

D:\74105\INT\cover.dgn 12/23/2014 10:53:06 AM

04-24-2015 LETTING ITEM 075

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 74105		

D-97-034-05

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP RTE 781 (IL 33)
SECTION 109B-1

LAWRENCE COUNTY
C - 97 - 069 - 05

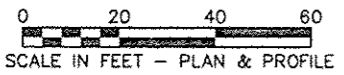
STRUCTURE REPLACEMENT
OVER UNNAMED STREAM

FOR INDEX OF SHEETS SEE SHEET NO. 2



LOCATION OF SECTION INDICATED THUS: -

FUNCTIONAL CLASSIFICATION: RURAL MINOR ARTERIAL
DESIGN SPEED: 55 mph
POSTED SPEED: 55 mph
ADT: 859(2011)
PV: 88.7%
SU: 5.0%
MU: 6.3%



SCALE IN FEET - PLAN & PROFILE

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.

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE ON THE FOLLOWING SHEETS _____

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

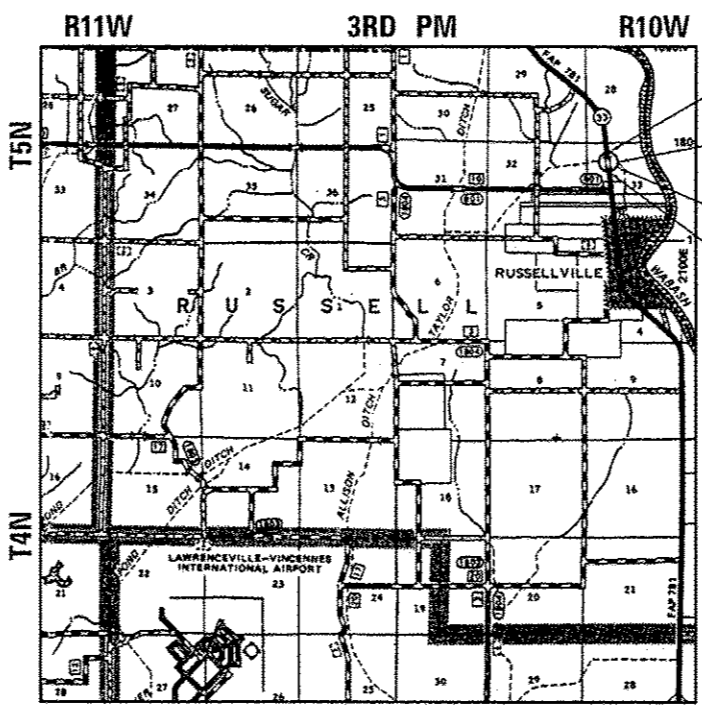
ESCA
CONSULTANTS, INC.



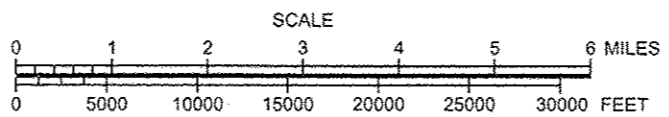
CIVIL & STRUCTURAL ENGINEERS
URBANA, ILLINOIS
ESCA JOB NO. 933.13



Richard D. Payne
DATE: 12/23/14
ILLINOIS PROFESSIONAL ENGINEER LICENSE NO. 37421
(EXPIRATION DATE: 11-30-15)



LOCATION MAP



SCALE

IMPROVEMENTS BEGIN STA 701+69
STA 705+40 PROPOSED SN 051-2008 TRIPLE 11' SPAN x 9' HEIGHT BOX CULVERT
EXISTING SN 051-0035
IMPROVEMENTS END STA 709+33

DESIGN DESIGNATION
N.A.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
SUBMITTED JANUARY 28 2015
Roger L. Orishel
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Mar 20 2015
John D. Baranzelli P.E./P
ENGINEER OF DESIGN AND ENVIRONMENT
Mar 20 2015
Omer Osman P.E./P
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GROSS LENGTH = 720.5 FT. = 0.136 MI.
NET LENGTH = 720.5 FT. = 0.136 MI.

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS, GENERAL NOTES, & HIGHWAY STANDARDS
3-4	SUMMARY OF QUANTITIES
5-7	TYPICAL SECTIONS
8	SCHEDULE OF QUANTITIES
9	RURAL ENTRANCE SCHEDULE
10	REMOVAL PLAN
11-13	PLAN & PROFILE SHEETS
14	DETOUR SIGNING DETAILS
15	EROSION CONTROL & DRAINAGE PLAN
16	MISCELLANEOUS DETAILS
17-20	STRUCTURE PLAN SHEETS & DETAILS
21	SHEET PILING WALL DETAILS
22-23	SOIL BORING LOGS
24-26	EXISTING STRUCTURE PLANS
27-32	CROSS SECTIONS
33-36	PAVEMENT MARKING DETAILS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 36:

STD. NO.	DESCRIPTION
000001-06	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
442201-03	CLASS C AND D PATCHES
515001-03	NAME PLATE FOR BRIDGES
630001-10	STEEL PLATE BEAM GUARDRAIL
630101-09	GUARDRAIL MOUNTED ON EXISTING CULVERTS
630301-06	SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701001-02	OFF-ROAD OPERATIONS, 2L2W, 15' MINIMUM AWAY FROM PAVEMENT EDGE
701006-05	OFF-ROAD OPERATIONS, 2L2W, 15' AWAY TO EDGE OF PAVEMENT
701011-04	OFF-ROAD MOVING OPERATIONS, 2L2W, DAY ONLY
701301-04	LANE CLOSURE, 2L2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L2W, MOVING OPERATIONS - DAY ONLY
701901-04	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS OF RAISED REFLECTIVE PAVEMENT MARKERS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2012; AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THIS PROJECT IS LOCATED ON FAP 781 (ILLINOIS ROUTE 33) AT STRUCTURE NUMBER 051-0035. STRUCTURE NUMBER 051-0035 IS LOCATED 1.5 MILES SOUTH OF THE CRAWFORD COUNTY LINE IN LAWRENCE COUNTY. THE WORK INCLUDED IN SECTION 109B-1 CONSISTS OF STRUCTURE REMOVAL, BOX CULVERT CONSTRUCTION, EARTHWORK, HMA RESURFACING, AGGREGATE SHOULDERS, PAVEMENT MARKING, TRAFFIC CONTROL, AND ANY OTHER WORK NECESSARY TO COMPLETE THE SECTION.

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIAL. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS AND MUST BE CONSIDERED APPROXIMATE. FIELD MARKINGS OF UTILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING A MINIMUM OF 96 HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING 800-892-0123.

A UNIFORMLY STRAIGHT SAW CUT SHALL BE MADE AT LOCATIONS WHERE PROPOSED NEW CONSTRUCTION WILL ABUT EXISTING BITUMINOUS CONCRETE SURFACES. THE SAW CUT SHALL BE MADE FULL DEPTH THROUGH THE EXISTING SURFACE. THIS WORK WILL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT ITEMS INVOLVED AND NO EXTRA COMPENSATION WILL BE ALLOWED.

THE CONTRACTOR SHALL PROVIDE INTERNET ACCESSIBILITY TO THE HMA PLANT QUALITY CONTROL LAB SO THAT HMA PLANT REPORTS CAN BE E-MAILED TO THE DISTRICT OFFICE. THIS REQUIREMENT SHALL BE INCLUDED IN THE COST OF ALL HOT-MIX ASPHALT ITEMS.

THE ENGINEER SHALL BE THE SOLE JUDGE REGARDING THE CURING TIMES FOR ALL HOT-MIX ASPHALT.

ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.

THE CONTRACTOR WILL BE REQUIRED TO MODIFY THE EXISTING CHANNEL, AS DIRECTED BY THE ENGINEER, TO MATCH BOTH ENDS OF THE PROPOSED BOX CULVERT. COST INCLUDED IN THE PAY ITEM FOR STONE RIPRAP, CLASS A4.

SHORT-TERM PAVEMENT MARKING ON MILLED SURFACES SHALL BE PAINT. SHORT-TERM PAVEMENT MARKING ON THE HMA SURFACE COURSE SHALL BE TAPE.

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SECTION 780 OF THE STANDARD SPECIFICATIONS.

THE TOTAL QUANTITY OF PAINT PAVEMENT MARKING-LINE 4" CONSISTS OF 1,528 FEET OF WHITE AND 191 FEET OF YELLOW.

GENERAL NOTES (Cont'd)

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

MIXTURE USE: SURFACE COURSE (1 1/2")
 APPLICATION: HOT MIX ASPHALT SURFACE COURSE, MIX "C", N70
 PG GRADE: PG 64-22
 DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
 MIXTURE COMPOSITION: IL-9.5
 FRICTION AGGREGATE: MIXTURE C

MIXTURE USE: HMA BASE COURSE (10")
 APPLICATION: HOT MIX ASPHALT BASE COURSE
 PG GRADE: PG 64-22
 DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
 MIXTURE COMPOSITION: IL-19.0
 FRICTION AGGREGATE: N/A

MIXTURE USE: HMA SHOULDERS
 APPLICATION: HOT MIX ASPHALT SHOULDERS
 PG GRADE: PG 64-22
 DESIGN AIR VOIDS: 4.0% @ NDESIGN = 30
 MIXTURE COMPOSITION: IL-19.0L
 FRICTION AGGREGATE: N/A

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN THE CALCULATING PLAN QUANTITIES:

AGGREGATE MATERIALS	2.05 TONS/CU YD
BITUMINOUS MATERIALS (PRIME COAT)	0.05 LBS/SO FT (MILLED SURFACE)
HOT-MIX ASPHALT	0.025 LBS/SO FT (BETWEEN HMA LIFTS)
	112 LBS/SO YD/INCH

SUMMARY OF QUANTITIES			100% STATE	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0011		
				SN 051-2008		
20200100	EARTH EXCAVATION	CU YD	510	510		
20300100	CHANNEL EXCAVATION	CU YD	510	510		
20400800	FURNISHED EXCAVATION	CU YD	150	150		
20700220	POROUS GRANULAR EMBANKMENT	CU YD	640	640		
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	185	185		
25000350	SEEDING, CLASS 7	ACRE	0.4	0.4		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	80	80		
28000400	PERIMETER EROSION BARRIER	FOOT	1135	1135		
28100107	STONE RIPRAP, CLASS A4	SO YD	257	257		
28200200	FILTER FABRIC	SO YD	257	257		
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SO YD	301	301		
35501324	HOT-MIX ASPHALT BASE COURSE, 10"	SO YD	250	250		
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	20	20		
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	445	445		

SUMMARY OF QUANTITIES			100% STATE	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0011		
				SN 051-2008		
40603315	HOT-MIX ASPHALT SURFACE COURSE, "C", N70	MIX TON	97	97		
44000100	PAVEMENT REMOVAL	SO YD	114	114		
44201815	CLASS D PATCHES, TYPE II, 14 INCH	SO YD	12	12		
48101200	AGGREGATE SHOULDERS, TYPE B	TON	348	348		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1		
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	515	515		
50800105	REINFORCEMENT BARS	POUND	62920	62920		
51500100	NAME PLATES	EACH	1	1		
54003000	CONCRETE BOX CULVERTS	CU YD	282.8	282.8		
63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, FOOT POSTS	6 FOOT	512.5	512.5		
63000025	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	FOOT	100	100		

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* SPECIALTY ITEM

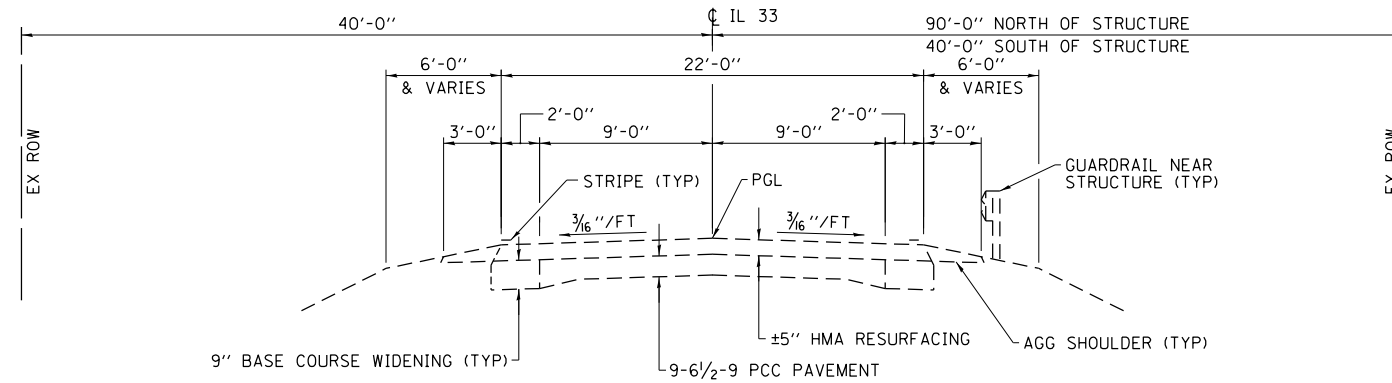
SUMMARY OF QUANTITIES			100% STATE	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0011		
				SN 051-2008		
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	8	8		
63200310	GUARDRAIL REMOVAL	FOOT	287	287		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6		
67100100	MOBILIZATION	L SUM	1	1		
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1		
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	80	80		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1719	1719		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	13	13		
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1719	1719		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	10	10		
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	13	13		
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	8	8		
X0426200	DEWATERING	L SUM	1	1		

SUMMARY OF QUANTITIES			100% STATE	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0011		
				SN 051-2008		
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.4	0.4		
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	733	733		
X5121800	PERMANENT STEEL SHEET PILING	SQ FT	402	402		
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28	28		
Z0016702	DETOUR SIGNING	L SUM	1	1		
* Z0054505	ROCK FILL - REPLACEMENT	TON	875	875		

* SPECIALTY ITEM

19

FILE NAME =	USER NAME = teasley	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -			CONTRACT NO. 74105				
	PLOT DATE = 1/20/2015	DATE -	REVISED -			ILLINOIS FED. AID PROJECT				
				SCALE: N/A		SHEET 2 OF 2 SHEETS		STA. TO STA.		



WITHOUT GUARDRAIL

WITH GUARDRAIL

EXISTING TYPICAL ROADWAY SECTION

STA 701+00 TO 705+13.12

STA 705+66.88 TO 711+50

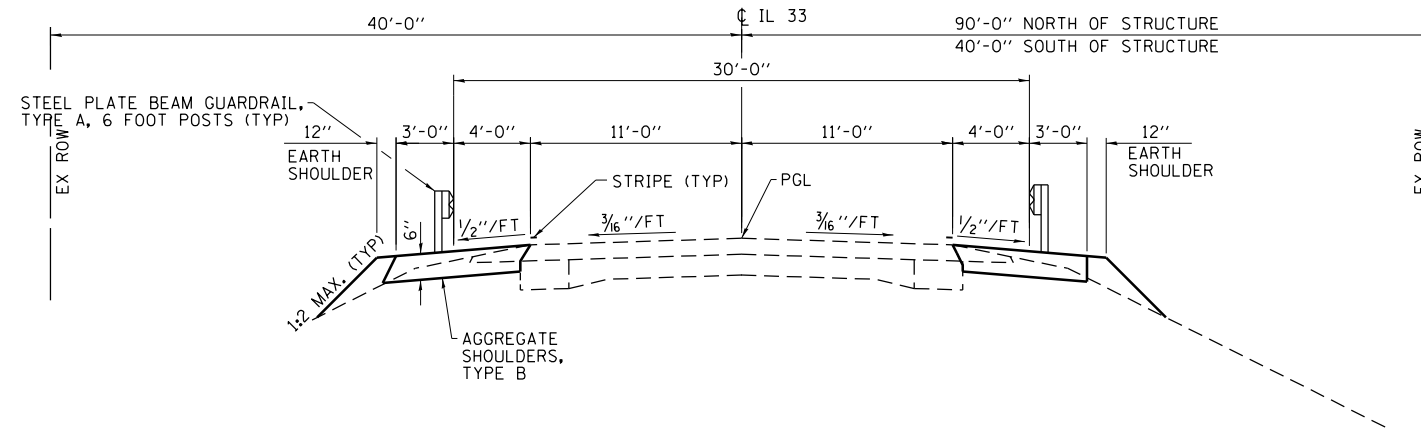
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	PLOT DATE = 1/28/2015	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL CROSS SECTIONS

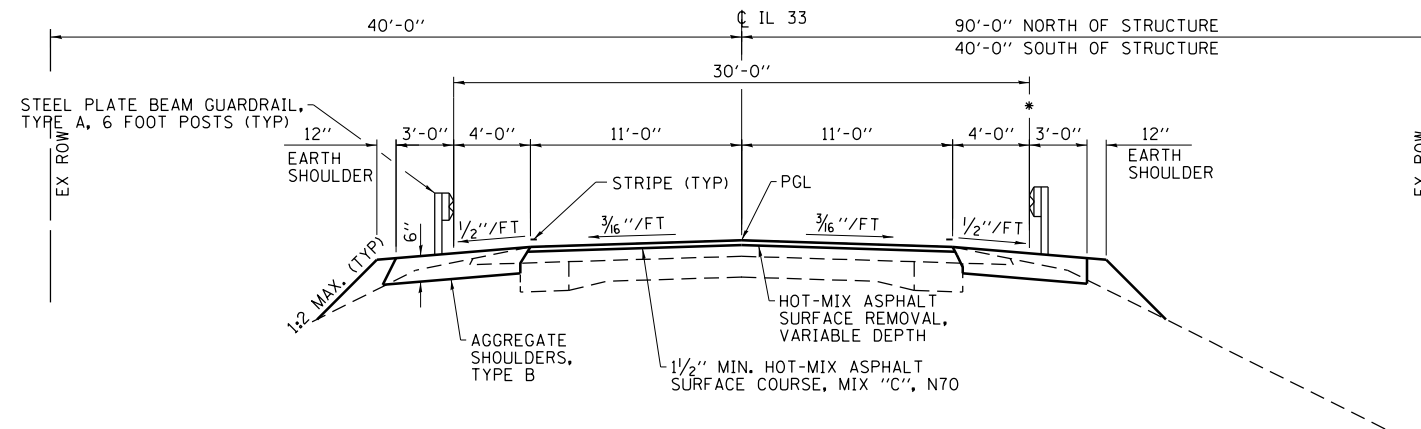
SCALE: N/A SHEET 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	5
				CONTRACT NO. 74105
ILLINOIS FED. AID PROJECT				



PROPOSED TYPICAL ROADWAY SECTION

STA 701+69 RT. TO 702+56 RT.
STA 702+56 TO 704+00
STA 708+00 LT. TO 709+33 LT.



PROPOSED TYPICAL ROADWAY SECTION

STA 704+00 TO 704+90
STA 705+90 TO 708+00

* FROM STA 707+52.5 RT. TO STA 708+00 RT. THE SHOULDER WIDTH IS 4'

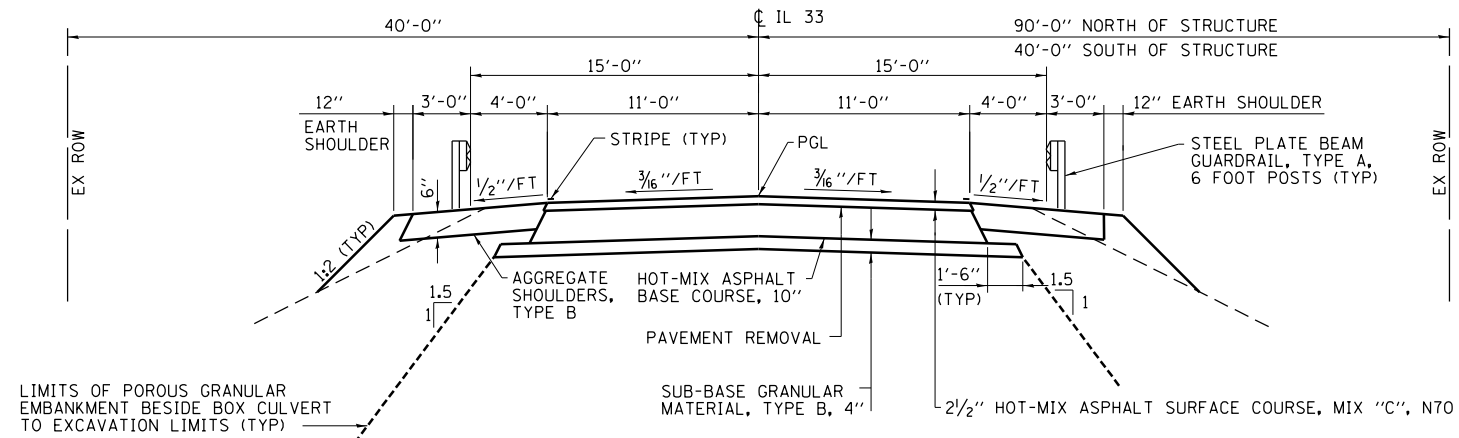
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL CROSS SECTIONS

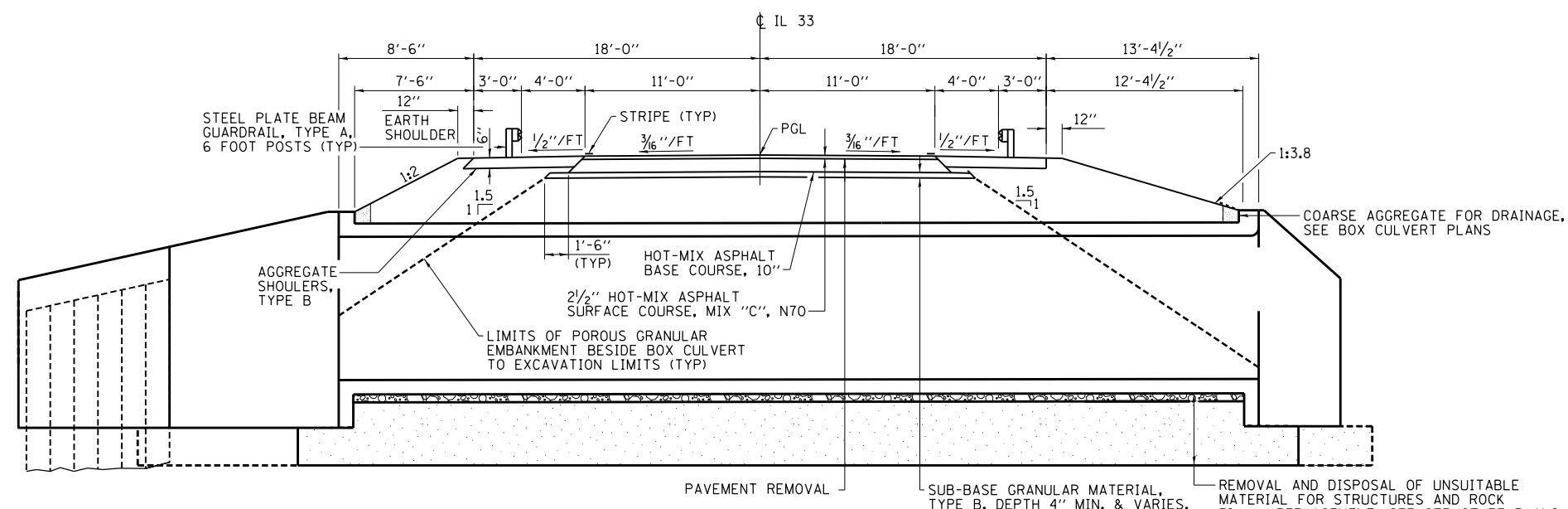
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	6
			CONTRACT NO. 74105	
ILLINOIS FED. AID PROJECT				



