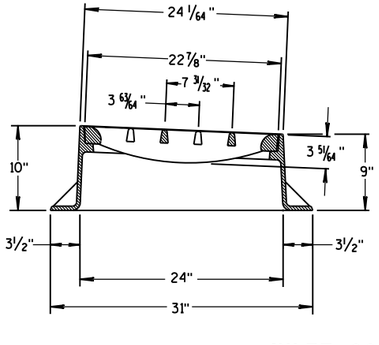


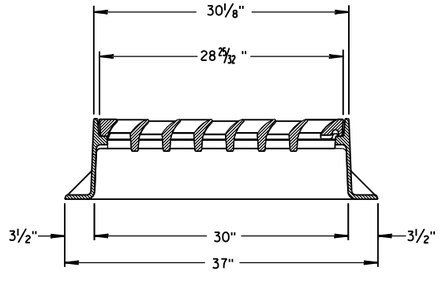


TYPE "M"









INLET COVER TYPE "BW"

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

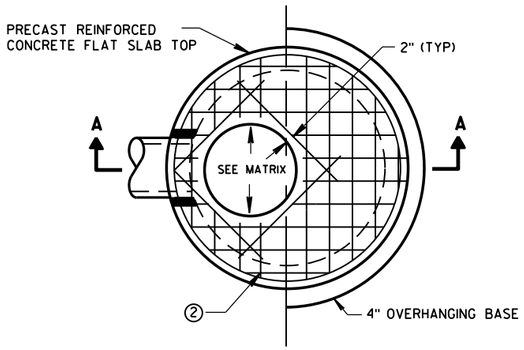
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

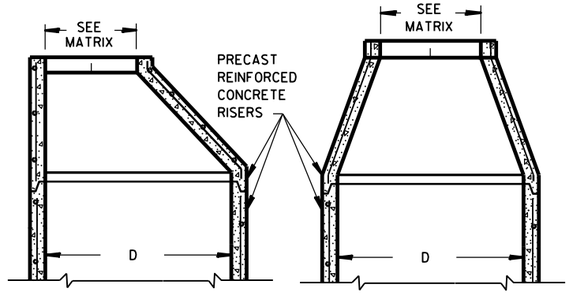
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

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

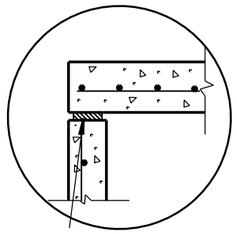


PLAN VIEW CIRCULAR OPENING

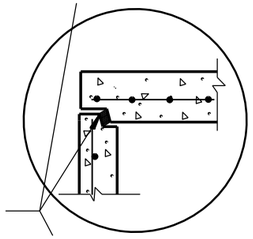


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

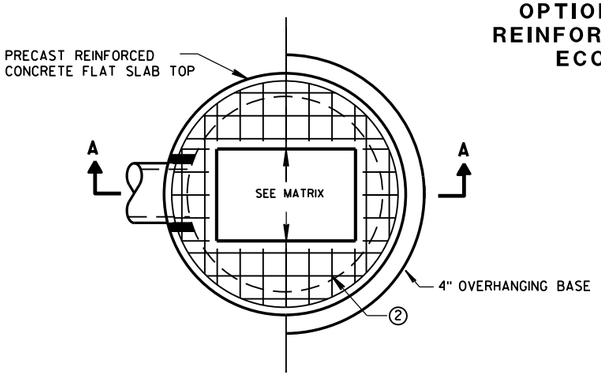
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



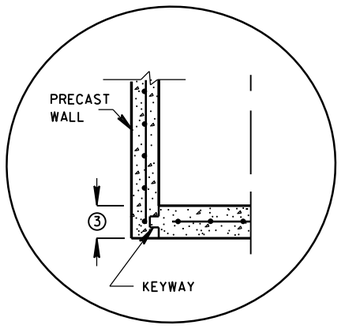
TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT

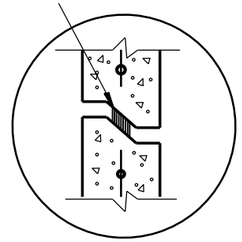


PLAN VIEW RECTANGULAR OPENING



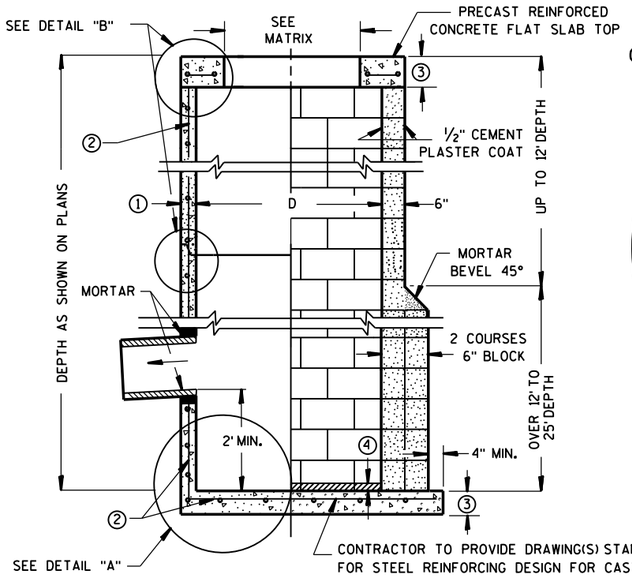
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



RISER WITH TONGUE AND GROOVE JOINT

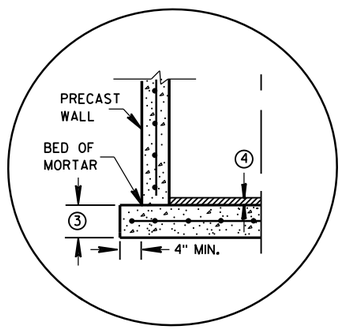
DETAIL "B"



SECTION A-A

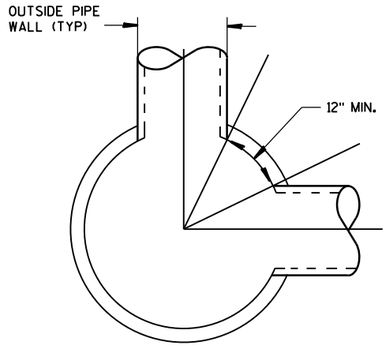
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

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

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

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

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

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

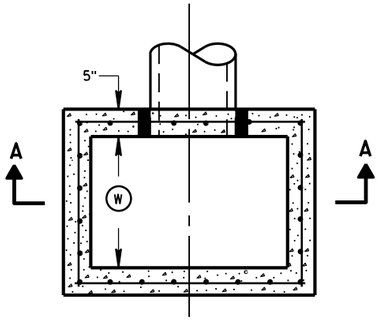
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

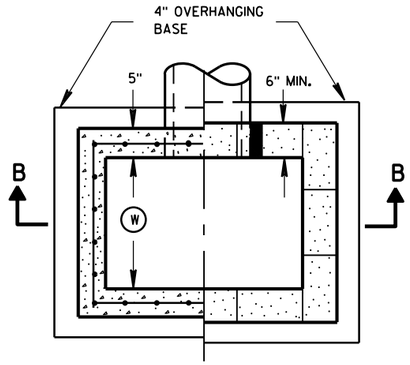
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

S.D.D. 8 A 8-2

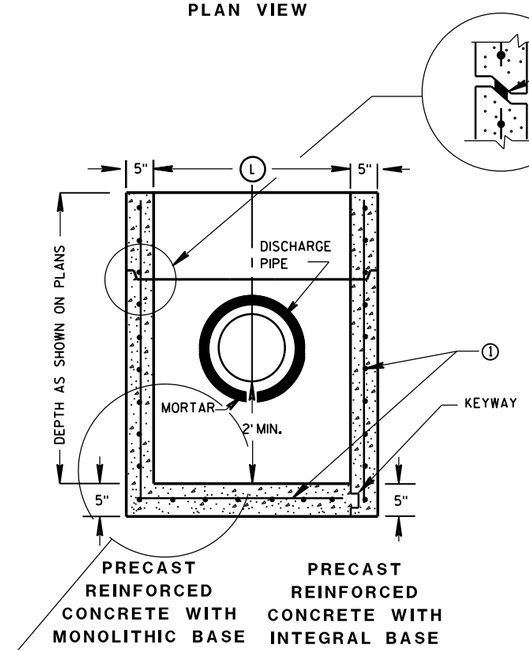
S.D.D. 8 A 8-2



PLAN VIEW



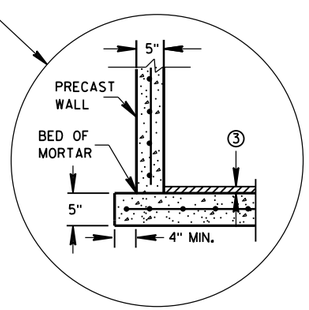
PLAN VIEW



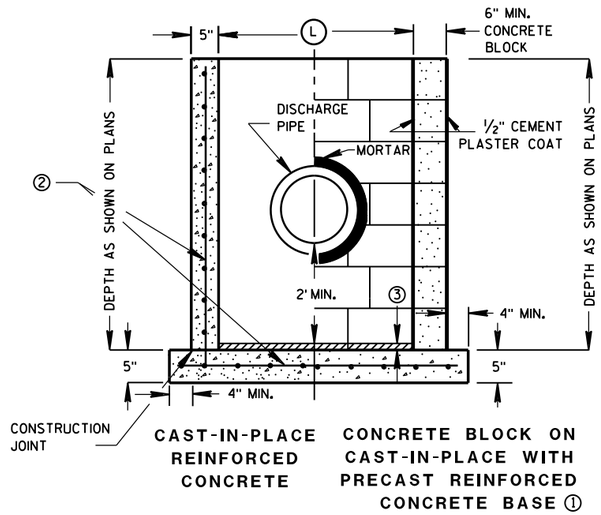
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

SECTION A-A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



CAST-IN-PLACE REINFORCED CONCRETE

CONCRETE BLOCK ON CAST-IN-PLACE WITH PRECAST REINFORCED CONCRETE BASE ①

SECTION B-B

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST CATCH BASIN UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

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

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

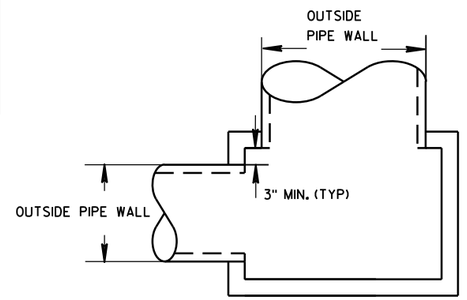
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER TYPE	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

CATCH BASINS 2X3-FT AND 2.5X3-FT

CATCH BASINS 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
FHWA

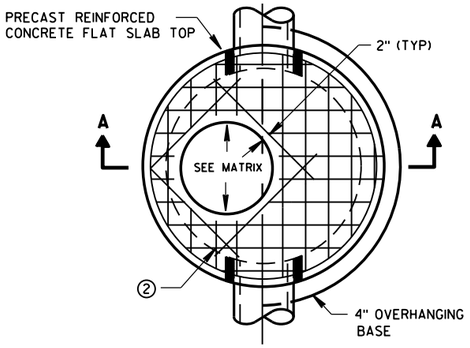
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

6

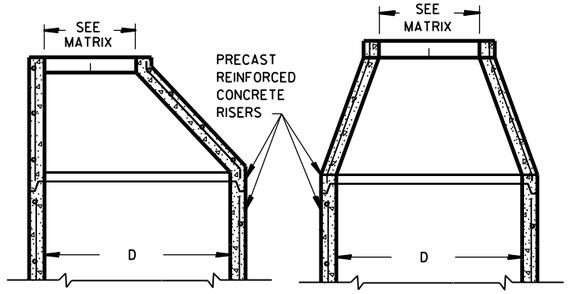
S.D.D. 8 A 9-2

6

S.D.D. 8 A 9-2

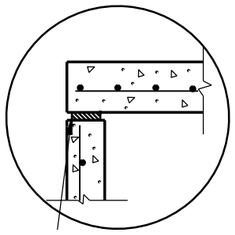


PLAN VIEW CIRCULAR OPENING

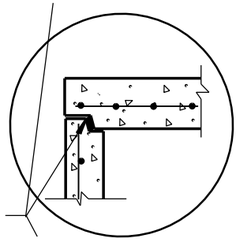


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

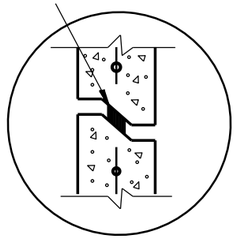


TOP WITH PLAIN END JOINT



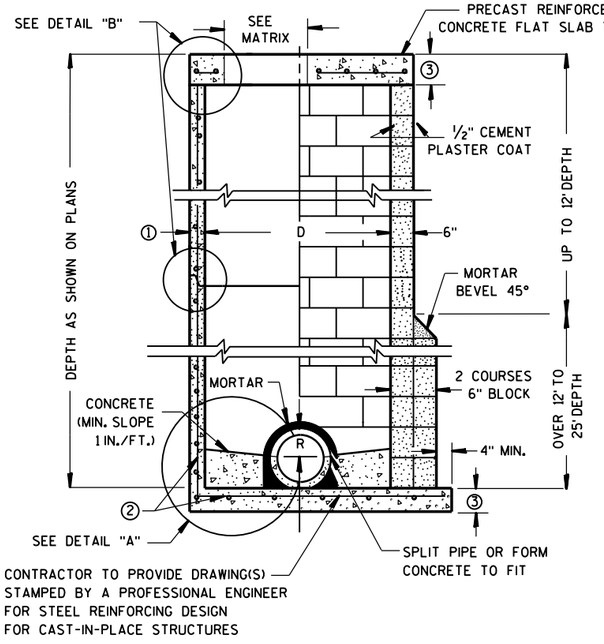
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



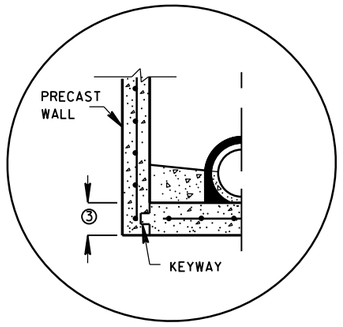
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

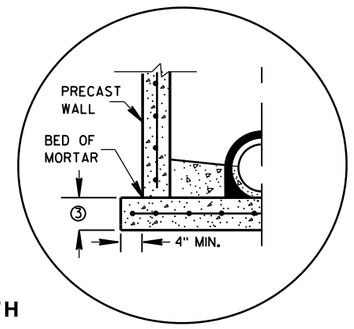


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

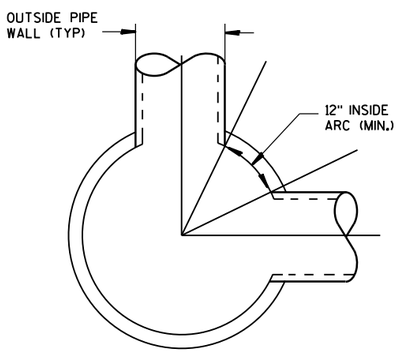


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

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

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

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

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

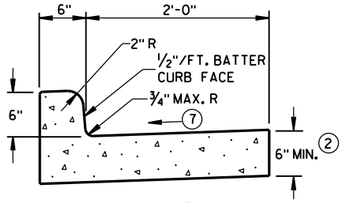
APPROVED

Sept., 2016
DATE

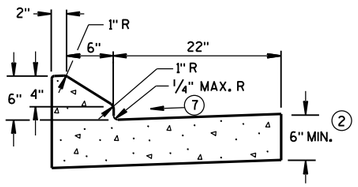
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

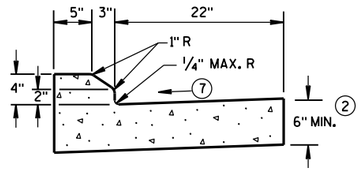
6
S.D.D. 8 B 9-2



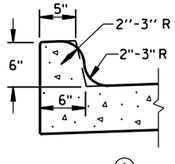
TYPES A (1) & D



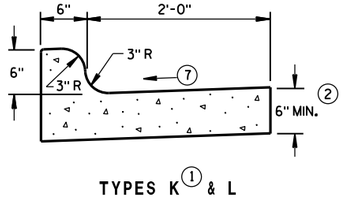
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

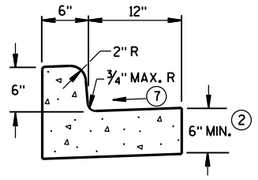


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



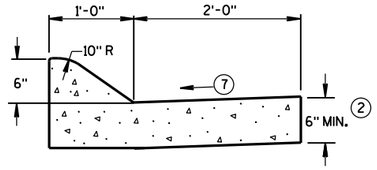
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

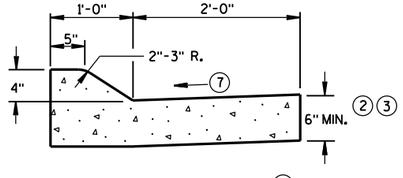


TYPES A (1) & D

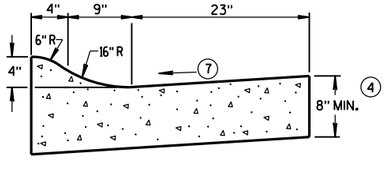
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

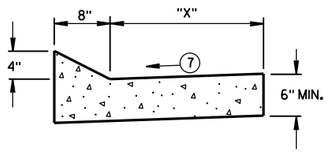


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

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.

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, R AND TBTT.

(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) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) 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.

(5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

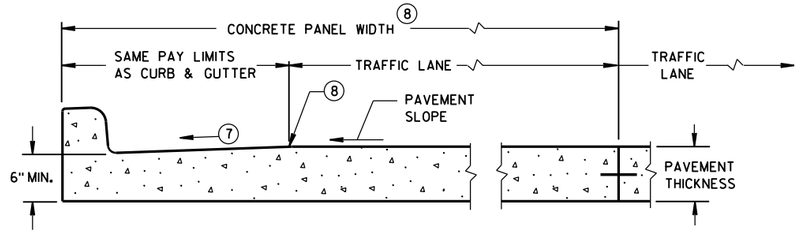
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

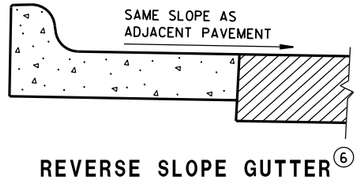
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB & GUTTER

* BIKE LANE IS NOT SHOWN.



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

CONCRETE CURB & GUTTER

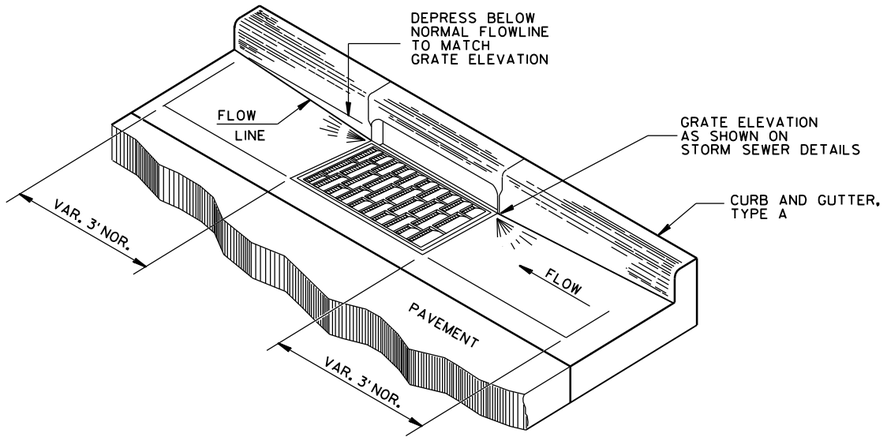
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

S.D.D. 8 D 1-20a

6

S.D.D. 8 D 1-20a



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

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

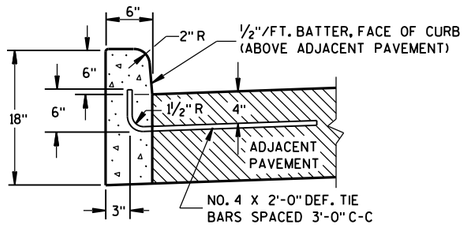
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

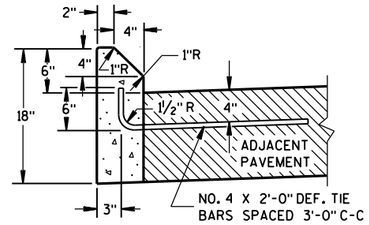
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(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.

(9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

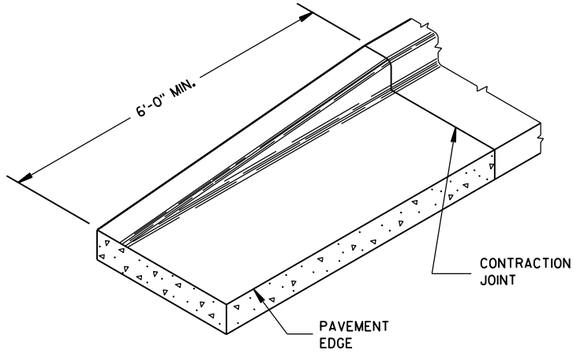


TYPES A(1) & D

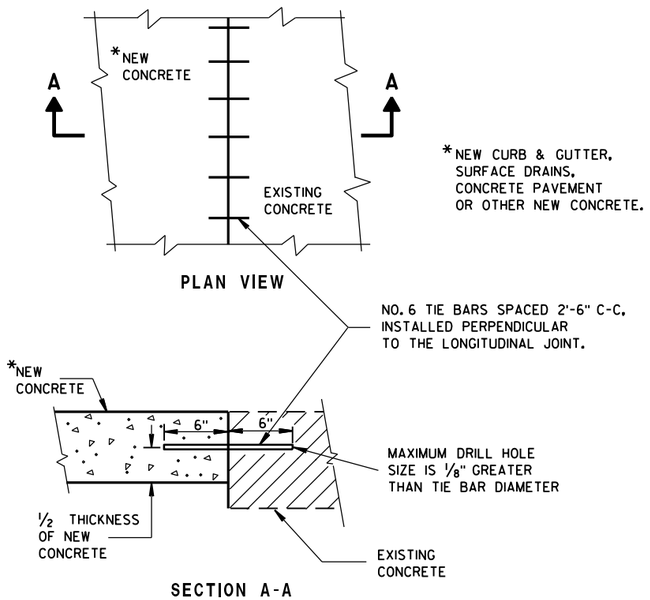


TYPES G(1) & J

CONCRETE CURB



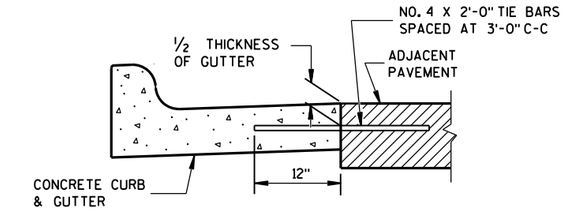
END SECTION CURB & GUTTER



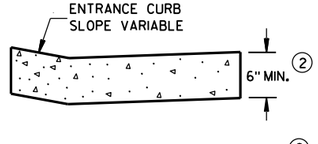
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

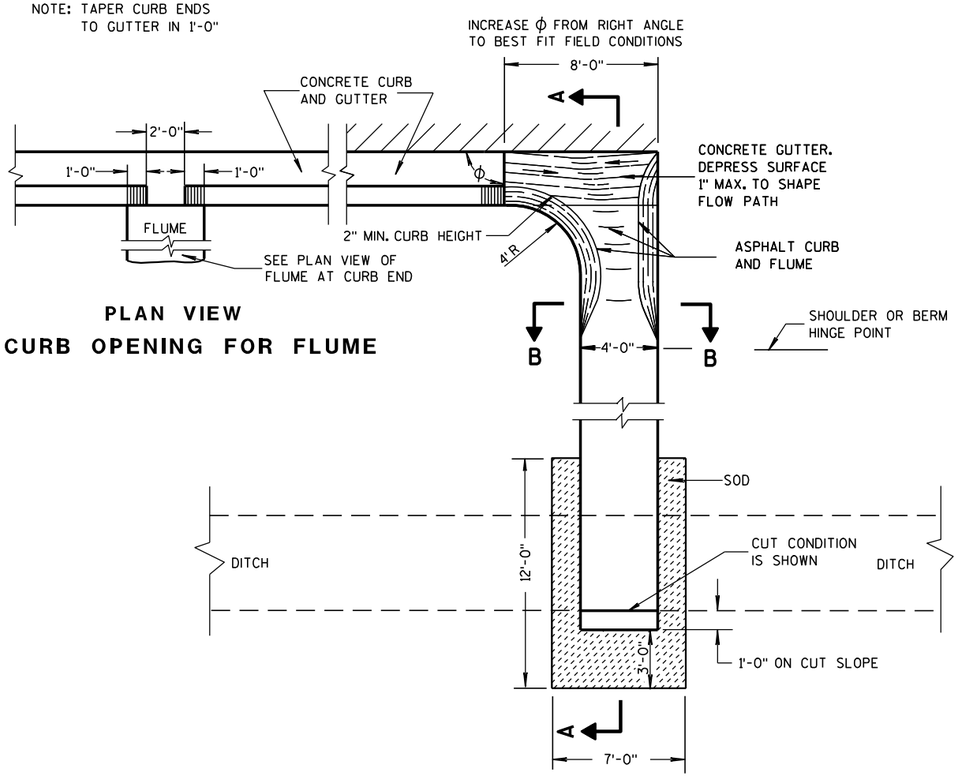
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6

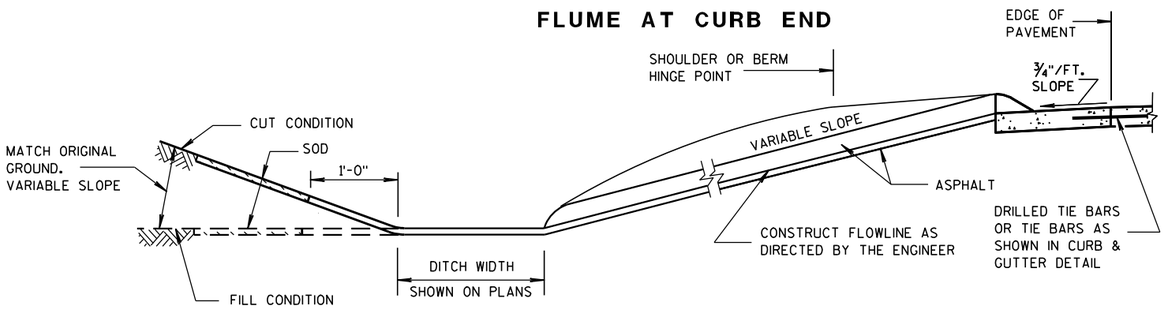
S.D.D. 8 D 1-20b

ASPHALTIC FLUME

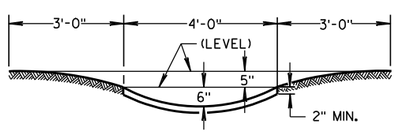


PLAN VIEW
CURB OPENING FOR FLUME

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.

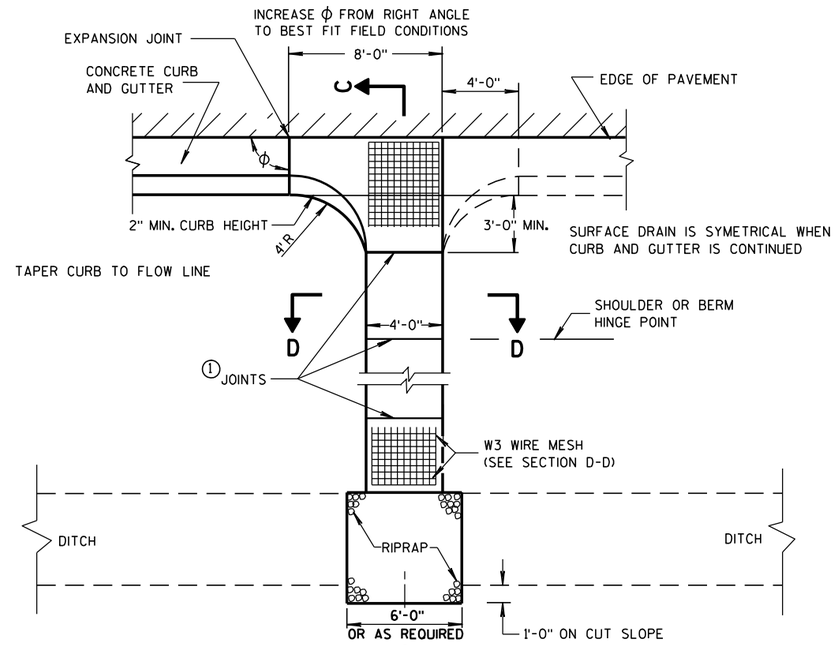
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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.

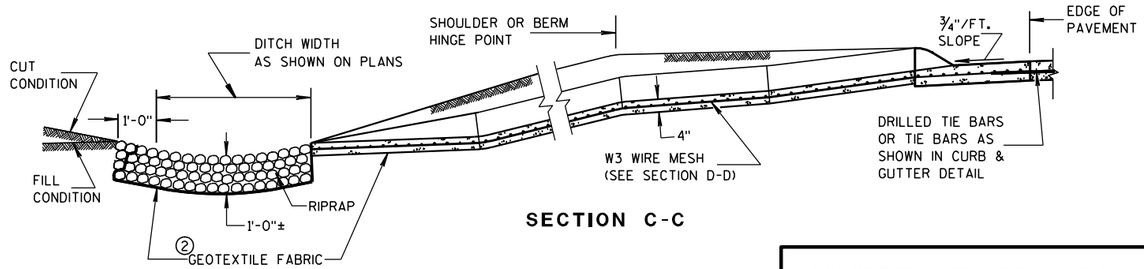
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

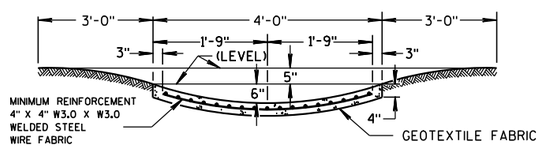
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

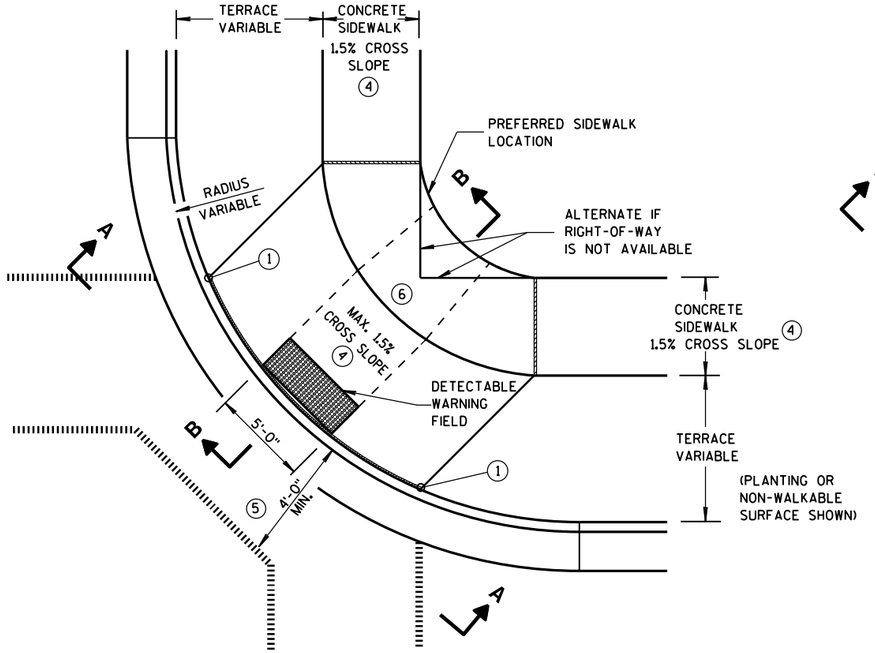
APPROVED
9-4-08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
154
FHWA

6

S.D.D. 8 D 4-5

6

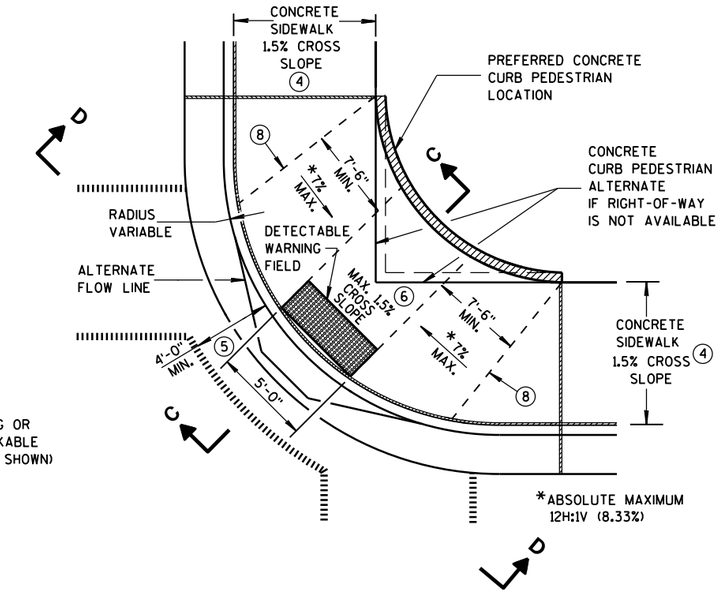
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

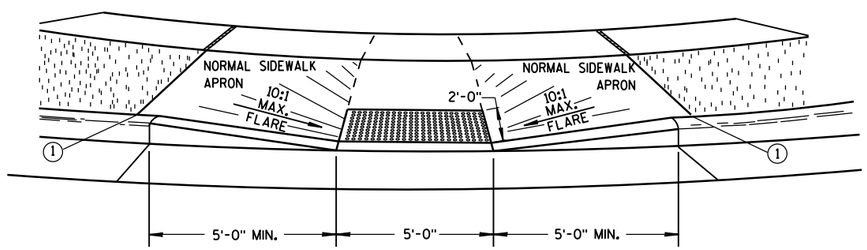
(CENTER OF CORNER RADIUS)



PLAN VIEW

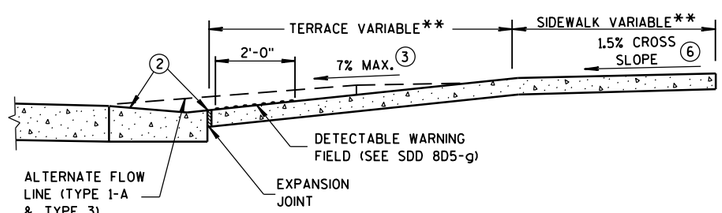
TYPE 1-A RAMP

(NO TERRACE)

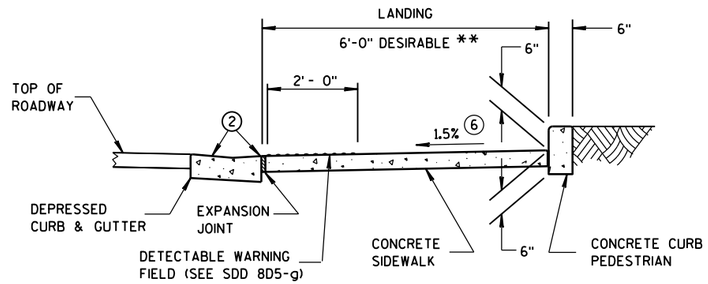


VIEW A-A

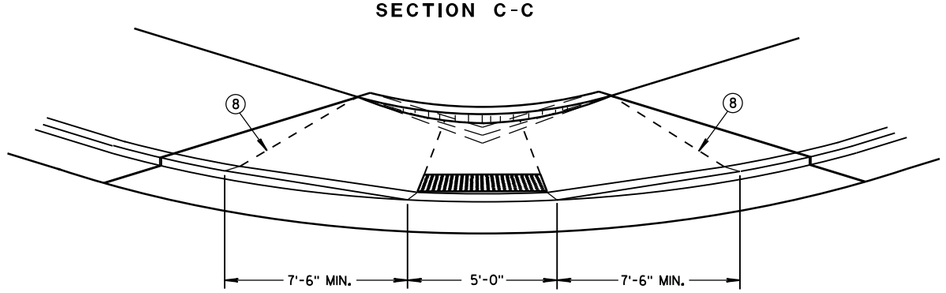
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

GENERAL NOTES

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

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

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

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

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

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

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

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

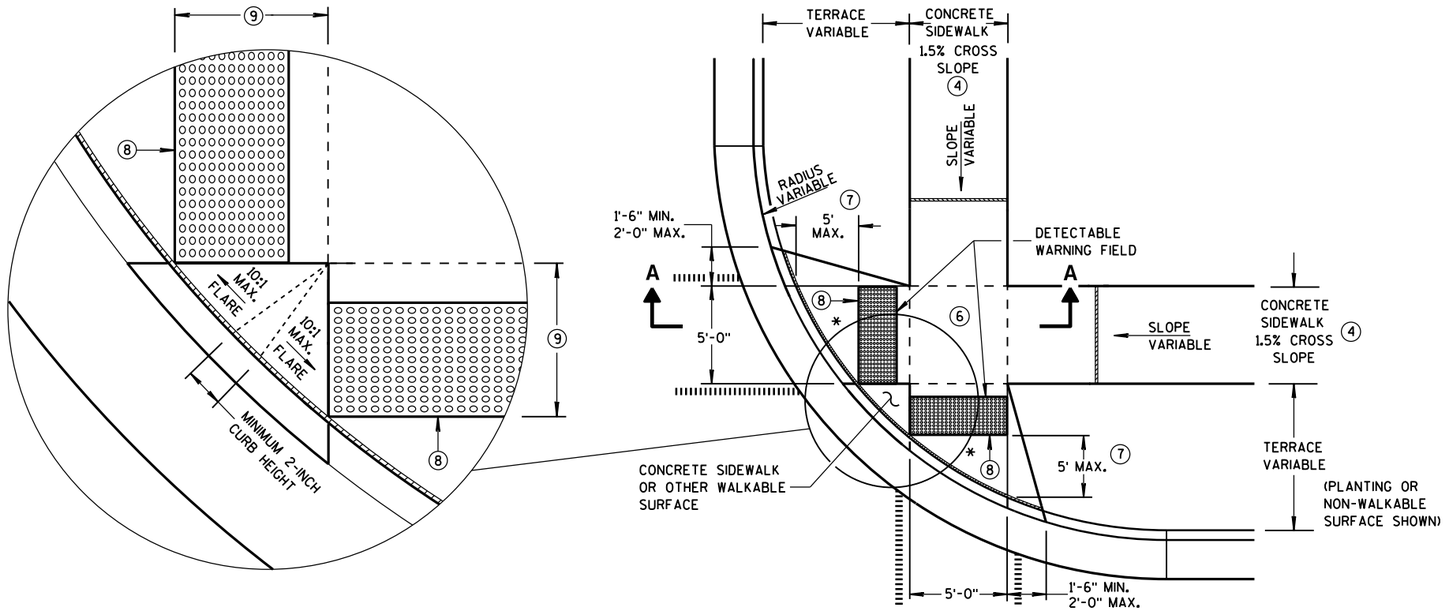
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

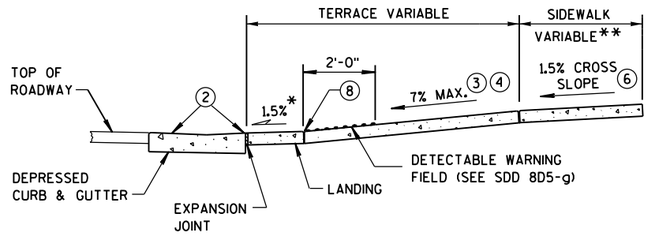
6

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



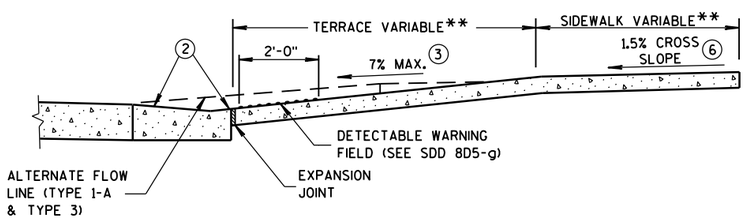
PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

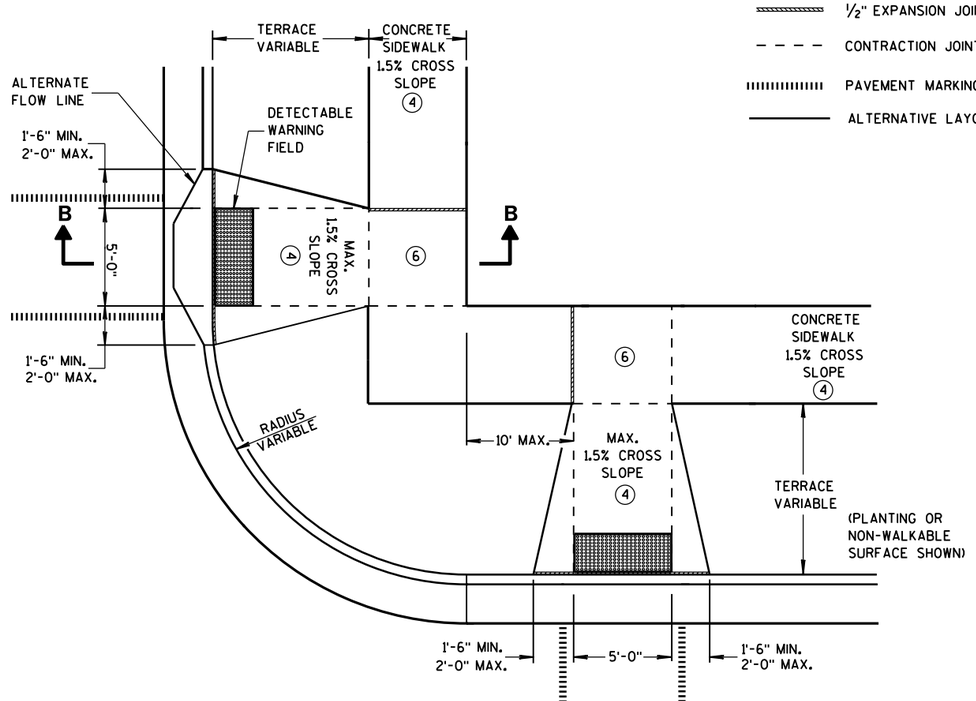


SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

LEGEND

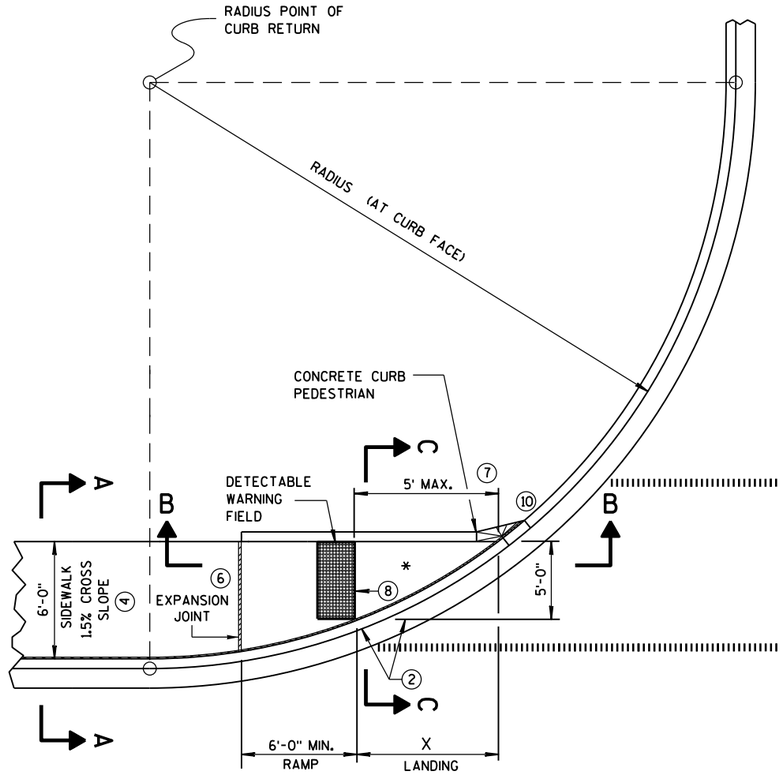
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

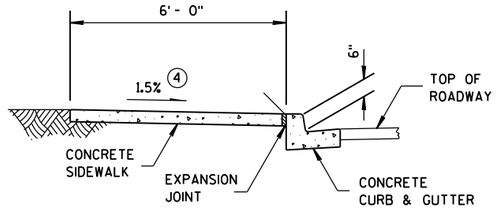
S.D.D. 8 D 5-19b



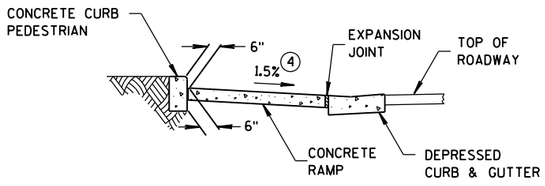
CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X
10 FEET	4'-7"
15 FEET	6'-5½"

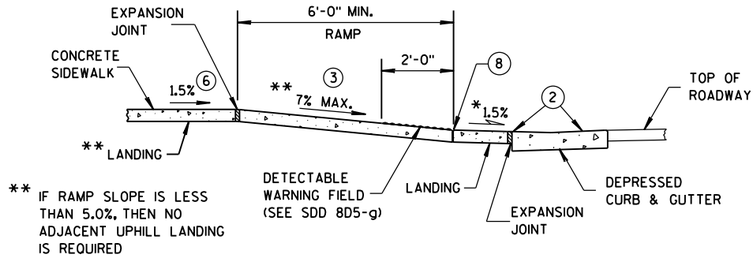
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A



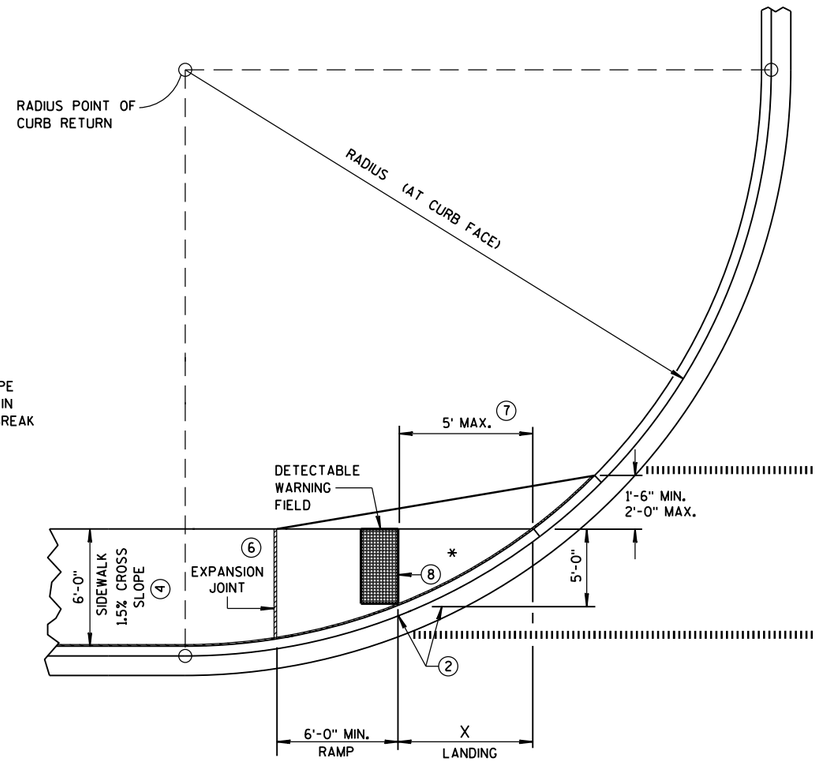
SECTION C-C FOR TYPE 4A



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

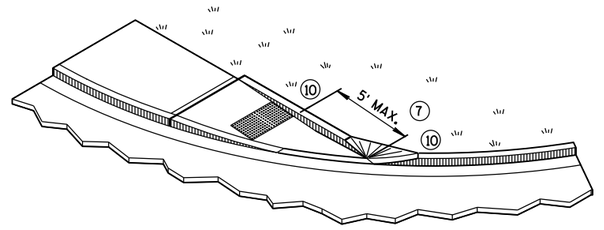
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

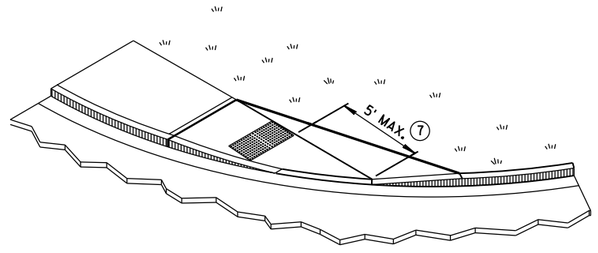
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

½" EXPANSION JOINT-SIDEWALK

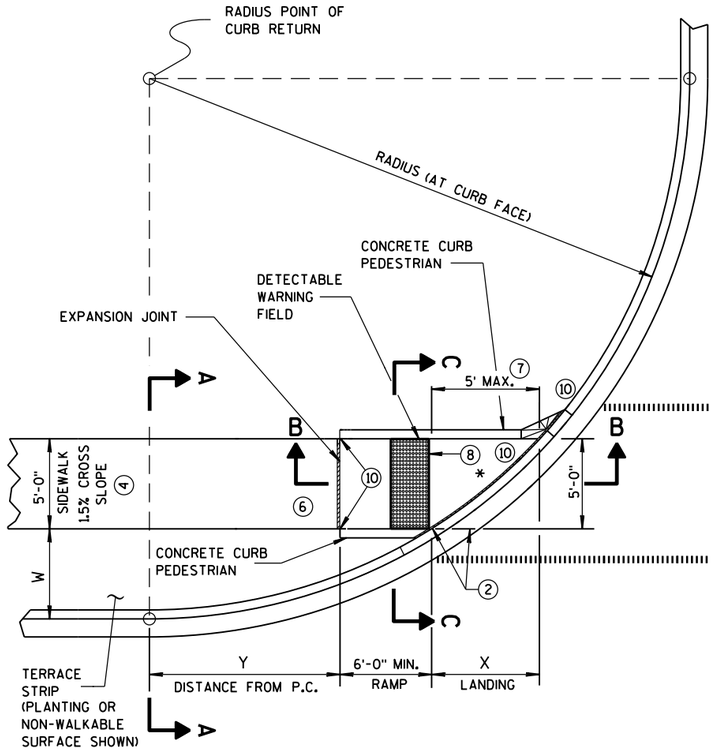
CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

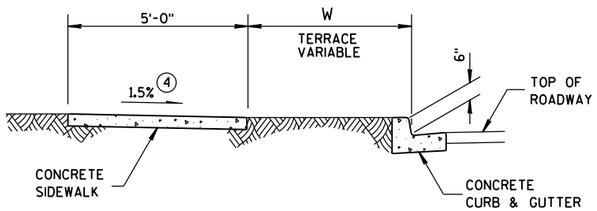
CURB RAMPS TYPES 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

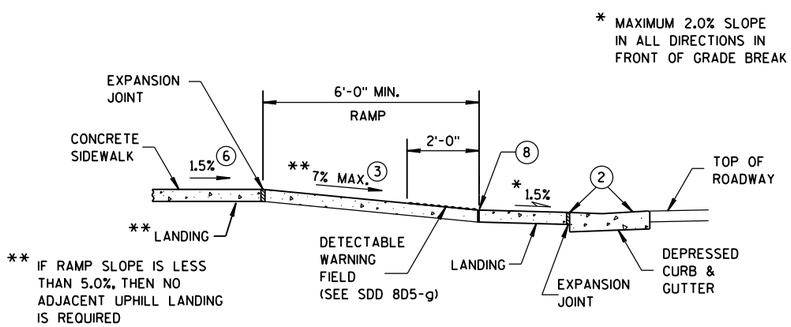
6
S.D.D. 8 D 5-19c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



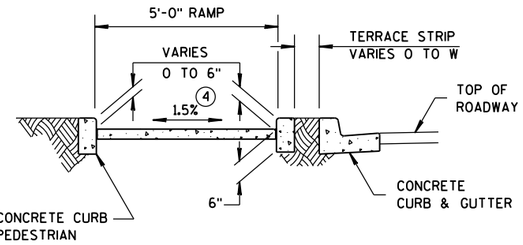
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"		W = 8'-0"		W = 9'-0"		W = 10'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10¼"	0'-5"	2'-1"	1'-4½"	1'-5"	2'-1"	0'-10"	2'-7½"	0'-3¼"	3'-0¼"						
15 FEET	4'-6¾"	2'-1¾"	3'-9"	3'-5¼"	3'-1¼"	4'-6"	2'-6¾"	5'-4½"	2'-1"	6'-1"	1'-8"	6'-8½"	1'-3¼"	7'-2½"	0'-10¾"	7'-7¼"
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-7"	3'-3"	8'-6½"	2'-10"	9'-4½"	2'-5½"	10'-1¼"	2'-1¼"	10'-9"
30 FEET			6'-9¼"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"	4'-5½"	13'-7¾"	4'-0¾"	14'-8½"	3'-8½"	15'-8¼"
40 FEET									6'-1¾"	15'-8½"	5'-8"	17'-2"	5'-3"	18'-5¾"	4'-10¾"	19'-8¼"
50 FEET															5'-10¼"	23'-2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C-C FOR TYPE 4B

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

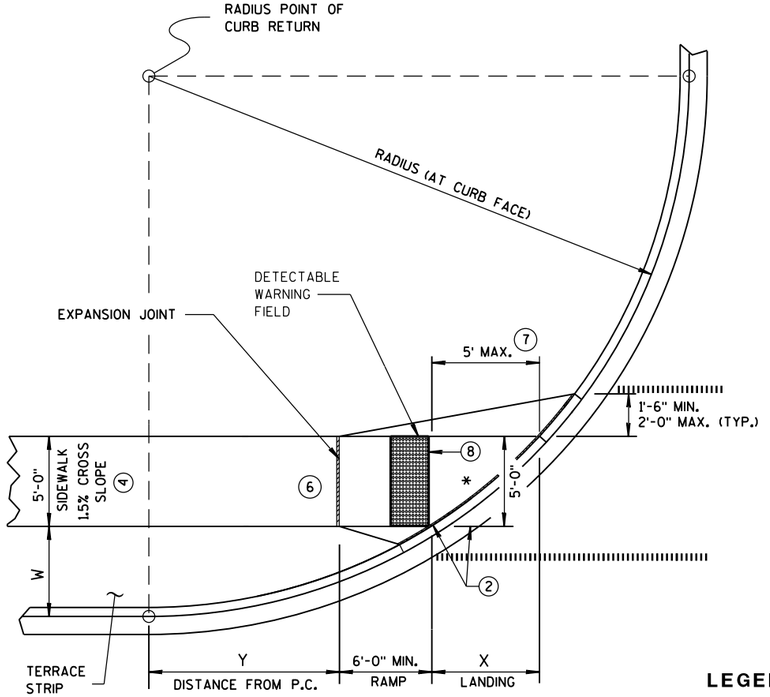
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

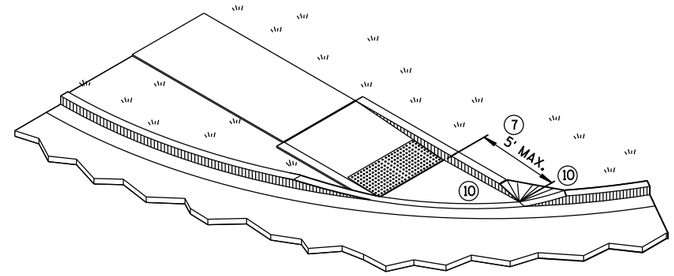
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

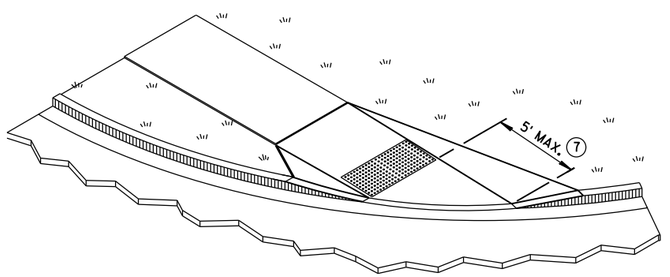
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

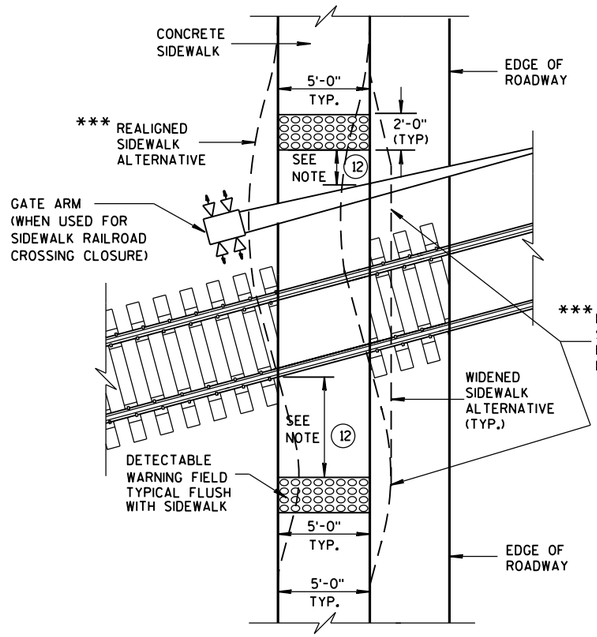
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

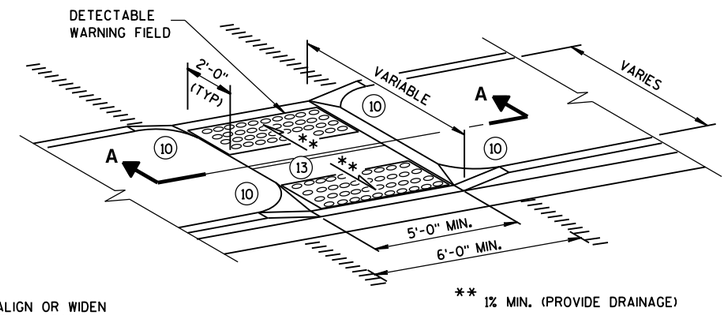
6

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



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

GENERAL NOTES

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

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

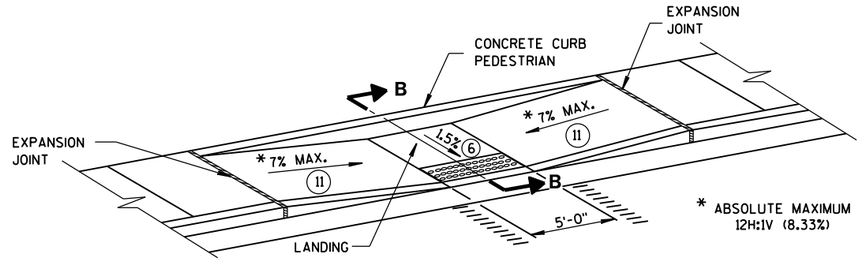
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

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

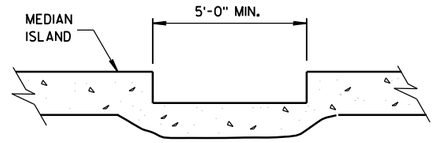
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

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

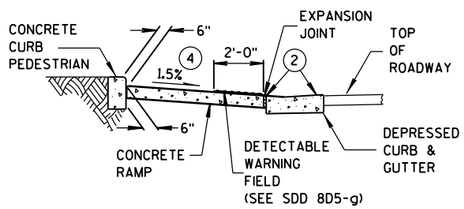
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.



MID-BLOCK CROSSING
TYPE 7A

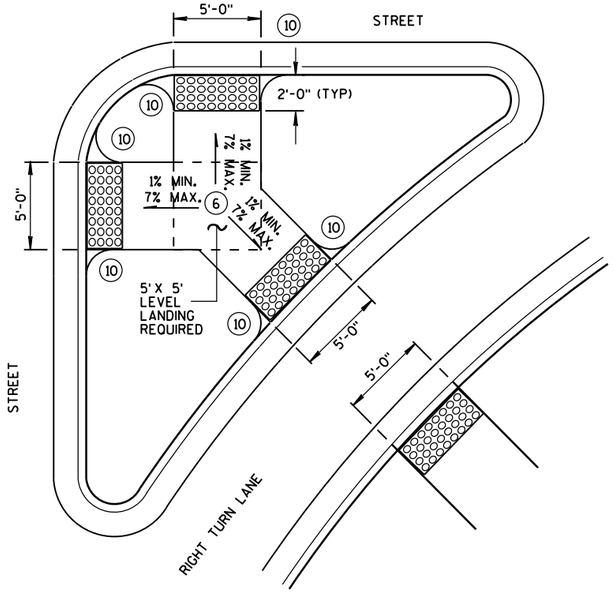


SECTION A-A

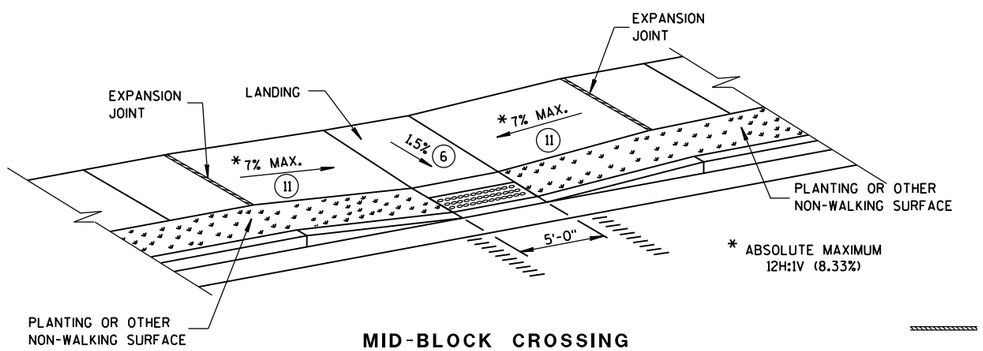


SECTION B-B

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

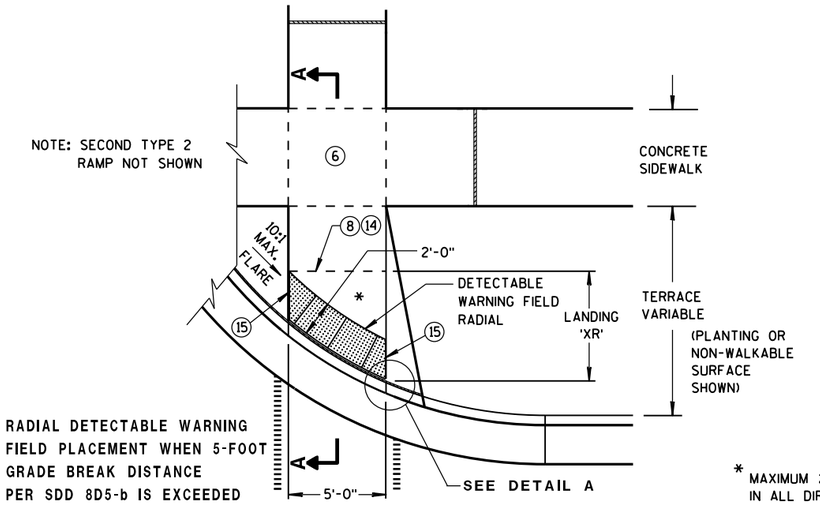
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

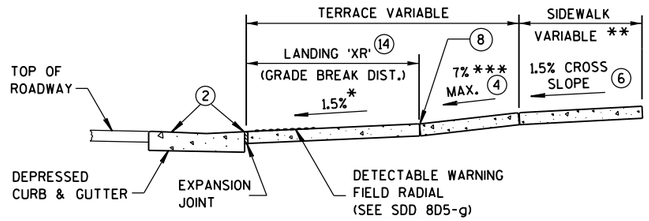
6

S.D.D. 8 D 5-19e
S.D.D. 8 D 5-19e



TYPE 2 RAMP
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION A-A

LEGEND

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

GENERAL NOTES

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

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

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

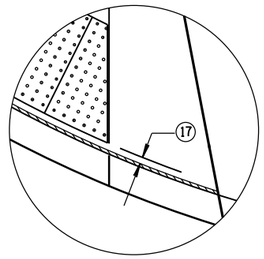
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

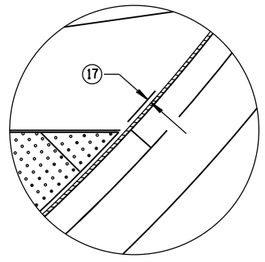
(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1'X 2' RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2'-0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

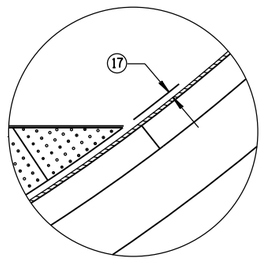
(17) A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.



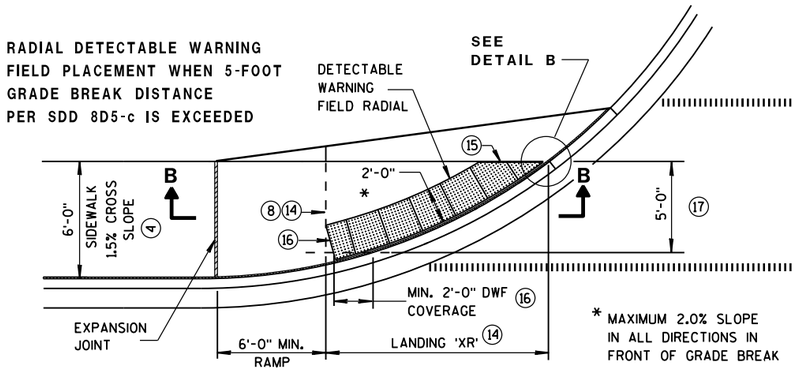
DETAIL A



DETAIL C

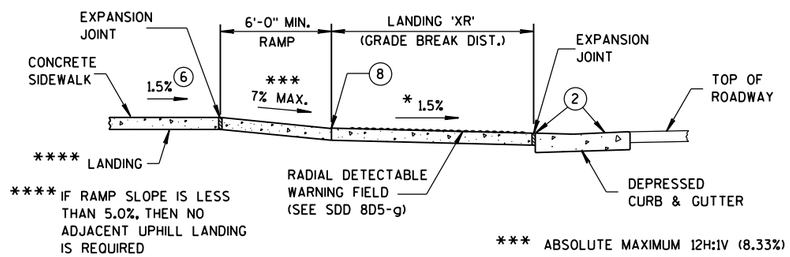


DETAIL B



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

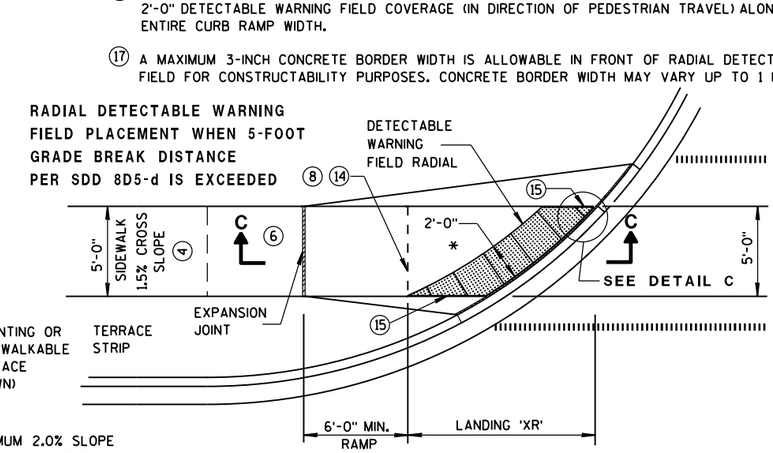
CURB RAMP TYPE 4A1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

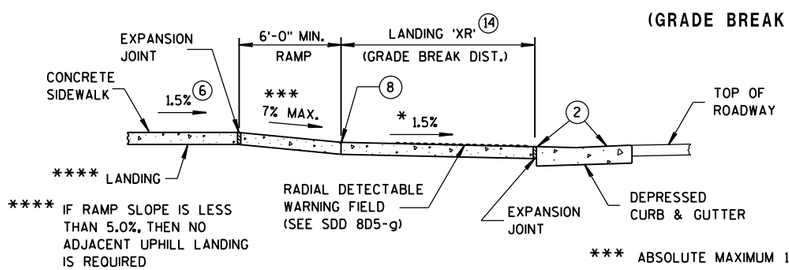
*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION B-B FOR TYPE 4A1



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

CURB RAMP TYPE 4B1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION C-C FOR TYPE 4B1

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 160

6

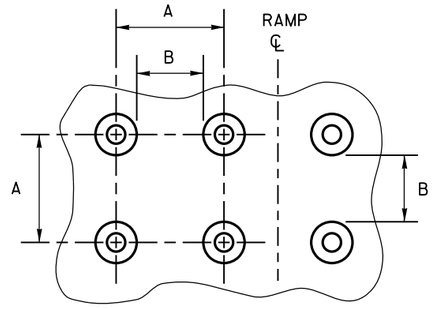
S.D.D. 8 D 5-19f

6

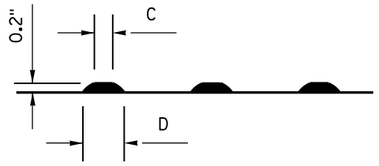
S.D.D. 8 D 5-19f

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

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



PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES

DETECTABLE WARNING PATTERN DETAIL

GENERAL NOTES

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

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

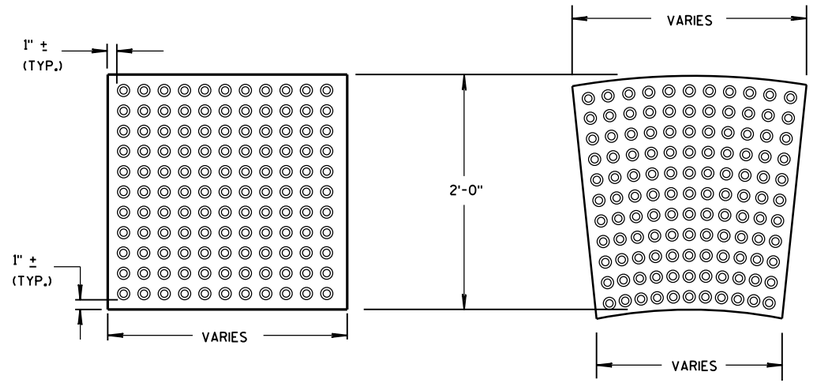
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGES IN COMBINATION WITH SQUARE PANELS ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

⑮ FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

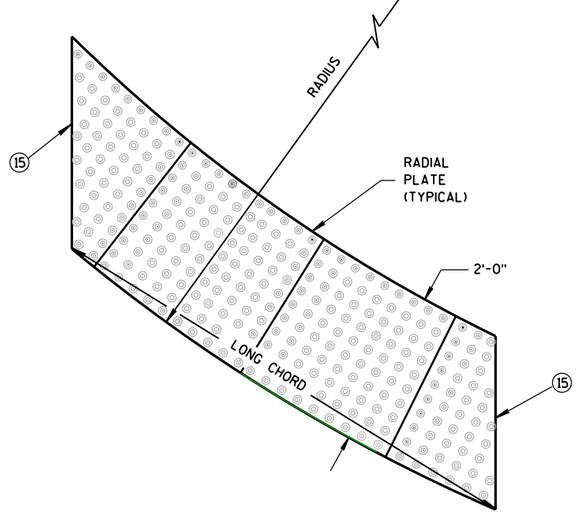


RECTANGULAR PLATES

RADIAL PLATES

DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW



RADIAL DETECTABLE WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

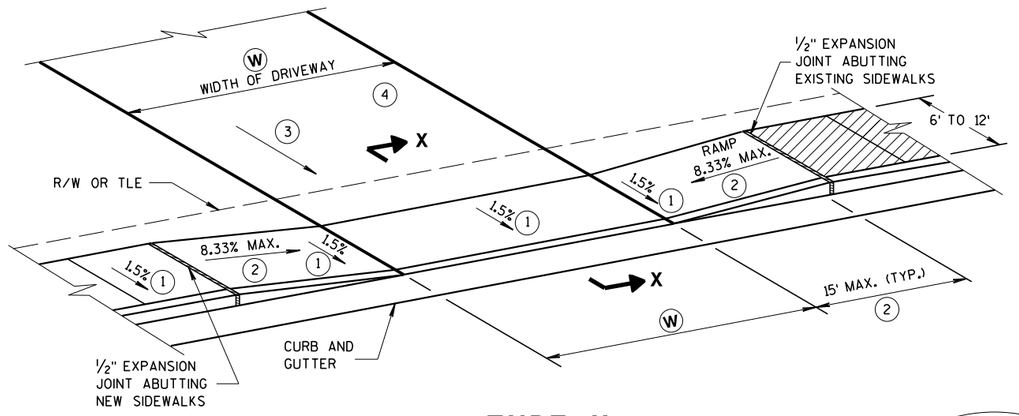
APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

6

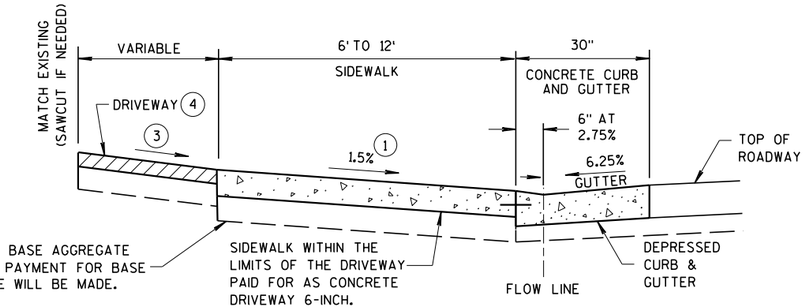
S.D.D. 8 D 5-19g

6

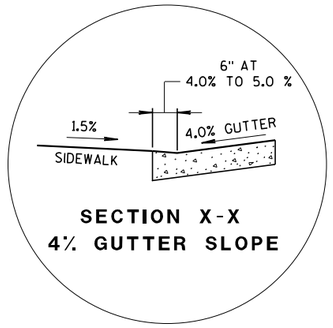
S.D.D. 8 D 5-19g



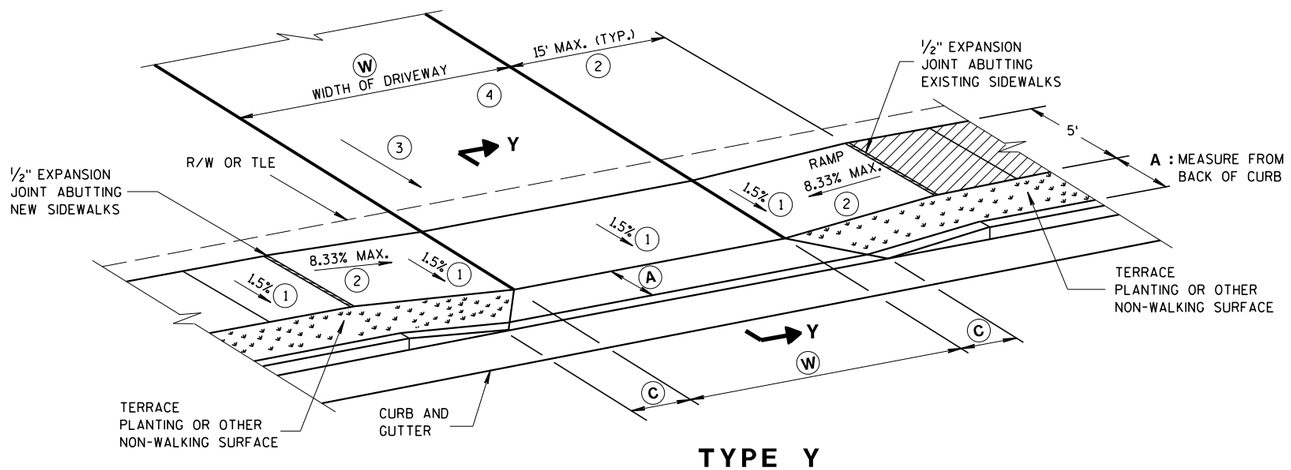
TYPE X
SIDEWALK ABUTS CURB & GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X-X



SECTION X-X
4% GUTTER SLOPE



TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

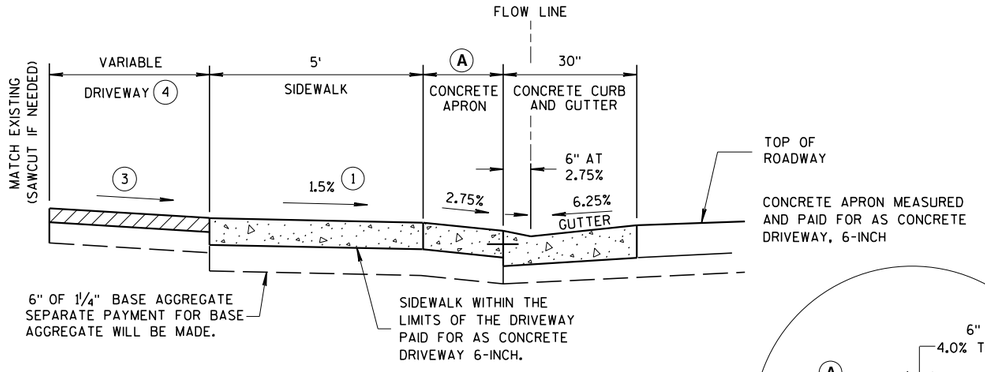
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

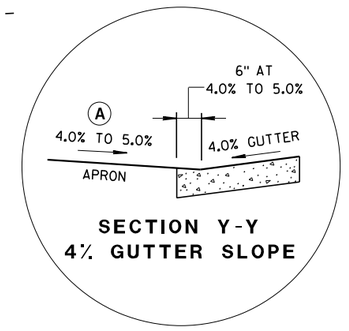
(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y-Y



SECTION Y-Y
4% GUTTER SLOPE

DRIVEWAY DETAIL
WITH CONCRETE CURB & GUTTER
(URBAN AND SUBURBAN)

TABLE Y

(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

NOT TO SCALE

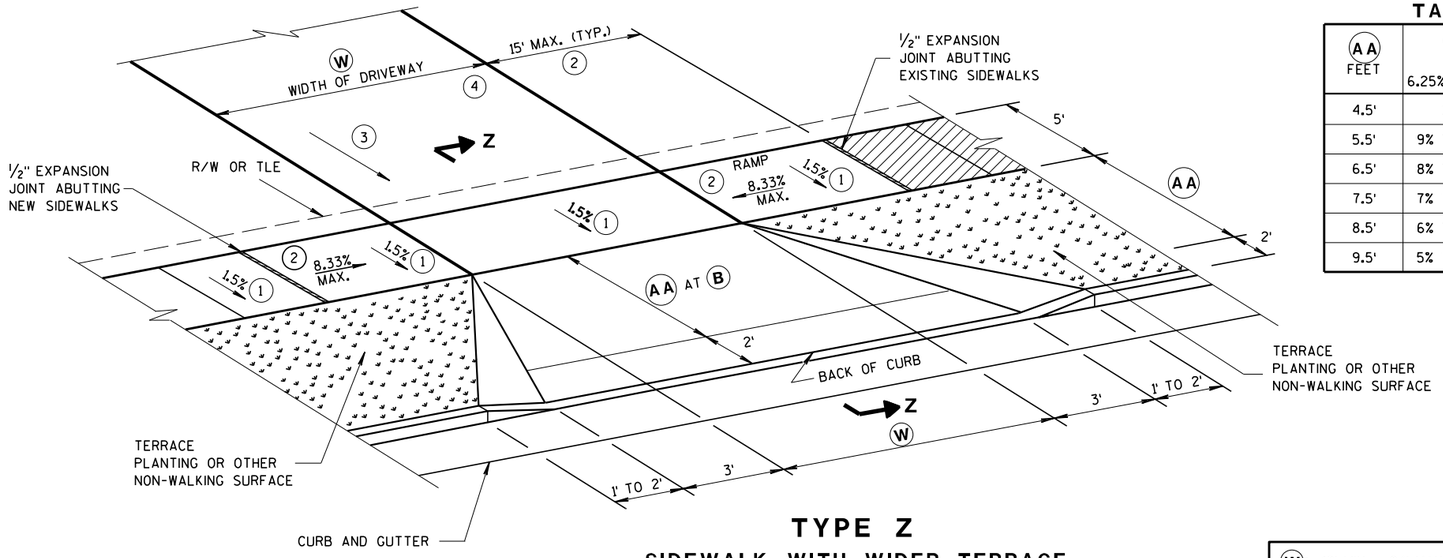
DRIVEWAY AND SIDEWALK RAMPS
TYPES X & Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

S.D.D. 8 D 18-2

S.D.D. 8 D 18-2



TYPE Z

SIDEWALK WITH WIDER TERRACE

TERRACE VARIES 7 TO 12 FEET

TABLE Z

AA FEET	B % 6.25% GUTTER	B % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM

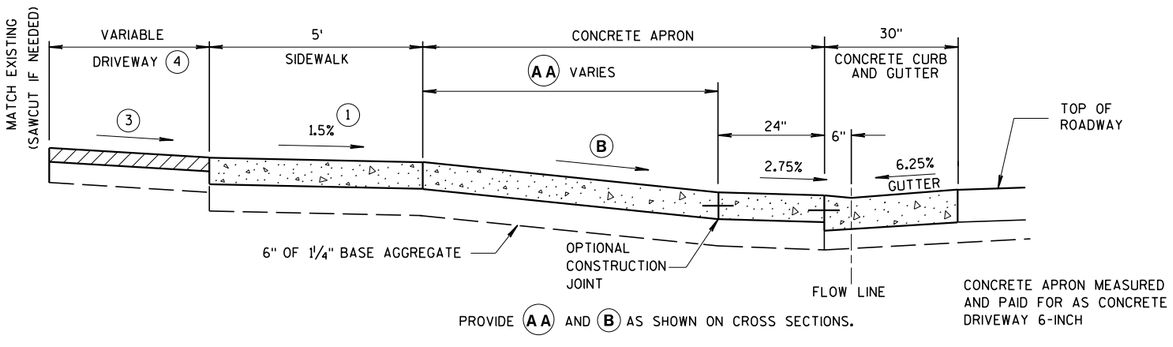
10.5% UP AWAY FROM SIDEWALK (SAG)

8.5% DOWN AWAY FROM SIDEWALK (CREST)

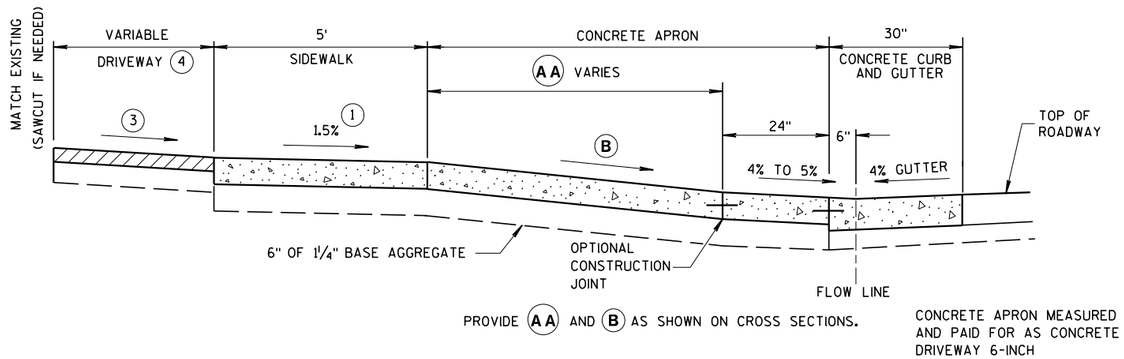
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES

- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



6.25% GUTTER SLOPE



4% GUTTER SLOPE

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR **B** VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

SECTION Z-Z

DRIVEWAY DETAIL WITH CONCRETE CURB & GUTTER

(URBAN AND SUBURBAN)

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

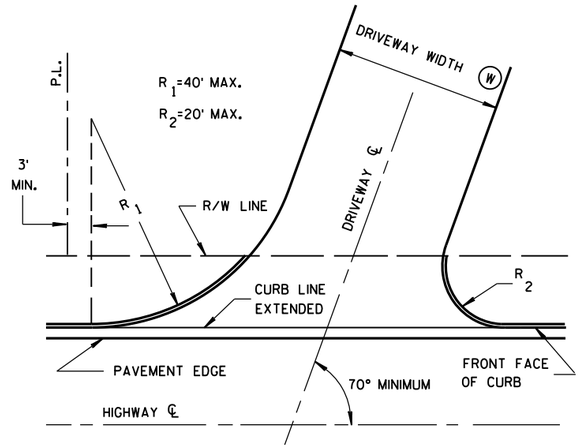
APPROVED
March 2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

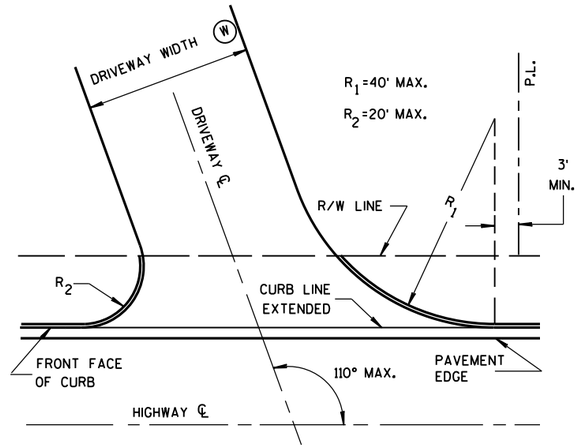
6

S.D.D. 8 D 19-2

6

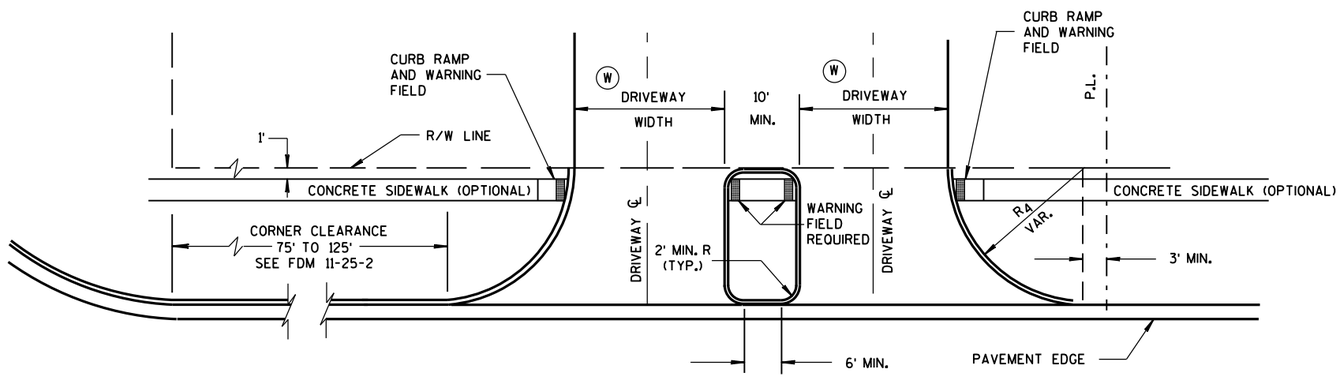
S.D.D. 8 D 19-2





SKEWED DRIVEWAY DETAILS
(COMMERCIAL AND NON-COMMERCIAL)

SIDEWALK NOT SHOWN



DRIVEWAY LOCATION AND SPACING DETAILS

SIDEWALK SHOWN

NOTES

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

Ⓦ DRIVEWAY WIDTHS:

COMMERCIAL - 35' MAX., 16' MIN.

RESIDENTIAL AND NON-COMMERCIAL - 24' MAX., 12' MIN.

DRIVEWAYS WITH CURB & GUTTER RETURNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERV
FHWA

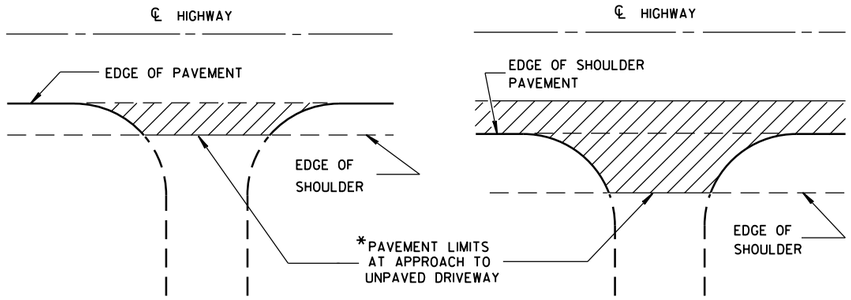
ENT

6

S.D.D. 8 D 20-1

6

S.D.D. 8 D 20-1

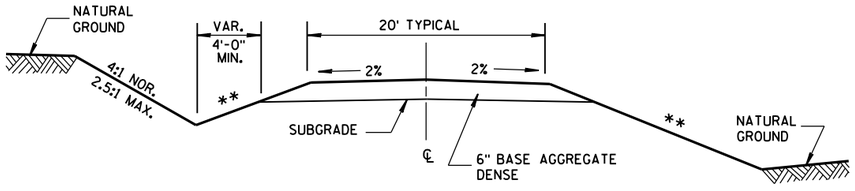


*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB & GUTTER OR SIDEWALK)

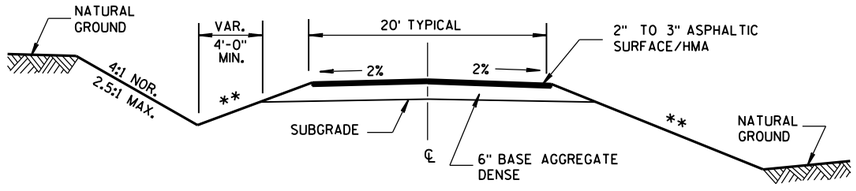


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

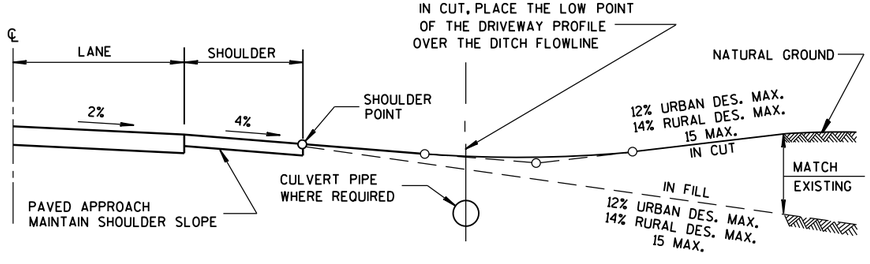
** SLOPE CAN VARY WITH SPEED. SEE 11-45-2.6.2.

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥35 TO <60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE



TYPICAL DRIVEWAY PROFILES

DRIVEWAYS WITHOUT CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

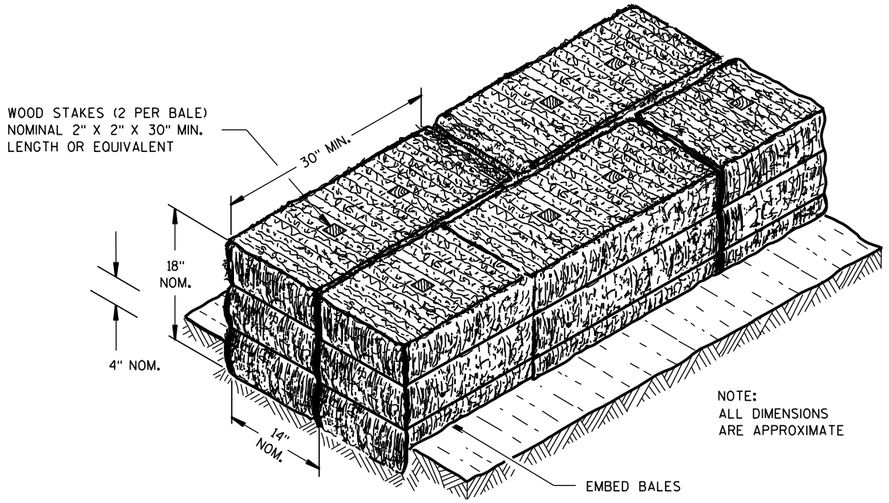
APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERV
FHWA

6

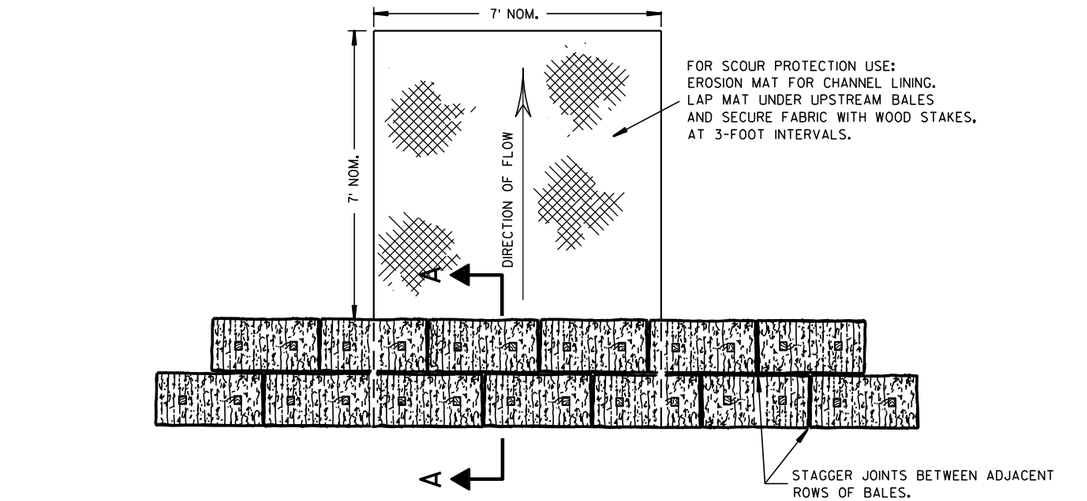
S.D.D. 8 D 21-1

6

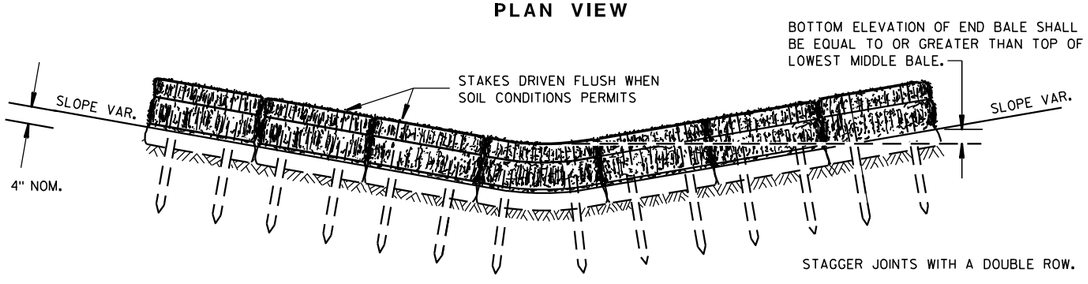
S.D.D. 8 D 21-1



SECTION A-A



PLAN VIEW



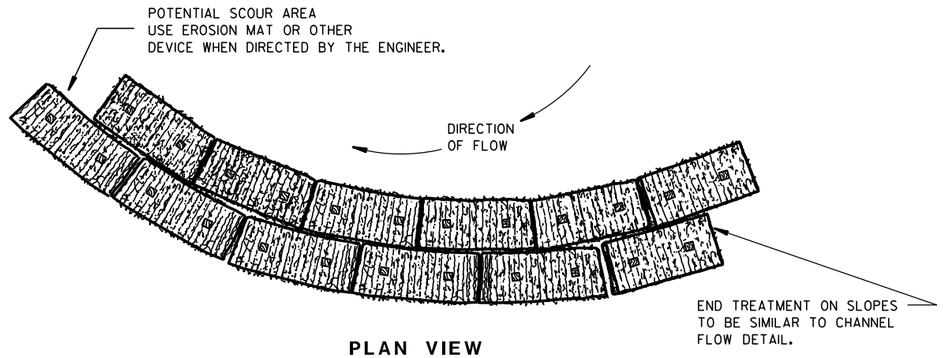
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

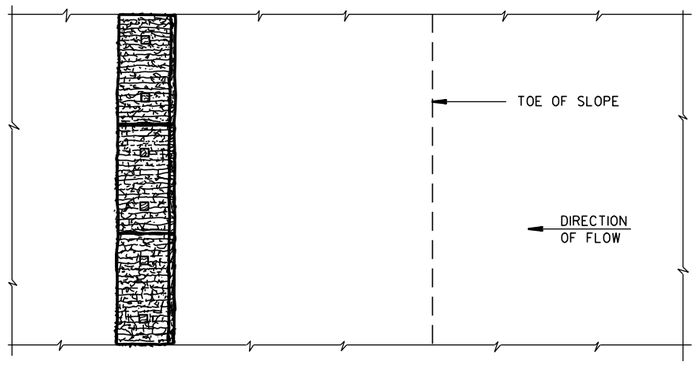
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

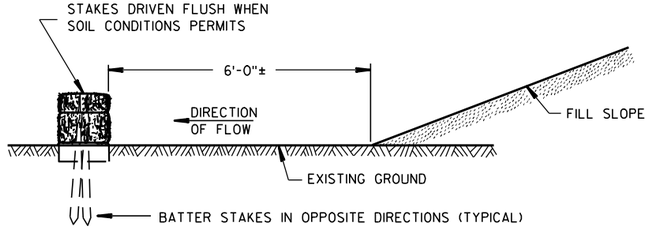


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

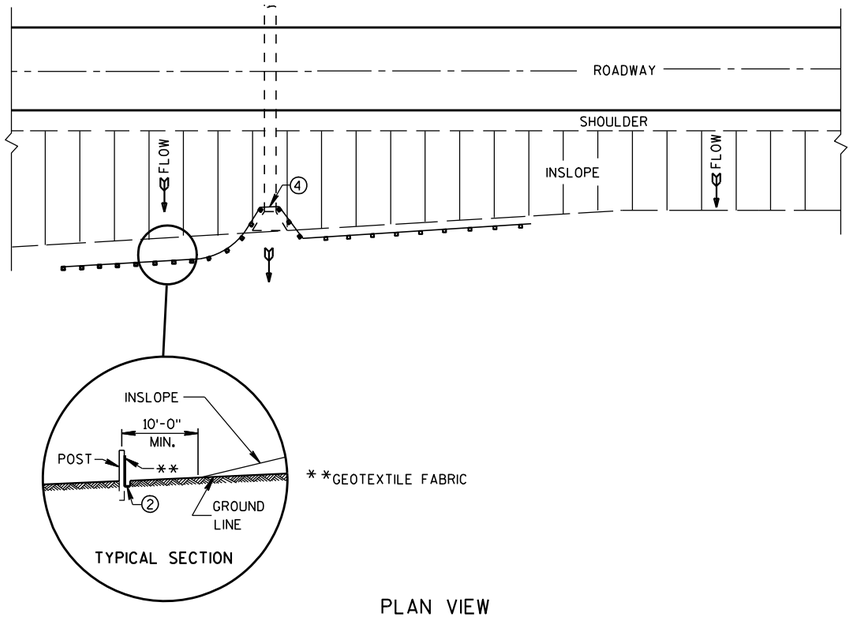
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

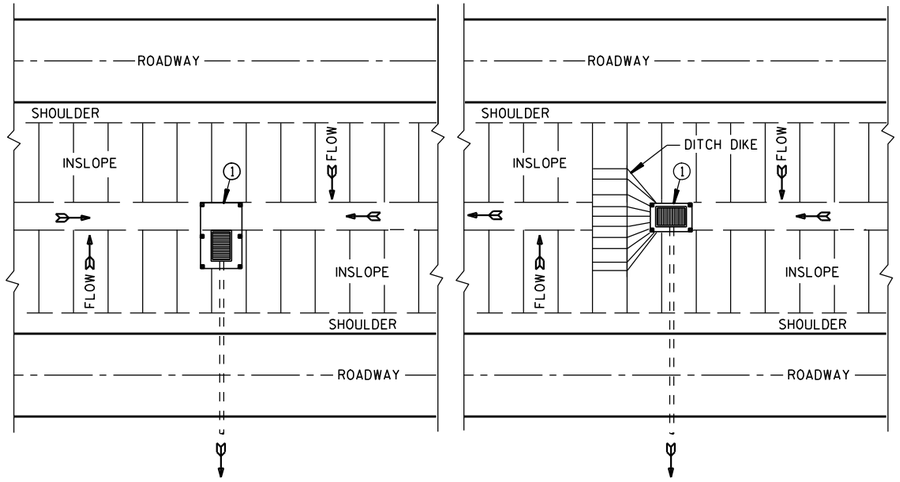
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

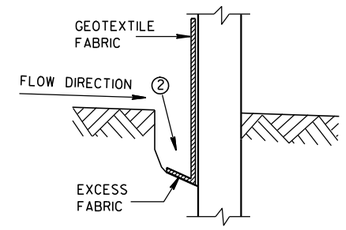
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

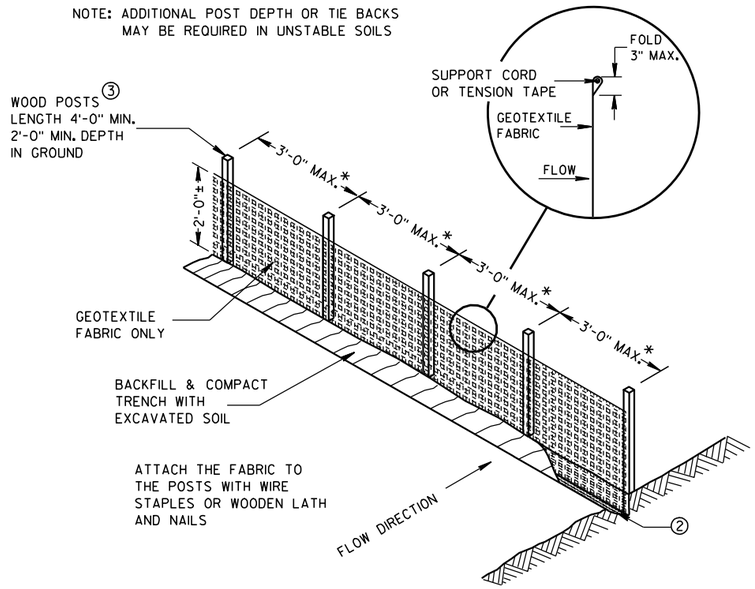
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

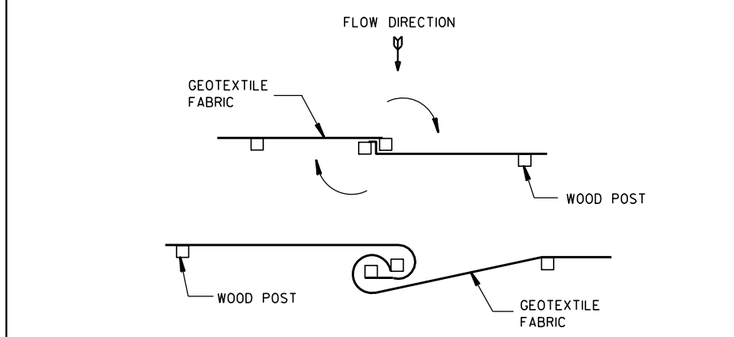
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



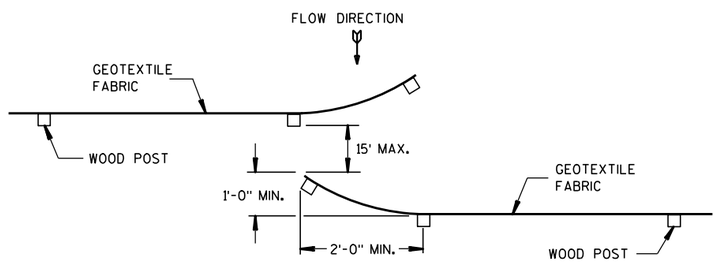
TRENCH DETAIL



SILT FENCE

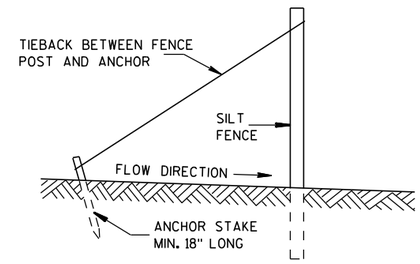


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

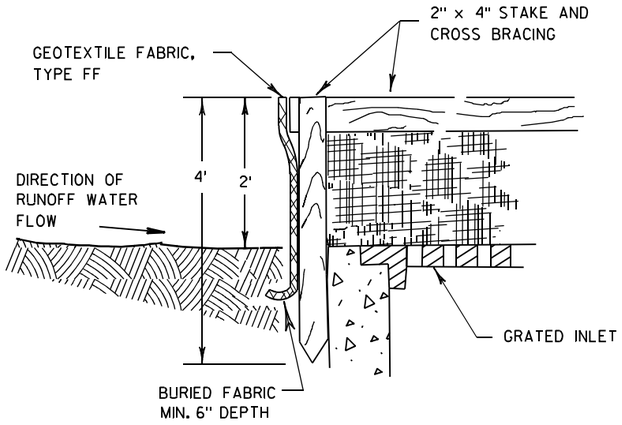
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

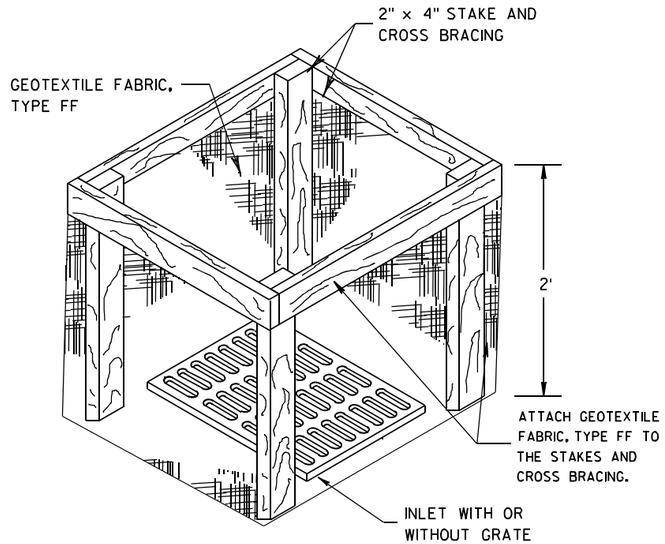
6

S.D.D. 8 E 9-6

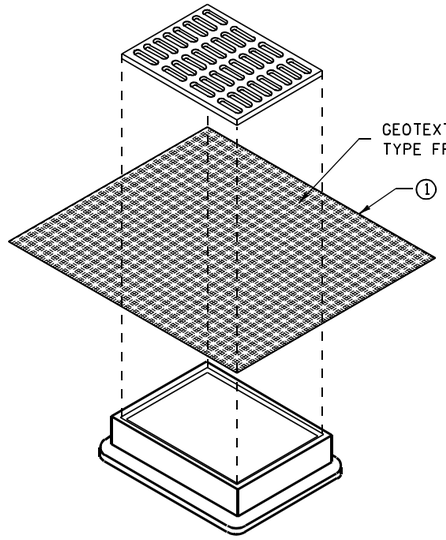
6

S.D.D. 8 E 9-6



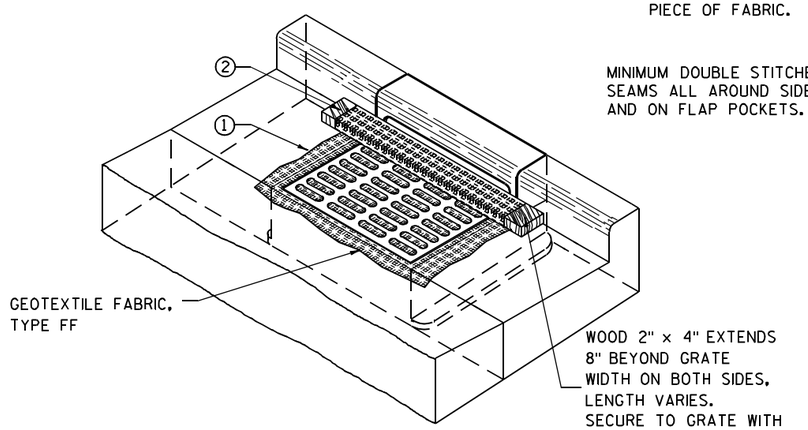


INLET PROTECTION, TYPE A

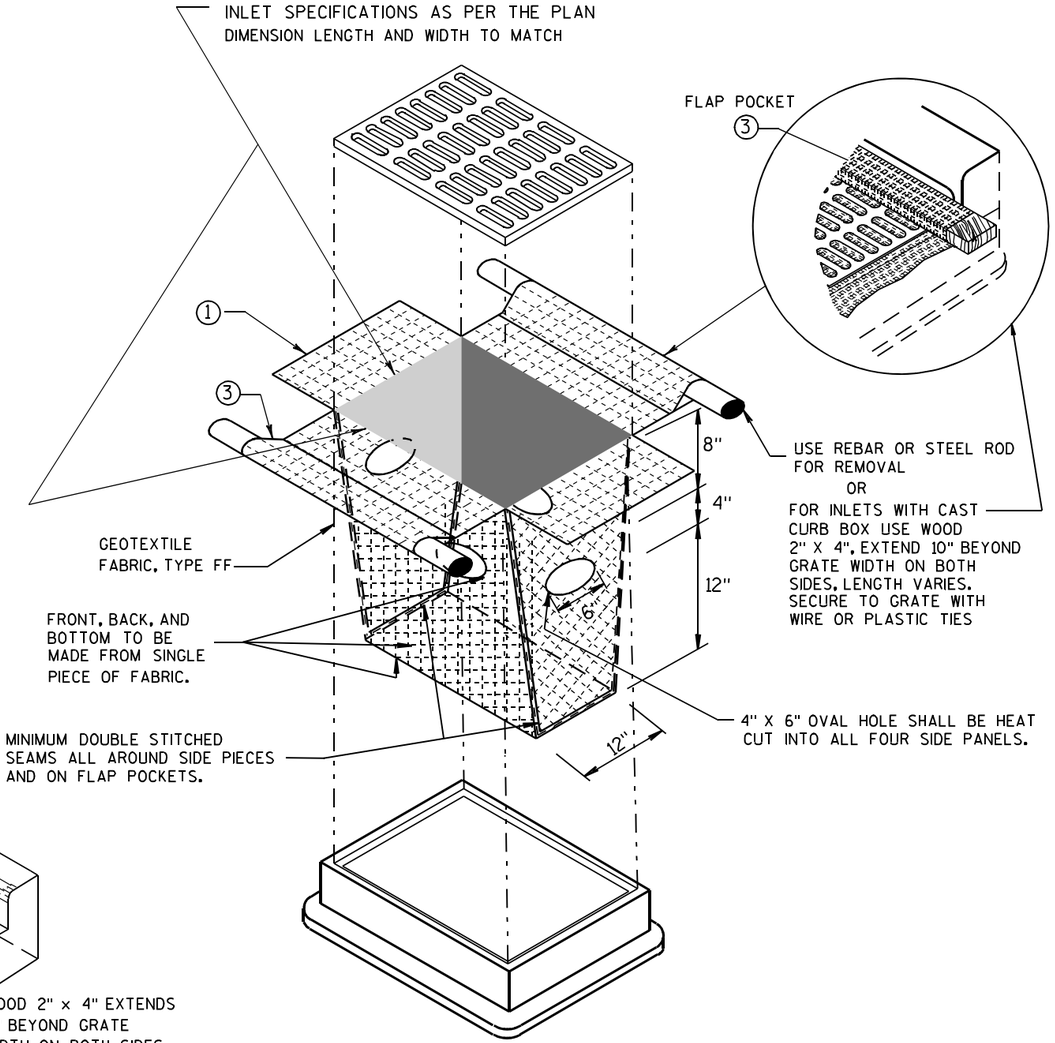


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

METAL APRON ENDWALLS

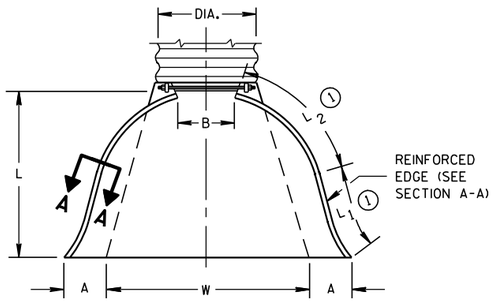
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

