

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
533	(119&105)C&W-1	McHENRY	300	1
		ILLINOIS	CONTRACT NO. 62G35	

FOR INDEX OF SHEETS, SEE SHEET NO. 2



DATE SIGNED: 4/21/2021  
EXP. DATE: 11/30/2022  
SHEET NUMBERS: 198-231

DESIGN DESIGNATION:  
OTHER PRINCIPAL ARTERIAL (IL 176)

2019 ADT = 10,100  
2040 ADT = 13,500  
DESIGN SPEED: 55 MPH  
SPEED LIMIT: 55 MPH /45 MPH



DATE SIGNED: 4/21/2021  
EXP. DATE: 11/30/2021  
SHEETS: 1-98, 141-197, 232-300

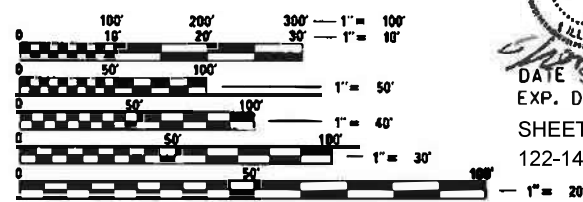
IMPROVEMENT IS LOCATED IN  
THE CITY OF MARENGO AND  
THE TOWNSHIPS OF SENECA,  
MARENGO AND DORR



DATE SIGNED: 4/21/21  
EXP. DATE: 11/30/21  
SHEETS: 99-121



DATE SIGNED: 4/22/21  
EXP. DATE: 11/30/21  
SHEETS: 122-140



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD  
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT  
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS  
ON REDUCED PLANS THE ABOVE SCALES MAY BE USED.

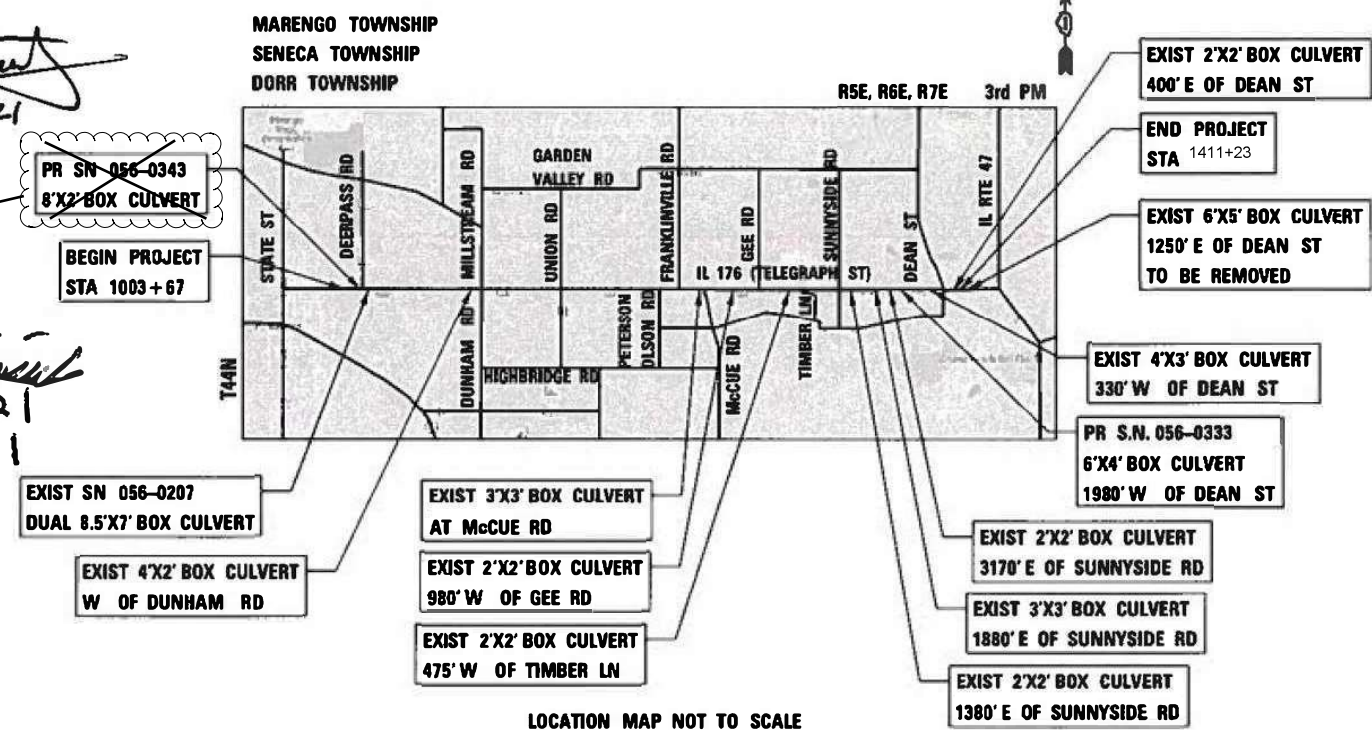
J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS  
1-800-892-0123  
OR 811

PROJECT ENGINEER: MR. SUNG BYUN (847) 705-4288  
PROJECT MANAGER: MS. KIM HARVEY, PE (847) 705-4055

CONTRACT NO. 62G35

PROPOSED  
HIGHWAY PLANS  
FAP ROUTE 533: IL 176 (TELEGRAPH ST)  
FROM DEERPASS RD TO DEAN ST  
SECTION (119&105)C&W-1  
PROJECT: HSIP-NHPP-K95F(793)  
SHOULDER WIDENING, CULVERT REPLACEMENTS  
AND/OR REPAIRS, ADDITION OF TURN LANES &  
RESURFACING  
McHENRY COUNTY

C-91-194-18



LOCATION MAP NOT TO SCALE  
GROSS LENGTH = 40,481 FT = 7.74 MILE  
NET LENGTH = 35,346 FT = 6.69 MILE



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
SUBMITTED: May 25, 2021  
John Bin / CAB REGIONAL ENGINEER  
August 13, 2021  
Scott A. Elk ENGINEER OF DESIGN AND ENVIRONMENT  
August 13, 2021  
Gemma J. Director of Highways Project Implementation

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OF THE STATE OF ILLINOIS

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**STATE HIGHWAY STANDARDS**

STANDARD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
406201-01	MAILBOX TURNOUT
482011-03	HMA SHLD. STRIPS/SHLDS. WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
515001-04	NAME PLATE FOR BRIDGES
542001-06	CONCRETE END SECTIONS FOR PIPE CULVERTS 15" THRU 84" DIA.
542201-02	REINFORCED CONCRETE END SECTIONS FOR PIPE CULVERTS 15" THRU 36" DIA. SKEWED
542311-07	TRAVERSABLE PIPE GRATE
601001-05	PIPE UNDERDRAINS
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
602402-03	PRECAST MANHOLE TYPE A 5' DIAMETER
602601-06	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
602701-02	MANHOLE STEPS
604001-05	FRAME AND LIDS TYPE 1
606001-07	CONCRETE CURB TYPE B AND COMBINATION CURB AND GUTTER
630001-12	STEEL PLATE BEAM GUARDRAIL
630106-02	LONG-SPAN GUARDRAIL OVER CULVERT
630201-07	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-10	TRAFFIC BARRIER TERMINAL, TYPE 2
642006-01	SHOULDER RUMBLE STRIPS, 8 IN.
701001-02	OFF-RD MOVING OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF ROAD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-04	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701331-05	LANE CLOSURE, 2L, 2W, WITH RUN-AROUND, FOR SPEEDS ≥ 45 MPH
701336-07	LANE CLOSURE, 2L,2W, WORK AREAS IN SERIES, FOR SPEEDS ≥ 45 MPH
701502-06	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
725001-01	OBJECT AND TERMINAL MARKERS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS



542306-03 PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION

**COMMITMENTS**

1. TO PROTECT SUMMER ROOSTING AND MATERNITY HABITAT OF THE NORTHERN LONG EARED BAT, NO TREES SHALL BE CUT BETWEEN APRIL 1 THROUGH OCTOBER 14 OF ANY YEAR.
2. THIS PROJECT HAS POTENTIAL DIRECT WATER CONNECTIVITY IN MULTIPLE LOCATIONS TO THE KISHWAUKEE RIVER AND KISHWAUKEE RIVER INAI SITE. STRICT ADHERENCE TO BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENTATION CONTROL SHOULD BE USED TO MINIMIZE THE POSSIBILITY OF ANY ADVERSE IMPACTS TO THE KISHWAUKEE RIVER INAI SITE, THE KISHWAUKEE RIVER, AND LISTED SPECIES IN THE KISHWAUKEE RIVER.

MODEL: Default  
FILE: M:\cadd\Engineering\LiveProjects\13045\_IDOT\_IL\_176(CADD)\CADD\_Sheets\CADD\16G335.sht:Index Hwy Stds.dgn



USER NAME = dmoortge	DESIGNED - LRC	REVISED - JMT 08/31/2021
PLOT SCALE = 2.0000' / in.	CHECKED - LRC	REVISED -
PLOT DATE = 6/22/2021	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, STATE HIGHWAY STANDARDS, AND COMMITMENTS  
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

SCALE: SHEET OF SHEETS STA. TO STA.

1 REVISED SHEET 9/7/2021		REV-SEP
F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY MCHENRY
TOTAL SHEETS 300	SHEET NO. 2	CONTRACT NO. 62G35
ILLINOIS FED. AID PROJECT		

MODEL\_S00\_1  
FILE NAME: G:\Engineering\Iuv\Projects\13045\_IDOT\_IL\_176\CAD\CADD\_Sheets\CADD\_62G35-SR-S00.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				HSIP	NHPP	
				90% FED / 10% STATE	80% FED / 20% STATE	
				ROADWAY	MINOR STRUCTURES	ROADWAY
				0004	0004	0004
				URBAL	S.N. 056-0333	URBAL
				URBAN		
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	411	388	16	7
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	458	245	38	175
20100500	TREE REMOVAL, ACRES	ACRE	0.25			0.25
20101000	TEMPORARY FENCE	FOOT	3500	3200	150	150
20101200	TREE ROOT PRUNING	EACH	27	25	2	
20200100	EARTH EXCAVATION	CU YD	19090	9400	830	8860
20200500	EARTH EXCAVATION (WIDENING)	CU YD	89	74		15
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	2380	1493	78	809
20700220	POROUS GRANULAR EMBANKMENT	CU YD	134	73	61	
20800150	TRENCH BACKFILL	CU YD	590	221.6	176.1	192.3
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	7132	4385	233	2514
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	8410	4775	170	3465
21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	10050	2925	1086	6039
25000210	SEEDING, CLASS 2A	ACRE	11.75	6.37	0.5	4.88
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	1046	562	49	435

\* SPECIALTY ITEM

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				HSIP	NHPP	
				90% FED / 10% STATE	80% FED / 20% STATE	
				ROADWAY	MINOR STRUCTURES	ROADWAY
				0004	0004	0004
				URBAL	S.N. 056-0333	URBAL
				URBAN		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	1046	562	49	435
25100115	MULCH, METHOD 2	ACRE	1	1		
25100127	MULCH, METHOD 3A	ACRE	0.75		0.5	0.25
25100630	EROSION CONTROL BLANKET	SQ YD	56256	30222	2607	23427
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	1120	557	195	368
25100900	TURF REINFORCEMENT MAT	SQ YD	606	67	139	400
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	11356	7000	562	3794
28000305	TEMPORARY DITCH CHECKS	FOOT	940	460		480
28000400	PERIMETER EROSION BARRIER	FOOT	25335	13278	1274	10783
28000500	INLET AND PIPE PROTECTION	EACH	62	43	1	18
28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	48289	28809	1708	17772
28100105	STONE RIPRAP, CLASS A3	SQ YD	56	50		6
28100107	STONE RIPRAP, CLASS A4	SQ YD	149	112	37	
28200200	FILTER FABRIC	SQ YD	174	112	37	25

\* SPECIALTY ITEM



USER NAME - jschumann	DESIGNED - LRC	REVISED -
PLOT SCALE = 2.0000' / in.	CHECKED - JMT	REVISED -
PLOT DATE = 6/23/2021	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SUMMARY OF QUANTITIES</b>	
<b>IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)</b>	
SCALE:	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY MCHENRY	TOTAL SHEETS 300	SHEET NO. 4
CONTRACT NO. 62G35			ILLINOIS FED. AID PROJECT	

REVISED SHEET 9/2/2021

REV-SEP

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				HSIP	NHPP	
				90% FED / 10% STATE	80% FED / 20% STATE	
				ROADWAY	MINOR STRUCTURES	ROADWAY
0004	0004	0004				
URBAL	S.N. 056-0333	URBAL				
				URBAN		
50300225	CONCRETE STRUCTURES	CU YD	23.5	21.5		2
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	15410	7290	7660	460
50800515	BAR SPLICERS	EACH	42		42	
51500100	NAME PLATES	EACH	1		1	
52200010	TEMPORARY SHEET PILING	SQ FT	217	217		
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	1357	965	392	
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2	2		
54002020	EXPANSION BOLTS 3/4 INCH	EACH	80	80		
54003000	CONCRETE BOX CULVERTS	CU YD	109.3	35.7	36.8	36.8
54214725	PRECAST REINFORCED CONCRETE FLARED END SECTIONS ELLIPTICAL, EQUIVALENT ROUND - SIZE 30"	EACH	8	8		
54010002	PRECAST CONCRETE BOX CULVERTS 8' X 2'	FOOT	54	54		
542A0223	PIPE CULVERTS, CLASS A, TYPE 1 18"	FOOT	64			64
542A5485	PIPE CULVERTS, CLASS A, TYPE 1, EQUIVALENT ROUND-SIZE 30"	FOOT	240	240		
542A0229	PIPE CULVERTS, CLASS A, TYPE 1 24"	FOOT	138			138
542C0220	PIPE CULVERTS, CLASS C, TYPE 1 15"	FOOT	750	614		136
542C0229	PIPE CULVERTS, CLASS C, TYPE 1 24"	FOOT	69	69		
5421C015	PIPE CULVERTS, CLASS C, TYPE 1 15" (TEMPORARY)	FOOT	60			60

\* SPECIALTY ITEM

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				HSIP	NHPP	
				90% FED / 10% STATE	80% FED / 20% STATE	
				ROADWAY	MINOR STRUCTURES	ROADWAY
0004	0004	0004				
URBAL	S.N. 056-0333	URBAL				
				URBAN		
5421C024	PIPE CULVERTS, CLASS C, TYPE 1 24" (TEMPORARY)	FOOT	227	92	72	63
54213450	END SECTIONS 15"	EACH	54	42		12
54213459	END SECTIONS 24"	EACH	6	2		4
*54261418	CONCRETE END SECTION, STANDARD 542001, 18", 1:4	EACH	2			2
550A0360	STORM SEWERS, CLASS A, TYPE 2 15"	FOOT	189			189
58700300	CONCRETE SEALER	SQ FT	781	386	185	210
59000200	EPOXY CRACK INJECTION	FOOT	16	9		7
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	60		60	
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	69	44	6	19
60108100	PIPE UNDERDRAINS 4" (SPECIAL)	FOOT	335	199	57	79
60108204	PIPE UNDERDRAINS, TYPE 2, 4"	FOOT	19478	12537	864	6077
60221000	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	1			1
60600095	CLASS SI CONCRETE (OUTLET)	CU YD	11.7			11.7

\* SPECIALTY ITEM

MODEL: S00\_3  
FILE: \\mtrc\g\Engineering\Live\Projects\13045\_IDOT\_IL\_176\CAD\CADD\_Sheets\CADD\62G35-SH-S00.dgn



USER NAME = jschumann	DESIGNED - LRC	REVISED -
PLOT SCALE = 2.0000' / in.	DRAWN - JN	REVISED -
PLOT DATE = 6/23/2021	CHECKED - JMT	REVISED -
	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY MCHENRY	TOTAL SHEETS 300	SHEET NO. 6
CONTRACT NO. 62G35			ILLINOIS FED. AID PROJECT	

REVISED SHEET 9/3/2021 REV-SEP



CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HSIP 90% FED / 10% STATE		NHPP 80% FED / 20% STATE	
				ROADWAY	MINOR STRUCTURES	ROADWAY	
				0004	0004	0004	
				URBAL	S.N. 056-0333	URBAL	
				URBAN			
60609200	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.12	FOOT	1366			1366	
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	1642	1146.5	275	220.5	
* 63000030	STRONG POST GUARDRAIL ATTACHED TO CULVERT	FOOT	100	50	25	25	
<del>63000350</del>	<del>LONG SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN</del>	<del>FOOT</del>	<del>75</del>	<del>75</del>			
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1			
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	45	33	4	8	
63200310	GUARDRAIL REMOVAL	FOOT	2435	1545	305	585	
64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	79298	75990	1678	1630	
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	5025	2931	419	1675	
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	10	6	1	3	
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	0.9	0.05	0.05	
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	0.9	0.05	0.05	
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	40	24	1	15	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	24	23		1	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HSIP 90% FED / 10% STATE		NHPP 80% FED / 20% STATE	
				ROADWAY	MINOR STRUCTURES	ROADWAY	
				0004	0004	0004	
				URBAL	S.N. 056-0333	URBAL	
				URBAN			
67100100	MOBILIZATION	L SUM	1	0.95	0.025	0.025	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	150	96	15	39	
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	56	53	3		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	28585	21136	1042	6407	
* 70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	9528	7045	347	2136	
* 70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	127191	71600	6022	49569	
* 70300906	PAVEMENT MARKING TAPE, TYPE IV 6"	FOOT	194	194			
* 70300924	PAVEMENT MARKING TAPE, TYPE IV 24"	FOOT	364	264		100	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	14237.5	8100.0	1225.0	4912.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1500	1150	175	175	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	36	23	5	8	
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	53	34	5	14	
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	7	2	2	3	
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	7	7			

\* SPECIALTY ITEM

\* SPECIALTY ITEM



USER NAME = jschumann	DESIGNED - LRC	REVISED -
DRAWN - JN	REVISIONS -	
PLOT SCALE = 2.0000' / in.	CHECKED - JMT	REVISED -
PLOT DATE = 6/23/2021	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)			
SCALE:	SHEET	OF	SHEETS
	STA.		TO STA.

REVISED SHEET 9/3/2021		REV-SEP
F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY MCHENRY
TOTAL SHEETS 300	SHEET NO. 7	CONTRACT NO. 62G35
[ILLINOIS] FED. AID PROJECT		

MODEL S00\_4  
FILE Name: G:\Engineering\Iuv\Projects\13045\_IDOT\_IL\_176(C&W)C&W\_Sheets\Civil\162632-Sht-S00.dwg

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				HSIP	NHPP	
				90% FED / 10% STATE	80% FED / 20% STATE	
				ROADWAY	MINOR STRUCTURES	ROADWAY
0004	0004	0004				
URBAL	S.N. 056-0333	URBAL	URBAN			
X0327301	RELOCATE EXISTING MAILBOX	EACH	20	14		6
X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	60		60	△
X0900075	COFFERDAM (TYPE 1) (IN-STREAM/WETLAND WORK)	EACH	13	11	1	1
X1700065	CLASS D PATCHES, TYPE IV, 10 INCH (SPECIAL)	SQ YD	876	448	141	287
X1700071	CLASS D PATCHES, TYPE II, 10 INCH (SPECIAL)	SQ YD	755	448	47	260
* X2502014	SEEDING, CLASS 4A (MODIFIED)	ACRE	0.5	0.38	0.04	0.08
* X2502024	SEEDING, CLASS 4B (MODIFIED)	ACRE	0.5	0.38	0.04	0.08
X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	36	26	1	9
X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	1	1		
X4024000	TEMPORARY ACCESS (FIELD ENTRANCE)	EACH	2	1		1
X6028050	TEMPORARY MANHOLE	EACH	1	1		
* X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	198	168.5		29.5
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	0.9	0.05	0.05
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	35075	31234	2007	1834

\* SPECIALTY ITEM

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				HSIP	NHPP	
				90% FED / 10% STATE	80% FED / 20% STATE	
				ROADWAY	MINOR STRUCTURES	ROADWAY
0004	0004	0004				
URBAL	S.N. 056-0333	URBAL	URBAN			
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	2943	1974	273	696
X7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	158	122	11	25
□ Z0005300	BOX CULVERTS TO BE CLEANED	EACH	5	2		3
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	33			33
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	10			10
Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	2180	1162	291	727
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	0.9	0.05	0.05
Z0015500	DEBRIS REMOVAL	L SUM	1	0.66		0.34
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	927.2	760.5	51.4	115.3
Z0033700	LONGITUDINAL JOINT SEALANT	FOOT	21875	13471	480	7924
Z0062456	TEMPORARY PAVEMENT	SQ YD	4452	1528	1412	1512
Z0064800	SELECTIVE CLEARING	UNIT	8	5		3
Z0073400	TEMPORARY SUPPORT SYSTEM	EACH	2	2		
∅ Z0076600	TRAINEES	HOURS	1500	1500		
∅ Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOURS	1500	1500		
X4421761	CLASS D PATCHES, TYPE I, 10 INCH (SPECIAL)	SQ YD	732	448	33	251
X4421767	CLASS D PATCHES, TYPE III, 10 INCH (SPECIAL)	SQ YD	732	448	33	251

\* SPECIALTY ITEM

MODEL: S00\_6  
FILE: \\miller-g-engineering\lives\projects\13045\_IDOT\_IL\_176CAD\DCADD\_Sheets\Civil\62G35-shr-S00.dgn



USER NAME = jschumann	DESIGNED - LRC	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 2.0000' / in.	CHECKED - JMT	REVISED -
PLOT DATE = 6/23/2021	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY MCHENRY	TOTAL SHEETS 300	SHEET NO. 9
CONTRACT NO. 62G35			REV-SEP	

△ REVISED SHEET 9/3/2021

□ NON-PART 100% STATE

∅ 0042

ILLINOIS FED. AID PROJECT

STATION						GUARDRAIL SCHEDULE				
STATION	STATION	OFFSET	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS (FOOT)	TRAFFIC BARRIER TERMINAL, TYPE 2	STRONG POST GUARDRAIL ATTACHED TO CULVERT	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) 6' POSTS	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	TERMINAL MARKER - DIRECT APPLIED (EACH)	GUARDRAIL REFLECTORS, TYPE B (EACH)	
1009+75		LT						1	1	
1009+87	201+62.7	LT	100		25.00	57		1	4	
201+76		LT						1		
201+41		RT						1		
200+91	1010+77	RT/LT	25		25.00	58		1	4	
1010+90		LT						1		
1008+94		RT						1		
1009+44	1009+56	RT	12.5					1	4	
1009+67		RT		1				1		
1087+89		LT						1		
1087+77	300+48	LT				12.5		1	4	
300+61		LT						1		
1087+37		RT				41		1		
1087+97	299+47	RT/LT	59					1	4	
299+09		RT						1		
1236+07		RT						1		
1236+57	599+64	RT	71.5		12.5	16		1	4	
599+14		LT						1		
598+97		RT						1		
599+47	1238+26	RT	49		12.5	13.5		1	4	
1238+76		RT						1		
1263+63		RT						1		
1263+75	1264+00	RT	25					1	4	
1264+50		RT						1		
1263+36		LT						1		
1236+86	1264+73	LT	87.5					1	4	
1265+23		LT						1		
1296+95		LT						1		
1297+45	1297+58	LT	12.5					1	4	
1298+08		LT						1		
1296+83		RT						1		
1297+33	1297+45	RT	12.5					1	4	
1297+95		RT						1		
1332+31		LT						1		
1332+81	1333+31	LT	50					1	4	
1333+81		LT						1		
1331+94		RT						1		
1332+44	1332+94	RT	50					1	4	
1333+44		LT						1		
1344+57		LT						1		
1345+08	1345+83	LT	75					1	4	
1346+33		LT						1		
1343+97		RT						1		
1344+47	1345+47	RT	100					1	4	
1345+97		RT						1		
1356+99		LT						1		
1357+49	1358+49	LT	100					1	4	
1358+99		LT						1		
1358+25		RT						1		
1358+75	1359+00	RT	25					1	4	
1359+50		RT						1		
1375+77	1377+27	LT	137.5		12.5			1	4	
1375+27		LT						1		
1377+77		LT						1		
1374+54		RT						1		
1375+04	1376+54	RT	137.5		12.5			1	4	
1377+04		RT						1		
1391+54		LT						1		
1392+04	1393+67	LT	162.5					1	4	
1394+17		LT						1		
1390+92		RT						1		
1391+42	1393+92	RT	150					1	4	
1393+42		RT						1		
1398+30		RT						1		
1398+80	1399+67	RT	87.5					1	4	
1400+17		RT						1		
1399+36		LT						1		
1399+86	1400+98	LT	112.5					1	4	
1401+48		LT						1		
<b>TOTAL</b>			<b>1642.00</b>	<b>0.00</b>	<b>1.00</b>	<b>100.00</b>	<b>198.00</b>	<b>45.00</b>	<b>45.00</b>	<b>92.00</b>

MODEL: Sched 3  
 FILE: \\mwr\c:\engineering\live\projects\13045\DOT IL 176\CADD\CADD\_Sheets\CADD\162G35-shs-Sched.dgn



USER NAME = jent	DESIGNED - LRC	REVISED - JMT 08/31/2021
PLOT SCALE = 2,000' / in.	DRAWN - IH	REVISED -
PLOT DATE = 9/1/2021	CHECKED - TGM	REVISED -
	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>SCHEDULES OF QUANTITIES - III</b> <b>IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)</b>			
SCALE:	SHEET	OF	SHEETS
	STA.	TO	STA.

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY MCHENRY	TOTAL SHEETS 300	SHEET NO. 16
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62G35	

REVISED SHEET 9/7/2021

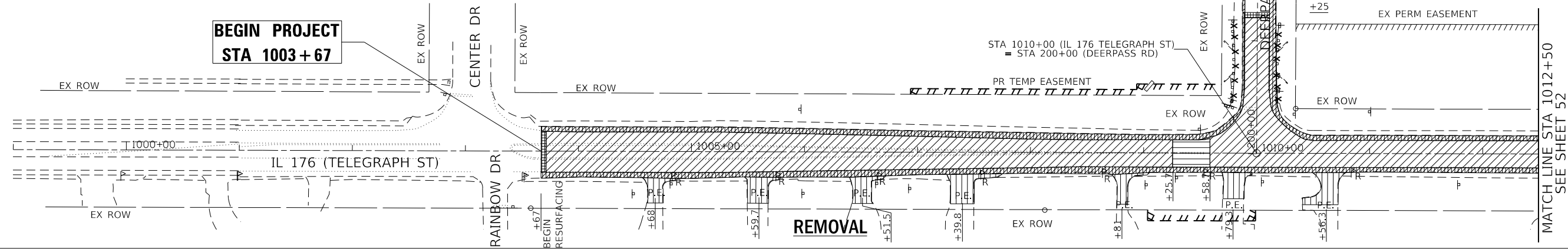
**LEGEND:**

- HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING, 2 1/2")
- HMA SURFACE REMOVAL-BUTT JOINT (4.5')
- PAVED SHOULDER REMOVAL
- TREE ROOT PRUNING
- RELOCATE EXISTING MAILBOX
- TREE REMOVAL, ACRES
- COMBINATION CURB AND GUTTER REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCH
- GUARDRAIL REMOVAL
- TREE REMOVAL

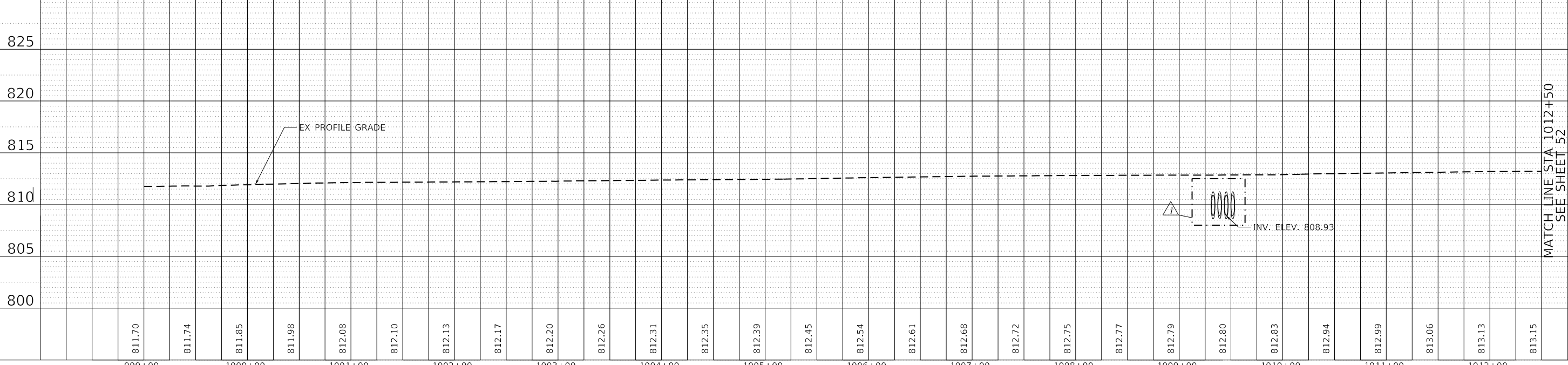
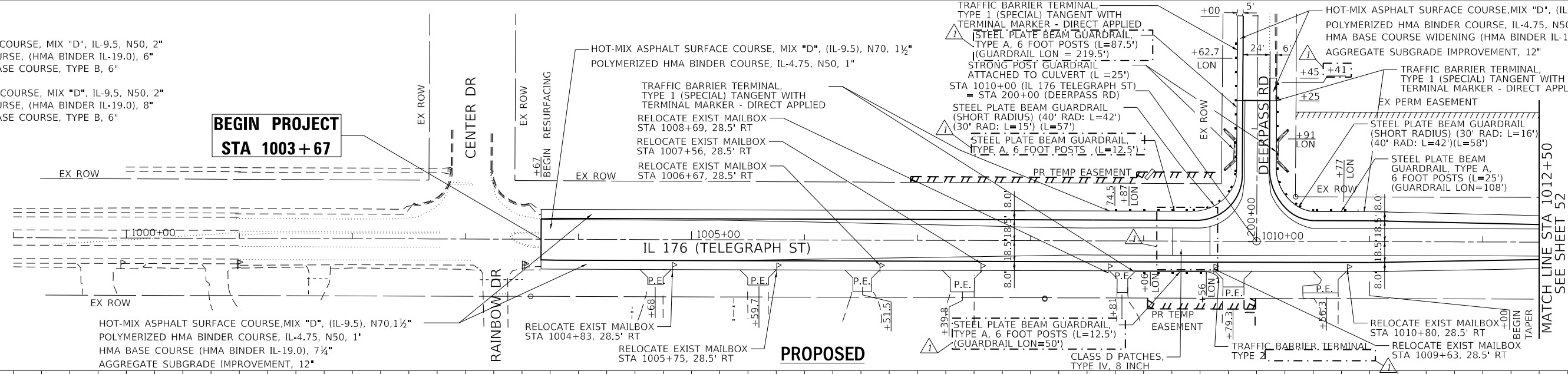
**NOTES:**

1. SEE DRAINAGE PLANS FOR DRAINAGE REMOVAL ITEMS.
2. SEE PAVEMENT MARKING AND SIGNING PLANS FOR SIGN REMOVAL ITEMS.
3. FOR DRIVEWAY DETAILS SEE DISTRICT 1 STANDARDS BD-01 AND BD-02.

PLAN	SURVEYED	BY	DATE
	NOTED		
	CHECKED		
	RT. OF WAY CHECKED		
	CADD FILE NAME		



PROFILE	SURVEYED	BY	DATE
	NOTED		
	CHECKED		
	B.M. NOTED		
	STRUCTURE NOTATIONS CHK'D		



811.70	811.74	811.85	811.98	812.08	812.10	812.13	812.17	812.20	812.26	812.31	812.35	812.39	812.45	812.54	812.61	812.68	812.72	812.75	812.77	812.79	812.80	812.83	812.94	812.99	813.06	813.13	813.15
999+00	1000+00	1001+00	1002+00	1003+00	1004+00	1005+00	1006+00	1007+00	1008+00	1009+00	1010+00	1011+00	1012+00														

	USER NAME = jent	DESIGNED - IH	REVISED - JMT 08/31/2021	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>REMOVAL AND PROPOSED PLAN AND PROFILE - I</b> <b>IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)</b>	F.A.P. RTE. 533	SECTION (119&105)CGW-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 51	
	PLOT SCALE = 100.0000' / in.	CHECKED - JMT	REVISIED -			SCALE: 1"=50'	SHEET 1 OF 19 SHEETS	STA. 1003+67 TO STA. 1012+50	ILLINOIS FED. AID PROJECT		CONTRACT NO. 62G35
PLOT DATE = 9/1/2021	DATE - 06-17-2021	REVISIED -									



**LEGEND:**

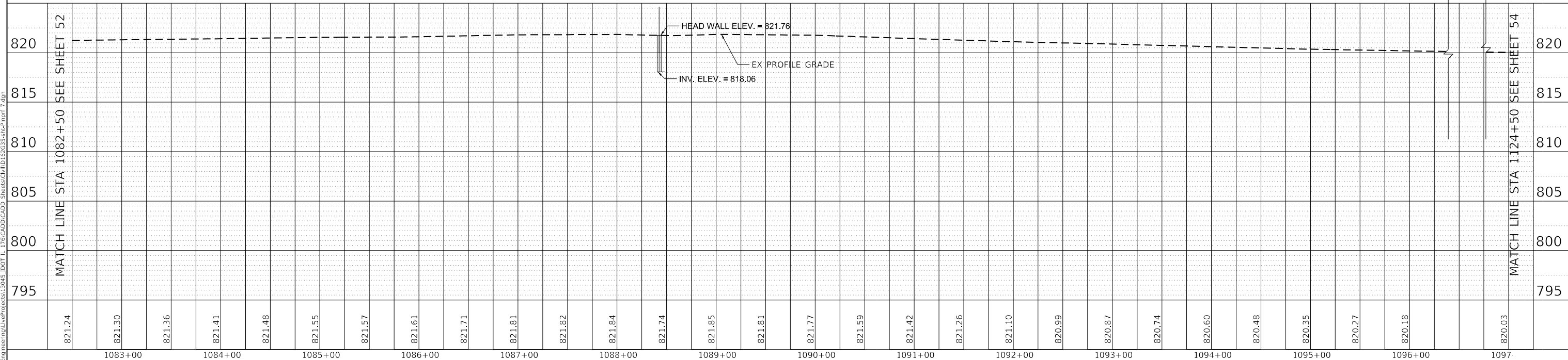
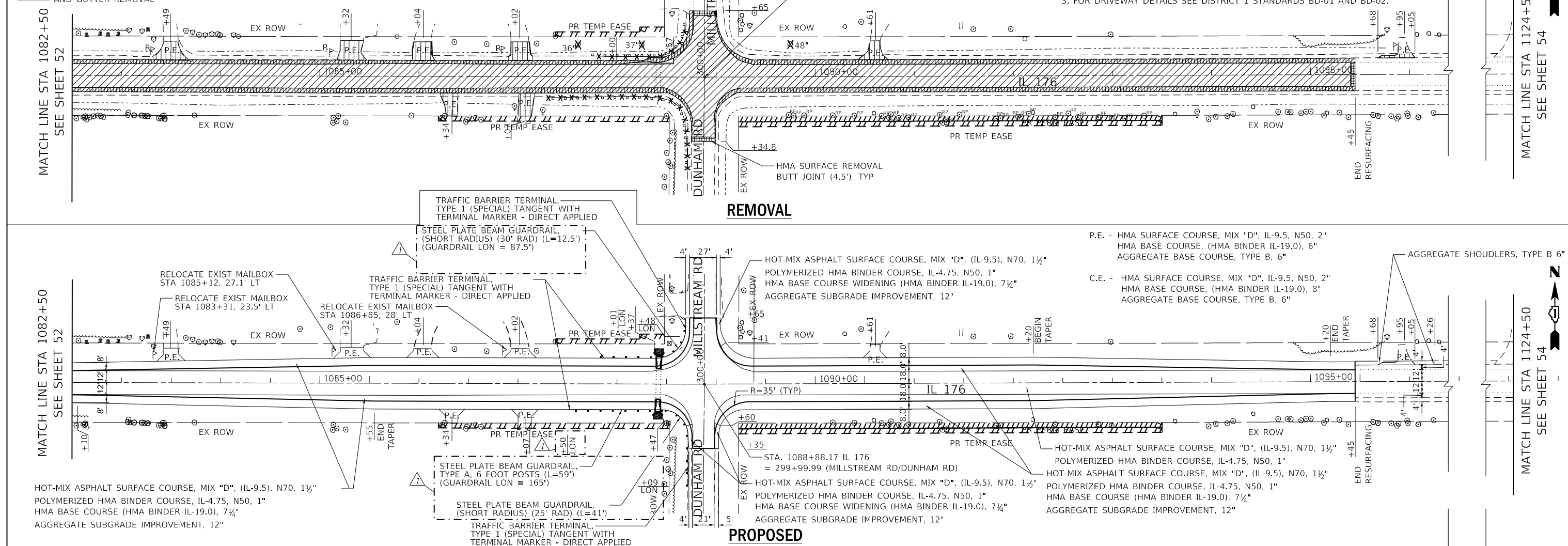
- HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING, 2 1/2")
- HMA SURFACE REMOVAL BUTT JOINT (4.5')
- PAVED SHOULDER REMOVAL
- TREE ROOT PRUNING
- RELOCATE EXISTING MAILBOX
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCH
- GUARDRAIL REMOVAL
- HOT-MIX ASPHALT SURFACE COURSE, MIX "D", (IL-9.5), N70, 1 1/2"
- POLYMERIZED HMA BINDER COURSE, IL-4.75, N50, 1"
- HMA BASE COURSE WIDENING (HMA BINDER IL-19.0), 7 1/4"
- AGGREGATE SUBGRADE IMPROVEMENT, 12"
- TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT WITH TERMINAL MARKER - DIRECT APPLIED
- STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS (L=59')
- STEEL PLATE BEAM GUARDRAIL, TYPE 1 (SPECIAL) TANGENT WITH TERMINAL MARKER - DIRECT APPLIED

**NOTES:**

1. SEE DRAINAGE PLANS FOR DRAINAGE REMOVAL ITEMS.
2. SEE SIGN PLANS FOR SIGN REMOVAL ITEMS.
3. FOR DRIVEWAY DETAILS SEE DISTRICT 1 STANDARDS BD-01 AND BD-02.

