08-01-14 LETTING ITEM 094

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34 ~~37~~	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 74105		

D-97-034-05 ~~37~~ 34+1=35

INDEX OF SHEETS

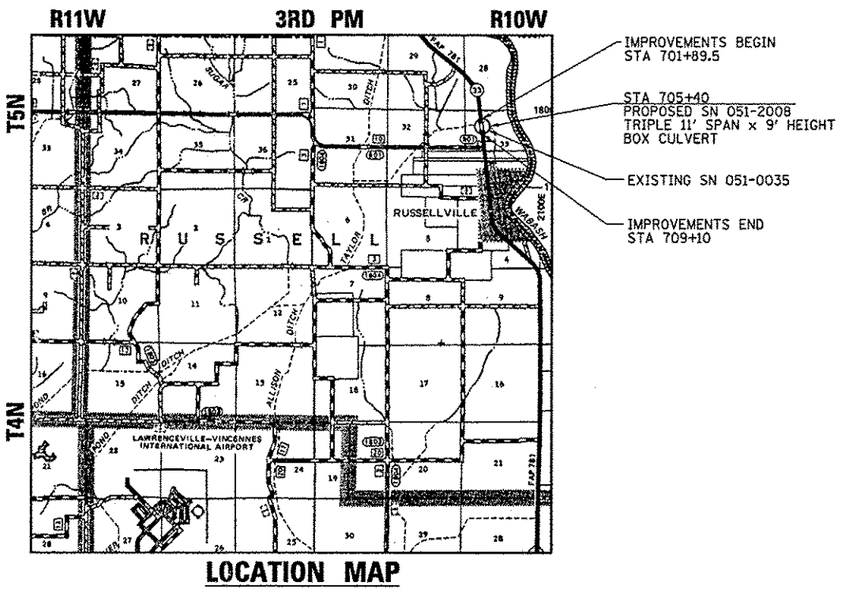
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

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

LAWRENCE COUNTY
C - 97 - 069 - 05

STRUCTURE REPLACEMENT OVER UNNAMED STREAM



LOCATION MAP

SCALE
0 1 2 3 4 5 6 MILES
0 5000 10000 15000 20000 25000 30000 FEET

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%**

0 20 40 60
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

DISTRICT 7 NO. (217) 342-3951
PROJECT ENGINEER: TOM RONAN
UNIT CHIEF:
TOWNSHIP: RUSSELL
CONTRACT NO.: 74105

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

RICHARD D. PAINE 37421 LICENSED PROFESSIONAL ENGINEER OF STATE OF ILLINOIS

DATE: 063011
ILLINOIS PROFESSIONAL LICENSE NO. 37421
(EXPIRATION DATE: 11-30-11)

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

DESIGN DESIGNATION
N.A.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED July 2 20 14
Roger L. Driskell /cw
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
June 27 20 14
John D. Baranzelli P.E. /cw
ENGINEER OF DESIGN AND ENVIRONMENT
June 27 20 14
Omer Osman P.E. /cw
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 34:

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
515001-03	NAME PLATE FOR BRIDGES
630001-10	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENINGFOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
635001-01	DELINEATORS
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
701201-04	LANE CLOSURE, 2L2W, DAY ONLY
701301-04	LANE CLOSURE, 2L2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L2W, MOVING OPERATIONS - DAY ONLY
701321-13	LANE CLOSURE, 2L2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L2W, PAVEMENT WIDENING
701901-03	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS, & DELINEATORS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-04	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
442201-03	CLASS C AND D PATCHES

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 BASE COURSE WIDENING, STRUCTURE REMOVAL, BOX CULVERT CONSTRUCTION, EARTHWORK, 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.

ANY EXCAVATION NECESSARY FOR CONSTRUCTION OF THE PCC BASE COURSE WIDENING, 8" SHALL BE INCLUDED IN THE COST OF THE PCC BASE COURSE WIDENING, 8" AND NO ADITIONAL COMPENSATION WILL BE ALLOWED. PCC BASE COURSE WIDENING EXCEEDING 6' IN WIDTH SHALL BE PAID FOR AS PCC BASE COURSE WIDENING OF THE THICKNESS SPECIFIED.

PCC BASE COURSE WIDENING SHALL BE MILLED TO THE SAME DEPTH AS THE ADJACENT ROADWAY TO FACILITATE CONSTRUCTION OF HMA SHOULDERS. THIS WORK WILL BE PAID FOR AS PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH). MILLING BUTT JOINTS WILL NOT BE PAID FOE SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH.

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.

REMOVAL OF TEMPORARY CONCRETE BARRIER FROM THE PROJECT SITE SHALL BE CONSIDERED INCLUDED IN THE TEMPORARY CONCRETE BARRIER PAY ITEMS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR REMOVING THE TEMPORARY CONCRETE BARRIER.

THE PAY ITEM TEMPORARY RAMP HAS BEEN INCLUDED FOR THE CONSTRUCTION OF TEMPORARY RAMPS IN ACCORDANCE WITH ARTICLE 406.08 OF THE STANDARD SPECIFICATIONS. THE COST PER SQUARE YARD SHALL INCLUDE BOTH THE INSTALLATION AND THE REMOVAL OF THE TEMPORARY RAMPS.

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

EXISTING TRAFFIC BARRIER TERMINALS TO BE REMOVED SHALL BE PAID FOR AS GUARDRAIL REMOVAL.

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. THE COST SHALL BE INCLUDED IN THE PAY ITEM FOR STONE RIPRAP, CLASS A4.

GENERAL NOTES (Cont'd)

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 909 FEET OF WHITE AND 200 FEET OF YELLOW.

ALL RAISED REFLECTIVE PAVEMENT MARKERS ARE TWO-WAY AMBER MARKERS.

LENSES ON THE RAISED REFLECTIVE PAVEMENT MARKERS IN THE TAPER AREAS SHALL BE REMOVED, REMOVING, STORING, AND REINSTALLATION OF THE LENSES SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

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/SQ FT
HOT-MIX ASPHALT	112	LBS/SQ YD/INCH

HMA MIXTURES REQUIREMENTS

MIXTURE USE:	SURFACE COURSE	BASE COURSE, 10"	HOT-MIX ASPHALT SHOULDERS
APPLICATION:	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	HOT-MIX ASPHALT BASE COURSE	HOT-MIX ASPHALT SHOULDERS
PG GRADE:	PG64-22	PG64-22	PG64-22
DESIGN AIR VOIDS:	4.0% AT NDESIGN = 70	4.0% AT NDESIGN = 70	4.0% AT NDESIGN = 30
MIXTURE COMPOSITION:	IL-9.5	IL-19.0	IL-19.0L
FRICTION AGGREGATE:	MIXTURE C	NA	NA

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, STANDARDS AND GENERAL NOTES

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	34	2
		CONTRACT NO. 74105		
	ILLINOIS FED. AID PROJECT			

100% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011 SN 051-2008		
20200100	EARTH EXCAVATION	CU YD	640	640		
20300100	CHANNEL EXCAVATION	CU YD	510	510		
20400800	FURNISHED EXCAVATION	CU YD	280	280		
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	SQ YD	257	257		
28200200	FILTER FABRIC	SQ YD	257	257		
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	301	301		
35400300	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 8"	SQ YD	739	739		
35501324	HOT-MIX ASPHALT BASE COURSE, 10"	SQ YD	250	250		

100% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011 SN 051-2008		
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	20	20		
40600990	TEMPORARY RAMP	SQ YD	25	25		
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	105	105		
44000100	PAVEMENT REMOVAL	SQ YD	449	449		
44201815	CLASS D PATCHES, TYPE II, 14 INCH	SQ YD	12	12		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	305	305		
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	62780	62780		
50800515	BAR SPLICERS	EACH	188	188		
51500100	NAME PLATES	EACH	1	1		
54003000	CONCRETE BOX CULVERTS	CU YD	284	284		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1098-1	LAWRENCE	34	3
		CONTRACT NO. 74105		
	ILLINOIS FED. AID PROJECT			

100% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011 SN 051-2008		
63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	612.5	612.5		
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	5	5		
67100100	MOBILIZATION	L SUM	1	1		
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1		
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1		
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	6	6		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70106700	TEMPORARY RUMBLE STRIP	EACH	6	6		

100% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011 SN 051-2008		
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	160	160		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1109	1109		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	424	424		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	900	900		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	187.5	187.5		
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2		
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1109	1109		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	5	5		
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	11	11		
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	8	8		

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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	34	4
		CONTRACT NO. 74105		
		ILLINOIS FED. AID PROJECT		

100% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011 SN 051-2008		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	304	304		
X0426200	DEWATERING	L SUM	1	1		
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.4	0.4		
X4060110	BITUMINOUS MATERIALS (PRIME COAT)	POUND	330	330		
X4400100	PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)	SQ YD	404	404		
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	980	980		
X5121800	PERMANENT STEEL SHEET PILING	SQ FT	402	402		
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28	28		
Z0005010	HOT-MIX ASPHALT FOR PATCHING POTHOLES (COLD MIX)	TON	4	4		
Z0028462	GEOTEXTILE RETAINING WALL	SQ FT	148	148		
* Z0054505	ROCK FILL - REPLACEMENT	TON	875	875		
Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	362	362		

100% STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 0011 SN 051-2008		

* SPECIALTY ITEM

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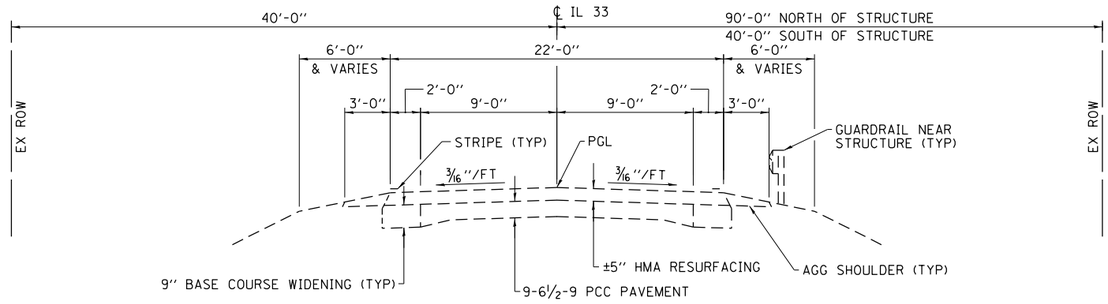
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

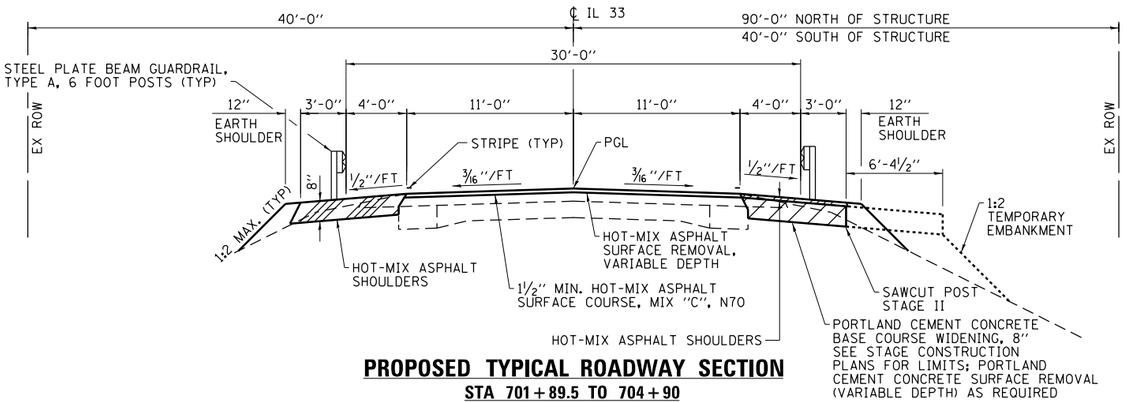
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	4A
		CONTRACT NO. 74105		
	ILLINOIS FED. AID PROJECT			



WITHOUT GUARDRAIL **WITH GUARDRAIL**

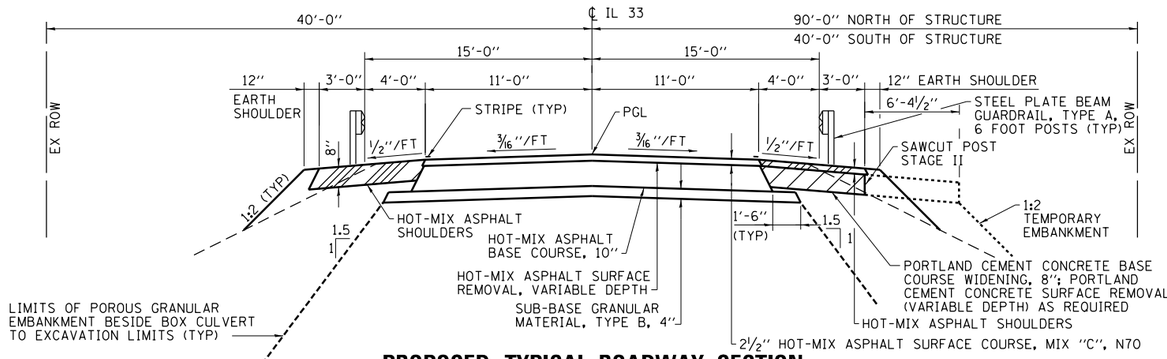
EXISTING TYPICAL ROADWAY SECTION

STA 701+00 TO 705+13.12
STA 705+66.88 TO 711+50



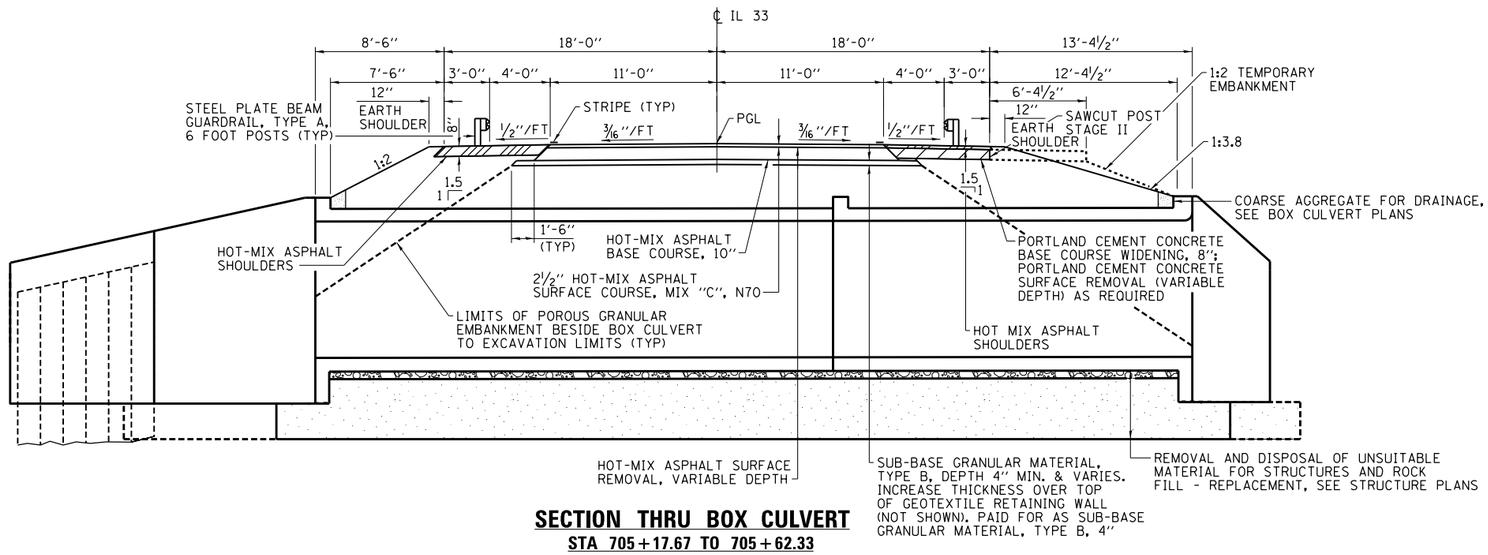
PROPOSED TYPICAL ROADWAY SECTION

STA 701+89.5 TO 704+90
STA 705+90 TO 709+10



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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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	5
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
PEORIA, ILLINOIS

EARTHWORK SCHEDULE

LOCATION	SUITABLE EARTH EXCAVATION	SUITABLE EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	SUITABLE INCIDENTAL EXCAVATION MATERIAL	SUITABLE INCIDENTAL EXC. MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT (NOT A PAY ITEM)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
NE QUADRANT CUTS & FILLS	22	17			34	-17
SE QUADRANT CUTS & FILLS	35	26			82	-56
NW QUADRANT CUTS & FILLS	28	21			46	-25
SW QUADRANT CUTS & FILLS	15	11			90	-79
BOX CULVERT TRENCH	320	240			275	-35
TEMPORARY FILL					130	-130
RIPRAP	90	62				+62
TOTALS	510	377			657	-280

NOTES:
1. EXCAVATION USED AS EMBANKMENT = (SUITABLE EARTH EXCAVATION + SUITABLE INCIDENTAL EXCAVATION)•0.75
2. REMOVAL OF TEMPORARY FILL MATERIAL NOT INCLUDED IN SUITABLE EARTH EXCAVATION.

