

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	60862	

58+4=62

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

F.A.I. ROUTE 57 (INTERSTATE 57)  
AT 125TH STREET  
SECTION 1818.3B-R  
BRIDGE DECK REPLACEMENT  
PROJECT: *ESP-057-7(281)352*  
COOK COUNTY  
C-91-533-99

**DESIGN DESIGNATION**

PRINCIPAL INTERSTATE  
F.A.I. 57 (INTERSTATE 57) = 112,500 TO 141,300 & VAR.  
LOCAL STREET  
125th STREET = 5000 (2005)

FOR INDEX OF SHEETS, SEE SHEET NO. 2

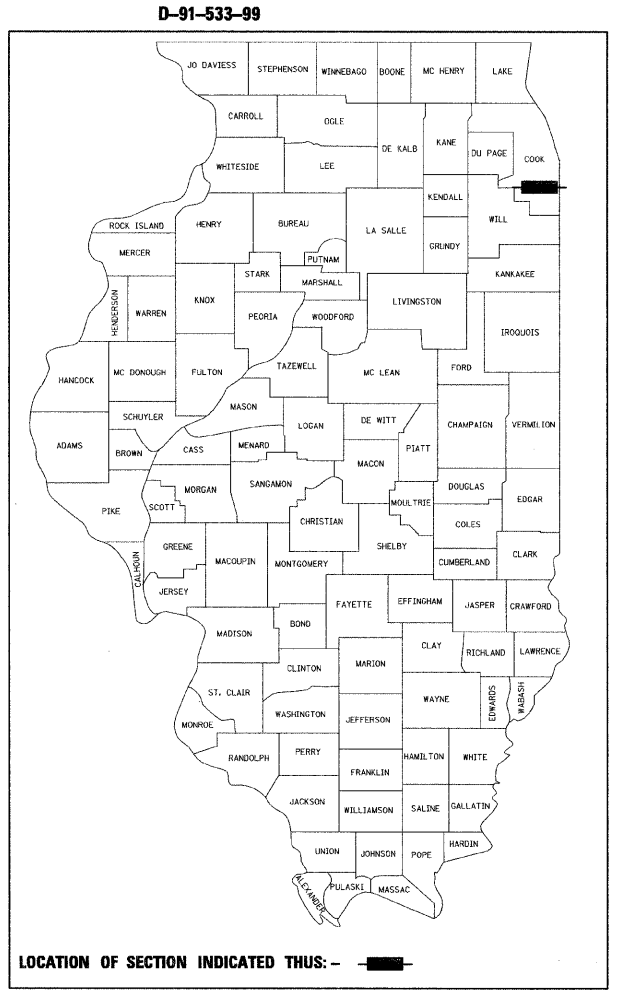
**TRAFFIC DATA**

2005 AADT = 5,000

**POSTED SPEED LIMIT**

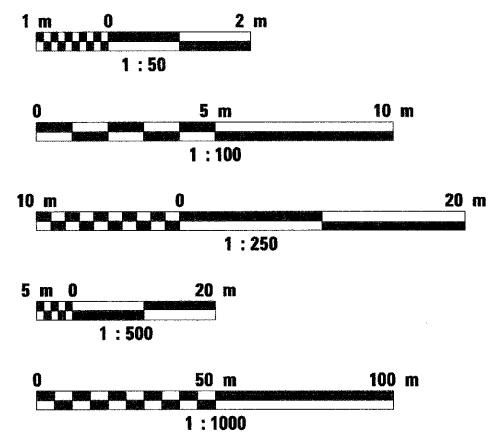
125th STREET 50 km/h (30 mph)  
INTERSTATE 57 90 km/h (55 mph)

PROJECT LOCATED WITHIN THE  
VILLAGE OF CALUMET PARK



LOCATION OF SECTION INDICATED THIS: - [black rectangle]

**METRIC RATIOS**



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

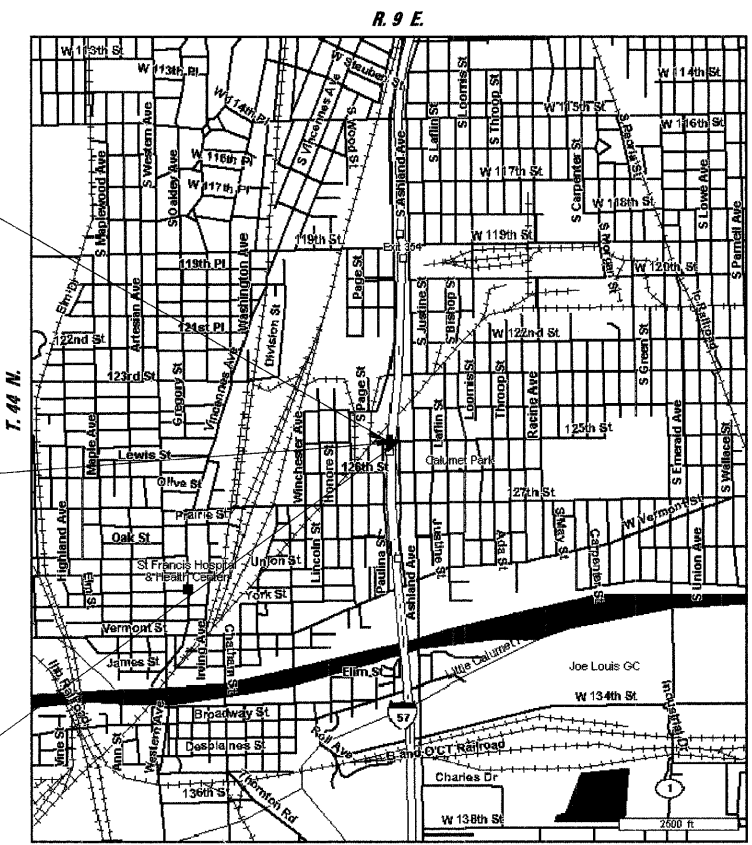
CONTRACT NO. 60862

THE PROJECT CONSISTS OF THE REPLACEMENT OF THE 125TH STREET BRIDGE CONCRETE DECK OVER I-57: WIDENING AND RESURFACING THE INTERSECTIONS AT PAULINA STREET AND MARSHFIELD AVENUE.

BEGIN PROJECT  
STA. 0 + 030.363

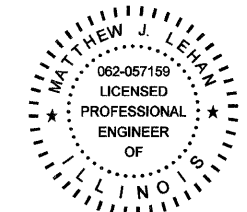
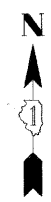
SN 016-2034  
STA. 0 + 098.688  
2-SPAN  
REINFORCED  
STEEL PLATE  
GIRDER BRIDGE  
ON PIER AND  
CLOSED  
ABUTMENTS

END PROJECT  
STA. 0 + 153.789



CALUMET TOWNSHIP  
LOCATION MAP  
SCALE 1 : 20,000

GROSS AND NET LENGTH OF PROJECT = 123 m = 0.1 km



DATE: 1/8/2009  
SEAL EXPIRES: 11/30/2009  
*Matthew J. Lehan*



DATE: 1/8/2009  
SEAL EXPIRES: 11/30/2010  
*Ewa K. Mroczeck*

Ciorba Group, Inc.

DESIGN FIRM  
REGISTRATION NUMBER

184-001016

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 9, 2008

*Diane M. O'Keefe*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 13, 2009  
*Charles G. Ingersoll*  
ENGINEER OF DESIGN AND ENVIRONMENT

March 13, 2009  
*Christine M. Reed*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

IDOT DISTRICT I DESIGN PROJECT MANAGER: BRIAN H. KUTTAB (847) 705-4431

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
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2-3	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
4-5	SUMMARY OF QUANTITIES
6	TYPICAL SECTIONS
7	ALIGNMENT, TIES, & BENCHMARKS
8	EXISTING AND PROPOSED PLAN
9	PROFILE
10	TEMPORARY DETOUR ROUTE
11	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)
12	DRAINAGE, UTILITIES, SIGNING AND STRIPING PLAN
13	SIDEWALK DETAILS
14	APPROACH DETAILS
15	LIGHTING GENERAL NOTES AND SCHEDULE OF QUANTITIES
16	TEMPORARY LIGHTING PLAN
17	EXISTING LIGHTING AND REMOVAL PLAN
18	PROPOSED LIGHTING PLAN
19	SINGLE LINE DIAGRAM - CONTROLLER "F"
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52	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)
53	BUTT JOINTS AND HMA TAPER (BD-32)
54	FREEWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS (TC-8)
55	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE (TC-9)
56	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
57	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES (TC-17)
58	ARTERIAL ROAD INFORMATION SIGN (TC-22)
* SCA.-50D.	BRIDGE APPROACH PAVEMENT DETAILS

**LIST OF STATE STANDARDS**

STANDARD NO.	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
353001-04	PCC BASE COURSE WITH HMA BINDER AND SURFACE COURSES
420001-07	PAVEMENT JOINTS
<del>420401-07</del>	<del>BRIDGE APPROACH PAVEMENT</del>
424001-05	CURB RAMPS FOR SIDEWALKS
442101-07	CLASS B PATCHES
442201-03	CLASS C AND D PATCHES
515001-03	NAME PLATE FOR BRIDGES
602001-01	CATCH BASIN TYPE A
602301-02	INLET TYPE A
602601-02	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
604086-02	FRAME AND GRATE, TYPE 23
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
664001-02	CHAIN LINK FENCE
701400-03	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-05	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-05	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH
701446-01	TWO LANE CLOSURE FREEWAY/EXPRESSWAY
701501-05	URBAN LANE CLOSURE, 2L, 2W UNDIVIDED
701801-04	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
704001-05	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
731001-01	BASE FOR TELESCOPING STEEL SIGN SUPPORT

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PLOT DATE = 1/16/2009	DATE - 1/16/2009	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.38-R	COOK	58	2
CONTRACT NO. 60862				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

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

**GENERAL NOTES**

- 1 BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)
- 2 THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- 3 3 METER (10 FEET) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB & GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS & GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.
- 4 WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 40 MM (1-1/2 INCHES) WHERE THE SPEED LIMIT IS 80 KM/H (45 MPH) OR LESS AND 25 MM (1 INCH) WHERE THE SPEED LIMIT IS GREATER THAN 80 KM/H (45 MPH). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 75 MM (3 INCHES) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1:3 (V:H).
- 5 BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND BITUMINOUS TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- 6 ALL STORM SEWER CONNECTIONS WITH PIPES 675 MM (27 INCHES) DIAMETER AND SMALLER SHALL BE MADE WITH PRECAST "TEE" OR "WYE" PIPES. FOR PROPOSED STORM SEWER PIPES LARGER THAN 675 MM (27 INCHES) DIAMETER, OPENINGS OF THE SPECIFIED DIAMETER SHALL BE MADE IN THE PIPE AT THE TIME IT IS MANUFACTURED. PRECAST "TEE" AND "WYE" PIPE CONNECTIONS FOR PROPOSED STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST FOR THE STORM SEWERS.
- 7 USE NO. 19 (#6) EPOXY-COATED TIE BARS CONFORMING TO ART. 1006.10(A)(2) OF THE STANDARD SPECIFICATIONS FOR LONGITUDINAL CONSTRUCTION JOINT GROUTED-IN-PLACE TIE BAR AS SHOWN ON STATE STANDARD 420001 AND FOR TIEING PC CONCRETE WIDENING TO EXISTING CONCRETE PAVEMENT AS SHOWN ON THE PLANS. THE TIE BARS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PAVEMENT ITEMS BEING CONSTRUCTED.
- 8 STAGING PROCEDURES PRESENTED ARE THE SUGGESTED SEQUENCE OF OPERATIONS. THE CONTRACTOR MAY SUBMIT AN ALTERNATE STAGING PROPOSAL TO THE ENGINEER FOR APPROVAL.
- 9 TRAFFIC CONDITIONS, ACCIDENTS AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL MAKE THE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. THE CONTRACTOR SHALL RESPOND TO ANY REQUEST MADE BY THE ENGINEER FOR CORRECTION WITHIN TWO (2) HOURS FROM THE TIME OF NOTIFICATION.
- 10 ALL TEMPORARY PAVEMENT MARKINGS PROPOSED WITHIN THE WORK AREA SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION PHASE CHANGE.
- 11 THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- 12 THE COST OF THE REMOVAL OF ANY EXISTING POLES, POSTS, TREE STUMPS (WITH A DIAMETER LESS THAN 6 INCHES) OR OTHER OBSTRUCTIONS WHICH INTERFERE WITH THE PROPOSED IMPROVEMENTS AND WHICH ARE NOT PAID FOR UNDER SEPARATE PAY ITEMS SHALL BE CONSIDERED INCLUDED IN THE CONTRACT.
- 13 THE CONTRACTOR SHALL CONTACT MS. PATRICE HARRIS - IDOT AREA TRAFFIC FIELD TECHNICIAN - AT 708-597-9800 TWO WEEKS PRIOR TO INSTALLATION OF FINAL PAVEMENT MARKINGS.
- 14 THE CONTRACTOR SHALL MEASURE THE VERTICAL CLEARANCE OF STRUCTURE NO. 016-2034 OVER I-57. THIS WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR CONSTRUCTION LAYOUT.
- 15 THIS PROJECT HAS BEEN SIGNED OFF IN-HOUSE FOR SPECIAL WASTE. IF THE PROPOSED SCOPE OF WORK CHANGES OR IF ADDITIONAL ROW/TEMPORARY EASEMENTS ARE REQUIRED, PLEASE CONTACT THE ENVIRONMENTAL STUDIES UNIT AT EXTENSION 4101 TO DISCUSS ANY POTENTIAL IMPACT.
- 16 THE EXISTING BRIDGE RAILING AND PROTECTIVE SHIELD SHALL BE SALVAGED BY THE CONTRACTOR AND DELIVERED TO THE IDOT DISTRICT BRIDGE MAINTENANCE YARD LOCATED AT 1101 BIESTERFIELD ROAD, ELK GROVE VILLAGE, IL 60007, 847-956-1444 (48 HOUR NOTIFICATION IS REQUIRED). THE COST TO REMOVE AND DELIVER THE EXISTING BRIDGE RAILING AND PROTECTIVE SHIELD SHALL BE INCLUDED IN THE PAY ITEM REMOVAL OF EXISTING CONCRETE DECK.
- 17 THE ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISORS AT (847) 705-4470 & (847) 705-4155 A MINIMUM OF 72 HOURS PRIOR TO THE START OF WORK.

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PLOT SCALE = 50.0000 m / IN.	CHECKED - MJL	REVISED -
PLOT DATE = 1/16/2009	DATE - 1/16/2009	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**FAI 57/INTERSTATE 57  
 125TH STREET OVER I-57  
 INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	3
CONTRACT NO. 60862			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES			URBAN 100% FED. TOTAL QUANTITY	CONSTRUCTION TYPE CODE		
CODE NO.	DESCRIPTION	UNIT		ROADWAY 1000-2A	LIGHTING Y030-1E	BRIDGE X271-2A
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	18	18		
28000510	INLET FILTER	EACH	11	11		
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1			1
50500505	STUD SHEAR CONNECTORS	EACH	180			180
50500715	JACK AND REMOVE EXISTING BEARINGS	EACH	12			12
50800515	BAR SPLICERS	EACH	758			758
51500100	NAME PLATES	EACH	1			1
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12			12
60237460	INLETS, TYPE A, TYPE 23 FRAME & GRATE	EACH	1	1		
60250200	CATCH BASINS TO BE ADJUSTED	EACH	5	5		
60255500	MANHOLES TO BE ADJUSTED	EACH	3	3		
60260100	INLETS TO BE ADJUSTED	EACH	1	1		
60265700	VALVE VAULTS TO BE ADJUSTED	EACH	2	2		
60266600	VALVE BOXES TO BE ADJUSTED	EACH	5	5		
60500050	REMOVING CATCH BASINS	EACH	4	4		
60500060	REMOVING INLETS	EACH	2	2		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	8		
67100100	MOBILIZATION	L SUM	1	1		
70101800	TRAFFIC CONTROL AND PROTECTION,(SPECIAL)	L SUM	1	1		
70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1		
73100100	BASE FOR TELESCOPING STEEL SIGN SUPPORT	EACH	2	2		
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	48	48		
* 82107200	UNDERPASS LUMINAIRE, 100 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	8		8	
M2011400	NITROGEN FERTILIZER NUTRIENT	KG	1	1		
M2011500	PHOSPHORUS FERTILIZER NUTRIENT	KG	1	1		
M2011600	POTASSIUM FERTILIZER NUTRIENT	KG	1	1		
M2020010	EARTH EXCAVATION	CU M	30	30		
M2070400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU M	77			77
M2080150	TRENCH BACKFILL	CU M	15	15		
M2113050	TOPSOIL FURNISH AND PLACE, 50 MM	SQ M	120	120		
M2520110	SODDING, SALT TOLERANT	SQ M	120	120		
M2520200	SUPPLEMENTAL WATERING	UNIT	2	2		

\*SPECIALTY ITEM

SUMMARY OF QUANTITIES			URBAN 100% FED. TOTAL QUANTITY	CONSTRUCTION TYPE CODE		
CODE NO.	DESCRIPTION	UNIT		ROADWAY 1000-2A	LIGHTING Y030-1E	BRIDGE X271-2A
M3111100	SUB-BASE GRANULAR MATERIAL, TYPE B 100 MM	SQ M	100	100		
M3530230	PORTLAND CEMENT CONCRETE BASE COURSE 230 MM	SQ M	42	42		
M4060100	BITUMINOUS MATERIALS (PRIME COAT)	LITER	762	762		
M4060300	AGGREGATE (PRIME COAT)	M TON	3	3		
M4060982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ M	56	56		
M4062135	LEVELING BINDER (MACHINE METHOD), N70	M TON	45	45		
M4063340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	M TON	92	92		
M4205050	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ M	143	143		
M4205200	PROTECTIVE COAT	SQ M	225	225		
M4206200	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ M	35	35		
M4240125	PORTLAND CEMENT CONCRETE SIDEWALK 125 MM	SQ M	155	155		
M4248000	DETECTABLE WARNINGS	SQ M	11	11		
M4400750	HOT-MIX ASPHALT SURFACE REMOVAL, 50 MM	SQ M	725	725		
M4402040	COMBINATION CURB AND GUTTER REMOVAL	METER	125	125		
M4402050	SIDEWALK REMOVAL	SQ M	185	185		
M4402060	APPROACH SLAB REMOVAL	SQ M	97	97		
M4426025	CLASS B PATCHES, TYPE I, 250 MM	SQ M	50	50		
M4426225	CLASS B PATCHES, TYPE II, 250 MM	SQ M	50	50		
M4426325	CLASS B PATCHES, TYPE III, 250 MM	SQ M	50	50		
M4427025	CLASS C PATCHES, TYPE I, 250 MM	SQ M	6	6		
M4427225	CLASS C PATCHES, TYPE II, 250 MM	SQ M	15	15		
M4429400	SAW CUTS	METER	60	60		
M5010240	CONCRETE REMOVAL	CU M	63			63
M5010400	BRIDGE RAIL REMOVAL	METER	60	60		
M5010570	PROTECTIVE SHIELD	SQ M	726			726
M5020100	STRUCTURE EXCAVATION	CU M	324			324
M5030350	CONCRETE STRUCTURES	CU M	80.8			80.8
M5030360	CONCRETE SUPERSTRUCTURE	CU M	276.1			276.1
M5030390	BRIDGE DECK GROOVING	SQ M	456			456
M5030450	PROTECTIVE COAT	SQ M	893			893
M5050405	FURNISHING AND ERECTING STRUCTURAL STEEL	KG	1,040			1,040
M5080205	REINFORCEMENT BARS, EPOXY COATED	KG	38,190			38,190

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PLOT SCALE = 1:9234 m / MM.	CHECKED -	REVISED -
PLOT DATE = 1/16/2009	DATE = 1/16/2009	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
SUMMARY OF QUANTITIES

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

F.A.I. RTE. 57	SECTION 1818.3B-R	COUNTY COOK	TOTAL SHEETS 58	SHEET NO. 4
CONTRACT NO. 60862			ILLINOIS FED. AID PROJECT	



SUMMARY OF QUANTITIES			URBAN 1001.FED. TOTAL QUANTITY	CONSTRUCTION TYPE CODE		
CODE NO.	DESCRIPTION	UNIT		ROADWAY 1000- 2A	LIGHTING Y030-1E	BRIDGE X271-2A
M5090520	BRIDGE FENCE RAILING	METER	135		135	
M5120900	TEMPORARY SHEET PILING	SQ M	182		182	
M5200225	PREFORMED JOINT STRIP SEAL	METER	24.1		24.1	
M5510010	STORM SEWER REMOVAL 150 MM	METER	9	9		
M5510015	STORM SEWER REMOVAL 200 MM	METER	7	7		
M5510020	STORM SEWER REMOVAL 250 MM	METER	2	2		
M5870300	CONCRETE SEALER	SQ M	46		46	
M5900200	EPOXY CRACK INJECTION	METER	4.0		4.0	
M5910100	GEOCOMPOSITE WALL DRAIN	SQ M	48		48	
M6011100	PIPE UNDERDRAINS FOR STRUCTURES 100 MM	METER	17		17	
M6020180	CATCH BASINS, TYPE A, 1.2M DIAMETER, TYPE 23 FRAME AND GRATE	EACH	5	5		
M6060500	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-15.30	METER	115	115		
M6640100	CHAIN LINK FENCE, 1.2 METER	METER	55	55		
M6641930	CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED	METER	20	20		
M7030520	PAVEMENT MARKING TAPE, TYPE III 100MM	METER	360	360		
M7030550	PAVEMENT MARKING TAPE, TYPE III 200MM	METER	260	260		
M7030580	PAVEMENT MARKING TAPE, TYPE III 600MM	METER	9	9		
M7031000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ M	95	95		
M7040100	TEMPORARY CONCRETE BARRIER	METER	350	350		
M7040200	RELOCATE TEMPORARY CONCRETE BARRIER	METER	70	70		
* M7200100	SIGN PANEL - TYPE 1	SQ M	0.7	0.7		
* M7240310	REMOVE SIGN PANEL - TYPE 1	SQ M	0.3	0.3		
* M7240710	RELOCATE SIGN PANEL - TYPE 1	SQ M	1.2	1.2		
* M7280100	TELESCOPING STEEL SIGN SUPPORT	METER	6.4	6.4		
* M7290100	METAL POST - TYPE A	METER	7.6	7.6		
* M7290200	METAL POST - TYPE B	METER	4.1	4.1		
* M7800105	THERMOPLASTIC PAVEMENT MARKING - LINE 100 MM	METER	32	32		
* M7800115	THERMOPLASTIC PAVEMENT MARKING - LINE 150 MM	METER	90	90		
* M7800140	THERMOPLASTIC PAVEMENT MARKING - LINE 600 MM	METER	15	15		
* M7800405	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B-LINE 100 MM	METER	140	140		
* M8080110	TEMPORARY WOOD POLE, 12.19 METER, CLASS 4	EACH	2	2		
* M8130120	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 150MM X 150MM X 100MM	EACH	8	8		

\*SPECIALTY ITEM

SUMMARY OF QUANTITIES			URBAN 1001.FED. TOTAL QUANTITY	CONSTRUCTION TYPE CODE		
CODE NO.	DESCRIPTION	UNIT		ROADWAY 1000- 2A	LIGHTING Y030-1E	BRIDGE X271-2A
* M8130185	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 300MM X 250MM X 150MM	EACH	4	4		
* M8130223	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 400MM X 350MM X 150MM	EACH	4	4		
* M8160400	UNIT DUCT, WITH 3-1/C NO. 4 AND 1/C NO. 6 GROUND, 600V (EPR-TYPE RHW), 30MM DIA., POLYETHYLENE	METER	185	185		
* M8170425	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 1/C NO. 10	METER	1,040	1,040		
* M8180143	AERIAL CABLE, 3-1/C NO. 4, ALUMINUM, WITH MESSENGER WIRE	METER	250	250		
* M8190200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	METER	165	165		
* MX030208	CONDUIT ATTACHED TO STRUCTURE, 65MM DIA. GALVANIZED STEEL, PVC COATED	METER	25	25		
* MX030243	CONDUIT ATTACHED TO STRUCTURE, 75MM DIA. GALVANIZED STEEL, PVC COATED	METER	20	20		
* MX030300	CONDUIT ATTACHED TO STRUCTURE, 25MM DIA. GALVANIZED STEEL, PVC COATED	METER	200	200		
MX032178	TEMPORARY INFORMATION SIGNING	SQ M	5	5		
MX033468	STORM SEWER, DUCTILE IRON PIPE, TYPE 2, 200 MM	METER	30	30		
MX033694	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 125 MM)	SQ M	38		38	
* MX873065	ELECTRIC CABLE IN CONDUIT, 600V (EPR TYPE RHW) 3-1/C NO. 4 AND #6 GROUND	METER	30	30		
MZ017205	DOWEL BARS 38MM	EACH	84	84		
* X0322424	TEMPORARY UNDERPASS LIGHTING INSTALLATION AND REMOVAL	L SUM	1	1		
X0323426	SEDIMENT CONTROL, DRAINAGE STRUCTURE INLET FILTER CLEANING	EACH	22	22		
* X0323574	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	6	6		
X0323830	DRAINAGE SCUPPERS, DS-11	EACH	4	4		
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1		
X7013820	TRAFFIC CONTROL SURVEILLANCE (EXPRESSWAYS)	CAL DAY	180	180		
* XX004964	UNDERPASS LIGHTING REMOVAL	L SUM	1	1		
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
Z0018800	DRAINAGE SYSTEM	L SUM	1	1		
Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	1	1		
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
Z0030340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	1	1		
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
Z0075310	TIE BARS 3/4"	EACH	84	84		
* X0326320	REMOVE, GROUND MOUNT, AND RE-ERECT OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	EACH	1	1		
MX033762	STORM SEWER, DUCTILE IRON PIPE, TYPE 2, 250 MM	METER	3	3		
MX033761	ANCHOR BOLT, M30	EACH	24	24		

