

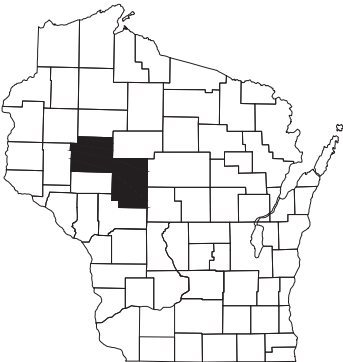
PROJECT ID: 1050-00-65

COUNTY: CHIPPEWA & CLARK

ORDER OF SHEETS

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

TOTAL SHEETS =



DESIGN DESIGNATION

A.A.D.T.	2015	=	13,200
A.A.D.T.	2025	=	14,900
D.H.V.		=	17.2
D.D.		=	62/38
T.		=	21.5%
DESIGN SPEED		=	70 MPH
ESALS		=	N/A

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	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CHIPPEWA FALLS - ABBOTSFORD

580 FT WEST 330TH STREET TO STH 13

STH 29

CHIPPEWA & CLARK

STATE PROJECT NUMBER
1050-00-65

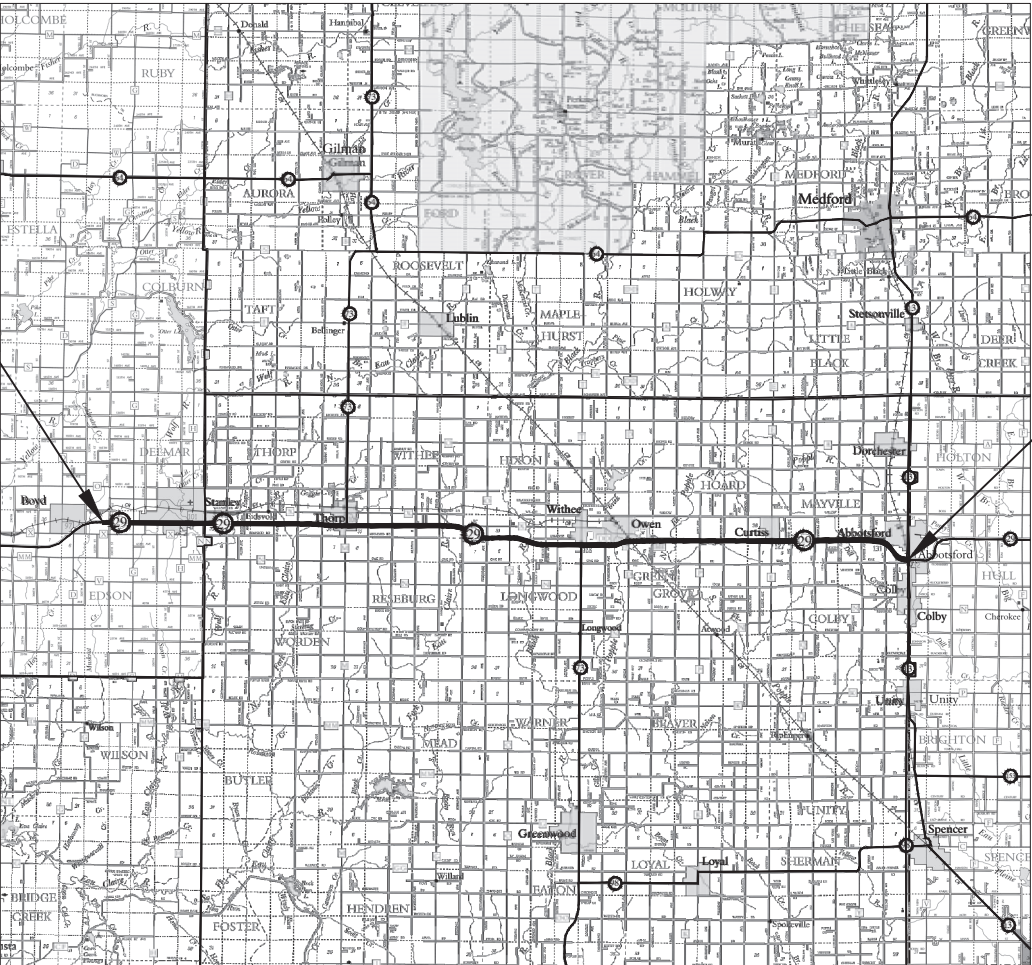
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1050-00-65		

BEGIN PROJECT
STA. 990'WB'+00

Y = 135324.9005
X = 271534.0582

STA. 990'EB'+00

Y = 135264.4925
X = 271534.7819



SCALE 0 10 MILES

TOTAL NET LENGTH OF CENTERLINE = 35.01

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

END PROJECT
STA. 2800'WB'+15

Y = 128696.75
X = 450156.37

STA. 2800'EB'+22

Y = 128637.28
X = 450166.99

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	NW Region & Jewell Associates
Surveyor	
Designer	JESSICA BOWKER
Project Manager	DAVID KOEPP
Regional Examiner	CHRISTINE KOSKI
Regional Supervisor	TIMOTHY MASON

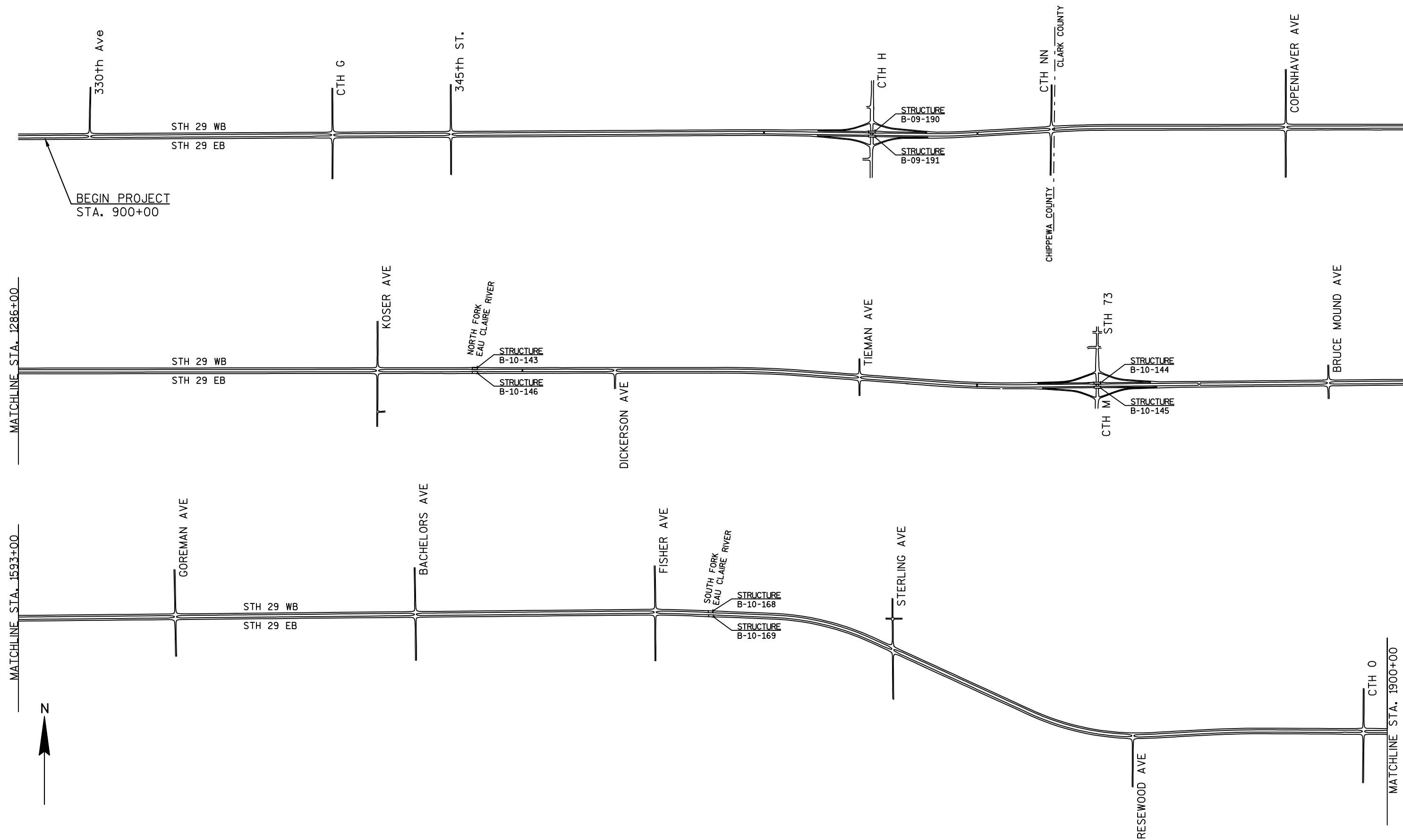
APPROVED FOR THE DEPARTMENT

DATE: (Signature)

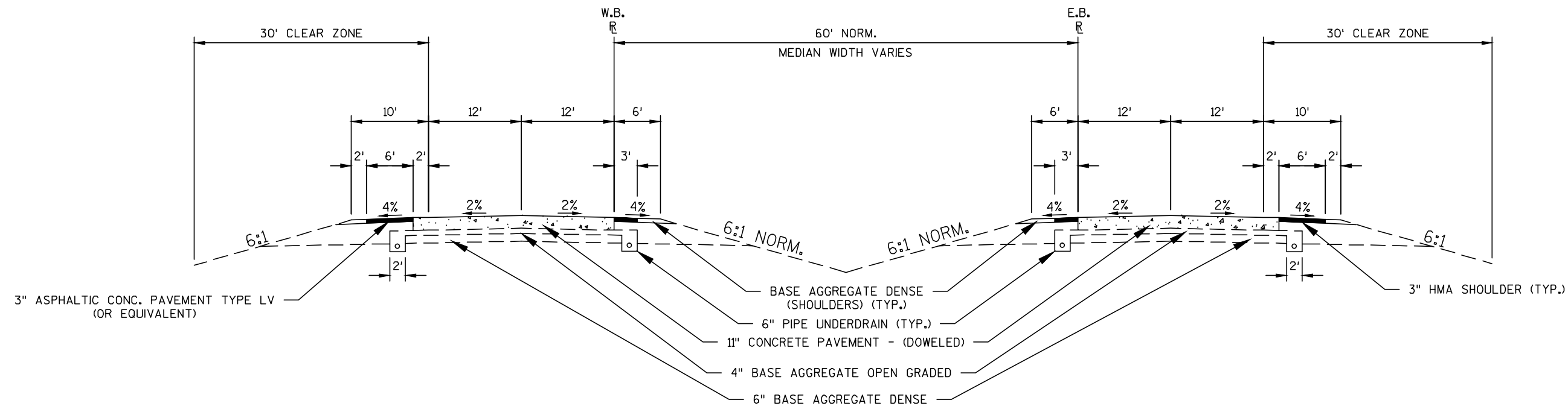
E

2

2

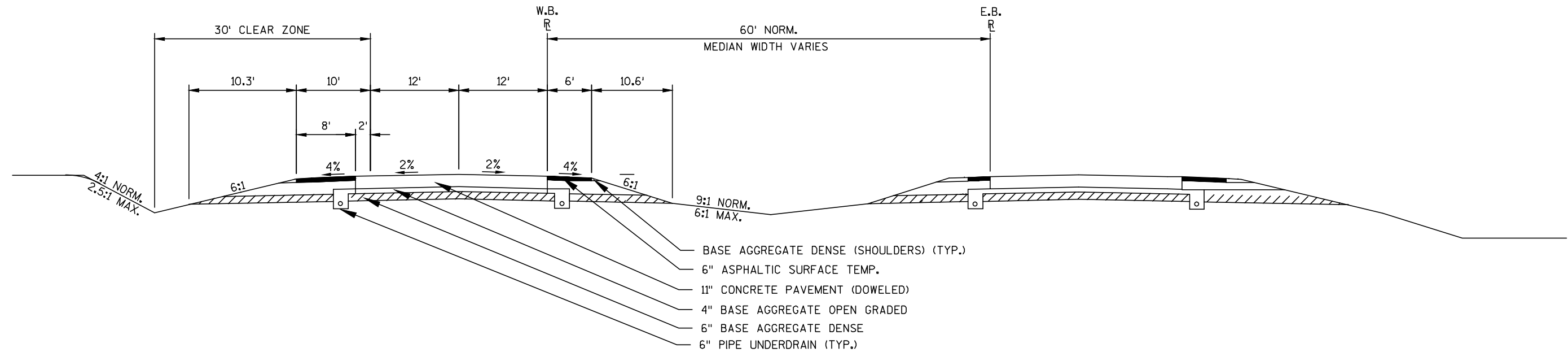


PROJECT NO:1050-00-65	HWY:STH 29	COUNTY:CHIPPEWA & CLARK	PROJECT OVERVIEW	SHEET	E
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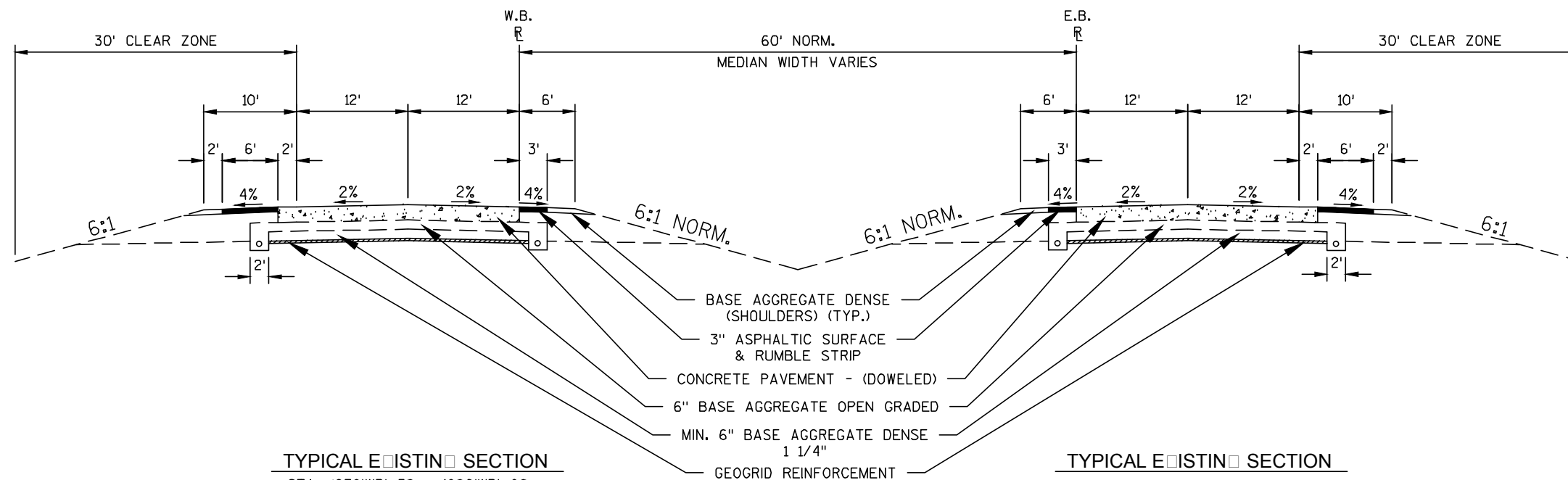
TYPICAL EXISTING SECTION

STA. 990'WB'+00 - 1380'WB'+90 LT	STA. 990'EB'+00 - STA. 1048'EB'+19
STA. 1400'WB'+70 - 1979'WB'+58 LT	STA. 1048'EB'+30 - STA. 1197'EB'+77
STA. 990'WB'+00 - 1381'WB'+90 RT	STA. 1198'EB'+39 - STA. 1314'EB'+16
STA. 1398'WB'+80 - 1979'WB'+58 RT	STA. 1314'EB'+59 - STA. 1330'EB'+57
STA. 1980'WB'+08 - 1995'WB'+53	STA. 1381'EB'+00 - STA. 1385'EB'+66
STA. 1996'WB'+03 - 2337'WB'+60	STA. 1385'EB'+87 - STA. 1984'EB'+54
STA. 2338'WB'+12 - 2800'WB'+15	STA. 1984'EB'+74 - STA. 1984'EB'+82
	STA. 1984'EB'+82 - STA. 1984'EB'+92 (PASSING LANE ONLY)
	STA. 1894'EB'+92 - STA. 2109'EB'+91
	STA. 2192'EB'+50 - STA. 2325'EB'+82
	STA. 2325'EB'+95 - STA. 2649'EB'+00



TYPICAL E-ISTIN SECTION

STA. 1380'WB'+90 - STA. 1400'WB'+70 LT
STA. 1381'WB'+90 - STA. 1398'WB'+80 RT

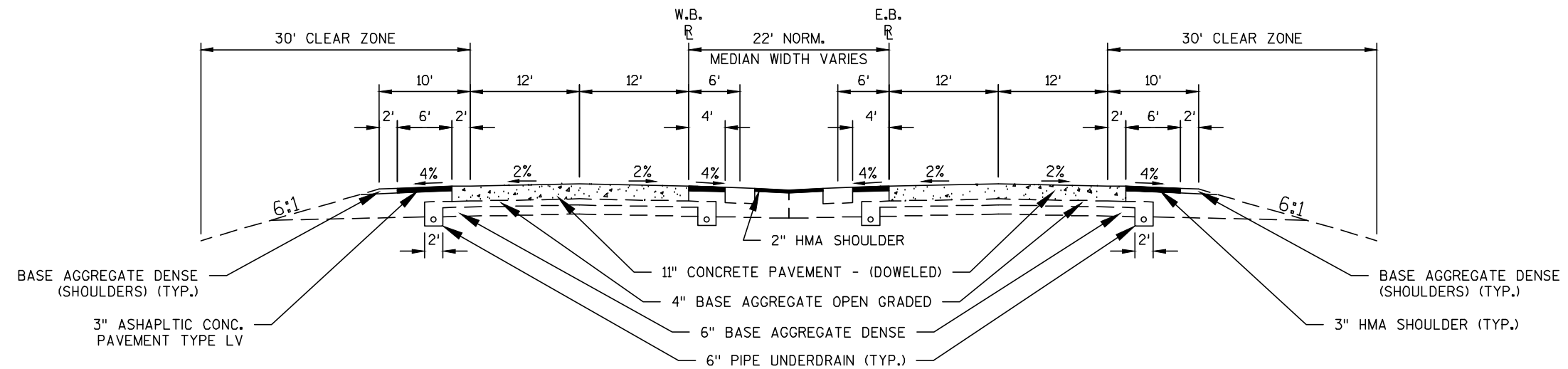


TYPICAL E-ISTIN SECTION

STA. 1979'WB'+58 - 1980'WB'+08
STA. 1995'WB'+53 - 1996'WB'+03
STA. 2237'WB'+60 - 2338'WB'+12

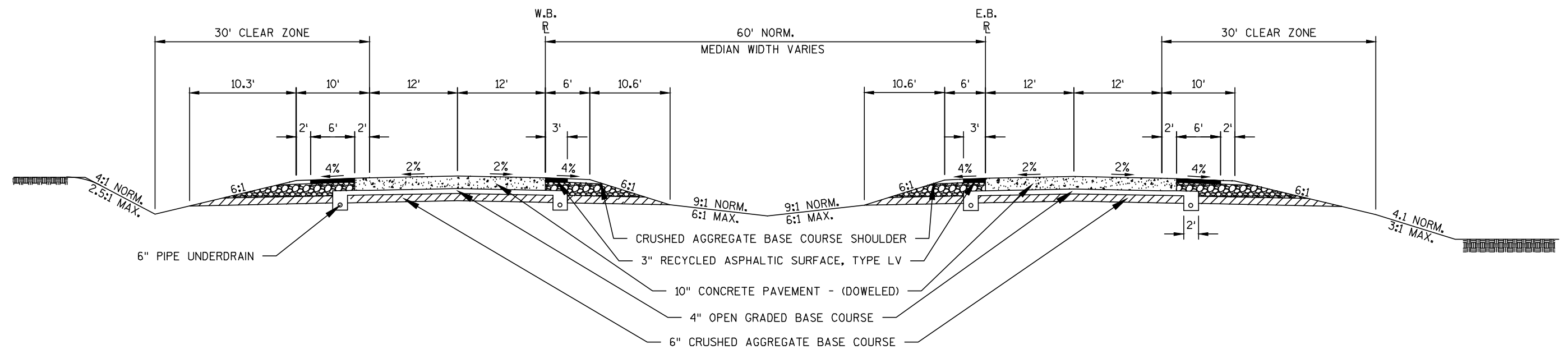
TYPICAL E-ISTIN SECTION

STA. 1048'EB'+19 - STA. 1047'EB'+30
STA. 1197'EB'+77 - STA. 1198'EB'+39
STA. 1314'EB'+16 - STA. 1314'EB'+59
STA. 1330'EB'+57 - STA. 1381'EB'+00
STA. 1385'EB'+66 - STA. 1385'EB'+87
STA. 1984'EB'+54 - STA. 1984'EB'+74 (DRIVING LANE ONLY)
STA. 1984'EB'+82 - STA. 2325'EB'+95
STA. 2325'EB'+82 - STA. 2762'EB'+23 (DRIVING LANE ONLY)



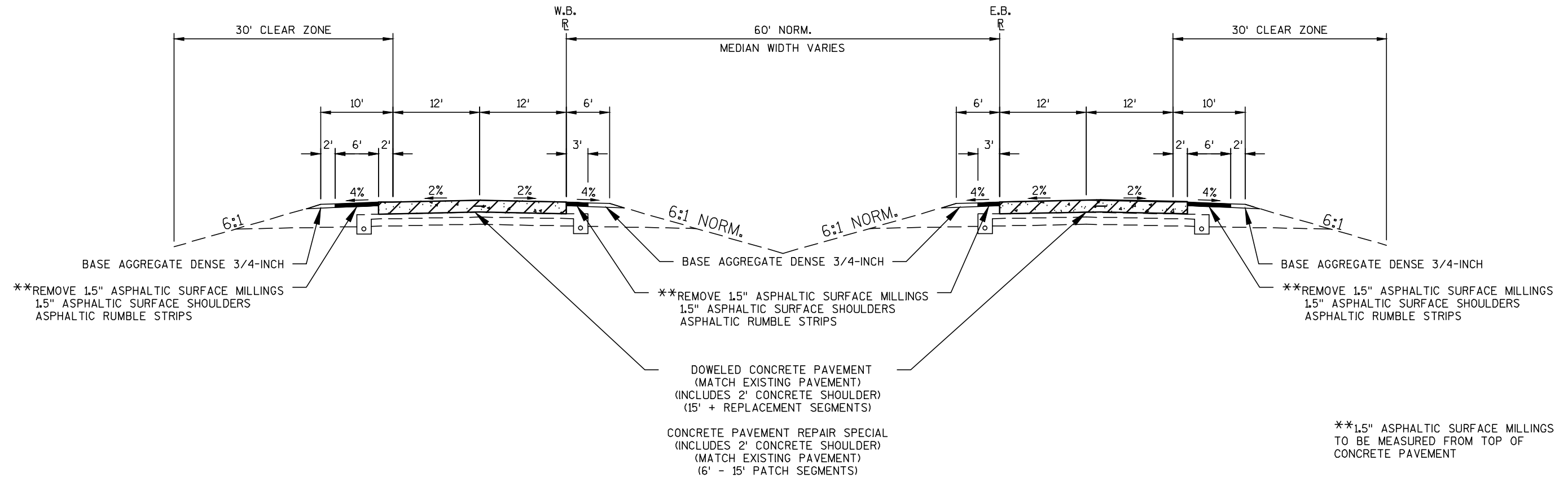
TYPICAL EXISTING SECTION

STA. 2109'WB'+87 - STA. 2192'WB'+46
STA. 2109'EB'+91 - STA. 2192'EB'+50



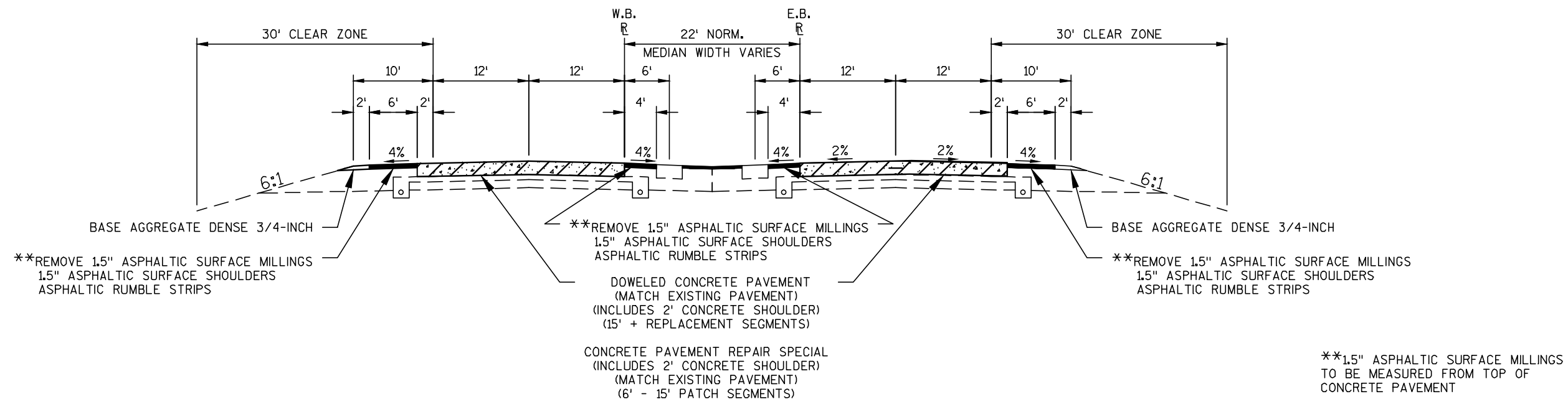
TYPICAL EXISTING SECTION

STA. 2649'EB'+00 - STA. 2762'EB'+13
STA. 2762'EB'+13 - STA. 2762'EB'+23 (PASSING LANE ONLY)
STA. 2762'EB'+23 - STA. 2800'EB'+22



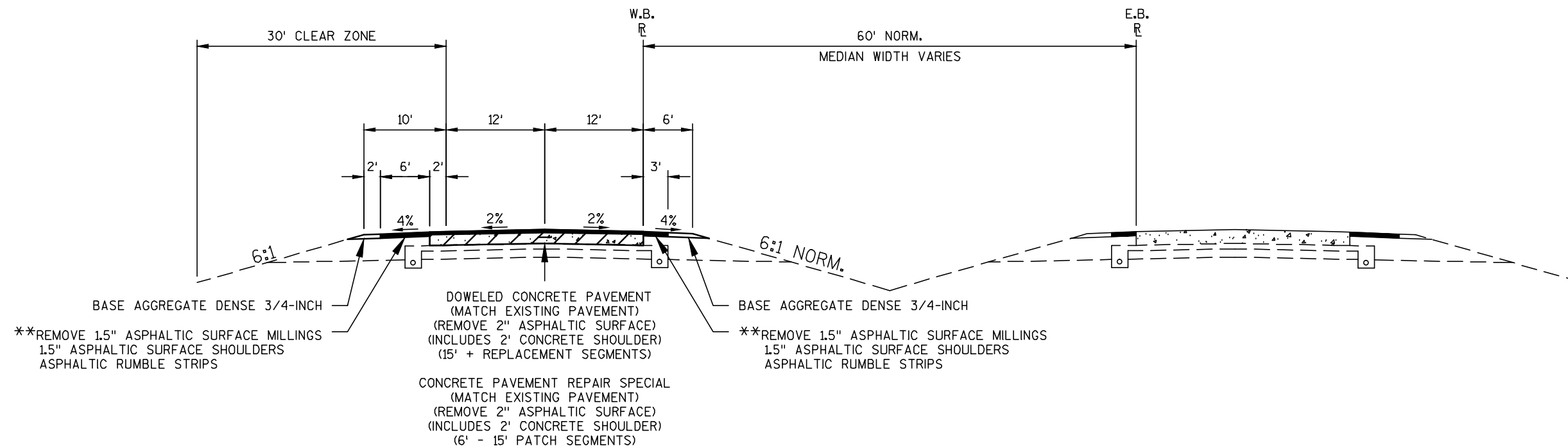
TYPICAL FINISHED SECTION

STA. 944'WB'+00 - STA. 975'WB'+00	STA. 944'EB'+16 - STA. 2109'EB'+91
STA. 989'WB'+00 - STA. 1380'WB'+90 LT	STA. 2192'EB'+50 - STA. 2800'EB'+92
STA. 1400'WB'+70 - STA. 2109'WB'+87 LT	
STA. 989'WB'+00 - STA. 1381'WB'+90 RT	
STA. 1398'WB'+80 - STA. 2109'WB'+87 RT	
STA. 2192'WB'+46 - STA. 2800'WB'+15	



TYPICAL FINISHED SECTION

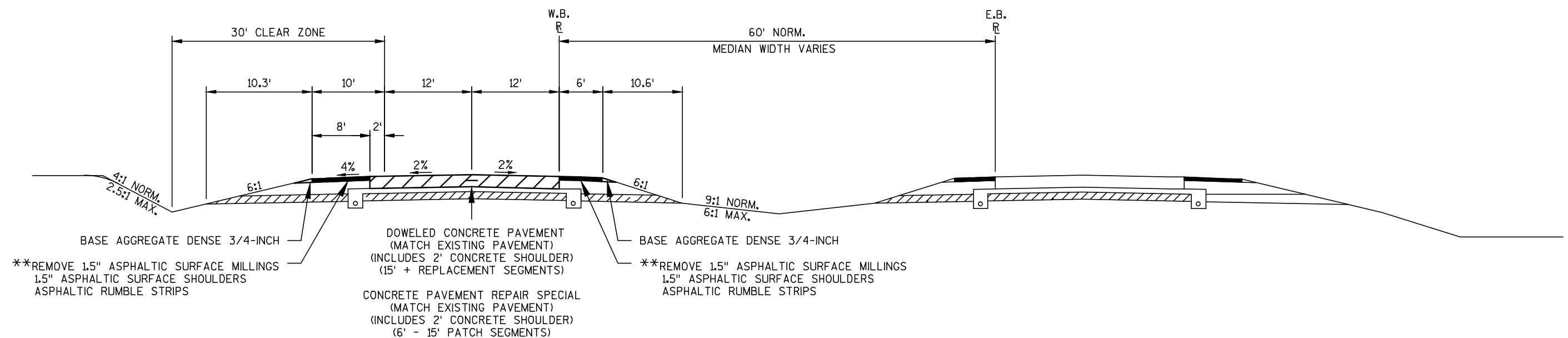
STA. 2109'WB'+87 - STA. 2192'WB'+46
STA. 2109'EB'+91 - STA. 2192'EB'+50