PAVEMENT MARKING SCHEDULE

LOCATION	DESCRIPTION	SHORT-TERM PAVEMENT MARKING ①	PAINT PAVEMENT MARKING - LINE 4"	TEMP PAVEMENT MARKING - LINE 4"
		FOOT	FOOT	FOOT
STA 701+42.5 TO 709+37.5, ℄	SKIP-DASH YELLOW CENTERLINE	160	200	200
STA 702+91.5 TO 708+00, RT	SOLID WHITE EDGE LINE		509	509
STA 704+00 TO 708+00, LT	SOLID WHITE EDGE LINE		400	400
TOTALS		160	1109	1109

① INCLUDES 2 ADDITIONAL APPLICATIONS FROM STA 704+00 TO STA 708+00

SEEDING SCHEDULE

LOCATION	SEEDING, CLASS 2 (SPECIAL)	SEEDING, CLASS 7
	ACRE	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	0.4

AGGREGATE SCHEDULE

LOCATION	AGGREGATE SURFACE COURSE, TYPE B
	TON
STA 703+92.74, RT	18
STA 704+15.96, LT	2
TOTAL	20

WORK ZONE AND PAVEMENT MARKING REMOVAL SCHEDULE

LOCATION	PAVEMENT MARKING DESCRIPTION	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
		SQ FT	SQ FT
STA 701+42.5 TO 709+37.5, ℄	CENTERLINE		220
CENTERLINE	SHORT TERM	54	
CENTERLINE	TEMPORARY	370	
STA 703+02.5 TO 704+27.5, RT	EDGELINE		42
STA 706+52.5 TO 707+77.5, RT	EDGELINE		42
TOTALS		424	304

PAVEMENT REMOVAL SCHEDULE

LOCATION	PAVEMENT REMOVAL
	SQ YD
STA 704+90 TO 705+13.12	57
STA 705+66.88 TO 705+90	57
BASE COURSE WIDENING, POST STAGE II	335
TOTALS	449

TOPSOIL EXCAVATION AND PLACEMENT SCHEDULE

LOCATION	TOPSOIL EXCAVATION AND PLACEMENT
	CU YD
NE QUADRANT	26
SE QUADRANT	64
NW QUADRANT	46
SW QUADRANT	49
TOTAL	185

GUARDRAIL REMOVAL SCHEDULE

LOCATION	GUARDRAIL REMOVAL
	FOOT
NE QUADRANT	69
SE QUADRANT	81
NW QUADRANT	81
SW QUADRANT	56
TOTAL	287

PAVING SCHEDULE

LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	HMA SURFACE COURSE, MIX "C", N70	HMA SHOULDERS
	POUND	TON	TON
SN 051-2008	330	105	305
TOTALS	330	105	305

EROSION CONTROL SCHEDULE

LOCATION	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING (2 APPLICATIONS)
	FOOT	POUND
NE QUADRANT	250	20
SE QUADRANT	320	20
NW QUADRANT	295	20
SW QUADRANT	270	20
TOTALS	1135	80

BASE COURSE SCHEDULE

LOCATION	HMA BASE COURSE, 10"	PCC BASE COURSE WIDENING, 8"
	SQ YD	SQ YD
STA 702+91.5 TO 707+88.5, RT		739
STA 704+90 TO 705+90	250	
TOTALS	250	739

SURFACE REMOVAL SCHEDULE

LOCATION	HMA SURFACE REMOVAL, VARIABLE DEPTH	PCC SURFACE REMOVAL (VARIABLE DEPTH)
	SQ YD	SQ YD
STA 704+00 TO 708+00	980	
BASE COURSE WIDENING		404
TOTAL	980	404

SUB-BASE GRANULAR MATERIAL SCHEDULE

LOCATION	SUB-BASE GRANULAR MATERIAL, TYPE B 4"
	SQ YD
STA 704+90 TO 705+90	301
TOTAL	301

POROUS GRANULAR EMBANKMENT SCHEDULE

LOCATION	POROUS GRANULAR EMBANKMENT
	CU YD
BOX CULVERT TRENCH	640
TOTAL	640

GUARDRAIL SCHEDULE

LOCATION	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	GUARDRAIL MARKERS, TYPE A	STEEL PLATE BEAM GUARDRAIL, TY A	TERMINAL MARKER DIRECT APPLIED
	EACH	EACH	FOOT	EACH
NE QUADRANT	3	2		3
SE QUADRANT	1	4	350	1
NW QUADRANT	3	3	62.5	3
SW QUADRANT	1	2	200	1
TOTALS	8	11	612.5	8

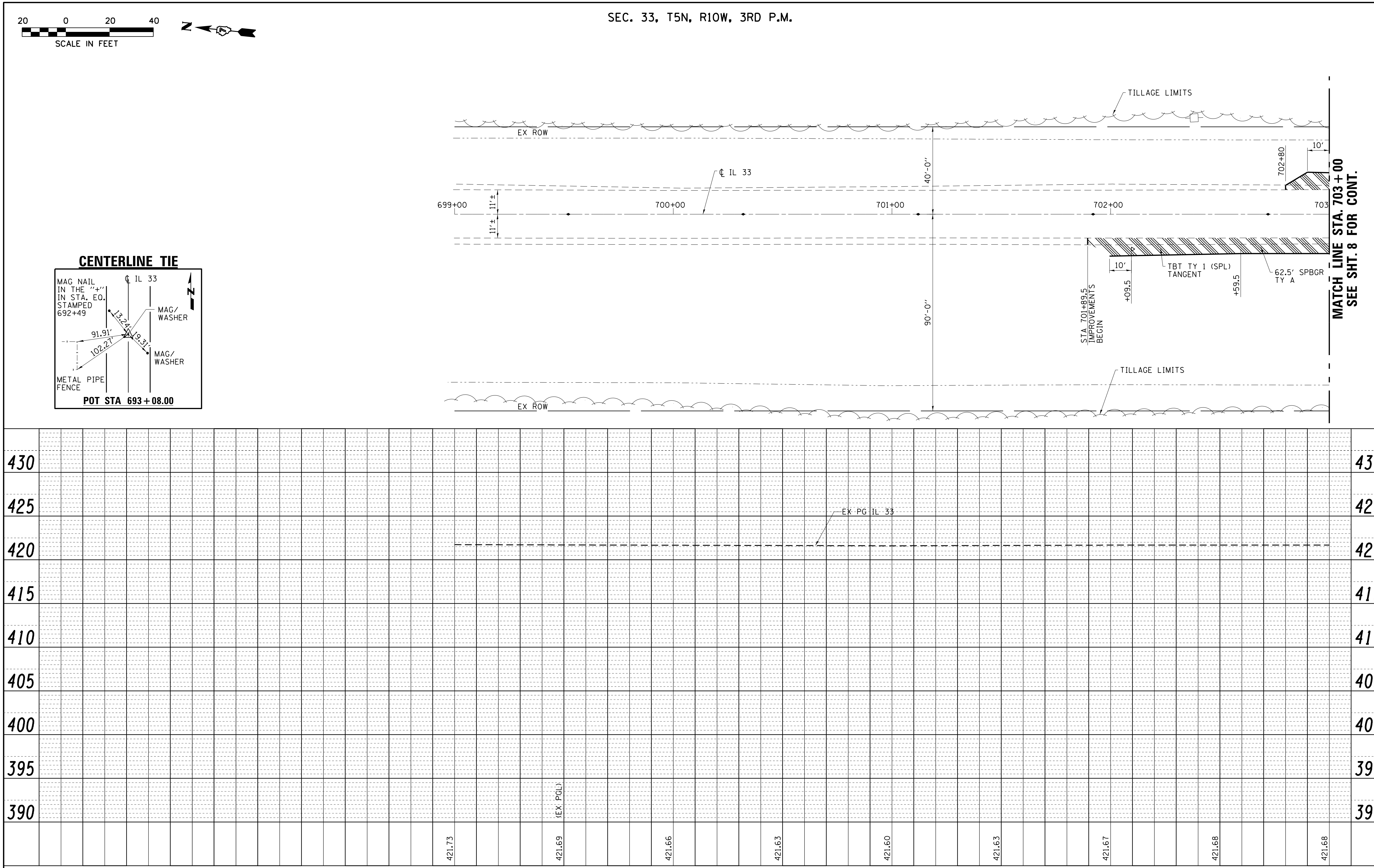
FILE NAME =	USER NAME = steffenmk	DESIGNED - DAJ	REVISED -
[illegible]\d0121448\D774105-sht-schedule.dgn		DRAWN - HAS	REVISED -
	PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
	PLOT DATE = 6/2/2014 2:30:22 PM	DATE - 06/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	6
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		



FILE NAME =	USER NAME = steffenmk	DESIGNED - DAJ	REVISED -
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SCALES: (HORIZ) 1"=10' (VERT) 1"=5'	PLOT DATE = 6/2/2014 1:06:24 PM	DATE - 05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP RTE 781 (IL 33) PLAN AND PROFILE

SCALE: 1"=20'-0" | SHEET NO. 1 OF 3 SHEETS | STA. 699+00 TO STA. 703+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	7
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
URBANA, ILLINOIS

SCALE IN FEET 20 0 20 40

N

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

MATCH LINE STA. 703+00
SEE SHT. 7 FOR CONT.

MATCH LINE STA. 708+50
SEE SHT. 9 FOR CONT.

USE AGGREGATE SURFACE COURSE TYPE B OVER EX ENTRANCE TO 25' LT

℄ 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

UNNAMED STREAM

TILLAGE LIMITS

704+00 BUTT JOINT BEGIN PAVING

+15.96 FE (AGG)

24" SCP

EX ROW

48"

40'-0"

TBT TY 1 (SPL) TANGENT

+50

+40

+90

69' GUARDRAIL REMOVAL

81' GUARDRAIL REMOVAL

60"

23", 16"

350' SPBGR TY A

+00

704+00

705+00

706+00

707+00

℄ IL 33

708+00

11'± 11'±

11'

37°

62.5' SPBGR TY A

+22

+72

+18

+68

13'-4½"

+92.74 FE (AGG)

30'-0"

90'-0"

TBT TY 1 (SPL) TANGENT

81' GUARDRAIL REMOVAL

56' GUARDRAIL REMOVAL

200' SPBGR TY A

10'

4'

707+88.5

708+00 BUTT JOINT END PAVING

USE AGGREGATE SURFACE COURSE TYPE B OVER EX ENTRANCE TO 50' RT

FLOW

TOP OF BANK

℄ PR REPLACEMENT SN 051-2008
STA 705+40
TRIPLE 11' SPAN x 9' HEIGHT
BOX CULVERT
30'-0" ROADWAY WIDTH
57'-10½" OUT TO OUT HEADWALLS

LEGEND
PAVEMENT REMOVAL
HMA SHOULDERS

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

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., BY, DATE

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK, NO., BY, DATE

EX PG IL 33

STA 704+00 MATCH EXISTING

℄ STRUCTURE STA 705+40

PR PG IL 33

STA 708+00 MATCH EXISTING

0.00%

D.H.W. ELEV. 416.3

EXISTING STRUCTURE

PROPOSED TRIPLE 11' S x 9' R BOX CULVERT

430 425 420 415 410 405 400 395 390

(EX. PGL) (PR. PGL)

421.68 | 421.61 | 421.50 421.50 | 421.44 421.50 | 421.35 421.50 | 421.32 421.50 | 421.38 421.50 | 421.41 421.50 | 421.43 421.50 | 421.47 421.50 | 421.50 421.50 | 421.50

703+00 +50 704+00 +50 705+00 +50 706+00 +50 707+00 +50 708+00 +50

FILE NAME = D774105-sht-plnprf02.dgn	USER NAME = steffenmk	DESIGNED - DAJ	REVISED -
SCALES: (HORIZ) 1"=10' (VERT) 1"=5'	ESCA JOB NO. 933.13	DRAWN - HAS	REVISED -
	PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
	PLOT DATE = 6/2/2014 1:08:08 PM	DATE - 05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP RTE 781 (IL 33) PLAN AND PROFILE

SCALE: 1"=20'-0" | SHEET NO. 2 OF 3 SHEETS | STA. 703+00 TO STA. 708+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	8
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
URBANA, ILLINOIS

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

20 0 20 40
SCALE IN FEET

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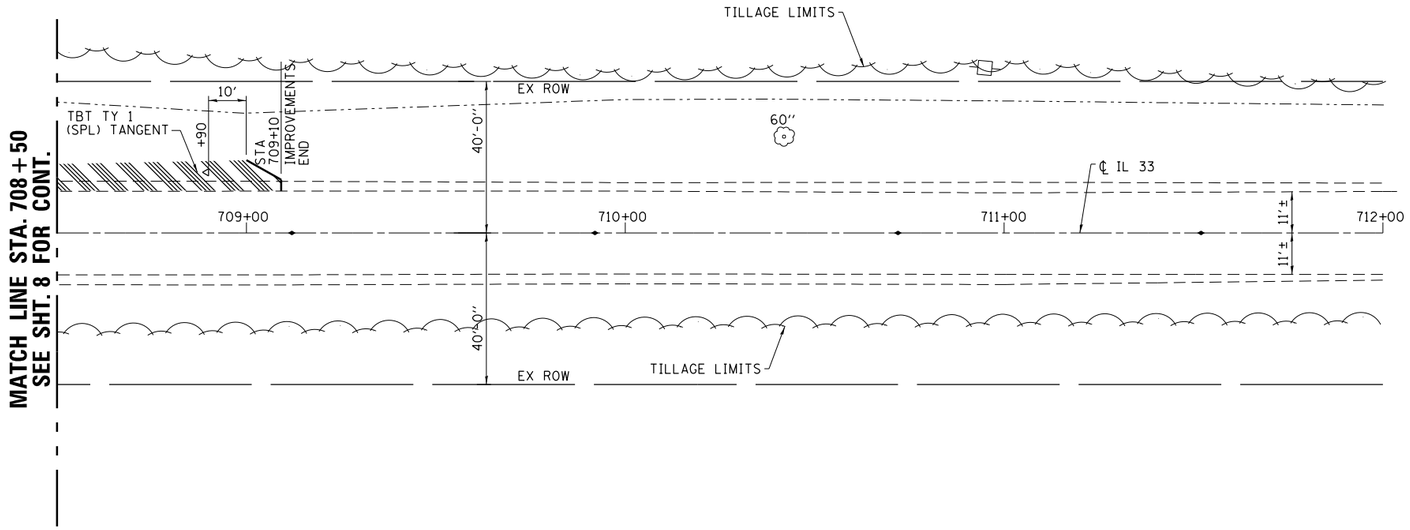
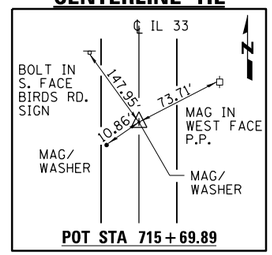


CENTERLINE TIE

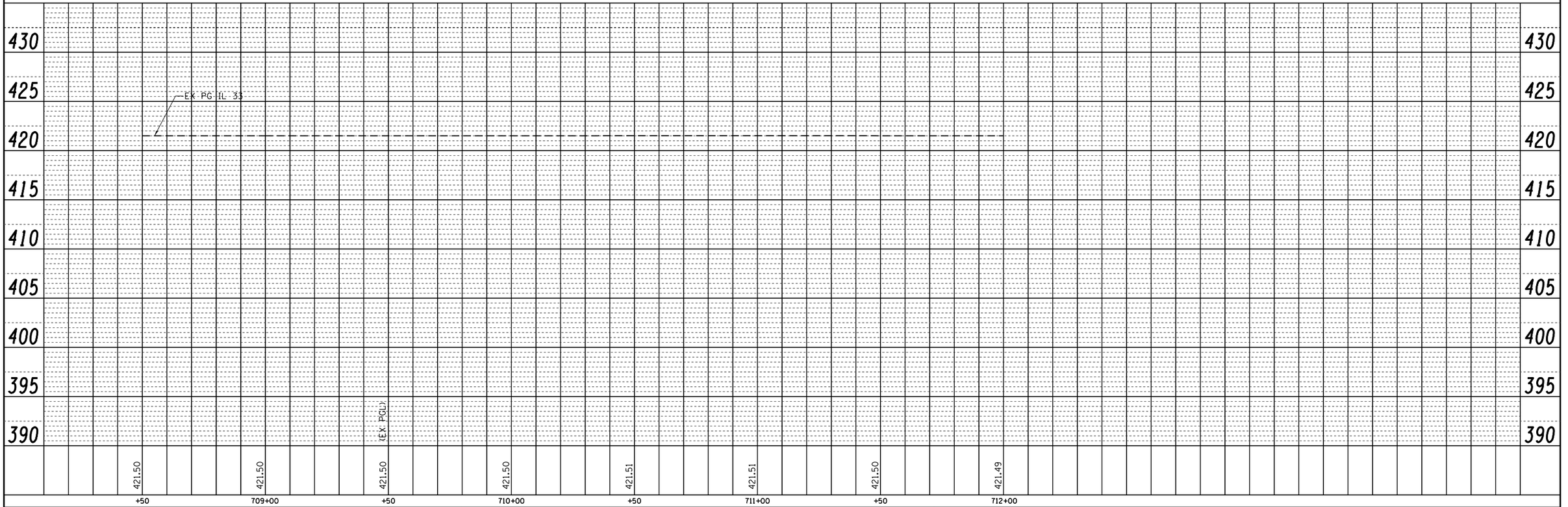


POT STA 715+69.89

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

PLAN
DATE | BY | SURVEYED | PLOTTED | DRAWN | CHECKED | ALIGNMENT CHECKED | RT. OF WAY CHECKED | CADD FILE NAME | NOTE BOOK | NO.

PROFILE
DATE | BY | SURVEYED | PLOTTED | DRAWN | CHECKED | B.M. NOTED | STRUCTURE NOTATNS CHKD | NOTE BOOK | NO.