PLAN	SURVEYED	DATE
	BY	
	NOTED	
	BY	
	CHECKED	
	BY	
	DATE	

PROFILE	SURVEYED	DATE
	BY	
	NOTED	
	BY	
	CHECKED	
	BY	
	DATE	



821.24	821.30	821.36	821.41	821.48	821.55	821.57	821.61	821.71	821.81	821.82	821.84	821.74	821.85	821.81	821.77	821.59	821.42	821.26	821.10	820.99	820.87	820.74	820.60	820.48	820.35	820.27	820.18	820.03
1083+00	1084+00	1085+00	1086+00	1087+00	1088+00	1089+00	1090+00	1091+00	1092+00	1093+00	1094+00	1095+00	1096+00	1097+00														



USER NAME = jent	DESIGNED - IH	REVISED - JMT 08/31/2021
PLOT SCALE = 100.0000' / in.	DRAWN - IH	REVISED -
PLOT DATE = 9/1/2021	CHECKED - JMT	REVISED -
	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**REMOVAL AND PROPOSED PLAN AND PROFILE - III  
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

F.A.P. RTE. 533	SECTION (119&105)CGW-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 53
CONTRACT NO. 62G35			ILLINOIS FED. AID PROJECT	

REVISED SHEET 9/7/2021

**LEGEND:**

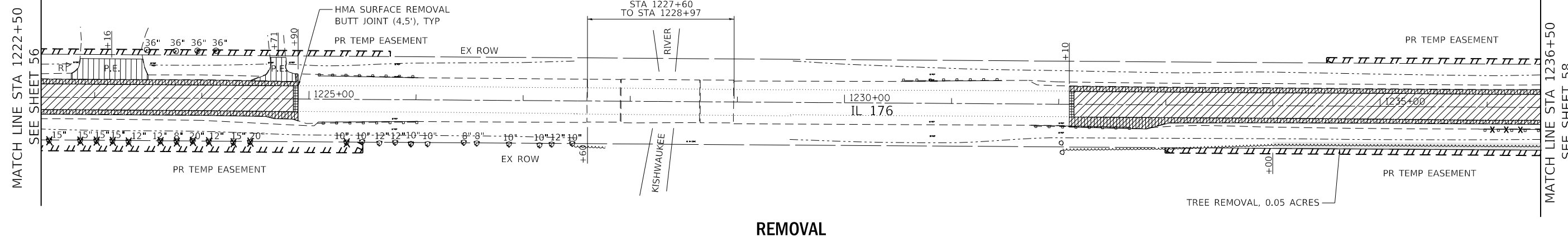
- HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING, 2 1/2")
- HMA SURFACE REMOVAL BUTT JOINT (4.5')
- PAVED SHOULDER REMOVAL
- TREE ROOT PRUNING
- RELOCATE EXISTING MAILBOX
- TREE REMOVAL, ACRES
- COMBINATION CURB AND GUTTER REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCH
- GUARDRAIL REMOVAL
- TREE REMOVAL

**NOTES:**

1. SEE DRAINAGE PLANS FOR DRAINAGE REMOVAL ITEMS.
2. SEE SIGN PLANS FOR SIGN REMOVAL ITEMS.
3. FOR DRIVEWAY DETAILS SEE DISTRICT 1 STANDARDS BD-01 AND BD-02.

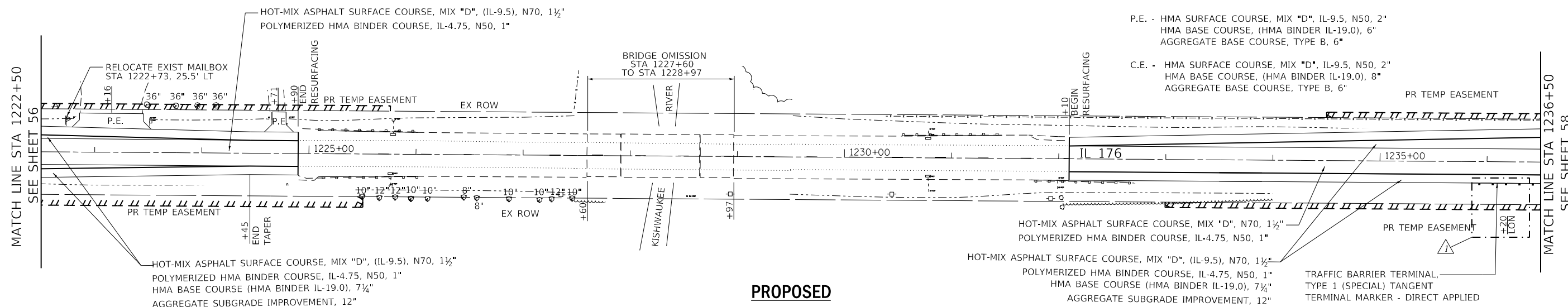


PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	RT. OF WAY CHECKED		
	CADD FILE NAME		

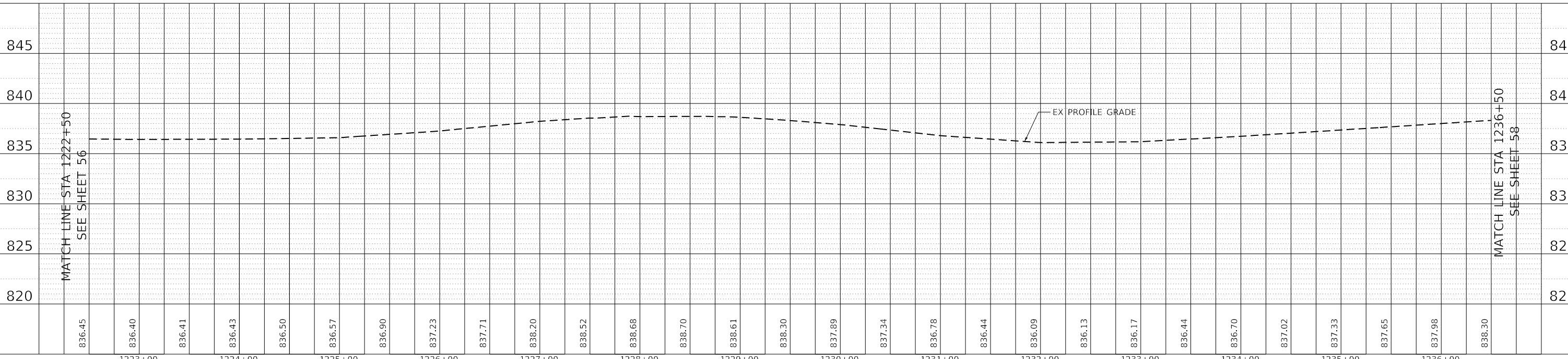


**REMOVAL**

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	B.M. NOTED		
	STRUCTURE NOTATIONS CPWD		



**PROPOSED**



820	825	830	835	840	845
1223+00	1224+00	1225+00	1226+00	1227+00	1228+00
1229+00	1230+00	1231+00	1232+00	1233+00	1234+00
1235+00	1236+00				



USER NAME = jent	DESIGNED - IH	REVISED - JMT 08/31/2021
	DRAWN - IH	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - JMT	REVISED -
PLOT DATE = 9/1/2021	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**REMOVAL AND PROPOSED PLAN AND PROFILE - VII  
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

SCALE: 1"=50'    SHEET 7 OF 19 SHEETS    STA. 1222+50 TO STA. 1236+50

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 57
CONTRACT NO. 62G35				

**LEGEND:**

- HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING, 2 1/2")
- HMA SURFACE REMOVAL BUTT JOINT (4.5')
- PAVED SHOULDER REMOVAL
- TREE ROOT PRUNING
- RELOCATE EXISTING MAILBOX
- TREE REMOVAL, ACRES
- COMBINATION CURB AND GUTTER REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCH
- GUARDRAIL REMOVAL
- TREE REMOVAL

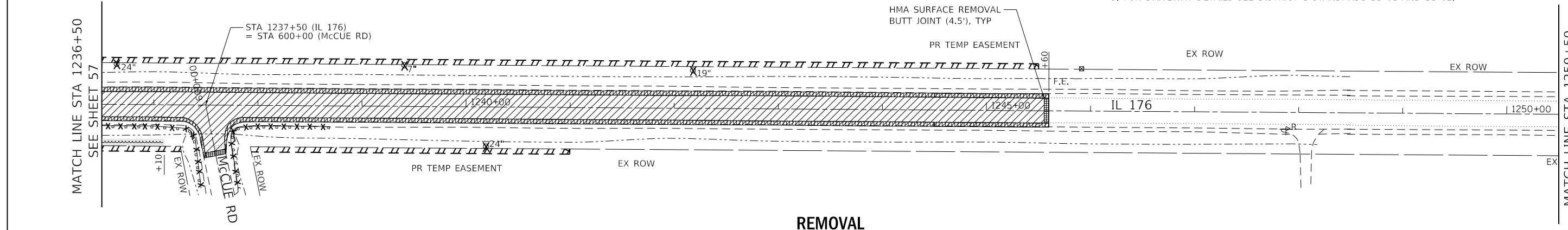
**NOTES:**

1. SEE DRAINAGE PLANS FOR DRAINAGE REMOVAL ITEMS.
2. SEE SIGN PLANS FOR SIGN REMOVAL ITEMS.
3. FOR DRIVEWAY DETAILS SEE DISTRICT 1 STANDARDS BD-01 AND BD-02.

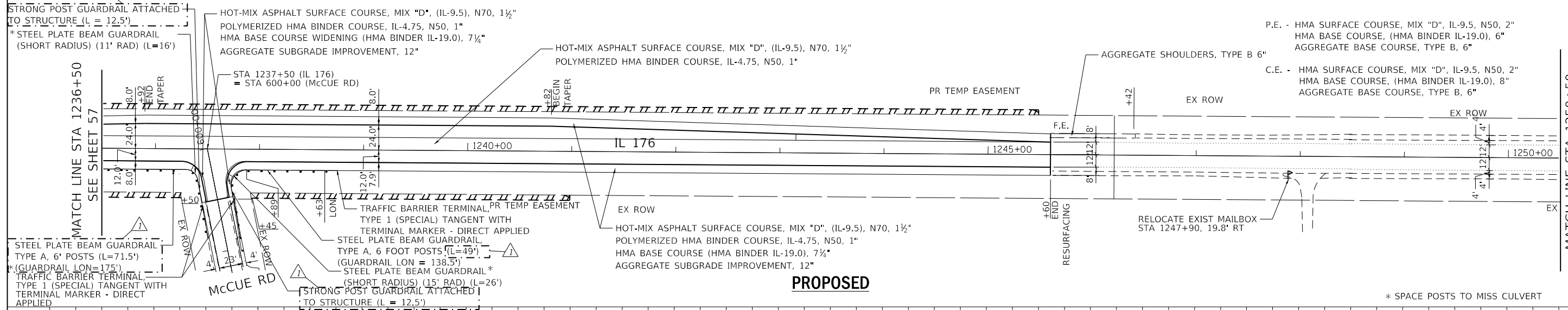


PLAN	SURVEYED	BY	DATE
	PLOTTED		
	NOTED		
	RT. OF WAY CHECKED		
	CADD FILE NAME		

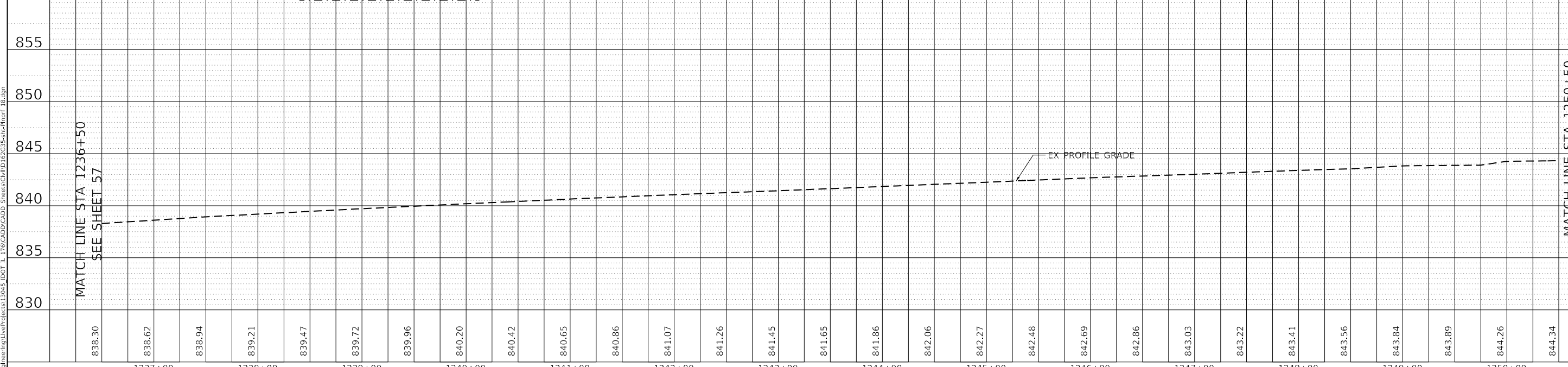
PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	NOTED		
	B.M. NOTED		
	STRUCTURE NOTATIONS CPWD		



**REMOVAL**



**PROPOSED**



MODEL: C:\p\ill\Accurate\Projects\13045\_IDOT\_IL\_176\CADD\CADD\_Sheets\CADD\_Sheets\13045-111-PlanProf\_18.dgn



USER NAME = jent	DESIGNED - IH	REVISED - JMT 08/31/2021
PLOT SCALE = 100.0000' / in.	DRAWN - IH	REVISED -
PLOT DATE = 9/1/2021	CHECKED - JMT	REVISED -
	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**REMOVAL AND PROPOSED PLAN AND PROFILE - VIII  
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

SCALE: 1"=50'    SHEET 8 OF 19 SHEETS    STA. 1236+50 TO STA. 1250+50

F.A.P. RTE. 533	SECTION (119&105)CGW-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 58
CONTRACT NO. 62G35			ILLINOIS FED. AID PROJECT	

**LEGEND:**

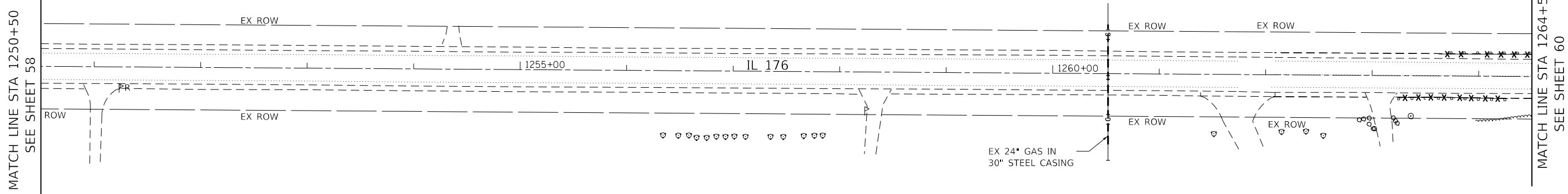
- HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING, 2 1/2")
- HMA SURFACE REMOVAL BUTT JOINT (4.5')
- PAVED SHOULDER REMOVAL
- TREE ROOT PRUNING
- RELOCATE EXISTING MAILBOX
- TREE REMOVAL, ACRES
- COMBINATION CURB AND GUTTER REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCH
- GUARDRAIL REMOVAL
- TREE REMOVAL

**NOTES:**

1. SEE DRAINAGE PLANS FOR DRAINAGE REMOVAL ITEMS.
2. SEE SIGN PLANS FOR SIGN REMOVAL ITEMS.
3. FOR DRIVEWAY DETAILS SEE DISTRICT 1 STANDARDS BD-01 AND BD-02.

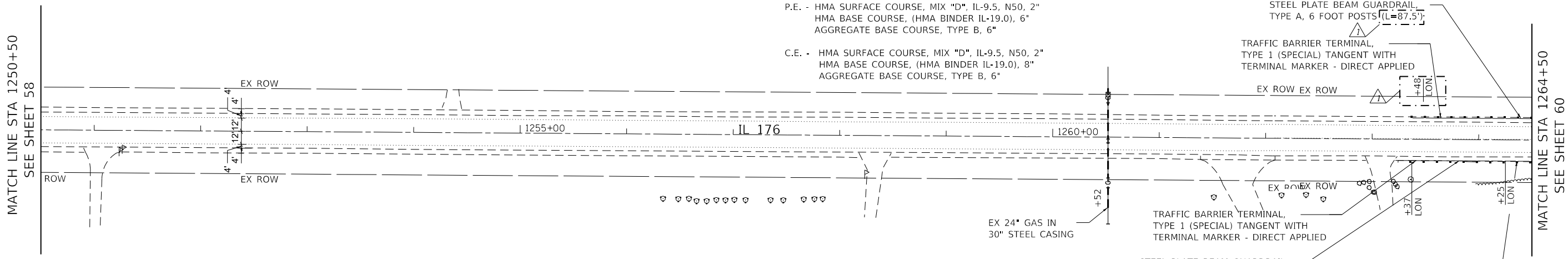


PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	RT. OF WAY CHECKED		
	NO. _____		
	STRUCTURE NOTATIONS CPWD		
	CADD FILE NAME		

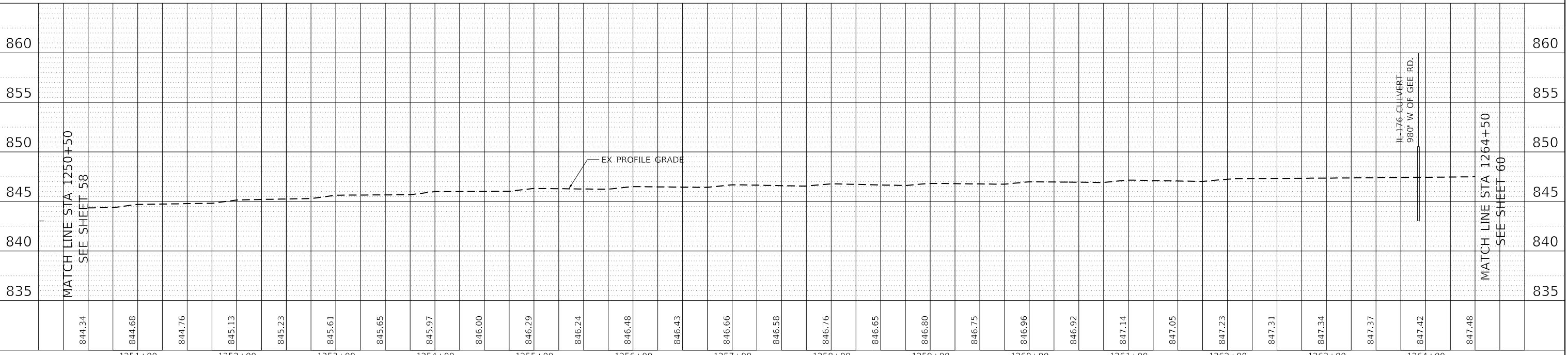


**REMOVAL**

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	B.M. NOTED		
	NO. _____		
	STRUCTURE NOTATIONS CPWD		
	CADD FILE NAME		



**PROPOSED**



	USER NAME = jent PLOT SCALE = 100.0000' / in. PLOT DATE = 9/1/2021	DESIGNED - IH DRAWN - IH CHECKED - JMT DATE - 06-17-2021	REVISED - JMT 08/31/2021 REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>REMOVAL AND PROPOSED PLAN AND PROFILE - IX IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)</b>	F.A.P. RTE. 533 SECTION (119&105)C&W-1 COUNTY McHENRY CONTRACT NO. 62G35	TOTAL SHEETS 300 SHEET NO. 59
				SCALE: 1"=50'	SHEET 9 OF 19 SHEETS	STA. 1250+50 TO STA. 1264+50	ILLINOIS FED. AID PROJECT



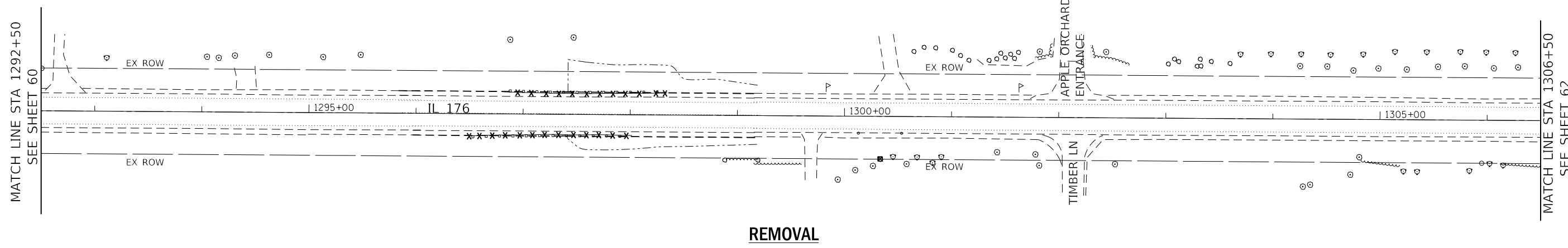
**LEGEND:**

- HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING, 2 1/2")
- HMA SURFACE REMOVAL-BUTT JOINT (4.5')
- PAVED SHOULDER REMOVAL
- TREE ROOT PRUNING
- RELOCATE EXISTING MAILBOX
- TREE REMOVAL, ACRES
- COMBINATION CURB AND GUTTER REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCH
- GUARDRAIL REMOVAL
- TREE REMOVAL

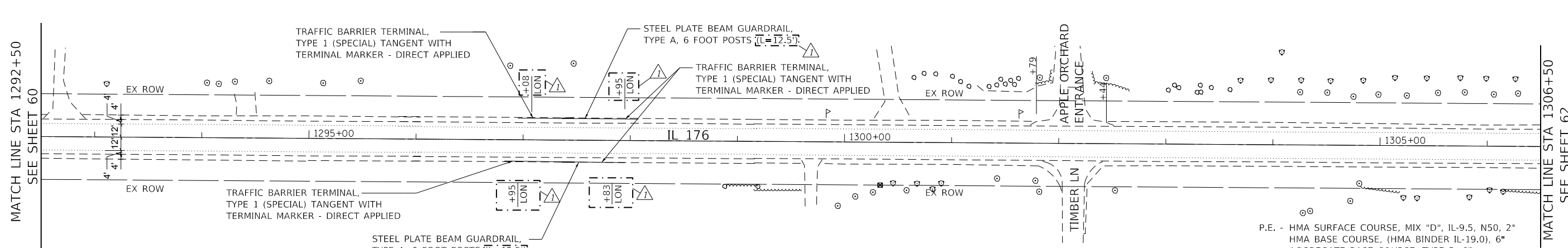
**NOTES:**

1. SEE DRAINAGE PLANS FOR DRAINAGE REMOVAL ITEMS.
2. SEE SIGN PLANS FOR SIGN REMOVAL ITEMS.
3. FOR DRIVEWAY DETAILS SEE DISTRICT 1 STANDARDS BD-01 AND BD-02.

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	RT. OF WAY CHECKED		
	CADD FILE NAME		
	NO.		

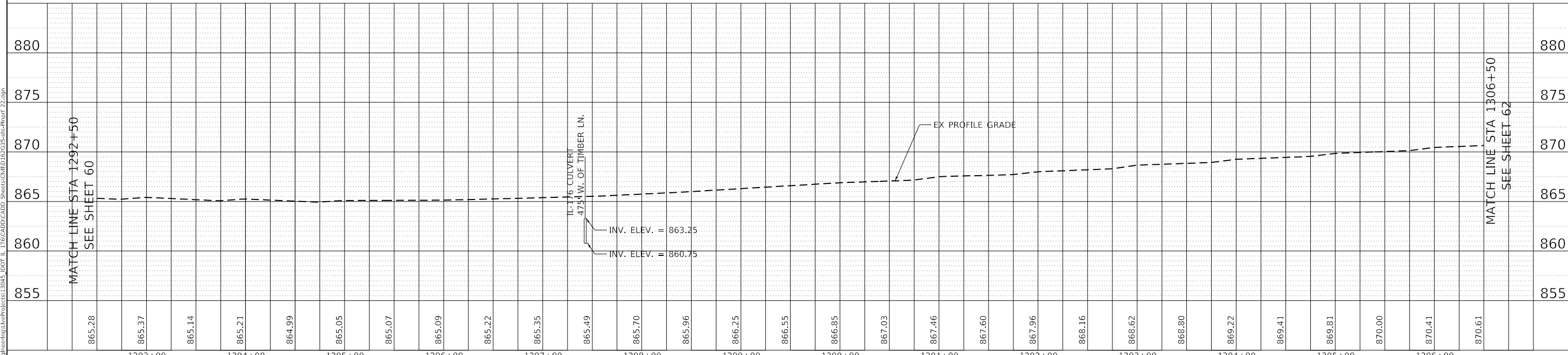


PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	B.M. NOTED		
	STRUCTURE NOTATIONS CPWD		
	NO.		



P.E. - HMA SURFACE COURSE, MIX "D", IL-9.5, N50, 2"  
 HMA BASE COURSE, (HMA BINDER IL-19.0), 6"  
 AGGREGATE BASE COURSE, TYPE B, 6"

C.E. - HMA SURFACE COURSE, MIX "D", IL-9.5, N50, 2"  
 HMA BASE COURSE, (HMA BINDER IL-19.0), 8"  
 AGGREGATE BASE COURSE, TYPE B, 6"



855	860	865	870	875	880
1293+00	1294+00	1295+00	1296+00	1297+00	1298+00
1299+00	1300+00	1301+00	1302+00	1303+00	1304+00
1305+00	1306+00				



USER NAME = jent	DESIGNED - IH	REVISED - JMT 08/31/2021
DRAWN - IH	REVISOR -	
CHECKED - JMT	REVISOR -	
DATE - 06-17-2021	REVISOR -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**REMOVAL AND PROPOSED PLAN AND PROFILE - XI  
 IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 61
CONTRACT NO. 62G35				

MODEL: C:\Users\jgent\OneDrive\Documents\Projects\13045\_IDOT\_IL\_176\CADD\CADD\_Sheets\CADD\_Sheets\13045-SR-Phurif\_22.dgn  
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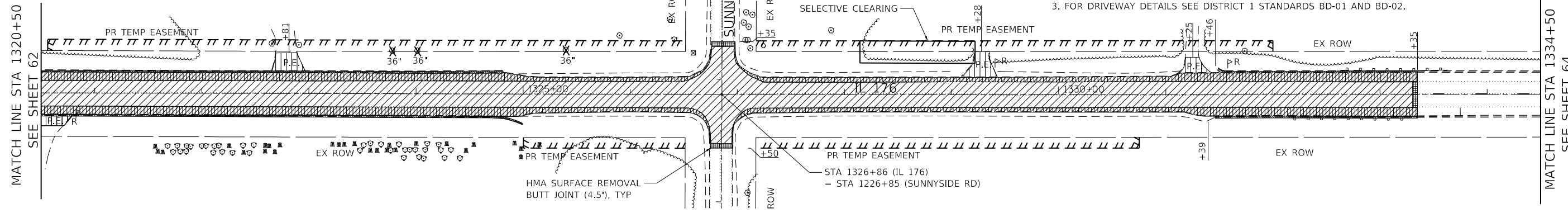
- HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING, 2 1/2")
- HMA SURFACE REMOVAL-BUTT JOINT (4.5')
- PAVED SHOULDER REMOVAL
- TREE ROOT PRUNING
- RELOCATE EXISTING MAILBOX
- COMBINATION CURB AND GUTTER REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCH
- TREE REMOVAL
- GUARDRAIL REMOVAL

**NOTES:**

1. SEE DRAINAGE PLANS FOR DRAINAGE REMOVAL ITEMS.
2. SEE SIGN PLANS FOR SIGN REMOVAL ITEMS.
3. FOR DRIVEWAY DETAILS SEE DISTRICT 1 STANDARDS BD-01 AND BD-02.

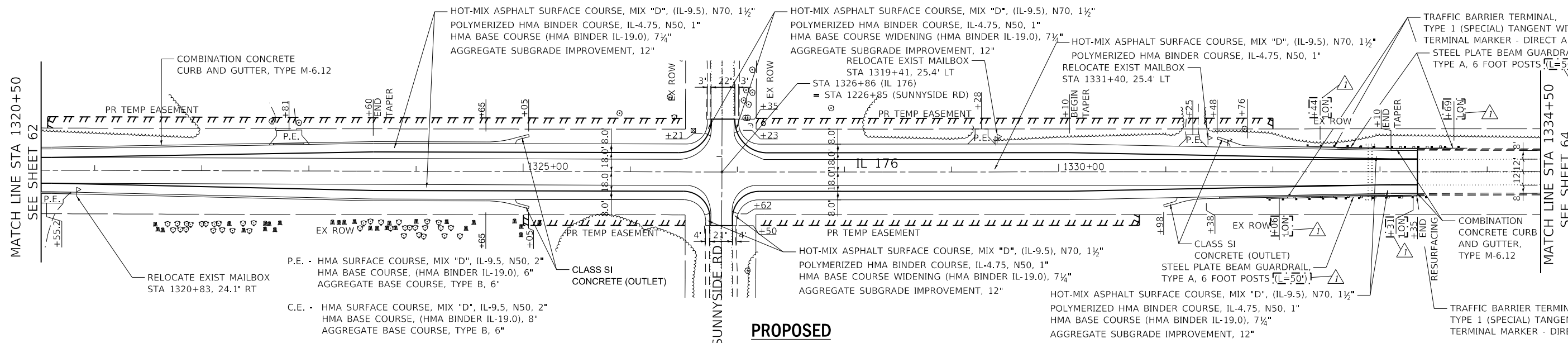


PLAN	SURVEYED	BY	DATE
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	CADD FILE NAME		

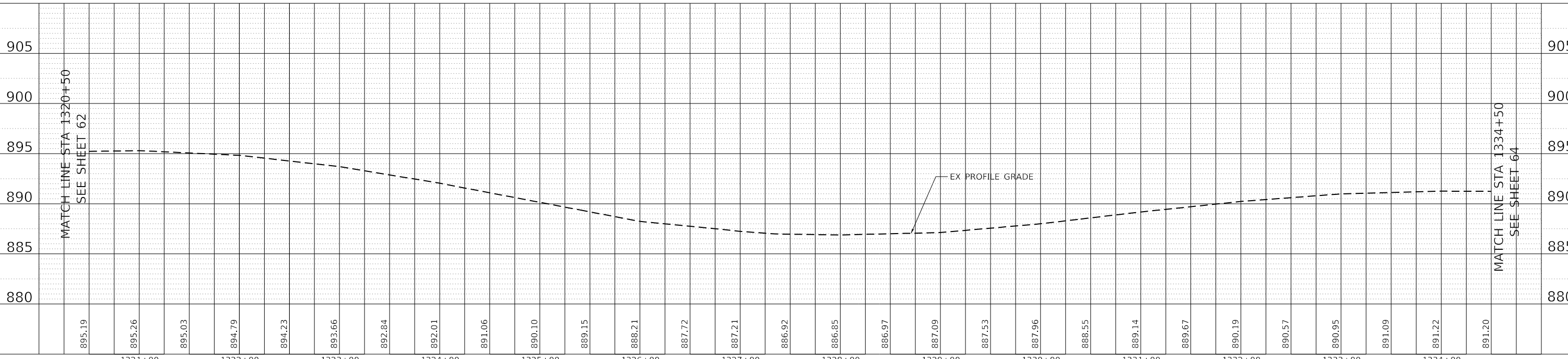


**REMOVAL**

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	B.M. NOTED		
	STRUCTURE NOTATIONS CHECKED		



**PROPOSED**



	USER NAME = jent DESIGNED - IH DRAWN - IH CHECKED - JMT DATE - 06-17-2021	REVISED - JMT 08/31/2021 REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>REMOVAL AND PROPOSED PLAN AND PROFILE - XIII IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)</b>	F.A.P. RTE. 533 SECTION (119&105)C&W-1 COUNTY MCHENRY TOTAL SHEETS 300 SHEET NO. 63 CONTRACT NO. 62G35	SCALE: 1"=50' SHEET 13 OF 19 SHEETS STA. 1320+50 TO STA. 1334+50	ILLINOIS FED. AID PROJECT REVISED SHEET 9/7/2021
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**LEGEND:**

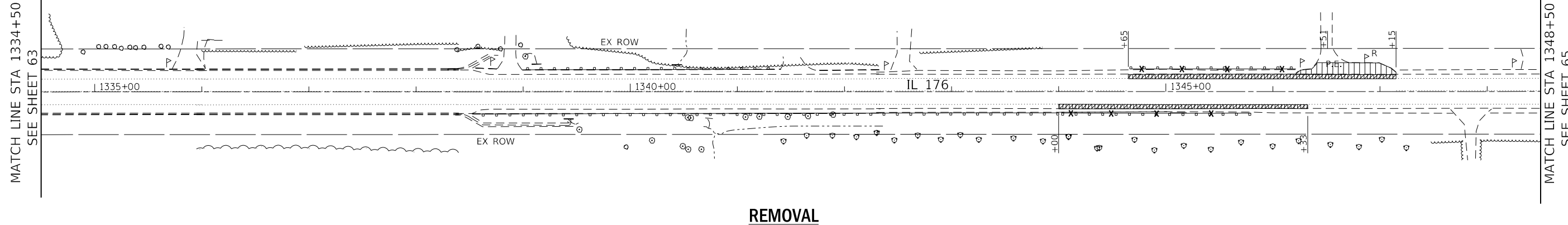
- HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING, 2 1/2")
- HMA SURFACE REMOVAL BUTT JOINT (4.5')
- PAVED SHOULDER REMOVAL
- TREE ROOT PRUNING
- RELOCATE EXISTING MAILBOX
- TREE REMOVAL, ACRES
- COMBINATION CURB AND GUTTER REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCH
- GUARDRAIL REMOVAL
- TREE REMOVAL

**NOTES:**

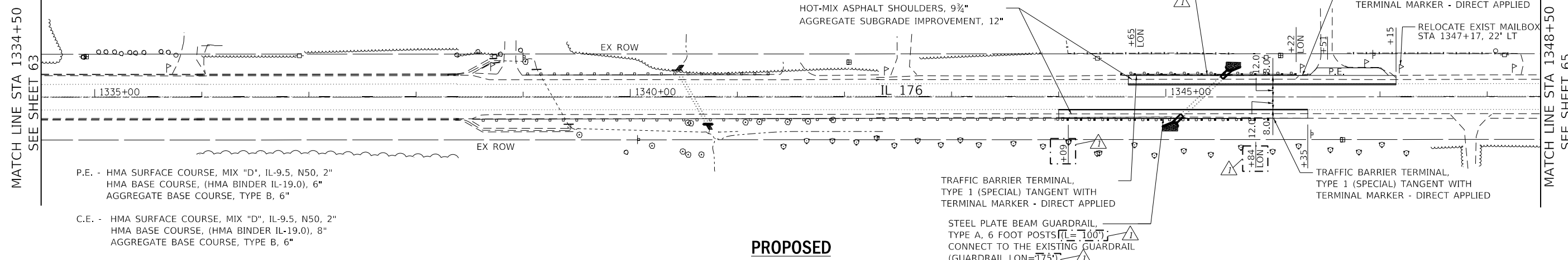
1. SEE DRAINAGE PLANS FOR DRAINAGE REMOVAL ITEMS.
2. SEE SIGN PLANS FOR SIGN REMOVAL ITEMS.
3. FOR DRIVEWAY DETAILS SEE DISTRICT 1 STANDARDS BD-01 AND BD-02.