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HOURLY 500 500

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FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
SUMMARY OF QUANTITIES

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	5
CONTRACT NO. 60862				
FED. ROAD DIST. NO. - ILLINOIS   FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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


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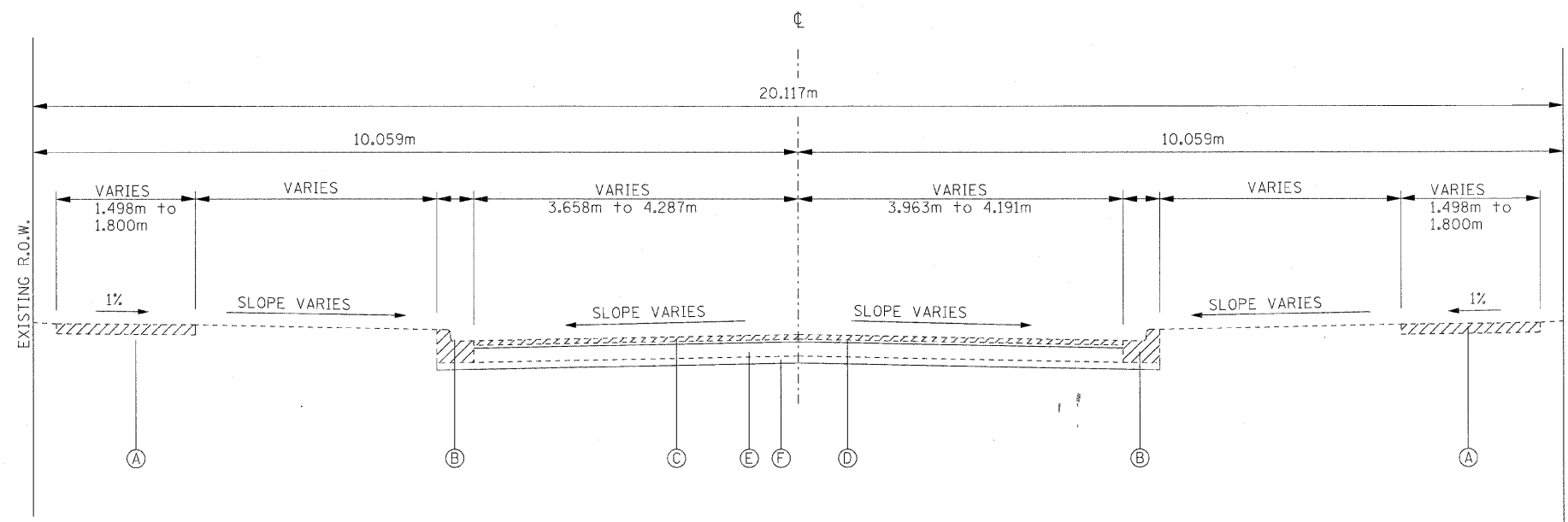


**Ciorba Group, Inc.**  
CONSULTING ENGINEERS  
6507 North Cumberland Avenue, Suite 402  
Chicago, Illinois 60656  
Tel. 773.775.4009 Fax 773.775.4014

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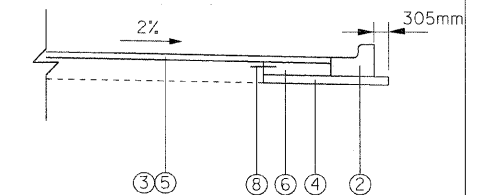
**EXISTING LEGEND**

-  REMOVAL
- (A) SIDEWALK REMOVAL
- (B) COMBINATION CURB & GUTTER REMOVAL
- (C) HOT-MIX ASPHALT SURFACE REMOVAL, 50mm
- (D) HOT-MIX ASPHALT, 65mm ±
- (E) PORTLAND CEMENT CONCRETE BASE COURSE, 230mm
- (F) STABILIZED SUBBASE, 100mm



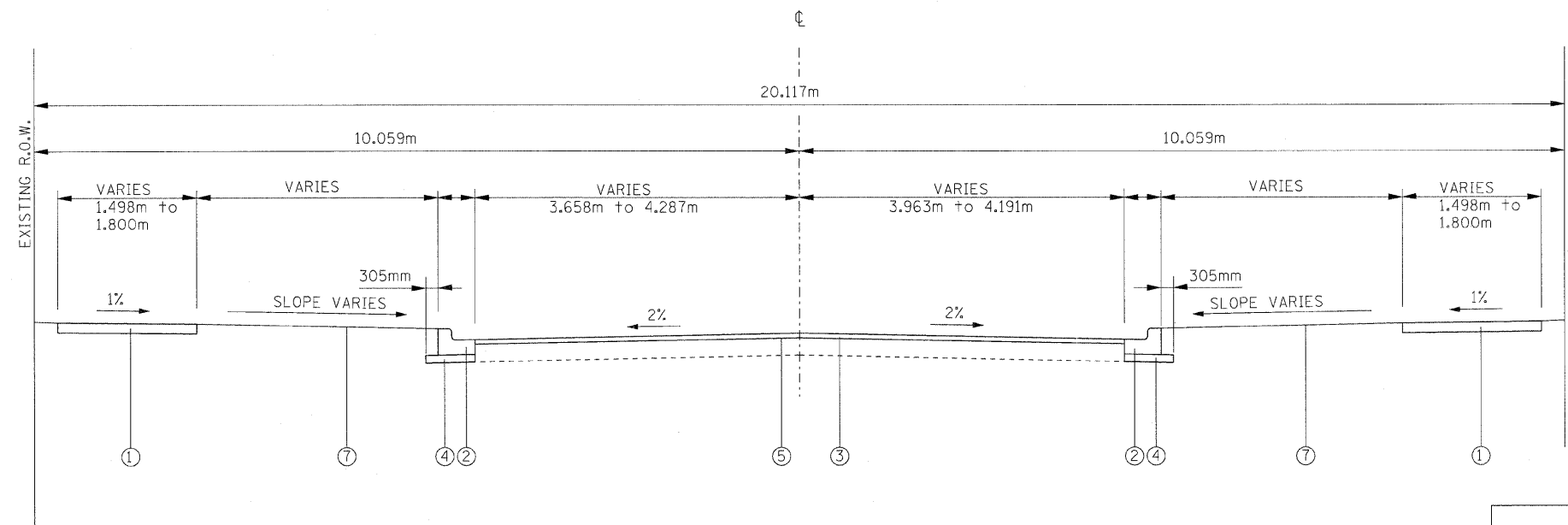
EXISTING TYPICAL SECTION  
125th STREET  
STA. 0+030.363 TO STA. 0+153.789\*  
\* BRIDGE OMISSION STA. 0+064.776 TO STA. 0+127.647

**PROPOSED WIDENING AREAS**  
(SEE PLAN SHEET)



**PROPOSED LEGEND**

- ① PORTLAND CEMENT CONCRETE SIDEWALK, 125mm
- ② COMBINATION CONCRETE CURB AND CUTTER, TYPE B-15.30
- ③ HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 50mm
- ④ SUB-BASE GRANULAR MATERIAL, TYPE B, 100mm
- ⑤ LEVELING BINDER (MACHINE METHOD), N70 (VARIABLE DEPTH, 19mm MIN. TO 25mm MAX.)
- ⑥ PORTLAND CEMENT CONCRETE BASE COURSE, 230mm
- ⑦ TOPSOIL AND SODDING
- ⑧ TIE BARS 3/4"



PROPOSED TYPICAL SECTION  
125th STREET  
STA. 0+030.363 TO STA. 0+153.789\*

HOT-MIX ASPHALT MIX REQUIREMENTS		
MIXTURE TYPE	AC TYPE	AIR VOIDS
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5mm)	PG 64-22	4% @ 70 GYR.
LEVELING BINDER (MACHINE METHOD), IL 9.5 mm, N70	PG 64-22*	4% @ 70 GYR.

**NOTE:**

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURES IS 2.4kg/m<sup>3</sup>/mm  
\* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

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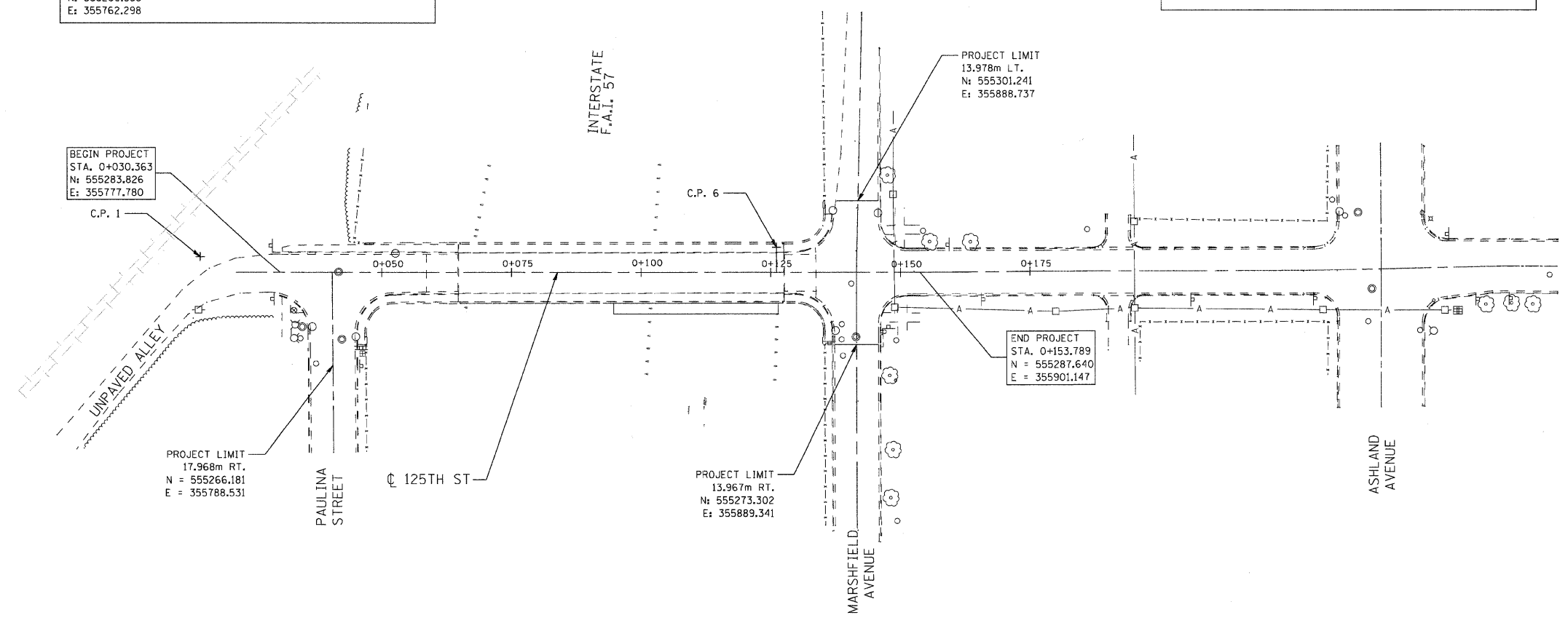
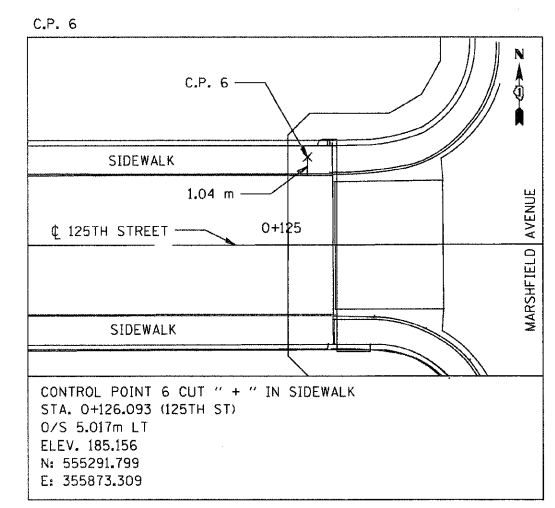
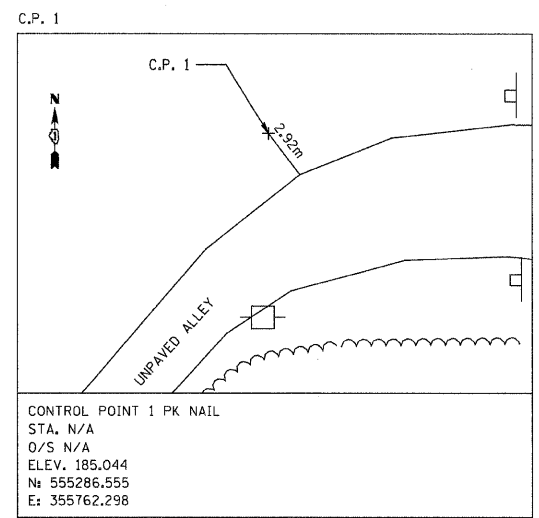
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5507 North Cumberland Avenue, Suite 402  
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>FAI 57 / INTERSTATE 57</b>		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>125TH STREET OVER I-57</b>		57	1818.3B-R	COOK	58	6
<b>TYPICAL SECTIONS</b>		CONTRACT NO. 60862				
SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			

**BENCHMARKS**  
 BM 101  
 ELEV. 179.294  
 FOUND CUT SQUARE ON CENTER PIER  
 NEAR CENTERLINE OF I-57



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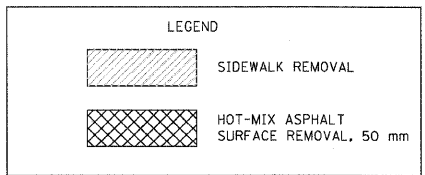
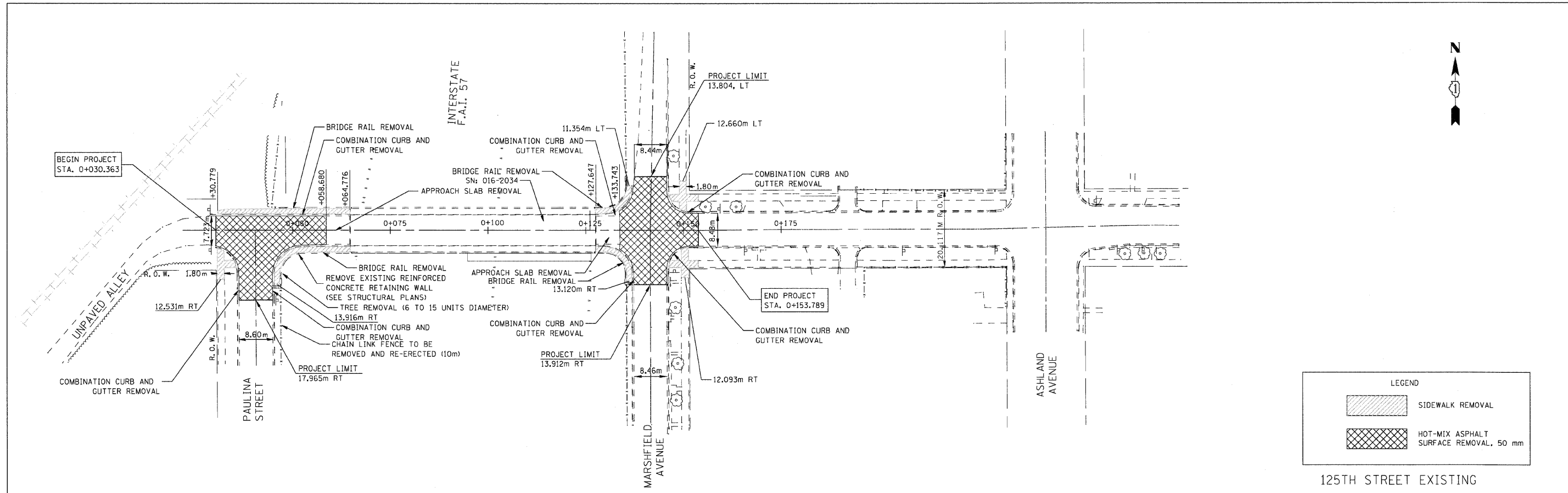
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

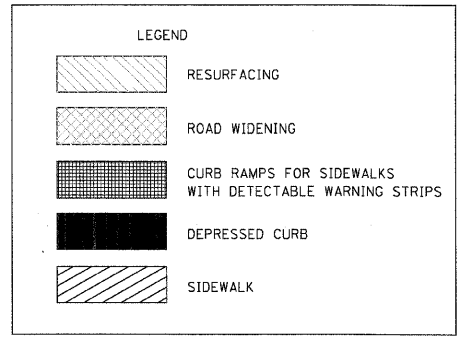
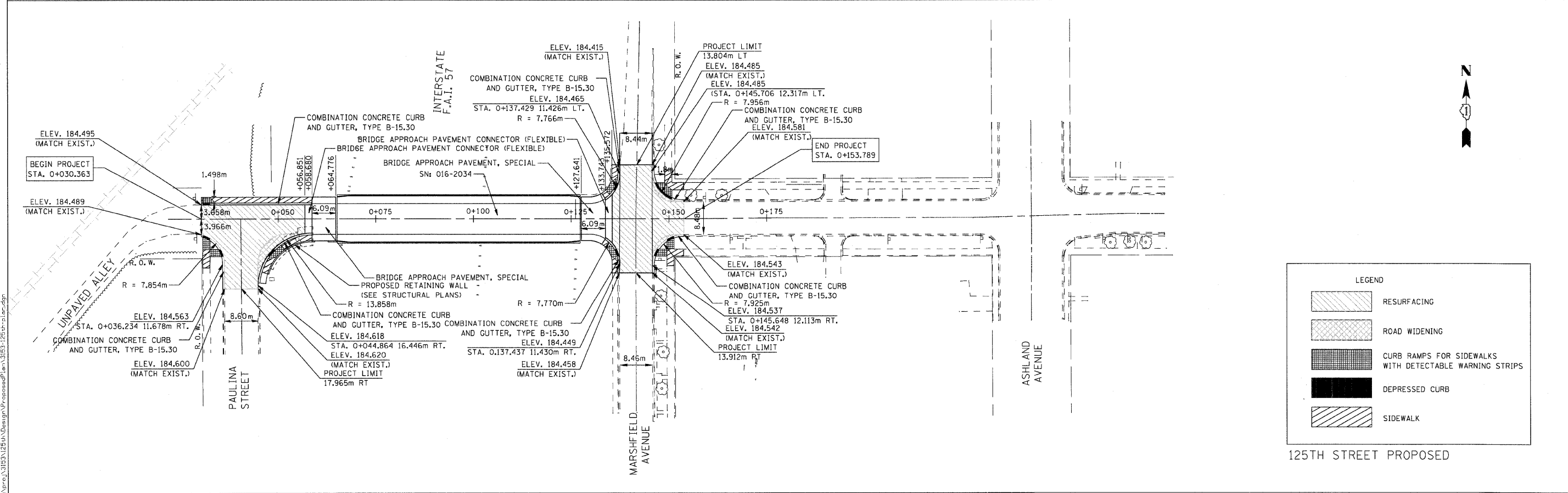
**FAI 57 / INTERSTATE 57  
 125TH STREET OVER I-57  
 ALIGNMENT, TIES, AND BENCHMARKS**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	7
CONTRACT NO. 60862				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



125TH STREET EXISTING



125TH STREET PROPOSED

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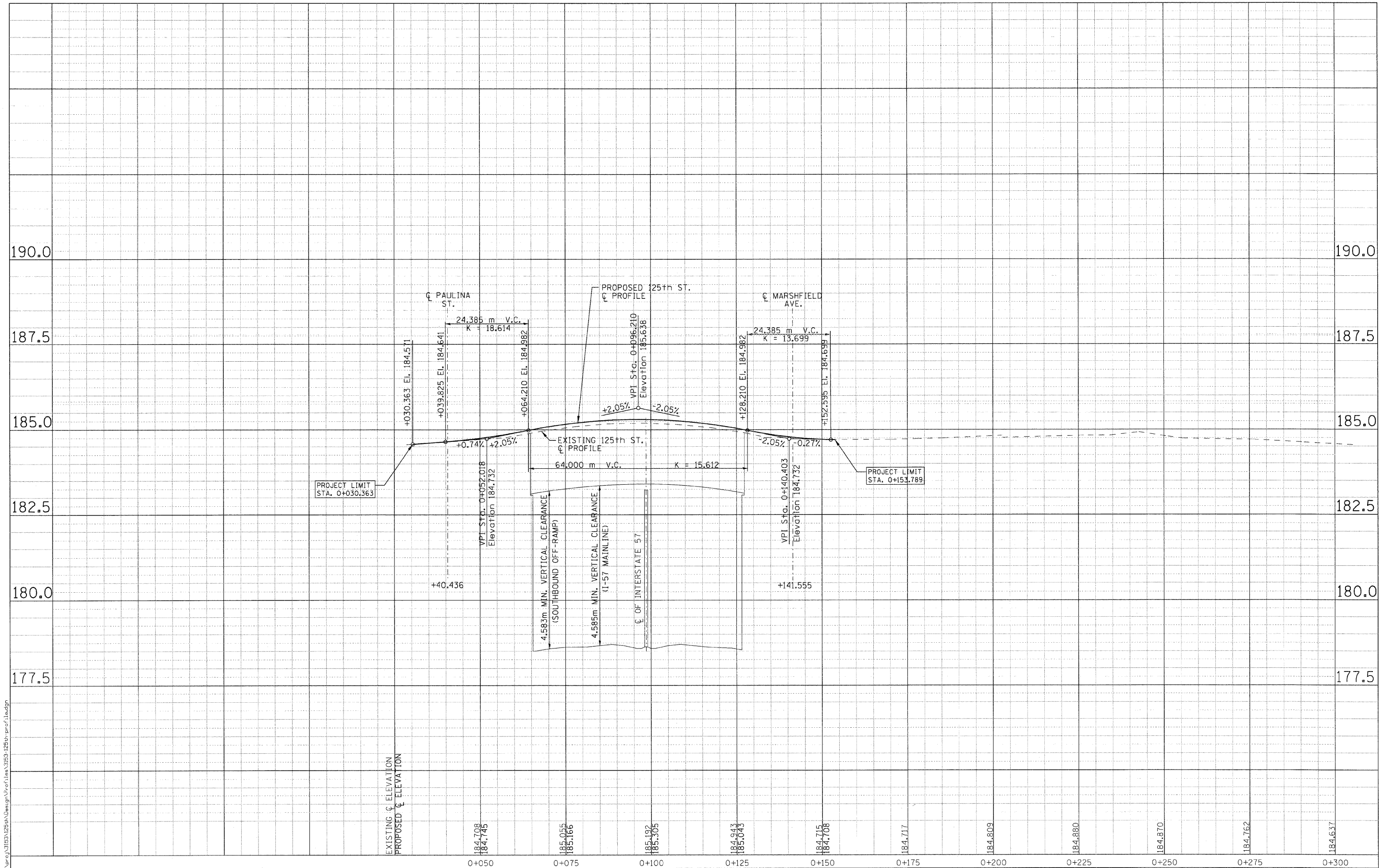
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>FAI 57/INTERSTATE 57 125TH STREET OVER I-57 EXISTING AND PROPOSED PLAN</b>			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	8
CONTRACT NO. 60862				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