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SCALES: (HORIZ) 1"=10' (VERT) 1"=5'	PLOT SCALE = 0.16667 ' / in.	CHECKED - ELH	REVISED -
	PLOT DATE = 6/2/2014 1:09:57 PM	DATE - 05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP RTE 781 (IL 33) PLAN AND PROFILE

SCALE: 1"=20'-0" | SHEET NO. 3 OF 3 SHEETS | STA. 708+50 | TO STA. 712+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	9
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
SPRINGFIELD, ILLINOIS

N

0' 30' 60' 90'

LEGEND

- TRAFFIC SIGNAL WITH BACKPLATE, SIGNAL DIRECTION INDICATED
- PCC BASE COURSE WIDENING, 8"
- PAVEMENT REMOVAL

SCHEDULE OF QUANTITIES

TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	FEET
704+52.5		706+40	187.5
		TOTAL	187.5

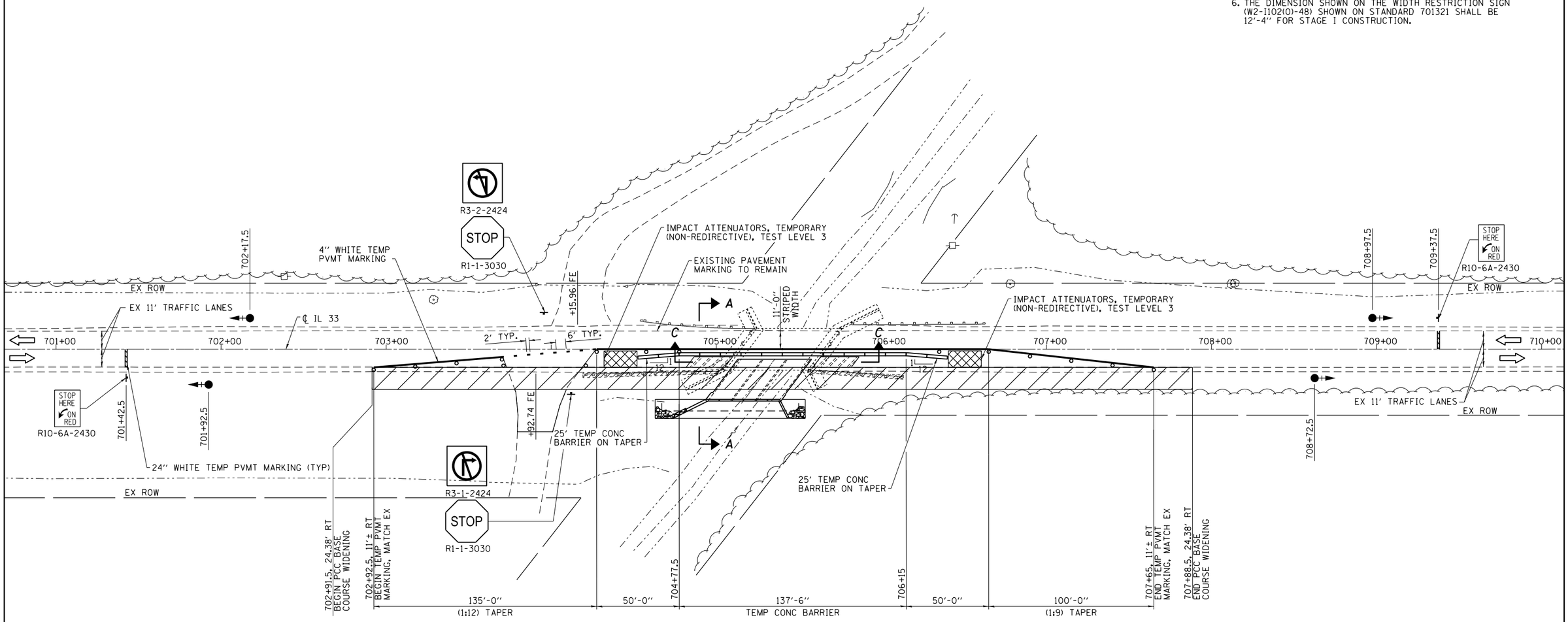
TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH

TEMPORARY RUMBLE STRIPS - 6 EACH

IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

GENERAL NOTES

1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.
5. ADDITIONAL SIGNAGE FOR SIDE-ROADS AND ENTRANCES SHALL BE INCLUDED IN THE COST OF STANDARD 701321.
6. THE DIMENSION SHOWN ON THE WIDTH RESTRICTION SIGN (W2-1102(O)-48) SHOWN ON STANDARD 701321 SHALL BE 12'-4" FOR STAGE I CONSTRUCTION.



FILE NAME =	USER NAME = steffenmk	DESIGNED - DAJ	REVISED -
	ESCA JOB NO. 933.13	DRAWN - HAS	REVISED -
	PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
	PLOT DATE = 6/2/2014 1:30:27 PM	DATE - 06/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I CONSTRUCTION

SCALE: 1"=30'-0" | SHEET NO. 1 OF 2 SHEETS | STA. 700+68.65 TO STA. 710+13.64

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	10
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
PEORIA, ILLINOIS

N

0' 30' 60' 90'

LEGEND

- TRAFFIC SIGNAL WITH BACKPLATE, SIGNAL DIRECTION INDICATED
- PCC BASE COURSE WIDENING, 8"
- PAVEMENT REMOVAL

SCHEDULE OF QUANTITIES

TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	FEET
703+02.5		704+52.5	150
706+40		707+77.5	137.5
703+27.5		707+52.5	425
		TOTAL	712.5

RELOCATE TEMPORARY CONCRETE BARRIER

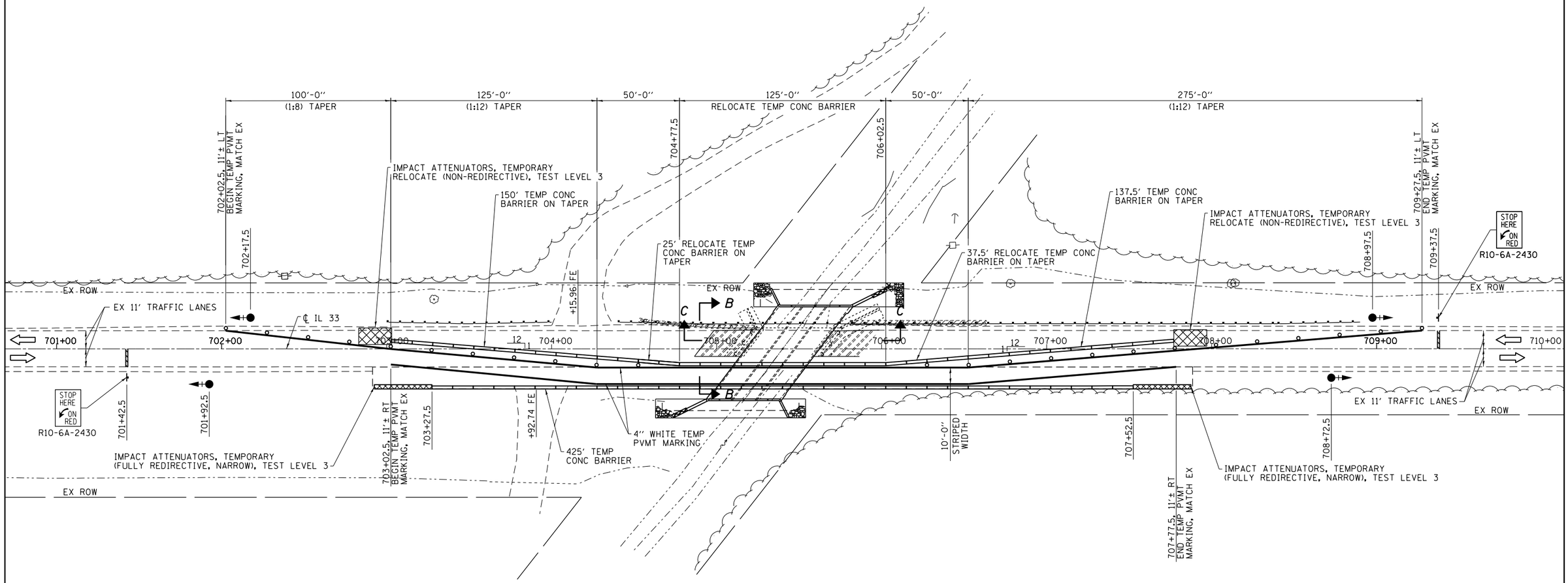
STATION	TO	STATION	FEET
704+52.5		706+40	187.5
		TOTAL	187.5

IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3 - 2 EACH

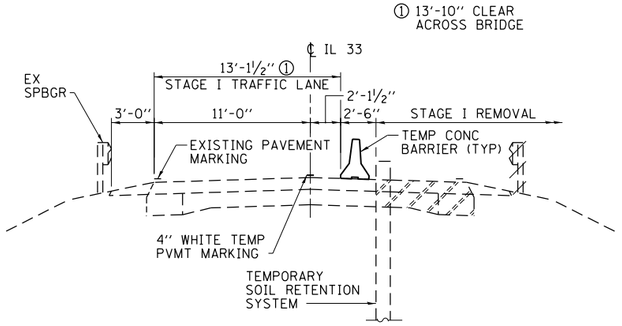
GENERAL NOTES

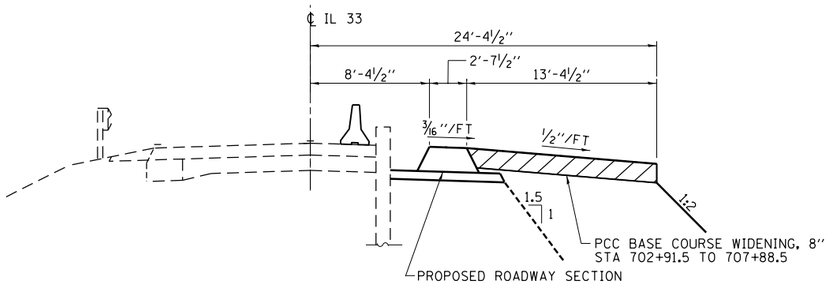
1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.
5. ADDITIONAL SIGNAGE FOR SIDE-ROADS AND ENTRANCES SHALL BE INCLUDED IN THE COST OF STANDARD 701321. THE TWO FIELD ENTRANCES SHALL BE CLOSED DURING STAGE II CONSTRUCTION PER STANDARD 701901.
6. THE DIMENSION SHOWN ON THE WIDTH RESTRICTION SIGN (W2-1102(O)-48) SHOWN ON STANDARD 701321 SHALL BE 10'-6" FOR STAGE II CONSTRUCTION.



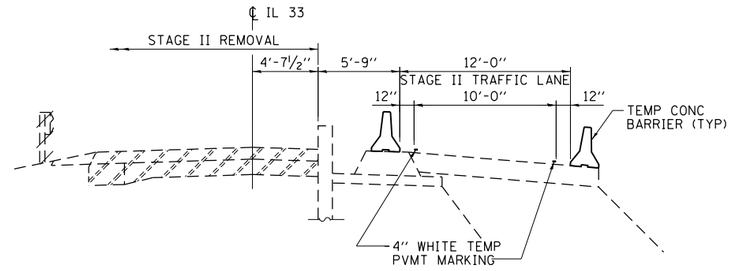
FILE NAME =	USER NAME = steffenmk	DESIGNED - DAJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE II CONSTRUCTION
	ESCA JOB NO. 933.13	DRAWN - HAS	REVISED -		SCALE: 1"=30'-0" | SHEET NO. 2 OF 2 SHEETS | STA. 700+68.65 TO STA. 710+13.64
	PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -		
	PLOT DATE = 6/2/2014 1:32:03 PM	DATE - 06/11	REVISED -		

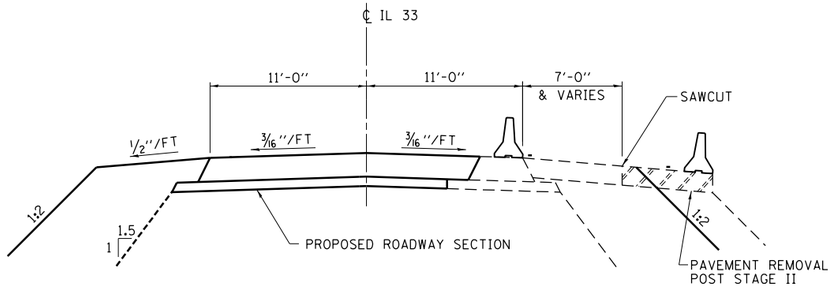
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	11
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



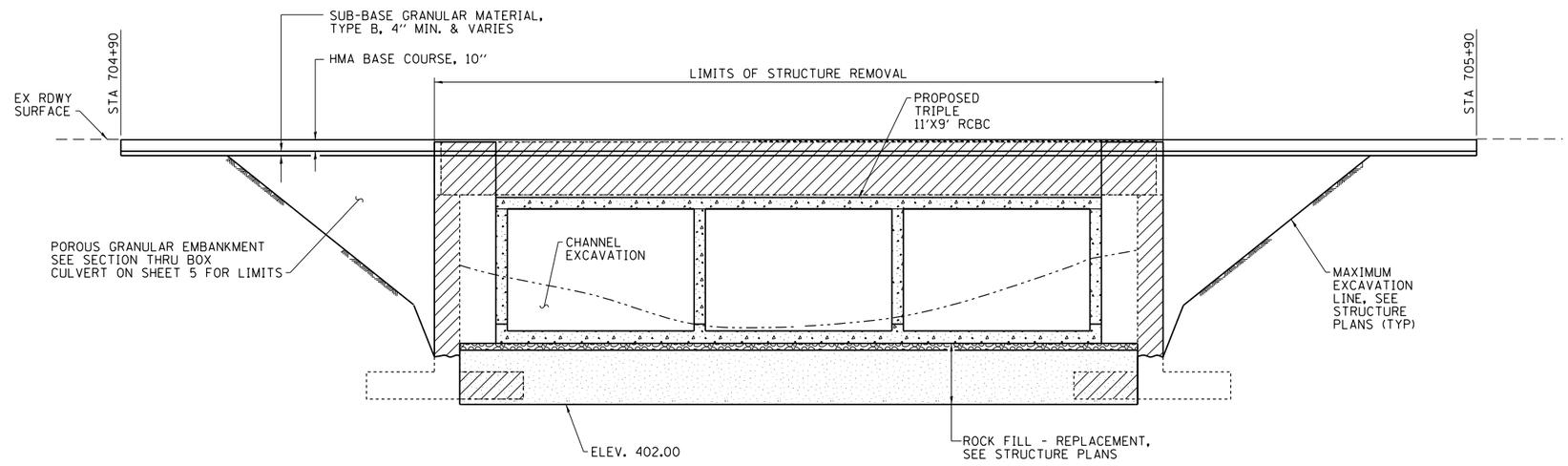


SECTION A–A
(STAGE I)





SECTION B–B
(STAGE II)



SECTION C–C

FILE NAME =	USER NAME = steffenmk	DESIGNED - DAJ	REVISED -
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	PLOT DATE = 6/2/2014 11:59:11 AM	CHECKED - ELH	REVISED -
		DATE - 06/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	12
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
SPRINGFIELD, ILLINOIS

N

0' 30' 60' 90'

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

150' PERIMETER EROSION BARRIER
100' PERIMETER EROSION BARRIER
320' PERIMETER EROSION BARRIER
220' PERIMETER EROSION BARRIER
75' PERIMETER EROSION BARRIER
270' PERIMETER EROSION BARRIER

EX ROW

702+75
709+15
701+85
708+00

+00 702+00 703+00 704+00 705+00 706+00 707+00 708+00 709+00 710+00

℄ IL 33

℄ PR REPLACEMENT SN 051-2008
STA 705+40
TRIPLE 11' SPAN x 9' HEIGHT
BOX CULVERT
30'-0" ROADWAY WIDTH
57'-10½" OUT TO OUT HEADWALLS

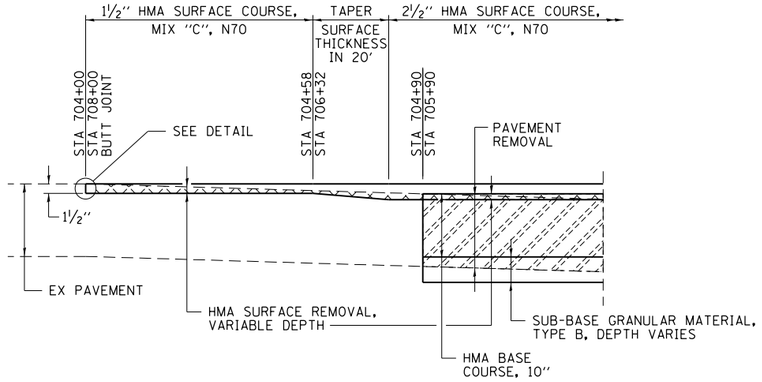
FILE NAME =	USER NAME = steffenmk	DESIGNED - DAJ	REVISED -
	JOB NO. 933.13	DRAWN - HAS	REVISED -
	PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
	PLOT DATE = 6/2/2014 12:00:43 PM	DATE - 06/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

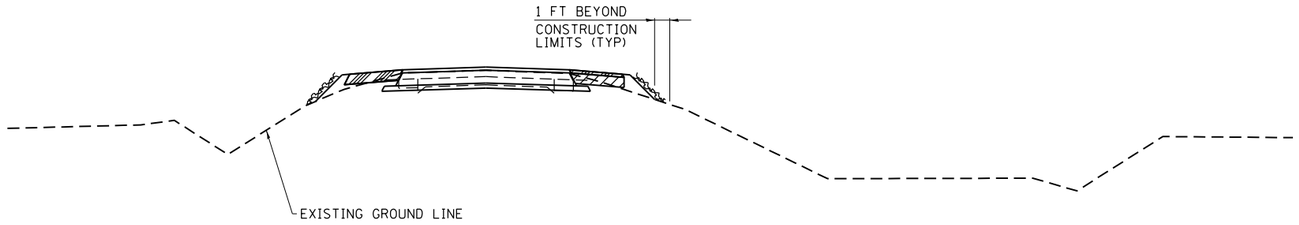
EROSION CONTROL AND DRAINAGE PLAN

SCALE: 1"=30'-0" | SHEET NO. 1 OF 1 SHEETS | STA. 701+00 TO STA. 710+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	13
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SURFACING AND MILLING SECTION



SEEDING & MULCHING

INDICATES LIMITS OF SEEDING AND MULCHING

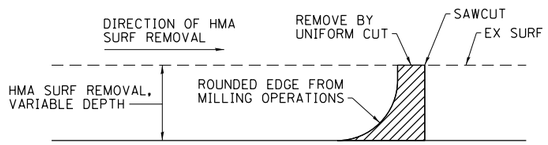
GENERAL NOTES

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.



DETAIL AT BUTT JOINT

NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAWCUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE COST OF ALL WORK SHOWN IN THE DETAIL IS INCLUDED IN HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL.