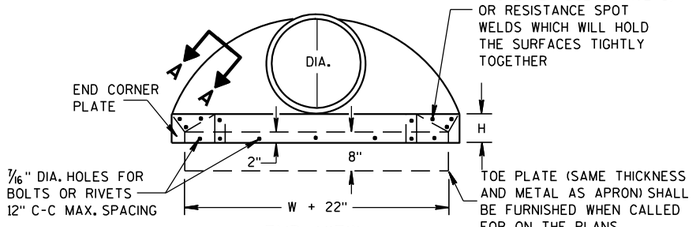
REINFORCED CONCRETE APRON ENDWALLS

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

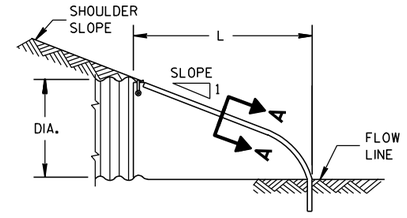
*MINIMUM
**MAXIMUM



PLAN VIEW

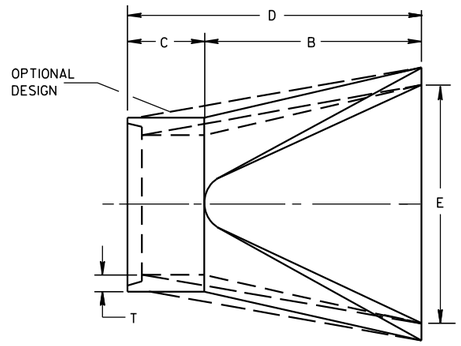


END VIEW

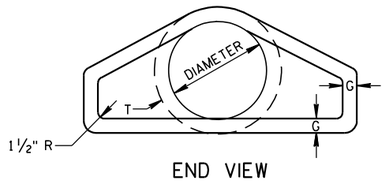


SIDE ELEVATION

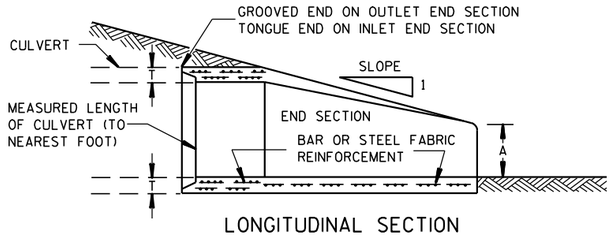
METAL ENDWALLS



PLAN

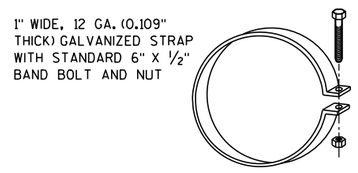


END VIEW



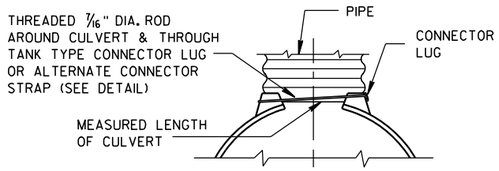
LONGITUDINAL SECTION

CONCRETE ENDWALLS

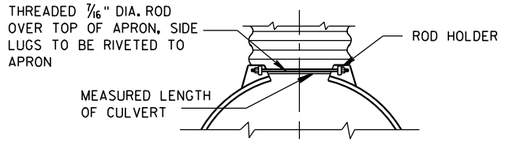


ALTERNATE FOR TYPE 1 CONNECTION

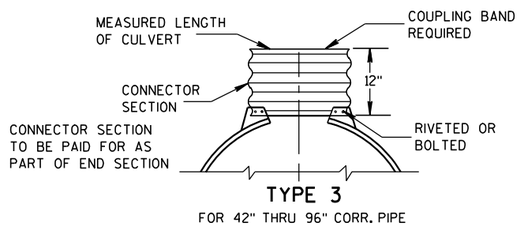
END SECTION CONNECTOR STRAP



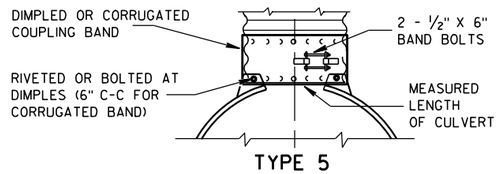
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

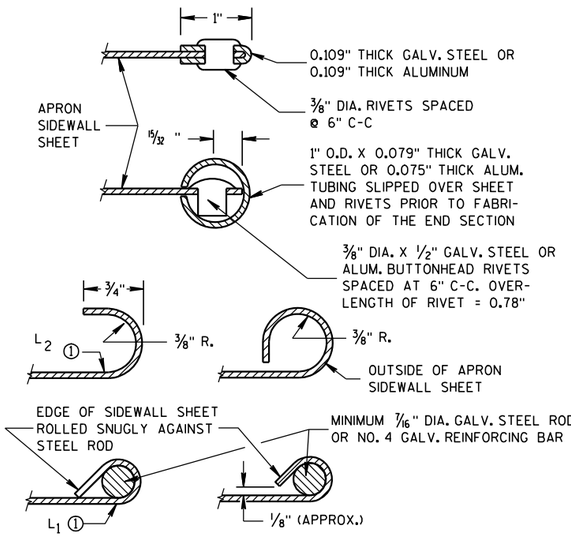
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

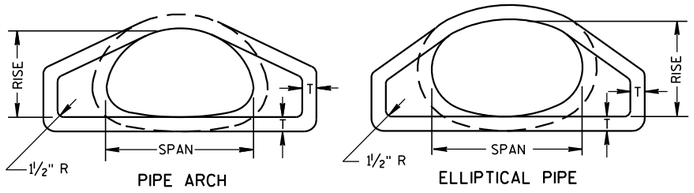
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

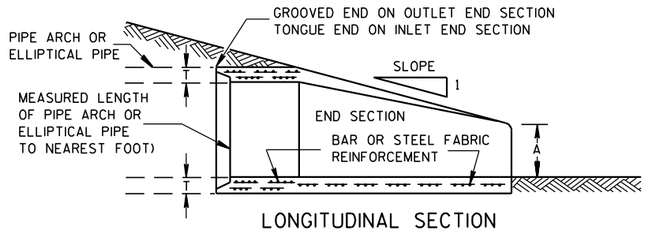
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

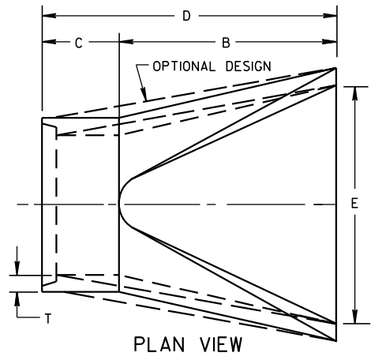
6
S.D.D. 8 F 1-11



END VIEW

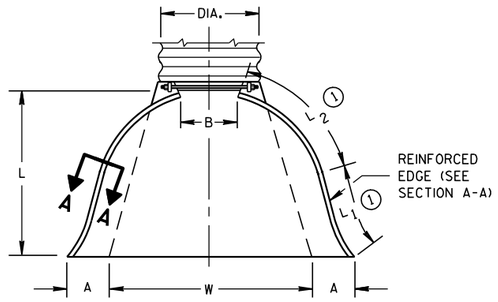


LONGITUDINAL SECTION

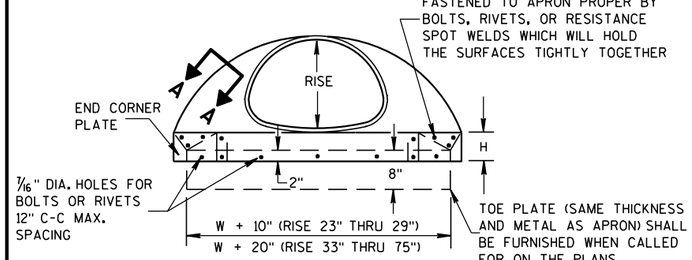


PLAN VIEW

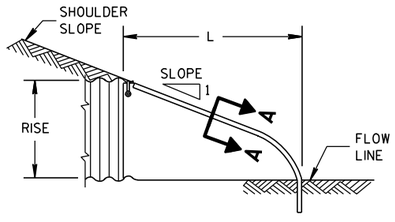
CONCRETE ENDWALLS



PLAN VIEW

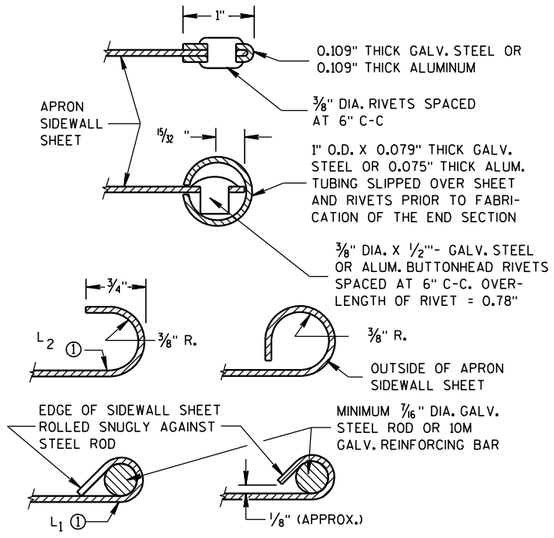


END VIEW



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

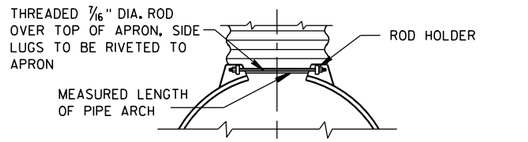
REINFORCED CONCRETE PIPE ARCH

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

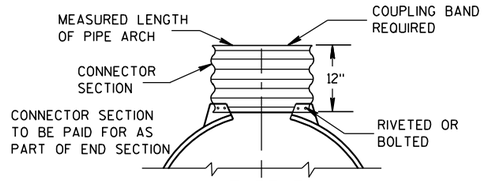
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



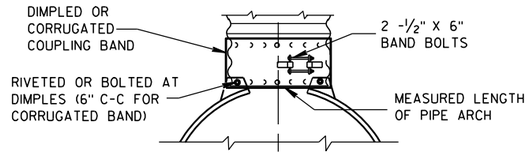
TYPE 2

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

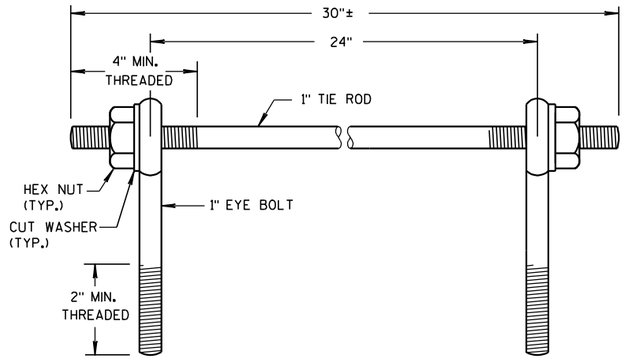
FHWA

6

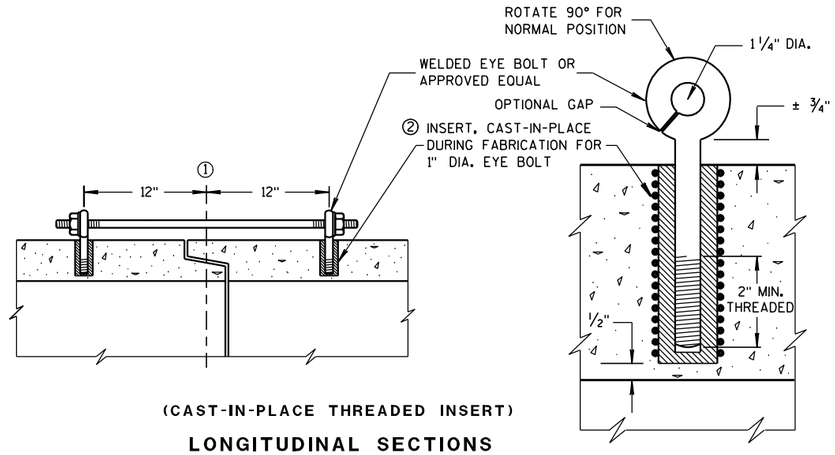
S.D.D. 8 F 2-1

6

S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

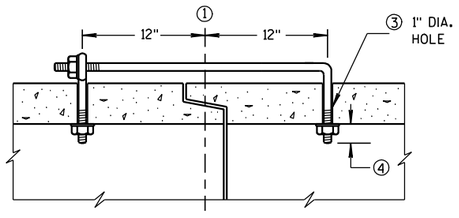
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

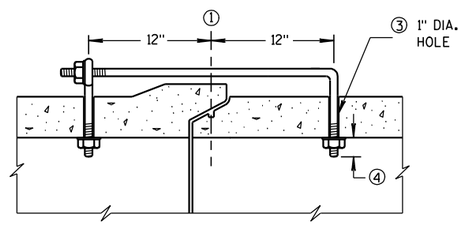
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

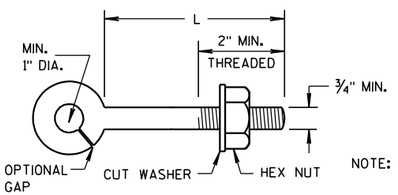


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

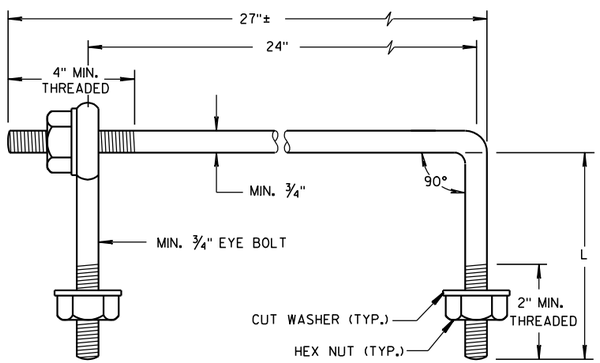
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

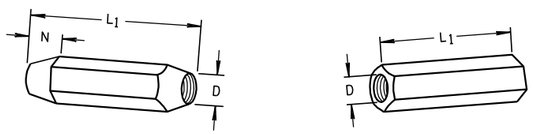
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

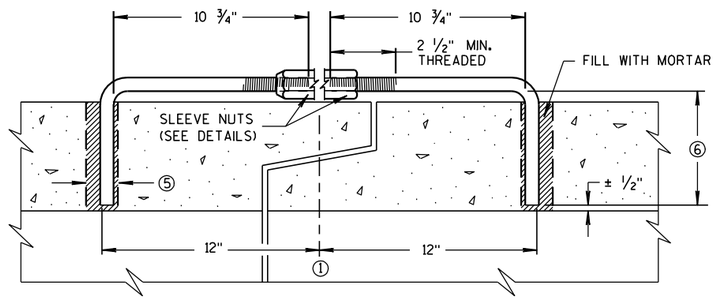
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

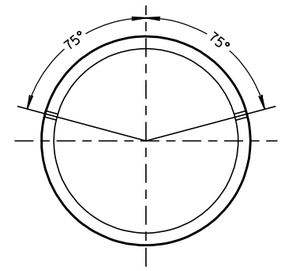
SLEEVE NUTS



LONGITUDINAL SECTION

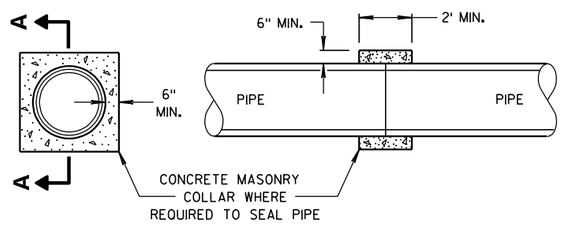
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

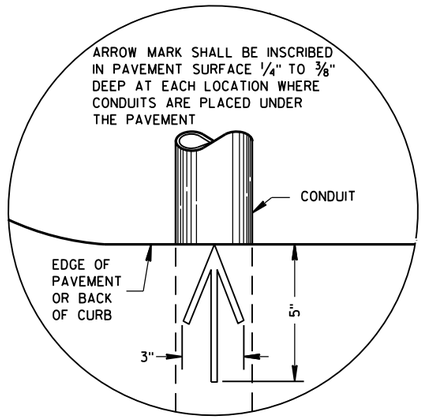
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
171
FHWA

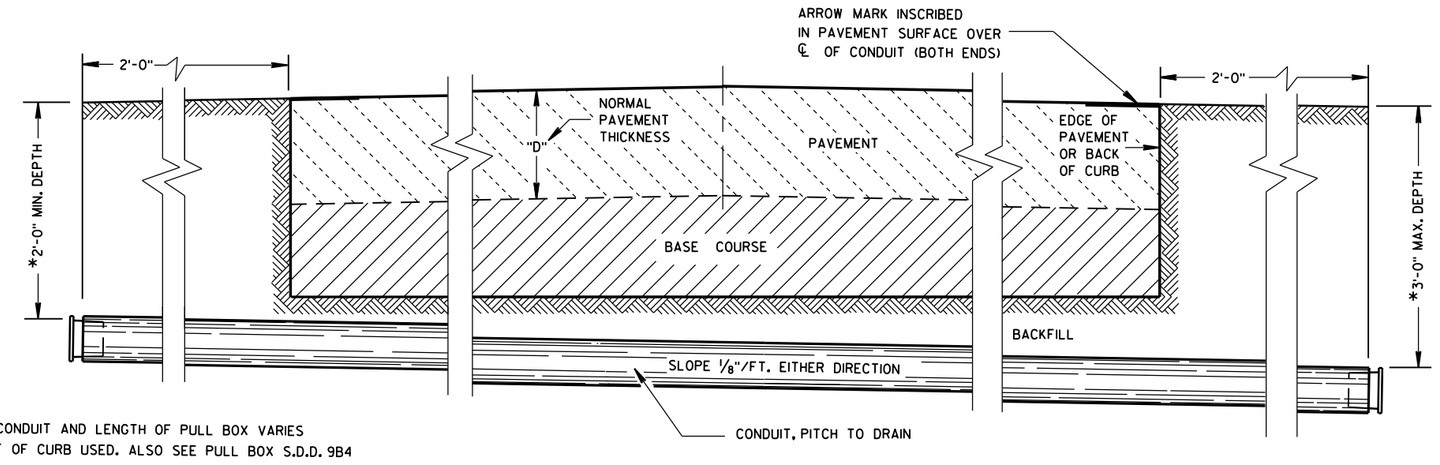
6

S.D.D. 8 F 4-7



PLAN VIEW

ARROW MARK



*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

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.).

TRACER 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.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

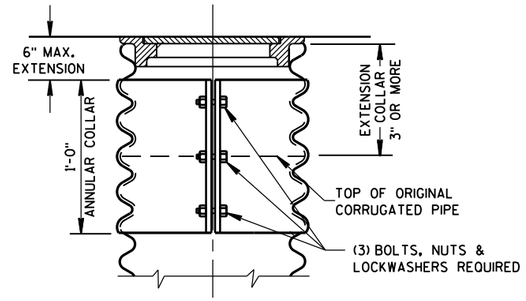
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

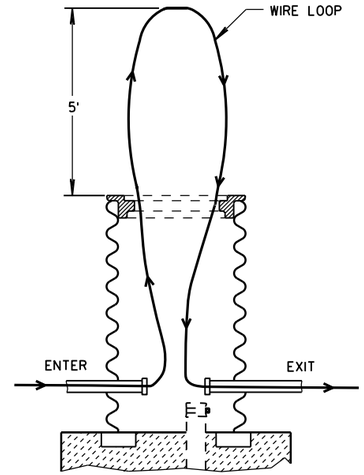
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

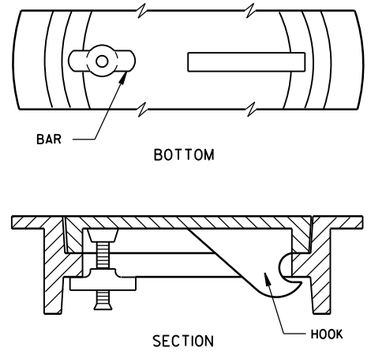
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

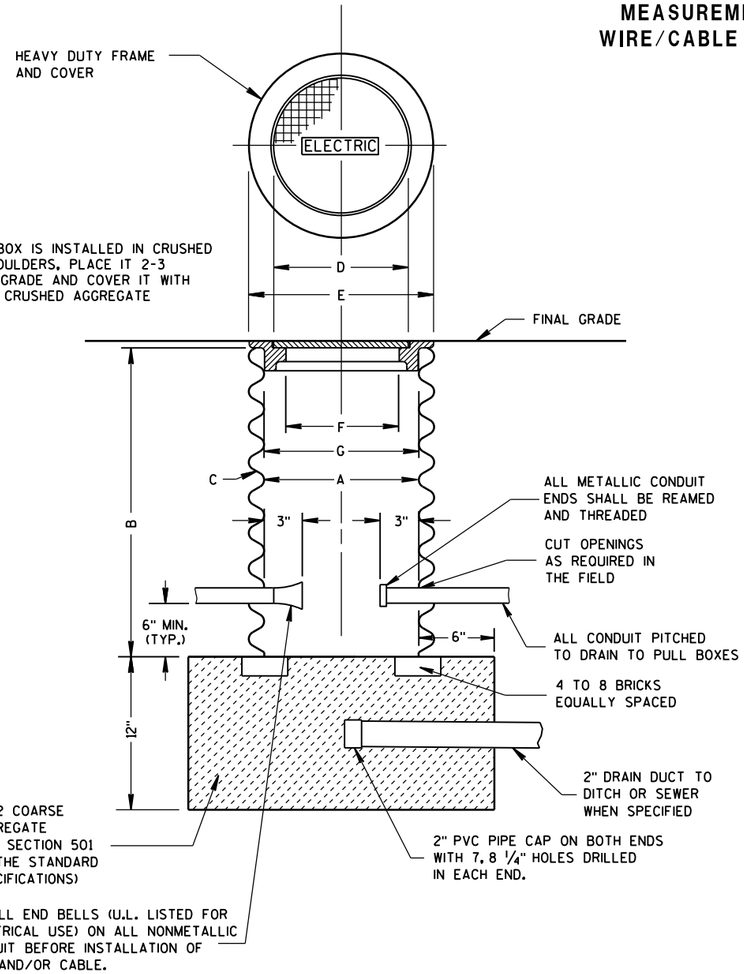


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



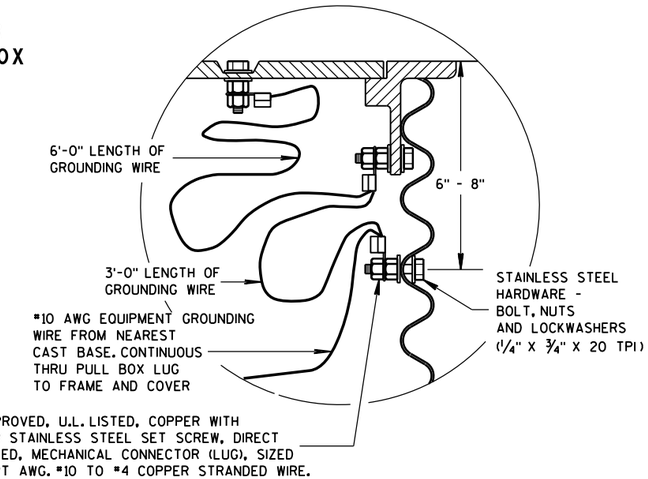
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

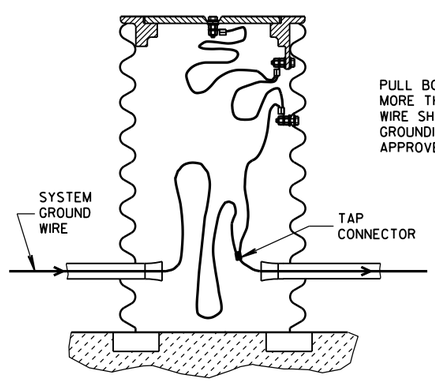


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

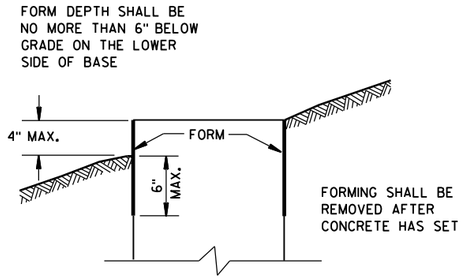
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 4-11



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

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

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

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

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

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

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

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

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

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

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

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

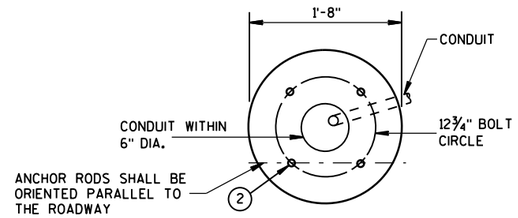
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

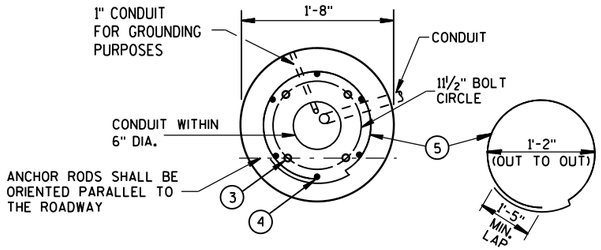
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

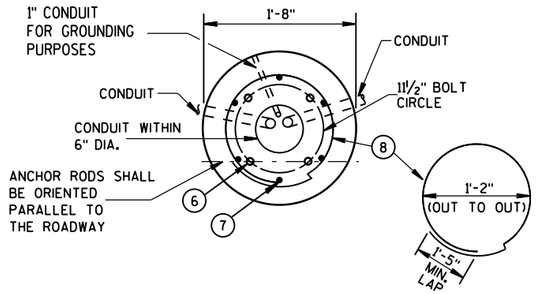
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

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

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



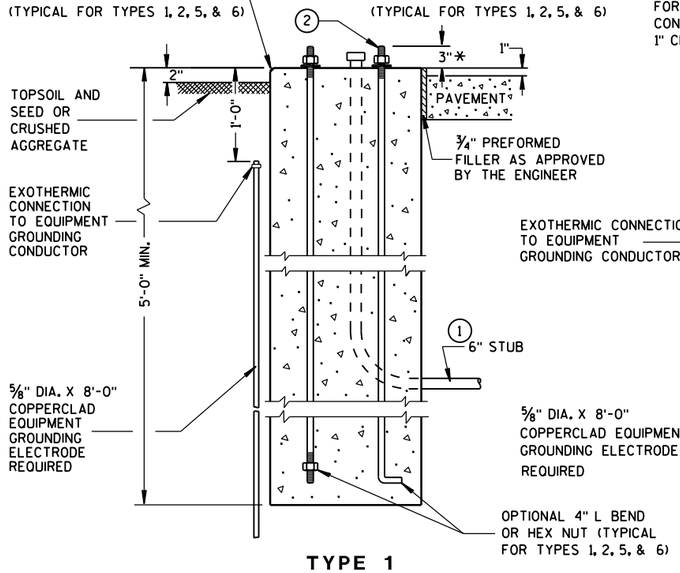




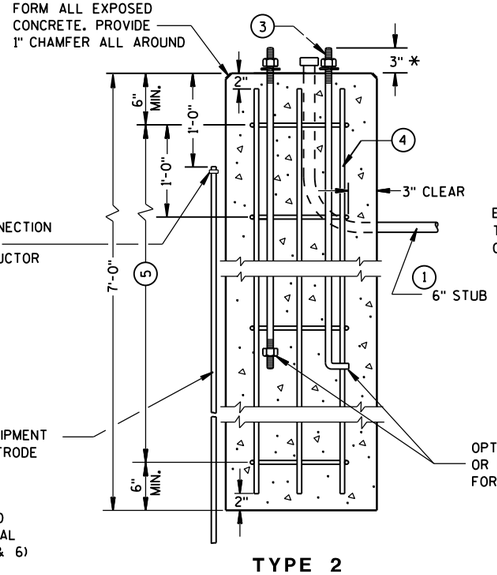
FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

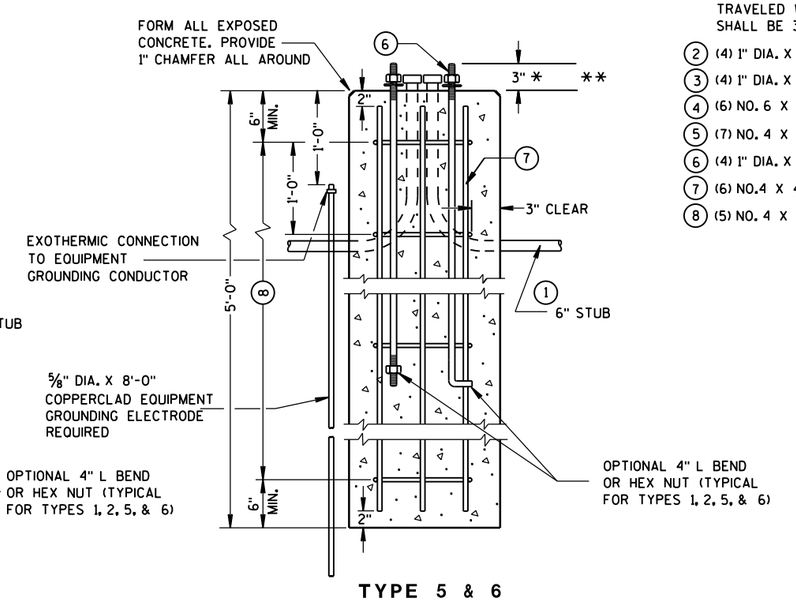
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

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

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

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA

6

S.D.D. 9 C 2-7

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

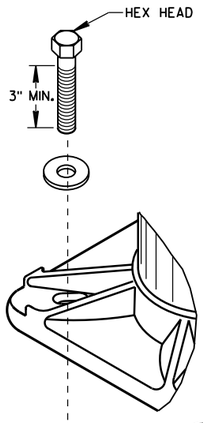
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

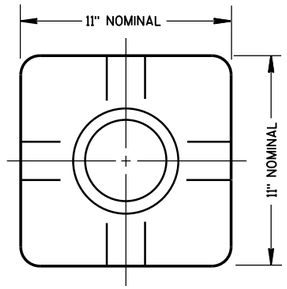
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

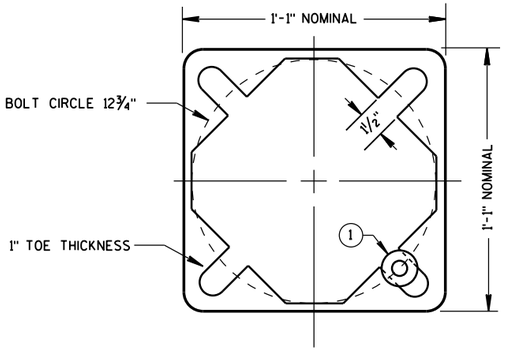
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

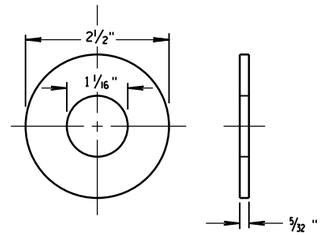




TOP VIEW
(PEDESTAL BASE)

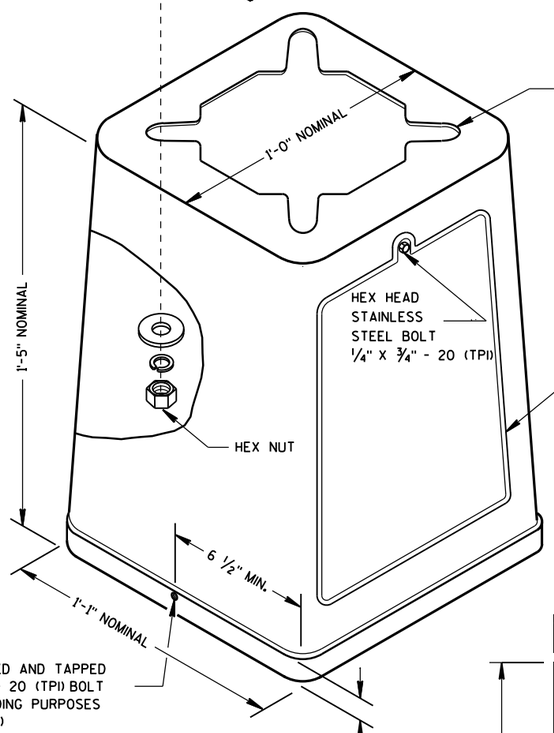


BOTTOM VIEW
(PEDESTAL BASE)

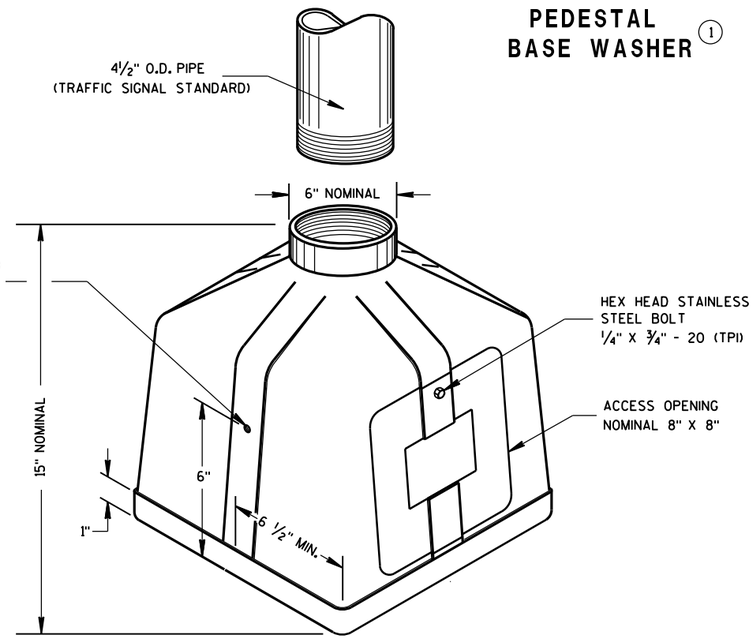


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

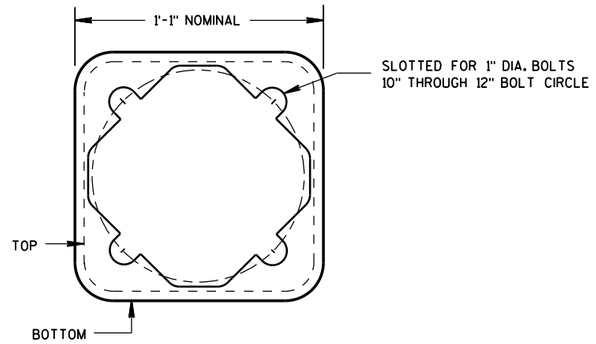


ISOMETRIC VIEW

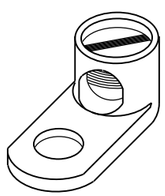


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

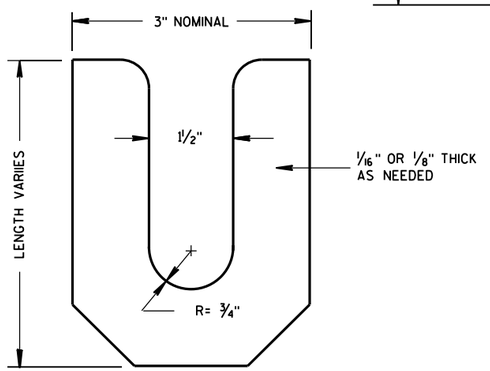


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

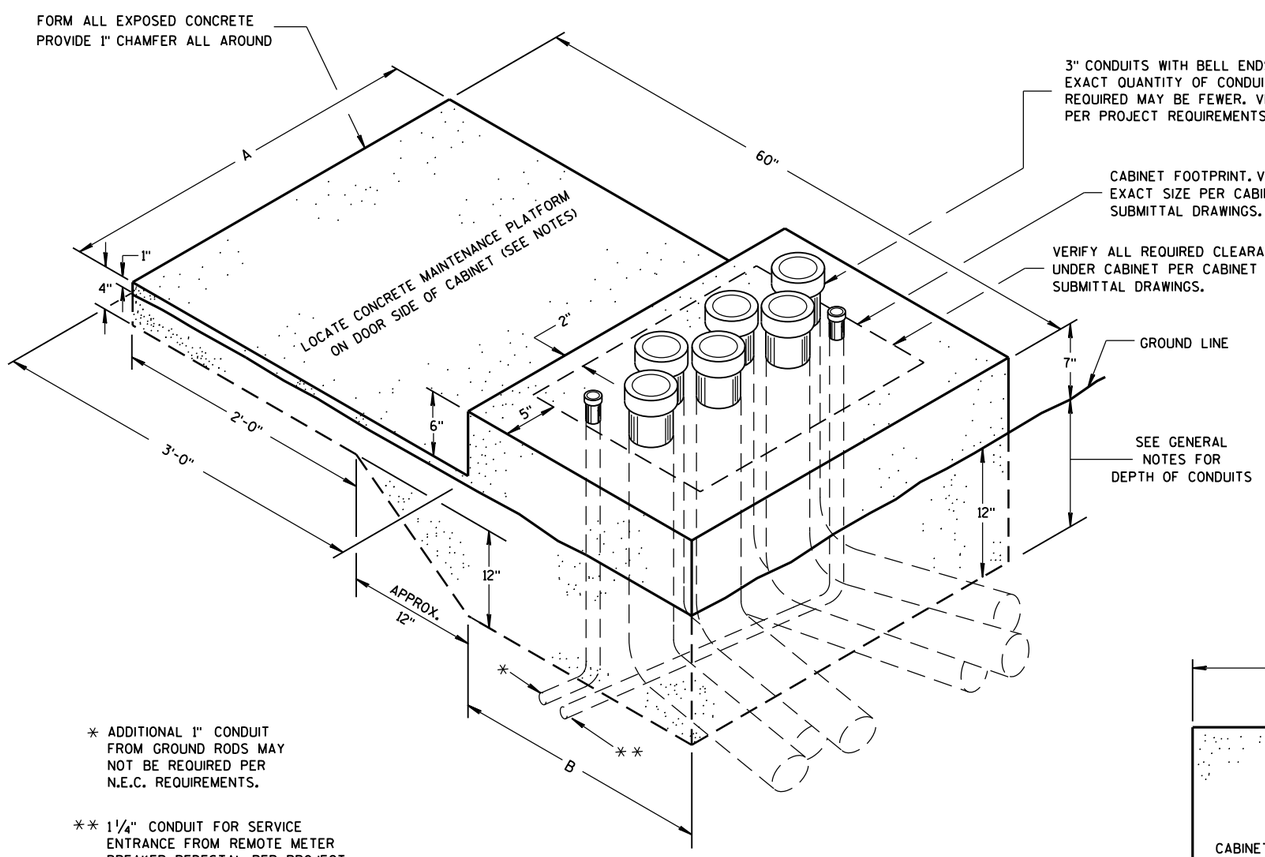
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 3-4

6

S.D.D. 9 C 3-4



* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

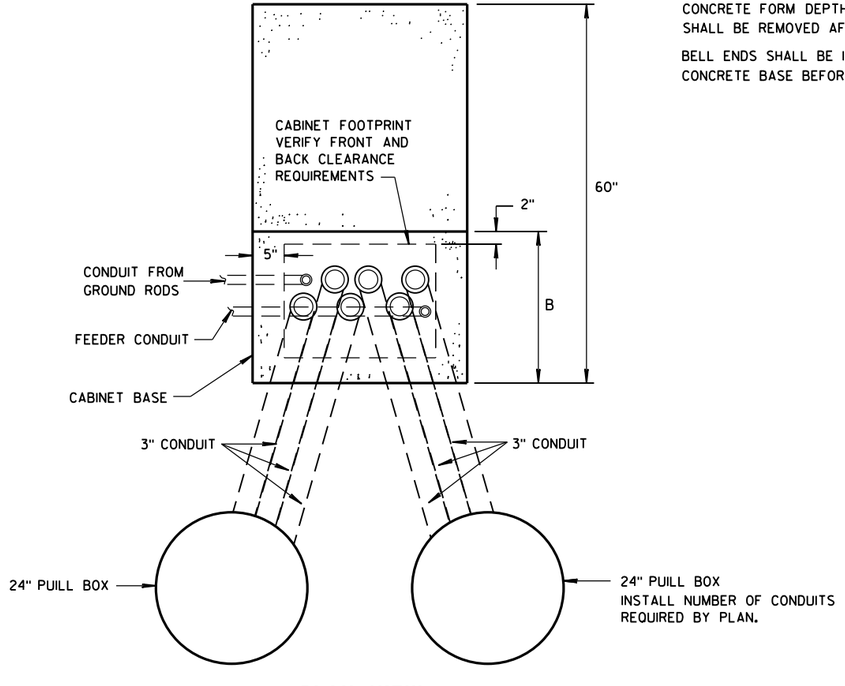
** 1¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

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

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

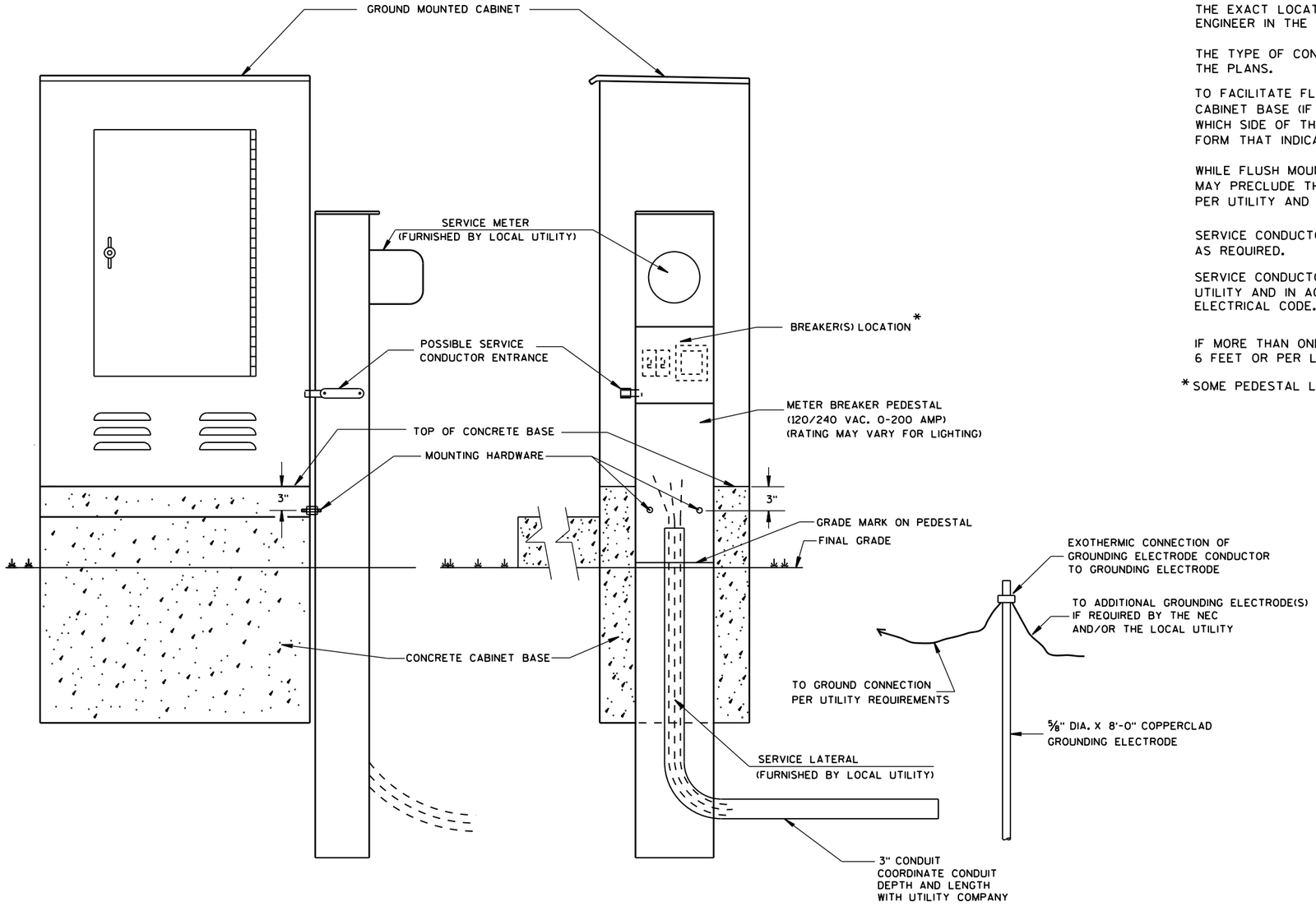
APPROVED
Nov. 2014 — DATE
/S/ Thomas Gonring — STATE LIGHTING ENGINE — WYS
FHWA

6

S.D.D. 9 C 14-2

6

S.D.D. 9 C 14-2



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

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

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

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

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 D 1-5

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.

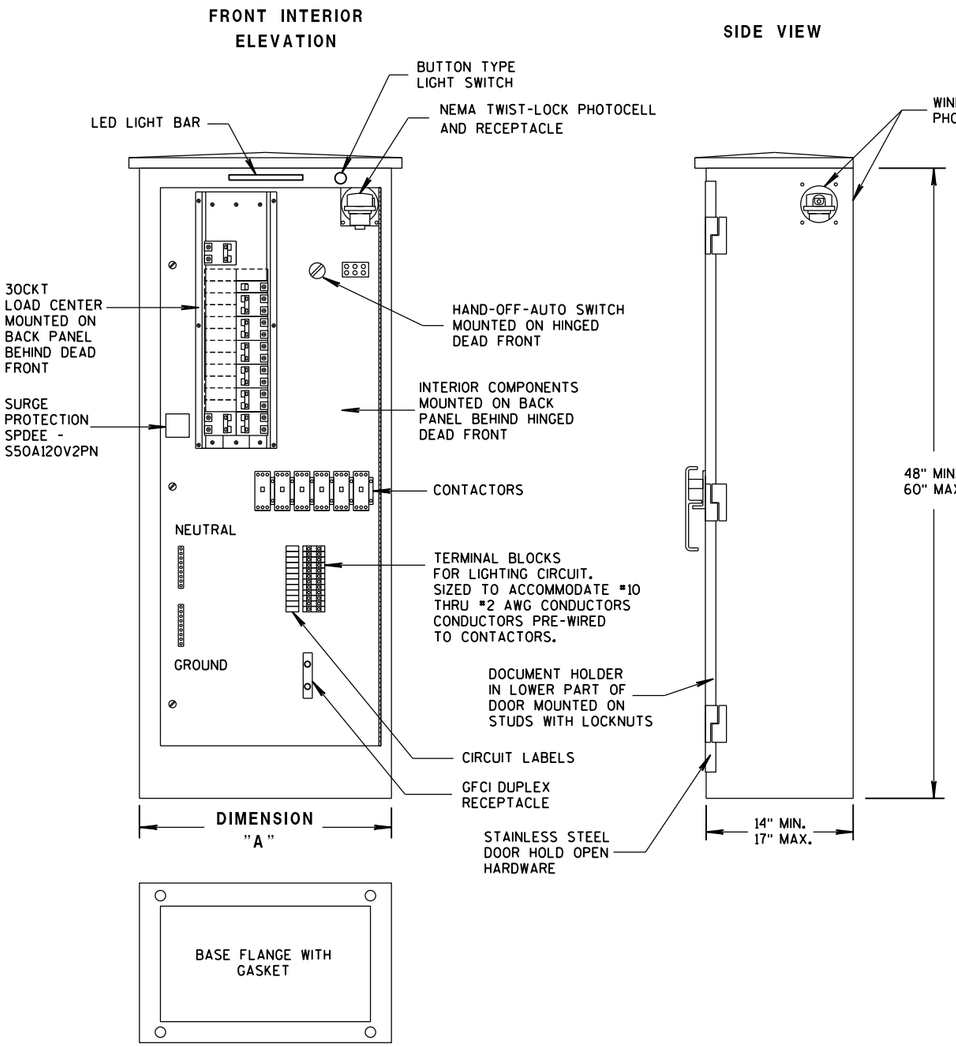
ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

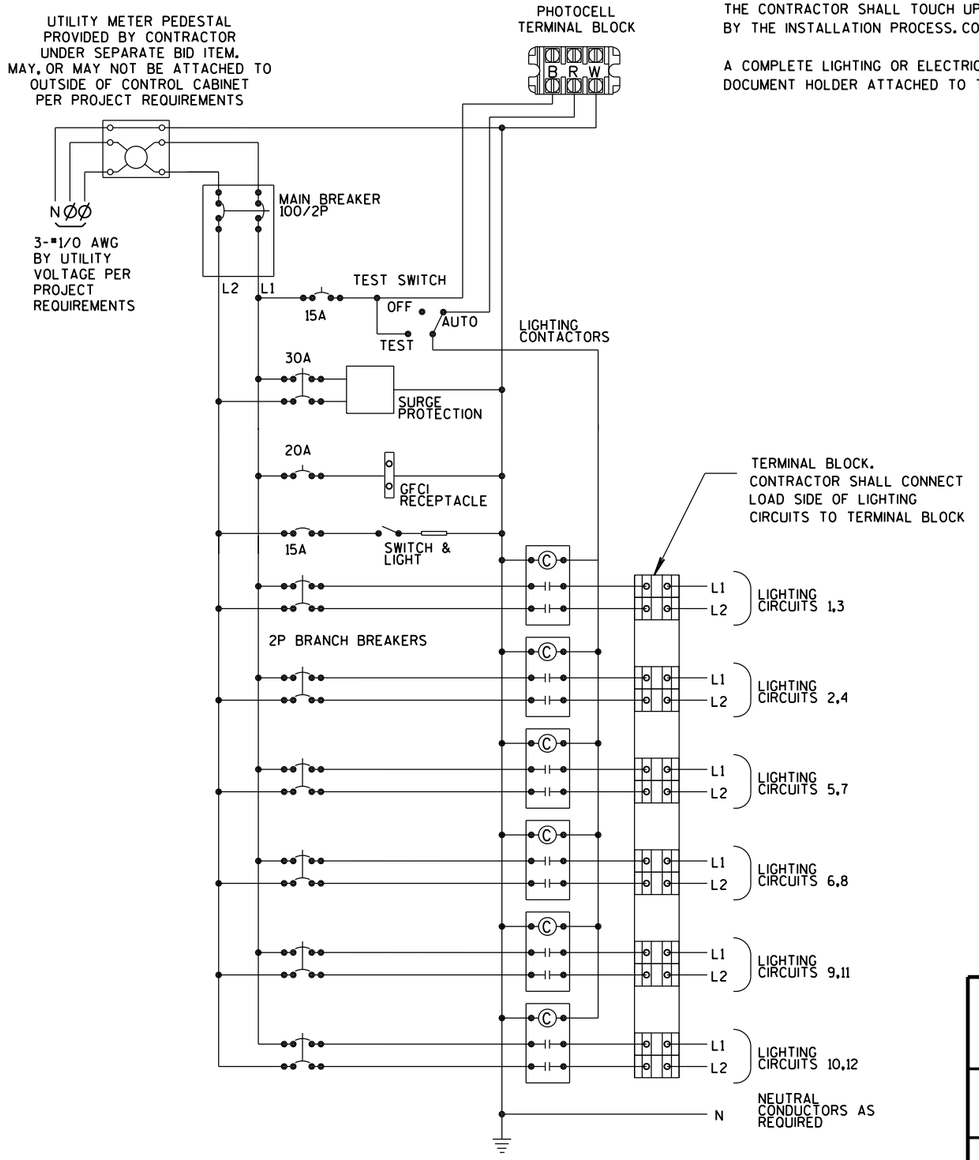
A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.



LIGHTING CONTROL CABINET

TABLE OF DIMENSIONS (INCHES)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"



CONTROL CABINET SCHEMATIC

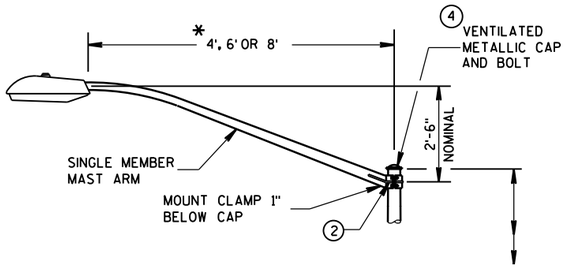
LIGHTING CONTROL CABINET 120/240 VOLT

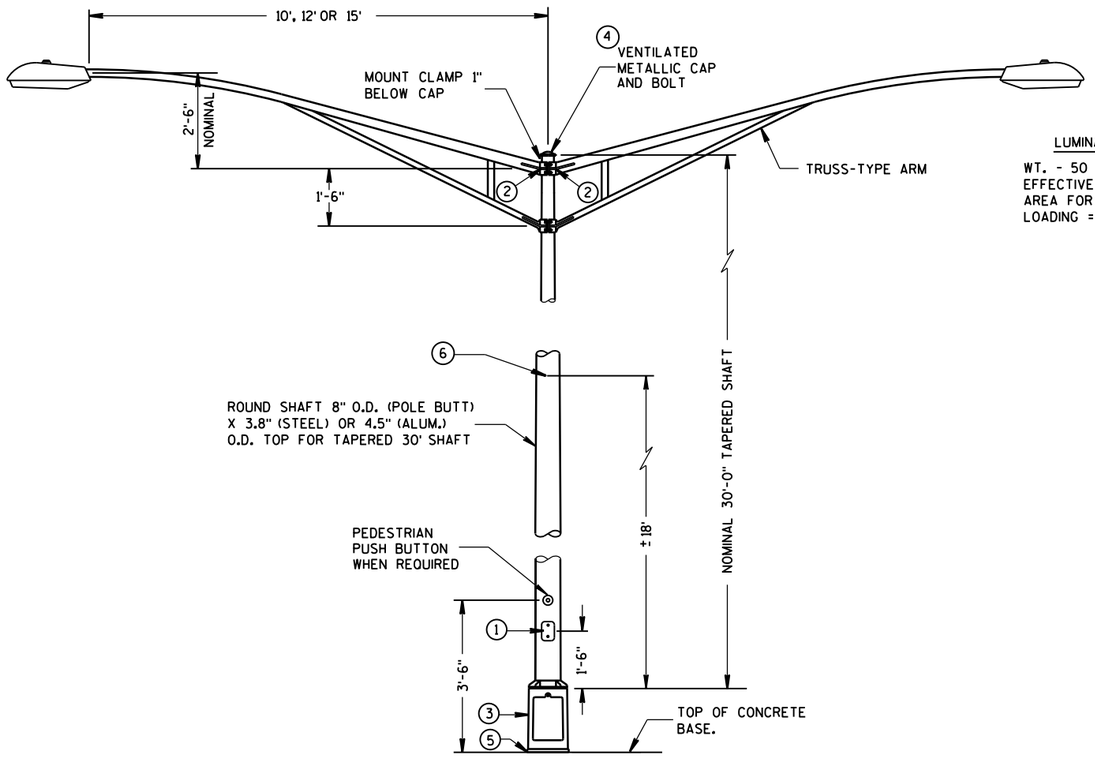
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 DATE
/S/ Thomas Gonring STATE LIGHTING ENGINEER
FHWA

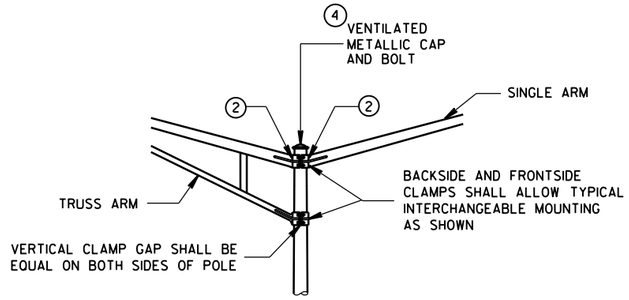
6
S.D.D. 9 D 4-2

*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

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

GENERAL NOTES

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

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

6

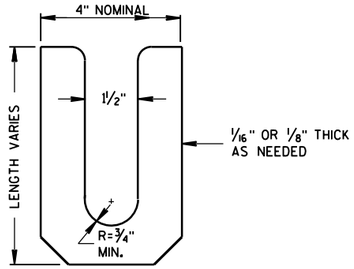
S.D.D. 9 E 1-14d

POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

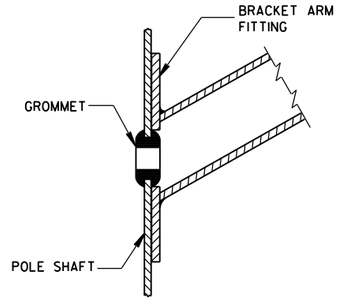
6

S.D.D. 9 E 1-14d

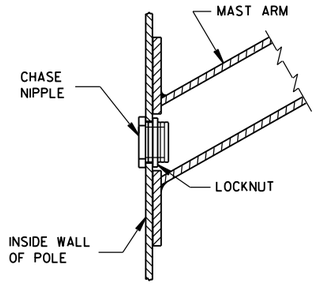


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

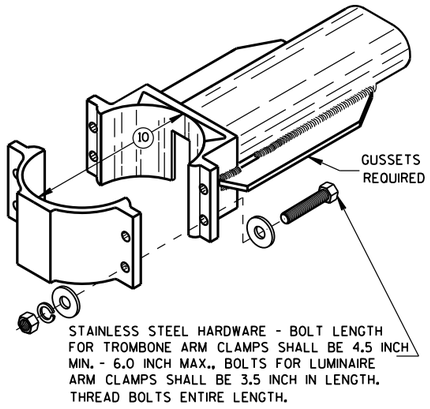
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

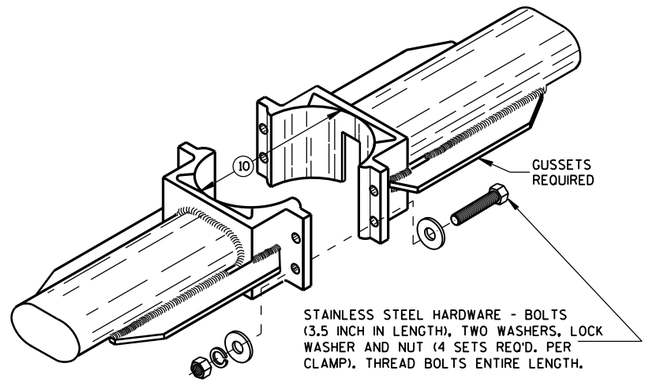
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

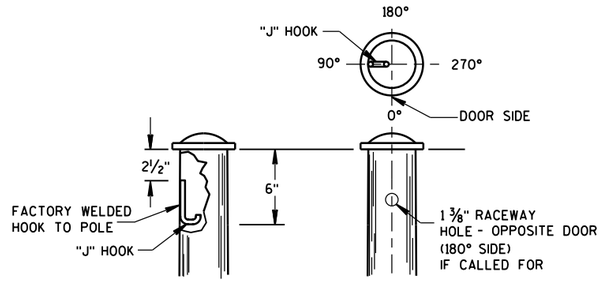
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



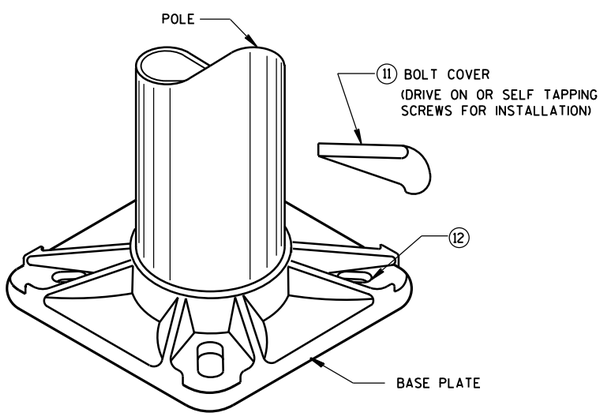
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



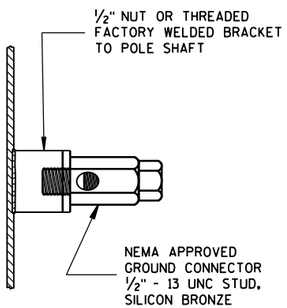
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

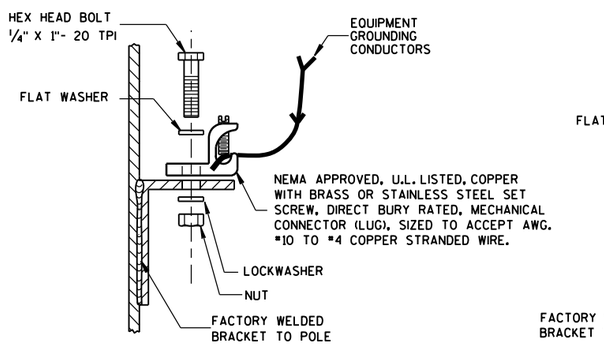


TYPICAL "J" HOOK LOCATION



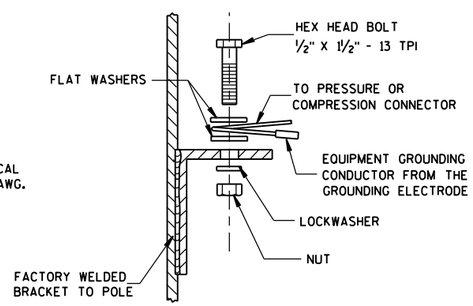
BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

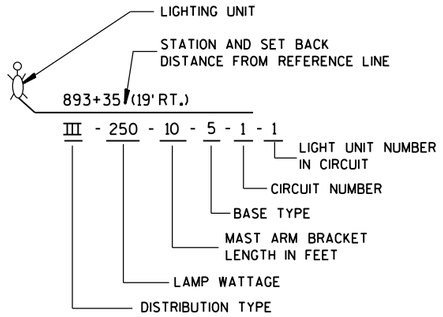
APPROVED
Feb. 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

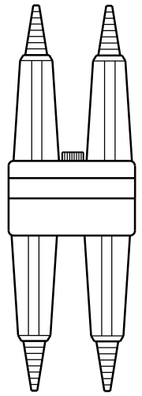
FHWA

6

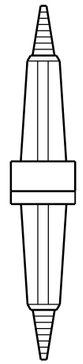
S.D.D. 9 E 1-14g



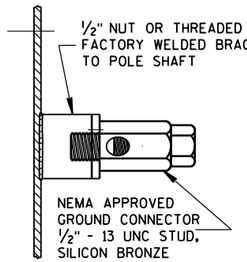
LIGHTING UNIT CODE
(TYPICAL)

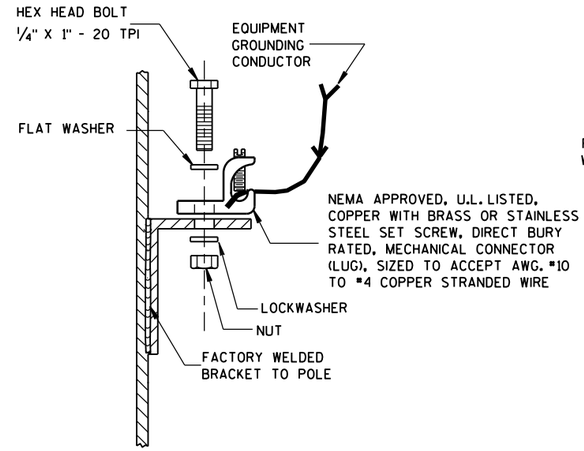


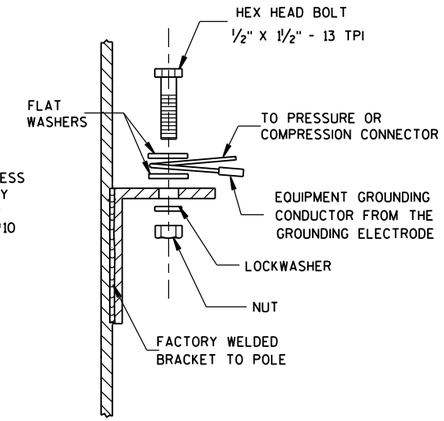
DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



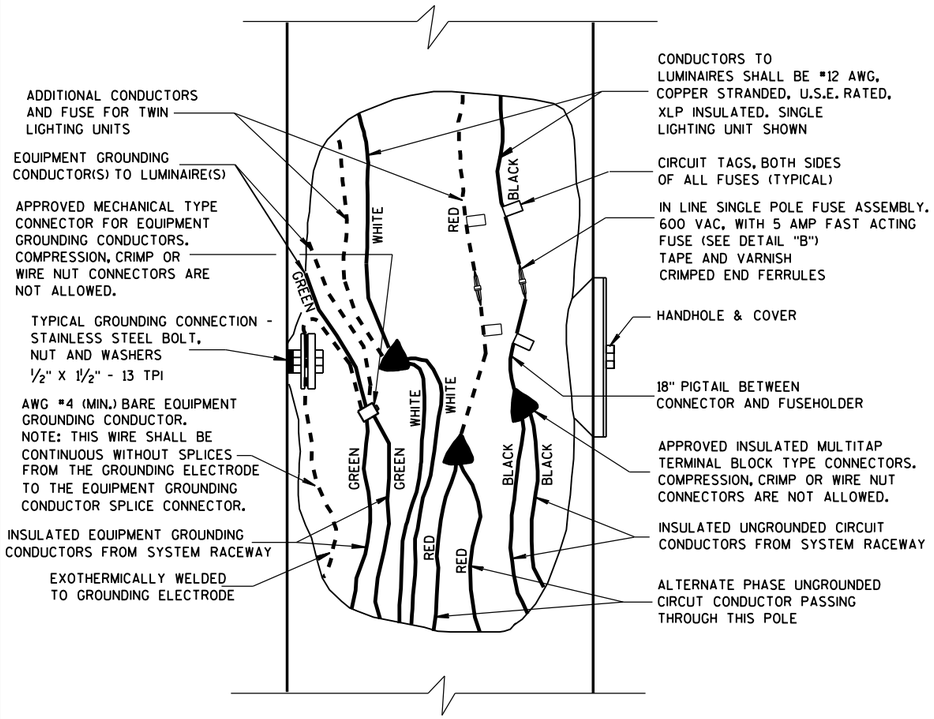
DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



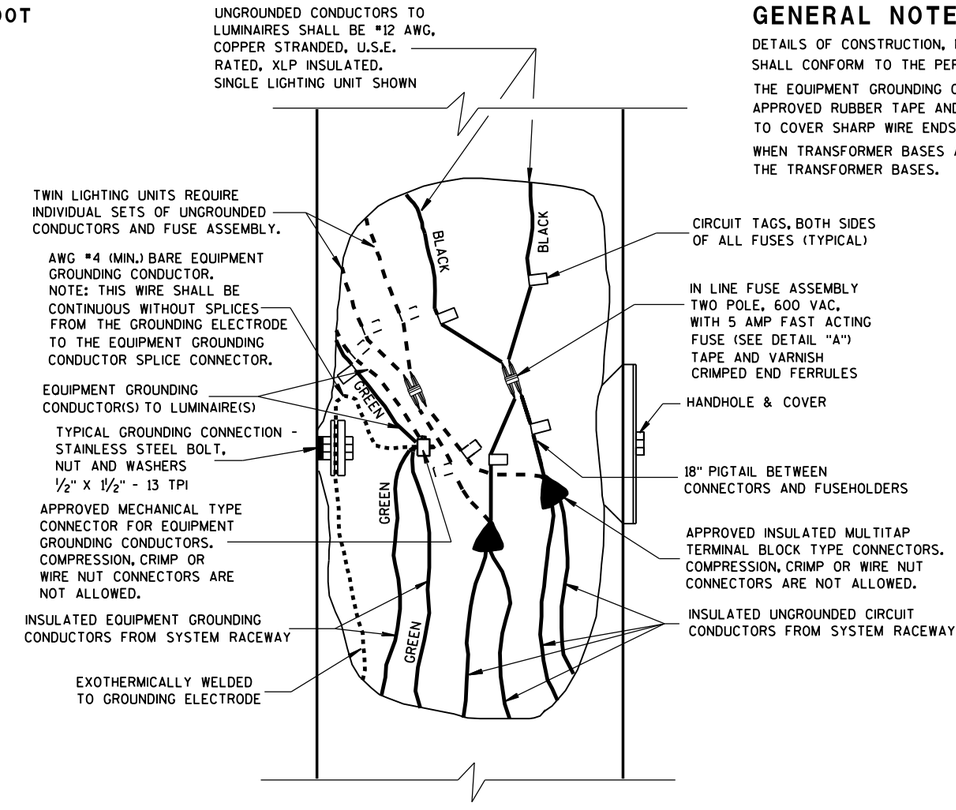




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

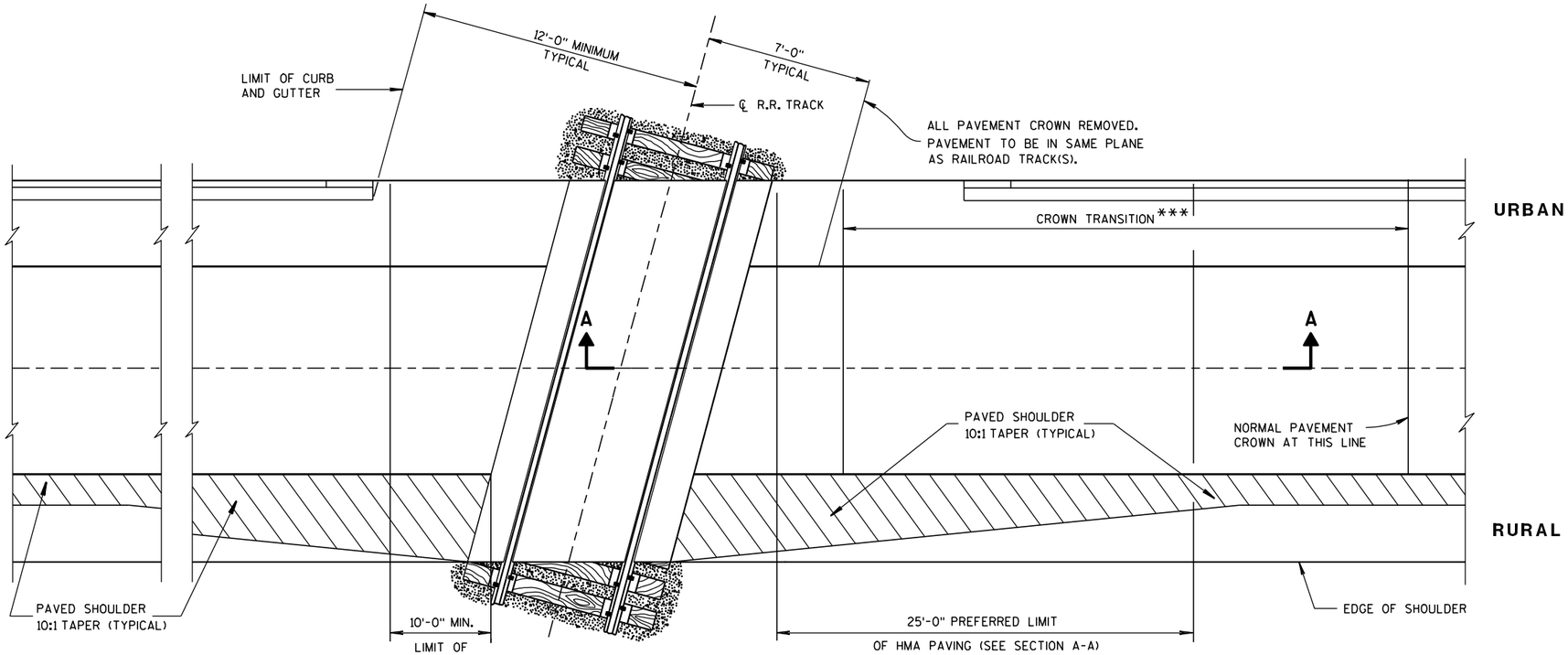
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

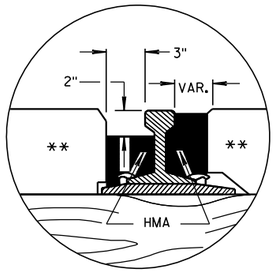
NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6
S.D.D. 9 E 3-5





DETAIL B

HMA FLANGEWAY AND FIELD FILLERS

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.

TIMBER, CONCRETE OR RUBBER CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, GEOTEXTILE FABRIC AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS OTHERWISE PROVIDED.

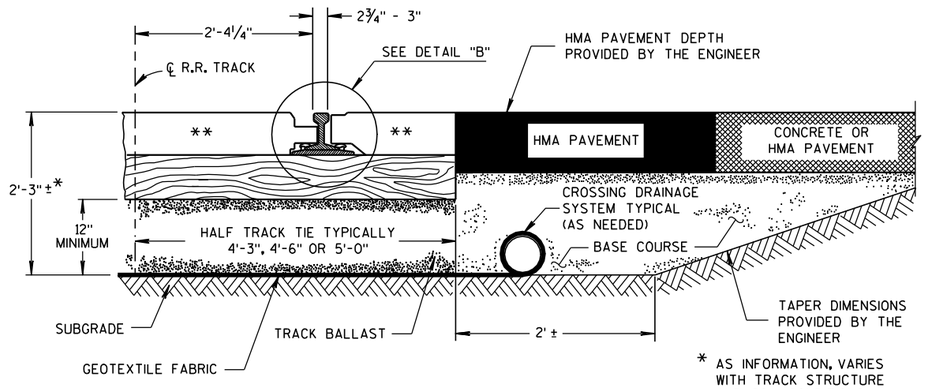
HMA PAVEMENT APPROACHES AND HMA PAVEMET CROSSING SURFACES TO BE PLACED BY CONTRACTOR UNLESS OTHERWISE PROVIDED.

HMA FLANGEWAY AND FIELD FILLERS TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR WHEN NOT PROVIDED BY OTHERS. SEE DETAIL B. HMA FILLERS NOT REQUIRED WHEN RUBBER FILLERS ARE PROVIDED.

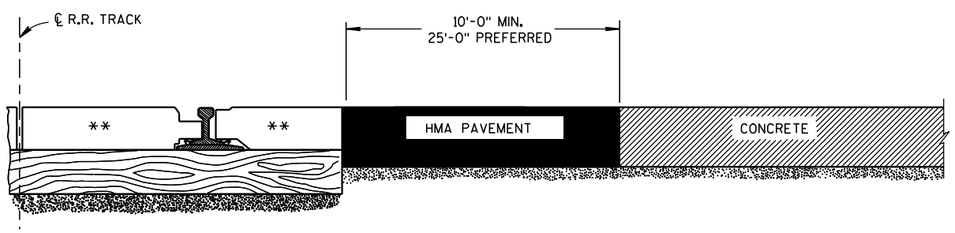
HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

** CROSSING SURFACE MAY BE TIMBER, RUBBER, CONCRETE, HMA PAVEMENT OR A COMBINATION OF SUCH MATERIALS.

*** CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.



TYPICAL HALF SECTION



SECTION A-A

CONCRETE PAVEMENT APPROACH



SECTION A-A

HMA PAVEMENT APPROACH

EXAMPLES OF PAVEMENT APPROACHES

PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

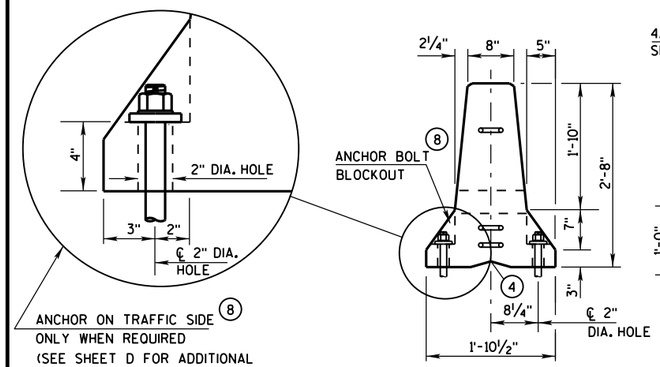
APPROVED
8-28-09 DATE
/S/ Ronald E. Adams
CHIEF, RAILROADS & HAI CTION
FHWA

6

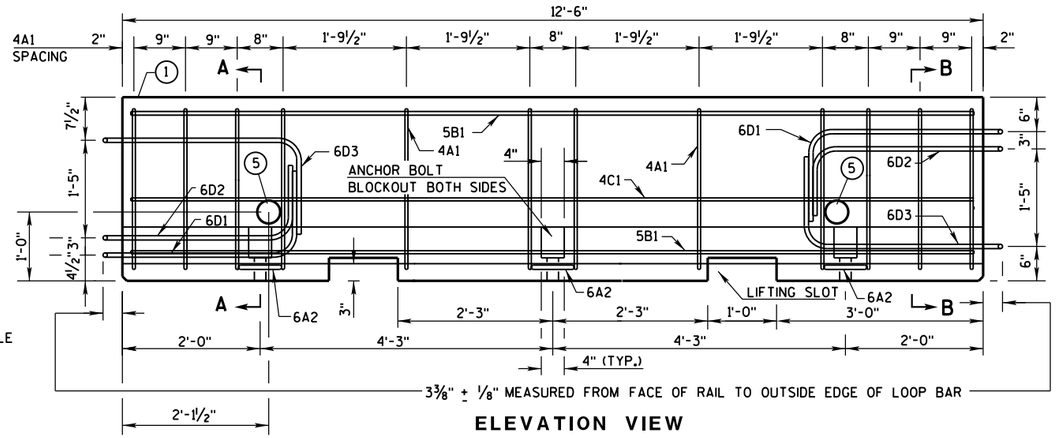
S.D.D. 13 B 1-10

6

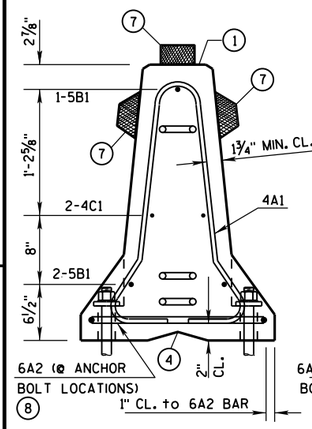
S.D.D. 13 B 1-10



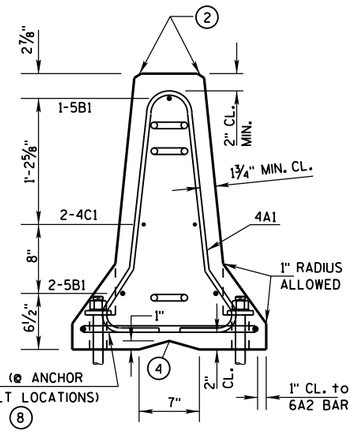
END VIEW



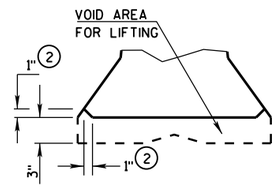
ELEVATION VIEW



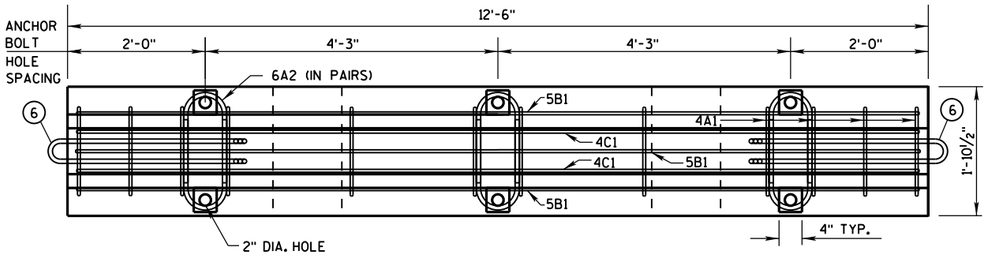
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

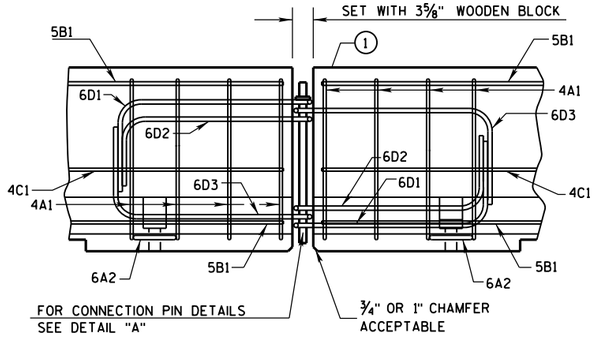


DETAIL "B"
LIFTING SLOT DETAIL

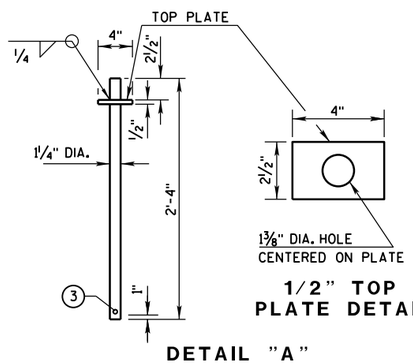


PLAN VIEW

DETAILS OF BARRIER SECTION

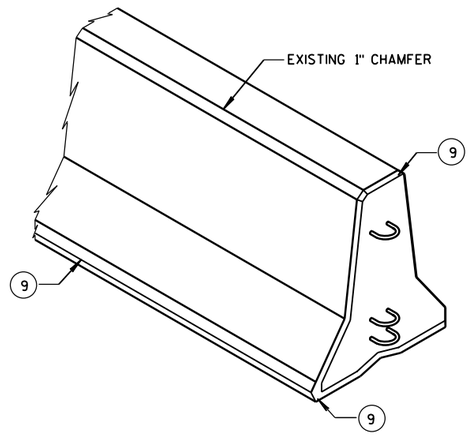


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.

(9) 1" CHAMFER OPTIONAL.

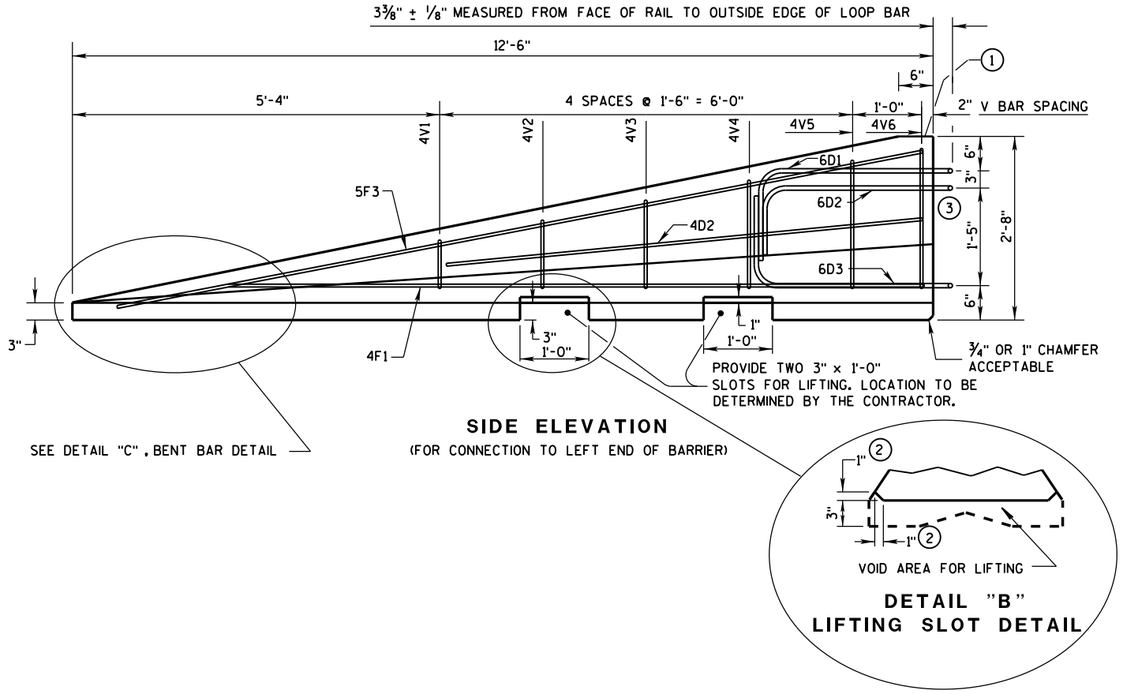
f'c = 4,000 psi

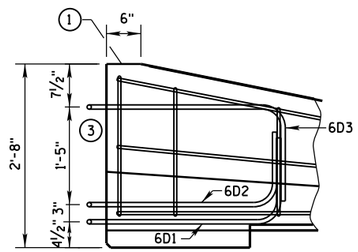
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

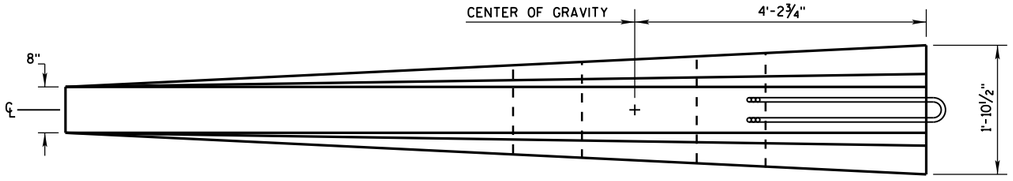
S.D.D. 14 B 7-15a

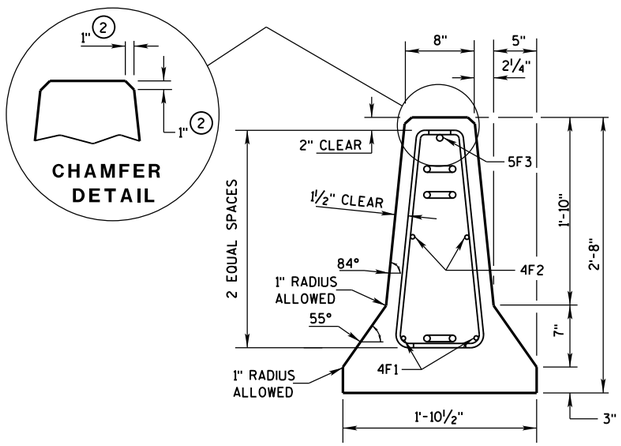


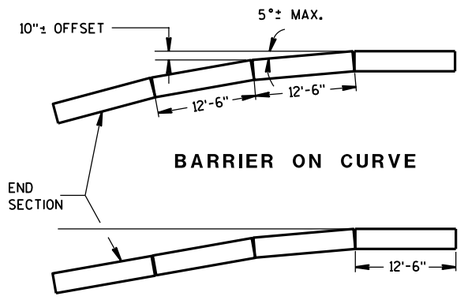


GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.







POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

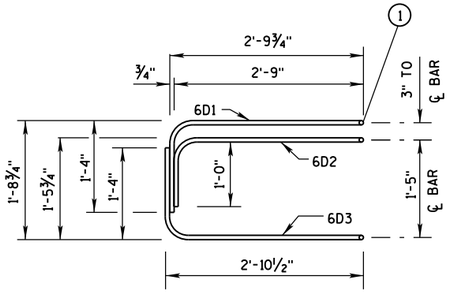
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-15b

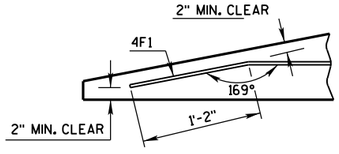
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

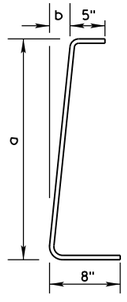
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

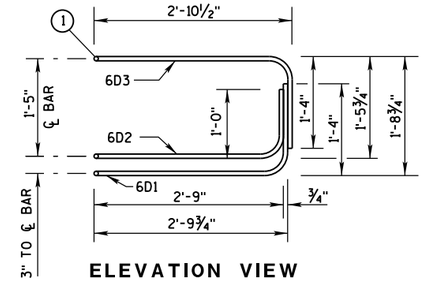
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

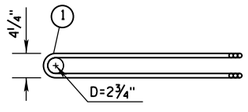
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

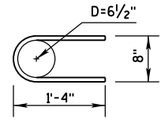
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



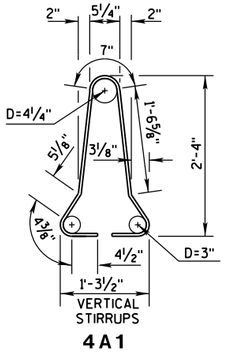
ELEVATION VIEW



PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



4A1

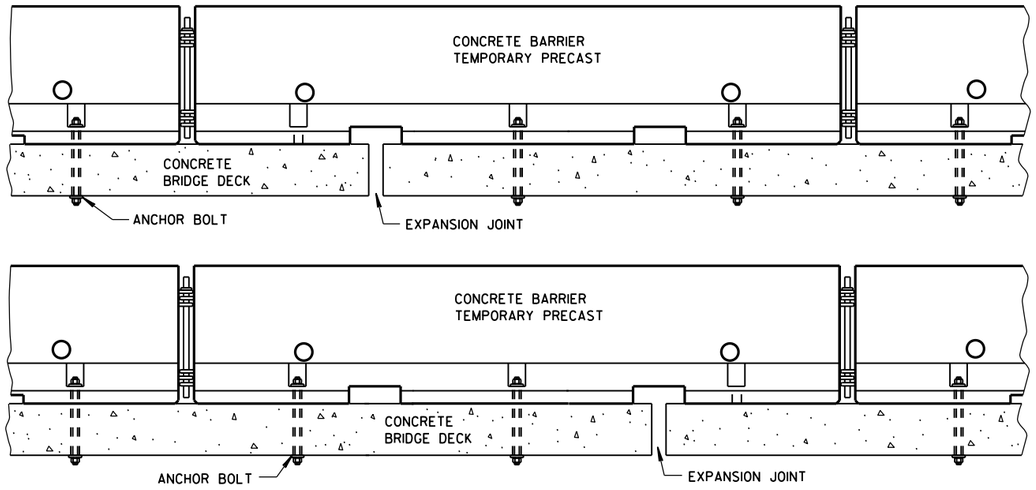
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

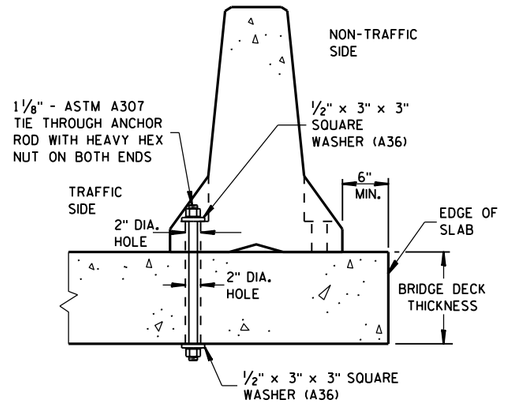
6

S.D.D. 14 B 7-15c



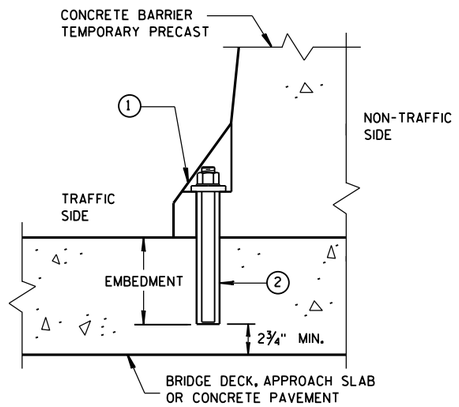
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

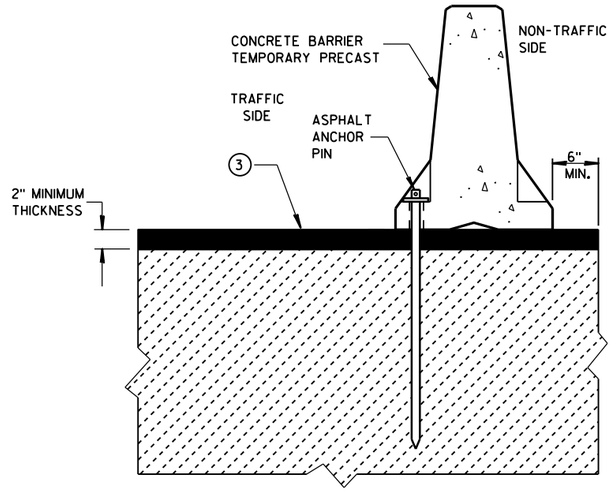
(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

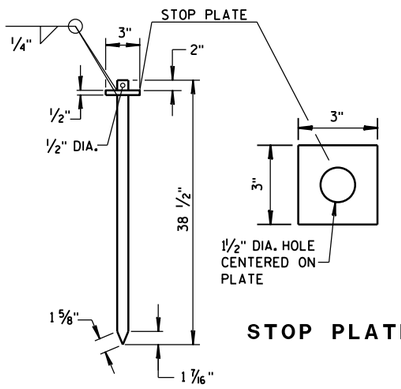
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

1. 1⅛" DIAMENTER A307 THREADED ROD. ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL. ASTM A563A HEAVY HEX NUT.
2. ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.
3. ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



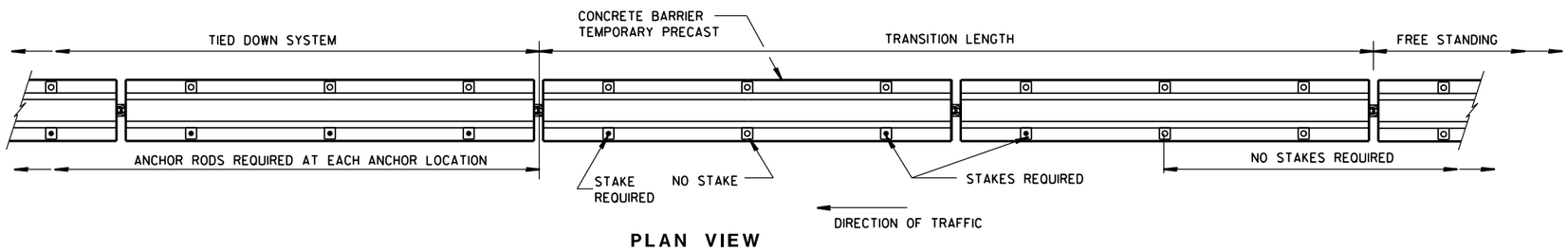
STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



STOP PLATE

ASPHALT ANCHOR PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

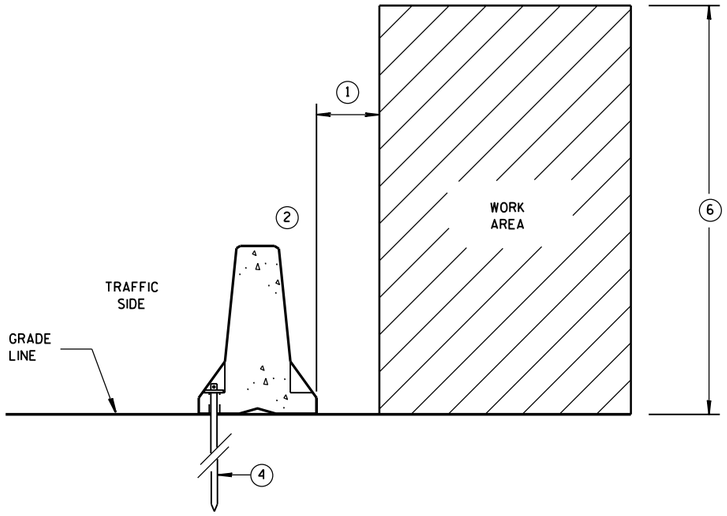
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

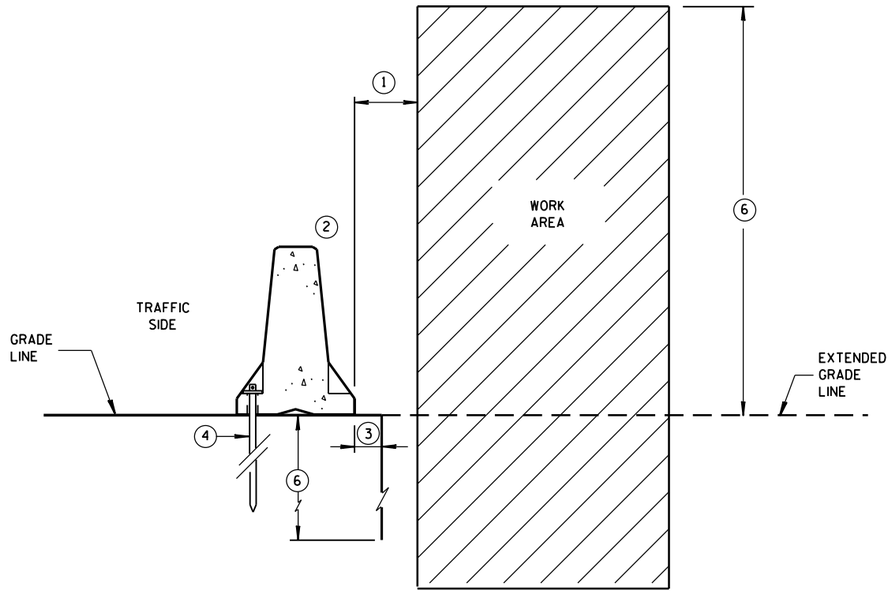
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-15d



ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

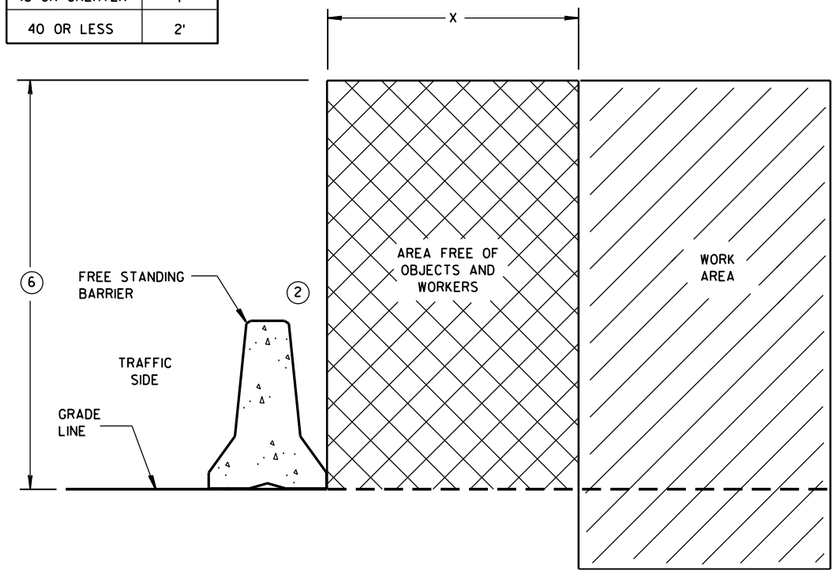


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

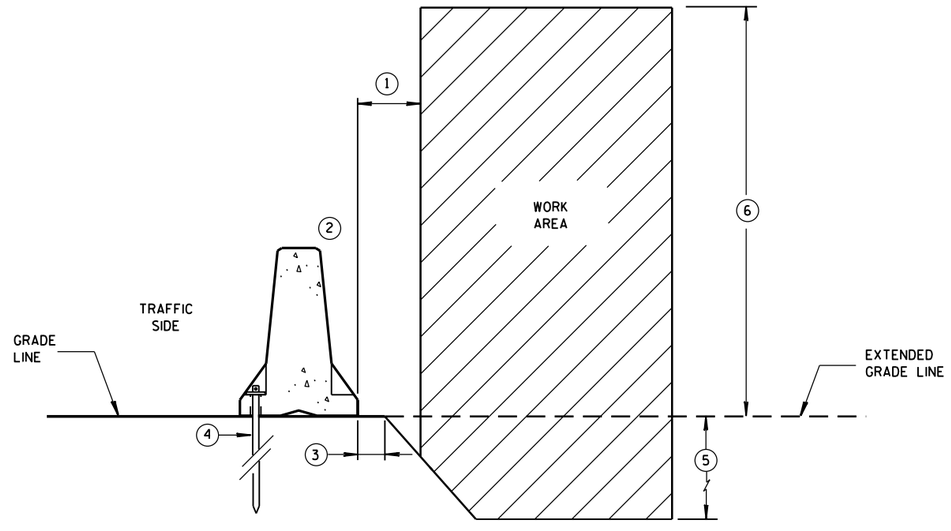
GENERAL NOTES

1. WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
2. OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
3. SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
4. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
5. DEPTH OF 3 FEET OR MORE.
6. Y = 6'-6".

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



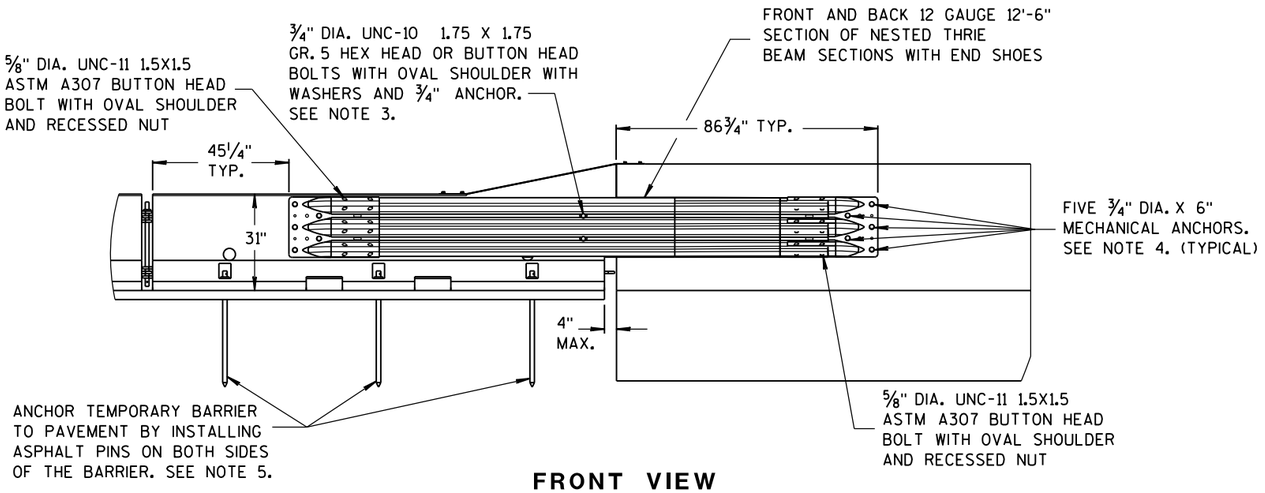
ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

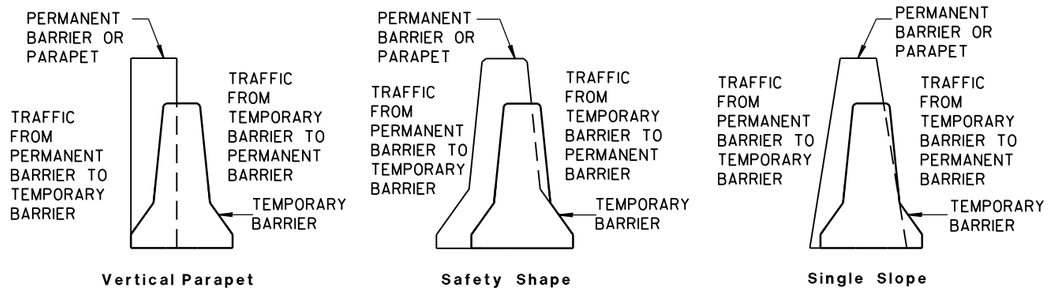
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-15e



FRONT VIEW

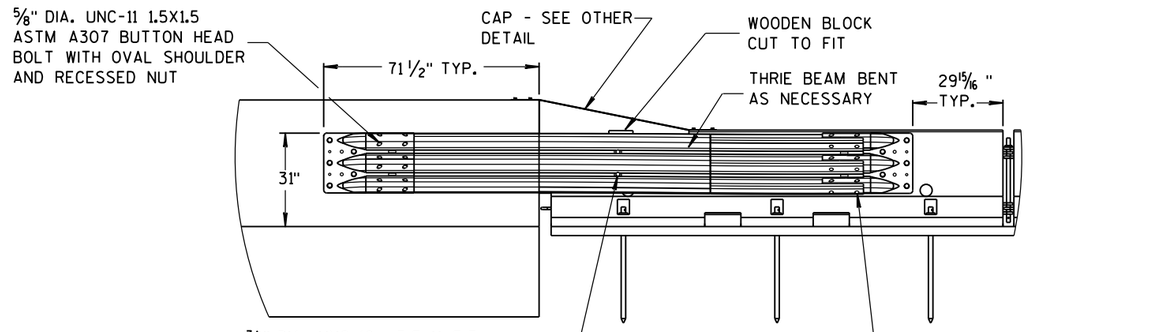


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

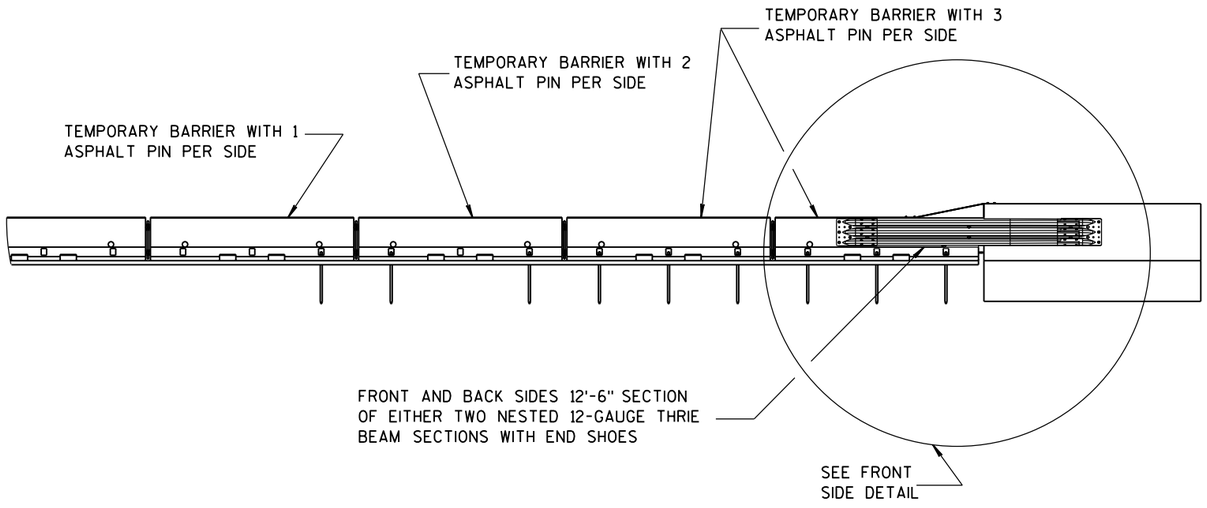
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.