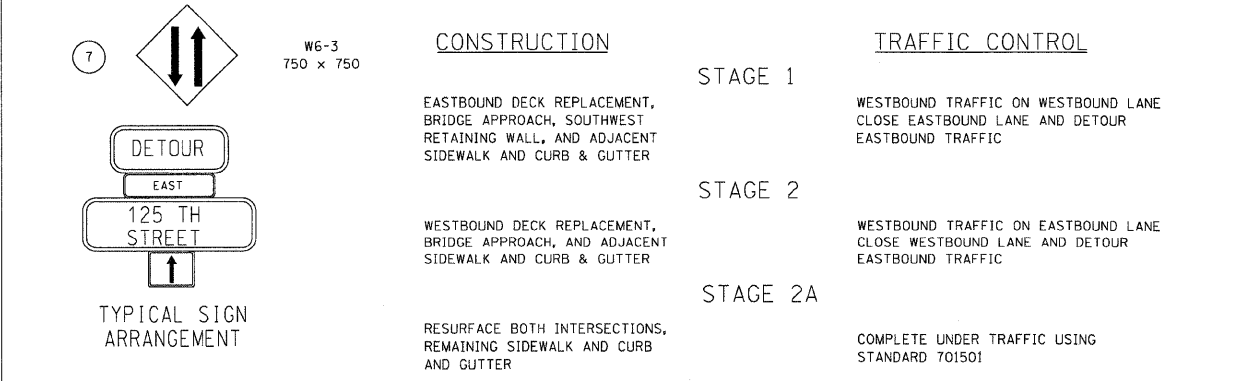
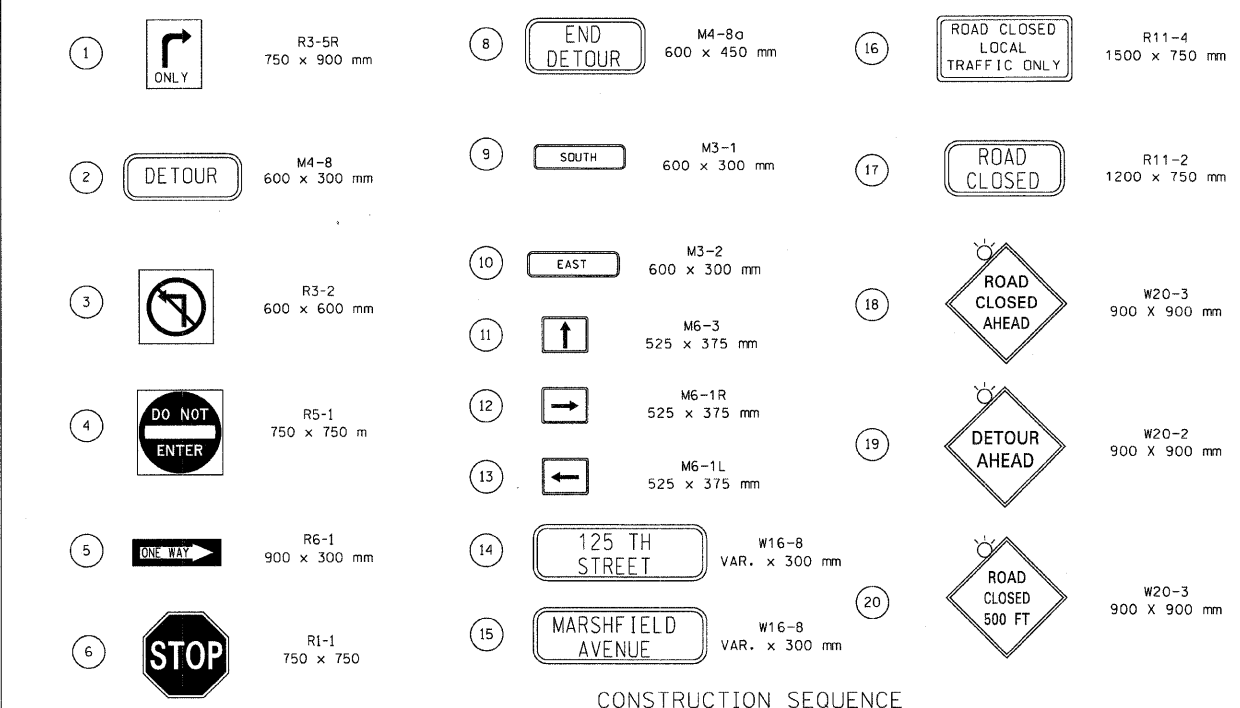
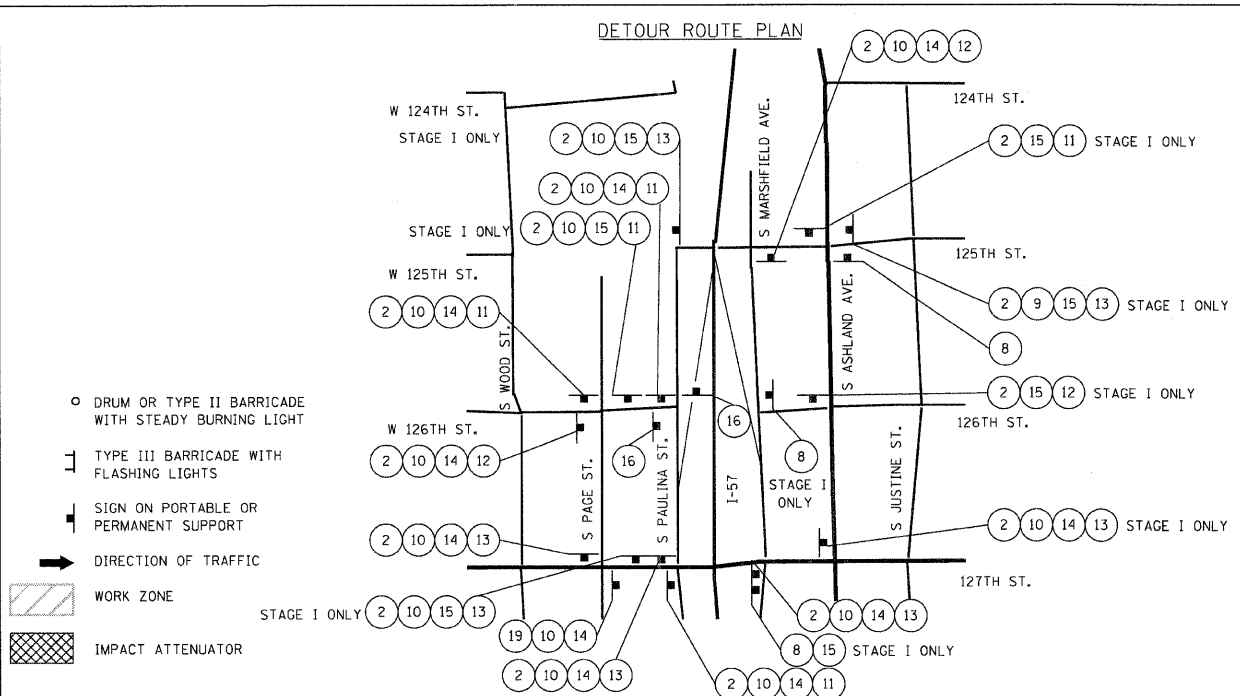
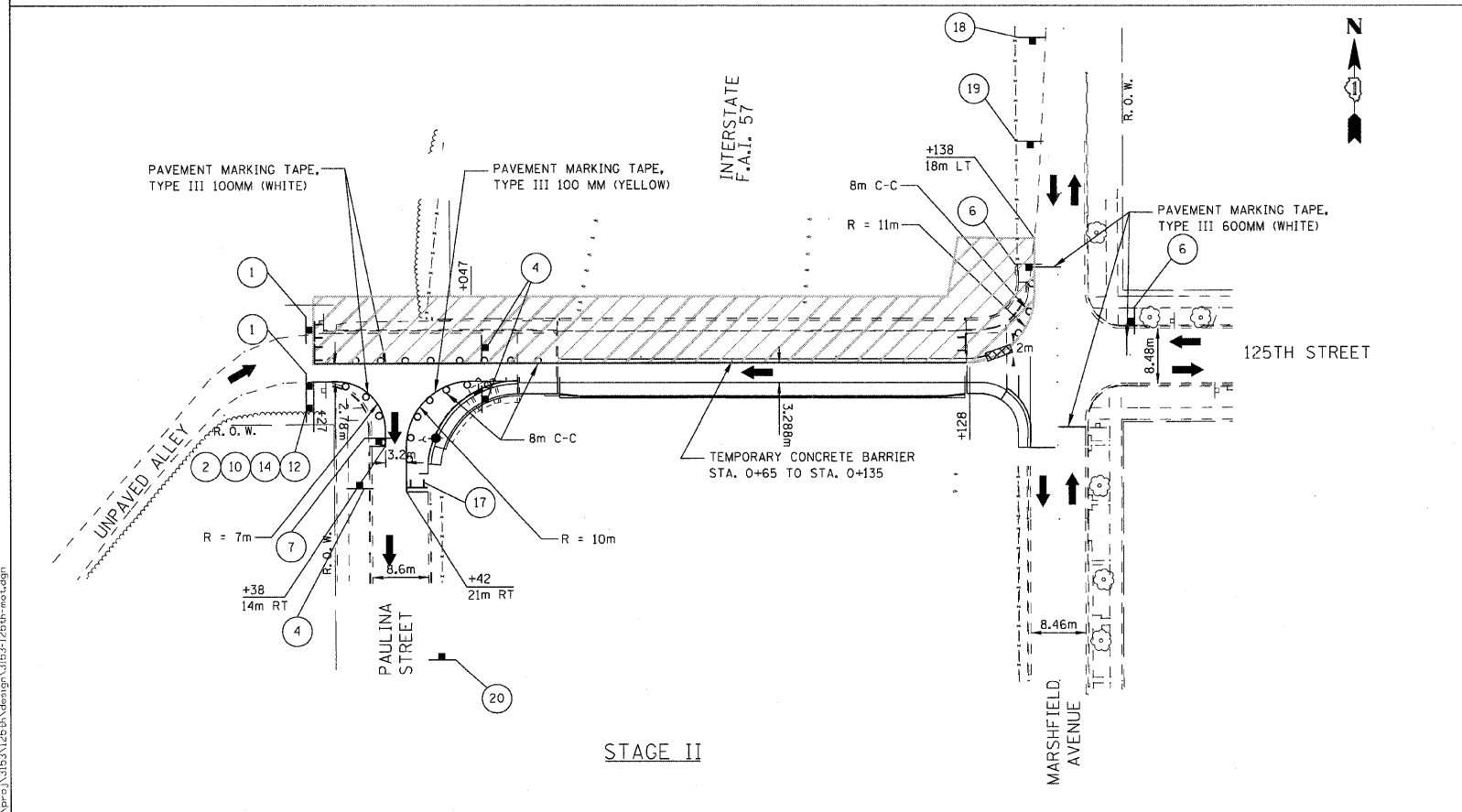
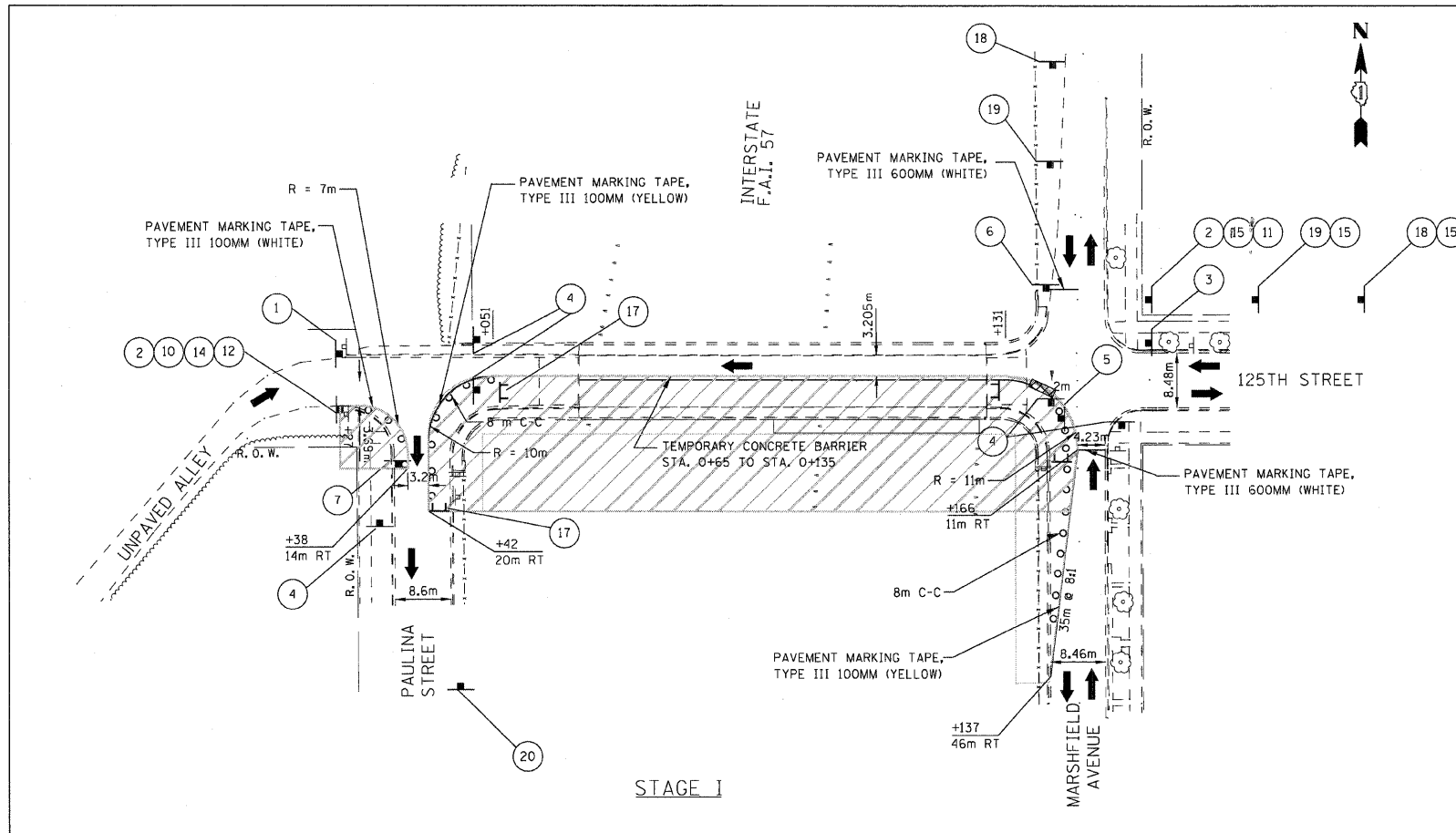
**FAI 57/INTERSTATE 57  
 125TH STREET OVER I-57  
 125TH STREET PROFILE**

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

F.A.I. RTE. 57	SECTION 1818.3B-R	COUNTY COOK	TOTAL SHEETS 58	SHEET NO. 9
CONTRACT NO. 60862				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

EXISTING & ELEVATION  
 PROPOSED & ELEVATION

184.708  
184.745  
0+050  
185.055  
185.166  
0+075  
185.192  
185.305  
0+100  
184.943  
185.043  
0+125  
184.715  
184.708  
0+150  
184.717  
0+175  
184.809  
0+200  
184.880  
0+225  
184.870  
0+250  
184.762  
0+275  
184.637  
0+300



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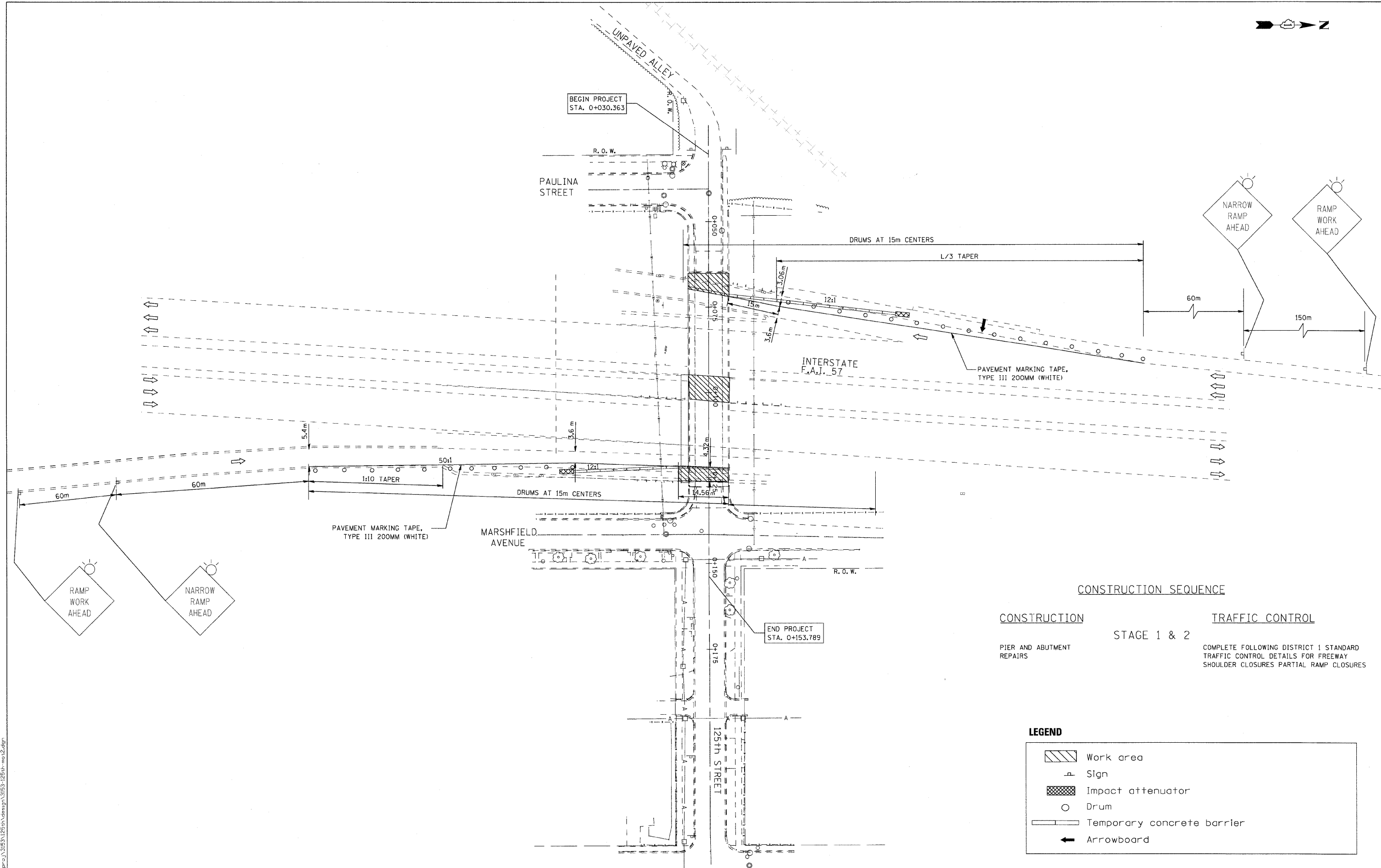
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
TEMPORARY DETOUR ROUTE**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.38-R	COOK	58	10
CONTRACT NO. 60862				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

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**CONSTRUCTION SEQUENCE**

**CONSTRUCTION**

PIER AND ABUTMENT REPAIRS

**STAGE 1 & 2**

**TRAFFIC CONTROL**

COMPLETE FOLLOWING DISTRICT 1 STANDARD TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES PARTIAL RAMP CLOSURES

**LEGEND**

	Work area
	Sign
	Impact attenuator
	Drum
	Temporary concrete barrier
	Arrowboard

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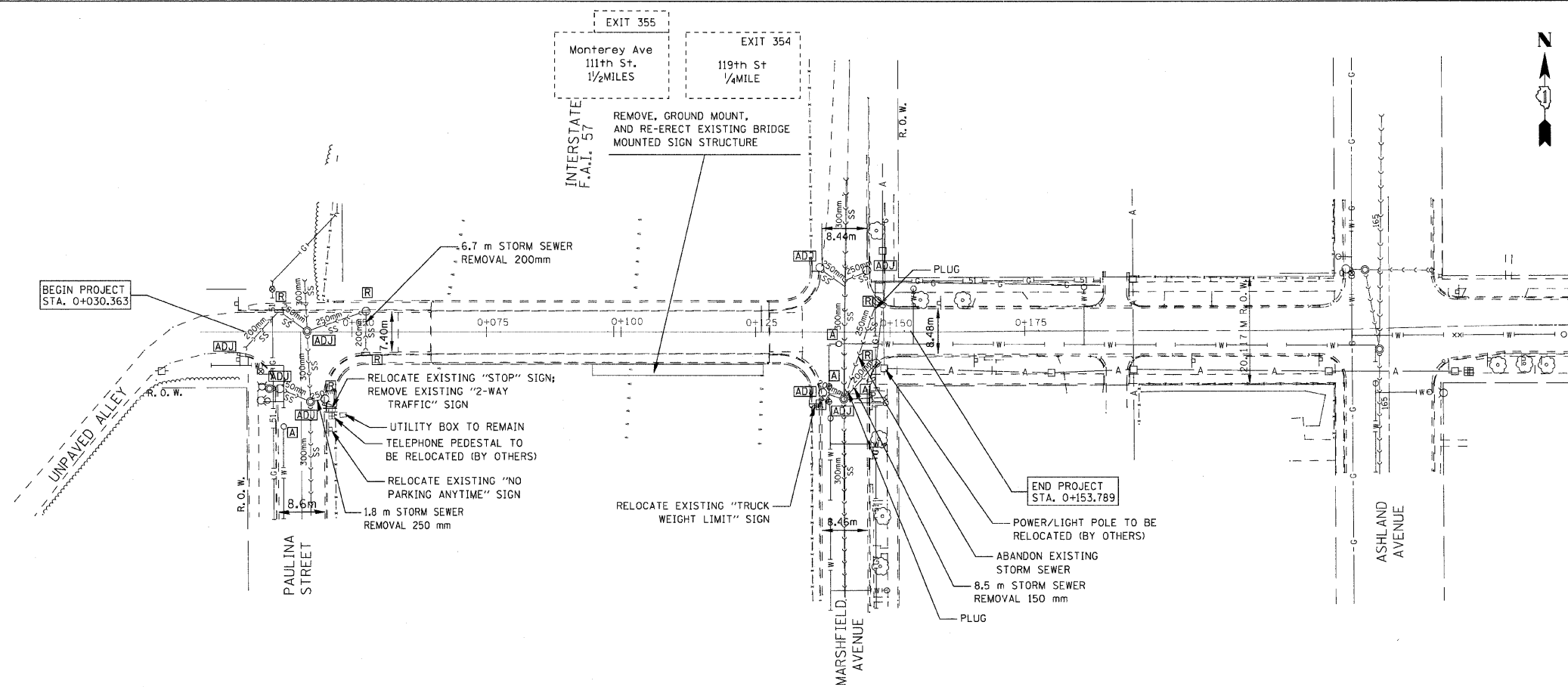
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**FAI 57/INTERSTATE 57  
 125TH STREET OVER I-57  
 TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)**

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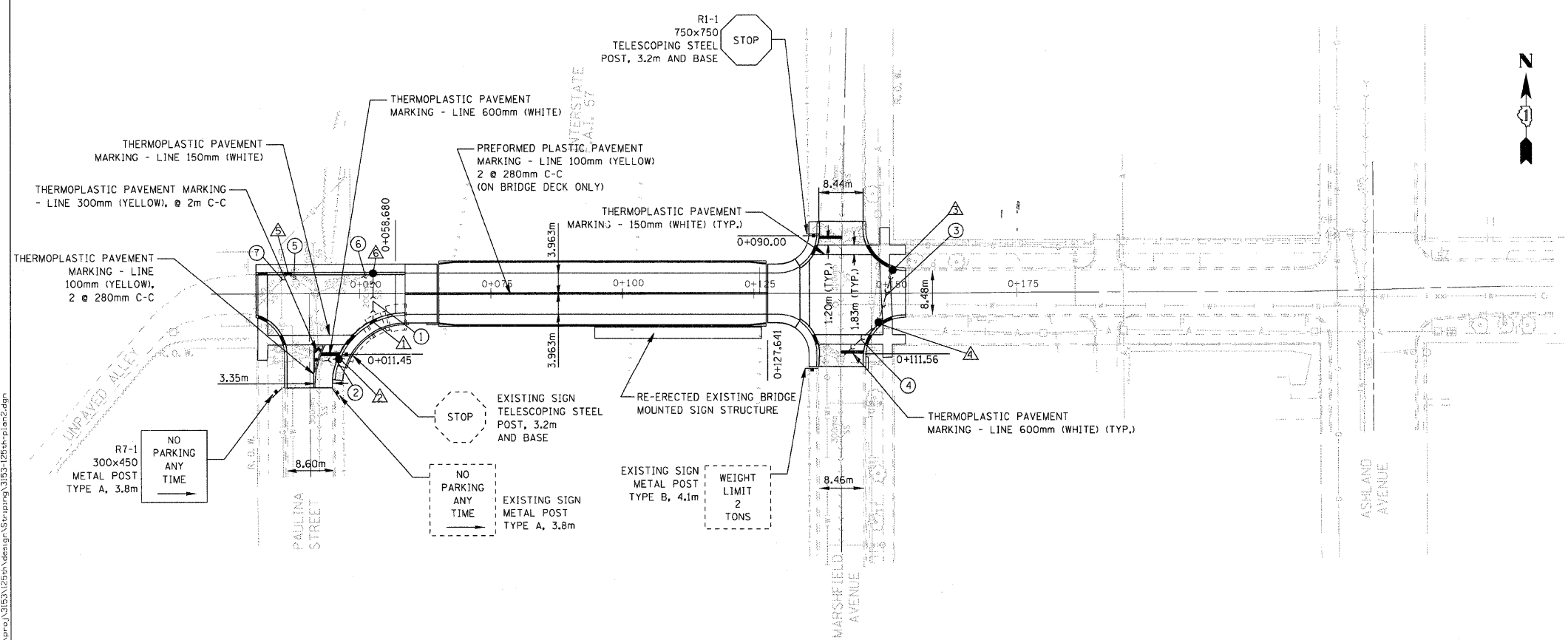
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57	1818.3B-R	COOK	58	11
CONTRACT NO. 60862				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				





- ADJ ADJUST MANHOLES, CATCH BASINS OR INLETS
- R REMOVING CATCH BASINS OR INLETS
- A ADJUST VALVE BOXES

125TH STREET EXISTING



- △ STA. 0+052.58, 5.10m RT INLET, TYPE A, TYPE 23 FRAME & GRATE  
RIM = 184.802  
INV = 183.708
- ① STORM SEWER, DUCTILE IRON PIPE, TYPE 2, 200 mm  
8.8m @ 1%  
TBF = 3.5 cu.m.
- △ STA. 0+045.95, 12.25m RT CATCH BASIN, TYPE A, 1.2m DIA, TYPE 23 FRAME & GRATE  
RIM = 184.614  
INV = 183.448
- ② STORM SEWER, DUCTILE IRON PIPE TYPE 2, 200mm  
1.4m @ 1%  
TBF = 1.5 cu.m.
- △ STA. 0+151.35, 4.38m LT CATCH BASIN, TYPE A, 1.2m DIA, TYPE 23 FRAME & GRATE  
RIM = 184.573  
INV = 183.573
- ③ STORM SEWER, DUCTILE IRON PIPE, TYPE 2, 200 mm  
9.6m @ 1%  
TBF = 3.5 cu.m.
- △ STA. 0+148.70, 5.45m RT CATCH BASIN, TYPE A, 1.2m DIA, TYPE 23 FRAME & GRATE  
RIM = 184.440  
INV = 183.474
- ④ STORM SEWER DUCTILE IRON PIPE, TYPE 2, 200 mm  
9.0m @ 1%  
TBF = 3 cu.m.
- △ STA. 0+036.43, 3.90m LT CATCH BASIN, TYPE A, 1.2m, DIA.  
FRAME & GRATE  
RIM = 184.556  
INV = 183.185
- ⑤ STORM SEWER, DUCTILE IRON PIPE, TYPE 2, 250 mm  
1.5m @ 1%  
TBF = 1 cu.m.
- △ STA. 0+052.61, 3.91m LT CATCH BASIN, TYPE A, 1.2m DIA, TYPE 23 FRAME & GRATE  
RIM = 184.739  
INV = 183.185
- ⑥ STORM SEWER, DUCTILE IRON PIPE TYPE 2, 250mm  
1.50m @ 1%  
TBF = 1.5 cu.m.
- ⑦ STORM SEWER, DUCTILE IRON PIPE TYPE 2, 200mm  
1.5m @ 1%  
TBF = 1 cu.m.

