

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	11-5-B	COOK	39	1
FED. ROAD DIST. No. 1 ILLINOIS		CONTRACT No. 60J44		

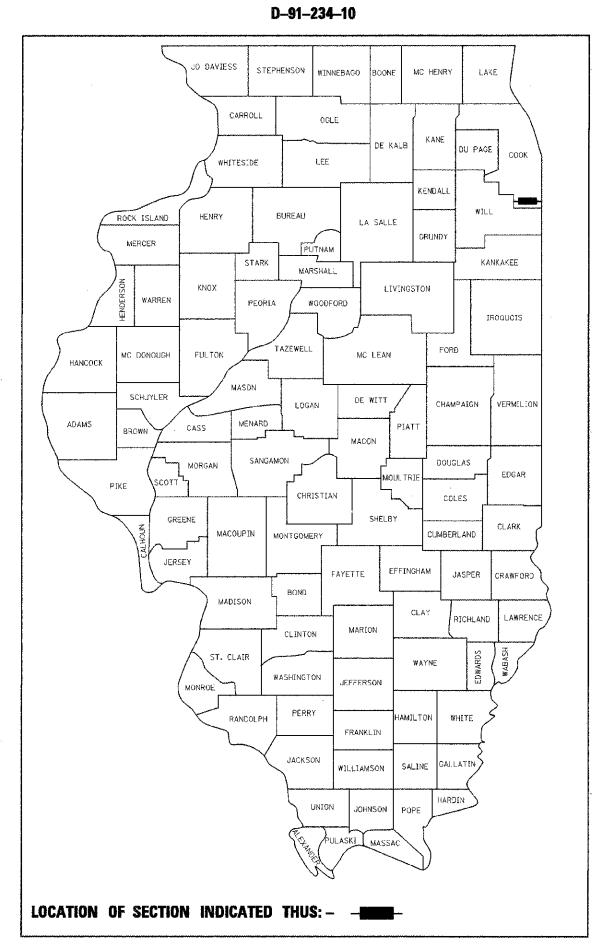
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

FAP 353 / US 30 OVER TRIBUTARY A OF THORN CREEK  
BRIDGE SUPERSTRUCTURE REPLACEMENT  
SECTION 11-5-B  
PROJECT NO. - -  
COOK COUNTY  
C-91-234-10

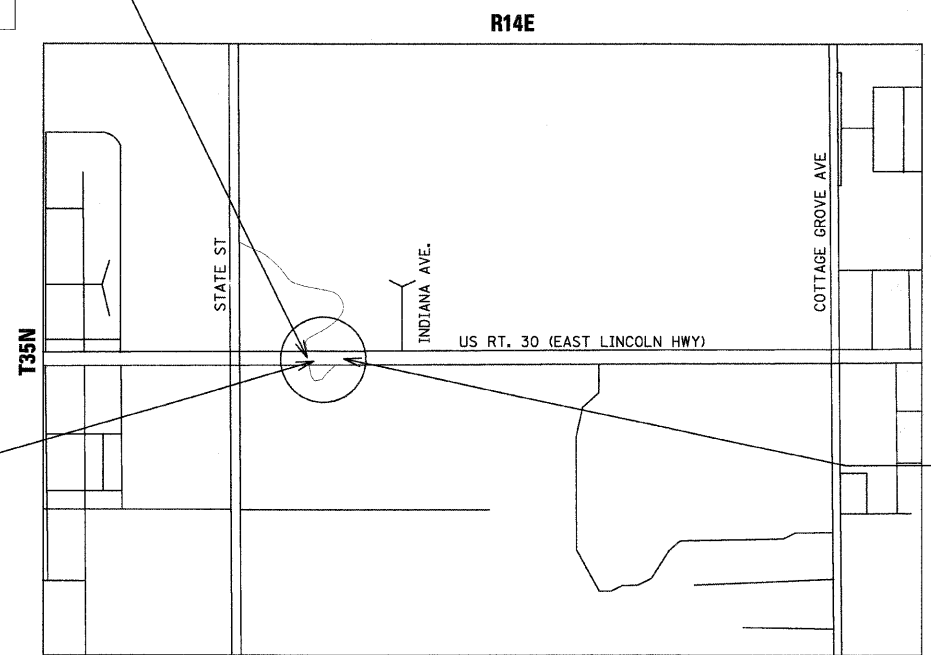
FOR INDEX OF SHEETS, SEE SHEET NO. 2

**TRAFFIC DATA:**  
EXISTING ADT US 30 16900 (2007)  
POSTED SPEED = 40 MPH



LOCATION OF SECTION INDICATED THIS: - -

PROJECT LOCATION  
US 30 (LINCOLN HWY)  
OVER TRIBUTARY A  
OF THORN CREEK  
STRUCTURE NO. 016-2503

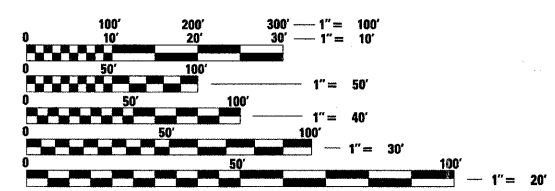


BLOOM TOWNSHIP  
LOCATION MAP  
NOT TO SCALE

IMPROVEMENT BEGINS  
STA. 177 + 70

IMPROVEMENT ENDS  
STA. 183 + 57

PROJECT IS LOCATED IN THE  
CITY OF CHICAGO HEIGHTS



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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED APRIL 21 2010  
*Diane M. O'Keefe*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

MAY 7 2010  
*Scott E. Stitt, P.E.*  
Acting ENGINEER OF DESIGN AND ENVIRONMENT

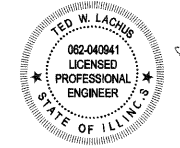
MAY 7 2010  
*Christine M. Reed*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

GROSS LENGTH OF PROJECT = 587.00 FEET = 0.11 MILES  
NET LENGTH OF PROJECT = 587.00 FEET = 0.11 MILES

PROJECT MANAGER RAJENDRA SHAH (847) 705-4555  
PROJECT ENGINEER MICHELLE AQUINO (847) 705-4606  
CONTRACT NO. 60J44

**Primera**  
100 S. WACKER DRIVE SUITE 700 CHICAGO IL 60606.  
P:312-606-0910 F:312-606-0415



*Ted W. Lachus*  
TED W. LACHUS, P.E.  
EXPIRES 11-30-2011  
DATE 4-20-2010

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**STATE STANDARDS**

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 630001-08 STEEL PLATE BEAM GUARDRAIL
- 631006-07 TRAFFIC BARRIER TERMINAL, TYPE 1B
- 631011-06 TRAFFIC BARRIER TERMINAL, TYPE 2
- 631026-05 TRAFFIC BARRIER TERMINAL, TYPE 5
- 631031-08 TRAFFIC BARRIER TERMINAL, TYPE 6
- 701311-03 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
- 701606-06 LANE CLOSURE, MULTILANE, 1W OR 2W WITH MOUNTABLE MEDIAN
- 701901-01 TRAFFIC CONTROL DEVICES
- 704001-06 TEMPORARY CONCRETE BARRIER

**GENERAL NOTES:**

1. THESE PLANS HAVE BEEN PREPARED FROM INFORMATION ACQUIRED FROM EXISTING PLANS AND NOTES RECEIVED FROM IDOT FIELD MAINTENANCE ENGINEERS.
2. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO VARIATIONS FOUND IN THE FIELD. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. ANY ADJUSTMENTS PROPOSED BY THE CONTRACTOR MUST BE APPROVED BY THE ENGINEER. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE.
3. FORTY- EIGHT HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR WILL CALL J.U.L.I.E. (1-800-892-0123) OR 811 FOR LOCATIONS OF THE EXISTING UTILITIES.
4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
5. SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
6. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
7. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
8. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AS WELL AS ADJOINING RESIDENTIAL AREAS.
9. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING WITH CONSTRUCTION.
10. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ASSURE THAT NO DEBRIS FALLS INTO THE WATERWAY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.
11. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
12. THE CONTRACTOR SHALL CONTACT PATRICE HARRIS, THE AREA TRAFFIC FIELD ENGINEER, AT (708) 597-9800 TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
13. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
14. ALL RAISED REFLECTIVE PAVEMENT MARKERS (BRIDGE) SHALL BE LOW PROFILE.
15. ACCESS SHALL BE PROVIDED AT ALL TIMES TO PROPERTIES ABUTTING THE PROPOSED IMPROVEMENT.
16. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

**COMMITMENTS**

NONE

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS
<b>SURFACE COURSE</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	4% @ 70 Gyr.
<b>BINDER COURSE</b>	
LEVELING BINDER (MACHINE METHOD), N70	4% @ 70 Gyr.
<b>TEMPORARY PAVEMENT</b>	
HOT-MIX ASPHALT BINDER IL-19MM	4% @ 50 Gyr.
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5MM)	4% @ 50 Gyr.
<b>TEMPORARY RAMP</b>	
HOT-MIX ASPHALT BINDER IL-19.0, N50	4% @ 50 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

The "AC Type" for Polymerized HMA Mixes SHALL BE "SBS/SBR PG 70 -22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" shall be "PG 64 -22" UNLESS modified by District ONE Special Provisions. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

Note: For proposed section see sheet number 5, 6 and 13.

SUMMARY OF QUANTITIES			URBAN 100% STATE	CONSTRUCTION TYPE CODE	
CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	099-0162 SFTY-2A QUANTITY	
20200100	EARTH EXCAVATION	CU YD	87	87	
20800150	TRENCH BACKFILL	CU YD	11	11	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	509	509	
25000210	SEEDING, CLASS 2A	ACRE	0.11	0.11	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	10	10	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	10	10	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	10	10	
25100630	EROSION CONTROL BLANKET	SQ YD	509	509	
28000400	PERIMETER EROSION BARRIER	FOOT	765	765	
28100211	STONE RIPAP, CLASS A6	TON	130	130	
28200200	FILTER FABRIC	SQ YD	215	215	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GAL	99	99	
40600300	AGGREGATE (PRIME COAT)	TON	2	2	
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	60	60	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	485	485	
40600990	TEMPORARY RAMP	SQ YD	73	73	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	82	82	
42001300	PROTECTIVE COAT	SQ YD	761	761	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	107	107	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ. FT	150	150	

SUMMARY OF QUANTITIES			URBAN 100% STATE	CONSTRUCTION TYPE CODE	
CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	099-0162 SFTY-2A QUANTITY	
44000100	PAVEMENT REMOVAL	SQ YD	169	169	
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	249	249	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	648	648	
44000700	APPROACH SLAB REMOVAL	SQ. YD.	214	214	
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1	1	
50102400	CONCRETE REMOVAL	CU YD	4	4	
50200100	STRUCTURE EXCAVATION	CU. YD.	3	3	
50300225	CONCRETE STRUCTURES	CU. YD.	37	37	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	174	174	
50300260	BRIDGE DECK GROOVING	SQ. YD.	178	178	
50400305	PORTLAND CEMENT CONCRETE DECK BEAMS (17" DEPTH)	SQ. FT.	2000	2000	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	46,710	46,710	
50800515	BAR SPLICERS	EACH	256	256	
50900105	ALUMINUM RAILING, TYPE L	FOOT	25	25	
51500100	NAME PLATES	EACH	1	1	
550A0050	STORM SEWERS, CLASS A, TYPE 1, 12"	FOOT	79	79	
59000200	EPOXY CRACK INJECTION	FOOT	83	83	
60200405	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 4 FRAME AND GRATE	EACH	2	2	
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	93	93	
60235800	INLETS, TYPE A, TYPE 4 FRAME AND GRATE	EACH	2	2	

FILE NAME =  
#FILE#



DESIGNED	VEA	REVISED	-
DRAWN	VEA	REVISED	-
CHECKED	TWL	REVISED	-
DATE	4/20/2010	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	11-5-B	COOK	39	3
CONTRACT NO. 60J44				
ILLINOIS FED. AID PROJECT				

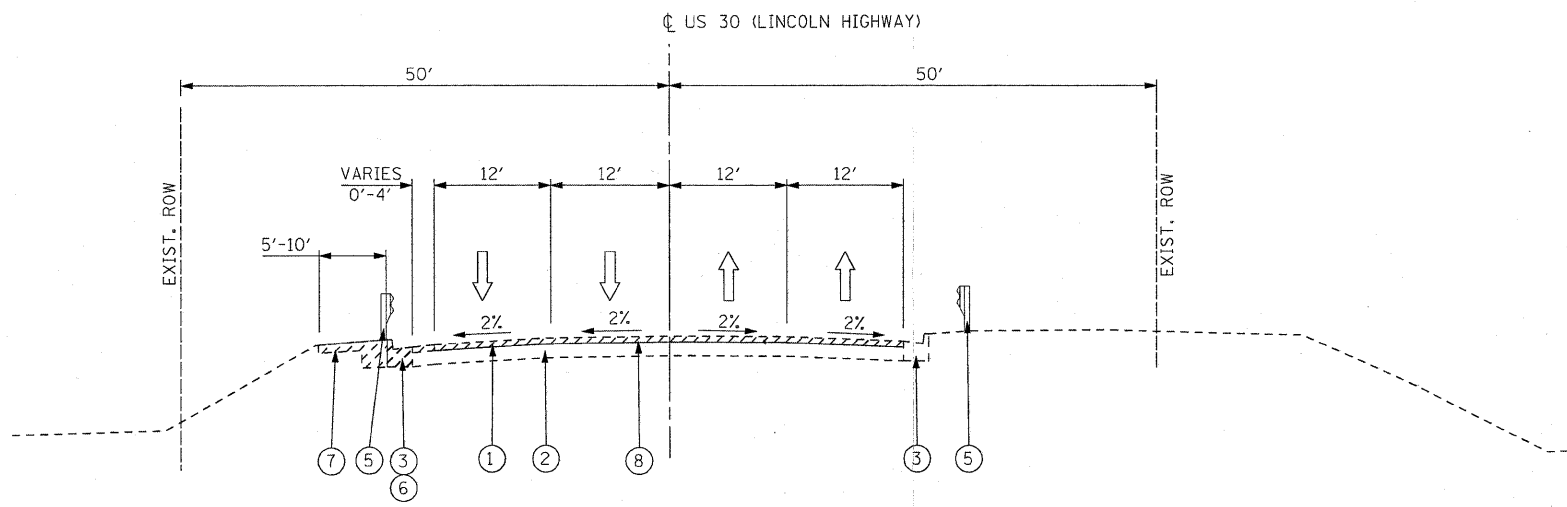
Rev.

SUMMARY OF QUANTITIES			URBAN	CONSTRUCTION TYPE CODE	
CODE NO.	ITEM DESCRIPTION	UNIT	100% STATE	099-0162	
			TOTAL QUANTITY	SFTY-2A QUANTITY	
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	436	436	
60500050	REMOVING CATCH BASINS	EACH	1	1	
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	562.5	562.5	
60500060	REMOVING INLETS	EACH	1	1	
* 63100041	TRAFFIC BARRIER TERMINAL, TYPE 1B	EACH	2	2	
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2	
* 63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	2	2	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2	
63200310	GUARDRAIL REMOVAL	FOOT	780	780	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3	
67100100	MOBILIZATION	L SUM	1	1	
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	64	64	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	10	10	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2005	2005	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	500	500	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	225	225	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2015	2015	
* 78006110	PREFORMED THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	233	233	

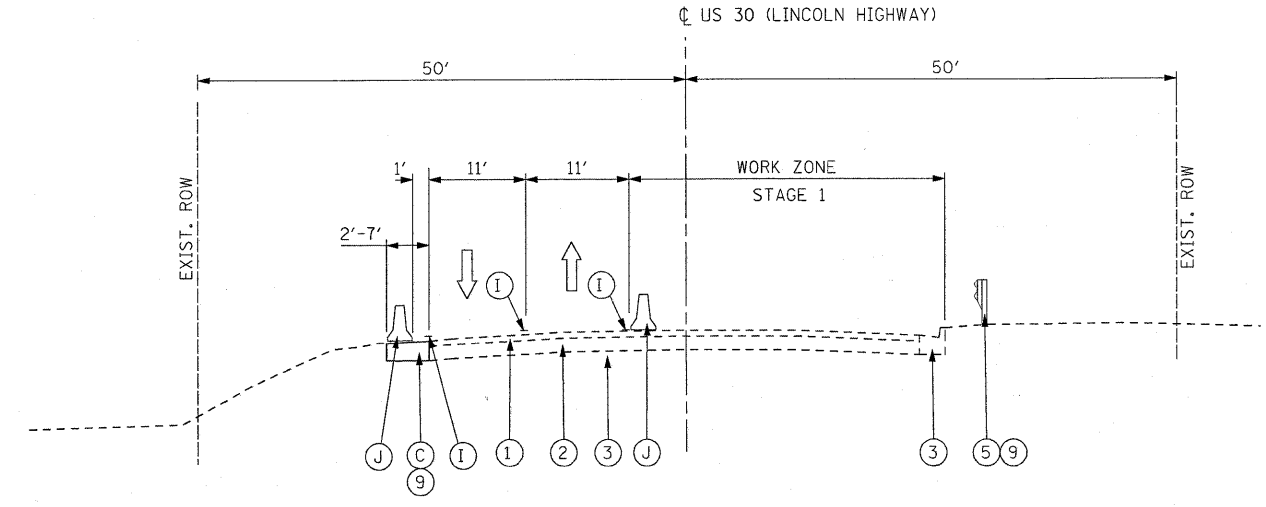
SUMMARY OF QUANTITIES			URBAN	CONSTRUCTION TYPE CODE	
CODE NO.	ITEM DESCRIPTION	UNIT	100% STATE	099-0162	
			TOTAL QUANTITY	SFTY-2A QUANTITY	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	64	64	
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	8	8	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	749	749	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	72	72	
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51	51	
X0325239	TEMPORARY PAVEMENT 10"	SQ YD	239	239	
X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ. FT.	5	5	
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	32	32	
X0325775	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	6016	6016	
X5030305	CONCRETE WEARING SURFACE, 5"	SQ. YD.	223	223	
Z0018600	DRAINAGE STRUCTURE TO BE RECONSTRUCTED	EACH	3	3	
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	3	3	
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	

\* Specialty Items





EXISTING TYPICAL SECTION  
US 30 (LINCOLN HIGHWAY)  
WEST OF BRIDGE



PROPOSED TYPICAL SECTION  
TEMPORARY PAVEMENT  
FOR MAINTENANCE OF TRAFFIC (STAGE 1)  
US 30 (LINCOLN HIGHWAY)  
WEST OF BRIDGE

### LEGEND

#### EXISTING CONDITIONS

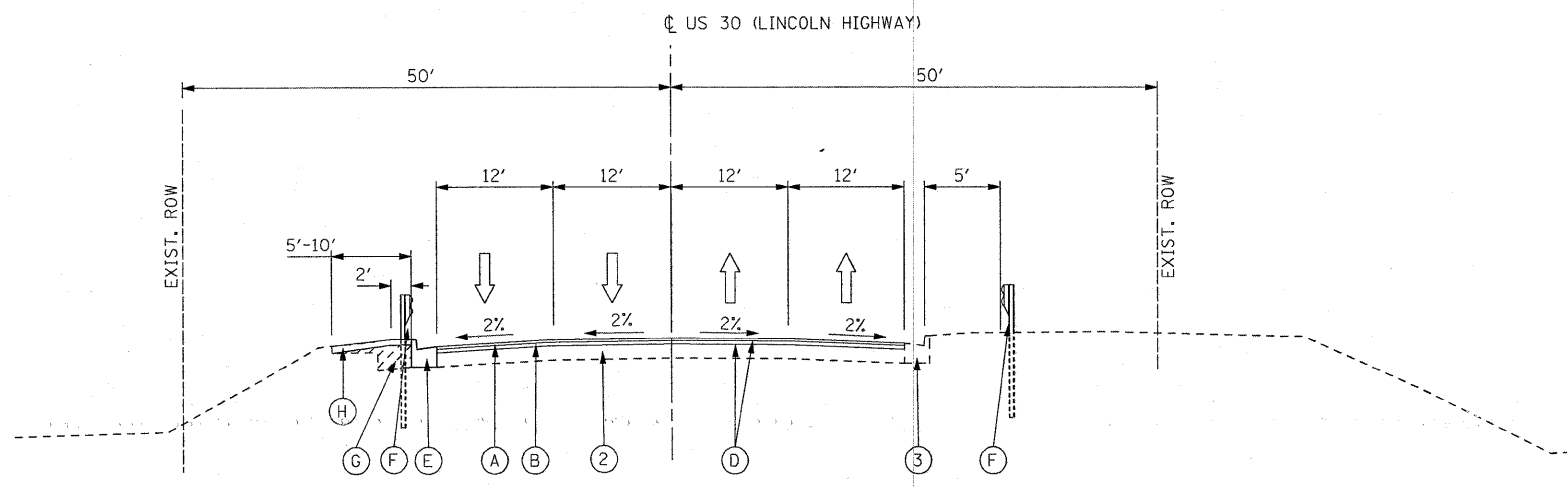
- ① HMA SURFACE
- ② BASE COURSE
- ③ COMB. CONC. C&G TYPE B-6.24
- ④ AGGREGATE SHOULDER
- ⑤ STEEL PLATE BEAM GUARDRAIL TO BE REMOVED
- ⑥ COMB. CONC. C&G TO BE REMOVED
- ⑦ EARTH EXCAVATION
- ⑧ HOT-MIX ASPHALT SURFACE REMOVAL, 2"
- ⑨ PAVEMENT REMOVAL

#### PROPOSED CONDITIONS

- Ⓐ HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (2")
- Ⓑ LEVELING BINDER (MACHINE METHOD), N70 (2" - 4")
- Ⓒ TEMPORARY PAVEMENT 10" (SEE NOTES 1 & 2)
- Ⓓ BITUMINOUS MATERIAL (PRIME COAT) AGGREGATE (PRIME COAT)
- Ⓔ COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.24
- Ⓕ STEEL PLATE BEAM GUARDRAIL, TYPE A
- Ⓖ FURNISHED EXCAVATION
- Ⓗ PARKWAY/DITCH RESTORATION -TOPSOIL FURNISH AND PLACE, 4 INCH -SEEDING, TYPE 2A
- Ⓘ TEMPORARY PAVEMENT MARKING
- Ⓝ TEMPORARY CONCRETE BARRIER

### NOTES

1. THE CROSS SLOPE OF THE TEMPORARY PAVEMENT SHALL MATCH THE CROSS SLOPE OF THE EXISTING PAVEMENT (OR AS DIRECTED BY THE ENGINEER).
2. THE TEMPORARY PAVEMENT 10" WILL BE COMPRISED OF:  
8 1/2" HOT-MIX ASPHALT BINDER IL-19MM &  
1 1/2" HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5MM)



PROPOSED TYPICAL SECTION  
US 30 (LINCOLN HIGHWAY)  
WEST OF BRIDGE

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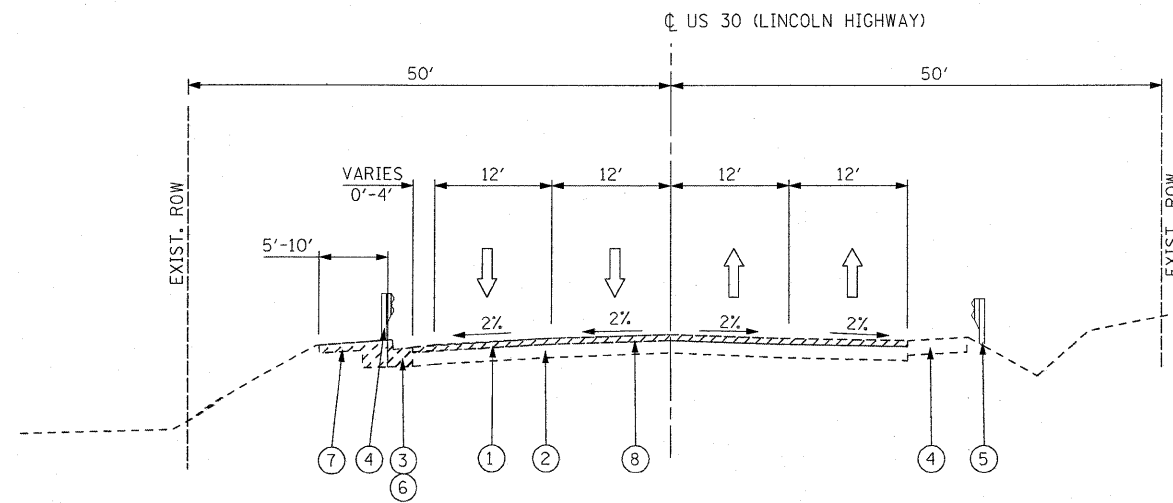
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DRAWN	RJD	REVISED	-
CHECKED	TWL	REVISED	-
DATE	4/20/2010	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

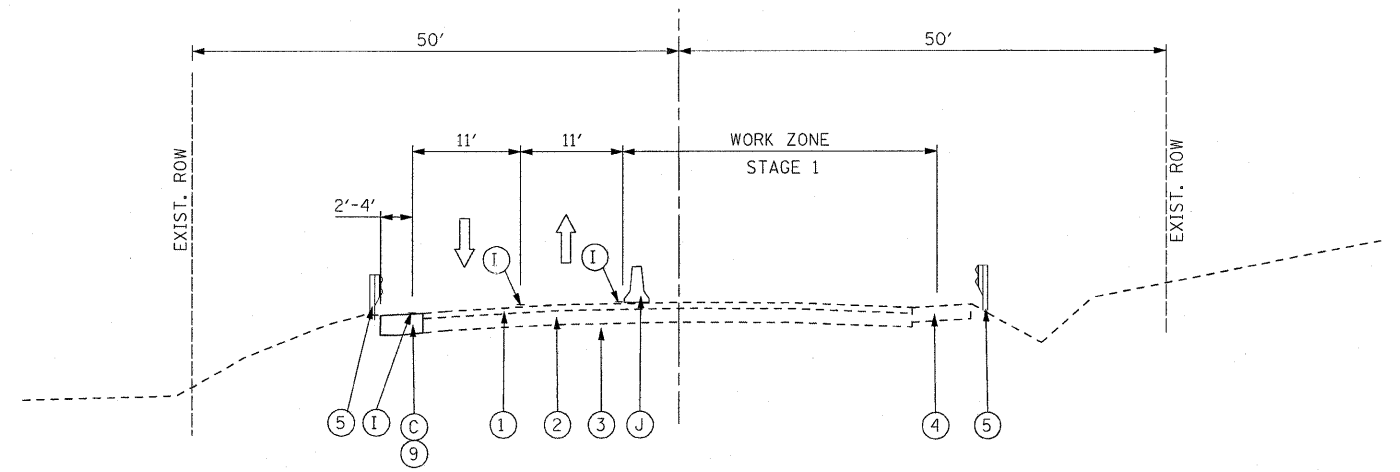
TYPICAL SECTIONS  
US RTE 30 (LINCOLN HWY)

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	11-5-B	COOK	39	5
CONTRACT NO. 60J44				
ILLINOIS FED. AID PROJECT				



EXISTING TYPICAL SECTION  
US 30 (LINCOLN HIGHWAY)  
EAST OF BRIDGE



PROPOSED TYPICAL SECTION  
TEMPORARY PAVEMENT  
FOR MAINTENANCE OF TRAFFIC (STAGE 1)  
US 30 (LINCOLN HIGHWAY)  
EAST OF BRIDGE

LEGEND

EXISTING CONDITIONS

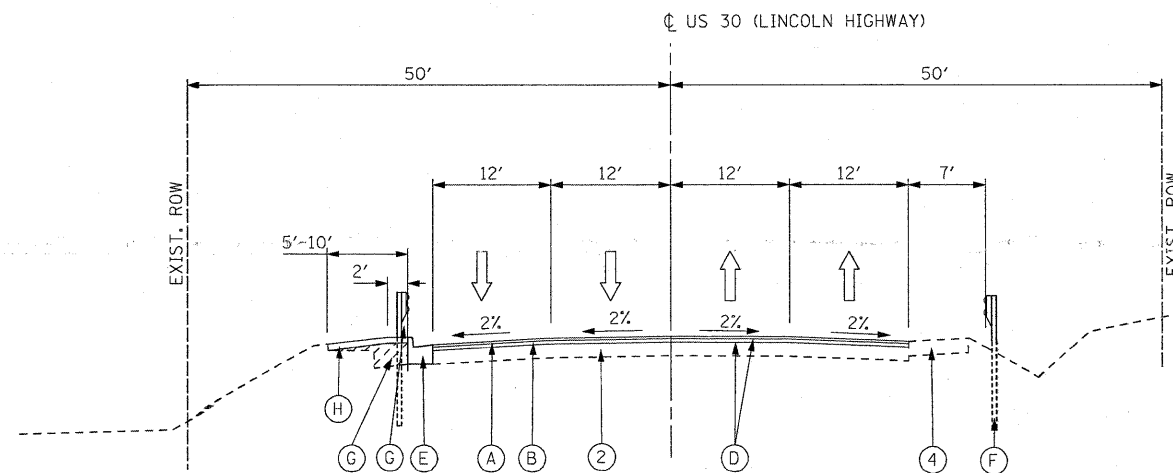
- ① HMA SURFACE
- ② BASE COURSE
- ③ COMB. CONC. C&G TYPE B-6.24
- ④ AGGREGATE SHOULDER
- ⑤ STEEL PLATE BEAM GUARDRAIL TO BE REMOVED
- ⑥ COMB. CONC. C&G TO BE REMOVED
- ⑦ EARTH EXCAVATION
- ⑧ HOT-MIX ASPHALT SURFACE REMOVAL, 2"
- ⑨ PAVEMENT REMOVAL