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	RT. OF WAY		
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PROFILE	SURVEYED	BY	DATE
	NOTED		
	CHECKED		
	B.M. NOTED		
	STRUCTURE NOTATIONS		



P.E. - HMA SURFACE COURSE, MIX "D", IL-9.5, N50, 2"  
 HMA BASE COURSE, (HMA BINDER IL-19.0), 6"  
 AGGREGATE BASE COURSE, TYPE B, 6"

C.E. - HMA SURFACE COURSE, MIX "D", IL-9.5, N50, 2"  
 HMA BASE COURSE, (HMA BINDER IL-19.0), 8"  
 AGGREGATE BASE COURSE, TYPE B, 6"

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS (L=75') (GUARDRAIL LON=150')

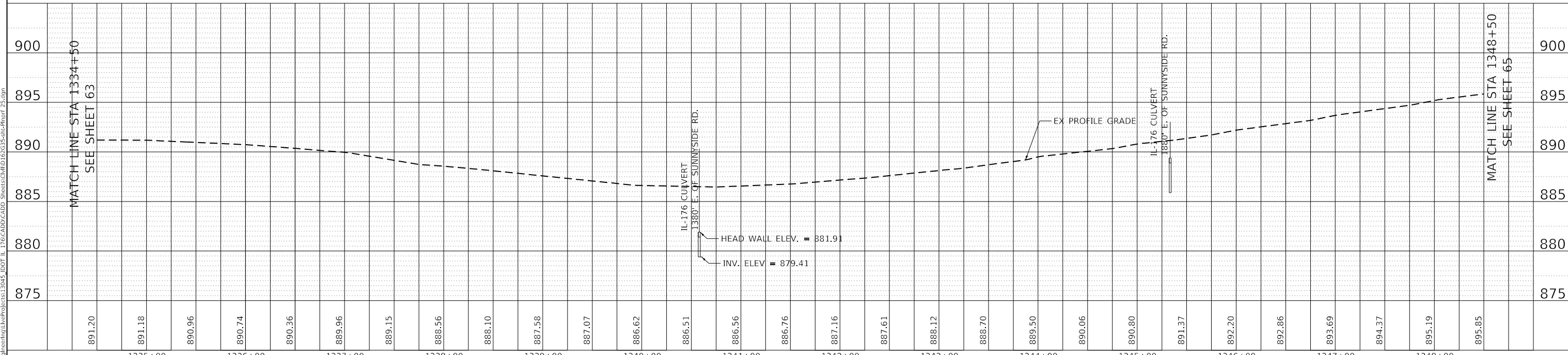
HOT-MIX ASPHALT SHOULDERS, 9 3/4" AGGREGATE SUBGRADE IMPROVEMENT, 12"

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT WITH TERMINAL MARKER - DIRECT APPLIED

RELOCATE EXIST MAILBOX STA 1347+17, 22' LT

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT WITH TERMINAL MARKER - DIRECT APPLIED

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS (L=100') CONNECT TO THE EXISTING GUARDRAIL (GUARDRAIL LON=175')



891.20	891.18	890.96	890.74	890.36	889.96	889.15	888.56	888.10	887.58	887.07	886.62	886.51	886.56	886.76	887.16	887.61	888.12	888.70	889.50	890.06	890.80	891.37	892.20	892.86	893.69	894.37	895.19	895.85
1335+00	1336+00	1337+00	1338+00	1339+00	1340+00	1341+00	1342+00	1343+00	1344+00	1345+00	1346+00	1347+00	1348+00															



USER NAME = jent	DESIGNED - IH	REVISED - JMT 08/31/2021
	DRAWN - IH	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - JMT	REVISED -
PLOT DATE = 9/1/2021	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**REMOVAL AND PROPOSED PLAN AND PROFILE - XIV  
 IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

SCALE: 1"=50'    SHEET 14 OF 19 SHEETS    STA. 1334+50 TO STA. 1348+50

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 64
CONTRACT NO. 62G35			ILLINOIS FED. AID PROJECT	

**LEGEND:**

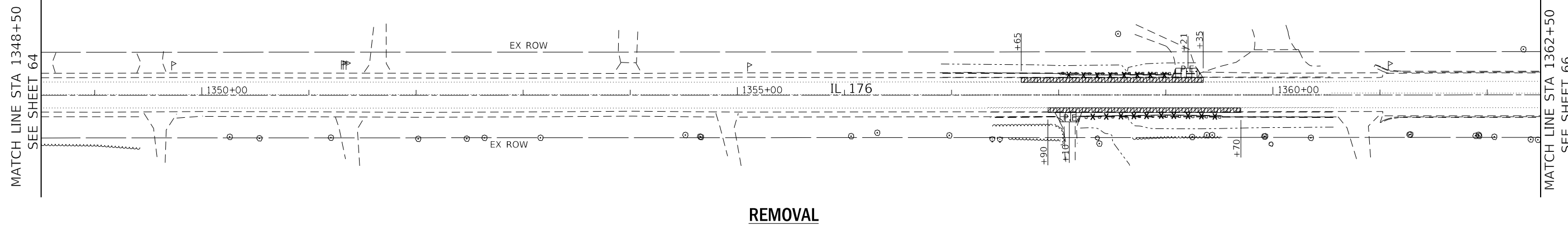
- HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING, 2 1/2")
- HMA SURFACE REMOVAL BUTT JOINT (4.5')
- PAVED SHOULDER REMOVAL
- TREE ROOT PRUNING
- RELOCATE EXISTING MAILBOX
- TREE REMOVAL, ACRES
- COMBINATION CURB AND GUTTER REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCH
- GUARDRAIL REMOVAL
- TREE REMOVAL

**NOTES:**

1. SEE DRAINAGE PLANS FOR DRAINAGE REMOVAL ITEMS.
2. SEE SIGN PLANS FOR SIGN REMOVAL ITEMS.
3. FOR DRIVEWAY DETAILS SEE DISTRICT 1 STANDARDS BD-01 AND BD-02.

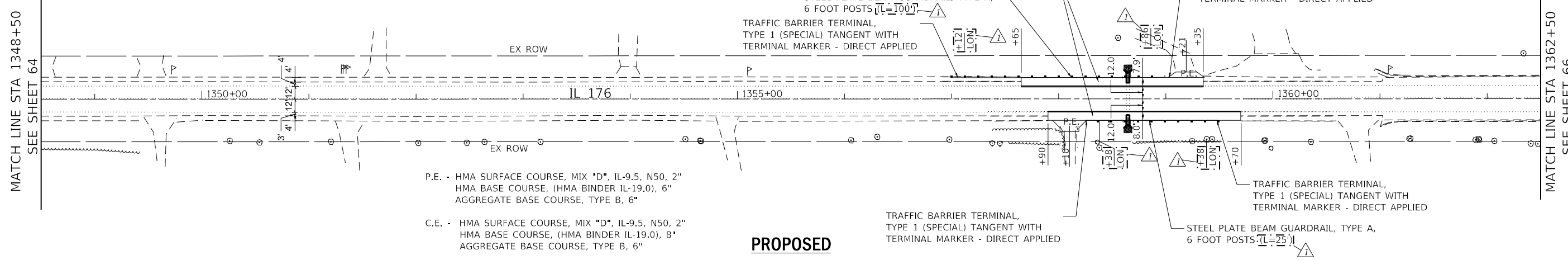


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	CADD FILE NAME		



**REMOVAL**

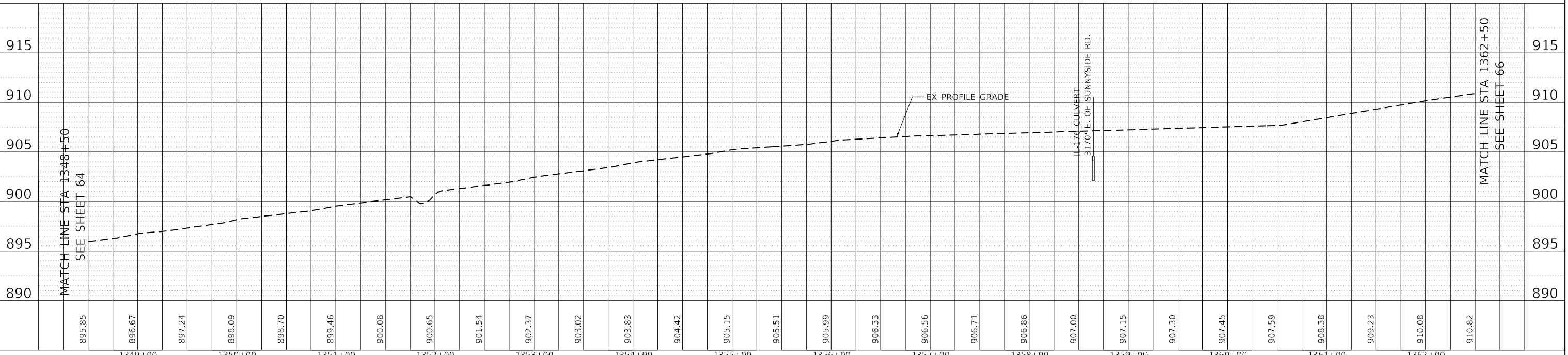
PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	B.M. NOTED		
	STRUCTURE NOTATIONS CPWD		



**PROPOSED**

P.E. - HMA SURFACE COURSE, MIX "D", IL-9.5, N50, 2"  
 HMA BASE COURSE, (HMA BINDER IL-19.0), 6"  
 AGGREGATE BASE COURSE, TYPE B, 6"

C.E. - HMA SURFACE COURSE, MIX "D", IL-9.5, N50, 2"  
 HMA BASE COURSE, (HMA BINDER IL-19.0), 8"  
 AGGREGATE BASE COURSE, TYPE B, 6"



895.85 896.67 897.24 898.09 898.70 899.46 900.08 900.65 901.54 902.37 903.02 903.83 904.42 905.15 905.51 905.99 906.33 906.56 906.71 906.86 907.00 907.15 907.30 907.45 907.59 908.38 909.23 910.08 910.82	1349+00 1350+00 1351+00 1352+00 1353+00 1354+00 1355+00 1356+00 1357+00 1358+00 1359+00 1360+00 1361+00 1362+00	MATCH LINE STA 1348+50 SEE SHEET 64	MATCH LINE STA 1362+50 SEE SHEET 66	890 895 900 905 910 915	MATCH LINE STA 1348+50 SEE SHEET 64	MATCH LINE STA 1362+50 SEE SHEET 66	890 895 900 905 910 915
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USER NAME = jent	DESIGNED - IH	REVISED - JMT 08/31/2021
	DRAWN - IH	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - JMT	REVISED -
PLOT DATE = 9/1/2021	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**REMOVAL AND PROPOSED PLAN AND PROFILE - XV  
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

SCALE: 1"=50'    SHEET 15 OF 19 SHEETS    STA. 1348+50 TO STA. 1362+50

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 65
CONTRACT NO. 62G35				



**LEGEND:**

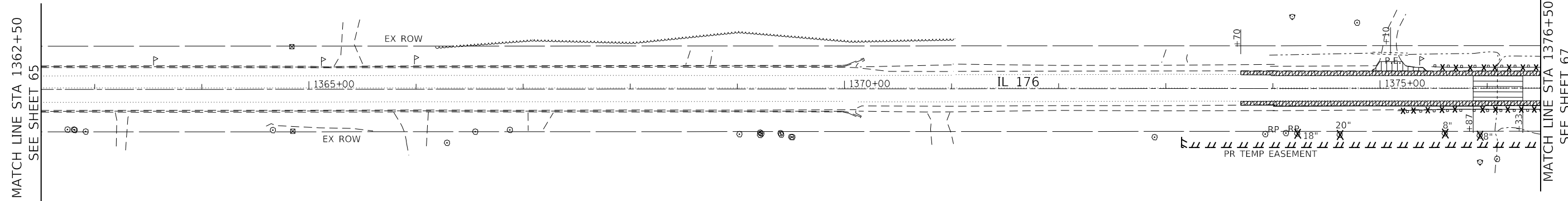
- HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING, 2 1/2")
- HMA SURFACE REMOVAL-BUTT JOINT (4.5')
- PAVED SHOULDER REMOVAL
- TREE ROOT PRUNING
- RELOCATE EXISTING MAILBOX
- TREE REMOVAL, ACRES
- COMBINATION CURB AND GUTTER REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCH
- GUARDRAIL REMOVAL
- TREE REMOVAL

**NOTES:**

1. SEE DRAINAGE PLANS FOR DRAINAGE REMOVAL ITEMS.
2. SEE SIGN PLANS FOR SIGN REMOVAL ITEMS.
3. FOR DRIVEWAY DETAILS SEE DISTRICT 1 STANDARDS BD-01 AND BD-02.

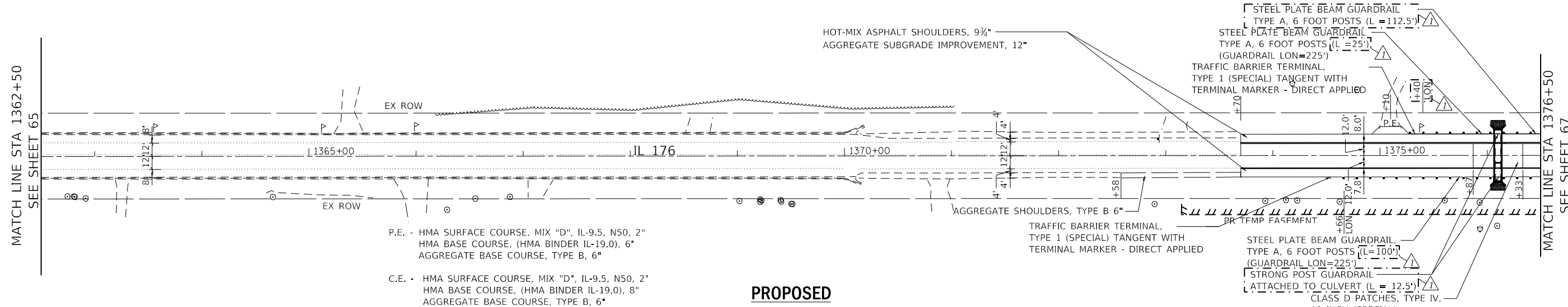


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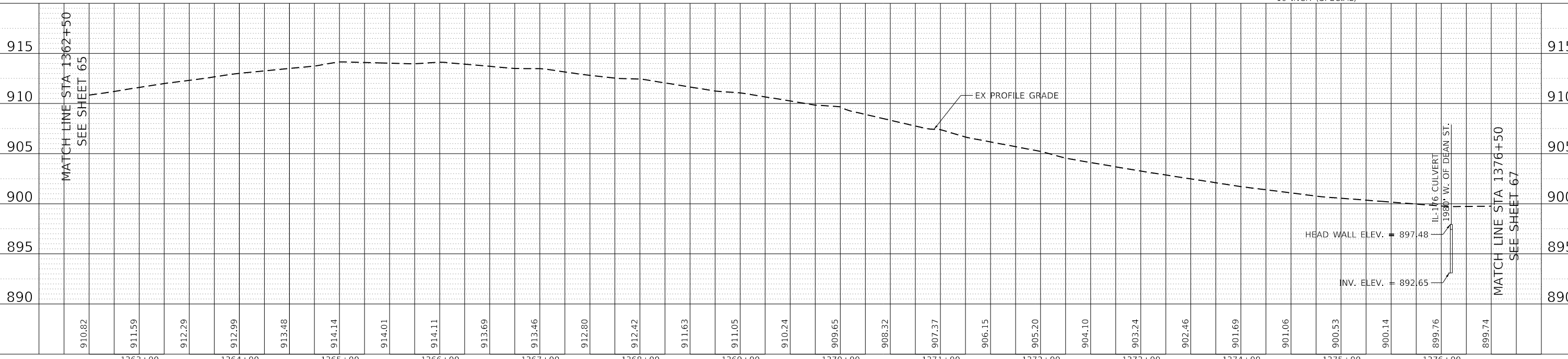


**REMOVAL**

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	B.M. NOTED		
	STRUCTURE NOTATIONS CPWD		



**PROPOSED**



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1363+00	1364+00	1365+00	1366+00	1367+00	1368+00	1369+00	1370+00	1371+00	1372+00	1373+00	1374+00	1375+00	1376+00								



**LEGEND:**

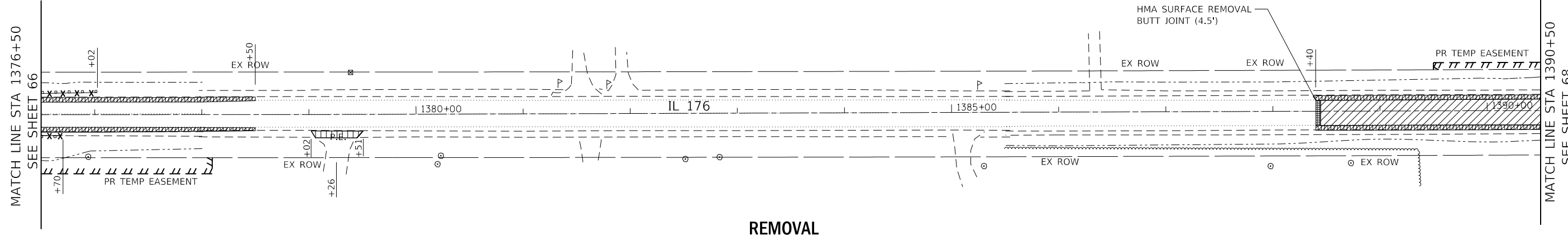
- HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING, 2 1/2")
- HMA SURFACE REMOVAL-BUTT JOINT (4.5')
- PAVED SHOULDER REMOVAL
- TREE ROOT PRUNING
- RELOCATE EXISTING MAILBOX
- TREE REMOVAL, ACRES
- COMBINATION CURB AND GUTTER REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCH
- GUARDRAIL REMOVAL
- TREE REMOVAL

**NOTES:**

1. SEE DRAINAGE PLANS FOR DRAINAGE REMOVAL ITEMS.
2. SEE SIGN PLANS FOR SIGN REMOVAL ITEMS.
3. FOR DRIVEWAY DETAILS SEE DISTRICT 1 STANDARDS BD-01 AND BD-02.

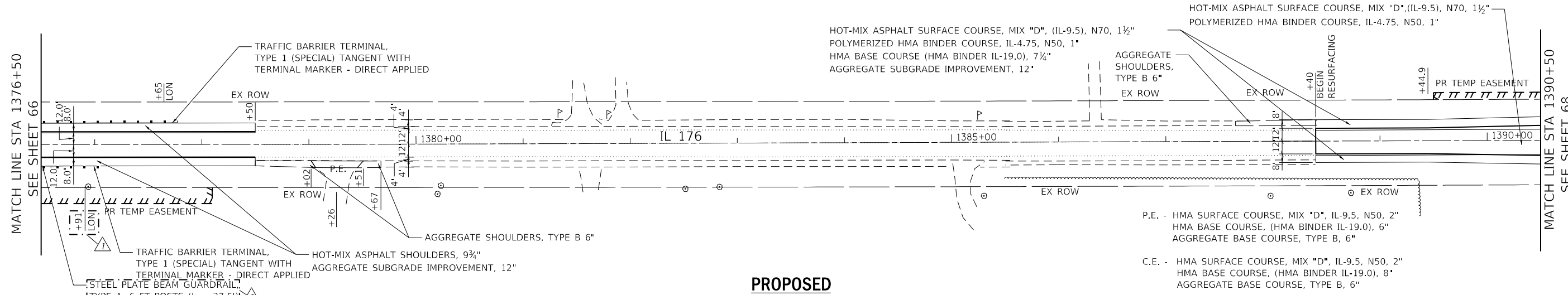


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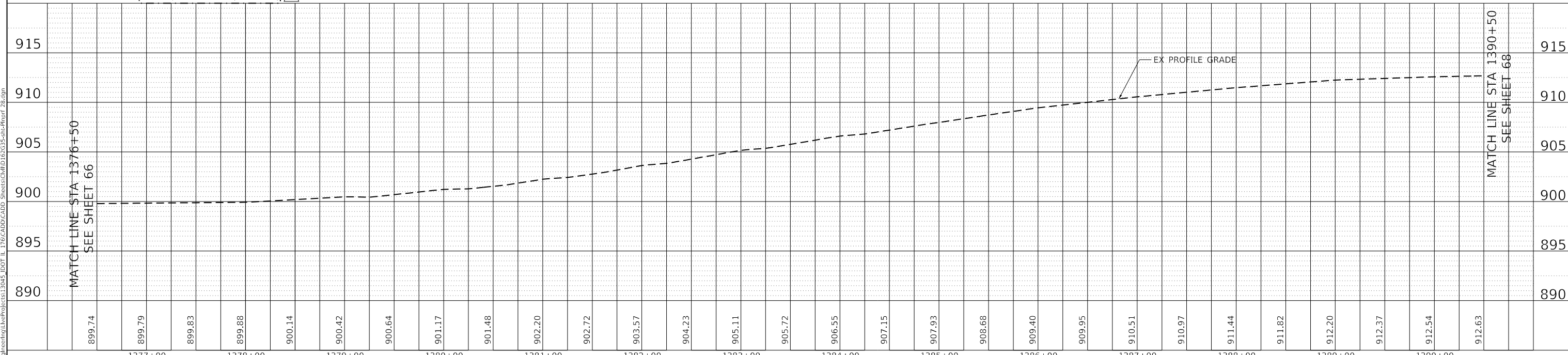


**REMOVAL**

PROFILE	SURVEYED	BY	DATE
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	B.M. NOTED		
	STRUCTURE NOTATIONS CPWD		



**PROPOSED**



899.74	899.79	899.83	899.88	900.14	900.42	900.64	901.17	901.48	902.20	902.72	903.57	904.23	905.11	905.72	906.55	907.15	907.93	908.68	909.40	909.95	910.51	910.97	911.44	911.82	912.20	912.37	912.54	912.63	
1377+00	1378+00	1379+00	1380+00	1381+00	1382+00	1383+00	1384+00	1385+00	1386+00	1387+00	1388+00	1389+00	1390+00																



USER NAME = jent	DESIGNED - IH	REVISED - JMT 08/31/2021
	DRAWN - IH	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - JMT	REVISED -
PLOT DATE = 9/1/2021	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**REMOVAL AND PROPOSED PLAN AND PROFILE - XVII  
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 67
CONTRACT NO. 62G35			ILLINOIS FED. AID PROJECT	

**LEGEND:**

- HOT-MIX ASPHALT SURFACE REMOVAL (COLD MILLING, 2 1/2")
- HMA SURFACE REMOVAL BUTT JOINT (4.5')
- PAVED SHOULDER REMOVAL
- TREE ROOT PRUNING
- RELOCATE EXISTING MAILBOX
- TREE REMOVAL, ACRES
- COMBINATION CURB AND GUTTER REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCH
- GUARDRAIL REMOVAL
- TREE REMOVAL

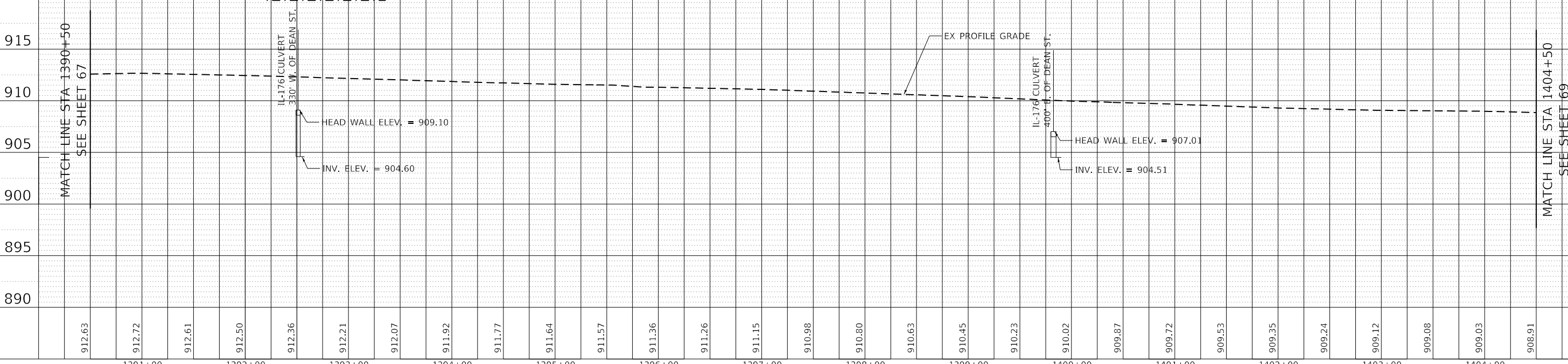
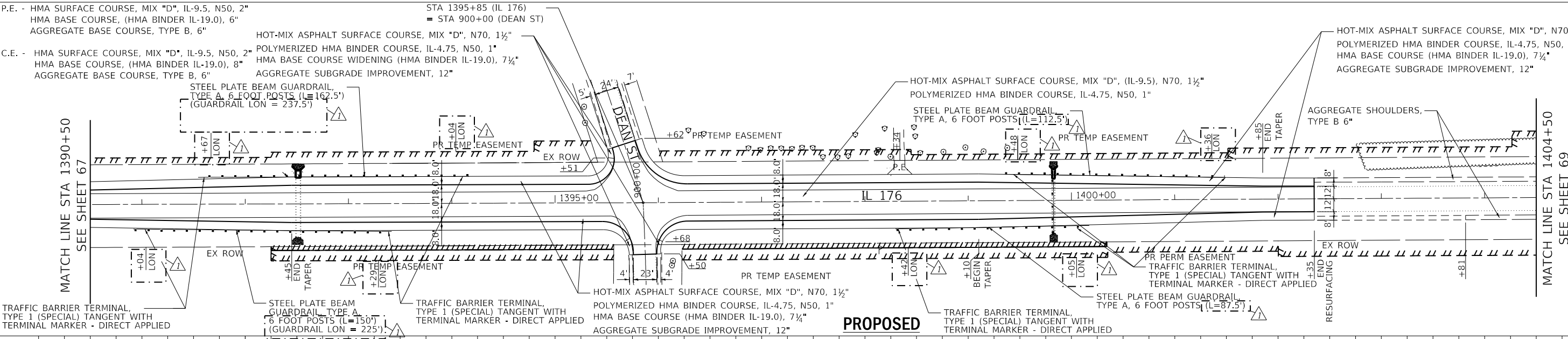
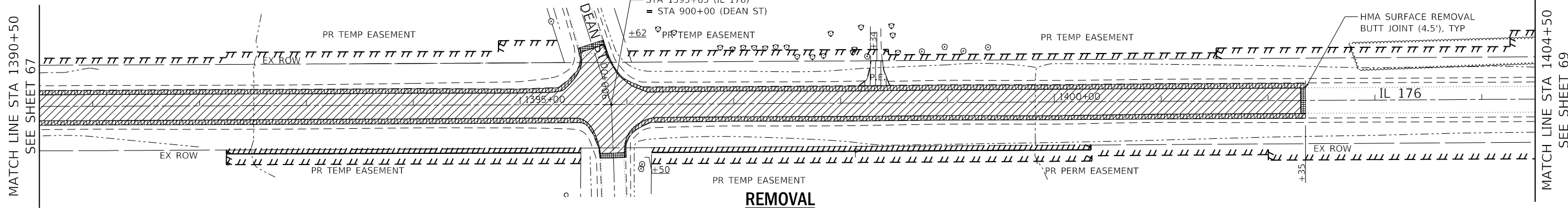
**NOTES:**

1. SEE DRAINAGE PLANS FOR DRAINAGE REMOVAL ITEMS.
2. SEE SIGN PLANS FOR SIGN REMOVAL ITEMS.
3. FOR DRIVEWAY DETAILS SEE DISTRICT 1 STANDARDS BD-01 AND BD-02.



DATE	BY
DATE	BY
DATE	BY
DATE	BY
DATE	BY

DATE	BY
DATE	BY
DATE	BY
DATE	BY
DATE	BY



915	910	905	900	895	890																							
912.63	912.72	912.61	912.50	912.36	912.21	912.07	911.92	911.77	911.64	911.57	911.36	911.26	911.15	910.98	910.80	910.63	910.45	910.23	910.02	909.87	909.72	909.53	909.35	909.24	909.12	909.08	909.03	908.91
1391+00	1392+00	1393+00	1394+00	1395+00	1396+00	1397+00	1398+00	1399+00	1400+00	1401+00	1402+00	1403+00	1404+00															

USER NAME = jent

DESIGNED - IH

REVISIONS - JMT 08/31/2021

DRAWN - IH

REVISIONS -

CHECKED - JMT

REVISIONS -

DATE - 06-17-2021

REVISIONS -

**STATE OF ILLINOIS**

**DEPARTMENT OF TRANSPORTATION**

**REMOVAL AND PROPOSED PLAN AND PROFILE - XVII**

**IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
533	(119&105)C&W-1	Mchenry	300	68

SCALE: 1"=50'	SHEET 18 OF 19 SHEETS	STA. 1390+50 TO STA. 1404+50
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ILLINOIS	FED. AID PROJECT
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**SUGGESTED SEQUENCE OF CONSTRUCTION AND MAINTENANCE OF TRAFFIC**

THE FOLLOWING SEQUENCE OF CONSTRUCTION AND MAINTENANCE OF TRAFFIC IS SUGGESTED. VARIATIONS MAY BE MADE WITH THE APPROVAL OF THE ENGINEER. FOR EACH STAGE OF CONSTRUCTION, PROVIDE TRAFFIC CONTROL AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS. COORDINATE INSTALLATION OF TRAFFIC CONTROL DEVICES WITH THE EXISTING TRAFFIC PATTERNS AT THE ENDS OF THE PROJECT ALONG IL ROUTE 176 AND IMPACTED CROSS STREETS. THE IMPROVEMENT WILL BE CONSTRUCTED USING LANE SHIFTS ONTO TEMPORARY PAVEMENT AND SHORT TERM CLOSURES, PER TC-10 AND HIGHWAY STANDARDS 701001, 701006, 701011, 701301, 701306, 701311, 701326, 701331, AND 701901. RECOGNIZING THE MAGNITUDE OF THE WORK, THE PROJECT IS ANTICIPATED TO BE COMPLETED IN TWO SEASONS. SUGGESTED SEASON ONE (1) IS FROM THE BEGINNING OF THE PROJECT (WEST OF DEERPASS RD) TO MCCUE RD AND SEASON TWO (2) IS FROM MCCUE RD TO THE END OF PROJECT LIMIT (EAST OF DEAN ST). ALL WORK AT THE END OF EACH SEASON SHALL BE COMPLETED INCLUDING RESURFACING, SHOULDER RUMBLE STRIPS, AND STRIPING.

WEST OF DEERPASS RD (STA 1003+67) TO MCCUE RD

PRE-STAGE - IL ROUTE 176: STA 1003+67 TO 1014+50 (AT DEERPASS RD)

1. INSTALL TEMPORARY RUNAROUND AND TEMPORARY DRAINAGE SYSTEM AS SHOWN IN MOT PLANS UTILIZING IDOT STANDARD 701326.
2. FILL EXISTING CENTERLINE RUMBLE STRIPS ON IL 176.
3. INSTALL TRAFFIC CONTROL DEVICES FOR IL ROUTE 176 AS SHOWN IN MOT PLANS.
4. INSTALL EROSION CONTROL DEVICES AS PER EROSION CONTROL PLANS.

STAGE 1 - IL ROUTE 176: STA 1003+67 TO STA 1014+50 (AT DEERPASS RD)

1. SHIFT TRAFFIC TO THE NORTH SIDE UTILIZING TEMPORARY CONCRETE BARRIER, TEMPORARY RUNAROUND, AND EXISTING HMA SHOULDER TO REDUCE THE LANES WIDTH TO 11' IN BOTH THE DIRECTIONS AS PER HIGHWAY STANDARD 701331 AND AS SHOWN IN THE MOT PLANS.
2. REMOVE AND RECONSTRUCT THE SOUTHERN HALF OF THE ELLIPTICAL PIPE CULVERTS WEST OF DEERPASS RD.
3. CONSTRUCT EASTBOUND (EB) HMA SHOULDER, INTERSECTION IMPROVEMENTS, PROPOSED SOUTH SIDE DITCHES AND GRADING AS SHOWN IN PLANS.
4. INSTALL GUARDRAIL AND TERMINAL END SECTIONS AS SHOWN IN PLANS.

STAGE 2 - IL ROUTE 176: STA 1003+67 TO STA 1414+50 (AT DEERPASS RD)

1. SHIFT TRAFFIC TO THE SOUTH SIDE ON NEW HMA SHOULDER UTILIZING TEMPORARY CONCRETE BARRIER AND DRUMS WITH 8' BUFFER TO REDUCE LANE WIDTHS TO 11' IN BOTH DIRECTIONS AS SHOWN IN THE PLANS.
2. CONSTRUCT REMAINING HALF OF THE ELLIPTICAL PIPE CULVERTS ON IL 176, WEST OF DEERPASS RD.
3. REMOVE TEMPORARY PAVEMENT, CONSTRUCT WESTBOUND (WB) HMA SHOULDERS, INTERSECTION IMPROVEMENTS, PRPOSED NORTHSIDE DITCHES AND GRADING AS SHOWN IN PLANS.
4. INSTALL GUARDRAIL AND TERMINAL END SECTIONS AS SHOWN IN PLANS.

STAGE 1 - IL ROUTE 176: AT MILLSTREAM AND DUNHAM, UNION, FRANKLINVILLE, MCCUE RD

1. SHIFT TRAFFIC TO THE SOUTH SIDE OF THE IL 176 ON EXISTING HMA SHOULDER UTILIZING TEMPORARY CONCRETE BARRIERS TO REDUCE THE LANE WIDTHS TO 11' IN BOTH THE DIRECTIONS AS SHOWN IN THE MOT PLANS.
2. CONSTRUCT NORTHERN HALF OF THE CULVERT REPAIRS AND LENGTHENINGS OR REPLACEMENTS ON IL 176.
3. CONSTRUCT EB HMA SHOULDER, INTERSECTION IMPROVEMENTS, PROPOSED DITCHES AND GRADING AS SHOWN IN MOT PLANS.
4. INSTALL GUARDRAIL AND TERMINAL END SECTIONS AS SHOWN IN PLANS.