125TH STREET PROPOSED

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**CG** **Ciorba Group, Inc.**  
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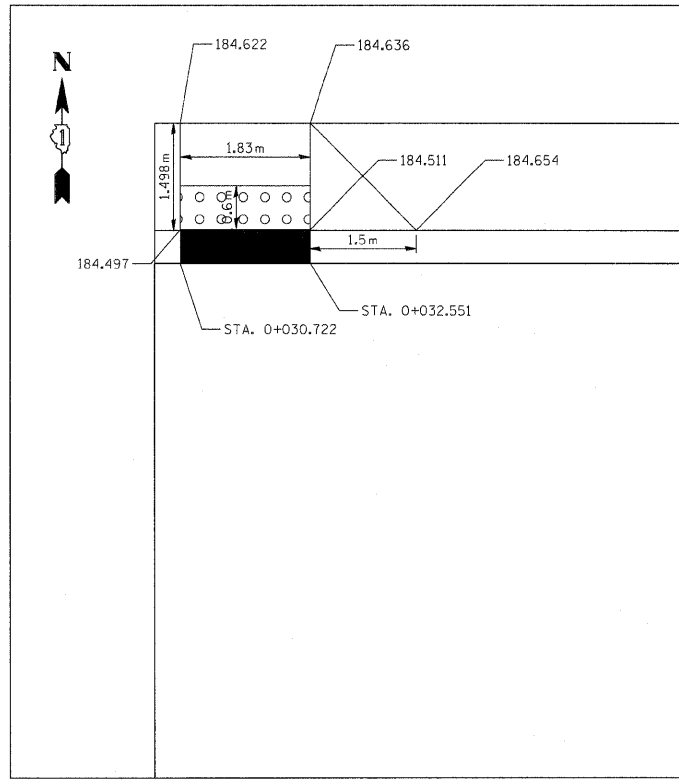
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

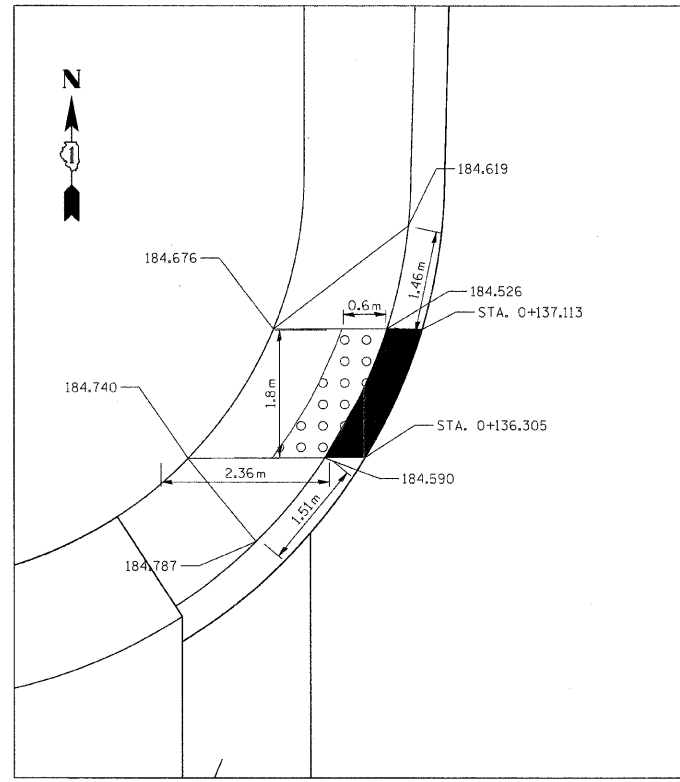
**FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
DRAINAGE, UTILITIES, SIGNING AND STRIPING PLAN**

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

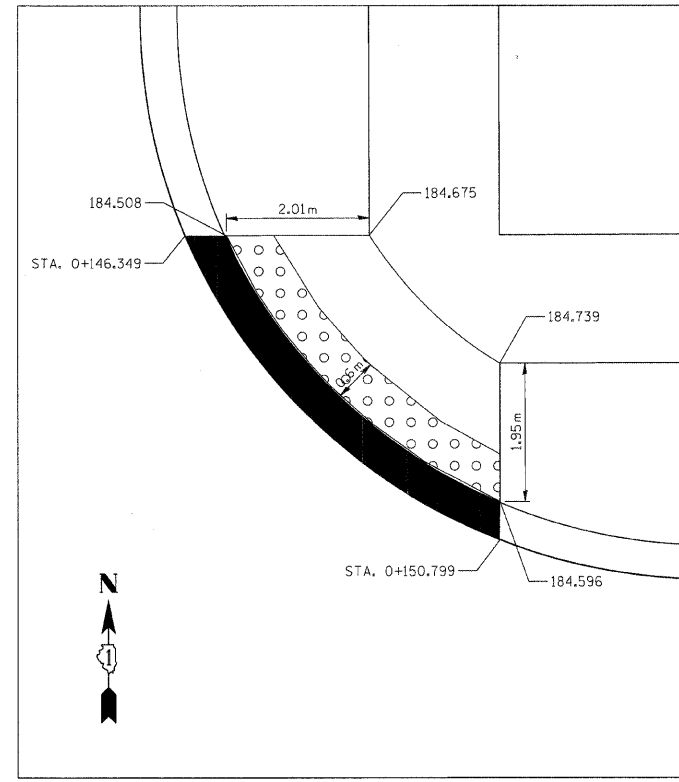
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FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 60862	



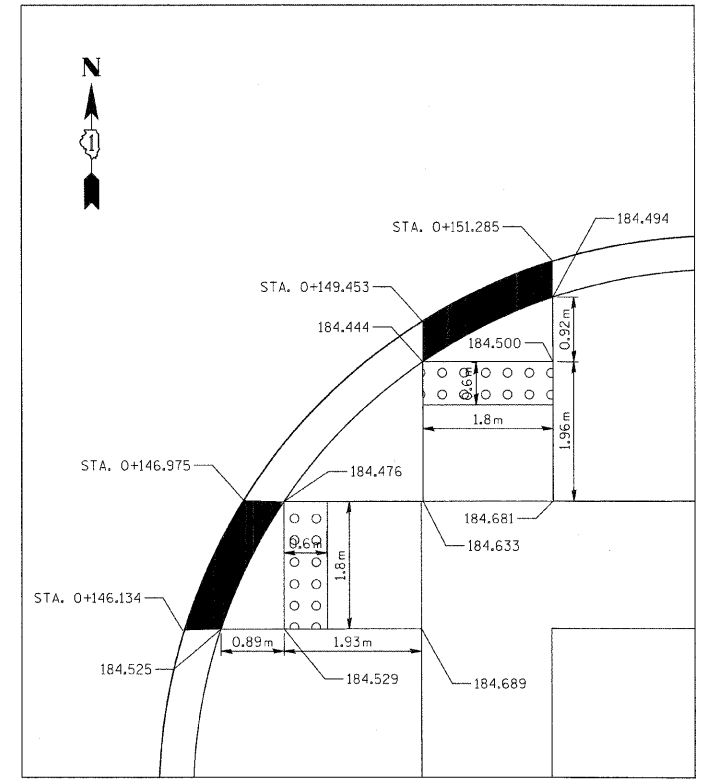
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125TH STREET AND PAULINA DRIVE



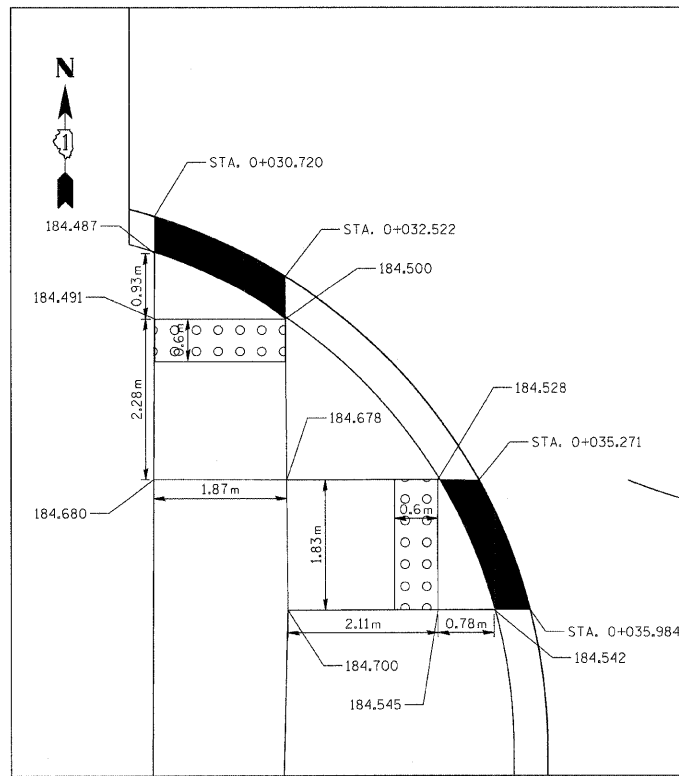
NORTHWEST CORNER  
125TH STREET AND MARSHFIELD AVENUE



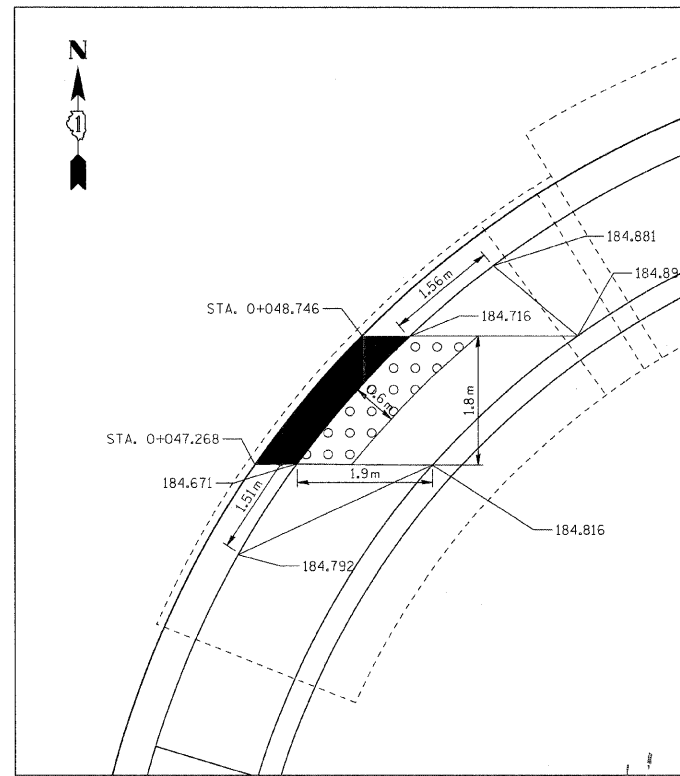
NORTHEAST CORNER  
125TH STREET AND MARSHFIELD AVENUE



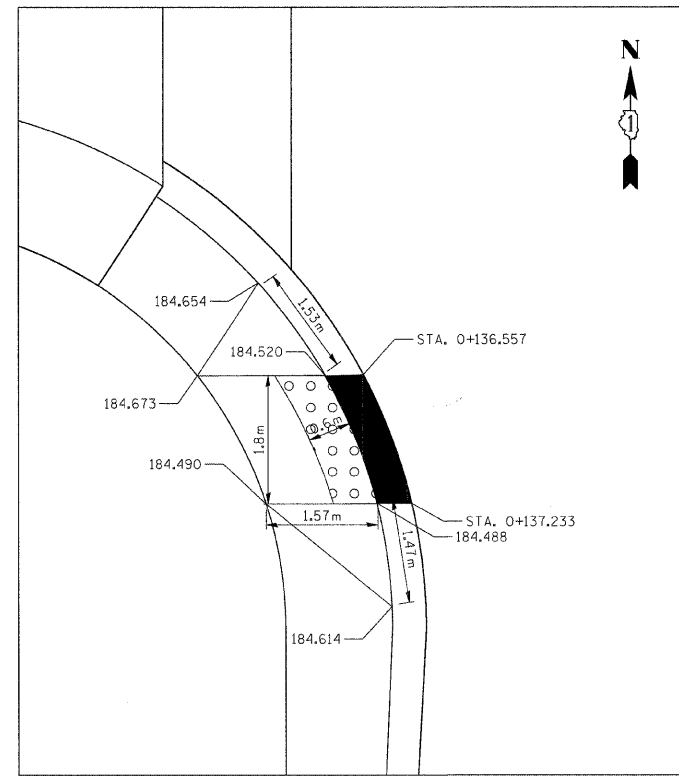
SOUTHEAST CORNER  
125TH STREET AND MARSHFIELD AVENUE



SOUTHWEST CORNER  
125TH STREET AND PAULINA DRIVE



SOUTHEAST CORNER  
125TH STREET AND PAULINA DRIVE



SOUTHWEST CORNER  
125TH STREET AND MARSHFIELD AVENUE

■ DEPRESSED CURB

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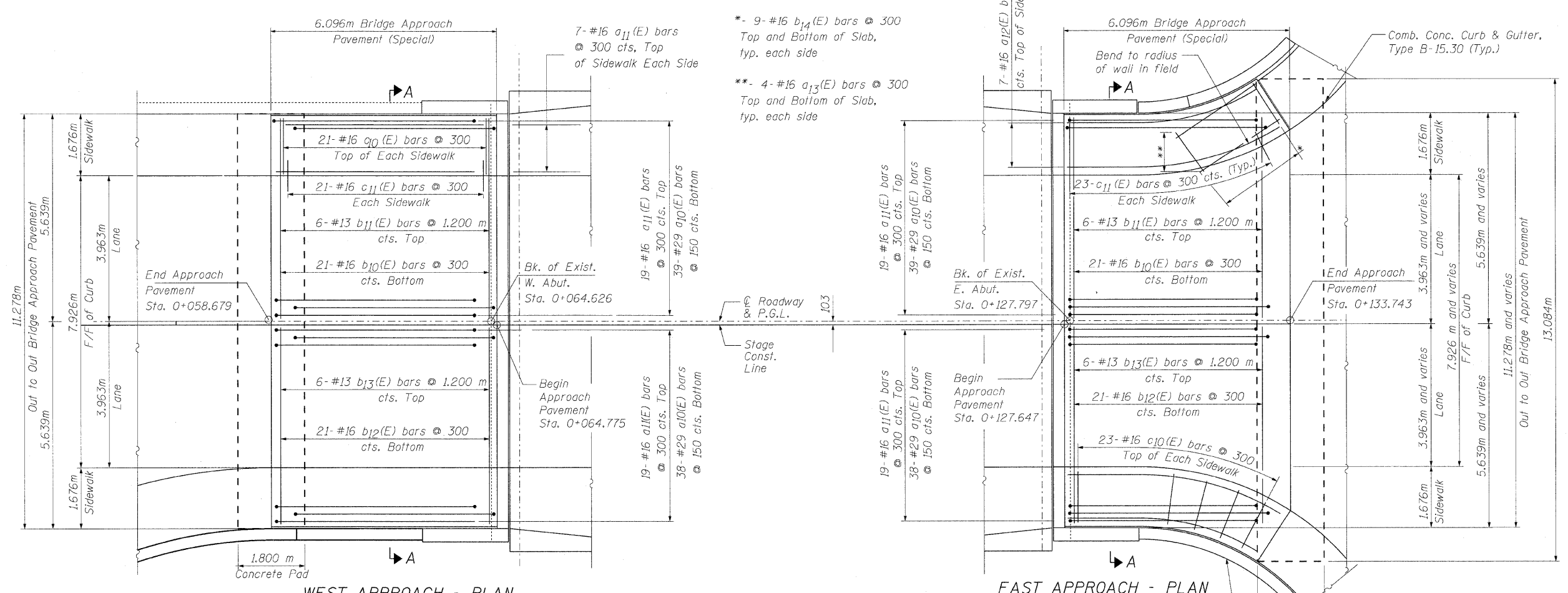
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	DATE - 1/16/2009	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
SIDEWALK DETAILS

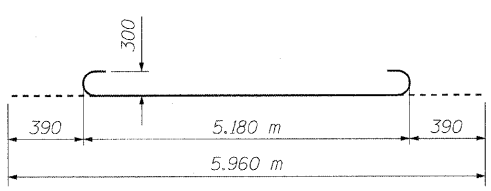
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	13
CONTRACT NO. 60862				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

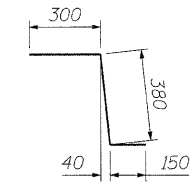


WEST APPROACH - PLAN

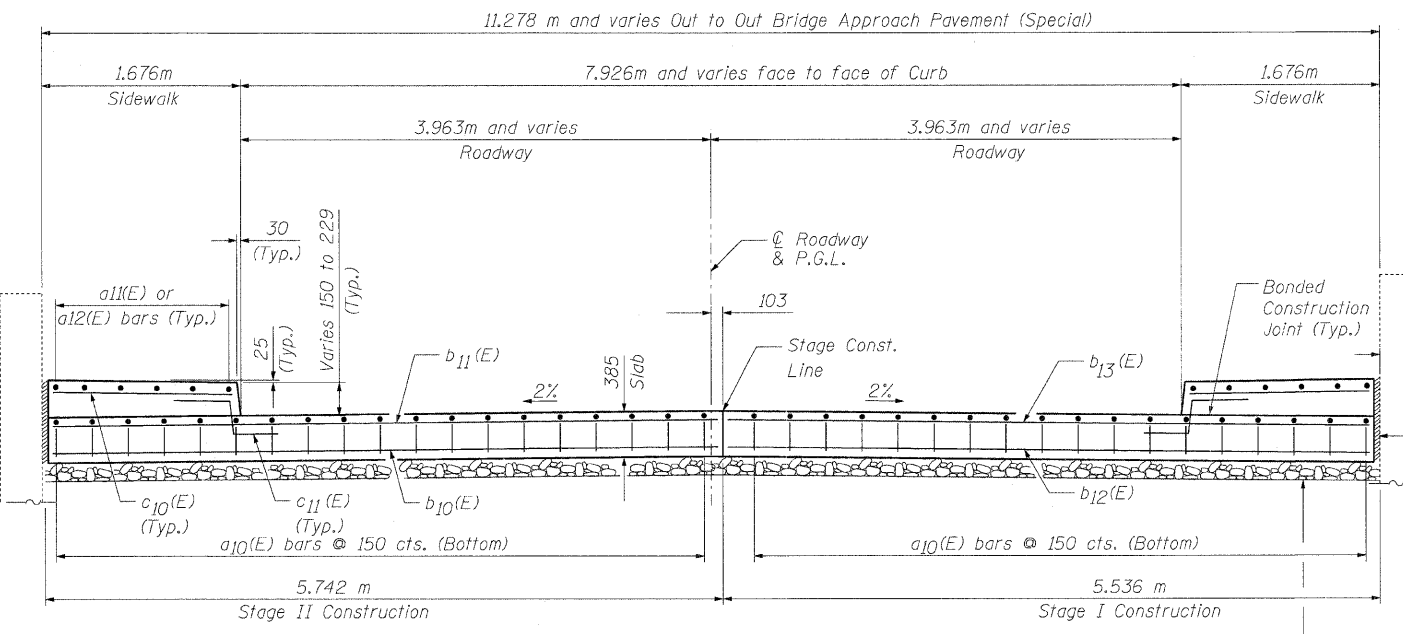
EAST APPROACH - PLAN



BAR a10(E)



BAR c11(E)



SECTION A-A  
(Looking East)

DESIGN STRESSES

$f'_c = 24 \text{ MPa}$   
 $f_y = 400 \text{ MPa}$   
 $n = 8.5$

TWO APPROACH PAVEMENTS  
BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
a10(E)	154	#29	5.960	
a11(E)	90	#16	5.996	
a12(E)	14	#16	6.536	
a13(E)	8	#16	2.000	
b10(E)	42	#16	5.642	
b11(E)	12	#13	5.642	
b12(E)	42	#16	5.436	
b13(E)	12	#13	5.436	
b14(E)	18	#16	1.800	
c10(E)	88	#16	1.531	
c11(E)	88	#16	0.830	
Bridge Approach Pavement (Special)			Sq. m	143

NOTES:

- See Roadway Plans Bridge Approach Pavement Std. 420401 for additional details.
- All reinforcement bars shall be epoxy coated.
- The cost of reinforcement bars shall be included with Bridge Approach Pavement (Special).

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USER NAME = dmorris	DESIGNED - EKM	REVISED -
PLOT SCALE = 0.2680000 m / MM.	DRAWN - RD	REVISED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
APPROACH DETAIL**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	14
CONTRACT NO. 60862				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

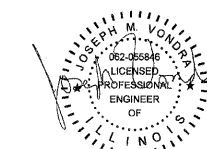
LIGHTING GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AS WELL AS:  
ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS ADOPTED JANUARY 1, 2007  
  
ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (LATEST EDITION IN EFFECT ON THE DATE OF INVITATION FOR BIDS)  
  
NATIONAL ELECTRIC CODE, 2008 EDITION  
  
DISTRICT ONE RECURRING SPECIAL PROVISIONS FOR ROADWAY LIGHTING, ADOPTED JANUARY 1, 2008.
- ANY ROADWAY LIGHTING MATERIALS AND/OR LIGHTING SYSTEMS SHOWN ON THE PLAN SHEETS AS "EXISTING" ARE FOR THE CONTRACTOR'S INFORMATION ONLY. THE CONTRACTOR MUST FIELD VERIFY EXISTING ROADWAY LIGHTING MATERIALS/SYSTEMS AS SPECIFIED IN THE "GENERAL ELECTRICAL PROVISIONS".
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LUMINAIRES FOR EXAMINATION AND CONFIRMATION WITH THE ENGINEER AT THE PRECONSTRUCTION INSPECTION.
- PROPOSED UNDERGROUND RACEWAYS, UNIT DUCT AND WARNING TAPE SHALL NOT BE INSTALLED UNTIL FINAL GRADE HAS BEEN ESTABLISHED. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, RACEWAYS AND UNIT DUCT SHALL BE INSTALLED AT A DEPTH OF 0.6 METERS. THE INSTALLATION OF THE WARNING TAPE SHALL BE INSPECTED BY THE ENGINEER PRIOR TO BACKFILLING OR DURING PLOWING OPERATIONS, AS APPLICABLE. AT THE REQUEST OF THE ENGINEER, THE CONTRACTOR SHALL HAND-DIG ONE TEST HOLE FOR EACH 300-METERS OF TRENCH/PLOWING. TEST HOLE CHECKS SHALL BE WITNESSED BY THE ENGINEER TO VERIFY THE DEPTH AND CONDITION OF UNIT DUCT WARNING TAPE AND RACEWAYS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE UNIT DUCT PAY ITEM.
- QUANTITIES OF TRENCHED CONDUIT, WHERE INDICATED ON THE CONTRACT DRAWINGS, ARE APPROXIMATIONS. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLETE CONFORMANCE WITH SPECIFICATIONS.
- UNLESS OTHERWISE NOTED, ALL UNIT DUCT PROVIDED BY THIS CONTRACT SHALL BE 30MM DIA. UNIT DUCT WITH 3-1/C NO. 4 (BLACK, RED, AND WHITE COLOR CODED) AND 1/C NO. 6 (GREEN COLOR CODED) GROUND. QUANTITIES SHOWN FOR UNIT DUCT AND CONDUIT SHALL BE CONFIRMED IN THE FIELD.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR SPLICING ELECTRICAL CABLE. SEE "GENERAL ELECTRICAL REQUIREMENTS" AND SPLICING DETAIL ON SHEET 7 OF 10.
- THE CONTRACTOR SHALL MAKE NOTE OF THE REQUIREMENTS FOR GROUNDING.
  - GROUNDING CONNECTIONS AT THE FOUNDATION STEEL AND AT THE GROUND ROD SHALL BE EXOTHERMICALLY WELDED, AS SPECIFIED, AND SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO POURING CONCRETE OR BACKFILLING, AS APPLICABLE.
  - EQUIPMENT GROUND CONDUCTORS (GREEN COLOR CODED) SHALL BE SPLICED AND PIGTAILED TO EACH METALLIC JUNCTION/PULL BOX THEY PASS THROUGH AS WELL AS AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT. THE CONNECTION SHALL UTILIZE U.L. LISTED CLAMPS, PRESSURE CONNECTORS OR OTHER U.L. LISTED MEANS.
  - METALLIC JUNCTION/PULL BOXES SHALL BE EQUIPPED FOR THE GROUNDING WIRE TERMINATIONS WITHOUT DEGRADATION OF BOX RATING.
- THE CONTRACTOR SHALL SUBMIT FULL SIZE COMPLETE, NEAT AND ACCURATE "RECORD DRAWINGS" TO THE ENGINEER FOR REVIEW AND COMMENT, AS SPECIFIED. THE "RECORD DRAWINGS" SHALL BE UPDATED ON REGULAR BASIS AND DEPICT ALL ROADWAY LIGHTING MATERIAL INSTALLATIONS WITH ANY CHANGES INDICATED IN RED. "RECORD DRAWINGS" SHALL BE SUBMITTED AT LEAST 7 DAYS BEFORE SCHEDULING A FINAL INSPECTION.