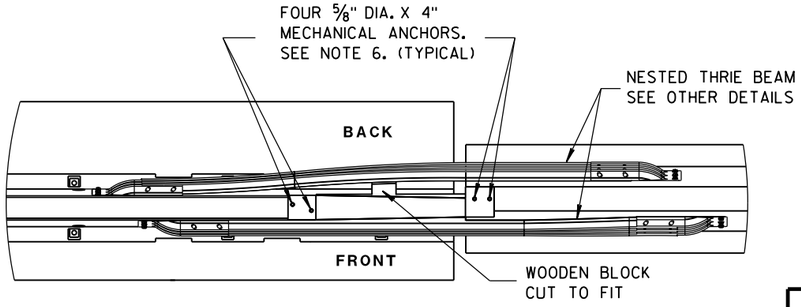
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

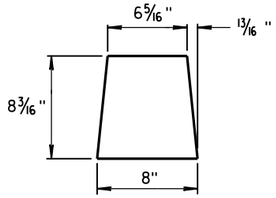
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

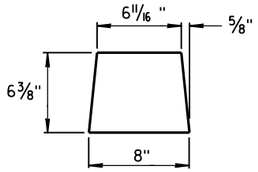
S.D.D. 14 B 7-15f

6

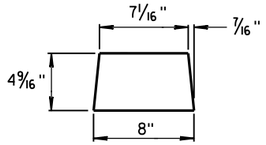
S.D.D. 14 B 7-15f



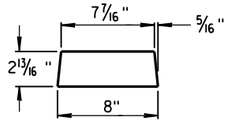
GUSSET 1



GUSSET 2

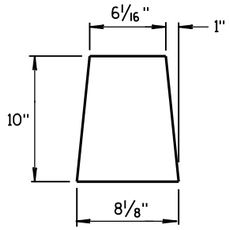


GUSSET 3

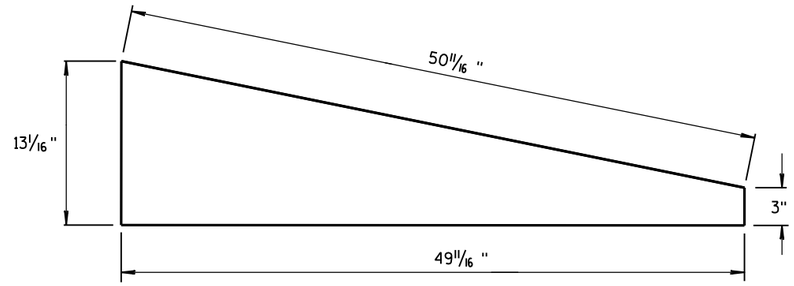


GUSSET 4

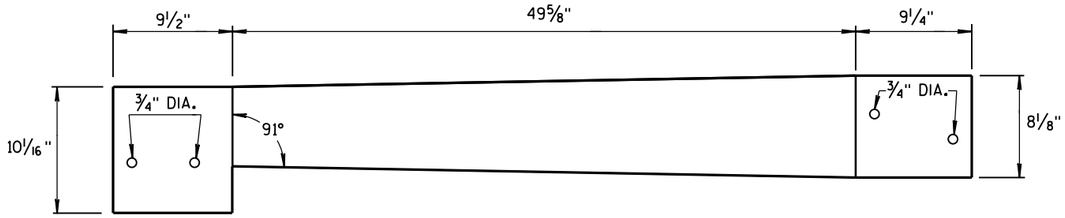
GUSSETS

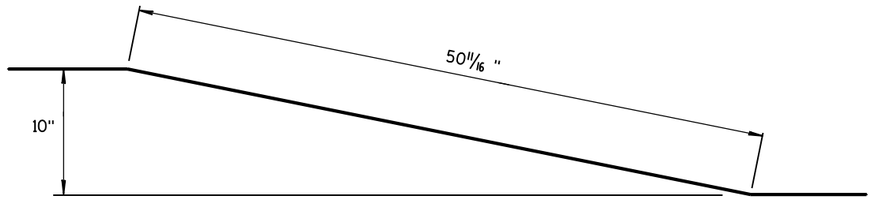


END PLATE



SIDE PLATE

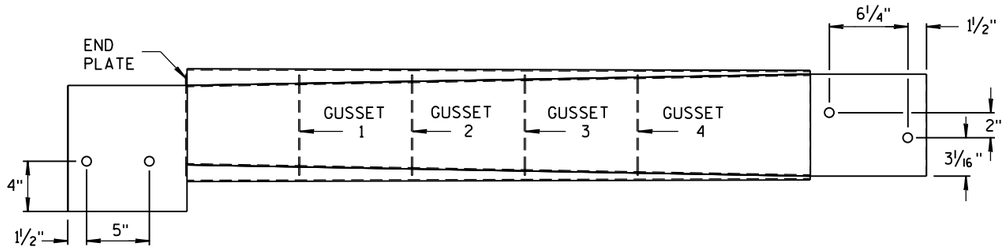


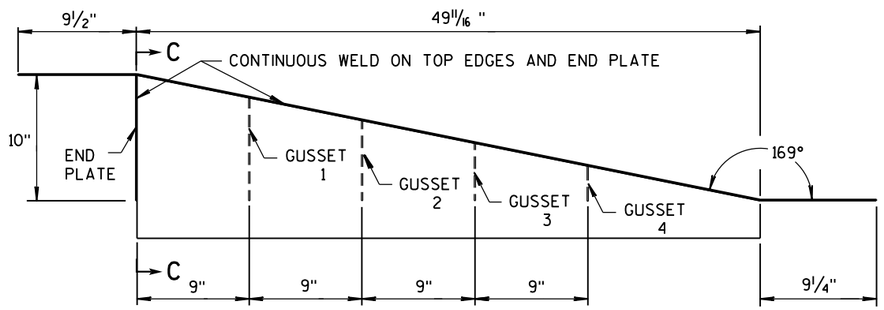


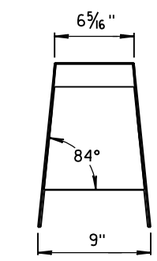
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

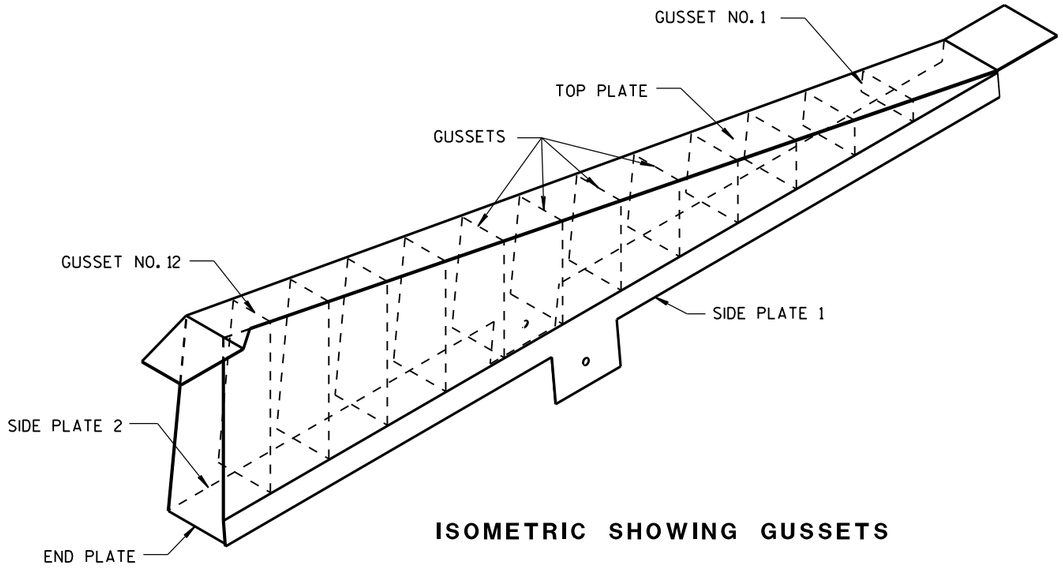
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

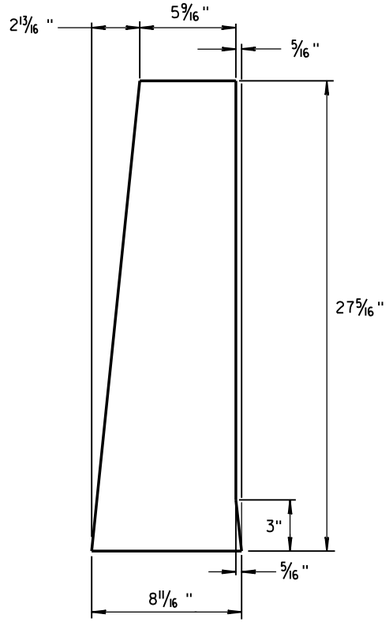
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-15g

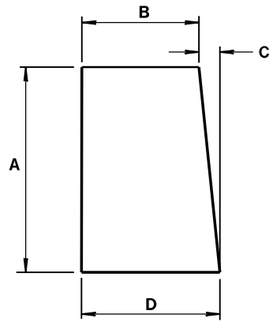


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



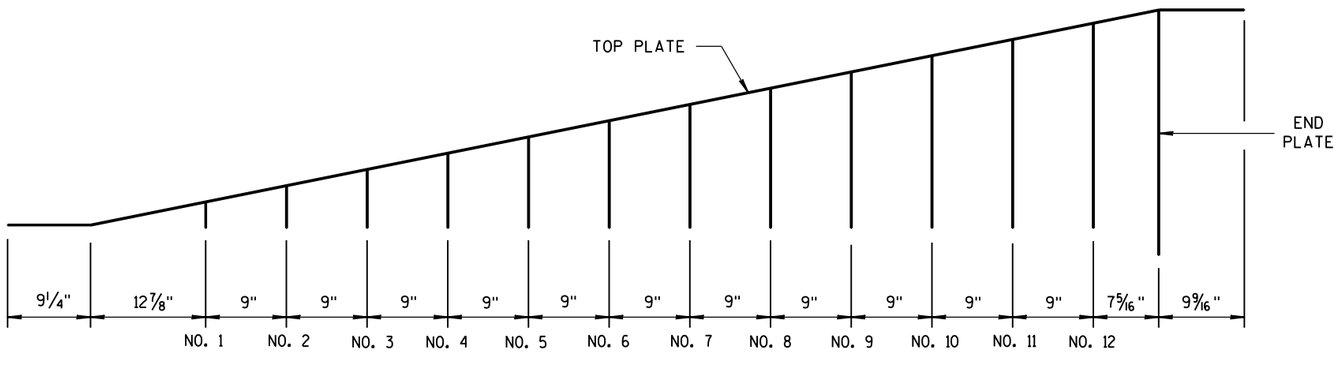
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

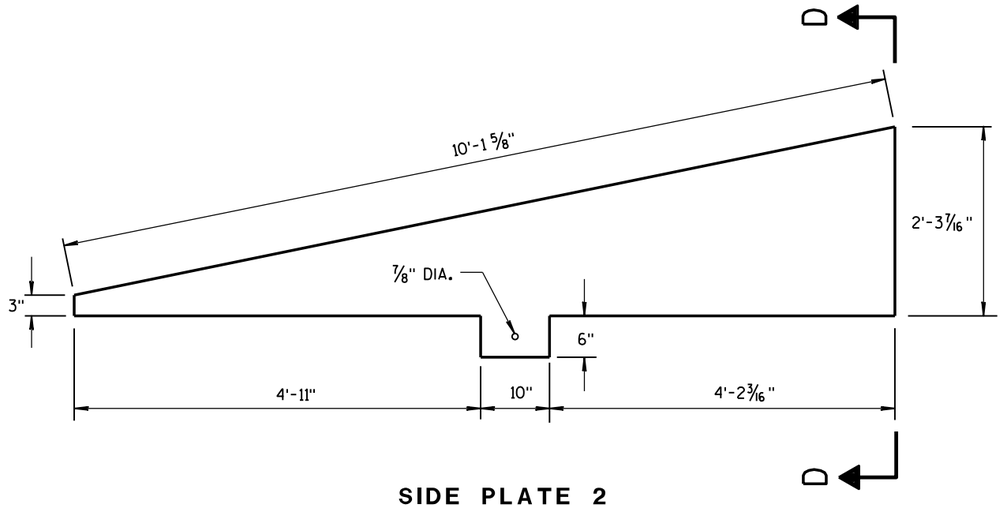
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

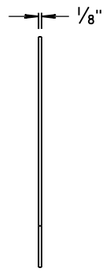
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

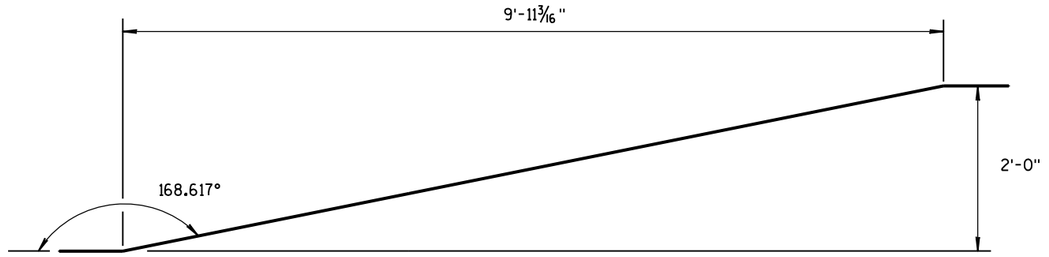
S.D.D. 14 B 7-15h



SIDE PLATE 2

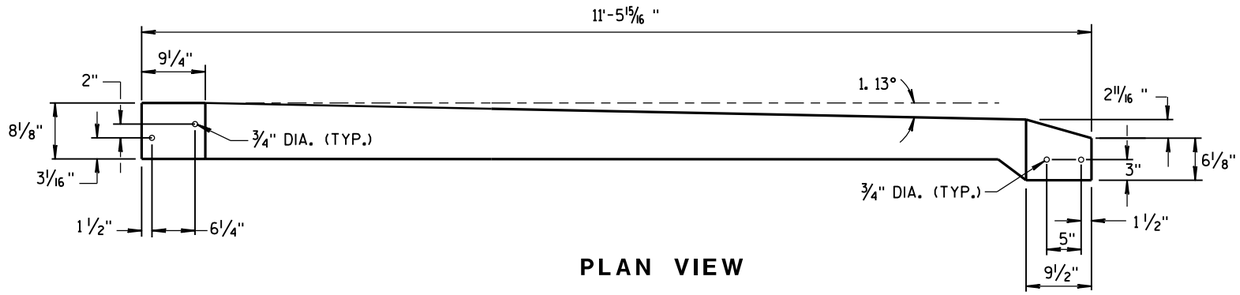


END VIEW



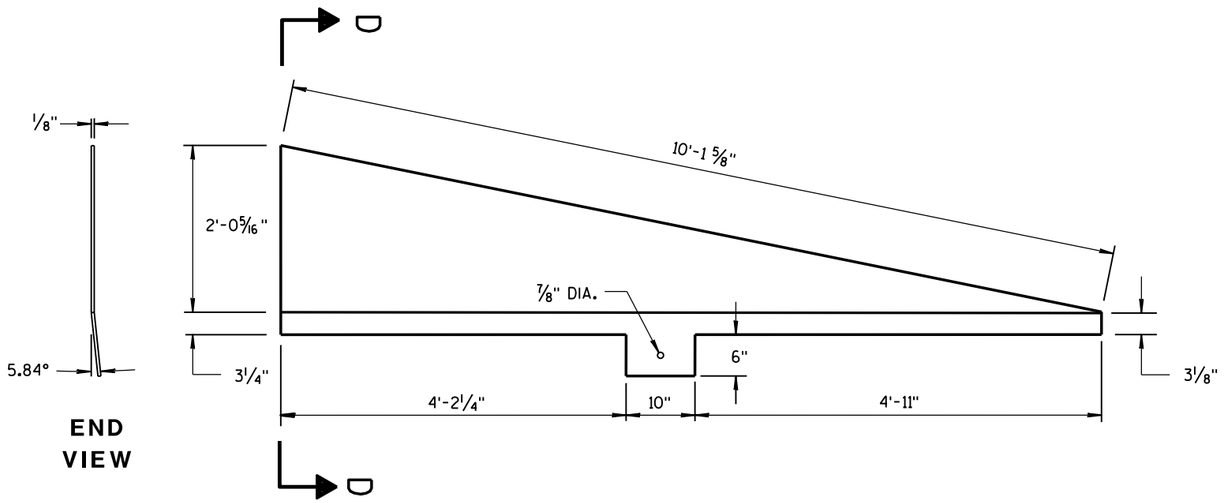
SIDE VIEW

TOP PLATE



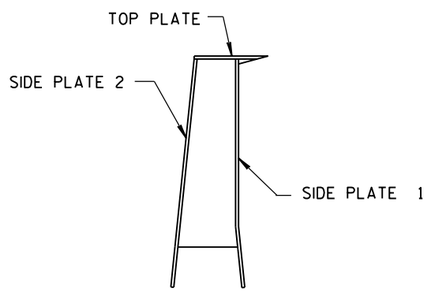
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV

191

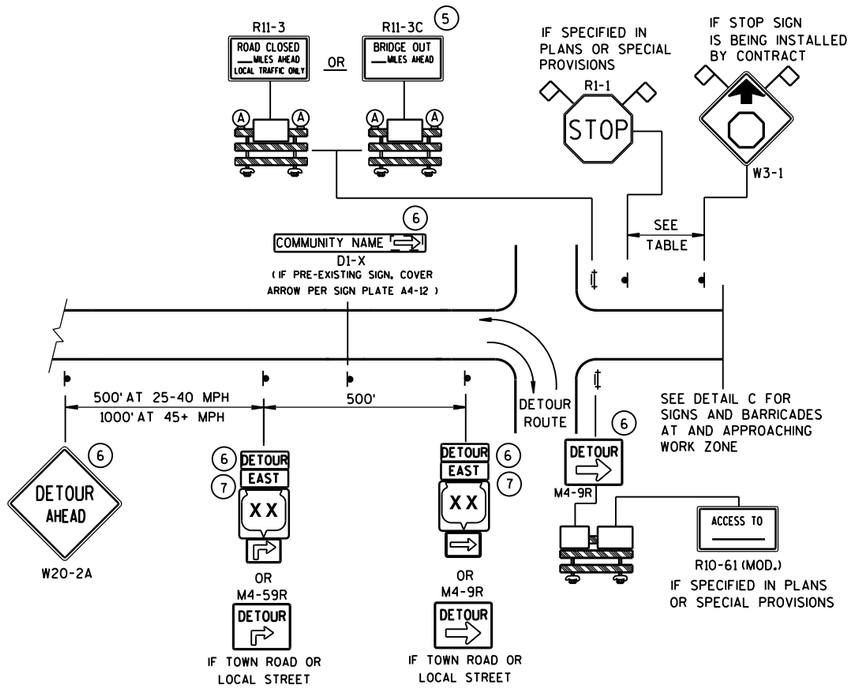
ENT

6

S.D.D. 14 B 7-15i

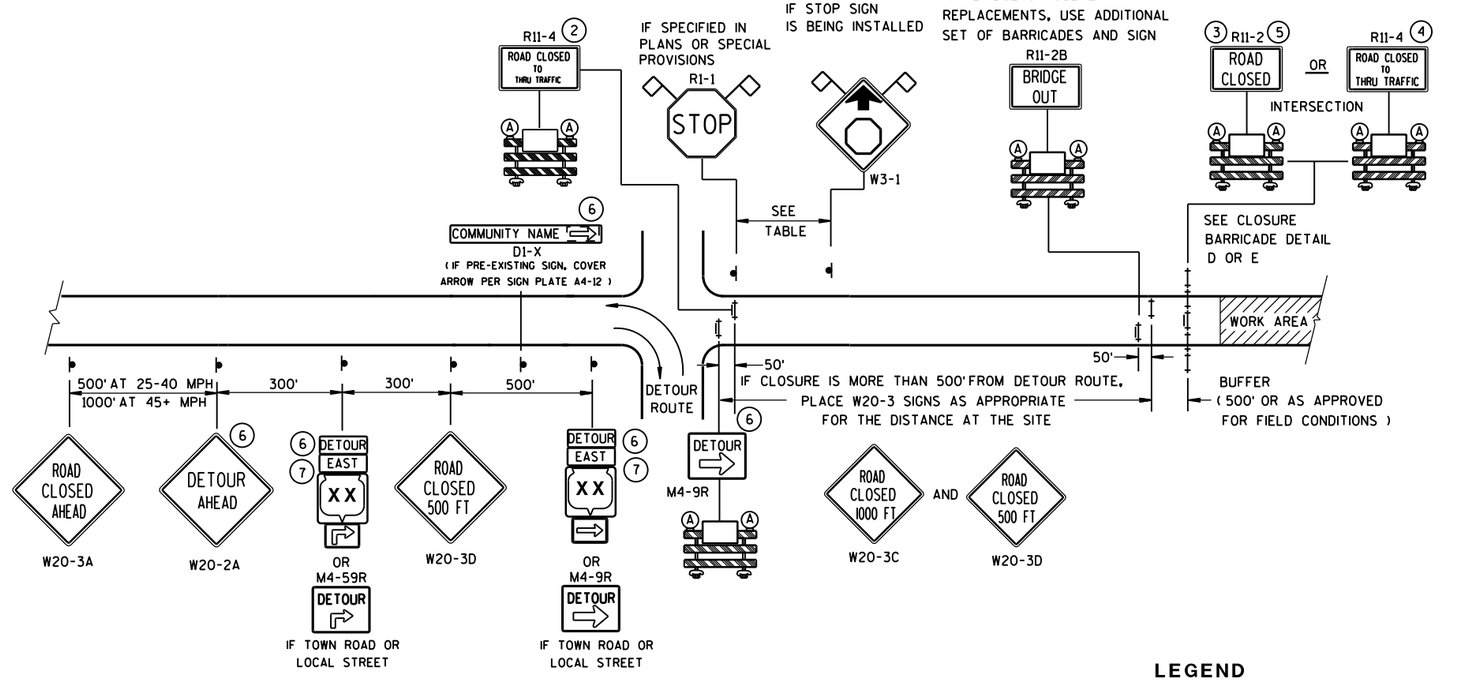
6

S.D.D. 14 B 7-15i



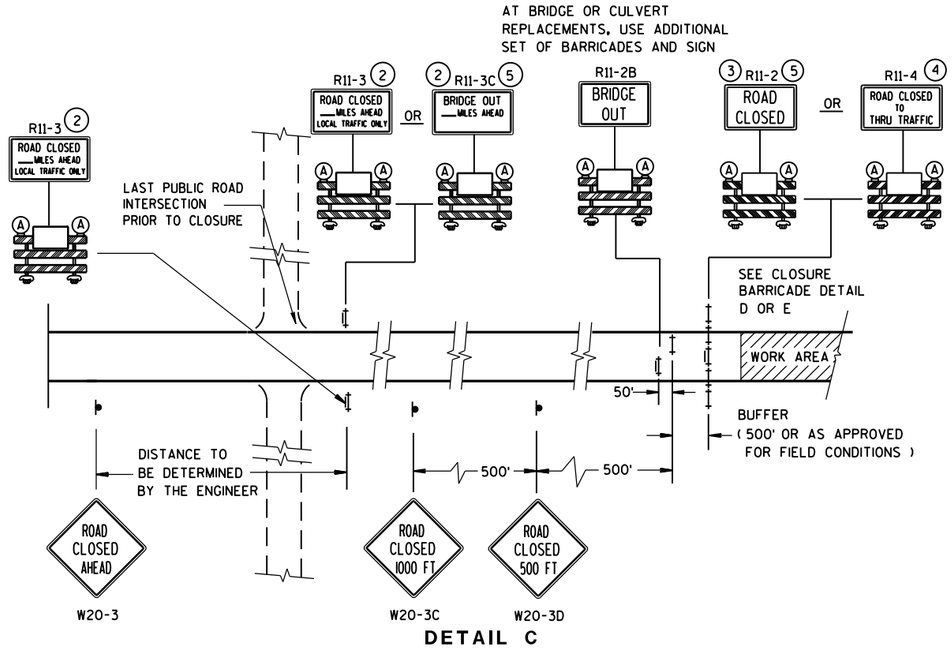
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**"
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

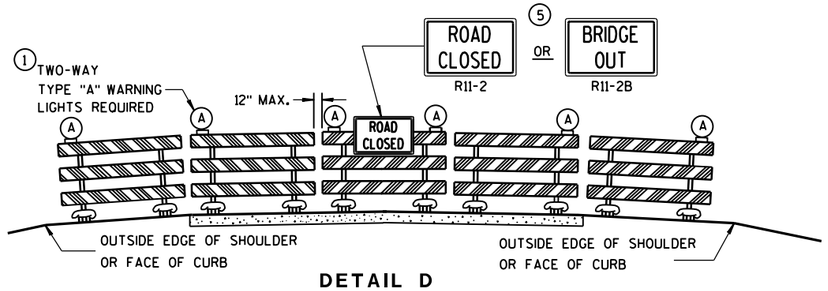
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 2-6a

6

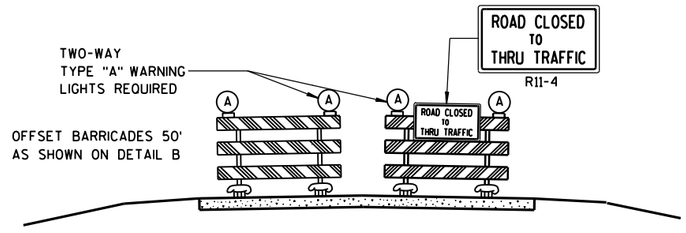
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI — FIC

FHWA

6

S.D.D. 15 C 2-6b

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.

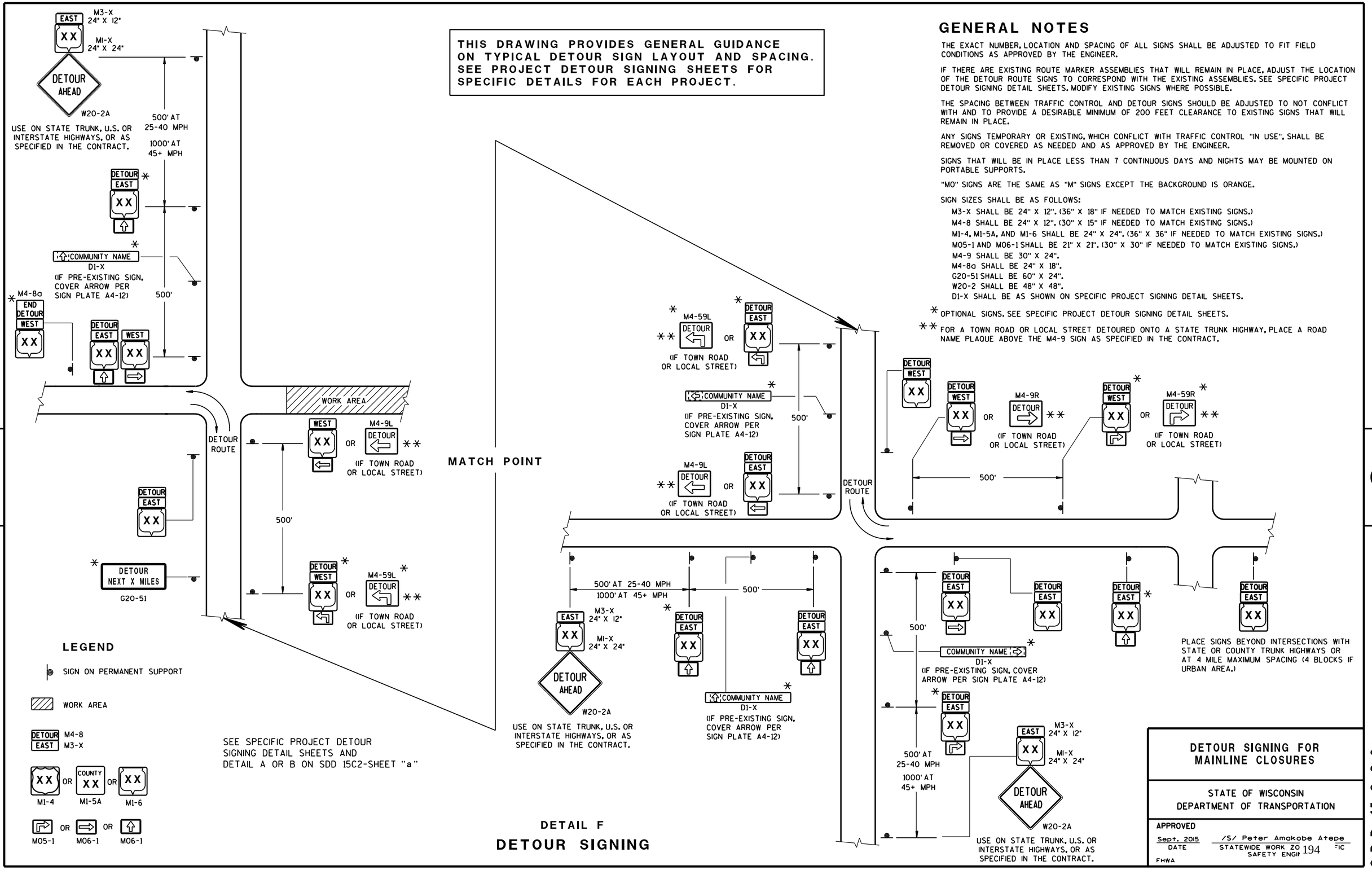
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- MO5-1 AND MO6-1 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.



DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

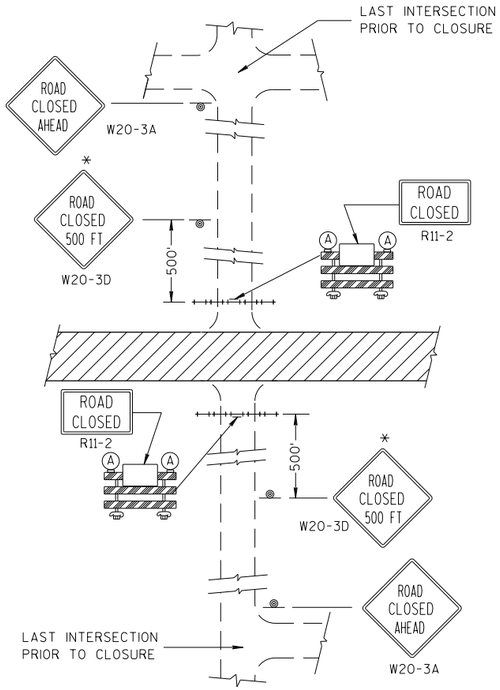
Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO... SAFETY ENGI... FIC

FHWA

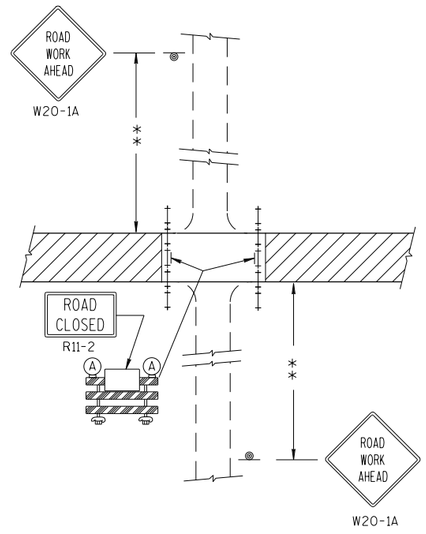
S.D.D. 15 C 2-6c

6



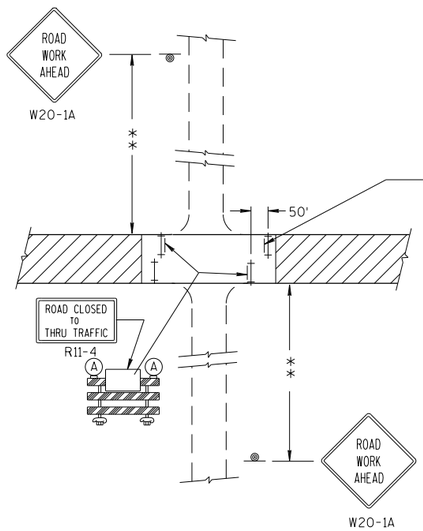
DETAIL 1

(NO ACCESS TO PROJECT)



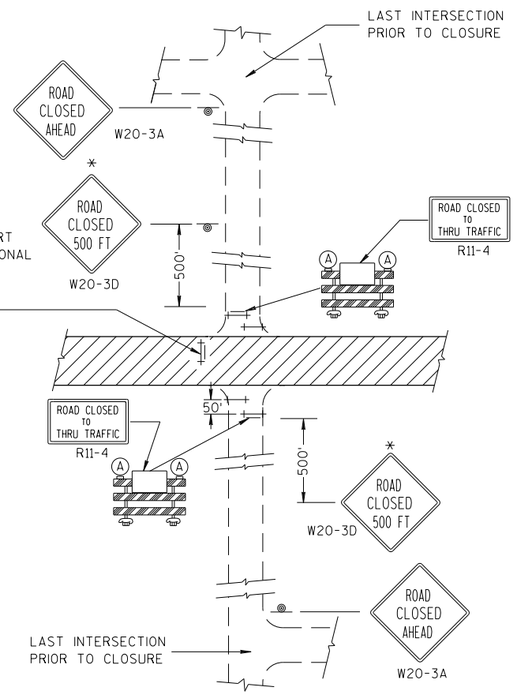
DETAIL 2

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



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

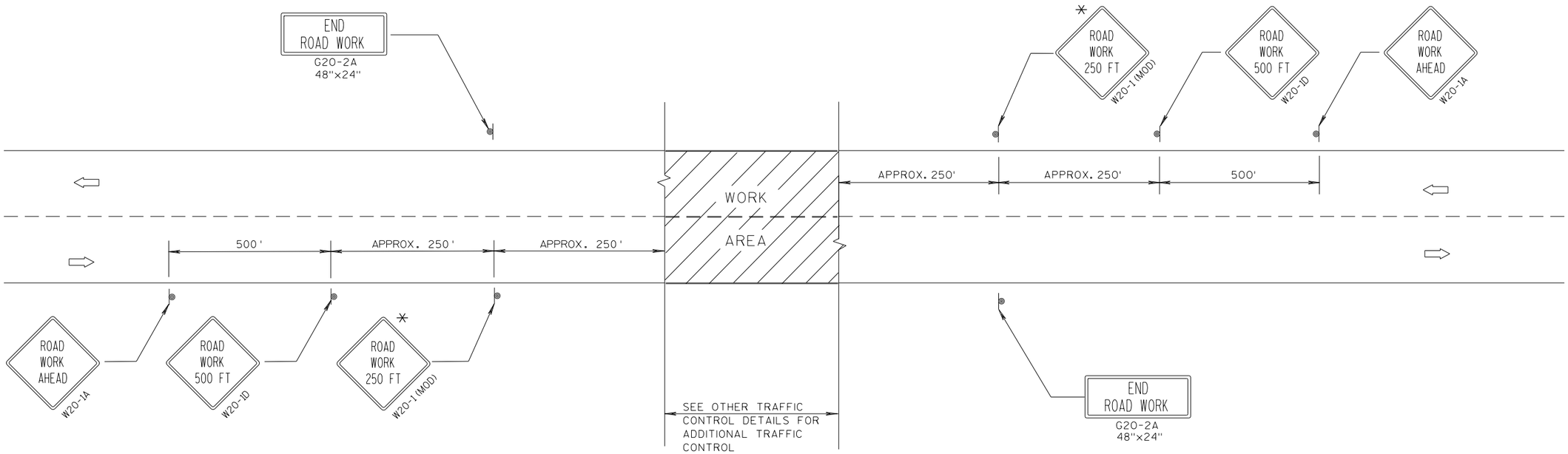
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGI
FHWA

6

S.D.D. 15 C 3-5

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

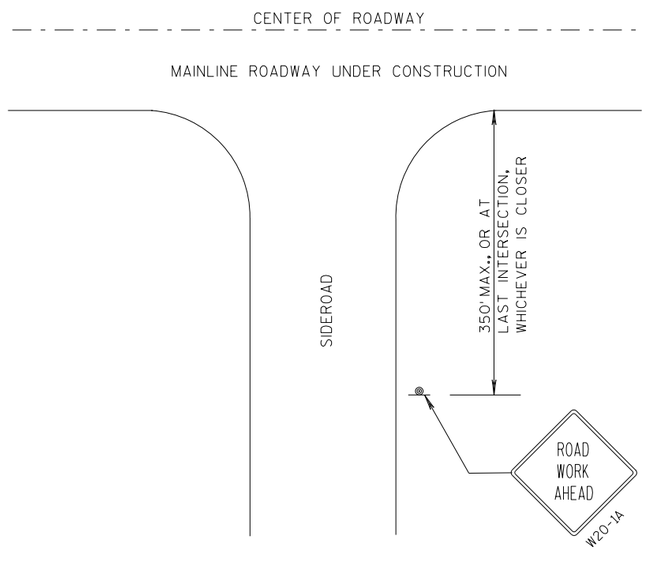
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

/S/ Andrew Heldtke — WORK ZONE ENGI

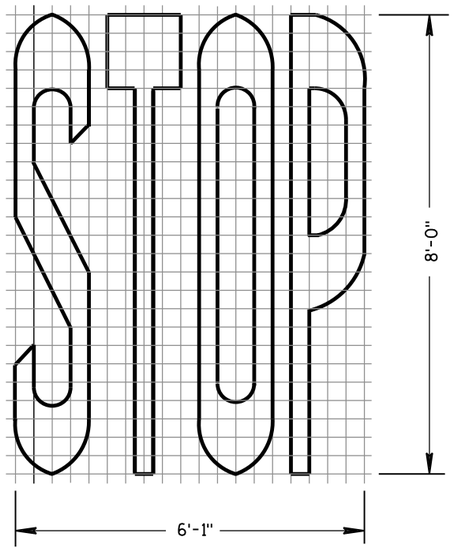
FHWA

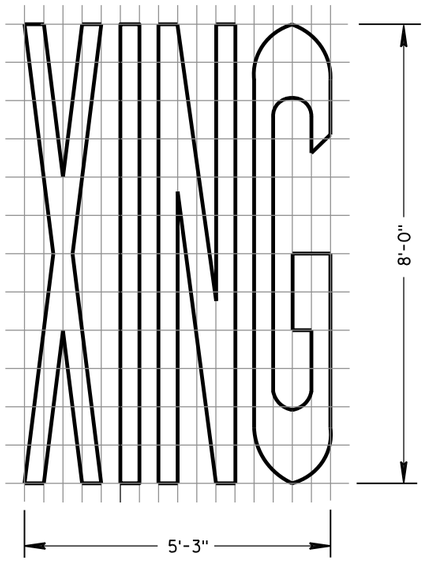
6

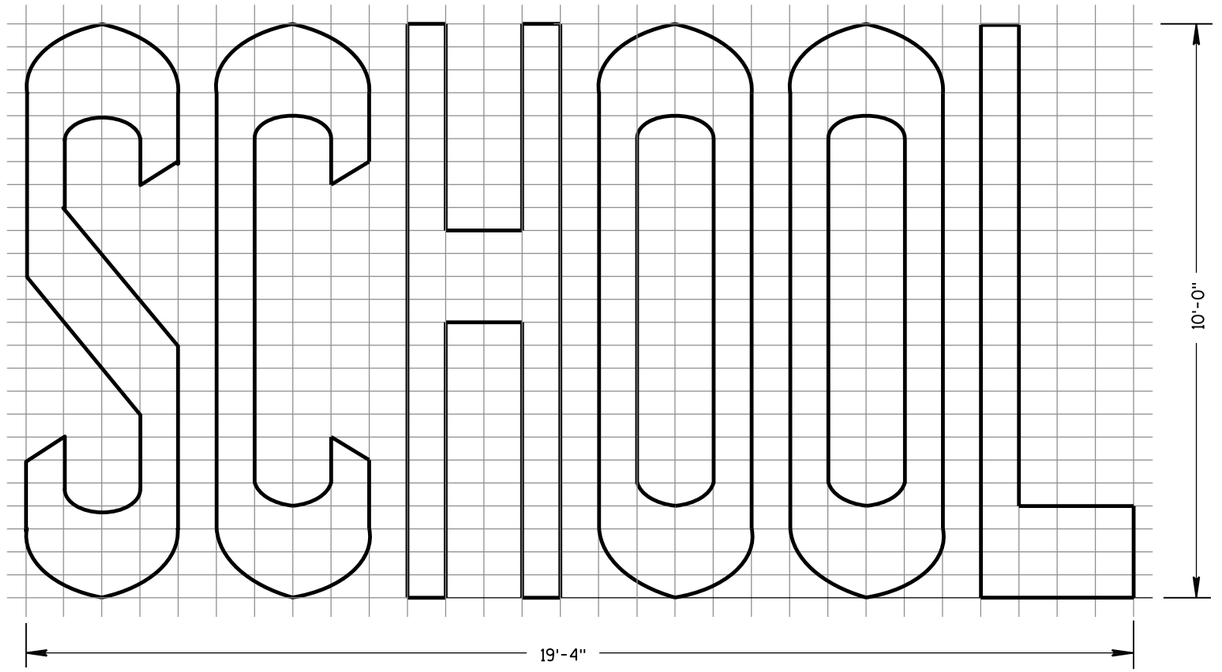
S.D.D. 15 C 5-5

GENERAL NOTES

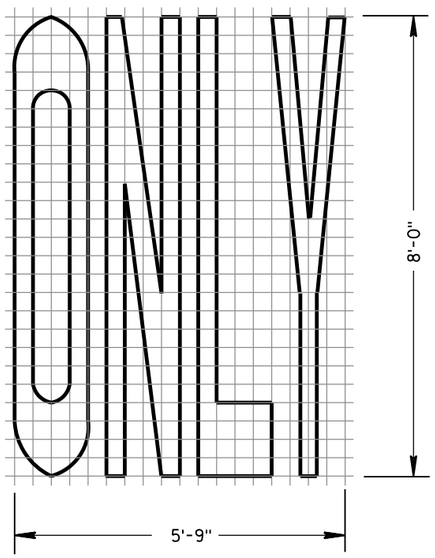
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

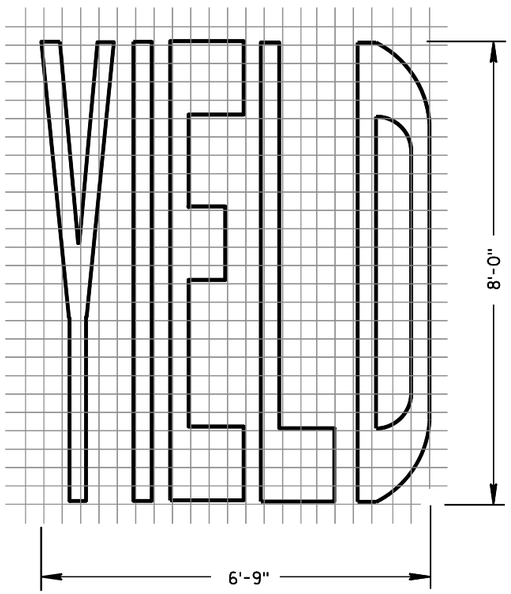


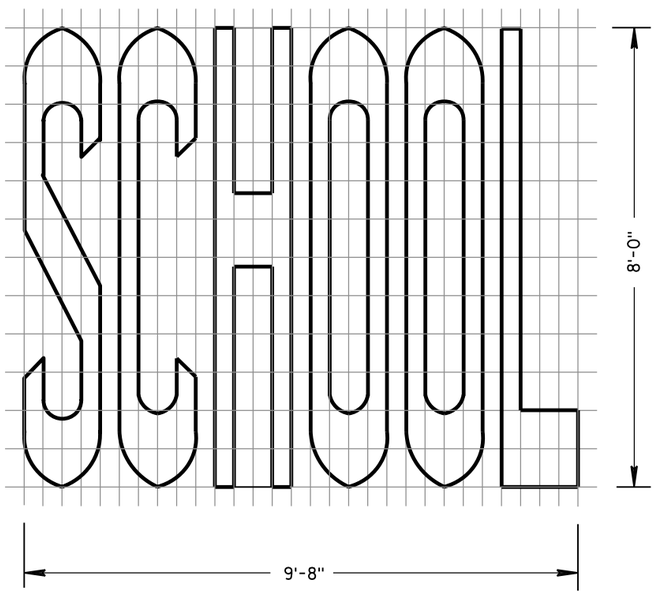




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

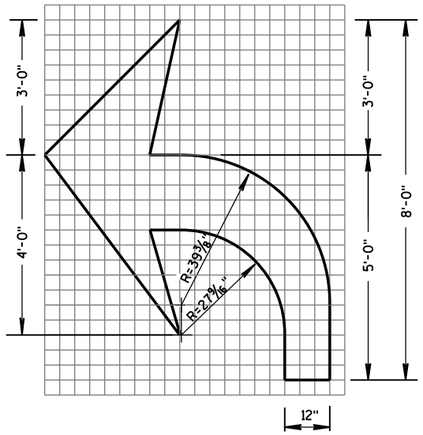
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARK
EER
FHWA

6

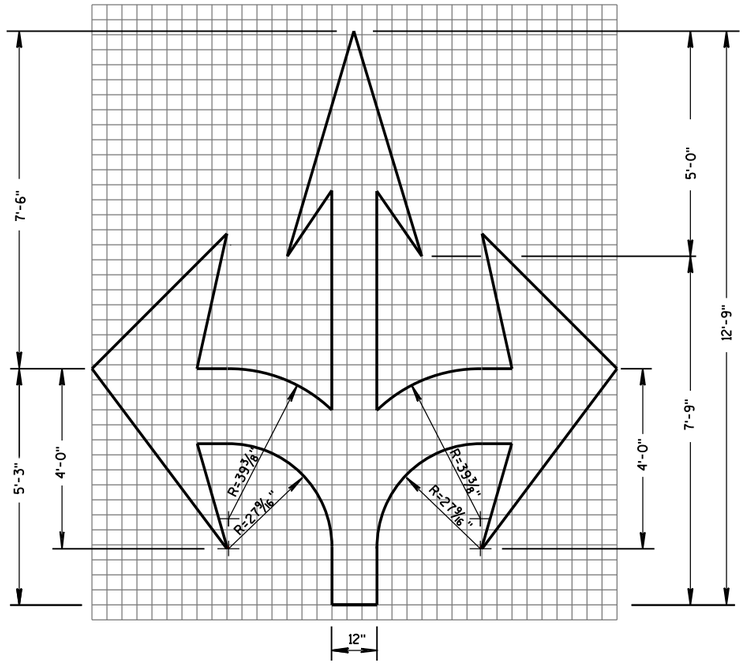
S.D.D. 15 C 7-14b

GENERAL NOTES

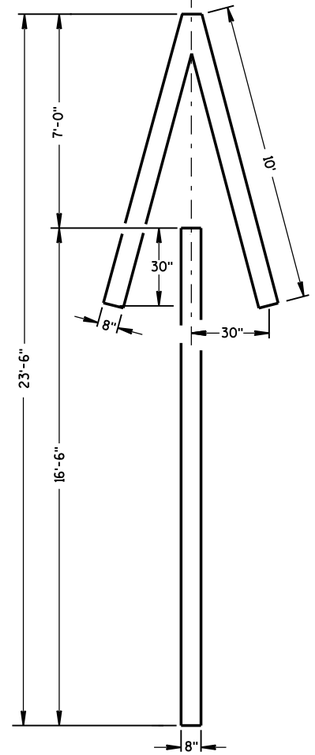
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



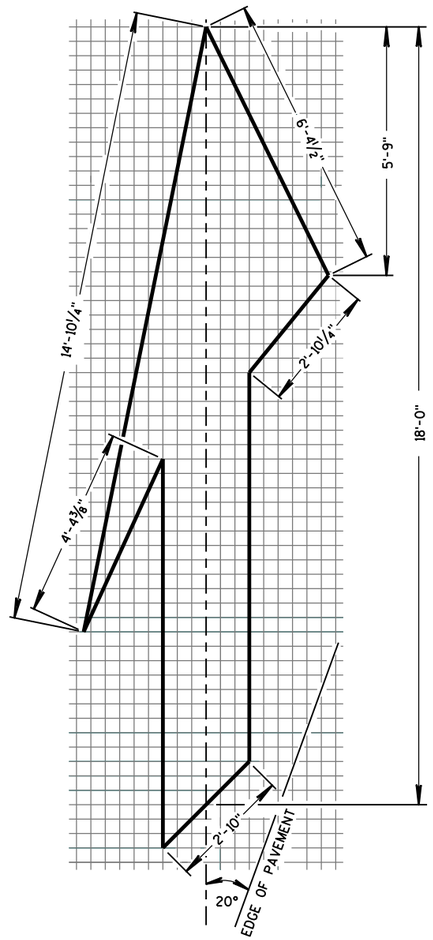
TYPE 2



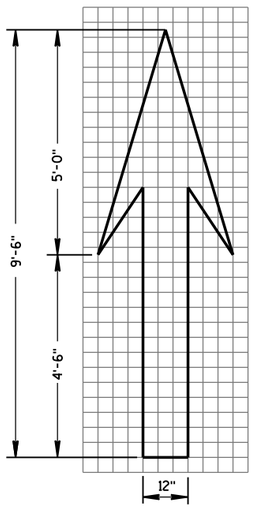
TYPE 6



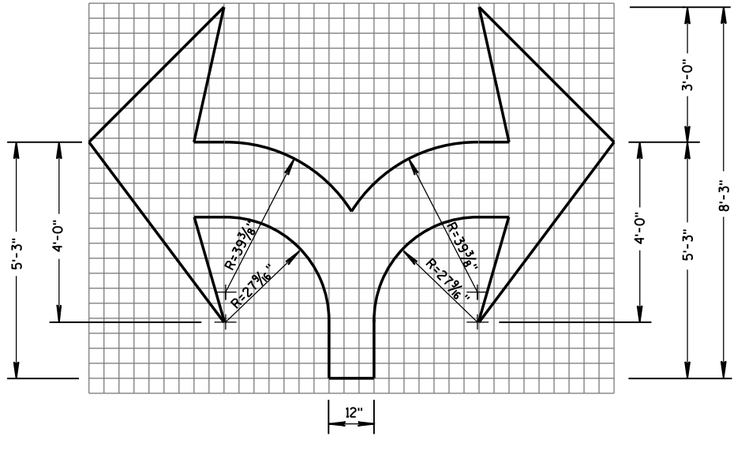
TYPE 4



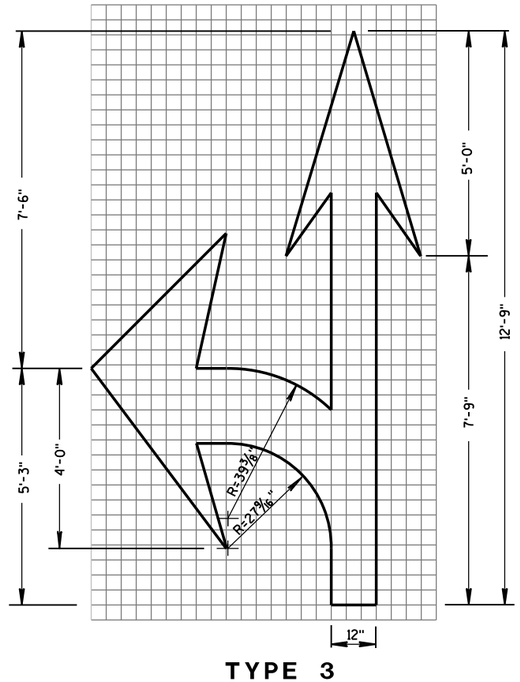
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

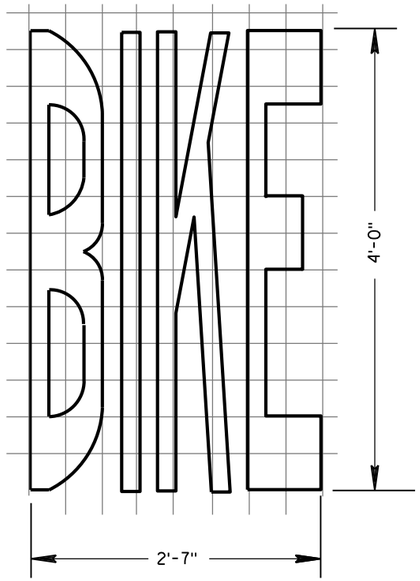
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

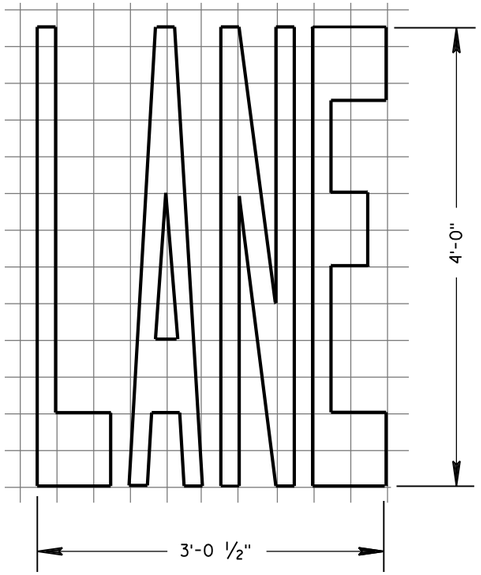
6

S.D.D. 15 C 7-14c

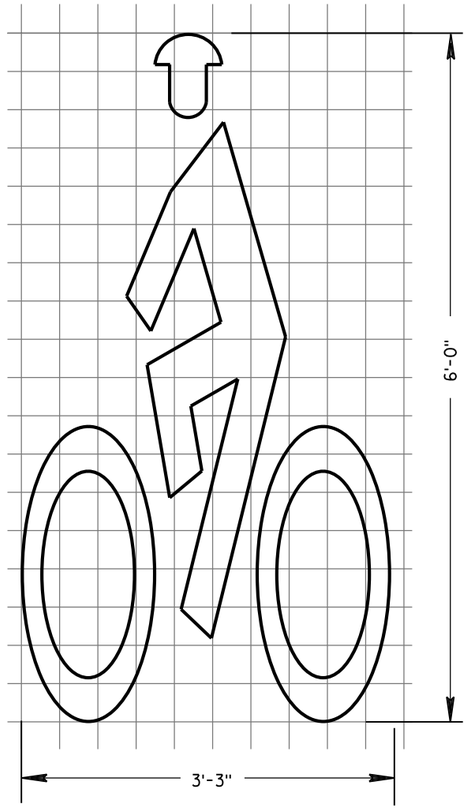
6

S.D.D. 15 C 7-14c

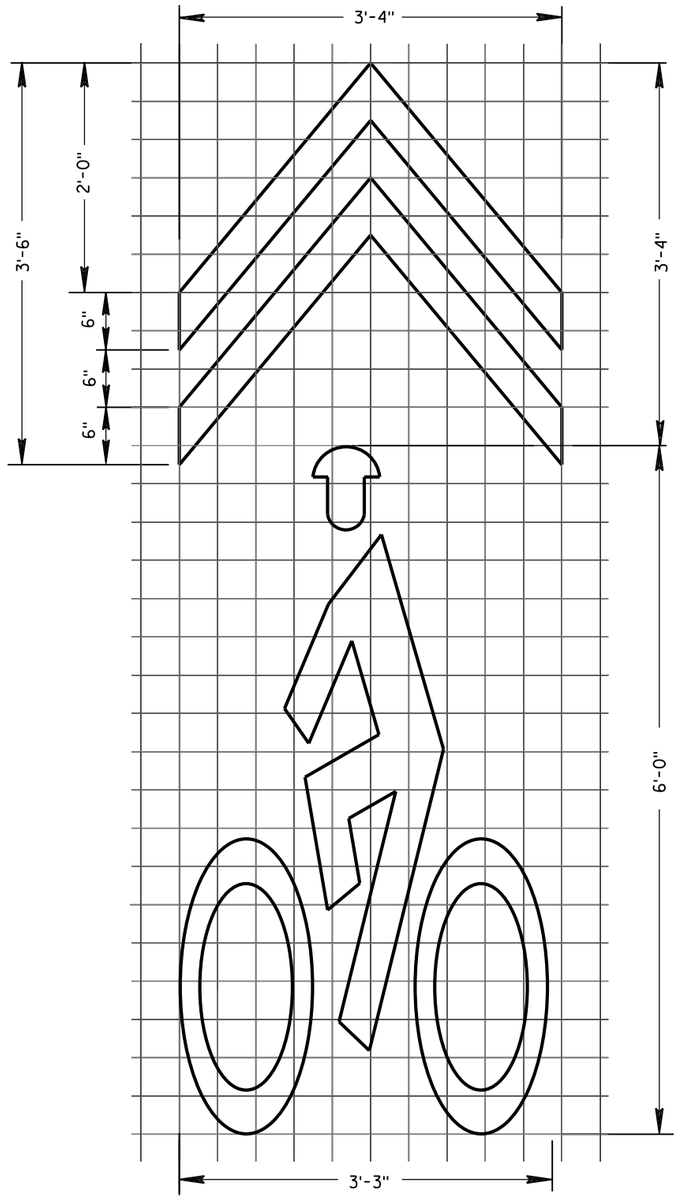




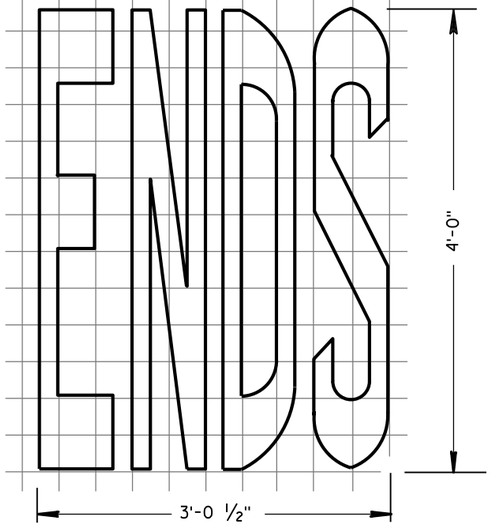
BIKE LANE WORDS



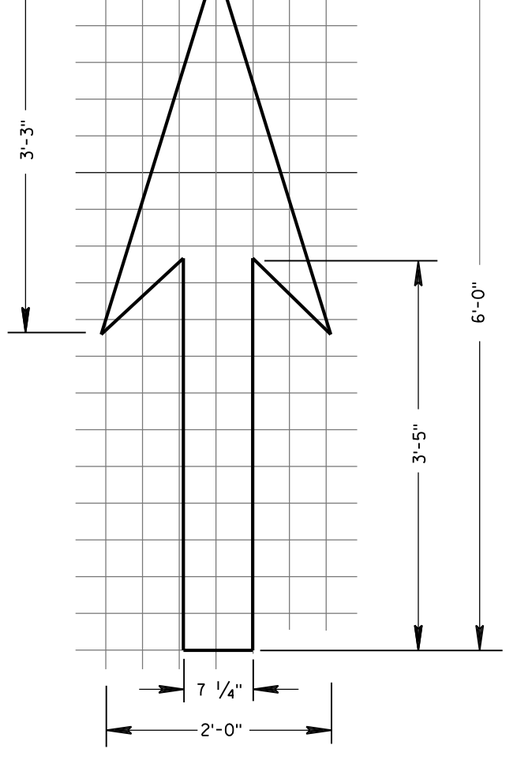
BIKE LANE SYMBOL



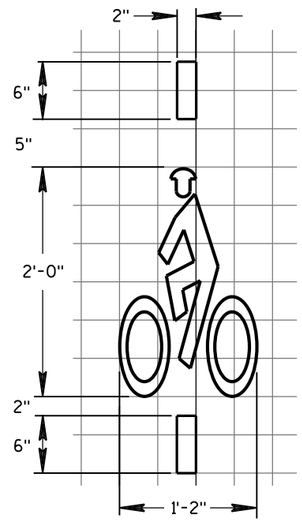
BIKE SYMBOL FOR SHARED LANE



BIKE LANE WORDS



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

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.

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

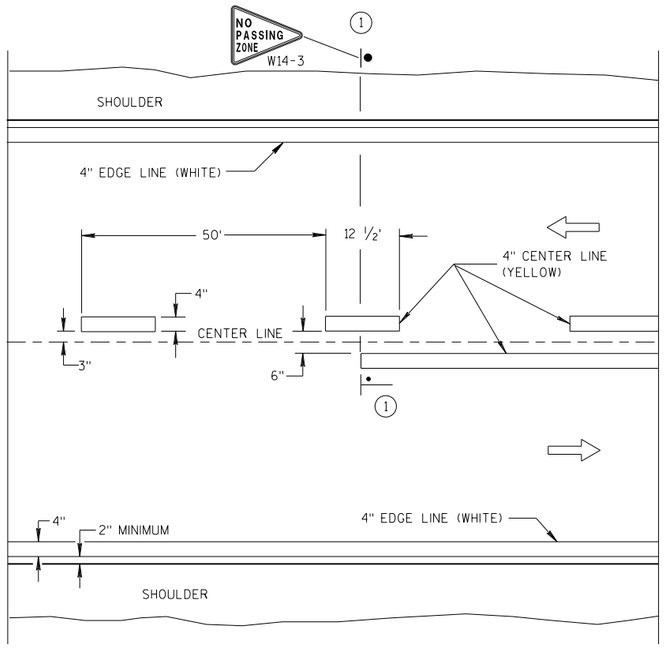
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARK ENGINEER
FHWA

6

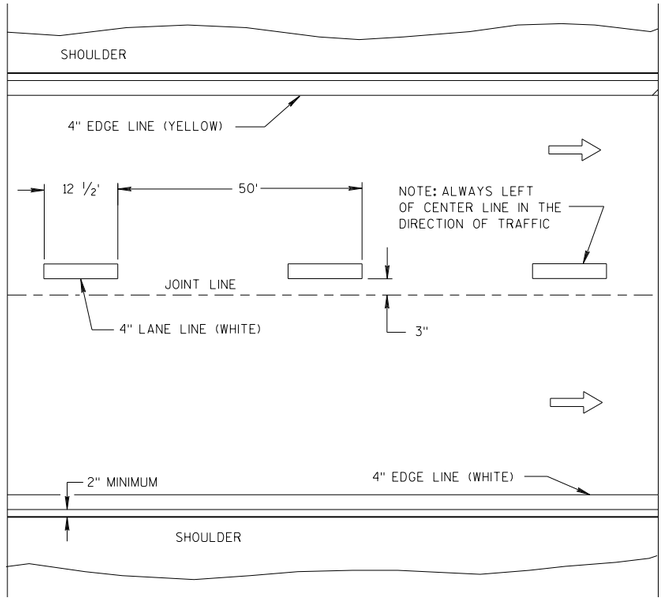
S.D.D. 15 C 7-14e

6

S.D.D. 15 C 7-14e



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

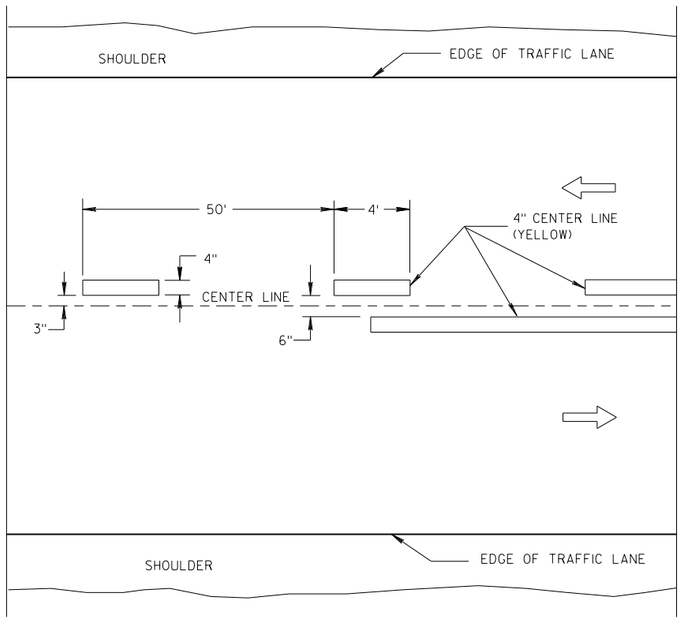
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

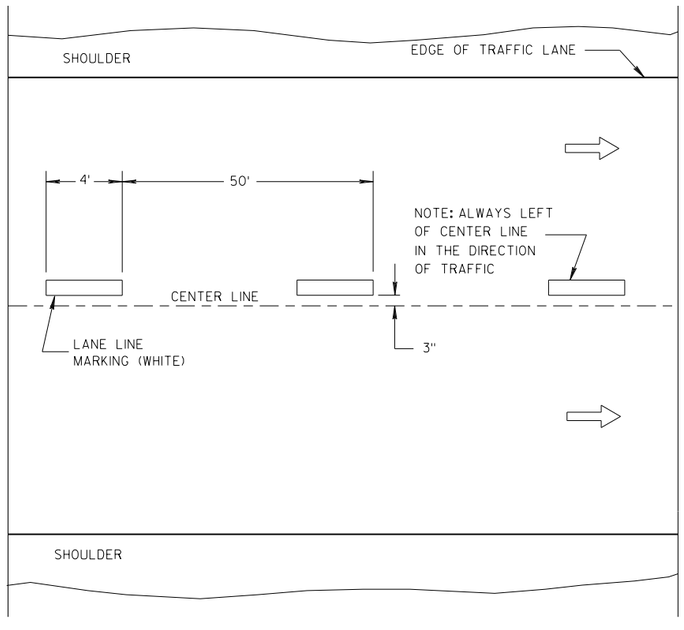
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

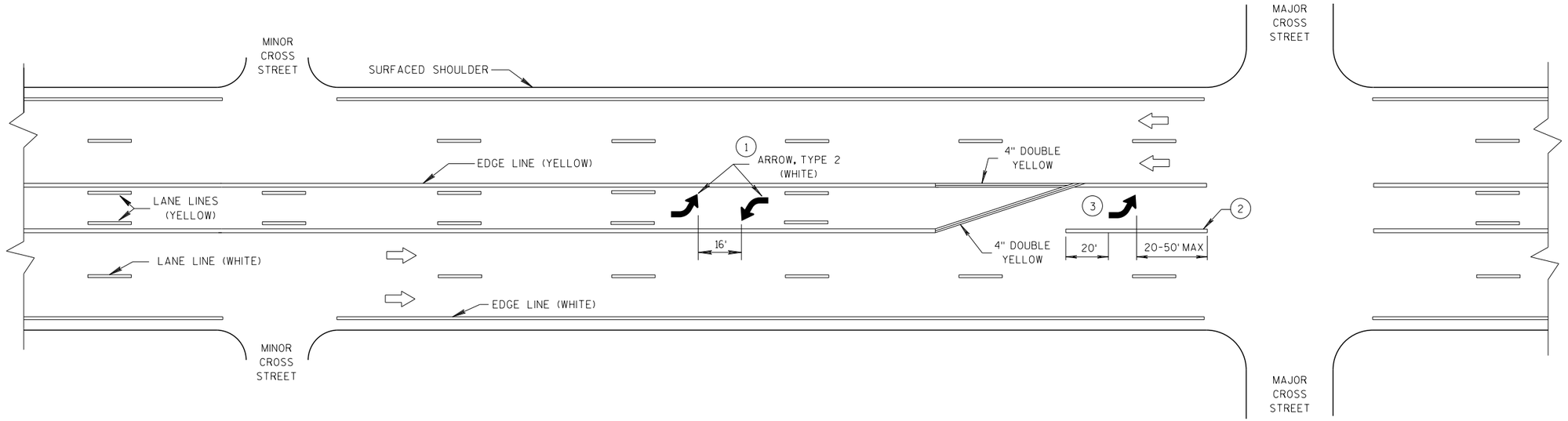
6

S.D.D. 15 C 8-19a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48'DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT

DIRECTION OF TRAFFIC



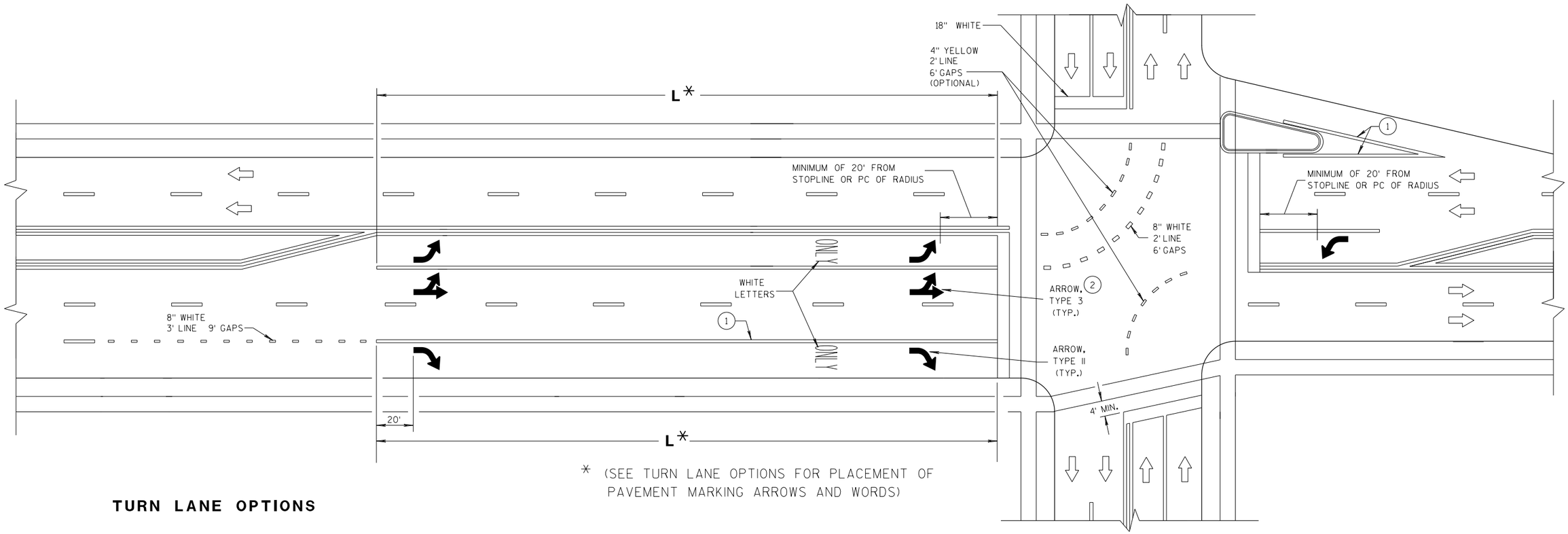
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

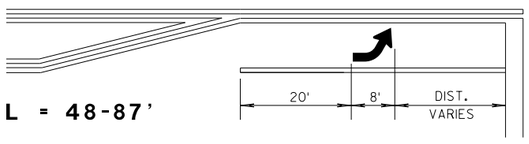
S.D.D. 15 C 8-19b



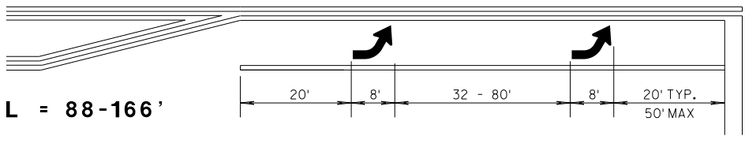
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

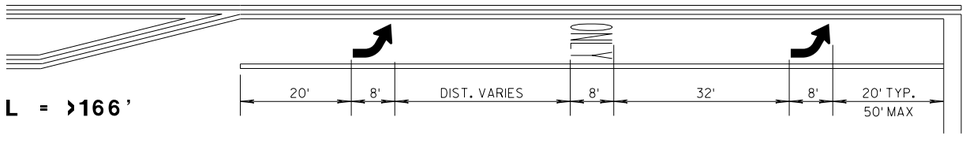
LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48-87'



L = 88-166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROW ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION, THE ARROWS AND ONLY MARKING ARE ELIMINATED.

⇨ DIRECTION OF TRAFFIC

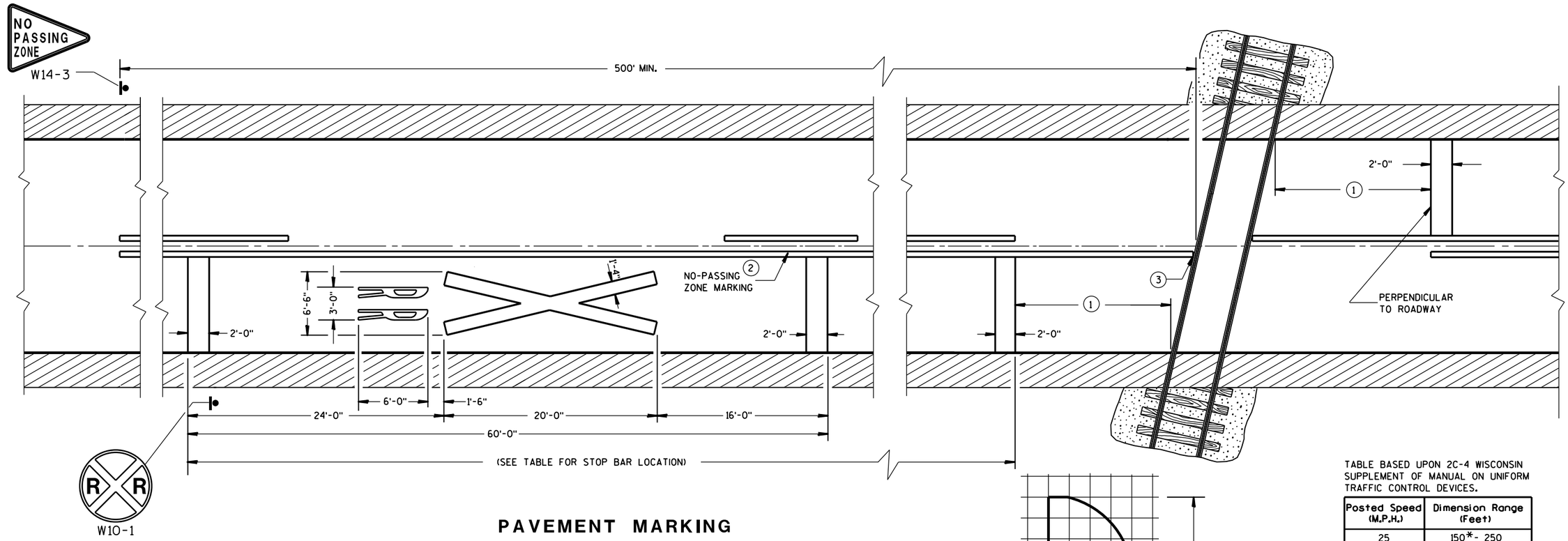
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORT

6

S.D.D. 15 C 8-19c



PAVEMENT MARKING

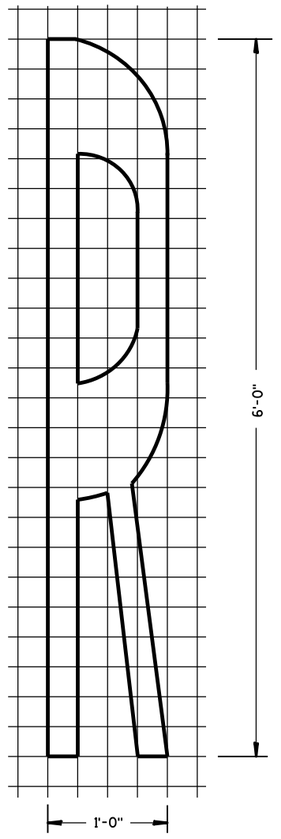


TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150*- 250
30	200*- 300
35	250*- 450
40	300*- 500
45	400*- 650
50	550*- 800
55	750*- 1000
60	1000*- 1250
65	1000*- 1250

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

RETRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

(1) MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.

(2) 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.

(3) FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAI[illegible]GINEER

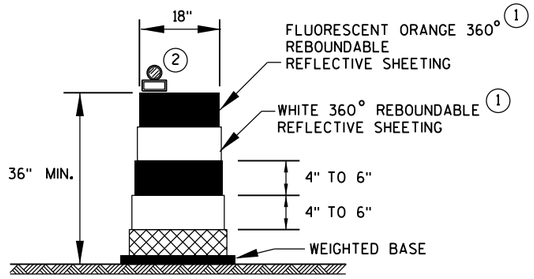
FHWA

6

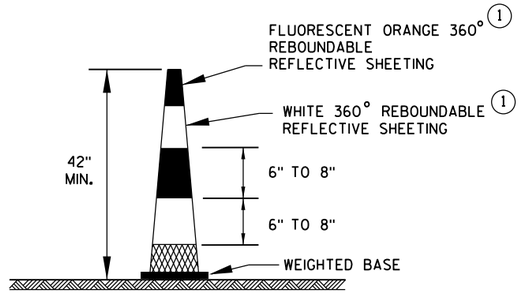
S.D.D. 15 C 9-11a

6

S.D.D. 15 C 9-11a



DRUM

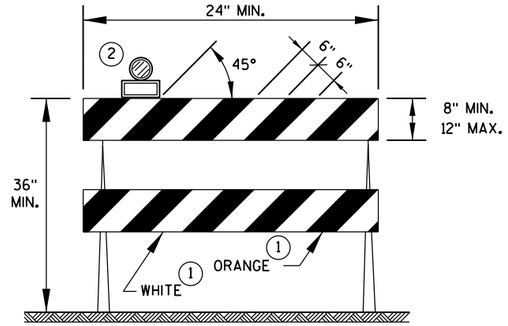


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

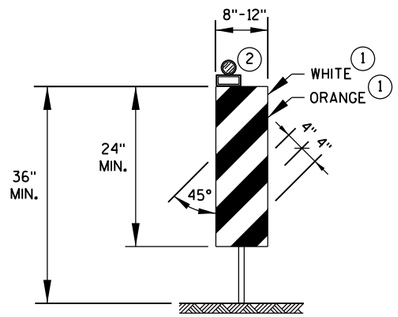
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



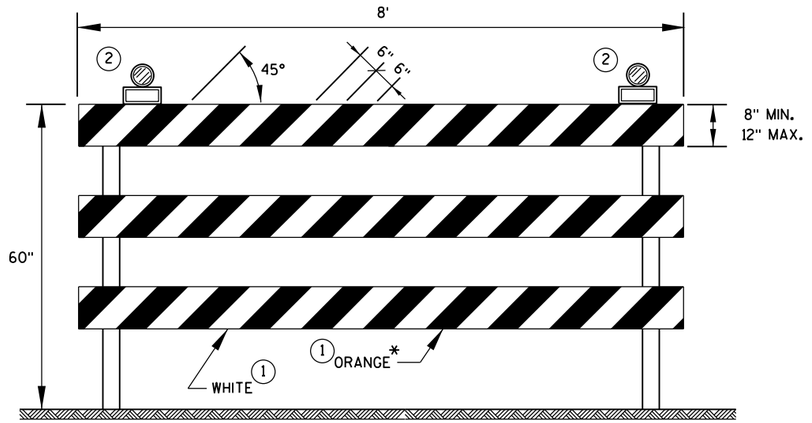
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 — DATE

/S/ Andrew Heidtke — WORK ZONE ENG

FHWA

6

S.D.D. 15 C 11-7b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

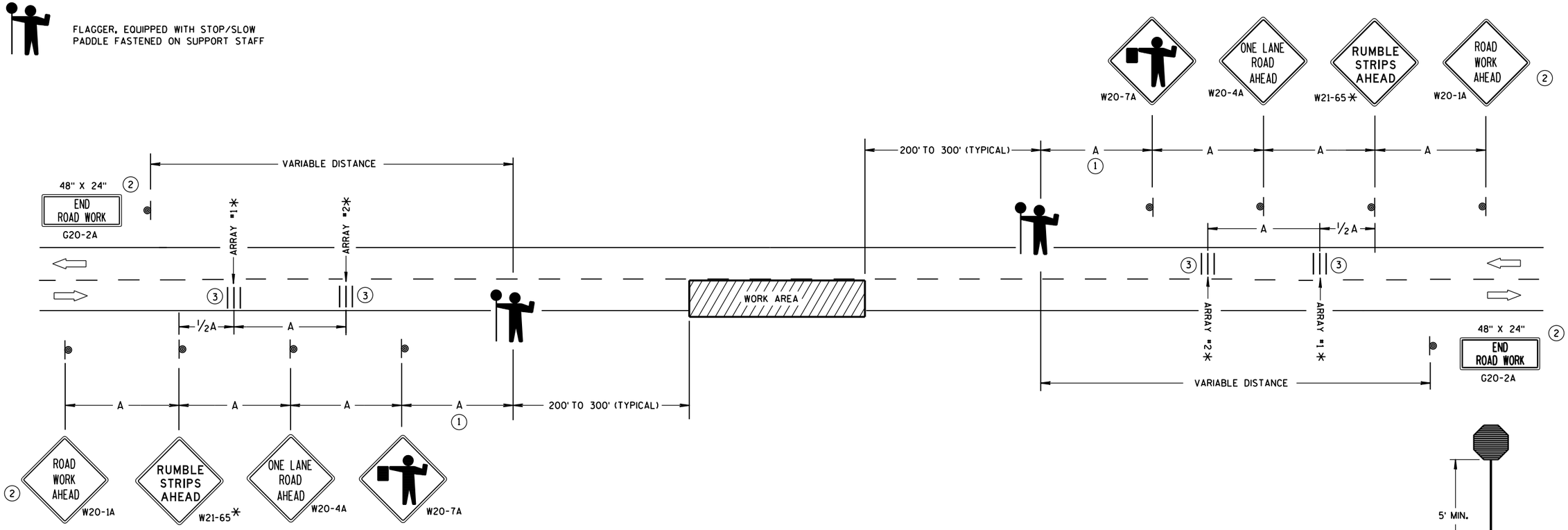
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

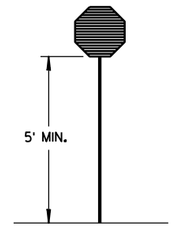
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING A
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



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





STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

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.

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

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.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

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, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 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.

(3) EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

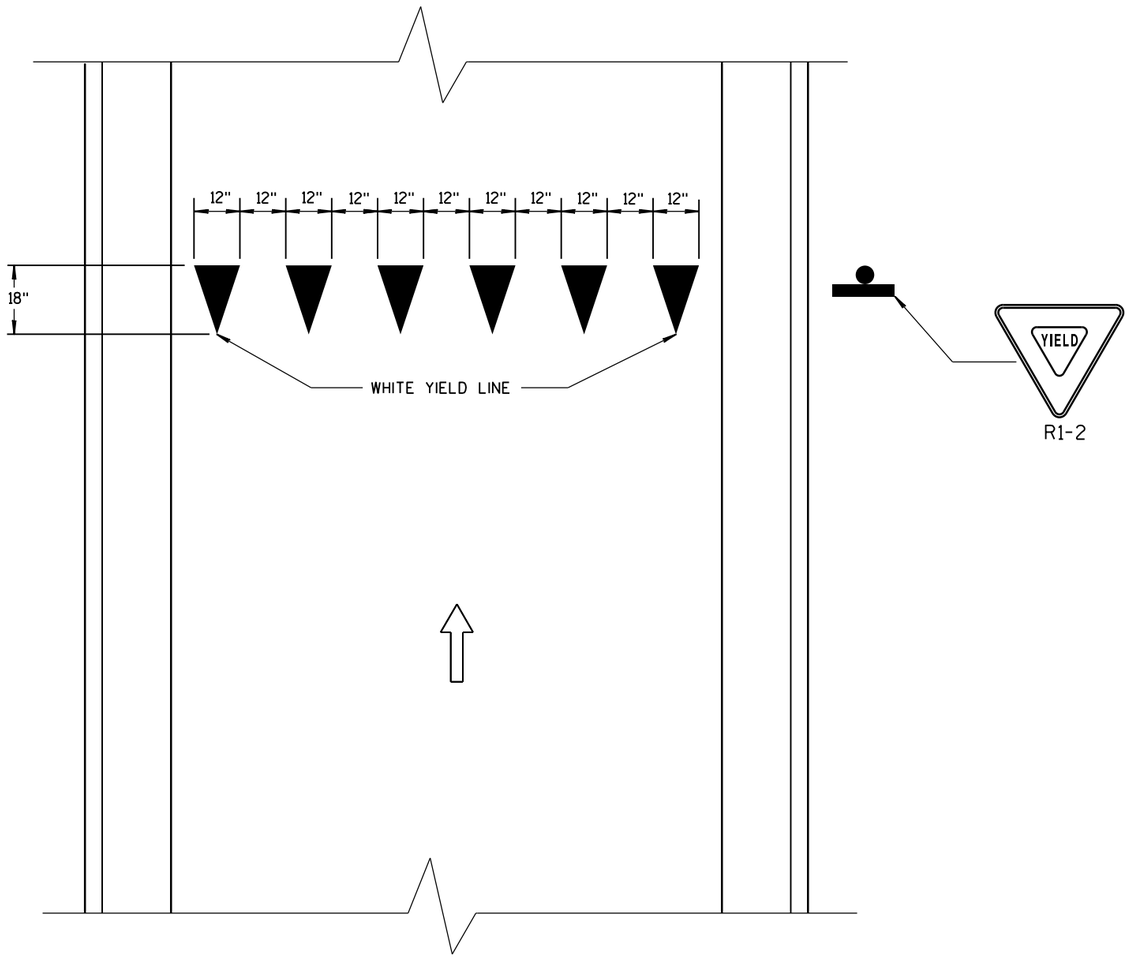
APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENG
FHWA

6

S.D.D. 15 C 12-6

6

S.D.D. 15 C 12-6



R1-2

DIRECTION OF TRAVEL

YIELD LINE

6

S.D.D. 15 C 20-2

YIELD MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

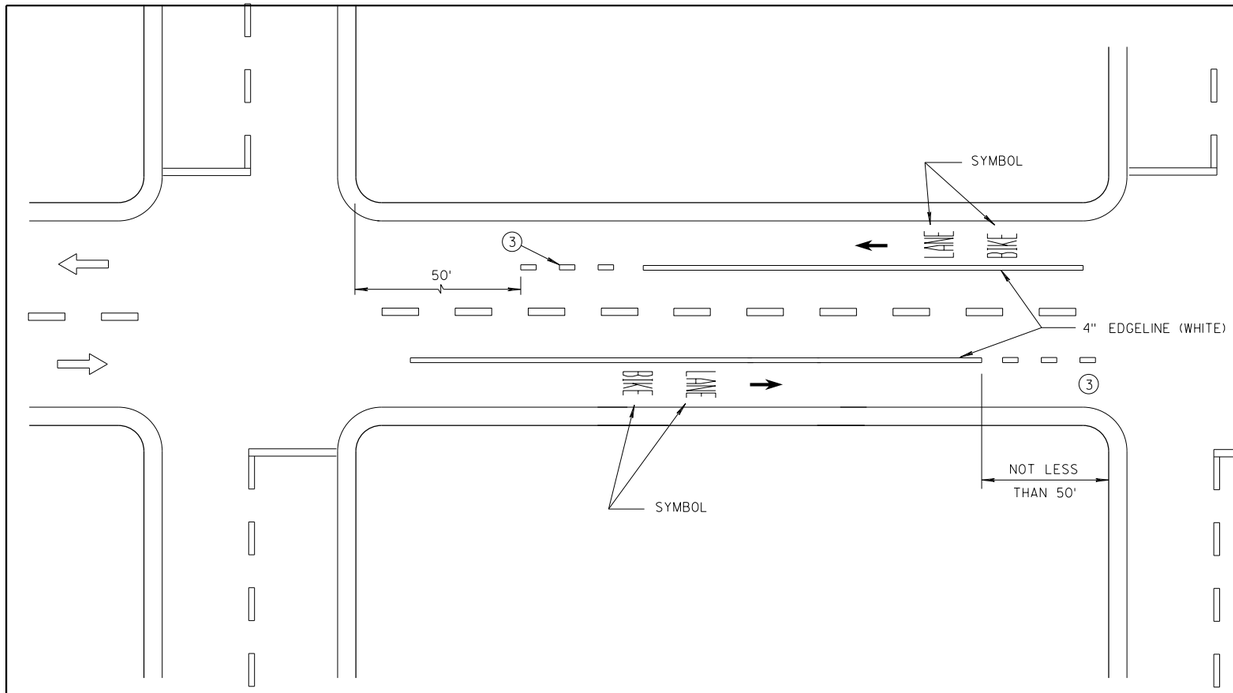
4-18-2016
DATE

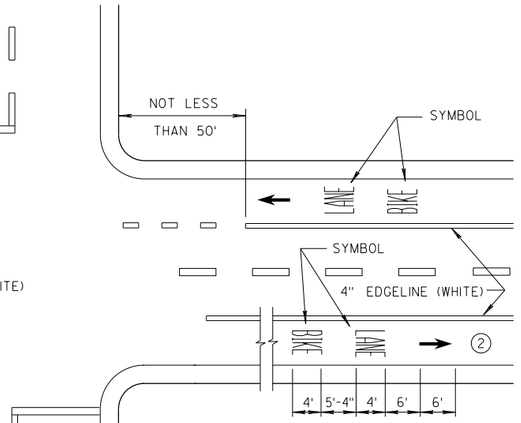
/S/ Matthew R. Rauch
STATE SIGNING AND MARI 206 IEER

FHWA

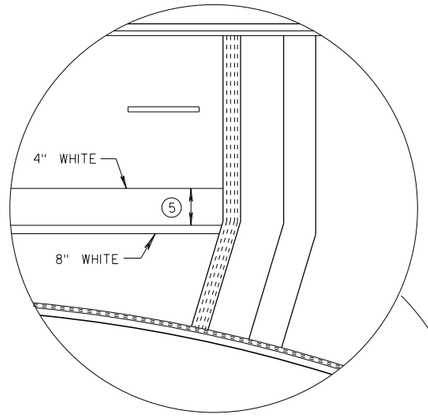
6

S.D.D. 15 C 20-2

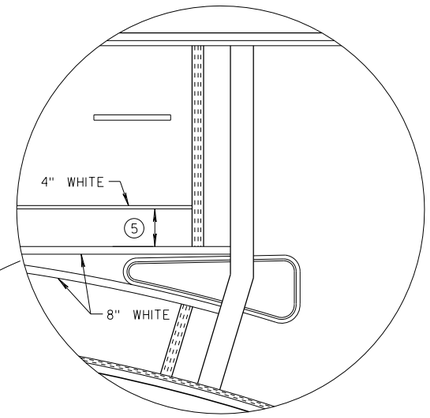




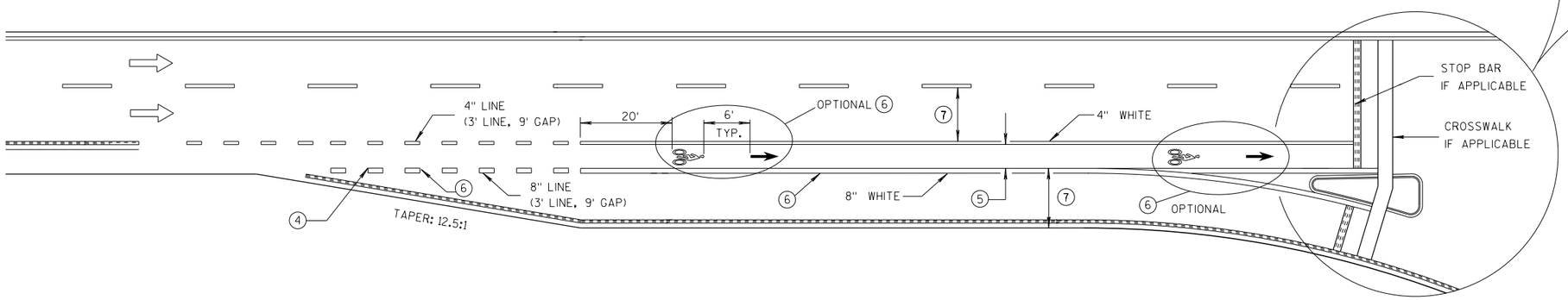
DESIGNATED BICYCLE LANE
NO PARKING



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMODATION IS TYPICALLY 5 FEET WIDE AND A MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT 45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FEET WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

DIRECTION OF TRAVEL

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR ... ENGINEER
FHWA

6

S.D.D. 15 C 29-6a

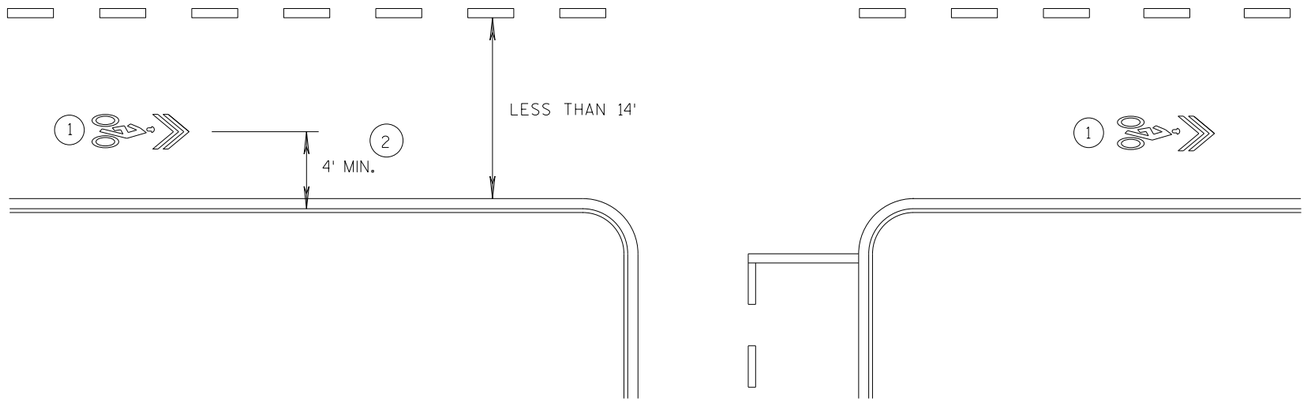
6

S.D.D. 15 C 29-6a

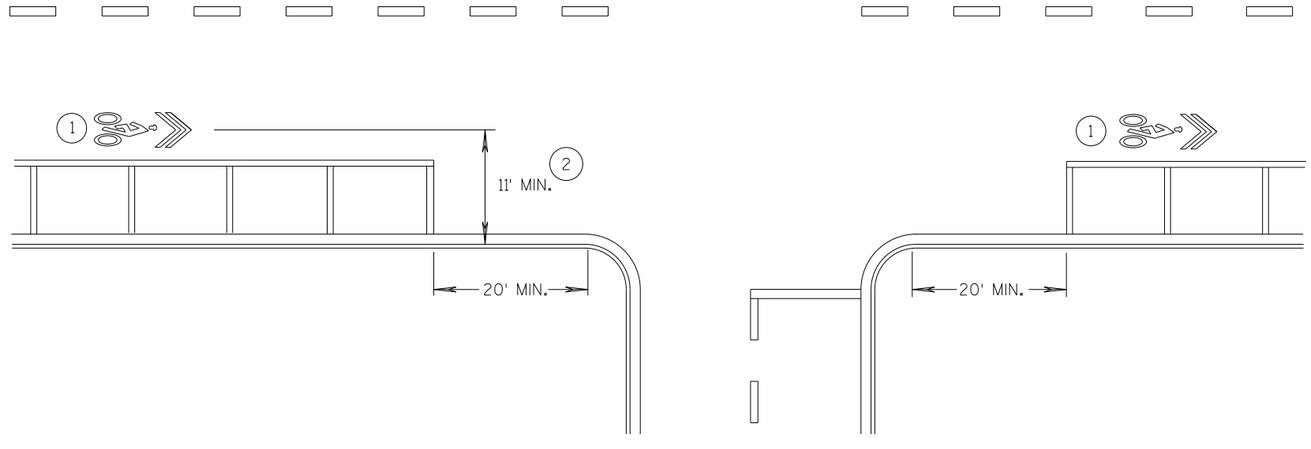
GENERAL NOTES

(1) MINIMUM OF ONE PER BLOCK, MAXIMUM OF 250 FEET.

(2) OR TO EDGE OF PAVEMENT WITHOUT CURB.



WITHOUT PARKING



WITH PARKING

PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKI ER

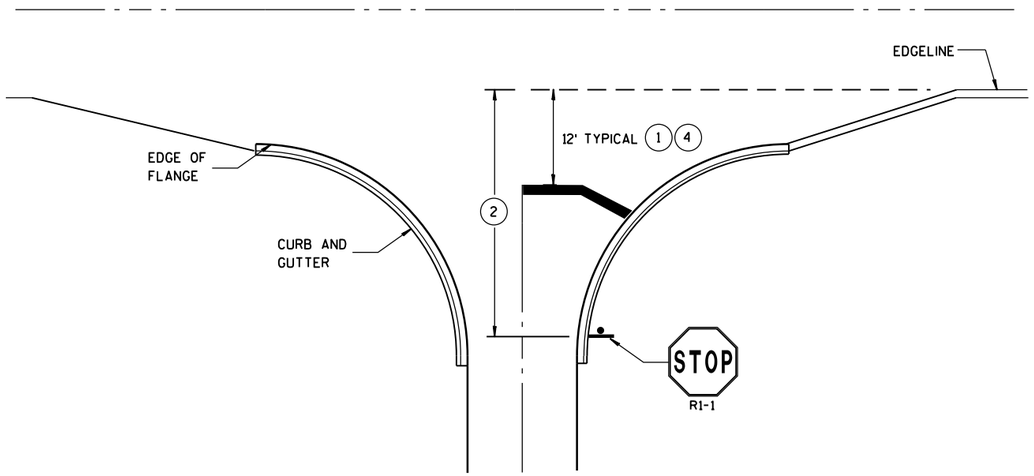
FHWA

6

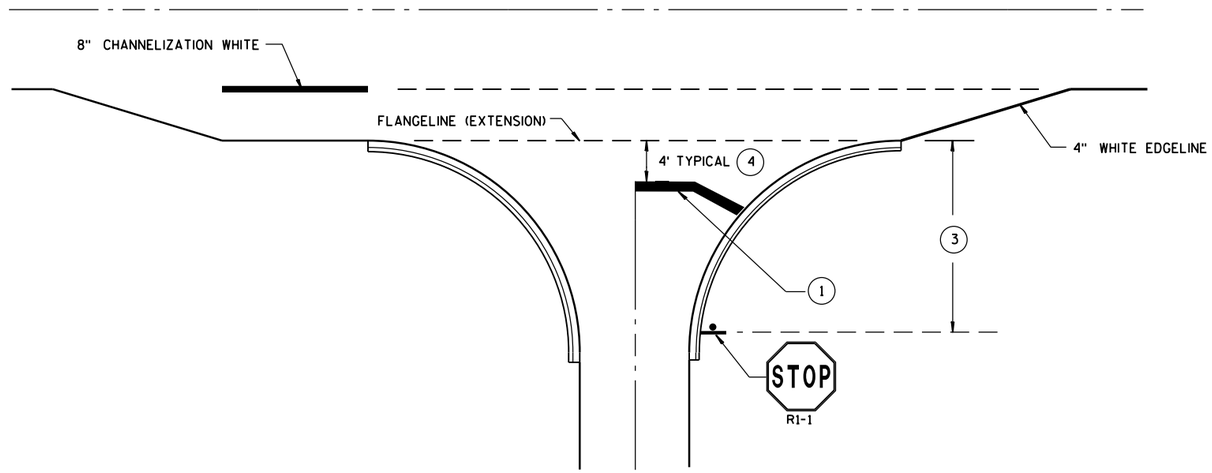
S.D.D. 15 C 29-6b

6

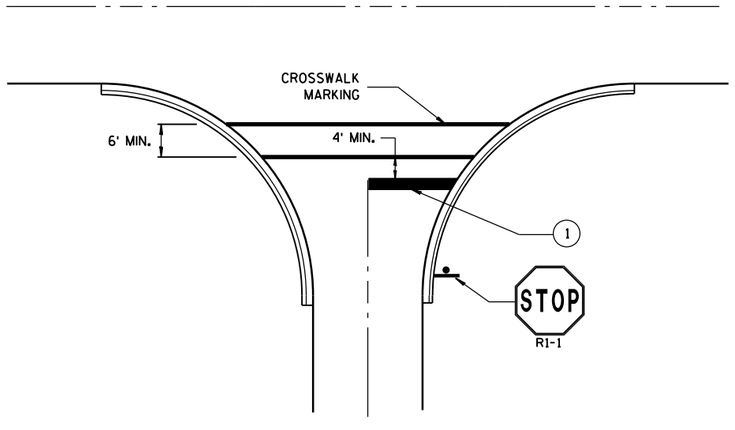
S.D.D. 15 C 29-6b



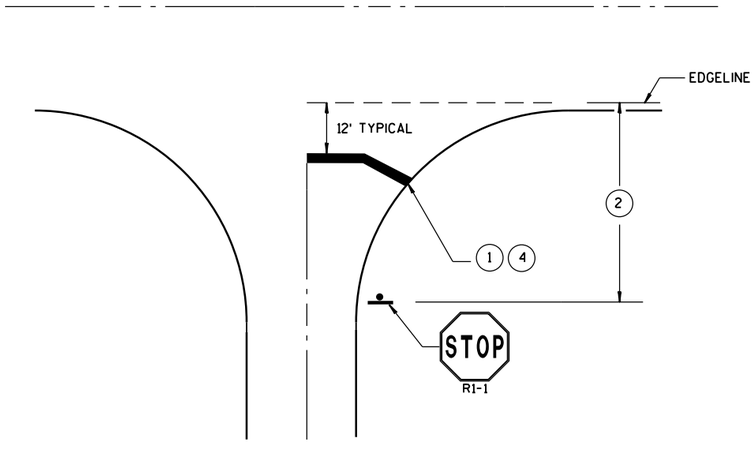
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

(1) 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

(2) IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.

(3) IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.

(4) MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

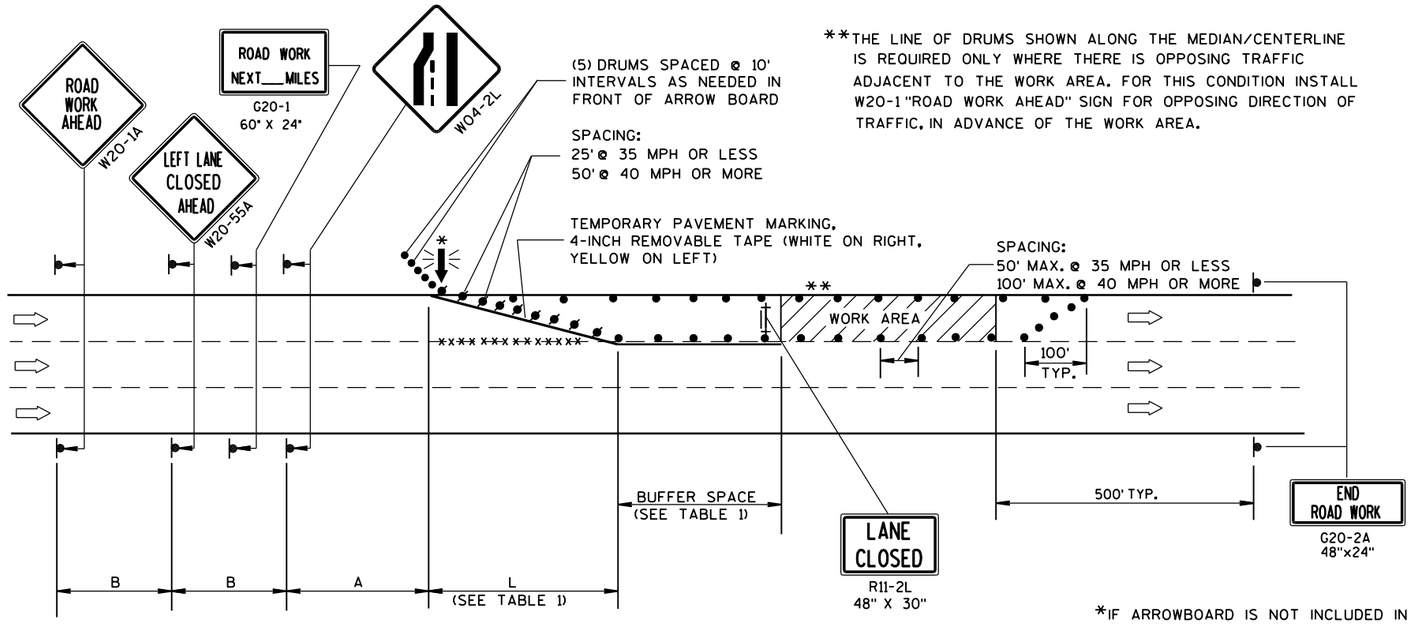
Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]NEER

FHWA

6

S.D.D. 15 C 33-3



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

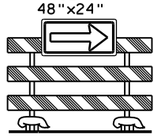


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

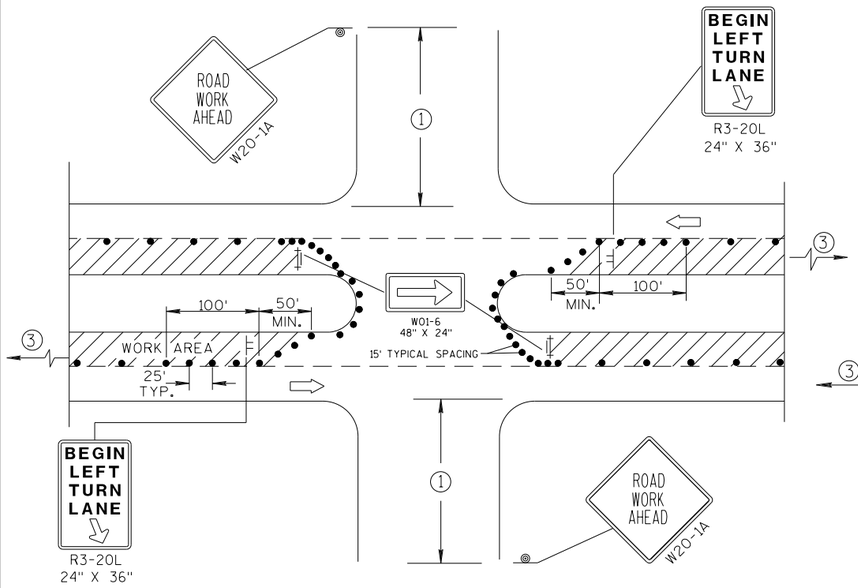
APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 20-4

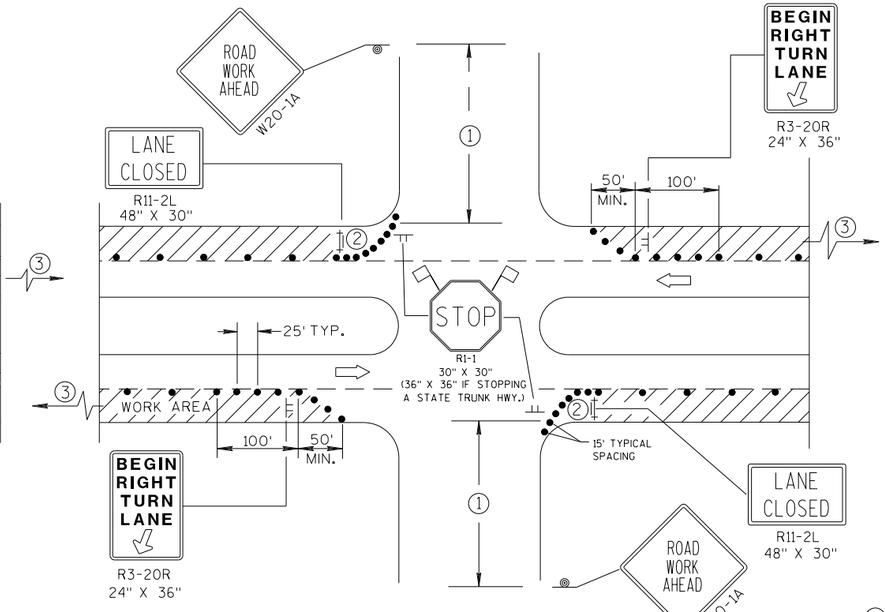
6

S.D.D. 15 D 20-4



DETAIL A

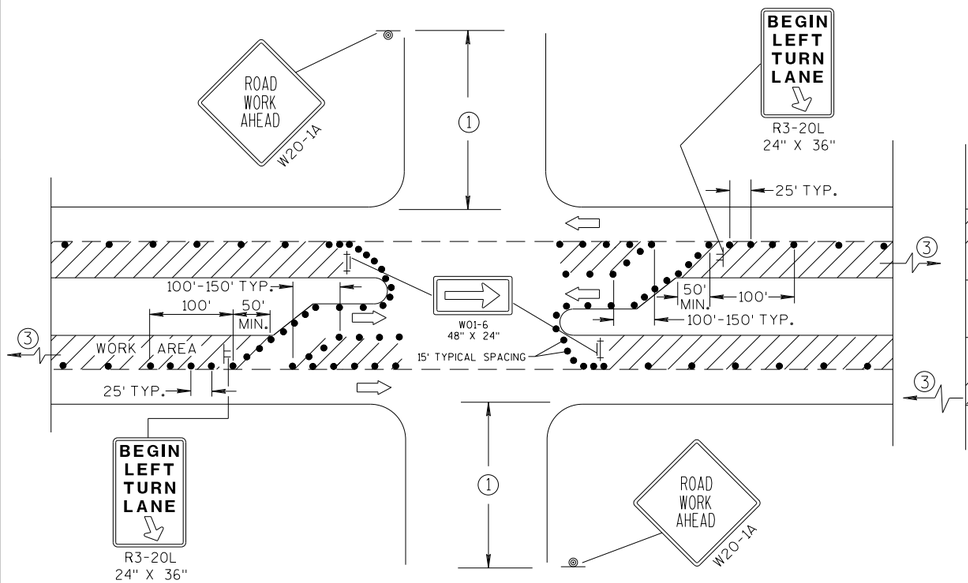
FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING



DETAIL B

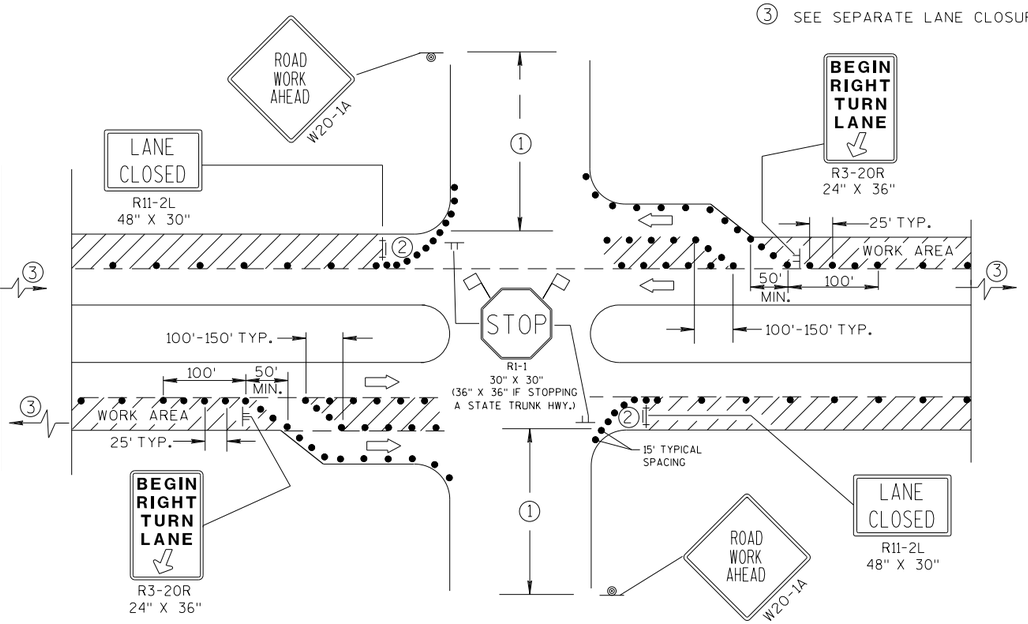
FOR RIGHT LANE CLOSURE AT INTERSECTION

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 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)

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

6

S.D.D. 15 D 21-6

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.

