

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
761	104-BR-2	GREENE	82	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 76987		

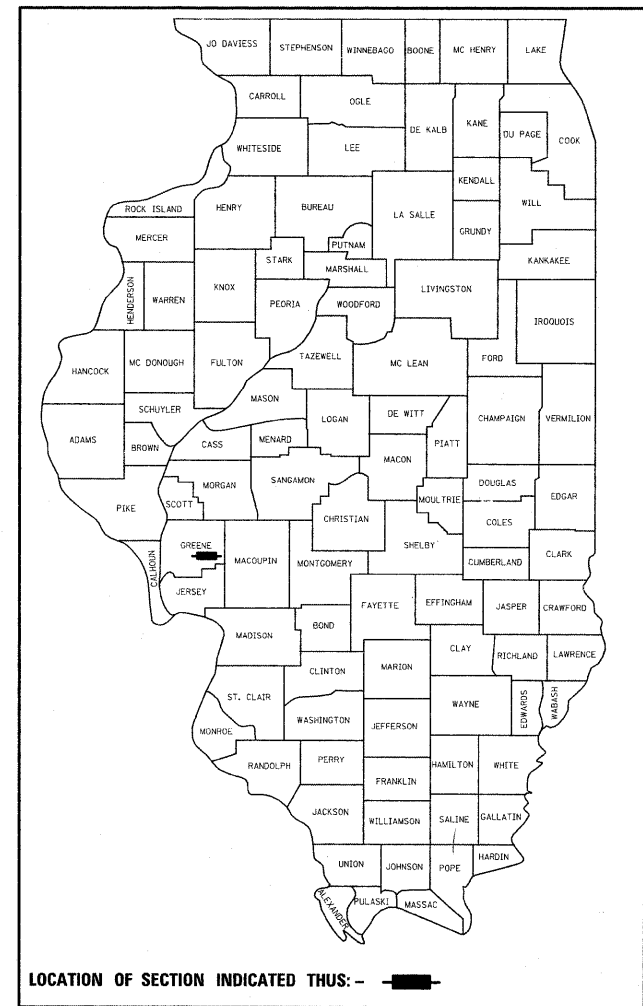
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

**PROPOSED**  
**HIGHWAY PLANS**

FAP ROUTE 761 (IL ROUTE 108)  
SECTION 104-BR-2  
PROJECT: *BRF-0761(010)*  
GREENE COUNTY  
STRUCTURE REPLACEMENT  
C-98-092-08

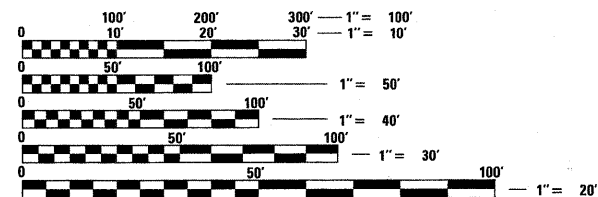
FOR INDEX OF SHEETS, SEE SHEET NO. 2

D-98-015-06



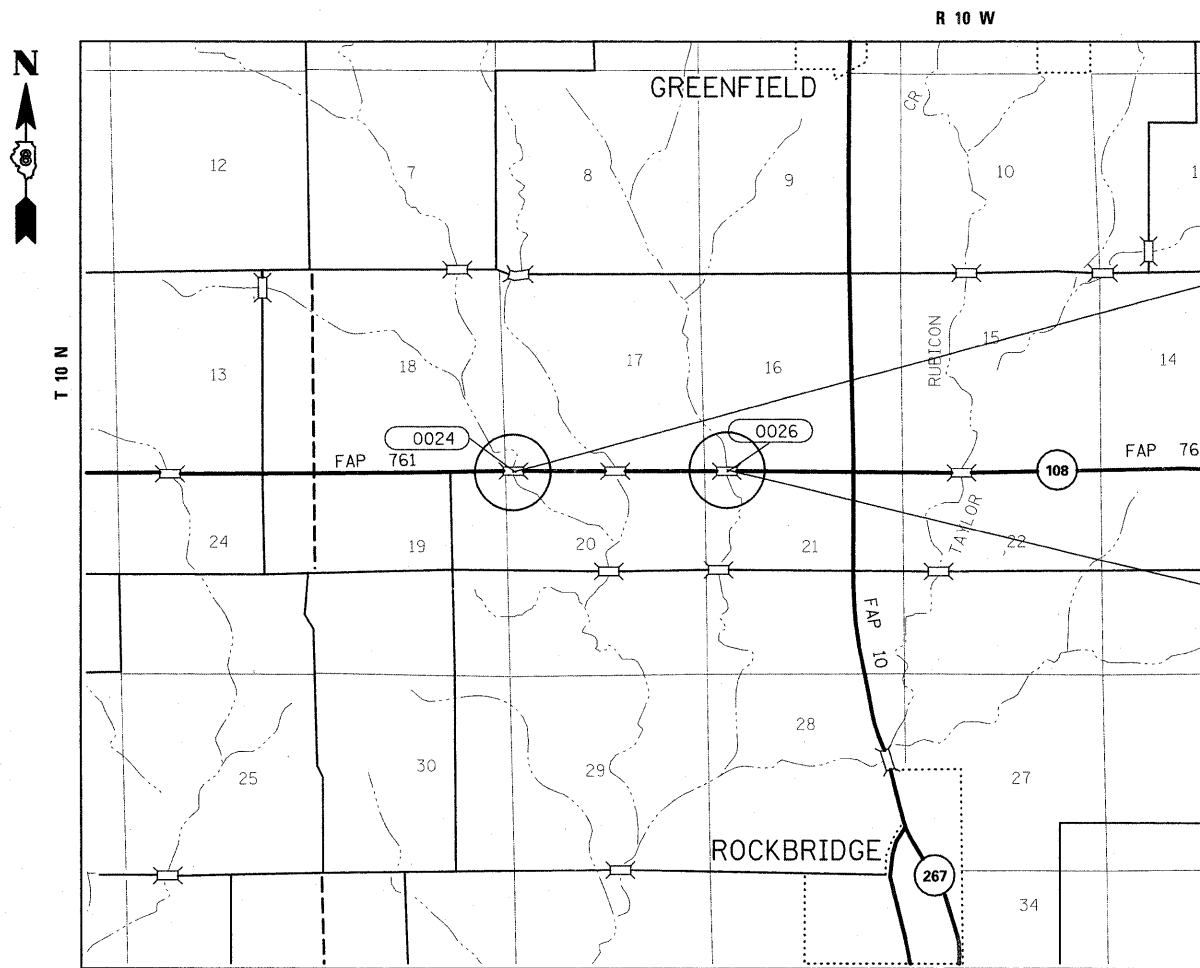
**FAP 761 (IL 108)**  
ADT = 1100 (2005)  
ADT = 1125 (2007)  
ADT = 1350 (2027)  
SU = 4.5%  
MU = 4.5%

**DESIGN DESIGNATION**  
NA



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

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



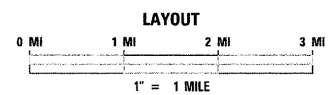
SINGLE SPAN PPC DECK BEAM  
TO BE REPLACED WITH PRECAST  
TRIPLE BOX CULVERT  
OVER TAYLOR CREEK  
STA 1068+35  
SN 031-0024 (E)  
SN 031-2012 (P)

SINGLE SPAN PPC DECK BEAM  
TO BE REPLACED WITH SINGLE  
SPAN WIDE FLANGE STRUCTURE  
OVER TAYLOR CREEK  
STA 1123+55  
SN 031-0026 (E)  
SN 031-0042 (P)

SN 031-2012  
GROSS LENGTH 0.0104 MI  
NET LENGTH 0.0104 MI

SN 031-0042  
GROSS LENGTH 0.0165 MI  
NET LENGTH 0.0165 MI

TOTAL  
GROSS LENGTH 0.0269 MI  
NET LENGTH 0.0269 MI



SN 031-0024	SN 031-0026
LATITUDE: 39° 18' 20.06"	LATITUDE: 39° 18' 19.97"
LONGITUDE: 90° 14' 27.24"	LONGITUDE: 90° 13' 16.39"

PROJECT ENGINEER: PATTI LeBEAU (618 346-3179)  
PROJECT MANAGER: ARTHUR MUEHLFELD (618) 346-3209

CONTRACT NO. 76987

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED December 11, 2008

*Alan C. Jones*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

January 30, 2009  
*Charles A. Ingersoll*  
ENGINEER OF DESIGN AND ENVIRONMENT

January 30, 2009  
*Christine M. Reed*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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SN 031-0024(E) 2012(P)

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SN 031-0026(E) 0042(P)

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HIGHWAY STANDARDS

000001-05		701311-03
280001-04		701321-10
515001-03	630301-05	701326-03
601101-01	631031-07	701901-01
606201-02	635006-03	704001-05
630001-00	635011-02	780001-02
630101-00	666001-01	781001-03
	701301-03	

GENERAL NOTES:

1. THE STANDARDS AND REVISION NUMBERS SHALL APPLY TO THIS PROJECT.
  2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
  3. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
    - AMERENCIPS (ELECTRIC)
    - FRONTIER COMMUNICATIONS COMPANY (COMMUNICATIONS)
    - GREENE COUNTY RURAL WATER DISTRICT (WATER)
    - CITY OF GREENFIELD (WATER & SANITARY SEWER)
    - VERIZON NORTH, INC. (COMMUNICATIONS)
- MEMBERS OF J.U.L.I.E. (800) 892-0123 ARE INDICATED BY \*.  
NON-MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
4. THE THICKNESS OF THE HOT-MIX ASPHALT MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE MINIMAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.
  5. SHORT-TERM PAVEMENT MARKING SHALL BE APPLIED TO THE MILLED SURFACE AND FINAL SURFACE.
  6. NO OPEN TRENCHES SHALL BE PERMITTED DURING WINTER SHUTDOWN OR AS DIRECTED BY THE ENGINEER.
  7. THE CONTRACTOR SHALL SAWCUT ALONG THE EDGE OF THE ROADWAY PRIOR TO PLACING THE 3' WIDENING FOR STAGE CONSTRUCTION AS DETAILED IN THE PLANS. THE COST SHALL BE INCLUDED IN THE COST OF THE REMOVAL ITEM.
  8. RIGHT OF WAY MARKERS SHALL BE SET SO THE BACK OF THE POST IS TWELVE INCHES (12") INSIDE THE RIGHT OF WAY BOUNDARY. RIGHT OF WAY PROPERTY CORNERS ARE MARKED BY A 5/8" IRON ROD WITH ALUMINUM CAP AND SHALL NOT BE REMOVED OR DAMAGED WHEN SETTING THE RIGHT OF WAY MARKERS.
  9. BRIDGE APPROACH PAVEMENT INCLUDED IN PAVEMENT REMOVAL.

TRAFFIC CONTROL NOTES:

1. THE CONTRACTOR SHALL FURNISH AND INSTALL WOOD SIGN SUPPORTS IN ACCORDANCE WITH SECTION 730 OF THE STANDARD SPECIFICATIONS.
2. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND ENDING OF THE PROJECT, AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLOURESCENT ORANGE.
3. ALL EXCAVATION ADJACENT TO THE EDGE OF PAVEMENT SHALL BE PROTECTED WITH EXTENDED LEG BARRICADES AND APPROPRIATE LIGHTS.
4. THE BOTTOM 6" OF TEMPORARY CONCRETE BARRIER SHALL BE PAINTED WHITE. A QUANTITY OF 912.5 FT SHALL BE PAID FOR AS "TEMPORARY PAVEMENT MARKING - LINE 6" "

COMMITMENTS

NONE

MIXTURE USE	SURFACE	BINDER / WIDENING	SHOULDERS	TOP LIFT SHOULDERS
AC/PG	PG 64-22	PG 64-22	PG 58-22	PG 58-22
RAP % (MAX)	10%	15%	30%	30%
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70	2.0% @ Ndes=30	**2.0% @ Ndes=30
MIX COMPOSITION (GRADATION MIXTURE)				
FRICTION AGG	MIXTURE "C"	MIXTURE "B"	BAM	BAM

\*\* TOP LIFT SHOULDERS - DESIGN THIS MIX AT 2.0% VOIDS AND ADD ASPHALT TO REDUCE VOIDS TO 1.5%.

PLAN QUANTITIES FOR BITUMINOUS CONCRETE SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD IN (59.8 KG/SQ M/25 MM THICKNESS).

FILE NAME =	USER NAME = herbaughrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES &amp; COMMITMENTS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -			CONTRACT NO. 76987					
	PLOT DATE = 12/11/2008	DATE -	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	

# SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE			SUMMARY OF QUANTITIES			80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		X028-2A	X071-2A		CODE NO	ITEM	UNIT		X028-2A	X071-2A	
20100500	TREE REMOVAL, ACRES	ACRE	0.25	0.19	0.06	50800515	BAR SPLICERS	EACH	268	355			
20200100	EARTH EXCAVATION	CU YD	85	55.3	29.7	51201710	FURNISHING STEEL PILES HP12X84	FOOT	780	780			
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	692	692		51202305	DRIVING PILES	FOOT	780	780			
20400800	FURNISHED EXCAVATION	CU YD	3935	1709.7	2225.3	51203710	TEST PILE STEEL HP12X84	EACH	2	2			
20700220	POROUS GRANULAR EMBANKMENT	CU YD	692	692		51500100	NAME PLATES	EACH	2	1	1		
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	161.2		161.2	52100520	ANCHOR BOLTS, 1"	EACH	24		24		
25000200	SEEDING, CLASS 2	ACRE	1.25	0.75	0.5	54003000	CONCRETE BOX CULVERTS	CU YD	388	388			
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	126	72	54	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	81		81		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	126	72	54	60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	168		168		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	126	72	54	60600095	CLASS SI CONCRETE (OUTLET)	CU YD	11		11		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	250	140	110	*63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	1075	625	450		
28000400	PERIMETER EROSION BARRIER	FOOT	3178	1573	1605	*63000025	STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES	FOOT	87.5	87.5			
28100105	STONE RIPRAP, CLASS A3	SQ YD	120		120	*63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4		4		
28100109	STONE RIPRAP, CLASS A5	SQ YD	1417	556	861	*63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	1		1		
28200200	FILTER FABRIC	SQ YD	1417	556	861	63200310	GUARDRAIL REMOVAL	FOOT	482	230	252		
35600712	HOT-MIX ASPHALT BASE COURSE WIDENING, 9"	SQ YD	776	363	413	66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	22	11	11		
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.6	0.1	0.5	66700095	PERMANENT SURVEY MARKERS	EACH	6	3	3		
40600300	AGGREGATE (PRIME COAT)	TON	3	0.5	2.5	66700705	FURNISHING AND ERECTING DRAINAGE MARKERS	EACH	2	2			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	581		581	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7	3	4		
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	835	202	633	67100100	MOBILIZATION	L SUM	1	0.5	0.5		
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	163.1	23.3	139.8	70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	2	1	1		
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	223		223	70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	0.5	0.5		
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	45		45	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	1	1		
44000100	PAVEMENT REMOVAL	SQ YD	263	130	133	70106700	TEMPORARY RUMBLE STRIP	EACH	12	6	6		
44000400	GUTTER REMOVAL	FOOT	245		245	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	276	128	148		
48203033	HOT-MIX ASPHALT SHOULDERS, 9"	SQ YD	384		384	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	912.5	375	537.5		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	2	1	1	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	92	42.7	49.3		
50200100	STRUCTURE EXCAVATION	CU YD	72.7		72.7	70400100	TEMPORARY CONCRETE BARRIER	FOOT	912.5	375	537.5		
50300225	CONCRETE STRUCTURES	CU YD	44		44	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	862.5	350	512.5		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	125.7		125.7	*78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3929	1597.5	2331.5		
50300260	BRIDGE DECK GROOVING	SQ YD	382		382	*78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	491		491		
50300280	CONCRETE ENCASEMENT	CU YD	4.2		4.2	*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	10	1	9		
50300300	PROTECTIVE COAT	SQ YD	290		290	*78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	2		2		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1	*78100300	REPLACEMENT REFLECTOR	EACH	6	6			
50500505	STUD SHEAR CONNECTORS	EACH	1044		1044	*78200410	GUARDRAIL MARKERS, TYPE A	EACH	21	10	11		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	87250	56190	31060	*78200520	BARRIER WALL MARKERS, TYPE B	EACH	2		2		

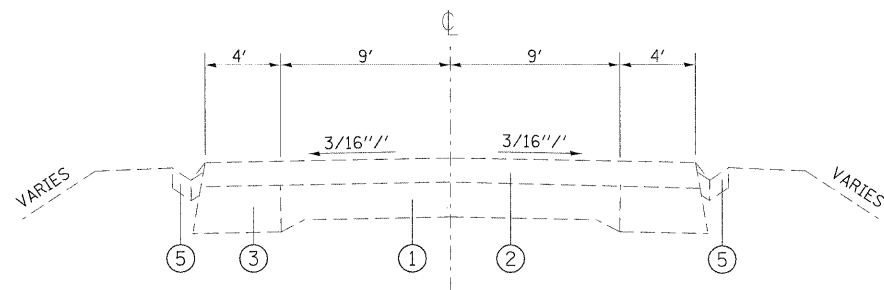
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	PLOT DATE = 12/10/2008	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

\*SPECIALTY ITEMS

REV

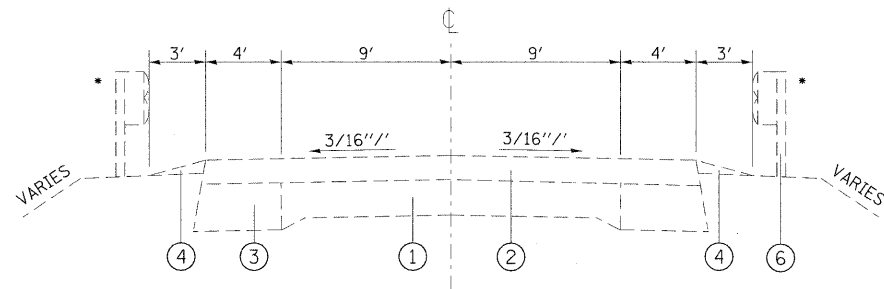
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CODE NO	ITEM	UNIT		X028-2A	X071-2A	CODE NO	ITEM	UNIT		X028-2A	X071-2A	X028-2A
*78200530	BARRIER WALL MARKERS, TYPE C	EACH	2		2							
*78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	1		1							
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1310	532.6	777.4							
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	12	6	6							
X0321100	GEOTEXTILE RETAINING WALL	SQ FT	150	150								
X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	1268	676	592							
X5121800	PERMANENT STEEL SHEET PILING	SQ FT	1272	1272								
X6330103	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, TANGENT	EACH	7	4	3							
X7200200	WIDE LOAD SIGNING	L SUM	1	0.5	0.5							
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	2	2							
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	2	2							
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	44	22	22							
X0326308	GEORIGIO TIEBACK SYSTEM	L SUM	1	1								



**EXISTING TYPICAL SECTION**

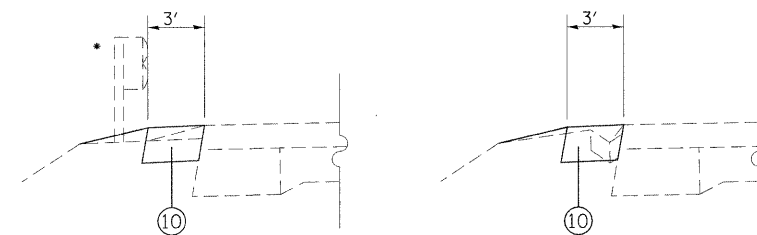
STA. 1064+98 TO STA. 1065+15  
 STA. 1126+25 TO STA. 1127+35



**EXISTING TYPICAL SECTION**

STA. 1065+15 TO STA. 1068+09  
 STA. 1068+61 TO STA. 1071+45  
 STA. 1120+00 TO STA. 1123+34  
 STA. 1123+76 TO STA. 1126+25

\* STA. 1067+02 TO STA. 1069+67

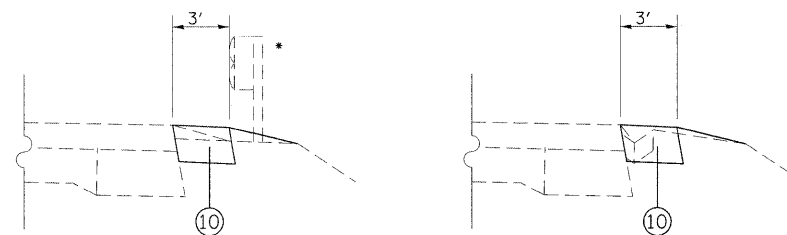


**PROPOSED WIDENING FOR STAGE I CONSTRUCTION**

STA. 1064+98 TO STA. 1071+45  
 STA. 1120+00 TO STA. 1126+25

STA. 1126+25 TO STA. 1127+35

\* STA. 1067+02 TO STA. 1069+67  
 STA. 1122+10 TO STA. 1124+78



**PROPOSED WIDENING FOR STAGE II CONSTRUCTION**

STA. 1065+15 TO STA. 1071+45

STA. 1126+25 TO STA. 1127+35

STA. 1122+40 TO STA. 1122+86 (BITUMINOUS RAMP)

STA. 1124+45 TO STA. 1125+22 (BITUMINOUS RAMP)

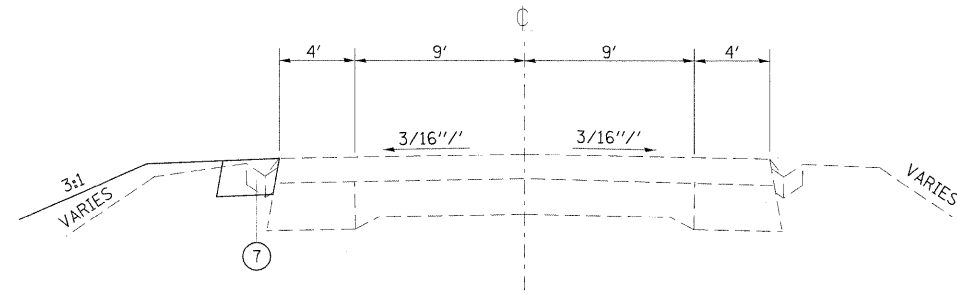
STA. 1125+22 TO STA. 1126+23

\* STA. 1067+02 TO STA. 1069+67  
 STA. 1122+32 TO STA. 1124+99

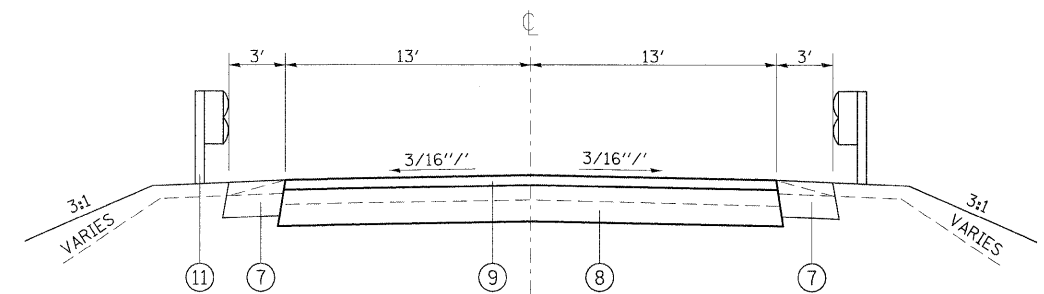
**LEGEND**

- ① EXISTING PCC PAVEMENT - 9"-6"-9"
- ② EXISTING BITUMINOUS SURFACE - ±5"
- ③ EXISTING WIDENING - 9"
- ④ EXISTING AGGREGATE SHOULDER
- ⑤ EXISTING TYPE B GUTTER
- ⑥ EXISTING GUARDRAIL
- ⑦ PROPOSED HOT-MIX ASPHALT SHOULDER (VARIES)
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES)
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE - 1 1/2 "
- ⑩ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING - 9"
- ⑪ PROPOSED GUARDRAIL

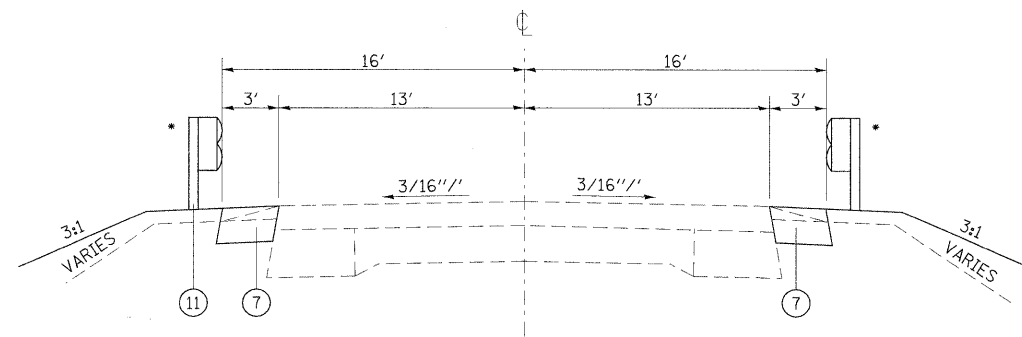
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01\pw_work\pwidot\harbaughrd\dms51889\p	h01506a.dgn	DRAWN -	REVISED -					761	104-BR-2	GREENE	82	5
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	REVISED -		CONTRACT NO. 76987			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
PLOT DATE = 12/18/2008	DATE -	REVISED -	REVISED -		SCALE:	SHEET NO. 1 OF 2 SHEETS	STA.	TO STA.				



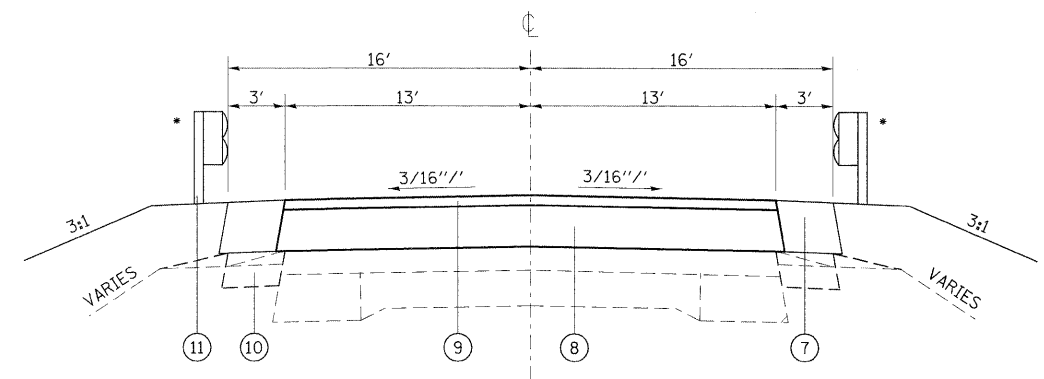
**PROPOSED TYPICAL SECTION**  
STA. 1064+98 TO STA. 1065+15



**PROPOSED TYPICAL SECTION**  
STA. 1067+87 TO STA. 1068+83



**PROPOSED TYPICAL SECTION**  
STA. 1066+51.5 TO STA. 1067+87 LT  
STA. 1068+83 TO STA. 1071+18.5 LT  
STA. 1065+51.5 TO STA. 1067+87 RT  
STA. 1068+03 TO STA. 1070+18.5 RT



**PROPOSED TYPICAL SECTION**  
STA. 1120+50 TO STA. 1122+79  
STA. 1124+38 TO STA. 1127+00

• STA. 1066+51.5 TO STA. 1067+87 LT  
STA. 1068+83 TO STA. 1071+18.5 LT  
STA. 1065+51.5 TO STA. 1067+87 RT  
STA. 1068+03 TO STA. 1070+18.5 RT

• STA. 1121+39.5 TO STA. 1123+07.5 LT  
STA. 1123+94.5 TO STA. 1126+12.5 LT  
STA. 1120+54.5 TO STA. 1123+22.5 RT  
STA. 1124+09.5 TO STA. 1125+77.5 RT

**LEGEND**

- ① EXISTING PCC PAVEMENT - 9'-6"-9"
- ② EXISTING BITUMINOUS SURFACE - ±5"
- ③ EXISTING WIDENING - 9"
- ④ EXISTING AGGREGATE SHOULDER
- ⑤ EXISTING TYPE B GUTTER
- ⑥ EXISTING GUARDRAIL
- ⑦ PROPOSED HOT-MIX ASPHALT SHOULDER (VARIES)
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE (VARIES)
- ⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE - 1 1/2 "
- ⑩ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING - 9"
- ⑪ PROPOSED GUARDRAIL

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01500a.dgn  
PLOT SCALE = 50,0000 ' / IN.  
PLOT DATE = 12/18/2008

DESIGNED -  
DRAWN -  
CHECKED -  
DATE

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED TYPICAL SECTIONS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
761	104-BR-2	GREENE	82	6
<b>CONTRACT NO. 76987</b>				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

SHOULDER & PAVEMENT SCHEDULE

Table with columns for LOCATION, PAVEMENT REMOVAL, HOT-MIX ASPHALT SURFACE REMOVAL, GUTTER REMOVAL, HOT-MIX ASPHALT BASE COURSE WIDENING, BITUMINOUS MATERIALS (PRIME COAT), AGGREGATE (PRIME COAT), HOT-MIX ASPHALT BINDER COURSE, HOT-MIX ASPHALT SURFACE COURSE, HOT-MIX ASPHALT SHOULDERS, CLASS SI CONCRETE (OUTLET).

EARTHWORK SCHEDULE

Table with columns for LOCATION, STATION TO STATION, EARTH EXCAVATION CU YD, FURNISHED EXCAVATION CU YD.

PAVEMENT MARKING SCHEDULE

Table with columns for LOCATION, PAVEMENT MARKING REMOVAL (YELLOW, WHITE, SKIP-DASH, SOLID), SHORT-TERM PAVEMENT MARKING, WORK ZONE PAVEMENT MARKING REMOVAL, THERMOPLASTIC PAVEMENT MARKING -4'', POLYUREA PAVEMENT MARKING TYPE I-LINE 4'', RAISED REFLECTIVE PAVEMENT MARKER REMOVAL, RAISED REFLECTIVE PAVEMENT MARKER, RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE), REPLACEMENT REFLECTOR.

REPLACEMENT REFLECTORS (REMOVED DURING STAGE CONSTRUCTION) ARE FROM STOP BAR TO STOP BAR.

RAISED REFLECTIVE PAVEMENT MARKER REMOVAL REQUIRES ONLY THE REFLECTORS TO BE REMOVED.

Footer information including FILE NAME, USER NAME, DESIGNED, REVISIONS, STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION, SCHEDULE OF QUANTITIES, SCALE, SHEET NO. 1 OF 2 SHEETS, STA. TO STA., FEDERAL ROAD DIST. NO., ILLINOIS FED. AID PROJECT, TOTAL SHEETS, SHEET NO., CONTRACT NO. 76987.

EROSION CONTROL SCHEDULE

LOCATION	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING
QUADRANT	FOOT	POUND
SN 031-2012		
NORTHWEST	331	40.3
NORTHEAST	429	34.4
SOUTHWEST	434	36.1
SOUTHEAST	379	29.2
SN 031-0042		
NORTHWEST	379	28.8
NORTHEAST	415	25.8
SOUTHWEST	403	26.8
SOUTHEAST	408	28.6
TOTAL	3178	250

TREE REMOVAL SCHEDULE

LOCATION	TREE REMOVAL
QUADRANT	ACRE
SN 031-2012	
NORTHWEST	0.03
NORTHEAST	0.05
SOUTHWEST	0.06
SOUTHEAST	0.05
SN 031-0042	
NORTHWEST	0.01
NORTHEAST	0.02
SOUTHWEST	0.01
SOUTHEAST	0.02
TOTAL	0.25

STAGING SCHEDULE

LOCATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	TEMPORARY PAVEMENT MARKING - LINE 6"	IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE)	IMPACT ATTENUATOR, RELOCATE (NON-REDIRECTIVE)	TEMPORARY BRIDGE TRAFFIC SIGNALS	TEMPORARY RUMBLE STRIP
	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH
SN 031-2012			375			1	6
STAGE I		350		2			
STAGE II	375				2		
SN 031-0042			537.5			1	6
STAGE I	537.5			2			
STAGE II		512.5			2		
TOTAL	912.5	862.5	912.5	4	4	2	12

GUARDRAIL SCHEDULE

LOCATION	GUARDRAIL REMOVAL	STEEL PLATE BEAM GUARDRAIL, TYPE A	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURE	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 1	TRAFFIC BARRIER TERMINAL, TYPE 6	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	BARRIER WALL MARKERS, TYPE C	TERMINAL MARKERS - DIRECT APPLIED
	FOOT	FOOT		EACH	EACH	EACH	EACH	EACH	EACH	EACH
SN 031-2012										
NW QUADRANT	57.9	112.5			1					
NE QUADRANT	57.4	200			1					
SW QUADRANT	57.7	200			1					
SE QUADRANT	57.0	112.5			1					
EASTBOUND			42				5			
WESTBOUND			42				5			
SN 031-0042										
NW QUADRANT	65.7	75			1	1				
NE QUADRANT	60.5	125		1		1				1
SW QUADRANT	59.7	175			1	1				
SE QUADRANT	66.1	75			1	1				
EASTBOUND							6	1	1	
WESTBOUND							5	1	1	
TOTAL	482	1075	84	1	7	4	21	2	2	1

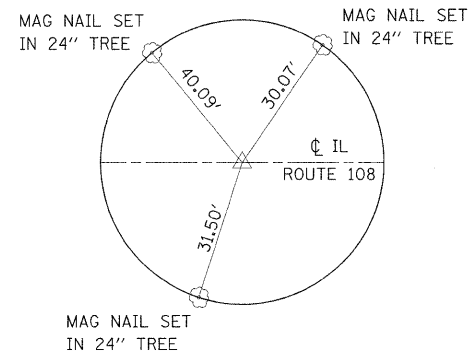
RIGHT-OF-WAY MARKERS SCHEDULE

LOCATION	LT OR RT	OFFSET DISTANCE	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	DRAINAGE MARKERS	PERMANENT SURVEY MARKERS
STATION		FOOT	EACH	EACH	EACH
STA. 1059+07.88					1
STA. 1063+91.34	LT	39.63	1		
STA. 1063+92.84	RT	40.37	1		
STA. 1065+50.00	LT	54.67	1		
STA. 1065+50.00	RT	55.33	1		
STA. 1068+15.00	RT	55.25	1		
STA. 1068+15.00	RT	85.25		1	
STA. 1068+35.00					1
STA. 1069+05.00	RT	55.23	1		
STA. 1069+05.00	RT	85.23		1	
STA. 1070+50.00	LT	54.81	1		
STA. 1070+50.00	RT	55.19	1		
STA. 1071+98.43	LT	39.85	1		
STA. 1071+98.46	RT	40.15	1		
STA. 1076+10.40					1
STA. 1115+55.99					1
STA. 1116+66.09	RT	39.95	1		
STA. 1121+00.00	RT	39.97	1		
STA. 1121+00.00	LT	40.03	1		
STA. 1122+50.00	RT	49.98	1		
STA. 1122+50.00	LT	50.02	1		
STA. 1123+55.00					1
STA. 1125+00.00	RT	49.99	1		
STA. 1125+00.00	LT	50.01	1		
STA. 1126+50.00	LT	40.00	1		
STA. 1126+50.00	RT	40.00	1		
STA. 1129+70.82	LT	39.99	1		
STA. 1131+23.92					1
EX 1			1		
EX 2			1		
TOTAL			22	2	6

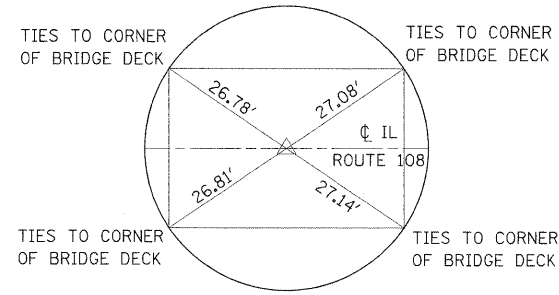


BENCH MARK 104: CHISELED "□" ON TOP OF NW WINGWALL OF IL RT 108 BRIDGE (SN: 031-0026) OVER TAYLOR CREEK BRANCH, LOCATED ±0.55 MILE WEST OF RT 267.  
APPROX. STA. = 1123+20, 18' LT., ELEV. 514.757

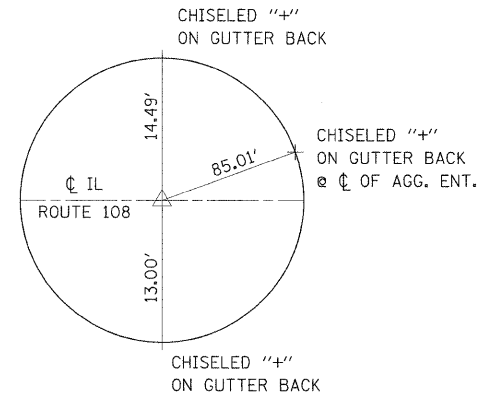
BENCH MARK 106 RR SPIKE FOUND IN POWER POLE, LOCATED ON THE SOUTH SIDE OF IL RT 108, ±460' EAST OF RT 108 BRIDGE (SN:031-0024) OVER TAYLOR CREEK  
APPROX. STA. = 1072+93, 38' RT., ELEV. 534.801



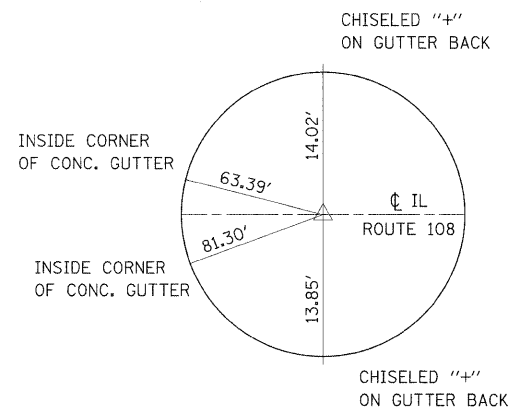
TIE POINT  
SN 031-0024  
MAG NAIL  
CL STA 1059+07.88



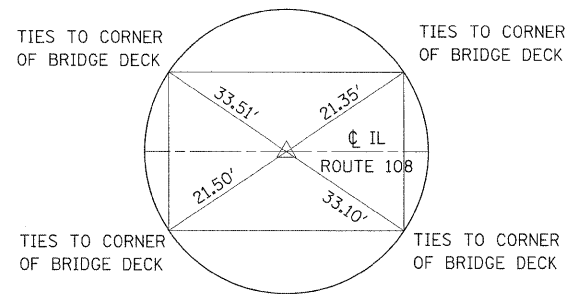
TIE POINT  
SN 031-0024  
MAG NAIL  
BRIDGE CL STA 1068+35.00



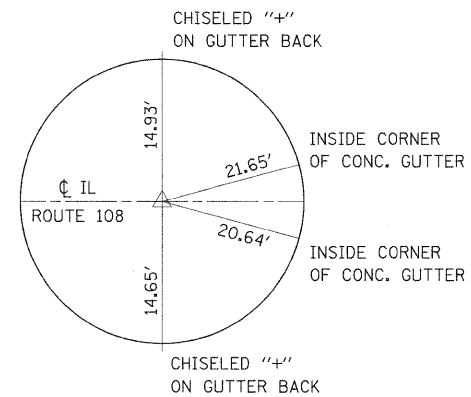
TIE POINT  
SN 031-0024  
MAG NAIL  
CL STA 1076+10.40



TIE POINT  
SN 031-0026  
MAG NAIL  
CL STA 1115+55.99



TIE POINT  
SN 031-0026  
MAG NAIL  
BRIDGE CL STA 1123+55.00



TIE POINT  
SN 031-0026  
MAG NAIL  
CL STA 1131+23.92

NOTES: ALL TIES PULLED DIRECT  
NOT TO SCALE

FILE NAME =	USER NAME = harbaughrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TIE POINTS AND BENCHMARKS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pw_work\pwidot\harbaughrd\dms51989\p01506a.dgn	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -					761	104-BR-2	GREENE	82	9	
PLOT DATE = 12/18/2008	DATE -	REVISED -	REVISED -		SCALE: NTS			SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 76987	
								FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			



3. STORM WATER MANAGEMENT: PROVIDED BELOW IS A DESCRIPTION OF MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.
- c. SUCH PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: STORM WATER DETENTION STRUCTURES (INCLUDING WET PONDS), STORM WATER RETENTION STRUCTURES, FLOW ATTENUATION BY USE OF OPEN VEGETATED SWALES AND NATURAL DEPRESSIONS, INFILTRATION OF RUNOFF ON SITE, AND SEQUENTIAL SYSTEMS (WHICH COMBINE SEVERAL PRACTICES). THE PRACTICES SELECTED FOR IMPLEMENTATION WERE DETERMINED ON THE BASIS OF THE TECHNICAL GUIDANCE IN SECTION 59-8 (EROSION AND SEDIMENT CONTROL) IN CHAPTER 59 (LANDSCAPE DESIGN AND EROSION CONTROL) OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION BUREAU OF DESIGN AND ENVIRONMENT MANUAL. IF PRACTICES OTHER THAN THOSE DISCUSSED IN SECTION 59-8 ARE SELECTED FOR IMPLEMENTATION OR IF PRACTICES ARE APPLIED TO SITUATIONS DIFFERENT FROM THOSE COVERED IN SECTION 59-8, THE TECHNICAL BASIS FOR SUCH DECISIONS WILL BE EXPLAINED BELOW.
  - d. VELOCITY DISSIPATION DEVICES WILL BE PLACED AT DISCHARGE LOCATIONS AND ALONG THE LENGTH OF ANY OUTFALL CHANNEL AS NECESSARY TO PROVIDE A NON-EROSIVE VELOCITY FLOW FROM THE STRUCTURE TO A WATER COURSE SO THAT THE NATURAL PHYSICAL AND BIOLOGICAL CHARACTERISTICS AND FUNCTIONS ARE MAINTAINED AND PROTECTED (E.G. MAINTENANCE OF HYDROLOGIC CONDITIONS SUCH AS THE HYDROPERIOD AND HYDRODYNAMICS PRESENT PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITIES).

DESCRIPTION OF STORM WATER MANAGEMENT CONTROLS: N/A

4. OTHER CONTROLS:
- d. VEHICLE ENTRANCES AND EXITS - STABILIZED CONSTRUCTION ENTRANCES AND EXITS MUST BE CONSTRUCTED TO PREVENT TRACKING OF SEDIMENTS ONTO ROADWAYS.

THE CONTRACTOR WILL PROVIDE THE RESIDENT ENGINEER WITH A WRITTEN PLAN IDENTIFYING THE LOCATION OF STABILIZED ENTRANCES AND EXITS AND THE PROCEDURES (S)HE WILL USE TO CONSTRUCT AND MAINTAIN THEM.

- d. MATERIAL DELIVERY, STORAGE, AND USE - THE FOLLOWING BMPs SHALL BE IMPLEMENTED TO HELP PREVENT DISCHARGES OF CONSTRUCTION MATERIALS DURING DELIVERY, STORAGE, AND USE:

- ALL PRODUCTS DELIVERED TO THE PROJECT SITE MUST BE PROPERLY LABELED.
- WATER TIGHT SHIPPING CONTAINERS AND/OR SEMI TRAILERS SHALL BE USED TO STORE HAND TOOLS, SMALL PARTS, AND MOST CONSTRUCTION MATERIALS THAT CAN BE CARRIED BY HAND, SUCH AS PAINT CANS, SOLVENTS, AND GREASE.
- A STORAGE/CONTAINMENT FACILITY SHOULD BE CHOSEN FOR LARGER ITEMS SUCH AS DRUMS AND ITEMS SHIPPED OR STORED ON PALLETES. SUCH MATERIAL IS TO BE COVERED BY A TIN ROOF OR LARGE SHEETS OF PLASTIC TO PREVENT PRECIPITATION FROM COMING IN CONTACT WITH THE PRODUCTS BEING STORED.
- LARGE ITEMS SUCH AS LIGHT STANDS, FRAMING MATERIALS AND LUMBER SHALL BE STORED IN THE OPEN IN A GENERAL STORAGE AREA. SUCH MATERIAL SHALL BE ELEVATED WITH WOOD BLOCKS TO MINIMIZE CONTACT WITH STORM WATER RUNOFF.
- SPILL CLEAN-UP MATERIALS, MATERIAL SAFETY DATA SHEETS, AN INVENTORY OF MATERIALS, AND EMERGENCY CONTACT NUMBERS SHALL BE MAINTAINED AND STORED IN ONE DESIGNATED AREA AND EACH CONTRACTOR IS TO INFORM HIS/HER EMPLOYEES AND THE RESIDENT ENGINEER OF THIS LOCATION.

- c. STOCKPILE MANAGEMENT - BMPs SHALL BE IMPLEMENTED TO REDUCE OR ELIMINATE POLLUTION OF STORM WATER FROM STOCKPILES OF SOIL AND PAVING MATERIALS SUCH AS BUT NOT LIMITED TO PORTLAND CEMENT CONCRETE RUBBLE, ASPHALT CONCRETE, ASPHALT CONCRETE RUBBLE, AGGREGATE BASE, AGGREGATE SUB BASE, AND PRE-MIXED AGGREGATE. THE FOLLOWING BMPs MAY BE CONSIDERED:

- PERIMETER EROSION BARRIER
- TEMPORARY SEEDING
- TEMPORARY MULCH
- PLASTIC COVERS
- SOIL BINDERS
- STORM DRAIN INLET PROTECTION

THE CONTRACTOR WILL PROVIDE THE RESIDENT ENGINEER WITH A WRITTEN PLAN OF THE PROCEDURES (S)HE WILL USE ON THE PROJECT AND HOW THEY WILL BE MAINTAINED.

- d. WASTE DISPOSAL. NO MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED INTO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
- e. THE PROVISIONS OF THIS PLAN SHALL ENSURE AND DEMONSTRATE COMPLIANCE WITH APPLICABLE STATE AND/OR LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.
- f. THE CONTRACTOR SHALL PROVIDE A WRITTEN AND GRAPHIC PLAN TO THE RESIDENT ENGINEER IDENTIFYING WHERE EACH OF THE ABOVE AREAS WILL BE LOCATED AND HOW THEY ARE TO BE MANAGED.

- 5. APPROVED STATE OR LOCAL LAWS

THE MANAGEMENT PRACTICES, CONTROLS AND PROVISIONS CONTAINED IN THIS PLAN WILL BE IN ACCORDANCE WITH IDOT SPECIFICATIONS, WHICH ARE AT LEAST AS PROTECTIVE AS THE REQUIREMENTS CONTAINED IN THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S ILLINOIS URBAN MANUAL, 1995. PROCEDURES AND REQUIREMENTS SPECIFIED IN APPLICABLE SEDIMENT AND EROSION SITE PLANS OR STORM WATER MANAGEMENT PLANS APPROVED BY LOCAL OFFICIALS SHALL BE DESCRIBED OR INCORPORATED BY REFERENCE IN THE SPACE PROVIDED BELOW. REQUIREMENTS SPECIFIED IN SEDIMENT AND EROSION SITE PLANS, SITE PERMITS, STORM WATER MANAGEMENT SITE PLANS OR SITE PERMITS APPROVED BY LOCAL OFFICIALS THAT ARE APPLICABLE TO PROTECTING SURFACE WATER RESOURCES ARE, UPON SUBMITTAL OF AN NOI, TO BE AUTHORIZED TO DISCHARGE UNDER PERMIT ILR10 INCORPORATED BY REFERENCE AND ARE ENFORCEABLE UNDER THIS PERMIT EVEN IF THEY ARE NOT SPECIFICALLY INCLUDED IN THE PLAN.

DESCRIPTION OF PROCEDURES AND REQUIREMENTS SPECIFIED IN APPLICABLE SEDIMENT AND EROSION SITE PLANS OR STORM WATER MANAGEMENT PLANS APPROVED BY LOCAL OFFICIALS: N/A

### III. MAINTENANCE:

THE FOLLOWING IS A DESCRIPTION OF PROCEDURES THAT WILL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, THE VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN.

1. SEEDING - ALL ERODIBLE BARE EARTH WILL BE TEMPORARILY SEEDED ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODIBLE SURFACE WITHIN THE CONTRACT LIMITS.
2. PERIMETER EROSION BARRIER - SEDIMENT WILL BE REMOVED IF THE INTEGRITY OF THE FENCING IS IN JEOPARDY AND ANY FENCING KNOCKED DOWN WILL BE REPAIRED IMMEDIATELY. THE COST OF THIS MAINTENANCE SHALL BE ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
3. EROSION CONTROL BLANKET/MULCHING - ANY AREAS THAT FAIL WILL BE REPAIRED IMMEDIATELY.
4. PROTECTION OF TREES/TEMPORARY TREE PROTECTION - ANY PROTECTIVE MEASURES WHICH ARE KNOCKED DOWN WILL BE REPAIRED IMMEDIATELY.
5. DITCH CHECKS - SEDIMENT WILL BE REMOVED IF THE INTEGRITY OF THE DITCH CHECK IS IN JEOPARDY. ANY DITCH CHECKS WHICH FAIL WILL BE REPAIRED OR REPLACED IMMEDIATELY. THE COST OF THIS MAINTENANCE SHALL BE ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

THE RESIDENT ENGINEER WILL PROVIDE MAINTENANCE GUIDES TO THE CONTRACTOR FOR THESE PRACTICES. ALL MAINTENANCE OF EROSION CONTROL SYSTEMS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETE AND ACCEPTED BY IDOT AFTER FINAL INSPECTION. ALL LOCATIONS WHERE VEHICLES ENTER AND EXIT THE CONSTRUCTION SITE AND ALL OTHER AREAS SUBJECT TO EROSION SHOULD ALSO BE INSPECTED PERIODICALLY.

INSPECTION OF THESE AREAS SHALL BE MADE AT LEAST ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS OF THE END OF EACH 0.5 INCHES OR GREATER RAINFALL, OR AN EQUIVALENT SNOWFALL. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BI-WEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION CONTROL WORK IS NECESSARY.

THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE TEMPORARY EROSION CONTROL SYSTEM.

### IV. INSPECTIONS

QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE WHICH HAVE NOT YET BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES AND EQUIPMENT ENTER AND EXIT THE SITE. SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL.

- A. DISTURBED AREAS, USE AREAS (STORAGE OF MATERIALS, STOCKPILES, MACHINE MAINTENANCE FUELING, ETC.), BORROW SITES, AND WASTE SITES SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS OR POINTS THAT ARE ACCESSIBLE, SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF SITE SEDIMENT TRACKING.

- B. BASED ON THE RESULTS OF THE INSPECTION, THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES IDENTIFIED IN SECTION I ABOVE AND POLLUTION PREVENTION MEASURES IDENTIFIED IN SECTION II ABOVE SHALL BE REVISED AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. ANY CHANGES TO THIS PLAN RESULTING FROM THE REQUIRED INSPECTIONS SHALL BE IMPLEMENTED WITHIN 1/2 HOUR TO 1 WEEK BASED ON THE URGENCY OF THE SITUATION. THE RESIDENT ENGINEER WILL NOTIFY THE CONTRACTOR OF THE TIME REQUIRED TO IMPLEMENT SUCH ACTIONS THROUGH THE WEEKLY INSPECTION REPORT.

- C. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH SECTION IV(B) SHALL BE MADE AND RETAINED AS PART OF THE PLAN FOR AT LEAST THREE (3) YEARS AFTER THE DATE OF THE INSPECTION. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI. G OF THE GENERAL PERMIT.

- D. IF ANY VIOLATION OF THE PROVISIONS OF THIS PLAN IS IDENTIFIED DURING THE CONDUCT OF THE CONSTRUCTION WORK COVERED BY THIS PLAN, THE RESIDENT ENGINEER SHALL COMPLETE AND FILE AN "INCIDENCE OF NONCOMPLIANCE" (ION) REPORT FOR THE IDENTIFIED VIOLATION. THE RESIDENT ENGINEER SHALL USE FORMS PROVIDED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND SHALL INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NONCOMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE. ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY IN ACCORDANCE WITH PART VI. G OF THE GENERAL PERMIT. THE INCIDENCE OF NONCOMPLIANCE SHALL BE MAILED TO THE FOLLOWING ADDRESS:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF WATER POLLUTION CONTROL  
ATTN: COMPLIANCE ASSURANCE SECTION  
1021 NORTH GRAND EAST  
POST OFFICE BOX 19276  
SPRINGFIELD, ILLINOIS 62794-9276

### V. NON-STORM WATER DISCHARGES:

EXCEPT FOR FLOWS FROM FIRE FIGHTING ACTIVITIES, SOURCES OF NON-STORM WATER THAT IS COMBINED WITH STORM WATER DISCHARGES ASSOCIATED WITH THE INDUSTRIAL ACTIVITY ADDRESSED IN THIS PLAN MUST BE DESCRIBED BELOW. APPROPRIATE POLLUTION PREVENTION MEASURES, AS DESCRIBED BELOW, WILL BE IMPLEMENTED FOR THE NON-STORM WATER COMPONENT(S) OF THE DISCHARGE.

A. SPILL PREVENTION AND CONTROL - BMPs SHALL BE IMPLEMENTED TO CONTAIN AND CLEAN-UP SPILLS AND PREVENT MATERIAL DISCHARGES TO THE STORM DRAIN SYSTEM. THE CONTRACTOR SHALL PRODUCE A WRITTEN PLAN STATING HOW HIS/HER COMPANY WILL PREVENT, REPORT, AND CLEAN UP SPILLS AND PROVIDE A COPY TO ALL OF HIS/HER EMPLOYEES AND THE RESIDENT ENGINEER. THE CONTRACTOR SHALL NOTIFY ALL OF HIS/HER EMPLOYEES ON THE PROPER PROTOCOL FOR REPORTING SPILLS. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OF ANY SPILLS IMMEDIATELY.

- B. CONCRETE RESIDUALS AND WASHOUT WASTES - THE FOLLOWING BMPs SHALL BE IMPLEMENTED TO CONTROL RESIDUAL CONCRETE, CONCRETE SEDIMENTS, AND RINSE WATER:
  1. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED FOR RINSING OUT CONCRETE TRUCKS. SIGNS SHALL BE INSTALLED DIRECTING CONCRETE TRUCK DRIVERS WHERE DESIGNATED WASHOUT FACILITIES ARE LOCATED.
  2. THE CONTRACTOR SHALL HAVE THE LOCATION OF TEMPORARY CONCRETE WASHOUT FACILITIES APPROVED BY THE RESIDENT ENGINEER.
  3. ALL TEMPORARY CONCRETE WASHOUT FACILITIES ARE TO BE INSPECTED BY THE CONTRACTOR AFTER EACH USE AND ALL SPILLS MUST BE REPORTED TO THE RESIDENT ENGINEER AND CLEANED UP IMMEDIATELY.
  4. CONCRETE WASTE SOLIDS/LIQUIDS SHALL BE DISPOSED OF PROPERLY.

C. LITTER MANAGEMENT - A PROPER NUMBER OF DUMPSTERS SHALL BE PROVIDED ON SITE TO HANDLE DEBRIS AND LITTER ASSOCIATED WITH THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING HIS/HER EMPLOYEES PLACE ALL LITTER INCLUDING MARKING PAINT CANS, SODA CANS, FOOD WRAPPERS, WOOD LATHE, MARKING RIBBON, CONSTRUCTION STRING, AND ALL OTHER CONSTRUCTION RELATED LITTER IN THE PROPER DUMPSTERS.

D. VEHICLE AND EQUIPMENT CLEANING - VEHICLES AND EQUIPMENT ARE TO BE CLEANED IN DESIGNATED AREAS ONLY, PREFERABLY OFF SITE.

E. VEHICLE AND EQUIPMENT FUELING - A VARIETY OF BMPs CAN BE IMPLEMENTED DURING FUELING OF VEHICLES AND EQUIPMENT TO PREVENT POLLUTION. THE CONTRACTOR SHALL INFORM THE RESIDENT ENGINEER AS TO WHICH BMPs WILL BE USED ON THE PROJECT. THE CONTRACTOR SHALL INFORM THE RESIDENT ENGINEER HOW (S)HE WILL BE INFORMING HIS/HER EMPLOYEES OF THESE BMPs (I.E. SIGNS, TRAINING, ETC.). BELOW ARE A FEW EXAMPLES OF THESE BMPs:






1. CONTAINMENT
2. SPILL PREVENTION AND CONTROL
3. USE OF DRIP PANS AND ABSORBENTS
4. AUTOMATIC SHUT-OFF NOZZLES
5. TOPPING OFF RESTRICTIONS
6. LEAK INSPECTION AND REPAIR

F. VEHICLE AND EQUIPMENT MAINTENANCE - ON SITE MAINTENANCE MUST BE PERFORMED IN ACCORDANCE WITH ALL ENVIRONMENTAL LAWS SUCH AS PROPER STORAGE AND NO DUMPING OF OLD ENGINE OIL OR OTHER FLUIDS ON SITE.

### VI. FAILURE TO COMPLY:

FAILURE TO COMPLY WITH ANY PROVISIONS OF THIS STORM WATER POLLUTION PREVENTION PLAN WILL RESULT IN THE IMPLEMENTATION OF AN EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION AGAINST THE CONTRACTOR AND/OR PENALTIES UNDER THE NPDES PERMIT WHICH COULD BE PASSED ONTO THE CONTRACTOR.

### LEGEND

-  TEMPORARY DITCH CHECK- ROLLED EXCELSIOR, SILT WEDGES/PANELS
-  TEMPORARY DITCH CHECK- AGGREGATE
-  EROSION CONTROL BLANKET
-  PERIMETER EROSION BARRIER- SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER
-  INLET AND PIPE PROTECTION- STRAW BALES, FILTER FABRIC, AGGREGATES

FILE NAME = c:\pwwork\pwwork\harbaugh\dms01889\p01506a.dgn	USER NAME = harbaugh-d	DESIGNED - DRAWN -	REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>		<b>STORM WATER POLLUTION PREVENTION PLAN</b>					F.A.P RTE. 761	SECTION 104-BR-2	COUNTY GREENE	TOTAL SHEETS 82	SHEET NO. 11
	PLOT SCALE = 50.0000' / 1" IN.	CHECKED - DATE -	REVISED - REVISED -			SCALE: SHEET NO. 2 OF 2 SHEETS STA. TO STA.			<b>CONTRACT NO. 76987</b>		<small>FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT</small>				

PART OF THE NW 14 OF SECTION 20 AND THE SW 14 OF SECTION 17 T10N, R10W, OF THE 3RD PM, GREENE COUNTY, ILLINOIS

THE TOPOGRAPHY SHOWN HEREON WAS ORIGINALLY LOCATED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND PROVIDED TO THE SURVEYOR, THE SURVEYOR FIELD VERIFIED AND SUPPLEMENTED THE TOPOGRAPHY SHOWN HEREON ON 2/22/2008.