- WITHIN THIRTY (30) DAYS AFTER THE CONTRACT IS SIGNED AND BEFORE ANY WORK IS AUTHORIZED BY THE ENGINEER, THE CONTRACTOR SHALL SUBMIT MANUFACTURER'S LITERATURE PERTAINING TO LIGHTING WORK FOR THE ELECTRICAL ENGINEER'S REVIEW AND APPROVAL.
- THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. (1-800-892-0123) TO LOCATE AND MARK/STAKE ALL UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL, AS DIRECTED BY THE ENGINEER, DISPOSE THE EXISTING ELECTRICAL MATERIAL. THE COST OF THIS WORK SHALL BE INCLUDED IN THE RESPECTIVE PAY ITEM.
- THE EXISTING SCHEMATIC WIRING, SHOWN ON SHEET 5 OF 10 IS FOR REFERENCE ONLY. THE CONTRACTOR SHALL VERIFY IN THE FIELD CIRCUITS FOR EXISTING LIGHTING SYSTEM.
- THE CONTRACTOR SHALL GIVE IN WRITING TO THE ELECTRICAL ENGINEER FOR REVIEW CONSTRUCTION STAGING FOR THE PROPOSED ROADWAY LIGHTING WORK AND THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE ENGINEER.
- THE LIGHTING SYSTEM SHALL REMAIN IN OPERATION BETWEEN 4 P.M. AND 8 A.M. OR AS DIRECTED BY THE ENGINEER.

LIGHTING SCHEDULE QUANTITIES

Description	Unit	Quantity
UNDERPASS LUMINAIRE, 100 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	8
TEMPORARY WOOD POLE, 12.19 METER, CLASS 4	EACH	2
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 150MM X 150MM X 100MM	EACH	8
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 300MM X 250MM X 150MM	EACH	4
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 400MM X 350MM X 150MM	EACH	4
UNIT DUCT, WITH 3-1/C NO. 4 AND 1/C NO. 6 GROUND, 600V (EPR-TYPE RHW) 30MM DIA., POLYETHYLENE	METER	185
ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW), 1/C NO. 10	METER	1040
AERIAL CABLE, 3-1/C NO. 4, ALUMINUM, WITH MESSENGER WIRE	METER	250
TRENCH AND BACKFILL FOR ELECTRICAL WORK	METER	165
CONDUIT ATTACHED TO STRUCTURE, 65MM DIA., GALVANIZED STEEL, PVC COATED	METER	25
CONDUIT ATTACHED TO STRUCTURE, 75MM DIA., GALVANIZED STEEL, PVC COATED	METER	20
CONDUIT ATTACHED TO STRUCTURE, 25MM DIA., GALVANIZED STEEL, PVC COATED	METER	200
ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW), 3-1/C NO. 4, 1/C #6 GROUND	METER	30
TEMPORARY UNDERPASS LIGHTING INSTALLATION AND REMOVAL	L SUM	1
MAINTENANCE OF LIGHTING SYSTEM	CAL MO	6
UNDERPASS LIGHTING REMOVAL	L SUM	1



DATE: 1/16/2009  
SEAL EXPIRES: 11/30/2009

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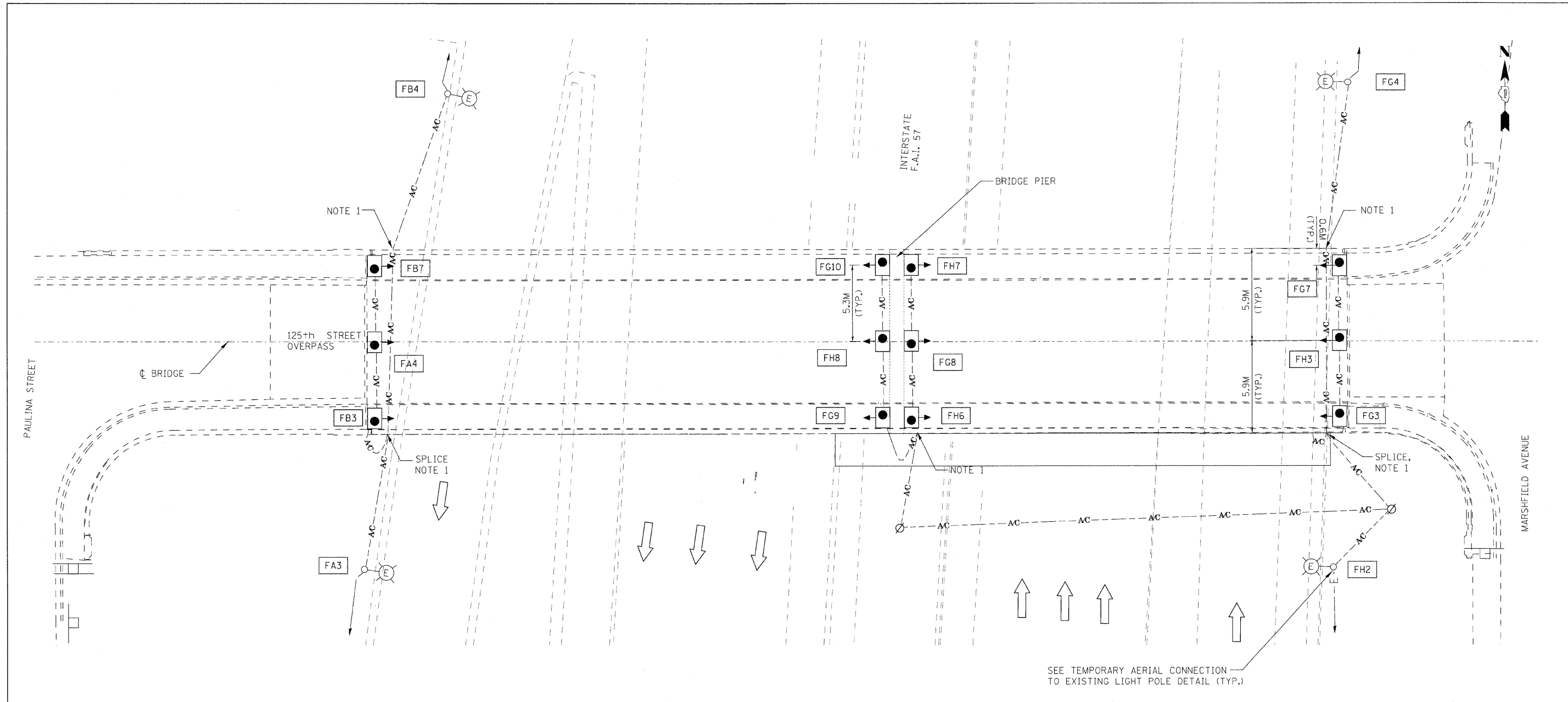
**CGI**  
**Corba Group, Inc.**  
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USER NAME = dmorris	DESIGNED - JMV	REVISED -
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
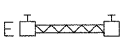


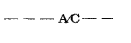

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
LIGHTING GENERAL NOTES AND SCHEDULE OF QUANTITIES**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	181B.3B-R	COOK	58	15
CONTRACT NO. 60862				
SCALE: SHEET NO. 1 OF 10 SHEETS STA. TO STA. FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				



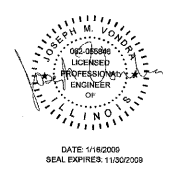
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-  EXISTING LIGHTING UNIT
-  LIGHTED OVERHEAD SIGN STRUCTURE, BRIDGE MOUNTED
-  EXISTING UNIT DUCT WITH 3-1/C NO. 4, AND 1/C NO. 6 GROUND, 600V (EPR-TYPE RHW), 30MM DIA. POLYETHYLENE
-  TEMPORARY UNDERPASS LUMINAIRE, 100W HIGH PRESSURE SODIUM VAPOR ATTACHED TO ABUTMENT/PIER
-  AERIAL CABLE, 3-1/C NO. 4, ALUMINUM, WITH MESSENGER WIRE
-  TEMPORARY WOOD POLE, 12.19 METER, CLASS 4

SEE TEMPORARY AERIAL CONNECTION TO EXISTING LIGHT POLE DETAIL (TYP.)

**NOTES**

1. SEE AERIAL CABLE ATTACHED TO STRUCTURE DETAIL ON SHEET 22.
2. EACH UNDERPASS LUMINAIRE SHALL BE PROTECTED WITH 5 AMP FUSES FOR EACH PHASE CONDUCTOR. NEUTRAL CONDUCTORS SHALL HAVE A FUSE HOLDER/SLUG ASSEMBLY TO ALLOW FOR DISCONNECTION DURING MAINTENANCE.
3. TEMPORARY UNDERPASS LIGHTING SHALL BE INSTALLED AND APPROVED BY THE ENGINEER PRIOR TO THE REMOVAL OF EXISTING UNDERPASS LIGHTING SYSTEM.
4. TEMPORARY LIGHTING SHALL BE REMOVED AFTER THE PROPOSED UNDERPASS LIGHTING IS INSTALLED ACCEPTED BY THE ENGINEER.
5. THE COMPLETE TEMPORARY UNDERPASS LIGHTING SYSTEM SHALL BE PAID FOR AS "TEMPORARY UNDERPASS LIGHTING INSTALLATION AND REMOVAL".
6. FOR TEMPORARY UNDERPASS LIGHTING INSTALLATION DETAILS, SEE SHEET 24.



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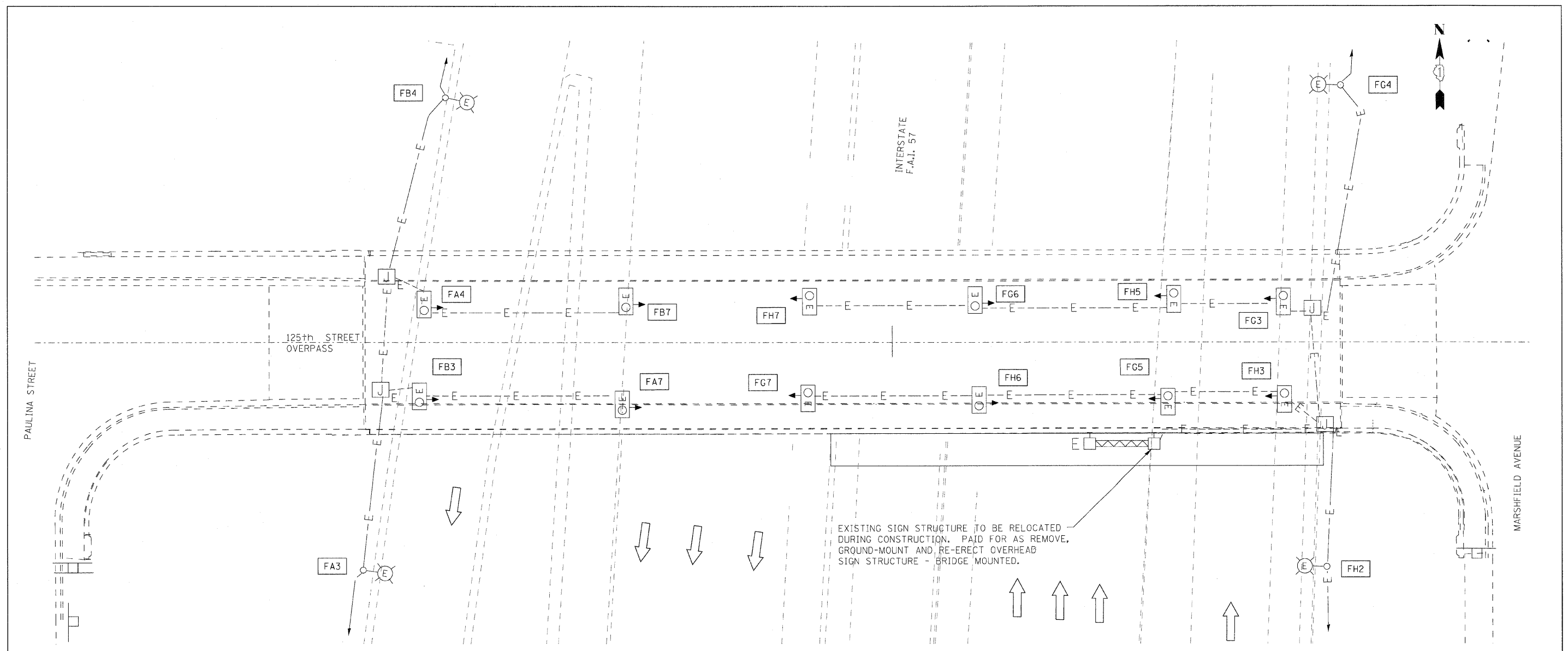
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**FAI 57/INTERSTATE 57  
 125TH STREET OVER I-57  
 TEMPORARY LIGHTING PLAN**

SCALE: SHEET NO. 2 OF 10 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	16
CONTRACT NO. 60862				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

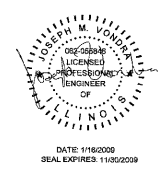


**LEGEND**

- EXISTING LIGHTING UNIT TO REMAIN
- EXISTING L.P.S. UNDERPASS LUMINAIRE
- EXISTING LIGHTED OVERHEAD SIGN STRUCTURE, BRIDGE MOUNTED
- EXISTING JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE
- EXISTING UNIT DUCT WITH 3-1/C NO. 4, AND 1/C NO. 6 GROUND
- EXISTING ELECTRIC CABLE IN CONDUIT

**NOTES**

1. AFTER THE TEMPORARY LIGHTING IS INSTALLED AND APPROVED BY THE ENGINEER, DISCONNECT AND REMOVE EXISTING UNDERPASS LIGHTING SYSTEM.
2. CABLE SHALL BE REMOVED FROM EXISTING UNIT DUCT TO BE ABANDONED BETWEEN LIGHT POLES FA3 AND FB4 AS WELL AS FH2 AND FG4.



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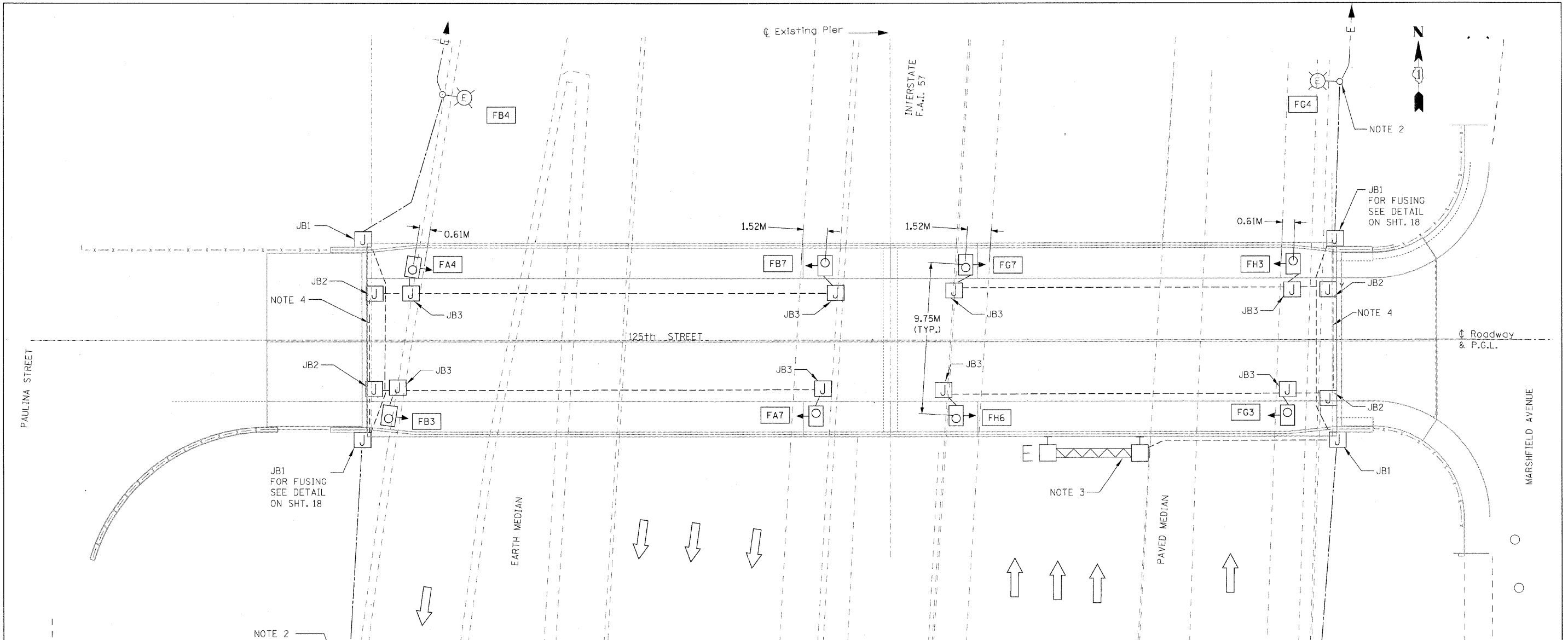
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**FAI 57/INTERSTATE 57  
 125TH STREET OVER I-57  
 EXISTING LIGHTING AND REMOVAL PLAN**

SCALE: SHEET NO. 3 OF 10 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	17
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 60862	



**LEGEND**

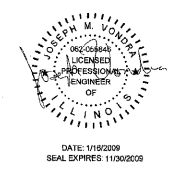
- EXISTING LIGHT UNIT
- LIGHTED OVERHEAD SIGN STRUCTURE BRIDGE MOUNTED
- UNDERPASS LUMINAIRE, 100W HIGH PRESSURE SODIUM VAPOR, SUSPENDED MOUNT
- JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE. SIZE AS NOTED
- UNIT DUCT WITH 3-1/8 NO. 4, AND 1/8 NO. 6 GROUND, 600V (EPR-TYPE RHW), 30MM DIA. POLYETHYLENE IN TRENCH
- ELECTRIC CABLE IN CONDUIT, 3-1/8 NO. 10, AND 1/8 NO. 10 GROUND, 600V (EPR-TYPE RHW), 25MM DIA., GALVANIZED STEEL, PVC COATED CONDUIT ATTACHED TO STRUCTURE, UNLESS OTHERWISE NOTED

**NOTES:**

1. LUMINAIRES SHALL BE LOCATED 0.61m (2') FROM THE EDGE OF THE PAVEMENT TO THE CENTER OF LUMINAIRE BY THE ABUTMENTS AND 1.52m (5') FROM THE EDGE OF THE PAVEMENT TO THE CENTER OF THE LUMINAIRE BY THE PIER.
2. CONNECT NEW UNIT DUCT THROUGH EXISTING ELBOW IN BASE OF POLE. SEE DETAIL FOR TYPICAL WIRING AND CIRCUIT DIAGRAM. THIS WORK IS INCIDENTAL TO UNIT DUCT PAY ITEM.
3. RECONNECT FOUR EXISTING SIGN LUMINAIRES TO NEW S.S. JUNCTION BOX. PROVIDE NEW CONDUIT, AND CABLES.
4. ELECTRIC CABLE IN CONDUIT, 3-1/8 NO. 4 AND 1/8 NO. 6 GROUND, 600V (EPR-TYPE RHW), 65MM DIA. GALVANIZED STEEL, PVC COATED CONDUIT ATTACHED TO STRUCTURE. RUN CONDUIT BETWEEN JUNCTION BOXES JB1 AT THE TOP OF THE ABUTMENT.

**JUNCTION BOX SCHEDULE**

	SIZE	DESCRIPTION	QUANTITY
JB1	400MM X 350MM X 150MM	S.S. JUNCTION BOX	4
JB2	300MM X 250MM X 150MM	S.S. JUNCTION BOX	4
JB3	150MM X 150MM X 100MM	S.S. JUNCTION BOX	8



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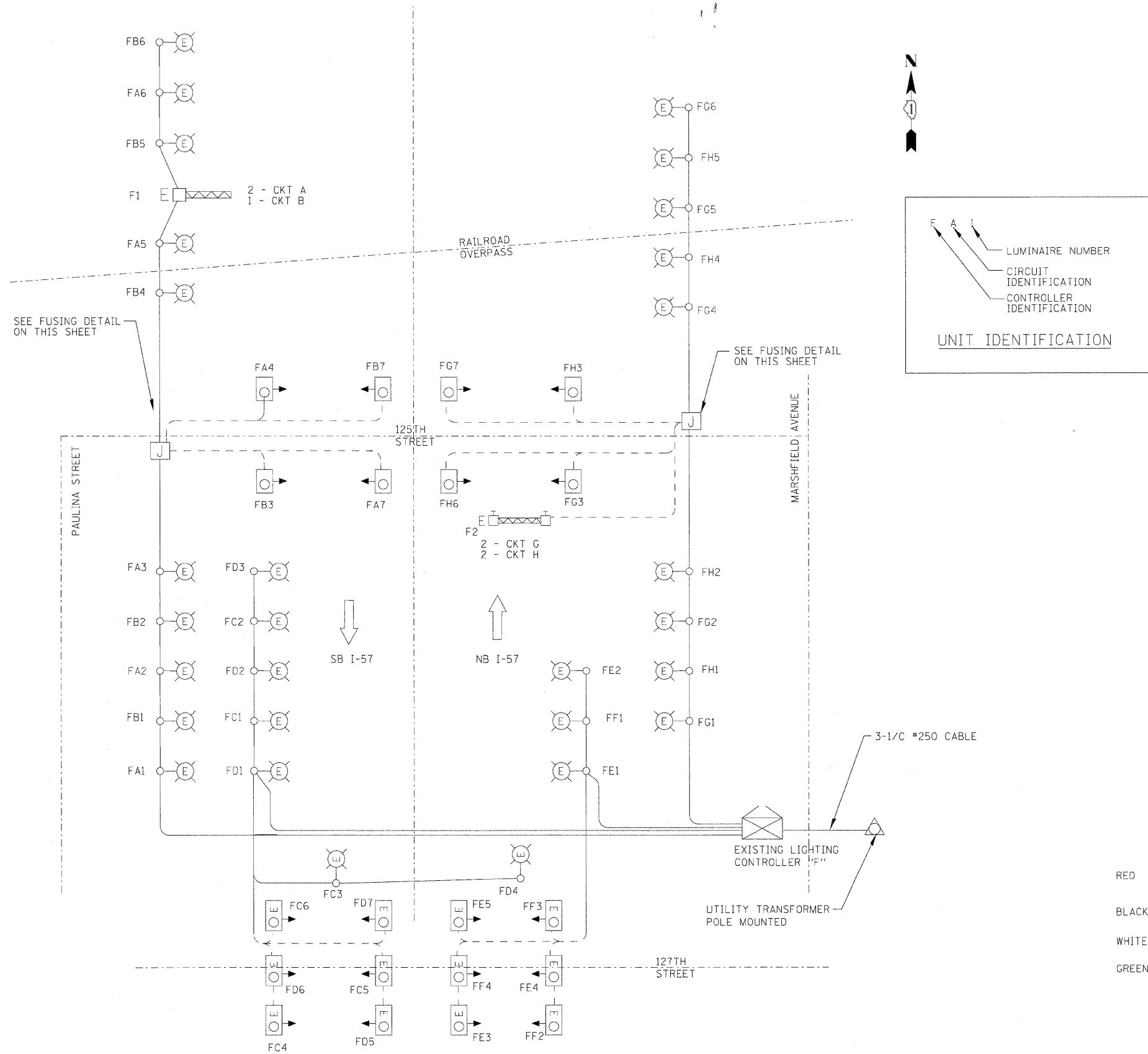
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**FAI 57/INTERSTATE 57**  
**125TH STREET OVER I-57**  
**PROPOSED LIGHTING PLAN**

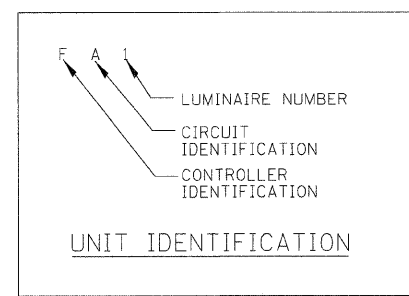
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FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				