W20-1A 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

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

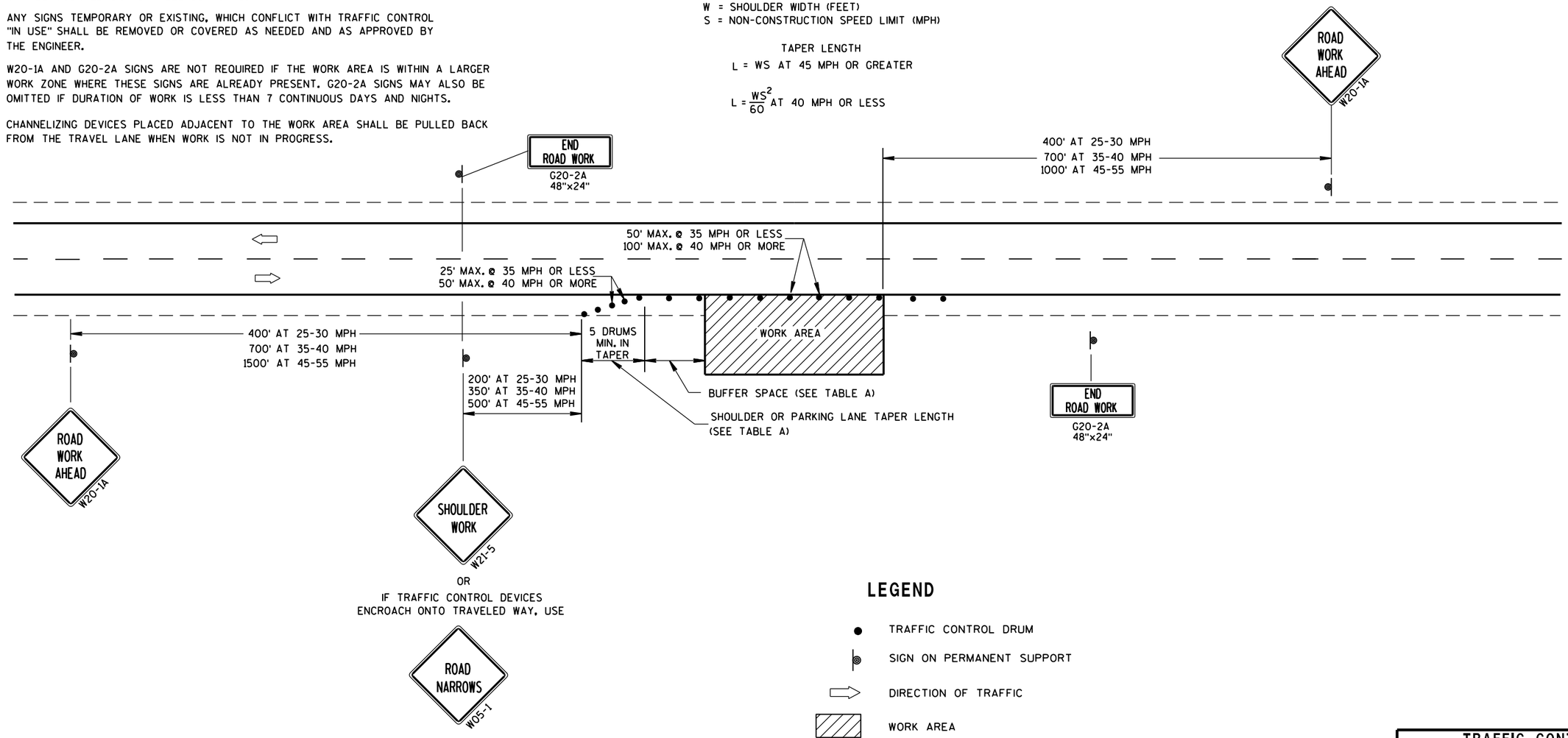
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

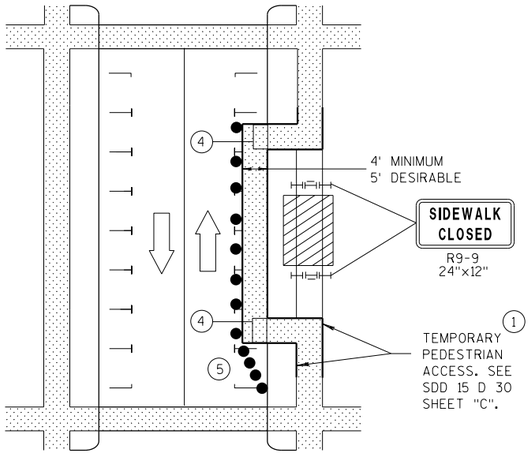
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible] FIC

FHWA

6

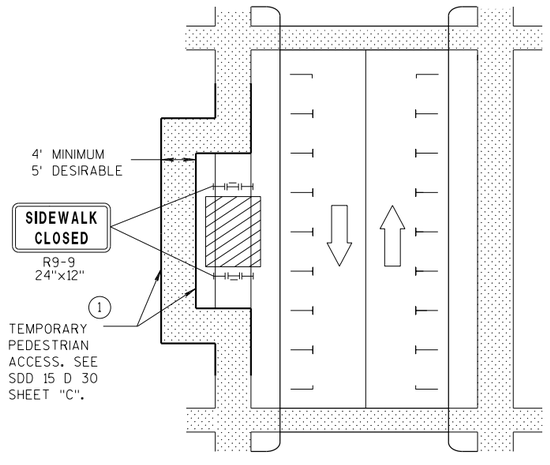
S.D.D. 15 D 28-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

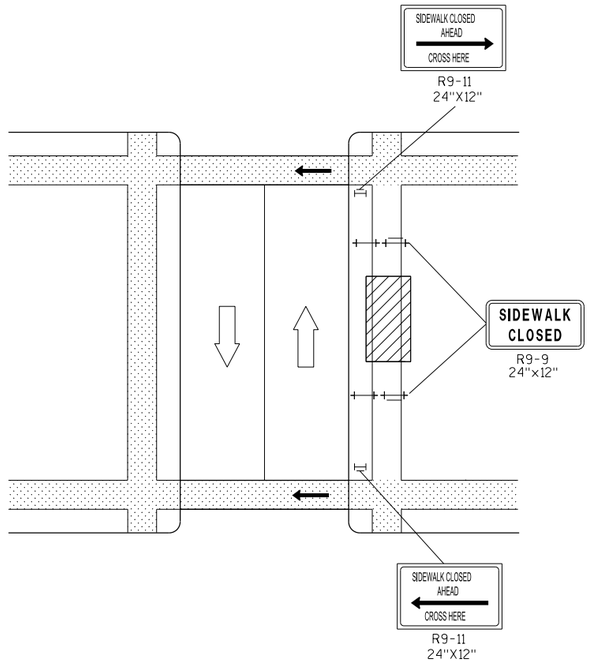


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

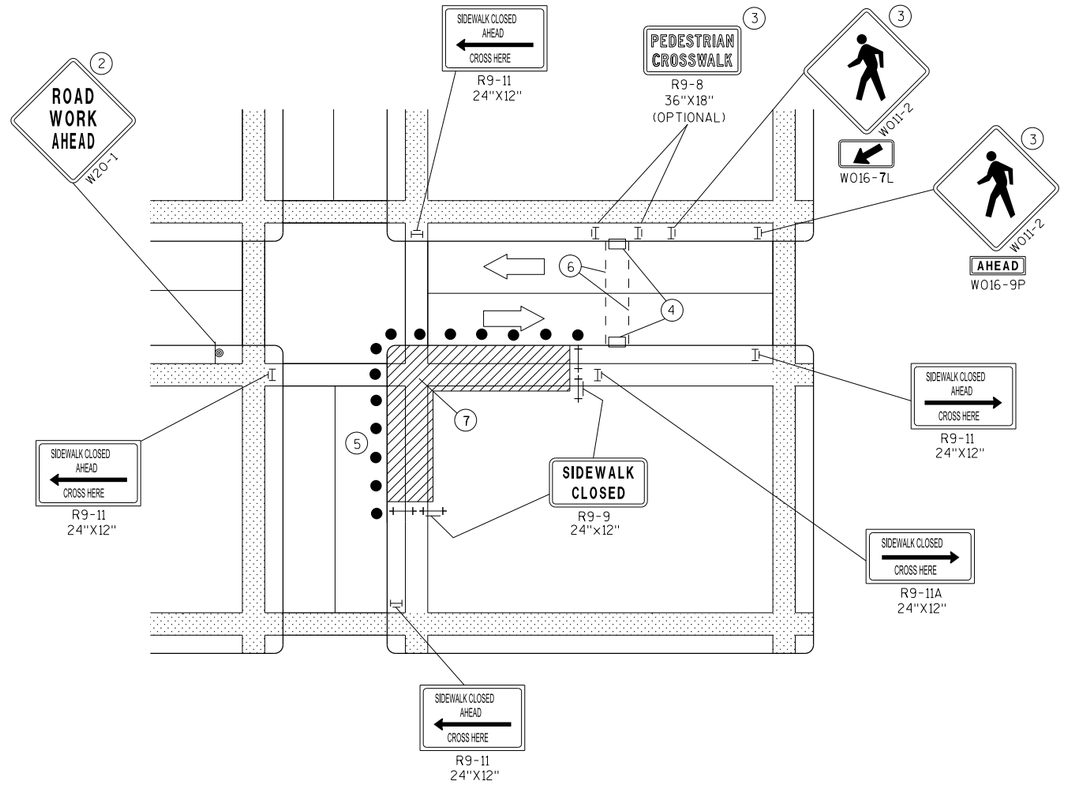
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

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

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

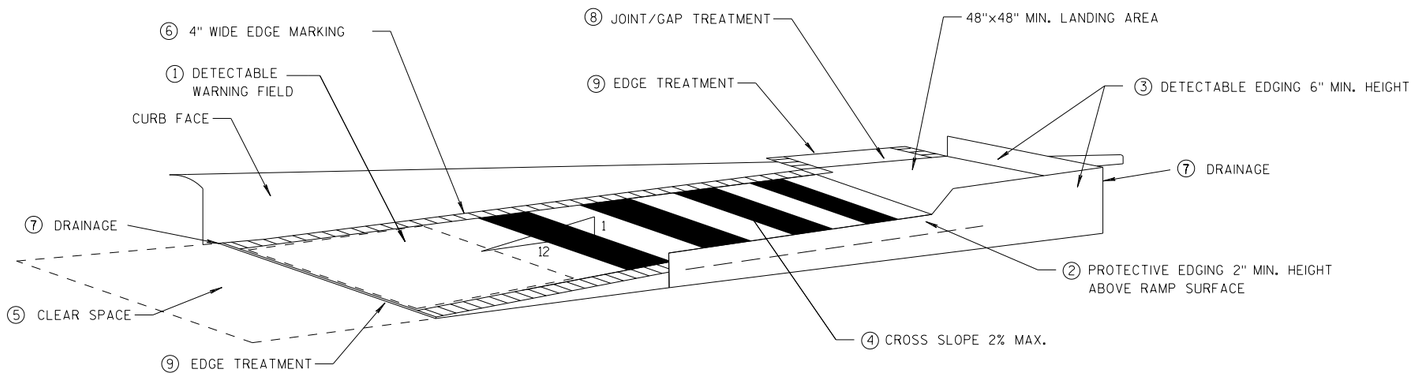
LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

S.D.D. 15 D 30-4a



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

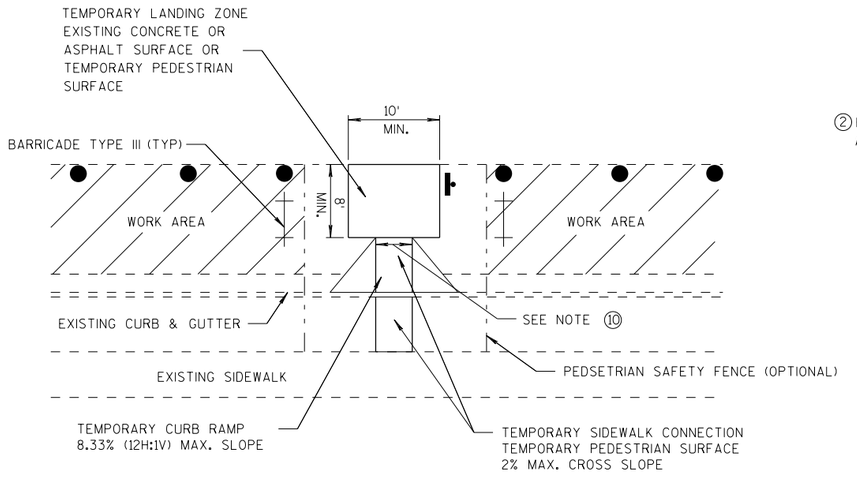
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

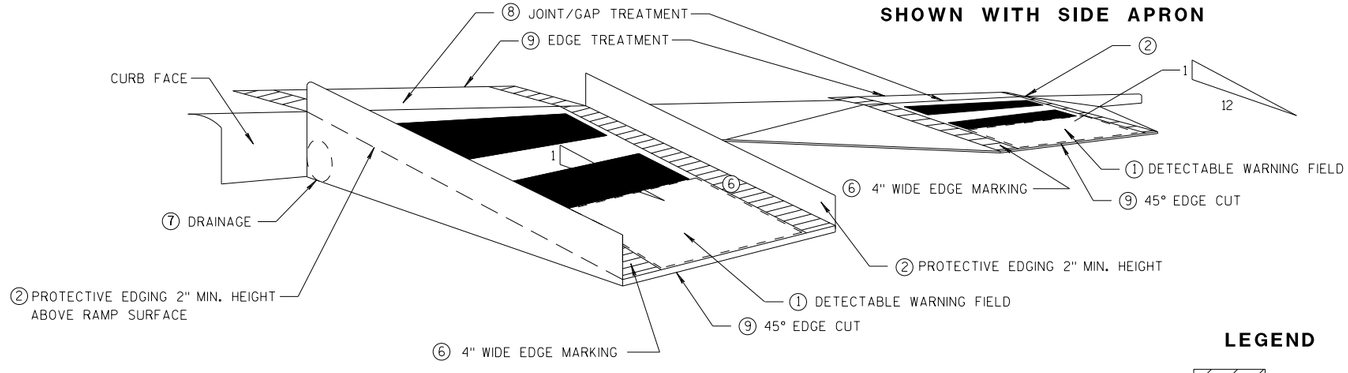
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

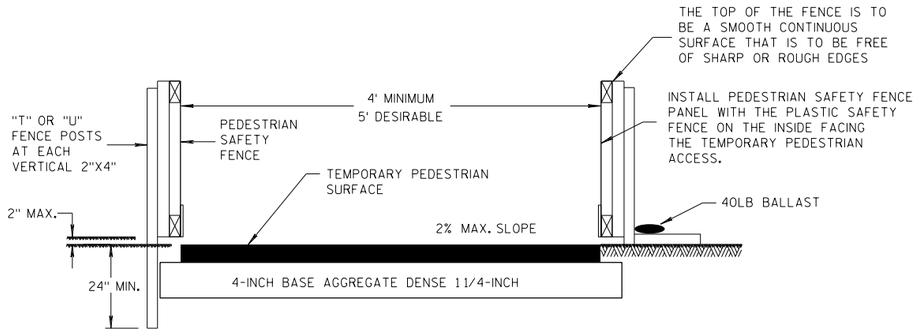
7/2018 DATE

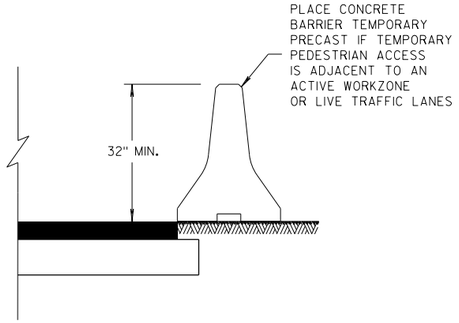
/S/ Andrew Heidtke
WORK ZONE ENG

FHWA

6

S.D.D. 15 D 30-4b

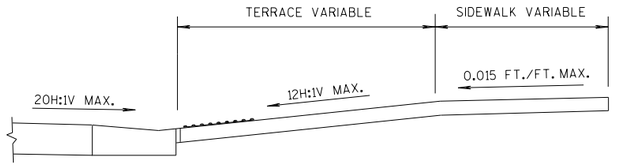




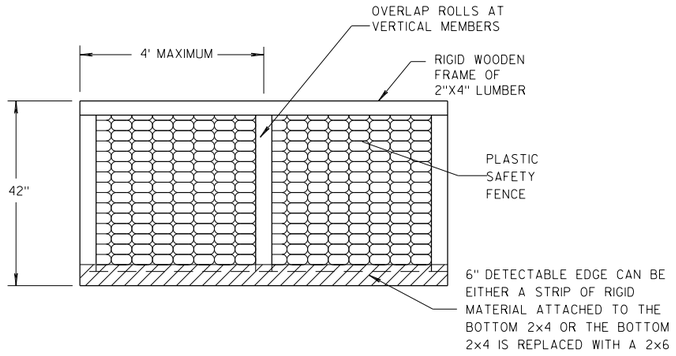
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

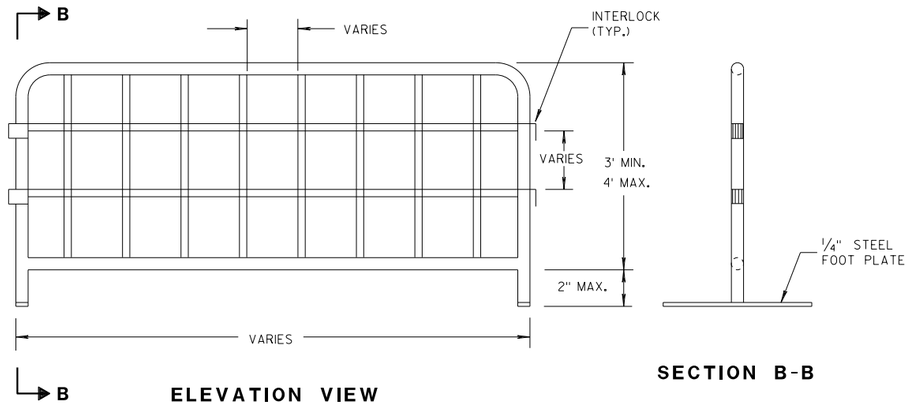
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



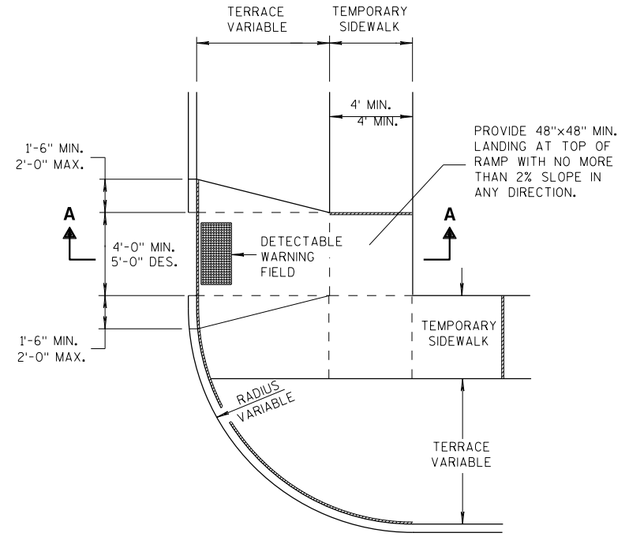
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

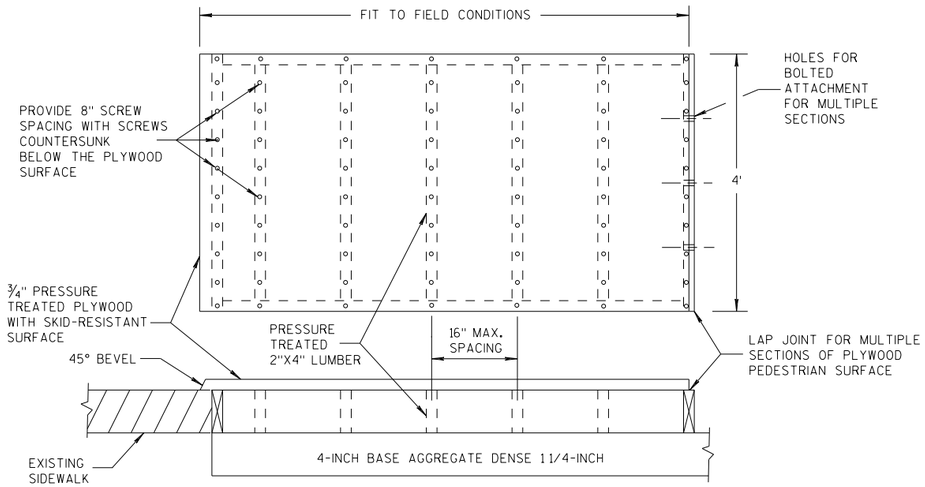
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



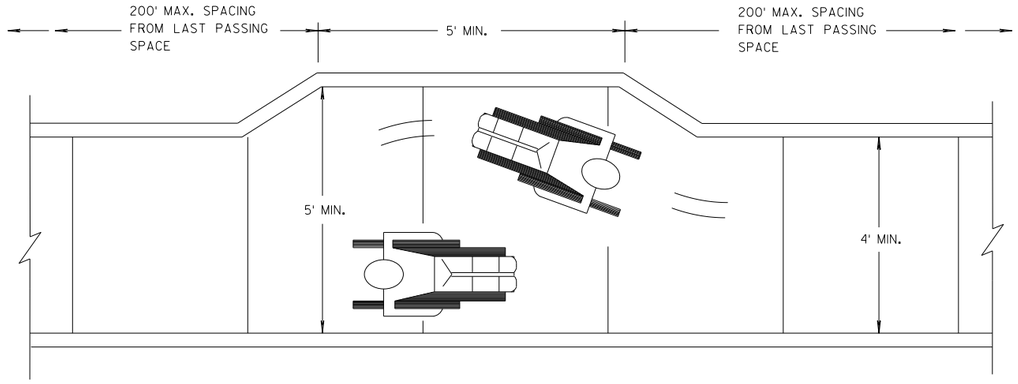
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

/S/ Andrew Heidtke — WORK ZONE ENG

FHWA

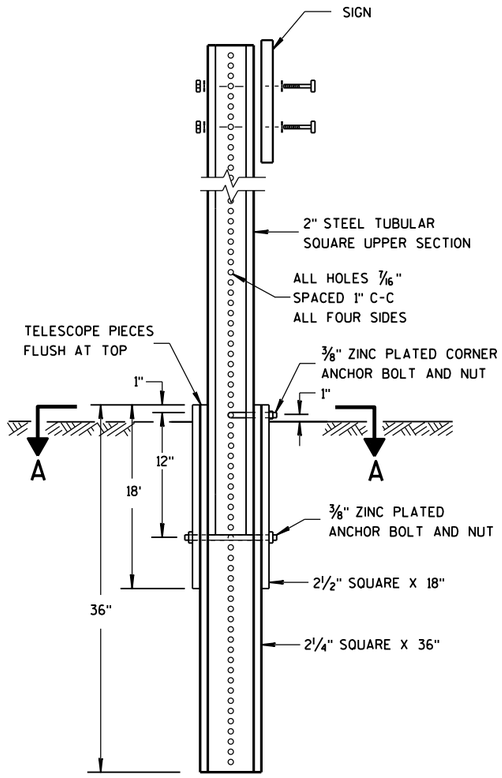
215

6

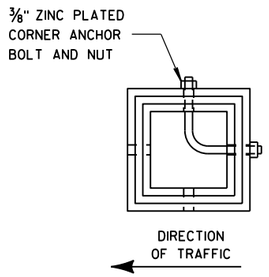
S.D.D. 15 D 30-4c

6

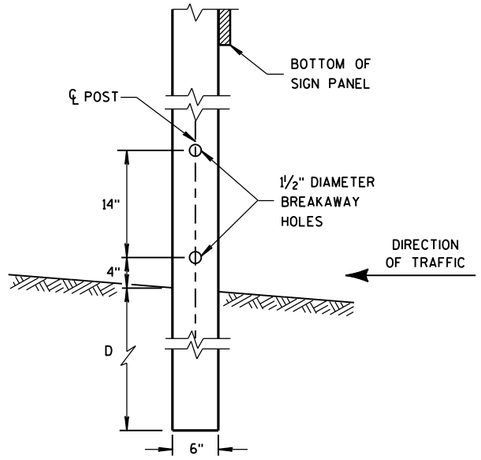
S.D.D. 15 D 30-4c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



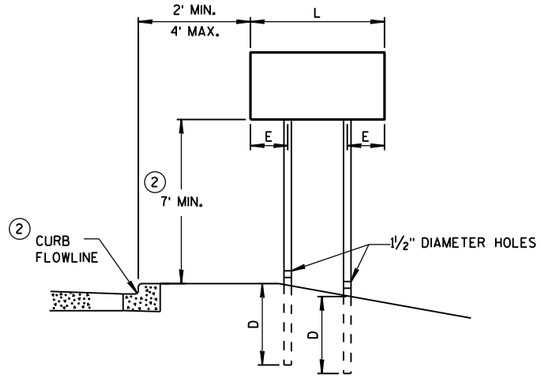
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

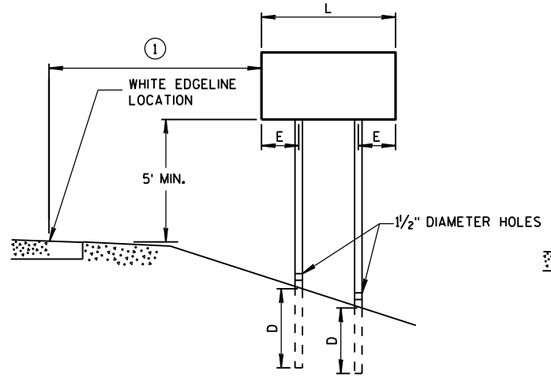
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

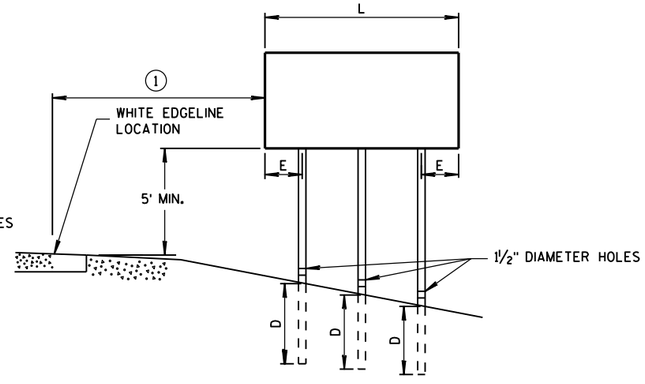
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

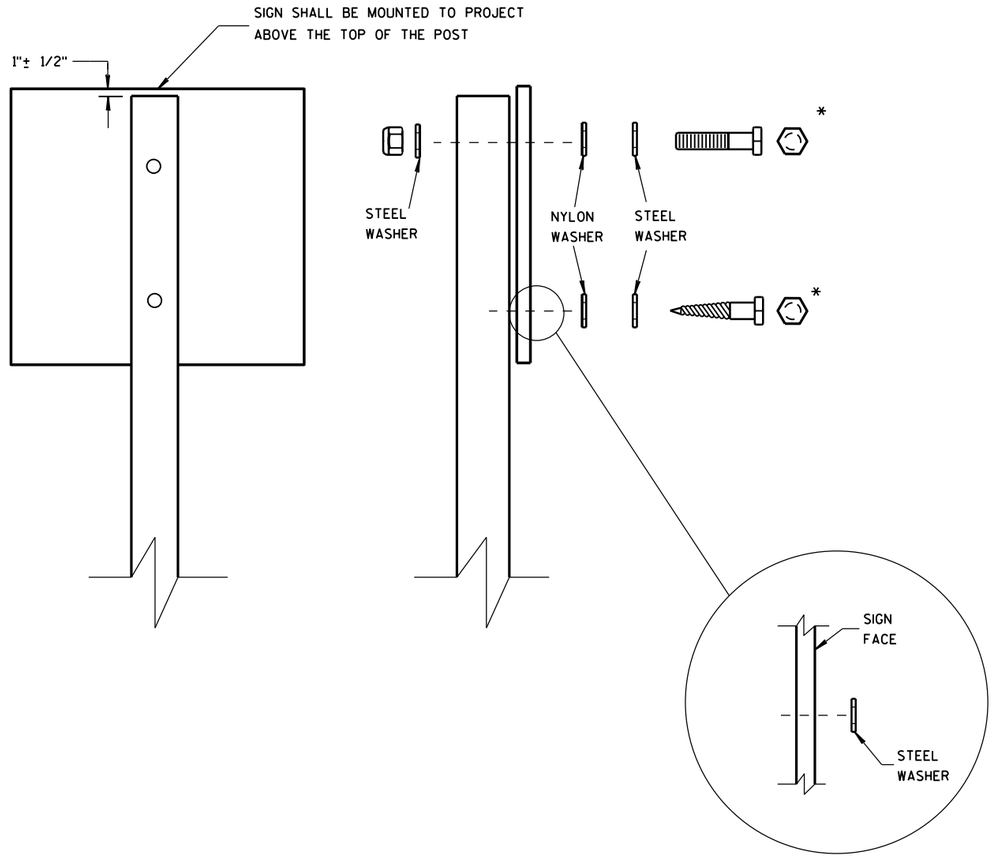
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR SHIFTING RIGHT LANE - REVERSE FOR SHIFTING LEFT LANE.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

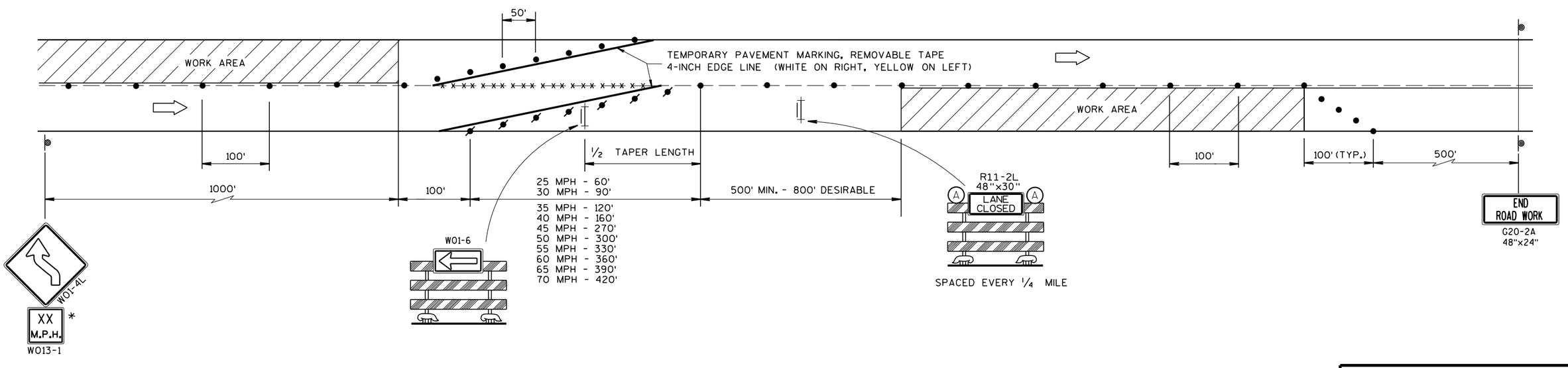
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.



* USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED

LANE SHIFT MULTI-LANE DIVIDED OR ONE WAY ROAD

TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE WAY ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew I
WORK ZONE E

FHWA

6

S.D.D. 15 D 40-1

6

S.D.D. 15 D 40-1

TOWNLINE RD

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOLUME (CY) (UNADJUSTED)			CUMULATIVE VOLUME (CY)			MASS ORDINATE
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	EXPANDED FILL 1.25	
11+06	0	68	29	0	0	0	0	0	0	0	0
11+25	19	69	29	0	49	21	0	49	21	0	28
11+29	4	80	29	0	12	5	0	61	26	0	35
11+34	5	77	29	0	15	5	0	76	31	0	44
11+50	16	68	29	1	42	17	0	118	48	0	69
11+64	14	70	29	0	35	15	0	153	63	1	89
11+75	11	71	29	0	29	12	0	182	75	1	106
11+88	13	88	29	0	37	14	0	220	89	1	129
12+00	12	85	29	0	39	13	0	259	102	1	155
12+12	12	100	29	0	43	13	0	302	116	1	184
12+23	10	101	29	0	39	11	0	340	127	1	212
12+25	2	84	29	0	8	2	0	348	130	1	217
12+46	21	85	29	0	66	23	0	414	153	1	260
12+50	4	73	29	0	11	4	0	425	157	1	267
12+75	25	72	29	1	67	27	0	492	184	2	307
13+00	25	74	29	0	67	27	0	560	211	3	346
13+15	15	72	29	1	40	16	0	600	227	3	370
13+25	10	72	29	0	27	11	0	627	238	3	386
13+41	16	152	29	0	64	17	0	691	255	3	433
13+50	9	167	29	0	56	10	0	747	265	3	479
13+53	3	168	29	0	16	3	0	763	268	3	492
13+75	22	93	29	0	109	24	0	872	293	3	576
13+87	12	100	29	0	45	14	0	917	306	3	608
13+91	3	109	29	0	13	4	0	929	310	3	617
13+99	9	114	29	0	36	10	0	966	319	3	643
14+00	1	96	29	0	2	1	0	968	320	3	645
14+08	8	100	29	0	27	8	0	995	328	3	664
14+25	18	98	29	0	64	19	0	1,059	347	3	709
14+31	6	114	29	0	24	7	0	1,083	354	3	726
14+41	10	112	29	0	43	11	0	1,126	365	3	758
14+43	2	99	29	0	7	2	0	1,133	367	3	763
14+50	7	85	29	0	23	7	0	1,156	374	3	779
14+75	25	126	29	0	98	27	0	1,254	401	3	849
15+00	25	75	29	0	93	27	0	1,347	428	3	915
15+01	1	86	29	0	2	1	0	1,349	429	3	916
15+04	4	101	29	0	13	4	0	1,362	433	3	926
15+25	21	101	29	0	77	22	0	1,439	456	3	980
15+31	6	100	29	0	24	7	0	1,463	463	3	997
15+50	19	84	29	0	63	20	0	1,526	483	3	1,040
15+75	25	83	29	0	77	27	0	1,603	510	3	1,090
16+00	25	80	29	1	76	27	1	1,679	537	4	1,138
16+25	25	76	29	3	73	27	2	1,752	564	6	1,181
16+28	3	76	29	3	8	3	0	1,759	567	7	1,185
16+34	6	87	29	0	18	6	0	1,777	573	7	1,196
16+46	12	131	29	0	49	13	0	1,826	587	7	1,232
16+50	4	121	29	0	20	5	0	1,846	591	7	1,247
16+75	25	95	29	0	100	27	0	1,946	619	7	1,320
16+94	19	70	29	9	57	20	3	2,004	639	11	1,353
17+00	6	70	29	5	16	7	2	2,020	646	13	1,361
17+25	25	72	29	2	66	27	3	2,086	673	18	1,395
17+50	25	73	29	1	67	27	1	2,153	700	19	1,433
17+52	2	89	29	2	6	2	0	2,159	702	19	1,437
17+62	10	101	29	0	36	11	0	2,194	713	20	1,461
17+64	2	101	29	0	7	2	0	2,201	715	20	1,466
17+75	11	86	29	0	38	12	0	2,239	727	20	1,492
17+81	6	87	29	0	20	7	0	2,259	734	20	1,506
17+91	10	88	29	0	32	11	0	2,291	745	20	1,527
18+00	9	88	29	0	29	10	0	2,320	754	20	1,546
18+03	3	88	29	0	10	3	0	2,330	758	20	1,553
18+09	6	76	29	0	17	6	0	2,347	764	20	1,563

9

9

TOWNLINE RD

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOLUME (CY) (UNADJUSTED)			CUMULATIVE VOLUME (CY)			MASS ORDINATE
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	EXPANDED FILL 1.25	
18+25	16	86	29	1	49	18	0	2,396	781	20	1,595
18+37	12	105	29	1	44	13	0	2,440	795	21	1,625
18+50	13	83	29	0	44	14	0	2,484	809	21	1,655
18+66	16	74	29	1	47	17	0	2,531	826	21	1,683
18+75	9	76	29	0	25	10	0	2,555	836	21	1,698
18+84	9	92	29	0	27	9	0	2,583	845	21	1,716
19+00	16	92	29	0	55	18	0	2,638	863	21	1,754
19+02	2	106	29	0	8	2	0	2,646	865	21	1,759
19+15	13	106	29	0	49	14	0	2,695	879	21	1,795
19+16	1	92	29	1	4	1	0	2,699	880	21	1,798
19+25	9	80	29	0	29	10	0	2,728	890	22	1,817
19+50	25	79	29	0	74	27	0	2,802	917	22	1,863
19+75	25	80	29	0	74	27	0	2,876	944	22	1,909
19+76	1	95	29	0	2	1	0	2,878	945	22	1,910
19+87	12	95	29	0	41	13	0	2,918	958	22	1,938
19+94	6	96	29	0	23	7	0	2,941	965	22	1,954
19+99	5	111	29	0	20	6	0	2,962	971	22	1,969
20+00	1	111	29	0	4	1	0	2,966	972	22	1,972
20+01	1	110	29	0	5	1	0	2,971	973	22	1,975
20+11	10	94	29	0	37	11	0	3,008	984	22	2,002
20+25	14	78	29	0	44	15	0	3,052	999	22	2,031
20+50	25	76	29	1	71	27	0	3,123	1,026	23	2,074
20+62	12	89	29	0	37	13	0	3,160	1,039	23	2,098
20+74	12	100	29	0	42	13	0	3,203	1,052	23	2,127
20+75	1	92	29	0	2	1	0	3,205	1,053	23	2,129
20+86	11	98	29	0	40	12	0	3,245	1,065	23	2,156
20+98	12	87	29	1	41	13	0	3,286	1,078	23	2,184
21+00	2	74	29	1	5	2	0	3,291	1,080	23	2,187
21+25	25	75	29	1	69	27	1	3,360	1,107	24	2,228
21+34	9	90	29	0	28	10	0	3,388	1,118	24	2,246
21+37	3	90	29	0	10	3	0	3,398	1,121	24	2,253
21+46	9	87	29	2	30	10	0	3,428	1,131	25	2,272
21+50	4	77	29	3	11	4	0	3,439	1,135	25	2,279
21+75	25	144	29	0	102	27	2	3,541	1,162	27	2,352
21+86	11	159	29	0	60	12	0	3,601	1,173	27	2,401
21+98	12	161	29	0	71	13	0	3,673	1,186	27	2,459
22+00	2	150	29	1	14	3	0	3,686	1,189	27	2,470
22+25	25	133	29	0	131	27	0	3,817	1,216	28	2,573
22+50	25	80	29	0	99	27	0	3,916	1,243	28	2,645
22+62	12	89	29	0	39	13	0	3,955	1,257	28	2,670
22+75	13	84	29	0	41	14	0	3,995	1,270	28	2,697
22+79	4	85	29	0	13	5	0	4,009	1,275	28	2,706
22+85	6	65	29	0	16	6	0	4,024	1,281	28	2,716
22+99	14	63	29	0	34	16	0	4,058	1,297	28	2,734
23+00	1	69	29	4	2	1	0	4,060	1,298	28	2,735
23+25	25	61	29	10	60	27	7	4,120	1,325	36	2,759
23+50	25	54	29	18	53	27	13	4,174	1,352	52	2,769
23+62	12	55	29	14	25	13	7	4,198	1,365	61	2,772
23+75	13	57	29	13	26	14	6	4,225	1,379	69	2,776
23+81	6	56	29	14	13	7	3	4,238	1,386	73	2,779
24+00	19	67	29	14	42	20	10	4,281	1,406	85	2,789
24+23	23	75	29	11	61	25	11	4,342	1,432	99	2,811
24+25	2	83	29	6	5	2	1	4,346	1,433	100	2,813
24+32	7	74	29	2	19	7	1	4,366	1,441	101	2,824
24+36	4	76	29	2	11	4	0	4,377	1,445	101	2,831
24+50	14	76	29	1	40	15	1	4,417	1,460	102	2,855
24+58	8	71	29	1	21	8	0	4,438	1,469	102	2,867
24+74	16	69	29	0	41	17	0	4,479	1,486	103	2,891
24+75	1	69	29	0	4	2	0	4,483	1,488	103	2,893
25+00	25	65	29	6	62	27	3	4,545	1,515	107	2,924

TOWNLINE RD

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOLUME (CY) (UNADJUSTED)			CUMULATIVE VOLUME (CY)			MASS ORDINATE
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	EXPANDED FILL 1.25	
25+04	4	64	29	6	9	4	1	4,555	1,519	108	2,928
25+11	7	63	29	3	17	8	1	4,571	1,527	109	2,935
25+25	14	73	29	2	35	15	2	4,606	1,542	112	2,953
25+34	9	77	29	0	26	10	0	4,632	1,552	112	2,968
25+49	14	74	29	5	40	16	1	4,673	1,568	114	2,991
25+50	1	68	29	0	3	1	0	4,676	1,569	114	2,993
25+73	23	107	29	0	74	25	0	4,750	1,594	114	3,042
25+75	2	108	29	0	9	2	0	4,758	1,596	114	3,048
26+00	25	112	29	2	102	27	1	4,860	1,623	115	3,122
26+25	25	67	29	2	83	27	2	4,943	1,651	117	3,175
26+30	5	85	29	0	15	6	0	4,958	1,656	118	3,184
26+32	2	91	29	2	7	2	0	4,965	1,659	118	3,189
26+50	18	98	29	2	62	19	1	5,027	1,678	119	3,229
26+51	1	110	29	0	4	1	0	5,031	1,679	119	3,232
26+60	9	115	29	0	38	10	0	5,069	1,689	119	3,260
26+69	8	98	29	0	33	9	0	5,101	1,698	119	3,284
26+75	7	88	29	0	22	7	0	5,124	1,705	120	3,299
27+00	25	99	29	0	86	27	0	5,210	1,732	120	3,358
27+25	25	102	29	0	93	27	0	5,303	1,759	120	3,424
27+50	25	98	29	0	93	27	0	5,396	1,786	120	3,489
27+51	1	117	29	0	2	1	0	5,398	1,787	120	3,491
27+75	24	108	29	0	102	27	0	5,500	1,814	120	3,566
27+80	5	104	29	0	21	6	0	5,520	1,819	120	3,581
28+00	20	89	29	0	71	21	0	5,591	1,841	120	3,630
28+05	5	113	29	0	20	6	0	5,611	1,847	120	3,644
28+20	15	114	29	0	63	16	0	5,674	1,863	120	3,691
28+25	5	91	29	1	18	5	0	5,692	1,868	121	3,704
28+50	25	92	29	1	84	27	1	5,776	1,895	121	3,760
28+54	4	131	29	1	18	5	0	5,794	1,900	121	3,773
28+65	11	146	29	0	55	12	0	5,849	1,911	122	3,816
28+66	1	149	29	0	7	1	0	5,857	1,913	122	3,822
28+75	9	110	29	0	41	9	0	5,898	1,922	122	3,854
29+00	25	108	29	0	101	27	0	5,999	1,949	122	3,928
29+08	8	104	29	0	30	8	0	6,029	1,958	122	3,950
29+08	1	119	29	2	4	1	0	6,033	1,959	122	3,952
29+20	12	119	29	1	53	13	1	6,085	1,972	122	3,991
29+25	5	94	29	1	18	5	0	6,103	1,977	122	4,004
29+50	25	96	29	1	88	27	1	6,191	2,004	123	4,064
29+75	25	97	29	1	90	27	1	6,281	2,031	124	4,126
30+00	25	101	29	1	92	27	1	6,373	2,058	125	4,190
30+09	9	126	29	1	36	9	0	6,408	2,067	125	4,216
30+21	12	126	29	0	56	13	0	6,464	2,080	125	4,259
30+25	4	100	29	0	19	5	0	6,483	2,085	125	4,273
30+50	25	102	29	0	94	27	0	6,577	2,112	126	4,339
30+75	25	100	29	0	94	27	0	6,671	2,139	126	4,405
31+00	25	97	29	0	91	27	0	6,762	2,167	127	4,469
31+25	25	95	29	0	89	27	0	6,851	2,194	127	4,530
31+26	1	95	29	0	2	1	0	6,853	2,194	127	4,531
31+44	19	148	29	0	84	20	0	6,937	2,215	127	4,595
31+50	6	151	29	0	32	6	0	6,969	2,221	127	4,621
31+75	25	122	29	0	127	27	0	7,096	2,248	127	4,721
31+80	5	102	29	0	21	6	0	7,117	2,254	127	4,736
31+93	12	103	22	0	47	12	0	7,164	2,265	127	4,772
32+00	7	106	22	0	29	6	0	7,193	2,272	127	4,795
32+25	25	110	22	0	100	20	0	7,293	2,292	127	4,874
32+36	11	141	22	0	49	9	0	7,342	2,301	127	4,914
32+48	12	135	22	0	61	10	0	7,403	2,310	127	4,966
32+50	3	101	22	0	11	2	0	7,414	2,312	127	4,975
32+75	25	94	22	0	90	20	0	7,505	2,333	127	5,045
32+94	19	108	22	0	72	16	0	7,577	2,348	127	5,101

TOWNLINE RD

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOLUME (CY) (UNADJUSTED)			CUMULATIVE VOLUME (CY)			MASS ORDINATE
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	EXPANDED FILL 1.25	
33+00	6	105	22	0	22	5	0	7,599	2,353	127	5,119
33+09	9	100	22	1	35	7	0	7,634	2,361	127	5,146
33+20	11	83	22	1	37	9	0	7,671	2,369	128	5,174
33+25	5	74	22	0	17	4	0	7,688	2,373	128	5,186
33+50	25	121	22	0	90	20	0	7,778	2,394	128	5,256
33+58	8	135	22	0	39	7	0	7,818	2,401	128	5,289
33+73	15	124	22	0	72	12	0	7,889	2,413	128	5,349
33+75	2	96	22	1	7	1	0	7,897	2,414	128	5,354
33+92	17	94	22	4	59	14	2	7,956	2,428	130	5,398
34+00	8	101	22	1	30	7	1	7,986	2,435	131	5,420
34+25	25	93	22	6	90	20	3	8,075	2,455	135	5,485
34+50	25	86	22	0	83	20	3	8,158	2,475	139	5,544
34+75	25	110	22	0	91	20	0	8,249	2,496	139	5,614
35+00	25	93	22	7	94	20	3	8,343	2,516	143	5,685
35+11	11	119	22	8	45	9	3	8,388	2,525	147	5,716
35+25	14	113	22	15	58	11	6	8,447	2,536	154	5,756
35+34	9	115	22	7	36	7	3	8,483	2,543	158	5,781
35+50	16	91	22	7	62	13	4	8,545	2,557	164	5,825
35+75	25	81	22	10	79	20	8	8,625	2,577	174	5,874
36+00	25	82	22	1	76	20	5	8,700	2,598	180	5,922
36+02	2	100	22	0	8	2	0	8,708	2,599	180	5,928
36+19	17	92	22	0	61	14	0	8,769	2,613	181	5,975
36+25	6	74	22	1	17	5	0	8,786	2,618	181	5,987
36+50	25	60	22	3	62	20	2	8,848	2,638	183	6,027
36+55	5	77	22	1	12	4	0	8,860	2,642	183	6,035
36+67	12	76	22	1	34	10	0	8,894	2,652	184	6,058
36+75	8	60	22	2	20	7	0	8,915	2,659	184	6,071
37+00	25	56	22	7	54	20	4	8,968	2,679	190	6,099
37+25	25	55	22	7	51	20	6	9,020	2,699	198	6,122
37+50	25	53	22	4	50	20	5	9,070	2,720	204	6,146
37+68	18	55	22	2	36	15	2	9,105	2,734	206	6,165
37+75	7	57	22	1	15	6	0	9,120	2,740	207	6,173
37+86	11	54	22	2	22	9	1	9,142	2,749	208	6,186
38+00	14	49	22	5	28	12	2	9,170	2,760	210	6,199
38+06	6	51	22	5	11	5	1	9,181	2,766	211	6,204
38+25	19	82	22	4	46	15	3	9,227	2,781	215	6,232
38+41	16	87	22	6	50	13	3	9,278	2,794	219	6,265
38+43	2	86	22	6	7	2	0	9,285	2,796	219	6,270
38+50	7	82	22	0	21	6	1	9,306	2,801	220	6,285
38+69	19	72	22	13	55	16	5	9,361	2,817	226	6,318
38+75	6	67	22	12	15	5	3	9,376	2,822	229	6,325
38+93	18	47	22	9	38	15	7	9,414	2,836	238	6,340
39+00	7	49	22	35	13	6	6	9,426	2,842	245	6,339
39+25	25	46	22	46	44	20	37	9,471	2,862	292	6,316
39+50	25	50	22	66	44	20	51	9,514	2,882	355	6,277
39+50	0	50	22	66	1	0	1	9,515	2,883	357	6,276
39+75	25	42	22	76	43	20	65	9,558	2,903	438	6,216
40+00	25	44	22	72	40	20	68	9,597	2,923	524	6,150
40+07	7	45	22	66	12	6	18	9,609	2,929	547	6,133
40+25	18	65	22	40	36	15	35	9,646	2,944	590	6,112
40+48	23	43	22	62	46	19	44	9,692	2,963	645	6,084
40+50	2	42	22	61	3	1	4	9,695	2,964	650	6,080
40+58	8	42	22	63	13	7	19	9,708	2,971	674	6,063
40+75	17	41	22	64	26	14	40	9,734	2,985	723	6,026
41+00	25	39	22	61	37	20	58	9,771	3,005	796	5,970
41+25	25	40	22	77	37	20	64	9,808	3,025	875	5,907
41+31	6	40	22	80	9	5	17	9,816	3,030	896	5,890
41+50	19	54	22	58	34	16	49	9,850	3,046	958	5,847
41+73	23	38	22	77	39	19	57	9,889	3,064	1,029	5,796
41+75	2	38	22	76	3	2	6	9,892	3,066	1,037	5,789

TOWNLINE RD

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOLUME (CY) (UNADJUSTED)			CUMULATIVE VOLUME (CY)			MASS ORDINATE
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	EXPANDED FILL 1.25	
41+87	12	52	22	38	19	9	24	9,911	3,075	1,067	5,769
42+00	13	51	22	48	26	11	21	9,937	3,086	1,094	5,757
42+25	25	45	22	46	45	20	44	9,982	3,107	1,148	5,726
42+26	1	45	22	46	2	1	2	9,984	3,108	1,151	5,725
42+36	9	40	22	67	15	8	20	9,998	3,116	1,176	5,707
42+50	14	44	22	56	22	12	32	10,021	3,127	1,216	5,677
42+75	25	52	22	40	45	20	44	10,065	3,148	1,272	5,646
43+00	25	57	22	23	51	20	29	10,116	3,168	1,308	5,640
43+04	4	67	22	3	10	4	2	10,126	3,171	1,311	5,644
43+25	21	73	22	3	54	17	2	10,180	3,188	1,314	5,678
43+35	10	72	22	3	28	8	1	10,208	3,197	1,315	5,696
43+48	12	81	22	1	34	10	1	10,242	3,207	1,316	5,719
43+50	2	81	22	0	7	2	0	10,249	3,209	1,316	5,724
43+58	8	78	22	0	22	6	0	10,272	3,215	1,316	5,740
43+75	17	75	22	3	49	14	1	10,321	3,229	1,318	5,774
44+00	25	73	22	1	69	20	2	10,389	3,249	1,320	5,820
44+13	13	53	22	5	31	11	1	10,420	3,260	1,321	5,839
44+25	12	59	22	1	25	10	1	10,445	3,270	1,323	5,852
44+29	4	60	22	0	9	4	0	10,454	3,273	1,323	5,858
44+40	11	59	22	1	23	9	0	10,478	3,282	1,324	5,872
44+50	10	58	22	0	22	8	0	10,500	3,290	1,324	5,886
44+52	2	56	22	0	4	2	0	10,503	3,292	1,324	5,888
44+75	23	75	22	1	56	19	1	10,560	3,310	1,325	5,925
44+91	16	59	22	1	41	13	1	10,600	3,324	1,325	5,951
45+00	9	58	22	1	19	7	0	10,619	3,331	1,326	5,962
45+25	25	78	22	5	63	20	3	10,682	3,351	1,329	6,002
45+50	25	78	22	1	72	20	3	10,754	3,372	1,333	6,050
45+75	25	75	22	5	71	20	3	10,825	3,392	1,336	6,097
46+00	25	68	22	7	66	20	6	10,891	3,412	1,343	6,135
46+17	17	58	22	8	39	13	5	10,930	3,426	1,349	6,155
46+25	8	58	22	9	18	7	3	10,948	3,433	1,353	6,163
46+26	1	59	22	9	3	1	0	10,951	3,434	1,353	6,164
46+50	24	62	22	5	53	19	6	11,004	3,453	1,361	6,190
46+75	25	65	22	1	59	20	3	11,063	3,473	1,365	6,225
47+00	25	79	22	0	67	20	1	11,129	3,494	1,365	6,270
47+00	0	69	22	0	1	0	0	11,130	3,494	1,365	6,271
47+15	15	69	22	0	39	12	0	11,169	3,506	1,365	6,297
47+25	10	67	22	5	24	8	1	11,193	3,514	1,367	6,312
47+50	25	94	22	0	74	20	2	11,267	3,535	1,370	6,363
47+52	2	72	22	0	7	2	0	11,275	3,537	1,370	6,368
47+75	23	69	22	0	59	18	0	11,334	3,555	1,370	6,409
47+76	1	69	22	0	3	1	0	11,337	3,556	1,370	6,411
48+00	24	51	22	8	53	19	4	11,390	3,575	1,374	6,440
48+25	25	49	22	3	46	20	5	11,436	3,596	1,380	6,460
48+25	0	42	22	2	0	0	0	11,436	3,596	1,380	6,460
48+50	25	90	22	0	60	20	1	11,497	3,616	1,381	6,499
48+52	2	83	22	0	6	1	0	11,502	3,617	1,381	6,503
48+75	23	49	22	0	56	19	0	11,559	3,636	1,381	6,541
48+76	1	44	22	1	2	1	0	11,561	3,637	1,381	6,542
48+89	12	42	22	3	20	10	1	11,581	3,648	1,383	6,551
49+00	11	47	22	5	19	9	2	11,599	3,657	1,385	6,558
49+25	25	51	22	0	46	20	2	11,645	3,677	1,388	6,580
49+50	25	57	22	0	50	20	0	11,695	3,698	1,388	6,610
49+75	25	63	22	1	56	20	0	11,751	3,718	1,388	6,645
50+00	25	73	22	0	63	20	0	11,814	3,738	1,389	6,687
50+25	25	76	22	0	69	20	0	11,882	3,759	1,389	6,735
50+50	25	65	22	0	65	20	0	11,947	3,779	1,389	6,780
50+57	7	65	22	0	16	5	0	11,963	3,784	1,389	6,790
					11,963	3,784	1,111				

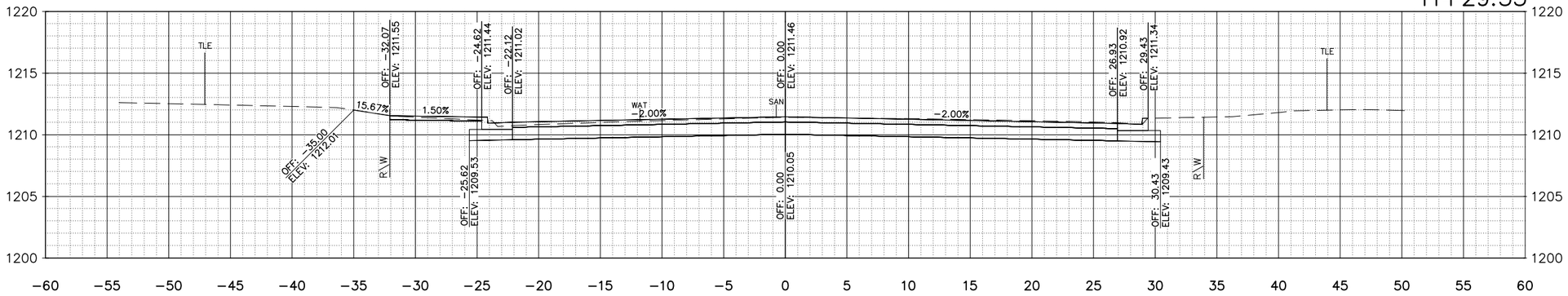
CURLING WAY

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOLUME (CY) (UNADJUSTED)			CUMULATIVE VOLUME (CY)			MASS ORDINATE
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	EXPANDED FILL 1.25	
100+38	0	142	0	0	0	0	0	0	0	0	0
100+50	13	135	0	2	64	0	1	64	0	1	63
100+54	4	133	0	1	17	0	0	81	0	1	80
100+58	5	132	0	0	23	0	0	104	0	1	103
100+75	17	118	0	0	78	0	0	182	0	1	181
100+88	13	118	0	0	55	0	0	237	0	1	236
100+98	11	122	0	0	47	0	0	284	0	1	283
101+00	2	123	0	0	9	0	0	293	0	1	292
101+25	25	140	0	0	122	0	0	415	0	1	414
101+50	25	107	0	0	114	0	0	529	0	1	528
101+63	13	78	0	0	45	0	0	574	0	1	573
101+75	12	76	0	0	34	0	0	608	0	1	607
101+78	3	90	0	0	8	0	0	616	0	1	615
102+00	22	87	0	0	73	0	0	689	0	1	688
102+05	5	87	0	0	16	0	0	706	0	1	705
102+25	20	77	0	0	60	0	0	765	0	1	764
102+32	7	99	0	0	24	0	0	790	0	1	789
102+50	18	103	0	0	66	0	0	856	0	1	855
102+67	17	106	0	0	64	0	0	920	0	1	919
102+75	8	88	0	0	30	0	0	950	0	1	949
103+00	25	86	0	0	81	0	0	1,031	0	1	1,030
103+25	25	84	0	0	79	0	0	1,110	0	1	1,108
103+50	25	28	0	5	52	0	2	1,161	0	4	1,158
103+75	25	2	0	121	14	0	58	1,176	0	77	1,099
103+96	21	0	0	359	1	0	187	1,177	0	311	866
104+00	4	0	0	386	0	0	54	1,177	0	378	798
104+25	25	0	0	467	0	0	395	1,177	0	872	305
104+50	25	0	0	379	0	0	392	1,177	0	1,362	-185
104+75	25	11	0	277	5	0	304	1,182	0	1,741	-559
104+96	21	17	0	220	11	0	194	1,193	0	1,984	-791
105+00	4	16	0	212	2	0	31	1,195	0	2,023	-828
105+25	25	36	6	129	24	3	158	1,219	3	2,220	-1,004
105+50	25	46	13	16	38	9	67	1,257	11	2,304	-1,058
105+75	25	48	13	19	44	12	16	1,301	23	2,324	-1,046
105+96	21	44	13	20	36	10	15	1,337	33	2,343	-1,039
106+00	4	43	13	23	6	2	3	1,343	34	2,347	-1,038
106+25	25	37	13	2	37	12	12	1,380	46	2,361	-1,027
106+29	4	36	13	2	5	2	0	1,385	48	2,362	-1,024
					1,385	48	1,889				

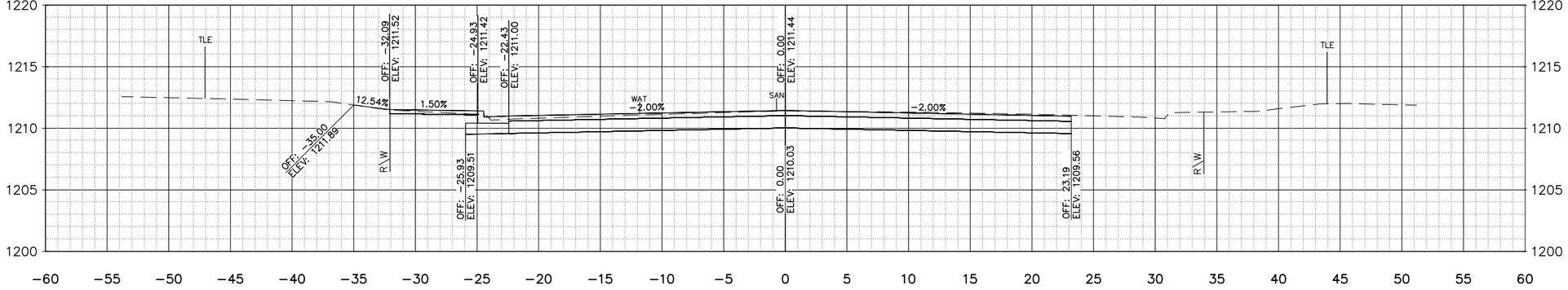
NOTES FOR ALL EARTHWORK TABLES

1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS THE EXISTING CONCRETE AND ASPHALT PAVEMENT VOLUME, NOT AVAILABLE FOR FILL
3) EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR
4) MASS ORDINATE = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL - EXPANDED FILL
5) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

11+29.35



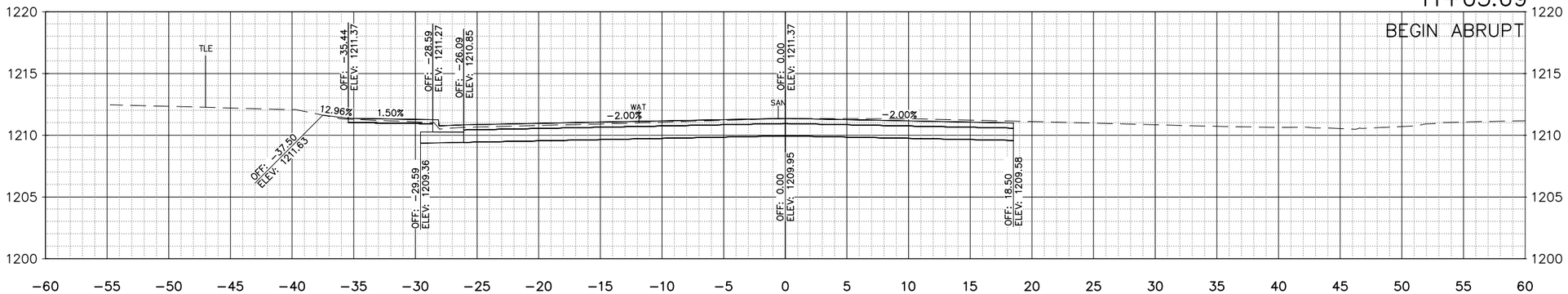
11+25.00



MATCH CURB
FLANGE RT

11+05.69

BEGIN ABRUPT



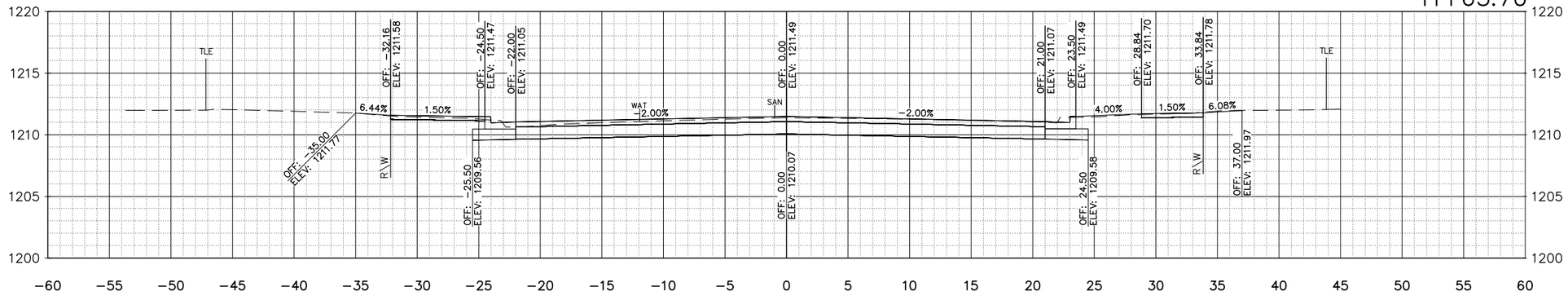
MATCH CURB
FLANGE RT

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 225

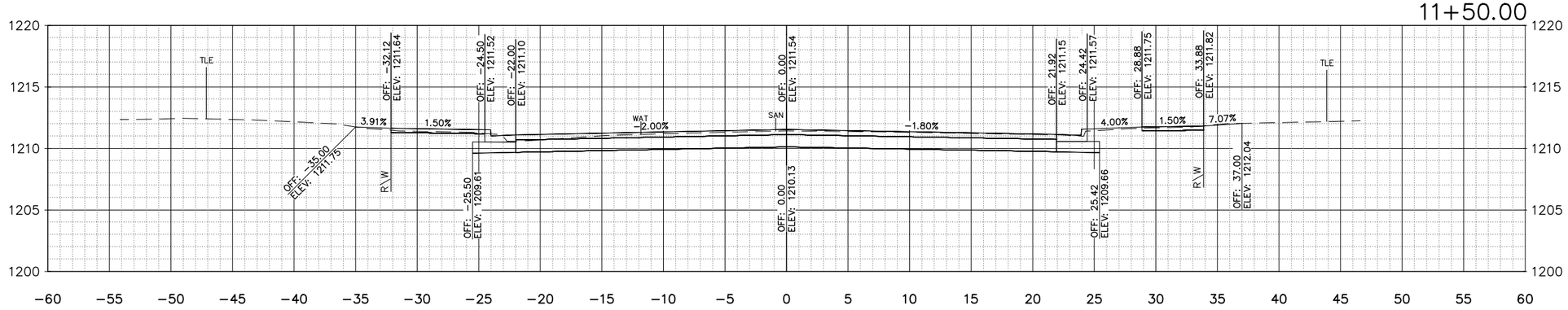
9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 9:53:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

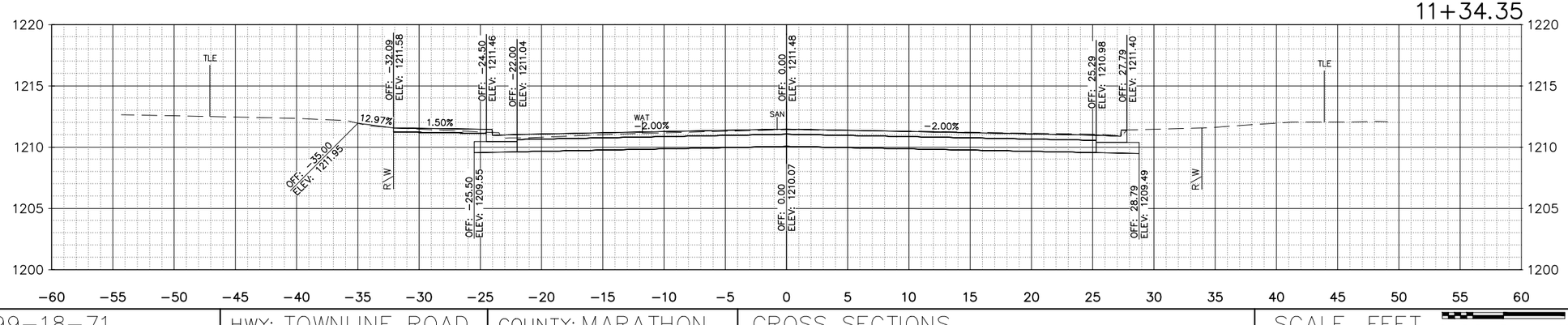
11+63.70



11+50.00



11+34.35



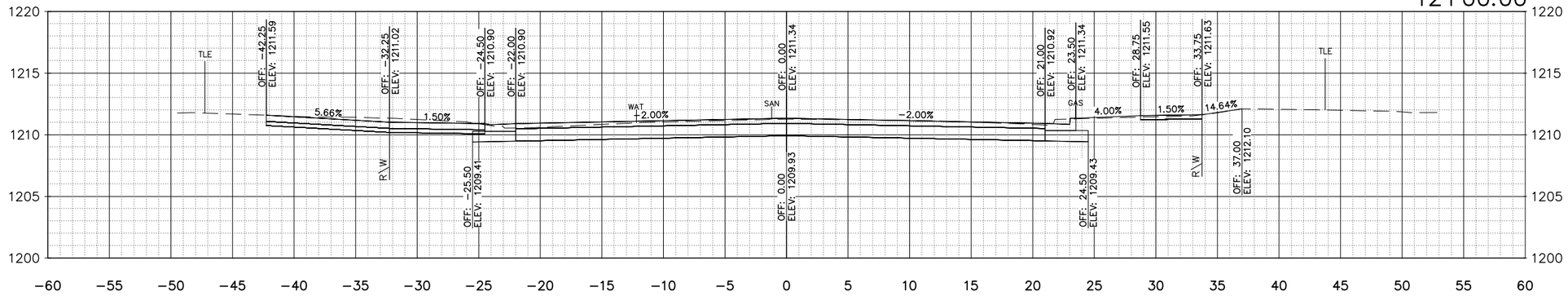
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 226

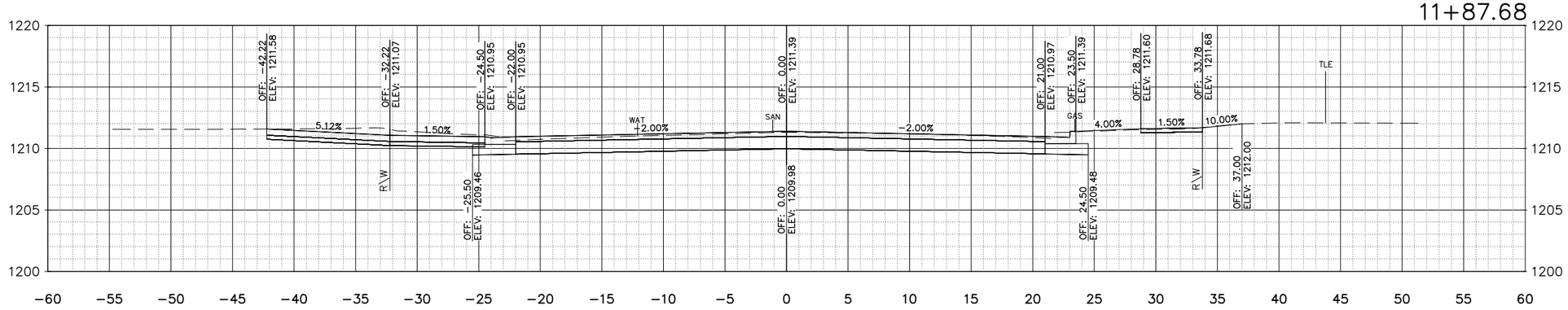
12+00.00

DRIVEWAY

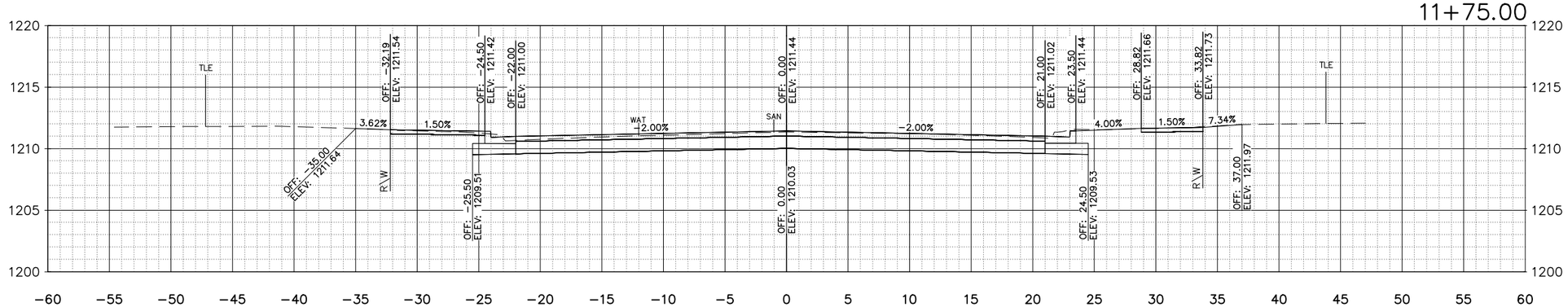


11+87.68

DRIVEWAY



11+75.00



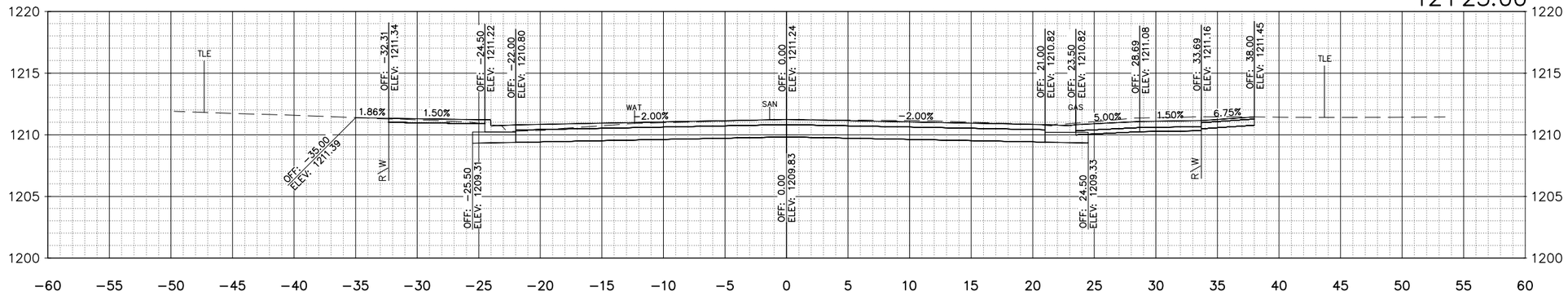
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 227

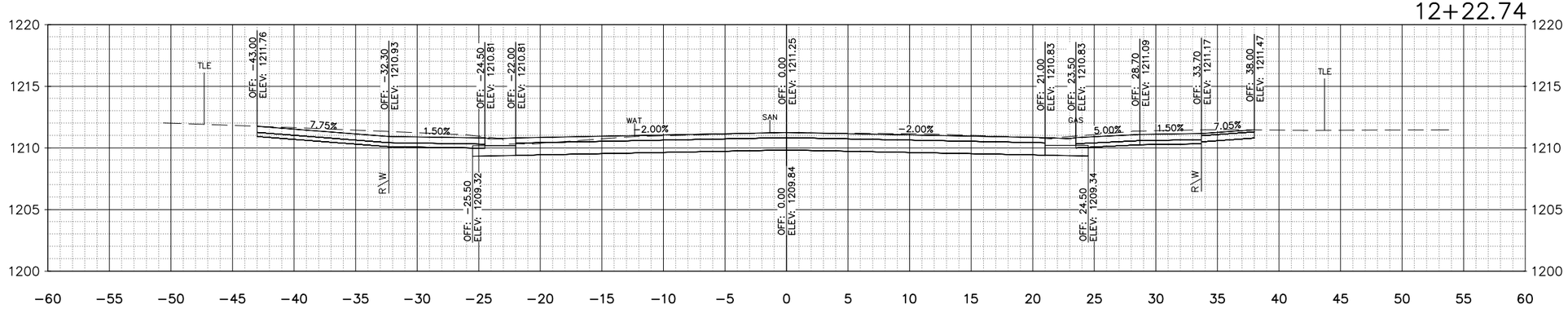
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 9:55:24 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

12+25.00



DRIVEWAY

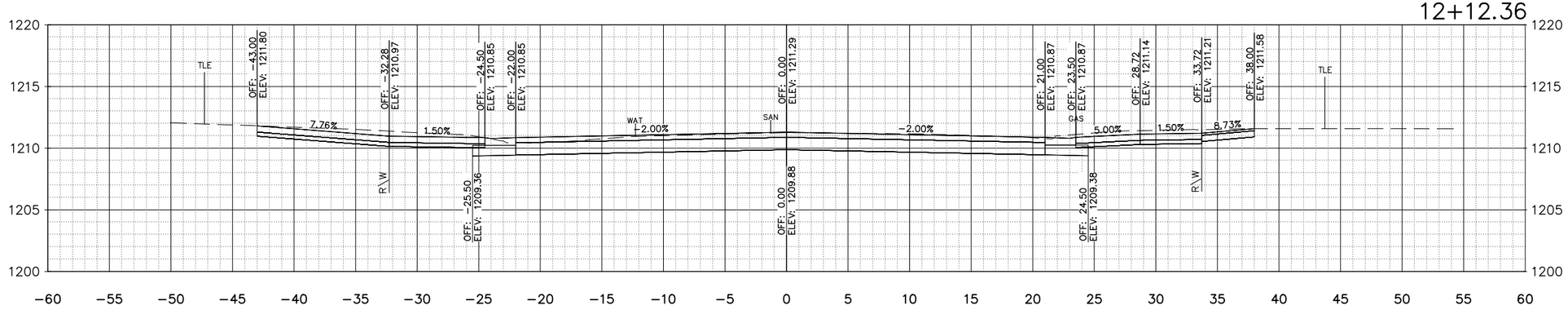
12+22.74



DRIVEWAY

DRIVEWAY

12+12.36



DRIVEWAY

DRIVEWAY

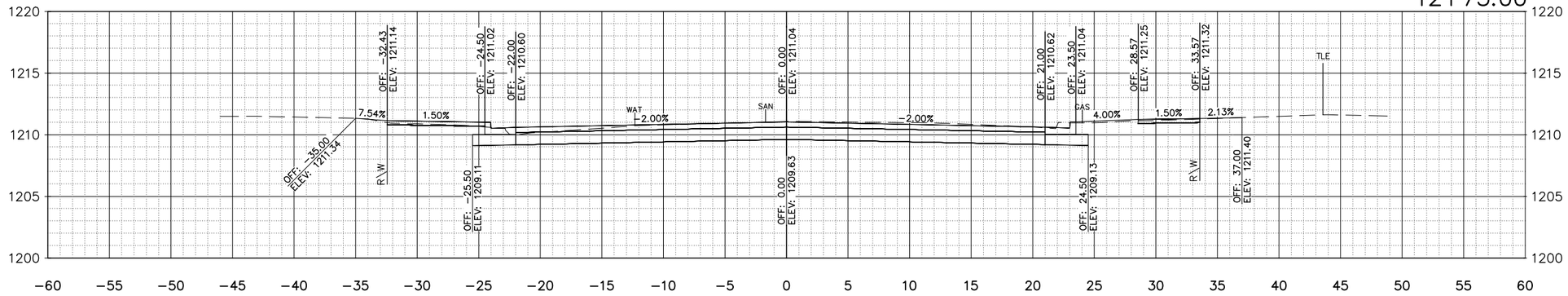
9

9

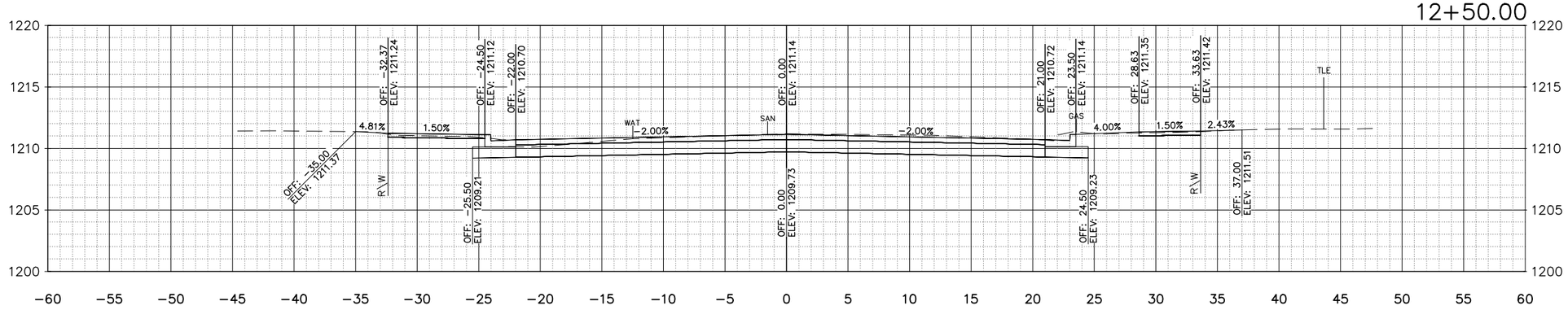
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 228

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 9:56:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

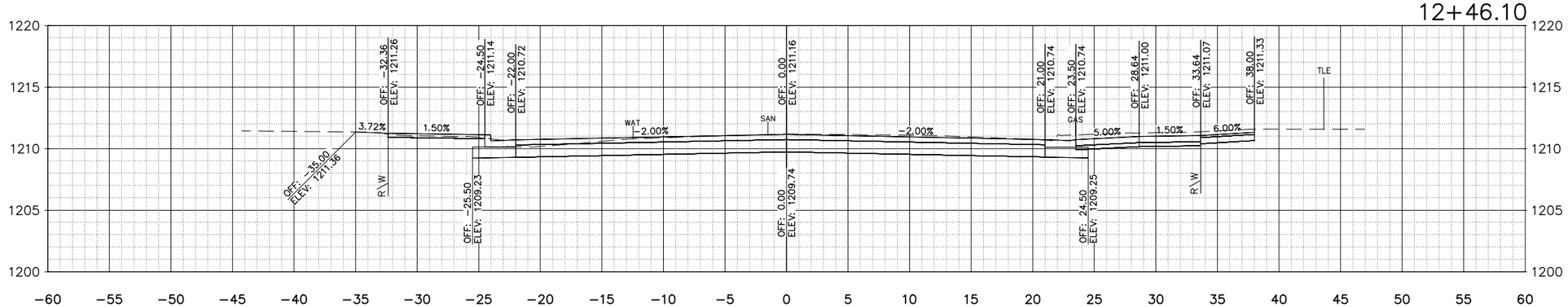
12+75.00



12+50.00



12+46.10



DRIVEWAY

9

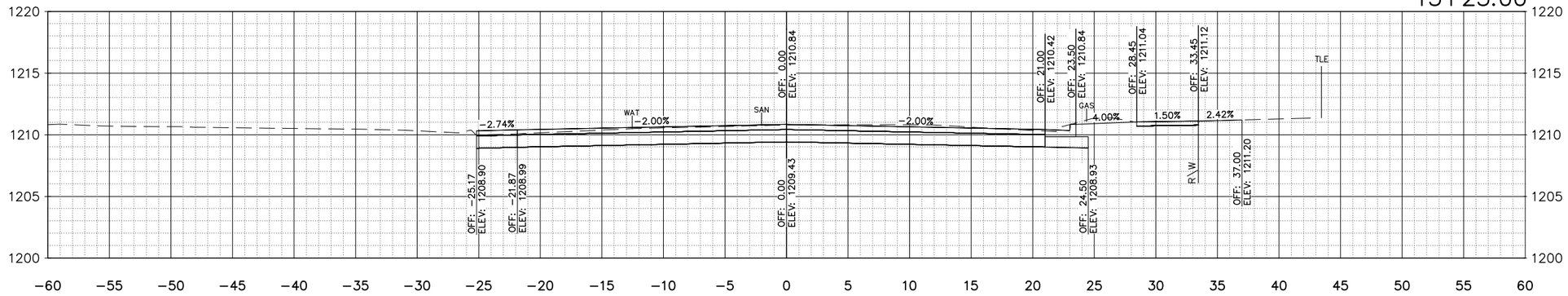
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 229

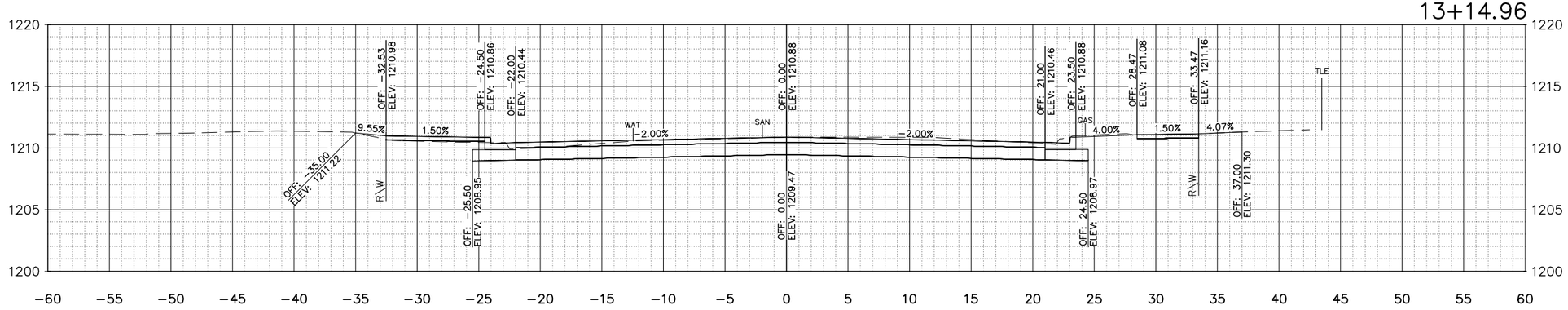
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 9:56:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

PROSPECT AVENUE

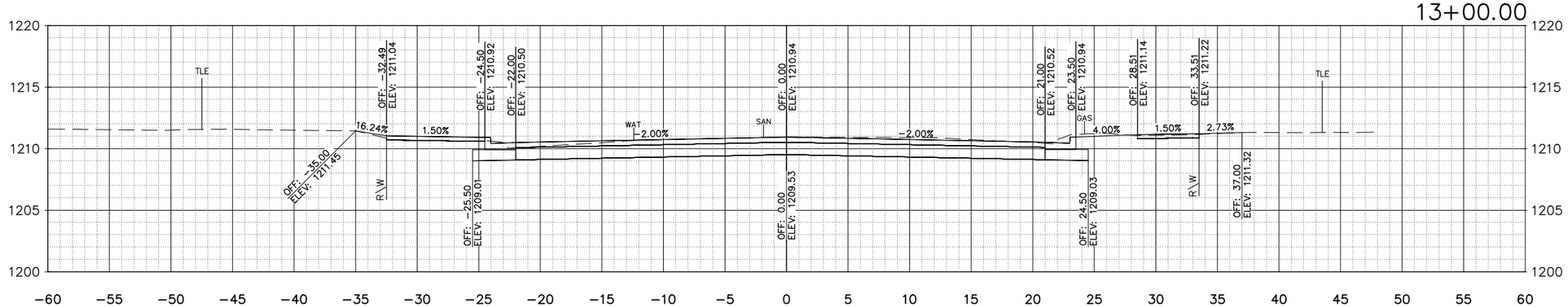
13+25.00



13+14.96



13+00.00

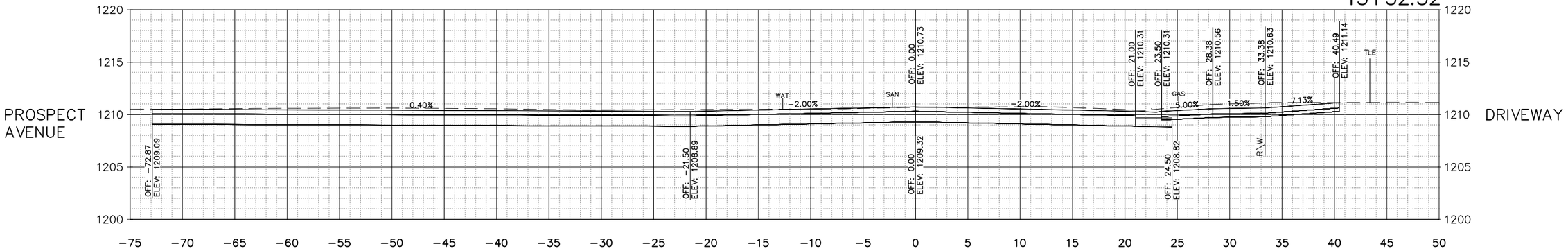


PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 230

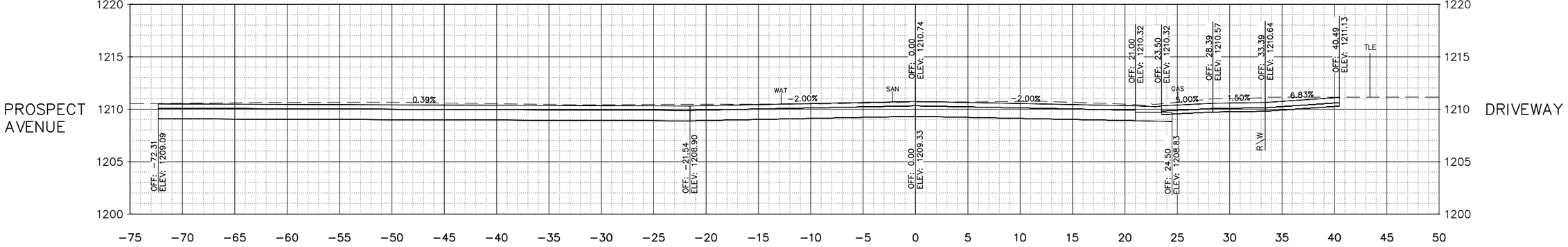
9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 9:57:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

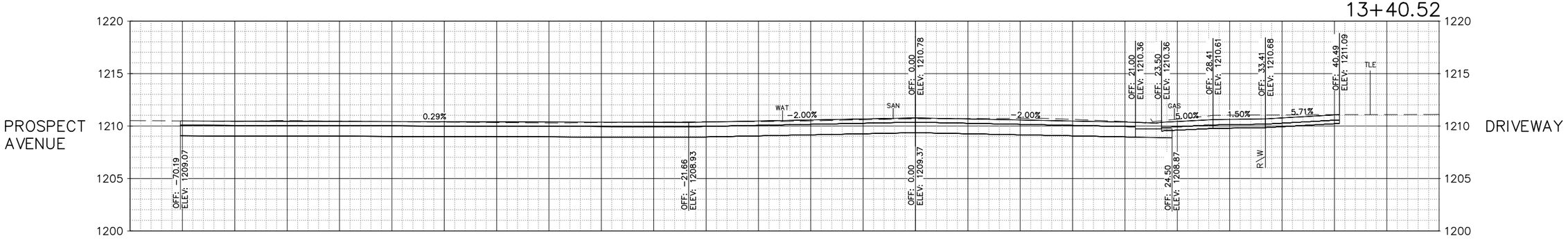
13+52.52



13+50.00



13+40.52



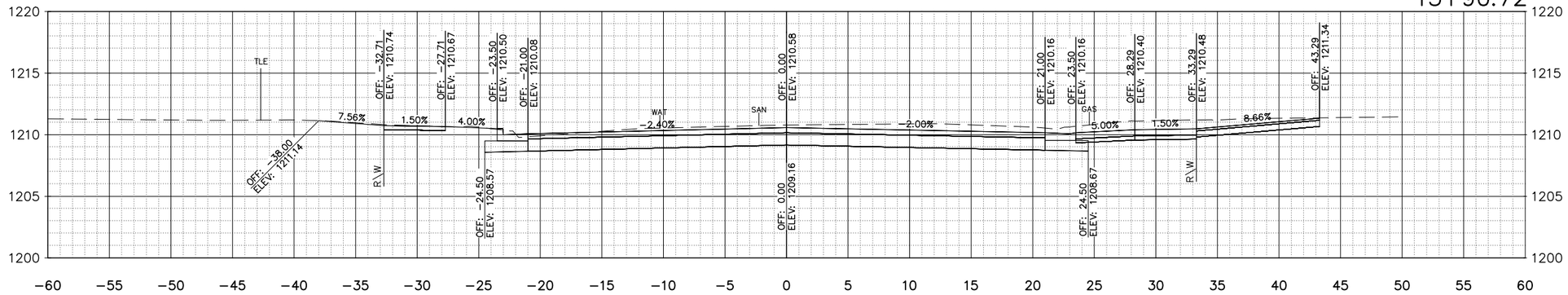
9

9

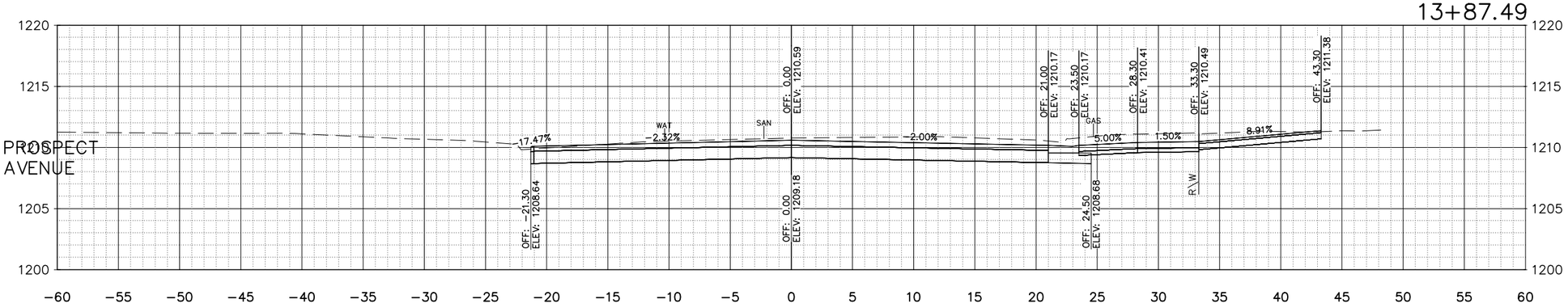
PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 231

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 9:58:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

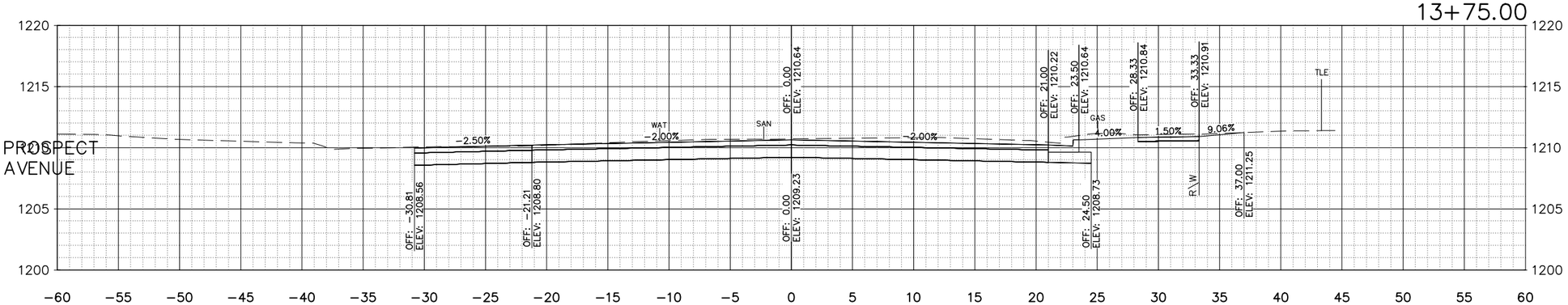
13+90.72



13+87.49



13+75.00



DR

DR

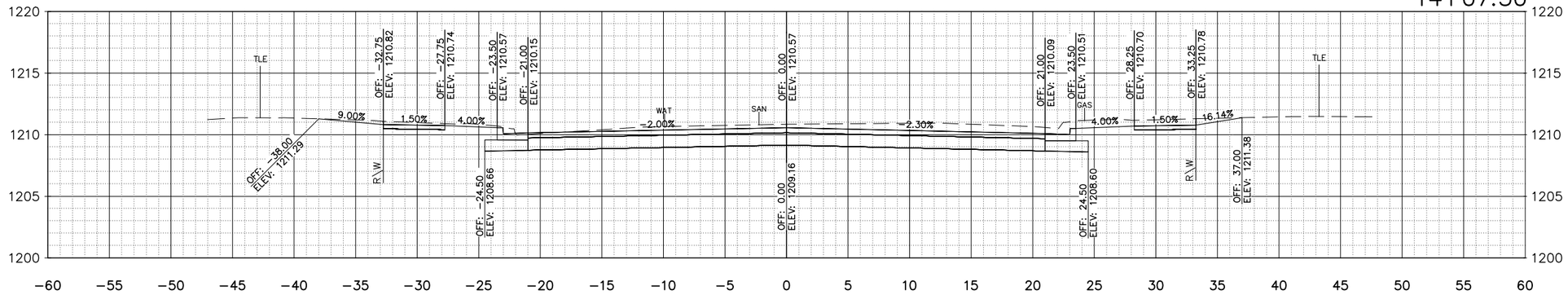
9

9

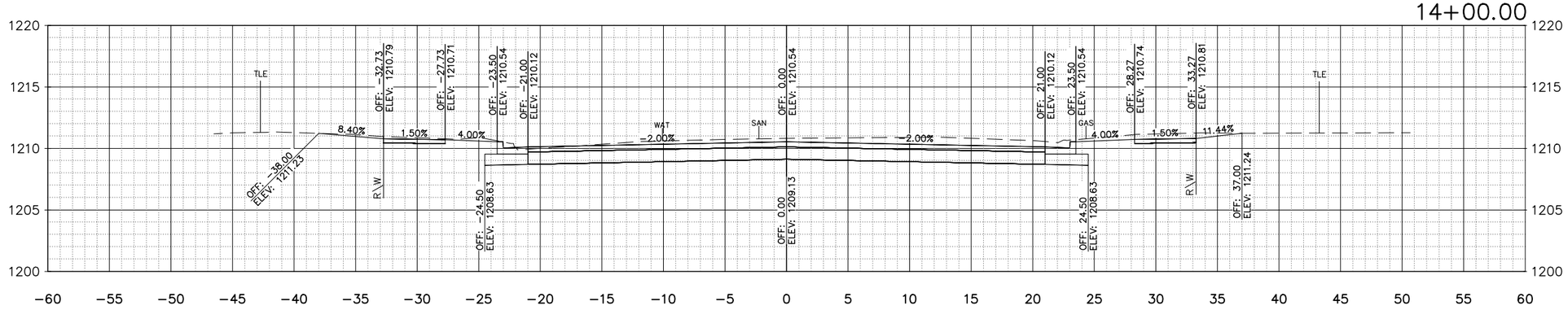
PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 232

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 9:59:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

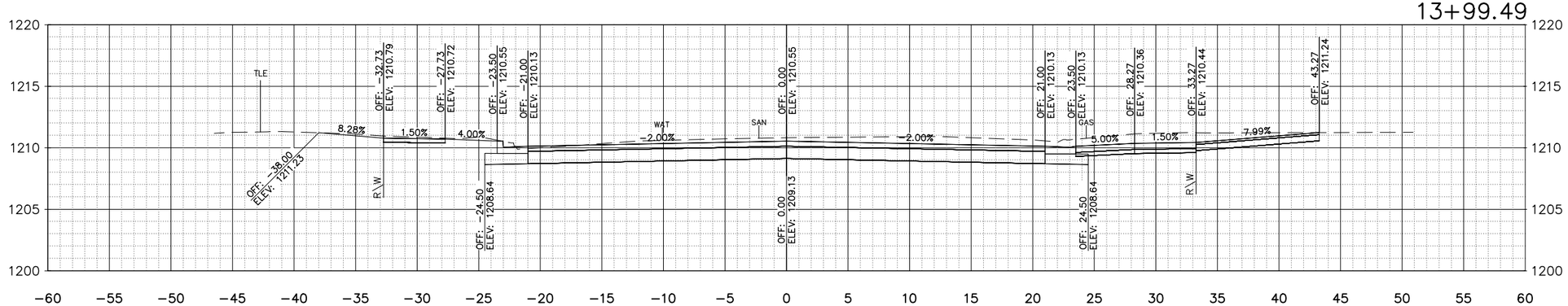
14+07.50



14+00.00



13+99.49



DRIVEWAY

9

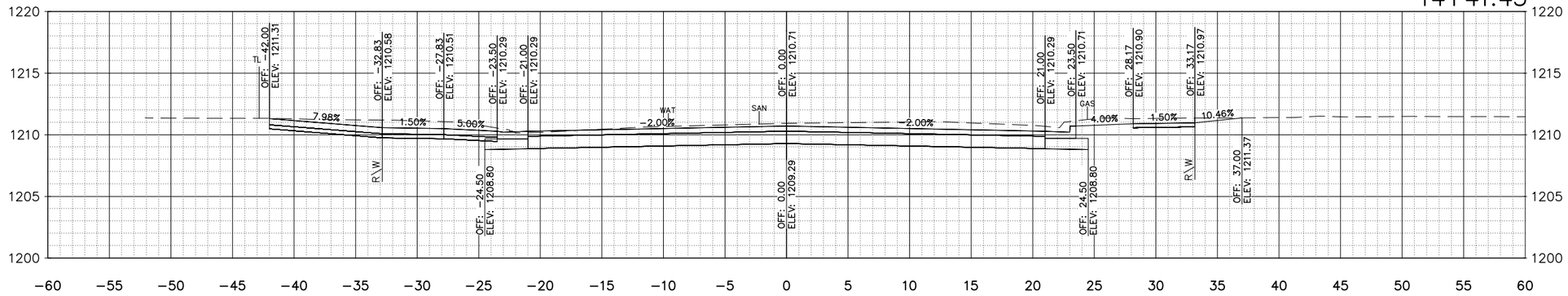
9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 233

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 9:59:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

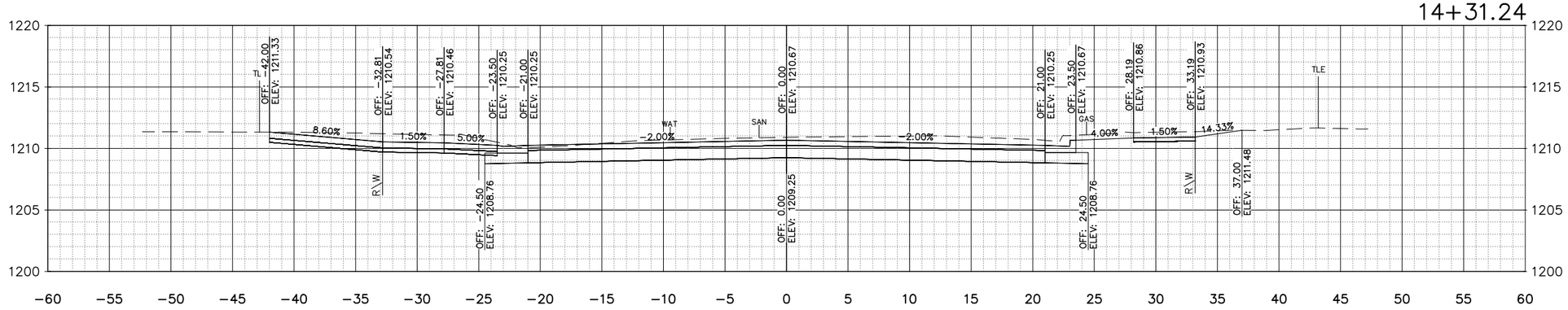
14+41.45

DRIVEWAY

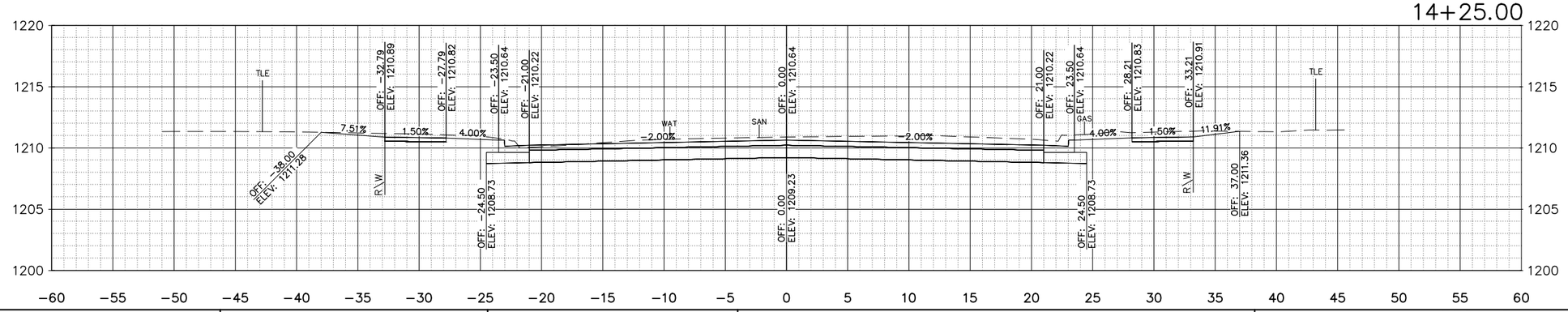


14+31.24

DRIVEWAY



14+25.00

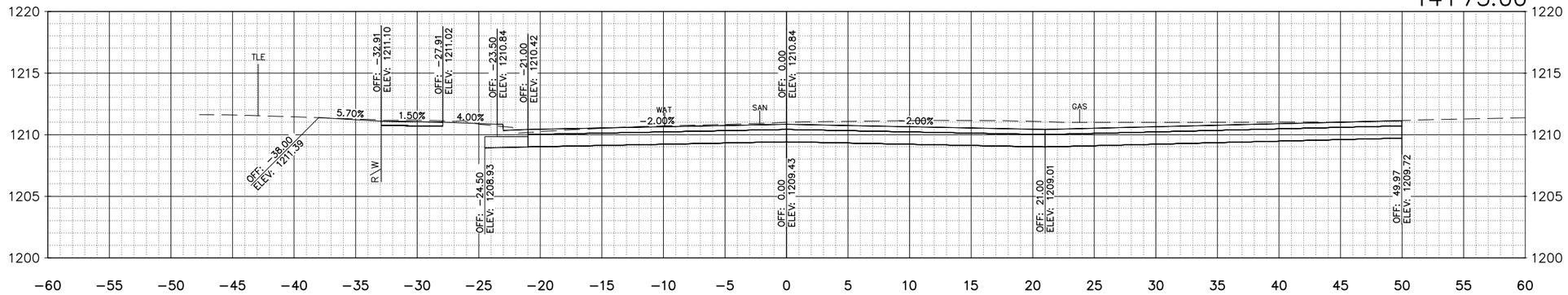


PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 234

9

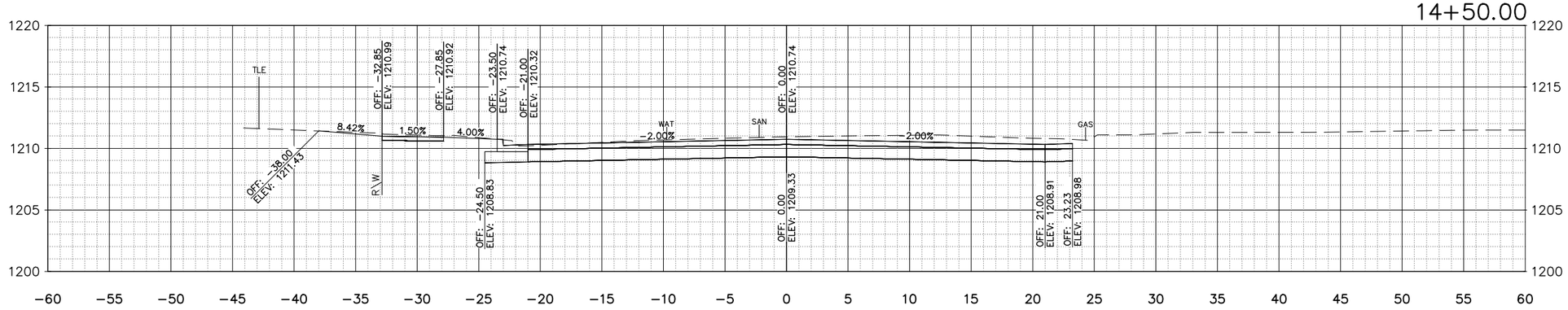
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:00:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

14+75.00



PROSPECT AVENUE

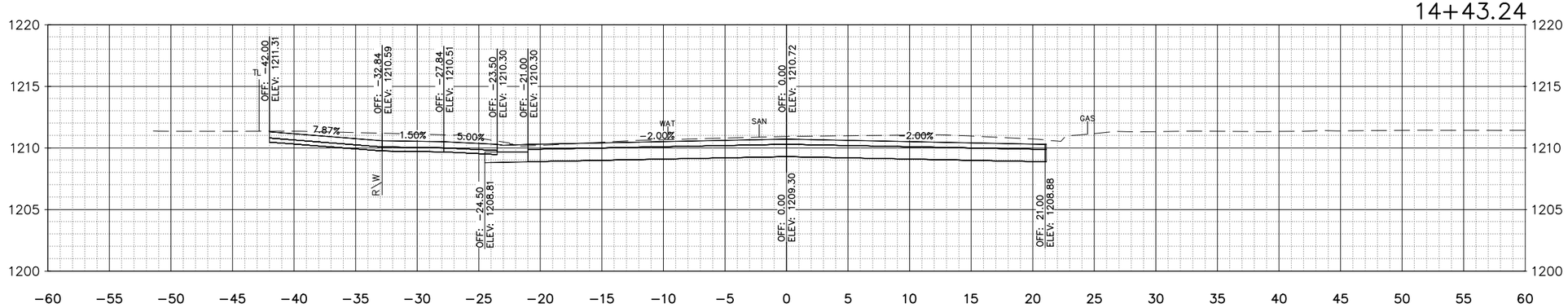
14+50.00



PROSPECT AVENUE

14+43.24

DRIVEWAY



PROSPECT AVENUE

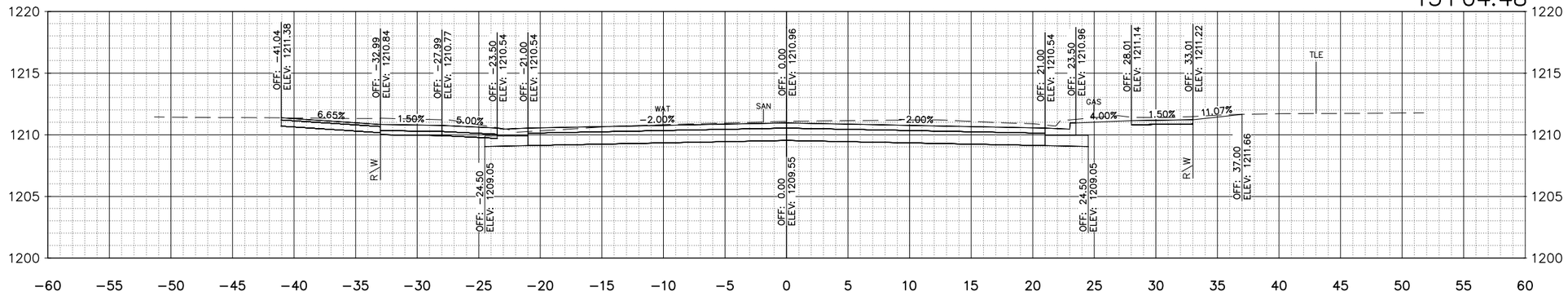
9

9

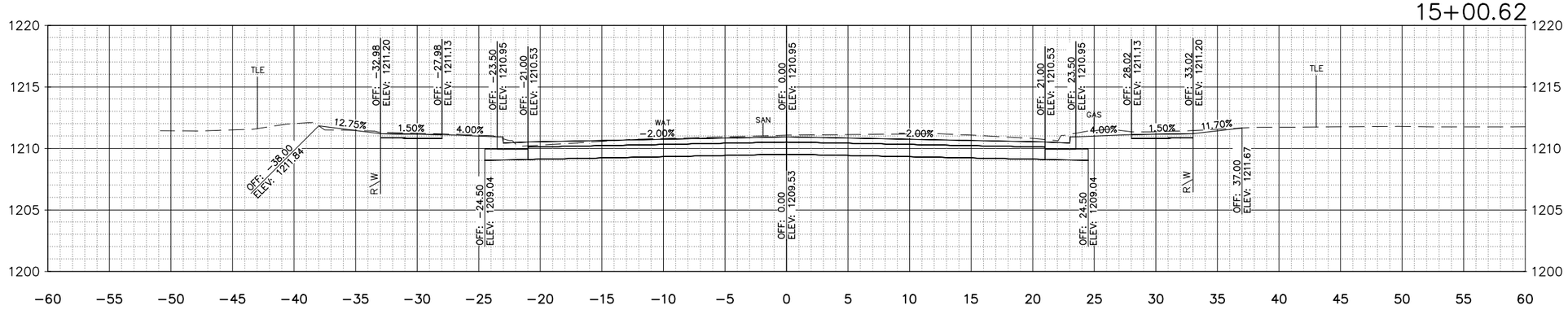
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 235

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:01:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

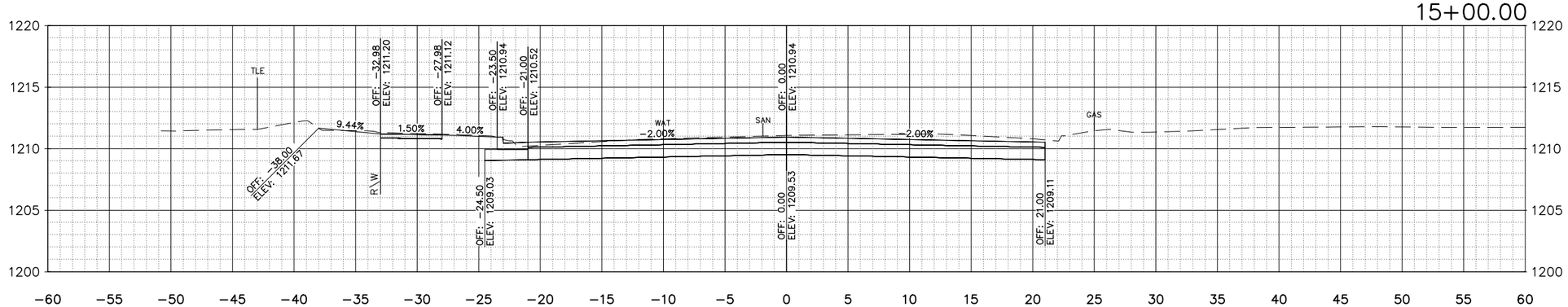
15+04.48



15+00.62



15+00.00



PROSPECT AVENUE

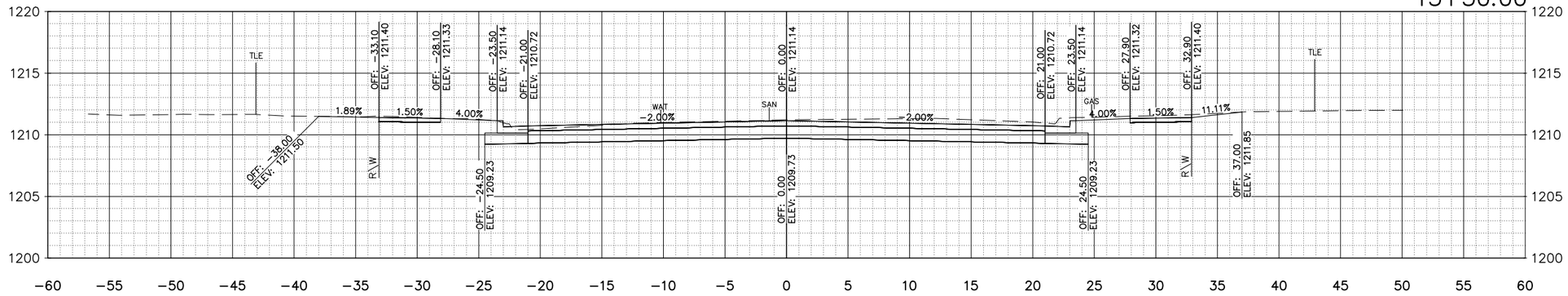
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 236

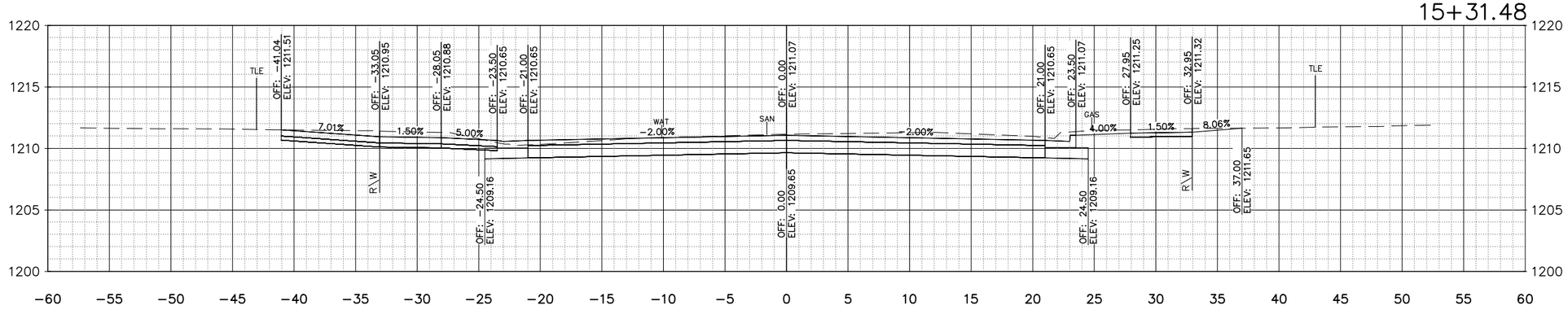
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:02:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