PROPOSED TYPICAL ROADWAY SECTION

STA 704 + 90 TO 705 + 17.67
STA 705 + 62.33 TO 705 + 90



SECTION THRU BOX CULVERT

STA 705 + 17.67 TO 705 + 62.33

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	PLOT DATE = 1/28/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

SCALE: N/A SHEET 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	7
CONTRACT NO. 74105				
ILLINOIS FED. AID PROJECT				

GUARDRAIL SCHEDULE			STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	TRAFFIC TERMINAL BARRIER, TYPE 1 (SPECIAL) TANGENT	GUARDRAIL MARKERS, TYPE A	TERMINAL MARKERS (DIRECT APPLIED)
STATION	TO	STATION	(FOOT)	(FOOT)	(EACH)	(EACH)	(EACH)
RT							
702+09.50	TO	702+59.50	-	-	1	-	1
702+59.50	TO	703+22	62.5	-	-	4	-
703+22	TO	703+72	-	-	1	-	1
703+72	TO	704+18	-	-	-	-	-
704+18	TO	704+68	-	-	1	-	1
704+68	TO	705+05.50	37.5	-	-	1	-
705+05.50	TO	705+55.50	-	50.0	-	1	-
705+55.50	TO	706+68	112.5	-	-	2	-
706+68	TO	707+08	-	-	1	-	1
RT TOTALS			212.5	50.0	4	8	4
LT							
703+00	TO	703+50	-	-	1	-	1
703+50	TO	704+00	-	-	1	-	1
704+00	TO	704+40	-	-	-	-	-
704+40	TO	704+90	-	-	1	-	1
704+90	TO	705+27.50	37.5	-	-	1	-
705+27.50	TO	705+77.50	-	50.0	-	1	-
705+77.50	TO	708+40	262.5	-	-	3	-
708+40	TO	708+90	-	-	1	-	1
LT TOTALS			300.0	50.0	4	5	4
TOTALS			512.5	100.0	8	13	8

GUARDRAIL REMOVAL SCHEDULE			GUARDRAIL REMOVAL
STATION	TO	STATION	(FOOT)
RT			
704+20	TO	705+01	81
705+57	TO	706+13	56
RT TOTALS			137
LT			
704+54	TO	705+23	69
705+82	TO	706+63	81
LT TOTALS			150
TOTALS			287

POROUS GRANULAR EMBANKMENT SCHEDULE		POROUS GRANULAR EMBANKMENT
LOCATION		(CU YD)
BOX CULVERT TRENCH		640
TOTALS		640

TOPSOIL EXCAVATION AND PLACEMENT SCHEDULE		TOPSOIL EXCAVATION AND PLACEMENT
LOCATION		(CU YD)
NE QUADRANT		26
SE QUADRANT		64
NW QUADRANT		46
SW QUADRANT		49
TOTALS		185

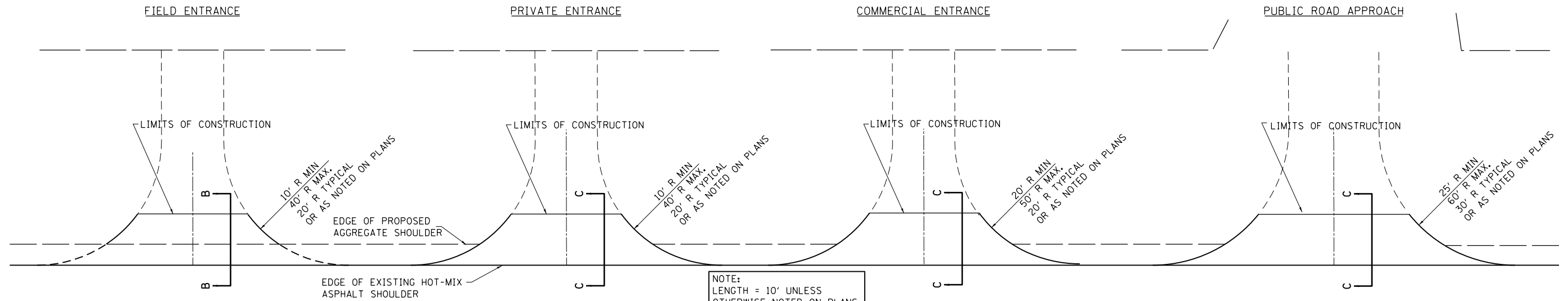
PAVEMENT SCHEDULE									
STATION	TO	STATION	PAVEMENT REMOVAL (SQ YD)	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH (SQ YD)	SUBBASE GRANULAR MATERIAL, TYPE B, 4" (SQ YD)	HOT-MIX ASPHALT BASE COURSE, 10" (SQ YD)	BITUMINOUS MATERIALS (PRIME COAT) (POUND)	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70 (TON)	AGGREGATE SHOULDERS, TYPE B (TON)
701+69	TO	702+56	-	-	-	-	-	-	22.2
702+56	TO	704+00	-	-	-	-	-	-	78.9
704+00	TO	704+90	-	220.0	-	-	99.0	18.6	52.5
704+90	TO	705+90	114	-	301	250	115.1	34.5	53.2
705+90	TO	708+00	-	513.3	-	-	231.0	43.4	106.7
708+00	TO	709+33	-	-	-	-	-	-	34.2
TOTALS			114	733	301	250	445	97	348

SEEDING SCHEDULE		
LOCATION	SEEDING, CLASS 2 (SPECIAL) (ACRE)	SEEDING, CLASS 7 (ACRE)
NE QUADRANT	0.1	0.1
SE QUADRANT	0.1	0.1
NW QUADRANT	0.1	0.1
SW QUADRANT	0.1	0.1
TOTALS		0.4

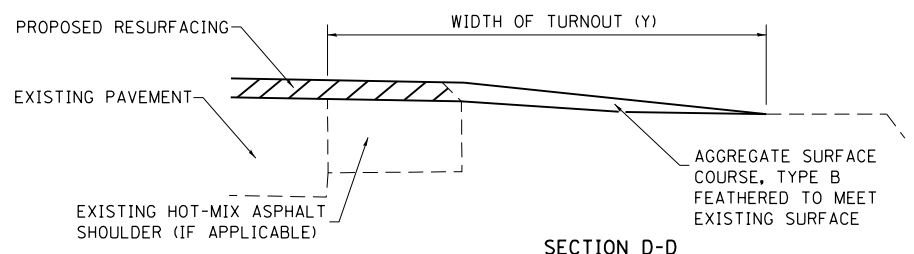
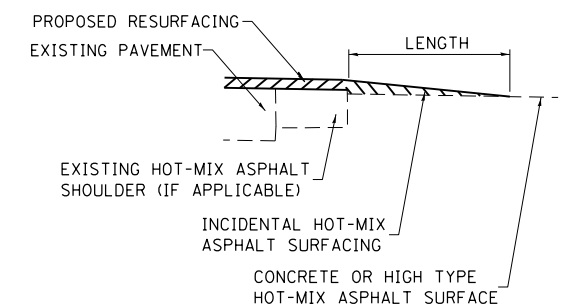
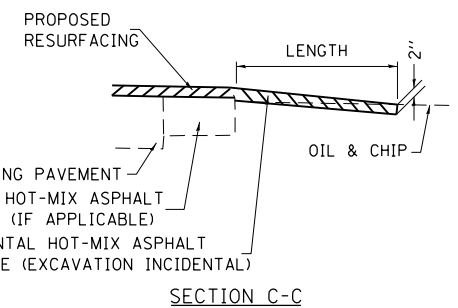
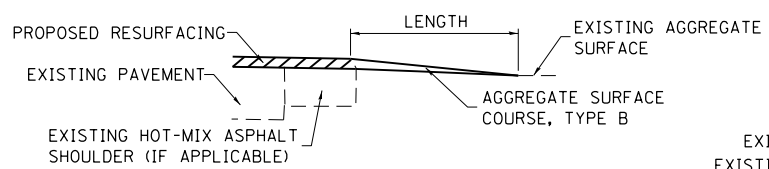
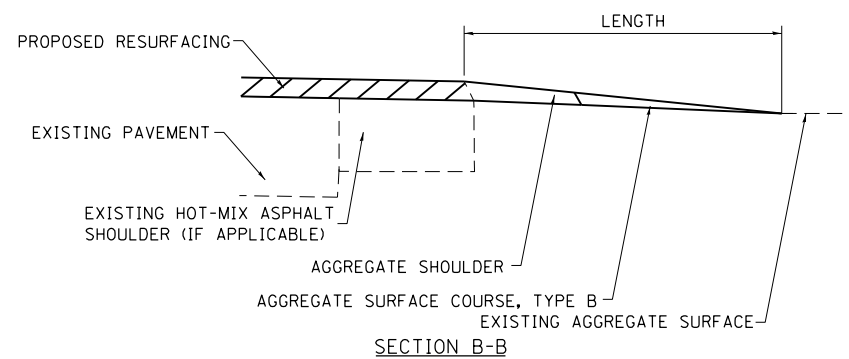
EROSION CONTROL SCHEDULE		
LOCATION	PERIMETER EROSION BARRIER (FOOT)	TEMPORARY EROSION CONTROL SEEDING (POUND)
NE QUADRANT	250	20
SE QUADRANT	320	20
NW QUADRANT	295	20
SW QUADRANT	270	20
TOTALS		1135

PAVEMENT MARKING SCHEDULE							
STATION	TO	STATION	SHORT-TERM PAVEMENT MARKING (FOOT)	WORK ZONE PAVEMENT MARKING REMOVAL (SQ FT)	PAINT PAVEMENT MARKING - LINE 4" (FOOT)	TEMPORARY PAVEMENT MARKING, LINE 4" (FOOT)	RAISED REFLECTIVE PAVEMENT MARKERS (EACH)
701+69	TO	704+00	-	-	520	520	3
704+00	TO	708+00	80.0	13.3	900	900	5
708+00	TO	709+33	-	-	299	299	2
TOTALS			80	13	1719	1719	10

EARTHWORK SCHEDULE				
LOCATION	SUITABLE EARTH EXCAVATION (CU YD)	SUITABLE EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (CU YD)	EMBANKMENT (NOT A PAY ITEM) (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
NE QUADRANT	22	17	34	-17
SE QUADRANT	35	26	82	-56
NW QUADRANT	28	21	46	-25
SW QUADRANT	15	11	90	-79
BOX CULVERT TRENCH	320.0	240.0	275	-35
RIPRAP	90.0	62.0	-	+62
TOTALS		510	377	527



NOTE:
LENGTH = 10' UNLESS
OTHERWISE NOTED ON PLANS.



SECTION D-D

TYPICAL SECTION AT MAILBOX TURNOUT

NOTE: SEE STANDARD 406201 FOR MAILBOX TURNOUT DETAILS

NOTES

THE COST OF THE BITUMINOUS MATERIALS AND AGGREGATE (PRIME COAT) FOR ENTRANCES AND PUBLIC ROAD APPROACHES SHALL BE INCLUDED IN THE PAY ITEM INCIDENTAL HOT-MIX ASPHALT SURFACING.

THE COST OF EXCAVATION IS INCLUDED IN THE PAY ITEM INCIDENTAL HOT-MIX ASPHALT SURFACING.

IF THERE IS NOT EXISTING HOT-MIX ASPHALT SHOULDER THEN THE ENTRANCE TAPER STARTS AT THE EDGE OF EXISTING PAVEMENT.

SIDE	STATION	TYPE	INCIDENTAL HOT-MIX ASPHALT SURFACING	
			TON	TON
RT	703+92	FE		18.0
LT	704+16	FE		2.0
TOTALS			0	20

SIDE	STATION	TYPE	INCIDENTAL HOT-MIX ASPHALT SURFACING	
			TON	TON

SIDE	STATION	TYPE	INCIDENTAL HOT-MIX ASPHALT SURFACING	
			TON	TON

SIDE	STATION	TYPE	INCIDENTAL HOT-MIX ASPHALT SURFACING	
			TON	TON

SIDE	STATION	TYPE	INCIDENTAL HOT-MIX ASPHALT SURFACING	
			TON	TON

FE=FIELD ENTRANCE PRA - PUBLIC ROAD APPROACH
PE=PRIVATE ENTRANCE MBT - MAILBOX TURNOUT
CE=COMMERCIAL ENTRANCE

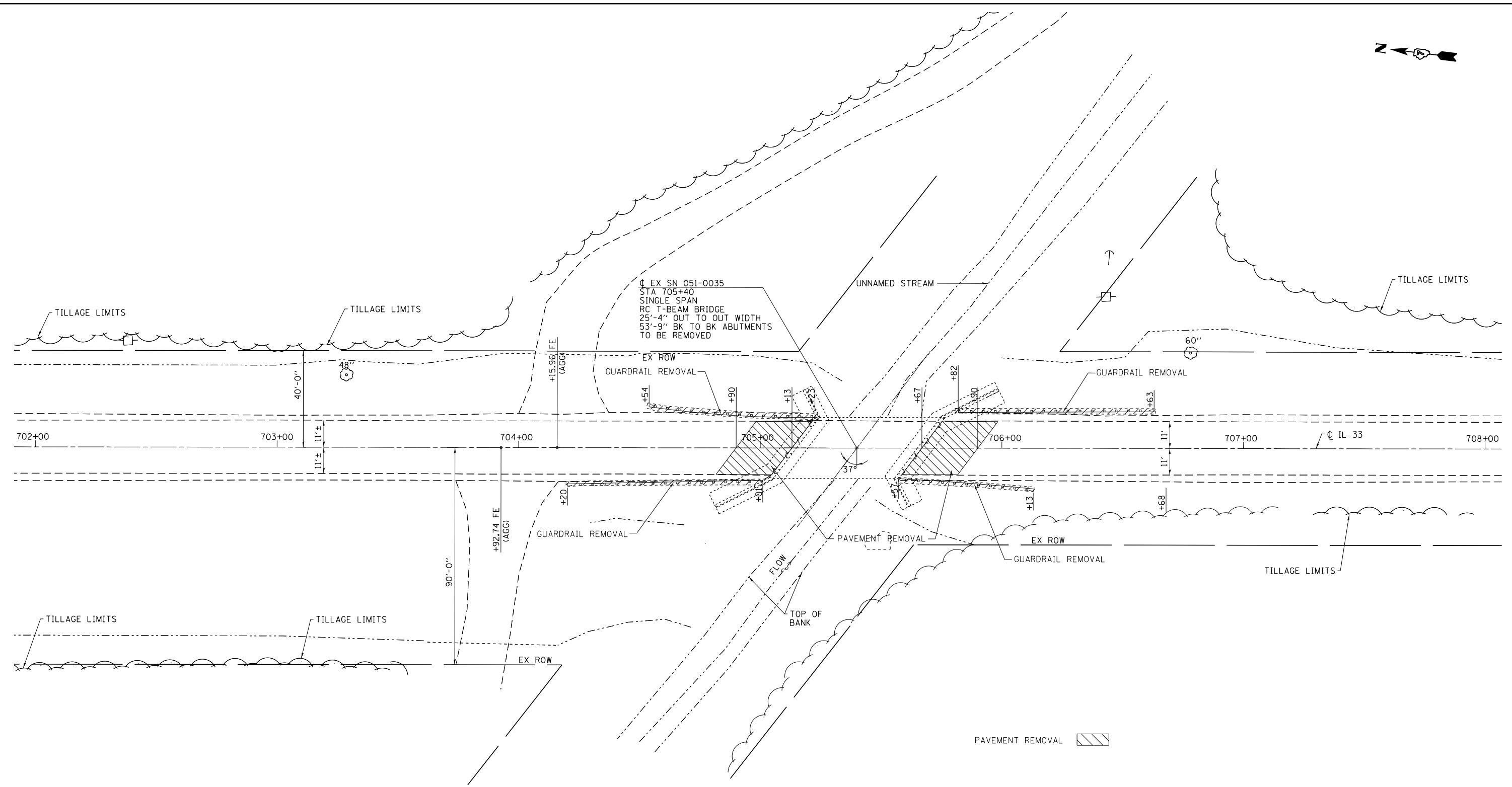
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		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RURAL ENTRANCE SCHEDULE AND MAILBOX TURNOUT DETAILS
WITH SHOULDERS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	9
CONTRACT NO. 74105				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SCALE: N/A SHEET NO. 1 OF 1 SHEETS STA. TO STA.



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

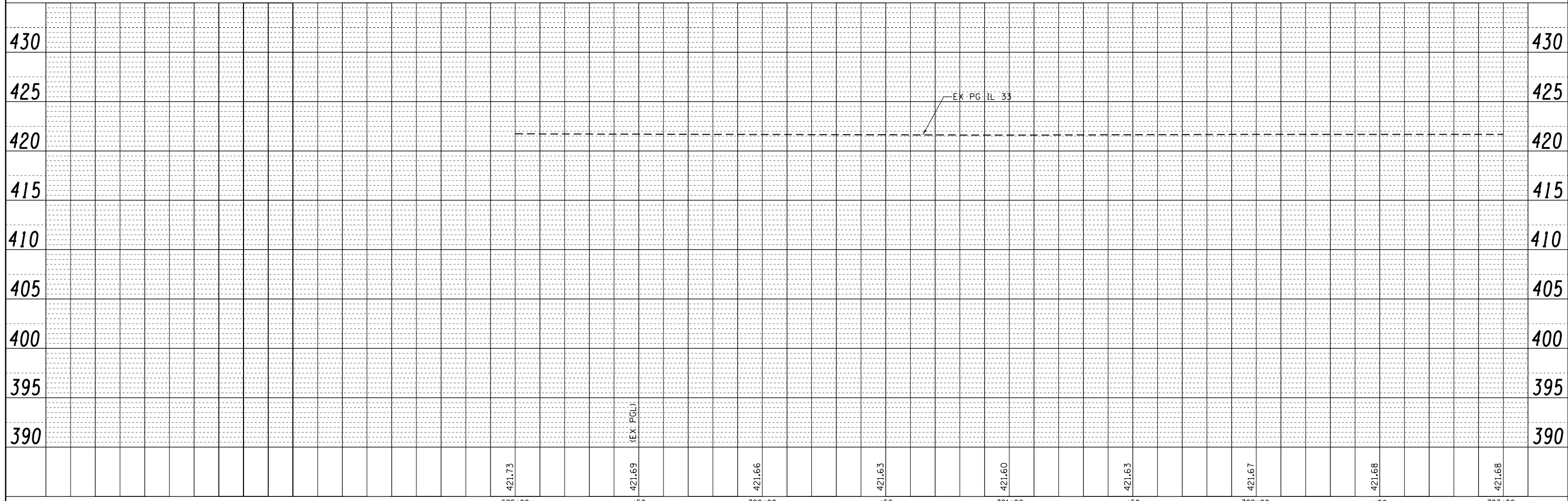
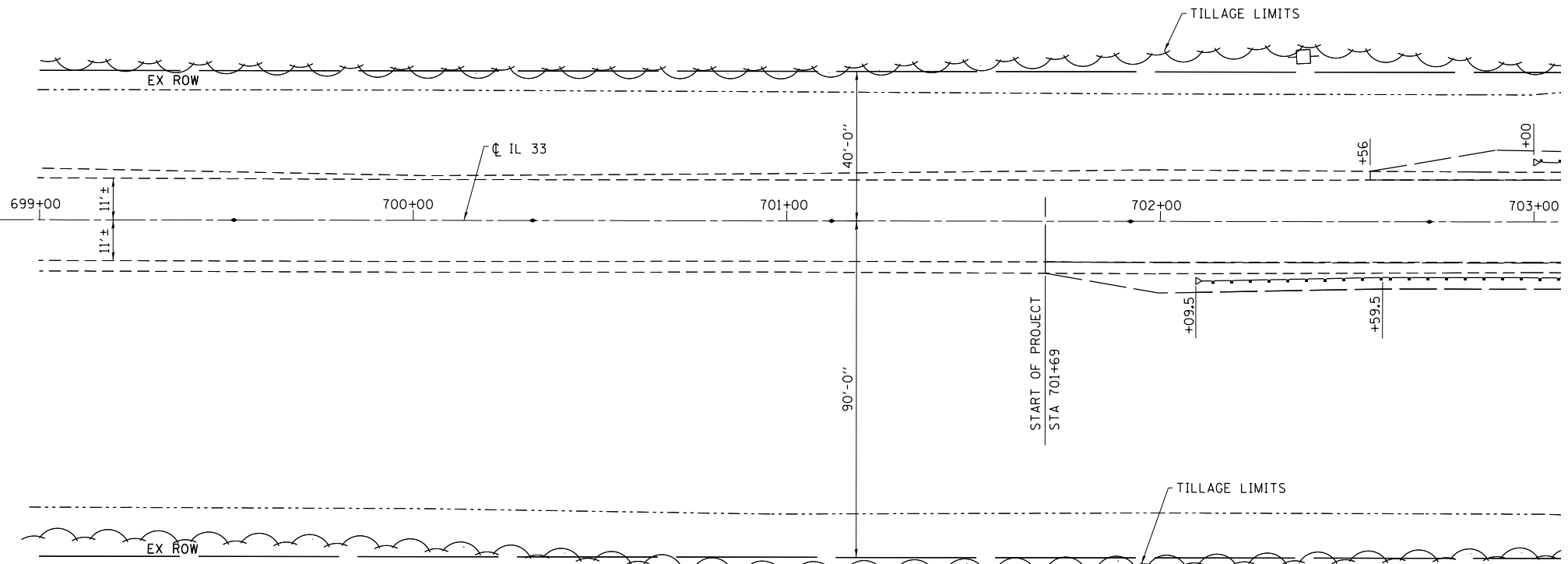
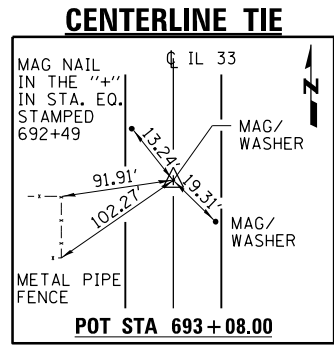
REMOVAL PLAN			
SCALE: 20	SHEET 1	OF 1	SHEETS
STA. 702+00	TO STA. 708+00		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	10
CONTRACT NO. 74105				
ILLINOIS FED. AID PROJECT				



PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
NOTE BOOK NO.	FILE NAME	

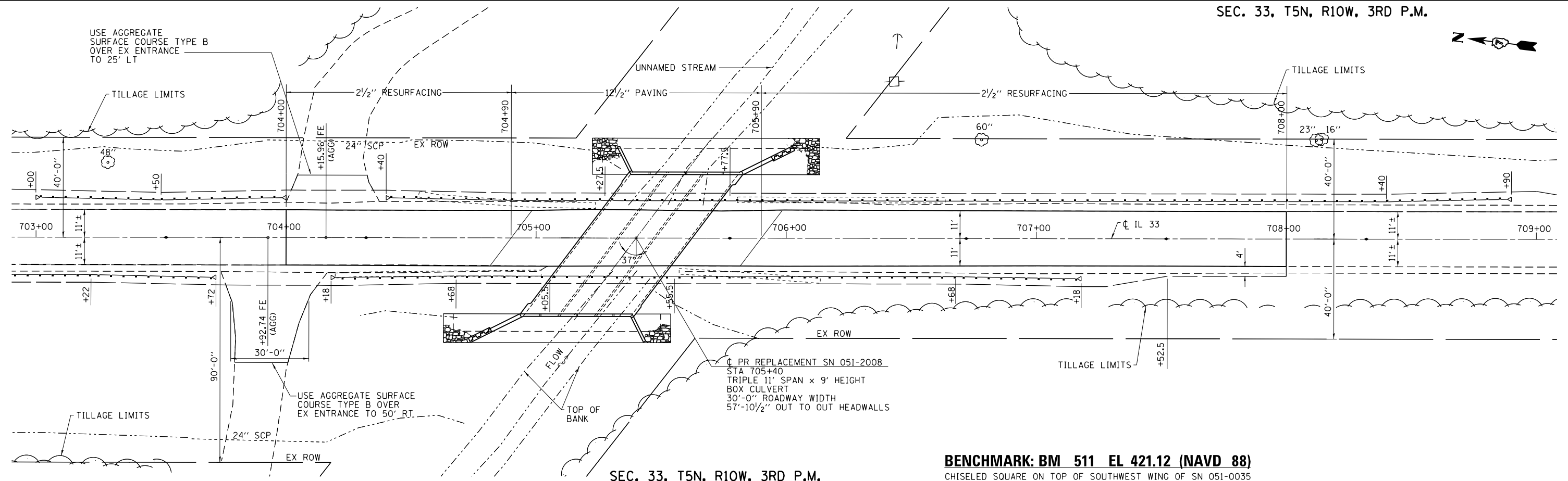
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	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
NOTE BOOK NO.		



FILE NAME =	USER NAME = teasleyck	DESIGNED -	REVISIED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN - PROFILE			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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Default	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISIED -		SCALE: 20			SHEET 1 OF 3 SHEETS STA. 699+00 TO STA. 703+00			CONTRACT NO. 74105	
	PLOT DATE = 1/28/2015	DATE -	REVISIED -		ILLINOIS FED. AID PROJECT							



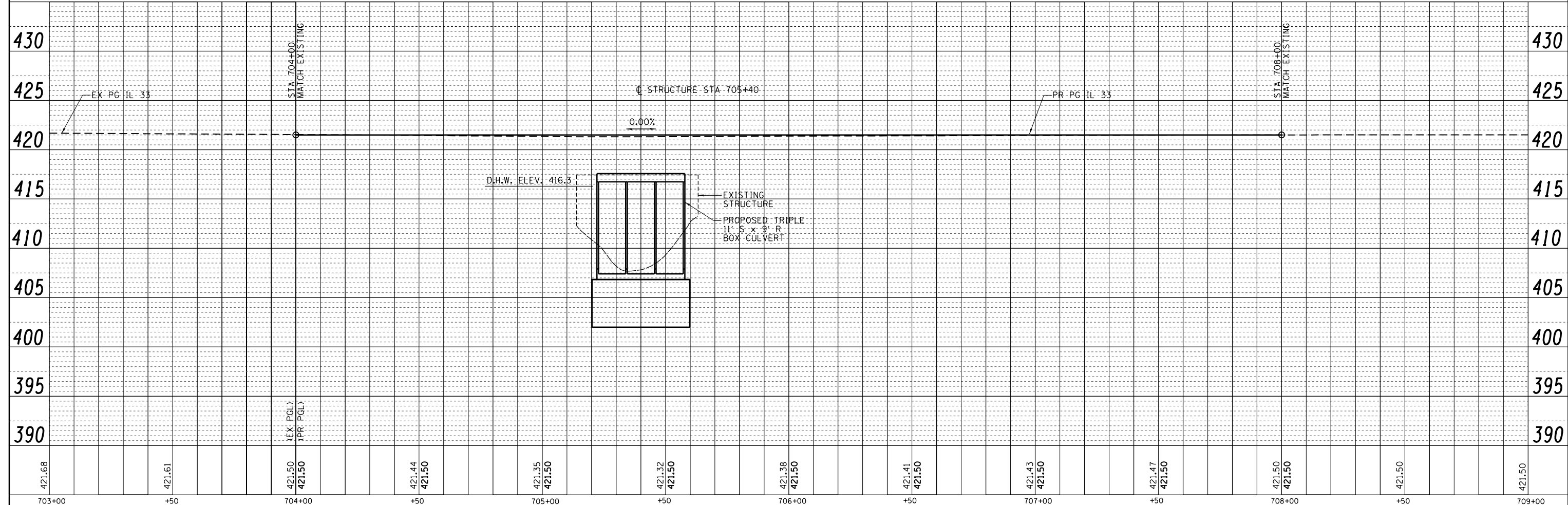
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	PLOTTED		
	ALIGNED		
	CHECKED		
	FILE NAME		



SEC. 33, T5N, R10W, 3RD P.M.

BENCHMARK: BM 511 EL 421.12 (NAVD 88)
CHISELED SQUARE ON TOP OF SOUTHWEST WING OF SN 051-0035

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PLAN - PROFILE

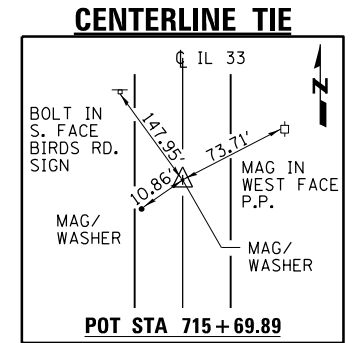
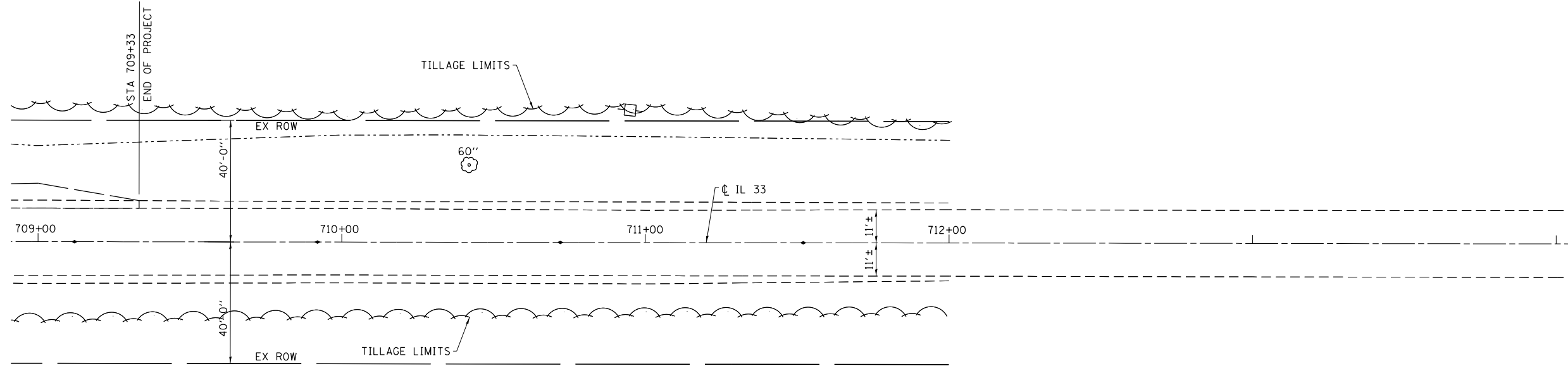
SCALE: 20 SHEET 2 OF 3 SHEETS STA. 703+00 TO STA. 709+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	12
CONTRACT NO. 74105				
ILLINOIS FED. AID PROJECT				

SEC. 33, T5N, R10W, 3RD P.M.

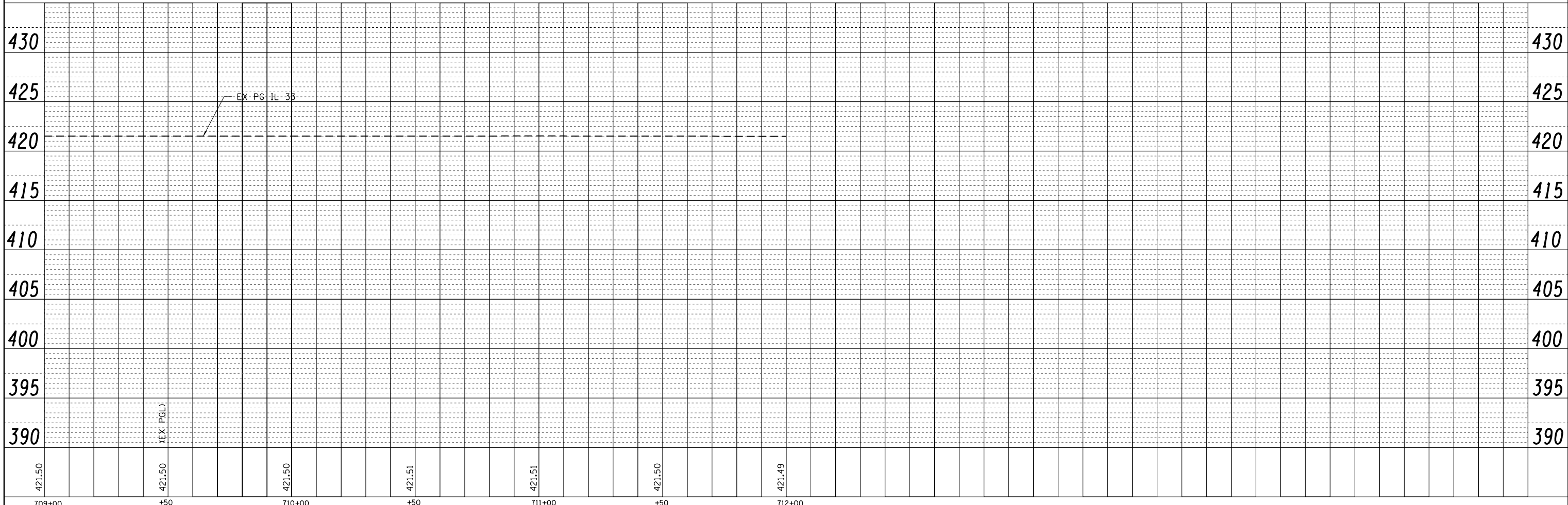


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	PLOTTED		
	ALIGNED		
	CHECKED		
	FILE NAME		
	NO.		

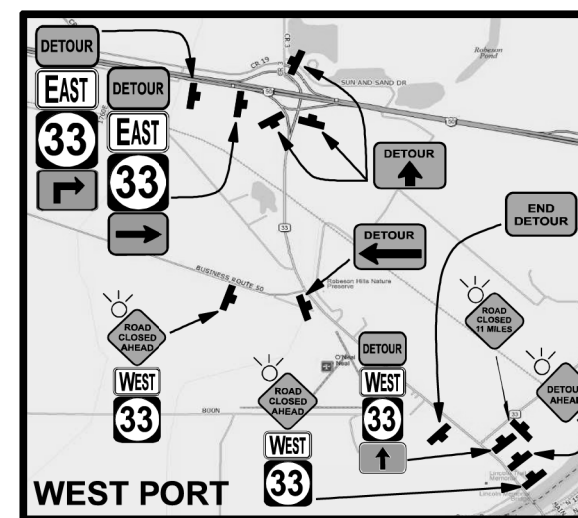
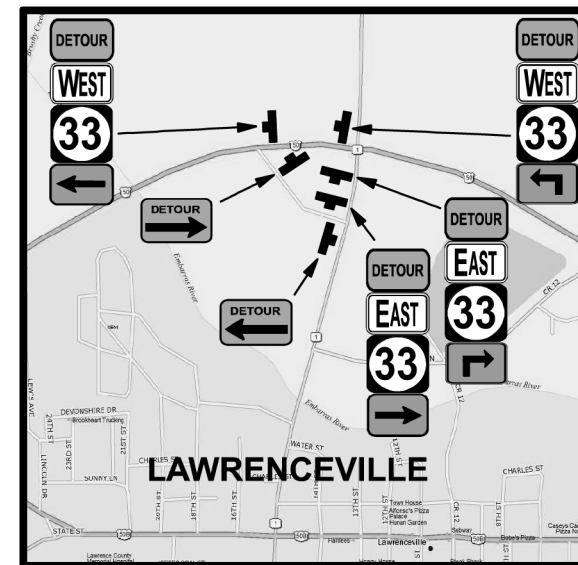
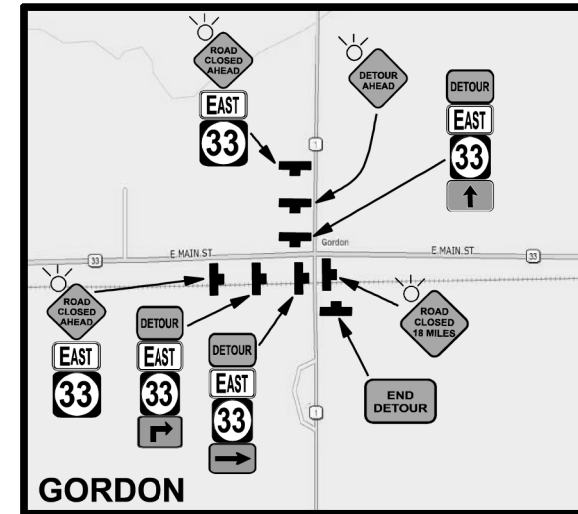
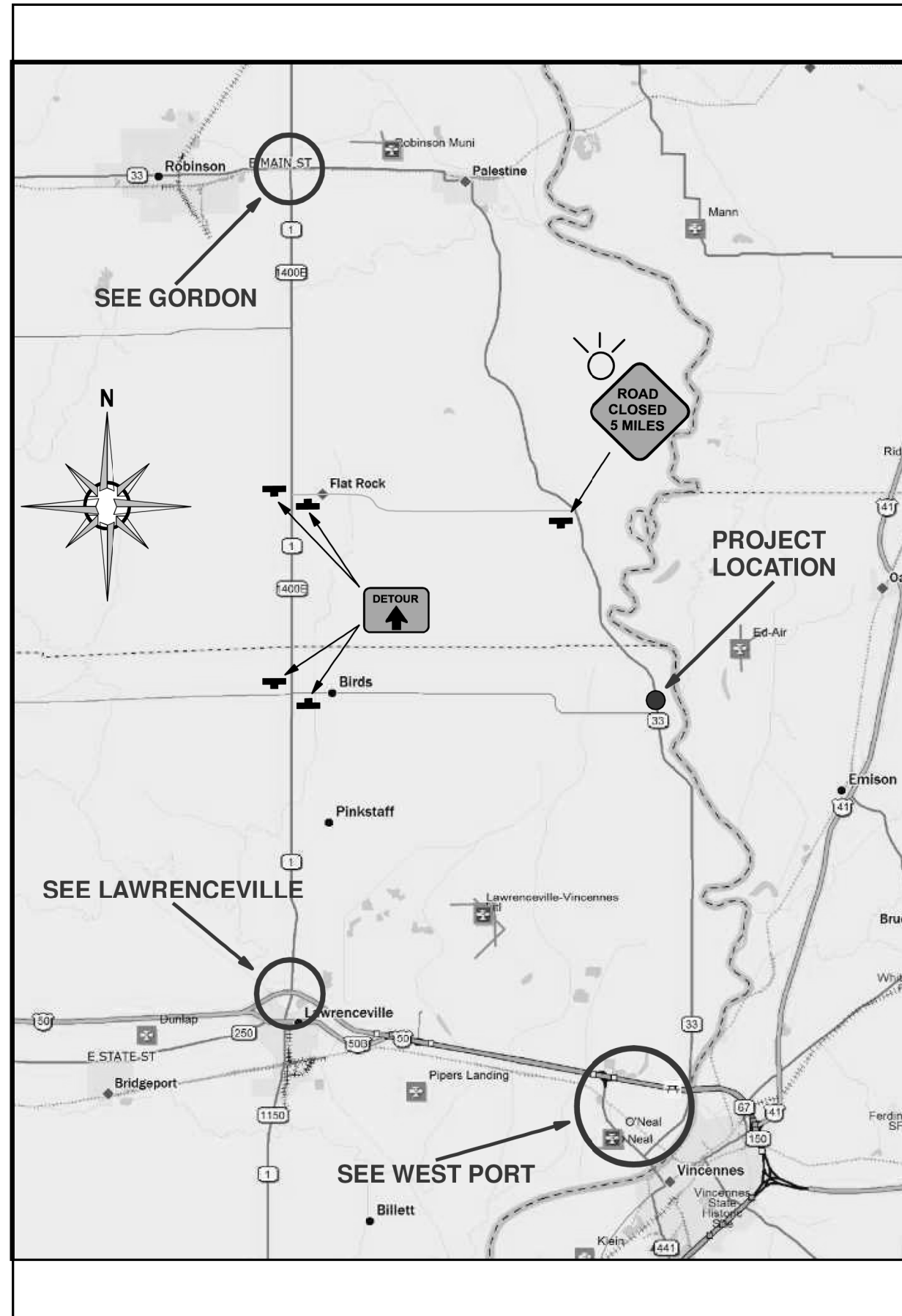


SEC. 33, T5N, R10W, 3RD P.M.

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE		
	NOT AT THIS OFFICE		
	NO.		



FILE NAME =	USER NAME = teasleyck	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN - PROFILE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 1/28/2015	DATE -	REVISED -			ILLINOIS FED. AID PROJECT				
				SCALE: 20	SHEET 3 OF 3 SHEETS	STA. 709+00 TO STA. 712+00				



SIGN LEGEND

	W20-3-48
	W20-3-48
	W20-3-48
	W20-3-48
	W20-2-48
	M4-9L-3024
	M4-9R-3024
	M4-9-3024
	M4-8a(O)-3024
	M4-8-2412
	M3-2-3015
	M3-4-3015
	M6-1L(O)-3018
	M6-1R(O)-3018
	M5-1L(O)-3018
	M5-1R(O)-3018
	M6-3(O)-3018
	M1-5-36

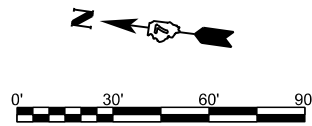
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING DETAIL

SCALE: N/A SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	14
CONTRACT NO. 74105				
ILLINOIS FED. AID PROJECT				

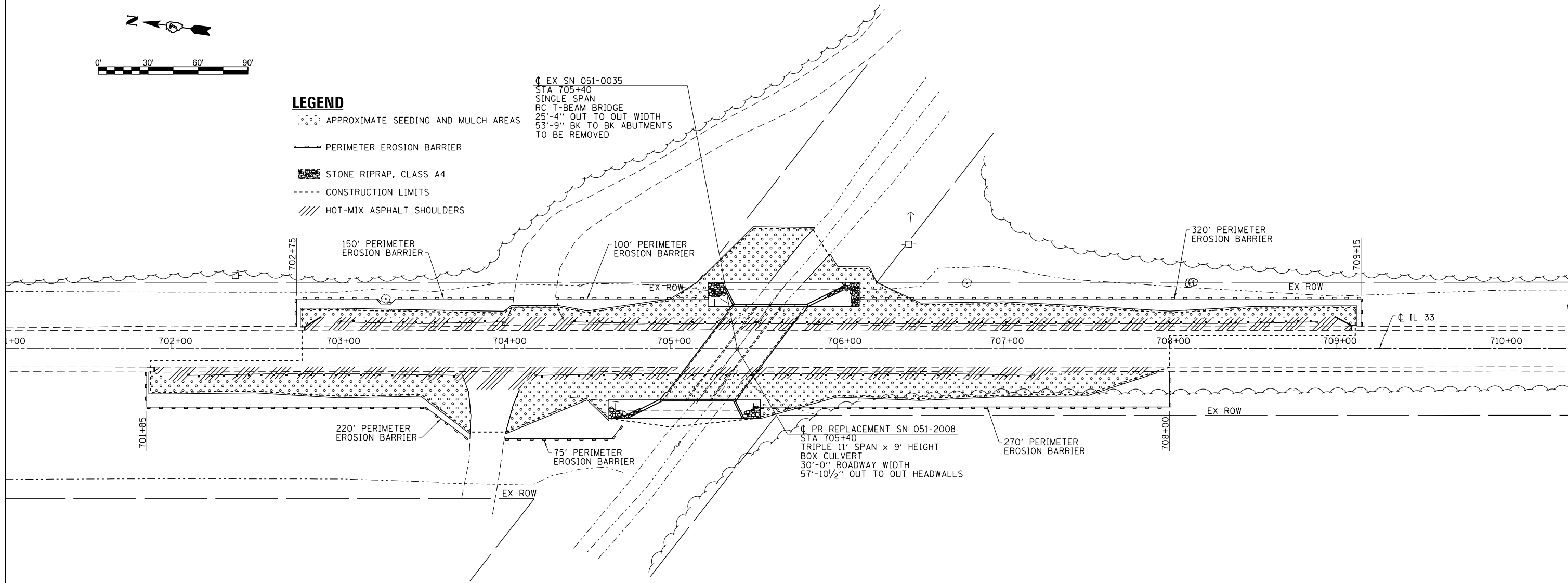


LEGEND

- APPROXIMATE SEEDING AND MULCH AREAS
- PERIMETER EROSION BARRIER
- ▨ STONE RIPRAP, CLASS A4
- CONSTRUCTION LIMITS
- /// HOT-MIX ASPHALT SHOULDERS