STAGE 2 - IL ROUTE 176: AT MILLSTREAM AND DUNHAM, UNION, FRANKLINVILLE, MCCUE RD

1. SHIFT TRAFFIC TO THE NORTH SIDE OF THE IL 176 ON EXISTING HMA SHOULDER UTILIZING DRUMS TO REDUCE THE LANE WIDTHS TO 11' IN BOTH THE DIRECTIONS AS SHOWN IN THE MOT PLANS. MAINTAIN 8' BUFFER BETWEEN THE TRAFFIC AND WORK ZONE.
2. CONSTRUCT SOUTHERN HALF OF THE CULVERT REPAIRS AND LENGTHENINGS OR REPLACEMENTS ON IL 176.
3. CONSTRUCT WB HMA SHOULDER, INTERSECTION IMPROVEMENTS, PROPOSED DITCHES AND GRADING AS SHOWN IN MOT PLANS.
4. INSTALL GUARDRAIL AND TERMINAL END SECTIONS AS SHOWN IN PLANS.

STAGE 3 - IL ROUTE 176: FROM BEGIN OF PROJECT LIMIT (WEST END) TO MCCUE RD:

1. UTILIZE HIGHWAY STANDARD 701502 AND PERFORM RESURFACING OPERATIONS ON IL 176 FROM DEERPASS RD TO MCCUE RD.
2. INSTALL SHOULDER RUMBLE STRIPS
3. COMPLETE ALL LANDSCAPING ITEMS AND INSTALL PERMANENT PAVEMENT MARKINGS
4. REMOVE TEMPORARY TRAFFIC CONTROL DEVICES, EROSION CONTROL DEVICES.

WEST OF GEE RD TO EAST OF DEAN ST (STA 1408+96)

STAGE 1 - IL ROUTE 176: GEE, AND SUNNYSIDE INTERSECTIONS, CULVERTS WITHIN WIDENING LIMITS, CULVERT AT STA 1345+00, AND CULVERT AT STA 1360+65.

1. SHIFT TRAFFIC TO THE SOUTH SIDE OF THE IL 176 ON EXISTING HMA SHOULDER UTILIZING TEMPORARY CONCRETE BARRIERS TO REDUCE THE LANE WIDTHS TO 11' IN BOTH THE DIRECTIONS AS SHOWN IN THE MOT PLANS.
2. CONSTRUCT NORTHERN HALF OF THE CULVERT REPAIRS AND LENGTHENINGS OR REPLACEMENTS ON IL 176.
3. CONSTRUCT EB HMA SHOULDER, INTERSECTION IMPROVEMENTS, PROPOSED DITCHES AND GRADING AS SHOWN IN MOT PLANS.
4. INSTALL GUARDRAIL AND TERMINAL END SECTIONS AS SHOWN IN PLANS.

STAGE 2 - IL ROUTE 176: GEE, AND SUNNYSIDE INTERSECTIONS, CULVERTS WITHIN WIDENING LIMITS, CULVERT AT STA 1345+00, AND CULVERT AT STA 1360+65.

1. SHIFT TRAFFIC TO THE NORTH SIDE OF THE IL 176 ON EXISTING HMA SHOULDER UTILIZING DRUMS TO REDUCE THE LANE WIDTHS TO 11' IN BOTH THE DIRECTIONS AS SHOWN IN THE MOT PLANS. MAINTAIN 8' BUFFER BETWEEN THE TRAFFIC AND WORK ZONE.
2. CONSTRUCT SOUTHERN HALF OF THE CULVERT REPAIRS AND LENGTHENINGS OR REPLACEMENTS ON IL 176.
3. CONSTRUCT WB HMA SHOULDER, INTERSECTION IMPROVEMENTS, PROPOSED DITCHES AND GRADING AS SHOWN IN MOT PLANS.
4. INSTALL GUARDRAIL AND TERMINAL END SECTIONS AS SHOWN IN PLANS.

PRE-STAGE - AT CULVERT AT STA 1376+10

1. INSTALL TEMPORARY RUNAROUND AND TEMPORARY DRAINAGE SYSTEM AS SHOWN IN MOT PLANS UTILIZING IDOT STANDARD 701326.
2. REMOVE EXISTING CENTERLINE RUMBLE STRIPS ON IL 176.
3. INSTALL TRAFFIC CONTROL DEVICES FOR IL ROUTE 176 AS SHOWN IN MOT PLANS.
4. INSTALL EROSION CONTROL DEVICES AS PER EROSION CONTROL PLANS.

STAGE 1 - AT CULVERT AT STA 1376+10

1. SHIFT TRAFFIC TO THE SOUTH SIDE UTILIZING TEMPORARY CONCRETE BARRIER, TEMPORARY RUNAROUND, AND EXISTING HMA SHOULDER TO REDUCE THE LANES WIDTH TO 11' IN BOTH THE DIRECTIONS AS PER HIGHWAY STANDARD 701331 AND AS SHOWN IN THE MOT PLANS.
2. REMOVE AND RECONSTRUCT THE NORTHERN HALF OF THE CULVERT.
3. CONSTRUCT WB HMA SHOULDER, INTERSECTION IMPROVEMENTS, PROPOSED NORTH SIDE DITCHES AND GRADING AS SHOWN IN PLANS.
4. INSTALL GUARDRAIL AND TERMINAL END SECTIONS AS SHOWN IN PLANS.

STAGE 2 -AT CULVERT AT STA 1376+10

1. SHIFT TRAFFIC TO THE NORTH SIDE ON NEW HMA SHOULDER UTILIZING TEMPORARY CONCRETE BARRIER AND DRUMS WITH 8' BUFFER TO REDUCE LANE WIDTHS TO 11' IN BOTH DIRECTIONS AS SHOWN IN THE PLANS.
2. CONSTRUCT REMAINING HALF OF THE CULVERT ON IL 176.
3. REMOVE TEMPORARY PAVEMENT, CONSTRUCT EB HMA SHOULDERS, INTERSECTION IMPROVEMENTS, PRPOSED SOUTHSIDE DITCHES AND GRADING AS SHOWN IN PLANS.
4. INSTALL GUARDRAIL AND TERMINAL END SECTIONS AS SHOWN IN PLANS.

PRE-STAGE - AT CULVERT AT STA 1408+39

1. INSTALL TEMPORARY RUNAROUND AND TEMPORARY DRAINAGE SYSTEM AS SHOWN IN MOT PLANS UTILIZING IDOT STANDARD 701326.
2. REMOVE EXISTING CENTERLINE RUMBLE STRIPS ON IL 176.
3. INSTALL TRAFFIC CONTROL DEVICES FOR IL ROUTE 176 AS SHOWN IN MOT PLANS.
4. INSTALL EROSION CONTROL DEVICES AS PER EROSION CONTROL PLANS.

STAGE 1 - AT CULVERT AT STA 1408+39

1. SHIFT TRAFFIC TO THE SOUTH SIDE UTILIZING TEMPORARY CONCRETE BARRIER, TEMPORARY RUNAROUND, AND EXISTING HMA SHOULDER TO REDUCE THE LANES WIDTH TO 11' IN BOTH THE DIRECTIONS AS PER HIGHWAY STANDARD 701331 AND AS SHOWN IN THE MOT PLANS.
2. REMOVE NORTHERN HALF OF CULVERT AND CONSTRUCT NORTHERN HALF OF PROPOSED STORM SEWER.
3. CONSTRUCT WB HMA SHOULDER, INTERSECTION IMPROVEMENTS, PROPOSED NORTH SIDE DITCHES AND GRADING AS SHOWN IN PLANS.
4. INSTALL GUARDRAIL AND TERMINAL END SECTIONS AS SHOWN IN PLANS.

STAGE 2 -AT CULVERT AT STA 1408+39

1. SHIFT TRAFFIC TO THE NORTH SIDE ON NEW HMA SHOULDER UTILIZING TEMPORARY CONCRETE BARRIER AND DRUMS WITH 8' BUFFER TO REDUCE LANE WIDTHS TO 11' IN BOTH DIRECTIONS AS SHOWN IN THE PLANS.
2. REMOVE SOUTHERN HALF OF THE CULVERT AND CONSTRUCT REMAINING HALF OF THE PROPOSED STORM SEWER ON IL 176.
3. CONSTRUCT EB HMA SHOULDERS, INTERSECTION IMPROVEMENTS, PRPOSED SOUTHSIDE DITCHES AND GRADING AS SHOWN IN PLANS.
4. INSTALL GUARDRAIL AND TERMINAL END SECTIONS AS SHOWN IN PLANS.

STAGE 3 - IL ROUTE 176: MCCUE RD TO END OF PROJECT LIMIT (EAST END):

1. UTILIZE HIGHWAY STANDARD 701502 AND PERFORM RESURFACING OPERATIONS ON IL 176 FROM DEERPASS RD TO MCCUE RD.
2. INSTALL SHOULDER RUMBLE STRIPS.
3. COMPLETE ALL LANDSCAPING ITEMS AND INSTALL PERMANENT PAVEMENT MARKINGS.
4. REMOVE TEMPORARY TRAFFIC CONTROL DEVICES, EROSION CONTROL DEVICES.

MODEL: Default; FILE: \\mccue\c:\engineering\live\projects\13045\_IDOT\_IL\_176\CADD\CADD\_Sheets\CADD\_162G35-Ht-MOT\_Seq\_Constr.dgn



USER NAME = jent	DESIGNED - LRC	REVISED -  JMT 08/31/2021
	DRAWN - JN	REVISED -
PLOT SCALE = 2,0000' / in.	CHECKED - AB	REVISED -
PLOT DATE = 8/31/2021	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGING AND TRAFFIC CONTROL SEQUENCING  
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

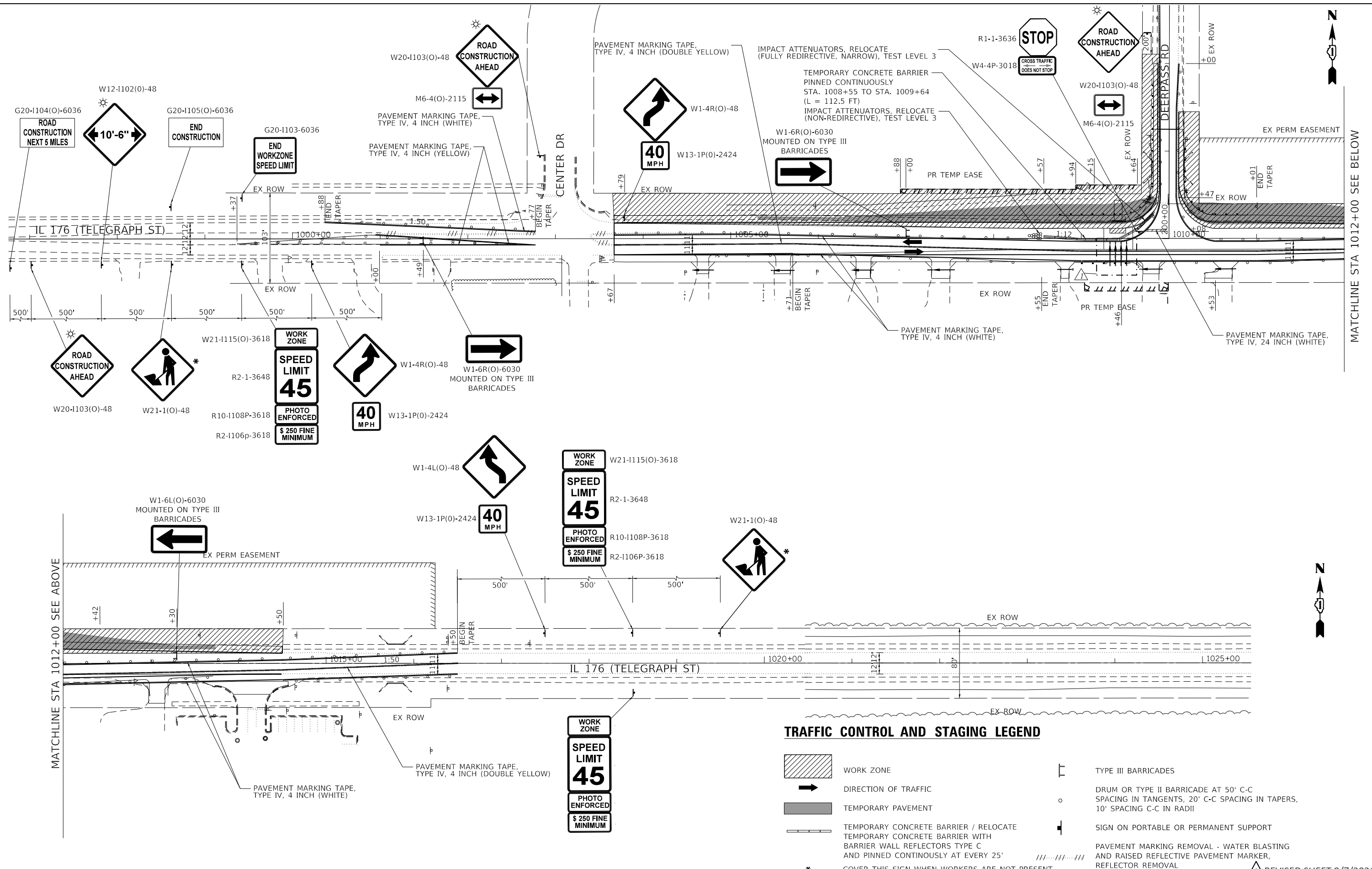
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F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY MCHENRY	TOTAL SHEETS 300	SHEET NO. 71
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62G35	

REVISED SHEET 9/7/2021



MODEL: Default  
 FILE: M:\proj\02\Engineering\Live\Projects\13045\_IDOT\_IL\_176(CADD)\CADD\_Sheets\CADD\_163G35-sh2-MOT\_Deerpas Stg 2.dgn



**TRAFFIC CONTROL AND STAGING LEGEND**

- WORK ZONE
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT
- TEMPORARY CONCRETE BARRIER / RELOCATE TEMPORARY CONCRETE BARRIER WITH BARRIER WALL REFLECTORS TYPE C AND PINNED CONTINUOUSLY AT EVERY 25'
- TYPE III BARRICADES
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENTS, 20' C-C SPACING IN TAPERS, 10' SPACING C-C IN RADII
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- PAVEMENT MARKING REMOVAL - WATER BLASTING AND RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL
- \* COVER THIS SIGN WHEN WORKERS ARE NOT PRESENT



USER NAME = jent	DESIGNED - AB	REVISED -  JMT 08/31/2021
PLOT SCALE = 100.0000' / in.	DRAWN - JN	REVISED -
PLOT DATE = 8/31/2021	CHECKED - LRC	REVISED -
	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**STAGING AND TRAFFIC CONTROL PLANS  
 DEERPASS ROAD - STAGE 2  
 IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY MCHENRY	TOTAL SHEETS 300	SHEET NO. 76
CONTRACT NO. 62G35			ILLINOIS FED. AID PROJECT	

**REVISED SHEET 9/7/2021**

MATCHLINE STA 1012+00 SEE BELOW

IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST) DRAINAGE SCHEDULE OF QUANTITIES				SHEET NUMBER																		
CODE NO.	DESCRIPTION	UNITS	TOTAL QUANTITY	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	
				1003+67 TO 1012+50	1012+50 TO 1026+50	1068+50 TO 1082+50	1082+50 TO 1096+50	1124+50 TO 1138+50	1138+50 TO 1152+50	1208+50 TO 1222+50	1222+50 TO 1236+50	1236+50 TO 1250+50	1264+50 TO 1278+50	1306+50 TO 1320+50	1320+50 TO 1334+50	1334+50 TO 1348+50	1348+50 TO 1362+50	1362+50 TO 1376+50	1376+50 TO 1390+50	1390+50 TO 1404+50	1404+50 TO 1413+00	
20800150	TRENCH BACKFILL	CU YD	590	111.0	16.8		33.4	7.0	10.2	12.2	22.6		36.7		155.5	2.4				5.6	176.1	
28100105	STONE RIPRAP, CLASS A3	SQ YD	56	50									2		4							
28200200	FILTER FABRIC	SQ YD	6										2		4							
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1	1																		
50100500	REMOVAL OF EXISTING STRUCTURES NO. 3	EACH	1																		1	
50105220	PIPE CULVERT REMOVAL	FOOT	1002	169	119		119	31	32	58	92		163		178					20	21	
54213450	END SECTIONS 15"	EACH	56	14	2		14	2	4	2	4		6		4						2	2
54213459	END SECTION 24"	EACH	6		2										4							
54214725	PRECAST REINFORCED CONCRETE FLARED END SECTIONS - ELLIPTICAL, EQUIVALENT ROUND-SIZE 30"	EACH	8	8																		
542A5485	PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 30"	FOOT	240	240																		
54261418	CONCRETE END SECTION, STANDARD 542001, 18", 1:4	EACH	2										2									
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	69	5		2	6	4	4	4	7	5	6		6	2	2	4	2	8	2	
60108100	PIPE UNDERDRAINS 4" (SPECIAL)	FOOT	335	17		8	27	16	17	19	39	12	31		15	15	9	33	8	45	24	
60108204	PIPE UNDERDRAINS, TYPE 2, 4"	FOOT	19478	1655	400	38	2440	690	1780	1581	1360	1770	1970		1057	483	350	510	820	2220	354	
60221000	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	1																			1
5421C015	PIPE CULVERTS, CLASS C, TYPE 1 15" (TEMPORARY)	FOOT	60																	60		
5421C024	PIPE CULVERTS, CLASS C, TYPE 1 24" (TEMPORARY)	FOOT	227	92																72		63
542A0223	PIPE CULVERTS, CLASS A, TYPE 1 18"	FOOT	64										64									
542A0229	PIPE CULVERTS, CLASS A, TYPE 1 24"	FOOT	138												138							
542C0220	PIPE CULVERTS, CLASS C, TYPE 1 15"	FOOT	750	169	34		168	27	52	43	95		86		50						26	
542C0229	PIPE CULVERTS, CLASS C, TYPE 1 24"	FOOT	69		69																	
550A0360	STORM SEWERS, CLASS A, TYPE 2, 15"	FOOT	189																			189
X0322938	TEMPORARY END SECTION	EACH	2																	2		
X6028050	TEMPORARY MANHOLE	EACH	1																	1		

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	DRAWN - AFL	REVISED -
PLOT SCALE = 50.0000' / in.	CHECKED - TKL	REVISED -
PLOT DATE = 9/1/2021	DATE - 06/17/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCHEDULE OF QUANTITIES  
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)

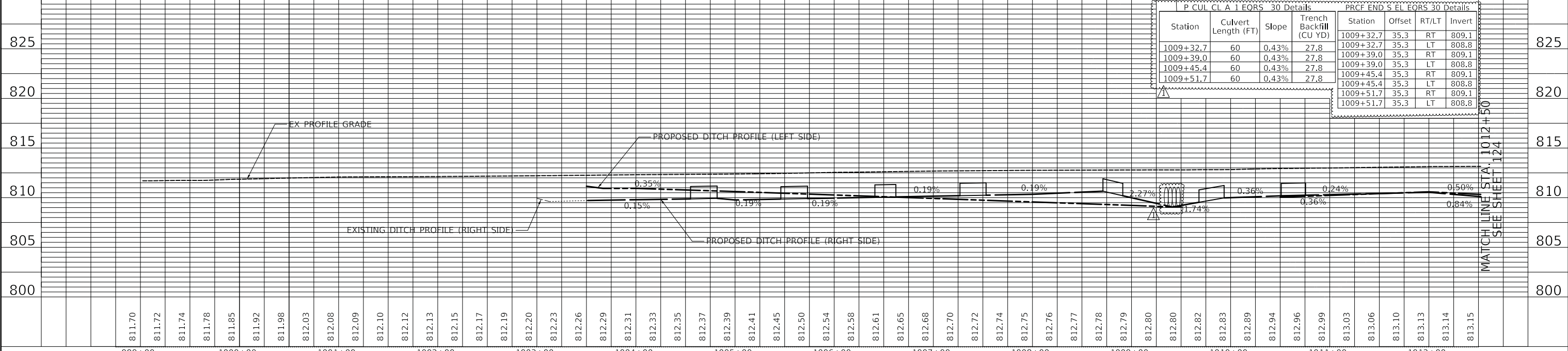
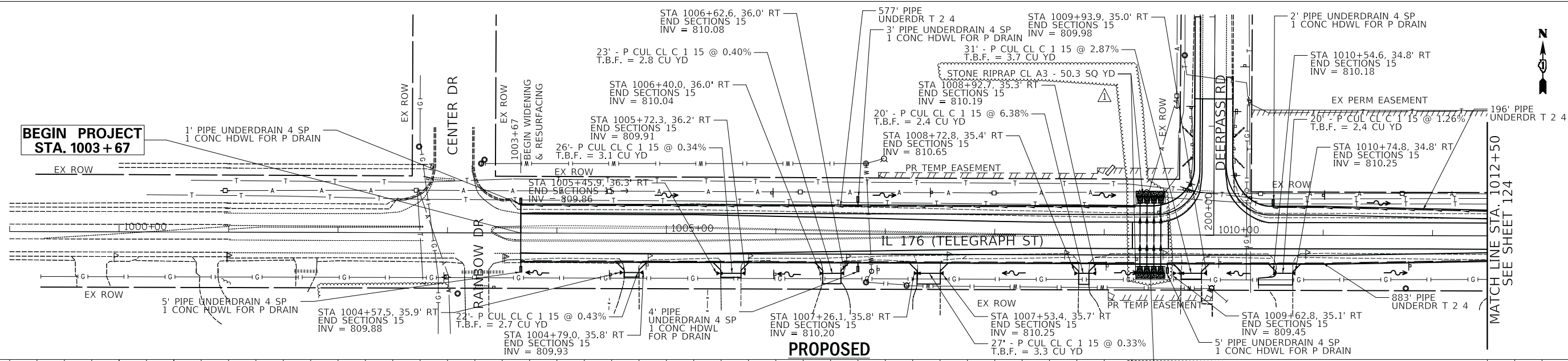
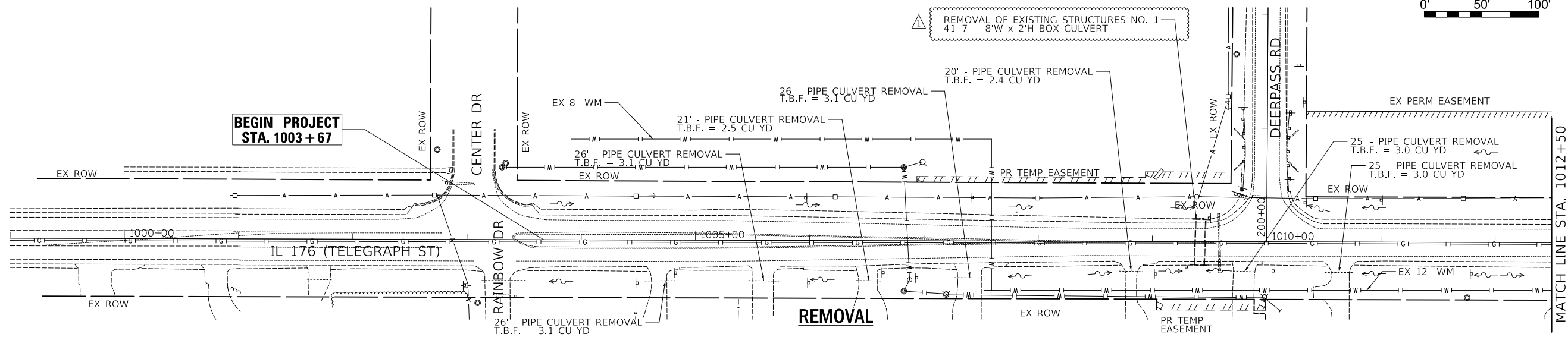
SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY MCHENRY	TOTAL SHEETS 300	SHEET NO. 122
CONTRACT NO. 62G35				
ILLINOIS FED. AID PROJECT				

REVISED SHEET 9/7/2021

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	ALIGNED		
	CADD FILE NAME		
	NO.		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	NO.		



Station	Culvert Length (FT)	Slope	Trench Backfill (CU YD)
1009+32.7	60	0.43%	27.8
1009+39.0	60	0.43%	27.8
1009+45.4	60	0.43%	27.8
1009+51.7	60	0.43%	27.8

Station	Offset	RT/LT	Invert
1009+32.7	35.3	RT	809.1
1009+32.7	35.3	LT	808.8
1009+39.0	35.3	RT	809.1
1009+39.0	35.3	LT	808.8
1009+45.4	35.3	RT	809.1
1009+45.4	35.3	LT	808.8
1009+51.7	35.3	RT	809.1
1009+51.7	35.3	LT	808.8



USER NAME = af1  
DESIGNED - AFL  
DRAWN - AFL  
PLOT SCALE = 50.0000' / in.  
PLOT DATE = 9/1/2021

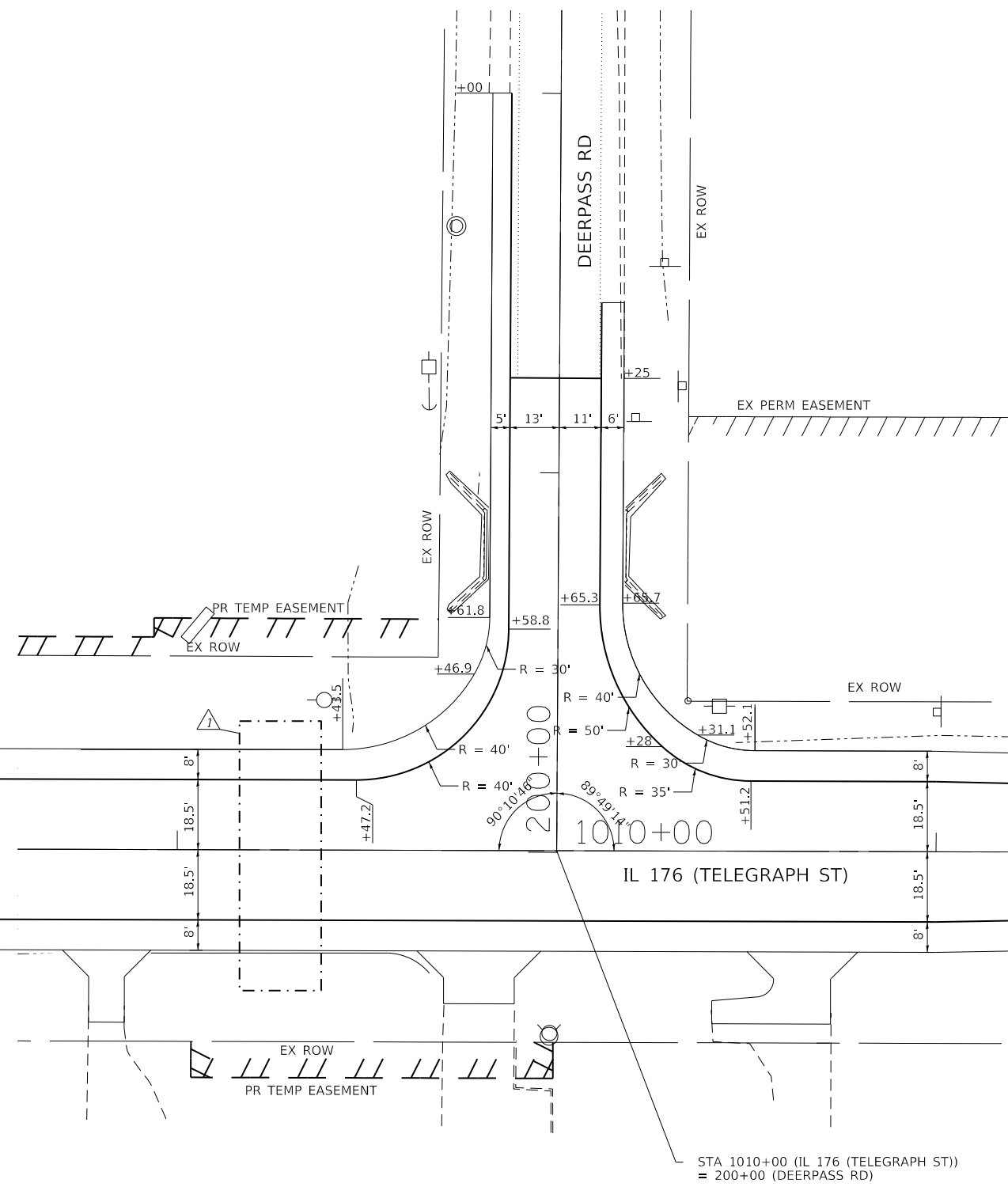
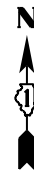
REVISIONS:  
01 - 09/01/2021  
02 -  
03 -  
04 -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

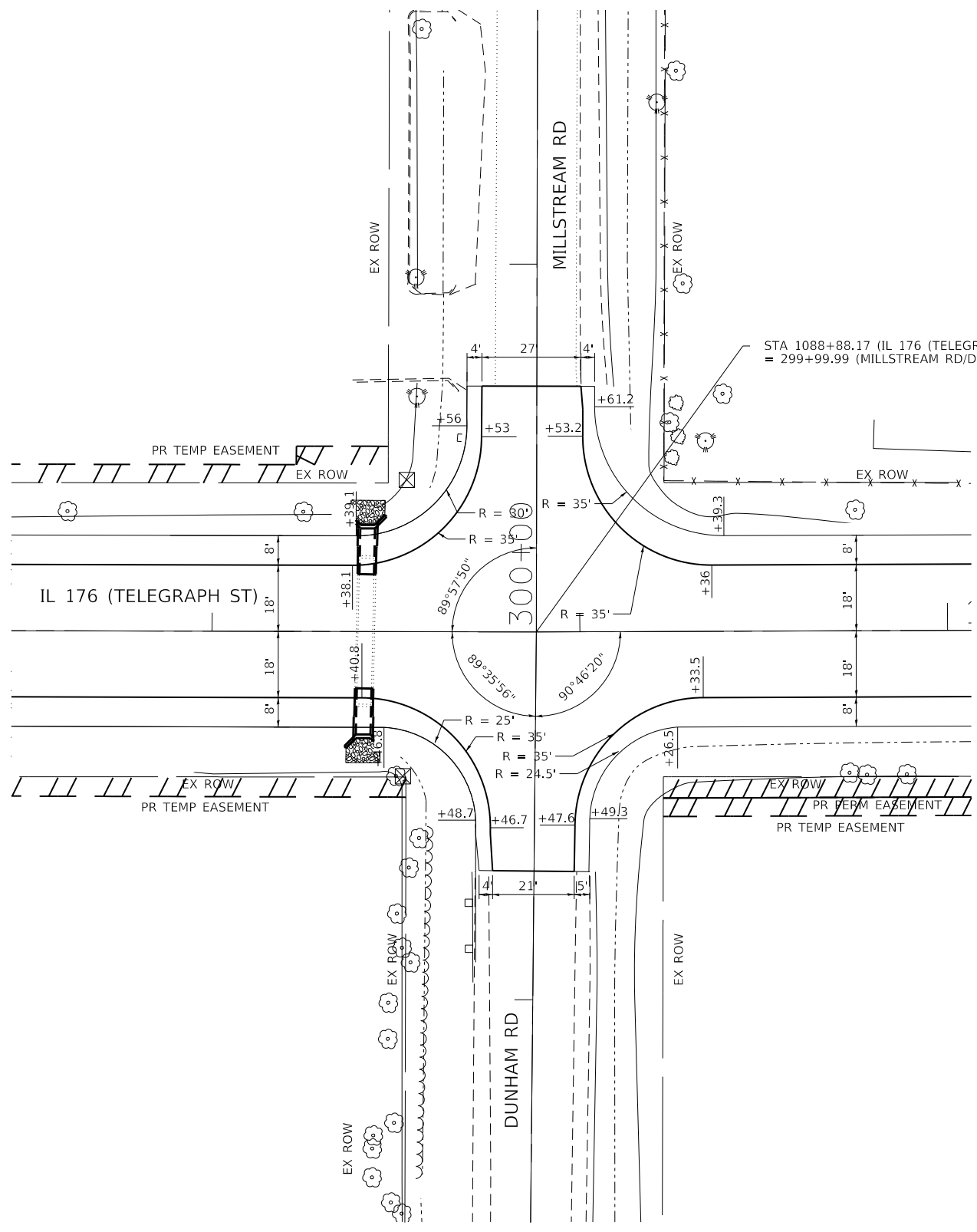
**REMOVAL AND PROPOSED DRAINAGE PLAN AND PROFILE  
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

SCALE: 1" = 50' SHEET 1 OF 18 SHEETS STA. 1003+67 TO STA. 1012+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
533	(119&105)C&W-1	McHENRY	300	123
CONTRACT NO. 62G35			ILLINOIS FED. AID PROJECT	



STA 1010+00 (IL 176 (TELEGRAPH ST))  
= 200+00 (DEERPASS RD)



STA 1088+88.17 (IL 176 (TELEGRAPH ST))  
= 299+99.99 (MILLSTREAM RD/DUNHAM RD)

MODEL: Default  
FILE: \\mwr\c:\engineering\live\projects\13045\DOT IL 176\CADD\CADD\_Sheets\CADD\_Sheets\13045-DRP-DRP-Miller.dgn



USER NAME = jent	DESIGNED - IH	REVISED -  JMT 08/31/2021
PLOT SCALE = 40.0000' / in.	DRAWN - JMT	REVISED -
PLOT DATE = 8/31/2021	CHECKED - LRC	REVISED -
	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INTERSECTION DETAILS - DEERPASS RD AND MILLSTREAM RD  
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY MCHENRY	TOTAL SHEETS 300	SHEET NO. 167
				CONTRACT NO. 62G35
ILLINOIS FED. AID PROJECT				

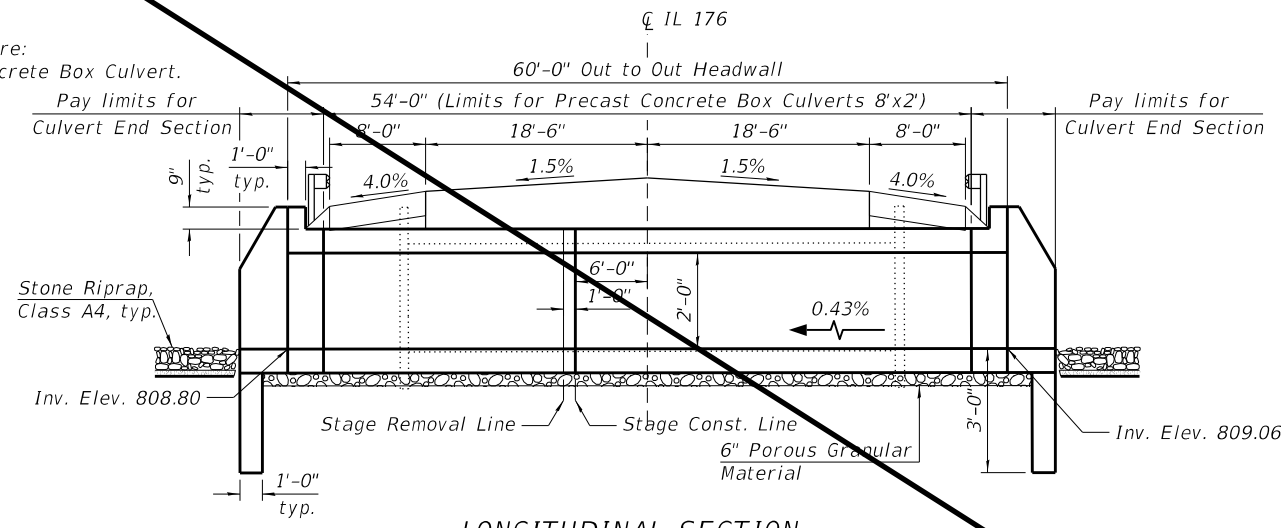
REVISED SHEET 9/7/2021

Benchmark: Stainless steel disk stamped "MARENGO" on the north side of IL 176, W. of Deerpass Road near witness post. Elev. 811.53.