15+50.00



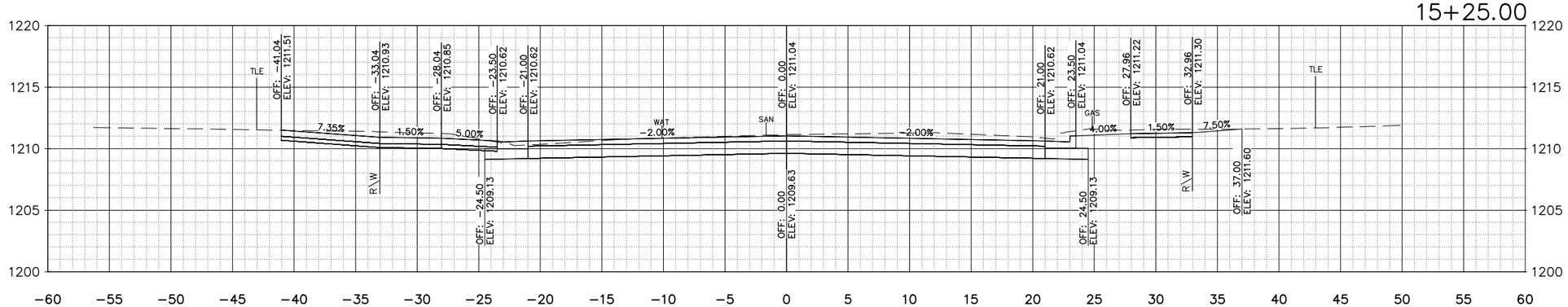
15+31.48

DRIVEWAY



15+25.00

DRIVEWAY



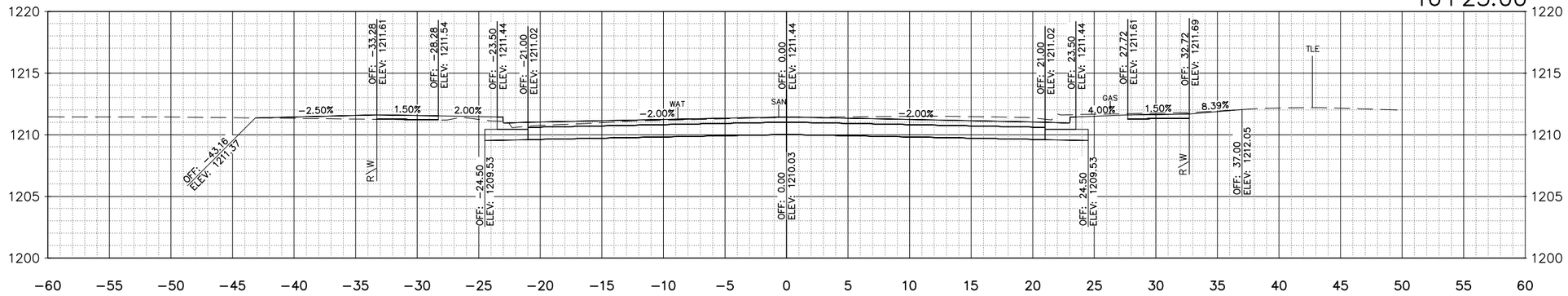
9

9

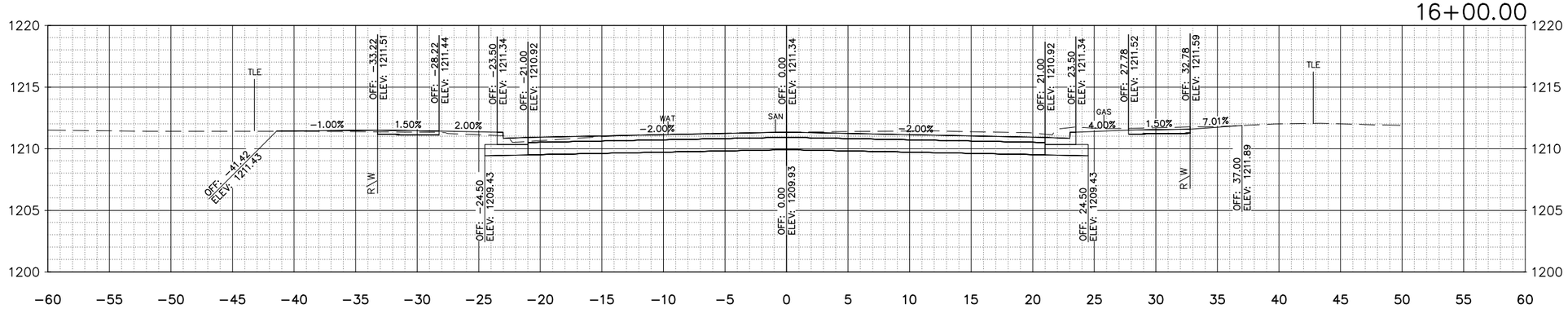
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 237

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:02:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

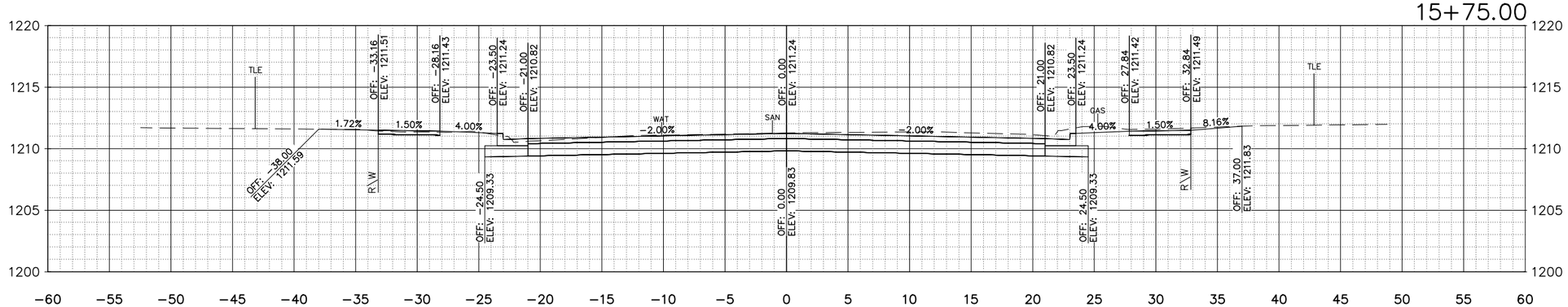
16+25.00



16+00.00



15+75.00



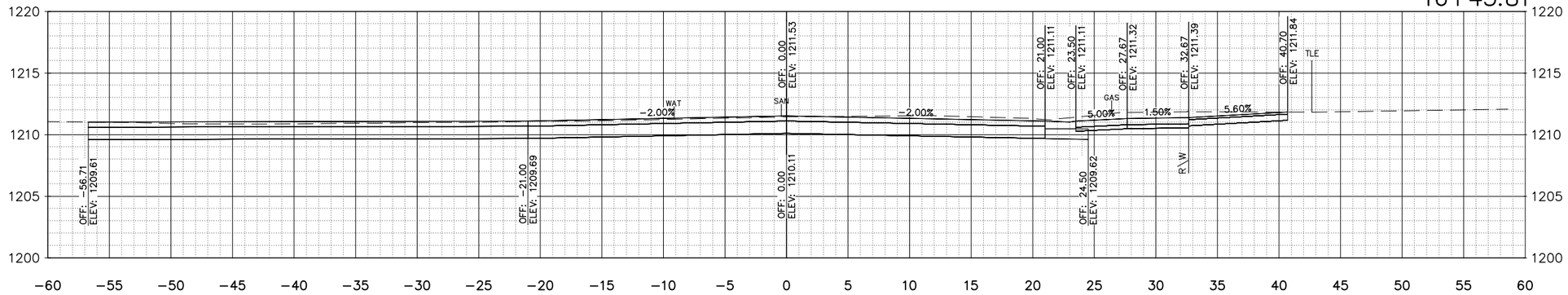
9

9

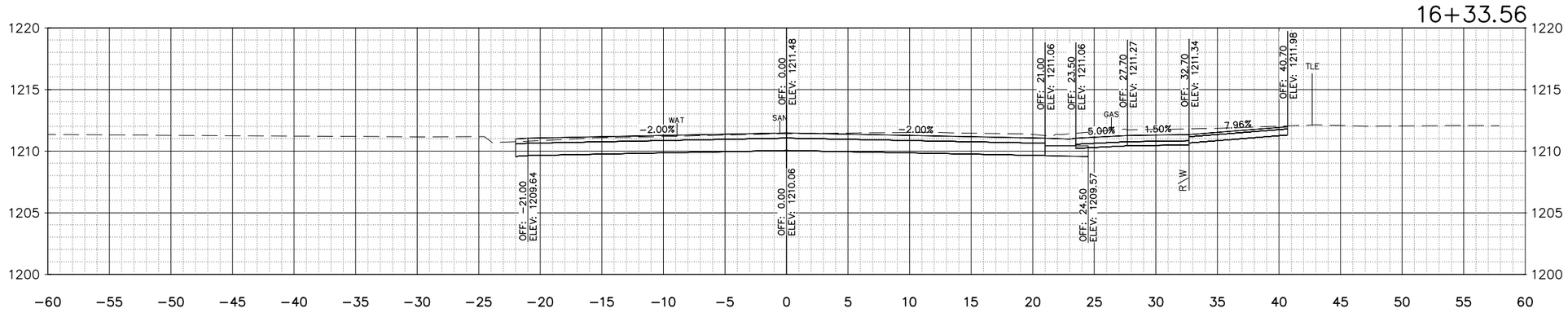
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 238

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:03:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

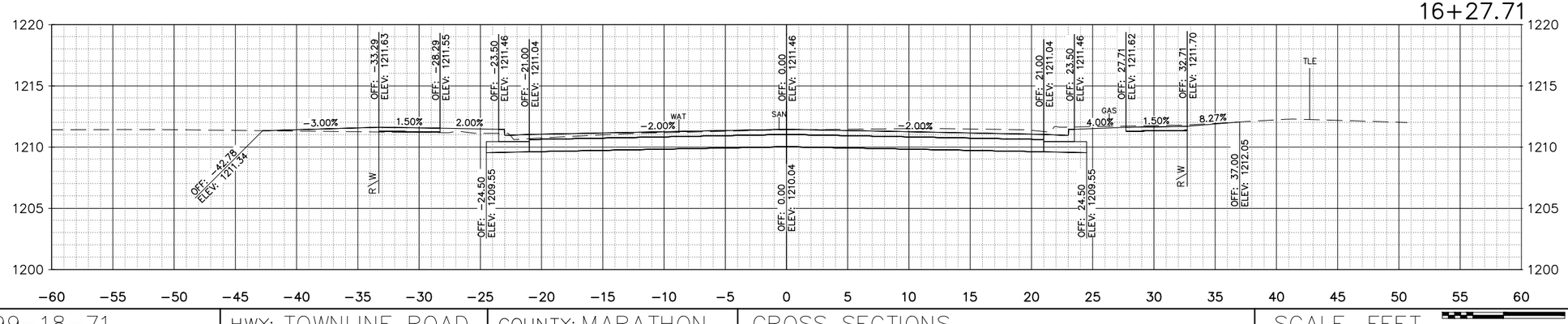
16+45.81



16+33.56



16+27.71



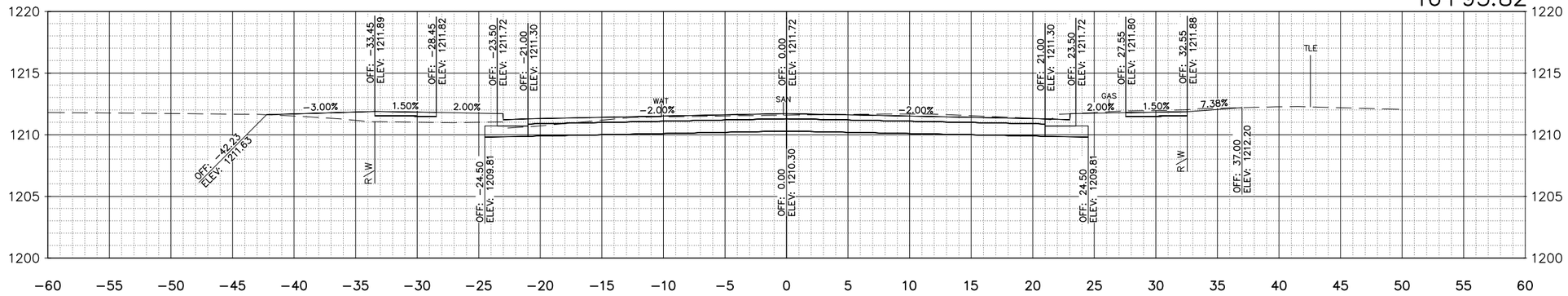
9

9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 239

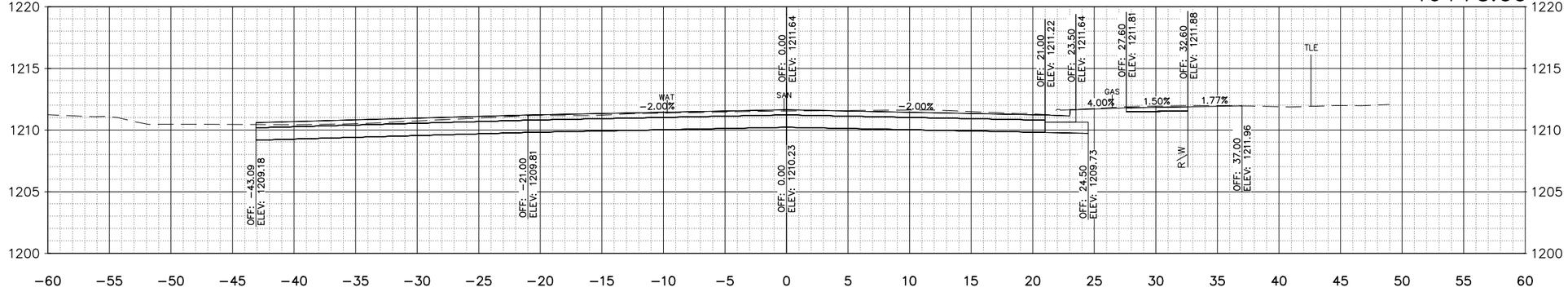
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:04:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

16+93.82



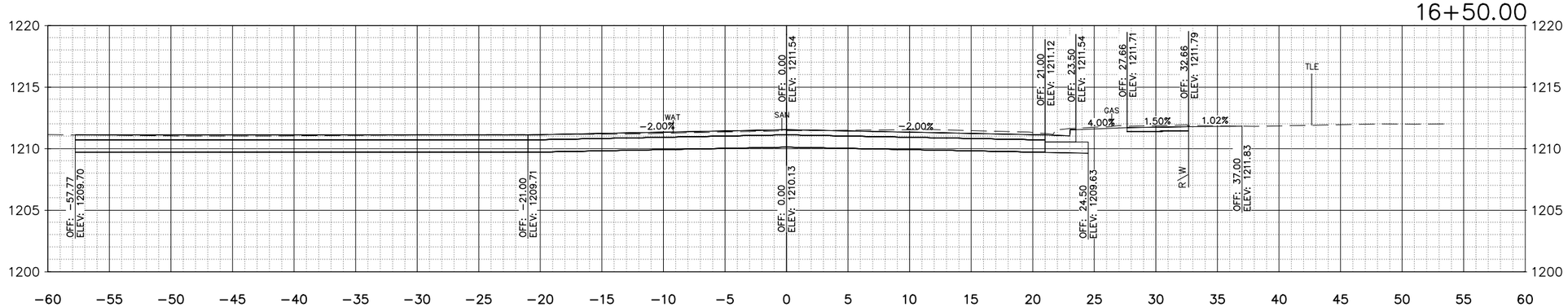
16+75.00

ARTHUR STREET



16+50.00

ARTHUR STREET



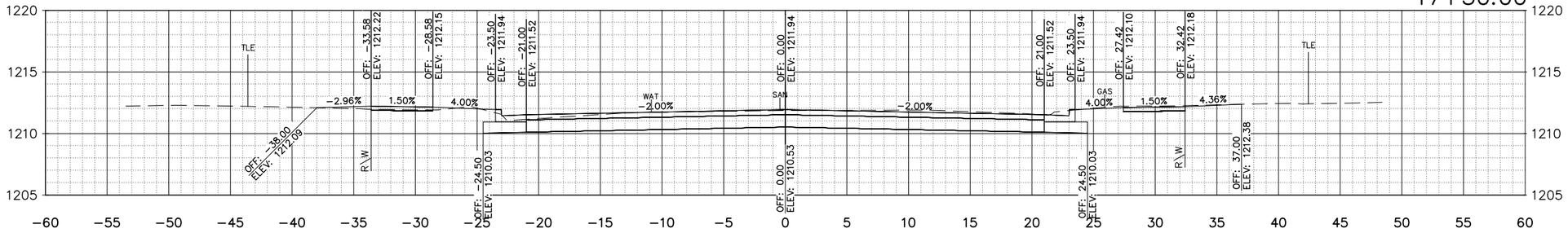
9

9

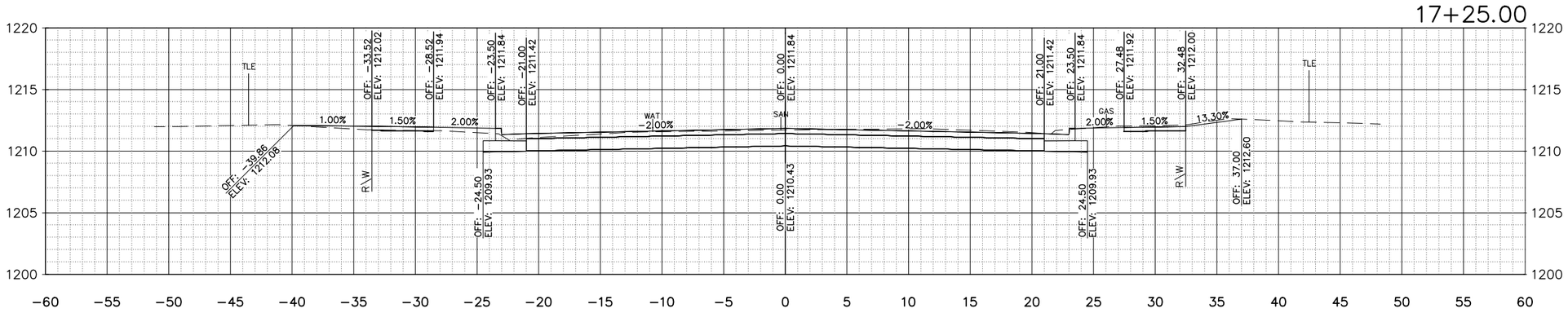
PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 240

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:05:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

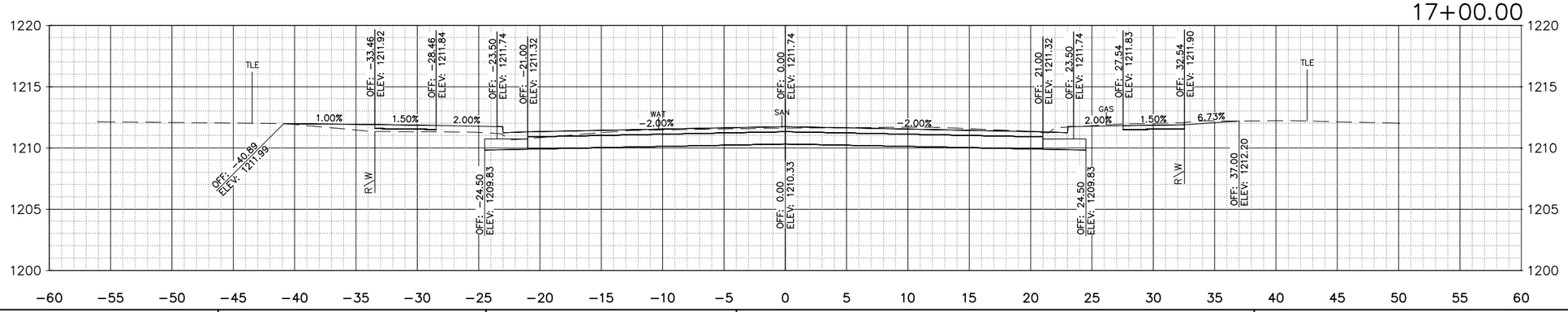
17+50.00



17+25.00



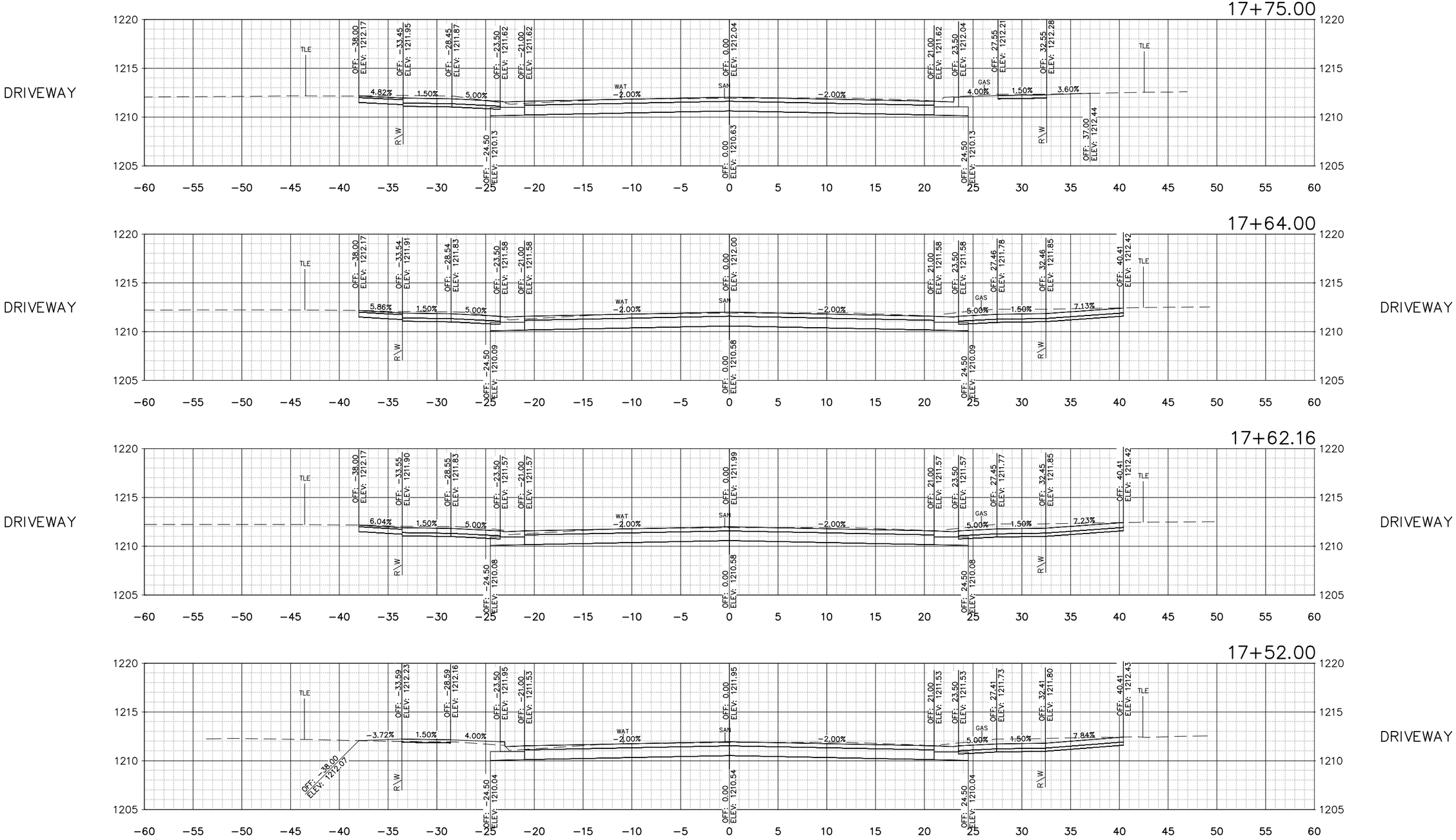
17+00.00



9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 241

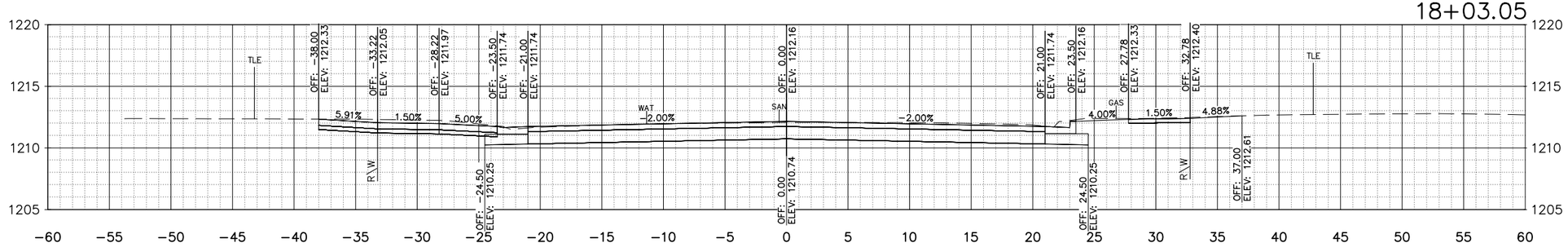


PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 242

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:06:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

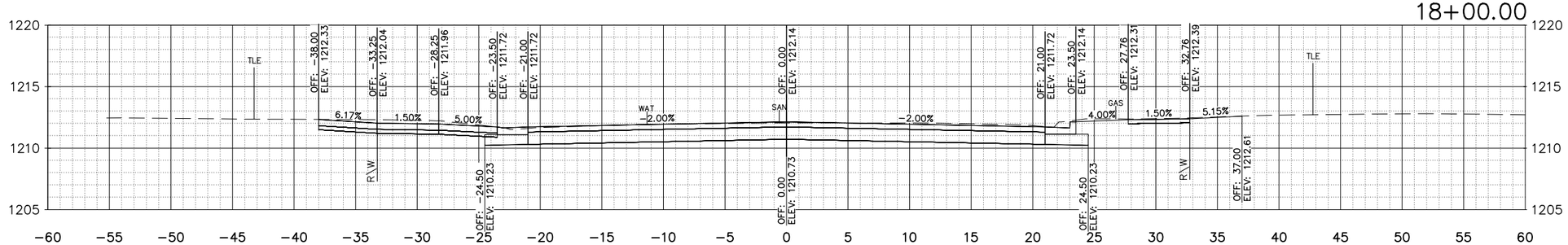
18+03.05

DRIVEWAY



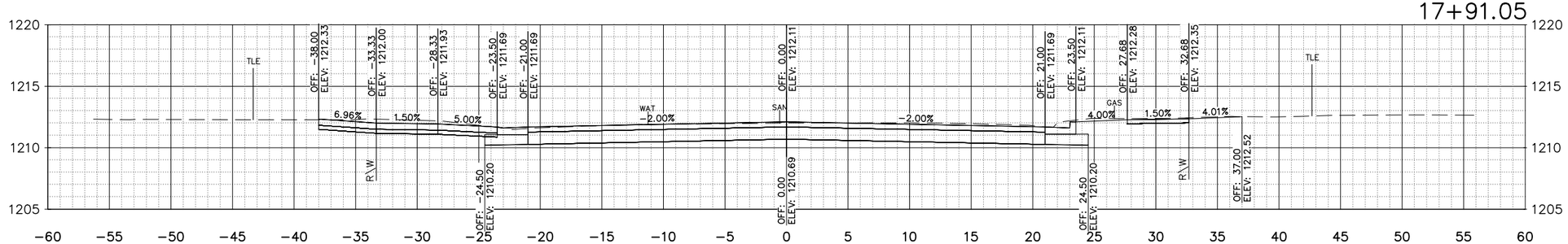
18+00.00

DRIVEWAY



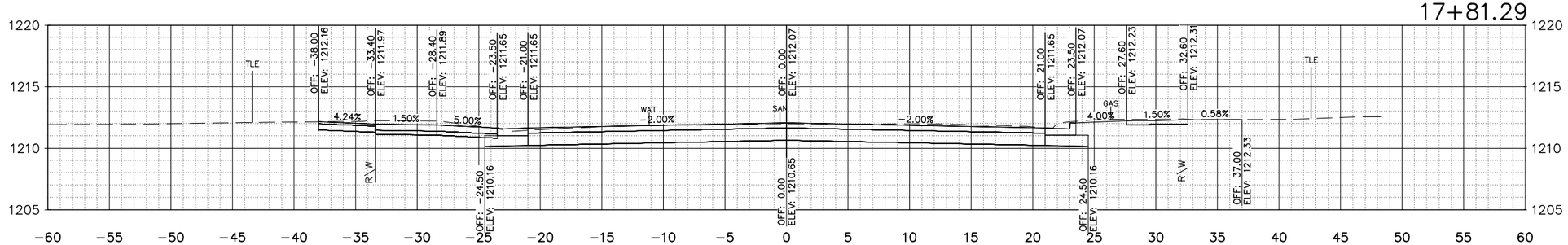
17+91.05

DRIVEWAY



17+81.29

DRIVEWAY

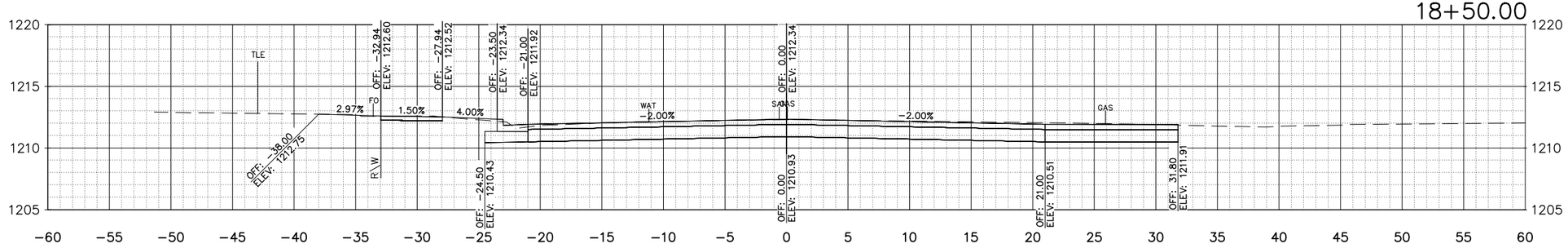


9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 243

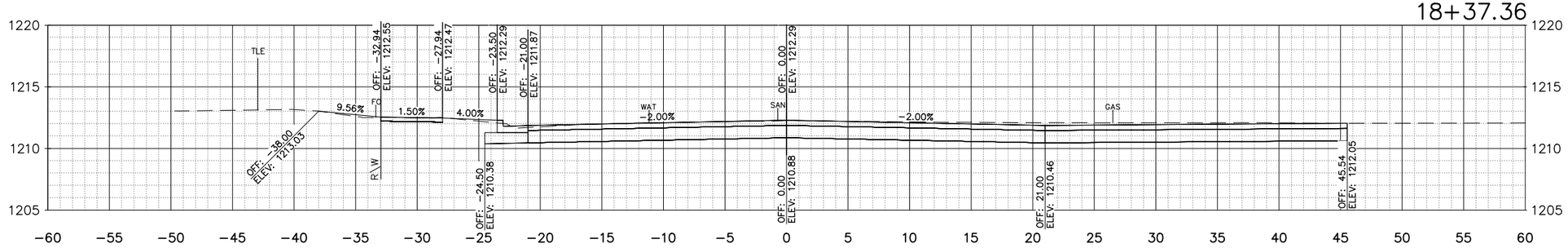
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:07:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

18+50.00



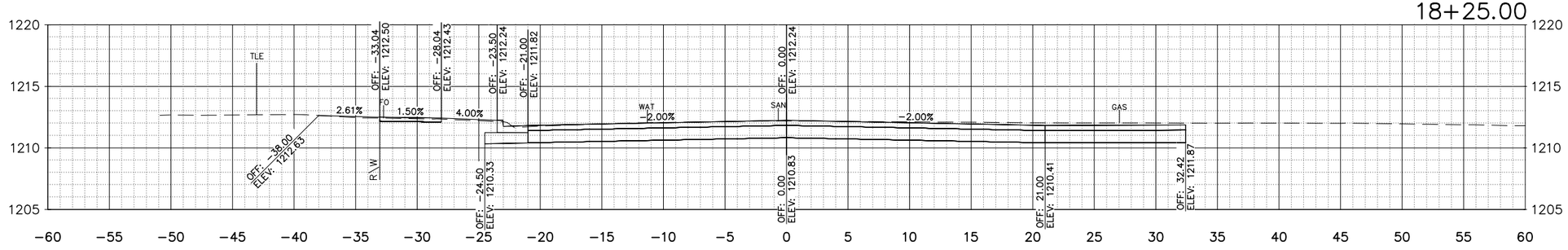
TORNEY AVENUE

18+37.36



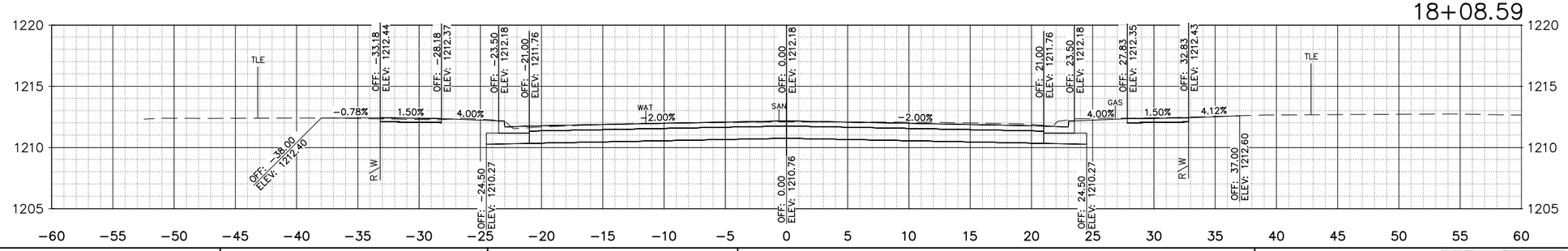
TORNEY AVENUE

18+25.00



TORNEY AVENUE

18+08.59



TORNEY AVENUE

9

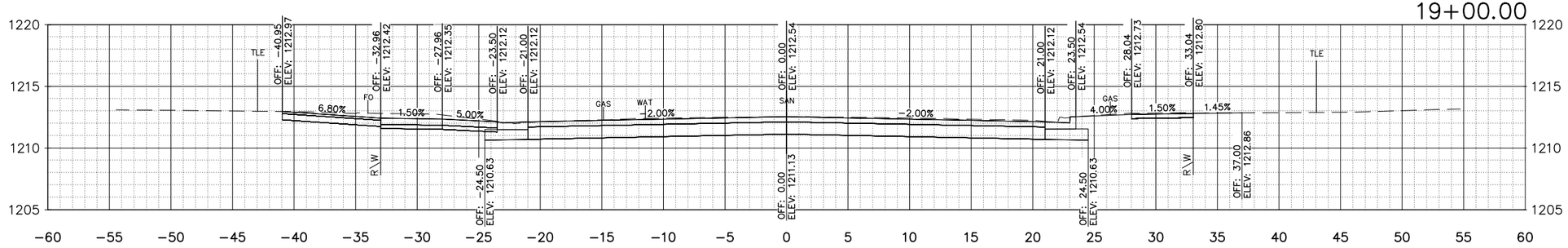
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 244

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:08:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

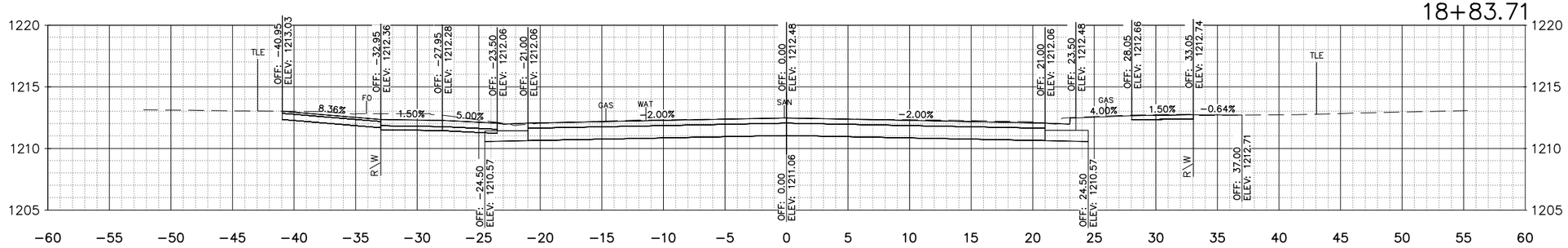
19+00.00

DRIVEWAY

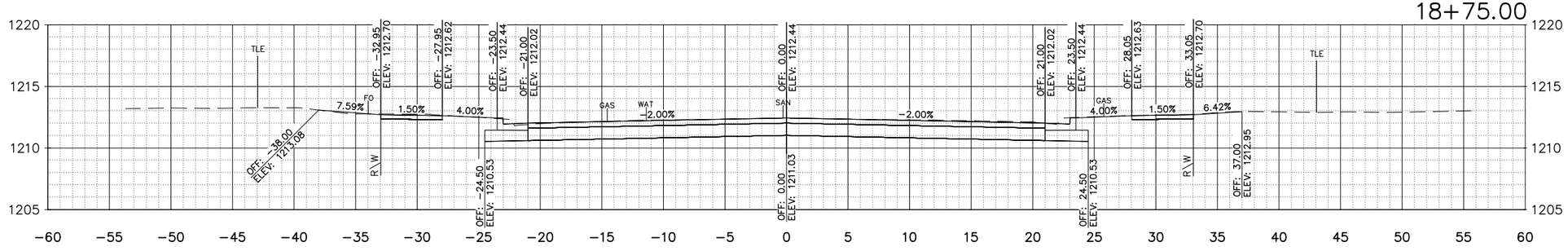


18+83.71

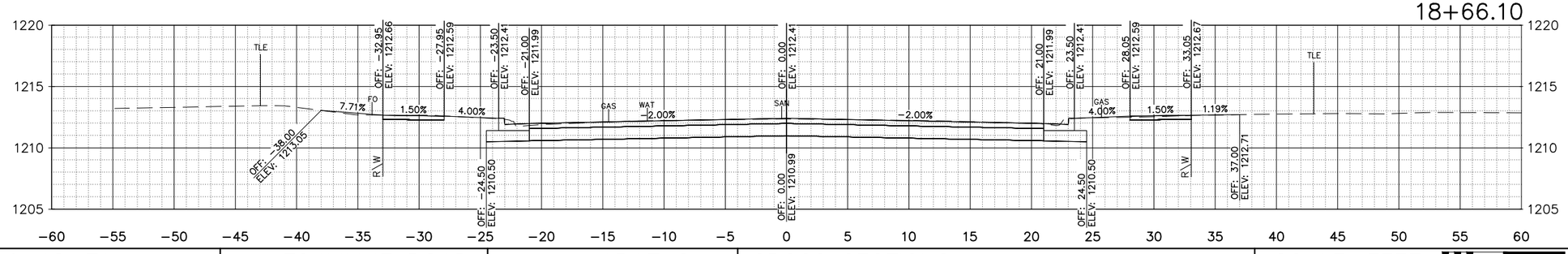
DRIVEWAY



18+75.00



18+66.10

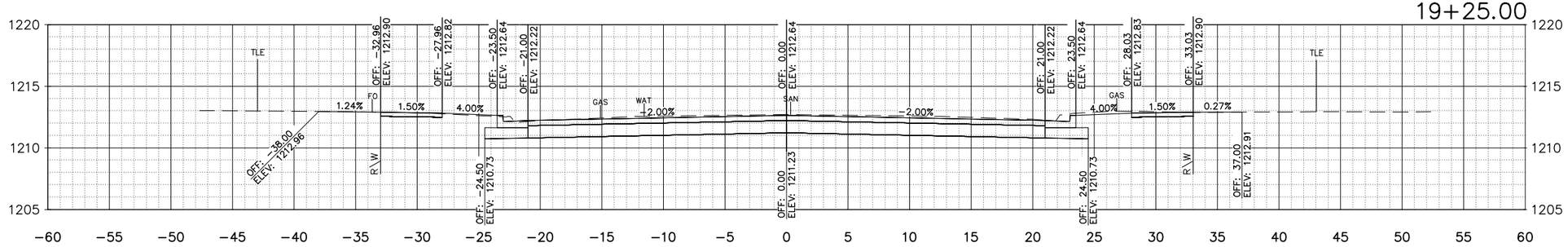


PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 245

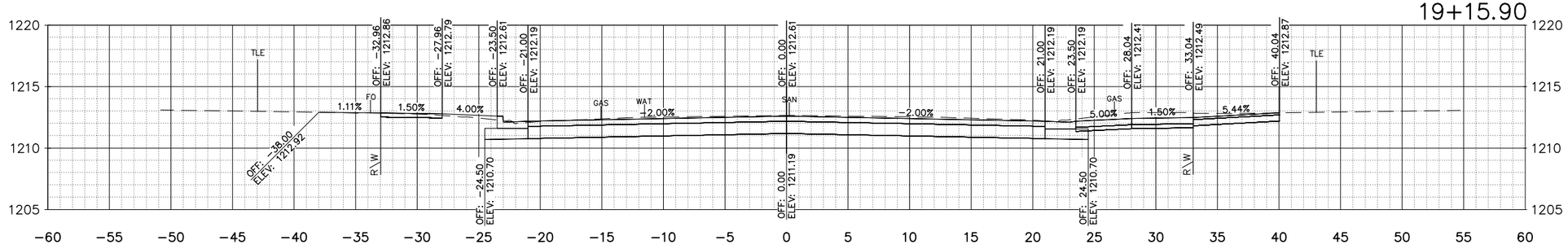
9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:08:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

19+25.00



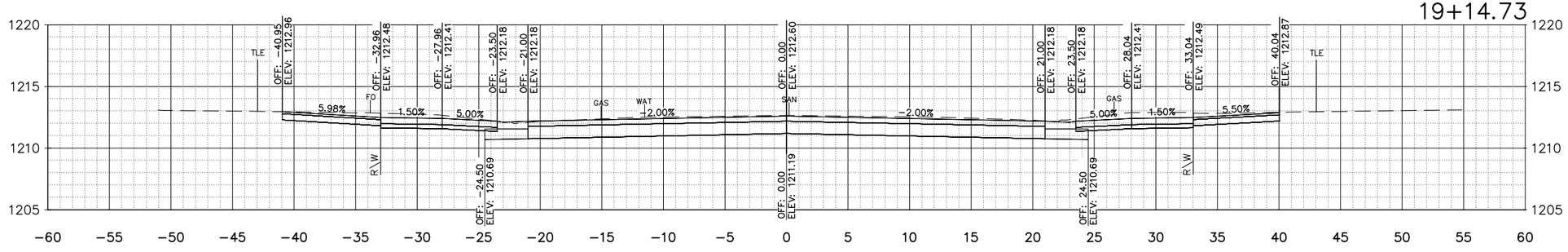
19+15.90



DRIVEWAY

19+14.73

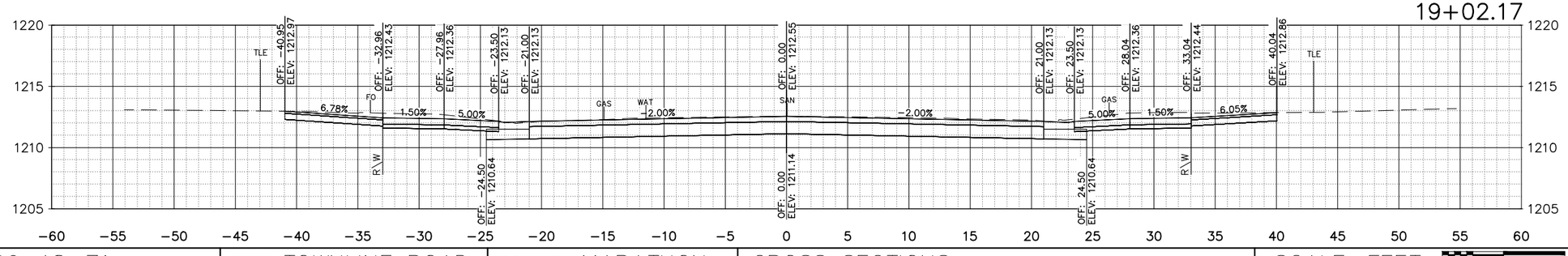
DRIVEWAY



DRIVEWAY

19+02.17

DRIVEWAY

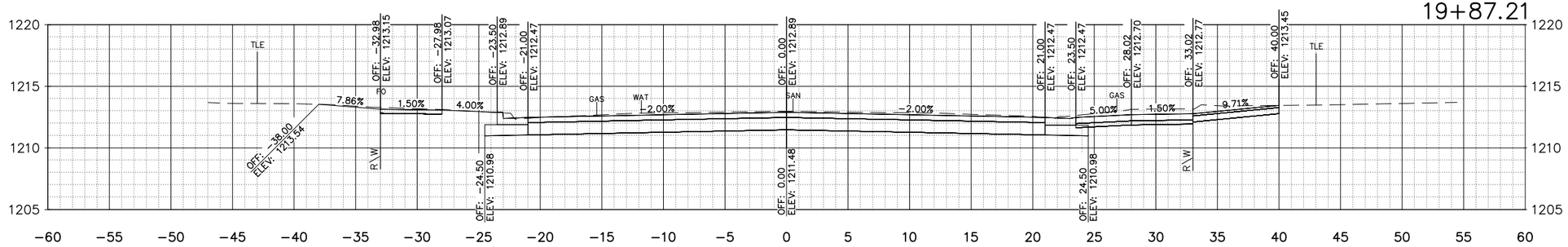


DRIVEWAY

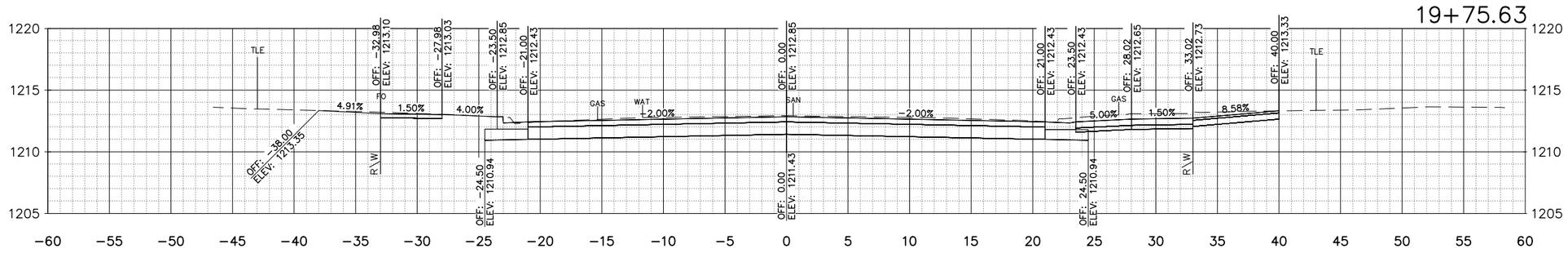
9

9

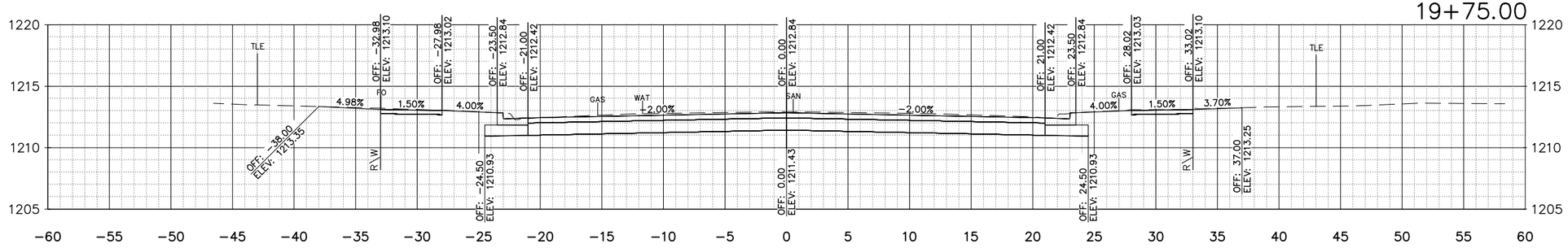
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 246

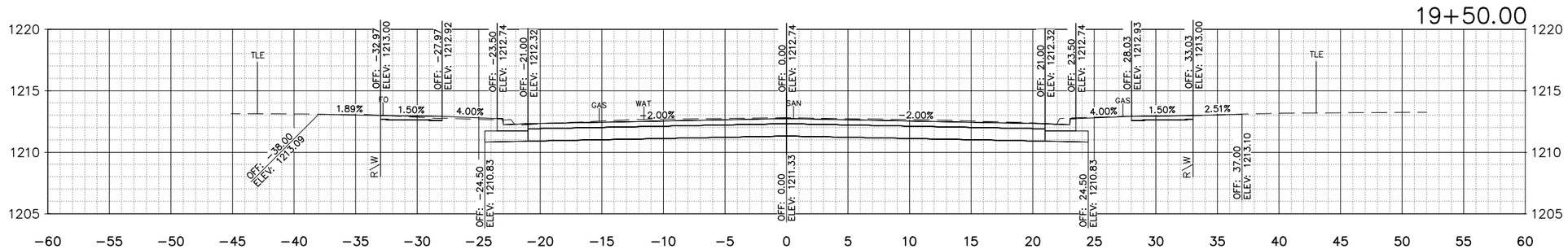


DRIVEWAY



DRIVEWAY

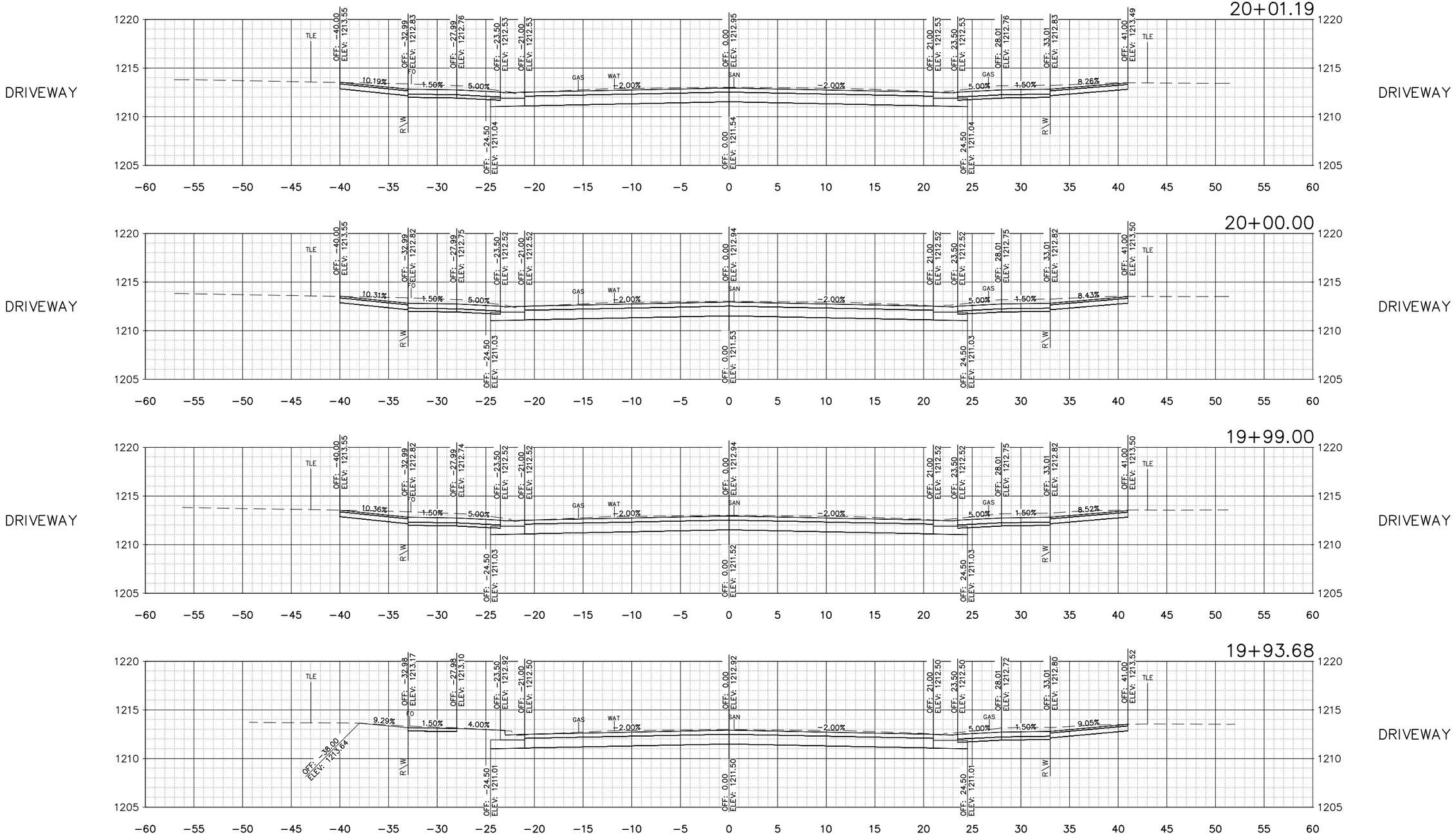




PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 247

9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:10:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



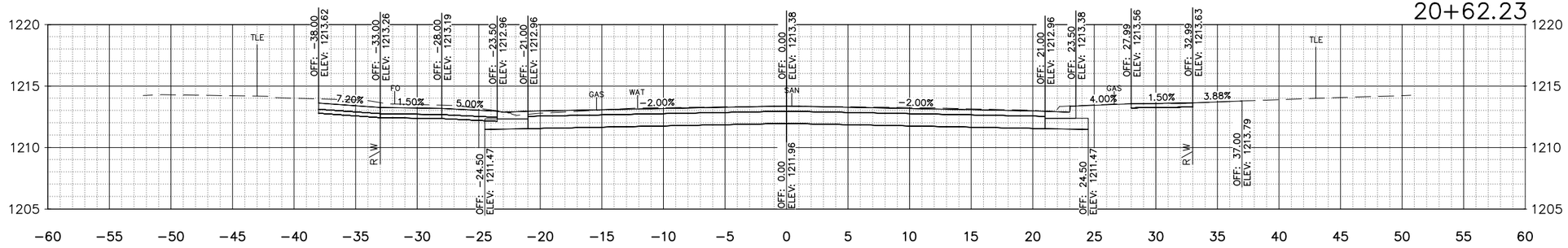
9

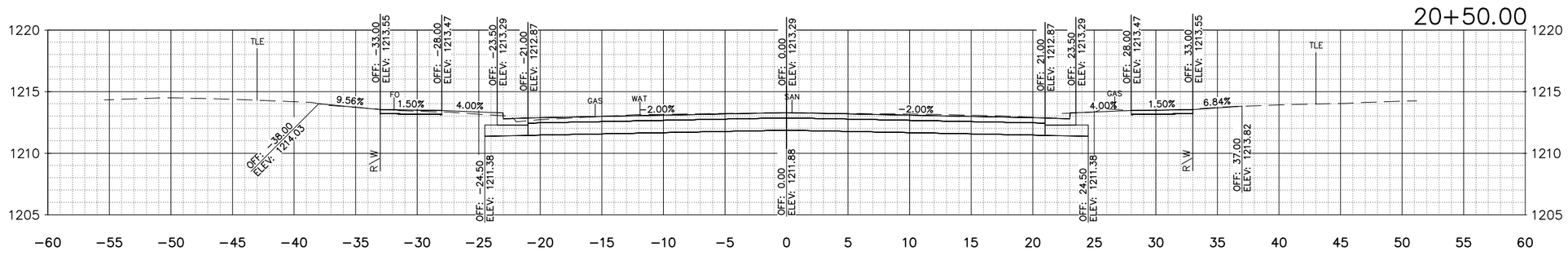
9

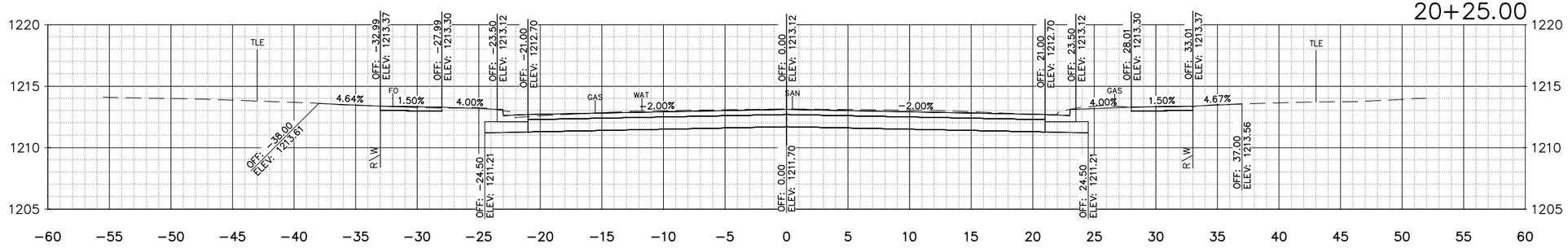
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 248

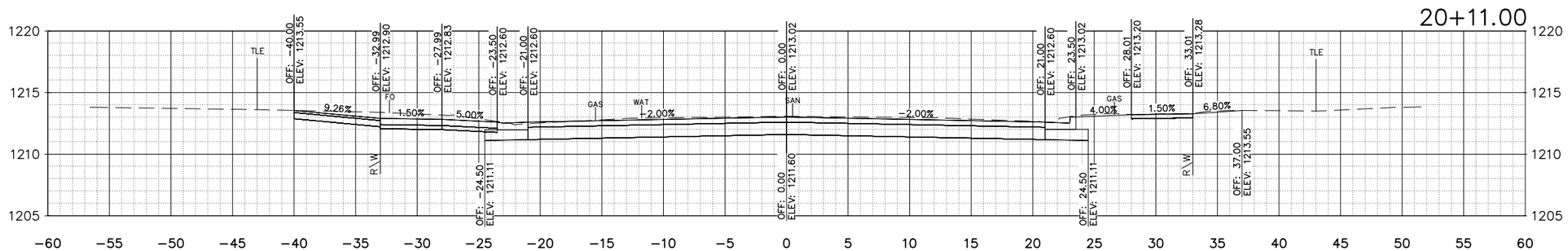
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:11:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

DRIVEWAY









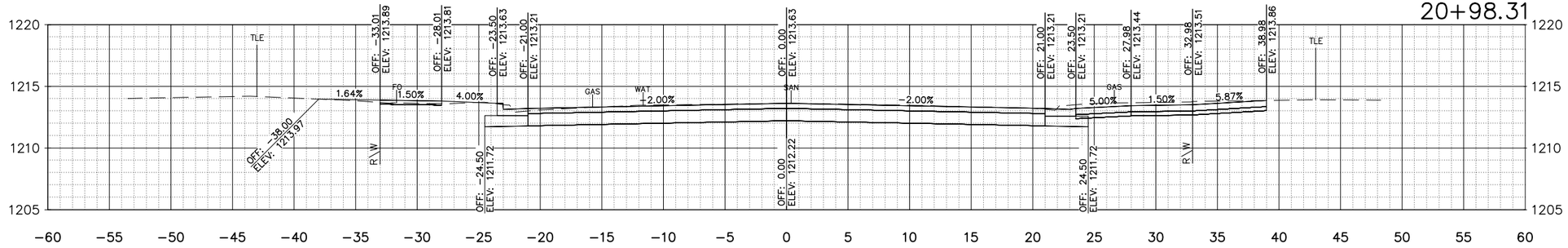
DRIVEWAY

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 249

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:11:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

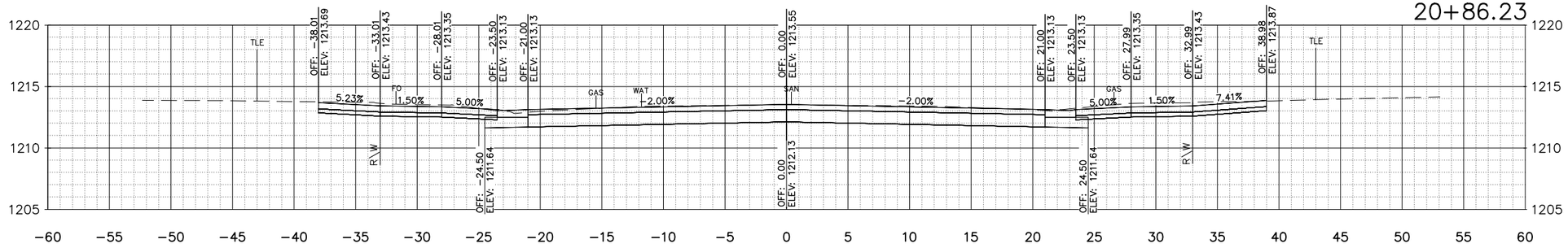
20+98.31



DRIVEWAY

DRIVEWAY

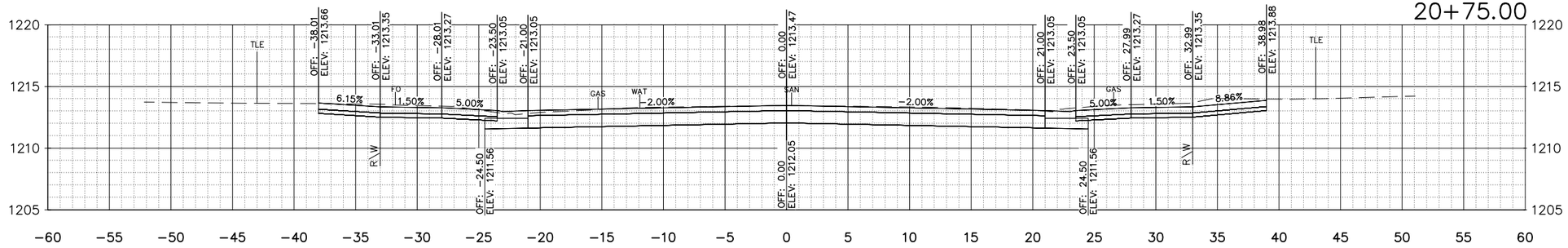
20+86.23



DRIVEWAY

DRIVEWAY

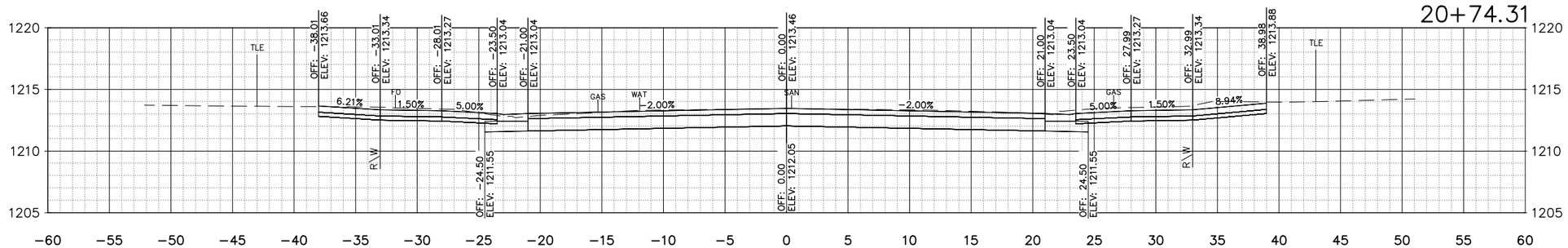
20+75.00



DRIVEWAY

DRIVEWAY

20+74.31



DRIVEWAY

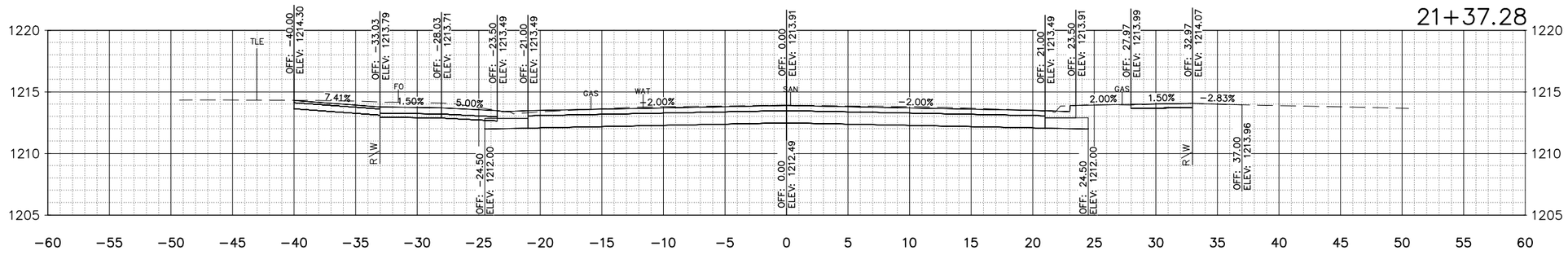
DRIVEWAY

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 250

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:12:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

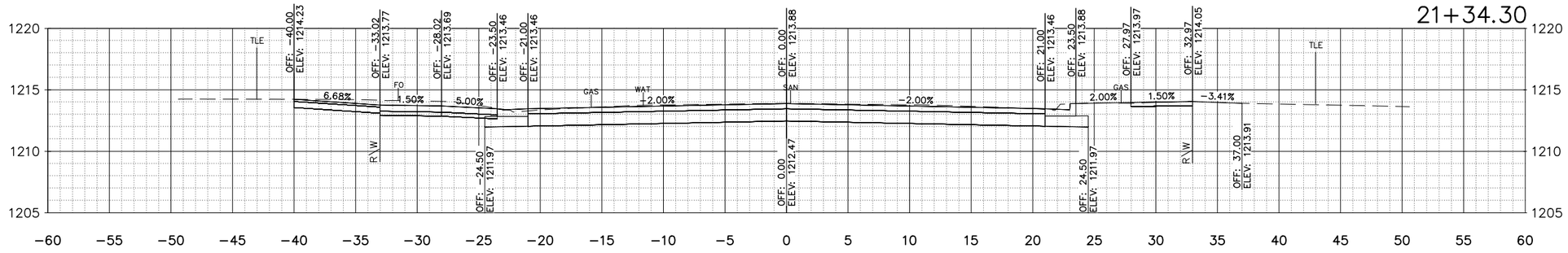
21+37.28

DRIVEWAY

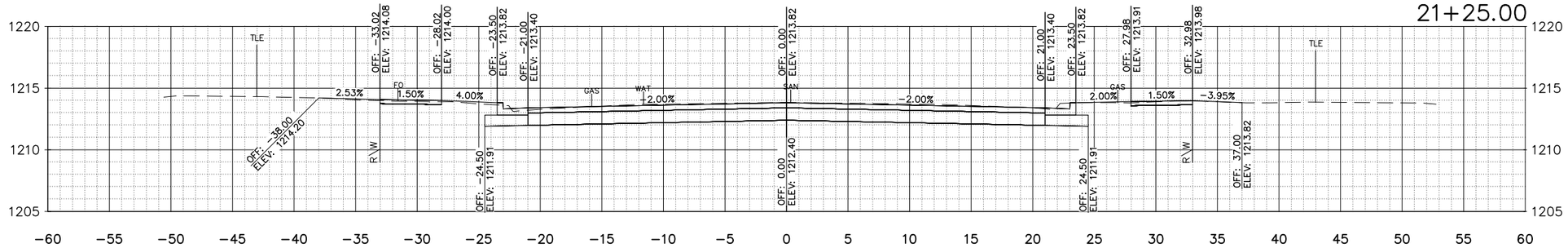


21+34.30

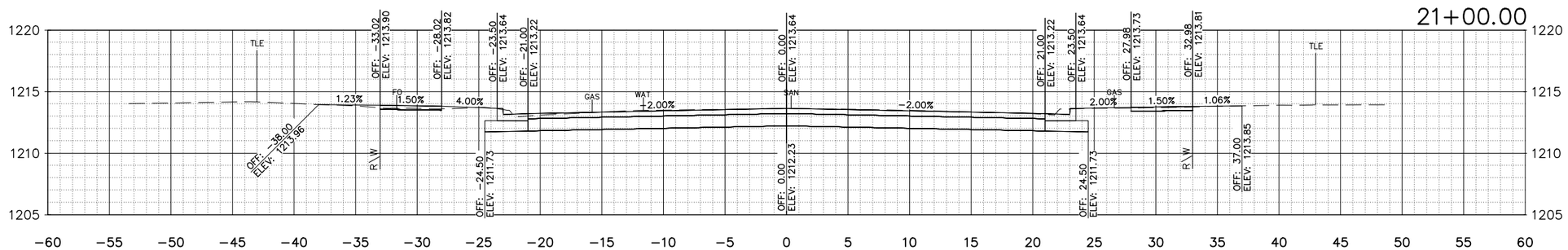
DRIVEWAY



21+25.00



21+00.00

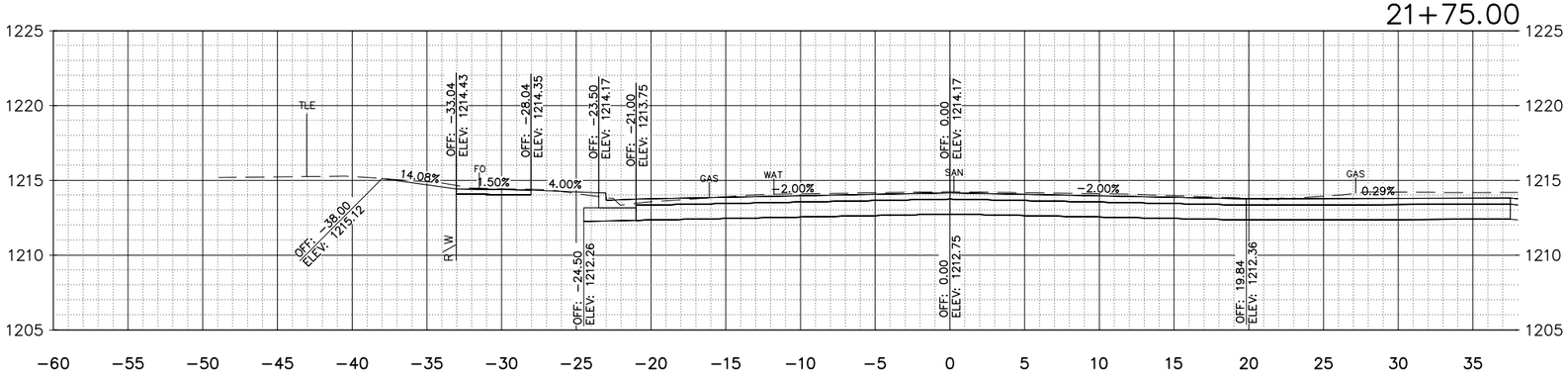


PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 251

9

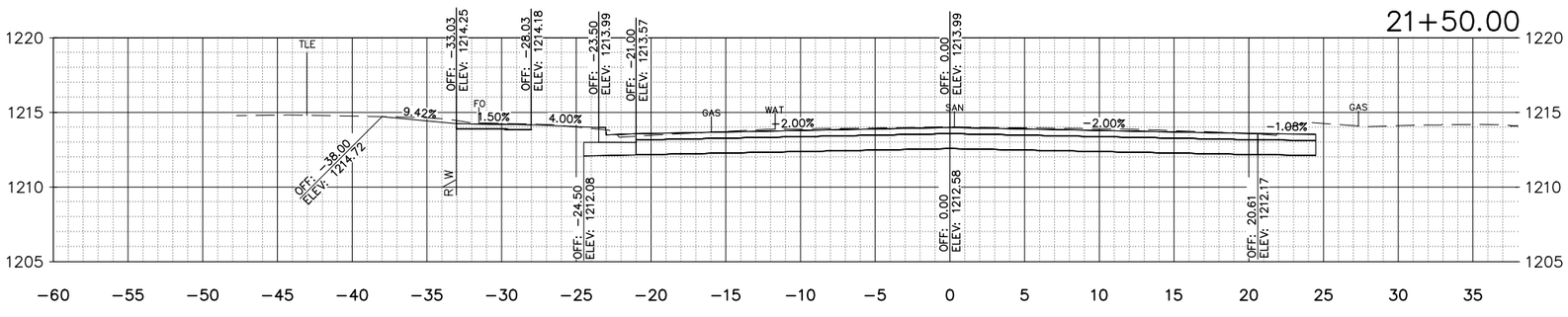
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:13:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

21+75.00



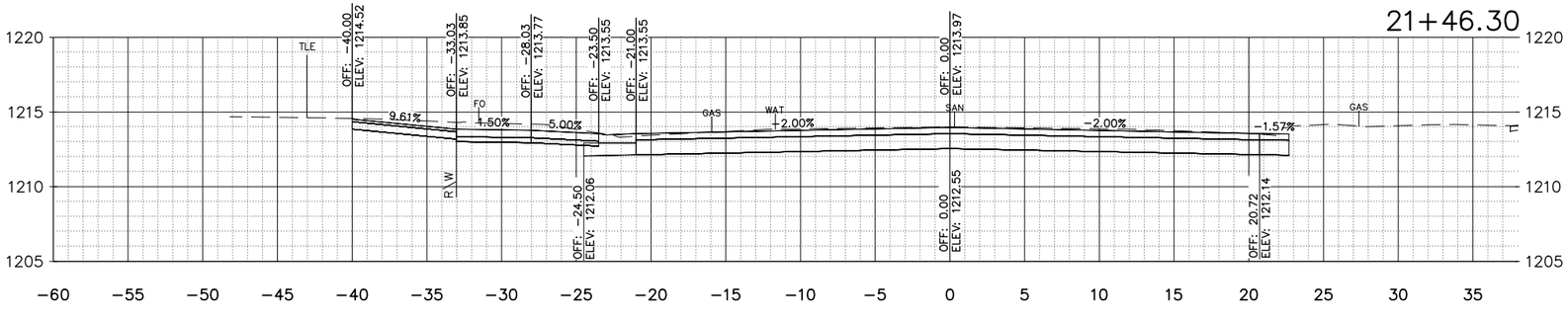
CURLING WAY

21+50.00



CURLING WAY

21+46.30



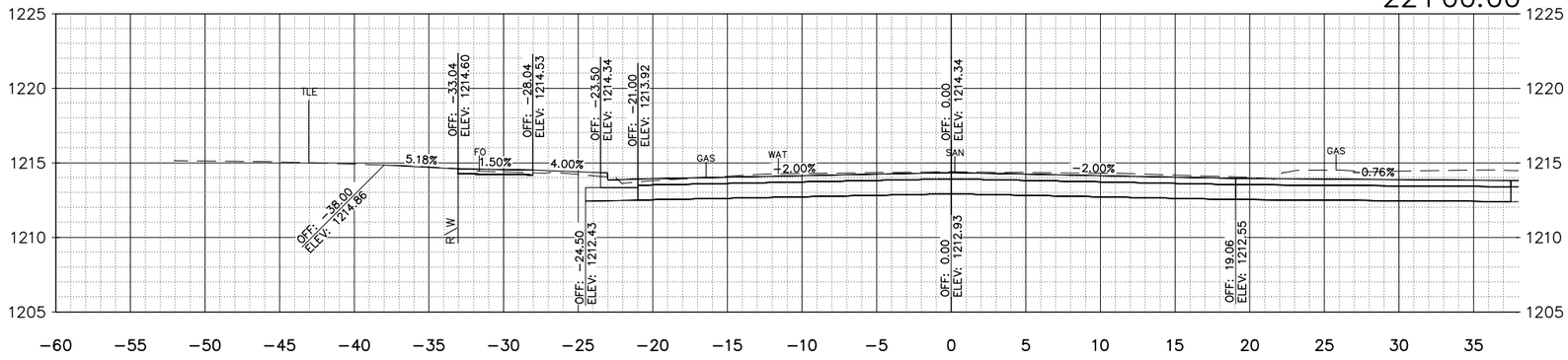
DRIVEWAY

CURLING WAY

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 252

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:14:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

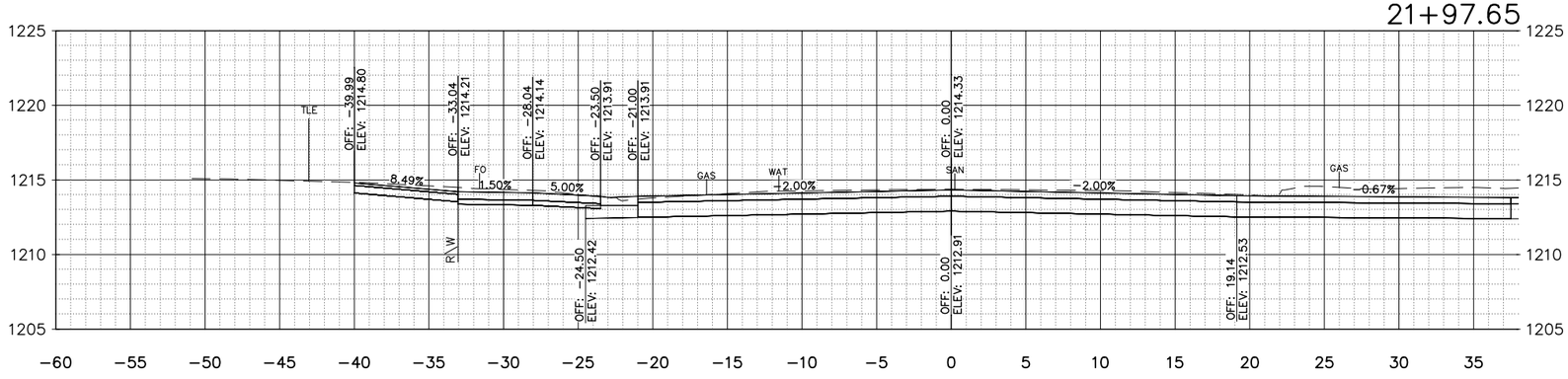
22+00.00



CURLING WAY

21+97.65

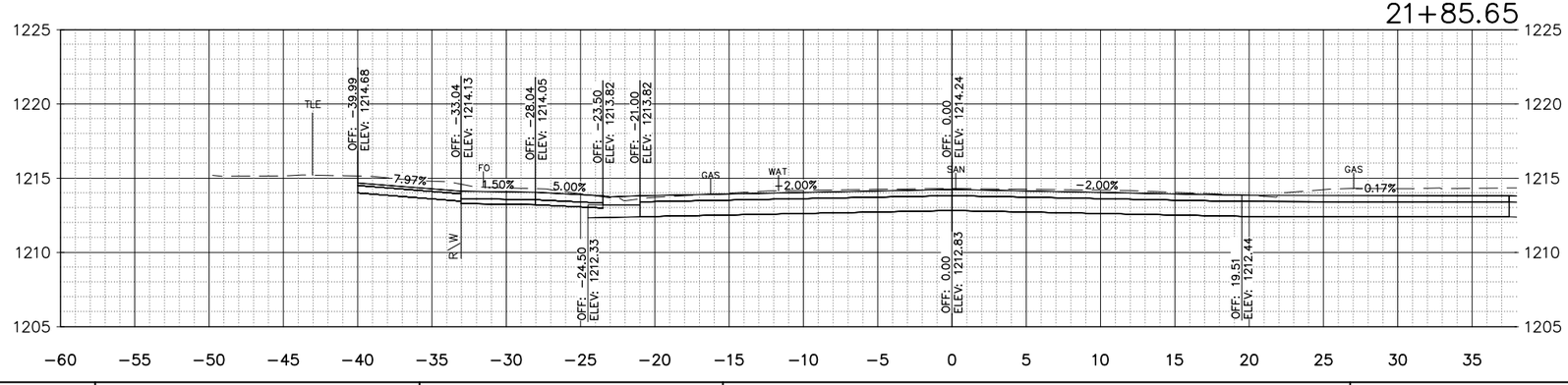
DRIVEWAY



CURLING WAY

21+85.65

DRIVEWAY



CURLING WAY

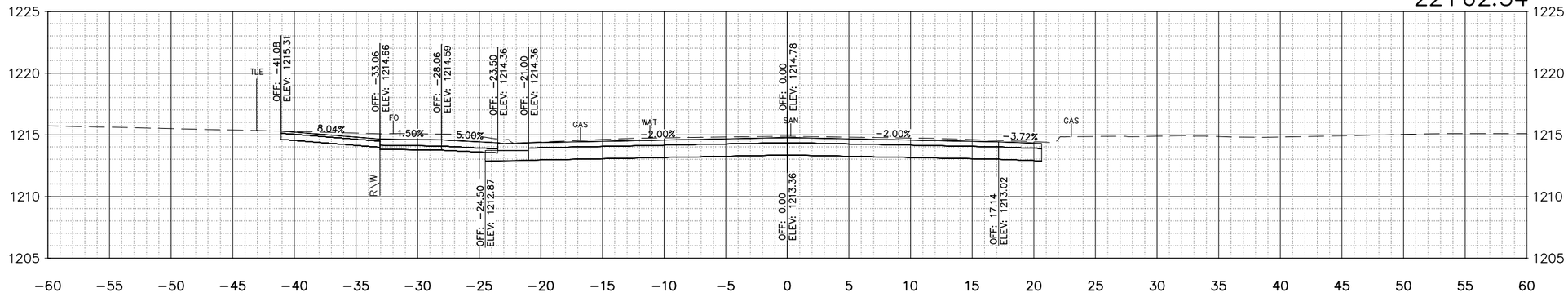
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 253

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:14:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

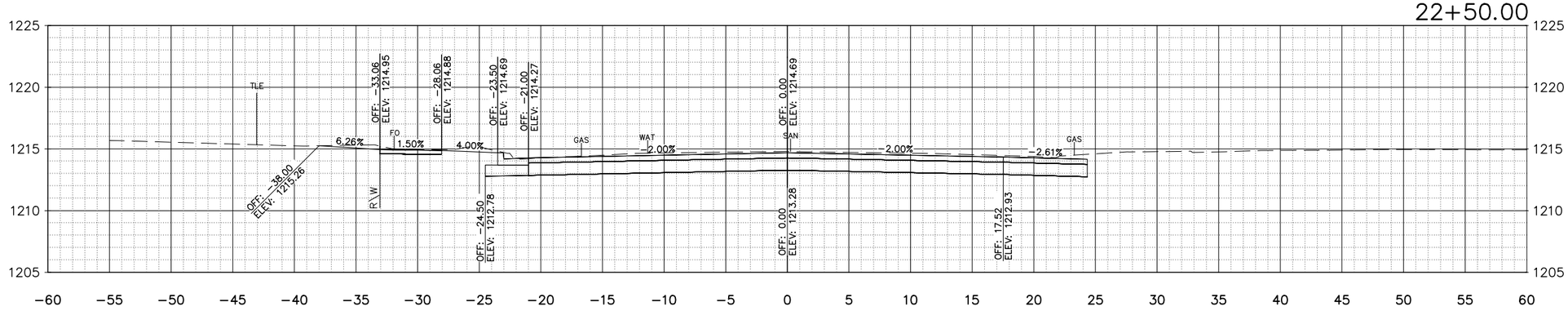
22+62.34

DRIVEWAY



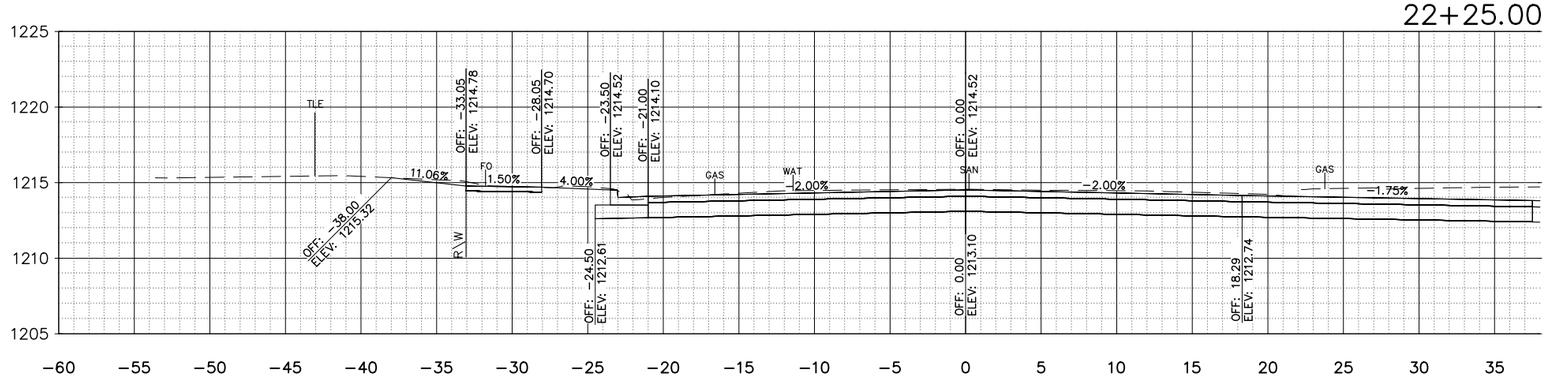
CURLING WAY

22+50.00



CURLING WAY

22+25.00



CURLING WAY

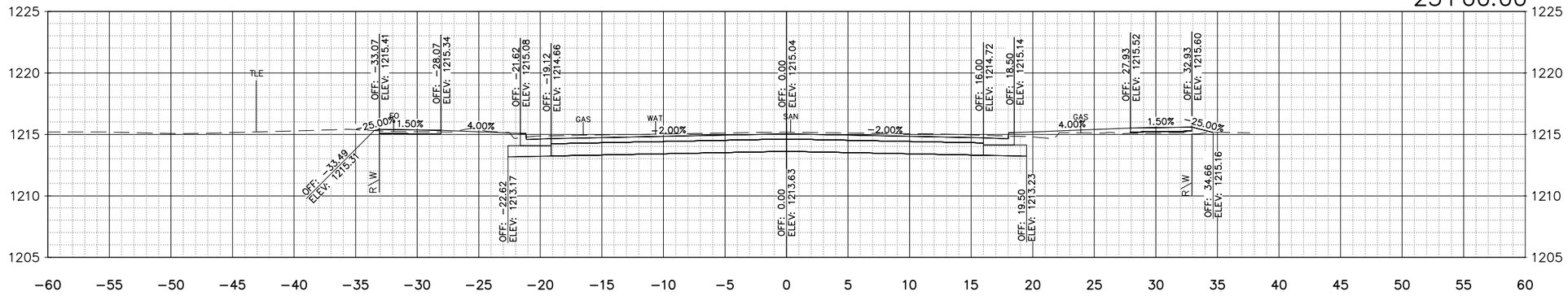
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 254

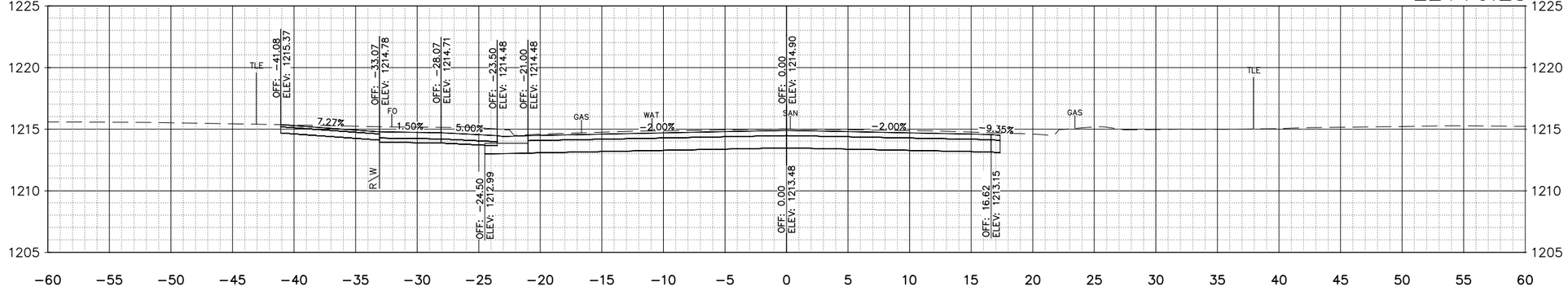
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:15:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

23+00.00



22+79.28

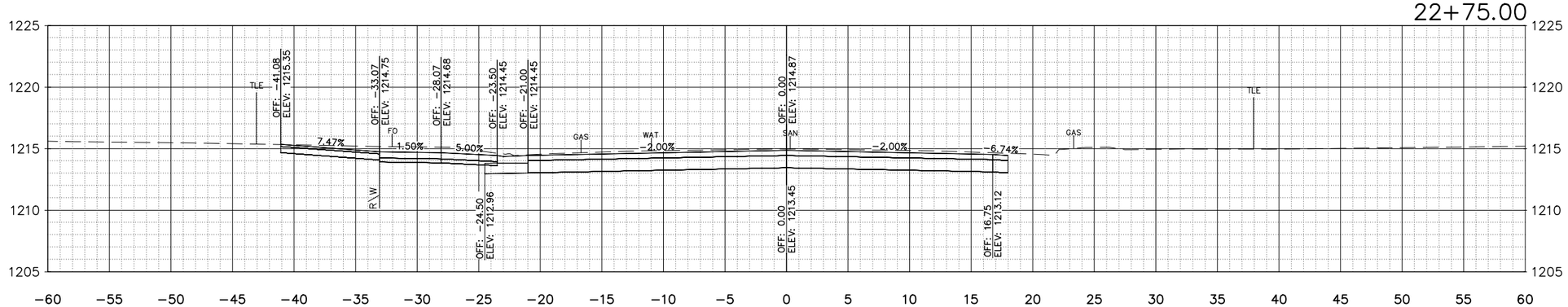
DRIVEWAY



CURLING WAY

22+75.00

DRIVEWAY



CURLING WAY

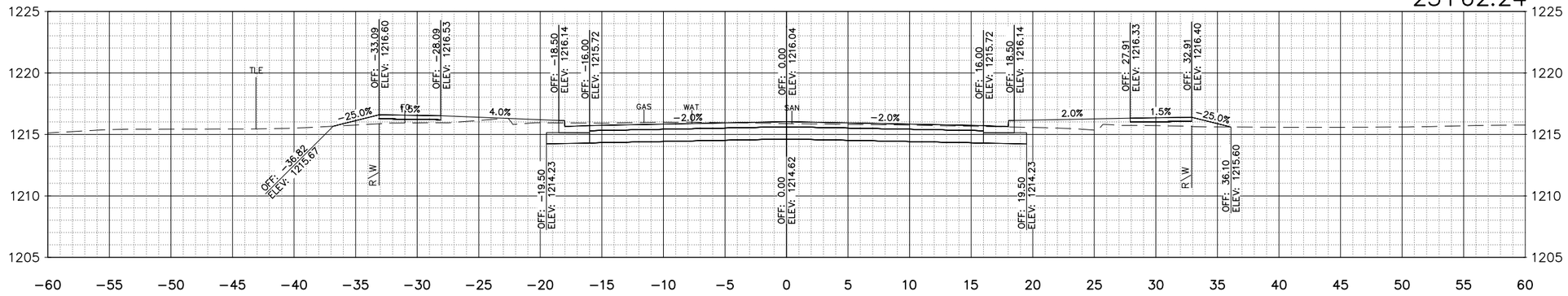
9

9

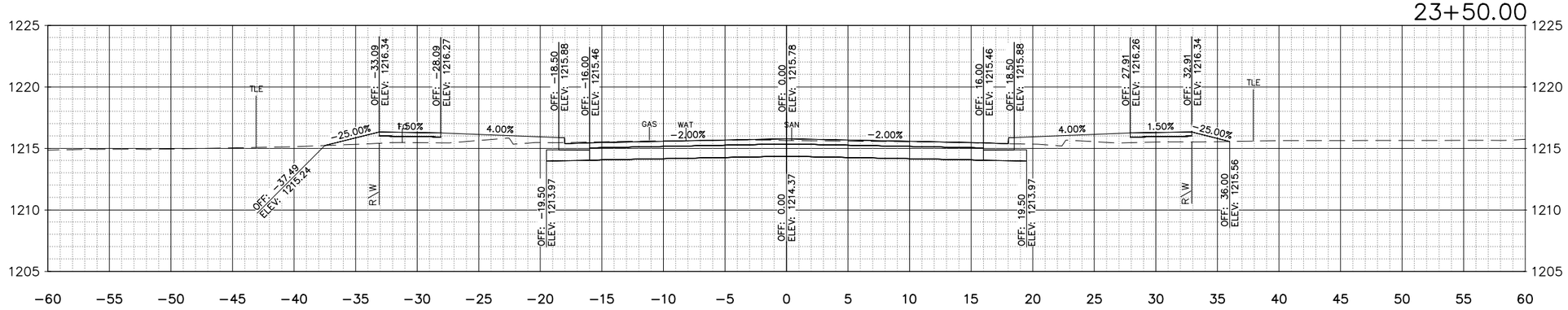
PROJECT NO: 6999-18-71 | HWY: TOWNLINE ROAD | COUNTY: MARATHON | CROSS SECTIONS | SCALE, FEET 0 2.5 5 10 | SHEET 255

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:16:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

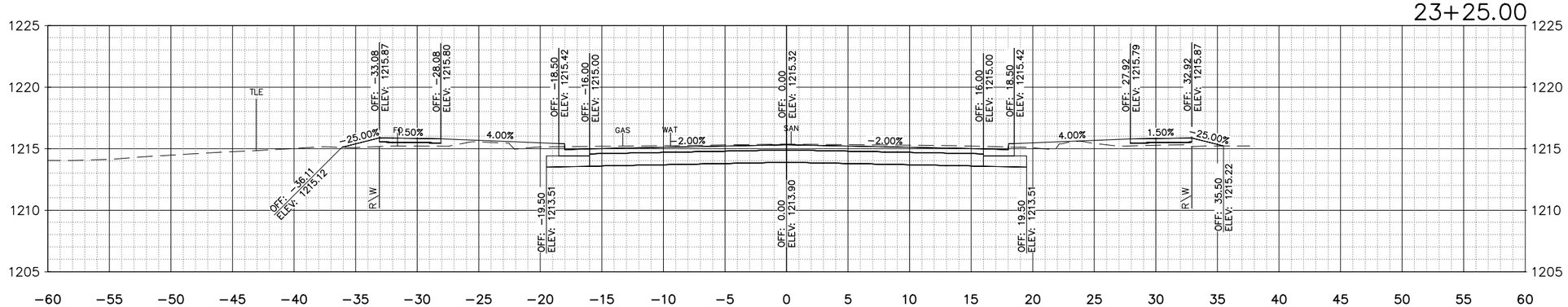
23+62.24



23+50.00



23+25.00

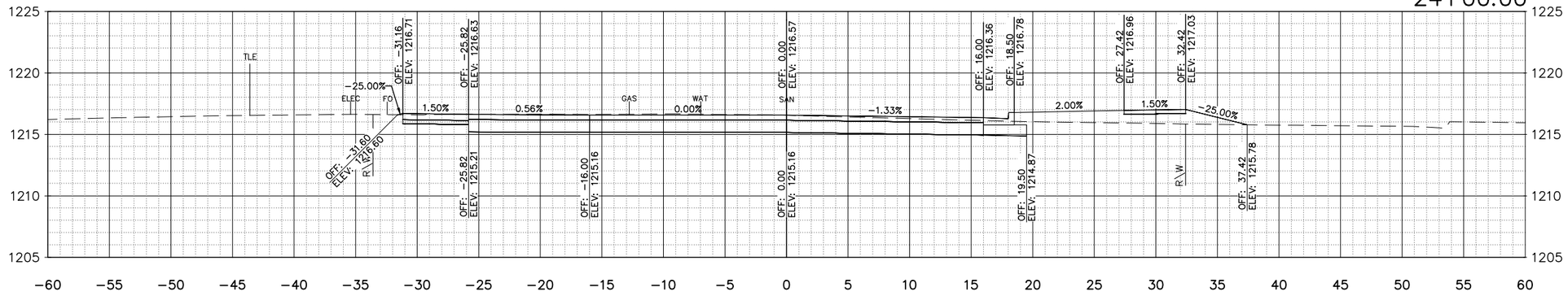


9

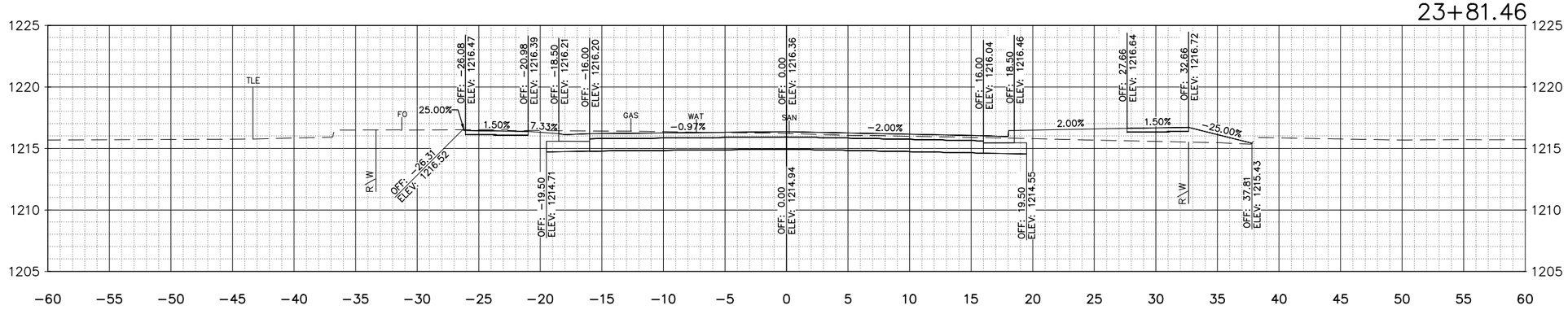
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 256

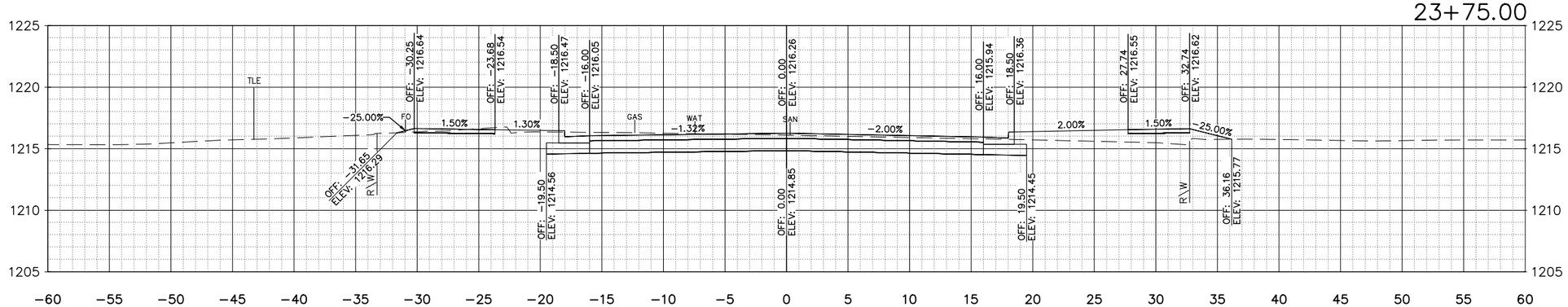
24+00.00



23+81.46



23+75.00

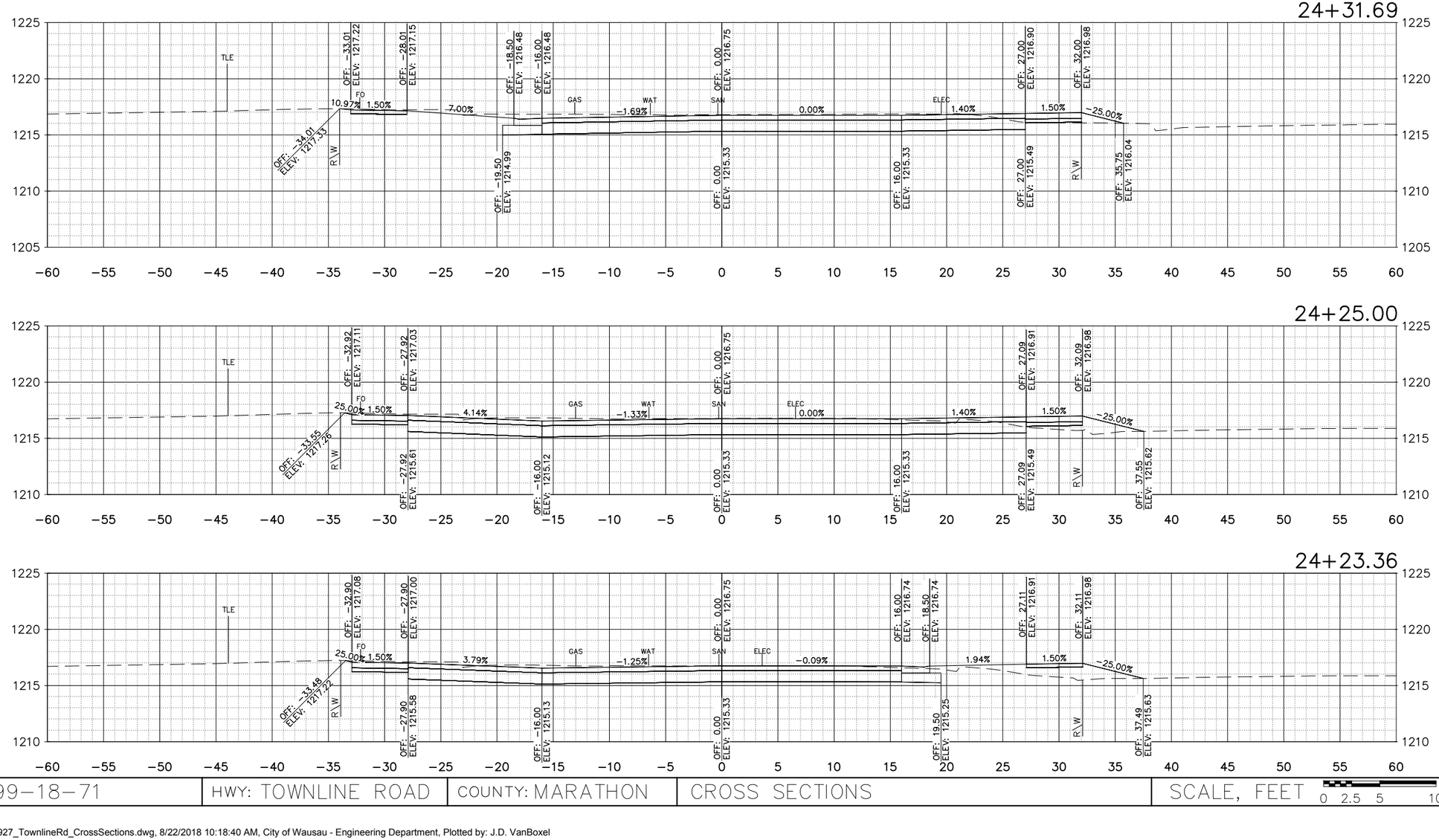


9

9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 257

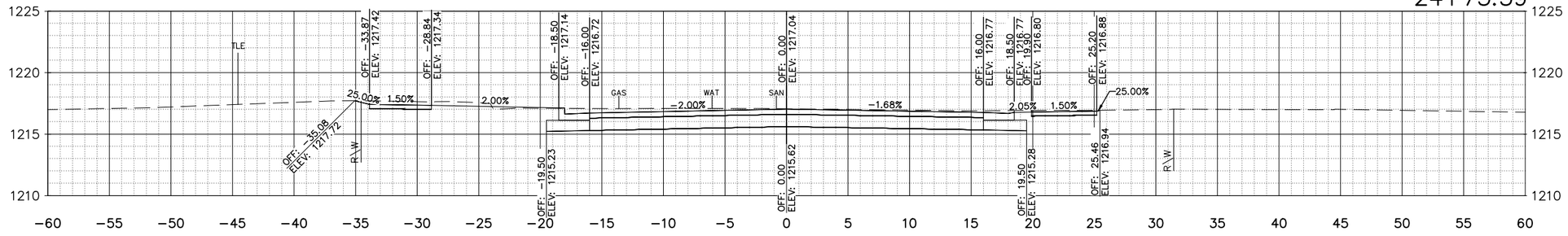
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:17:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

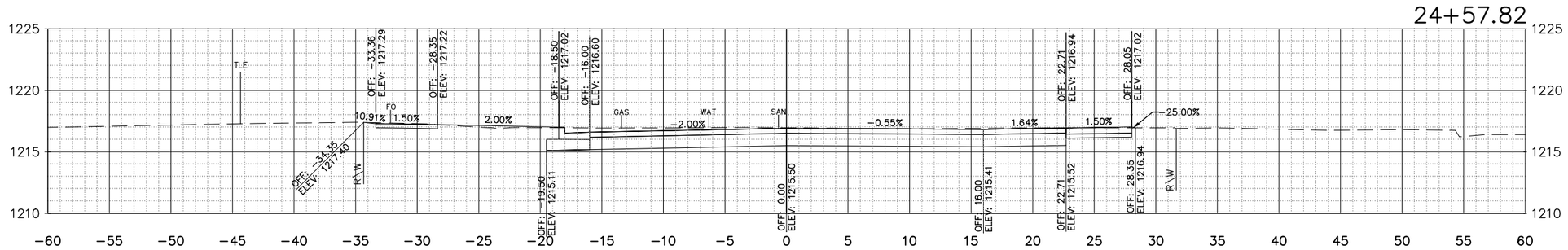


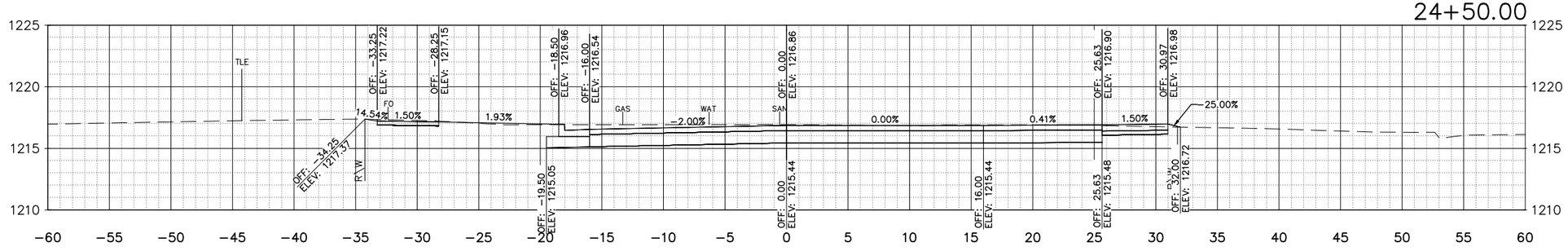
9

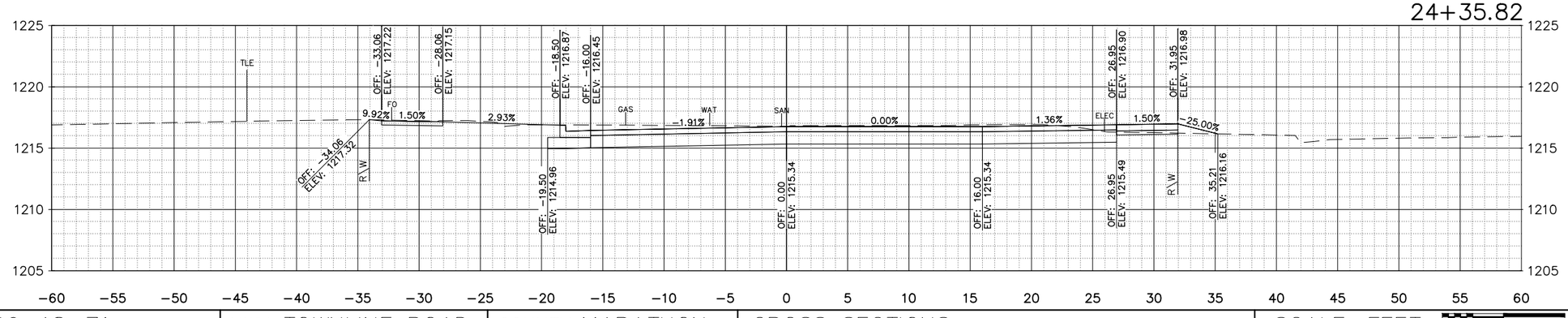
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 258

9





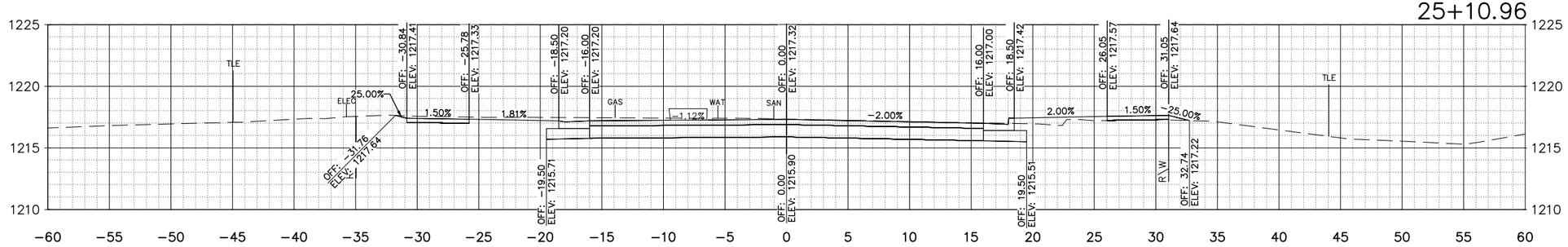


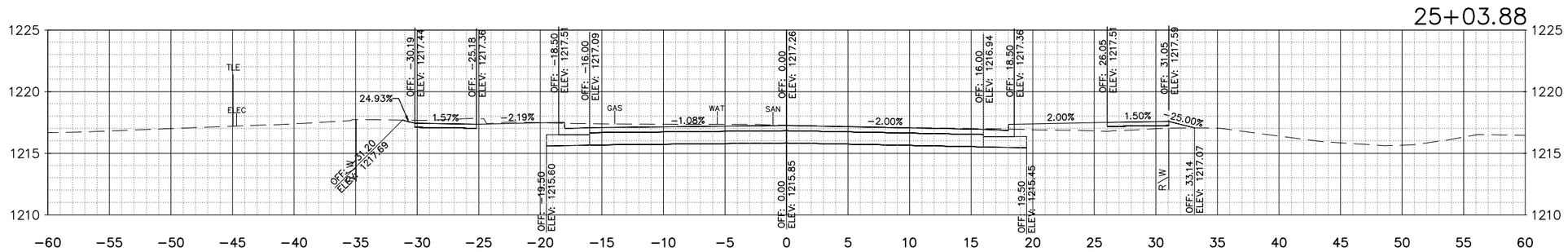


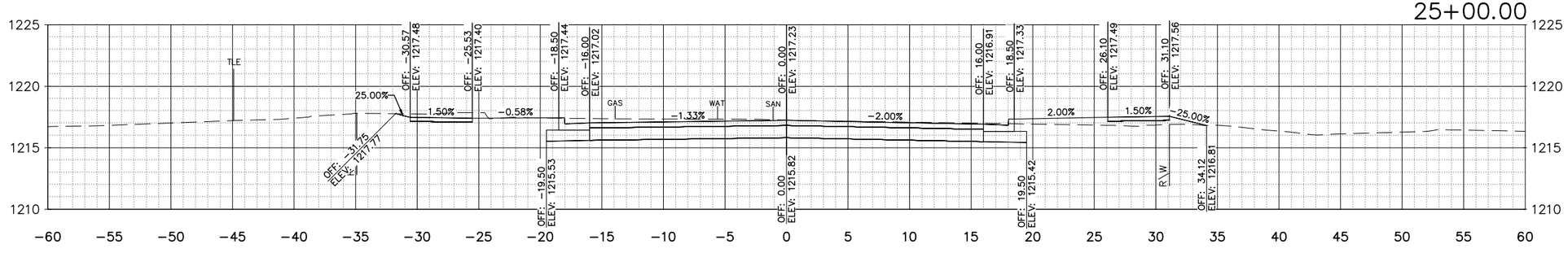
PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 259

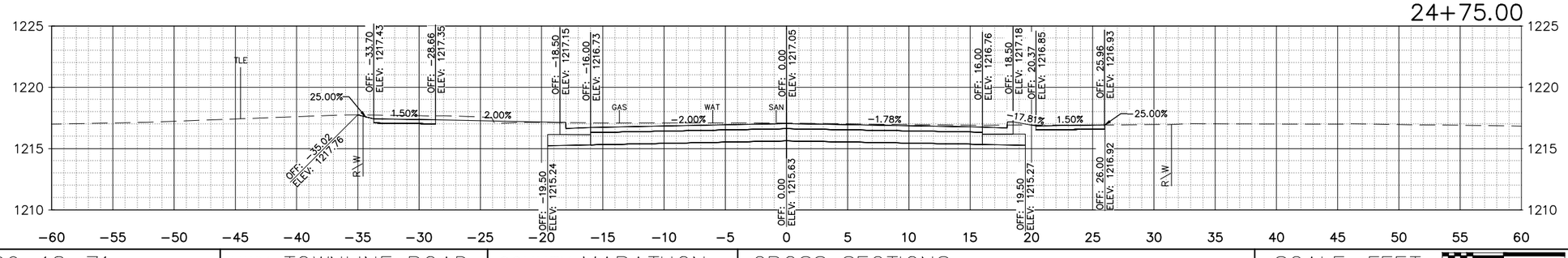
9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:19:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel









9

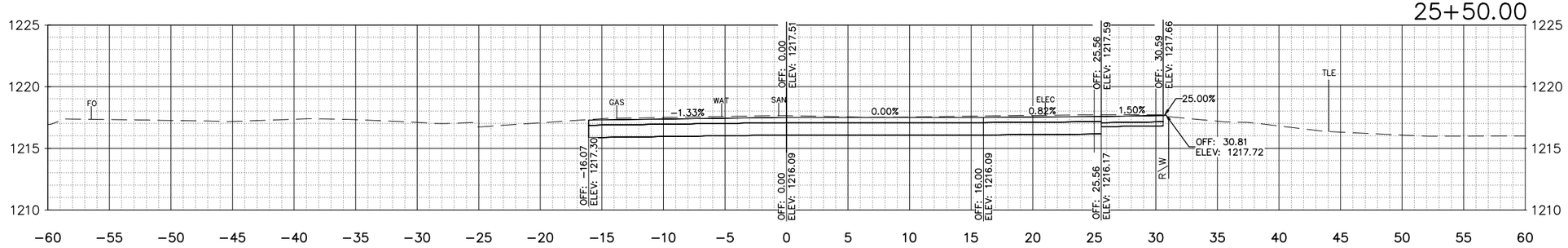
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 260

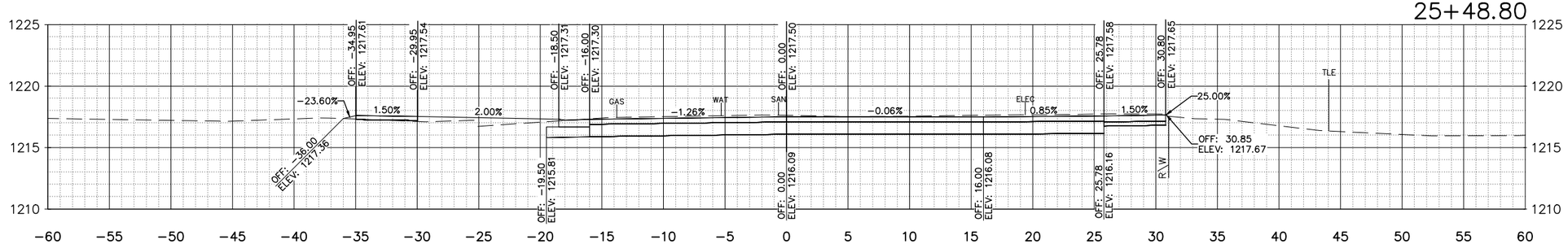
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:20:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

S. 10TH STREET

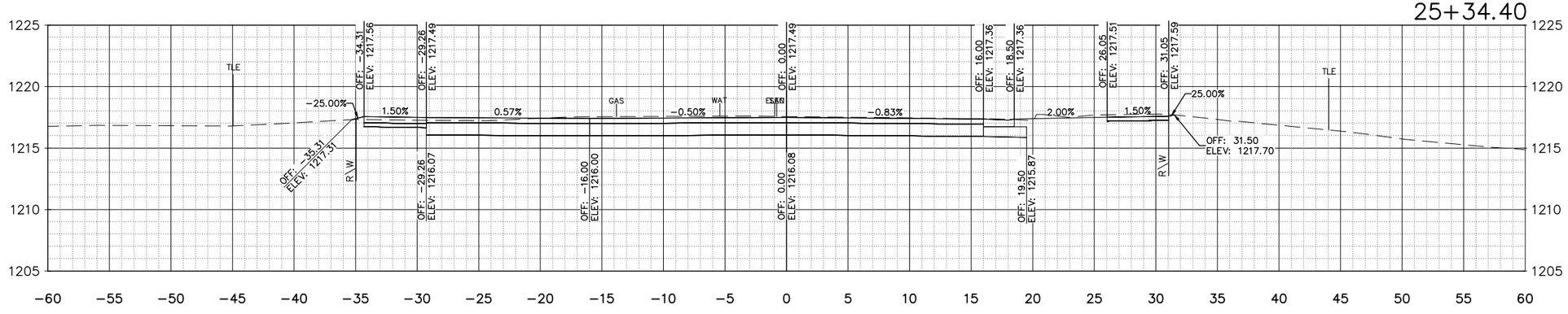
25+50.00



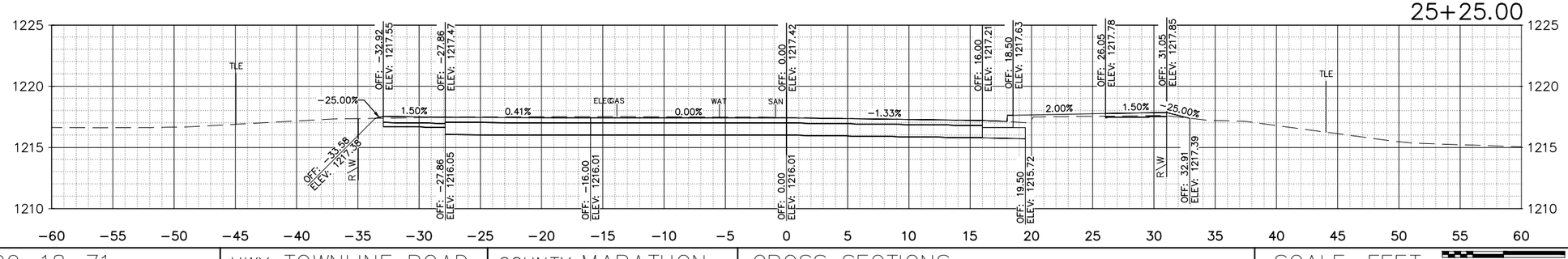
25+48.80



25+34.40



25+25.00

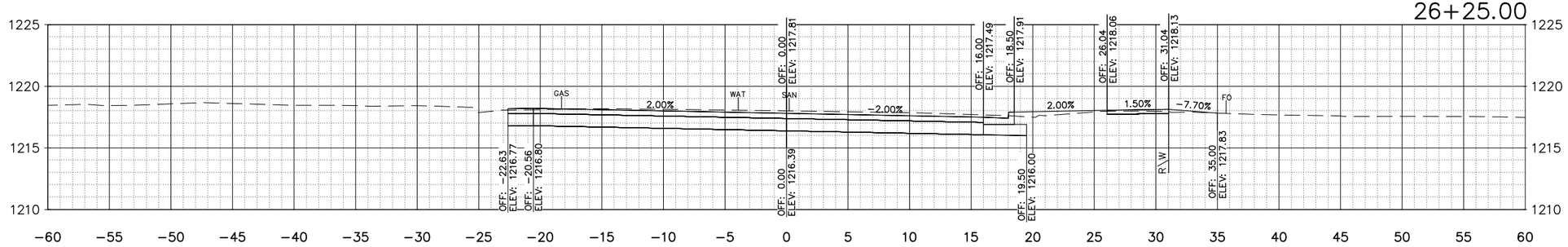


PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 261

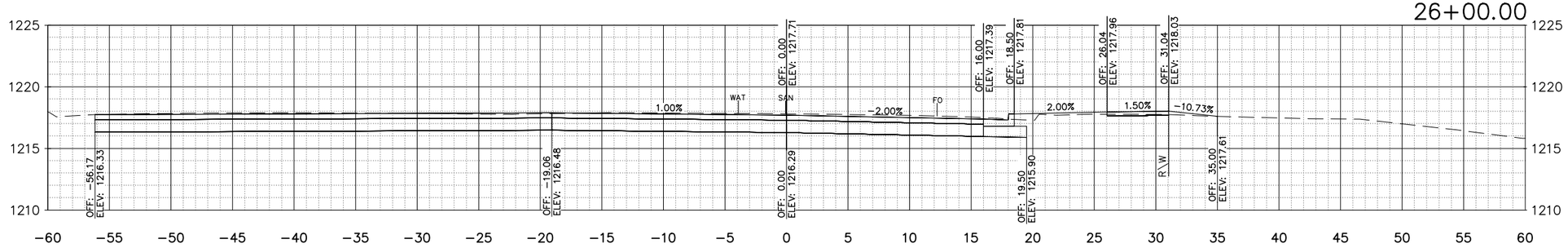
9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:20:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

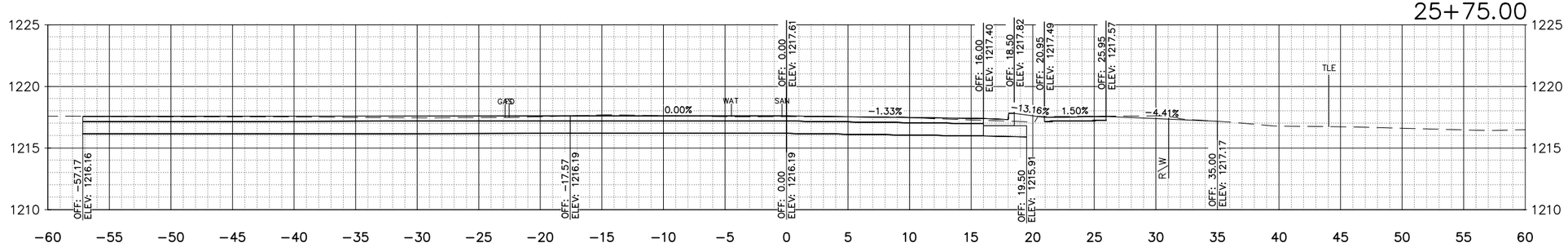
S. 10TH STREET



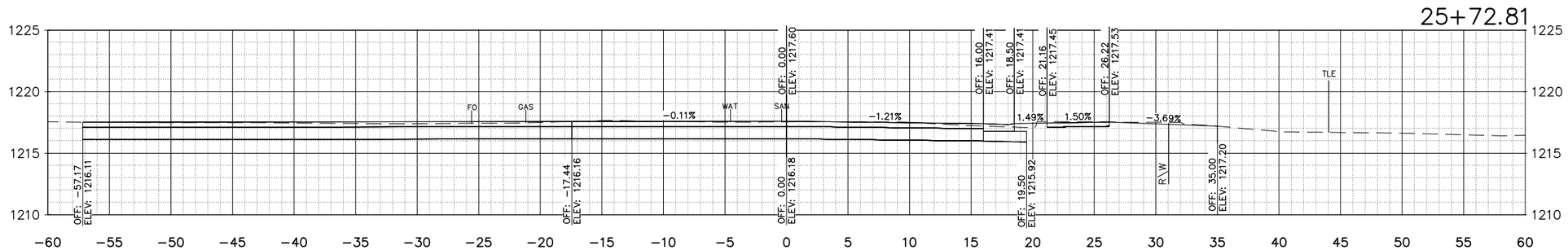
S. 10TH STREET



S. 10TH STREET



S. 10TH STREET

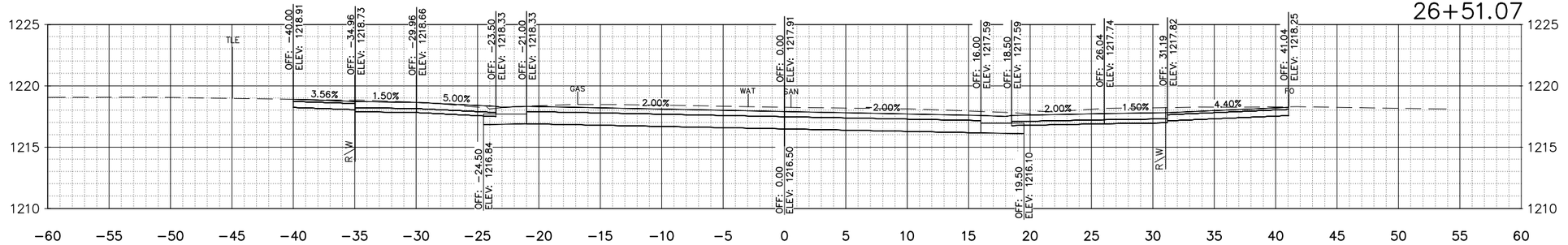


9

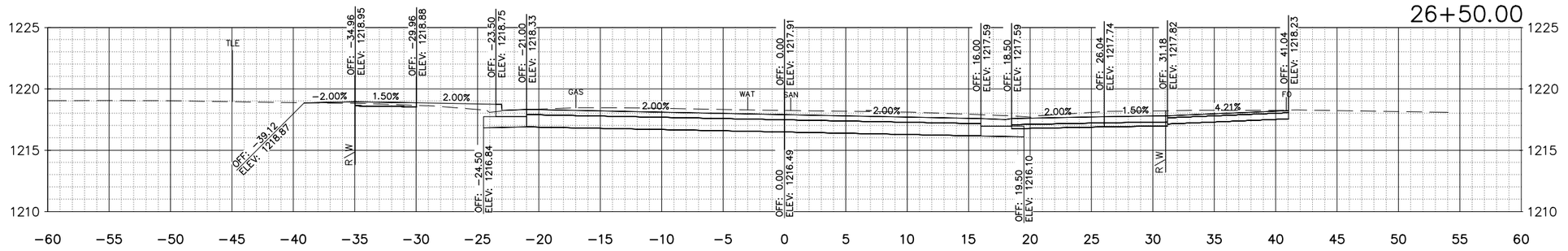
9

PROJECT NO: 6999-18-71 | HWY: TOWNLINE ROAD | COUNTY: MARATHON | CROSS SECTIONS | SCALE, FEET 0 2.5 5 10 | SHEET 262

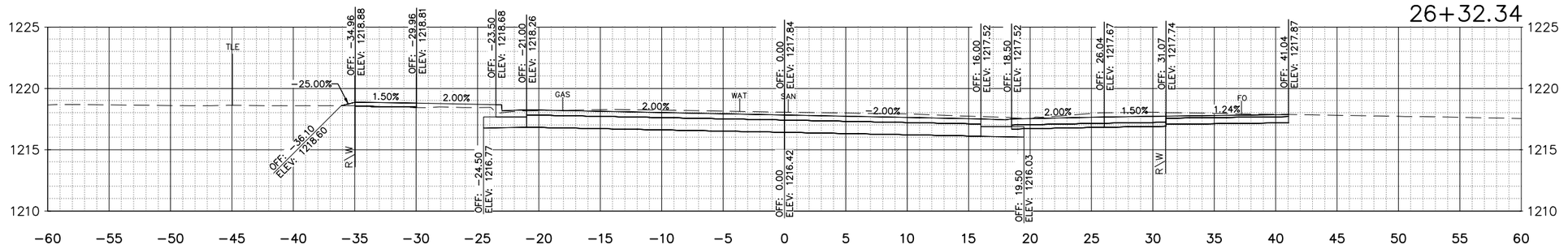
DRIVEWAY



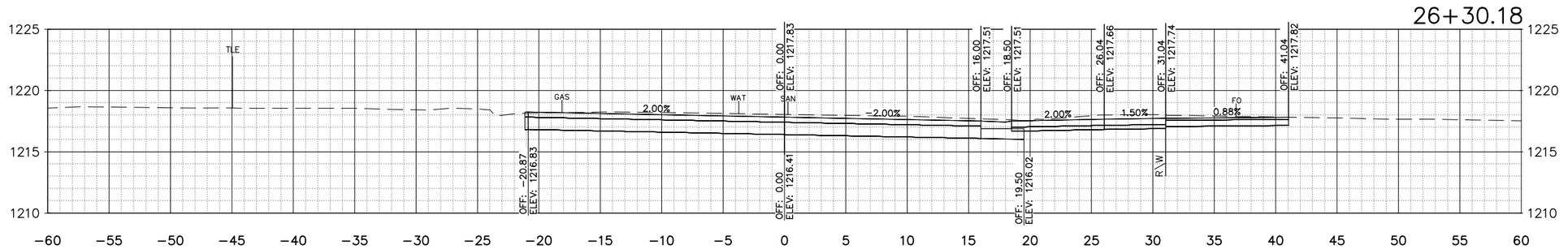
DRIVEWAY



DRIVEWAY



DRIVEWAY



S. 10TH STREET

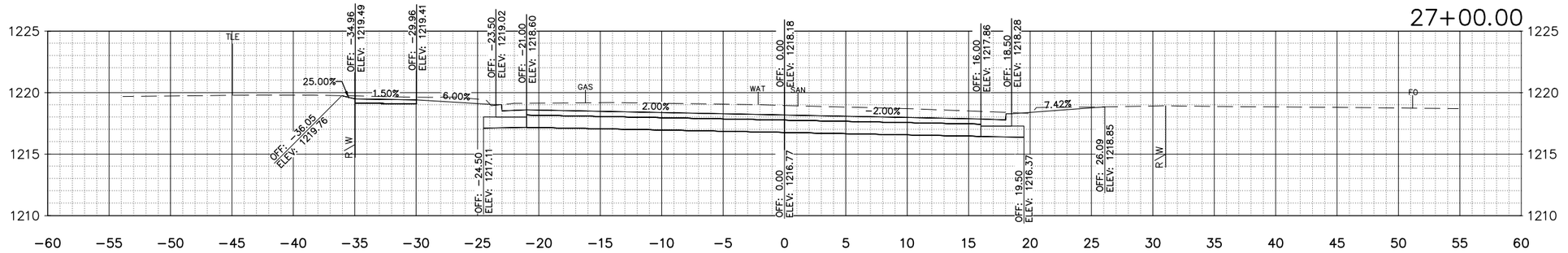
DRIVEWAY

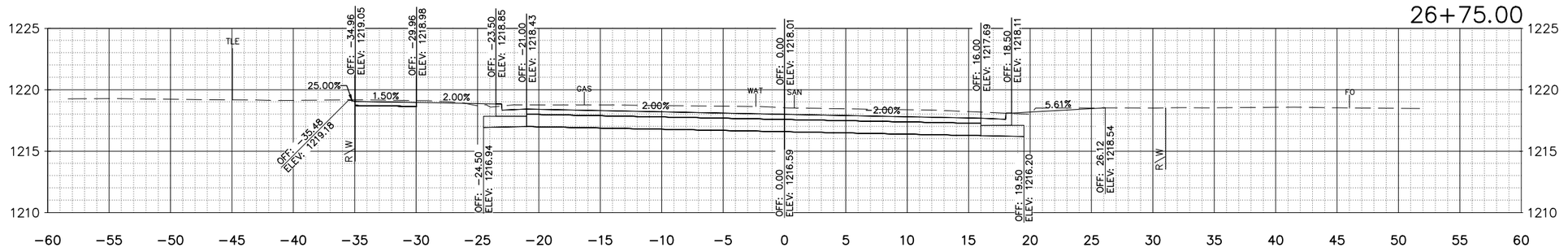
9

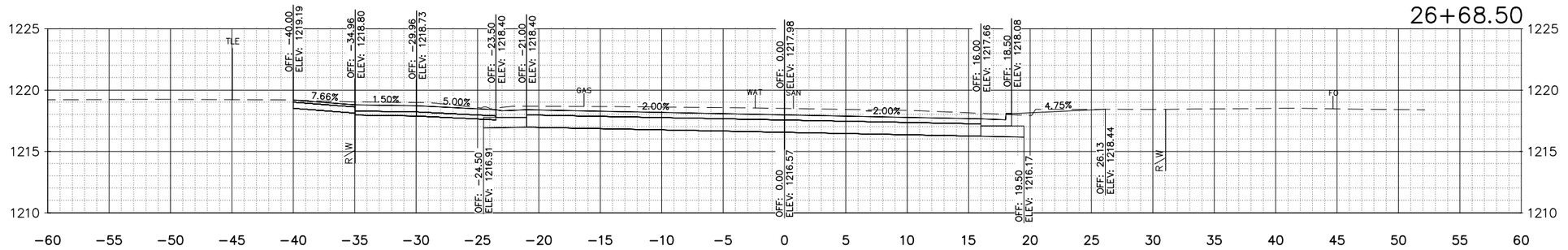
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 263

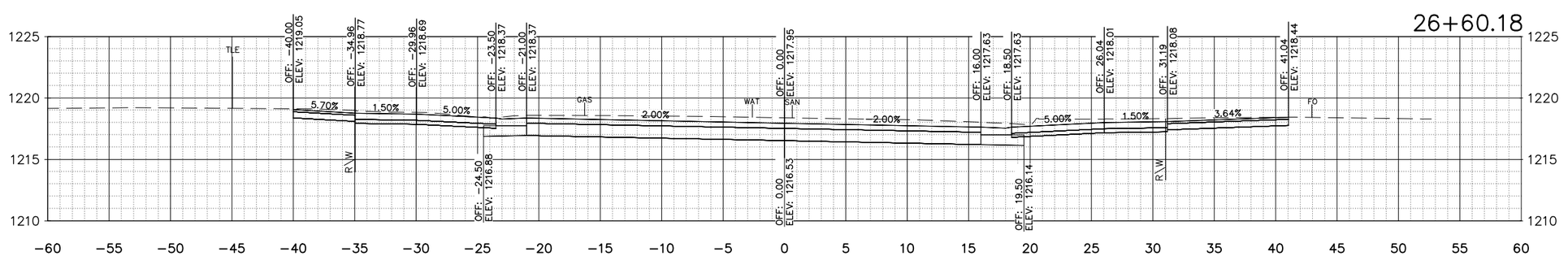
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:22:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel







DRIVEWAY



DRIVEWAY

DRIVEWAY

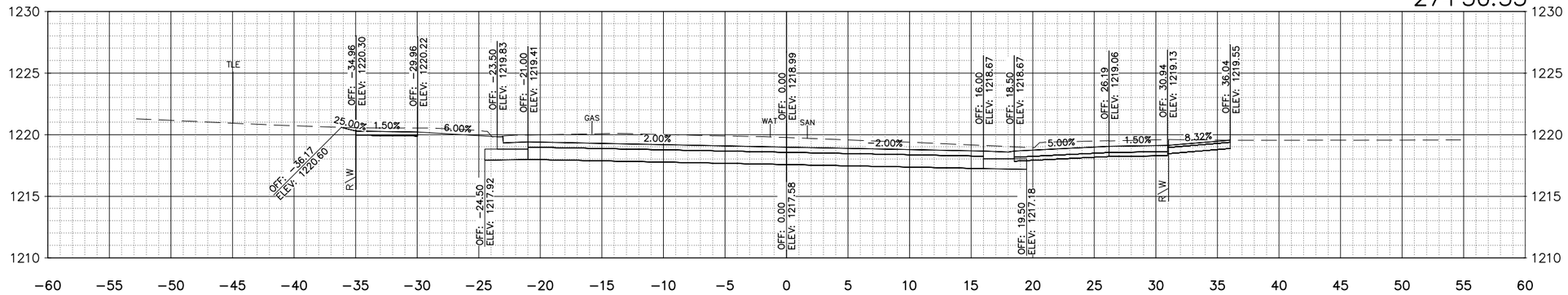
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 264

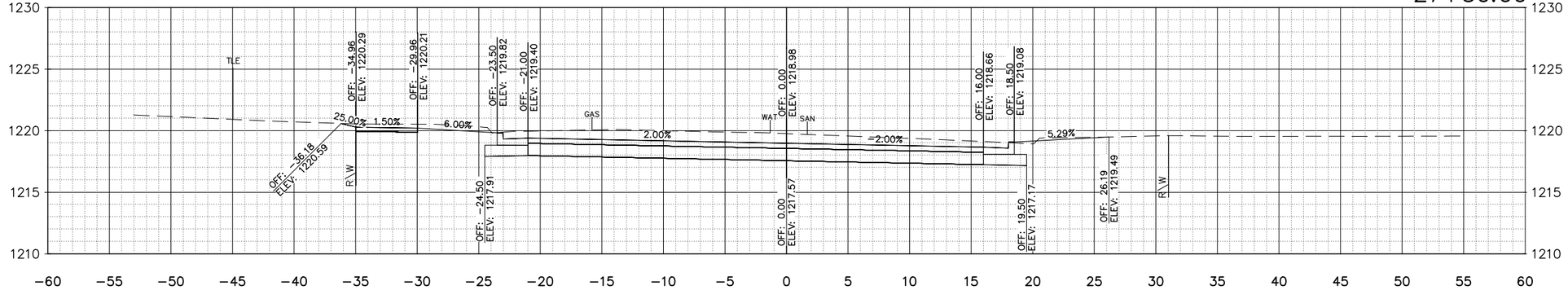
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:23:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

27+50.53

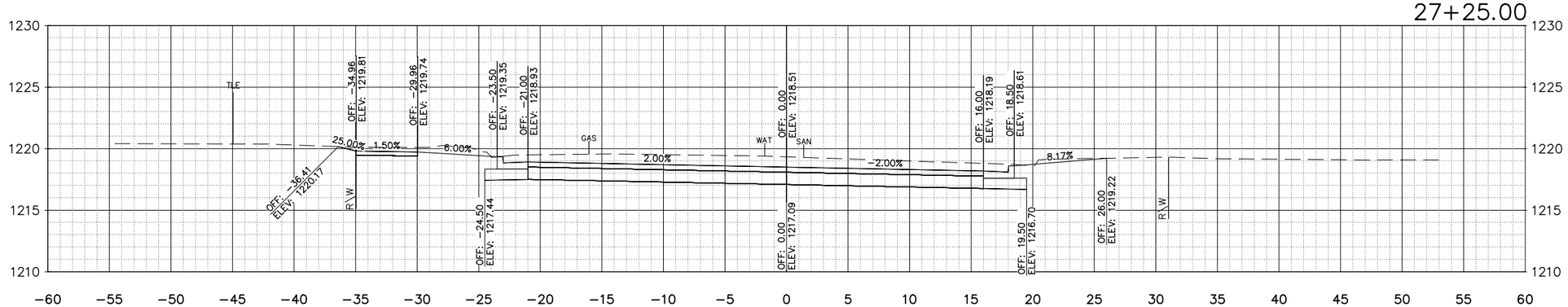


DRIVEWAY

27+50.00



27+25.00

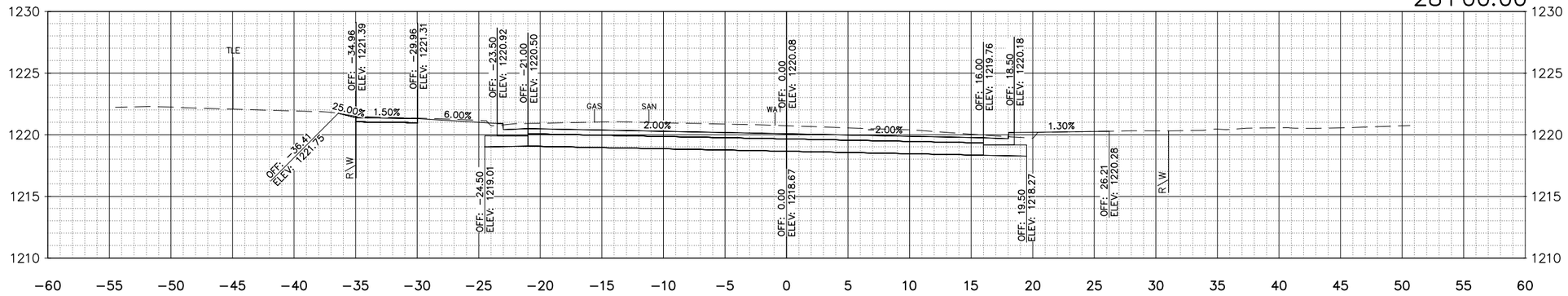


9

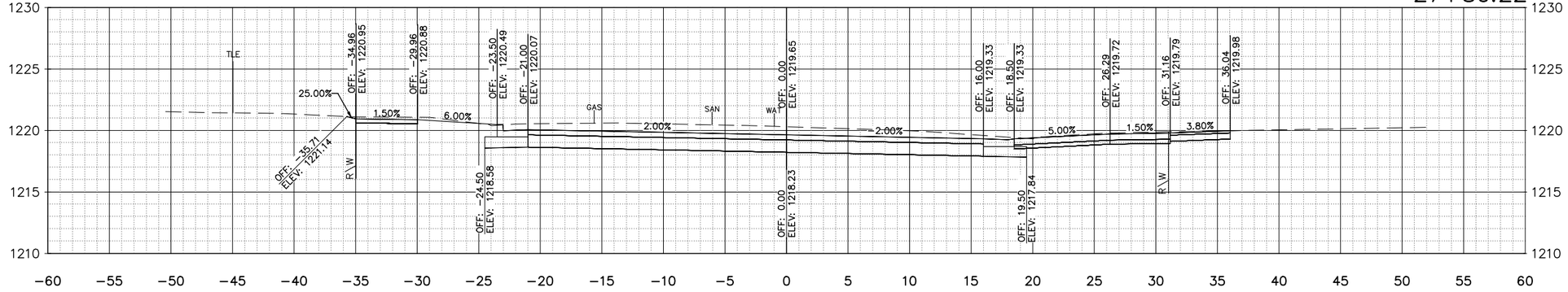
PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 265

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:23:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

28+00.00

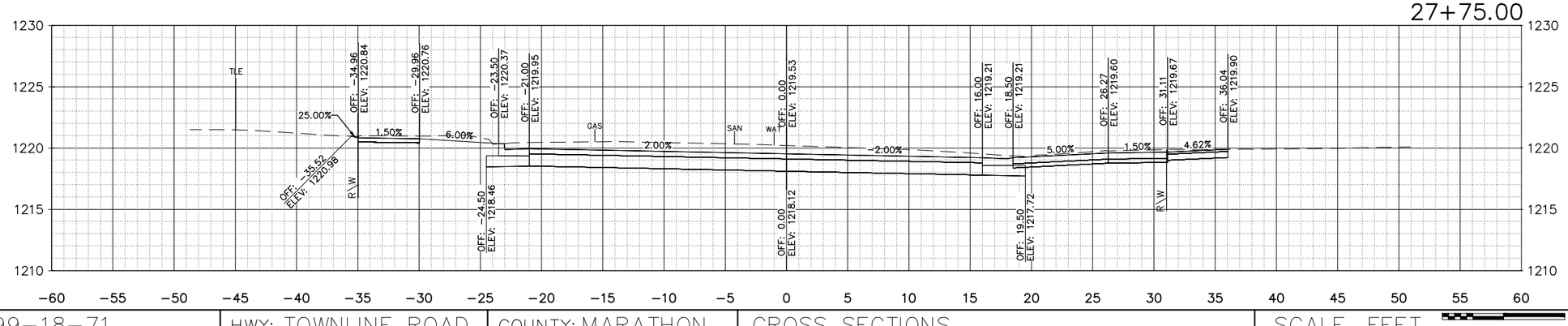


27+80.22



DRIVEWAY

27+75.00



DRIVEWAY

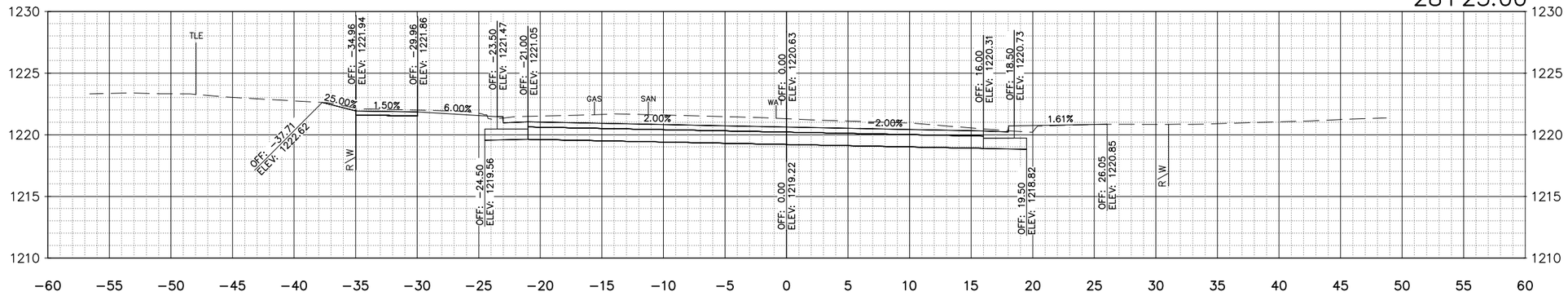
9

9

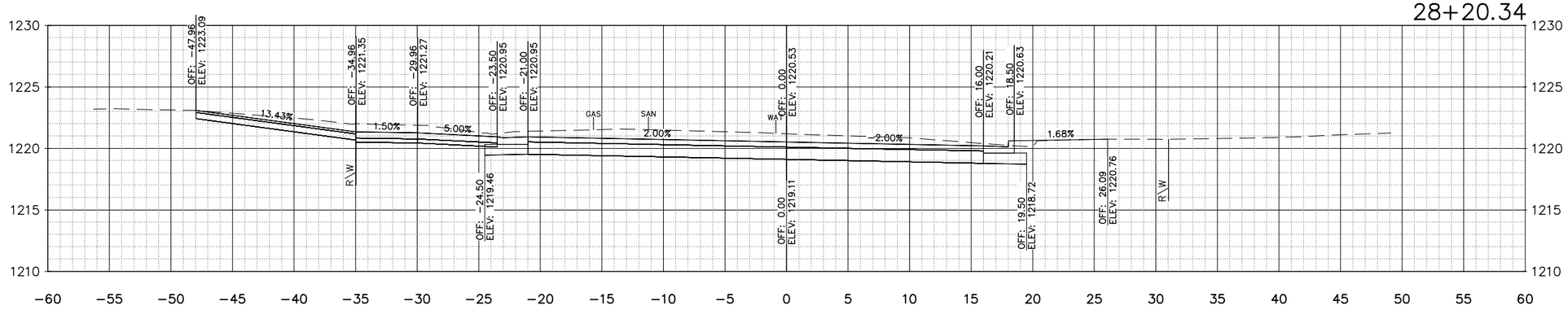
PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 266

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:24:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

28+25.00

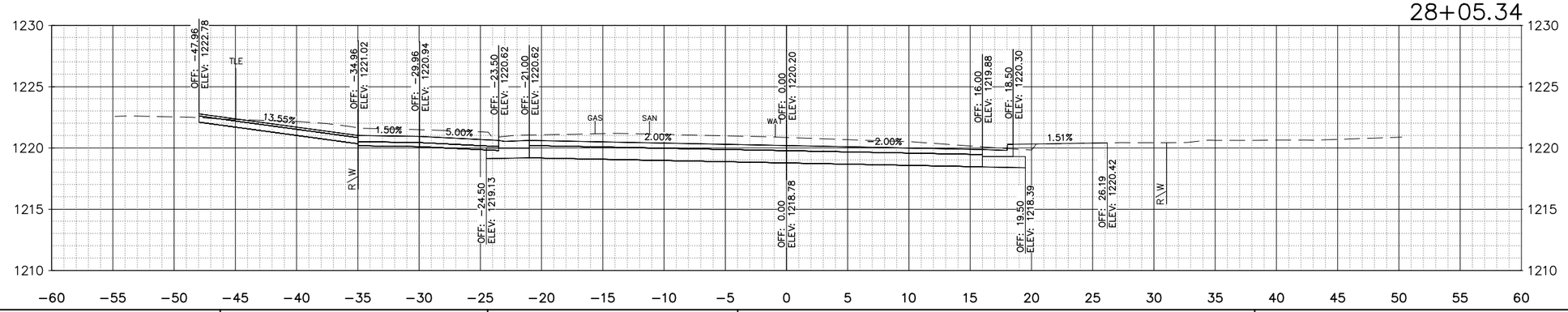


28+20.34



28+05.34

DRIVEWAY



9

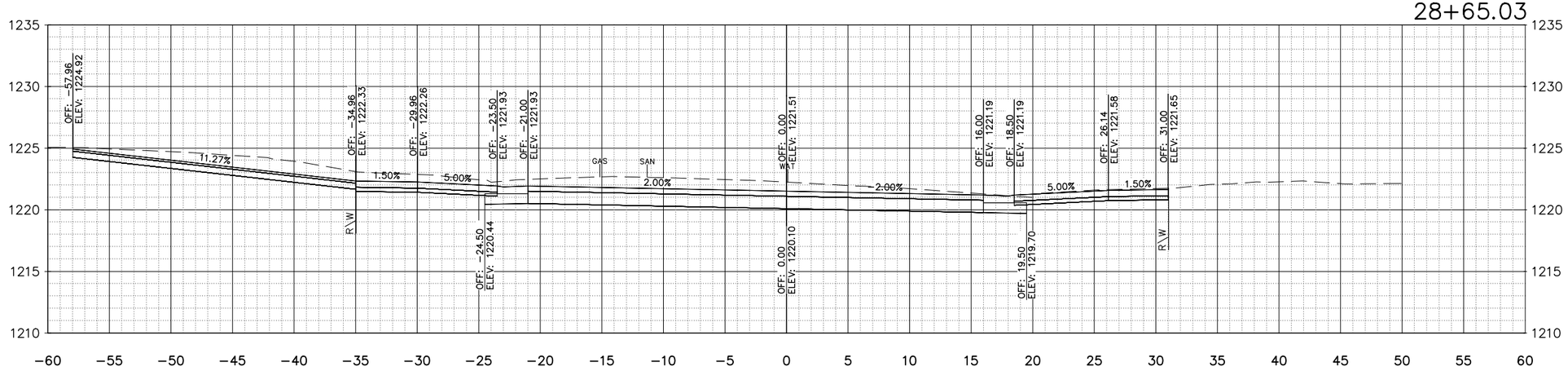
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 267

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:25:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

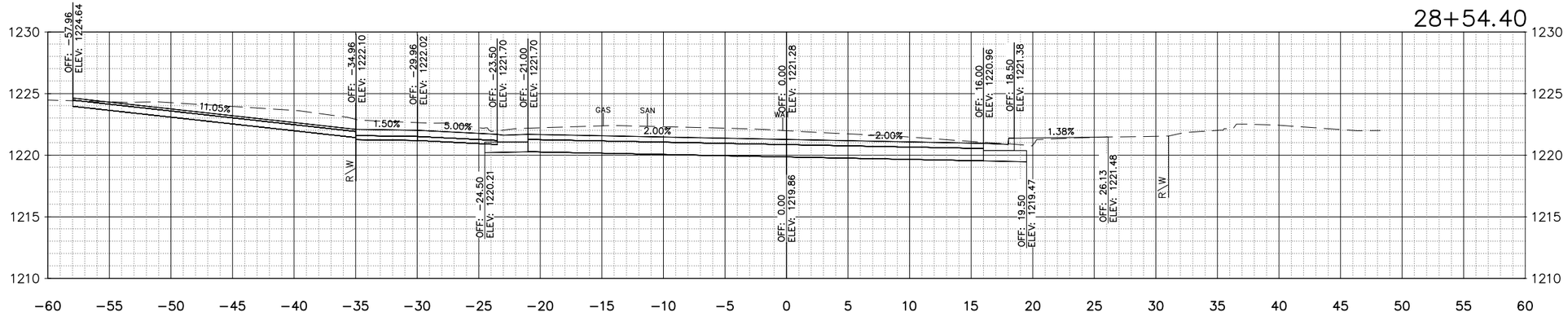
28+65.03

DRIVEWAY

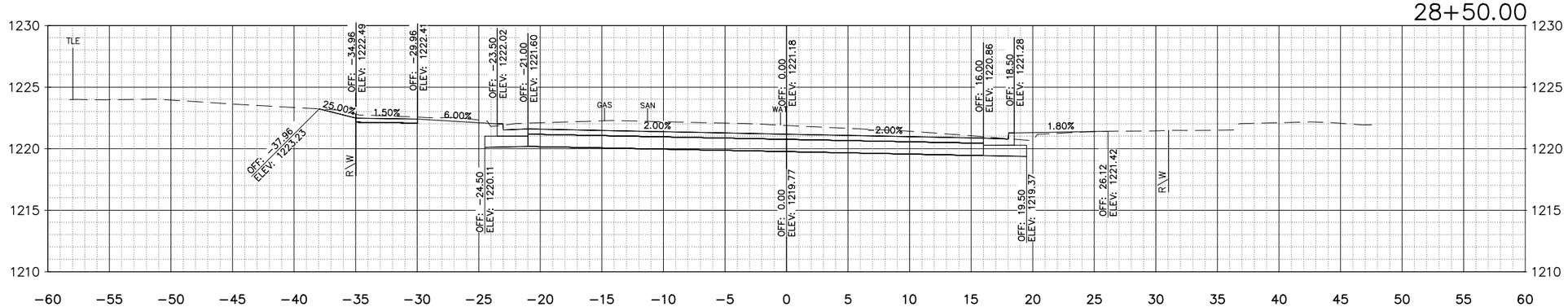


DRIVEWAY

28+54.40



28+50.00

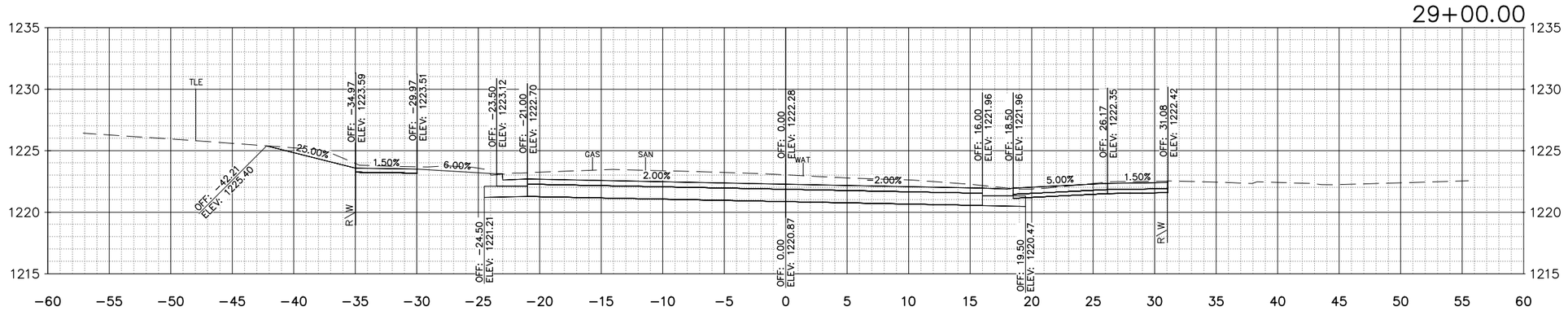


9

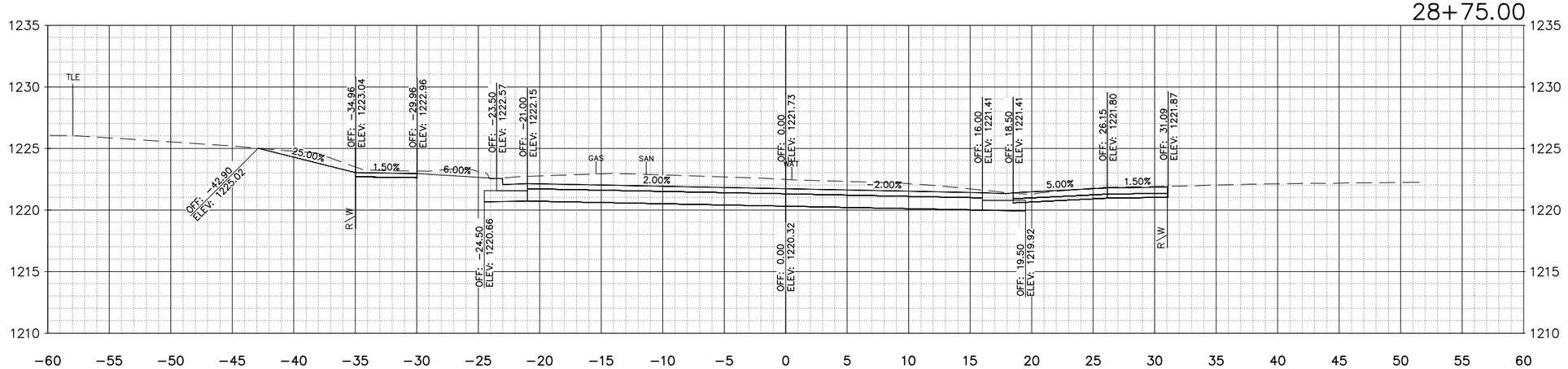
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 268

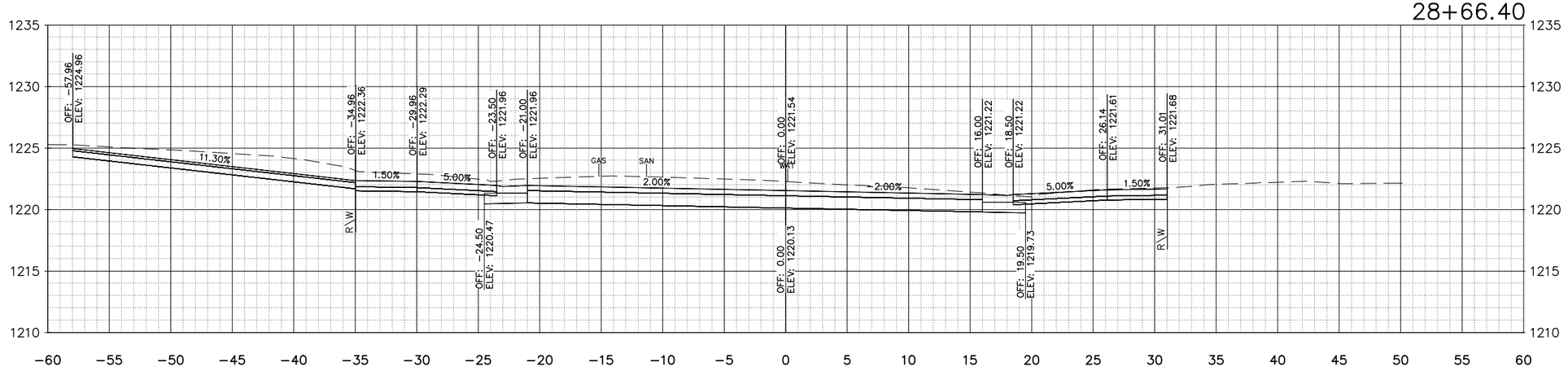
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:26:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



DRIVEWAY



DRIVEWAY



DRIVEWAY

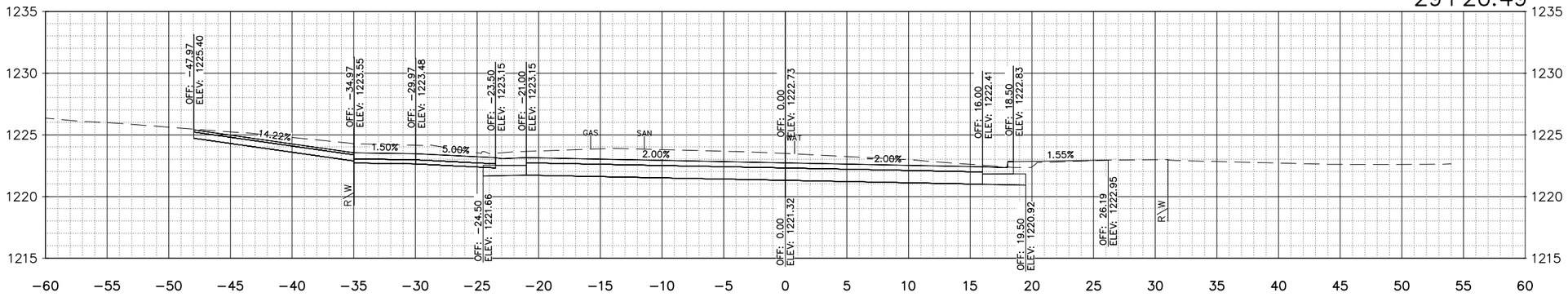
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 269

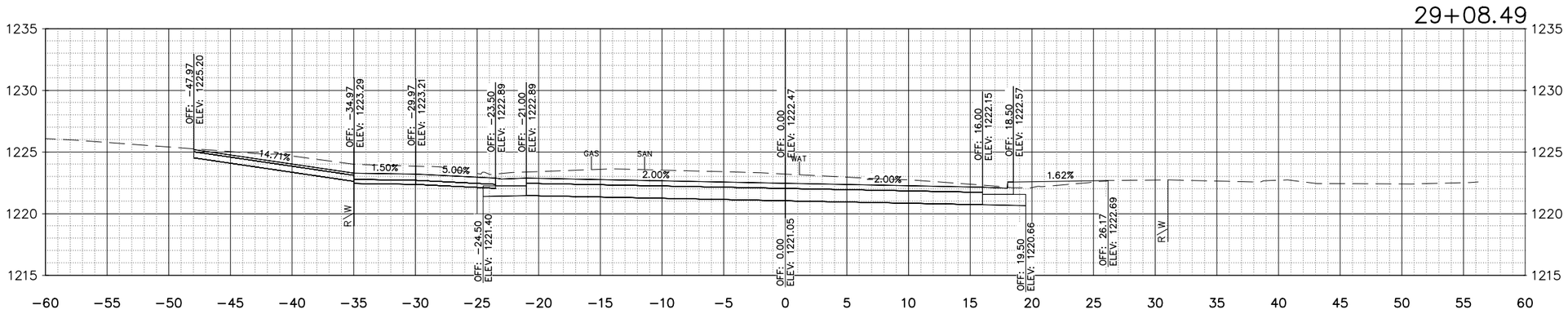
29+20.49

DRIVEWAY



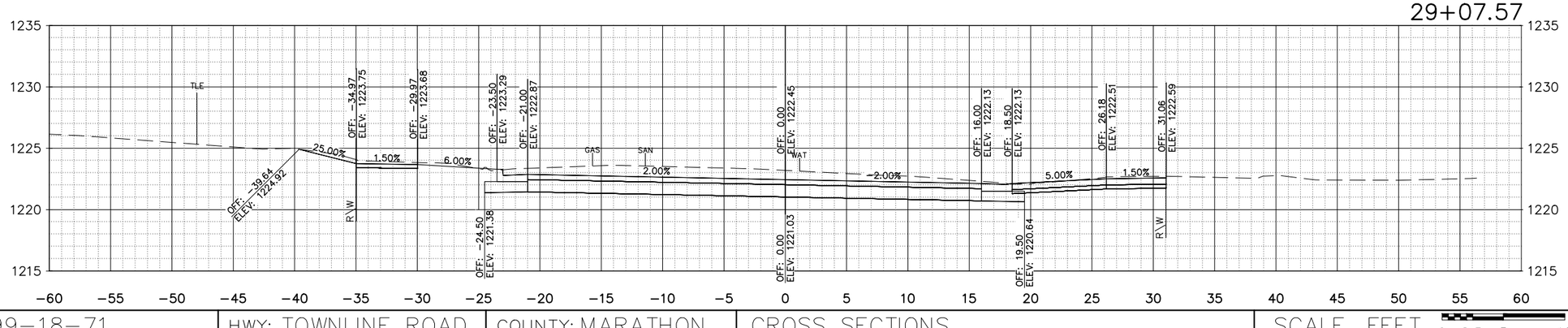
29+08.49

DRIVEWAY



29+07.57

DRIVEWAY

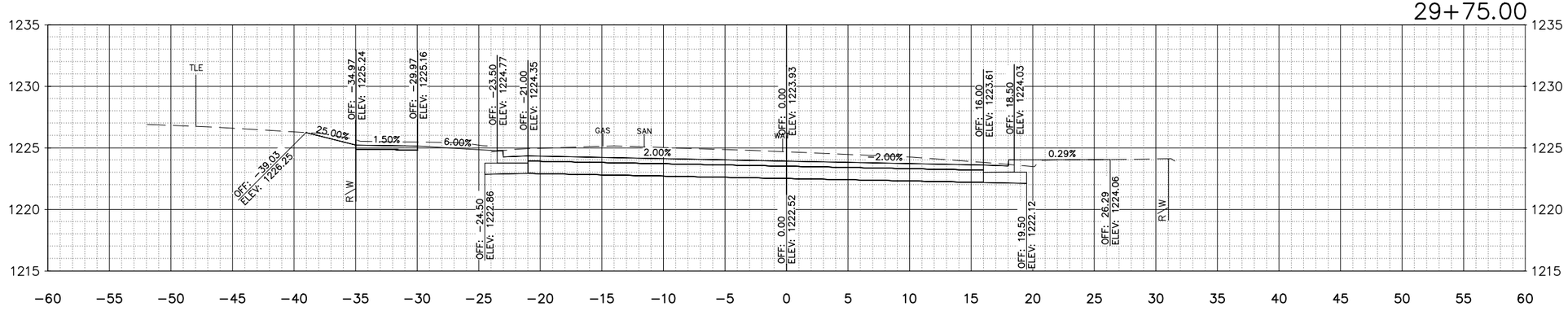


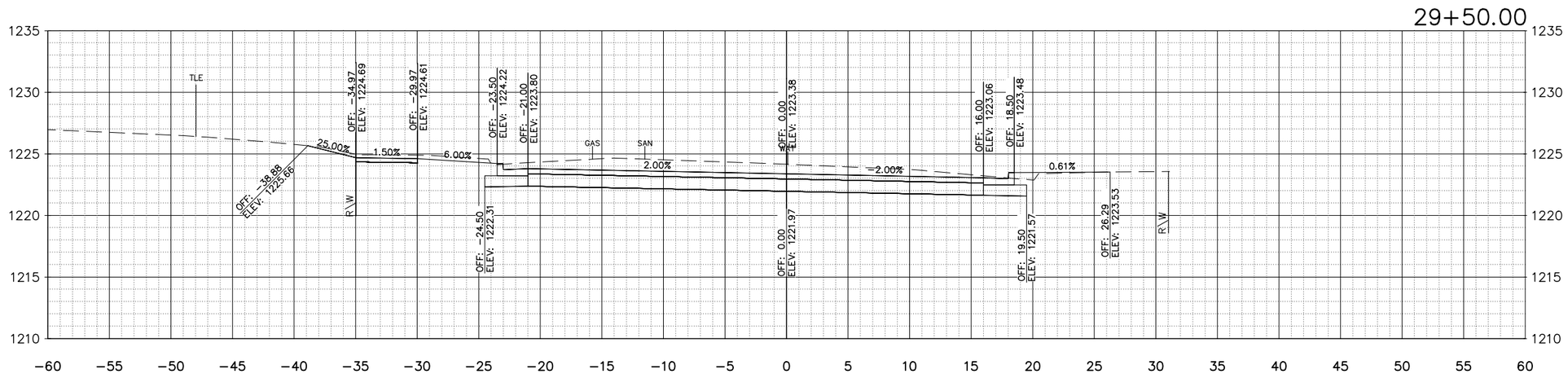
9

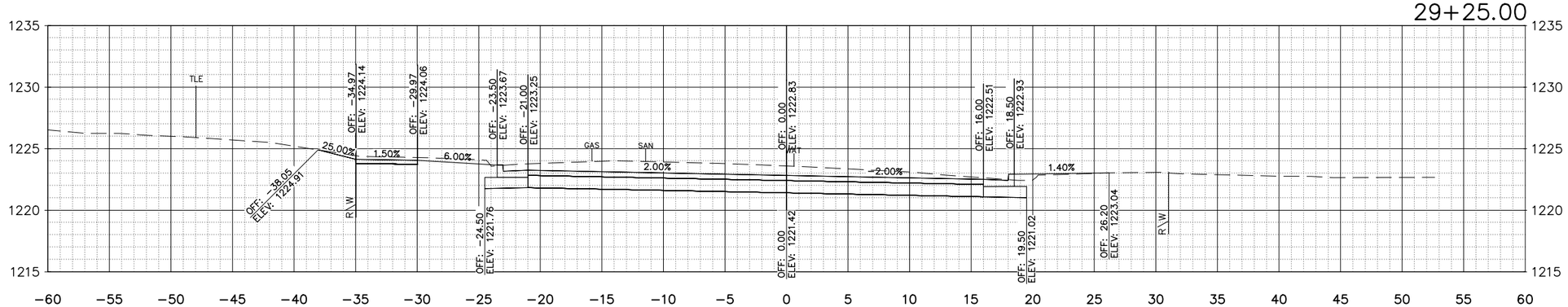
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 270

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:27:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel







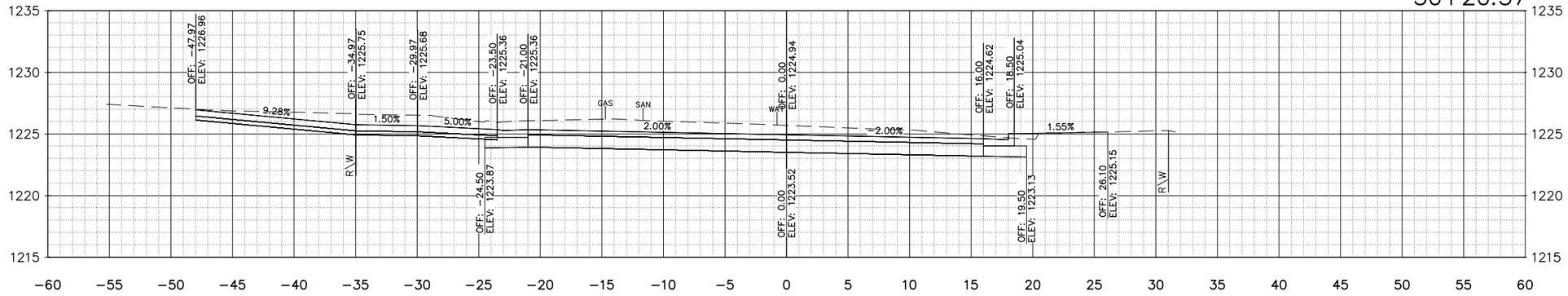
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 271

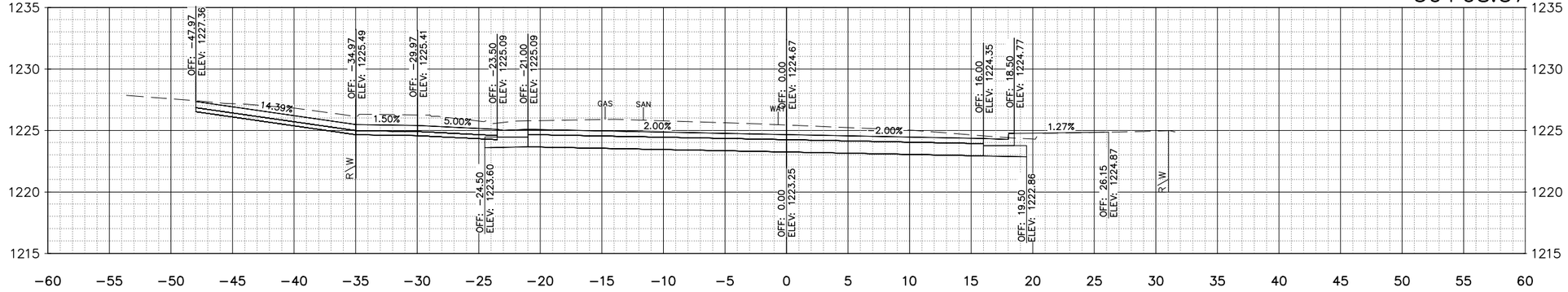
30+20.57

DRIVEWAY



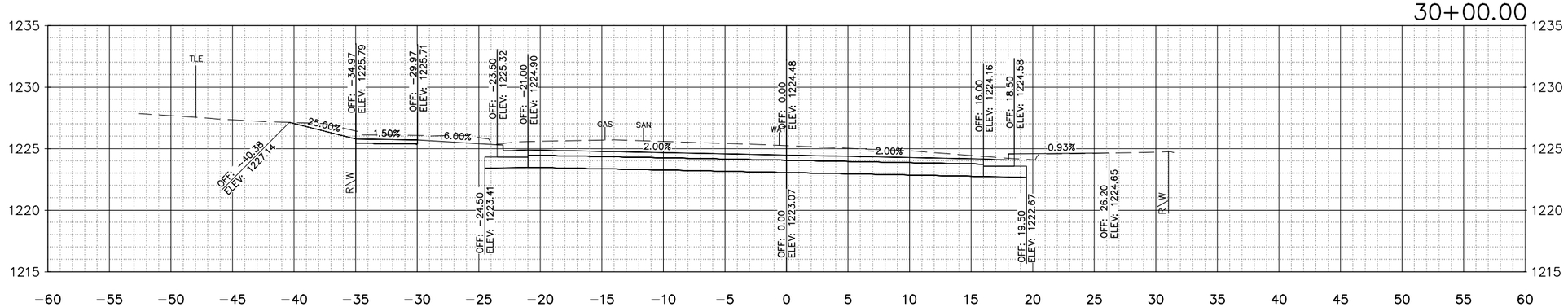
30+08.57

DRIVEWAY



30+00.00

DRIVEWAY



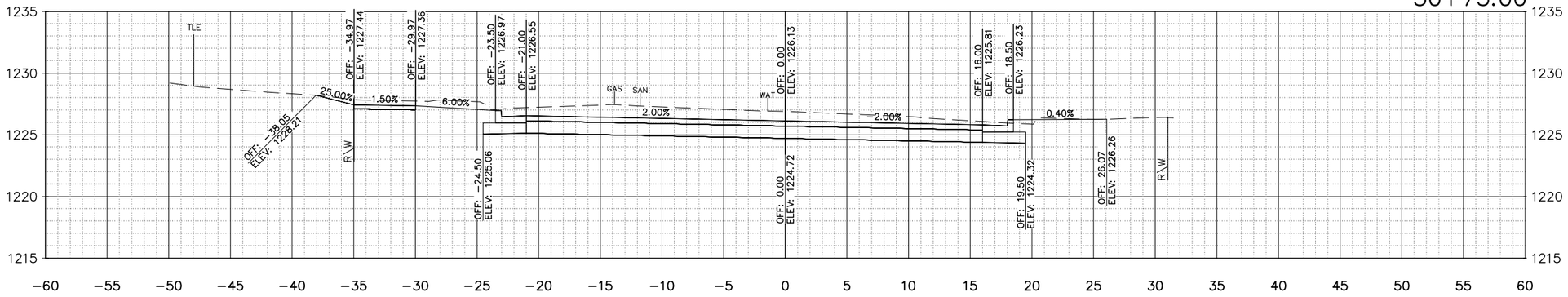
9

9

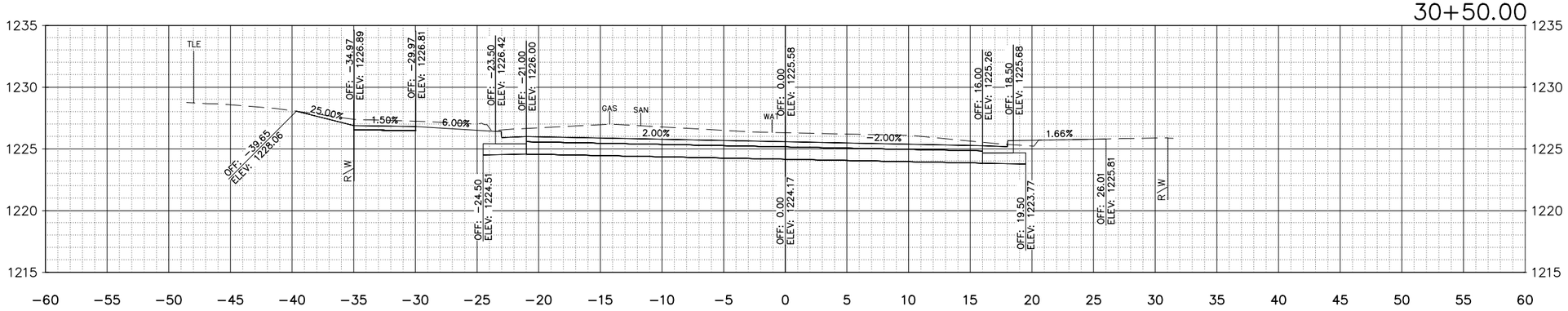
PROJECT NO: 6999-18-71 | HWY: TOWNLINE ROAD | COUNTY: MARATHON | CROSS SECTIONS | SCALE, FEET 0 2.5 5 10 | SHEET 272

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:29:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

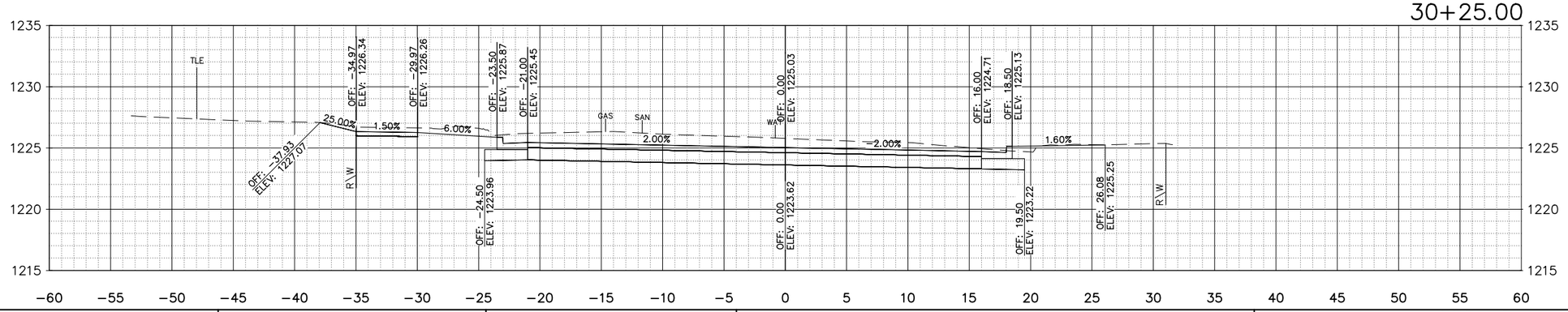
30+75.00



30+50.00



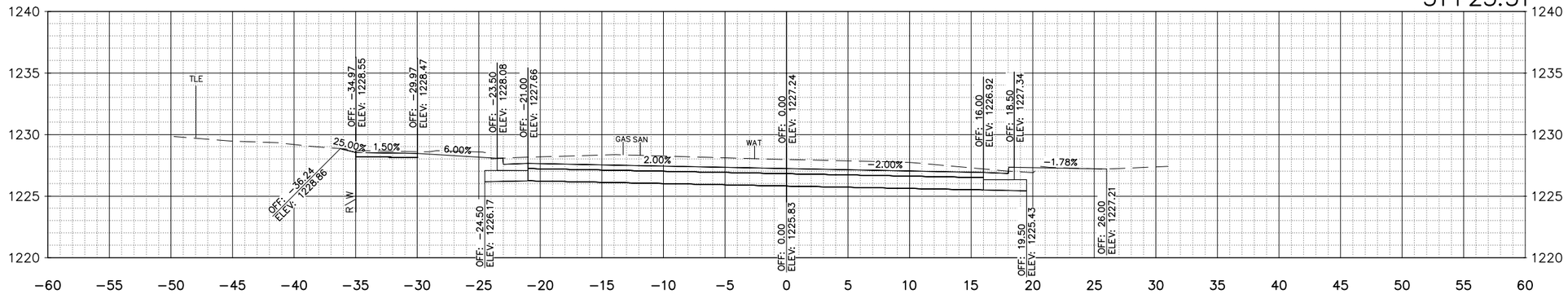
30+25.00

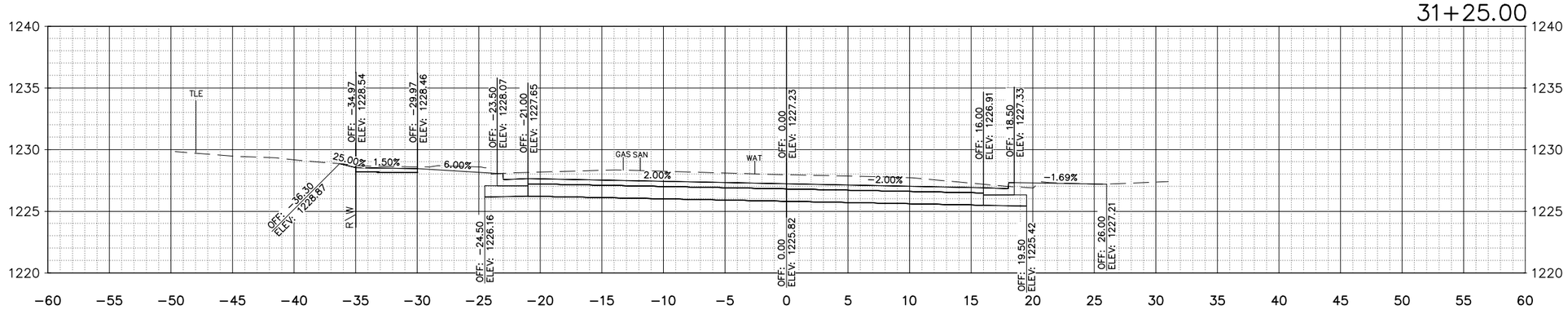


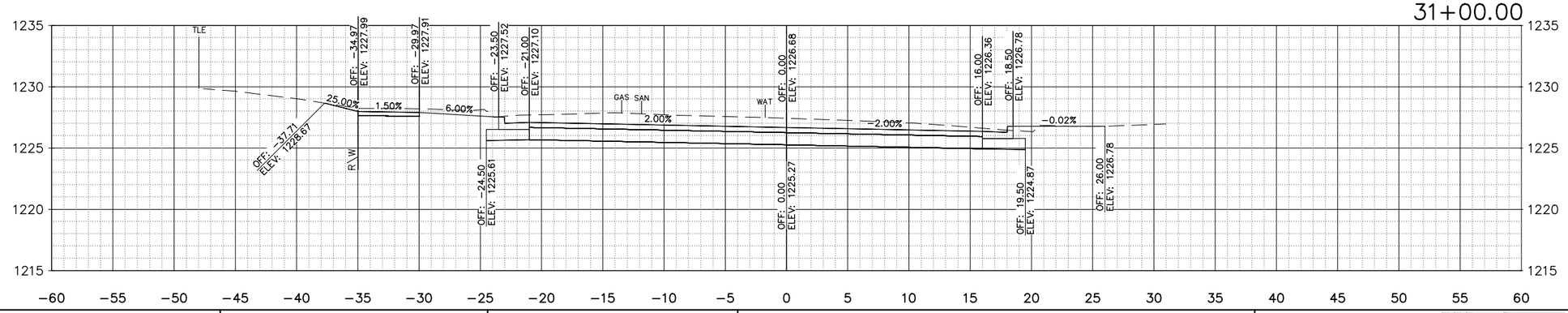
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 273







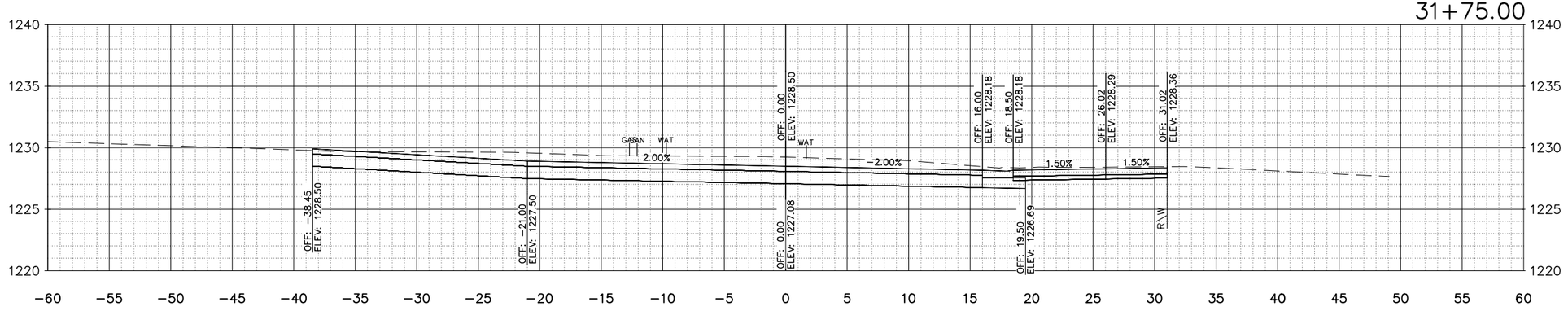
9

9

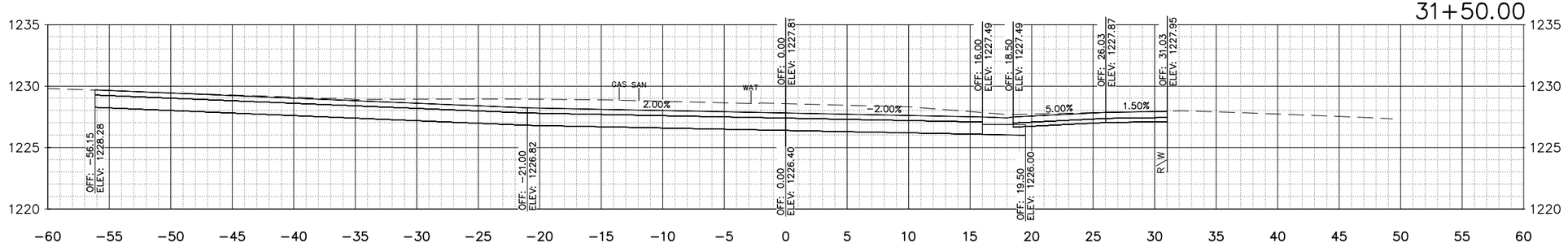
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 274

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:30:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

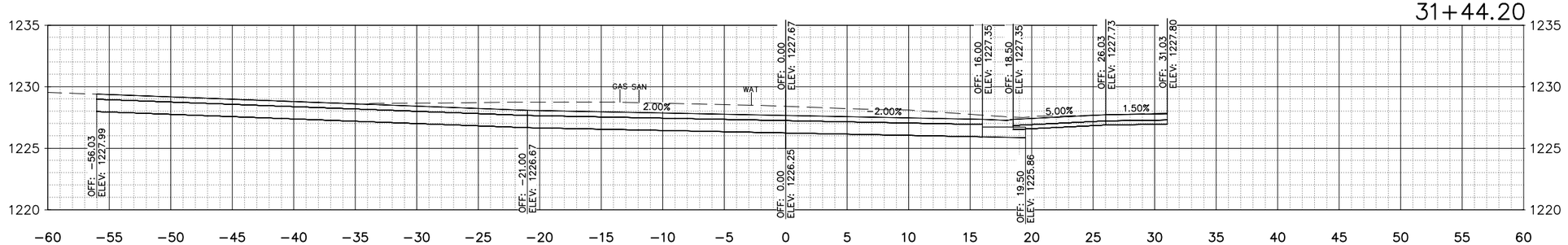
31+75.00



31+50.00



31+44.20



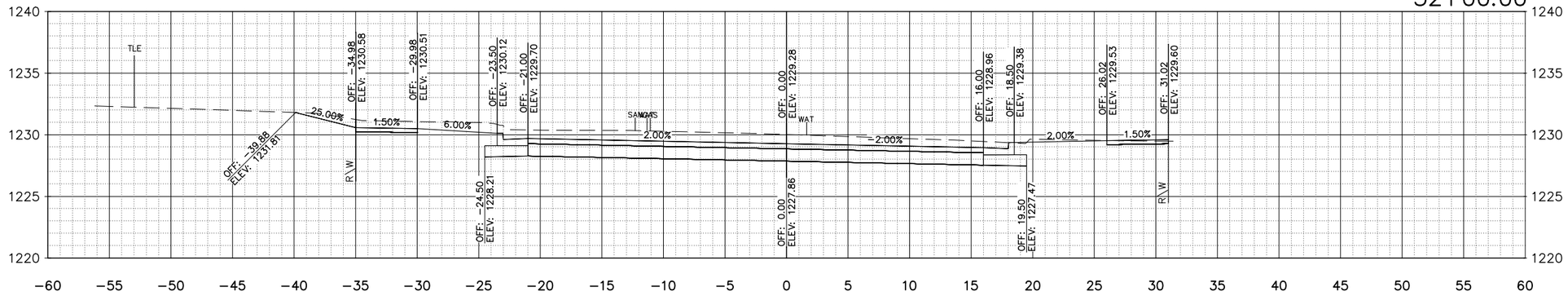
9

9

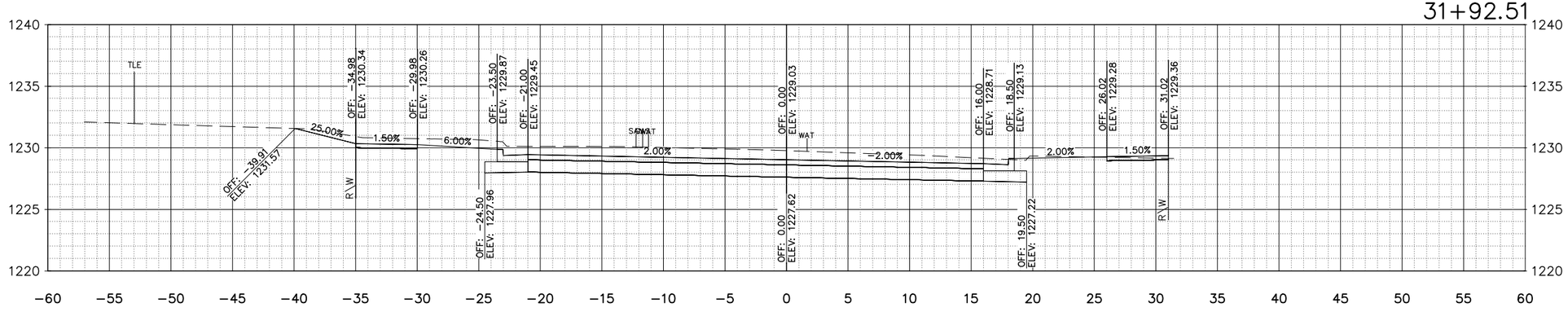
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 275

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:31:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

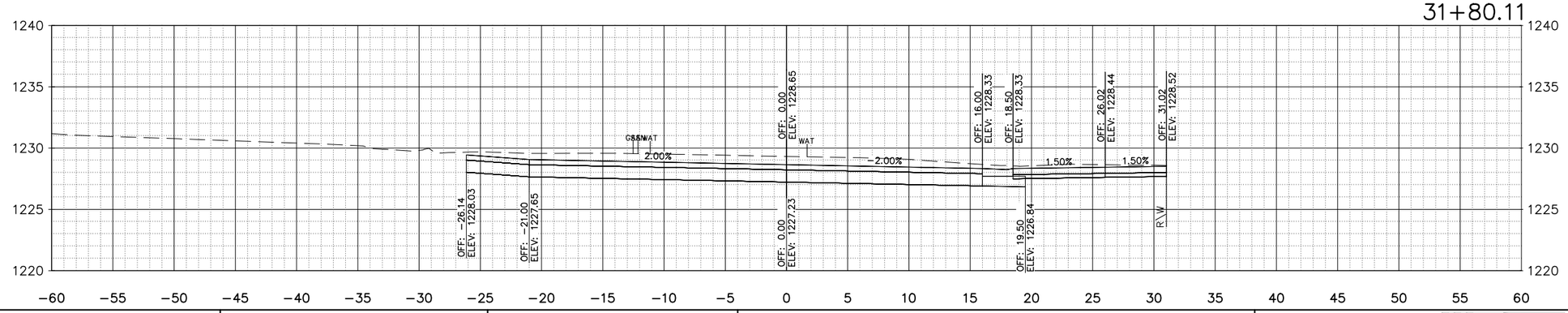
32+00.00



31+92.51



31+80.11



S. 12TH STREET

DRIVEWAY

9

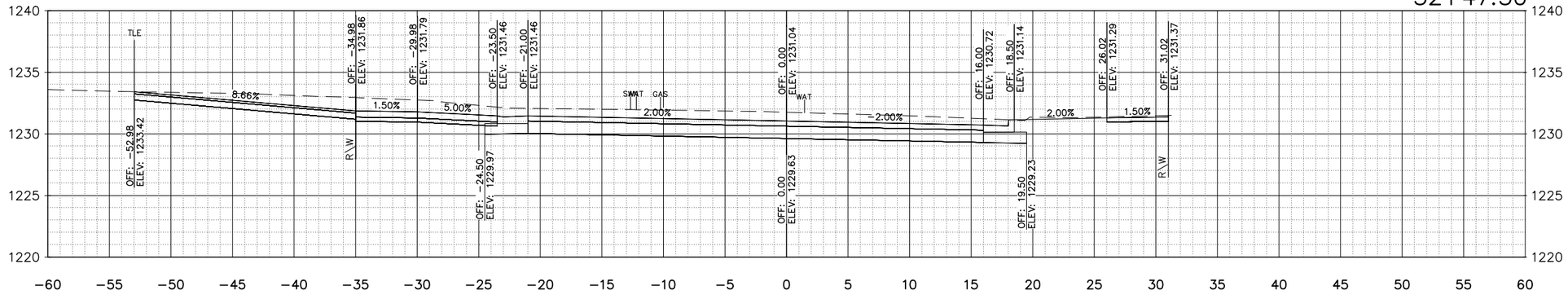
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 276

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:32:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

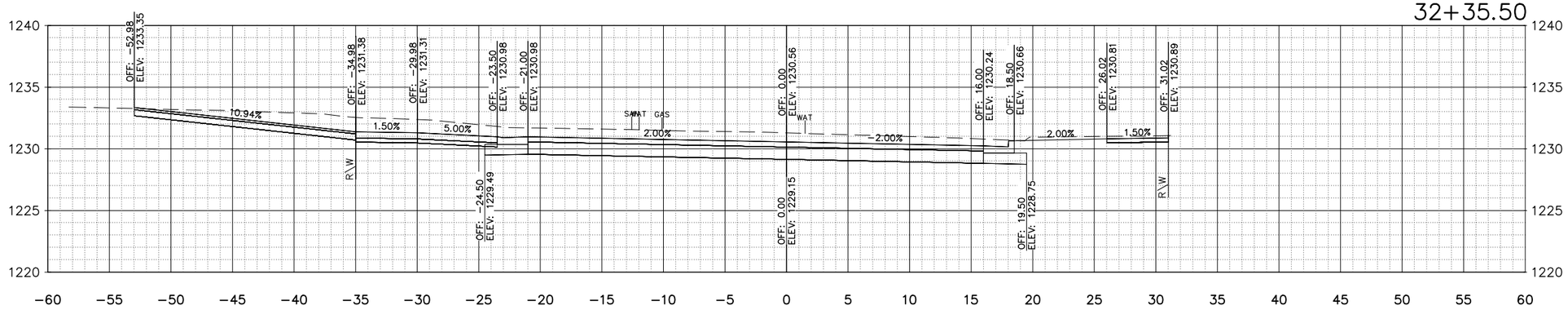
32+47.50

DRIVEWAY



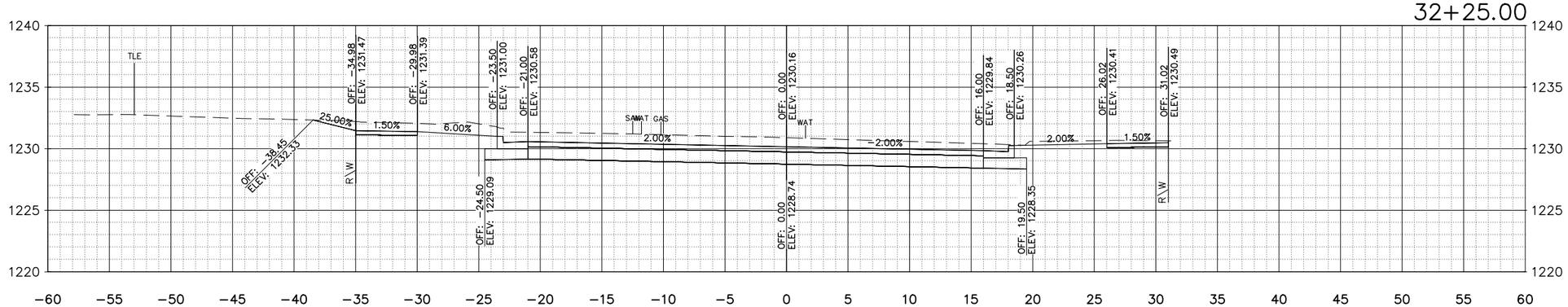
32+35.50

DRIVEWAY



32+25.00

DRIVEWAY



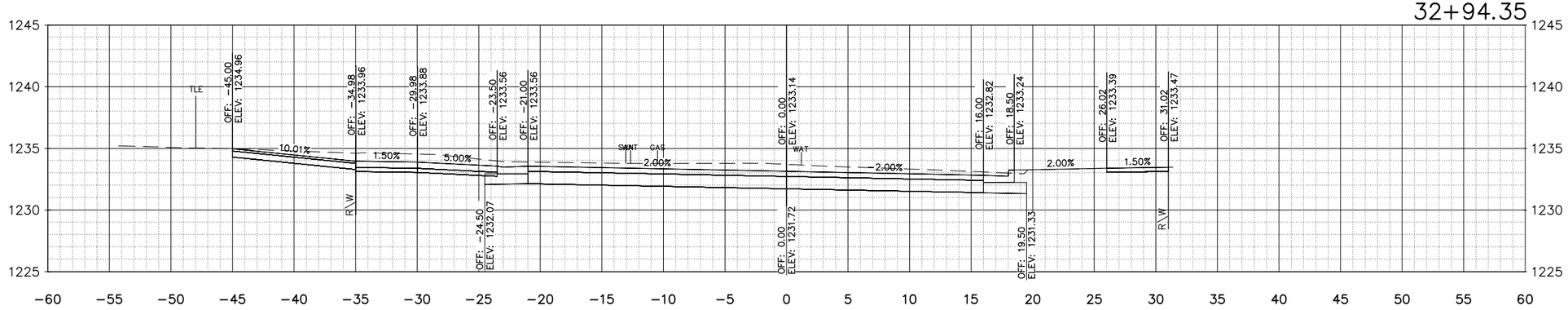
9

9

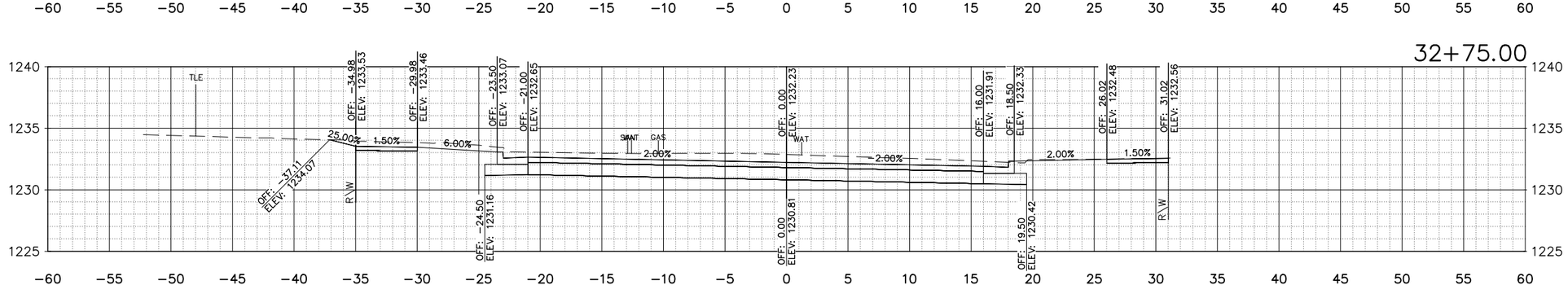
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 277

DRIVEWAY

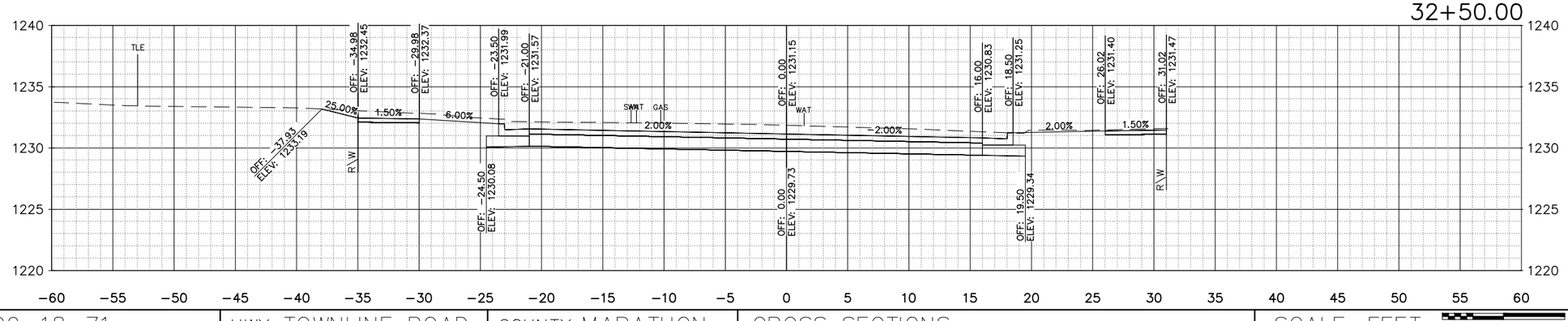
32+94.35



32+75.00



32+50.00

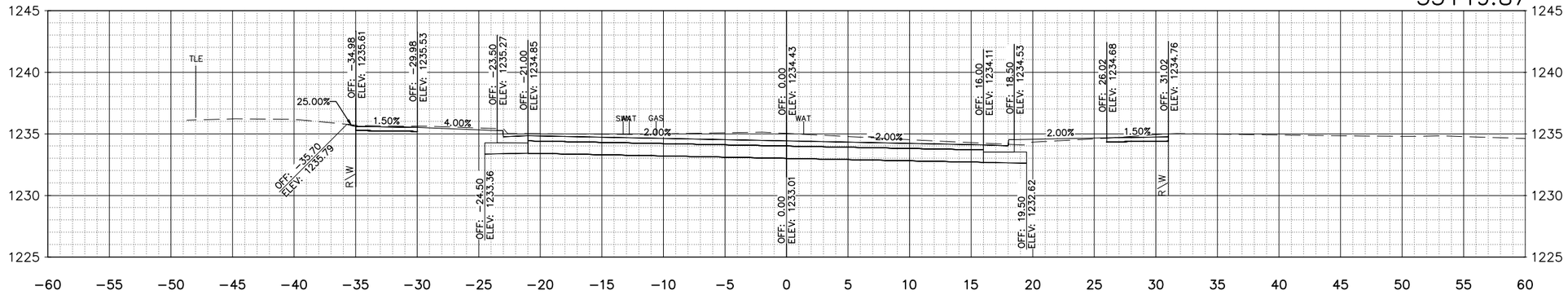


PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 278

9

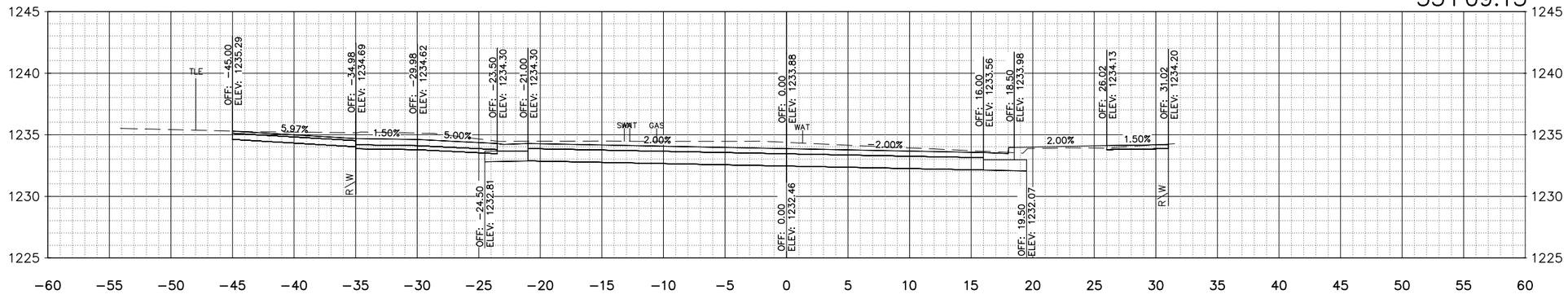
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:33:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

33+19.87



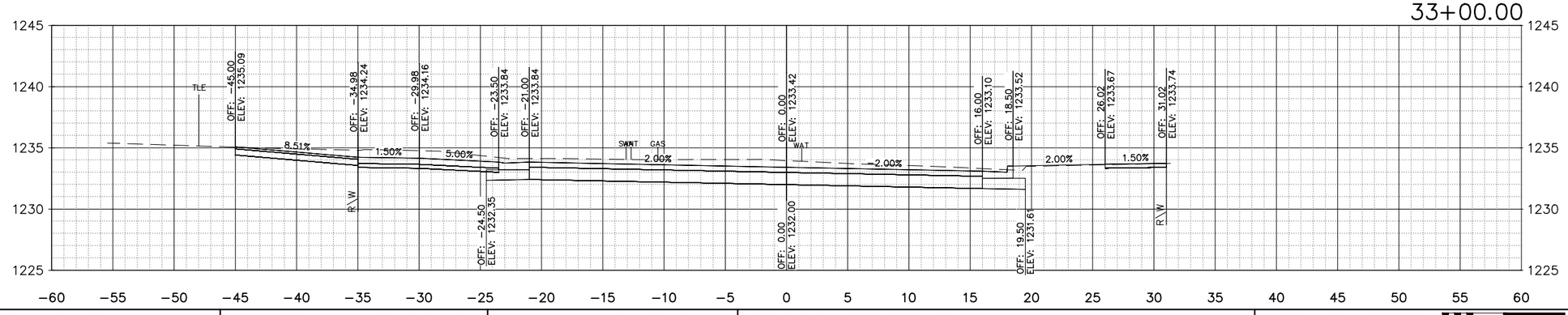
33+09.13

DRIVEWAY



33+00.00

DRIVEWAY



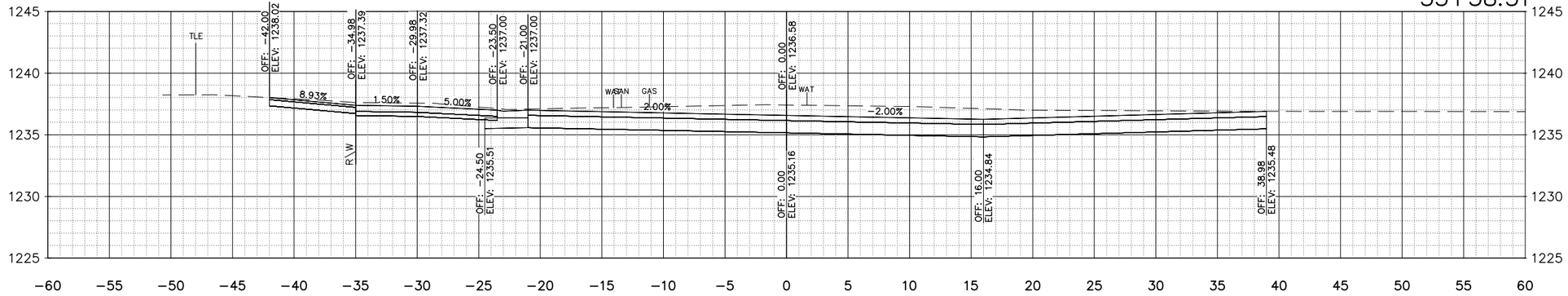
9

9

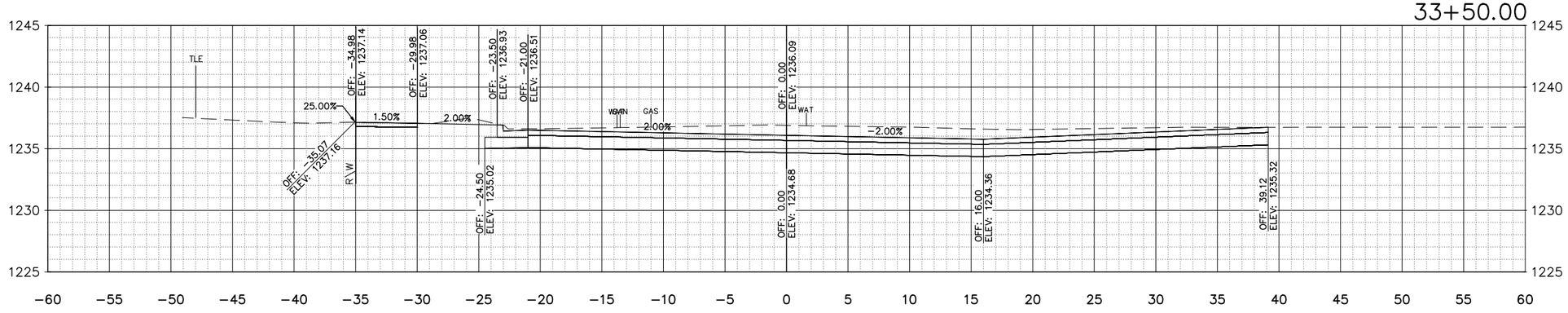
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 279

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:34:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

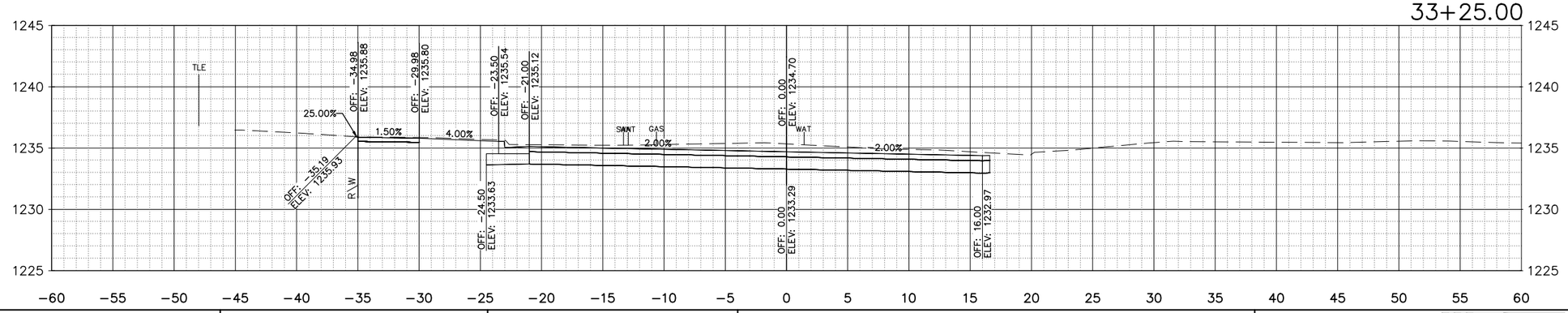
DRIVEWAY



NORTHWESTERN AVENUE



NORTHWESTERN AVENUE



NORTHWESTERN AVENUE

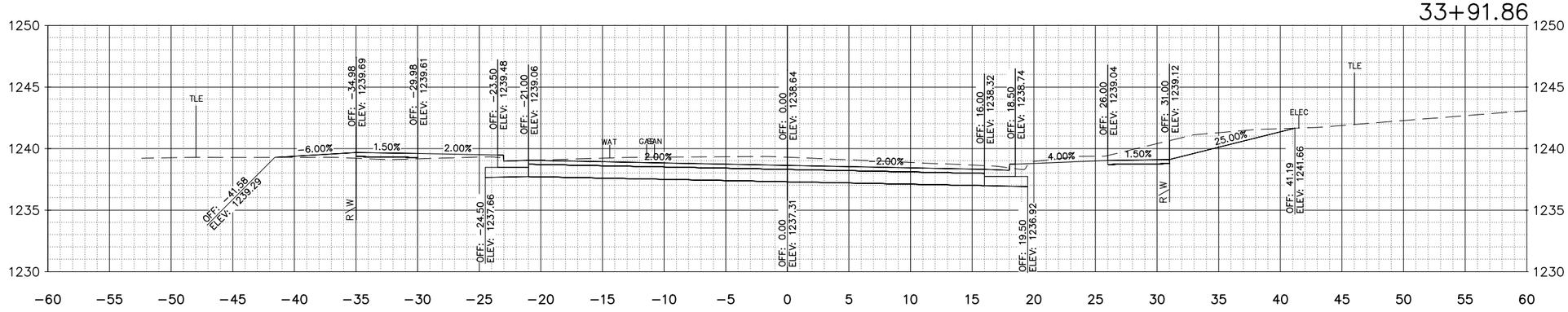
9

9

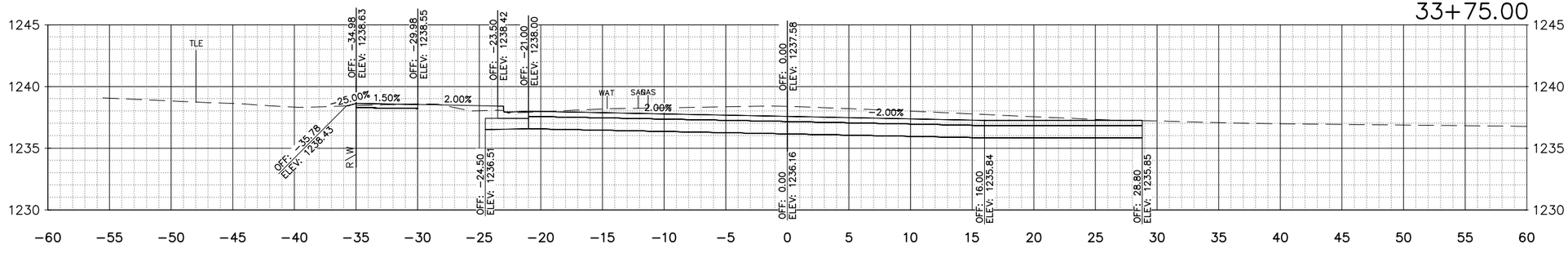
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 280

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:35:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

33+91.86

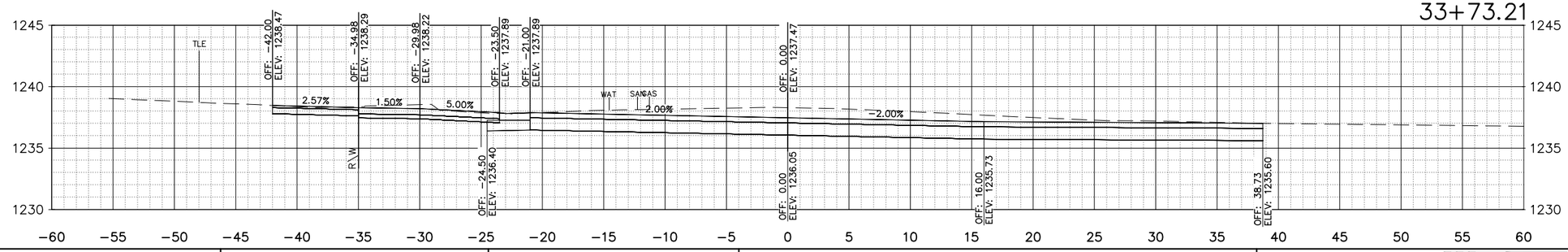


33+75.00



NORTHWESTERN AVENUE

33+73.21



DRIVEWAY

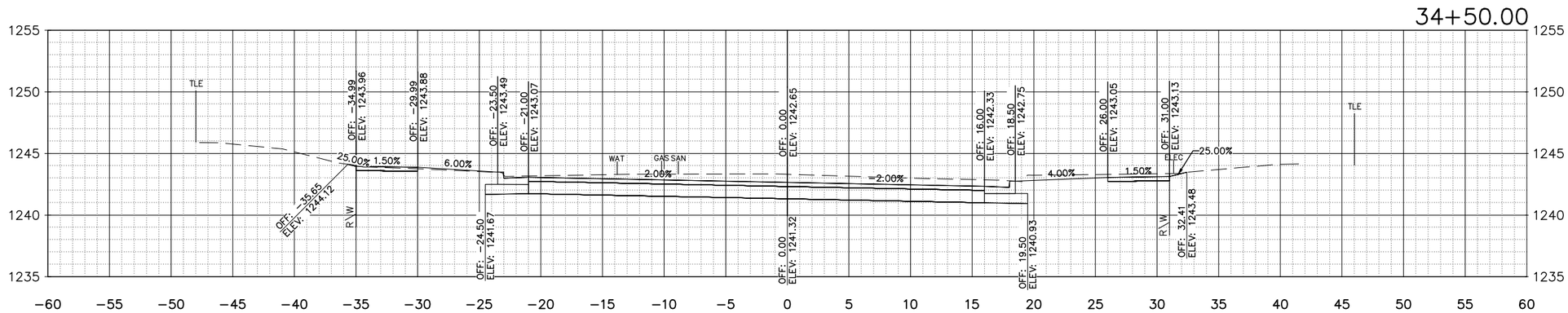
NORTHWESTERN AVENUE

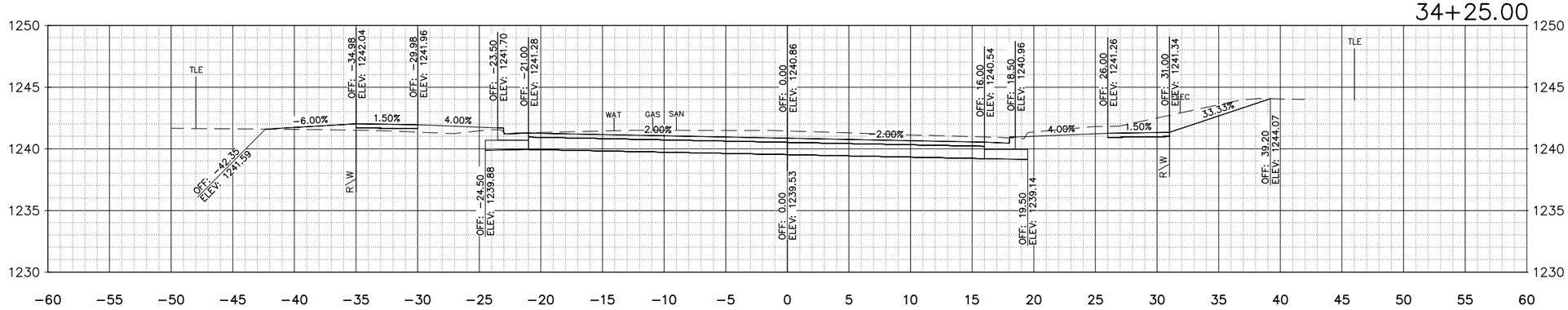
9

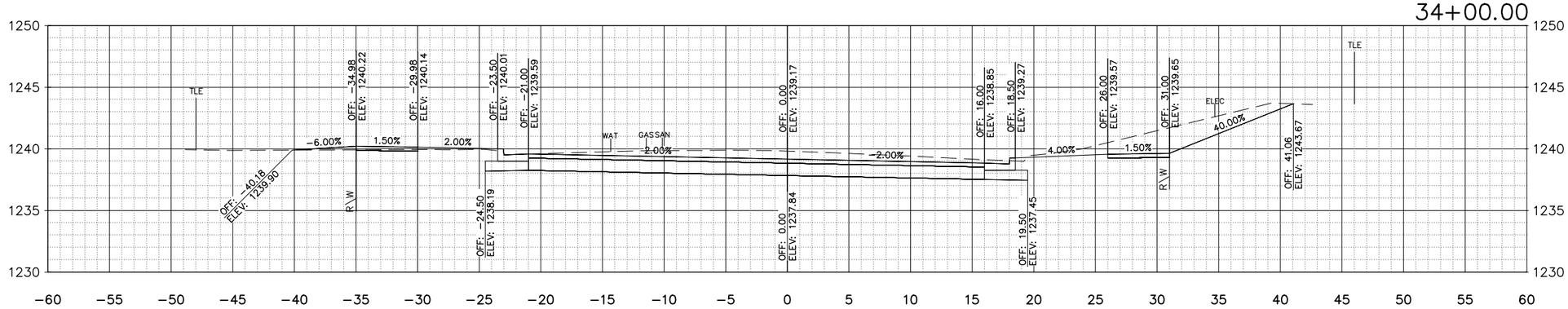
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 281

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:35:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel







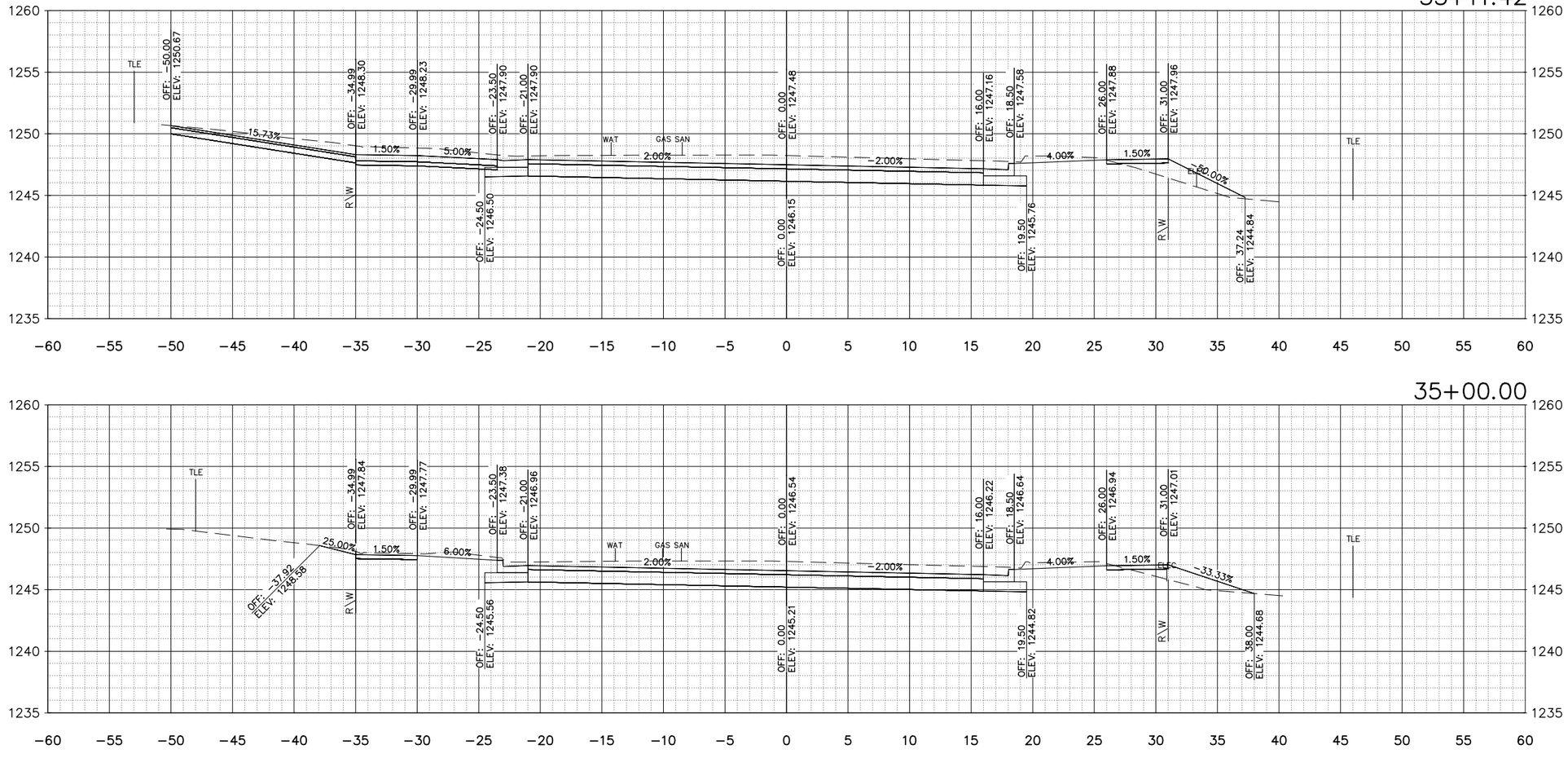
9

9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 282

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:36:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

DRIVEWAY



DRIVEWAY

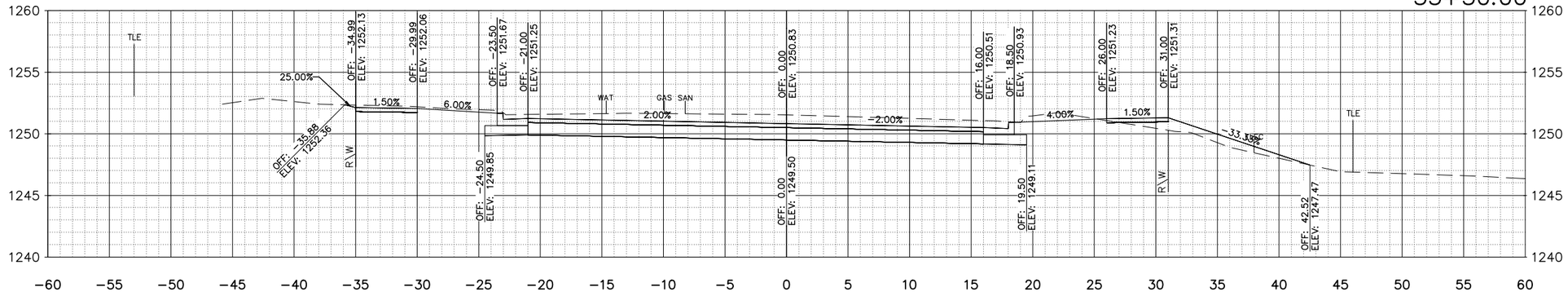
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 283