□ EX SN 051-0035
STA 705+40
SINGLE SPAN
RC T-BEAM BRIDGE
25'-4" OUT TO OUT WIDTH
53'-9" BK TO BK ABUTMENTS
TO BE REMOVED

□ PR REPLACEMENT SN 051-2008
STA 705+40
TRIPLE 11' SPAN x 9' HEIGHT
BOX CULVERT
30'-0" ROADWAY WIDTH
57'-10 1/2" OUT TO OUT HEADWALLS



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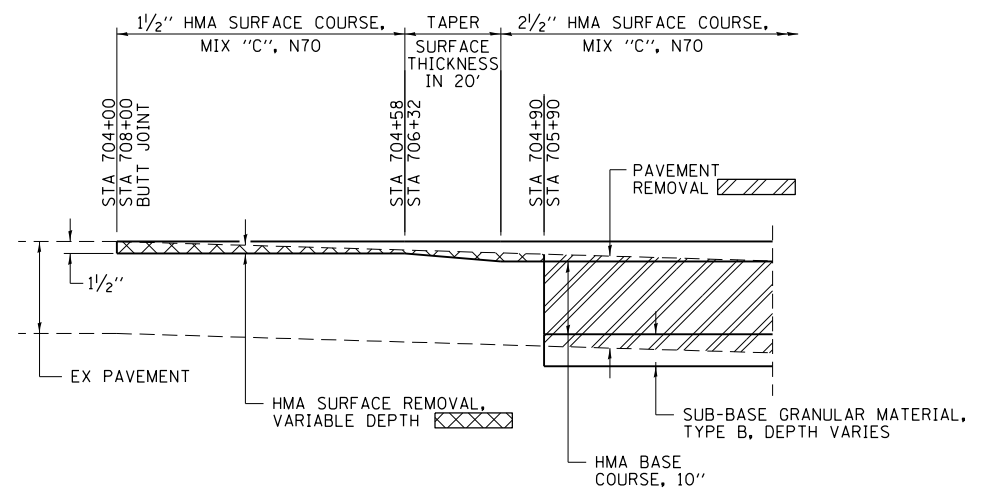
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EROSION CONTROL AND DRAINAGE PLAN

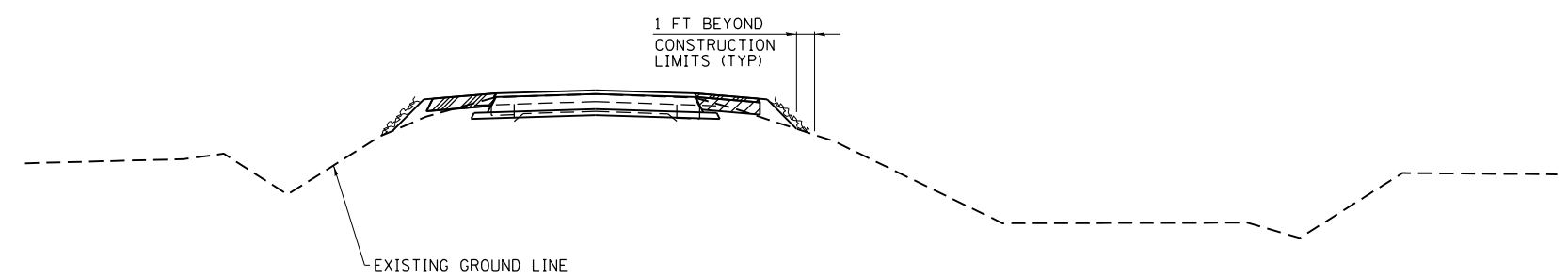
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	15
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 74105



SURFACING AND MILLING SECTION



SEEDING & MULCHING

GENERAL NOTES

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED AND MULCHED UPON COMPLETION OF ALL GRADING OPERATIONS.

FERTILIZER NUTRIENTS AND LIMESTONE SHALL BE APPLIED TO ALL SEEDED AREAS.

THE RATES OF APPLICATION OF FERTILIZER, MULCH AND LIMESTONE SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS.

SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

INDICATES LIMITS OF SEEDING AND MULCHING

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	PLOT DATE = 1/28/2015	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAILS			
SCALE: N/A	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	16
CONTRACT NO. 74105				
ILLINOIS FED. AID PROJECT				

BENCHMARK: BM 511-Chiseled square on top of southwest wing of SN 051-0035, Elev. 421.12 (NAVD 88)

EXISTING STRUCTURE: SN 051-0035 was originally built in 1933 as SBI 181, Section 109B. The original brick-railing was removed and replaced with a steel rail. The date of this work is unknown. It is a single span reinforced concrete tee beam structure on concrete abutments and wingwalls supported on timber piles. The deck width is 25'-4" and the length is 50'-0" face to face of abutments. The structure was constructed at a 37° skew.

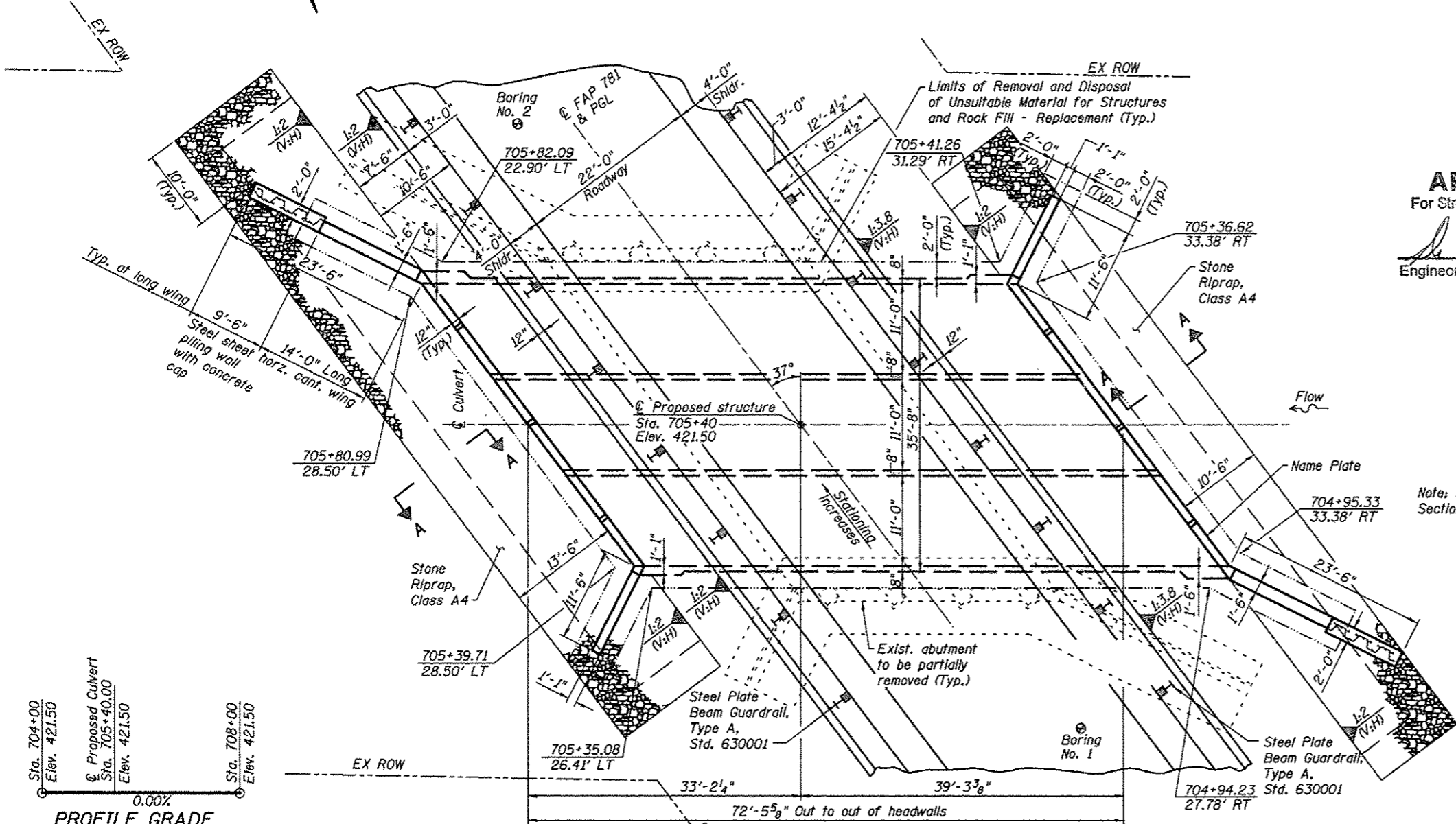
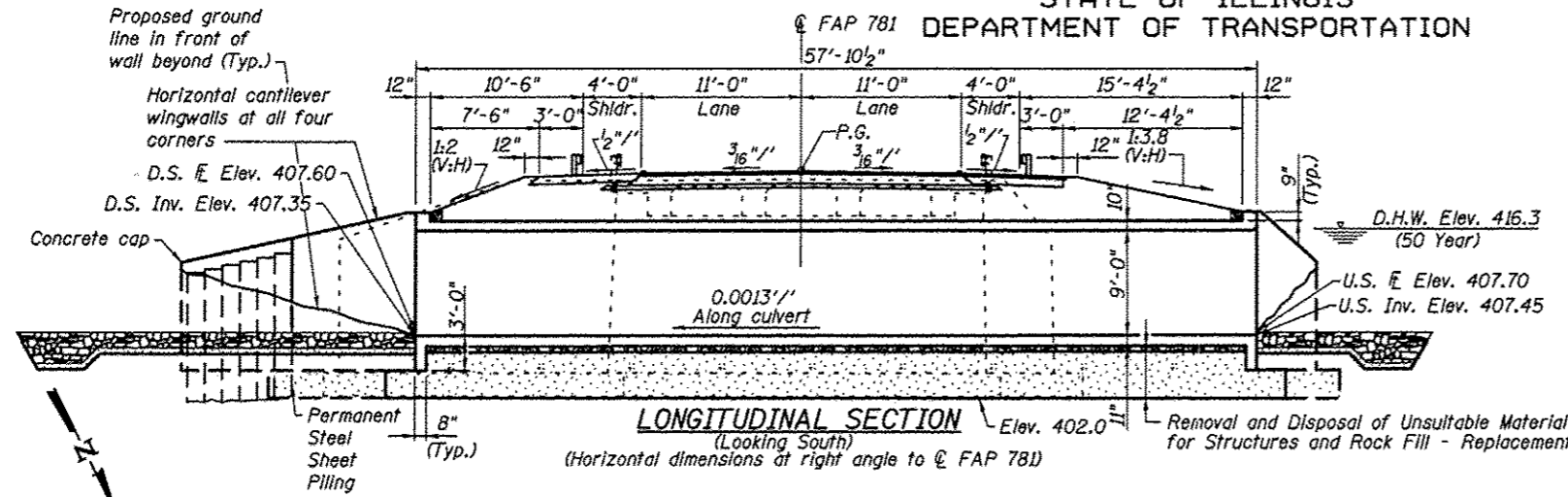
No salvage.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

STRUCTURE INDEX OF SHEETS

General Plan
General Data
Box Culvert Details
Steel Sheet Piling Wall Details
Boring Logs

Sheet No. 1 of 7
Sheet No. 2 of 7
Sheet No. 3 & 4 of 7
Sheet No. 5 of 7
Sheet No. 6 & 7 of 7



APPROVED
For Structural Adequacy Only

Dr. Carl Krueger
Engineer of Bridges & Structures

SCOUR INFORMATION

Design Scour Elevation (Ft.)	Downstream	Upstream
	404.35	404.45

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

Allow 50 psf for future wearing surface.

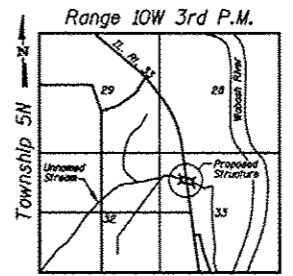
Note: See Sheet No. 2 of 7 for Section A-A.



EXPIRES 11-30-16

Carl Krueger
SIGNATURE

12-17-14
DATE



LOCATION SKETCH

GENERAL PLAN
IL 33 OVER UNNAMED STREAM
FAP ROUTE 781 - SECTION 109B-1
LAWRENCE COUNTY
STATION 705+40
STRUCTURE NO. 051-2008

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	03/10
DRAWN BY:	DWH/HAS	03/10
CHECKED BY:	ELH	06/10
APPROVED BY:	RDP	06/10

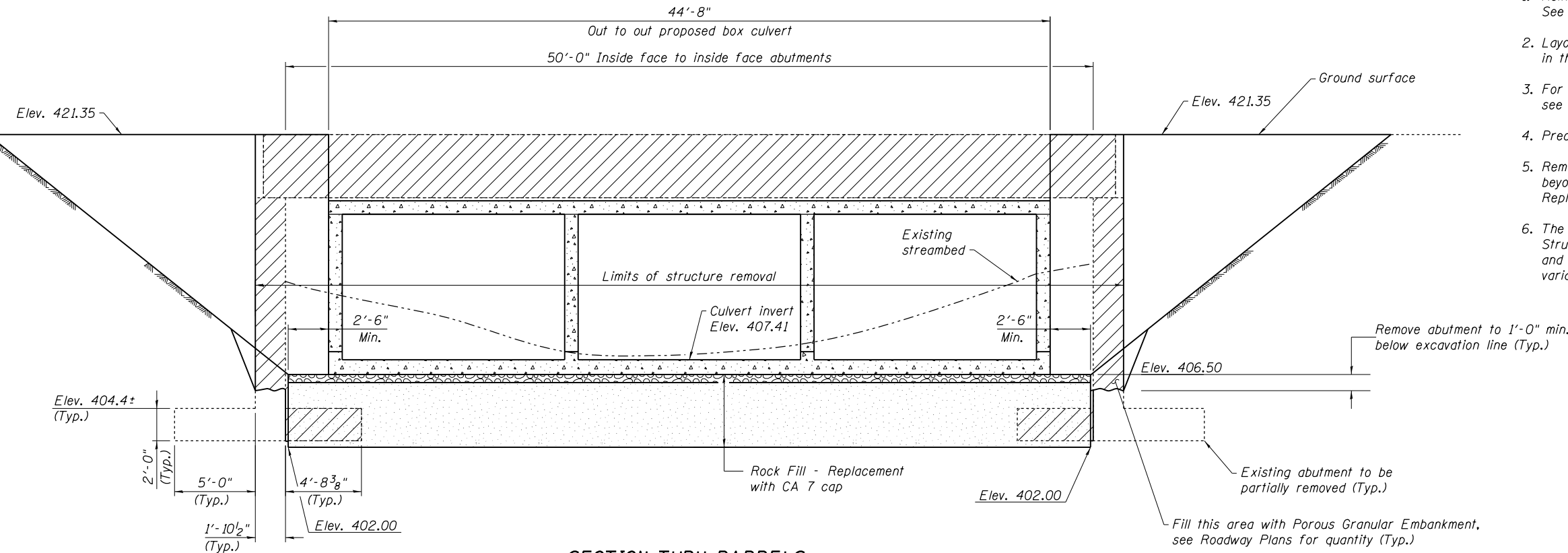
WATERWAY INFORMATION

Drainage Area = 2.33 Sq. Mi. Exist. Low Grade Elev. = 421.3 Ft. @ Sta. 705+05
Prop. Low Grade Elev. = 421.50 Ft. @ Sta. 705+05

Flood Yr.	Freq.	Q C.F.S.	Opening - Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
10	462	186	232	414.4	0.0	0.0	414.4	414.4	
Design Base	50	739	257	291	416.3	0.0	0.0	416.3	416.3
Max. Calc.	100	863	285	297	417.0	0.0	0.0	417.0	417.0
	500	1160	304	297	418.5	0.2	0.2	418.7	418.7

SHEET NO. 1 10 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	781	109B-1	LAWRENCE	36	17
CONTRACT NO. 74105			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION THRU BARRELS
(Dimensions parallel to \varnothing FAP 781)

NOTES

- Existing structure details are based on the best available information from existing bridge plans.
- Limits of Rock Fill - Replacement are shown for culvert outside of the existing bridge. For culvert inside of the existing bridge, widen limits to the inside faces of the existing abutments.
- Hatched areas indicate removal of existing structures.

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- For backfilling and embankment outside of the limits of Rock Fill - Replacement see Standard Specifications.
- Precast alternate is not allowed.
- Remove unsuitable soil beneath the footprint of the box culvert and two feet beyond the perimeter of the culvert and wingwalls as shown on Sheet No. 1. Replace with rock fill.
- The limits and quantities of Removal and Disposal of Unsuitable Material for Structures and Rock Fill - Replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.

TOTAL BILL OF MATERIAL

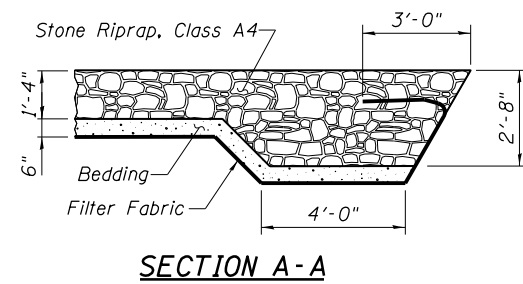
ITEM	UNIT	QUANTITY
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	515
Stone Riprap, Class A4	Sq. Yd.	257
Filter Fabric	Sq. Yd.	257
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	62920
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	282.8
Permanent Steel Sheet Piling	Sq. Ft.	402
Rock Fill - Replacement	Ton	875

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	03/10
DRAWN BY:	DWH/HAS	03/10
CHECKED BY:	ELH	06/10
APPROVED BY:	RDP	06/10

STATION 705+40
BUILT BY
STATE OF ILLINOIS
F.A. RT. 781 SEC. 109B-1
LOADING HS20-44
STR. NO. 051-2008

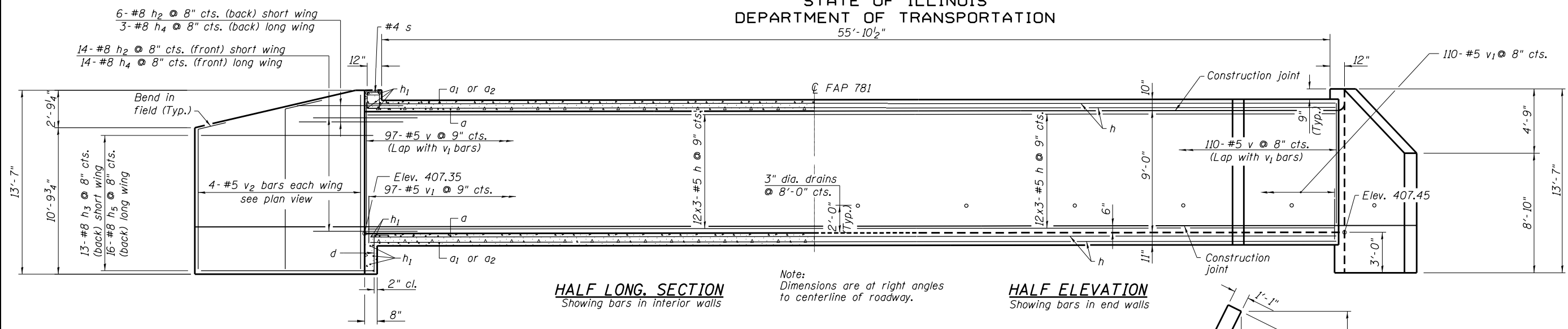
NAME PLATE
See Std. 515001



GENERAL DATA
STRUCTURE NO. 051-2008

SHEET NO. 2 7 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	781	109B-1	LAWRENCE	36	18
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 74105					

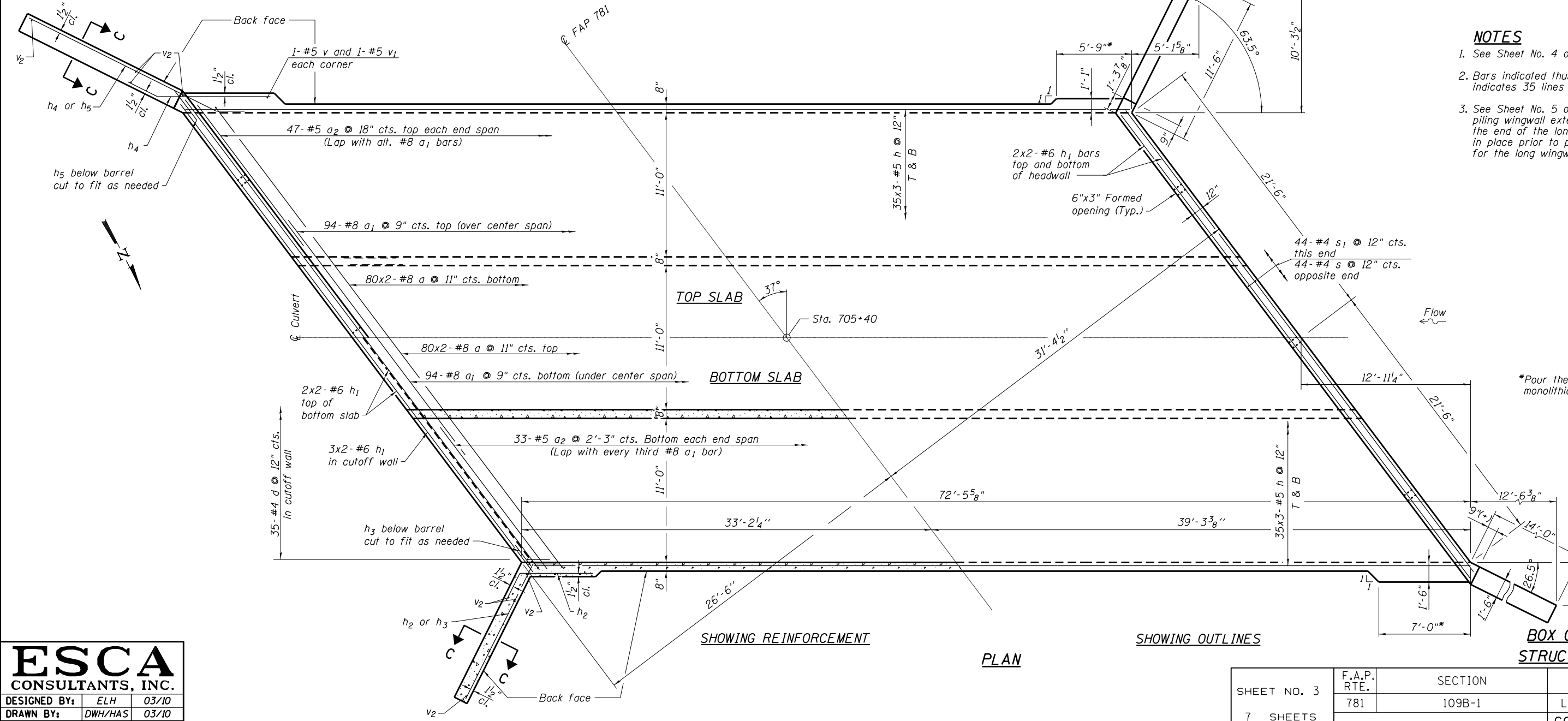
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
55'-10 1/2"



HALF LONG SECTION
Showing bars in interior walls

HALF ELEVATION
Showing bars in end walls

Note:
Dimensions are at right angles
to centerline of roadway.