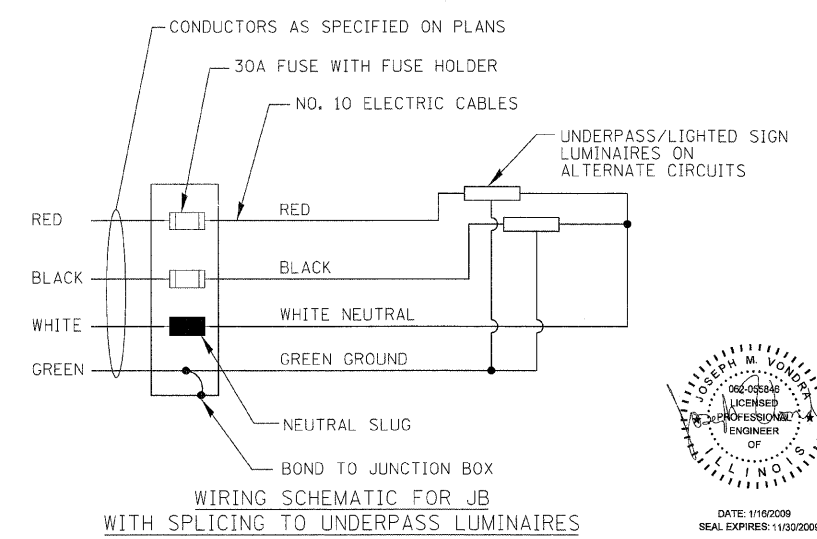
**LEGEND**

- EXISTING LIGHTING UNIT, 400W HPS
- 100W L.P.S. UNDERPASS LUMINAIRE
- LIGHTED SIGN STRUCTURE  
F1 = 3 FIXTURES (6 - 85W FLUORESCENT)  
F2 = 4 FIXTURES (8 - 85W FLUORESCENT)
- 100W HPS UNDERPASS LUMINAIRE
- 3-1/2" NO. 4 AND 1/2" NO. 6 GROUND IN UNIT DUCT
- 3-1/2" NO. 10 AND 1/2" NO. 10 GROUND IN CONDUIT ATTACHED TO STRUCTURE



CKT. #	DESCRIPTION	PHASE A (RED) AMPS	PHASE B (BLACK) AMPS
A	5-400W, 3-85W 2-100W	12.25	
B	5-400W, 3-85W 2-100W		12.25
C	3-400W, 3-100W	12	
D	4-400W, 3-100W		14
E	2-400W, 3-100W	10	
F	1-400W, 3-100W		8
G	5-400W, 4-85W, 2-100W	11.7	
H	4-400W, 4-85W, 2-100W		9.7
TOTAL		45.95	43.95

LOAD WAS CALCULATED BASED ON THE FOLLOWING:  
 400W HPS LUMINAIRE - 2AMPS  
 100W LPS UNDERPASS LUMINAIRE - 2AMPS  
 85W SIGN LUMINAIRE LAMP (TWO PER FIXTURE) - 0.35AMPS  
 100W HPS UNDERPASS LUMINAIRE - 0.6AMPS



DATE: 1/16/2009  
SEAL EXPIRES: 11/30/2009

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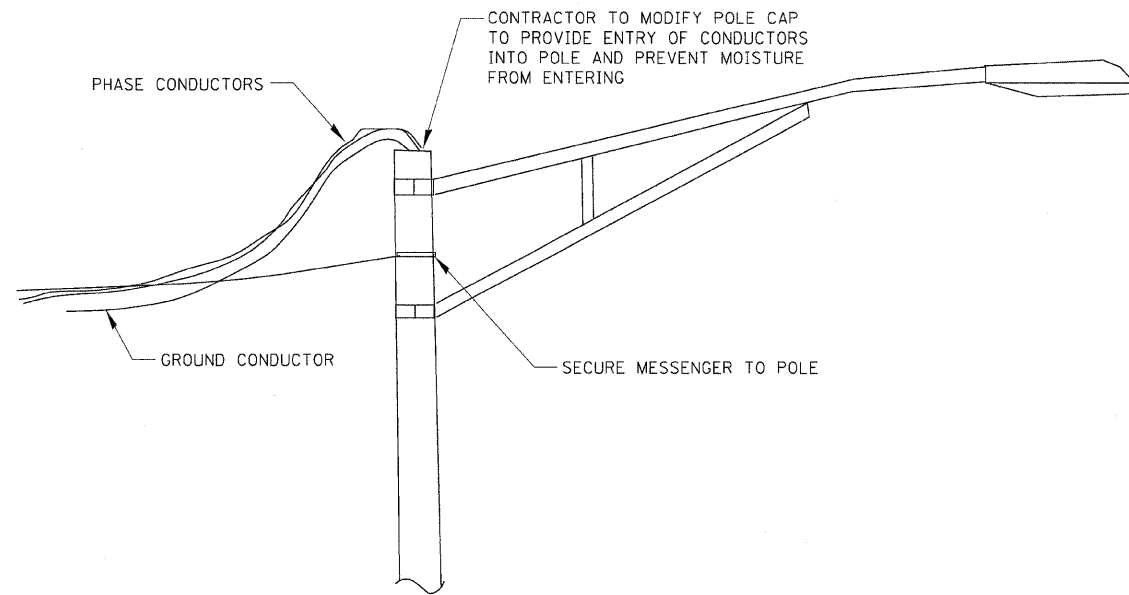
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

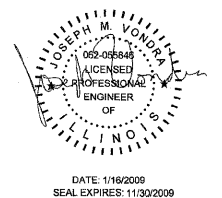
**FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
SINGLE LINE DIAGRAM - CONTROLLER "F"**

SCALE: SHEET NO. 5 OF 10 SHEETS STA. TO STA.

F.A.I. RTE. 57	SECTION 1818.3B-R	COUNTY COOK	TOTAL SHEETS 58	SHEET NO. 19
FED. ROAD DIST. NO. - ILLINOIS			CONTRACT NO. 60862	
FED. AID PROJECT				



TEMPORARY AERIAL CONNECTION  
TO EXISTING LIGHT POLE



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CONSULTING ENGINEERS  
5507 North Cumberland Avenue, Suite 402  
Chicago, Illinois 60656  
Tel. 773.775.4009 Fax 773.775.4014

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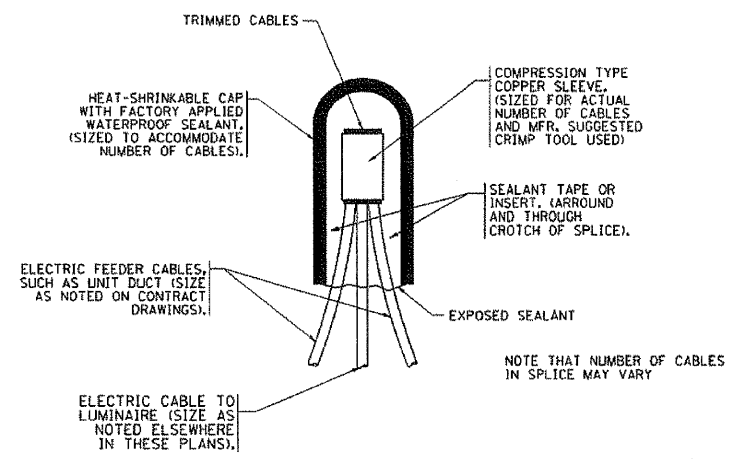
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
LIGHTING DETAILS**

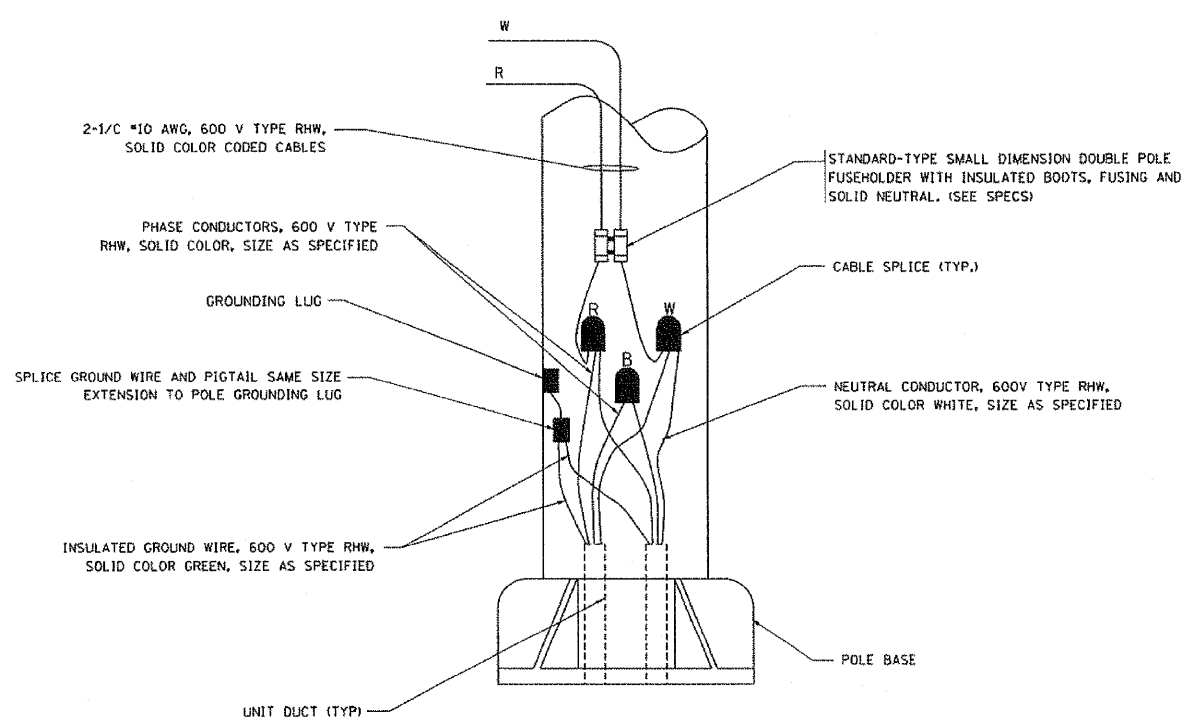
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	20
CONTRACT NO. 60862				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

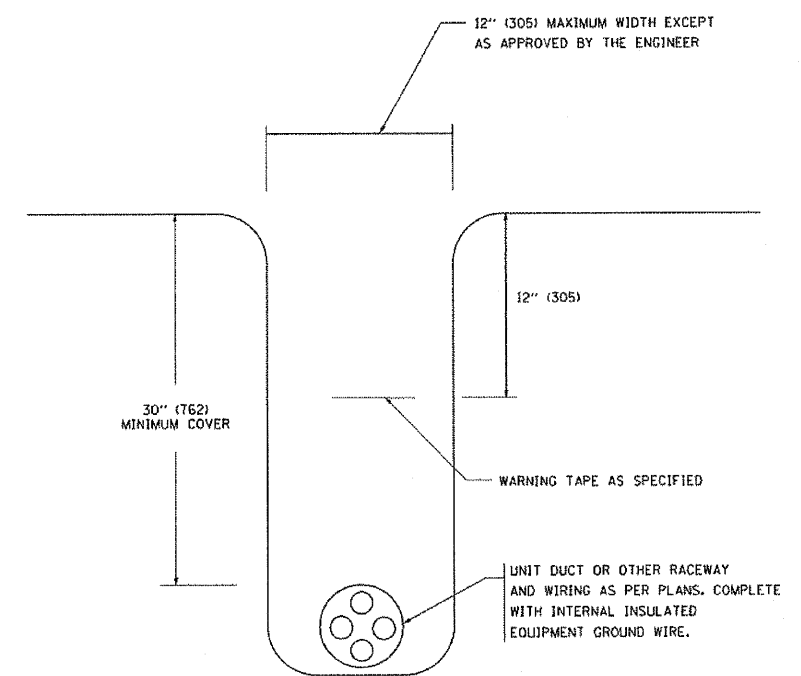
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57	1818.3B-R	COOK	58	20
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FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



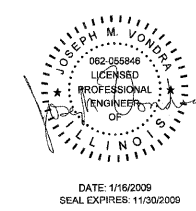
TYPICAL SPLICE DETAIL  
N.T.S.



POLE WIRING DETAIL  
N.T.S.



TYPICAL WIRING IN TRENCH DETAIL  
N.T.S.



REVISIONS	
NAME	DATE
	08/08/03

ILLINOIS DEPARTMENT OF TRANSPORTATION  
MISC. ELECTRICAL DETAILS  
SHEET A  
SCALE: VERT. NONE  
HORIZ. NONE  
DRAWN BY  
CHECKED BY  
BE-702

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PLOT DATE = 4/10/2007  
PLOT SCALE = 5/8" = 1' IN.  
USER NAME = bward

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Chicago, Illinois 60658  
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = dmorris	DESIGNED - JMV	REVISED -
	DRAWN - MB	REVISED -
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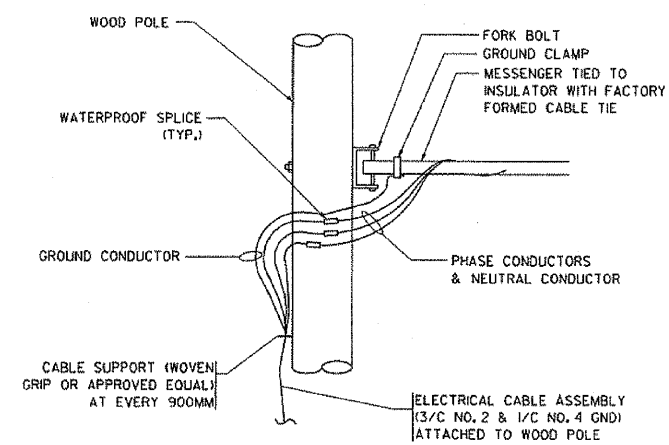
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCALE:	SHEET NO. 7 OF 10 SHEETS	STA.	TO STA.
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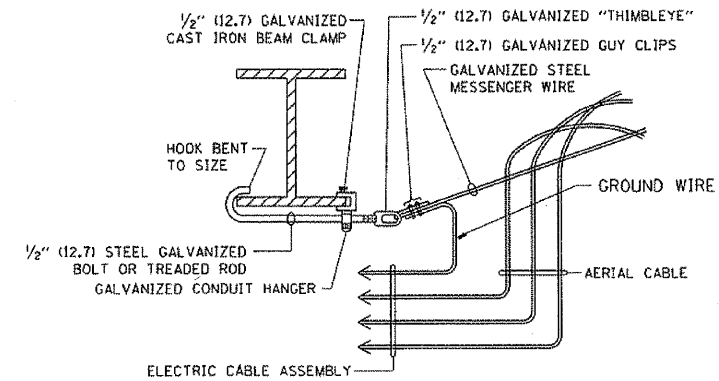
FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
LIGHTING DETAILS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	21
CONTRACT NO. 60862				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	21
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



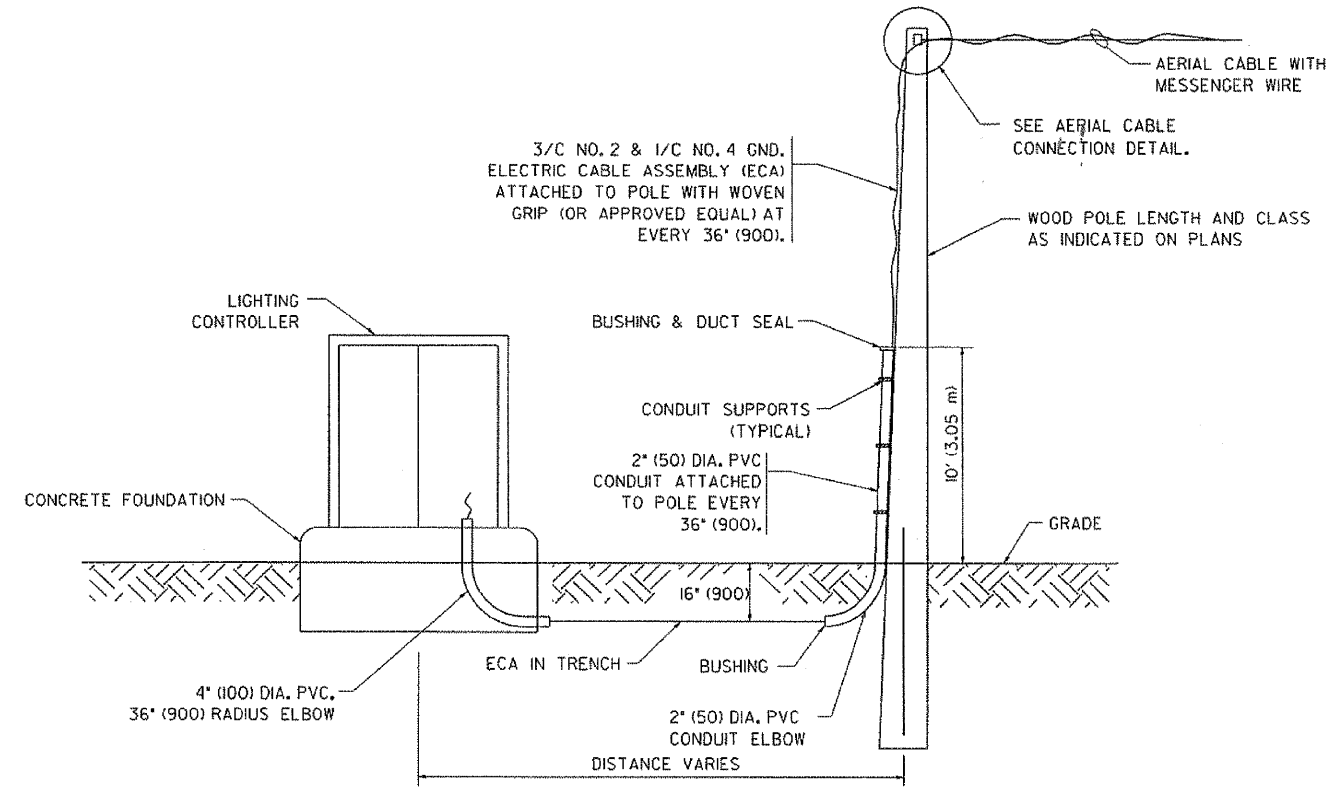
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N.T.S.



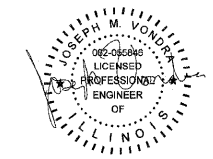
**AERIAL CABLE ATTACHED TO STRUCTURE**  
NOT TO SCALE

**NOTES:**

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.



**WOOD POLE TO LIGHTING CONTROLLER WIRING CONNECTION DETAIL**  
N.T.S.



REVISIONS	NAME	DATE
		08/08/03

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TEMPORARY AERIAL CABLE INSTALLATION**  
SCALE: VERT. NONE  
HORIZ. DRAWN BY  
CHECKED BY  
BE-801

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USER NAME = bowerd

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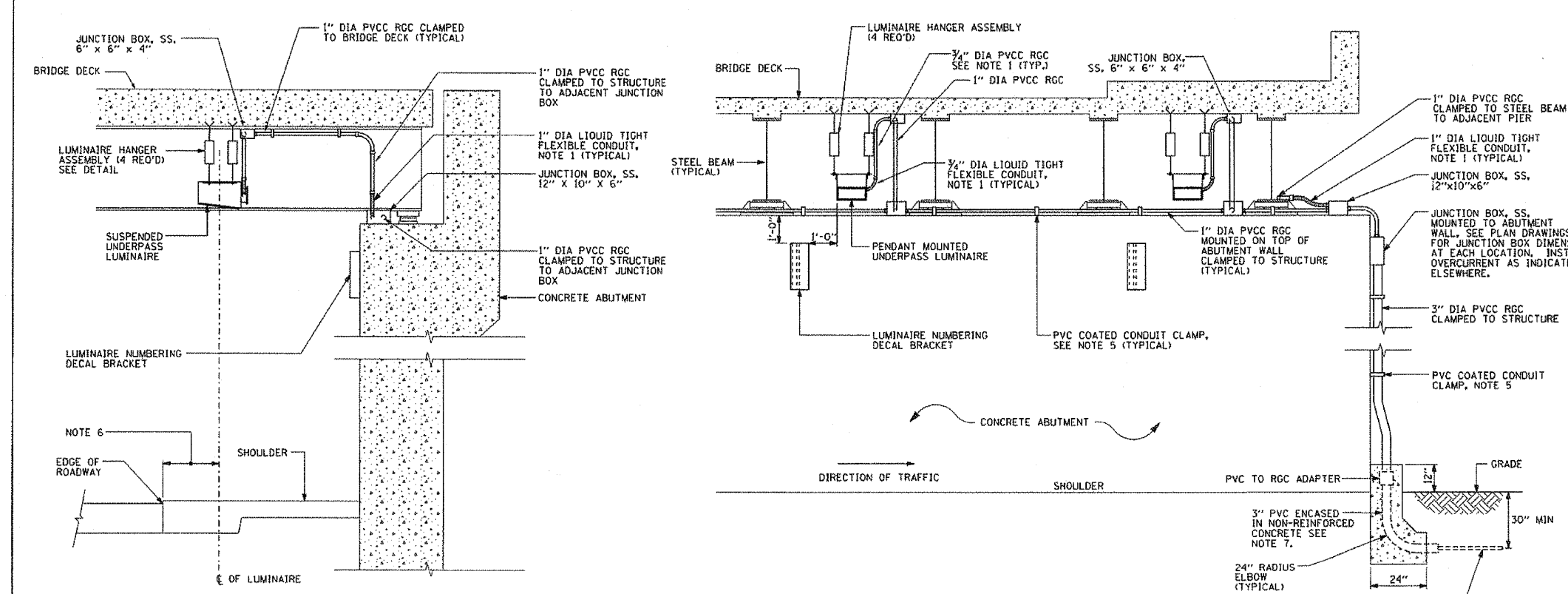
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dmorr1s	JMV	-
	MB	-
	JMV	-
	DATE	1/16/2009

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

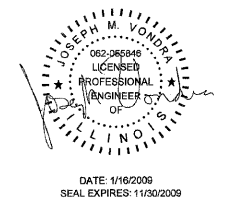
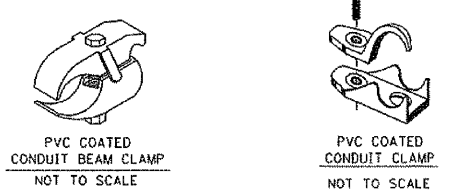
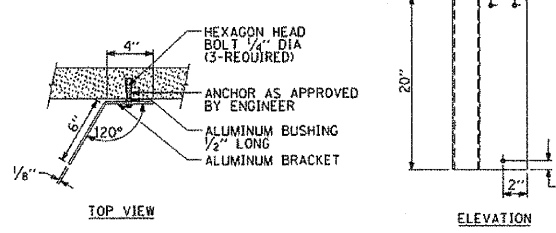
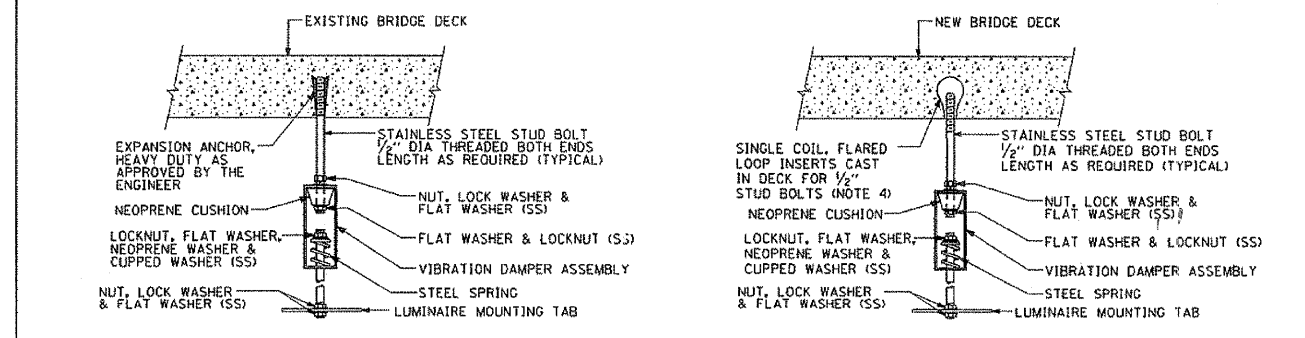
**FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
LIGHTING DETAILS**  
SCALE: SHEET NO. 8 OF 10 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	22
CONTRACT NO. 60862				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO.				
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	22
STA.		TO STA.		
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				



- NOTES:**
- LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0" TYPICAL FOR EACH INSTANCE AS SHOWN. PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE. OF THE CORRESPONDING DIA GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT 3/4" DIA. CONDUIT AND 1/2" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF UNDERPASS LUMINAIRE INSTALLATION.
  - SEE UNDERPASS LIGHTING PLANS FOR INSTALLATION LOCATION OF UNDERPASS LIGHTING LUMINAIRES.
  - THE CONTRACTOR SHALL USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN SUSPENDED MOUNTING AN UNDERPASS LUMINAIRE TO A NEW BRIDGE DECK. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONCRETE DECK. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS FOR MOUNTING THE UNDERPASS LIGHTING SYSTEM AS SHOWN ON THE PLANS WITH THE BRIDGE DECK CONTRACTOR. SEE DETAIL.
  - THE UNDERPASS LUMINAIRE HANGER ASSEMBLY COMPLETE WITH HEAVY DUTY ANCHORS/INSERTS AND ALL APPLICABLE HARDWARE SHALL BE INCLUDED IN THE COST OF THE UNDERPASS LUMINAIRE PAY ITEM.
  - SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA. GALVANIZED STEEL, PVC COATED" PAY ITEM.
  - ALL UNDERPASS LUMINAIRES MUST BE CENTERED IN THE BEAM SPACE AS INDICATED ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGR. LUMINAIRE SETBACK SHALL BE AS INDICATED IN PLANS FOR EACH SPECIFIC UNDERPASS.
  - THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
  - ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.



REVISIONS	
NAME	DATE
	12/12/05

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUSPENDED MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS**  
 SCALE: VERT. DATE  
 HORIZ. CHECKED BY  
 DRAWN BY  
 BE-900

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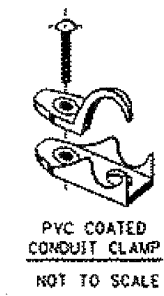
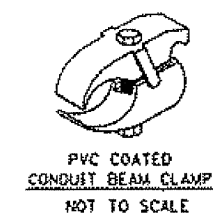
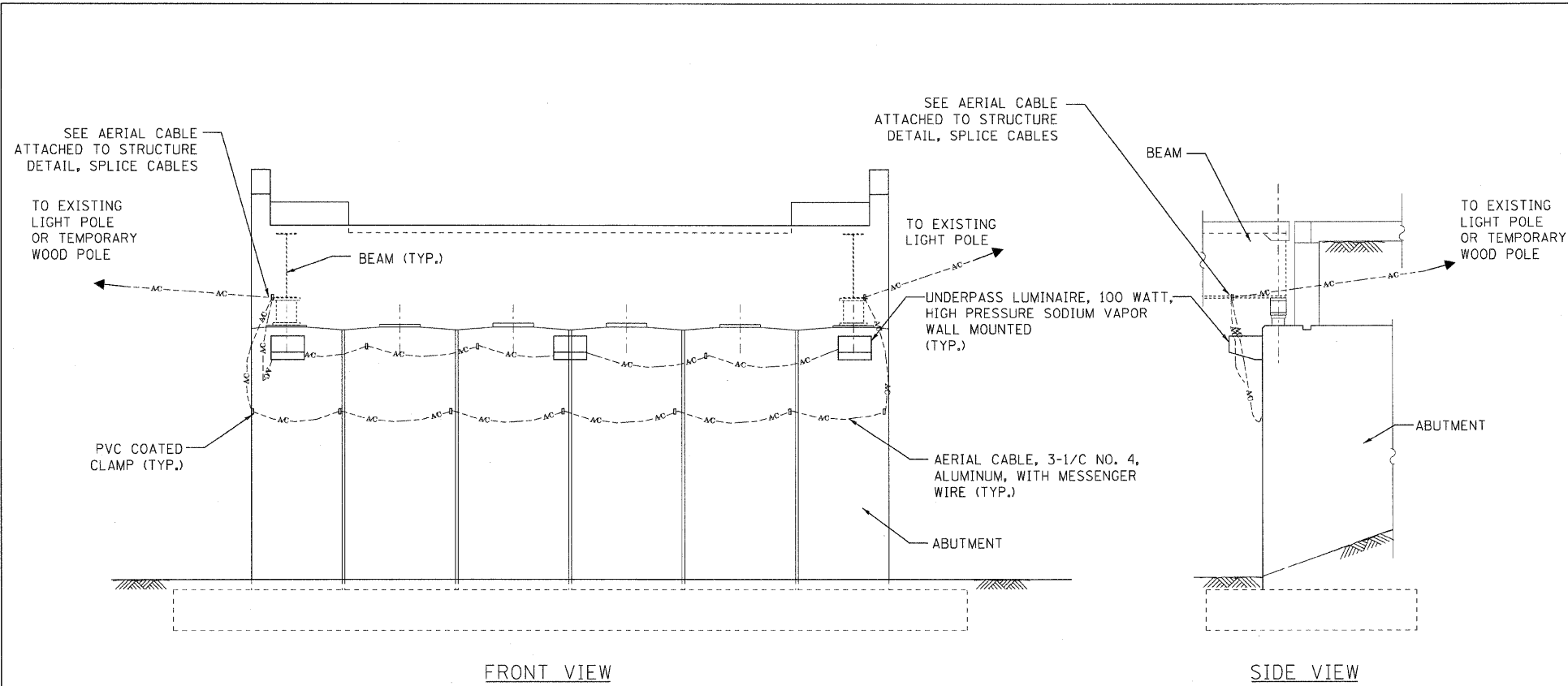
**Ciorba Group, Inc.**  
 CONSULTING ENGINEERS  
 5507 North Cumberland Avenue, Suite 402  
 Chicago, Illinois 60656  
 Tel. 773.775.4009 Fax 773.775.4014

USER NAME = dmorris	DESIGNED - JMV	REVISED -
PLOT SCALE = 0.0010 M / MM.	DRAWN - MB	REVISED -
PLOT DATE = 1/16/2009	CHECKED - JMV	REVISED -
	DATE - 1/16/2009	REVISED -

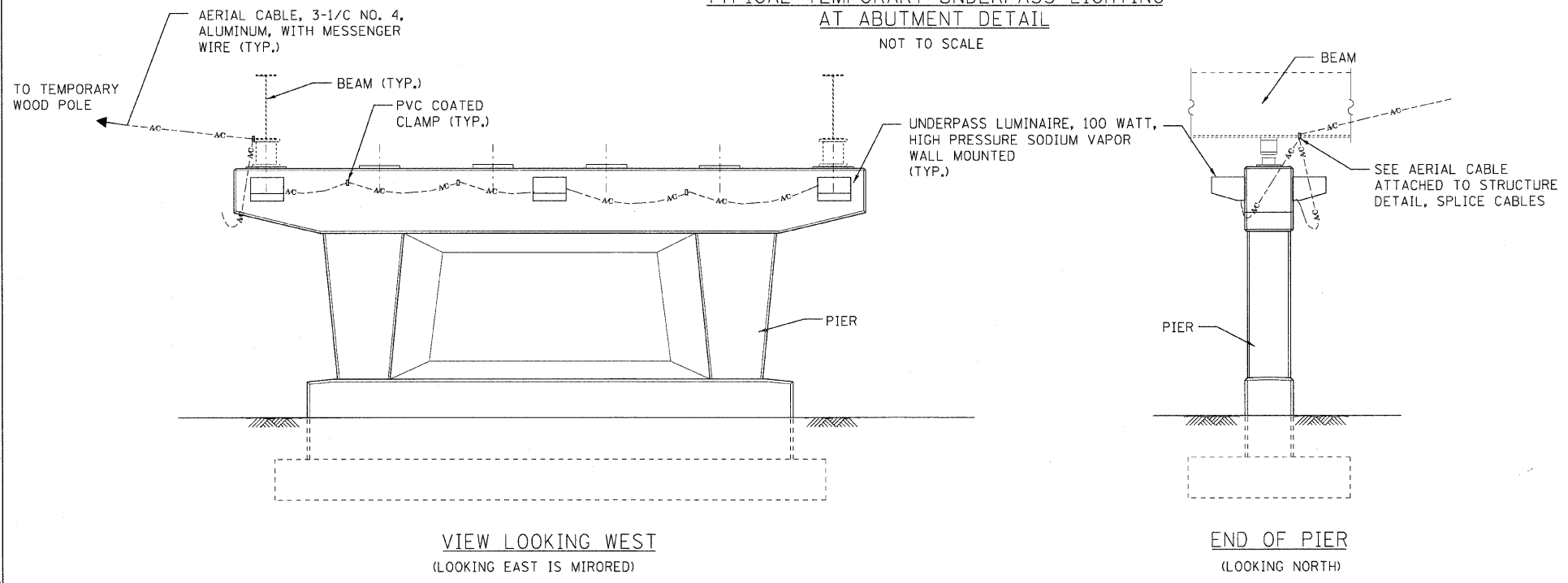
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**FAI 57/INTERSTATE 57  
 125TH STREET OVER I-57  
 LIGHTING DETAILS**  
 SCALE: SHEET NO. 9 OF 10 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	23
CONTRACT NO. 60862				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				



TYPICAL TEMPORARY UNDERPASS LIGHTING  
AT ABUTMENT DETAIL  
NOT TO SCALE

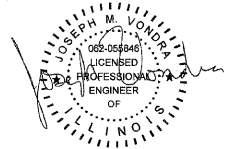


VIEW LOOKING WEST  
(LOOKING EAST IS MIRORED)

END OF PIER  
(LOOKING NORTH)

TEMPORARY UNDERPASS LIGHTING  
AT PIER DETAIL  
NOT TO SCALE

- NOTES:
1. SEE TEMPORARY LIGHTING PLAN FOR THE LOCATIONS OF UNDERPASS LIGHTING LUMINAIRES.
  2. UNDERPASS LUMINAIRE MOUNTED ON THE FACE OF PIER OR ABUTMENT WALL. MOUNTING HEIGHT OF 1" BELOW THE TOP OF PIER OR ABUTMENT WALL.
  3. EXPANSION ANCHOR, POWDER ACTUATED FASTNERS WILL NOT BE ALLOWED. EXPANSION ANCHOR MUST BE SIZED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
  4. SECURE AERIAL CABLE WITH PVC COATED CLAMPS AS SHOWN AT 1.5 METER INTERVALS FOR LATERAL AND WITHIN 0.6 METER MAXIMUM FROM ANY JUNCTION BOX CHANGE IN DIRECTION.
  5. COORDINATE THE INSTALLATION AND REMOVAL OF TEMPORARY LIGHTING WITH THE REPAIR OF THE ABUTMENT/PIER WALLS. UNDERPASS LIGHTING SHALL BE OPERATIONAL AT ALL TIMES DURING CONSTRUCTION.



DATE: 1/16/2009  
SEAL EXPIRES: 11/30/2009

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5507 North Cumberland Avenue, Suite 402  
Chicago, Illinois 60656  
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = dmorris	DESIGNED - JMV	REVISED -
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PLDT DATE = 1/16/2009	CHECKED - JMV	REVISED -
	DATE - 1/16/2009	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FAI 57/INTERSTATE 57  
125TH STREET OVER I-57  
TEMPORARY LIGHTING DETAILS

SCALE: SHEET NO. 10 OF 10 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	24
CONTRACT NO. 60862				
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BENCH MARK #A:  
Chiseled "□" Located on the Top of Crash Wall  
on the West Edge of Pier at  $\bar{C}$  125th Street. Elev. 179.298

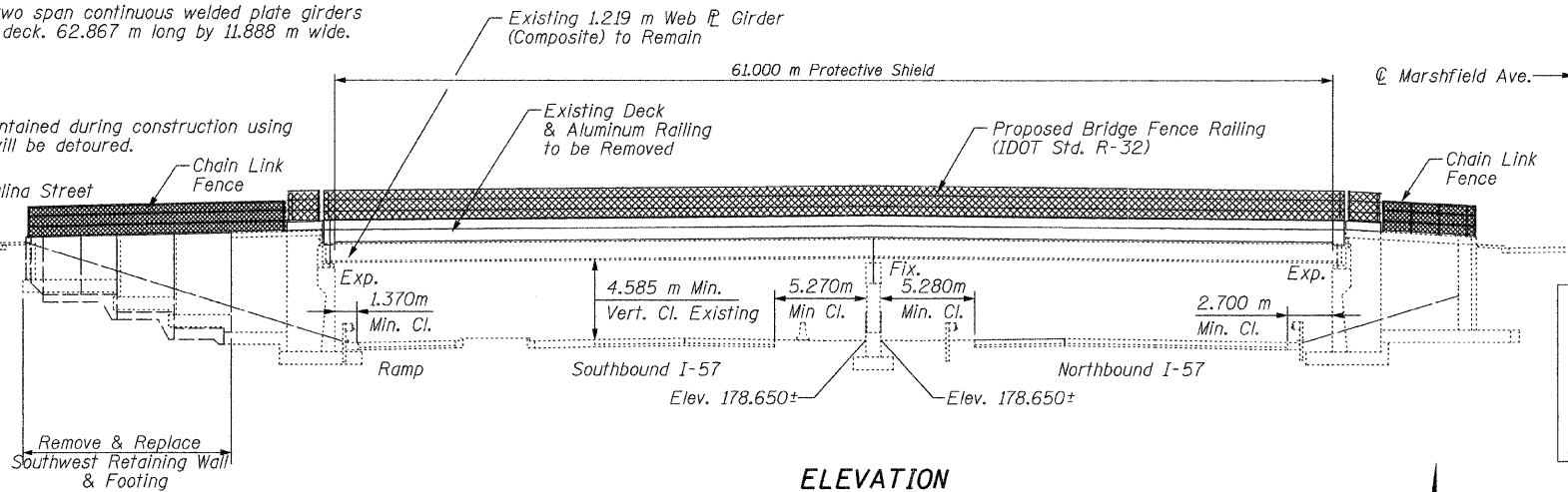
EXISTING STRUCTURE:  
SN 016-2034 was built in 1967 under Section 068-1818.3-C.F.  
The Superstructure consists of two span continuous welded plate girders  
supporting a composite concrete deck. 62.867 m long by 11.888 m wide.

No Skew.

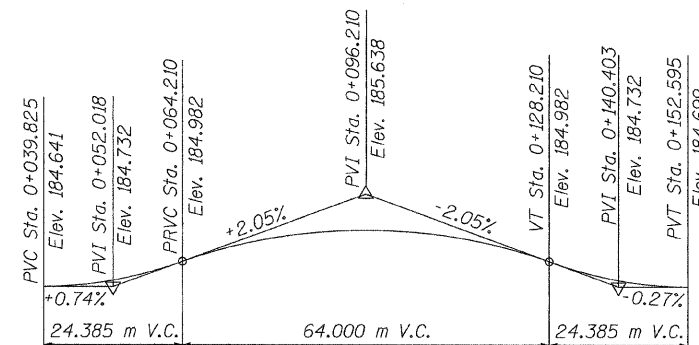
CONSTRUCTION STAGING:  
One Lane WB Traffic will be maintained during construction using  
stage construction. EB Traffic will be detoured.

Salvage: Existing protective  
shield and Aluminum  
Railing (see sheet S-2,  
note 14)

Note:  
All dimensions in millimeters (mm)  
except as noted.



STATION 0+098.688  
REBUILT 200\_ BY  
STATE OF ILLINOIS  
F.A.I. RTE 57  
SEC. 1818.3 B-R  
LOADING MS18  
STRUCTURE NO. 016-2034



**NAME PLATE**  
See Std. 515001

Existing Name Plate shall be cleaned  
and placed next to new Name Plate.  
See Sheet S-21. Cost included with  
Name Plates.

**SCOPE OF WORK:**

- 1-Remove and replace deck utilizing stage construction.
- 2-Remove and replace existing abutment bearings with Elastomeric Bearings.
- 3-All existing structural steel shall be cleaned and painted (Separate Contract).
- 4-Remove and replace approach slabs.
- 5-Remove and replace southwest retaining wall.
- 6-Modify wingwalls and abutments as shown.
- 7-Repair abutments, wingwalls and pier as required.
- 8-Remove and replace underdeck lighting fixtures and conduits.
- 9-Remove, ground mount and reinstall traffic signs to new parapets.

**LOADING MS18**

Allow 2.4 kN/m<sup>2</sup> for future wearing surface.

**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications for Highway Bridges

**DESIGN STRESSES**

**FIELD UNITS**

$f'_c = 24$  MPa  
 $f_y = 400$  MPa (reinforcement)  
 $f_y = 250$  MPa (M270M Grade 250)

**EXISTING**

$f'_c = 24$  MPa  
 $f'_c = 17$  MPa (with earth pressure)  
 $f_y = 300$  MPa (reinforcement)  
 $f_y = 250$  MPa (ASTM A-36)  
 $f_y = 300$  MPa (ASTM A-441, to 38 mm)  
 $f_y = 275$  MPa (ASTM A-441, 38 to 100 mm)

**SEISMIC DATA**

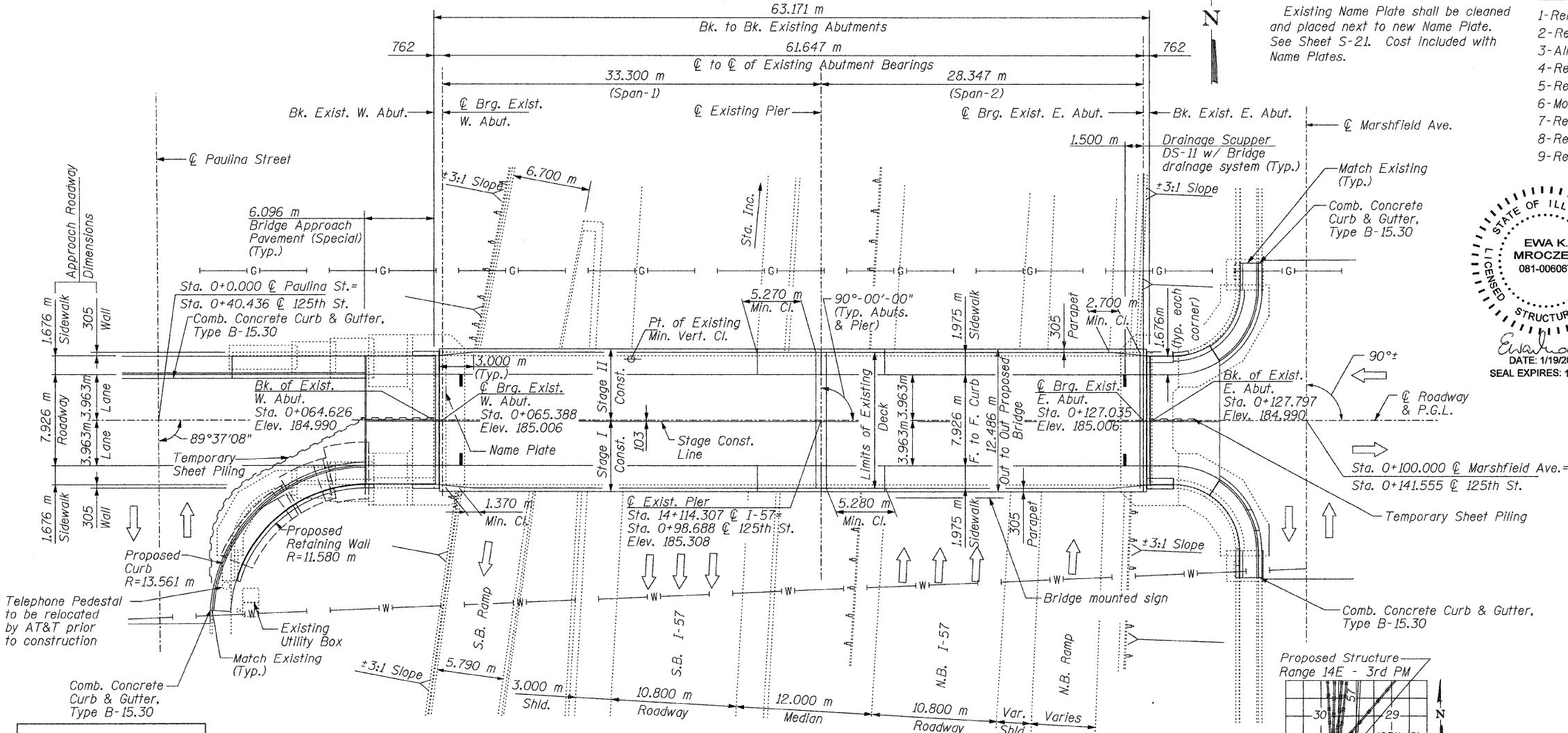
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.038 g  
Site Coefficient (S) = 1.0



rdantley

1/19/2009

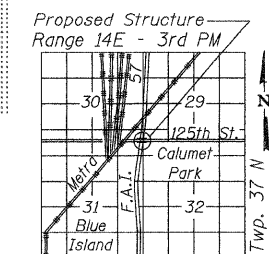
N:\APROJ\3153\125th\Design\Structural\CAD\3153-02-FS-01.dgn



**PLAN**

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES



DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

**CG** **Ciorba Group, Inc.**  
CONSULTING ENGINEERS  
5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656  
Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

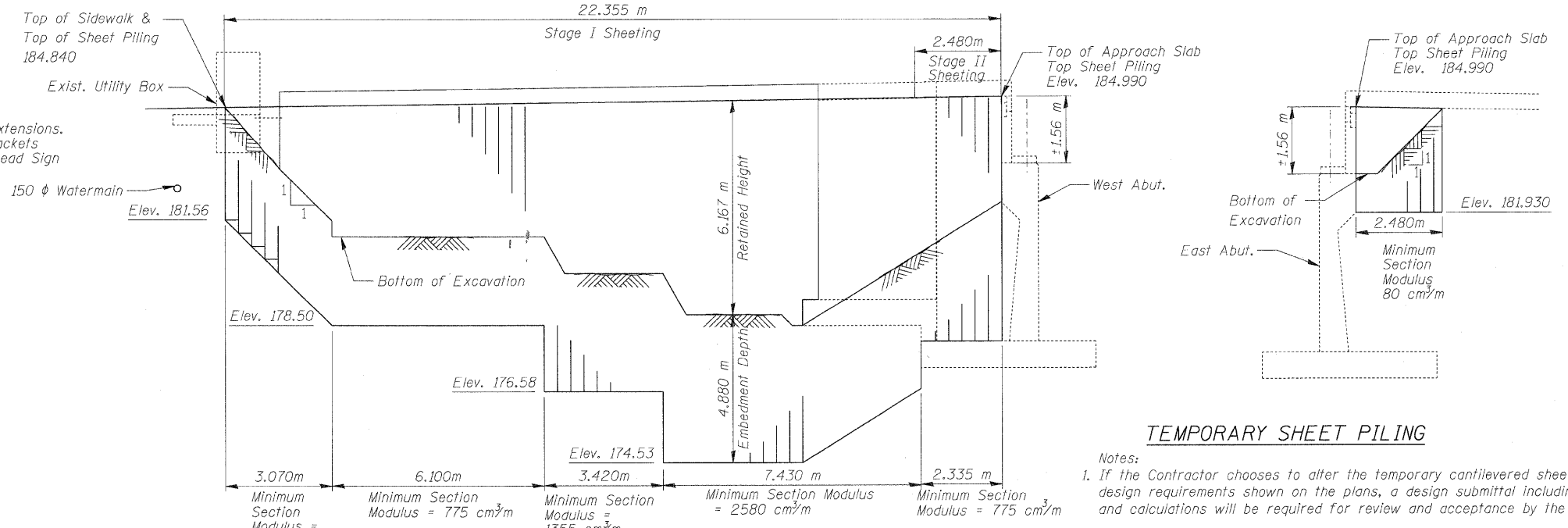
SHEET NO. S-1 S-26 SHEETS	F.A.I. RTE. 57	SECTION 1818.3B-R	COUNTY COOK	TOTAL SHEETS 58	SHEET NO. 25
	CONTRACT NO. 60862			ILLINOIS FED. AID PROJECT	



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES:**

- Fasteners shall be AASHTO M164M Type 1, mechanical galvanized bolts. Bolts 20 mm  $\phi$ , holes 22mm  $\phi$  unless otherwise noted.
- Calculated weight of Structural Steel = 1,040 kg (M 270M Grade 250) Bearing Extensions. Calculated weight of Structural Steel = 510 kg (M 270M Grade 25) Extension Brackets for sign structure. Cost included with Remove, Ground Mount and Re-erect Overhead Sign Structure - Bridge Mounted.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars shall conform to the requirements of AASHTO M 31M, M 42M or M 53M Grade 400 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.  
As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 6mm deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- 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.
- Concrete Sealer shall be applied to the designated areas of the abutments.
- Existing structural steel shall only be cleaned and painted as required by Special Provision "Cleaning and Painting Contact Areas of Existing Steel Structures". For cleaning and painting at the Extension Brackets for sign structure the cost shall be included with Remove, Ground Mount and Re-erect Overhead Sign Structure - Bridge Mounted.
- Cleaning and field painting of structural steel shall be done under a separate painting contract.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- The structural steel plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270M Grade 345.
- Two 3 mm adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- All dimensions are in millimeters (mm) except as noted.
- The existing bridge railing and the existing protective shield shall be salvaged and delivered to the IDOT District Bridge Maintenance Yard. The yard is located at 1101 Biesterfeld Road, Elk Grove Village, IL 60007, 847-956-1444 (48 hour notification is required). The cost of removal and delivery of the existing bridge railing shall be included in the pay item "Removal of Existing Concrete Deck". The cost of removing and delivery of the existing protective shield shall be included in pay item "Removal of Existing Concrete Deck".
- Slip forming of parapets is not allowed.