FILE NAME =	USER NAME = steffenmk	DESIGNED - DAJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MISCELLANEOUS DETAILS
[illegible]	DRAWN - HAS	REVISED -			
	PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -		SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.
	PLOT DATE = 6/2/2014 11:58:02 AM	DATE - 06/11	REVISED -		

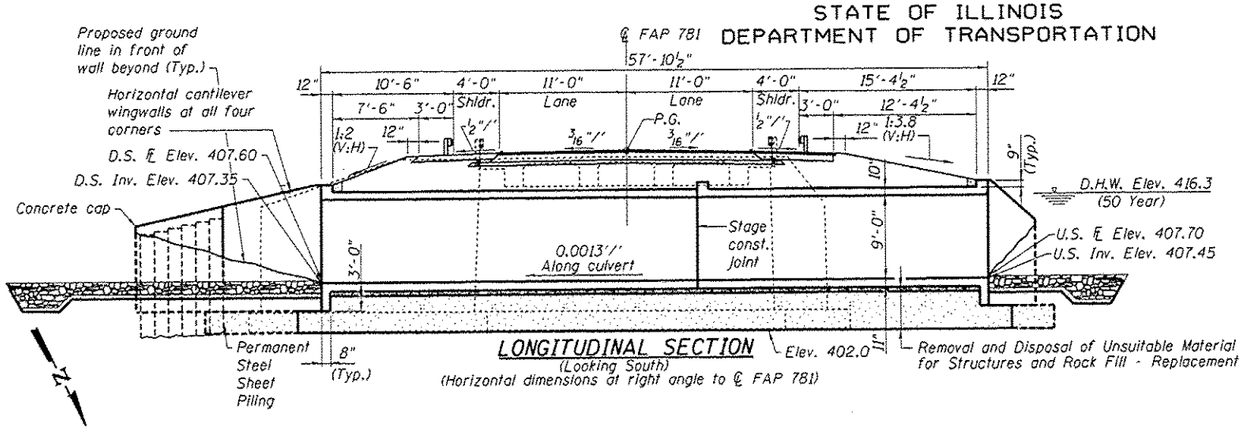
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	14
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

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

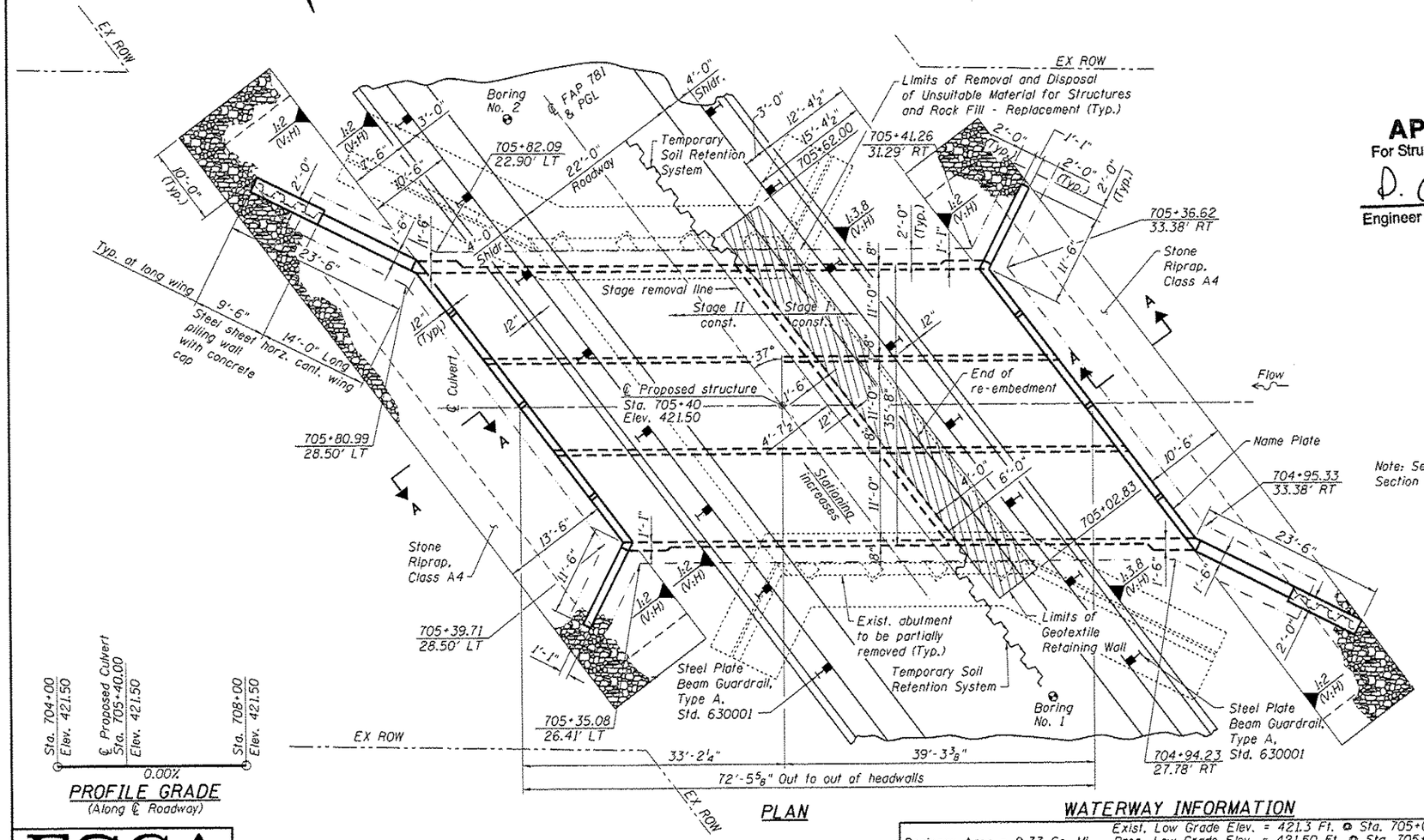
EXISTING STRUCTURE:
SN 051-0035 was originally built in 1933 as SBI 181, Section 109B. The original brick railing was removed and replaced with a steel rail. The date of this work is unknown. It is a single span reinforced concrete tee beam structure on concrete abutments and wingwalls supported on timber 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. Traffic shall be maintained utilizing stage construction.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LONGITUDINAL SECTION
(Looking South)
(Horizontal dimensions at right angle to ℄ FAP 781)



PLAN

PROFILE GRADE
(Along ℄ Roadway)

STRUCTURE INDEX OF SHEETS

SCOUR INFORMATION

	Downstream	Upstream
Design Scour Elevation (Ft.)	404.35	404.45

APPROVED
For Structural Adequacy Only
D. Carl Lungy JFS
Engineer of Bridges & Structures

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

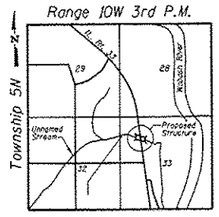
DESIGN SPECIFICATIONS
2002 AASHTO

LOADING HS20-44
Allow 50 psf for future wearing surface.

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



LOCATION SKETCH

STATE OF ILLINOIS
ERIC L. HENKLE
No. 6159
LICENSED STRUCTURAL ENGINEER
EXPIRES 11-30-10
SIGNATURE
06-30-10
DATE

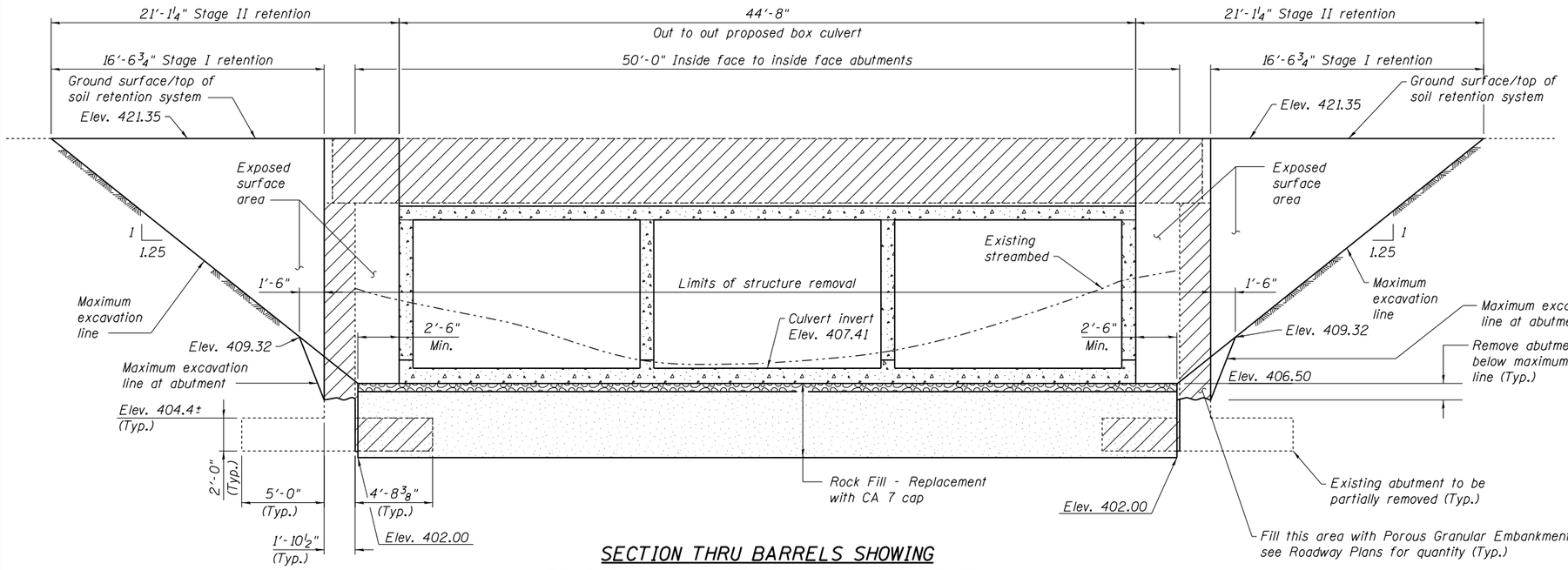
GENERAL PLAN
IL 33 OVER UNNAMED STREAM
FAP ROUTE 781 - SECTION 109B-1
LAWRENCE COUNTY
STATION 705+40
STRUCTURE NO. 051-2008

SHEET NO. 1 10 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	781	109B-1	LAWRENCE	34	15
			CONTRACT NO. 74105		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION THRU BARRELS SHOWING TEMPORARY SOIL RETENTION SYSTEM LIMITS

(Dimensions parallel to ℄ FAP 781)

NOTES

1. Existing structure details are based on the best available information from existing bridge plans.
2. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
3. 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.

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
2. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
3. For backfilling and embankment outside of the limits of Rock Fill - Replacement see Standard Specifications.
4. Precast alternate is not allowed.
5. 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.
6. 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

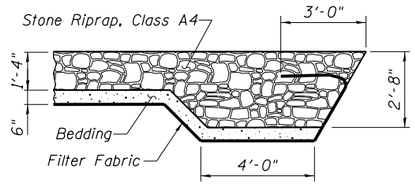
ITEM	UNIT	QUANTITY
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	515
Stone Riprap, Class A4	Sq. Yd.	257
Filter Fabric	Sq. Yd.	257
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	62,780
Bar Splicers	Each	188
Temporary Soil Retention System	Sq. Ft.	362
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	284.0
Geotextile Retaining Wall	Sq. Ft.	148
Permanent Steel Sheet Piling	Sq. Ft.	402
Rock Fill - Replacement	Ton	875

See Roadway Plans for quantities of Temporary Concrete Barrier, Earth Excavation, and Porous Granular Embankment.

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



SECTION A-A

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	03/10
DRAWN BY:	DWH/HAS	03/10
CHECKED BY:	ELH	06/10
APPROVED BY:	RDP	06/10

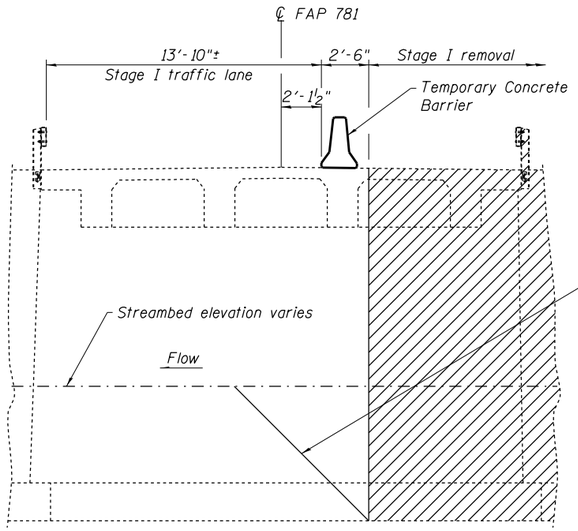
GENERAL DATA
STRUCTURE NO. 051-2008

SHEET NO. 2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10 SHEETS	781	109B-1	LAWRENCE	34	16
			CONTRACT NO. 74105		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

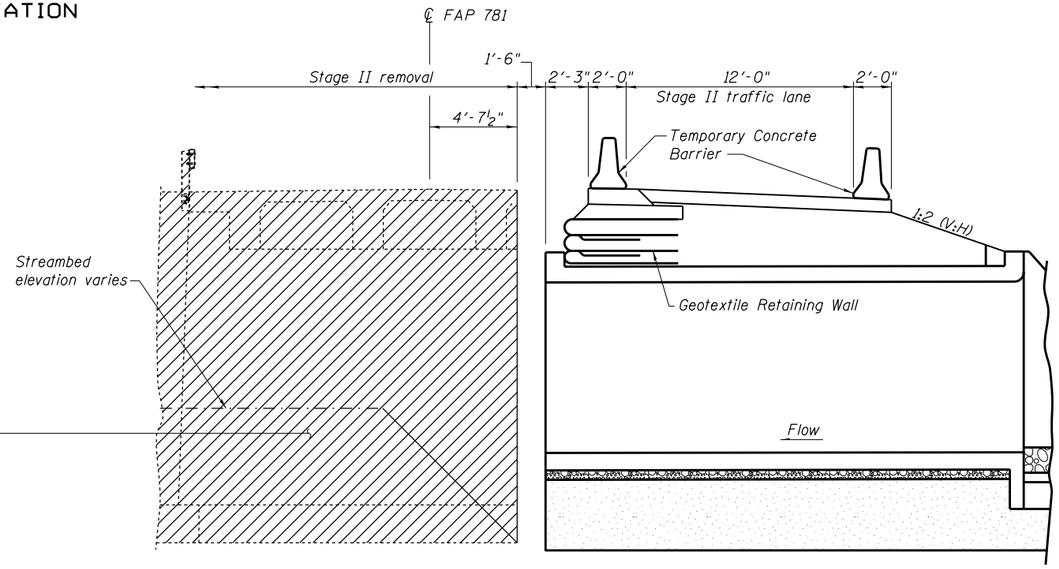
STAGE CONSTRUCTION NOTES

1. Hatched areas indicate Removal of Existing Structures.
2. For details of Temporary Concrete Barrier, see Sht. No. 9 of 10.
3. Removal of existing bridge rail is included with Removal of Existing Structures.
4. All sections are looking South.
5. Horizontal dimensions are at right angles at ℄ FAP 781.

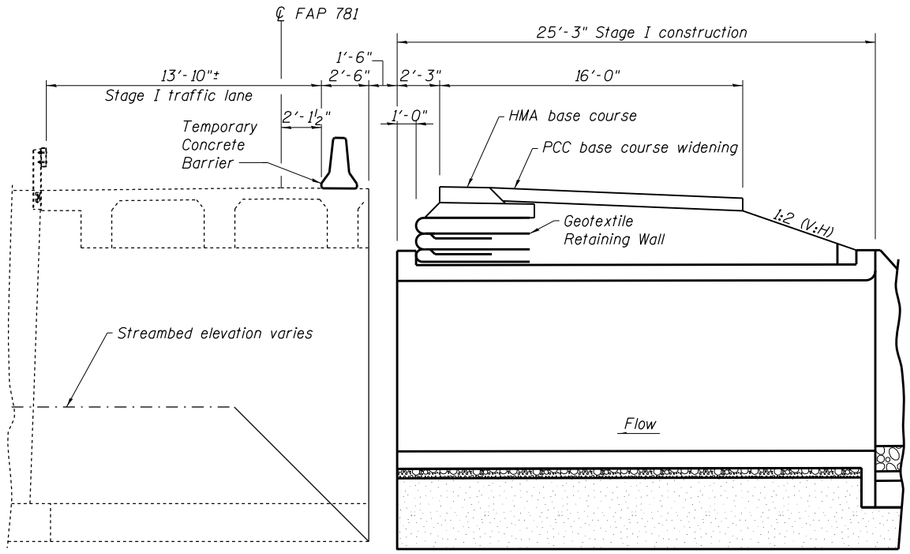


Excavate streambed for structure removal and lay slopes back as required for safety. Cost included in Earth Excavation and Removal and Disposal of Unsuitable Material for Structures.

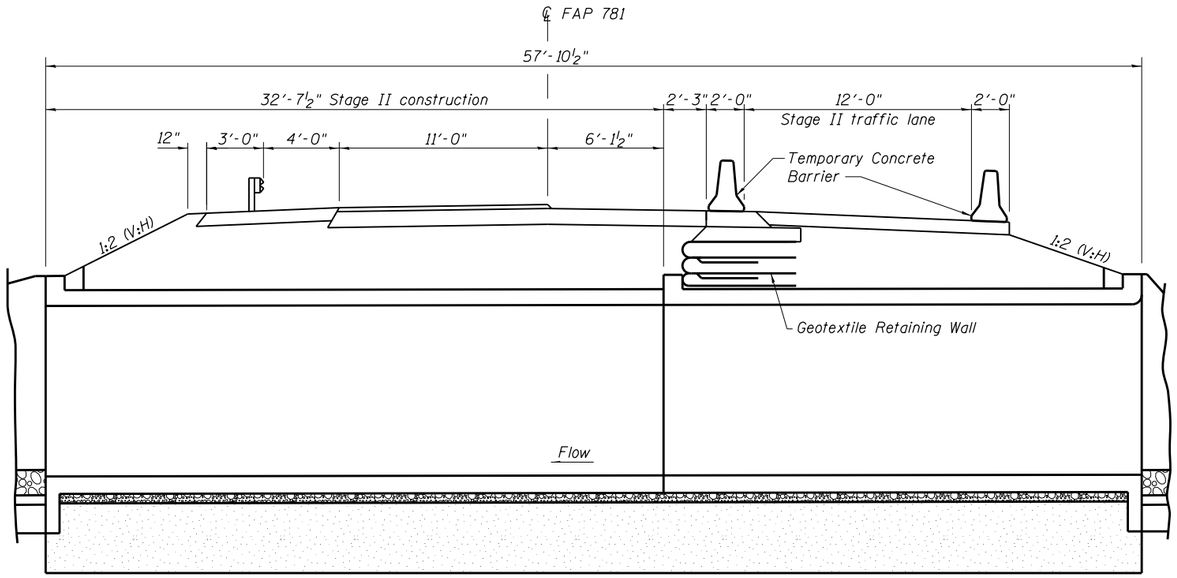
STAGE I REMOVAL



STAGE II REMOVAL



STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

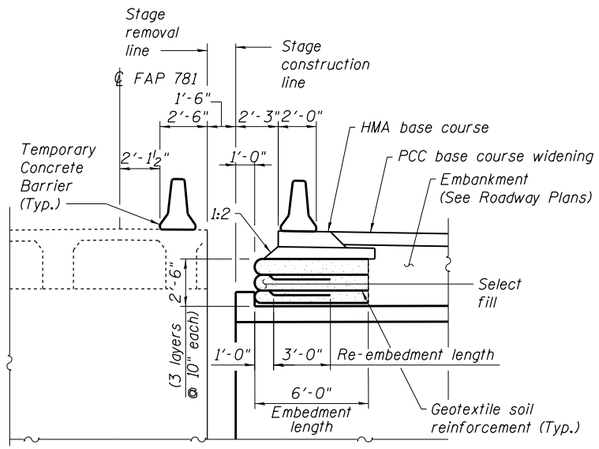
STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 051-2008

SHEET NO. 3	F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
10 SHEETS	781	109B-1		LAWRENCE	34	17
				CONTRACT NO. 74105		
	FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.

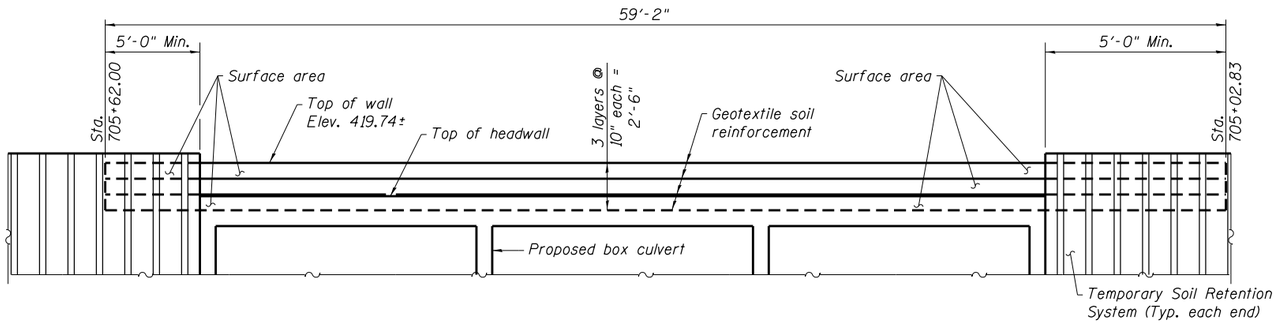
DESIGNED BY:	ELH	03/10
DRAWN BY:	DWH/HAS	03/10
CHECKED BY:	ELH	06/11
APPROVED BY:	RDP	06/11

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



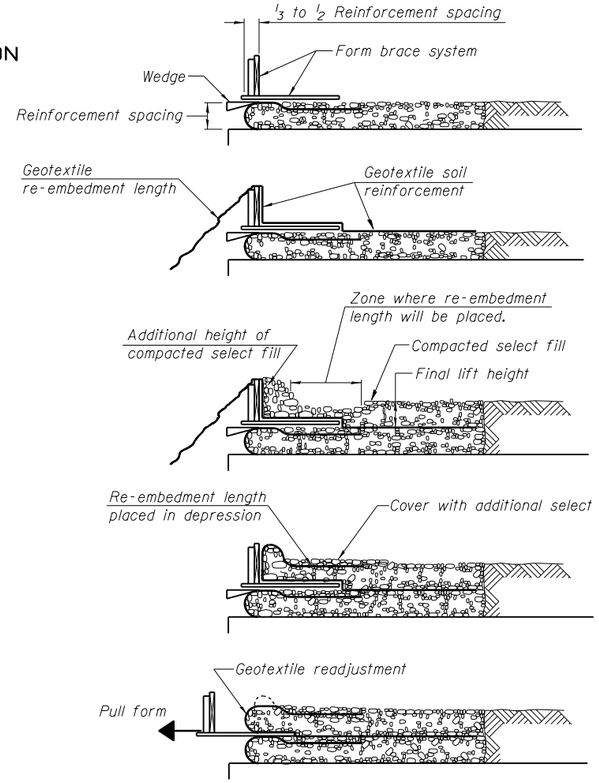
TEMPORARY GEOTEXTILE WALL TYPICAL SECTION

(Horizontal dimensions at right angle to ℄ FAP 781)



TEMPORARY GEOTEXTILE WALL ELEVATION

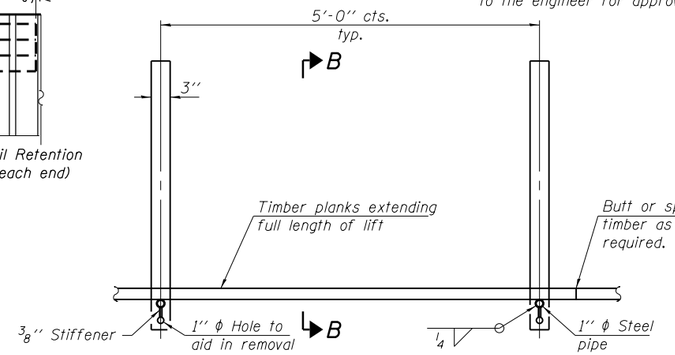
(Looking West)
(Horizontal dimensions parallel to ℄ FAP 781)



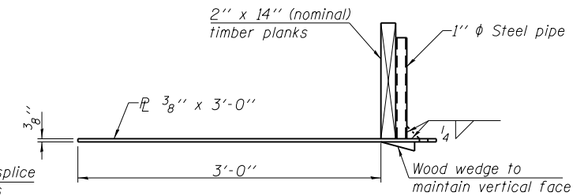
1. Place form brace system on completed reinforcement level; back from the finished fabric face a distance of ⅓ to ½ the geotextile reinforcement spacing.
2. Position fabric so that the required geotextile re-embedment length extends over the top of the form brace and the design reinforcement width is placed with no slack against the previous level.
3. Compact select fill material in lifts to final lift height, create (±3") depression in zone where re-embedment length will be located and place additional height of compacted select fill against form brace.
4. Fold geotextile re-embedment length back over form brace into zone where depression was made in select fill and place additional select fill (±3") to embed geotextile and bring to final lift height.
5. Pull form brace outward allowing geotextile face to slightly readjust to form tight round face level with plan reinforcement spacing.

TEMPORARY GEOTEXTILE WALL CONSTRUCTION SEQUENCE

Note:
The geotextile soil reinforcement shall have a minimum allowable tensile strength (T min.) of 25 lb./in. as determined by the procedure described in the Special Provision. The computations supporting the determination of (T min.) shall be submitted to the engineer for approval.



PLAN



SECTION B-B

Note:
This is a suggested detail, the Contractor is responsible for the design of the form brace system to be used.

TEMPORARY GEOTEXTILE FORM BRACE DETAIL

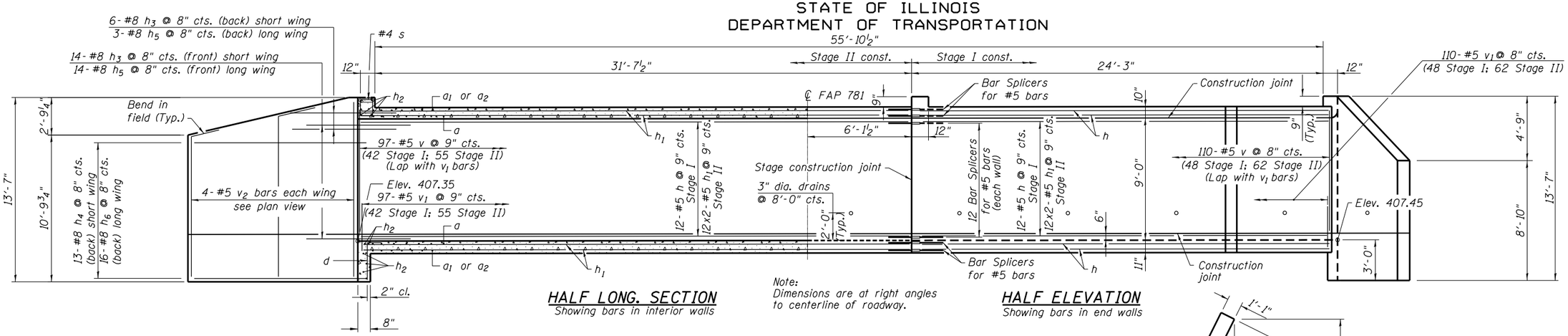
STAGE CONSTRUCTION DETAILS STRUCTURE NO. 051-2008

DESIGNED BY:	ELH	03/10
DRAWN BY:	DWH/HAS	03/10
CHECKED BY:	ELH	06/11
APPROVED BY:	RDP	06/11

ESCA CONSULTANTS, INC.

SHEET NO. 4	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10 SHEETS	781	109B-1	LAWRENCE	34	18
			CONTRACT NO. 74105		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

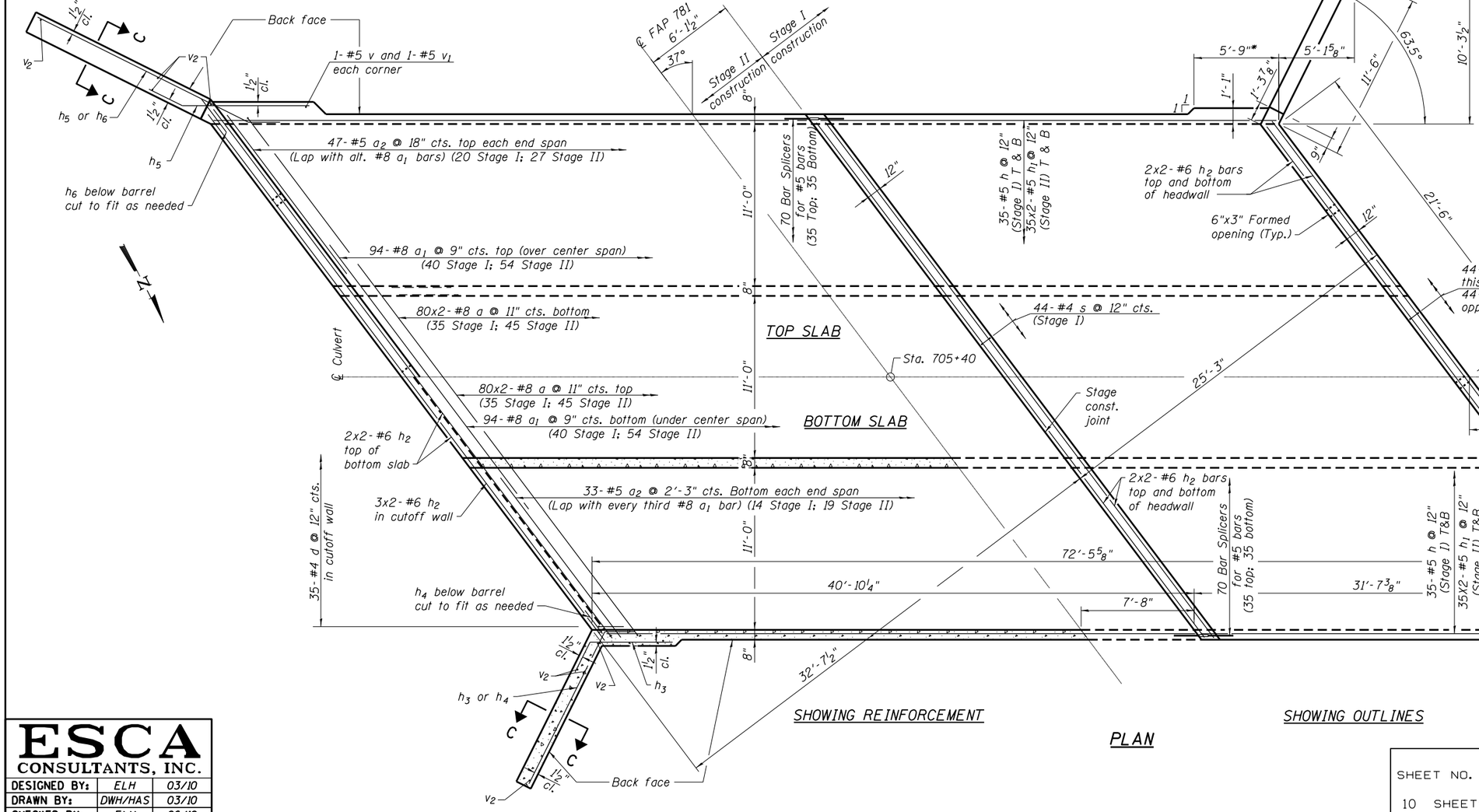
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



HALF LONG. SECTION
Showing bars in interior walls

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

HALF ELEVATION
Showing bars in end walls



SHOWING REINFORCEMENT

PLAN

SHOWING OUTLINES

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

NOTES

1. See Sheet No. 6 of 10 for Section C-C.
2. Bars indicated thus 35x2-#5 etc. indicates 35 lines with 2 lengths per line.
3. See Sheet No. 7 of 10 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.

ESCA CONSULTANTS, INC.

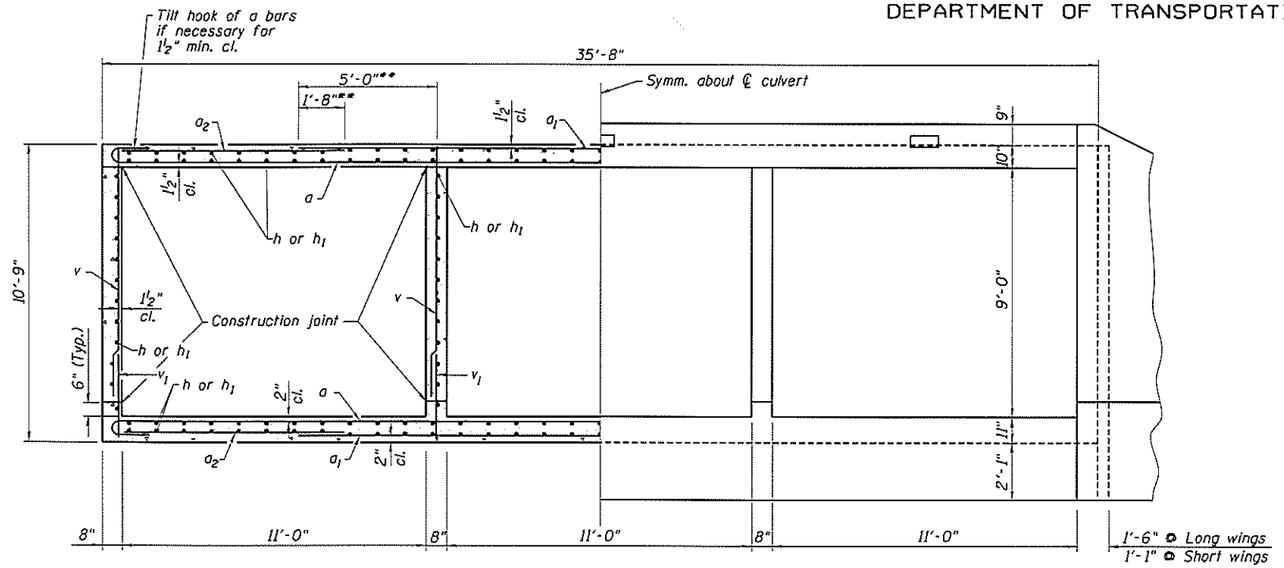
DESIGNED BY:	ELH	03/10
DRAWN BY:	DWH/HAS	03/10
CHECKED BY:	ELH	06/10
APPROVED BY:	RDP	06/10

SHEET NO. 5
10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	19
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BOX CULVERT DETAILS
STRUCTURE NO. 051-2008

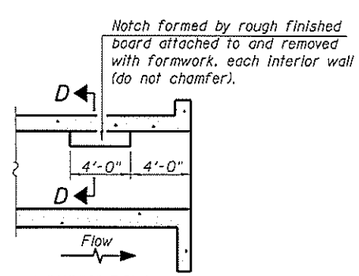
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



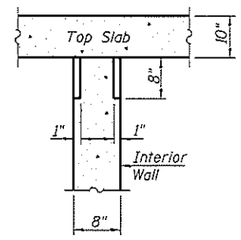
HALF SECTION THRU BARRELS

HALF END ELEVATION

** Dimensions noted thus are parallel to ℄ Roadway



LONGITUDINAL SECTION



SECTION D-D

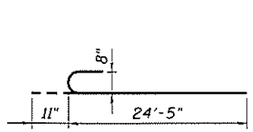
PHOEBE NESTING SITE DETAILS
(Downstream End Only)

BILL OF MATERIAL

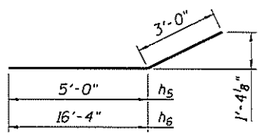
Bar	No.	Size	Length	Shape
a	320	#8	25'-4"	
a_1	188	#8	24'-8"	
a_2	160	#5	11'-6"	
d	70	#4	4'-6"	
h	188	#5	31'-2"	
h_1	376	#5	21'-1"	
h_2	44	#6	23'-11"	
h_3	40	#8	8'-0"	
h_4	26	#8	14'-8"	
h_5	34	#8	8'-0"	
h_6	32	#8	19'-4"	
s	88	#4	4'-10"	
s_1	44	#4	4'-8"	
v	418	#5	9'-0"	
v_1	418	#5	3'-0"	
v_2	16	#5	13'-2"	
Concrete Box Culverts			Cu. Yd.	275.5
Reinforcement Bars			Pound	62,240