SHOWING REINFORCEMENT

SHOWING OUTLINES

PLAN

BOX CULVERT DETAILS
STRUCTURE NO. 051-2008

- NOTES**
1. See Sheet No. 4 of 7 for Section C-C.
 2. Bars indicated thus 35x3-#5 etc. indicates 35 lines with 3 lengths per line.
 3. See Sheet No. 5 of 7 for details of sheet piling wingwall extension. Waterseal at the end of the long wingwall shall be in place prior to pouring the concrete for the long wingwall.

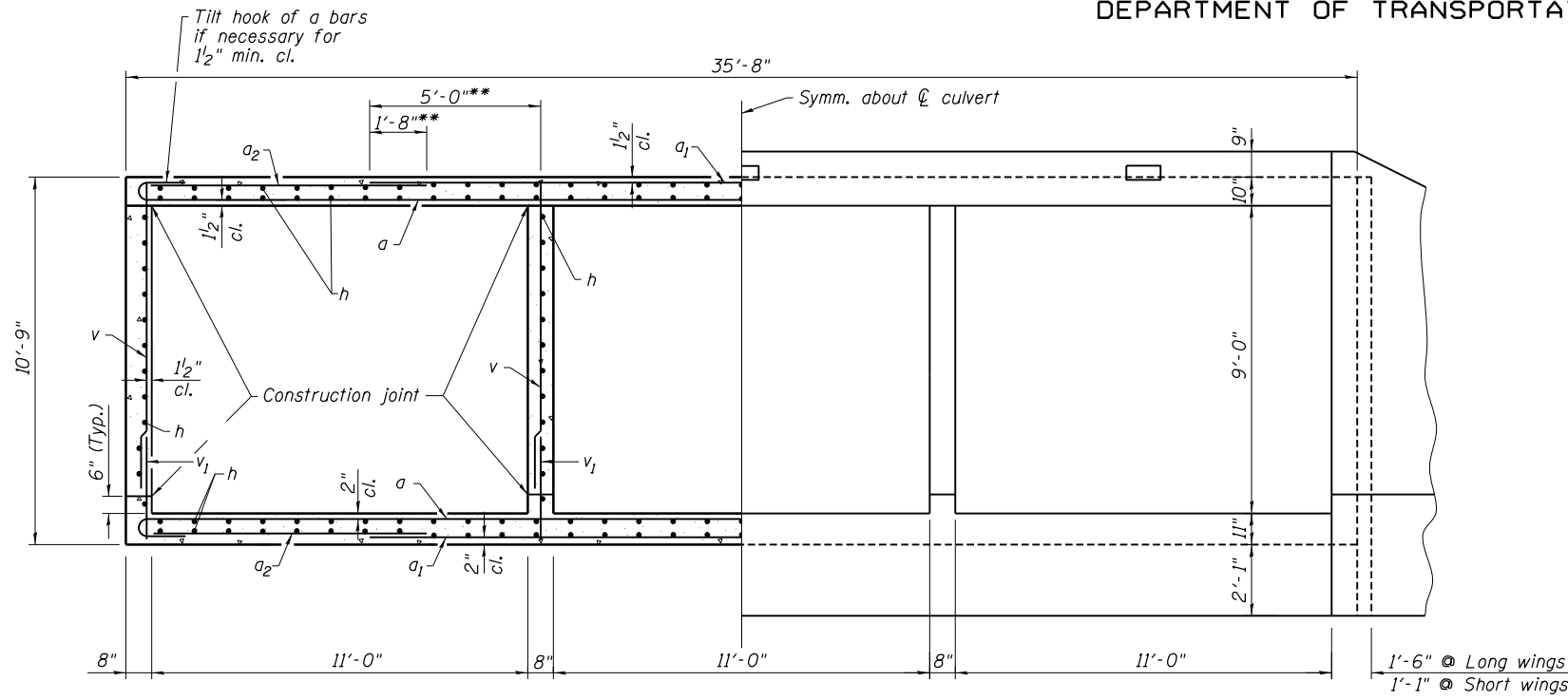
*Pour these portions of walls monolithically with wings (Typ.)

ESCA
CONSULTANTS, INC.

DESIGNED BY: ELH 03/10
DRAWN BY: DWH/HAS 03/10
CHECKED BY: ELH 06/10
APPROVED BY: RDP 06/10

SHEET NO. 3 7 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 74105					
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

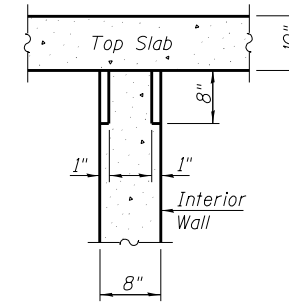
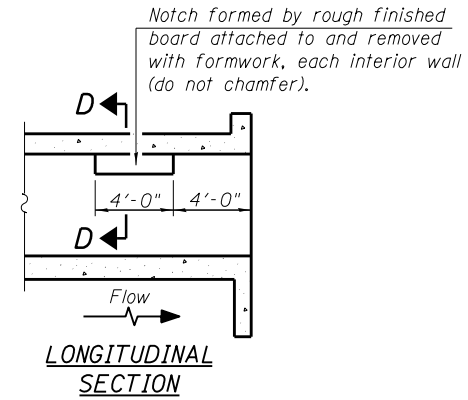
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



HALF SECTION THRU BARRELS

HALF END ELEVATION

** Dimensions noted thus are parallel to C Roadway



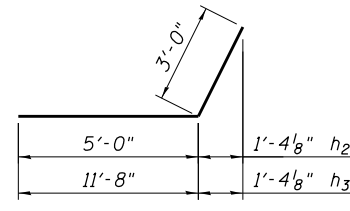
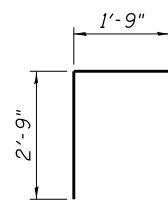
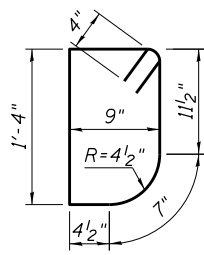
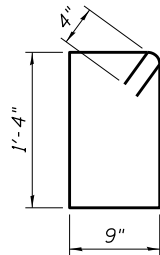
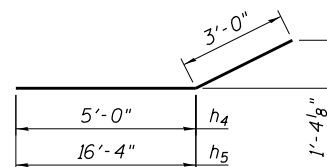
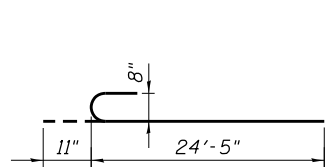
PHOEBE NESTING
SITE DETAILS
(Downstream End Only)

BILL OF MATERIAL

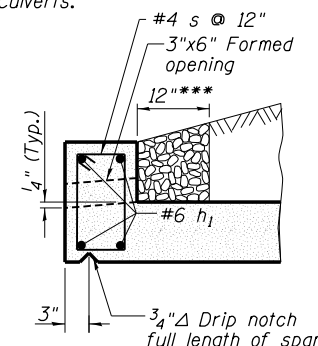
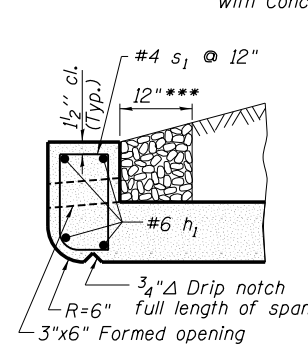
Bar	No.	Size	Length	Shape
a	320	#8	25'-4"	C
a ₁	188	#8	24'-8"	—
a ₂	160	#5	11'-6"	—
d	70	#4	4'-6"	—
h	564	#5	25'-5"	—
h ₁	36	#6	23'-11"	—
h ₂	40	#8	8'-0"	—
h ₃	26	#8	14'-8"	—
h ₄	34	#8	8'-0"	—
h ₅	32	#8	19'-4"	—
s	44	#4	4'-10"	—
s ₁	44	#4	4'-8"	—
v	418	#5	9'-0"	—
v ₁	418	#5	3'-0"	—
v ₂	16	#5	13'-2"	—
Concrete Box Culverts			Cu. Yd.	274.3
Reinforcement Bars			Pound	62380

MIN. BAR LAP

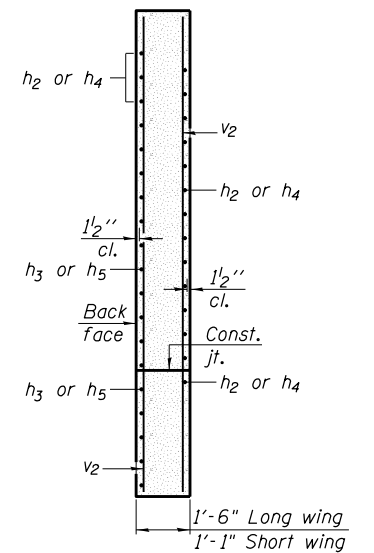
#5 ----- 1'-8"
#6 ----- 2'-0"
#8 ----- 4'-6"



*** Coarse aggregate full length of both headwalls. To be placed by Grading Contractor. Cast included with Concrete Box Culverts.



DRAIN DETAILS



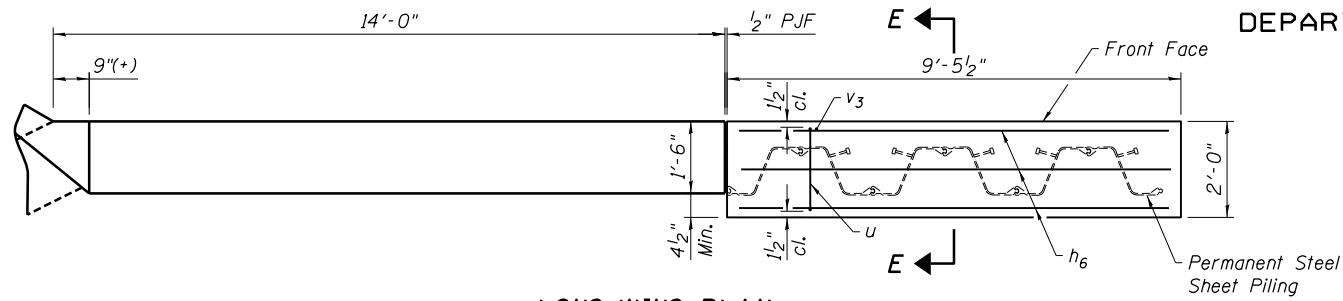
BOX CULVERT DETAILS
STRUCTURE NO. 051-2008

ESCA
CONSULTANTS, INC.

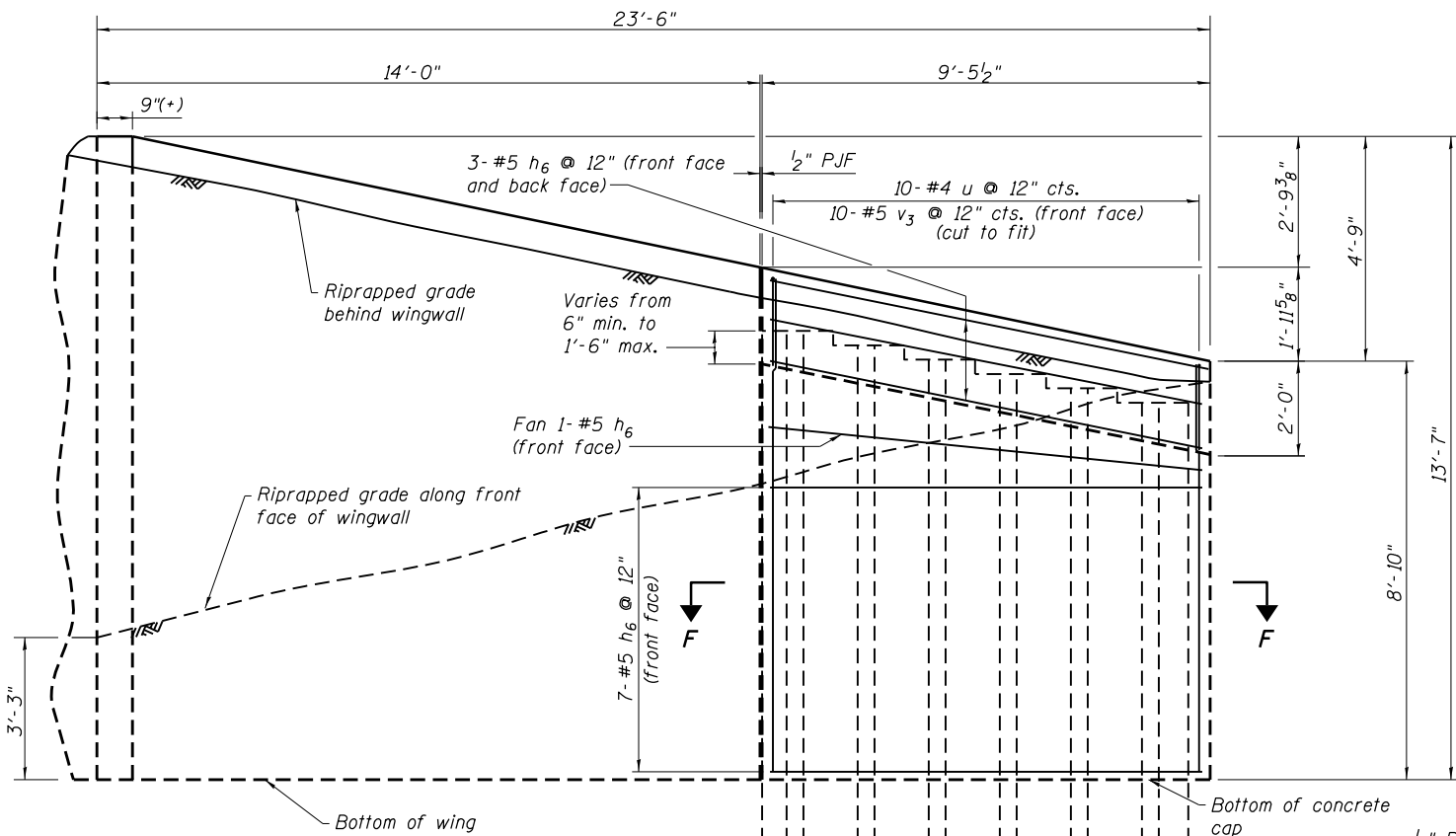
DESIGNED BY: ELH 03/10
DRAWN BY: DWH/HAS 03/10
CHECKED BY: ELH 04/10
APPROVED BY: RDP 04/10

SHEET NO. 4 7 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	781	109B-1	LAWRENCE	36	20
CONTRACT NO. 74105					
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

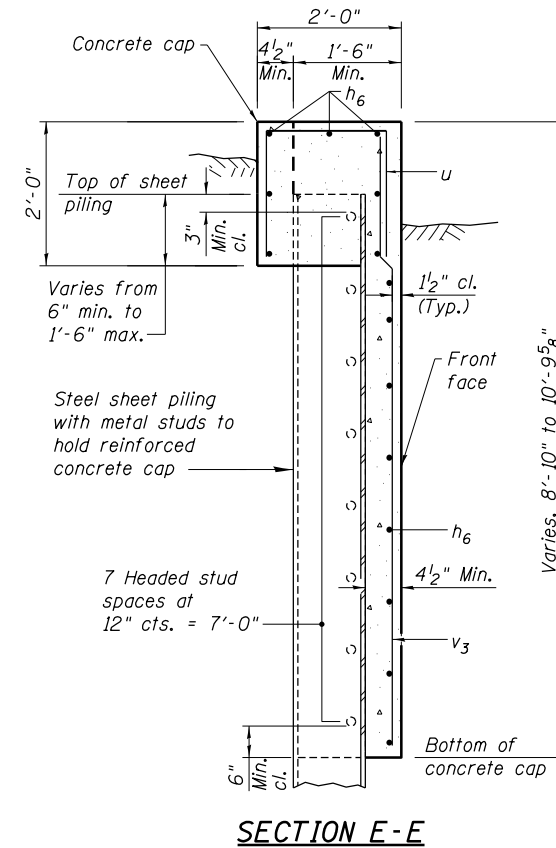
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



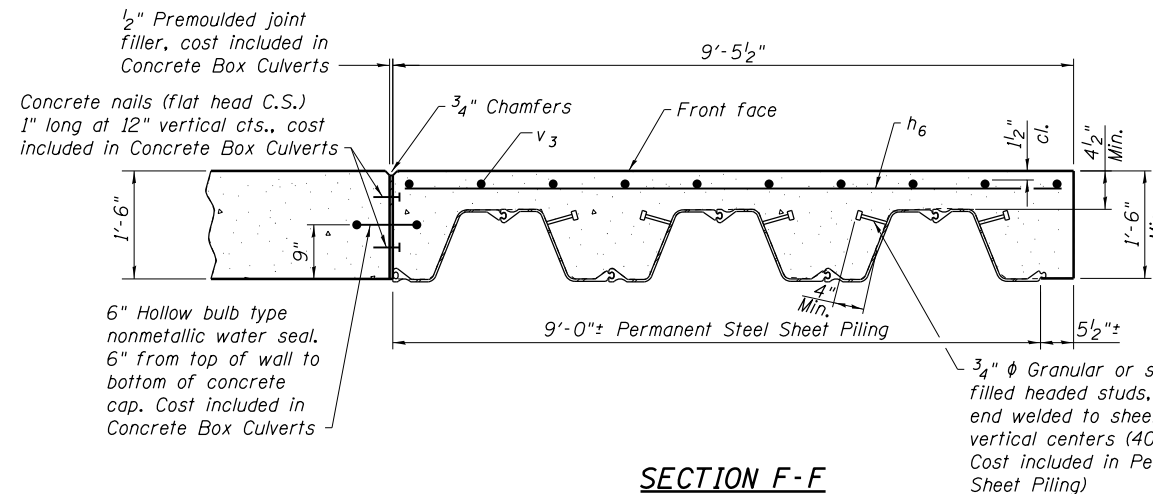
LONG WING PLAN



LONG WING ELEVATION
(Looking at Back Face)



SECTION E-E



SECTION F-F

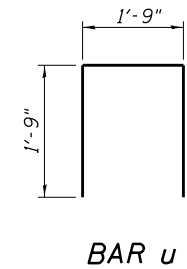
BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
h ₆	28	#5	9'-2"	—
u	20	#4	5'-3"	□
v ₃	10	#5	18'-11"	—
Concrete Box Culverts			Cu. Yd.	8.5
Reinforcement Bars			Pound	540
Permanent Steel Sheet Piling			Sq. Ft.	402

NOTES

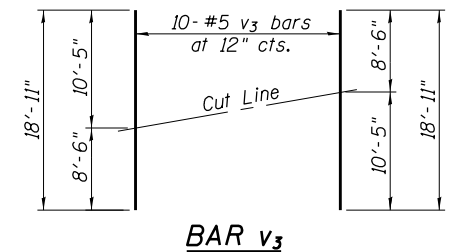
- The quantity of concrete for the sheet piling cap is included in Concrete Box Culverts.
- The cost of supplying and installing the shear studs is included in Permanent Steel Sheet Piling.

CONSTRUCTION SEQUENCE

- Excavate site for box culvert wingwall and steel sheet piling wall.
- Backfill with rock fill as shown on the plans.
- Construct box culvert wingwall and include water seal in concrete pour.
- Install 1/2" P.J.F. with concrete nails.
- Install Permanent Steel Sheet Piling.
- Backfill behind box culvert wingwall and Permanent Steel Sheet Piling.
- Construct concrete cap.
- Complete backfill in front of and behind wall.
- Install stone riprap around wall.



BAR u



BAR v₃

FIELD CUTTING DIAGRAM

Order v₃ full length. Cut as shown and use remainder of bars in opposite wall.

STEEL SHEET PILING WALL DETAILS
STRUCTURE NO. 051-2008

ESCA
CONSULTANTS, INC.

DESIGNED BY: ELH 03/10
DRAWN BY: DWH/HAS 03/10
CHECKED BY: ELH 06/10
APPROVED BY: RDP 06/10

Permanent Steel Sheet Piling
minimum effective section
modulus = 25 in.³/ft.

Minimum tip elevation
of sheet piling

Elev. 391.18 SE wall
Elev. 391.28 NW wall

SHEET NO. 5 7 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	781	109B-1	LAWRENCE	36	21
CONTRACT NO. 74105					
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



SOIL BORING LOG

Page 1 of 3 Date 10/14/08

ROUTE FAP 781 (IL 33) DESCRIPTION Un-Named Stream LOGGED BY E. Sandschafer SECTION 109B-1 LOCATION NW 1/4, SEC. 33, TWP. 5 N, RNG. 10 W, 3 PM COUNTY Lawrence DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

Table with columns for Soil Description, Depth (ft), Blows (B), SPT (S), Blow Count (C), Moisture (%) (M), and other parameters. Includes data rows for various soil layers like '5' asphalt on 9 1/4" concrete pavement' and 'Loose, wet, brown, fine grained, SAND w/ few small Gravel.'