PROPOSED CONDITIONS

- Ⓐ HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (2")
- Ⓑ LEVELING BINDER (MACHINE METHOD), N70 (2" - 4")
- Ⓒ TEMPORARY PAVEMENT 10" (SEE NOTES 1 & 2)
- Ⓓ BITUMINOUS MATERIAL (PRIME COAT) AGGREGATE (PRIME COAT)
- Ⓔ COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.24
- Ⓕ STEEL PLATE BEAM GUARDRAIL, TYPE A
- Ⓖ FURNISHED EXCAVATION
- Ⓗ PARKWAY/DITCH RESTORATION - TOPSOIL FURNISH AND PLACE, 4 INCH - SEEDING, TYPE 2A
- Ⓘ TEMPORARY PAVEMENT MARKING
- ⓵ TEMPORARY CONCRETE BARRIER

NOTES

1. THE CROSS SLOPE OF THE TEMPORARY PAVEMENT SHALL MATCH THE CROSS SLOPE OF THE EXISTING PAVEMENT (OR AS DIRECTED BY THE ENGINEER).
2. THE TEMPORARY PAVEMENT 10" WILL BE COMPRISED OF:  
8 1/2" HOT-MIX ASPHALT BINDER IL-19MM &  
1 1/2" HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5MM)



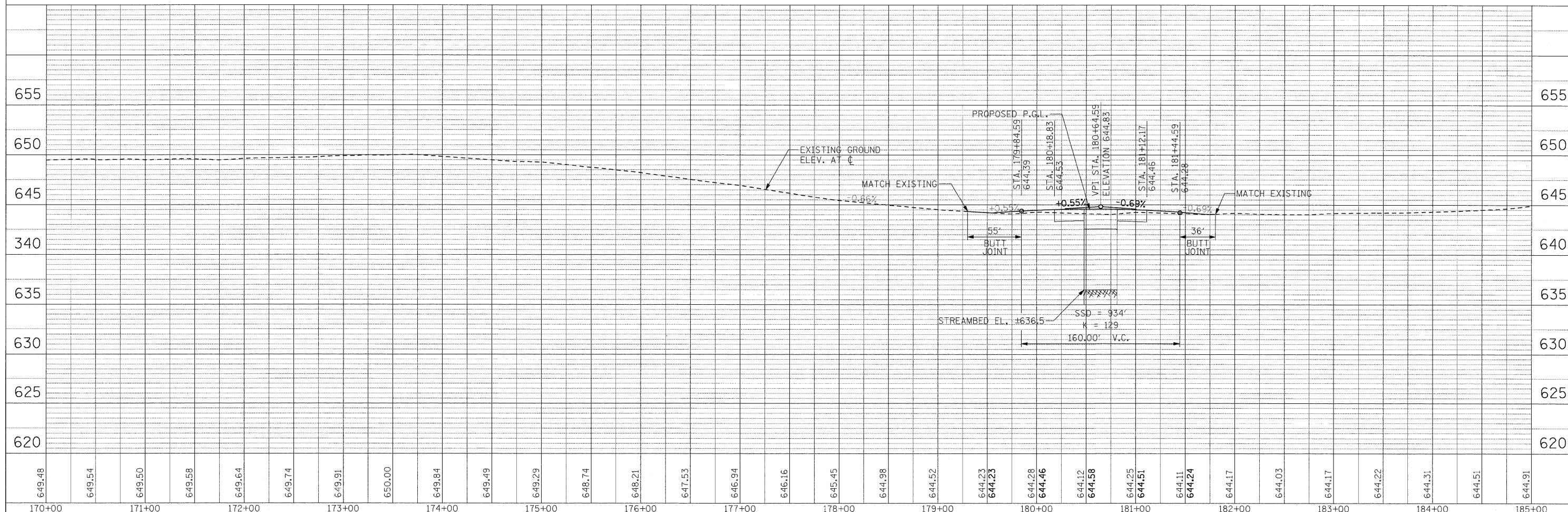
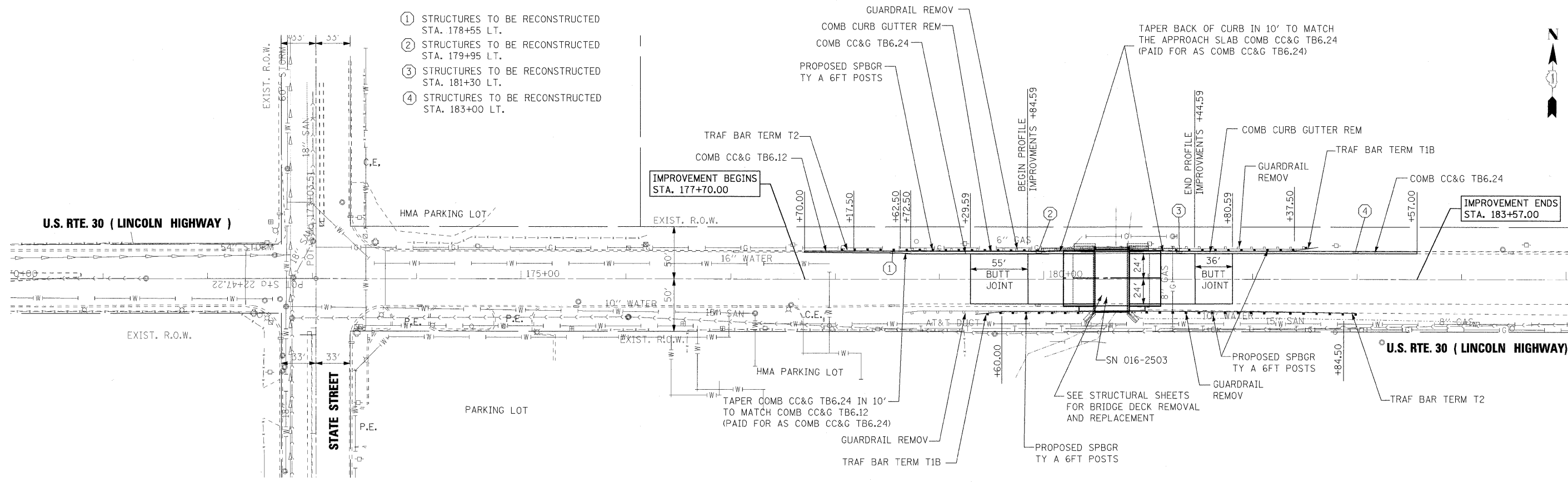
PROPOSED TYPICAL SECTION  
US 30 (LINCOLN HIGHWAY)  
EAST OF BRIDGE

FILE NAME - *FILEL*	<b>Primera</b>	DESIGNED RJD	REVISED - 5/6/2010 RJD	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS US RTE 30 (LINCOLN HWY)</b>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN RJD	REVISED -		353	11-5-B	COOK	39	6		
		CHECKED TWL	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.	CONTRACT NO. 60J44 ILLINOIS FED. AID PROJECT		
		DATE 4/20/2010	REVISED -								

DATE	
BY	
PLANNING	
DESIGNED	
DRAWN	
CHECKED	
DATE	

DATE	
BY	
PROF. I.C.E.	
DESIGNED	
DRAWN	
CHECKED	
DATE	

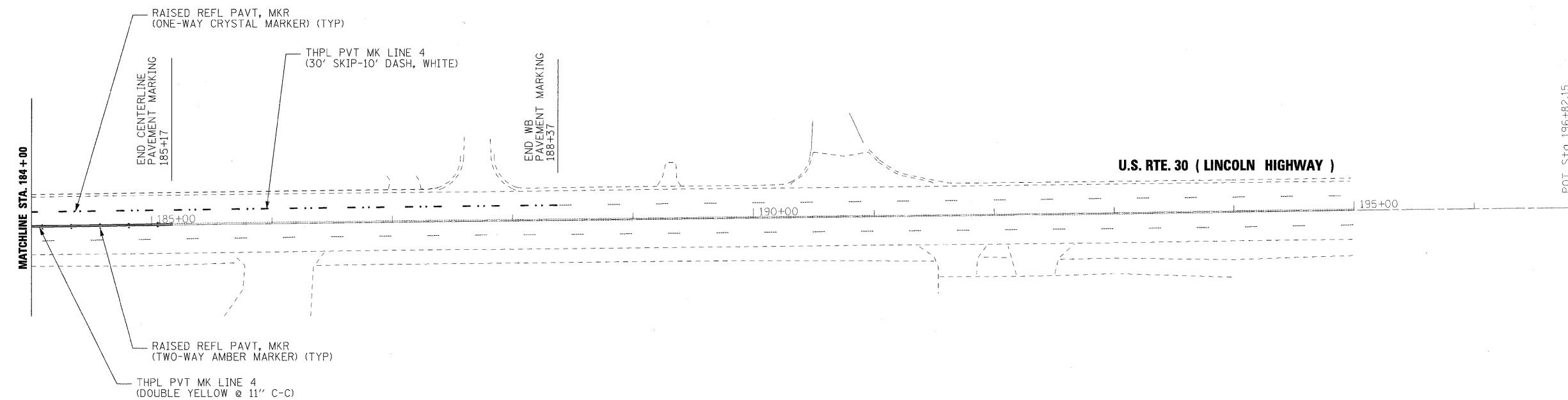
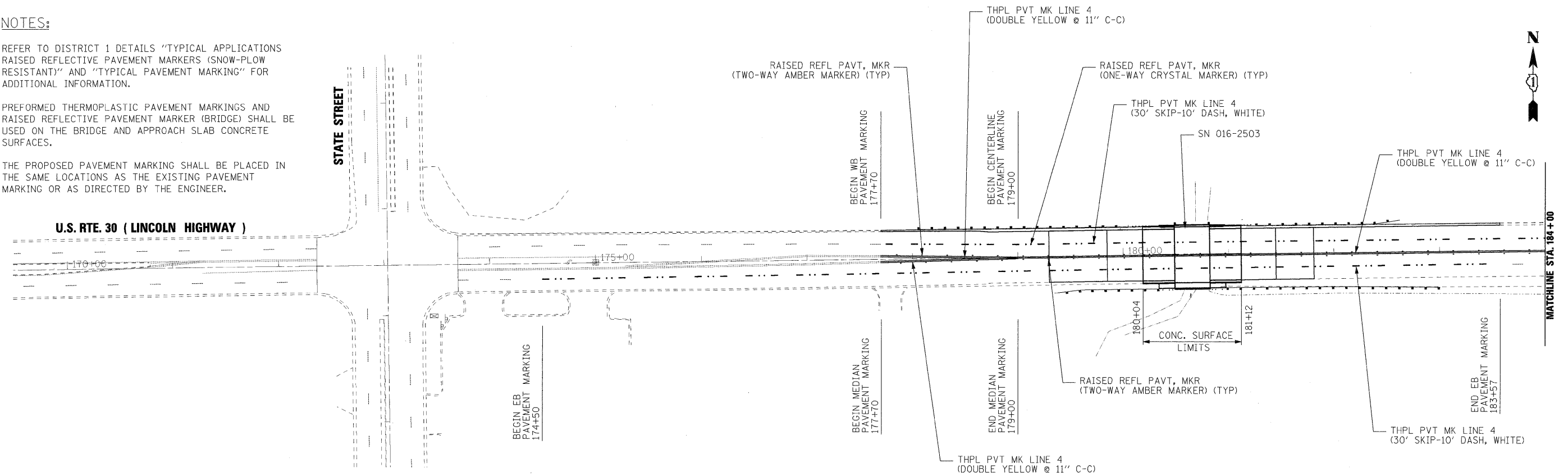
- ① STRUCTURES TO BE RECONSTRUCTED STA. 178+55 LT.
- ② STRUCTURES TO BE RECONSTRUCTED STA. 179+95 LT.
- ③ STRUCTURES TO BE RECONSTRUCTED STA. 181+30 LT.
- ④ STRUCTURES TO BE RECONSTRUCTED STA. 183+00 LT.



FILE NAME	DESIGNED - RJD	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>U.S. ROUTE 30 (LINCOLN HWY.) OVER TRIBUTARY A OF THORN CREEK</b> <b>EXISTING &amp; PROPOSED PLAN AND PROFILE</b>	F.A.P. RTE. 353 SECTION 11-5-B COUNTY COOK TOTAL SHEETS 39 SHEET NO. 7 CONTRACT NO. 60J44
#FILE#	DRAWN - JS	REVISED -			
	CHECKED - TWL	REVISED -			
	DATE - 4/20/2010	REVISED -			

**NOTES:**

1. REFER TO DISTRICT 1 DETAILS "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" AND "TYPICAL PAVEMENT MARKING" FOR ADDITIONAL INFORMATION.
2. PREFORMED THERMOPLASTIC PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) SHALL BE USED ON THE BRIDGE AND APPROACH SLAB CONCRETE SURFACES.
3. THE PROPOSED PAVEMENT MARKING SHALL BE PLACED IN THE SAME LOCATIONS AS THE EXISTING PAVEMENT MARKING OR AS DIRECTED BY THE ENGINEER.



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CHECKED TWL  
DATE 4/20/2010

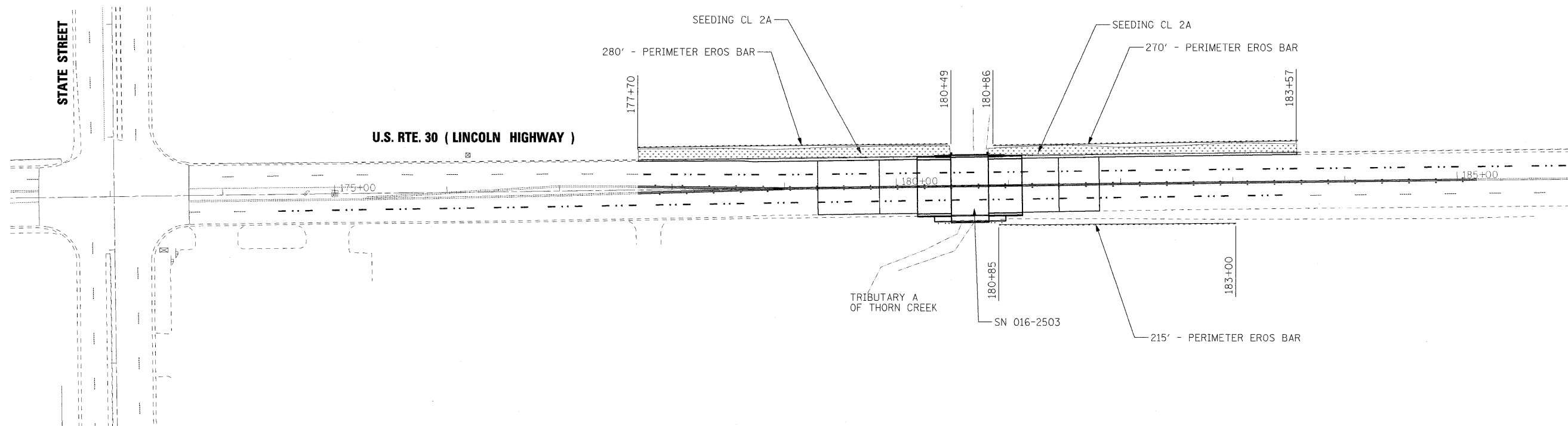
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REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN  
U.S. RTE 30 (LINCOLN HWY)**

SCALE: 1" = 50'  
SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	11-5-B	COOK	39	8
CONTRACT NO. 60J44				
ILLINOIS FED. AID PROJECT				



FILE NAME =  
\$FILEL\$



DESIGNED	RJD	REVISED	-
DRAWN	RJD	REVISED	-
CHECKED	TWL	REVISED	-
DATE	4/20/2010	REVISED	-

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LANDSCAPING AND EROSION CONTROL PLAN  
U.S. RTE 30 (LINCOLN HIGHWAY)**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	11-5-B	COOK	39	9
CONTRACT NO. 60J44				
ILLINOIS FED. AID PROJECT				

**MAINTENANCE OF TRAFFIC GENERAL NOTES**

1. THE MAINTENANCE OF TRAFFIC CONTROL (MOT) PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. HOWEVER, THE CONTRACTOR MAY MODIFY THE MOT PLANS TO MEET CONSTRUCTION NEEDS BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE MOT PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE TO THE MOT PLANS.
3. ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH THE MAINTENANCE OF TRAFFIC STRIPING SHALL BE REMOVED. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT, "PAVEMENT MARKING REMOVAL".
4. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY PAVEMENT MARKING TAPE WHICH CONFLICTS WITH THE NEXT STAGE OR FINAL STRIPING. REMOVAL OF TEMPORARY PAVEMENT MARKING TAPE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT, "WORK ZONE PAVEMENT MARKING REMOVAL".
5. ALL TRAFFIC CONTROL DEVICES USED FOR THE MAINTENANCE OF TRAFFIC, AS DETAILED ON THE PLANS, OR HIGHWAY STANDARD SHALL BE REFLECTORIZED PRIOR TO INSTALLATION AND CLEANED AS SPECIFIED IN MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.
6. ALL DRUMS, VERTICAL PANELS AND BARRICADES ADJACENT TO THE EDGE OF TRAVELED WAY SHALL BE EQUIPPED WITH STEADY-BURNING LIGHTS.
7. ALL EXISTING SIGNS WITHIN THE LIMITS OF MAINTENANCE OF TRAFFIC WHICH ARE OBSCURED BY OR OTHERWISE INTERFERED WITH BY THE CONSTRUCTION OPERATIONS AND MAINTENANCE OF TRAFFIC, SHALL BE COVERED OR REMOVED BY THE CONTRACTOR UNLESS SPECIFIED IN THE PLANS OR WHEN DIRECTED BY THE ENGINEER. THIS WORK SHALL BE IN ACCORDANCE WITH ARTICLE 107.25 OF THE IDOT STANDARD SPECIFICATIONS.
8. TEMPORARY, OFF-PEAK HOUR LANE CLOSURES MUST BE REQUESTED THROUGH THE ENGINEER AND AS SPECIFIED IN THE SPECIAL PROVISIONS, WHEN OFF-PEAK HOUR OR WEEKEND LANE CLOSURES ARE REQUIRED, A PORTABLE CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE WEEK PRIOR TO THE CLOSURE. THE MESSAGE SIGN WORDING AND LOCATION WILL BE DETERMINED BY THE ENGINEER.
9. THE CONTRACTOR SHALL PLACE A CHANGEABLE MESSAGE SIGN AT EACH END OF THE PROJECT AND/OR AS DIRECTED BY THE ENGINEER TO INFORM MOTORISTS OF UPCOMING CONSTRUCTION ACTIVITIES. THE MESSAGE SIGNS WITH THE APPROPRIATE INFORMATION SHALL BE IN PLACED TWO WEEKS BEFORE START OF CONSTRUCTION ACTIVITY. THIS WORK IS TO BE PAID FOR AT THE CONTRACT UNIT PRICE PER CALENDAR MONTH, "CHANGEABLE MESSAGE SIGN".
10. ALL TEMPORARY INFORMATION SIGNS SHALL BE PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR "TEMPORARY INFORMATION SIGNING".
11. FOR ADDITIONAL BRIDGE CONSTRUCTION STAGING INFORMATION, SEE STRUCTURAL PLANS.

**SUGGESTED CONSTRUCTION SEQUENCING**

**PRESTAGE**

CONSTRUCTION:  
REMOVE EXISTING NORTH SIDE CURB AND GUTTER, STEEL PLATE BEAM GUARDRAIL (NORTHWEST SIDE OF BRIDGE) AND PAVEMENT MARKINGS. CONSTRUCT TEMPORARY HOT-MIX ASPHALT PAVEMENT.

IMPLEMENT STAGE 1 MOT PAVEMENT MARKING AND TRAFFIC CONTROL

MAINTENANCE OF TRAFFIC:  
UTILIZE STANDARDS 701311-03 AND 701606-06.

**STAGE 1**

CONSTRUCTION:  
EASTBOUND LANES: REMOVE HOT-MIX ASPHALT OVERLAY, WATERPROOFING MEMBRANE SYSTEM, PCC DECK BEAMS, PERFORM SUBSTRUCTURE REPAIRS AND REMOVE GUARDRAIL AND TERMINAL BARRRIER.  
PLACE NEW PCC DECK BEAMS, 5 INCH CONCRETE WEARING SURFACE AND NEW TRAFFIC BARRIER AND STEEL PLATE BEAM GUARDRAIL.

MAINTENANCE OF TRAFFIC:  
UTILIZE MAINTENANCE OF TRAFFIC DETAILS IN THE PLANS AND STANDARD 701606-06.

**STAGE 2**


CONSTRUCTION:  
CONSTRUCT HOT-MIX ASPHALT TEMPORARY RAMPS AT THE GRADE DIFFERENCE ALONG THE CENTERLINE.  
WESTBOUND LANES: REMOVE HOT-MIX ASPHALT OVERLAY, WATERPROOFING MEMBRANE SYSTEM, PCC DECK BEAMS, PERFORM SUBSTRUCTURE REPAIRS AND REMOVE GUARDRAIL AND TERMINAL BARRRIER.  
PLACE NEW PCC DECK BEAMS, 5 INCH CONCRETE WEARING SURFACE AND NEW TRAFFIC BARRIER AND STEEL PLATE BEAM GUARDRAIL.

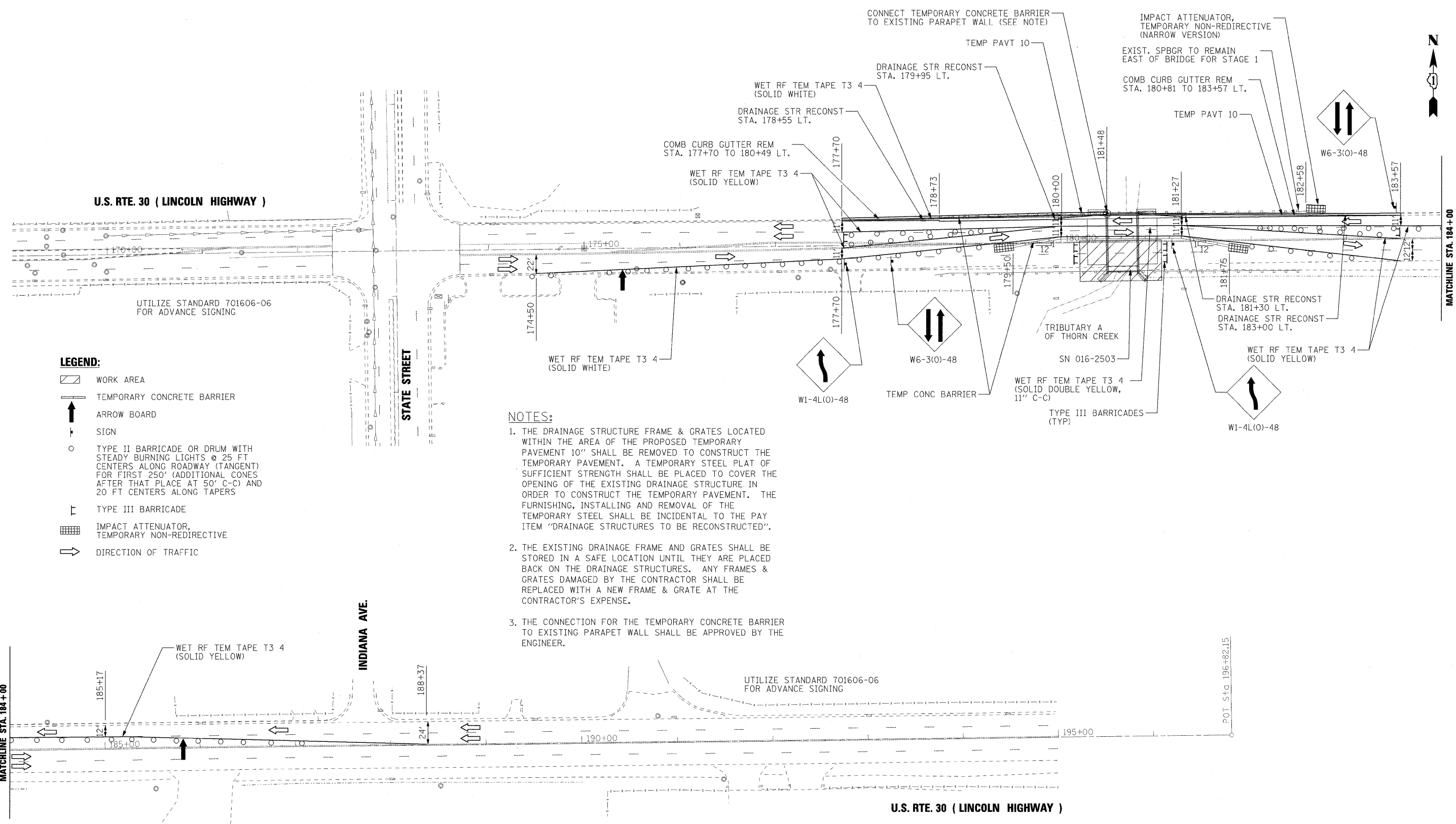
MAINTENANCE OF TRAFFIC:  
UTILIZE MAINTENANCE OF TRAFFIC DETAILS IN THE PLANS AND STANDARD 701606-06.

**STAGE 3**

CONSTRUCTION:  
PLACE FINAL HOT-MIX ASPHALT PAVEMENT, PAVEMENT MARKINGS AND RAISED REFLECTIVE MARKERS.

MAINTENANCE OF TRAFFIC:  
UTILIZE STANDARDS 701311-03.

FILE NAME = *FILEL*		DESIGNED RJD	REVISED - 5/6/2010 RJD	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MOT GENERAL NOTES AND SUGGESTED CONSTRUCTION SEQUENCING</b>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN VEA	REVISED -				353	11-5-B	COOK	39	10
CHECKED TWL	REVISED -						CONTRACT NO. 60J44				
DATE 4/20/2010	REVISED -				SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT



**LEGEND:**

- WORK AREA
- TEMPORARY CONCRETE BARRIER
- ARROW BOARD
- SIGN
- TYPE II BARRICADE OR DRUM WITH STEADY BURNING LIGHTS @ 25 FT CENTERS ALONG ROADWAY (TANGENT) FOR FIRST 250' (ADDITIONAL CONES AFTER THAT PLACE AT 50' C-C) AND 20 FT CENTERS ALONG TAPERS
- TYPE III BARRICADE
- IMPACT ATTENUATOR, TEMPORARY NON-REDIRECTIVE
- DIRECTION OF TRAFFIC

**NOTES:**

1. THE DRAINAGE STRUCTURE FRAME & GRATES LOCATED WITHIN THE AREA OF THE PROPOSED TEMPORARY PAVEMENT 10" SHALL BE REMOVED TO CONSTRUCT THE TEMPORARY PAVEMENT. A TEMPORARY STEEL PLAT OF SUFFICIENT STRENGTH SHALL BE PLACED TO COVER THE OPENING OF THE EXISTING DRAINAGE STRUCTURE IN ORDER TO CONSTRUCT THE TEMPORARY PAVEMENT. THE FURNISHING, INSTALLING AND REMOVAL OF THE TEMPORARY STEEL SHALL BE INCIDENTAL TO THE PAY ITEM "DRAINAGE STRUCTURES TO BE RECONSTRUCTED".
2. THE EXISTING DRAINAGE FRAME AND GRATES SHALL BE STORED IN A SAFE LOCATION UNTIL THEY ARE PLACED BACK ON THE DRAINAGE STRUCTURES. ANY FRAMES & GRATES DAMAGED BY THE CONTRACTOR SHALL BE REPLACED WITH A NEW FRAME & GRATE AT THE CONTRACTOR'S EXPENSE.
3. THE CONNECTION FOR THE TEMPORARY CONCRETE BARRIER TO EXISTING PARAPET WALL SHALL BE APPROVED BY THE ENGINEER.