COORDINATES SHOWN HEREON ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

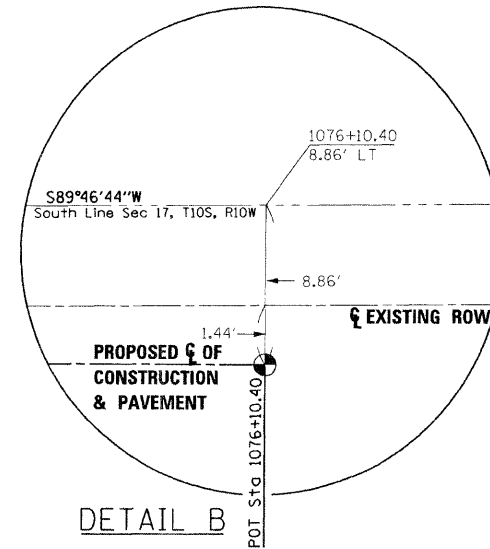
STATION	OFFSET	NORTH	EAST
1063+92.00	0.41' RT	275,310.4877	960,998.9109
1063+92.84	40.37' RT	275,311.1773	960,958.9445
1063+91.34	39.60' LT	275,309.9722	961,038.9492
1065+50.00	54.67' LT	275,468.6904	961,053.3975
1065+50.00	55.33' RT	275,468.2782	960,943.3963
1068+15.00	55.25' RT	275,733.2756	960,942.4770
1068+15.00	85.25' RT	275,733.1642	960,912.4772
POT 1068+35.00	CL	275,753.4870	960,997.6560
1069+05.00	85.23' RT	275,823.1636	960,912.1644
1069+05.00	55.23' RT	275,823.2750	960,942.1642
1070+50.00	55.19' RT	275,968.2751	960,941.6601
1070+50.00	54.81' LT	275,968.6874	961,051.6593
1071+98.43	39.85' LT	276,117.0644	961,036.1434
1071+98.46	40.15' RT	276,116.7863	960,956.1433
POT 1076+01.40	CL	277,528.8800	960,994.7500
EX 1	NA	277,103.9885	960,961.2110
EX 2	NA	277,028.6248	961,040.2310

SEE SHEET 4 FOR TOTAL HOLDING

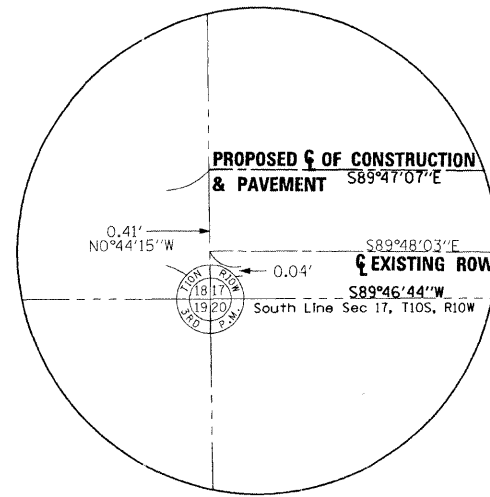
SW 1/4 SW 1/4  
SEC 17-10N-10W

BK.28/P6.119

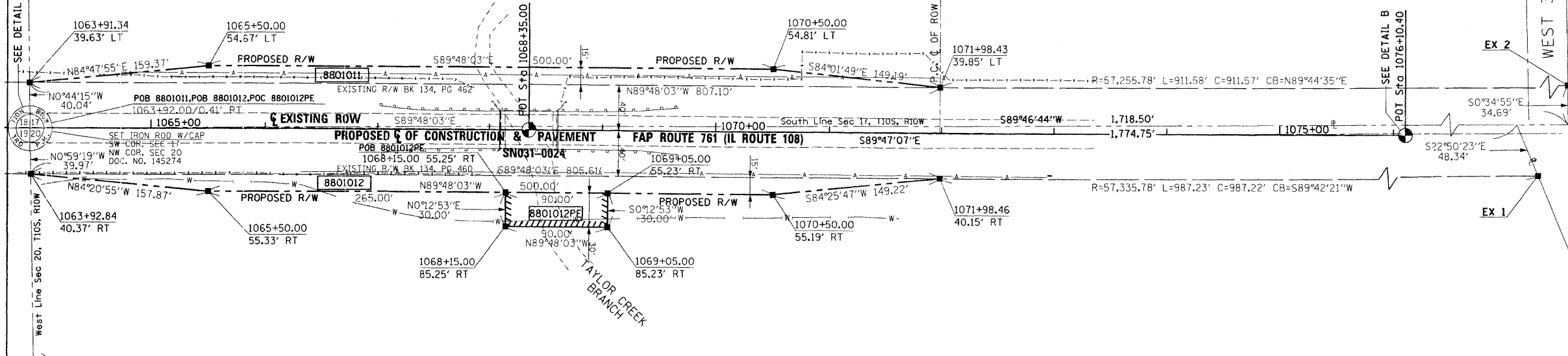
Q OF RIGHT OF WAY  
Δ = 1° 02"  
D = 0° 06"  
R = 57,295.78"



DETAIL B



DETAIL A



BK.222/P6.11

SEE SHEET 4 FOR TOTAL HOLDING

NW 1/4 NW 1/4  
SEC 20-10N-10W

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
761	104-BR-2	GREENE	82	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.	76987			

LEGEND

- EXISTING CENTERLINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE
- EXISTING ACCESS CONTROL LINE
- PROPOSED ACCESS CONTROL LINE
- PROPOSED CENTERLINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED TEMPORARY EASEMENT LINE
- PROPOSED PERMANENT EASEMENT LINE
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER QUARTER SECTION LINE
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- MEASURED DIMENSION
- RECORDED DIMENSION
- FOUND STONE
- FOUND IRON PIPE OR IRON ROD AT CORNER UNLESS OTHERWISE NOTED
- SET 5/8 INCH IRON ROD WITH PLASTIC CAP IDENTIFIED BY SURVEYOR'S LICENSE NUMBER AT CORNER UNLESS OTHERWISE NOTED
- PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 667101 (TO BE SET BY OTHERS)
- SET 5/8 INCH IRON ROD AS SURVEY CONTROL UNLESS OTHERWISE NOTED
- FOUND CUT CROSS
- SET CUT CROSS
- FOUND RIGHT OF WAY MARKER
- SAME OWNERSHIP
- EXISTING BUILDING
- STAKING OF PROPOSED RIGHT OF WAY AND PERMANENT EASEMENT CORNERS. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY ALUMINUM CAP TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYOR'S LICENSE NUMBER. (PROPOSED RIGHT OF WAY CORNERS SET IN CULTIVATED AREAS SHALL BE A MINIMUM OF 20 INCHES BELOW THE GROUND SURFACE).

STATE OF MISSOURI )  
                          ) SS  
CITY OF ST. LOUIS )

I, RONNIE D. LOWE, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAY SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.

DATED \_\_\_\_\_  
RONNIE D. LOWE, P.L.S. NO. 035-003363  
LICENSE EXPIRATION DATE: 11/30/2008

PARCEL NO.	OWNER	TOTAL HOLDING	FEE SIMPLE ACQUISITION						REMAINDER	EASEMENTS		PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY
			GROSS		PREVIOUSLY DEDICATED		NET			PE = PERMANENT TE = TEMPORARY	EASEMENT PURPOSE		
			ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.					
880101	Ralph A. Petersen Revocable Living Trust U/A 11/14/89 Book 28 Page 119 Title Report Number GN-115	92.3894	1.6067	69,986	1.3816	60,183	0.2251	9,803	90.7827			07-120-17-4	
880102	The Carrolton Bank and Trust Company, as Trustee under a Trust Agreement dated the 12th day of December, 1978 and known as Trust Number Cant-3-1978 Book 222 Page 11 Title Report Number GN-111	231.2735	2.0669	90,035	1.8421	80,244	0.2248	9,791	229.2066	0.0620	2,700	07-120-20-3	

SPACE RESERVED FOR RECORDING OFFICER

REVISION	
DATE	DESCRIPTION

ILLINOIS DEPARTMENT OF TRANSPORTATION  
PLAT OF HIGHWAYS  
FAP ROUTE 761 (IL 108)  
SECTION 104-BR-2  
GREENE COUNTY  
JOB NO. R-98-001-08

STATION 1063+92 TO STATION 1072+00

50' 0 50' 100'  
SCALE: 1" = 50'

ILLINOIS LICENCE NO: 184-003391  
Expiration Date: April 30, 2009

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8  
1102 EASTPORT PLAZA DRIVE  
COLLINSVILLE, ILLINOIS 62234-6198

SHEET 2 OF 5  
SHEET 1 IS A COVER SHEET

COMPLETION DATE OF FIELD WORK PERFORMED  
LAND SURVEY: FEBRUARY 22, 2008  
RIGHT OF WAY STAKING: XXXXXXXX

PLOT DATE \* DATE \*  
PLOT SCALE \* SCALE \*  
PLOT NAME \* USER \*  
PLOT USER \* USER \*

PART OF THE NW 1/4 OF SECTION 21 AND THE SW 1/4 OF SECTION 16 T10N, R10W, OF THE 3RD PM, GREENE COUNTY, ILLINOIS

THE TOPOGRAPHY SHOWN HEREON WAS ORIGINALLY LOCATED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND PROVIDED TO THE SURVEYOR. THE SURVEYOR FIELD VERIFIED AND SUPPLEMENTED THE TOPOGRAPHY SHOWN HEREON ON 2/22/2008.

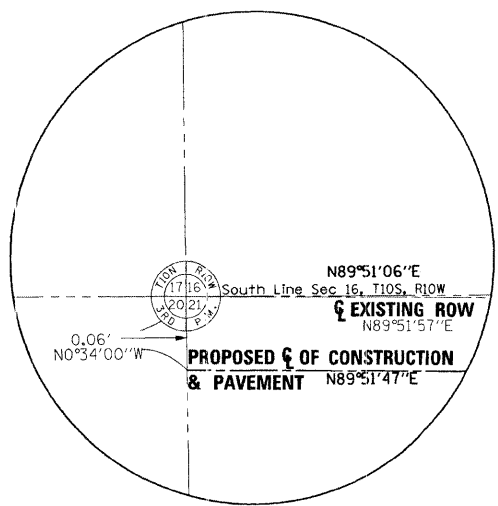
COORDINATES SHOWN HEREON ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

STATION	OFFSET	NORTH	EAST
1116+65.49	40.05' LT	280,609.9524	961,019.8956
1116+65.79	0.06' LT	280,610.3480	960,981.4830
1116+66.09	39.95' RT	280,610.7436	960,939.8969
1116+99.47	39.95' RT	280,644.1234	960,939.9670
1116+99.48	40.05' LT	280,643.9361	961,019.9668
1121+00.00	40.03' LT	281,044.4578	961,020.9045
1121+00.00	39.97' RT	281,044.6490	960,940.9048
1122+50.00	49.98' RT	281,194.6725	960,931.2560
1122+50.00	50.02' LT	281,194.4334	961,031.2557
POT 1123+55.00	CL	281,299.5530	960,981.4830
1125+00.00	50.01' LT	281,444.4328	961,031.8410
1125+00.00	49.99' RT	281,444.6718	960,931.8413
1126+50.00	40.00' RT	281,594.6475	960,942.1925
1126+50.00	40.00' LT	281,594.4562	961,022.1923
POT 1128+00.00	CL	281,744.5514	960,982.5467
1129+70.82	39.99' LT	281,915.2710	961,022.9434
1129+71.27	40.01' RT	281,915.9120	960,942.9447

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
761	104-BR-2	GREENE	82	13
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.	76987			

LEGEND

- EXISTING CENTERLINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE
- EXISTING ACCESS CONTROL LINE
- PROPOSED ACCESS CONTROL LINE
- PROPOSED CENTERLINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED TEMPORARY EASEMENT LINE
- PROPOSED PERMANENT EASEMENT LINE
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER QUARTER SECTION LINE
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- MEASURED DIMENSION
- RECORDED DIMENSION
- FOUND STONE
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- FOUND CUT CROSS
- SET CUT CROSS
- FOUND RIGHT OF WAY MARKER
- SAME OWNERSHIP
- EXISTING BUILDING
- STAKING OF PROPOSED RIGHT OF WAY AND PERMANENT EASEMENT CORNERS. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY ALUMINUM CAP TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS LICENSE NUMBER. (PROPOSED RIGHT OF WAY CORNERS SET IN CULTIVATED AREAS SHALL BE A MINIMUM OF 20 INCHES BELOW THE GROUND SURFACE).



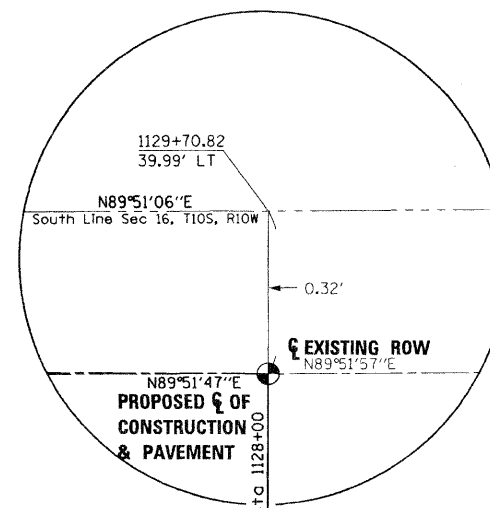
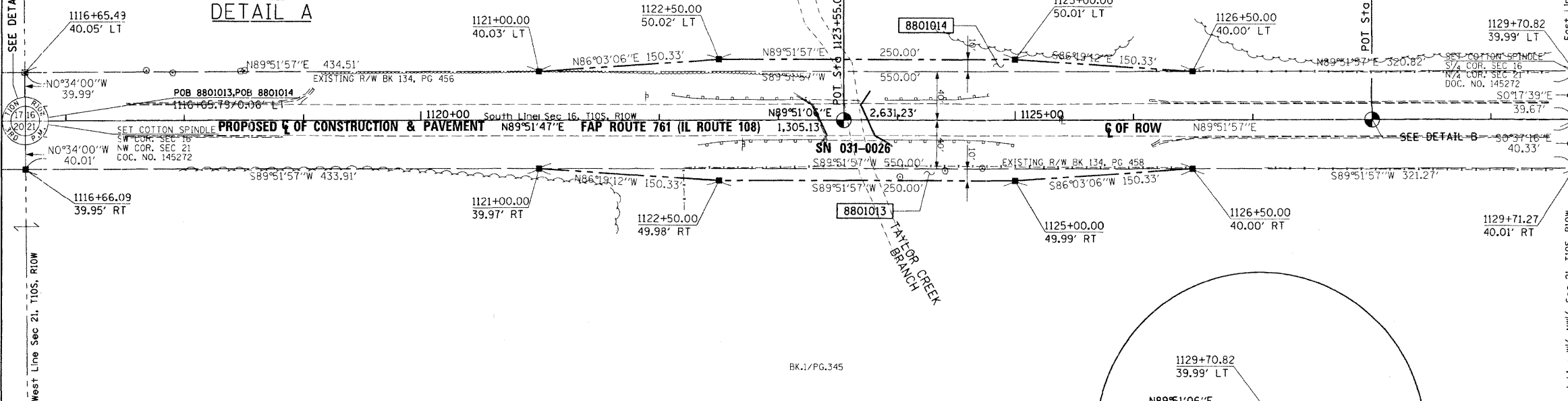
SEE SHEET 4 FOR TOTAL HOLDING

SW 1/4 SW 1/4  
SEC 16-10N-10W

BK.188/PG.213,215&216

SEE DETAIL A  
West Line Sec 16, T10S, R10W  
West Line Sec 21, T10S, R10W

East Line SW 1/2 SW 1/4 Sec 16, T10S, R10W  
East Line W 1/2 NW 1/4 Sec 21, T10S, R10W



W 1/2 NW 1/4  
SEC 21-10N-10W

SEE SHEET 4 FOR TOTAL HOLDING

BK.1/PG.345

STATE OF MISSOURI )  
                          ) SS  
CITY OF ST. LOUIS )

I, RONNIE D. LOWE, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAY SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.

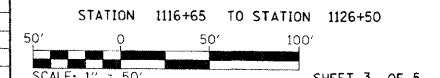
DATED \_\_\_\_\_  
RONNIE D. LOWE, PLS NO. 035-003363  
LICENSE EXPIRATION DATE: 11/30/2008

PARCEL NO.	OWNER	TOTAL HOLDING ACRES	FEE SIMPLE ACQUISITION				REMAINDER ACRES	PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY	
			GROSS ACRES	SO. FT.	PREVIOUSLY DEDICATED ACRES	SO. FT.				NET ACRES
8801013	Lewis William Griswold and Barbara Lucille Griswold, husband and wife as tenants in common Book 1 Page 345 Title Report Number GN-118	269.2367	1.2954	56,429	1.2036	52,429	0.0918	4,000	267.9413	07-120-17-6 07-120-20-1 07-120-21-3
8801014	Weisner Bros., Inc., a Delaware corporation Book 188 Pages 213, 215 & 216 Title Report Number GN-117	228.3498	1.2853	55,967	1.1934	51,987	0.0918	4,000	227.0645	07-120-16-5 07-120-16-6 07-120-21-1 07-120-21-2

REVISION	
DATE	DESCRIPTION

**DAVID MASON & ASSOCIATES**  
Engineering  
Architecture  
Surveying  
800 South Vandeventer Avenue  
St. Louis, MO 63110  
(314) 534-1030  
ILLINOIS LICENSE NO: 184-003391  
Expiration Date: April 30, 2009

ILLINOIS DEPARTMENT OF TRANSPORTATION  
PLAT OF HIGHWAYS  
FAP ROUTE 761 (IL 108)  
SECTION 104-BR-2  
GREENE COUNTY  
JOB NO. R-98-001-08



COMPLETION DATE OF FIELD WORK PERFORMED  
LAND SURVEY: FEBRUARY 22, 2008  
RIGHT OF WAY STAKING: XXXXXXXX

STATION 1116+65 TO STATION 1126+50  
SHEET 3 OF 5  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8  
1102 EASTPORT PLAZA DRIVE  
COLLINGSVILLE, ILLINOIS 62234-6198  
SHEET 1 IS A COVER SHEET

PLOT DATE = DATE  
FILE NAME = FILE  
USER NAME = USER

PART OF SECTIONS 16,17,20, & 21 T10N, R10W, OF THE 3RD PM, GREENE COUNTY, ILLINOIS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
761	104-BR-2	GREENE	82	14
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 76987				

LEGEND

- SECTION CORNERS
- QUARTER SECTION CORNERS
- EXISTING CENTERLINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE
- EXISTING ACCESS CONTROL LINE
- PROPOSED ACCESS CONTROL LINE
- PROPOSED CENTERLINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED TEMPORARY EASEMENT LINE
- PROPOSED PERMANENT EASEMENT LINE
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER QUARTER SECTION LINE
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- MEASURED DIMENSION
- (121.45') RECORDED DIMENSION
- FOUND STONE
- FOUND IRON PIPE OR IRON ROD AT CORNER UNLESS OTHERWISE NOTED
- SET 5/8 INCH IRON ROD WITH PLASTIC CAP IDENTIFIED BY SURVEYORS LICENSE NUMBER AT CORNER UNLESS OTHERWISE NOTED
- PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 667101 (TO BE SET BY OTHERS)
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- FOUND CUT CROSS
- SET CUT CROSS
- SAME OWNERSHIP
- EXISTING BUILDING

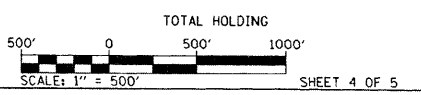
STAKING OF PROPOSED RIGHT OF WAY AND PERMANENT EASEMENT CORNERS. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY ALUMINUM CAP TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS LICENSE NUMBER. (PROPOSED RIGHT OF WAY CORNERS SET IN CULTIVATED AREAS SHALL BE A MINIMUM OF 20 INCHES BELOW THE GROUND SURFACE).

**DAVID MASON & ASSOCIATES**  
 Engineering  
 Architecture  
 Surveying  
 800 South Vandeventer Avenue  
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 ILLINOIS LICENCE NO: 184-003391  
 Expiration Date: April 30, 2009

REVISION	
DATE	DESCRIPTION

COMPLETION DATE OF FIELD WORK PERFORMED  
 LAND SURVEY: FEBRUARY 22, 2008  
 RIGHT OF WAY STAKING: XXXXXXXX

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PLAT OF HIGHWAYS**  
 FAP ROUTE 761 (IL 108)  
 SECTION 104-BR-2  
 GREENE COUNTY  
 JOB NO. R-98-001-08



ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8  
 1102 EASTPORT PLAZA DRIVE  
 COLLINGSVILLE, ILLINOIS 62234-6198  
 SHEET 1 IS A COVER SHEET

STATE OF MISSOURI )  
 ) SS  
 CITY OF ST. LOUIS )

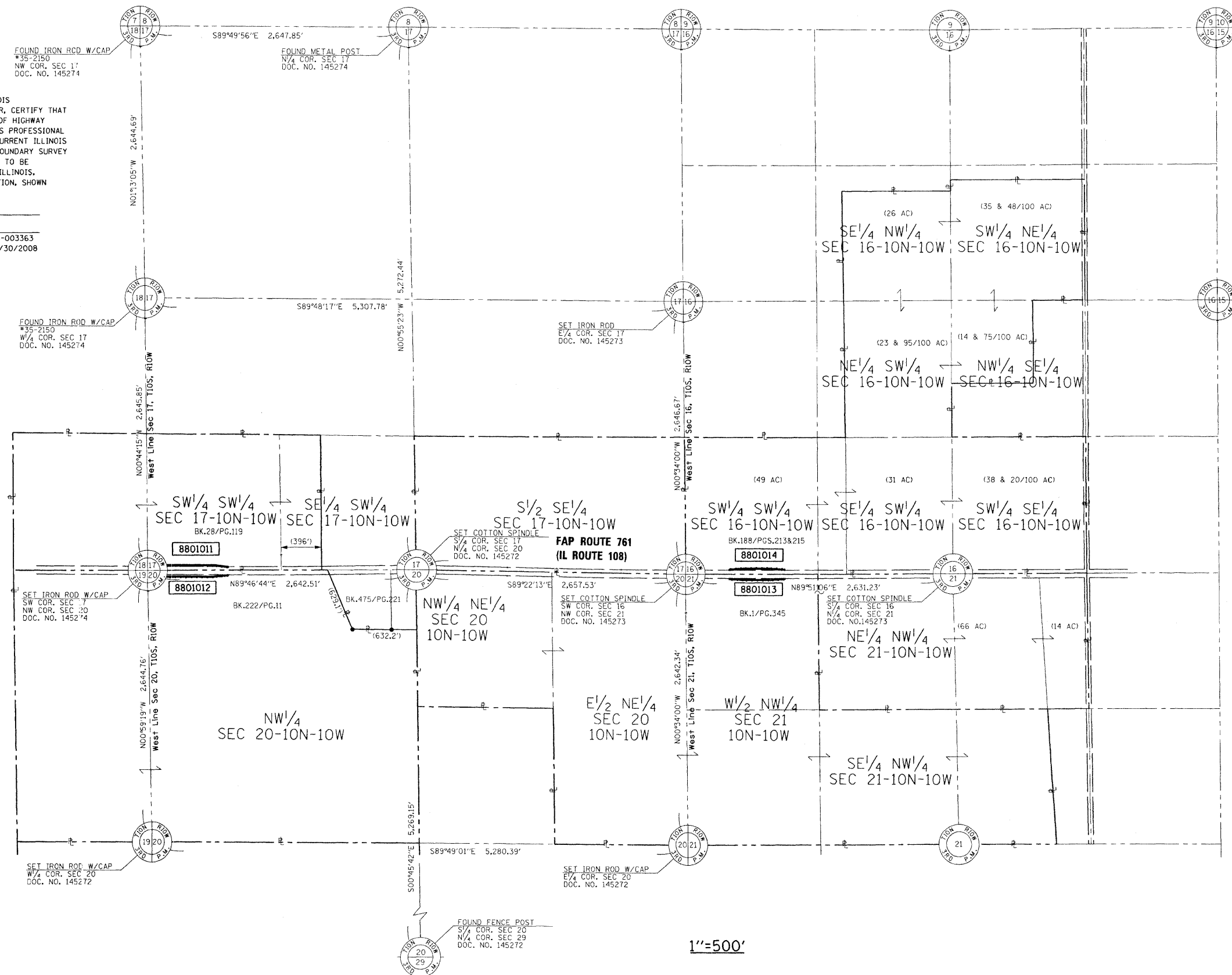
FOUND IRON ROD W/CAP  
 #35-2150  
 NW COR. SEC 17  
 DOC. NO. 145274

FOUND METAL POST  
 N/4 COR. SEC 17  
 DOC. NO. 145274

I, RONNIE D. LOWE, AN ILLINOIS  
 PROFESSIONAL LAND SURVEYOR, CERTIFY THAT  
 I HAVE SURVEYED THE PLAT OF HIGHWAY  
 SHOWN HEREON AND THAT THIS PROFESSIONAL  
 SERVICE CONFORMS TO THE CURRENT ILLINOIS  
 MINIMUM STANDARDS FOR A BOUNDARY SURVEY  
 FOR THE PROPOSED PARCEL(S) TO BE  
 ACQUIRED BY THE STATE OF ILLINOIS,  
 DEPARTMENT OF TRANSPORTATION, SHOWN  
 HEREON.

DATED \_\_\_\_\_

RONNIE D. LOWE, PLS NO. 035-003363  
 LICENSE EXPIRATION DATE: 11/30/2008



1"=500'

PLOT DATE = #DATE  
 FILE NAME = #FILE#  
 PLOT SCALE = #SCALE#  
 USER NAME = #USER#

TIE SHEET

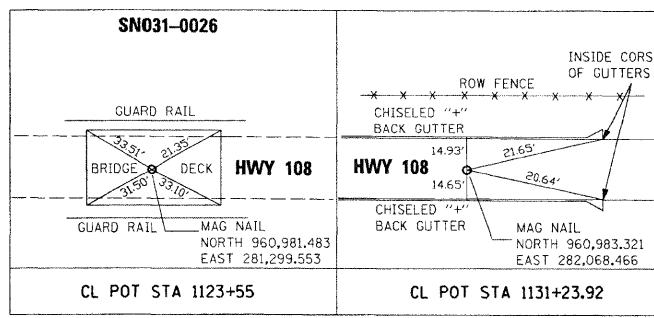
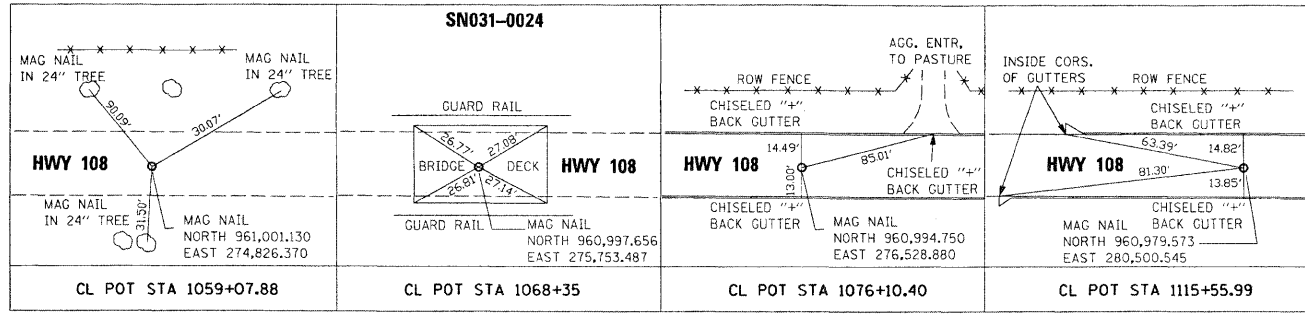
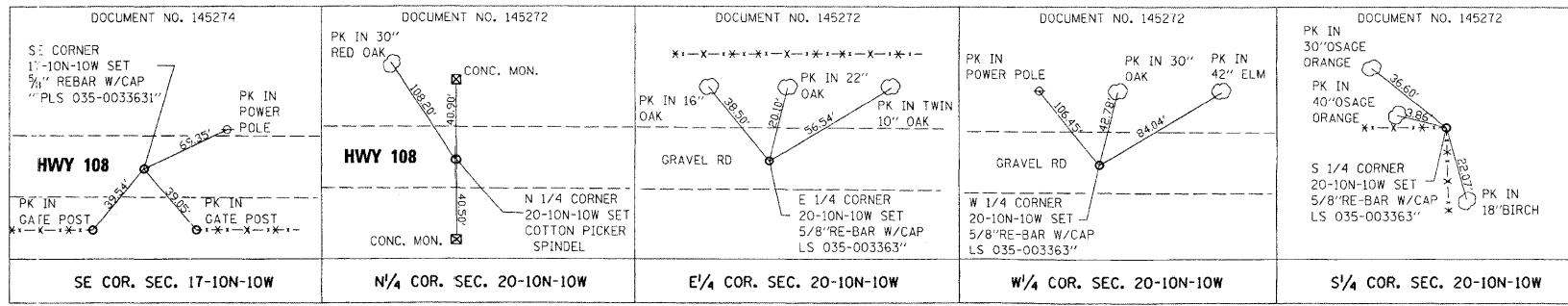
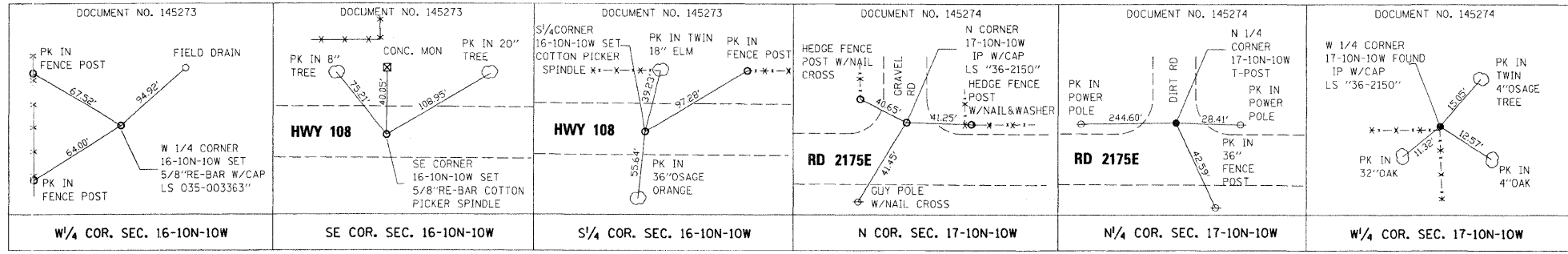
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
761	104-BR-2	GREENE	82	15
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO.	76987			

LEGEND

- EXISTING CENTERLINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE
- EXISTING ACCESS CONTROL LINE
- PROPOSED ACCESS CONTROL LINE
- PROPOSED CENTERLINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED TEMPORARY EASEMENT LINE
- PROPOSED PERMANENT EASEMENT LINE
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- FOUND CUT CROSS
- SET CUT CROSS
- FOUND RIGHT OF WAY MARKER
- SAME OWNERSHIP
- EXISTING BUILDING

■ STAKING OF PROPOSED RIGHT OF WAY AND PERMANENT EASEMENT CORNERS. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY ALUMINUM CAP TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS LICENSE NUMBER. (PROPOSED RIGHT OF WAY CORNERS SET IN CULTIVATED AREAS SHALL BE A MINIMUM OF 20 INCHES BELOW THE GROUND SURFACE).

THE TOPOGRAPHY SHOWN HEREON WAS ORIGINALLY LOCATED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND PROVIDED TO THE SURVEYOR. THE SURVEYOR FIELD VERIFIED AND SUPPLEMENTED THE TOPOGRAPHY SHOWN HEREON ON 2/22/2008.



STATE OF MISSOURI )  
 ) SS  
 CITY OF ST. LOUIS )

I, RONNIE D. LOWE, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAY SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.

DATED \_\_\_\_\_

RONNIE D. LOWE, PLS NO. 035-003363  
 LICENSE EXPIRATION DATE: 11/30/2008

SPACE RESERVED FOR RECORDING OFFICER

REVISION	
DATE	DESCRIPTION

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 PLAT OF HIGHWAYS  
 FAP ROUTE 761 (IL 108)  
 SECTION 104-BR-2  
 GREENE COUNTY  
 JOB NO. R-98-001-08

TIE SHEET

(NOT TO SCALE) SHEET 5 OF 5

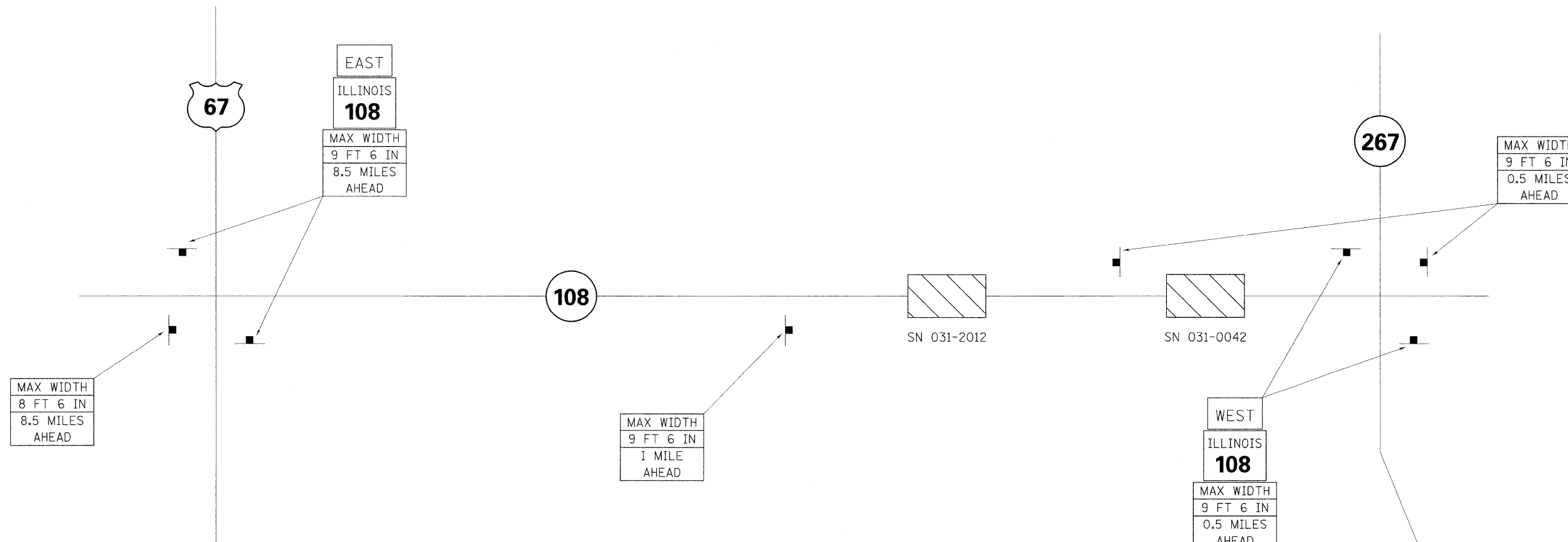
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8  
 1102 EASTPORT PLAZA DRIVE  
 COLLINGSVILLE, ILLINOIS 62234-6198  
 SHEET 1 IS A COVER SHEET

COMPLETION DATE OF FIELD WORK PERFORMED  
 LAND SURVEY: FEBRUARY 22, 2008  
 RIGHT OF WAY STAKING: XXXXXXXX

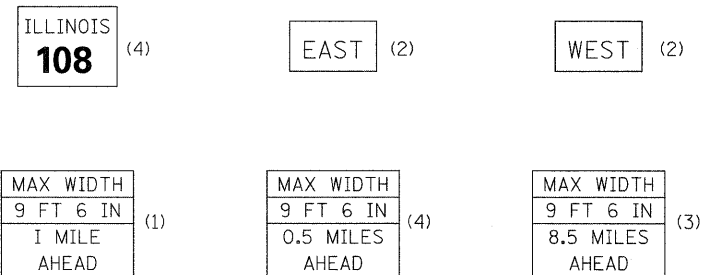
PLOT DATE = 02/22/08  
 FILE NAME = 035-003363  
 PLOT SCALE = AS SHOWN  
 USER NAME = RLOWE

**NOTES:**

1. ALL SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.
2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE R.E./R.T.
3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE T.M. BUILDING IN FAIRVIEW HEIGHTS, AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTACT JEAN SLAPE AT 346-3289.
4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR WIDE LOAD SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.
5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
6. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.



**SIGNS REQUIRED**



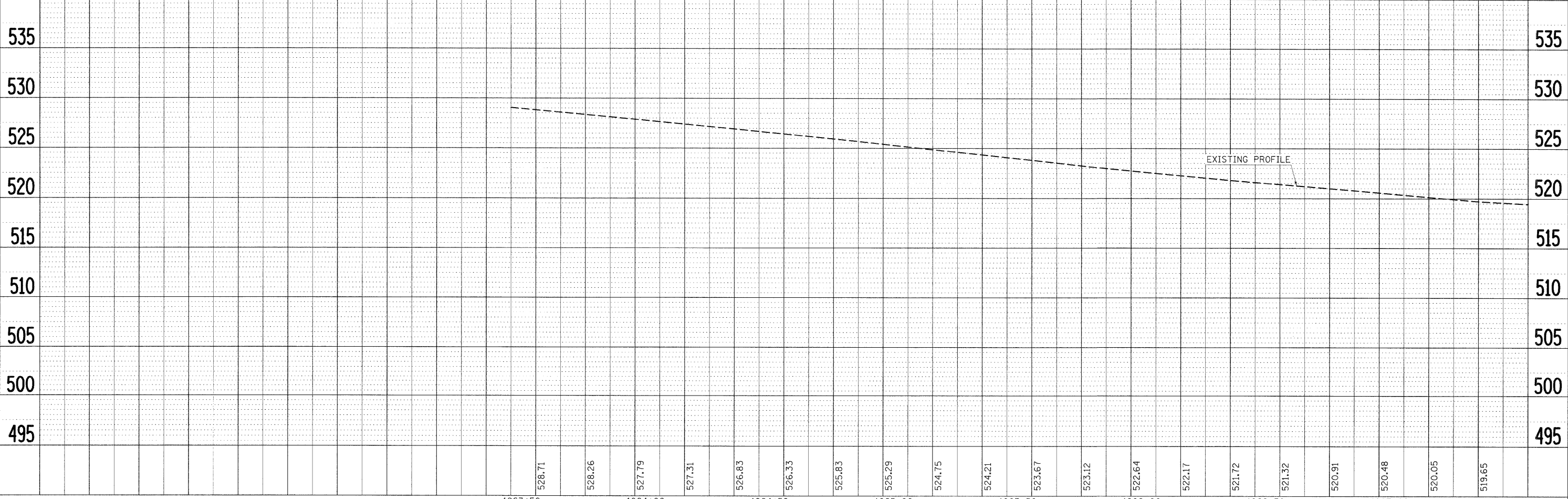
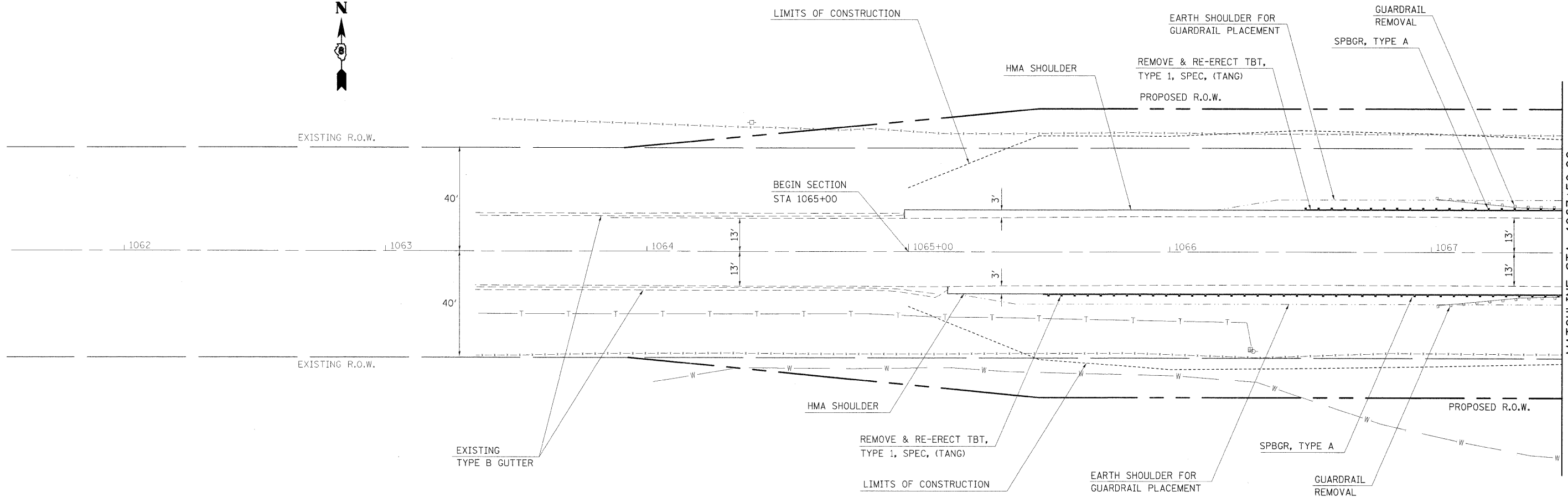
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es:\pwwork\pwwork\harbaughrd\dms51883\p...	21506a.dgn	DRAWN -	REVISED -					761	104-BR-2	GREENE	82	16	
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	SCALE:					SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 76987	
PLOT DATE = 12/13/2008	DATE -	REVISED -	FED. ROAD DIST. NO.					ILLINOIS FED. AID PROJECT					





PLAN	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
NOTE BOOK NO.	CADD FILE NAME		

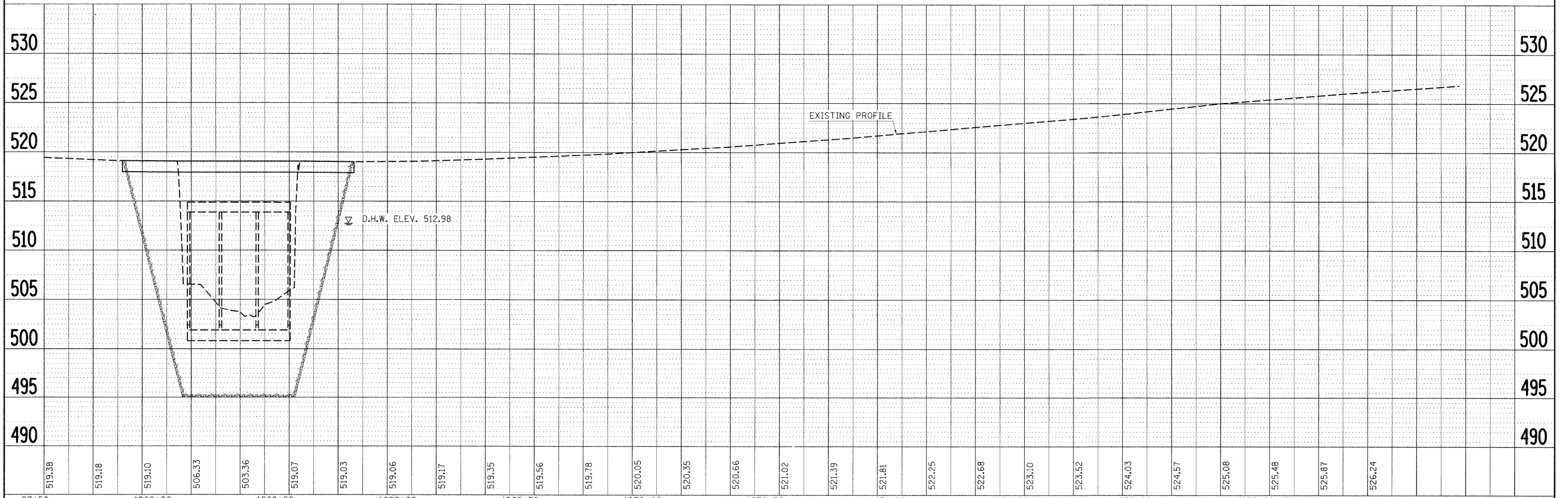
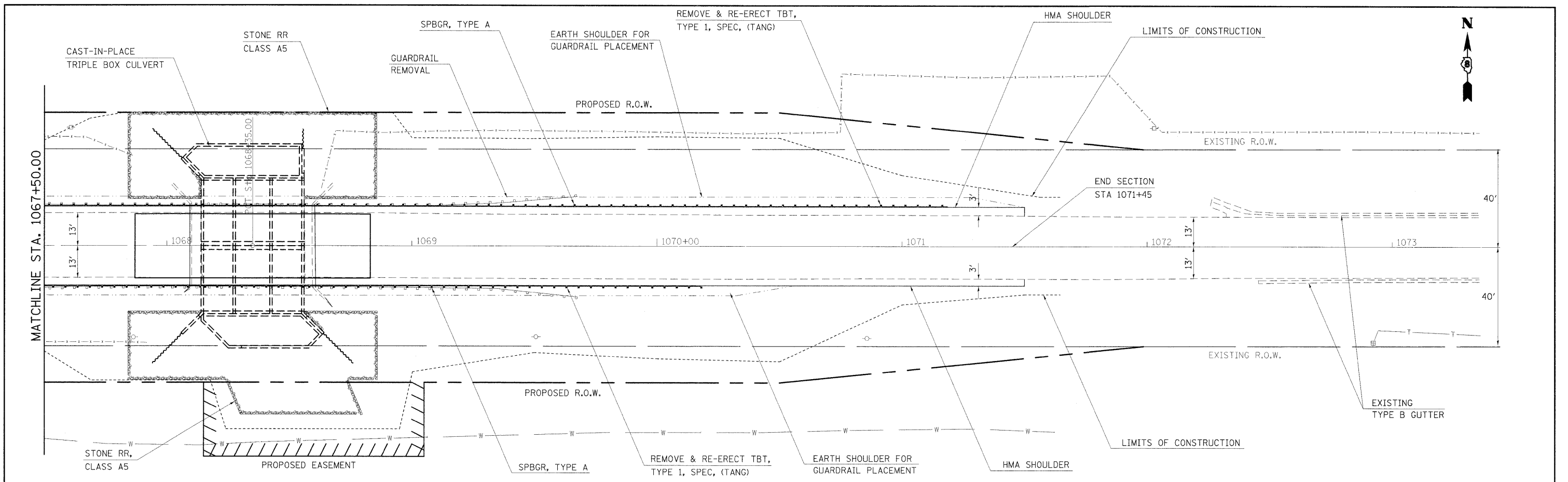
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	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
NOTE BOOK NO.	CADD FILE NAME		



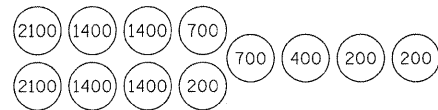
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	PLOT SCALE = 20.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 76987					
	PLOT DATE = 12/11/2008	DATE -	REVISED -			SCALE: 20	SHEET NO. 1 OF 2 SHEETS	STA. 1061+50 TO STA. 1067+50	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	

PLAN	SURVEYED	BY	DATE
	NOTED		
	PLOTTED		
	REVISIONS		
	RTY. OF WAY CHECKED		
	ADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	NOTED		
	PLOTTED		
	REVISIONS		
	STRUCTURE NOTATIONS CHECKED		



FILE NAME =	USER NAME = harbaughrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>IL 108 PLAN/PROFILE (SN 031-2012)</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT SCALE = 20.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 76987					
	PLOT DATE = 12/11/2008	DATE -	REVISED -			SCALE: 20	SHEET NO. 1 OF 2 SHEETS	STA. 1067+50	TO STA. 1073+40	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT



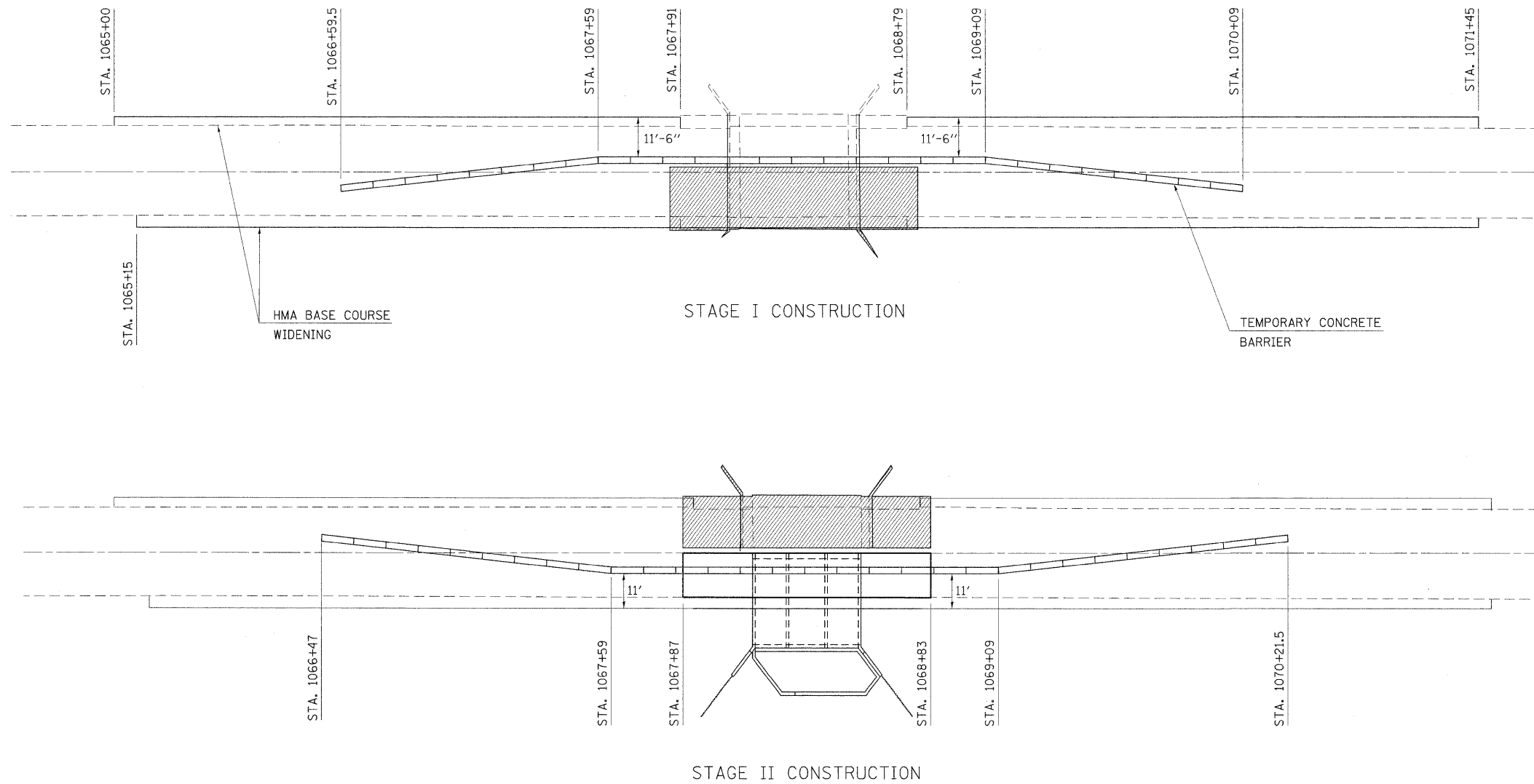
SAND MODULE IMPACT ATTENUATOR LAYOUT  
(IF OPTION USED)

SEQUENCE OF CONSTRUCTION - STAGE I

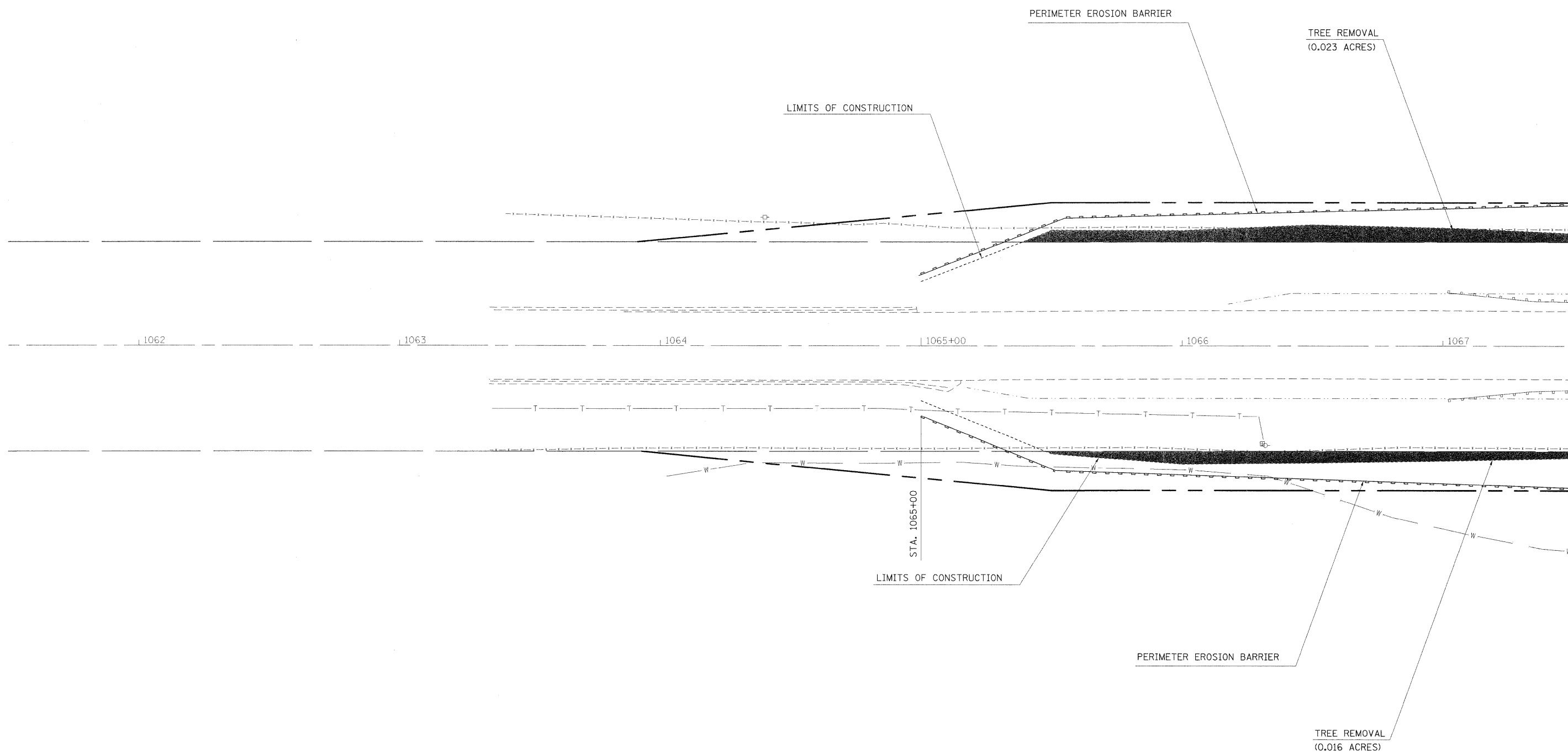
SEE STANDARD 701321 FOR LAYOUT OF TRAFFIC CONTROL.  
 PLACE "HMA BASE COURSE WIDENING, 9 INCH" FOR 3 FT WIDENING AS SHOWN ON PLANS.  
 PLACE 350 FT TEMPORARY CONCRETE BARRIER AND 2 EACH IMPACT ATTENUATORS, TEMPORARY.  
 REMOVE SKIP-DASH AND SOLID EDGE PAVEMENT MARKING BETWEEN STOP BARS.

SEQUENCE OF CONSTRUCTION - STAGE II

SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.  
 PLACE "HMA BASE COURSE WIDENING, 9 INCH FOR 3 FT WIDENING AS SHOWN ON PLANS.  
 PLACE GUARDRAIL AND TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT ON BOTH ENDS OF STRUCTURE.  
 RELOCATE 375 FT OF TEMPORARY CONCRETE BARRIER AND RELOCATE 2 EACH IMPACT ATTENUATORS, TEMPORARY.



