

WKE

PROJECT ID: 3840-01-71
WITH: N/A

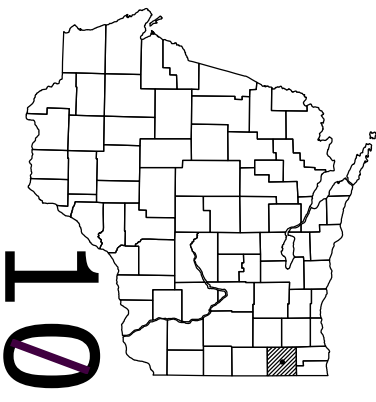
COUNTY: WALWORTH

APR 2018

ORDER OF SHEETS

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

TOTAL SHEETS = 126



DESIGN DESIGNATION

A.D.T. (2017)	=	2400
A.D.T. (2037)	=	2700
D.H.V. (2037)	=	324
D	=	60/40
T. (A.D.T.)	=	5.8%
DESIGN SPEED	=	55 MPH
ESALS	=	469,098

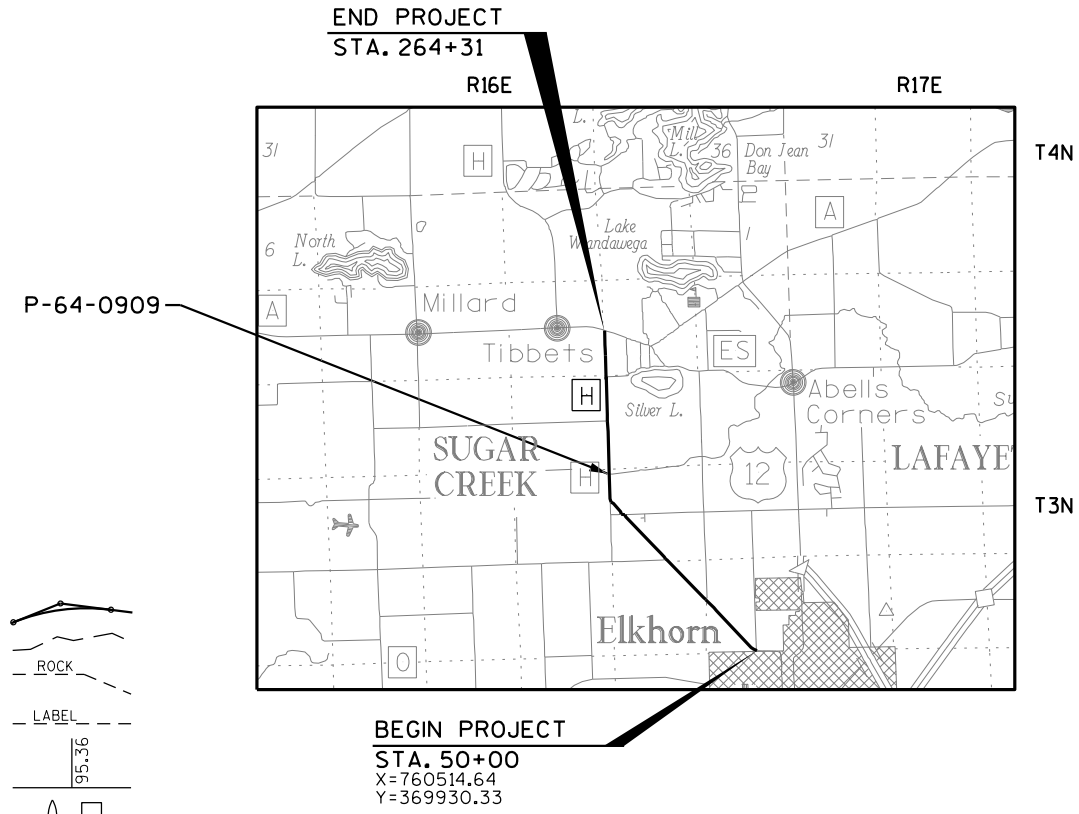
CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE

GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	



P-64-0909

END PROJECT
STA. 264+31

BEGIN PROJECT
STA. 50+00
X=760514.64
Y=369930.33

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 4.059 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDIANTE SYSTEM, WALWORTH COUNTY.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3840-01-71	WISC 2018196	1

ACCEPTED FOR

County _____ of _____ Walworth


(Signature of Official)

DIRECTOR OF CENTRAL SERVICES
(Title of Official)

September 25, 2017
(Date)

ORIGINAL PLAN PREPARED BY:



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	BAXTER & WOODMAN, INC.
Designer	BAXTER & WOODMAN, INC.
Management Consultant	DAAR ENGINEERING, INC.
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 10/13/17 
(Management Consultant Signature)

E

STANDARD ABBREVIATIONS

AP	ACCESS POINT
AC	ACRE
ADJ	ADJUST
AECPRC	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE
AH	AHEAD
AC	ASPHALT CEMENT
ASPH	ASPHALTIC
ACP	ASPHALTIC CONCRETE PAVEMENT
AVG	AVERAGE
ADT	AVERAGE DAILY TRAFFIC
BK	BACK
BAD	BASE AGGREGATE DENSE
BM	BENCHMARK
CB	CATCH BASIN
C/L	CENTER LINE
C/L CONST	C/L CONST
CL	CLASS
CONC	CONCRETE
CONST	CONSTRUCTION
CMCP	CORRUGATED METAL CULVERT PIPE
CTH	COUNTY TRUNK HIGHWAY
CABC	CRUSHED AGGREGATE BASE COURSE
CFS	CUBIC FEET PER SECOND
CY	CUBIC YARD
CP	CULVERT PIPE
CPCS	CULVERT PIPE CORRUGATED STEEL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DD	DIRECTIONAL DISTRIBUTION
DWY	DRIVEWAY
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
EL	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FERT	FERTILIZE
FE	FIELD ENTRANCE
FL	FLOW LINE
FT	FOOT
GN	GRID NORTH
HES	HIGH EARLY STRENGTH
HW	HIGH WATER
HMA	HOT MIX ASPHALT
CWT	HUNDREDWEIGHT
HWD	HYDRANT
INL	INLET
ID	INSIDE DIAMETER
I	INTERSECTION ANGLE
INV	INVERT
IP	IRON PIPE OR PIN
JT	JOINT
LT	LEFT
LT	LENGTH OF CURVE
LF	LINEAR FOOT
LP	LOW POINT
LS	LUMP SUM
MH	MANHOLE
MAX	MAXIMUM
Mgal	MEGAGALLON
MPH	MILES PER HOUR
MIN	MINIMUM

NOM	NOMINAL
NC	NORMAL CROWN
N	NORTH
Y	NORTH GRID COORDINATE
NB	NORTHBOUND
NO	NUMBER
OPT	OPTIONAL
OD	OUTSIDE DIAMETER
PAVT	PAVEMENT
PLE	PERMANENT LIMITED EASEMENT
PACS	PIPE ARCH CORRUGATED STEEL
PT	POINT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVC	POLYVINYL CHLORIDE
PCC	PORTLAND CEMENT CONCRETE
LB	POUND
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PE	PRIVATE ENTRANCE
PL	PROPERTY LINE
Q100	100-YEAR FLOW RATE
R	RADIUS
RR	RAILROAD
R	RANGE
R/L	R/L
REINF	REINFORCING OR REINFORCEMENT
REQD	REQUIRED
RT	RIGHT
R/W	RIGHT-OF-WAY
RD	ROAD
RDWY	ROADWAY
SEC	SECTION
SHLDR	SHOULDER
S	SOUTH
SB	SOUTHBOUND
SQ	SQUARE
SF	SQUARE FEET
SW	SIDEWALK
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAYS
STA	STATION
SS	STORM SEWER
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
ST	STREET
STR	STRUCTURE OR STRUCTURAL
SEC	SUPERELEVATION
T	TANGENT
TEMP	TEMPORARY
TI	TEMPORARY INTEREST
TLE	TEMPORARY LIMITED EASEMENT
+	TON
T/L	TRANSIT LINE
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
V	VELOCITY OF DESIGN SPEED
VERT	VERTICAL
VC	VERTICAL CURVE
VOL	VOLUME
WM	WATERMAIN
WV	WATER VALVE
W	WEST
YD	YARD

GENERAL NOTES

CURB AND GUTTER PLAN GRADES AND RADII ARE AT THE FLANGE LINE UNLESS OTHERWISE NOTED.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED, SEEDED AND MULCHED AS DIRECTED BY THE ENGINEER.

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

WHEN THE QUANTITY OF BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON, THE THICKNESS OF THE COURSE SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

TACK COAT SHALL BE PLACED BETWEEN LAYERS OF HMA PAVEMENT AT AN APPLICATION RATE OF 0.050 GALLONS PER SQUARE YARD AT THE DISCRETION OF THE ENGINEER.

THE CONTROL SURVEY CONDUCTED FOR THIS PROJECT MET THIRD ORDER CONTROL SURVEY SPECIFICATIONS.

SILT FENCE TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

SEED MIX NO. 20 SHALL BE USED.

EROSION CONTROL IS SHOWN ON THE PLAN SHEET AND IN THE SUMMARY OF MISCELLANEOUS QUANTITIES. (FOR DNR REVIEW)

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAVD88 DATUM.

CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND SEWRPC (JOHN WASHBURN) AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

4-INCH HMA PAVEMENT SHALL BE CONSTRUCTED WITH A 2-1/4 INCH LOWER LAYER (19MM) AND 1-3/4 INCH UPPER LAYER (12.5MM)

CULVERT PIPE MIN. THICKNESS		
PIPE DIA (in)	THICKNESS	
	STEEL	ALUMINUM
15	0.064	0.060
24	0.064	0.075
36	0.079	0.105
17 X 13	0.064	---

UTILITY CONTACTS

WE ENERGIES - GAS/PETROLEUM
MR. DAN SANDE
333 W. EVERETT STREET - ROOM A299
MILWAUKEE, WI 53203
PHONE: (414)221-4578
dan.sande@we-energies.com

WE ENERGIES - ELECTRICITY
MR. DAN SANDE
333 W. EVERETT STREET - ROOM A299
MILWAUKEE, WI 53203
PHONE: (414)221-4578
dan.sande@we-energies.com



MR. DENNIS JARDING
MEDIACOM
OUTSIDE PLANT ENGINEER
808 E. NORTH STREET
ELBURN IL 60119
(309) 743-4750
DJARDING@MEDIACOMCC.COM

MR. MICHAEL JOHNSON
TDS TELECOM
SENIOR NETWORK SPECIALIST
16924 WEST VICTOR ROAD
NEW BERLIN WI 53151
(262) 754-3052
MICHAEL.JOHNSON@TDSTELECOM.COM

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
EROSION CONTROL PLAN
SIGNING PLAN
DETOUR PLAN
SURVEY CONTROL POINTS
ALIGNMENT DIAGRAM

SEWRPC SURVEYOR CONTACT

ATTN: JOHN WASHBURN
SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
PHONE (262) 953-4295
FAX (262) 547-1103
E-MAIL: JWASHBURN@SEWRPC.ORG

DESIGN CONTACT

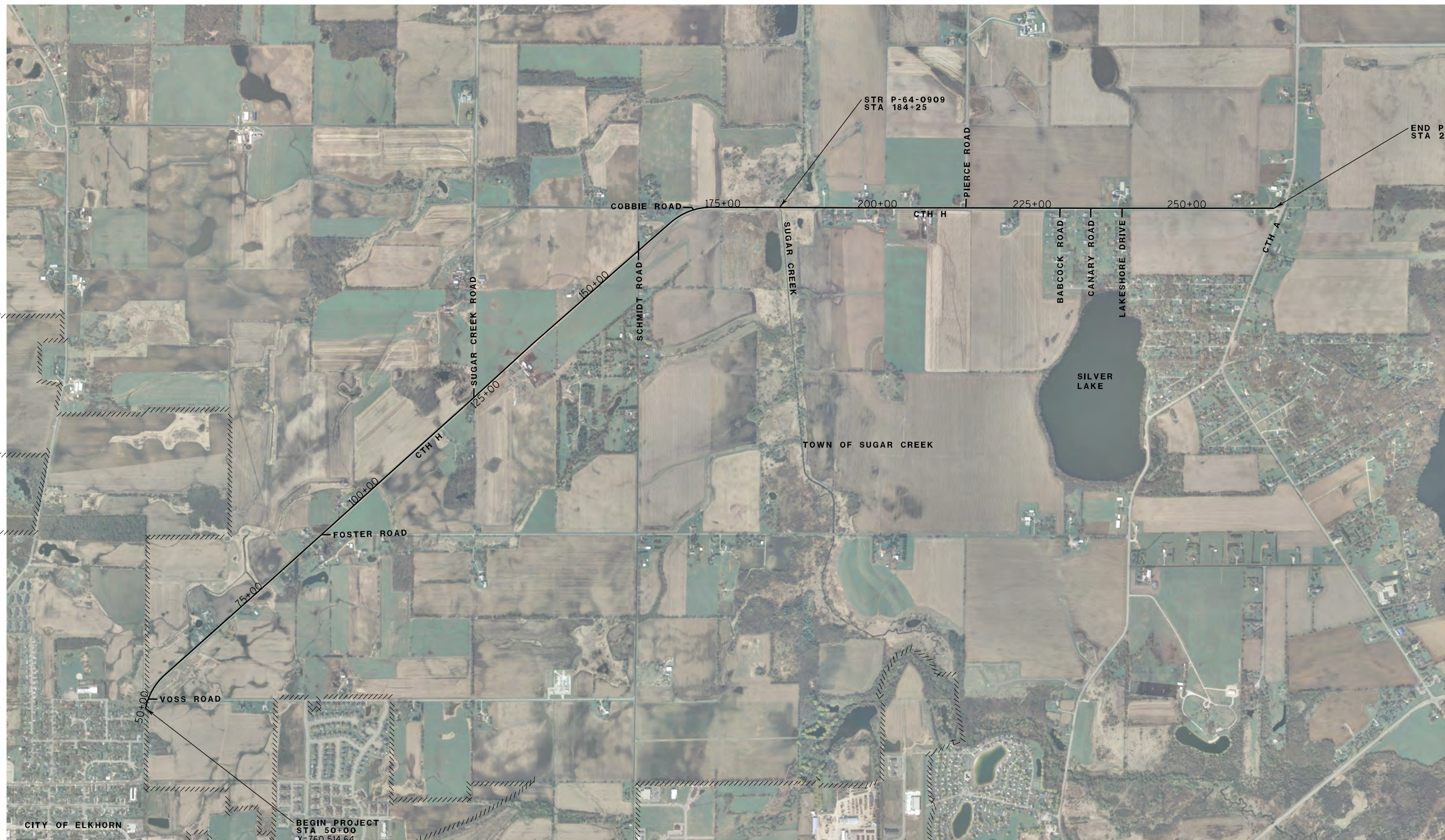
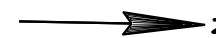
BAXTER & WOODMAN, INC.
ATTN: DANIEL DURIG, PE
2005 W. BELTLINE HWY, SUITE 201
MADISON, WI 53713
DDURIG@BAXTERWOODMAN.COM
PH: (608) 277-1230

DNR CONTACT

ATTN: CRAIG WEBSTER
ENVIRONMENTAL REVIEW SPECIALIST
141 NW BARSTOW ST., ROOM 180
WAUKESHA, WI 53188
CRAIG.WEBSTER@WISCONSIN.GOV
PH: (262) 574-2141
CELL: (414) 303-3011
FAX: (262) 574-2128

MR. STEVEN SCHEFF
WALWORTH COUNTY METROPOLITAN SEWERAGE DISTRICT
COLLECTION SYSTEMS SUPERINTENDENT
975 W. WALWORTH AVENUE
DELANAN WI 53115
(262) 728-4140
SSCHEFF@WALCOMET.COM

CHRIS DAILEY
AMERICAN TRANSMISSION COMPANY LLC.
P.O. BOX 47
WAUKESHA, WI 53187-0047
PH: (262) 506-6884
CDAILEY@ATCLLC.COM



PROJECT NO: 3840-01-71

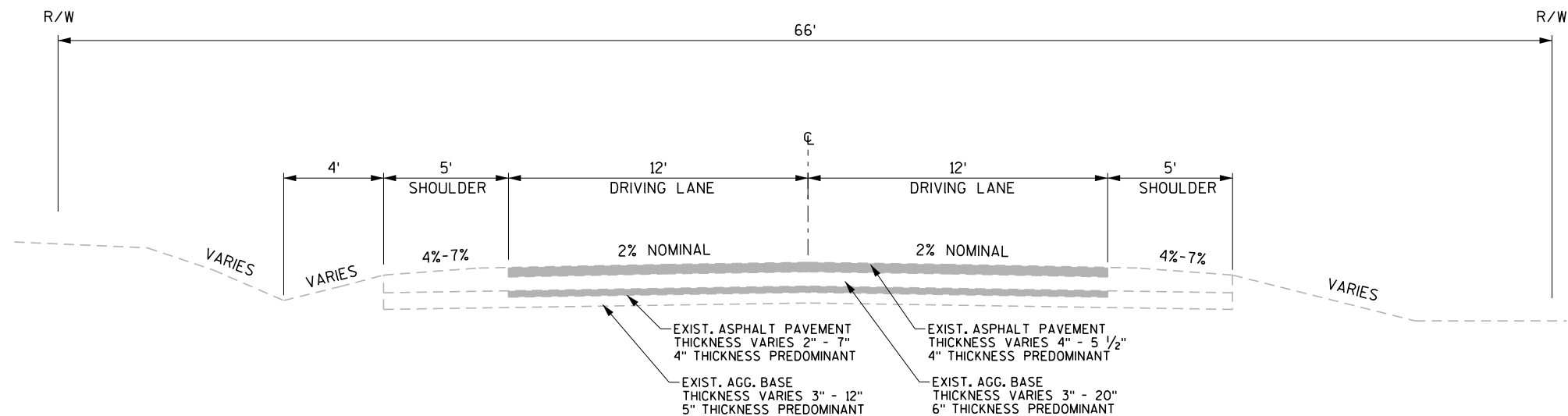
HWY: CTH H

COUNTY: WALWORTH

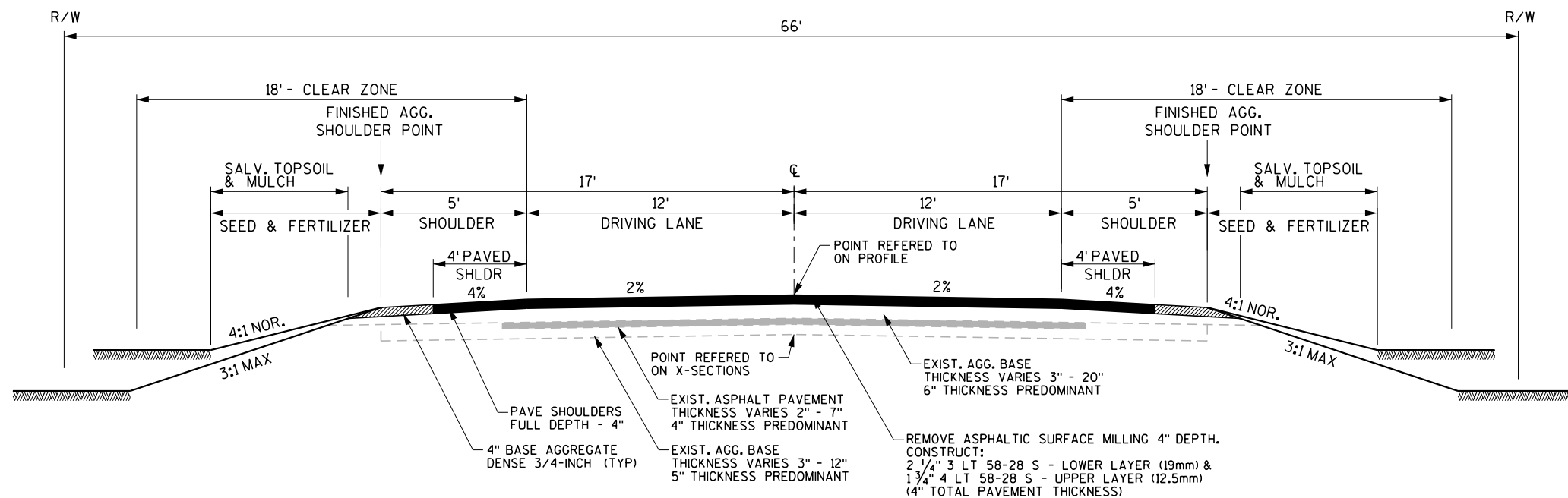
PROJECT OVERVIEW

SHEET

E

**TYPICAL EXISTING SECTION**

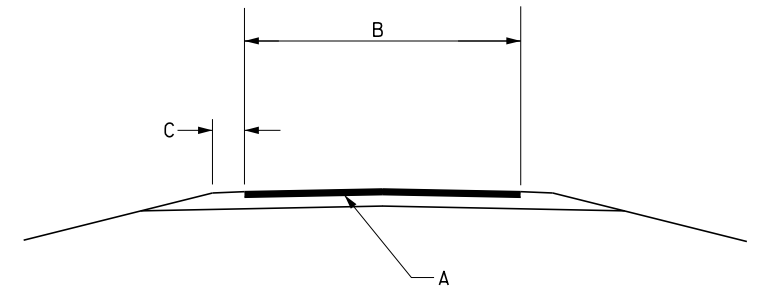
STA 50+00 - 264+31



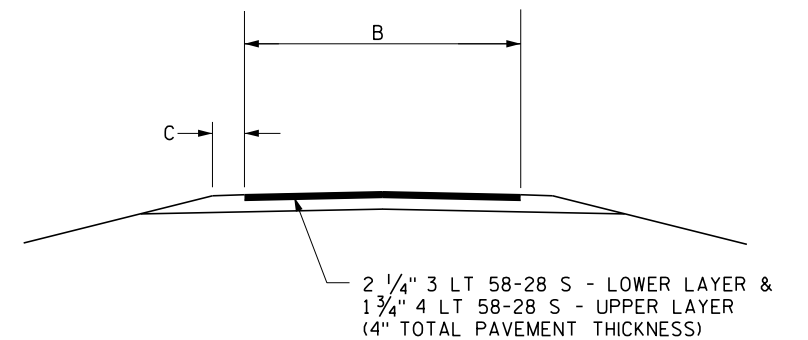
NOTE: SEE CONSTRUCTION DETAILS AND CROSS SECTIONS FOR DETAILS OF AREAS THAT REQUIRED SUBGRADE WIDENING AND SLOPE CONSTRUCTION.

TYPICAL FINISHED SECTION

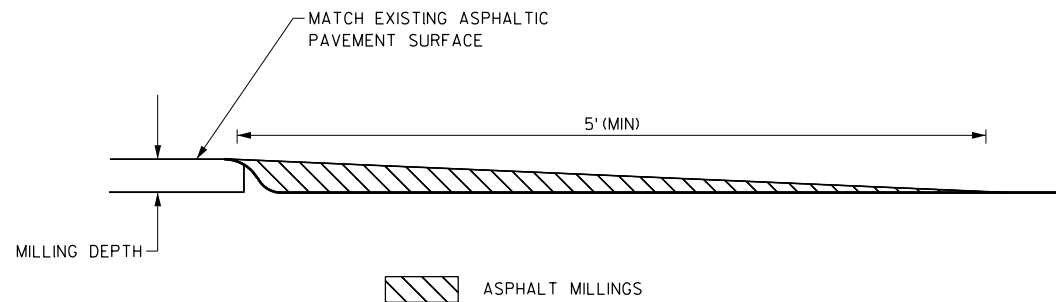
STA 50+00 - 264+31

**TYPICAL EXISTING SECTION- SIDEROADS**

ROAD NAME	A	B (FT)	C (FT)
VOSS ROAD	ASPHALT	22'	4'
FOSTER ROAD	ASPHALT	20'	3'
SUGAR CREEK ROAD	ASPHALT	22'	5'
SCHMIDT ROAD (WEST)	ASPHALT	18'	3'
SCHMIDT ROAD (EAST)	ASPHALT	18'	3'
COBBIE ROAD	ASPHALT	22'	2'
PIERCE ROAD	ASPHALT	22'	4'
BABCOCK ROAD	ASPHALT	22'	2'
CANARY ROAD	ASPHALT	22'	2'
LAKESHORE DRIVE	ASPHALT	16'	2'

**TYPICAL FINISHED SECTION- SIDEROADS**

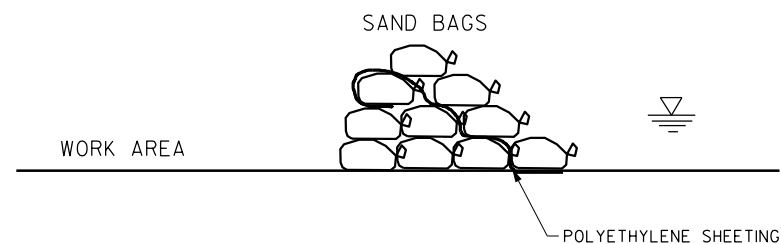
NOTE: SEE INTERSECTION DETAILS FOR FURTHER CONSTRUCTION REQUIREMENTS.



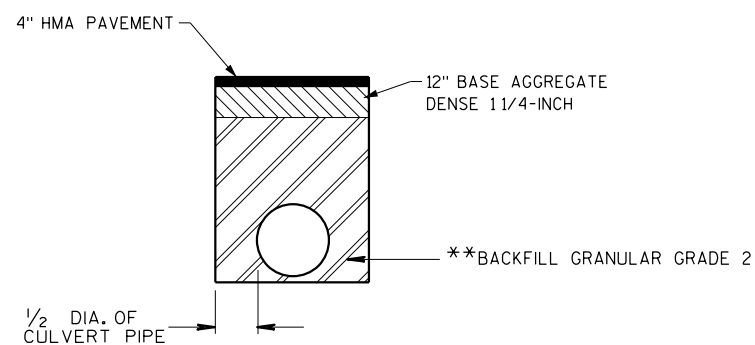
TYPICAL TEMPORARY JOINT DETAIL

COST IS INCIDENTAL TO THE ITEM OF "REMOVING ASPHALTIC PAVEMENT MILLING"

PROJECT BEGIN STA 50+00
PROJECT END STA 264+31
VOSS ROAD
FOSTER ROAD
SUGAR CREEK ROAD
SCHMIDT ROAD
COBBIE ROAD
PIERCE ROAD
BABCOCK ROAD
CANARY ROAD
LAKE SHORE DRIVE

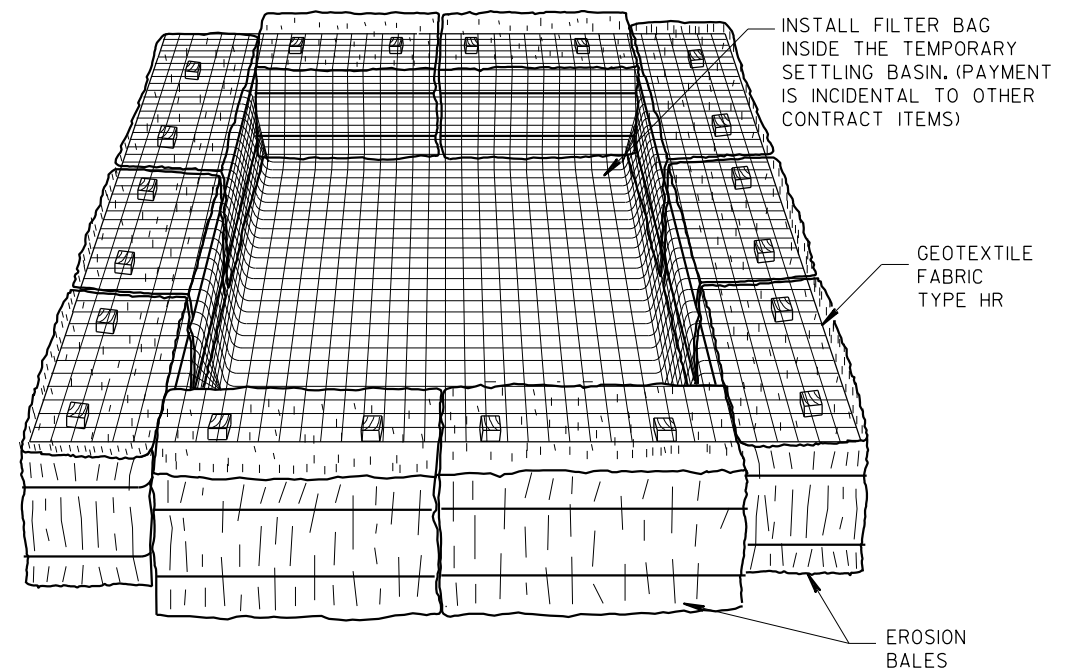


TEMPORARY BULKHEAD (NOT TO SCALE)



DETAIL FOR MAINLINE CULVERT PIPE INSTALLATION

**MATERIAL TO BE USED IF NATIVE MATERIALS ARE UNSUITABLE FOR BACKFILL OR IF DIRECTED BY THE ENGINEER.



TEMPORARY SETTLING BASIN

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

WATER PUMPED FROM THE EXCAVATION SHALL BE TREATED FOR WATER QUALITY PRIOR TO DISCHARGE FROM THE SITE. FILTER BAGS AND PUMPS SHALL NOT BE PLACED IN WETLANDS OR ON SOILS THAT ARE BARE, ERODIBLE OR UPGRADE FROM THOSE SOILS.

THE FILTER BAG SHALL BE PLACED IN A EROSION BALE LINED BOX AND SHALL BE DOWN-GRADIENT OF BARE SOILS.

WHEN THE FILTER BAG BECOMES FILLED WITH SEDIMENT IT SHALL BE PROPERLY REMOVED AND DISPOSED.

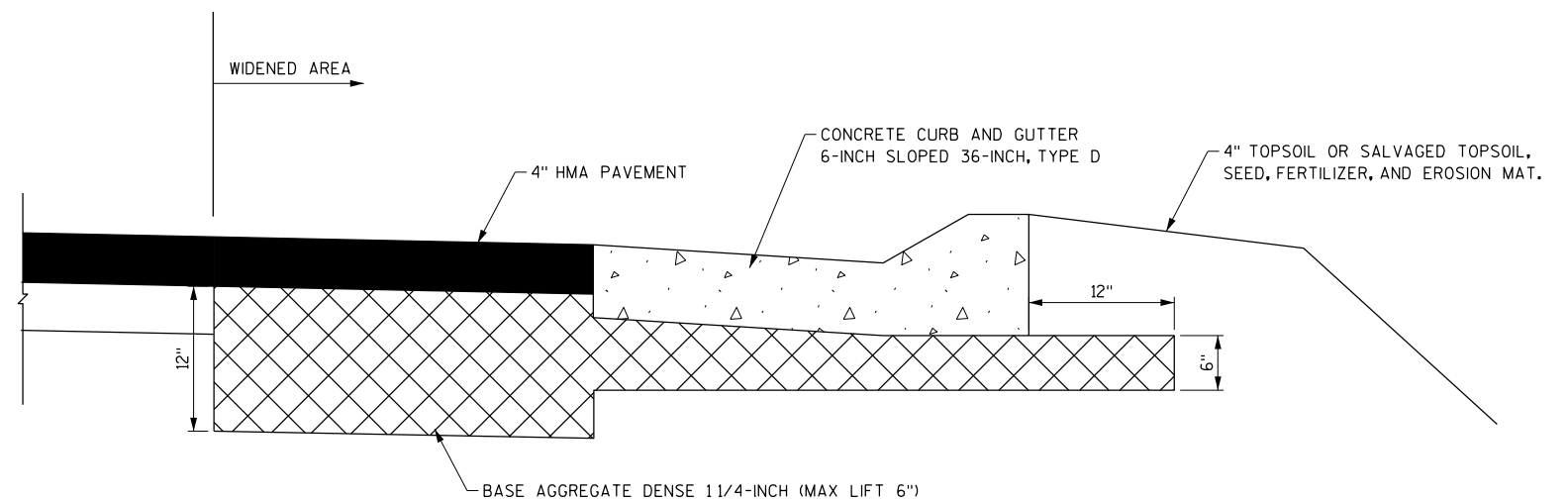
FILTER BAGS SHALL BE SECURELY ATTACHED TO THE DISCHARGE PIPE.

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

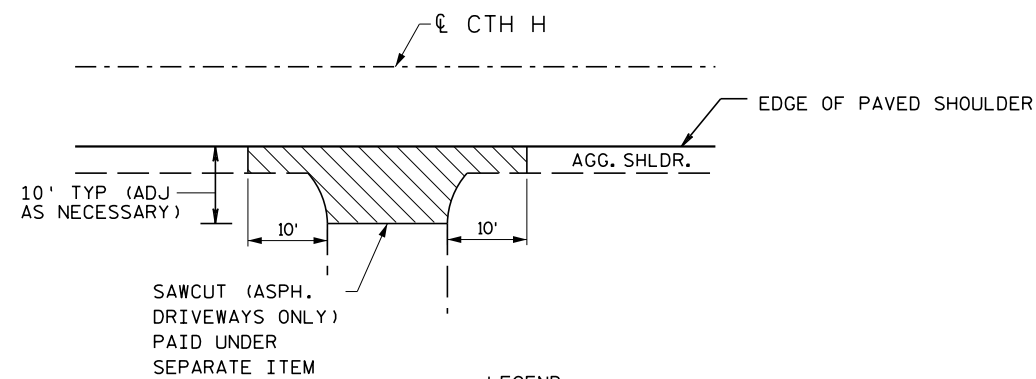
EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT.

SOLUTION:
SV (C.F.) = 16 X 50
SV = 800 C.F.

$\frac{800 \text{ C.F.}}{1.5 \text{ FT.}} = 533 \text{ S.F.}$
USE A 20 FT. X 27 FT. BASIN



INTERSECTION RADIUS WIDENING DETAIL



NOTES

ANY ADDITIONAL BASE AGG. DENSE REQ'D. SHALL BE PAID UNDER ITEM - "BASE AGGREGATE DENSE 1 1/4-INCH"

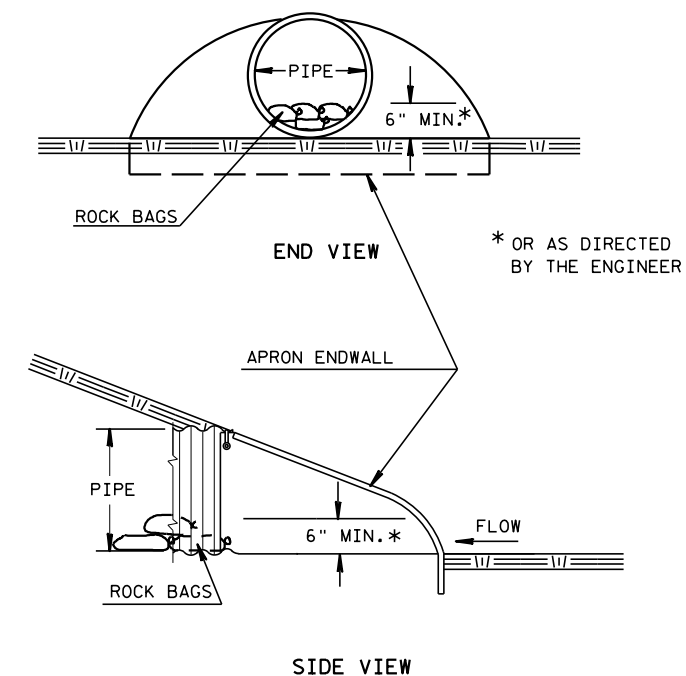
REPLACE PCC CONC. DRIVEWAY WITH "CONCRETE DRIVEWAY 6-INCH"

LEGEND



ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES 3" THICKNESS. INCLUDES REMOVALS AND SHAPING NECESSARY TO COMPLETE THIS AREA.

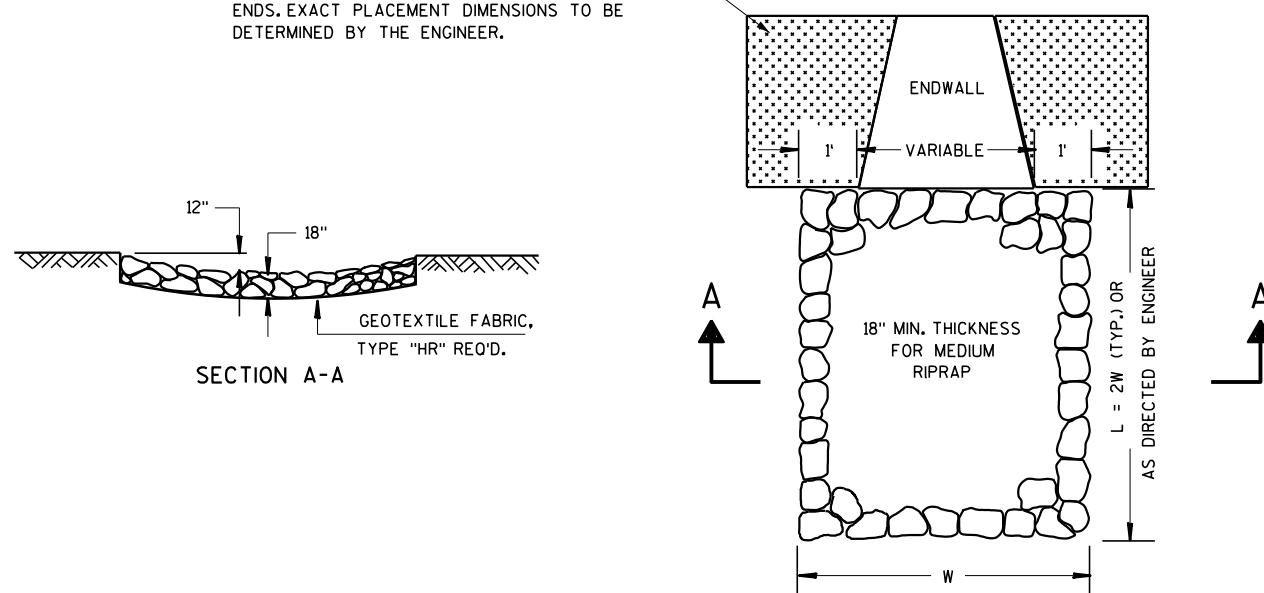
RURAL DRIVEWAY DETAIL



* OR AS DIRECTED BY THE ENGINEER

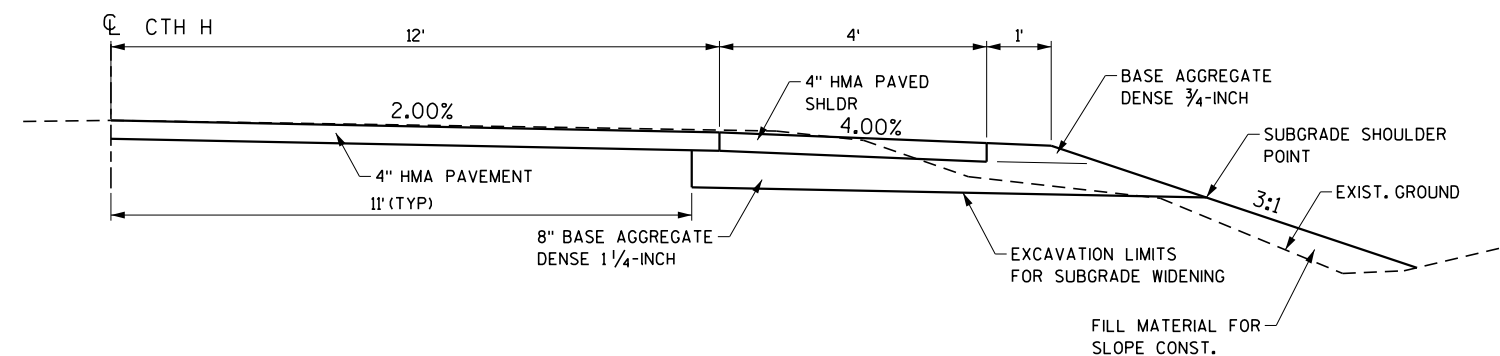
CULVERT PIPE CHECK

EROSION MAT URBAN CLASS I TYPE B. PLACE AT BOTH UPSTREAM AND DOWNSTREAM CULVERT ENDS. EXACT PLACEMENT DIMENSIONS TO BE DETERMINED BY THE ENGINEER.



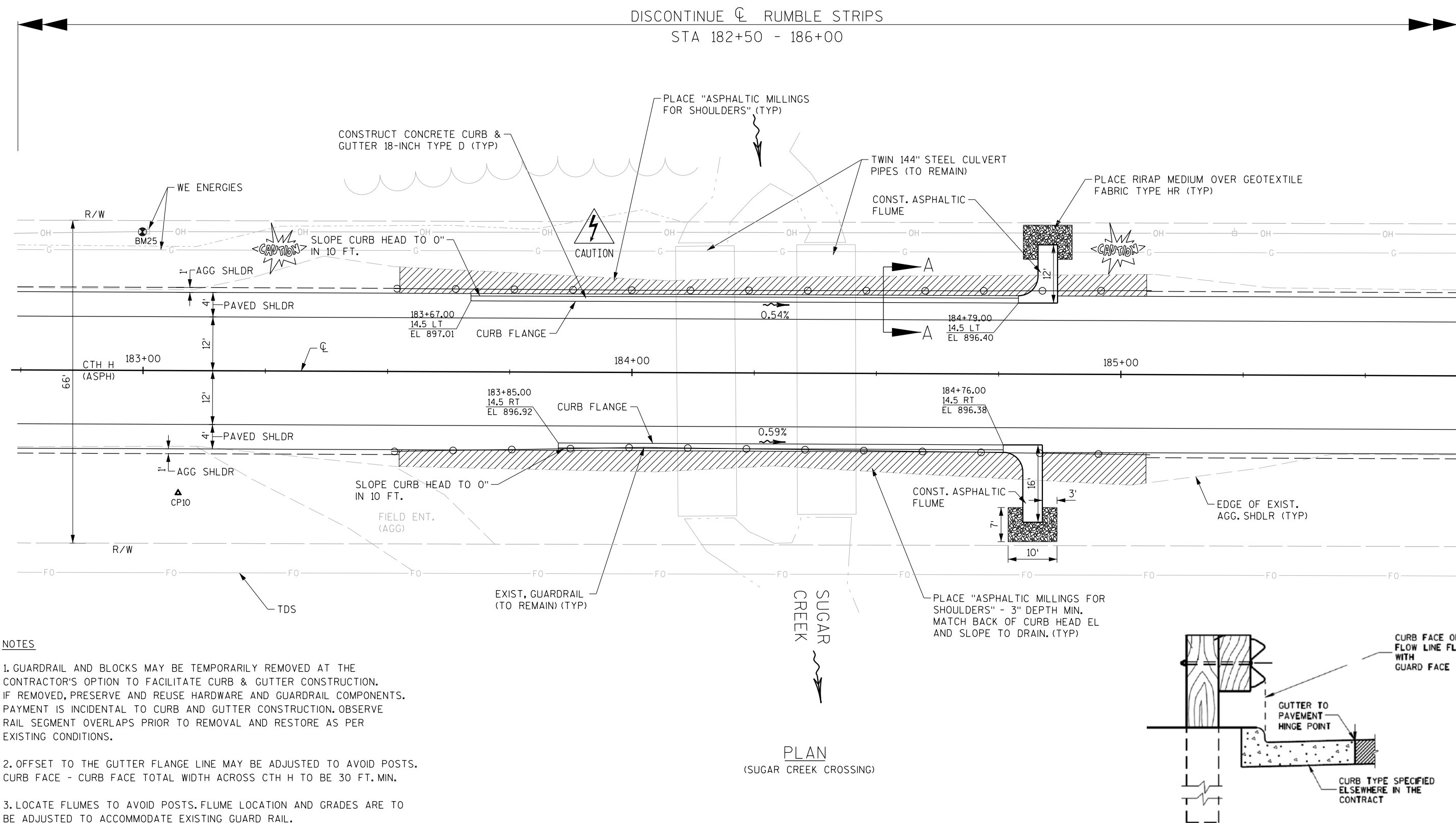
MEDIUM RIPRAP TREATMENT AT CROSS DRAIN CULVERT OUTLETS

STA 53+40 RT STA 61+64 LT
STA 77+10 LT STA 102+26 RT
STA 115+49 RT STA 130+06 LT
STA 136+45 RT STA 151+55 RT
STA 158+96 RT STA 166+30 RT
STA 253+86 RT



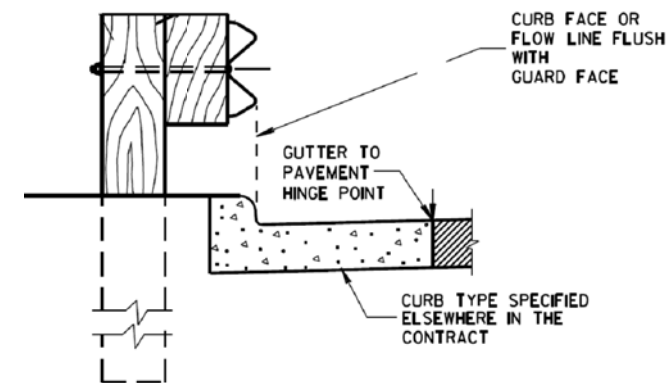
SUBGRADE WIDENING DETAIL

SEE CROSS SECTIONS FOR LOCATIONS, GRADES, AND LOCATION SPECIFIC DETAILS

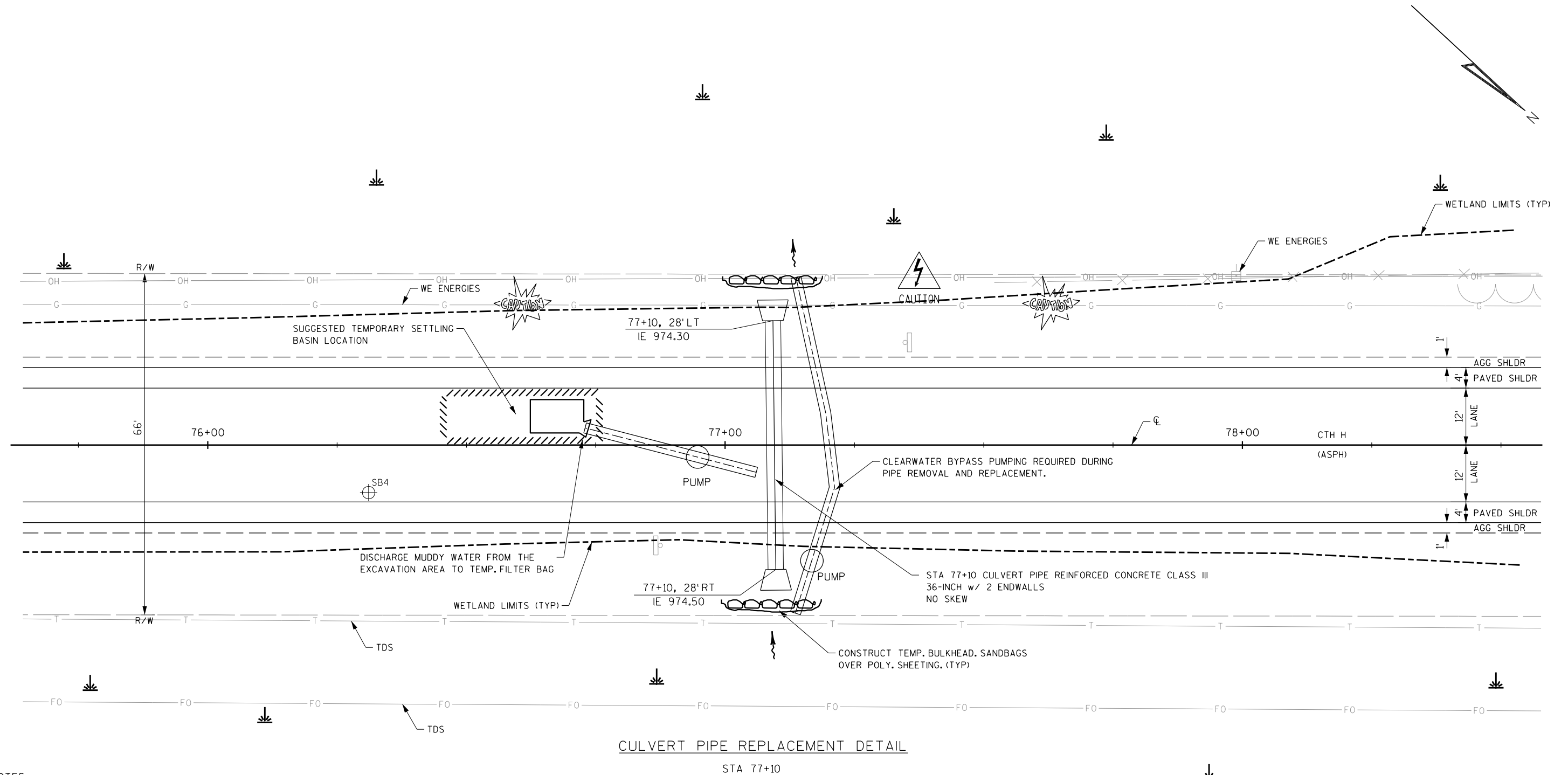


NOTES

1. GUARDRAIL AND BLOCKS MAY BE TEMPORARILY REMOVED AT THE CONTRACTOR'S OPTION TO FACILITATE CURB & GUTTER CONSTRUCTION. IF REMOVED, PRESERVE AND REUSE HARDWARE AND GUARDRAIL COMPONENTS. PAYMENT IS INCIDENTAL TO CURB AND GUTTER CONSTRUCTION. OBSERVE RAIL SEGMENT OVERLAPS PRIOR TO REMOVAL AND RESTORE AS PER EXISTING CONDITIONS.
2. OFFSET TO THE GUTTER FLANGE LINE MAY BE ADJUSTED TO AVOID POSTS. CURB FACE - CURB FACE TOTAL WIDTH ACROSS CTH H TO BE 30 FT. MIN.
3. LOCATE FLUMES TO AVOID POSTS. FLUME LOCATION AND GRADES ARE TO BE ADJUSTED TO ACCOMMODATE EXISTING GUARD RAIL.



SECTION A-A



NOTES

1. PLACE 12" THICK BREAKER RUN SUPPORT LAYER ALONG ENTIRE LENGTH OF PIPE. BREAKER RUN WIDTH IS ESTIMATED TO BE 5 FT.

2. THE FILTER BAG SHALL BE PLACED IN A EROSION BALE LINED BOX AND SHALL BE DOWN-GRADIENT OF BARE SOILS.

3. WHEN THE FILTER BAG BECOMES FILLED WITH SEDIMENT IT SHALL BE PROPERLY REMOVED AND DISPOSED.

4. FILTER BAGS SHALL BE SECURELY ATTACHED TO THE DISCHARGE PIPE.

5. WATER PUMPED FROM THE EXCAVATION SHALL BE TREATED FOR WATER QUALITY PRIOR TO DISCHARGE FROM THE SITE PER WDNR DEWATERING TECHNICAL STANDARD 1061. FILTER BAGS AND PUMPS SHALL NOT PLACED IN WETLANDS OR ON SOILS THAT ARE BARE, ERODIBLE OR UPGRADE FROM THOSE SOILS.

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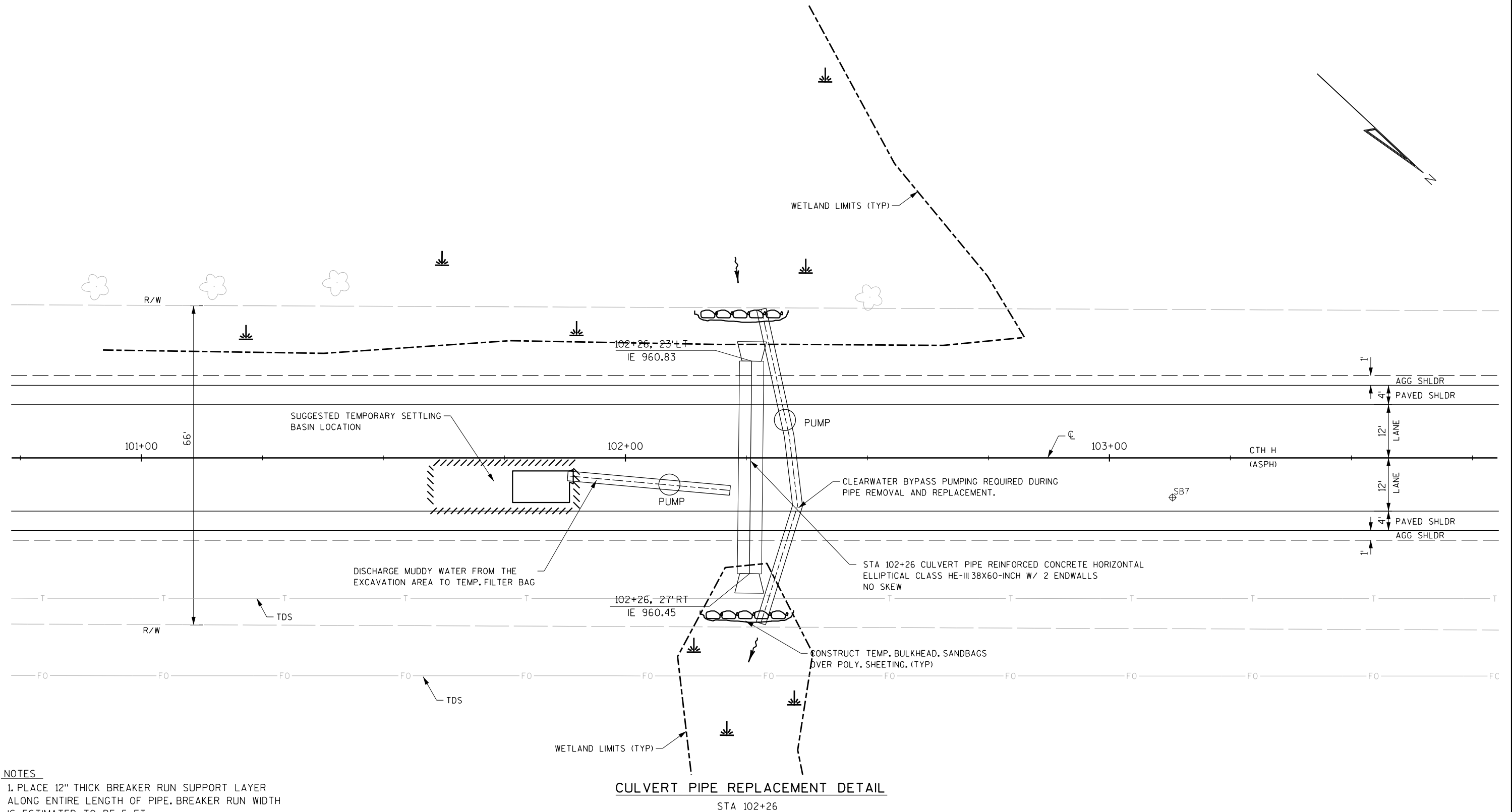
HWY: CTH H

COUNTY: WALWORTH

CONSTRUCTION DETAILS

SHEET

E



NOTES

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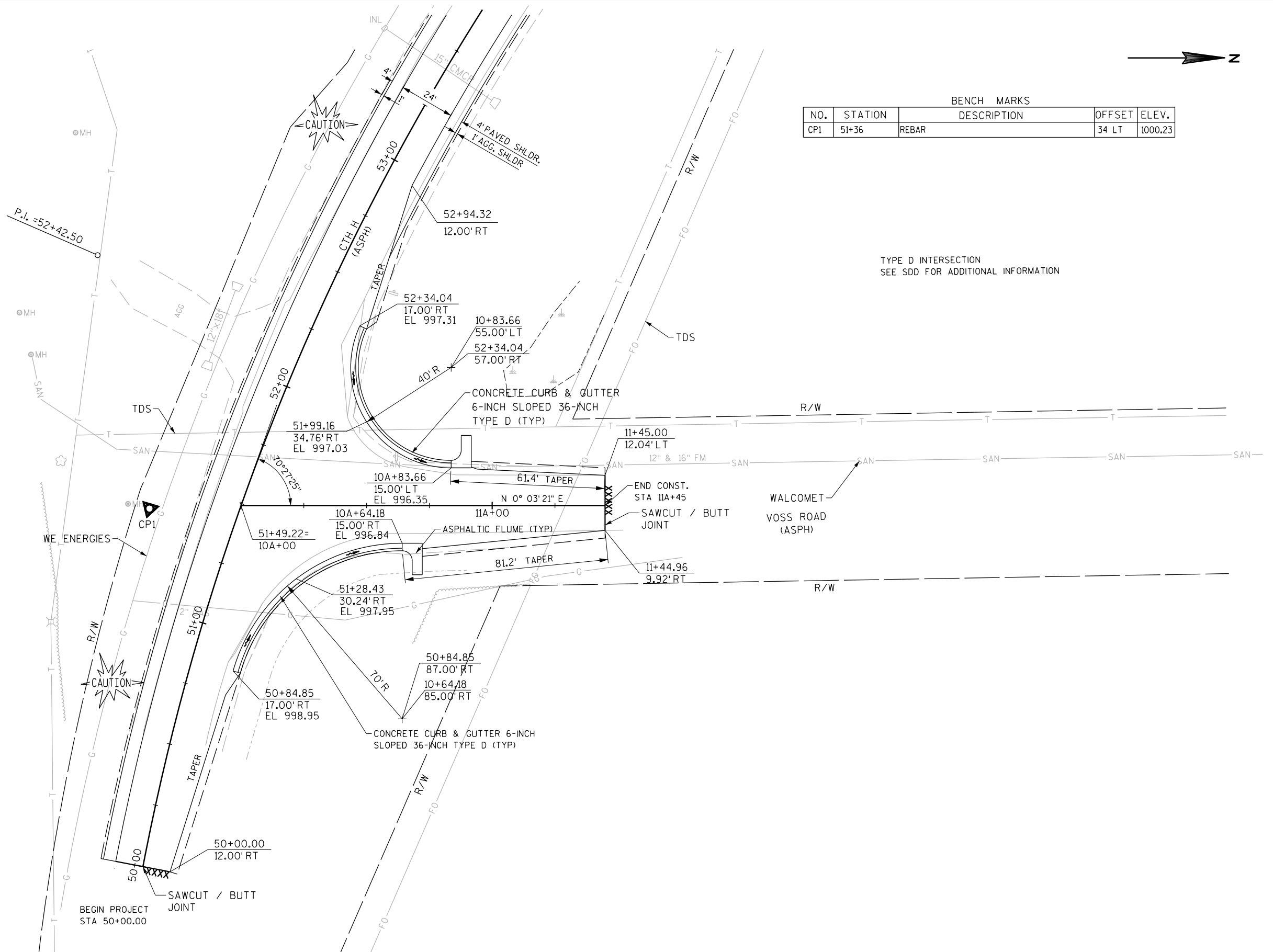
COUNTY: WALWORTH

CONSTRUCTION DETAILS

SHEET

E

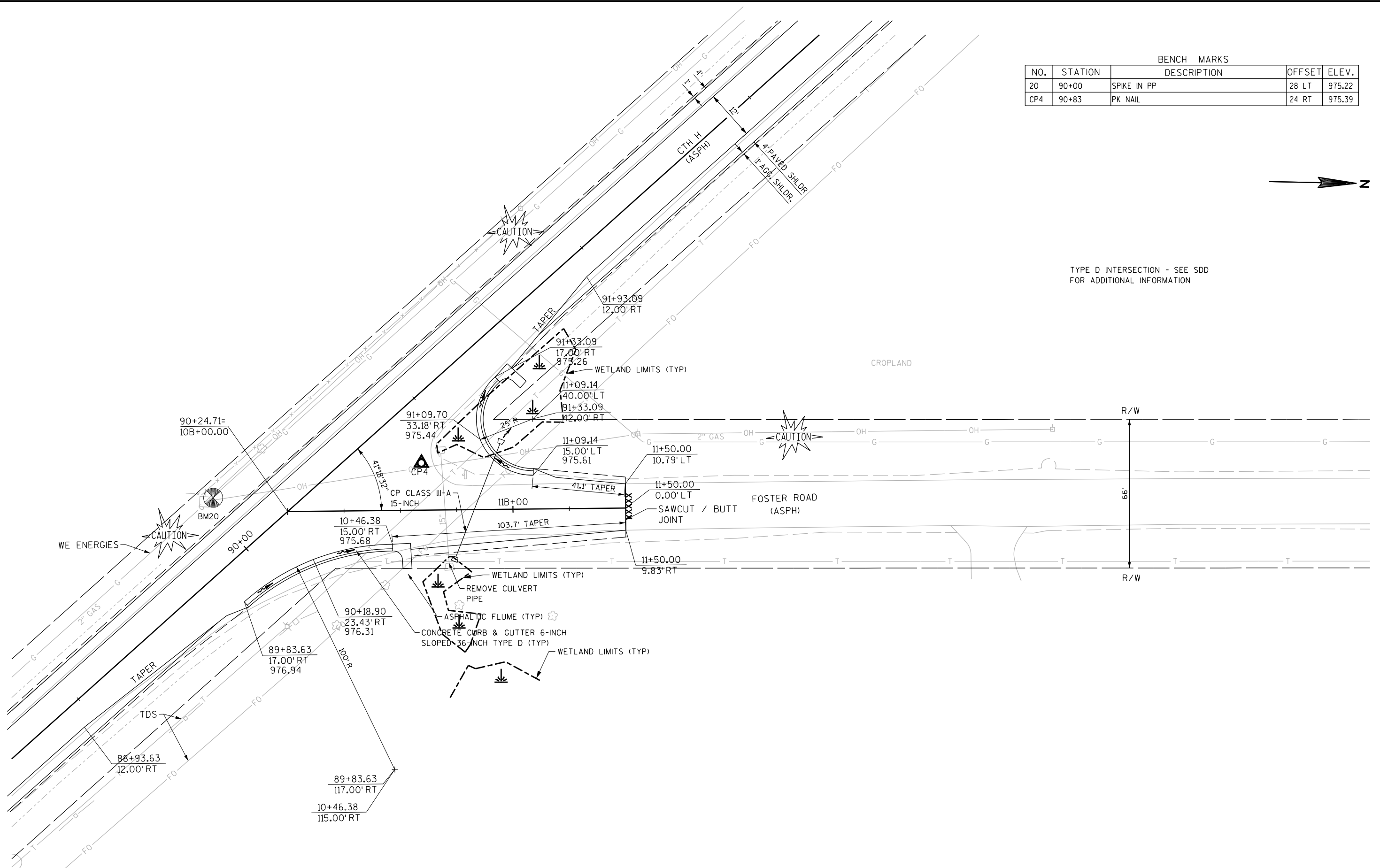
PI 52+42.50
N=369,912.50
E=760,271.00
 $\Delta=47^\circ 11' 18''$ (RT)
D=5° 49' 01"
T=430.22
L=811.24
R=985.00
SE=6%
V=50 MPH



BENCH MARKS				
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
20	90+00	SPIKE IN PP	28 LT	975.22
CP4	90+83	PK NAIL	24 RT	975.39

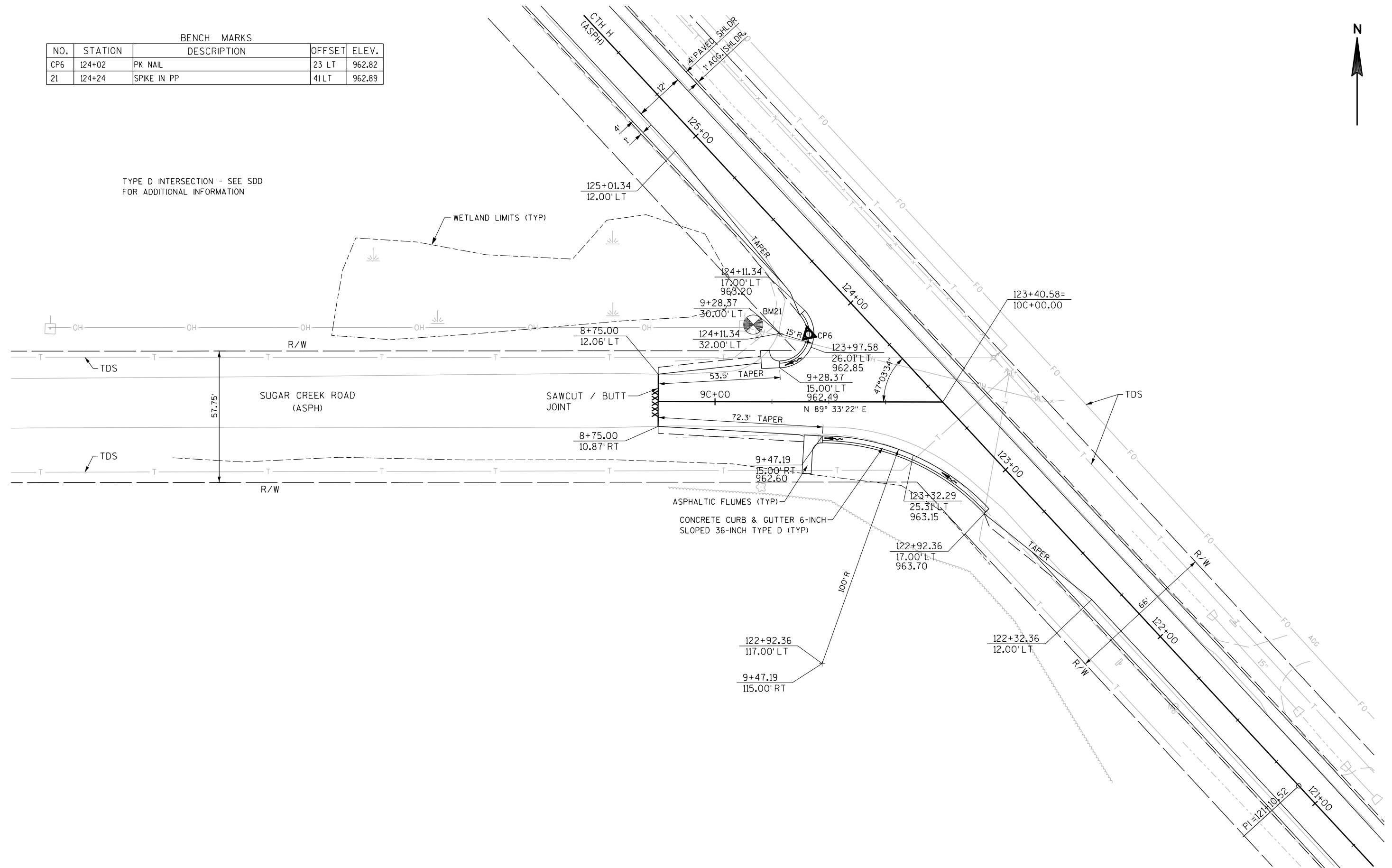


TYPE D INTERSECTION - SEE SDD
FOR ADDITIONAL INFORMATION



BENCH MARKS				
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
CP6	124+02	PK NAIL	23 LT	962.82
21	124+24	SPIKE IN PP	41 LT	962.89

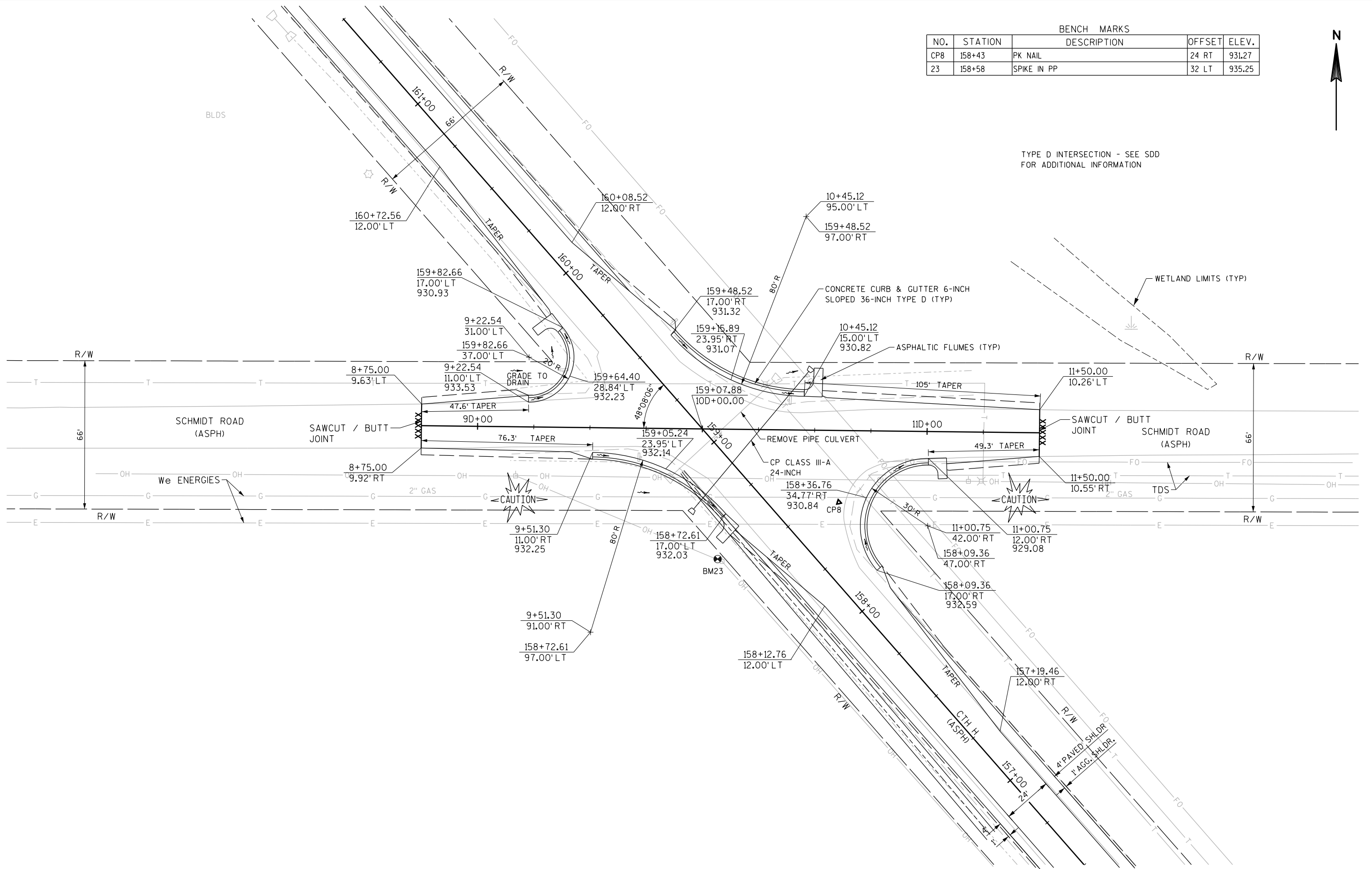
TYPE D INTERSECTION - SEE SDD
FOR ADDITIONAL INFORMATION



BENCH MARKS				
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
CP8	158+43	PK NAIL	24 RT	931.27
23	158+58	SPIKE IN PP	32 LT	935.25

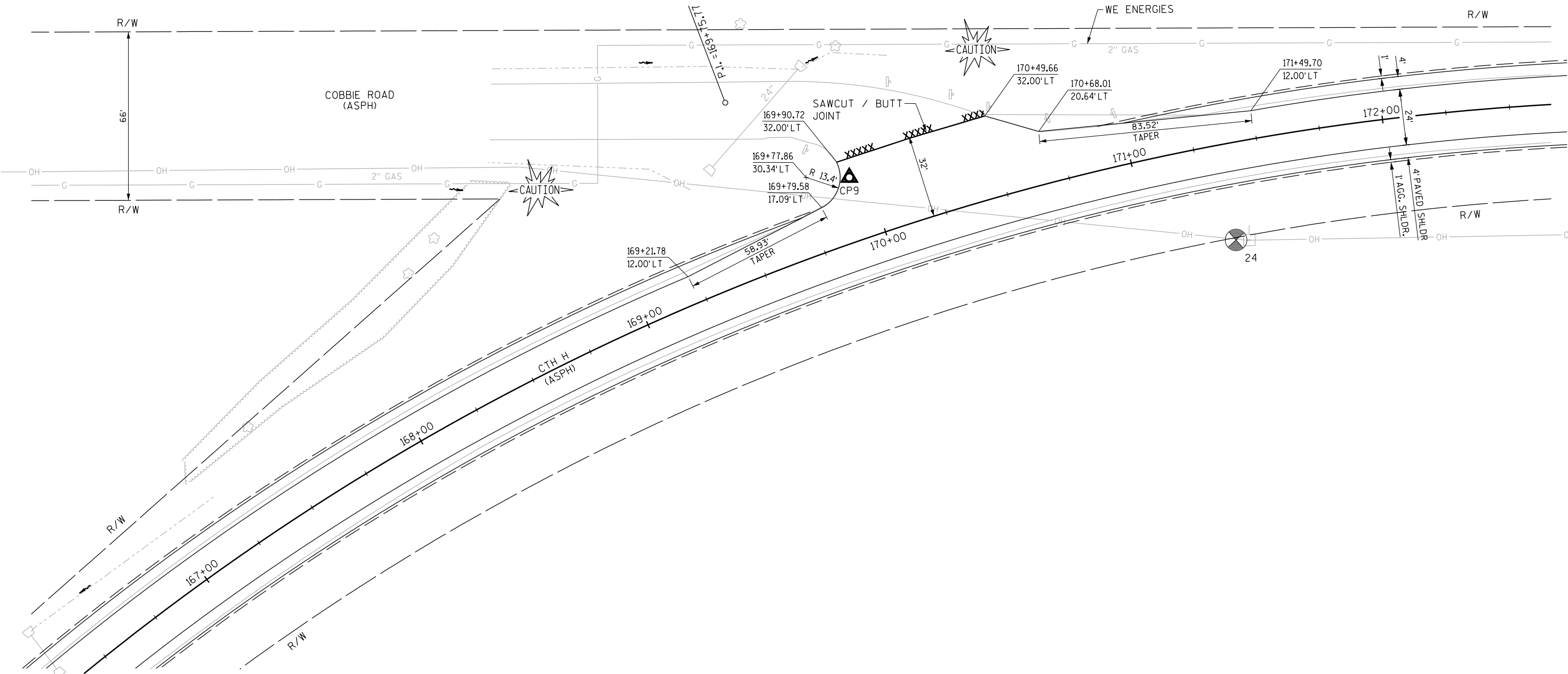


TYPE D INTERSECTION - SEE SDD
FOR ADDITIONAL INFORMATION



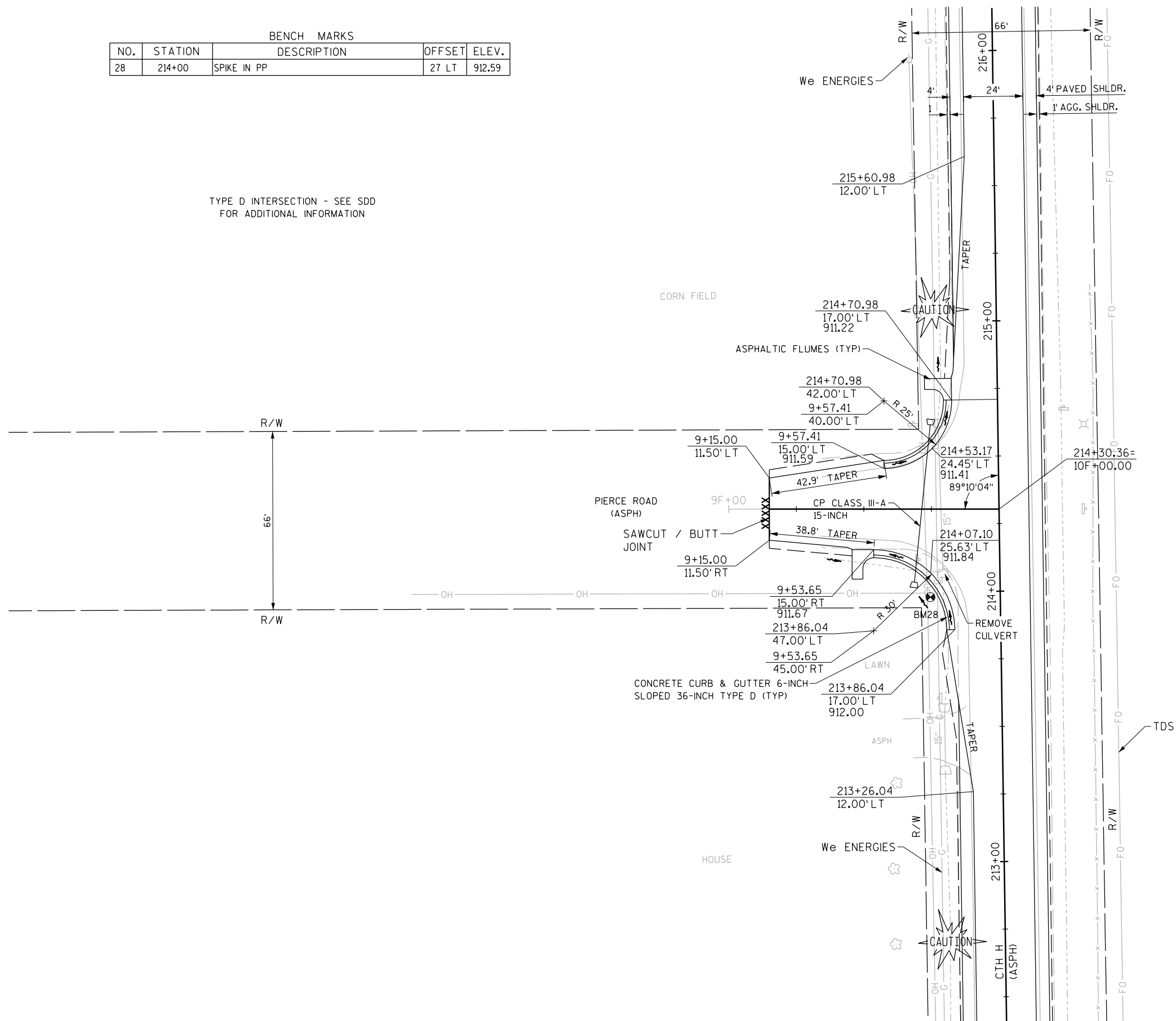
BENCH MARKS				
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
CP9	169+93	PK NAIL	25 LT	913.45
24	171+40	SPIKE IN PP	39 RT	907.20