MIN. BAR LAP

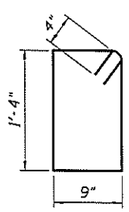
#5 ------- 1'-8"
#6 ------- 2'-0"
#8 ------- 4'-6"



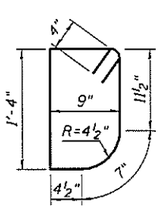
BAR a



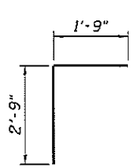
BARS h_5 & h_6



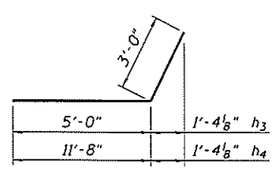
BAR s



BAR s_1

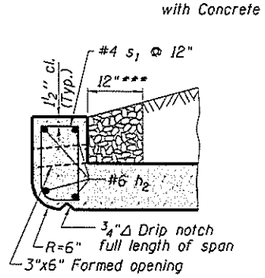


BAR d

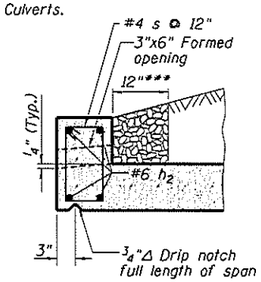


BARS h_3 & h_4

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

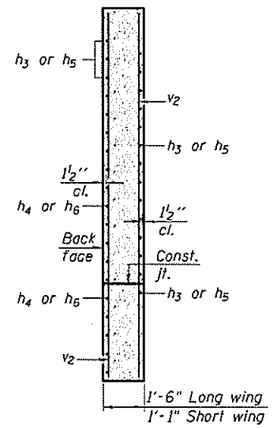


AT UPSTREAM END



AT DOWNSTREAM END

DRAIN DETAILS



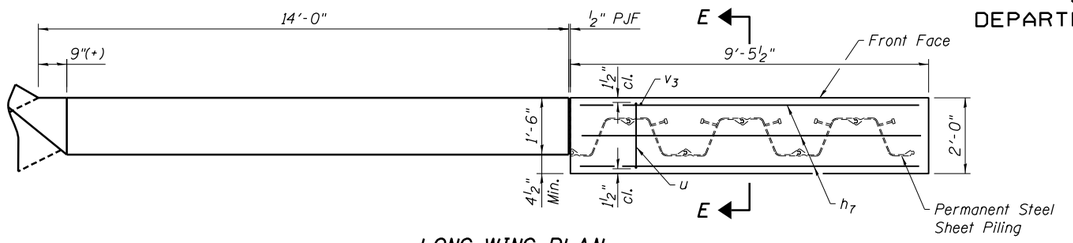
SECTION C-C
(Bars shown are in long wing)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	03/10
DRAWN BY:	DWH/HAS	03/10
CHECKED BY:	ELH	04/10
APPROVED BY:	RDP	04/10

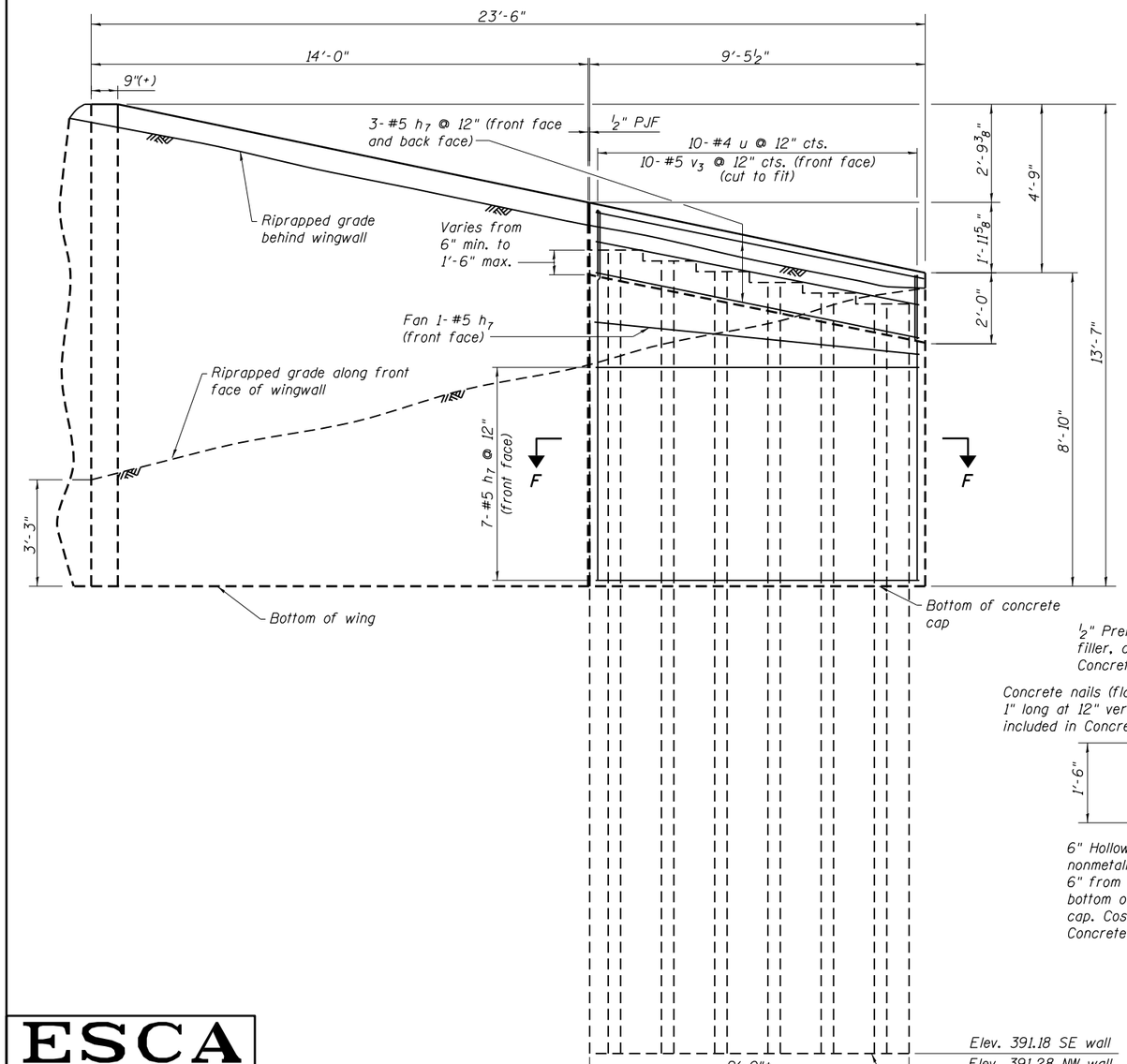
BOX CULVERT DETAILS
STRUCTURE NO. 051-2008

SHEET NO. 6	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10 SHEETS	781	109B-1	LAWRENCE	34	20
			CONTRACT NO. 74105		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LONG WING PLAN



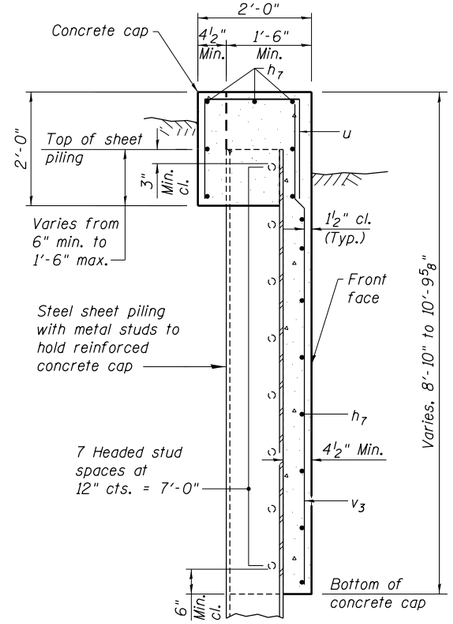
LONG WING ELEVATION
(Looking at Back Face)

NOTES

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

BILL OF MATERIAL

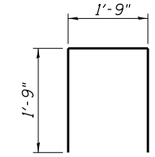
Bar	No.	Size	Length	Shape
h_7	28	#5	9'-2"	——
u	20	#4	5'-3"	⊓
v_3	10	#5	18'-11"	——
Concrete Box Culverts			Cu. Yd.	8.5
Reinforcement Bars			Pound	540
Permanent Steel Sheet Piling			Sq. Ft.	402



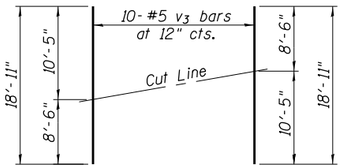
SECTION E-E

CONSTRUCTION SEQUENCE

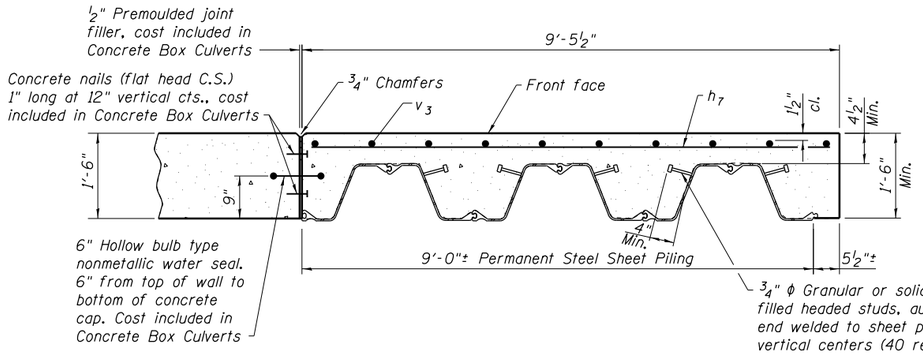
1. Excavate site for box culvert wingwall and steel sheet piling wall.
2. Backfill with rock fill as shown on the plans.
3. Construct box culvert wingwall and include water seal in concrete pour.
4. Install ½" PJF with concrete nails.
5. Install Permanent Steel Sheet Piling.
6. Backfill behind box culvert wingwall and Permanent Steel Sheet Piling.
7. Construct concrete cap.
8. Complete backfill in front of and behind wall.
9. Install stone riprap around wall.



BAR u



BAR v_3



SECTION F-F

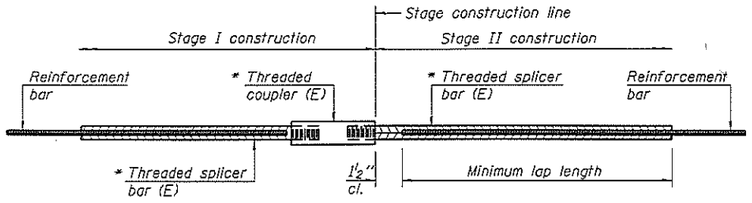
FIELD CUTTING DIAGRAM
Order v_3 full length. Cut as shown and use remainder of bars in opposite wall.

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

SHEET NO. 7	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10 SHEETS	781	109B-1	LAWRENCE	34	21
			CONTRACT NO. 74105		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

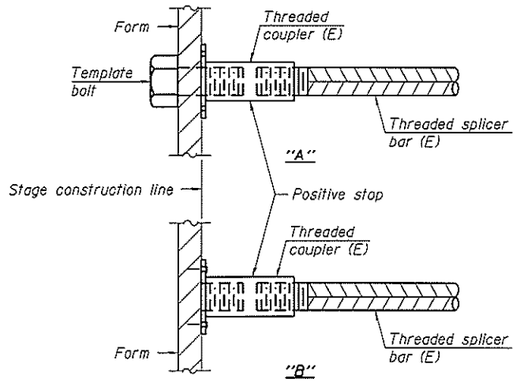
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

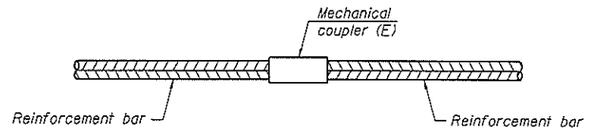
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Bottom slab	#5	70	1
Top slab	#5	70	1
Walls	#5	48	1



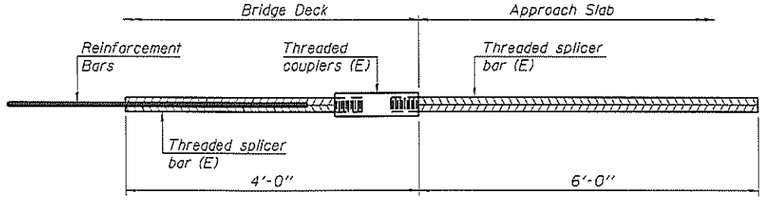
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



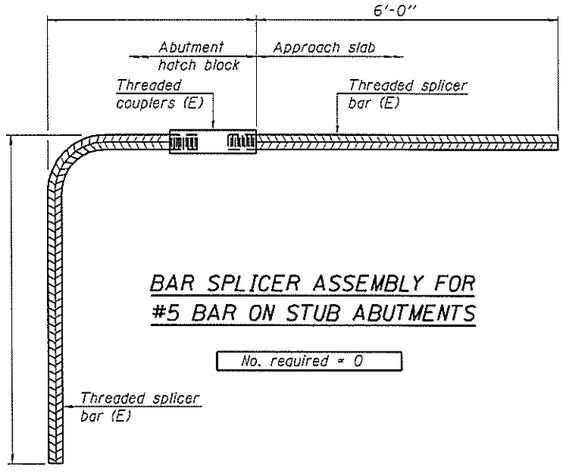
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
NA		



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 0



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 0

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

ESCA CONSULTANTS, INC.

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

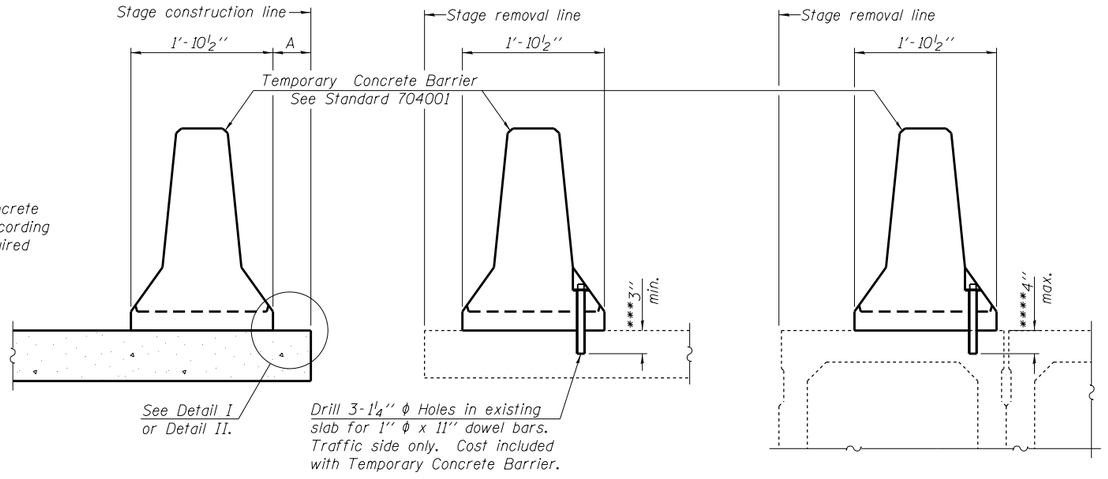
BSD-1 11-1-09

BAR SPLICER ASSEMBLY DETAILS
STRUCTURE NO. 051-2008

SHEET NO. 8	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10 SHEETS	781	109B-1	LAWRENCE	34	22
			CONTRACT NO. 74105		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1''x7''x10'' steel ℄ to the top layer of couplers with 2-⅝'' ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1''x7''x 10'' steel ℄ to the concrete slab or concrete wearing surface with 2-⅝'' ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

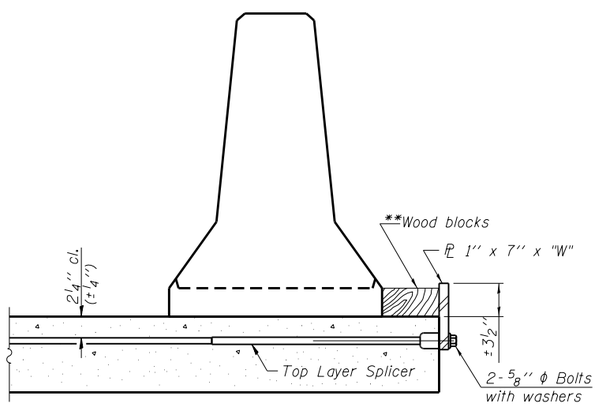
Cost of anchorage is included with Temporary Concrete Barrier.