FILE NAME =	USER NAME = harbaughrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>STAGE CONSTRUCTION DETAILS (SN 031-2012)</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 12/18/2008	DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							



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 c:\pw\_work\XPWIDOT\HARBAUGH\dwg\51889\

USER NAME = harbaughrd  
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 PLOT DATE = 12/11/2008

DESIGNED -  
 DRAWN -  
 CHECKED -  
 DATE -

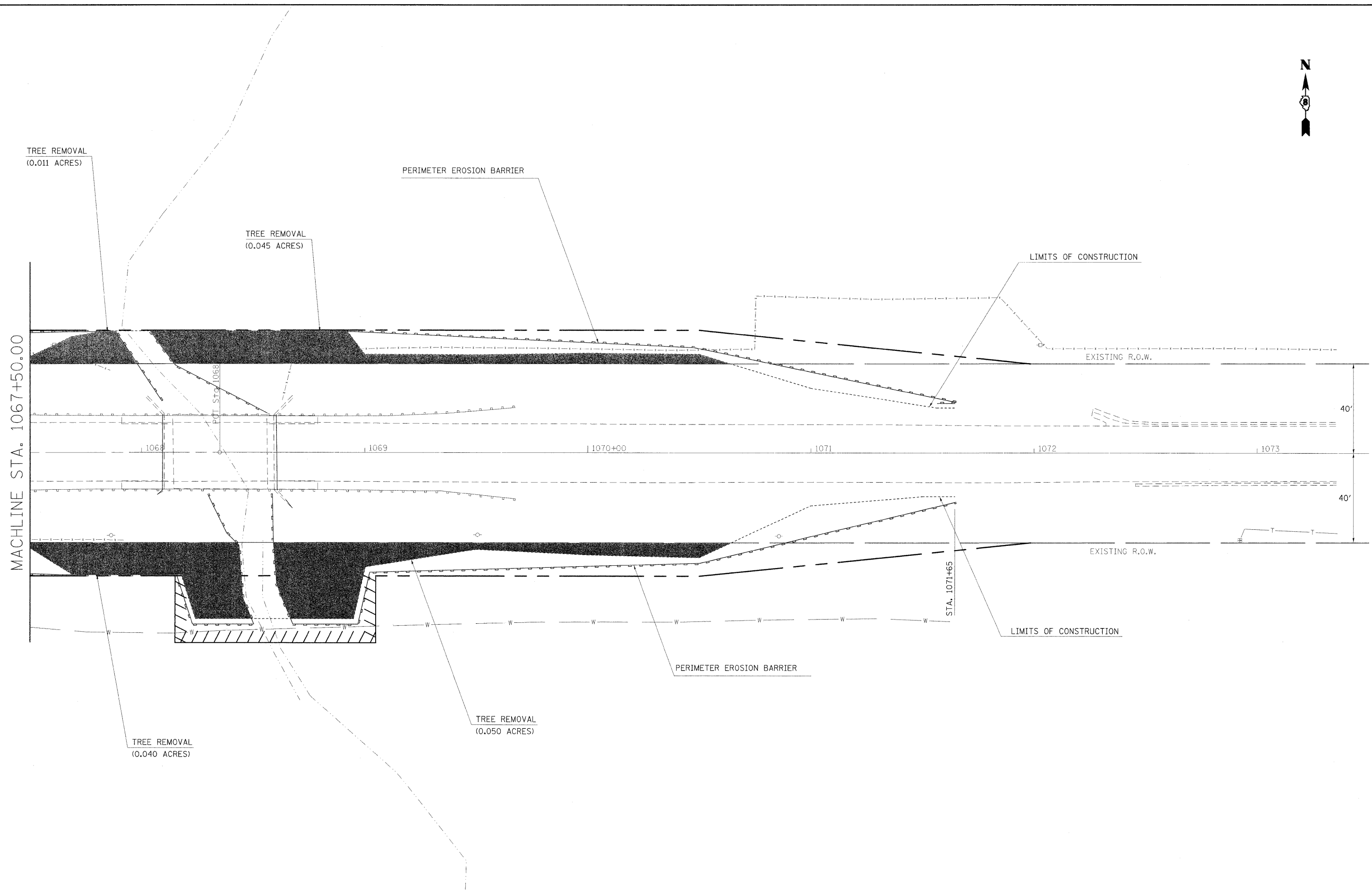
REVISED -  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL (SN 031-2012)**

SCALE: 20      SHEET NO. 1 OF 2 SHEETS      STA. 1061+50 TO STA. 1067+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
761	104-BR-2	GREENE	82	20
<b>CONTRACT NO. 76987</b>				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



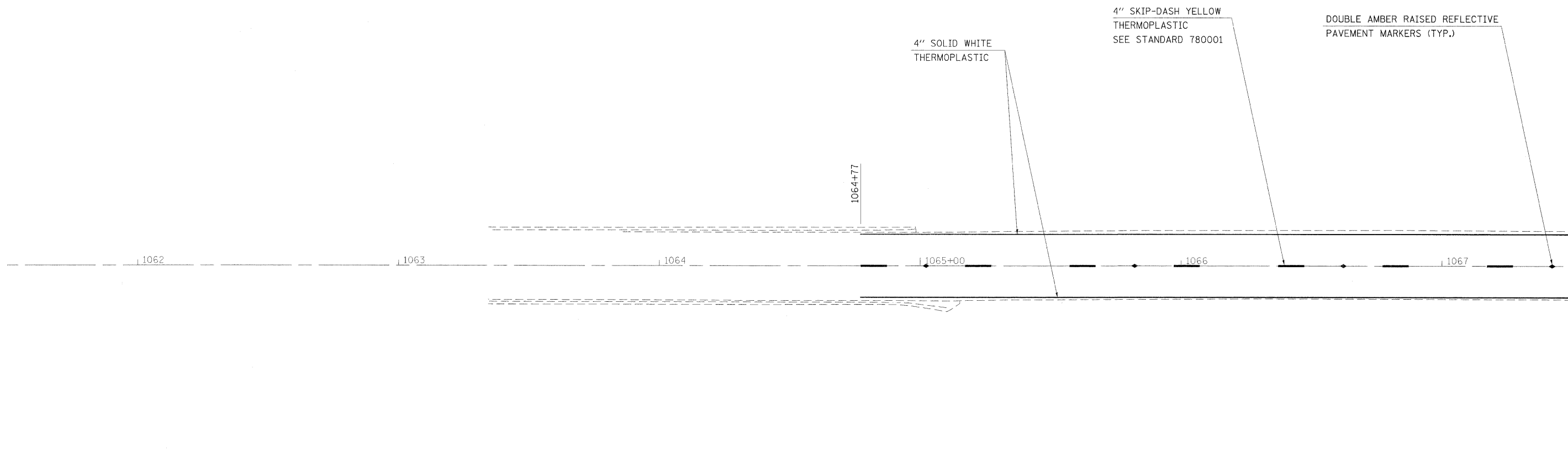
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	PLOT SCALE = 20.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 12/11/2008	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL (SN 031-2012)**

SCALE: 20      SHEET NO. 2 OF 2 SHEETS      STA. 1067+50 TO STA. 1073+50

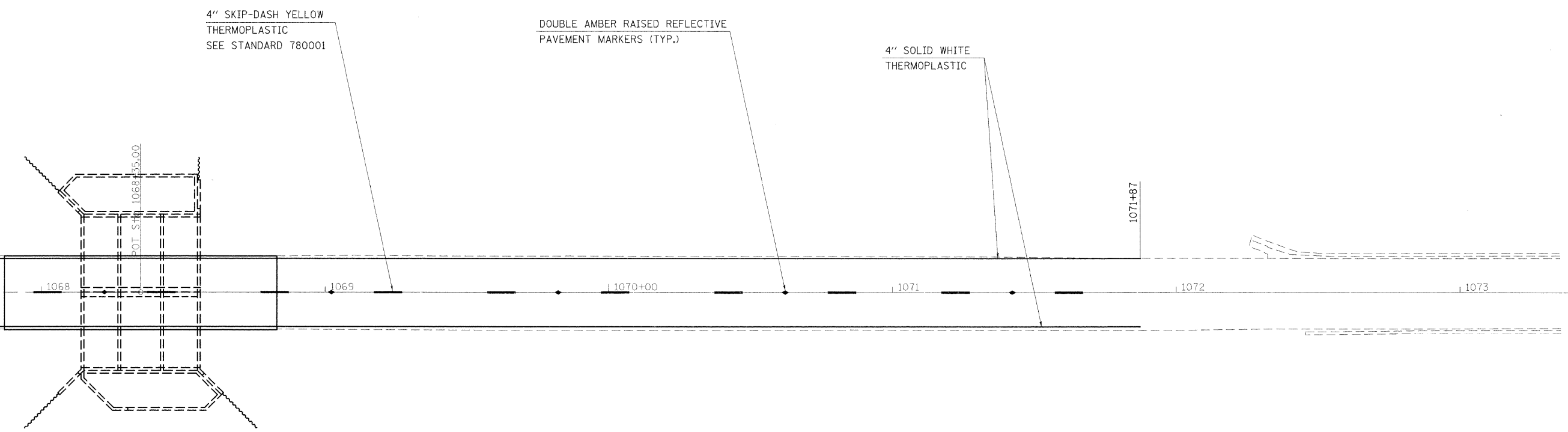
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
761	104-BR-2	GREENE	82	21
CONTRACT NO. 76987				
FED. ROAD DIST. NO.    ILLINOIS FED. AID PROJECT				



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PLOT SCALE = 20.0000' / IN.		CHECKED -	REVISED -					SCALE: 20			SHEET NO. 1 OF 2 SHEETS	
PLOT DATE = 12/11/2008		DATE	REVISED -		FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		CONTRACT NO. 76987		



MACHINE STA. 1067+50.00



FILE NAME = c:\pw_wa-k\PWIDOT\HARBAUGHRO\dms51889\	USER NAME = harbaughrd eg01506_2024_13.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT MARKING (SN 031-2012)</b>	F.A.P. RTE. 761	SECTION 104-BR-2	COUNTY GREENE	TOTAL SHEETS 82	SHEET NO. 23		
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	PLOT DATE = 12/11/2008	SCALE: 20	SHEET NO. 2 OF 2 SHEETS			STA. 1067+50	TO STA. 1073+50					

Bench Mark: RR spike found in power pole, located on the south side of IL Route 108, ±460' east of Route 108 bridge (SN 031-0024) over Taylor Creek. Approx. Sta. 1072+93, 38' RT., Elev. 534.801.

Existing Structure: S.N. 031-0024 built in 1928 as F.A.-761, section 104-BR-1 at station 1068+35.00 as a 1 span reinforced concrete T-beam bridge, 43'-2" Bk.-to-Bk. abutments supported on untreated timber piles. Superstructure replacement and widening in 1978 with PPC deck beams and bituminous wearing surface. Existing bridge to be removed and replaced. Traffic maintained utilizing stage construction.

No salvage.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Steel  $\bar{E}$  Beam Guard Rail, Attached to Structures (See Std. 63010). Attachment shall be according to Case IV except that the  $1\frac{1}{2}$ "  $\phi$  holes in the top slab shall be formed (instead of cored) for the threaded rods. To be used on the bridge only, typ.

INDEX OF SHEETS

- 1 General Plan
- 2 Stage Construction Details & Temporary Soil Retention System
- 3 Geotextile Retaining Wall
- 4 Temporary Concrete Barrier for Stage Construction
- 5-8 Culvert Details
- 9 Permanent Sheet Piling Details
- 10 Bar Splicer Assembly Details
- 11 Soil Boring Logs

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
FAP 761	104-BR-2	GREENE	82	24	11 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		Contract No. 76987

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer. Precast alternate not allowed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material	Cu. Yd.	692
Porous Granular Embankment	Cu. Yd.	692
Stone Riprap, Class A5	Sq. Yd.	556
Filter Fabric	Sq. Yd.	556
Removal of Existing Structures	Each	1
Reinforcement Bars, Epoxy Coated	Pound	56190
Bar Splicers	Each	268
Steel Plate Beam Guard Rail, Attached to Structures	Foot	87.5
Temporary Soil Retention System	Sq. Ft.	676
Permanent Steel Sheet Piling	Sq. Ft.	1272
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	388
Geotextile Retaining Wall	Sq. Ft.	150
Geogrid Tieback System	L. Sum	1
Asbestos Bearing Pad Removal	Each	22

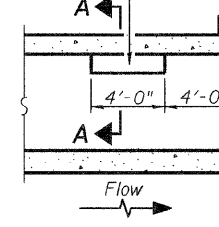
STATION 1068+35.00  
BUILT 20 BY  
STATE OF ILLINOIS  
F.A.P. RTE. 761 SEC. 104-BR-2  
LOADING HS20-44  
STRUCTURE NO. 031-2012

NAME PLATE  
See Std. 515001

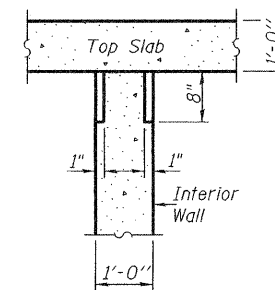
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	498.92	498.36

Notch formed by rough finished board attached to and removed with form work, each interior wall. (Do not chamfer).



LONGITUDINAL SECTION



SECTION A-A

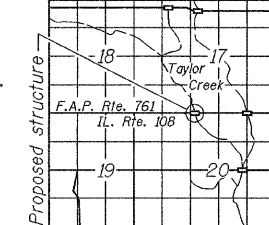
PHOEBE NESTING  
SITE DETAILS  
(Downstream End Only)

WATERWAY INFORMATION

Drainage Area = 5.37 sq. mi. Low Grade Elev. 519.02 ft. @ Sta. 1068+85

Flood Yr.	Freq.	Q	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	50	2,496	306	420	512.98	1.17	0.90	514.15	513.88
Base	100	2,952	321	434	513.35	1.52	1.19	514.87	514.54
Overtopping	N/A								
Max. Calc.	500	4,093	351	454	514.11	2.56	2.06	516.67	516.17
Scour	10	1,505	265	381	511.94	0.56	0.39	512.50	512.33

Range 10W - 3rd. PM



LOCATION SKETCH

LOADING HS20-44  
Allow 50#/sq. ft. for future wearing surface.

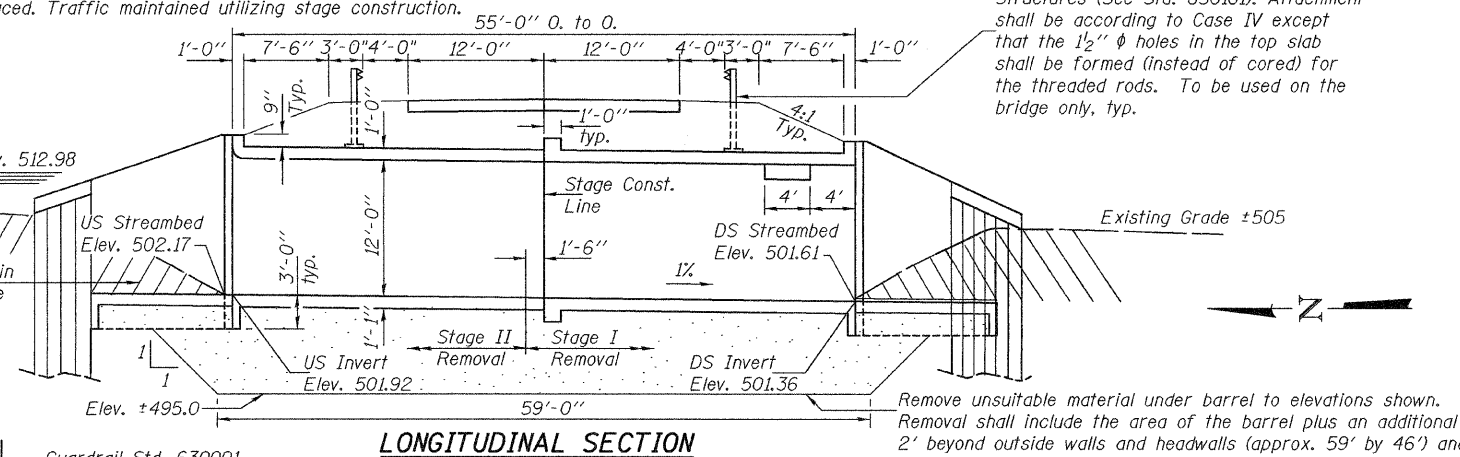
DESIGN SPECIFICATIONS  
2002 AASHTO Standard Specification

DESIGN STRESSES

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

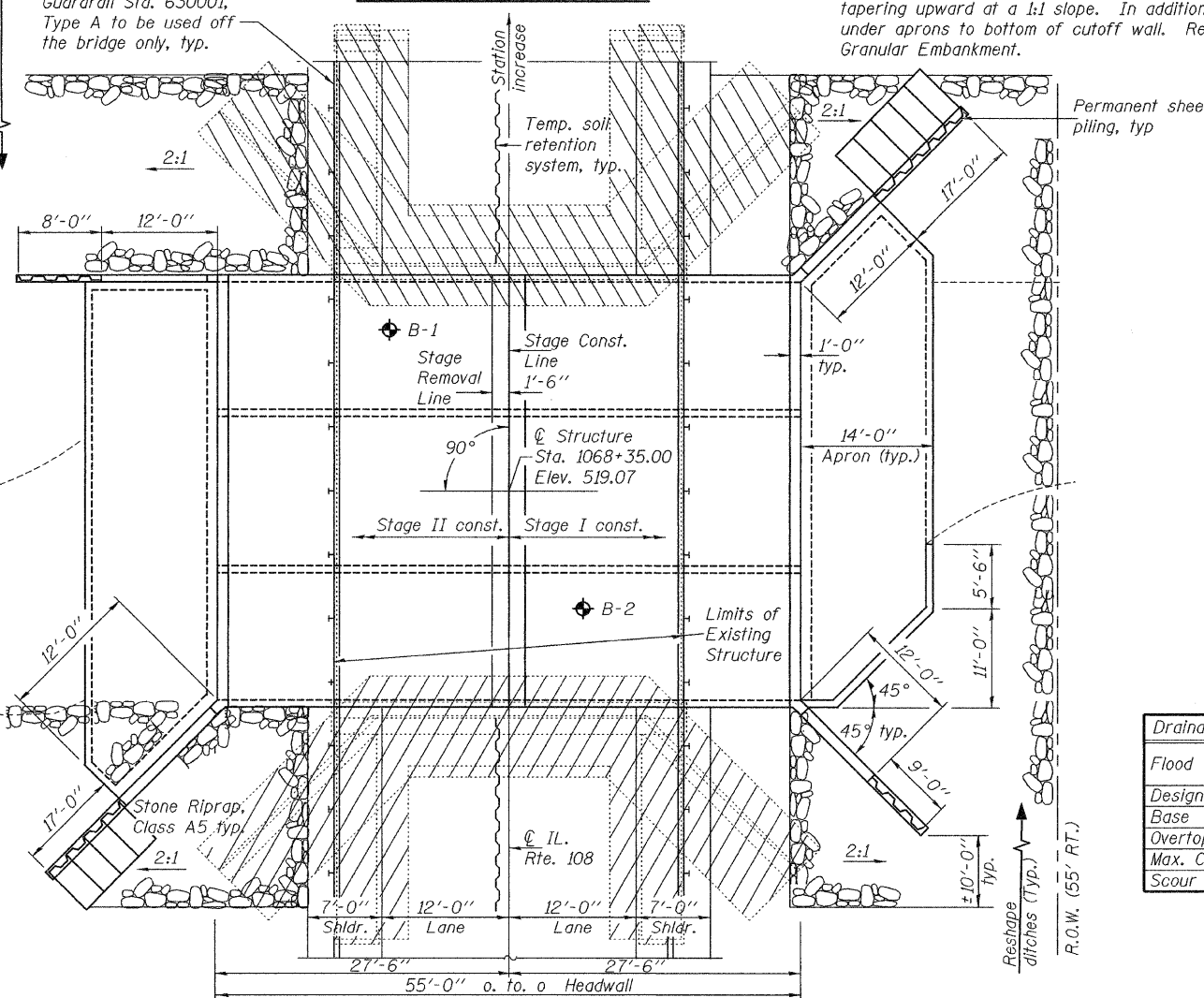


EXPIRES 11-30-2010



LONGITUDINAL SECTION

Remove unsuitable material under barrel to elevations shown. Removal shall include the area of the barrel plus an additional 2' beyond outside walls and headwalls (approx. 59' by 46') and tapering upward at a 1:1 slope. In addition, remove material under aprons to bottom of cutoff wall. Replace with Porous Granular Embankment.



PLAN

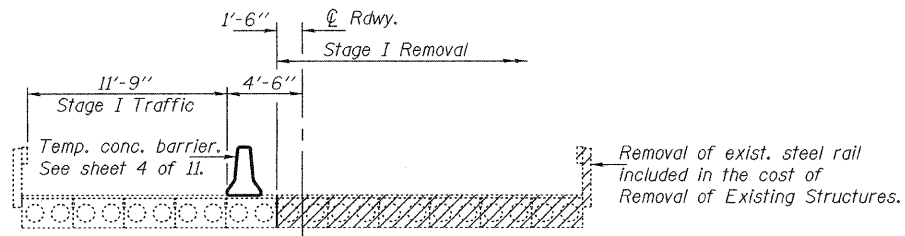
PROFILE GRADE  
(along  $\bar{C}$  F.A.P. Rte. 761)

DESIGNED	Jay D. Edwards
CHECKED	Michael Nelson
DRAWN	h.t. duong
CHECKED	JDE/MOR

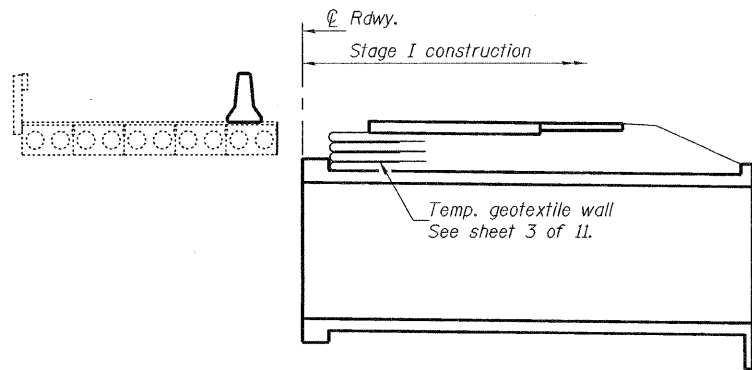
EXAMINED *Thomas J. ...* Jan 15, 2009  
PASSED *Ralph E. ...*  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES



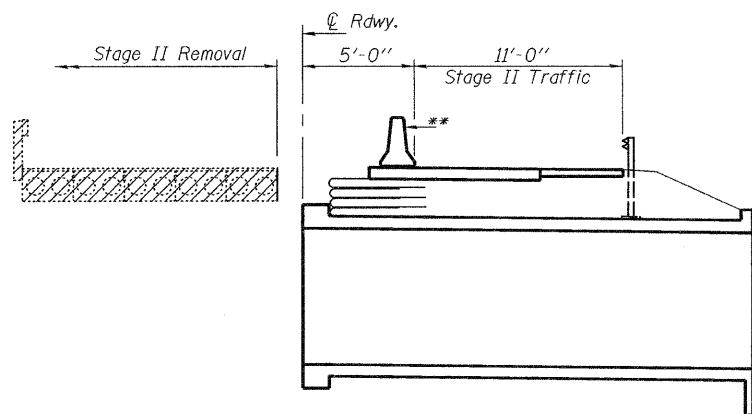
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



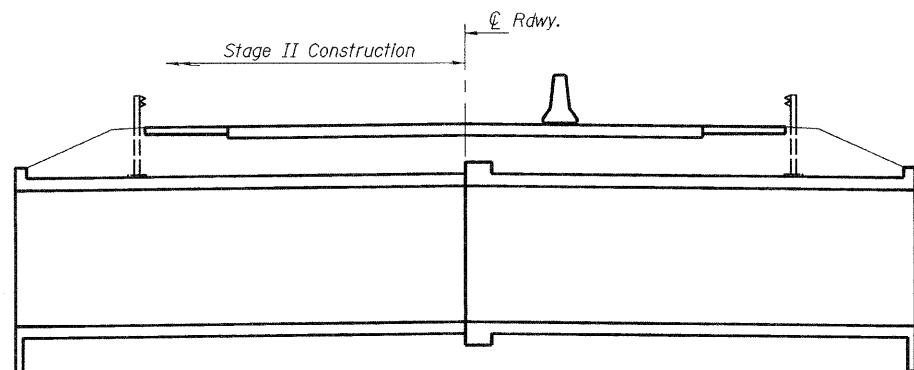
**STAGE I REMOVAL**



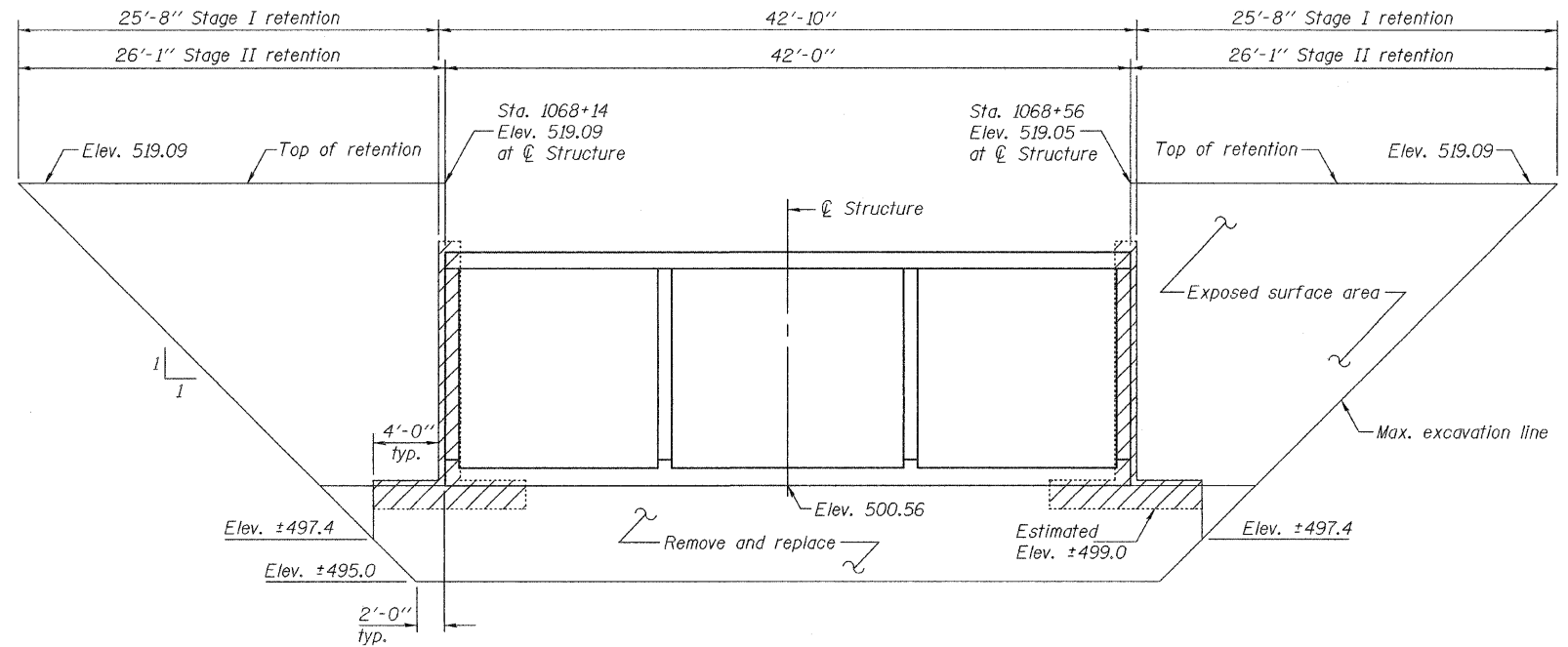
**STAGE I CONSTRUCTION**



**STAGE II REMOVAL**



**STAGE II CONSTRUCTION**



**TEMPORARY SOIL RETENTION SYSTEM**  
(Looking North)

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.

\*\*The temporary concrete barrier next to Stage II Traffic within the limits of end to end of the Temporary Soil Retention System shall be anchored with 3-1" phi anchor pins per section of barrier on the traffic side as shown on Highway Standard 704001. Holes in the pavement shall be filled according to Std. Spec's. Section 704. Cost of anchoring and filling shall be included with Temporary Concrete Barrier.

Notes: Hatched areas indicate removal of existing structures.  
For quantity of temporary concrete barrier, see Roadway Plans.  
All cross sections are looking east.

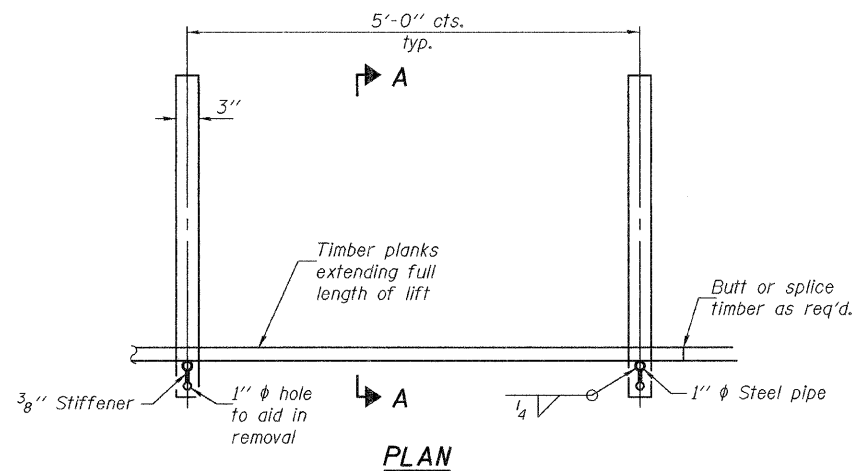
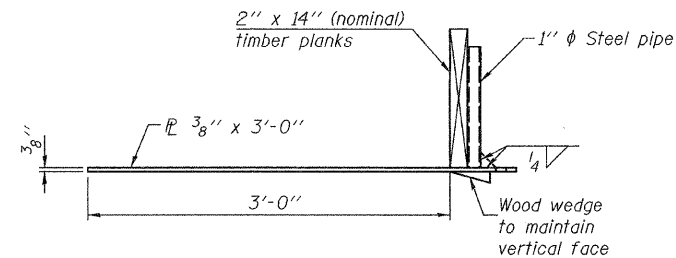
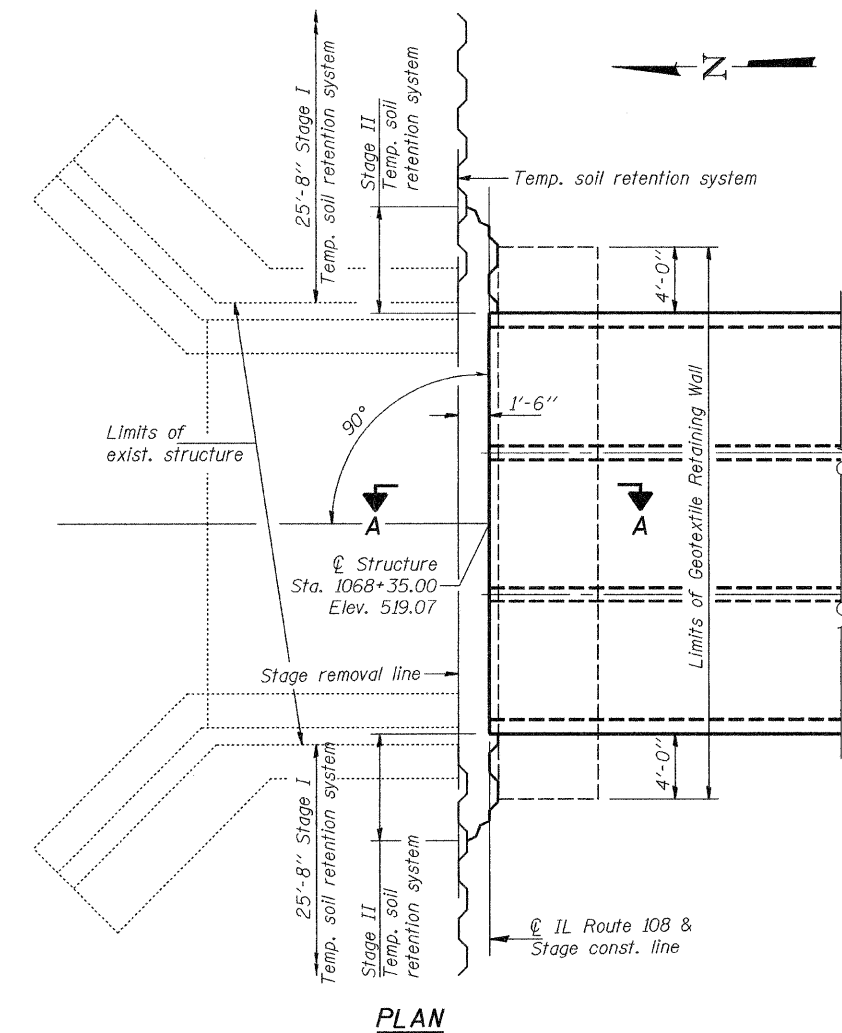
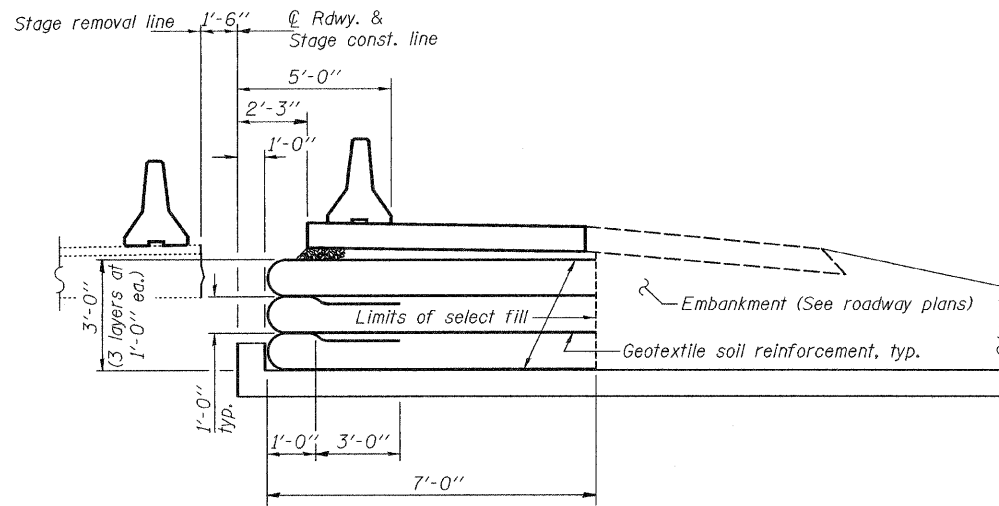
DESIGNED	Jay D. Edwards
CHECKED	Mike D. Rolape
DRAWN	h.f. duong
CHECKED	JDE/MDR

EXAMINED	Thomas J. Donagalli ENGINEER OF BRIDGE DESIGN	Jan 15, 2009
PASSED	Rolap E. Rolape ENGINEER OF BRIDGES AND STRUCTURES	

**STAGE CONSTRUCTION DETAILS &  
SOIL RETENTION SYSTEM  
STRUCTURE NO. 031-2012**

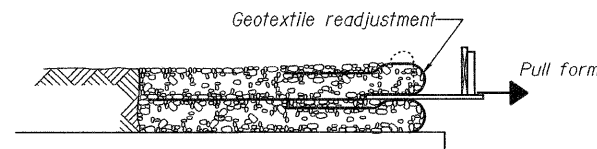
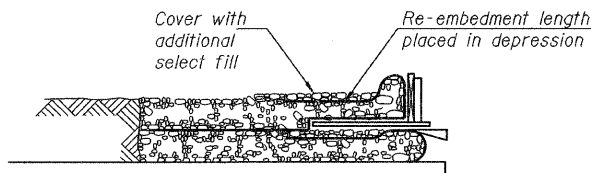
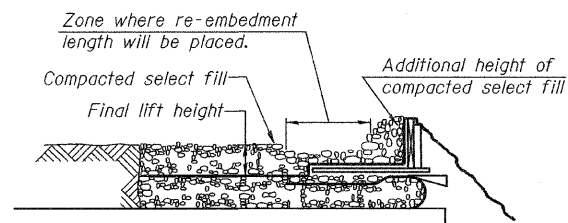
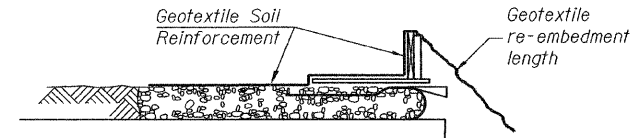
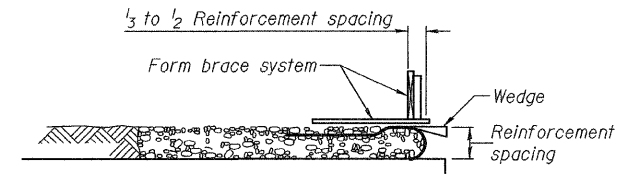
SHEET NO. 2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	761	104-BR-2	GREENE	82	25
11 SHEETS	CONTRACT NO. 76987				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



TEMPORARY GEOTEXTILE  
FORM BRACE DETAIL

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



1. Place form brace system on completed reinforcement level; back from the finished fabric face a distance of 1/3 to 1/2 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 20 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.

DESIGNED	Jay D. Edwards
CHECKED	Mike D. Rolape
DRAWN	h.f. duong
CHECKED	JDE/MDR

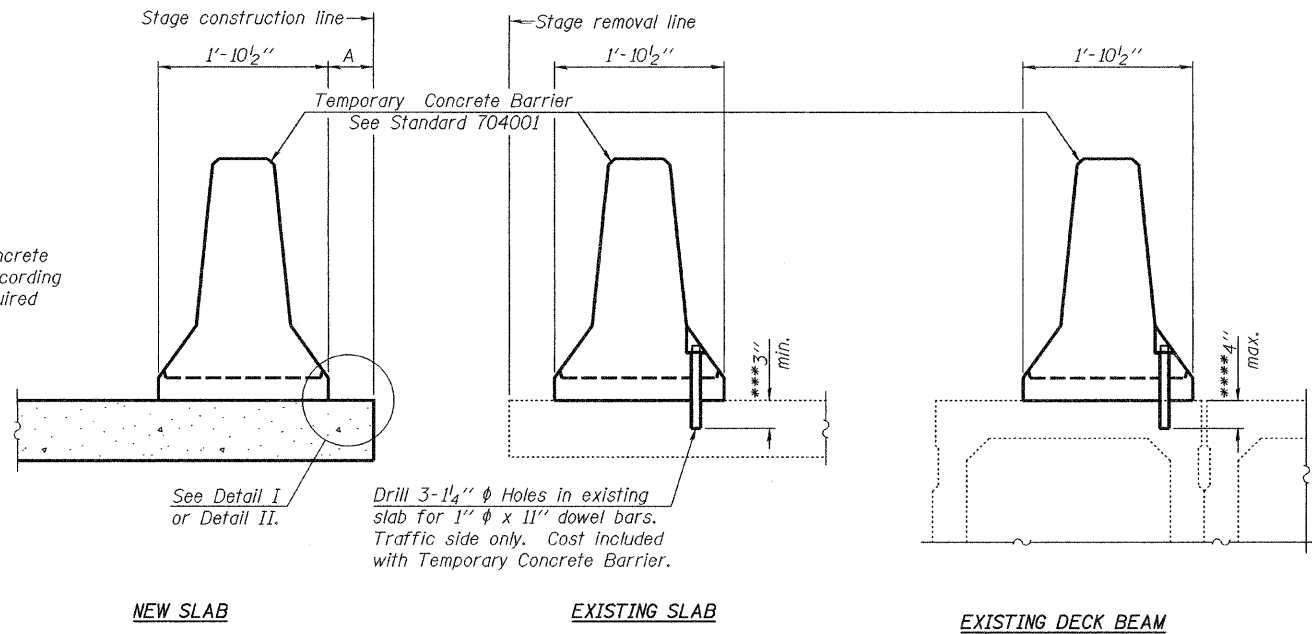
EXAMINED	Thomas J. Domagala ENGINEER OF BRIDGE DESIGN
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

GEOTEXTILE RETAINING WALL  
STRUCTURE NO. 031-2012

SHEET NO. 3	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	761	104-BR-2	GREENE	32	26
11 SHEETS	CONTRACT NO. 76987				
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

SECTIONS THRU SLAB OR DECK BEAM

NOTES

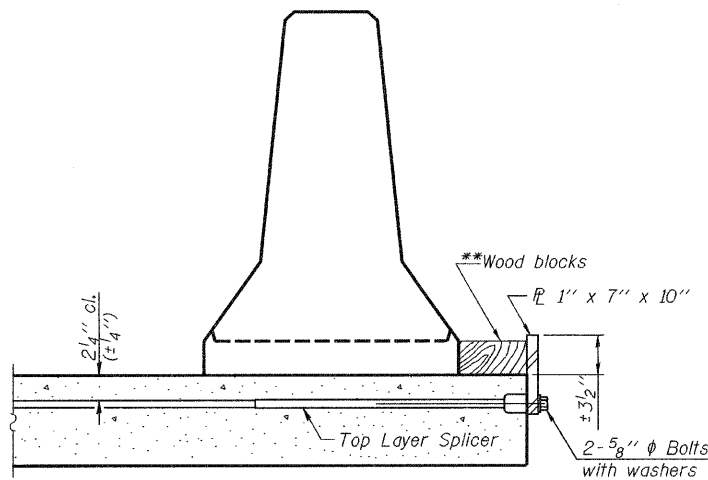
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel  $\bar{P}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.

Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1"x7"x10" steel  $\bar{P}$  to the concrete slab or concrete wearing surface with 2-5/8"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.

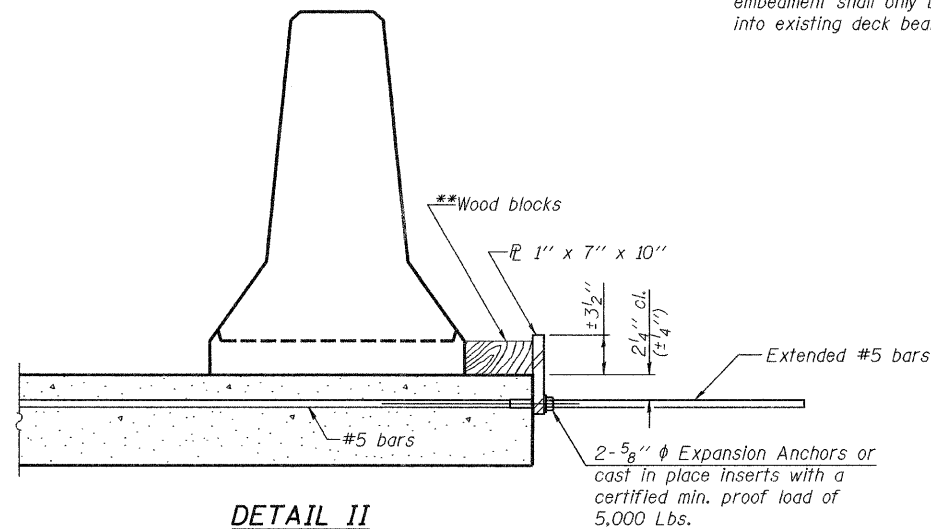
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

\*\*\* 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.

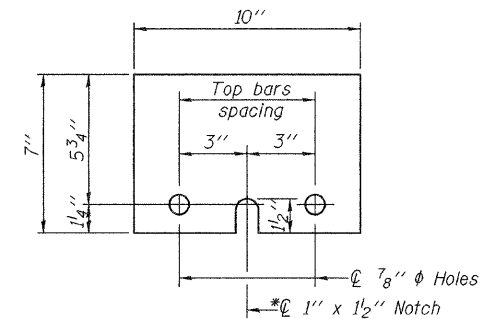
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER  $\bar{P}$  1' x 7' x 10"

\* Required only with 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.

DESIGNED	Jay D. Edwards
CHECKED	Mike D. Rolape
DRAWN	h.f. duong
CHECKED	JDE/MDR

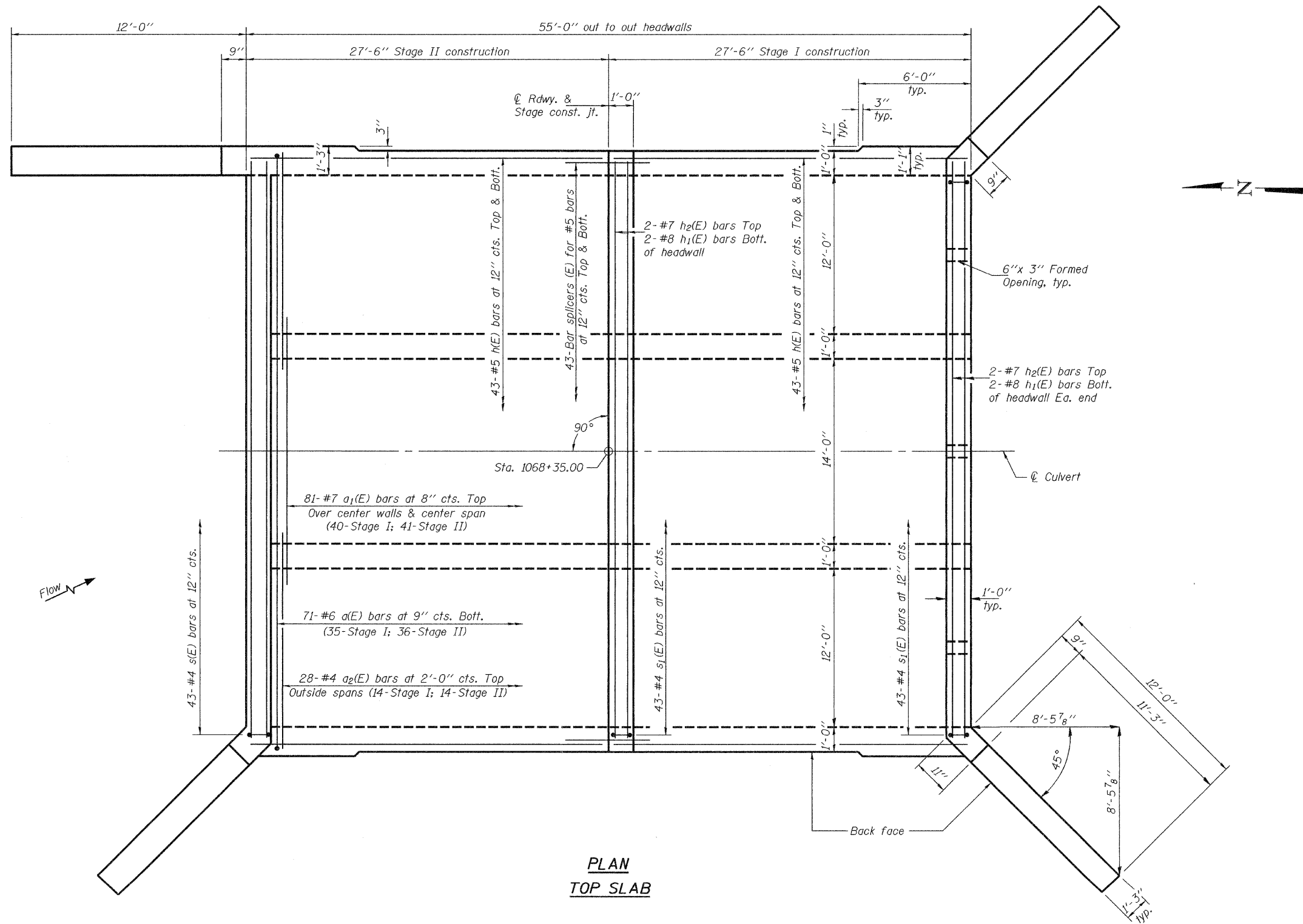
EXAMINED	Thomas J. Donagalli ENGINEER OF BRIDGE DESIGN
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

R-27 10-1-08

TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
STRUCTURE NO. 031-2012

SHEET NO. 4	F.A.P. RTE. 761	SECTION 104-BR-2	COUNTY GREENE	TOTAL SHEETS 82	SHEET NO. 27
11 SHEETS			CONTRACT NO. 76987		
FED. ROAD DIST. NO. _		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



PLAN  
TOP SLAB

Notes: For bar splicer details, see sheet 10 of 11.  
Work this sheet with sheets 6, 7 & 8 of 11.

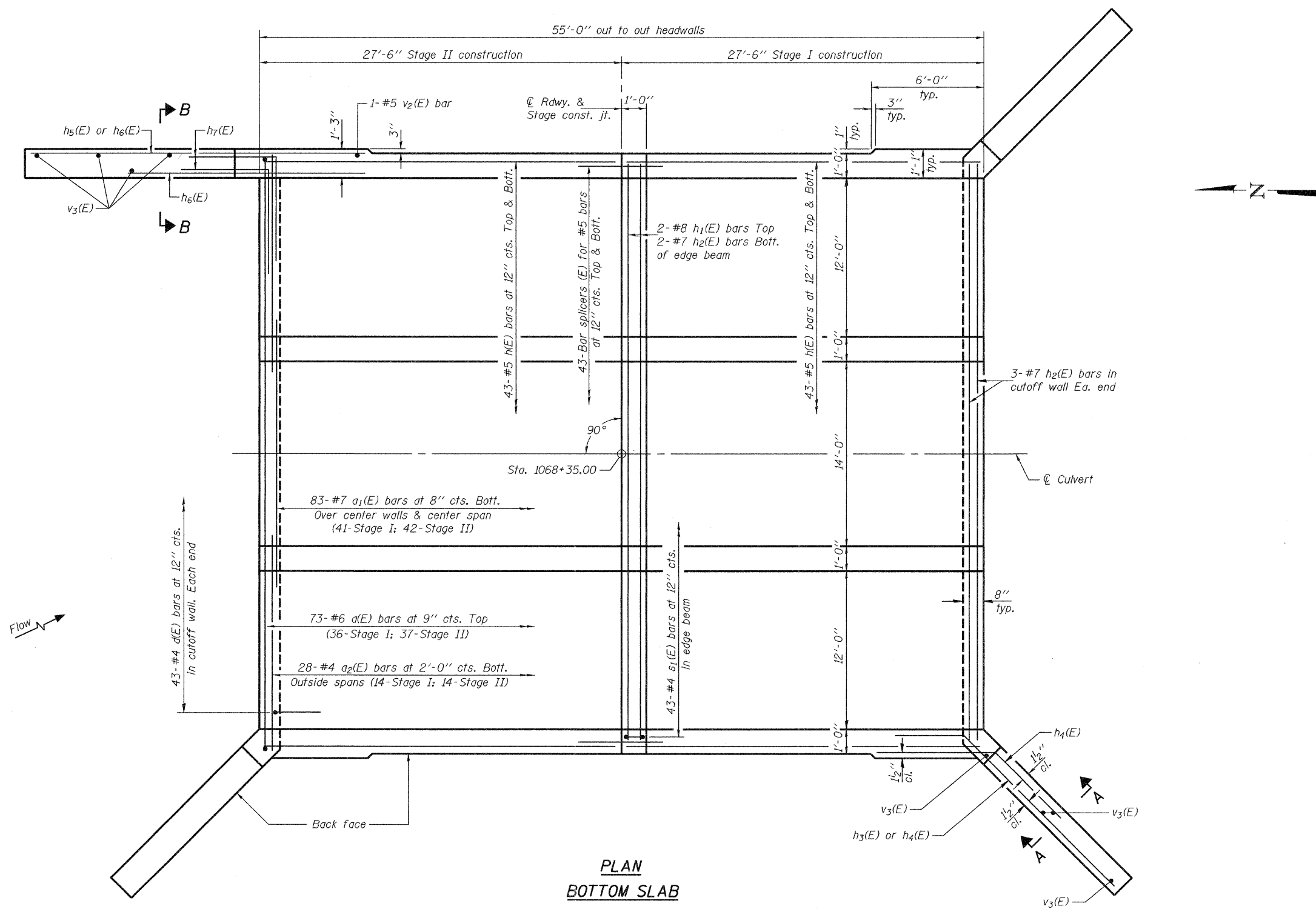
DESIGNED	Jay D. Edwards
CHECKED	Mike D. Rolape
DRAWN	h.f. duong
CHECKED	JDE/MDR

Jan 15, 2009  
EXAMINED *Thomas J. Domagalicki*  
ENGINEER OF BRIDGE DESIGN  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

CULVERT DETAILS  
STRUCTURE NO. 031-2012

SHEET NO. 5 11 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	761	104-BR-2	GREENE	82	28
FED. ROAD DIST. NO. _			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 76987					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



PLAN  
BOTTOM SLAB

Notes: For Sections A-A & B-B, see sheet 7 of 11.  
A distance of half the length of the wingwall but not less than 6 feet of the barrel shall be poured monolithically with the wingwall.

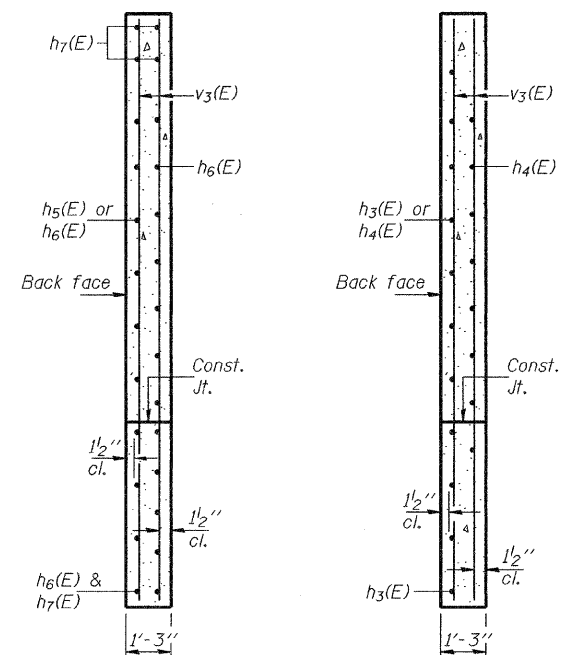
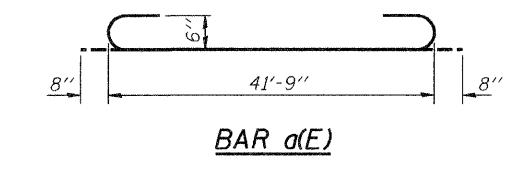
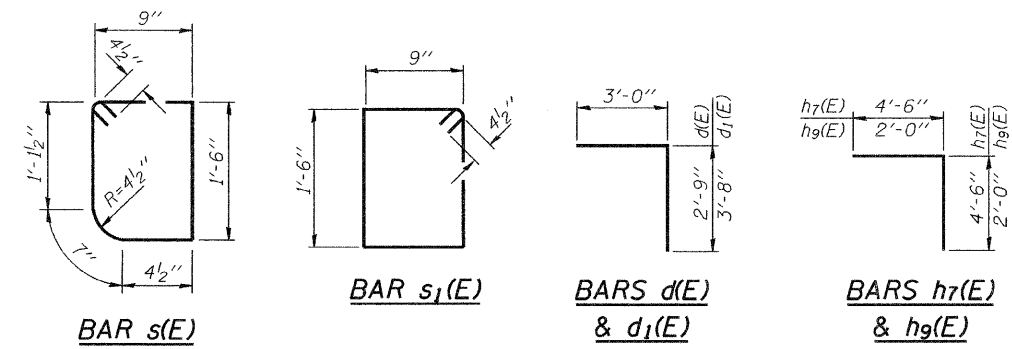
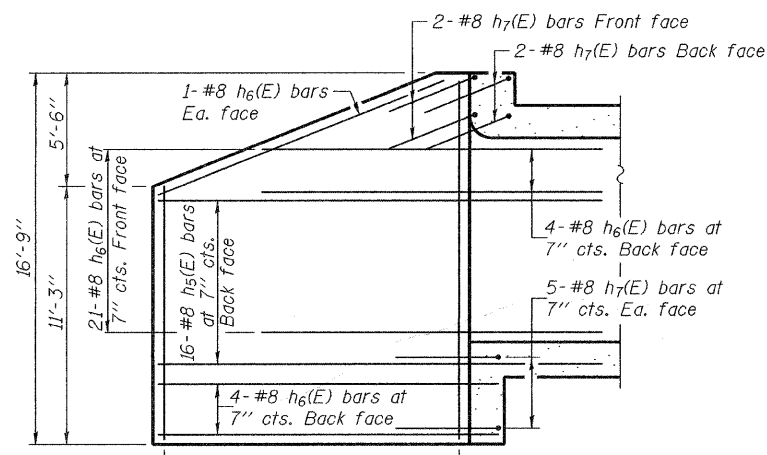
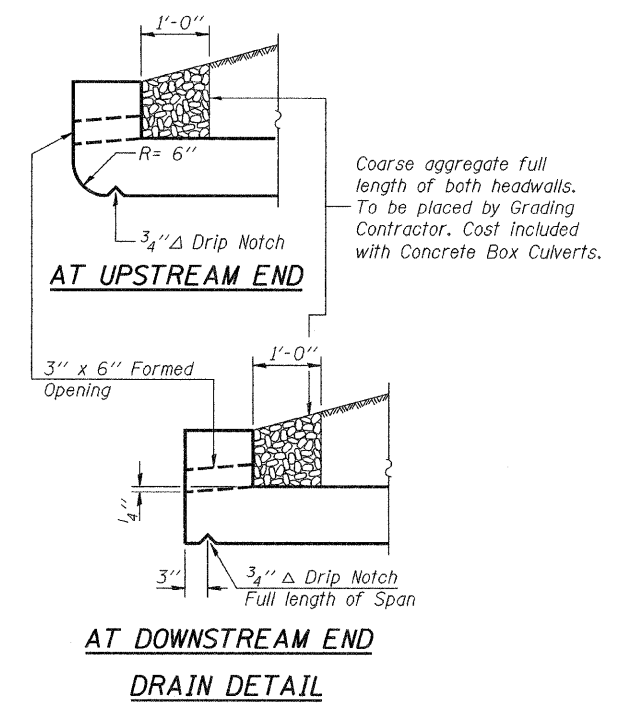
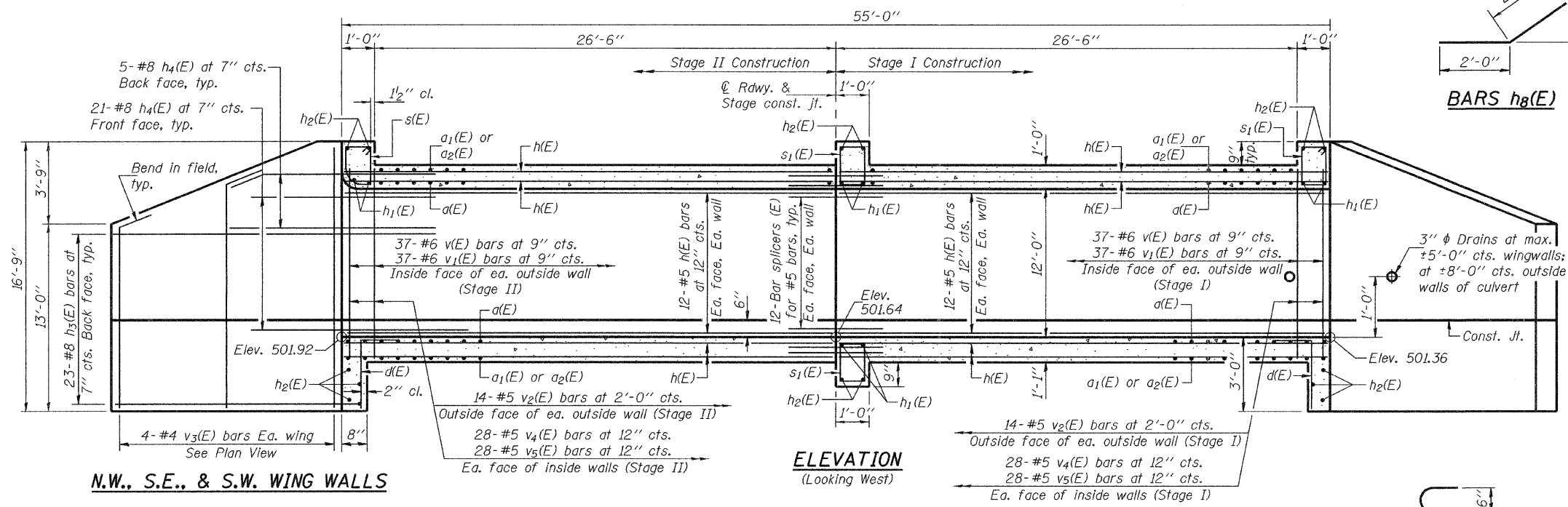
DESIGNED	Jay D. Edwards
CHECKED	Mike D. Rolape
DRAWN	h.f. duong
CHECKED	JDE/MDR

Jan 15, 2009  
EXAMINED *Thomas J. Domagalaki*  
ENGINEER OF BRIDGE DESIGN  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