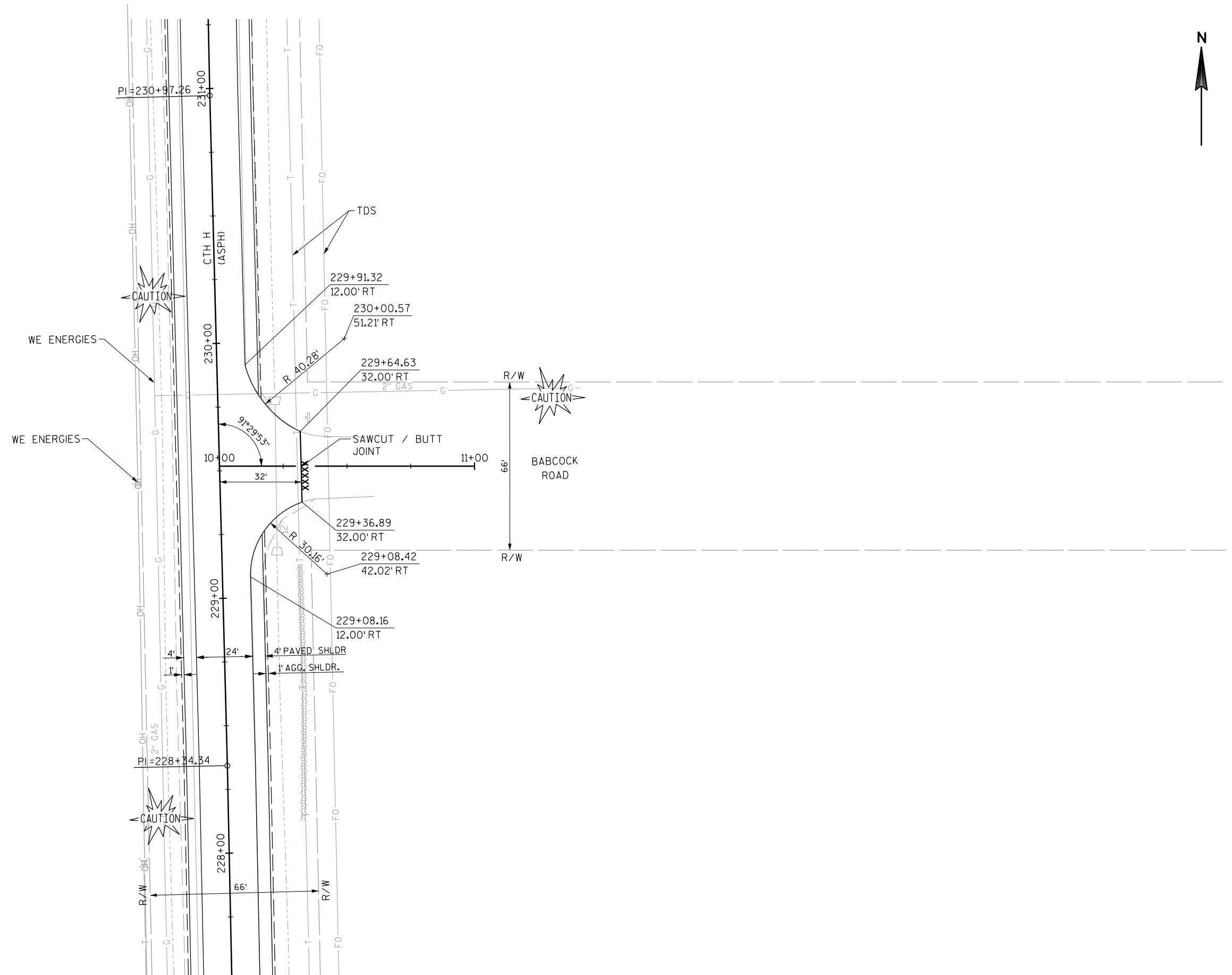
CROPLAND

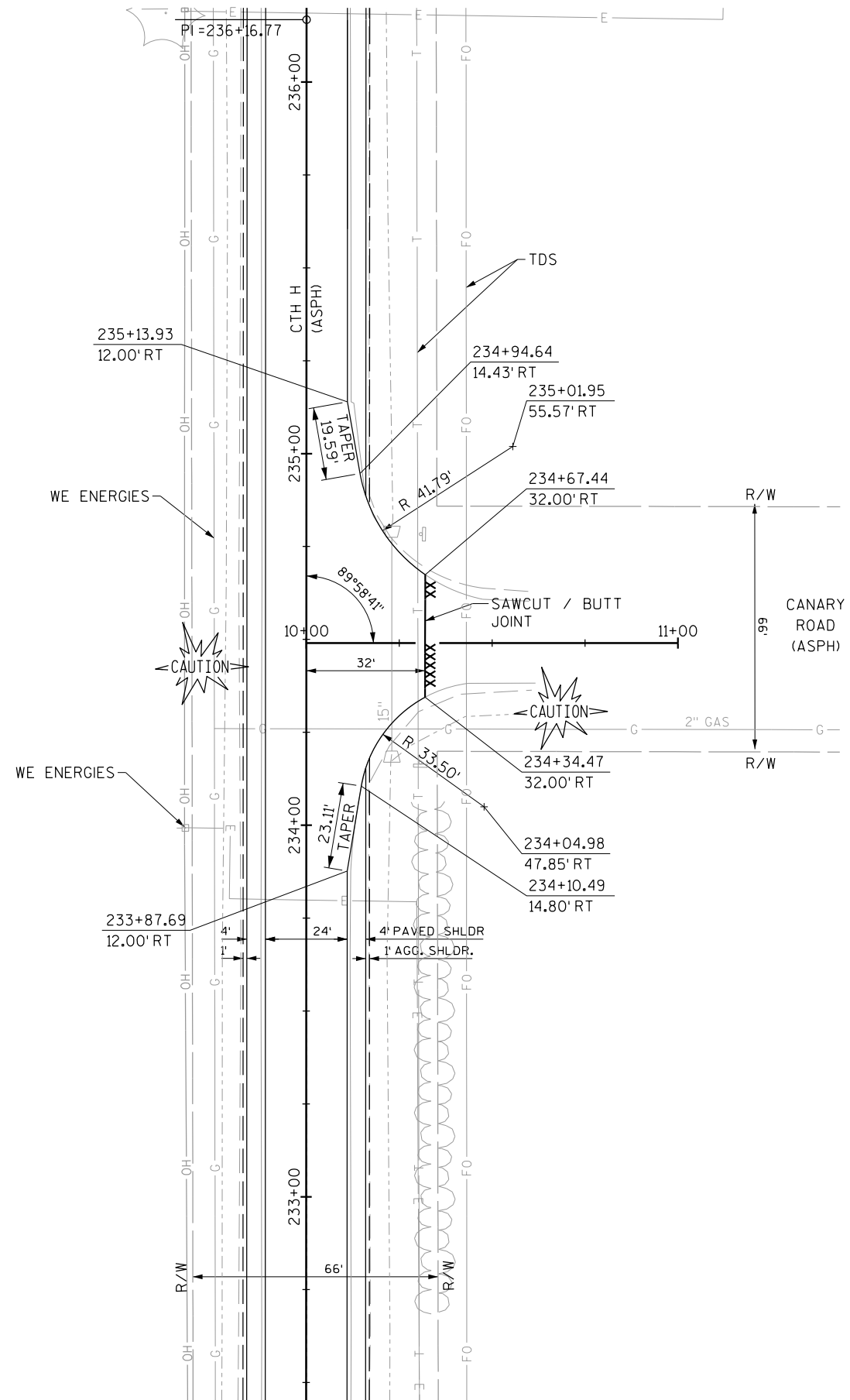


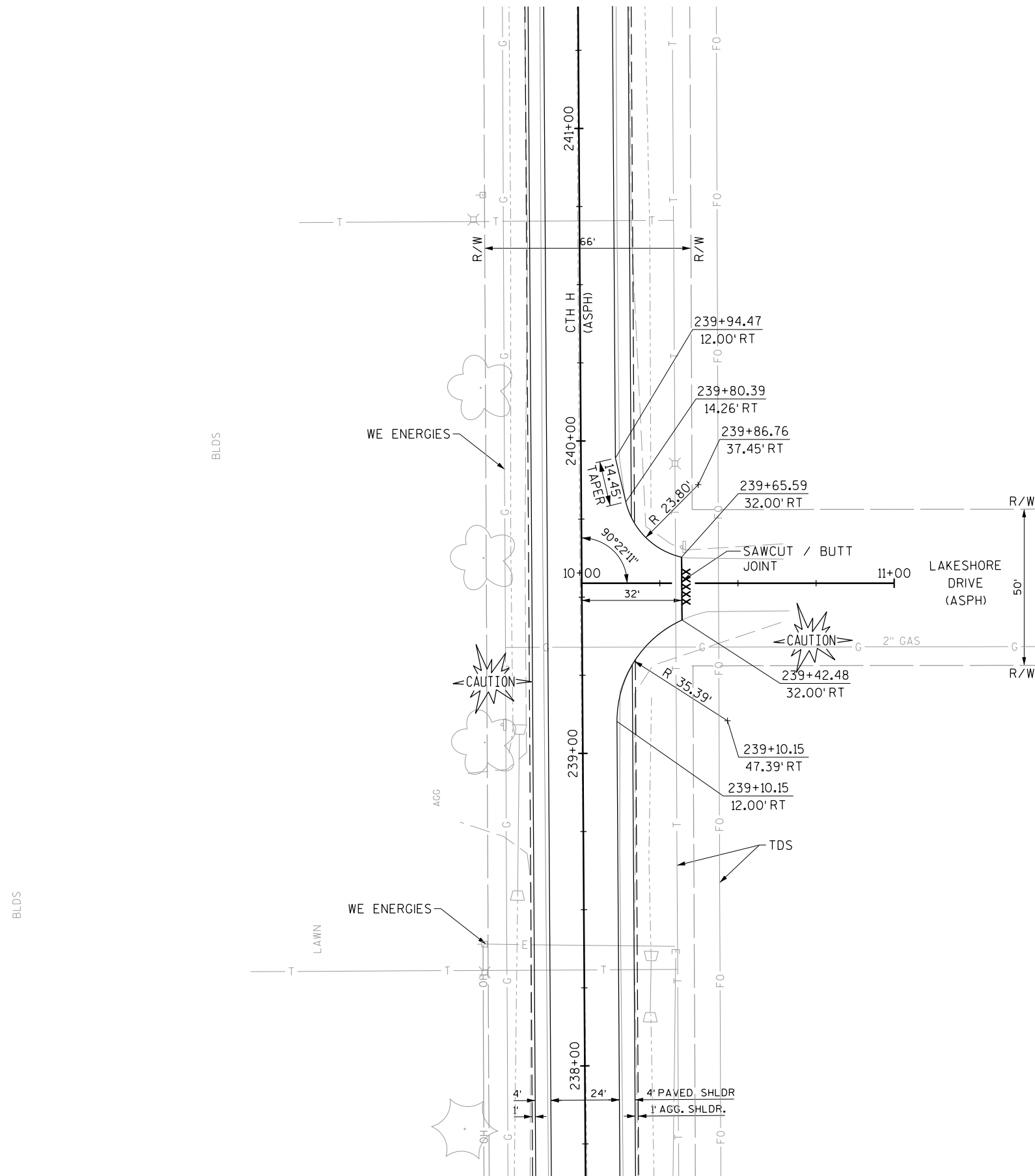
BENCH MARKS				
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
28	214+00	SPIKE IN PP	27 LT	912.59

TYPE D INTERSECTION - SEE SDD
FOR ADDITIONAL INFORMATION



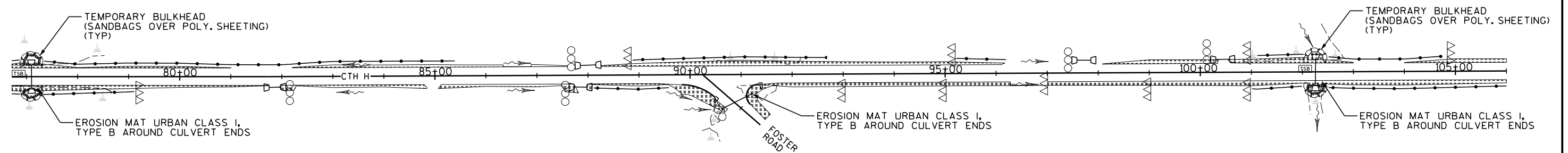
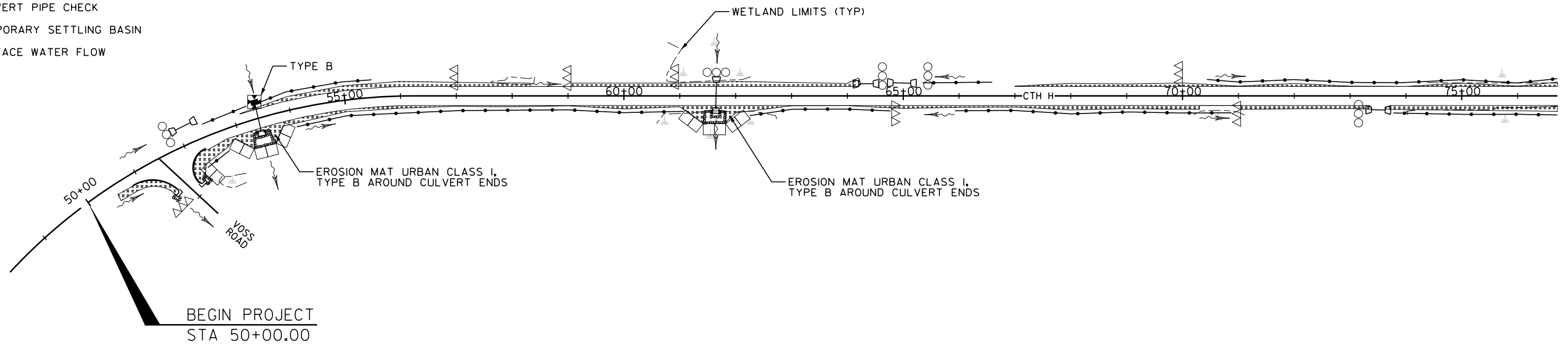






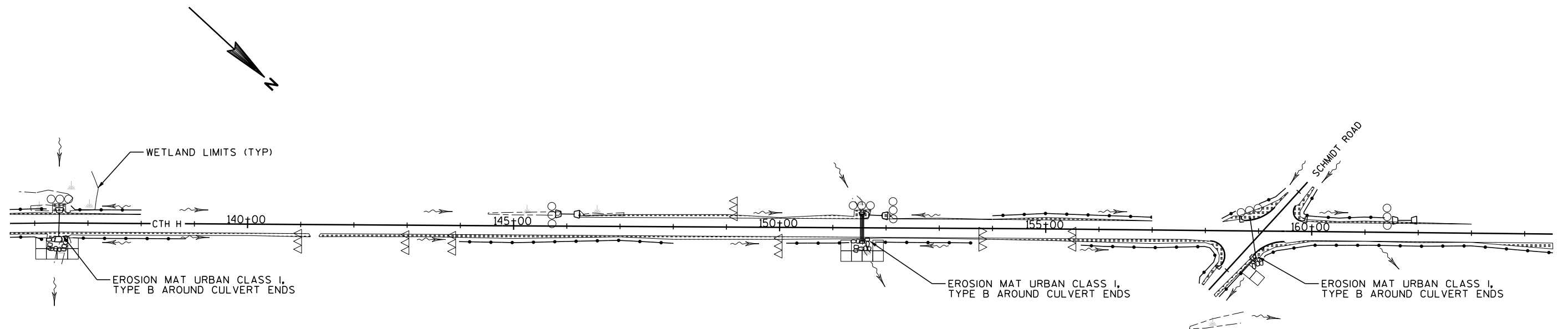
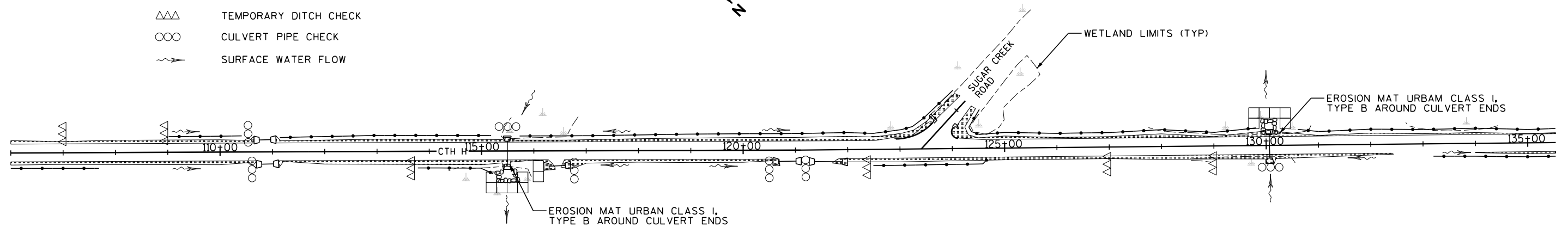
LEGEND

- ##### MULCHING
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP OR STONE DITCH CHECK
- SAND BAG
- ⊗ INLET PROTECTION
- △△ TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB TEMPORARY SETTLING BASIN
- ~> SURFACE WATER FLOW



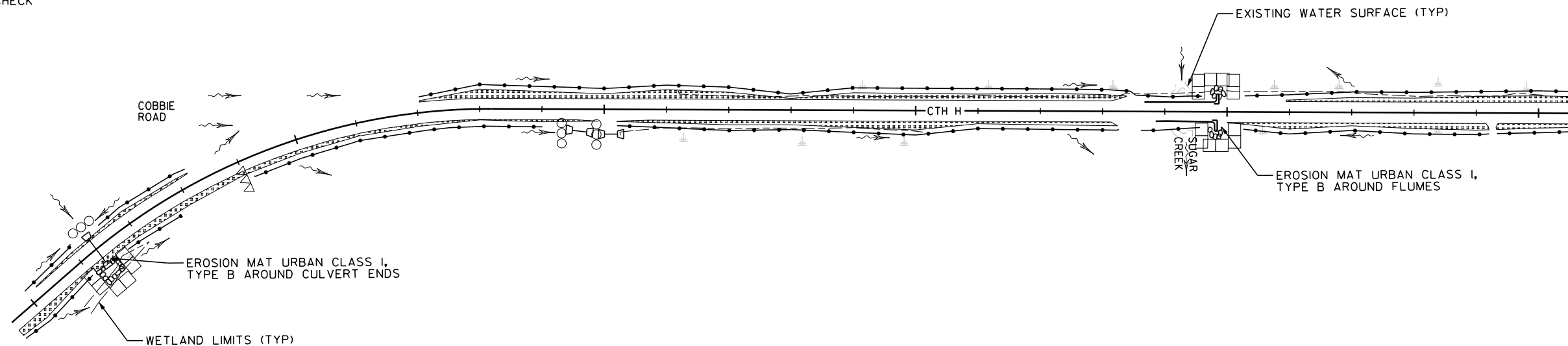
LEGEND

- ##### MULCHING
- - - - - SILT FENCE
□ EROSION BALE, BARRIER
- - - - - RIP RAP OR STONE DITCH CHECK
△△△ TEMPORARY DITCH CHECK
○○○ CULVERT PIPE CHECK
~ ~ ~ SURFACE WATER FLOW

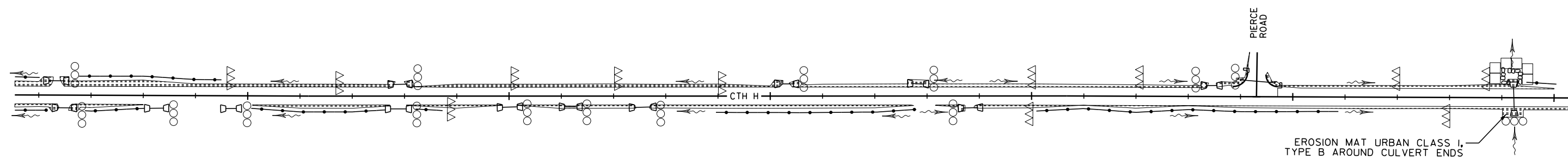


LEGEND

- ##### MULCHING
- - - - - SILT FENCE
□ EROSION BALE, BARRIER
o-o-o-o-o RIP RAP OR STONE DITCH CHECK
△△△ TEMPORARY DITCH CHECK
○○○ CULVERT PIPE CHECK
~> SURFACE WATER FLOW

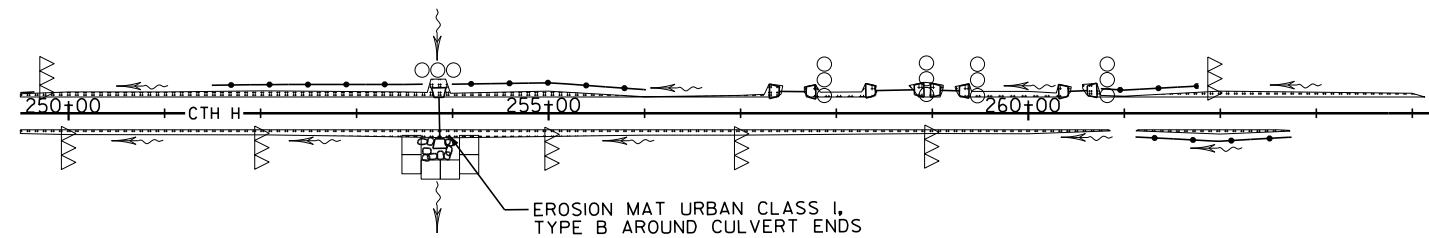
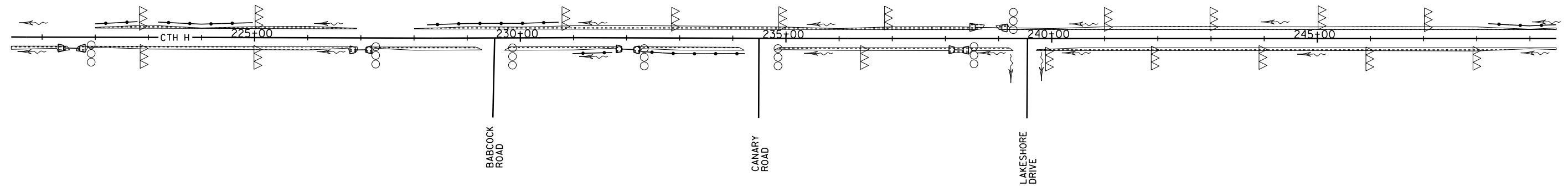


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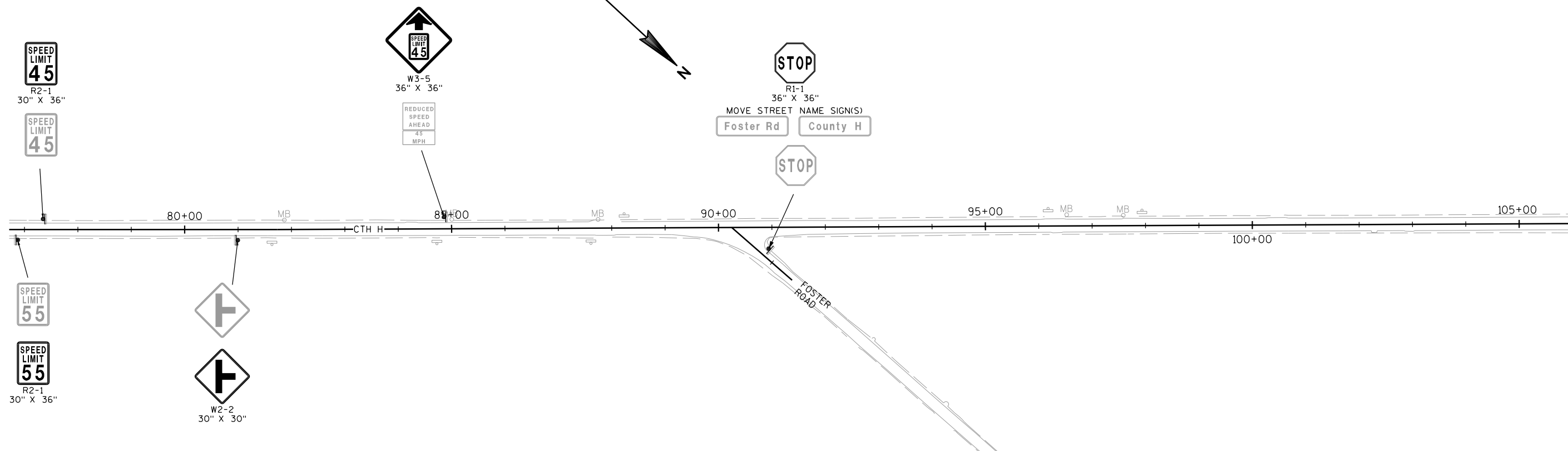
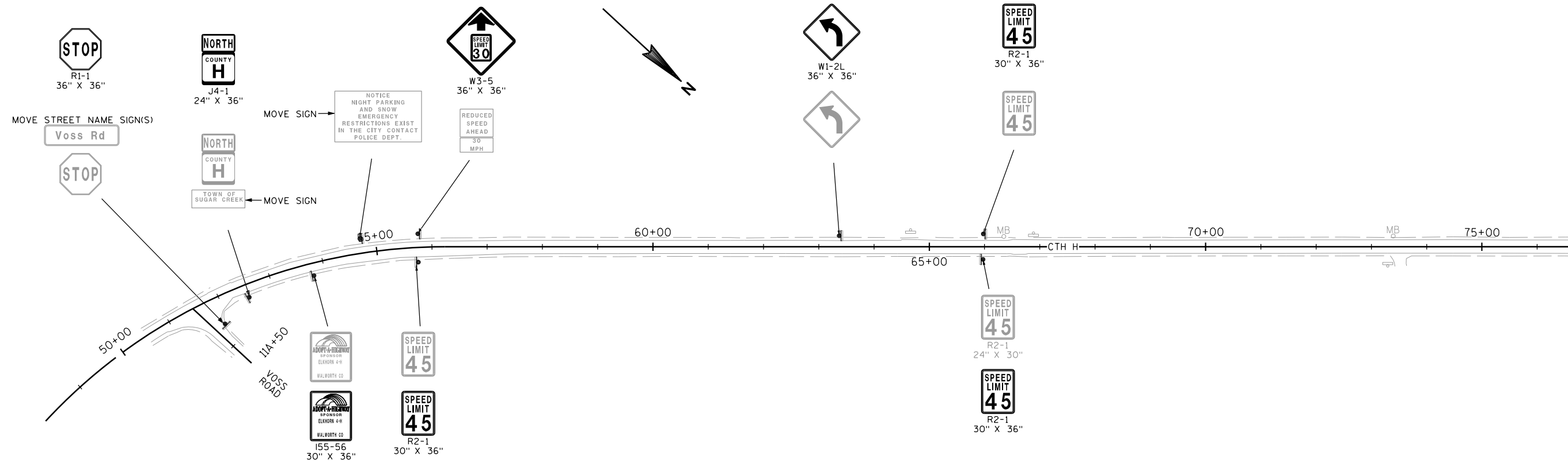


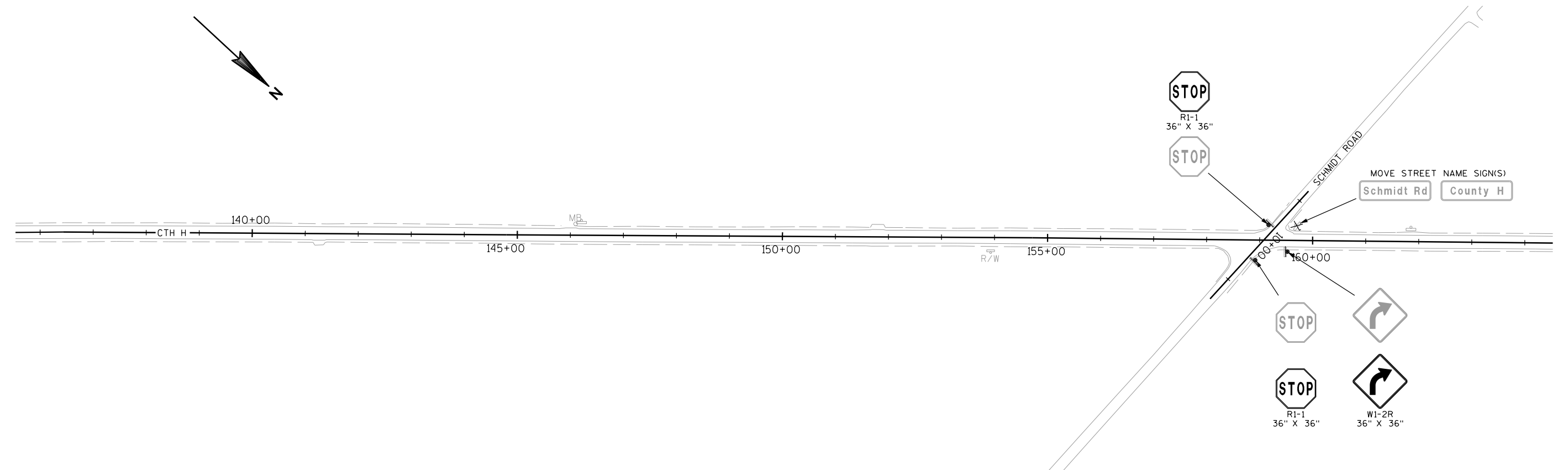
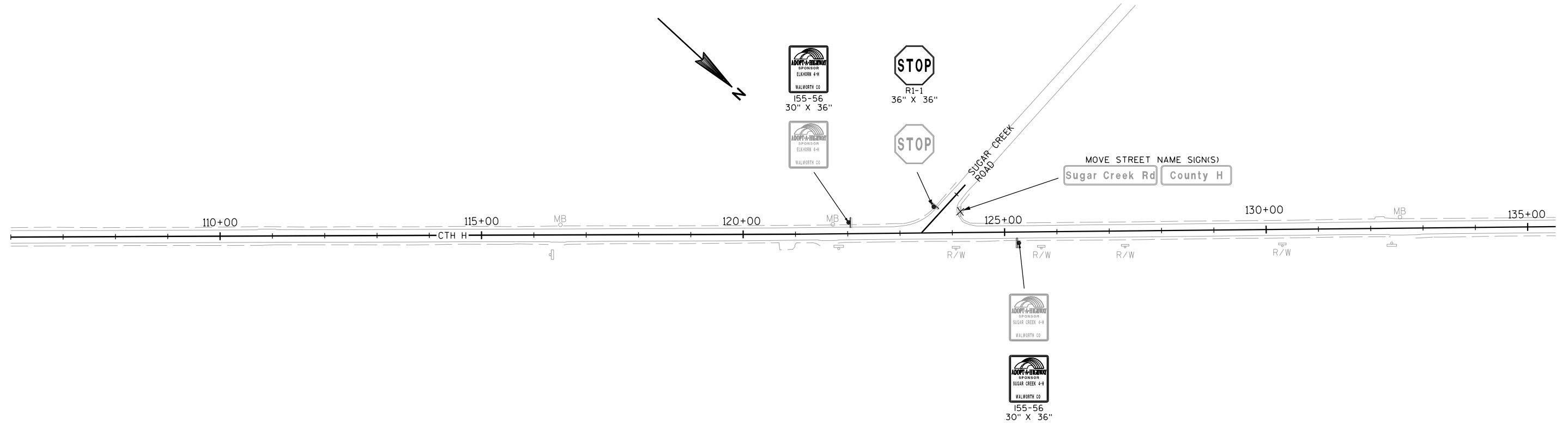
LEGEND

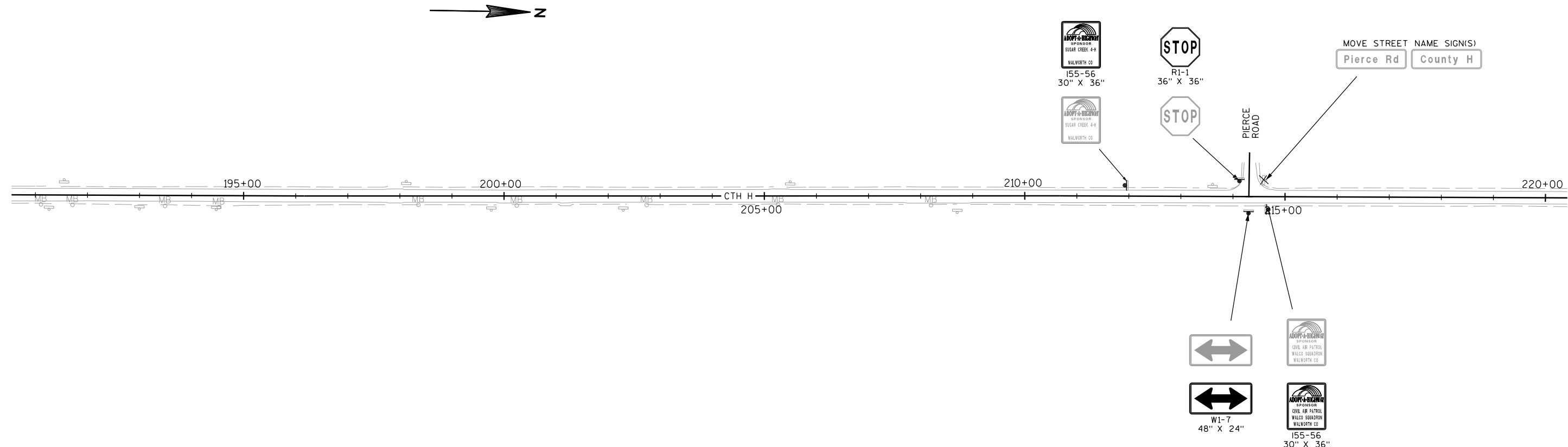
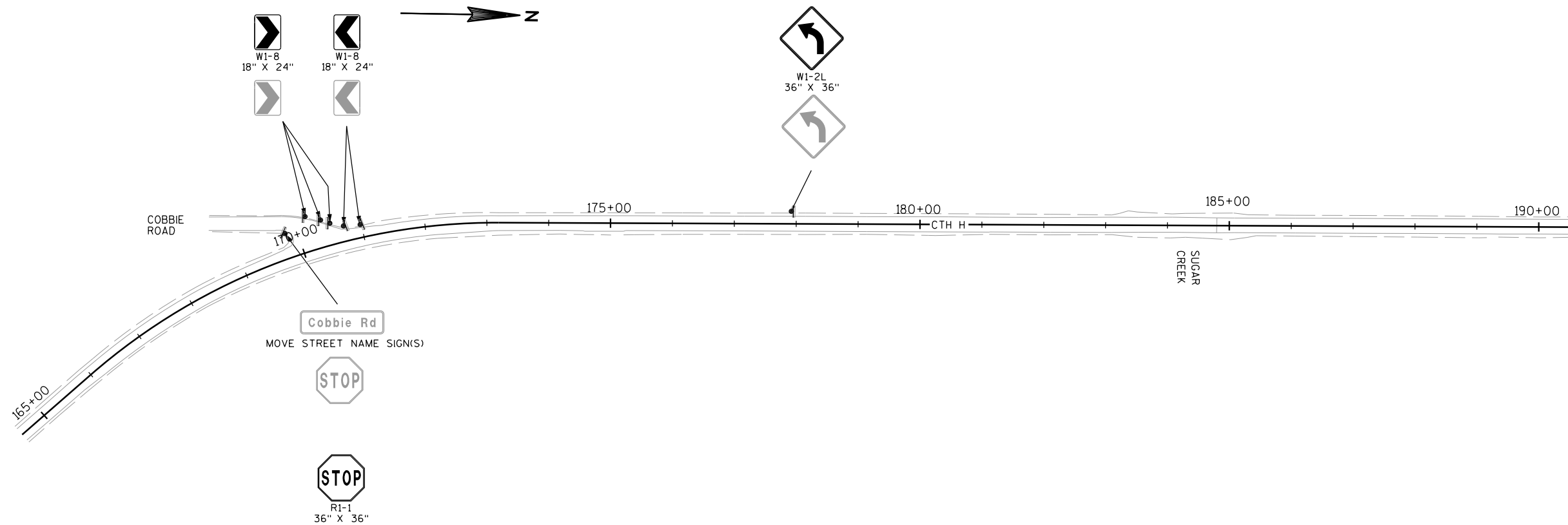
- ##### MULCHING
-.-.- SILT FENCE
□ EROSION BALE, BARRIER
-o-o-o- RIP RAP OR STONE DITCH CHECK
△△△ TEMPORARY DITCH CHECK
○○○ CULVERT PIPE CHECK
~> SURFACE WATER FLOW

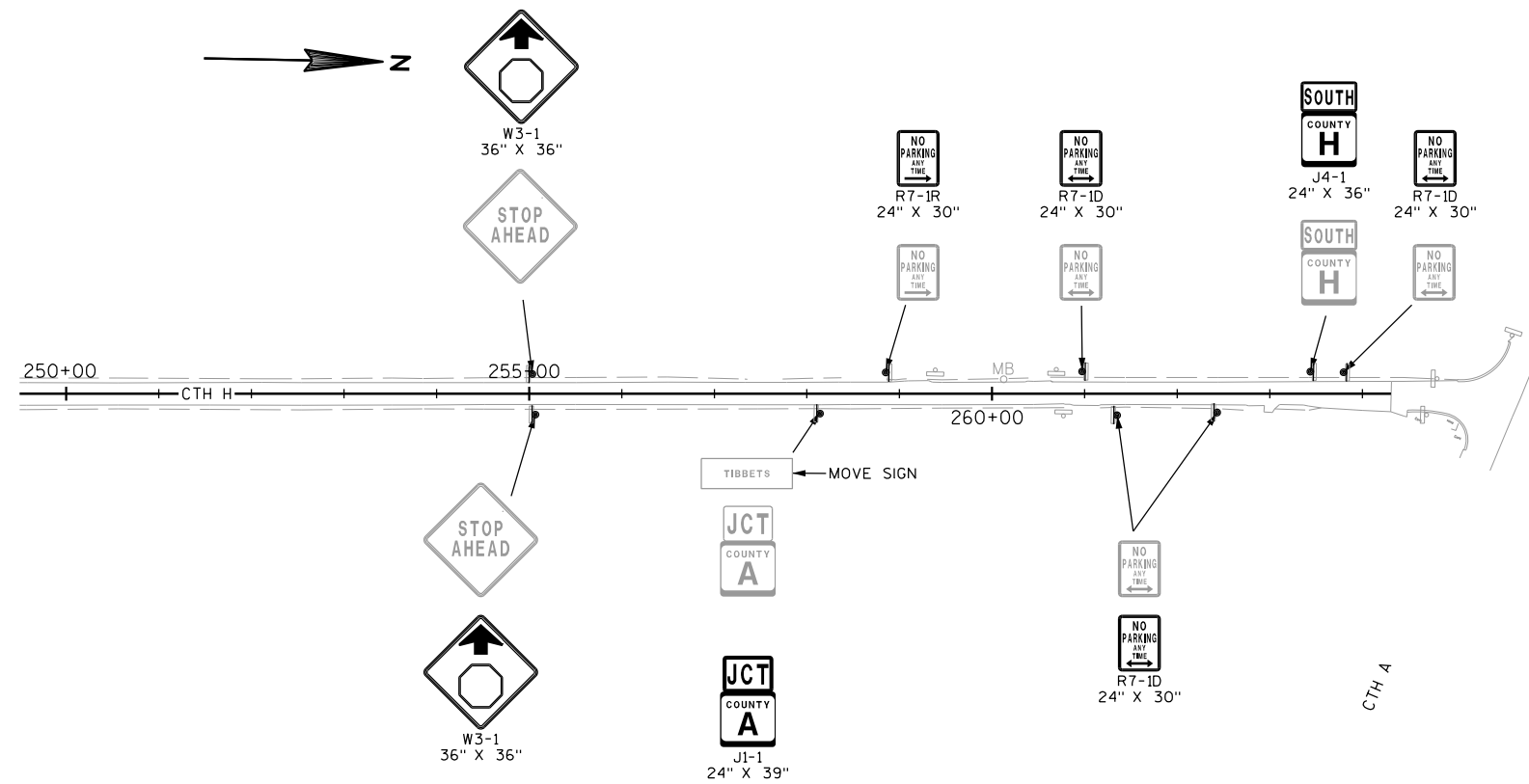
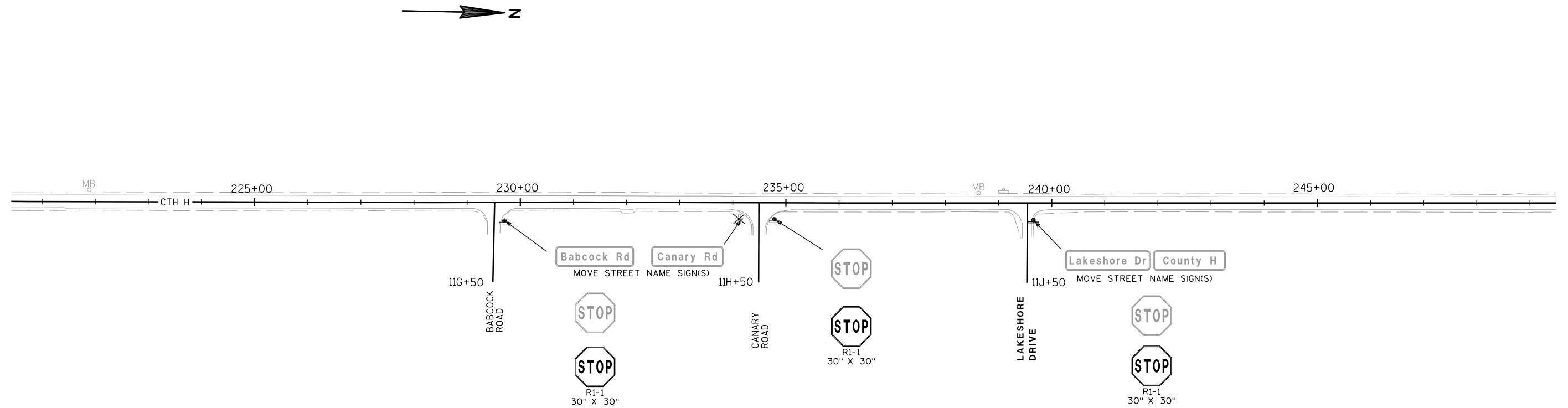


END PROJECT
STA 264+31.00









NOTES

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

ALL TRAFFIC CONTROL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

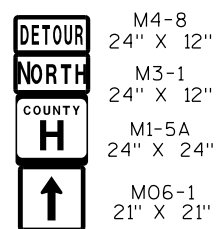
THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

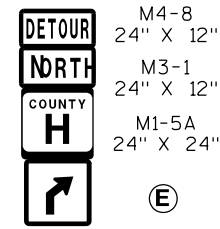
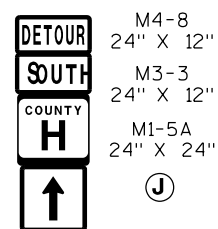
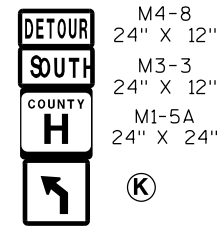
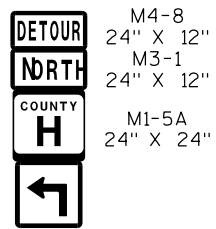
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

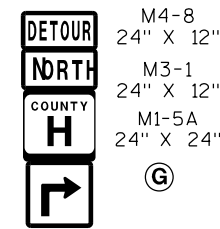
REFER TO STANDARD DETAIL DRAWINGS FOR TRAFFIC CONTROL DETAILS NOT SHOWN ON THIS SHEET.



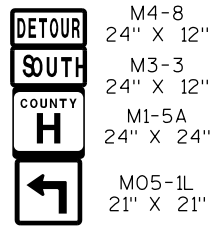
D

M 5-2R
21" X 21"MO6-1
21" X 21"M 5-2L
21" X 21"MO5-1L
21" X 21"

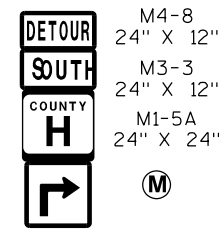
F

MO5-1R
21" X 21"

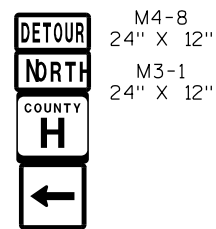
G

MO5-1L
21" X 21"

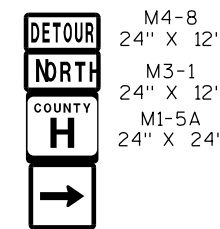
L

MO5-1R
21" X 21"

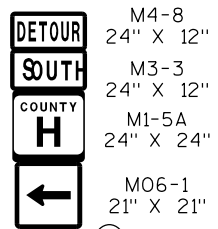
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MO6-1
21" X 21"

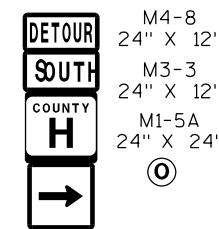
H

MO6-1
21" X 21"

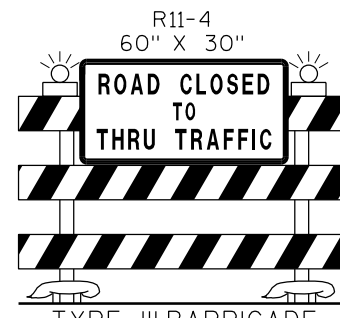
I

MO6-1
21" X 21"

N

MO6-1
21" X 21"

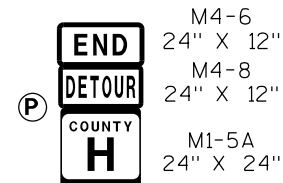
O



Q

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE A FLASHING WARNING LIGHTS
- SIGN
- WORK ZONE
- DETOUR ROUTE



PROJECT NO: 3840-01-71

HWY: CTH H

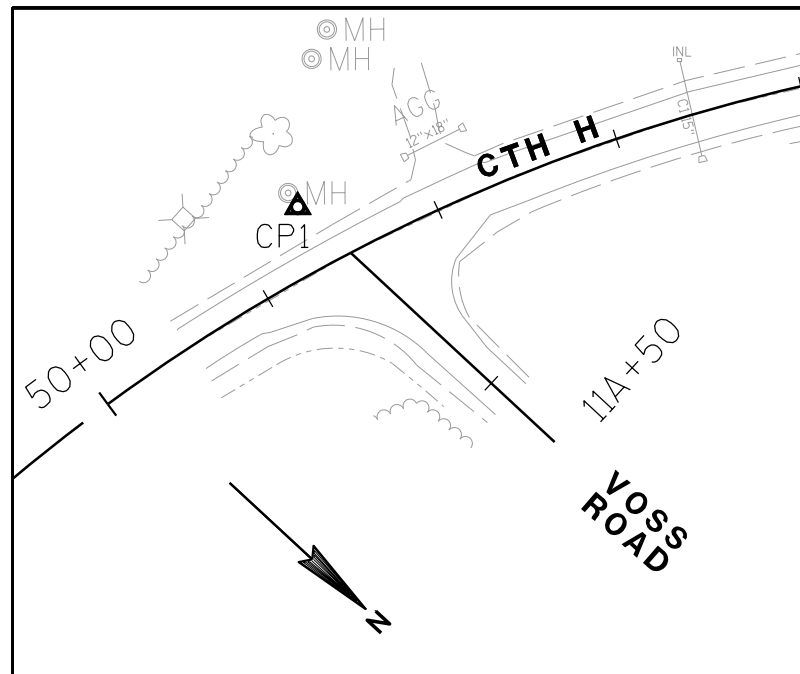
COUNTY: WALWORTH

DETOUR PLAN

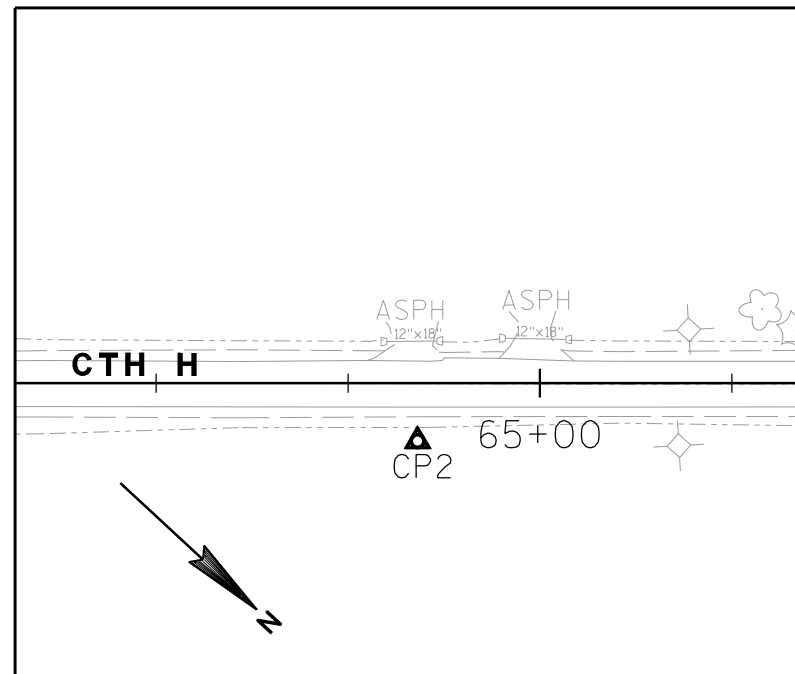
NOT TO SCALE

SHEET

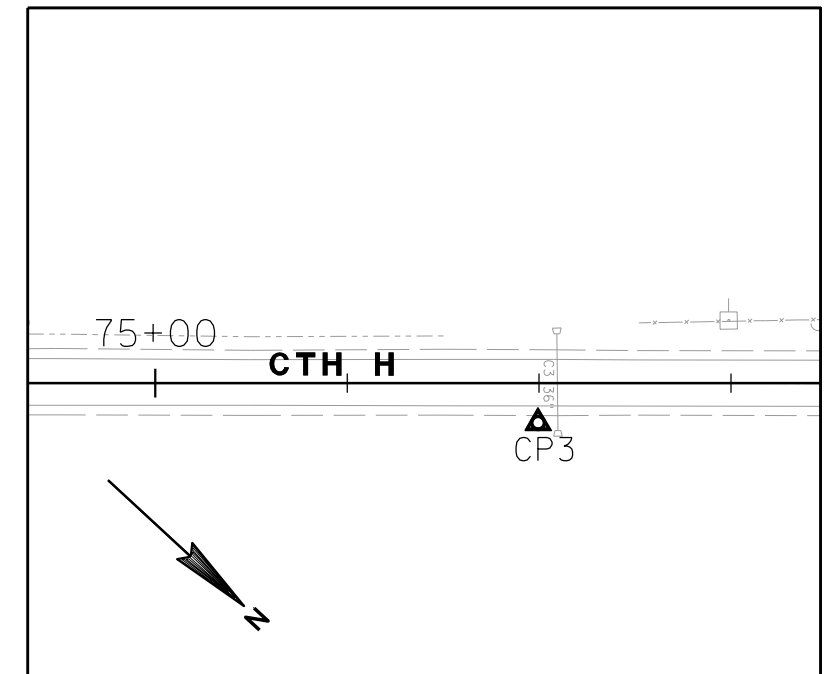
E



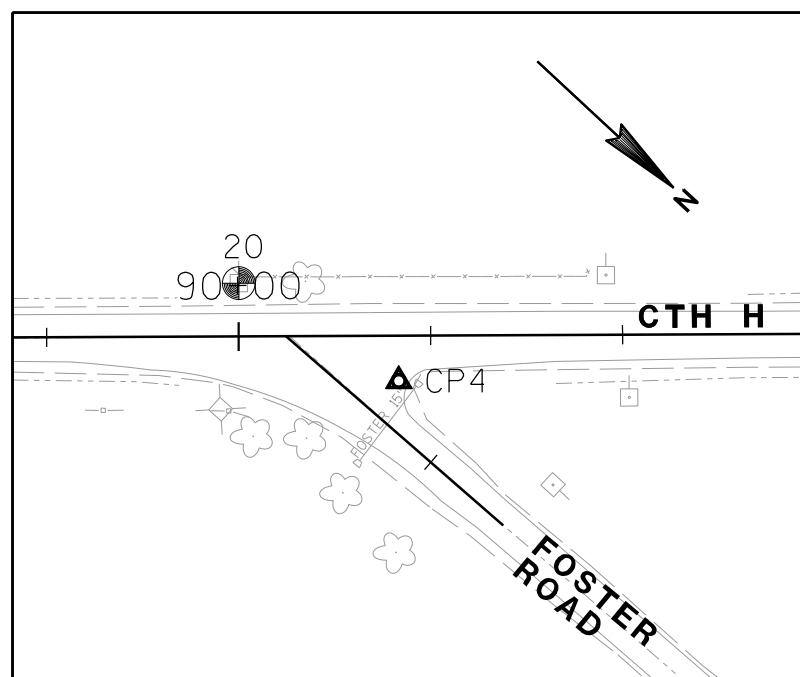
CP1 - REBAR
51+36.31
34.07' LT
N 369933.08
E 760372.00
EL 1000.23



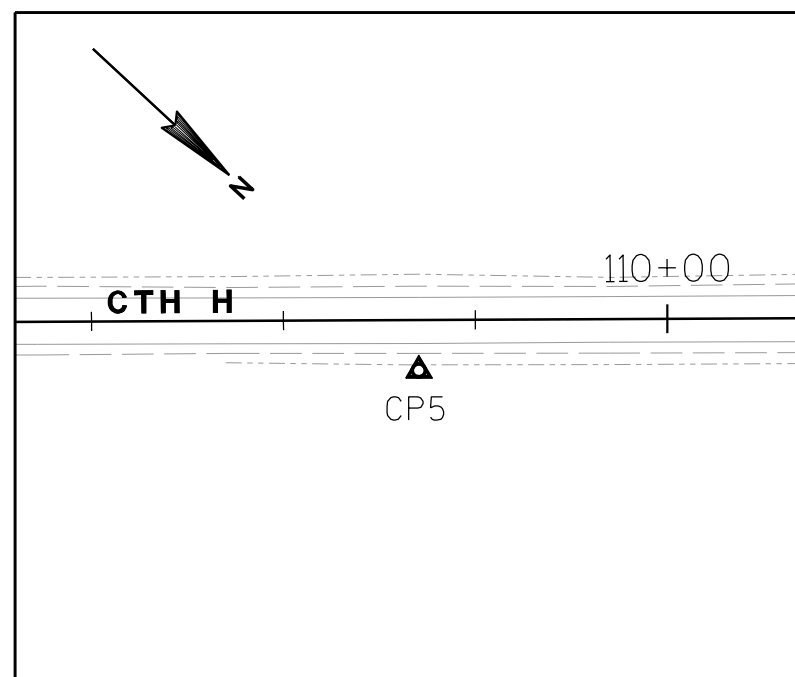
CP2 - REBAR
64+36.23
30.19' RT
N 370844.82
E 759448.47
EL 987.10



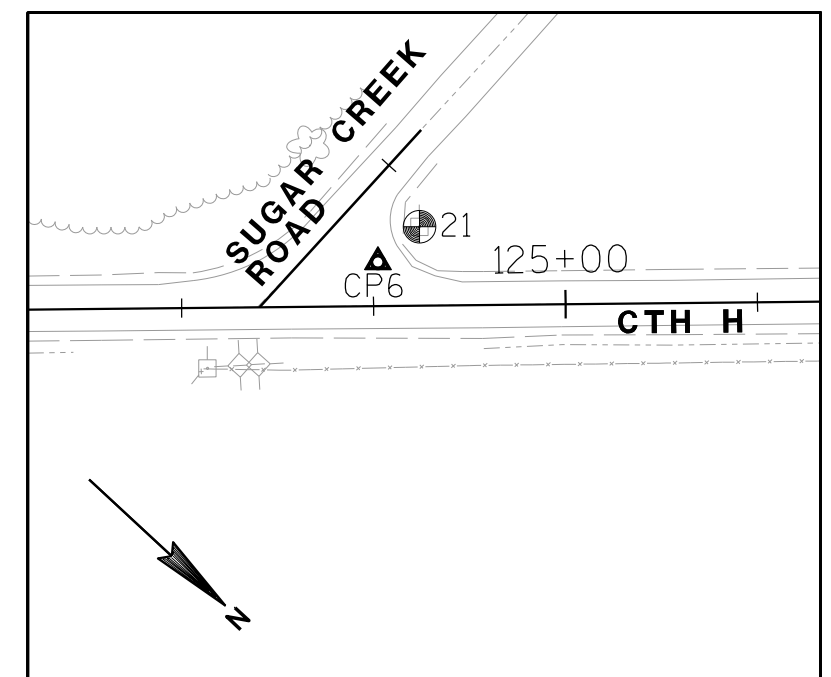
CP3 - CMP
76+99.45
20.65' RT
N 371765.02
E 758583.00
EL 977.97



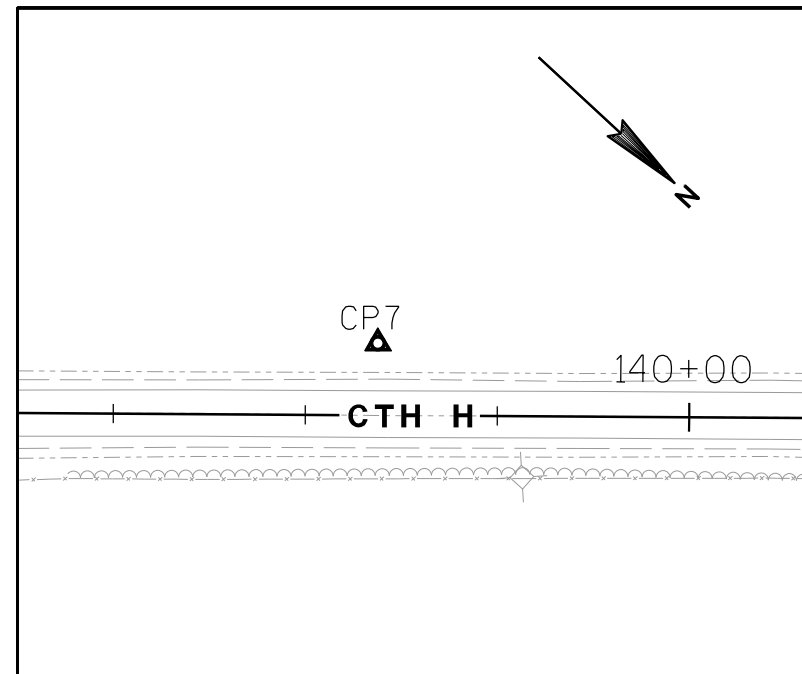
CP4 - PK NAIL
90+83.29
23.55' RT
N 372779.40
E 757641.55
EL 975.39



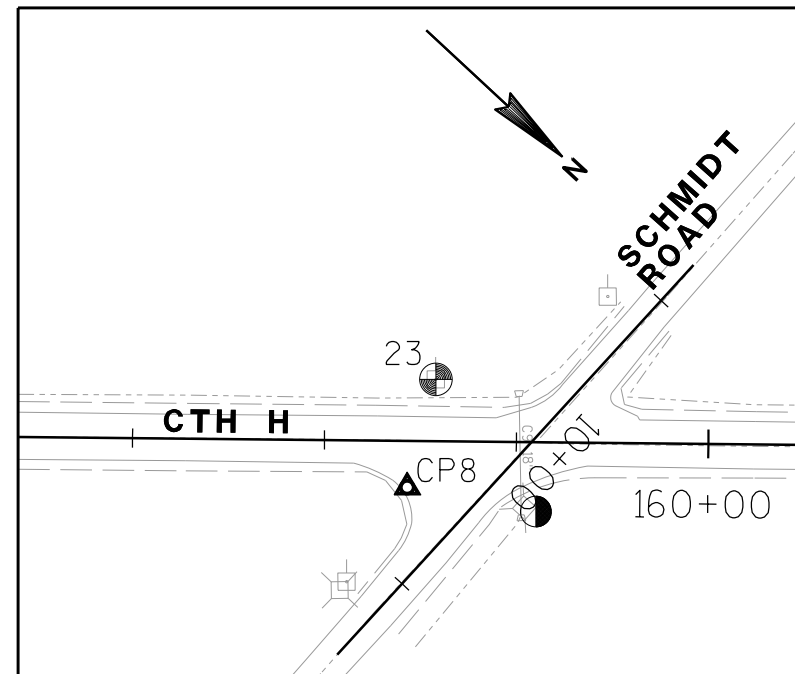
CP5 - REBAR
108+70.41
26.29' RT
N 374086.69
E 756423.03
EL 971.20



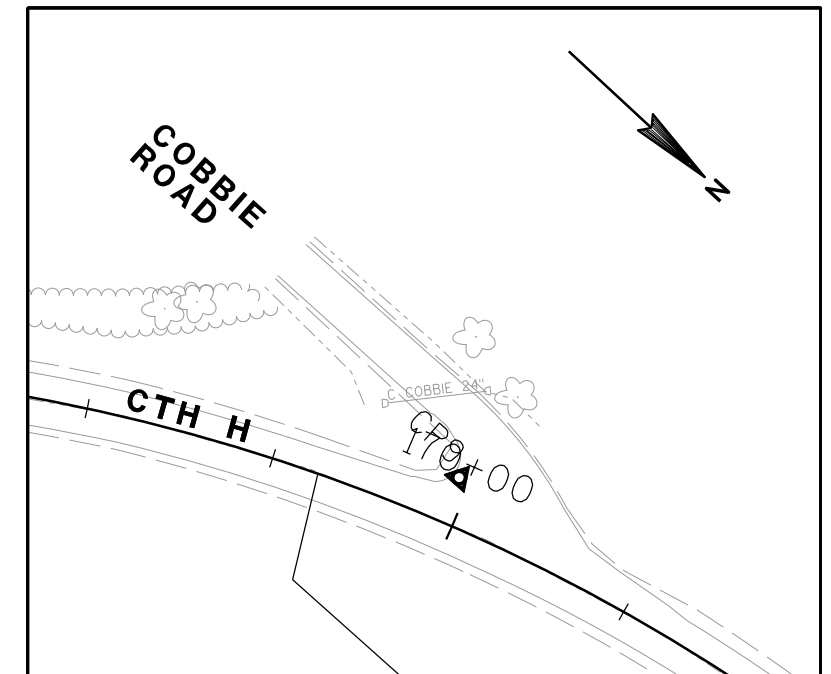
CP6 - PK NAIL
124+02.44
22.94' LT
N 375171.93
E 755340.71
EL 962.82



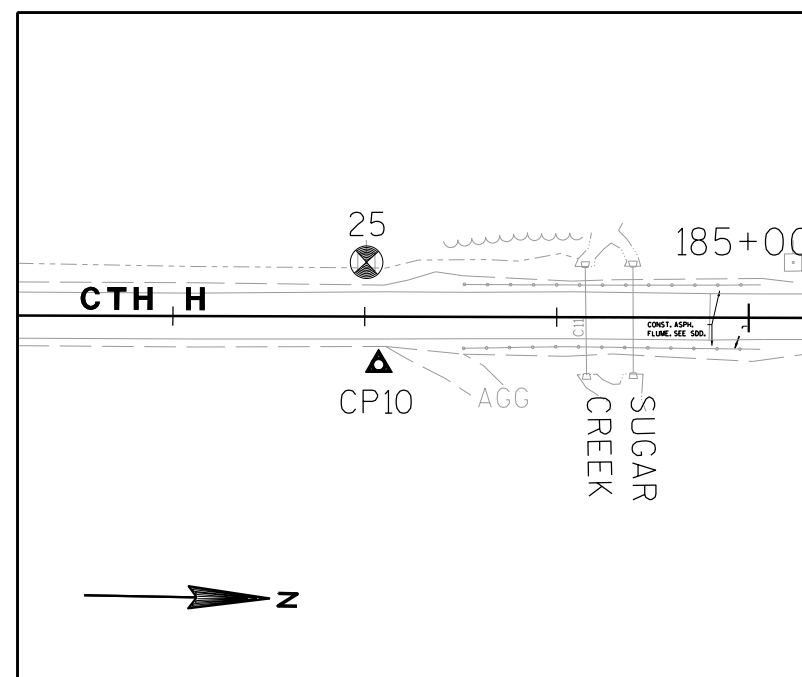
CP7 - REBAR
138+37.58
37.56' LT
N 376207.49
E 754346.20
EL 958.03



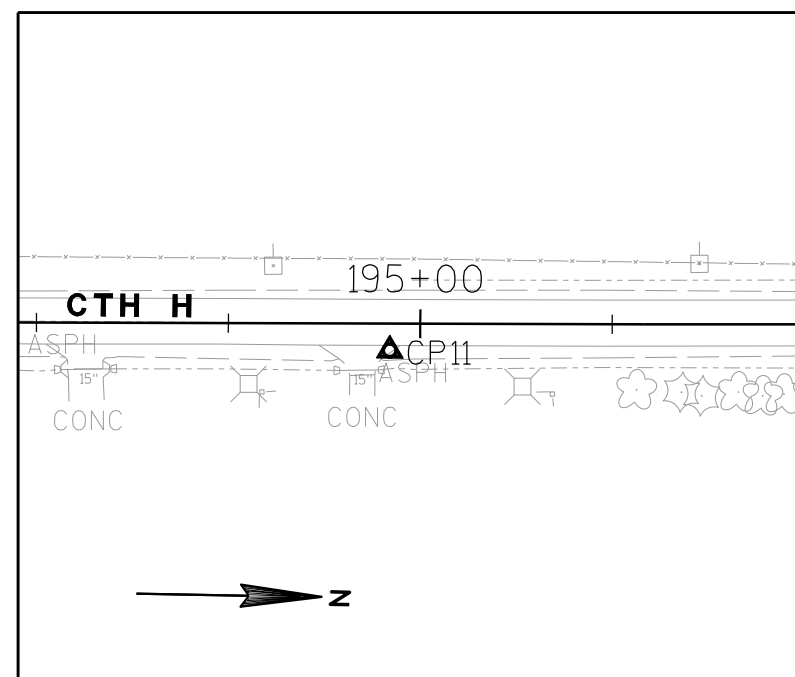
CP8 - PK NAIL
158+43.32
24.18' RT
N 377729.52
E 753038.55
EL 931.27



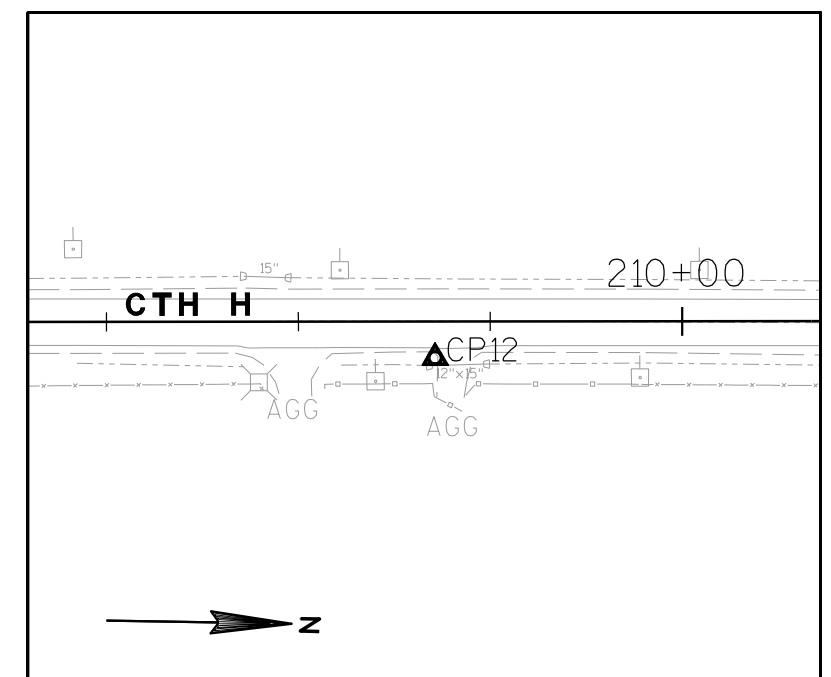
CP9 - PK NAIL
169+93.43
24.75' LT
N 378600.77
E 752288.20
EL 913.45



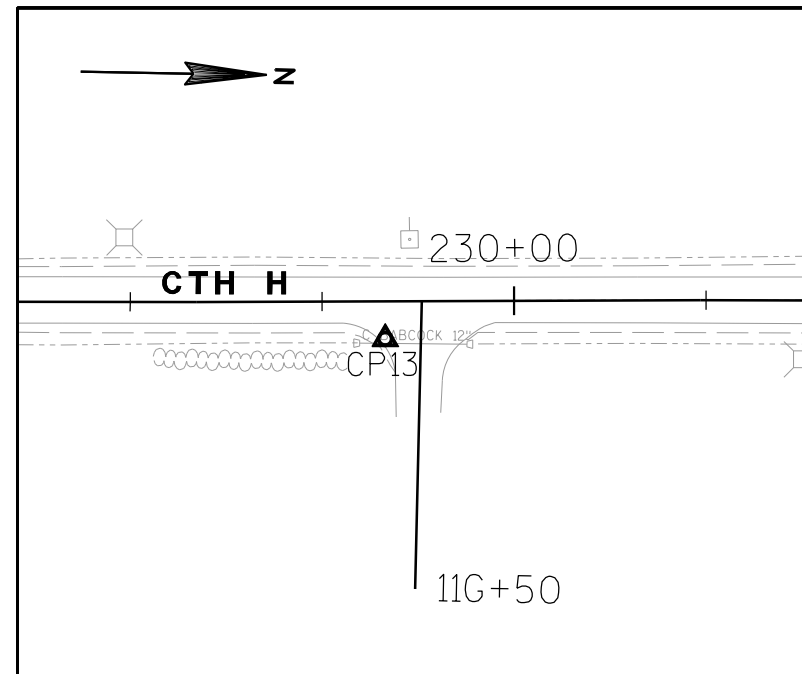
CP10 - REBAR
183+07.27
25.01' RT
N 379916.59
E 752264.92
EL 895.30



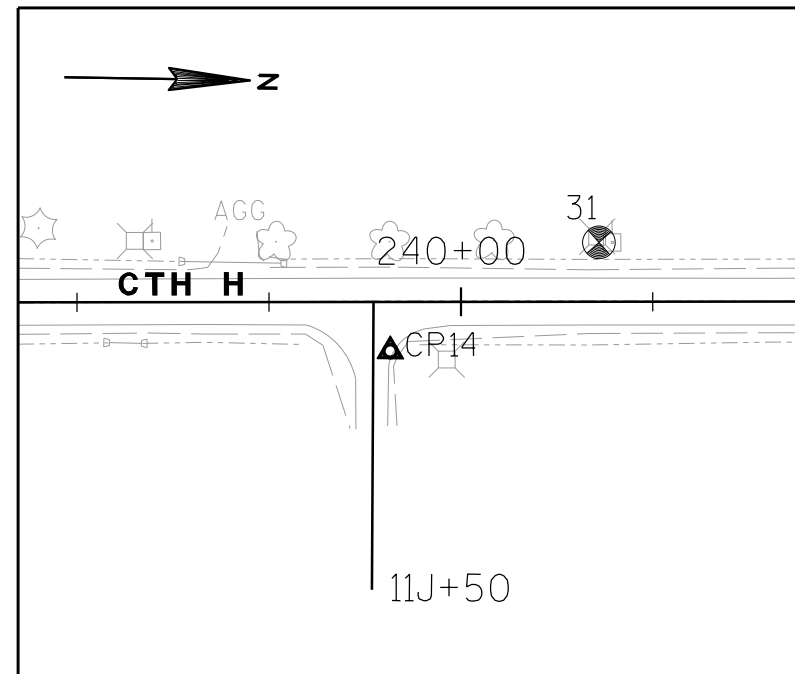
CP11 - PK NAIL
194+84.11
13.94' RT
N 381093.15
E 752236.94
EL 909.80



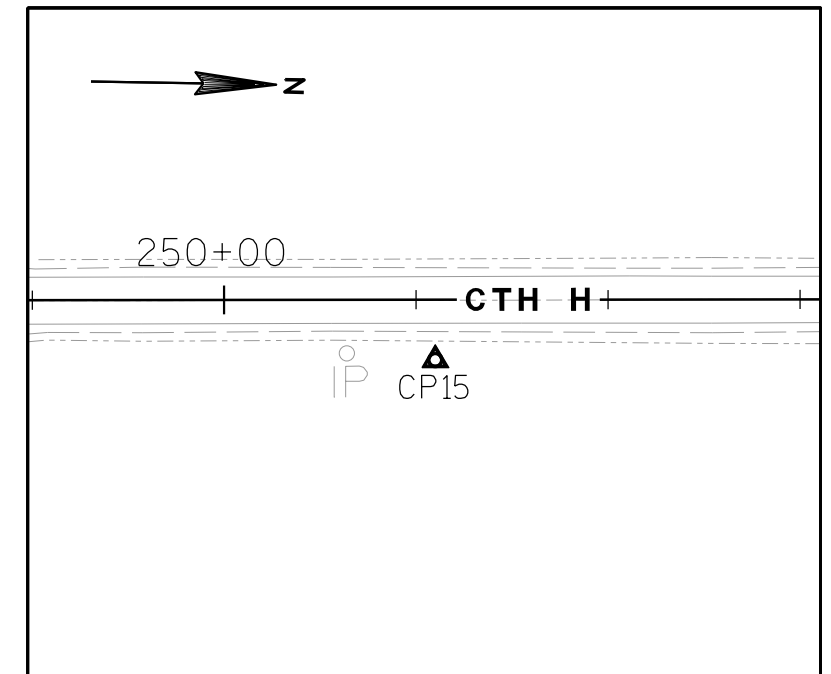
CP12 - REBAR
208+71.21
18.81' RT
N 382480.17
E 752216.51
EL 917.61



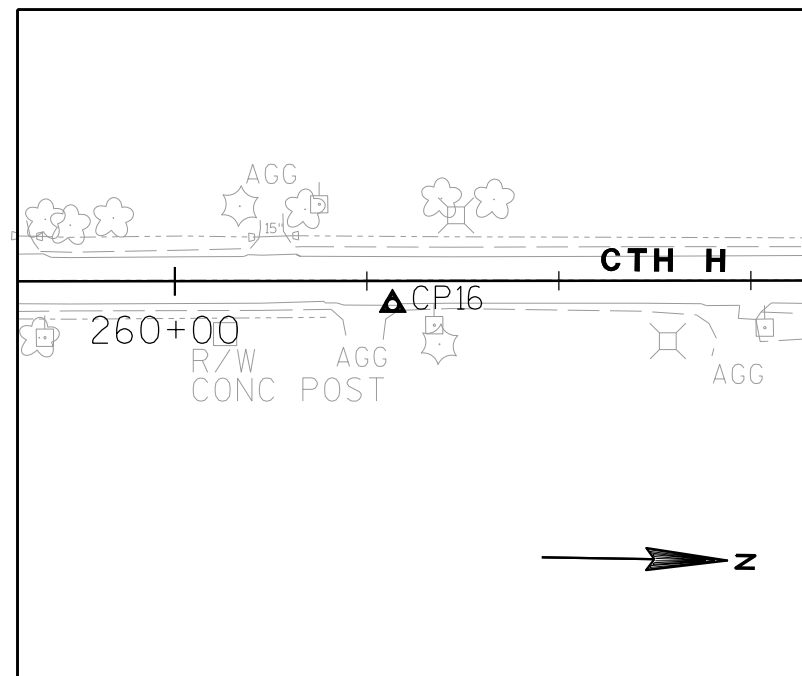
CP13 - PK NAIL
229+32.80
19.56' RT
N 384541.56
E 752184.77
EL 910.59



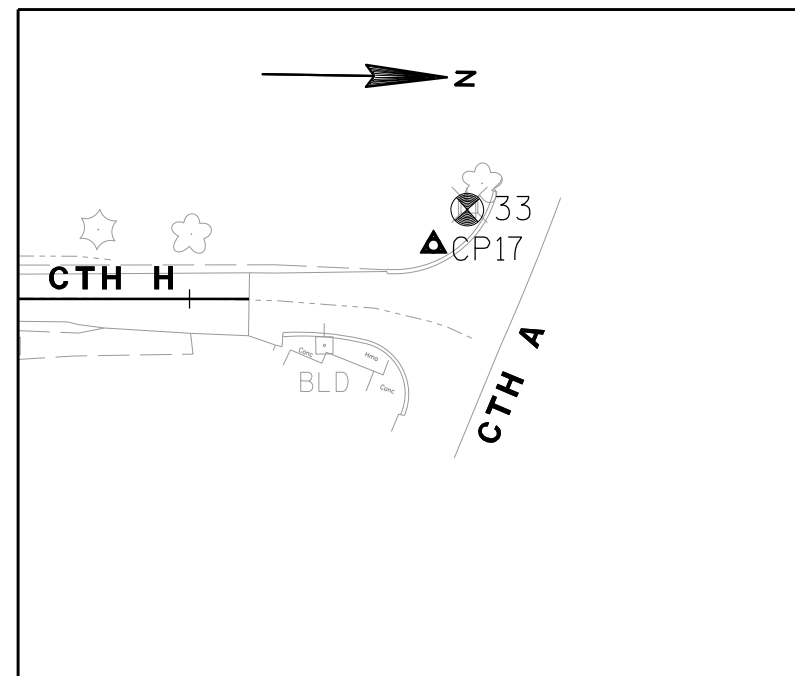
CP14 - PK NAIL
239+63.18
25.61' RT
N 385571.85
E 752173.17
EL 921.21



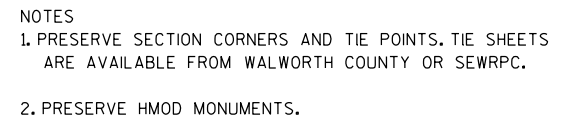
CP15 - REBAR
251+09.95
31.35' RT
N 386718.53
E 752157.75
EL 911.97



CP16 - PK NAIL
261+13.36
12.31' RT
N 387721.41
E 752120.19
EL 929.90



CP17 - REBAR
265+17.94
38.71' LT
N 388134.34
E 752072.48
EL 935.81



Estimate Of Quantities

3840-01-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	55.000	55.000
0004	204.0110	Removing Asphaltic Surface	SY	405.000	405.000
0006	204.0115	Removing Asphaltic Surface Butt Joints	SY	558.000	558.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	60,933.000	60,933.000
0010	205.0100	Excavation Common	CY	2,044.000	2,044.000
0012	205.9010.S	Grading and Shaping Intersection (location) 01. Voss Road	LS	1.000	1.000
0014	205.9010.S	Grading and Shaping Intersection (location) 02. Foster Road	LS	1.000	1.000
0016	205.9010.S	Grading and Shaping Intersection (location) 03. Sugar Creek Road	LS	1.000	1.000
0018	205.9010.S	Grading and Shaping Intersection (location) 04. Schmidt Road	LS	1.000	1.000
0020	205.9010.S	Grading and Shaping Intersection (location) 05. Pierce Road	LS	1.000	1.000
0022	208.0100	Borrow	CY	147.000	147.000
0024	209.2500	Backfill Granular Grade 2	TON	400.000	400.000
0026	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 3840-01-71	LS	1.000	1.000
0028	213.0100	Finishing Roadway (project) 01. 3840-01-71	EACH	1.000	1.000
0030	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,117.000	1,117.000
0032	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	4,202.000	4,202.000
0034	311.0110	Breaker Run	TON	28.000	28.000
0036	416.0160	Concrete Driveway 6-Inch	SY	45.000	45.000
0038	440.4410	Incentive IRI Ride	DOL	16,000.000	16,000.000
0040	455.0605	Tack Coat	GAL	3,995.000	3,995.000
0042	460.2000	Incentive Density HMA Pavement	DOL	10,220.000	10,220.000
0044	460.5223	HMA Pavement 3 LT 58-28 S	TON	9,977.000	9,977.000
0046	460.5224	HMA Pavement 4 LT 58-28 S	TON	5,979.000	5,979.000
0048	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	1,760.000	1,760.000
0050	465.0315	Asphaltic Flumes	SY	107.000	107.000
0052	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	14,550.000	14,550.000
0054	520.1015	Apron Endwalls for Culvert Pipe 15-Inch	EACH	17.000	17.000
0056	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	16.000	16.000
0058	520.1036	Apron Endwalls for Culvert Pipe 36-Inch	EACH	2.000	2.000
0060	520.3315	Culvert Pipe Class III-A 15-Inch	LF	1,441.000	1,441.000
0062	520.3324	Culvert Pipe Class III-A 24-Inch	LF	474.000	474.000
0064	520.3336	Culvert Pipe Class III-A 36-Inch	LF	56.000	56.000
0066	521.1217	Apron Endwalls for Pipe Arch Steel 17x13-Inch	EACH	2.000	2.000
0068	521.1515	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 15-Inch 6 to 1	EACH	64.000	64.000

Estimate Of Quantities

3840-01-71

Line	Item	Item Description	Unit	Total	Qty
0070	521.1717	Apron Endwalls for Pipe Arch Sloped Side Drains Steel 17x13-Inch 6 to 1	EACH	4.000	4.000
0072	521.3717	Pipe Arch Corrugated Steel 17x13-Inch	LF	106.000	106.000
0074	522.0148	Culvert Pipe Reinforced Concrete Class III 48-Inch	LF	50.000	50.000
0076	522.1048	Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	EACH	2.000	2.000
0078	522.2319	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	LF	108.000	108.000
0080	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	4.000	4.000
0082	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	203.000	203.000
0084	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	720.000	720.000
0086	606.0200	Riprap Medium	CY	62.000	62.000
0088	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0090	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0092	618.0100	Maintenance And Repair of Haul Roads (project) 01. 3840-01-70	EACH	1.000	1.000
0094	619.1000	Mobilization	EACH	1.000	1.000
0096	623.0200	Dust Control Surface Treatment	SY	79,765.000	79,765.000
0098	624.0100	Water	MGAL	8.000	8.000
0100	625.0100	Topsoil	SY	2,300.000	2,300.000
0102	625.0500	Salvaged Topsoil	SY	23,497.000	23,497.000
0104	627.0200	Mulching	SY	23,497.000	23,497.000
0106	628.1104	Erosion Bales	EACH	1,564.000	1,564.000
0108	628.1504	Silt Fence	LF	19,492.000	19,492.000
0110	628.1520	Silt Fence Maintenance	LF	19,492.000	19,492.000
0112	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0114	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0116	628.2008	Erosion Mat Urban Class I Type B	SY	7,226.000	7,226.000
0118	628.5505	Polyethylene Sheeting	SY	668.000	668.000
0120	628.7010	Inlet Protection Type B	EACH	1.000	1.000
0122	628.7504	Temporary Ditch Checks	LF	1,005.000	1,005.000
0124	628.7555	Culvert Pipe Checks	EACH	220.000	220.000
0126	629.0210	Fertilizer Type B	CWT	14.800	14.800
0128	630.0120	Seeding Mixture No. 20	LB	801.000	801.000
0130	630.0200	Seeding Temporary	LB	801.000	801.000
0132	633.5200	Markers Culvert End	EACH	27.000	27.000
0134	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	54.000	54.000
0136	637.2210	Signs Type II Reflective H	SF	186.260	186.260
0138	637.2230	Signs Type II Reflective F	SF	158.250	158.250
0140	638.2102	Moving Signs Type II	EACH	17.000	17.000

Estimate Of Quantities

3840-01-71

Line	Item	Item Description	Unit	Total	Qty
0142	638.2602	Removing Signs Type II	EACH	42.000	42.000
0144	638.3000	Removing Small Sign Supports	EACH	47.000	47.000
0146	642.5001	Field Office Type B	EACH	1.000	1.000
0148	643.0420	Traffic Control Barricades Type III	DAY	3,645.000	3,645.000
0150	643.0900	Traffic Control Signs	DAY	7,695.000	7,695.000
0152	643.5000	Traffic Control	EACH	1.000	1.000
0154	645.0120	Geotextile Type HR	SY	252.000	252.000
0156	646.1020	Marking Line Epoxy 4-Inch	LF	63,192.000	63,192.000
0158	648.0100	Locating No-Passing Zones	MI	4.100	4.100
0160	650.4000	Construction Staking Storm Sewer	EACH	1.000	1.000
0162	650.4500	Construction Staking Subgrade	LF	14,900.000	14,900.000
0164	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	923.000	923.000
0166	650.6000	Construction Staking Pipe Culverts	EACH	55.000	55.000
0168	650.8000	Construction Staking Resurfacing Reference	LF	21,431.000	21,431.000
0170	650.9910	Construction Staking Supplemental Control (project) 01. 3840-01-71	LS	1.000	1.000
0172	650.9920	Construction Staking Slope Stakes	LF	14,900.000	14,900.000
0174	690.0150	Sawing Asphalt	LF	1,432.000	1,432.000
0176	690.0250	Sawing Concrete	LF	60.000	60.000
0178	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	700.000	700.000
0180	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	750.000	750.000
0182	SPV.0060	Special 01. Temporary Water Diversion	EACH	2.000	2.000
0184	SPV.0060	Special 02. SECTION CORNER MONUMENTS	EACH	3.000	3.000
0186	SPV.0195	Special 01. Asphaltic Millings for Shoulders	TON	31.000	31.000

203.0100 REMOVING SMALL PIPE CULVERTS			
STA	OFFSET	LOCATION	EACH
52+12	LT	PE	1
53+41	CL	CROSS DRAIN	1
61+65	CL	CROSS DRAIN	1
64+33	LT	PE	1
65+00	LT	PE	1
73+53	RT	PE	1
77+10	CL	CROSS DRAIN	1
81+87	RT	PE	1
87+83	RT	PE	1
88+00	LT	PE	1
90+78	RT	FOSTER ROAD	1
97+72	LT	PE	1
100+44	LT	PE	1
102+26	CL	CROSS DRAIN	1
110+86	LT	PE	1
110+91	RT	PE	1
115+49	CL	CROSS DRAIN	1
116+45	RT	PE	1
120+84	RT	PE	1
121+64	RT	PE	1
130+06	CL	CROSS DRAIN	1
136+46	CL	CROSS DRAIN	1
146+01	LT	PE	1
151+58	CL	CROSS DRAIN	1
151+80	LT	PE	1
159+02	CL	CROSS DRAIN	1
161+74	LT	PE	1
166+32	CL	CROSS DRAIN	1
174+60	RT	PE	1
175+11	RT	PE	1
191+33	LT	PE	1
191+49	RT	PE	1
193+26	RT	PE	1
194+68	RT	PE	1
197+90	RT	PE	1
197+92	LT	PE	1
200+02	RT	PE	1
201+18	RT	PE	1
202+56	RT	PE	1
205+31	LT	PE	1
207+83	LT	PE	1
208+83	RT	PE	1
213+46	LT	PE	1
214+38	LT	PIERCE RD	1
219+23	CL	CROSS DRAIN	1
221+55	RT	PE	1
227+00	RT	PE	1
232+02	RT	PE	1
238+24	RT	PE	1
238+81	LT	PE	1
253+86	CL	CROSS DRAIN	1
257+54	LT	PE	1
258+61	LT	PE	1
259+18	LT	PE	1
260+51	LT	PE	1
TOTALS			55

LOCATION	STA	STA	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY
CTH H				
BEGIN PROJECT	50+00		-	125
VOSS RD TO FOSTER RD	50+00	89+00	10,657	-
FOSTER RD TO SUGAR CREEK RD	89+00	122+30	9,013	-
SUGAR CREEK RD TO SCHMIDT RD	122+30	157+20	9,430	-
SCHMIDT RD TO SUGAR CREEK	157+20	183+50	7,404	-
SUGAR CREEK TO PIERCE RD	183+50	213+25	7,997	-
PIERCE RD TO LAKESHORE DR	213+25	239+00	6,909	-
LAKESHORE DR TO CTH A	239+00	264+31	6,923	-
END PROJECT	264+31		-	125
VOSS ROAD			482	25
FOSTER ROAD			490	24
SUGAR CREEK ROAD			399	26
SCHMIDT ROAD			648	46
COBBIE ROAD			146	68
PIERCE ROAD			226	26
BABCOCK ROAD			69	32
CANARY ROAD			86	37
LAKESHORE DRIVE			54	24
TOTALS			60,933	558

205.9010.S GRADING AND SHAPING INTERSECTION (LOCATION)	
LOCATION	LS
01. VOSS ROAD	1
02. FOSTER ROAD	1
03. SUGAR CREEK ROAD	1
04. SCHMIDT ROAD	1
05. PIERCE ROAD	1
TOTALS	5

209.2500 BACKFILL GRANULAR GRADE 2	
LOCATION	TON
UNDISTRIBUTED	400
TOTALS	400

211.0100 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT)			
STA	STA	LOCATION	LS
50+00	264+31	PROJECT	1
TOTALS			1

213.0100 FINISHING ROADWAY (PROJECT)			
STA	STA	LOCATION	EACH
50+00	264+31	PROJECT	1
TOTALS			1

305.0110 BASE AGGREGATE DENSE 3/4-INCH			
STA	STA	LOCATION	TON
SHOULDERS - CTH H			
50+00	89+00	VOSS RD TO FOSTER RD	193
89+00	122+30	FOSTER RD TO SUGAR CREEK RD	165
122+30	157+20	SUGAR CREEK RD TO SCHMIDT RD	173
157+20	183+50	SCHMIDT RD TO SUGAR CREEK	130
183+50	213+25	SUGAR CREEK TO PIERCE RD	147
213+25	239+00	PIERCE RD TO LAKESHORE DR	128
239+00	264+31	LAKESHORE DR TO CTH A	125
SHOULDERS - VOSS ROAD			10
SHOULDERS - FOSTER ROAD			11
SHOULDERS - SUGAR CREEK ROAD			9
SHOULDERS - SCHMIDT ROAD			20
SHOULDERS - PIERCE ROAD			6
TOTALS			1,117

ALL ITEMS CATEGORY 0010 UNLESS NOTED

EARTHWORK SUMMARY

Division	From / To Station	Location	Common Excavation (item # 205.0100)		Available Material (5)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate + / - (14)	Waste	Borrow (item #208.0100)	Comment:
			Cut (2)	EBS Excavation (3)			Factor 1.25				
1	50+00 TO 63+00	Mainline	144	0	144	263	329	-184			
	67+00 TO 81+00	Mainline	130	0	130	63	79	51			
	88+00 TO 110+00	Mainline	463	0	463	493	616	-153			
	113+00 TO 124+00	Mainline	141	0	141	89	111	30			
	127+00 TO 131+00	Mainline	52	0	52	100	125	-73			
	139+00 TO 142+00	Mainline	26	0	26	11	14	12			
	147+00 TO 150+00	Mainline	37	0	37	7	9	28			
	157+00 TO 159+00	Mainline	11	0	11	15	19	-7			
	163+00 TO 184+00	Mainline	200	0	200	341	426	-226			
	191+00 TO 196+00	Mainline	63	0	63	81	102	-39			
	200+00 TO 213+00	Mainline	207	0	207	93	116	92			
	218+00 TO 232+00	Mainline	204	0	204	63	79	125			
	239+00 TO 263+00	Mainline	367	0	367	133	167	200			
Grand Total			2044	0	2044	1752	2191	-147	0	147	
Total Common Ex2044											

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
5) Available Material = Cut - Salvaged/Unusable Pavement Material
13) Expanded Fill. Factor = 1.25
14) 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.

305.0120 BASE AGGREGATE DENSE 1 1/4-INCH			
STA	STA	LOCATION	TON
50+00	63+00	CTH H	422
67+00	81+00	CTH H	296
88+00	110+00	CTH H	740
113+00	124+00	CTH H	304
127+00	131+00	CTH H	112
139+00	142+00	CTH H	88
147+00	150+00	CTH H	82
157+00	159+00	CTH H	52
163+00	184+00	CTH H	600
191+00	196+00	CTH H	148
200+00	213+00	CTH H	366
218+00	232+00	CTH H	370
239+00	263+00	CTH H	622
TOTALS			4,202

311.0110 BREAKER RUN		
STA	LOCATION	TON
77+00	CROSS DRAIN	14
102+25	CROSS DRAIN	14
TOTALS		28

LOCATION	STA	STA
CTH H		
VOSS RD TO FOSTER RD	50+00	89+00
FOSTER RD TO SUGAR CREEK RD	89+00	122+30
SUGAR CREEK RD TO SCHMIDT RD	122+30	157+20
SCHMIDT RD TO SUGAR CREEK	157+20	183+50
SUGAR CREEK TO PIERCE RD	183+50	213+25
PIERCE RD TO LAKESHORE DR	213+25	239+00
LAKESHORE DR TO CTH A	239+00	264+31
VOSS ROAD		
FOSTER ROAD		
SUGAR CREEK ROAD		
SCHMIDT ROAD		
COBBIE ROAD		
PIERCE ROAD		
BABCOCK ROAD		
CANARY ROAD		
LAKESHORE DRIVE		
PROJECT		

TOTALS

465.0315 ASPHALTIC FLUMES			
STA	OFFSET	LOCATION	SY
51+57	RT	VOSS ROAD	8
51+95	RT	VOSS ROAD	8
90+50	RT	FOSTER ROAD	7
91+33	RT	FOSTER ROAD	7
123+66	LT	SUGAR CREEK ROA	10
124+00	LT	SUGAR CREEK ROA	6
158+32	RT	SCHMIDT ROAD	6
158+73	LT	SCHMIDT ROAD	7
158+89	RT	SCHMIDT ROAD	8
159+83	LT	SCHMIDT ROAD	7
184+76	RT	CTH H	10
184+79	LT	CTH H	9
214+16	LT	PIERCE ROAD	7
214+71	LT	PIERCE ROAD	7
TOTALS			107

455.0605	460.5223	460.5224	460.2000
TACK	HMA	HMA	INCENTIVE
COAT	PAVEMENT	PAVEMENT	DENSITY HMA
GAL	3 LT 58-28 S	4 LT 58-28 S	PAVEMENT
	TON	TON	DOL
694	1,734	1,037	-
592	1,480	877	-
621	1,552	917	-
468	1,169	720	-
529	1,323	778	-
458	1,145	672	-
450	1,125	674	-
31	76	47	-
28	70	48	-
22	53	39	-
45	112	63	-
30	74	63	-
15	37	22	-
4	9	7	-
5	11	9	-
3	7	6	-
			10,220
TOTALS			10,220

		204.0110	465.0120	416.0160
		REMOVING	ASPHALTIC	CONCRETE
		ASPHALTIC	DRIVEWAYS	DRIVEWAY
		SURFACE	AND FIELD	6-INCH
		SY	ENTRANCES	SY
STA	OFFSET			
52+10	LT	-	40	-
64+33	LT	27	40	-
64+97	LT	27	40	-
66+73	LT	-	40	-
73+53	RT	27	40	-
81+85	RT	27	40	15
84+95	RT	27	40	-
87+87	RT	-	40	-
88+02	LT	27	40	-
96+33	LT	-	40	-
97+71	LT	-	40	-
100+42	LT	-	40	-
116+46	RT	-	40	-
120+83	RT	-	40	-
121+58	RT	-	40	-
132+63	RT	-	40	-
141+26	RT	-	40	-
146+02	LT	-	40	-
151+80	LT	-	40	-
175+09	RT	-	40	-
183+60	RT	-	40	-
189+29	RT	-	40	-
191+34	LT	27	40	-
191+48	RT	27	40	-
193+26	RT	27	40	15
194+70	RT	27	40	15
197+91	RT	-	40	-
197+92	LT	-	40	-
200+01	RT	-	40	-
202+55	RT	-	40	-
205+30	LT	-	40	-
207+98	RT	-	40	-
208+80	RT	-	40	-
213+46	LT	27	40	-
221+58	RT	27	40	-
227+00	RT	-	40	-
238+85	LT	-	40	-
257+55	LT	27	40	-
258+59	LT	27	40	-
259+18	LT	27	40	-
260+51	LT	-	40	-
260+99	RT	-	40	-
262+93	RT	-	40	-
264+21	RT	-	40	-
TOTALS		405	1,760	45

ALL ITEMS CATEGORY 0010 UNLESS NOTED

465.0475
ASPHALTIC
CENTER LINE
RUMBLE STRIP 2-
LANE RURAL

STA	STA	LF
77+00	88+50	1150
92+50	122+00	2950
126+00	157+00	3100
161+00	168+00	700
172+00	212+50	4050
216+50	227+00	1050
241+50	257+00	1550
TOTAL		14550

520.1024
APRON
ENDWALLS FOR
CULVERT PIPE
24-INCH

STA	OFFSET	LOCATION	EACH
61+65	CL	CROSS DRAIN	2
115+49	CL	CROSS DRAIN	2
130+06	CL	CROSS DRAIN	2
136+46	CL	CROSS DRAIN	2
159+02	CL	CROSS DRAIN	2
166+32	CL	CROSS DRAIN	2
219+23	CL	CROSS DRAIN	2
253+86	CL	CROSS DRAIN	2
TOTALS			16

520.1036
APRON
ENDWALLS FOR
CULVERT PIPE
36-INCH

STA	OFFSET	LOCATION	EACH
77+10	CL	CROSS DRAIN	2
TOTALS			2

NOTE: THE MATERIAL SELECTED FOR CULVERT PIPE
CLASS III-A SHALL BE COMPATIBLE WITH THE APRON
ENDWALL SPECIFIED.

520.3315
CULVERT PIPE
CLASS III-A
15-INCH

STA	OFFSET	LOCATION	LF
53+41	CL	CROSS DRAIN	58
73+53	RT	PE	32
81+87	RT	PE	28
87+83	RT	PE	30
88+00	LT	PE	36
90+78	RT	FOSTER ROAD	61
97+72	LT	PE	32
100+44	LT	PE	32
110+86	LT	PE	28
110+91	RT	PE	28
116+45	RT	PE	36
120+84	RT	PE	40
121+64	RT	PE	60
146+01	LT	PE	32
151+80	LT	PE	30
161+74	LT	PE	32
174+60	RT	PE	30
175+11	RT	PE	26
191+33	LT	PE	34
191+49	RT	PE	34
193+26	RT	PE	34
194+68	RT	PE	26
197+90	RT	PE	36
197+92	LT	PE	32
200+02	RT	PE	35
201+18	RT	PE	30
202+56	RT	PE	40
205+31	LT	PE	30
207+83	LT	PE	36
208+83	RT	PE	32
213+46	LT	PE	26
214+38	LT	PIERCE RD	62
221+55	RT	PE	35
227+00	RT	PE	26
232+02	RT	PE	30
238+24	RT	PE	22
238+81	LT	PE	56
257+54	LT	PE	34
258+61	LT	PE	48
259+18	LT	PE	26
260+51	LT	PE	26
TOTALS			1,441

520.1015
APRON
ENDWALLS FOR
CULVERT PIPE
15-INCH

STA	OFFSET	LOCATION	EACH
53+41	CL	CROSS DRAIN	1
90+78	RT	FOSTER ROAD	2
116+45	RT	PE	2
174+60	RT	PE	2
175+11	RT	PE	2
191+33	LT	PE	2
214+38	LT	PIERCE RD	2
258+61	LT	PE	2
259+18	LT	PE	2
TOTALS			17

010
520.3324
CULVERT PIPE
CLASS III-A
24-INCH

STA	OFFSET	LOCATION	LF
61+65	CL	CROSS DRAIN	58
115+49	CL	CROSS DRAIN	60
130+06	CL	CROSS DRAIN	58
136+46	CL	CROSS DRAIN	58
159+02	CL	CROSS DRAIN	72
166+32	CL	CROSS DRAIN	58
219+23	CL	CROSS DRAIN	58
253+86	CL	CROSS DRAIN	52
TOTALS			474

520.3336
CULVERT PIPE
CLASS III-A
36-INCH

STA	OFFSET	LOCATION	LF
77+10.	CL	CROSS DRAIN	56
TOTALS			56

ALL ITEMS CATEGORY 0010 UNLESS NOTED

521.3717
PIPE ARCH
CORRUGATED
STEEL
17X13-INCH

STA	OFFSET	LOCATION	LF
52+12	LT	PE	36
64+33	LT	PE	32
65+00	LT	PE	38
TOTALS			106

521.1217
APRON ENDWALLS
FOR PIPE ARCH
STEEL 17X13-INCH

STA	OFFSET	LOCATION	EACH
52+12	LT	PE	2
TOTALS			2

521.1717
APRON ENDWALLS FOR
PIPE ARCH SLOPED SIDE
DRAINS STEEL
17X13-INCH 6 TO 1

STA	OFFSET	LOCATION	EACH
64+33	LT	PE	2
65+00	LT	PE	2
TOTALS			4

522.2319
CULVERT PIPE
REINFORCED
CONCRETE
HORIZONTAL
ELLIPTICAL
CLASS HE-III
19X30-INCH

STA	OFFSET	LOCATION	LF
151+53	CL	CROSS DRAIN	54
151+57	CL	CROSS DRAIN	54
TOTALS			108

521.1515
APRON ENDWALLS FOR
CULVERT PIPE SLOPED
SIDE DRAINS STEEL
15-INCH 6 TO 1

STA	OFFSET	LOCATION	EACH
73+53	RT	PE	2
81+87	RT	PE	2
87+83	RT	PE	2
88+00	LT	PE	2
97+72	LT	PE	2
100+44	LT	PE	2
110+86	LT	PE	2
110+91	RT	PE	2
120+84	RT	PE	2
121+64	RT	PE	2
146+01	LT	PE	2
151+80	LT	PE	2
161+74	LT	PE	2
191+49	RT	PE	2
193+26	RT	PE	2
194+68	RT	PE	2
197+90	RT	PE	2
197+92	LT	PE	2
200+02	RT	PE	2
201+18	RT	PE	2
202+56	RT	PE	2
205+31	LT	PE	2
207+83	LT	PE	2
208+83	RT	PE	2
213+46	LT	PE	2
221+55	RT	PE	2
227+00	RT	PE	2
232+02	RT	PE	2
238+24	RT	PE	2
238+81	LT	PE	2
257+54	LT	PE	2
260+51	LT	PE	2
TOTALS			64

ALL ITEMS CATEGORY 0010 UNLESS NOTED

522.2619 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH			
STA	OFFSET	LOCATION	EACH
151+53	CL	CROSS DRAIN	2
151+57	CL	CROSS DRAIN	2
TOTALS			4

522.0148 CULVERT PIPE REINFORCED CONCRETE CLASS III 48- INCH			
STA	OFFSET	LOCATION	LF
102+26	CL	CROSS DRAIN	50
TOTALS			50

010 522.1048 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48- INCH			
STA	OFFSET	LOCATION	EACH
102+26.	CL	CROSS DRAIN	2
TOTALS			2

601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D			
STA	STA	LOCATION	LF
	51+49	VOSS ROAD	164
	90+25	FOSTER ROAD	127
	123+41	SUGAR CREEK RD	111
	159+08	SCHMIDT ROAD	238
	214+30	PIERCE ROAD	80
TOTALS			720

606.0200 RIPRAP MEDIUM			
STA	OFFSET	LOCATION	CY
53+41	CL	CROSS DRAIN	3
61+65	CL	CROSS DRAIN	3
77+10	CL	CROSS DRAIN	4
90+78	RT	FOSTER ROAD	3
102+26	CL	CROSS DRAIN	8
115+49	CL	CROSS DRAIN	3
130+06	CL	CROSS DRAIN	3
136+46	CL	CROSS DRAIN	3
151+53	CL	CROSS DRAIN	4
151+57	CL	CROSS DRAIN	4
159+02	CL	CROSS DRAIN	3
166+32	CL	CROSS DRAIN	3
184+76	RT	ASPHALTIC FLUME	4
184+79	LT	ASPHALTIC FLUME	4
214+38	LT	PIERCE RD	3
219+23	CL	CROSS DRAIN	4
253+86	CL	CROSS DRAIN	3
TOTALS			62

601.0407 CONCRETE CURB & GUTTER 18-INCH TYPE D			
STA	STA	LOCATION	LF
183+67	184+79	LT	112
183+85	184+76	RT	91
TOTALS			203

611.0642 INLET COVERS TYPE MS		
STA	LOCATION	EACH
53+43	29' LT	1
TOTALS		1

611.3901 INLETS MEDIAN 1 GRATE		
STA	LOCATION	EACH
53+43	29' LT	1
TOTALS		1

619.1000 MOBILIZATION			
STA	STA	LOCATION	EACH
50+00	264+31	PROJECT	1
TOTALS			1

ALL ITEMS CATEGORY 0010 UNLESS NOTED

623.0200 DUST CONTROL SURFACE TREATMENT			
STA	STA	LOCATION	SY
		CTH H	0
50+00	89+00	VOSS RD TO FOSTER RD	13,867
89+00	122+30	FOSTER RD TO SUGAR CREEK RD	11,840
122+30	157+20	SUGAR CREEK RD TO SCHMIDT RI	12,409
157+20	183+50	SCHMIDT RD TO SUGAR CREEK	9,352
183+50	213+25	SUGAR CREEK TO PIERCE RD	10,578
213+25	239+00	PIERCE RD TO LAKESHORE DR	9,156
239+00	264+31	LAKESHORE DR TO CTH A	9,000
		VOSS ROAD	602
		FOSTER ROAD	560
		SUGAR CREEK ROAD	422
		SCHMIDT ROAD	894
		COBBIE ROAD	587
		PIERCE ROAD	289
		BABCOCK ROAD	69
		CANARY ROAD	86
		LAKESHORE DRIVE	54
TOTALS			79,765

628.1104 EROSION BALES			
STA	OFFSET	LOCATION	EACH
52+30	RT	CROSS DRAIN	40
53+40	RT	CROSS DRAIN	120
61+60	RT	CROSS DRAIN	120
76+50	CL	TEMPORARY SETTLING BASIN	40
101+75	CL	TEMPORARY SETTLING BASIN	40
115+50	RT	CROSS DRAIN	128
116+15	RT	CROSS DRAIN	40
130+05	LT	CROSS DRAIN	128
136+40	RT	CROSS DRAIN	128
151+55	RT	CROSS DRAIN	128
166+30	RT	CROSS DRAIN	140
184+85	LT	CROSS DRAIN	128
184+85	RT	CROSS DRAIN	128
219+20	LT	CROSS DRAIN	128
253+85	RT	CROSS DRAIN	128
TOTALS			1,564

		625.0100	625.0500	627.0200	628.2008	629.0210	630.0120	630.0200
		TOPSOIL	SALVAGED TOPSOIL	MULCHING	EROSION MAT CLASS I URBAN TYPE B	FERTILIZER TYPE B	SEEDING MIXTURE NO. 20	SEEDING TEMPORARY
LOCATION	STA	STA	SY	SY	SY	CWT	LB	LB
CTH H				-	-	-	-	-
VOSS RD TO FOSTER RD	50+00	89+00	-	3,668	3,668	1,334	100	100
FOSTER RD TO SUGAR CREEK RD	89+00	122+30	-	4,539	4,539	889	123	123
SUGAR CREEK RD TO SCHMIDT RD	122+30	157+20	-	2,990	2,990	1,334	81	81
SCHMIDT RD TO SUGAR CREEK	157+20	183+50	-	2,933	2,933	889	80	80
SUGAR CREEK TO PIERCE RD	183+50	213+25	-	3,453	3,453	445	94	94
PIERCE RD TO LAKESHORE DR	213+25	239+00	-	1,646	1,646	445	45	45
LAKESHORE DR TO CTH A	239+00	264+31	-	2,685	2,685	445	73	73
VOSS ROAD			-	328	328	0.2	9	9
FOSTER ROAD			-	385	385	0.2	11	11
SUGAR CREEK ROAD			-	345	345	0.2	10	10
SCHMIDT ROAD			-	439	439	0.3	12	12
PIERCE ROAD			-	86	86	0.1	3	3
UNDISTRIBUTED			2,300	-	-	-	160	160
TOTALS			2,300	23,497	23,497	7,226	801	801

ALL ITEMS CATEGORY 0010 UNLESS NOTED

628.1504			628.1520	
SILT FENCE			SILT FENCE MAINTENANCE	
STA	STA	LOCATION	LF	SY
52+45	55+47	LT	302	302
54+00	61+05	RT	705	705
62+20	64+80	RT	260	260
65+35	66+60	LT	125	125
65+77	70+90	RT	513	513
70+43	76+85	LT	642	642
73+70	76+85	RT	315	315
77+30	85+65	LT	835	835
77+30	79+05	RT	175	175
88+05	89+60	RT	155	155
88+85	92+65	LT	380	380
95+20	96+20	LT	100	100
101+00	102+05	LT	105	105
101+00	102+05	RT	105	105
102+45	104+85	LT	240	240
102+45	107+75	RT	530	530
109+00	110+60	LT	160	160
111+15	115+40	LT	425	425
113+70	115+25	RT	155	155
115+55	124+17	LT	893	893
122+45	124+63	RT	218	218
124+42	129+90	LT	630	630
130+15	136+35	LT	620	620
133+20	136+25	RT	305	305
136+55	138+00	LT	145	145
136+60	138+95	RT	235	235
143+85	148+10	RT	425	425
150+05	151+35	RT	130	130
151+70	153+75	RT	205	205
154+00	157+00	LT	300	300
155+55	157+94	RT	345	345
158+30	159+60	LT	141	141
158+20	166+00	RT	709	709
160+00	161+37	LT	225	225
165+00	166+20	LT	120	120
166+40	168+35	LT	195	195
166+60	167+95	RT	135	135
169+05	174+00	RT	495	495
172+05	184+75	RT	1,270	1,270
175+20	183+30	RT	810	810
183+50	184+75	RT	125	125
185+20	191+05	LT	585	585
185+20	189+20	RT	400	400
189+35	191+25	RT	190	190
191+70	194+59	LT	289	289
191+80	193+00	RT	120	120
195+00	197+65	RT	265	265
198+20	198+80	RT	60	60
203+85	207+75	RT	390	390
210+00	215+95	RT	595	595
222+00	222+85	LT	85	85
223+10	225+05	LT	195	195
228+20	230+80	LT	260	260
230+85	231+80	RT	95	95
232+25	234+25	RT	200	200
248+15	249+70	LT	155	155
251+45	253+75	LT	230	230
253+95	256+00	LT	205	205
260+75	261+85	LT	110	110
261+10	262+70	RT	160	160
TOTALS			19,492	19,492

624.0100 WATER			
STA	STA	LOCATION	MGAL
50+00	264+31	CTH H	8
TOTALS			8

628.1905 MOBILIZATIONS EROSION CONTROL	
LOCATION	EACH
UNDISTRIBUTED	5
TOTALS	5

628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL	
LOCATION	EACH
UNDISTRIBUTED	5
TOTALS	5

628.7010 INLET PROTECTION TYPE B		
STA	LOCATION	EACH
53+43	29' LT	1
TOTALS		1

628.5505 POLYETHYLENE SHEETING							
STA		STA	LOCATION	SY			
77+10		LT	CROSS DRAIN	167			
77+10		RT	CROSS DRAIN	167			
102+25		CL	CROSS DRAIN	167			
102+25		CL	CROSS DRAIN	167			
TOTALS				668			
628.7504 TEMPORARY DITCH CHECKS			628.7504 TEMPORARY DITCH CHECKS				
STA		LOCATION	LF	STA		LOCATION	LF
51+55		RT	15	200+10		LT	15
57+00		LT	15	202+10		LT	15
59+00		LT	15	204+05		LT	15
61+00		LT	15	210+00		RT	15
64+85		RT	15	210+05		LT	15
70+00		LT	15	212+05		LT	15
71+00		RT	15	217+00		LT	15
79+20		RT	15	218+00		RT	15
93+00		RT	15	218+70		LT	15
95+00		RT	15	222+85		LT	15
95+15		LT	15	222+85		RT	15
97+00		RT	15	225+00		LT	15
99+00		RT	15	225+00		RT	15
101+00		RT	15	230+80		LT	15
101+00		LT	15	232+90		LT	15
105+00		LT	15	235+90		LT	15
107+00		LT	15	236+45		RT	15
109+00		LT	15	236+90		LT	15
113+65		RT	15	239+90		RT	15
112+40		RT	15	241+00		LT	15
127+00		RT	15	241+90		RT	15
129+00		RT	15	243+00		LT	15
141+00		RT	15	243+90		RT	15
143+00		RT	15	245+00		LT	15
143+85		RT	15	245+90		RT	15
149+15		LT	15	247+00		LT	15
150+00		RT	15	247+95		RT	15
153+80		RT	15	249+75		LT	15
155+50		RT	15	250+00		RT	15
169+00		RT	15	252+00		RT	15
194+65		LT	15	255+00		RT	15
196+75		LT	15	257+00		RT	15
198+85		RT	15	259+00		RT	15
				261+90		LT	15
SUBTOTALS			495	TOTALS			1,005

ALL ITEMS CATEGORY 0010 UNLESS NOTED

628.7555 CULVERT PIPE CHECKS		
STA	LOCATION	EACH
51+80	LT	4
61+65	LT	4
64+60	LT	4
65+25	LT	4
73+20	RT	4
82+15	RT	4
87+55	RT	4
87+70	LT	4
88+80	LT	4
90+55	RT	4
97+40	LT	4
100+15	LT	4
110+60	LT	4
110+60	RT	4
115+50	LT	4
116+75	RT	4
120+50	RT	4
121+20	RT	4
130+10	RT	4
136+45	LT	4
145+70	LT	4
151+52	LT	4
152+10	LT	4
158+85	LT	4
161+45	LT	4
166+35	RT	4
174+35	RT	4
174+85	RT	4
191+65	LT	4
191+80	RT	4
193+55	RT	4
194+95	RT	4
198+20	RT	4
198+20	LT	4
200+30	RT	4
201+45	RT	4
202+85	RT	4
205+60	LT	4
208+10	LT	4
208+55	RT	4
213+20	LT	4
213+95	LT	4
219+25	RT	4
221+85	RT	4
227+25	RT	4
229+85	RT	4
232+30	RT	4
234+85	RT	4
238+50	RT	4
239+20	LT	4
253+85	LT	4
257+85	LT	4
258+90	LT	4
259+40	LT	4
260+75	LT	4
TOTALS		220

633.5200 MARKERS CULVERT END			
STA	OFFSET	LOCATION	EACH
53+41	CL	CROSS DRAIN	1
61+65	CL	CROSS DRAIN	2
77+10	CL	CROSS DRAIN	2
90+78	RT	FOSTER ROAD	2
102+26	CL	CROSS DRAIN	2
115+49	CL	CROSS DRAIN	2
130+06	CL	CROSS DRAIN	2
136+46	CL	CROSS DRAIN	2
151+58	CL	CROSS DRAIN	2
159+02	CL	CROSS DRAIN	2
166+32	CL	CROSS DRAIN	2
214+38	LT	PIERCE RD	2
219+23	CL	CROSS DRAIN	2
253+86	CL	CROSS DRAIN	2
TOTALS			27

643.5000 TRAFFIC CONTROL			
STA	STA	LOCATION	EACH
50+00	264+31	PROJECT	1
TOTALS			1

			643.0420 TRAFFIC CONTROL BARRICADES TYPE III	643.0900 TRAFFIC CONTROL SIGNS
STA	STA	LOCATION	DAY	DAY
50+00	264+31	PROJECT + DETOUR	3645	7,695
TOTALS			3,645	7,695

642.5001 FIELD OFFICE TYPE B			
STA	STA	LOCATION	EACH
50+00	264+31	PROJECT	1
TOTALS			1

# DAYS	# SIGNS	# BARRICADES
135	57	27

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PERMANENT SIGNING											
					634.0616	637.2210	637.2230	638.2102	638.2602	638.3000	
					POSTS					REMOVING	
			SIGN	WOOD 4X6-	SIGNS TYPE II	SIGNS TYPE II	MOVING SIGNS	REMOVING	SMALL SIGN		
			SIZE	INCH X 16-FT	REFLECTIVE H	REFLECTIVE F	TYPE II	SIGNS TYPE II	SUPPORTS		
STA	LOCATION	SIGN MESSAGE	CODE	(IN)	SIZE	EACH	SF	SF	EACH	EACH	EACH
51+90	RT	VOSS ROAD	M1-94	-	-	1	-	-	1	-	1
-	-	STOP	R1-1	36x36	(2M)	-	7.46	-	-	1	-
52+53	RT	NORTH COUNTY H	J4-1	24X36	(2M)	1	6.00	-	-	1	1
-	-	TOWN OF SUGAR CREEK	-	-	-	-	-	-	1	-	-
53+80	RT	ADOPT A HIGHWAY	I55-56	30X36	(2M)	1	7.50	-	-	1	1
54+73	LT	NOTICE NIGHT PARKING...	-	-	-	1	-	-	1	-	1
55+74	RT	SPEED LIMIT 45	R2-1	30X36	(2M)	1	7.50	-	-	1	1
55+75	LT	REDUCED SPEED 30	W3-5	36X36	(2M)	1	-	9.00	-	1	1
63+37	LT	CURVE LEFT	W1-2L	36x36	(2M)	1	-	9.00	-	1	1
65+98	RT	SPEED LIMIT 45	R2-1	30X36	(2M)	1	7.50	-	-	1	1
65+98	LT	SPEED LIMIT 45	R2-1	30X36	(2M)	1	7.50	-	-	1	1
76+88	RT	SPEED LIMIT 55	R2-1	30X36	(2M)	1	7.50	-	-	1	1
77+37	LT	SPEED LIMIT 45	R2-1	30X36	(2M)	1	7.50	-	-	1	1
81+00	RT	SIDE ROAD	W2-2	30X30	(2M)	1	-	6.25	-	1	1
89+85	LT	REDUCED SPEED 45	W3-5	36x36	(2M)	1	-	9.00	-	1	1
90+93	RT	FOSTER ROAD	M1-94	-	-	1	-	-	1	-	1
-	-	COUNTY H	M1-94	-	-	-	-	-	1	-	-
-	-	STOP	R1-1	36X36	(2M)	-	7.46	-	-	1	-
122+02	LT	ADOPT A HIGHWAY	I55-56	30X36	(2M)	1	7.50	-	-	1	1
123+65	LT	SUGAR CREEK ROAD	M1-94	-	-	1	-	-	1	-	1
-	-	COUNTY H	M1-94	-	-	-	-	-	1	-	-
-	-	STOP	R1-1	36x36	(2M)	-	7.46	-	-	1	-
124+16	LT	SUGAR CREEK ROAD	-	-	-	-	-	-	-	-	1
-	-	COUNTY H	-	-	-	-	-	-	-	-	-
125+27	RT	ADOPT A HIGHWAY	I55-56	30X36	(2M)	1	7.50	-	-	1	1
158+92	RT	STOP	R1-1	36X36	(2M)	1	7.46	-	-	1	1
159+16	LT	SCHMIDT ROAD	M1-94	-	-	1	-	-	1	-	1
-	-	COUNTY H	M1-94	-	-	-	-	-	1	-	-
-	-	STOP	R1-1	36x36	(2M)	-	7.46	-	-	1	-
159+52	RT	CURVE RIGHT	WI-2R	36x36	(2M)	1	-	9.00	-	1	1
159+70	LT	SCHMIDT ROAD	-	-	-	-	-	-	-	-	1
-	-	COUNTY H	-	-	-	-	-	-	-	-	-
169+82	LT	COBBIE ROAD	M1-94	-	-	1	-	-	1	-	1
-	-	STOP	R1-1	36x36	(2M)	-	7.46	-	-	1	-
SUBTOTALS						21	110.76	42.25	10	20	23

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PERMANENT SIGNING (CONTINUED)											
STA	LOCATION	SIGN MESSAGE	SIGN CODE	SIGN SIZE (IN)	SIGN SIZE	634.0616	637.2210	637.2230	638.2102	638.2602	638.3000
						POSTS	SIGN TYPE II REFLECTIVE H	SIGN TYPE II REFLECTIVE F	MOVING SIGNS TYPE II	REMOVING SIGNS TYPE II	REMOVING SMALL SIGN SUPPORTS
						WOOD 4X6- INCH X 16-FT EACH					
170+19	LT	CHEVRON	W1-8	18X24	(2M)	1	-	3.00	-	1	1
170+38	LT	CHEVRON	W1-8	18X24	(2M)	1	-	3.00	-	1	1
170+52	LT	CHEVRON	W1-8	18X24	(2M)	1	-	3.00	-	1	1
170+72	LT	CHEVRON	W1-8	18X24	(2M)	1	-	3.00	-	1	1
170+98	LT	CHEVRON	W1-8	18X24	(2M)	1	-	3.00	-	1	1
177+92	LT	CURVE LEFT	W1-2L	36X36	(2M)	1	-	9.00	-	1	1
211+92	LT	ADOPT A HIGHWAY	I55-56	30X36	(2M)	1	7.50	-	-	1	1
214+12	LT	PIERCE ROAD	M1-94	-	-	1	-	-	1	-	1
-	-	COUNTY H	M1-94	-	-	-	-	-	1	-	-
-	-	STOP	R1-1	36x36	(2M)	-	7.46	-	-	1	-
214+30	RT	TWO DIRECTION ARROW	W1-7	48X24	(2M)	1	-	8.00	-	1	1
214+59	LT	PIERCE ROAD	-	-	-	-	-	-	-	-	1
-	-	COUNTY H	-	-	-	-	-	-	-	-	-
214+68	RT	ADOPT A HIGHWAY	I55-56	30X36	(2M)	1	7.50	-	-	1	1
229+70	RT	BABCOCK ROAD	M1-94	-	-	1	-	-	1	-	1
-	-	STOP	R1-1	30X30	(2S)	-	5.18	-	-	1	-
234+15	RT	CANARY ROAD	-	-	-	-	-	-	-	-	1
234+78	RT	CANARY ROAD	M1-94	-	-	1	-	-	1	-	1
-	-	STOP	R1-1	30X30	(2S)	-	5.18	-	-	1	-
239+66	RT	LAKESHORE DRIVE	M1-94	-	-	1	-	-	1	-	1
-	-	COUNTY H	M1-94	-	-	-	-	-	1	-	-
-	-	STOP	R1-1	30X30	(2S)	-	5.18	-	-	1	-
255+06	RT	STOP AHEAD	W3-1	36X36	(2M)	1	-	9.00	-	1	1
255+06	LT	STOP AHEAD	W3-1	36X36	(2M)	1	-	9.00	-	1	1
258+14	RT	JCT COUNTY A	J1-1	24X39	(2M)	1	6.50	-	-	1	2
-	-	TIBBETS	-	-	-	-	-	-	1	-	-
258+85	LT	NO PARKING	R7-1R	24X30	(2M)	1	5.00	-	-	1	1
260+97	LT	NO PARKING	R7-1D	24X30	(2M)	1	5.00	-	-	1	-
261+35	RT	NO PARKING	R7-1D	24X30	(2M)	1	5.00	-	-	1	1
262+43	RT	NO PARKING	R7-1D	24X30	(2M)	1	5.00	-	-	1	1
263+47	LT	SOUTH COUNTY H	J4-1	24X36	(2M)	1	6.00	-	-	1	1
263+82	LT	NO PARKING	R7-1D	24X30	(2M)	1	5.00	-	-	1	1
UNDISTRIBUTED		NO PASSING ZONE	W14-3	48X36	(2M)	11	-	66.00	-	-	-
SUBTOTALS						33	75.50	116.00	7	22	24
TOTALS						54	186.26	158.25	17	42	47

ALL ITEMS CATEGORY 0010 UNLESS NOTED

645.0120 GEOTEXTILE FABRIC			
STA	OFFSET	LOCATION	SY
53+41	CL	CROSS DRAIN	5
61+65	CL	CROSS DRAIN	6
76+50	CL	TEMPORARY SETTLING BASIN	67
77+10	CL	CROSS DRAIN	8
90+78	RT	FOSTER ROAD	5
101+75	CL	TEMPORARY SETTLING BASIN	67
102+26	CL	CROSS DRAIN	15
115+49	CL	CROSS DRAIN	6
130+06	CL	CROSS DRAIN	6
136+46	CL	CROSS DRAIN	6
151+53	CL	CROSS DRAIN	7
151+57	CL	CROSS DRAIN	7
159+02	CL	CROSS DRAIN	6
166+32	CL	CROSS DRAIN	6
184+76	RT	ASPHALTIC FLUME	8
184+79	LT	ASPHALTIC FLUME	8
214+38	LT	PIERCE RD	5
219+23	CL	CROSS DRAIN	8
253+86	CL	CROSS DRAIN	6
TOTALS			252

646.1020 MARKING LINE EPOXY 4-INCH			
STA	STA	REMARKS	LF
50+00	264+31	WHITE EDGE LINI	42,862
50+00	55+75	DOUBLE YELLOW	1,150
55+75	65+00	NO PASSING	1,157
65+00	76+30	SKIP CENTERLINI	283
76+30	84+00	NO PASSING	963
84+00	86+20	SKIP CENTERLINI	55
86+20	94+60	NO PASSING	1,050
94+60	100+00	SKIP CENTERLINI	135
100+00	107+35	NO PASSING	919
107+35	110+70	SKIP CENTERLINI	84
110+70	117+30	NO PASSING	825
117+30	145+75	SKIP CENTERLINI	712
145+75	156+45	NO PASSING	1,338
156+45	171+20	DOUBLE YELLOW	2,950
171+20	181+30	NO PASSING	1,263
181+30	197+00	SKIP CENTERLINI	393
197+00	206+85	NO PASSING	1,232
206+85	209+50	SKIP CENTERLINI	67
209+50	217+65	NO PASSING	1,019
217+65	231+15	SKIP CENTERLINI	338
231+15	260+95	NO PASSING	3,725
260+95	264+31	DOUBLE YELLOW	672
TOTALS			63,192

650.4500 CONSTRUCTION STAKING SUBGRADE			
STA	STA	LOCATION	LF
50+00	63+00	CTH H	1,300
67+00	81+00	CTH H	1,400
88+00	110+00	CTH H	2,200
113+00	124+00	CTH H	1,100
127+00	131+00	CTH H	400
139+00	142+00	CTH H	300
147+00	150+00	CTH H	300
157+00	159+00	CTH H	200
163+00	184+00	CTH H	2,100
191+00	196+00	CTH H	500
200+00	213+00	CTH H	1,300
218+00	232+00	CTH H	1,400
239+00	263+00	CTH H	2,400
TOTALS			14,900

648.0100 LOCATING NO- PASSING ZONES			
STA	STA	LOCATION	MI
50+00	264+31	CTH H	4.1
TOTALS			4.1

650.4000 CONSTRUCTION STAKING STORM SEWER		
STA	LOCATION	EACH
53+43	29' LT	1
TOTALS		1

ALL ITEMS CATEGORY 0010 UNLESS NOTED

650.5500
CONSTRUCTION
STAKING CURB
GUTTER AND
CURB & GUTTER

STA	STA	LOCATION	LF
	51+49	VOSS ROAD	164
	90+25	FOSTER ROAD	127
	123+41	SUGAR CREEK ROAD	111
	159+08	SCHMIDT ROAD	238
183+67	184+79	LT	112
183+85	184+76	RT	91
	214+30	PIERCE ROAD	80
TOTALS			923

650.8000
CONSTRUCTION
STAKING
RESURFACING
REFERENCE

STA	STA	LOCATION	LF
50+00	264+31	CTH H	21,431
TOTALS			21,431

650.6000
CONSTRUCTION
STAKING PIPE
CULVERTS

STA	STA	LOCATION	EACH
52+12	LT	PE	1
53+41	CL	CROSS DRAIN	1
61+65	CL	CROSS DRAIN	1
64+33	LT	PE	1
65+00	LT	PE	1
73+53	RT	PE	1
77+10	CL	CROSS DRAIN	1
81+87	RT	PE	1
87+83	RT	PE	1
88+00	LT	PE	1
90+78	RT	FOSTER ROAD	1
97+72	LT	PE	1
100+44	LT	PE	1
102+26	CL	CROSS DRAIN	1
110+86	LT	PE	1
110+91	RT	PE	1
115+49	CL	CROSS DRAIN	1
116+45	RT	PE	1
120+84	RT	PE	1
121+64	RT	PE	1
130+06	CL	CROSS DRAIN	1
136+46	CL	CROSS DRAIN	1
146+01	LT	PE	1
151+58	CL	CROSS DRAIN	1
151+80	LT	PE	1
159+02	CL	CROSS DRAIN	1
161+74	LT	PE	1
166+32	CL	CROSS DRAIN	1
174+60	RT	PE	1
175+11	RT	PE	1
191+33	LT	PE	1
191+49	RT	PE	1
193+26	RT	PE	1
194+68	RT	PE	1
197+90	RT	PE	1
197+92	LT	PE	1
200+02	RT	PE	1
201+18	RT	PE	1
202+56	RT	PE	1
205+31	LT	PE	1
207+83	LT	PE	1
208+83	RT	PE	1
213+46	LT	PE	1
214+38	LT	PIERCE RD	1
219+23	CL	CROSS DRAIN	1
221+55	RT	PE	1
227+00	RT	PE	1
232+02	RT	PE	1
238+24	RT	PE	1
238+81	LT	PE	1
253+86	CL	CROSS DRAIN	1
257+54	LT	PE	1
258+61	LT	PE	1
259+18	LT	PE	1
260+51	LT	PE	1
TOTALS			55

650.9910
CONSTRUCTION
STAKING
SUPPLEMENTAL
CONTROL (PROJECT)

STA	STA	LOCATION	LS
50+00	264+31	CTH H	1
TOTALS			1

650.9920
CONSTRUCTION
STAKING
SLOPE STAKES

STA	STA	LOCATION	LF
50+00	63+00	CTH H	1,300
67+00	81+00	CTH H	1,400
88+00	110+00	CTH H	2,200
113+00	124+00	CTH H	1,100
127+00	131+00	CTH H	400
139+00	142+00	CTH H	300
147+00	150+00	CTH H	300
157+00	159+00	CTH H	200
163+00	184+00	CTH H	2,100
191+00	196+00	CTH H	500
200+00	213+00	CTH H	1,300
218+00	232+00	CTH H	1,400
239+00	263+00	CTH H	2,400
TOTALS			14,900

ALL ITEMS CATEGORY 0010 UNLESS NOTED

690.0150 SAWING ASPHALT			
STA	OFFSET	LOCATION	LF
50+00	CL	START OF PROJECT	22
51+49	RT	VOSS ROAD	22
53+41	CL	CROSS DRAIN	48
61+65	CL	CROSS DRAIN	48
64+33	LT	DRIVEWAY	20
64+97	LT	DRIVEWAY	20
73+53	RT	DRIVEWAY	20
77+10	CL	CROSS DRAIN	48
81+85	RT	DRIVEWAY	20
84+95	RT	DRIVEWAY	20
88+02	LT	DRIVEWAY	20
90+25	RT	FOSTER ROAD	21
90+78	RT	CROSS ROAD - FOSTER ROAD	56
102+26	CL	CROSS DRAIN	48
115+49	CL	CROSS DRAIN	48
123+41	LT	SUGAR CREEK ROAD	23
130+06	CL	CROSS DRAIN	48
136+46	CL	CROSS DRAIN	48
151+53	CL	CROSS DRAIN	48
151+57	CL	CROSS DRAIN	48
159+02	CL	CROSS DRAIN	80
159+08	LT	SCHMIDT ROAD (EAST)	21
159+08	RT	SCHMIDT ROAD (WEST)	20
166+32	CL	CROSS DRAIN	48
170+56	LT	COBBIE ROAD	61
191+34	LT	DRIVEWAY	20
191+48	RT	DRIVEWAY	20
193+26	RT	DRIVEWAY	20
194+70	RT	DRIVEWAY	20
213+46	LT	DRIVEWAY	20
214+30	LT	PIERCE ROAD	23
214+38	LT	CROSS ROAD - PIERCE RD	90
219+23	CL	CROSS DRAIN	48
221+58	RT	DRIVEWAY	20
229+52	RT	BABCOCK ROAD	28
234+49	RT	CANARY ROAD	28
239+54	RT	LAKESHORE DRIVE	28
253+86	CL	CROSS DRAIN	48
257+55	LT	DRIVEWAY	20
258+59	LT	DRIVEWAY	20
259+18	LT	DRIVEWAY	20
264+31	CL	END OF PROJECT	33
TOTALS			1,432

690.0250 SAWING CONCRETE			
STA	OFFSET	LOCATION	LF
81+85	RT	DRIVEWAY	20
193+26	RT	DRIVEWAY	20
194+70	RT	DRIVEWAY	20
TOTALS			60

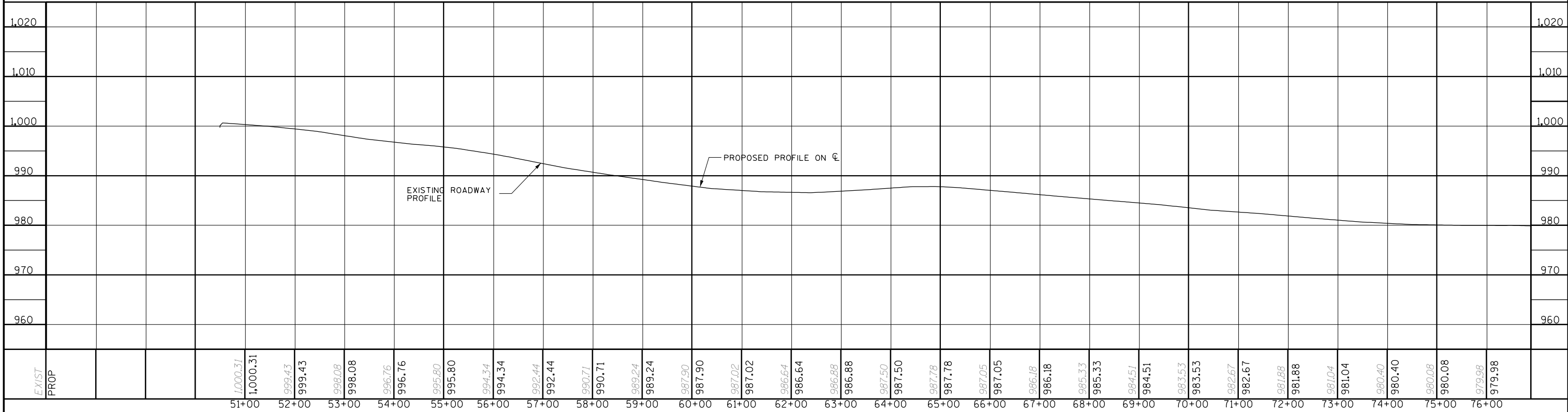
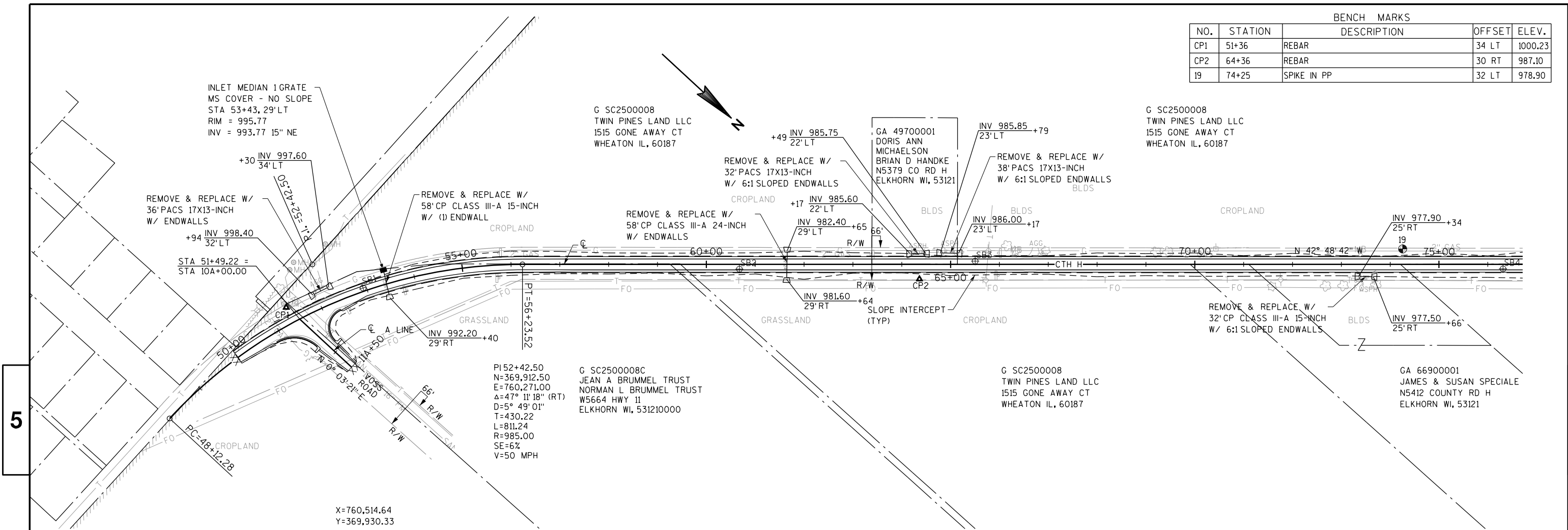
SPV.0060.01 TEMPORARY WATER DIVERSION			
STA	STA	LOCATION	EACH
77+10	CL	CROSS DRAIN	1
102+25	CL	CROSS DRAIN	1
TOTALS			2

SPV.0060.02 SECTION CORNER MONUMENTS			
STA	LOCATION	EACH	
187+82	CL	1.00	
214+31	CL	1.00	
240+75	CL	1.00	
			3

SPV.0195.01 ASPHALTIC MILLINGS FOR SHOULDERS			
STA	STA	LOCATION	TON
183+52	185+05	RT SHOULDER	16
183+52	185+05	LT SHOULDER	15
TOTALS			31

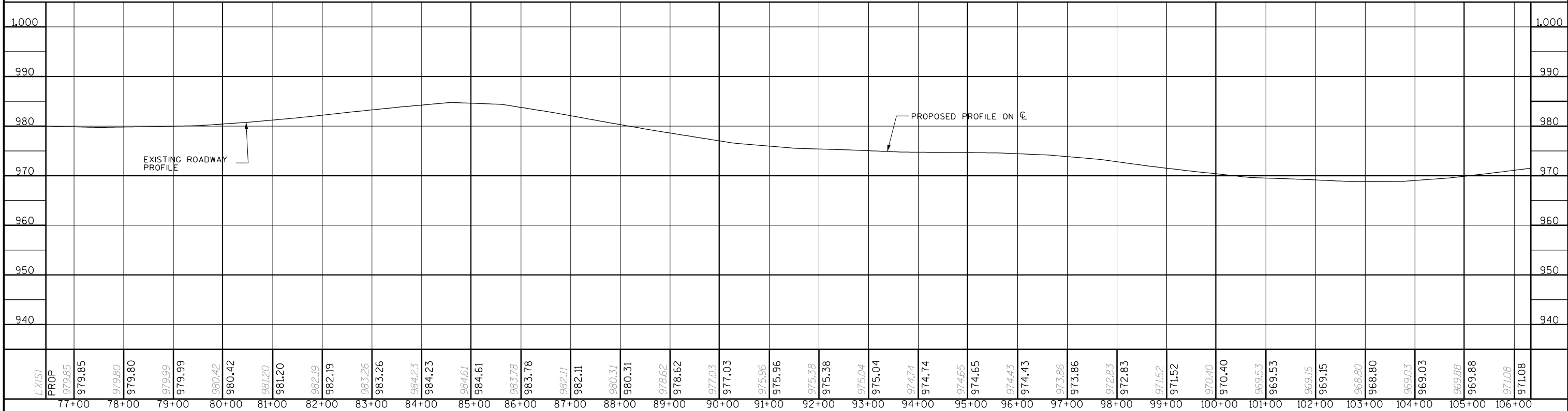
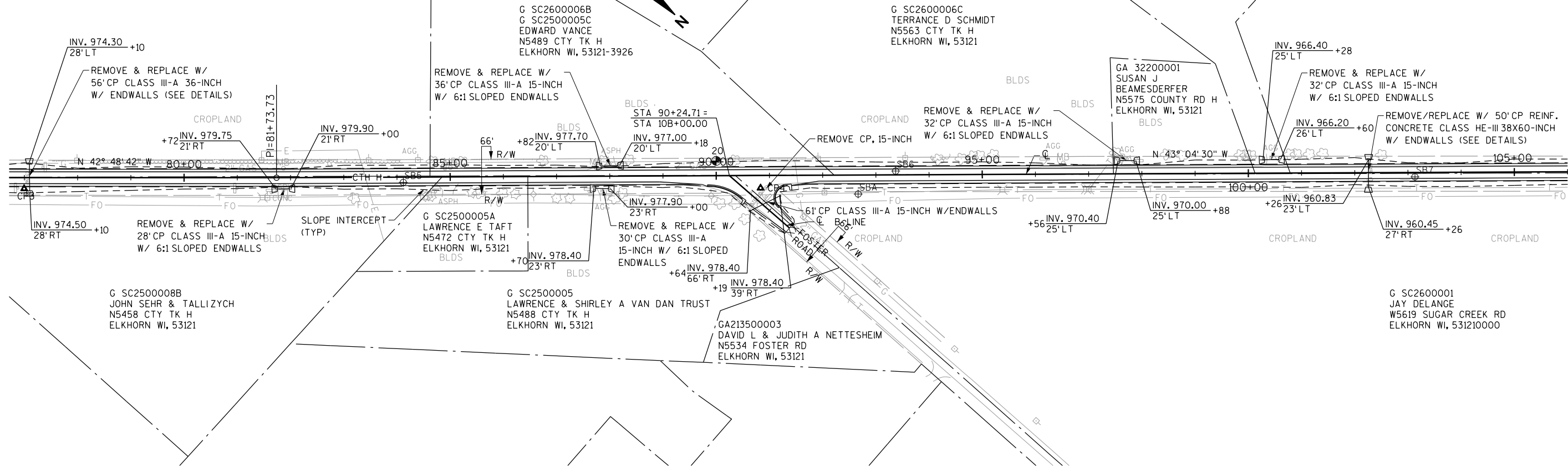
ALL ITEMS CATEGORY 0010 UNLESS NOTED

BENCH MARKS				
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
CP1	51+36	REBAR	34 LT	1000.23
CP2	64+36	REBAR	30 RT	987.10
19	74+25	SPIKE IN PP	32 LT	978.90



PROJECT NO:	3840-01-71	HWY:	CTH H	COUNTY:	WALWORTH	PLAN / PROFILE - CTH H	SHEET	E
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BENCH MARKS				
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
CP3	76+99	CMP MARK	21 RT	977.97
20	90+00	SPIKE IN PP	28 LT	975.22
CP4	90+83	PK NAIL	24 RT	975.39

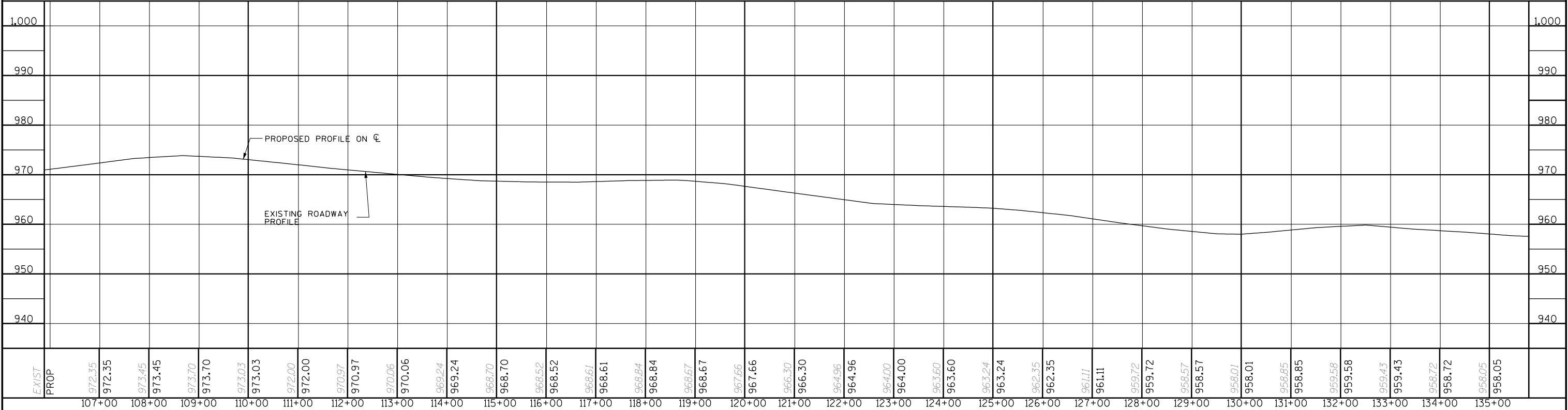
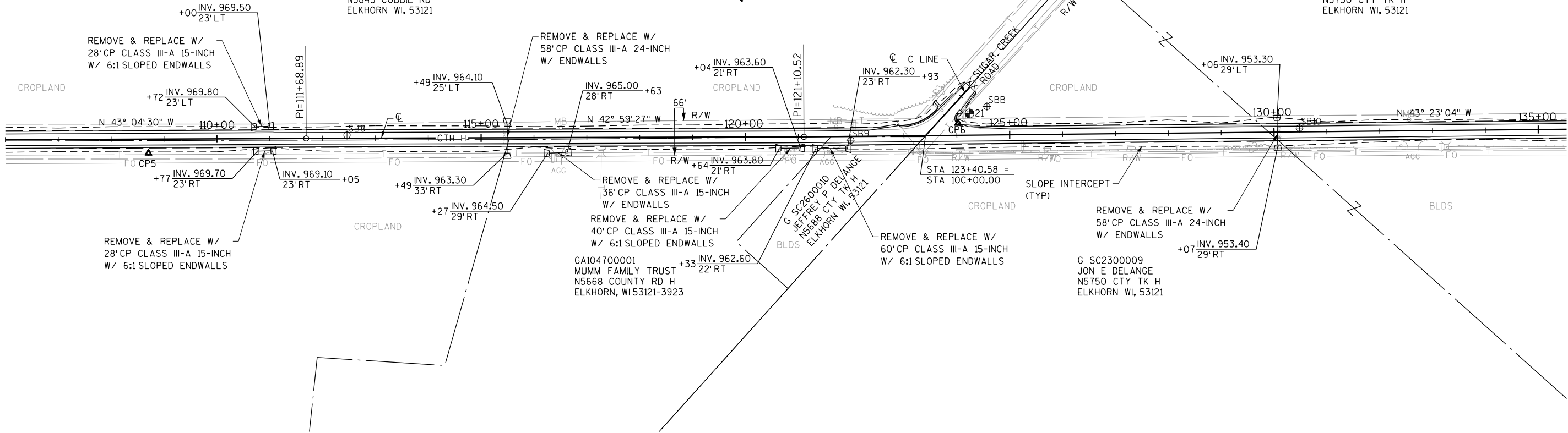


PROJECT NO:	3840-01-71	HWY:	CTH H	COUNTY:	WALWORTH	PLAN / PROFILE - CTH H	SHEET	E
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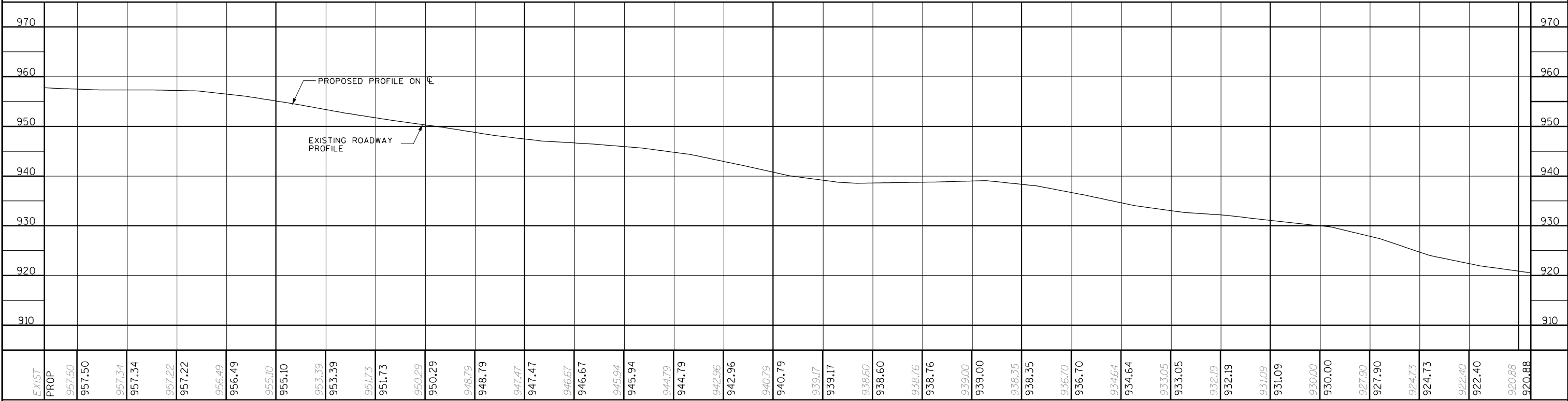
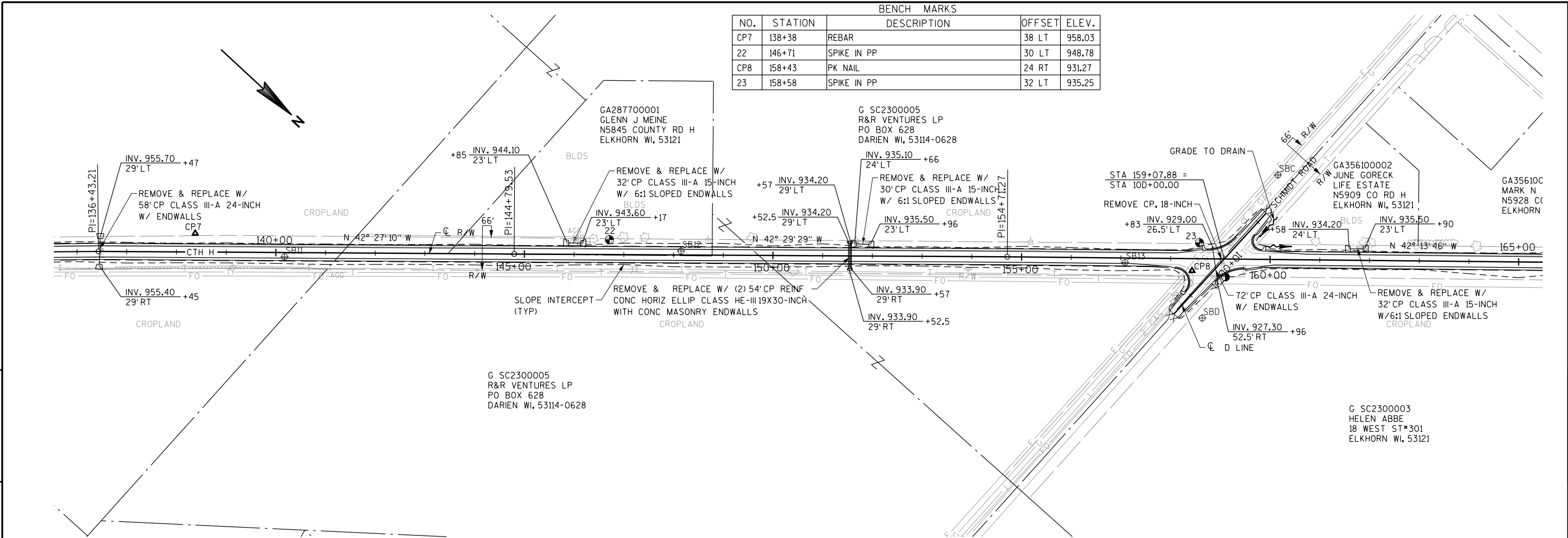
BENCH MARKS				
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
CP5	108+70	REBAR	26 RT	971.20
CP6	124+02	PK NAIL	23 LT	962.82
21	124+24	SPIKE IN PP	41 LT	962.89

G SC2600002
BERNARD M MEYER
N5843 COBBIE RD
ELKHORN WI, 53121

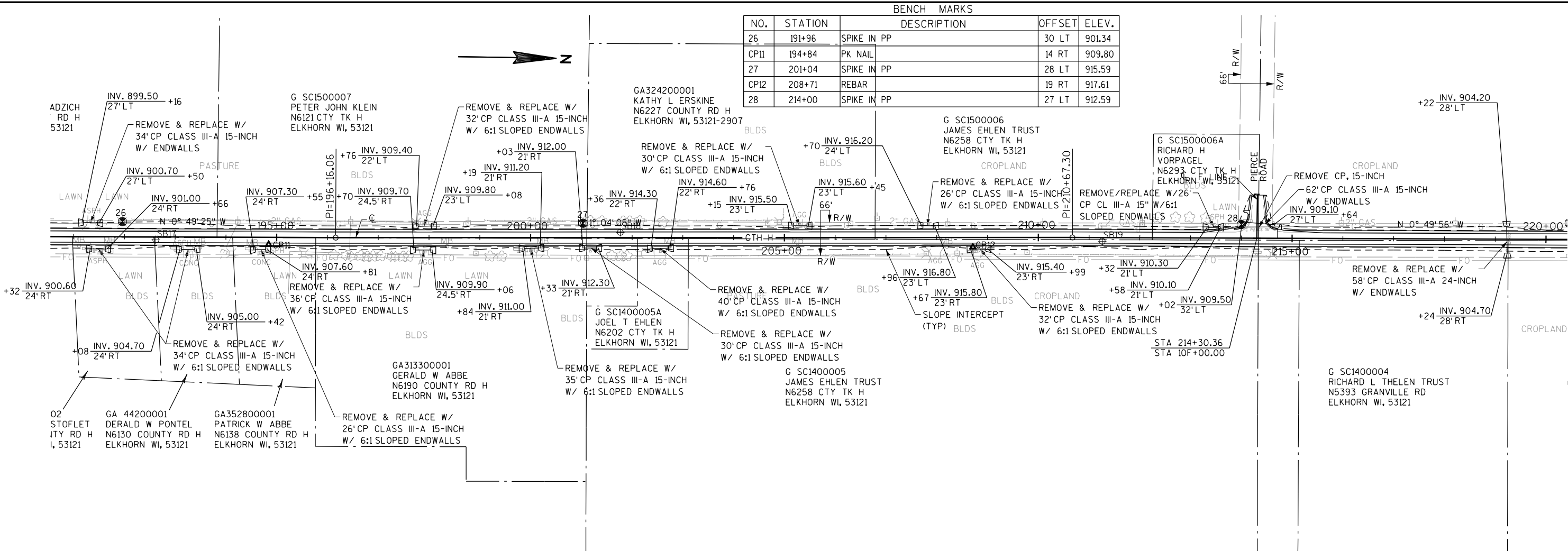
G SC2300009
JON E DELANGE
N5750 CTY TK H
ELKHORN WI, 53121



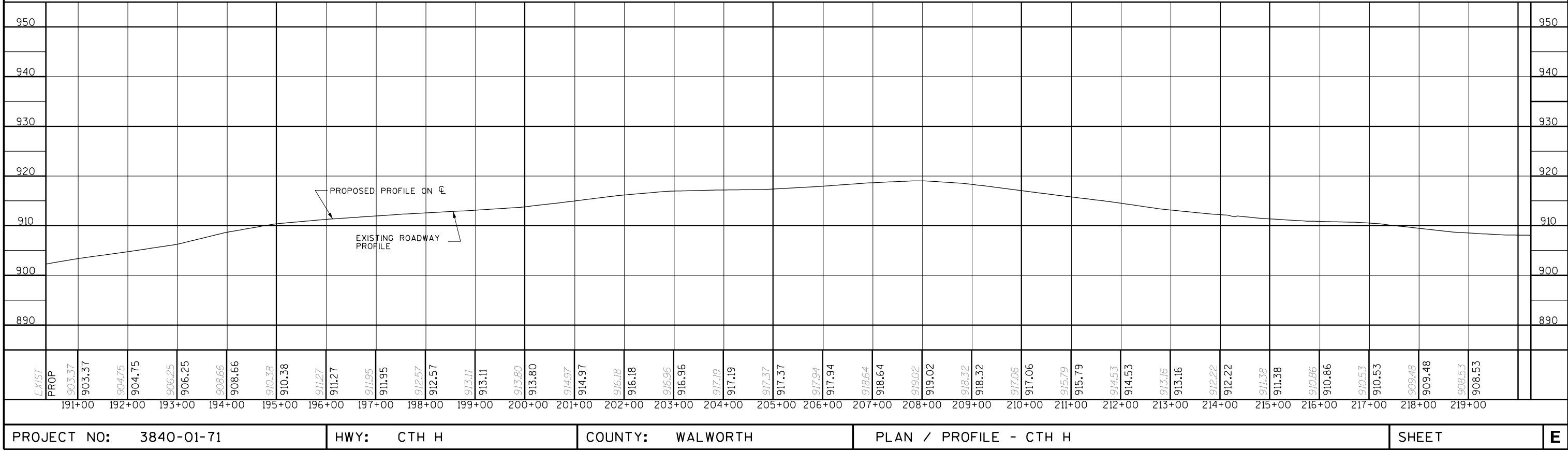
PROJECT NO:	3840-01-71	HWY:	CTH H	COUNTY:	WALWORTH	PLAN / PROFILE - CTH H	SHEET	E
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PROJECT NO:	3840-01-71	HWY:	CTH H	COUNTY:	WALWORTH	PLAN / PROFILE - CTH H	SHEET	E
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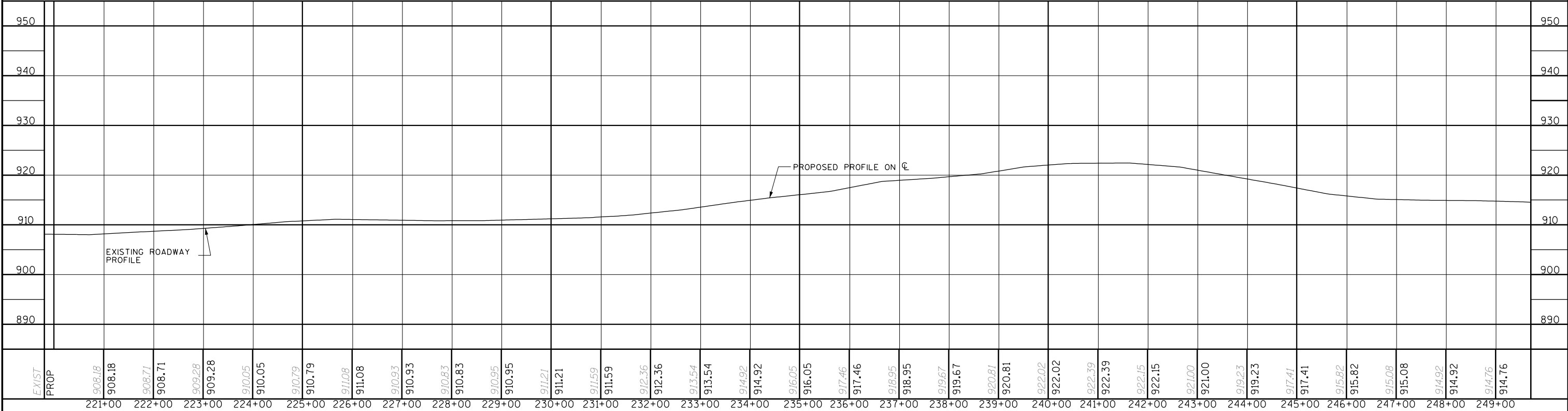
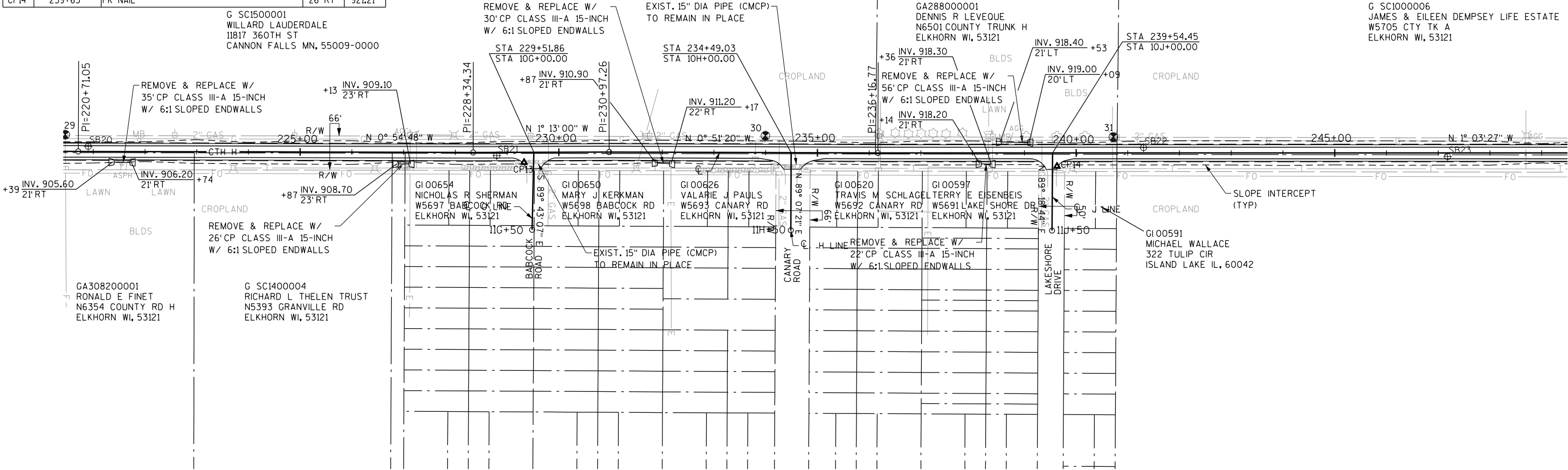


NO.	STATION	DESCRIPTION	OFFSET	ELEV.
26	191+96	SPIKE IN PP	30 LT	901.34
CP11	194+84	PK NAIL	14 RT	909.80
27	201+04	SPIKE IN PP	28 LT	915.59
CP12	208+71	REBAR	19 RT	917.61
28	214+00	SPIKE IN PP	27 LT	912.59

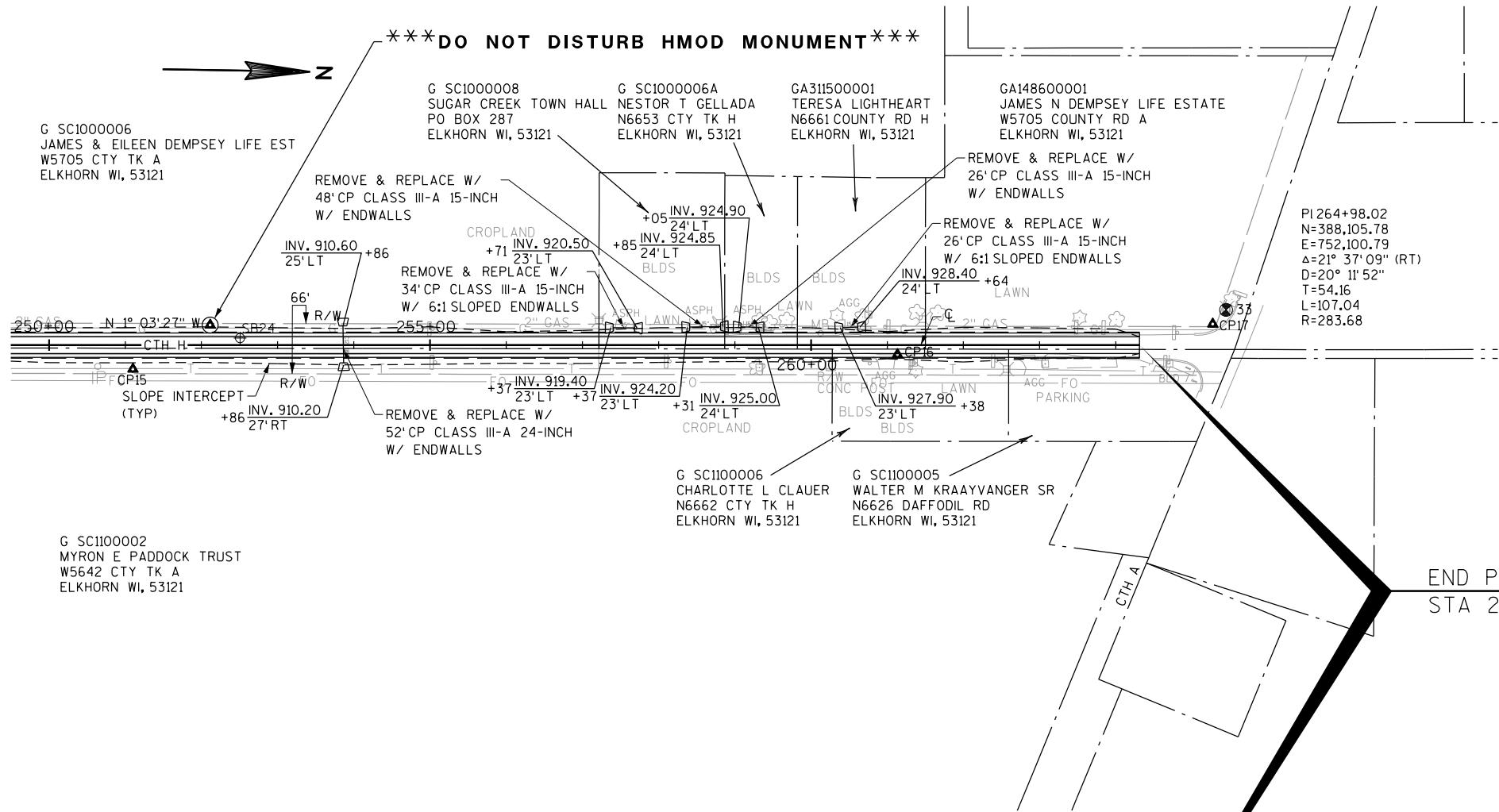


PROJECT NO:	3840-01-71	HWY:	CTH H	COUNTY:	WALWORTH	PLAN / PROFILE - CTH H	SHEET	E
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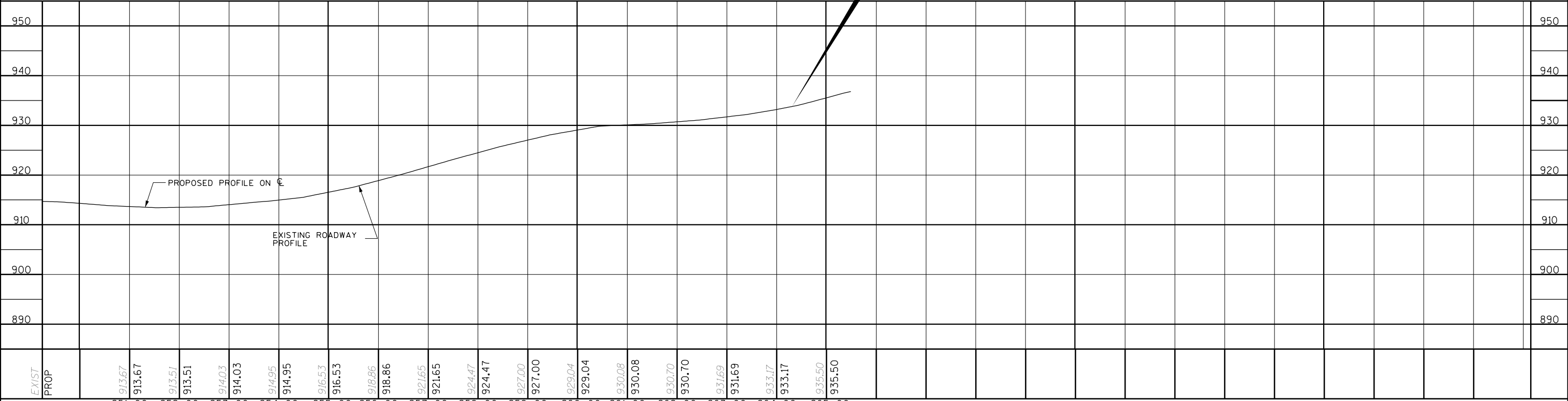
BENCH MARKS				
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
29	220+46	SPIKE IN PP	32 LT	908.04
CP13	229+33	PK NAIL	20 RT	910.59
30	233+99	SPIKE IN PP	33 LT	916.12
CP14	239+63	PK NAIL	26 RT	921.21



PROJECT NO:	3840-01-71	HWY:	CTH H	COUNTY:	WALWORTH	PLAN / PROFILE - CTH H	SHEET	E
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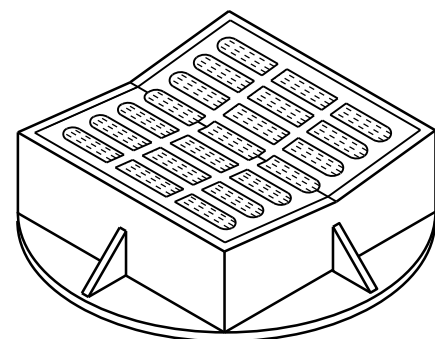
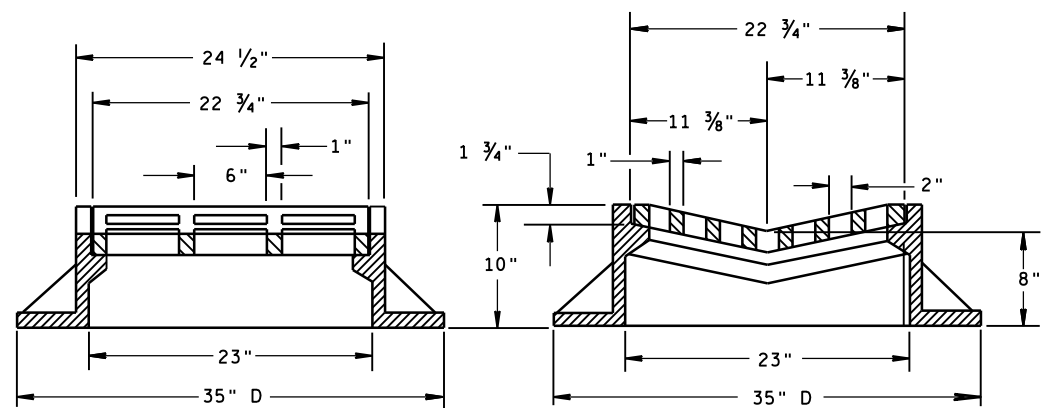
BENCH MARKS				
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
CP15	251+10	REBAR	31 RT	911.97
CP16	261+13	PK NAIL	12 RT	929.90
CP17	265+18	REBAR	39 LT	935.81
33	265+28	SPIKE IN PP	61 LT	937.23



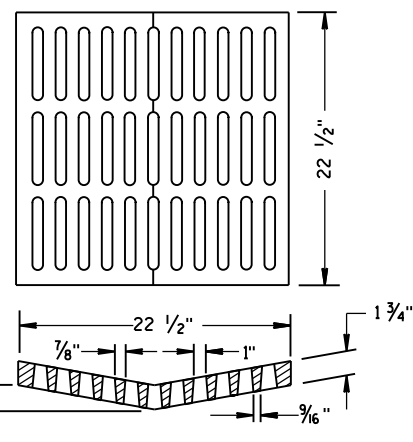
PROJECT NO:	3840-01-71	HWY:	CTH H	COUNTY:	WALWORTH	PLAN / PROFILE - CTH H	SHEET	E
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Standard Detail Drawing List

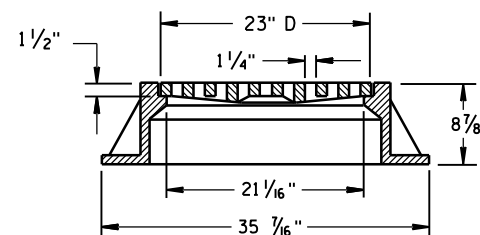
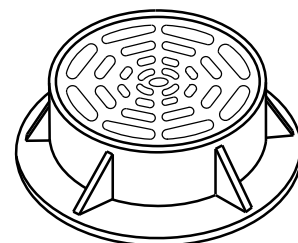
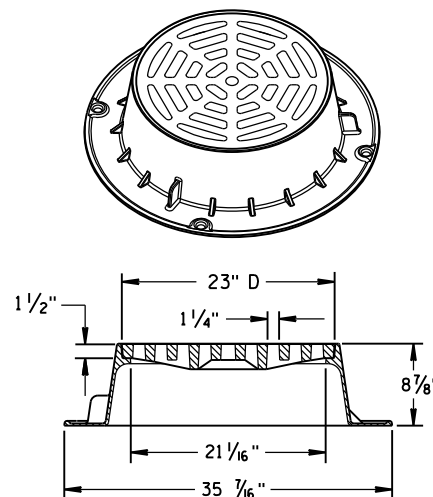
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE FRAINS
08F10-01	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15C08-17B	PAVEMENT MARKING (TURN LANES)
15C08-18A	LONGITUDINAL MARKING (MAINLINE)
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS



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"

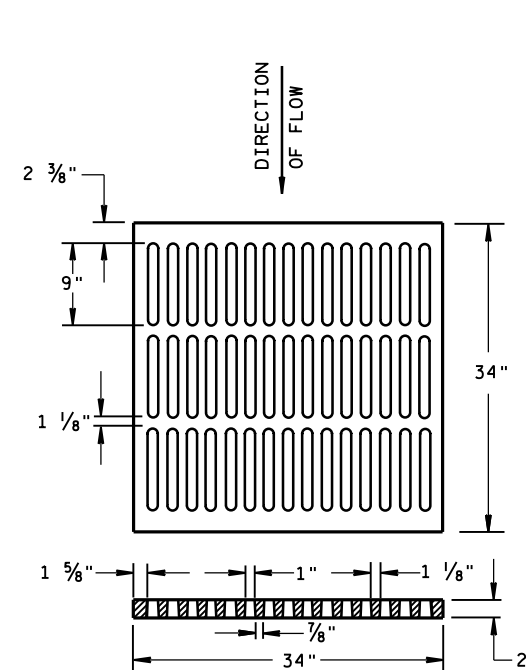
NOTE: EITHER CASTING IS ACCEPTABLE

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.

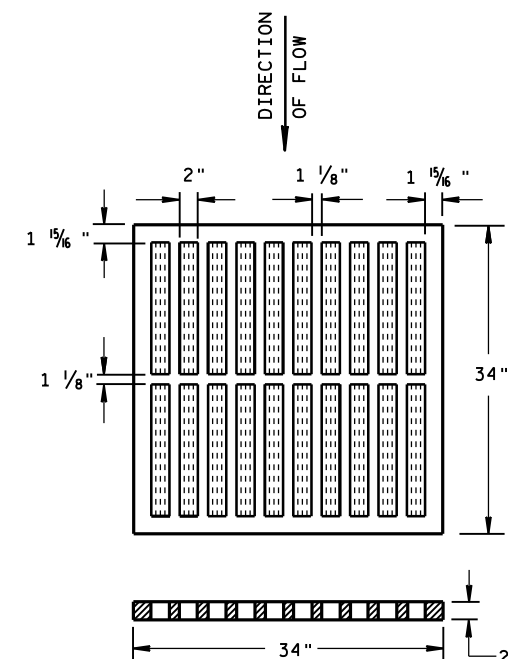
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



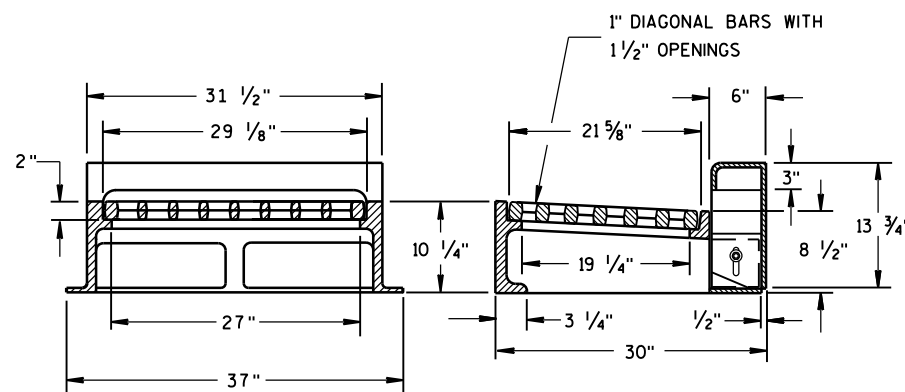
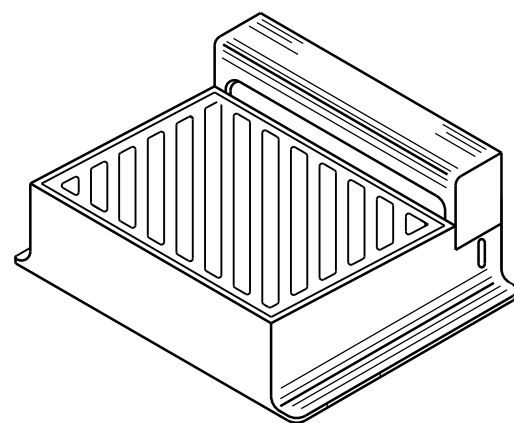
ALTERNATIVE TYPE "MS"

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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

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

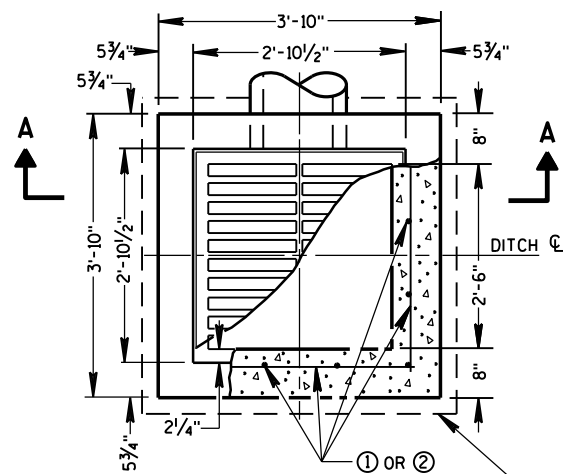
DIRECTION
OF FLOW

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

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

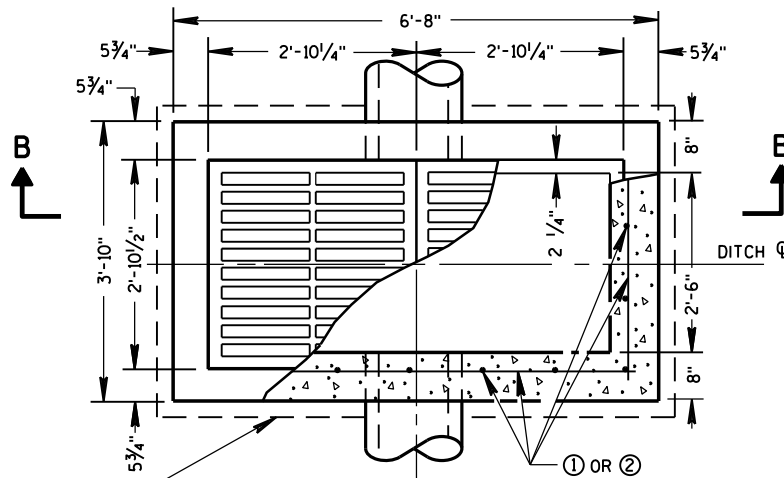
APPROVED
 11/27/2013
 DATE
 FHWA

/S/ Jerry H. Zogg
 ROADWAY STANDARDS DEVELOPMENT
 ENGINEER

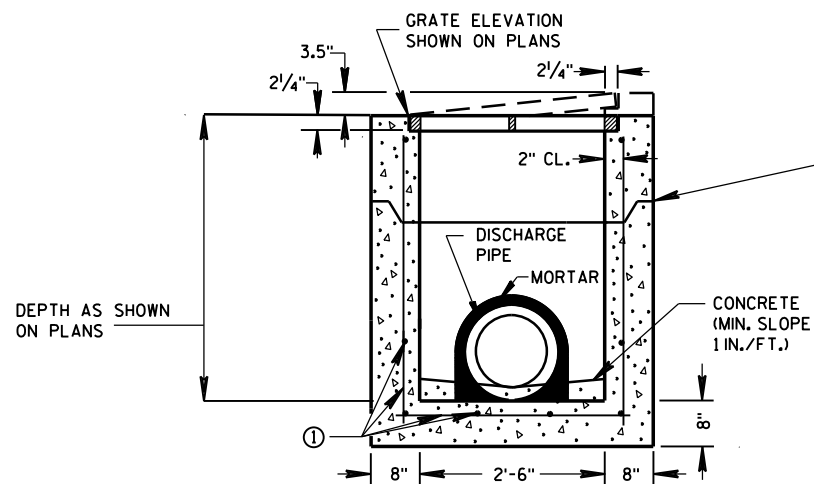


PLAN VIEW

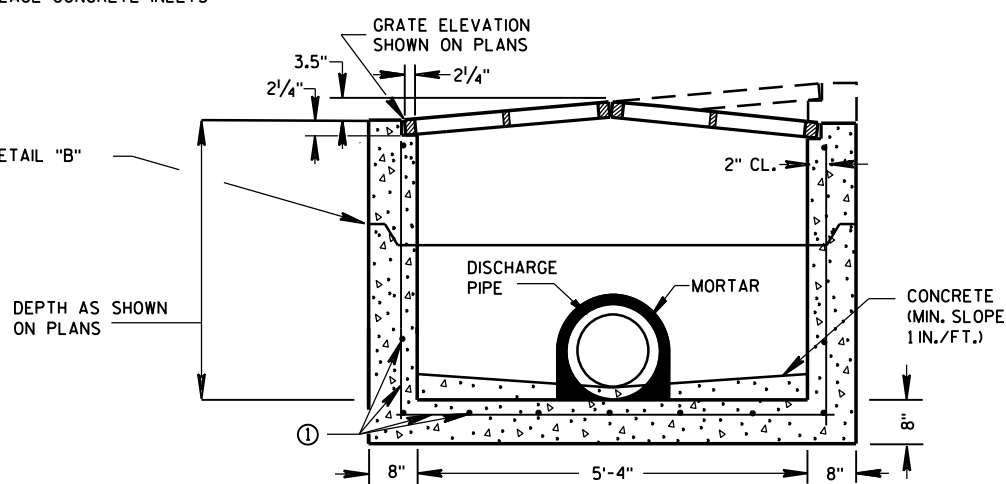
4" OVERHANGING BASE ON REINFORCED
CAST-IN-PLACE CONCRETE INLETS



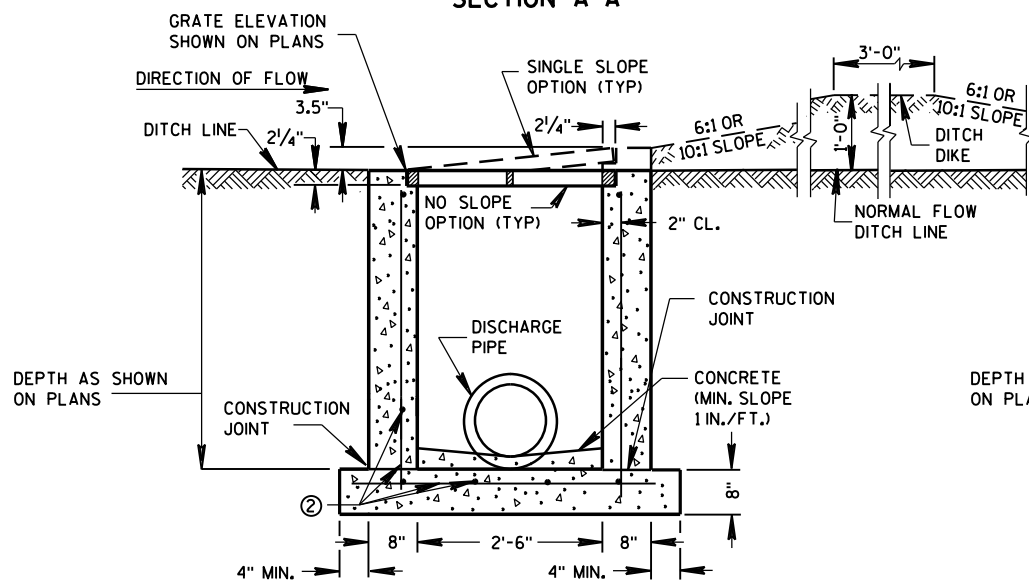
PLAN VIEW



PRECAST REINFORCED CONCRETE
SECTION A-A

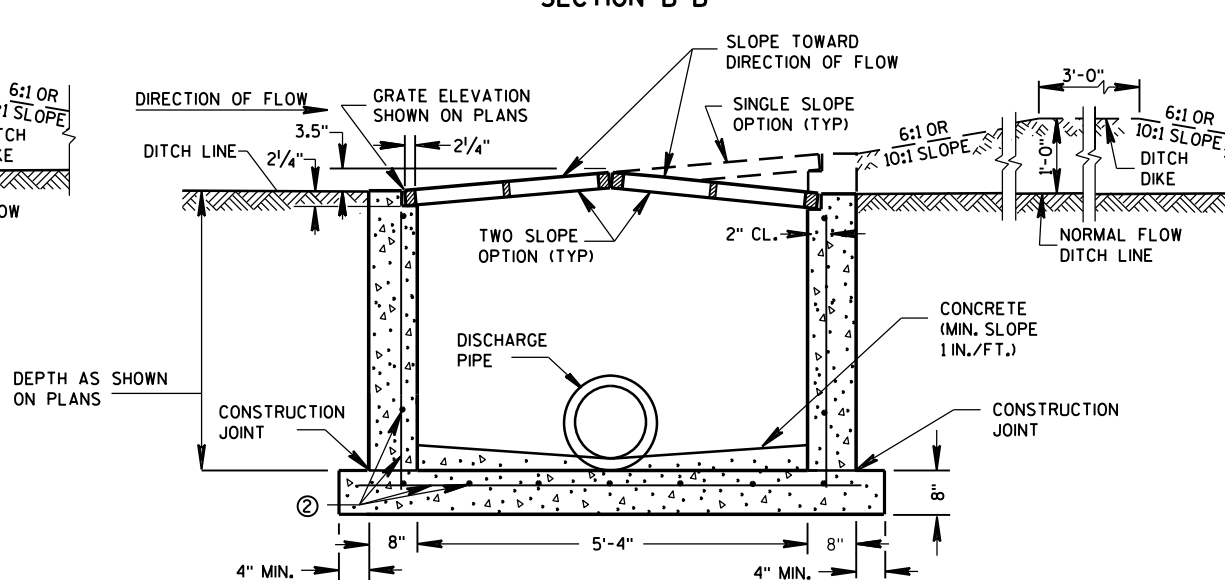


PRECAST REINFORCED CONCRETE
SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE
SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE
SECTION B-B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, IG-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT. 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.

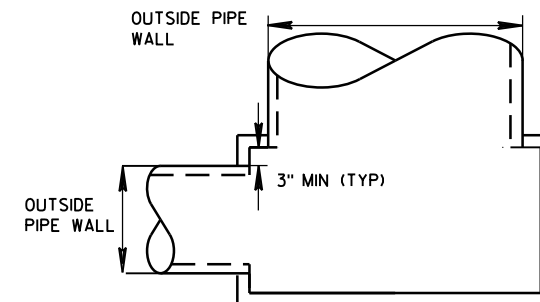
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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

- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

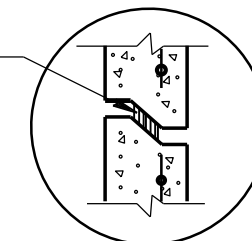
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



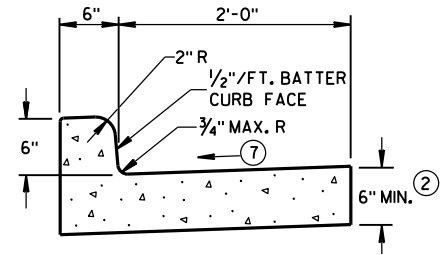
DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

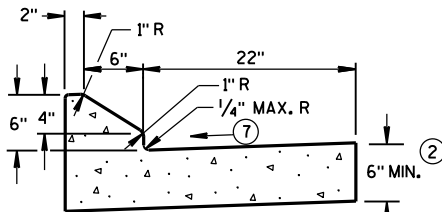
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
FHWA

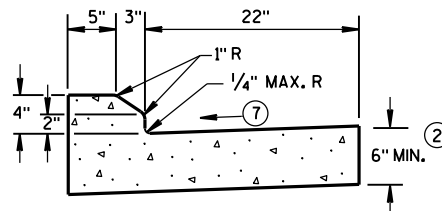
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR



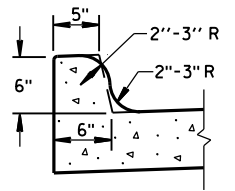
TYPES A^① & D



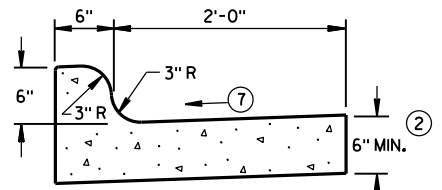
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

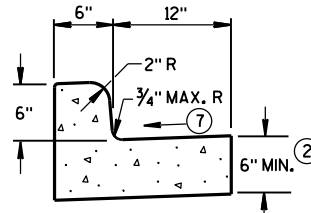


TYPES K^① & L
(OPTIONAL CURB SHAPE)



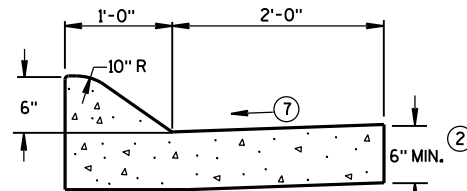
TYPES K^① & L

CONCRETE CURB & GUTTER 30"

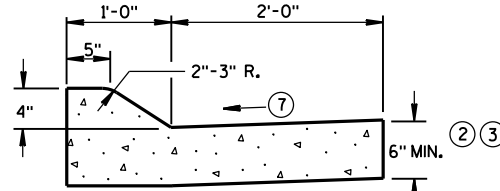


TYPES A^① & D

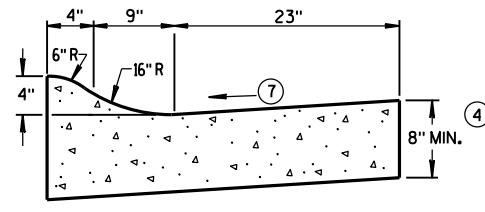
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A^① & D

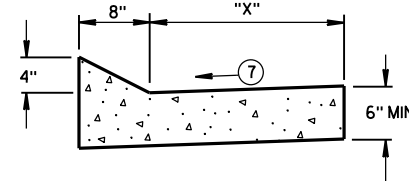


4" SLOPED CURB TYPES A^① & D



4" SLOPED CURB TYPES R^① & T^⑤

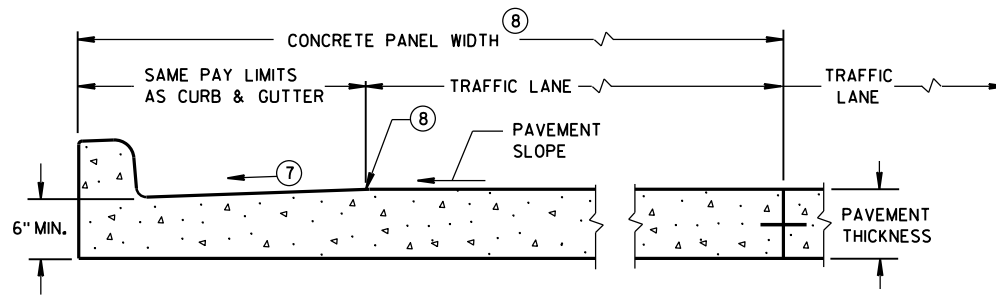
CONCRETE CURB & GUTTER 36"



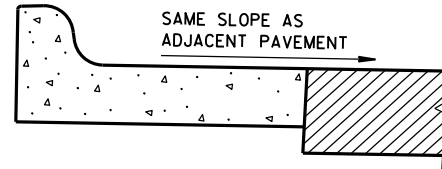
TYPES TBT & TBTT^①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



REVERSE SLOPE GUTTER^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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.

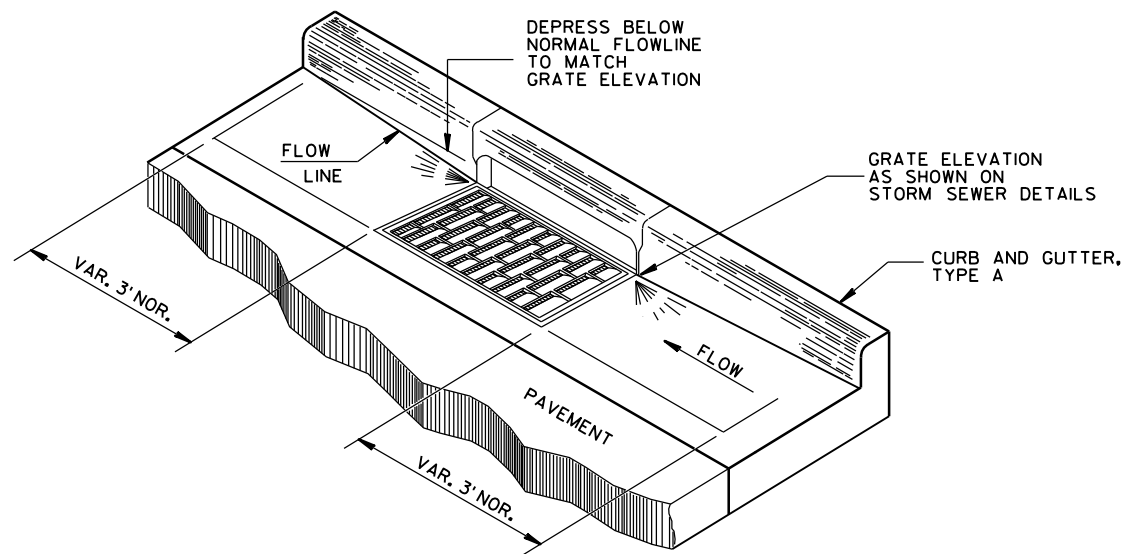
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'

* BIKE LANE IS NOT SHOWN.

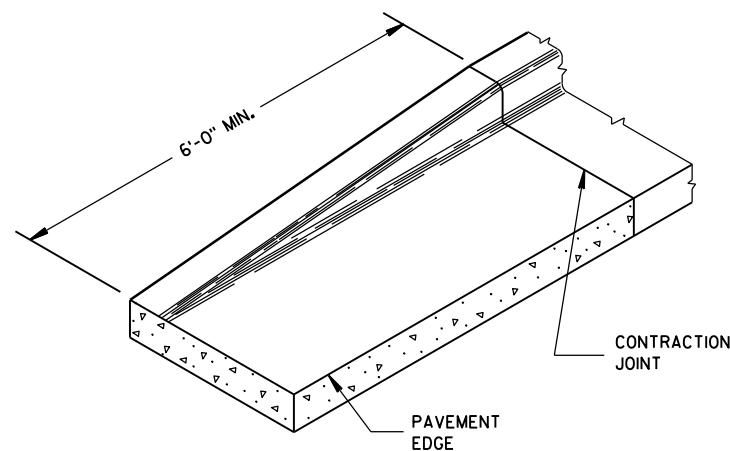
CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

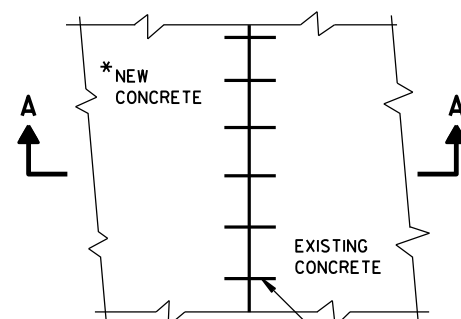


DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

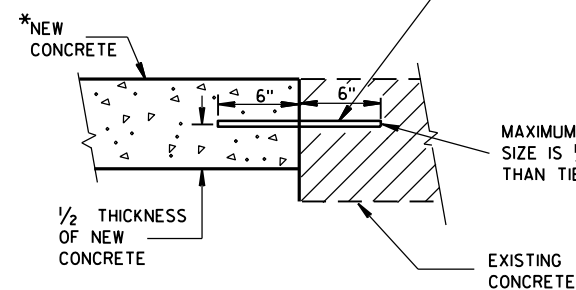


END SECTION CURB & GUTTER



PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.



**SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT**

NO. 6 TIE BARS SPACED 2'-6" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT.

MAXIMUM DRILL HOLE SIZE IS 1/8" GREATER THAN TIE BAR DIAMETER

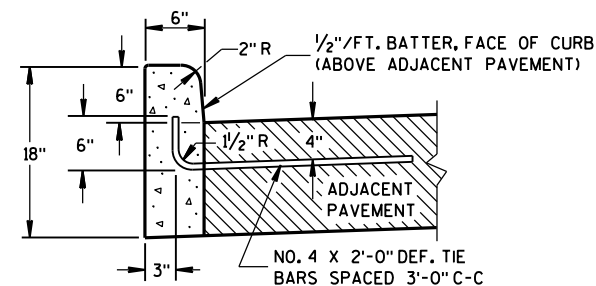
GENERAL NOTES

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

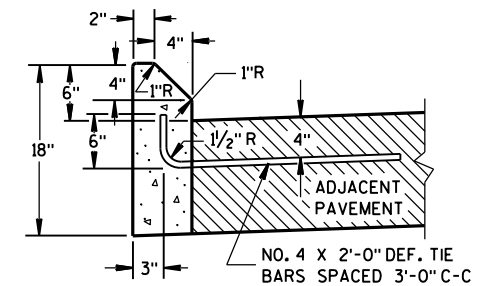
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.

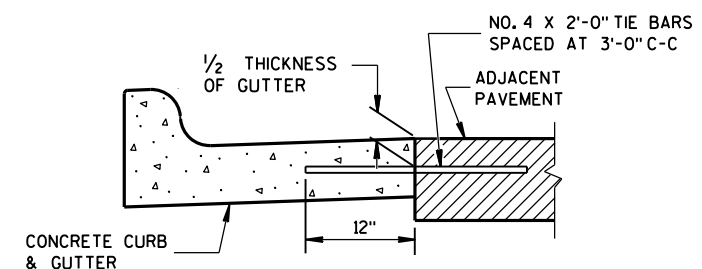


TYPES A^① & D

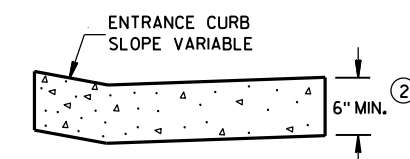


TYPES G^① & J

CONCRETE CURB



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

FHWA

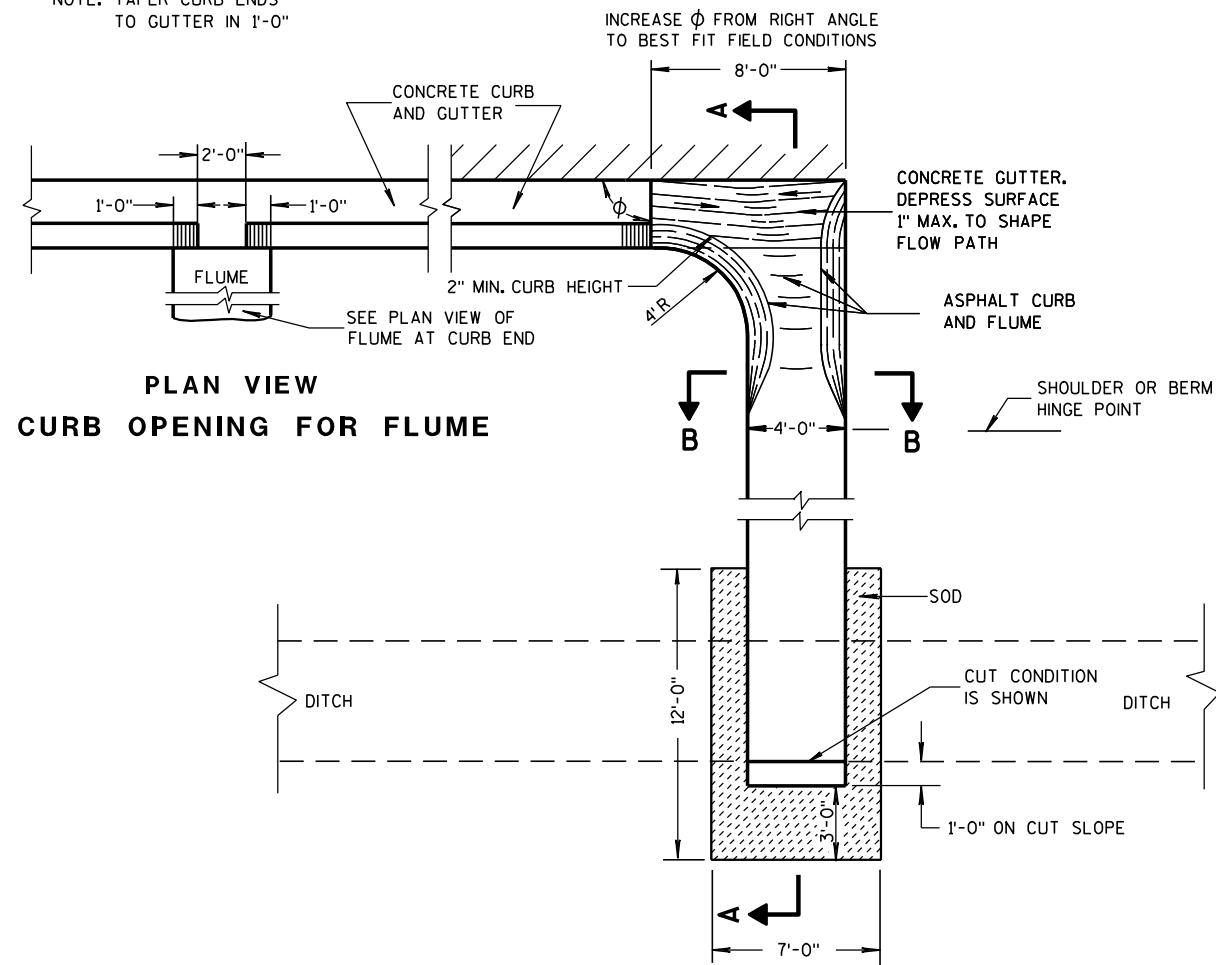
/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR

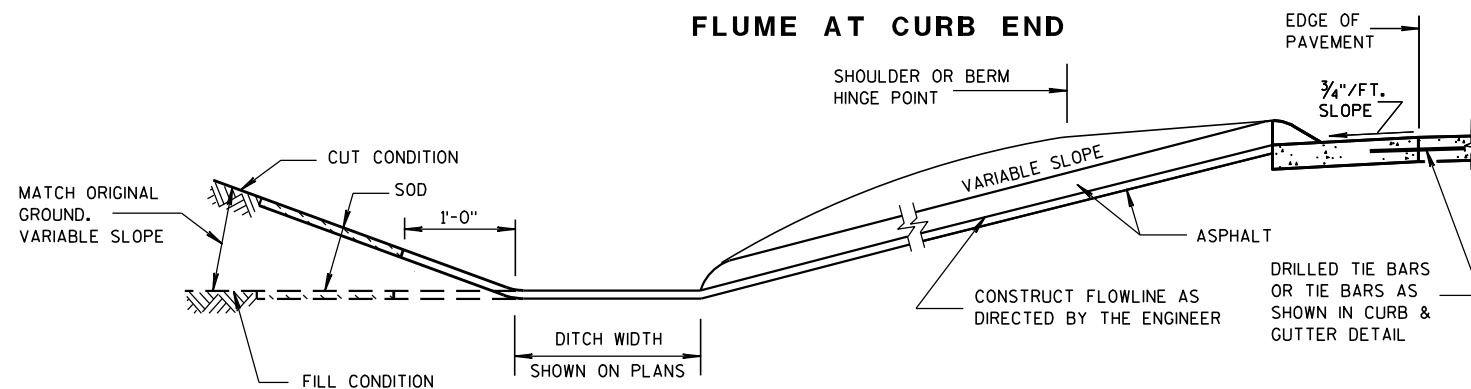
ASPHALTIC FLUME

NOTE: TAPER CURB ENDS
TO GUTTER IN 1'-0"

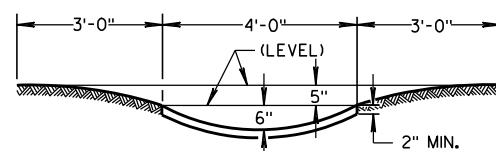


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

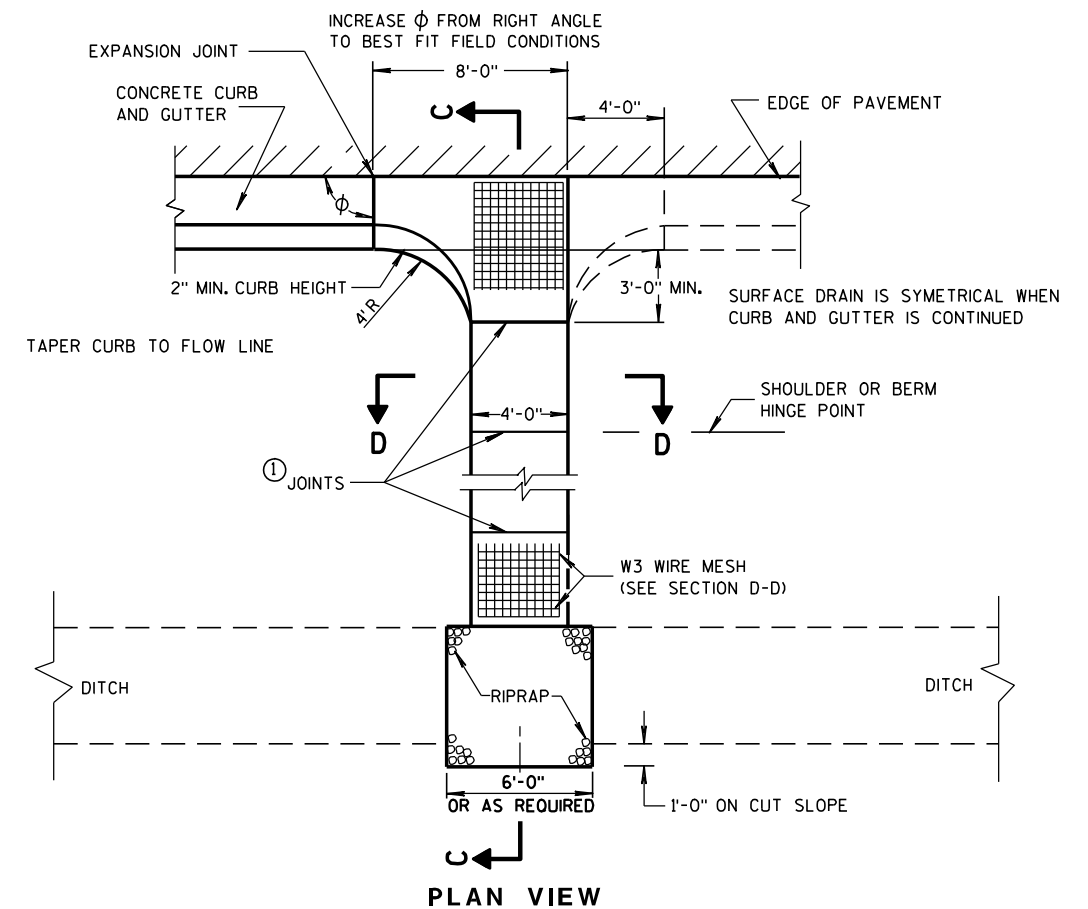
GENERAL NOTES

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

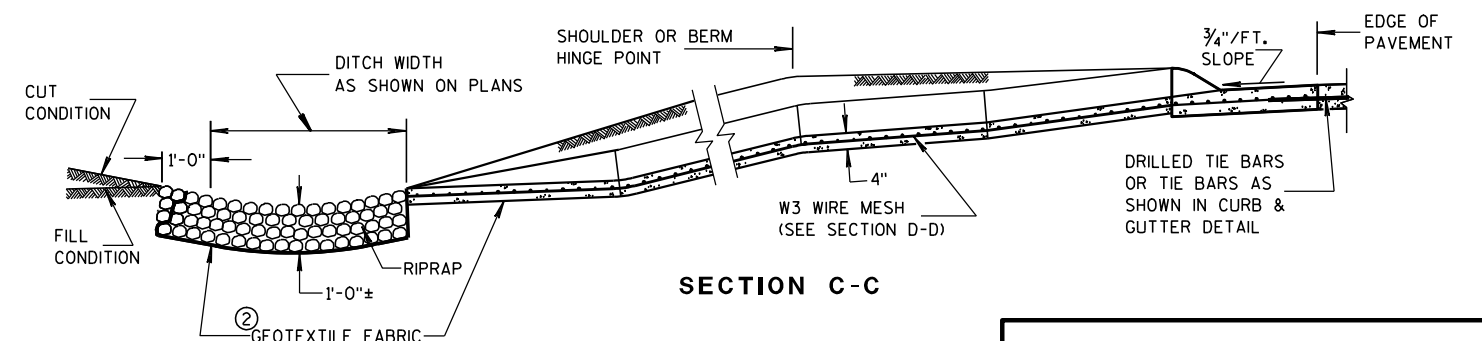
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- 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

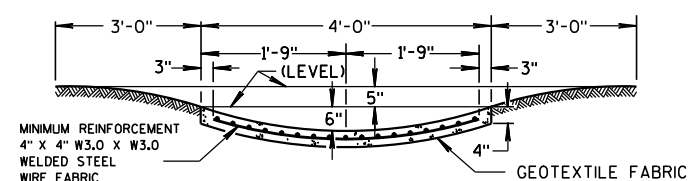
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

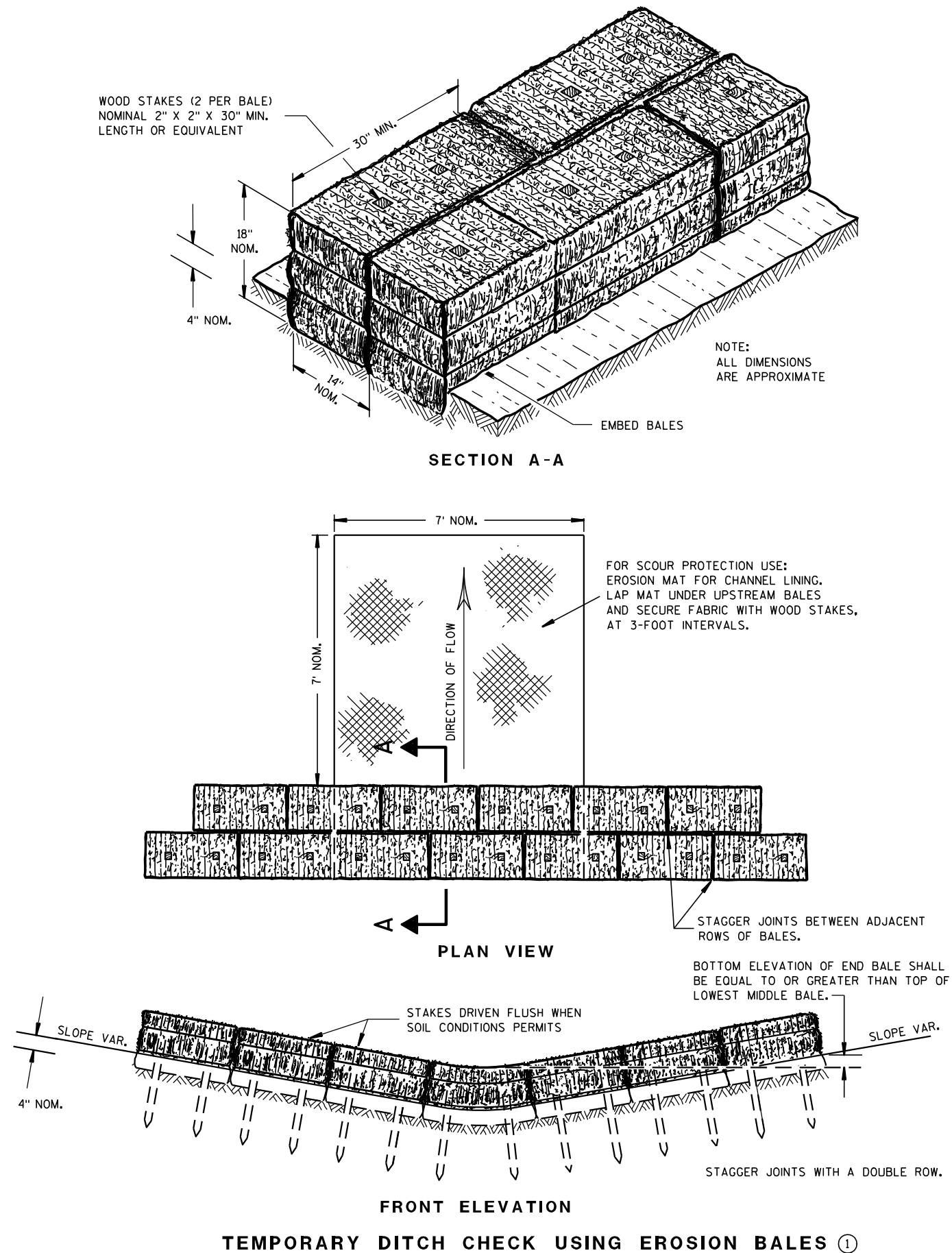
APPROVED

9-4-08

DATE

FHWA

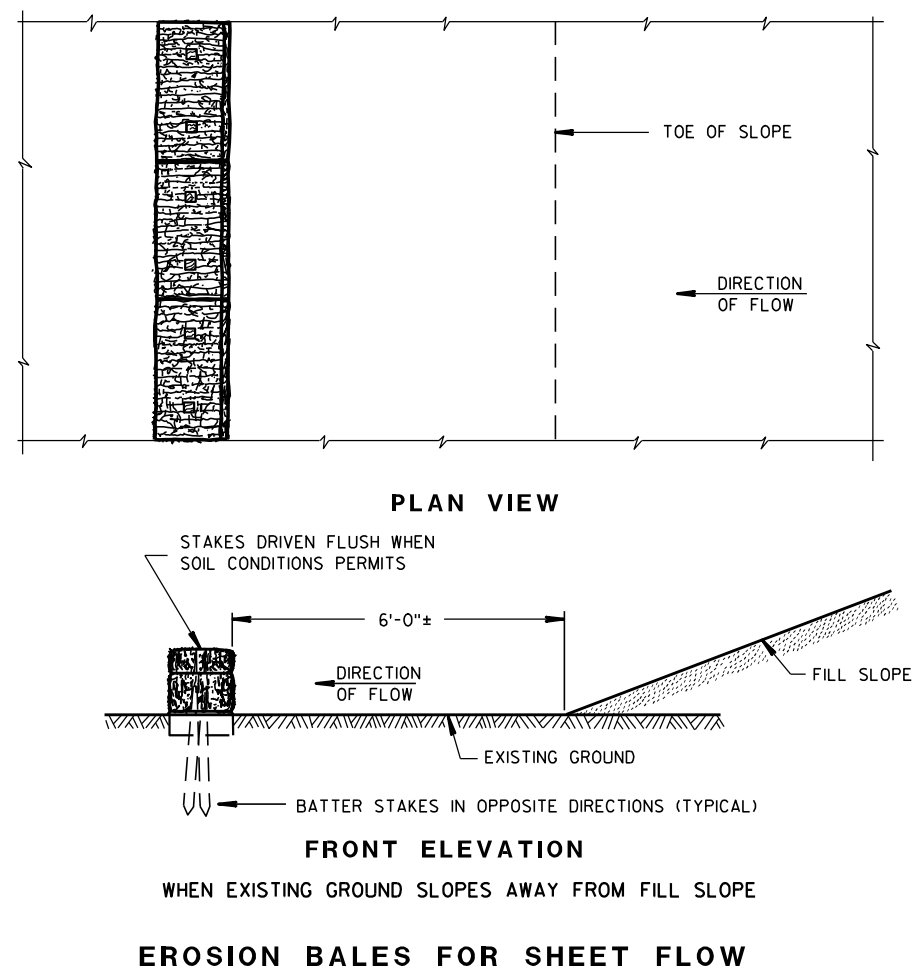
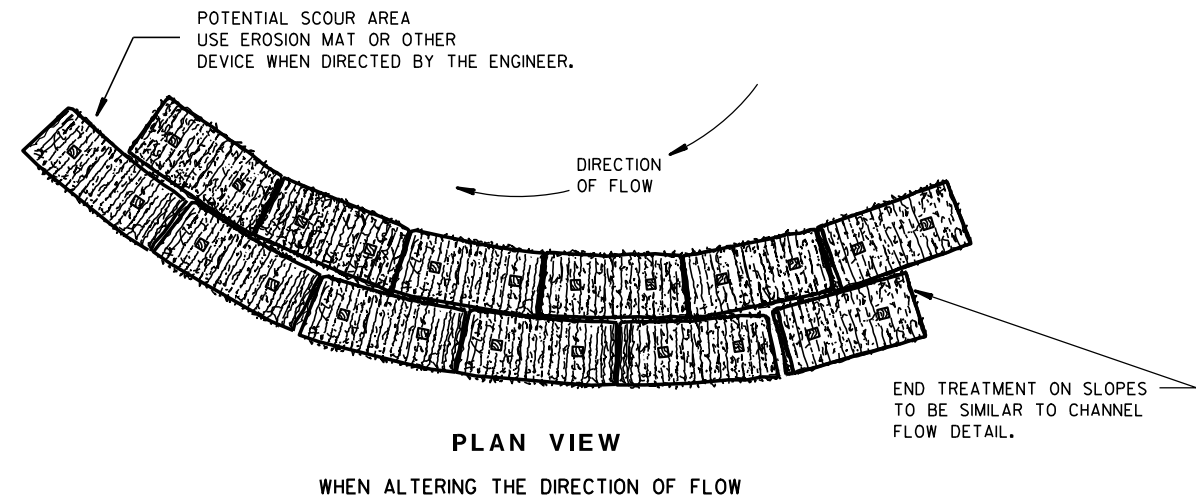
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



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.

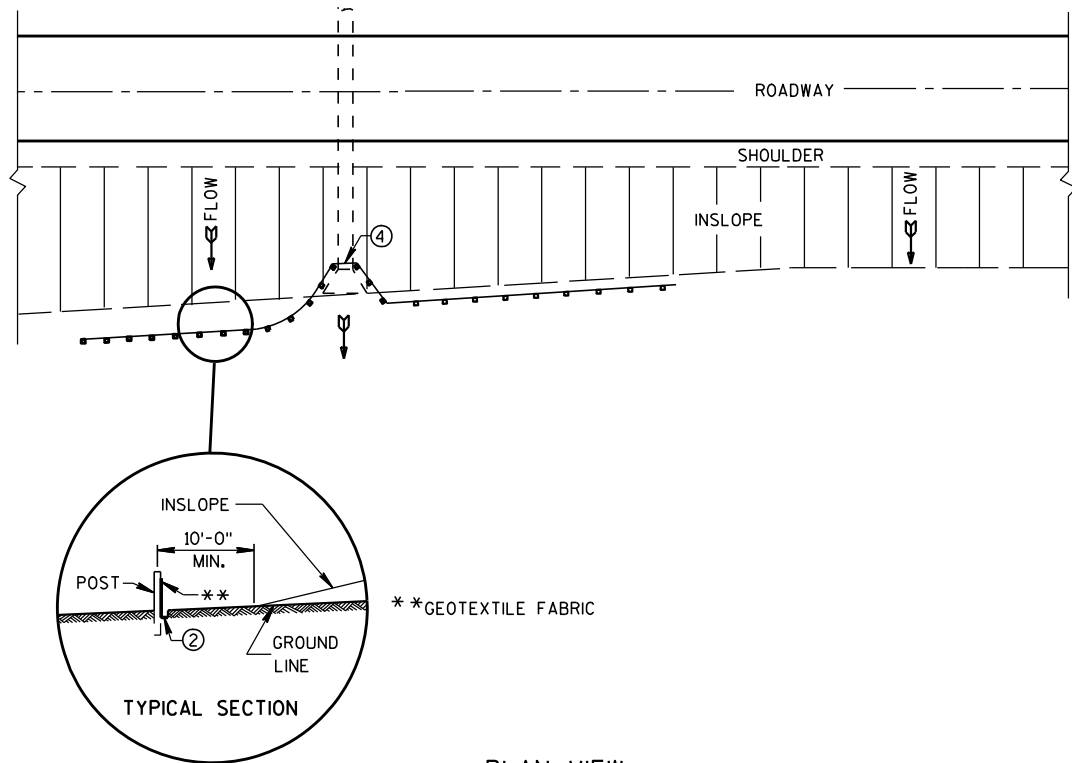
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

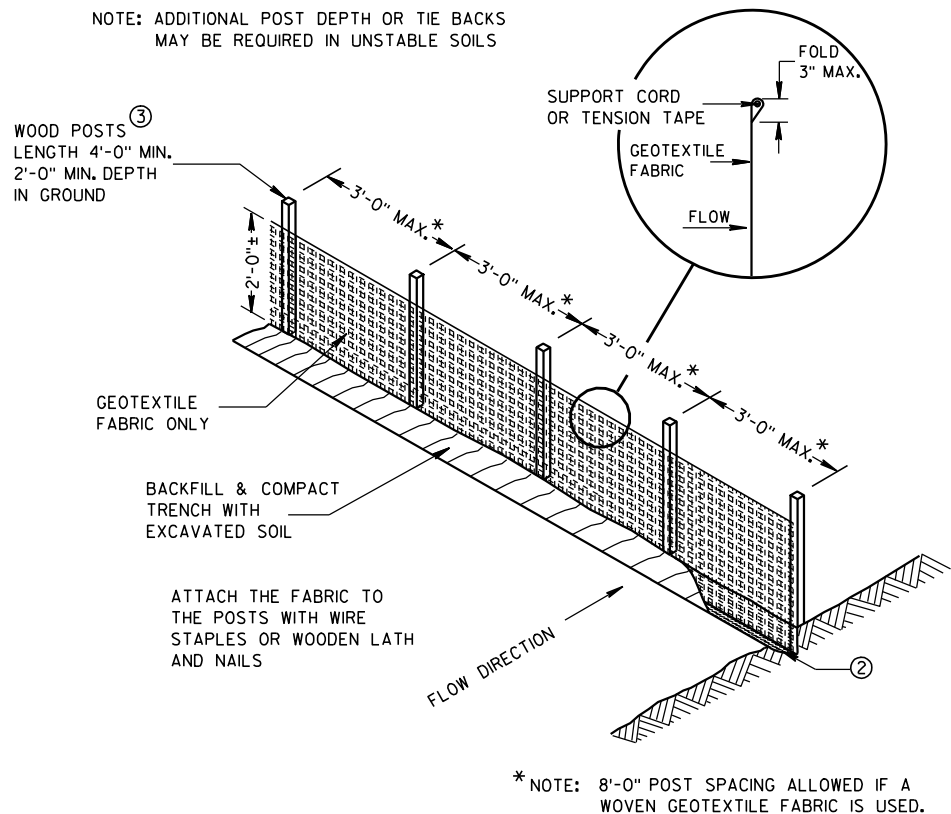
APPROVED

6/04/02
DATE/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

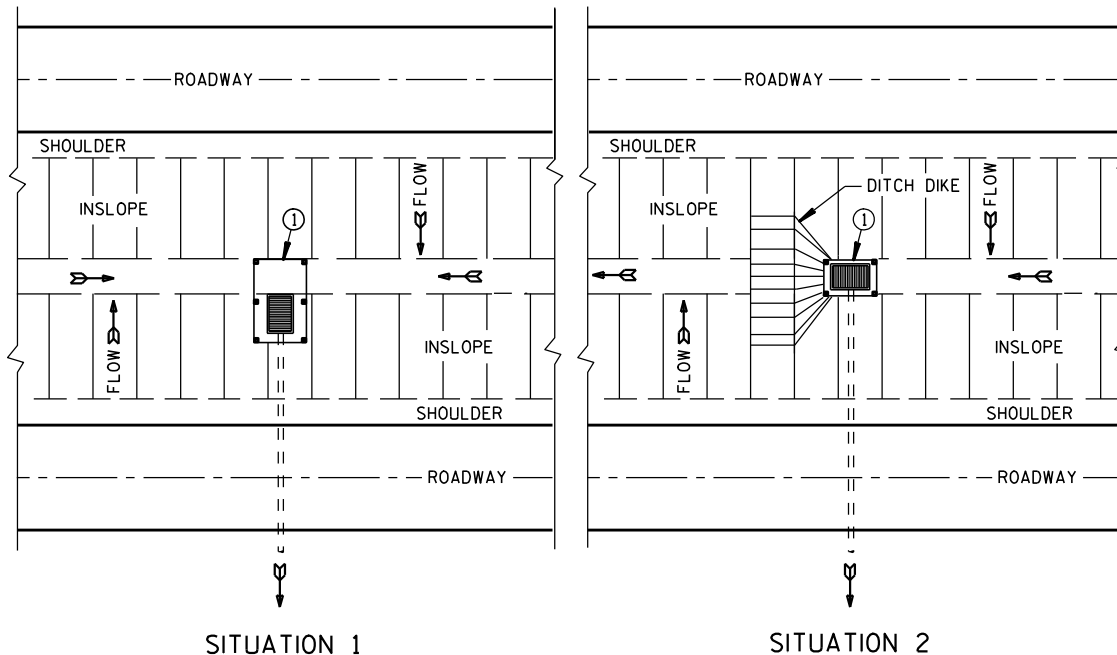
FHWA



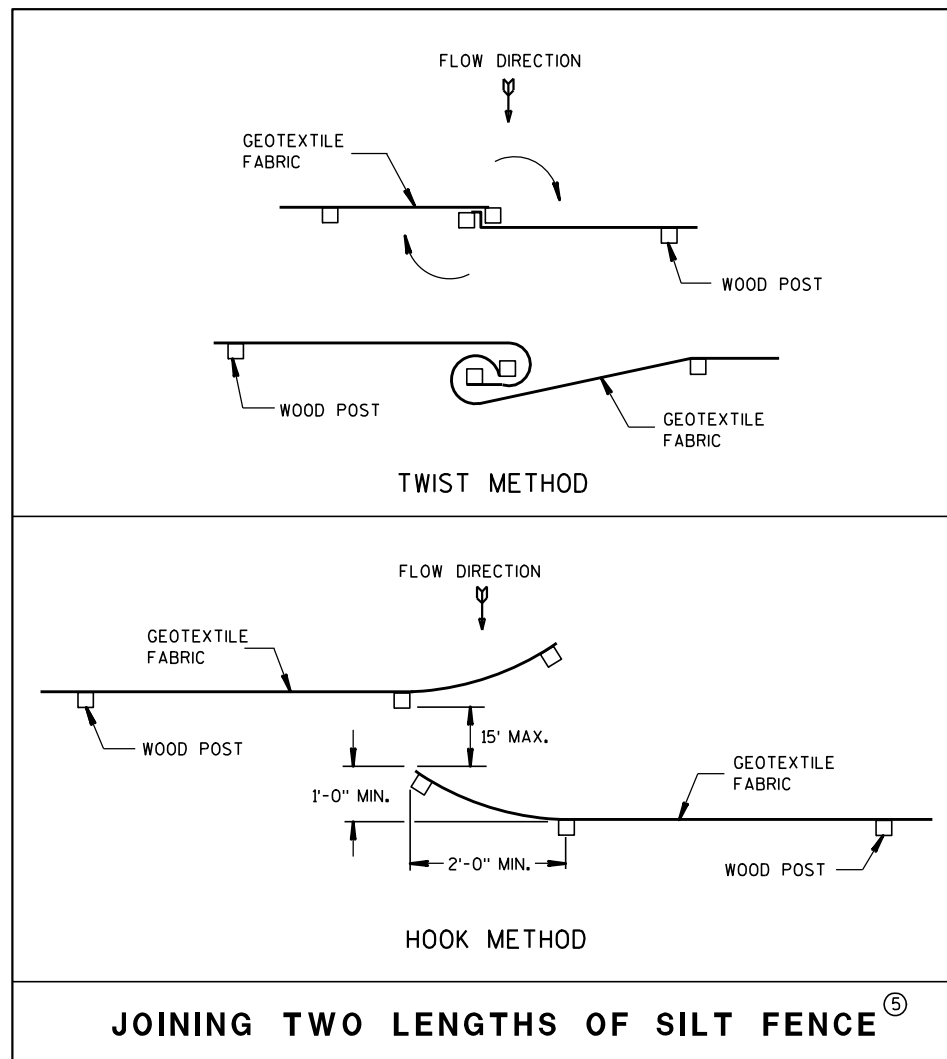
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

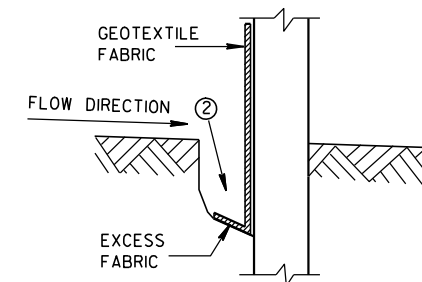


JOINING TWO LENGTHS OF SILT FENCE (5)

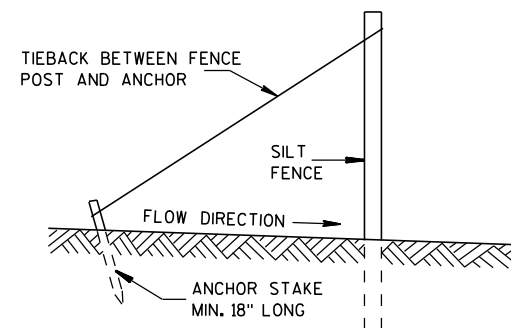
GENERAL NOTES

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 1 1/8" X 1 1/8" 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.