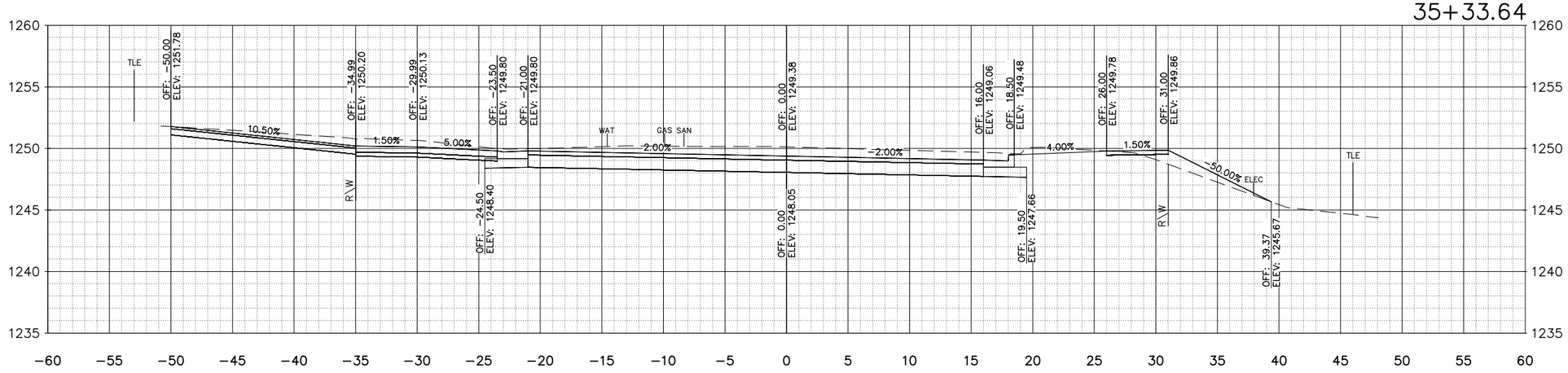
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:37:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

35+50.00



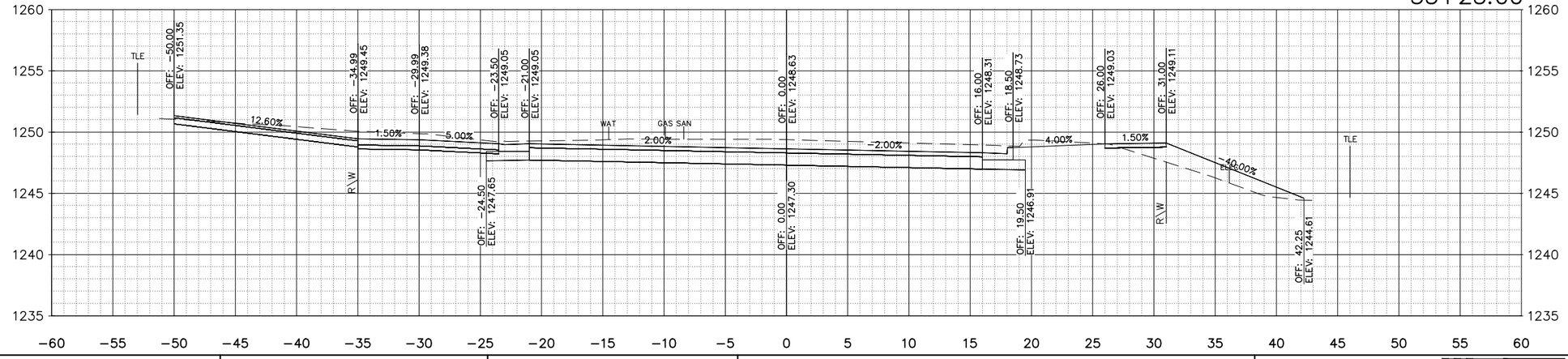
35+33.64

DRIVEWAY



35+25.00

DRIVEWAY

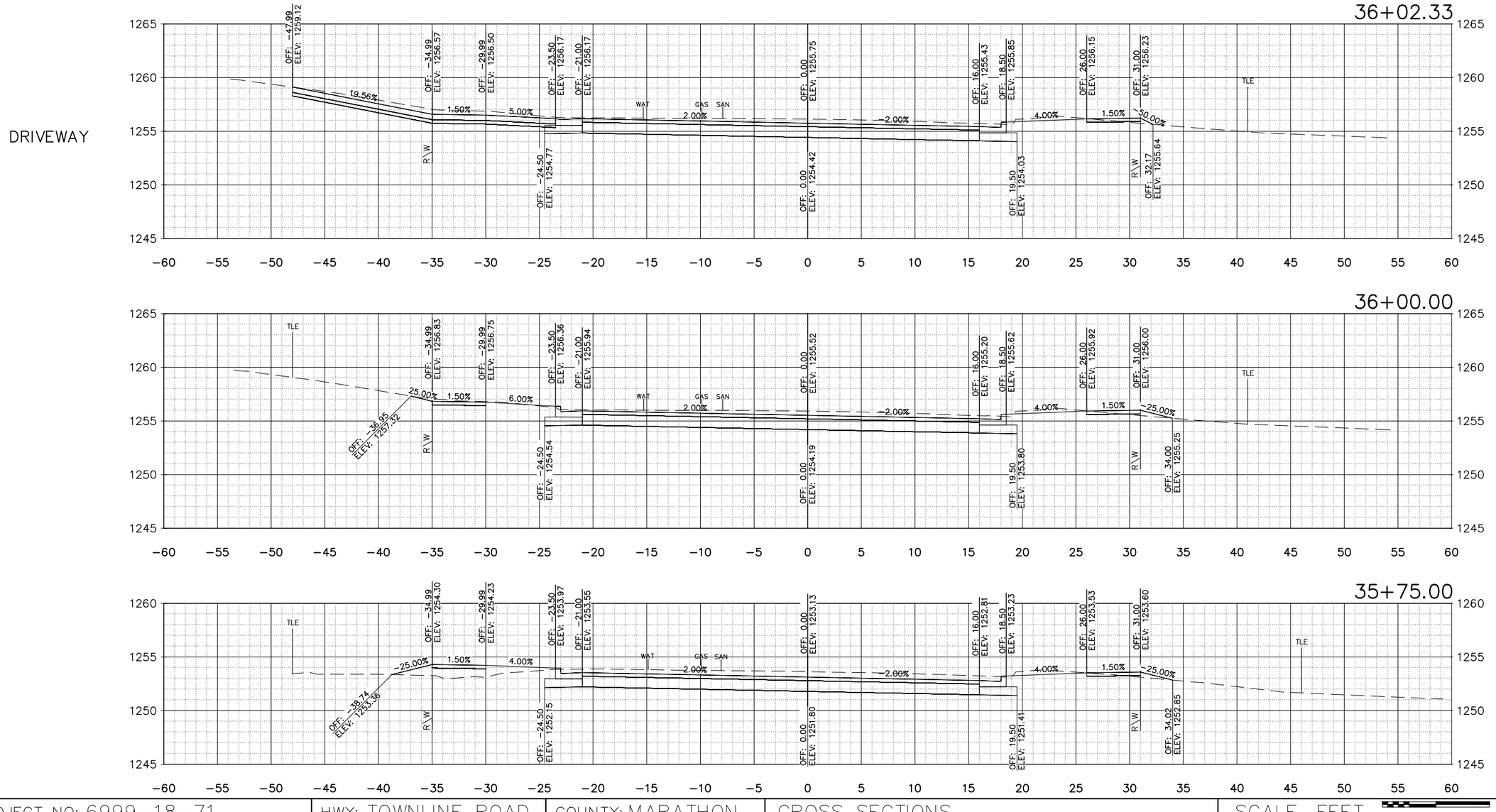


9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 284

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:38:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



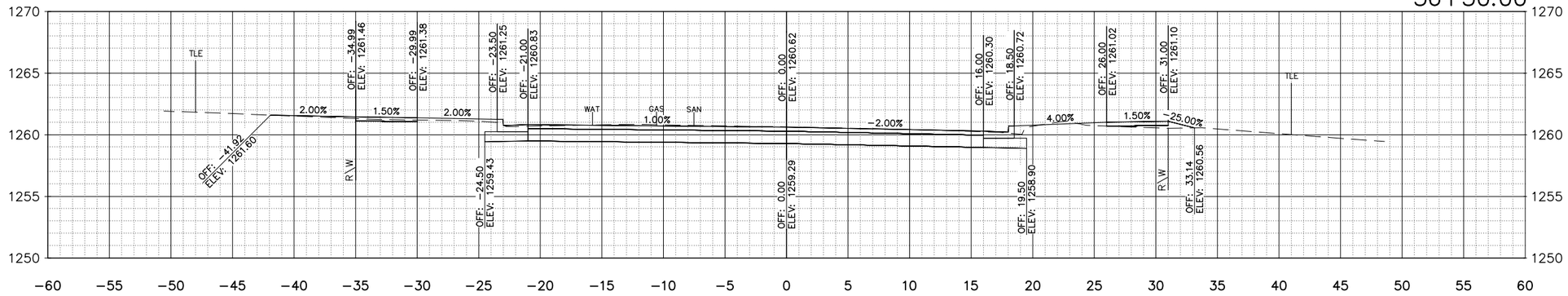
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 285

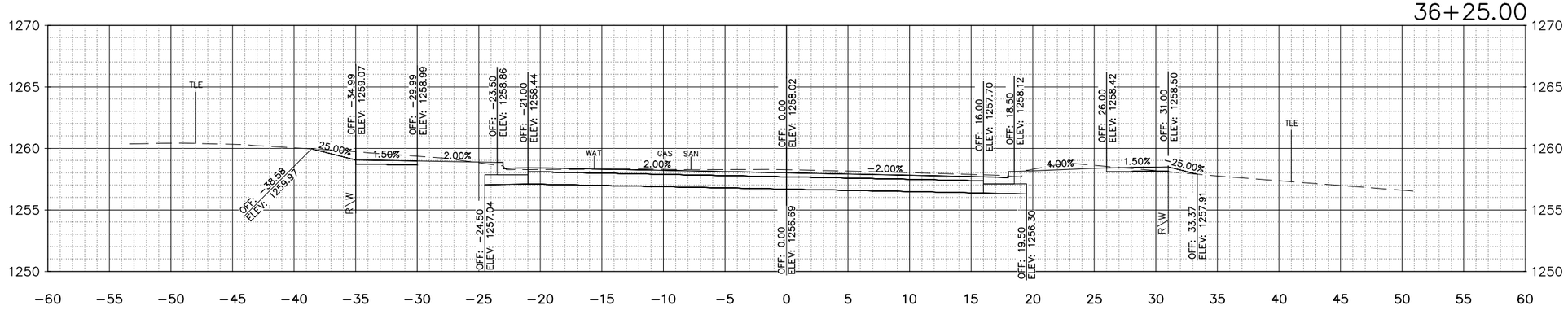
9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:38:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

36+50.00

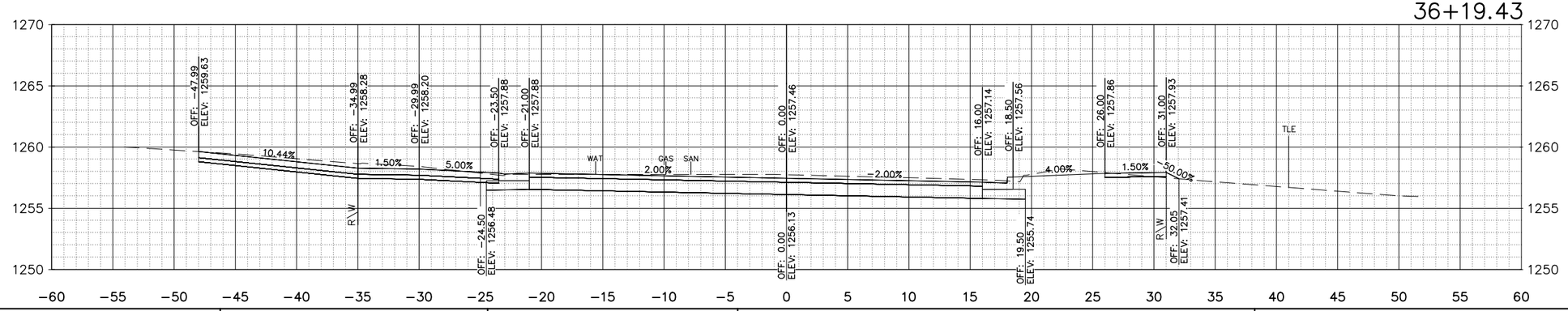


36+25.00



36+19.43

DRIVEWAY



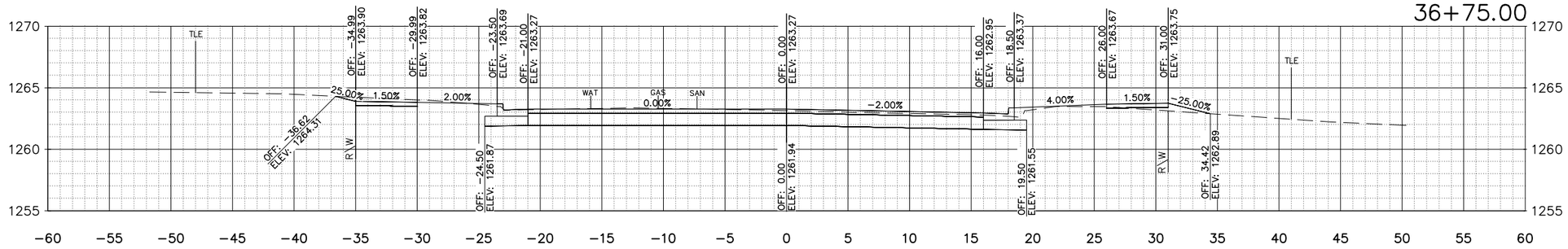
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 286

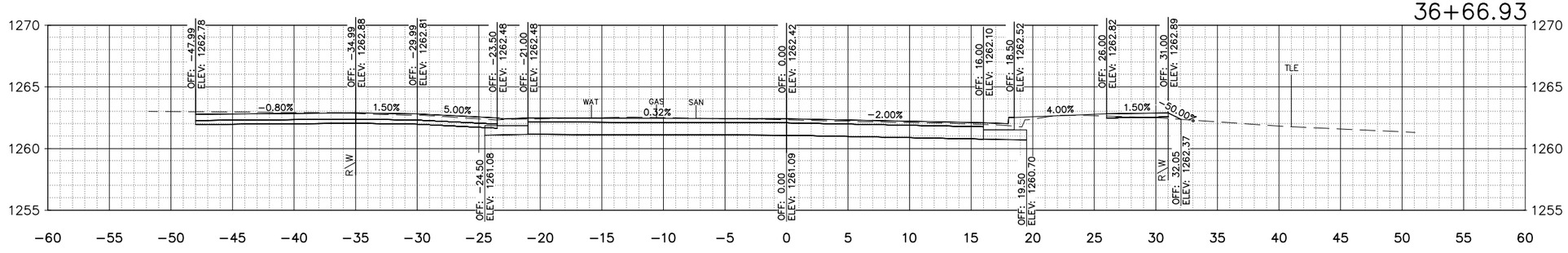
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:39:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

36+75.00



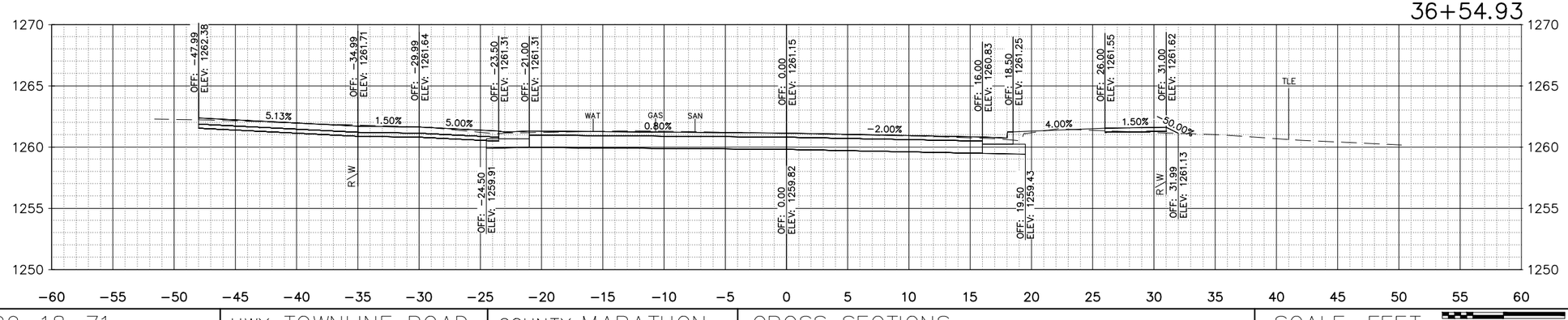
36+66.93

DRIVEWAY



36+54.93

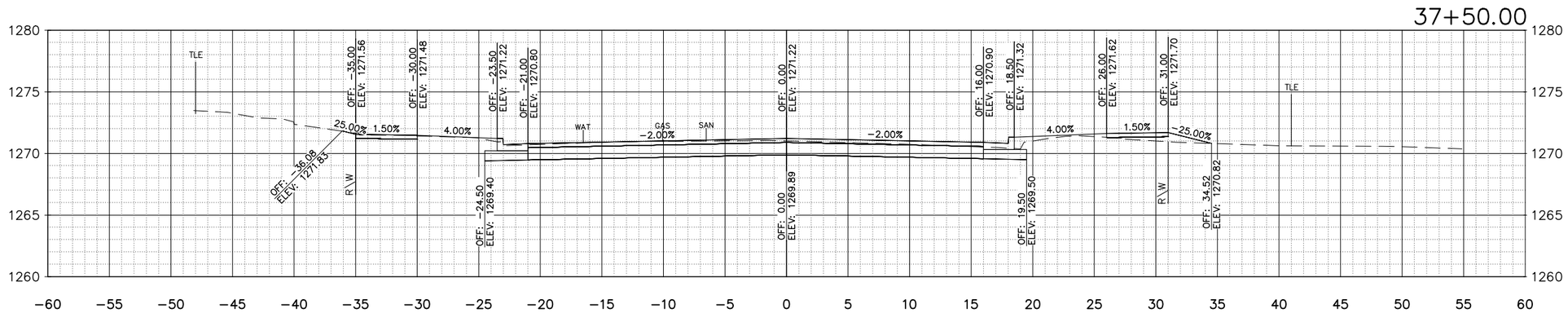
DRIVEWAY

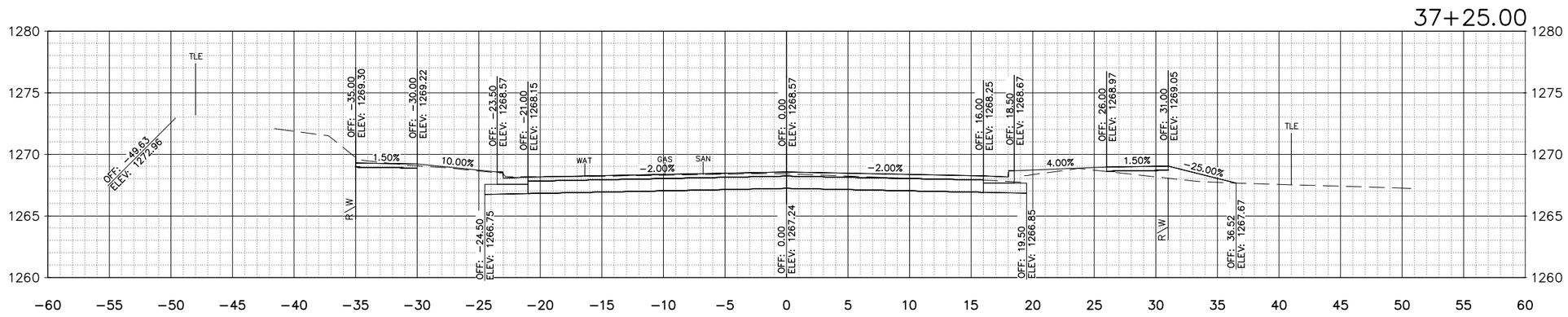


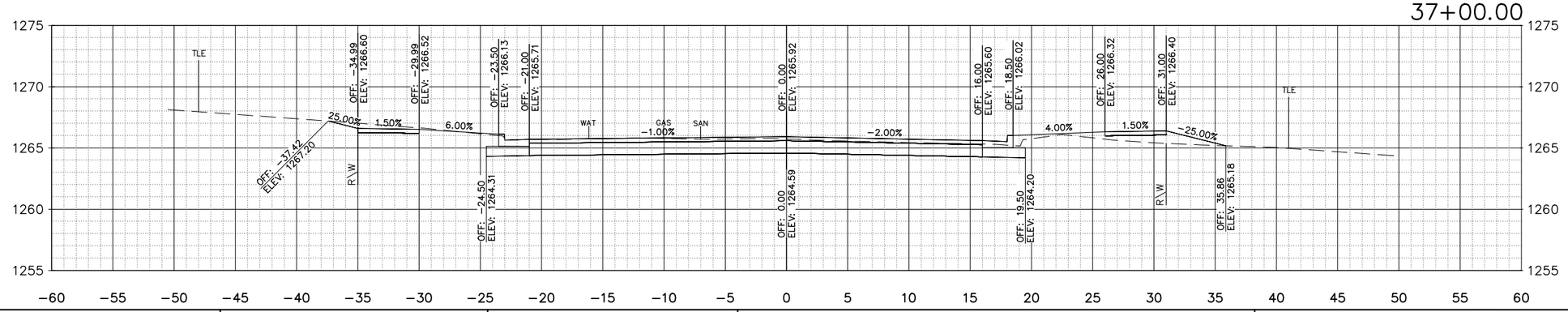
9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 287

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:40:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel







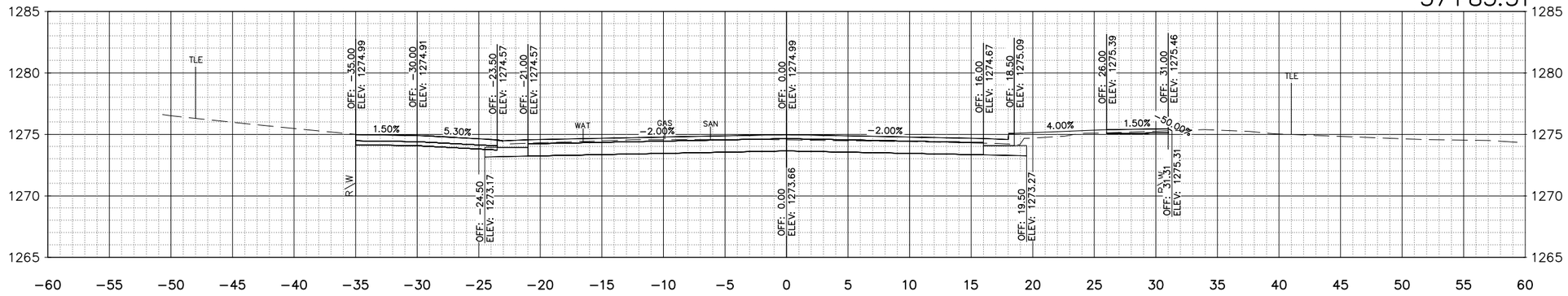
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 288

9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:41:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

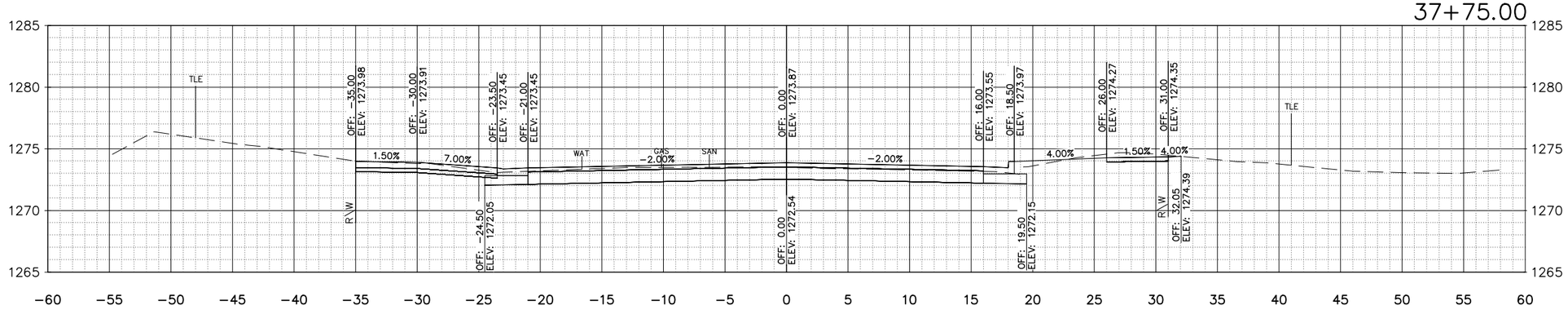
37+85.51

DRIVEWAY



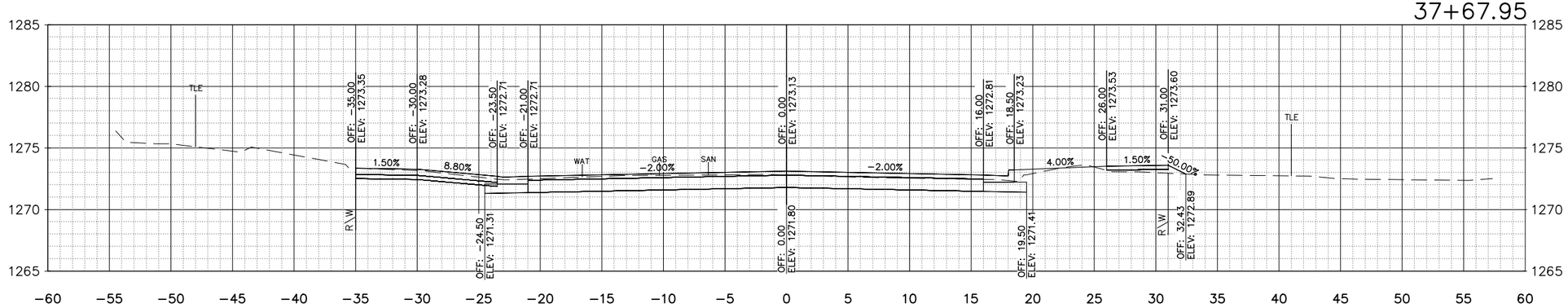
37+75.00

DRIVEWAY



37+67.95

DRIVEWAY



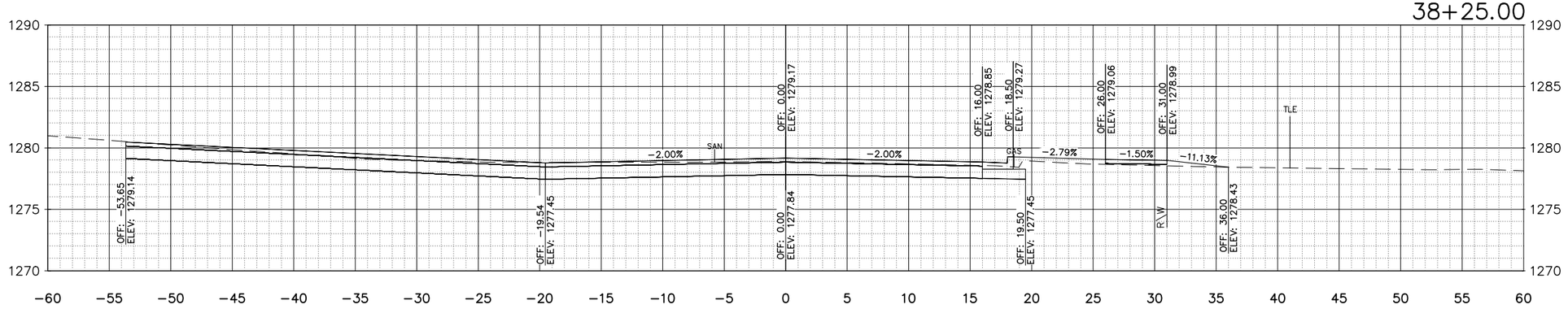
9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 289

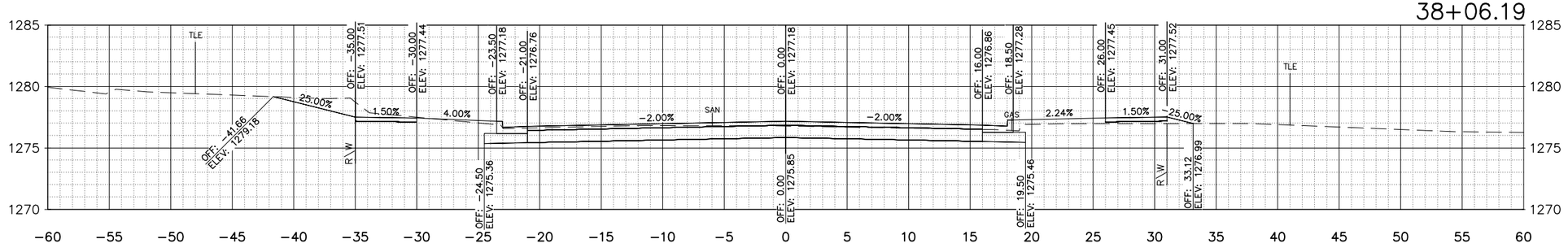
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:41:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

S. 13TH STREET

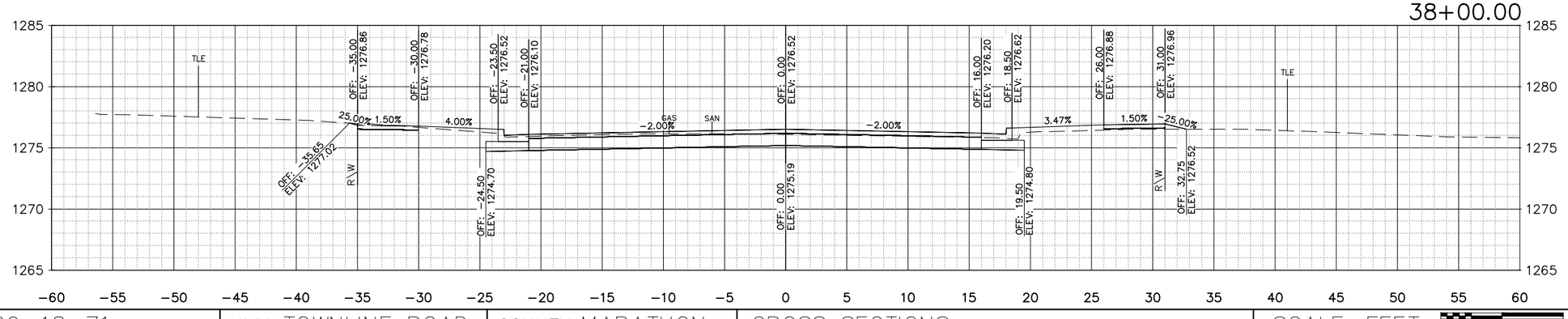
38+25.00



38+06.19



38+00.00



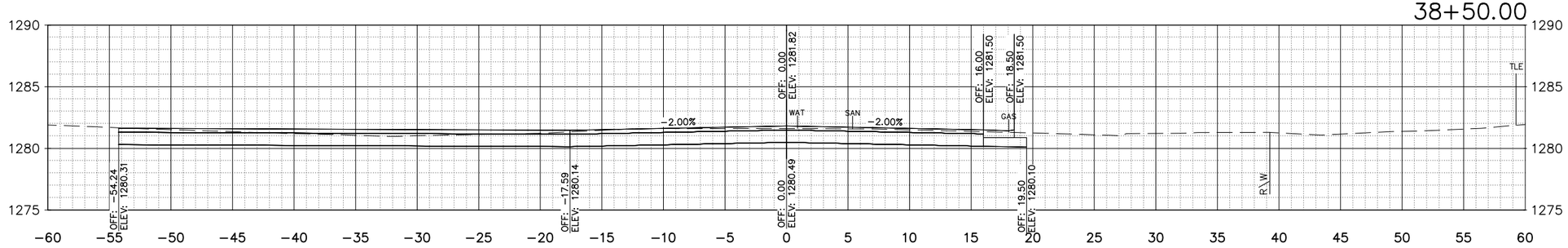
9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 290

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:42:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

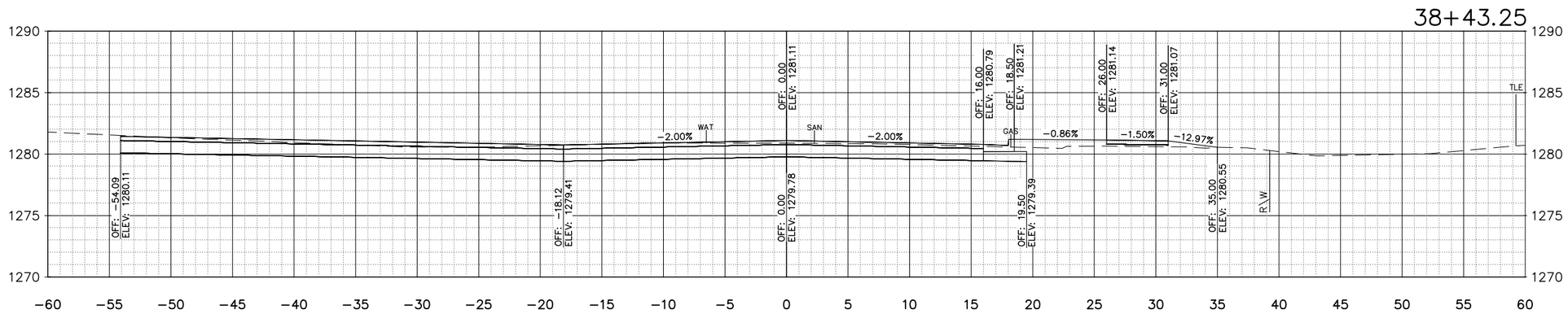
38+50.00

S. 13TH STREET



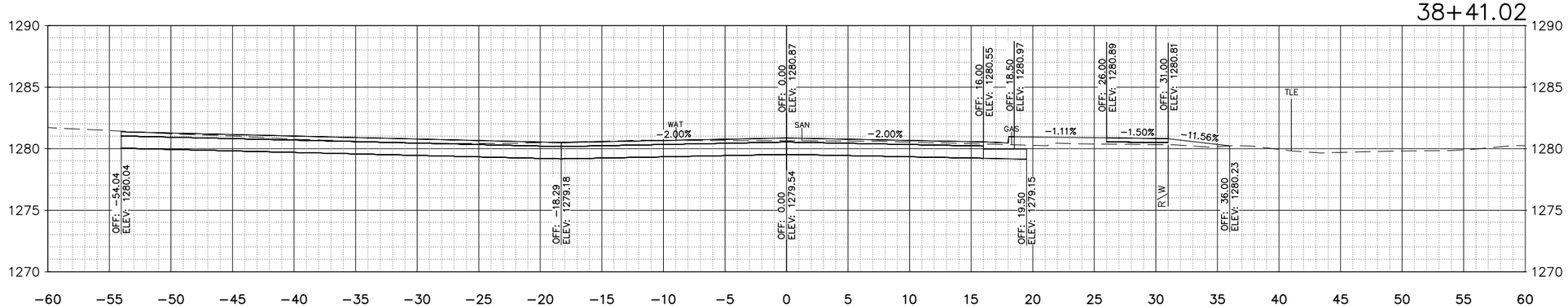
38+43.25

S. 13TH STREET



38+41.02

S. 13TH STREET

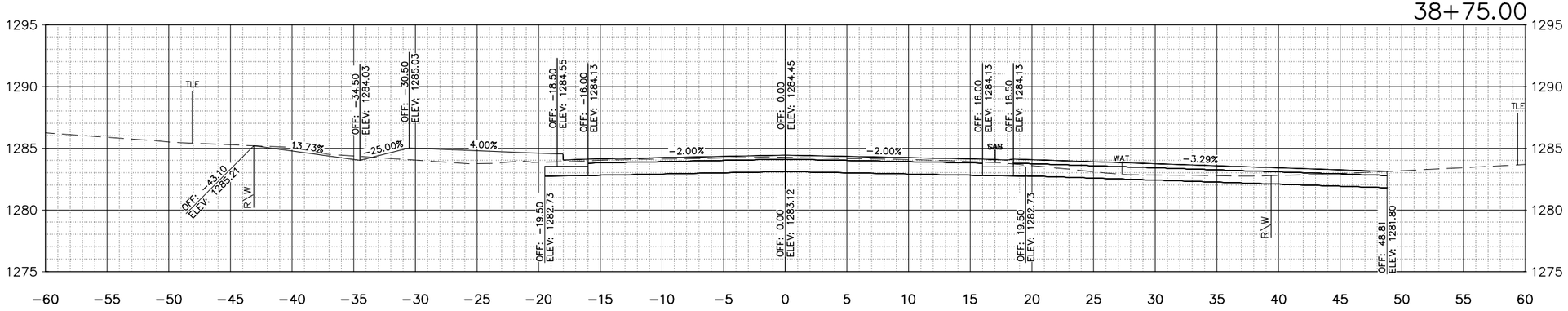


9

9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 291

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:43:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

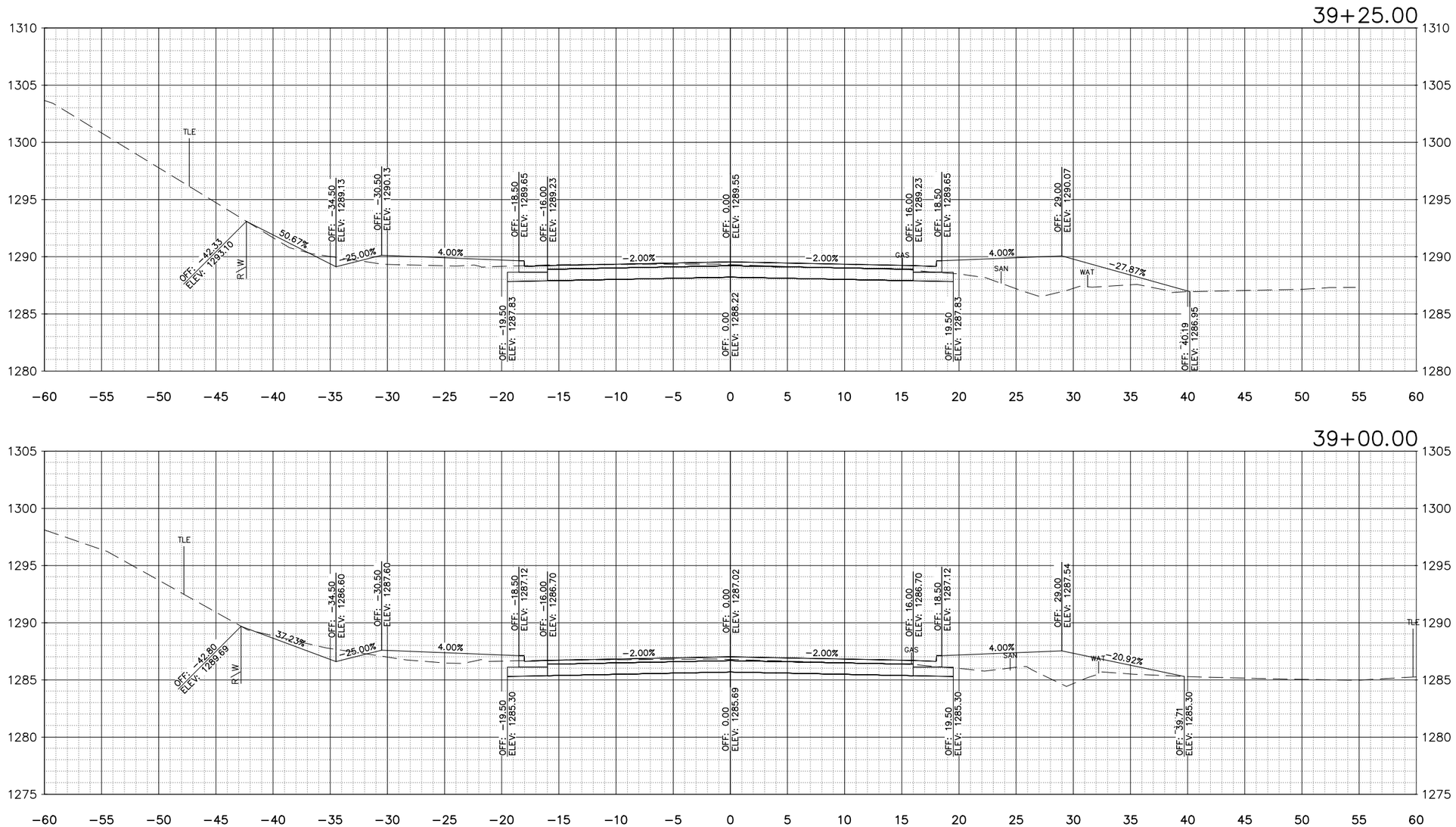


9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 292

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:44:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

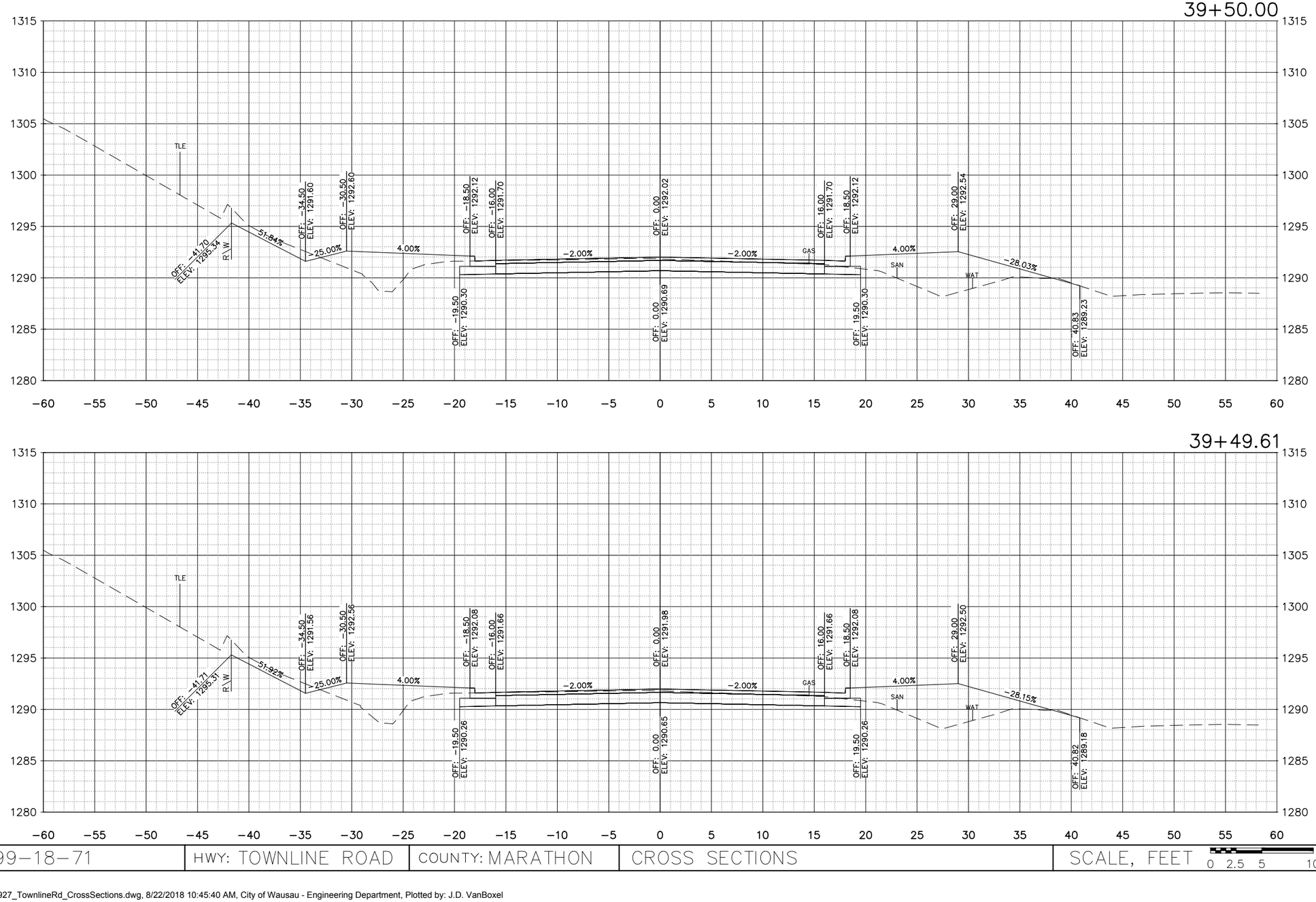


9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 293

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:44:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



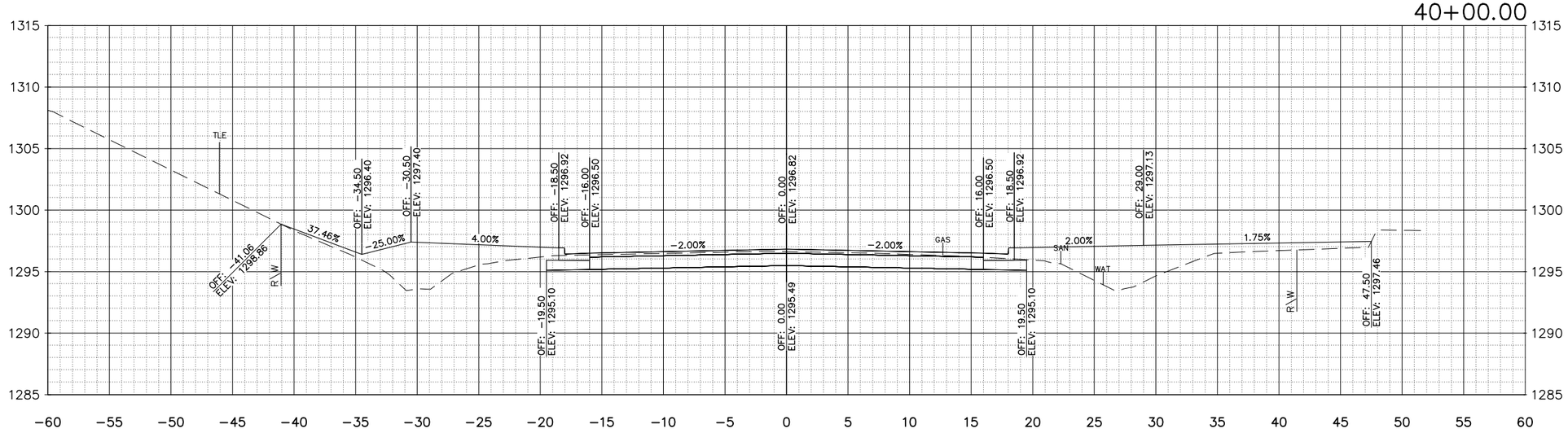
9

9

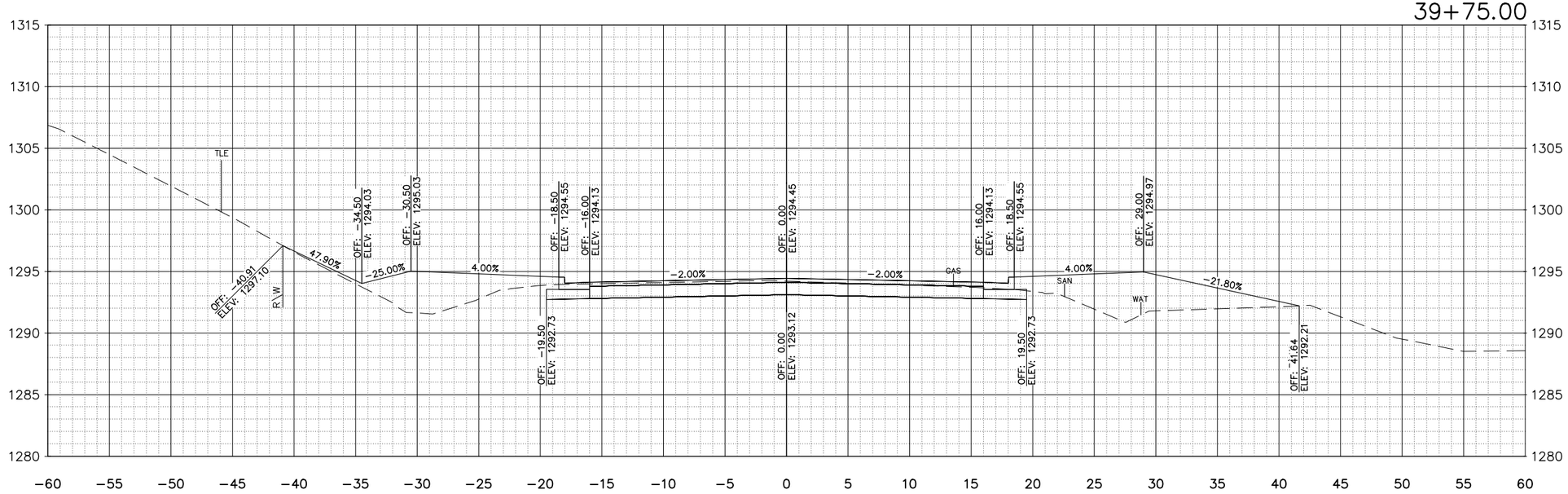
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 294

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:45:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

40+00.00



39+75.00

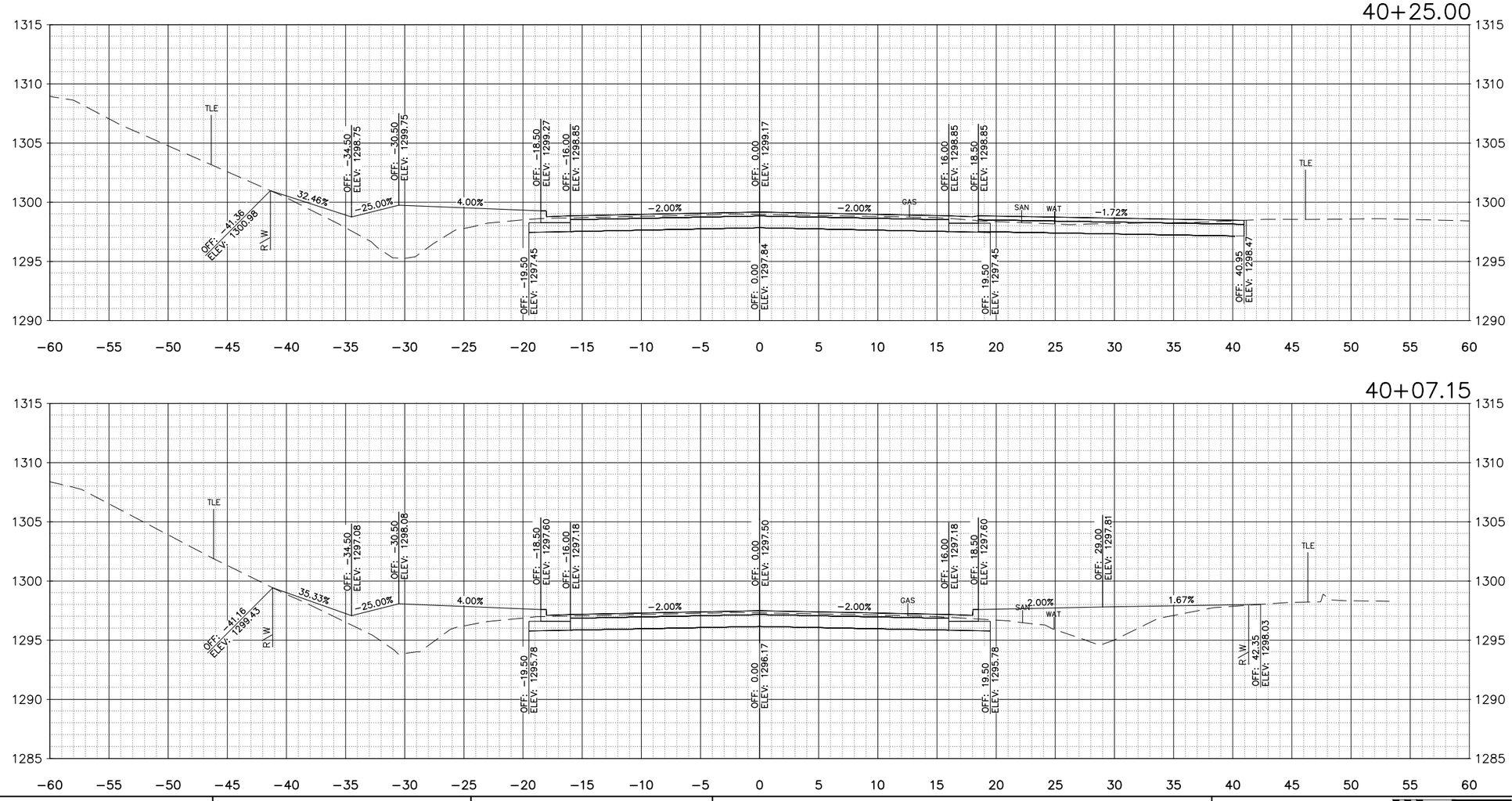


9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 295

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:46:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



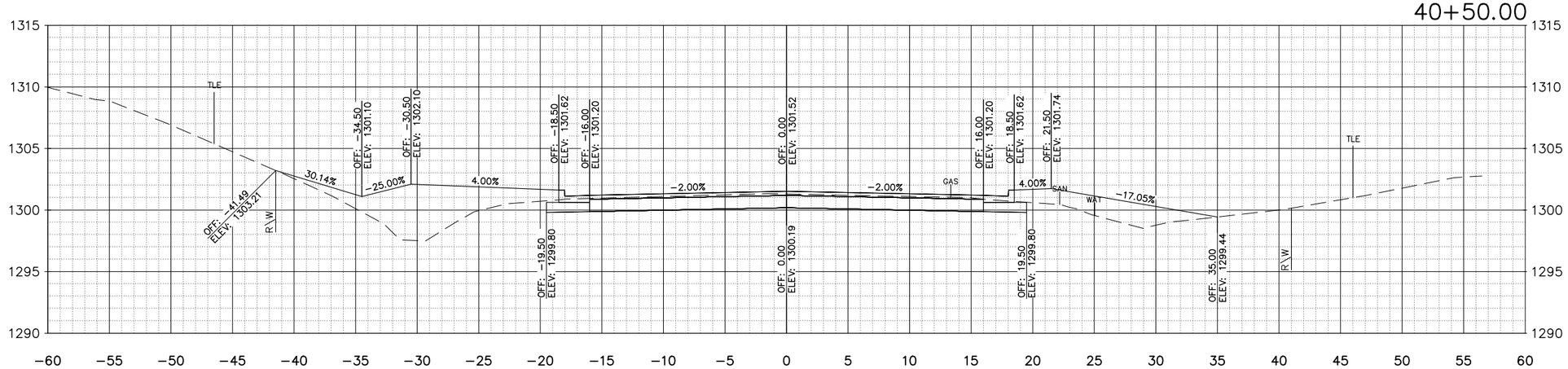
DRIVEWAY

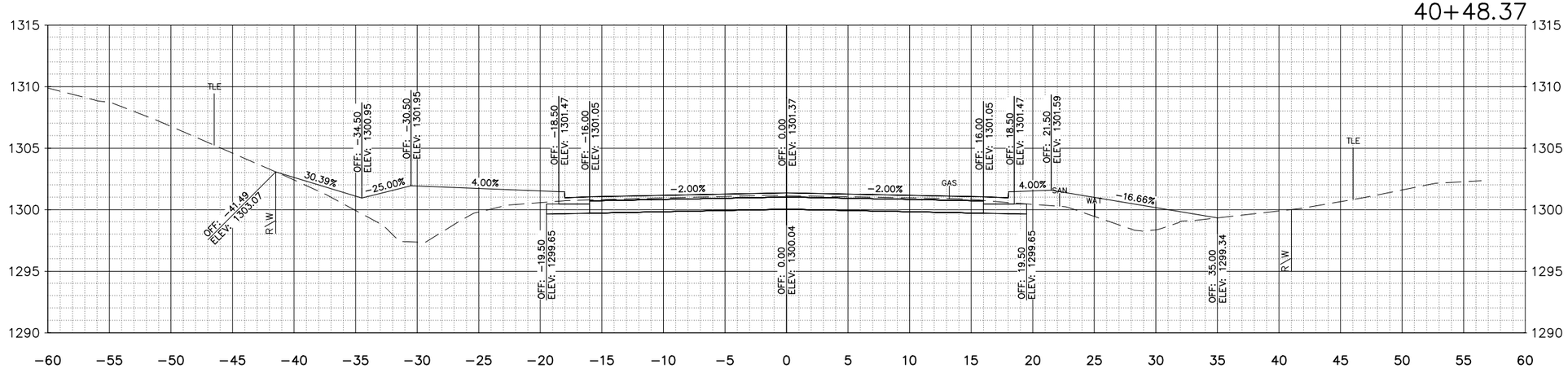
9

9

PROJECT NO: 6999-18-71 | HWY: TOWNLINE ROAD | COUNTY: MARATHON | CROSS SECTIONS | SCALE, FEET 0 2.5 5 10 | SHEET 296

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:47:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



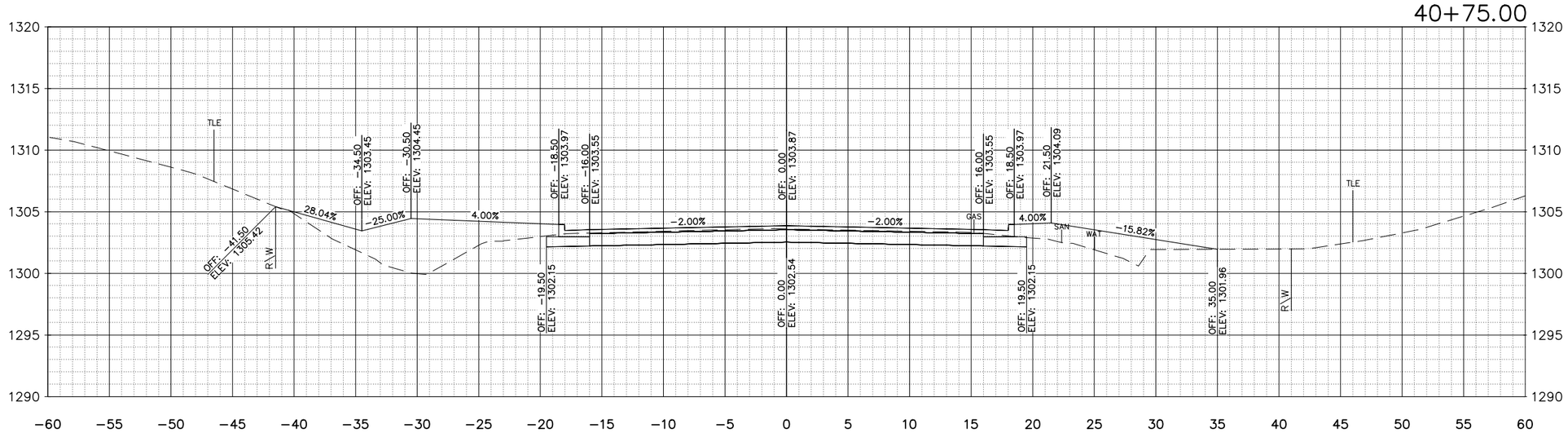


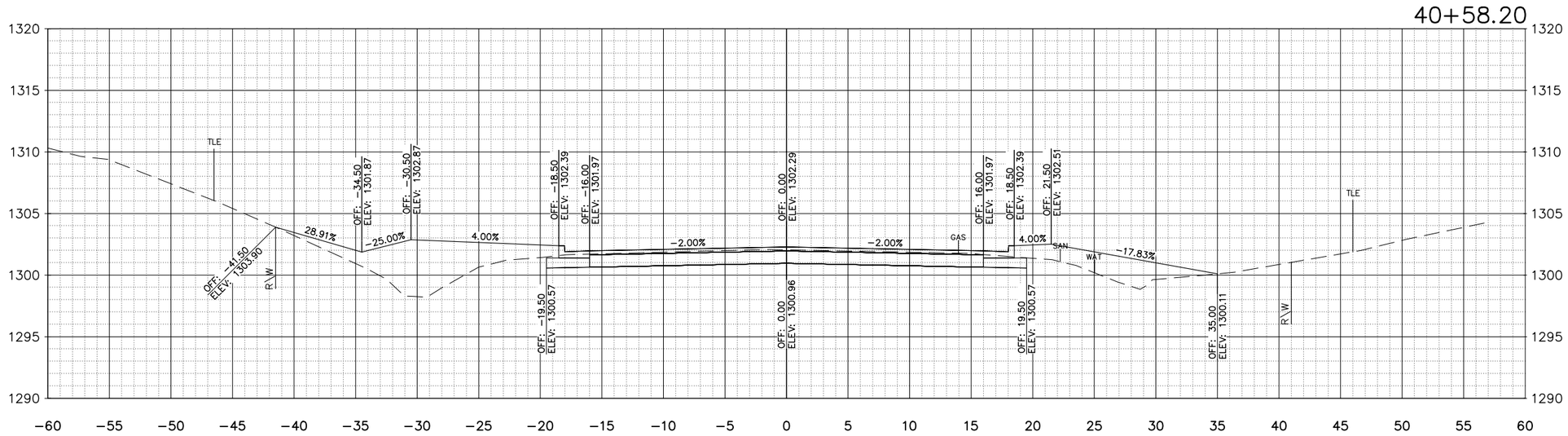
9

9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 297

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:47:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel





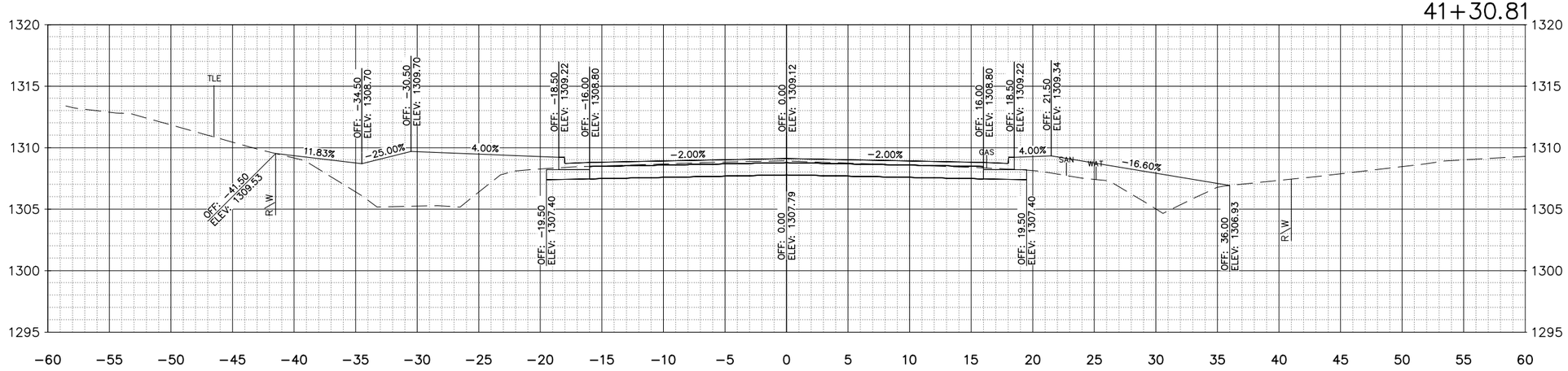
9

9

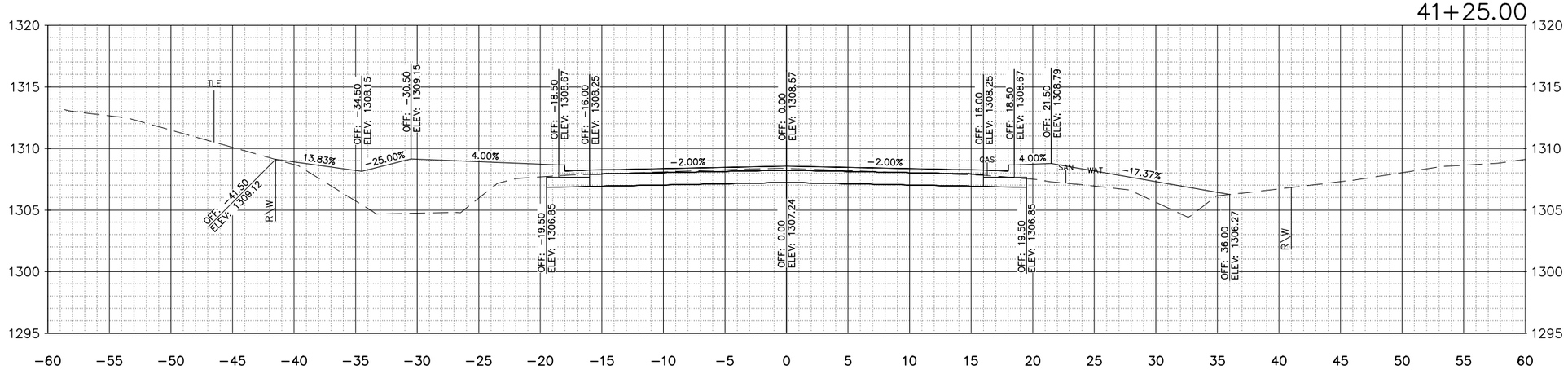
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 298

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:48:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

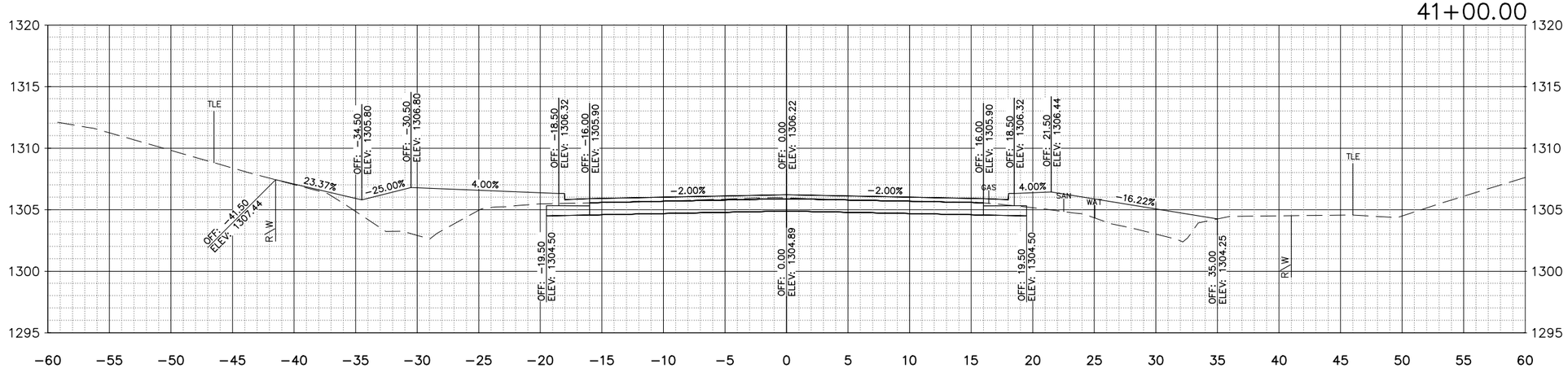
41+30.81



41+25.00



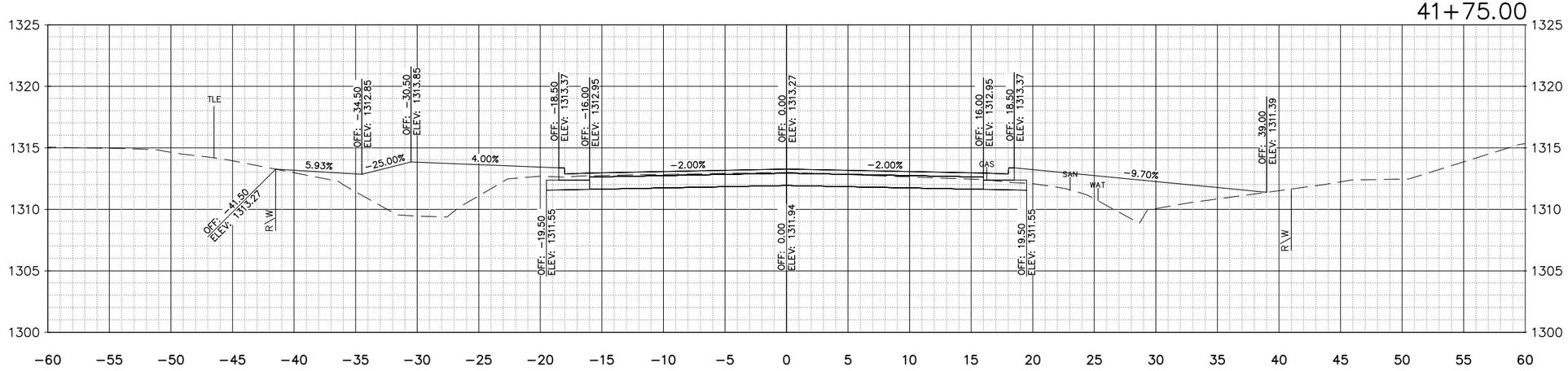
41+00.00

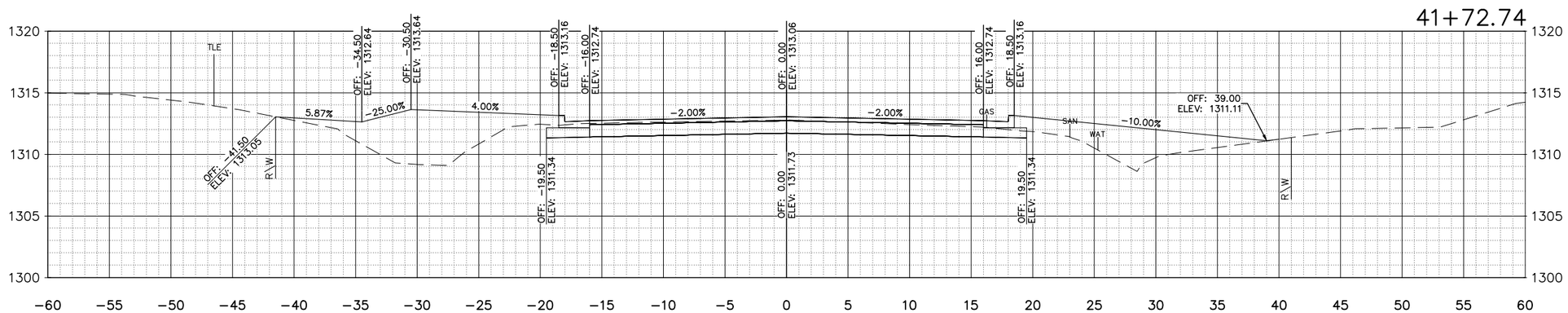


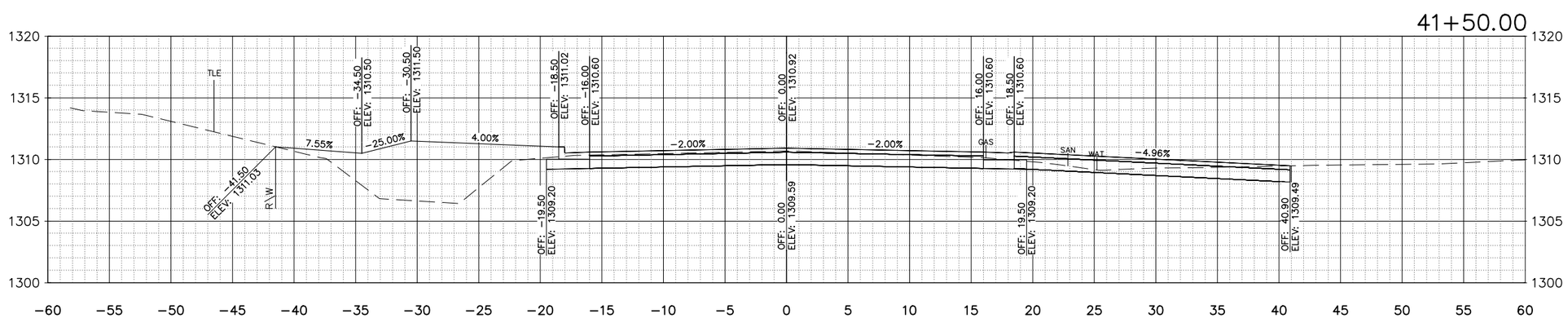
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 299

9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:49:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel







DRIVEWAY

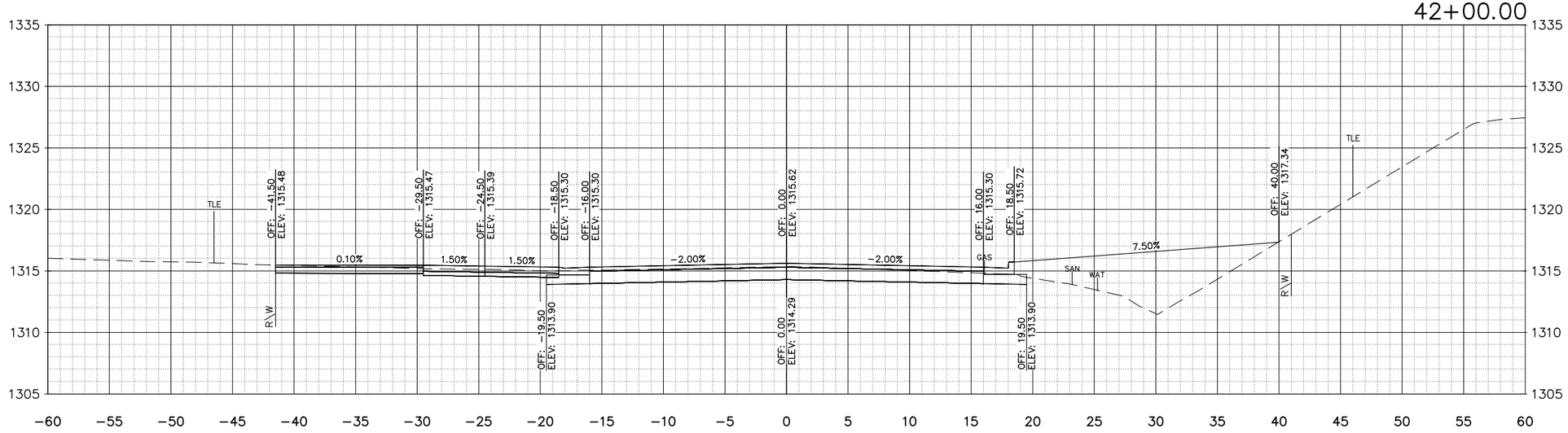
9

9

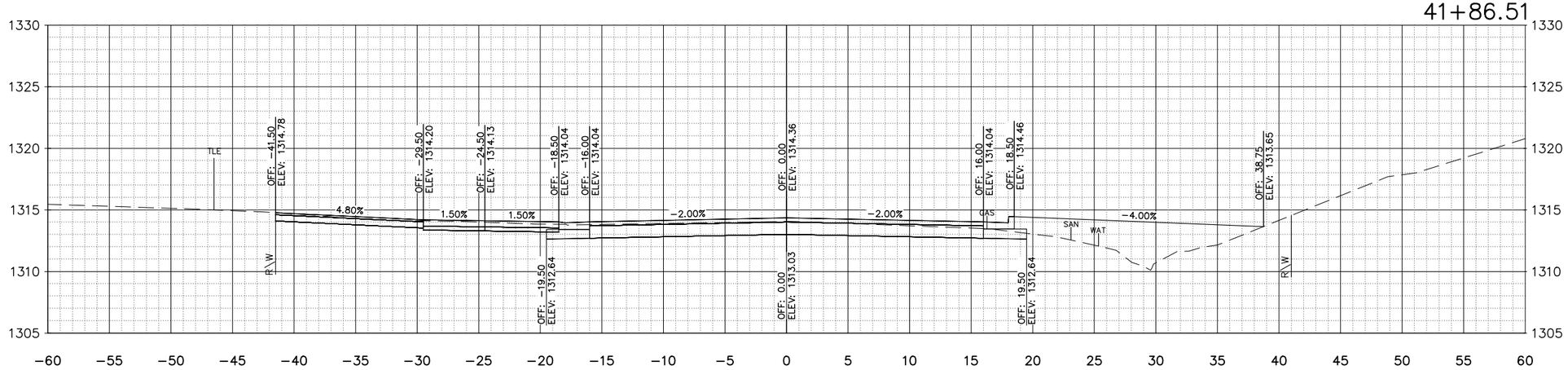
PROJECT NO: 6999-18-71 | HWY: TOWNLINE ROAD | COUNTY: MARATHON | CROSS SECTIONS | SCALE, FEET 0 2.5 5 10 | SHEET 300

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:50:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

42+00.00



41+86.51



9

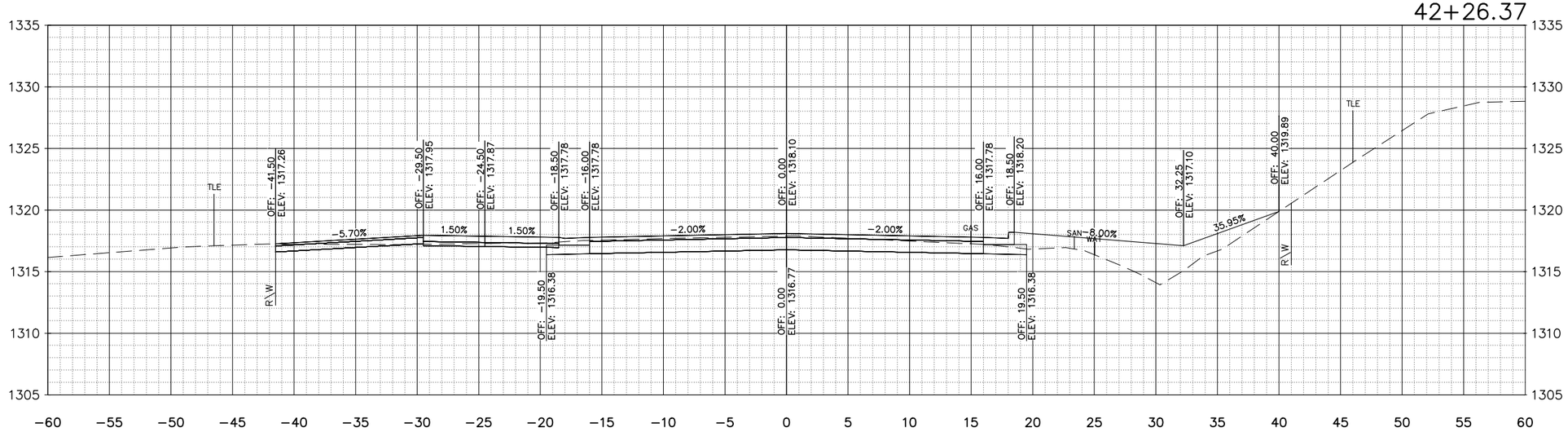
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 301

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:50:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

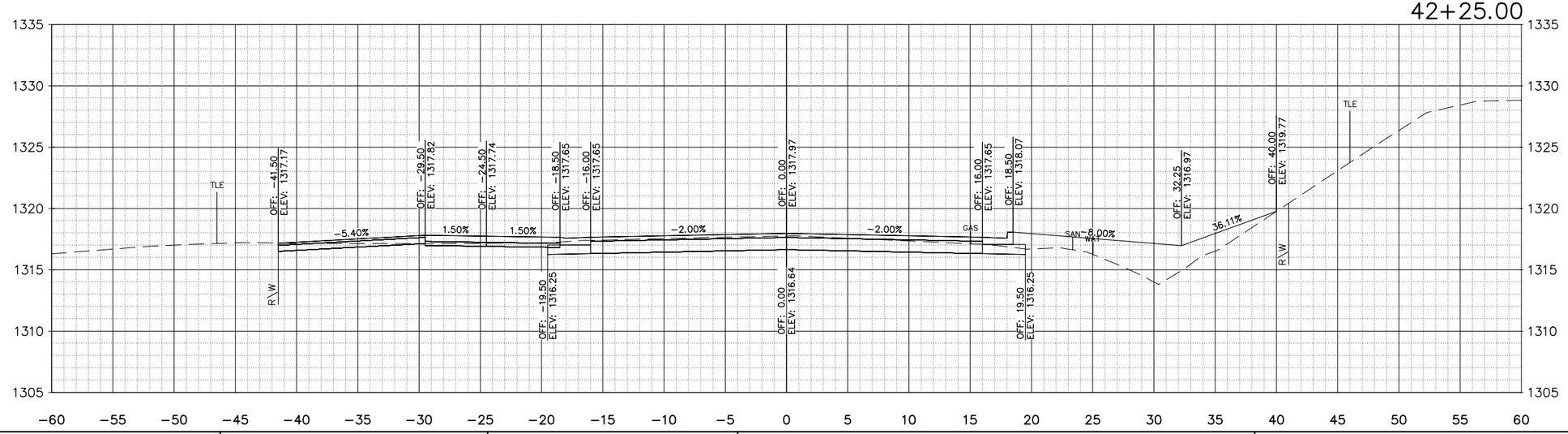
42+26.37

DRIVEWAY



42+25.00

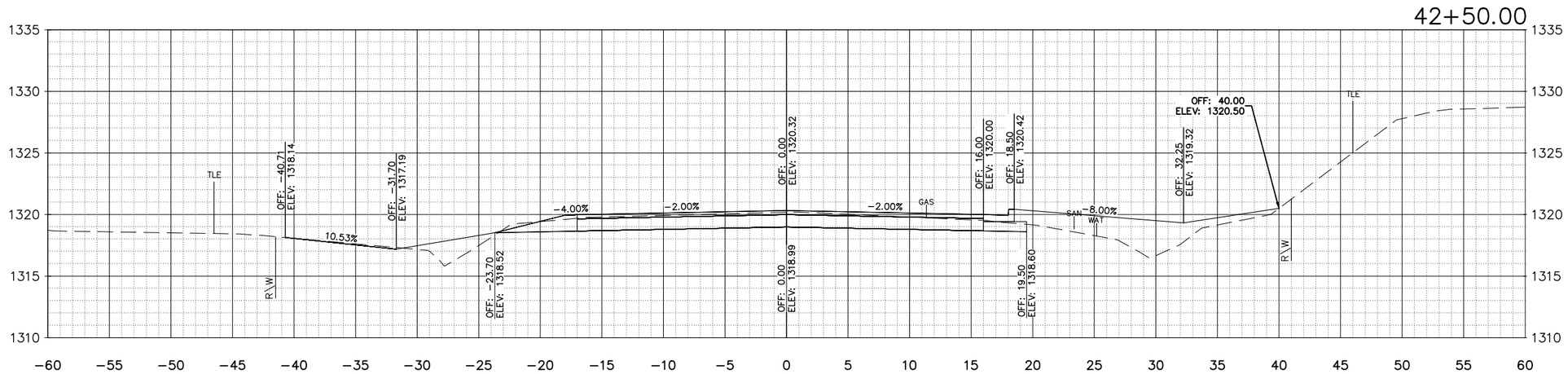
DRIVEWAY



9

9

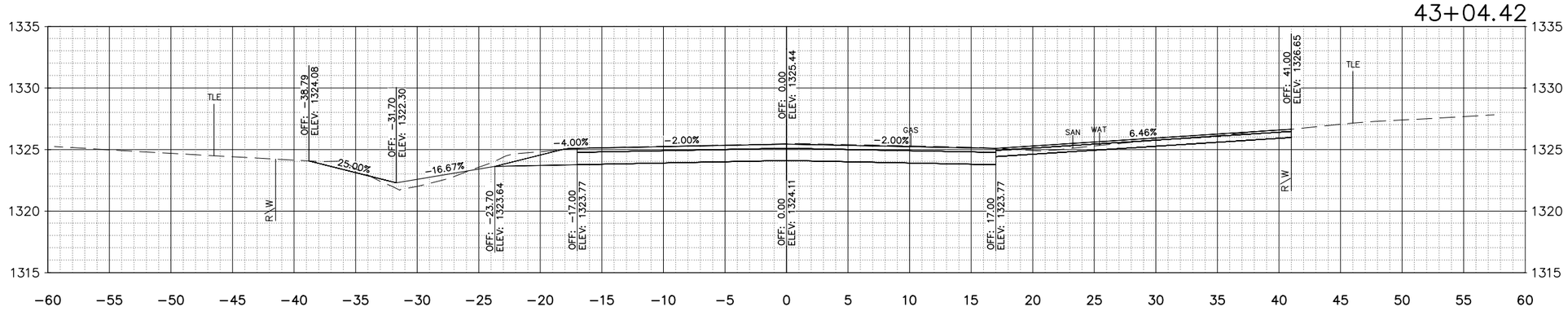
PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 302



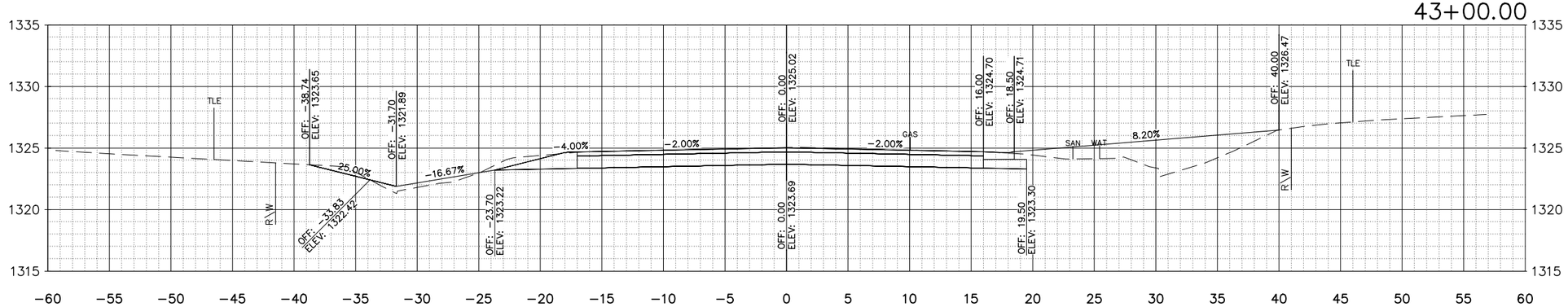
9

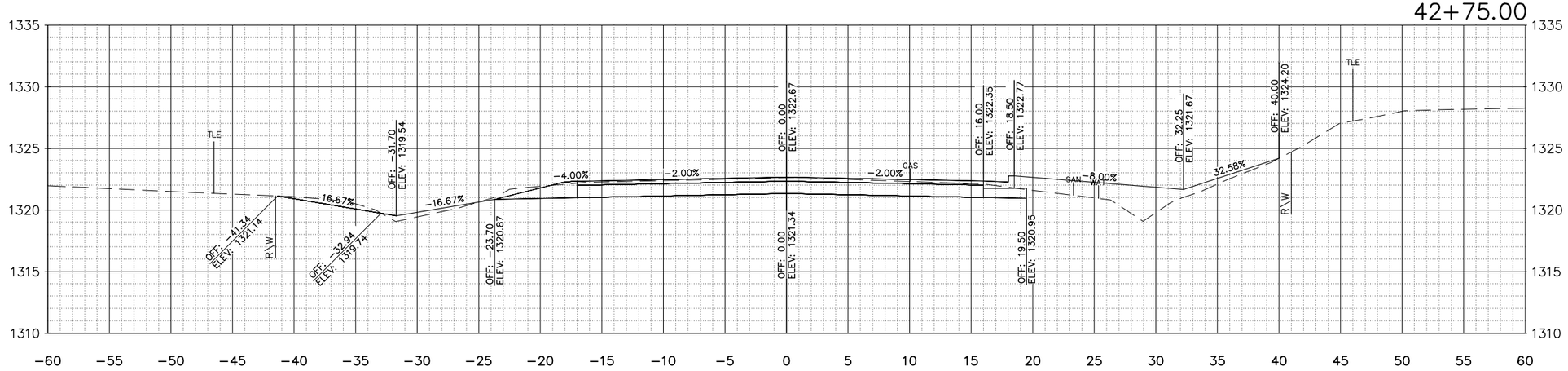
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 303



DRIVEWAY





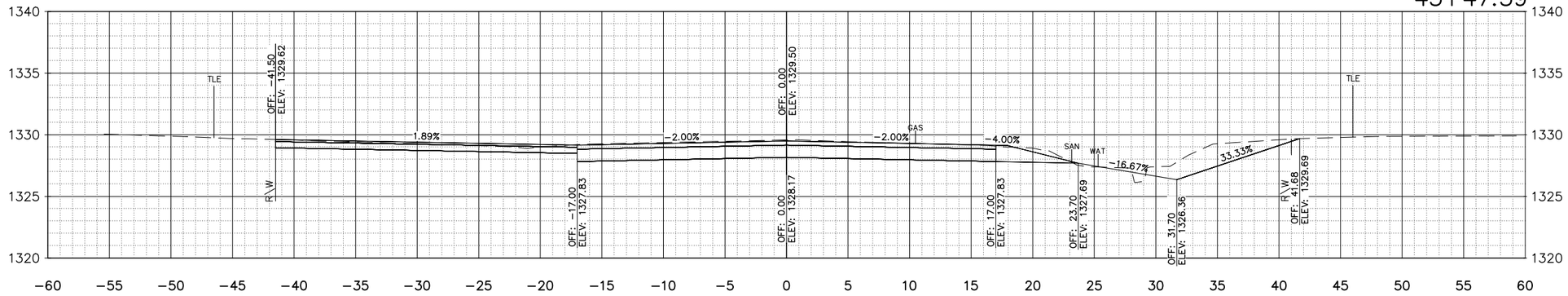
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 304

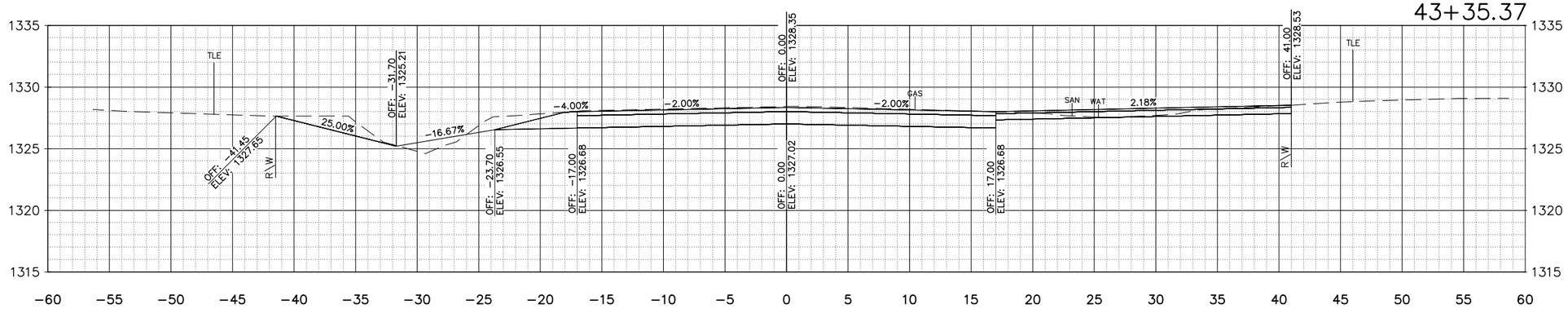
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:53:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

43+47.59



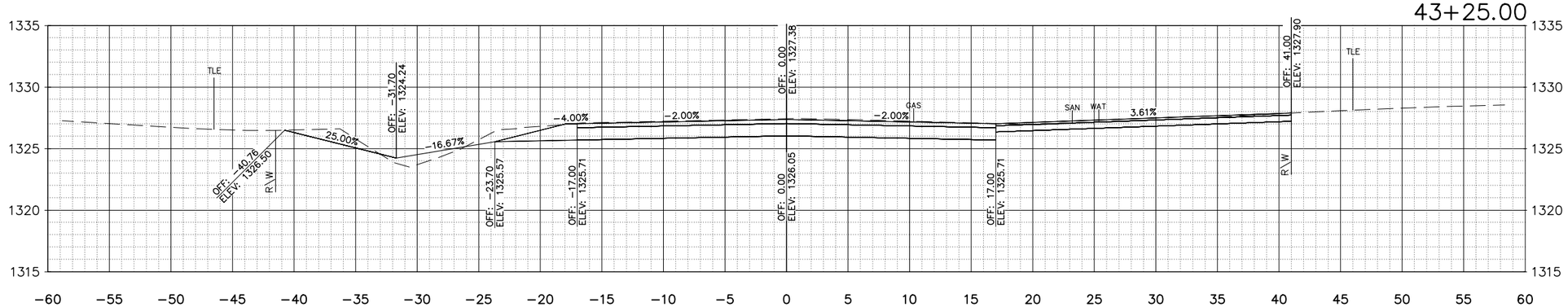
DRIVEWAY

43+35.37



DRIVEWAY

43+25.00



DRIVEWAY

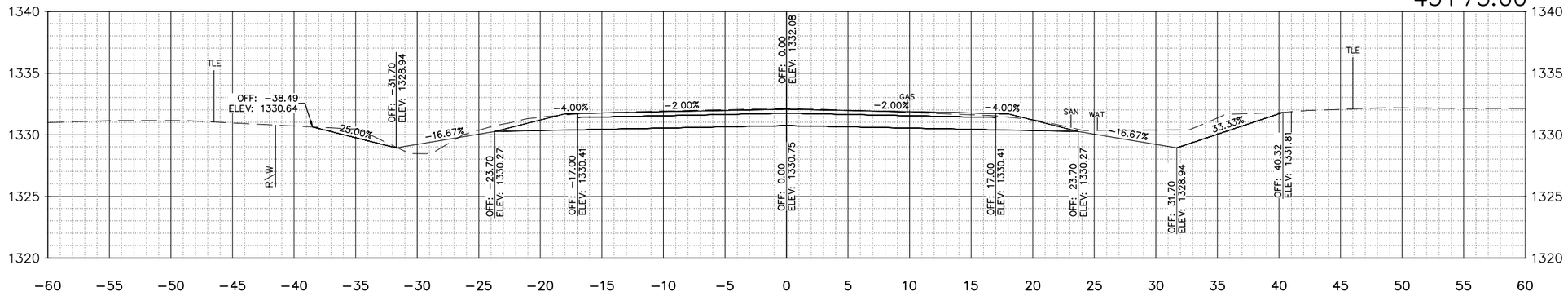
9

9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 305

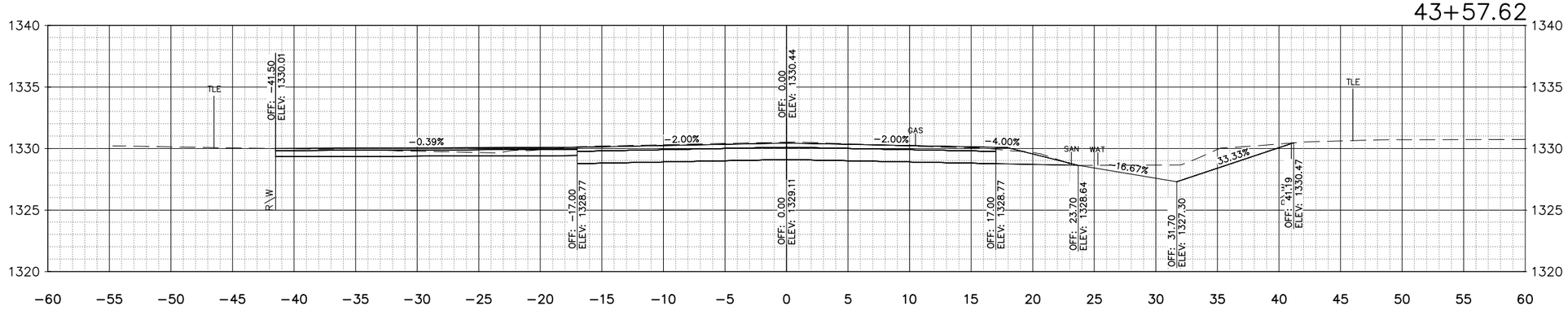
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:53:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

43+75.00



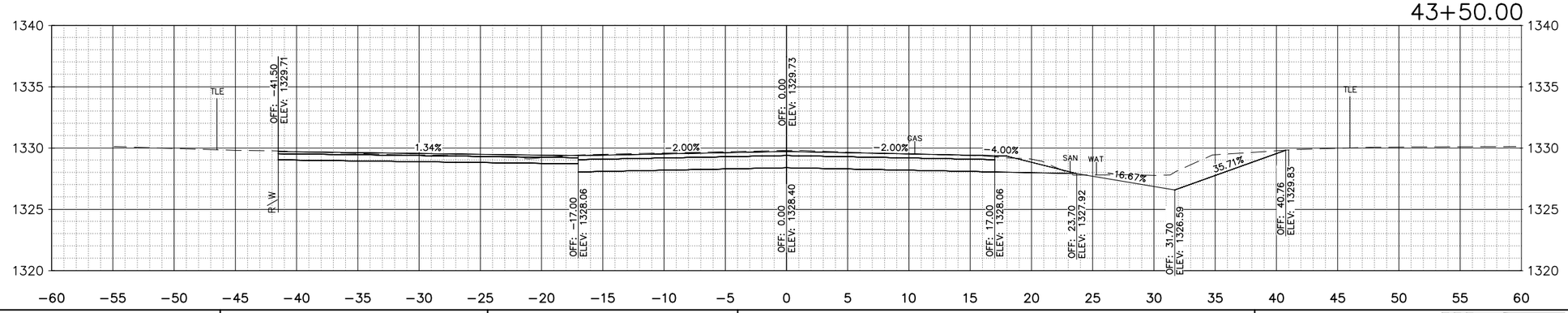
43+57.62

DRIVEWAY



43+50.00

DRIVEWAY

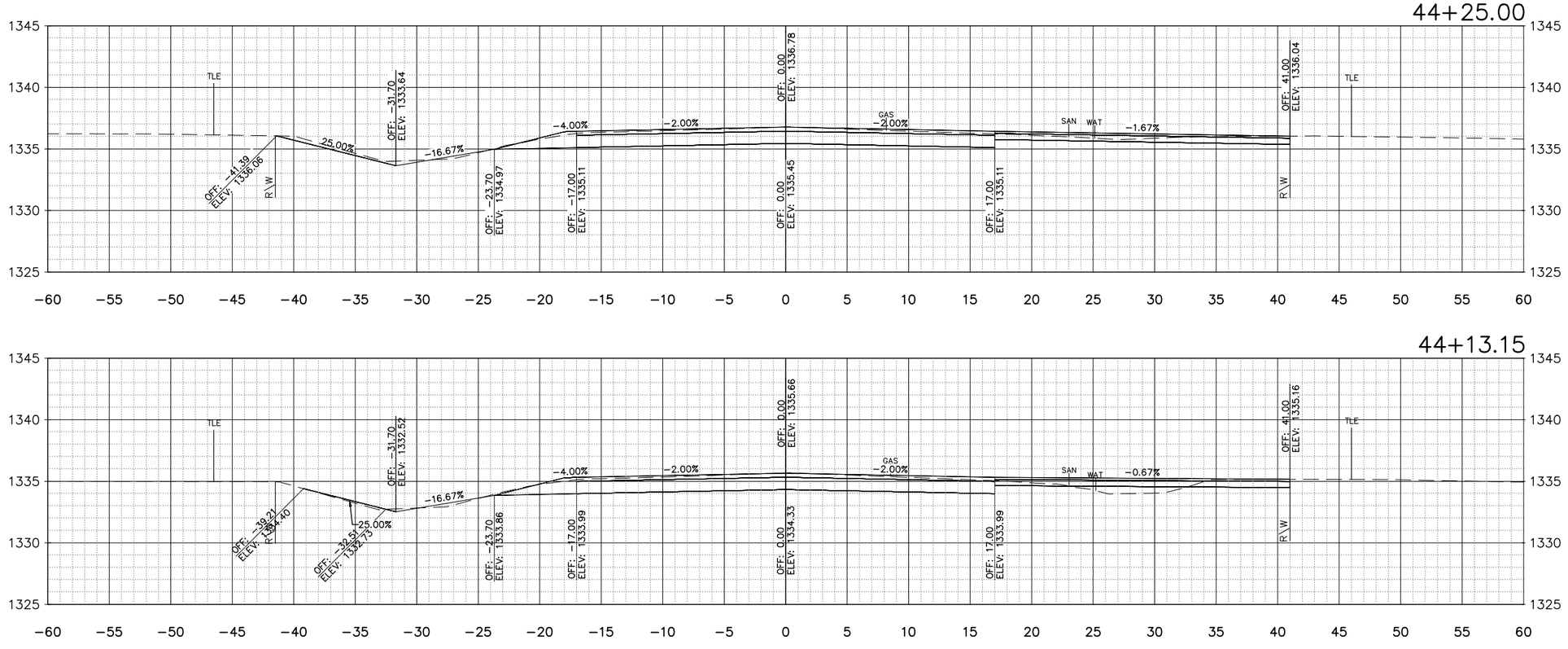


9

9

PROJECT NO: 6999-18-71 | HWY: TOWNLINE ROAD | COUNTY: MARATHON | CROSS SECTIONS | SCALE, FEET 0 2.5 5 10 | SHEET 306

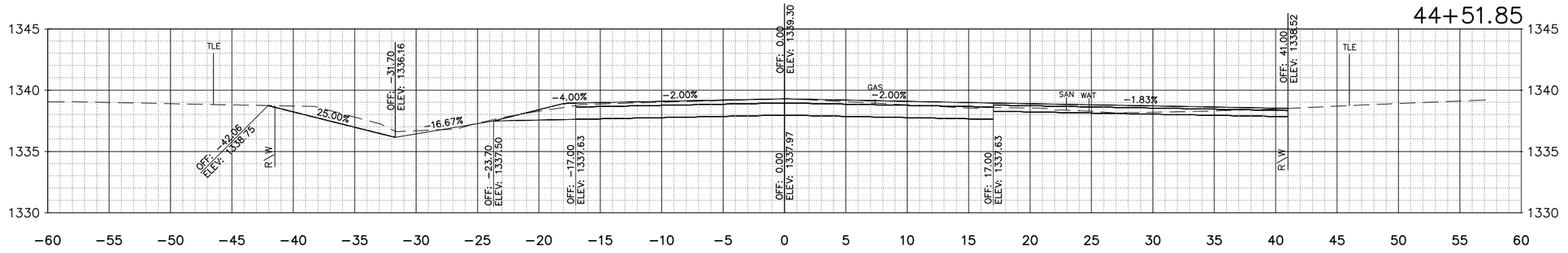
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:54:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



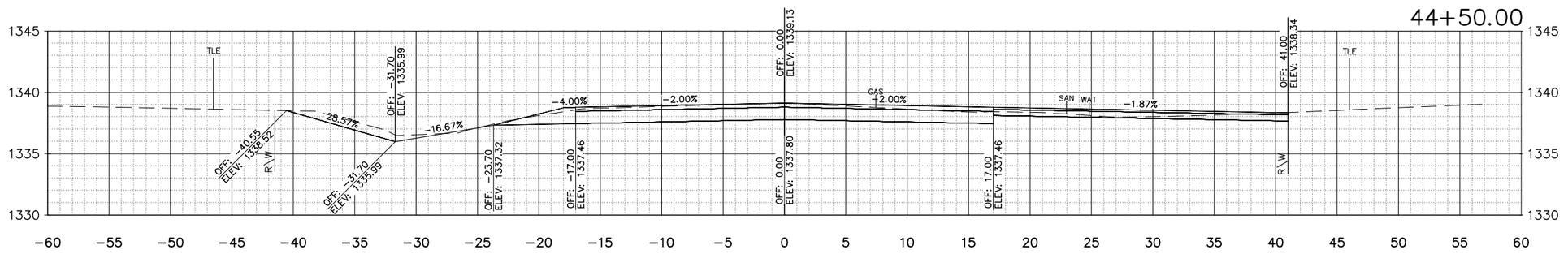
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 307

9

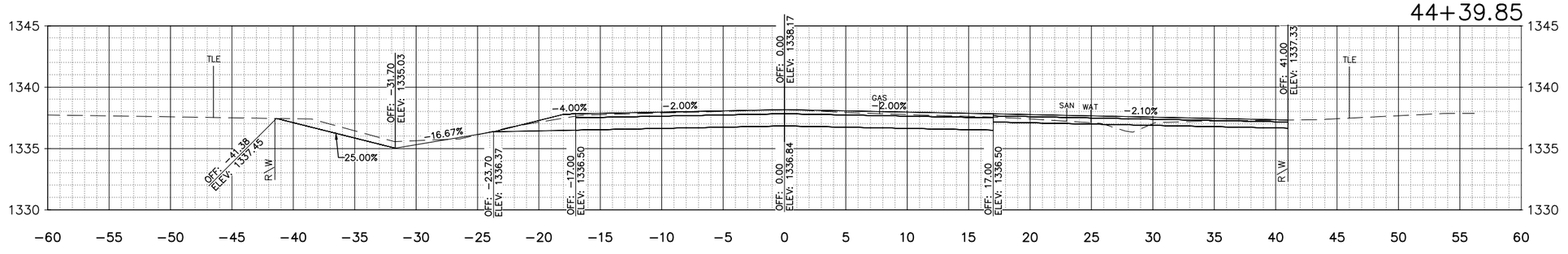
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:55:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



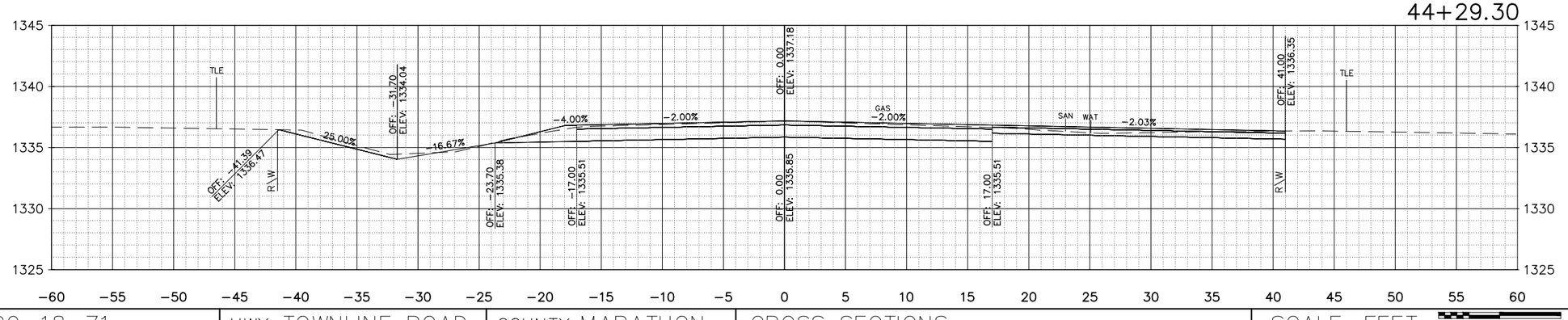
DRIVEWAY



DRIVEWAY



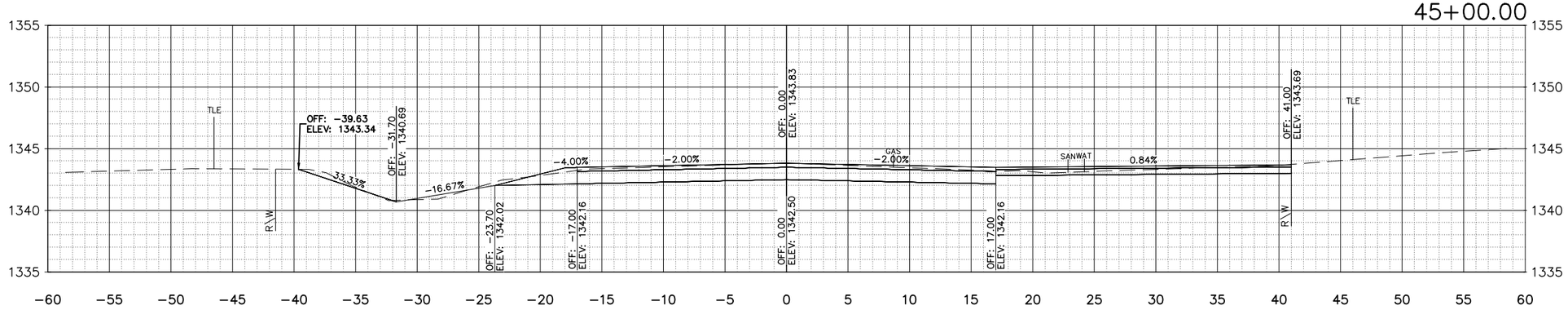
DRIVEWAY



DRIVEWAY

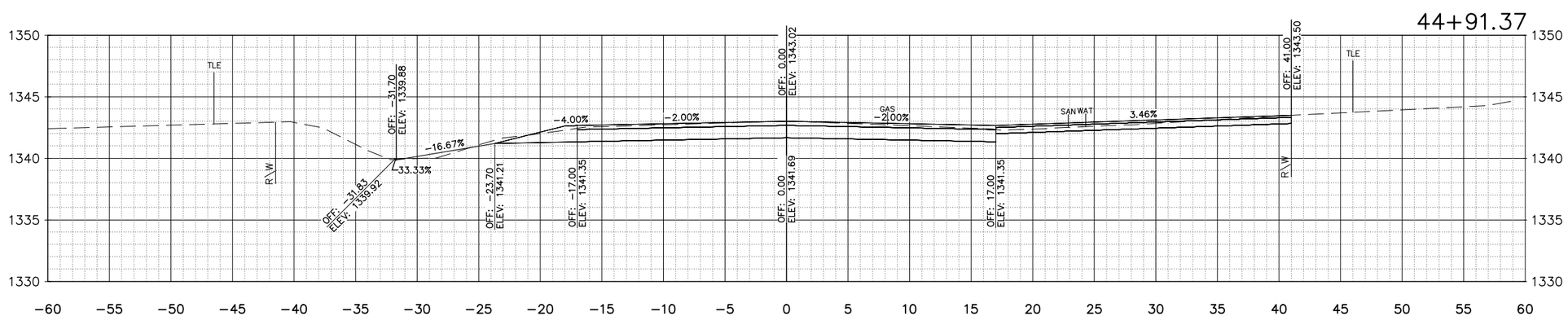
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:56:11 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