FILE NAME =  
#FILEL#



DESIGNED RJD  
DRAWN VEA  
CHECKED TWL  
DATE 4/20/2010

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

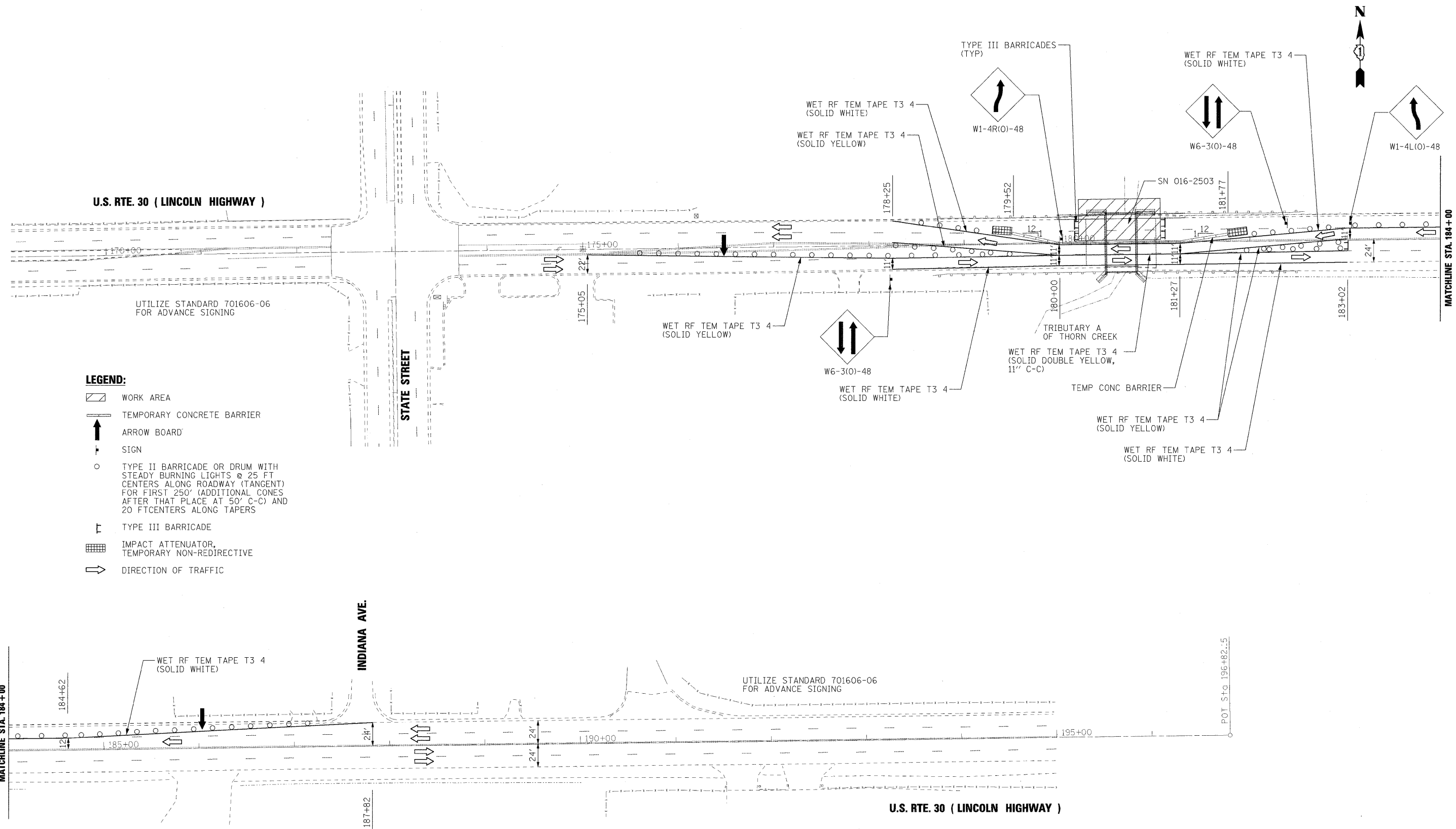
**SUGGESTED STAGE OF CONSTRUCTION & TRAFFIC CONTROL  
STAGE 1  
U.S. RTE 30 (LINCOLN HIGHWAY)**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

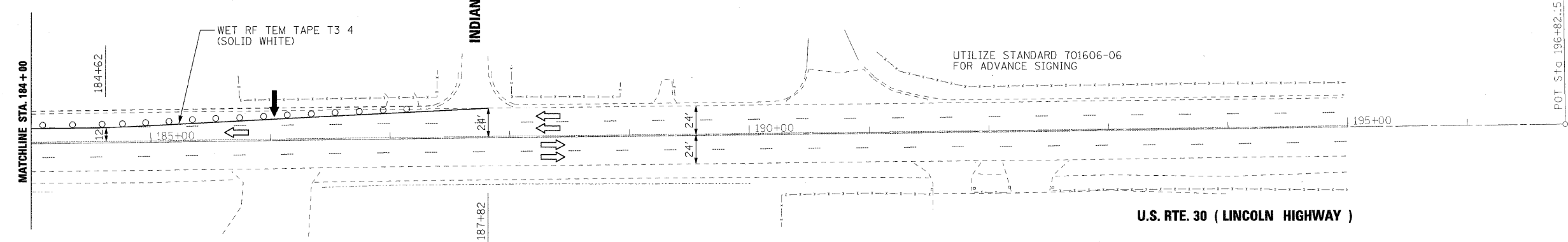
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	11-5-B	COOK	39	11
				CONTRACT NO. 60J44

ILLINOIS FED. AID PROJECT





- LEGEND:**
- WORK AREA
  - TEMPORARY CONCRETE BARRIER
  - ARROW BOARD
  - SIGN
  - TYPE II BARRICADE OR DRUM WITH STEADY BURNING LIGHTS @ 25 FT CENTERS ALONG ROADWAY (TANGENT) FOR FIRST 250' (ADDITIONAL CONES AFTER THAT PLACE AT 50' C-C) AND 20 FT CENTERS ALONG TAPERS
  - TYPE III BARRICADE
  - IMPACT ATTENUATOR, TEMPORARY NON-REDIRECTIVE
  - DIRECTION OF TRAFFIC



FILE NAME = \$FILEL\$		DESIGNED RJD	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUGGESTED STAGE OF CONSTRUCTION &amp; TRAFFIC CONTROL STAGE 2 U.S. RTE 30 (LINCOLN HIGHWAY)</b>			F.A.P. RTE. 353	SECTION 11-5-B	COUNTY COOK	TOTAL SHEETS 39	SHEET NO. 12
		DRAWN VEA	REVISED -					SCALE: 1" = 50'		SHEET NO. OF SHEETS STA. TO STA.	CONTRACT NO. 60J44	
		CHECKED TWL	REVISED -									
		DATE 4/20/2010	REVISED -									

ILLINOIS FED. AID PROJECT

Bench Mark: BM #1 - Cut in SW corner of TCB Concrete Base SE corner of US 30 & State St. Elev. 650.71

Existing Structure: SN 016-2503, constructed in 1982 as F.A. Rte. 848, Section 1978-214BR-78 as a single span of Precast Prestressed Concrete Deck beams, 17 inch depth, with a minimum 1<sup>3</sup>/<sub>4</sub>"± bituminous surface overlay and water proofing membrane. The Structure carries two 12'-0" lane in each direction and a 5'-0" sidewalk on the south side of the bridge. The Out to Out of deck measures 61'-7" and the Bk. to Bk. of abutments is 33'-4". The substructure consists of Reinforced Concrete closed wall abutments supported on spread footing keyed into rock. Traffic is to be maintained utilizing stage construction. One Lane for each direction will be provided.

Salvage: None

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1	-	1
Concrete Superstructure	Cu. Yd.	174	-	174
Concrete Structures	Cu. Yd.	-	37	37
Reinforcement Bars, Epoxy Coated	Pound	46,650	60	46,710
Protective Coat	Sq. Yd.	607	-	607
Bridge Deck Grooving	Sq. Yd.	178	-	178
Bar Splacers	Each	256	-	256
Name Plates	Each	1	-	1
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	2,000	-	2,000
Epoxy Crack Injection	Foot	83*	-	83
Aluminum Railing Type L	Foot	25	-	25
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	-	32*	32*
Structural Repair of Concrete (Depth greater than 5 inches)	Sq. Ft.	-	5*	5*
Structure Excavation	Cu. Yd.	3	-	3
Approach Slab Removal	Sq. Yd.	214	-	214
Concrete Wearing Surface, 5"	Sq. Yd.	223	-	223
Combination Curb and Gutter Removal	Foot	120	-	120
P.C.C. Sidewalk, 5 inches	Sq. Ft.	150	-	150
Stone Riprap, Class A6	Sq. Yd.	130	-	130
Concrete Removal	Cu. Yd.	-	4	4
Filter Fabric	Sq. Yd.	-	215	215

\* Inflated to 120%

SCOPE OF WORK

1. Remove existing Hot-Mix Asphalt Overlay, 2".
2. Remove and replace Bridge Superstructure in kind in Stages (PPC Deck Beams, 17" Depth).
3. Substructure Repairs.
4. Install 5 Inch Concrete Wearing Surface.
5. Guardrail Improvement.
6. Repair Abutments Wall and Modify Top of Abutment & Beam Seat.
7. Remove and Replace Approach Slabs.
8. Maintain Traffic in all Stages of Construction
9. Provide/Install riprap along the East Abutment

LOADING HL-93

No future wearing surface allowed.

DESIGN SPECIFICATIONS

(NEW CONSTRUCTION)  
2007 AASHTO LRFD Bridge Design Specifications, 4th Edition with 2008 and 2009 Interims

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$  psi  
 $f'_{ci} = 5,000$  psi  
 $f_{pbt} = 201,960$  psi (1/2  $\phi$  low relax. strands)  
 $f_{pu} = 270,000$  psi (1/2  $\phi$  low relax. strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. ( $S_{p1}$ ) = 0.039g  
Design Spectral Acceleration at 0.2 sec. ( $S_{p5}$ ) = 0.096g  
Soil Site Class = B

DESIGN SCOUR ELEVATION TABLE

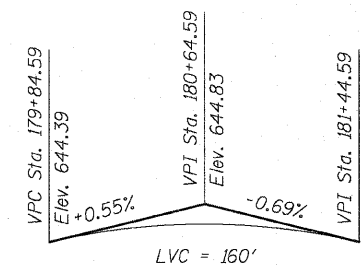
Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	634.80	635.10

WATERWAY INFORMATION

Drainage Area = 3,033 Acres Existing Low Grade Elev. = 644.21 Ft @ Sta. 182+50  
4.74 Sq.Mi. Proposed Low Grade Elev. = 644.21 Ft @ Sta. 182+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater EL. Exist.	Headwater EL. Prop.
Design	10	849	173.3	173.3	642.06	0.00	0.00	642.06	642.06
Base	50	1059	177.7	177.7	642.44	0.07	0.07	642.51	642.51
Overtopping	100	1112	177.7	177.7	642.54	0.06	0.06	642.60	642.60
Max. Calc.	>500	1406	177.7	177.7	643.02	0.18	0.18	643.20	643.20

Datum: All Elevations are in NGVD29 (To Convert to NAVD 88 Subtract 0.15')



PROFILE GRADE

Along US Rte. 30

NAME PLATE

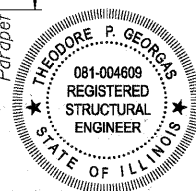
See Std. 515001

Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

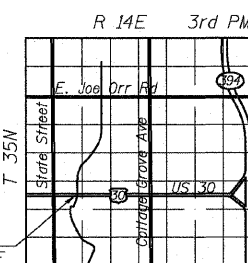
GENERAL PLAN & ELEVATION  
FAP 353/US 30 (LINCOLN HIGHWAY)  
OVER THORN CREEK TRIBUTARY A  
(FORMER THIRD CREEK)  
COOK COUNTY  
STA. 180+65.5  
STRUCTURE NO. 016-2503

APPROVED  
FOR STRUCTURAL ADEQUACY ONLY

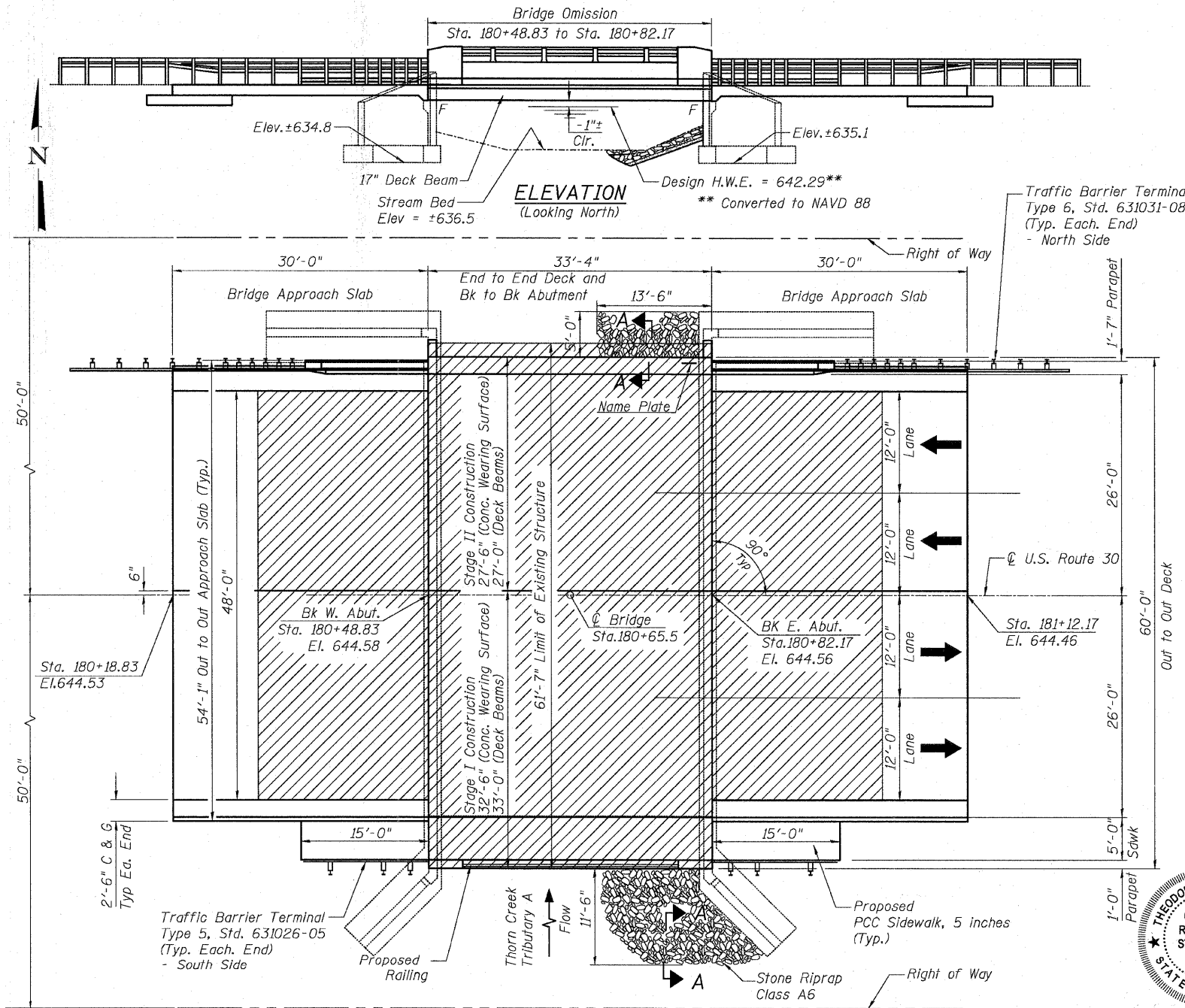
THEODORE P. GEORGAS (TGP)  
ENGINEER OF BRIDGES AND STRUCTURES



Theodore P. Georgas  
Licensed Structural Engineer  
State of Illinois 081-4609  
Expires 11/30/2010  
Date 5-14-10



LOCATION SKETCH



PLAN

DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



Note:  
For Section A-A and Riprap Details, see Sheet S2 of S18.

LEGEND:

- Existing Approach Slab Removal
- Existing Superstructure Removal

SHEET NO. S1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S18 SHEETS	353	11-5-B	COOK	39	13
			CONTRACT NO. 60J44		
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

- S1 - General Plan & Elevation
- S2 - Index of Structural Sheets & General Notes
- S3 - Stage Construction Details
- S4 - Temporary Concrete Barrier
- S5 - Top of Deck Slab Plan, Profile, Deflection & Elevations
- S6 - Top of Deck Slab Elevations
- S7 - West Approach Top of Slab Elevations
- S8 - East Approach Top of Slab Elevations
- S9 - Superstructure Plan and Cross Section
- S10 - Parapet Plan Elevations and Details
- S11- East & West Approach Slab -Plan and Details
- S12- Bridge Approach Slab Details
- S13- Aluminum Railing, Type L
- S14- 17"x36" PPC Deck Beam
- S15- 17"x36" PPC Deck Beam Details
- S16- Existing West Abutment Repair & Modification Details
- S17- Existing East Abutment Repair & Modification Details
- S18- Bar Splicer Assembly & Mechanical Splicer Details

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

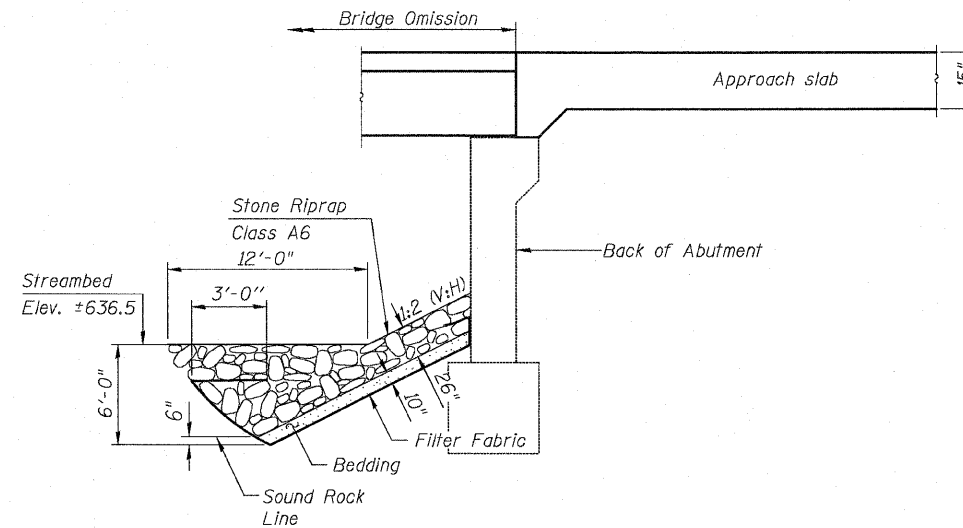
Reinforcement bars designated (E) shall be epoxy coated.

Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

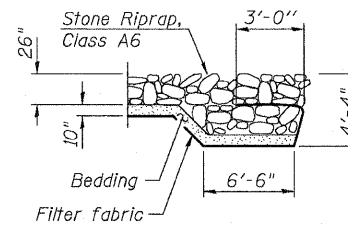
The Contractor is advised that the existing PPC Deck beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

If the Contractor's procedures for existing deck removal involves placement of heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Superstructure.

Slip forming of the parapet is not allowed.



SECTION THRU EAST ABUTMENT



SECTION A-A

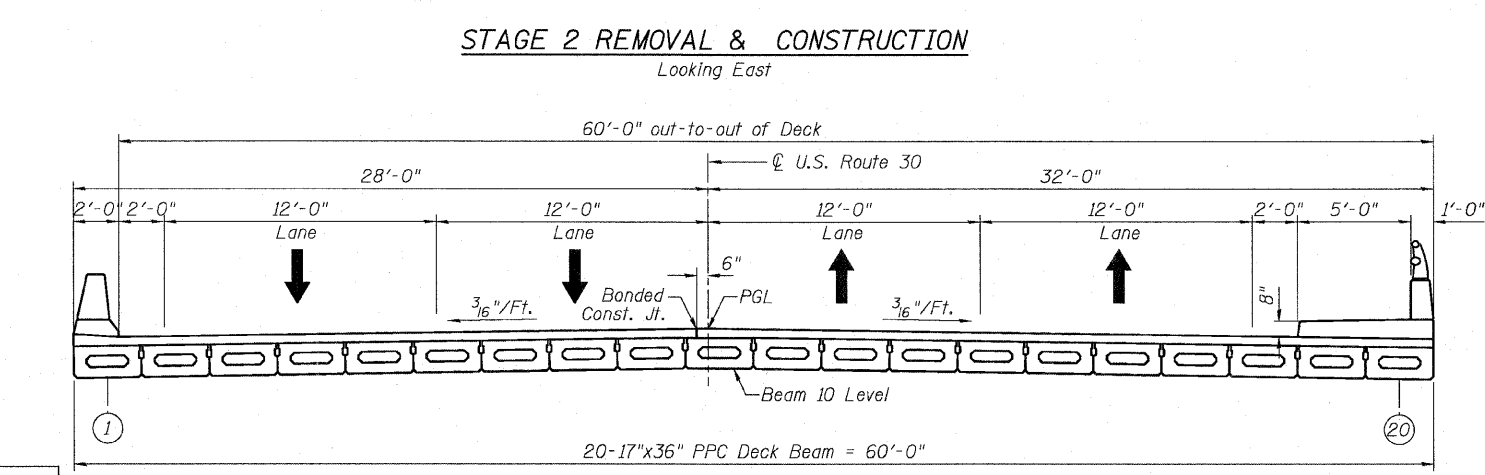
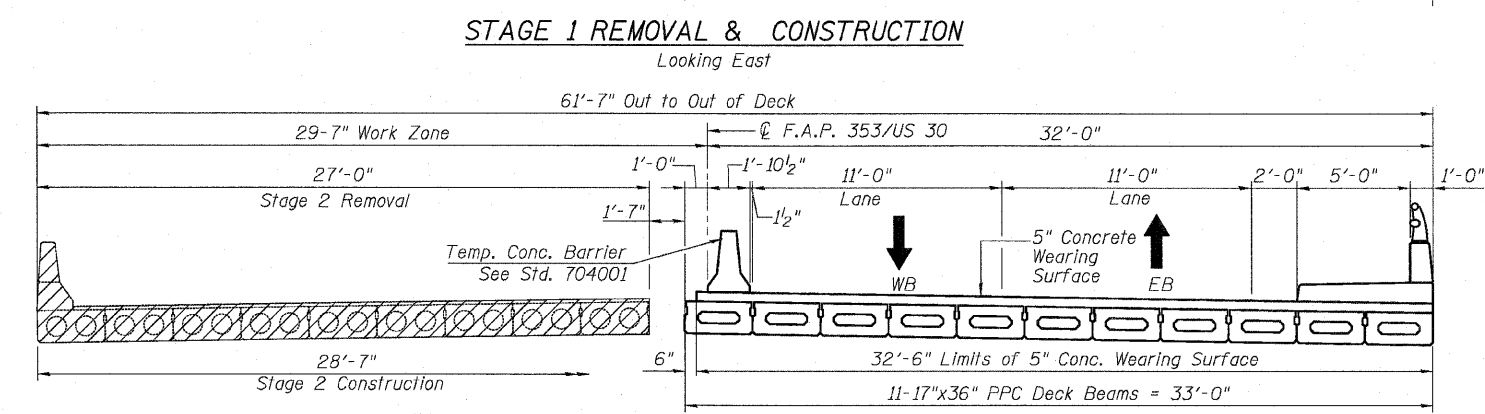
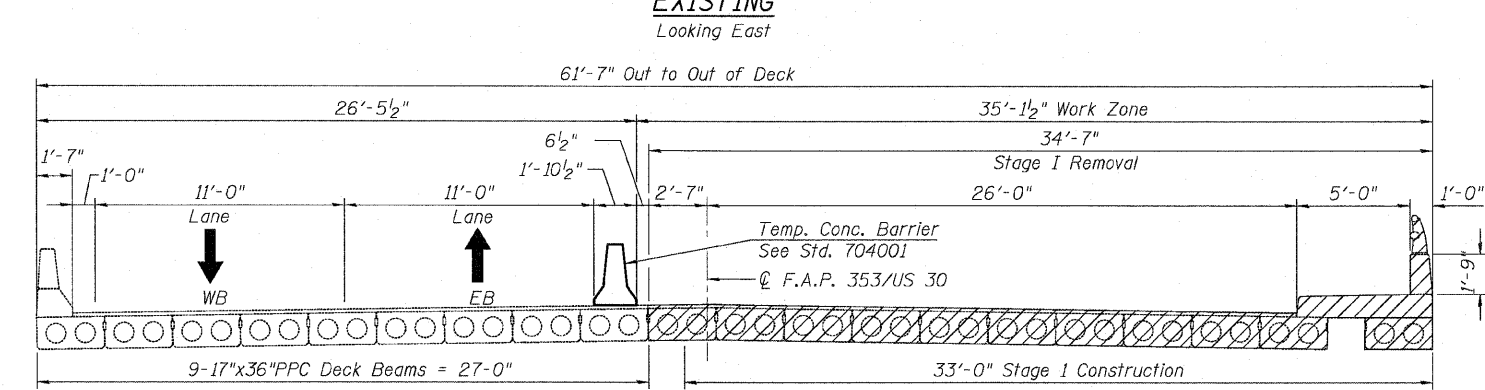
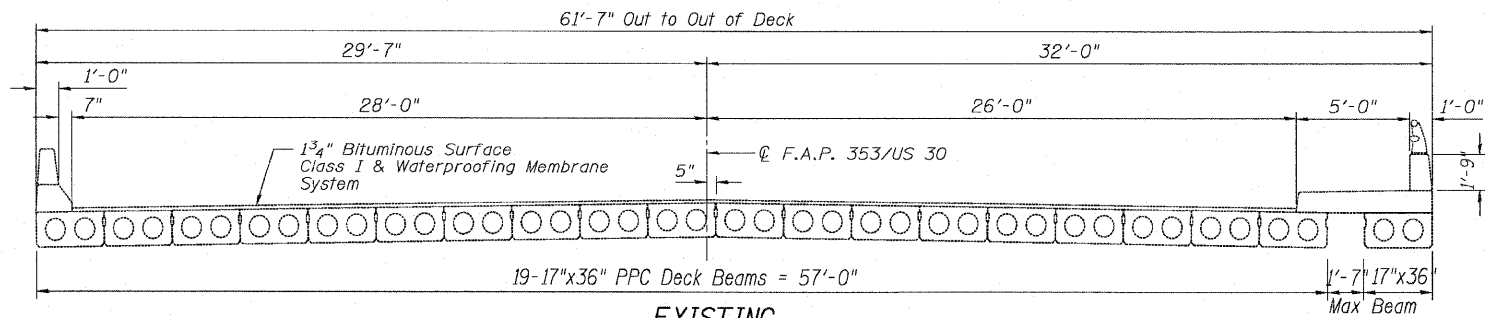
INDEX OF STRUCTURAL SHEETS AND  
GENERAL NOTES  
STRUCTURE NO. 016-2503

DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S2	353	11-5-B	COOK	39	14
S18 SHEETS			CONTRACT NO. 60J44		
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



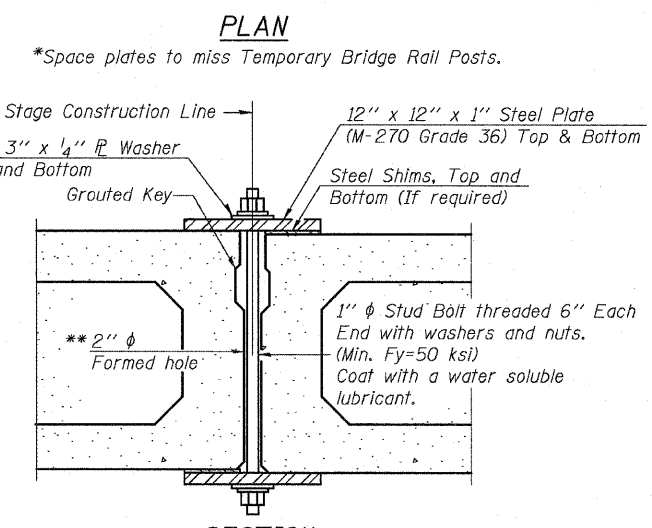
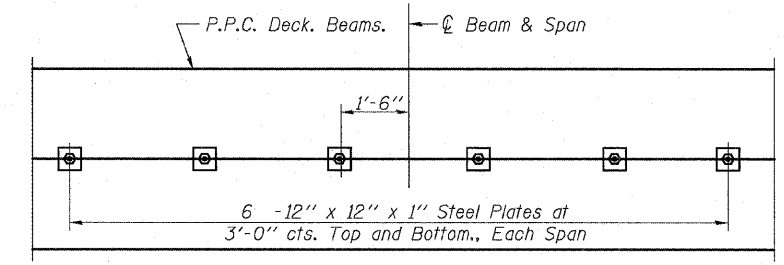
DESIGNED JPM  
CHECKED TG  
DRAWN MPS  
CHECKED JPM, TG



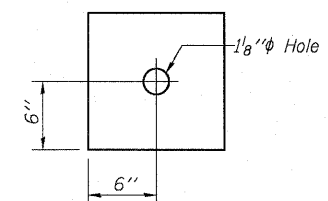
**FINAL STAGE**  
Looking East

**LEGEND:**  
[Hatched Box] Denotes Removal

- Notes:
1. See Roadway plans for quantity of Temporary Concrete Barriers.
  2. See Sheet S4 of S18 for details of temporary Concrete Barrier.
  3. Removal of existing bridge railings, sidewalks, parapets, HMA overlay and 17" PPC Deck Beams are included with "Removal of Existing Superstructure". See Special Provision.
  4. Provide temporary horizontal bracing after each beam has been removed. Such bracing should not interfere the construction of abutment modification. Temporary bracing shall be designed by the contractor and submitted to the Engineer for approval.



\*\* Cast semicircular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts.



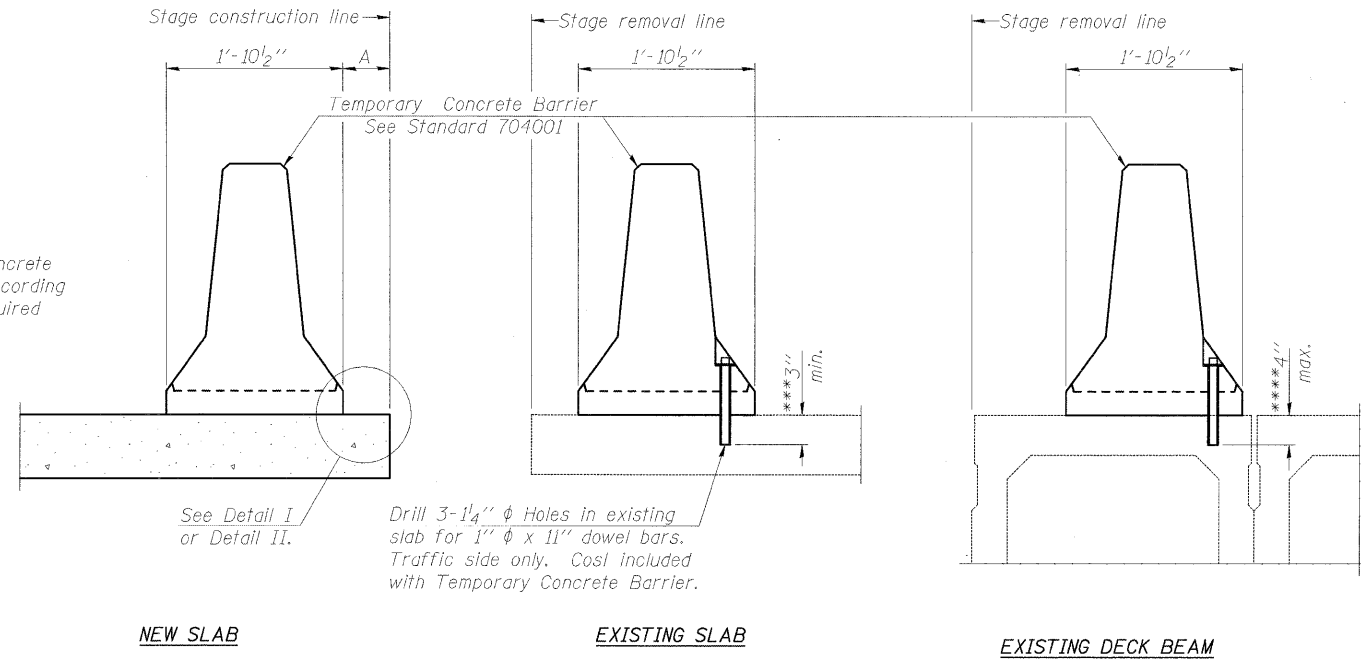
Notes:  
Cast included with Precast Prestressed Concrete Deck Beams. See Stage Construction Details for traffic lanes.

**SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.**

**STAGE CONSTRUCTION DETAILS  
STRUCTURE NO. 016-2503**

SHEET NO. S3 S18 SHEETS	F.A.P. RTE. 353	SECTION 11-5-B	COUNTY COOK	TOTAL SHEETS 39	SHEET NO. 15
	CONTRACT NO. 60J44				
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".

See Detail I or Detail II.

Drill 3-1/4"  $\phi$  Holes in existing slab for 1"  $\phi$  x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

**NOTES**

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

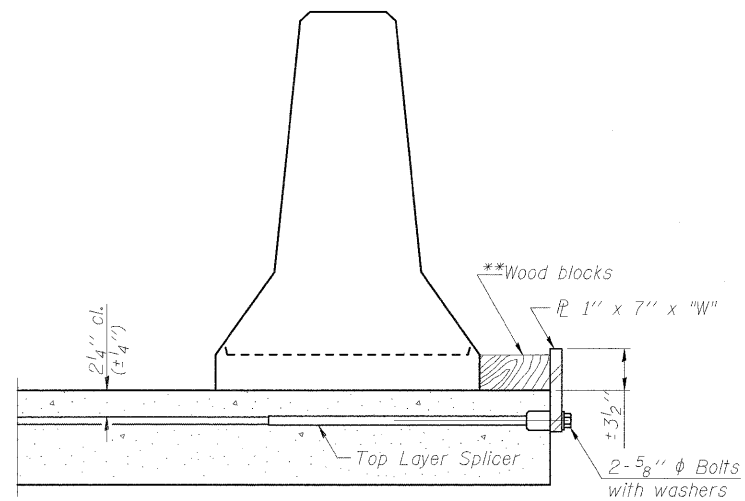
Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1"x7"x10" steel  $\bar{L}$  to the concrete slab or concrete wearing surface with 2-5/8"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\phi$  of each barrier panel.

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

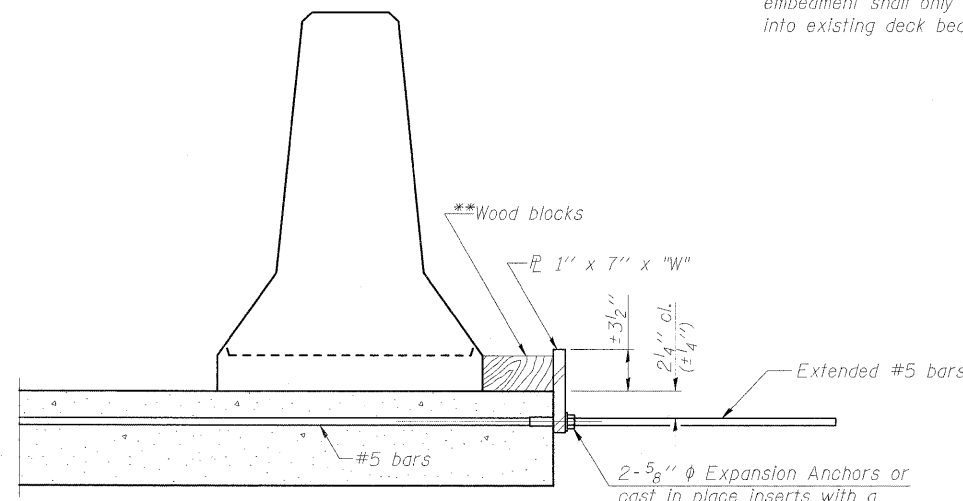
**SECTIONS THRU SLAB OR DECK BEAM**

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

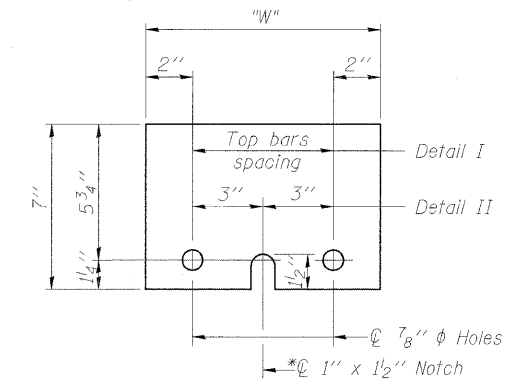
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



**DETAIL I**



**DETAIL II**



**STEEL RETAINER  $\bar{L}$  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.

"W" = Top bars spacing + 4"

DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



188 S. WACKER DRIVE SUITE 700 - CHICAGO, IL 60606 - P.312-686-8900 F.312-686-0415

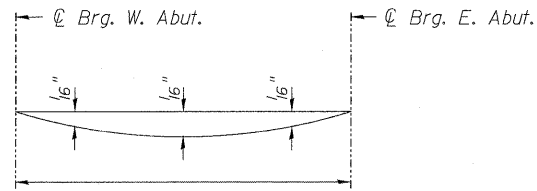
R-27

11-1-09

**TEMPORARY CONCRETE BARRIER  
STRUCTURE NO. 016-2503**

SHEET NO. S4 S18 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	353	11-5-B	COOK	39	16
			CONTRACT NO. 60J44		
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

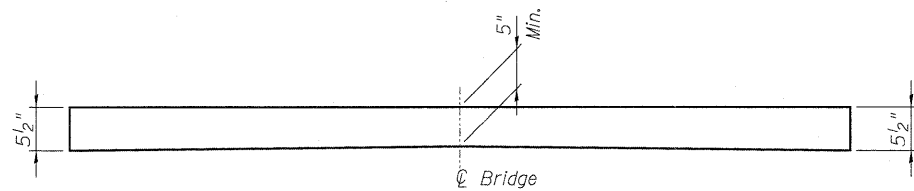


**DEAD LOAD DEFLECTION DIAGRAM**

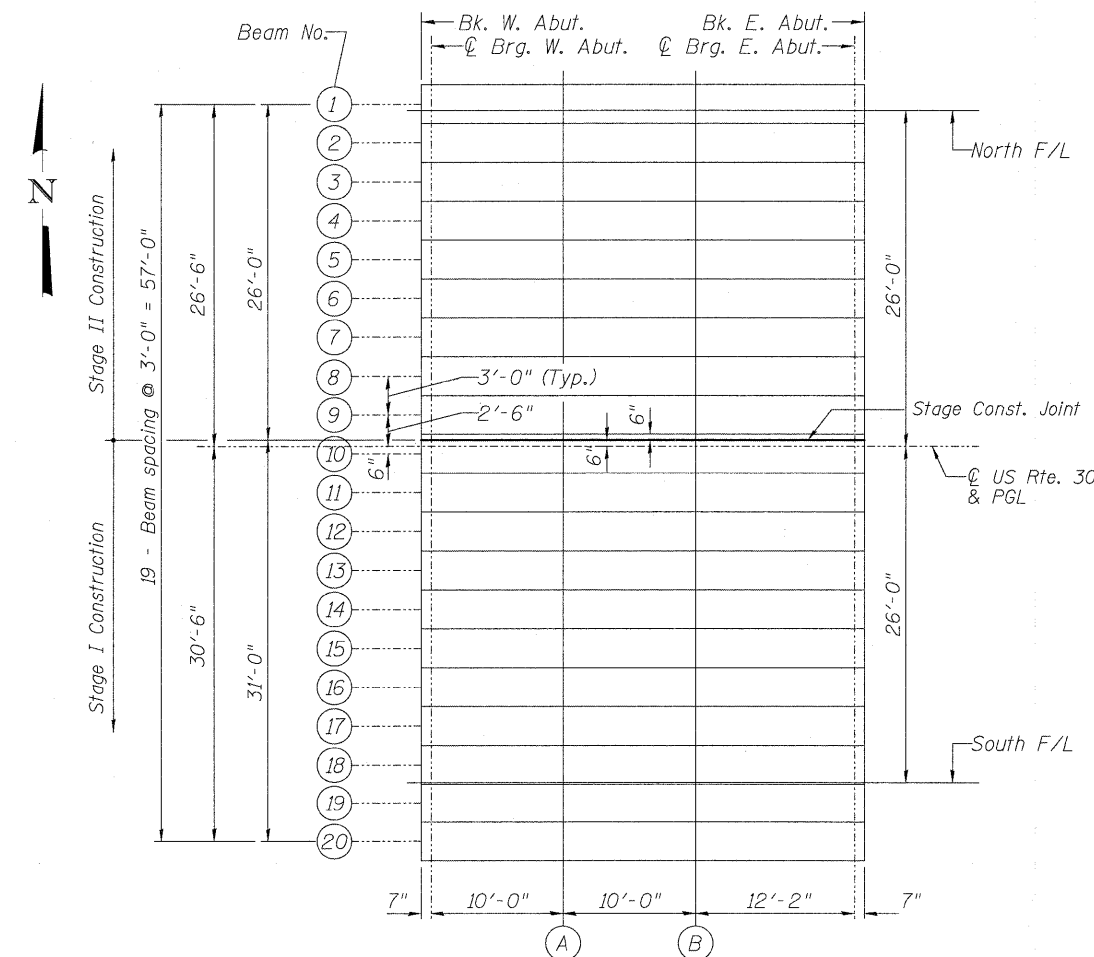
(Includes weight of concrete Overlay only.)

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 in this sheet and on Sheet S6.



**CONCRETE WEARING SURFACE (CWS) PROFILE**



**TOP OF DECK PLAN**

DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



100 S. WACKER DRIVE, SUITE 700, CHICAGO, IL 60606, P.312-686-8910 F.312-686-8415

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	-26.50	644.17	644.17
CL Brg. W. Abutm	180+49.42	-26.50	644.17	644.17
A	180+59.42	-26.50	644.17	644.18
B	180+69.42	-26.50	644.16	644.17
CL Brg. E. Abutm	180+81.59	-26.50	644.14	644.14
Back E. Abutment	180+82.17	-26.50	644.14	644.14

**NORTH F/L**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	-26.00	644.18	644.18
CL Brg. W. Abutm	180+49.42	-26.00	644.18	644.18
A	180+59.42	-26.00	644.18	644.18
B	180+69.42	-26.00	644.17	644.18
CL Brg. E. Abutm	180+81.59	-26.00	644.15	644.15
Back E. Abutment	180+82.17	-26.00	644.15	644.15

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	-23.50	644.22	644.22
CL Brg. W. Abutm	180+49.42	-23.50	644.22	644.22
A	180+59.42	-23.50	644.22	644.22
B	180+69.42	-23.50	644.21	644.22
CL Brg. E. Abutm	180+81.59	-23.50	644.19	644.19
Back E. Abutment	180+82.17	-23.50	644.19	644.19

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	-20.50	644.26	644.26
CL Brg. W. Abutm	180+49.42	-20.50	644.26	644.26
A	180+59.42	-20.50	644.26	644.27
B	180+69.42	-20.50	644.26	644.26
CL Brg. E. Abutm	180+81.59	-20.50	644.24	644.24
Back E. Abutment	180+82.17	-20.50	644.24	644.24

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	-17.50	644.31	644.31
CL Brg. W. Abutm	180+49.42	-17.50	644.31	644.31
A	180+59.42	-17.50	644.31	644.32
B	180+69.42	-17.50	644.30	644.31
CL Brg. E. Abutm	180+81.59	-17.50	644.29	644.29
Back E. Abutment	180+82.17	-17.50	644.28	644.28

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	-14.50	644.36	644.36
CL Brg. W. Abutm	180+49.42	-14.50	644.36	644.36
A	180+59.42	-14.50	644.36	644.36
B	180+69.42	-14.50	644.35	644.36
CL Brg. E. Abutm	180+81.59	-14.50	644.33	644.33
Back E. Abutment	180+82.17	-14.50	644.33	644.33

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	-11.50	644.40	644.40
CL Brg. W. Abutm	180+49.42	-11.50	644.40	644.40
A	180+59.42	-11.50	644.40	644.41
B	180+69.42	-11.50	644.40	644.40
CL Brg. E. Abutm	180+81.59	-11.50	644.38	644.38
Back E. Abutment	180+82.17	-11.50	644.38	644.38

**BEAM 7**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	-8.50	644.45	644.45
CL Brg. W. Abutm	180+49.42	-8.50	644.45	644.45
A	180+59.42	-8.50	644.45	644.46
B	180+69.42	-8.50	644.44	644.45
CL Brg. E. Abutm	180+81.59	-8.50	644.43	644.43
Back E. Abutment	180+82.17	-8.50	644.42	644.42

**BEAM 8**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	-5.50	644.50	644.50
CL Brg. W. Abutm	180+49.42	-5.50	644.50	644.50
A	180+59.42	-5.50	644.50	644.50
B	180+69.42	-5.50	644.49	644.50
CL Brg. E. Abutm	180+81.59	-5.50	644.47	644.47
Back E. Abutment	180+82.17	-5.50	644.47	644.47

**BEAM 9**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	-2.50	644.54	644.54
CL Brg. W. Abutm	180+49.42	-2.50	644.54	644.54
A	180+59.42	-2.50	644.55	644.55
B	180+69.42	-2.50	644.54	644.54
CL Brg. E. Abutm	180+81.59	-2.50	644.52	644.52
Back E. Abutment	180+82.17	-2.50	644.52	644.52

**TOP OF DECK SLAB PLAN, PROFILE, DEFLECTION & ELEVATIONS**

**STRUCTURE NO. 016-2503**

SHEET NO. S5	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	353	11-5-B	COOK	39	17
S18 SHEETS		CONTRACT NO. 60J44			
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LONGITUDINAL CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	-0.50	644.58	644.58
CL Brg. W. Abutm	180+49.42	-0.50	644.58	644.58
A	180+59.42	-0.50	644.58	644.58
B	180+69.42	-0.50	644.57	644.58
CL Brg. E. Abutm	180+81.59	-0.50	644.55	644.55
Back E. Abutment	180+82.17	-0.50	644.55	644.55

US Rte. 30 & PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	0.00	644.58	644.58
CL Brg. W. Abutm	180+49.42	0.00	644.58	644.58
A	180+59.42	0.00	644.58	644.59
B	180+69.42	0.00	644.58	644.58
CL Brg. E. Abutm	180+81.59	0.00	644.56	644.56
Back E. Abutment	180+82.17	0.00	644.56	644.56

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	0.50	644.58	644.58
CL Brg. W. Abutm	180+49.42	0.50	644.58	644.58
A	180+59.42	0.50	644.58	644.58
B	180+69.42	0.50	644.57	644.58
CL Brg. E. Abutm	180+81.59	0.50	644.55	644.55
Back E. Abutment	180+82.17	0.50	644.55	644.55

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	3.50	644.53	644.53
CL Brg. W. Abutm	180+49.42	3.50	644.53	644.53
A	180+59.42	3.50	644.53	644.53
B	180+69.42	3.50	644.52	644.53
CL Brg. E. Abutm	180+81.59	3.50	644.50	644.50
Back E. Abutment	180+82.17	3.50	644.50	644.50

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	6.50	644.48	644.48
CL Brg. W. Abutm	180+49.42	6.50	644.48	644.48
A	180+59.42	6.50	644.48	644.49
B	180+69.42	6.50	644.48	644.48
CL Brg. E. Abutm	180+81.59	6.50	644.46	644.46
Back E. Abutment	180+82.17	6.50	644.46	644.46

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	9.50	644.43	644.43
CL Brg. W. Abutm	180+49.42	9.50	644.44	644.44
A	180+59.42	9.50	644.44	644.44
B	180+69.42	9.50	644.43	644.43
CL Brg. E. Abutm	180+81.59	9.50	644.41	644.41
Back E. Abutment	180+82.17	9.50	644.41	644.41

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	12.50	644.39	644.39
CL Brg. W. Abutm	180+49.42	12.50	644.39	644.39
A	180+59.42	12.50	644.39	644.39
B	180+69.42	12.50	644.38	644.39
CL Brg. E. Abutm	180+81.59	12.50	644.36	644.36
Back E. Abutment	180+82.17	12.50	644.36	644.36

BEAM 15

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	15.50	644.34	644.34
CL Brg. W. Abutm	180+49.42	15.50	644.34	644.34
A	180+59.42	15.50	644.34	644.35
B	180+69.42	15.50	644.34	644.34
CL Brg. E. Abutm	180+81.59	15.50	644.32	644.32
Back E. Abutment	180+82.17	15.50	644.32	644.32

BEAM 16

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	18.50	644.29	644.29
CL Brg. W. Abutm	180+49.42	18.50	644.29	644.29
A	180+59.42	18.50	644.30	644.30
B	180+69.42	18.50	644.29	644.29
CL Brg. E. Abutm	180+81.59	18.50	644.27	644.27
Back E. Abutment	180+82.17	18.50	644.27	644.27

BEAM 17

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	21.50	644.25	644.25
CL Brg. W. Abutm	180+49.42	21.50	644.25	644.25
A	180+59.42	21.50	644.25	644.25
B	180+69.42	21.50	644.24	644.25
CL Brg. E. Abutm	180+81.59	21.50	644.22	644.22
Back E. Abutment	180+82.17	21.50	644.22	644.22

BEAM 18

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	24.50	644.20	644.20
CL Brg. W. Abutm	180+49.42	24.50	644.20	644.20
A	180+59.42	24.50	644.20	644.21
B	180+69.42	24.50	644.19	644.20
CL Brg. E. Abutm	180+81.59	24.50	644.18	644.18
Back E. Abutment	180+82.17	24.50	644.17	644.17

SOUTH F/L

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	26.00	644.18	644.18
CL Brg. W. Abutm	180+49.42	26.00	644.18	644.18
A	180+59.42	26.00	644.18	644.18
B	180+69.42	26.00	644.17	644.18
CL Brg. E. Abutm	180+81.59	26.00	644.15	644.15
Back E. Abutment	180+82.17	26.00	644.15	644.15

BEAM 19

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	27.50	644.15	644.15
CL Brg. W. Abutm	180+49.42	27.50	644.15	644.15
A	180+59.42	27.50	644.15	644.16
B	180+69.42	27.50	644.15	644.15
CL Brg. E. Abutm	180+81.59	27.50	644.13	644.13
Back E. Abutment	180+82.17	27.50	644.13	644.13

BEAM 20

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abutment	180+48.83	30.50	644.11	644.11
CL Brg. W. Abutm	180+49.42	30.50	644.11	644.11
A	180+59.42	30.50	644.11	644.11
B	180+69.42	30.50	644.10	644.11
CL Brg. E. Abutm	180+81.59	30.50	644.08	644.08
Back E. Abutment	180+82.17	30.50	644.08	644.08

TOP OF DECK SLAB ELEVATIONS  
STRUCTURE NO. 016-2503

DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



100 S. WALKER DRIVE SUITE 700 CHICAGO IL 60606 P.312-686-8910 F.312-686-0415

SHEET NO.56	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	353	11-5-B	COOK	39	18
S18 SHEETS			CONTRACT NO. 60J44		
ILLINOIS FED. AID PROJECT					



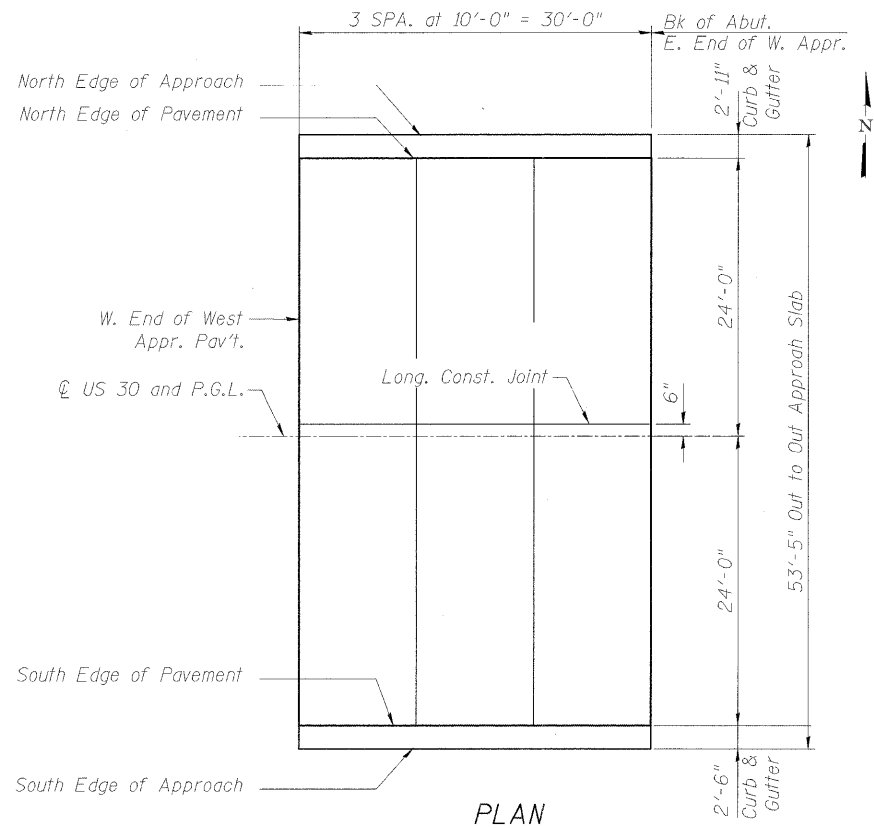
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH EDGE APPROACH

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Approach	180+18.83	-26.92	644.11
A1	180+28.83	-26.92	644.14
A2	180+38.83	-26.92	644.15
East End of W. Approach	180+48.83	-26.92	644.16

CL US 30 & PGL

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Approach	180+18.83	0.00	644.53
A1	180+28.83	0.00	644.56
A2	180+38.83	0.00	644.57
East End of W. Approach	180+48.83	0.00	644.58



NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Approach	180+18.83	-24.00	644.16
A1	180+28.83	-24.00	644.18
A2	180+38.83	-24.00	644.20
East End of W. Approach	180+48.83	-24.00	644.21

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Approach	180+18.83	24.00	644.16
A1	180+28.83	24.00	644.18
A2	180+38.83	24.00	644.20
East End of W. Approach	180+48.83	24.00	644.21

LONG. CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Approach	180+18.83	-0.50	644.53
A1	180+28.83	-0.50	644.55
A2	180+38.83	-0.50	644.57
East End of W. Approach	180+48.83	-0.50	644.58

SOUTH EDGE APPROACH

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Approach	180+18.83	26.50	644.12
A1	180+28.83	26.50	644.14
A2	180+38.83	26.50	644.16
East End of W. Approach	180+48.83	26.50	644.17

WEST APPROACH  
TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 016-2503

DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



SHEET NO. 57	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	353	11-5-B	COOK	39	19
S18 SHEETS		CONTRACT NO. 60J44			
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH EDGE APPROACH

Location	Station	Offset	Theoretical Grade Elevations
West End of E. Approach	180+82.17	-26.92	644.14
A3	180+92.17	-26.92	644.11
A4	181+02.17	-26.92	644.08
East End of E. Approach	181+12.17	-26.92	643.04

CL US 30 & PGL

Location	Station	Offset	Theoretical Grade Elevations
West End of E. Approach	180+82.17	0.00	644.56
A3	180+92.17	0.00	644.53
A4	181+02.17	0.00	644.50
East End of E. Approach	181+12.17	0.00	644.46

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
West End of E. Approach	180+82.17	-24.00	644.18
A3	180+92.17	-24.00	644.16
A4	181+02.17	-24.00	644.13
East End of E. Approach	181+12.17	-24.00	644.09

SOUTH EDGE OF PAVEMENT

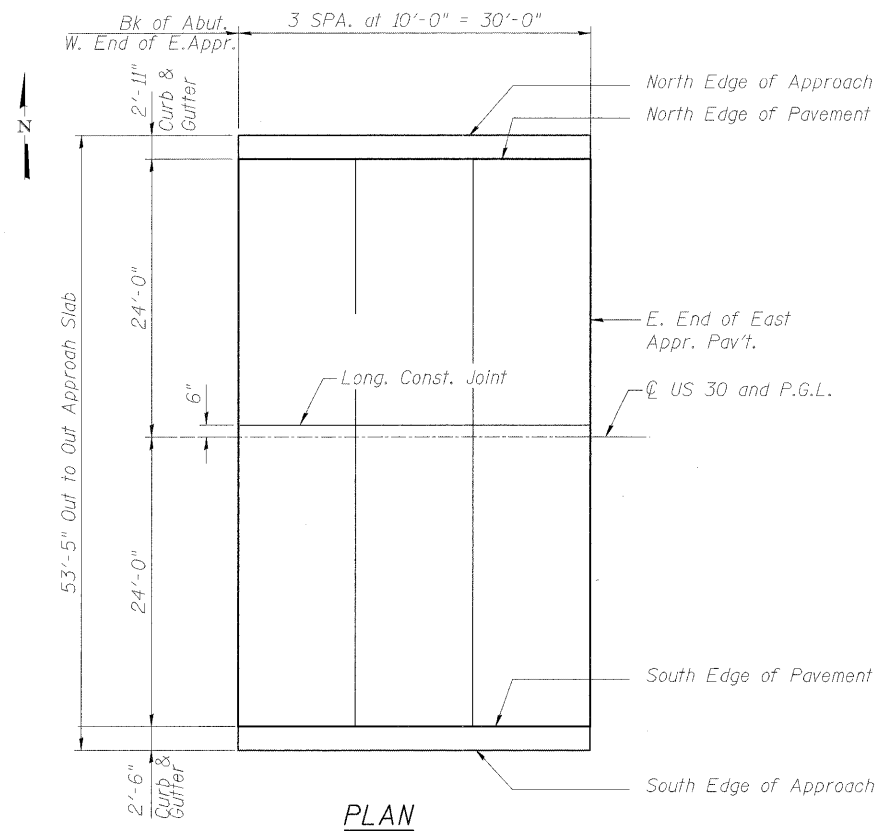
Location	Station	Offset	Theoretical Grade Elevations
West End of E. Approach	180+82.17	24.00	644.18
A3	180+92.17	24.00	644.16
A4	181+02.17	24.00	644.13
East End of E. Approach	181+12.17	24.00	644.09

LONG. CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
West End of E. Approach	180+82.17	-0.50	644.55
A3	180+92.17	-0.50	644.53
A4	181+02.17	-0.50	644.49
East End of E. Approach	181+12.17	-0.50	644.45

SOUTH EDGE APPROACH

Location	Station	Offset	Theoretical Grade Elevations
West End of E. Approach	180+82.17	26.50	644.14
A3	180+92.17	26.50	644.12
A4	181+02.17	26.50	644.09
East End of E. Approach	181+12.17	26.50	643.05