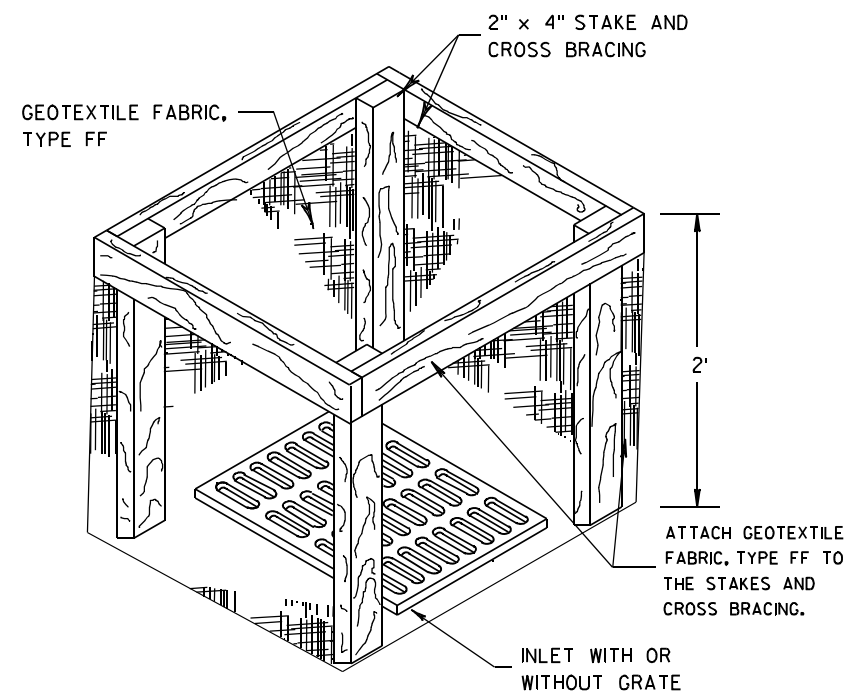
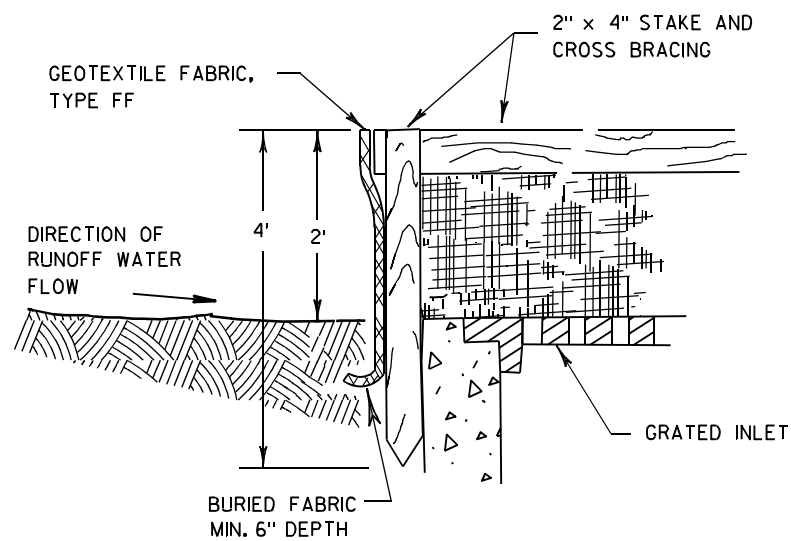


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



INLET PROTECTION, TYPE A

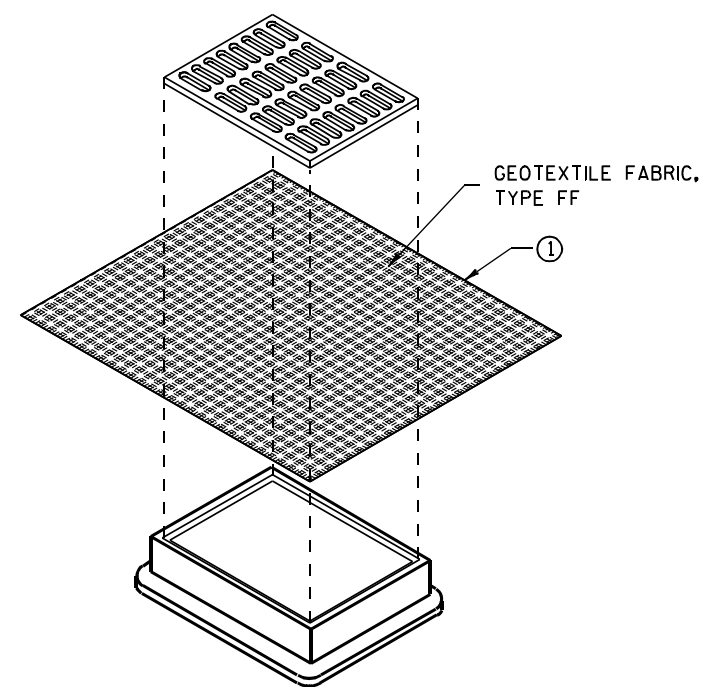
GENERAL NOTES

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.

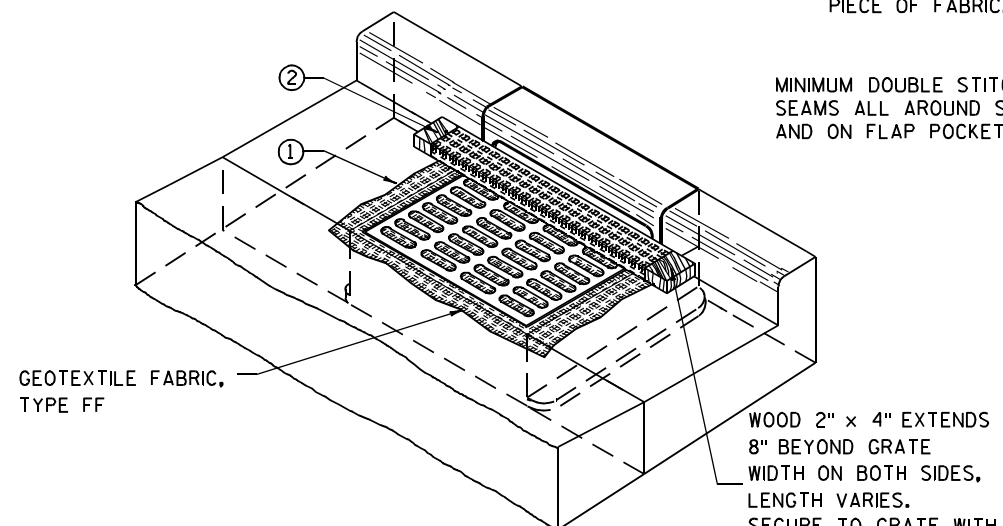
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

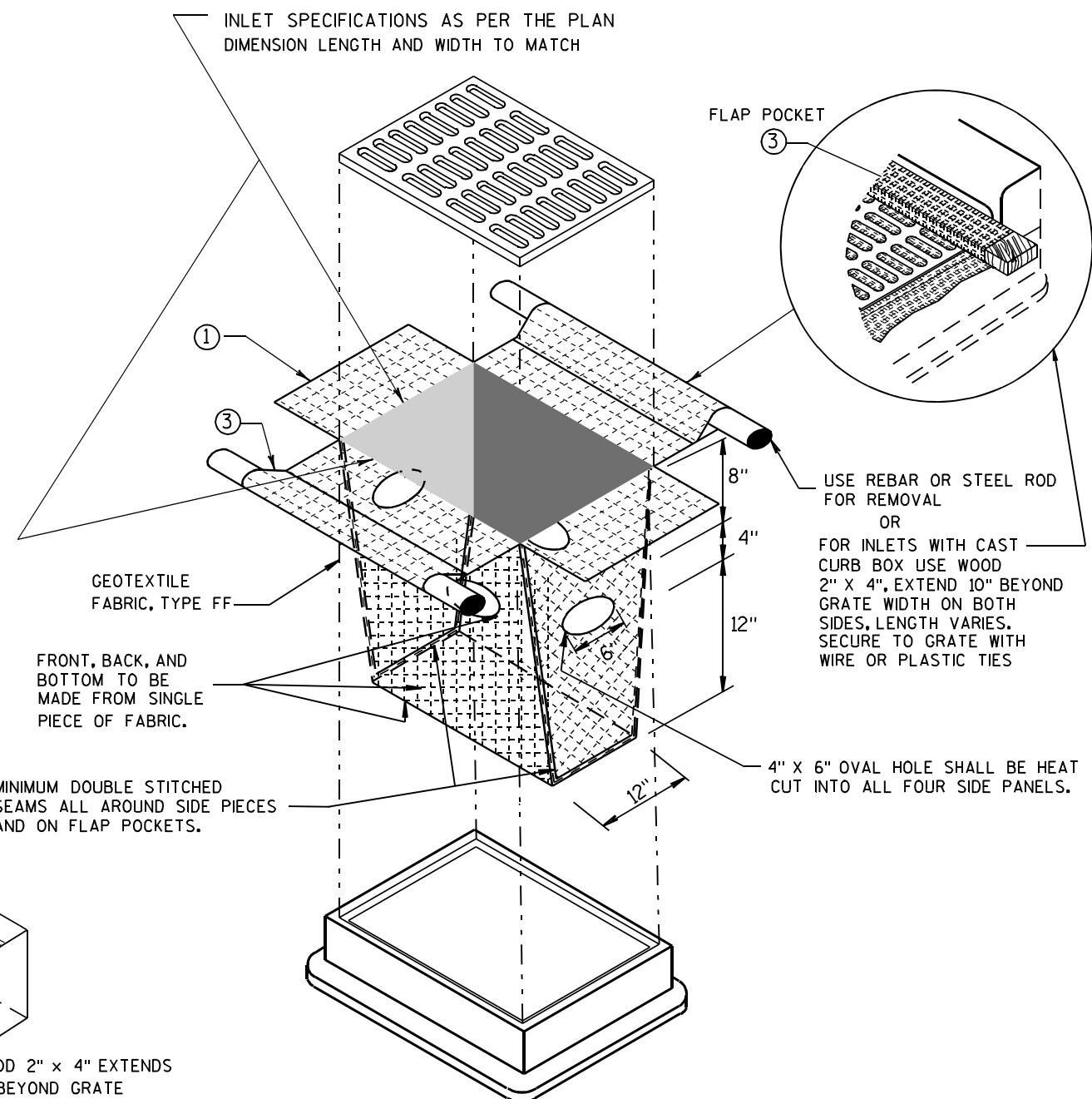
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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 D

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

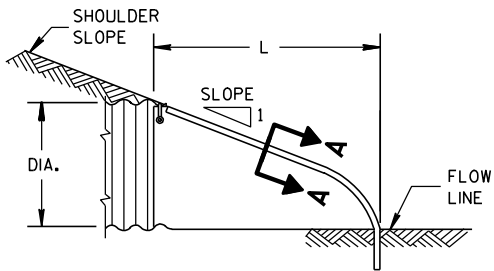
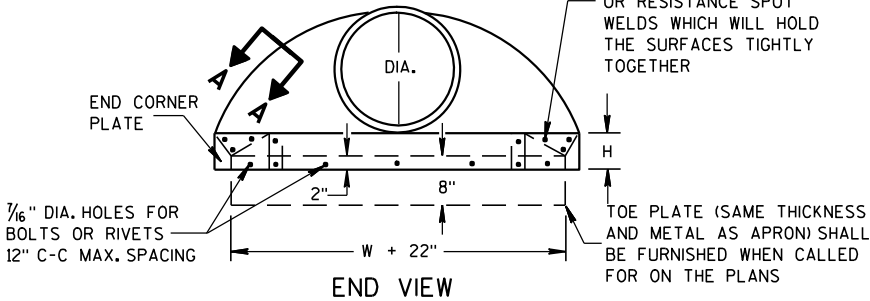
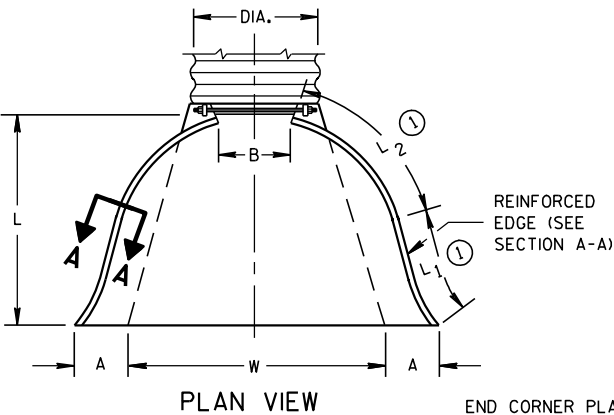
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE		BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")			
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	.109x	.105x	18	33	12	87	—	—	114	2 to 1		3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1		3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1		3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1		3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1		3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1		3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1		3 Pc.

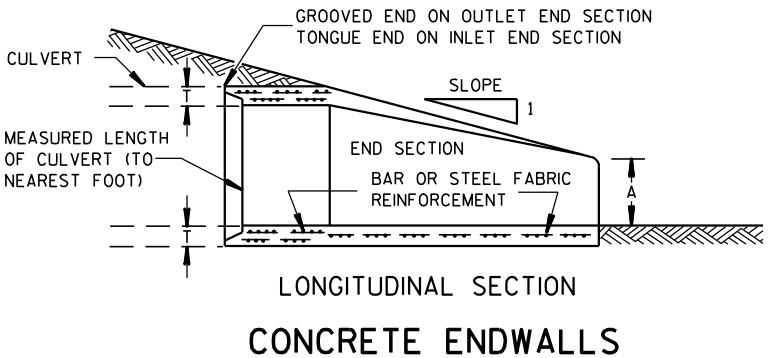
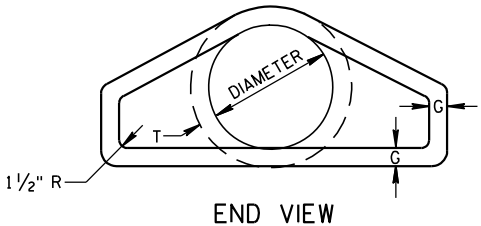
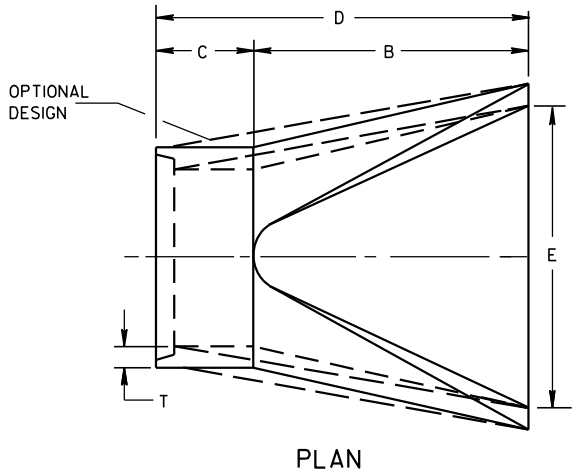
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



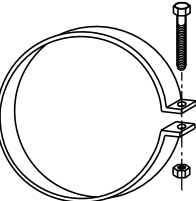
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 1/8	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 1/2 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				

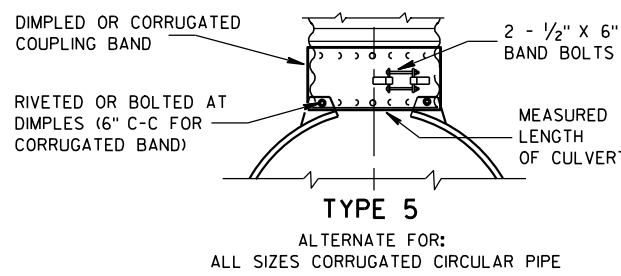
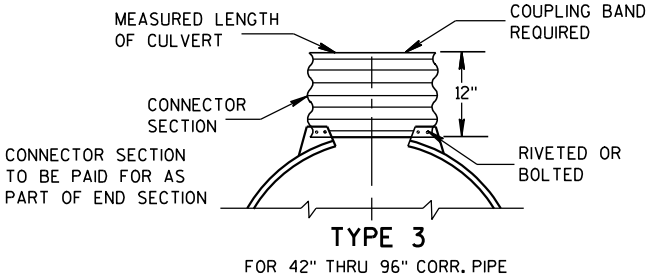
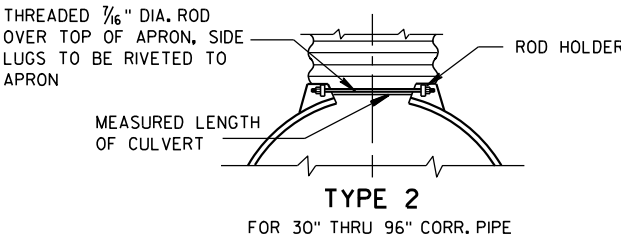
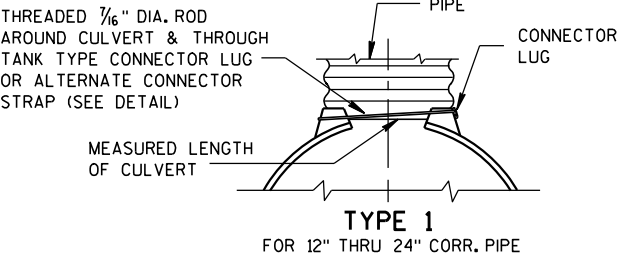
* MINIMUM
** MAXIMUM



1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



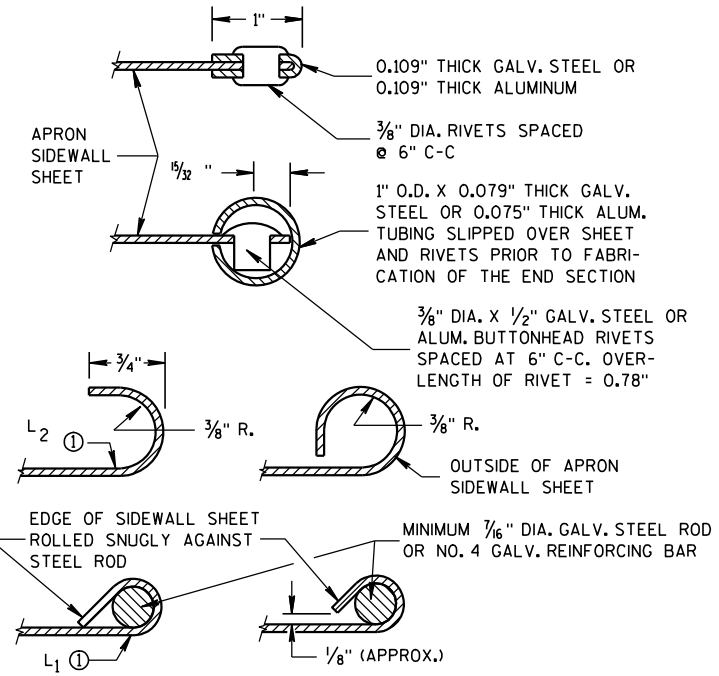
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

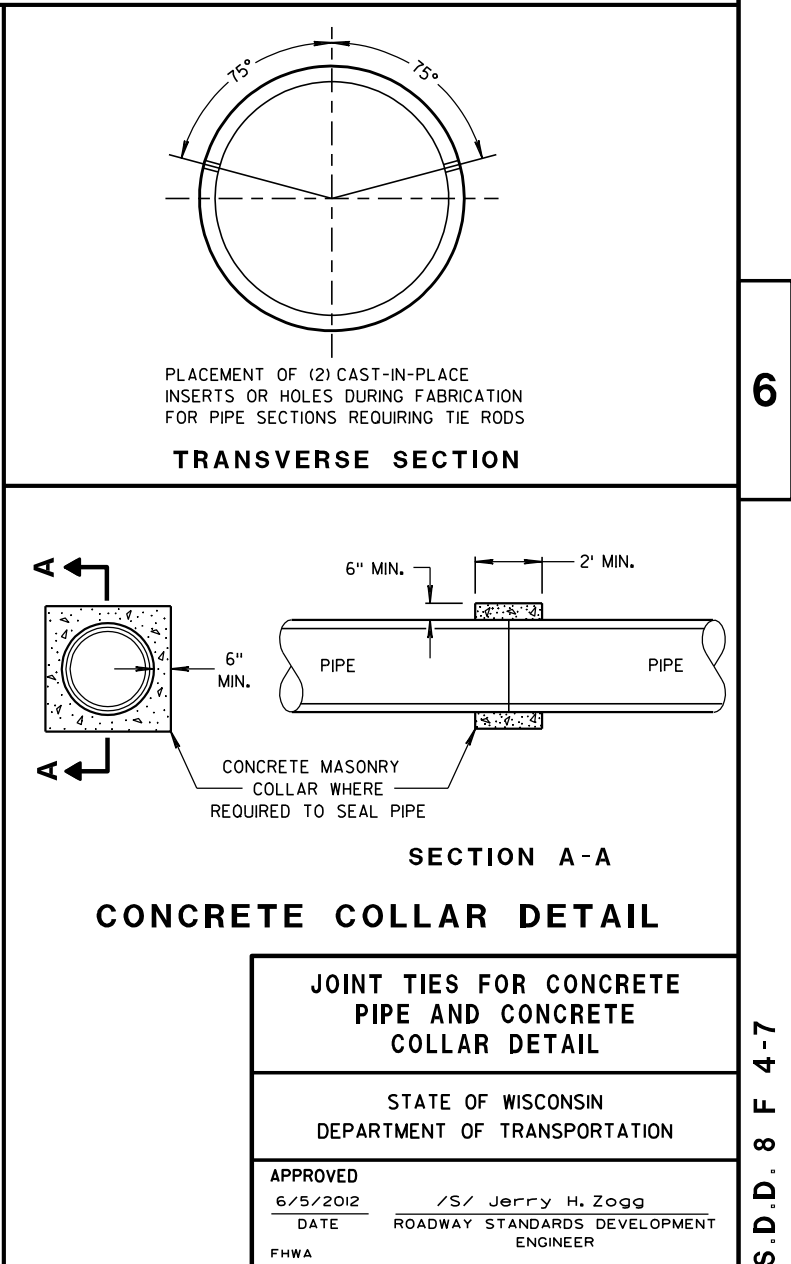
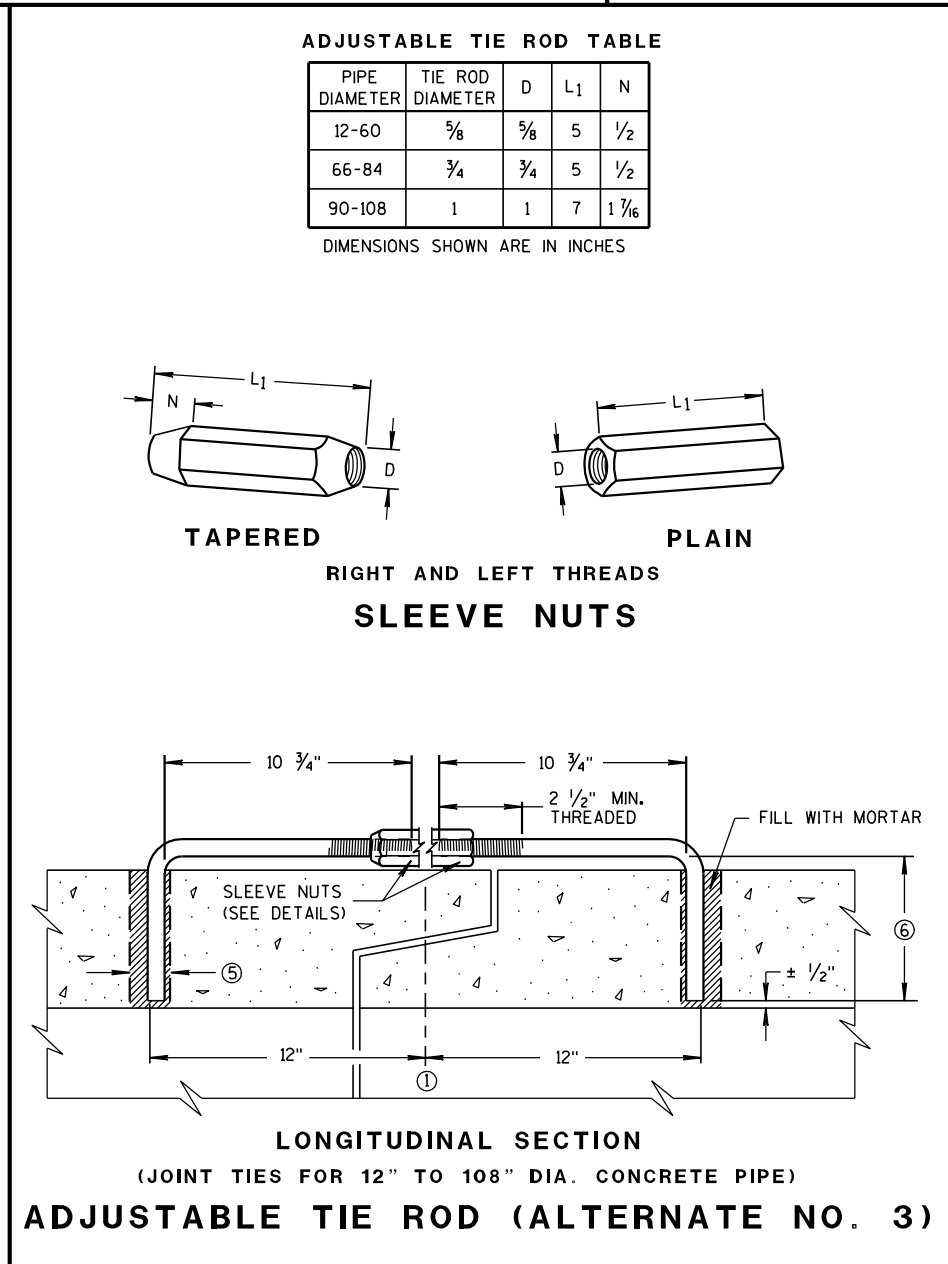
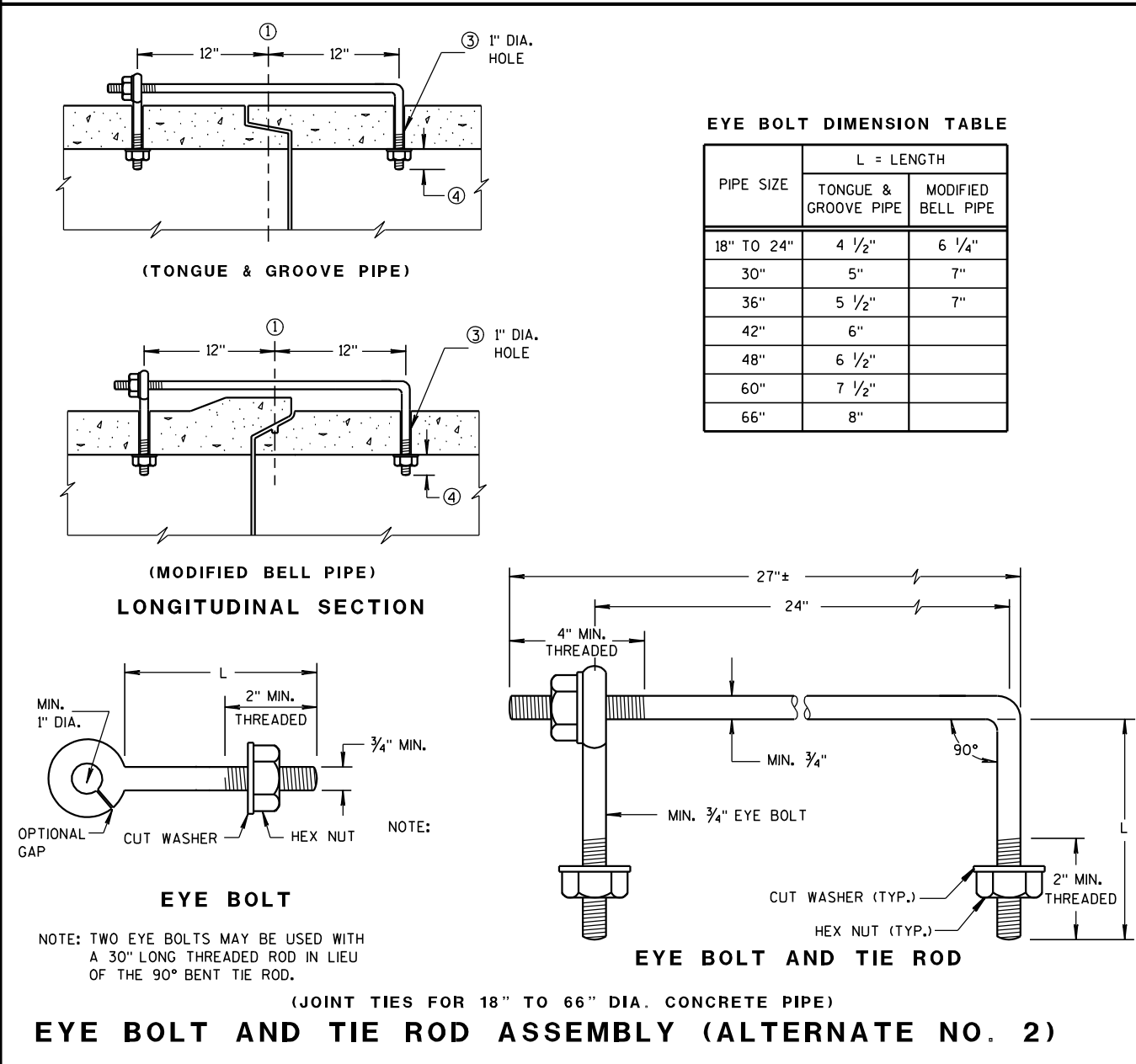
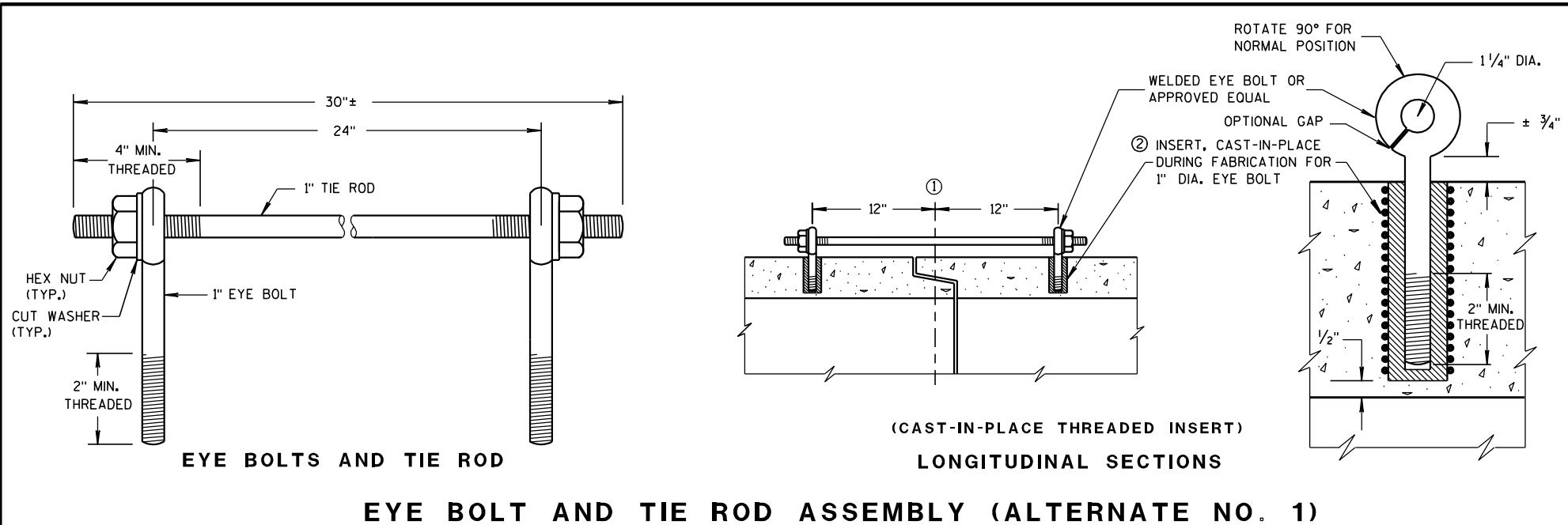
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

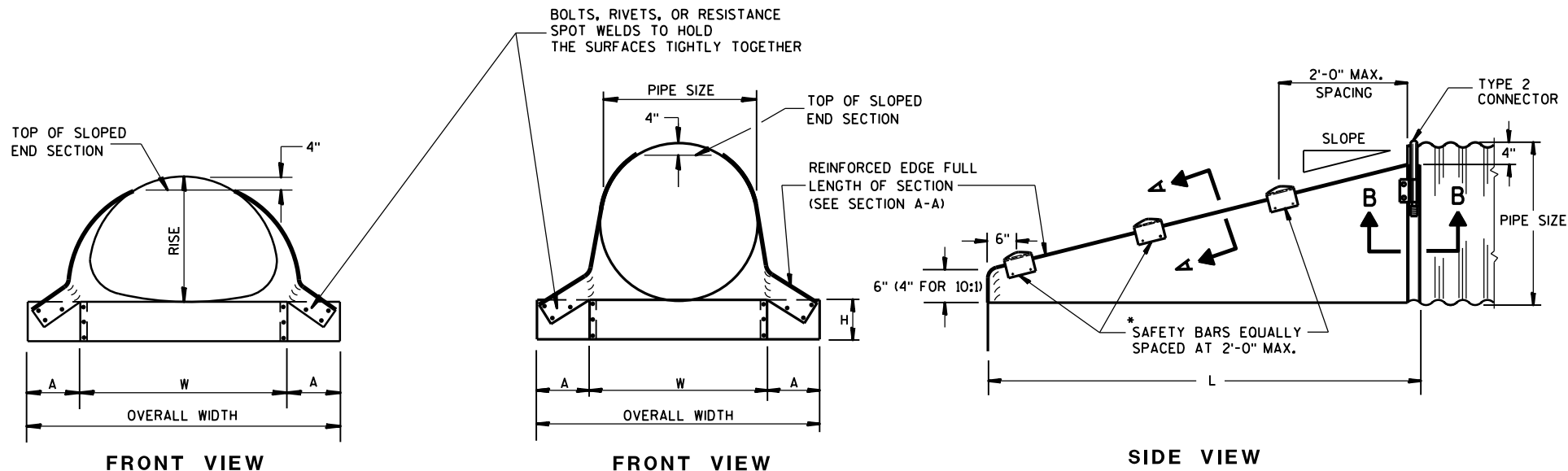
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

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





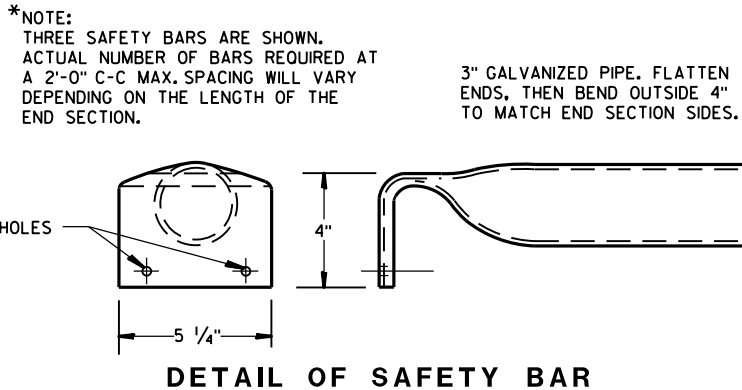
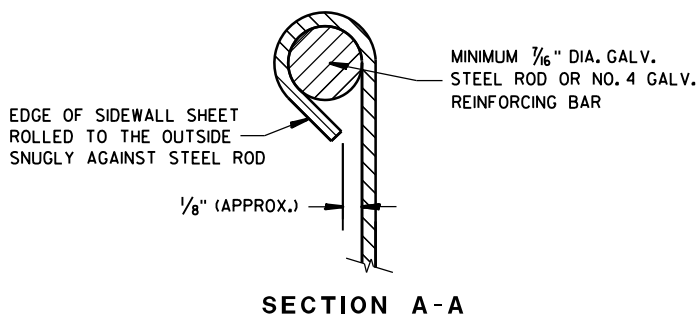
GENERAL NOTES

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.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

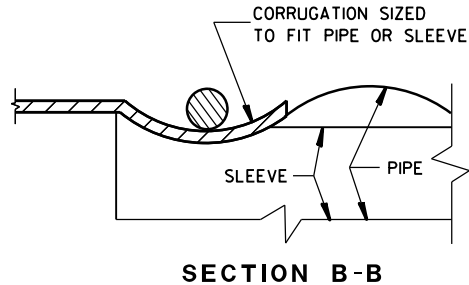
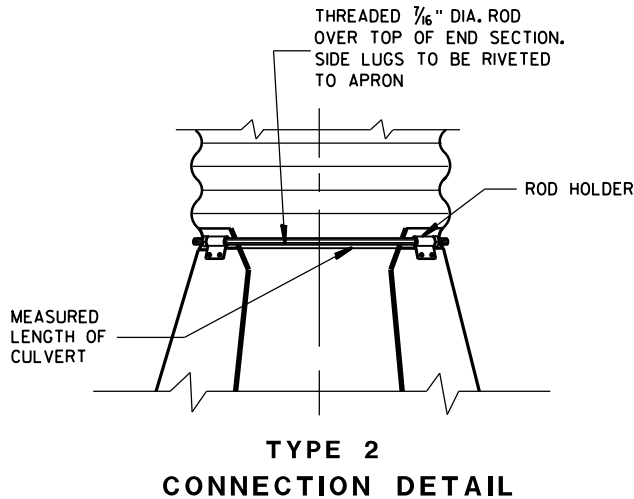
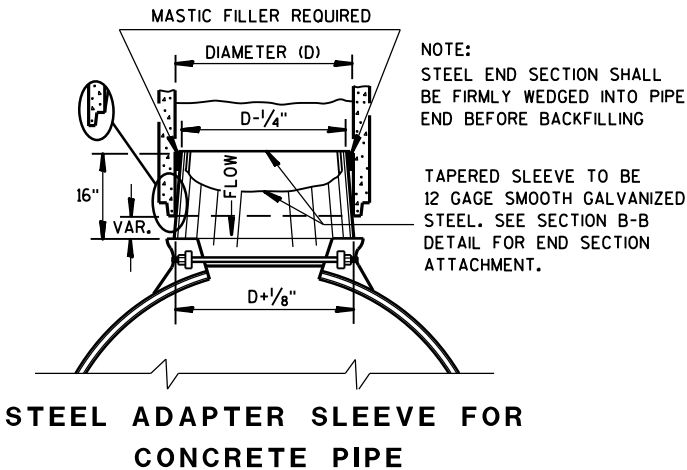
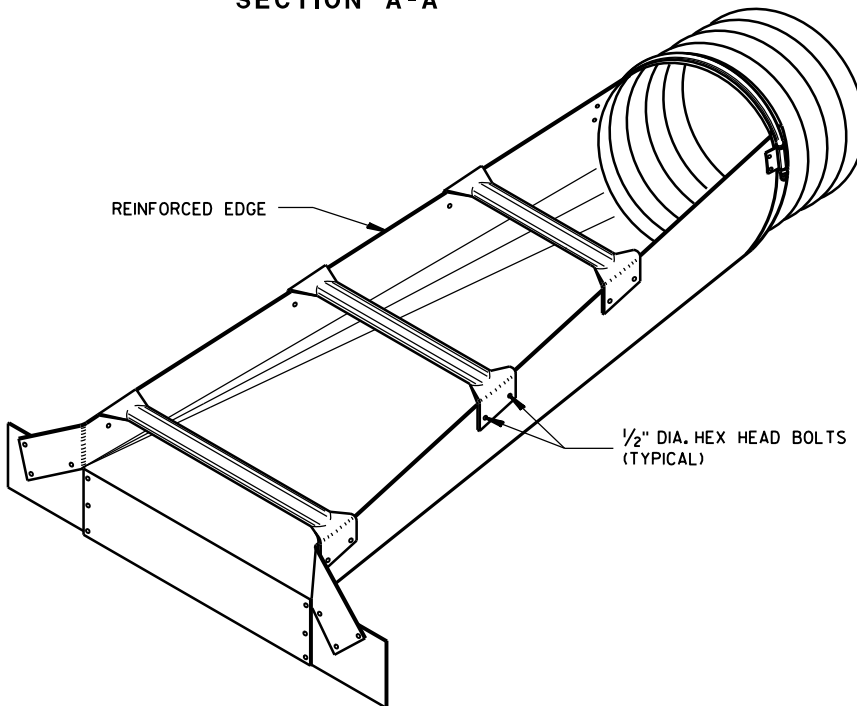
SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

STEEL APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	16	12	48	80	4:1	128	6:1	192	—	—
48	.109	16	12	54	86	4:1	152	6:1	228	—	—
54	.109	16	12	60	92	4:1	176	6:1	264	—	—
60	.109	16	12	66	98	4:1	200	6:1	300	—	—



STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS											
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches) ①	DIMENSIONS (Inches)				L DIMENSIONS			
	SPAN	RISE		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	17	13	.064 *	7	6	30	44	4:1	19	6:1	30 10:1 ②
18	21	15	.064 *	8	6	27	43	4:1	20	6:1	30 10:1 ②
21	24	18	.064 *	8	6	30	46	4:1	32	6:1	48 10:1 ②
24	28	20	.064 *	8	6	34	50	4:1	40	6:1	60 10:1 ②
30	35	24	.079 *	12	9	41	65	4:1	56	6:1	84 10:1 ②
36	42	29	.109 *	12	9	48	72	4:1	76	6:1	114 10:1 ②
42	49	33	.109	16	12	55	87	4:1	92	6:1	138 —
48	57	38	.109	16	12	63	95	4:1	112	6:1	168 —
54	64	43	.109	16	12	70	102	4:1	132	6:1	198 —

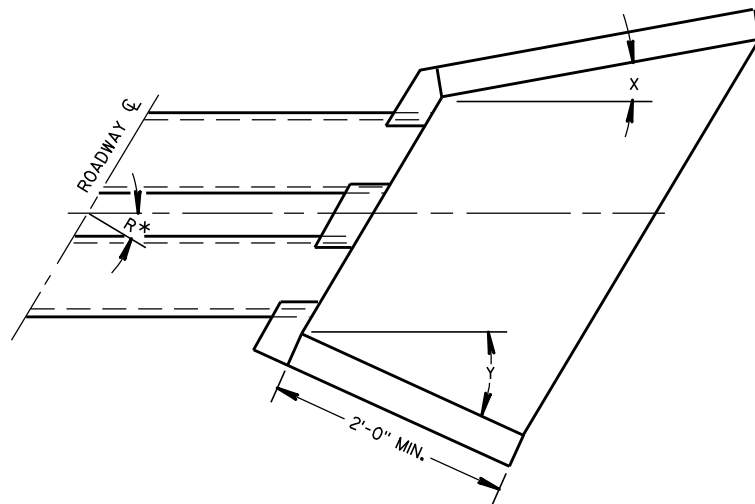
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

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.

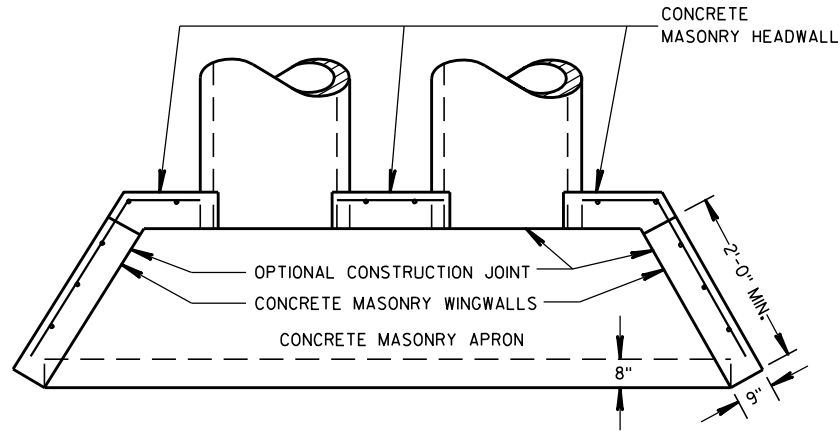
FILL SLOPES FLATTER THAN 2 1/2:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

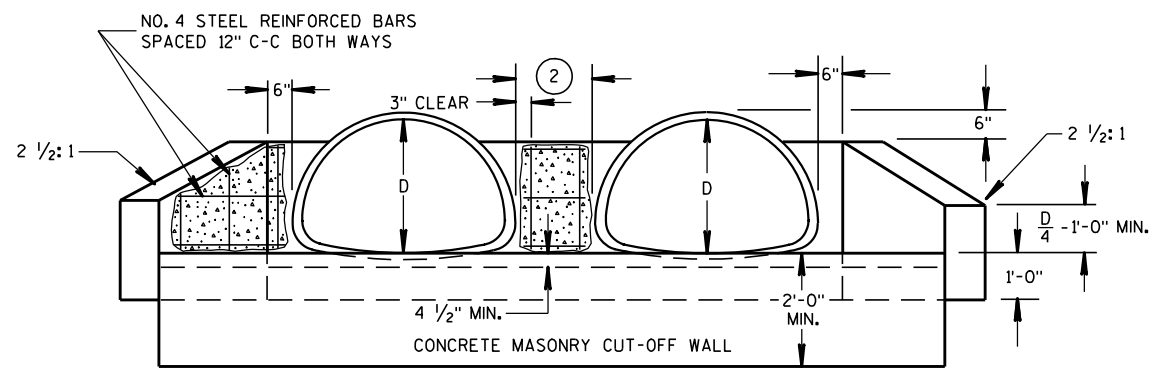
1 MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

2 THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

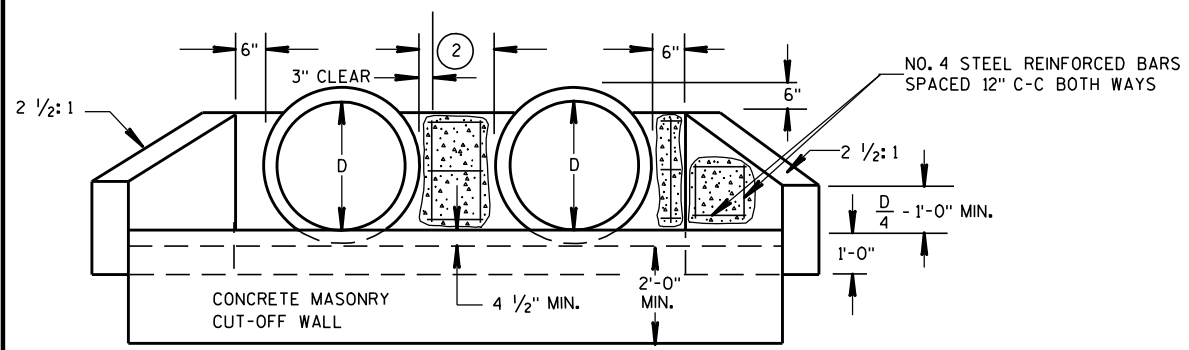
DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	1/2 DIA. OR SPAN
OVER 72"	3'-0"



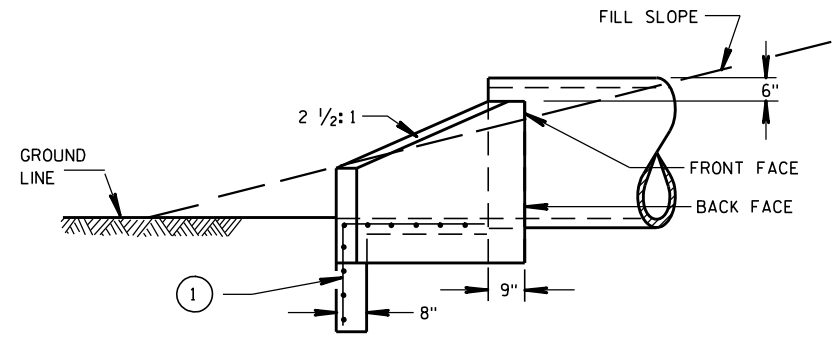
PLAN VIEW
CULVERT PIPE AND PIPE ARCH



END ELEVATION
PIPE ARCH



END ELEVATION
CULVERT PIPE



SIDE ELEVATION
CULVERT PIPE AND PIPE ARCH

CONCRETE MASONRY ENDWALLS
FOR CULVERT PIPE AND
PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/98 /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

GENERAL NOTES

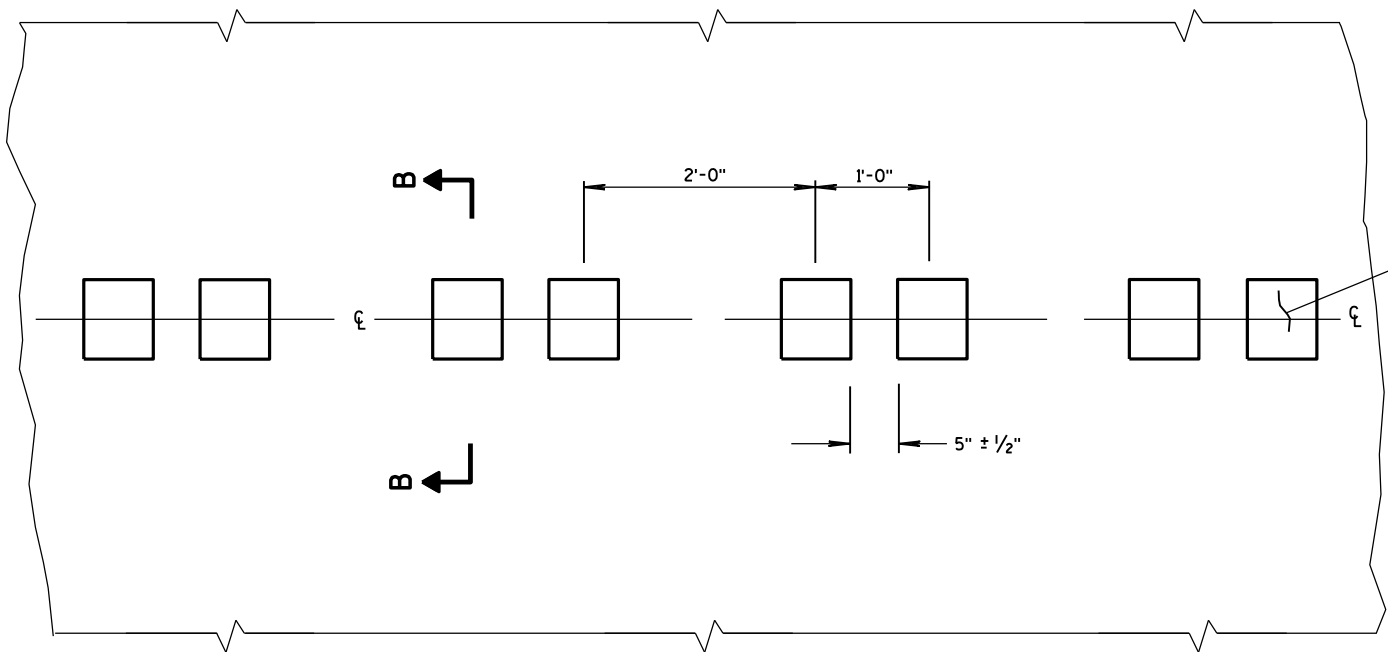
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

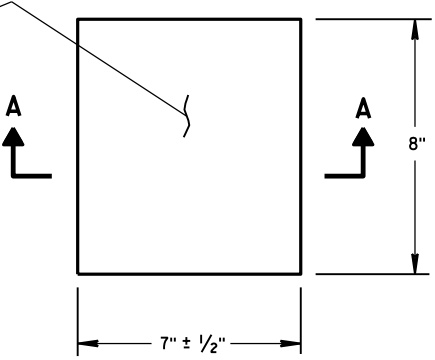
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

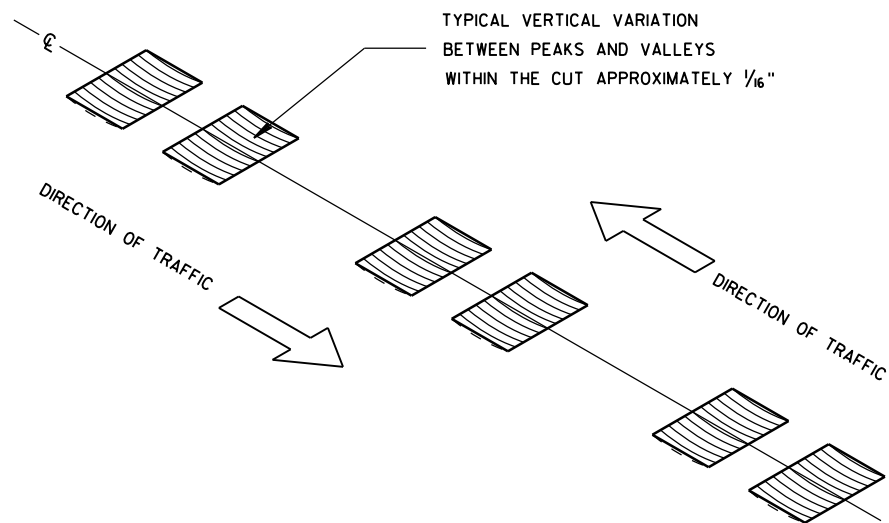
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



PLAN VIEW
CENTER LINE WITH GROOVES

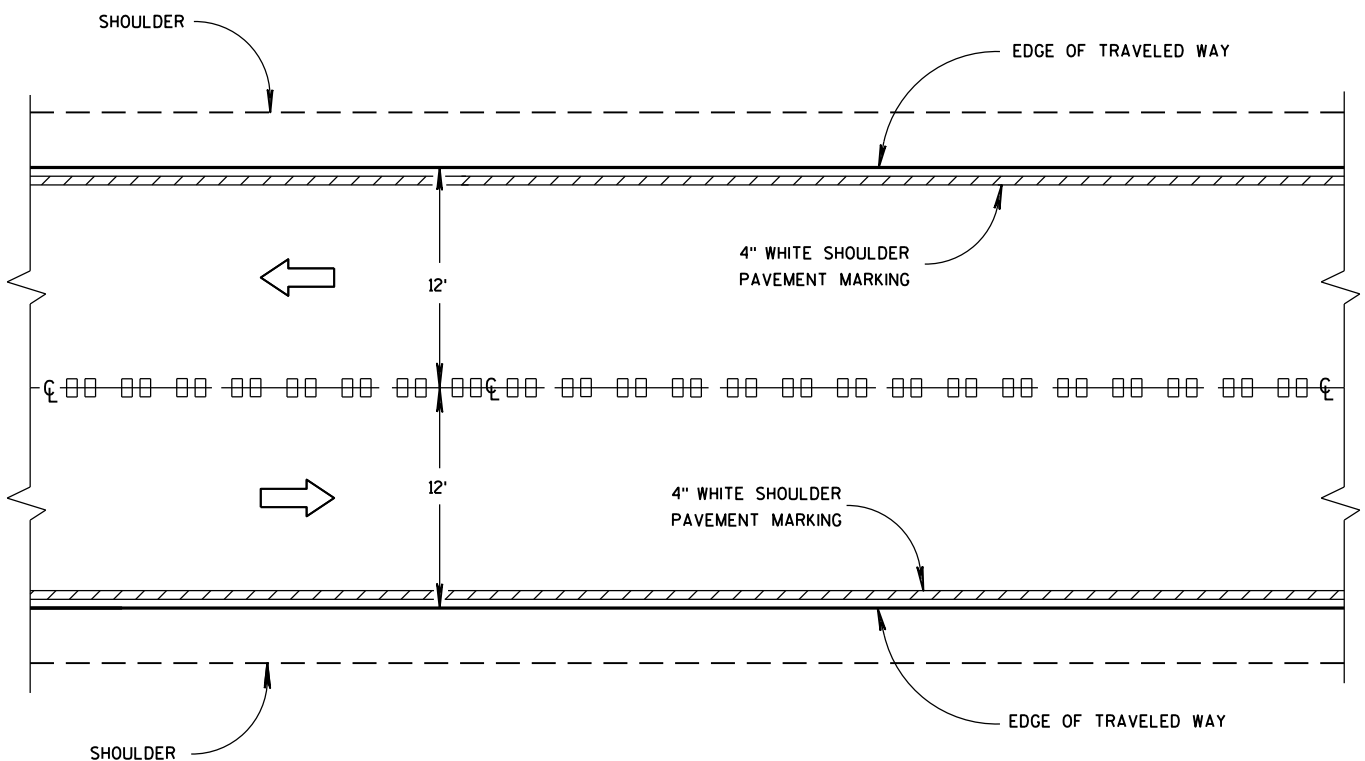


PLAN VIEW
(SINGLE GROOVE)

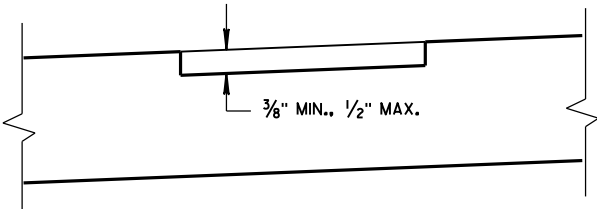


ISOMETRIC

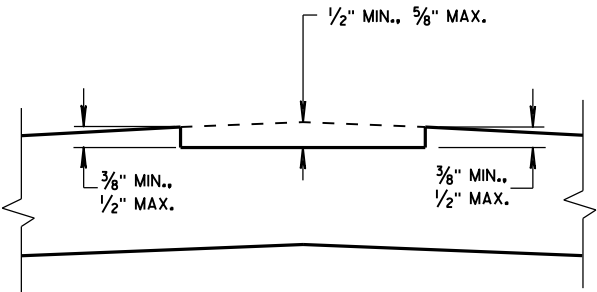
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



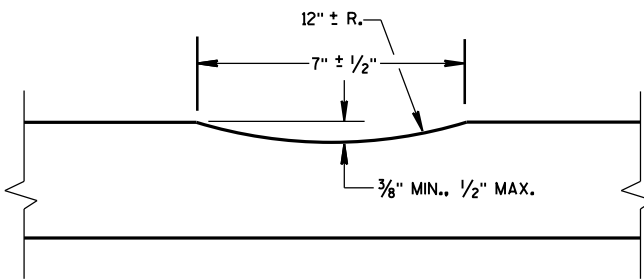
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



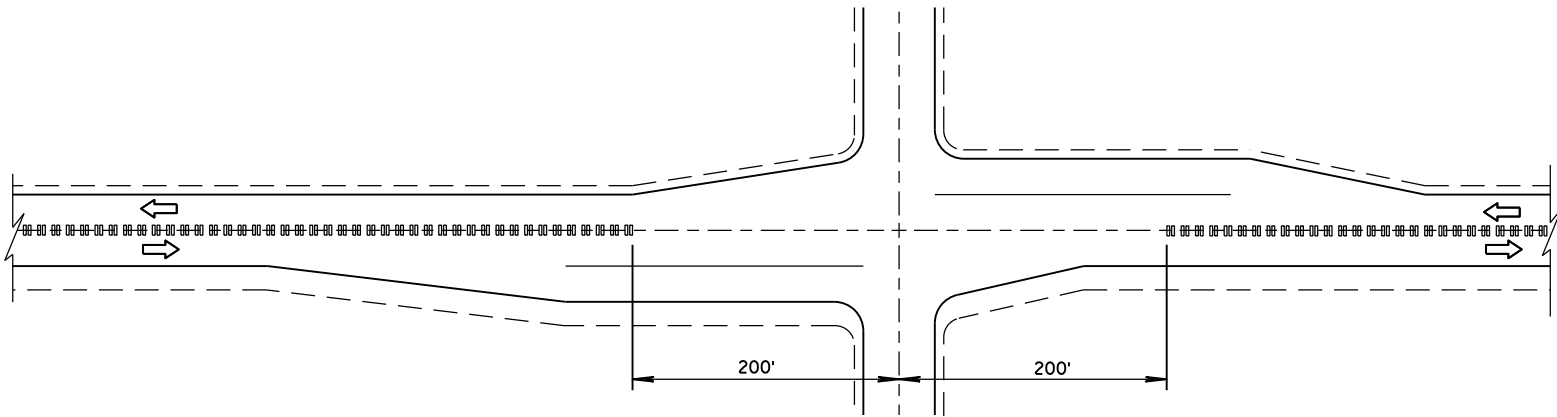
SECTION B-B
CROWNED ROADWAY



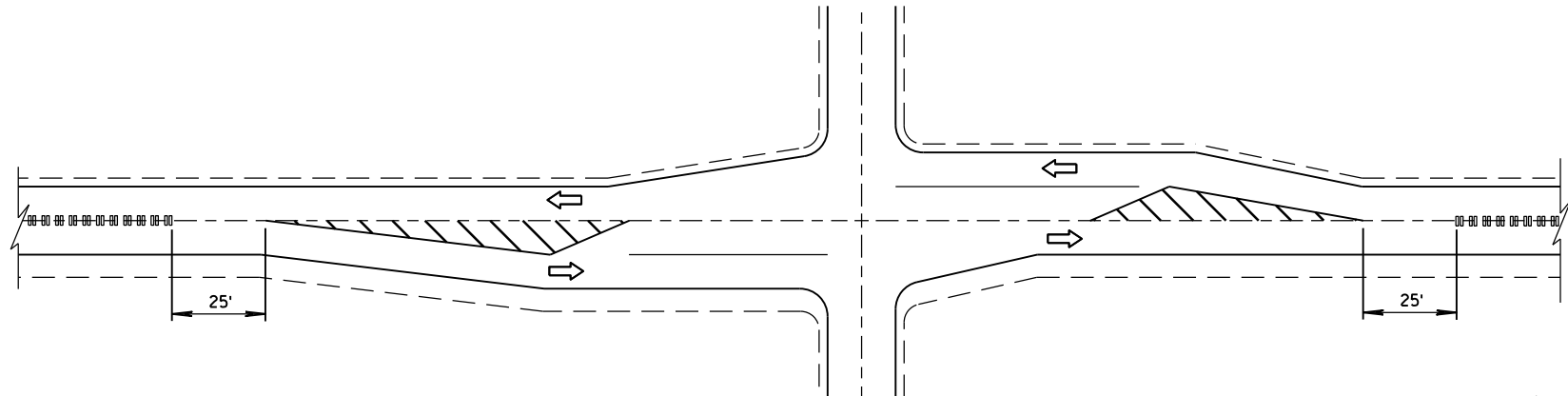
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

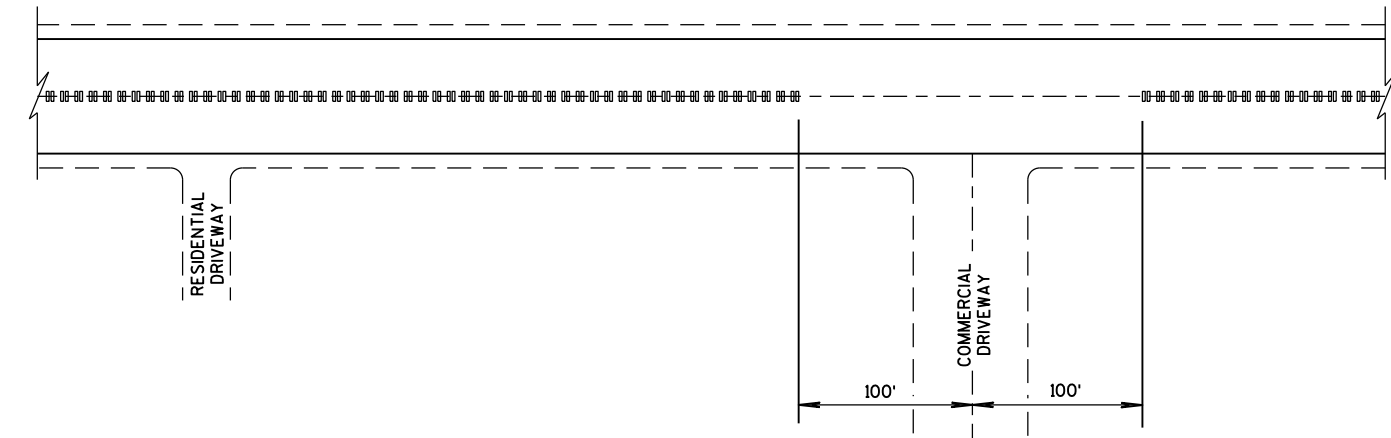
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

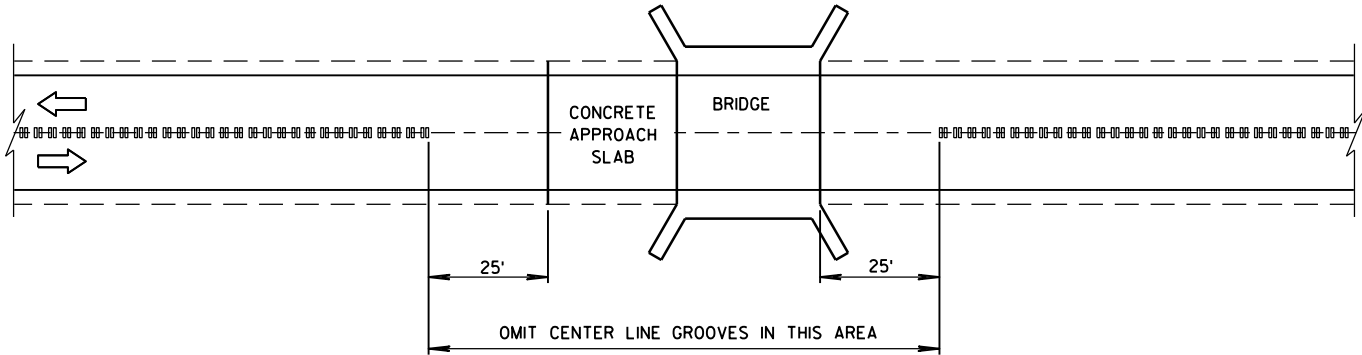


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

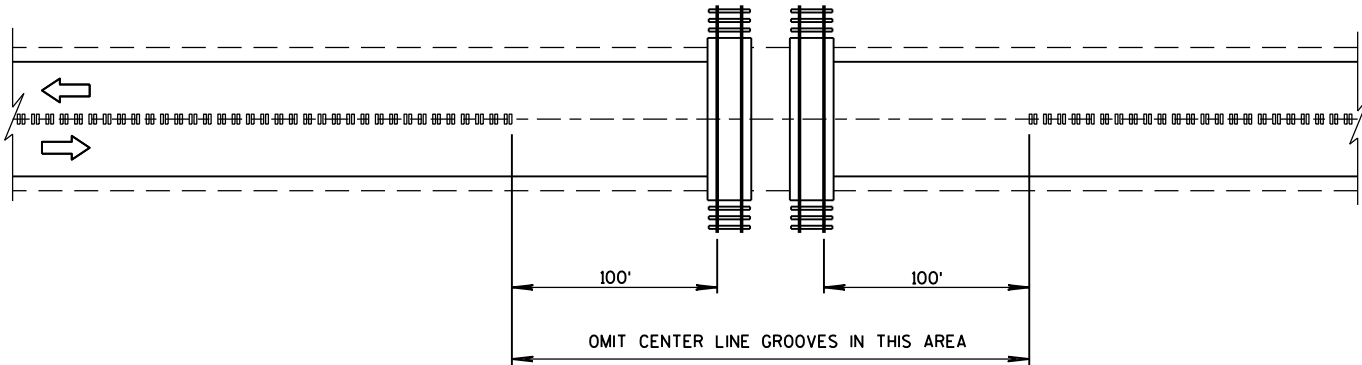


CENTER LINE GROOVES AT DRIVEWAYS^①

^① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

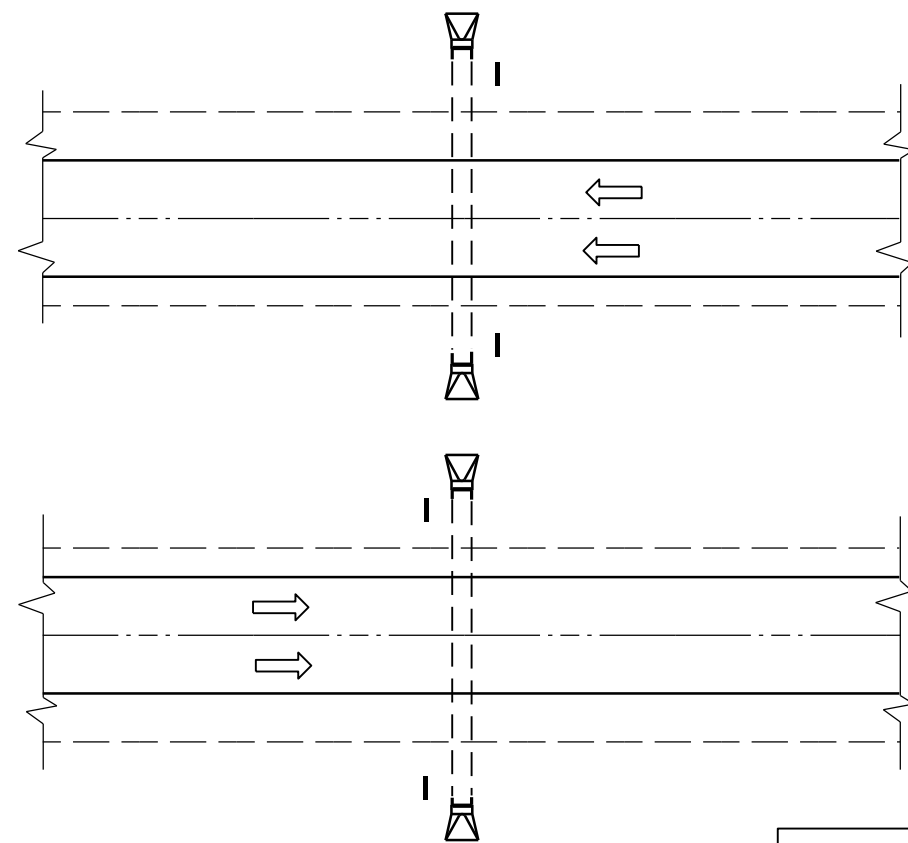


CENTER LINE GROOVES AT BRIDGES

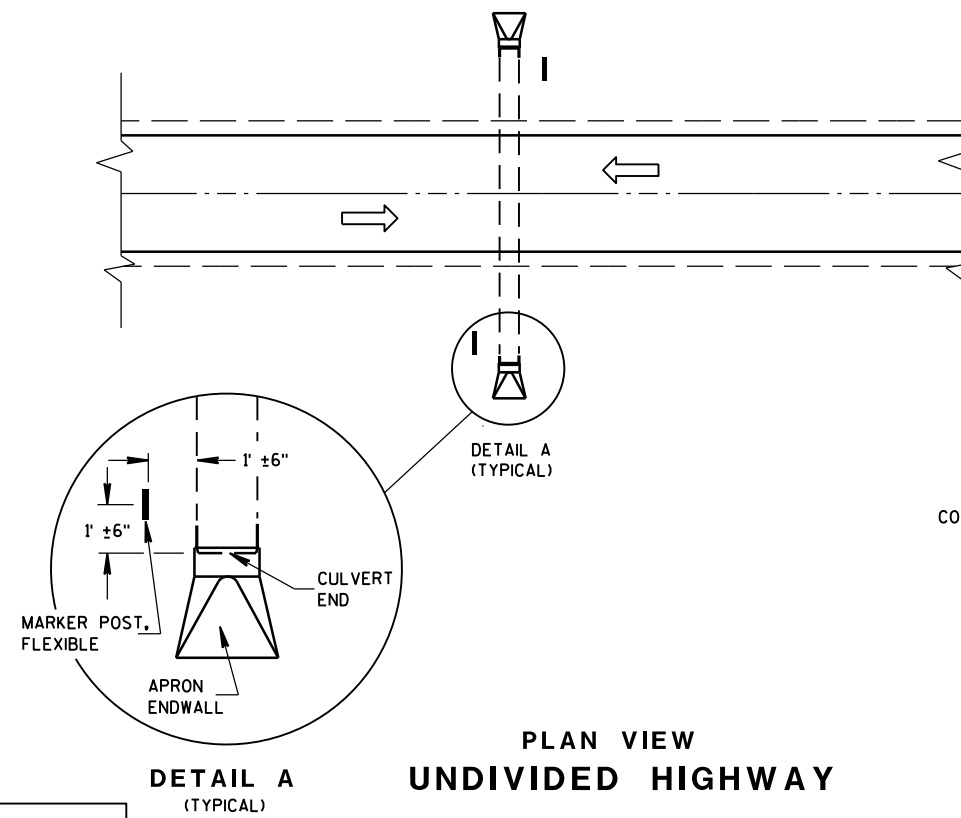
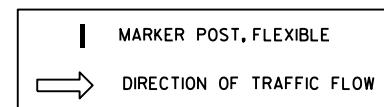