TYPICAL FINISHED SECTION

STA. 975'WB'+00 - STA. 989'WB'+00

**1.5" ASPHALTIC SURFACE MILLINGS TO BE MEASURED FROM TOP OF CONCRETE PAVEMENT

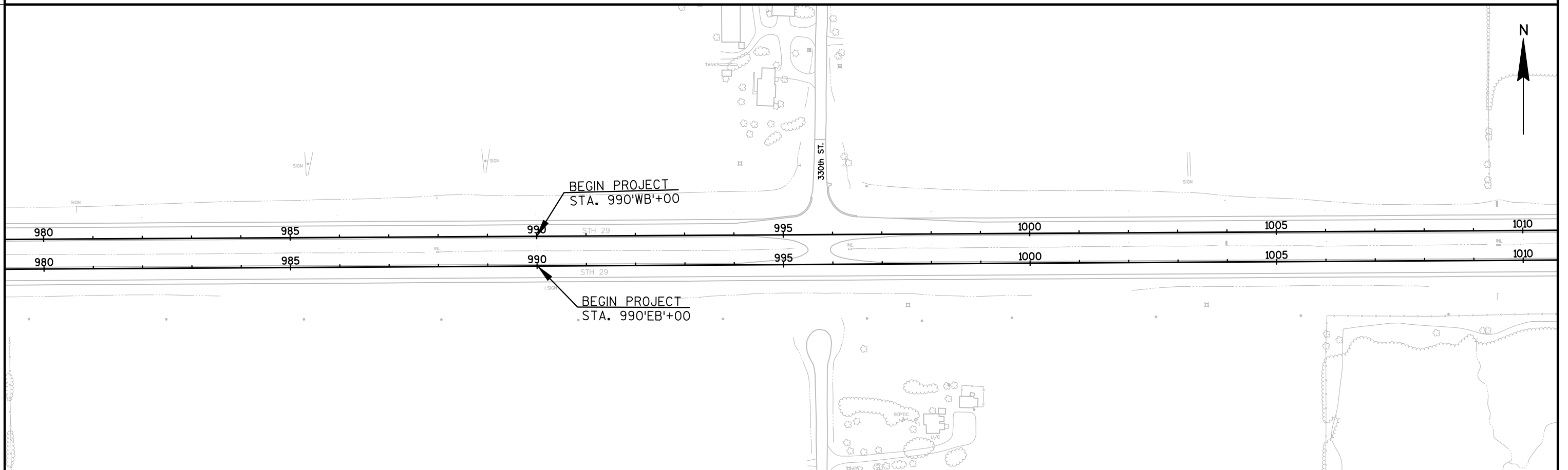


TYPICAL FINISHED SECTION

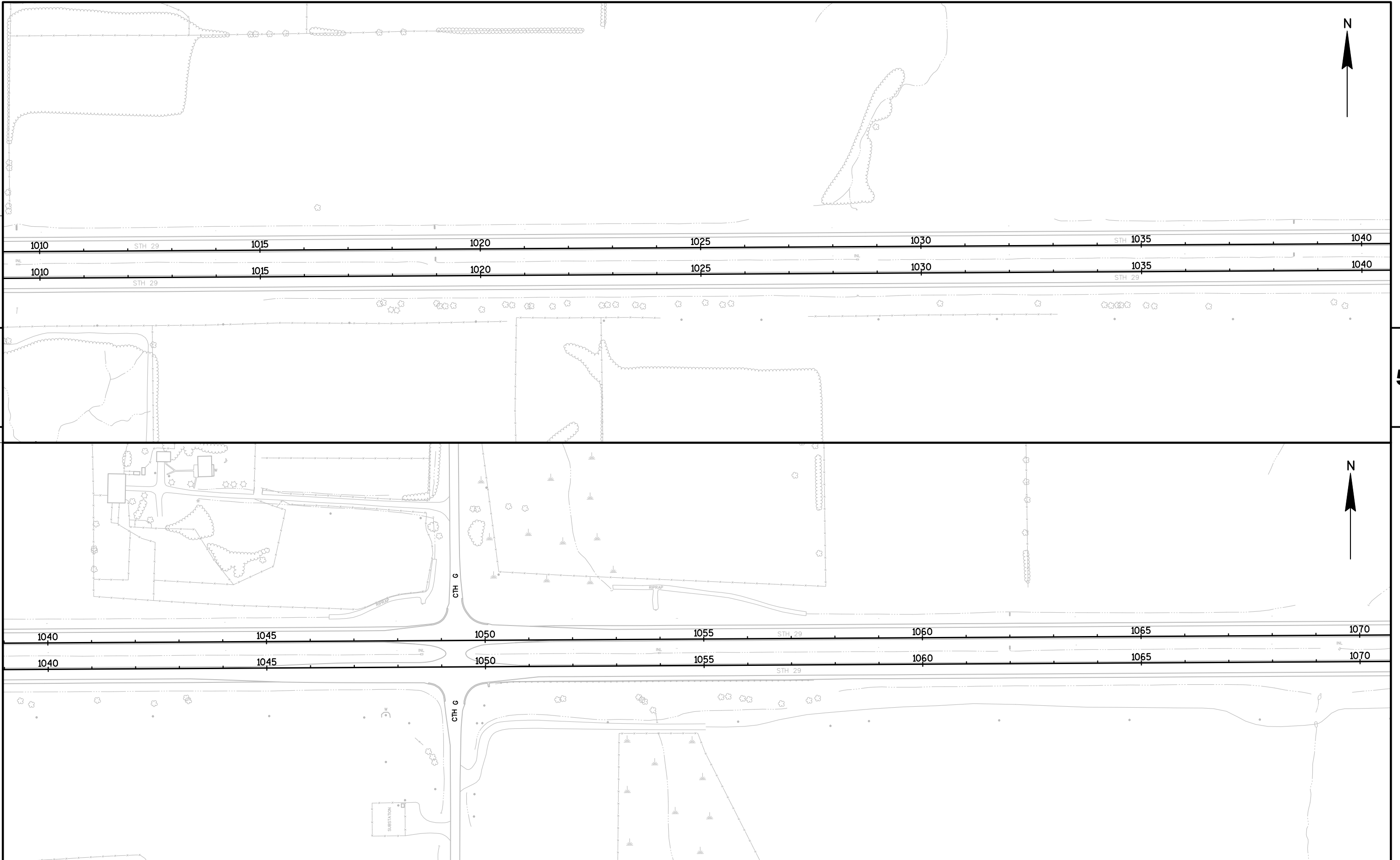
STA. 1380'WB'+90 - STA. 1400'WB'+70 LT
STA. 1381'WB'+90 - STA. 1398'WB'+80 RT

5

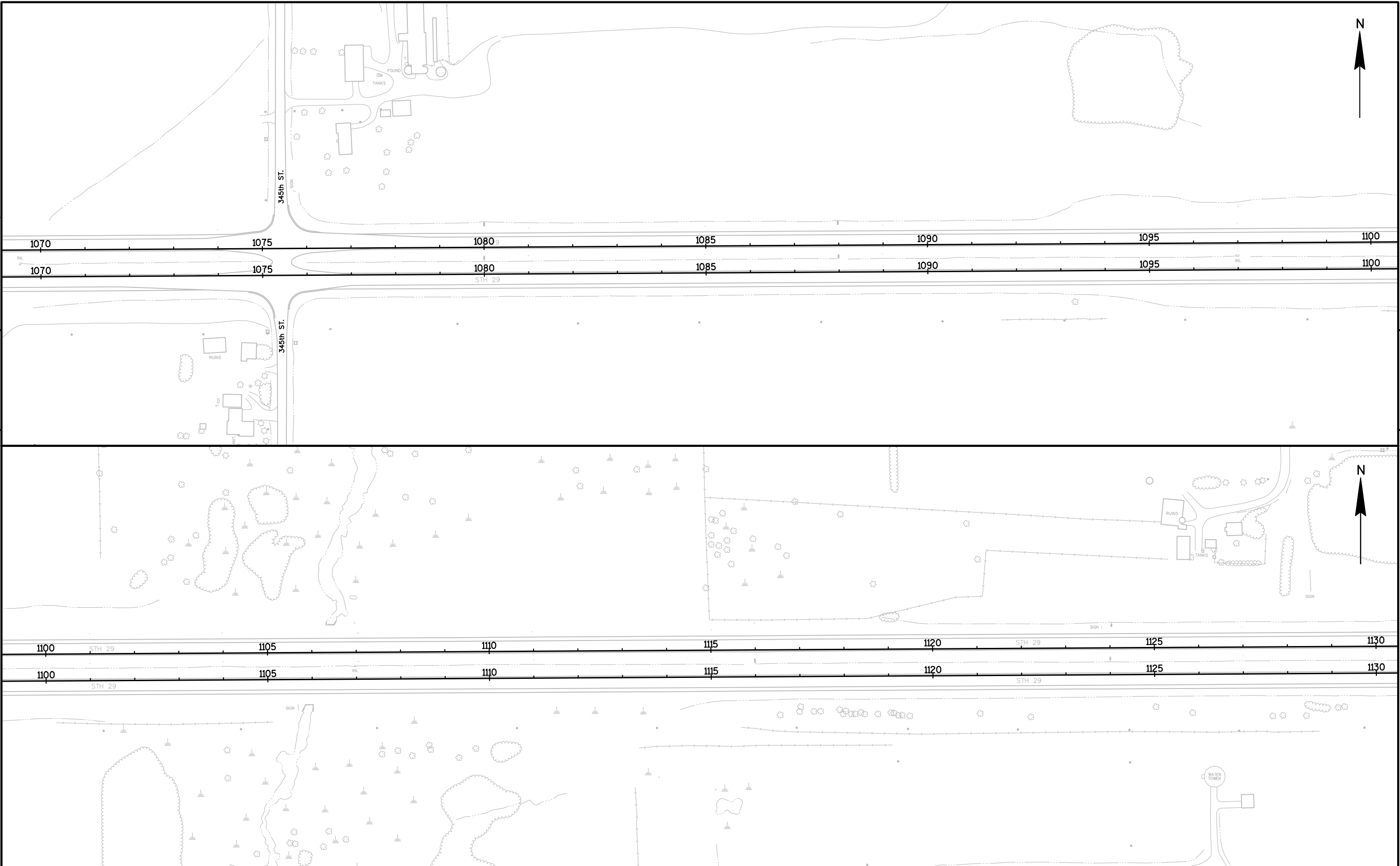
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PROJECT NO:1050-00-65	HWY:STH 29	COUNTY:CHIPPEWA	PLAN AND PROFILE: STH 29	SHEET	5
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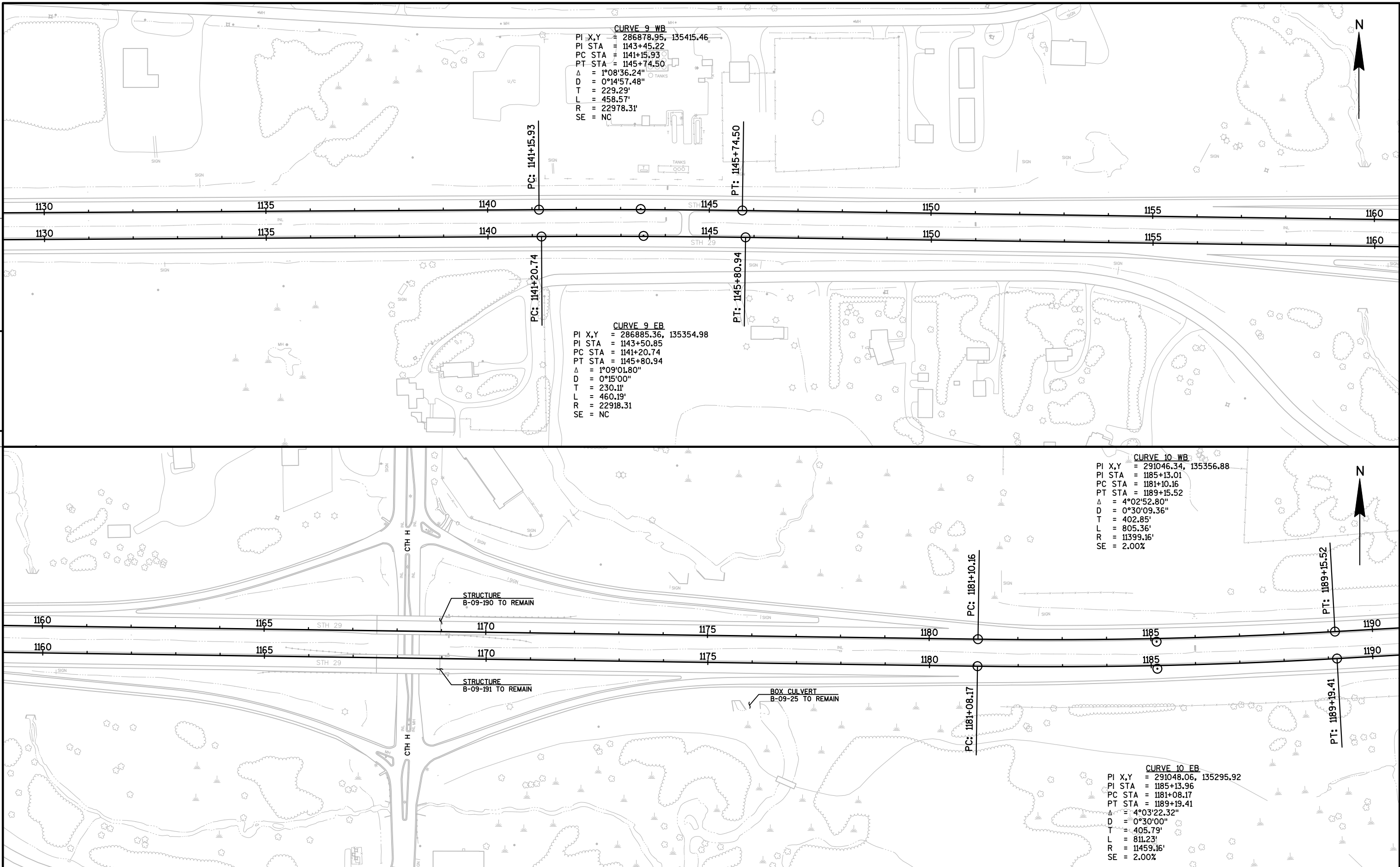
PROJECT NO:1050-00-65	HWY:STH 29	COUNTY:CHIPPEWA	PLAN AND PROFILE: STH 29	SHEET	E
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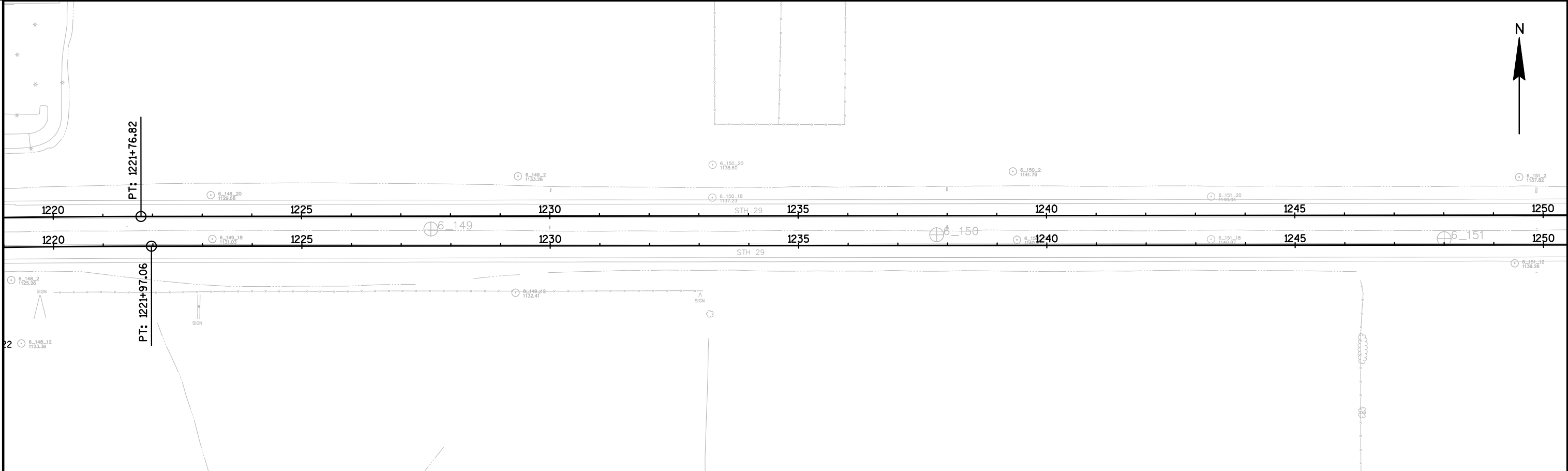
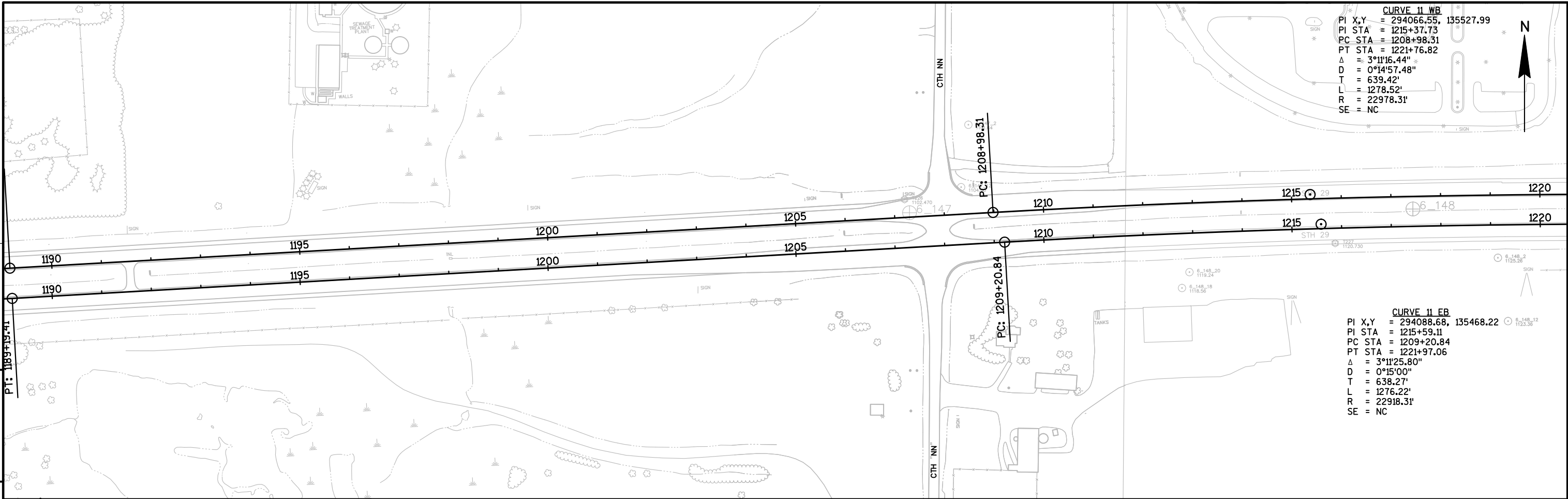


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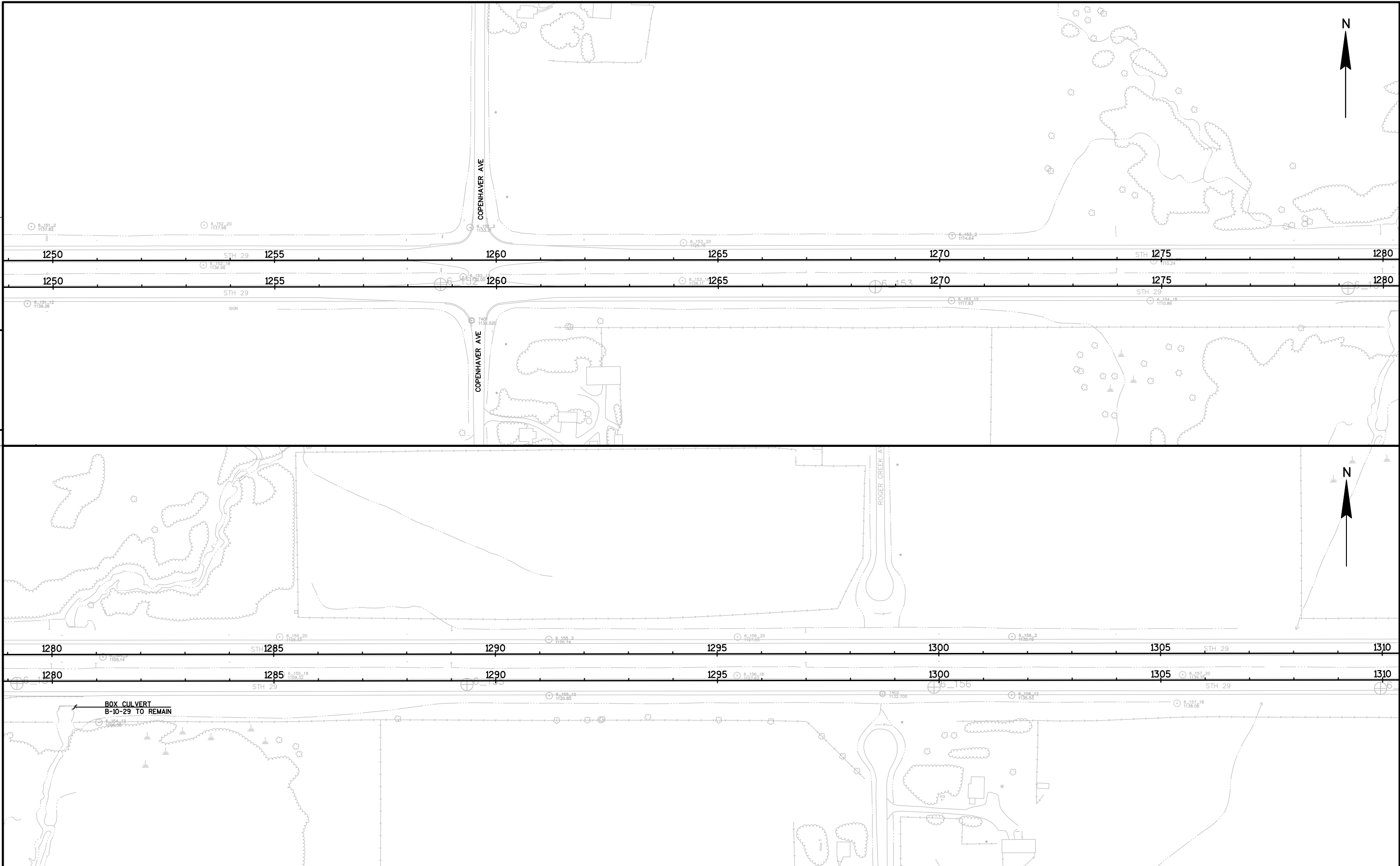
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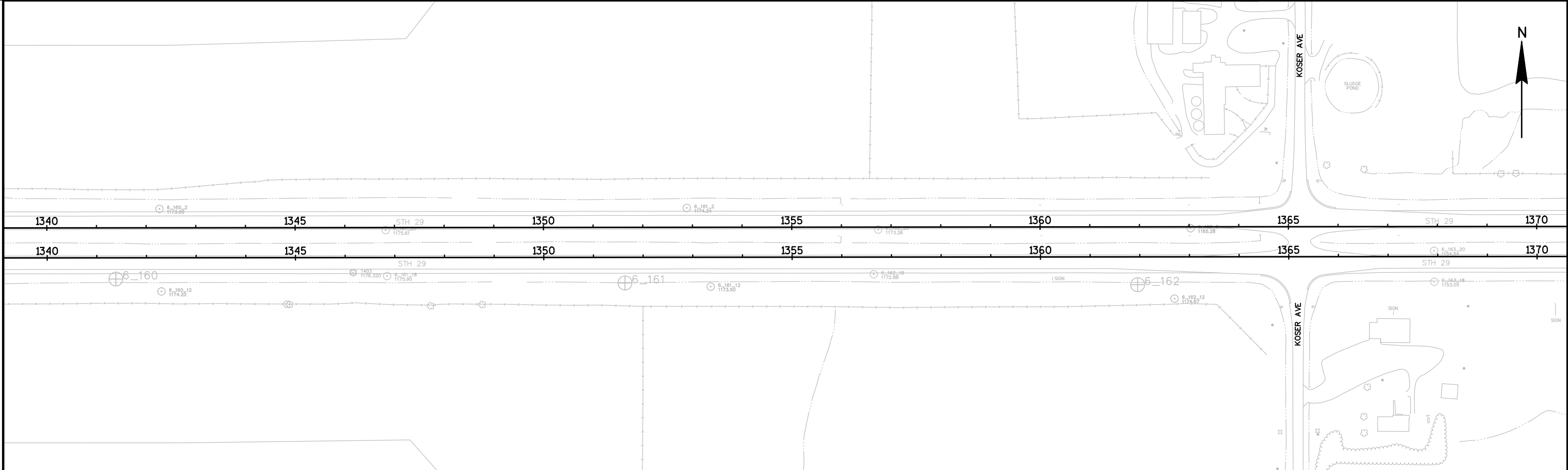
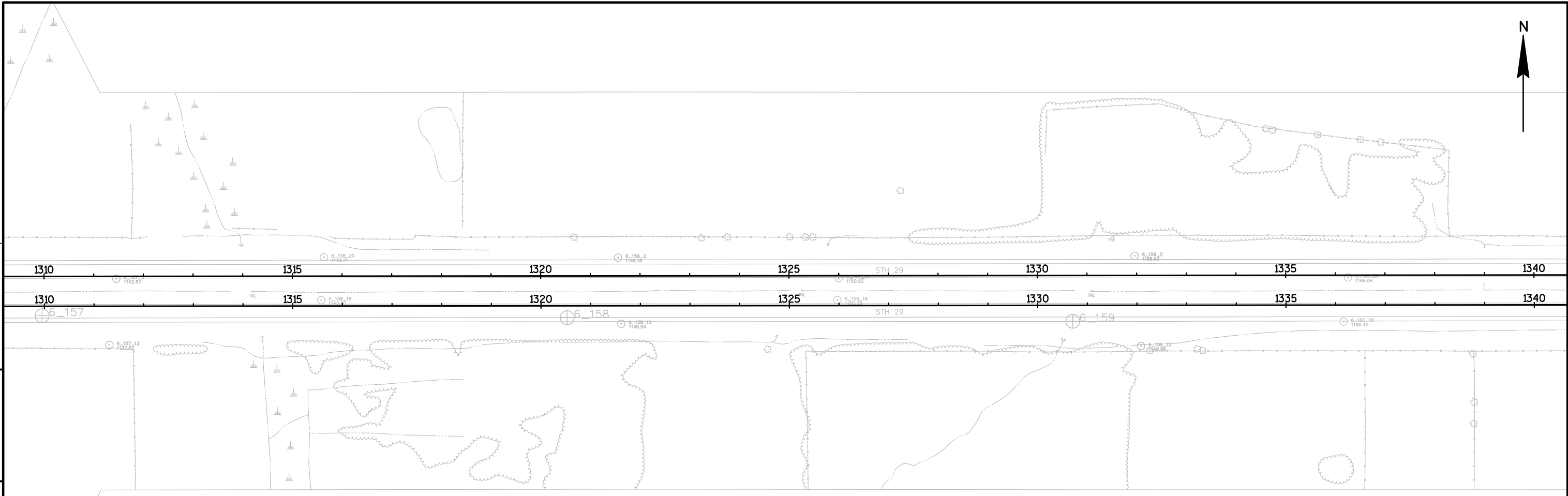
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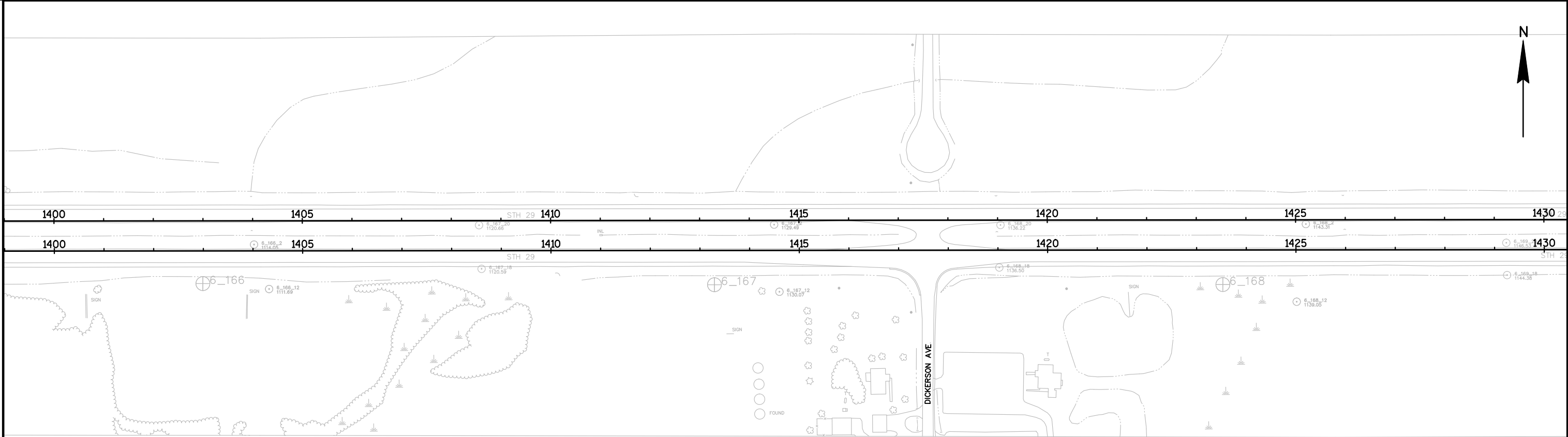
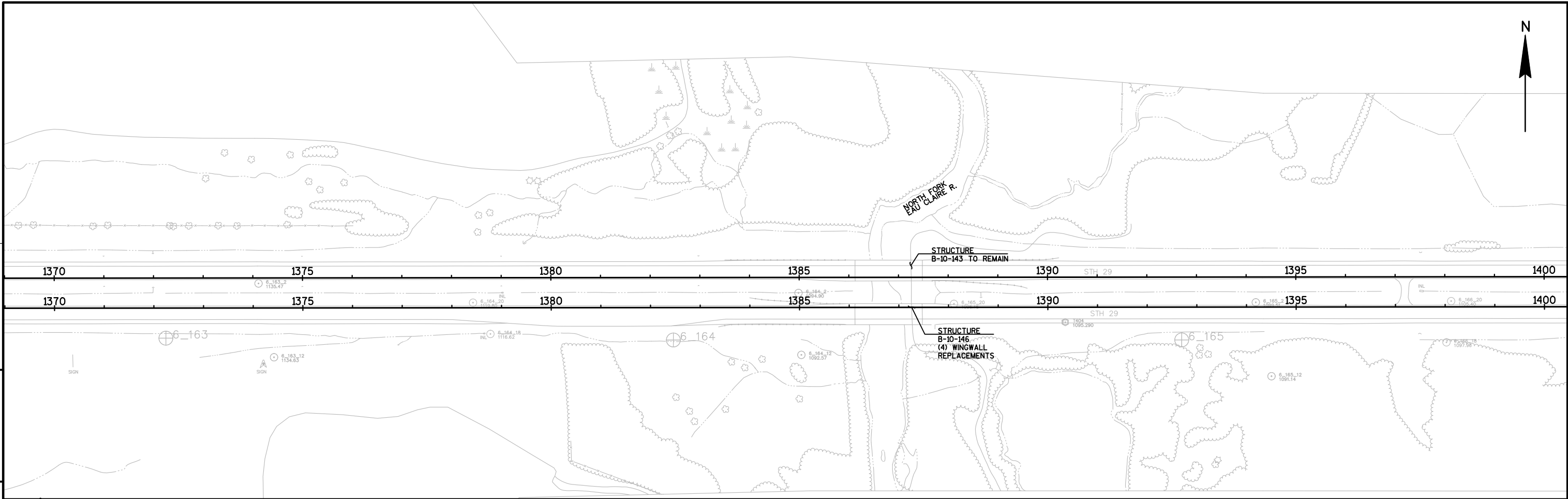