The 1'' x 7'' x 10'' plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

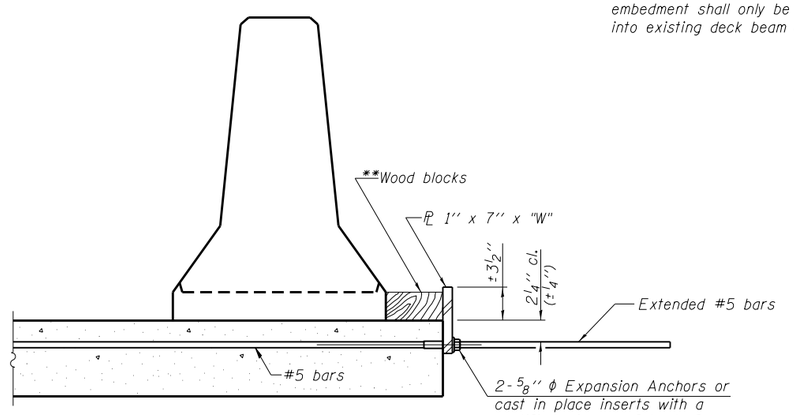
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



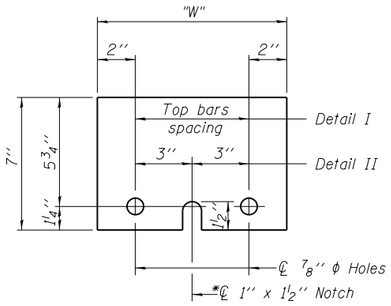
DETAIL I



DETAIL II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4''



STEEL RETAINER ℄ 1'' x 7'' x 10''

* Required only with Detail II

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 051-2008

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	03/10
DRAWN BY:	DWH	03/10
CHECKED BY:	ELH	03/10
APPROVED BY:	RDP	03/10

R-27 11-1-09

SHEET NO. 9	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10 SHEETS	781	109B-1	LAWRENCE	34	23
			CONTRACT NO. 74105		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
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#

STRUCT. NO. 051-0035
Station 705+40

BORING NO. 1 N Abut
Station 704+90
Offset 5.00ft Rt
Ground Surface Elev. 421.27 ft

Surface Water Elev. 408.38 ft
Stream Bed Elev. 407.73 ft

Groundwater Elev.:
First Encounter 401.8 ft
Upon Completion 407.3 ft
After 24 Hrs. 407.3 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				5" asphalt on 9 1/4" concrete pavement.
426.07				
				Medium, damp, brown, CLAY LOAM.
	2			
	2	0.8	14	
	3	B		
-5	2			
	2	0.8	21	
	2	B		
414.27				
	0			Soft, damp, brown, SANDY CLAY.
	2	0.3	18	
	2	B		
411.77				
-10	3			Stiff, damp, brown mottled red, CLAY w/ some Sand.
	4	1.7	22	
	5	B		
409.27				
	3			Medium, damp, brown, SANDY CLAY LOAM.
	3	0.8	11	
	3	B		
406.77				
-15	1			Soft to medium, damp, brown, SANDY LOAM.
	2	0.5	14	
	1	B		
	0			
	0	0.4	17	
	0	PP		
401.77				
-20	1			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	2		17	Loose, wet, brown, fine grained, SAND w/ few small Gravel. *4% passing #200 sieve.*
	1			
	1			
	2		4	Coarse grained w/ medium Gravel. *1% passing #200 sieve. (continued)*
	3			
396.77				
-25	4			Medium, wet, brown, coarse grained, SAND w/ many small Gravel. *0.3% passing #200 sieve.*
	5		8	
	6			
	8			*3% passing #200 sieve.*
	8		9	
	8			
-30	4			Fine grained w/ few small Gravel. *5% passing #200 sieve.*
	6		18	
	7			
-35	5			*4% passing #200 sieve.*
	7		14	
	6			
381.27 -40	11			

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)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

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#

STRUCT. NO. 051-0035
Station 705+40

BORING NO. 1 N Abut
Station 704+90
Offset 5.00ft Rt
Ground Surface Elev. 421.27 ft

Surface Water Elev. 408.38 ft
Stream Bed Elev. 407.73 ft

Groundwater Elev.:
First Encounter 401.8 ft
Upon Completion 407.3 ft
After 24 Hrs. 407.3 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	16		12	Medium, wet, brown, fine grained, SAND. *5% passing #200 sieve.*
	13			
-45	5			
	8		20	*Low recovery this trip.*
	11			
-50	4			
	8		19	*3% passing #200 sieve.*
	9			
361.27 -60	6			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	10		18	Medium, wet, brown, fine grained, SAND. *2% passing #200 sieve.*
	12			
-65				
-70	6			
	9		7	*3% passing #200 sieve.*
	12			
343.77				
				Very dense, moist, gray, CLAY SHALE.
341.67				
-80	50/1"			Borehole continued with rock coring.

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)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

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

STRUCT. NO. 051-0035
Station 705+40

BORING NO. 1 N Abut
Station 704+90
Offset 5.00ft Rt
Ground Surface Elev. 421.27 ft

NW, conv dbl bbl
CORING BARREL TYPE & SIZE split inner
Core Diameter 2.06 in
Top of Rock Elev. 341.77 ft
Begin Core Elev. 341.67 ft

DEPTH (ft)	CORE (ft)	RECOVERY (%)	RQD (%)	CORE TIME (min/ft)	STRENGTH (tsf)	
						Soft, gray, slightly weathered, SANDSTONE, scratches easily.
341.67						
-65	B1C1	95	74	0.9		*Rock core B1C1 from 81.7' to 82.3' depth Qu = 948 tsf.*
338.87						Soft, gray, severely weathered, SANDSTONE, scratches easily.
338.67						Soft, gray, slightly weathered, SANDSTONE, scratches easily.
-85	B1C2	94	70	0.7		*Rock core B1C2 from 86.6' to 87.1' depth Qu = 449 tsf.*
331.67						Extent of exploration.
-90						
-95						Benchmark: BM 512 chiseled square on top of NE wingwall of existing structure = 421.11', provided by Program Development.

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)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 3

Date 10/15/08

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#

STRUCT. NO. 051-0035
Station 705+40

BORING NO. 2 S Abut
Station 705+90
Offset 5.50ft Lt
Ground Surface Elev. 421.29 ft

Surface Water Elev. 408.38 ft
Stream Bed Elev. 407.73 ft

Groundwater Elev.:
First Encounter 401.8 ft
Upon Completion 407.4 ft
After 24 Hrs. 407.4 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				4 3/4" asphalt on 9 1/4" concrete pavement.
428.09				
				Stiff, damp, gray, gravelly, CLAY.
	4			
	5	1.4	13	
	4	B		
416.79				
-5	1			Soft, damp, gray/brown/red, SANDY CLAY w/ few small Gravel.
	2	0.3	23	
	3	B		
	1			
	2	0.3	27	
	3	B		
411.29 -10	2			
	3	1.5	24	Stiff, damp, brown mottled red, CLAY.
	4	B		
408.29				
	2			Very soft, very damp, brown, SANDY LOAM w/ some small Gravel.
	2	0.5	21	
	3	B		
-15	1			
	3	0.1	17	
	3	B		
	1			
	2	0.2	16	
	1	PP		
401.79				
-20	1			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	2		16	Loose, wet, brown, fine grained, SAND w/ medium Gravel. *4% passing #200 sieve.*
	1			
	2			
	2		12	*5% passing #200 sieve. (continued)*
	3			
396.79				
-25	4			Medium, wet, brown, fine grained, SAND w/ small Gravel. *2% passing #200 sieve.*
	5		9	
	5			
	6			
	7		10	*3% passing #200 sieve.*
	7			
-30	5			*4% passing #200 sieve.*
	13		11	
	11			
-35	4			
	6		15	*4% passing #200 sieve.*
	6			
381.29 -40	4			

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)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 2 of 3

Date 10/15/08

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#

STRUCT. NO. 051-0035
Station 705+40

BORING NO. 2 S Abut
Station 705+90
Offset 5.50ft Lt
Ground Surface Elev. 421.29 ft

Surface Water Elev. 408.38 ft
Stream Bed Elev. 407.73 ft

Groundwater Elev.:
First Encounter 401.8 ft
Upon Completion 407.5 ft
After 24 Hrs. 407.4 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	8		18	Medium, wet, brown, fine grained, SAND. *3% passing #200 sieve.*
	8			*With small Gravel.*
-45	3			
	6		18	*2% passing #200 sieve.*
	6			
-50	4			
	6		19	*3% passing #200 sieve.*
	8			
361.29 -60	4			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	5		16	Medium, wet, brown, fine grained, SAND. *2% passing #200 sieve.*
	7			
-65				
-70	5			
	8		17	*6% passing #200 sieve.*
	7			
341.79				
-80	50/1"		13	Very dense, moist, gray, SILTY

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)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 3 of 3

Date 10/15/08

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#

STRUCT. NO. 051-0035
Station 705+40

BORING NO. 2 S Abut
Station 705+90
Offset 5.50ft Lt
Ground Surface Elev. 421.29 ft

Surface Water Elev. 408.38 ft
Stream Bed Elev. 407.73 ft

Groundwater Elev.:
First Encounter 401.5 ft
Upon Completion 407.5 ft
After 24 Hrs. 407.4 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
341.69	50/0"			CLAY SHALE
	50/0"			Extent of exploration.
-85				
-90				
-95				Benchmark: BM 512 chiseled square on top of NE wingwall of existing structure = 421.11', provided by Program Development.
-100				

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)

BORING LOGS
STRUCTURE NO. 051-2008

ESCA CONSULTANTS, INC.		
DESIGNED BY:	RDP/ELH	03/10
DRAWN BY:	DWH/HAS	03/10
CHECKED BY:	ELH	03/10
APPROVED BY:	RDP	03/10

SHEET NO. 10
10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	24
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
SPRINGFIELD, ILLINOIS

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

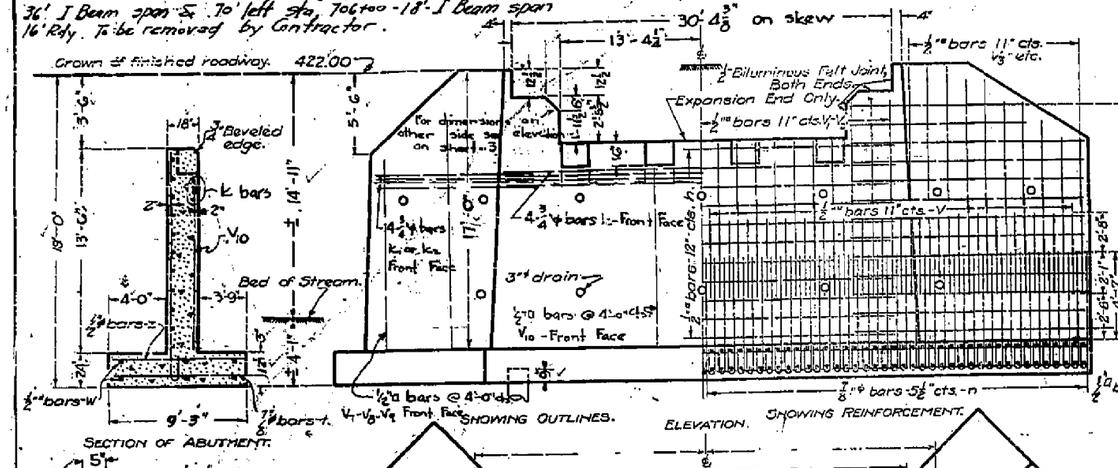
R. C. ABUTMENTS FOR DECK GIRDER BRIDGE
HEIGHT OVER ALL 19 FEET

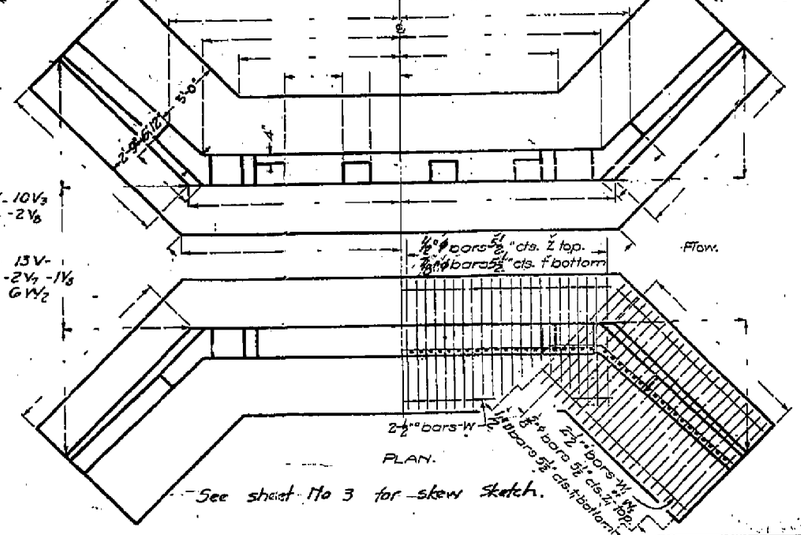
SHEET ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
181	109B	Lawrence	56	54
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Sheet No. 2
3 Sheets.

Bench Mark: Mark X on N.W. Wing-Wall 60' ℄ left Sta. 707+00. Elev. 418.93.

EXISTING STRUCTURES: Eighty (80') left Sta. 705+60 - 36' I Beam span ℄ 70' left Sta. 706+00 - 18' I Beam span 16' Rdy. To be removed by Contractor.





Class X concrete shall be used throughout.

All reinforcing steel shal be securely wired in place before concrete is poured.

Bars in each long Wing:- 27-V - 10 V3 - 6 V4 - 6 V5 - 6 V6 - 12 h1 - 11 h2 - 3 h3 - 3 V7 - 2 V8 - 2 V9 - 55 n - 63 t. - 56 z. - 4 K1 - 6 W.

Bars in each short Wing:- 13 V - 4 V3 - 3 V4 - 3 V5 - 3 V6 - 12 h4 - 11 h5 - 3 h6 - 2 V7 - 1 V8 - 1 V9 - 26 n - 34 t. - 26 z. - 4 K2 - 6 W1/2

STANDARD	COMPUTED	C. C. Ward
	CHECKED	[illegible]
	DRAWN	[illegible]
	CHECKED	C. C. W.
SPECIAL	ASSEMBLED	Harold B. Hollis
	CHECKED	J. C. Anderson

EXAMINED 9-28-1933

BILL OF MATERIAL.

Bars	No.	Size	Length
V	130	1"	4'-5"
V1	58	"	10'-5"
V2	10	"	13'-5"
V3	28	"	11'-6"
V4	18	"	12'-0"
V5	18	"	10'-6"
V6	18	"	9'-0"
n	58	1/2"	10'-6"
h1	25	"	28'-9"
t2	2	"	32'-6"
V7	10	"	16'-0"
n	300	7/8"	7'-6"
V8	6	1/2"	18'-0"
t	142	7/8"	8'-9"
t1	194	7/8"	8'-9"
z	136	7/8"	9'-0"
z1	164	7/8"	8'-0"
K	16	3/4"	16'-6"
K2	8	"	28'-6"
K3	8	"	15'-9"
W	24	1/2"	17'-3"
W1	12	"	23'-9"
V9	6	"	11'-6"
V10	14	"	13'-3"
Reinforcing Steel Lbs.			17,150
Concrete Cu. Yds.			79.7
h3	6	1/2"	17'-6"
h4	24	"	13'-3"
h5	2	"	11'-0"
h6	6	"	9'-6"
W2	12	"	15'-9"

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

FOR INFORMATION ONLY

22 (22745—500)

FILE NAME =	USER NAME = steffenmk	DESIGNED - DAJ	REVISED -
		DRAWN - HAS	REVISED -
	PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
	PLOT DATE = 6/2/2014 1:11:22 PM	DATE - 02/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	25
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

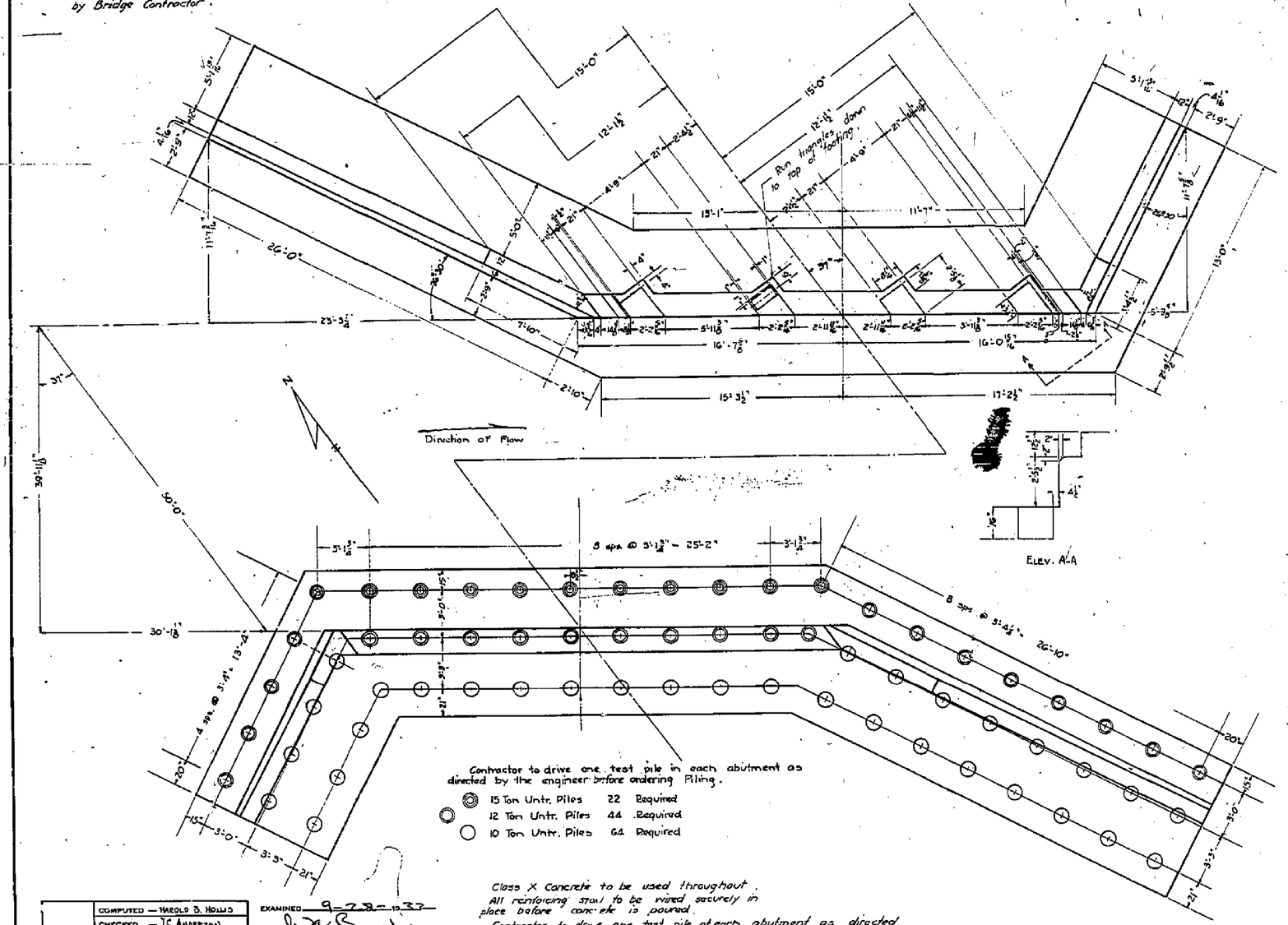
ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
SPRINGFIELD, ILLINOIS

Bench Mark: Mark X on N.W. Wing-Wall 60' Lt. sta. 707+00. Elev. 418.93.
Existing Structures: Eighty feet (80) left sta. 705+80 - 36' I-Beam span &
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

SECT. NO.	COUNTY	TOTAL SHEETS	SHEET NO.
181	1098 Lawrence	56	56

SHEET NO. 3
3 SHEETS



Contractor to drive one test pile in each abutment as directed by the engineer before ordering Piling.