CENTER LINE GROOVES AT RAILROADS

2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/15/2013 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



PLAN VIEW
DIVIDED HIGHWAY

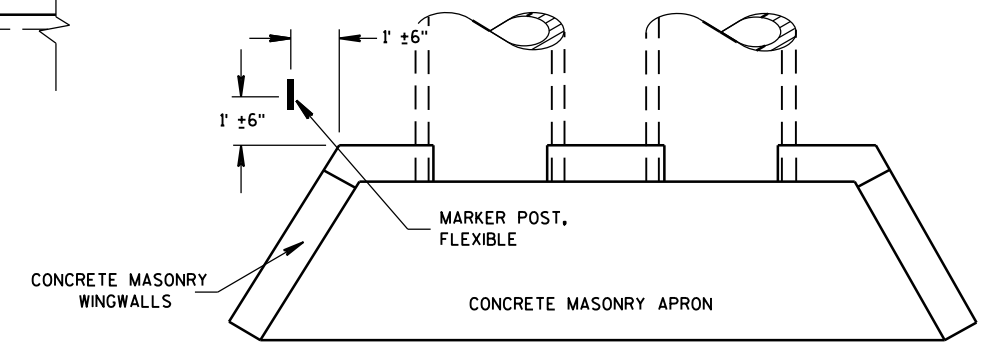


PLAN VIEW
UNDIVIDED HIGHWAY

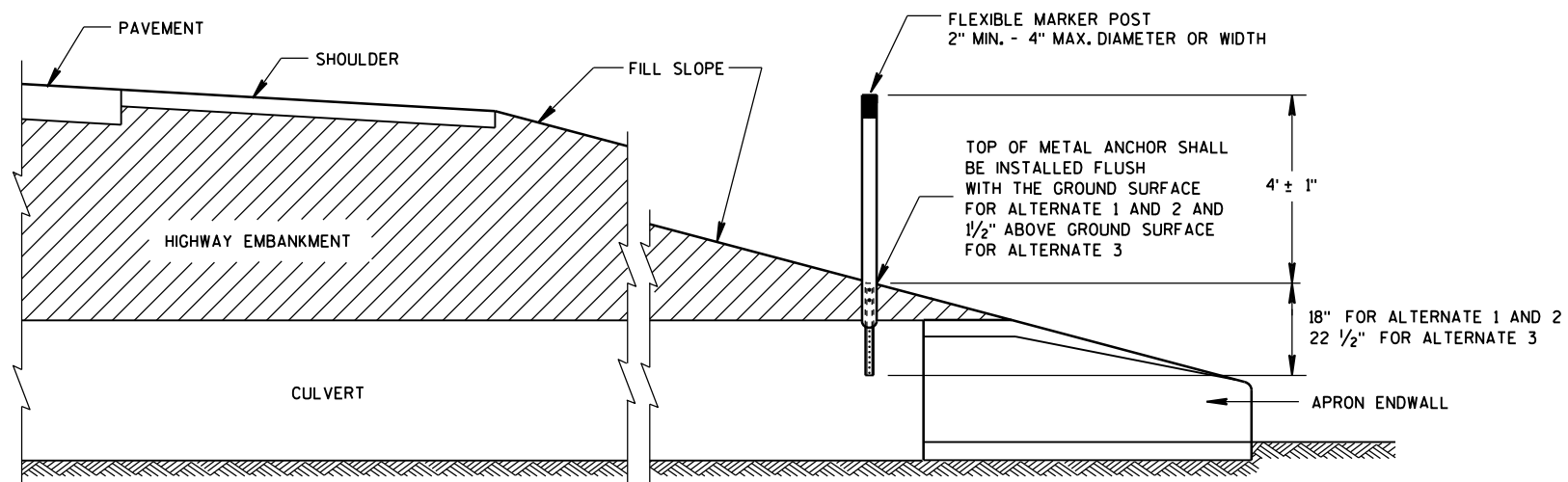
FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

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



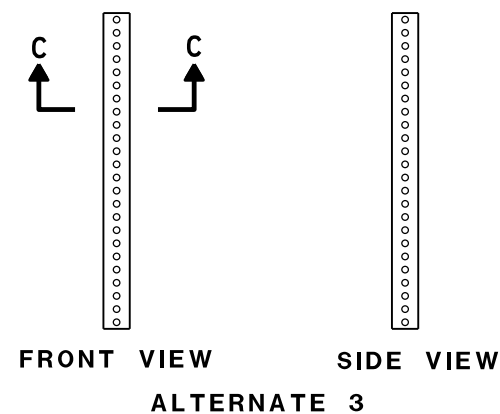
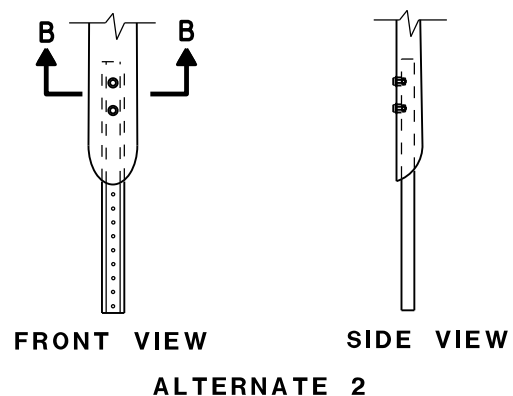
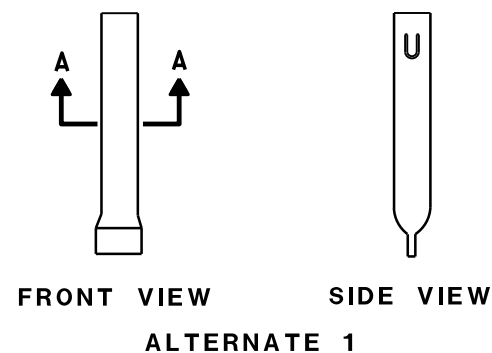
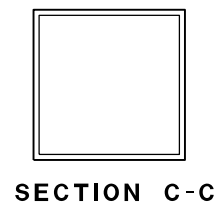
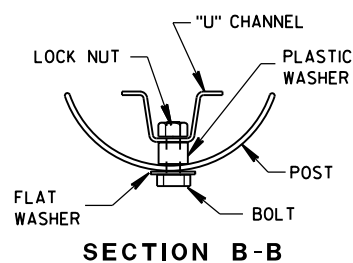
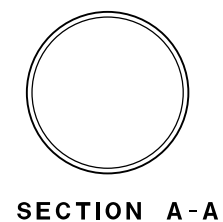
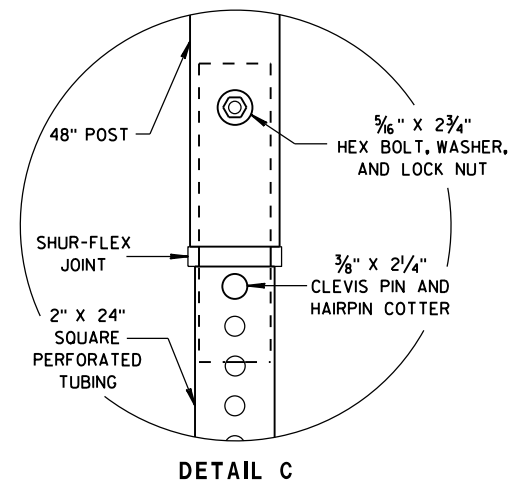
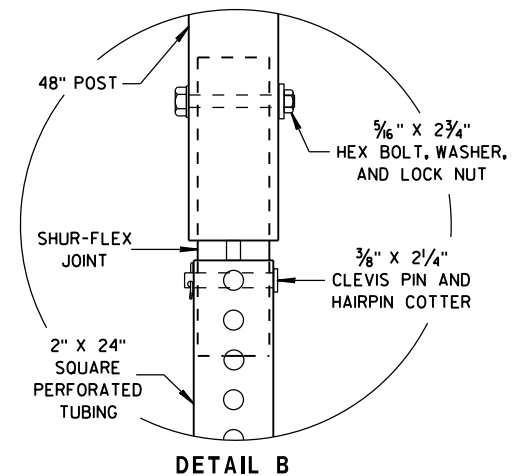
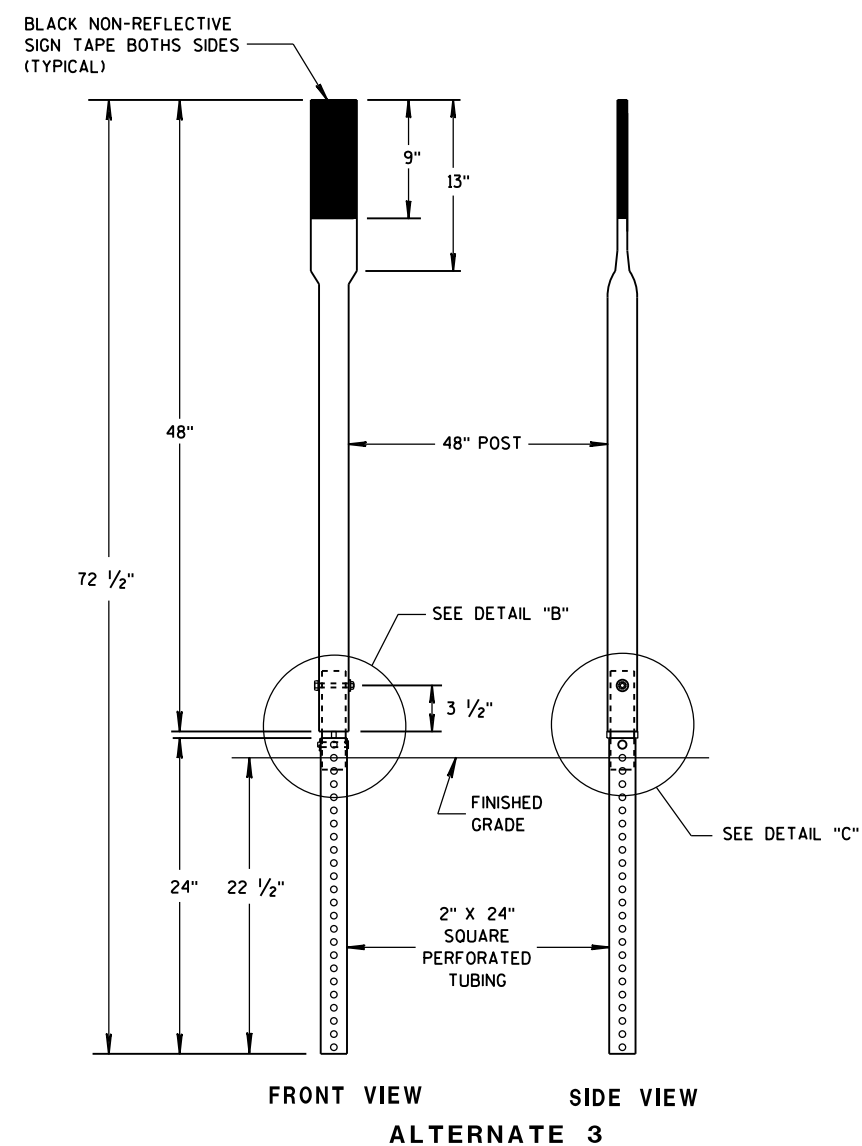
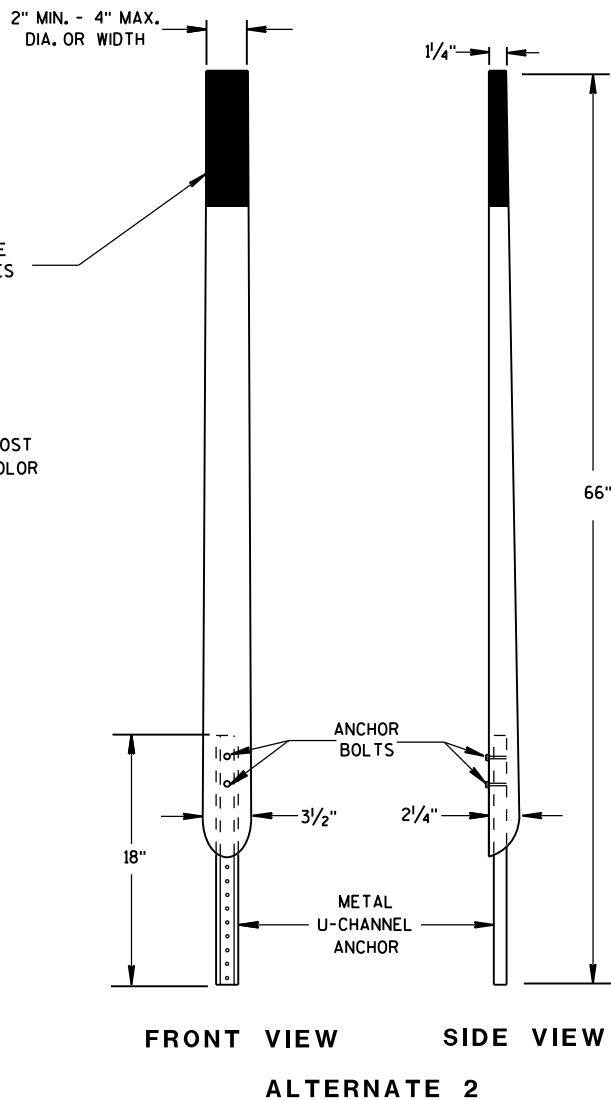
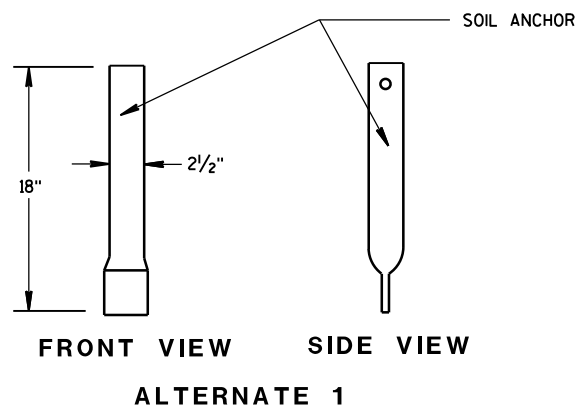
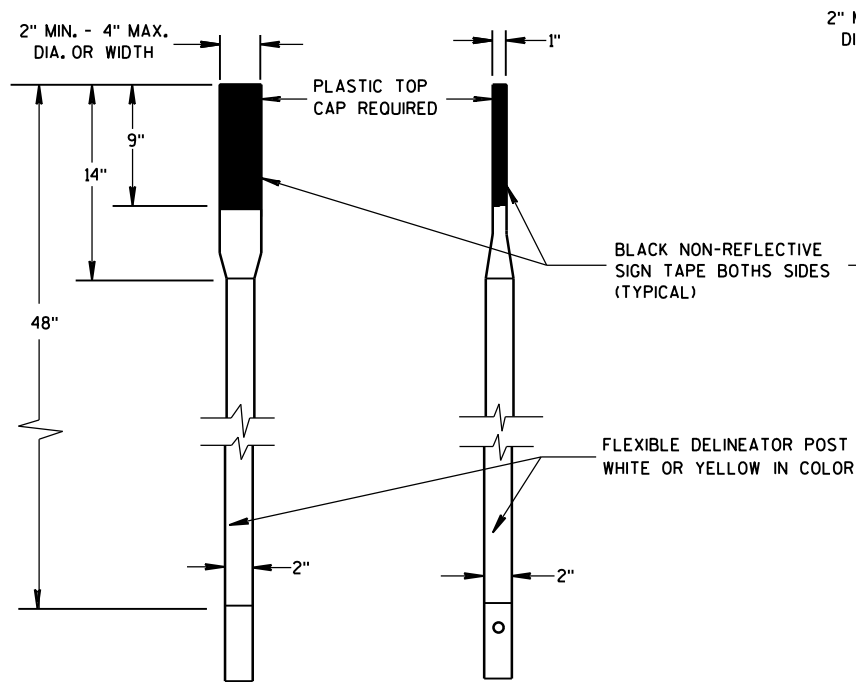
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

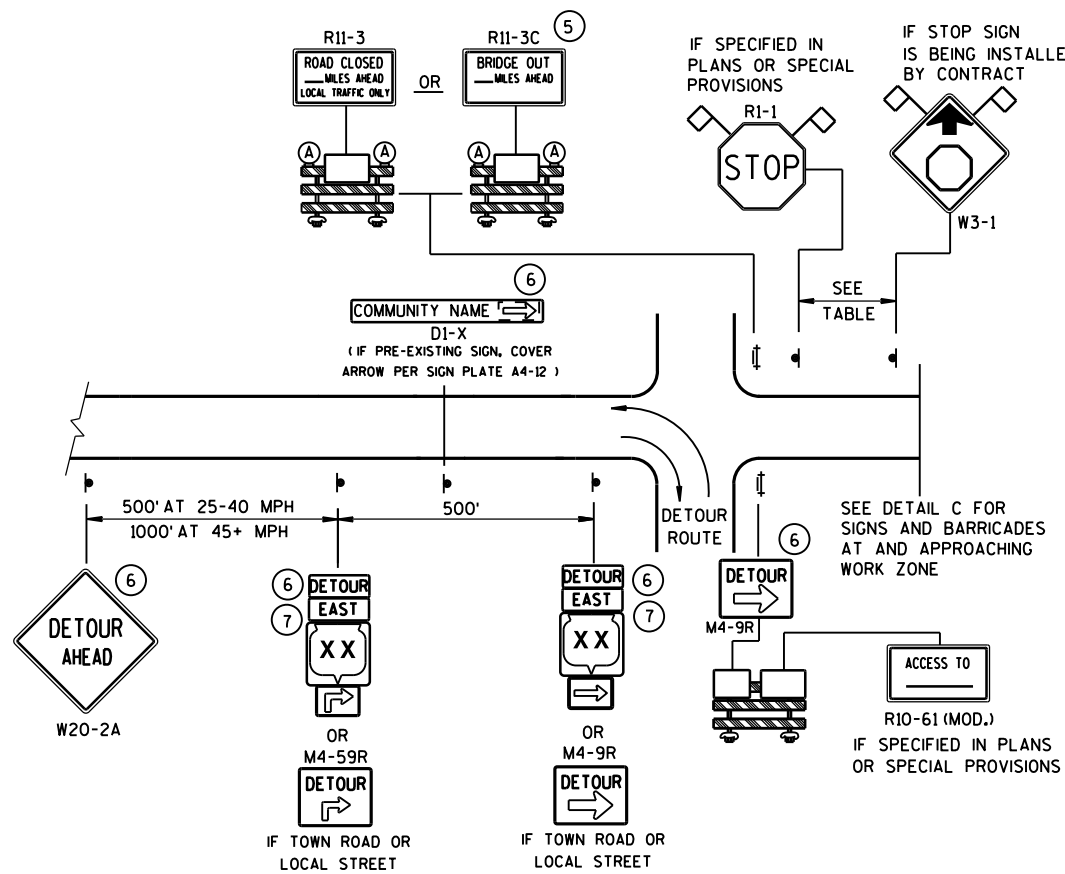


FLEXIBLE MARKER POST FOR CULVERT END

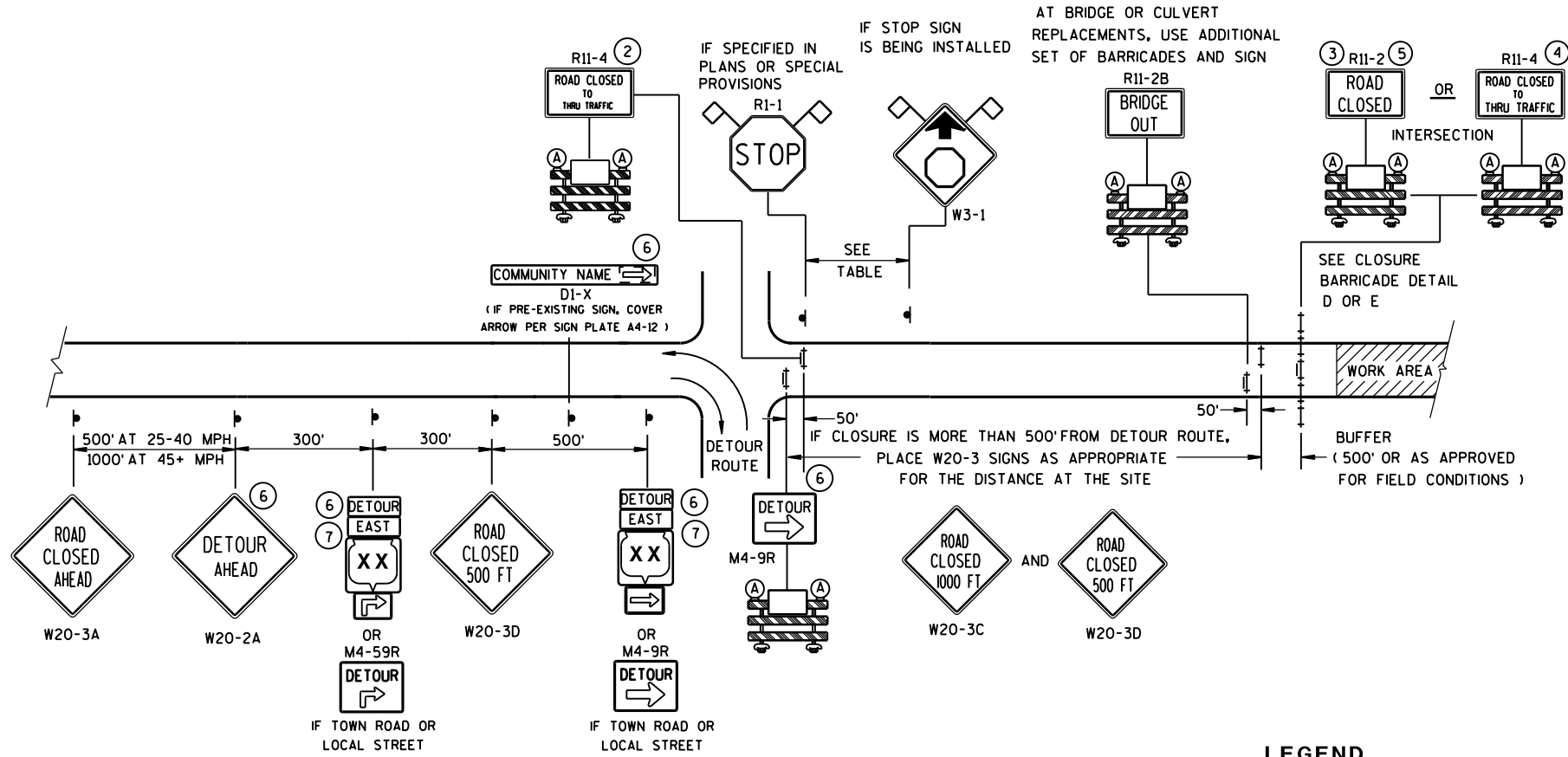
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012
DATE
FHWA

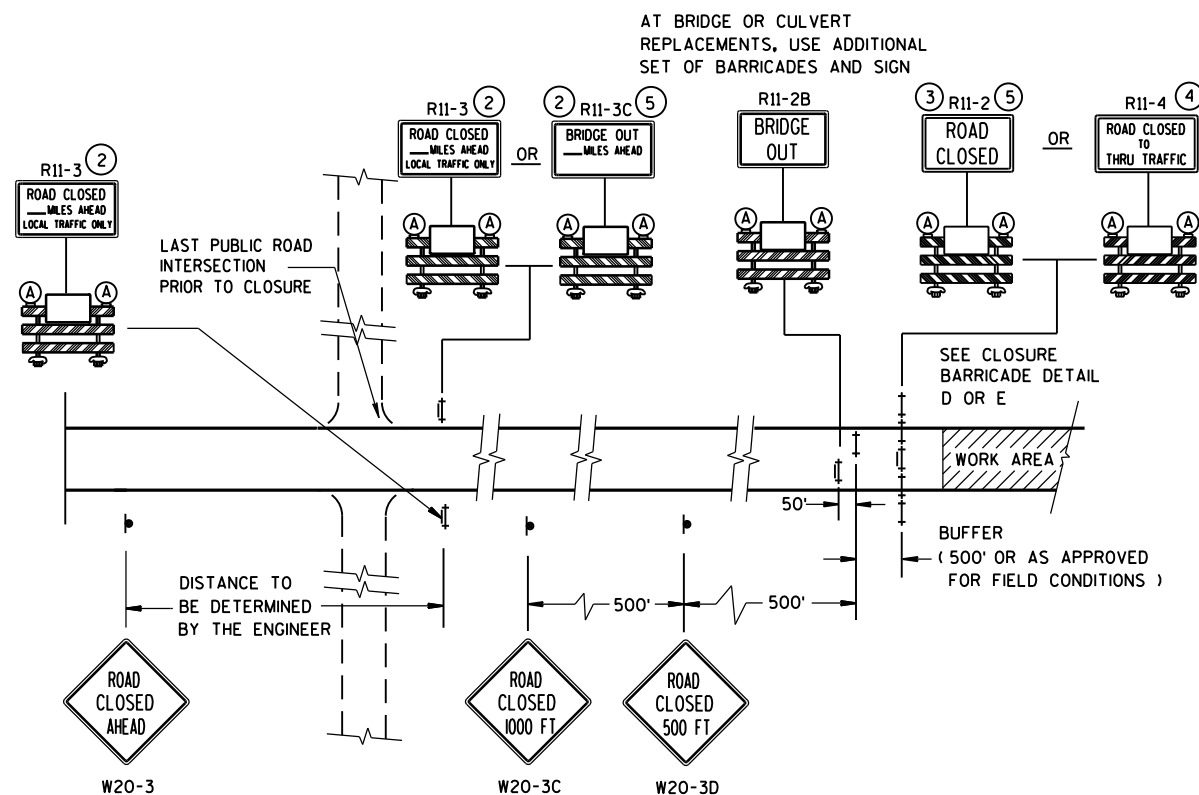
/S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

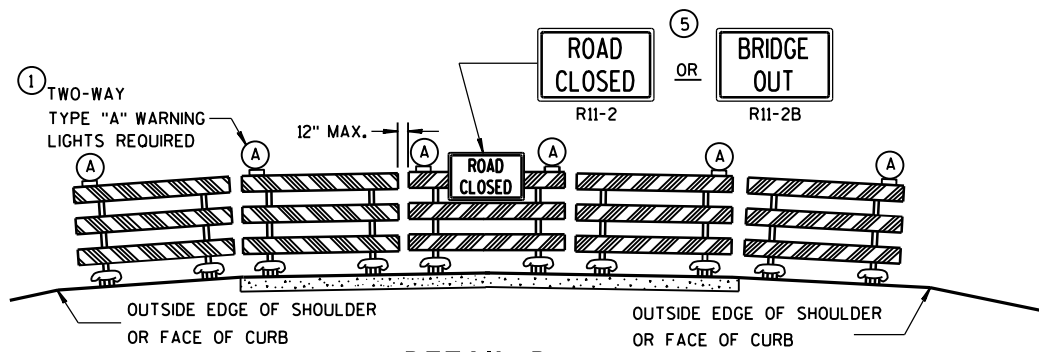
LEGEND

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

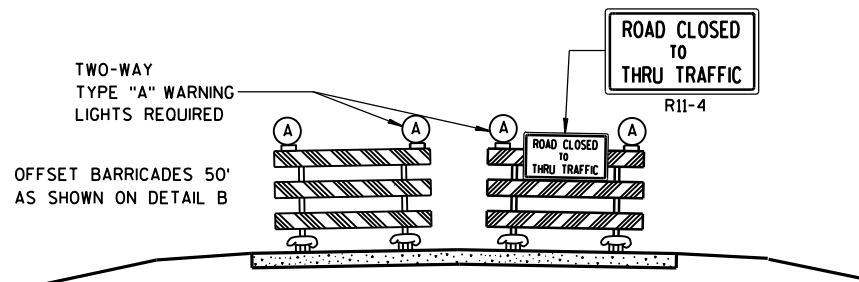
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
Sept. 2015 DATE	/S/ Peter Amokobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



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:

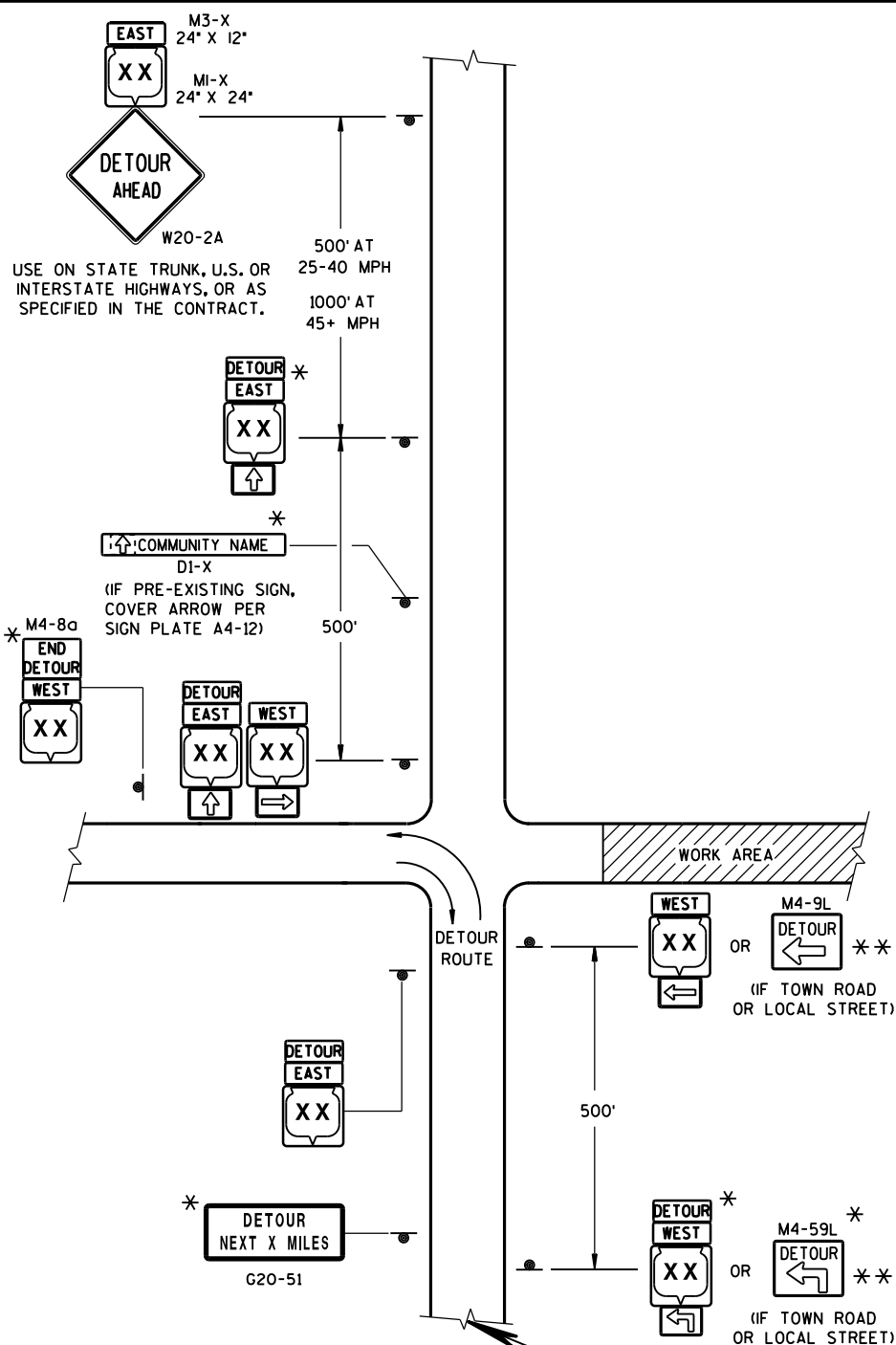
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" 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 /S/ Peter Amokobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



LEGEND

SIGN ON PERMANENT SUPPORT

WORK AREA

M4-8
M3-X

MI-4 MI-5A MI-6

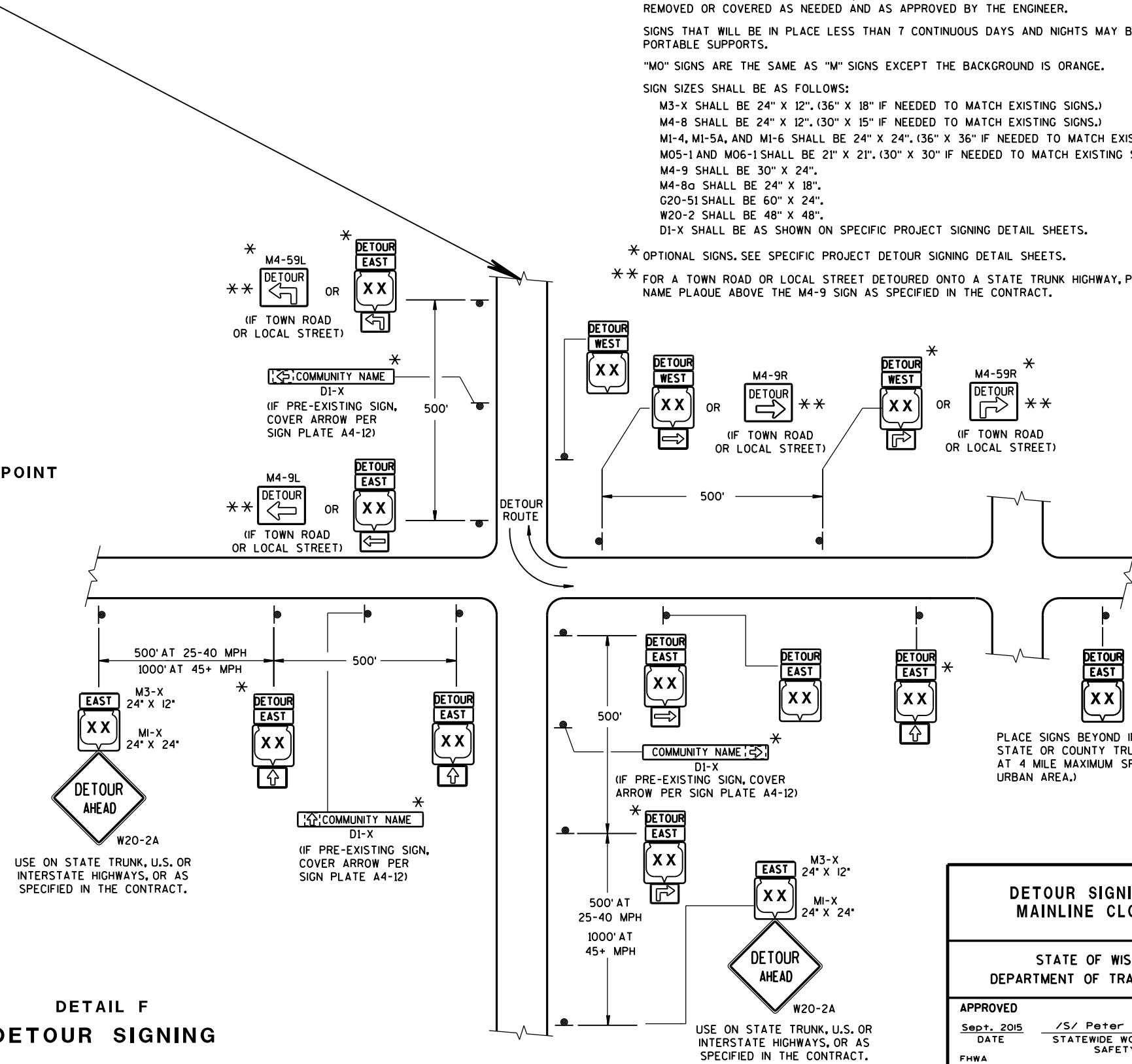
M05-1 M06-1 M06-1

SEE SPECIFIC PROJECT DETOUR
SIGNING DETAIL SHEETS AND
DETAIL A OR B ON SDD 15C2-SHEET "a"

THIS DRAWING PROVIDES GENERAL GUIDANCE
ON TYPICAL DETOUR SIGN LAYOUT AND SPACING.
SEE PROJECT DETOUR SIGNING SHEETS FOR
SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT

DETAIL F
DETOUR SIGNING



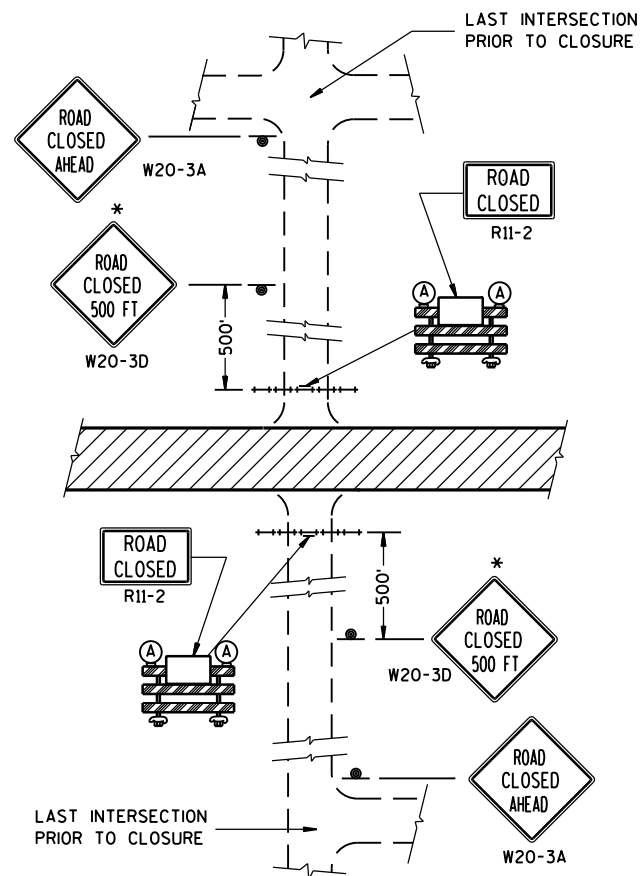
GENERAL NOTES

- 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.)
 - M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M4-9 SHALL BE 30" X 24".
 - M4-8a SHALL BE 24" X 18".
 - G20-51 SHALL BE 60" X 24".
 - W20-2 SHALL BE 48" X 48".
 - D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

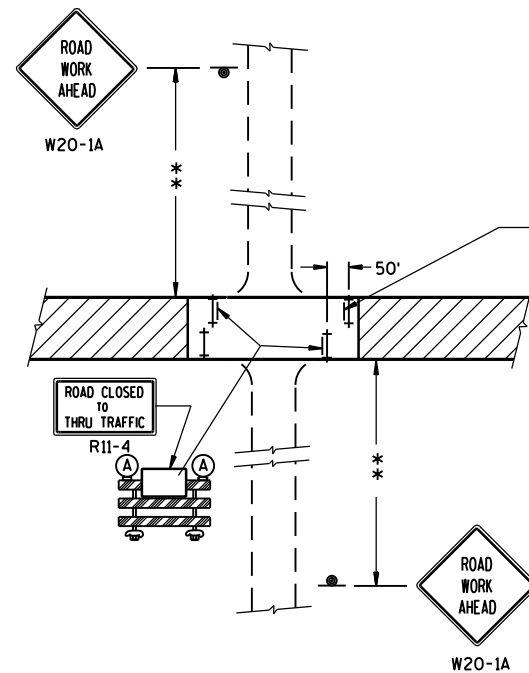
**DETOUR SIGNING FOR
MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

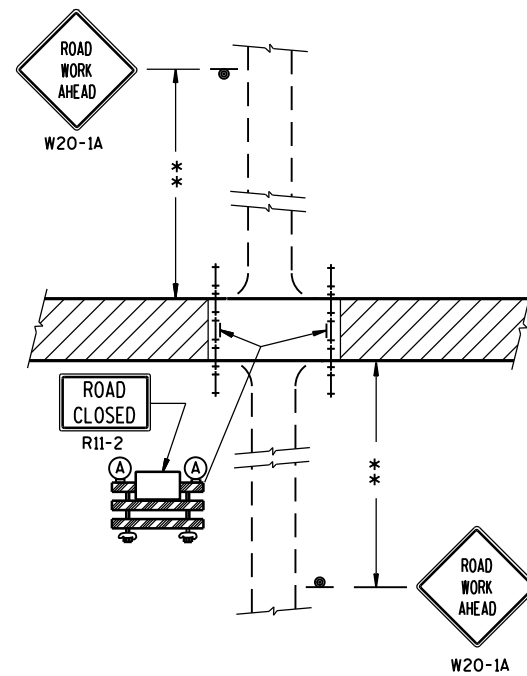
APPROVED
DATE Sept. 2015 /S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER
FHWA



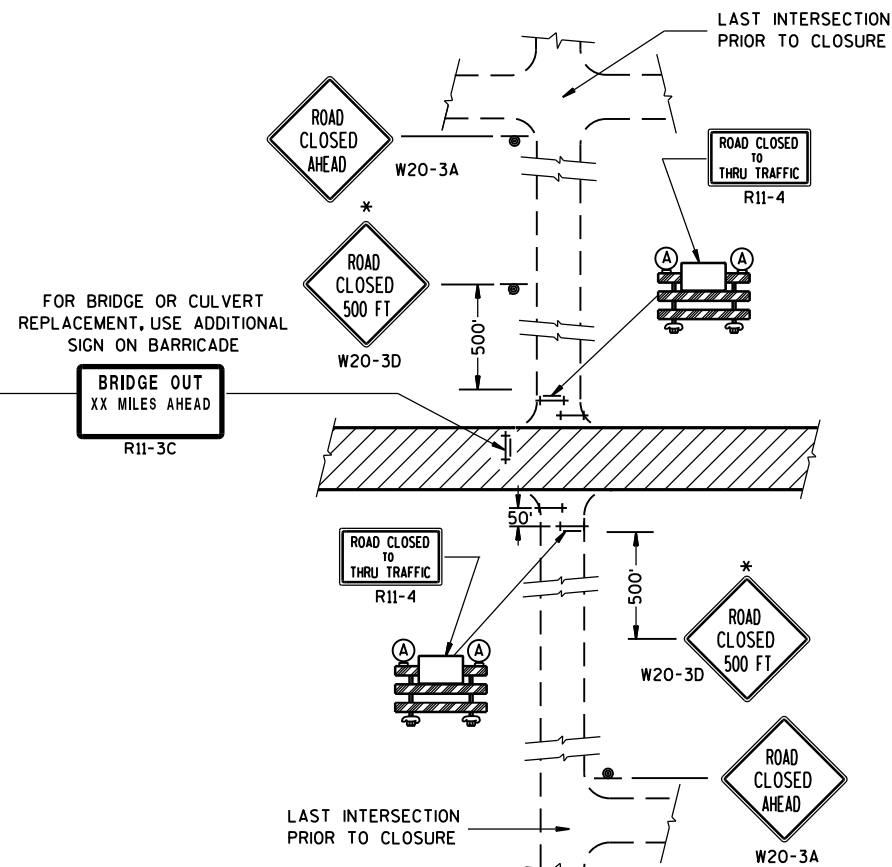
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).



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
- Ⓐ TYPE "A" WARNING LIGHT (FLASHING)
- ▨ WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015

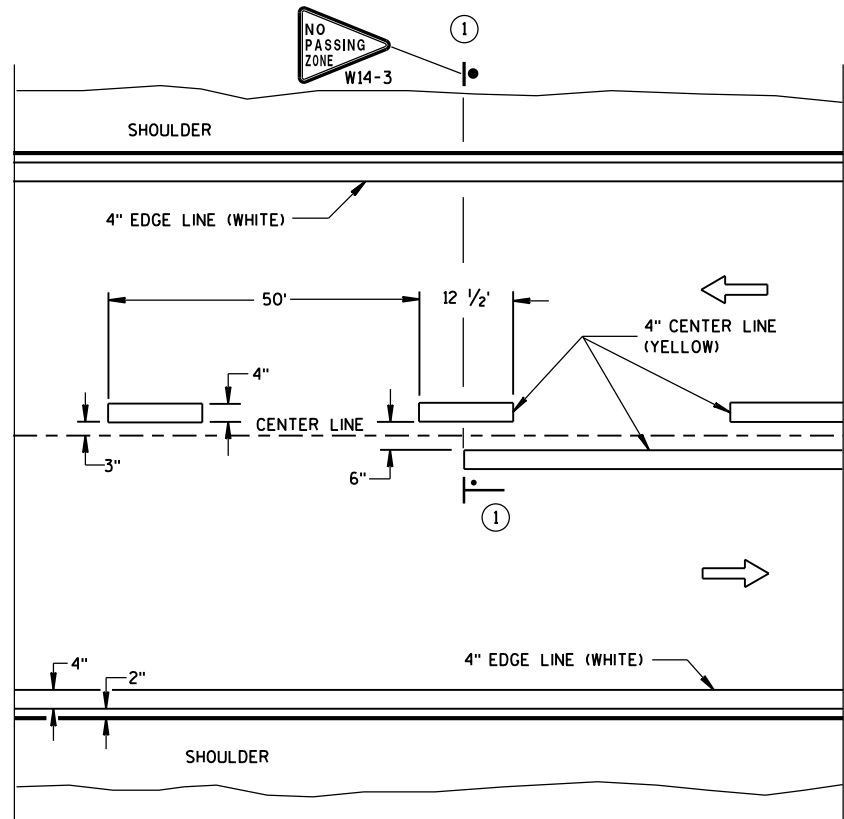
DATE

FHWA

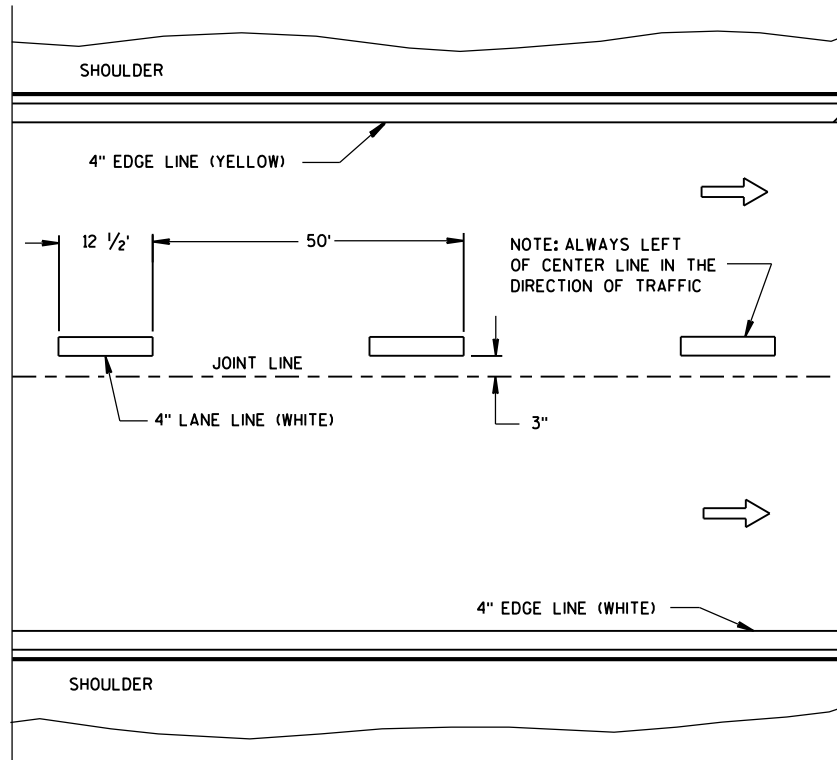
/S/ Peter Amakobe Atepe

STATEWIDE WORK ZONE TRAFFIC

SAFETY ENGINEER

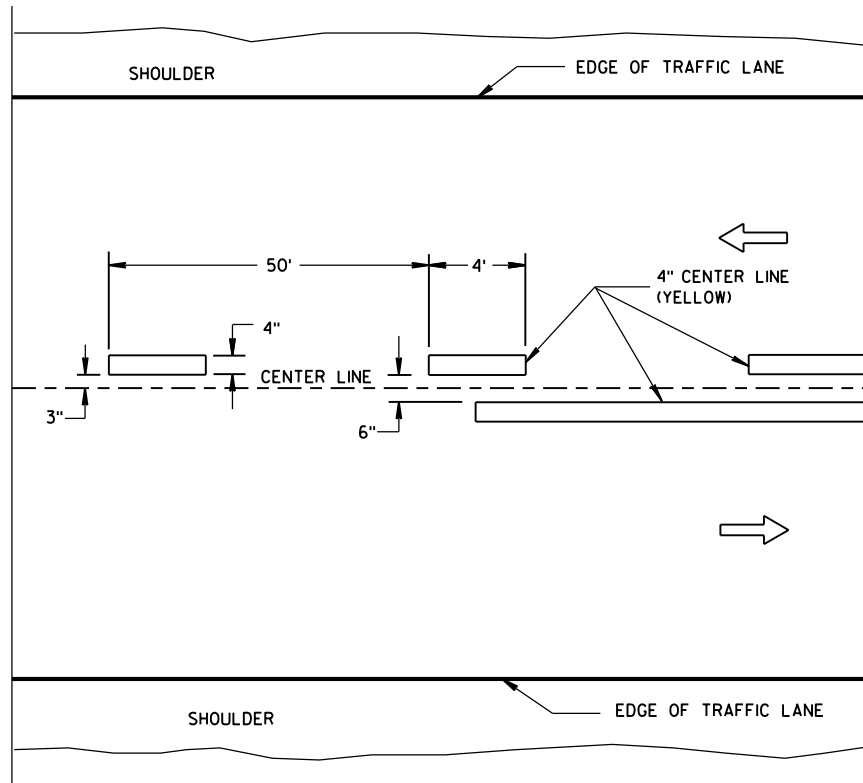


TWO WAY TRAFFIC

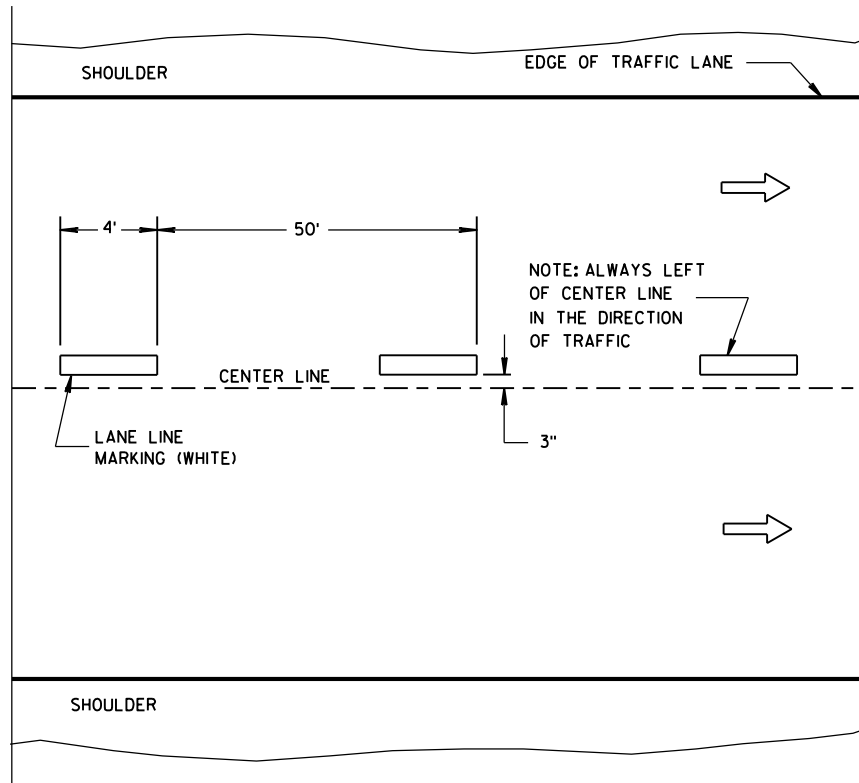


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

① NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

LEGEND

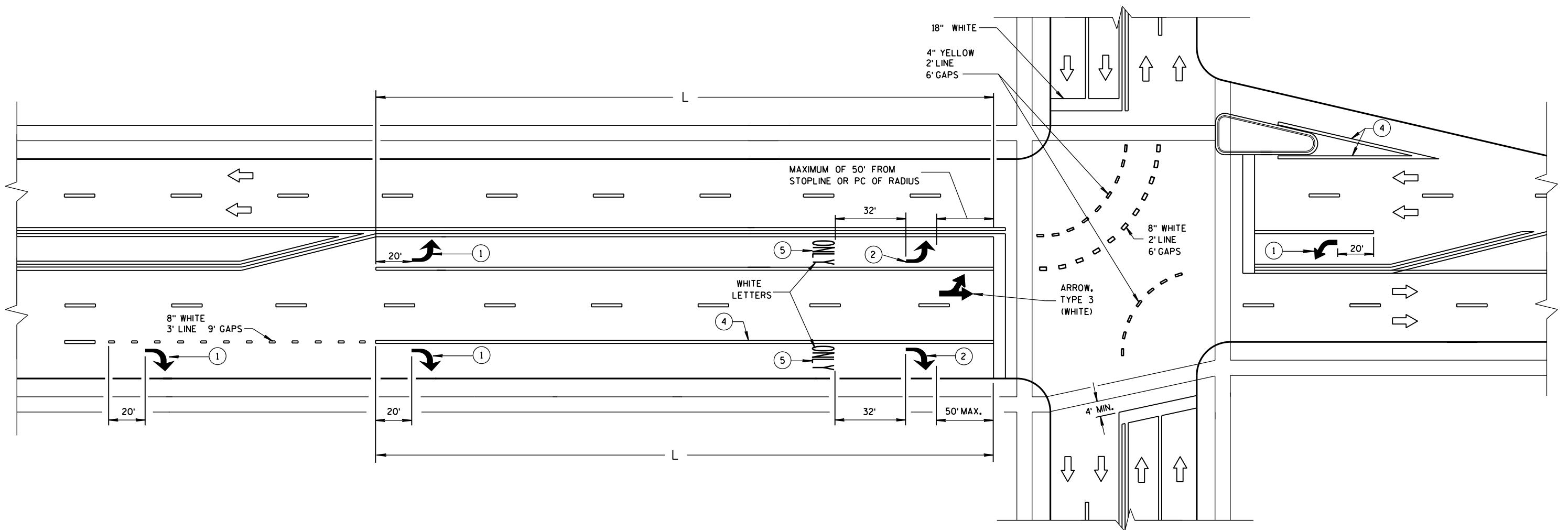
—●— "T" MARKING

● POST MOUNTED SIGN

LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



GENERAL NOTES

- ① REQUIRED ARROW, TYPE 2 (WHITE).
- ② REQUIRED ARROW, TYPE 2 (WHITE) WHEN L IS GREATER THAN 78 FEET AND LESS THAN OR EQUAL TO 166 FEET.
- ③ A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ④ 8" WHITE
- ⑤ REQUIRED WORD ONLY WHEN L IS GREATER THAN 166 FEET.

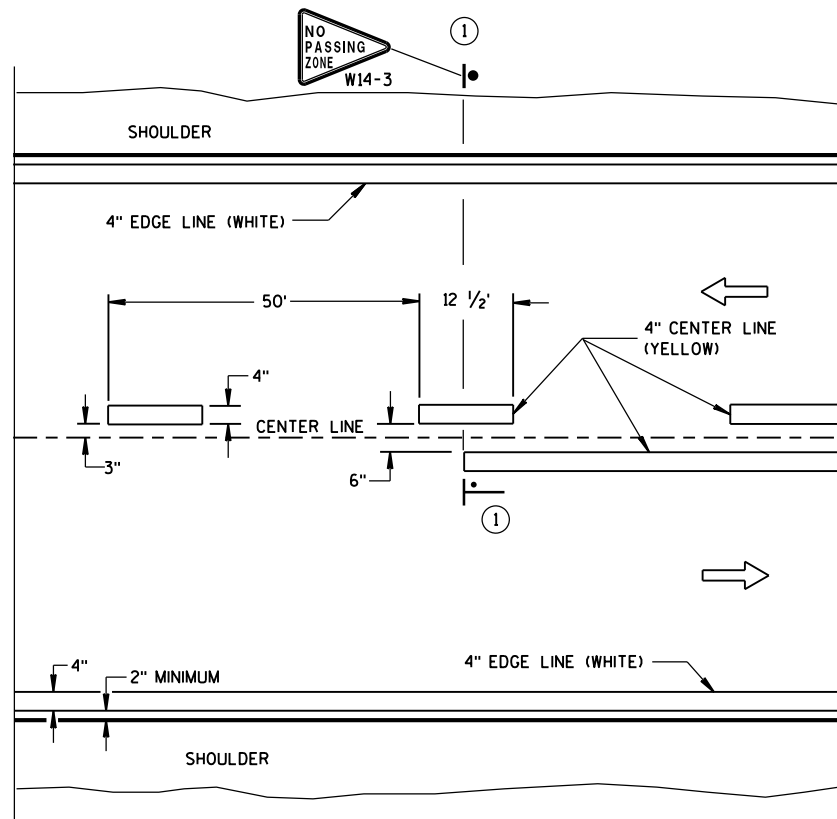
TWO WAY LEFT TURN LANE

NOTE:
ARROW SYMBOL (→)
SHOWS DIRECTION OF TRAVEL

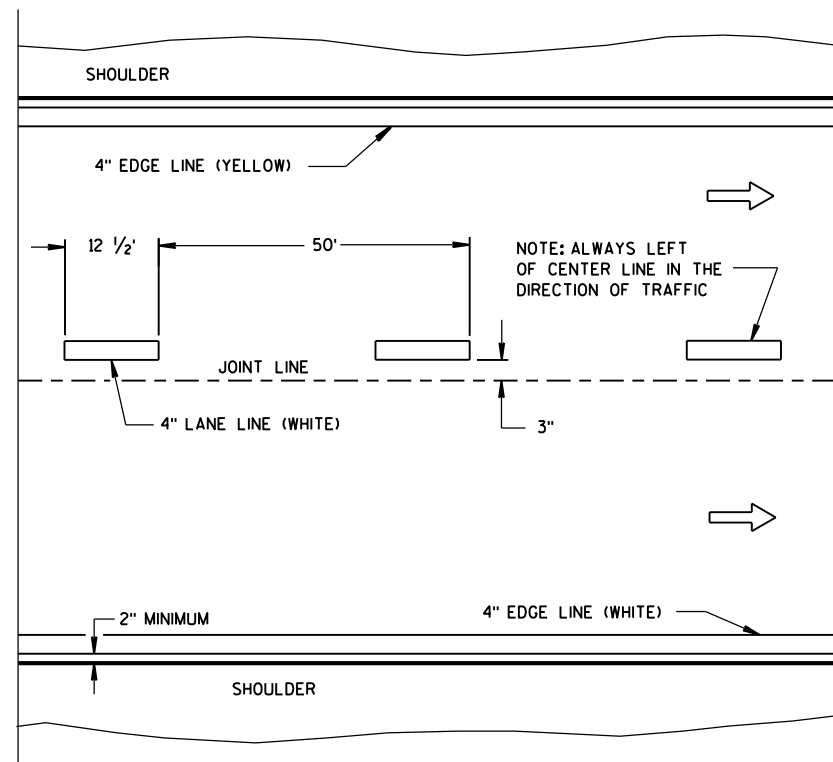
L = LENGTH OF TURN BAY

PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

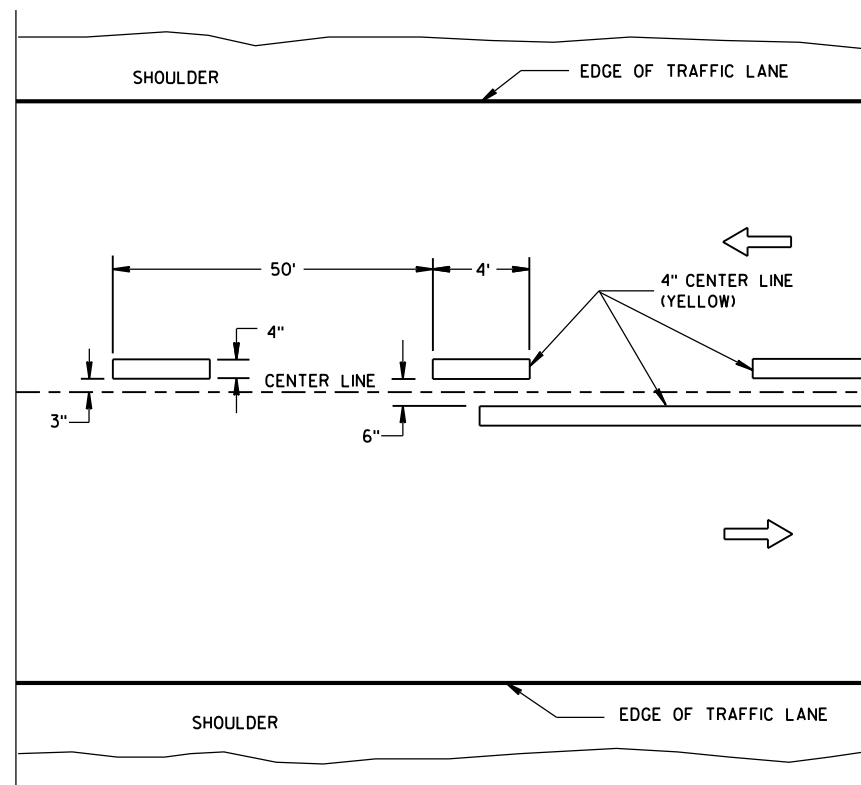


TWO WAY TRAFFIC

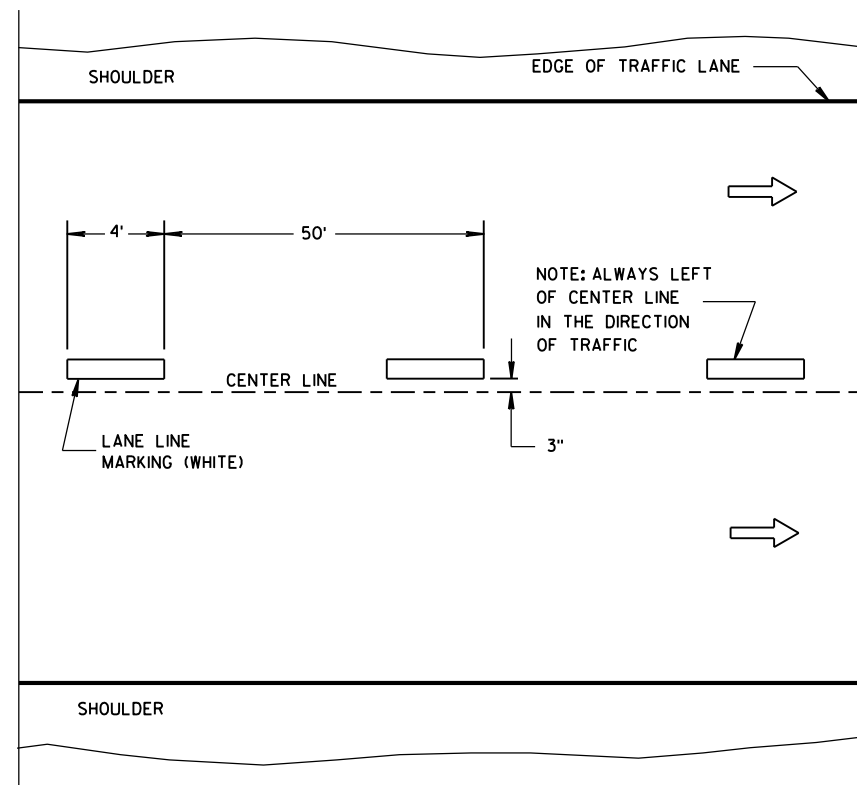


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

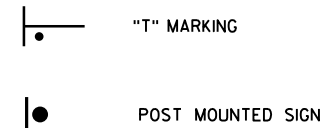
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

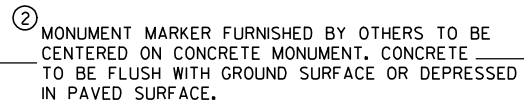
LEGEND



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Matthew R. Rouch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



U.S. DEPT. OF TRANSPORTATION
UNLAWFUL TO DISTURB

3 1/4" D

The image contains two technical drawings of magnetic probes, labeled (1) and (2).

(1) Standard Magnetic Probe: This drawing shows a long, thin probe with a conical tip. The overall height is indicated as 2'-6" MIN. with a circled (1). The diameter of the main shaft is 2 3/8". There are two magnets: one at the top and one near the tip. The distance from the base to the lower magnet is 4". The diameter at the base is 3 1/2".

(2) Break-Off Magnetic Probe: This drawing shows a similar probe but with a break-off mechanism. The overall height is also 2'-6" MIN. with a circled (1). The diameter of the main shaft is 2 3/8". There is a magnet at the top and a magnet at the base. The distance from the base to the lower magnet is 6" ±. The diameter at the base is 4 3/4". A label "BREAK-OFF" points to the joint between the shaft and the base magnet assembly.

7"

1/4"

5 1/2"

1 3/4"

5"

5 5/16"

P.C. CONCRETE PAVEMENT

LID TO BE ATTACHED TO FRAME WITH STAINLESS STEEL FLAT HEAD SCREWS

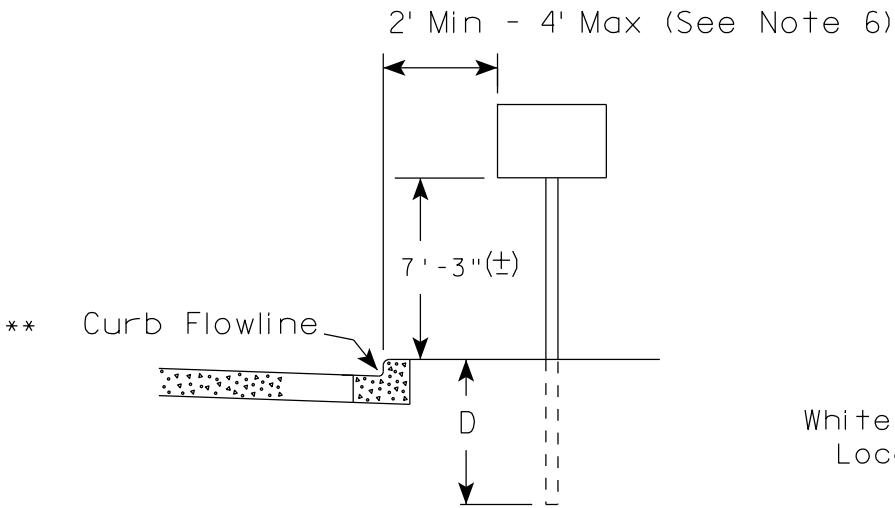
MACHINE FACED

PVC PIPE TO FIT PAVEMENT THICKNESS OR MAX. 1 FOOT

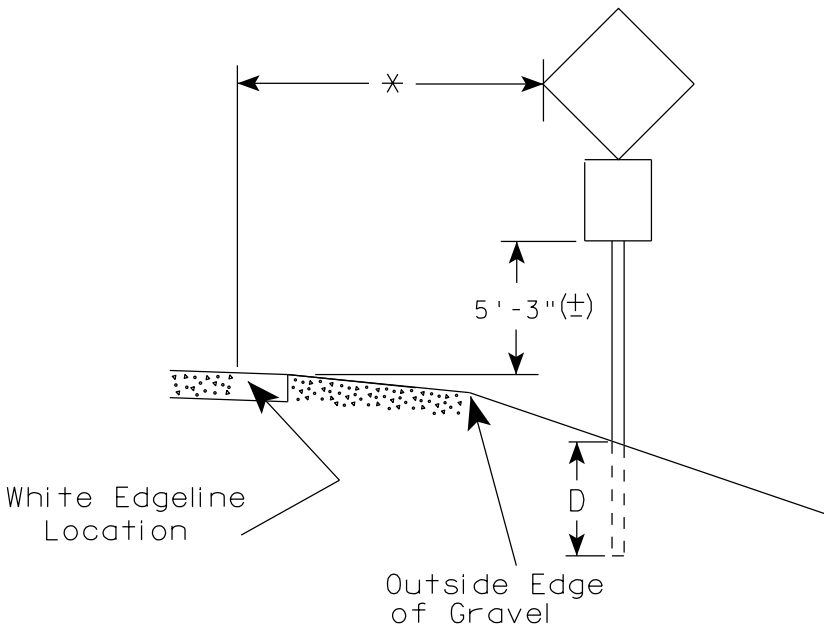
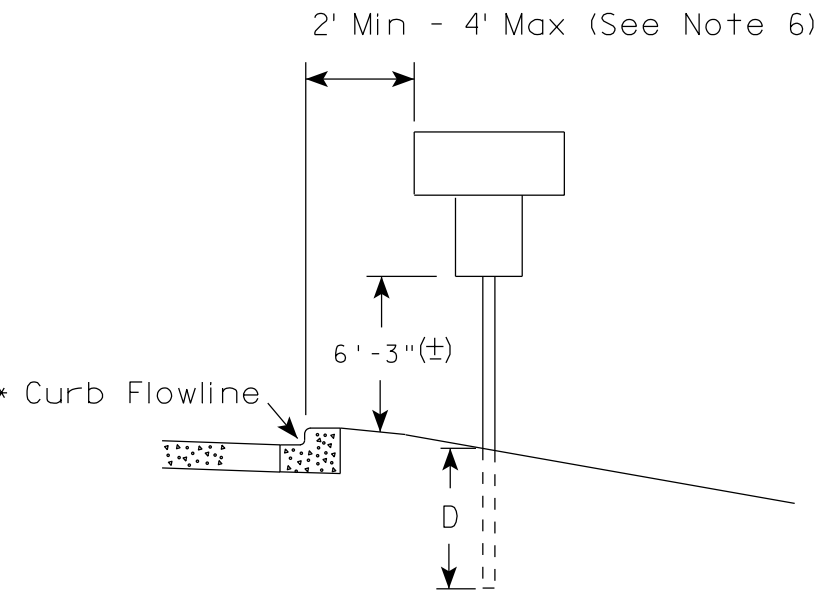
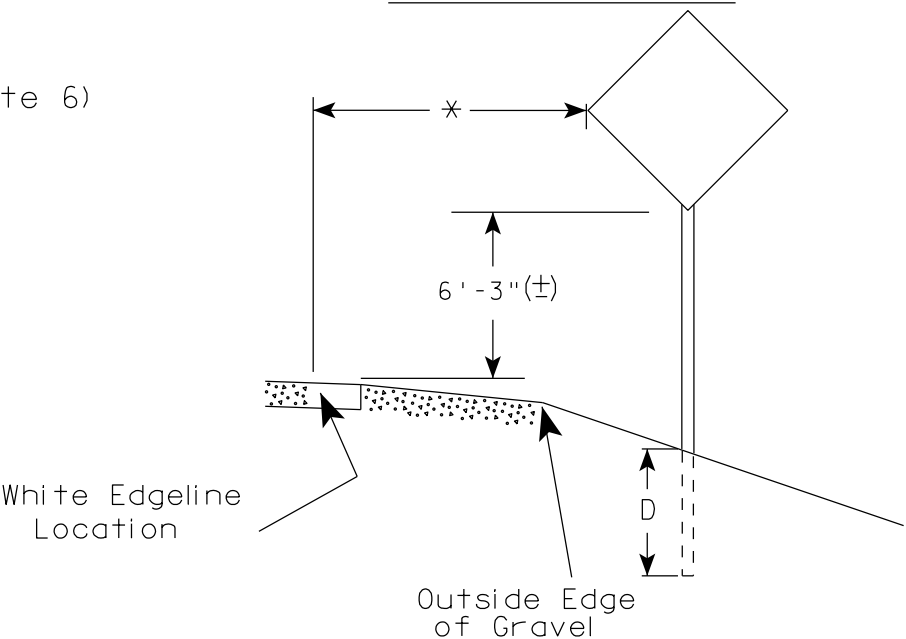
TYPE "C" OR "D" MONUMENTS

APPROVED	
<u>9/22/1999</u>	<u>/S/ Rory L. Rhinesmith</u>
DATE	CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

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. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), 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.

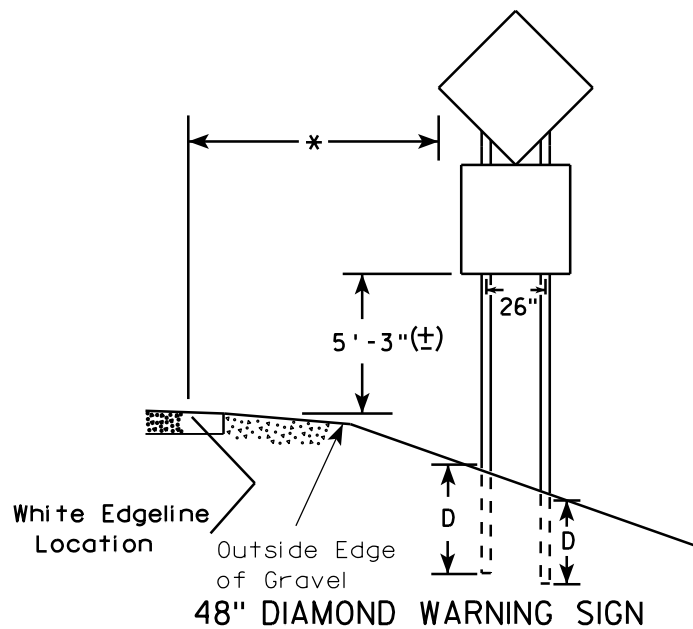
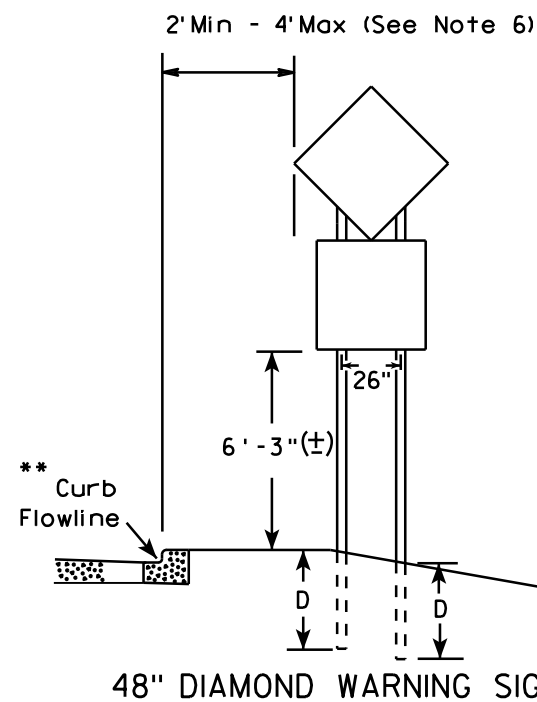
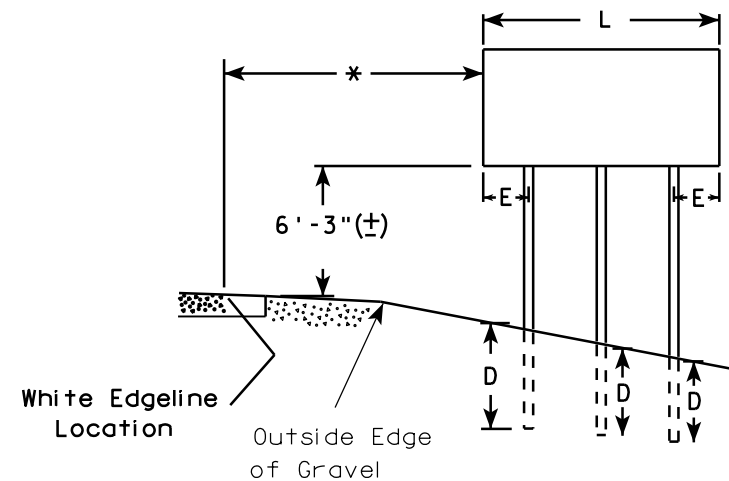
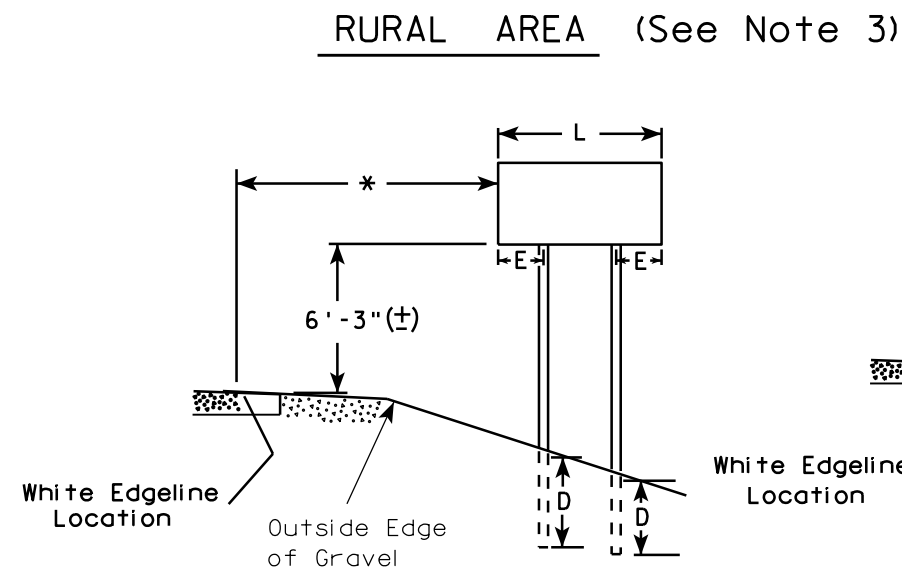
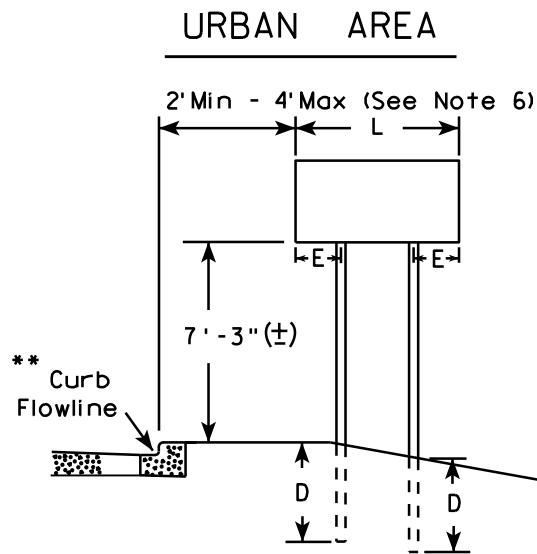
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20



- GENERAL NOTES**
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 2. See tables below for required number of posts.
 3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 4. The (±) tolerance for mounting height is 3 inches.
 5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

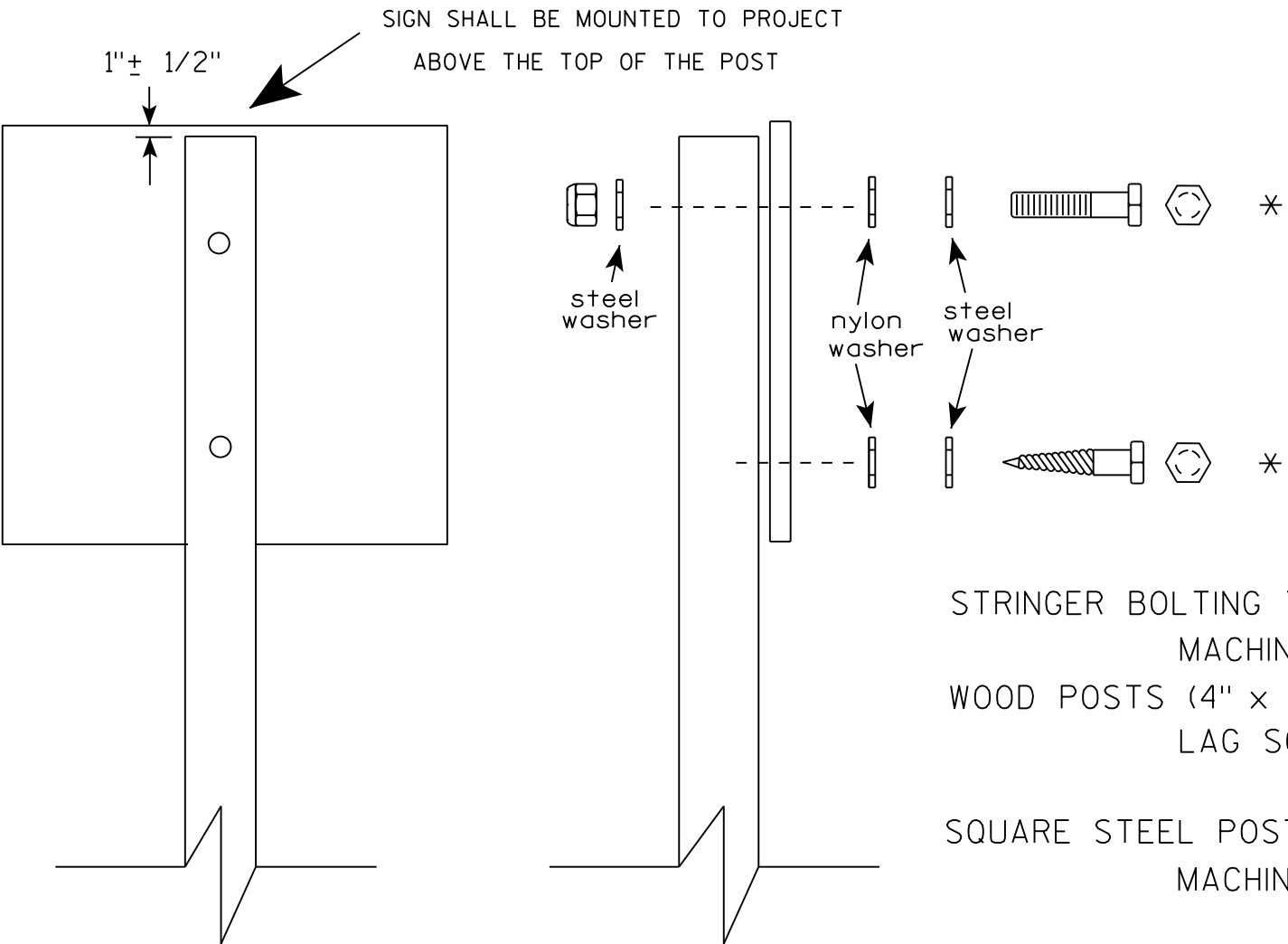
SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH	
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 7/23/15	PLATE NO. A4-4.14



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.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

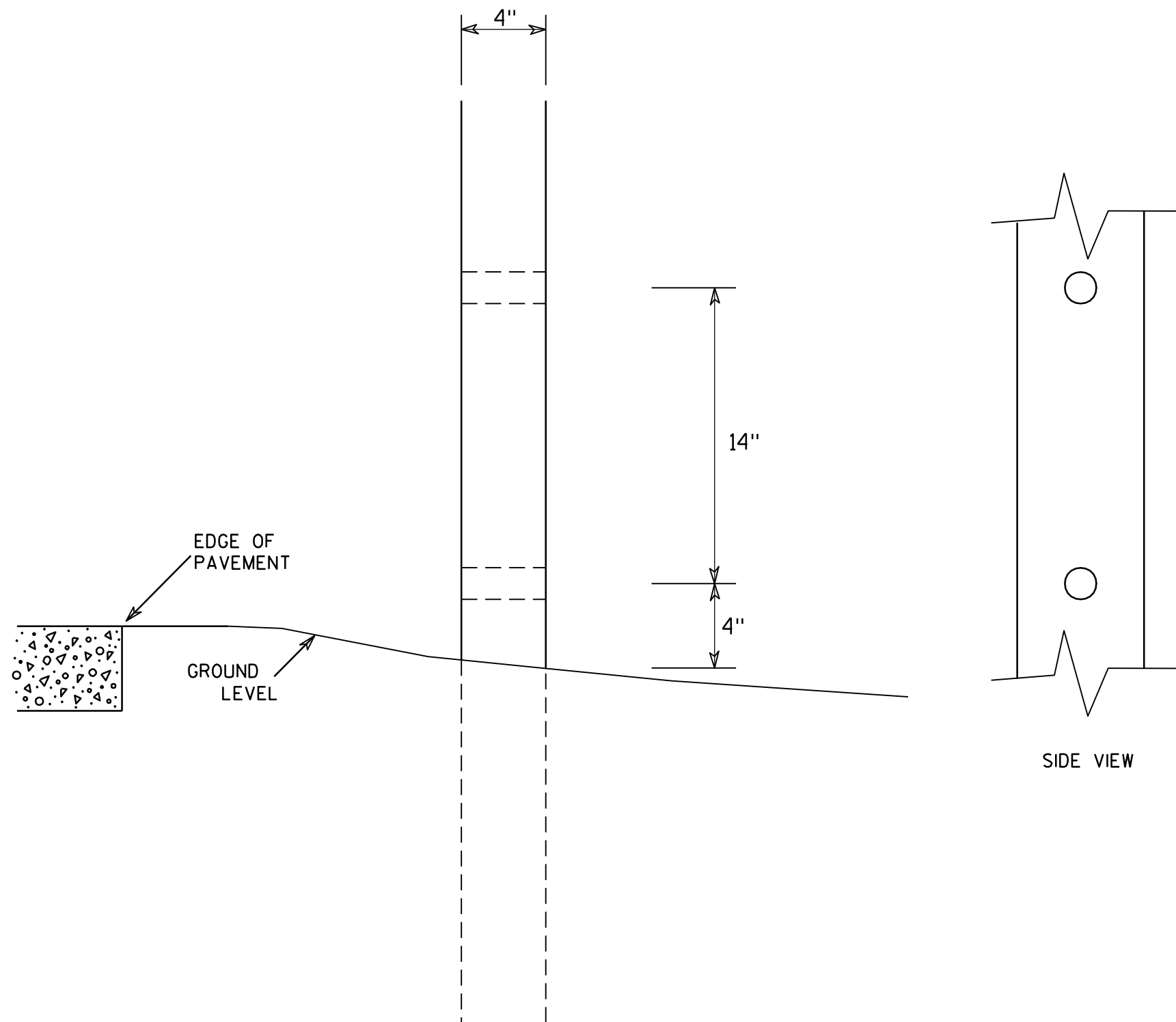
ATTACHMENT OF SIGNS
TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

7

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

**4 X 6 WOOD POST
MODIFICATIONS**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

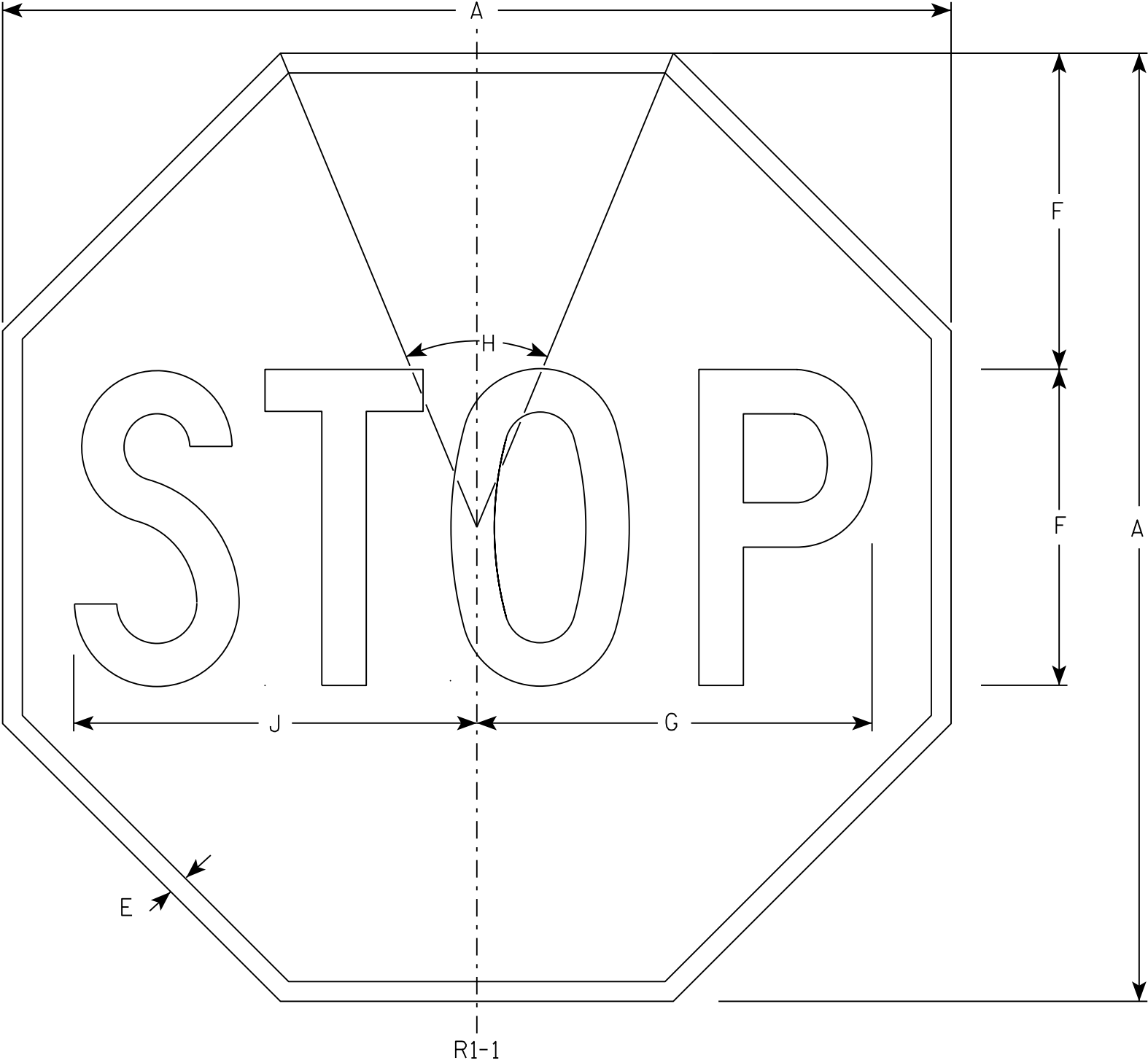
HWY:

COUNTY:

SHEET NO:

E

7



NOTES

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

7

R1-1

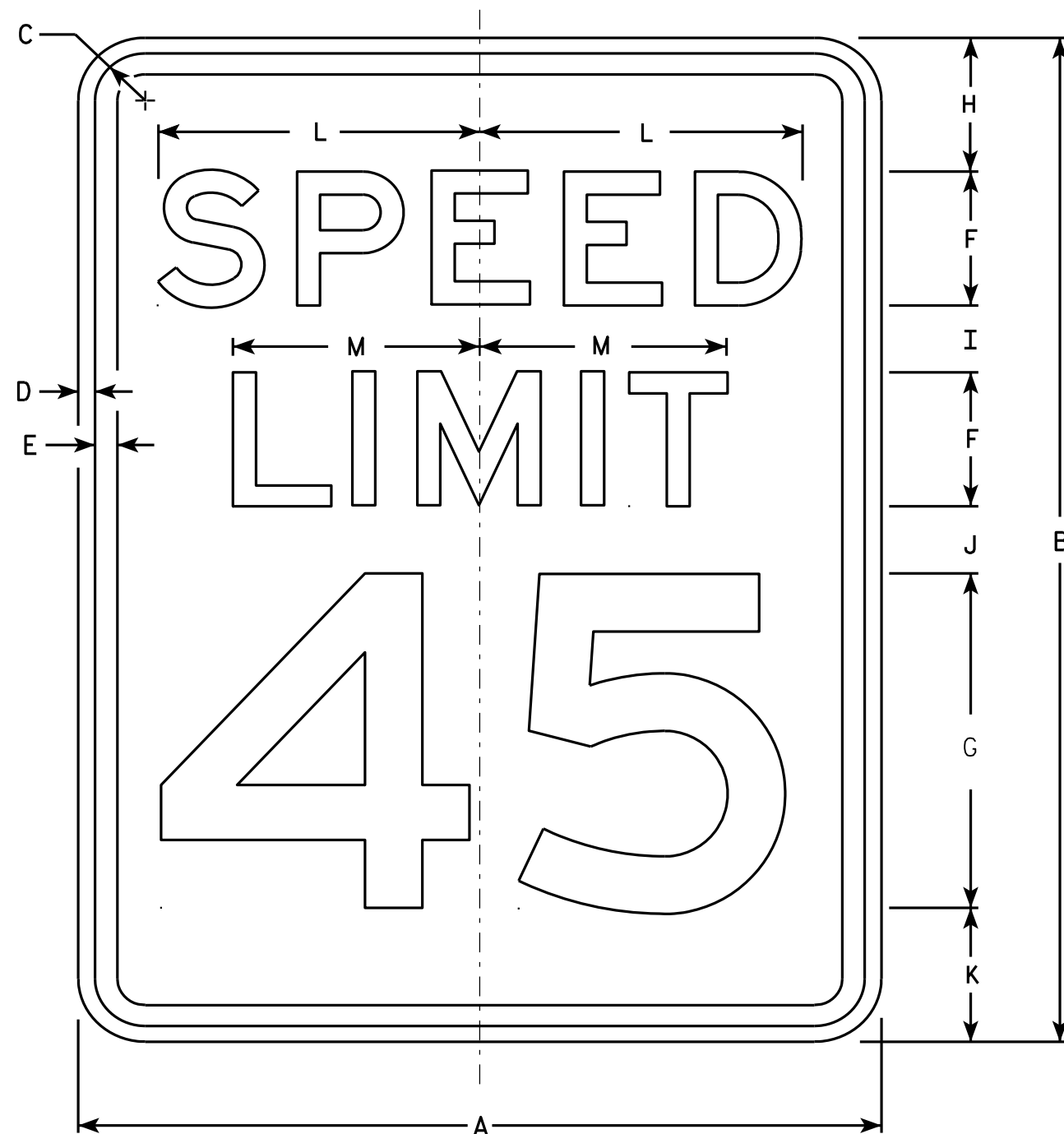
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°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



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

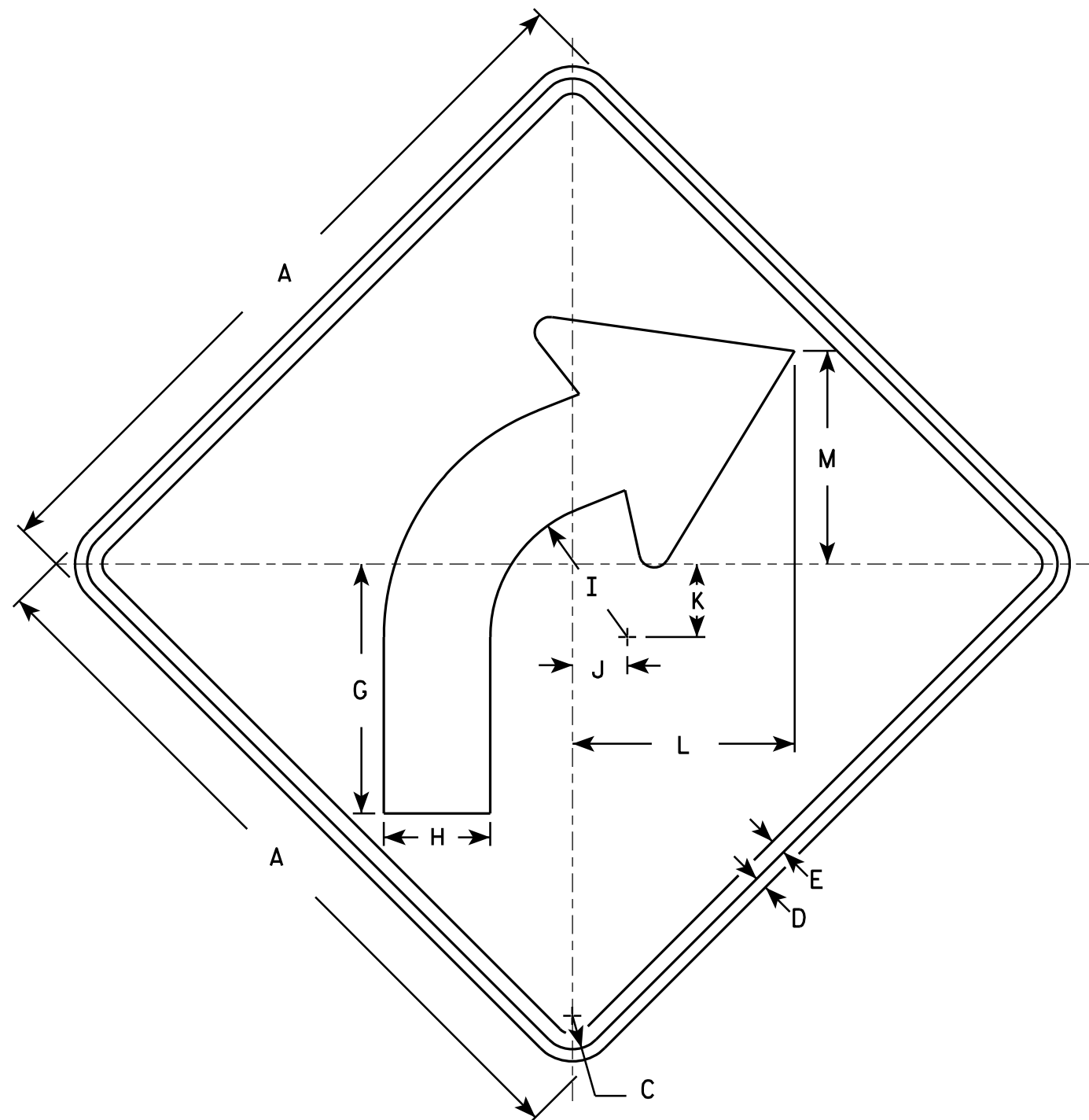
STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

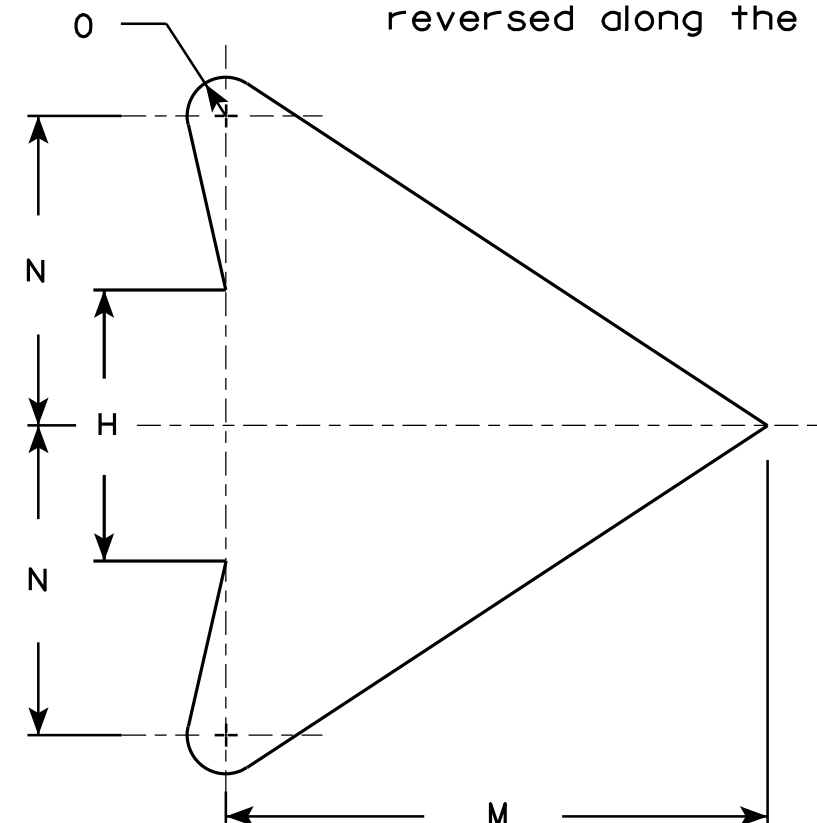
PROJECT NO: HWY: COUNTY: SHEET NO: E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:

HWY:

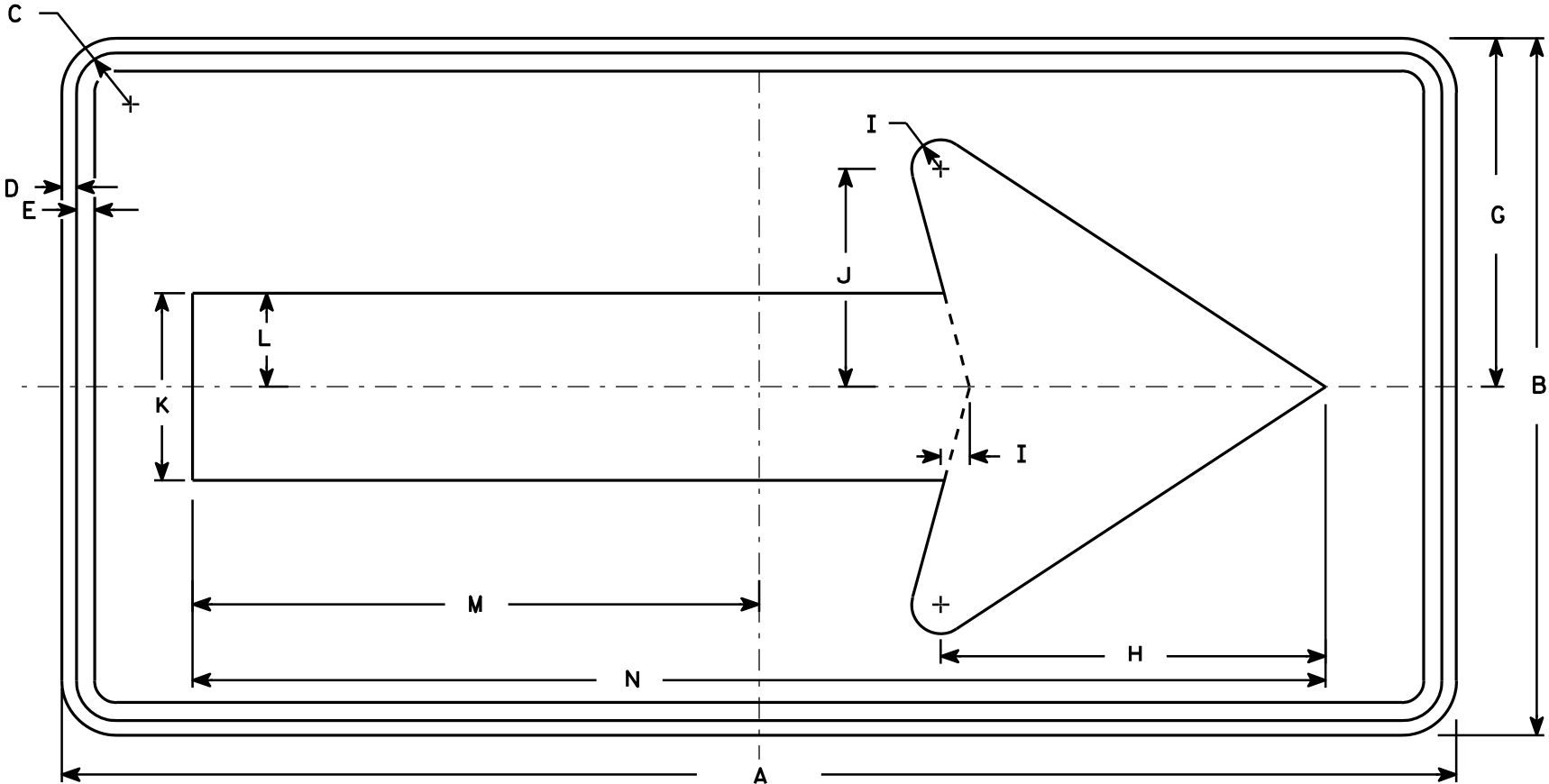
COUNTY:

SHEET NO:

E

NOTES

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



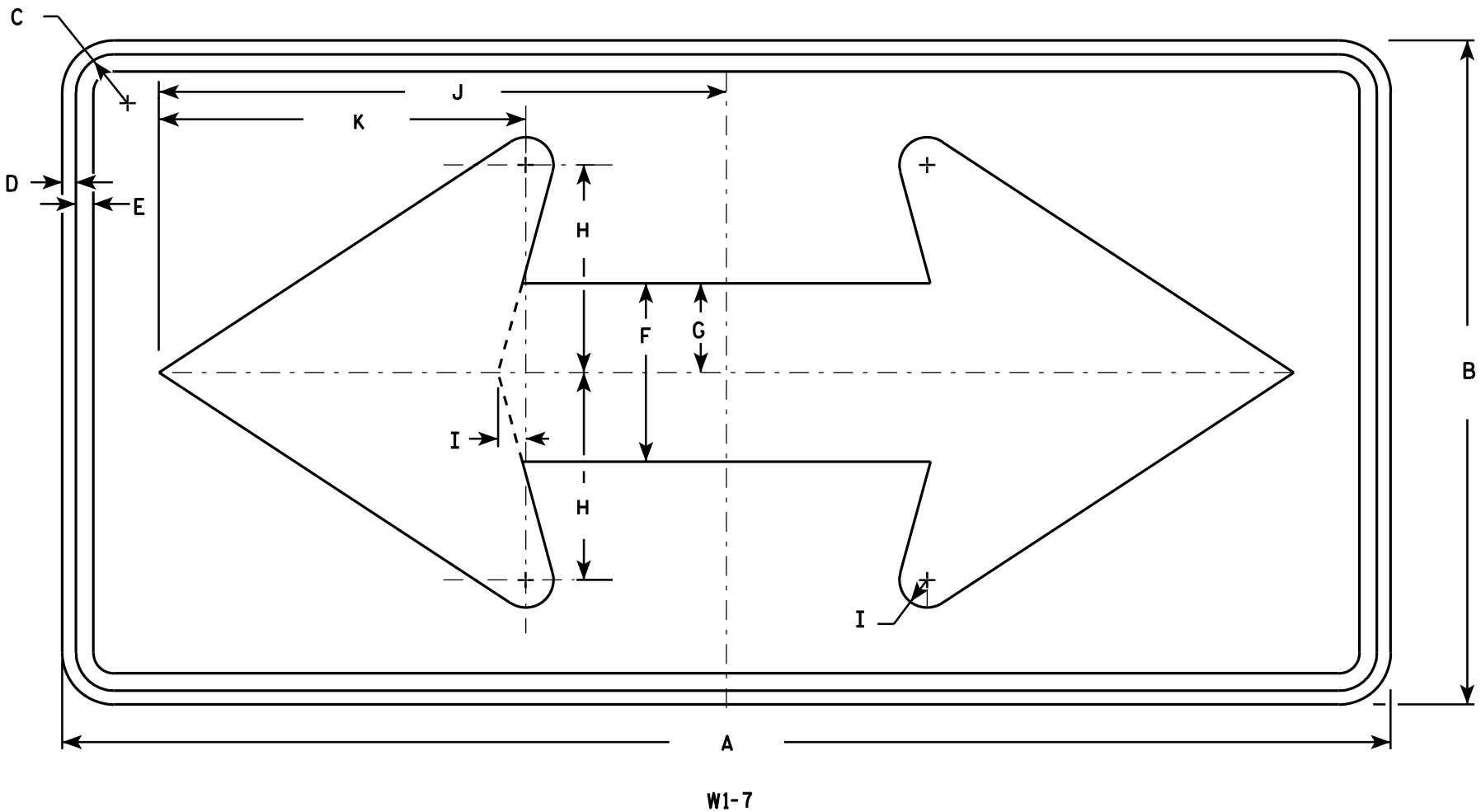
W1-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W1-6.8



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

STANDARD SIGN
W1 - 7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

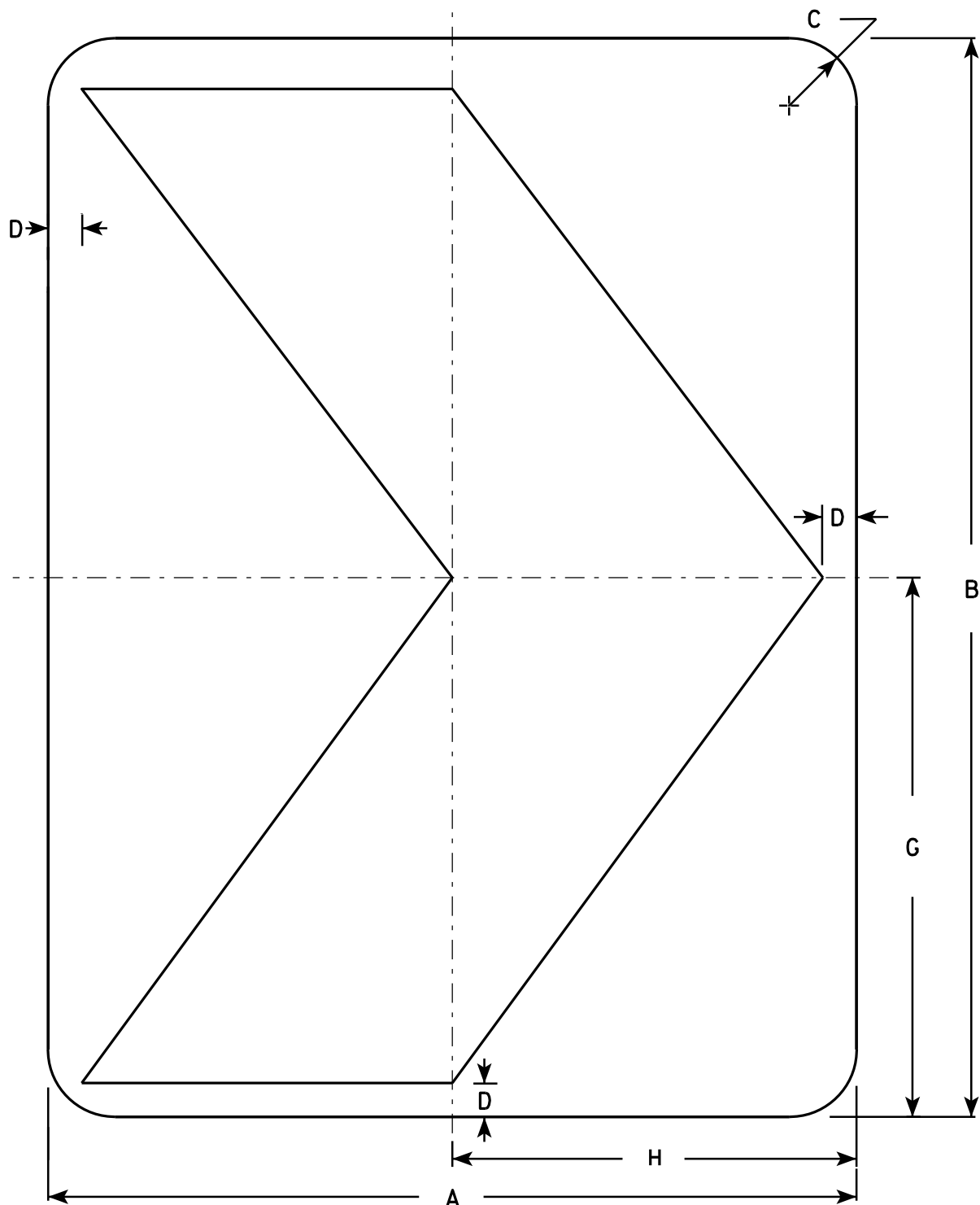
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



W1-8

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	12	18	1 1/2	1/2			9	6																			1.5
2S	18	24	1 1/2	3/4			12	9																			3.0
2M	18	24	1 1/2	3/4			12	9																			3.0
3	24	30	1 1/2	1			15	12																			5.0
4	30	36	1 7/8	1 1/4			18	15																			7.5
5	36	48	2 1/4	1 1/2			24	18																			12.0

STANDARD SIGN

W1-8

WISCONSIN DEPT OF TRANSPORTATION

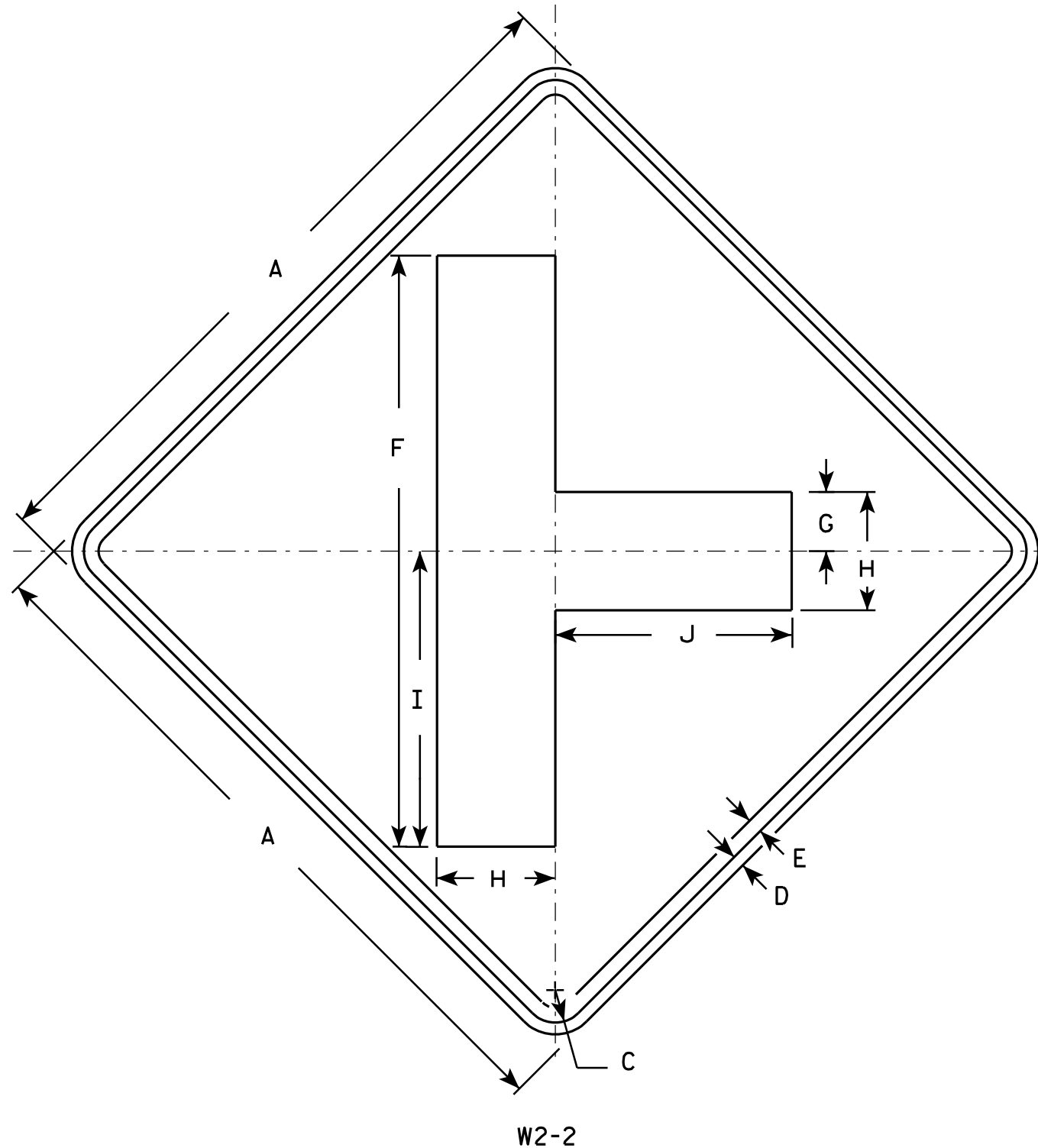
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

SHEET NO:

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

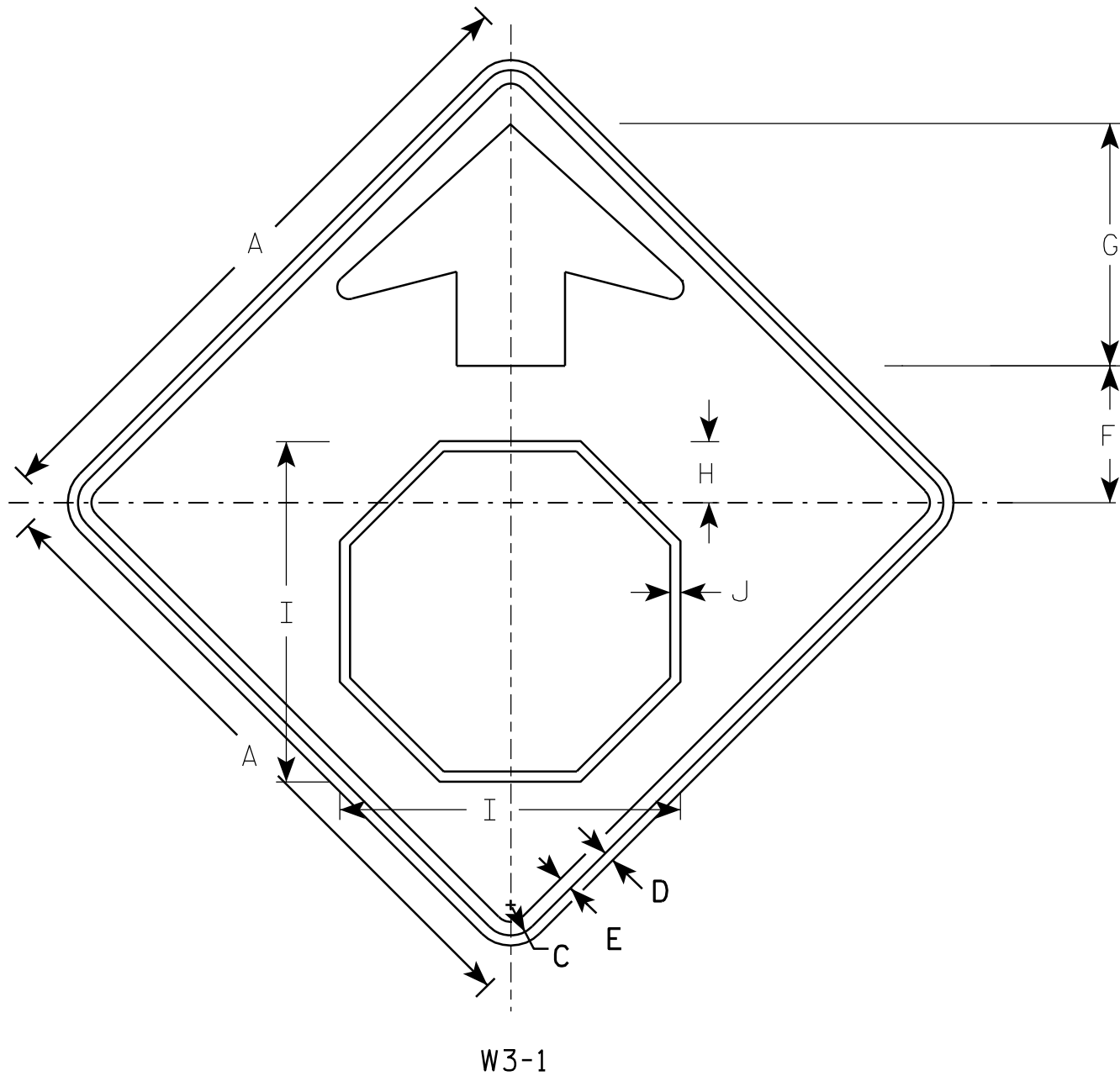
STANDARD SIGN W2-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

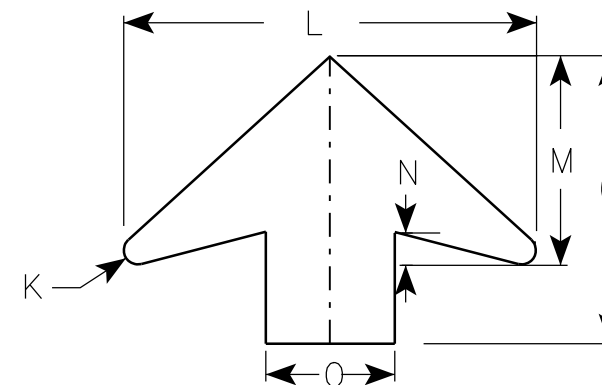
DATE 5/29/12 PLATE NO. W2-2.6

PROJECT NO: HWY: COUNTY: SHEET NO: E



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

PROJECT NO:				SHEET NO:	E
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STANDARD SIGN

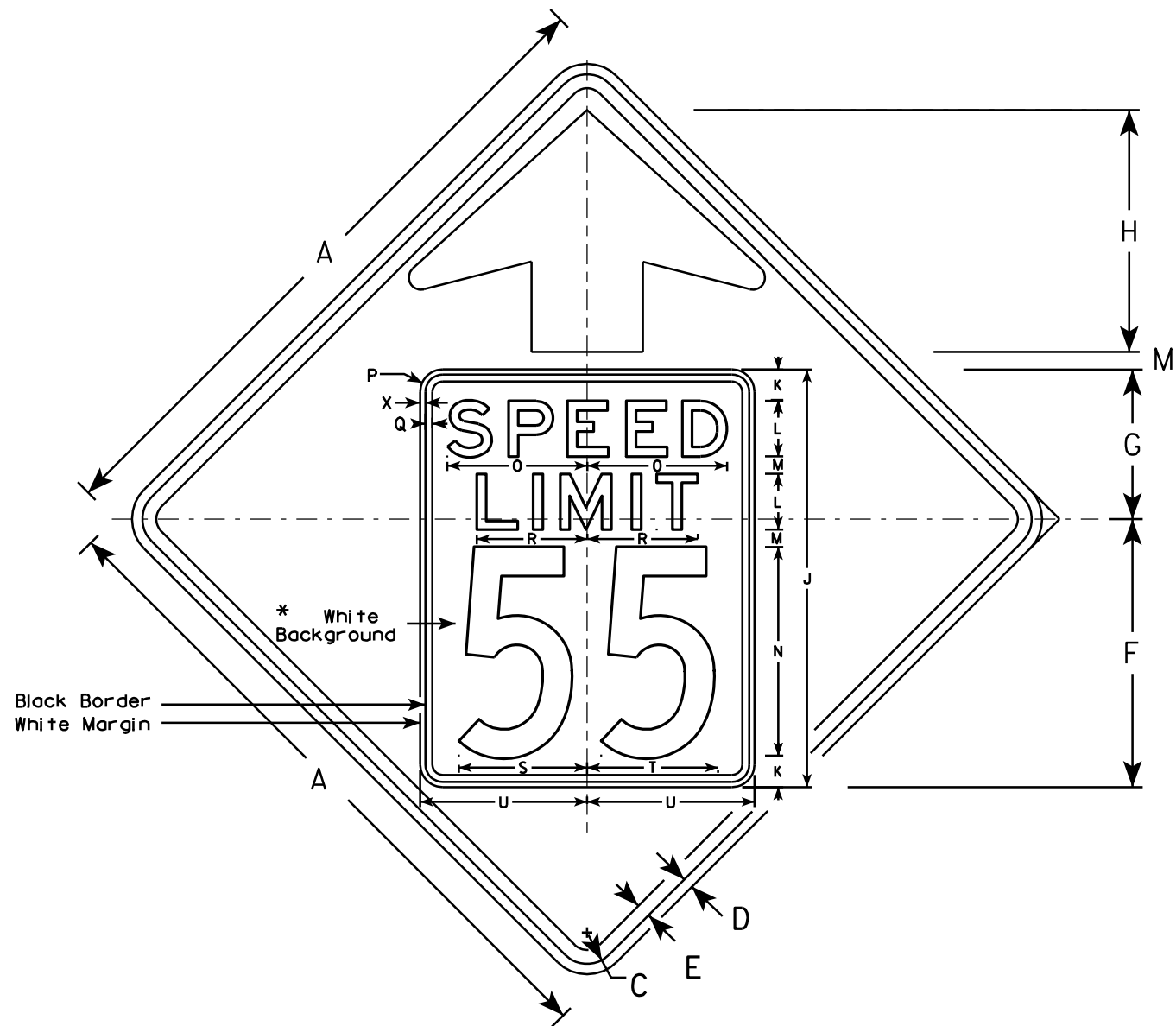
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

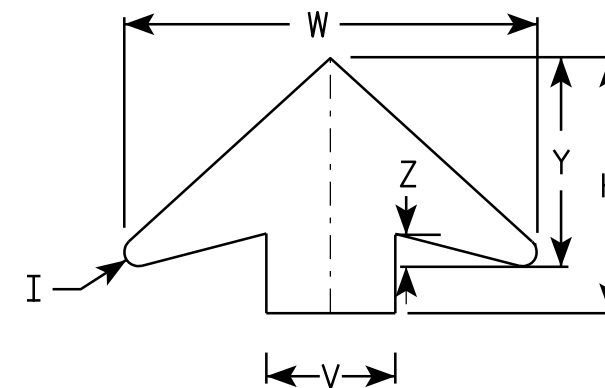


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
Background - YELLOW*
Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
3	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
4	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0
5	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

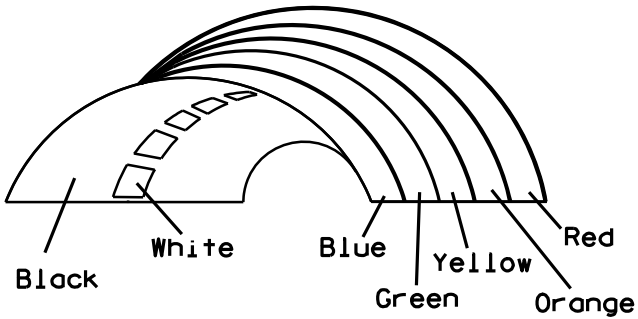
SHEET NO:

E



* VARIES

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

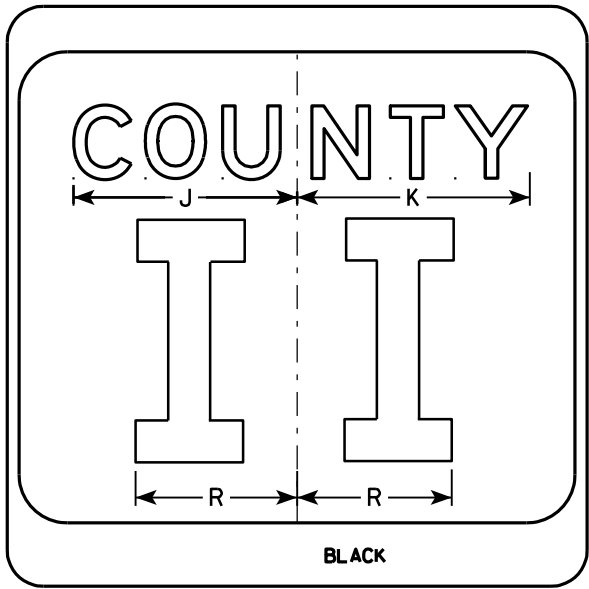
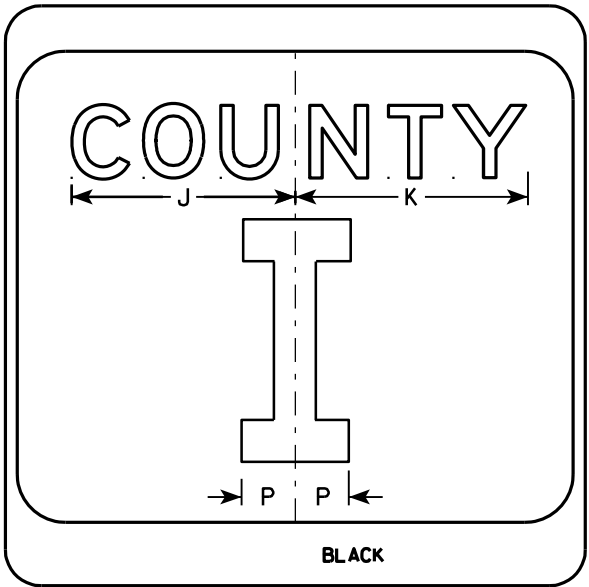
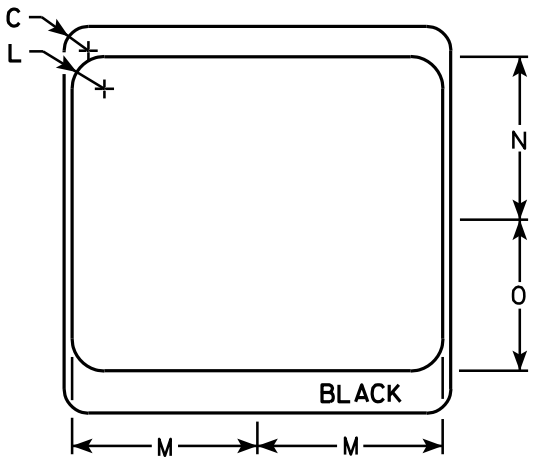
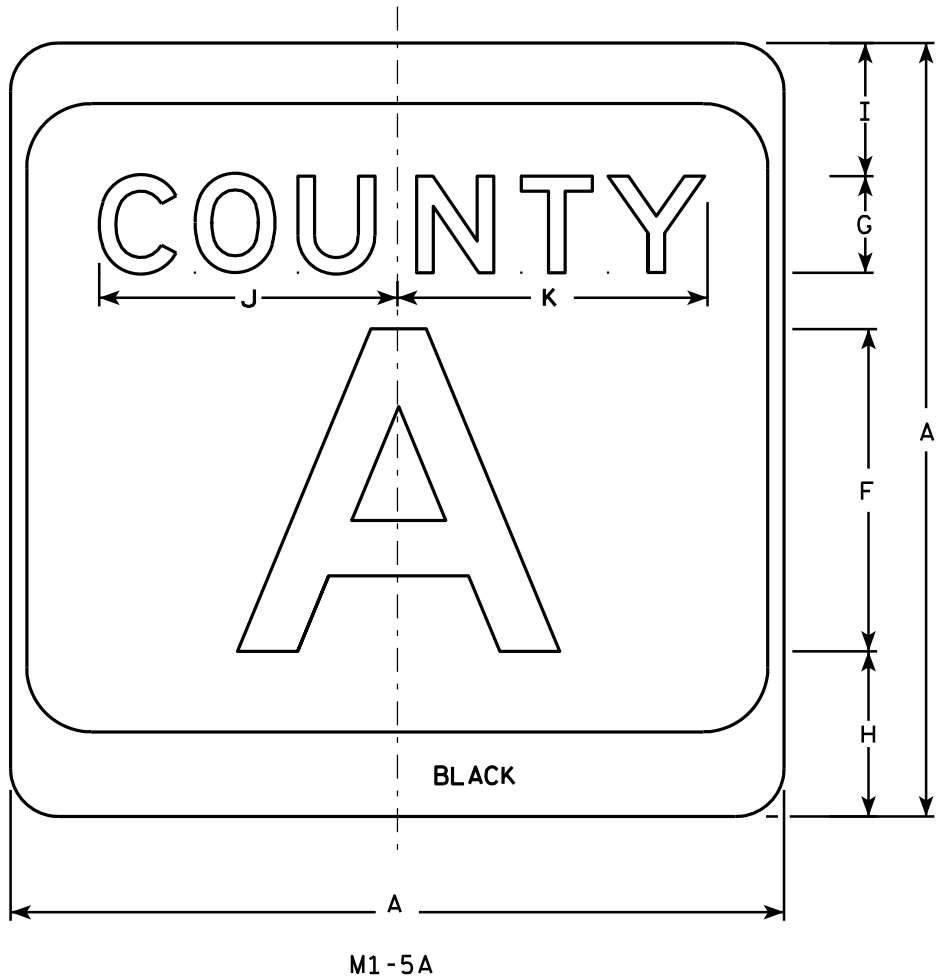
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/27/11 PLATE NO. I55-56.3

7



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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

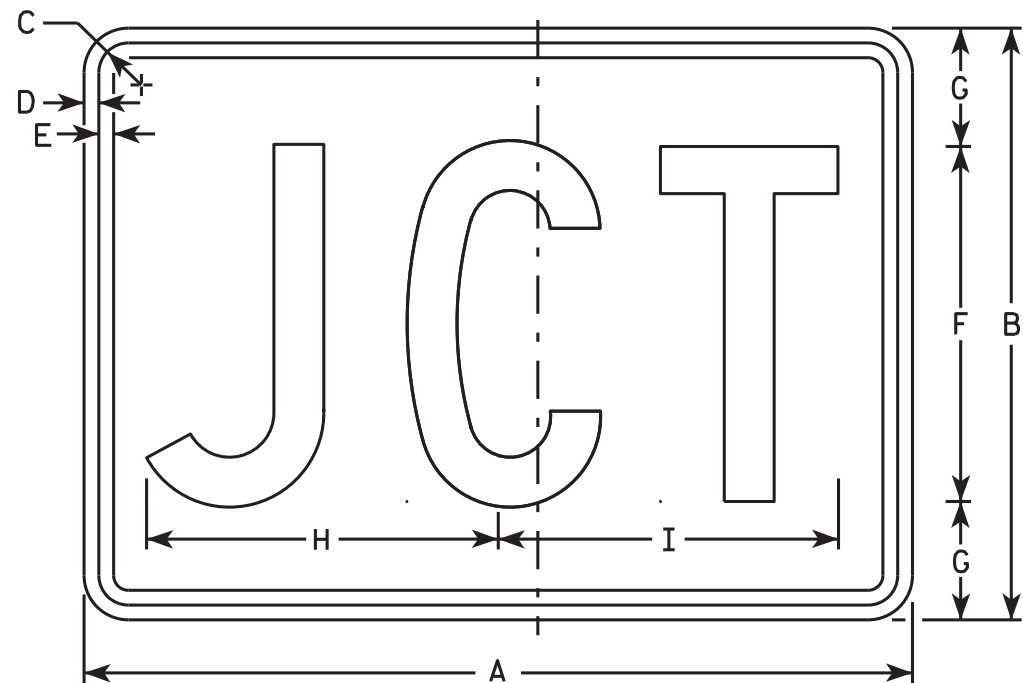
E

CTH MARKER
M1-5A FOR ASSEMBLIES

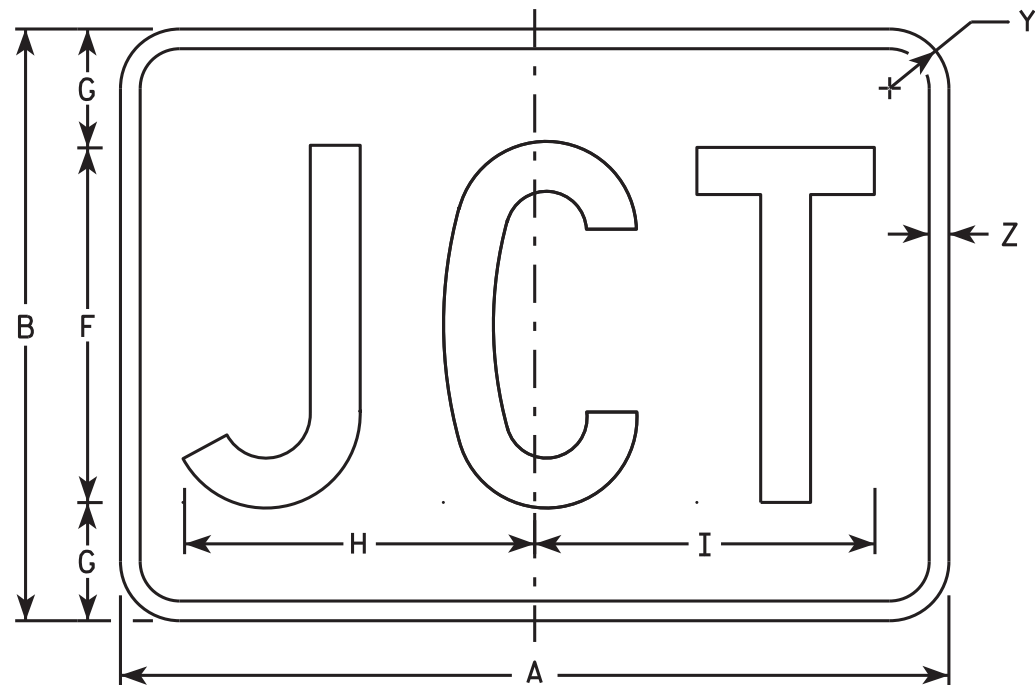
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is Type II - Type H
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
Message - Black
MB2-1 Background - Blue
Message - White
MK2-1 Background - Green
Message - White
MM2-1 Background - White
Message - Green
MN2-1 Background - Brown
Message - White
MP2-1 Background - White
Message - Blue
MR2-1 Background - Brown
Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

PROJECT NO:	HWY:	COUNTY:	SHEET NO: E	
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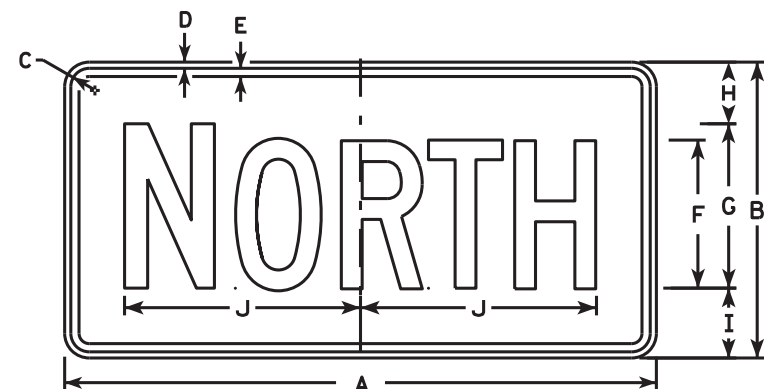
STANDARD SIGN

M2 - 1

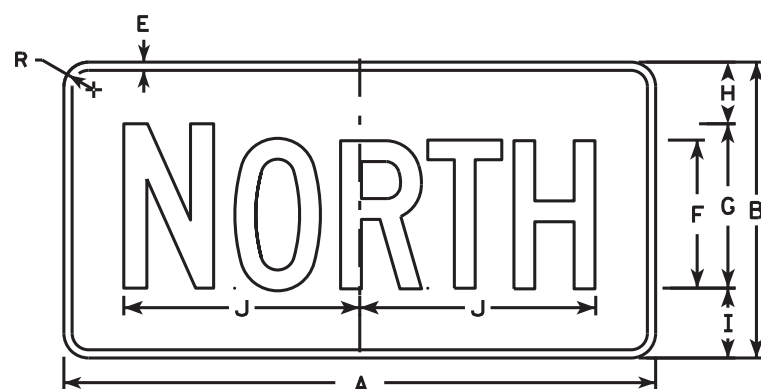
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raush*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M2-1.12



M3-1
MM3-1
MP3-1



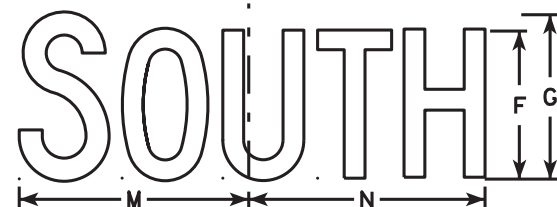
MB3-1
MK3-1
MN3-1



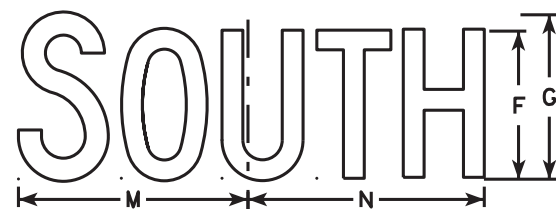
M3-2
MM3-2
MP3-2



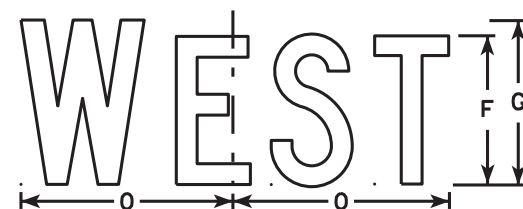
MB3-2
MK3-2
MN3-2



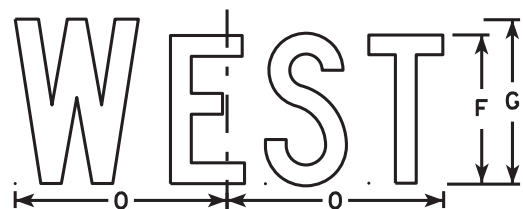
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGNS
M3-1 thru M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

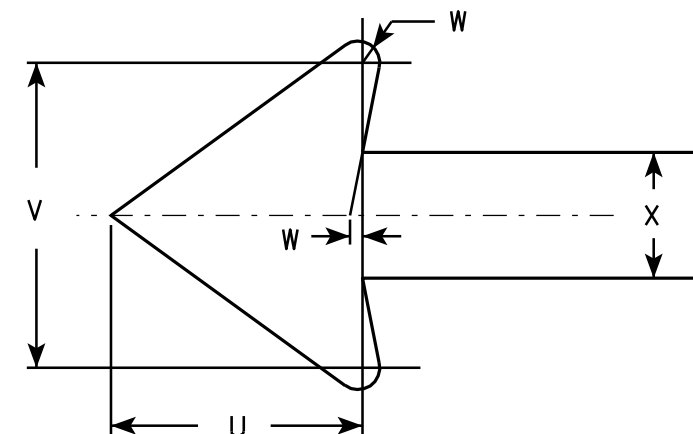
DATE 10/15/15 PLATE NO. M3-1.14



R7-1

NOTES

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



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

STANDARD SIGN R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO: HWY: COUNTY: SHEET NO: E

STATION	Distance	AREA (SF)		INCR. VOL (CY) (UNADJ)		EXPANDED FILL 1.25 CY
		CUT	FILL	CUT CY	FILL CY	
50+00		0	0	0	0	0
51+00	100	2	19	4	35	44
52+00	100	10	0	22	35	44
53+00	100	0	0	19	0	0
54+00	100	4	2	7	4	5
55+00	100	1	12	9	26	32
56+00	100	0	17	2	54	67
57+00	100	1	9	2	48	60
58+00	100	3	1	7	19	23
59+00	100	5	0	15	2	2
60+00	100	4	1	17	2	2
61+00	100	6	0	19	2	2
62+00	100	3	10	17	19	23
63+00	100	0	0	6	19	23
SEGMENT TOTAL				144	263	330
67+00		0	0	0	0	0
68+00	100	3	4	6	7	9
69+00	100	0	0	6	7	9
70+00	100	4	3	7	6	7
71+00	100	5	2	17	9	12
72+00	100	4	1	17	6	7
73+00	100	3	2	13	6	7
74+00	100	0	0	6	4	5
75+00	100	4	4	7	7	9
76+00	100	0	0	7	7	9
77+00	100	0	0	0	0	0
78+00	100	0	0	0	0	0
79+00	100	4	0	7	0	0
80+00	100	8	1	22	2	2
81+00	100	0	0	15	2	2
SEGMENT TOTAL				130	63	79

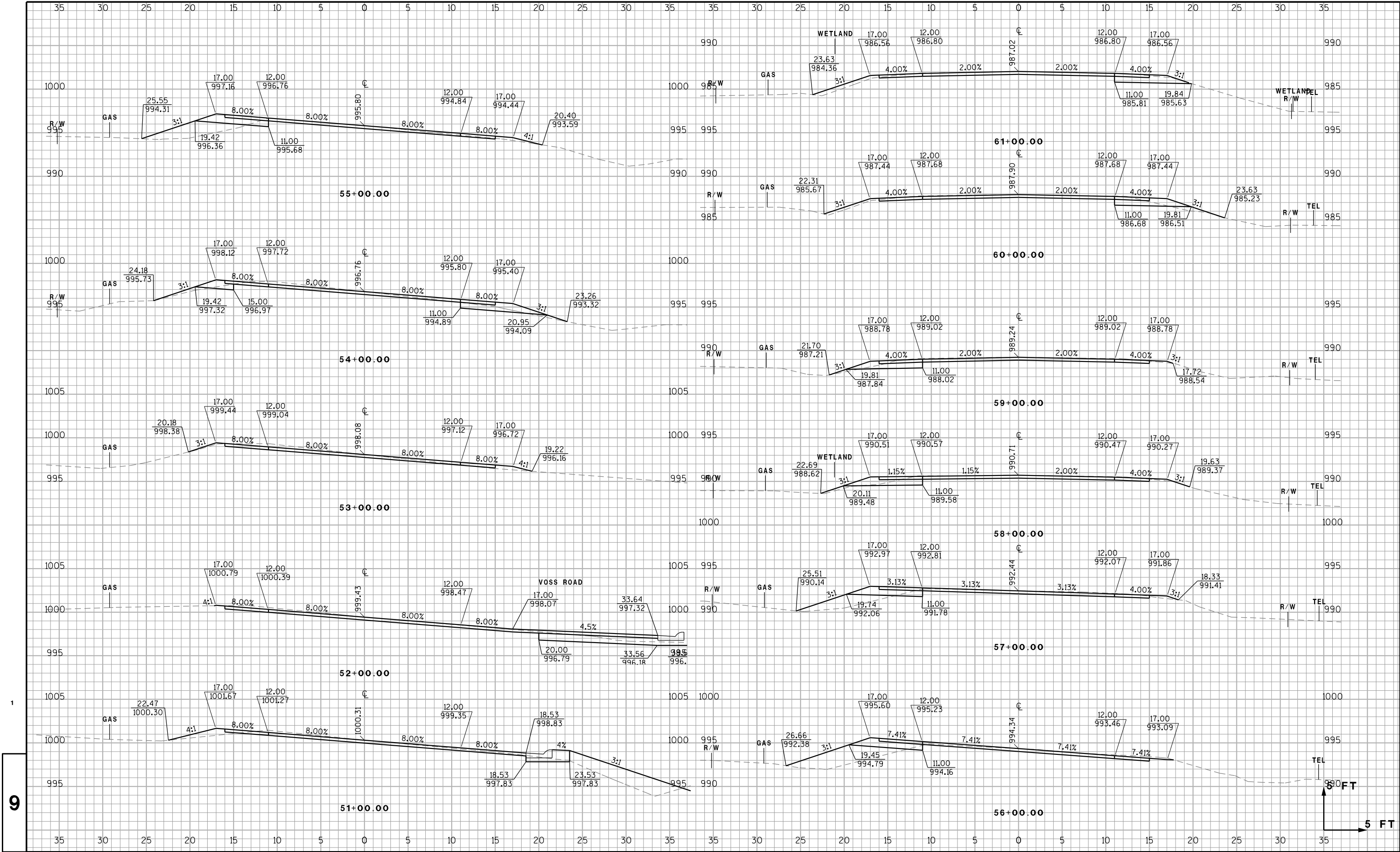
ALL ITEMS CATEGORY 0010 UNLESS NOTED

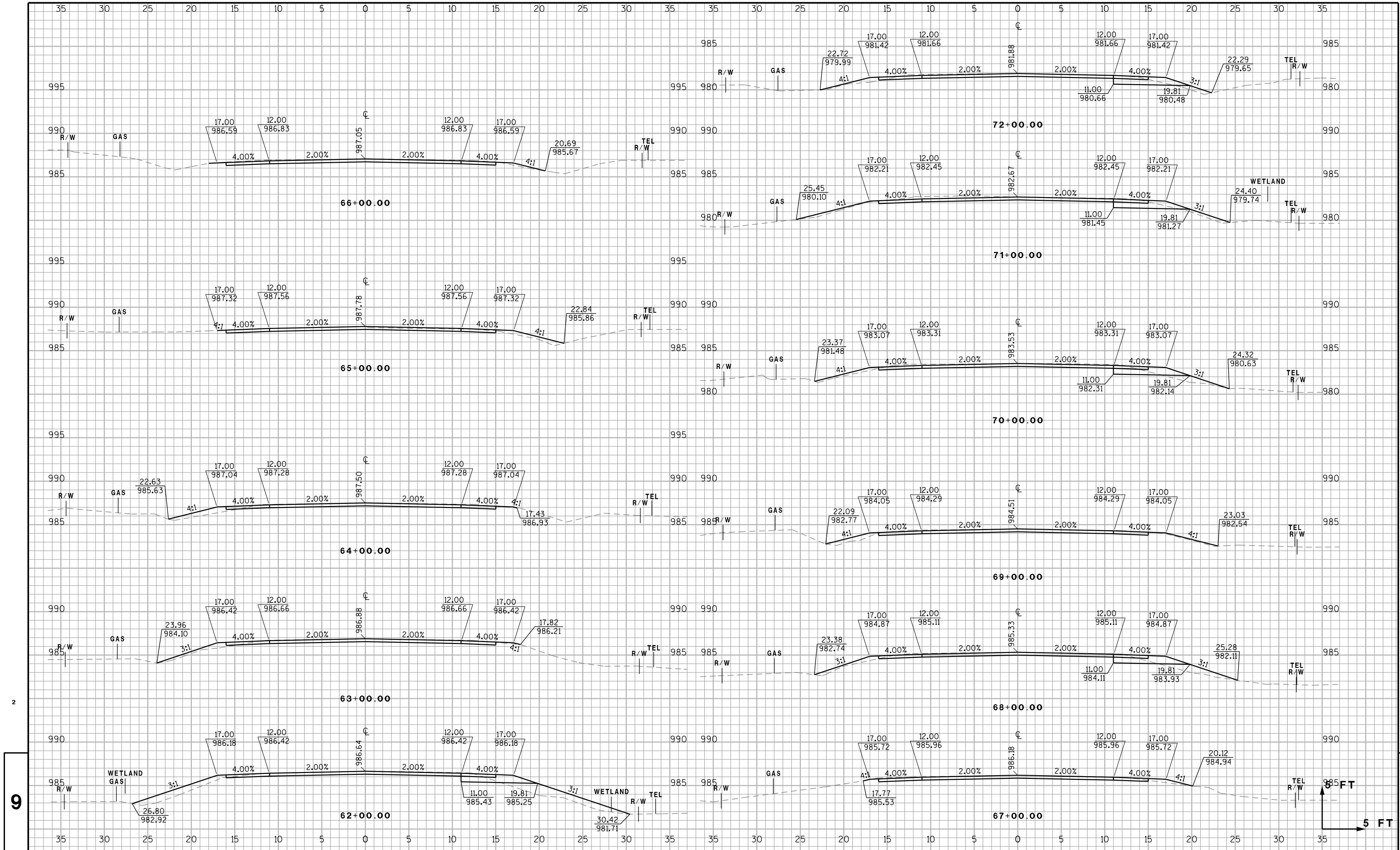
STATION	Distance	AREA (SF)		INCR. VOL (CY) (UNADJ)		EXPANDED FILL 1.25 CY
		CUT	FILL	CUT CY	FILL CY	
88+00		0	0	0	0	0
89+00	100	4	3	7	6	7
90+00	100	4	4	15	13	16
91+00	100	4	4	15	15	19
92+00	100	10	8	26	22	28
93+00	100	8	7	33	28	35
94+00	100	10	6	33	24	30
95+00	100	10	7	37	24	30
96+00	100	5	6	28	24	30
97+00	100	5	5	19	20	25
98+00	100	6	8	20	24	30
99+00	100	12	13	33	39	49
100+00	100	9	15	39	52	65
101+00	100	9	14	33	54	67
102+00	100	6	19	28	61	76
103+00	100	4	3	19	41	51
104+00	100	0	0	7	6	7
105+00	100	3	4	6	7	9
106+00	100	5	1	15	9	12
107+00	100	3	1	15	4	5
108+00	100	4	2	13	6	7
109+00	100	4	3	15	9	12
110+00	100	0	0	7	6	7
SEGMENT TOTAL				463	493	616
113+00		0	0	0	0	0
114+00	100	4	5	7	9	12
115+00	100	3	1	13	11	14
116+00	100	0	0	6	2	2
117+00	100	8	3	15	6	7
118+00	100	4	1	22	7	9
119+00	100	7	4	20	9	12
120+00	100	5	3	22	13	16
121+00	100	0	0	9	6	7
122+00	100	4	2	7	4	5
123+00	100	3	5	13	13	16
124+00	100	0	0	6	9	12
SEGMENT TOTAL				141	89	111
127+00		0	0	0	0	0
128+00	100	4	4	7	7	9
129+00	100	3	4	13	15	19
130+00	100	7	19	19	43	53
131+00	100	0	0	13	35	44
SEGMENT TOTAL				52	100	125
139+00		0	0	0	0	0
140+00	100	3	1	6	2	2
141+00	100	4	2	13	6	7
142+00	100	0	0	7	4	5
SEGMENT TOTAL				26	11	14