PROJECT NO:1050-00-65	HWY:STH 29	COUNTY:CHIPPEWA/CLARK	PLAN AND PROFILE: STH 29	SHEET	E
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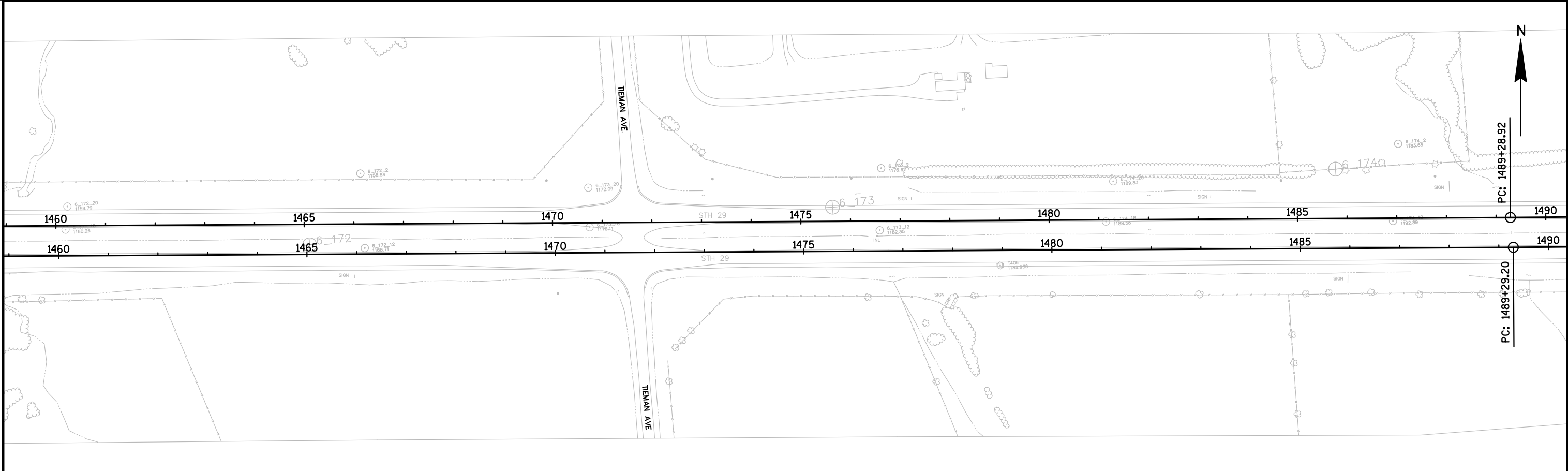
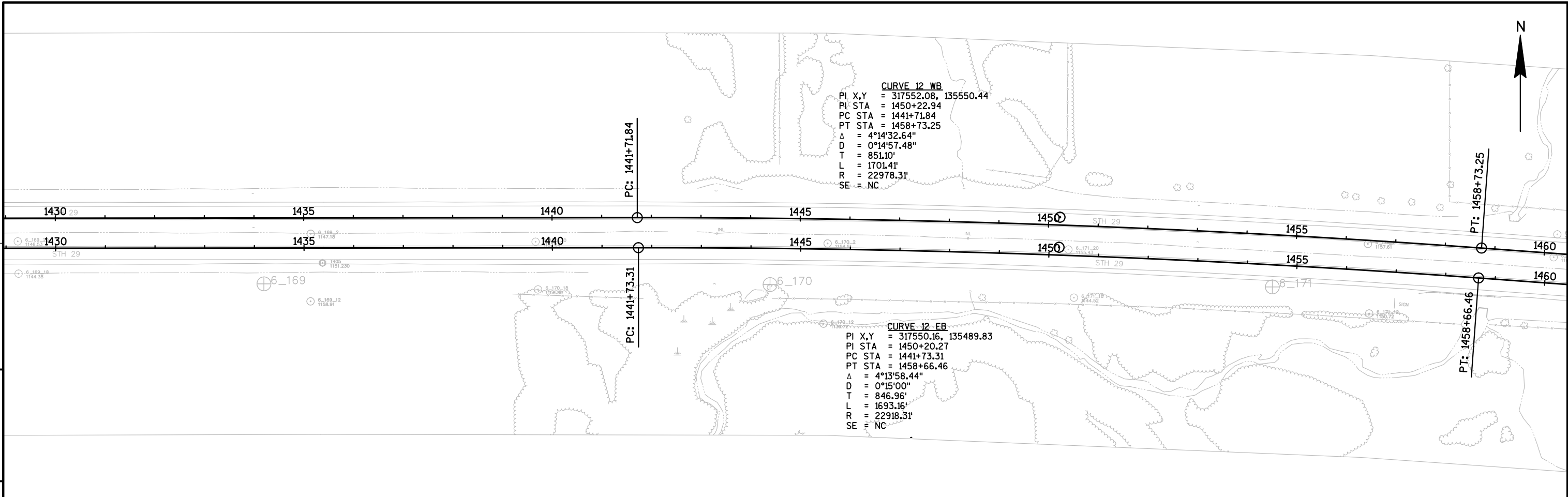




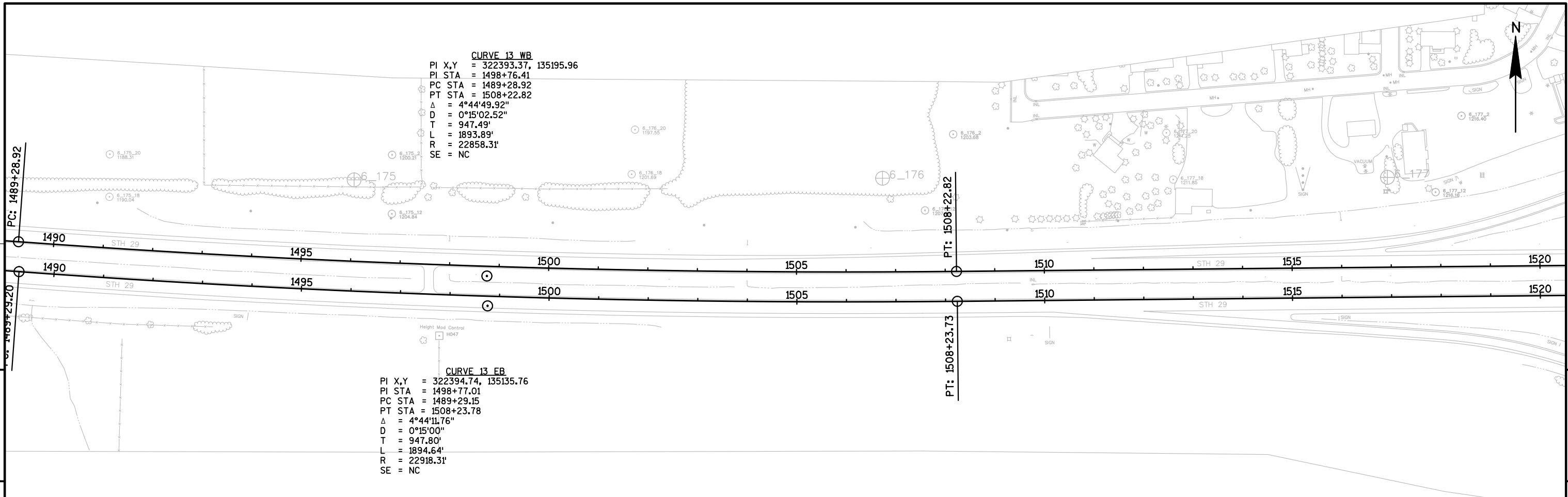
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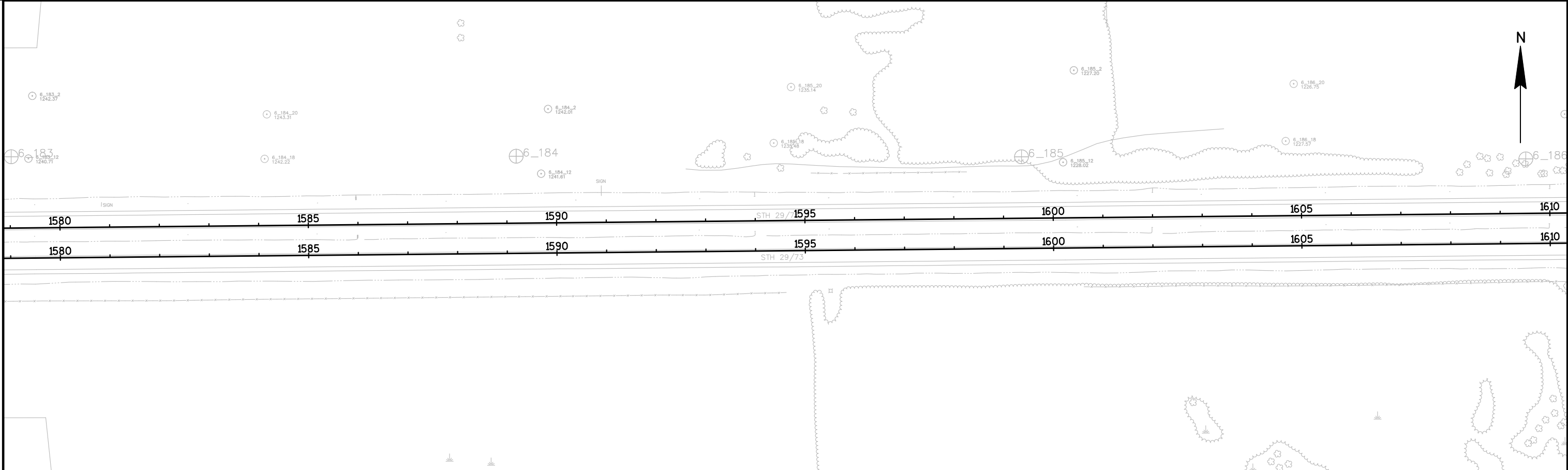
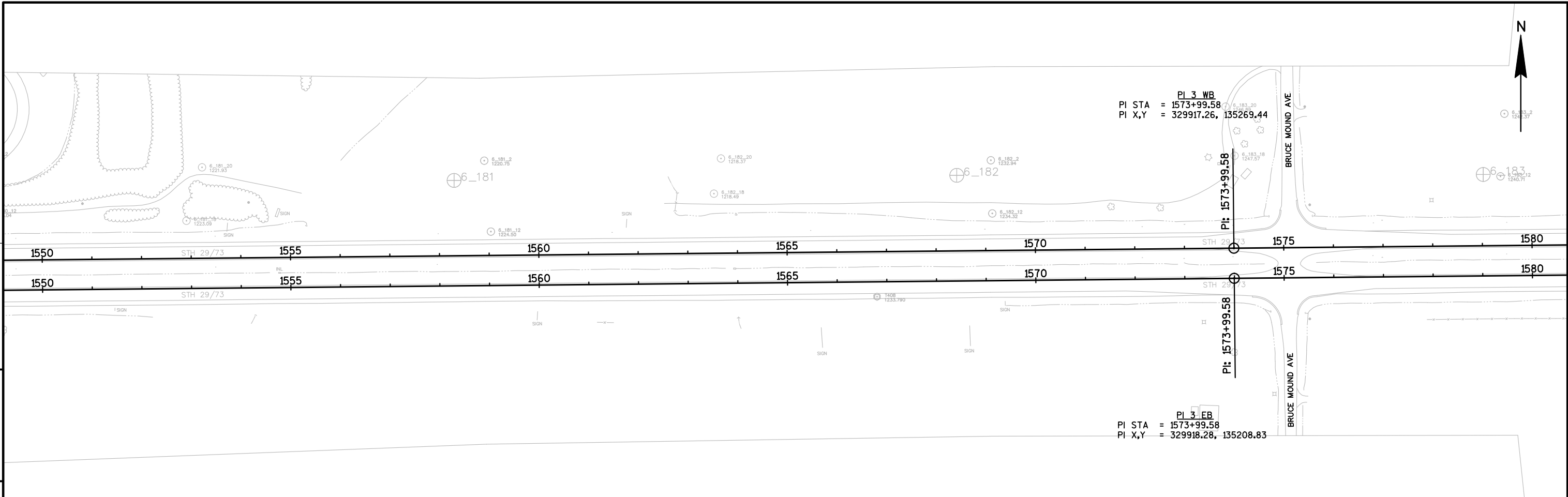


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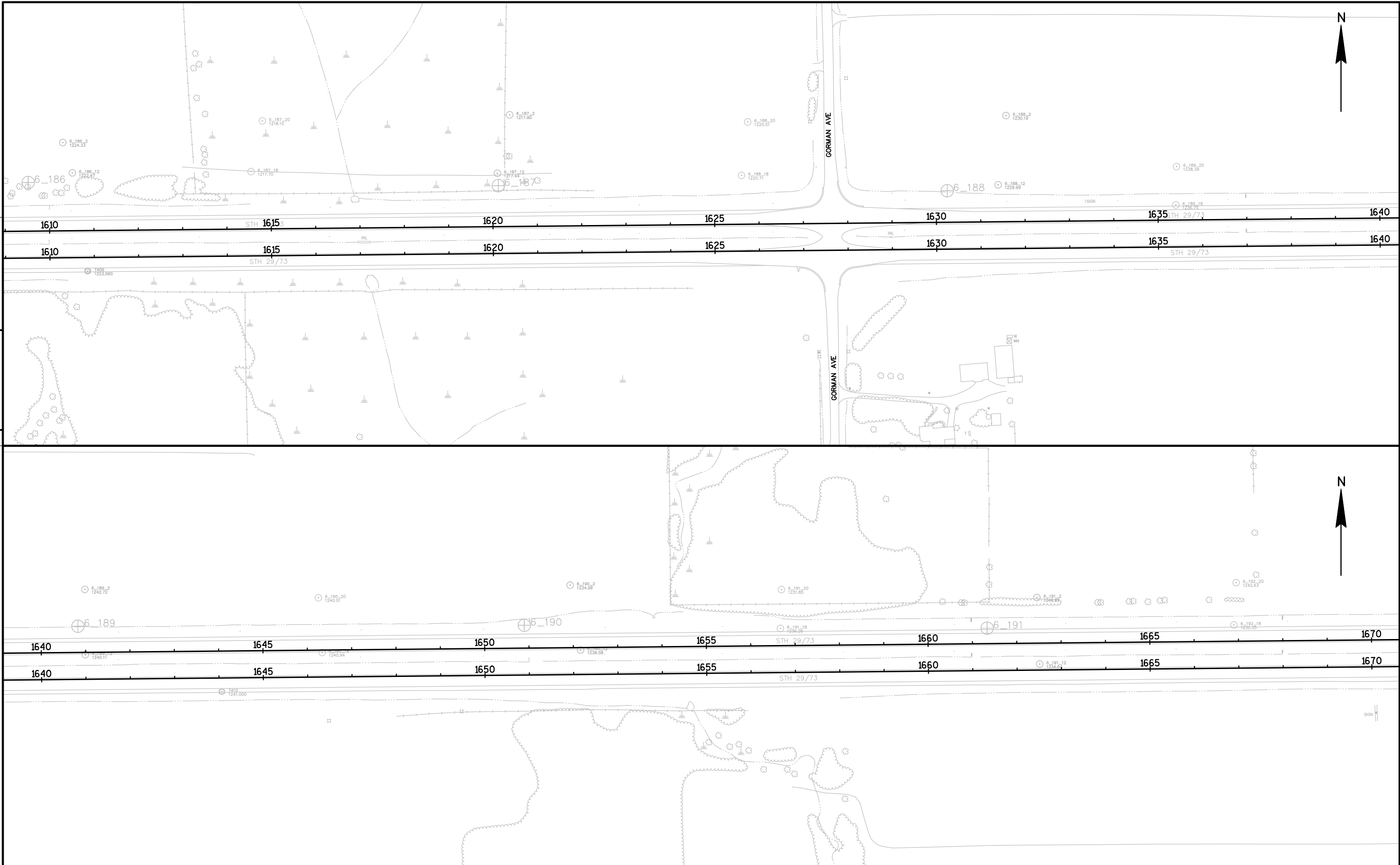


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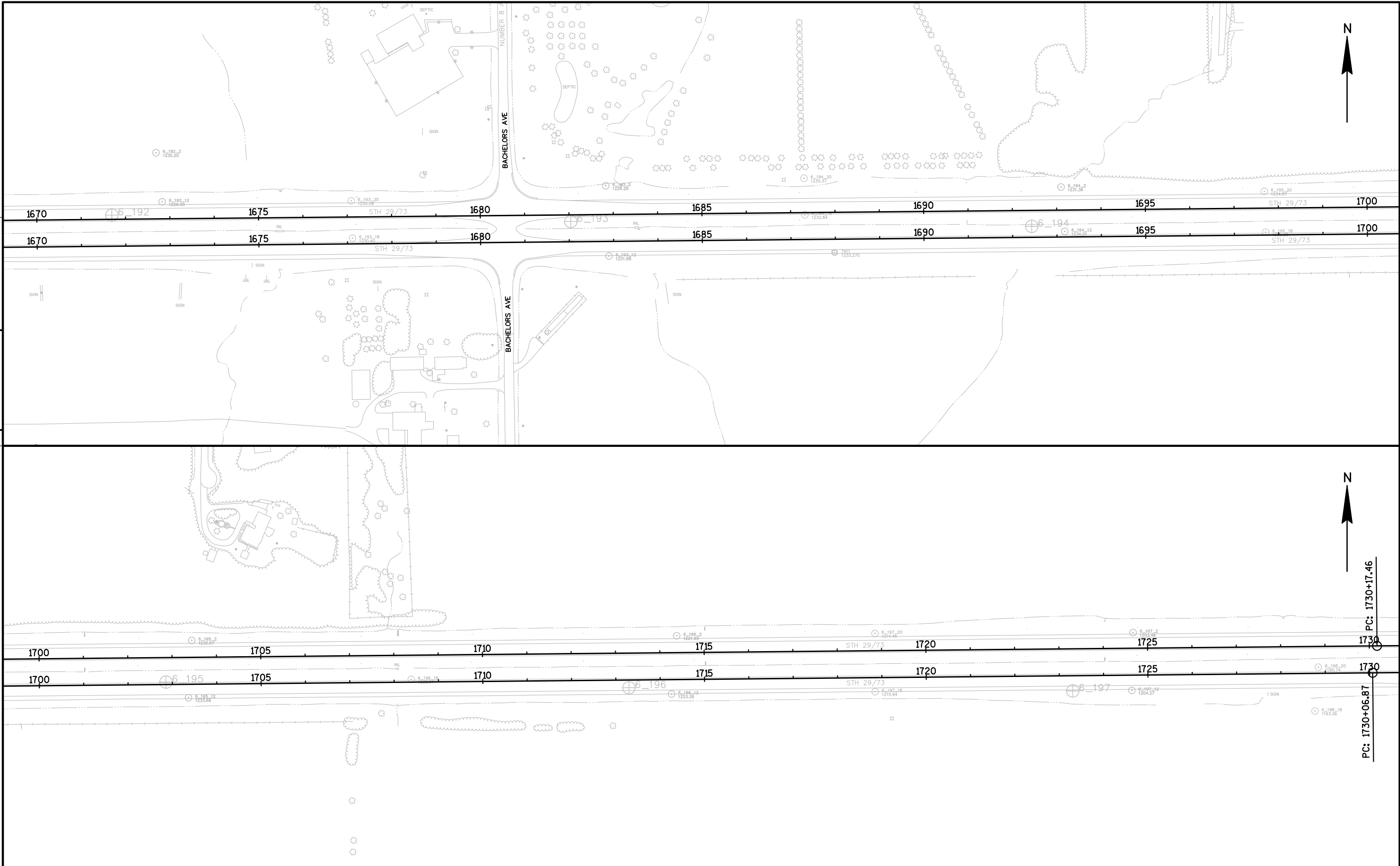




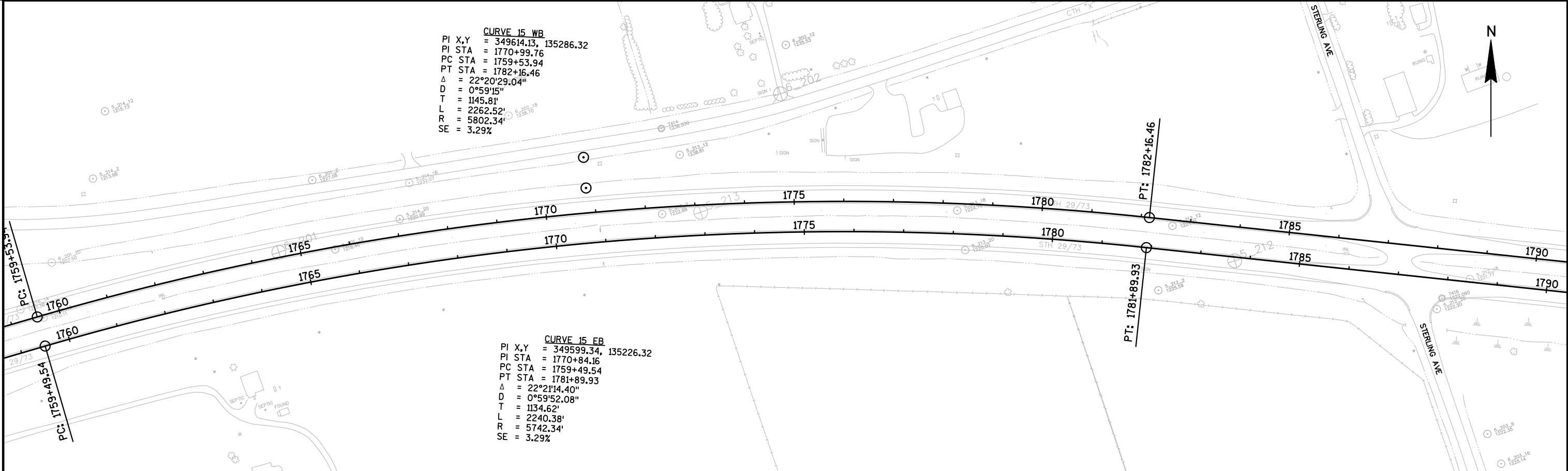
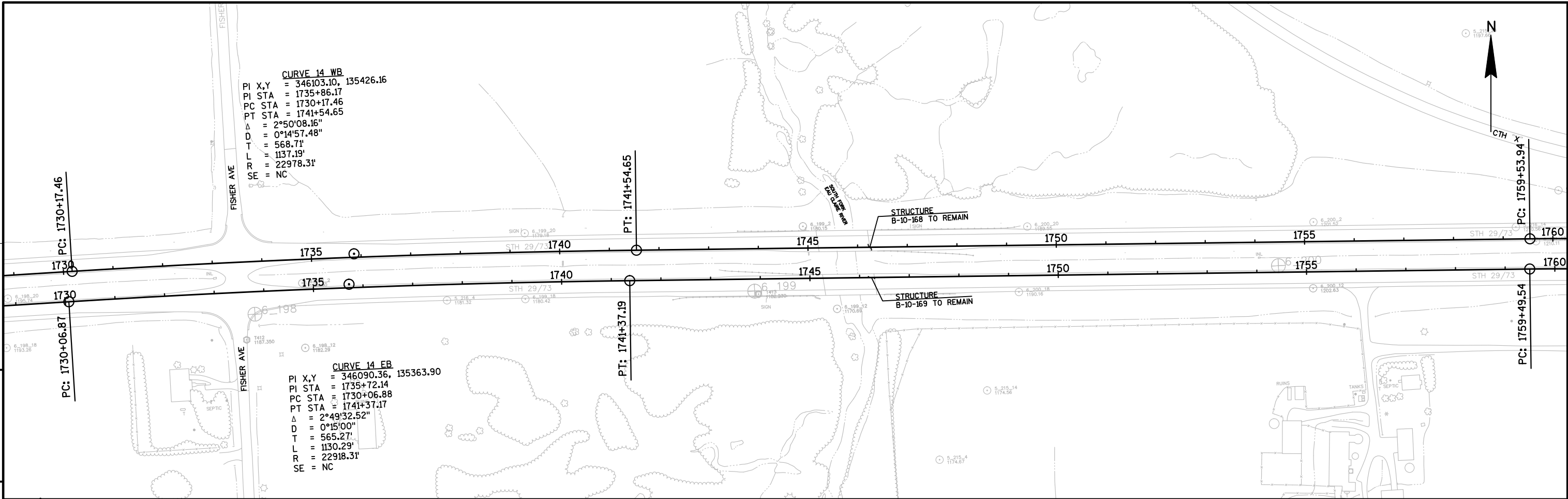
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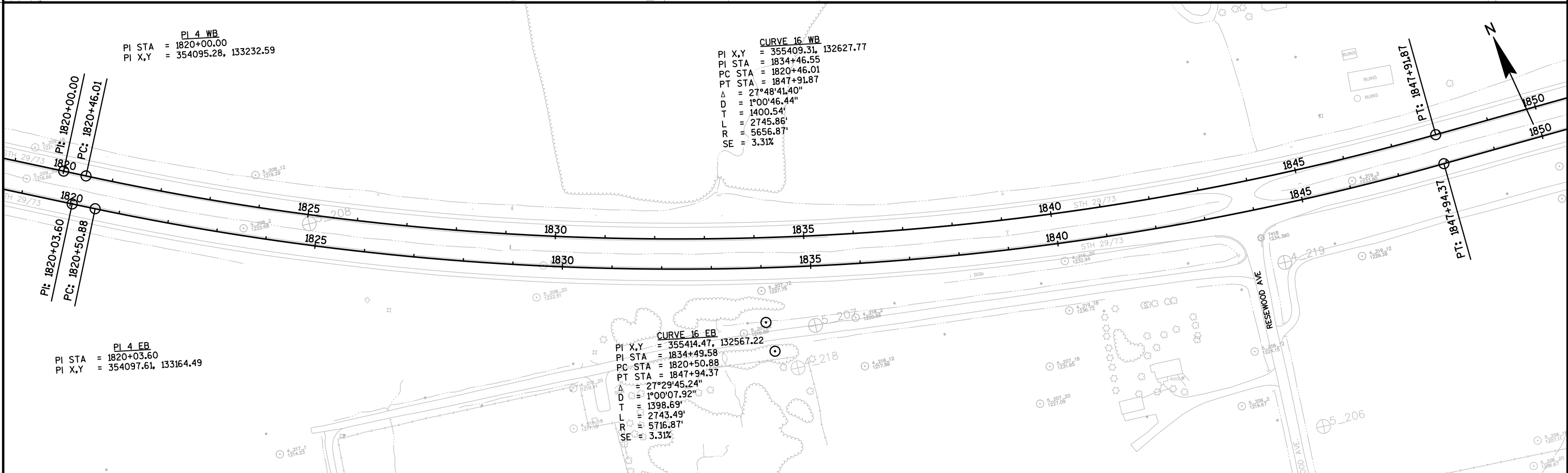
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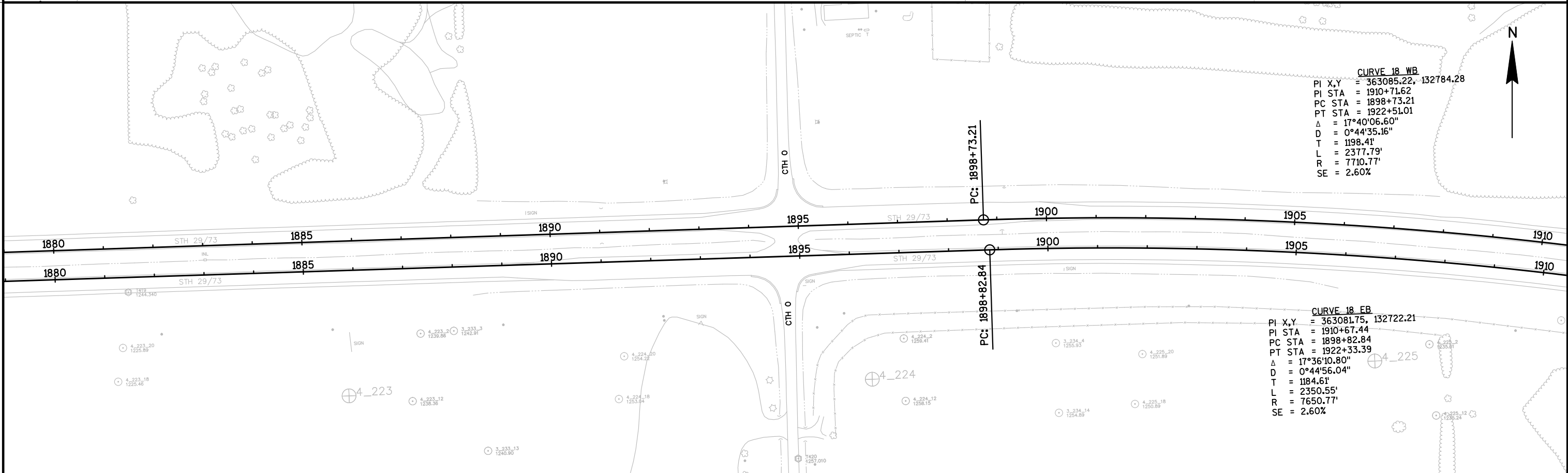
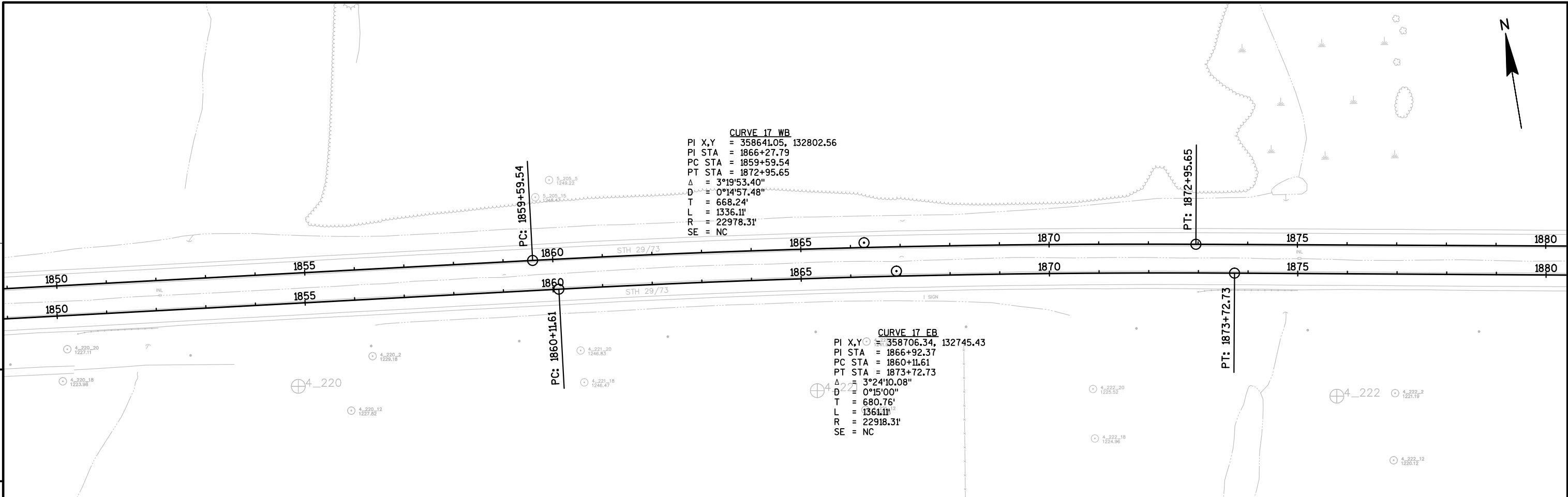