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 2 of 3 Date 10/14/08

ROUTE FAP 781 (IL 33) DESCRIPTION Un-Named Stream LOGGED BY E. Sandschafer SECTION 109B-1 LOCATION NW 1/4, SEC. 33, TWP. 5 N, RNG. 10 W, 3 PM COUNTY Lawrence DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

Table with columns for Soil Description, Depth (ft), Blows (B), SPT (S), Blow Count (C), Moisture (%) (M), and other parameters. Includes data rows for 'Medium, wet, brown, fine grained, SAND. 5% passing #200 sieve.' and 'Very dense, moist, gray, CLAY SHALE.'

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



ROCK CORE LOG

Page 3 of 3 Date 10/14/08

ROUTE FAP 781 (IL 33) DESCRIPTION Un-Named Stream LOGGED BY E. Sandschafer SECTION 109B-1 LOCATION NW 1/4, SEC. 33, TWP. 5 N, RNG. 10 W, 3 PM COUNTY Lawrence CORING METHOD Rotary, surf set diamond bit

Table with columns for Depth (ft), Core Diameter (in), Top of Rock Elev. (ft), Core Description, and other parameters. Includes data rows for 'Soft, gray, slightly weathered, SANDSTONE, scratches easily.' and 'Rock core B1C1 from 81.7' to 82.3' depth Qu = 948 tsf.'

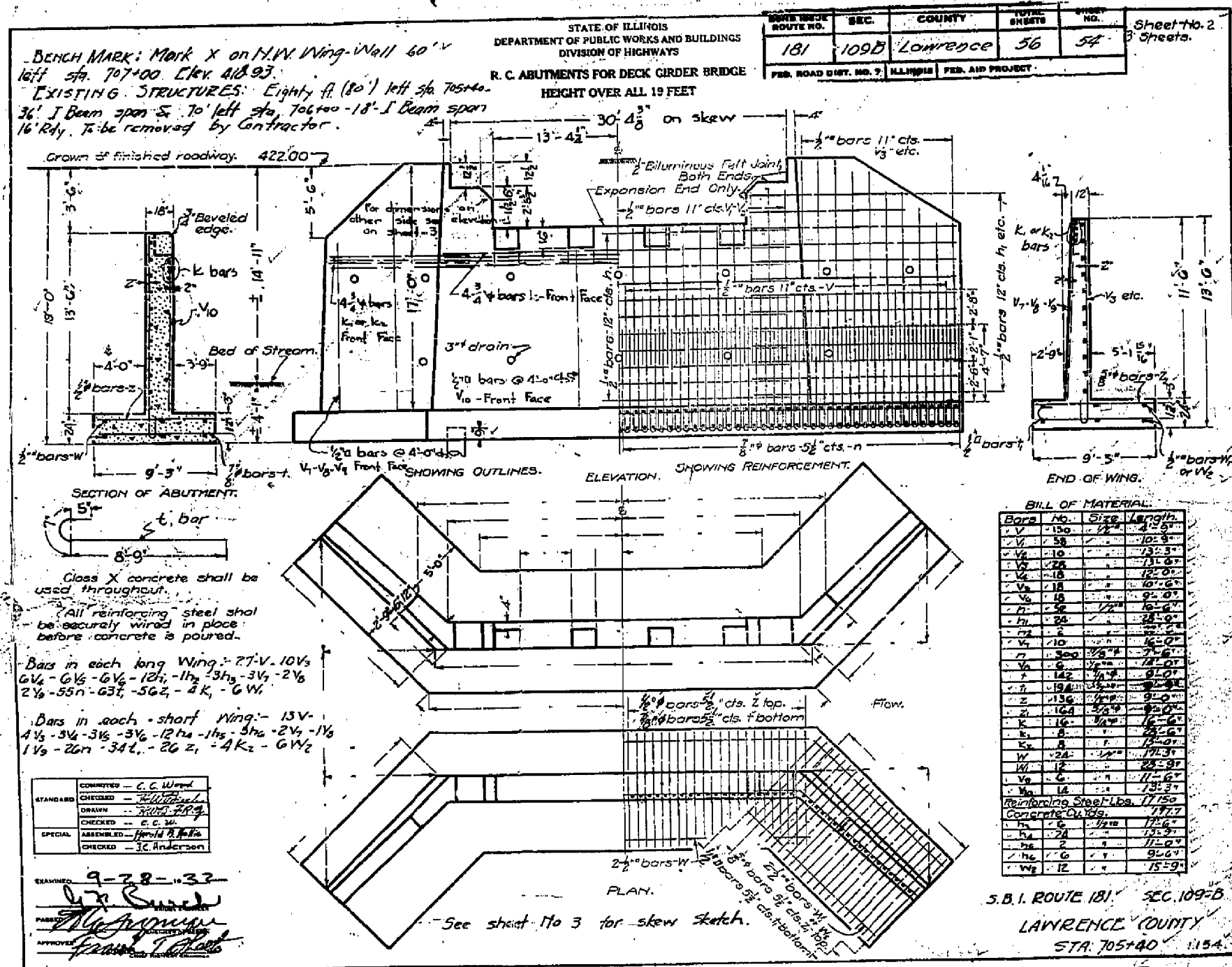
Color pictures of the cores Available on request Cores will be stored for examination until 10/14/09 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938) BBS, form 138 (Rev. 8-99)



DESIGNED BY: RDP/ELH 03/10 DRAWN BY: DWH/HAS 03/10 CHECKED BY: ELH 03/10 APPROVED BY: RDP 03/10

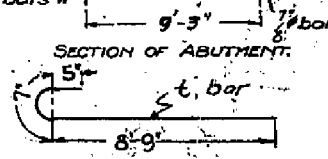
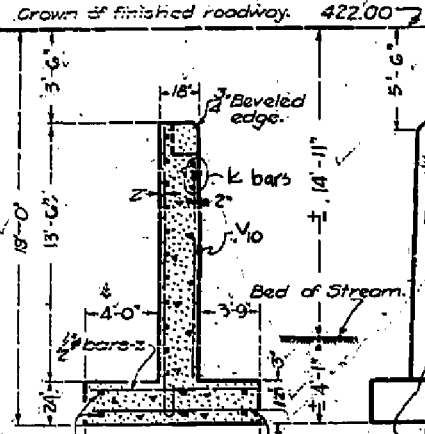
BORING LOGS STRUCTURE NO. 051-2008

Table with columns for SHEET NO. 6, F.A.P. RTE., SECTION 109B-1, COUNTY LAWRENCE, TOTAL SHEETS 36, SHEET NO. 22, CONTRACT NO. 74105, FED. ROAD DIST. NO., ILLINOIS FED. AID PROJECT



ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.	Sheet No. 2 3 Sheets.
181	109B	Lawrence	56	54	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

BENCH MARK: Mark X on N.W. Wing Wall 60' left sta. 707+00 Elev. 412.93.
 EXISTING STRUCTURES: Eighty ft. (80') left sta. 705+40.
 36' I Beam span & 70' left sta. 706+00 - 18' I Beam span
 16' Rd. to be removed by Contractor.



Class X concrete shall be used throughout.
 All reinforcing steel shall be accurately wired in place before concrete is poured.

Bars in each long wing: 27-V, 10W, 6V, 6V, 6V, 12h, 11h, 3h, 3V, 2V, 2V, 55n, 63t, 56z, 4K, 6W.
 Bars in each short wing: 13V, 4V, 3V, 3V, 3V, 12h, 11h, 3h, 2V, 1V, 1V, 26n, 34t, 26z, 4K, 6W.

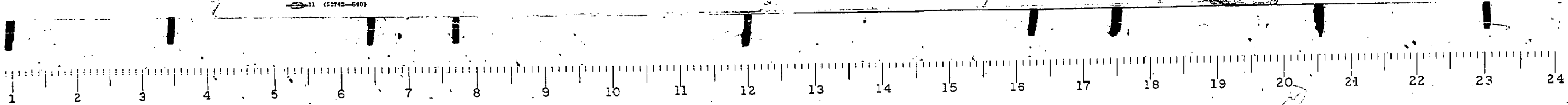
COMPILED	C.C. Wood
CHECKED	H. Anderson
DRAWN	H. Anderson
CHECKED	C.C. Wood
SPECIAL	ASSEMBLED - Harold B. Hall
CHECKED	J.C. Anderson

EXAMINED: 9-28-33
 H. Anderson
 APPROVED: H. Anderson

BILL OF MATERIAL

Bars	No.	Size	Length
V	150	1/2"	12'-5"
V	58	3/8"	10'-8"
V	10	1/2"	13'-3"
V	28	3/8"	13'-0"
V	18	1/2"	12'-0"
V	18	3/8"	10'-0"
V	18	1/2"	9'-0"
h	52	1/2"	16'-0"
h	28	3/8"	28'-0"
h	2	3/8"	28'-0"
h	10	1/2"	16'-0"
n	300	3/8"	12'-0"
W	6	1/2"	12'-0"
W	142	3/8"	9'-0"
W	19	1/2"	9'-0"
W	136	3/8"	9'-0"
Z	16	1/2"	16'-0"
K	16	1/2"	16'-0"
K	8	1/2"	13'-0"
W	24	1/2"	19'-3"
W	12	3/8"	23'-9"
W	6	1/2"	11'-6"
W	12	3/8"	13'-3"
Reinforcing Steel lbs.			17,150
Concrete cu. yds.			187.7
h	6	1/2"	17'-6"
h	24	3/8"	13'-3"
h	2	3/8"	11'-0"
h	6	1/2"	9'-0"
W	12	3/8"	15'-9"

S.B.I. ROUTE 181 SEC. 109-B
 LAWRENCE COUNTY
 STA. 705+40 1154.

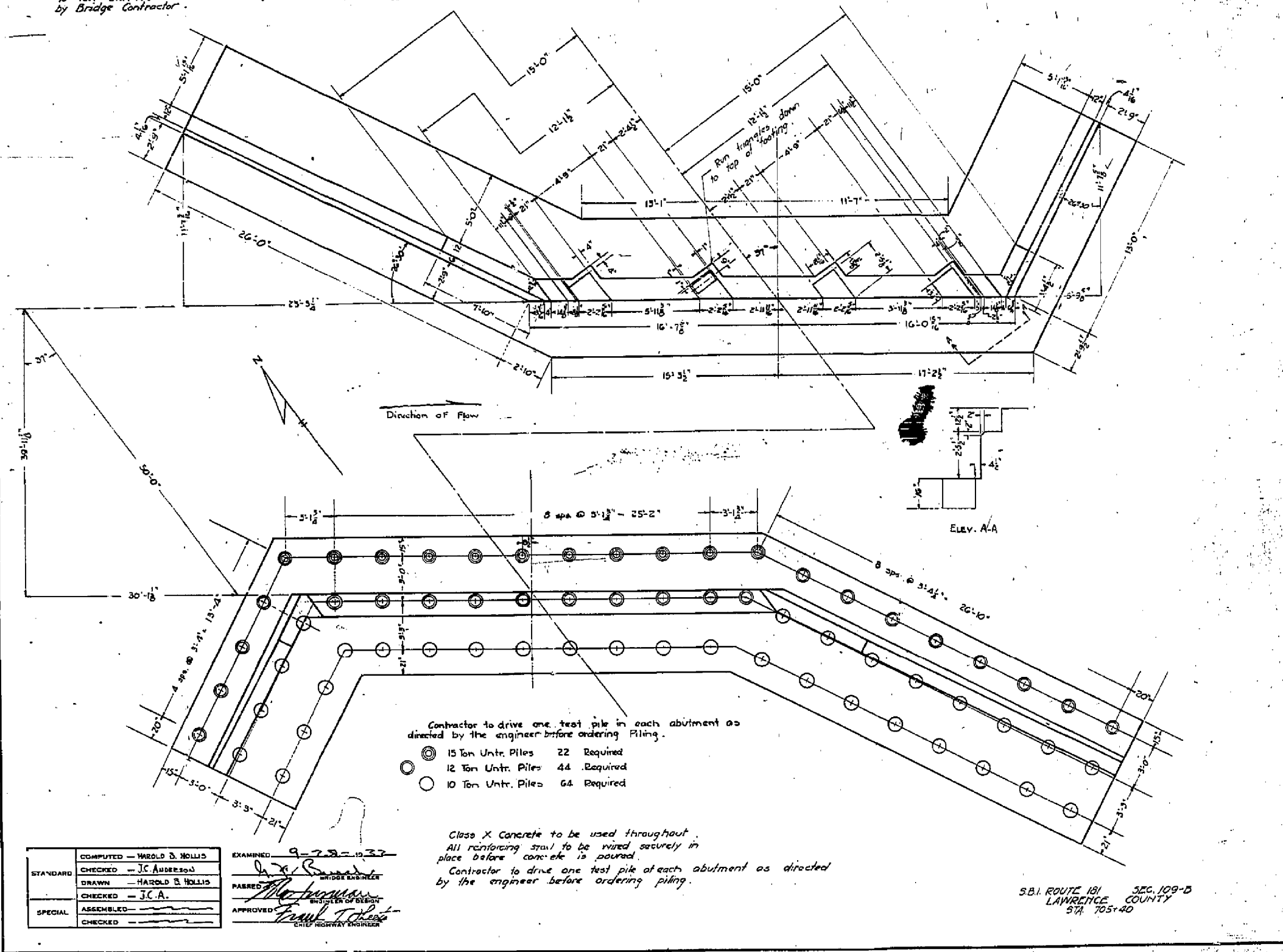


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PLOT SCALE: 100.0000' / in.		DRAWN: -	REVISED: -		SCALE: N/A	SHEET 1	OF 3 SHEETS	STA.	TO STA.	CONTRACT NO. 74105		
PLOT DATE: 1/28/2015		CHECKED: -	REVISED: -		ILLINOIS FED. AID PROJECT							
DATE: -		APPROVED: -	REVISED: -									

Bench Mark: Mark X on N.W. Wing-Wall 60' Lt. sta. 707+00, Elev 48.93.
 Existing Structures: Eighty feet (80') left sta. 705+40 - 36" I-Beam span 5'
 70' left sta. 706+00 - 18" I-Beam span, 16' roadway. To be removed
 by Bridge Contractor.

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BUILDINGS
 DIVISION OF HIGHWAYS

DATE	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
1/81	109B	Lawrence	36	25
SHEET NO. 3 3 SHEETS				



COMPUTED	HAROLD B. HOLLIS	EXAMINED	9-23-1937
CHECKED	J.C. ANDERSON	DRAWN	HAROLD B. HOLLIS
DRAWN	HAROLD B. HOLLIS	CHECKED	J.C.A.
SPECIAL	ASSEMBLED	APPROVED	FRANK T. CHASE CHIEF HIGHWAY ENGINEER

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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 1/28/2015	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

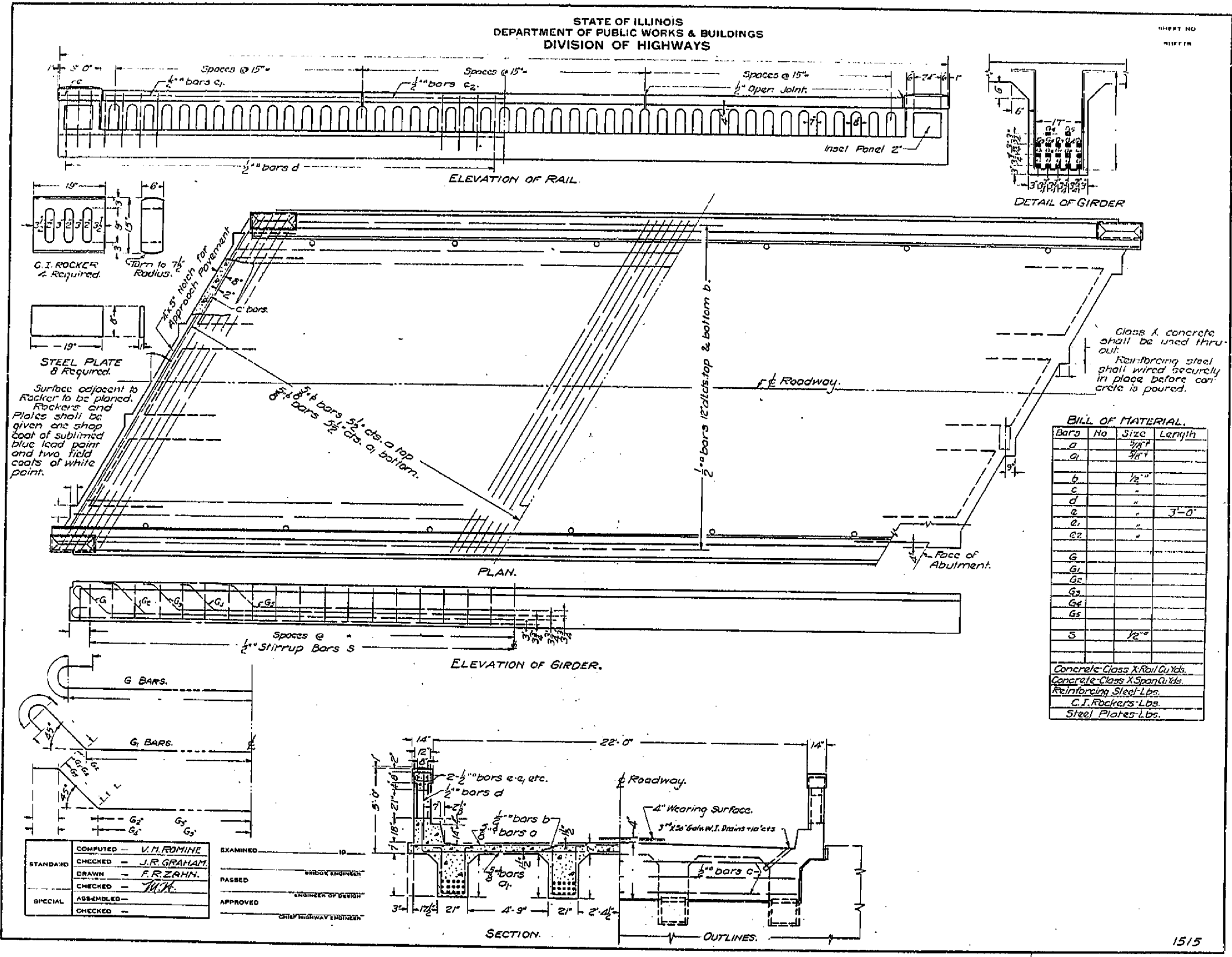
EXISTING STRUCTURE PLANS

SCALE: N/A SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	25
CONTRACT NO. 74105				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET NO.
1515



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Default	PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -
	PLOT DATE = 1/28/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS

SCALE: N/A SHEET 3 OF 3 SHEETS STA. TO STA.

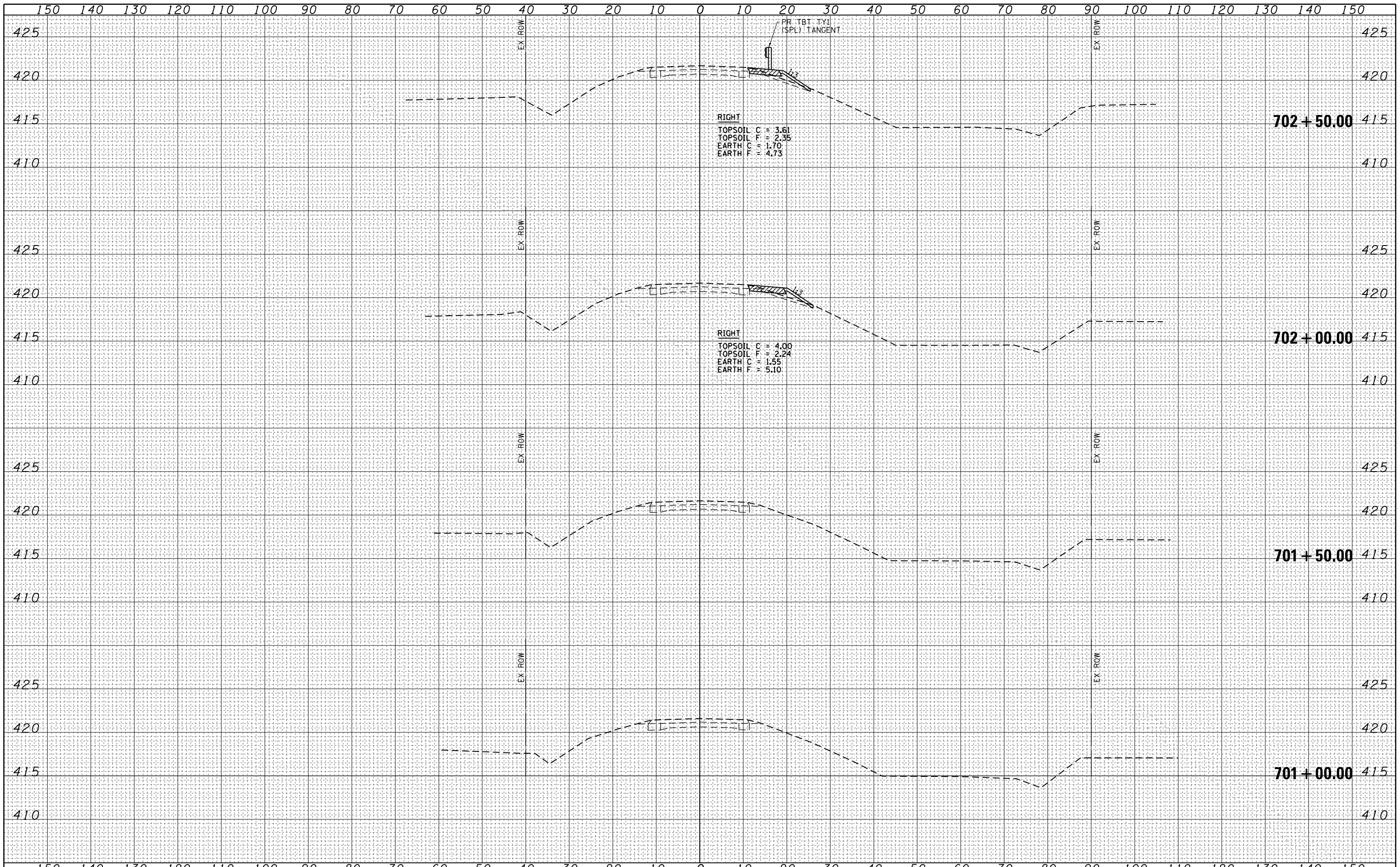
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	26
CONTRACT NO. 74105				