STATION	Distance	AREA (SF)		INCR. VOL (CY) (UNADJ)		EXPANDED FILL
		CUT	FILL	CUT	FILL	1.25
				CY	CY	CY
147+00		0	0	0	0	0
148+00	100	4	0	7	0	0
149+00	100	6	2	19	4	5
150+00	100	0	0	11	4	5
SEGMENT TOTAL				37	7	9
157+00		0	0	0	0	0
158+00	100	3	4	6	7	9
159+00	100	0	0	6	7	9
SEGMENT TOTAL				11	15	19
163+00		0	0	0	0	0
164+00	100	5	2	9	4	5
165+00	100	3	10	15	22	28
166+00	100	5	0	15	19	23
167+00	100	3	3	15	6	7
168+00	100	4	1	13	7	9
169+00	100	4	0	15	2	2
170+00	100	0	0	7	0	0
171+00	100	0	0	0	0	0
172+00	100	5	0	9	0	0
173+00	100	1	31	11	57	72
174+00	100	1	14	4	83	104
175+00	100	3	5	7	35	44
176+00	100	3	6	11	20	25
177+00	100	0	0	6	11	14
178+00	100	4	2	7	4	5
179+00	100	3	4	13	11	14
180+00	100	3	8	11	22	28
181+00	100	3	5	11	24	30
182+00	100	0	0	6	9	12
183+00	100	4	1	7	2	2
184+00	100	0	0	7	2	2
SEGMENT TOTAL				200	341	426
191+00		0	0	0	0	0
192+00	100	4	9	7	17	21
193+00	100	5	8	17	31	39
194+00	100	4	2	17	19	23
195+00	100	4	3	15	9	12
196+00	100	0	0	7	6	7
SEGMENT TOTAL				63	81	102

STATION	Distance	AREA (SF)		INCR. VOL (CY) (UNADJ)		EXPANDED FILL
		CUT	FILL	CUT	FILL	1.25
				CY	CY	CY
200+00		0	0	0	0	0
201+00	100	10	5	19	9	12
202+00	100	5	1	28	11	14
203+00	100	10	3	28	7	9
204+00	100	5	2	28	9	12
205+00	100	5	2	19	7	9
206+00	100	4	1	17	6	7
207+00	100	0	0	7	2	2
208+00	100	0	0	0	0	0
209+00	100	4	4	7	7	9
210+00	100	8	4	22	15	19
211+00	100	3	3	20	13	16
212+00	100	0	0	6	6	7
213+00	100	4	0	7	0	0
SEGMENT TOTAL				207	93	116
218+00		0	0	0	0	0
219+00	100	5	4	9	7	9
220+00	100	4	2	17	11	14
221+00	100	3	1	13	6	7
222+00	100	0	0	6	2	2
223+00	100	5	1	9	2	2
224+00	100	3	1	15	4	5
225+00	100	5	2	15	6	7
226+00	100	4	2	17	7	9
227+00	100	0	0	7	4	5
228+00	100	0	0	0	0	0
229+00	100	9	1	17	2	2
230+00	100	8	1	31	4	5
231+00	100	9	2	31	6	7
232+00	100	0	0	17	4	5
SEGMENT TOTAL				204	63	79

STATION	Distance	AREA (SF)		INCR. VOL (CY) (UNADJ)		EXPANDED FILL
		CUT	FILL	CUT	FILL	1.25
				CY	CY	CY
239+00		0	0	0	0	0
240+00	100	5	0	9	0	0
241+00	100	9	1	26	2	2
242+00	100	10	2	35	6	7
243+00	100	10	3	37	9	12
244+00	100	8	3	33	11	14
245+00	100	4	1	22	7	9
246+00	100	10	2	26	6	7
247+00	100	5	1	28	6	7
248+00	100	4	1	17	4	5
249+00	100	0	0	7	2	2
250+00	100	4	1	7	2	2
251+00	100	0	0	7	2	2
252+00	100	0	0	0	0	0
253+00	100	4	2	7	4	5
254+00	100	9	7	24	17	21
255+00	100	7	7	30	26	32
256+00	100	0	0	13	13	16
257+00	100	0	0	0	0	0
258+00	100	3	2	6	4	5
259+00	100	0	0	6	4	5
260+00	100	3	2	6	4	5
261+00	100	0	0	6	4	5
262+00	100	4	1	7	2	2
263+00	100	0	0	7	2	2
SEGMENT TOTAL (CY)				367	133	167
GRAND TOTALS (CY)				2044	1752	2191





PROJECT NO: 3840-01-71

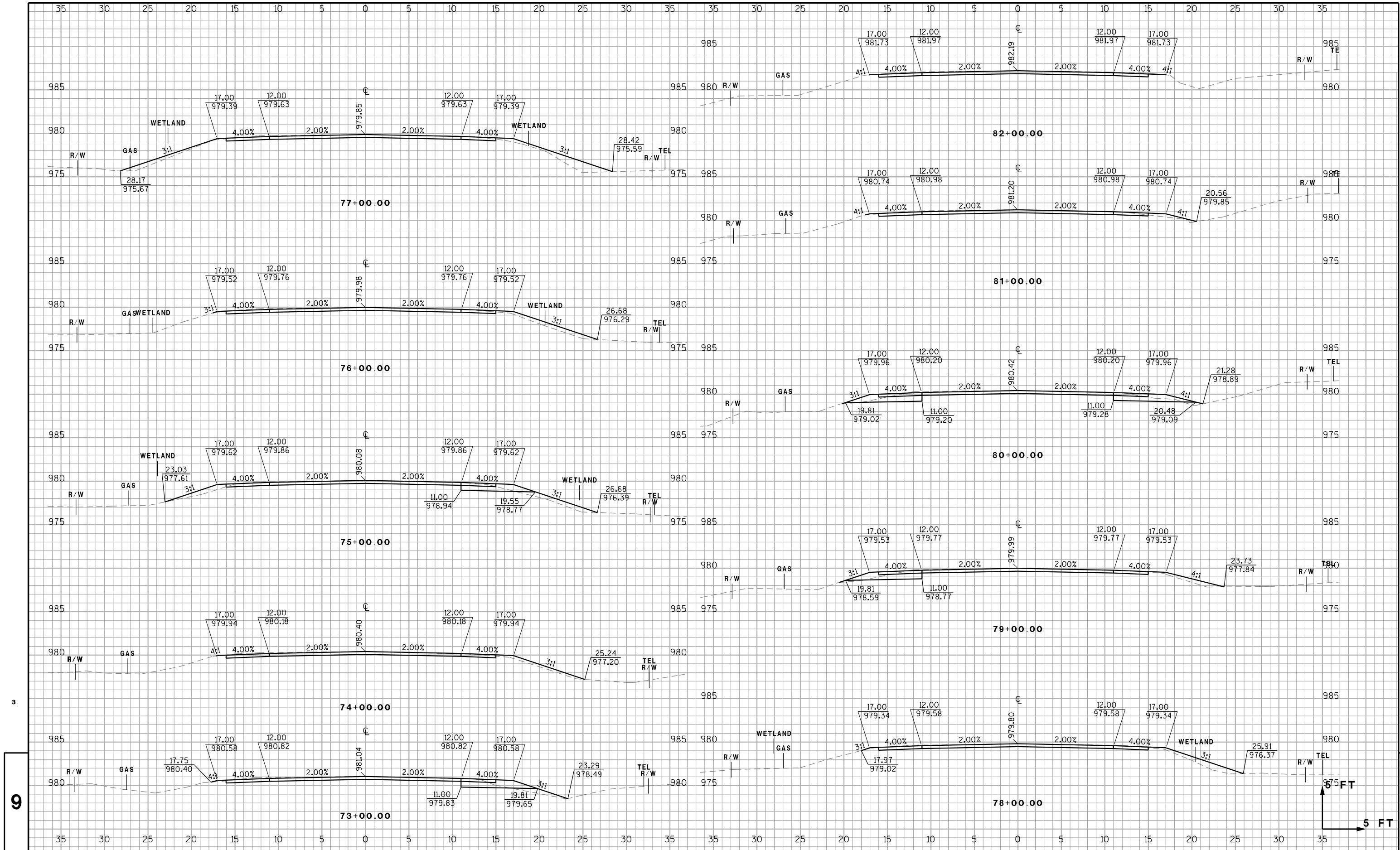
HWY: CTH H

COUNTY: WALWORTH

CROSS SECTIONS: MAINLINE

SHEET NO:

E



PROJECT NO: 3840-01-71

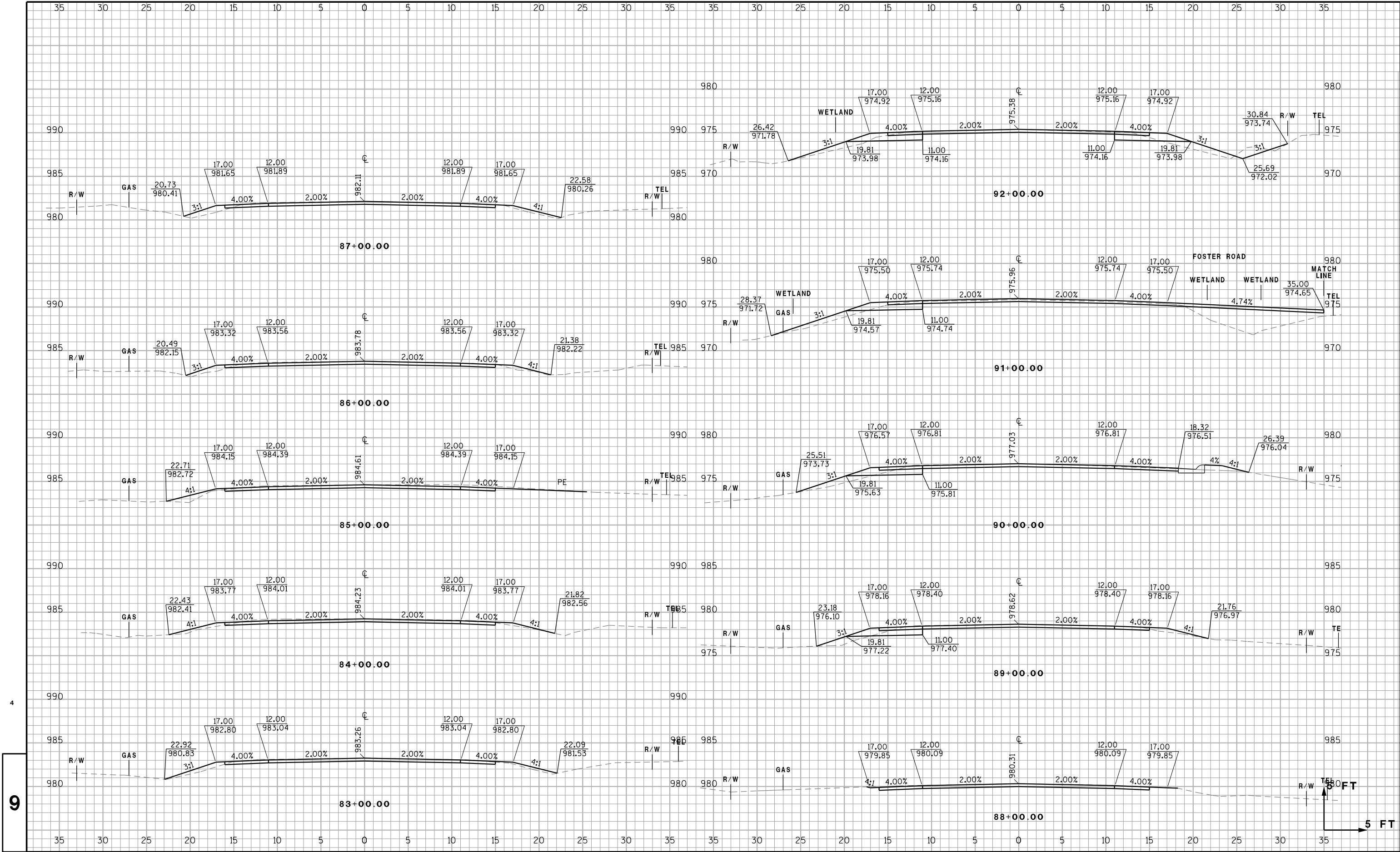
HWY: CTH H

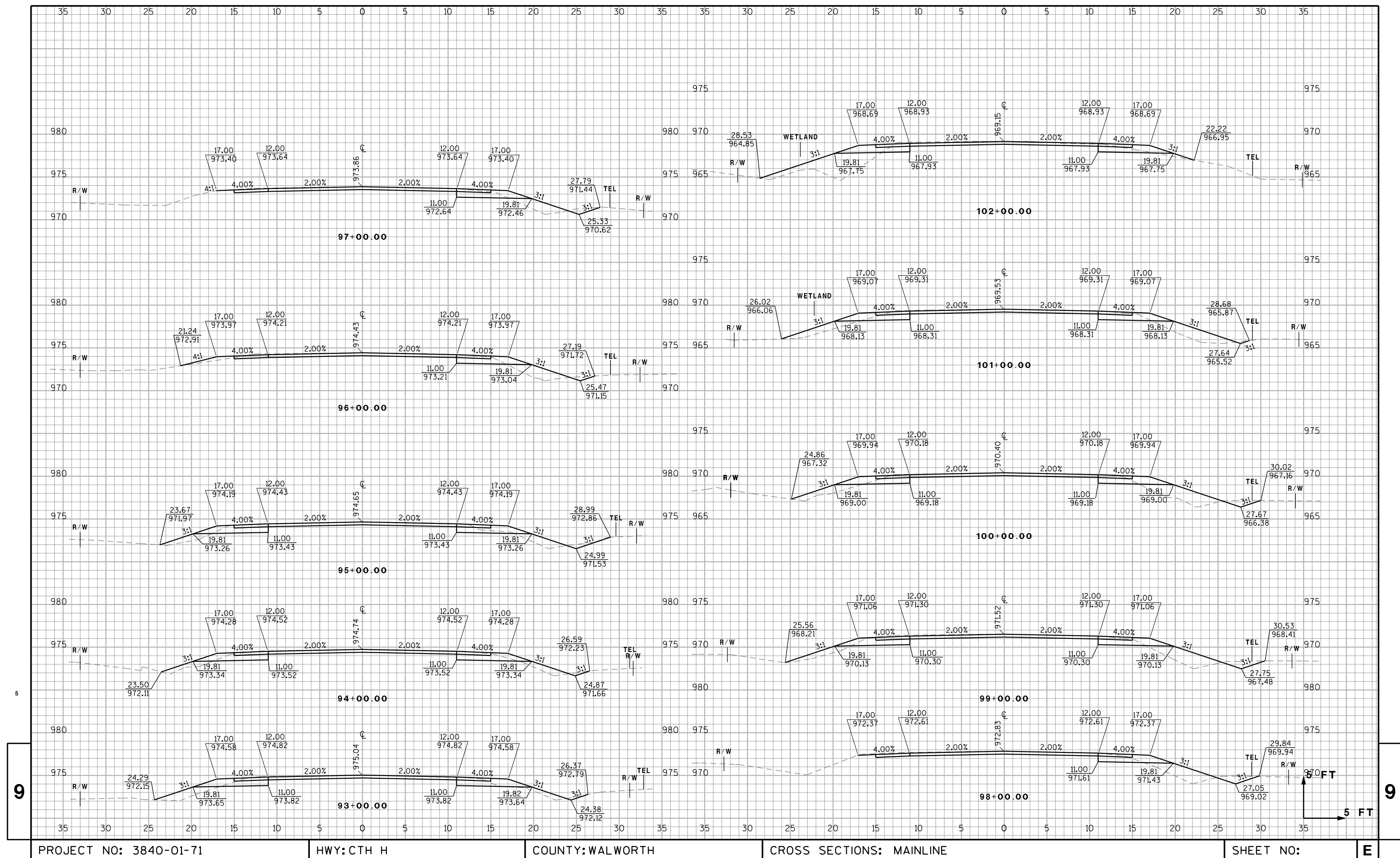
COUNTY: WALWORTH

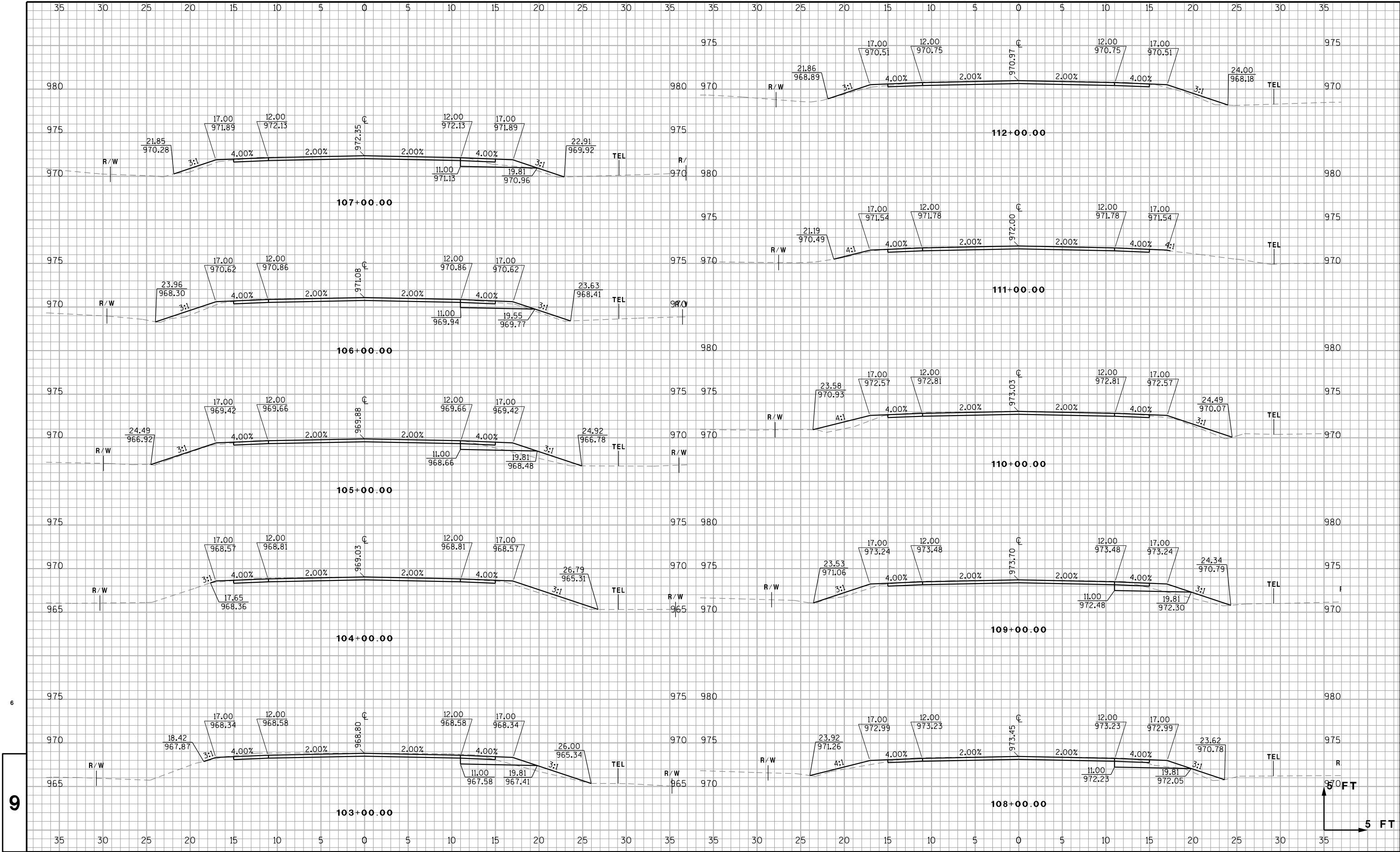
CROSS SECTIONS: MAINLINE

SHEET NO:

E







PROJECT NO: 3840-01-71

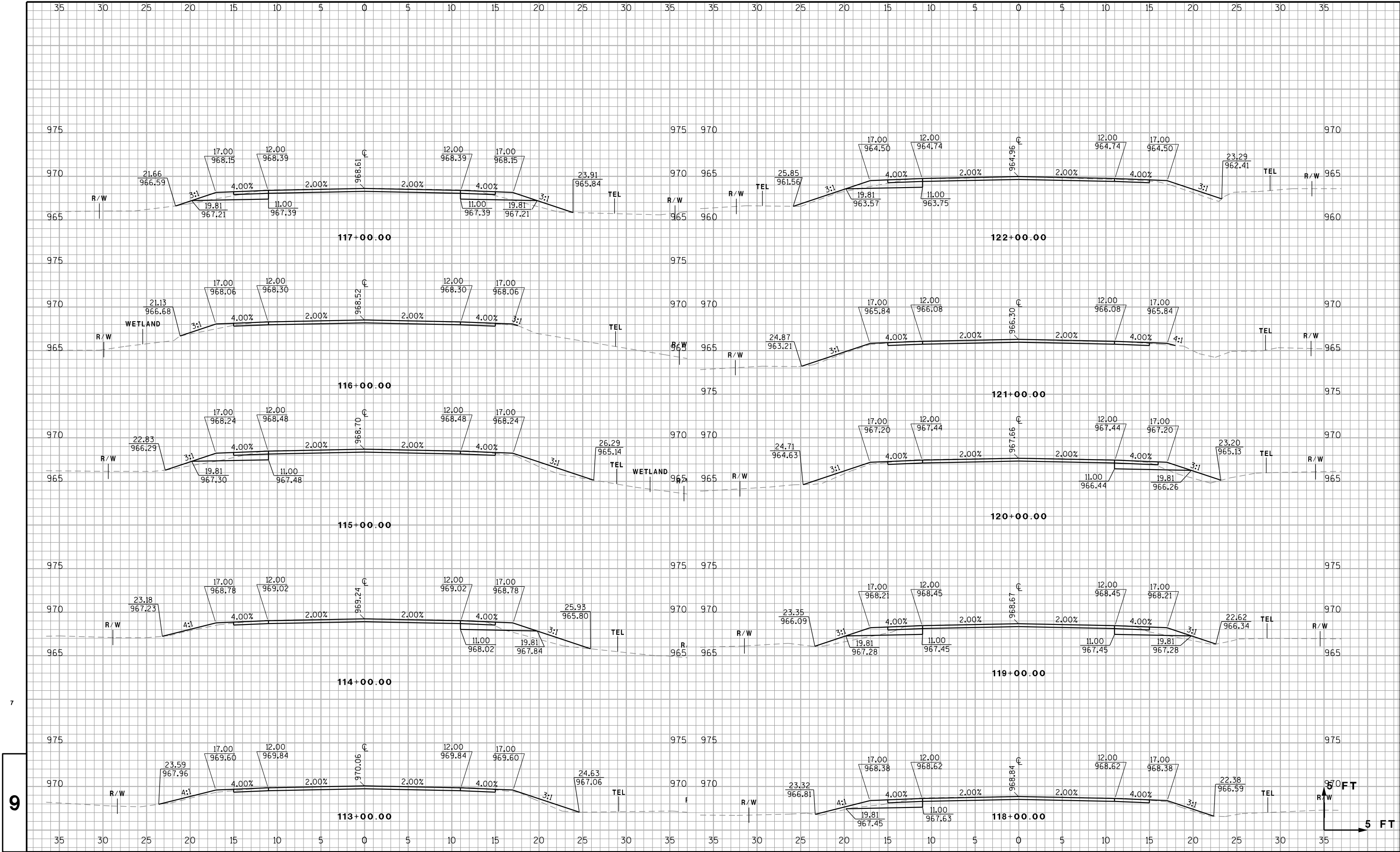
HWY: CTH H

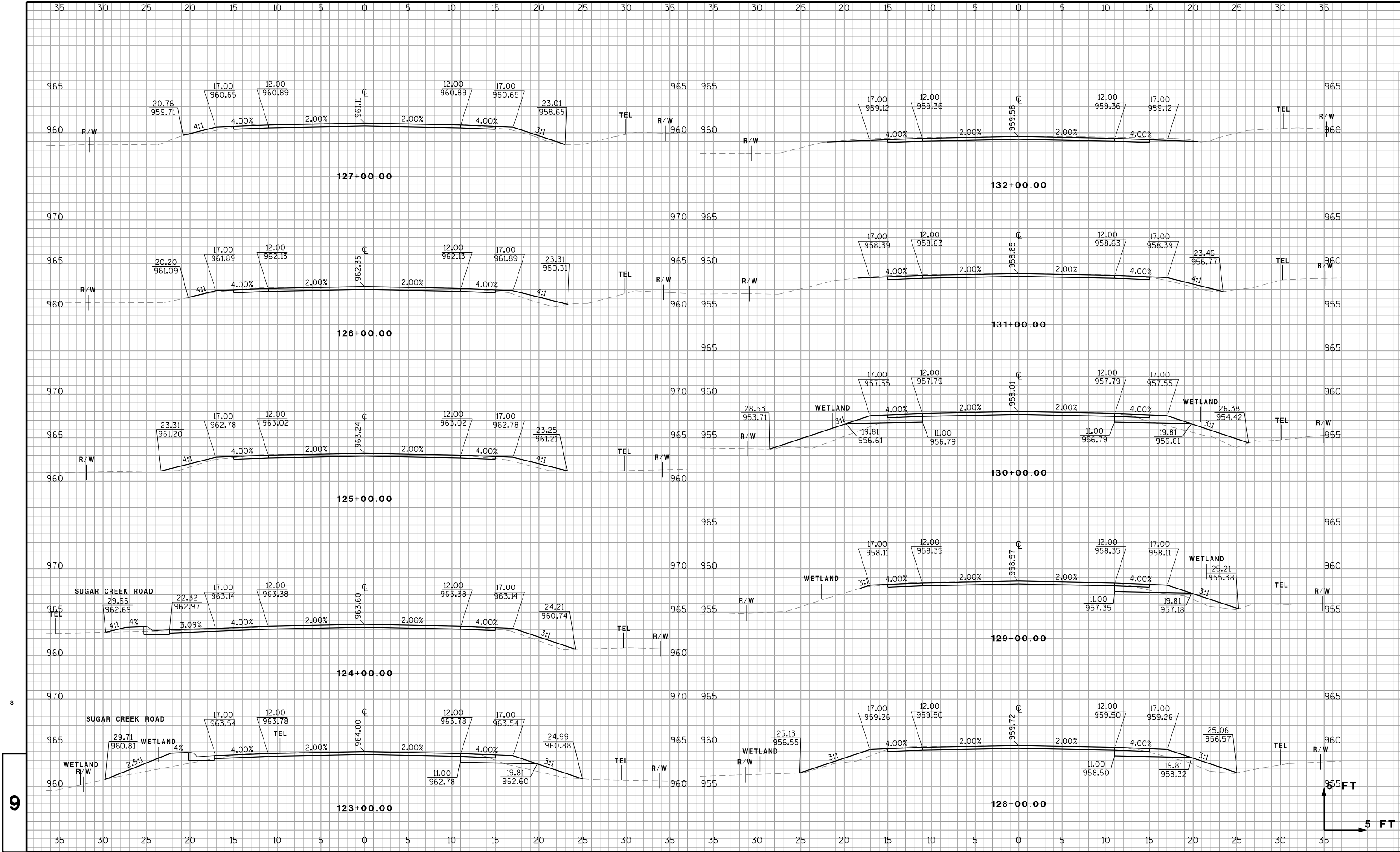
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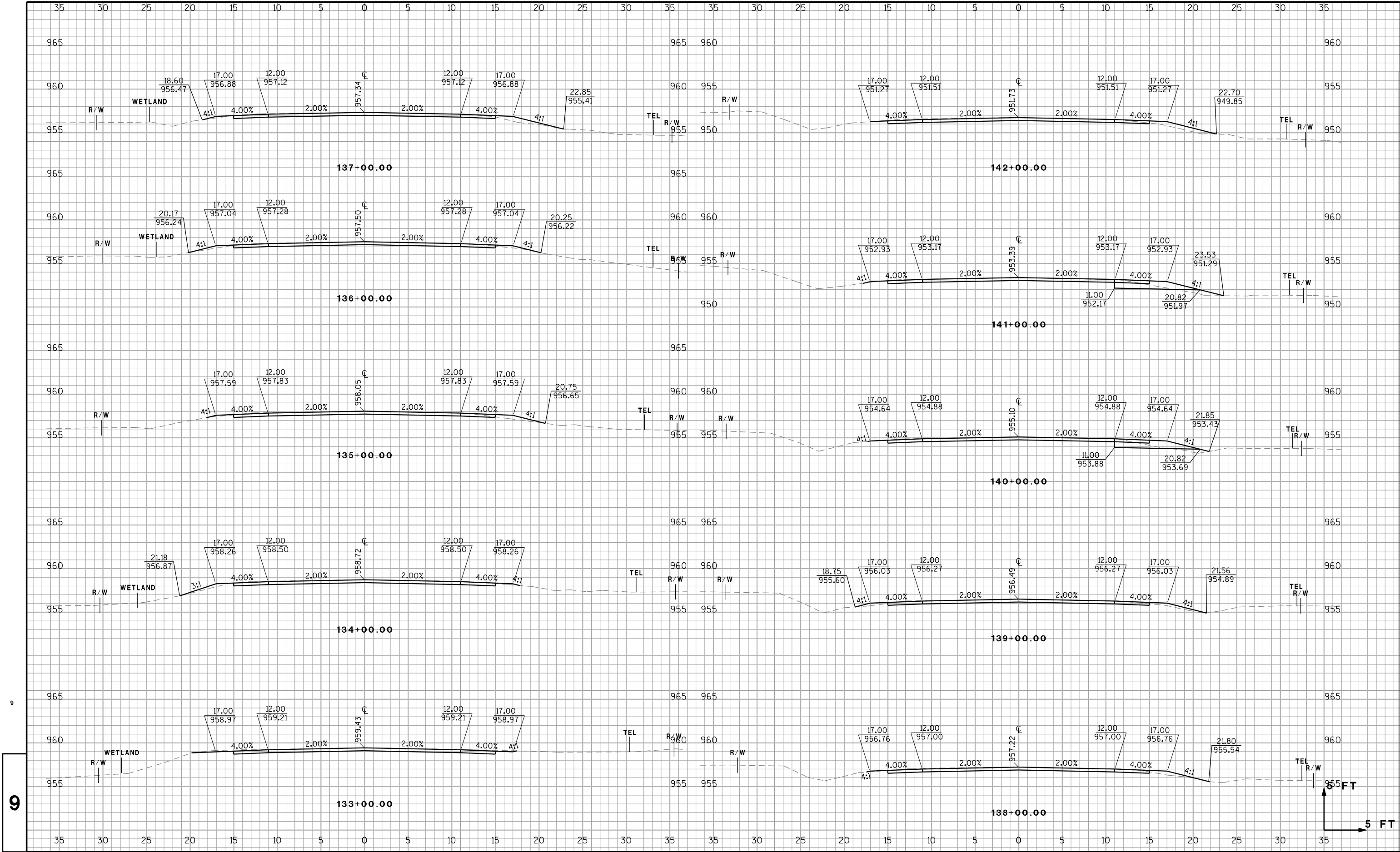
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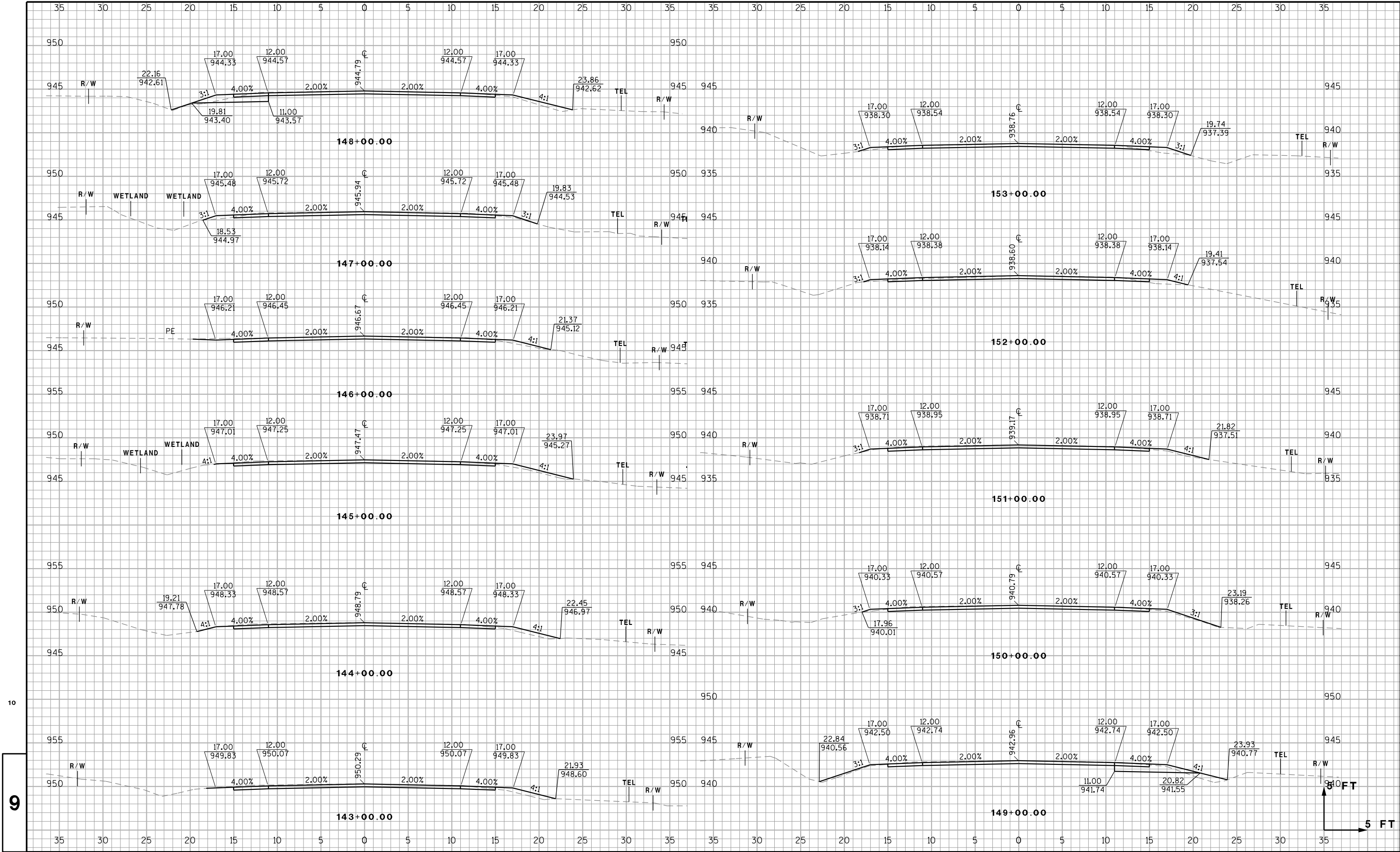
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PROJECT NO: 3840-01-71

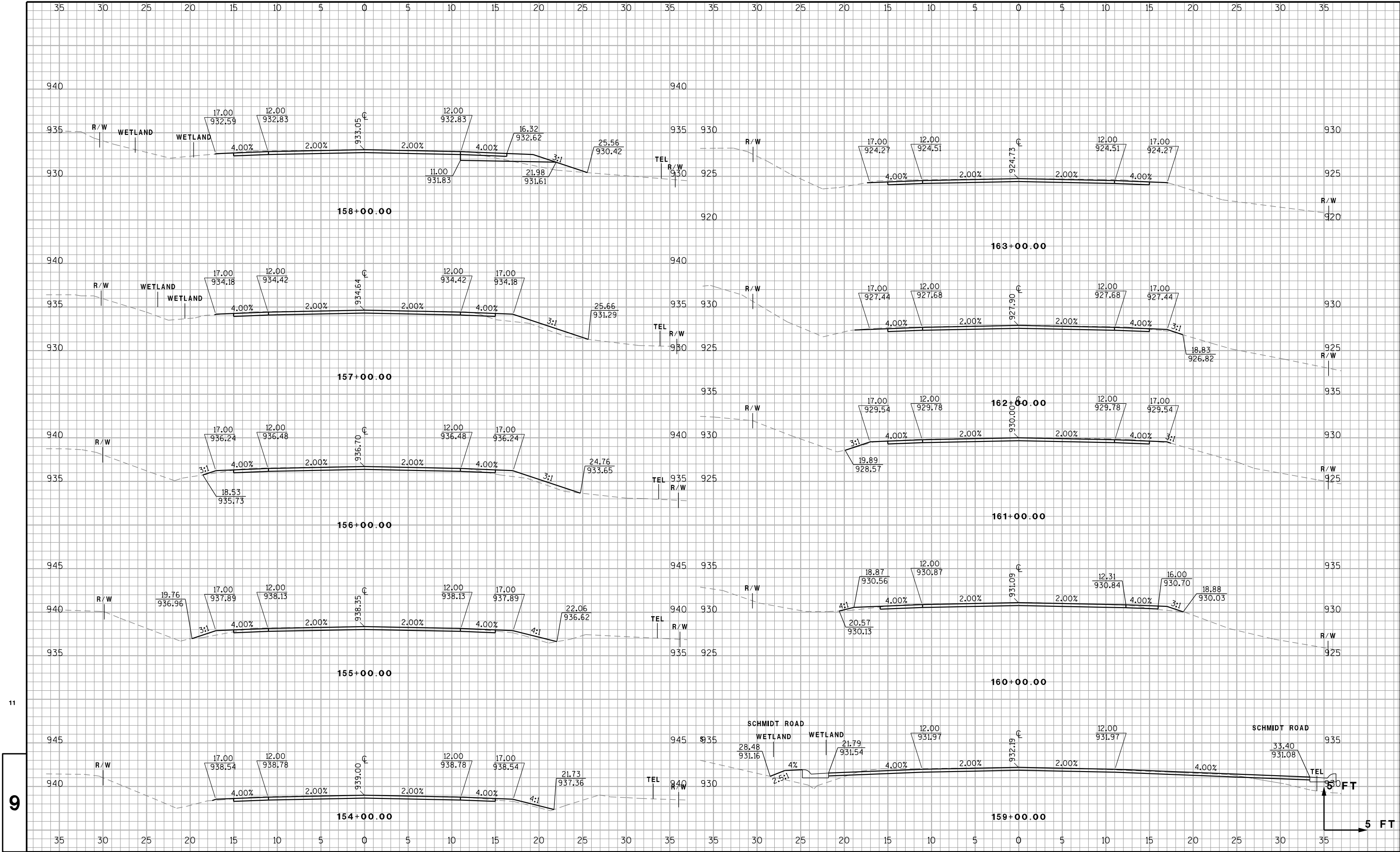
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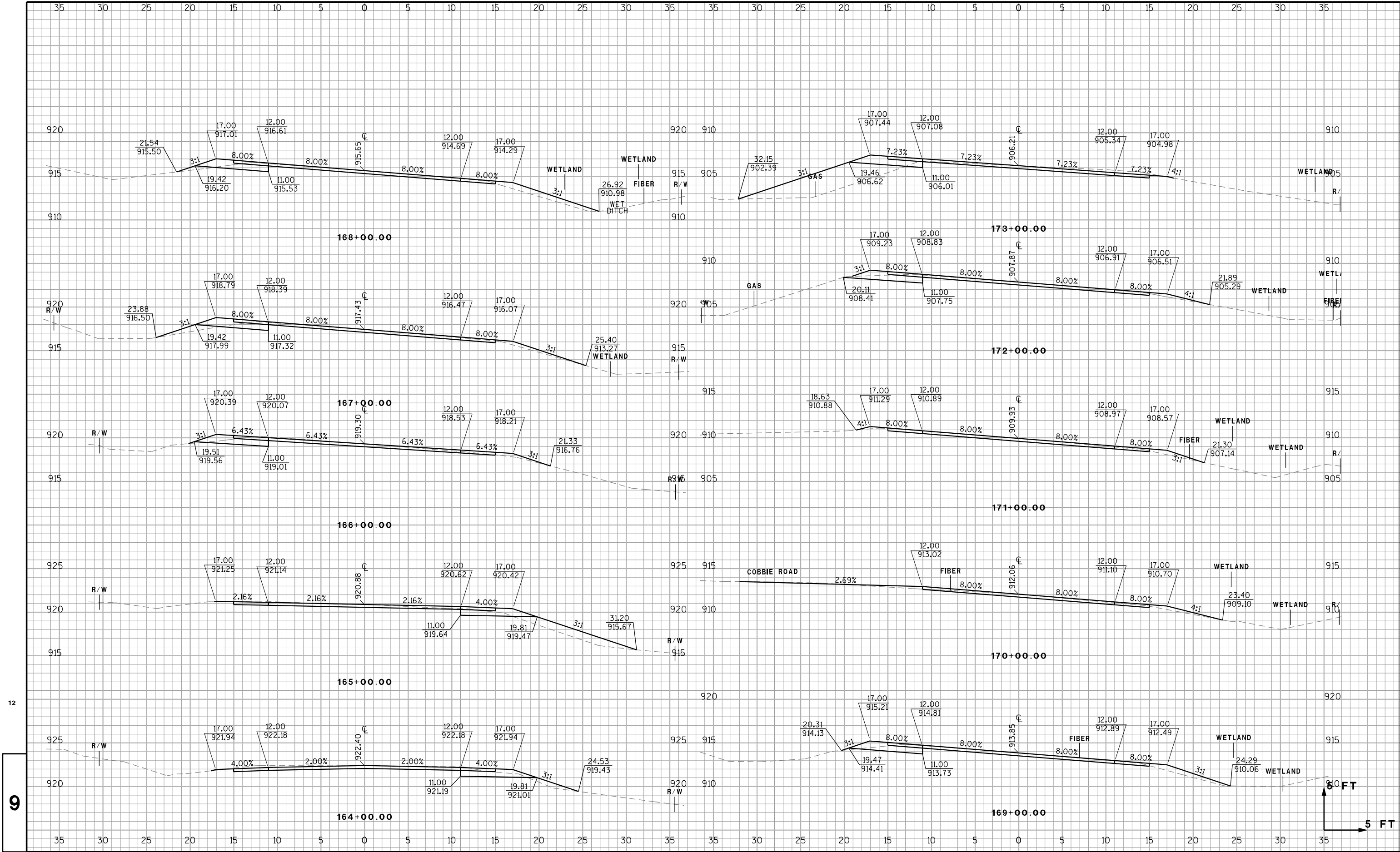
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PROJECT NO: 3840-01-71

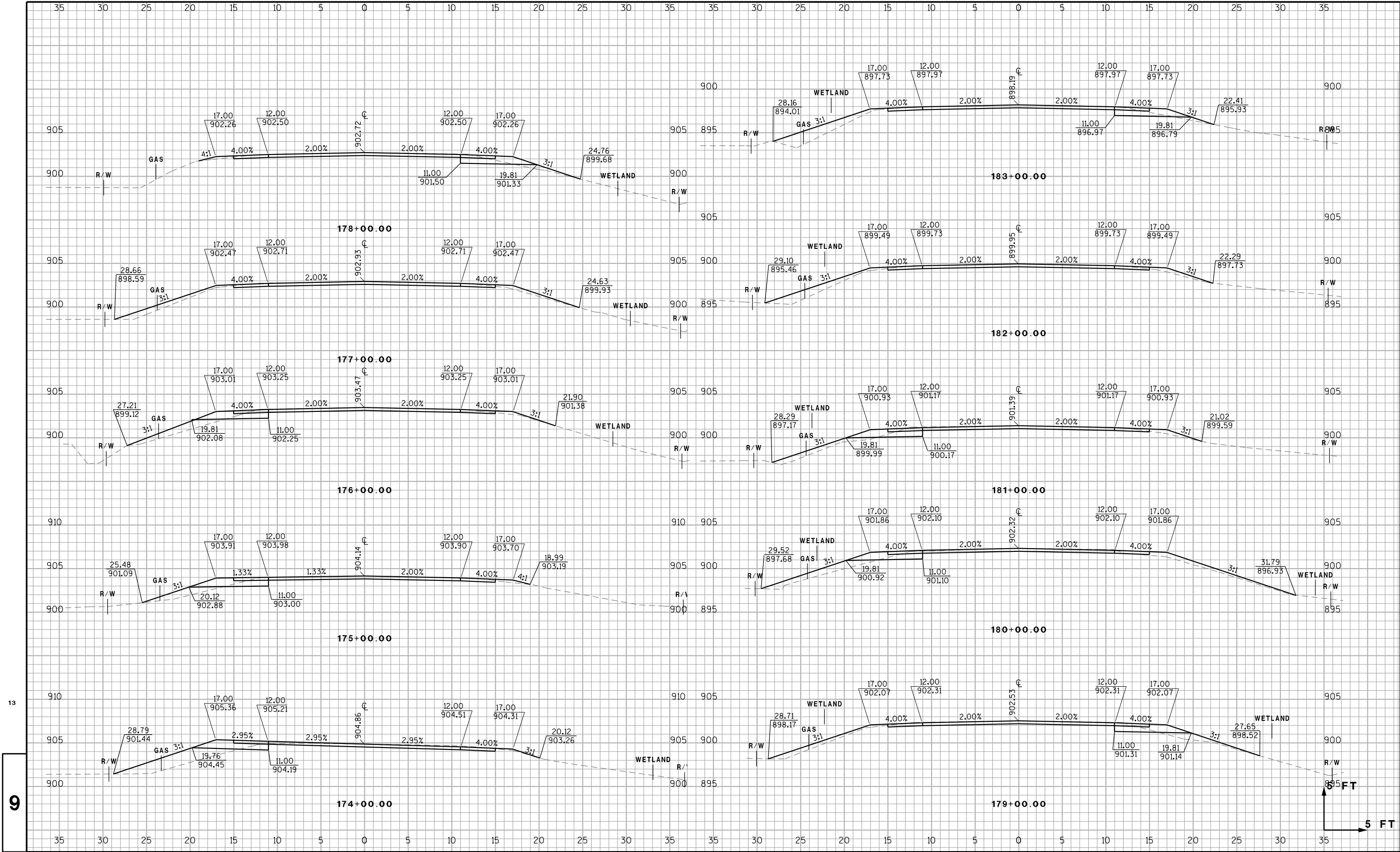
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CROSS SECTIONS: MAINLINE

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PROJECT NO: 3840-01-71

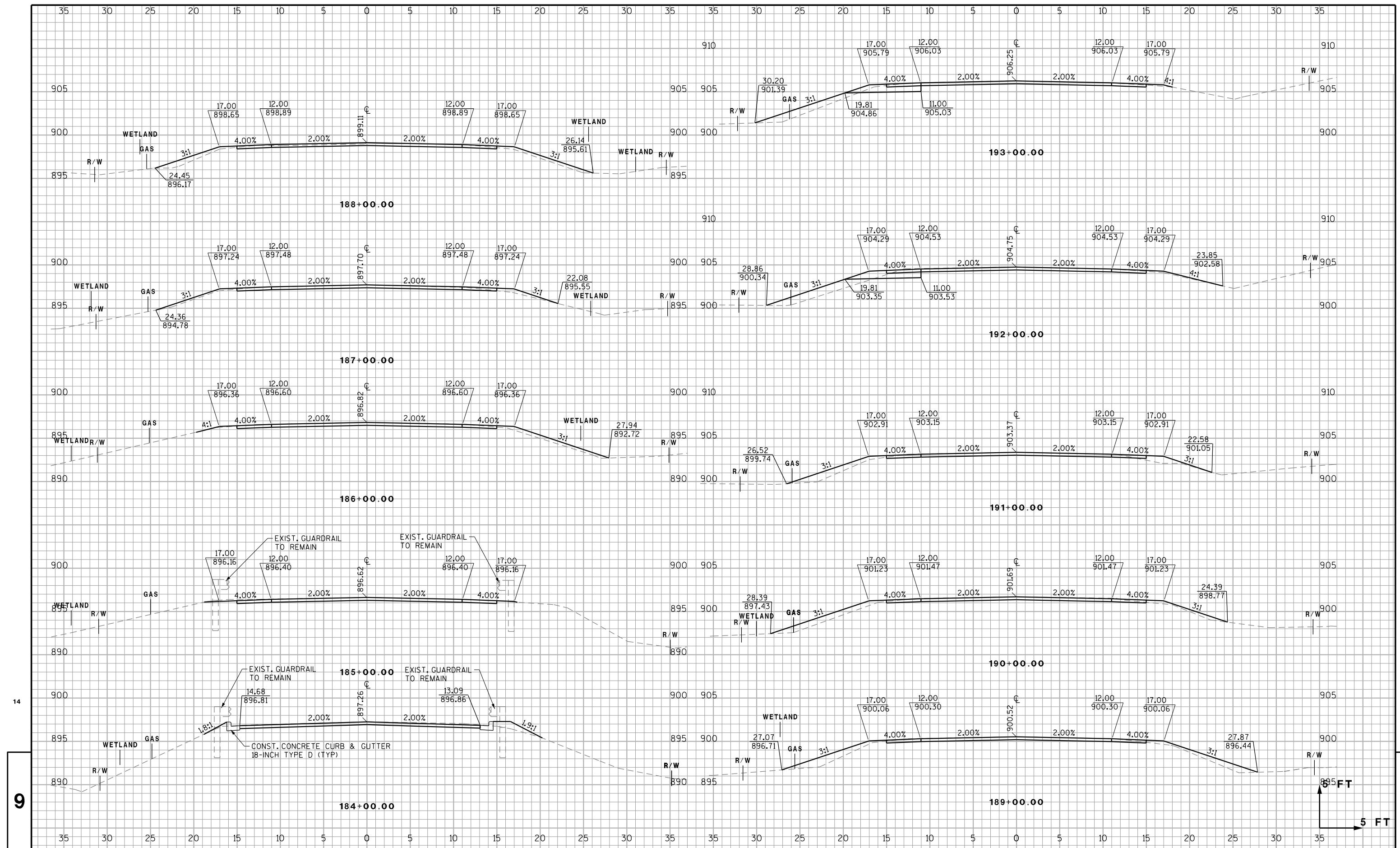
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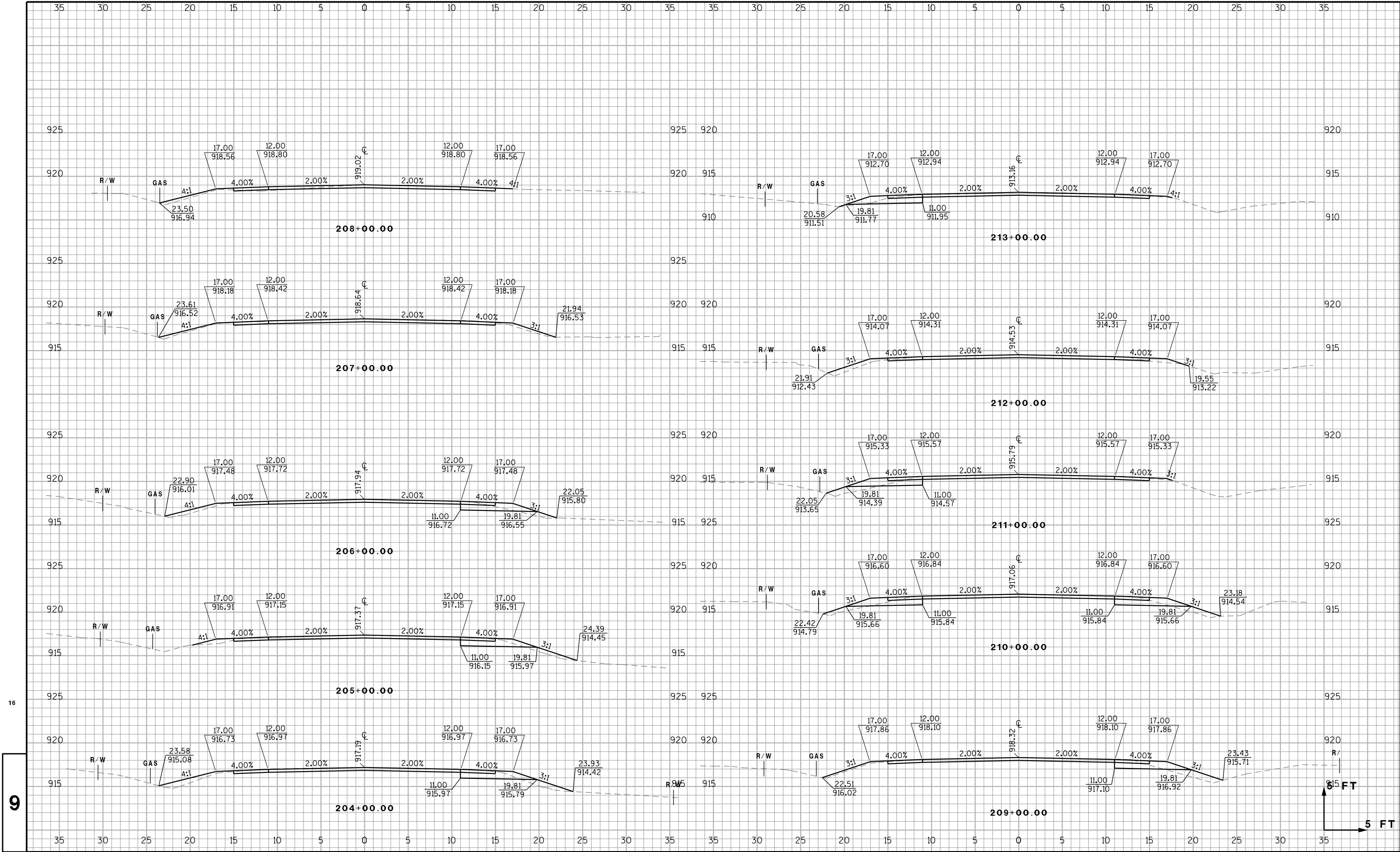
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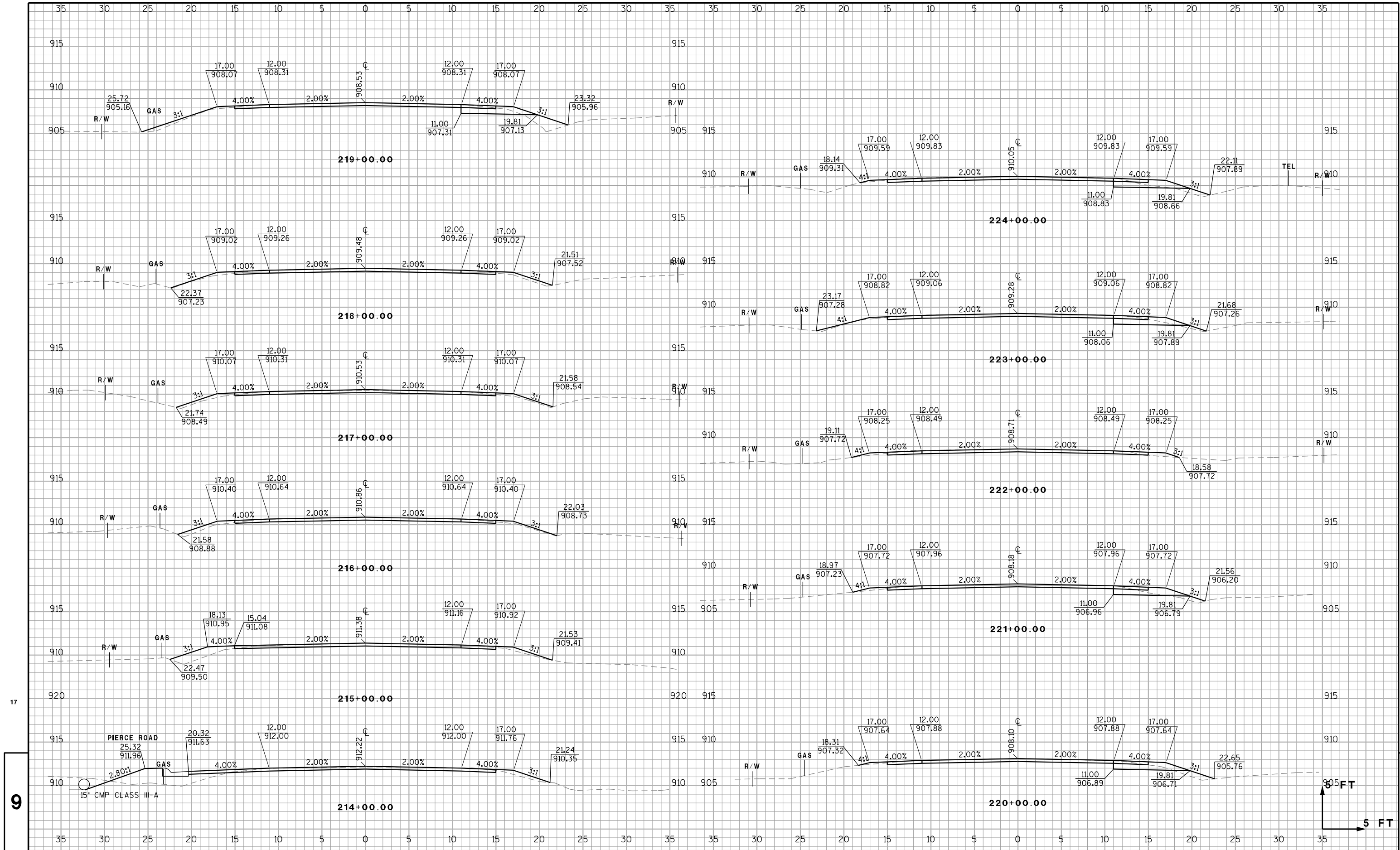
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PROJECT NO: 3840-01-71

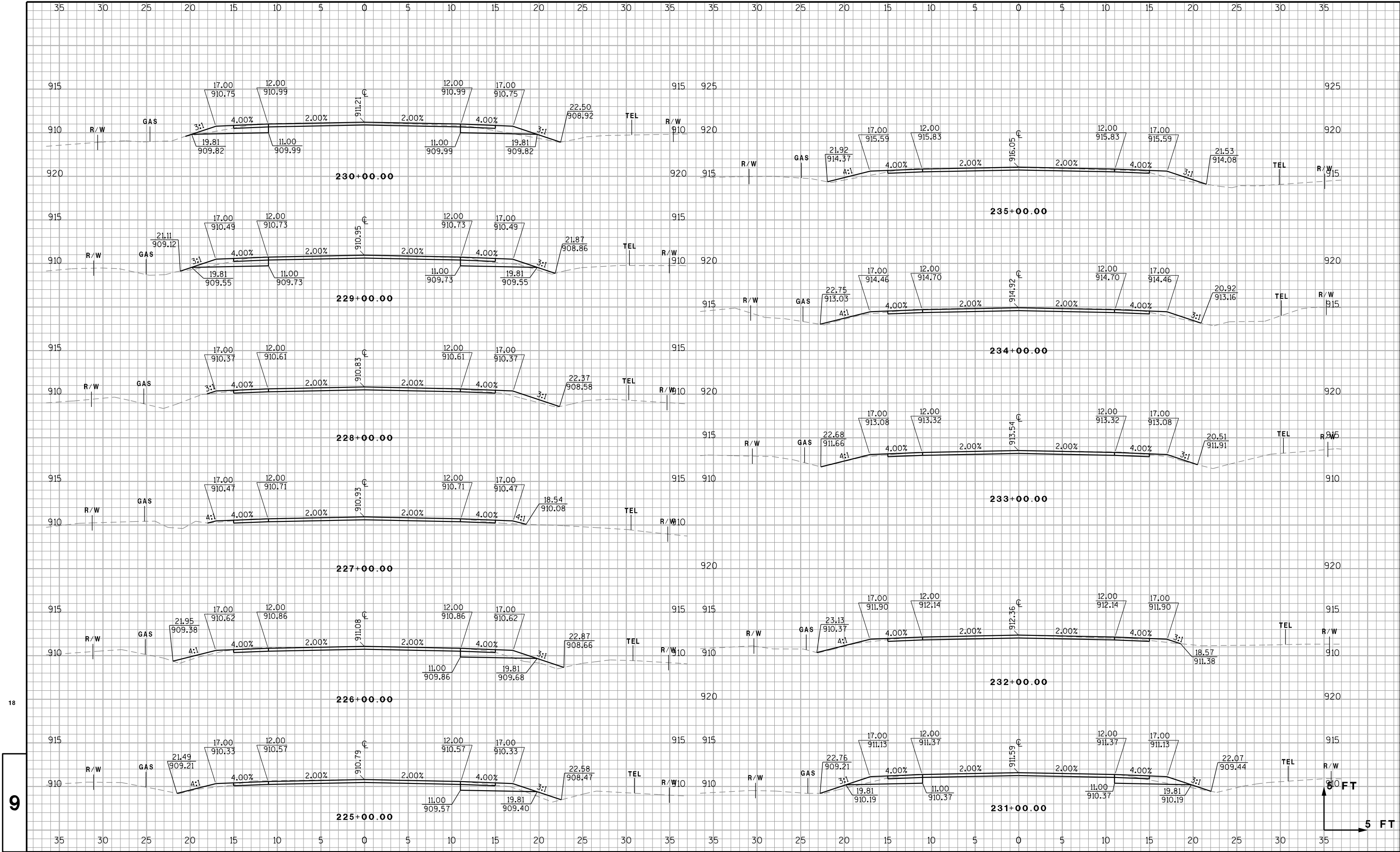
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PROJECT NO: 3840-01-71

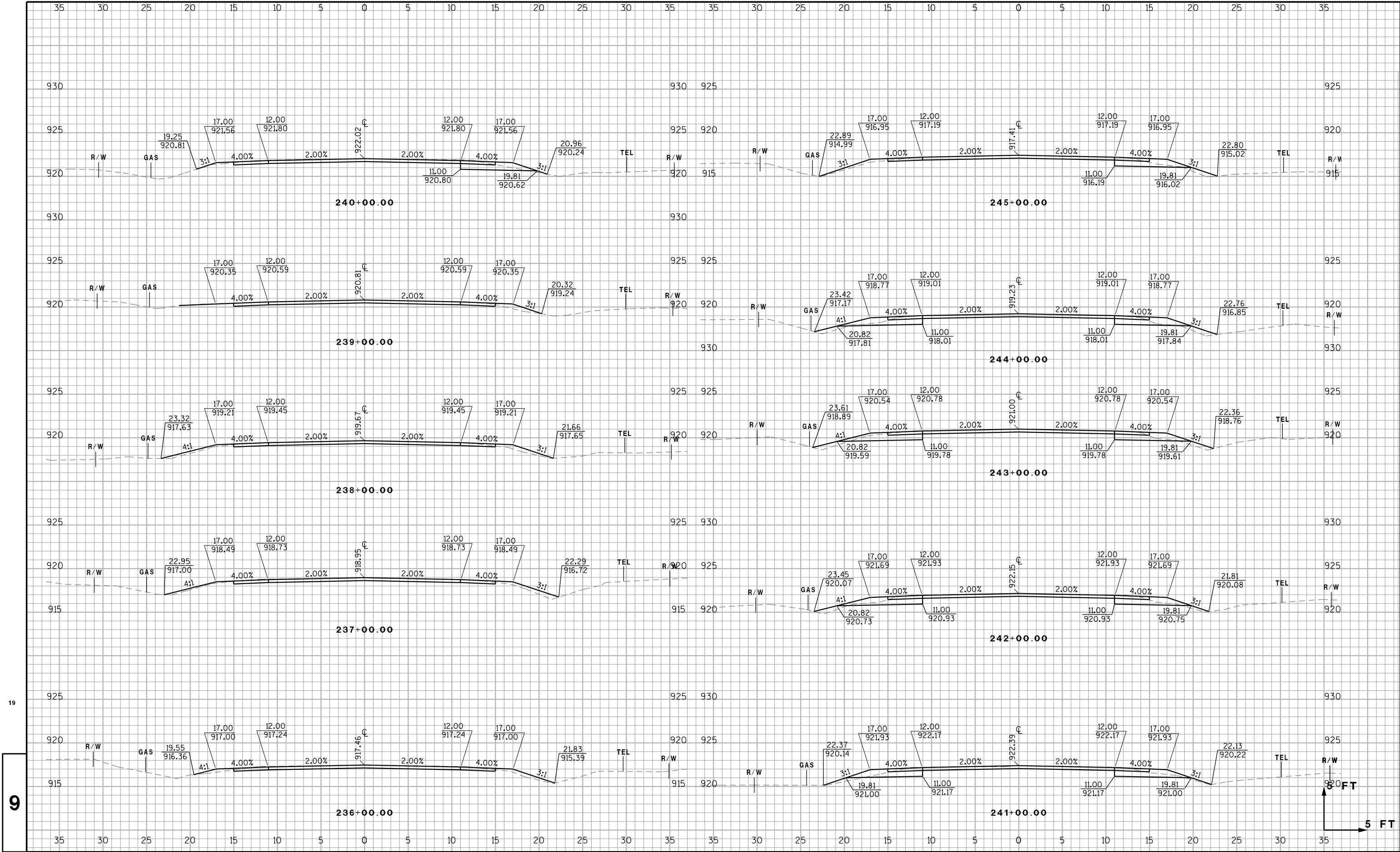
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CROSS SECTIONS: MAINLINE

SHEET NO:

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PROJECT NO: 3840-01-71

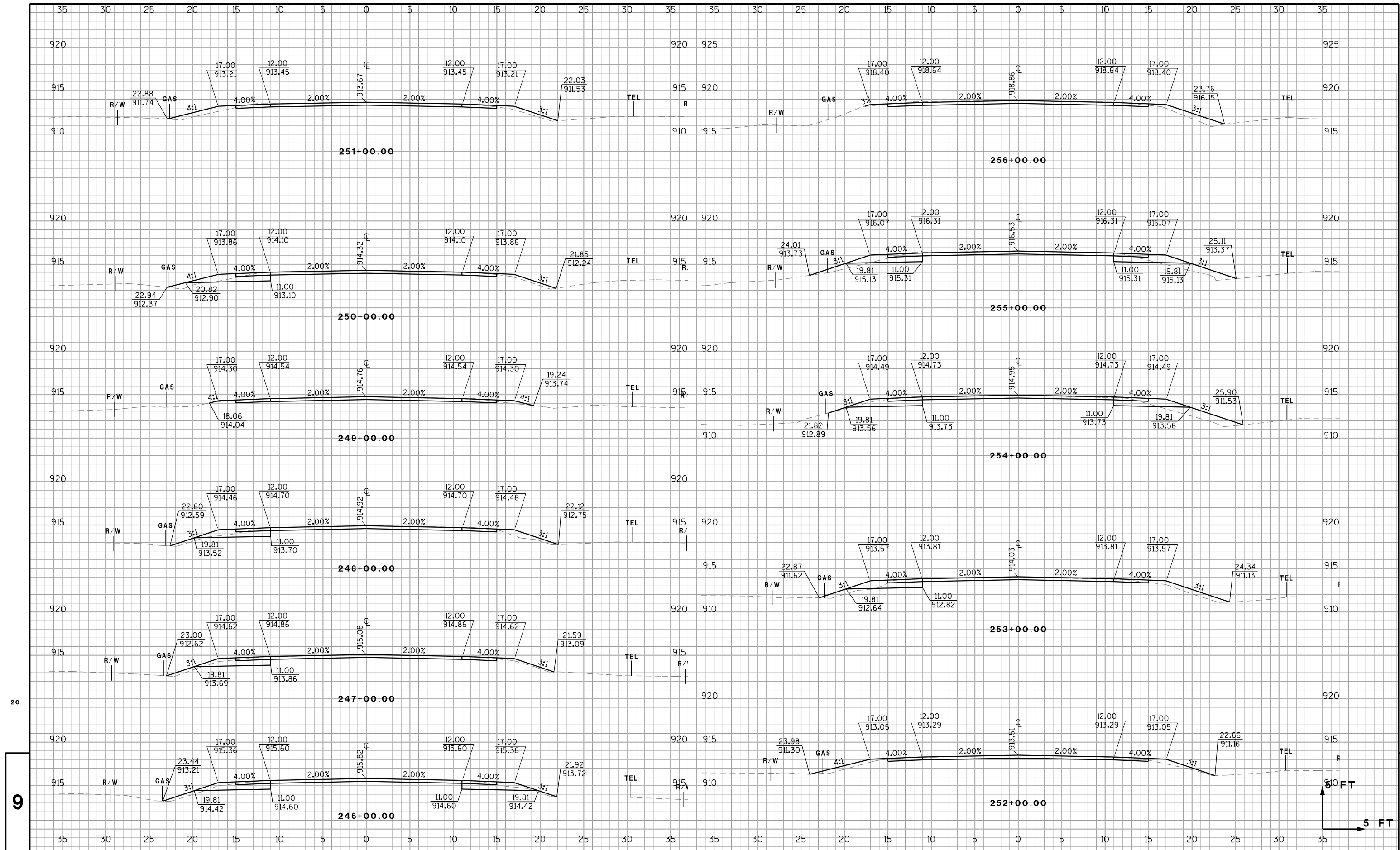
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PROJECT NO: 3840-01-71

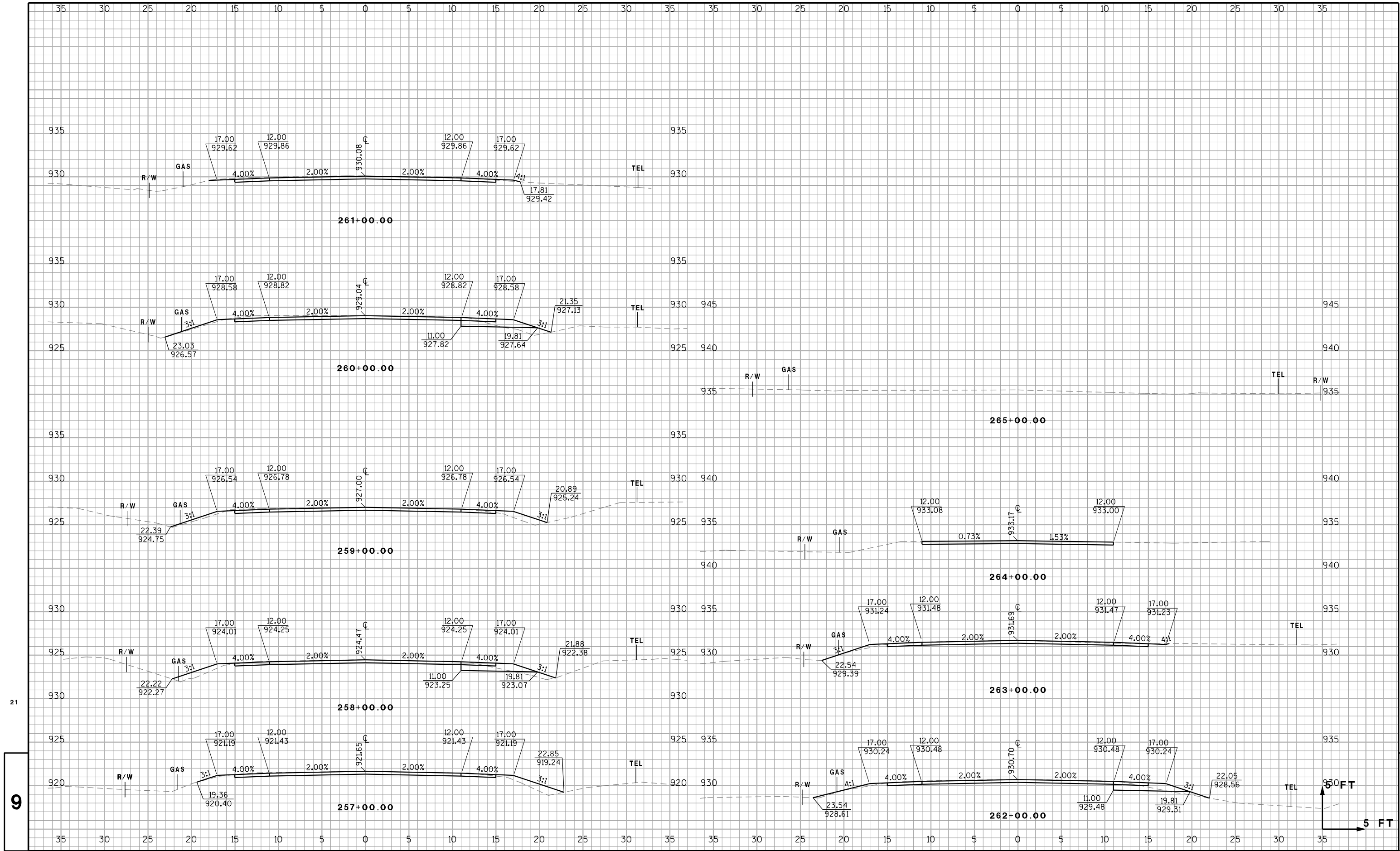
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COUNTY: WALWORTH

CROSS SECTIONS: MAINLINE

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PROJECT NO: 3840-01-71

HWY: CTH H

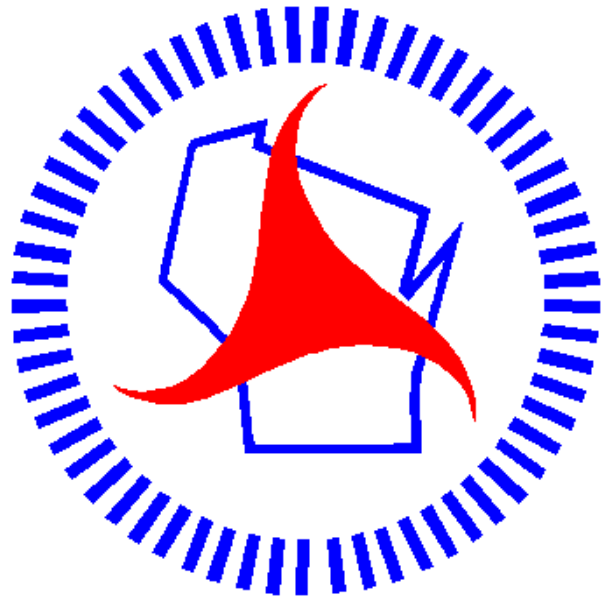
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CROSS SECTIONS: MAINLINE

SHEET NO:

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Notes



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