CULVERT DETAILS  
STRUCTURE NO. 031-2012

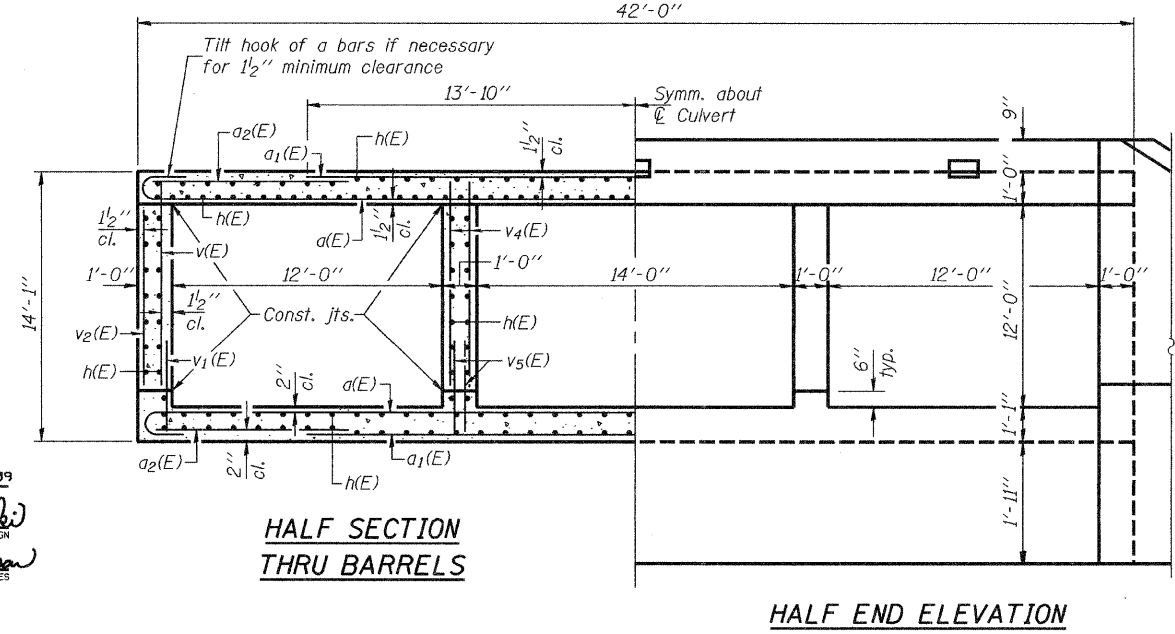
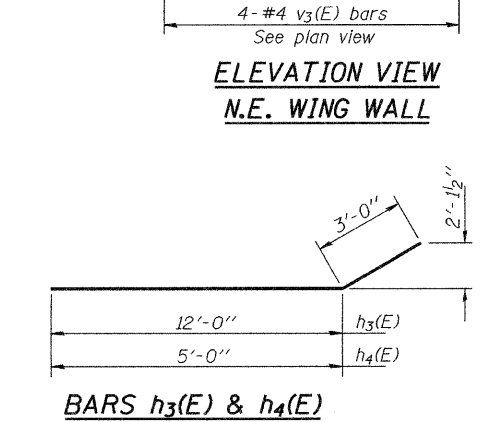
SHEET NO. 6 11 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	761	104-BR-2	GREENE	32	29
FED. ROAD DIST. NO. _			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 76987					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	144	#6	43'-1"	U
a1(E)	164	#7	27'-8"	—
a2(E)	112	#4	8'-9"	—
b(E)	46	#4	25'-0"	—
b1(E)	64	#4	22'-9"	—
b2(E)	150	#4	13'-9"	—
d(E)	243	#4	5'-9"	L
d1(E)	18	#4	6'-8"	L
h(E)	536	#5	27'-3"	—
h1(E)	8	#8	41'-9"	—
h2(E)	14	#7	41'-9"	—
h3(E)	69	#8	15'-0"	—
h4(E)	78	#8	8'-0"	—
h5(E)	16	#8	17'-9"	—
h6(E)	31	#8	12'-5"	—
h7(E)	14	#8	9'-0"	—
h8(E)	24	#4	4'-0"	—
h9(E)	15	#4	4'-0"	—
s(E)	43	#4	5'-1"	□
s1(E)	129	#4	5'-3"	□
v(E)	148	#6	12'-3"	—
v1(E)	148	#6	4'-2"	—
v2(E)	57	#5	11'-3"	—
v3(E)	16	#4	16'-6"	—
v4(E)	224	#5	12'-3"	—
v5(E)	224	#5	3'-9"	—
Concrete Box Culverts			Cu. Yd.	388
Reinforcement Bars, Epoxy Coated			Lbs.	56190



DESIGNED Jay D. Edwards  
 CHECKED Mike D. Rolape  
 DRAWN h.t. duong  
 CHECKED JDE/MDR

EXAMINED *Thomas J. Domagalak*  
 ENGINEER OF BRIDGE DESIGN

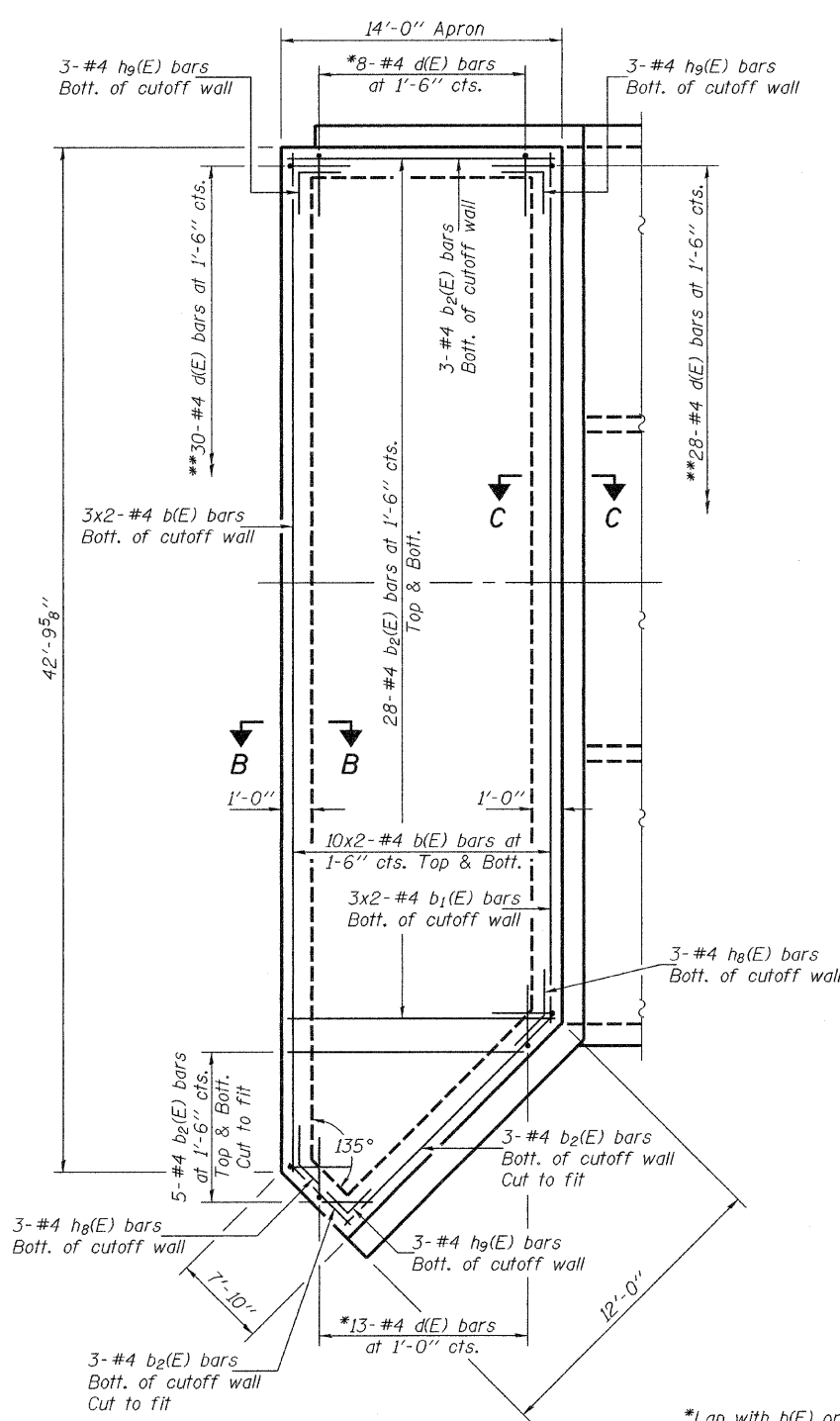
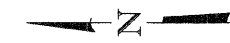
PASSED *Ronald E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

Jan 15, 2009

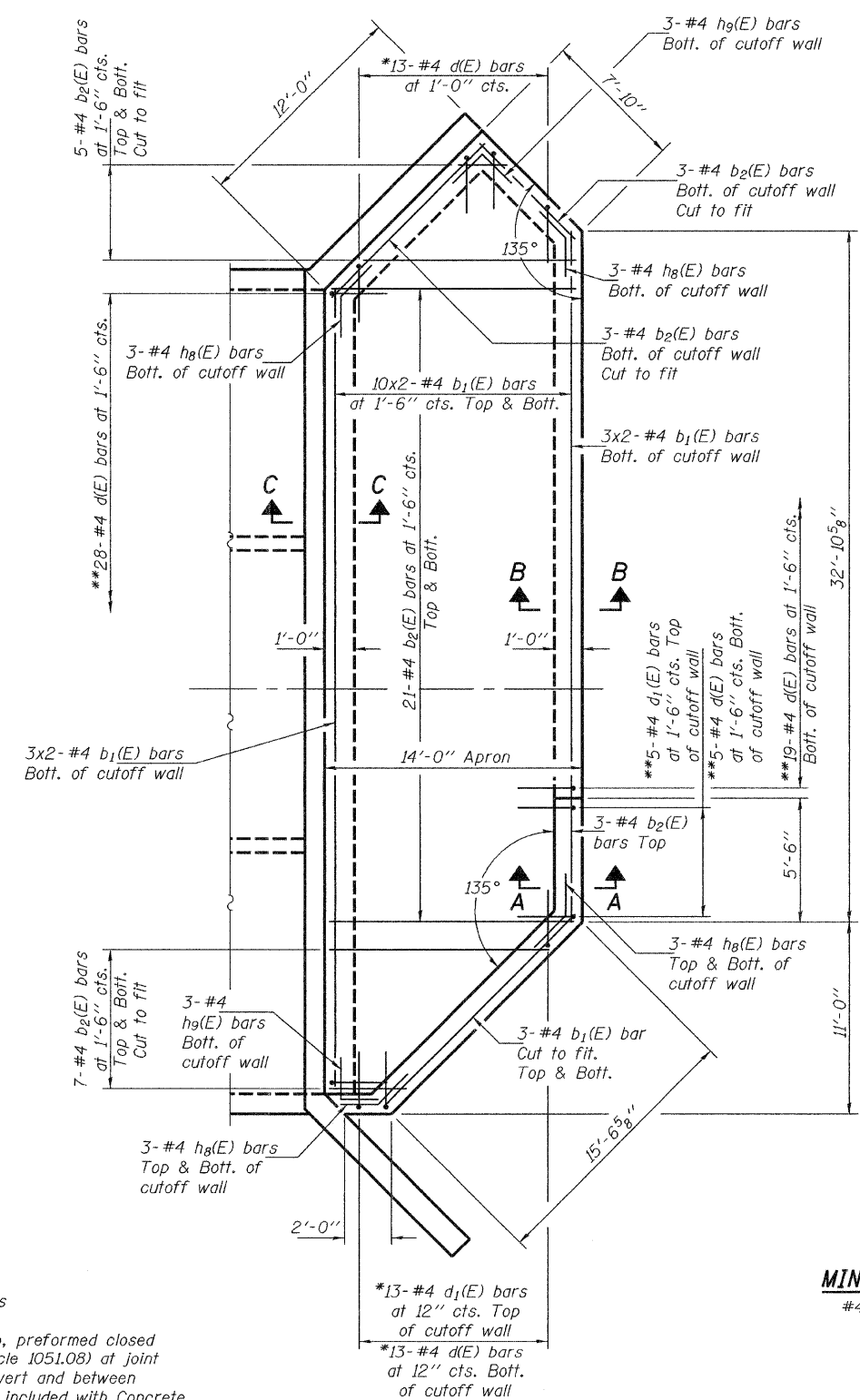
**CULVERT DETAILS  
STRUCTURE NO. 031-2012**

SHEET NO. 7	F.A.P. RTE. 761	SECTION 104-BR-2	COUNTY GREENE	TOTAL SHEETS 82	SHEET NO. 30
11 SHEETS		CONTRACT NO. 76987		ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



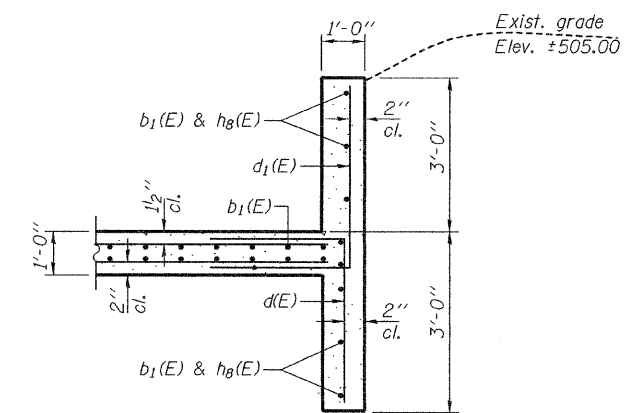
PLAN - NORTH APRON



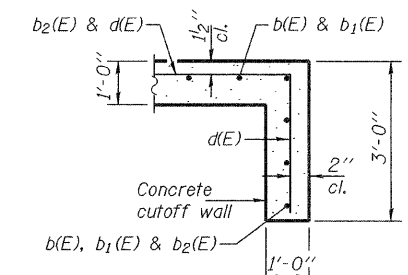
PLAN - SOUTH APRON

\*Lap with b(E) or b1(E) bars  
 \*\*Lap with b2(E) bars  
 ◇ Provide 1" thick by 3' deep, preformed closed cell plastic joint filler (Article 1051.08) at joint between apron and box culvert and between apron and wingwalls. Cost included with Concrete Box Culvert.

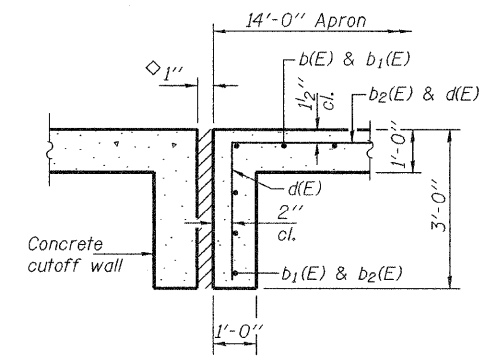
MIN. BAR LAP  
 #4 bar = 1'-8"



SECTION A-A



SECTION B-B



SECTION C-C

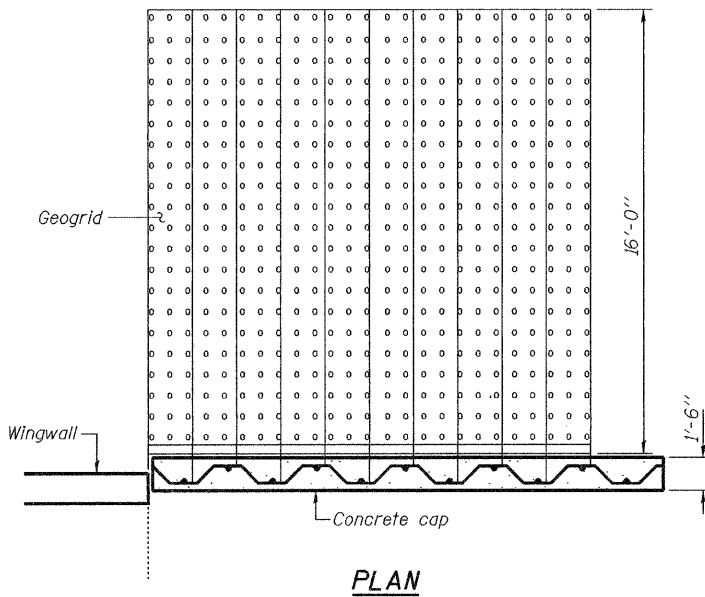
DESIGNED	Jay D. Edwards
CHECKED	Mike D. Rolape
DRAWN	h.f. duong
CHECKED	JDE/MDR

Jan 15, 2009  
 EXAMINED *Thomas J. Donagabadi*  
 PASSED *Ronald E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

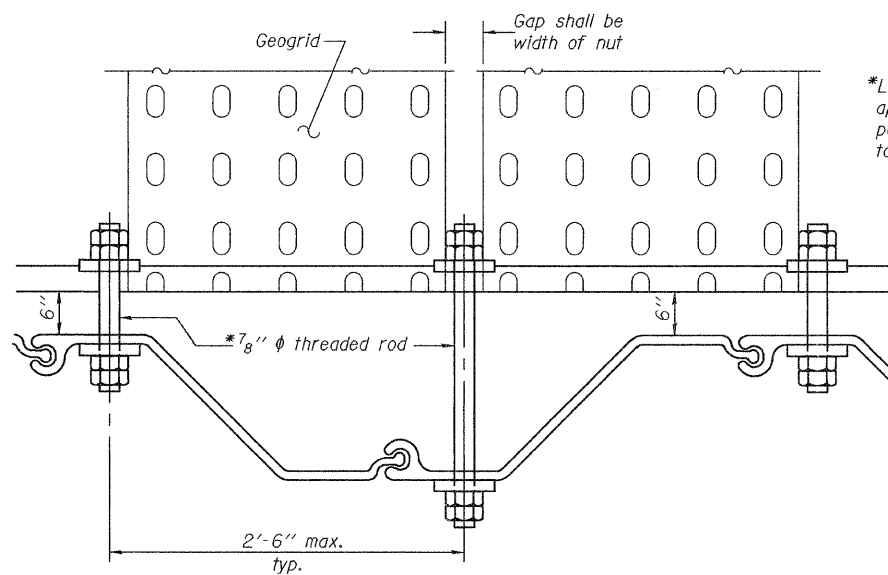
CULVERT DETAILS  
 STRUCTURE NO. 031-2012

SHEET NO. 8  11 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	761	104-BR-2	GREENE	82	31
FED. ROAD DIST. NO. _			ILLINOIS FED. AID PROJECT		
			CONTRACT NO. 76987		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

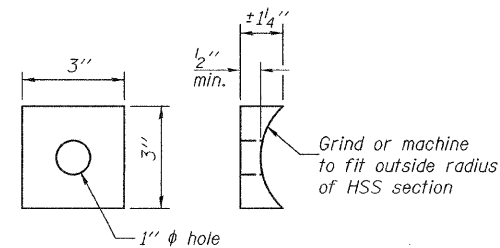


PLAN

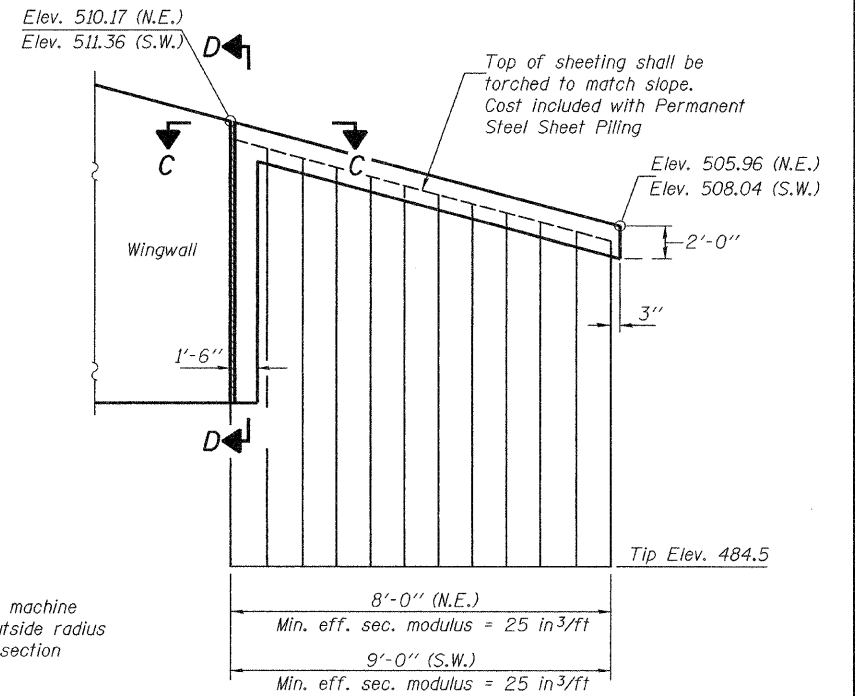


SECTION A-A

\*Length to be determined to maintain approximate distance  $\pm 6''$  between permanent sheet piling and HSS 4,000 to allow clearance for geogrid installation.

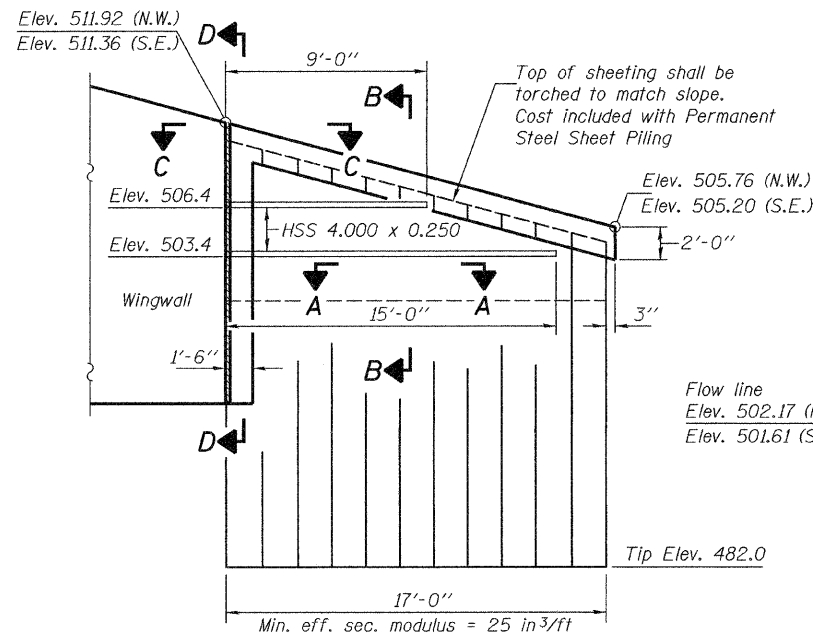


CONTOURED WASHERS



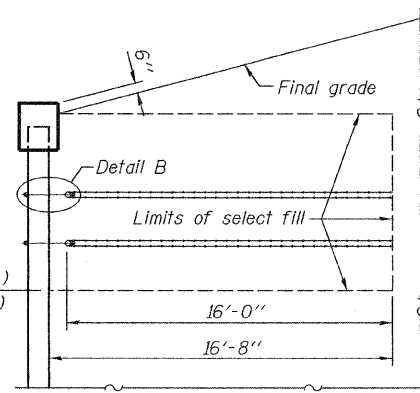
ELEVATION

N.E. & S.W. PERMANENT SHEET PILING

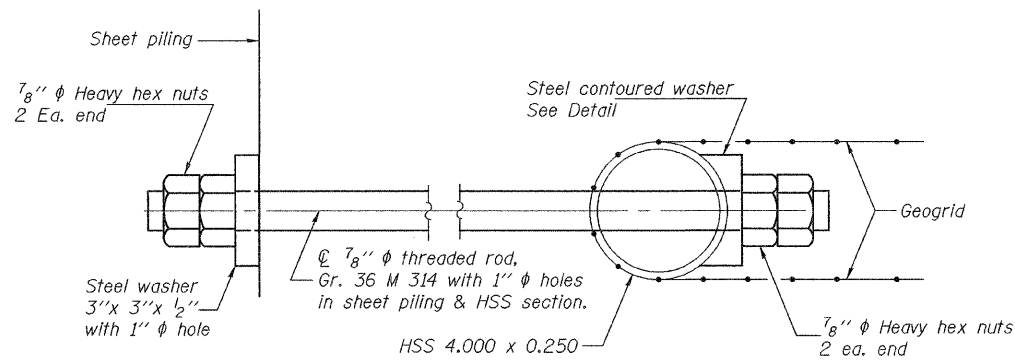


ELEVATION

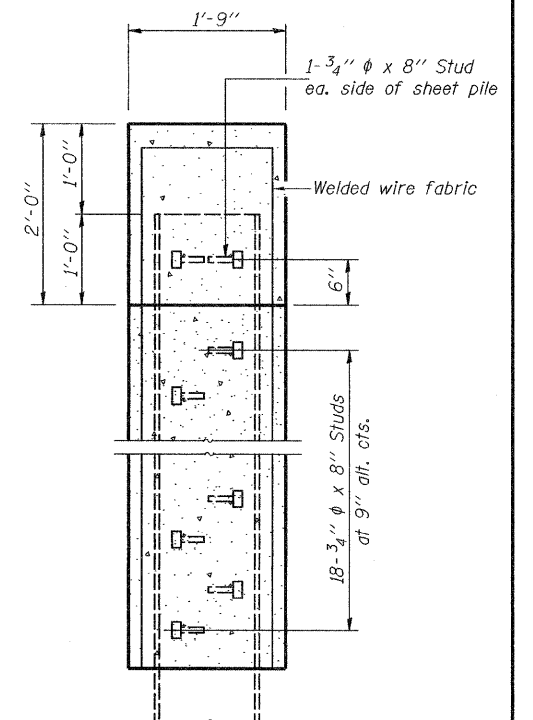
N.W. & S.E. PERMANENT SHEET PILING



SECTION B-B



DETAIL B

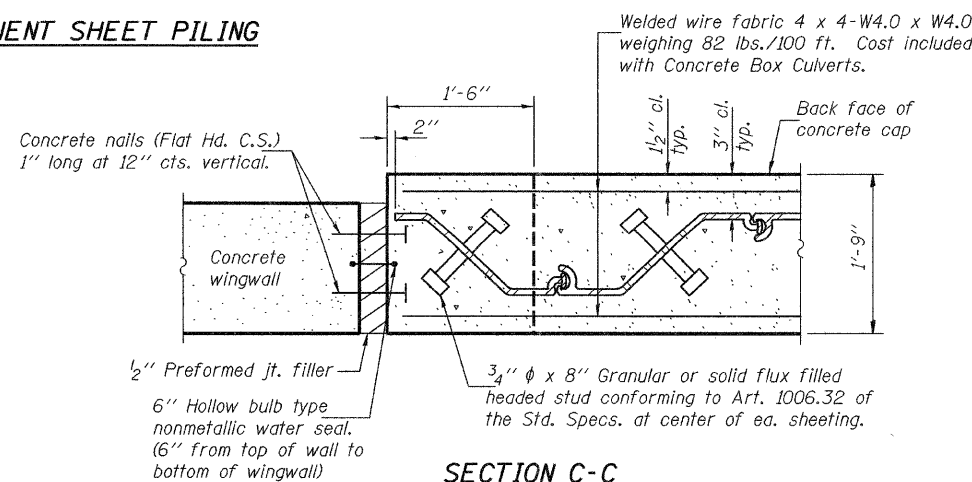


SECTION D-D

NOTES FOR GEOGRID TIEBACK SYSTEM

- Steel elements of geogrid tieback shall be Grade A36.
- Fill material behind the permanent sheet piling shall be CA 5 or CA 7 according to Section 1004 of the Std. Specs, with limits as shown in Section B-B. The material shall be compacted with hand operated compaction equipment only, and no heavy compaction equipment is allowed.
- Sheet piling wing portions shall be backfilled such that the permanent fill in front be placed at the same time as the permanent fill in back in order to minimize wall movement during construction.
- When drilling 1"  $\phi$  holes in sheet piling for 7/8"  $\phi$  threaded rod, maintain clearance from bends in sheet piling to insure that 3" x 3" washer fits flush against sheet piling.
- The Contractor shall supply Geogrid Soil Reinforcement with a Long Term Design Strength (LTDS) greater than 2k/ft per GRI GG4.

Notes: Hard driving may likely be encountered upon installation of the sheet piling to their required plan tip elevations. The Contractor shall provide the appropriate driving equipment for the soil conditions indicated in the boring logs. If sheet piling does not reach its design tip elevation, the Bureau of Bridges and Structures shall be notified.  
The concrete cap for permanent sheet piling shall be measured and paid for as Concrete Box Culverts.  
The cost of studs, concrete nails, water seal, and 1/2" PJF shall be included with Permanent Steel Sheet Piling.



SECTION C-C

PERMANENT SHEET PILING DETAILS  
STRUCTURE NO. 031-2012

DESIGNED	Jay Edwards/ Brad Hessing
CHECKED	Mike D. Rolape
DRAWN	h.t. duong
CHECKED	JDE/MDR/BLH

EXAMINED	Thomas J. Domagala ENGINEER OF BRIDGE DESIGN
PASSED	Ronald E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 9	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	761	104-BR-2	GREENE	82	32
11 SHEETS	CONTRACT NO. 76987				
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT		



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.  
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) =  $1.25 \times f_y \times A_t$
  - ② Minimum \*Pull-out Strength (Tension in kips) =  $0.66 \times f_y \times A_t$
- Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $A_t$  = Tensile stress area of lapped reinforcement bars.  
\* = 28 day concrete

The diameter of this part is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR



\*\* ONE PIECE

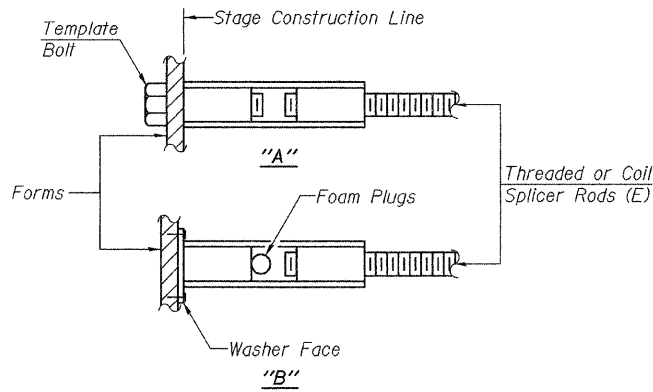
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

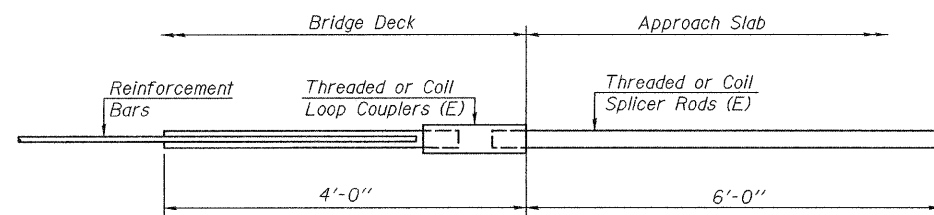
\*\*Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



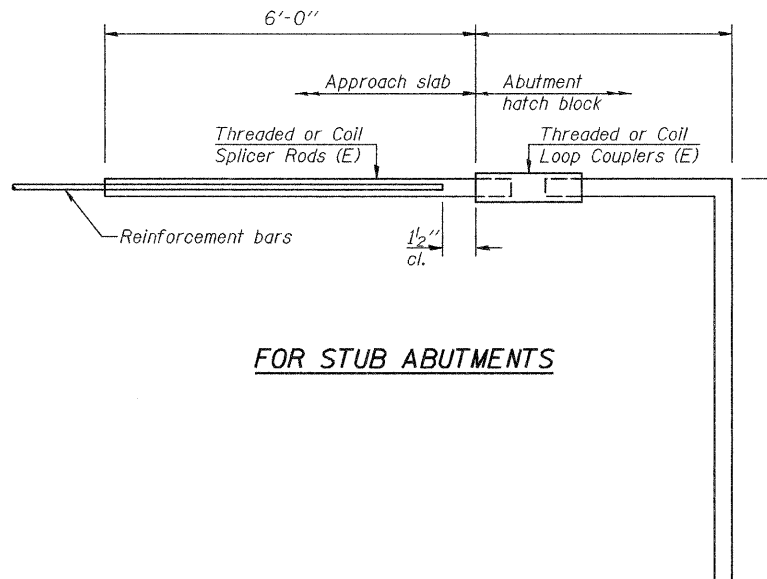
INSTALLATION AND SETTING METHODS

"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.

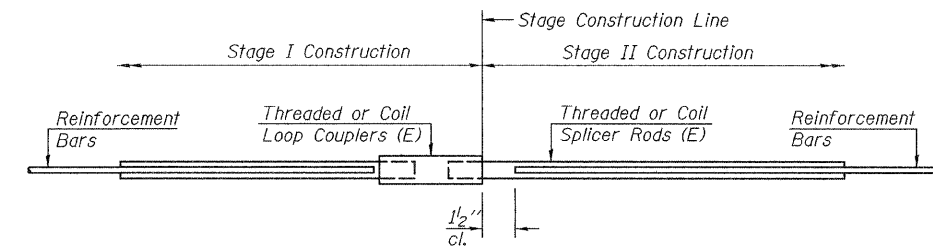
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS



FOR STUB ABUTMENTS



STANDARD

Bar Size	No. Assemblies Required	Location
#5	268	Top, Bottom, Sides of culvert

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =

DESIGNED	Joy D. Edwards
CHECKED	Mike D. Rolape
DRAWN	h.f. duong
CHECKED	JDE/MDR

Jan 15, 2009  
EXAMINED *Thomas J. Romagnoli*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 5-16-08

BAR SPLICER ASSEMBLY DETAILS  
STRUCTURE NO. 031-2012

SHEET NO. 10	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11 SHEETS	761	104-BR-2	GREENE	82	33
CONTRACT NO. 76987					
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 2  
Date 3/7/72

ROUTE FAP 761 DESCRIPTION IL 108 over Taylor Creek Branch LOGGED BY J. King  
SECTION 104BR-2 LOCATION SW 14, SEC. 17, TWP. 10N, RING. 10W, 3 PM  
COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0024 (E) / 031-2012 (P)  
Station 1068+35  
BORING NO. #1 E. Abut  
Station 1068+51  
Offset 6.00ft Left  
Ground Surface Elev. 518.3 ft

DEPTH (ft)	SOIL DESCRIPTION	BLU (ft)	UCS (tsf)	MOISTURE (%)	DEPT (ft)	BLU (ft)	UCS (tsf)	MOISTURE (%)
0	Surface Water Elev. _____ ft				0			
0	Stream Bed Elev. _____ ft				0			
0	Groundwater Elev.: _____ ft				0			
0	First Encounter _____ ft				0			
0	Upon Completion _____ ft				0			
0	After _____ Hrs.				0			
7	Gray Mottled with Brown Silty CLAY (continued)	1.30	28		7	1.30	28	
496.3	Gray CLAY	0.33	26		3	0.33	26	
490.3	Gray Medium SAND with Gravel	0.39	34		5	0.39	34	
488.3	Gray Clay TILL	NC			14	NC		
465.8	Gray Clay TILL	4.85	11		30	4.85	11	
30	Ground Level	6.23	13		30	6.23	13	
15	Brown and Gray SAND and GRAVEL	5.89	8		44	5.89	8	
7	Gray Mottled with Brown Silty CLAY	1.30	28		21	1.30	28	
20					40			

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 T208)

**Illinois Department of Transportation**  
Division of Highways  
Illinois Department of Transportation

**SOIL BORING LOG** Page 2 of 2  
Date 3/7/72

ROUTE FAP 761 DESCRIPTION IL 108 over Taylor Creek Branch LOGGED BY J. King  
SECTION 104BR-2 LOCATION SW 14, SEC. 17, TWP. 10N, RING. 10W, 3 PM  
COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0024 (E) / 031-2012 (P)  
Station 1068+35  
BORING NO. #1 E. Abut  
Station 1068+51  
Offset 6.00ft Left  
Ground Surface Elev. 518.3 ft

DEPTH (ft)	SOIL DESCRIPTION	BLU (ft)	UCS (tsf)	MOISTURE (%)	DEPT (ft)	BLU (ft)	UCS (tsf)	MOISTURE (%)
30	Gray Clay TILL (continued)	3.26	16		30	3.26	16	
473.8	Gray Medium SAND and GRAVEL	3.26	18		30	3.26	18	
100+		NC			100+	NC		
100+		NC			100+	NC		
100+		NC			100+	NC		
465.8	END OF BORING	NC			100+	NC		
50					50			

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 T208)

**Illinois Department of Transportation**  
Division of Highways  
Illinois Department of Transportation

**SOIL BORING LOG** Page 1 of 2  
Date 3/7/72

ROUTE FAP 761 DESCRIPTION IL 108 over Taylor Creek Branch LOGGED BY J. King  
SECTION 104BR-2 LOCATION SW 14, SEC. 17, TWP. 10N, RING. 10W, 3 PM  
COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0024 (E) / 031-2012 (P)  
Station 1068+35  
BORING NO. #2 W. Abut  
Station 1068+22  
Offset 5.50ft Right  
Ground Surface Elev. 518.3 ft

DEPTH (ft)	SOIL DESCRIPTION	BLU (ft)	UCS (tsf)	MOISTURE (%)	DEPT (ft)	BLU (ft)	UCS (tsf)	MOISTURE (%)
6	Gray Silty CLAY (continued)	0.59	28		6	0.59	28	
496.8	Gray Silty CLAY	0.33	29		4	0.33	29	
491.8	Gray Silty Sandy CLAY	0.9	28		5	0.9	28	
488.8	Gray Clayey Organic SILT	0.43	21		15	0.43	21	
484.3	Brown and Gray Medium SAND and GRAVEL	NC			30	NC		
481.8	Gray Clay TILL	3.59	16		30	3.59	16	
8	Ground Level	0.49	25		8	0.49	25	
7	Gray Silty CLAY	0.49	27		7	0.49	27	
20					20			

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 T208)

**Illinois Department of Transportation**  
Division of Highways  
Illinois Department of Transportation

**SOIL BORING LOG** Page 2 of 2  
Date 3/7/72

ROUTE FAP 761 DESCRIPTION IL 108 over Taylor Creek Branch LOGGED BY J. King  
SECTION 104BR-2 LOCATION SW 14, SEC. 17, TWP. 10N, RING. 10W, 3 PM  
COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0024 (E) / 031-2012 (P)  
Station 1068+35  
BORING NO. #2 W. Abut  
Station 1068+22  
Offset 5.50ft Right  
Ground Surface Elev. 518.3 ft

DEPTH (ft)	SOIL DESCRIPTION	BLU (ft)	UCS (tsf)	MOISTURE (%)	DEPT (ft)	BLU (ft)	UCS (tsf)	MOISTURE (%)
18	Gray Clay TILL (continued)	3.78	16		18	3.78	16	
28	Green Gray Sandy SILT	3.59	19		28	3.59	19	
474.3	Gray SAND and GRAVEL	100+	16		100+	16		
470.8	Gray SAND and GRAVEL	100+	16		100+	16		
469.8	Gray SHALE	100+	15		50	100+	15	
465.8	END OF BORING	100+	12		100+	12		
50					50			

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 T208)

SOIL BORING LOGS  
STRUCTURE NO. 031-2012

SHEET NO. 11	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11 SHEETS	761	104-BR-2	GREENE	82	34
			CONTRACT NO. 76987		
FED. ROAD DIST. NO. _		ILLINOIS FED. AID PROJECT			

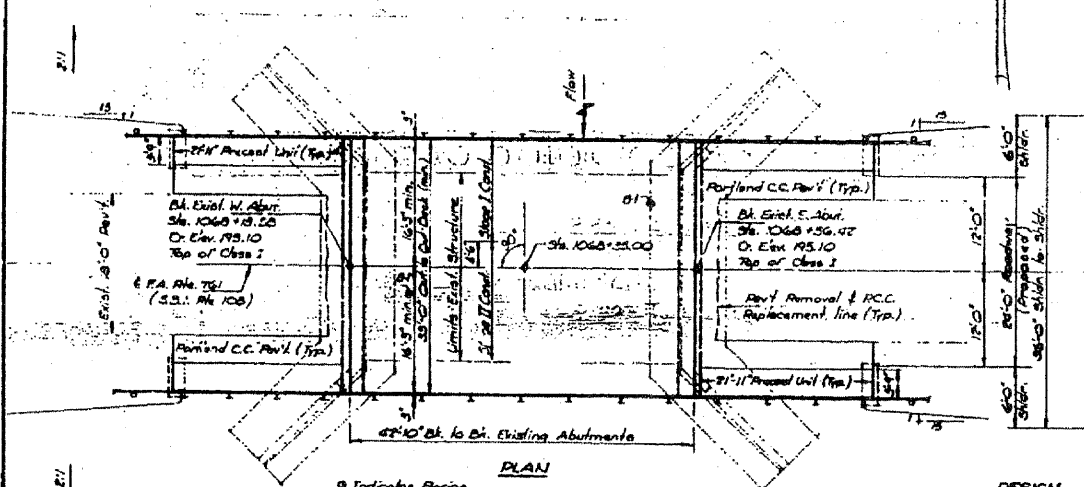
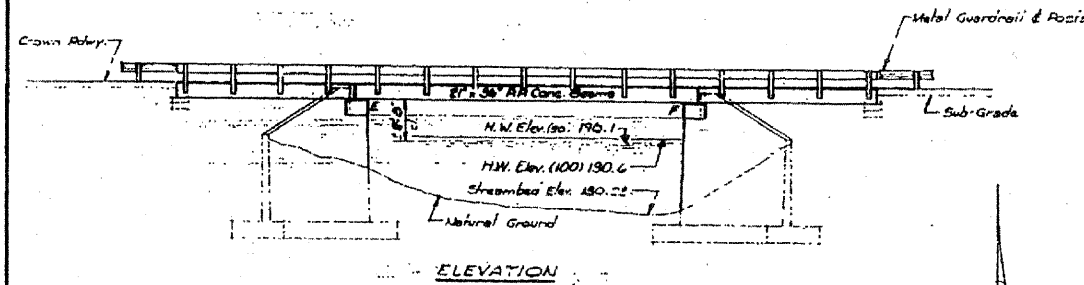
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DATE	BY	CHKD	APPD	NO.
12/18/2008	herbaugh	herbaugh	herbaugh	0024

3.01: Cut in N.E. Wingwall left Sta. 1068+35 Elev. 196.04  
Existing Structure: @ Sta. 1068+22, built in 1929 as S.B.1, Rte 100 Section 104-B. Existing Superstructure to be removed & replaced with RA Conc. Deck Beams. Utilizing stage construction. Abutments to be widened to accommodate the new Superstructure. Structure No. 031-0024  
Stage Construction shall be utilized so as to maintain one-way traffic at all times.

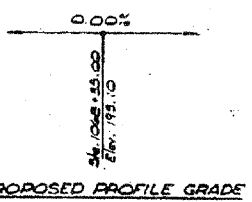
GENERAL NOTES

See the proposal for Boring Data.  
All structural steel shall be shop painted with two coats of basic lead silico chromate paint.  
Expansion guards which are not cast in the precast unit shall be fabricated and erected in accordance with Article 503.07(c) of the Standard Specs. and are included in quantity of Structural Steel.  
It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.  
The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specs. except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners.  
Expansion bolts shall consist of self drilling expansion anchors and 1/2" x 1" hooked bolts.  
Reinforced bars in the field units shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.



STATION 1068+35  
REBUILT BY  
STATE OF ILLINOIS  
FA. RT. 761 SEC. 104-BR-1  
EA. PROJ.  
LOADING HS-20  
STR. LD. 031-0024

GRADE PLATE  
(See 304.2113)



TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Continuous Concrete				
Surface Course Class 1	Yds	15.7		15.7
Portland Cement Concrete				
Placement (10')	Sq. Yds	37		37
Removal of Existing Superstructure	Cu. Yds	1		1
Concrete Removal	Cu. Yds		9.9	9.9
Expansion Grout 3/4"	Each	36		36
Class 1 Concrete	Sq. Yds	7	20.5	27.5
RA Conc. Deck Beams (10')	Sq. Yds	1400		1400
Reinforcing Bars 3/8"	Lbs	165		165
Structural Steel	Lbs	2300		2300
Steel Plates 3/8" x 3"	Lbs	175		175
Reinforcing Bars	Lbs	110	2240	2350
Expansion Bolts	Each	1		1
Removal of P.C.C.				
Reinforcement Top 1 (10')	Sq. Yds	10		10
Temporary Overhaul	Lbs	45		45
Reinforcement & Splice (RA)	Lbs	35		35
Portland Cement Mortar	Lbs	414		414
Form Concrete	Sq. Ft.	379		379

WATERWAY INFORMATION

Drainage Area	=	4.65 Sq. Mi.
Required Opening	=	346 Sq. Ft.
Existing Opening	=	346 Sq. Ft.
Proposed Opening	=	346 Sq. Ft.
Q <sub>50</sub>	=	5000 cfs.
Q <sub>20</sub>	=	2300 cfs.
Created Head	=	1.5'

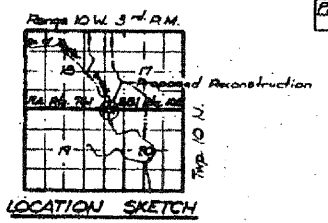
DESIGN STRESSES

FIELD UNITS	
f <sub>c</sub>	= 5,000 psi
f <sub>y</sub>	= 60,000 psi (Dist.)
f <sub>s</sub>	= 20,000 psi (Struct.)
n	= 8

PRECAST PRESTRESSED UNITS

FIELD UNITS	
f <sub>c</sub>	= 6,000 psi
f <sub>y</sub>	= 4,000 psi
f <sub>s</sub>	= 270,000 psi (1/2" Strand)
f <sub>s</sub>	= 186,700 psi (3/8" Strand)

LOADING HS-20-44  
Allow 25% sup. fl. for future wearing surface.  
Design Specification: AASHTO 1973, 1974, 1975, 1976 and 1977 Interim Specifications.



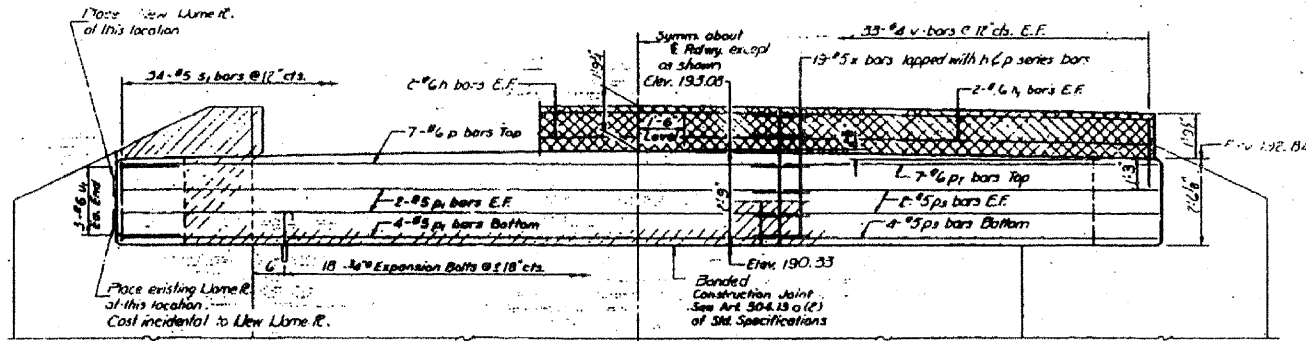
GENERAL PLAN & ELEVATION  
FA. RT. 761 (S.B.1 Rte. 100) Over  
Branch of TAYLOR CREEK  
FA. RT. 761 SECTION 104-BR-1  
GREENE COUNTY  
Sta. 1068+35.00  
0024

FOR INFORMATION ONLY

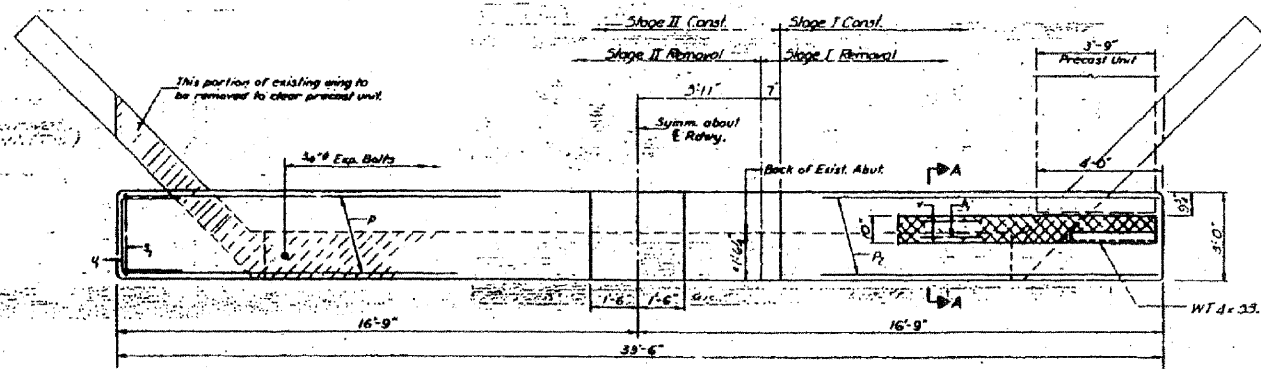
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PLOT SCALE = 1/8" = 1' IN.	CHECKED -	REVISED -	CONTRACT NO. 76987											
PLOT DATE = 12/18/2008	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT											

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

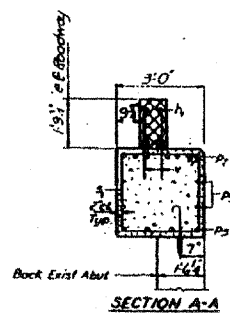
DATE	NO.	BY	REVISION
12/18/2008	02	herbaugh	1. Revise



ELEVATION



PLAN

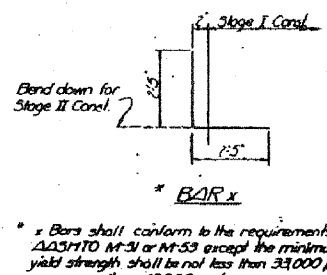
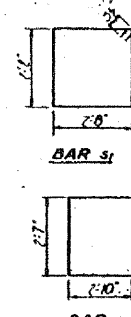


SECTION A-A

NOTES:  
Hatched area indicates Concrete Removal. Reinforcement extending into removed area shall be cleaned and incorporated into the new construction.  
Cross hatched area shall be poured after beams are in place.  
Expansion bolts shall be anchored in sound concrete. All edges shall have standard 3/8\"/>

**BILL OF MATERIAL**

Bar	No.	Size	Length	Stage
n	4	#6	11'-0"	II
h	4	#6	11'-0"	II
p	7	#6	11'-0"	II
q	0	#5	11'-0"	II
pr	7	#6	11'-0"	II
ps	8	#5	11'-0"	II
st	34	#5	8'-7"	I
u	5	#6	8'-7"	I
x	19	#5	11'-0"	I
y	44	#4	11'-0"	I
Class II Concrete				Cu 116
Reinforcement Bars				Lbs. 1490
Expansion Bolts 3/8\"/>				
Concrete Removal				Cu 116 4.8



DESIGNED: *herbaugh*  
DRAWN: *herbaugh*  
CHECKED: *J.D.*  
DATE: 12/18/2008

11-A-2 (11-15-11) Expansion

WEST ABUTMENT  
721 RT. 761 SEC 104 BR-1  
GREENE COUNTY  
STA 1068+35.00

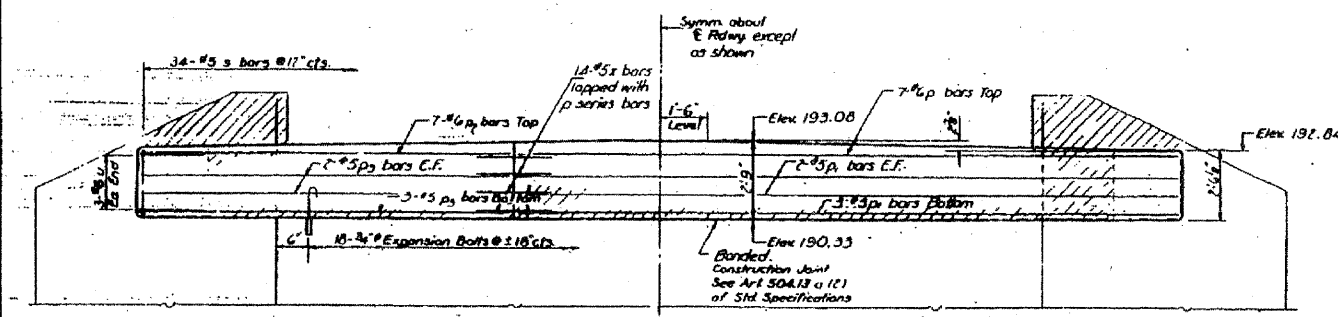
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FOR INFORMATION ONLY

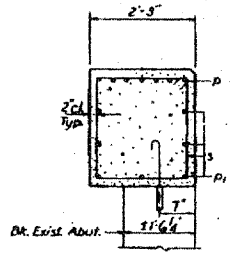
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CONTRACT NO. 76987	PLOT SCALE = 1/8\"/>									
DATE 12/18/2008	CHECKED -	REVISED -	SCALE: NTS			SHEET NO. 2 OF 3 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	
	DATE	REVISED -								

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

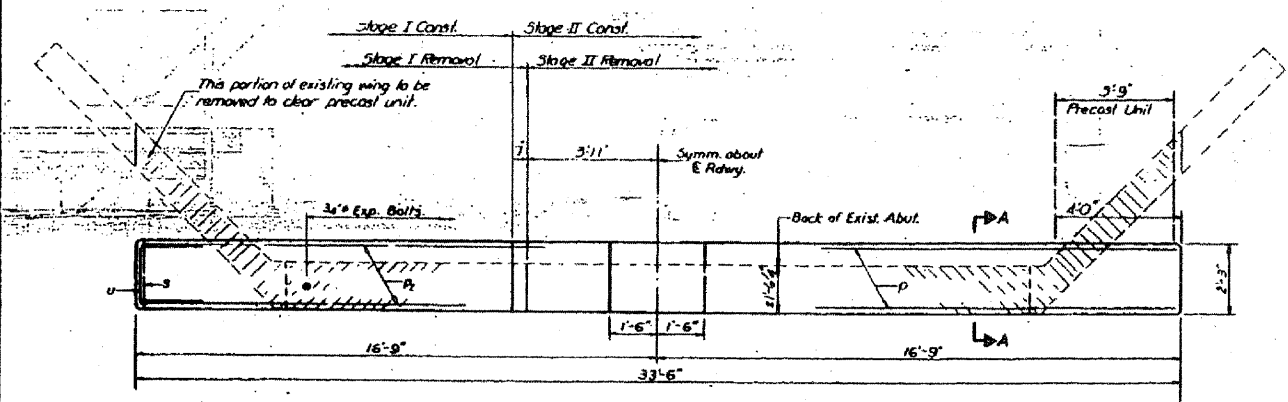
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12/10/08	REY	Green	23	13



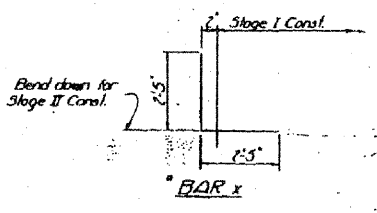
ELEVATION



SECTION A-A



PLAN



\* X Bars shall conform to the requirements of AASHTO M-31 or M-53 except the minimum yield strength shall be not less than 33,000 psi nor more than 45,000 psi.

**BILL OF MATERIAL**

Bar	No.	Size	Length	Quantity
A	7	1/2"	11'-0"	
B	7	3/8"	5'-0"	
PL	7	2/4"	15'-0"	
P1	7	2/4"	15'-0"	
J	24	2/4"	3'-7"	
V	6	1/2"	7'-6"	
X	14	2/4"	4'-0"	
Concrete				7.2
Reinforcement Bars				10.50
Expansion Bolts				19
Concrete Adhesive				3.1

DESIGNED BY: *[Signature]*  
 DRAWN BY: *[Signature]*  
 CHECKED BY: REY

**NOTE**  
 Hatched area indicates Concrete Removal. Reinforcement extending into removed area shall be cleaned and incorporated into the new construction.  
 Expansion bolts shall be anchored in sound concrete. All edges shall have standard 3/4" chamfers except as noted.