PLAN

EAST APPROACH  
TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 016-2503

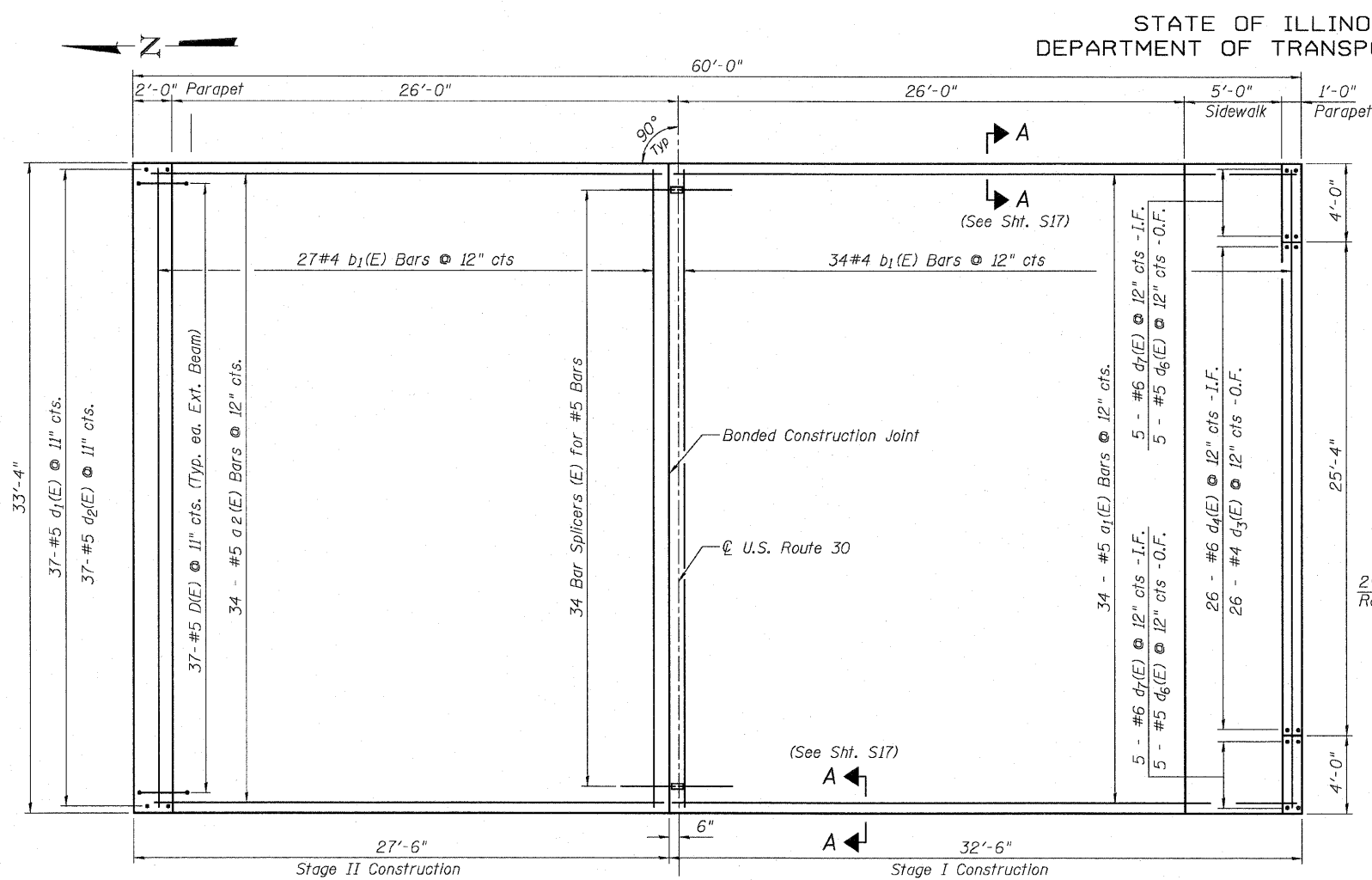
DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



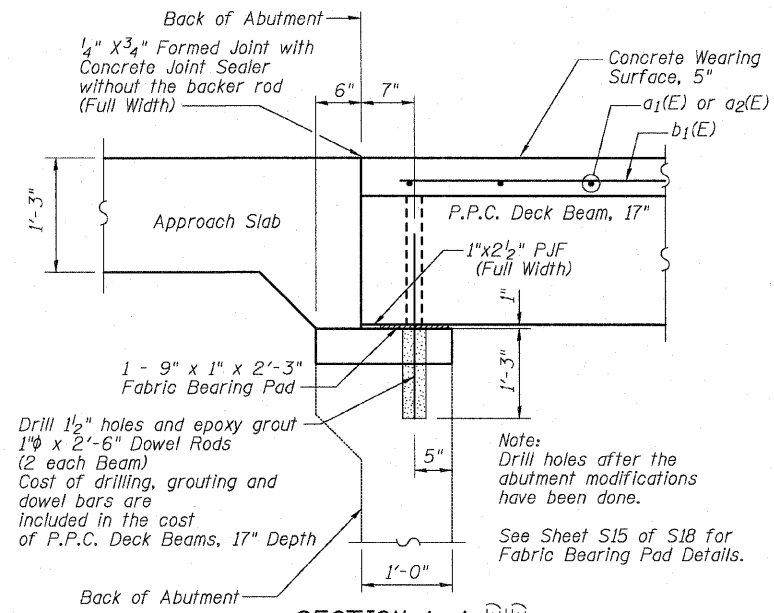
100 S. WACKER DRIVE SUITE 700 • CHICAGO IL 60606 • F312-686-0910 F312-686-0415

SHEET NO. SB	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
518 SHEETS	353	11-5-B	COOK	39	20
			CONTRACT NO. 60J44		
ILLINOIS FED. AID PROJECT					

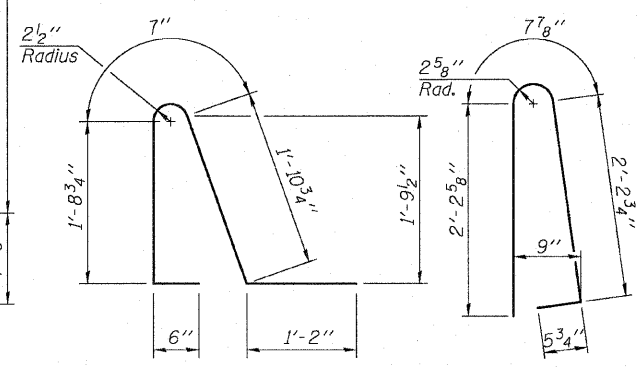
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



DECK PLAN



SECTION A-A



BAR d<sub>2</sub>(E)

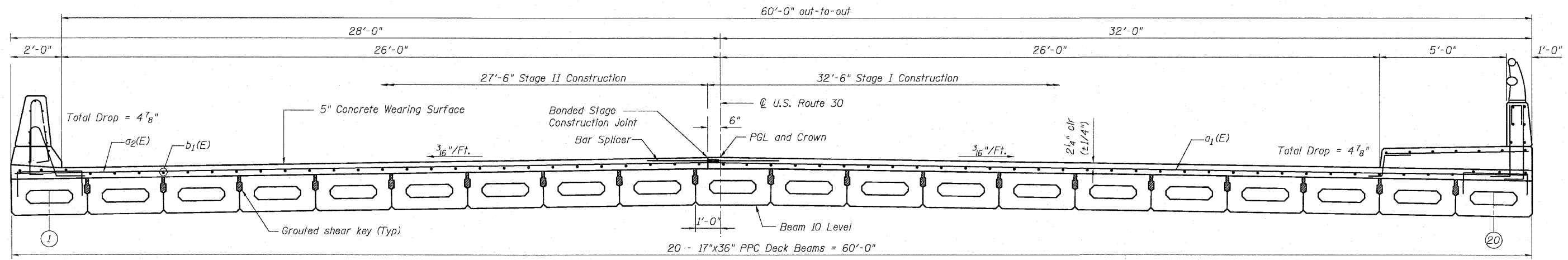
BAR d<sub>1</sub>(E)

BAR d<sub>3</sub>(E), d<sub>4</sub>(E)  
BAR d<sub>6</sub>(E) AND d<sub>7</sub>(E)

BAR D(E) and d<sub>5</sub>(E)  
BAR c<sub>1</sub>(E)

SUPERSTRUCTURE  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a <sub>1</sub> (E)	34	#5	32'-4"	
a <sub>2</sub> (E)	34	#5	27'-4"	
b <sub>1</sub> (E)	69	#4	33'-1"	
c <sub>1</sub> (E)	34	#5	2'-5"	
c <sub>2</sub> (E)	34	#5	5'-7"	
D(E)	74	#5	4'-8"	
d <sub>1</sub> (E)	37	#5	5'-7"	
d <sub>2</sub> (E)	37	#5	5'-11"	
d <sub>3</sub> (E)	26	#4	3'-7"	
d <sub>4</sub> (E)	26	#6	3'-7"	
d <sub>5</sub> (E)	8	#4	2'-0"	
d <sub>6</sub> (E)	10	#4	5'-5"	
d <sub>7</sub> (E)	10	#6	5'-5"	
e <sub>1</sub> (E)	24	#4	16'-5"	
e <sub>2</sub> (E)	1	#4	33'-0"	
e <sub>3</sub> (E)	1	#8	33'-0"	
e <sub>4</sub> (E)	12	#4	3'-9"	
<hr/>				
Item	Unit	Total		
Reinforcement Bars, Epoxy Coated	Pound	5110		
Concrete Superstructure	Cu. Yd.	13		
Bars Splicer	Each	34		
Bridge Deck Grooving	Sq. Yd.	178		
Protective Coat	Sq. Yd.	244		
Concrete Wearing Surface, 5 inches	Sq. Yd.	223		



CROSS SECTION  
Looking East

SUPERSTRUCTURE PLAN AND  
CROSS SECTION  
STRUCTURE NO. 016-2503

DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG

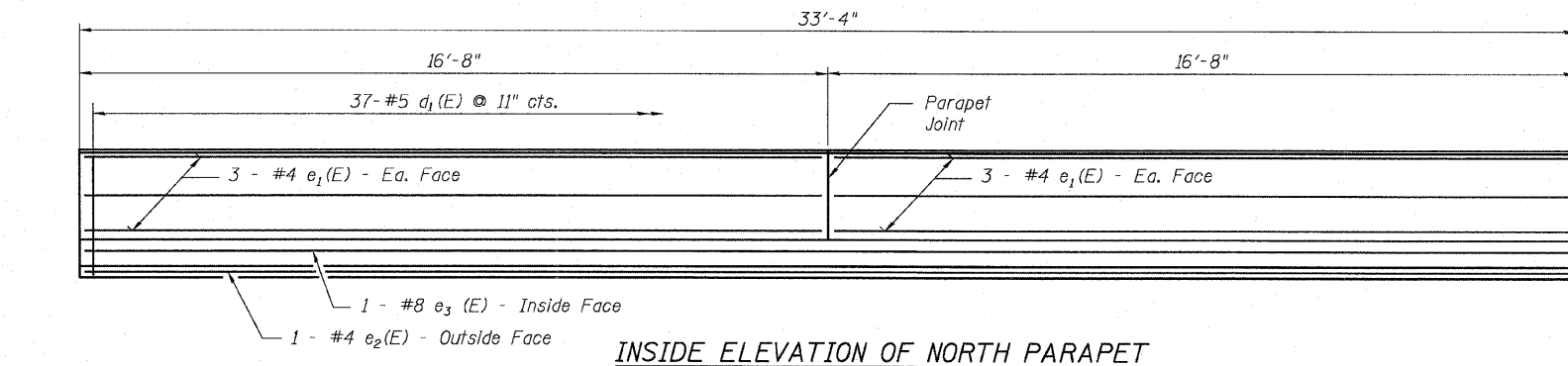


MIN. BAR LAP  
\*5 = 2'-2"

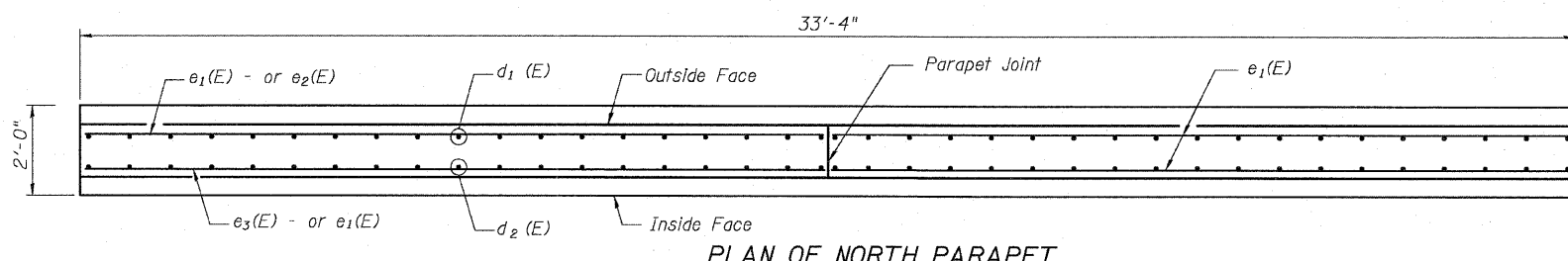
Note:  
For Parapet and Sidewalk reinforcement  
See "Superstructure -Parapet Plan, Elevations  
and Details", Sheet S10 of S18  
  
All concrete wearing surfaces in each stage  
shall be placed prior to casting approach slab.  
  
I.F. = Denotes Inside Face  
O.F. = Denotes Outside Face

SHEET NO.S9	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S18 SHEETS	353	11-5-B	COOK	39	21
CONTRACT NO. 60J44					
ILLINOIS FED. AID PROJECT					

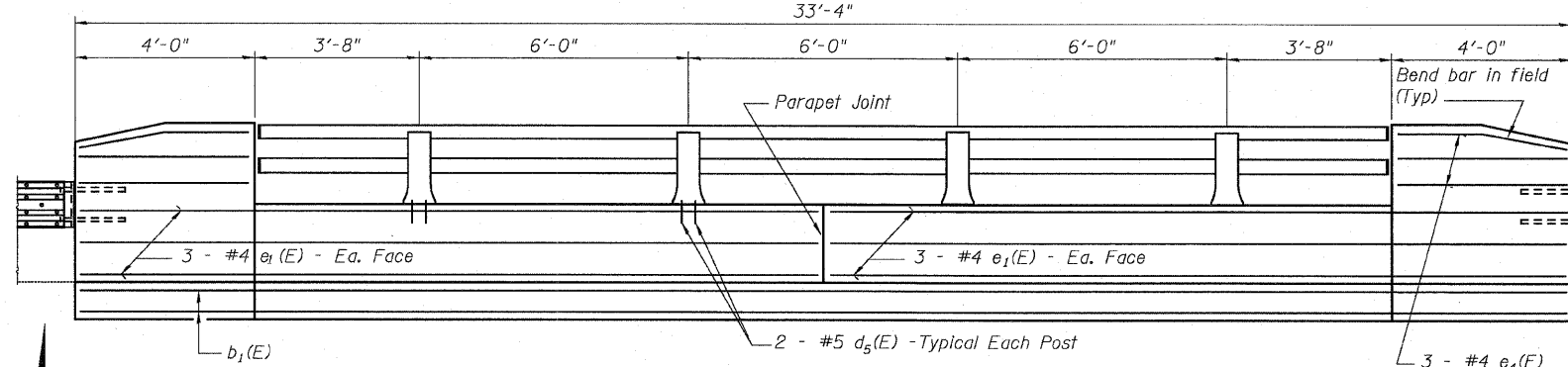
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



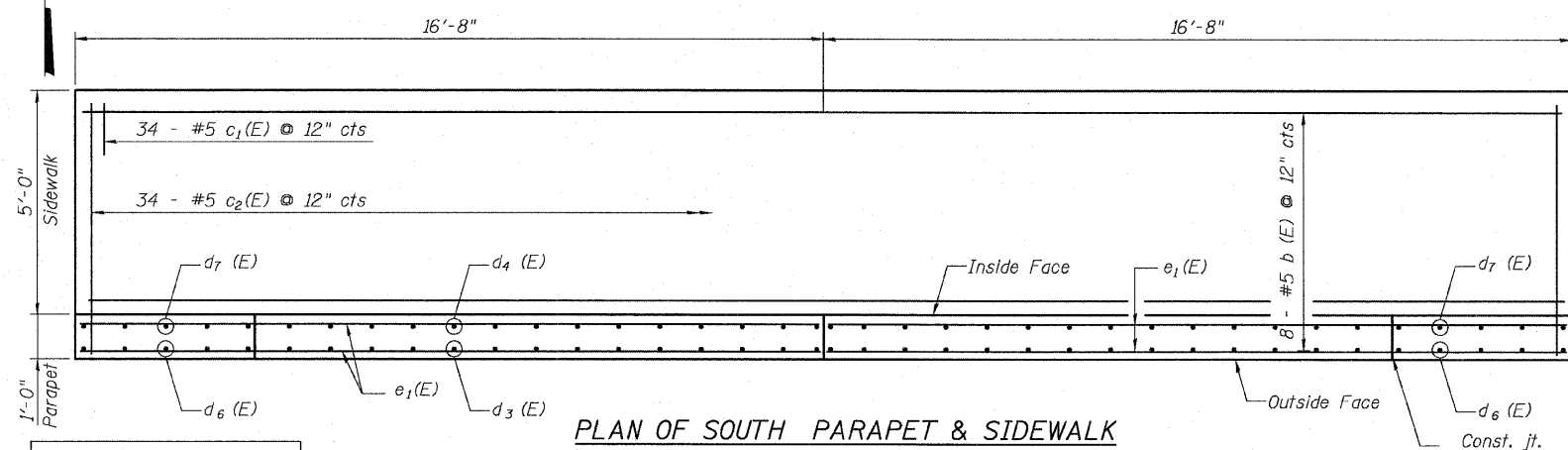
**INSIDE ELEVATION OF NORTH PARAPET**  
Looking North



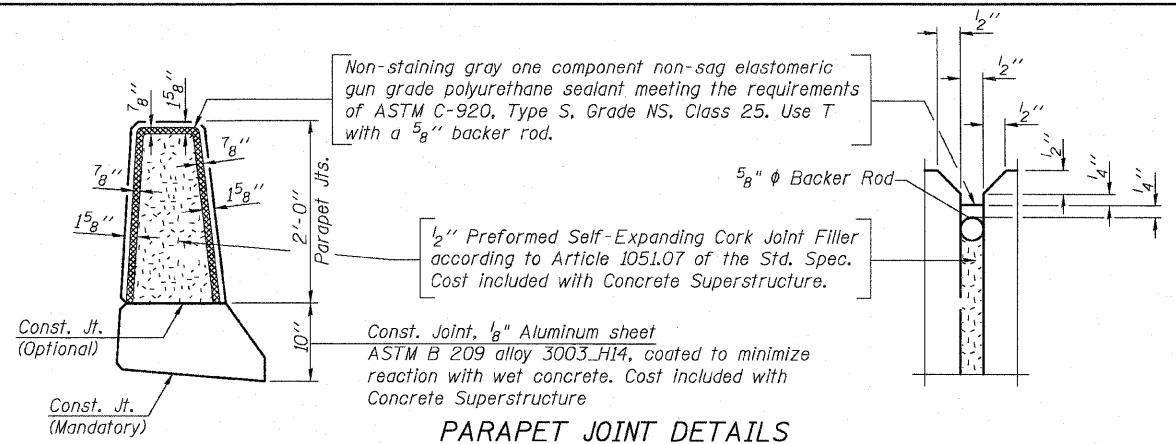
**PLAN OF NORTH PARAPET**



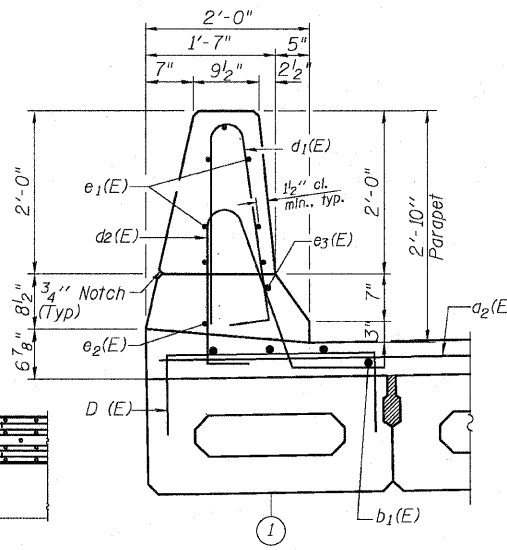
**INSIDE ELEVATION OF SOUTH PARAPET**  
Looking South



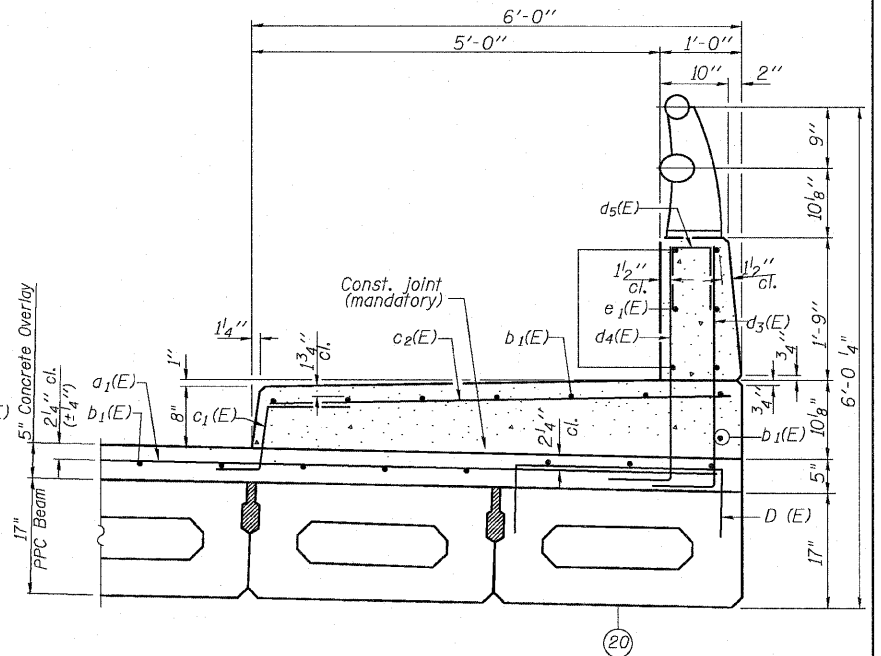
**PLAN OF SOUTH PARAPET & SIDEWALK**



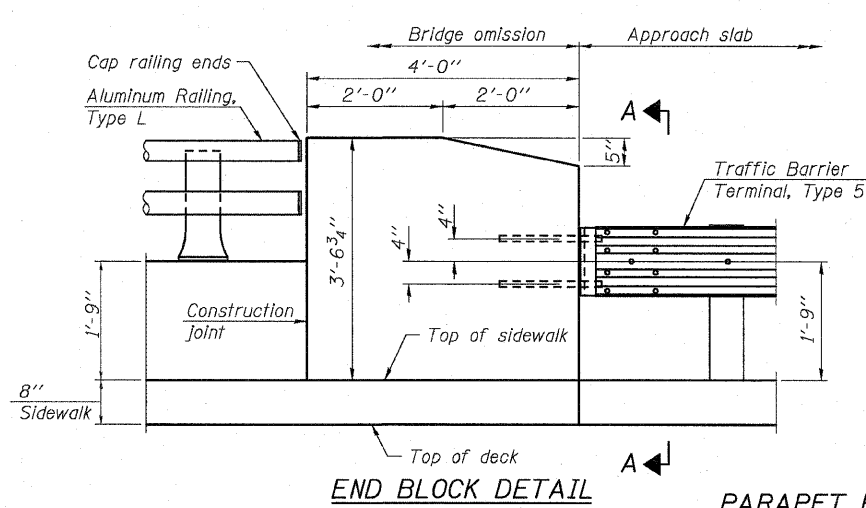
**PARAPET JOINT DETAILS**



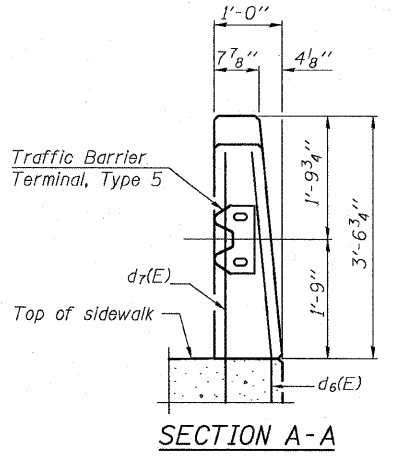
**SECTION THRU NORTH PARAPET**



**SECTION THRU SOUTH PARAPET AND SIDEWALK**



**END BLOCK DETAIL**



**SECTION A-A**

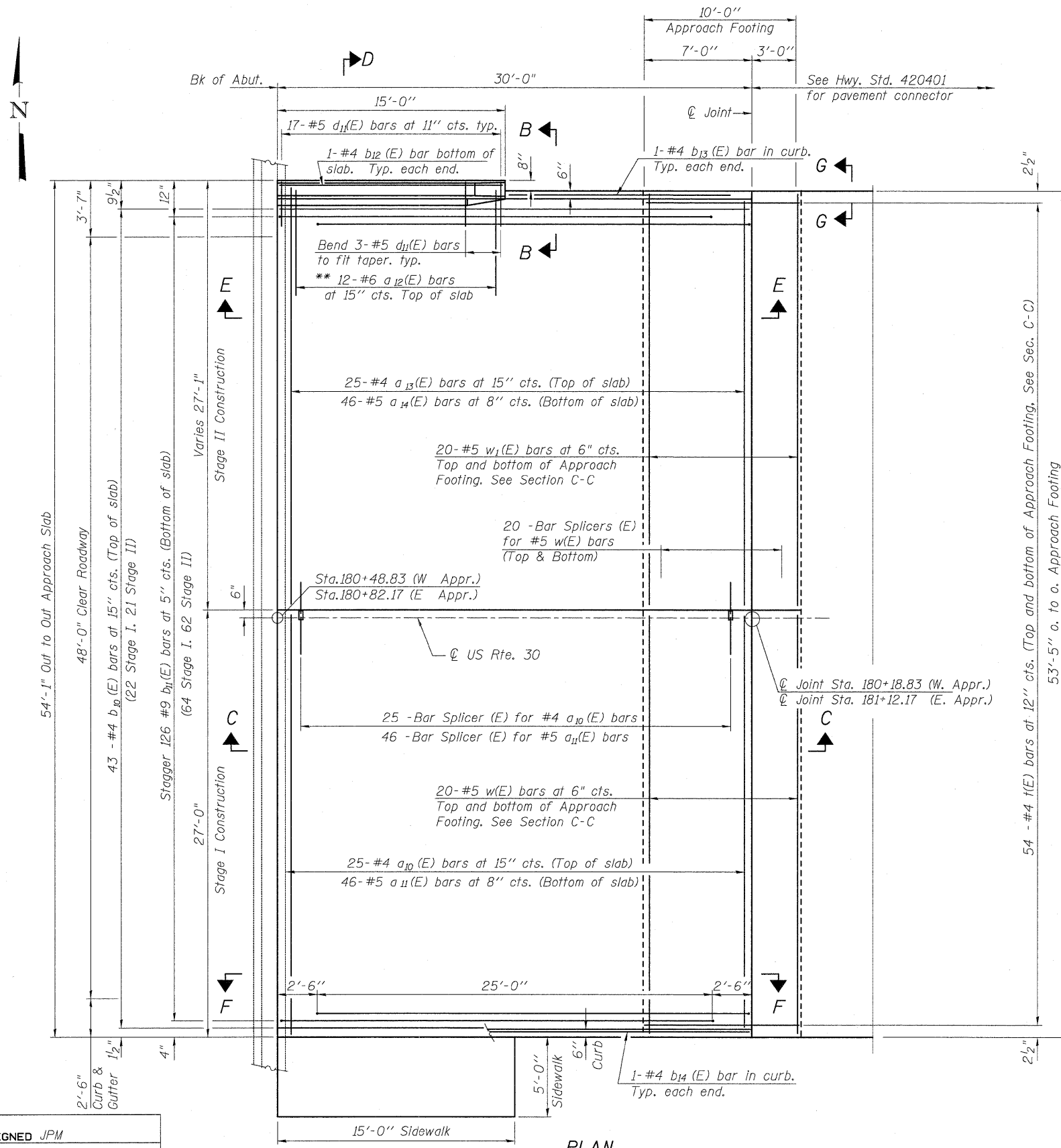
**PARAPET PLAN ELEVATION AND DETAILS**  
STRUCTURE NO. 016-2503

DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



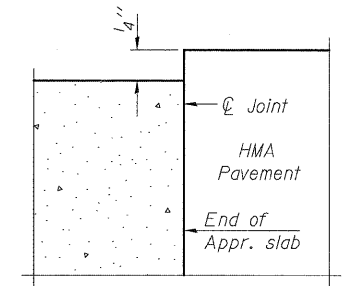
SHEET NO. S10 S18 SHEETS	F.A.P. RTE. 353	SECTION 11-5-B	COUNTY COOK	TOTAL SHEETS 39	SHEET NO. 22
	CONTRACT NO. 60J44				
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

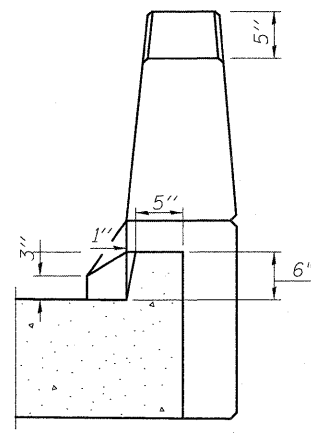


**PLAN**

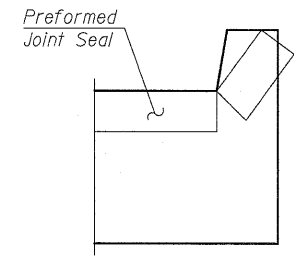
East Approach - Shown  
West Approach - Opposite Hand



**DETAIL A**



**VIEW B-B**



**VIEW G-G**

Angle Preformed Joint Seal at 45°  
at curbs when req'd for drainage.

Notes:  
See sheet S12 of S18 for Sections C-C & D-D, View E-E and View F-F.

**EAST & WEST APPROACH SLAB  
PLAN AND DETAILS  
STRUCTURE NO. 016-2503**

DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



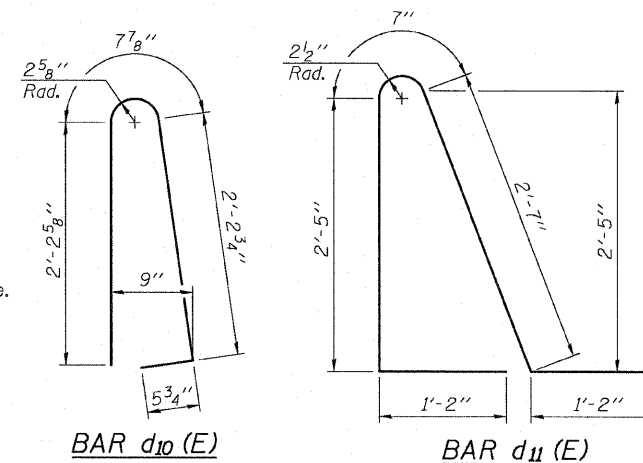
\* Tilt #9 b11(E) bars as required to maintain clearance.  
\*\* Space between a(E) bars, typ. ea. parapet.

SHEET NO. S11	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	353	11-5-B	COOK	39	23
S18 SHEETS		CONTRACT NO. 60J44			
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:

See sheet S11 of S18 for Detail A and View B-B.  
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.  
Approach footing concrete shall be paid for as Concrete Structures.  
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ksf.  
For bar splicer details, see sheet S18 of S18.  
Cost of excavation for approach footing included with Concrete Structures.  
For additional parapet details, see sheet S10 of S18.

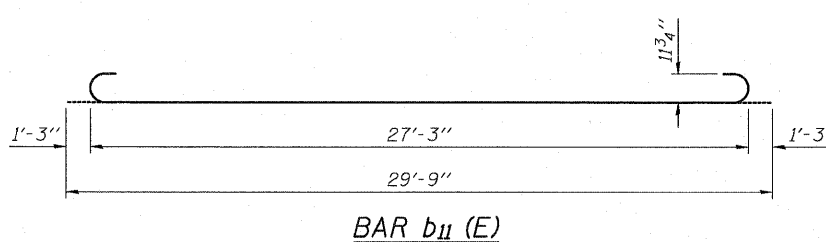
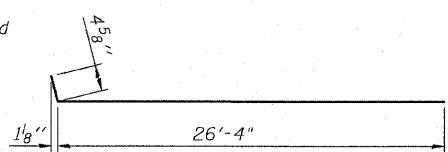
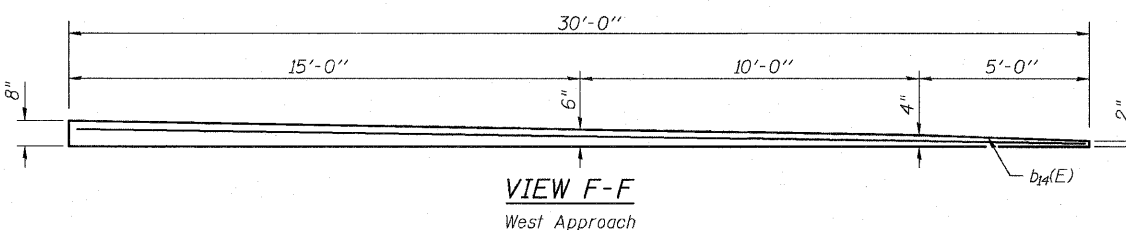
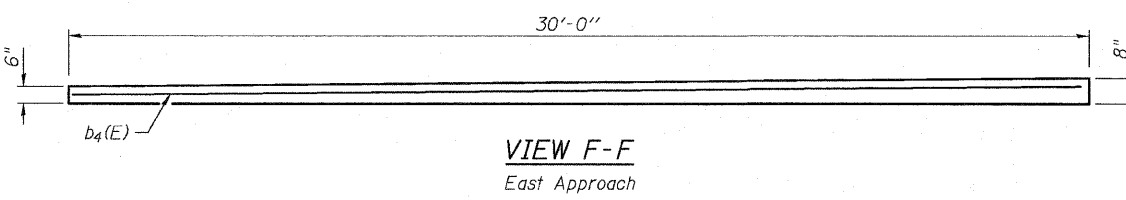
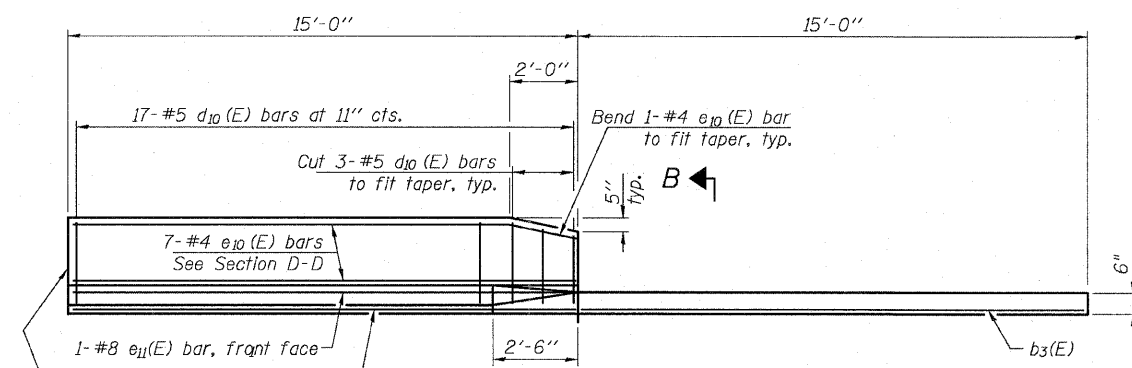
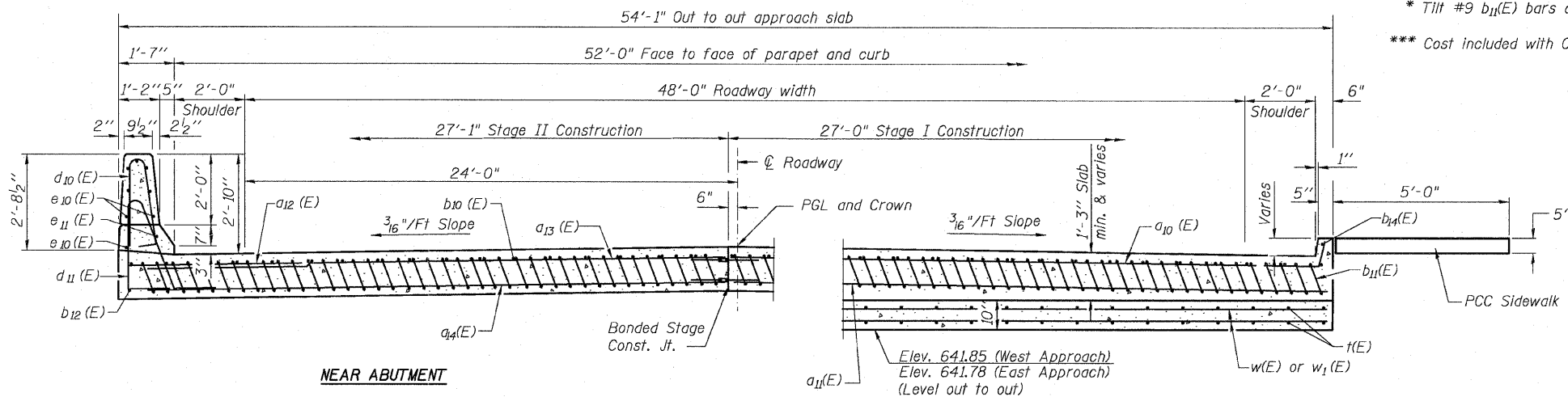
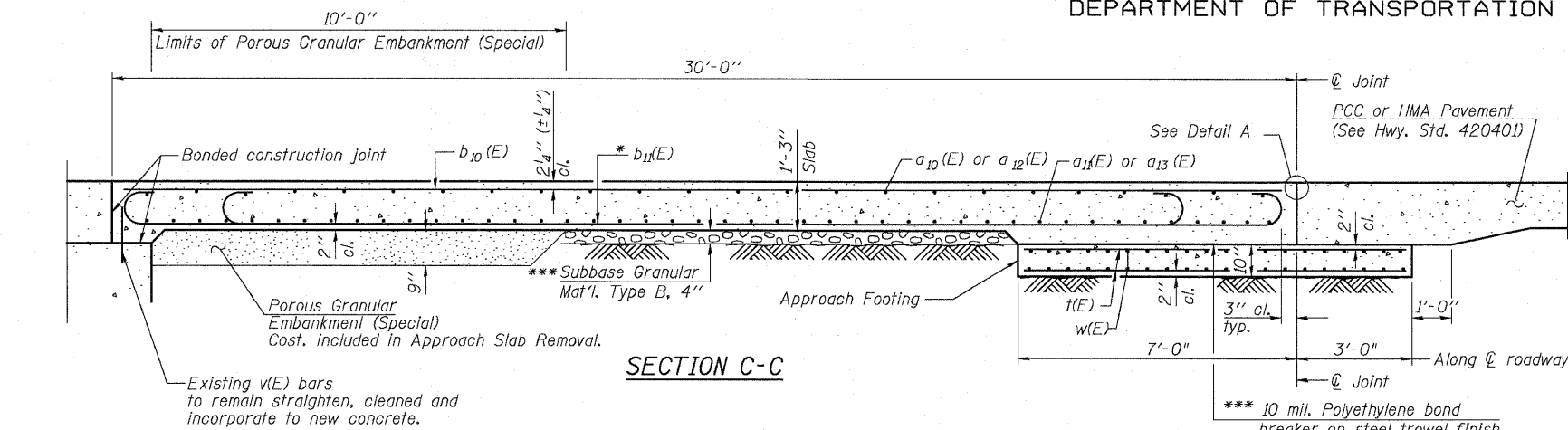


TWO APPROACHES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a <sub>10</sub> (E)	50	#4	26'-9"	—
a <sub>11</sub> (E)	92	#5	26'-9"	—
a <sub>12</sub> (E)	12	#6	6'-6"	—
a <sub>13</sub> (E)	50	#5	25'-9"	—
a <sub>14</sub> (E)	92	#6	25'-9"	—
b <sub>10</sub> (E)	86	#4	29'-8"	—
b <sub>11</sub> (E)	252	#9	29'-9"	—
b <sub>12</sub> (E)	2	#4	14'-8"	—
b <sub>13</sub> (E)	2	#4	14'-8"	—
b <sub>14</sub> (E)	2	#4	29'-8"	—
d <sub>10</sub> (E)	34	#5	5'-7"	—
d <sub>11</sub> (E)	34	#5	7'-11"	—
e <sub>10</sub> (E)	16	#4	14'-8"	—
e <sub>11</sub> (E)	2	#8	14'-8"	—
t(E)	106	#4	9'-8"	—
w(E)	80	#5	26'-9"	—
w <sub>1</sub> (E)	80	#5	25'-9"	—
Concrete Superstructure		Cu. Yd.	161	
Concrete Structures		Cu. Yd.	33	
Reinforcement Bars, Epoxy Coated		Pound	41,540**	
Protective Coat		Sq. Yd.	363	
Bar Splicer		Each	222	
PCC Sidewalk, 5"		Sq. Ft.	150	
Combination Curb & Gutter Removal		Foot	120	

\*\* Includes Approach Slab, parapet and footing reinforcement.

BRIDGE APPROACH SLAB DETAILS  
STRUCTURE NO. 016-2503



DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG

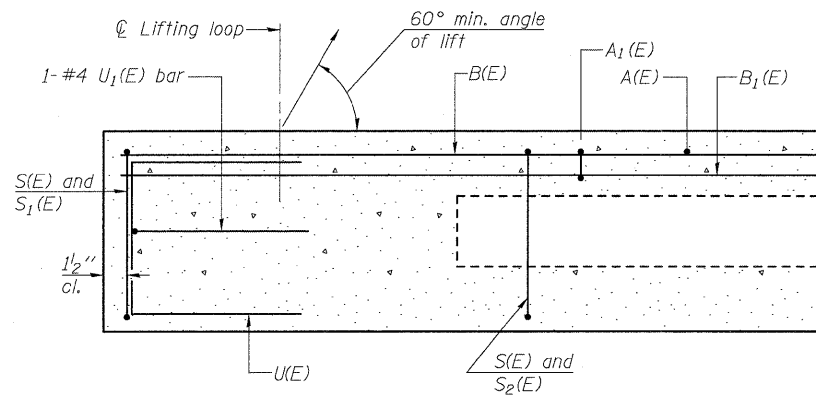


SHEET NO. S12	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S18 SHEETS	353	11-5-B	COOK	39	24
			CONTRACT NO. 60J44		
ILLINOIS FED. AID PROJECT					

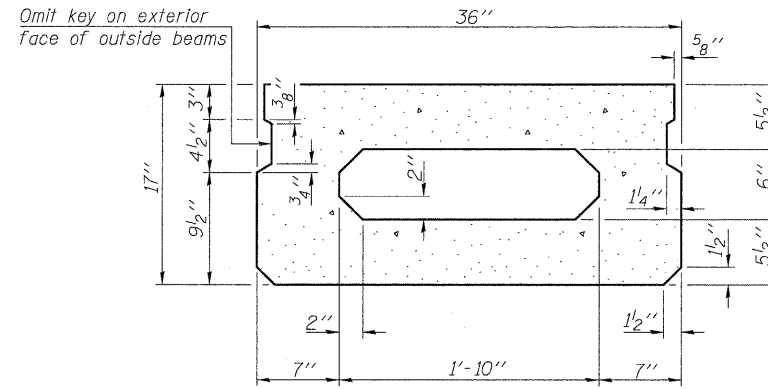




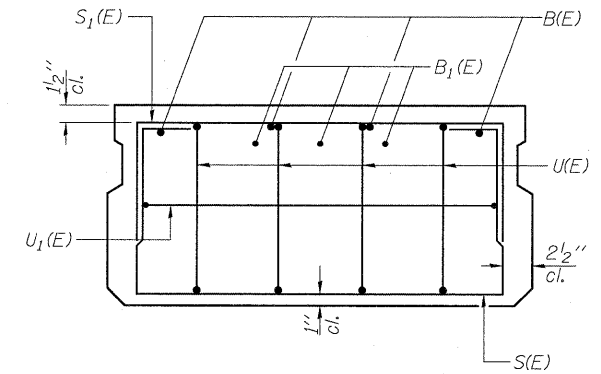
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



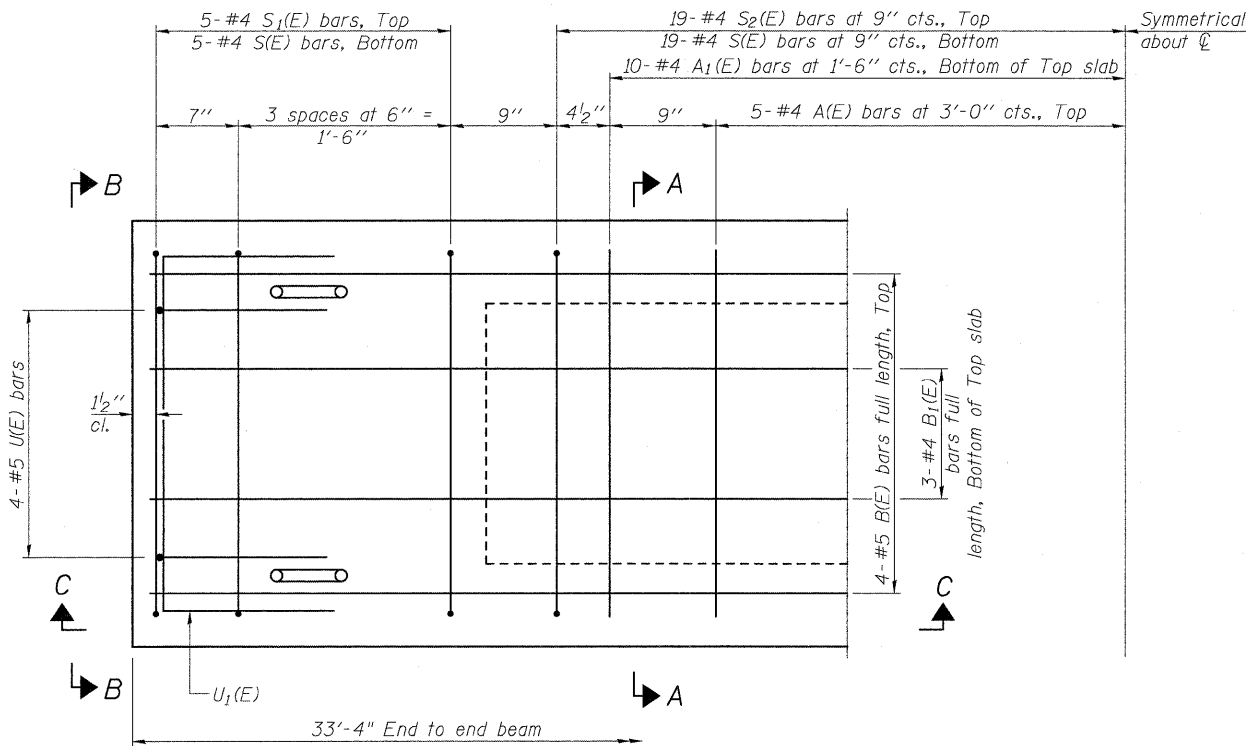
SECTION C-C



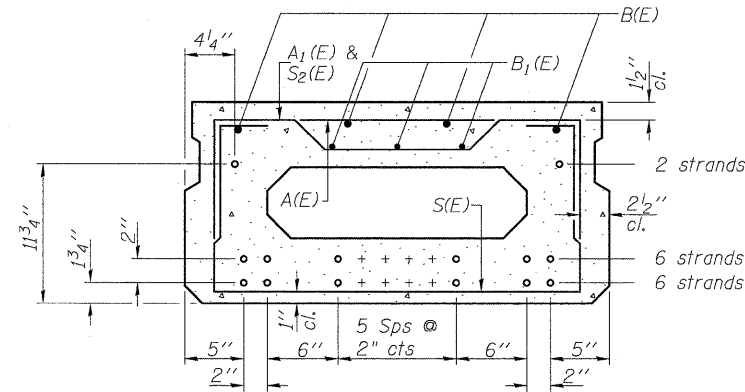
SECTION A-A  
(Showing dimensions)



VIEW B-B



PLAN VIEW



SECTION A-A  
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

**MINIMUM BAR LAP**  
#4 bar = 2'-0"  
#5 bar = 2'-6"

**BAR LIST**  
**ONE BEAM ONLY**  
(For information only)

Bar	No.	Size	Length	Shape
A(E)	11	#4	2'-7"	—
A1(E)	19	#4	2'-10"	—
B(E)	4	#5	33'-1"	—
B1(E)	3	#4	33'-1"	—
S(E)	47	#4	5'-9"	□
S1(E)	10	#4	4'-3"	□
S2(E)	37	#4	4'-6"	□
U(E)	8	#5	3'-8"	□
U1(E)	2	#4	5'-0"	□

Note: See sheet S15 of S18 for additional details and Bill of Material.

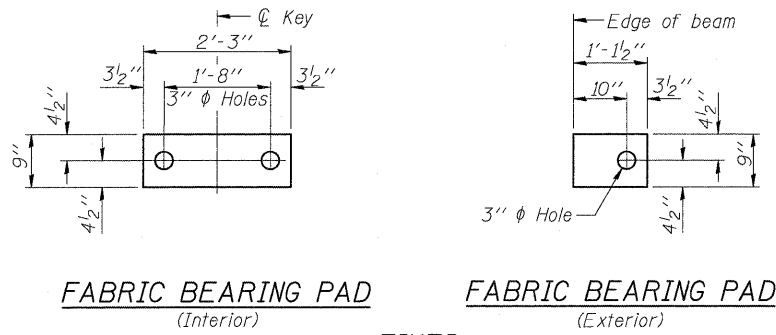
Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



**17" X 36" PPC DECK BEAM**  
**STRUCTURE NO. 016-2503**

SHEET NO. S14	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	353	11-5-B	COOK	39	26
S18 SHEETS		CONTRACT NO. 60J44			
ILLINOIS FED. AID PROJECT					

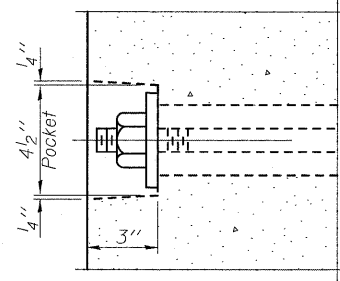


FABRIC BEARING PAD  
(Interior)

FABRIC BEARING PAD  
(Exterior)

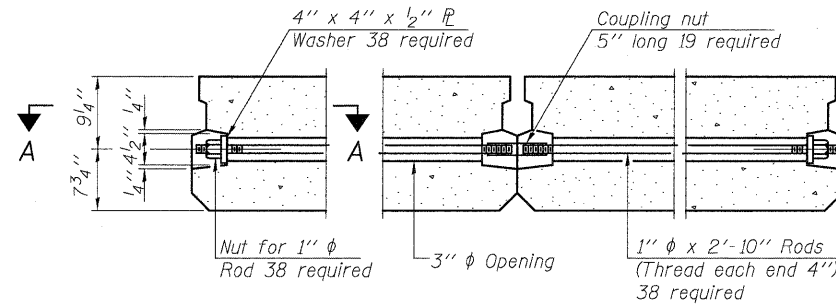
FIXED

Notes:  
All bearing pads shall be 1" thick.

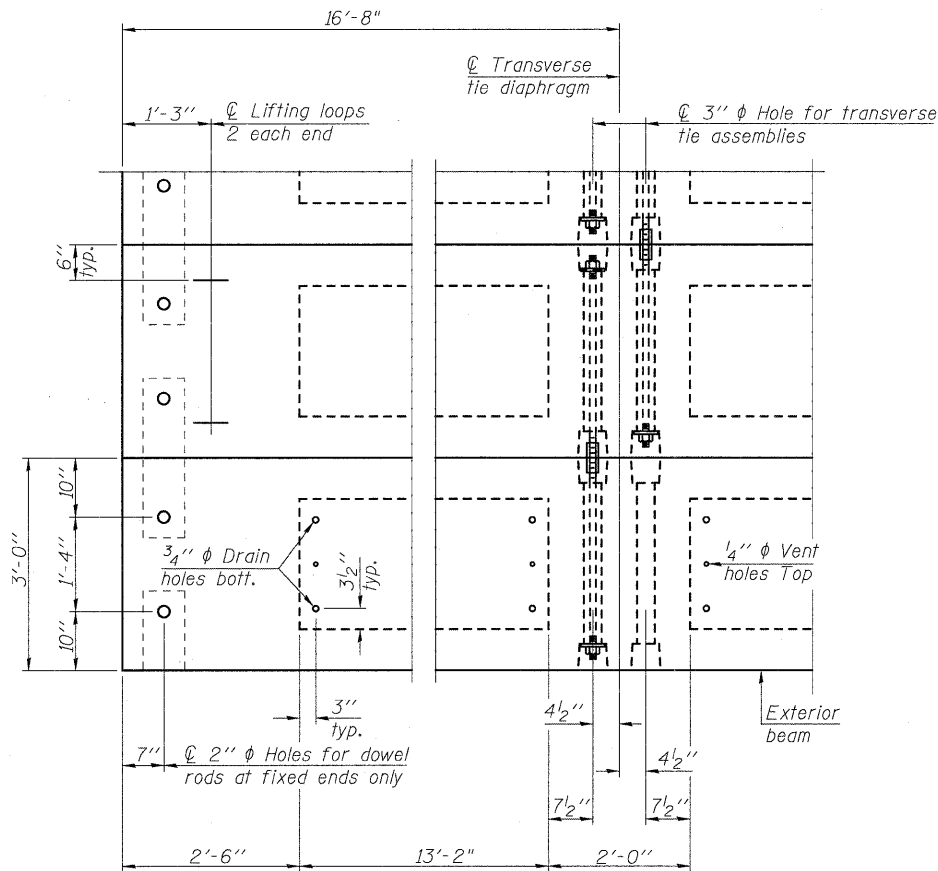


SECTION A-A

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



TYPICAL TRANSVERSE TIE ASSEMBLY

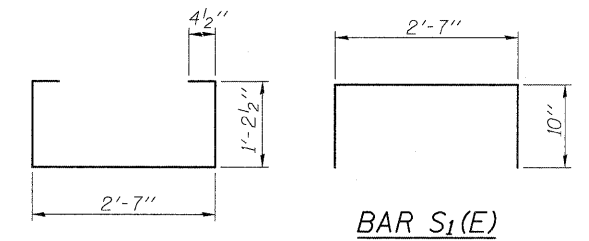


PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.

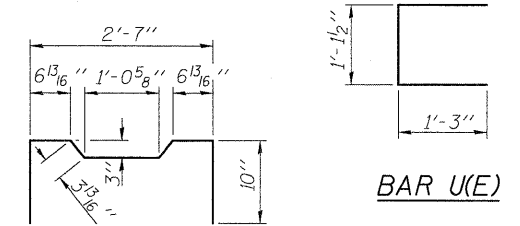
NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



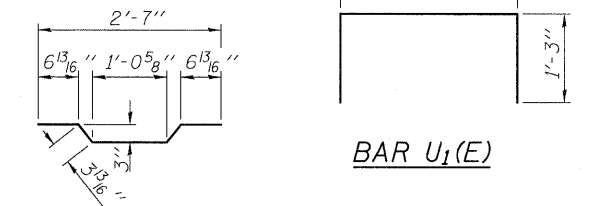
BAR S(E)

BAR S1(E)



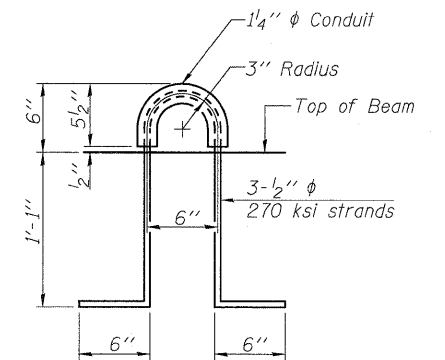
BAR U(E)

BAR S2(E)



BAR U1(E)

BAR A1(E)



LIFTING LOOP DETAIL

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	2,000
---	---------	-------

17" X 36" PPC DECK BEAM DETAILS  
STRUCTURE NO. 016-2503

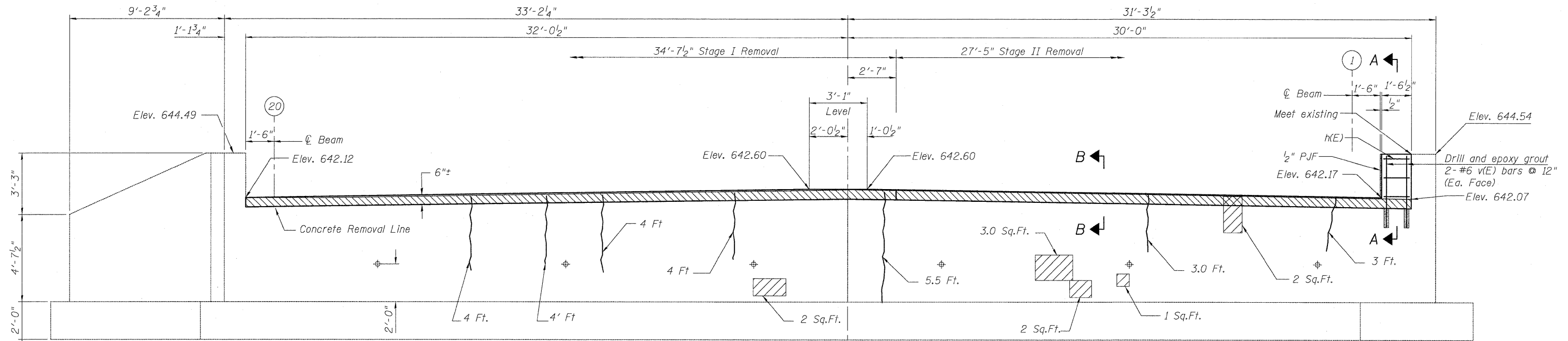
DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



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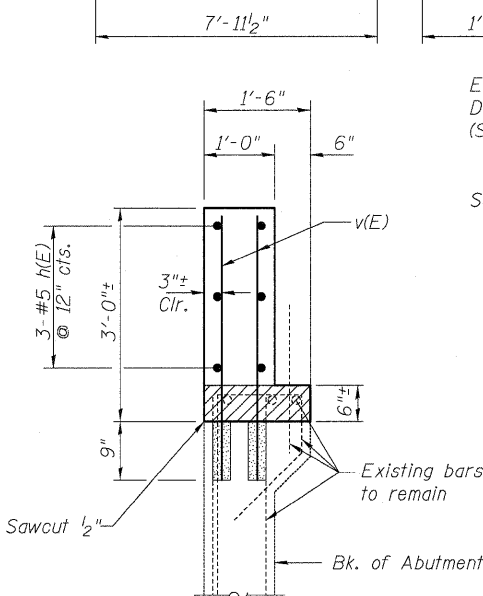
SHEET NO. S15	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	353	11-5-B	COOK	39	27
S18 SHEETS		CONTRACT NO. 60J44			
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

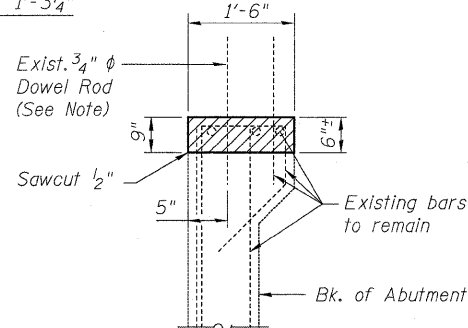


**ABUTMENT ELEVATION**  
Looking West

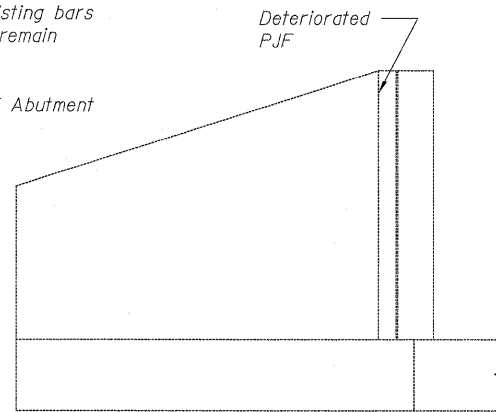
Note:  
Burn existing 3/4" φ Dowel Rods flush with concrete removal line at Beam 1 thru 19. Remove the 3/4" φ Dowel Rod at Beam 20, drill 1/2" φ holes and epoxy grout 2-1" φ x 2'-6" Dowel Rods. See Sheet S9 of S18 for other details.