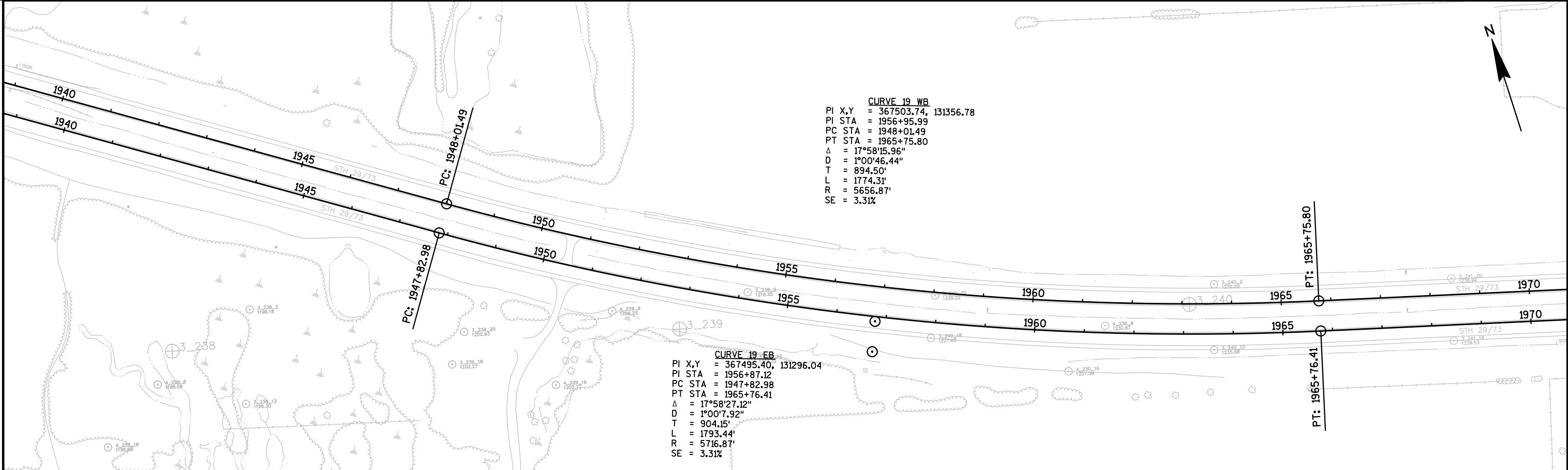
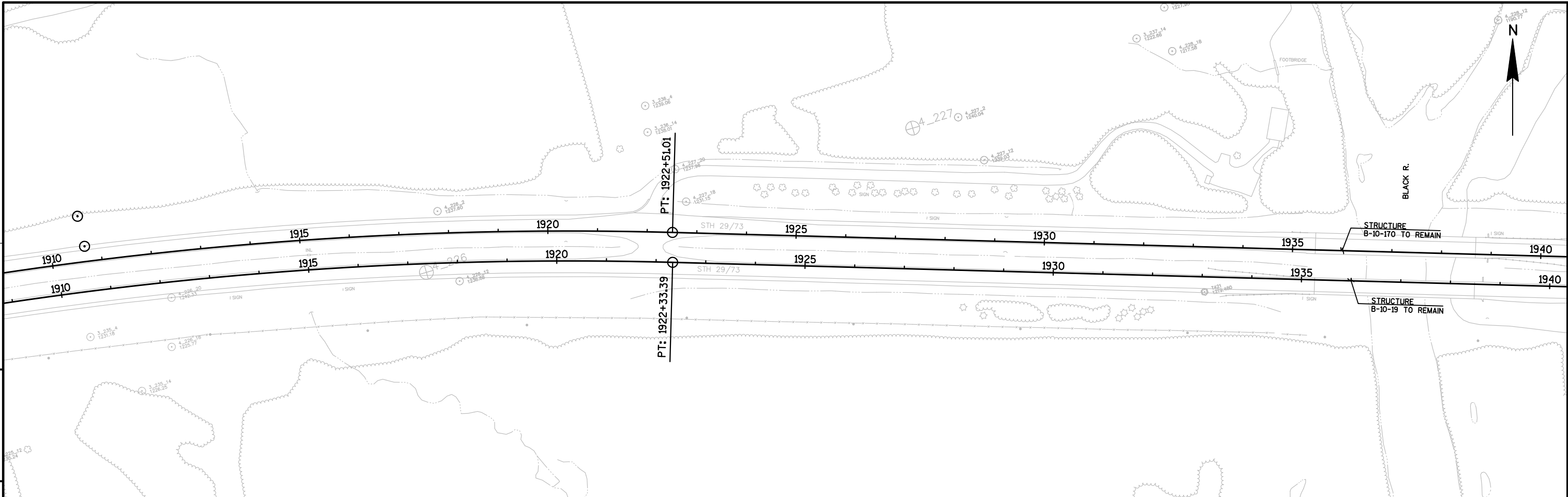
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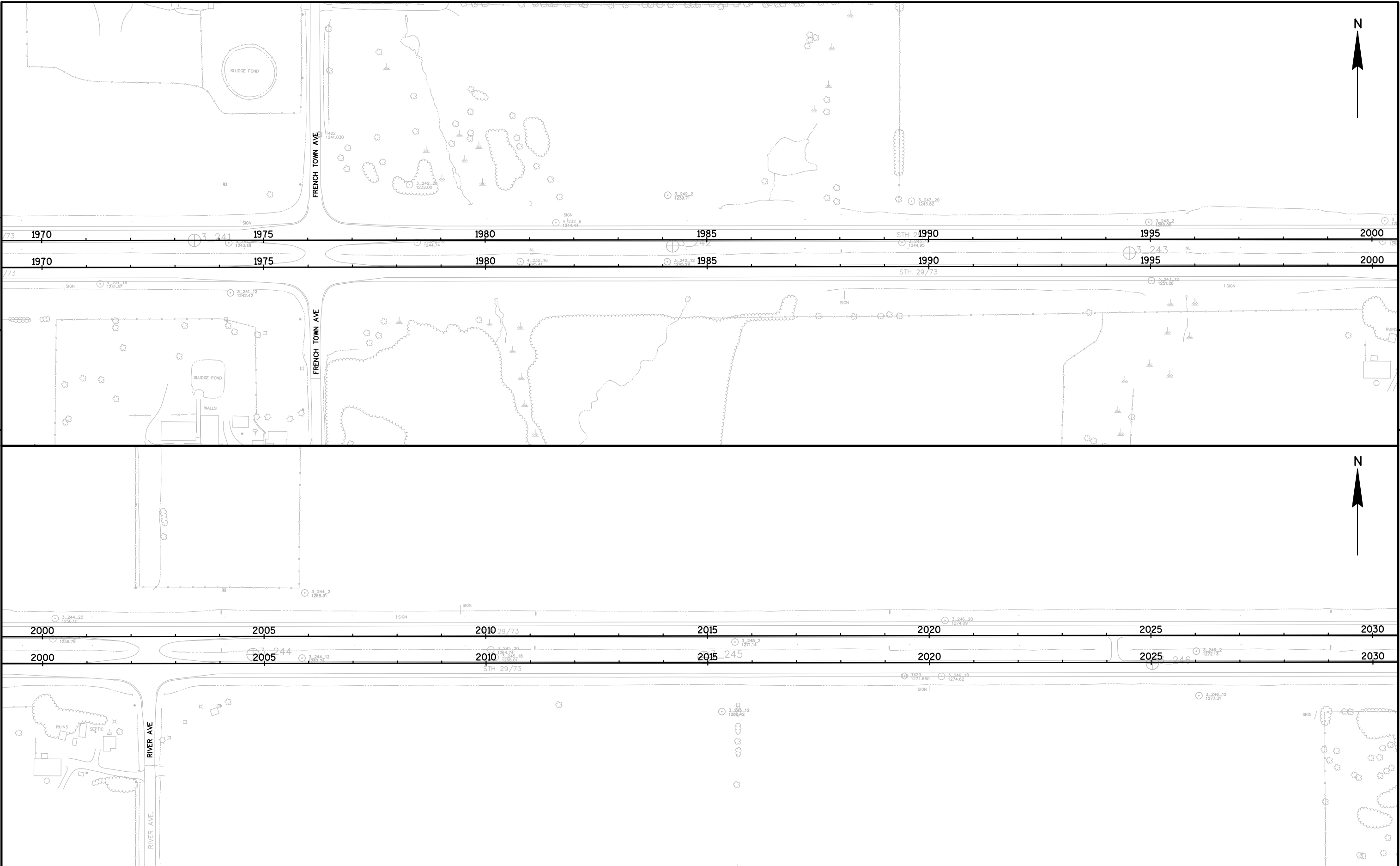


PROJECT NO:1050-00-65	HWY:STH 29	COUNTY:CLARK	PLAN AND PROFILE: STH 29	SHEET	E
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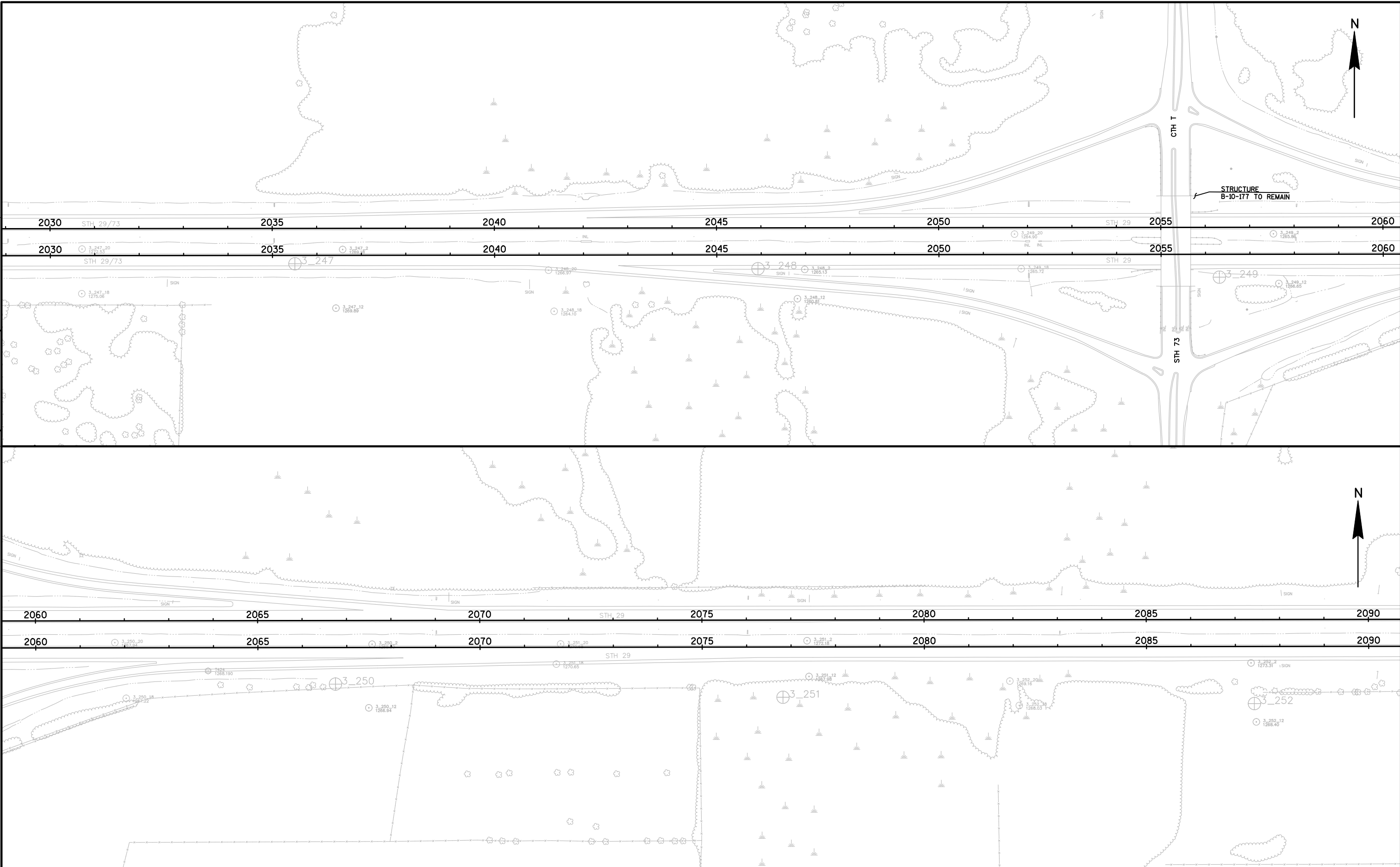




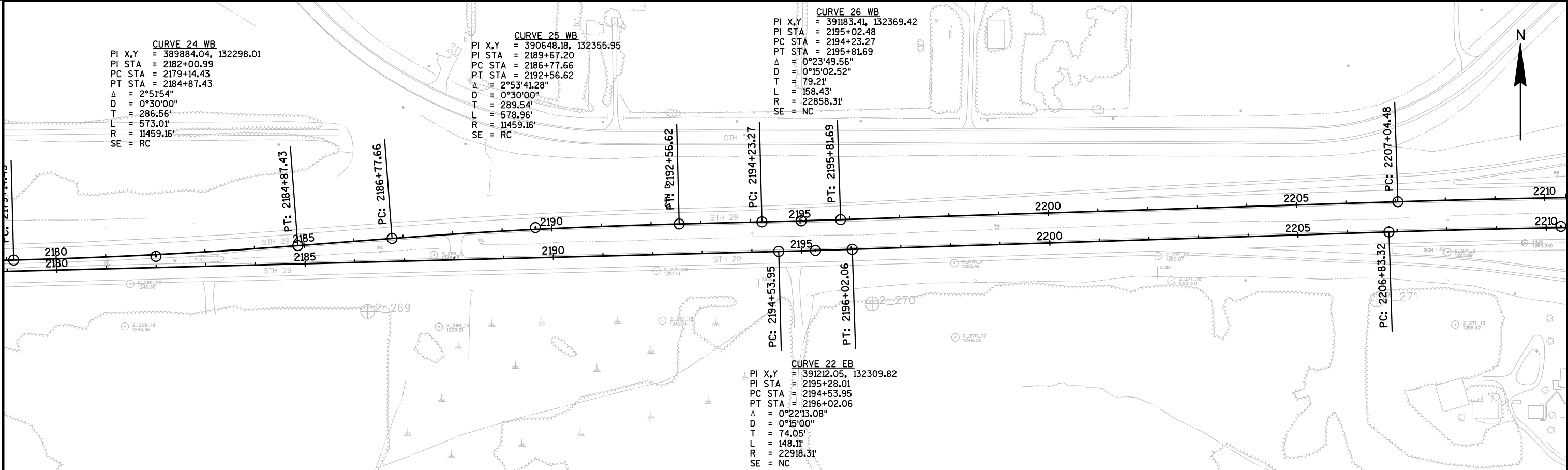
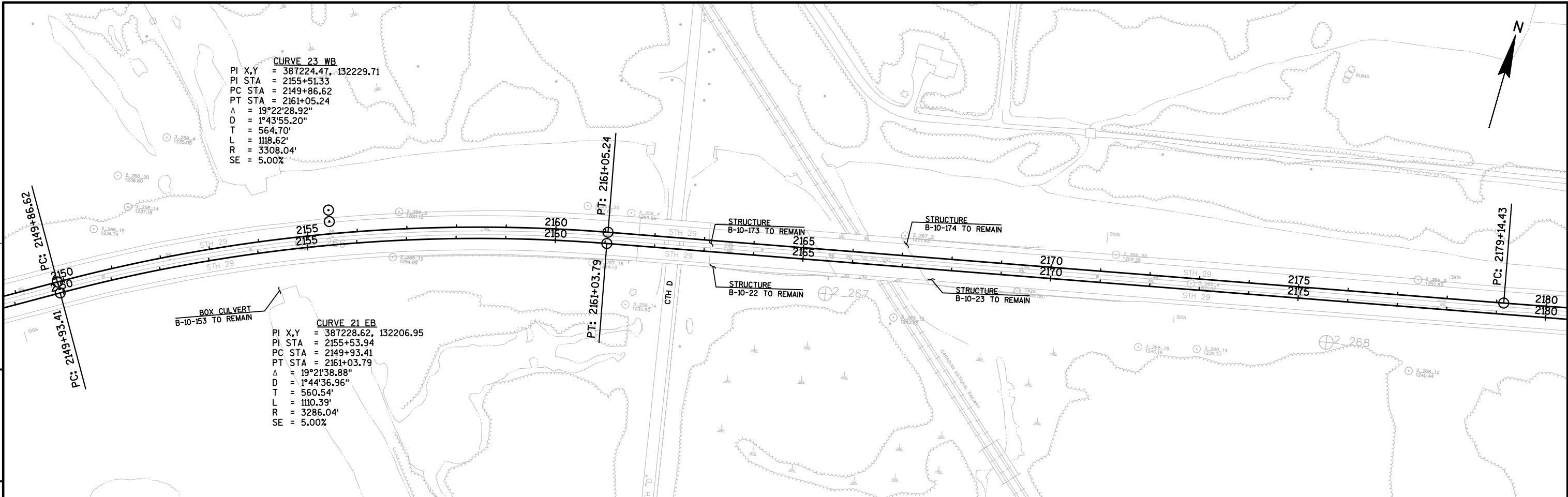


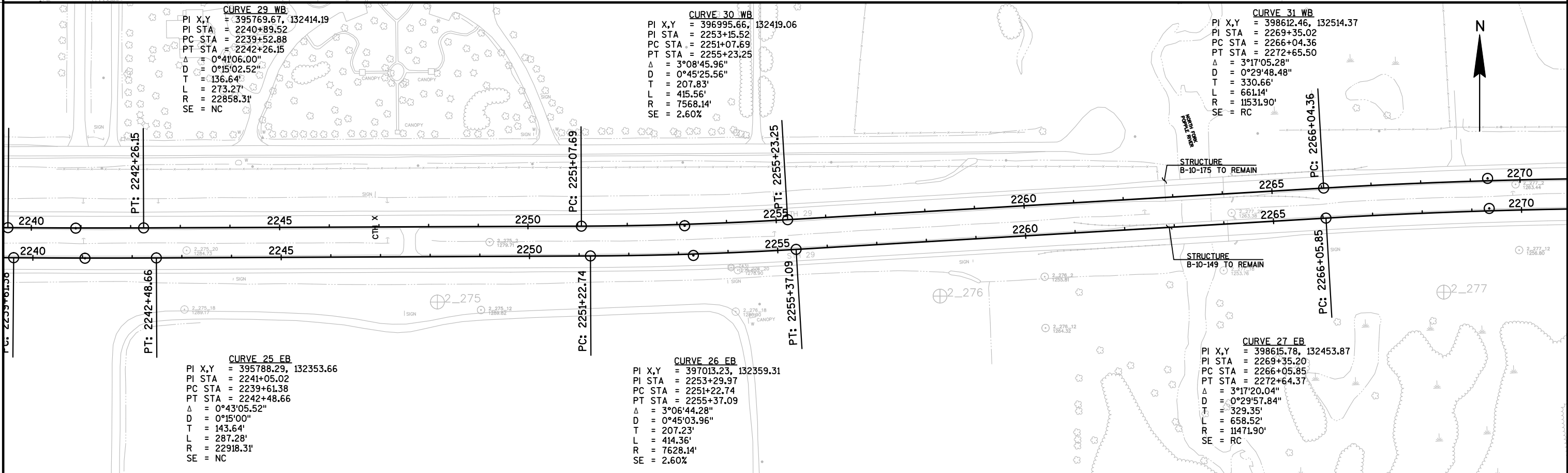
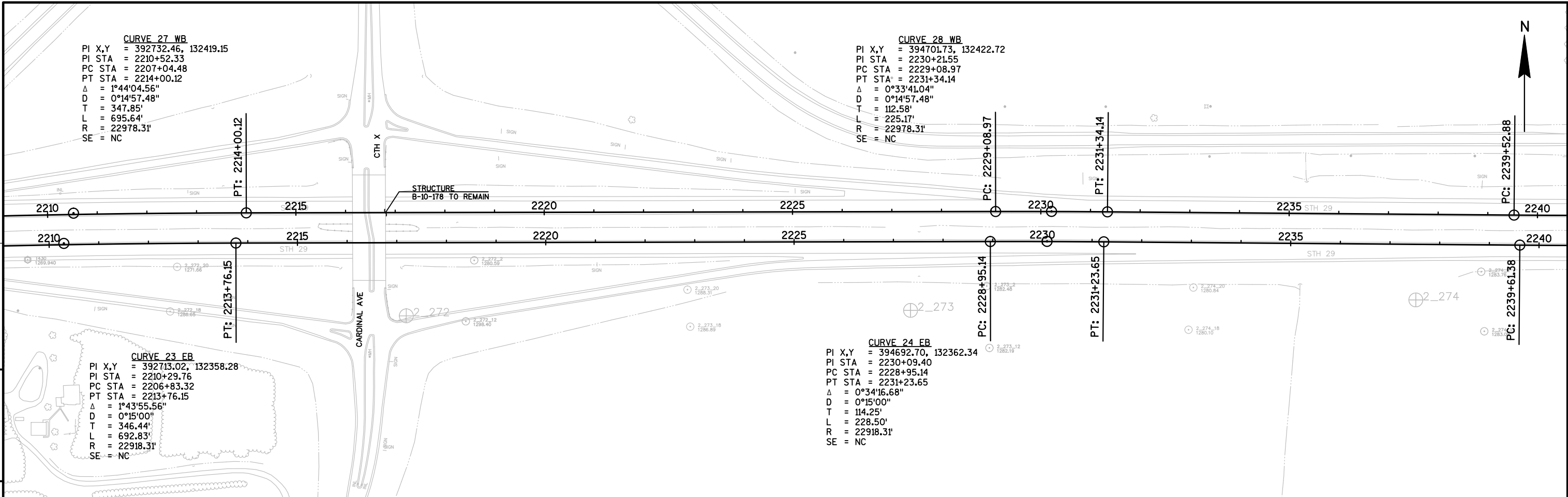