ILLINOIS FED. AID PROJECT



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

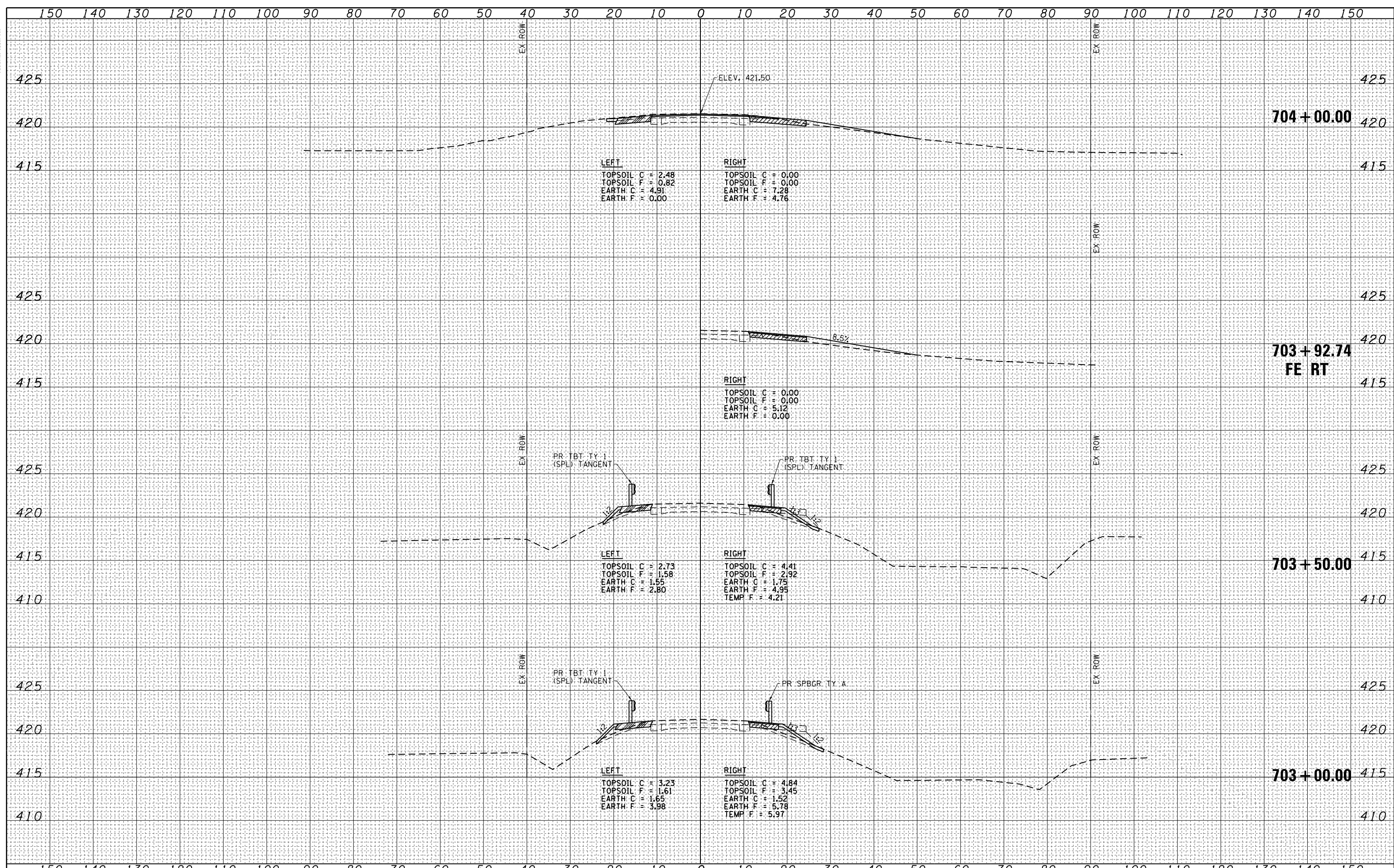
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NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED





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NO. AREAS	
NO. CHECKED	

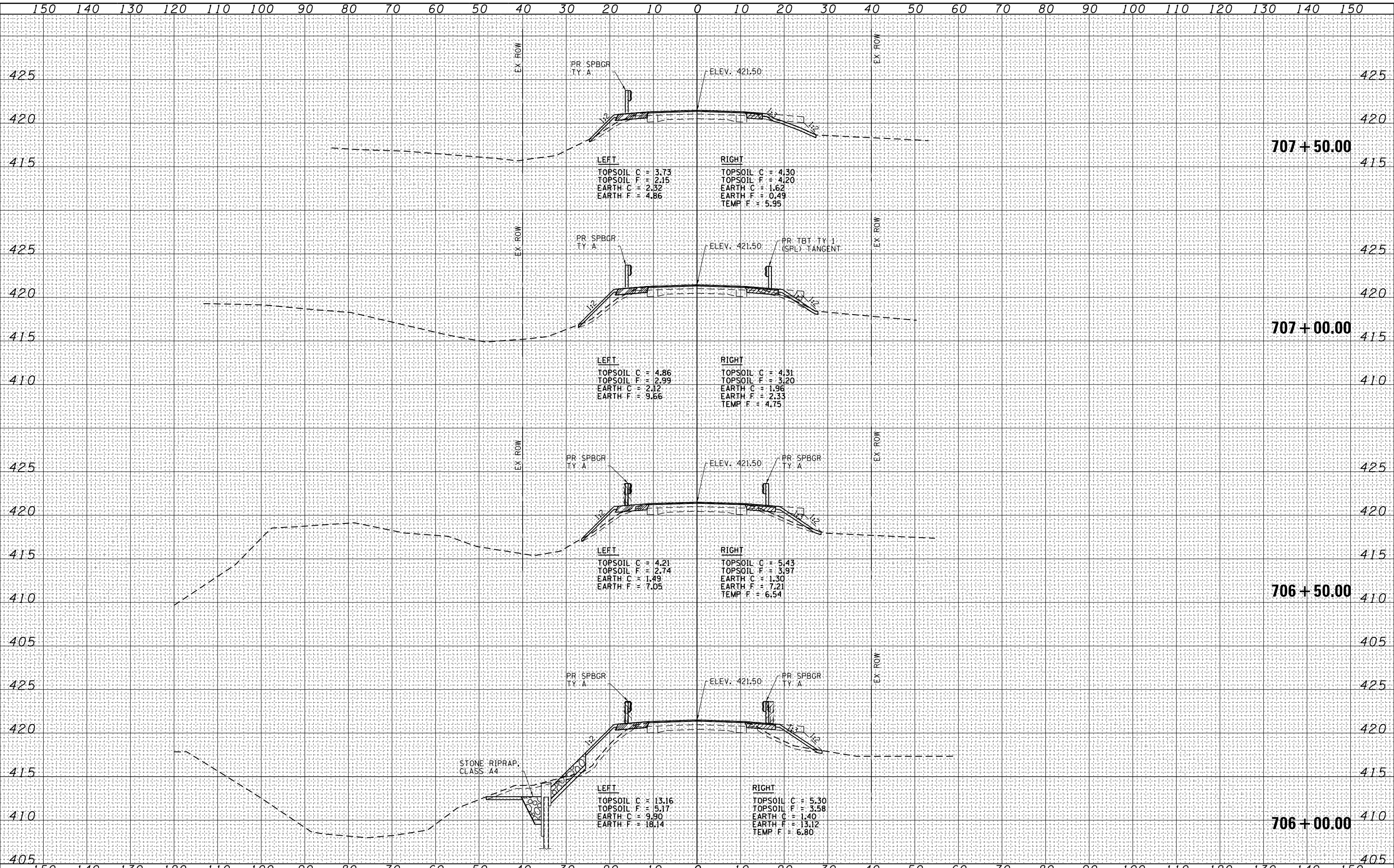
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DATE	
BY	
NO.	
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NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

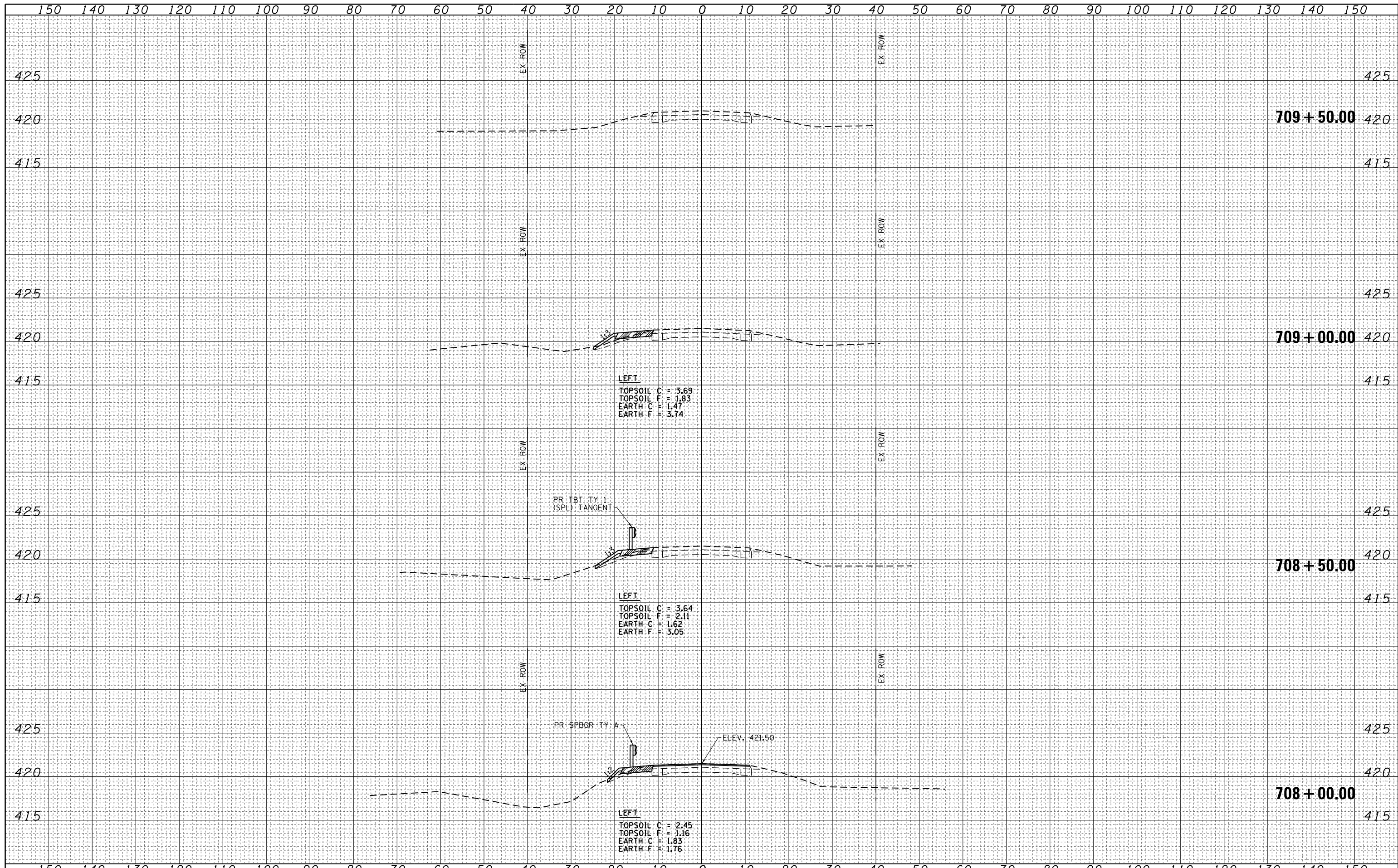
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BY	
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NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED



FILE NAME =	USER NAME = teasleyck	DESIGNED - DAJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FAP 781 (IL 33) CROSS SECTIONS			F.A.P. RTE. 781	SECTION 109B-1	COUNTY LAWRENCE	TOTAL SHEETS 36	SHEET NO. 30
B:\Projects\pawdb\teasleyck\0121448\0774105-sh-xssh101.dgn		DRAWN - RJT/HAS	REVISED -		SCALE: AS SHOWN	SHEET NO. 4 OF 6 SHEETS	STA. 706+00	TO STA. 707+50	CONTRACT NO. 74105			
PLOT SCALE = 20.0000' / in.		CHECKED - ELH	REVISED -									
PLT DATE = 1/28/2015 9:45:19 AM		DATE - 06/11	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

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

DATE	
BY	
NO.	
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NOTE BOOK	PLOTTED
	TEMPLATE
	AREAS CHECKED



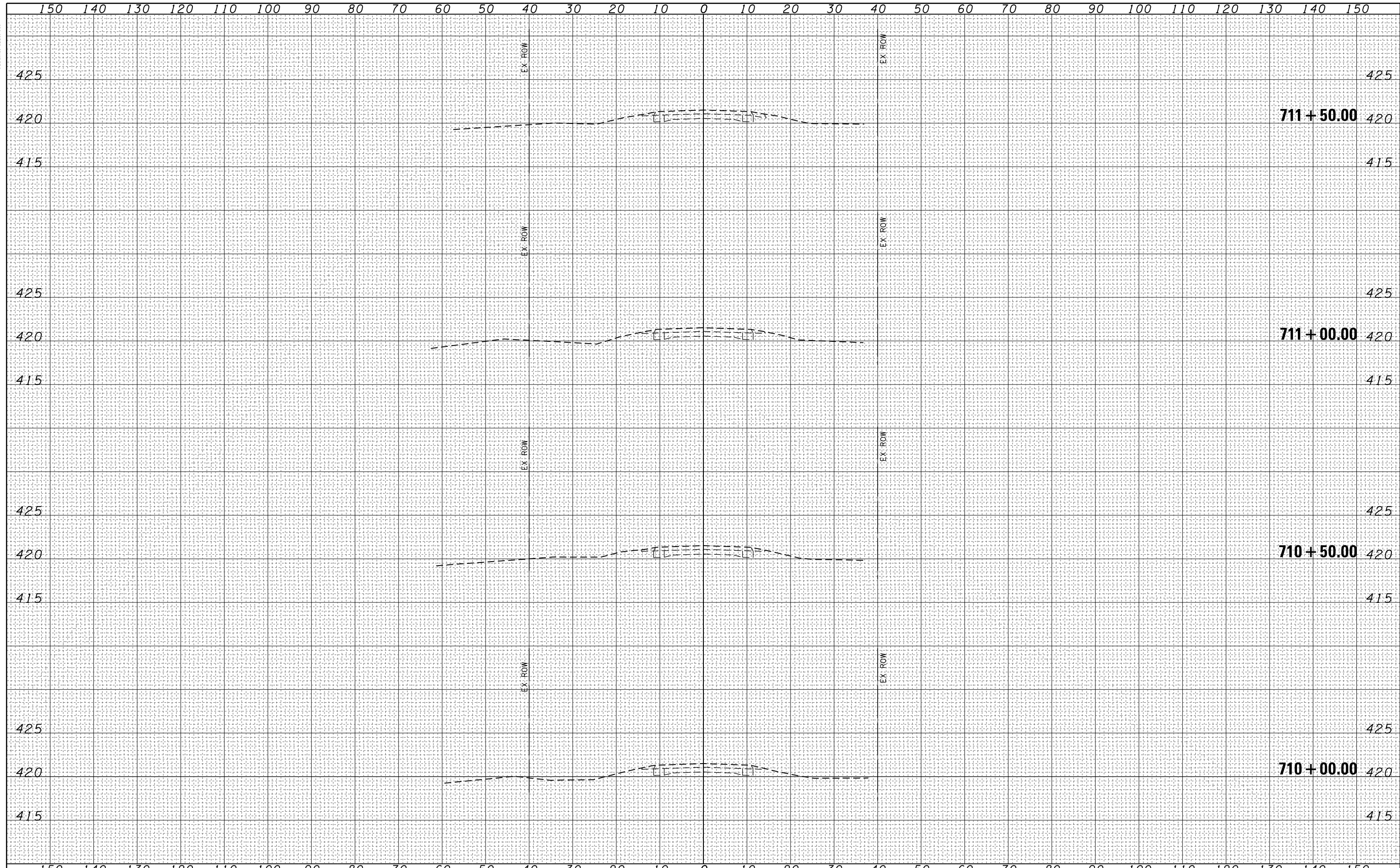
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B:\781\109B-1\pwsdt\teasleyck\d0121448\0774105-sh-xssh01.dgn		DRAWN - RJT/HAS	REVISED -		781	109B-1	LAWRENCE	36	31		
PLOT SCALE = 20.0000' / in.		CHECKED - ELH	REVISED -		CONTRACT NO. 74105						
PLOT DATE = 1/28/2015 9:45:21 AM		DATE - 06/11	REVISED -		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT				

SCALES: (HORIZ) 1"=10' (VERT) 1"=5' SCALE: AS SHOWN SHEET NO. 5 OF 6 SHEETS STA. 708+00 TO STA. 709+50

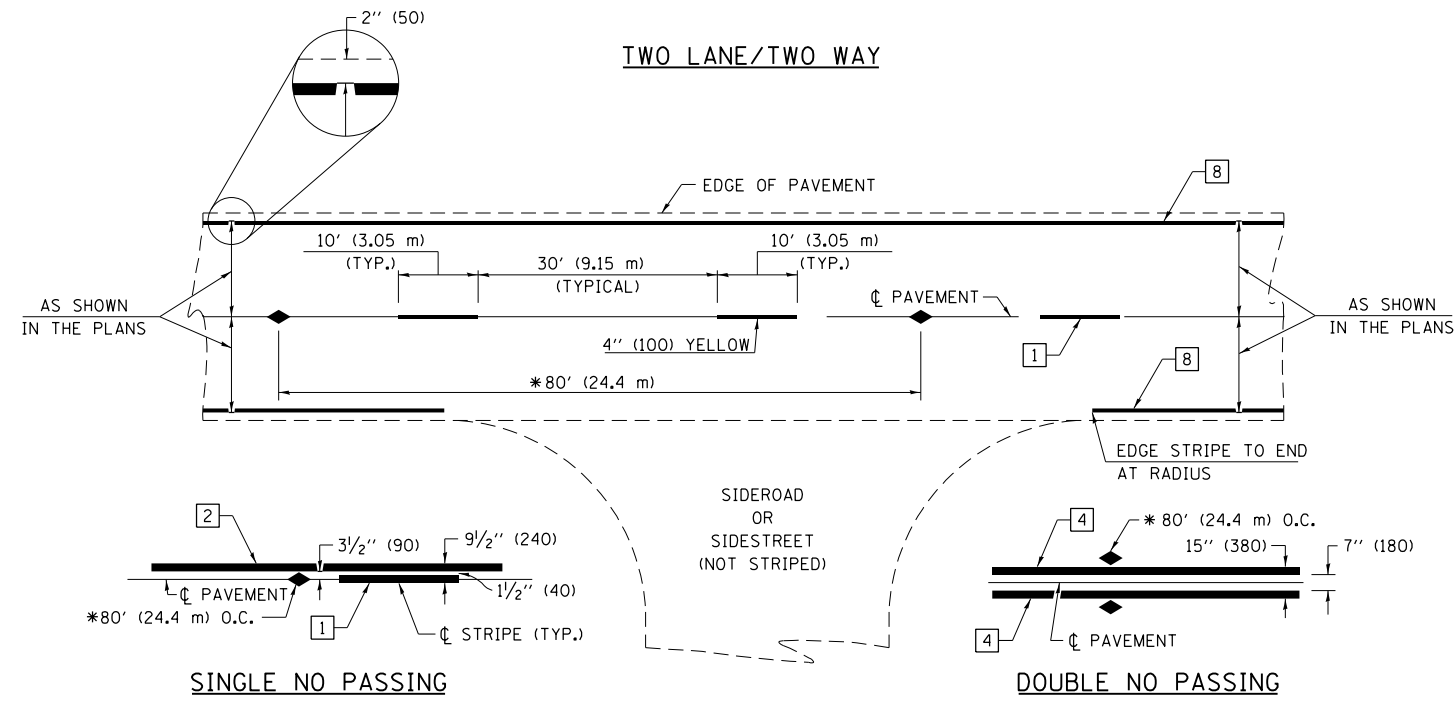


DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
NOTE BOOK NO.	
TEMPLATE AREAS CHECKED	

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



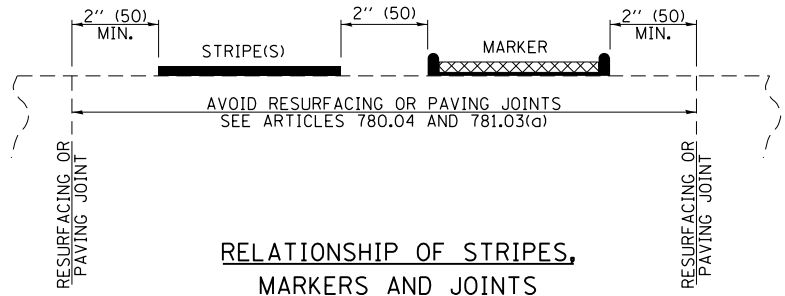
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DRAWN - RJT/HAS					REVISED -	SCALE: AS SHOWN	SHEET NO. 6 OF 6 SHEETS	STA. 710+00	TO STA. 711+50	CONTRACT NO. 74105		
PLOT SCALE = 20.0000' / in.					REVISED -							
CHECKED - ELH					REVISED -							
DATE - 06/11				REVISED -								
PLOT DATE = 1/28/2015 9:45:22 AM												
SCALES: (HORIZ) 1"=10' (VERT) 1"=5'				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								



* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

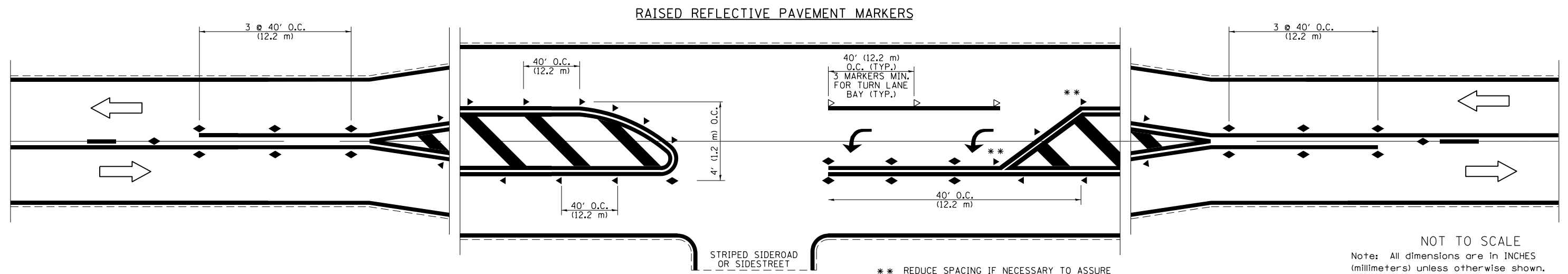
PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 12" (300) SOLID WHITE
- 6 RESERVED
- 7 6" (150) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) PARKING WHITE



TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER



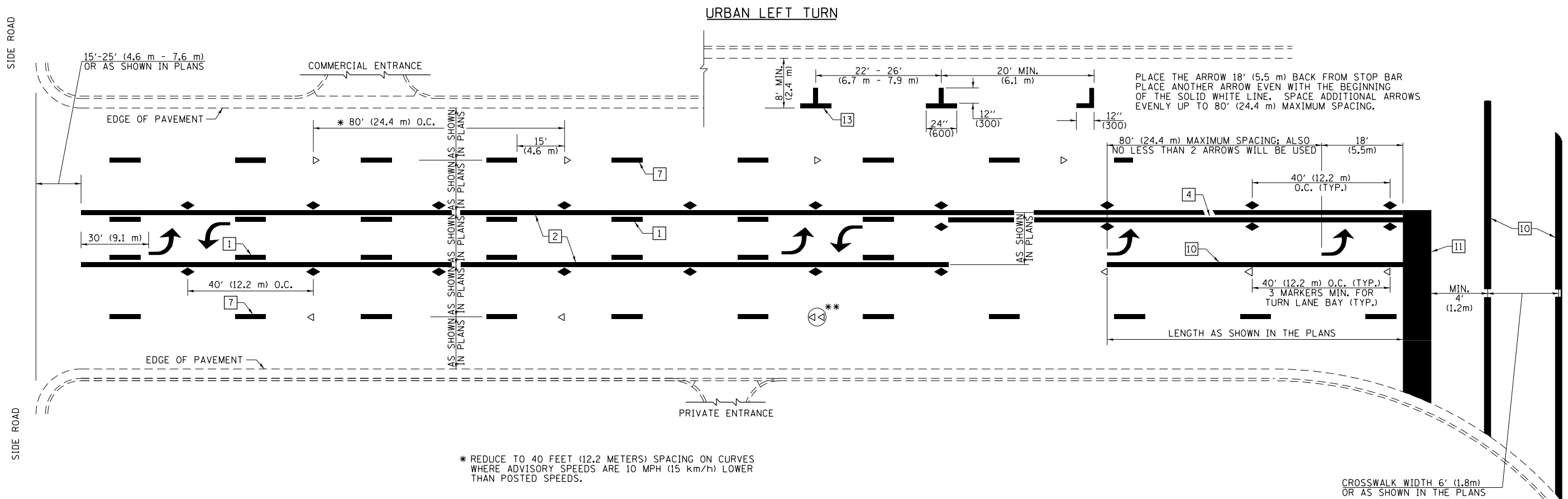
NOT TO SCALE
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = teasleyck	DESIGNED -	REVISED -
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	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -
	PLOT DATE = 1/28/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS
(RURAL & URBAN APPLICATIONS)
SCALE: N/A SHEET NO. 1 OF 4 SHEETS STA. TO STA.