EAST ABUTMENT  
 EA RT 761 SEC 104BR-1  
 GREENE COUNTY  
 STA 1060+35.00

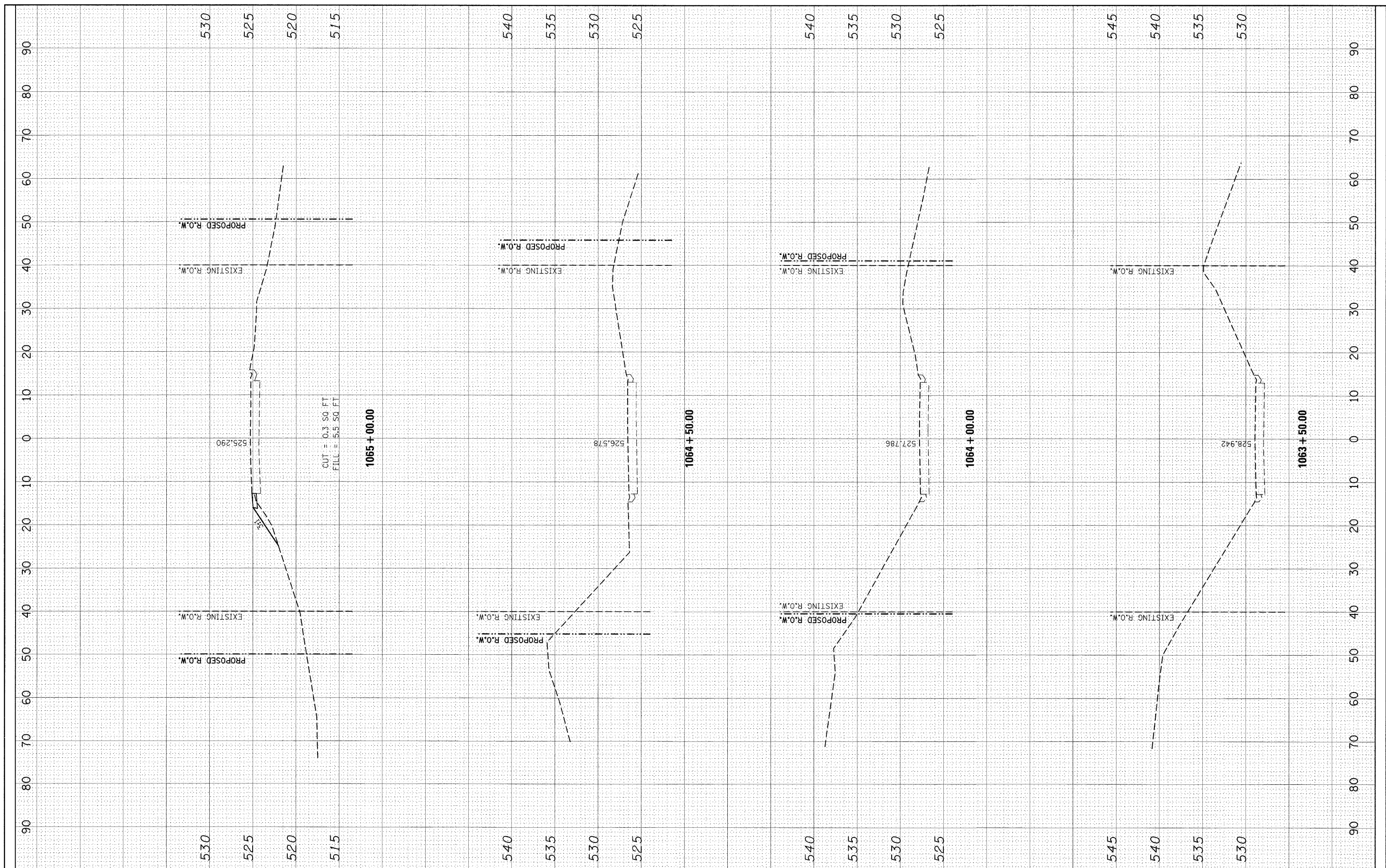
0024

FOR INFORMATION ONLY

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PLOT DATE = 12/10/2008	DATE	REVISED -	FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT				

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

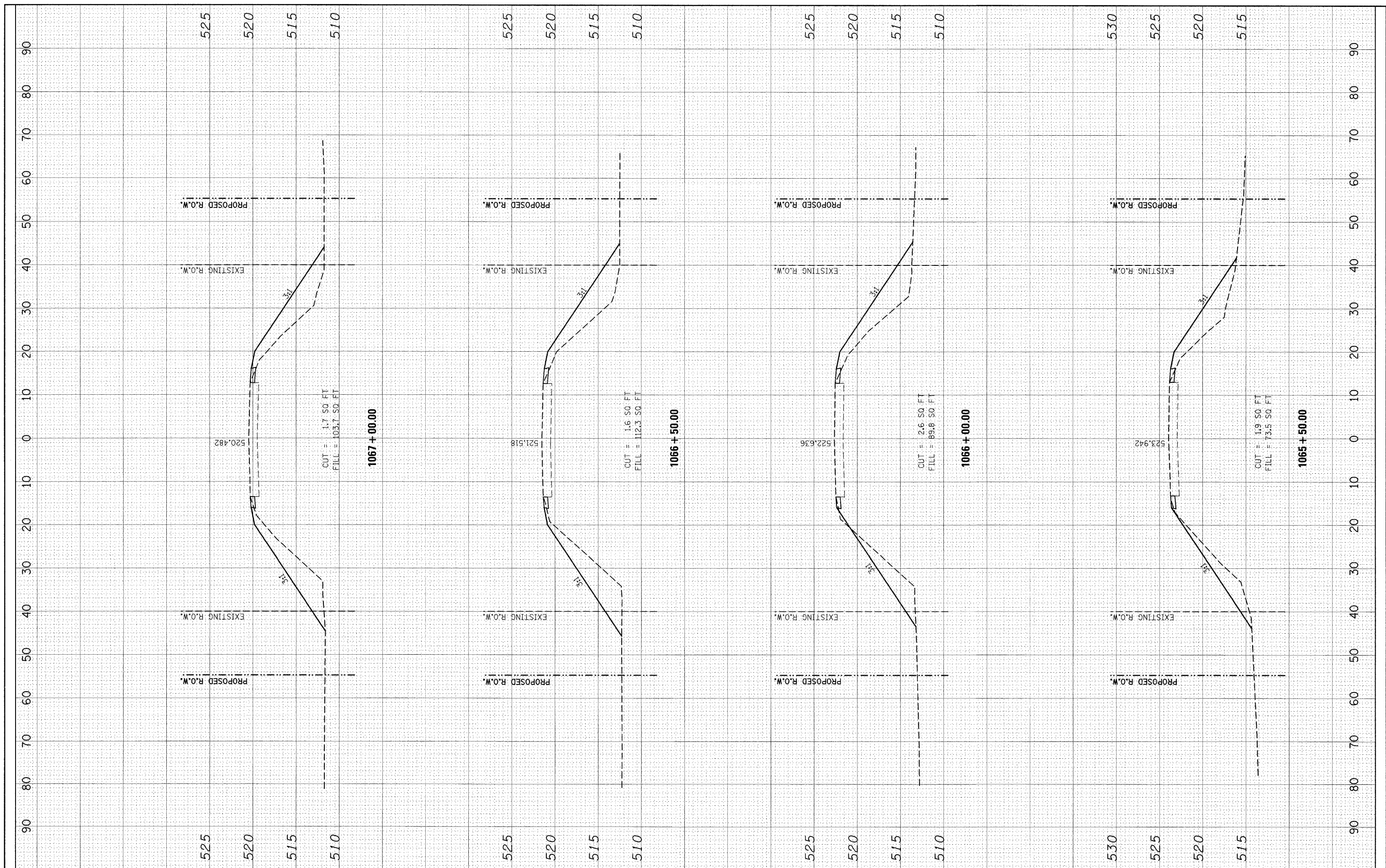
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	AREAS CHECKED		



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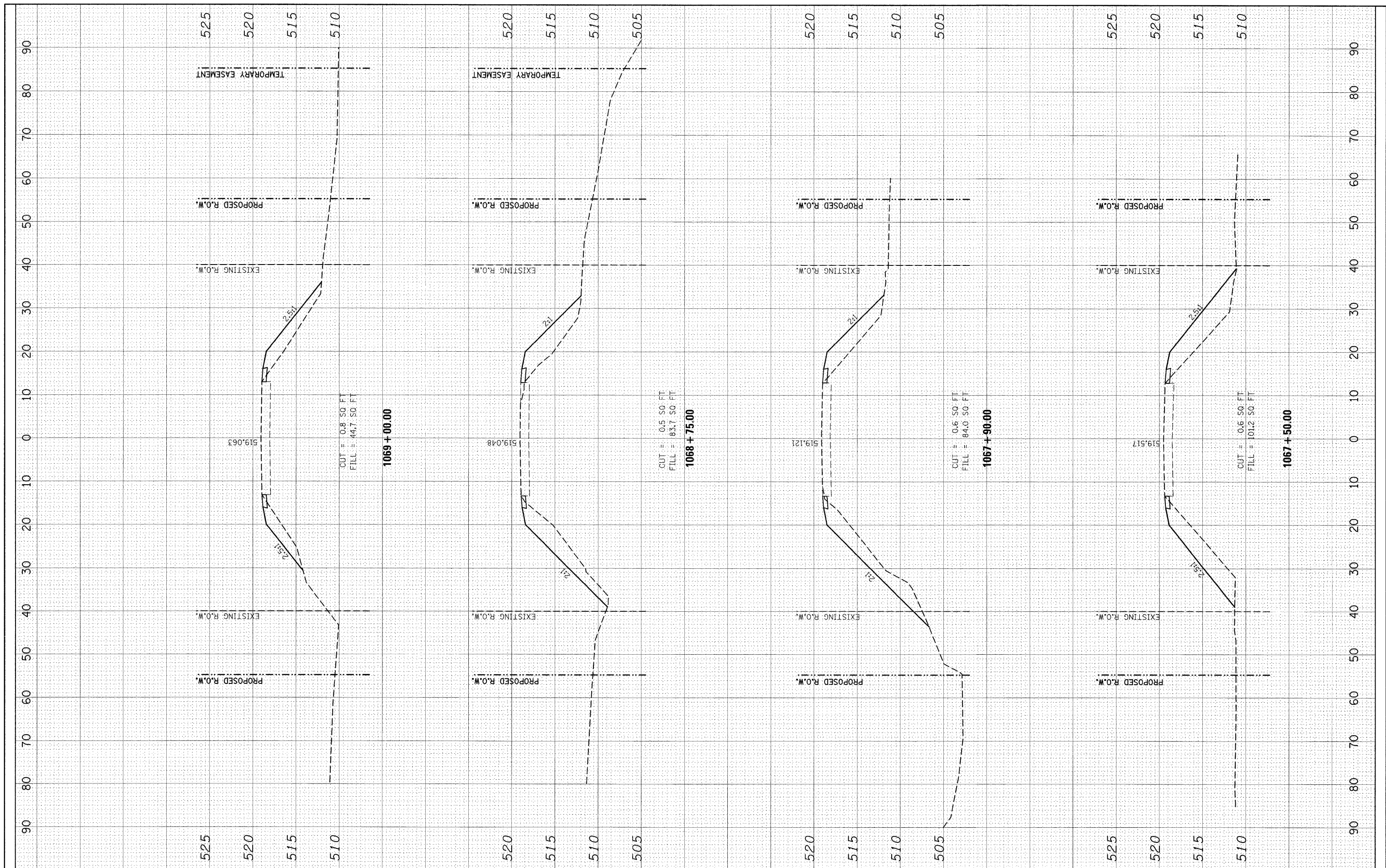
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NOTE BOOK	PLOTTED	BY
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	AREAS CHECKED	



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	PLOT DATE = #DATE#	CHECKED -	REVISOR -									
		DATE -	REVISOR -									

FINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
NOTE BOOK	
NO.	

ORIGINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
NOTE BOOK	
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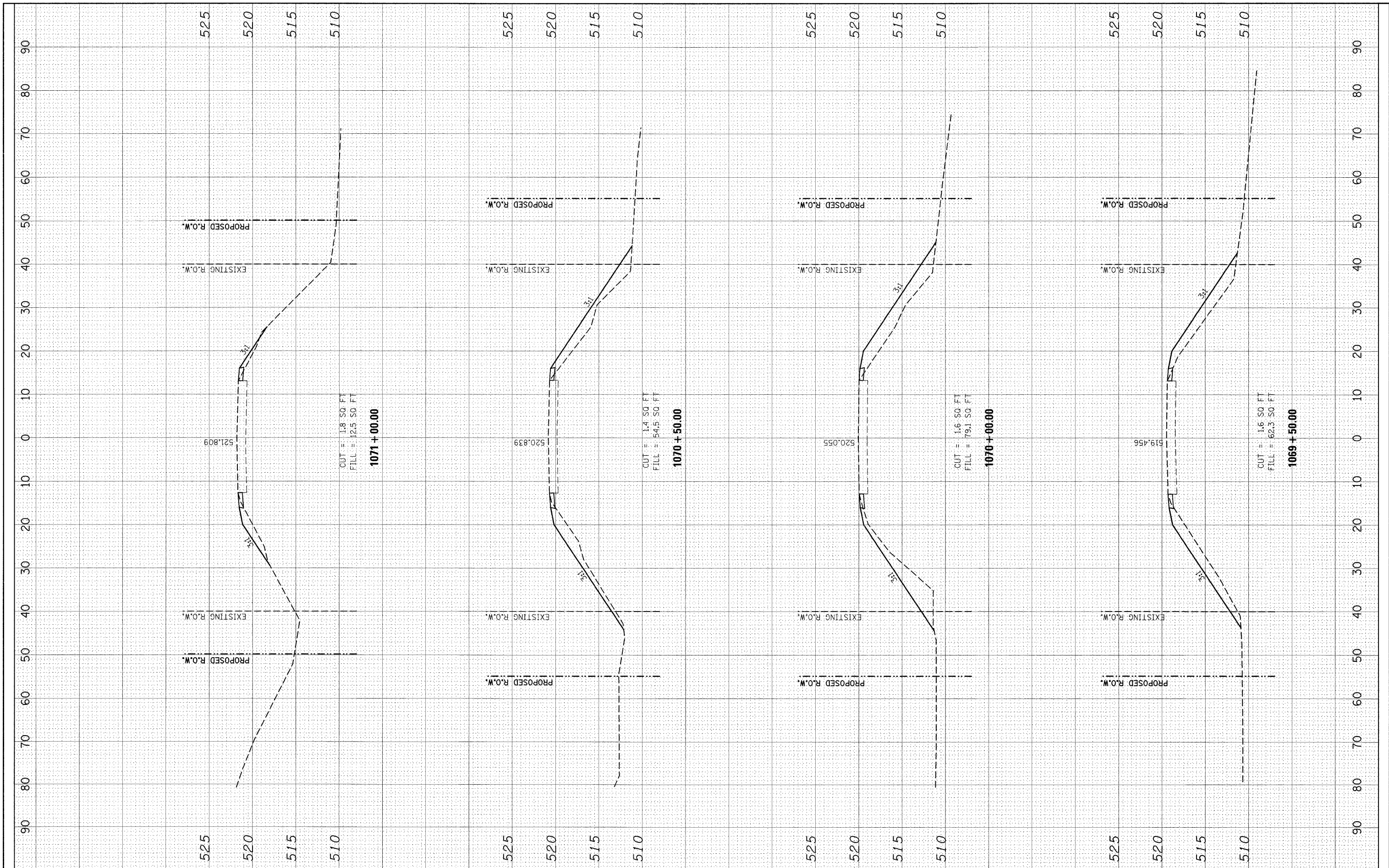


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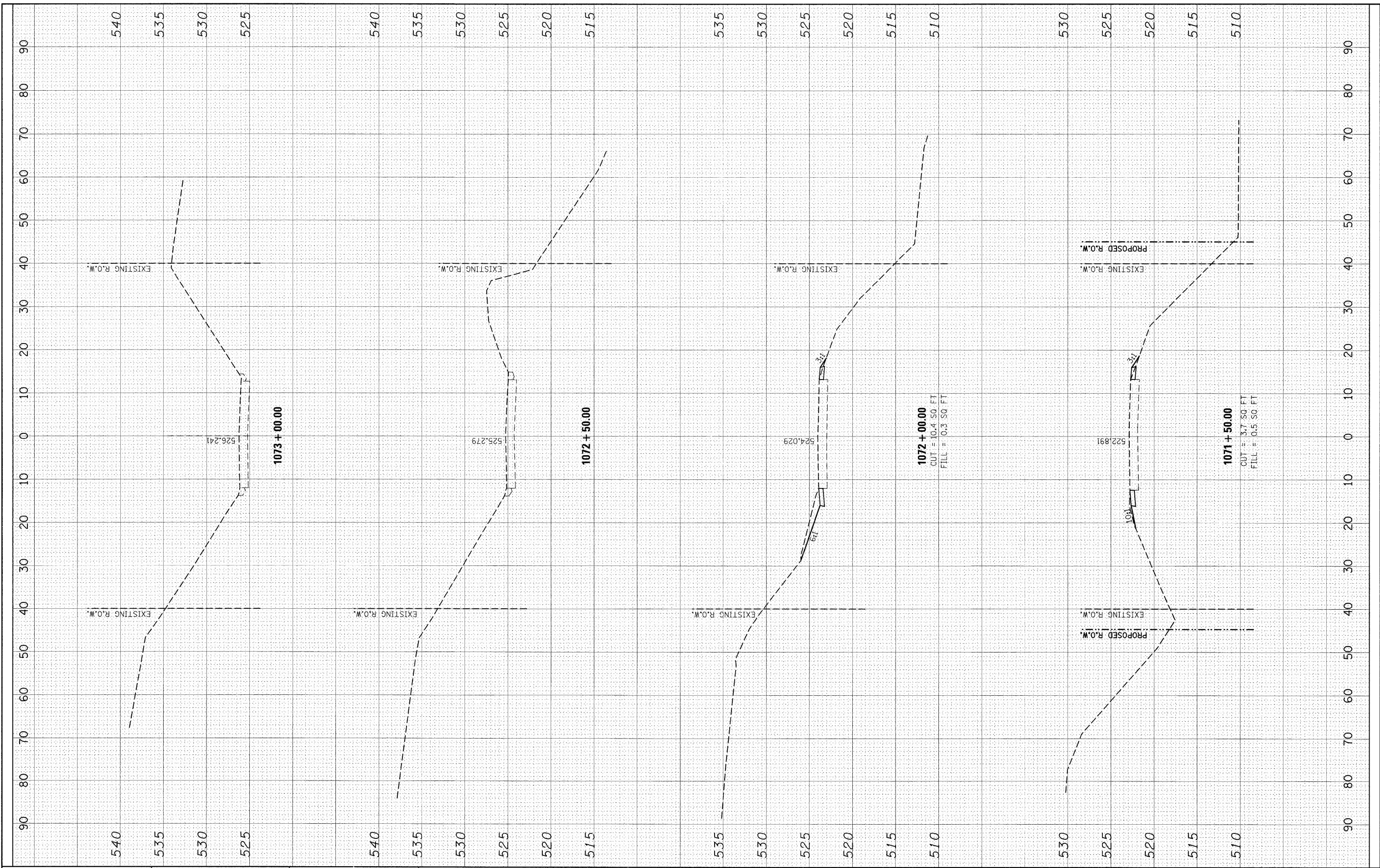
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NOTE BOOK NO.	PLOTTED		
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 SURVEY PLOTTED PLOTTED  
 NOTE BOOK TEMPLATE  
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 5. REVISION

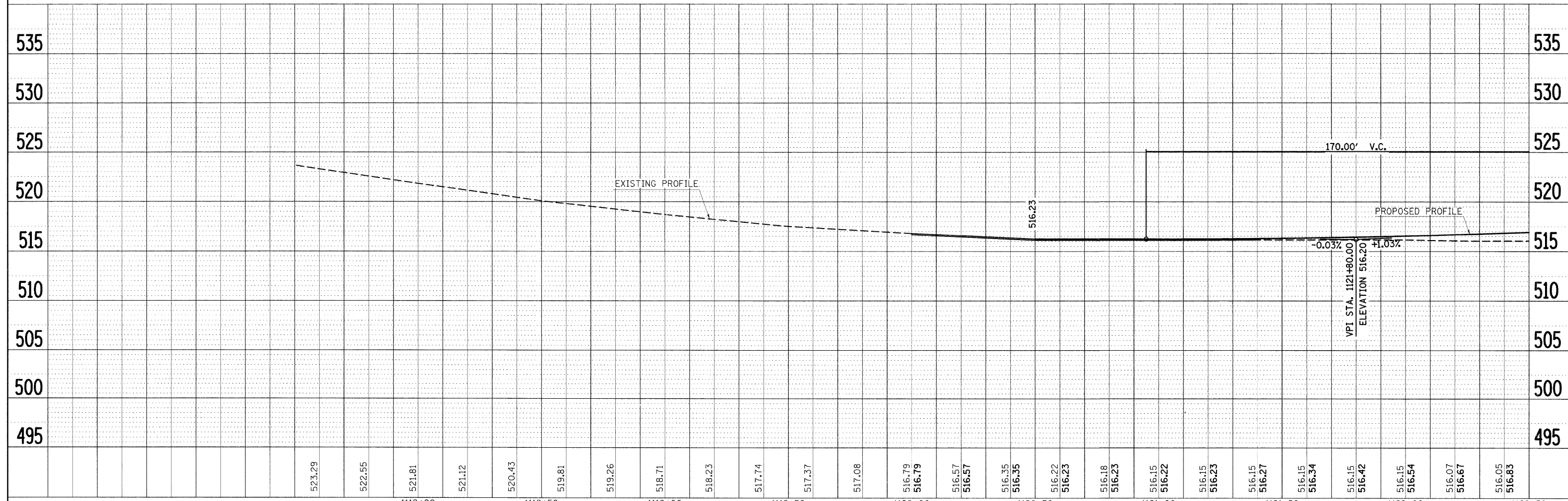
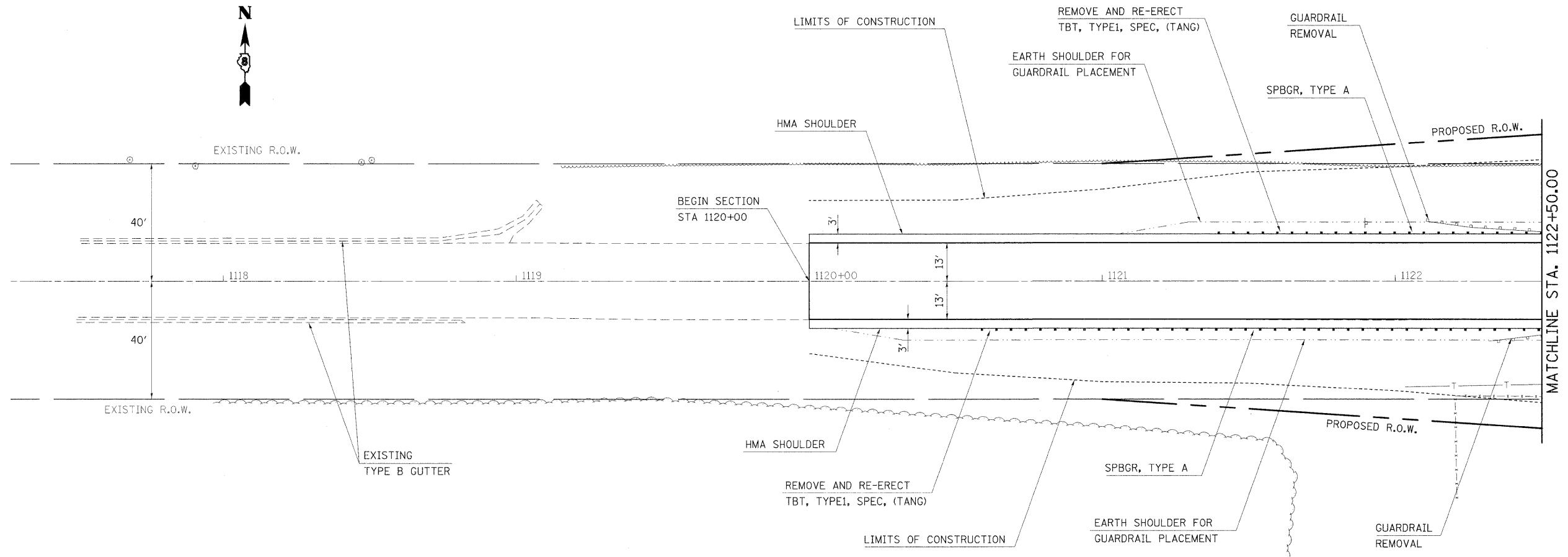
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTION (SN 031-2012)  
 SCALE: SHEET NO. 5 OF 5 SHEETS STA. 1071+50.00 TO STA. 1073+00.00

F.A.P. RTE. 761  
 SECTION 104-BR-2  
 COUNTY GREENE  
 TOTAL SHEETS 82 SHEET NO. 42  
 CONTRACT NO. 76987  
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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 PLOTTED BY  
 CHECKED BY  
 RTI OF WAY CHECKED  
 NO. FILE NAME

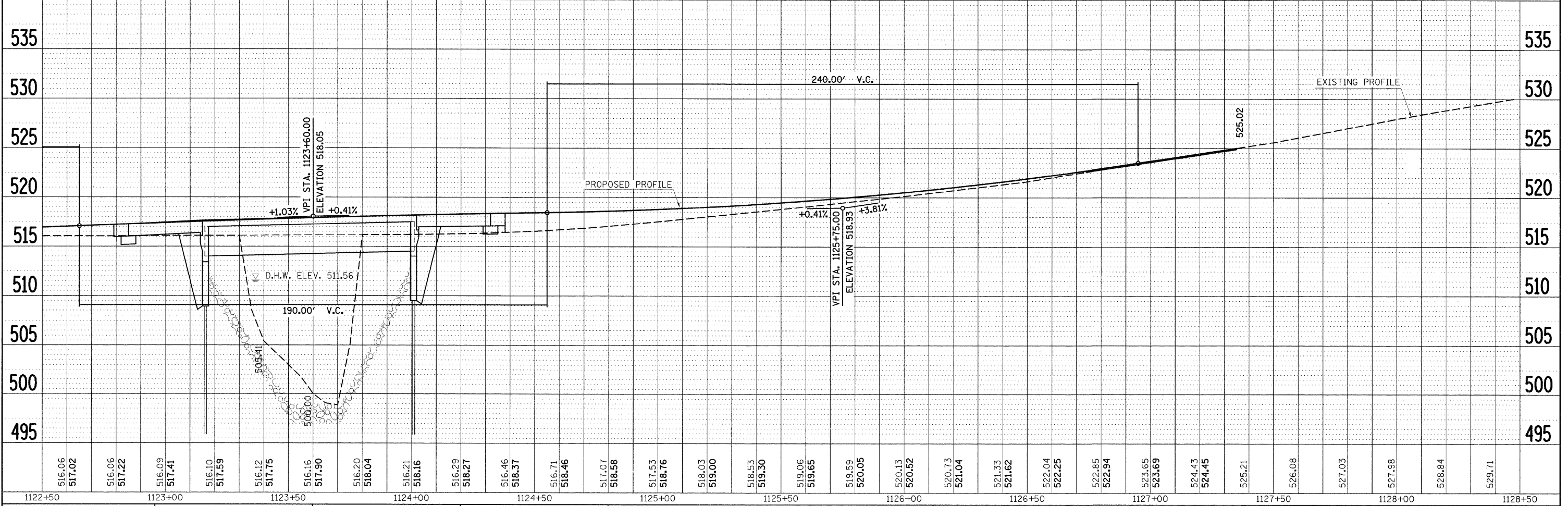
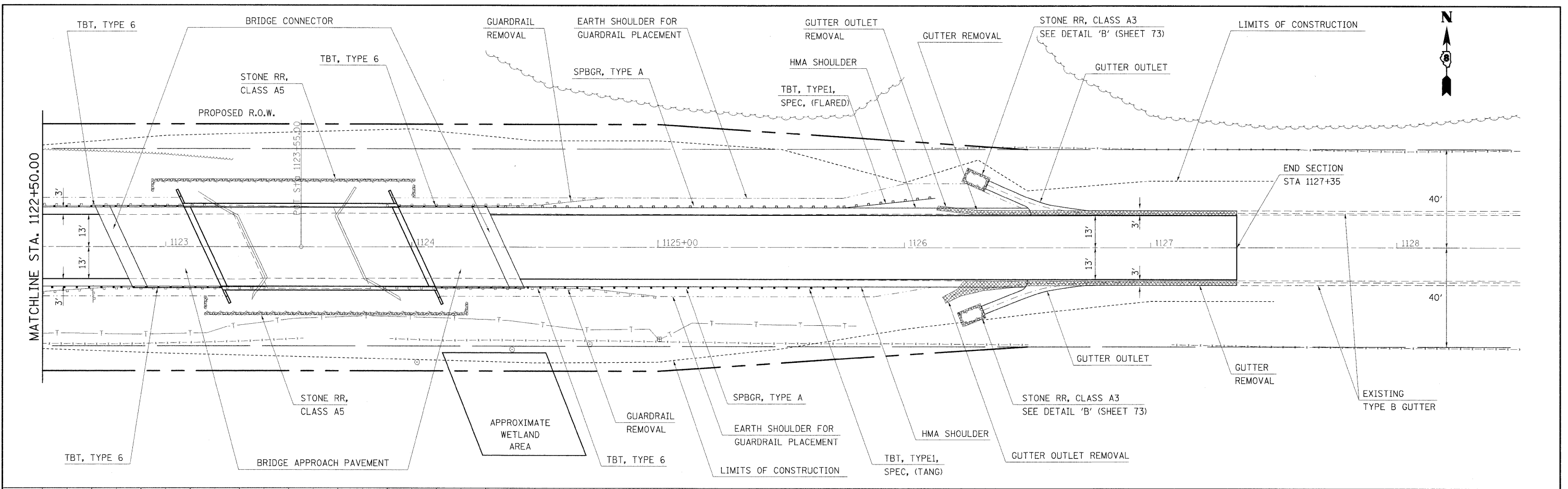
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 STRUCTURE NOTATIONS CHVD  
 NO. FILE NAME



FILE NAME =	USER NAME = harbaughrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IL 108 PLAN/PROFILE (SN 031-0042)</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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		CHECKED -	REVISED -			SCALE: 20		SHEET NO. 1 OF 2 SHEETS		STA. 1117+30 TO STA. 1122+50	
		DATE -	REVISED -			CONTRACT NO. 76987					

DATE	BY	SUPERVISOR
		PLOTTED
		NOTICED
		RT. OF WAY CHECKED
		ADD. FILE NAME

DATE	BY	PROFILER
		PLOTTED
		CHECKED
		STRUCTURE NOTATIONS OK'D



516.06 517.02	516.06 517.22	516.09 517.41	516.10 517.59	516.12 517.75	516.16 517.90	516.20 518.04	516.21 518.16	516.29 518.27	516.46 518.37	516.71 518.46	517.07 518.58	517.53 518.76	518.03 519.00	518.53 519.30	519.06 519.65	519.59 520.05	520.13 520.52	520.73 521.04	521.33 521.62	522.04 522.25	522.85 522.94	523.65 523.69	524.43 524.45	525.21	526.08	527.03	527.98	528.84	529.71		
1122+50	1123+00	1123+50	1124+00	1124+50	1125+00	1125+50	1126+00	1126+50	1127+00	1127+50	1128+00	1128+50																			

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DATE -	REVISOR -

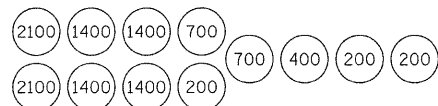
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CHECKED -	REVISOR -
DATE -	REVISOR -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 108 PLAN/PROFILE (SN 031-0042)**

SCALE: 20      SHEET NO. 2 OF 27 SHEETS      STA. 1122+50      TO STA. 1128+50

F.A.P. RTE. 761	SECTION 104-BR-2	COUNTY GREENE	TOTAL SHEETS 82	SHEET NO. 44
CONTRACT NO. 76987				
FED. ROAD DIST. NO.      ILLINOIS FED. AID PROJECT				



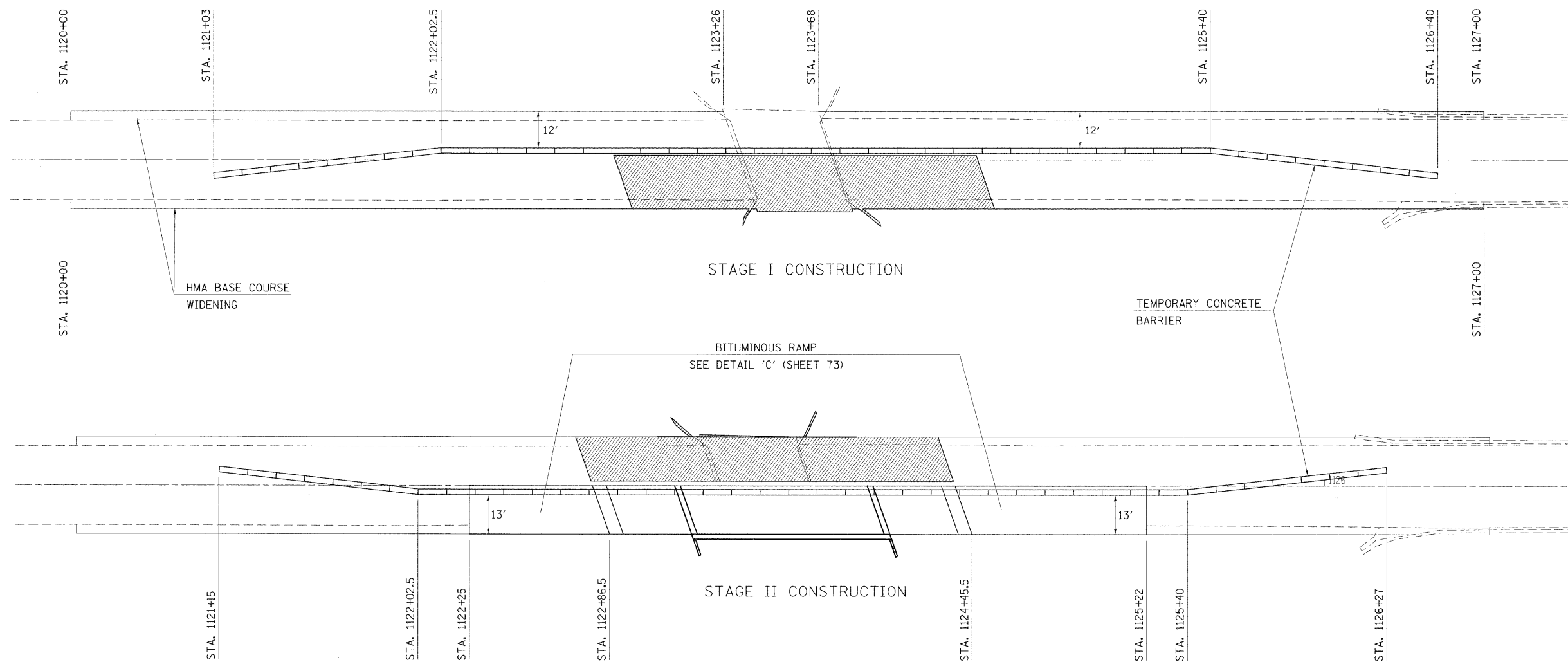
SAND MODULE IMPACT ATTENUATOR LAYOUT  
(IF OPTION USED)

**SEQUENCE OF CONSTRUCTION - STAGE I**

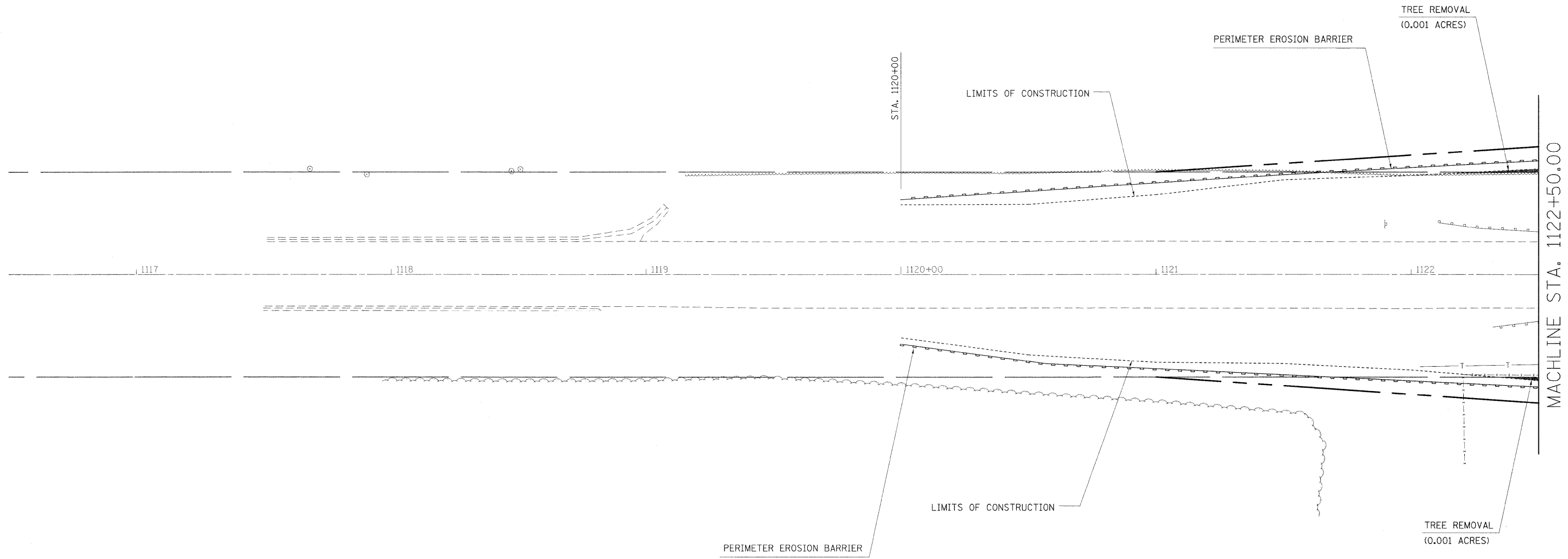
SEE STANDARD 701321 FOR LAYOUT OF TRAFFIC CONTROL.  
 PLACE 'HMA BASE COURSE WIDENING, 9 INCH' FOR 3 FT WIDENING AS SHOWN ON PLANS.  
 PLACE 512.5 FT TEMPORARY CONCRETE BARRIER AND 2 EACH IMPACT ATTENUATORS, TEMPORARY.  
 REMOVE SKIP-DASH AND SOLID EDGE PAVEMENT MARKING BETWEEN STOP BARS.

**SEQUENCE OF CONSTRUCTION - STAGE II**

SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.  
 PLACE A 46 FT HOT-MIX ASPHALT RAMP ON THE WEST END OF THE STRUCTURE AND A 77 FT HOT-MIX ASPHALT RAMP ON THE EAST END OF THE STRUCTURE.  
 PLACE 'HMA BASE COURSE WIDENING, 9 INCH FOR 3 FT WIDENING AS SHOWN ON PLANS.  
 PLACE TRAFFIC BARRIER TERMINAL, TYPE 6 AND TEMPORARY GUARDRAIL ON BOTH ENDS OF STRUCTURE.  
 RELOCATE 512.5 FT OF TEMPORARY CONCRETE BARRIER AND RELOCATE 2 EACH IMPACT ATTENUATORS, TEMPORARY.



FILE NAME =	USER NAME = harbaughrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>STAGE CONSTRUCTION DETAILS (SN 031-0042)</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pw_work\pzdots\harbaughrd\dms51889\p	01506a.dgn	DRAWN -	REVISED -			761	104-BR-2	GREENE	82	45	
PLOT SCALE = 50,0000' / IN.		CHECKED -	REVISED -			SCALE: NTS		SHEET NO. OF SHEETS		STA. TO STA.	
PLOT DATE = 12/18/2008		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
						<b>CONTRACT NO. 76987</b>					



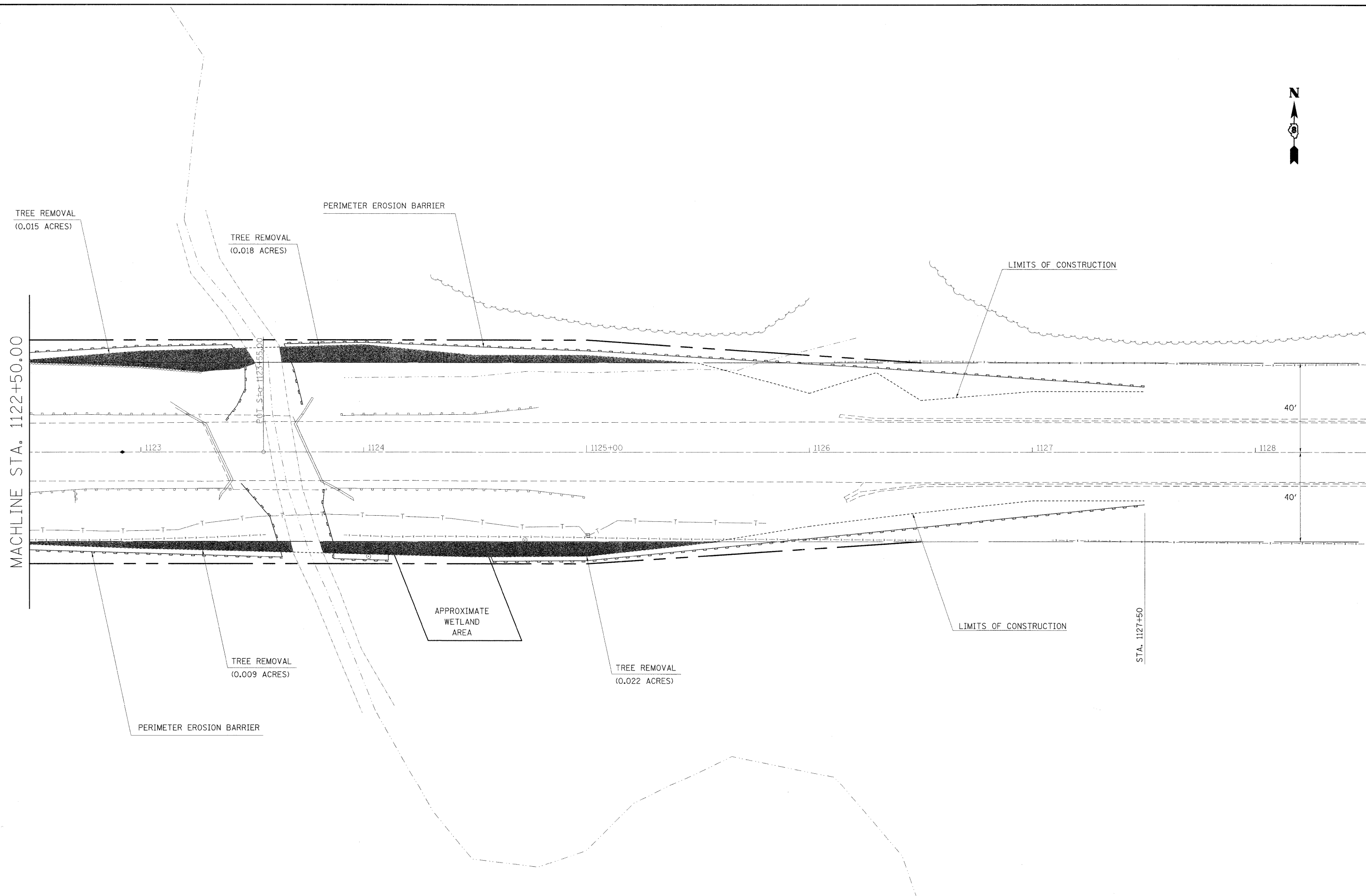
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es\pwwork\pwwork\harbaugh-d\dms51889\	g01506_0026_13.dgn
PLOT SCALE = 20.0000' / IN.	CHECKED -
PLOT DATE = 12/11/2008	DATE -

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

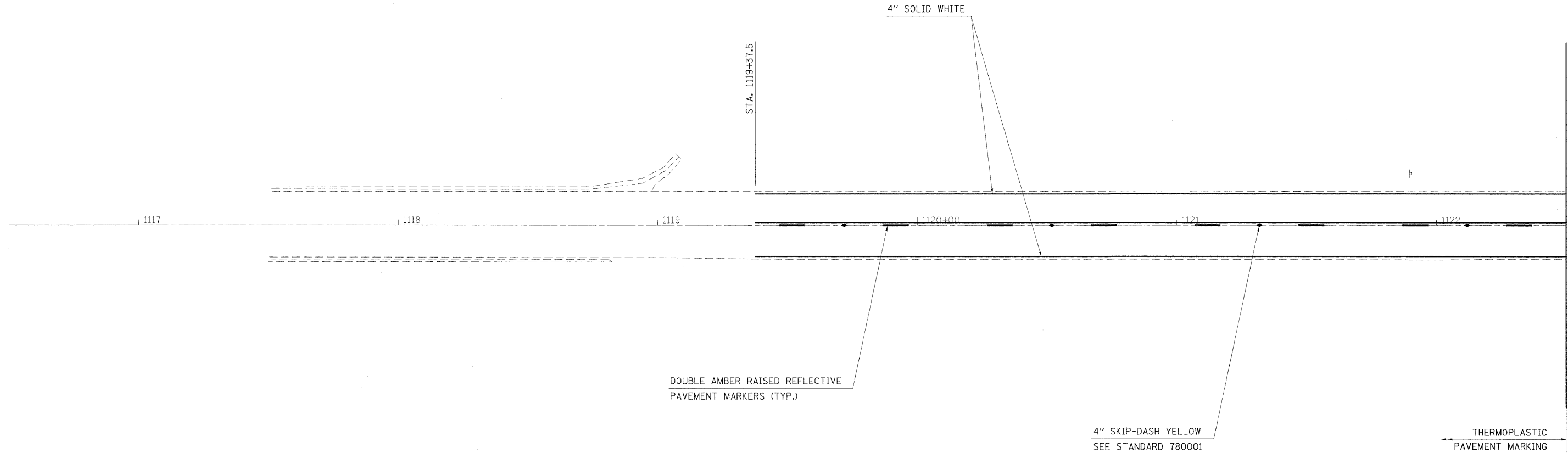
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>EROSION CONTROL SHEET (SN 031-0042)</b>			
SCALE: 20	SHEET NO. 1 OF 2 SHEETS	STA. 1116+50	TO STA. 1122+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
761	104-BR-2	GREENE	78	46
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			<b>CONTRACT NO. 76987</b>	

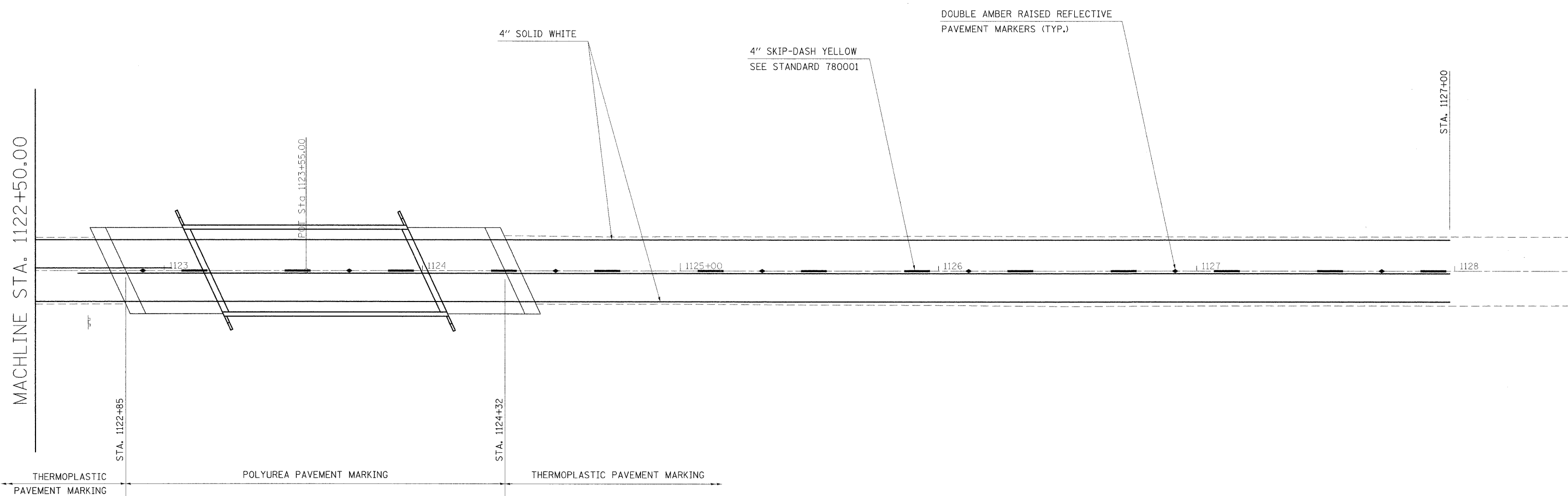


FILE NAME =	USER NAME = harbaughrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EROSION CONTROL SHEET (SN 031-0042)</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cr:\pw\work\pwr\dos\harbaughrd\dms51889\stg01506_0026_13.dgn	PLOT SCALE = 20.0000' / IN.	DRAWN -	REVISED -			761	104-BR-2	GREENE	82	47	
	PLOT DATE = 12/11/2008	CHECKED -	REVISED -			<b>CONTRACT NO. 76987</b>					
		DATE -	REVISED -			SCALE: 20    SHEET NO. 2 OF 2 SHEETS    STA. 1122+50 TO STA. 1128+50    FED. ROAD DIST. NO.    ILLINOIS FED. AID PROJECT					



FILE NAME =	USER NAME = harbaugh-d	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT MARKING (SN 031-0042)</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwwork\pwwork\harbaugh\dms51887\	g01506_0026_13.dgn	DRAWN -	REVISED -			761	104-BR-2	GREENE	82	48	
	PLOT SCALE = 20.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 76987					
	PLOT DATE = 12/10/2008	DATE -	REVISED -			SCALE: 20	SHEET NO. 1 OF 2 SHEETS	STA. 1116+50 TO STA. 1122+50	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	





FILE NAME = c:\pwwork\pwwork\harbaugh\dms51889\	USER NAME = harbaughd g01506.0026.13.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT MARKING (SN 031-0042)</b>	F.A.P. RTE. 761	SECTION 104-BR-2	COUNTY GREENE	TOTAL SHEETS 82	SHEET NO. 49	
PLOT SCALE = 20,000.00' / IN.		CHECKED -	REVISED -			SCALE: 20		SHEET NO. 2 OF 2 SHEETS		STA. 1122+50 TO STA. 1128+50	
PLOT DATE = 12/10/2008		DATE -	REVISED -			CONTRACT NO. 76987					

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

Bench Mark: Chiseled "a" on top of northwest wingwall on existing structure. Elevation 514.757

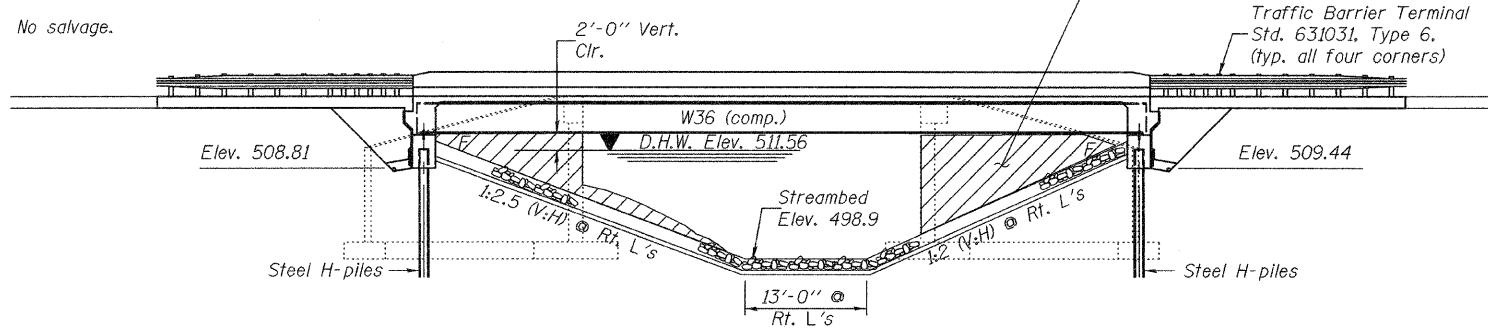
Existing Structure: S.N. 031-0026, originally built in 1928 as SBI 108, Section 104-B. The original structure consisted of single span concrete T beam structure on closed abutments. In 1968 the substructure and superstructure were widened with precast deck beams. The back to back abutment length is 43'-1 1/2" and the out to out bridge width is 33'-0". The existing structure is to be removed and replaced. Traffic is to be maintained utilizing stage construction.

No salvage.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1 20 SHEETS
FAP 761	104-BR-2	GREENE	82	50	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76987



Hatched areas indicate excavation between existing abutments and the new abutments. For quantities of Pavement Removal and Excavation, see Roadway Plans.

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 3 bolts. Bolts 3/4" in.  $\phi$ , holes 15/16" in.  $\phi$ , unless otherwise noted.  
 Calculated weight of Structural Steel = 115,780 lbs.  
 All structural steel shall be AASHTO M270 Grade 50W.  
 No field welding is permitted except as specified in the contract documents.  
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".  
 Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.  
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.  
 Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.  
 The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

INDEX OF SHEETS

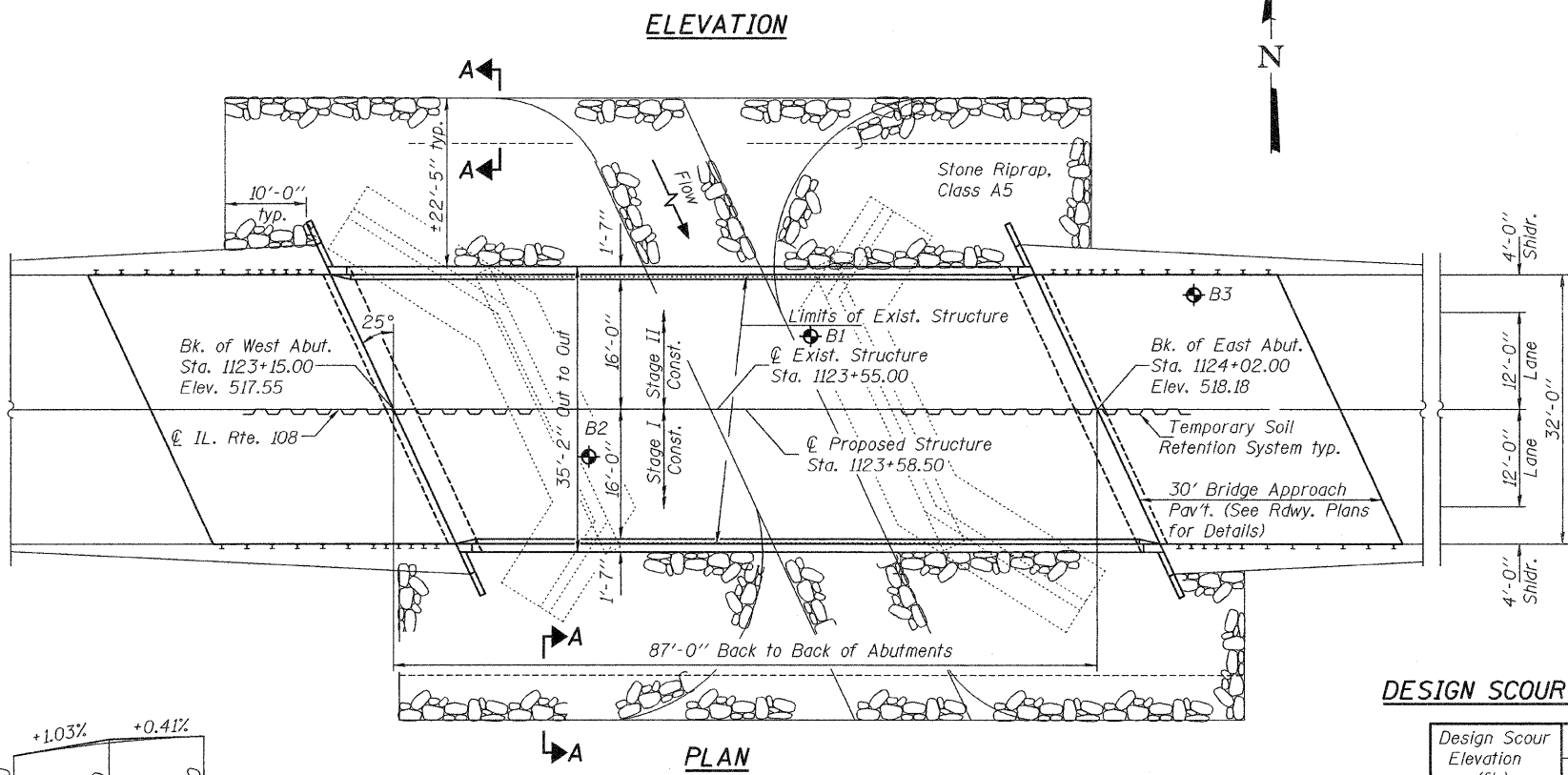
1. General Plan and Elevation
2. Stage Construction Details
3. Temporary Soil Retention System
4. Temporary Concrete Barrier
- 5.-6. Top of Slab Elevations
7. West Approach Elevations
8. East Approach Elevations
9. Superstructure
10. Superstructure Details
11. Diaphragm Details
12. Structural Steel
13. Structural Steel Details
14. West Abutment
15. East Abutment
16. Bar Splicer Assembly Details
17. Concrete Slipforming Details
18. Steel H-Pile Data
- 19.-20. Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		161.2	161.2
Stone Riprap, Class A5	Sq. Yd.		861	861
Filter Fabric	Sq. Yd.		861	861
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu. Yd.		72.7	72.7
Concrete Structures	Cu. Yd.		44.0	44.0
Concrete Superstructure	Cu. Yd.	125.7		125.7
Bridge Deck Grooving	Sq. Yd.		382	382
Protective Coat	Sq. Yd.		290	290
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	1044		1044
Reinforcement Bars, Epoxy Coated	Pound	24,680	6,380	31,060
Bar Splicers	Each	337	18	355
Driving Piles	Foot		780	780
Furnishing Steel Piles HP12x84	Foot		780	780
Test Pile Steel HP12x84	Each		2	2
Temporary Soil Retention System	Sq. Ft.		592	592
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		81.0	81.0
Pipe Underdrains for Structures, 4"	Foot		168.0	168.0
Anchor Bolts, 1"	Each		24	24
Concrete Encasement	Cu. Yd.		4.2	4.2
Asbestos Bearing Pad Removal	Each		22	22

STATION 1123+58.5  
BUILT 20 BY  
STATE OF ILLINOIS  
FAP ROUTE 761 - SECTION 104-BR-2  
LOADING HL93  
STRUCTURE NO. 031-0042

NAME PLATE  
See Std. 515001



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	505.81	506.44

LOADING HL 93

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

DESIGN SPECIFICATIONS

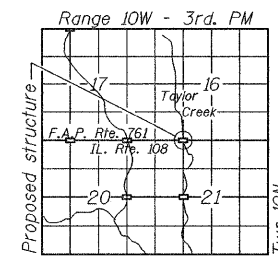
2007 LRFD Bridge Design Specifications, 4th. Edition

DESIGN STRESSES

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 50,000$  psi (M270 Grade 50W)

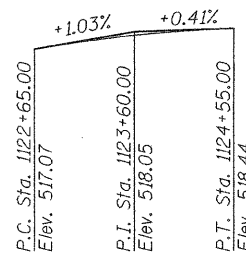
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1  
 Bedrock Acceleration Coefficient (A) = 0.06g  
 Site Coefficient (S) = 1.0

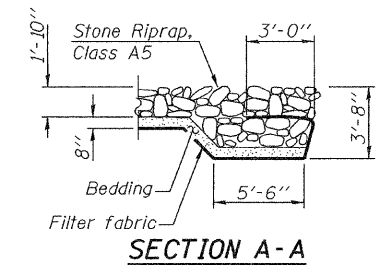


LOCATION SKETCH

GENERAL PLAN & ELEVATION  
ILLINOIS ROUTE 108 OVER  
TAYLOR CREEK BRANCH  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042



PROFILE GRADE  
(along  $\phi$  F.A.P. Rte. 761)



SECTION A-A

WATERWAY INFORMATION

Drainage Area = 4.74		Low Grade Elev. 516.04 @ Sta. 1124+84					
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Nat. H.W.E.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.	
	10	1,267	292 405	510.60	0.27 0.17	510.87 510.77	
Design	50	2,089	326 461	511.56	0.83 0.55	512.39 512.11	
Base	100	2,467	339 482	511.92	1.08 0.70	513.00 512.62	
Overtopping							
Max. Calc.	500	3,406	367 533	512.72	1.72 1.04	514.44 513.76	

DESIGNED	Stephan Rye
CHECKED	Michael Relyea
DRAWN	W.D. Collins
CHECKED	SKR/MJR

JANUARY 22, 2009  
 EXAMINED *Thomas J. ...*  
 PASSED *Ralph E. ...*

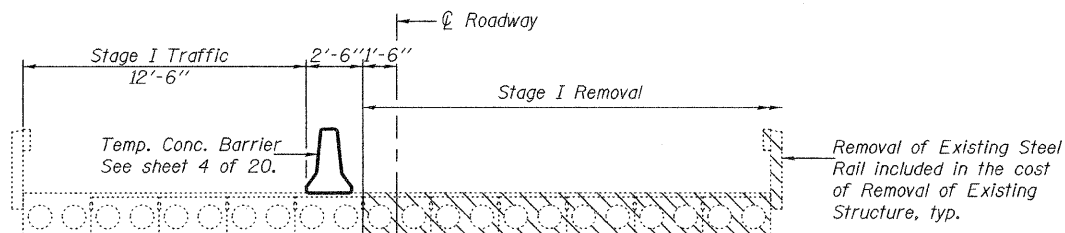


EXPIRES 11-30-2010

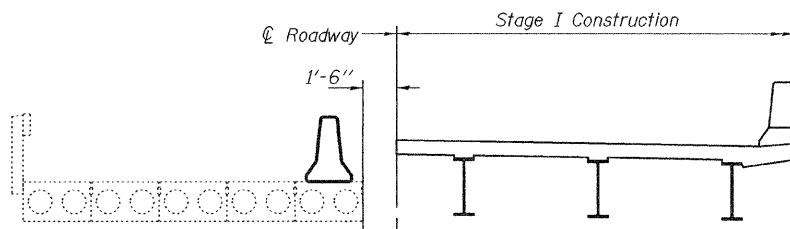
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
FAP 761	104-BR-2	GREENE	82	51	20 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT		

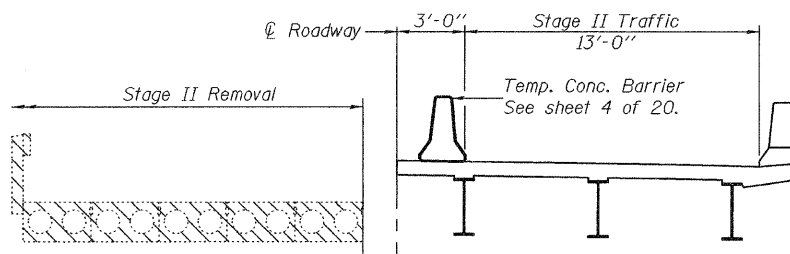
Contract #76987



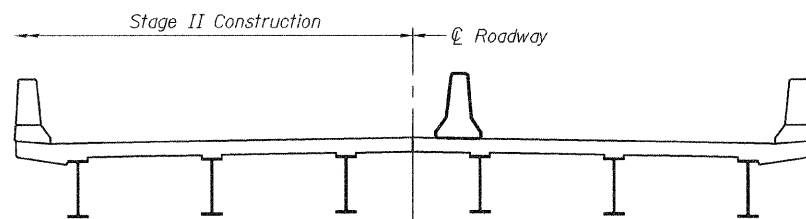
**STAGE I REMOVAL**



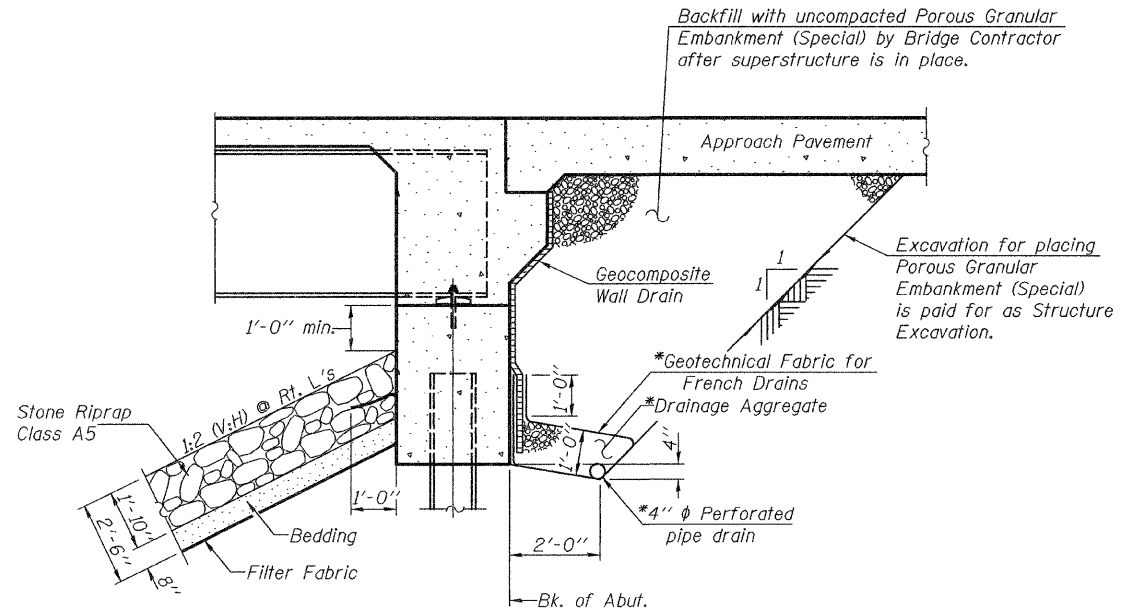
**STAGE I CONSTRUCTION**



**STAGE II REMOVAL**



**STAGE II CONSTRUCTION**



**SECTION THRU INTEGRAL ABUTMENT**  
(Horiz. dim. @ Rt. L's)

\*Included in the cost of Pipe Underdrains for Structures, 4".