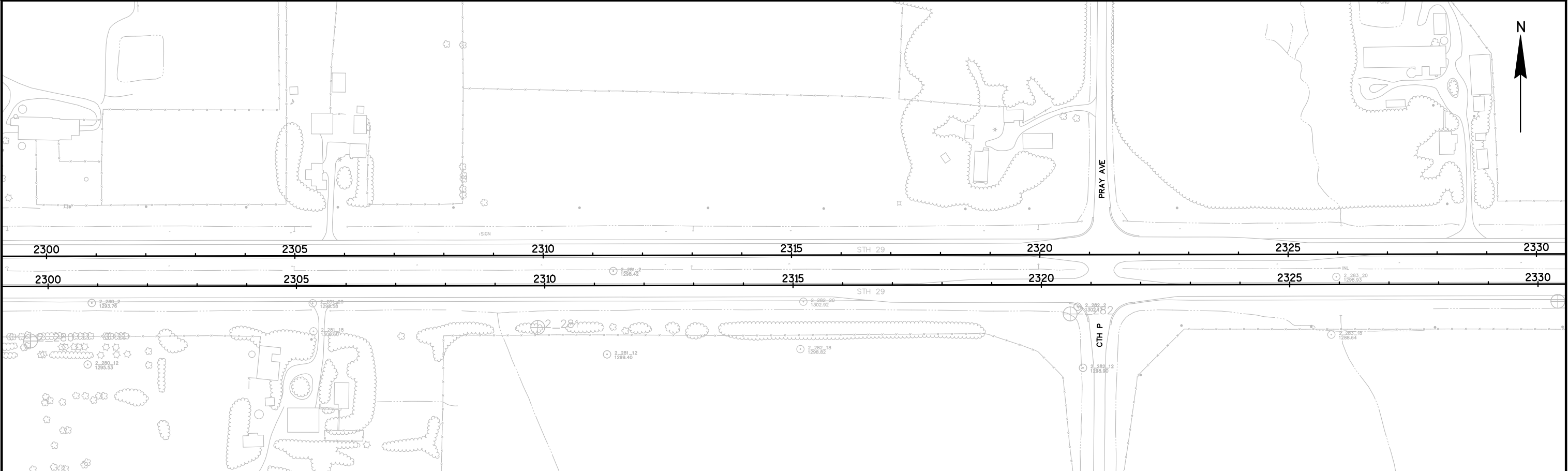
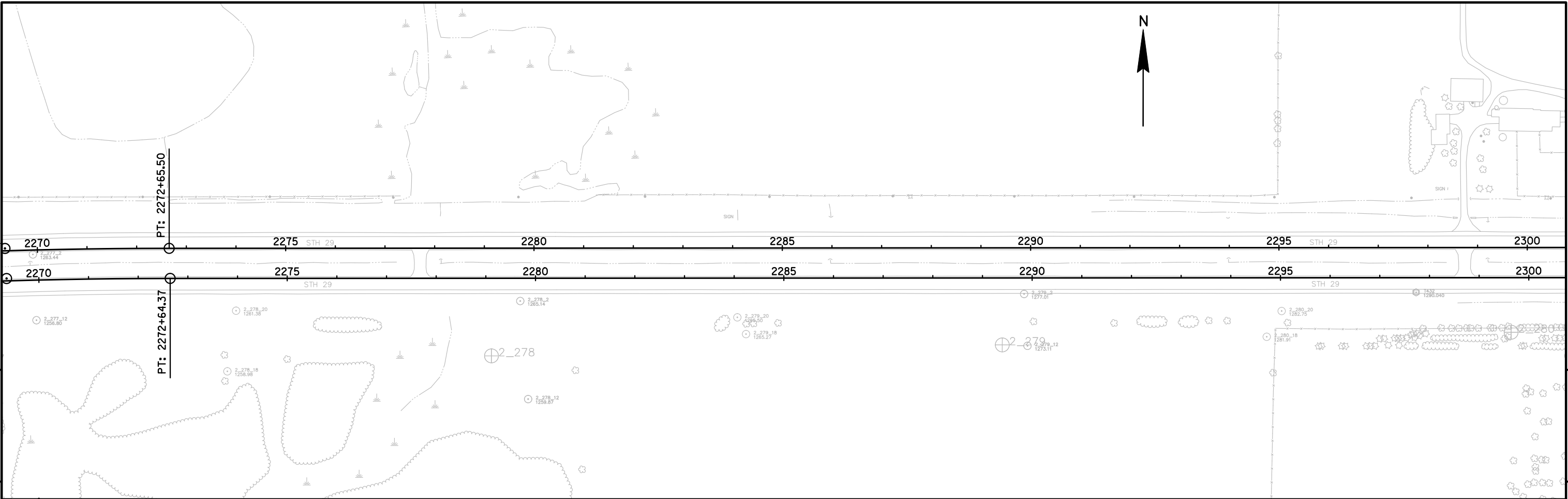
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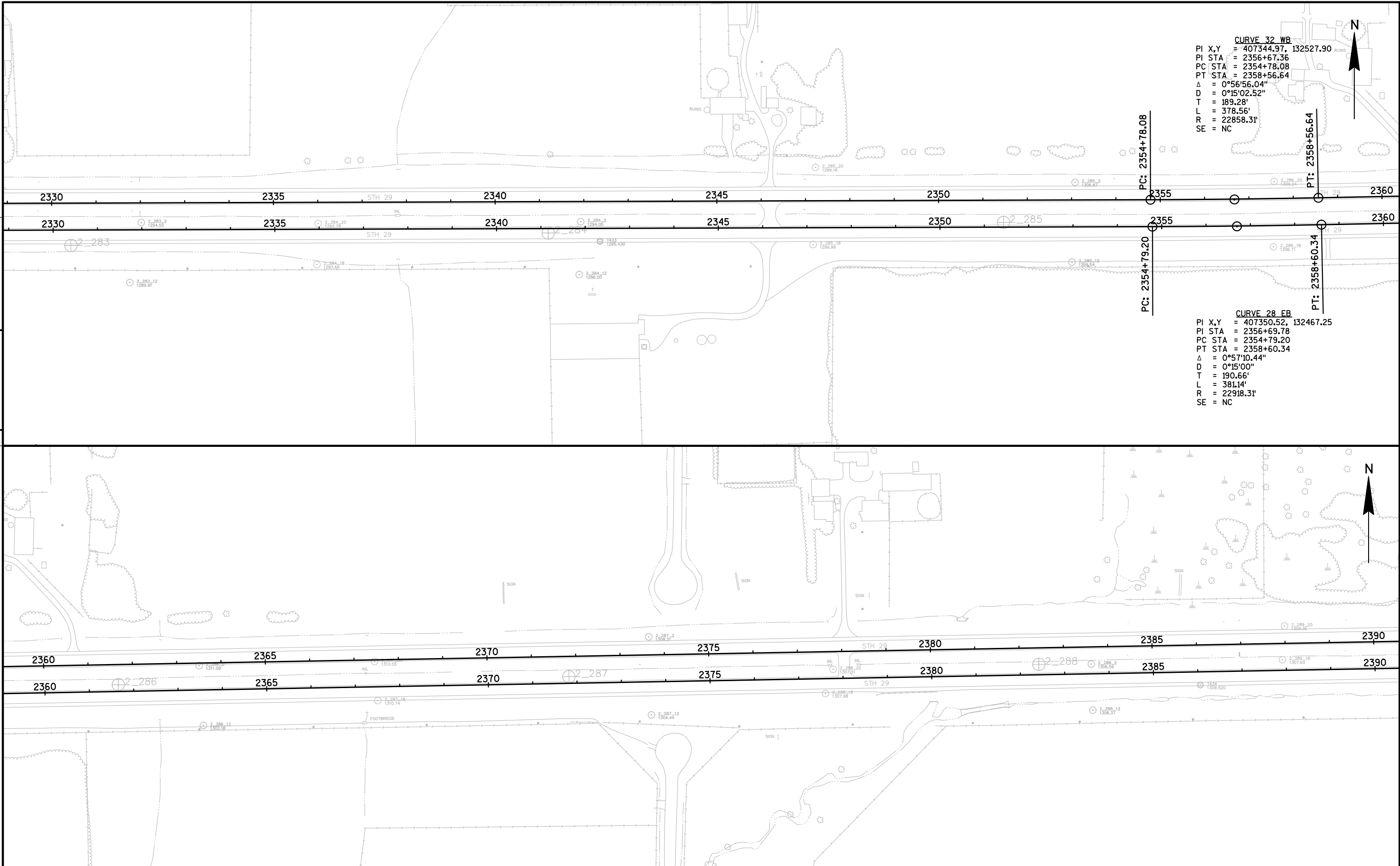
PROJECT NO:1050-00-65	HWY:STH 29	COUNTY:CLARK	PLAN AND PROFILE: STH 29	SHEET	E
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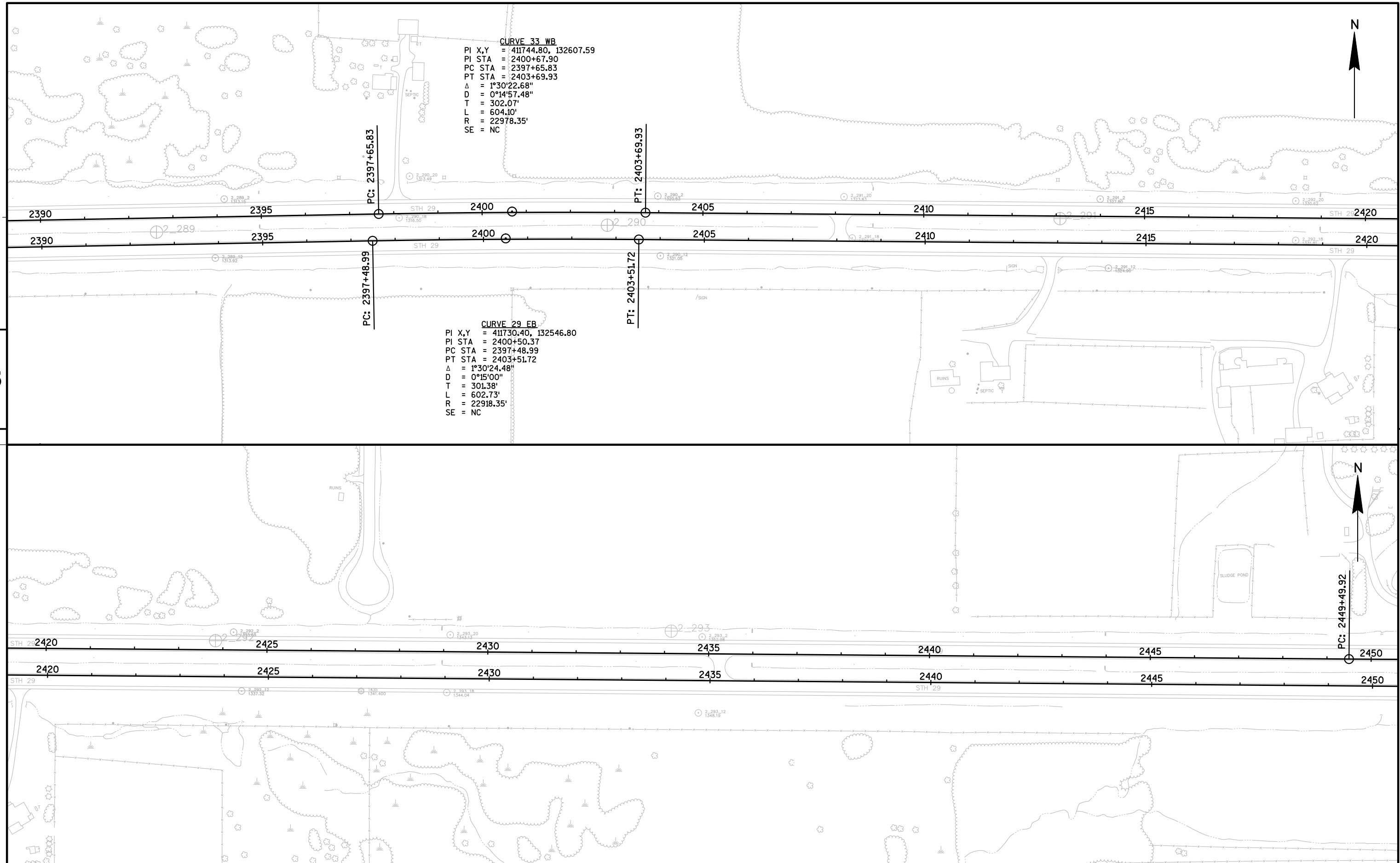


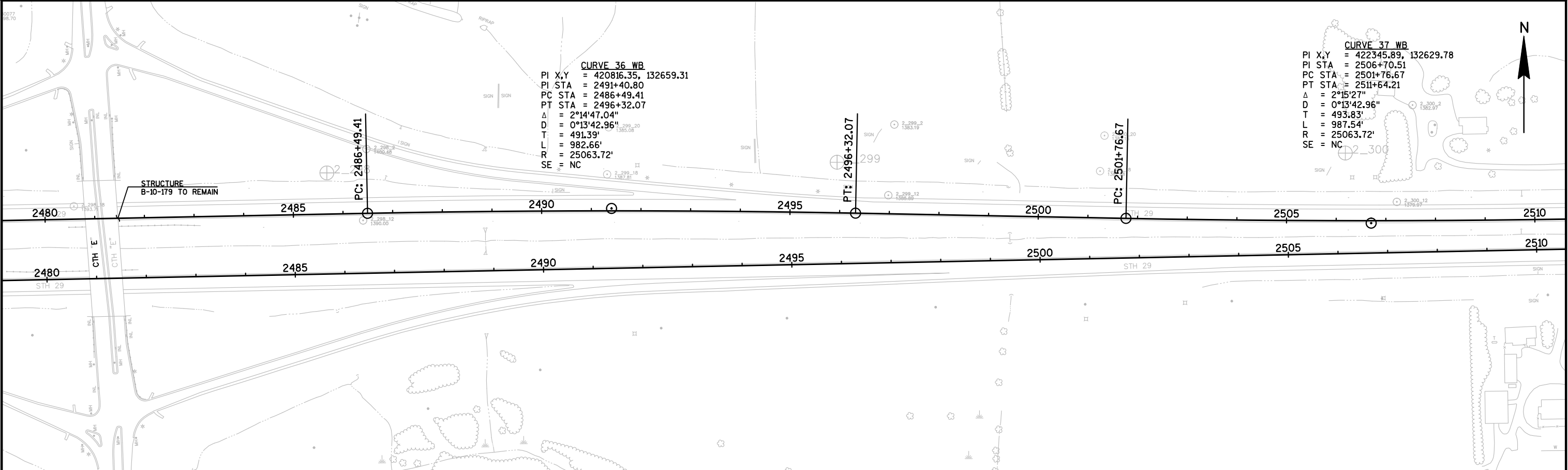
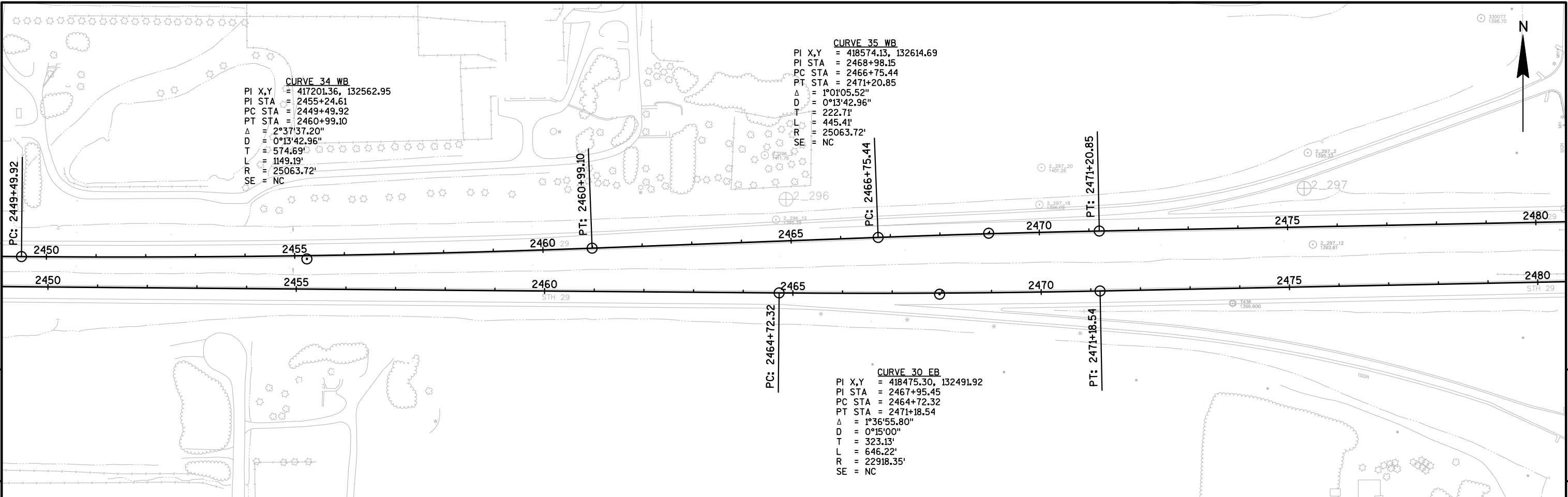


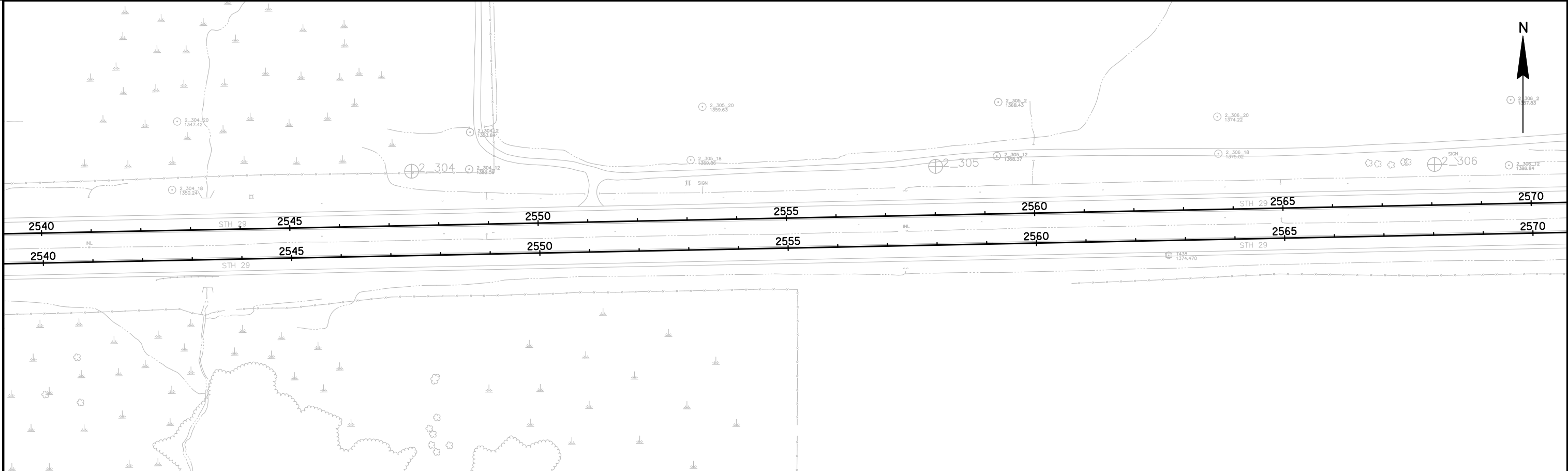
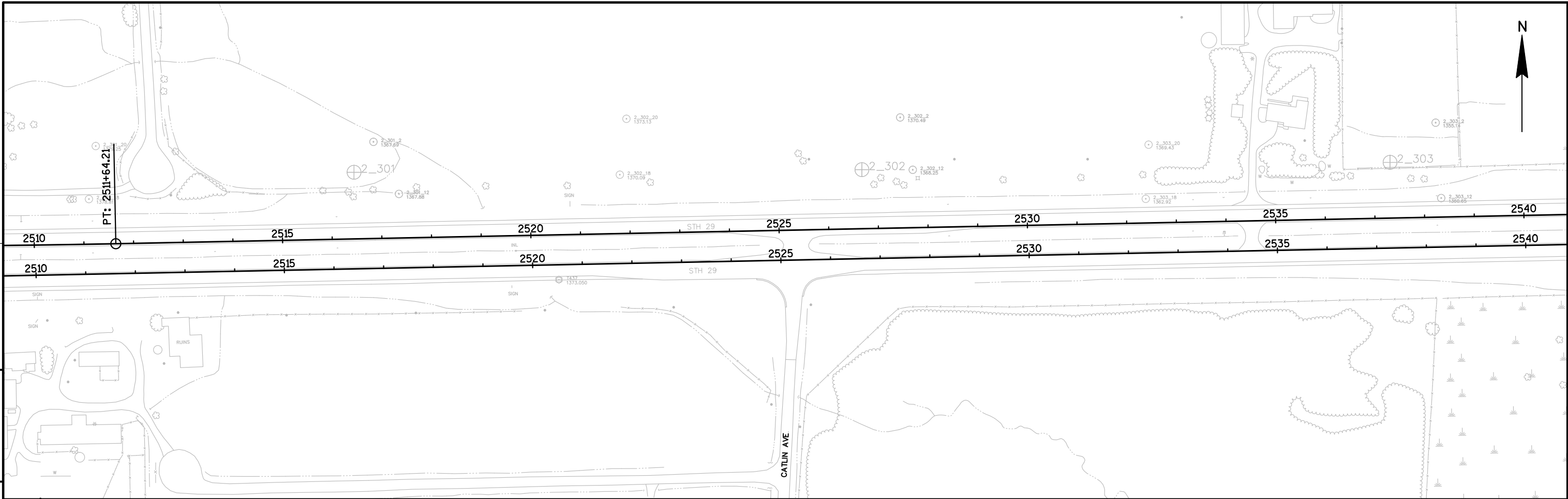


PROJECT NO:1050-00-65	HWY:STH 29	COUNTY:CLARK	PLAN AND PROFILE: STH 29	SHEET	E
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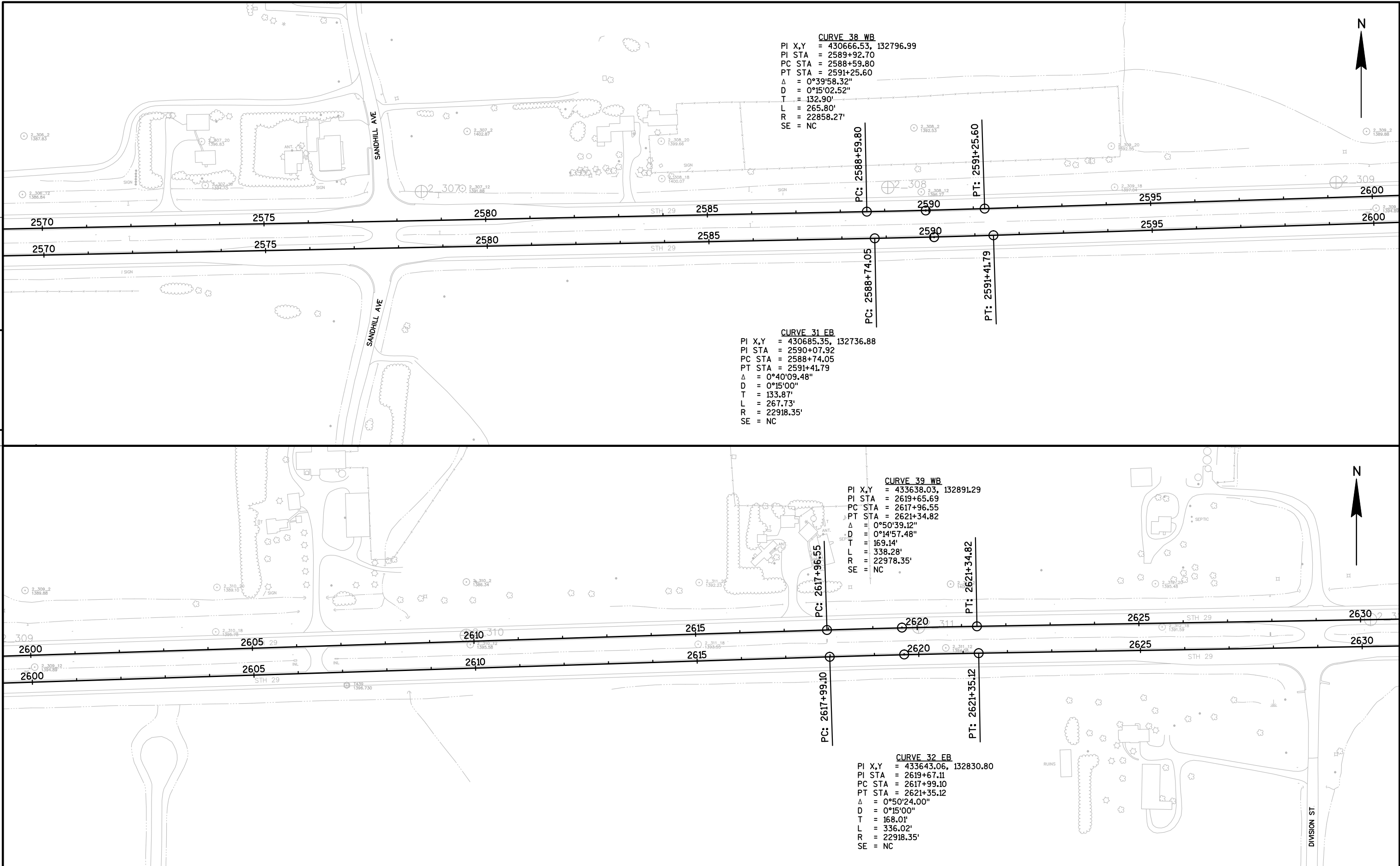


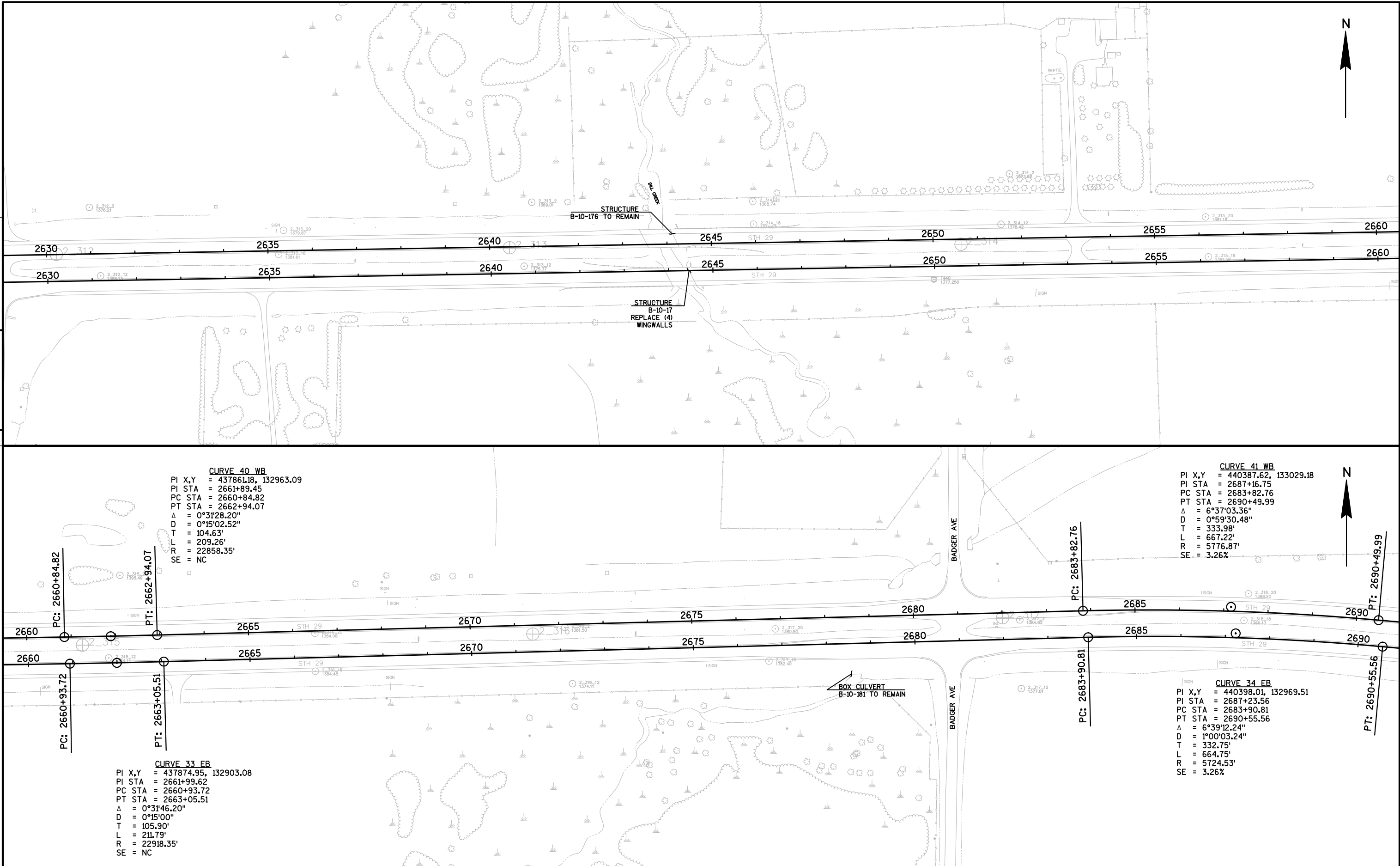


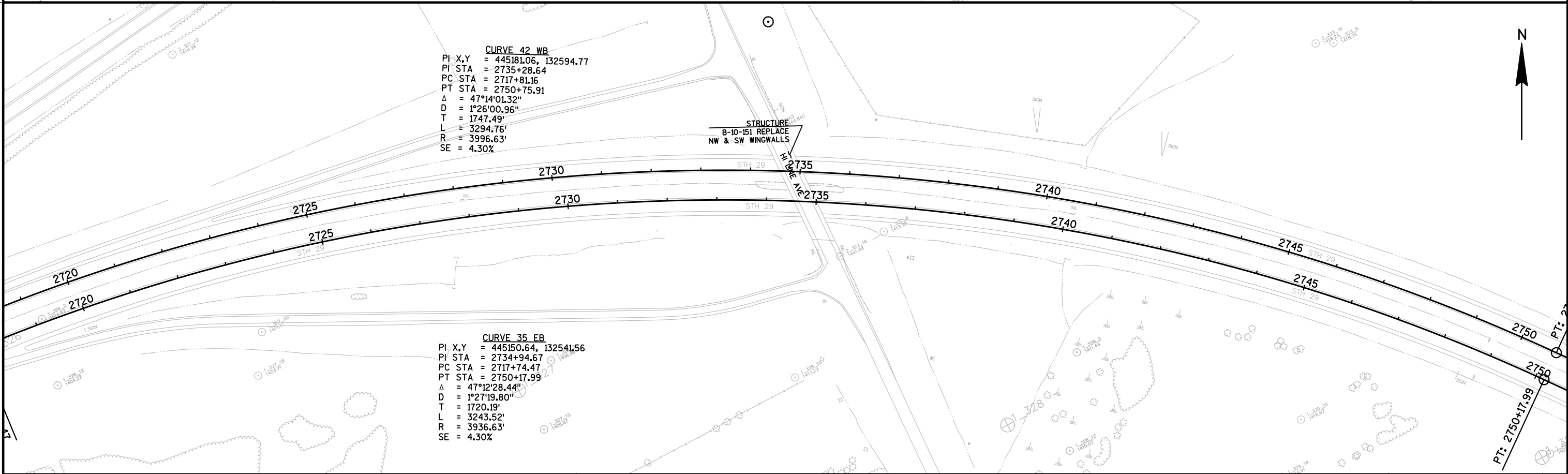
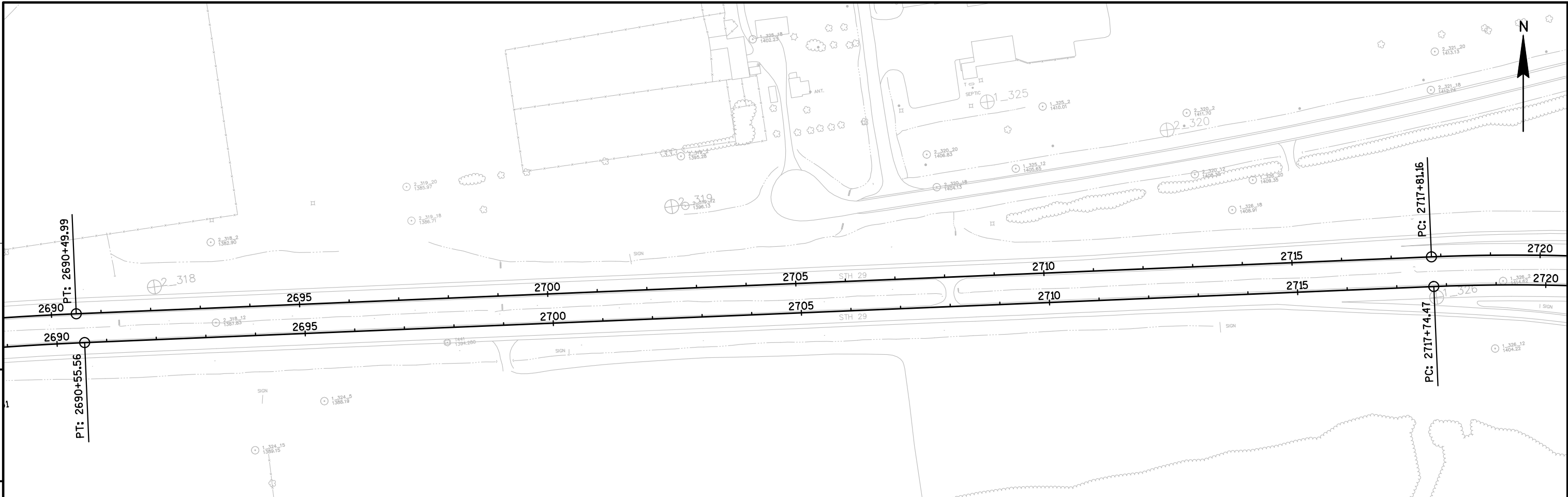


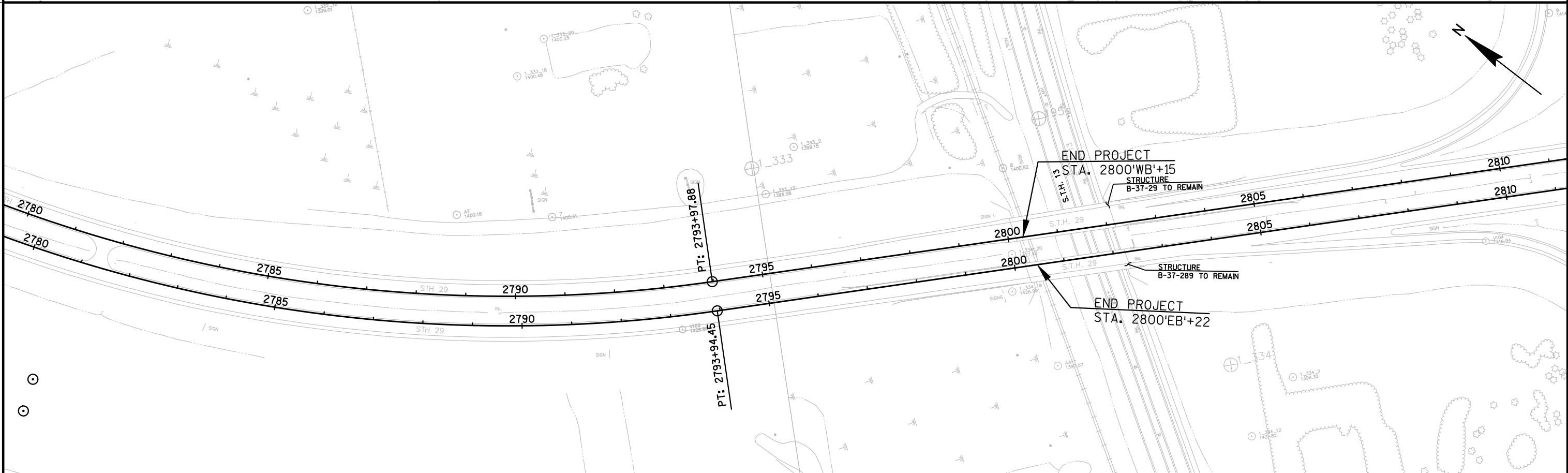
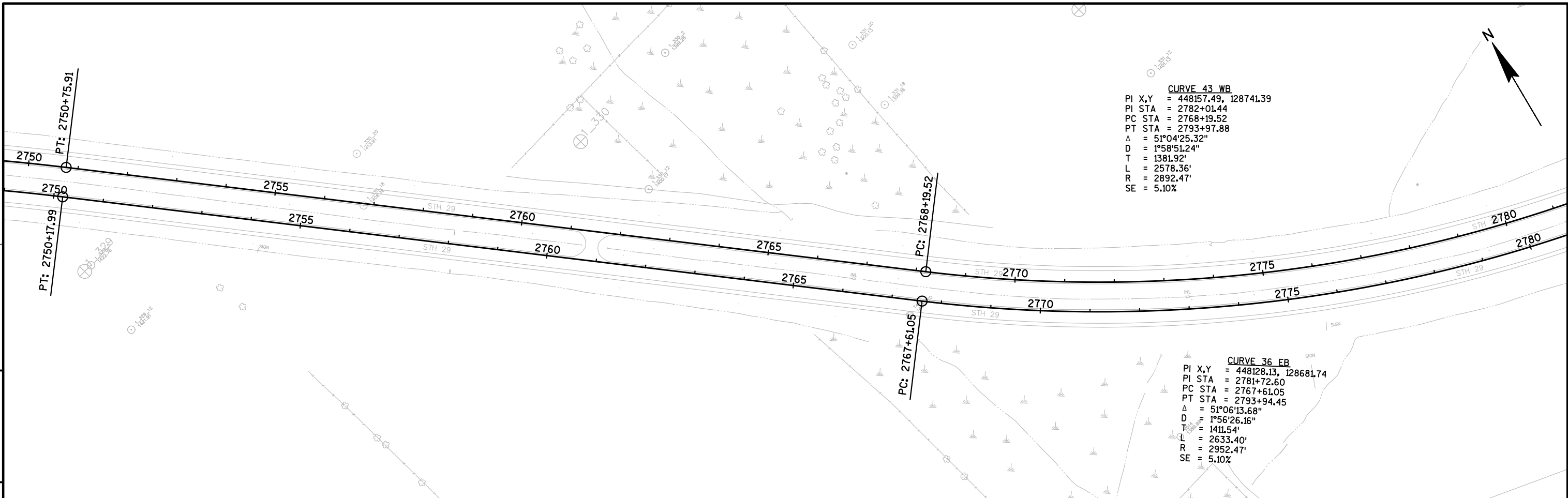


PROJECT NO:1050-00-65	HWY:STH 29	COUNTY:CLARK	PLAN AND PROFILE: STH 29	SHEET	E
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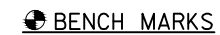
PROJECT NO:1050-00-65	HWY:STH 29	COUNTY:CLARK	PLAN AND PROFILE: STH 29	SHEET	E
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DESIGN LOADING _____	HS20
INVENTORY RATING _____	HS24
OPERATING RATING _____	HS29
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____	250 KIPS

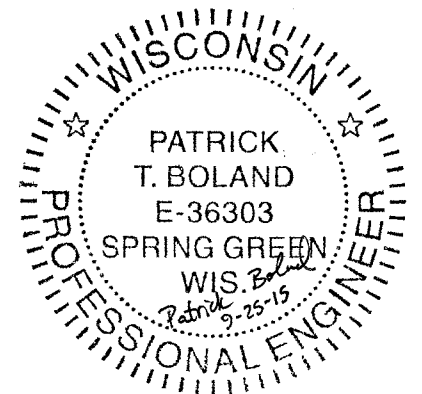
CONCRETE MASONRY _____ $f'_c = 3,500$ P.S.I.
HIGH-STRENGTH BAR STEEL
REINFORCEMENT, GRADE 60 _____ $f_y = 60,000$ P.S.I.

A.D.T. (2016)	12,930
A.D.T. (2036)	15,980
DESIGN SPEED	70 M.P.H.

GENERAL PLAN _____ 1.
DETAILS AND QUANTITIES _____ 2.
WING DETAILS _____ 3.



NO.	STA.	DESCRIPTION	ELEV.
1	78'EB'+44	3/4" IRON REBAR SET, 43.0' RT.	1376.51
2	82'EB'+20	3/4" IRON REBAR SET, 38.6', RT.	1374.99



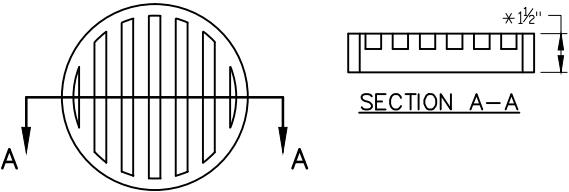
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS, INSPECTION REPORTS AND FIELD SURVEY.

WILLIAM DREHER, PE
(608) 266-8489

NO.	DATE	REVISION		BY
		560 SUNRISE DRIVE SPRING GREEN, WI 53588 PHONE: (608) 588-7484 FAX: (608) 588-9322		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION				
ACCEPTED _____		CHIEF STRUCTURES DESIGN ENGINEER _____ DATE _____		
STRUCTURE B-10-0017				
STH 29 EB OVER DILL CREEK				
COUNTY	CLARK	TOWN/CITY/VILLAGE		COLBY
DESIGN SPEC. REHABILITATION - N/A				
DESIGNED BY	RBH	DESIGN CK'D.	PTB	DRAWN BY
			PTB	PLANS CK'D.
				RBH
GENERAL PLAN			SHEET 1 OF 3	

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 86'EB'+81	LS	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-10-0017	LS	1
210.0100	BACKFILL STRUCTURE	CY	140
502.0100	CONCRETE MASONRY BRIDGES	CY	47
502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	48
502.5015	MASONRY ANCHORS TYPE L NO. 7 BARS	EACH	58
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	3620
511.1200	TEMPORARY SHORING (B-10-0017)	SF	1060
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	20
606.0300	RIPRAP HEAVY	CY	105
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	100
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	170
	NON-BID ITEMS		



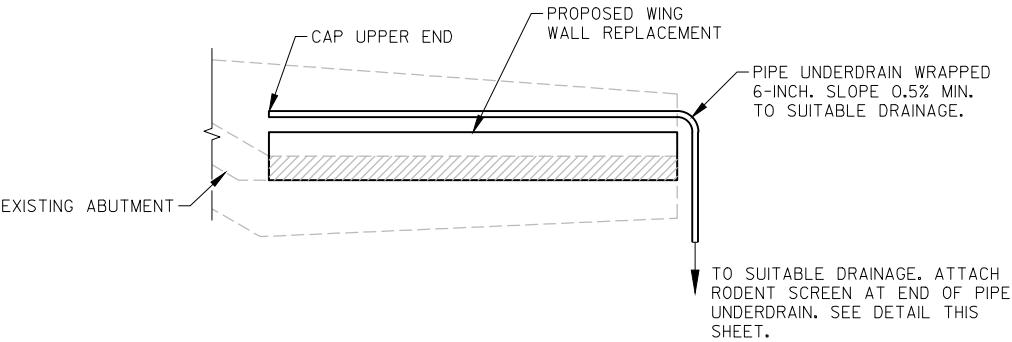
RODENT SCREEN

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

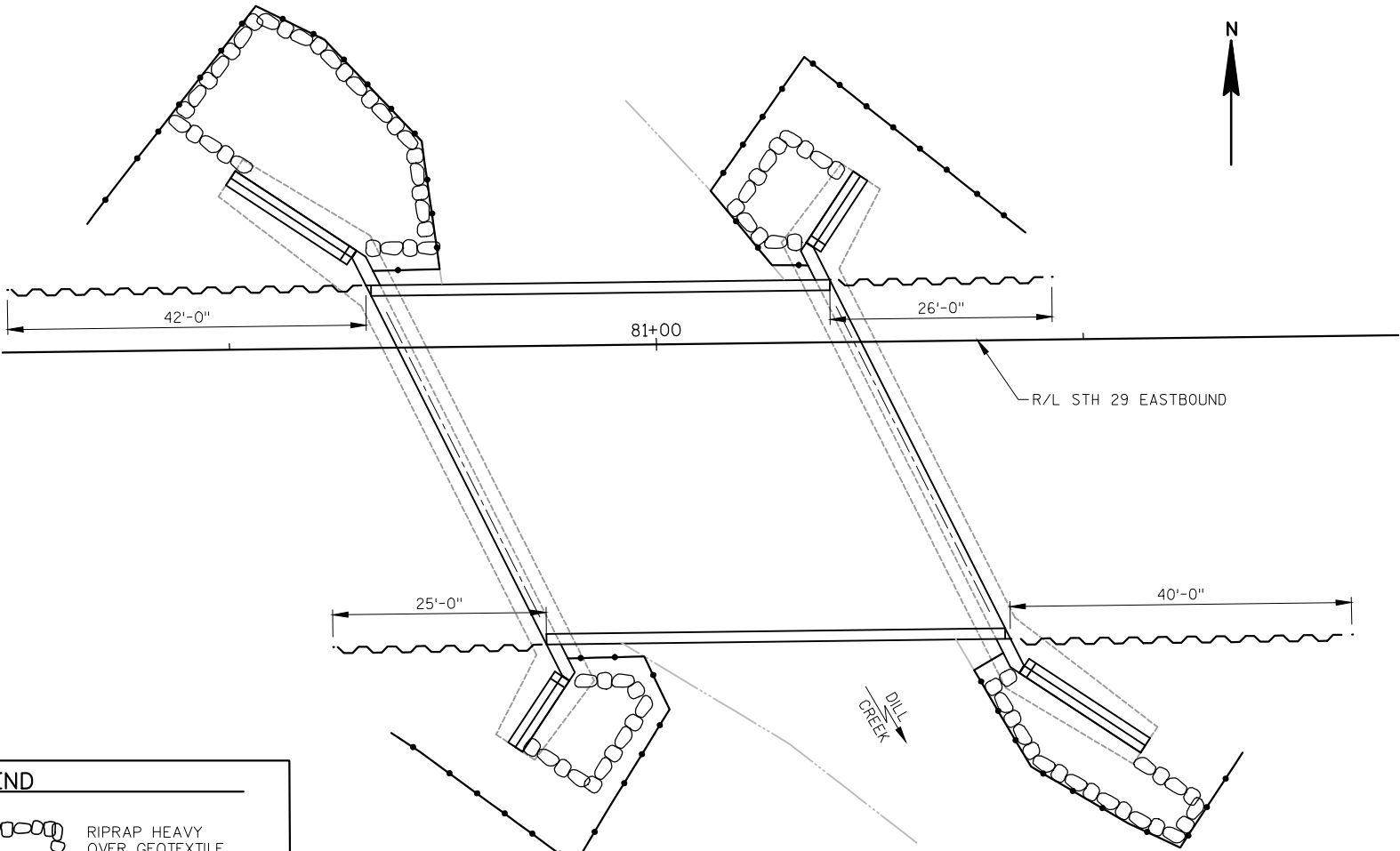
ORIENT SCREEN SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

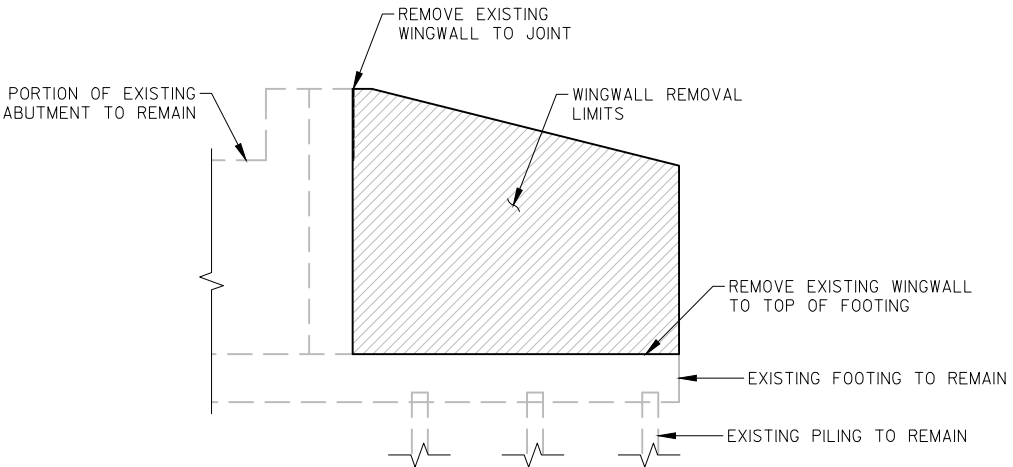
THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED ENDS OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X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



PIPE UNDERDRAIN DETAIL



SILT FENCE AND TEMPORARY SHORING LAYOUT DETAIL



EXISTING WINGWALL REMOVAL DETAIL

LEGEND

- RIPRAP HEAVY OVER GEOTEXTILE FABRIC TYPE HR
- TEMPORARY SHORING
- SILT FENCE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-0017			
DRAWN BY		PTB	PLANS CK'D. RBH
DETAILS AND QUANTITIES			SHEET 2 OF 3

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY.
SEE THIS SHEET FOR BILL OF BARS.

▲ LOCATION OF FRONT FACE TO MATCH EXISTING.

**BILL OF BARS
TWO ABUTMENTS SHOWN****3,620 LB (COATED)**

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
◇ A701	8	14-5		X		WINGS - VERT. B.F.
◇ A702	18	11-9		X	*	WINGS 1 & 3 - VERT. B.F.
◇ A503	6	14-5		X		WINGS - VERT. F.F.
◇ A504	16	11-11		X	*	WINGS 1 & 3 - VERT. F.F.
A505	58	5-9	X	X		WINGS - VERT. - TOP
A506	4	10-10	X	X		WINGS 1 & 3 - HORIZ. - TOP
A507	28	9-8		X		WINGS 1 & 3 - HORIZ.
A508	16	5-8		X	*	WINGS 1 & 3 - HORIZ.
◇ A709	32	12-5		X	*	WINGS 2 & 4 - VERT. - B.F.
◇ A510	26	12-5		X	*	WINGS 2 & 4 - VERT. - F.F.
A511	4	17-1	X	X		WINGS 2 & 4 - HORIZ. - TOP
A512	32	16-8		X		WINGS 2 & 4 - HORIZ.
A513	12	9-5		X	*	WINGS 2 & 4 - HORIZ.

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

* LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

◇ MASONRY ANCHORS TYPE L NO. 5 BARS OR MASONRY ANCHORS TYPE L NO. 7 BARS REQ'D. EMBED ANCHORS 10" INTO EXISTING FOOTING.

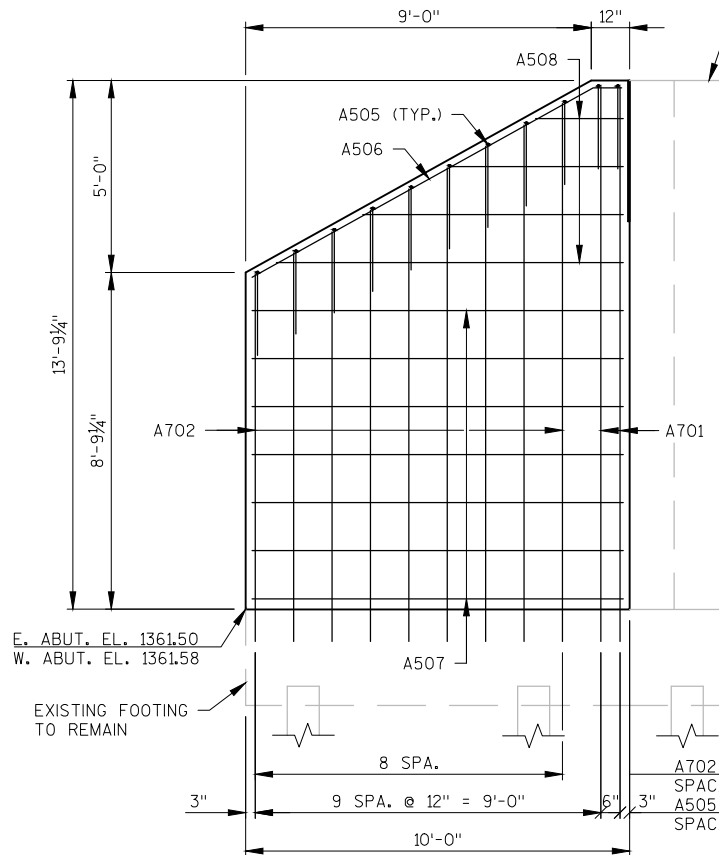
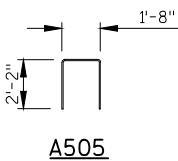
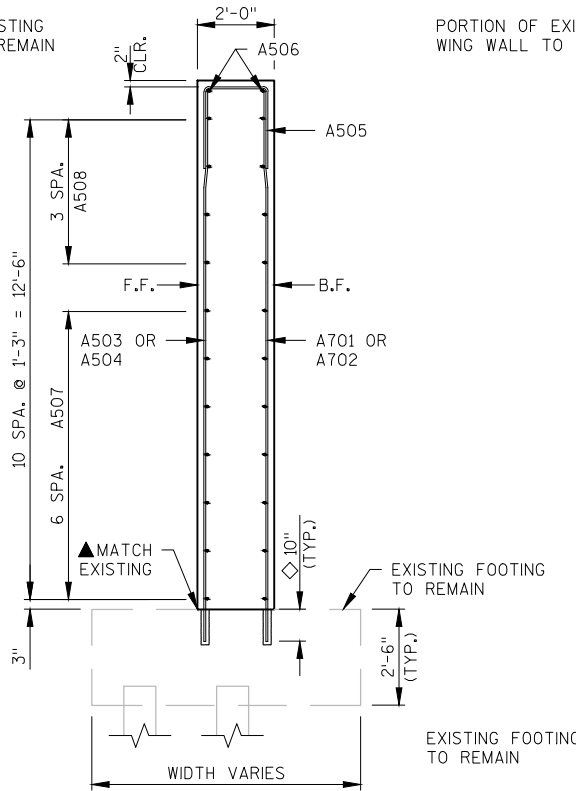
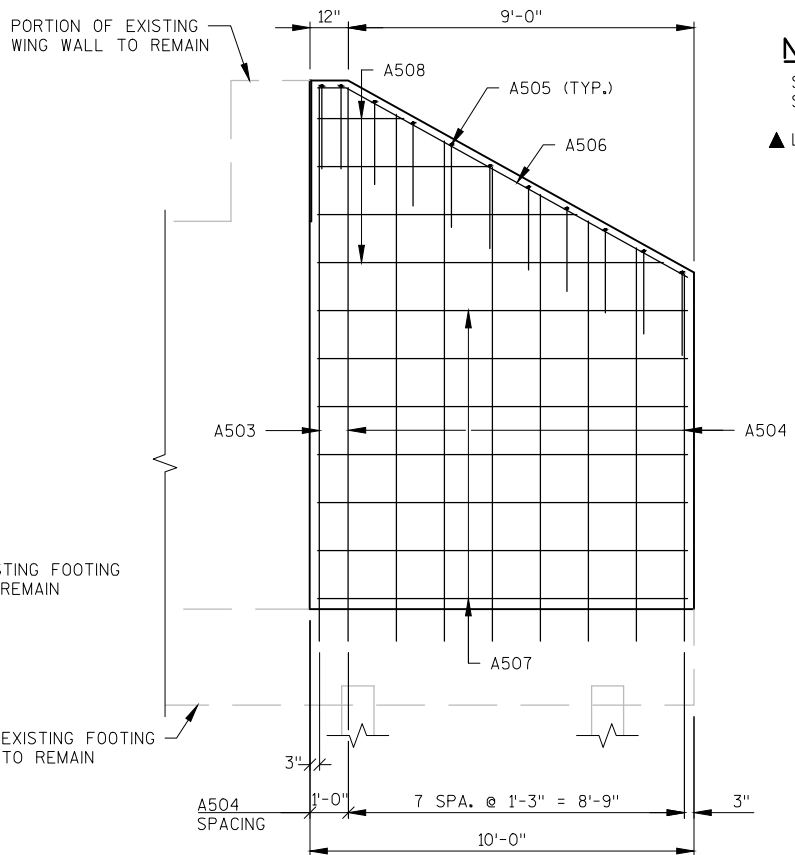
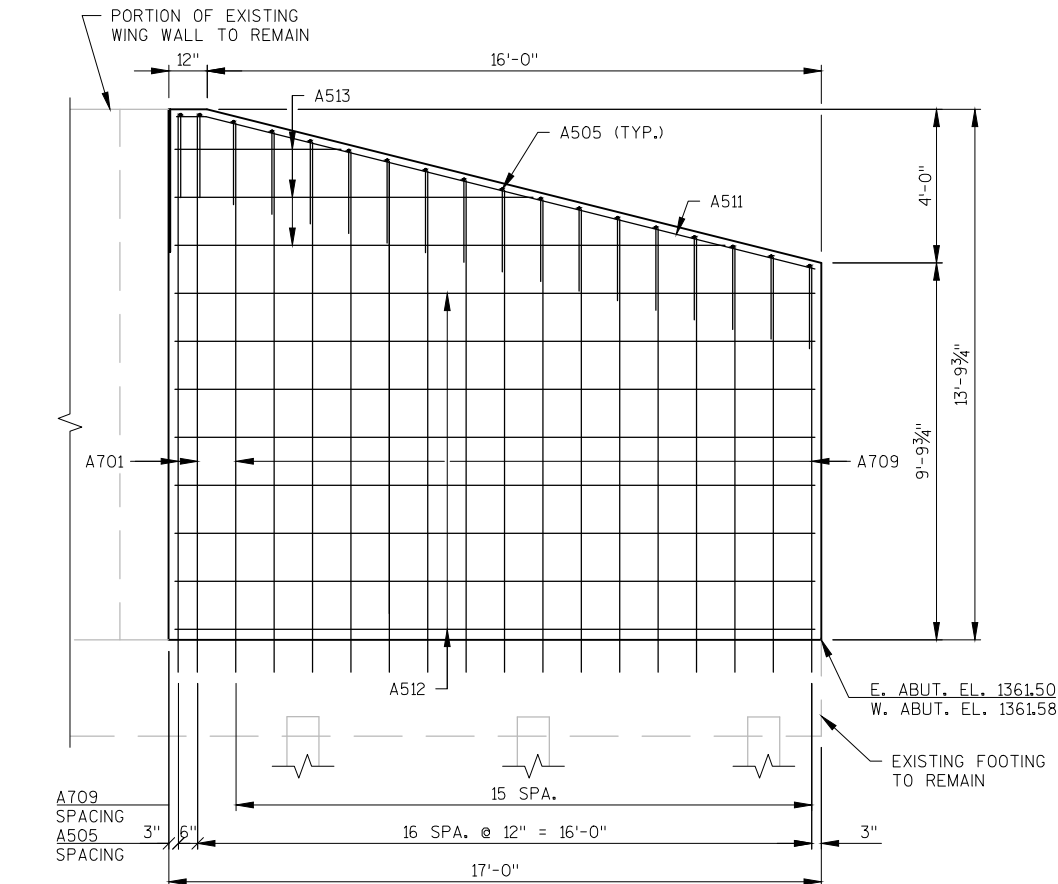
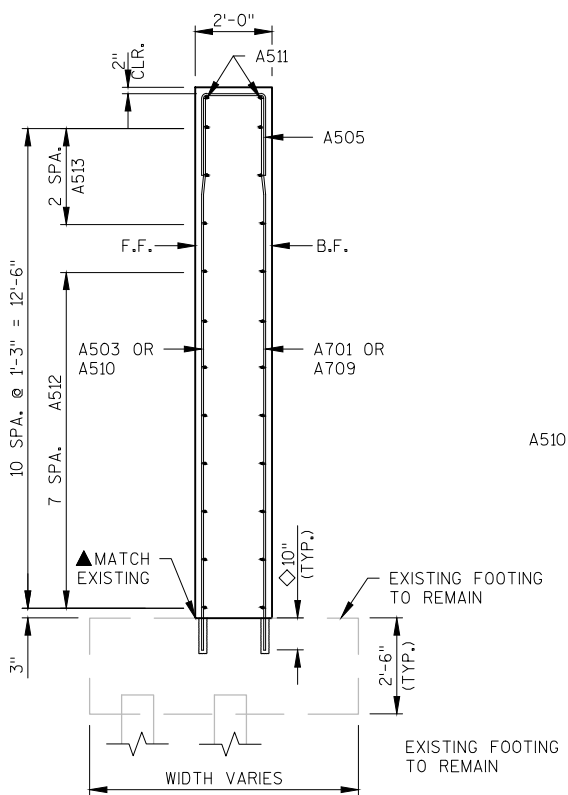
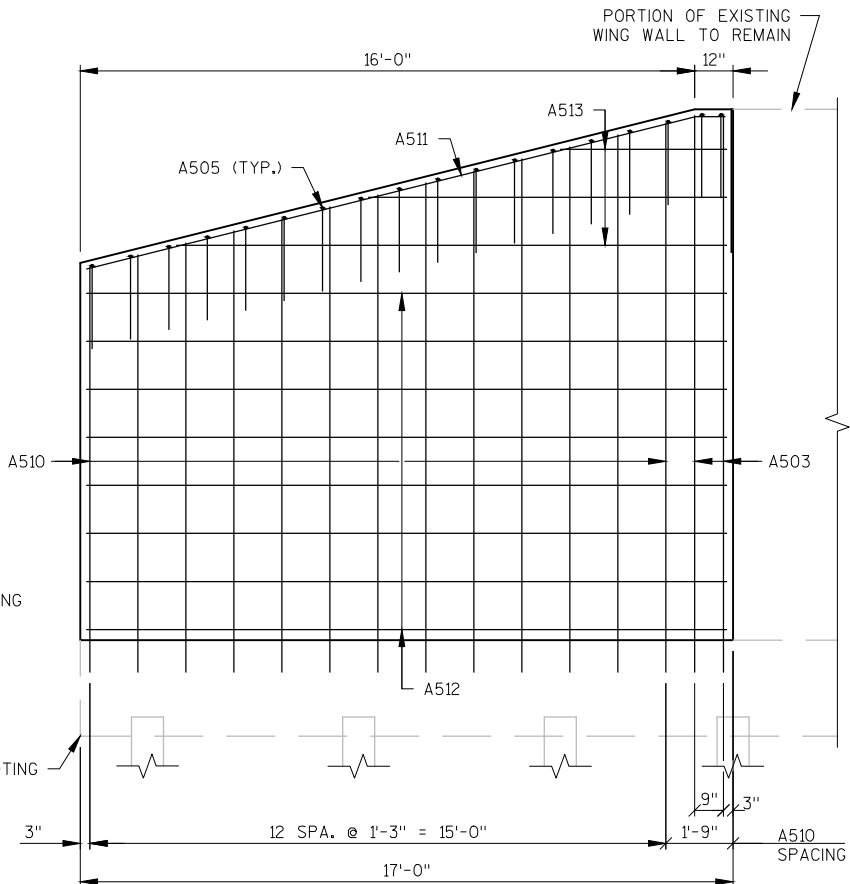
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A702	2 SERIES OF 9	14-0 TO 9-6
A504	2 SERIES OF 8	14-4 TO 9-6
A508	4 SERIES OF 4	9-1 TO 2-3
A709	2 SERIES OF 16	14-4 TO 10-6
A510	2 SERIES OF 13	14-4 TO 10-6
A513	4 SERIES OF 3	14-5 TO 4-5

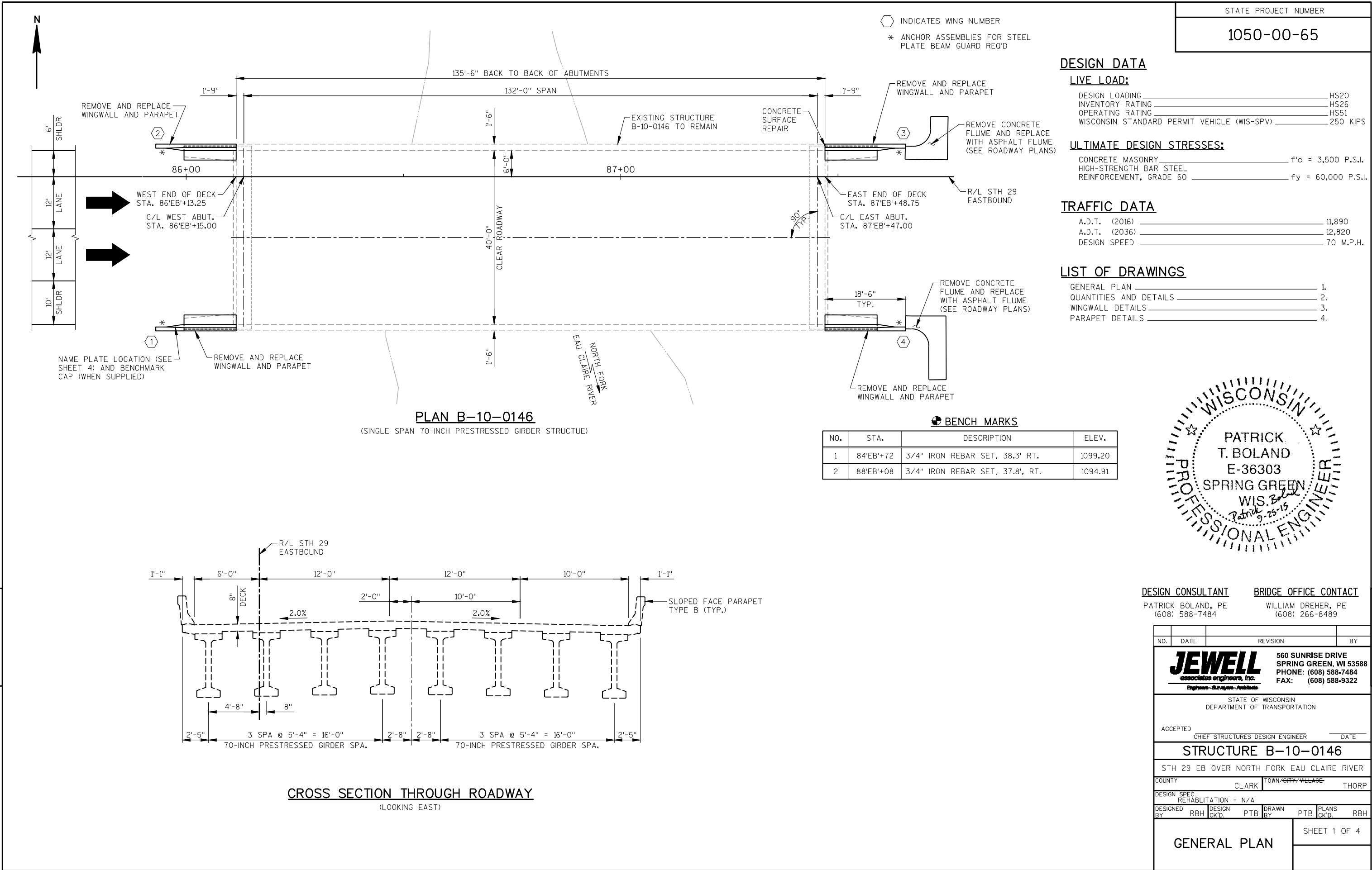
BUNDLE AND TAG EACH SERIES SEPARATELY.