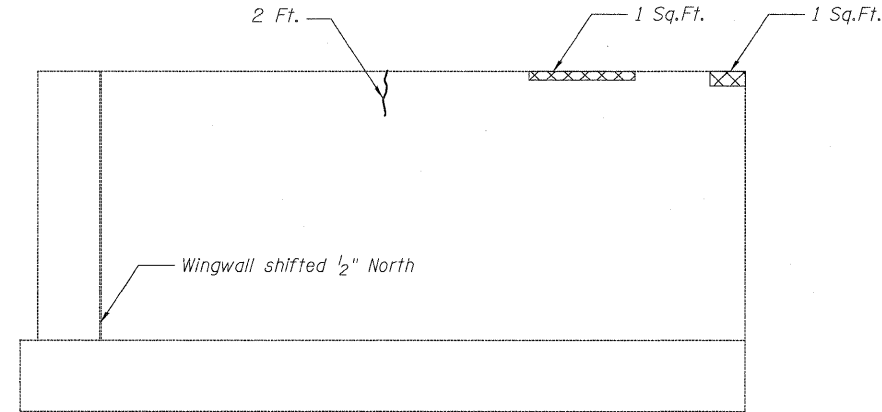
**SECTION A-A**



**SECTION B-B**



**SOUTHWEST WINGWALL ELEVATION**



**NORTHWEST WINGWALL ELEVATION**

**BAR LIST**

Bar	No.	Size	Length	Shape
h(E)	6	#5	1'-4"	—
v(E)	4	#6	3'-7"	—

**BILL OF MATERIAL**

Item	Unit	Quantity
Epoxy Crack Injection	Foot	30
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	10
Structural Repair of Concrete (Depth greater than 5 inches)	Sq. Ft.	2
Reinforcement Bars, Epoxy Coated	Pounds	30
Concrete Structures	Cu. Yd.	2
Concrete Removal	Cu. Yd.	2

Note:  
Existing bars to remain shall be cleaned, straightened and incorporated into new concrete.

Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with "Concrete Removal".

Note:  
The quantities shown are for estimating purposes only. Area to be repaired will be determined by the Engineer at the time of Construction. Actual repair locations shall be shown in the as-built plans.

**LEGEND:**

- Structural Repair of Concrete (Depth equal to or less than 5 inches)
- Structural Repair of Concrete (Depth greater than 5 inches)
- Concrete Removal

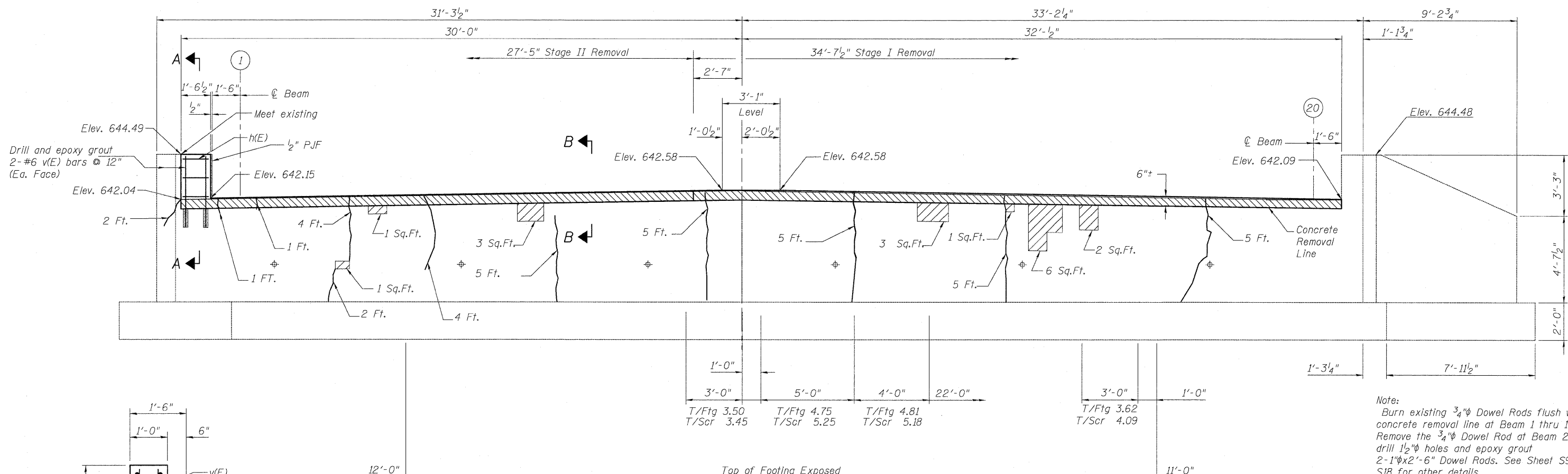
**EXISTING WEST ABUTMENT  
REPAIR & MODIFICATION DETAILS  
STRUCTURE NO. 016-2503**

DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



SHEET NO. S16	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	353	11-5-B	COOK	39	28
S18 SHEETS	CONTRACT NO. 60J44			ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



Note:  
Burn existing 3/4"  $\phi$  Dowel Rods flush with concrete removal line at Beam 1 thru 19. Remove the 3/4"  $\phi$  Dowel Rod at Beam 20, drill 1 1/2"  $\phi$  holes and epoxy grout 2-1"  $\phi$  x 2'-6" Dowel Rods. See Sheet S9 of S18 for other details.

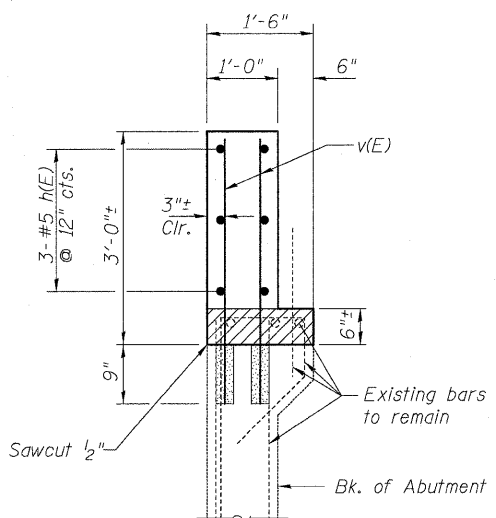
**BAR LIST**

Bar	No.	Size	Length	Shape
h(E)	6	#5	1'-4"	—
v(E)	4	#6	3'-7"	—

**BILL OF MATERIAL**

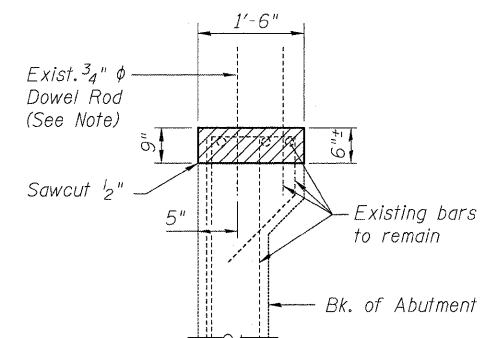
Item	Unit	Quantity
Epoxy Crack Injection	Foot	39
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	16
Structural Repair of Concrete (Depth greater than 5 inches)	Sq. Ft.	2
Reinforcement Bars, Epoxy Coated	Pounds	30
Concrete Structures	Cu. Yd.	2
Concrete Removal	Cu. Yd.	2

**EXISTING EAST ABUTMENT  
REPAIR & MODIFICATION DETAILS  
STRUCTURE NO. 016-2503**



**SECTION A-A**

Note:  
Existing bars to remain shall be cleaned, straightened and incorporated into new concrete.



**SECTION B-B**

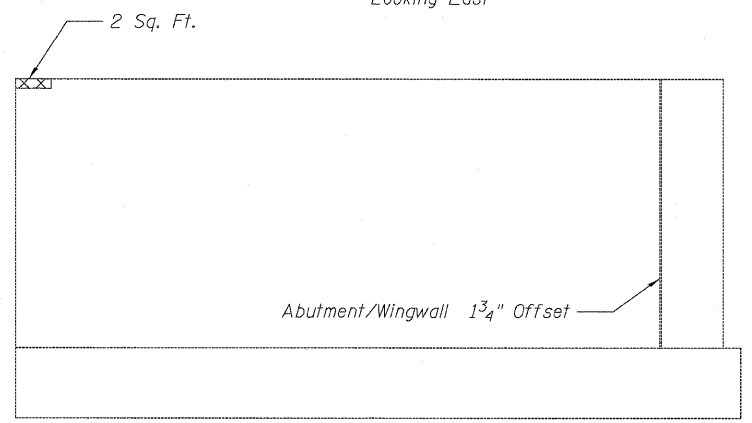
Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with "Concrete Removal".

Note:  
The quantities shown are for estimating purposes only. Area to be repaired will be determined by the Engineer at the time of Construction. Actual repair locations shall be shown in the as-built plans.

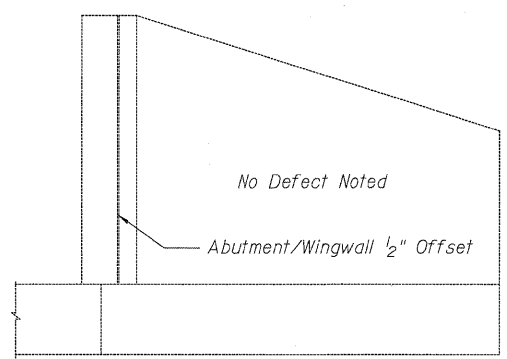
**LEGEND:**

- Structural Repair of Concrete (Depth equal to or less than 5 inches)
- Structural Repair of Concrete (Depth greater than 5 inches)
- Concrete Removal

**ABUTMENT ELEVATION  
Looking East**



**NORTHEAST WINGWALL ELEVATION**



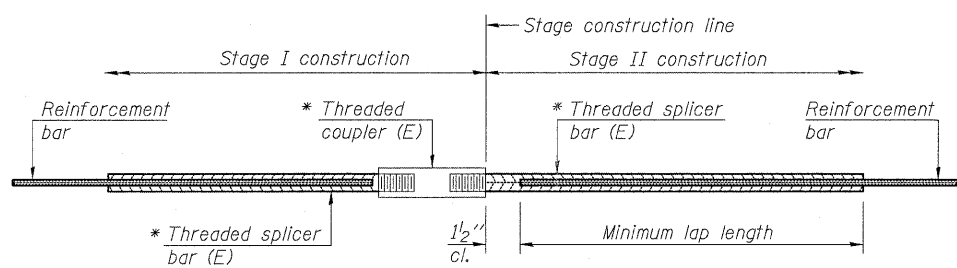
**SOUTHEAST WINGWALL ELEVATION**

DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



SHEET NO. S17	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	353	11-5-B	COOK	39	29
S18 SHEETS		CONTRACT NO. 60J44		ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**STANDARD BAR SPLICER ASSEMBLY**

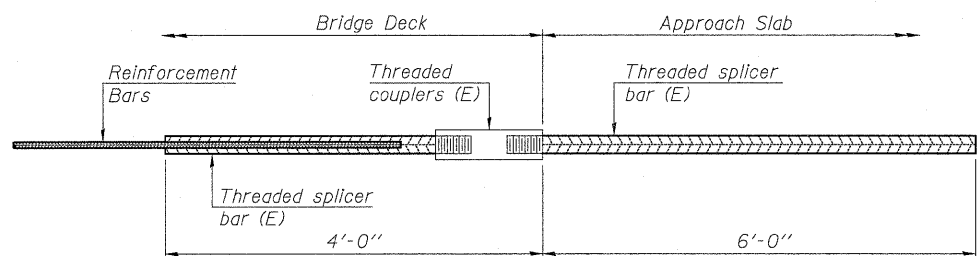
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

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

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

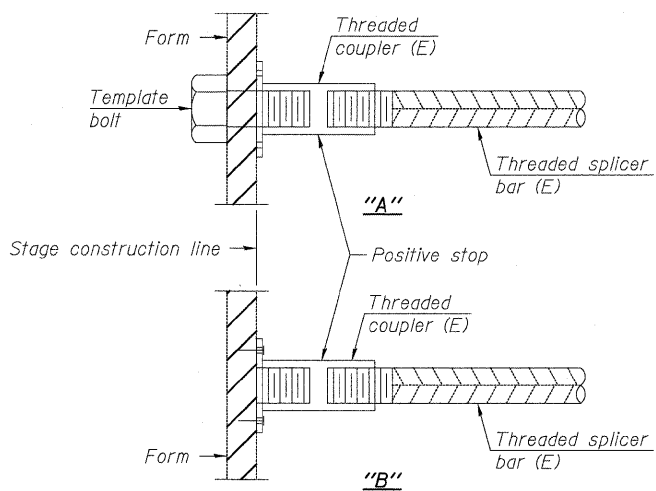
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#4	34	2'-1"
W. Approach Slab	#4	25	2'-1"
W. Approach Slab	#5	86	2'-7"
E. Approach Slab	#4	25	2'-1"
E. Approach Slab	#5	86	2'-7"



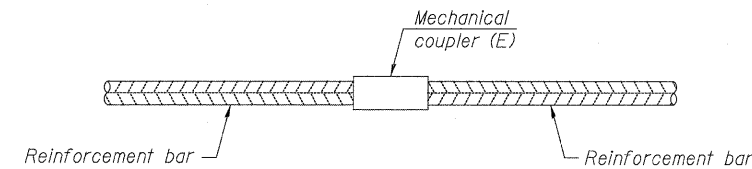
**BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

No. required =



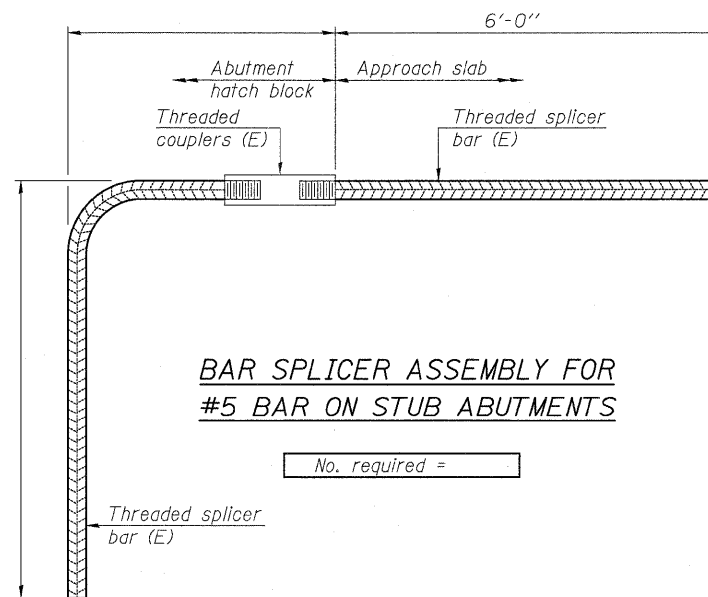
**INSTALLATION AND SETTING METHODS**

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



**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required =

**NOTES**

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.  
All reinforcement shall be lapped and tied to the splicer bars.  
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.  
See special provision for Mechanical Splicers.  
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

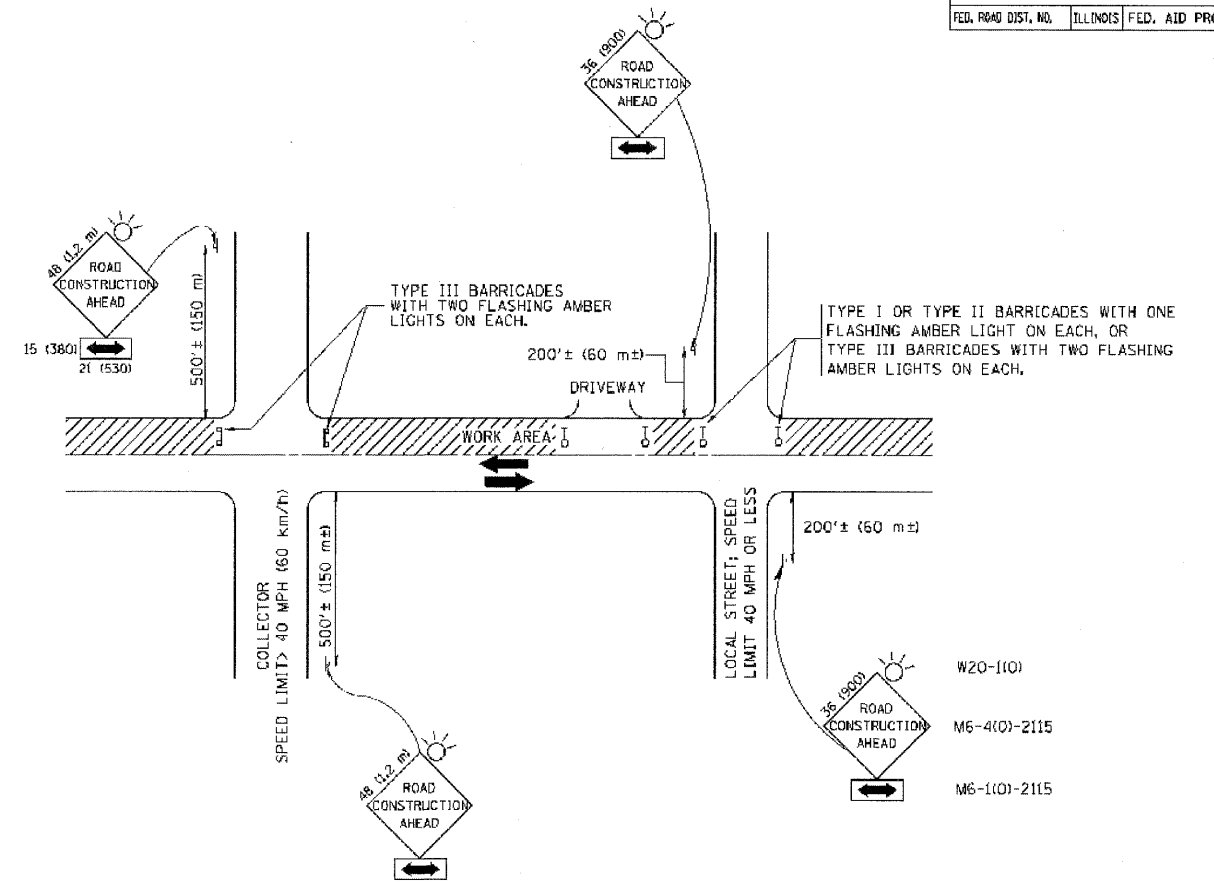
DESIGNED	JPM
CHECKED	TG
DRAWN	MPS
CHECKED	JPM, TG



100 S. WICKER DRIVE, SUITE 700, CHICAGO, IL 60606 • P.312-686-8910 F.312-686-8415

SHEET NO. S18	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	353	11-5-B	COOK	39	30
S18 SHEETS			CONTRACT NO. 60J44		
ILLINOIS FED. AID PROJECT					

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
    - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
  - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
    - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
  - WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/96
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TRAFFIC CONTROL AND PROTECTION  
 FOR  
 SIDE ROADS, INTERSECTIONS, AND  
 DRIVEWAYS

SCALE: NONE

DRAWN BY  
 CHECKED BY  
 TC-10

FILE NAME -  
 #FILEL#



DESIGNED	VEA	REVISED	-
DRAWN	VEA	REVISED	-
CHECKED	TWL	REVISED	-
DATE	4/20/2010	REVISED	-

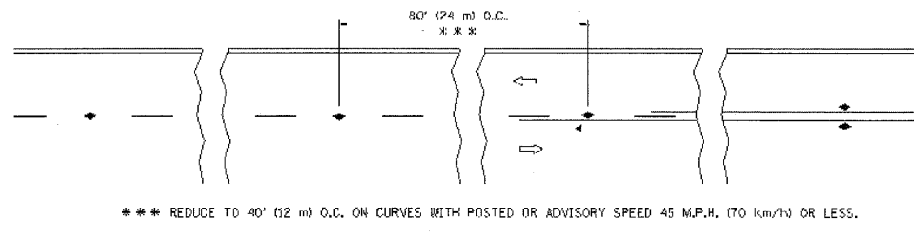
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE STANDARD DETAILS  
 TC-10

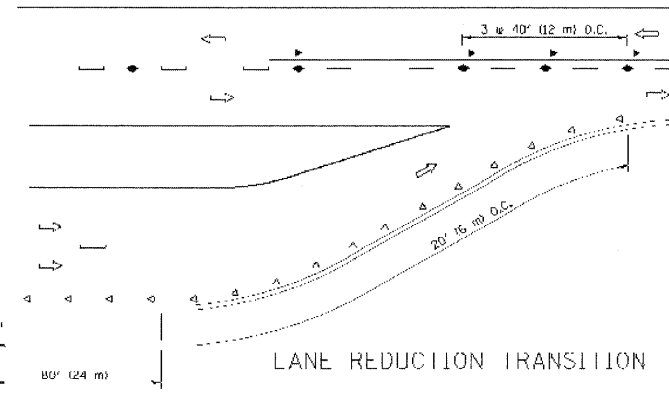
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	11-5-B	COOK	39	31
CONTRACT NO. 60J44				
ILLINOIS FED. AID PROJECT				

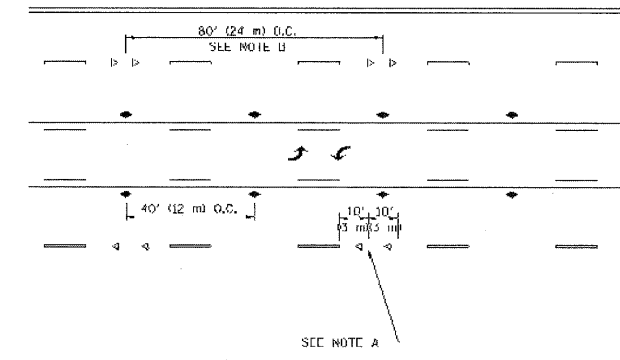
CONTRACT NO.		TOTAL SHEETS		SHEET NO.	
SECTION	COUNTY				
STA.	TO STA.				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			



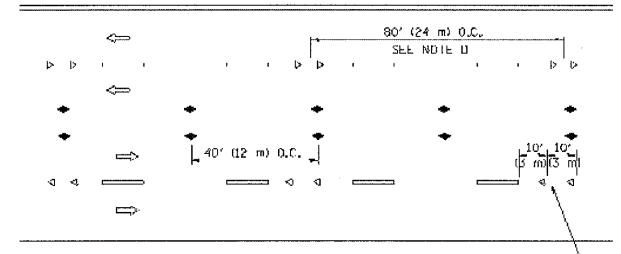
TWO-LANE/TWO-WAY



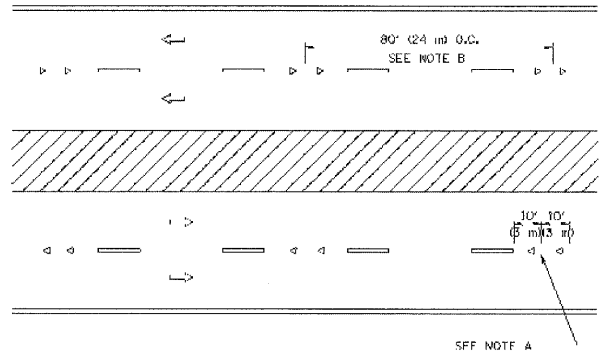
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

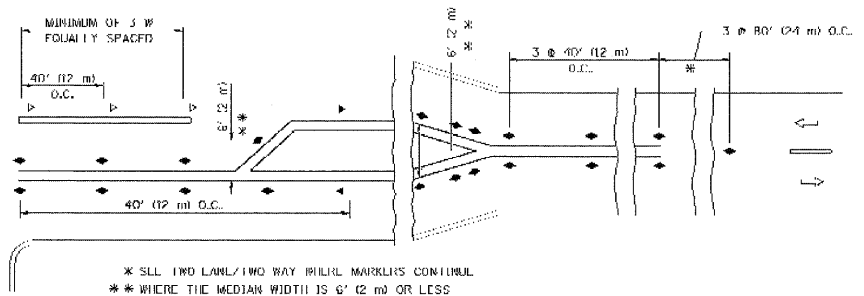
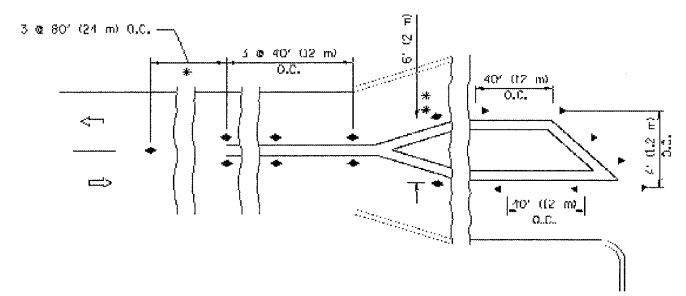
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/D)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (16 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

All dimensions are in inches (millimeters) unless otherwise shown.

REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00
C. JUCIUS	09-09-09

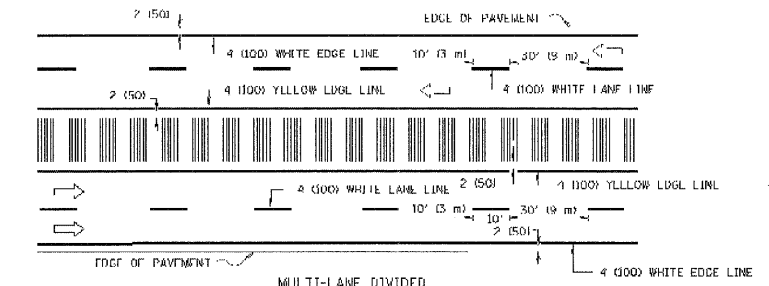
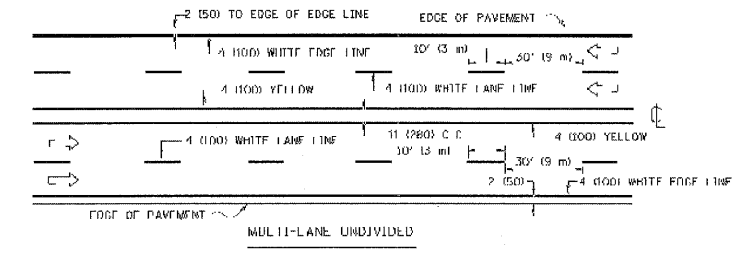
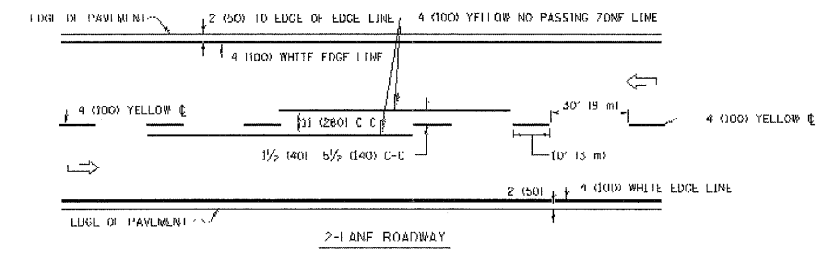
ILLINOIS DEPARTMENT OF TRANSPORTATION  
TYPICAL APPLICATIONS  
RAISED REFLECTIVE PAVEMENT  
MARKERS (SNOW-PILOW RESISTANT)

SCALE: NONF

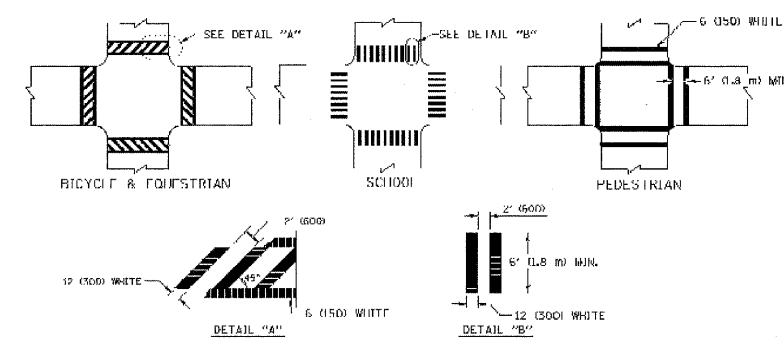
DRAWN BY GADD  
CHECKED BY TC 11

USER NAME = davis4589

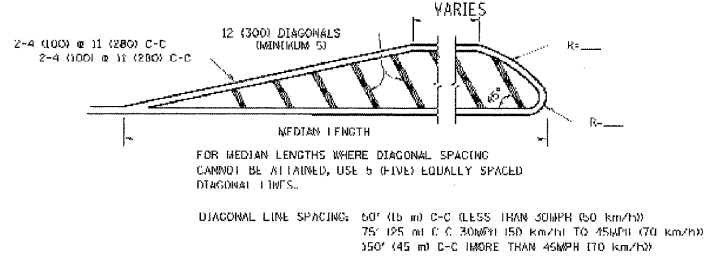
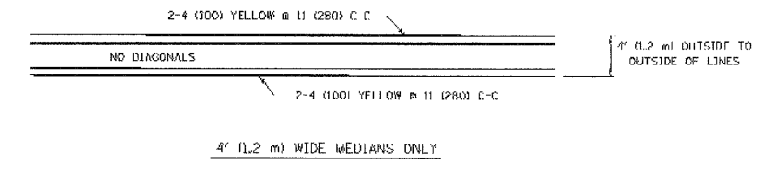




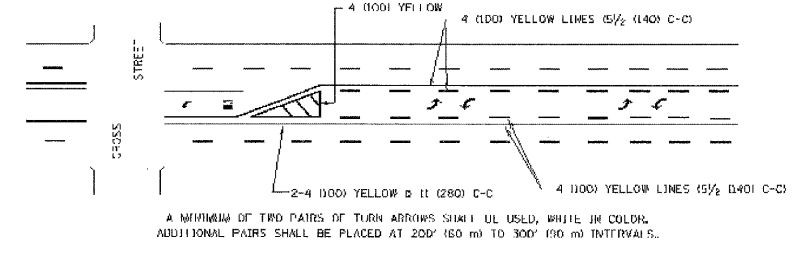
TYPICAL LANE AND EDGE LINE MARKING



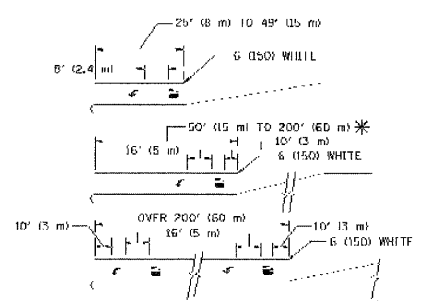
TYPICAL CROSSWALK MARKING



MEDIANS OVER 4' (1.2 m) WIDE

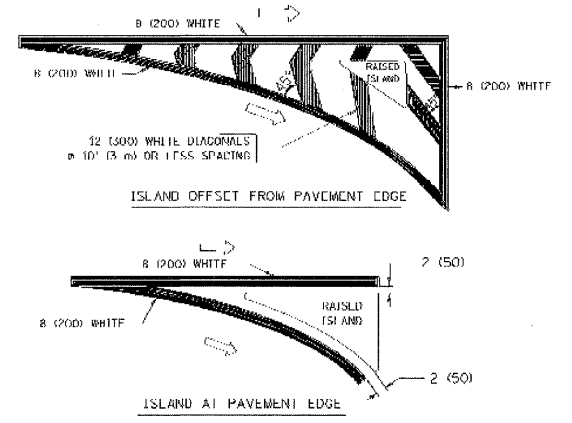


TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE MARKING

FULL SIZE LETTERS 6" (150) AND ARROWS SHALL BE USED.  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW "ONLY".  
 AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2-LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) @ 4 (100)	SOLID TO SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE DASH SKIP-DASH CENTERLINE PATTERN
LANE LINES	4 (100) @ 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW LEFT WHITE RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW. EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE, FULL SIZE LETTERS & SYMBOLS (6" (150))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 6" (150) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN & LONGITUDINAL BARS (SCHOOL))	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 6" (150) IN ADVANCE OF AND PARALLEL TO CROSSWALK. IF POSSIBLE, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSWALK CENTERLINE, WHERE POSSIBLE.
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW TWO WAY TRAFFIC WHITE ONE WAY TRAFFIC	11 (280) C-C FOR DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
CURB MARKING AND DIVERGENT LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES @ 90° 11 (280) TRANSVERSE LINES @ 90° LINE 10' (3 m)	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "1" 3.0 SQ. FT. (0.33 m <sup>2</sup> ) EACH "1" 5.0 SQ. FT. (0.50 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (23 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

REVISIONS	
NAME	DATE
J. RAMMACH	03-19-90
C. JUCIUS	09-09-09

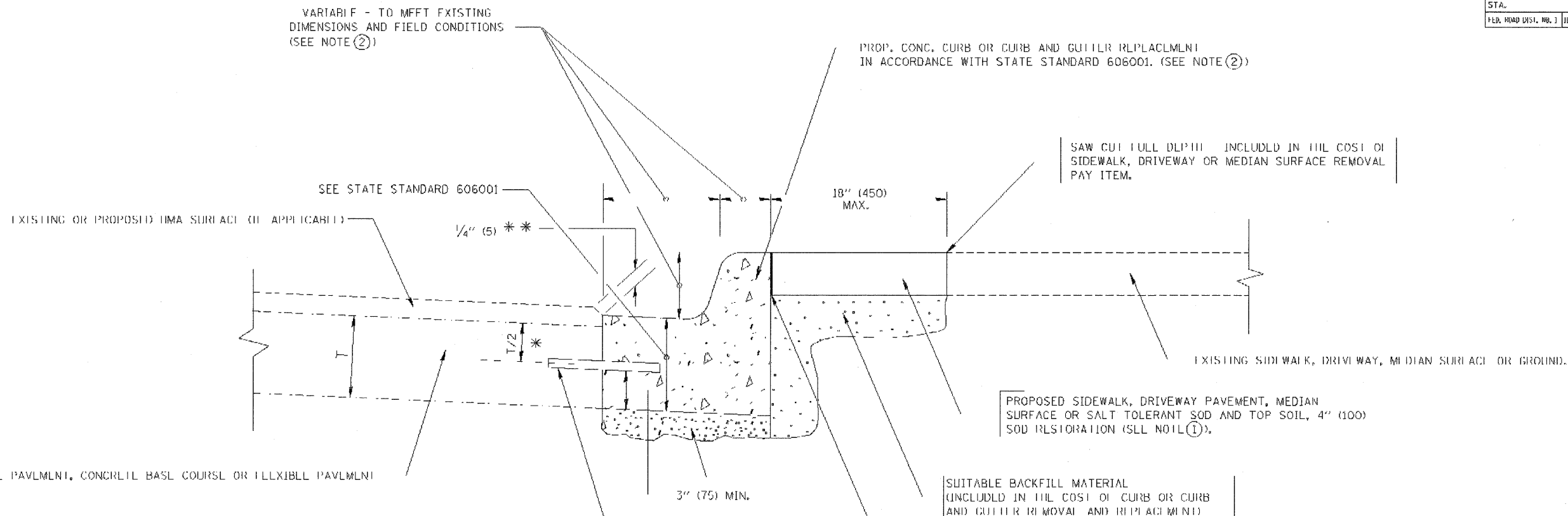
ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
 TYPICAL PAVEMENT  
 MARKINGS

SCALE: NONE  
 DRAWN BY CADD  
 CHECKED BY TC-13



CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
FED. MAP DIST. NO.	ILLINOIS FED. AID PROJECT			



- \* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- \*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.
- NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.
- SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY.
- ② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED
- ③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND CUTTER UNLESS OTHERWISE SPECIFIED.
- ④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT WITH EPOXY COATED TIE BARS.
- ⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑥ THE COST OF TYPICAL SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
- ⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

UNSATISFACTORY SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

**BASIS OF PAYMENT:**  
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

## CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

REVISIONS	
NAME	DATE
A. HOUSEH	03/11/94
R. SHAH	02/24/95
R. SHAH	03/02/95
R. SHAH	08/19/96
R. SHAH	09/12/96
R. SHAH	09/19/96
R. SHAH	10/03/96
A. ABBAS	03/21/97
M. GOWD	01/22/01
R. BORD	12/15/08

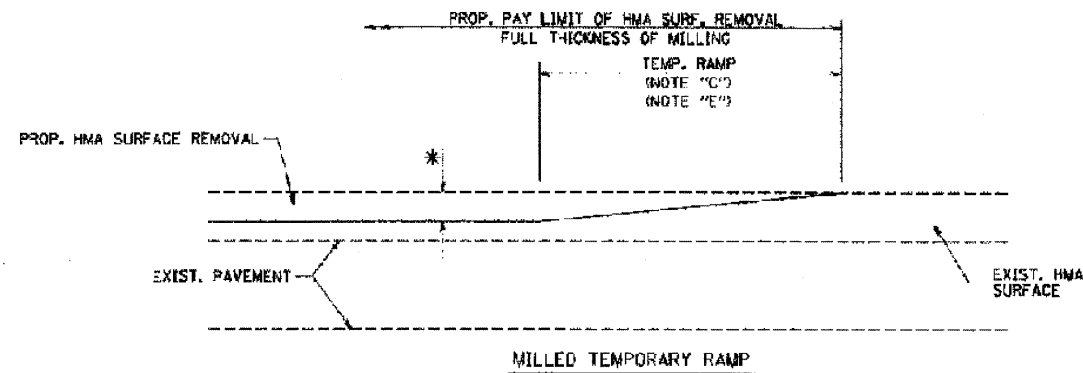
ILLINOIS DEPARTMENT OF TRANSPORTATION

**CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT**

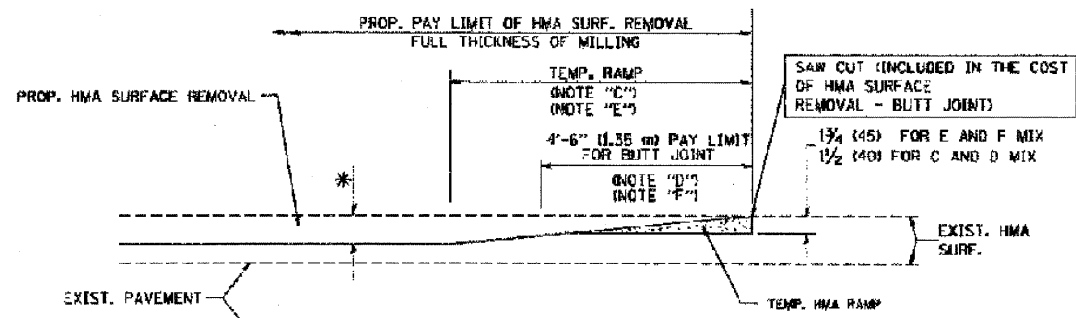
SCALE: VERT. NONE  
HORIZ.

DRAWN BY  
CHECKED BY  
BD600-06 (BD-24)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
ILLINOIS FED. AID PROJECT				

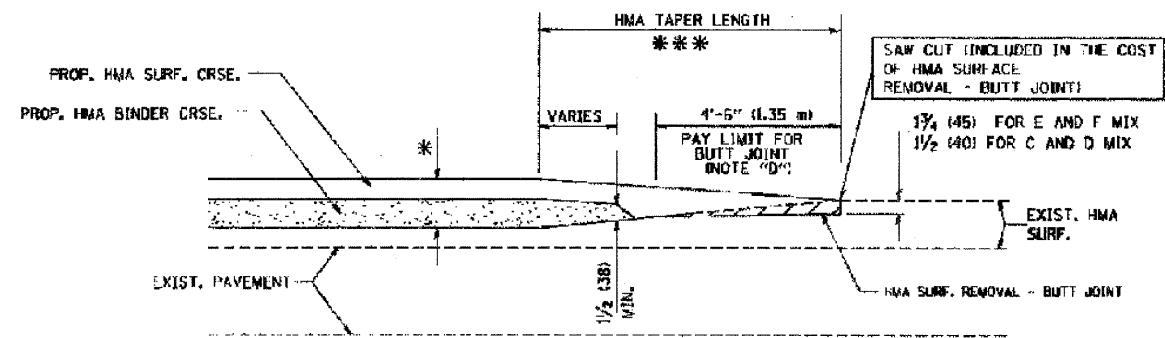


**OPTION 1**

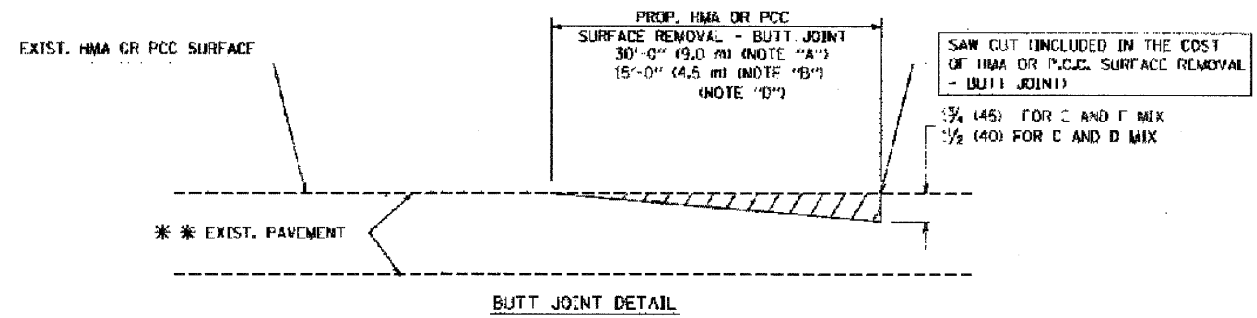


**OPTION 2**

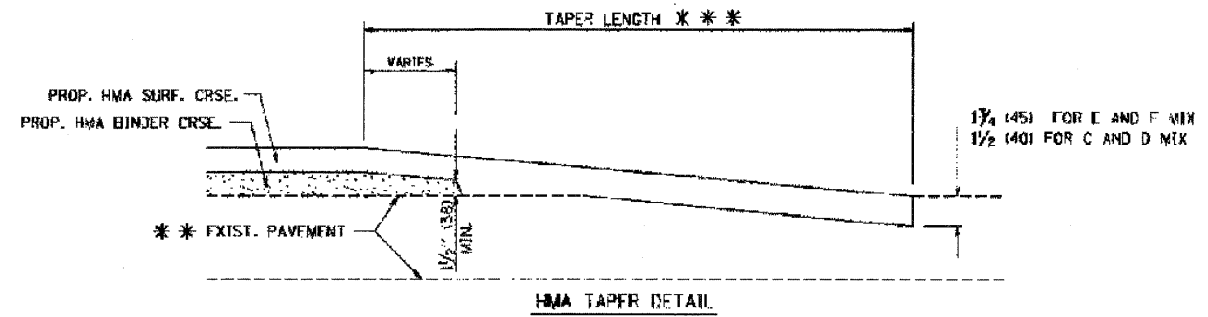
**TYPICAL TEMPORARY RAMP**



**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**



**BUTT JOINT DETAIL**



**HMA TAPER DETAIL**

**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT.
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

\*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

**BASIS OF PAYMENT:**

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
H. SHARI	09/09/94
J. SHARI	10/29/94
A. ABBAS	03/21/97
M. DOMIZ	04/06/06
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

**BUTT JOINT AND HMA TAPER DETAILS**

SCALE: VERT. NONE  
HORIZ.

DRAWN BY  
CHECKED BY

FILE NAME =  
#FILEL#



DESIGNED	VEA	REVISED	-
DRAWN	VEA	REVISED	-
CHECKED	TWL	REVISED	-
DATE	4/20/2010	REVISED	-

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE STANDARD DETAILS  
BD400-05**

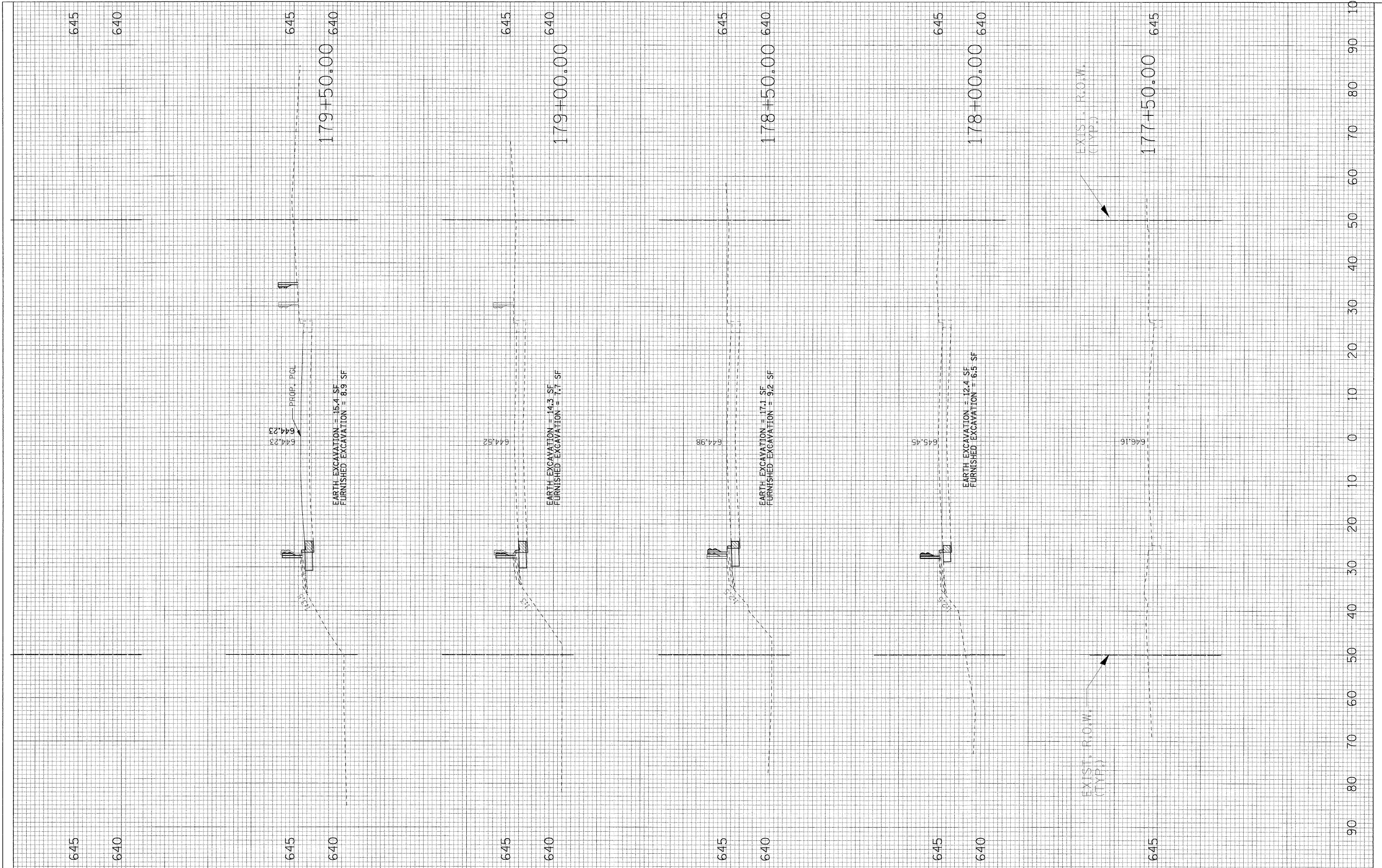
SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	11-5-B	COOK	39	36
CONTRACT NO. 60J44				

ILLINOIS FED. AID PROJECT

FINAL SURVEY	DATE
NO.	
CHECKED	BY
PLOTTED	
TEMPLATE	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
NO.	
CHECKED	BY
PLOTTED	
TEMPLATE	
AREAS CHECKED	



FILE NAME =  
 \$FILEL\$

<b>Primera</b>	DESIGNED - RJD	REVISED -
	DRAWN - RJD	REVISED -
	CHECKED - TWL	REVISED -
	DATE - 4/20/2010	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 OVER TRIBUTARY A OF THORN CREEK  
 CROSS SECTIONS**

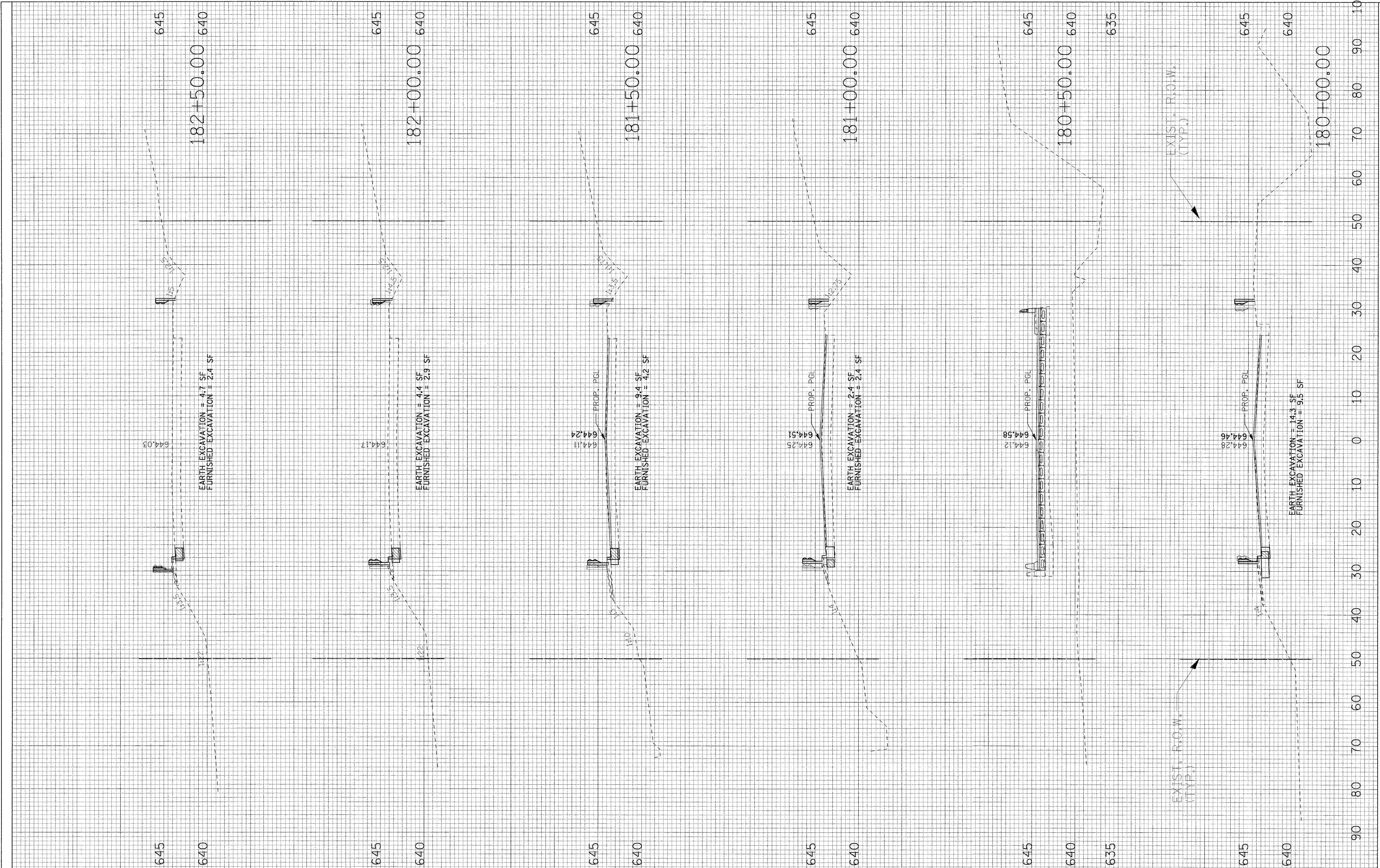
SCALE: SHEET NO. OF SHEETS STA. 177+50.00 TO STA. 179+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	11-5-B	COOK	39	37
CONTRACT NO. 60J44			ILLINOIS FED. AID PROJECT	



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

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



FILE NAME =  
 #FILE#



DESIGNED - RJD  
 DRAWN - RJD  
 CHECKED - TWL  
 DATE - 4/20/2010

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 OVER TRIBUTARY A OF THORN CREEK  
 CROSS SECTIONS**

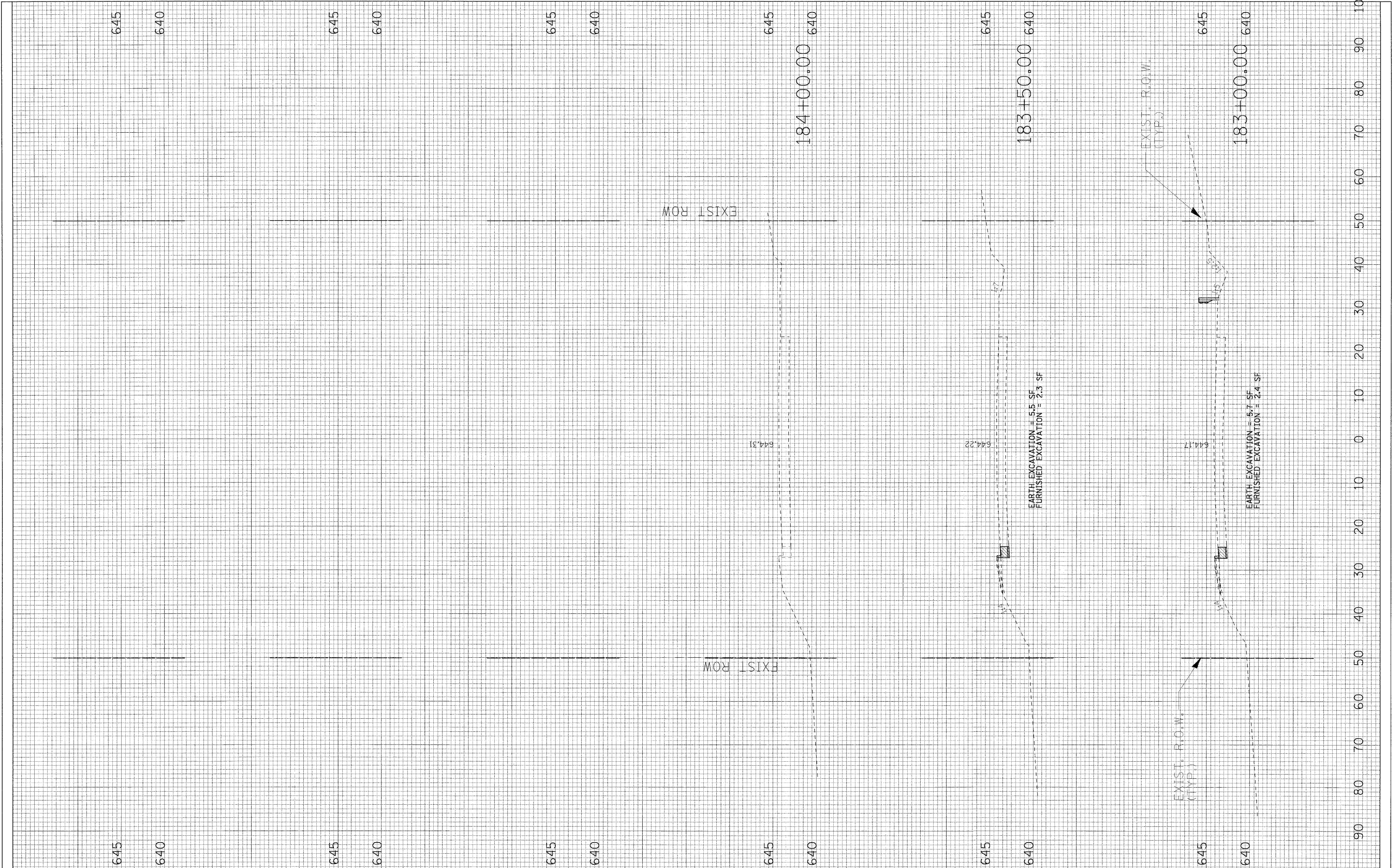
SCALE: SHEET NO. OF SHEETS STA. 179+25.00 TO STA. 180+50.00

F.A.P. RTE. 353	SECTION 11-5-B	COUNTY COOK	TOTAL SHEETS 39	SHEET NO. 38
CONTRACT NO. 60J44			ILLINOIS FED. AID PROJECT	



FINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	NO.
AREAS CHECKED	

ORIGINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	NO.
AREAS CHECKED	



FILE NAME :  
#FILE#



DESIGNED - RJD  
DRAWN - RJD  
CHECKED - TWL  
DATE - 4/20/2010

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 OVER TRIBUTARY A OF THORN CREEK  
CROSS SECTIONS**

SCALE: SHEET NO. OF SHEETS STA. 180+75.00 TO STA. 182+00.00

F.A.P. RTE. 353	SECTION 11-5-B	COUNTY COOK	TOTAL SHEETS 39	SHEET NO. 39
CONTRACT NO. 60J44			ILLINOIS FED. AID PROJECT	