**Note:**

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	BECKY M. LEACH
CHECKED	SMR/MDR

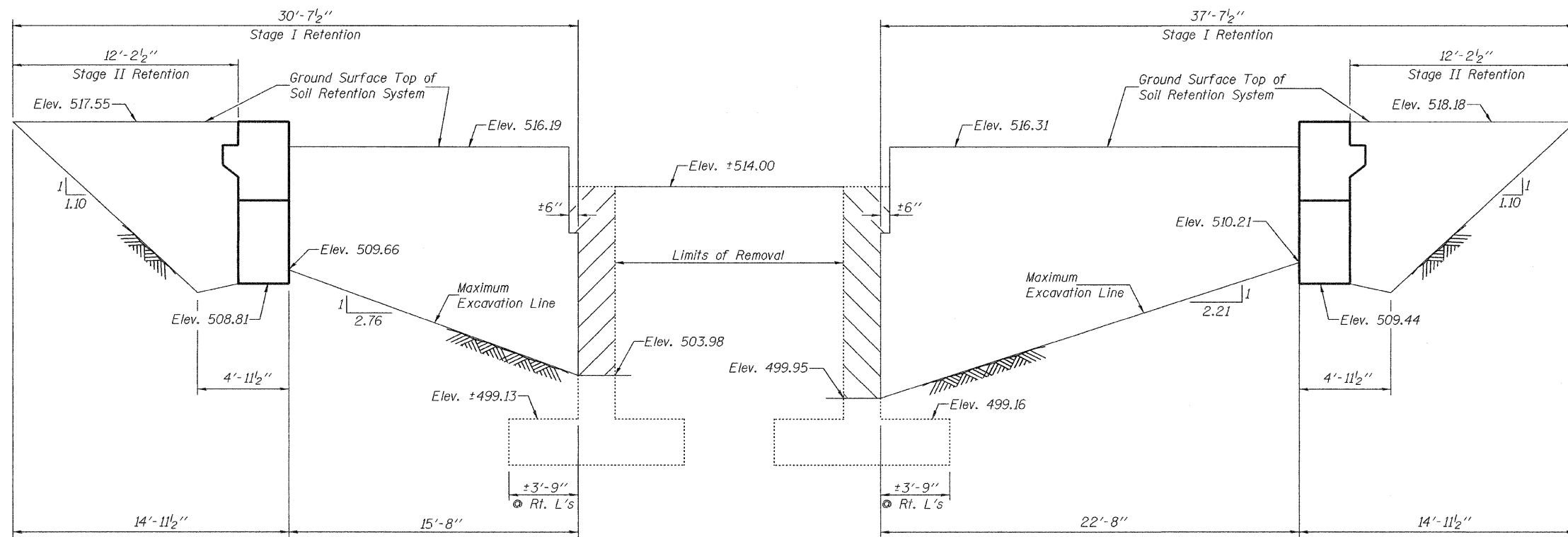
EXAMINED	Thomas J. Demagala ENGINEER OF PUBLIC DESIGN	January 22, 2008
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES	

**Notes:**  
All staging cross sections are looking East.  
Hatched area indicates Removal of Existing Concrete Structures.  
For quantity of Temporary Concrete Barrier, see Roadway Plans.

**STAGE CONSTRUCTION DETAILS**  
**F.A.P. ROUTE 761 - SECTION 104-BR-2**  
**GREENE COUNTY**  
**STATION 1123+58.50**  
**STRUCTURE NO. 031-0042**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
FAP 761	104-BR-2	GREENE	82	52	20 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #76987		



**WEST ABUTMENT  
TEMPORARY SOIL RETENTION SYSTEM**

**EAST ABUTMENT  
TEMPORARY SOIL RETENTION SYSTEM**

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.

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	BECKY M. LEACH
CHECKED	SMR/MDR

January 22, 2008  
EXAMINED *Thomas J. Demagale*  
ENGINEER OF CIVIL DESIGN  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

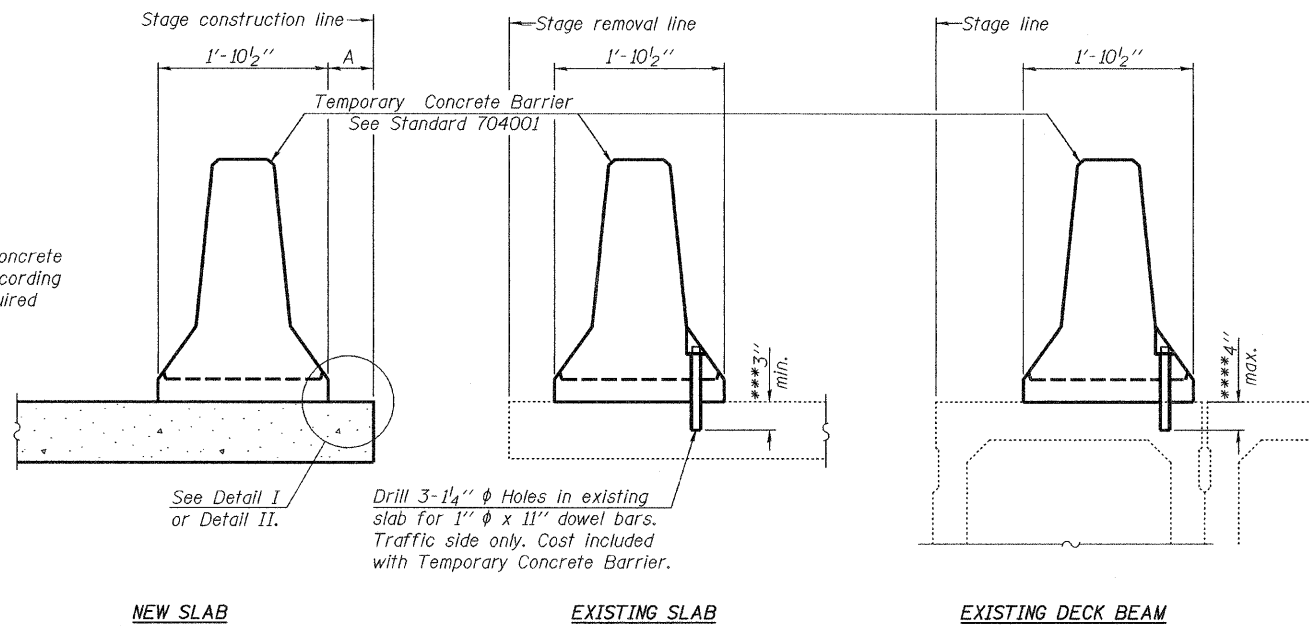
**TEMPORARY SOIL RETENTION SYSTEM**  
**F.A.P. ROUTE 761 - SECTION 104-BR-2**  
**GREENE COUNTY**  
**STATION 1123+58.50**  
**STRUCTURE NO. 031-0042**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4 20 SHEETS
FAP 761	104-BR-2	GREENE	82	53	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #76987

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

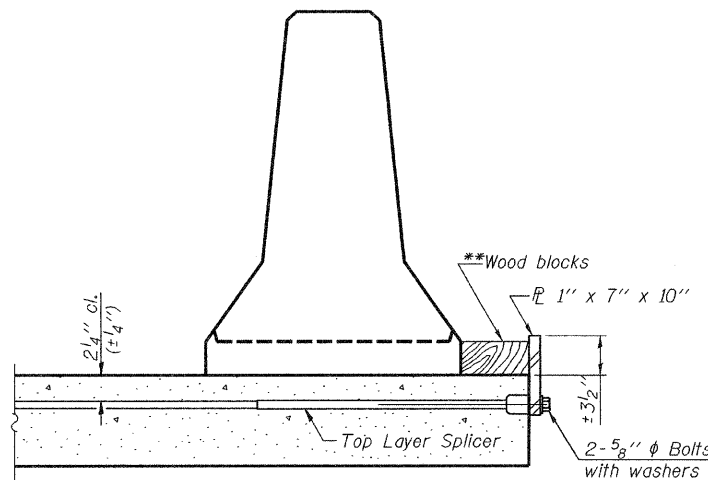
EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

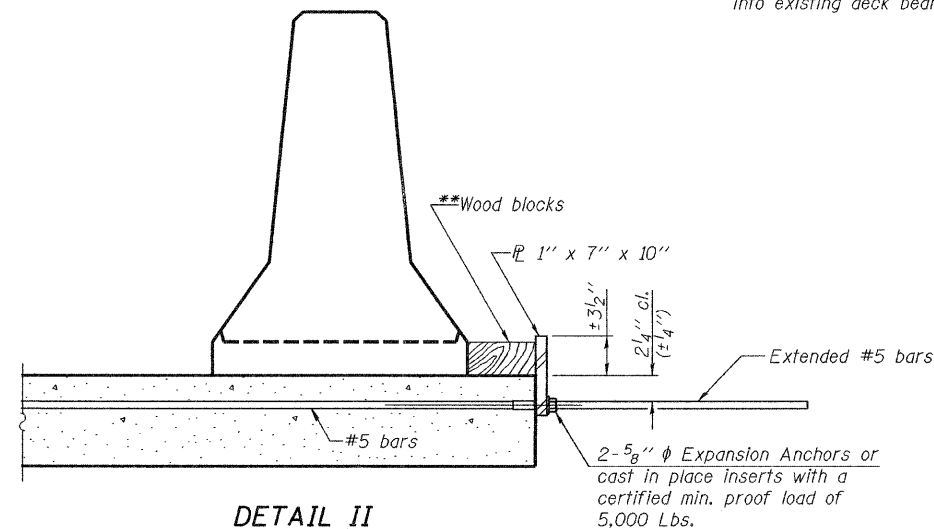
NOTES

- Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel  $\bar{P}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.
- Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1"x7"x10" steel  $\bar{P}$  to the concrete slab or concrete wearing surface with 2-5/8"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  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.

- \*\*\*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.

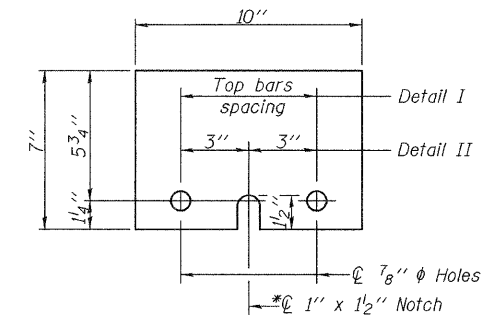


DETAIL I



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.



STEEL RETAINER  $\bar{P}$  1" x 7" x 10"

\*Required only with Detail II

TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	DECKY M. LEACH
CHECKED	SMR/MDR

EXAMINED	Thomas J. Damgalab ENGINEER OF PUBLIC DESIGN
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

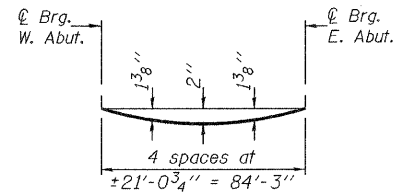
R-27

5-16-08

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5 20 SHEETS
FAP 761	104-BR-2	GREENE	82	54	
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-	

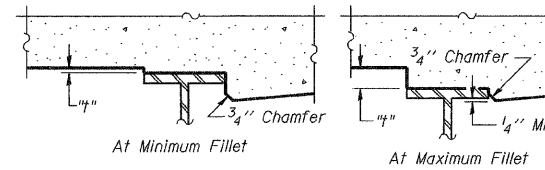
Contract #76987



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only.)

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and on sheet 6 of 20.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflection" shown below and on sheets 6 of 20, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**

**BEAM 1**

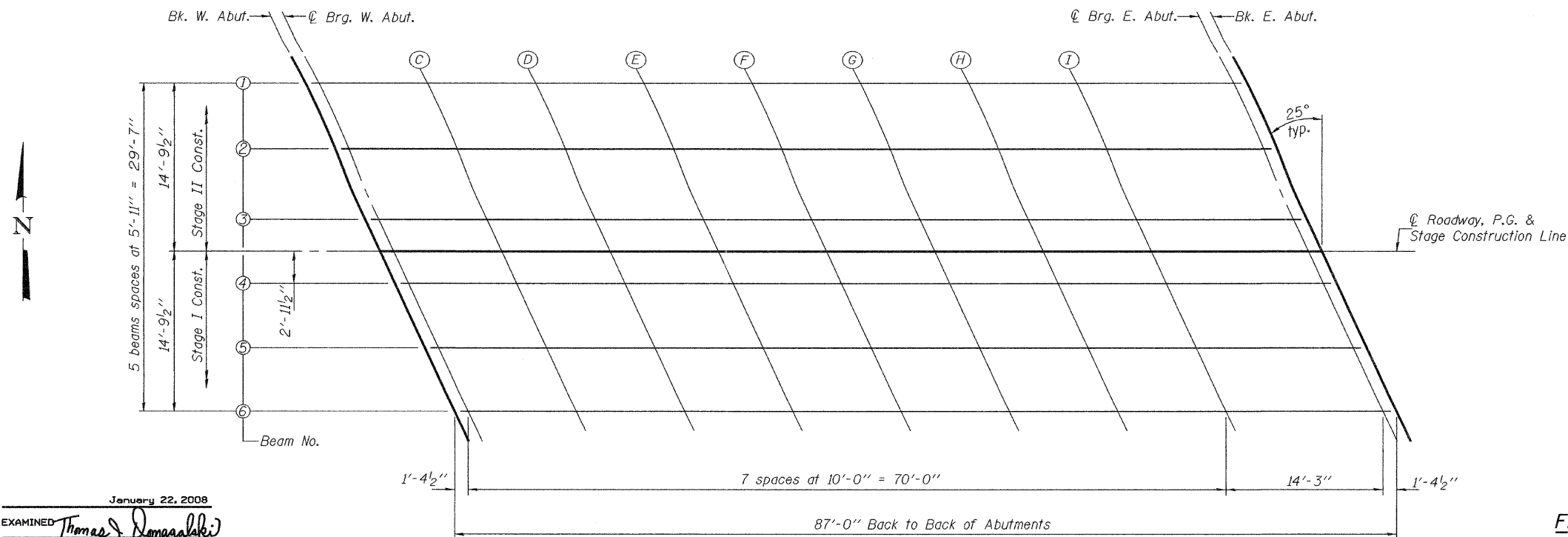
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	112308.10	-14.79	517.24	517.24
☉ Brg. W. Abut.	112309.48	-14.79	517.25	517.25
C	112319.48	-14.79	517.34	517.40
D	112329.48	-14.79	517.42	517.54
E	112339.48	-14.79	517.50	517.64
F	112349.48	-14.79	517.58	517.74
G	112359.48	-14.79	517.65	517.80
H	112369.48	-14.79	517.72	517.85
I	112379.48	-14.79	517.79	517.87
☉ Brg. E. Abut.	112393.72	-14.79	517.88	517.88
Bk. E. Abut.	112395.10	-14.79	517.89	517.89

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	112310.86	-8.88	517.37	517.37
☉ Brg. W. Abut.	112312.24	-8.88	517.38	517.38
C	112322.24	-8.88	517.47	517.53
D	112332.24	-8.88	517.55	517.67
E	112342.24	-8.88	517.63	517.77
F	112352.24	-8.88	517.71	517.87
G	112362.24	-8.88	517.78	517.93
H	112372.24	-8.88	517.85	517.98
I	112382.24	-8.88	517.92	518.00
☉ Brg. E. Abut.	112396.48	-8.88	518.01	518.01
Bk. E. Abut.	112397.86	-8.88	518.01	518.01

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	112313.62	-2.96	517.49	517.49
☉ Brg. W. Abut.	112315.00	-2.96	517.50	517.50
C	112325.00	-2.96	517.58	517.64
D	112335.00	-2.96	517.67	517.78
E	112345.00	-2.96	517.74	517.88
F	112355.00	-2.96	517.82	517.98
G	112365.00	-2.96	517.89	518.04
H	112375.00	-2.96	517.96	518.09
I	112385.00	-2.96	518.03	518.11
☉ Brg. E. Abut.	112399.24	-2.96	518.11	518.11
Bk. E. Abut.	112400.62	-2.96	518.12	518.12



DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	BECKY M. LEACH
CHECKED	SMR/MDR

January 22, 2008  
EXAMINED *Thomas J. Domagala*  
PASSED *Ronald E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

**PLAN**

**TOP OF SLAB ELEVATIONS**  
**F.A.P. ROUTE 761 - SECTION 104-BR-2**  
**GREENE COUNTY**  
**STATION 1123+58.50**  
**STRUCTURE NO. 031-0042**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6 20 SHEETS
FAP 761	104-BR-2	GREENE	82	55	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #76987

☉ ROADWAY, P.G., & STAGE CONST. JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	112315.00	0.00	517.55	517.55
☉ Brg. W. Abut.	112316.38	0.00	517.56	517.56
C	112326.38	0.00	517.64	517.70
D	112336.38	0.00	517.72	517.84
E	112346.38	0.00	517.80	517.94
F	112356.38	0.00	517.88	518.04
G	112366.38	0.00	517.95	518.10
H	112376.38	0.00	518.02	518.14
I	112386.38	0.00	518.08	518.16
☉ Brg. E. Abut.	112400.62	0.00	518.17	518.17
Bk. E. Abut.	112402.00	0.00	518.18	518.18

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	112316.38	2.96	517.51	517.51
☉ Brg. W. Abut.	112317.76	2.96	517.52	517.52
C	112327.76	2.96	517.61	517.66
D	112337.76	2.96	517.69	517.80
E	112347.76	2.96	517.77	517.91
F	112357.76	2.96	517.84	518.00
G	112367.76	2.96	517.91	518.06
H	112377.76	2.96	517.98	518.11
I	112387.76	2.96	518.04	518.12
☉ Brg. E. Abut.	112402.00	2.96	518.13	518.13
Bk. E. Abut.	112403.38	2.96	518.14	518.14

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	112319.14	8.88	517.44	517.44
☉ Brg. W. Abut.	112320.52	8.88	517.45	517.45
C	112330.52	8.88	517.54	517.59
D	112340.52	8.88	517.62	517.73
E	112350.52	8.88	517.69	517.83
F	112360.52	8.88	517.77	517.93
G	112370.52	8.88	517.84	517.99
H	112380.52	8.88	517.91	518.03
I	112390.52	8.88	517.97	518.05
☉ Brg. E. Abut.	112404.76	8.88	518.05	518.05
Bk. E. Abut.	112406.14	8.88	518.06	518.06

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	112321.90	14.79	517.36	517.36
☉ Brg. W. Abut.	112323.28	14.79	517.37	517.37
C	112333.28	14.79	517.45	517.51
D	112343.28	14.79	517.53	517.65
E	112353.28	14.79	517.61	517.75
F	112363.28	14.79	517.68	517.84
G	112373.28	14.79	517.75	517.90
H	112383.28	14.79	517.82	517.94
I	112393.28	14.79	517.88	517.96
☉ Brg. E. Abut.	112407.52	14.79	517.96	517.96
Bk. E. Abut.	112408.90	14.79	517.97	517.97

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	BECKY M. LEACH
CHECKED	SMR/MDR

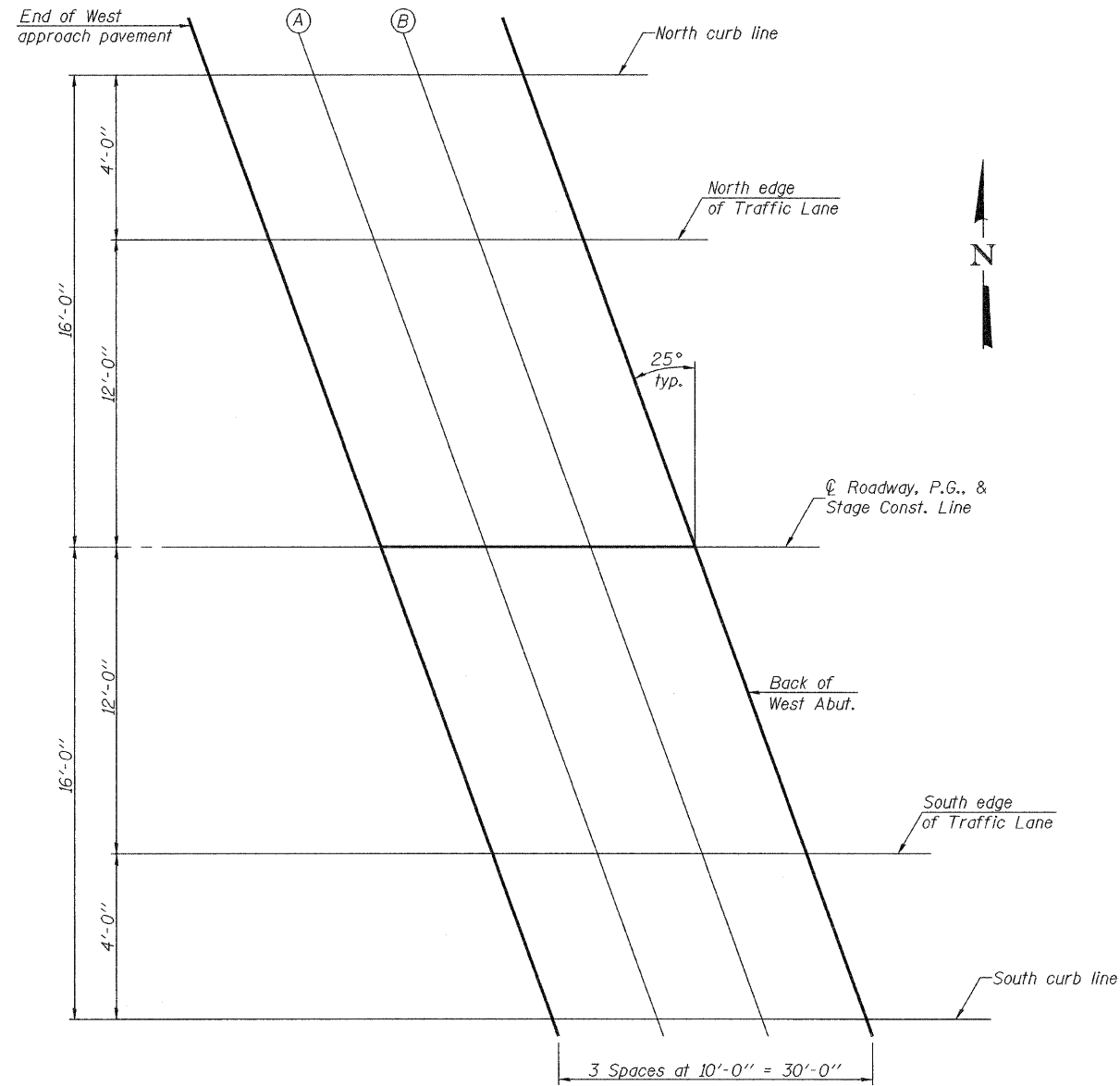
January 22, 2008  
 EXAMINED *Thomas J. Domagalicki*  
 PRINCIPAL ENGINEER OF BRIDGE DESIGN  
 PASSED *Ronald E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7
FAP 761	104-BR-2	GREENE	82	56	20 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #76987



PLAN

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pvmt.	112277.54	-16.00	516.93
A	112287.54	-16.00	517.02
B	112297.54	-16.00	517.12
Back W. Abut.	112307.54	-16.00	517.21

NORTH EDGE OF TRAFFIC LANE

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pvmt.	112279.40	-12.00	517.03
A	112289.40	-12.00	517.13
B	112299.40	-12.00	517.22
Back W. Abut.	112309.40	-12.00	517.31

☉ ROADWAY, P.G., & STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pvmt.	112285.00	0.00	517.27
A	112295.00	0.00	517.37
B	112305.00	0.00	517.46
Back W. Abut.	112315.00	0.00	517.55

SOUTH EDGE OF TRAFFIC LANE

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pvmt.	112290.60	12.00	517.14
A	112300.60	12.00	517.23
B	112310.60	12.00	517.32
Back W. Abut.	112320.60	12.00	517.41

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pvmt.	112292.46	16.00	517.07
A	112302.46	16.00	517.16
B	112312.46	16.00	517.25
Back W. Abut.	112322.46	16.00	517.34

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	DECKY M. LEACH
CHECKED	SMR/MDR

EXAMINED	Thomas J. Demagala ENGINEER OF PUBLIC DESIGN
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

E-AS

5-16-08

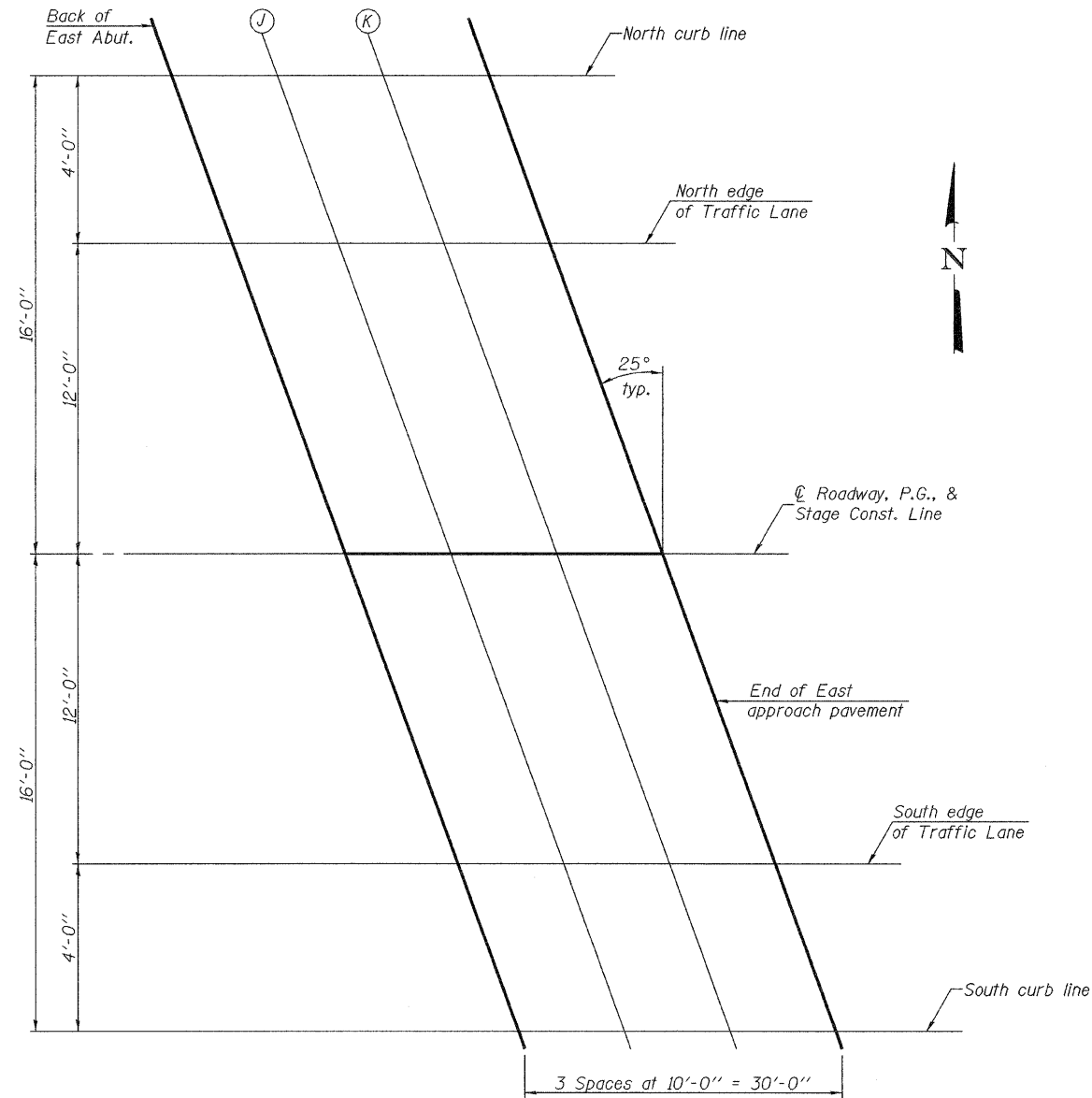
**TOP OF WEST APPROACH  
SLAB ELEVATIONS  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042**



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8
FAP 761	104-BR-2	GREENE	62	57	20 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract #76987



PLAN

**NORTH CURB LINE**

Location	Station	Offset	Theoretical Grade Elevations
Back E. Abut.	112394.54	-16.00	517.86
J	112404.54	-16.00	517.92
K	112414.54	-16.00	517.98
End E. Appr. Pvmt.	112424.54	-16.00	518.03

**NORTH EDGE OF TRAFFIC LANE**

Location	Station	Offset	Theoretical Grade Elevations
Back E. Abut.	112396.40	-12.00	517.96
J	112406.40	-12.00	518.01
K	112416.40	-12.00	518.07
End E. Appr. Pvmt.	112426.40	-12.00	518.12

**Centerline of Roadway, P.G., & Stage Const. Line**

Location	Station	Offset	Theoretical Grade Elevations
Back E. Abut.	112402.00	0.00	518.18
J	112412.00	0.00	518.23
K	112422.00	0.00	518.29
End E. Appr. Pvmt.	112432.00	0.00	518.34

**SOUTH EDGE OF TRAFFIC LANE**

Location	Station	Offset	Theoretical Grade Elevations
Back E. Abut.	112407.60	12.00	518.02
J	112417.60	12.00	518.08
K	112427.60	12.00	518.13
End E. Appr. Pvmt.	112437.60	12.00	518.18

**SOUTH CURB LINE**

Location	Station	Offset	Theoretical Grade Elevations
Back E. Abut.	112409.46	16.00	517.95
J	112419.46	16.00	518.00
K	112429.46	16.00	518.05
End E. Appr. Pvmt.	112439.46	16.00	518.10

**TOP OF EAST APPROACH  
SLAB ELEVATIONS  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042**

DESIGNED	Stephen M. Ryan	January 22, 2008
CHECKED	Michael D. Rolape	EXAMINED <i>Thomas J. Domagala</i> PRINCIPAL ENGINEER OF CIVIL DESIGN
DRAWN	BECKY M. LEACH	PASSED <i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	SMR/MDR	

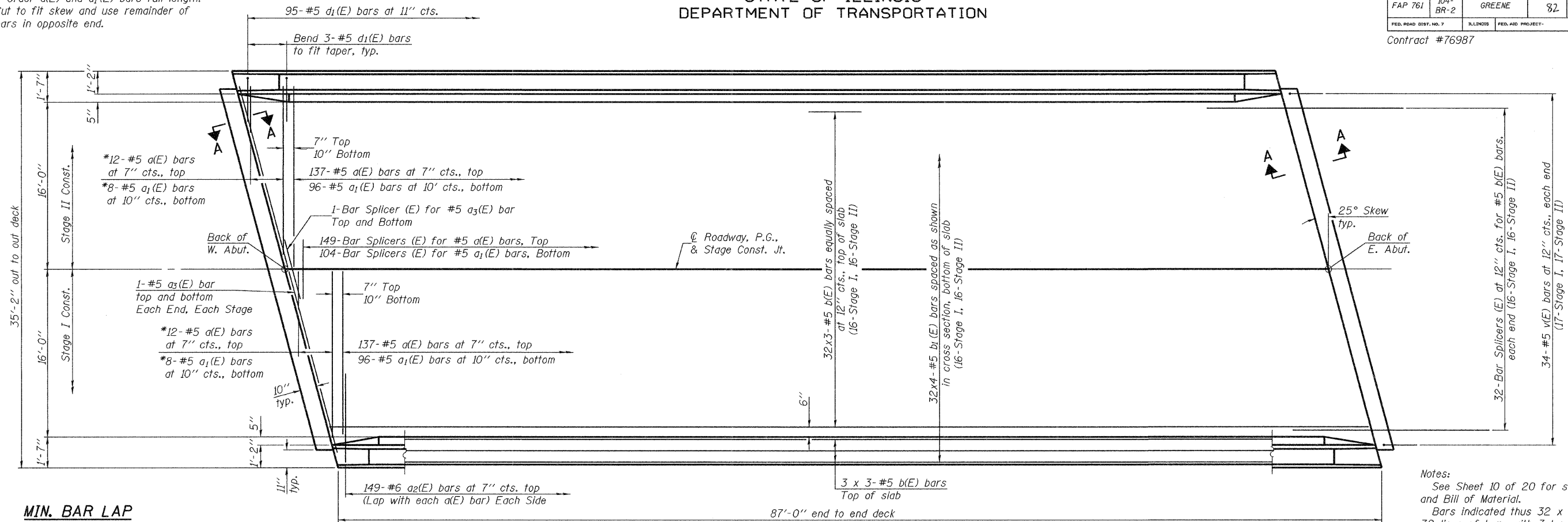
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 761	104-BR-2	GREENE	82	58
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 9  
20 SHEETS

Contract #76987

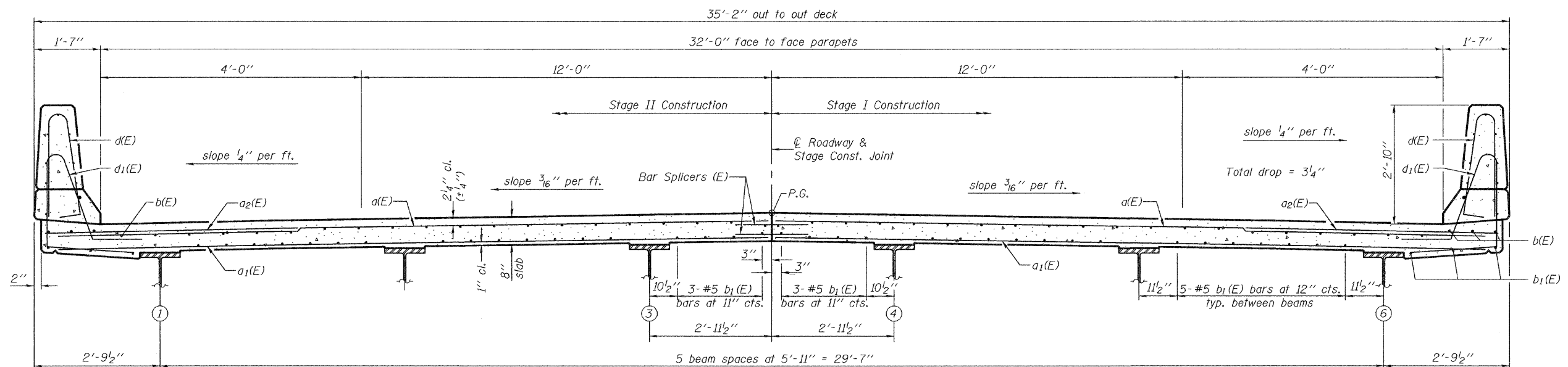
\*Order a(E) and a<sub>1</sub>(E) bars full length.  
Cut to fit skew and use remainder of  
bars in opposite end.



**MIN. BAR LAP**  
#5 bars = 2'-2"

**PLAN**

Notes:  
See Sheet 10 of 20 for superstructure details  
and Bill of Material.  
Bars indicated thus 32 x 3-#5 etc. indicates  
32 lines of bars with 3 lengths per line.  
See Sheet 10 of 20 for parapet reinforcement.  
See Sheet 10 of 20 for Section A-A.



**CROSS SECTION**  
(Looking East)

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	BECKY M. LEACH
CHECKED	SMR/MDR

January 22, 2008  
EXAMINED *Thomas J. Demasaleki*  
PASSED *Ronald E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

SI-1-R

5-16-08

**SUPERSTRUCTURE**  
**F.A.P. ROUTE 761 - SECTION 104-BR-2**  
**GREENE COUNTY**  
**STATION 1123+58.50**  
**STRUCTURE NO. 031-0042**

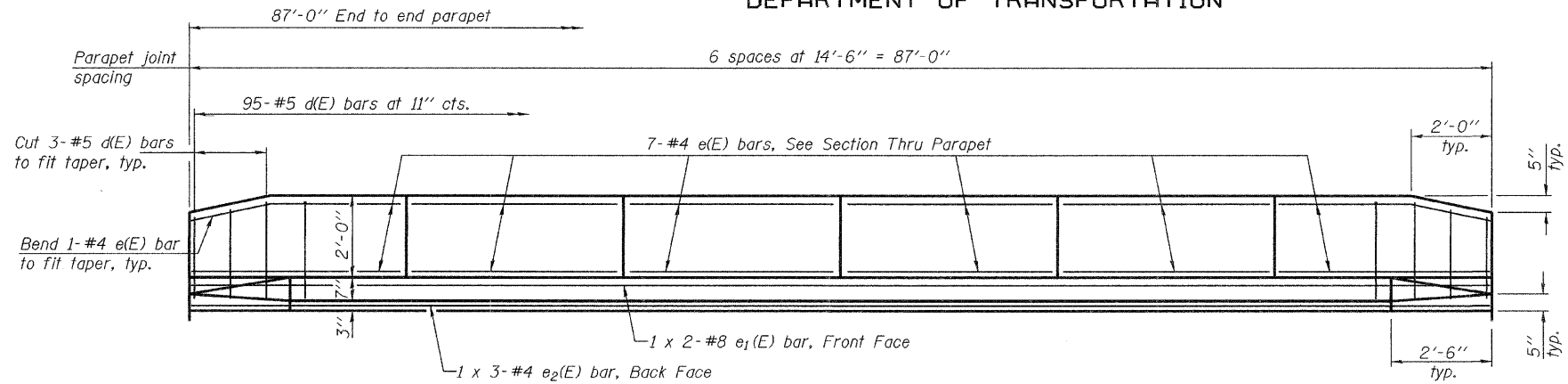
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10 20 SHEETS
FAP 761	104-BR-2	GREENE	82	59	
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT		

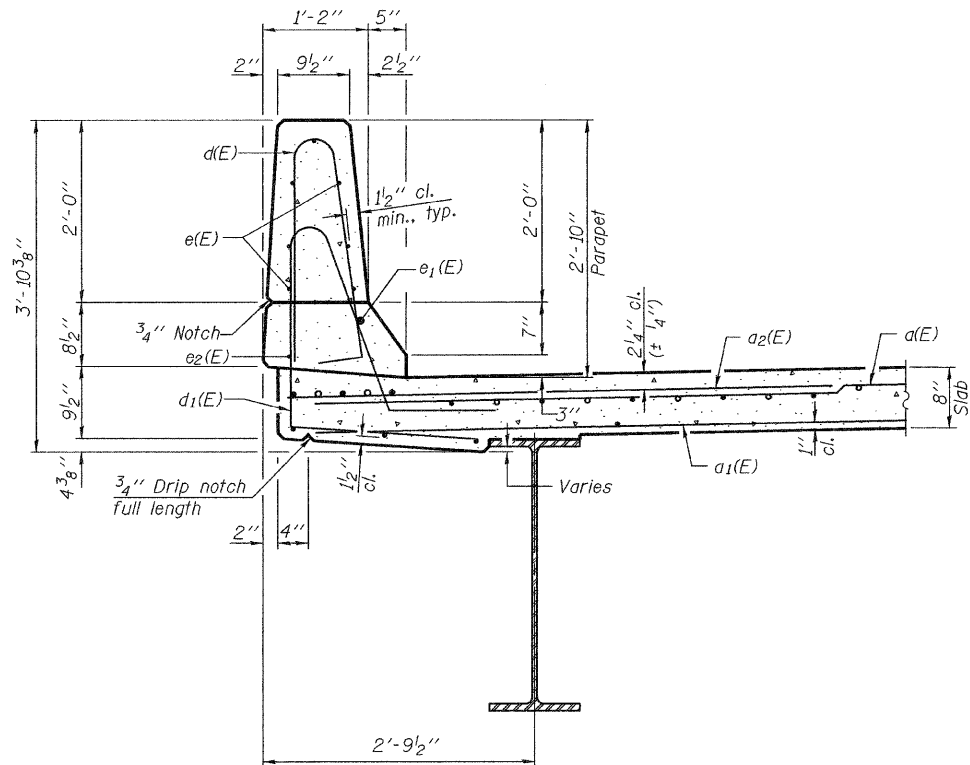
Contract #76987

**MINIMUM BAR LAP**

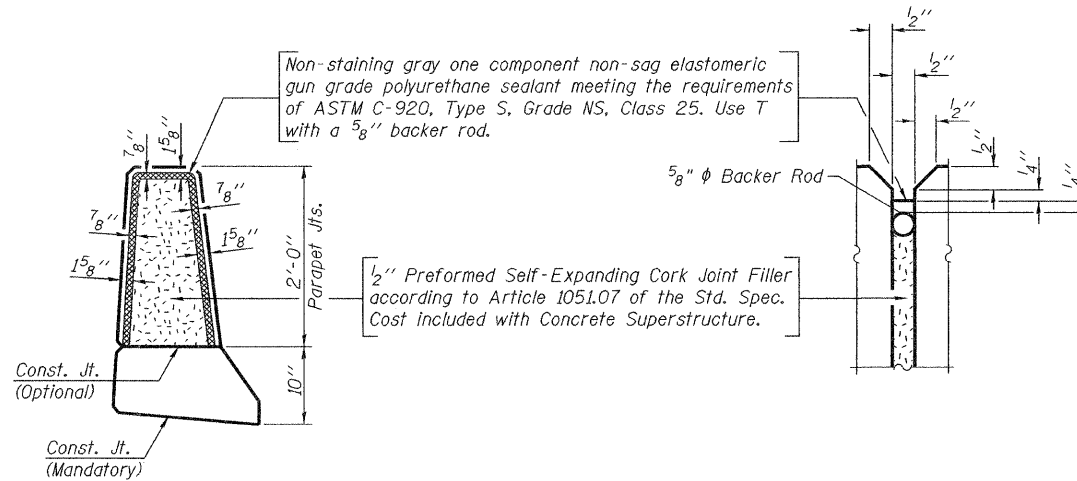
(Parapet)  
#4 bars = 1'-4"  
#8 bars = 3'-5"



**INSIDE ELEVATION OF PARAPET**



**SECTION THRU PARAPET**

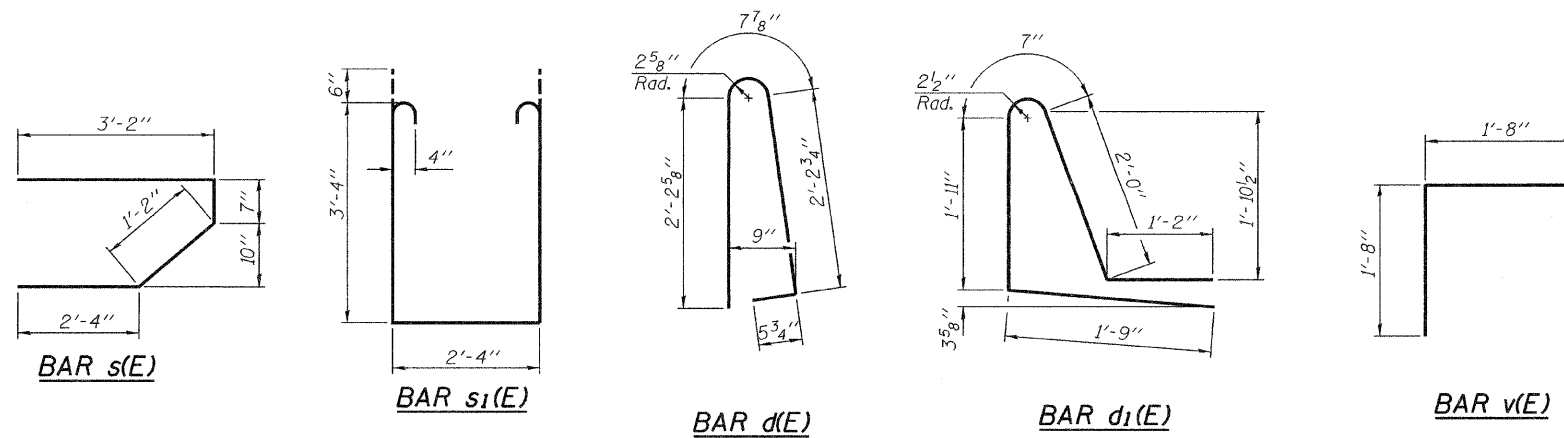


**PARAPET JOINT DETAILS**

**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	298	#5	17'-1"	—
a1(E)	208	#5	16'-3"	—
a2(E)	298	#6	6'-0"	—
a3(E)	8	#5	17'-11"	—
b(E)	114	#5	30'-5"	—
b1(E)	128	#5	23'-4"	—
d(E)	190	#5	5'-7"	⊥
d1(E)	190	#5	7'-5"	⊥
e(E)	84	#4	14'-2"	—
e1(E)	4	#8	45'-3"	—
e2(E)	6	#4	29'-10"	—
m(E)	8	#6	18'-0"	—
m1(E)	12	#6	19'-0"	—
m2(E)	24	#6	8'-0"	—
m3(E)	8	#6	6'-2"	—
m4(E)	8	#6	2'-10"	—
s(E)	84	#5	7'-3"	⊥
s1(E)	72	#4	10'-0"	⊥
v(E)	68	#5	3'-4"	⊥
Reinforcement Bars, Epoxy Coated			Pound	24,680
Concrete Superstructure			Cu. Yds.	125.7

Bars indicated thus 1 x2-#8 etc. indicates 1 line of bars with 2 lengths per line.



DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	BECKY M. LEACH
CHECKED	SMR/MDR

EXAMINED	Thomas J. Domagala	January 22, 2008
PASSED	Ralph E. Anderson	

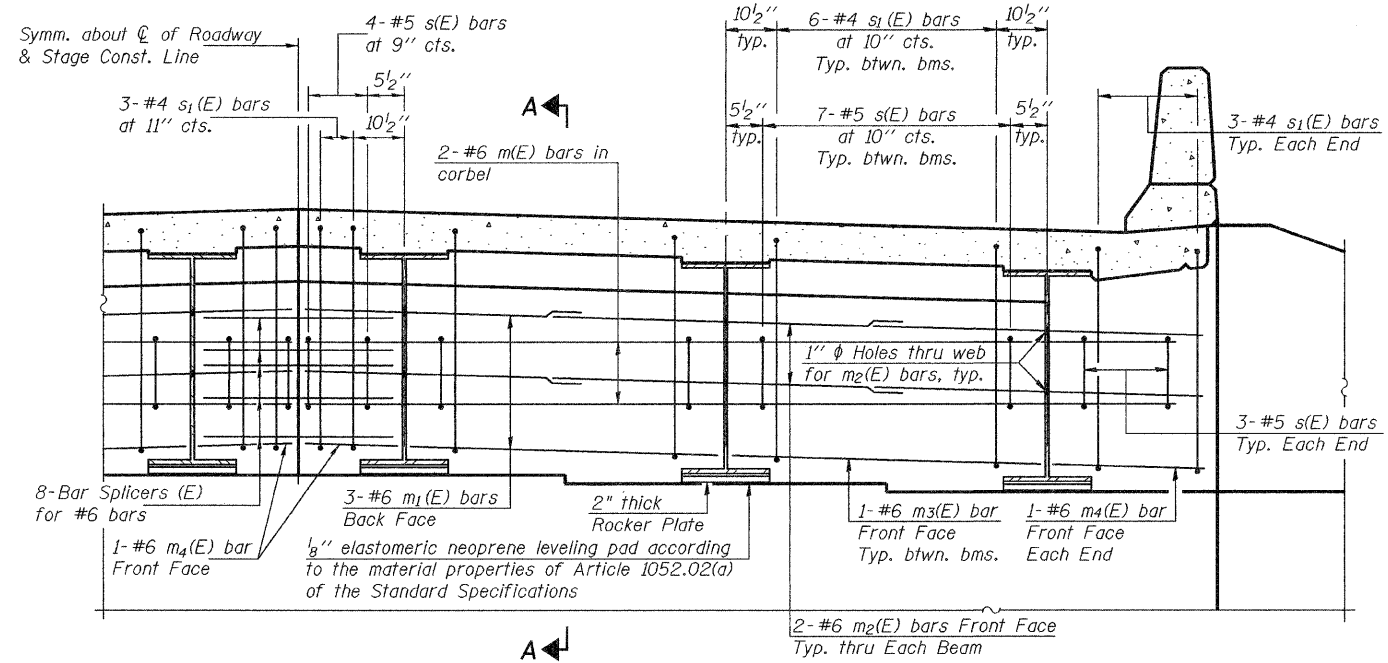
S-I-D 5-16-08

**SUPERSTRUCTURE DETAILS**  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11
FAP 761	104-BR-2	GREENE	82	60	20 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT			

Contract #76987



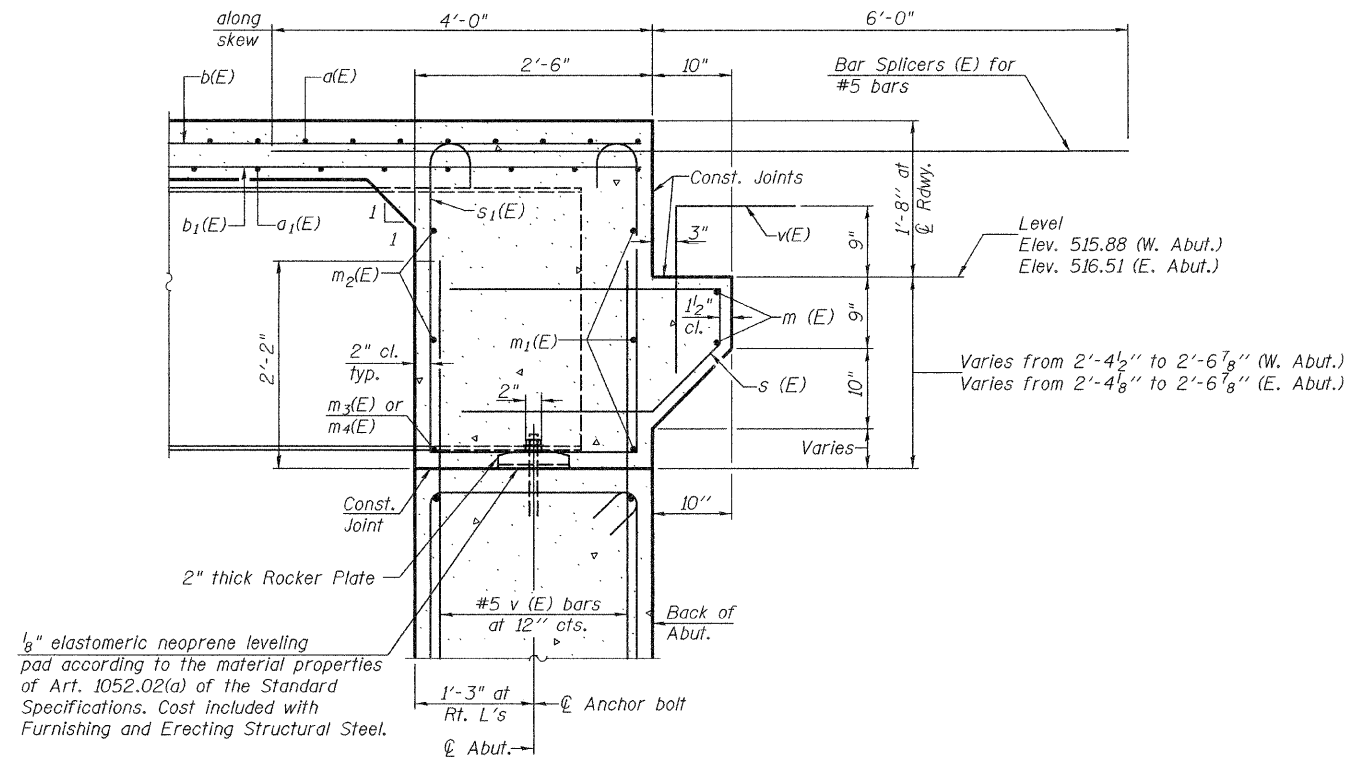
DIAPHRAGM ELEVATION AT ABUTMENT

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 10 of 20.  
Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 20.  
For details of bars s(E) & s<sub>1</sub>(E) see sheet 10 of 20.  
The s(E) and s<sub>1</sub>(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.  
See sheet 12 of 20 for holes thru web for m<sub>2</sub>(E) bars.  
For Bar Splicers (E) details, see sheet 16 of 20.

MIN. BAR LAP

#6 bar = 2'-7"



SECTION A-A

Dimensions at right angles to abutment, except as shown.

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	BECKY M. LEACH
CHECKED	SMR/MDR

EXAMINED	Thomas J. Domagala ENGINEER OF CIVIL DESIGN
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

SI-DS1

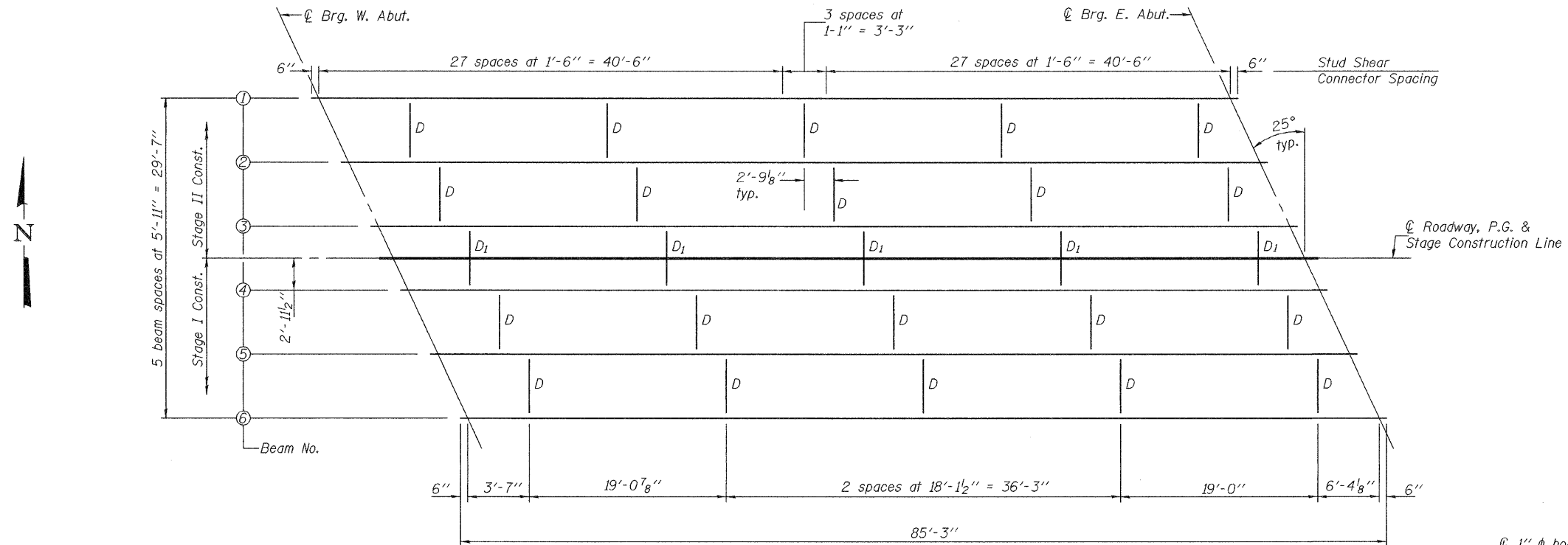
5-16-08

DIAPHRAGM DETAILS  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

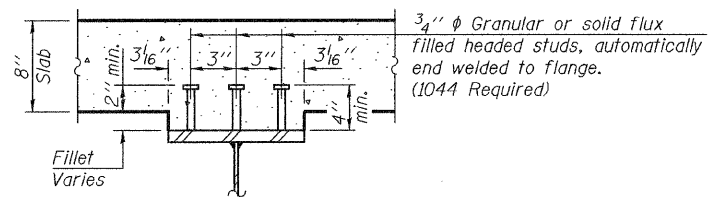
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FAP 761	104-BR-2	GREENE	82	61	
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT-		

Contract #76987

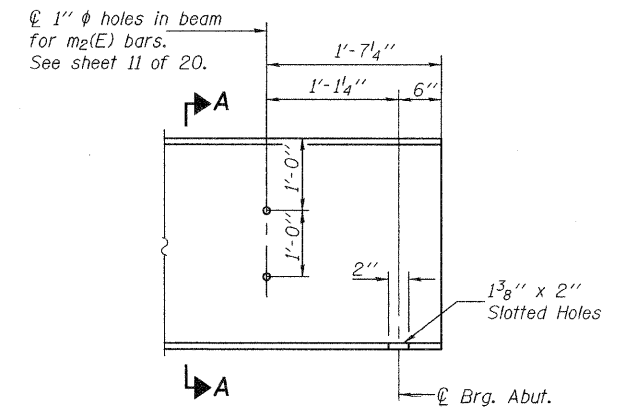


**FRAMING PLAN**

(All Beams are W36x210, NTR, and AASHTO M270 Grade 50W.)



**SECTION A-A**



**END OF BEAM ELEVATION**

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	BECKY M. LEACH
CHECKED	SMR/MDR

January 22, 2008  
EXAMINED *Thomas J. Domagalicki*  
ENGINEER OF BRIDGE DESIGN  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

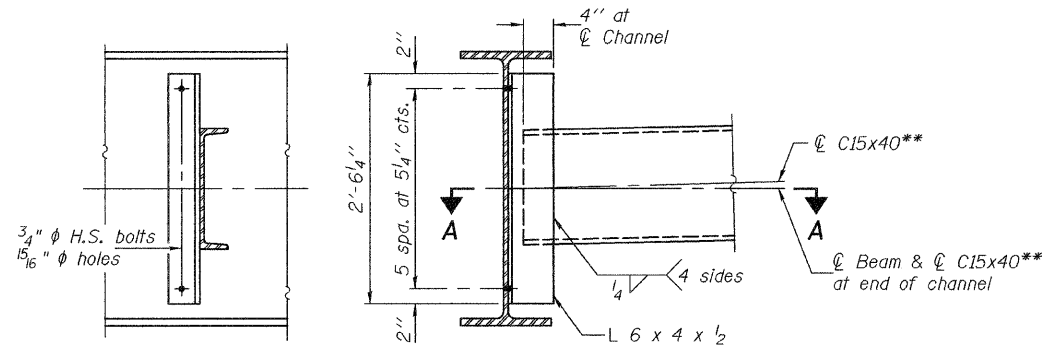
Note:  
All diaphragms shall be installed as steel is erected and secured with erection pins and bolts.

**STRUCTURAL STEEL**  
**F.A.P. ROUTE 761 - SECTION 104-BR-2**  
**GREENE COUNTY**  
**STATION 1123+58.50**  
**STRUCTURE NO. 031-0042**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

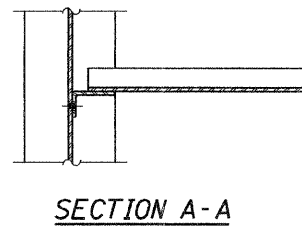
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FAP 761	104-BR-2	GREENE	82	62	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #76987

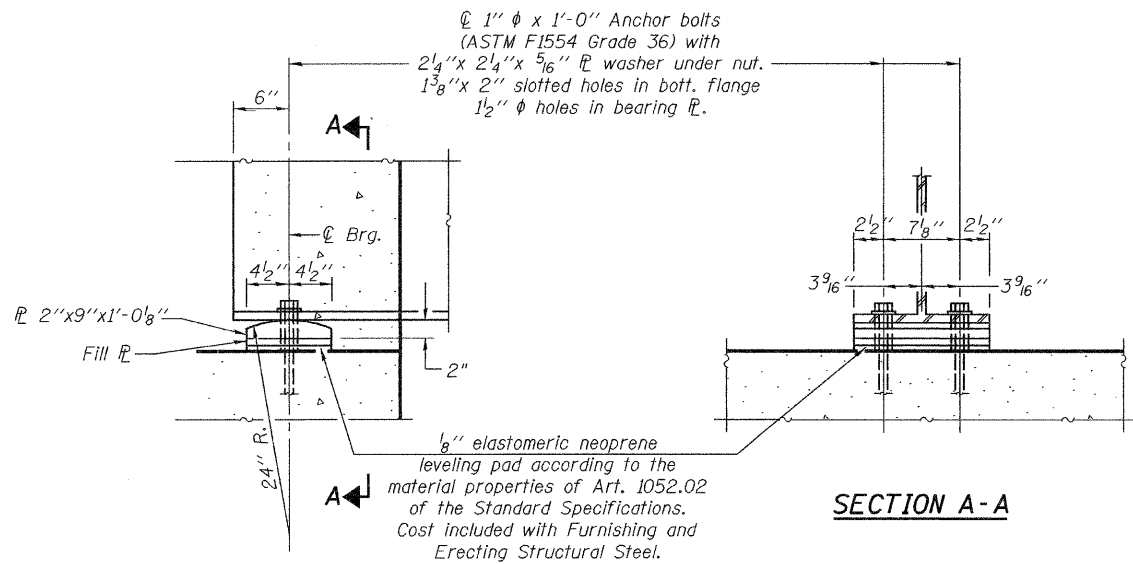


**DIAPHRAGM D**  
(20 Required)

\*\* Alternate channel C15x50 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.



**SECTION A-A**



**ELEVATION**

**FIXED BEARINGS AT ABUTMENTS**  
(12 Required)

Notes:

- Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts.
- Two hardened washers are required for each set of oversized holes.
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

**\*TOP OF BEAM ELEVATIONS**

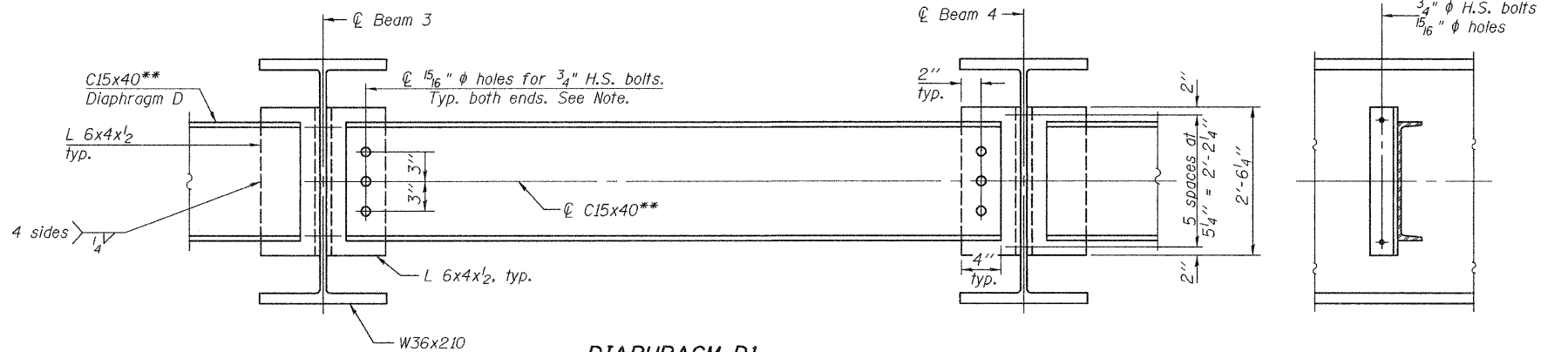
Location	W. Abut.	E. Abut.
Beam 1	516.54	517.17
Beam 2	516.67	517.30
Beam 3	516.79	517.40
Beam 4	516.81	517.42
Beam 5	516.74	517.34
Beam 6	516.66	517.25

\*For fabrication use only.

INTERIOR BEAM MOMENT TABLE		0.5 Span
$I_s$	(in <sup>4</sup> )	13200
$I_c(n)$	(in <sup>4</sup> )	30928
$I_c(3n)$	(in <sup>4</sup> )	22054
$S_s$	(in <sup>3</sup> )	719
$S_c(n)$	(in <sup>3</sup> )	1022
$S_c(3n)$	(in <sup>3</sup> )	906
DC1	(k/')	0.852
MDC1	(k)	756
DC2	(k/')	0.150
MDC2	(k)	133
DW	(k/')	0.296
MDW	(k)	263
$M_k + Im$	(k)	1164
$M_u$ (Strength I)	(k)	3543
$\phi_r M_n$	(k)	4943
$f_s$ DC1	(ksi)	12.6
$f_s$ DC2	(ksi)	1.8
$f_s$ DW	(ksi)	3.5
$f_s$ 1.3( $k + Im$ )	(ksi)	17.8
$f_s$ (Service II)	(ksi)	35.7
$V_r$	(k)	26.4

INTERIOR BEAM REACTION TABLE		HL93 Loading
		Abutments
$R_{DC1}$	(k)	35.9
$R_{DC2}$	(k)	6.3
$R_{DW}$	(k)	12.5
$R_k + Imp$	(k)	81.4
$R_{Total}$	(k)	136.1

- $I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total-Strength I, and Service II) due to non-composite dead loads (in<sup>4</sup> and in<sup>3</sup>).
- $I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total-Strength I, and Service II) due to short-term composite live loads (in<sup>4</sup> and in<sup>3</sup>).
- $I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in<sup>4</sup> and in<sup>3</sup>).
- DC1: Un-factored non-composite dead load (kips/ft.).
- MDC1: Un-factored moment due to non-composite dead load (kip-ft.).
- DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- $M_k + Imp$ : Un-factored live load moment plus dynamic load allowance (Impact) (kip-ft.).
- $M_u$  (Strength I): Factored design moment (kip-ft.).  
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_k + Imp$
- $\phi_r M_n$ : Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).
- $f_s$  (Service II): Sum of stresses as computed from the moments below (ksi).  
 $M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_k + Imp$
- $V_r$ : Factored shear range computed according to Article 6.10.10.



**FILL PLATE TABLE**

Beam	3	4
W. Abut.	5/8"	7/8"
E. Abut.	-	1/4"

**DIAPHRAGM D1**

(Looking East) (5 Required)

Install only the center bolt at each end of Diaphragm D1. The bolts shall be finger tightened prior to deck pour to permit rotation of Diaphragm D1. Install the remaining bolts and fully tighten after stage two deck pour is complete.

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	DECKY M. LEACH
CHECKED	SMR/MDR

EXAMINED	Thomas J. Domagala	January 22, 2008
PASSED	Ralph E. Anderson	

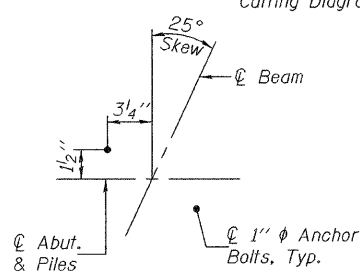
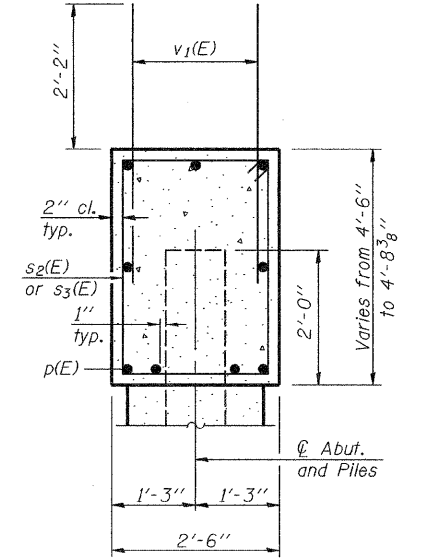
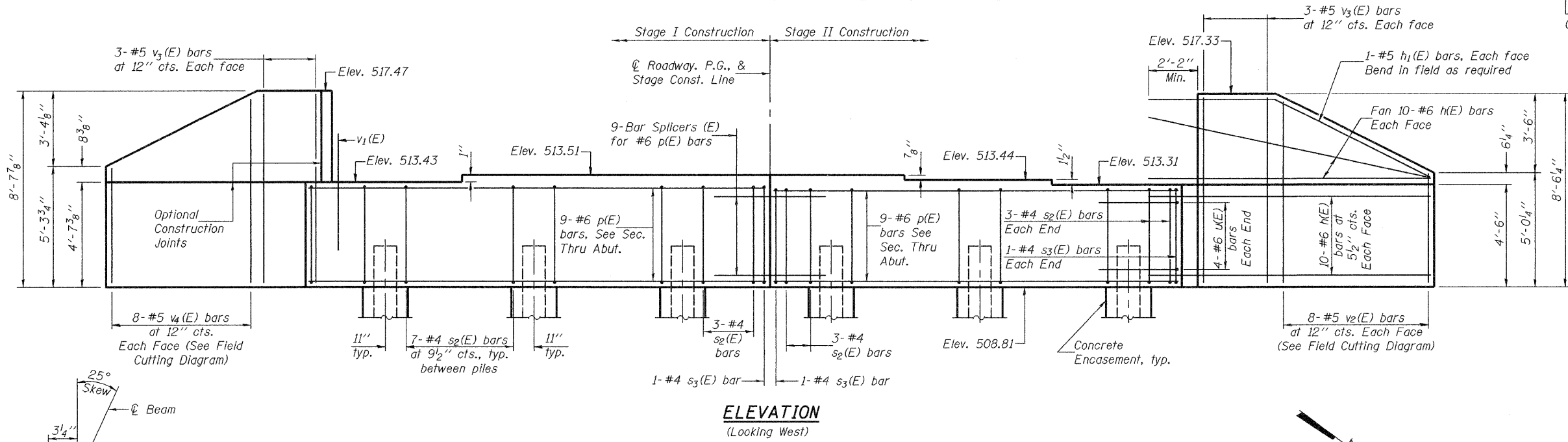
**STRUCTURAL STEEL DETAILS**  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 14 20 SHEETS
FAP 761	104-BR-2	GREENE	82	63	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #76987

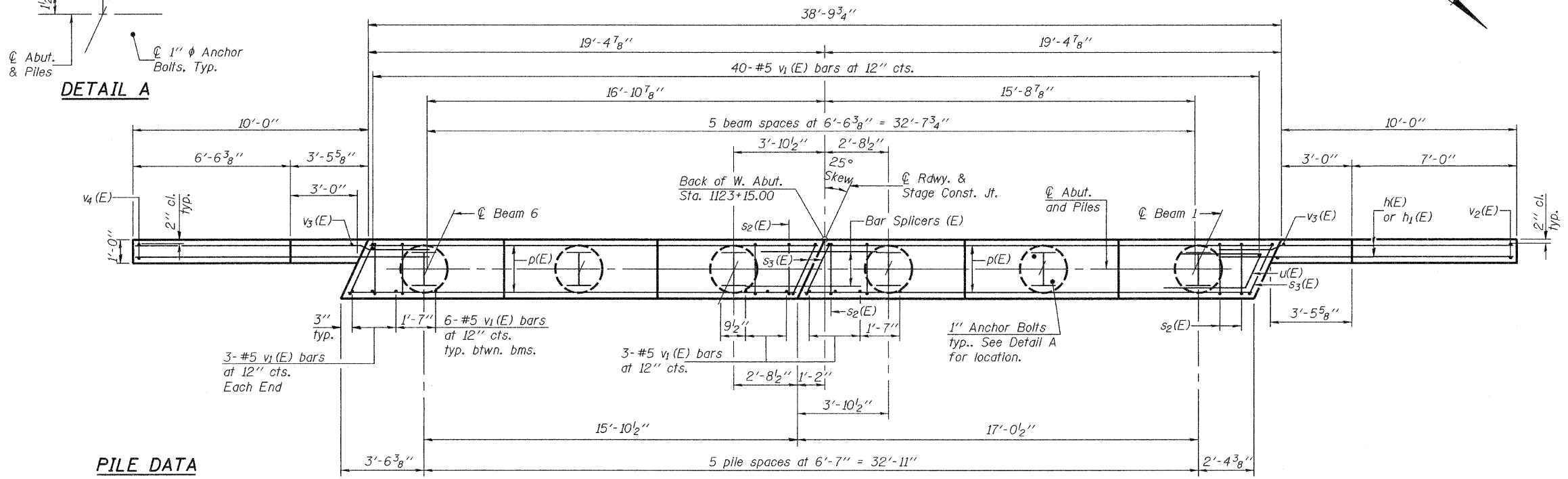
Notes: Four steps monolithically with cap.



**BILL OF MATERIAL**

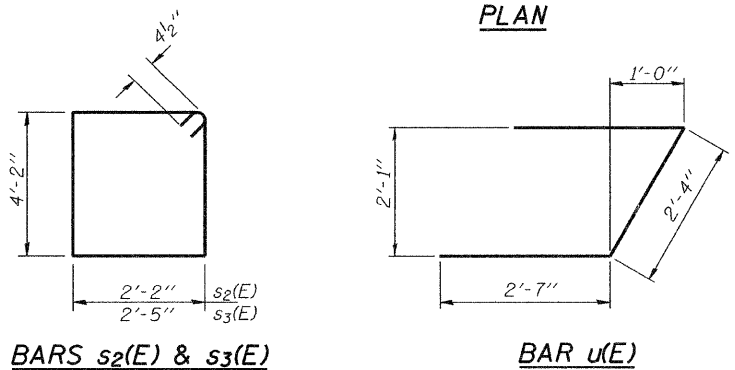
Bar	No.	Size	Length	Shape
h(E)	80	#6	12'-3"	—
h <sub>1</sub> (E)	4	#5	13'-0"	—
p(E)	18	#6	19'-0"	—
s <sub>2</sub> (E)	40	#4	13'-5"	□
s <sub>3</sub> (E)	4	#4	13'-11"	□
u(E)	8	#6	7'-6"	┘
v <sub>1</sub> (E)	76	#5	4'-4"	—
v <sub>2</sub> (E)	8	#5	13'-0"	—
v <sub>3</sub> (E)	12	#5	8'-3"	—
v <sub>4</sub> (E)	8	#5	13'-3"	—
Structure Excavation	Cu. Yd.		31.1	
Concrete Structures	Cu. Yd.		22.0	
Reinforcement Bars, Epoxy Coated	Pound		3190	
Furnishing Piles, HP12x84	Foot		400	
Driving Piles	Foot		400	
Test Pile, HP12x84	Each		1	
Concrete Encasement	Cu. Yd.		2.1	
Anchor Bolts, 1"	Each		12	

For details of Bar Splicers, see sheet 16 of 20.  
For details of piles and Concrete Encasement, see sheet 18 of 20.



**PILE DATA**

Type: HP12x84  
Nominal Required Bearing: 374 kips  
Factored Resistance Available: 187 kips  
Est. Length: 80 ft.  
No. Production Piles: 5  
No. Test Piles: 1



**FIELD CUTTING DIAGRAM**

Order v<sub>2</sub>(E) full length. Cut as shown and use remainder of bars in opposite face.

**FIELD CUTTING DIAGRAM**

Order v<sub>4</sub>(E) full length. Cut as shown and use remainder of bars in opposite face.

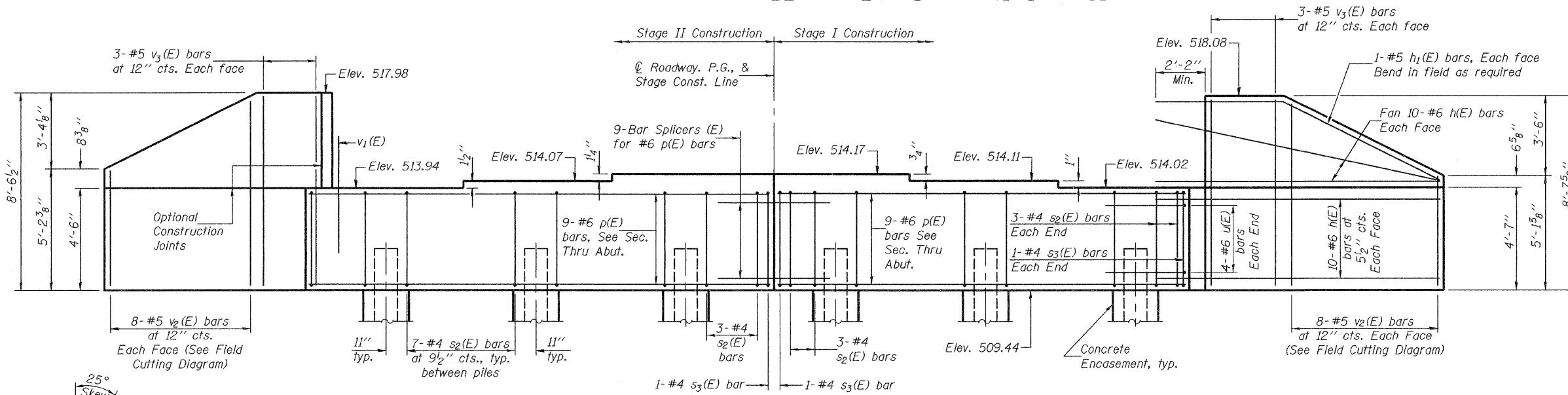
**WEST ABUTMENT**  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042

DESIGNED	Stephen M. Ryan	January 22, 2008
CHECKED	Michael D. Rolape	EXAMINED <i>Thomas J. Domagala</i>
DRAWN	DECKY M. LEACH	PASSED <i>Ralph E. Anderson</i>
CHECKED	SMR/MDR	ENGINEER OF BRIDGES AND STRUCTURES

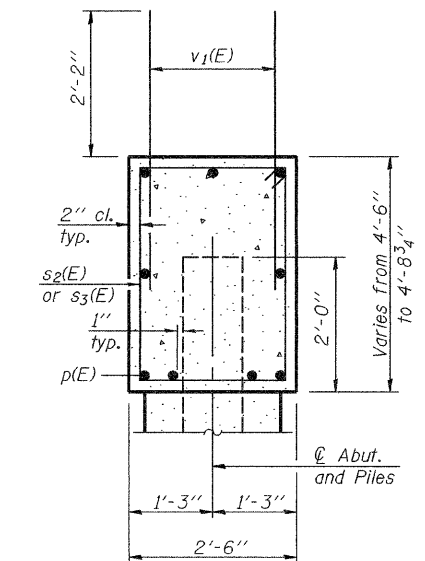
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 15 20 SHEETS
FAP 761	104-BR-2	GREENE	82	64	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	Contract #76987		

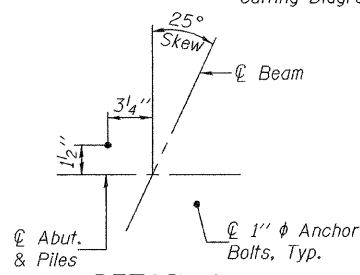
Notes: Four steps monolithically with cap.



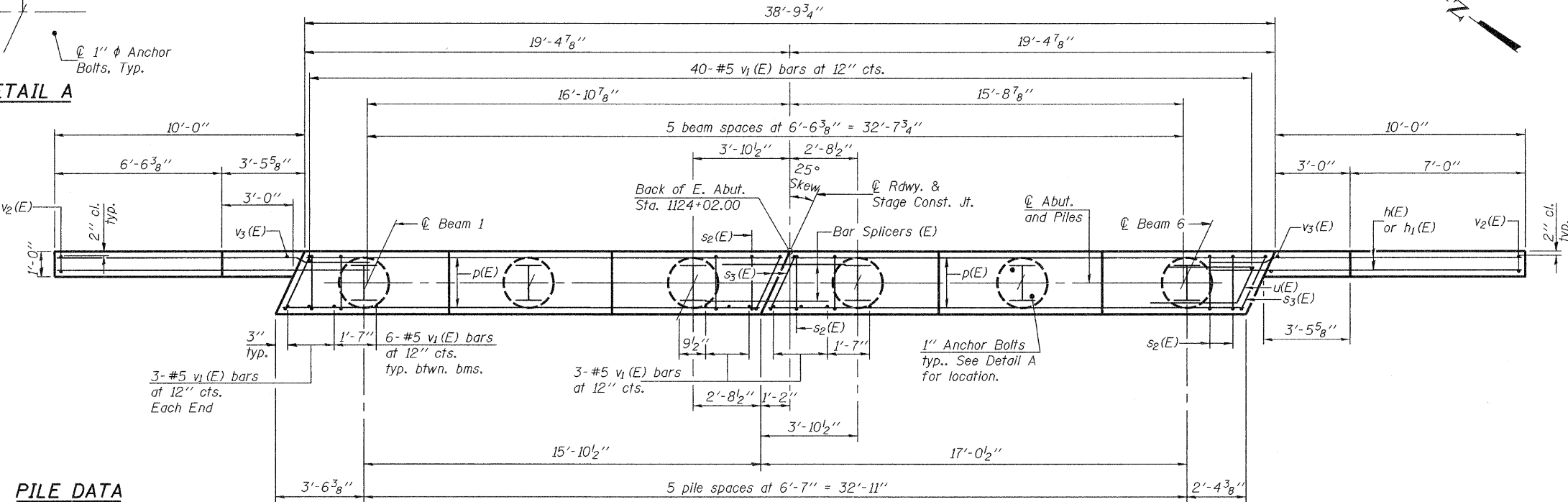
**ELEVATION**  
(Looking East)



**SEC. THRU ABUT.**



**DETAIL A**



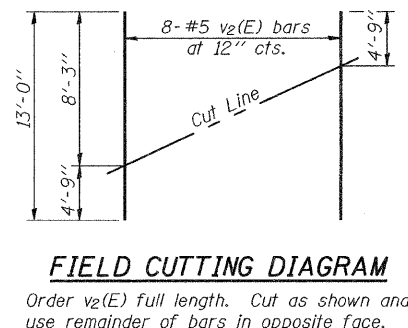
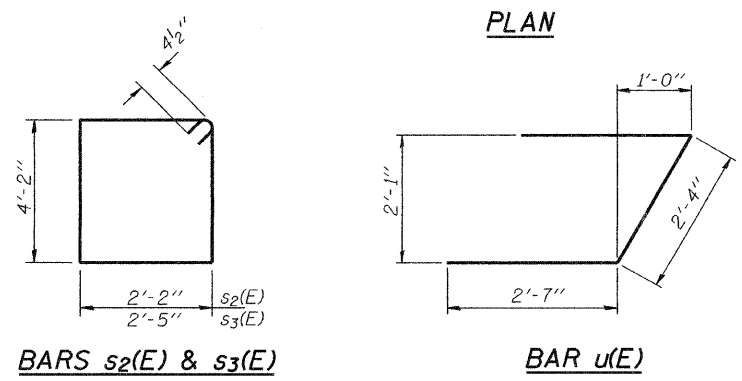
**PLAN**

**PILE DATA**

Type: HP12x84  
Nominal Required Bearing: 372 kips  
Factored Resistance Available: 186 kips  
Est. Length: 76 ft.  
No. Production Piles: 5  
No. Test Piles: 1

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	DECKY M. LEACH
CHECKED	SMR/MDR

January 22, 2008  
EXAMINED *Thomas J. Domagala*  
PASSED *Ralph E. Carlson*  
ENGINEER OF BRIDGES AND STRUCTURES



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	80	#6	12'-3"	—
h1(E)	4	#5	13'-0"	—
p(E)	18	#6	19'-0"	—
s2(E)	40	#4	13'-5"	□
s3(E)	4	#4	13'-11"	□
u(E)	8	#6	7'-6"	┘
v1(E)	76	#5	4'-4"	—
v2(E)	16	#5	13'-0"	—
v3(E)	12	#5	8'-3"	—
Structure Excavation			Cu. Yd.	41.6
Concrete Structures			Cu. Yd.	22.0
Reinforcement Bars, Epoxy Coated			Pound	3190
Furnishing Piles, HP12x84			Foot	380
Driving Piles			Foot	380
Test Pile, HP12x84			Each	1
Concrete Encasement			Cu. Yd.	2.1
Anchor Bolts, 1"			Each	12

For details of Bar Splicers, see sheet 16 of 20.  
For details of piles and Concrete Encasement, see sheet 18 of 20.

**EAST ABUTMENT**  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 16 20 SHEETS
FAP 761	104-BR-2	GREENE	82	65	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #76987

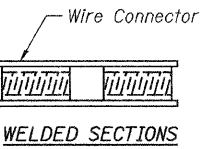
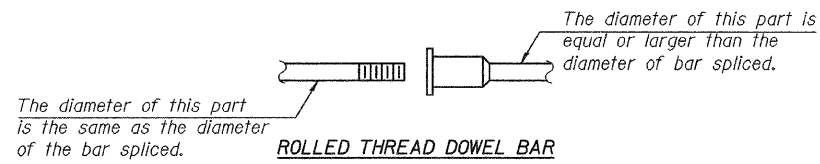
**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.  
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity =  $1.25 \times f_y \times A_t$   
(Tension in kips)
  - ② Minimum \*Pull-out Strength =  $0.66 \times f_y \times A_t$   
(Tension in kips)
- Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $A_t$  = Tensile stress area of lapped reinforcement bars.  
\* = 28 day concrete

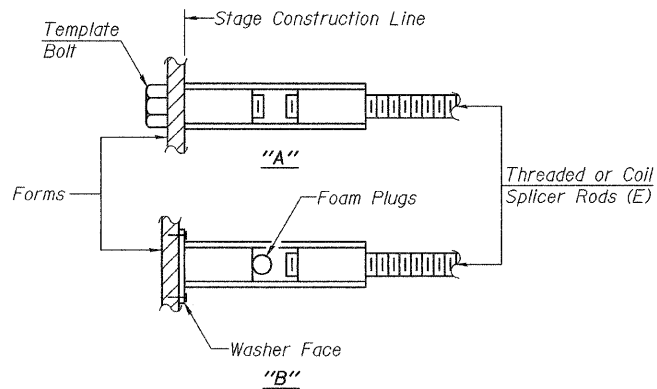
**BAR SPLICER ASSEMBLIES**

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



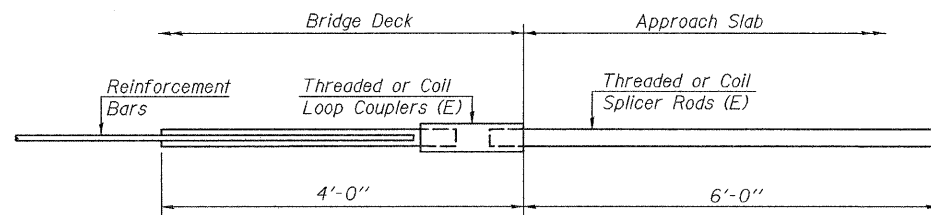
**BAR SPLICER ASSEMBLY ALTERNATIVES**

\*\*Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.

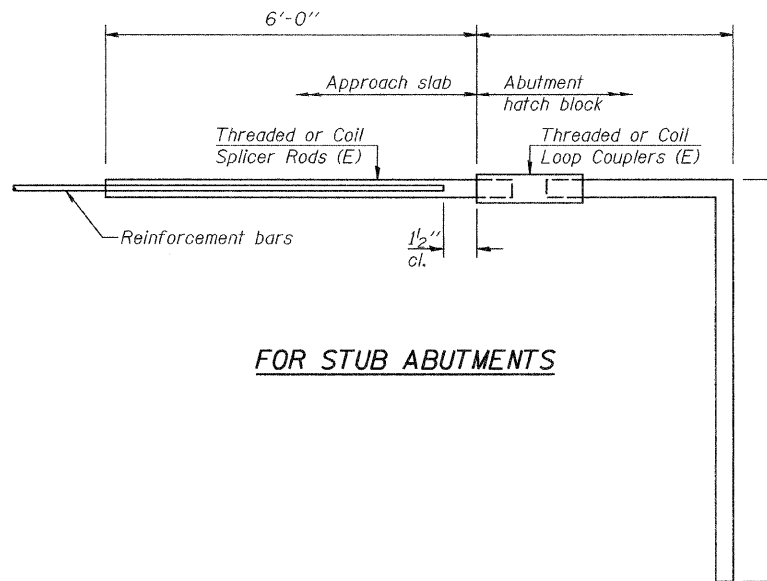


**INSTALLATION AND SETTING METHODS**

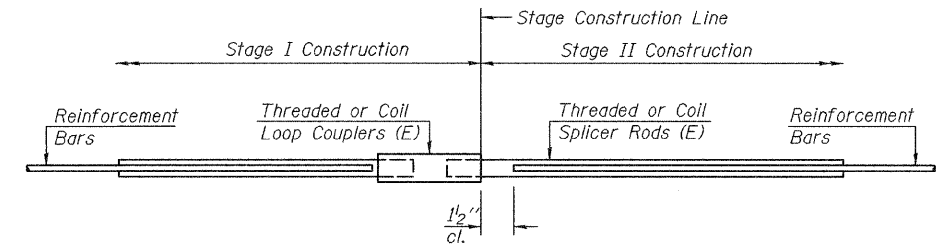
"A": Set bar splicer assembly by means of a template bolt.  
"B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.  
(E) : Indicates epoxy coating.



**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**



**FOR STUB ABUTMENTS**



**STANDARD**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 64

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =

Bar Size	No. Assemblies Required	Location
#5	257	Deck
#6	16	Diaphragm
#6	18	Abutments

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	BECKY M. LEACH
CHECKED	SMR/MDR

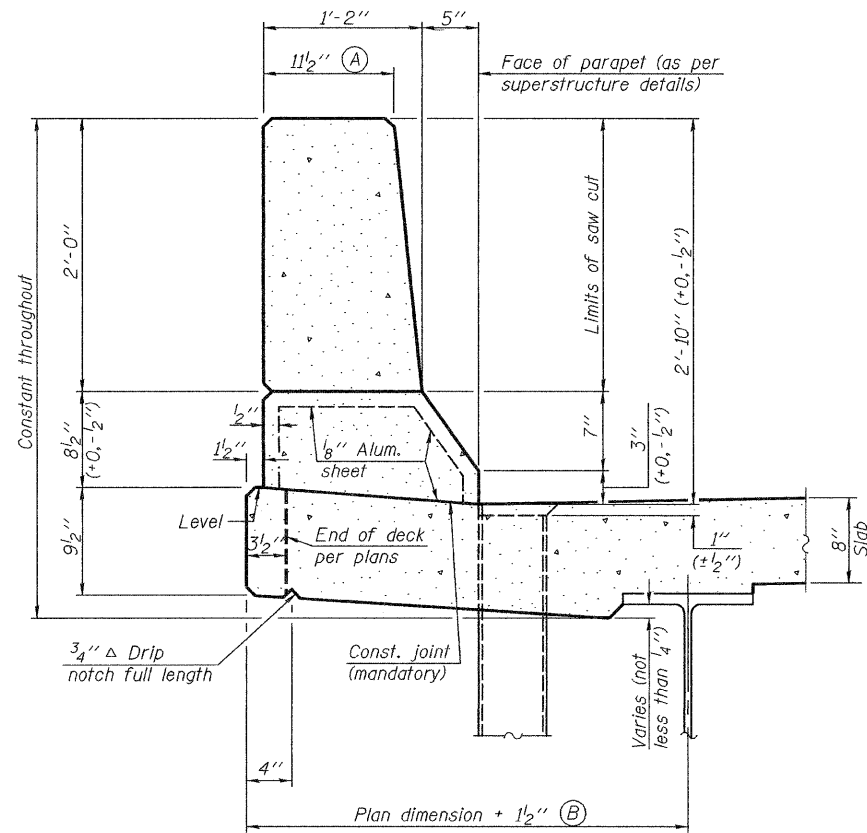
January 22, 2008  
EXAMINED *Thomas J. Domagalala*  
ENGINEER OF BRIDGE DESIGN  
PASSED *Ronald E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 5-16-08

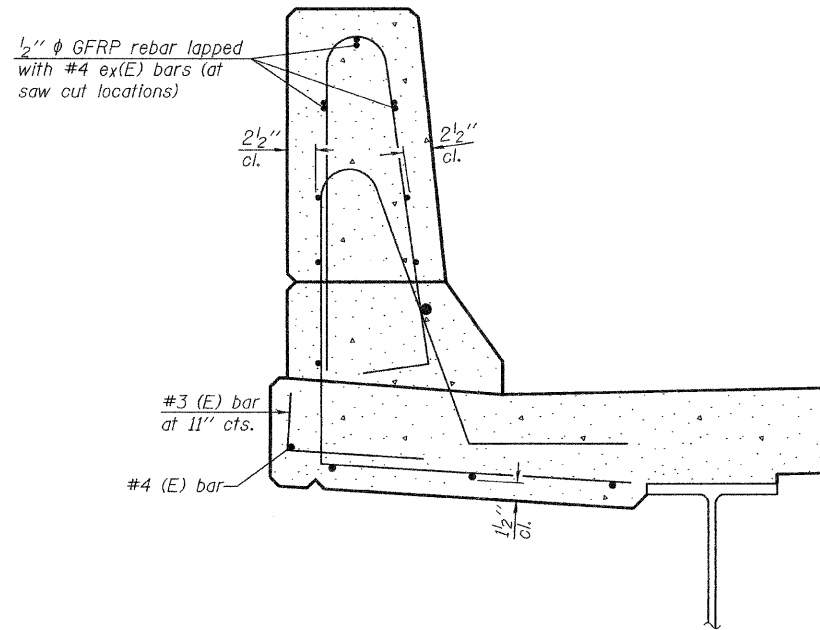
**BAR SPLICER ASSEMBLY DETAILS**  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

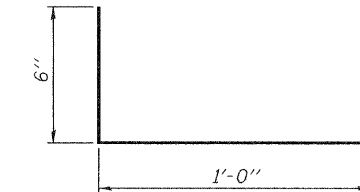
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 17 20 SHEETS
FAP 761	104-BR-2	GREENE	82	66	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #76987		



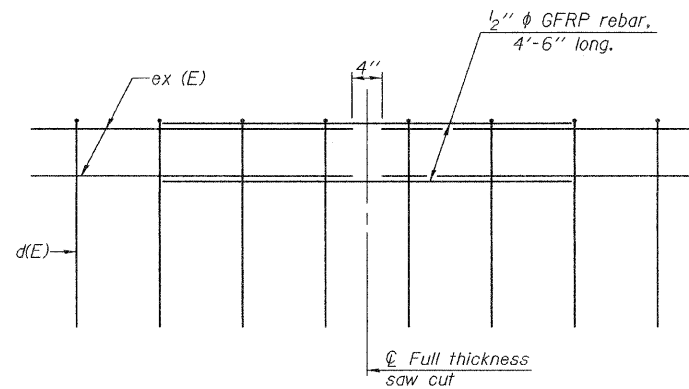
**SECTION**  
(Showing dimensions)



**SECTION**  
(Showing reinforcement clearances for slip forming and additional reinforcement bars)



**#3 (E) BAR**



**GFRP REBAR STIFFENING DETAIL**  
(Place as shown in parapet section at each parapet joint location.)

**CONCRETE PARAPET SLIPFORMING OPTION**  
**F.A.P. ROUTE 761 - SECTION 104-BR-2**  
**GREENE COUNTY**  
**STATION 1123+58.50**  
**STRUCTURE NO. 031-0042**

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	BECKY M. LEACH
CHECKED	SMR/MDR

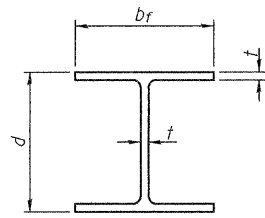
EXAMINED	January 22, 2008 <i>Thomas J. Damagala</i> PRINCIPAL ENGINEER OF STRUCTURE DESIGN
PASSED	<i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES

SFP-34 5-16-08

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

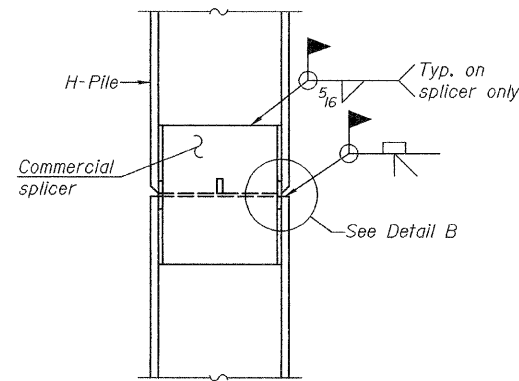
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 18 20 SHEETS
FAP 761	104-BR-2	GREENE	82	67	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76987

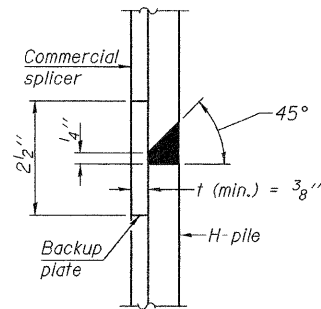


STEEL PILE TABLE

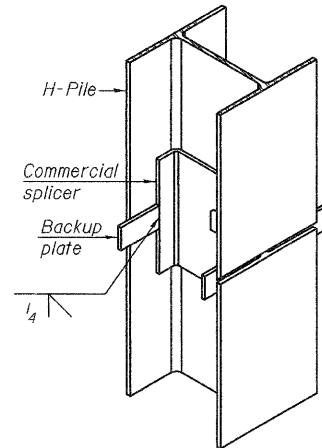
Designation	Depth d	Flange width b <sub>f</sub>	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/2"	7/16"	18"



ELEVATION

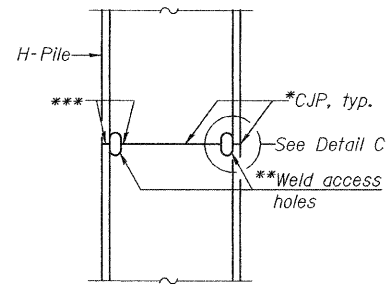


DETAIL "B"

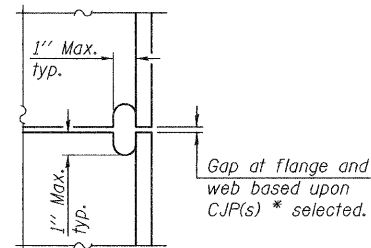


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



ELEVATION



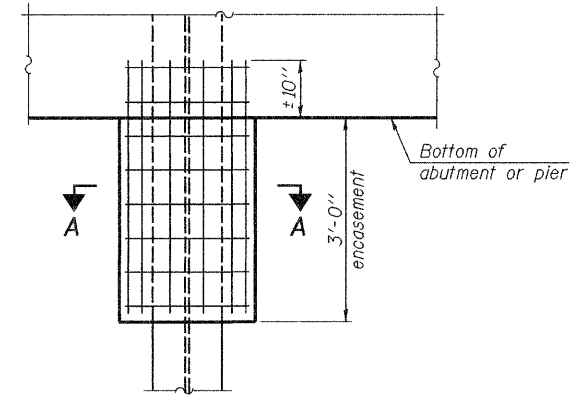
DETAIL C

COMPLETE PENETRATION WELD SPLICE

\*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code-Steel.

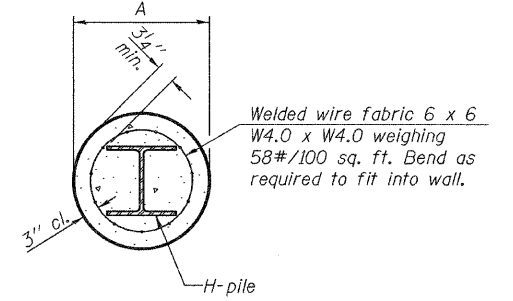
\*\*Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code-Steel.

\*\*\*Interrupt welds 1/4" from end of each pile.



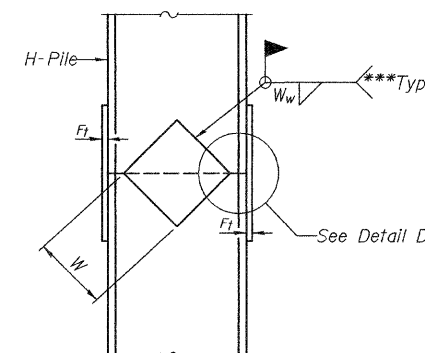
ELEVATION

PILE ENCASEMENT

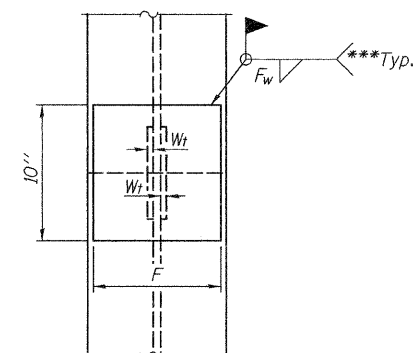


SECTION A-A

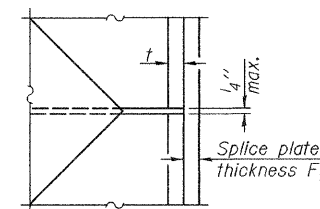
Note: Forms for encasement may be omitted when soil conditions permit.



ELEVATION



END VIEW



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F <sub>t</sub>	F <sub>w</sub>	W	W <sub>f</sub>	W <sub>w</sub>
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 8/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 8/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5 8/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 8/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5 8/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5 8/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

Note: The steel H-piles shall be according to AASHTO M270 Grade 50.

HP PILE DETAILS  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042

DESIGNED	Stephen M. Ryan
CHECKED	Michael D. Rolape
DRAWN	DECKY M. LEACH
CHECKED	SMR/MDR

January 22, 2008  
EXAMINED *Thomas J. Domagala*  
PASSED *Ralph E. Anderson*

F-HP 5-16-08

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 19 20 SHEETS
FAP 761	104-BR-2	GREENE	82	68	
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT-		

Contract #76987

**Illinois Department of Transportation SOIL BORING LOG** Page 1 of 2  
Date 3/1/72

ROUTE FAP 761 DESCRIPTION IL 108 over Taylor Creek Branch LOGGED BY J. King

SECTION 104BR-2 LOCATION SW 1/4, SEC. 16, TWP. 10N, R16E, R16W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE HQ# Automatic

STRUC. NO. 031-0042 (P) / Station 1123+55

BORING NO. I.E. Abut Station 1123+55.5  
Offset 6.000' Left  
Ground Surface Elev. 515.1 ft

DEPTH (ft)	SOIL TYPE	UNIFIED CLASSIFICATION	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX	PLASTIC LIMIT (%)	SHRINKAGE (%)	SHRINKAGE RATIO	FLUIDITY	LABORATORY TESTS
0	Surface Water Elev.									
0	Stream Bed Elev.									
0	Groundwater Elev.									
0	First Encounter Upon Completion									
0	After									
0	Ground Surface Elev.									
0	Gray Silty CLAY (continued)									
7	Gray CLAY	CL	0.65	27						
7			0.85	26						
5			0.65	29						
15	Gray Silty CLAY	CL	1.73	19						
15	Medium Brown and Gray SAND with Medium Gravel	MC								
16	Gray Clay TILL	CI	6.41	10						
80	Ground Level		6.50	10						
70	Gray Silty CLAY	CL	7.70	10						

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 SOIL BORING LOG** Page 2 of 2  
Date 3/1/72

ROUTE FAP 761 DESCRIPTION IL 108 over Taylor Creek Branch LOGGED BY J. King

SECTION 104BR-2 LOCATION SW 1/4, SEC. 16, TWP. 10N, R16E, R16W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE HQ# Automatic

STRUC. NO. 031-0042 (P) / Station 1123+55

BORING NO. I.E. Abut Station 1123+55.5  
Offset 6.000' Left  
Ground Surface Elev. 515.1 ft

DEPTH (ft)	SOIL TYPE	UNIFIED CLASSIFICATION	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX	PLASTIC LIMIT (%)	SHRINKAGE (%)	SHRINKAGE RATIO	FLUIDITY	LABORATORY TESTS
50	Gray Clay TILL (continued)	CI	8.31	10						
85			7.50	11						
470.1	END OF BORING									

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 SOIL BORING LOG** Page 1 of 2  
Date 3/3/72

ROUTE FAP 761 DESCRIPTION IL 108 over Taylor Creek Branch LOGGED BY J. King

SECTION 104BR-2 LOCATION SW 1/4, SEC. 16, TWP. 10N, R16E, R16W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE HQ# Automatic

STRUC. NO. 031-0042 (P) / Station 1123+55

BORING NO. P.W. Abut Station 1123+45  
Offset 5.500' Right  
Ground Surface Elev. 515.1 ft

DEPTH (ft)	SOIL TYPE	UNIFIED CLASSIFICATION	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX	PLASTIC LIMIT (%)	SHRINKAGE (%)	SHRINKAGE RATIO	FLUIDITY	LABORATORY TESTS
5	Brown and Gray Silty CLAY (continued)		0.59	27						
5	Gray Medium SAND with Gravel	MC								
13	Gray Clay TILL	CI	1.63	26						
15	Ground Level		0.98	21						
15	Gray Sandy SILT	SI								
9	Gray Medium SAND and GRAVEL	MC								
5	Gray Clay TILL	CI	6.52	10						
4			0.52	28						
5	Brown and Gray Silty CLAY		0.52	27						

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 SOIL BORING LOG** Page 2 of 2  
Date 3/3/72

ROUTE FAP 761 DESCRIPTION IL 108 over Taylor Creek Branch LOGGED BY J. King

SECTION 104BR-2 LOCATION SW 1/4, SEC. 16, TWP. 10N, R16E, R16W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE HQ# Automatic

STRUC. NO. 031-0042 (P) / Station 1123+55

BORING NO. P.W. Abut Station 1123+45  
Offset 5.500' Right  
Ground Surface Elev. 515.1 ft

DEPTH (ft)	SOIL TYPE	UNIFIED CLASSIFICATION	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX	PLASTIC LIMIT (%)	SHRINKAGE (%)	SHRINKAGE RATIO	FLUIDITY	LABORATORY TESTS
50	Gray Clay TILL (continued)		7.62	6						
52			7.91	10						
470.1	END OF BORING									

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**  
**F.A.P. ROUTE 761 - SECTION 104-BR-2**  
**GREENE COUNTY**  
**STATION 1123+58.50**  
**STRUCTURE NO. 031-0042**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**Illinois Department of Transportation SOIL BORING LOG** Page 1 of 3  
Date 3/20/08

ROUTE FAP 761 DESCRIPTION IL 108 over Taylor Creek Branch LOGGED BY S. Wiszka

SECTION 104BR-2 LOCATION SW 1/4, SEC. 16, TWP. 10N, R10E, S1W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE H0# Automatic

STRUCT. NO. 031-0042 (P) / Station 1123+55

BORING NO. 3 E. Abut Station 1124+19

Offset 1100ft Left Ground Surface Elev. 515.1 ft

SOIL TYPE	DEPTH (ft)	LOG	TESTS	REMARKS
Asphalt / Concrete Pavement (as per old plans)	0.0			
Brown Silty Clay LOAM	0.0 - 2.0	114	27	
Brown/Gray Silty CLAY	2.0 - 4.0	114	26	
Dark Gray Sil LOAM	4.0 - 7.0	0.81	19	
Dark Gray Sandy SILT	7.0 - 10.0	0.33	23	
Dark Gray Sandy Clayey SILT	10.0 - 15.0	0.68	20	
SEE 1012 EAST ABUTMENT BORING - NO SAMPLES TAKEN	15.0 - 20.0			

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 SOIL BORING LOG** Page 2 of 3  
Date 3/20/08

ROUTE FAP 761 DESCRIPTION IL 108 over Taylor Creek Branch LOGGED BY S. Wiszka

SECTION 104BR-2 LOCATION SW 1/4, SEC. 16, TWP. 10N, R10E, S1W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE H0# Automatic

STRUCT. NO. 031-0042 (P) / Station 1123+55

BORING NO. 3 E. Abut Station 1124+19

Offset 1100ft Left Ground Surface Elev. 515.1 ft

SOIL TYPE	DEPTH (ft)	LOG	TESTS	REMARKS
SEE 1012 EAST ABUTMENT BORING - NO SAMPLES TAKEN	0.0 - 4.0			
Gray Clay TILL	4.0 - 8.0	13	3.42	II
END OF DRILLING - 3/20 RESUME DRILLING - 3/21	8.0 - 12.0			
Gray Clay TILL	12.0 - 15.0	9	3.91	II
Gray Clay TILL	15.0 - 18.0	13	3.59	12
Gray Clay TILL	18.0 - 20.0	7		

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 SOIL BORING LOG** Page 3 of 3  
Date 3/20/08

ROUTE FAP 761 DESCRIPTION IL 108 over Taylor Creek Branch LOGGED BY S. Wiszka

SECTION 104BR-2 LOCATION SW 1/4, SEC. 16, TWP. 10N, R10E, S1W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE H0# Automatic

STRUCT. NO. 031-0042 (P) / Station 1123+55

BORING NO. 3 E. Abut Station 1124+19

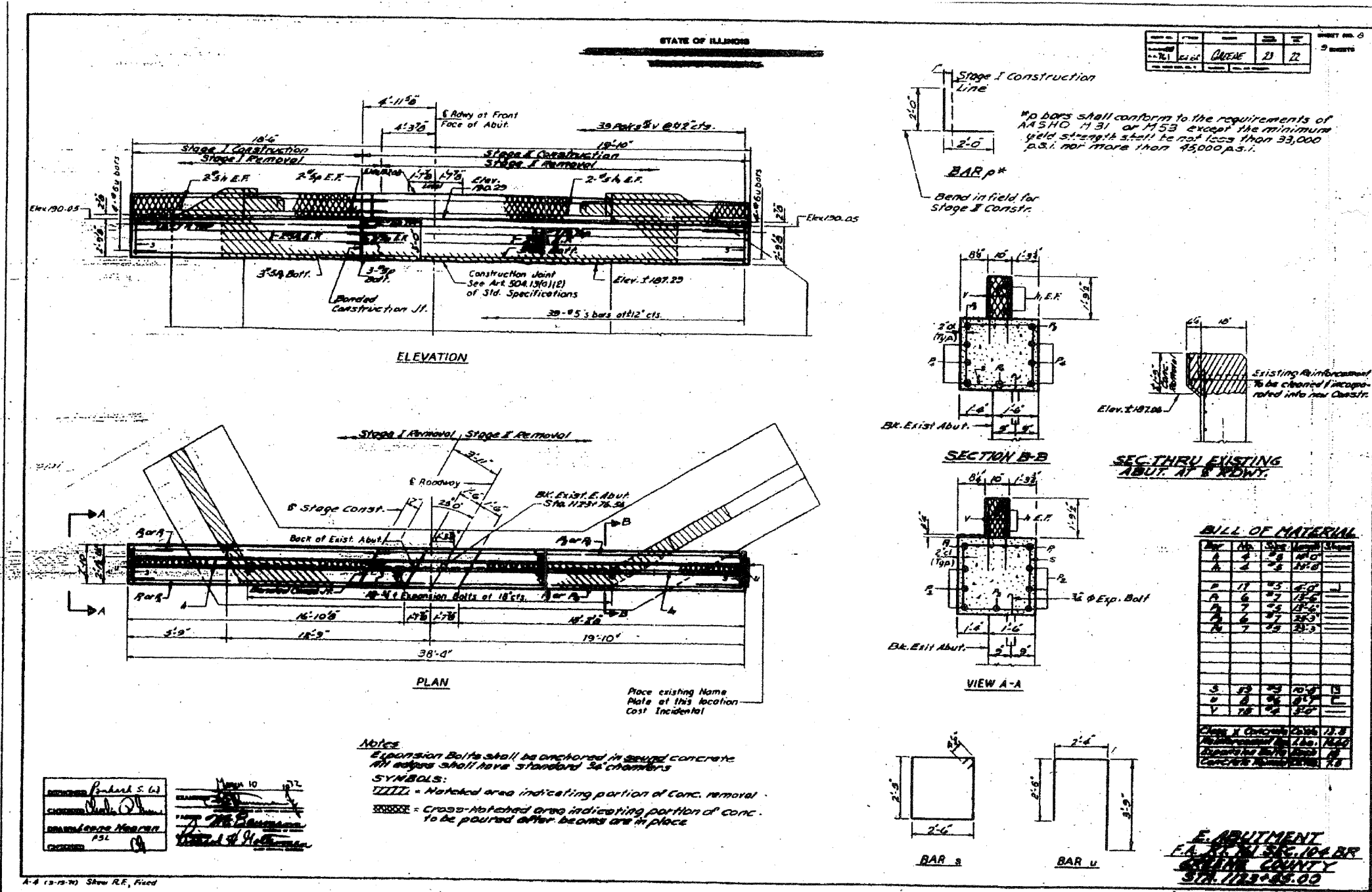
Offset 1100ft Left Ground Surface Elev. 515.1 ft

SOIL TYPE	DEPTH (ft)	LOG	TESTS	REMARKS
Gray Clay TILL	20.0 - 22.0	8	1.50	11
Gray Clay TILL	22.0 - 24.0	11	2.28	11
END OF BORING - RAN OUT OF AUGERS	24.0 - 26.0			
Gray Clay TILL	26.0 - 28.0	6		
Gray Clay TILL	28.0 - 30.0	9		
Gray Clay TILL	30.0 - 32.0	13	NS	
Gray Clay TILL	32.0 - 34.0	7		
Gray Clay TILL	34.0 - 36.0	10		
Gray Clay TILL	36.0 - 38.0	12	NS	
Gray Clay TILL	38.0 - 40.0	5		
Gray Clay TILL	40.0 - 42.0	8		
Gray Clay TILL	42.0 - 44.0	14	NS	
Gray Clay TILL	44.0 - 46.0	6		

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**  
F.A.P. ROUTE 761 - SECTION 104-BR-2  
GREENE COUNTY  
STATION 1123+58.50  
STRUCTURE NO. 031-0042

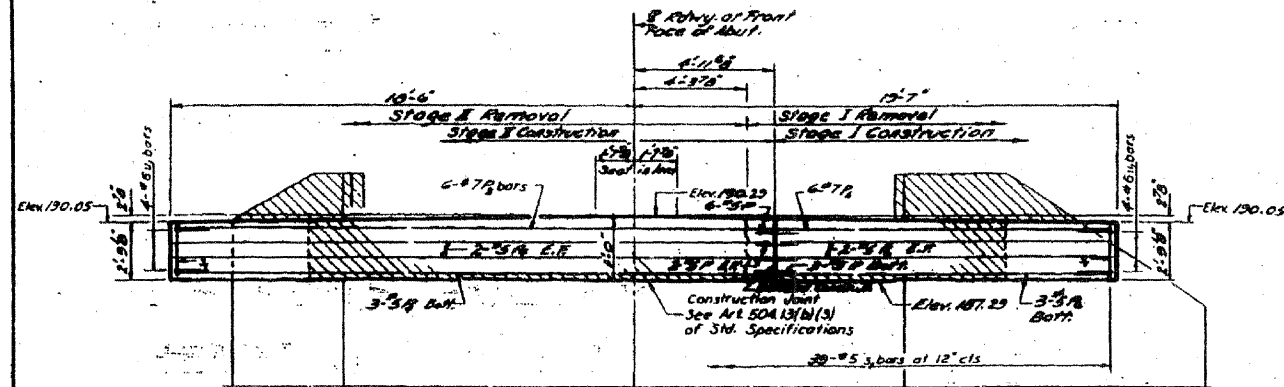


FOR INFORMATION ONLY

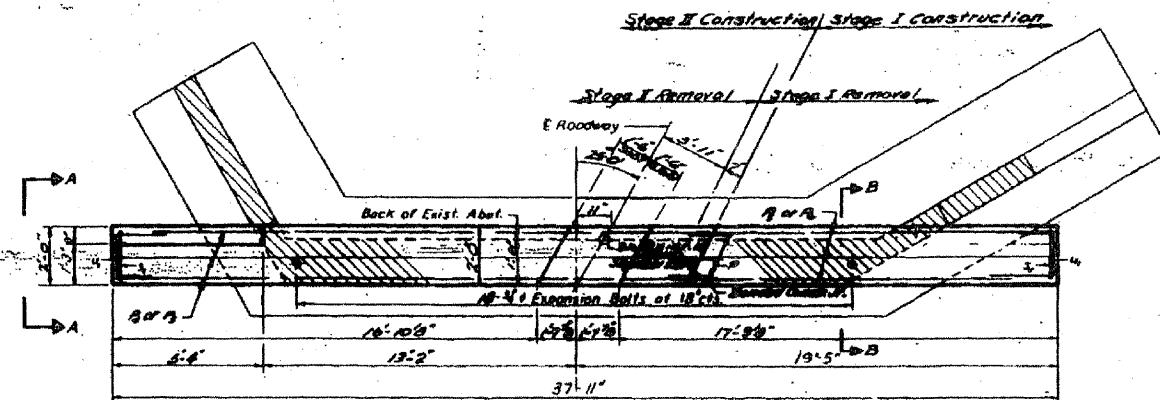
FILE NAME =	USER NAME = ha-baughrd	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION DETAILS (SN 031-0042)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pwrk\pwwork\HARBALGH\RD\dms51889\m01506a.dgn		DRAWN -	REVISED -			761	104-BR-2	GREENE	82	70	
PLOT SCALE = 1/8" = 1'-0" / IN.		CHECKED -	REVISED -			SCALE: N.T.S.		SHEET NO. 70 OF 84 SHEETS		STA. TO STA.	
PLOT DATE = 12/12/2889		DATE -	REVISED -			SHEET NO. 70 OF 84 SHEETS		STA. TO STA.		CONTRACT NO. T6987	
					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT						

STATE OF ILLINOIS

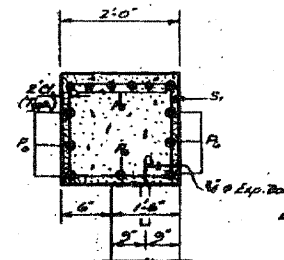
DATE	BY	CHKD	APP'D
12/10/00	GREENE	EB	EB



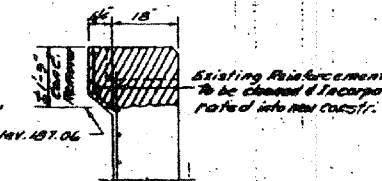
ELEVATION



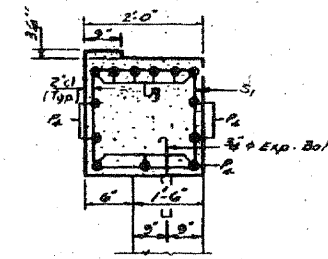
PLAN



SECTION B-B



SEC. THRU EXISTING ABUT. AT E. RDWY.



VIEW A-A

**BILL OF MATERIAL**

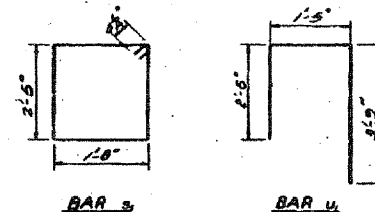
Bar	Qty	Exp. Bolts	Concrete Removal
P	7	0	0
A	9	0	0
B	6	0	0
C	7	0	0
S	20	0	0
U	0	0	0

Class A Concrete	Cu. Yds.	7.9
Reinforcement Bars	Lbs.	1220
Expansion Bolts	Each	70
Concrete Removal	Cu. Yds.	0

Notes:  
 Hatched area indicates Concrete Removal. Reinforcement extending into removed area shall be cleaned and incorporated into the new construction.  
 Expansion Bolts shall be anchored in sound concrete.  
 All edges shall have standard 3/4 chamfers.  
 For detail of Bar P see sheet #3

DESIGNED	Paul S. W.	DATE	MARCH 10 1972
CHECKED	Charles D. Jones		
DRAWN	George M. Jones		
INCHES	1/8"		



BAR S

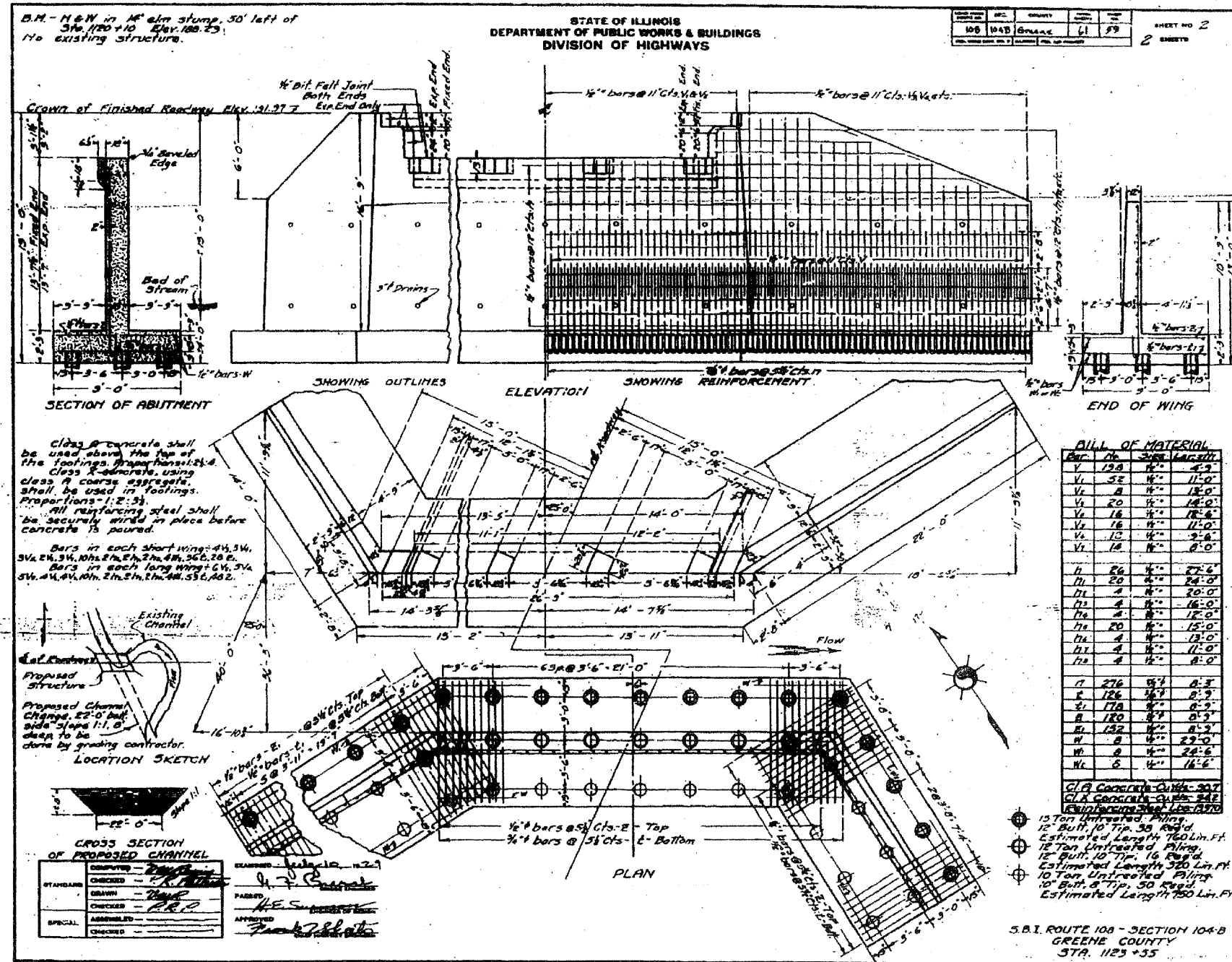
BAR U

**LABORATORY**  
 P.L. ...  
 ...  
 ...

A-4 12-15-71 Show R.F. Fixed

FOR INFORMATION ONLY

FILE NAME =	USER NAME = horbaughrd	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION DETAILS (SN 031-0042)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pwwork\NPI\DOT\HARBAUGH\RD\dms51889\...	in@1506e.dgn	DRAWN -	REVISED -			761	104-BR-2	GREENE	82	71
PLOT SCALE = 1/8" = 1'-0"	PLT DATE = 12/10/2000	CHECKED -	REVISED -			SCALE: NTS	SHEET NO. 71 OF 84 SHEETS	STA.	TO STA.	CONTRACT NO. 76987
		DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

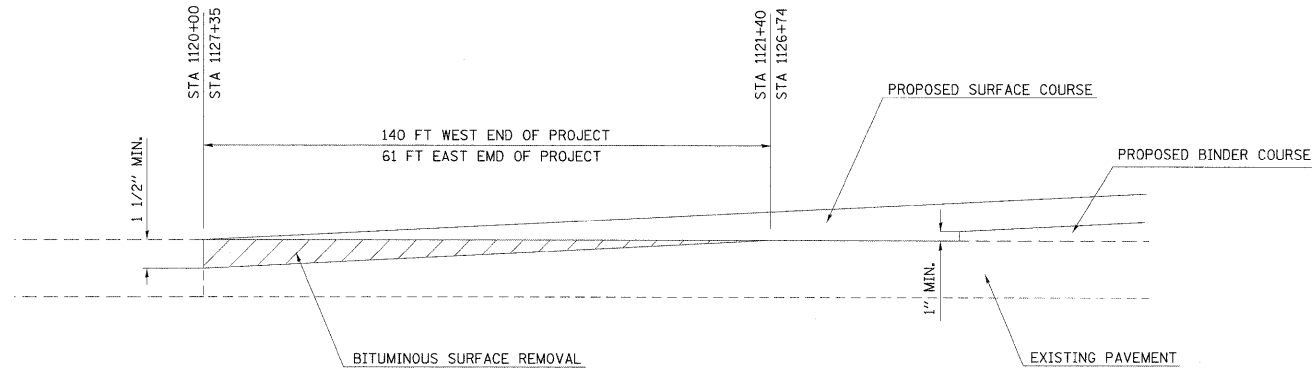


FOR INFORMATION ONLY

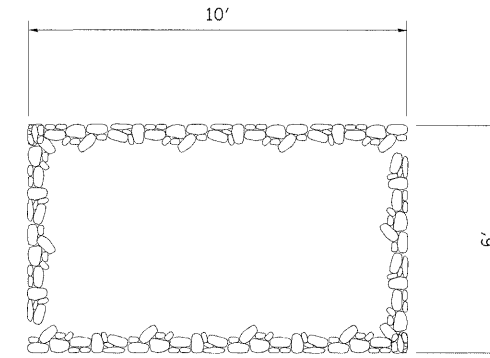
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cr:\pwr\work\VP\DOT\HRBAUGHND\dm51889\in\1506.dgn	PLOT SCALE = 1/8" = 1' IN.	DRAWN -	REVISED -			761	104-BR-2	GREENE	82	72
PLOT DATE = 12/10/2008	DATE	CHECKED -	REVISED -			CONTRACT NO. 76987				
		DATE	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SCALE: NTS      SHEET NO. 72 OF 84 SHEETS      STA.      TO STA.

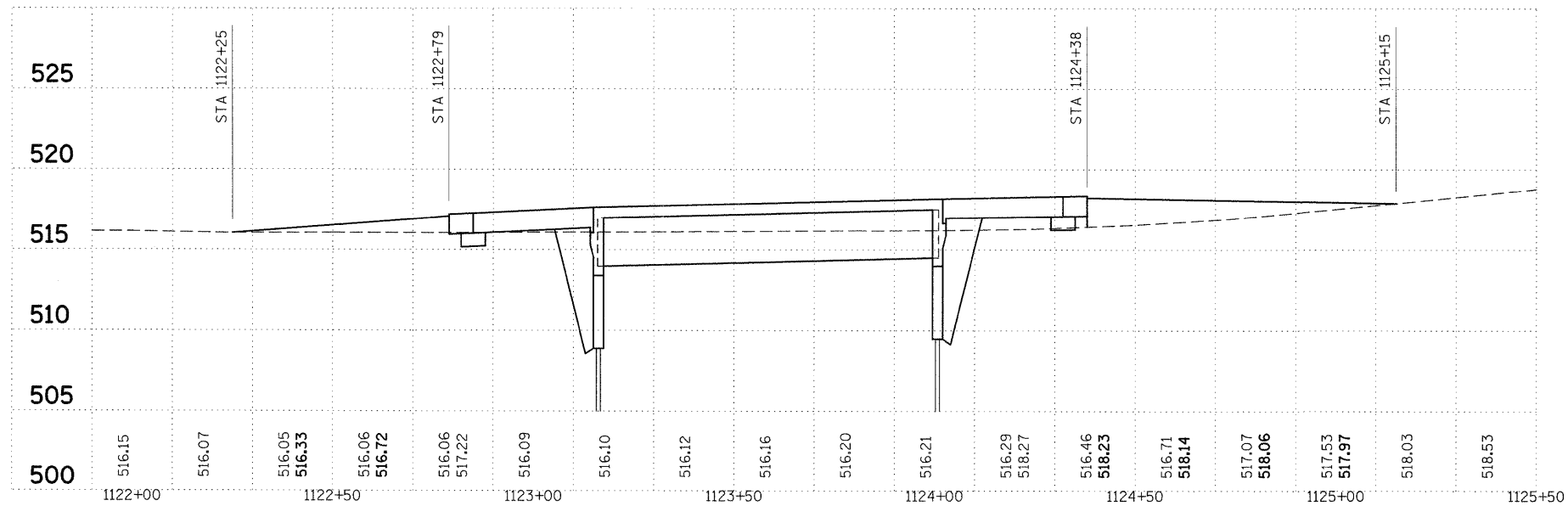




BUTT JOINT DETAIL  
DETAIL 'A'



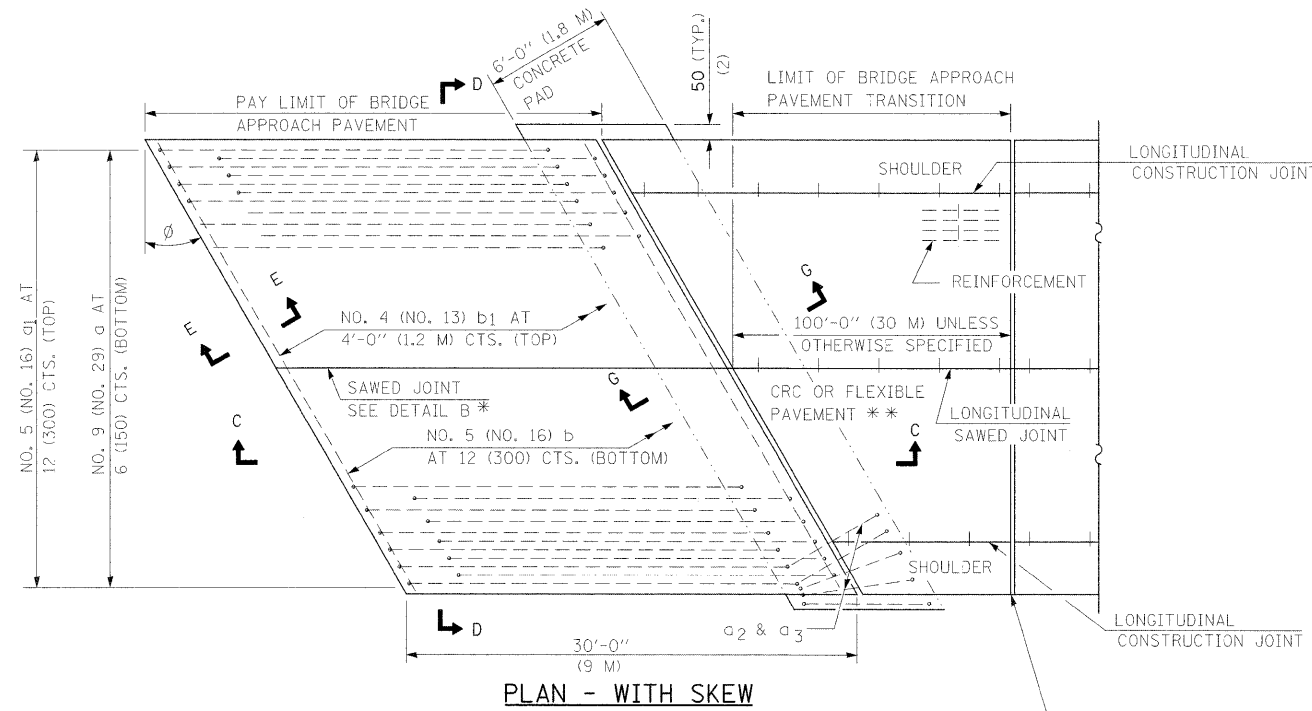
STONE RIPRAP, CLASS A3 DETAIL  
DETAIL 'B'



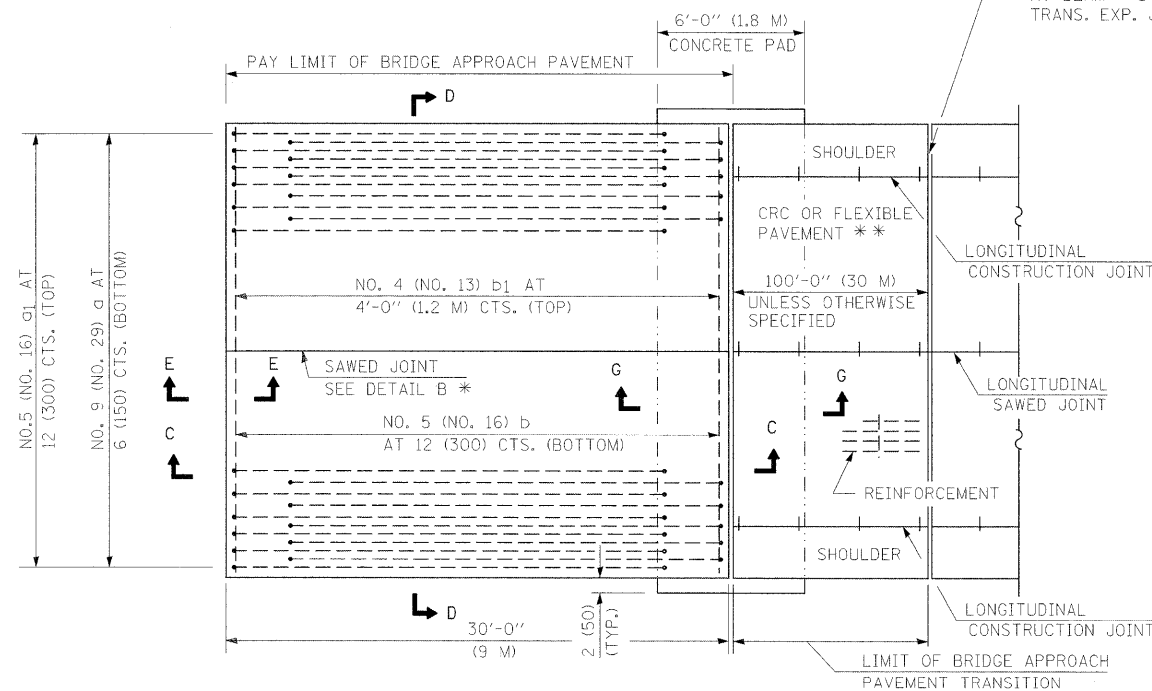
STAGING RAMP DETAIL  
DETAIL 'C'

FILE NAME =	USER NAME = har.baughrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MISCELLANEOUS DETAILS (SN 031-0042)</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pw_work\pwsdot\har.baughrd\dms51889\p	01506a.dgn	DRAWN -	REVISED -					761	104-BR-2	GREENE	82	73
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED -					CONTRACT NO. 76987				
PLOT DATE = 12/10/2008		DATE -	REVISED -					FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				
				SCALE: NTS				SHEET NO.	OF	SHEETS	STA.	TO STA.

**NEW CONSTRUCTION**

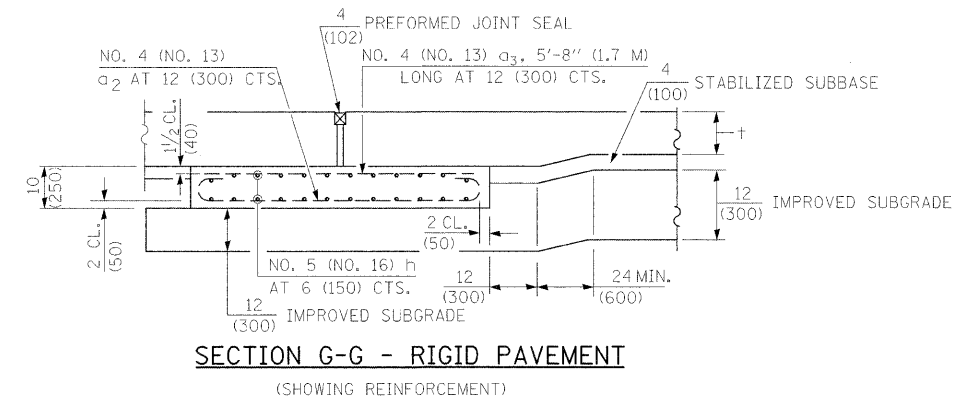
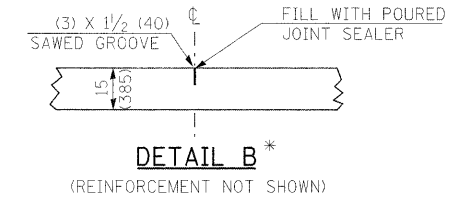


**PLAN - WITH SKEW**

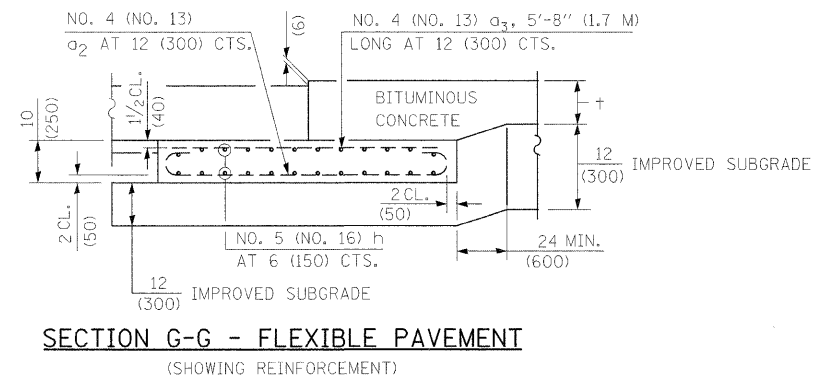


**PLAN - WITHOUT SKEW**

RIGID PAVEMENT ONLY:  
 WIDE FLANGE BEAM TERMINAL JOINT (SEE DETAIL AT BEAM - STANDARD 421101 OR 421106) OR 2 (50) TRANS. EXP. JOINT AS DETAILED ON STANDARD 420001.



**SECTION G-G - RIGID PAVEMENT**



**SECTION G-G - FLEXIBLE PAVEMENT**

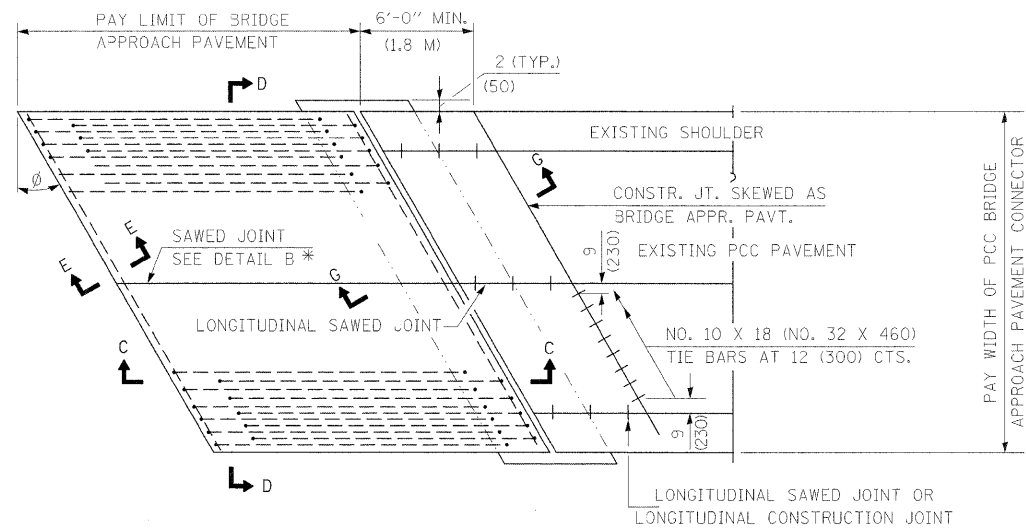
**GENERAL NOTES**

- THICKNESS-"t"=THICKNESS OF PAVEMENT.
- SEE STANDARD 421001 FOR REINFORCEMENT DETAILS NOT SHOWN.
- SEE STANDARD 420001 FOR JOINT DETAILS NOT SHOWN.
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

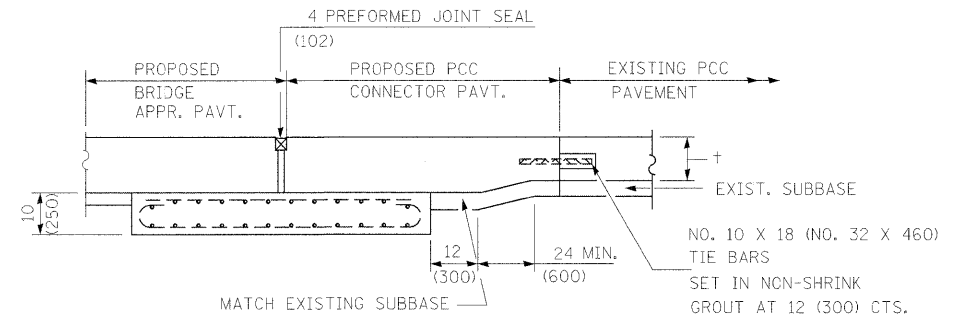
\* SAW  $\phi$  OR LANE EDGE IF Poured TWO OR MORE LANE WIDTHS AT A TIME.  
 \*\* OMIT REINFORCEMENT, TIE BARS AND LONG. SAWED JT. FOR FLEXIBLE PAVEMENT.

FILE NAME =	USER NAME = harbaughrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MISCELLANEOUS DETAILS BRIDGE APPROACH PAVEMENT DETAIL</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01\pw\work\pws\d01\harbaughrd\dms51889\p01506a.dgn	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -					761	104-BR-2	GREENE	82	74
PLOT DATE = 12/18/2008	DATE -	CHECKED -	REVISED -		SCALE: SHEET NO. 1 OF 4 SHEETS STA. TO STA.			CONTRACT NO. 76987				
		DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

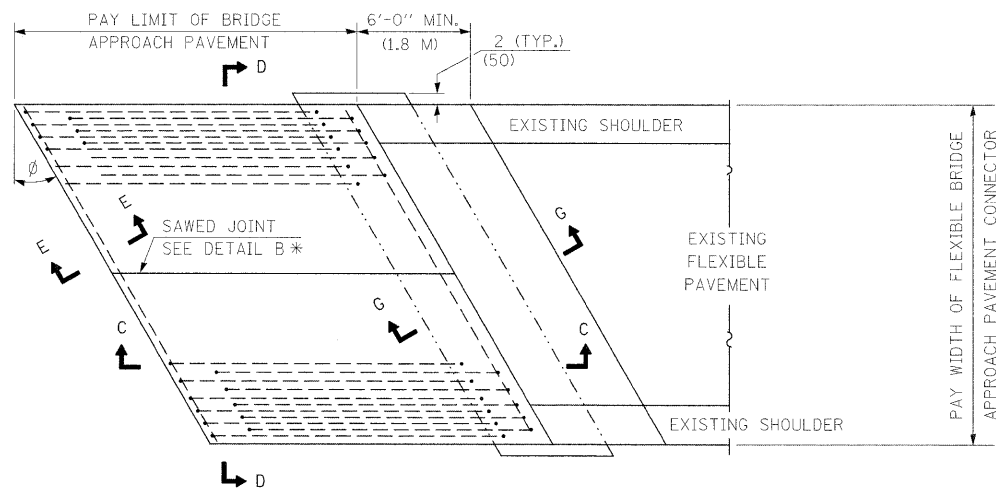
EXISTING CONSTRUCTION



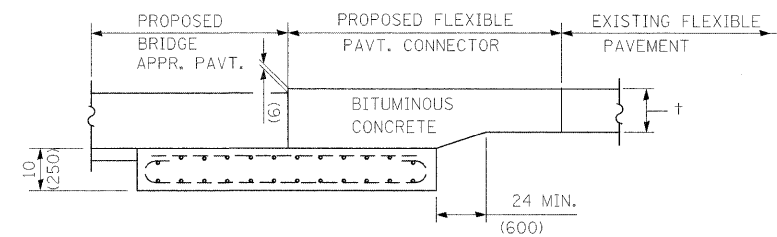
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)



SECTION G-G - RIGID PAVEMENT

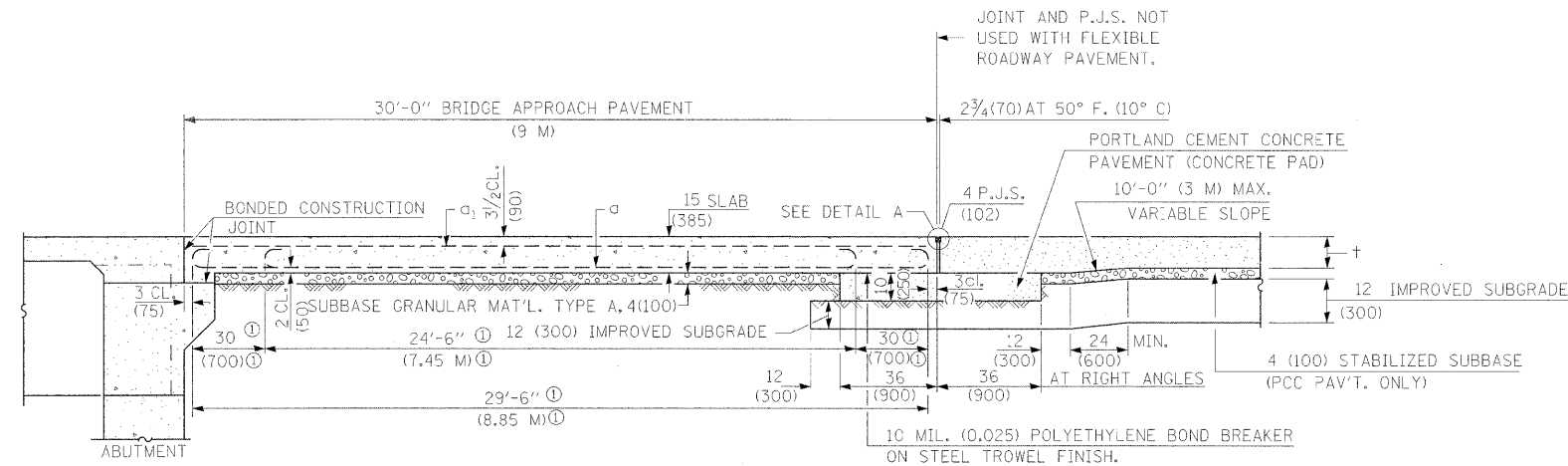


BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)



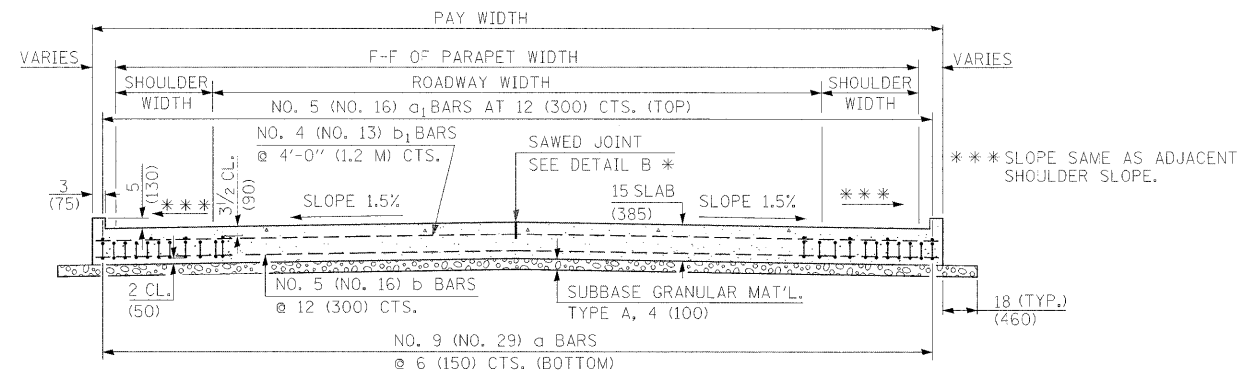
SECTION G-G - FLEXIBLE PAVEMENT

FILE NAME =	USER NAME = harbaughrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MISCELLANEOUS DETAILS BRIDGE APPROACH PAVEMENT DETAIL</b>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
est\work\pmsdot\harbaughrd\dms51889\p	h01566a.dgn	DRAWN -	REVISED -				761	104-BR-2	GREENE	82	75
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED -		SCALE: SHEET NO. 2 OF 4 SHEETS STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		CONTRACT NO. 76987		
PLOT DATE = 12/18/2008		DATE -	REVISED -								



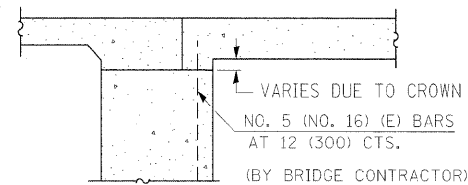
**SECTION C-C**

① STAGGER NO. 9 (NO. 29) A BARS AS SHOWN ON PLAN - FULL WIDTH



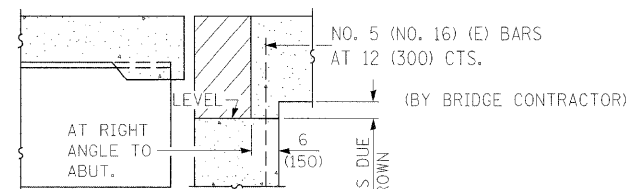
**SECTION D-D**

(SEE PLAN FOR DIMENSIONS NOT SHOWN)



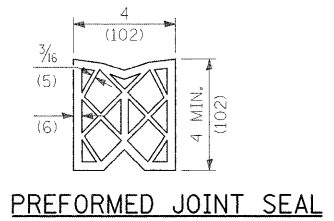
**SECTION E-E**

(INTEGRAL ABUTMENTS)

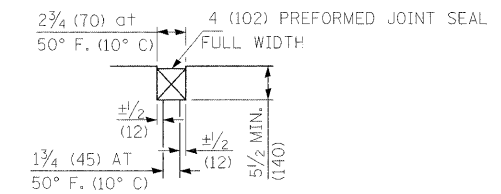


**SECTION E-E**

(JOINTED ABUTMENTS)

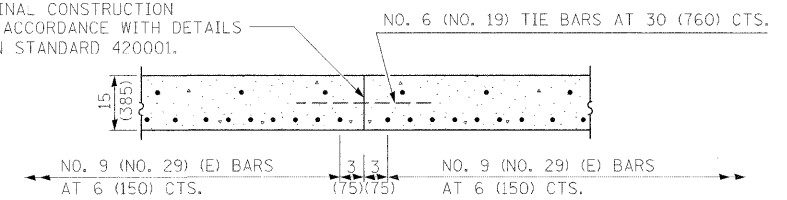


**PREFORMED JOINT SEAL**



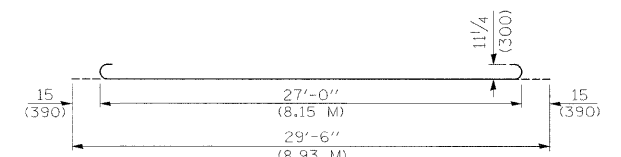
**DETAIL A**

LONGITUDINAL CONSTRUCTION JOINT IN ACCORDANCE WITH DETAILS SHOWN ON STANDARD 420001.

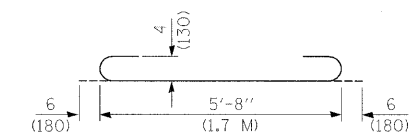


**OPTIONAL LONGITUDINAL CONSTRUCTION JOINT**

AS APPROVED BY THE ENGINEER, THE CONTRACTOR MAY ELECT TO REDUCE THE WIDTHS OF POUR BY USE OF THE OPTIONAL LONGITUDINAL CONSTRUCTION JOINT SHOWN. JOINTS SHALL BE LOCATED AT THE EDGE OF A TRAFFIC LANE.



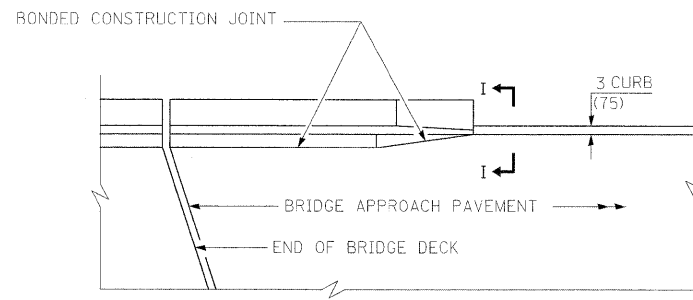
**BAR a**



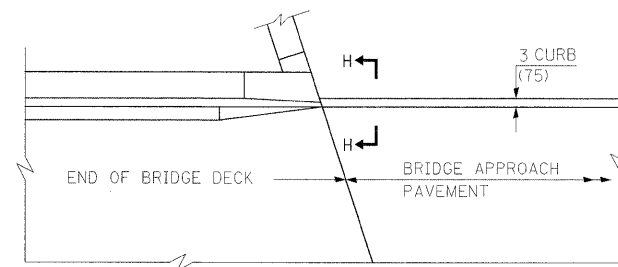
**BAR a2**

**DESIGN STRESSES**  
 $f_y = 60,000$  P.S.I. (400 MPA)  
 $f'_c = 3,500$  P.S.I. (24 MPA)  
 $n = 8.5$

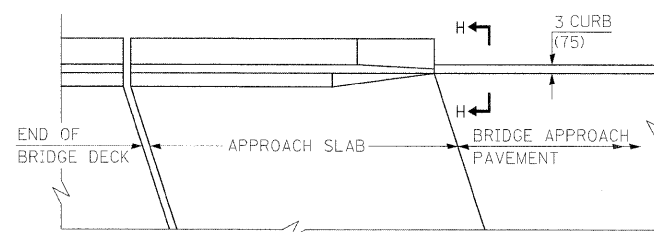
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at:\pw\work\pav\dos\harbaughrd\dms51889\p	h01506a.dgn	DRAWN -	REVISED -		SCALE:	SHEET NO. 3 OF 4 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	<b>CONTRACT NO. 76987</b>	
		CHECKED -	REVISED -									
		DATE -	REVISED -									



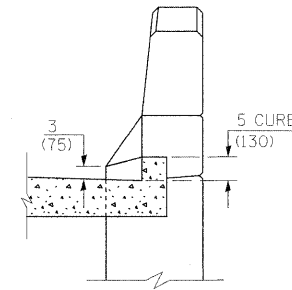
**PARAPET TO CURB TRANSITION  
PILE BENT ABUTMENT**



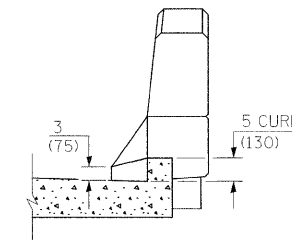
**PARAPET TO CURB TRANSITION  
INTEGRAL ABUTMENT**



**PARAPET TO CURB TRANSITION  
VAULTED ABUTMENT**



**SECTION I - I**

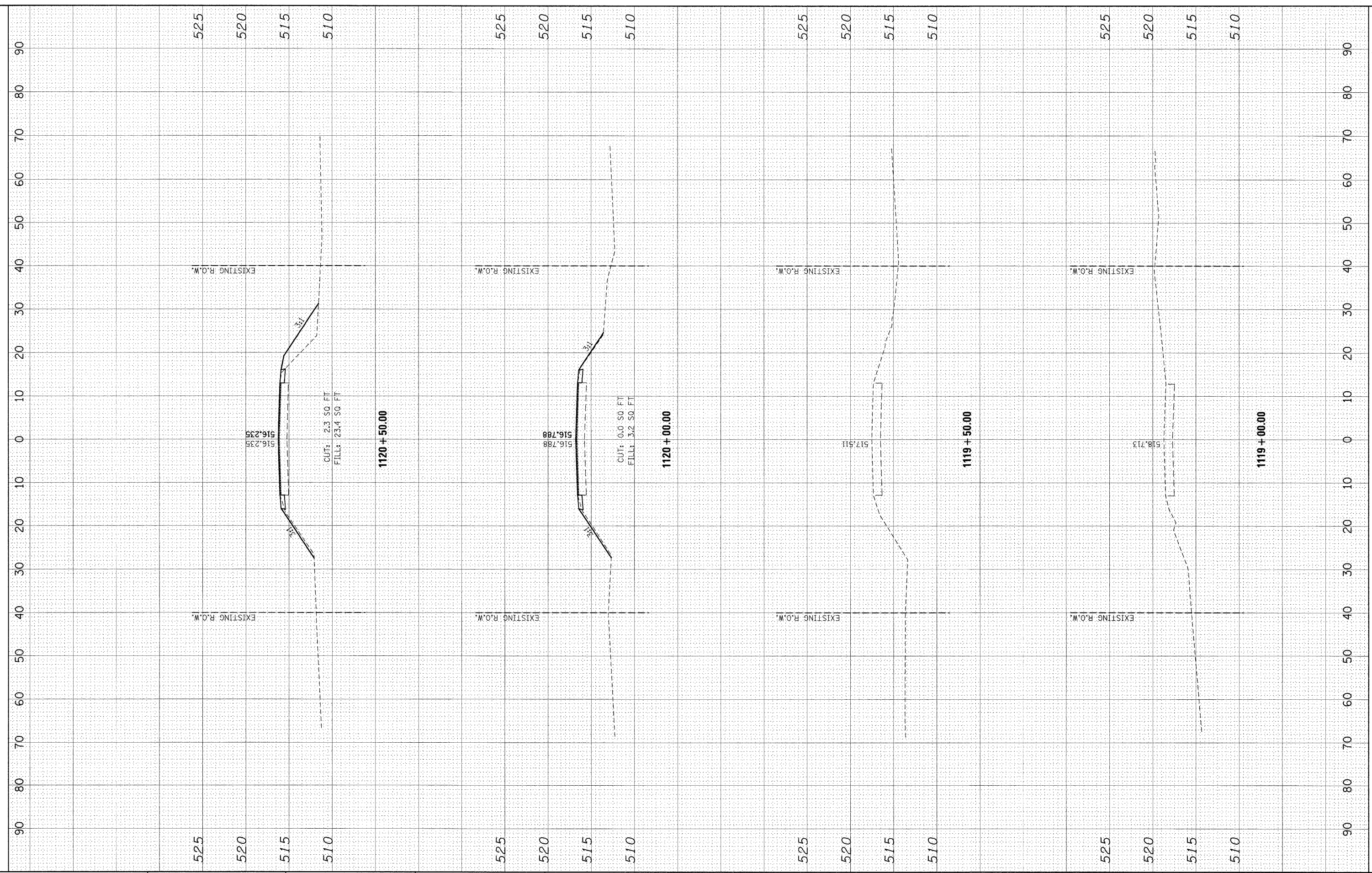


**SECTION H - H**

FILE NAME =	USER NAME = harbaughrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MISCELLANEOUS DETAILS BRIDGE APPROACH PAVEMENT DETAIL</b>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pwork\pwork\harbaughrd\dms51889\p	h01506a.dgn	DRAWN -	REVISED -		761	104-BR-2	GREENE	82	77		
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -		SCALE: SHEET NO. 4 OF 4 SHEETS STA. TO STA.		CONTRACT NO. 76987				
	PLOT DATE = 12/10/2008	DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT						

DATE	BY
SURVEYED	PLOTTED
NOTE BOOK	TEMPLATE
AREAS CHECKED	

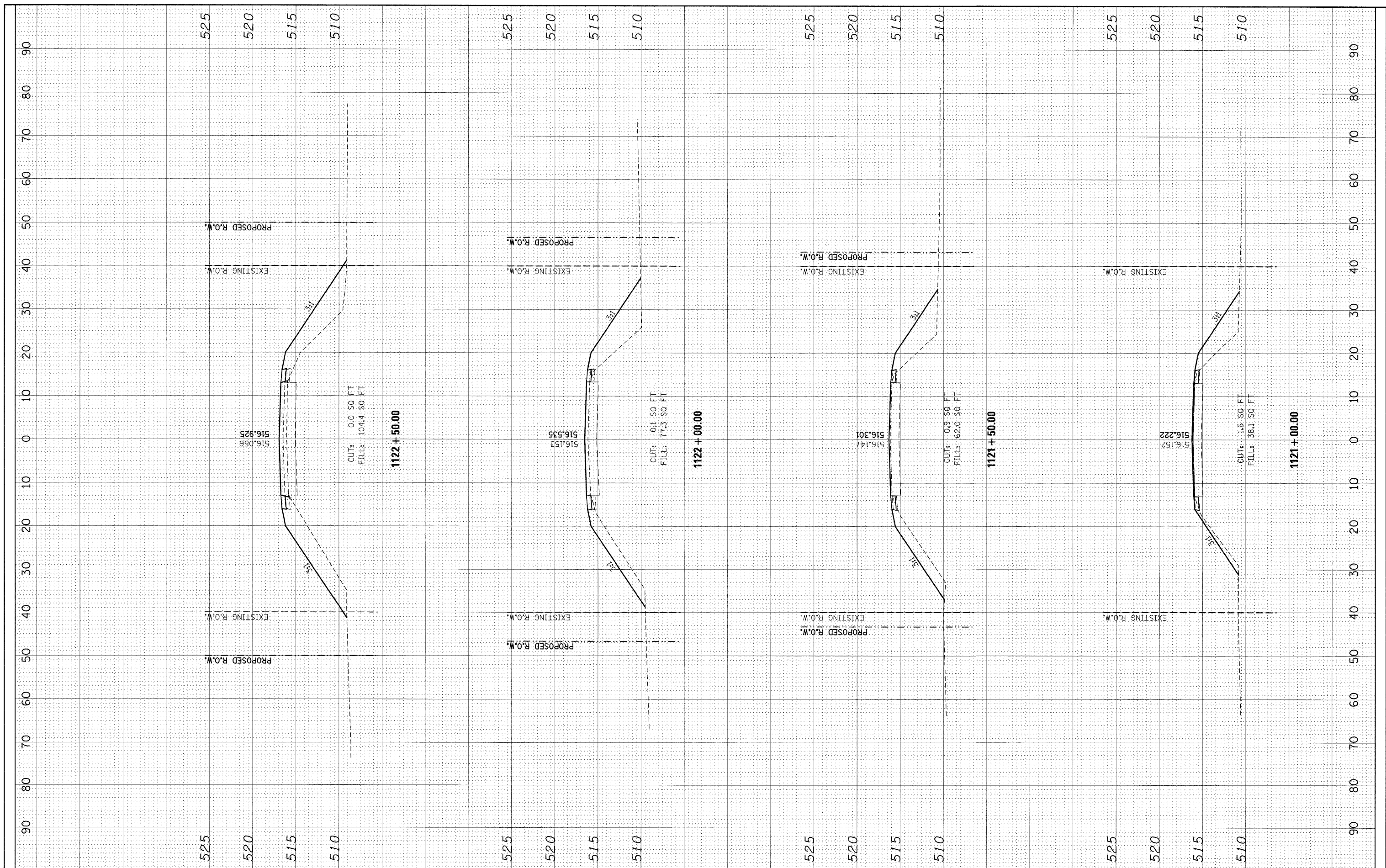
DATE	BY
SURVEYED	PLOTTED
NOTE BOOK	TEMPLATE
AREAS CHECKED	



FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTION (SN 031-0042)</b>			F.A.P. RTE. 761	SECTION 104-BR-2	COUNTY GREENE	TOTAL SHEETS 82	SHEET NO. 78
		DRAWN -	REVISED -		SCALE: SHEET NO. 1 OF 5 SHEETS	STA. 1119+00.00 TO STA. 1120+50.00	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	<b>CONTRACT NO. 76987</b>				
		CHECKED -	REVISED -									
		DATE -	REVISED -									

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

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



FILE NAME = #FILE#

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 DRAWN -  
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REVISED -  
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 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

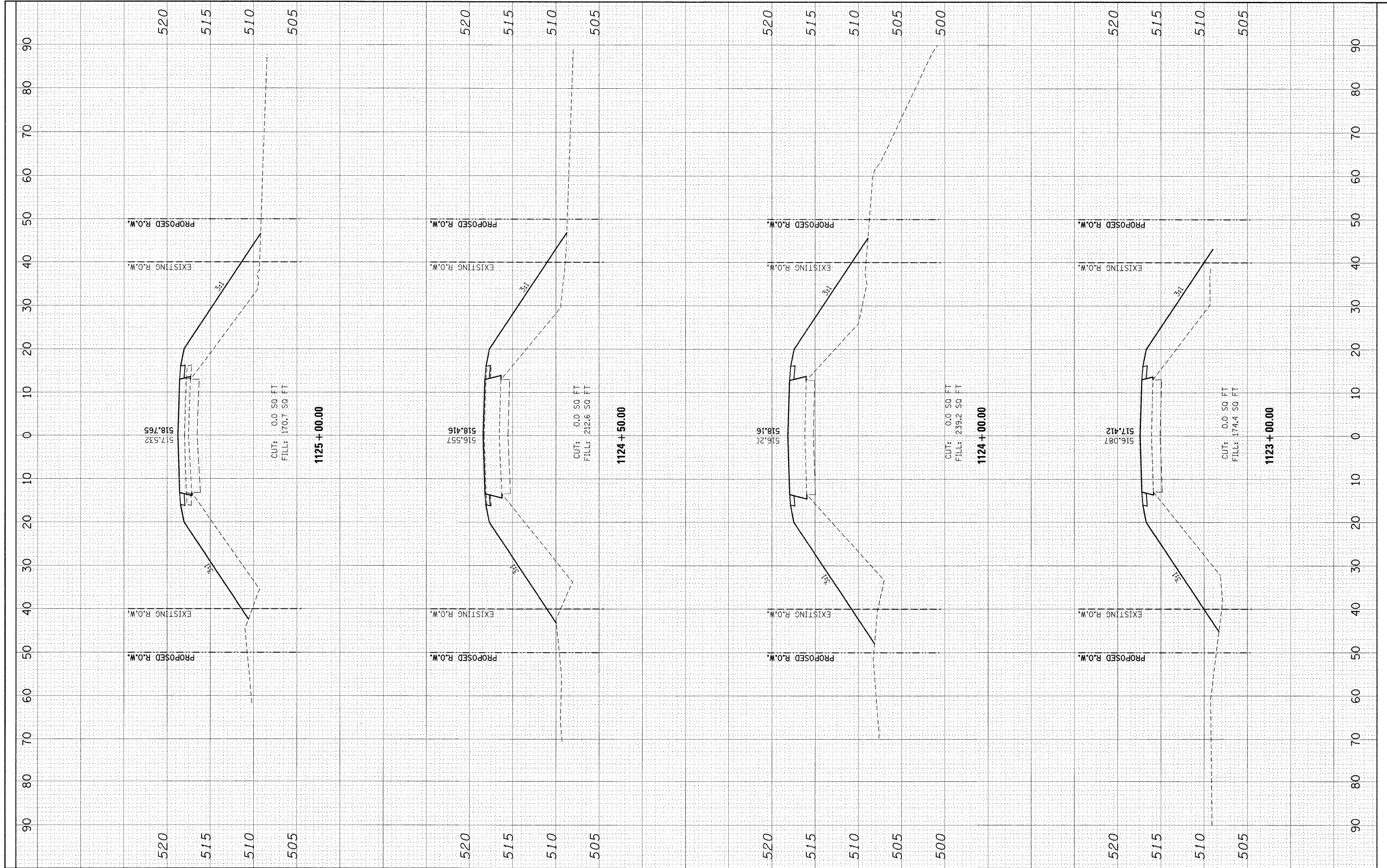
**CROSS SECTION (SN 031-0042)**

SCALE: SHEET NO. 2 OF 5 SHEETS STA. 1121+00.00 TO STA. 1122+50.00

F.A.P. RTE. 761	SECTION 104-BR-2	COUNTY GREENE	TOTAL SHEETS 82	SHEET NO. 79
CONTRACT NO. 76987				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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

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



FILE NAME = #FILE#

USER NAME = #USER#

PLOT SCALE = #SCALE#

PLOT DATE = #DATE#

DESIGNED -

DRAWN -

CHECKED -

DATE -

REVISED -

REVISED -

REVISED -

REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION (SN 031-0042)**

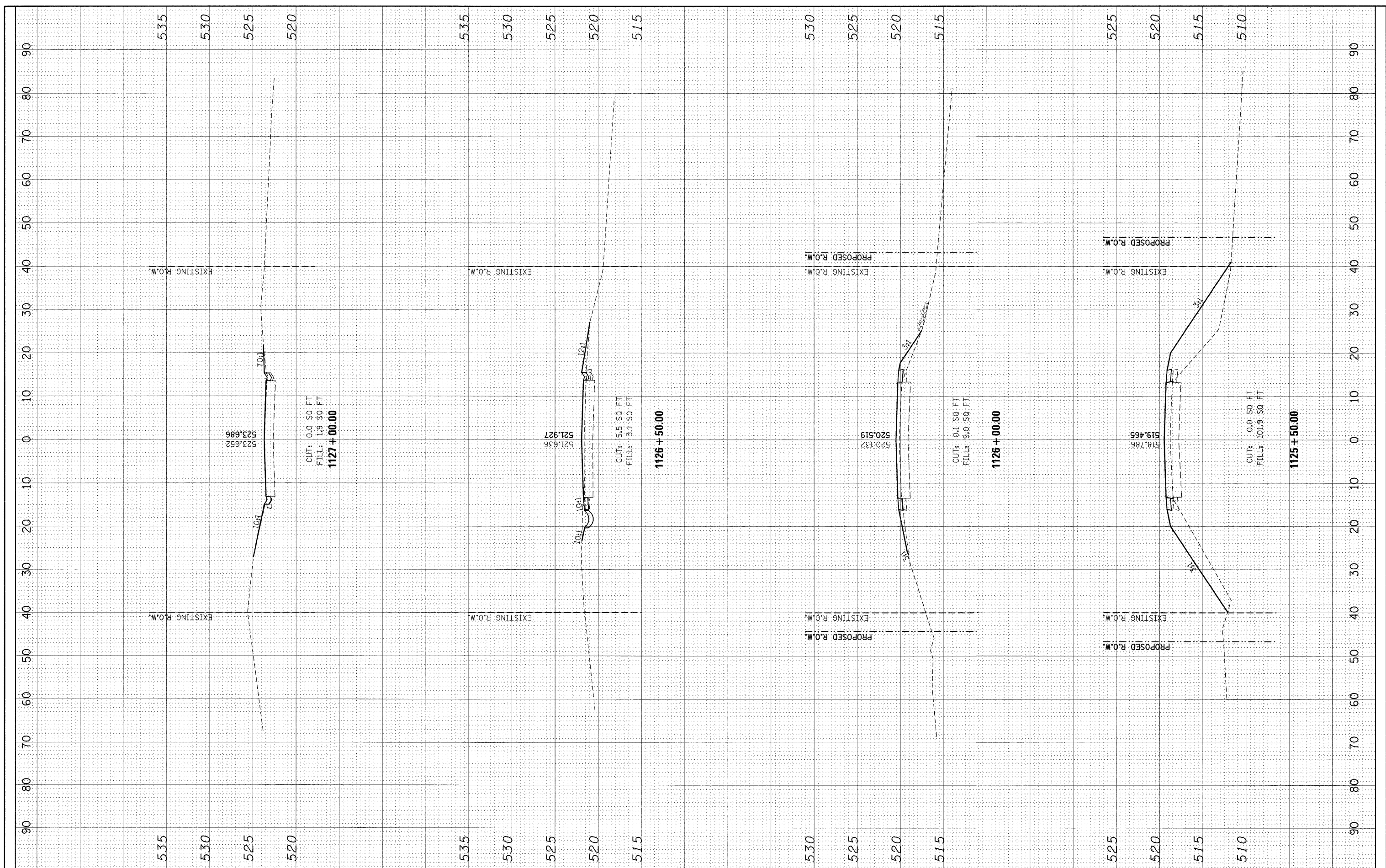
SCALE: SHEET NO. 3 OF 5 SHEETS STA. 1123+00.00 TO STA. 1125+00.00

F.A.P. RTE. 761	SECTION 104-BR-2	COUNTY GREENE	TOTAL SHEETS 82	SHEET NO. 80
CONTRACT NO. 76987				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



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

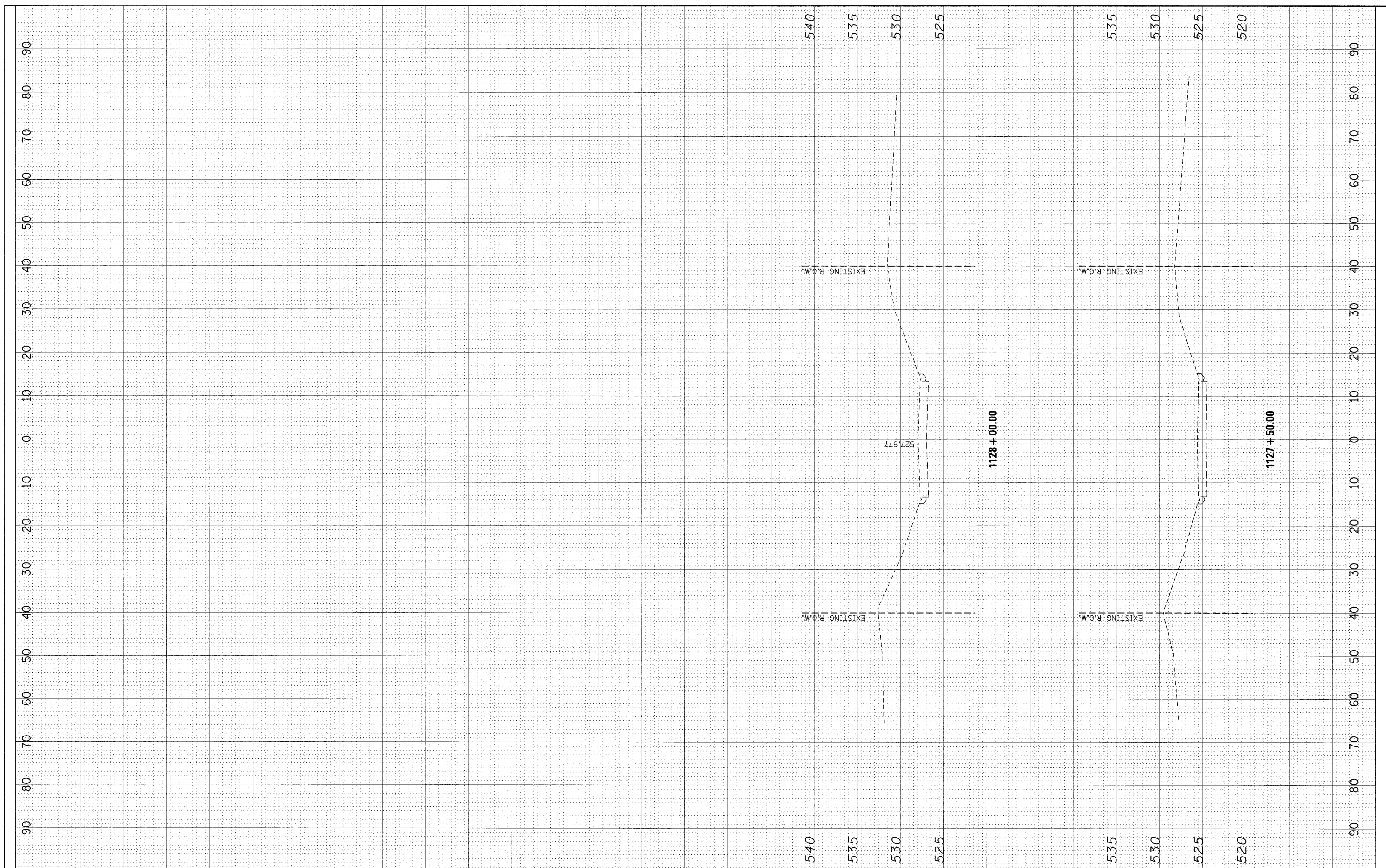
ORIGINAL	SURVEYED	BY	DATE
SURVEY	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		



FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTION (SN 031-0042)</b>			F.A.P. RTE. 761	SECTION 104-BR-2	COUNTY GREENE	TOTAL SHEETS 82	SHEET NO. 81
	PLOT SCALE = #SCALE#	DRAWN -	REVISED -		SCALE:	SHEET NO. 4 OF 5 SHEETS	STA. 1125+50.00 TO STA. 1127+00.00	CONTRACT NO. 76987				
	PLOT DATE = #DATE#	CHECKED -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
		DATE -	REVISED -									

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

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



FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTION (SN 031-0042)</b>			F.A.P. RTE. 761	SECTION 104-BR-2	COUNTY GREENE	TOTAL SHEETS 82	SHEET NO. 82
	PLOT SCALE = #SCALE#	DRAWN -	REVISED -		SCALE:	SHEET NO. 5 OF 5 SHEETS	STA. 1127+50.00 TO STA. 1128+00.00	CONTRACT NO. 76987				
	PLOT DATE = #DATE#	CHECKED -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
		DATE -	REVISED									