MARK	'A'
A506	150°57'
A511	165°58'

A506 & A511

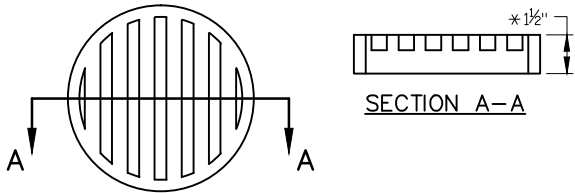
**B.F. ELEVATION - WINGS 1 & 3****WING WALL SECTION****F.F. ELEVATION - WINGS 1 & 3****B.F. ELEVATION WINGS 2 & 4****WING WALL SECTION****F.F. ELEVATION WINGS 2 & 4**

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-0017			
DRAWN BY		PTB	PLANS CK'D. RBH
WING DETAILS			SHEET 3 OF 3



TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 86+EB+81	LS	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-10-0146	LS	1
210.0100	BACKFILL STRUCTURE	CY	410
502.0100	CONCRETE MASONRY BRIDGES	CY	54
502.3210	PIGMENTED SURFACE SEALER	SY	30
502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	24
502.5020	MASONRY ANCHORS TYPE L NO. 8 BARS	EACH	40
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	6990
509.1500	CONCRETE SURFACE REPAIR	SF	20
511.1200	TEMPORARY SHORING B-10-0146	SF	1180
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	16
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	110
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4
NON-BID ITEMS			
NAME PLATE			
PREFORMED JOINT FILLER			SIZE 1/2"



RODENT SCREEN

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

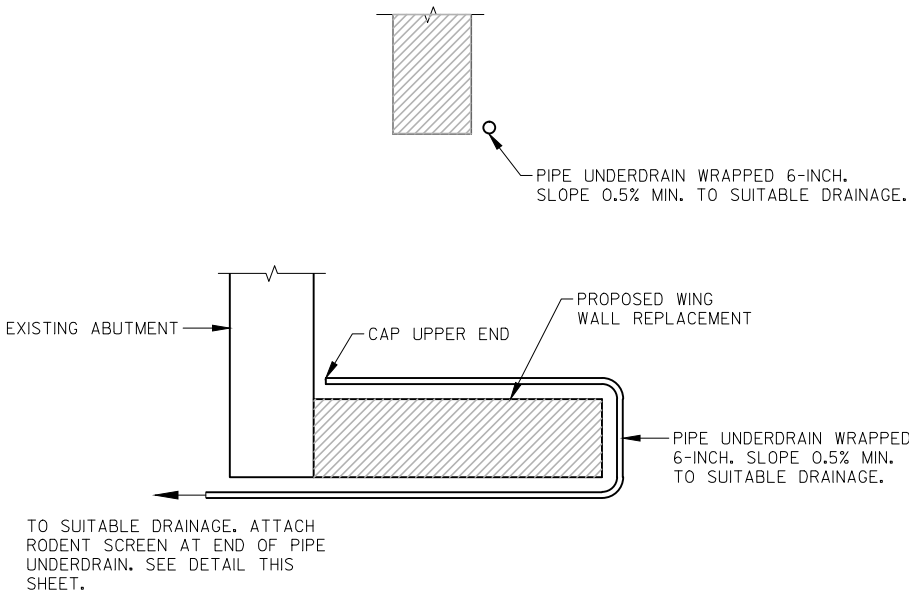
ORIENT SCREEN SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

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

STATE PROJECT NUMBER

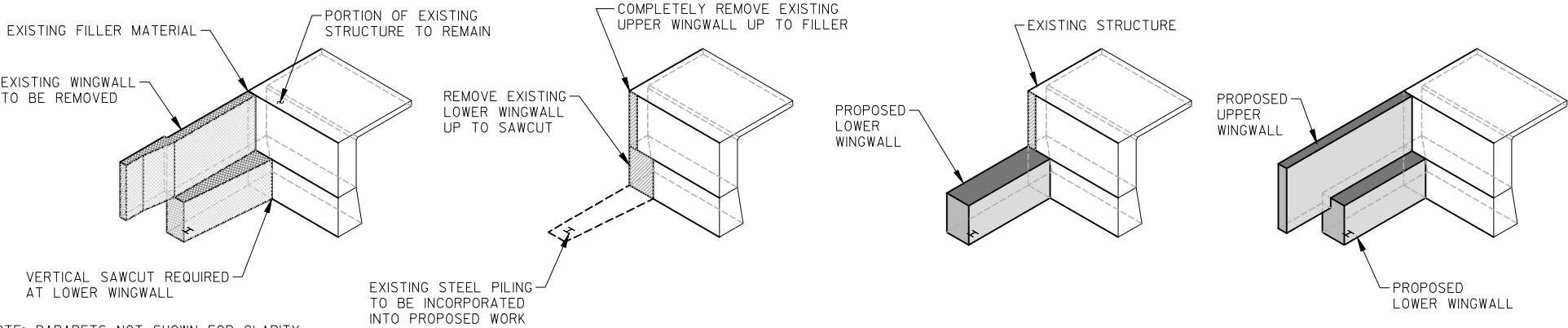
1050-00-65



PIPE UNDERDRAIN DETAIL

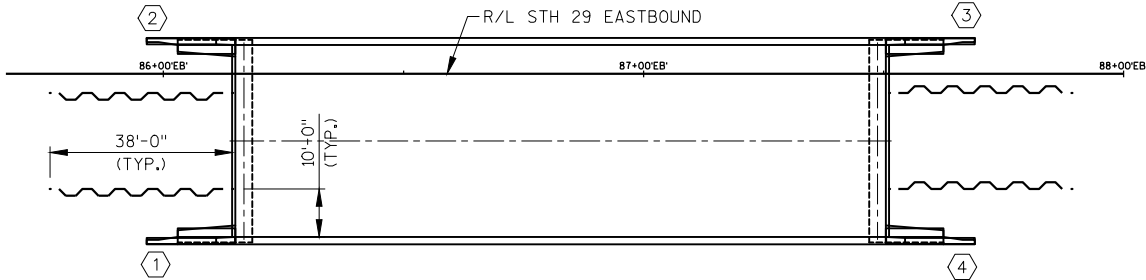
GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.
- THE SLOPE OF FILL IN FRONT OF THE WINGS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE FABRIC TYPE HR TO THE EXTENT SHOWN ON SHEET 1, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.
- AT THE BACK FACE OF WINGS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE WING CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.
- THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.
- ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.
- THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.
- THE FIRST DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.
- DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS, INSPECTION REPORTS AND FIELD SURVEY.
- ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.
- APPLY PIGMENTED SURFACE SEALER TO THE INSIDE FACE AND TOP OF THE PARAPETS AT AL FOUR WINGS.



WINGWALL REPLACEMENT OVERVIEW

WING 2 SHOWN - OTHER WINGS SIMILAR



TEMPORARY SHORING LAYOUT DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-0146			
DRAWN BY		PTB	PLANS CK'D. RBH
QUANTITIES AND DETAILS			SHEET 2 OF 4

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

LEGEND

- OPTIONAL CONSTRUCTION JOINT. FORM KEYWAY WITH A BEVELED 2X6. PLACE 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE AND 3/4" "V" GROOVE AT FRONT FACE IF USED.
- 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINUOUS JOINT SEALER (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- R502 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R502 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- R501 AND R503 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.
- MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED ANCHOR 10" (MIN.) INTO EXISTING ABUTMENT.
- MASONRY ANCHORS TYPE L NO. 8 BARS. EMBED ANCHOR 15" (MIN.) INTO EXISTING ABUTMENT.
- VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.

BILL OF BARS

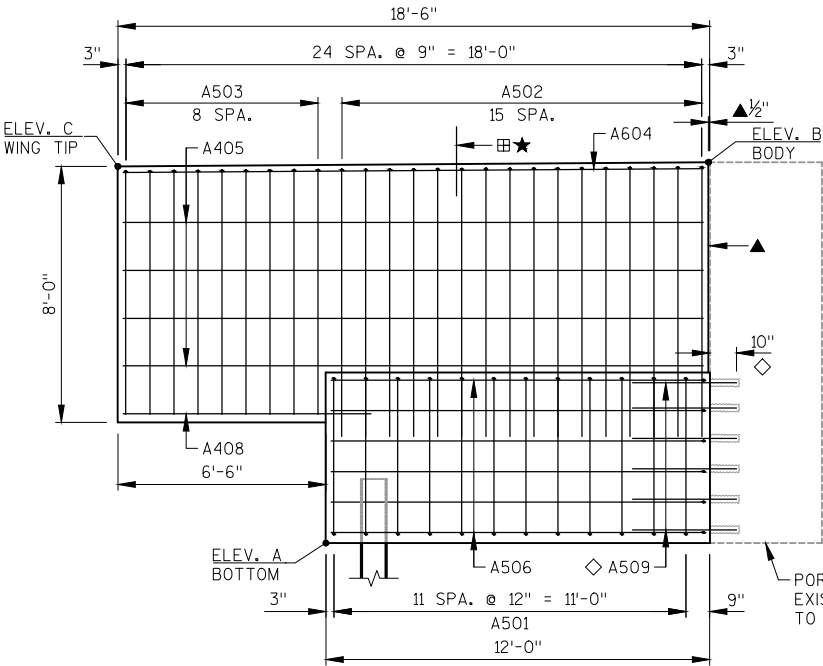
ALL WINGS

5,320 LB (COATED)

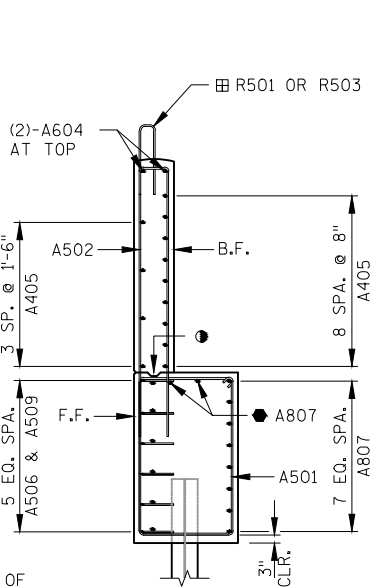
BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
A501	48	16-0	X	X	VERT. - STIRRUP
A502	64	18-4	X	X	VERT. - STIRRUP
A503	36	15-10	X	X	VERT. - STIRRUP
A604	8	18-1	X	X	HORIZ. - TOP.
A405	52	18-1	X	X	HORIZ. - B.F. & F.F.
A506	24	12-7	X	X	HORIZ. - F.F.
A807	40	13-1		X	HORIZ. - B.F. & CENTER
A408	12	7-9		X	HORIZ. - B.F. & F.F.
A509	24	3-4		X	HORIZ. - F.F.

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

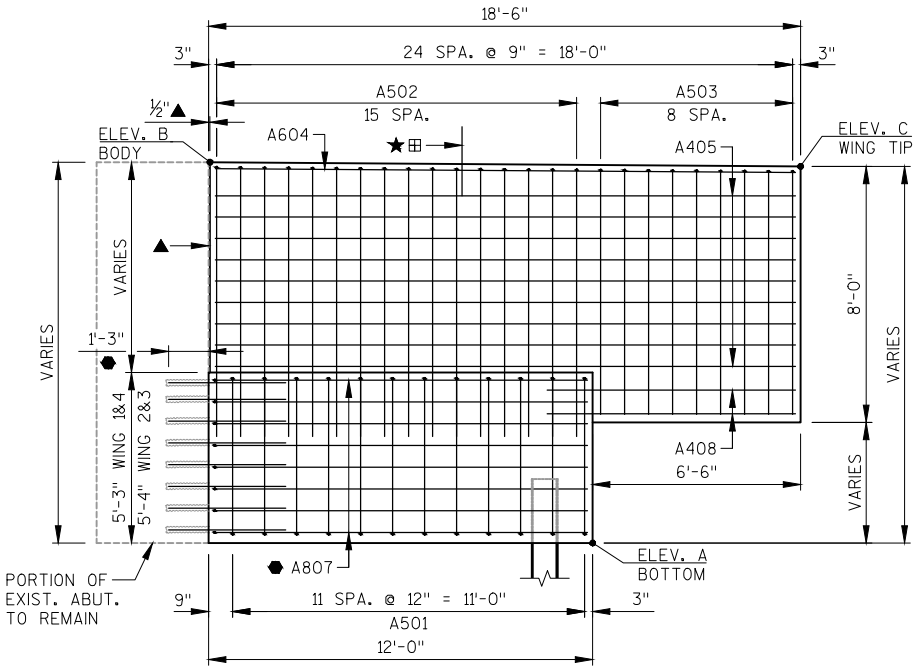
MARK	"H"
A502	8-10
A503	7-7



B.F. ELEVATION - WING 2



SECTION A-A

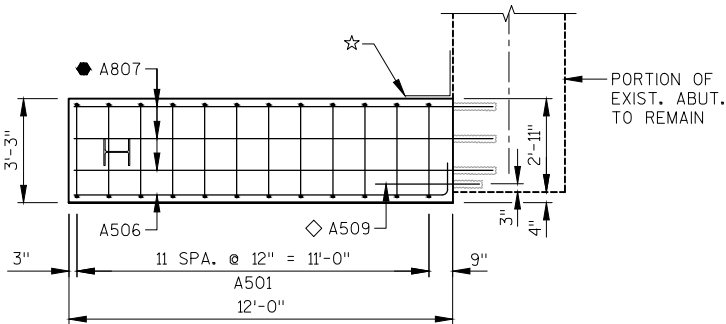


F.F. ELEVATION - WING 2

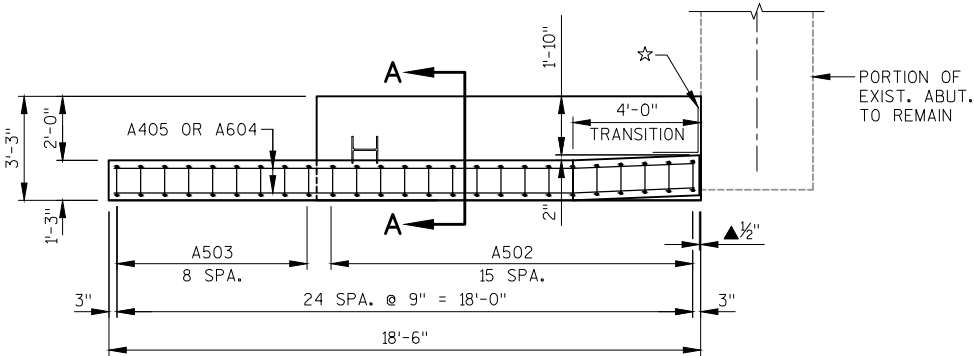
ELEVATION TABLE

WING NUMBER	POINT A BOTTOM	POINT B AT BODY	POINT C WING TIP
1	1084.78	1097.42	1097.71
2	1084.78	1097.46	1097.88
3	1083.38	1096.03	1095.76
4	1083.38	1095.96	1095.76

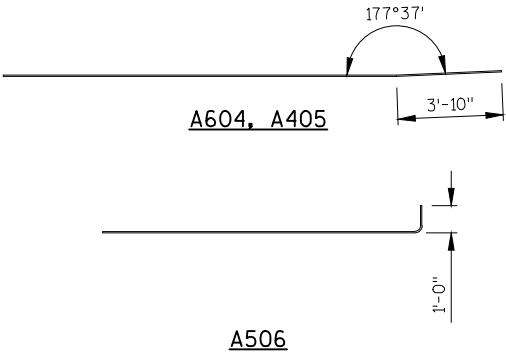
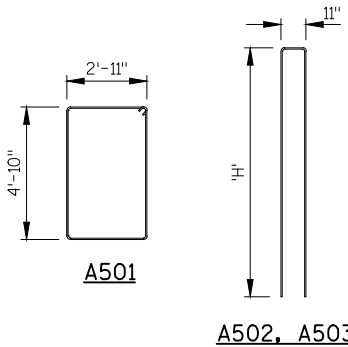
NOTE: ELEVATIONS SHOWN IN TABLE ARE BASED ON FIELD SURVEY DATA AND ORIGINAL STRUCTURE PLANS. ELEVATIONS MAY BE ADJUSTED TO MATCH EXISTING SITE CONDITIONS.



PLAN VIEW - BOTTOM WING



PLAN VIEW - TOP WING

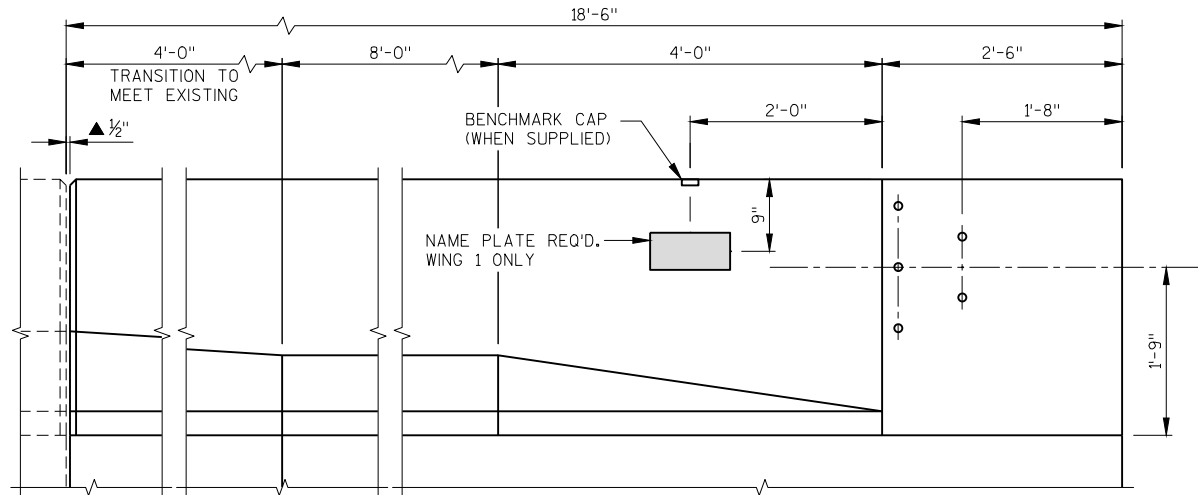
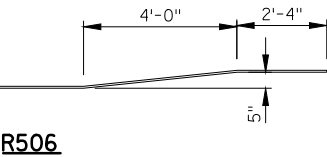
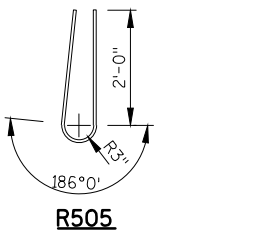
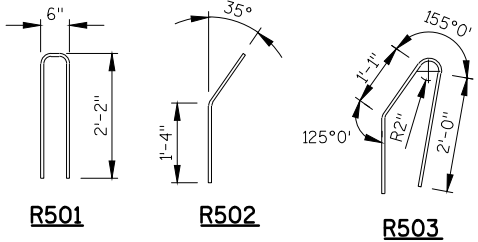


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-0146			
DRAWN BY		PTB	PLANS CK'D. RBH
WINGWALL DETAILS			SHEET 3 OF 4

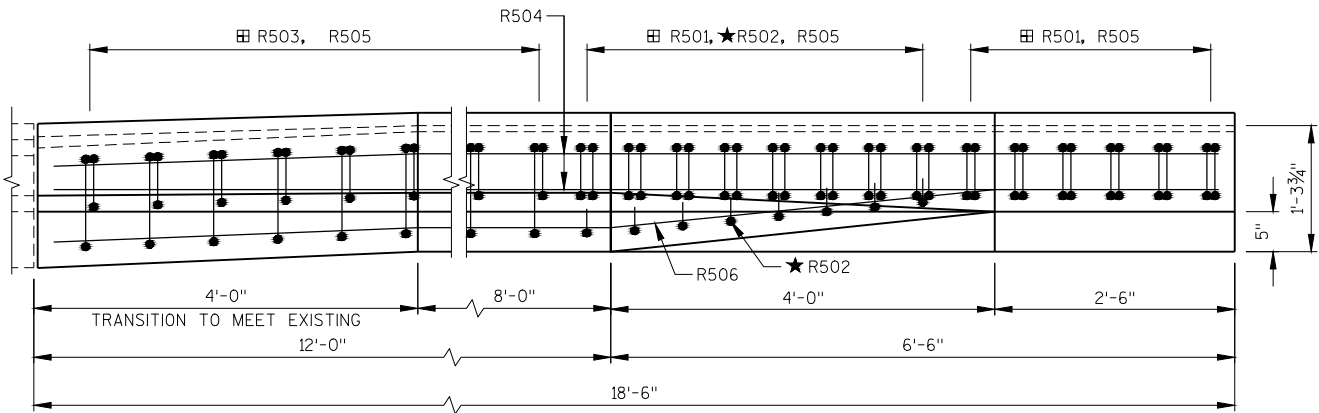
BILL OF BARS
FOUR PARAPETS 1.670 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
R501	56	4'-7"	X	X	PARAPETS - VERT.
R502	32	2'-4"	X	X	PARAPETS - VERT.
R503	68	4'-7"	X	X	PARAPETS - VERT.
R504	16	18'-2"		X	PARAPETS - HORIZ.
R505	124	4'-10"	X	X	PARAPETS - VERT.
R506	4	18'-2"	X	X	PARAPETS - HORIZ.

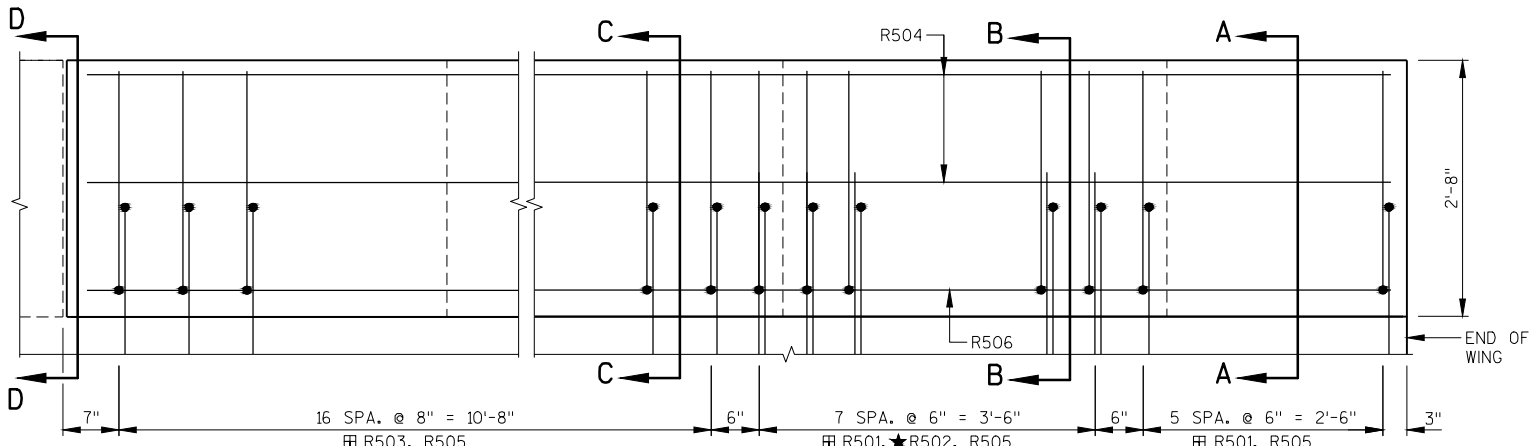
NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



INSIDE ELEVATION



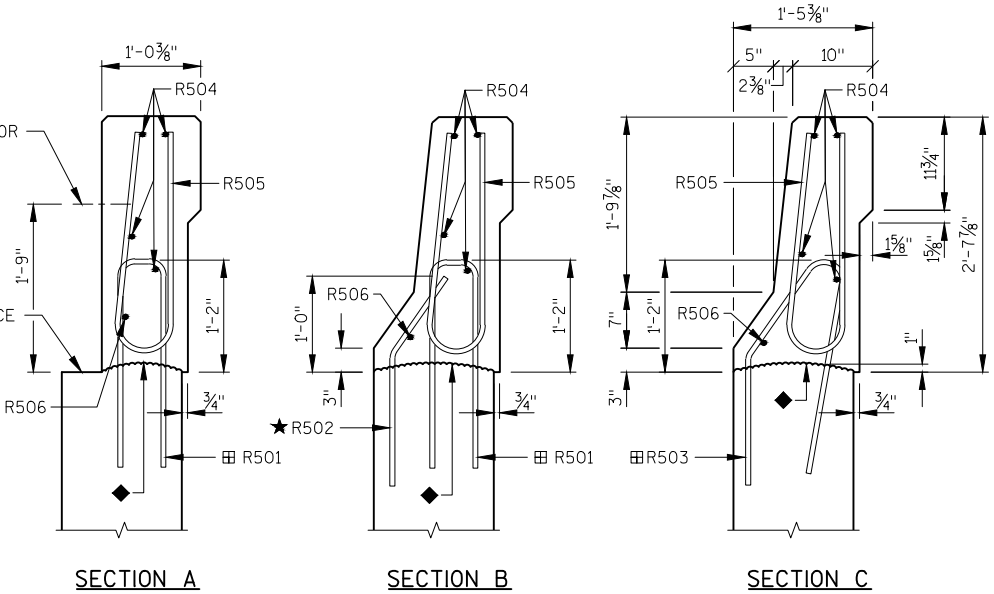
PLAN



STEEL LAYOUT

C/L OF ANCHOR ASSEMBLY

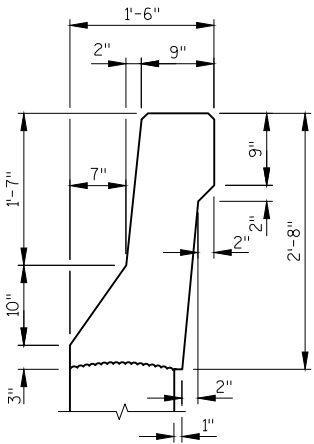
FINISH SURFACE NOT COVERED BY PARAPET



SECTION A

SECTION B

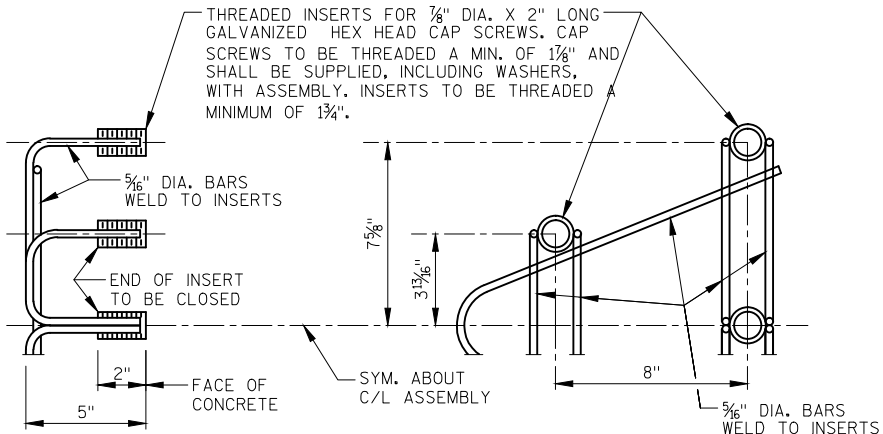
SECTION C



SECTION D
TO MATCH EXISTING

LEGEND

- ◆ CONSTRUCTION JOINT. STRIKE OFF AS SHOWN.
- ▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINUOUS JOINT SEALER (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).
- ★ R502 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R502 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- ⊞ R501 AND R503 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS AND WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232, CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD".