DISTRICT 7 DETAIL NO. 78000001				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	33
			CONTRACT NO. 74105	
ILLINOIS FED. AID PROJECT				



* REDUCE TO 40 FEET (12.2 METERS) SPACING ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

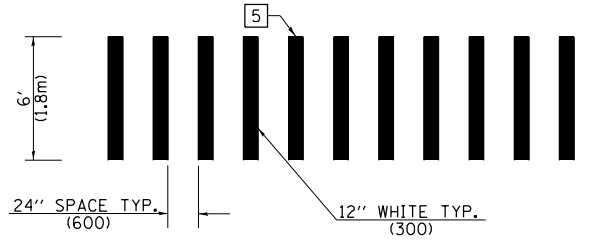
** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

PAVEMENT MARKING LEGEND

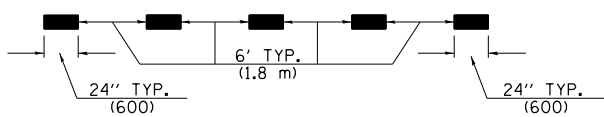
- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 12" (300) SOLID WHITE
- 6 RESERVED
- 7 6" (150) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) PARKING WHITE

GENERAL NOTES

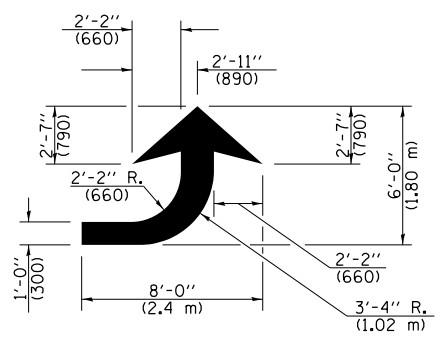
1. TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE. USE A MINIMUM OF TWO PAIRS PER BLOCK.
2. THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
3. THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER.
4. USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)
5. LANE LINE EXTENSIONS SHALL BE THE SAME COLOR AND WIDTH AS THE LANE LINE BEING EXTENDED.



**CROSSWALK DETAIL
(DECATUR CITY LIMITS ONLY)**

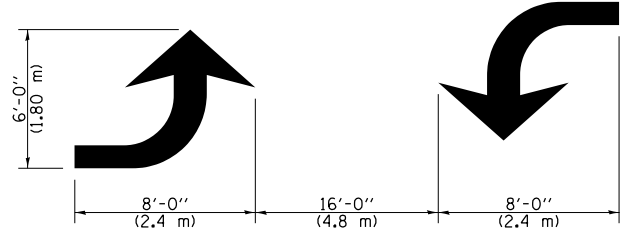


LANE LINE EXTENSIONS



LEFT ARROW

REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ. FT. (1.47 m²)
(WHITE)



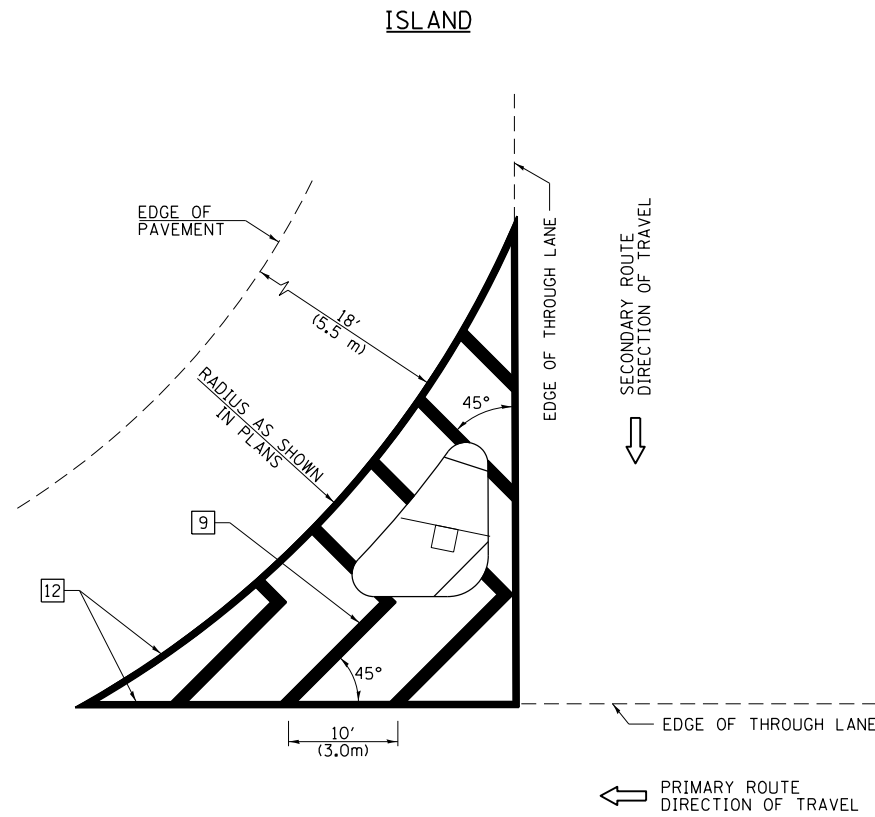
**TYPICAL DOUBLE
TURN ARROWS (WHITE)**

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 7800001

FILE NAME = c:\pwwork\pwwidot\teasleyck\d0121448\0774105-sht-details.dgn	USER NAME = teasleyck	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 100.0000' / 1" =	CHECKED -	REVISED -	REVISED -					781	109B-1	LAWRENCE	36	34
PLOT DATE = 1/28/2015	DATE -	REVISED -	REVISED -		SCALE: N/A SHEET NO. 2 OF 4 SHEETS STA. TO STA.			CONTRACT NO. 74105				
ILLINOIS FED. AID PROJECT												

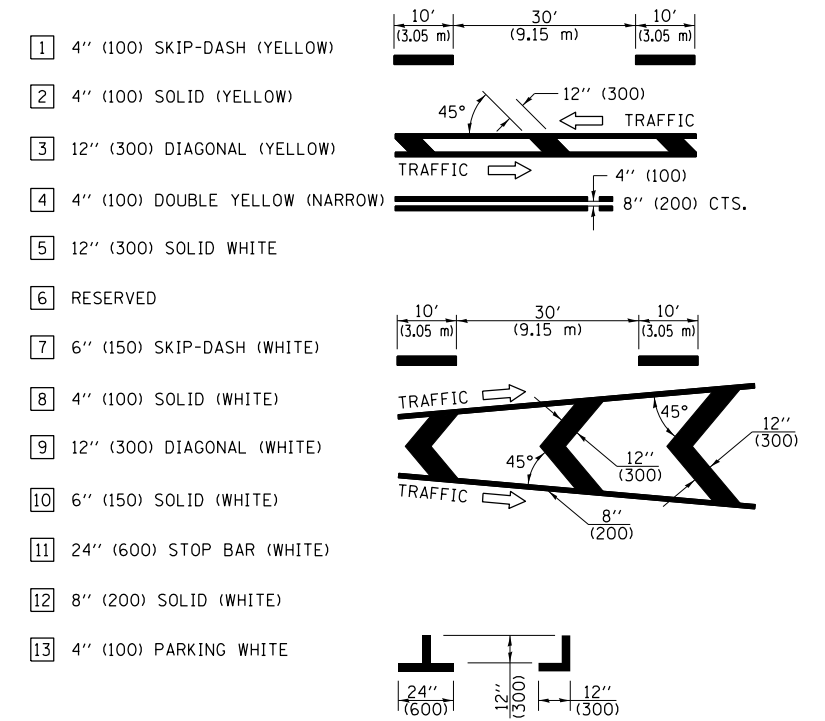


GENERAL NOTES

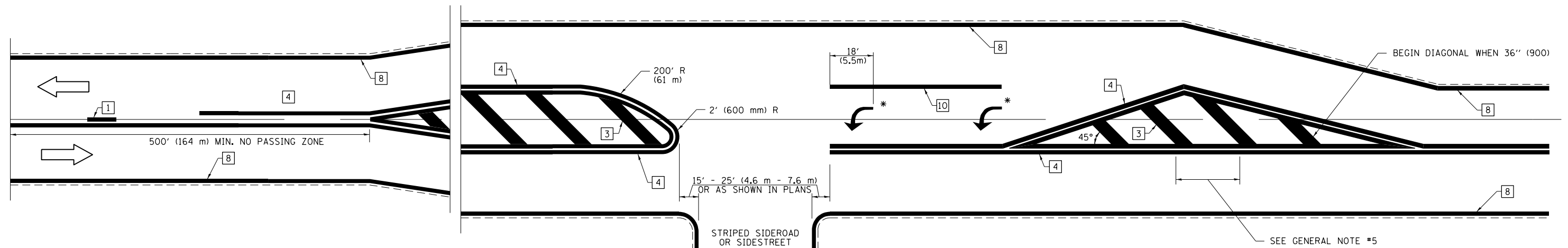
1. RAISED AND CORRUGATED MEDIANS SHALL BE OUTLINED WITH [2] IF PRESENT.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
5. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING:

< 30 MPH (< 50 km/h)	15' (4.5 m)
30-45 MPH (50-75 km/h)	20' (6.0 m)
> 45 MPH (> 75 km/h)	30' (9.0 m)

PAVEMENT MARKING LEGEND



RURAL LEFT TURN STRIPING



* PLACE AN ARROW 18' (5.5 m) BACK FROM STOP BAR. PLACE ANOTHER ARROW EVEN WITH THE BEGINNING OF THE SOLID WHITE LINE. SPACE ADDITIONAL ARROWS EVENLY UP TO 80' (24.4 m) MAXIMUM SPACING. USE MINIMUM OF 2 ARROWS.

NOT TO SCALE
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 7800001

FILE NAME =	USER NAME = teasleyck	DESIGNED -	REVISED -
ci:\pw\work\p\idot\teasleyck\d0121448\0774105-sht-details.dgn	4105-sht-details.dgn	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / 1in.		CHECKED -	REVISED -
PLOT DATE = 1/28/2015		DATE -	REVISED -

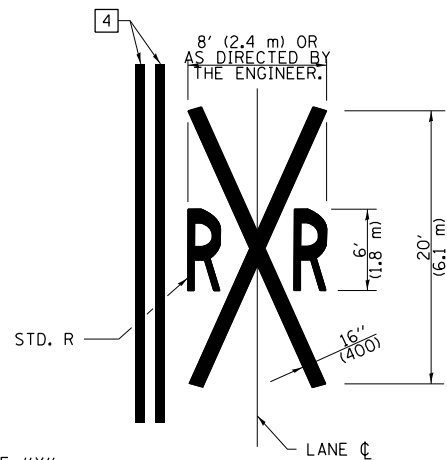
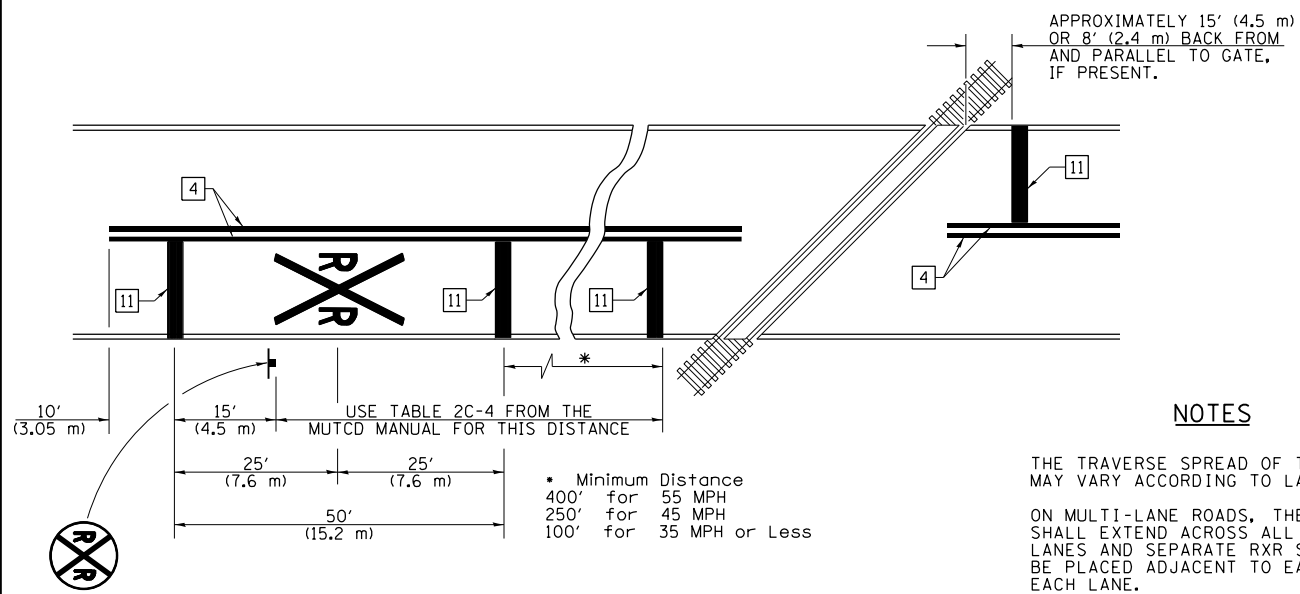
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS
(RURAL & URBAN APPLICATIONS)**

SCALE: N/A SHEET NO. 3 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	35
CONTRACT NO. 74105				
ILLINOIS FED. AID PROJECT				

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

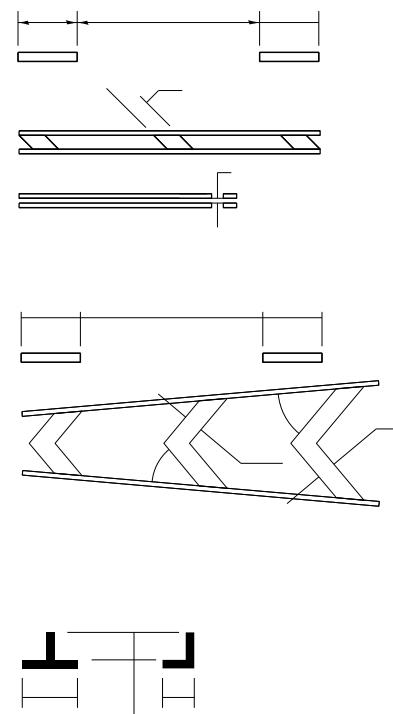


NOTES

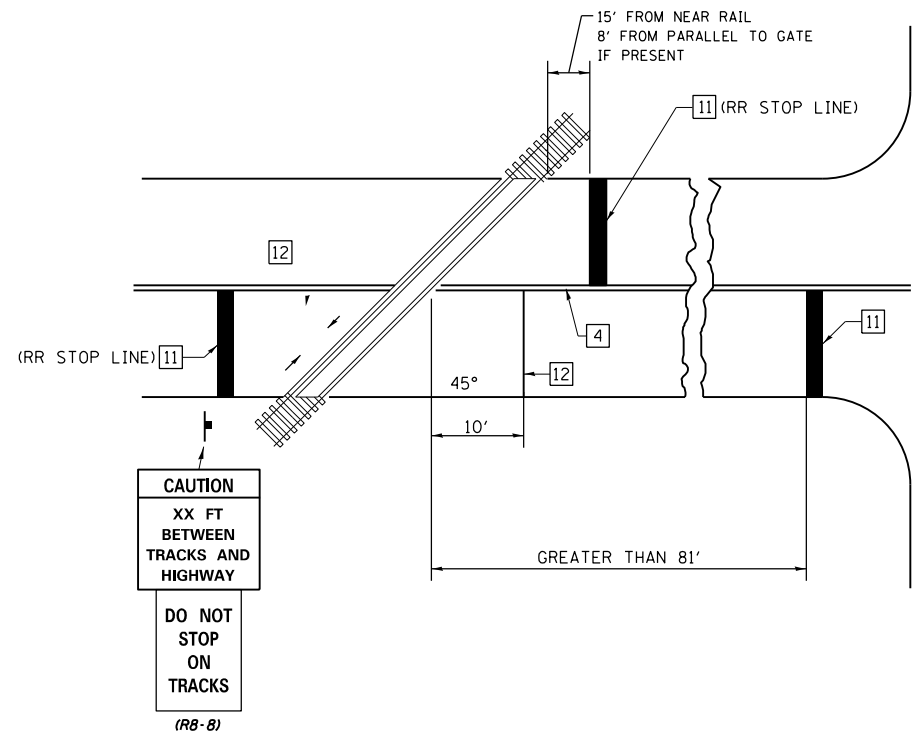
THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

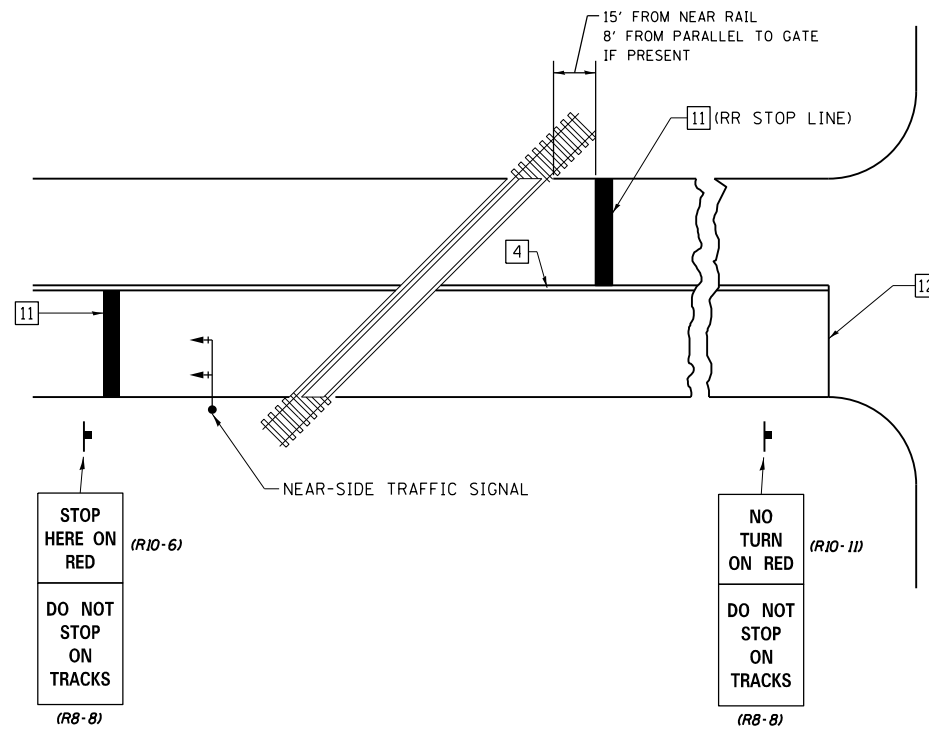
WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.



RAILROAD CROSSING WITH INTERCONNECT ONLY



RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



GENERAL NOTES

SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = teasleyck	DESIGNED -	REVISED -
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		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS
(RURAL & URBAN APPLICATIONS)

SCALE: N/A SHEET NO. 4 OF 4 SHEETS STA. TO STA.

DISTRICT 7 DETAIL NO. 7800001

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	36	36
CONTRACT NO. 74105				
ILLINOIS FED. AID PROJECT				