◎ 15 Ton Untr. Piles	22 Required
◎ 12 Ton Untr. Piles	44 Required
○ 10 Ton Untr. Piles	64 Required

Class X Concrete to be used throughout.
All reinforcing steel to be wired securely in place before concrete is poured.
Contractor to drive one test pile at each abutment as directed by the engineer before ordering piling.

STANDARD	COMPUTED	HAROLD B. HOLLIS
	CHECKED	J.C. AUBERSON
	DRAWN	HAROLD B. HOLLIS
	CHECKED	J.C.A.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 9-28-1937
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

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

FOR INFORMATION ONLY

FILE NAME =	USER NAME = steffenmk	DESIGNED - DAJ	REVISED -
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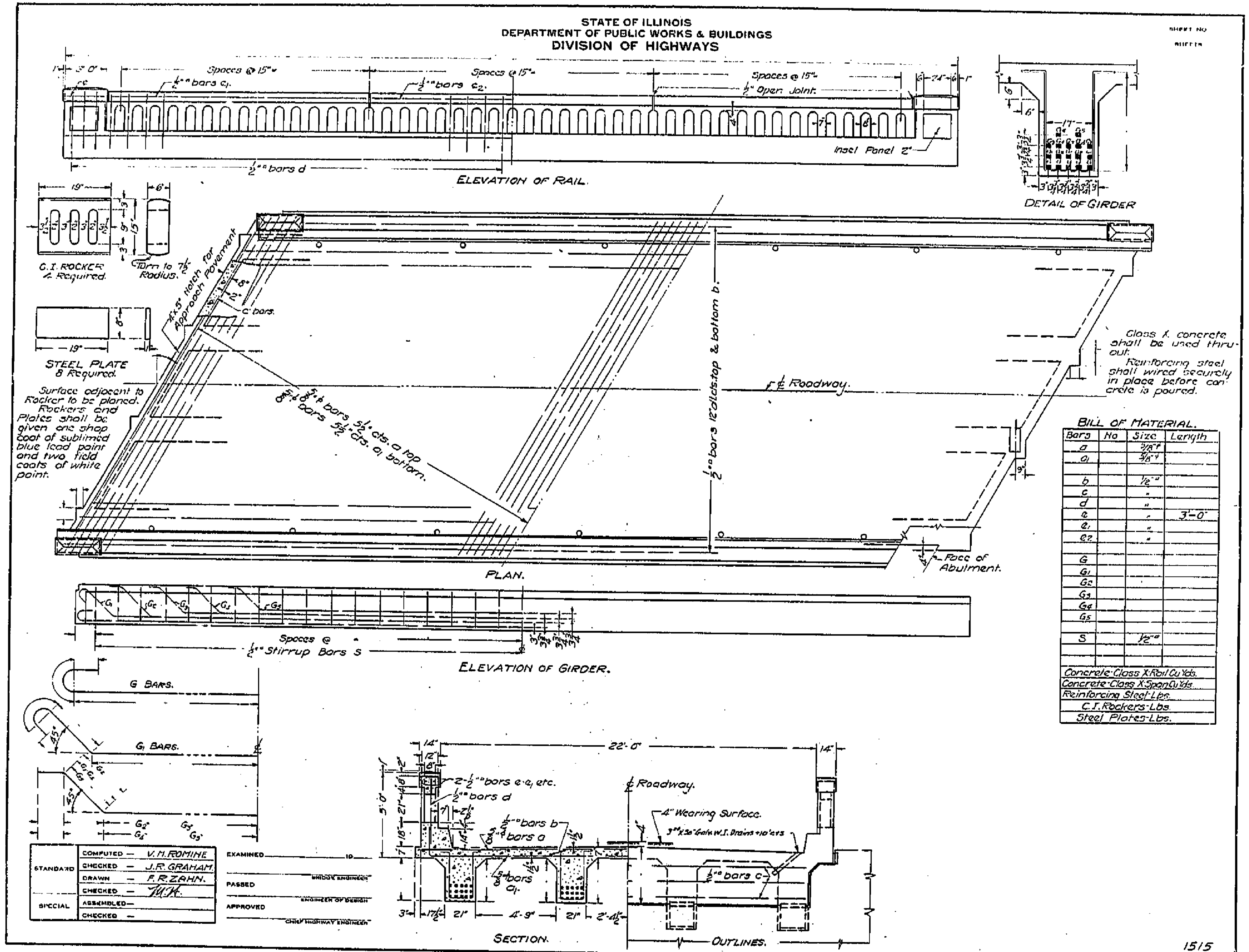
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	26
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		



FOR INFORMATION ONLY

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	27
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
ENVIRONMENTAL SCIENTISTS

ROUTE	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
181	109B	Lawrence	34	33
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

9 12 15'-0" 13 16'-3" 53' 9" 12 15'-0" 9"

37

92	30'-8"
92	31'-9"
52	27'-6"
6	26'-0"
90	
8	
8	15'-3
4	16'-0"
20	57'-0"
12	58'-0"
8	55'-0"
12	49'-0"
8	45'-0"
212	8'-9"

79
13.8
26,400
1412
345

26 12" 26'-0"

DETAIL OF a, BAR 7

Inside Radius = 6"

26'3"

24' 2"

22'5" 20'10"
18'10"

b-bar

Galv. W.I.-24" long

9-28-32

H. B. Hollis
J. C. Anderson

Frank Plett

S.B.I. ROUTE 181 SECTION 109-B
LAWRENCE COUNTY
STA. 105+40

1515

FOR INFORMATION ONLY

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	PLOT DATE = 6/2/2014 1:26:58 PM	DATE - 02/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS

SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	28
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
URBANA, ILLINOIS

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

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

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

425 420 415 410

EX ROW

PR. TBT. TYI (SPL) TANGENT

1:3

702 + 50.00

RIGHT
TOPSOIL C = 3.61
TOPSOIL F = 2.35
EARTH C = 1.70
EARTH F = 4.73

702 + 00.00

RIGHT
TOPSOIL C = 4.00
TOPSOIL F = 2.24
EARTH C = 1.55
EARTH F = 5.10

701 + 50.00

701 + 00.00

FILE NAME =	USER NAME = steffenmk	DESIGNED - DAJ	REVISED -
C:\pwidgen\pwidot8\steffenmk\d0273139\D774105-sht-xssht01.dgn		DRAWN - RJT/HAS	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED - ELH	REVISED -
SCALES: (HORIZ) 1"=10' (VERT) 1"=5'	PLOT DATE = 6/2/2014 1:34:53 PM	DATE - 06/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 781 (IL 33) CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 1 OF 6 SHEETS | STA. 701+00 TO STA. 702+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	29
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
URBANA, ILLINOIS

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

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

BY	DATE

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

425 420 415 410

EX ROW

ELEV. 421.50

704 + 00.00

LEFT
TOPSOIL C = 2.48
TOPSOIL F = 0.82
EARTH C = 4.91
EARTH F = 0.00

RIGHT
TOPSOIL C = 0.00
TOPSOIL F = 0.00
EARTH C = 7.28
EARTH F = 4.76

8.5%

703 + 92.74
FE RT

RIGHT
TOPSOIL C = 0.00
TOPSOIL F = 0.00
EARTH C = 5.12
EARTH F = 0.00

PR TBT TY 1
(SPL) TANGENT

PR TBT TY 1
(SPL) TANGENT

1:2

4:1

1:2

703 + 50.00

LEFT
TOPSOIL C = 2.73
TOPSOIL F = 1.58
EARTH C = 1.55
EARTH F = 2.80

RIGHT
TOPSOIL C = 4.41
TOPSOIL F = 2.92
EARTH C = 1.75
EARTH F = 4.95
TEMP F = 4.21

PR TBT TY 1
(SPL) TANGENT

PR SPBGR TY A

1:2

4:1

1:2

703 + 00.00

LEFT
TOPSOIL C = 3.23
TOPSOIL F = 1.61
EARTH C = 1.65
EARTH F = 3.98

RIGHT
TOPSOIL C = 4.84
TOPSOIL F = 3.45
EARTH C = 1.52
EARTH F = 5.78
TEMP F = 5.97

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 781 (IL 33) CROSS SECTIONS

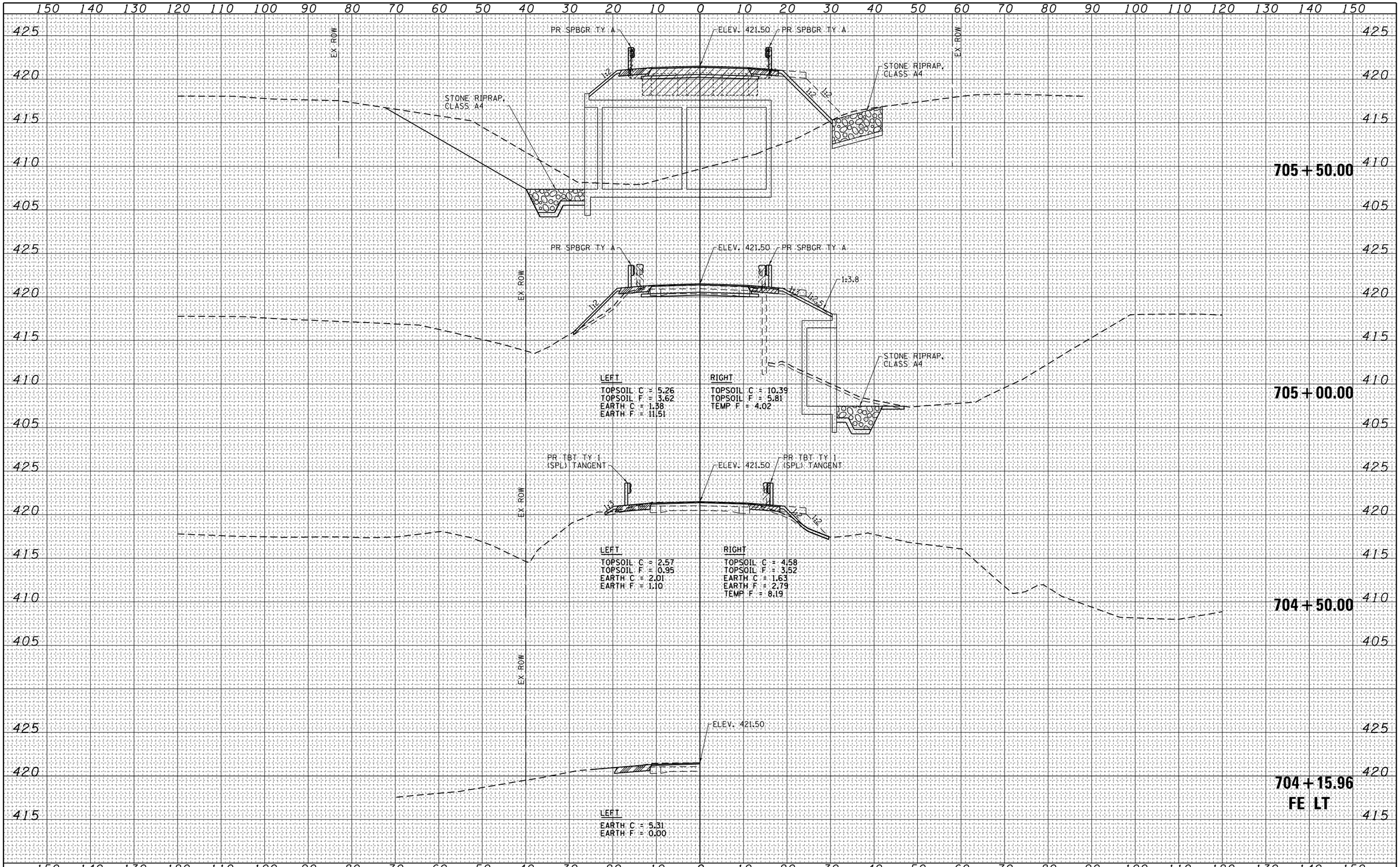
SCALE: AS SHOWN | SHEET NO. 2 OF 6 SHEETS | STA. 703+00 TO STA. 704+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	30
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
URBANA, ILLINOIS

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

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



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 781 (IL 33) CROSS SECTIONS

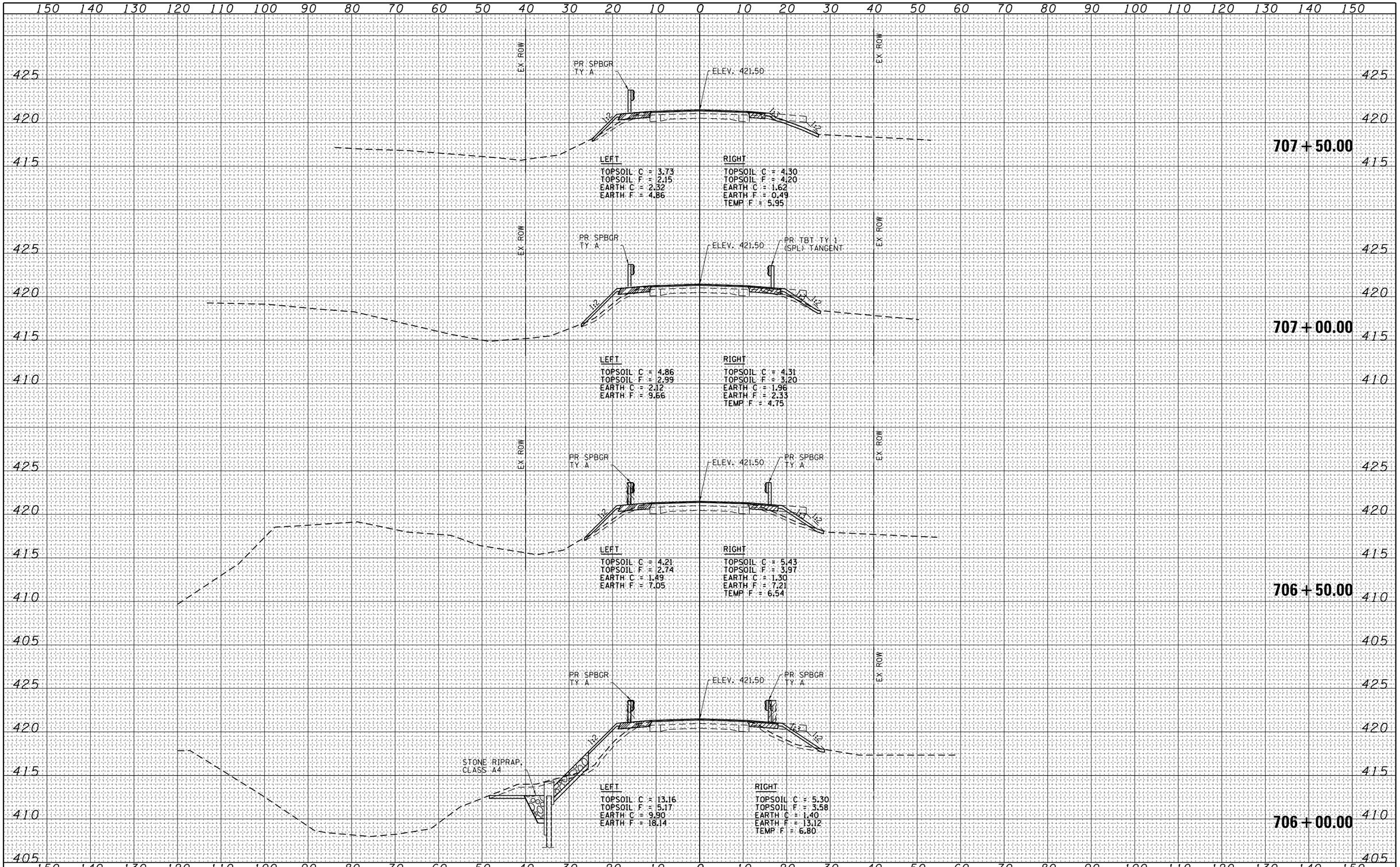
SCALE: AS SHOWN | SHEET NO. 3 OF 6 SHEETS | STA. 704+15.96 TO STA. 705+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	31
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
URBANA, ILLINOIS

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

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



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SCALES: (HORIZ) 1"=10' (VERT) 1"=5'	PLOT DATE = 6/2/2014 1:36:20 PM	DATE - 06/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 781 (IL 33) CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 4 OF 6 SHEETS | STA. 706+00 TO STA. 707+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	32
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
URBANA, ILLINOIS

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

BY	DATE

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

BY	DATE

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

425 420 415

EX. ROW

709 + 50.00

LEFT
TOPSOIL C = 3.69
TOPSOIL F = 1.83
EARTH C = 1.47
EARTH F = 3.74

709 + 00.00

PR TBT TY 1
(SPL) TANGENT

LEFT
TOPSOIL C = 3.64
TOPSOIL F = 2.11
EARTH C = 1.62
EARTH F = 3.05

708 + 50.00

PR SPBGR TY A

ELEV. 421.50

LEFT
TOPSOIL C = 2.45
TOPSOIL F = 1.16
EARTH C = 1.83
EARTH F = 1.76

708 + 00.00

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 781 (IL 33) CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 5 OF 6 SHEETS | STA. 708+00 TO STA. 709+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	33
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
URBANA, ILLINOIS

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

BY	DATE

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

BY	DATE

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

425
420
415

EX. ROW

711 + 50.00

711 + 00.00

710 + 50.00

710 + 00.00

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		DRAWN - RJT/HAS	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 781 (IL 33) CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 6 OF 6 SHEETS | STA. 710+00 TO STA. 711+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	109B-1	LAWRENCE	34	34
		CONTRACT NO. 74105		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		