Existing Structure: The Structure No. 056-0342 carrying IL 176 over a ditch is a single barrel reinforced concrete box culvert with no skew. The barrel dimensions are 8'W x 2'H and 11'-7" out to out length along the  $\bar{C}$  Culvert. The structure is located just W. of Deerpass Road. Staged Construction will be utilized during the replacement of the culvert.

No salvage.

Proposed Structure:  
8'x2' Precast Concrete Box Culvert.



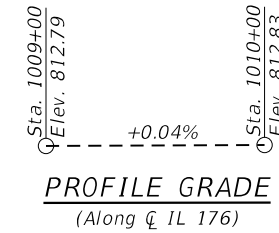
**LONGITUDINAL SECTION**

**INDEX OF SHEETS**

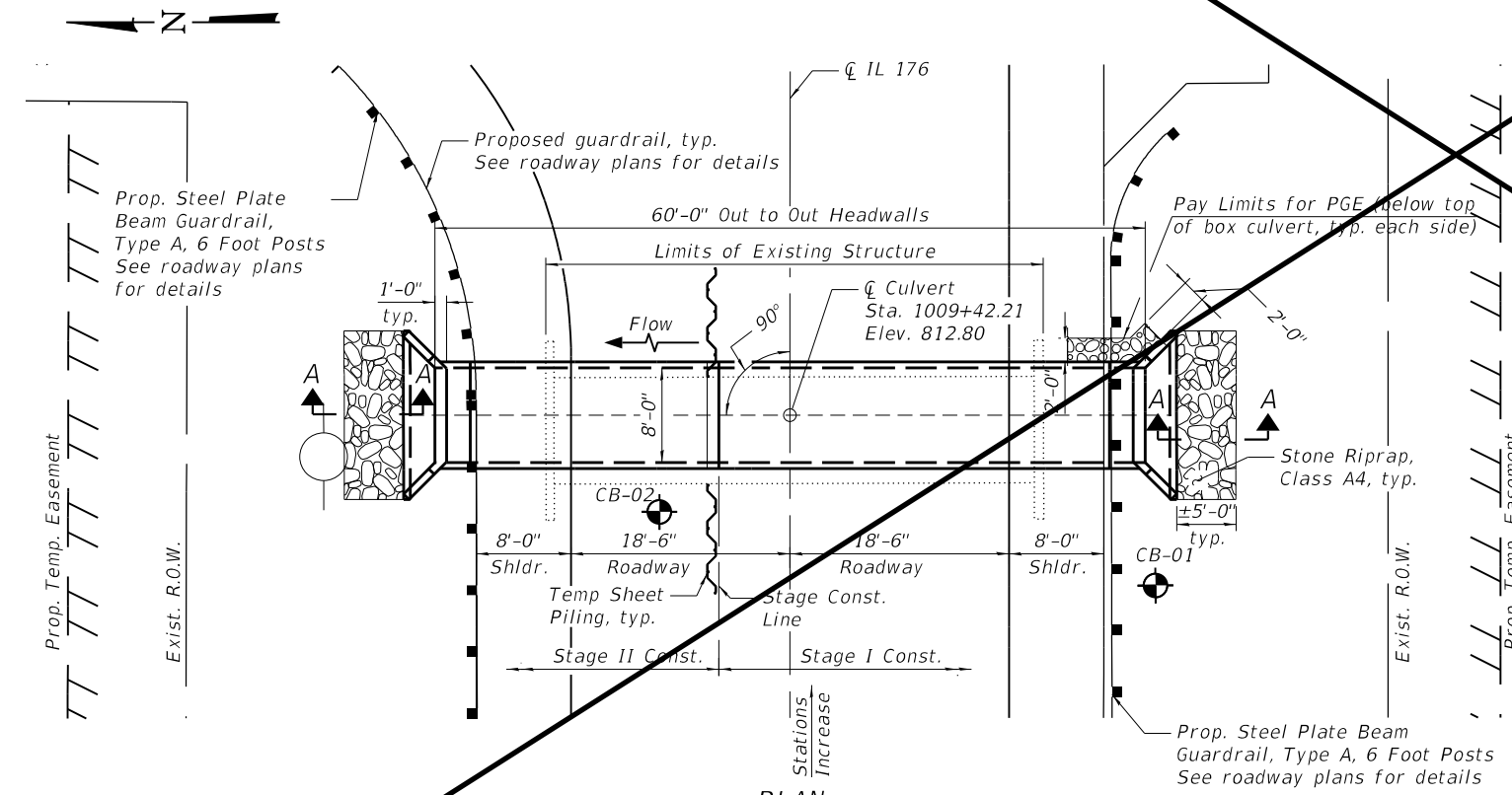
1. General Plan
2. General Notes and Total Bill of Material
3. Precast Concrete Box Culvert Apron End Section Details (1 of 2)
4. Precast Concrete Box Culvert Apron End Section Details (2 of 2)
5. Boring Logs

**SCOPE OF WORK**

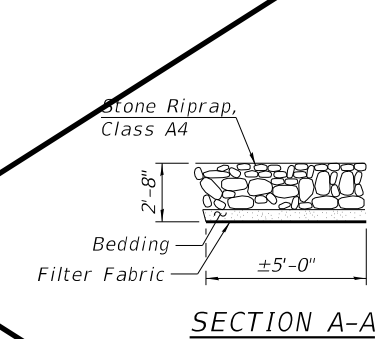
1. Construct temporary surround, temporary drainage, and temporary pavement for Pre-Stage I. See MOT and Drainage Sheets.
2. Remove existing roadway culvert for Stage I Removal.
3. Construct proposed culvert and end section for Stage I Construction.
4. Shift traffic for Stage II Removal.
5. Remove existing roadway and culvert for Stage II Removal.
6. Construct proposed culvert and end section for Stage II Construction.
7. Re-establish the flow through new culvert and open the road to the traffic.



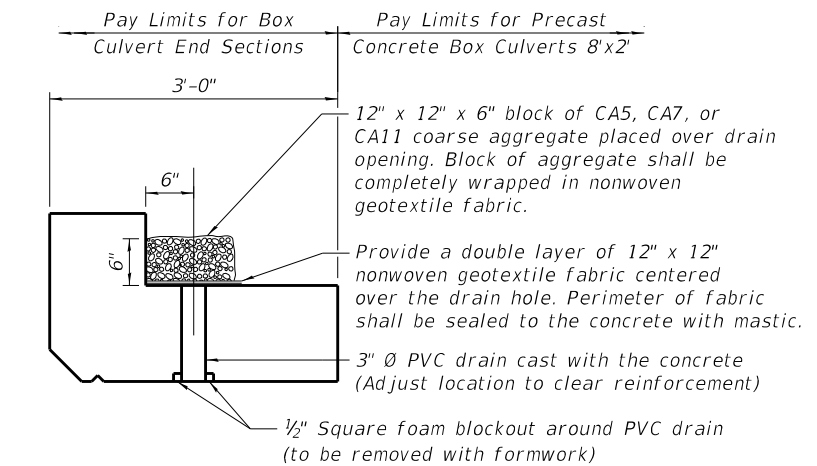
**PROFILE GRADE**  
(Along  $\bar{C}$  IL 176)



**PLAN**



**SECTION A-A**



**DRAIN DETAIL**

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)

STATION 1009+42.21  
BUILT 20 BY  
STATE OF ILLINOIS  
LOADING HL-93  
STRUCTURE NO. 056-0343

**NAME PLATE**  
See Std. 515001



DATE SIGNED: 06/18/2021  
EXP. DATE: 11/30/2022

**Remove Sheet**

**WATERWAY INFORMATION**

Drainage Area = 0.1 sq. mi. Low Grade Elev. = 812.70 @ Sta. 1009+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	2	3	2	2	809.30	0.10	0.00	809.40	809.30
	10	5	2	2	809.40	0.30	0.00	809.70	809.40
Design	50	7	3	3	809.50	0.30	0.00	809.80	809.50
Base	100	8	3	3	809.50	0.40	0.00	809.90	809.50
Overtopping									
Max. Calc.	500								

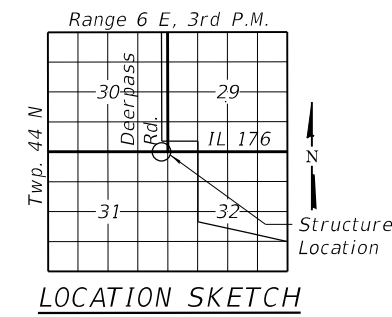
**LOADING HL-93**

Allow 50#/sq. in. for future wearing surface

**DESIGN SPECIFICATIONS**  
2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

**DESIGN STRESSES**  
FIELD UNITS

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
PRECAST UNITS  
 $f'_c = 5,000$  psi



**LOCATION SKETCH**

**GENERAL PLAN**  
**IL-176 CULVERT, W. OF DEERPASS RD.**  
**OVER DRAINAGE DITCH**  
**SECTION NO. (119 & 105) C&W-1**  
**McHENRY COUNTY**  
**STATION 1009+42.21**  
**STRUCTURE NO. 056-0343**

MODEL: Default  
FILE NAME: Q:\Engineering\Live\Projects\13045\_IDOT IL 176\CADD\CADD Sheets\Structural\0560343-62G35-001-CPE.dgn



USER NAME =	DESIGNED - SAT	REVISED - JMT 08/31/2021
PLOT SCALE =	CHECKED - SPS	REVISED -
PLOT DATE =	DRAWN - JN	REVISED -
	CHECKED - JMT	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**STRUCTURE NO. 056-0343**

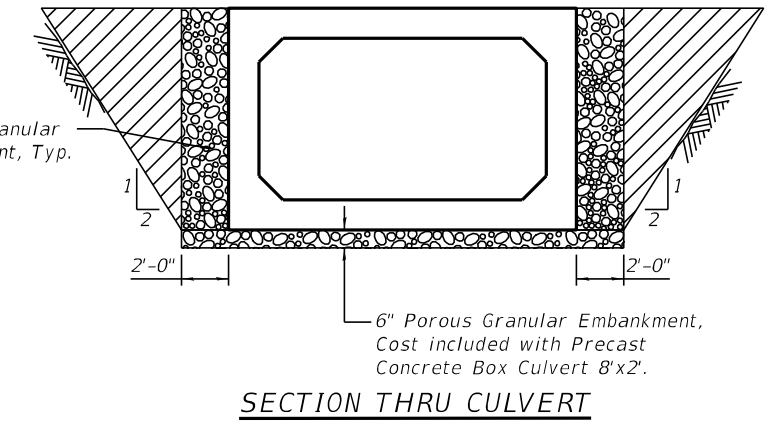
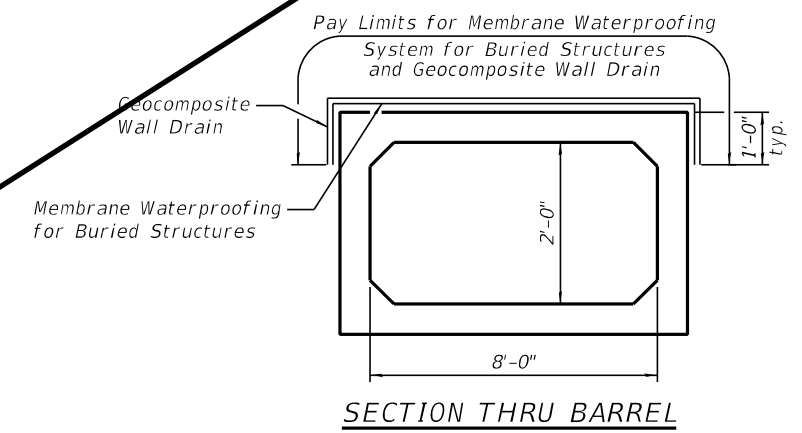
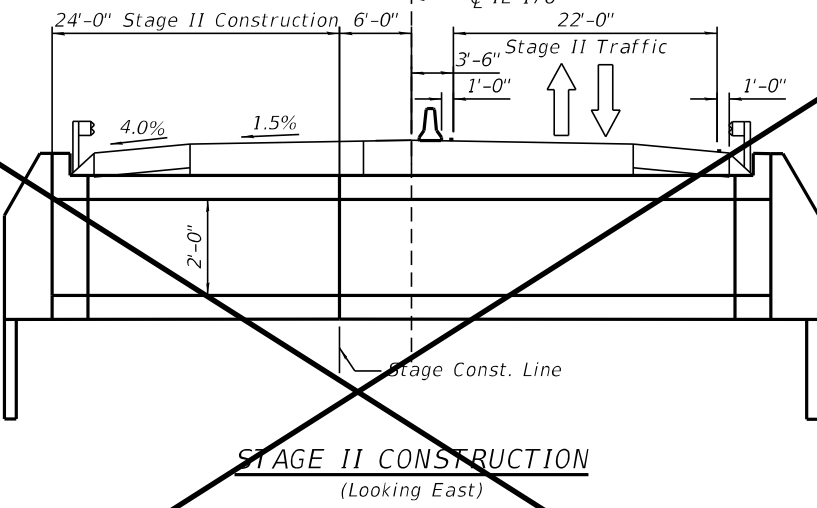
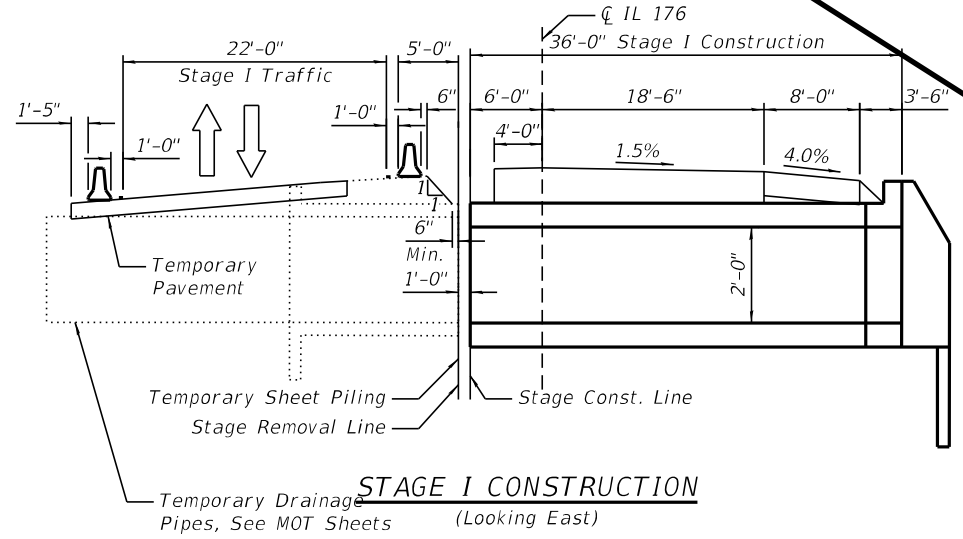
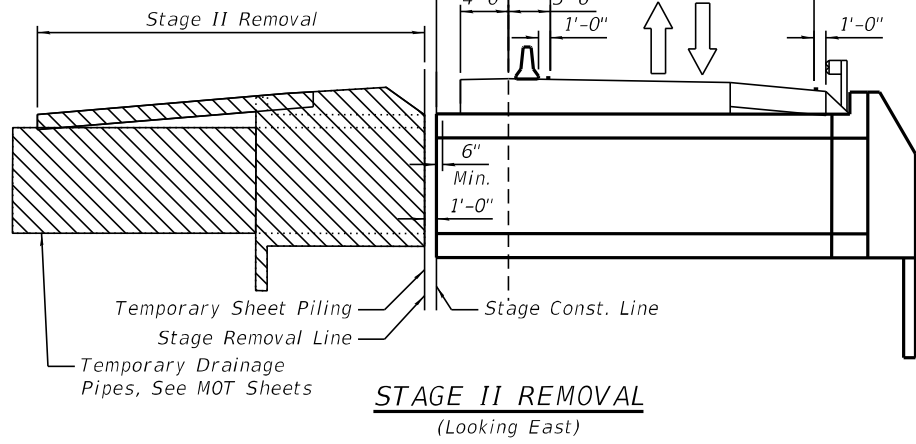
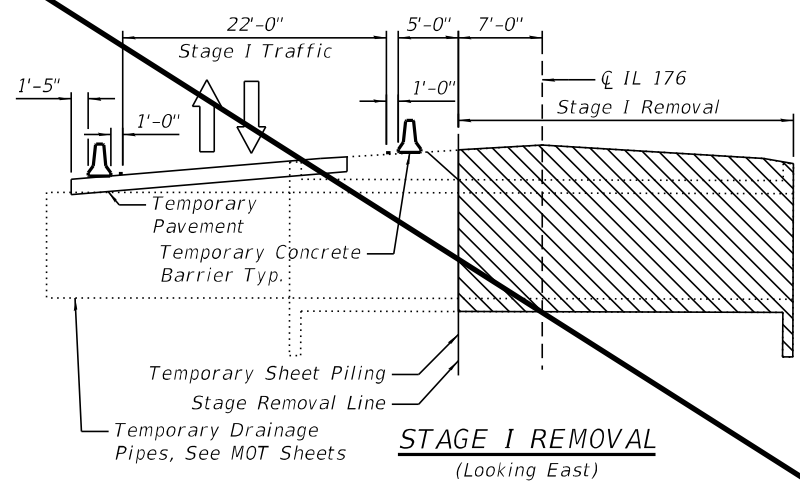
SHEET 1 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
533	(119&105)C&W-1	McHENRY	300	198
CONTRACT NO. 62G35				

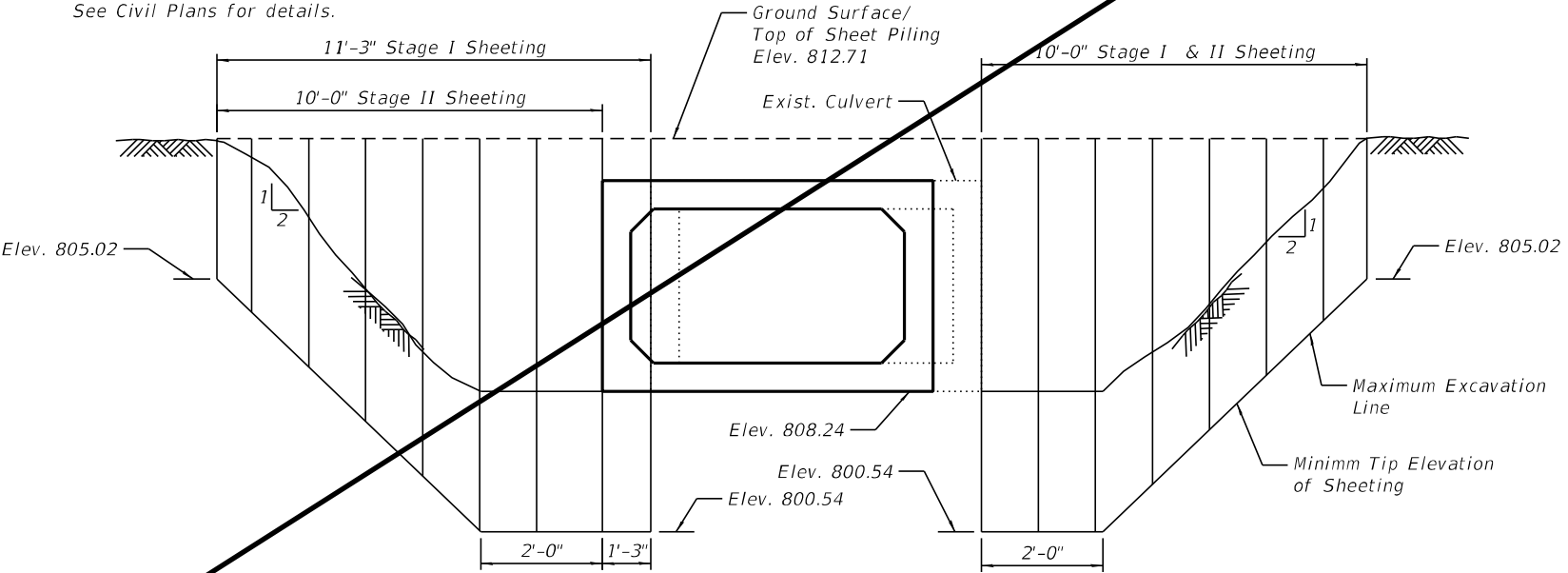
ILLINOIS FED. AID PROJECT  
**DELETED ENTIRE SHEET 9/7/2021**



ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq Yd	16
Filter Fabric	Sq Yd	16
Removal of Existing Structures No. 1	Each	1
Box Culvert End Sections, Culvert No. 1	Each	2
Precast Concrete Box Culverts 8'x2'	Foot	54
Membrane Waterproofing System for Buried Structures	Sq Yd	74
Geocomposite Wall Drain	Sq Yd	74
Temporary Sheet Piling	Sq Ft	217
Porous Granular Embankment	Cu Yd	84
Name Plates	Each	1



Note: Stage I is utilized for the construction of temporary pavement, temporary drainage, and temporary runaround. See Civil Plans for details.



**TEMPORARY SHEET PILING DETAILS**  
Minimum Section Modulus = 3.0 in<sup>3</sup>/ft

- Precast Concrete Box Culverts 8'x2' shall conform to the requirements of Article 540.06 of the Standard Specifications and the appropriate requirements of ASTM C 1577.
- The design fill height for this culvert is less than 2 ft.
- Box Culvert End Sections shall be paid for as noted in Article 540.08.
- The 6 in. thick layer of porous granular material required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. Cost of the porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.
- Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.
- Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert, 2 ft from the back face of the end sections, and not closer than 2 ft from the face of embankment.
- All excavation required for the construction of the culvert and end sections as shown in the plans and in accordance with the Standard Specifications shall be included with the cost of Precast Concrete Box Culverts 8'x2'.
- The 2 year peak flow rate is 93.1 cfs.
- See Sheet 223 of 300 for Temporary Concrete Barrier for Stage Construction Details.

MODEL: Default  
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PLOT DATE =	DRAWN - JN	REVISED -
	CHECKED - JMT	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

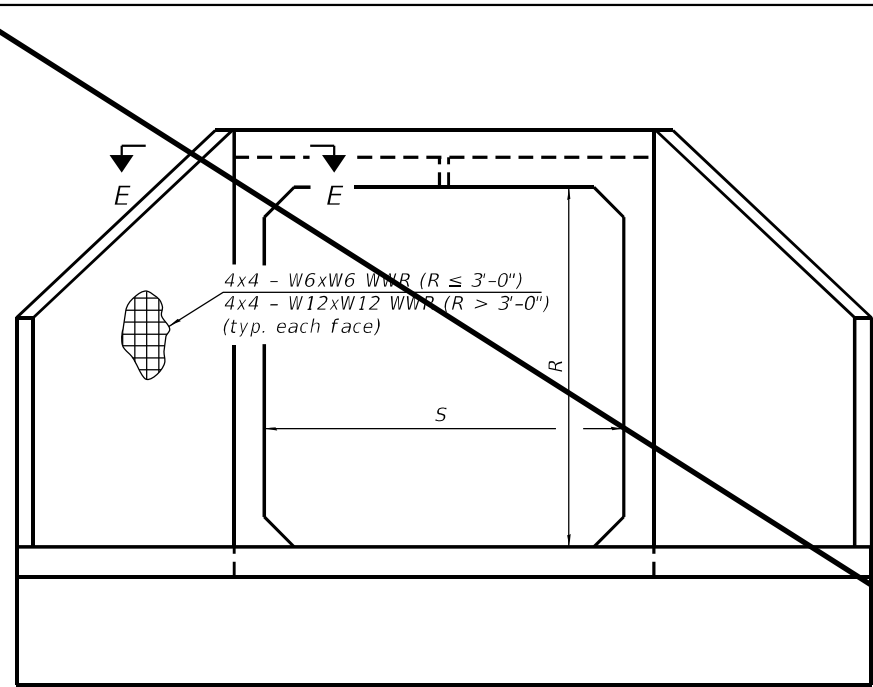
**GENERAL NOTES AND TOTAL BILL OF MATERIALS  
STRUCTURE NO. 056-0343**

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 199
CONTRACT NO. 62G35				
ILLINOIS FED. AID PROJECT				

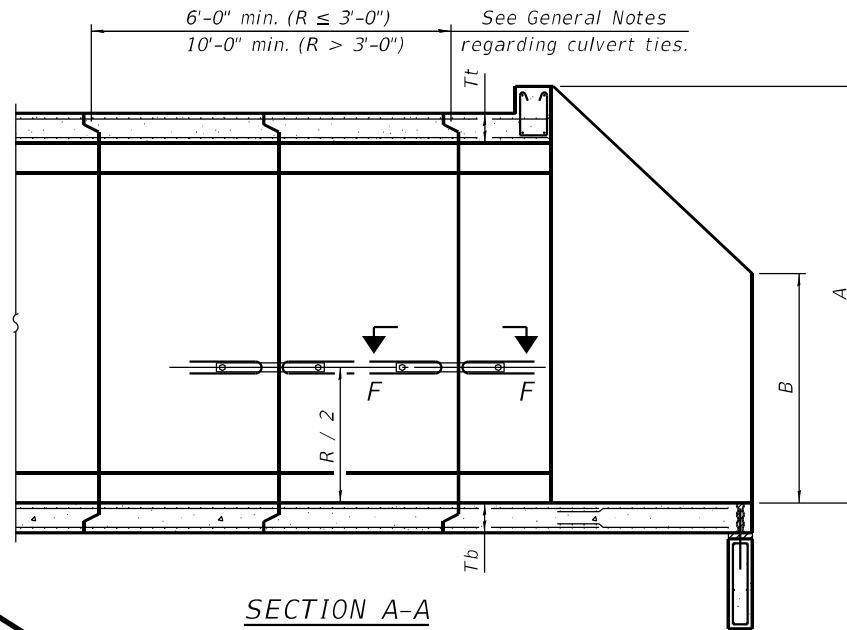
SHEET 2 OF 5 SHEETS

DELETED ENTIRE SHEET 9/7/2021





END VIEW



SECTION A-A

GENERAL NOTES

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. End sections will be paid for at the contract unit price per each for Box Culvert End Sections.

The Contractor may furnish the end section as a single precast concrete piece or construct the end section in the field using cast-in-place (CIP) construction. For CIP construction, the bottom slab thickness shall be increased by 2" and the clear cover to the bottom mat of reinforcement shall be increased to 3".

Box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements for ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

The number of culvert ties shall be sufficient to engage the minimum length of culvert barrel shown within the pay limits for Precast Concrete Box Culverts and will be dependent upon the length of box culvert segments furnished by the Contractor. Culvert ties are not required for box culverts having a rise (R) less than or equal to 3 ft and a span (S) greater than or equal to 10 ft.

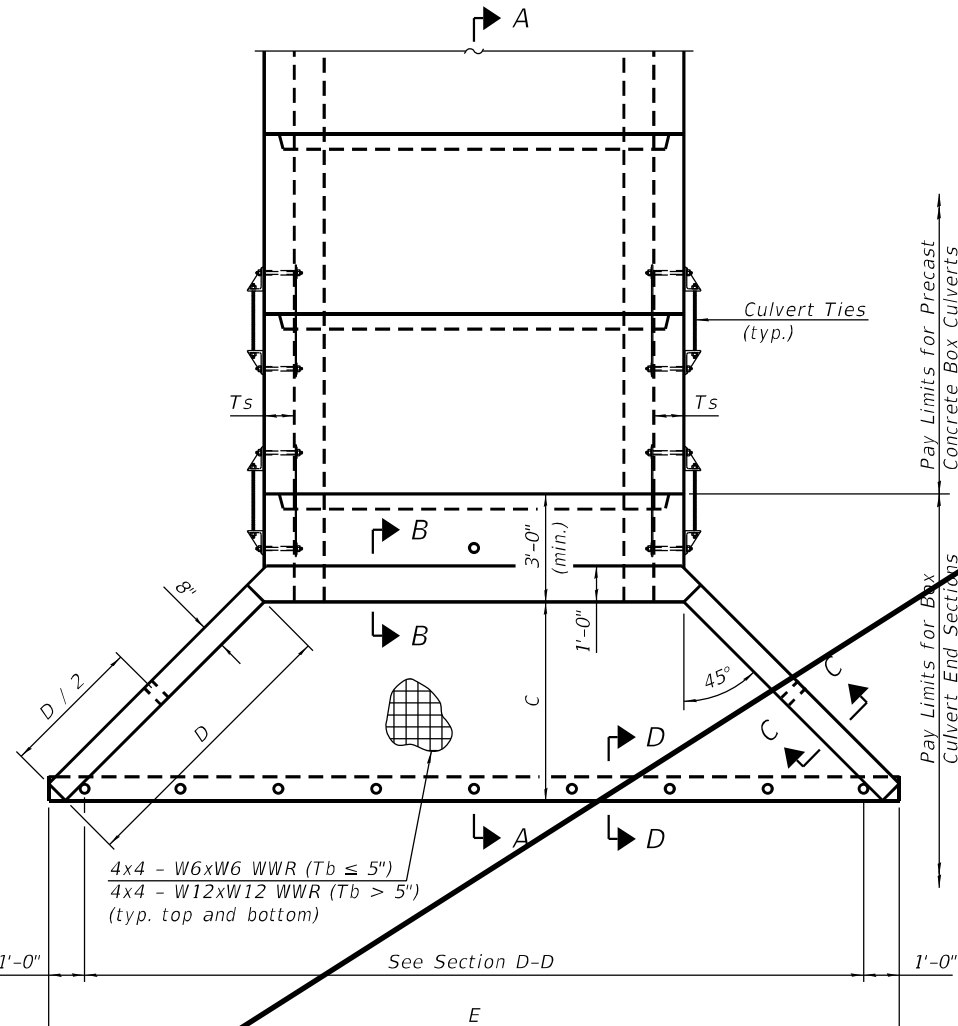
All costs associated with furnishing and installing or constructing the toewall and culvert ties will not be measured for payment but shall be included in the unit price for Box Culvert End Sections of the culvert number specified.

Shop drawings that detail slab thickness and reinforcement layout for the Box Culvert End Sections shall be provided to the Engineer for review and approval. Reinforcement bars not detailed herein shall be detailed with a clear distance at the end of the reinforcement not less than 1/2" nor more than 2". For the precast option, it shall be the Contractor's responsibility for determining a method of handling and a construction procedure shall be included on the shop drawings. The Contractor shall determine and detail in the shop drawings any necessary strengthening or stiffening provisions necessary to handle the precast segment. Any required modifications shall be at no extra charge.

The Contractor may use reinforcement bars in lieu of welded wire reinforcement (WWR). Reinforcement bars shall be limited to the sizes of #3 through #5 bars, a maximum spacing of the lesser of 8" or the member thickness, and shall result in an area of reinforcement equal to or greater than that provided by the WWR. Minimum lap lengths detailed herein are applicable to WWR and reinforcement bars.

Reinforcement (circumferential and longitudinal) in the culvert barrel portion of the end section being lapped with reinforcement from the wingwalls or bottom slab of the end section shall not be less than that required by ASTM C 1577 for the design fill height or the reinforcement detailed for the end section, whichever is greater.

One drain hole shall be provided in each wingwall for end sections of box culverts having an opening with a clear rise greater than 3 ft. The drain hole shall be located within the lower 1/3 of the clear rise of the box culvert and shall conform to the requirements of Article 503.11 of the Standard Specifications.



PLAN

APRON END SECTION DIMENSIONS

Span (S)	Rise (R)	Tt	Tb	Ts	A	B	C	D	E	Concrete Cu. Yd.	Culvert Ties Required
3'-0"	2'-0"	7"	6"	4"	3'-4"	2'-2"	2'-10 5/8"	4'-1"	10'-4 5/8"	2.8	Yes
3'-0"	2'-0"	4"	4"	4"	3'-1"	2'-1"	2'-7 1/8"	3'-9"	9'-11"	2.3	Yes
3'-0"	3'-0"	7"	6"	4"	4'-4"	2'-8"	3'-10 5/8"	5'-6"	12'-4 5/8"	3.7	Yes
3'-0"	3'-0"	4"	4"	4"	4'-1"	2'-7"	3'-7 1/8"	5'-2"	11'-11"	3.1	Yes
4'-0"	2'-0"	7.5"	6"	5"	3'-4 1/2"	2'-2 1/2"	2'-11 3/8"	4'-2"	11'-8"	3.3	Yes
4'-0"	2'-0"	5"	5"	5"	3'-2"	2'-1"	2'-8 1/2"	3'-10"	11'-2 3/8"	2.8	Yes
4'-0"	3'-0"	7.5"	6"	5"	4'-4 1/2"	2'-8 1/2"	3'-11 3/8"	5'-7"	13'-8 1/8"	4.2	Yes
4'-0"	3'-0"	5"	5"	5"	4'-2"	2'-7"	3'-8 1/2"	5'-3"	13'-2 3/8"	3.7	Yes
4'-0"	4'-0"	7.5"	6"	5"	5'-4 1/2"	3'-2 1/2"	4'-11 3/8"	7'-0"	15'-8 1/8"	5.3	Yes
4'-0"	4'-0"	5"	5"	5"	5'-2"	3'-1"	4'-8 3/8"	6'-8"	15'-2 1/2"	4.7	Yes
5'-0"	2'-0"	8"	7"	6"	3'-5"	2'-3"	2'-11 3/8"	4'-2"	12'-10"	3.9	Yes
5'-0"	2'-0"	6"	6"	6"	3'-3"	2'-2"	2'-10"	4'-0"	12'-7 1/4"	3.5	Yes
5'-0"	3'-0"	8"	7"	6"	4'-5"	2'-9"	3'-11 3/8"	5'-7"	14'-10 1/8"	4.9	Yes
5'-0"	3'-0"	6"	6"	6"	4'-3"	2'-8"	3'-10"	5'-5"	14'-7 1/4"	4.5	Yes
5'-0"	4'-0"	8"	7"	6"	5'-5"	3'-3"	4'-11 3/8"	7'-0"	16'-10 1/8"	6.1	Yes
5'-0"	4'-0"	6"	6"	6"	5'-3"	3'-2"	4'-9 1/4"	6'-9"	16'-5 5/8"	5.5	Yes
5'-0"	5'-0"	8"	7"	6"	6'-5"	3'-9"	5'-11 3/8"	8'-5"	18'-10 1/8"	7.4	Yes
5'-0"	5'-0"	6"	6"	6"	6'-3"	3'-8"	5'-9 1/4"	8'-2"	18'-5 5/8"	6.8	Yes
6'-0"	2'-0"	8"	7"	7"	3'-5"	2'-3"	2'-11 3/8"	4'-2"	14'-0"	4.3	Yes
6'-0"	2'-0"	7"	7"	7"	3'-4"	2'-2"	2'-10 3/8"	4'-1"	13'-10 3/8"	4.2	Yes
6'-0"	3'-0"	8"	7"	7"	4'-5"	2'-9"	3'-11 3/8"	5'-7"	16'-0 1/8"	5.4	Yes
6'-0"	3'-0"	7"	7"	7"	4'-4"	2'-8"	3'-10 3/8"	5'-6"	15'-10 3/8"	5.2	Yes
6'-0"	4'-0"	8"	7"	7"	5'-5"	3'-3"	4'-11 3/8"	7'-0"	18'-0 1/8"	6.5	Yes
6'-0"	4'-0"	7"	7"	7"	5'-4"	3'-2"	4'-10 3/4"	6'-11"	17'-10 3/4"	6.5	Yes
6'-0"	5'-0"	8"	7"	7"	6'-5"	3'-9"	5'-11 3/8"	8'-5"	20'-0 1/8"	8.0	Yes
6'-0"	5'-0"	7"	7"	7"	6'-4"	3'-8"	5'-10 3/4"	8'-4"	19'-10 3/4"	7.8	Yes
6'-0"	6'-0"	8"	7"	7"	7'-5"	4'-3"	6'-11 1/2"	9'-10"	22'-0 1/4"	9.5	Yes
6'-0"	6'-0"	7"	7"	7"	7'-4"	4'-2"	6'-10 3/4"	9'-9"	21'-10 3/4"	9.3	Yes
7'-0"	2'-0"	8"	8"	8"	3'-5"	2'-3"	2'-11 3/8"	4'-2"	15'-2"	4.9	Yes
7'-0"	3'-0"	8"	8"	8"	4'-5"	2'-9"	3'-11 3/8"	5'-7"	17'-2 1/8"	6.1	Yes
7'-0"	4'-0"	8"	8"	8"	5'-5"	3'-3"	4'-11 3/8"	7'-0"	19'-2 1/8"	7.4	Yes
7'-0"	5'-0"	8"	8"	8"	6'-5"	3'-9"	5'-11 3/8"	8'-5"	21'-2 1/8"	8.9	Yes
7'-0"	6'-0"	8"	8"	8"	7'-5"	4'-3"	6'-11 1/2"	9'-10"	23'-2 1/4"	10.6	Yes
8'-0"	2'-0"	8"	8"	8"	3'-5"	2'-3"	2'-11 3/8"	4'-2"	16'-2"	5.3	Yes
8'-0"	3'-0"	8"	8"	8"	4'-5"	2'-9"	3'-11 3/8"	5'-7"	18'-2 1/8"	6.5	Yes
8'-0"	4'-0"	8"	8"	8"	5'-5"	3'-3"	4'-11 3/8"	7'-0"	20'-2 1/8"	7.8	Yes
8'-0"	5'-0"	8"	8"	8"	6'-5"	3'-9"	5'-11 3/8"	8'-5"	22'-2 1/8"	9.3	Yes
8'-0"	6'-0"	8"	8"	8"	7'-5"	4'-3"	6'-11 1/2"	9'-10"	24'-2 1/4"	11.0	Yes
9'-0"	2'-0"	9"	9"	9"	3'-6"	2'-3"	3'-0 3/4"	4'-4"	17'-6 7/8"	6.2	Yes
9'-0"	3'-0"	9"	9"	9"	4'-6"	2'-9"	4'-0 3/4"	5'-9"	19'-6 7/8"	7.5	Yes
9'-0"	4'-0"	9"	9"	9"	5'-6"	3'-3"	5'-0 3/4"	7'-2"	21'-6 7/8"	9.0	Yes
9'-0"	5'-0"	9"	9"	9"	6'-6"	3'-9"	6'-0 7/8"	8'-7"	23'-7"	10.6	Yes
9'-0"	6'-0"	9"	9"	9"	7'-6"	4'-3"	7'-0 7/8"	9'-11"	25'-5 5/8"	12.4	Yes
10'-0"	2'-0"	10"	10"	10"	3'-7"	2'-4"	3'-1 1/2"	4'-5"	18'-10 1/4"	7.1	No
10'-0"	3'-0"	10"	10"	10"	4'-7"	2'-10"	4'-1 1/2"	5'-10"	20'-10 1/4"	8.6	No
10'-0"	4'-0"	10"	10"	10"	5'-7"	3'-4"	5'-1 1/2"	7'-3"	22'-10 3/8"	10.2	Yes
10'-0"	5'-0"	10"	10"	10"	6'-7"	3'-10"	6'-1 1/2"	8'-8"	24'-10 3/8"	12.0	Yes
10'-0"	6'-0"	10"	10"	10"	7'-7"	4'-4"	7'-1 1/2"	10'-1"	26'-10 3/8"	13.9	Yes
11'-0"	2'-0"	11"	11"	11"	3'-8"	2'-4"	3'-2 1/8"	4'-7"	20'-3 1/8"	8.2	No
11'-0"	3'-0"	11"	11"	11"	4'-8"	2'-10"	4'-2 1/8"	6'-0"	22'-3 1/8"	9.8	No
11'-0"	4'-0"	11"	11"	11"	5'-8"	3'-4"	5'-2 1/8"	7'-4"	24'-1 3/4"	11.5	Yes
11'-0"	5'-0"	11"	11"	11"	6'-8"	3'-10"	6'-2 1/4"	8'-9"	26'-1 3/4"	13.3	Yes
11'-0"	6'-0"	11"	11"	11"	7'-8"	4'-4"	7'-2 1/4"	10'-2"	28'-1 1/8"	15.5	Yes
12'-0"	2'-0"	12"	12"	12"	3'-9"	2'-5"	3'-3 3/8"	4'-8"	21'-6 1/2"	9.3	No
12'-0"	3'-0"	12"	12"	12"	4'-9"	2'-11"	4'-3 3/8"	6'-1"	23'-6 1/2"	11.1	No
12'-0"	4'-0"	12"	12"	12"	5'-9"	3'-5"	5'-3 3/8"	7'-6"	25'-6 1/2"	13.0	Yes
12'-0"	5'-0"	12"	12"	12"	6'-9"	3'-11"	6'-3 3/8"	8'-11"	27'-6 3/8"	14.1	Yes
12'-0"	6'-0"	12"	12"	12"	7'-9"	4'-5"	7'-3 3/8"	10'-4"	29'-6 3/8"	17.4	Yes

Note:

Two sets of apron end section dimensions are shown above for some box culvert sizes due to the top and bottom slabs having different thicknesses per ASTM C 1577 for design fill heights less than 2 ft.

(Sheet 1 of 2)

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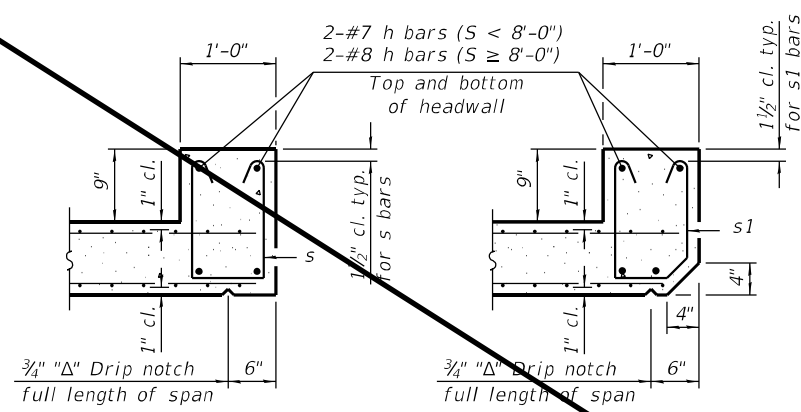
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT APRON END  
SECTION DETAILS - STRUCTURE NO. 056-0343

SHEET 3 OF 5 SHEETS

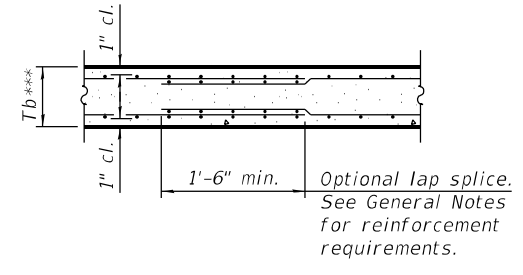
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CONTRACT NO. 62G35				
ILLINOIS FED. AID PROJECT				

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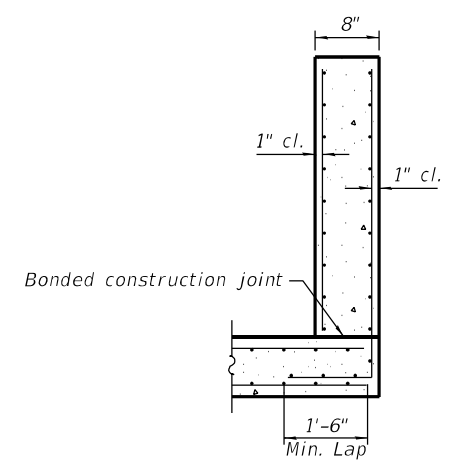


**SECTION B-B**  
(Top slab at downstream end)

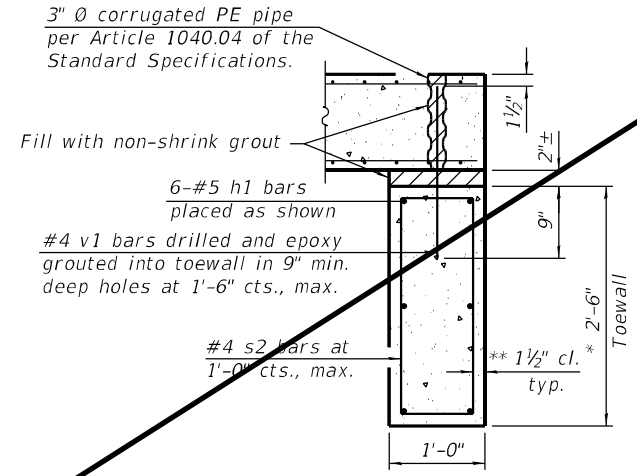
**SECTION B-B**  
(Top slab at upstream end)



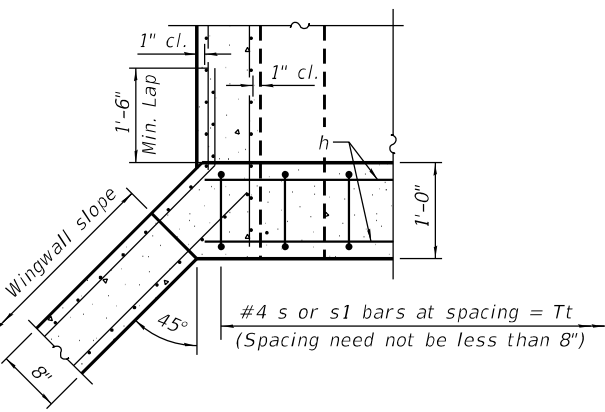
**SECTION B-B**  
(Bottom Slab)



**SECTION C-C**

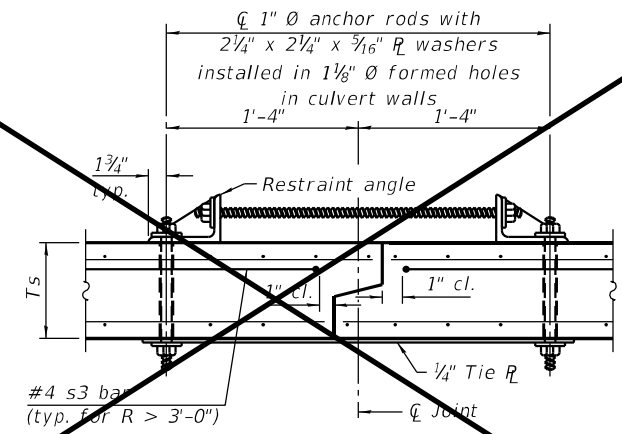


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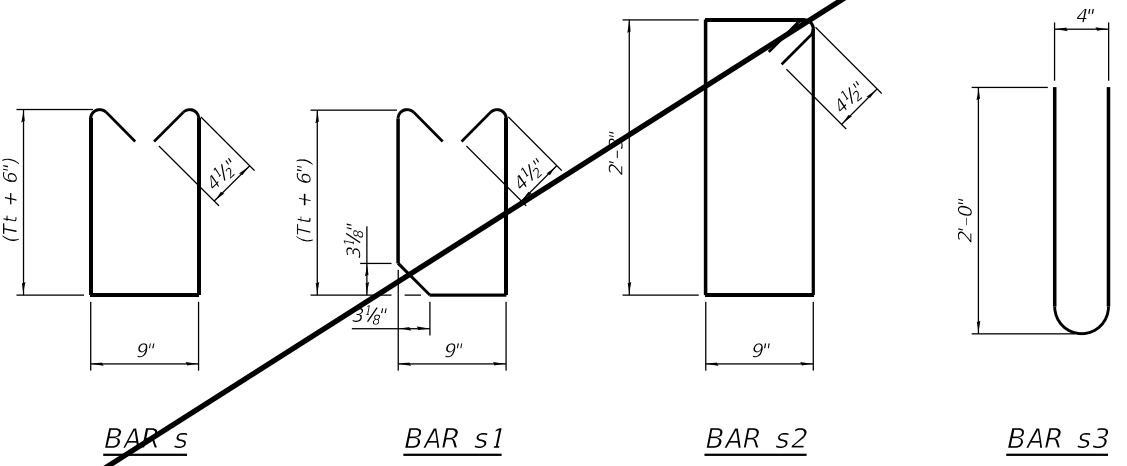


**SECTION E-E**

\*\*\* This dimension shall be increased by 2" for CIP construction.



**SECTION F-F**  
(Showing culvert tie details)

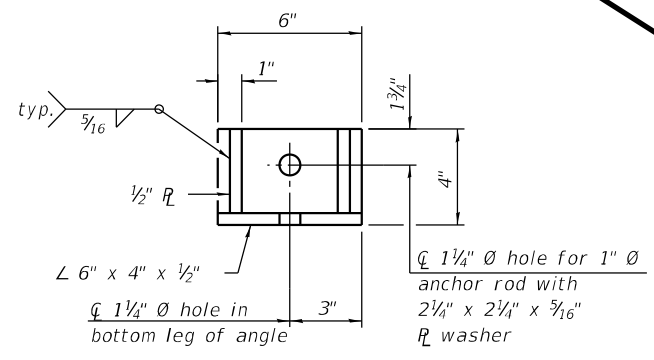


**BAR s**

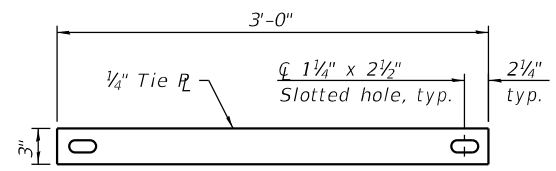
**BAR s1**

**BAR s2**

**BAR s3**



**RESTRAINT ANGLE DETAIL**



**TIE PLATE DETAIL**

**TOEWALL CONSTRUCTION SEQUENCE**

1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

\* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.

\*\* If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

Notes:  
1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for the tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 3/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

Remove Sheet

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PLOT DATE =	CHECKED - JMT	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT APRON END  
SECTION DETAILS - STRUCTURE NO. 056-0343

(Sheet 2 of 2)

DELETED ENTIRE SHEET 9/7/2021				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
533	(119&105)C&W-1	McHENRY	300	201
CONTRACT NO. 62G35				
ILLINOIS FED. AID PROJECT				

SHEET 4 OF 5 SHEETS

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
811.4	4-inch thick, black, damp SILTY CLAY LOAM --TOPSOIL--														
810.1	Stiff, dark brown, moist SILTY CLAY, trace organic	2		1		1.50	9								
	Loose, brown, moist GRAVELLY SAND	3		2											
		6		3											
808.4	Medium dense, brown, moist to saturated, medium SAND	4		4			18								
		5		5											
		5		5											
		6		6											
		6		6											
		8		8			24								
		6		6											
		7		7											
801.4	Boring terminated at 10.00 ft	10													

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	03-18-2019	Complete Drilling	03-18-2019	While Drilling	▽	3.75 ft	
Drilling Contractor	Wang Testing Services	Drill Rig	D25 ATV [93%]	At Completion of Drilling	▽	7.00 ft	
Driller	A&A	Logger	J. Rowells	Time After Drilling		NA	
Checked by	C. Marin	Drilling Method	2.25" HSA; boring backfilled upon completion	Depth to Water	▽	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
812.42	4.5-inch thick, ASPHALT --SHOULDER PAVEMENT--														
811.7	8-inch thick, dark brown SANDY GRAVEL														
811.1	--AGGREGATE BASE--	8													
	Hard, dark brown SILTY CLAY LOAM	10		1		4.50	15								
	--FILL--	3													
809.6	Stiff (1.23S), brown, damp SILTY CLAY LOAM, little gravel	3		2			6								
	Loose, brown, moist, medium SAND, trace gravel	4		2											
		5		3											
	--%Gravel=9.0--														
	--%Sand=81.6--														
	--%Silt=7.3--														
	--%Clay=2.2--														
	--A-3 (0)--														
807.1	Medium dense, brown and gray, saturated GRAVELLY SAND	6		3			16								
		6		6											
		3		4			18								
		5		5											
		6		6											
		7		7			14								
		4		4											
		7		7			16								
		8		8											
797.6	Boring terminated at 15.00 ft	15													

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	03-20-2019	Complete Drilling	03-20-2019	While Drilling	▽	5.50 ft	
Drilling Contractor	Wang Testing Services	Drill Rig	CME55 TMR [85%]	At Completion of Drilling	▽	3.00 ft	
Driller	A&A	Logger	J. Rowells	Time After Drilling		NA	
Checked by	C. Marin	Drilling Method	3.25" HSA; boring backfilled upon completion	Depth to Water	▽	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

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 WANGENG\INC\_4910501.GPJ WANGENG.GDT 8/1/19



USER NAME =	DESIGNED - SAT	REVISED -	1 JMT 08/31/2021
PLOT SCALE =	CHECKED - SPS	REVISED -	
PLOT DATE =	DRAWN - JN	REVISED -	
	CHECKED - JMT	REVISED -	

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BORING LOGS  
 STRUCTURE NO. 056-0343

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
533	(119&105)C&W-1	McHENRY	300	202
CONTRACT NO. 62G35				
ILLINOIS FED. AID PROJECT				

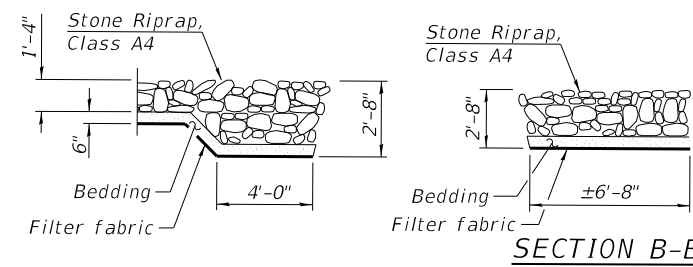
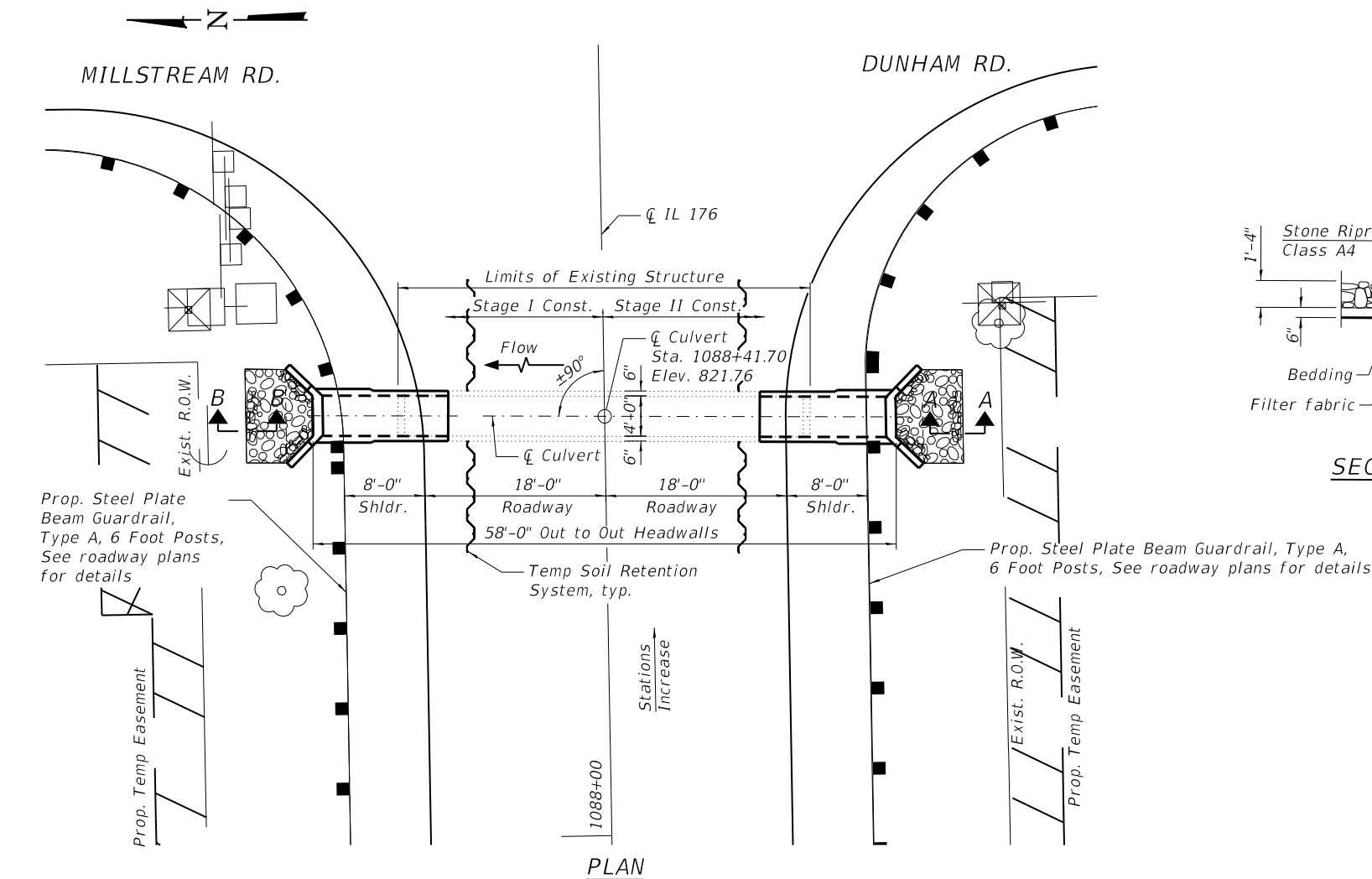
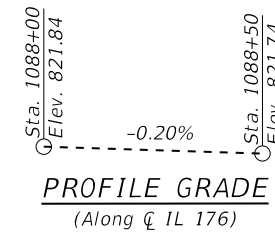
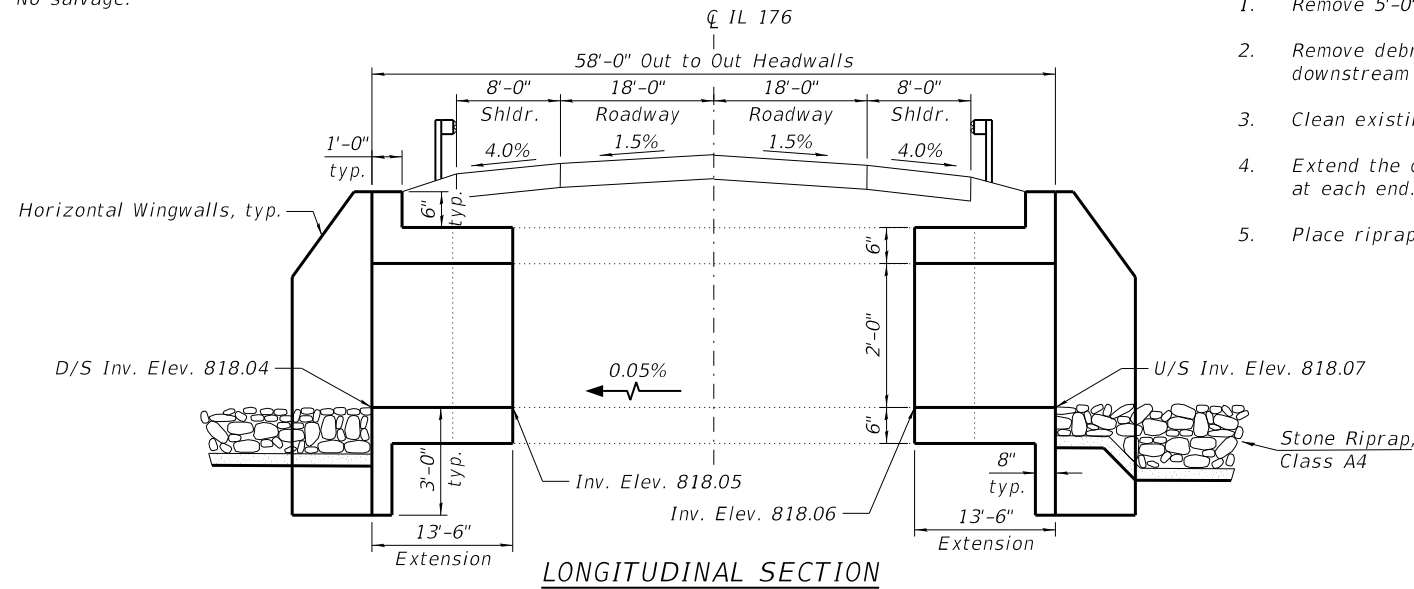
DELETED ENTIRE SHEET 9/7/2021



Benchmark: Top of Right Of Way marker on northwest corner of IL 176 and Millstream Road. Elev. 822.576

Existing Structure: Existing Structure is a cast-in-place single cell box culvert 4'W X 2'H carrying IL 176 over a ditch. The structure is located just W. of Dunham Rd. Out to out length of the structure is 41'-0". The structure is at no skew. Staged Construction will be utilized during construction.

No salvage.



**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	14
Filter Fabric	Sq. Yd.	14
Concrete Removal	Cu. Yd.	3
Expansion Bolts, 3/4"	Each	20
Concrete Box Culverts	Cu Yd	9.6
Reinforcement Bars, Epoxy Coated	Pound	2090
Concrete Sealer	Sq Ft	62
Debris Removal	L. Sum	0.17
Box Culverts to be Cleaned	Each	1
Porous Granular Embankment	Cu. Yd.	18
Temporary Soil Retention System	Sq. Ft.	110

**DESIGN SPECIFICATIONS**

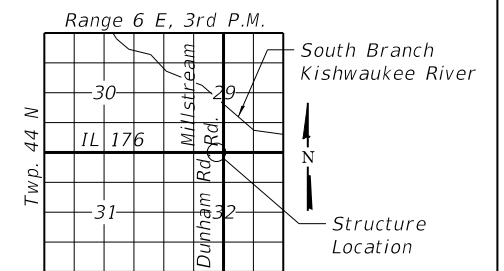
2002 AASHTO Std. Specifications

**DESIGN STRESSES**

FIELD UNITS

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

**LOADING HS 20-44**



DATE SIGNED: 06/18/2021  
 EXP. DATE: 11/30/2022

**GENERAL PLAN**  
 IL-176 CULVERT, W. OF DUNHAM RD.  
 OVER DRAINAGE DITCH  
 FAP 533-SEC. (119 & 105) C&W-1  
 McHENRY COUNTY  
 STATION 1088+41.70

**INDEX OF SHEETS**

- General Plan
- Culvert Extension Details

**SCOPE OF WORK**

- Remove 5'-0" of culvert at each end.
- Remove debris at upstream and downstream ends.
- Clean existing box culvert.
- Extend the culvert to the proposed length at each end.
- Place riprap at upstream and downstream ends.

**GENERAL NOTES:**

- Reinforcement bars designated (E) shall be epoxy coated.
- Concrete Sealer shall be applied to the top and outside face of the horizontal cantilever wingwalls, and headwalls.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- All excavation required for the construction of the culvert in accordance with the Standard Specifications shall be included with the cost of Concrete Box Culverts.
- Areas of excavation required for the construction of the culvert shall be backfilled with Granular Backfill for Structures. See Special Provisions for details.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work. However, the Contractor will be paid for the actual quantity furnished at the unit price bid for the work.
- The 2 year peak flow is 68 cfs.

MODEL: Default  
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USER NAME =	DESIGNED - SAT	REVISED - 08/31/2021 I.H.
PLOT SCALE =	CHECKED - SPS	REVISED -
PLOT DATE =	DRAWN - JN	REVISED -
	CHECKED - JMT	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL RTE. 176 STA. 1088+41.70 OVER DRAINAGE DITCH**

SHEET 1 OF 2 SHEETS

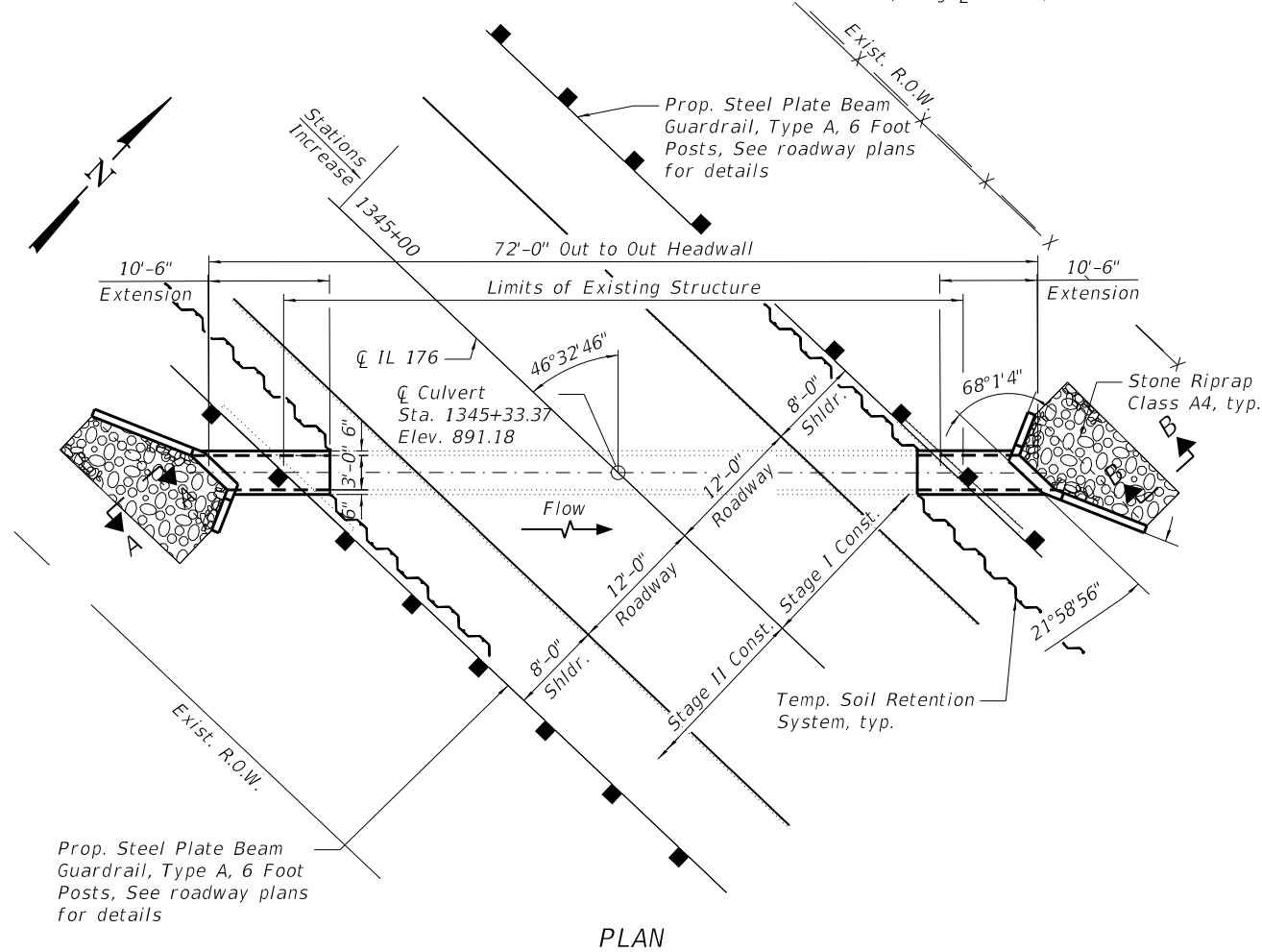
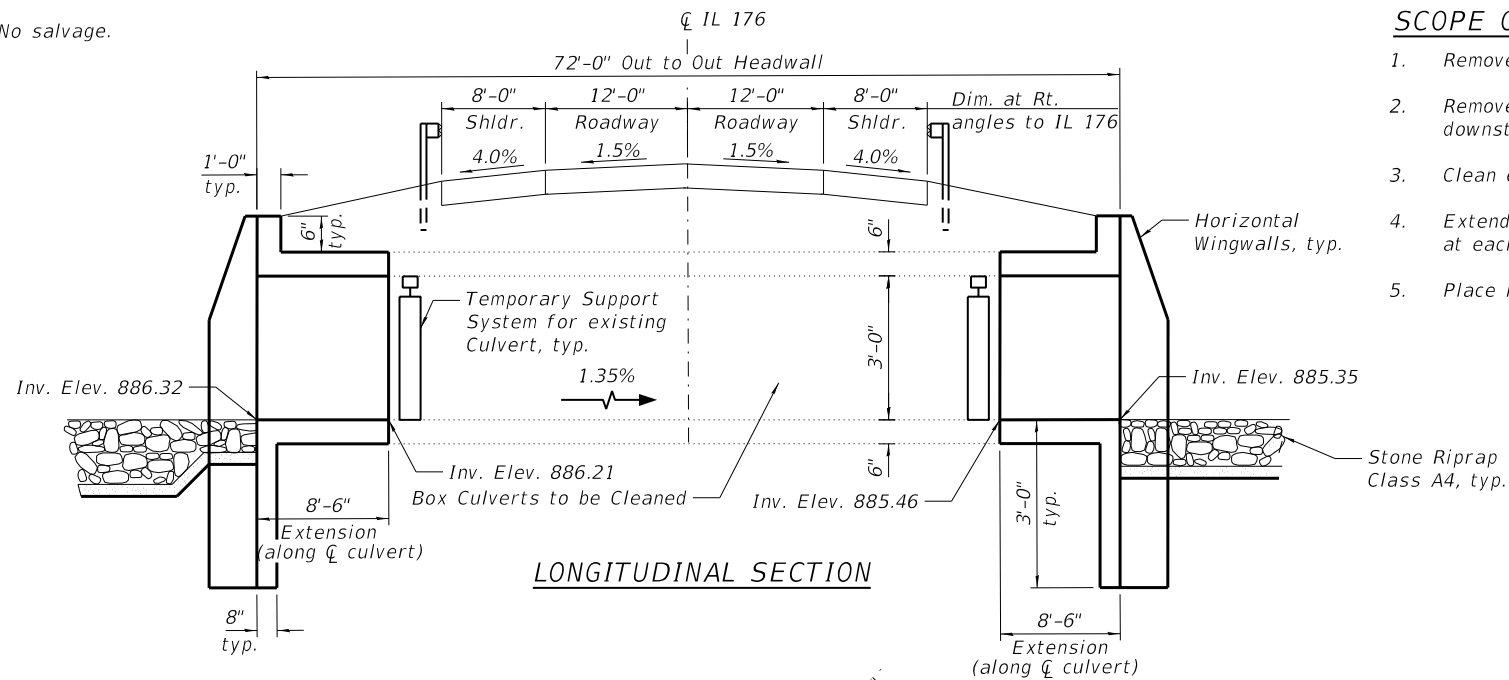
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
533	(119&105)C&W-1	McHENRY	300	205
CONTRACT NO. 62G35				

ILLINOIS FED. AID PROJECT  
 REVISION 1 REVISION SHEET 9/7/2021

Benchmark: Railroad spike in power pole on northwest corner of IL 176 and Sunnyside Road. Elev. 887.38.

Existing Structure: Existing Structure is a cast-in-place single cell box culvert 3'W X 3'H carrying IL 176 over a ditch. The structure is located approximately 1880' E. of Sunnyside Rd. Total length of the structure is 59'-0". The structure is at approximately 46° Skew to the left. Staged construction will be utilized during construction.

No salvage.



**INDEX OF SHEETS**

1. General Plan
2. Culvert Extension Details

**SCOPE OF WORK**

1. Remove 2'-0" of culvert at each end.
2. Remove debris in channel at upstream and downstream ends.
3. Clean existing box culvert.
4. Extend the culvert to the proposed length at each end.
5. Place riprap at upstream and downstream ends.

**GENERAL NOTES**

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Concrete Sealer shall be applied to the top and outside face of the horizontal cantilever wingwalls, and headwalls.
3. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
4. All excavation required for the construction of the culvert in accordance with the Standard Specifications shall be included with the cost of Concrete Box Culverts.
5. Areas of excavation required for the construction of the culvert shall be backfilled with Granular Backfill for Structures. See Special Provisions for details.
6. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work. However, the Contractor will be paid for the actual quantity furnished at the unit price bid for the work.
7. The 2 year peak flow is 381 cfs.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	20
Filter Fabric	Sq. Yd.	20
Concrete Removal	Cu. Yd.	7
Expansion Bolts, 3/4"	Each	24
Concrete Box Culverts	Cu Yd	10.3
Reinforcement Bars, Epoxy Coated	Pound	2390
Concrete Sealer	Sq Ft	121
Box Culverts to be Cleaned	Each	1
Temporary Soil Retention System	Sq Ft	328
Porous Granular Embankment	Cu. Yd.	19
Temporary Support System	Each	2

**DESIGN SPECIFICATIONS**

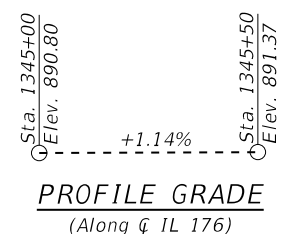
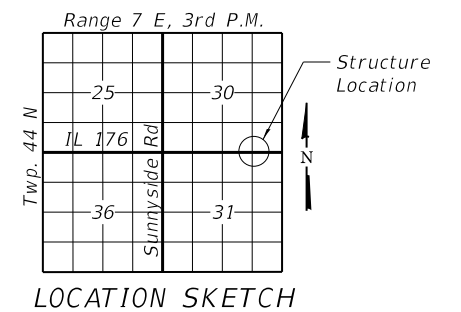
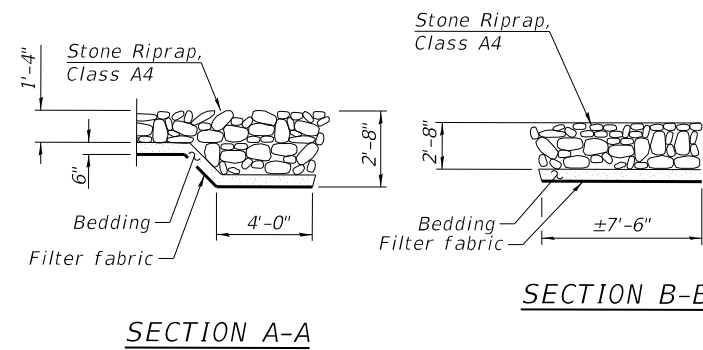
2002 AASHTO Std. Specifications

**DESIGN STRESSES**

**FIELD UNITS**

f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)

**LOADING HS 20-44**



DATE SIGNED: 06/18/2020  
EXP. DATE: 11/30/2022



**GENERAL PLAN**  
IL-176 CULVERT, 1880' E. OF SUNNYSIDE RD.  
OVER DRAINAGE DITCH  
SECTION NO. (119 & 105) C&W-1  
McHENRY COUNTY  
STATION 1345+33.37

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL RTE. 176 STA. 1345+33.37 OVER DRAINAGE DITCH

SHEET 1 OF 3 SHEETS

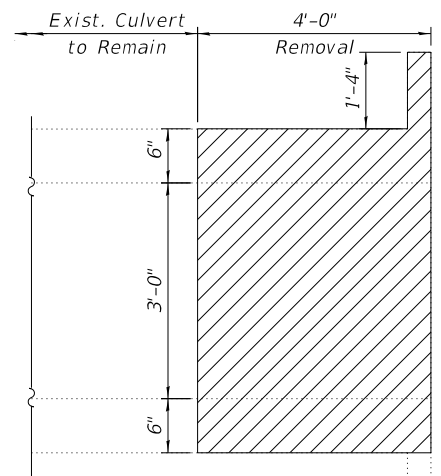
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CONTRACT NO. 62G35				

ILLINOIS FED. AID PROJECT  
REVISED SHEET 9/7/2021

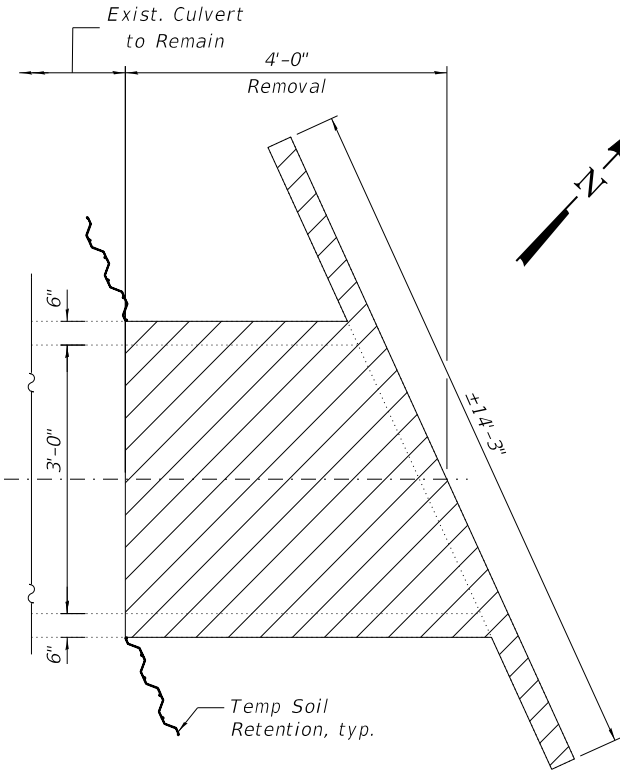
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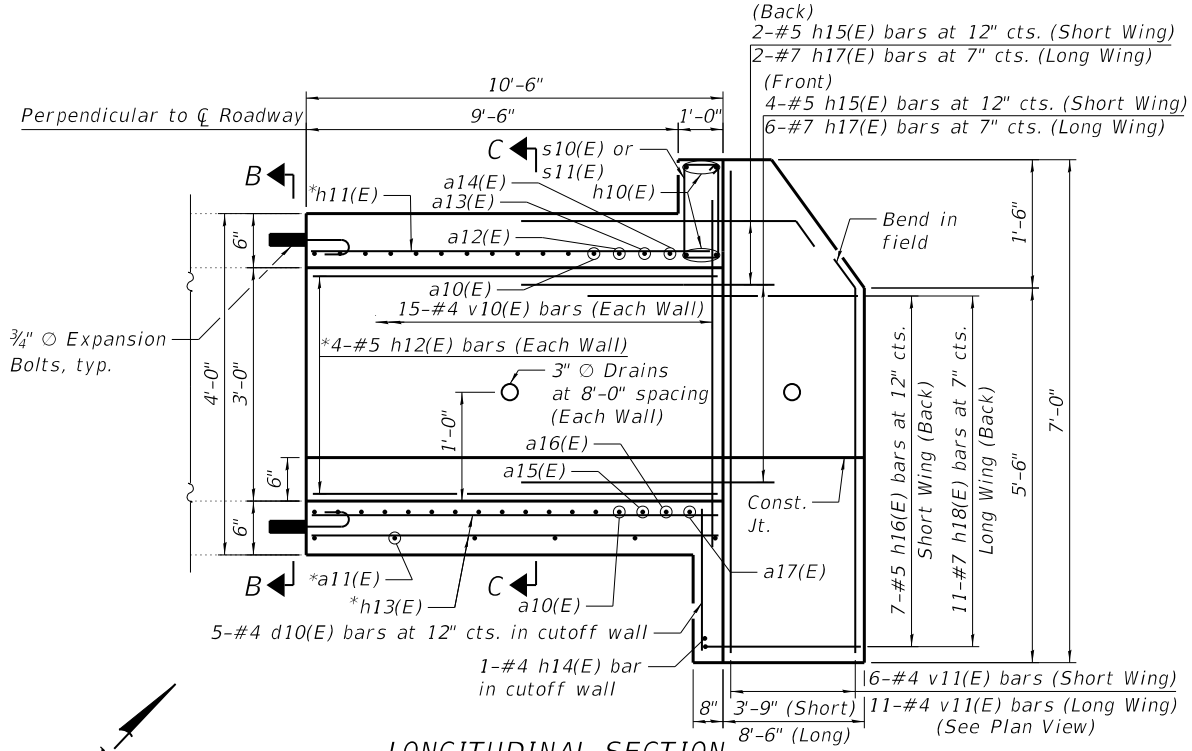
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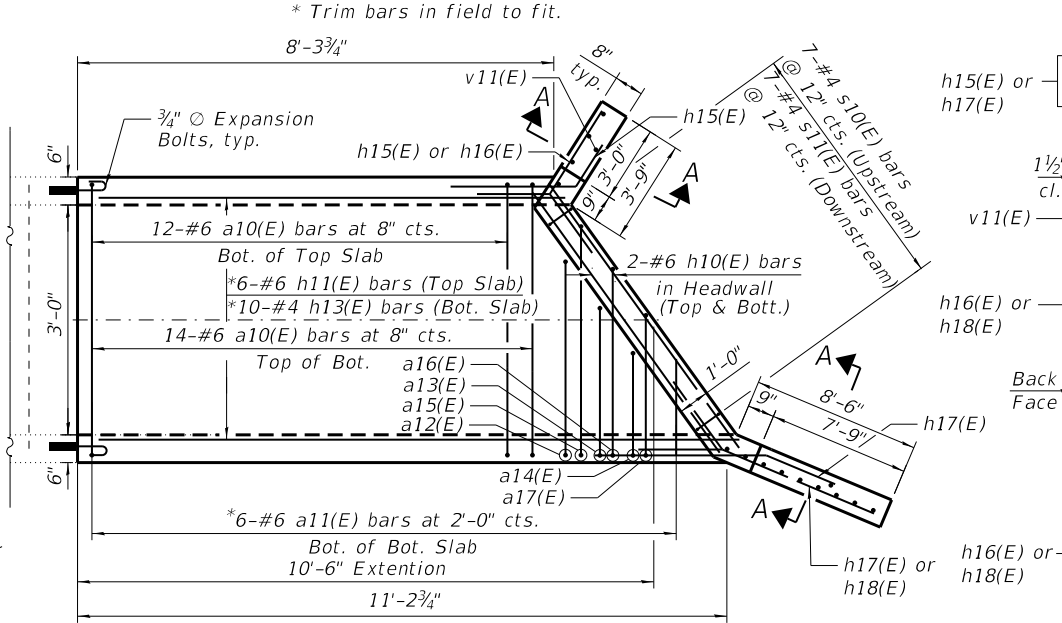
**LONGITUDINAL SECTION**



**PLAN**



**LONGITUDINAL SECTION**

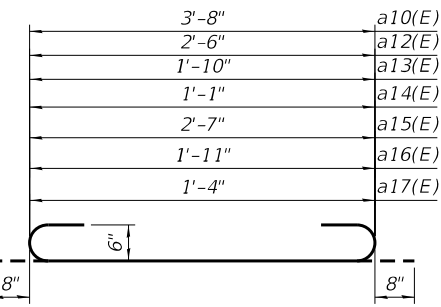


**PLAN**

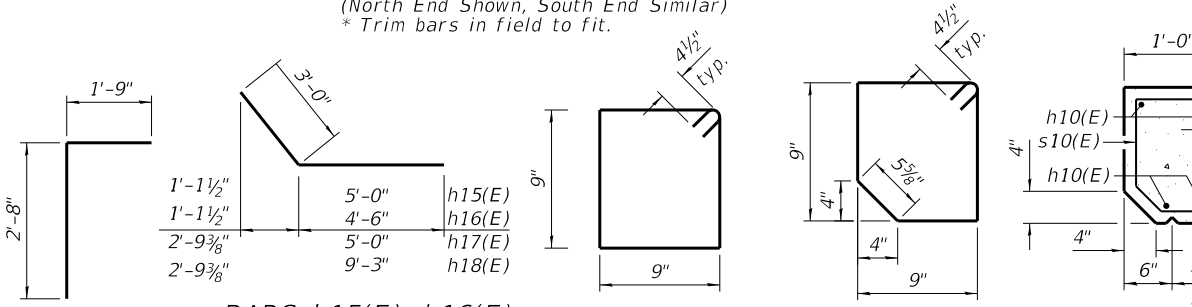
**CULVERT EXTENSION DETAILS**

**CULVERT REMOVAL DETAILS**

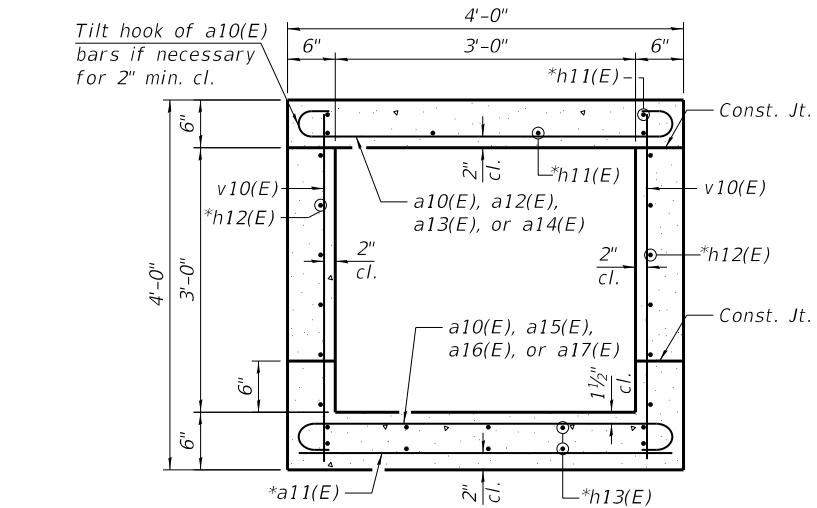
(North End Shown, South End Similar)



**BARS a10(E), a12(E), a13(E), a14(E), a15(E), a16(E) & a17(E)**

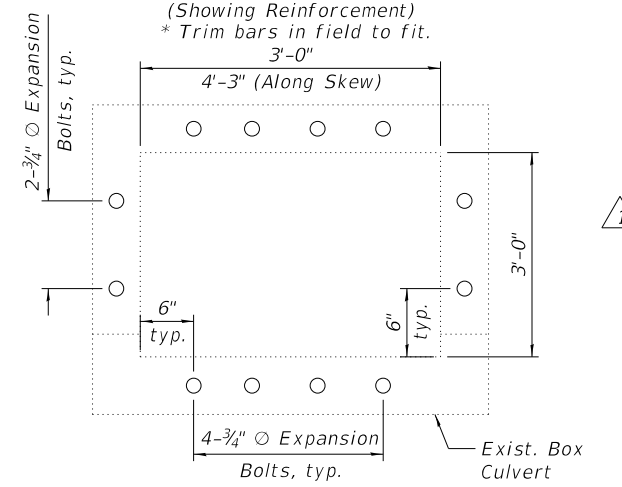


**BAR d10(E)** **BARS h15(E), h16(E), h17(E) & h18(E)** **BAR s11(E)** **BAR s10(E)**



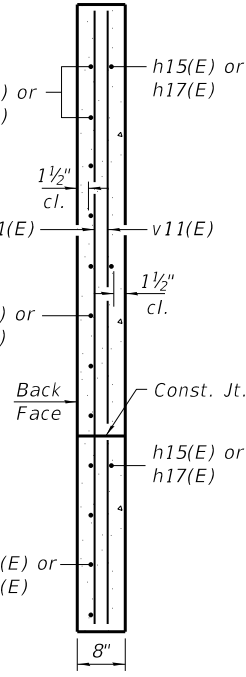
**SECTION C-C**

(Showing Reinforcement)  
\* Trim bars in field to fit.

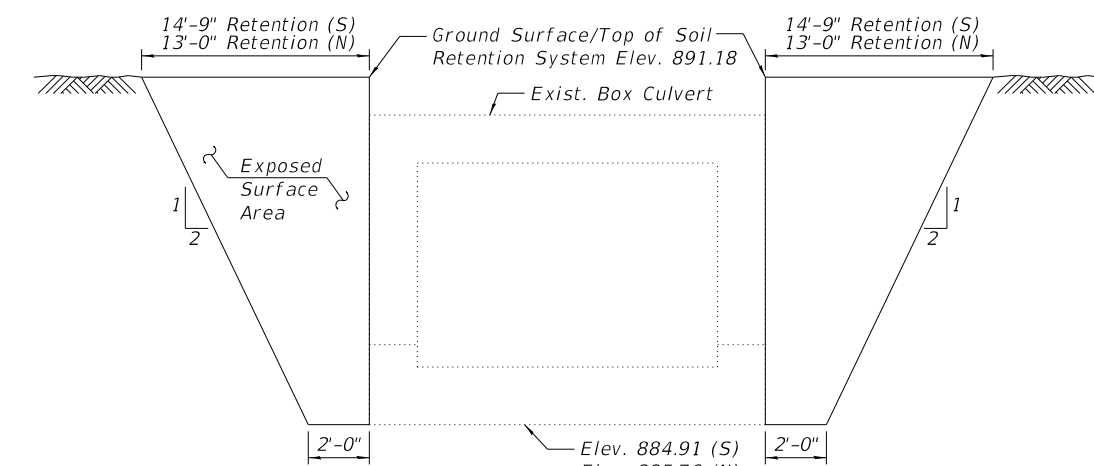


**SECTION B-B**

(Showing Expansion Bolts)



**SECTION A-A**



**TEMPORARY SOIL RETENTION**

A cantilever sheet piling design does not appear feasible and additional members or other retention system may be necessary. The Contractor shall submit a Temporary Soil Retention System design including plan details and calculations for review and acceptance by the Engineer.

- Notes:
- The full length of the barrel extension shall be poured monolithically with the wingwalls.
  - Expansion Bolts shall be hooked bolts. Hooked bolts shall extend a minimum of 9" into new concrete.

BILL OF MATERIAL				
(Both North and South Ends)				
Bar	No.	Size	Length	Shape
a10(E)	52	#6	5'-0"	U
a11(E)	12	#4	3'-8"	U
a12(E)	1	#6	3'-10"	U
a13(E)	1	#6	3'-2"	U
a14(E)	1	#6	2'-5"	U
a15(E)	1	#6	3'-11"	U
a16(E)	1	#6	3'-3"	U
a17(E)	1	#6	2'-8"	U
d10(E)	10	#4	4'-5"	L
h10(E)	8	#6	5'-5"	U
h11(E)	12	#6	10'-2"	U
h12(E)	16	#5	10'-2"	U
h13(E)	20	#4	10'-2"	U
h14(E)	2	#4	5'-5"	U
h15(E)	12	#5	8'-0"	U
h16(E)	14	#4	7'-6"	U
h17(E)	16	#7	8'-0"	U
h18(E)	22	#7	12'-3"	U
s10(E)	14	#4	3'-7"	U
s11(E)	14	#4	3'-9"	U
v10(E)	60	#4	3'-8"	U
v11(E)	34	#4	6'-8"	U
Concrete Removal		Cu Yd		7
Expansion Bolts, 3/4"		Each		24
Concrete Box Culverts		Cu Yd		10.3
Reinforcement Bars, Epoxy Coated		Pound		2390
Concrete Sealer		Sq Ft		121
Porous Granular Embankment		Cu Yd		19

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CHECKED - SPS	REVISIONS -	
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PLOT DATE =	CHECKED - JMT	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CULVERT EXTENSION DETAILS  
IL RTE. 176 STA. 1345+33.37 OVER DRAINAGE DITCH

SHEET 3 OF 3 SHEETS

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 217
CONTRACT NO. 62G35				

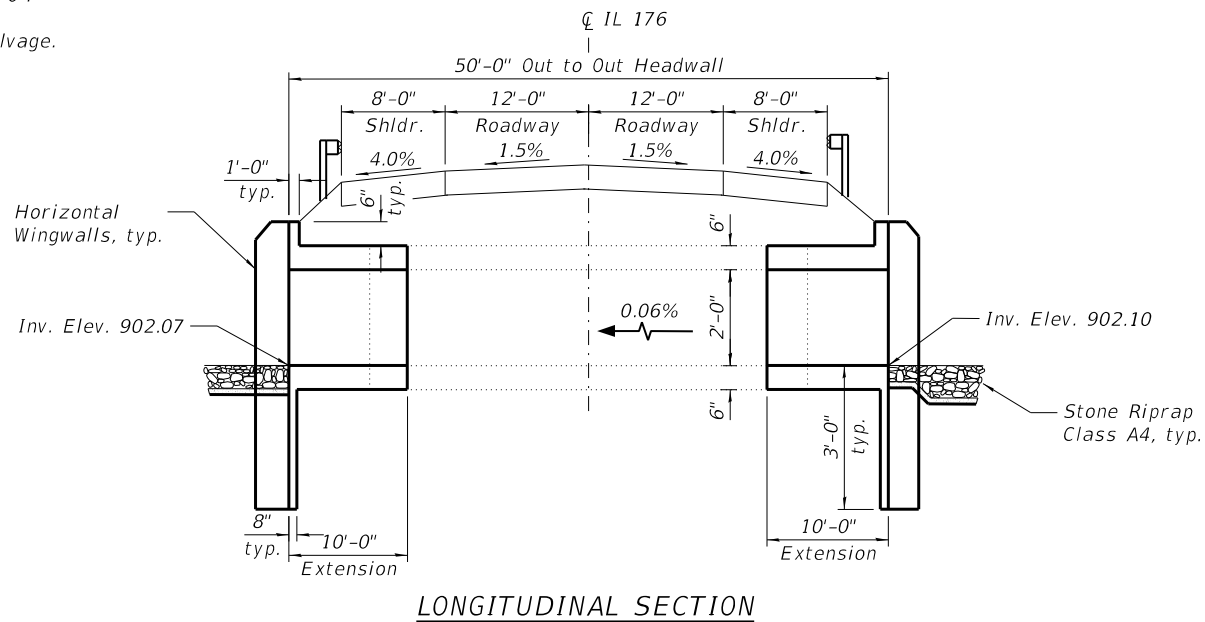
ILLINOIS FED. AID PROJECT  
REVISED SHEET 9/7/2021



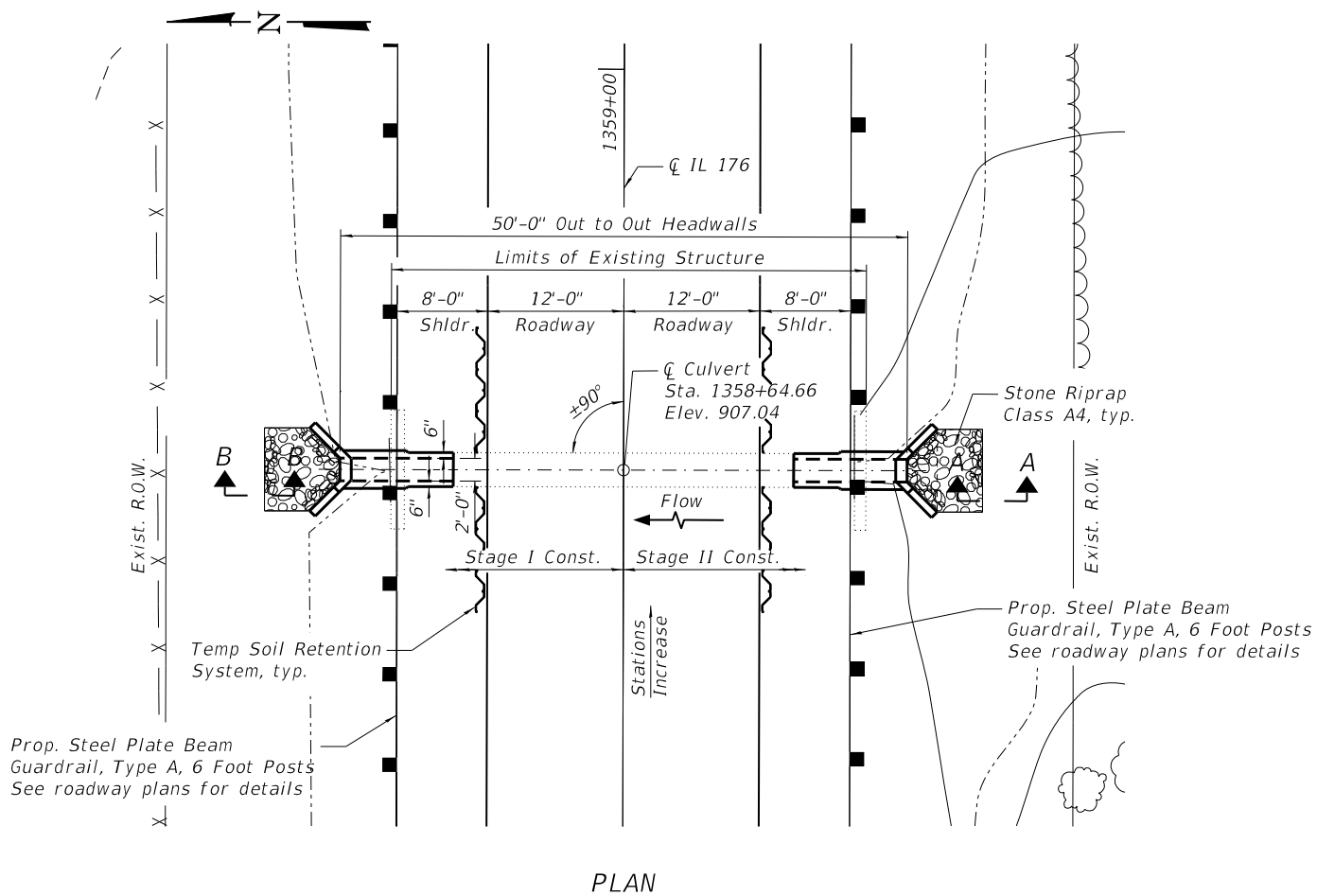
Benchmark: Railroad spike in power pole on northwest corner of IL 176 and Sunnyside Road. Elev. 887.38.

Existing Structure: Existing Structure is a cast-in-place single cell box culvert 2'X2' carrying IL 176 over a ditch. The structure is located approximately 3170' E. of Sunnyside Rd. Total length of the structure is 42'-0".

No salvage.



LONGITUDINAL SECTION



PLAN

INDEX OF SHEETS

1. General Plan
2. Culvert Extension Details

SCOPE OF WORK

1. Remove 6'-0" of culvert at each end.
2. Remove debris in channel at upstream and downstream ends.
3. Clean existing box culvert.
4. Extend the culvert to the proposed length at each end.
5. Place riprap at upstream and downstream ends.

GENERAL NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Concrete Sealer shall be applied to the top and outside face of the horizontal cantilever wingwalls, and headwalls.
3. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
4. All excavation required for the construction of the culvert in accordance with the Standard Specifications shall be included with the cost of Concrete Box Culverts.
5. Areas of excavation required for the construction of the culvert shall be backfilled with Porous Granular Embankment. See Special Provisions for details.
6. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work. However, the Contractor will be paid for the actual quantity furnished at the unit price bid for the work.
7. The 2 year peak flow rate is 381 cfs.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	12
Filter Fabric	Sq. Yd.	12
Concrete Removal	Cu. Yd.	4.6
Expansion Bolts, 3/4"	Each	16
Concrete Box Culverts	Cu Yd	7.3
Reinforcement Bars, Epoxy Coated	Pound	1100
Concrete Sealer	Sq Ft	66
Temporary Soil Retention System	Sq Ft	286
Porous Granular Embankment	Cu Yd	18

DESIGN SPECIFICATIONS

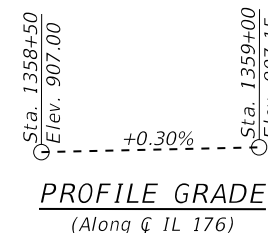
2002 AASHTO Std. Specifications

DESIGN STRESSES

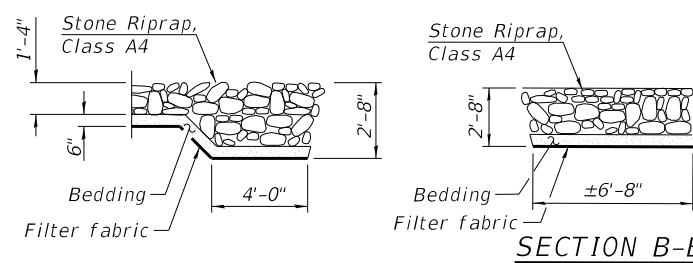
FIELD UNITS

f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)

LOADING HS 20-44



PROFILE GRADE  
(Along CL IL 176)

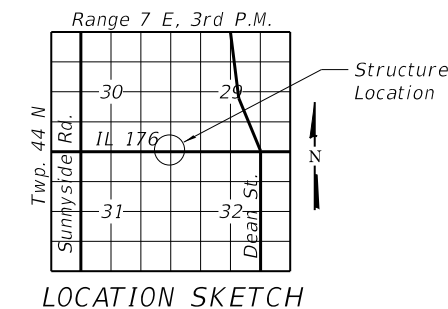


SECTION A-A

SECTION B-B



DATE SIGNED: 06/18/2021  
EXP. DATE: 11/30/2022



LOCATION SKETCH

GENERAL PLAN  
IL-176 CULVERT, 3170' E. OF SUNNYSIDE RD.  
OVER DRAINAGE DITCH  
FAP 333 SEC. NO. (119 & 105) C&W-1  
McHENRY COUNTY  
STATION 1358+64.66

MODEL: Default  
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USER NAME =	DESIGNED - SAT	REVISED - 08/31/2021 I.H.
CHECKED - SPS	REVISIONS -	
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PLOT DATE =	CHECKED - JMT	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL RTE. 176 STA. 1358+64.66 OVER DRAINAGE DITCH

SHEET 1 OF 2 SHEETS

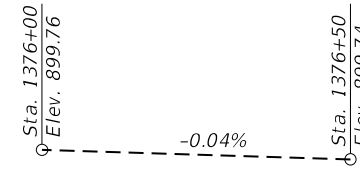
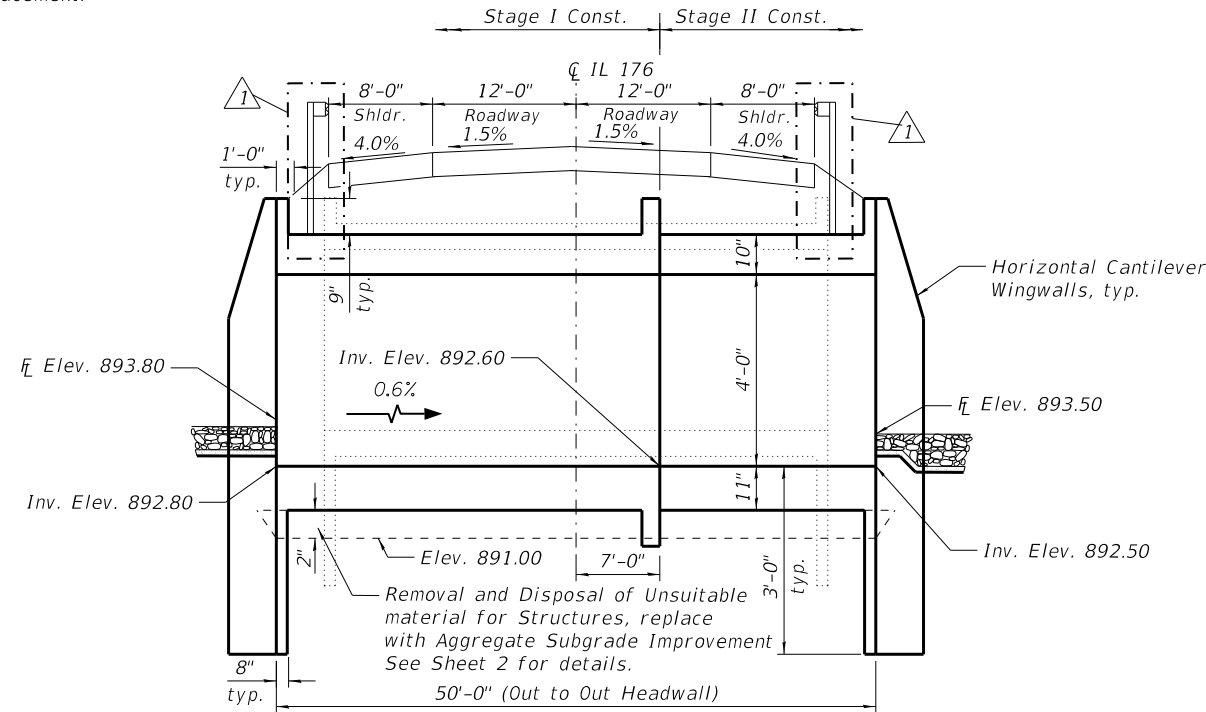
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
533	(119&105)C&W-1	McHENRY	300	218
CONTRACT NO. 62G35				

ILLINOIS FED. AID PROJECT  
REVISED SHEET 9/7/2021

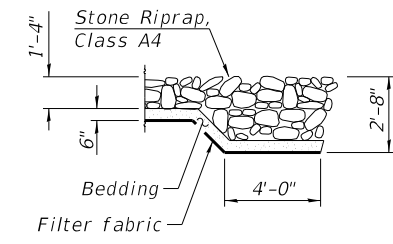
Benchmark: Control point #47 to the east side of IL 176, W. of Dean St.  
Elev. 899.11.

Existing Structure: S.N. 056-0239 is a single cell 4'-0" wide x 4'-0" high reinforced concrete box culvert carrying IL-176 over a ditch with horizontal cantilever wingwalls parallel to the roadway. The length of the structure is 40'-0" out to out of headwalls. The culvert is located approximately 1980' west of Dean St. Traffic will be maintained utilizing staged construction during replacement.

No salvage.



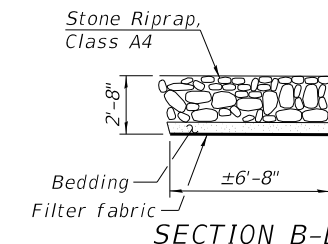
PROFILE GRADE  
(Along CL IL Rte. 176)



SECTION A-A

STATION 1376+10.10  
BUILT 20 BY  
STATE OF ILLINOIS  
LOADING HL-93  
STRUCTURE NO. 056-0333

NAME PLATE  
See Std. 515001



DATE SIGNED: 06/18/2021  
EXP. DATE: 11/30/2022

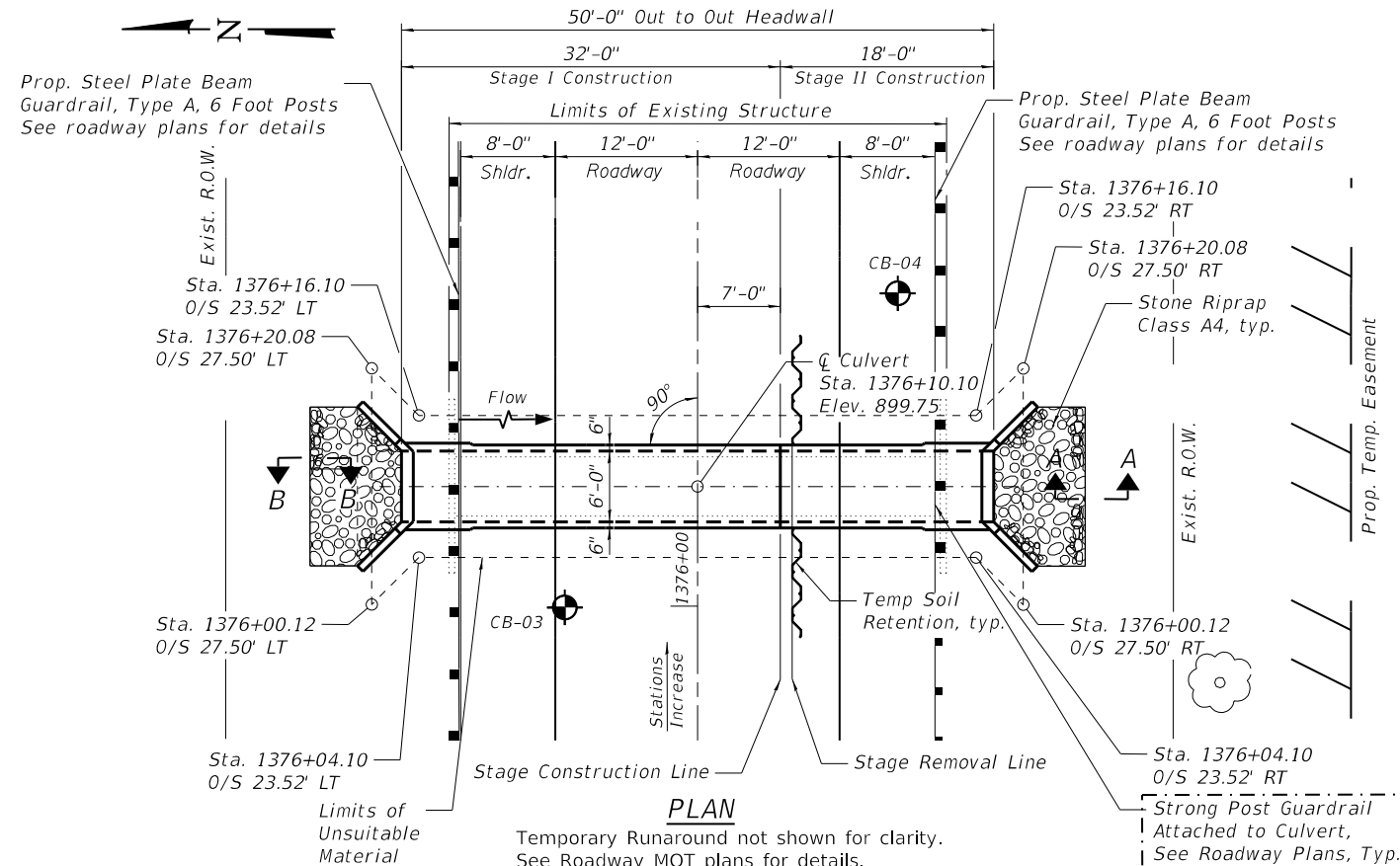
INDEX OF SHEETS

1. General Plan
2. General Notes and Total Bill of Materials
3. Stage Construction Details
4. Temporary Concrete Barrier for Stage Construction
5. Culvert Plan and Details
6. Bar Splicer Assembly and Mechanical Splicer Details
7. Boring Logs

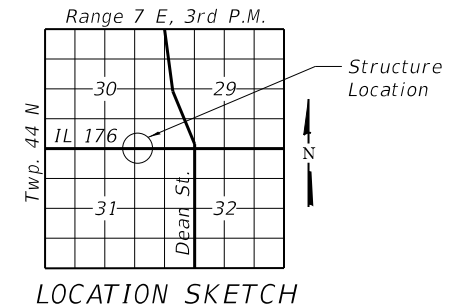
WATERWAY INFORMATION

Drainage Area = 0.2 sq. mi. Low Grade Elev. 899.50 @ Sta. 1377+10

Flood	Freq. Yr.	Q C.F.S.	Opening Ft <sup>2</sup>		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	2	23	5	6	895.00	1.10	0.30	896.10	895.30
	10	54	6	8	895.20	1.60	0.30	896.80	895.50
Design	50	105	7	11	895.60	3.60	1.20	899.20	896.80
Base	100	137	8	12	895.80	4.10	1.80	899.90	897.60
Overtopping									
Max. Calc.	500	179	9	14	896.10	4.00	2.90	900.10	899.00



PLAN



DESIGN SPECIFICATIONS  
2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

DESIGN STRESSES  
FIELD UNITS

f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

GENERAL PLAN  
IL-176 CULVERT, 1980' W. OF DEAN ST.  
OVER DRAINAGE DITCH  
SECTION NO. (119 & 105) C&W-1  
McHENRY COUNTY  
STATION 1376+10.10  
STRUCTURE NO. 056-0333

MODEL: Default  
FILE NAME: C:\Engineering\Live\Projects\13045\_IDOT\_IL\_176\CADD\CADD\_Sheets\Structural\0560333-62G35-022-1980'-W. of Dean\_GPE.dgn



USER NAME =	DESIGNED - SAT	REVISED - 08/31/2021 JMT
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PLOT SCALE =	DRAWN - JN	REVISED -
PLOT DATE =	CHECKED - JMT	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 056-0333

SHEET 1 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
533	(119&105)C&W-1	McHENRY	300	220
CONTRACT NO. 62G35				

ILLINOIS FED. AID PROJECT  
REVISED SHEET 9/7/2021

**SCOPE OF WORK**

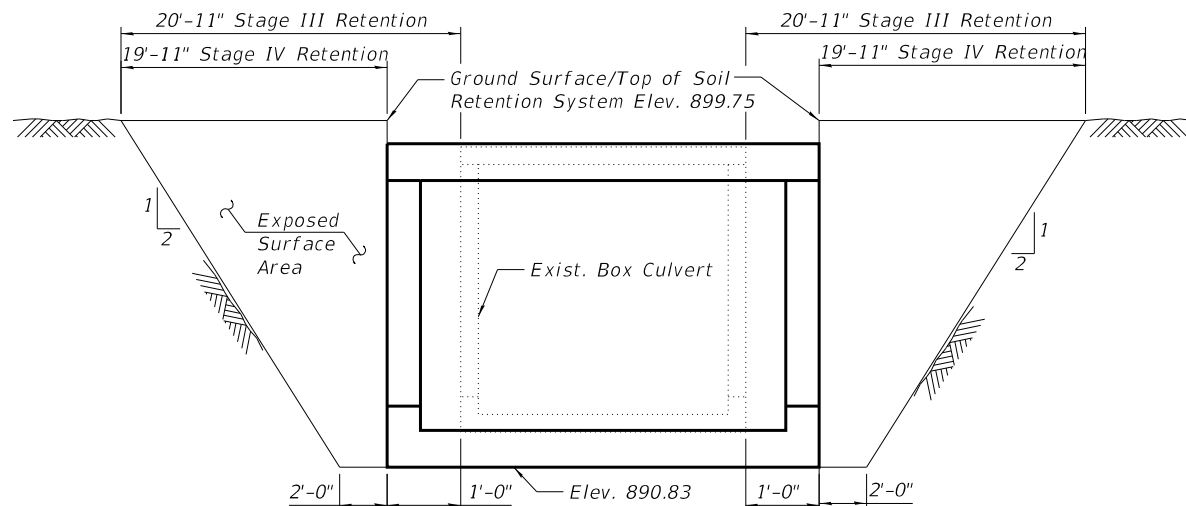
1. Construct temporary runaround, temporary drainage, and temporary pavement for Pre-Stage I. See MOT and Drainage Sheets.
2. Remove existing roadway culvert for Stage I Removal.
3. Construct proposed culvert and wingwalls for Stage I Construction.
4. Shift traffic for Stage II Removal.
5. Remove existing roadway and culvert for Stage II Removal.
6. Construct proposed culvert and wingwalls for Stage II Construction.
7. Re-establish the flow through new culvert and open the road to the traffic.

**GENERAL NOTES**

1. Reinforcement bars designated (E) shall be epoxy coated.
2. All excavation required for construction of the culvert as shown in the plans and in accordance with the standard specifications shall be included in the cost for Concrete Box Culverts.
3. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
4. Concrete Sealer shall be applied to the top and outside face of the horizontal cantilever wingwalls.
5. The 2 year peak flow rate is 381 cfs.
6. Areas of excavation required for the construction of the culvert shall be backfilled with Porous Granular Embankment. See Special Provisions for details.

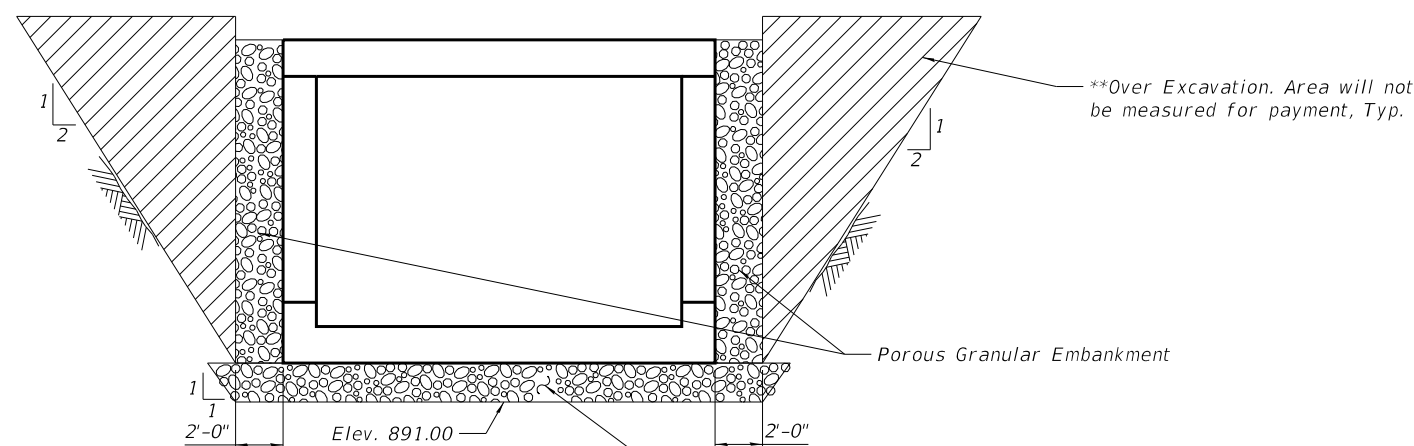
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq Yd	37
Filter Fabric	Sq Yd	37
Removal of Existing Structures No. 2	Each	1
Reinforcement Bars, Epoxy Coated	Pound	7660
Bar Splicers	Each	42
Temporary Soil Retention System	Sq Ft	392
Concrete Box Culverts	Cu Yd	36.8
Concrete Sealer	Sq Ft	185
Porous Granular Embankment	Cu Yd	61
Membrane Waterproofing System for Buried Structures	Sq Yd	60
Removal and Disposal of Unsuitable Material for Structures	Cu Yd	46
Aggregate Subgrade Improvement	Cu Yd	46
Geocomposite Wall Drain	Sq Yd	60
Name Plates	Each	1



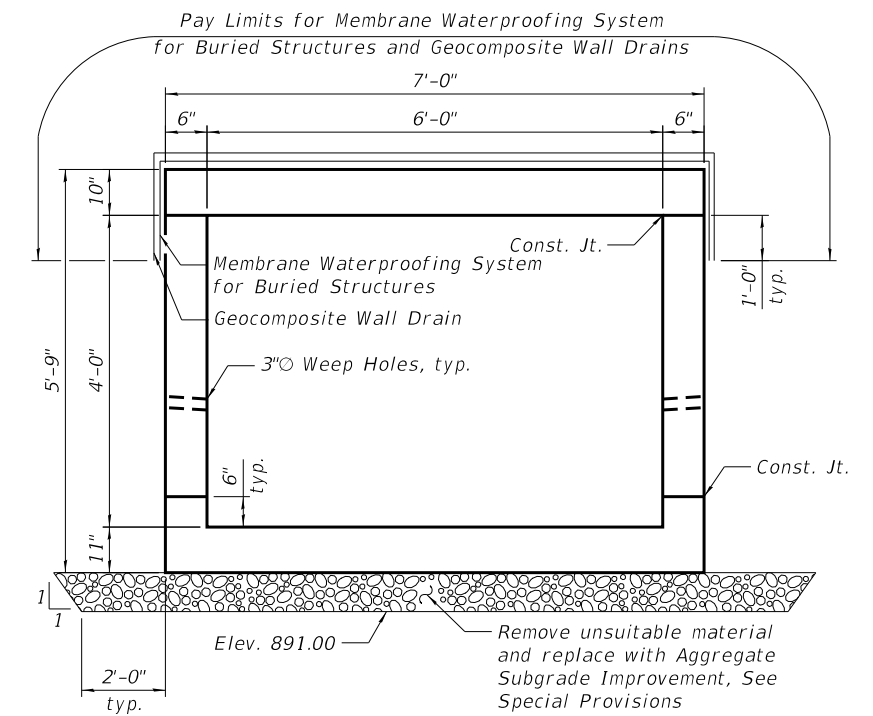
**TEMPORARY SOIL RETENTION**

A cantilever sheet piling design does not appear feasible and additional members or other retention system may be necessary. The Contractor shall submit a Temporary Soil Retention System design including plan details and calculations for review and acceptance by the Engineer.



**SECTION THRU CULVERT**

\*\*Backfill the over excavation area with material specified for roadway embankment per Section 205 of the Standard Specifications.



**SECTION THRU BARREL**

MODEL: Default  
FILE NAME: C:\Engineering\LiveProjects\13045\_IDOT IL 176\CADD\CADD Sheets\Structural\0560333-62G35-023-1980 - W. of Dean\_GenNotes\_BOM.dgn



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PLOT DATE =	DRAWN - JN	REVISED -
	CHECKED - JMT	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES AND TOTAL BILL OF MATERIALS  
STRUCTURE NO. 056-0333**

SHEET 2 OF 7 SHEETS

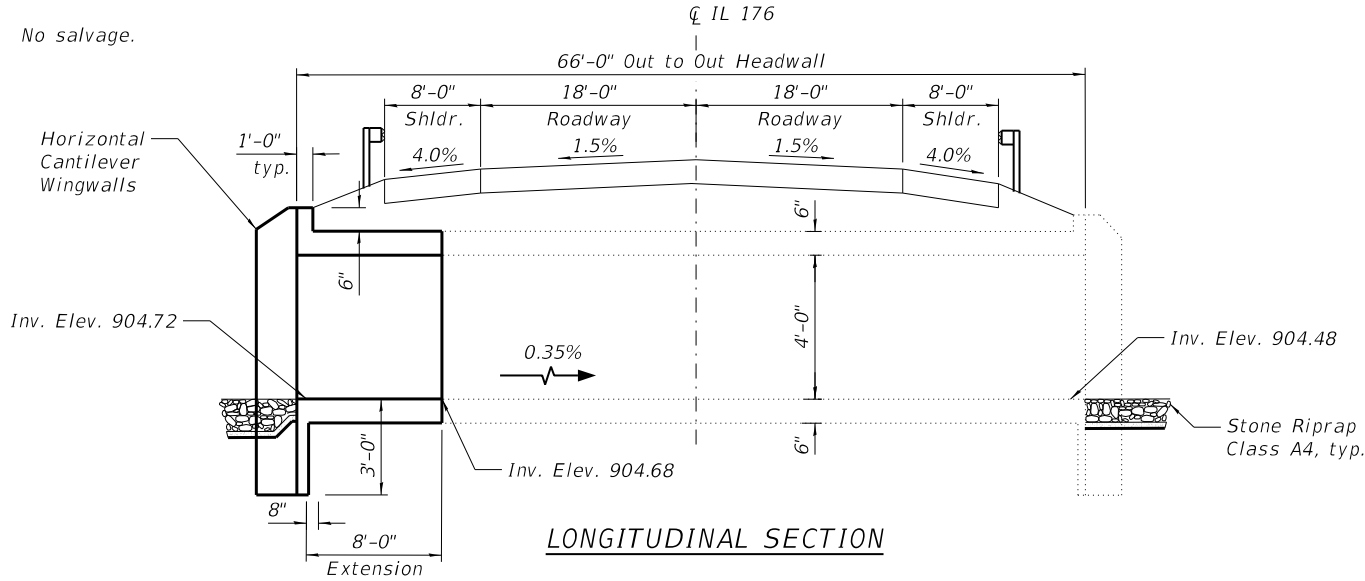
F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 221
CONTRACT NO. 62G35				
ILLINOIS FED. AID PROJECT				

REVISED SHEET 9/7/2021

Benchmark: Chiseled Square in center of 3' headwall, south side of IL 176, approximately 400' E. of Dean St. Elev. 906.27.

Existing Structure: Existing Structure is a cast-in-place single cell box culvert 4'X4' carrying IL 176 over a ditch. The structure is located approximately 330' W. of Dean St. Total length of the structure is 60'-0". Staged construction will be utilized during construction.

No salvage.



LONGITUDINAL SECTION

**INDEX OF SHEETS**

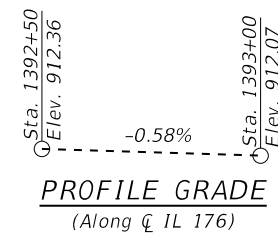
1. General Plan
2. Culvert Extension Details
3. Boring Logs

**SCOPE OF WORK**

1. Remove 2'-0" of culvert at north end.
2. Remove debris in channel at upstream and downstream ends.
3. Clean existing box culvert.
4. Extend the culvert to the proposed length at north end.
5. Place riprap at upstream and downstream ends.

**GENERAL NOTES:**

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Concrete Sealer shall be applied to the top and outside face of the horizontal cantilever wingwalls, and headwalls.
3. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
4. All excavation required for the construction of the culvert in accordance with the Standard Specifications shall be included with the cost of Concrete Box Culverts.
5. Areas of excavation required for the construction of the culvert shall be backfilled with Porous Granular Embankment. See Special Provisions for details.
6. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work. However, the Contractor will be paid for the actual quantity furnished at the unit price bid for the work.
7. The 2 year peak flow rate is 381 cfs.



PROFILE GRADE  
(Along CL 176)

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	24
Filter Fabric	Sq. Yd.	24
Concrete Removal	Cu. Yd.	2.7
Expansion Bolts, 3/4"	Each	12
Concrete Box Culverts	Cu Yd	5.4
Reinforcement Bars, Epoxy Coated	Pound	1020
Concrete Sealer	Sq Ft	71
Porous Granular Embankment	Cu. Yd.	10
Temporary Soil Retention System	Sq. Ft.	167

**DESIGN SPECIFICATIONS**

2002 AASHTO Std. Specifications

**DESIGN STRESSES**

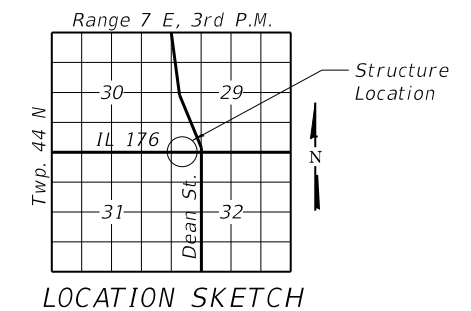
**FIELD UNITS**

f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)

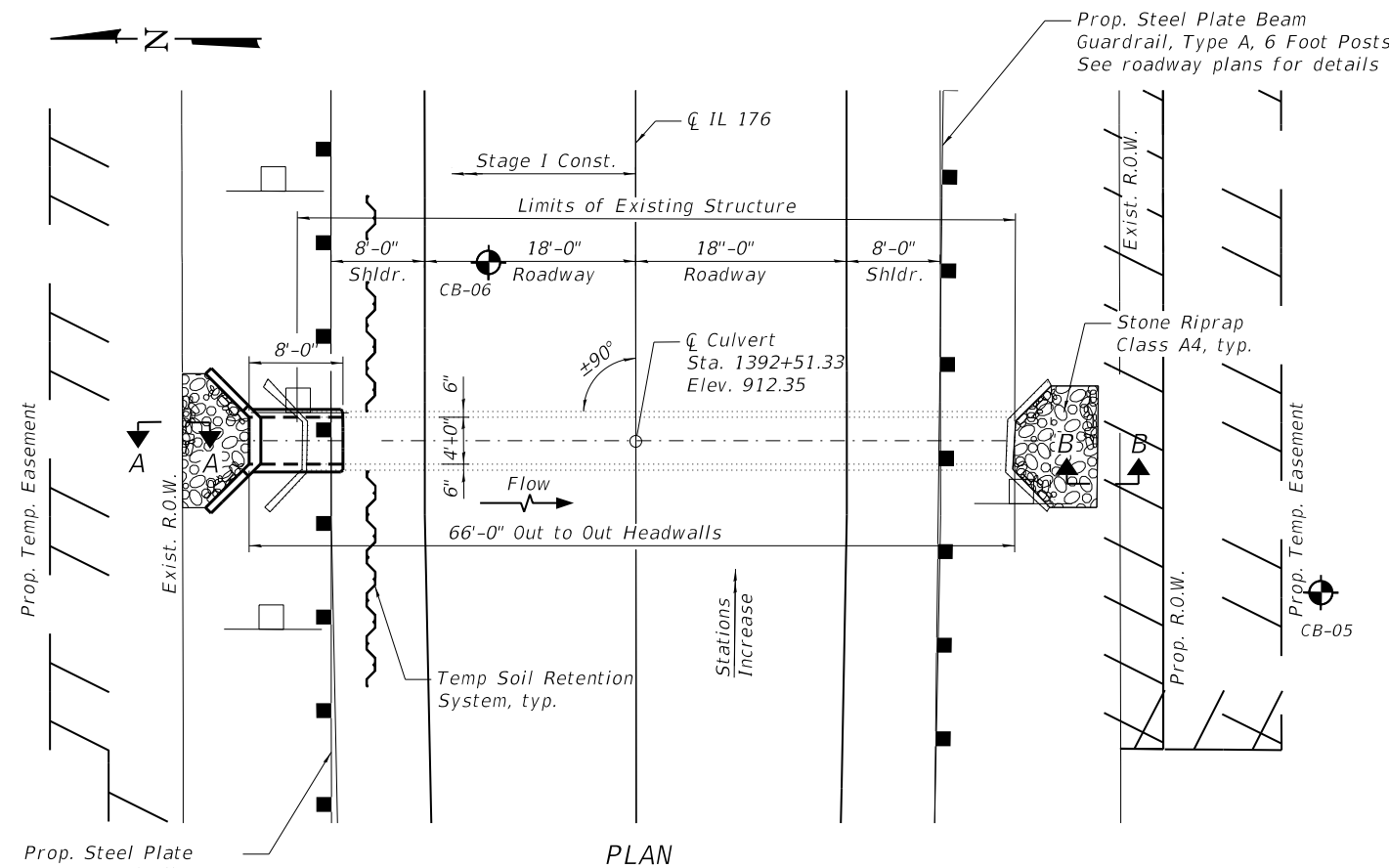
**LOADING HS 20-44**



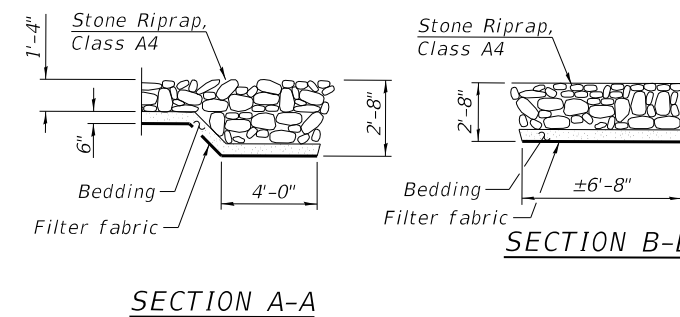
DATE SIGNED: 06/18/2021  
EXP. DATE: 11/30/2022



LOCATION SKETCH



PLAN



SECTION A-A

SECTION B-B

**GENERAL PLAN & ELEVATION**  
**IL-176 CULVERT, 330' W. OF DEAN ST.**  
**OVER DRAINAGE DITCH**  
**SECTION NO. (119 & 105) C&W-1**  
**McHENRY COUNTY**  
**STATION 1392+51.33**

MODEL: Default  
FILE NAME: C:\Engineering\Live\Projects\13045\_IDOT IL 176\CADD\CADD Sheets\Structural\62G35-029-330' W. Dean\_GPE.dgn



USER NAME =	DESIGNED - SAT	REVISED - 08/31/2021 I.H.
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PLOT SCALE =	DRAWN - JN	
PLOT DATE =	CHECKED - JMT	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL RTE. 176 STA. 1392+51.33 OVER DRAINAGE DITCH**

SHEET 1 OF 3 SHEETS

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 227
CONTRACT NO. 62G35				

ILLINOIS FED. AID PROJECT  
REVISED SHEET 9/7/2021



Benchmark: Chiseled Square in center of 3' headwall, south side of IL 176, approximately 400' E. of Dean St. Elev. 906.27.

Existing Structure: Existing Structure is a single cell box culvert 2'X2' carrying IL 176 over a ditch. The structure is located 400' E. of Dean St. Total length of the structure is 55'-0". Staged construction will be utilized during construction.

No salvage.

### INDEX OF SHEETS

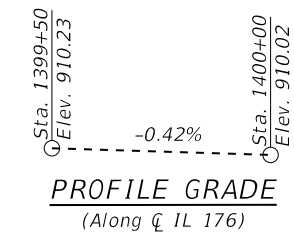
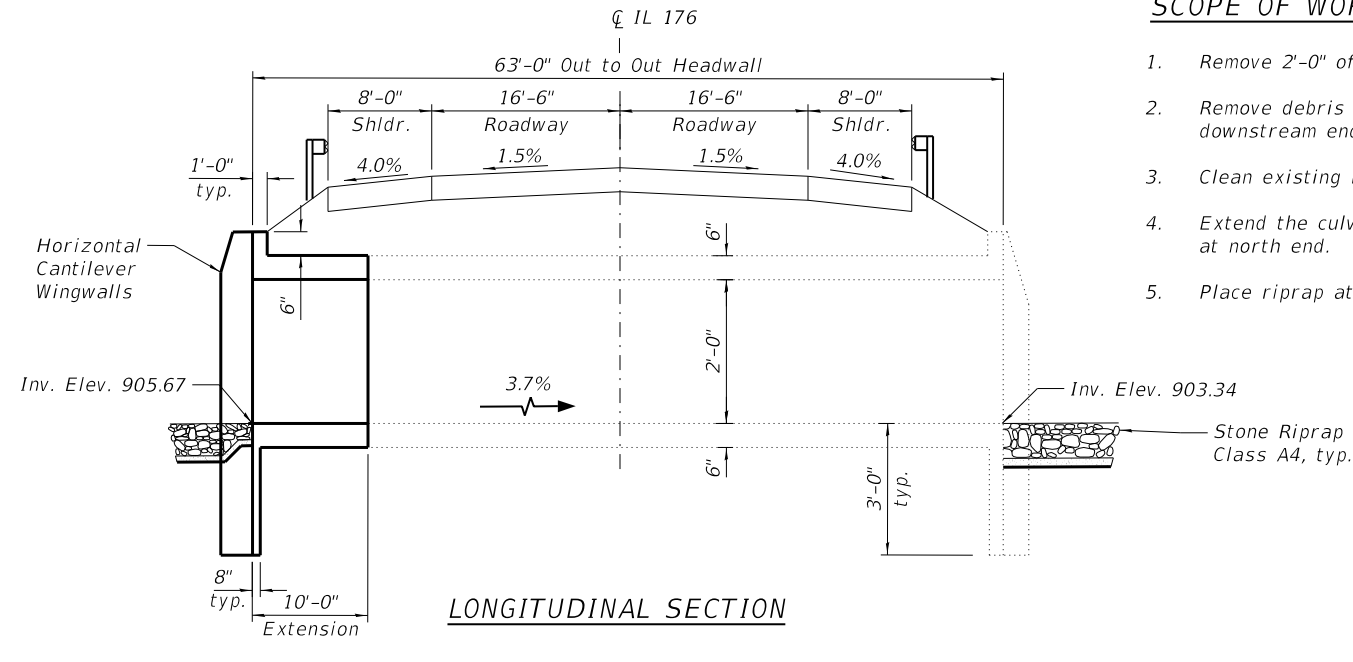
1. General Plan
2. Culvert Extension Details

### SCOPE OF WORK

1. Remove 2'-0" of culvert at north end (Upstream).
2. Remove debris in channel at upstream and downstream ends.
3. Clean existing box culvert.
4. Extend the culvert to the proposed length at north end.
5. Place riprap at upstream and downstream ends.

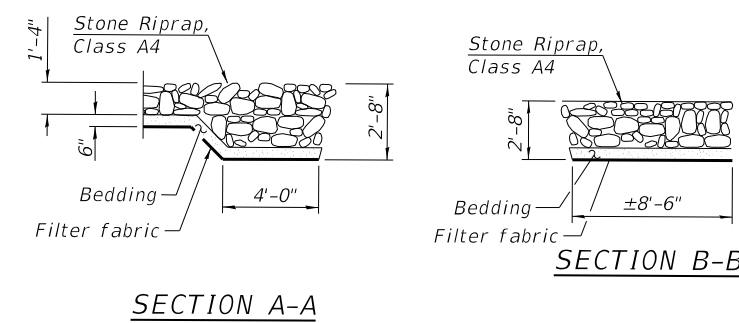
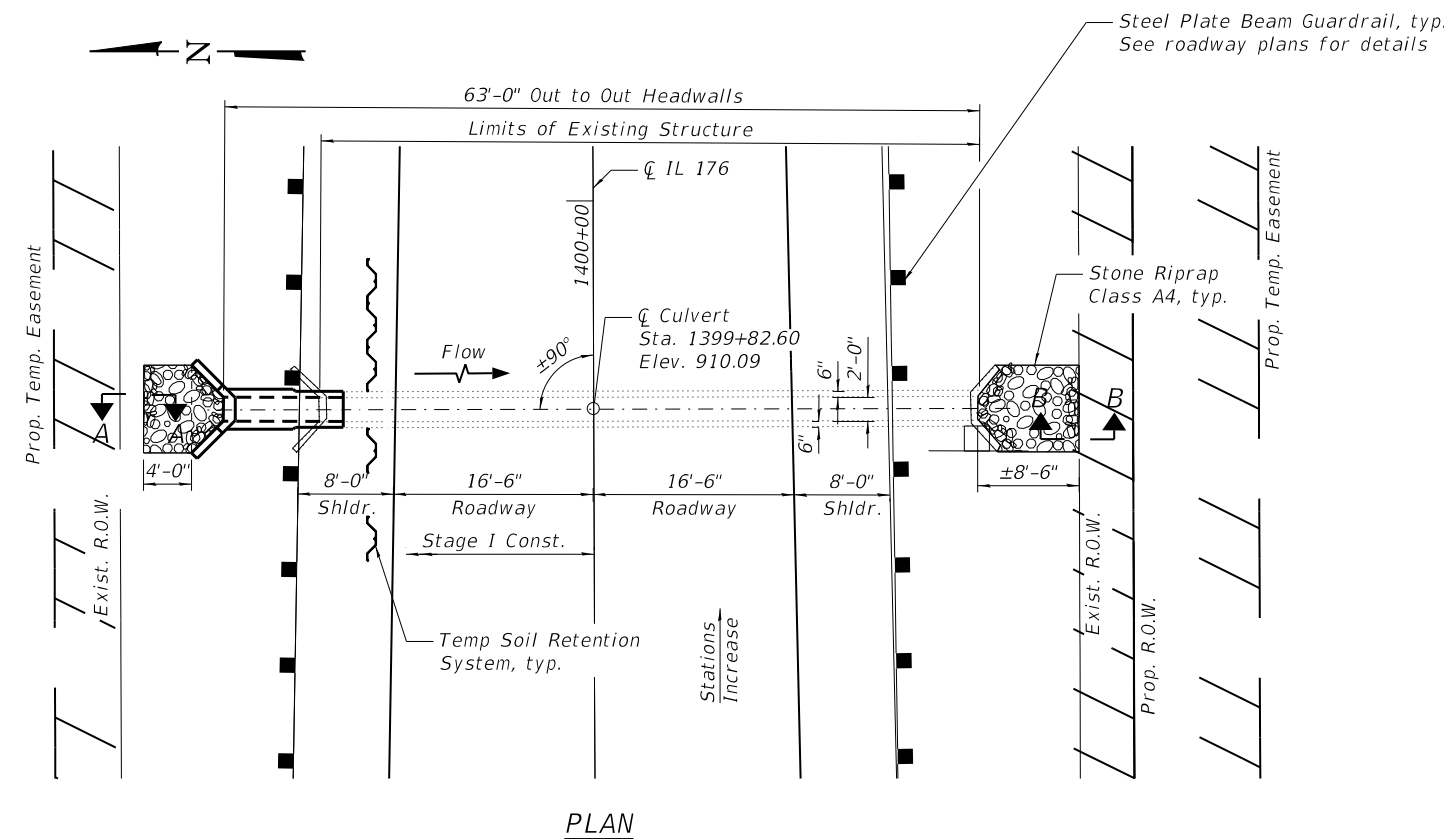
### GENERAL NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Concrete Sealer shall be applied to the top and outside face of the horizontal cantilever wingwalls and headwalls.
3. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
4. All excavation required for the construction of the culvert in accordance with the Standard Specifications shall be included with the cost of Concrete Box Culverts.
5. Areas of excavation required for the construction of the culvert shall be backfilled with Porous Granular Embankment. See Special Provisions for details.
6. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work. However, the Contractor will be paid for the actual quantity furnished at the unit price bid for the work.
7. The 2 year peak flow rate is 381 cfs.



### TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	15
Filter Fabric	Sq. Yd.	15
Concrete Removal	Cu. Yd.	1.5
Expansion Bolts, 3/4"	Each	8
Concrete Box Culverts	Cu Yd	3.1
Reinforcement Bars, Epoxy Coated	Pound	580
Concrete Sealer	Sq Ft	29
Porous Granular Embankment	Cu. Yd.	8
Temporary Soil Retention System	Sq. Ft.	74



### DESIGN SPECIFICATIONS

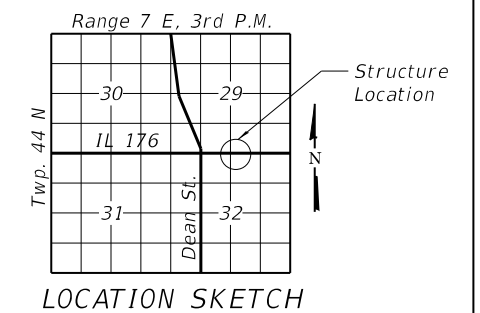
2002 AASHTO Std. Specifications

### DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

### LOADING HS 20-44



DATE SIGNED: 06/18/2021  
 EXP. DATE: 11/30/2022

### GENERAL PLAN

IL-176 CULVERT, 400' E. OF DEAN ST.  
 OVER DRAINAGE DITCH  
 SECTION NO. (119 & 105) C&W-1  
 McHENRY COUNTY  
 STATION 1399+82.60

MODEL: Default  
 FILE NAME: C:\Engineering\Live\Projects\13045\_IDOT IL 176\CADD\CADD Sheets\Structural\62G35-032-400' E. Dean\_GPE.dgn



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PLOT SCALE =	DRAWN - JN	
PLOT DATE =	CHECKED - JMT	

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

IL RTE. 176 STA. 1399+82.60 OVER DRAINAGE DITCH

SHEET 1 OF 2 SHEETS

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY McHENRY	TOTAL SHEETS 300	SHEET NO. 230
CONTRACT NO. 62G35				
ILLINOIS FED. AID PROJECT				

REVISED SHEET 9/7/2021

FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
AREAS CHECKED	TEMPLATE	
AREAS CHECKED	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
AREAS CHECKED	TEMPLATE	
AREAS CHECKED	AREAS CHECKED	

MODEL: IL 176-1008-100 TO 100942.2-100  
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	DRAWN - AB	REVISED -
PLOT SCALE = 20.0012' / in.	CHECKED - TGM	REVISED -
PLOT DATE = 8/31/2021	DATE - 06-17-2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS - 3  
IL 176 (TELEGRAPH ST) (DEERPASS RD TO DEAN ST)**

F.A.P. RTE. 533	SECTION (119&105)C&W-1	COUNTY MCHENRY	TOTAL SHEETS 300	SHEET NO. 247
SCALE: SHEET OF SHEETS STA. 1008+00.00 TO STA. 1009+42.20			CONTRACT NO. 62G35	
ILLINOIS FED. AID PROJECT			REVISED SHEET 9/7/2021	