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-0146			
DRAWN BY		RBH	PTB
PLANS CK'D.			
PARAPET DETAILS			SHEET 4 OF 4

DESIGN DATA

LIVE LOAD:

DESIGN LOADING _____ HS20
INVENTORY RATING _____ HS23
OPERATING RATING _____ HS42
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____ 250 KIPS

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY _____ $f'_c = 3,500$ P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 _____ $f_y = 60,000$ P.S.I.

TRAFFIC DATA

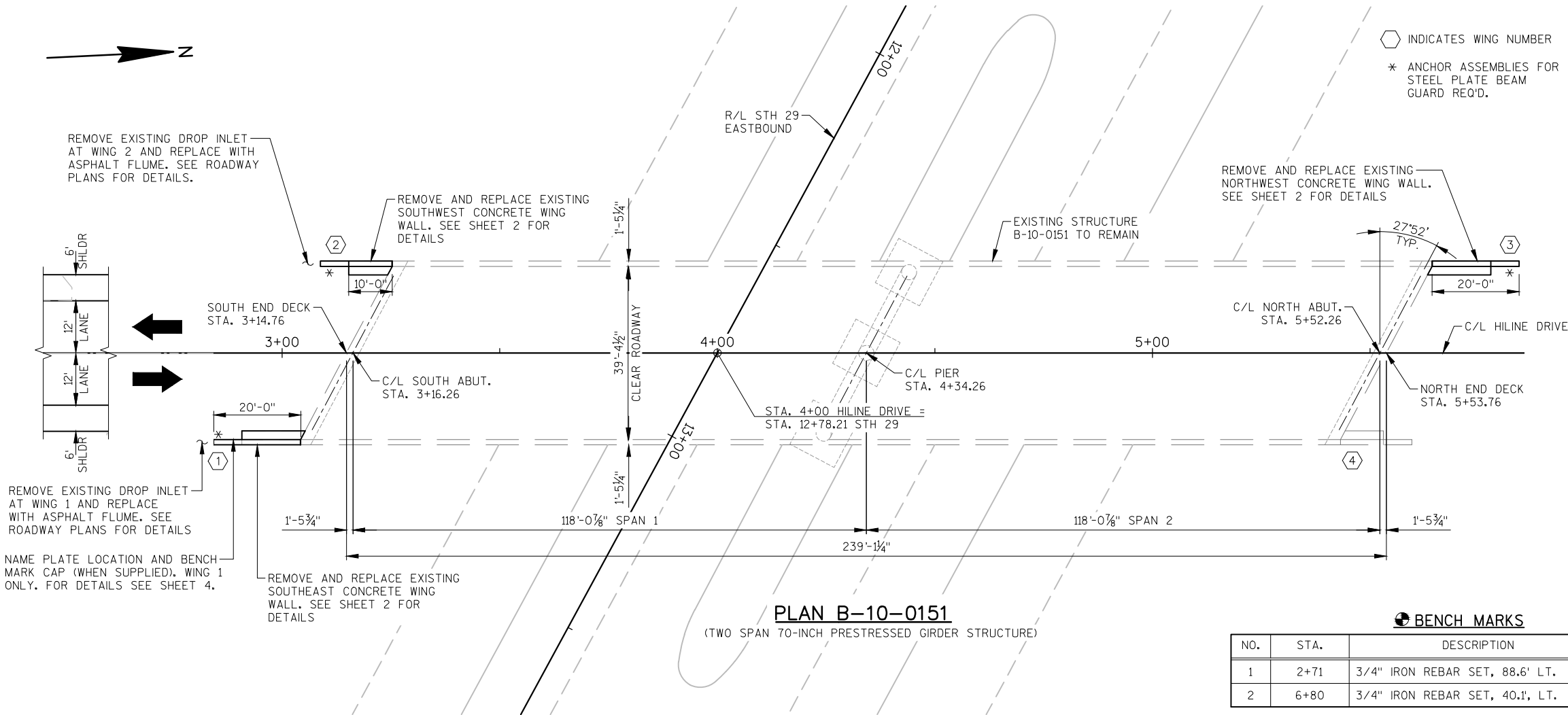
HILINE DRIVE
A.D.T. (2016) _____ 1770
A.D.T. (2036) _____ 2630
DESIGN SPEED _____ 50 M.P.H.
STH 29
A.D.T. (2016) _____ 11,630
A.D.T. (2036) _____ 13,670
DESIGN SPEED _____ 70 M.P.H.

LIST OF DRAWINGS

GENERAL PLAN _____ 1.
QUANTITIES AND DETAILS _____ 2.
WINGWALL DETAILS _____ 3.
SLOPED FACE PARAPET TYPE LF DETAILS _____ 4.

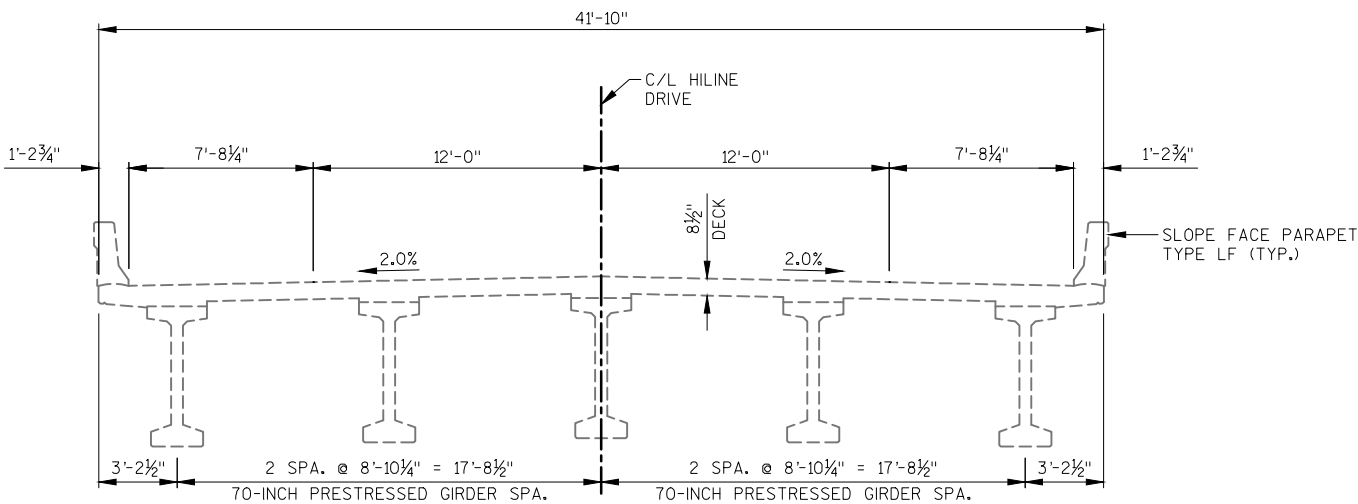
INDICATES WING NUMBER

* ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD REQ'D.



BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	2+71	3/4" IRON REBAR SET, 88.6' LT.	1439.79
2	6+80	3/4" IRON REBAR SET, 40.1' LT.	1443.65



CROSS SECTION THROUGH ROADWAY
(LOOKING NORTH)



DESIGN CONSULTANT
PATRICK BOLAND, PE
(608) 588-7484

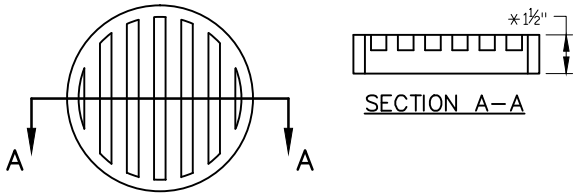
BRIDGE OFFICE CONTACT
WILLIAM DREHER, PE
(608) 266-8489

GENERAL PLAN

SHEET 1 OF 4

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 4+34	LS	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-10-0151	LS	1
210.0100	BACKFILL STRUCTURE	CY	260
502.0100	CONCRETE MASONRY BRIDGES	CY	47
502.3210	PIGMENTED SURFACE SEALER	SY	23
502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	18
502.5015	MASONRY ANCHORS TYPE L NO. 7 BARS	EACH	10
502.5025	MASONRY ANCHORS TYPE L NO. 9 BARS	EACH	20
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	5550
509.1500	CONCRETE SURFACE REPAIR	SF	40
511.1200	TEMPORARY SHORING B-10-0151	SF	880
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	12
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	95
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	3
NON-BID ITEMS			
	PREFORMED JOINT FILLER	SIZE	½"



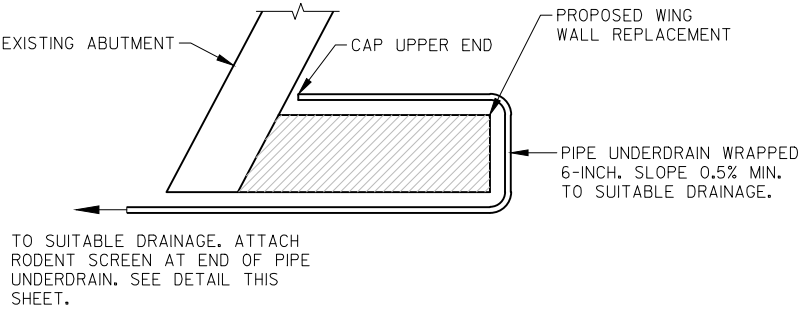
RODENT SCREEN

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

ORIENT SCREEN SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

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



PIPE UNDERDRAIN DETAIL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).

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

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.

AT THE BACK FACE OF WINGS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE WING CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.

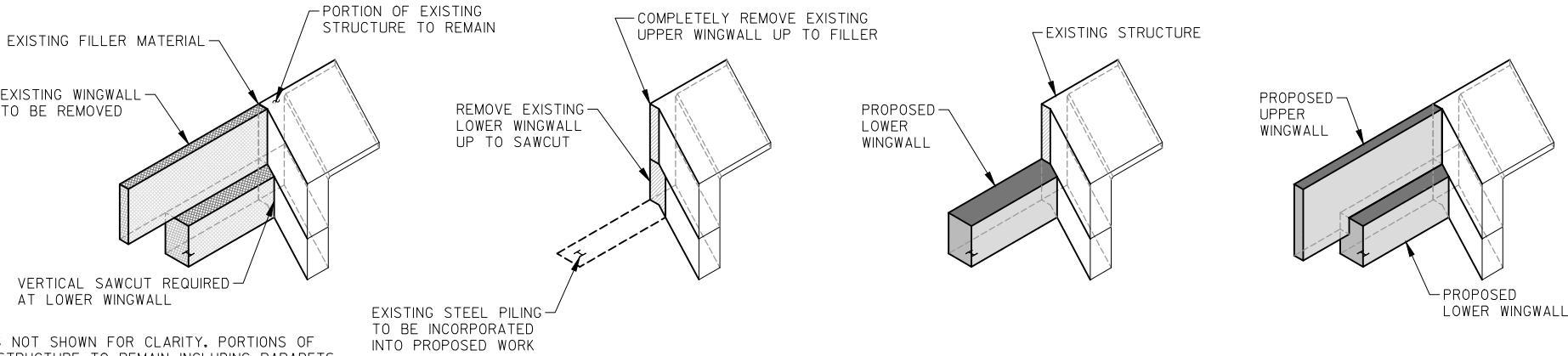
THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS INSPECTION REPORTS AND FIELD SURVEY.

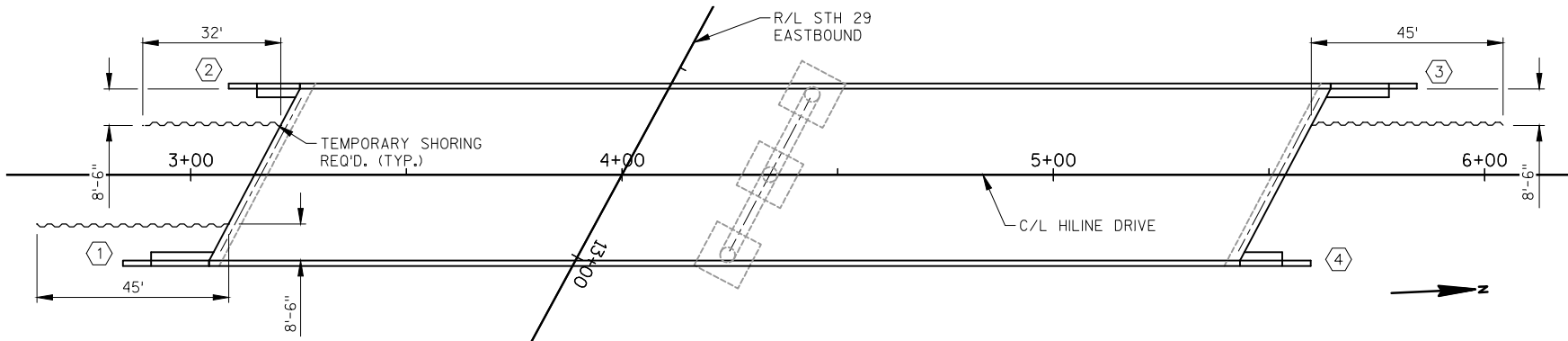
ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

APPLY PIGMENTED SURFACE SEALER TO THE INSIDE FACE AND TOP OF THE PARAPETS AT WINGS 1, 2, AND 3.



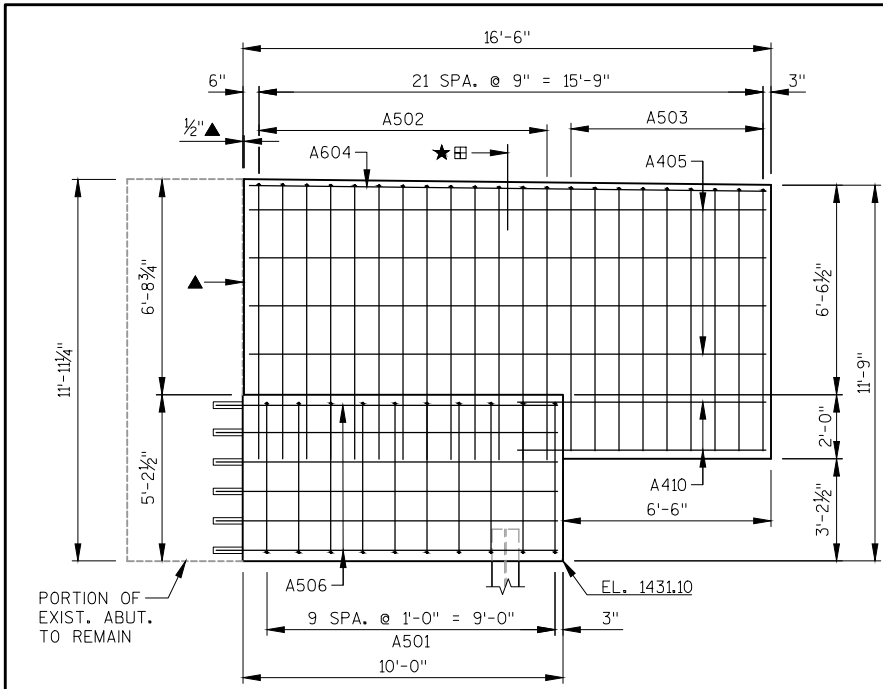
WINGWALL REPLACEMENT OVERVIEW

WING 2 SHOWN - WINGS 1 & 3 SIMILAR

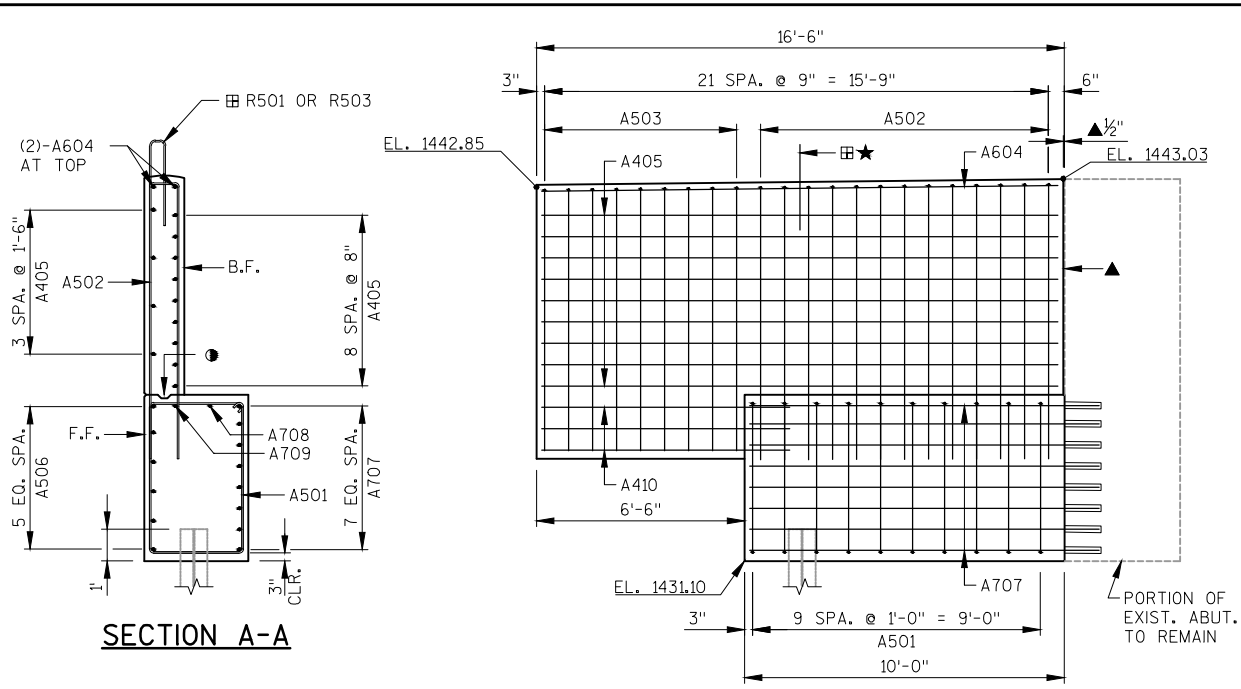


TEMPORARY SHORING LAYOUT DETAIL

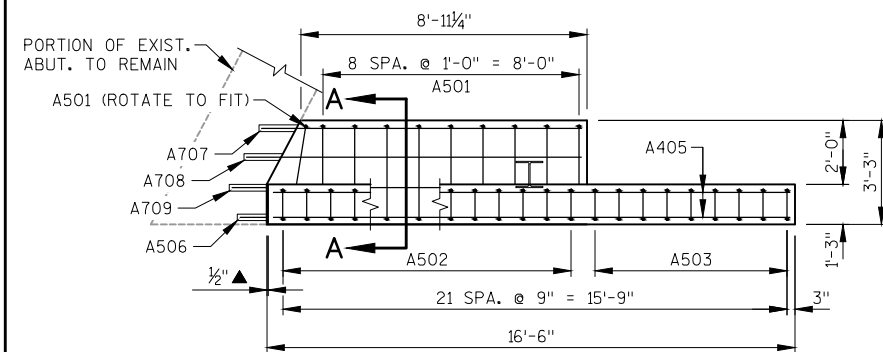
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-0151			
DRAWN BY		PTB	PLANS CK'D. RBH
QUANTITIES AND DETAILS			SHEET 2 OF 4



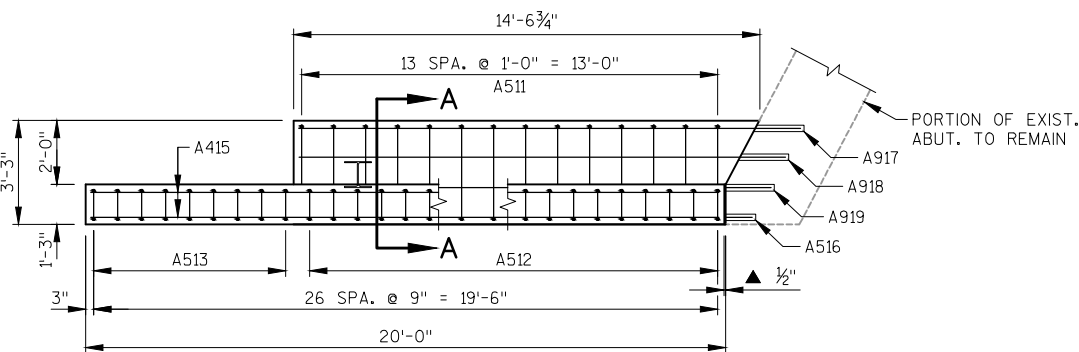
F.F. ELEVATION - WING 2



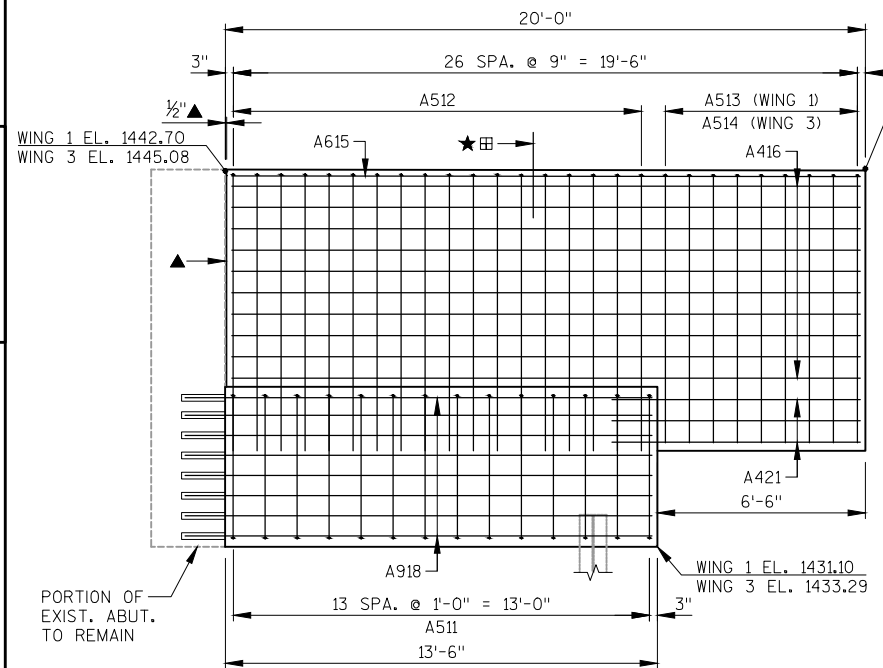
B.F. ELEVATION - WING 2



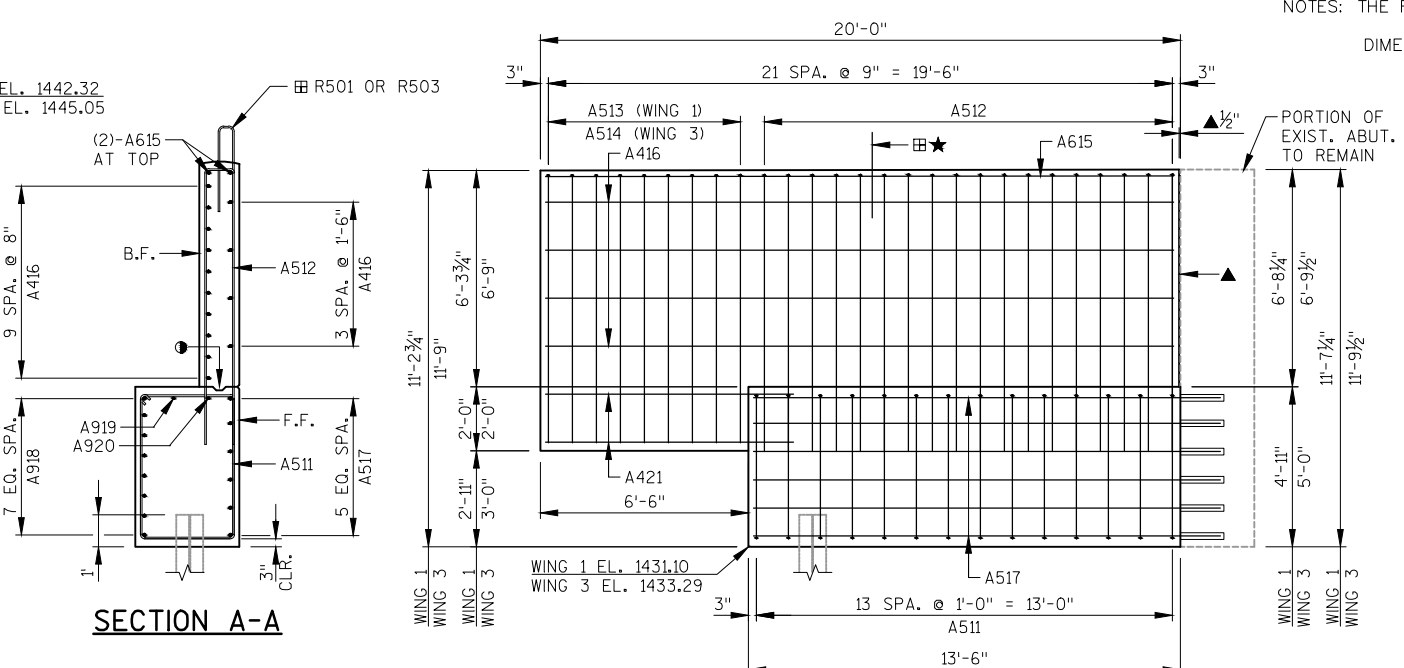
PLAN VIEW - WING 2



PLAN VIEW - WING 1 & 3



B.F. ELEVATION - WING 1 & 3



F.F. ELEVATION - WING 1 & 3

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

LEGEND

- OPTIONAL CONSTRUCTION JOINT. FORM KEYWAY WITH A BEVELED 2X6. PLACE 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE AND 3/4" V" GROOVE AT FRONT FACE IF USED.
- 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER, (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- R502 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R502 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- R501 AND R503 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.
- MASONRY ANCHORS TYPE L REQ'D. (NO. 5 BARS, NO. 7 BARS OR NO. 9 BARS). EMBD NO. 5 ANCHOR 10" (MIN.) INTO EXISTING ABUTMENT, EMBD NO. 7 ANCHOR 1'-1" (MIN.) INTO EXISTING ABUTMENT AND EMBD NO. 9 ANCHOR 1'-5" (MIN.) INTO EXISTING ABUTMENT.

BILL OF BARS

WINGS 1, 2 & 3 4,240 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
A501	10	15-10	X	X	WING 2 - VERT. - STIRRUP
A502	13	17-10	X	X	WING 2 - VERT. - TOP
A503	9	16-10	X	X	WING 2 - VERT. - STIRRUP
A604	2	16-1		X	WING 2 - HORIZ. - TOP
A405	13	16-1		X	WING 2 - HORIZ. - F.F. & B.F.
A506	6	10-8		X	WING 2 - HORIZ. - F.F.
A707	8	10-0		X	WING 2 - HORIZ. - B.F.
A708	1	10-6		X	WING 2 - HORIZ. - CENTER
A709	1	10-11		X	WING 2 - HORIZ. - CENTER
A410	5	7-9		X	WING 2 - HORIZ. - BOTTOM
A511	28	15-4	X	X	WINGS 1 & 3 - VERT. - STIRRUP
A512	36	18-0	X	X	WINGS 1 & 3 - VERT. - TOP
A513	9	16-6	X	X	WING 1 - VERT. - STIRRUP
A514	9	17-4	X	X	WING 3 - VERT. - STIRRUP
A615	4	19-7		X	WINGS 1 & 3 - HORIZ. - TOP
A416	28	19-7		X	WINGS 1 & 3 - HORIZ. - F.F. & B.F.
A517	12	14-2		X	WINGS 1 & 3 - HORIZ. - F.F.
A918	16	15-8		X	WINGS 1 & 3 - HORIZ. - B.F.
A919	2	15-2		X	WINGS 1 & 3 - HORIZ. - CENTER
A920	2	14-9		X	WINGS 1 & 3 - HORIZ. - CENTER
A421	5	7-9		X	WING 2 - HORIZ. - BOTTOM

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	'H'
A502	8-7
A503	8-1
A512	8-8
A513	7-11
A514	8-4

MARK	'H'
A501	4-9
A511	4-6

A501, A511 A502, A503, A512, A513, A514

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-0151			
DRAWN BY		PTB	PLANS CK'D. RBH
WINGWALL DETAILS			SHEET 3 OF 4