45+00.00



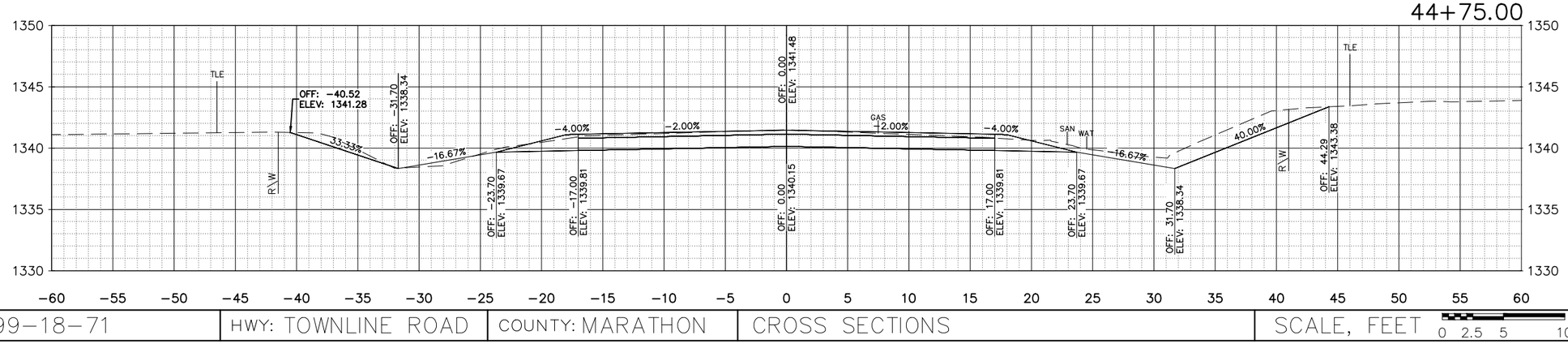
DRIVEWAY

44+91.37



DRIVEWAY

44+75.00

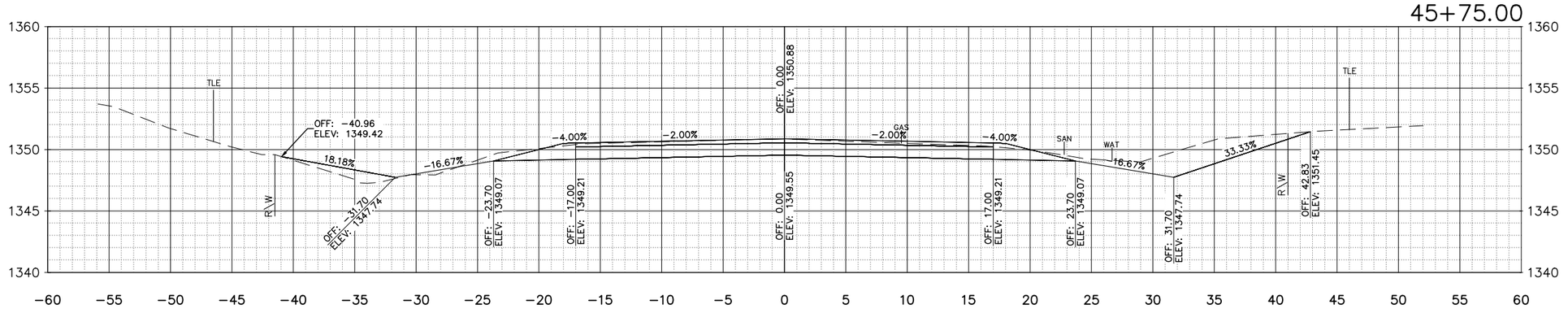


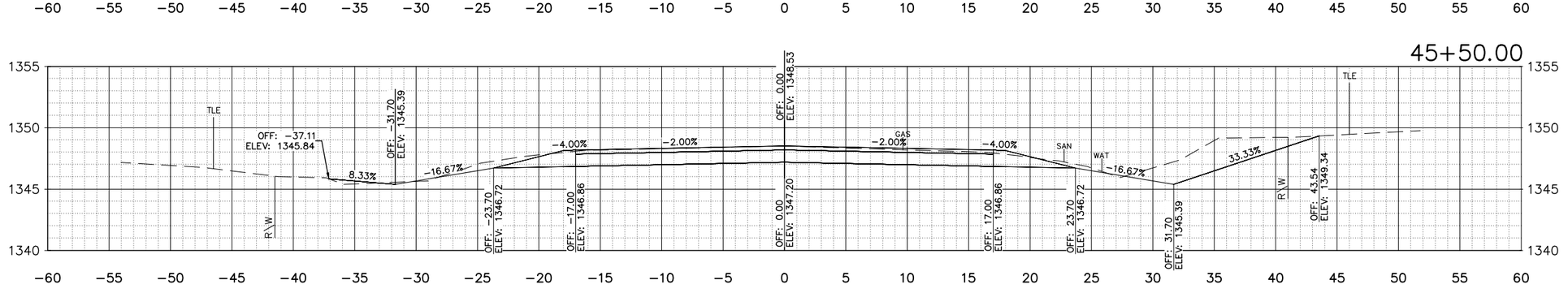
DRIVEWAY

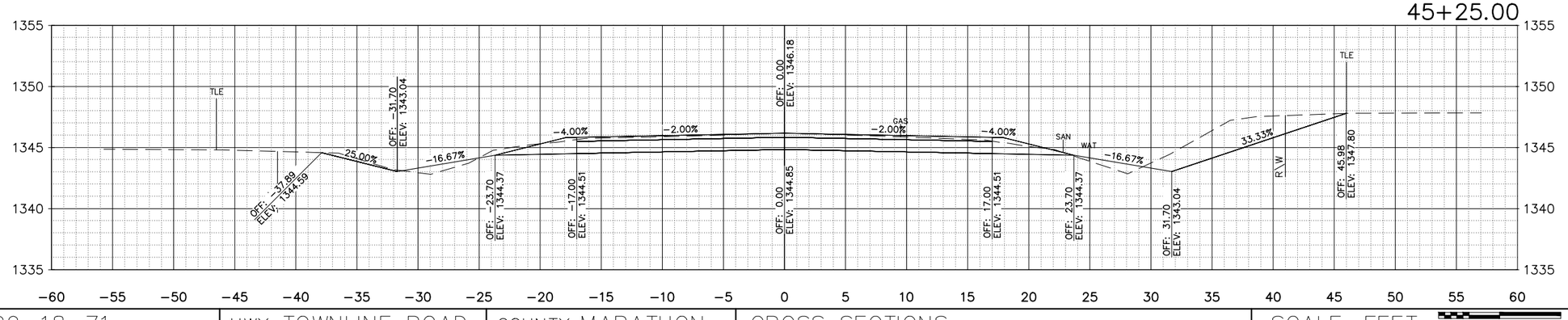
9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 309

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:56:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel





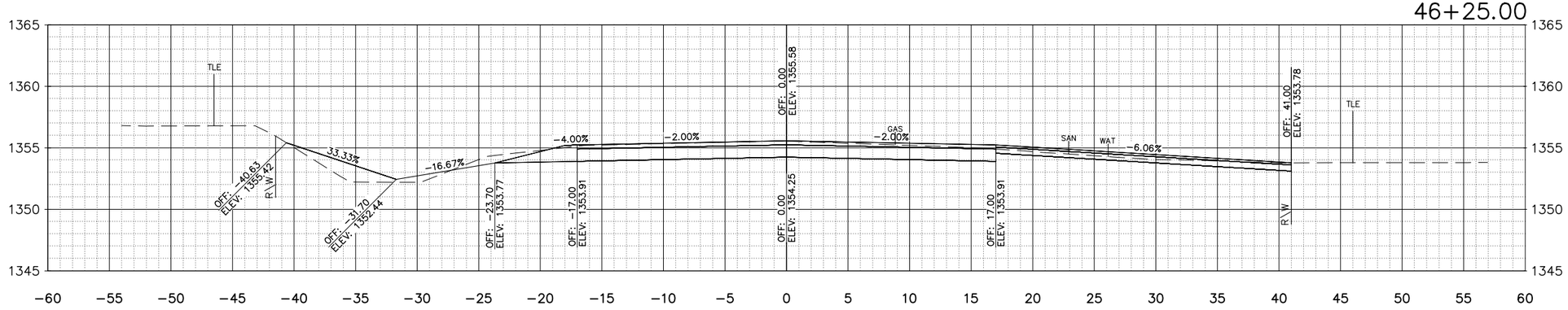


9

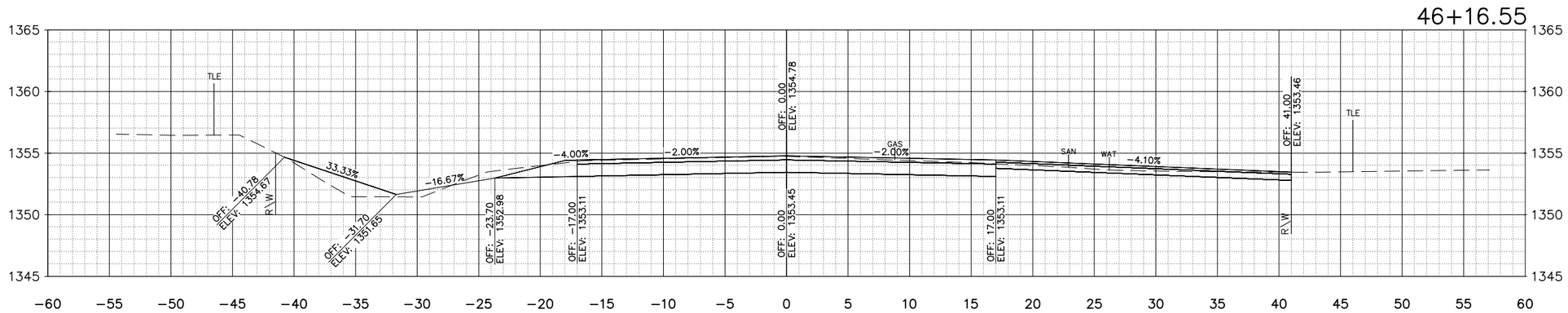
9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 310

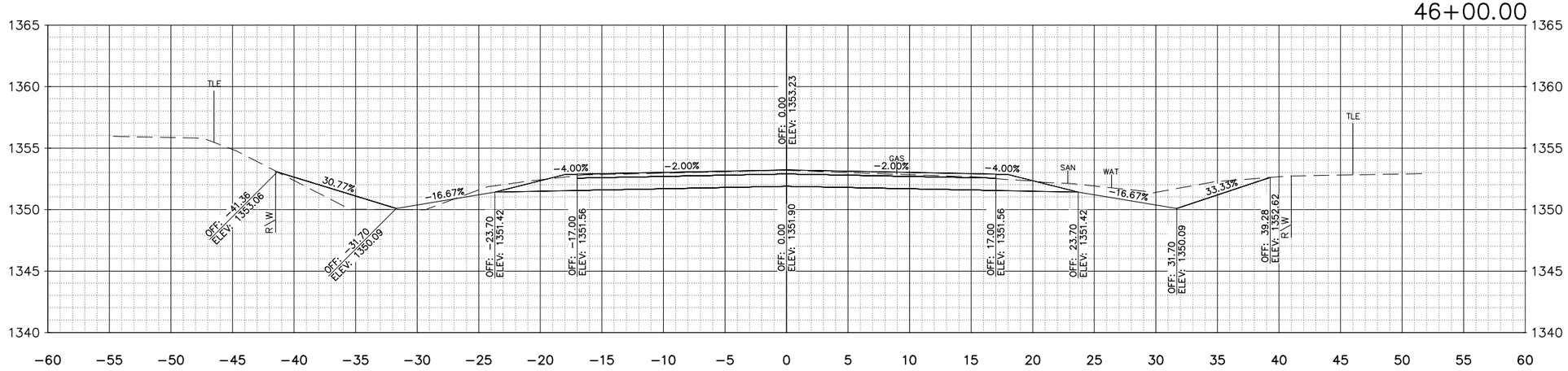
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:57:41 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



DRIVEWAY



DRIVEWAY



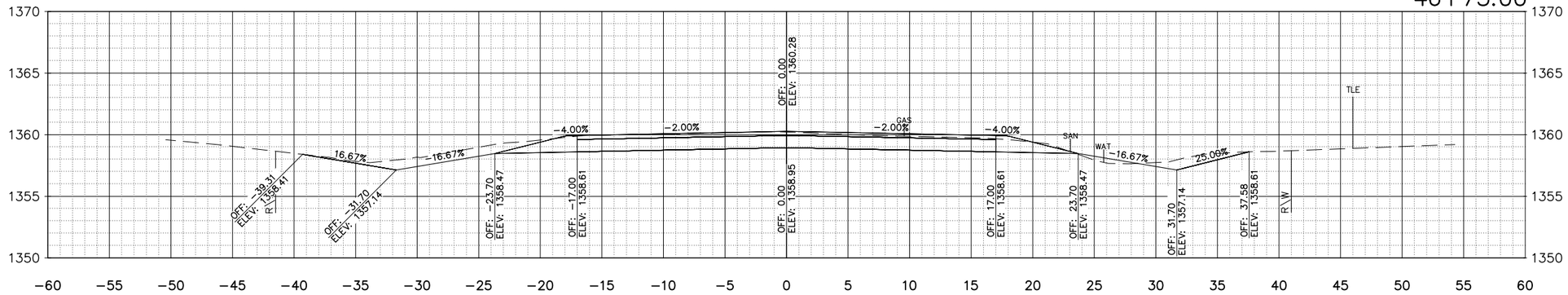
DRIVEWAY

9

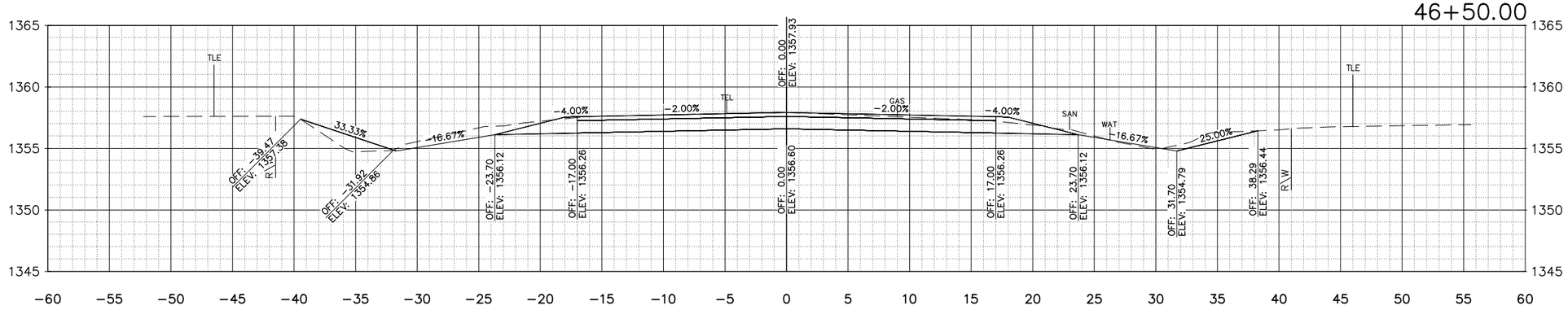
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 311

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:58:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

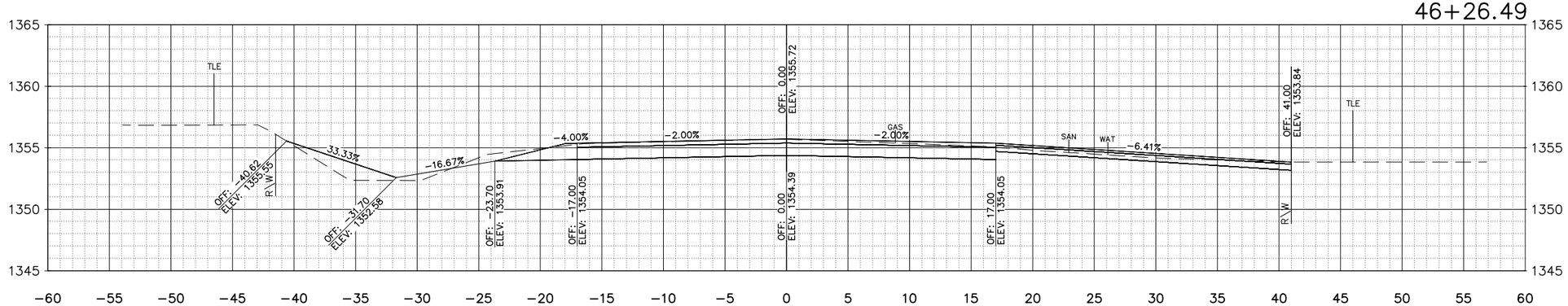
46+75.00



46+50.00



46+26.49

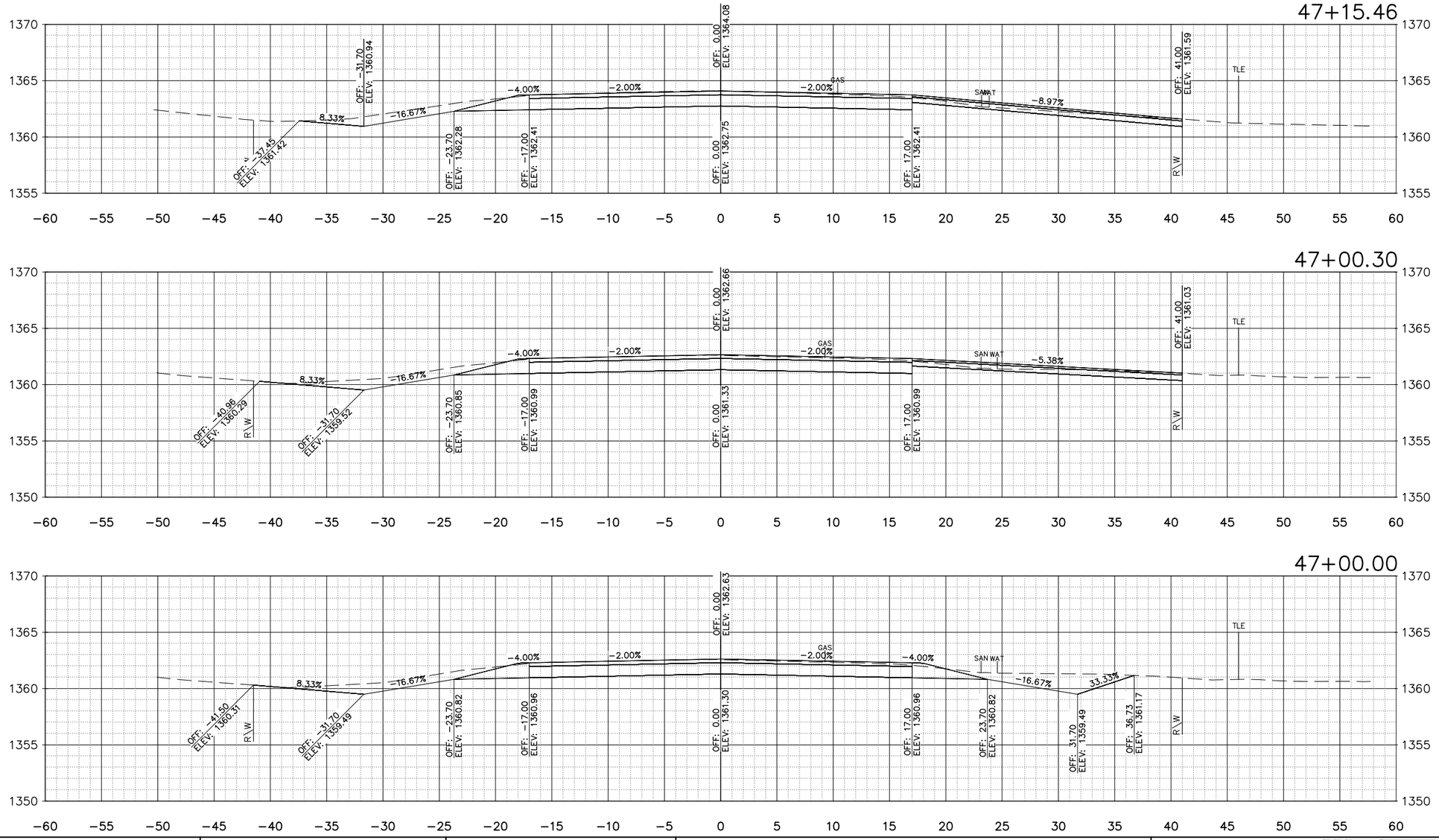


DRIVEWAY

9

9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 312



DRIVEWAY

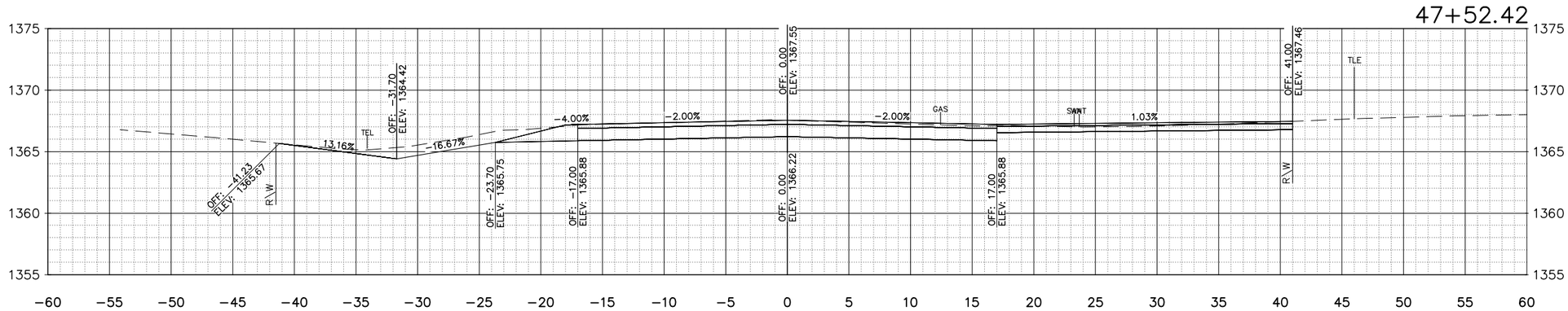
DRIVEWAY

9

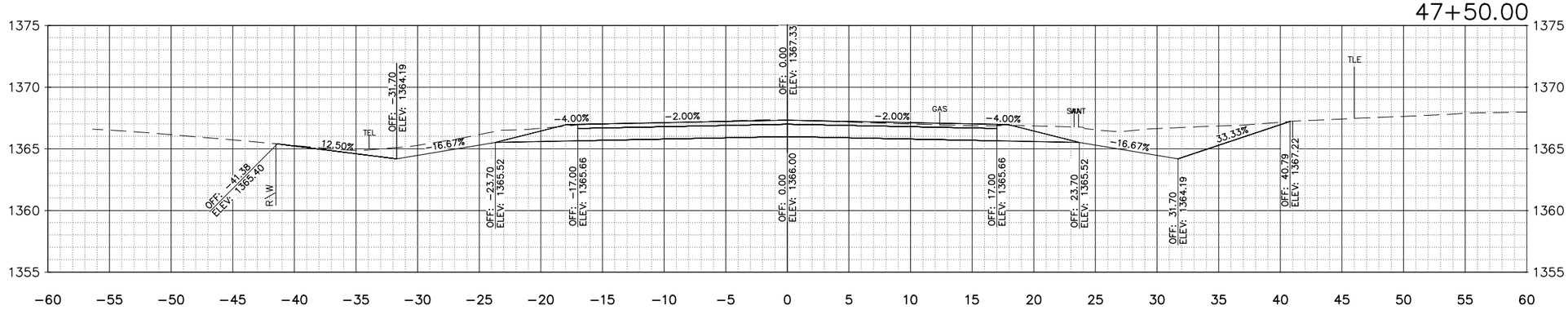
9

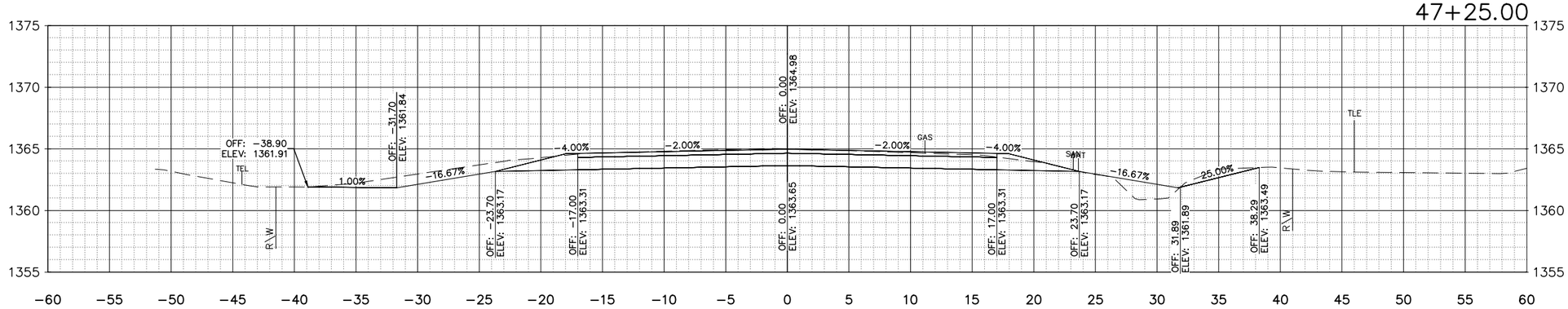
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 313

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 10:59:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



DRIVEWAY

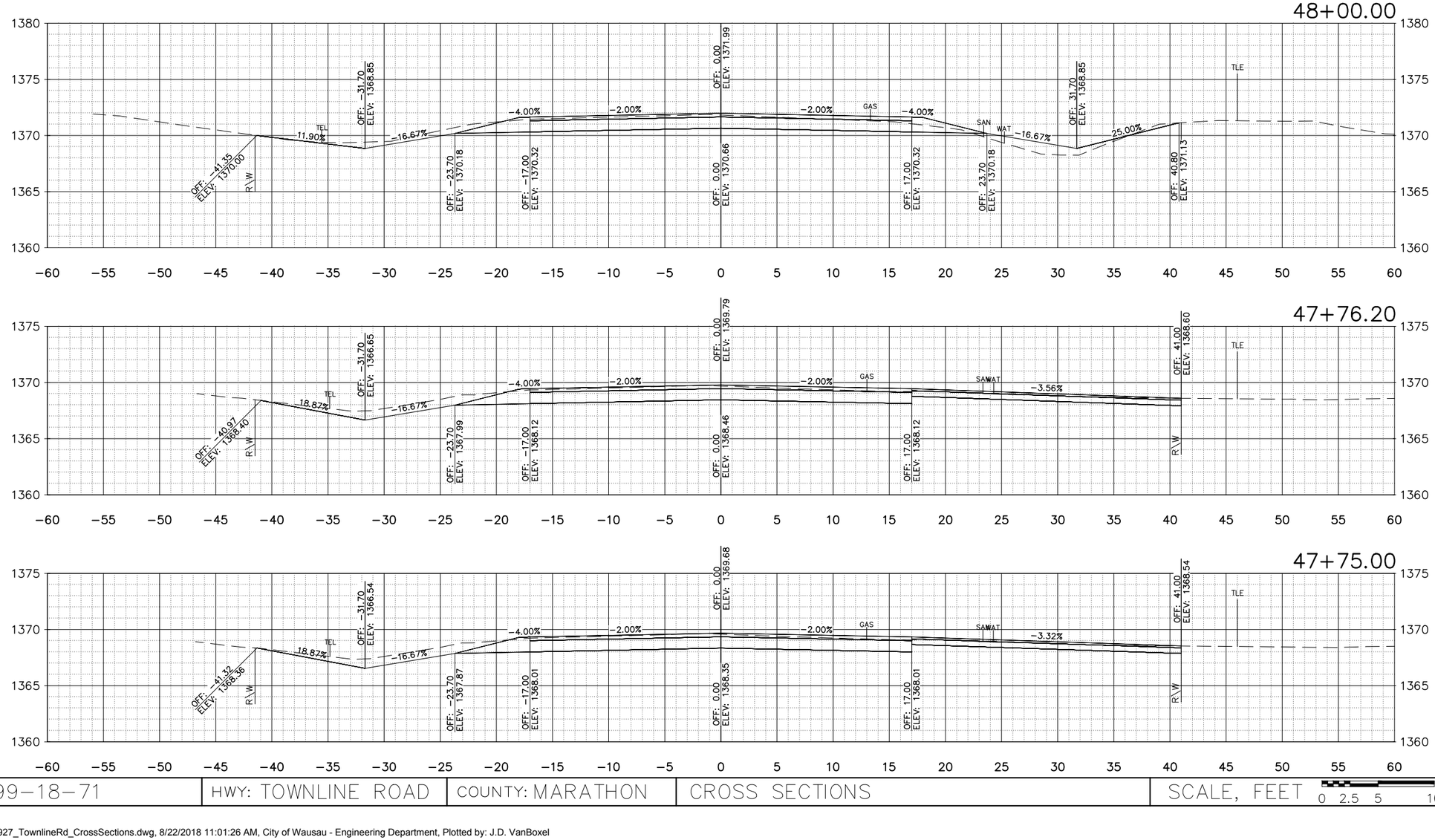




9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 314

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:00:41 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 315

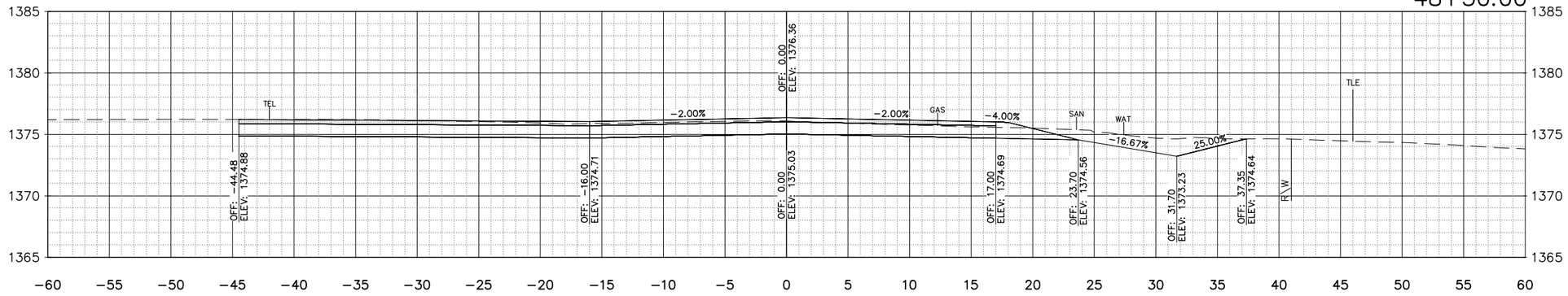
9

9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:01:26 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

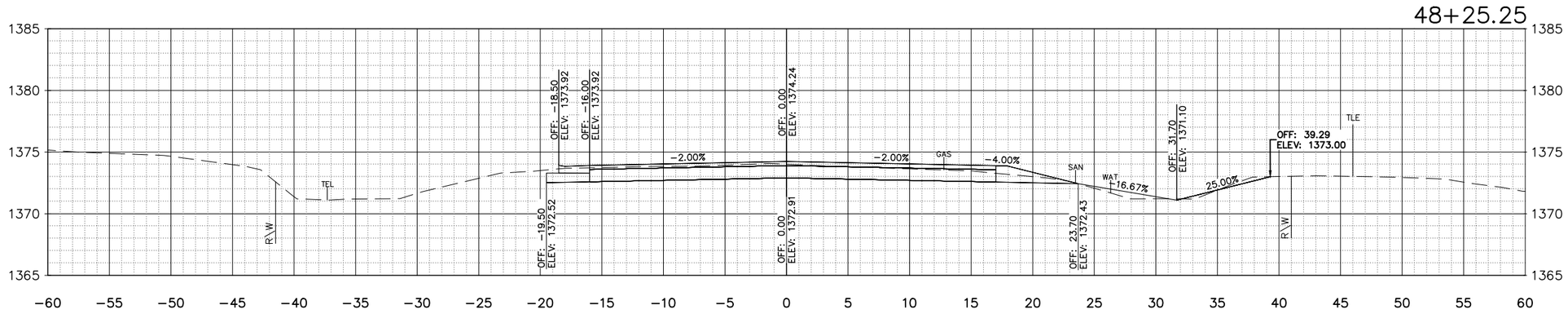
EASTHILL DRIVE

48+50.00

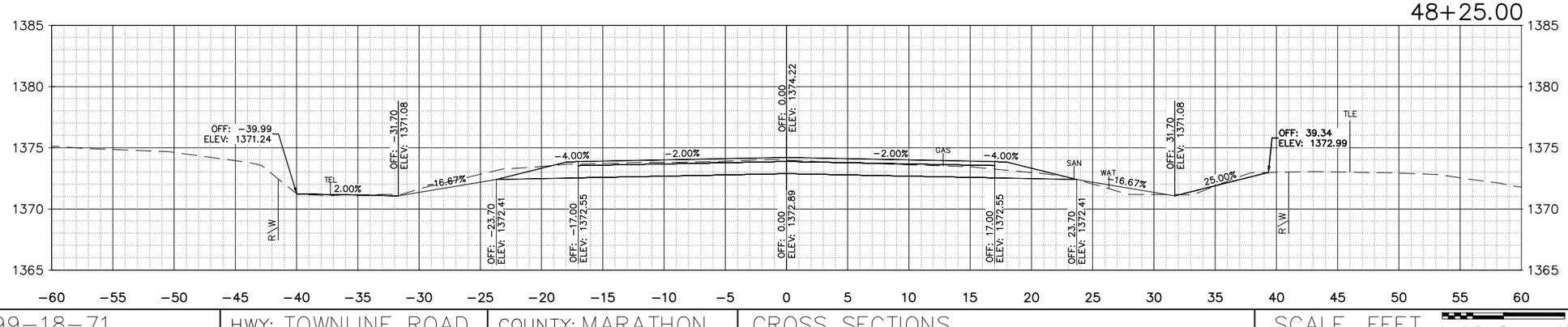


EASTHILL DRIVE

48+25.25



48+25.00



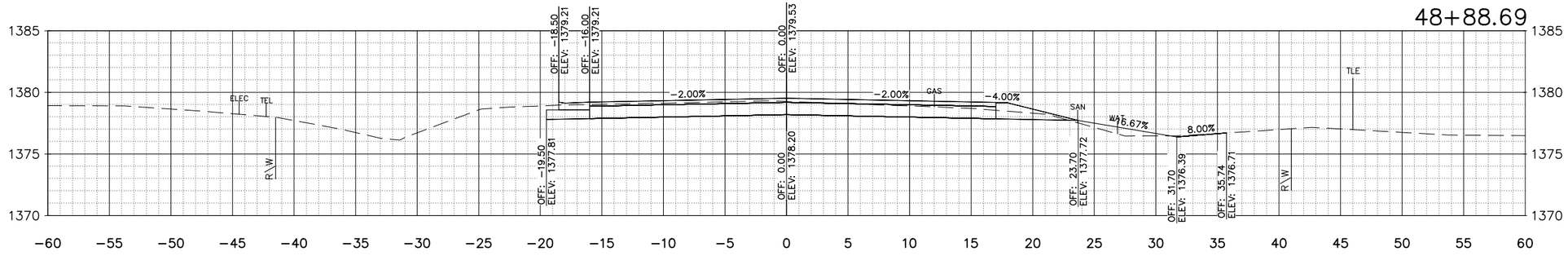
9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 316

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:02:11 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

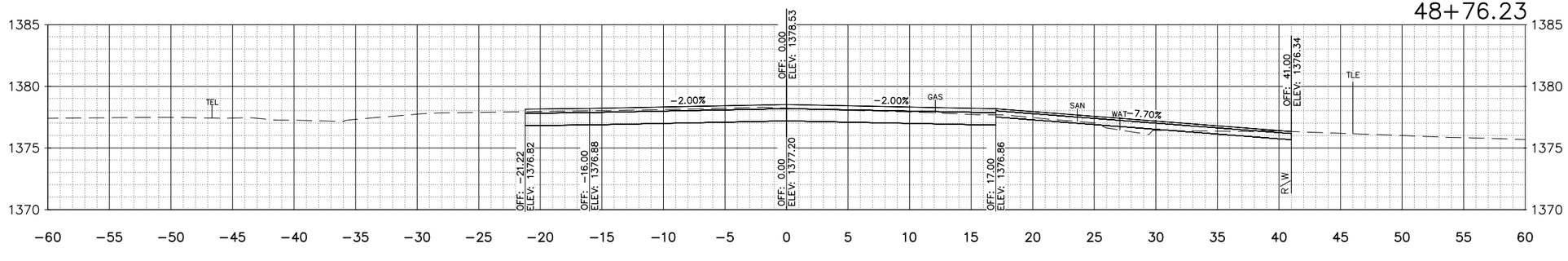
EASTHILL DRIVE

48+88.69



EASTHILL DRIVE

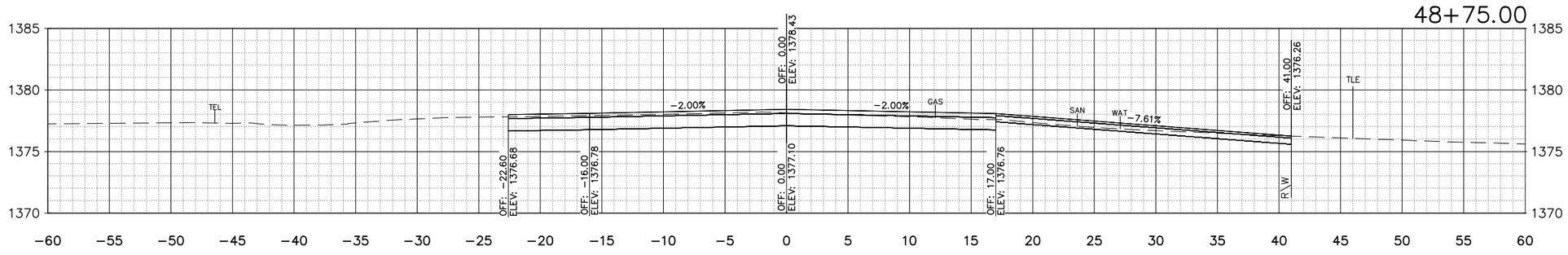
48+76.23



DRIVEWAY

EASTHILL DRIVE

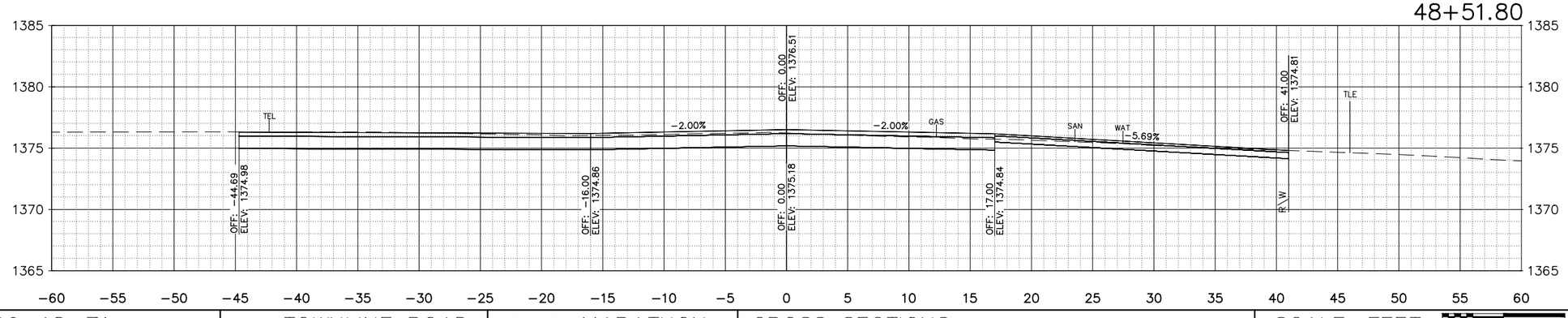
48+75.00



DRIVEWAY

EASTHILL DRIVE

48+51.80

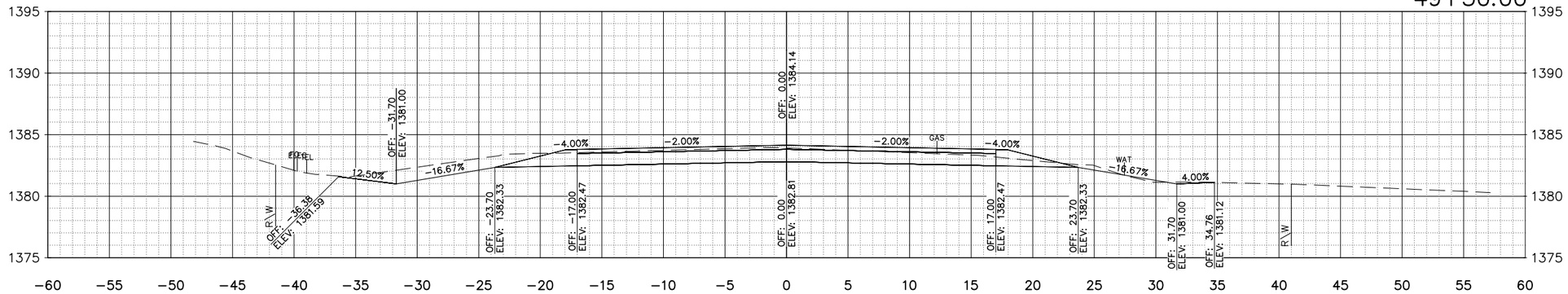


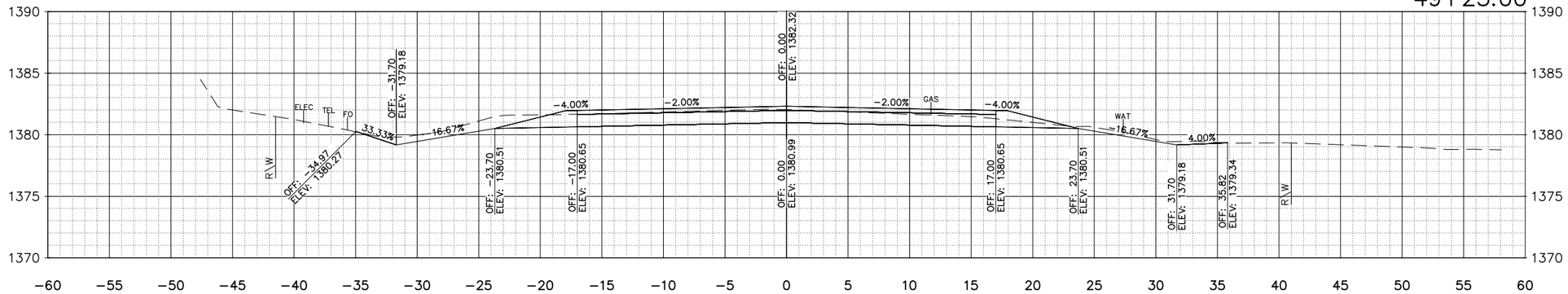
DRIVEWAY

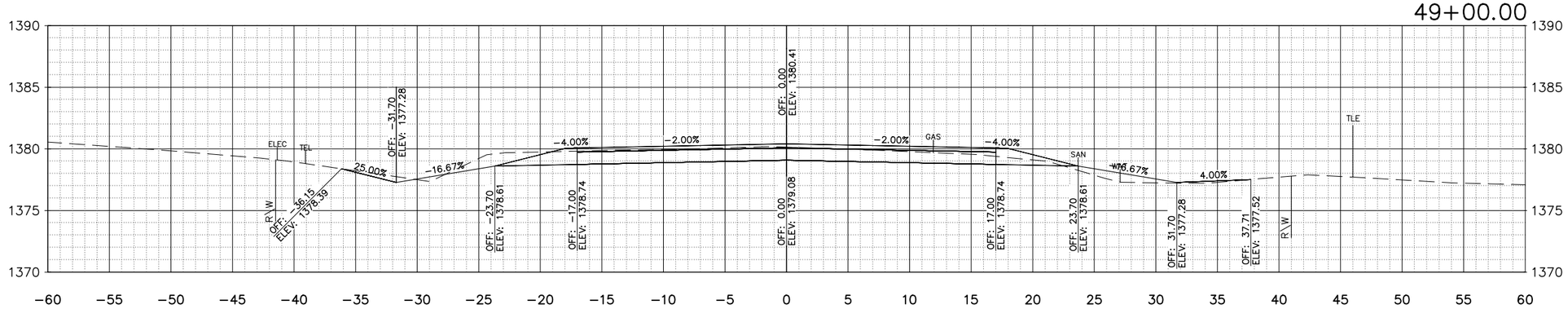
9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 317

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:02:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

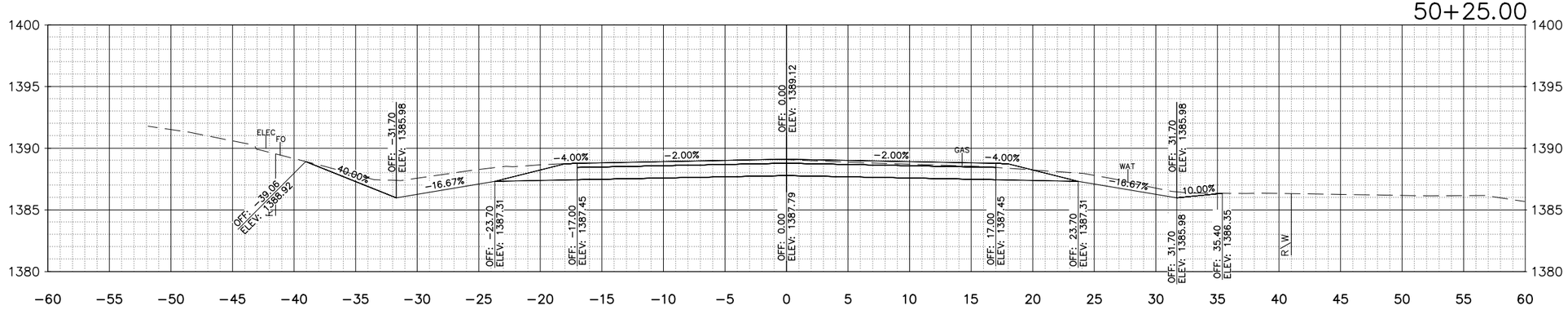


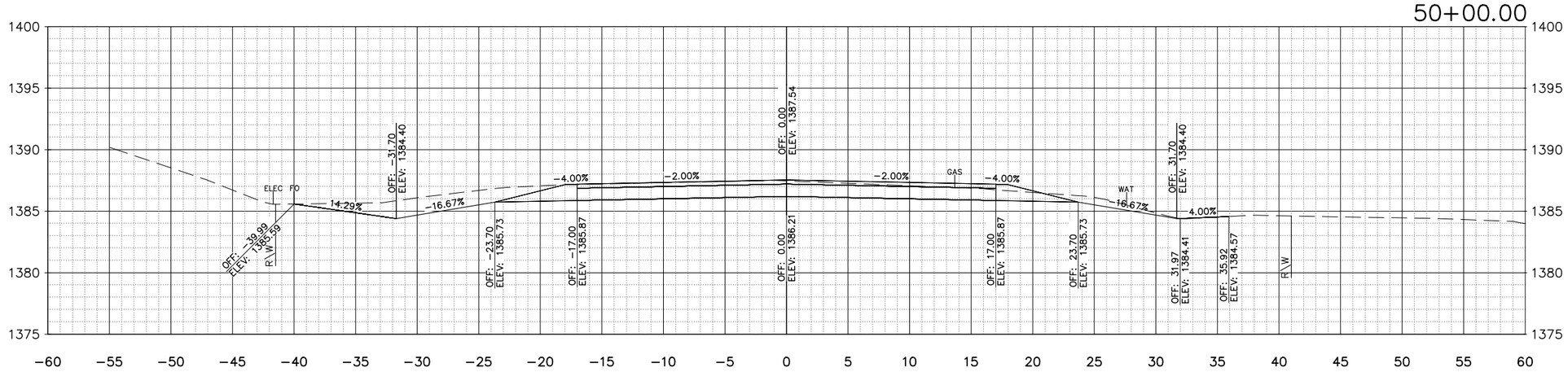


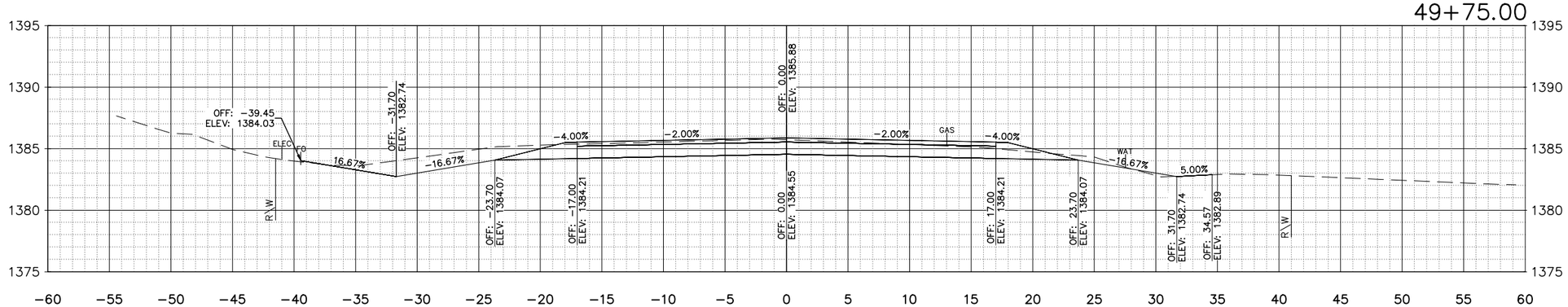


PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 318

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:03:41 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel





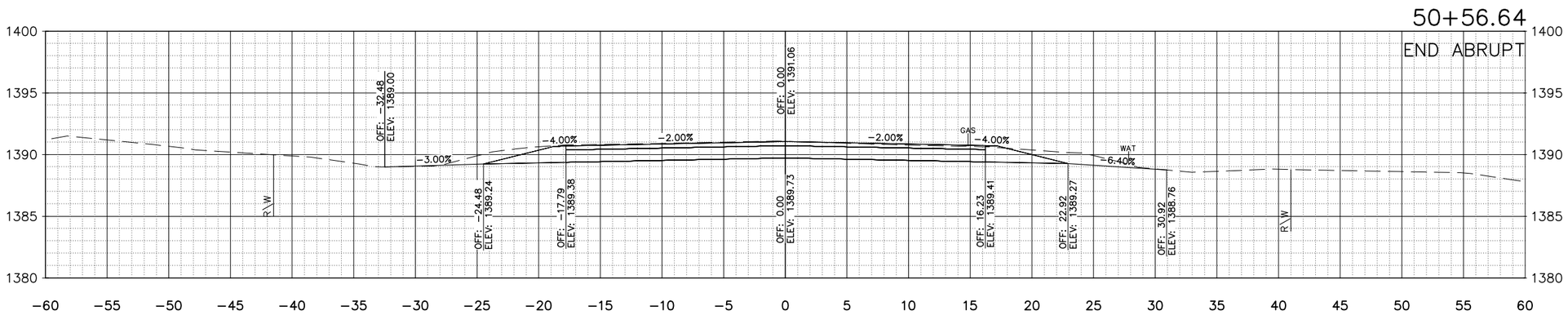


9

9

PROJECT NO: 6999-18-71 | HWY: TOWNLINE ROAD | COUNTY: MARATHON | CROSS SECTIONS | SCALE, FEET 0 2.5 5 10 | SHEET 319

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:04:26 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

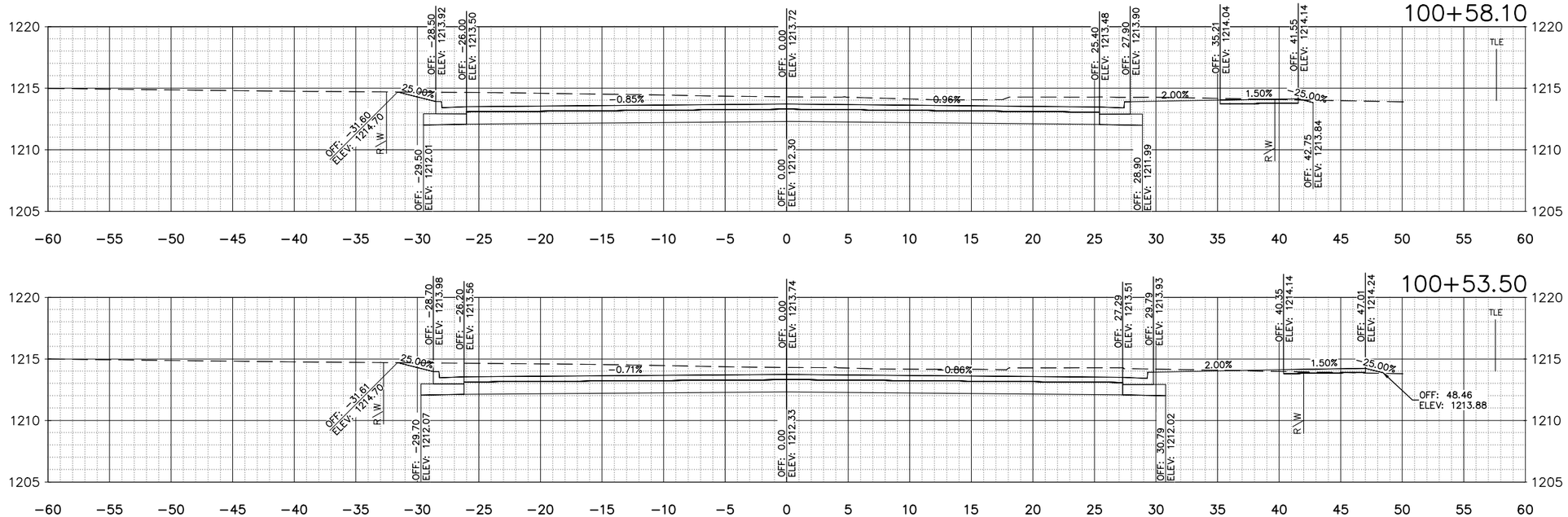


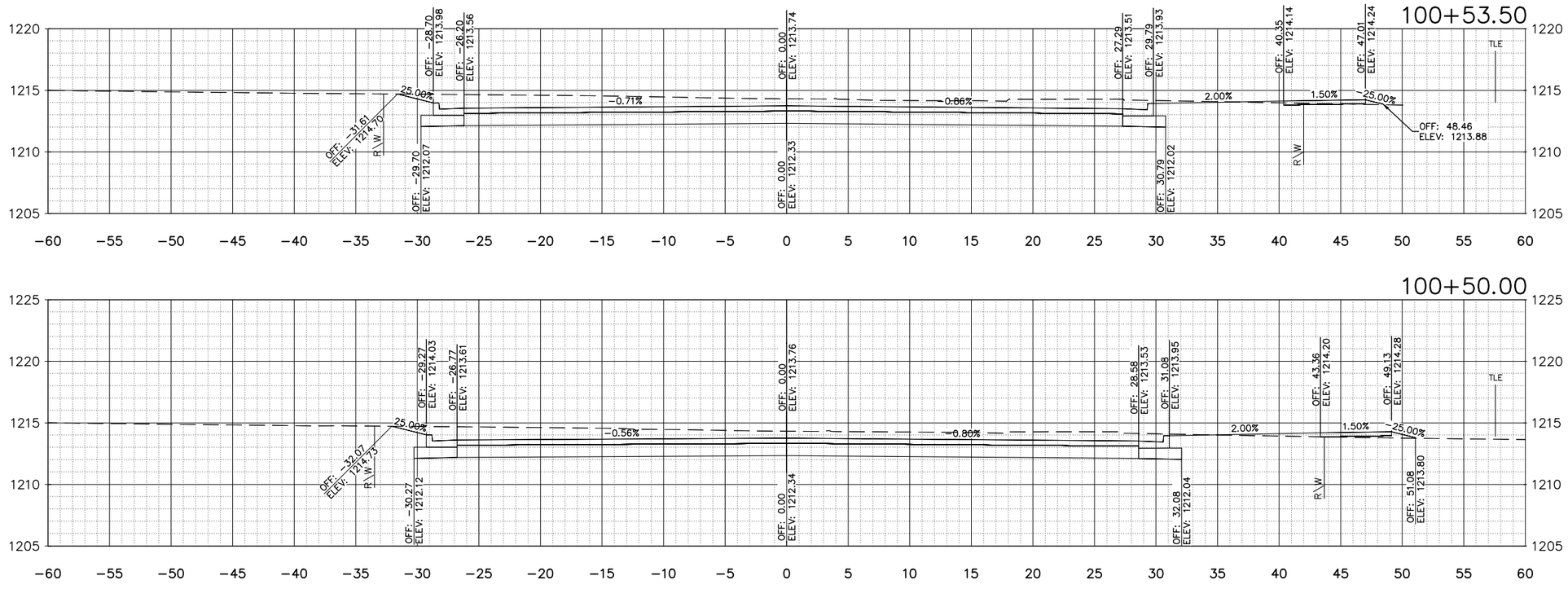
9

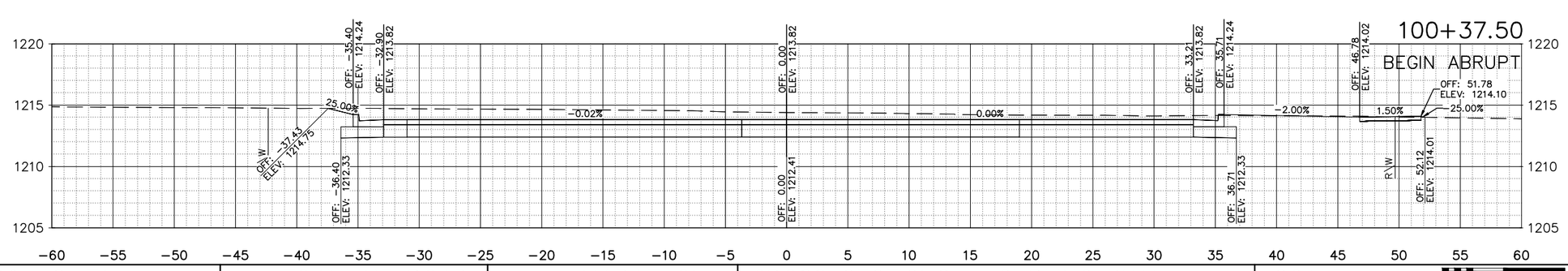
9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS	SCALE, FEET 0 2.5 5 10	SHEET 320

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:05:11 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



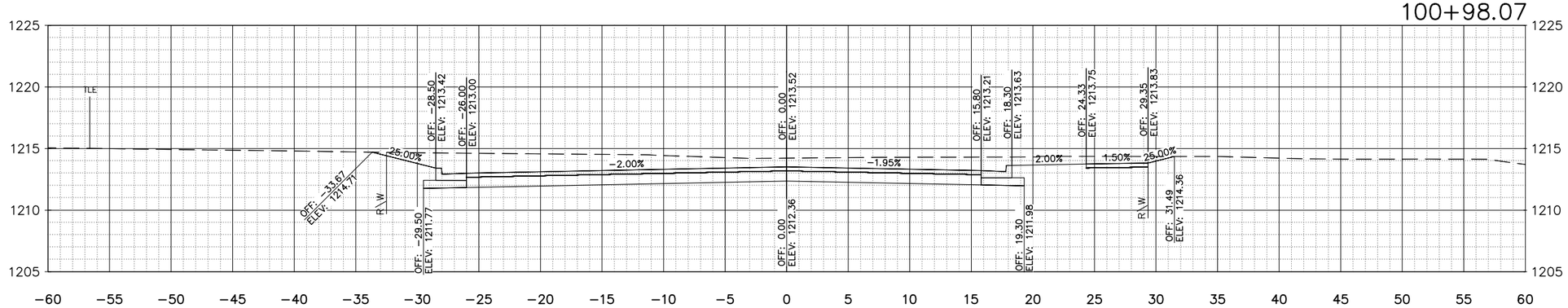


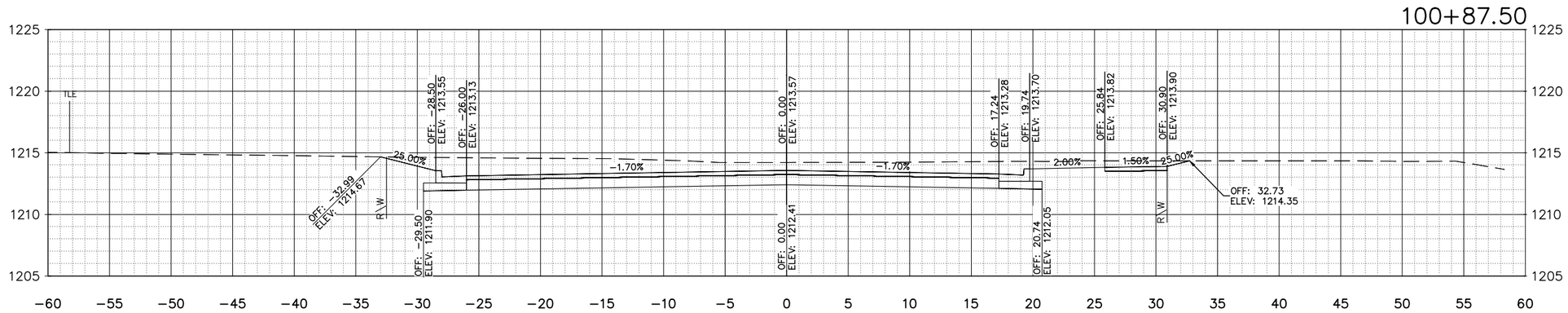


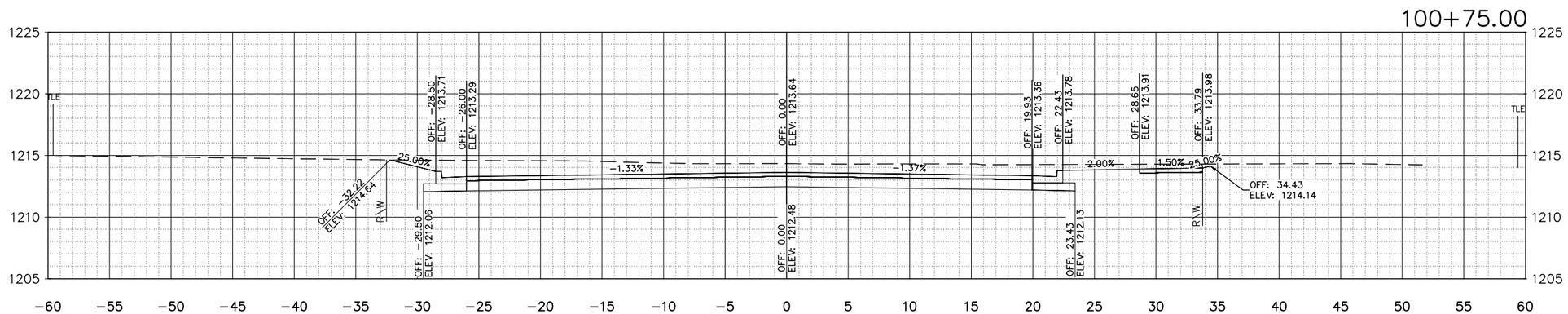
PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS − CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 321

9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:05:56 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



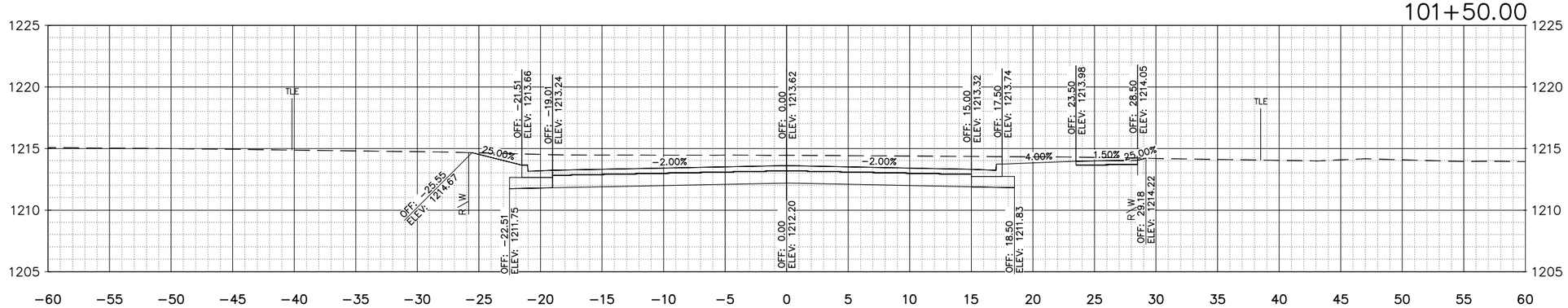


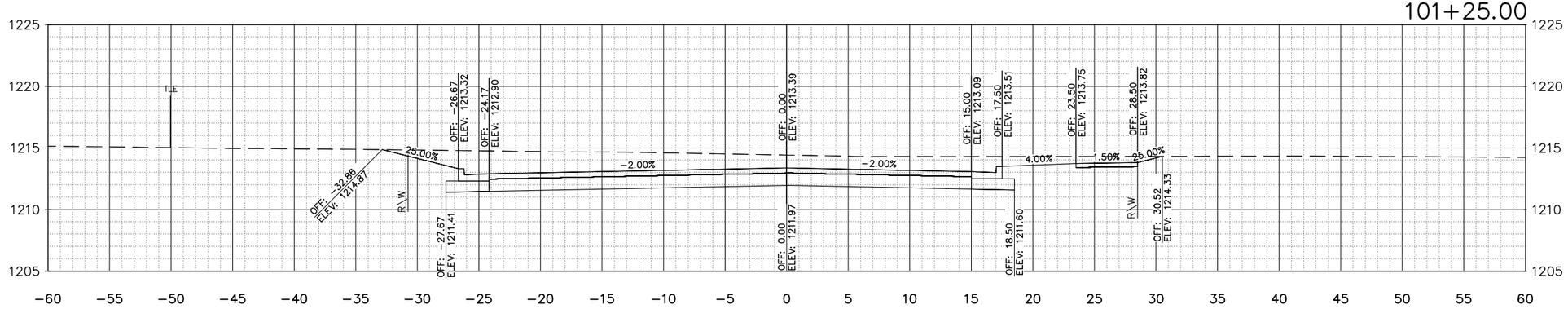


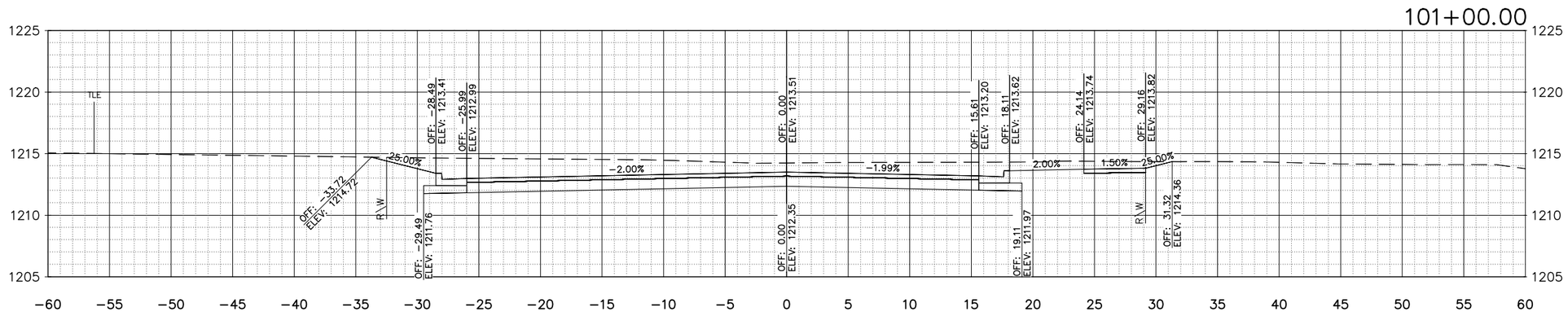
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS - CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 322

9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:06:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel





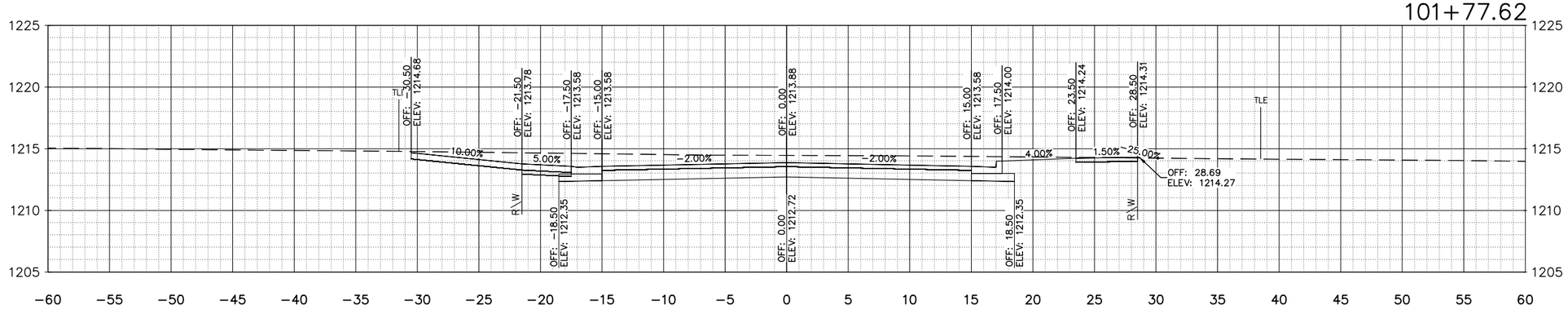


PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS - CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 323

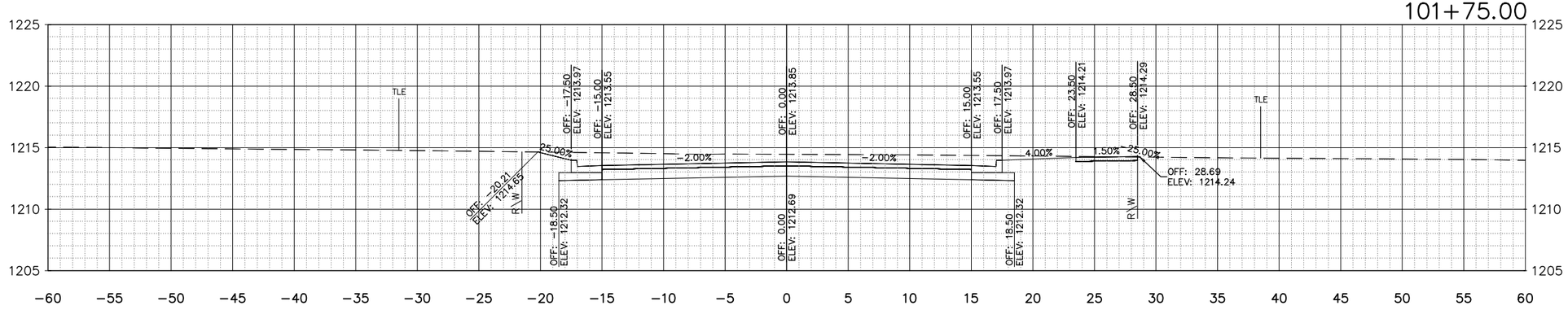
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:07:26 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

DRIVEWAY

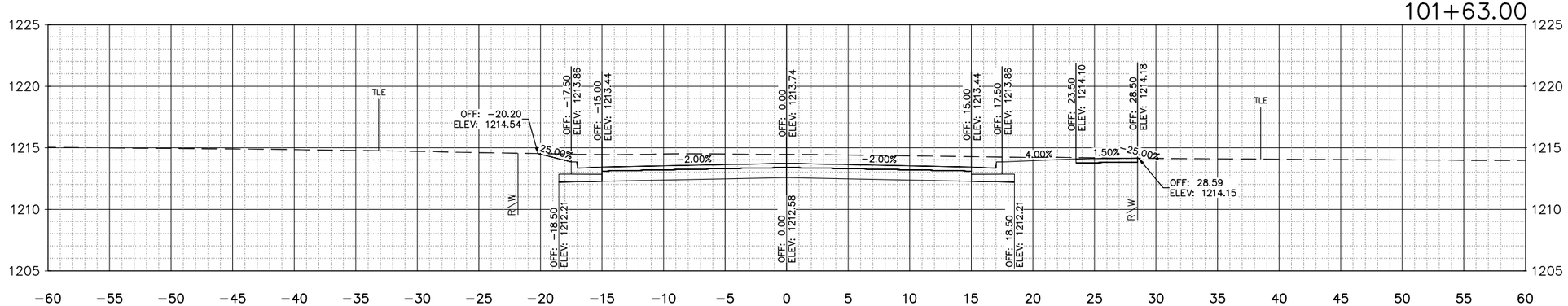
101+77.62



101+75.00



101+63.00

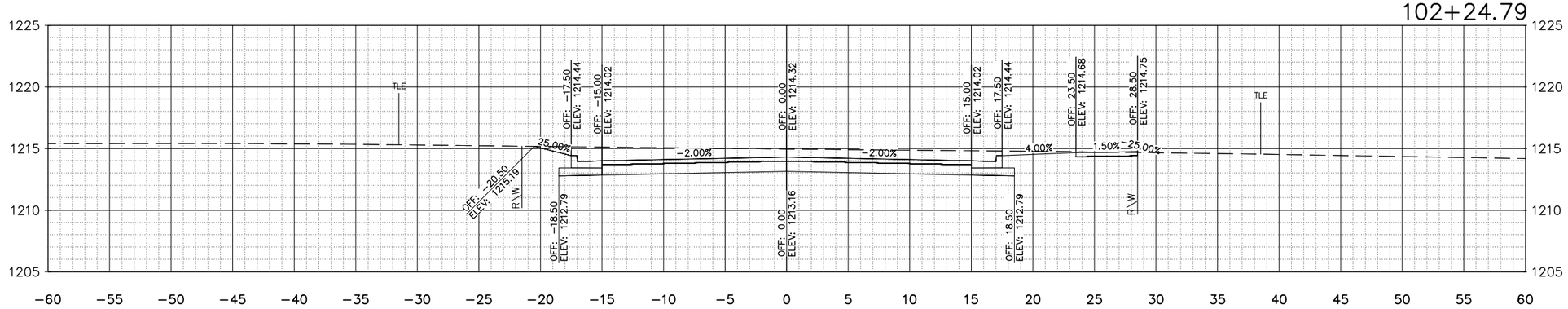


9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS − CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 324

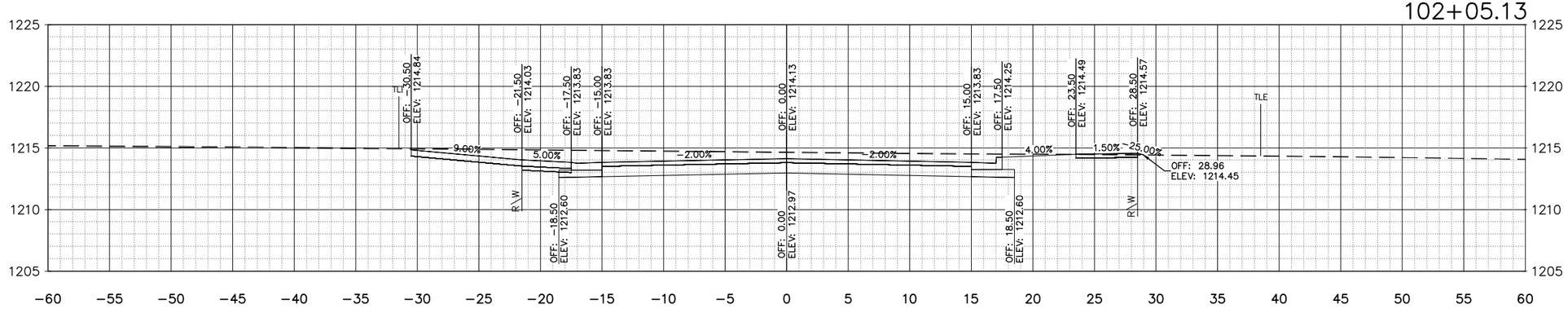
O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:08:10 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

102+24.79



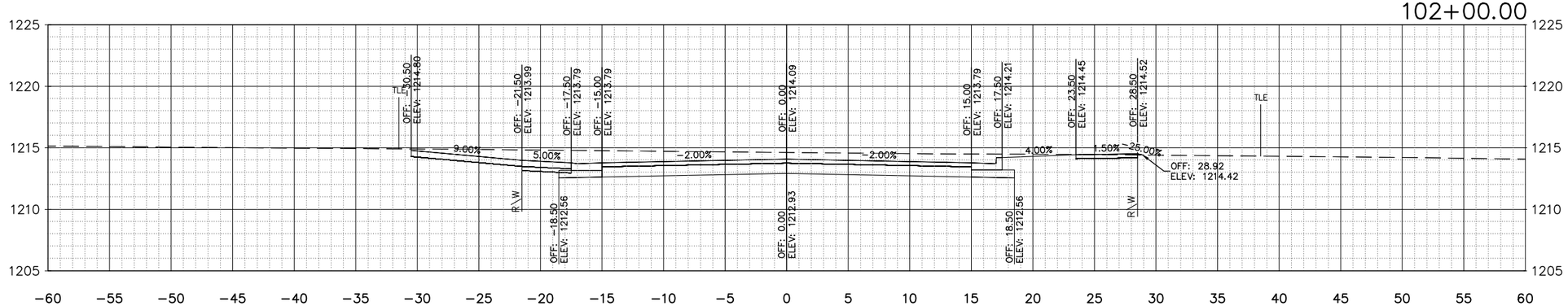
102+05.13

DRIVEWAY



102+00.00

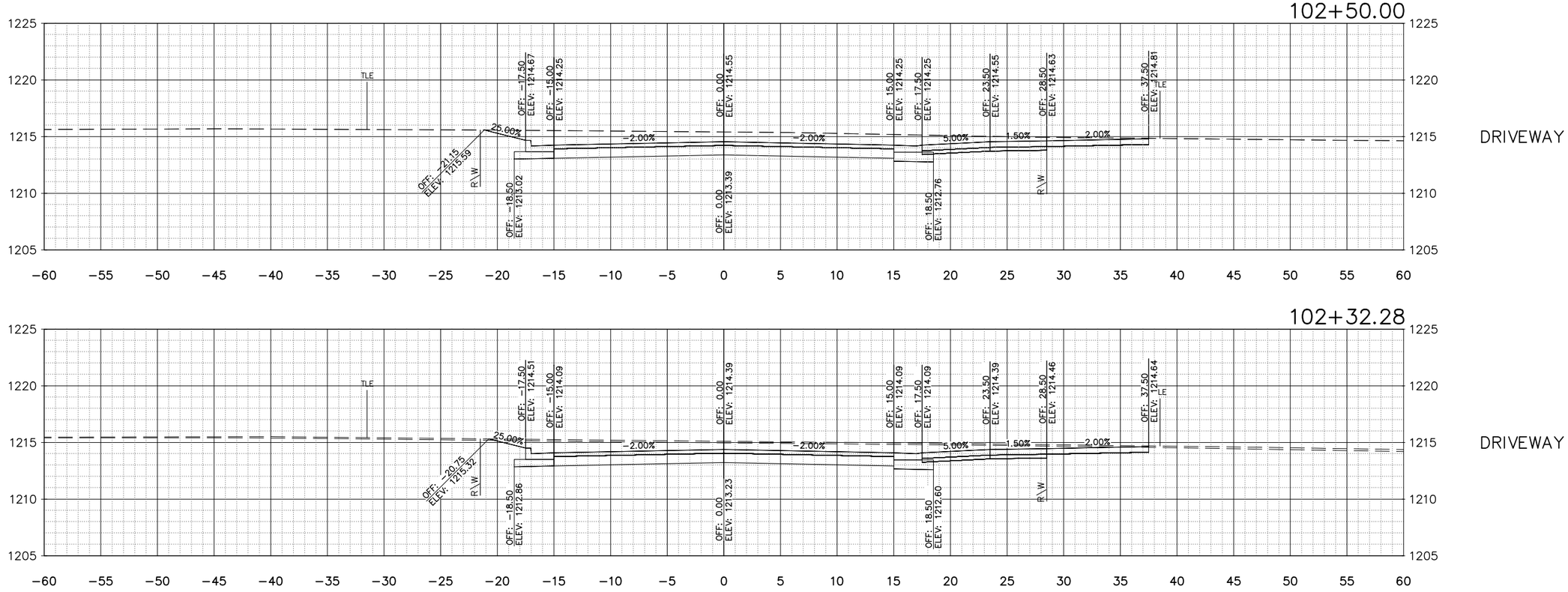
DRIVEWAY



9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS − CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 325

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:08:56 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



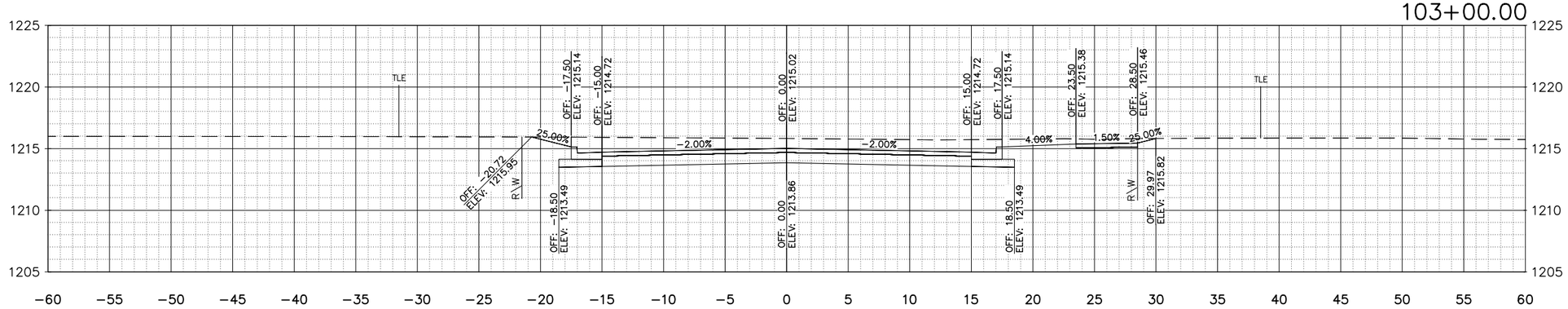
DRIVEWAY

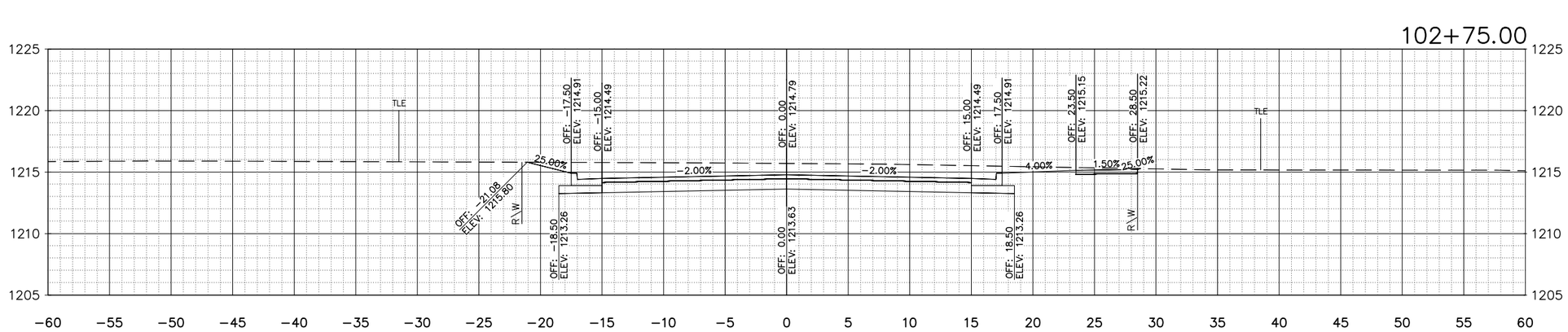
DRIVEWAY

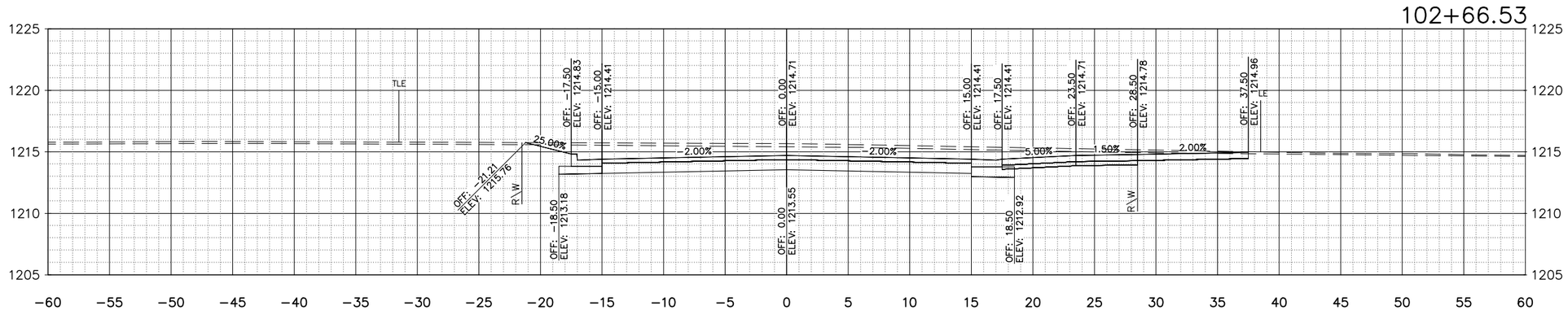
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS - CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 326







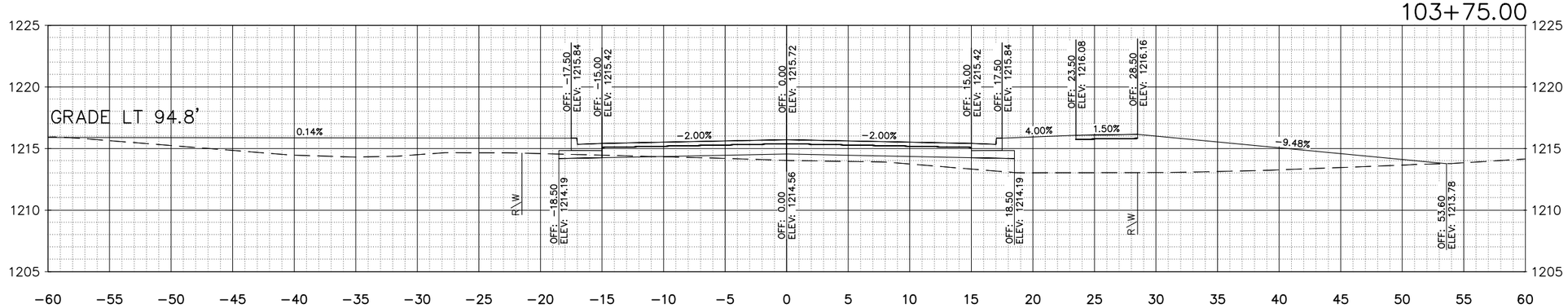
DRIVEWAY

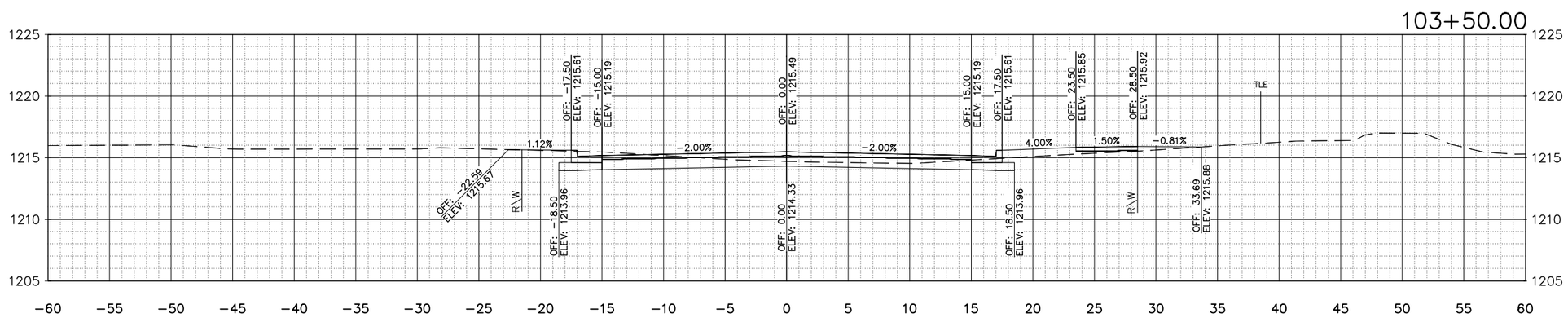
9

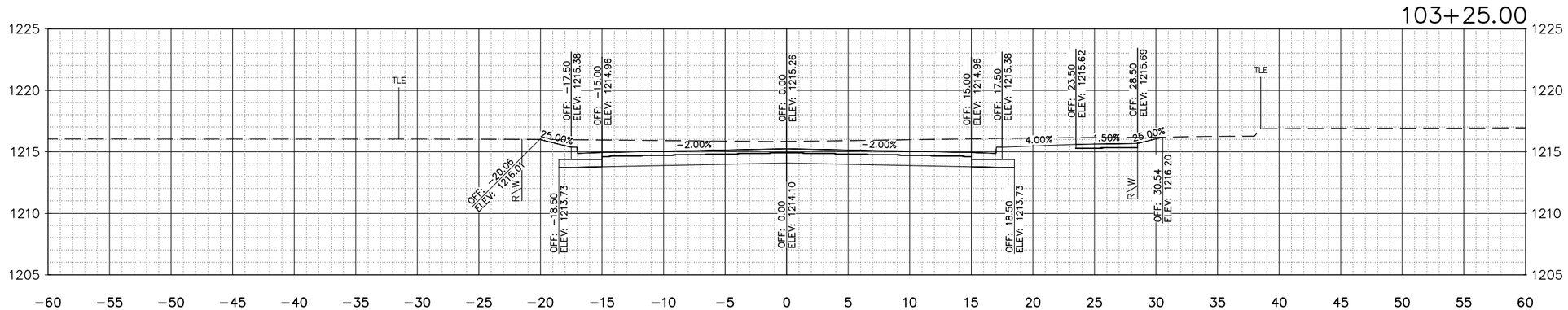
9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS − CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 327

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:10:26 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



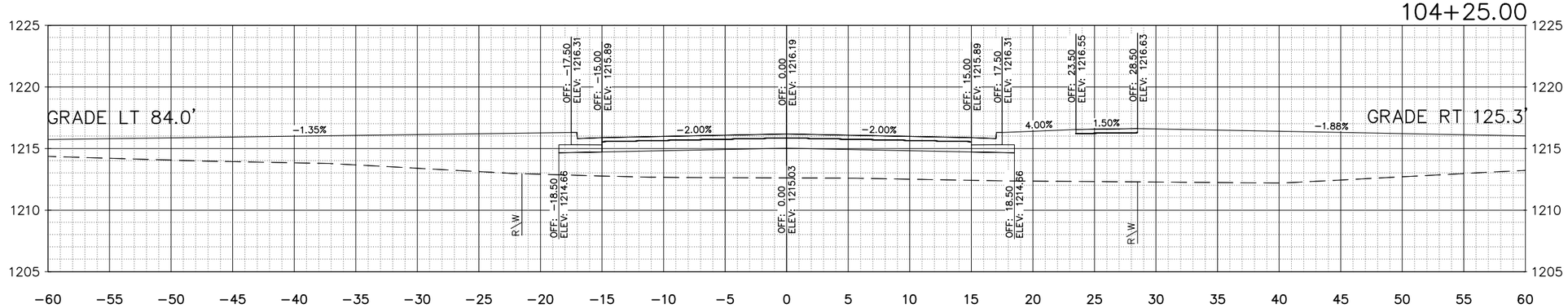


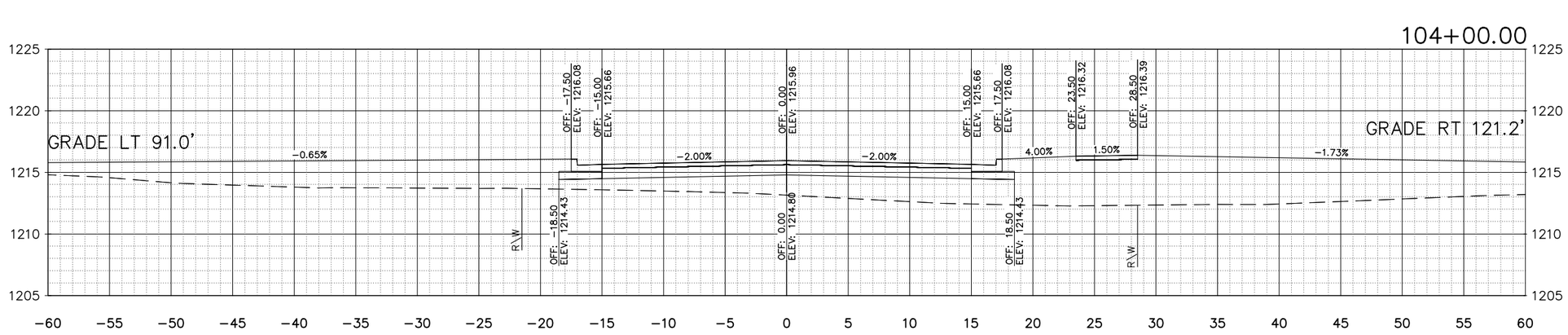


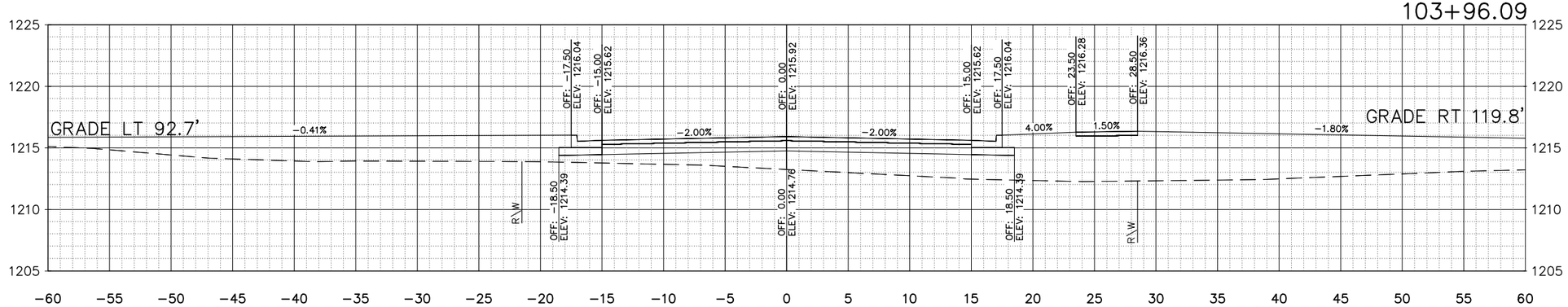
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS - CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 328



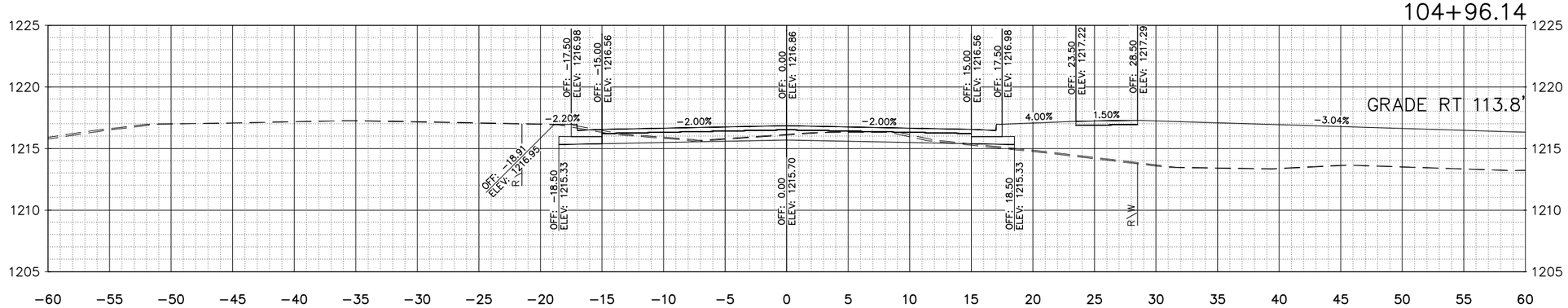


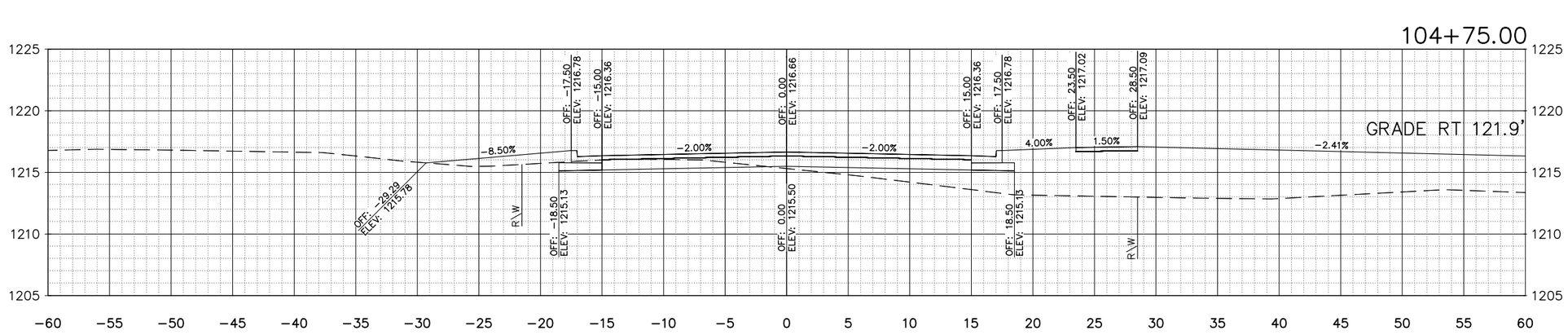


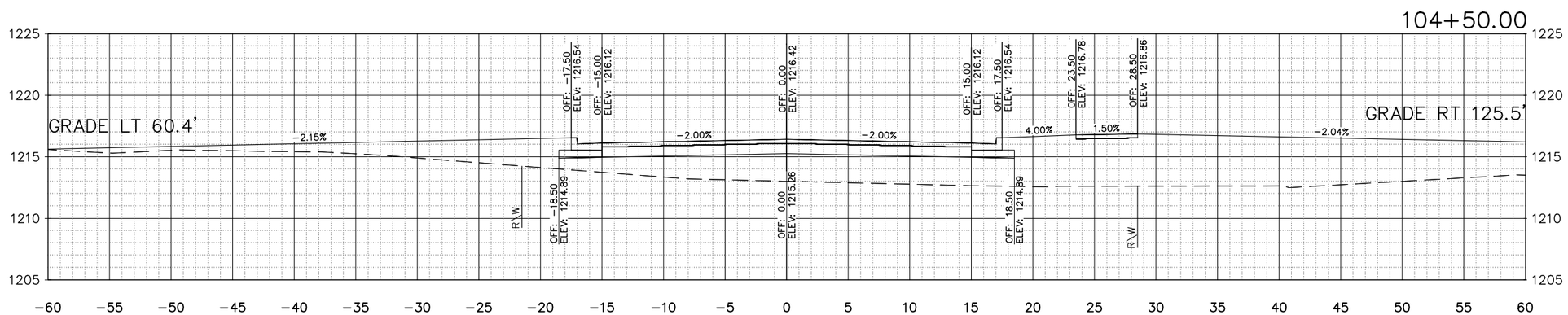
9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS - CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 329





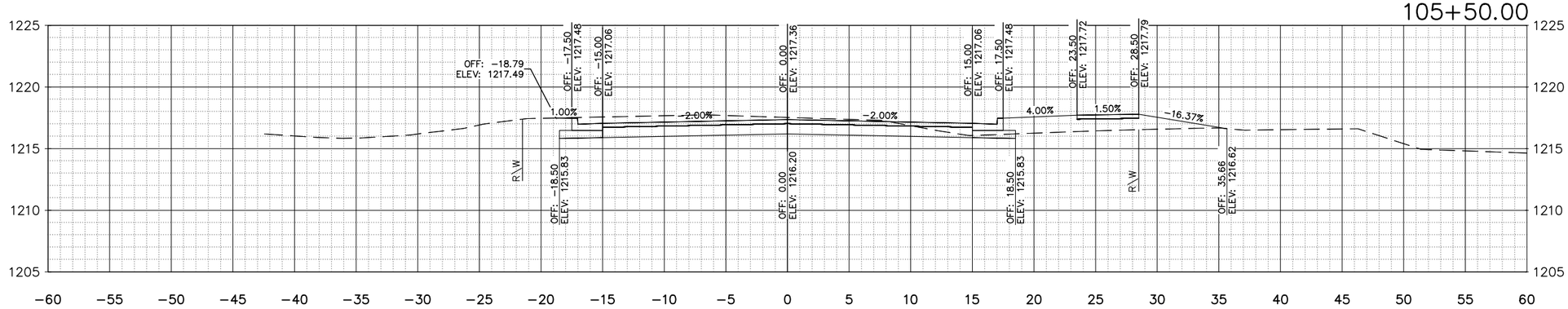


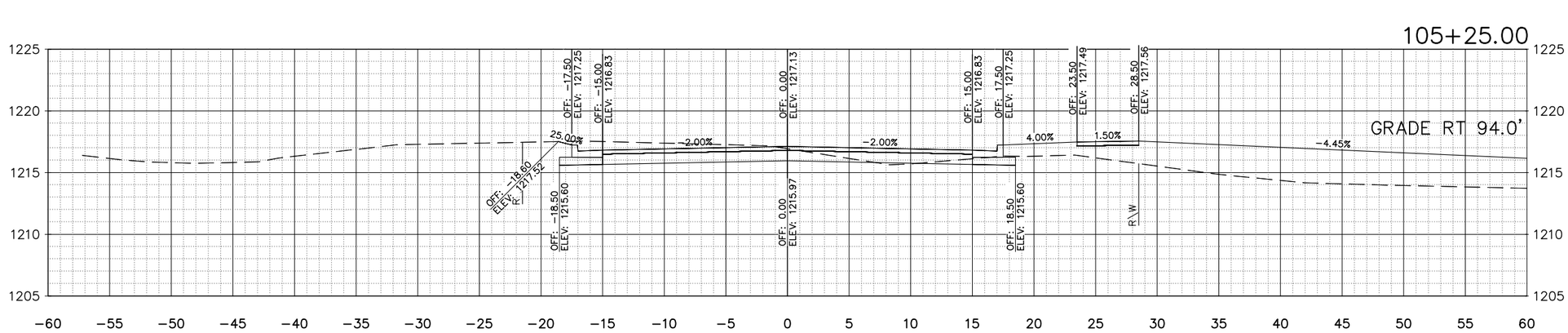
9

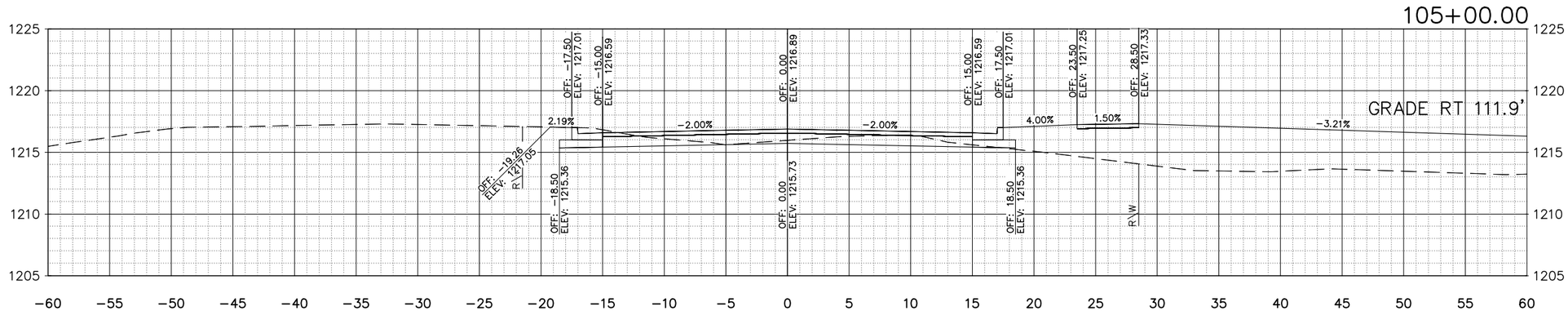
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS - CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 330

9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:12:40 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



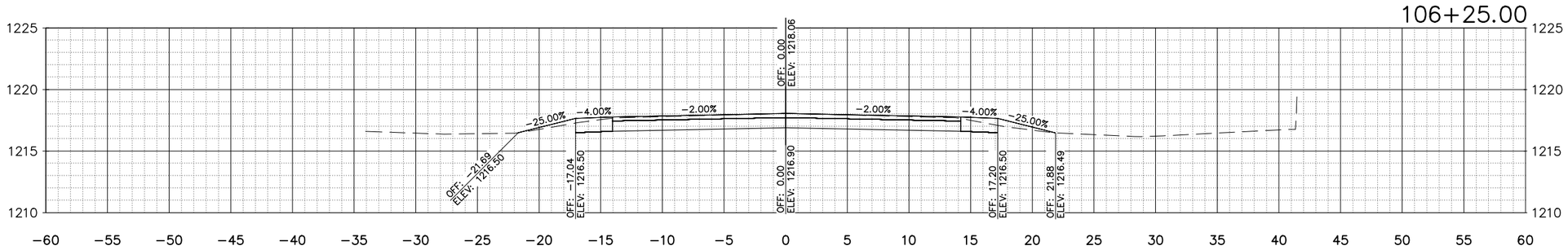


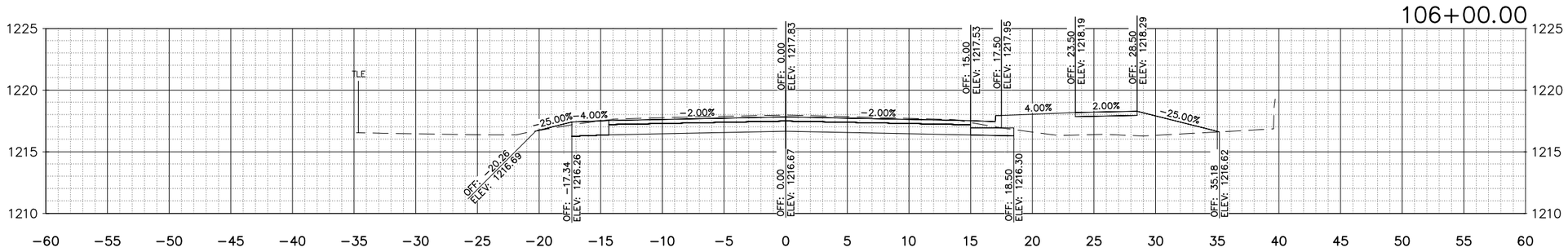


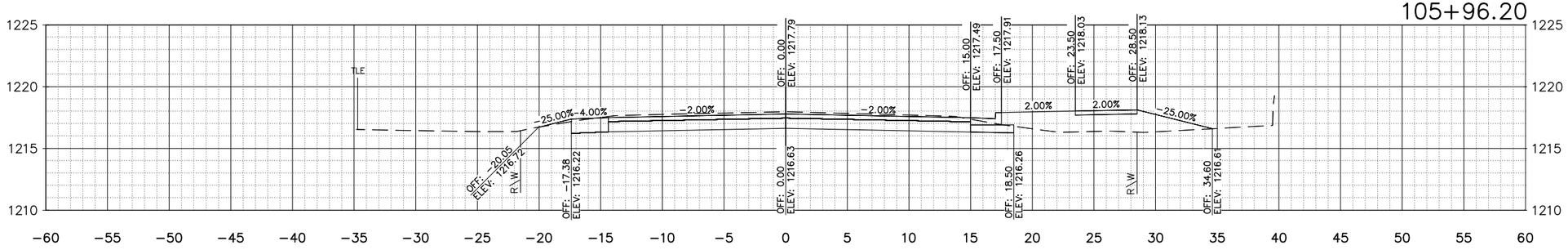
PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS - CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 331

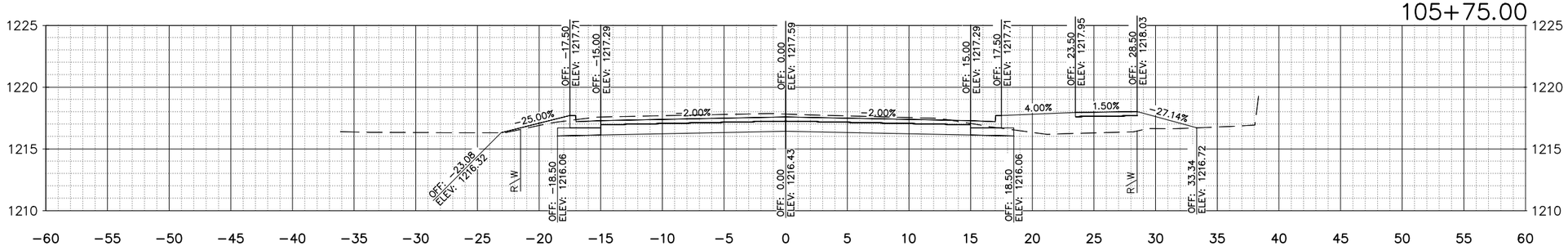
9

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:13:25 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel







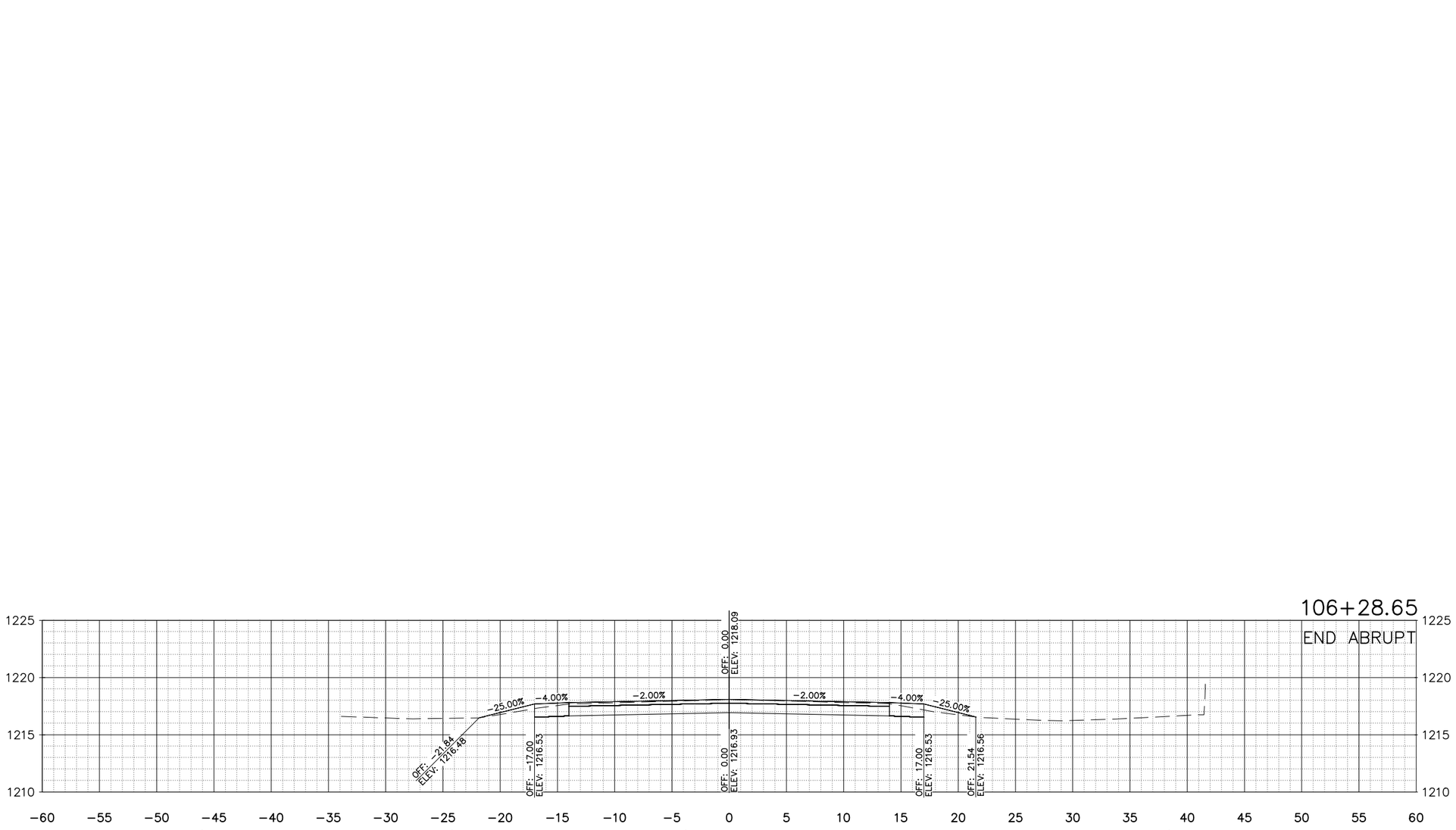


9

9

PROJECT NO: 6999−18−71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS − CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 332

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:14:11 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel



9

9

PROJECT NO: 6999-18-71	HWY: TOWNLINE ROAD	COUNTY: MARATHON	CROSS SECTIONS - CURLING WAY	SCALE, FEET 0 2.5 5 10	SHEET 333

O:\Engineering\DWG\PROJ\0927\Dwgs\0927_TownlineRd_CrossSections.dwg, 8/22/2018 11:14:55 AM, City of Wausau - Engineering Department, Plotted by: J.D. VanBoxel

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov