

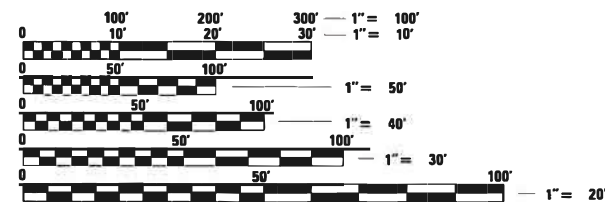
INDEX OF SHEETS

- 1 COVER SHEET
- 2 HIGHWAY STANDARDS, GENERAL NOTES, & COMMITMENTS
- 3-5 SUMMARY OF QUANTITIES
- 6-7 TYPICAL SECTIONS
- 8-9 SCHEDULE OF QUANTITIES
- 10 LOCATION MAP
- 11 SURVEY MONUMENT
- 12-33 CULVERT AND GUARDRAIL IMPROVEMENT PLANS

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO.2

TRAFFIC DATA

2017 ADT = 3650 (ACTUAL)
 2037 ADT = 4200 (ESTIMATED)
 SU = 3.6% MU = 15.1%



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 LOCATING INFORMATION FOR EXCAVATORS
 1-800-892-0123
 OR 811

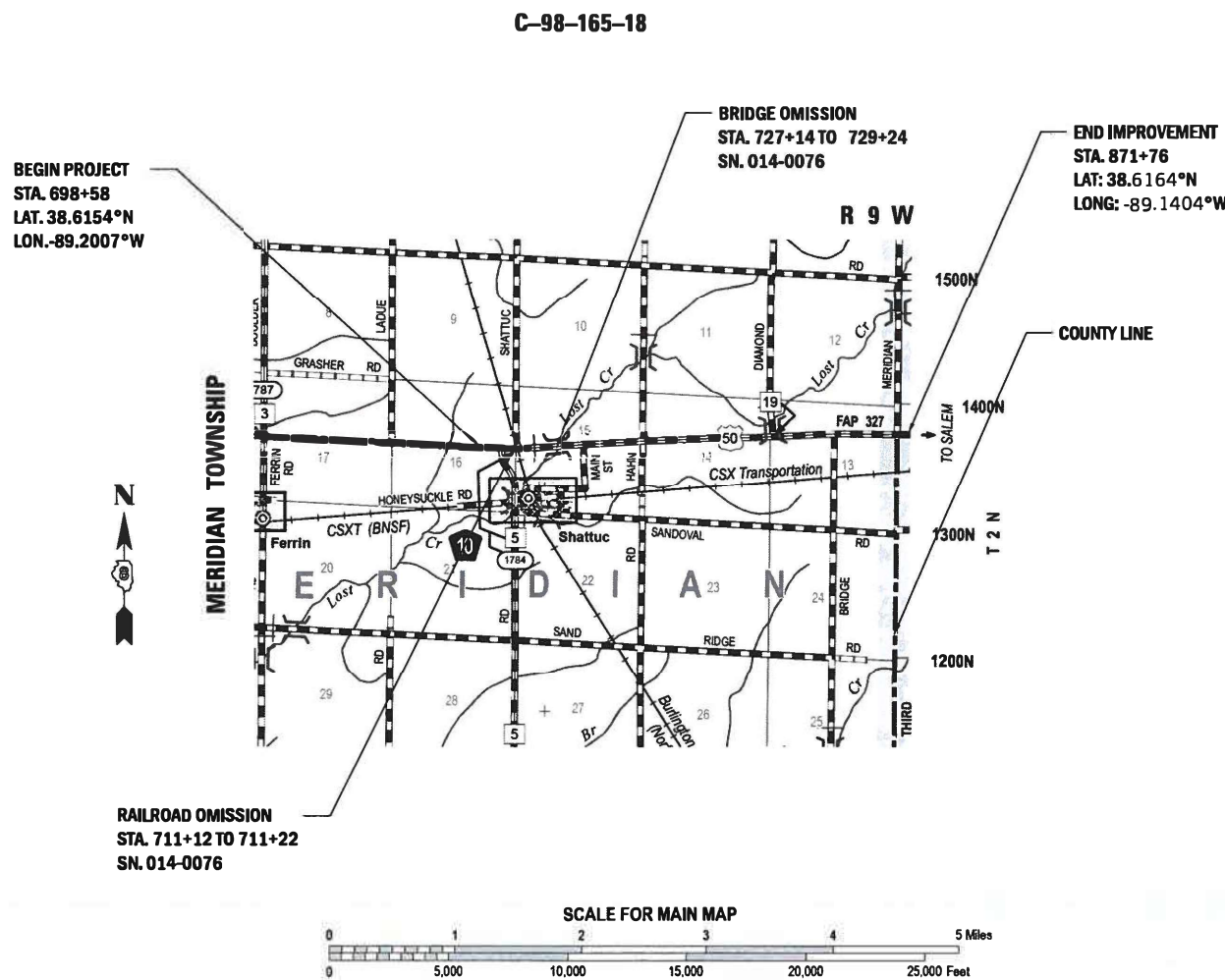
PROJECT ENGINEER: TIFFANY BRASE (618) 346-3175
 PROJECT MANAGER: MESERET SIMA (618) 346-3141

CONTRACT NO. 76L17

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

**PROPOSED
 HIGHWAY PLANS**

F.A.P. ROUTE 327 (US 50)
 SECTION (20-1,18)RS-4
 PROJECT NHPP-C8AN(499)
 RESURFACING-STANDARD OVERLAY FROM
 SHATTUC RD TO MARION COUNTY LINE
 CLINTON COUNTY



GROSS LENGTH = 17,318.40 FEET = 3.280 MILES
 NET LENGTH = 16,268.40 FEET = 3.081 MILES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	1
		ILLINOIS	CONTRACT NO. 76L17	



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUBMITTED *March 9, 2020*
Kaith Roberts
 REGIONAL ENGINEER

May 8, 2020 *Joe A. Elk*
 ENGINEER OF DESIGN AND ENVIRONMENT

May 8, 2020 *James J. ...*
 DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS**

HIGHWAY STANDARDS

00001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
420001-09	PAVEMENT JOINTS
406201-01	MAILBOX TURNOUT
442201-03	CLASS C AND D PATCHES
482011-03	HMA SHOULDER STRIPS/SHOULDERS WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
630001-12	STEEL PLATE BEAM GUARDRAIL
630106-02	LONG-SPAN GUARDRAIL OVER CULVERT
630301-09	SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
635001-02	DELINEATORS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5m) AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600MM) FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
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
701336-07	LANE CLOSURE, 2L, 2W, WORK AREAS IN SERIES, FOR SPEEDS ≥ 45 MPH
701901-08	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

1. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

UTILITY	ABOVE GROUND	BELOW GROUND
*AMEREN ILLINOIS (GAS AND ELECTRIC)	X	X
*CLINTON COUNTY EAST PUBLIC WATER DISTRICT (WATER)		X
*FRONTIER COMMUNICATIONS (ELECTRIC)	X	X
*FRONTIER COMMUNICATIONS (COMMUNICATIONS)	X	X
*NATURAL GAS PIPELINE COMPANY OF AMERICA (PIPELINE)		X
*PERMIAN EXPRESS PARTNERS (PIPELINE)		X
*WINDSTREAM KDL, INC. (COMMUNICATIONS)	X	X

MEMBERS OF J.U.L.I.E. (800)-892-0123 ARE INDICATED BY*. NON J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY

2. IF THE SURFACE REMOVAL ON THIS PROJECT PRODUCES A MILLED EDGE NEAR CENTERLINE GREATER THAN 1.5 INCHES BETWEEN ADJACENT OPEN LANES OF TRAFFIC, ONE OF THE FOLLOWING SHALL APPLY:

- THE CONTRACTOR SHALL ORGANIZE THE WORK TO AVOID THE MILLED EDGE.
- THE CONTRACTOR SHALL CONSTRUCT A TEMPORARY HOT MIX ASPHALT WEDGE ALONG THE MILLED EDGE.
- THE CONTRACTOR SHALL CONSTRUCT A MILLED SLOPED EDGE (MINIMUM 1:3) ALONG THE MILLED EDGE.

THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST PER SQUARE YARD FOR HOT-MIX ASPHALT SURFACE REMOVAL OF THE DEPTH SPECIFIED.

3. SHORT TERM PAVEMENT MARKING SHALL BE APPLIED TO THE MILLED, PRIMED AND FINAL HMA SURFACE. SHORT-TERM PAVEMENT MARKING REMOVAL SHALL ONLY BE PAID FOR ON THE FINAL LIFT.
4. ALL PATCHING ON THIS PROJECT SHALL BE COMPLETED PRIOR TO HMA SURFACE REMOVAL.
5. THE PROPOSED PAVEMENT MARKING SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING, AS DIRECTED BY THE ENGINEER.
6. MTD CAN OPERATE IN AN UNLOADED CONDITION ON SN 014-0076.
7. NO OVERNIGHT LANE CLOSURES WILL BE ALLOWED.
8. ALL EXCAVATION ADJACENT TO THE EDGE OF PAVEMENT SHALL BE PROTECTED WITH EXTENDED LEG BARRICADES AND APPROPRIATE LIGHT.
9. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

DESCRIPTION:	RESURFACING-STANDARD OVERLAY FROM SHATTUC RD TO MARION COUNTY LINE				
MIXTURE USE	SURFACE	BINDER	PATCHING	SHOULDERS (lower)	SHOULDERS (surface)
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	SEE SPECIAL	SEE SPECIAL	SEE SPECIAL	SEE SPECIAL	SEE SPECIAL
DESIGN AIR VOIDS	4.0% @ Ndes=90	4.0% @ Ndes=90	4.0% @ Ndes=90	4.0% @ Ndes=30	4.0% @ Ndes=30
MIX COMPOSITION	IL 9.5	IL 9.5 FG	IL 19.0	IL 19.0L	IL 9.5L
FRICITION AGG	MIXTURE "D"	MIXTURE "C"	MIXTURE "B"		
QUALITY MGMT	QCP	QCP	QC/QA	QC/QA	QC/QA

PLAN QUANTITIES FOR HMA ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN

COMMITMENTS

NONE

MODEL: Default
 FILE: M:\MISC_Plan\planroom.dwg
 PROJECT: P:\PROJECTS\76L17\CD\DATA\CAD\DWG\76L17-SP-PLAN.dwg

USER NAME = simam	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 3/17/2020	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

HIGHWAY STANDARDS, GENERAL NOTES, & COMMITMENTS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	2
CONTRACT NO. 76L17			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY 0005	RURAL
20200100	EARTH EXCAVATION	CU YD	190	190	
20200600	EXCAVATING AND GRADING EXISTING SHOULDER	UNIT	317	317	
20400800	FURNISHED EXCAVATION	CU YD	65	65	
20700220	POROUS GRANULAR EMBANKMENT	CU YD	21	21	
25000200	SEEDING, CLASS 2	ACRE	0.25	0.25	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	23	23	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	23	23	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	23	23	
25100115	MULCH, METHOD 2	ACRE	0.75	0.75	
25100630	EROSION CONTROL BLANKET	SQ YD	1133	1133	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	42	42	
28000305	TEMPORARY DITCH CHECKS	FOOT	211	211	
28000400	PERIMETER EROSION BARRIER	FOOT	725	725	
28100107	STONE RIPRAP, CLASS A4	SQ YD	452	452	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY 0005	RURAL
28200200	FILTER FABRIC	SQ YD	450	450	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	37727	37727	
40600990	TEMPORARY RAMP	SQ YD	261	261	
40602975	HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N90	TON	3046	3046	
40604064	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90	TON	3656	3656	
44000160	HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"	SQ YD	45329	45329	
44004250	PAVED SHOULDER REMOVAL	SQ YD	5281	5281	
44200202	PAVEMENT PATCHING, TYPE II, 17 INCH	SQ YD	75	75	
44200204	PAVEMENT PATCHING, TYPE III, 17 INCH	SQ YD	22	22	
44200206	PAVEMENT PATCHING, TYPE IV, 17 INCH	SQ YD	1208	1208	
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	2508	2508	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	483	483	
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	693	693	
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	10563	10563	

MODEL: Default
 FILE: \\nrcs-pix\pub\hcnom\dat\links\gov\PWIDOT\Documents\DOT_Offices\Dir\ctc @ Projects\0876L17\CaddData\Cad\Sheets\0876L17-rhe-ban.dgn

USER NAME = simam	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/17/2020	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	3
CONTRACT NO. 76L17			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY 0005	RURAL
48203100	HOT-MIX ASPHALT SHOULDERS	TON	279	279	
50105220	PIPE CULVERT REMOVAL	FOOT	19	19	
50800105	REINFORCEMENT BARS	POUND	3420	3420	
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	1	1	
54001002	BOX CULVERT END SECTIONS, CULVERT NO. 2	EACH	1	1	
54003000	CONCRETE BOX CULVERTS	CU YD	16.4	16.4	
54010303	PRECAST CONCRETE BOX CULVERTS 3' X 3'	FOOT	9	9	
* 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	575	575	
* 63000350	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	FOOT	75.0	75	
* 63000360	LONG-SPAN GUARDRAIL OVER CULVERT, 18 FT 9 IN SPAN	FOOT	87.5	87.5	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	8	8	
63200310	GUARDRAIL REMOVAL	FOOT	670	670	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3	
67100100	MOBILIZATION	L SUM	1	1	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				ROADWAY 0005	RURAL
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
70100600	TRAFFIC CONTROL AND PROTECTION, STANDARD 701336	L SUM	1	1	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	8649	8649	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	961	961	
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	200	200	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	35066	35066	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	58	58	
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	8	8	
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	200	200	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	35066	35066	
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	58	58	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	199	199	

* SPECIALTY ITEM

MODEL: Default
 FILE: \\nrcs-pix\pub\room\dat\links\gov\PIWDOT\Documents\DOT_Offices\District_8\Projects\0876L17\CaddData\CAD\Sheets\0876L17-rhe-lbn.dgn

USER NAME = simam	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 3/17/2020	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	4
CONTRACT NO. 76L17			ILLINOIS FED. AID PROJECT	

MODEL: Default
 FILE NAME: D:\p\planroom.dwt, illinois.gov\PI\DOT\Documents\DOT_Offices\Districts_8\Projects\8761.17\CADD\Drawn\CAD\Sheets\8761.17-sht-plan.dgn

80% FED
 20% STATE

CONSTR. CODE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	
				0005	RURAL
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	17	17	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	199	199	
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	12005	12005	
Z0033700	LONGITUDINAL JOINT SEALANT	FOOT	18690	18690	
Z0034105	MATERIAL TRANSFER DEVICE	TON	6702	6702	
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1	
Ø Z0076600	TRAINEES	HOUR	1500	1500	
* Z0054517	ROCK FILL - FOUNDATION	TON	36	36	
Ø Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1500	1500	
Z0070100	SURVEY MONUMENT COVER ASSEMBLY	EACH	1	1	

* SPECIALTY ITEM

Ø 0042

REV. - MS

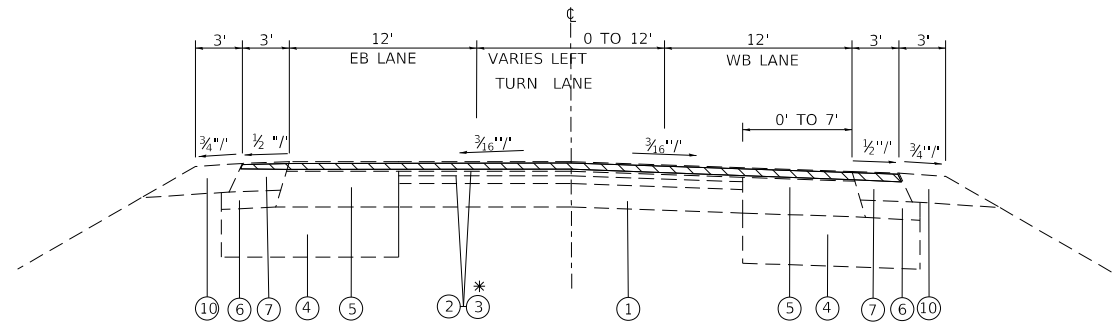
USER NAME = simam	DESIGNED -	REVISED -
DRAWN -	REVISOR -	
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 3/17/2020	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

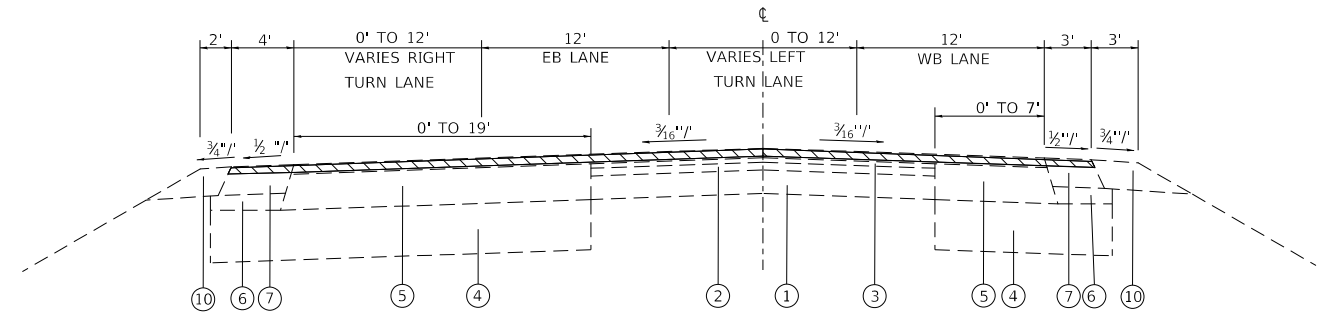
SCALE: SHEET 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	5
CONTRACT NO. 76L17			ILLINOIS FED. AID PROJECT	



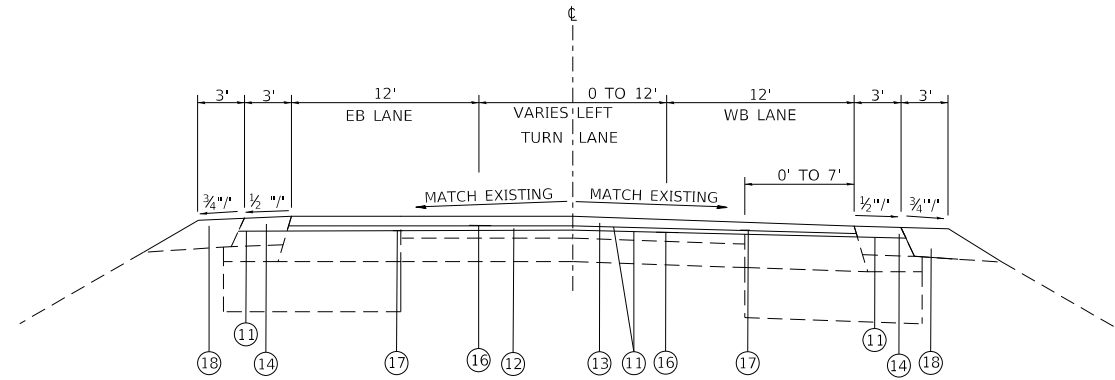
EXISTING TYPICAL SECTION

STA. 698+58 TO 705+00



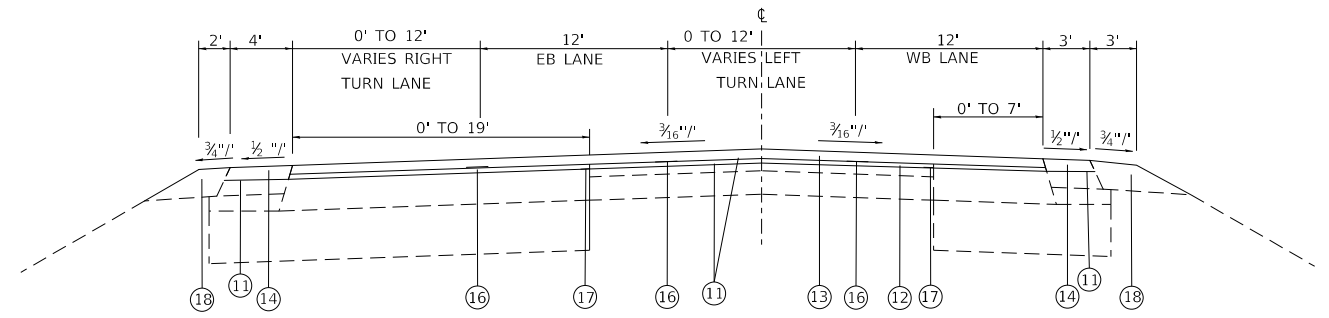
EXISTING TYPICAL SECTION

STA. 705+00 TO 711+12
 STA. 711+12 TO 711+22 (RAILROAD OMISSION)



PROPOSED TYPICAL SECTION

STA. 698+58 TO 705+00



PROPOSED TYPICAL SECTION

STA. 705+00 TO 711+12
 STA. 711+12 TO 711+22 (RAILROAD OMISSION)

PROPOSED HMA SURFACE REMOVAL 2 3/4"

LEGEND

- ① EXISTING PAVEMENT 9-6-9
- ② EXISTING HMA SURFACE
- ③ EXISTING HMA BINDER COURSE, 6"
- ④ EXISTING MODIFIED SOIL
- ⑤ EXISTING HMA BINDER COURSE, 8 1/2"
- ⑥ EXISTING SUBBASE GRANULAR MATERIAL, TYPE C
- ⑦ EXISTING HMA SHOULDERS, 8"
- ⑧ EXISTING HMA BASE COURSE WIDENING-6"
- ⑨ EXISTING CAPE SEAL

- ⑩ EXISTING AGGREGATE SHOULDERS, TYPE B, 6"
- ⑪ PROPOSED BITUMINOUS MATERIALS (TACK COAT)
- ⑫ PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N90, 1 1/4"
- ⑬ PROPOSED ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90, 1 1/2"
- ⑭ PROPOSED HOT-MIX ASPHALT SHOULDERS, (2 3/4")
- ⑮ PROPOSED HMA SHOULDER, 8"
- ⑯ PROPOSED LONGITUDINAL JOINT SEALANT
- ⑰ PROPOSED STRIP REFLECTIVE CRACK CONTROL TREATMENT
- ⑱ PROPOSED AGGREGATE SHOULDER, TYPE B
- ⑲ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B

MODEL: Default
 FILE: \\nrcs-pix\pub\room\dat\illinois.gov\pww\DOT\Documents\DOT_Offices\District 8\Projects\0876L17\CADD\DATA\CAD\Sheets\0876L17-rh-rb-bn.dgn

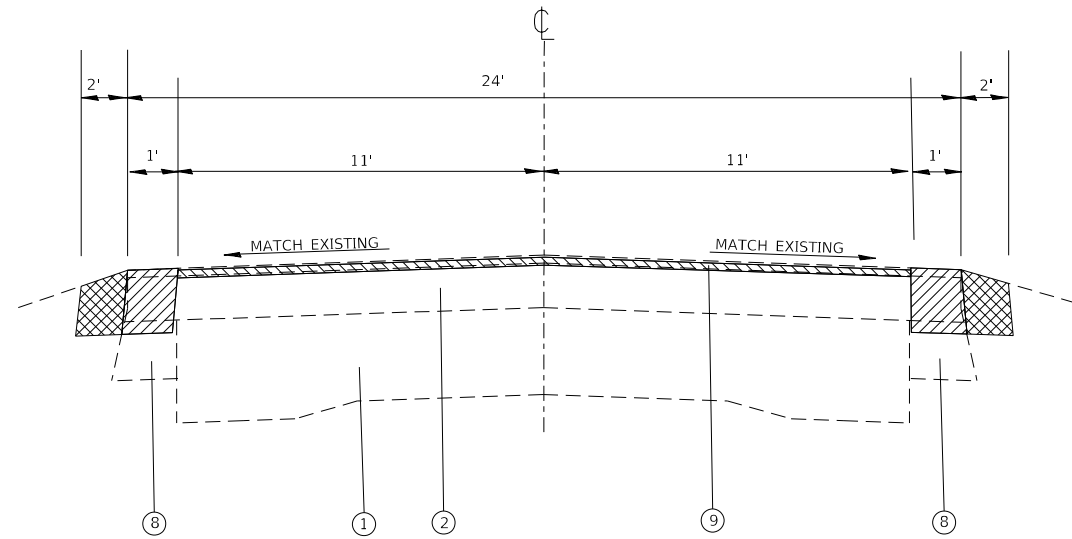
USER NAME = simam	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 3/10/2020	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

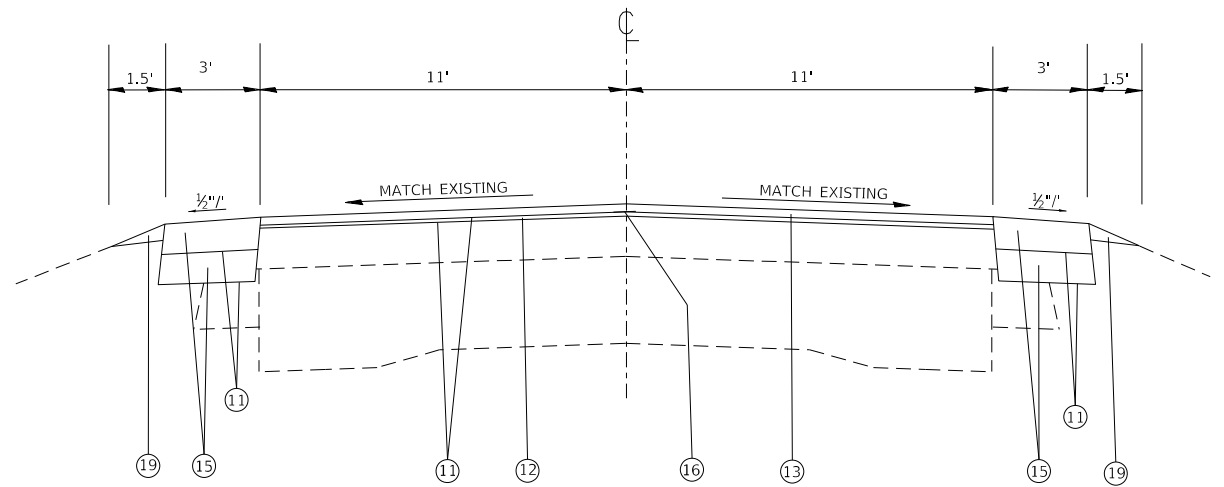
SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	6
CONTRACT NO. 76N09				
ILLINOIS FED. AID PROJECT				



EXISTING TYPICAL SECTION

STA. 711+22 TO 727+14
 STA. 727+14 TO 729+24 (BRIDGE OMISSION)
 STA. 729+24 TO 871+76



PROPOSED TYPICAL SECTION

STA. 711+22 TO 727+14
 STA. 727+14 TO 729+24 (BRIDGE OMISSION)
 STA. 729+24 TO 871+76

- PROPOSED HMA SURFACE REMOVAL 2 3/4"
- PROPOSED PAVED SHOULDER REMOVAL 8"
- EXCAVATING AND GRADING EXISTING SHOULDER

LEGEND

- ① EXISTING PAVEMENT 9-6-9
- ② EXISTING HMA SURFACE
- ③ EXISTING HMA BINDER COURSE, 6"
- ④ EXISTING MODIFIED SOIL
- ⑤ EXISTING HMA BINDER COURSE, 8 1/2"
- ⑥ EXISTING SUBBASE GRANULAR MATERIAL, TYPE C
- ⑦ EXISTING HMA SHOULDERS, 8"
- ⑧ EXISTING HMA BASE COURSE WIDENING-6"
- ⑨ EXISTING CAPE SEAL

- ⑩ EXISTING AGGREGATE SHOULDERS, TYPE B, 6"
- ⑪ PROPOSED BITUMINOUS MATERIALS (TACK COAT)
- ⑫ PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N90, 1 1/4"
- ⑬ PROPOSED ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90, 1 1/2"
- ⑭ PROPOSED HOT-MIX ASPHALT SHOULDERS, (2 3/4")
- ⑮ PROPOSED HMA SHOULDER, 8"
- ⑯ PROPOSED LONGITUDINAL JOINT SEALANT
- ⑰ PROPOSED STRIP REFLECTIVE CRACK CONTROL TREATMENT
- ⑱ PROPOSED AGGREGATE SHOULDER, TYPE B
- ⑲ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B

MODEL: Default
 FILE: \\nrcs-pic\pub\harcourt\m\dot\illinois\gov\pww\DOT\Documents\DOT_Offices\District 8\Projects\0876L17\CADDData\CAD\Sheets\0876L17-rht-plb.dgn

USER NAME = simam	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 3/10/2020	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	(20-1,18)RS-4	CLINTON	33	7
CONTRACT NO. 76L17				
ILLINOIS FED. AID PROJECT				

PAVEMENT PATCHING 17"						
LOCATION	LANE	LENGTH	WIDTH	PAVEMENT PATCHING TYPE II	PAVEMENT PATCHING TYPE III	PAVEMENT PATCHING TYPE IV
	EB/WB	FOOT	FOOT	(SQYD)	(SQYD)	SQ YD
747+94	WB	10	11	12.22		
824+71	WB	12	11	14.67		
827+46	EB	10	11	12.22		
832+74	WB	12	11	14.67		
832+79	EB	16	11		19.56	
841+50	EB	12	11	14.67		
846+25	EB	475	4			211
846+25	WB	475	4			211
854+91	EB	760	4			338
854+91	WB	760	4			338
SUBTOTAL				68.44	19.56	1097.78
10% ALLOWANCE FOR FAILURE				6.84	1.96	110
TOTAL				75	22	1208

SHOULDER SCHEDULE														
LOCATION		LANE	LENGTH	WIDTH	PAVED SHOULDER REMOVAL	BITUMINOUS MATERIALS (TACK COAT)	HMA SHOULDER 8"	HMA SURFACE REMOVAL, 2 3/4"	HOT-MIX ASPHALT SHOULDERS	AGGREGATE SHOULDERS, TYPE B	AGGREGATE WEDGE SHOULDERS, TYPE B	EXCAVATING AND GRADING EXISTING SHOULDER		
Station	TO	Station	EB/WB	FOOT	FOOT	SQ YD	POUND	SQ YD	SQ YD	TON	TON	TON	UNIT	
698+58	TO	705+00	EB/WB	642.46	3.00		578.21		856.61	131.92	149.90			
705+00	TO	711+12	WB	612.13	4.00		367.28		544.12	83.79	190.43			
705+00	TO	711+12	EB	612.13	3.00		275.46		408.09	62.85	142.82			
711+12	TO	711+22	RAILROAD OMISSION											
711+22	TO	727+14	EB/WB	1592.00	3.00	530.67	716.40	1061.33			69.65	31.84		
727+14	TO	729+24	BRIDGE OMISSION											
729+24	TO	871+76	EB/WB	14251.87	3.00	4750.62	6413.34	9501.25			623.48	285.04		
TOTAL				17711	16	5281	8351	10563	1809	279	483	693	317	

RESURFACING SCHEDULE												
LOCATION			LENGTH	WIDTH	STRIP REFLECTIVE CRACK CONTROL TREATMENT	BITUMINOUS MATERIAL (TACK COAT)	HMA SURFACE REMOVAL, 2 3/4"	HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N90, 1 1/4"	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90, 1 1/2"	LONGITUDINAL JOINT SEALANT	MATERIAL TRANSFER DEVICE	
STA	TO	STA	FOOT	FOOT	FOOT	POUND	SQ YD	TON	TON	FOOT	TON	
US 50												
698+58	TO	707+74	916	36	1832.0	2473.2	3664.0	256.5	307.8	1832	564.3	
707+74	TO	711+12	338.1	30	676.3	760.8	1127.1	78.9	94.7	1014	173.6	
RAILROAD OMISSION												
711+12	TO	711+22										
711+22	TO	727+14	1592	22		2626.8	3891.6	272.4	326.9	1592	599.3	
BRIDGE OMISSION												
727+14	TO	729+24										
729+24	TO	871+76	14252	22		23515.6	34837.9	2438.7	2926.4	14252	5365.0	
TOTAL			17098		2508	29376	43521	3046	3656	18690	6702	

MODEL: Default
 FILE: \\nfs1-01\pub\harrington\dot\Documents\DOT_Offices\DOT\Projects\0876L17\CADD\Drawings\0876L17-shl-bln.dgn

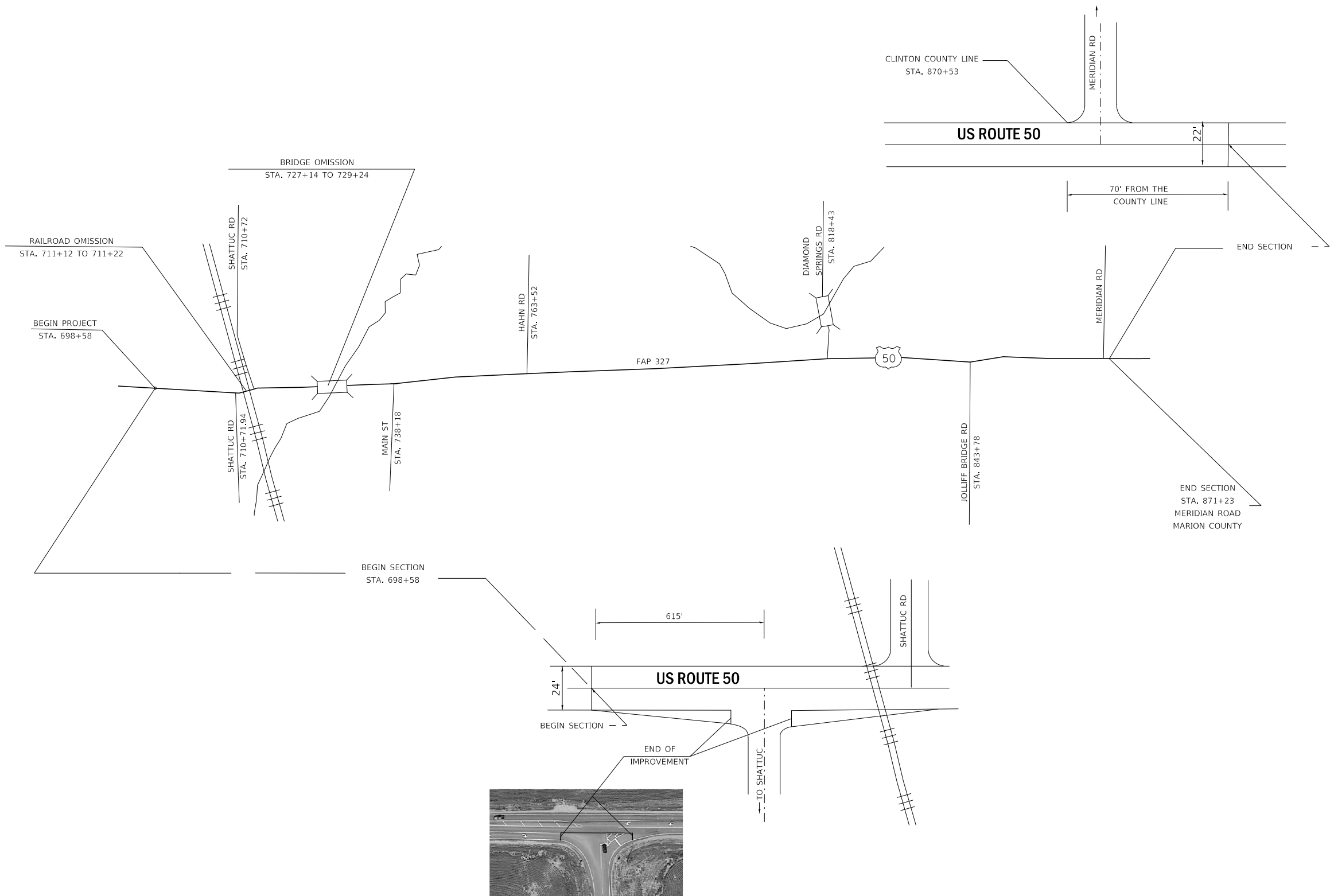
USER NAME = simam	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 3/10/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	MADISON	33	8
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76L17	



MODEL: Default
 FILE: \\nrcs-pix\plannerroom\data\illinois.gov\PWIDOT\Documents\DOT_Offices\District 8\Projects\076L17\CaddData\CAD\Sheets\076L17-rht-pln.dgn

USER NAME = simam	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 3/10/2020	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LOCATION MAP

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	10
CONTRACT NO. 76L17				
		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

1. THE STATIONING SHOWN IN THE PLANS WAS CREATED USING MICROFILM AND FIELD MEASUREMENTS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION. BOTH SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
2. IF THE CONTRACTOR, FOR HIS CONSTRUCTION ACTIVITY, REMOVES TREES WITHIN THE RIGHT-OF-WAY LIMITS WHICH ARE NOT DESIGNATED ON THE PLANS FOR REMOVAL, I.E. IN ORDER TO GAIN ACCESS TO THE PROJECT SITE; IT WILL BE HIS RESPONSIBILITY TO REPLACE THE TREES AT A 1:1 RATIO. THE TREES WILL BE REPLACED WITH A 1-GALLON NATIVE ILLINOIS TREE SPECIES AND SHALL BE APPROVED BY THE ENGINEER. THE TREE REMOVAL AND TREE REPLACEMENT WILL BE AT THE CONTRACTOR'S EXPENSE, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
3. ALL EXISTING AND PROPOSED RIGHT-OF-WAY LINES AND PROPERTY LINES SHOWN ON THE PLAN SHEETS ARE GRAPHICAL REPRESENTATIONS AND SHALL NOT BE USED AS A MEANS TO ESTABLISH OWNERSHIP. IN ALL MATTERS RELATING TO RIGHT-OF-WAY, THE PLAT OF HIGHWAYS SHALL BE THE CONTROLLING DOCUMENT.
4. ALL ELEVATIONS REFER TO THE USGS MEAN SEA LEVEL DATUM.

HIGHWAY STANDARDS

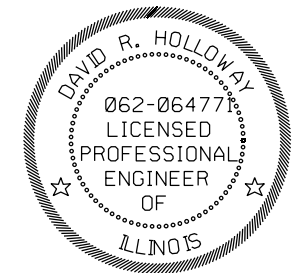
- 630001-12 STEEL PLATE BEAM GUARDRAIL
- 630106-02 LONG-SPAN GUARDRAIL OVER CULVERT
- 630301-09 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 701006-05 OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
- 701201-05 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
- 701901-08 TRAFFIC CONTROL DEVICES
- 725001-01 OBJECT AND TERMINAL MARKERS
- 782006-01 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

INDEX OF SHEETS

- 12 GENERAL NOTES, HIGHWAY STANDARDS, TOTAL BILL OF MATERIAL AND INDEX OF SHEETS
- 13 SCHEDULES OF QUANTITIES
- 14 - 15 PLAN AND PROFILE
- 16 - 27 CULVERT EXTENSION PLANS
- 28 - 30 WEST CULVERT CROSS SECTIONS
- 31 - 33 EAST CULVERT CROSS SECTIONS

TOTAL BILL OF MATERIALS

PAY ITEM	CODED PAY ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	190
20400800	FURNISHED EXCAVATION	CU YD	65
20700220	POROUS GRANULAR EMBANKMENT	CU YD	21
25000200	SEEDING, CLASS 2	ACRE	0.25
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	23
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	23
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	23
25100115	MULCH, METHOD 2	ACRE	0.75
25100630	EROSION CONTROL BLANKET	SQ YD	1133
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	42
28000305	TEMPORARY DITCH CHECKS	FOOT	211
28000400	PERIMETER EROSION BARRIER	FOOT	725
28100107	STONE RIPRAP, CLASS A4	SQ YD	88
28200200	FILTER FABRIC	SQ YD	86
50105220	PIPE CULVERT REMOVAL	FOOT	19
50800105	REINFORCEMENT BARS	POUND	3420
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	1
54001002	BOX CULVERT END SECTIONS, CULVERT NO. 2	EACH	1
54003000	CONCRETE BOX CULVERTS	CU YD	16.4
54010303	PRECAST CONCRETE BOX CULVERTS 3' X 3'	FOOT	9
63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	575
63000350	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	FOOT	75
63000360	LONG-SPAN GUARDRAIL OVER CULVERT, 18 FT 9 IN SPAN	FOOT	87.5
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	8
63200310	GUARDRAIL REMOVAL	FOOT	670
72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	8
78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	17
Z0054517	ROCK FILL - FOUNDATION	TON	36



David R. Holloway 4/23/20
 DAVID R. HOLLOWAY, P.E. DATE
 LICENSED PROFESSIONAL ENGINEER
 ILLINOIS NO. 062-064771
 EXPIRES: 11-30-2021

MODEL, MODEL NAMES, FILE NAMES, SHEETS



USER NAME = \$USERS	DESIGNED -	REVISED -
PLOT SCALE = \$SCALES	DRAWN -	REVISED -
PLOT DATE = \$DATES	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, HIGHWAY STANDARDS,
 TOTAL BILL OF MATERIAL AND INDEX OF SHEETS
 US ROUTE 50 GUARDRAIL REPLACEMENT

SCALE: SHEET 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18) RS-4	CLINTON	33	12
CONTRACT NO. 76L17				
ILLINOIS FED. AID PROJECT				

GUARDRAIL SCHEDULE								
LOCATION		STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	LONG-SPAN GUARDRAIL OVER CULVERT, 18 FT 9 IN SPAN	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	TERMINAL MARKER - DIRECT APPLIED	GUARDRAIL REFLECTORS, TYPE A	GUARDRAIL REMOVAL
		FOOT	FOOT	FOOT	EACH	EACH	EACH	FOOT
WEST CULVERT (NEAR SHATTUC ROAD)	LT	112.5		43.75	2	2	4	125
WEST CULVERT (NEAR SHATTUC ROAD)	RT	150		43.75	2	2	4	157
EAST CULVERT (NEAR DIAMOND ROAD)	LT	62.5	37.5		2	2	4	138
EAST CULVERT (NEAR DIAMOND ROAD)	RT	250	37.5		2	2	5	250
TOTAL		575	75	87.5	8	8	17	670

TEMPORARY DITCH CHECK		
STATION	SIDE	TEMPORARY DITCH CHECKS FOOT
WEST CULVERT (SHATTUC ROAD)		
719+50	LT	6
720+50	LT	12
720+73	LT	12
722+25	LT	6
720+00	RT	8
720+50	RT	13
720+73	RT	13
721+25	RT	10
SUB-TOTAL		80
EAST CULVERT (DIAMOND ROAD)		
818+77	LT	23
819+92	LT	18
819+50	LT	10
818+00	RT	10
818+68	RT	15
818+77	RT	22
818+92	RT	18
819+50	RT	15
SUB-TOTAL		131
TOTAL		211

SEEDING AND EROSION CONTROL SCHEDULE													
STATION	TO	STATION	SIDE	SEEDING, CLASS 2	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH, METHOD 2	EROSION CONTROL BLANKET	TEMPORARY EROSION CONTROL SEEDING	PERIMETER EROSION BARRIER	STONE RIPRAP, CLASS A4	FILTER FABRIC
				ACRE	POUND	POUND	POUND	ACRE	SQ YD	POUND	FOOT	SQ YD	SQ YD
WEST CULVERT (SHATTUC ROAD)													
719+46	TO	720+60	LT	0.03	3	3	3	0.08	149	6			
720+60	TO	720+36	LT	0.03	3	3	3	0.09	173	6			
718+75	TO	720+20	RT	0.02	3	3	3	0.07	151	6			
721+50	TO	721+97	RT	0.004	1	1	1	0.01	27	2			
719+00	TO	720+50	LT								150		
721+00	TO	722+00	LT								100		
719+00	TO	720+50	RT								150		
721+50	TO	722+00	RT								50		
720+20	TO	721+50	RT									135	135
SUB-TOTAL				0.08	10	10	10	0.25	500	20	450	135	135
EAST CULVERT (DIAMOND ROAD)													
818+60	TO	820+05	LT	0.05	5	5	5	0.14	278	10			
816+78	TO	818+50	RT	0.04	4	4	4	0.12	264	8			
820+25	TO	821+10	RT	0.01	2	2	2	0.04	91	4			
818+68	TO	818+90	LT								75		
819+00	TO	820+50	LT								150		
816+50	TO	817+00	RT								50		
818+50	TO	820+25	RT									229	229
SUB-TOTAL				0.10	11	11	11	0.30	633	22	275	229	229
TOTAL				0.18	21	21	21	0.55	1133	42	725	364	364
ROUNDED				0.25	23	23	23	0.75	1133	42	725	364	364

(1) 2 APPLICATIONS FOR TEMPORARY SEEDING, 1 APPLICATION FOR PERMANENT SEEDING
(2) NOT A TOTAL QUANTITY

PIPE CULVERT REMOVAL SCHEDULE				
STATION	TO	STATION	SIDE	LENGTH FOOT
720+13	TO	720+32	RT	19
TOTAL				19

EARTHWORK SCHEDULE							
STATION	TO	STATION	EARTH EXCAVATION	SHRINKAGE	EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	WASTE (+) OR SHORTAGE (-)
			CU YDS		CU YDS	CU YDS	CU YDS
WEST CULVERT (SHATTUC ROAD)							
719+00.00	TO	720+50.00	12.98	25%	9.73	73.41	-63.68
720+73.00	TO	722+00.00	48.85	25%	36.64	37.47	-0.84
SUB-TOTAL			61.83		46.37	110.89	-64.52
EAST CULVERT (DIAMOND ROAD)							
817+00.00	TO	818+77.00	61.56	25%	46.17	26.77	19.40
818+92.00	TO	820+50.00	65.34	25%	49.01	67.78	-18.77
SUB-TOTAL			126.90		95.18	94.55	0.63
TOTAL			188.73				-63.89
ROUNDED			190				65
FURNISHED EXCAVATION							65
EARTH EXCAVATION			190				

MODEL: SCHEDULES
FILE NAME: P:\projects\3634400 - PTB 176-1B DB Var Ph. 1 and 10634409 - V0. 6 (US 50) CAD\CADD\CAD_Sheets\0676L175Sh-Schedule.dgn



USER NAME = art.muehfeld	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/5/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES
US ROUTE 50 GUARDRAIL REPLACEMENT

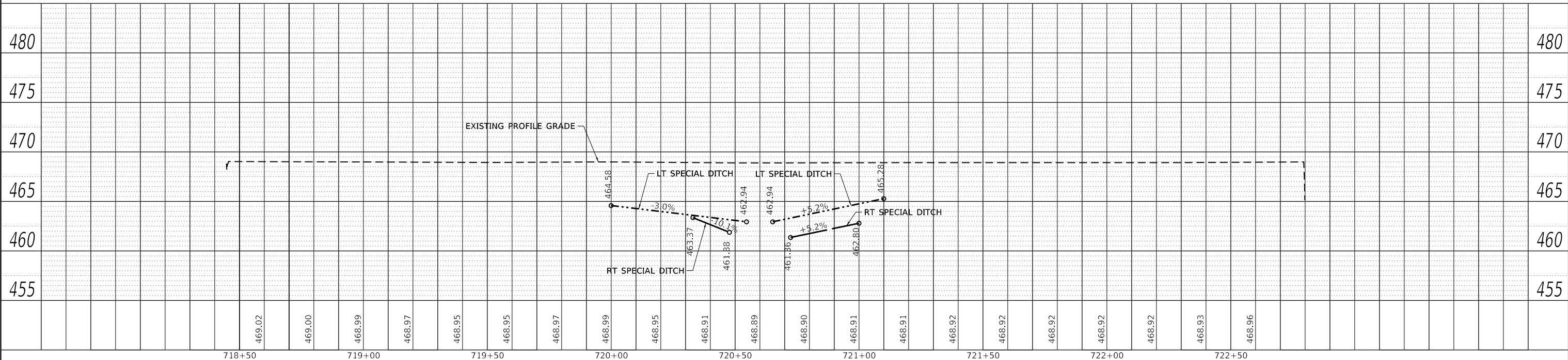
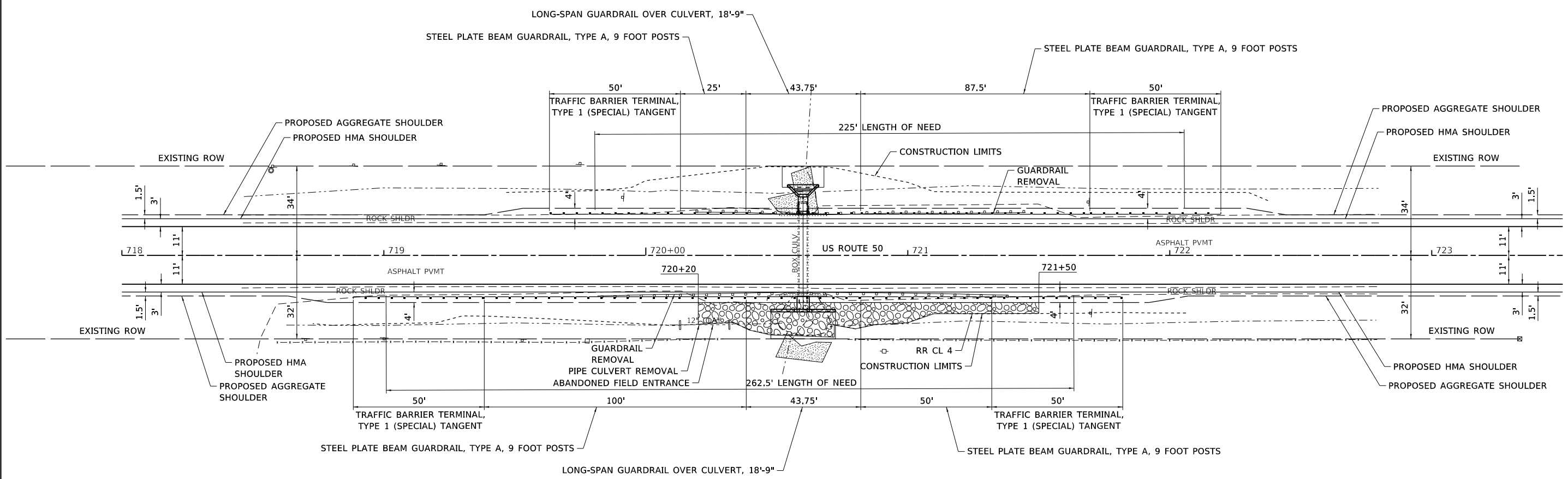
SCALE: SHEET 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18) RS-4	CLINTON	33	13
CONTRACT NO. 76L17			ILLINOIS FED. AID PROJECT	



PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATION	
	NO.	



USER NAME = art.muehlfield	DESIGNED -	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/5/2020	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PLAN AND PROFILE US ROUTE 50 GUARDRAIL REPLACEMENT	
SCALE: 1"=20'	SHEET 1 OF 2 SHEETS STA. TO STA.

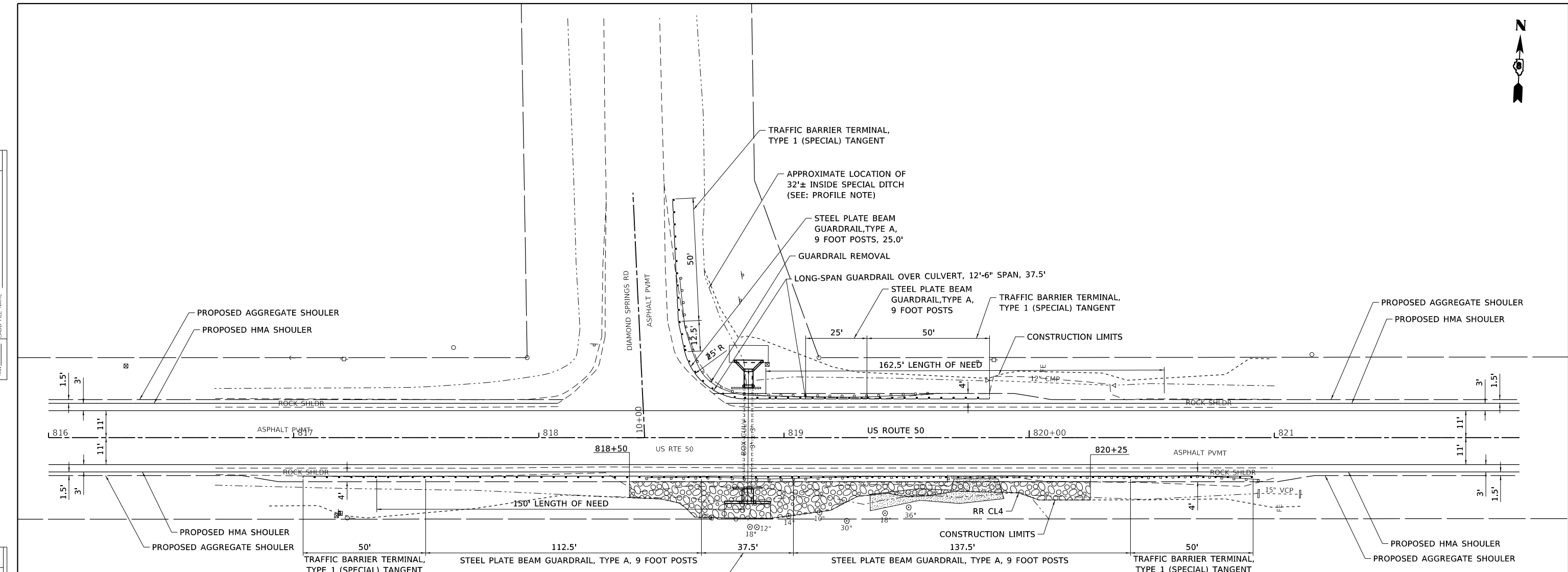
F.A.P. RTE. 327	SECTION (20-1.18) RS-4	COUNTY CLINTON	TOTAL SHEETS 33	SHEET NO. 14
CONTRACT NO. 76L17				
ILLINOIS FED. AID PROJECT				

MODEL: West
 FILE NAME: P:\projects\634400 - PTB 17E-19 D8 Var Ph 1 and 11634409 - W9 8 (US 50)CAD\CAD_Sheets\076L17-shiplan1.dgn

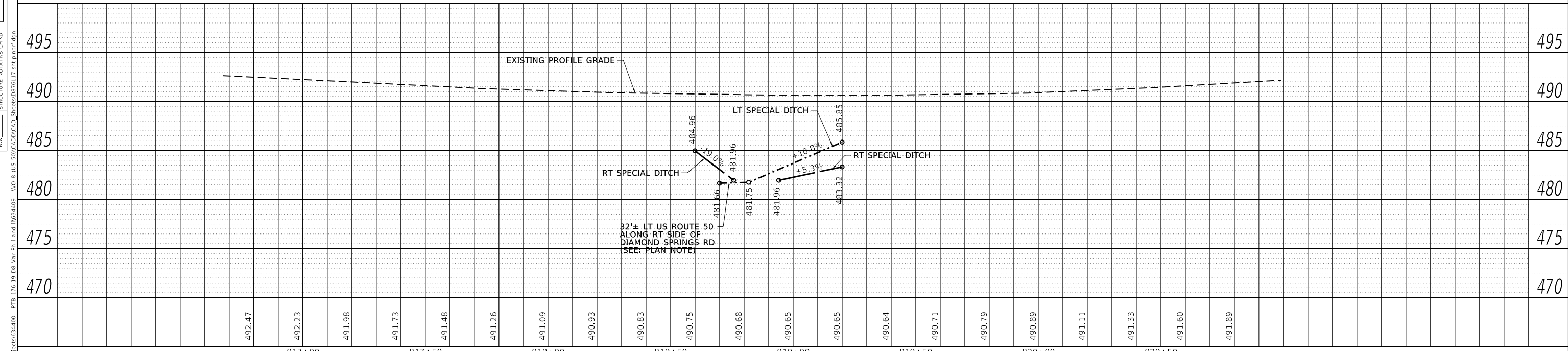


PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	NO. _____	
	ADD FILE NAME	

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



NOTE:
THE HAZARDS ARE THE TREES ON THE BACKSLOPE OF THE DITCH. THE HAZARD IS LOCATED AT THE WEST EDGE OF THE ENTRANCE. THE LENGTH OF NEED IS TO THE EAST OF THE ENTRANCE.



	USER NAME = art.muehfeld	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE US ROUTE 50 GUARDRAIL REPLACEMENT		F.A.P. RTE. 327	SECTION (20-1.18) RS-4	COUNTY CLINTON	TOTAL SHEETS 33	SHEET NO. 15		
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -		SCALE: 1"=20'	SHEET 2 OF 2 SHEETS	STA. TO STA.	CONTRACT NO. 76L17					
	PLOT DATE = 3/5/2020	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

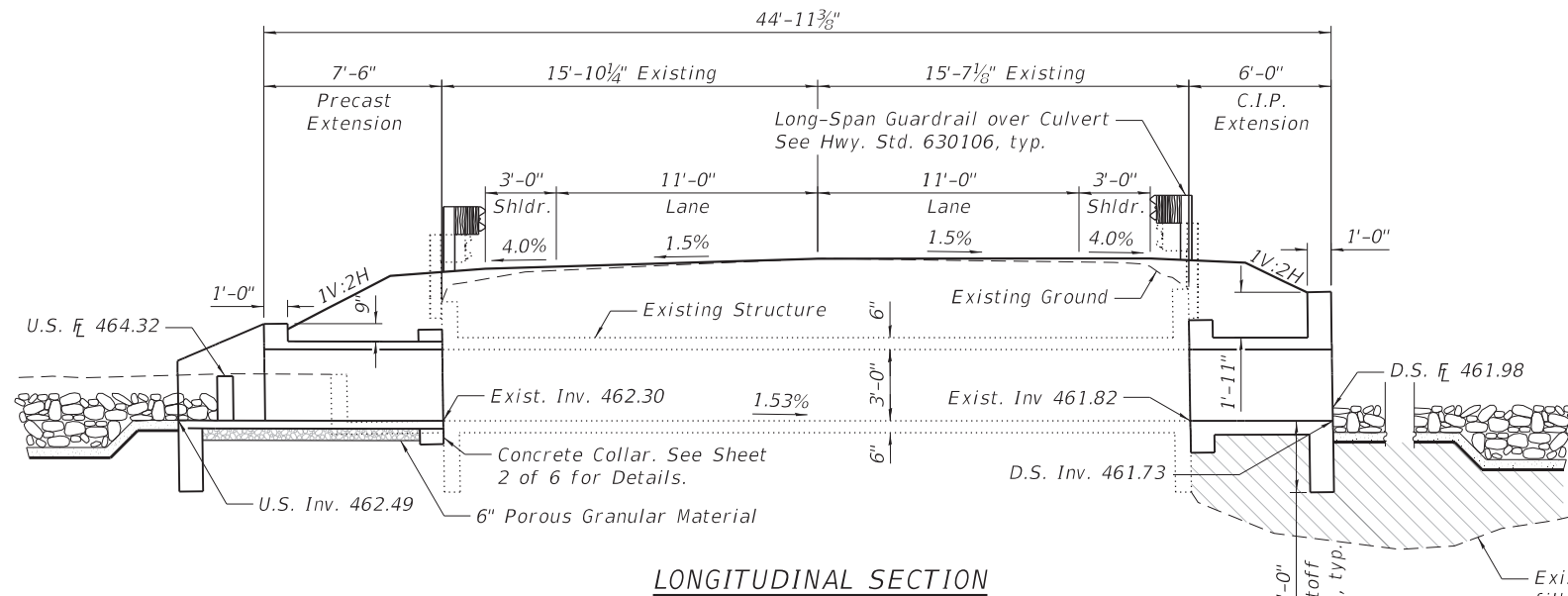
MODEL: Esri; FILE NAME: p:\projects\634400 - PTB 176-18 D8 Var Ph 1 and 11634409 - W9 8 (US 50)CADD\CAD_Sheets\76L17-she\plan.rvt.dgn

Benchmark: BM A - R.R. spike set 18"± above grade in north face of power pole, 225'± west of west edge of box culvert on south side of US Route 50. Elev. 469.00.

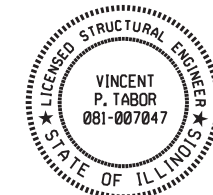
Existing Structure: The existing 3'-0" x 3'-0" reinforced concrete box culvert was built in 1923 as Rte. 12, Section 20 at Sta. 689+15. Existing structure is a single cell box culvert with a 4'-0" overall width and a 4'-0" overall height that is 31'-5³/₈" long out to out of headwalls. The culvert extensions will be constructed prior to placement of any embankment required for the roadway. Roadway will remain open to traffic during construction.
No Salvage.

TOTAL BILL OF MATERIAL

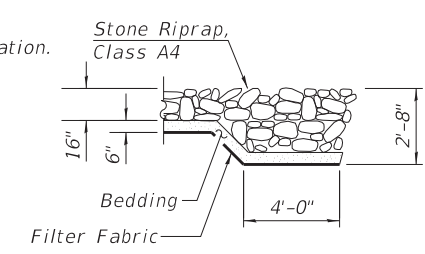
ITEM NO.	ITEM	UNIT	TOTAL
20700220	Porous Granular Embankment	Cu. Yd.	12
28100107	Stone Riprap, Class A4	Sq. Yd.	50
28200200	Filter Fabric	Sq. Yd.	48
50800105	Reinforcement Bars	Pound	2,050
54001001	Box Culvert End Sections, Culvert No. 1	Each	1
54003000	Concrete Box Culverts	Cu. Yd.	9.5
54010303	Precast Concrete Box Culverts 3'x3'	Foot	4.5
Z0054517	Rock Fill - Foundation	Ton	36



LONGITUDINAL SECTION



Vincent P. Tabor 4/22/2020
 Vincent P. Tabor
 Licensed Structural Engineer
 State of Illinois No. 081-007047
 Expires 11/30/2020



SECTION A-A

INDEX OF SHEETS

1. General Plan and Elevation
2. General Data
- 3.-4. Precast Apron End Section Details
5. Cast In Place Extension Details
6. Existing Plans

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

LOADING HL-93

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

DESIGN STRESSES

PRECAST UNITS (New Construction)

f'c = 5,000 psi
 fy = 65,000 psi (Welded Wire Reinforcement)

FIELD UNITS (New Construction)

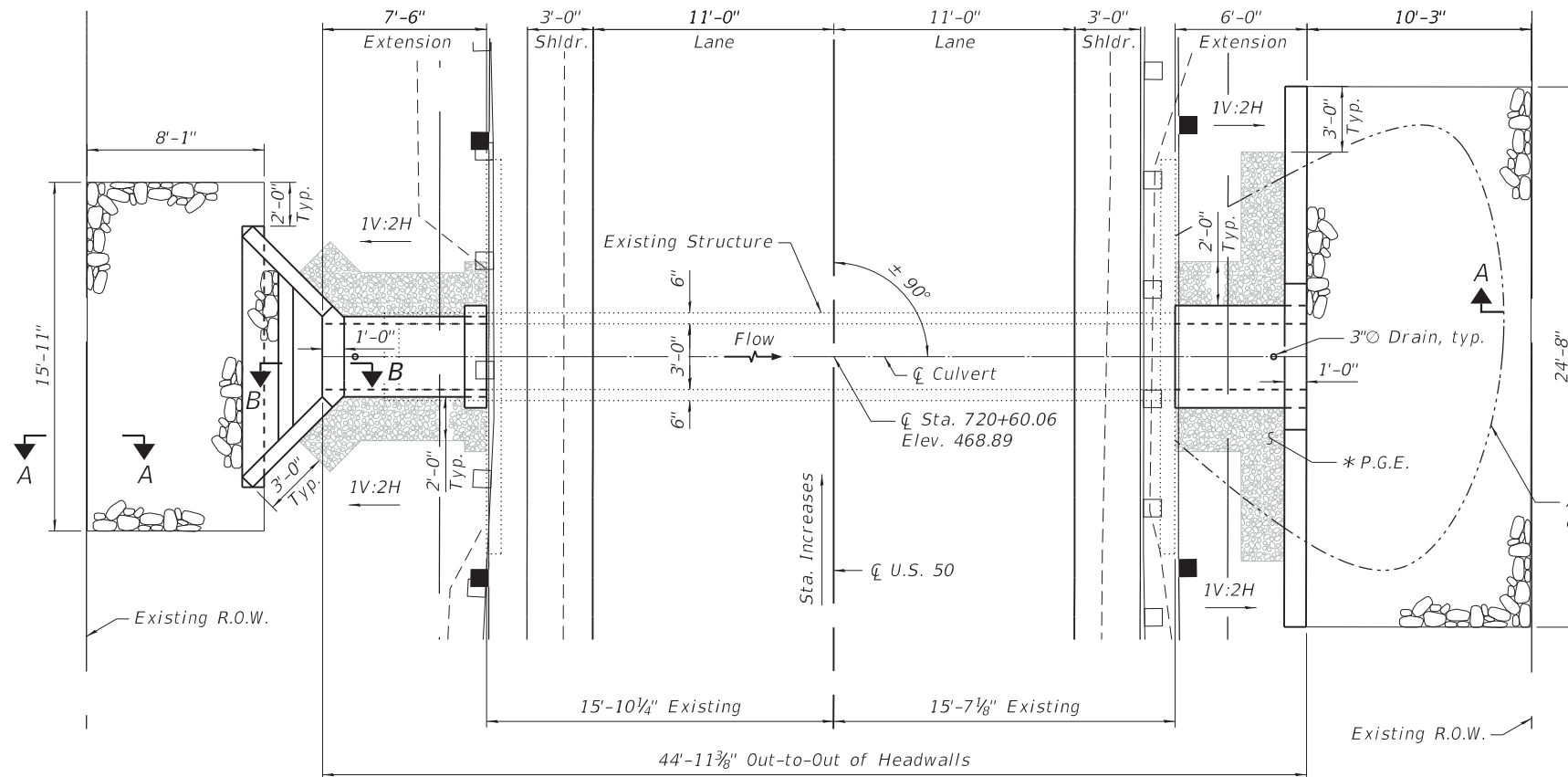
f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)

FIELD UNITS (Exist. Construction)

f'c = 3,000 psi
 fy = 33,000 psi (Reinforcement)

GENERAL PLAN AND ELEVATION

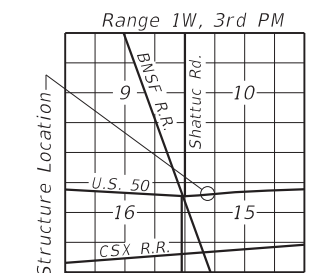
**U.S. RTE. 50 OVER
 UNNAMED DITCH
 F.A.P. RTE. 327 SEC. (20-1,18)RS-4
 CLINTON COUNTY
 STATION 720+60.06**



PLAN

See Sheet 2 of 6 for Section B-B.

*2'-0" width of P.G.E. to be installed full length of proposed culvert extension, to 3'-0" from the end of the proposed wingwalls. Adjacent to culvert extension, vertical limits are from bottom of bottom slab to top of top slab. Along wingwalls, vertical limits are from bottom of culvert bottom slab to 1'-0" below top of wingwall. P.G.E. shall be capped with a 12" thick layer of impervious material. Cost of impervious material shall be included in the cost of Porous Granular Embankment.



LOCATION SKETCH

MODEL: Default
 FILE NAME: \\CHATHAM1\lfrj\jobs\1513-13\Struct\G. Culvert Extensions\4. Final Design\Design_Plans\CADD_Sheets\Shattuc-D876L17-001-GPE.dgn

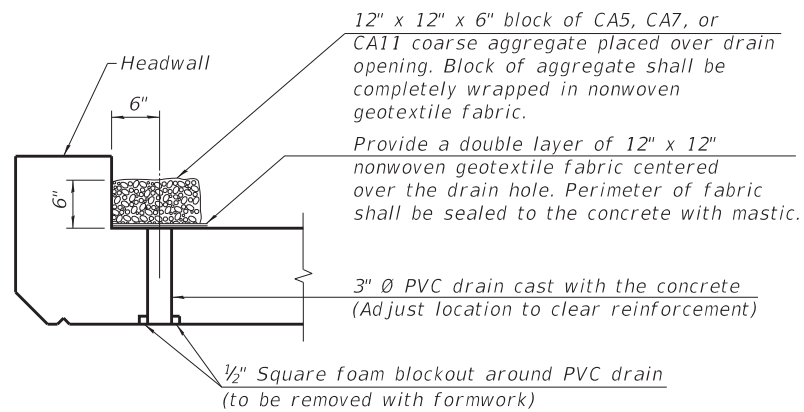
LE LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois	USER NAME = LIN06-PC	DESIGNED - VPT	REVISED -
	PLOT TIME = 11:01:34 AM	CHECKED - AML	REVISED -
	PLOT DATE = 4/22/2020	DRAWN - DAS	REVISED -
		CHECKED - VPT	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
 STATION: 720 + 60.06**

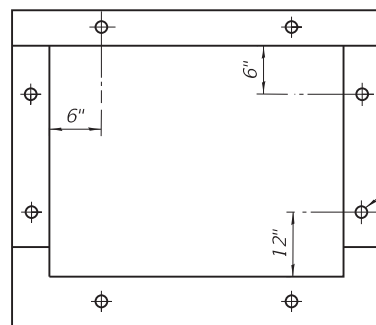
SHEET 1 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	16
CONTRACT NO. 76L17			ILLINOIS FED. AID PROJECT	



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.)



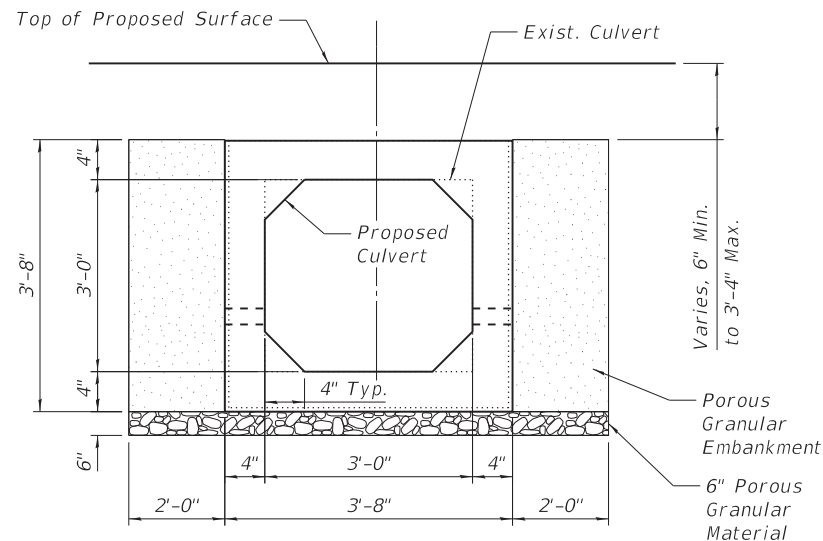
Sidewalls: 2 @ 18" cts.
Top & Bottom: 2 @ 24" cts.

EXPANSION BOLT LOCATION FOR CAST-IN-PLACE EXTENSION

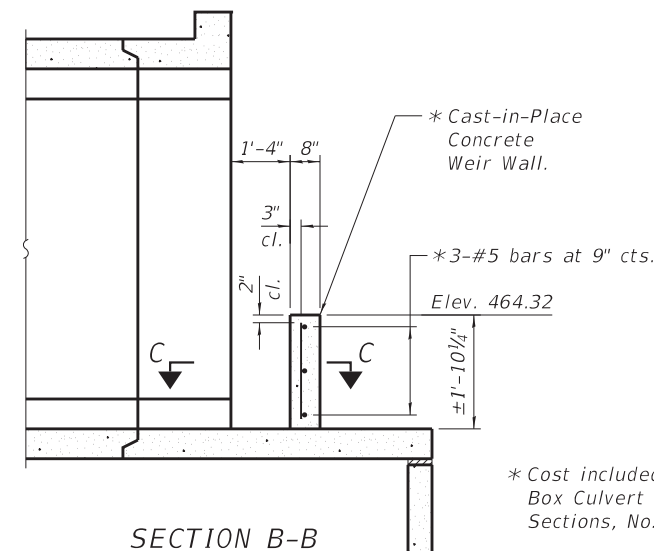
3/4" dia hooked Expansion Bolts, spaced as shown. Hooked bolts shall extend a minimum of 9" into new concrete. Cost included with Concrete Box Culverts.

GENERAL NOTES

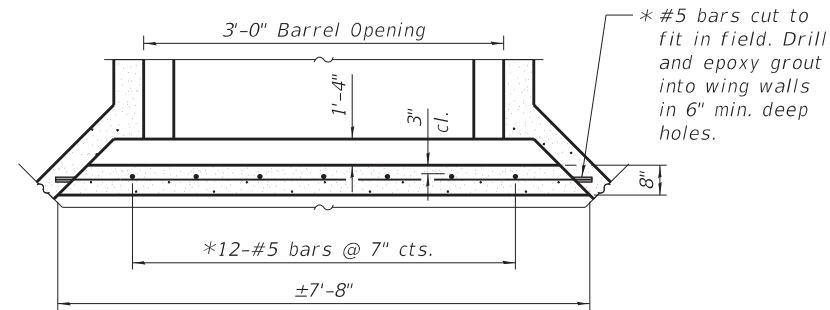
The design fill height for this box is 2.91 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.
 Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.
 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, unless noted otherwise.
 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 quantity actually furnished at the unit price bid for the work.



SECTION THROUGH PRECAST BOX CULVERT

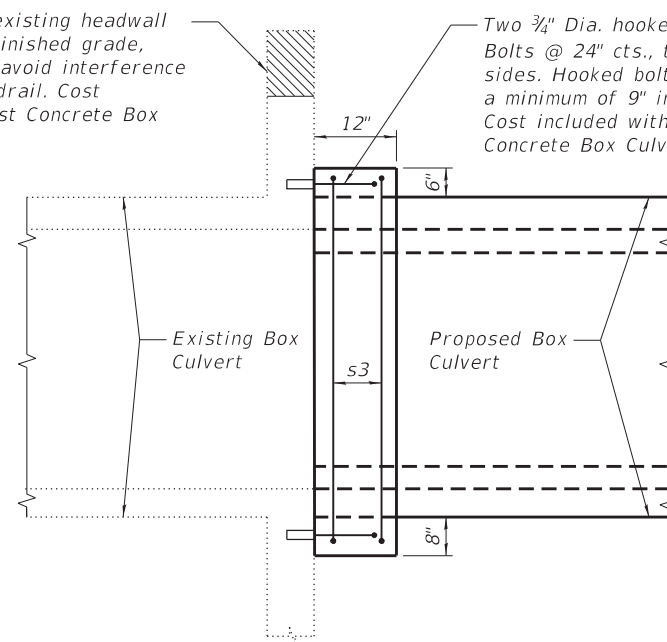


SECTION B-B

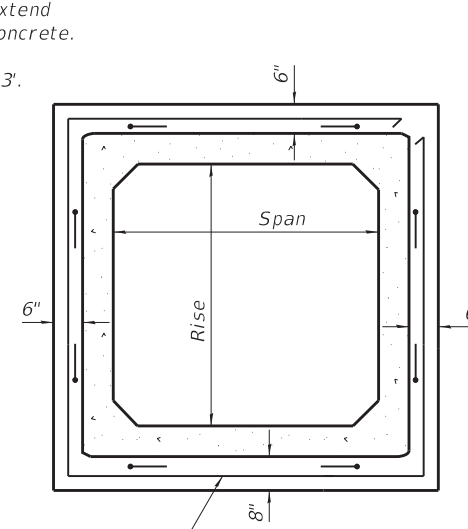


SECTION C-C

Remove portion of existing headwall down to 12" below finished grade, or as necessary to avoid interference with proposed guardrail. Cost included with Precast Concrete Box Culverts 3' x 3'.
 Two 3/4" Dia. hooked Expansion Bolts @ 24" cts., typ. all four sides. Hooked bolts shall extend a minimum of 9" into new concrete. Cost included with Precast Concrete Box Culverts 3' x 3'.



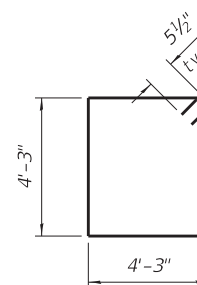
SIDE VIEW



2-#5 s3 bars typ. Cost included with Precast Concrete Box Culverts 3' x 3'.

END VIEW

DETAILS OF CONCRETE COLLAR FOR PRECAST BOX CULVERT EXTENSION



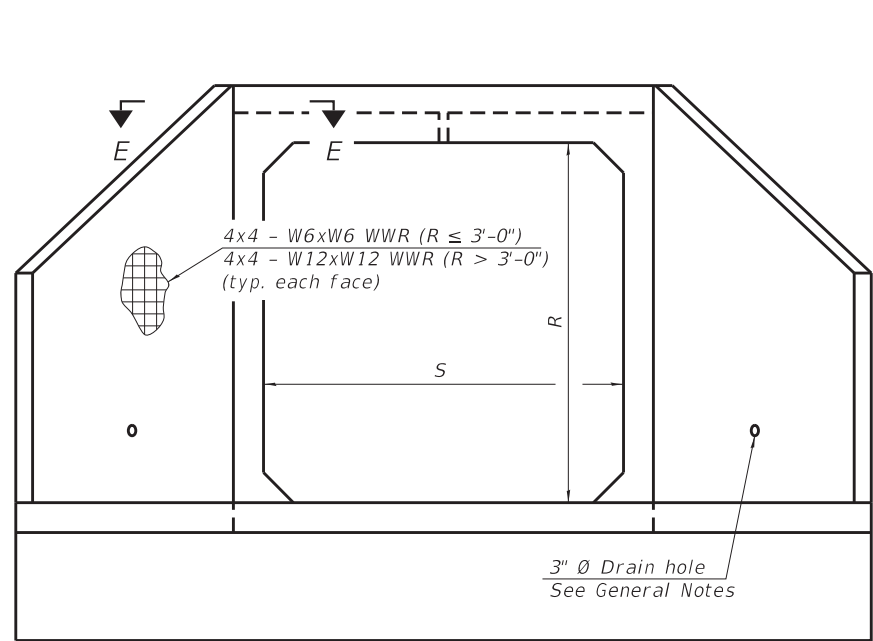
BAR s3

For Information Only

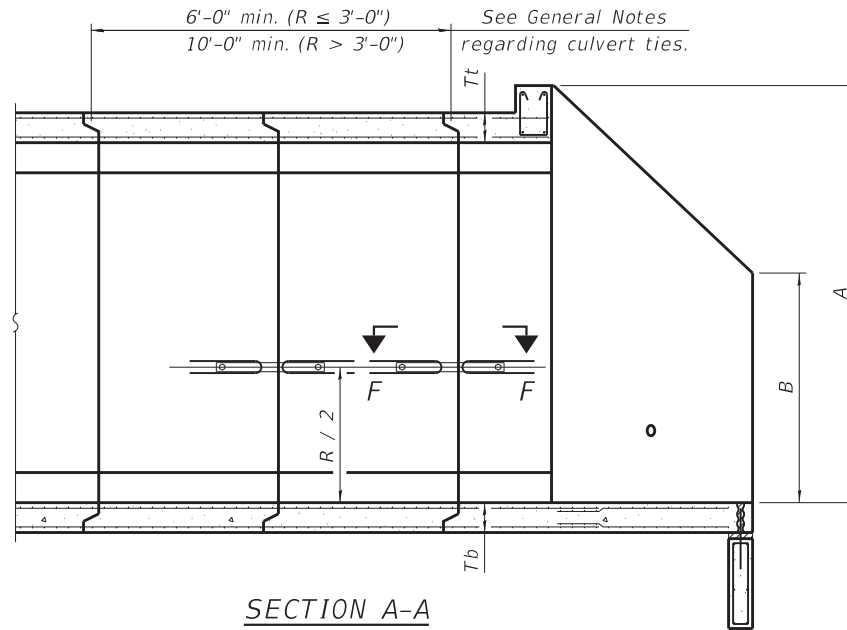
SPAN X RISE	CL. SI CONC. CU. YD. (EST.)
3' X 3'	0.34

The concrete collar as detailed, and removal of such portions of the existing headwalls as may be required, are included with Precast Concrete Box Culverts 3' x 3'. Class S1 concrete shall be used throughout.

MODEL: Default
FILE NAME: \\CHATHAM1\lfrj\jobs\15113-13\Struct\G. Culvert Extensions\4. Final Design\Design_Sheets\Shattuc-D876L17-002-General\Data.dgn



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 in 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.

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 3/8"	5'-6"	12'-4 3/8"	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 7/8"	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 7/8"	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 1/8"	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 7/8"	4'-7"	20'-3 1/8"	8.2	No
11'-0"	3'-0"	11"	11"	11"	4'-8"	2'-10"	4'-2 7/8"	6'-0"	22'-3 1/8"	9.8	No
11'-0"	4'-0"	11"	11"	11"	5'-8"	3'-4"	5'-2 1/4"	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 7/8"	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 3/8"	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)

MODEL: Default; FILE NAME: \\CHATHAM1\lfrj\jobs\1513-13\Struct\G. Culvert Extensions\4. Final Design\Design_Plans\CADD_Sheets\Shattuc-D876L17-003-EndSectionDetails.dgn

SCB-AES

2-17-2017

LINE ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

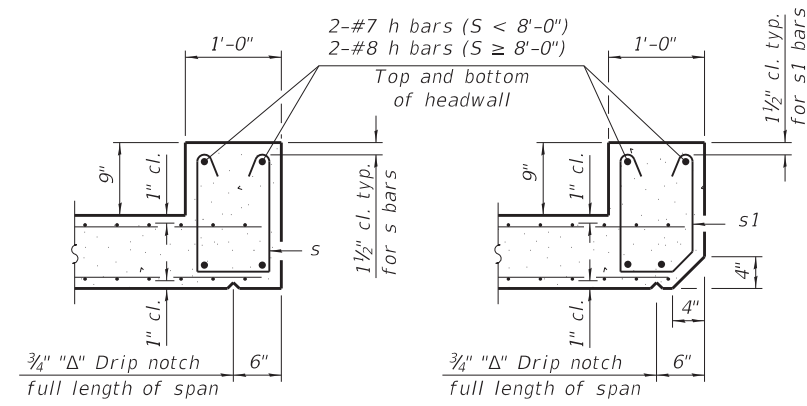
USER NAME = LIN06-PC	DESIGNED - VPT	REVISED -
PLOT TIME = 11:01:40 AM	CHECKED - AML	REVISED -
PLOT DATE = 4/22/2020	DRAWN - DAS	REVISED -
	CHECKED - VPT	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT APRON END SECTION DETAILS
STATION: 720 + 60.06

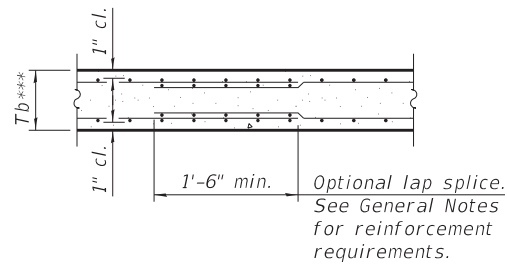
SHEET 3 OF 6 SHEETS

F.A.P. RTE. 327	SECTION (20-1,18)RS-4	COUNTY CLINTON	TOTAL SHEETS 33	SHEET NO. 18
CONTRACT NO. 76L17				
ILLINOIS FED. AID PROJECT				



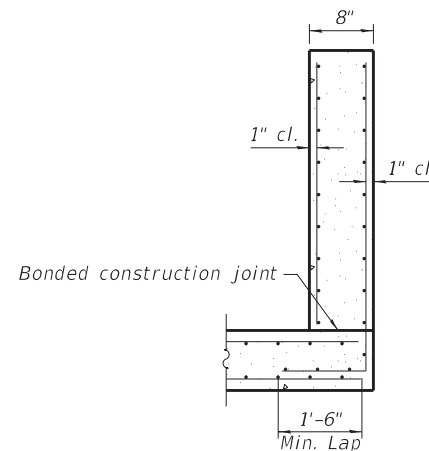
SECTION B-B
(Top slab at downstream end)

SECTION B-B
(Top slab at upstream end)

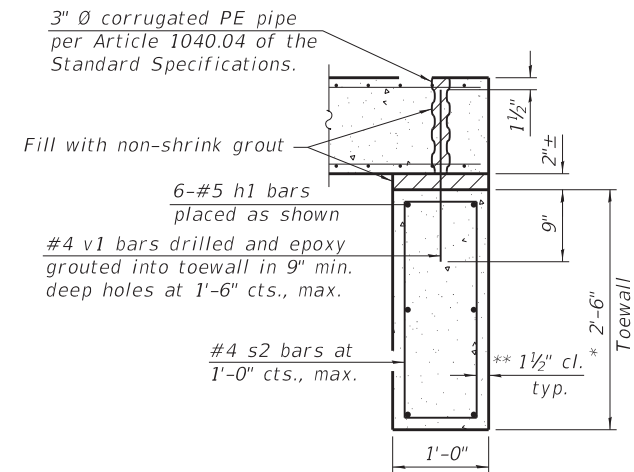


SECTION B-B
(Bottom Slab)

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



SECTION C-C



SECTION D-D

TOEWALL CONSTRUCTION SEQUENCE

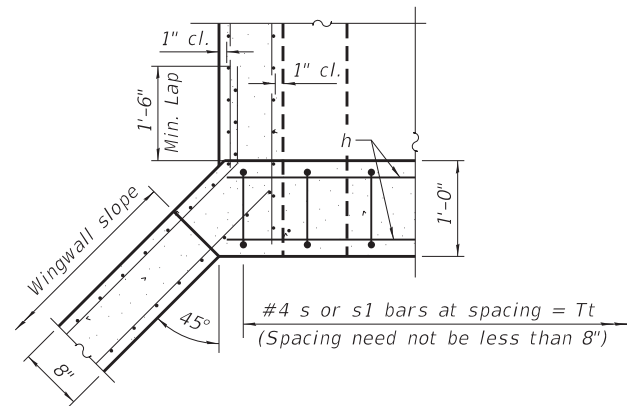
1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids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

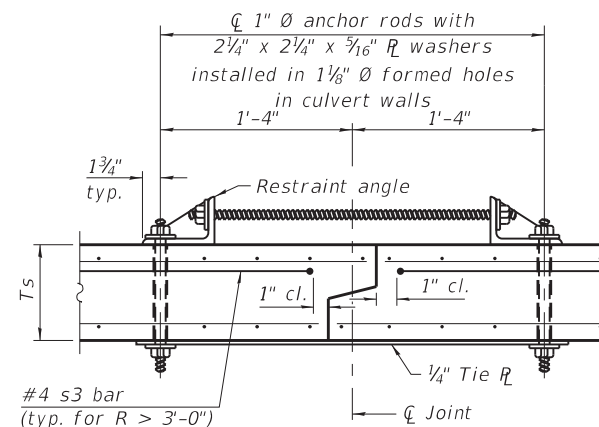
** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

Notes:

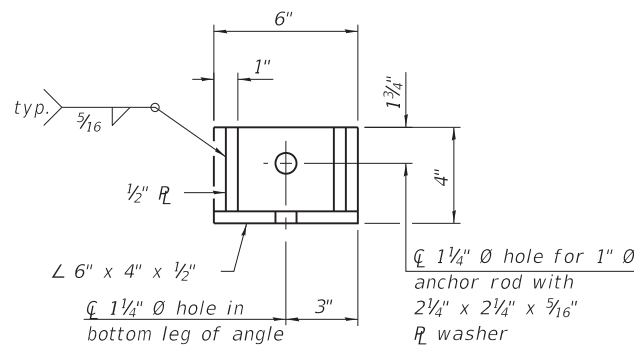
1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for the tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according 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.



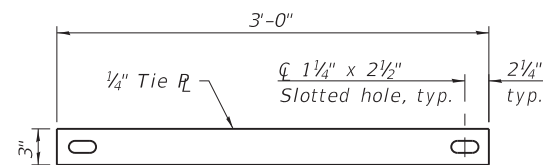
SECTION E-E



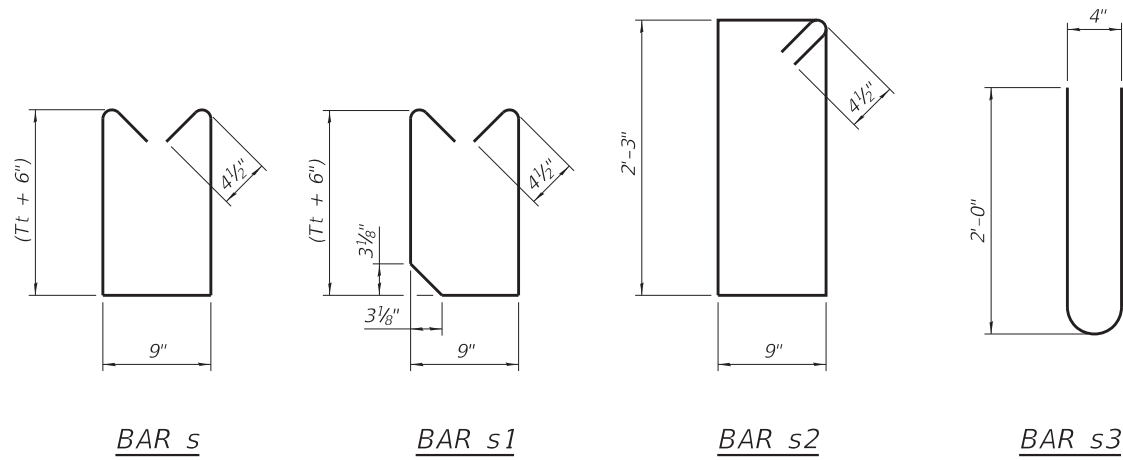
SECTION F-F
(Showing culvert tie details)



RESTRAINT ANGLE DETAIL



TIE PLATE DETAIL



BAR s

BAR s1

BAR s2

BAR s3

SCB-AES

2-17-2017

(Sheet 2 of 2)

MODEL: Default

FILE NAME: \\CHATHAM1\lfrj\jobs\15113-13\Struct\G. Culvert Extensions\4. Final Design\Design_Sheets\Shattuc-D876L17-004-EndSectionDetails.dgn

LE LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME = LIN06-PC
DESIGNED - VPT
CHECKED - AML
PLOT TIME = 11:01:43 AM
DRAWN - DAS
PLOT DATE = 4/22/2020
CHECKED - VPT
REVISED -

DESIGNED - VPT
CHECKED - AML
DRAWN - DAS
CHECKED - VPT
REVISED -

DESIGNED - VPT
CHECKED - AML
DRAWN - DAS
CHECKED - VPT
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT APRON END SECTION DETAILS
STATION: 720 + 60.06

SHEET 4 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	19
CONTRACT NO. 76L17				

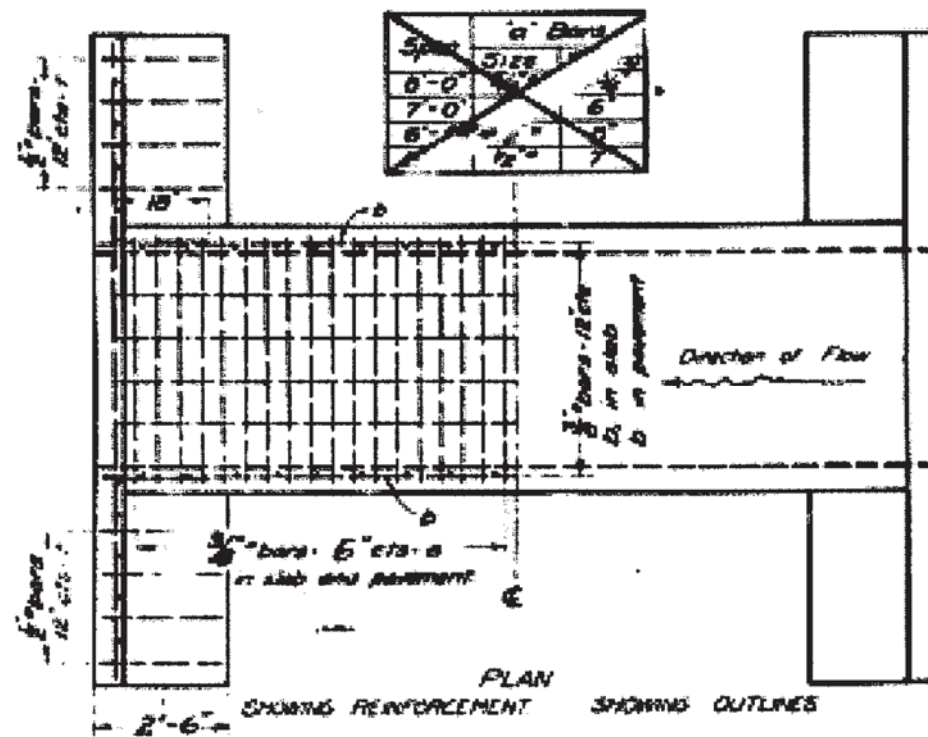
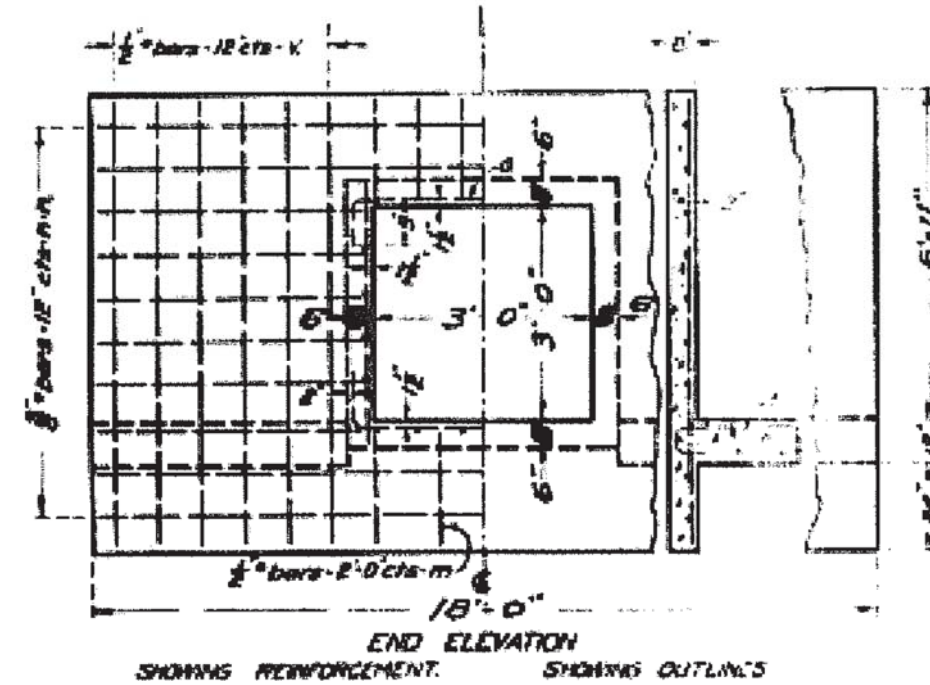
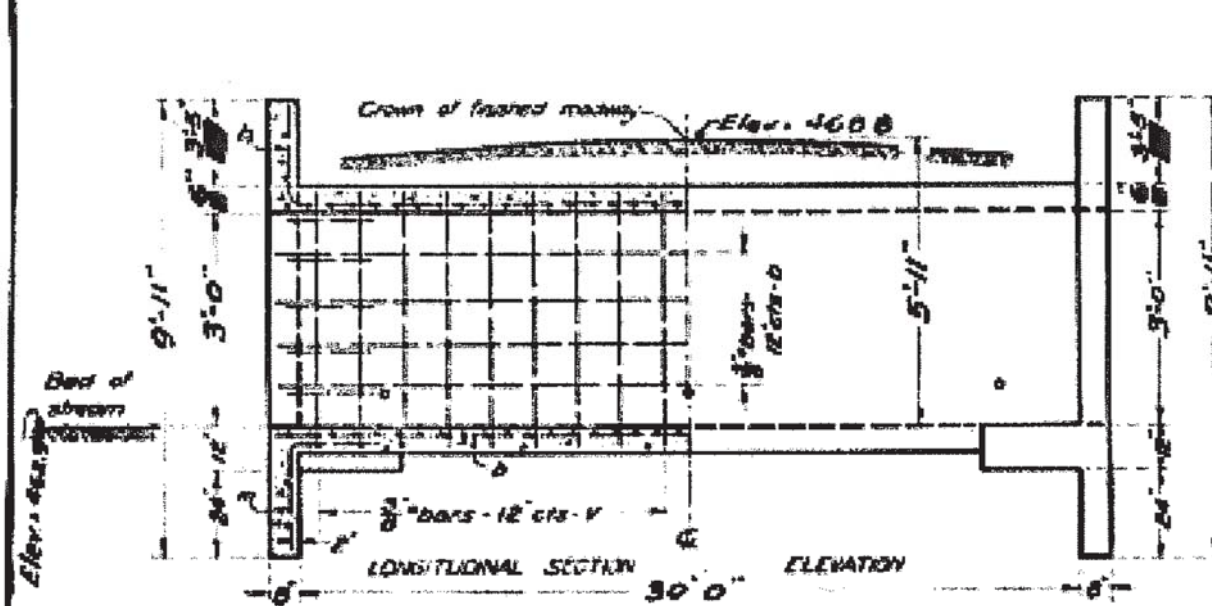
ILLINOIS FED. AID PROJECT

4/22/2020 11:01:43 AM

B.M. N.W. Tel. Pole Rt. Sta 686+15
Elev. = 468.88

STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT
REINFORCED CONCRETE BOX CULVERT

BOND ISSUE ROUTE NO.	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.
12	CLINTON	20	32	25



Note: Use 'm' bars in downstream headwall only
Bar is designed for no fill
Maximum clearance = 7'-6"

BILL OF MATERIAL

Bars	No	Size	Length
V	60	3/8"	3'-9"
K	28	1/2"	9'-6"
n	18	3/8"	9'-0"
m	10	3/8"	17'-6"
a	126	3/8"	5'-0"
b	28	3/8"	16'-6"
d	8	1/2"	19'-5"
v	28	1/2"	3'-0"
m	2	1/2"	5'-0"
Steel - Lbs			1100
Concrete - Cu. Yds			18.1

Class A concrete to be used throughout
Proportions 1 - 2 1/4 - 4

1832.0

ENGINEER OF DESIGN

Sta. 689+15
State Bond Issue Route 12
Section 20. Clinton Co.
NEAR SATTUC ROAD 619

MODEL: Default
FILE NAME: \\CHATHAM\lfrj\jobs\1513-13\Struct\G. Culvert Extensions\4. Final Design\Design Plans\CADD_Sheets\Shattuc-D876L17-006-Existing.dgn

LE LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	LIN06-PC	DESIGNED -	VPT	REVISED -	
		CHECKED -	AML	REVISED -	
PLOT TIME =	11:01:48 AM	DRAWN -	DAS	REVISED -	
PLOT DATE =	4/22/2020	CHECKED -	VPT	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STATION: 720 + 60.06

SHEET 6 OF 6 SHEETS

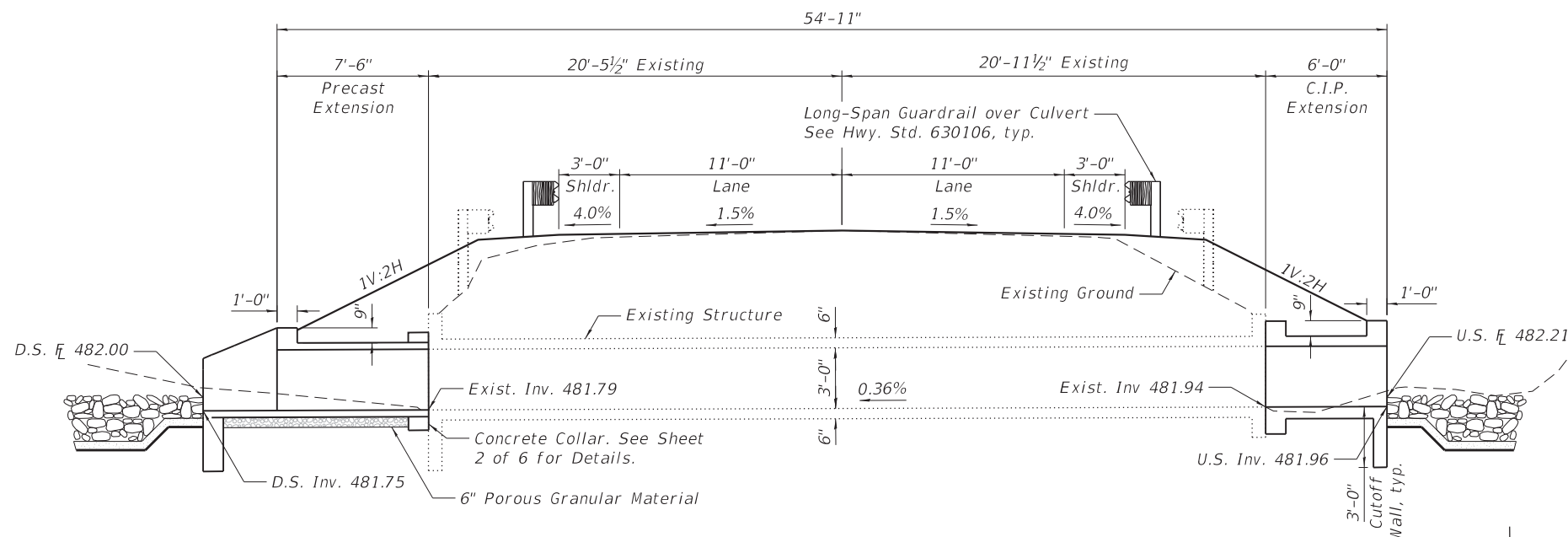
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	21
CONTRACT NO. 76L17				
ILLINOIS FED. AID PROJECT				

Benchmark: BM C - R.R. Spike set 18"± above grade in south face of power pole, 120"± west of the centerline of Diamond Springs Road on north side of US Route 50. Elev. 493.93.

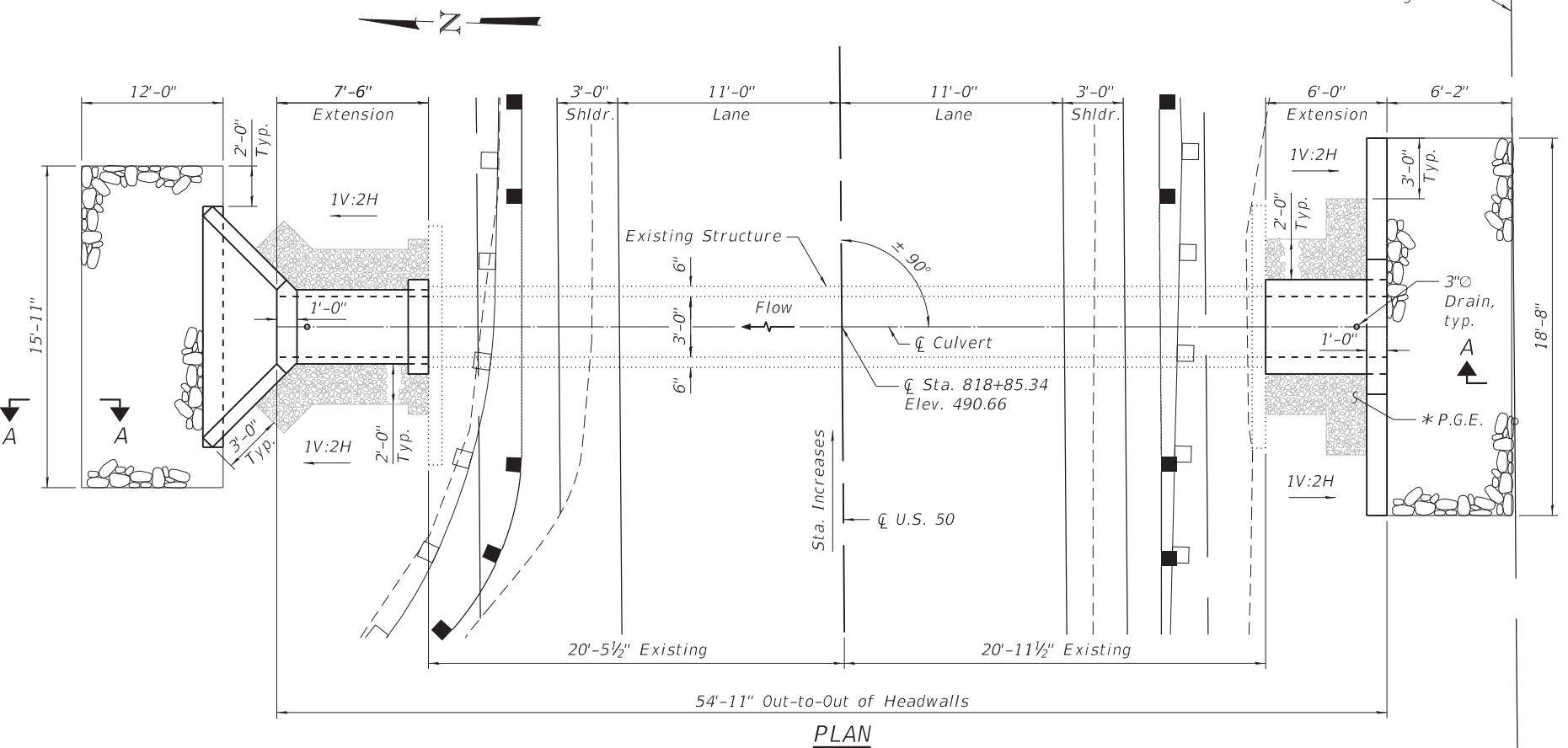
Existing Structure: The existing 3'-0" x 3'-0" reinforced concrete box culvert was built in 1923 as Rte. 12, Section 20 at Sta. 590+30. Existing structure is a single cell box culvert with a 4'-0" overall width and a 4'-0" overall height that is 41'-5" long out to out of headwalls. The culvert extensions will be constructed prior to placement of any embankment required for the roadway. Roadway will remain open to traffic during construction.
No Salvage.

TOTAL BILL OF MATERIAL

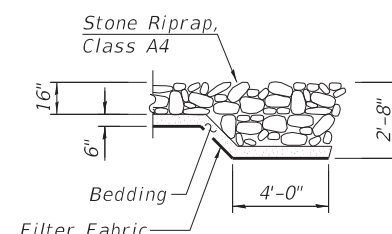
ITEM NO.	ITEM	UNIT	TOTAL
20700220	Porous Granular Embankment	Cu. Yd.	9
28100107	Stone Riprap, Class A4	Sq. Yd.	38
28200200	Filter Fabric	Sq. Yd.	38
50800105	Reinforcement Bars	Pound	1,370
54001002	Box Culvert End Sections, Culvert No. 2	Each	1
54003000	Concrete Box Culverts	Cu. Yd.	6.9
54010303	Precast Concrete Box Culverts 3'x3'	Foot	4.5



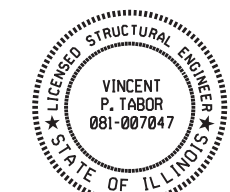
LONGITUDINAL SECTION



PLAN



SECTION A-A



Vincent P. Tabor
 Licensed Structural Engineer
 State of Illinois No. 081-007047
 Expires 11/30/2020
 Date

INDEX OF SHEETS

1. General Plan and Elevation
2. General Data
- 3.-4. Precast Apron End Section Details
5. Cast In Place Extension Details
6. Existing Plans

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

LOADING HL-93

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

DESIGN STRESSES

PRECAST UNITS (New Construction)

$f'c = 5,000$ psi
 $f_y = 65,000$ psi (Welded Wire Reinforcement)

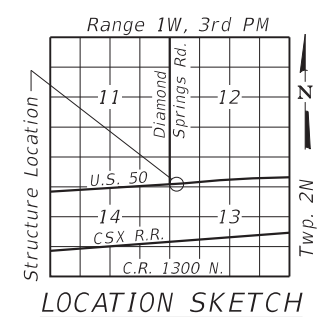
FIELD UNITS (New Construction)

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

FIELD UNITS (Exist. Construction)

$f'c = 3,000$ psi
 $f_y = 33,000$ psi (Reinforcement)

*2'-0" width of P.G.E. to be installed full length of proposed culvert extension, to 3'-0" from the end of the proposed wingwalls. Adjacent to culvert extension, vertical limits are from bottom of bottom slab to top of top slab. Along wingwalls, vertical limits are from bottom of culvert bottom slab to 1'-0" below top of wingwall. P.G.E. shall be capped with a 12" thick layer of impervious material. Cost of impervious material shall be included in the cost of Porous Granular Embankment.



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
U.S. RTE. 50 OVER
UNNAMED DITCH
F.A.P. RTE. 327 SEC. (20-1,18)RS-4
CLINTON COUNTY
STATION 818+85.34

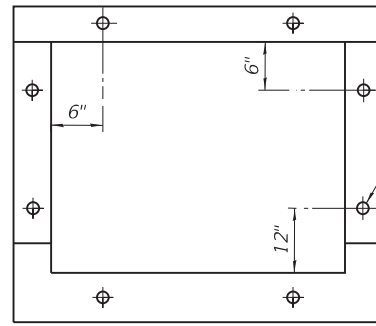
MODEL: Default
 FILE NAME: \\CHATHAM1\lfrj\jobs\1513-13\Struct\G. Culvert Extensions\4. Final Design\Design Plans\CADD_Sheets\Diamond-D876L17-001-GPE.dgn

LE LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois	USER NAME = LIN06-PC	DESIGNED - VPT	REVISED -
	PLOT TIME = 11:01:58 AM	CHECKED - AML	REVISED -
	PLOT DATE = 4/22/2020	DRAWN - DAS	REVISED -
		CHECKED - VPT	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STATION: 818 + 85.34
 SHEET 1 OF 6 SHEETS

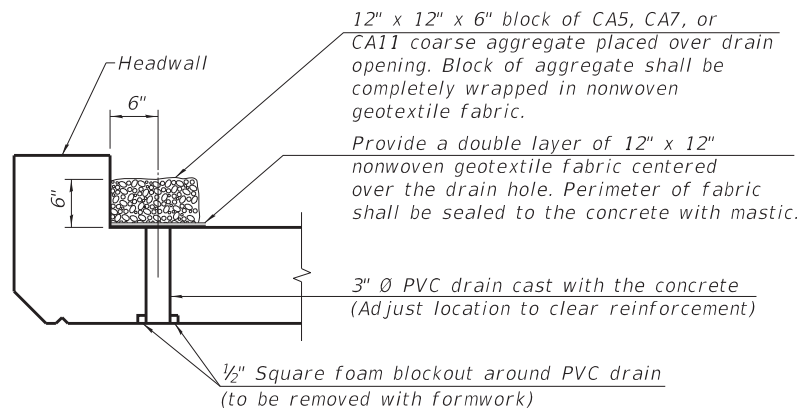
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	22
CONTRACT NO. 76L17				
ILLINOIS FED. AID PROJECT				



3/4" \circ hooked Expansion Bolts, spaced as shown. Hooked bolts shall extend a minimum of 9" into new concrete. Cost included with Concrete Box Culverts.

Sidewalls: 2 @ 18" cts.
Top & Bottom: 2 @ 24" cts.

EXPANSION BOLT LOCATION FOR CAST-IN-PLACE EXTENSION



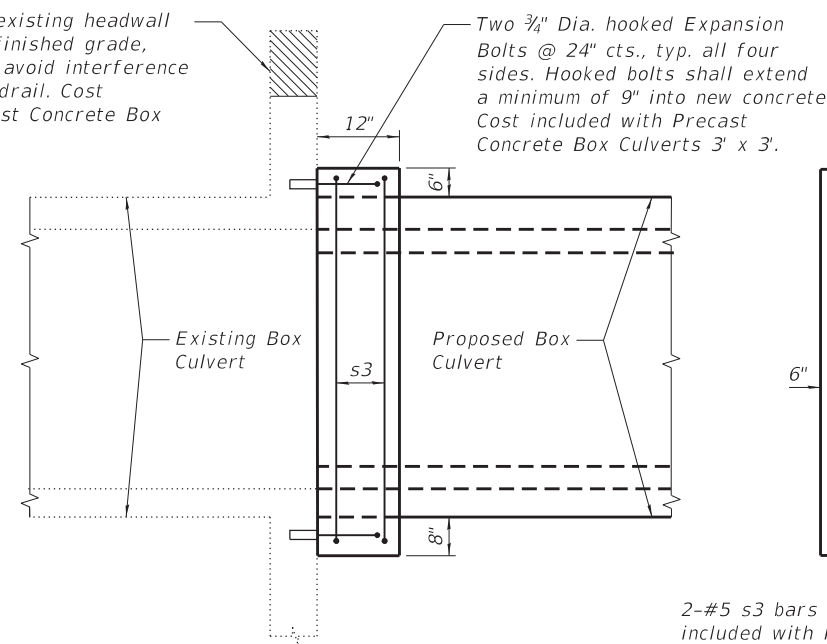
DRAIN DETAIL

(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.)

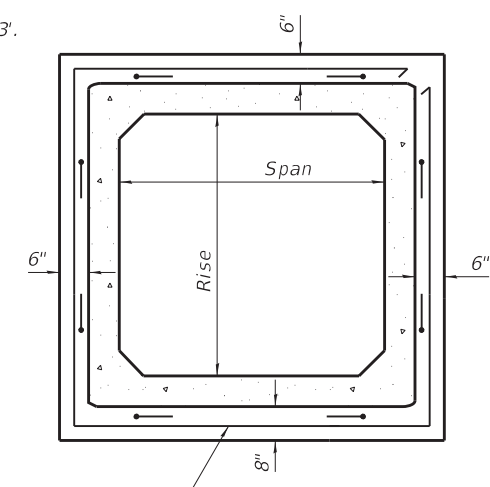
GENERAL NOTES

The design fill height for this box is 5.00 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.
 Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.
 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, unless noted otherwise.
 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 quantity actually furnished at the unit price bid for the work.

Remove portion of existing headwall down to 12" below finished grade, or as necessary to avoid interference with proposed guardrail. Cost included with Precast Concrete Box Culverts 3' x 3'.



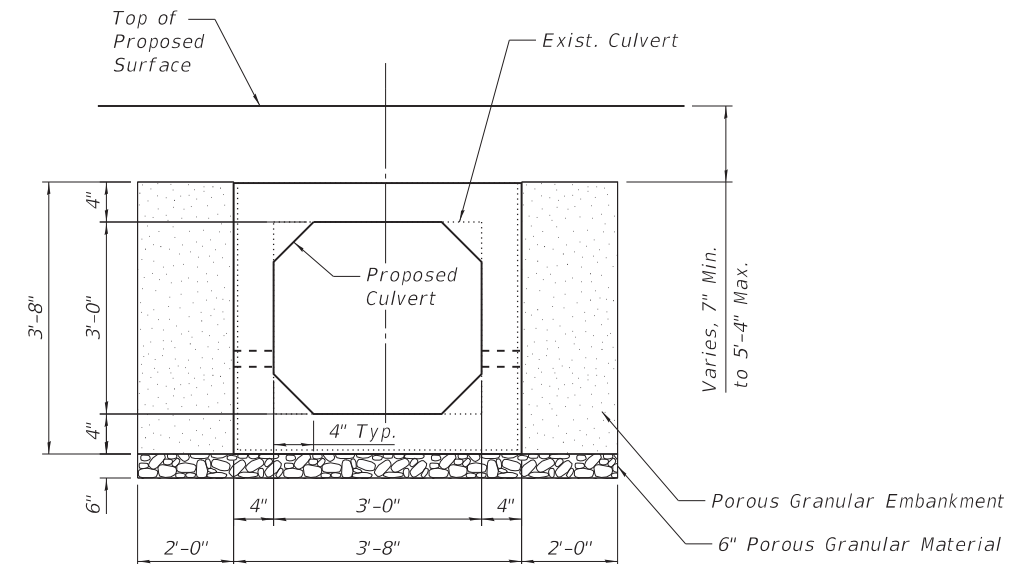
SIDE VIEW



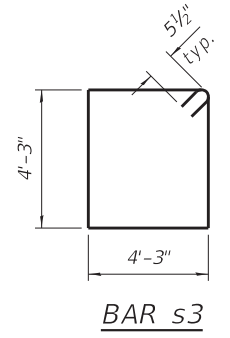
2-#5 s3 bars typ. Cost included with Precast Concrete Box Culverts 3' x 3'.

END VIEW

DETAILS OF CONCRETE COLLAR FOR PRECAST BOX CULVERT EXTENSION



SECTION THROUGH PRECAST BOX CULVERT



For Information Only

SPAN X RISE	CL. SI CONC. CU. YD. (EST.)
3' X 3'	0.34

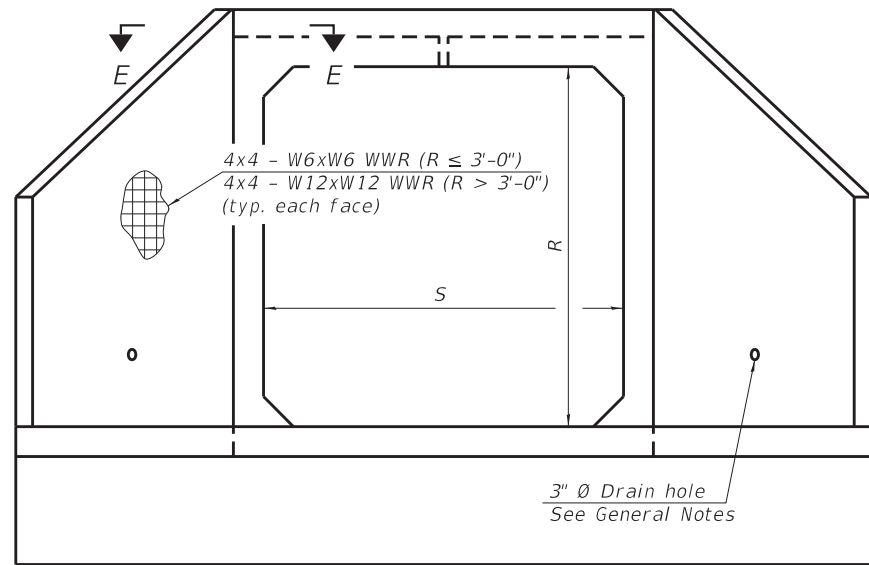
The concrete collar as detailed, and removal of such portions of the existing headwalls as may be required, are included with Precast Concrete Box Culverts 3' x 3'. Class S1 concrete shall be used throughout.

MODEL: Default
FILE NAME: \\CHATHAM1\lfrj\jobs\15113-13\Struct\G. Culvert Extensions\4. Final Design\Design_Sheets\Diamond-D876L17-002-GeneralData.dgn

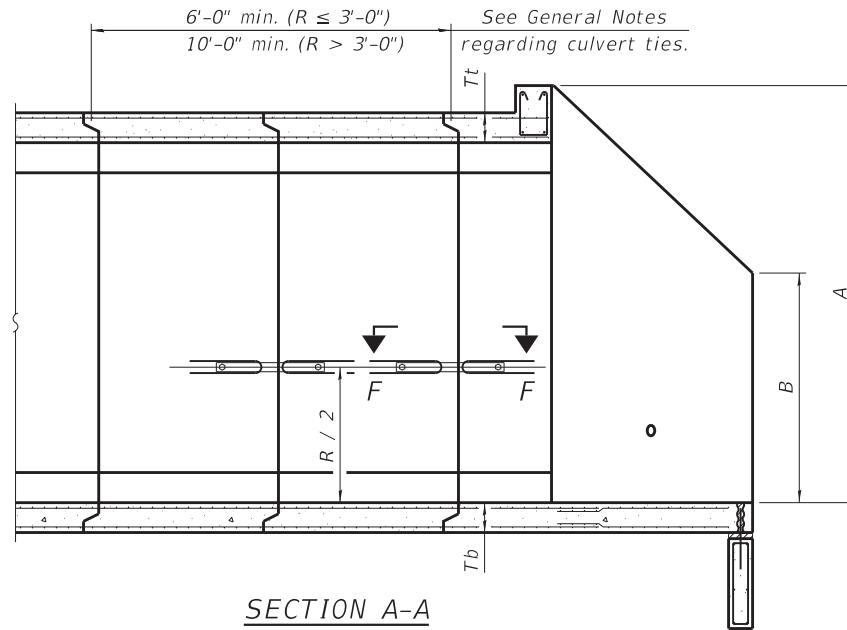
USER NAME =	LIN06-PC	DESIGNED -	VPT	REVISED -	
		CHECKED -	AML	REVISED -	
PLOT TIME =	11:02:01 AM	DRAWN -	DAS	REVISED -	
PLOT DATE =	4/22/2020	CHECKED -	VPT	REVISED -	

GENERAL DATA	
STATION: 818 + 85.34	
F.A.P. RTE.	SECTION
327	(20-1,18)RS-4
SHEET 2 OF 6 SHEETS	

COUNTY	TOTAL SHEETS	SHEET NO.
CLINTON	33	23
CONTRACT NO. 76L17		
ILLINOIS FED. AID PROJECT		



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 in 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.

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 3/8"	5'-6"	12'-4 3/8"	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 7/8"	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 7/8"	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 1/8"	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 7/8"	4'-7"	20'-3 1/8"	8.2	No
11'-0"	3'-0"	11"	11"	11"	4'-8"	2'-10"	4'-2 7/8"	6'-0"	22'-3 1/8"	9.8	No
11'-0"	4'-0"	11"	11"	11"	5'-8"	3'-4"	5'-2 1/4"	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 7/8"	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 3/8"	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)

MODEL: Default
FILE NAME: \\CHATHAM1\lfrj\jobs\1513-13\Struct\G. Culvert Extensions\4. Final Design\Design_Plans\CADD_Sheets\Diamond-D876L17-003-EndSectionDetails.dgn

SCB-AES

2-17-2017



USER NAME = LIN06-PC	DESIGNED - VPT	REVISED -
PLOT TIME = 11:02:04 AM	CHECKED - AML	REVISED -
PLOT DATE = 4/22/2020	DRAWN - DAS	REVISED -
	CHECKED - VPT	REVISED -

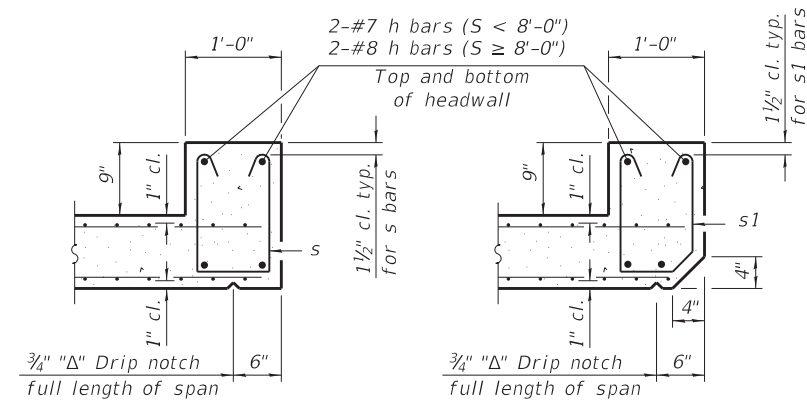
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT APRON END SECTION DETAILS
STATION: 818 + 85.34

SHEET 3 OF 6 SHEETS

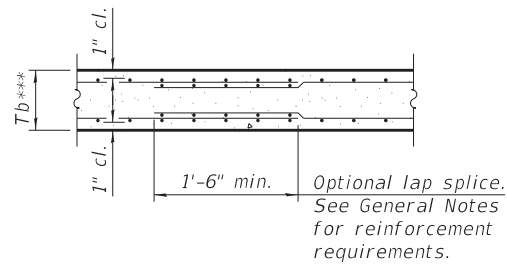
F.A.P. RTE. 327	SECTION (20-1,18)RS-4	COUNTY CLINTON	TOTAL SHEETS 33	SHEET NO. 24
CONTRACT NO. 76L17				
ILLINOIS FED. AID PROJECT				

MODEL: Default
FILE NAME: \\CHATHAM1\jrf\jobs\1513-13\Struct\G. Culvert_Extensions\4. Final_Design\Design_Sheets\CADD_Sheets\Diamond-D876L17-004-EndSectionDetails.dgn



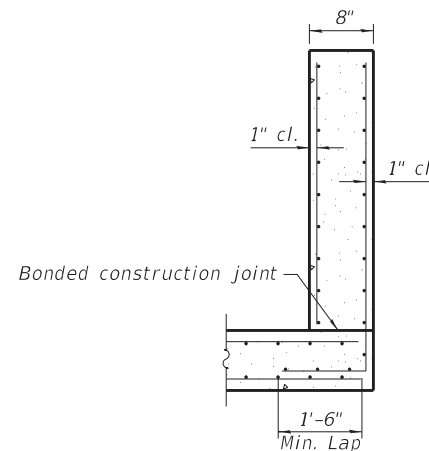
SECTION B-B
(Top slab at downstream end)

SECTION B-B
(Top slab at upstream end)

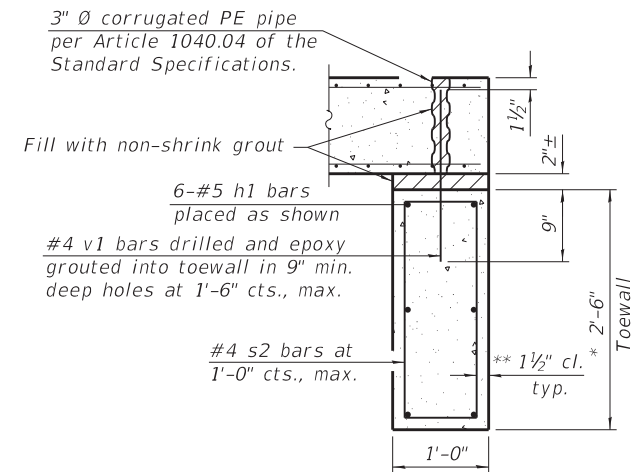


SECTION B-B
(Bottom Slab)

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



SECTION C-C



SECTION D-D

TOEWALL CONSTRUCTION SEQUENCE

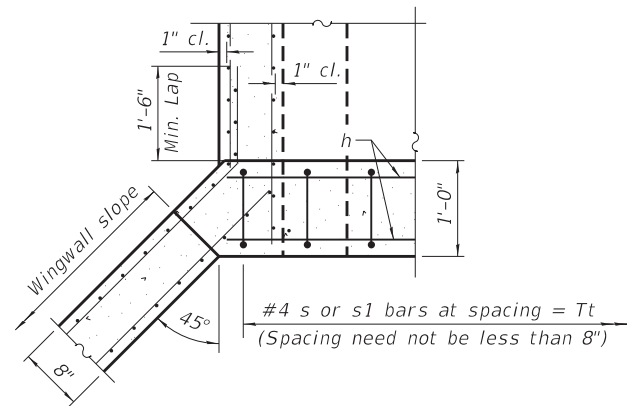
1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids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

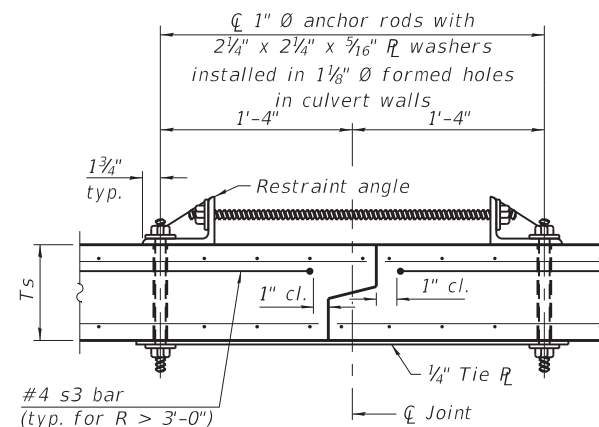
** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

Notes:

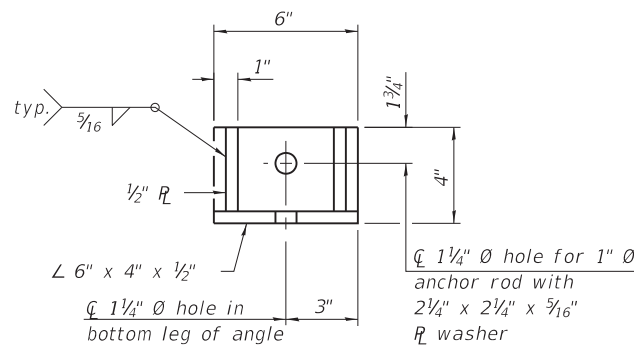
1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for the tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according 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.



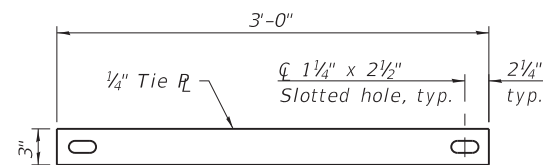
SECTION E-E



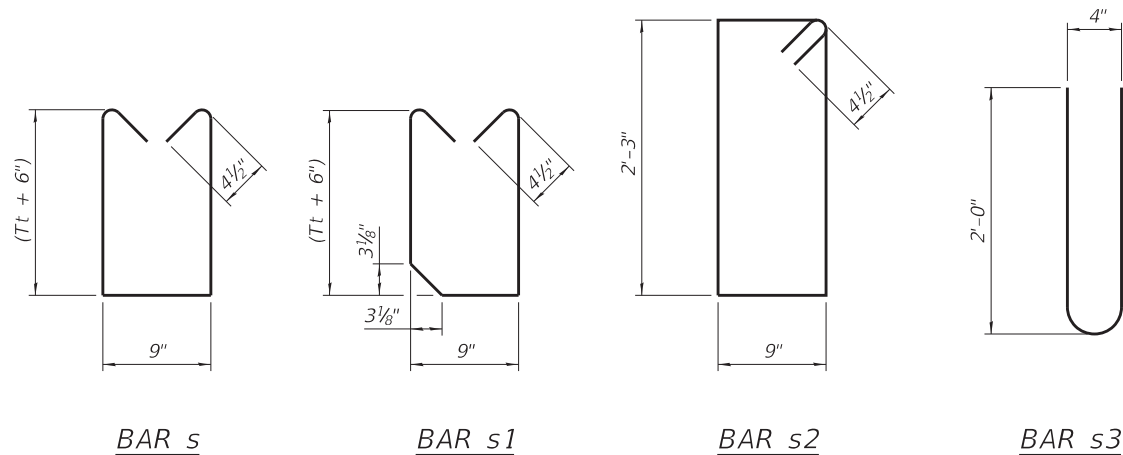
SECTION F-F
(Showing culvert tie details)



RESTRAINT ANGLE DETAIL



TIE PLATE DETAIL



BAR s

BAR s1

BAR s2

BAR s3

SCB-AES

2-17-2017

(Sheet 2 of 2)



USER NAME = LIN06-PC	DESIGNED - VPT	REVISED -
PLOT TIME = 11:02:06 AM	CHECKED - AML	REVISED -
PLOT DATE = 4/22/2020	DRAWN - DAS	REVISED -
	CHECKED - VPT	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT APRON END SECTION DETAILS
STATION: 818 + 85.34

SHEET 4 OF 6 SHEETS

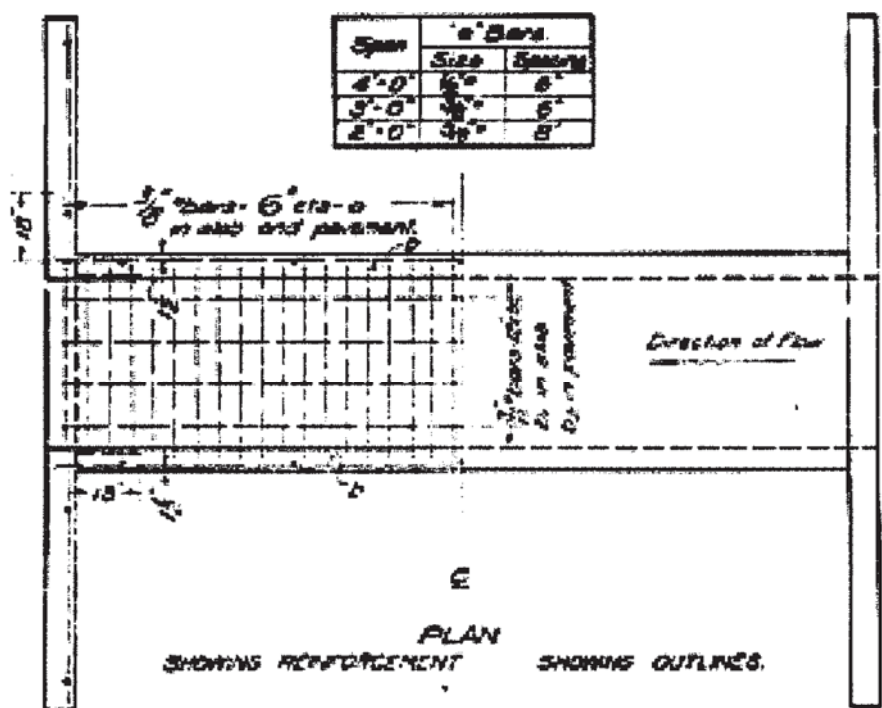
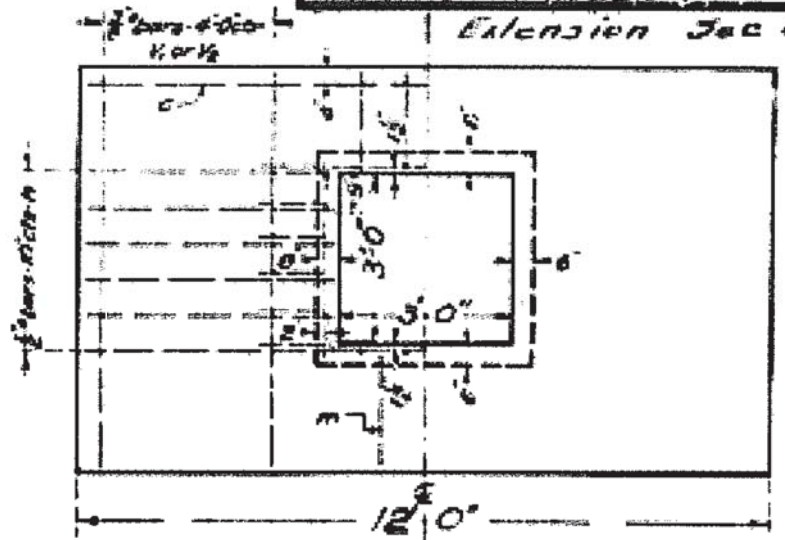
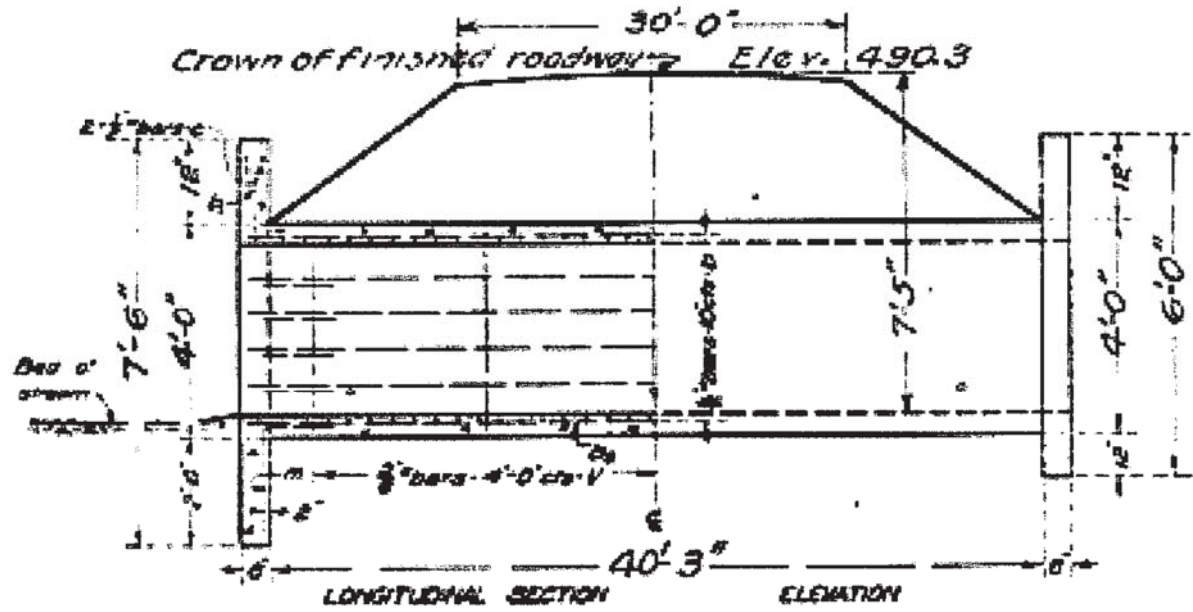
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	25
CONTRACT NO. 76L17				

ILLINOIS FED. AID PROJECT

B.M. - N. & W. in Tel. Pole at Right of station 587+75 - Elev. 497.93

STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT
REINFORCED CONCRETE BOX CULVERT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	ILL	35	1923	13	14



Note:
Fill over top should be limited to 4'-0".
Maximum clearance 12'-0".
Use 1/2" bars in abutments wherever possible.

BILL OF MATERIAL

Bar	No	Size	Length
V	22	1/2"	3'-6"
U	4	1/2"	7'-0"
W	4	1/2"	5'-6"
n	20	1/2"	6'-0"
a	166	1/2"	5'-0"
b	20	3/8"	23'-0"
d	6	3/8"	22'-0"
e	6	1/2"	21'-6"
c	4	1/2"	11'-6"
m	2	1/2"	5'-0"
Steel - Lbs		1120	
Concrete - Cu Yds		14.0	

Class A cement to be used throughout
Proportions 1-2 1/2 - 4

STATION 390+30
STATE BOND ISSUE - ROUTE 12
SECTION 20 - CLINTON COUN
DIAMOND SPRINGS

DESIGNED BY: [Signature]
CHECKED BY: [Signature]
DRAWN BY: [Signature]
DATE: 11/22/22

PAIRED
[Signature]
ENGINEER OF DESIGN.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STATION: 818 + 85.34

SHEET 6 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1,18)RS-4	CLINTON	33	27
CONTRACT NO. 76L17				
ILLINOIS FED. AID PROJECT				

MODEL: Default
FILE NAME: \\CHATHAM\l\mjobs\1513-13\Struct\G. Culvert_Extensions\4. Final_Design\Design_Plans\CADD_Sheets\Diamond-D876L17-006-Existing.dgn

LE LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	LIN06-PC	DESIGNED -	VPT	REVISED -	
PLOT TIME =	11:02:11 AM	CHECKED -	AML	REVISED -	
PLOT DATE =	4/22/2020	DRAWN -	DAS	REVISED -	
		CHECKED -	VPT	REVISED -	

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

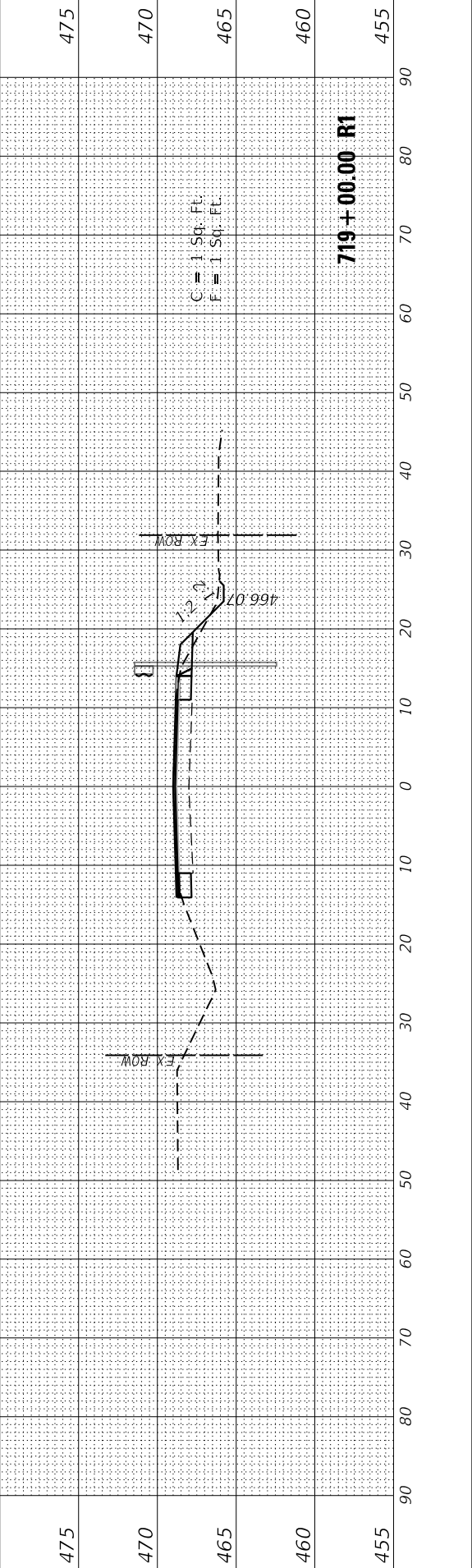
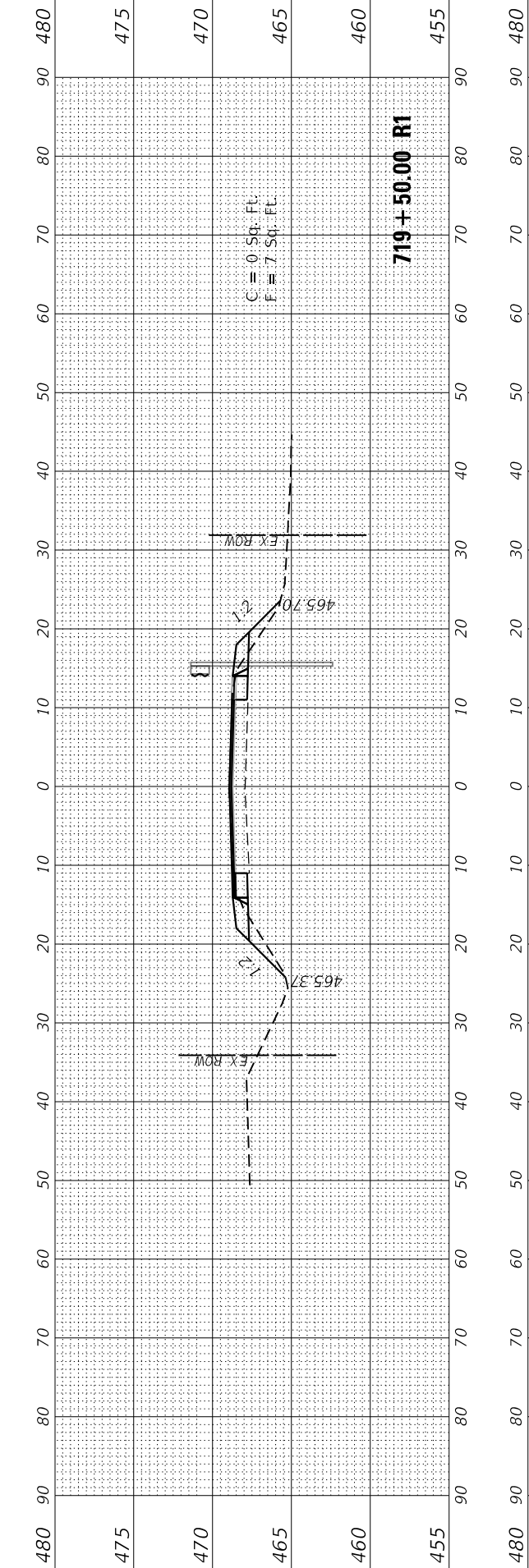
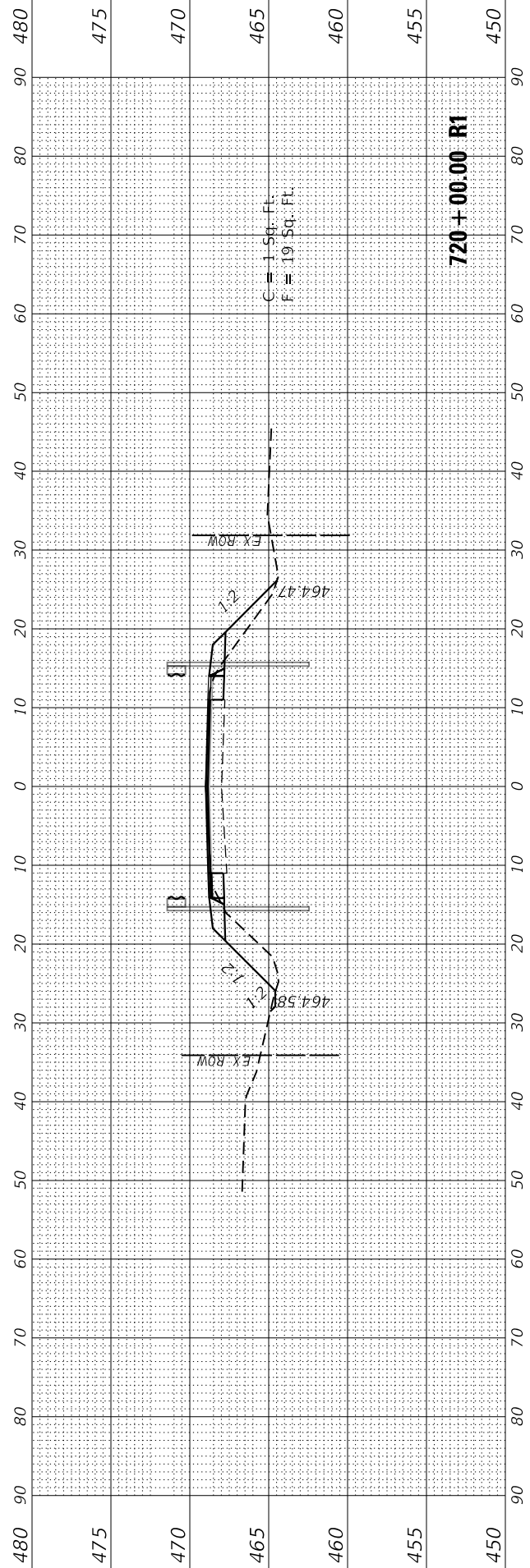
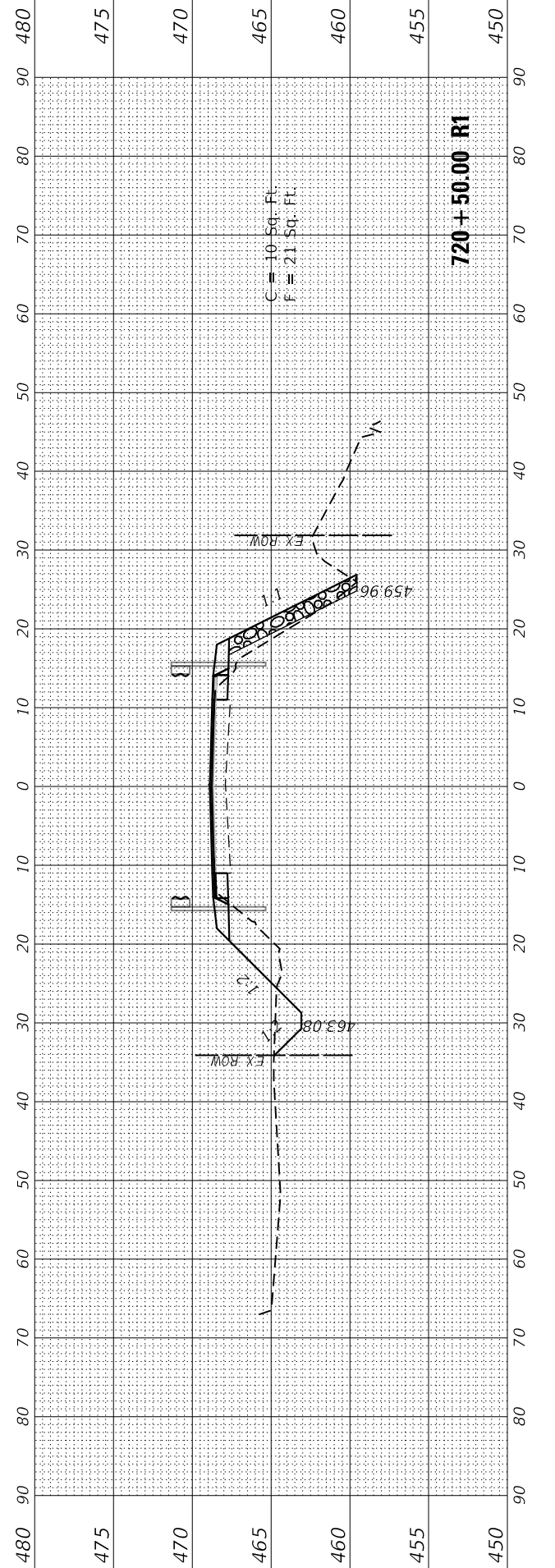
MODEL: S:\MODEL\NAMES
 FILE NAME: P:\PROJECTS\34400 - PTB 176-19 DB Var Ph 1 and I\633409 - WD 8 IUS 50\CADD\CAD_Sheets\07617\ShtC\SSR\West.dwg



USER NAME = default	DESIGNED -	REVISED -
PLOT SCALE = 20.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/5/2020	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST CULVERT CROSS SECTIONS US ROUTE 50 GUARDRAIL REPLACEMENT	F.A.P. RTE. 327	SECTION (20-1.18) R5-4	COUNTY CLINTON	TOTAL SHEETS 33	SHEET NO. 28
---	--	-----------------	------------------------	----------------	-----------------	--------------

SCALE:	SHEET 1 OF 3 SHEETS	STA. 719+00.00 R1 TO STA. 720+50.00 R1	ILLINOIS FED. AID PROJECT
--------	---------------------	--	---------------------------



FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		
	AREAS CHECKED		

MODEL: S:\MODEL\NAMES
 FILE NAME: P:\PROJECTS\34400 - PTB 176-19 DB Var Ph 1 and Ill634409 - WD 8 IUS 50\CADD\CAD_Sheets\076117_Sht6117a.rvt



USER NAME	= default
DESIGNED	-
DRAWN	-
CHECKED	-
DATE	-
PLOT SCALE	= 20.0000 ' / in.
PLOT DATE	= 3/5/2020

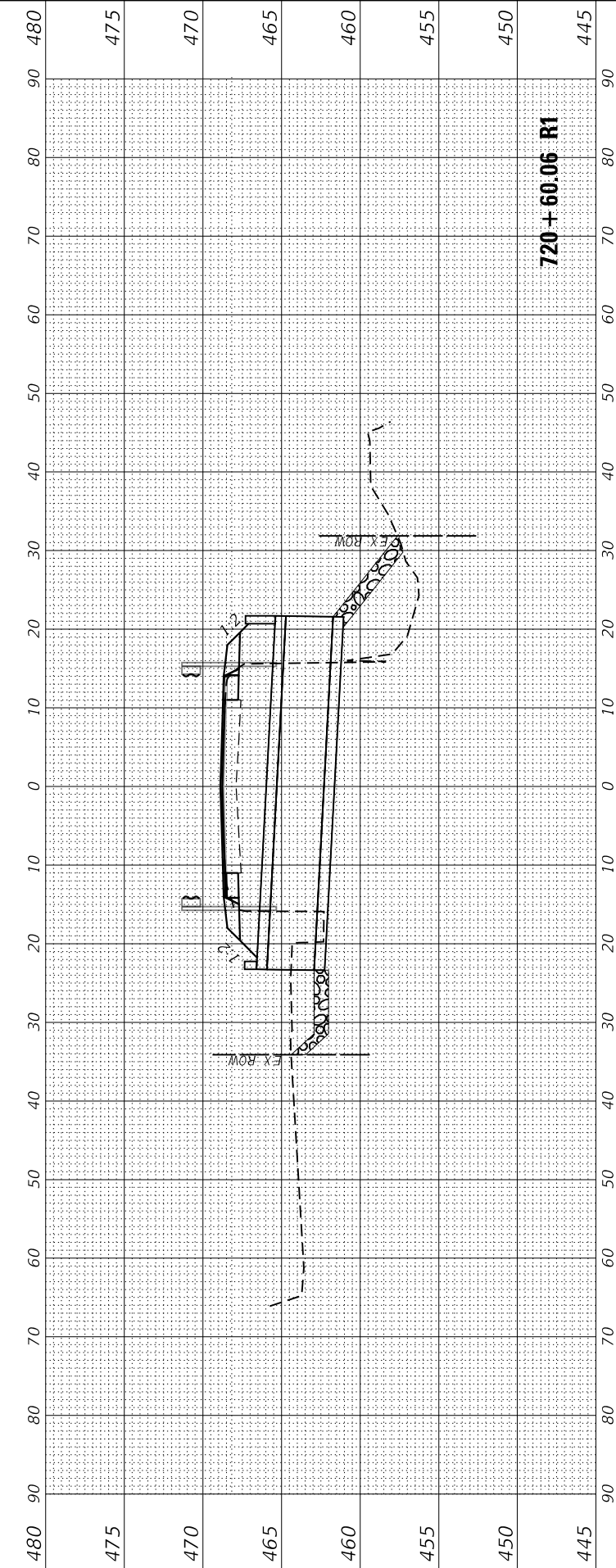
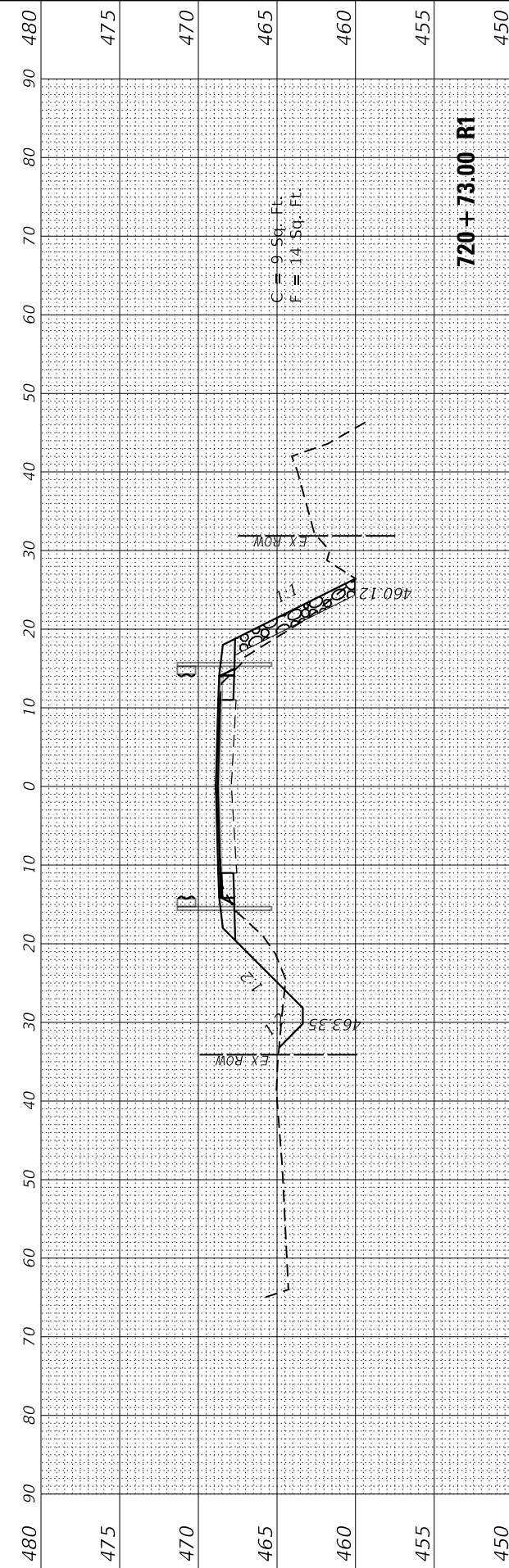
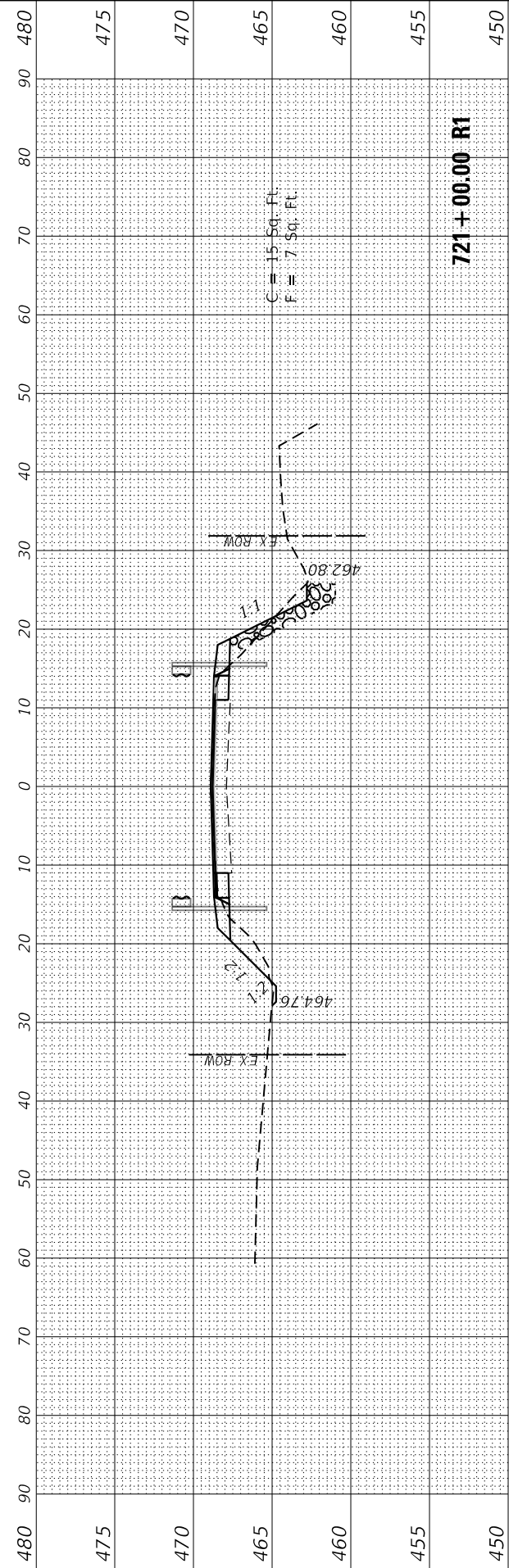
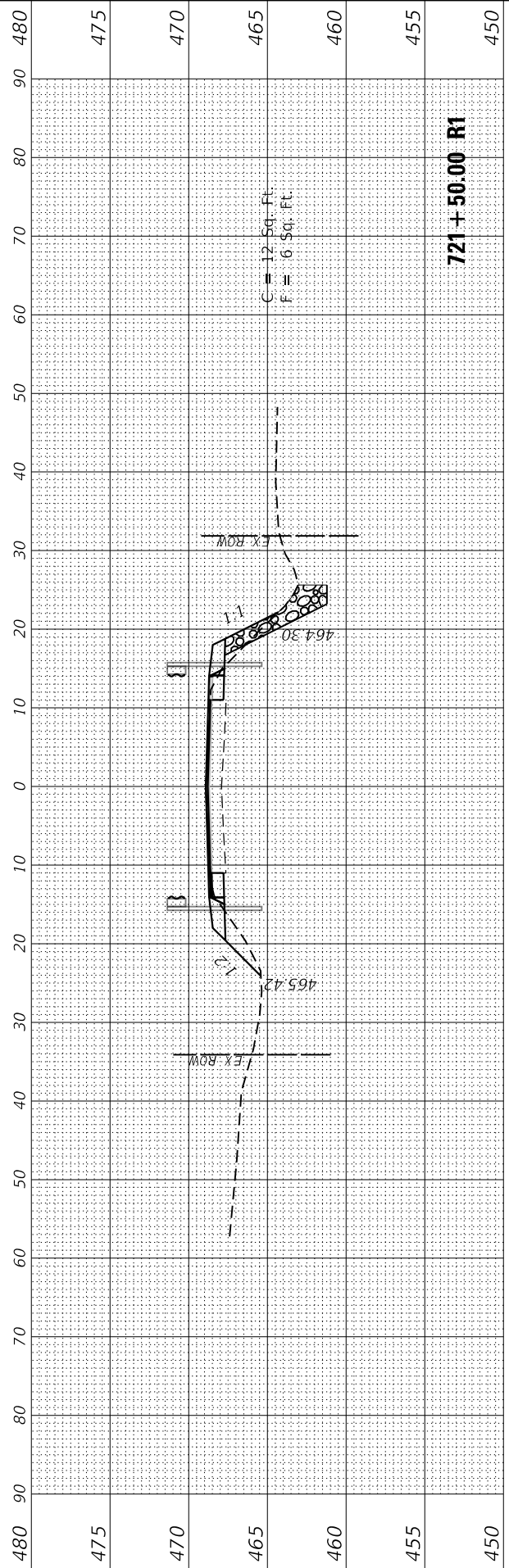
REVISIONS	NO.	DESCRIPTION
REVISIONS	1	
REVISIONS	2	
REVISIONS	3	
REVISIONS	4	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WEST CULVERT CROSS SECTIONS
 US ROUTE 50 GUARDRAIL REPLACEMENT

SCALE: SHEET 2 OF 3 SHEETS STA. 720+60.06 R1 TO STA. 721+50.00 R1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1.18) R5-4	CLINTON	33	29
CONTRACT NO. 76L17				
ILLINOIS FED. AID PROJECT				



FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

MODEL: \$MODELNAME\$
 FILE NAME: P:\PROJECTS\34400 - PTB - 176-19 DB Var Ph 1 and Ill634409 - WD 8 IUS 50\CADD\CAD Sheets\072617\Sheet\SSR\West.dgn



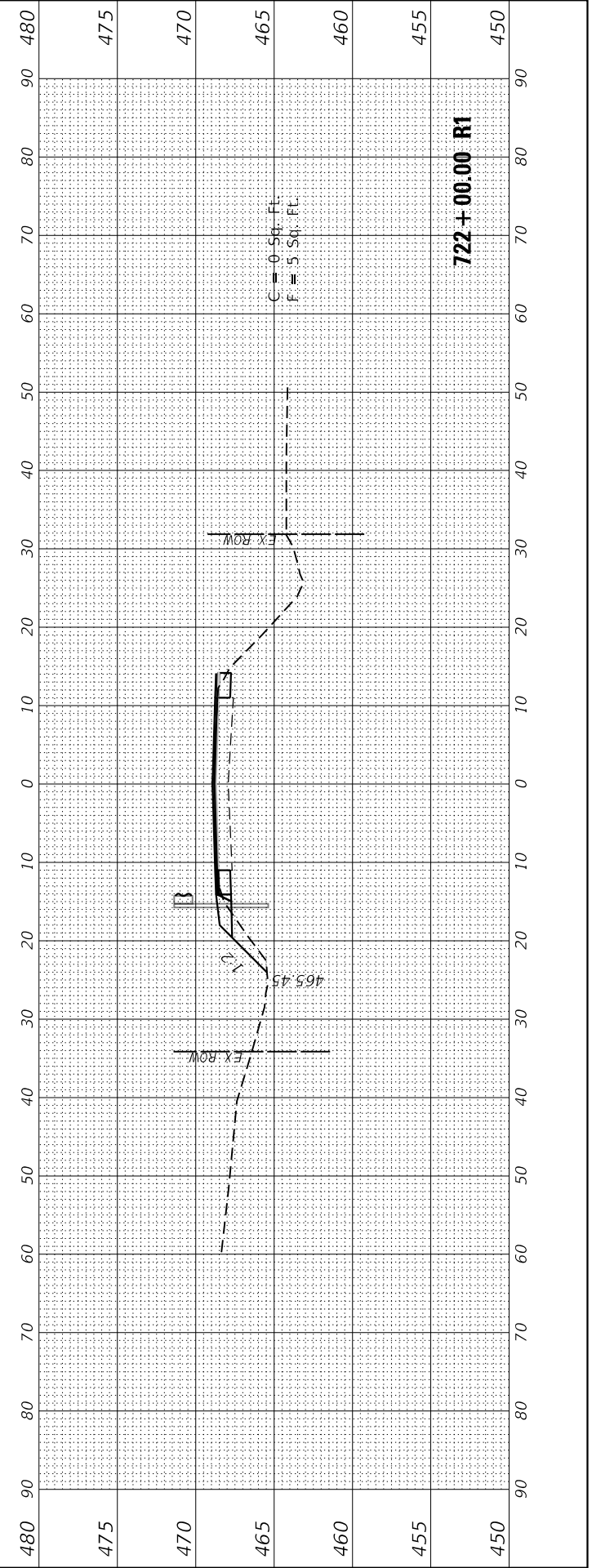
USER NAME = default	DESIGNED -	REVISED -
PLOT SCALE = 20.0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 3/5/2020	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WEST CULVERT CROSS SECTIONS
 US ROUTE 50 GUARDRAIL REPLACEMENT**

SCALE: SHEET 3 OF 3 SHEETS STA. 722+00.00 R1 TO STA. 722+00.00 R1

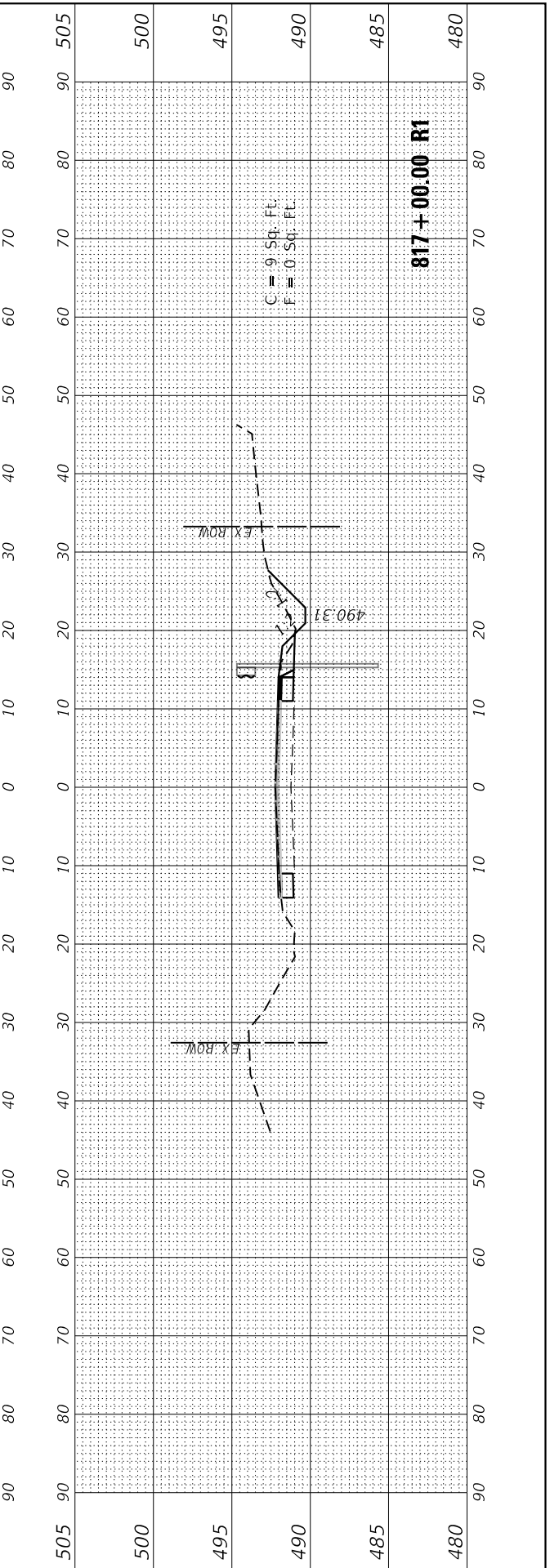
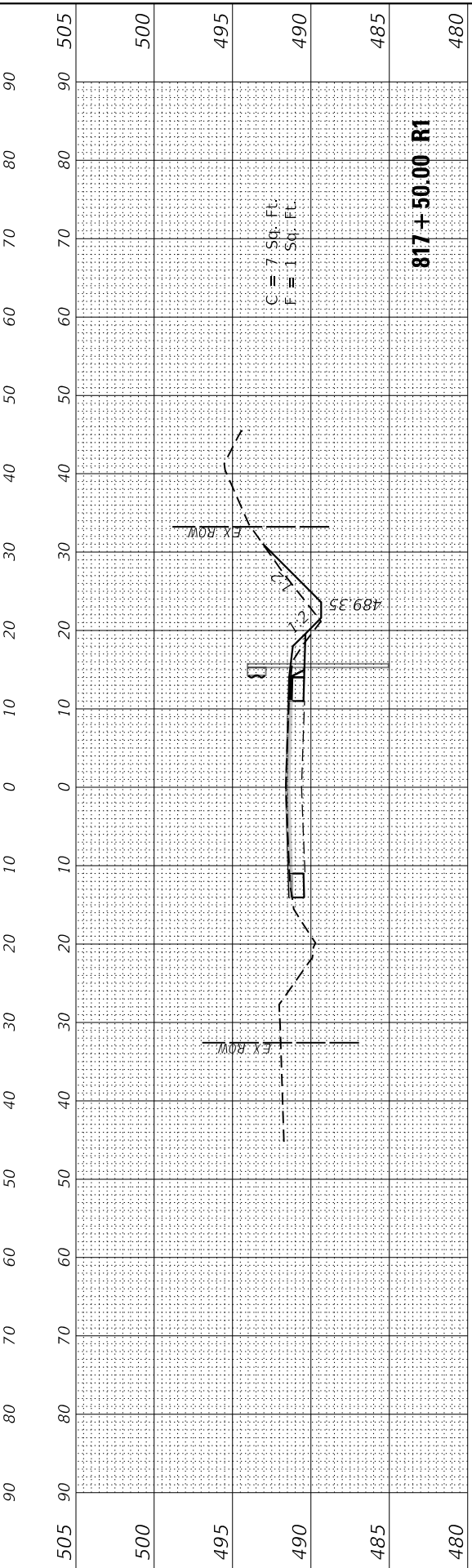
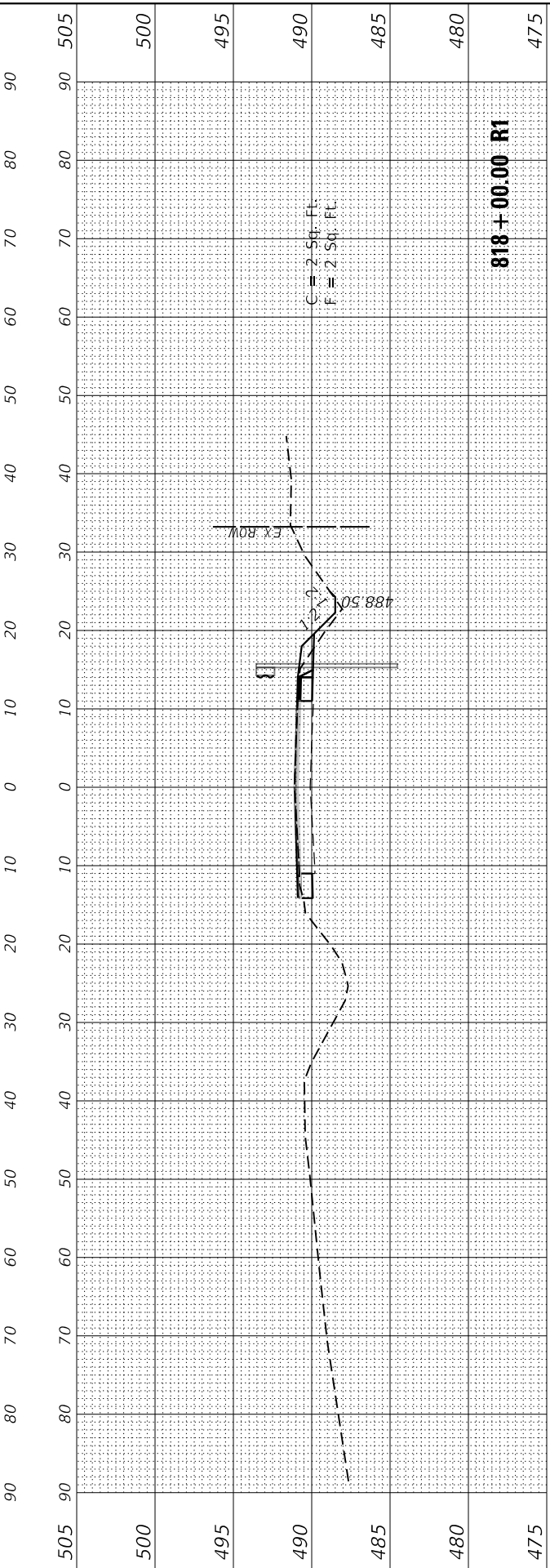
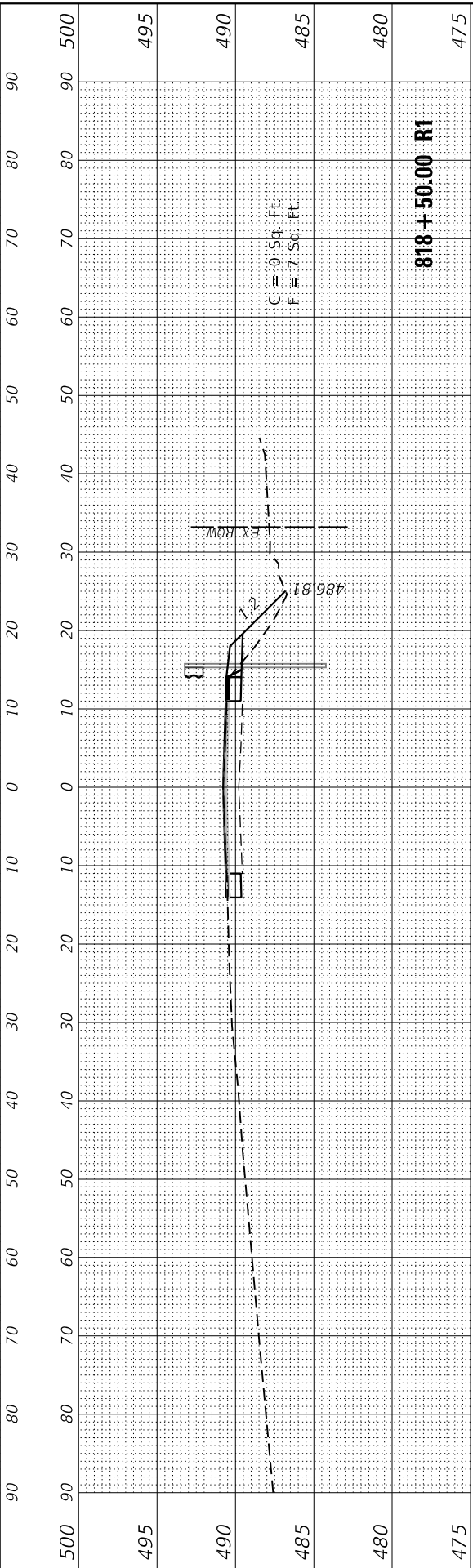
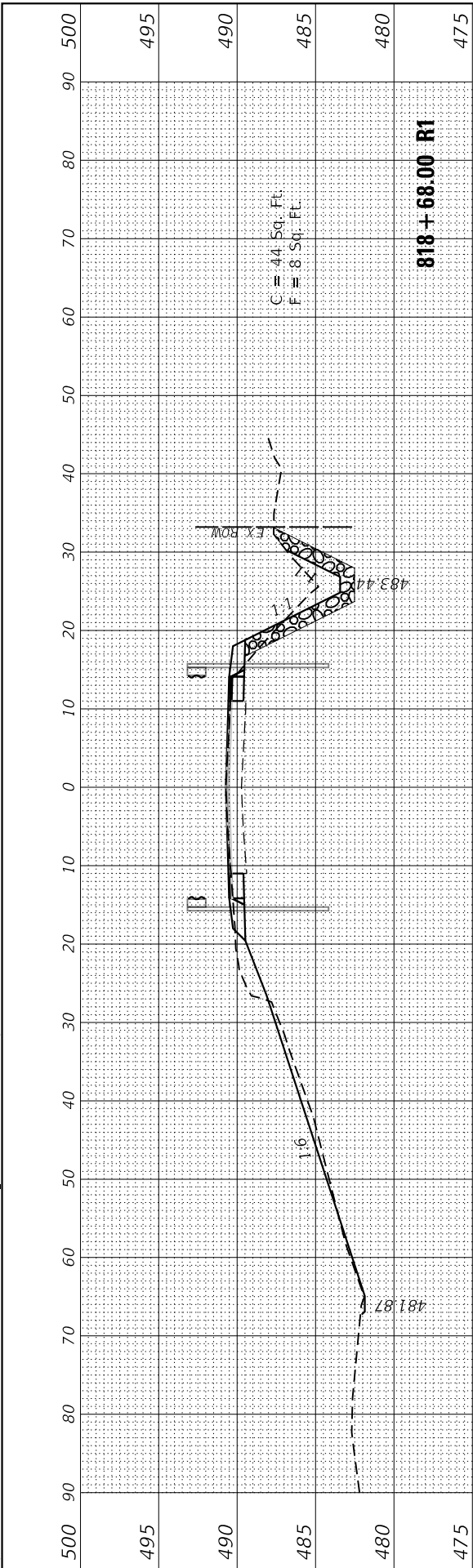
F.A.P. RTE. 327	SECTION (20-1.18) R5-4	COUNTY CLINTON	TOTAL SHEETS 33	SHEET NO. 30
CONTRACT NO. 76L17			ILLINOIS FED. AID PROJECT	



FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
NO.	AREAS CHECKED		

MODEL: S:\MODEL\NAMES
 FILE NAME: P:\PROJECTS\34400 - PTB 176-19 DB Var Ph 1 and Ill634409 - WD 8 IUS 50\CADD\CAD_Sheets\076L17-Stra\SSR\East.dgn



USER NAME = default
PLOT SCALE = 20.0000 ' / in.
PLOT DATE = 3/5/2020

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EAST CULVERT CROSS SECTIONS
 US ROUTE 50 GUARDRAIL REPLACEMENT

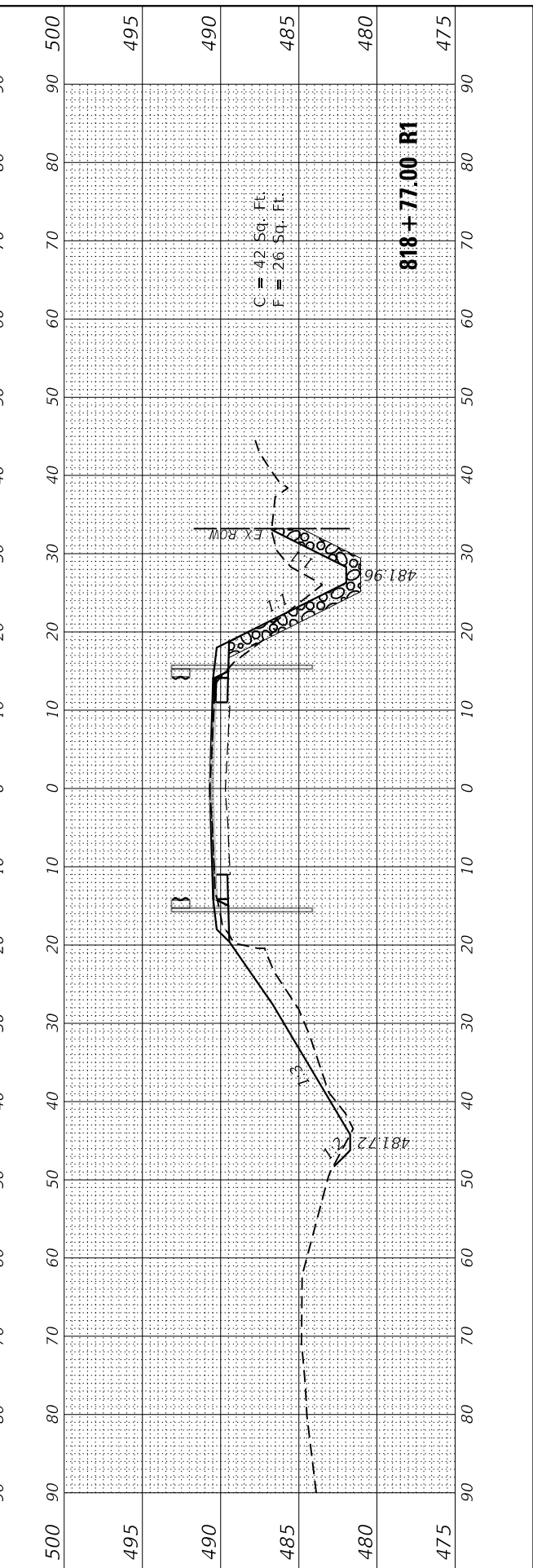
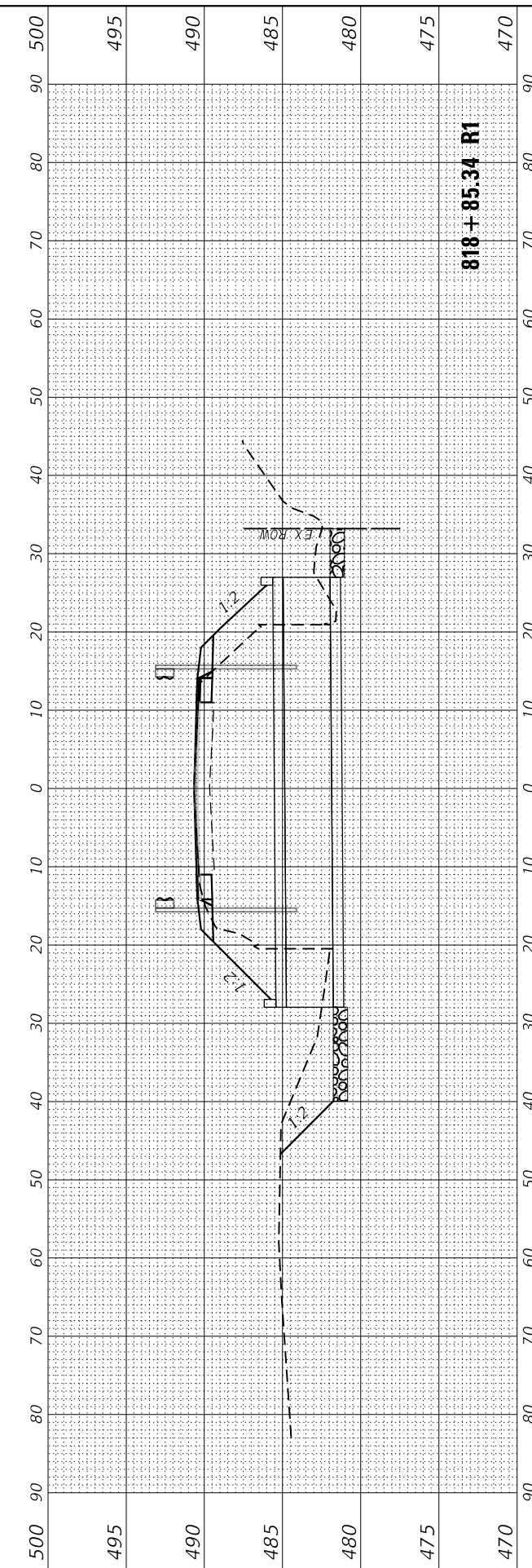
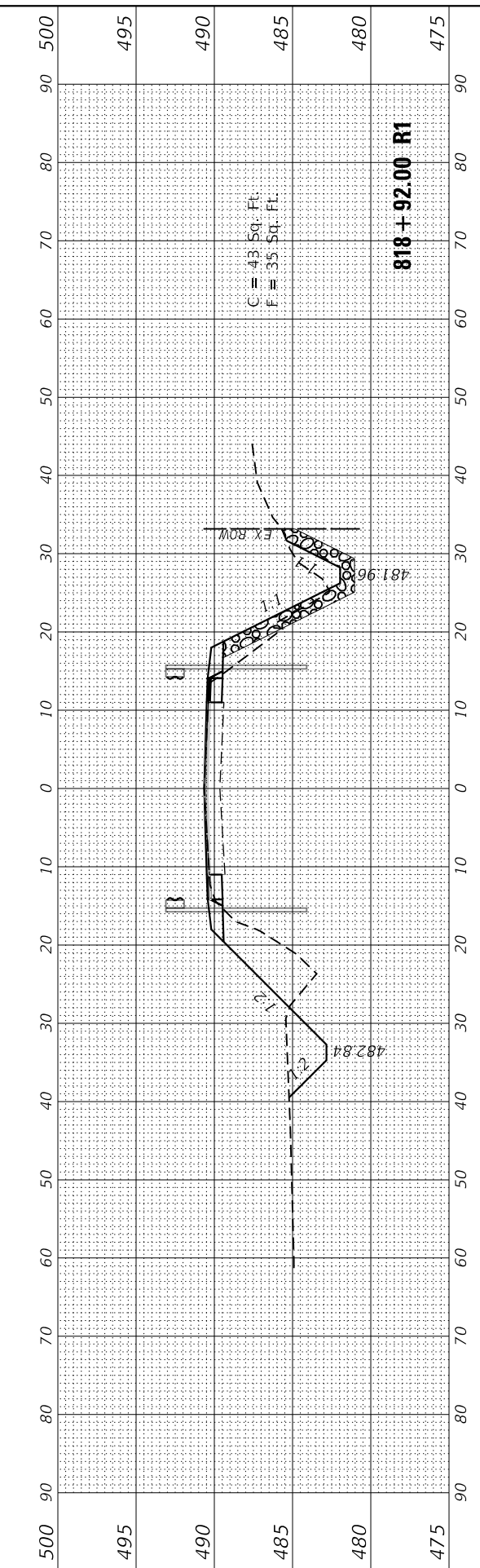
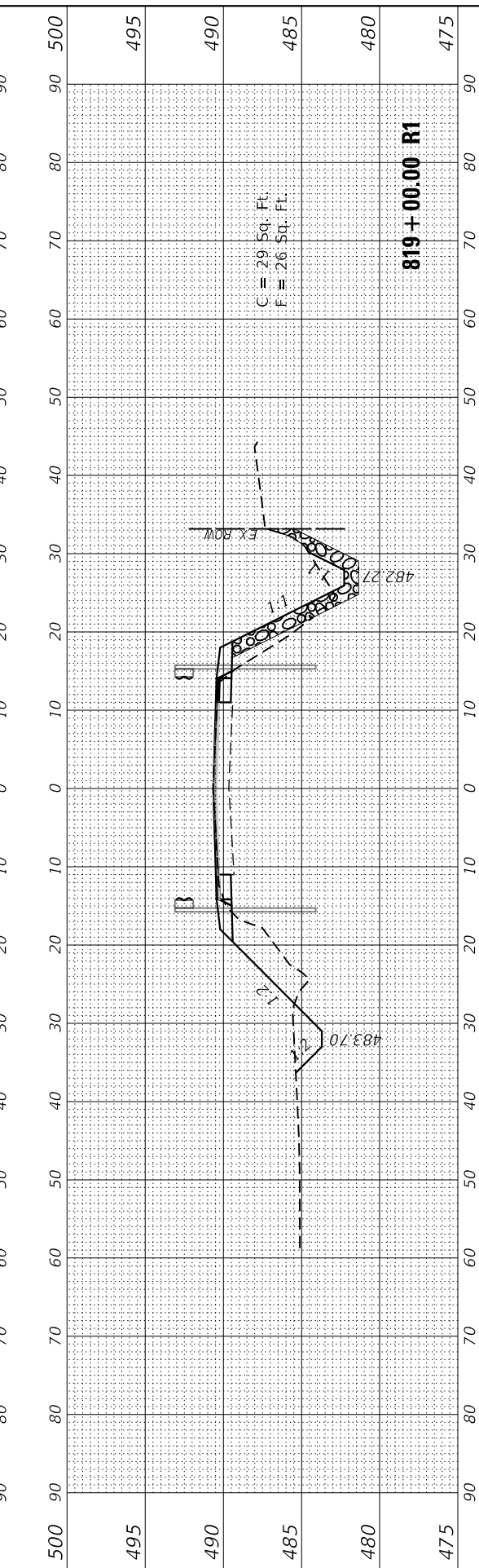
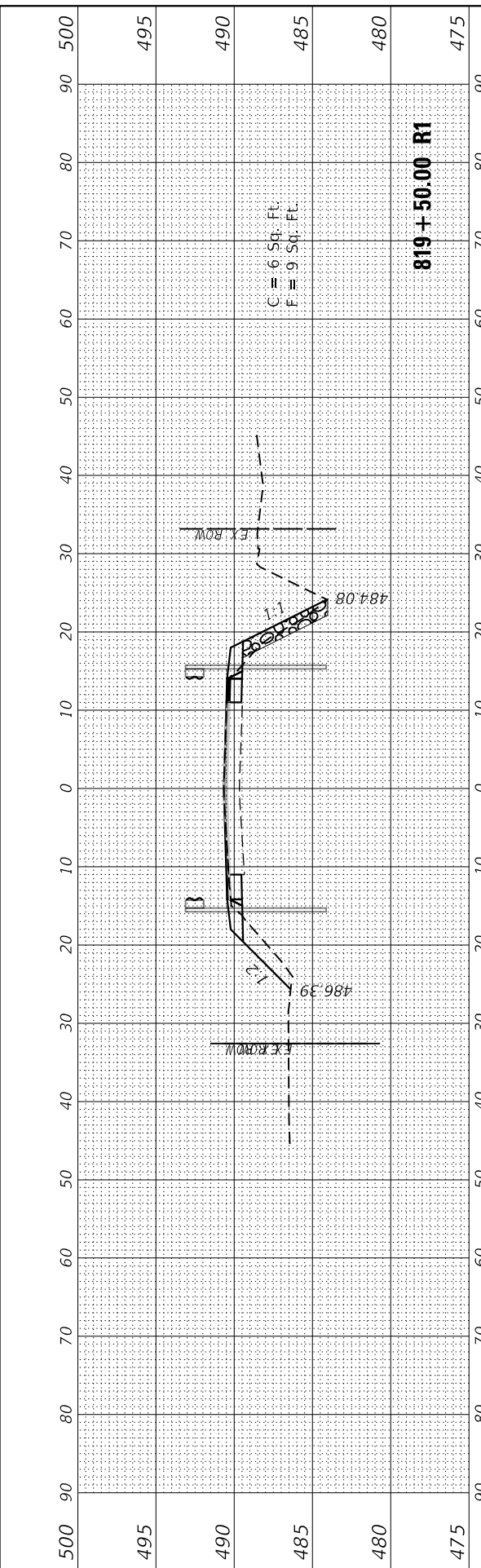
SCALE: SHEET 1 OF 3 SHEETS STA. 817+00.00 R1 TO STA. 818+68.00 R1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(20-1.18) R5-4	CLINTON	33	31
CONTRACT NO. 76L17				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		
	AREAS CHECKED		

MODEL: S:\MODEL\NAMES
 FILE NAME: P:\PROJECTS\34400 - PTB 176-19 DB Var Ph 1 and 11633409 - WD 8 105 50\CADD\CAD_Sheets\07617\Stra\SSR\East.dgn



USER NAME = default
PLOT SCALE = 20,0000 ' / in.
PLOT DATE = 3/5/2020

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EAST CULVERT CROSS SECTIONS
 US ROUTE 50 GUARDRAIL REPLACEMENT**

SCALE: SHEET 2 OF 3 SHEETS STA. 818+77.00 R1 TO STA. 819+50.00 R1

F.A.P. RTE. 327	SECTION (20-1.18) R5-4	COUNTY CLINTON	TOTAL SHEETS 33	SHEET NO. 32
ILLINOIS FED. AID PROJECT				CONTRACT NO. 76L17

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

MODEL: \$MODELNAME\$
 FILE NAME: P:\PROJECTS\34400 - PTB-176-19 DB Var Ph 1 and Ill634409 - WD 8 IUS 50\CADD\CAD_Sheets\076175\Strc\SSRc-East.dgn



USER NAME = default	DESIGNED -	REVISED -
PLOT SCALE = 20.0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 3/5/2020	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EAST CULVERT CROSS SECTIONS
 US ROUTE 50 GUARDRAIL REPLACEMENT**

SCALE: SHEET 3 OF 3 SHEETS STA. 820+00.00 R1 TO STA. 820+50.00 R1

F.A.P. RTE. 327	SECTION (20-1.18) R5-4	COUNTY CLINTON	TOTAL SHEETS 33	SHEET NO. 33
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76L17	