**TEMPORARY SHEET PILING**

- Notes:
- If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
  - The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost of Temporary Sheet Piling.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Removal of Existing Concrete Deck	Each	1
Stud Shear Connectors	Each	180
Jack and Remove Existing Bearings	Each	12
Bar Splicers	Each	756
Name Plates	Each	1
Elastomeric Bearing Assembly, Type I	Each	12
Porous Granular Embankment, Special	Cu. m	77
Concrete Removal	Cu. m	62.5
Protective Shield	Sq. m	726
Structure Excavation	Cu. m	324
Concrete Structures	Cu. m	80.8
Concrete Superstructure	Cu. m	276.1
Bridge Deck Grooving	Sq. m	456
Protective Coat	Sq. m	893
Furnishing and Erecting Structural Steel	kg	1,040
Reinforcement Bars, Epoxy Coated	kg	38,190
Bridge Fence Railing	Meter	135
Temporary Sheet Piling	Sq. m	182
Preformed Joint Strip Seal	Meter	24.1
Concrete Sealer	Sq. m	46
Epoxy Crack Injection	Meter	4.0
Geocomposite Wall Drain	Sq. m	48
Pipe Underdrains for Structures 100 mm	Meter	17
Structural Repair of Concrete (Depth Equal to or less than 125 mm)	Sq. m	38.1
Drainage Scuppers, DS-11	Each	4
Drainage System	L Sum	1
Anchor Bolts, M30	Each	24

\* See Special Provisions

**INDEX OF SHEETS**

- General Plan
- General Notes & Bill of Material
- Construction Stages
- Temporary Concrete Barrier
- Top of Slab Elevation I
- Top of Slab Elevations II
- West Approach Elevations
- East Approach Elevations
- Superstructure
- Superstructure Details
- Bridge Fence Railing Parapet Mounted
- Preformed Joint Strip Seal
- Drainage Scupper, DS-11
- Existing Framing Plan
- Existing Girder Elevation & Details
- Elastomeric Bearing Assembly Type I
- West Abutment & SW Retaining Wall Removal
- East Abutment Removal
- West and East Abutment Details
- Pier Repairs
- Abutment Repairs
- Retaining Walls Repairs
- Retaining Walls Plan and Details
- South-West Retaining Wall Elevation
- South-West Retaining Wall Plan & Sections
- Bar Splicer Assembly Details

**GENERAL NOTES & BILL OF MATERIAL  
STRUCTURE NO. 016-2034**

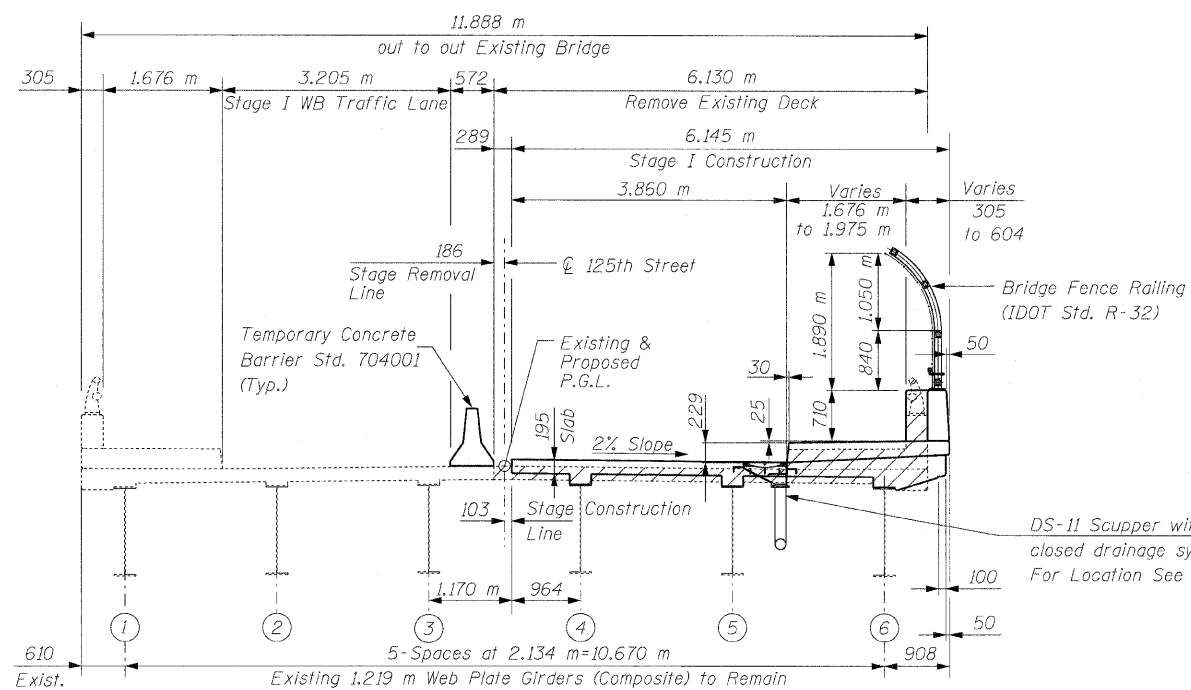
DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

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CONSULTING ENGINEERS  
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Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

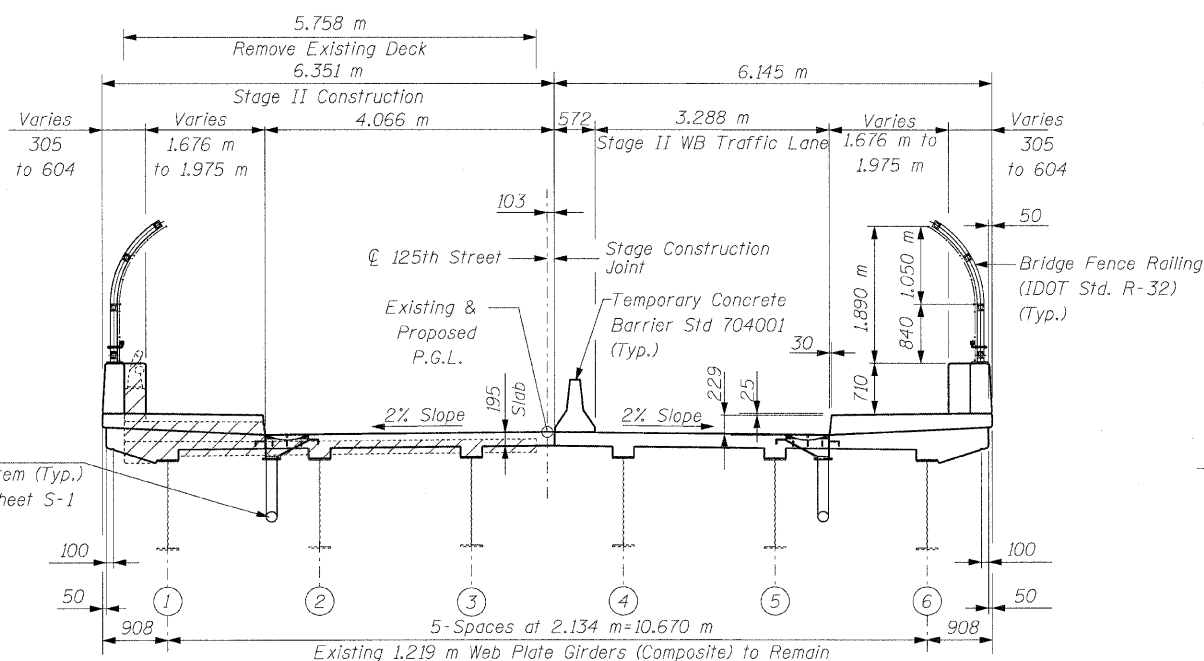
SHEET NO. S-2	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818.3B-R	COOK	58	26
			CONTRACT NO. 60862		
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



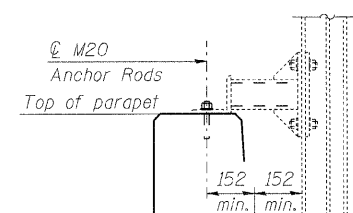
CONSTRUCTION STAGE I  
(Looking East)



CONSTRUCTION STAGE II  
(Looking East)

NOTES:

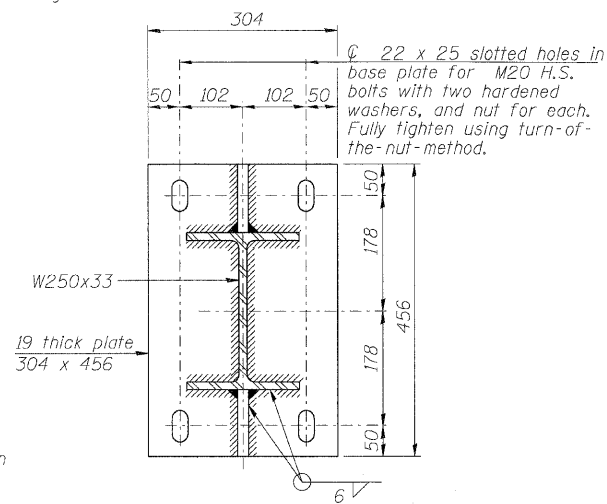
- The Contractor shall mark the top surface of the existing deck to identify the location and limits of the top flanges of the girders prior to the commencement of deck removal operation. When a girder is damaged by deck removal operations, it is the contractor's responsibility to repair the damage at his/her own expense.
- The cost of Aluminum Railing Removal is included with Removal of Existing Concrete Deck.
- Loosen or remove cross frame between beams 3 and 4 during deck removal. After entire deck has been poured reinstall cross frames, Cost included with Removal of Existing Concrete Deck.



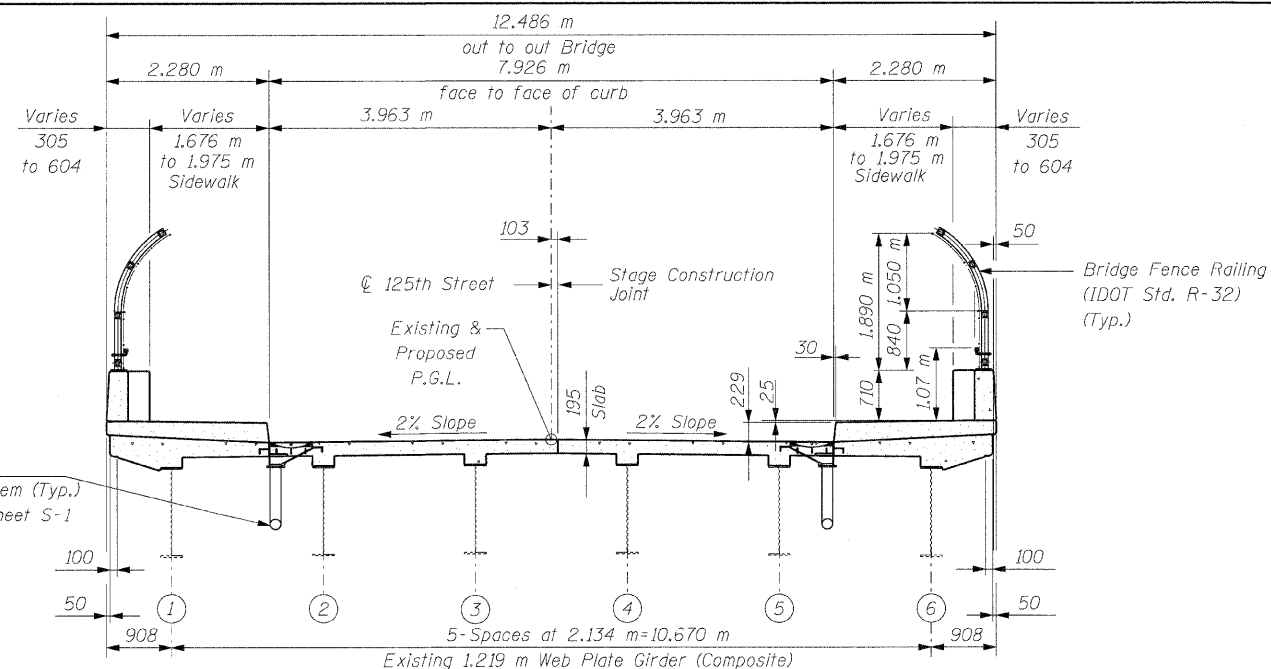
SIGN STRUCTURE MOUNTING DETAIL

EXTENSION BRACKET NOTES

- Typical at each support bracket (9 thus)
- All plates and shapes shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111M.
- Painting is not permitted.
- Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval. All Structural Steel
- Plates and Shapes shall conform to AASHTO M270M, Gr. 250, Gr. 350
- All bolts, washers, nuts and locknuts shall satisfy the requirements of AASHTO M164M (A325), ASTM A449M.
- All fasteners shall be hot dip galvanized per AASHTO M232M.
- Cost included with Remove, Ground Mount and Re-erect Overhead Sign Structure - Bridge Mounted.



SECTION D-D



FINAL CROSS SECTION  
(Looking East)

CONSTRUCTION STAGES  
STRUCTURE NO. 016-2034

SHEET NO. S-3	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	1818.3B-R	COOK	58	27
S-26 SHEETS					
CONTRACT NO. 60862					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

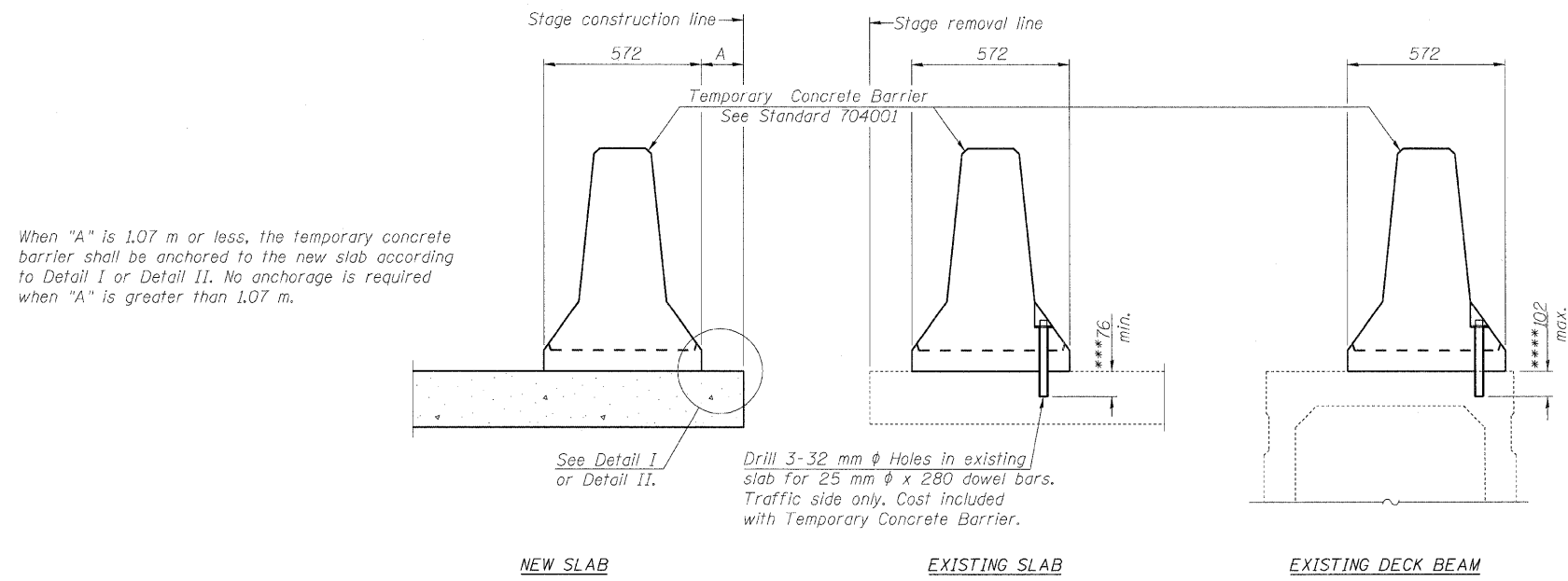
**Giorba Group, Inc.**  
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Tel. 773.775.4009 Fax 773.775.4014 Email chicago@giorba.com

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DEPARTMENT OF TRANSPORTATION



When "A" is 1.07 m 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 1.07 m.

NOTES

Detail I - With Bar Splicer or Couplers:  
Connect one (1) 25 x 178 x 254 steel  $\bar{R}$  to the top layer of couplers with 2- 16 mm  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.

Detail II - With Extended Reinforcement Bars:  
Connect one (1) 25 x 178 x 254 steel  $\bar{R}$  to the concrete slab or concrete wearing surface with 2- 16 mm  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.

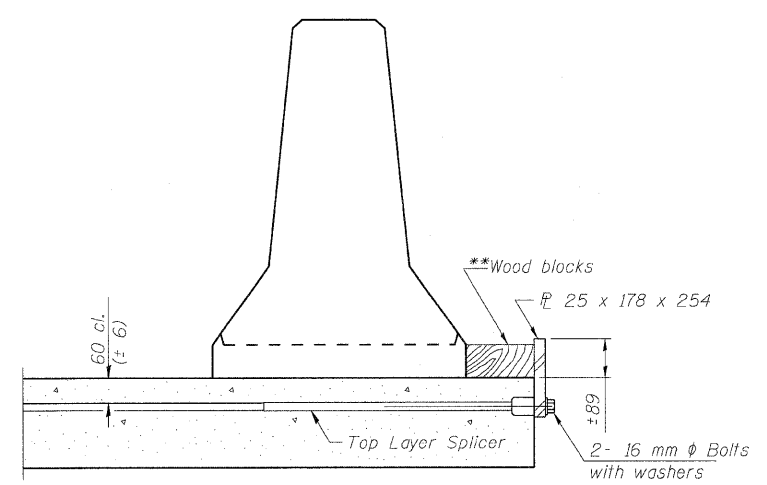
Cost of anchorage is included with Temporary Concrete Barrier. The 25 x 178 x 254 plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

All dimensions are in millimeters (mm) except as noted.

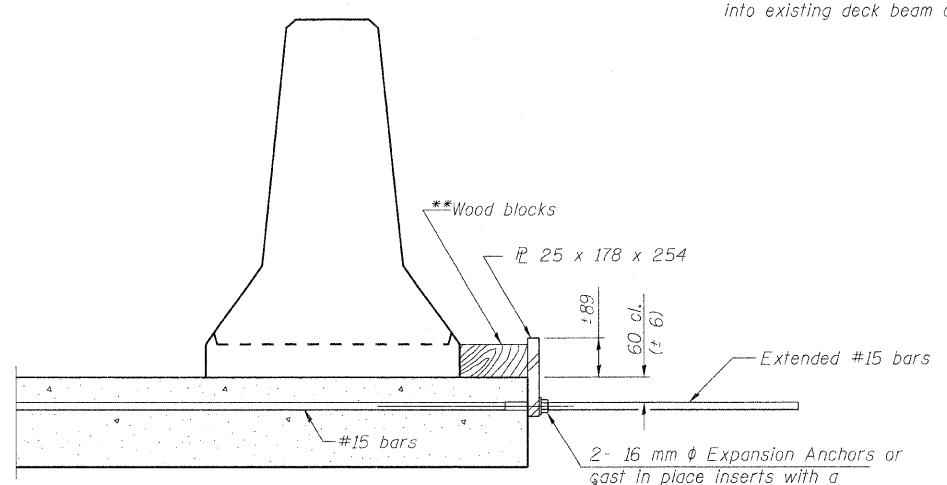
SECTIONS THRU SLAB OR DECK BEAM

\*\*\*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.

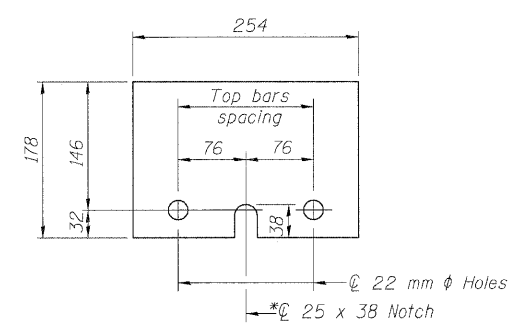
\*\*\*If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER  $\bar{R}$  25 x 178 x 254

\* Required only with Detail II

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

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

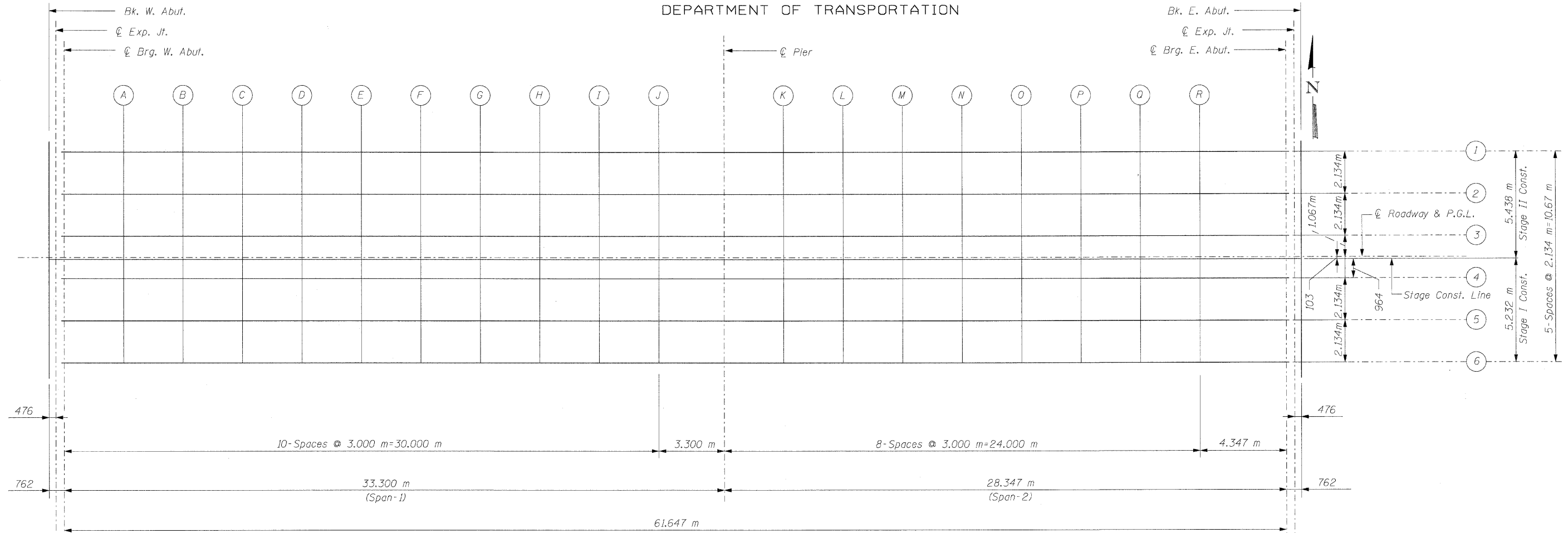
**Giorba Group, Inc.**  
CONSULTING ENGINEERS  
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Tel. 773.775.4009 Fax 773.775.4014 Email chicago@giorba.com

TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
STRUCTURE NO. 016-2034

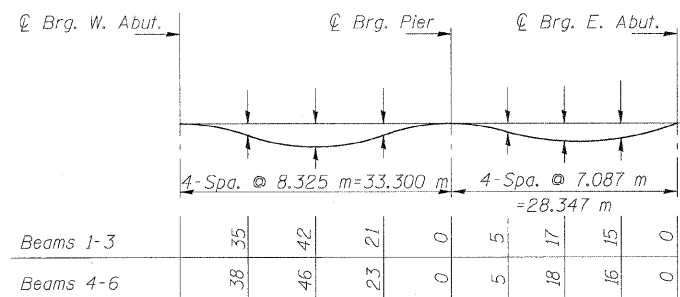
SHEET NO. S-4	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818.3B-R	COOK	58	28
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60862					

1/15/2009

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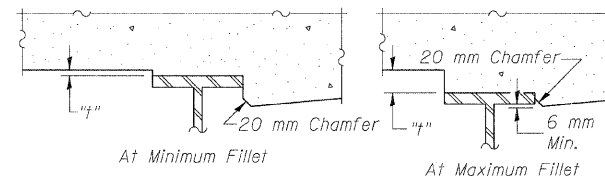
PLAN



DEAD LOAD DEFLECTION DIAGRAM

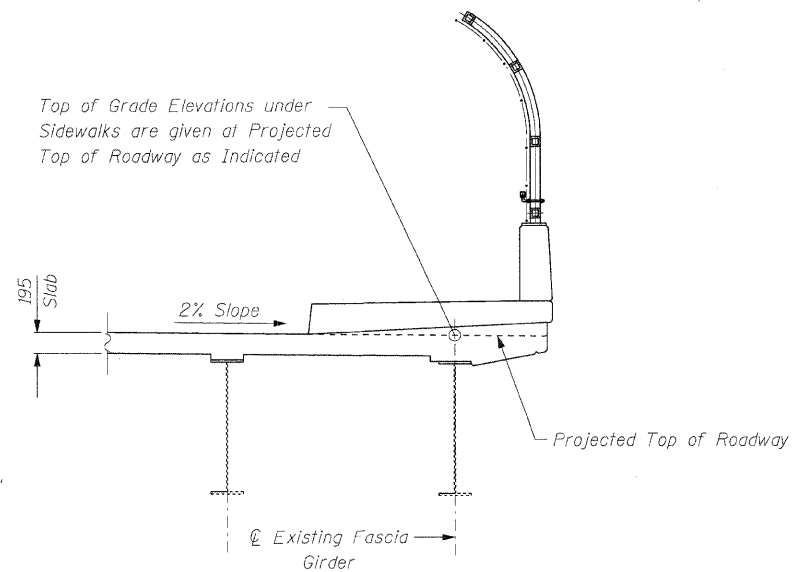
(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheet S-6. All dimensions are in millimeters (mm) except as noted. All offsets are in meters.



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

FILLET HEIGHTS



TOP OF GRADE ELEVATIONS  
UNDER SIDEWALK

TOP OF SLAB ELEVATION I  
STRUCTURE NO. 016-2034

DESIGNED -	EKM
CHECKED -	SCD
DRAWN -	RD
CHECKED -	EKM



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SHEET NO. S-5	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818.3B-R	COOK	58	29
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60862					



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BACK OF NORTH SIDEWALK

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
End W. Appr. Pav't.	58.530	5.639	185.049
A	61.626	5.639	185.106
Bk. W. Abut.	64.626	5.639	185.165

EDGE OF NORTH SIDEWALK

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
End W. Appr. Pav't.	58.530	3.993	185.024
A	61.626	3.993	185.081
Bk. W. Abut.	64.626	3.993	185.140

NORTH CURB LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
End W. Appr. Pav't.	58.530	3.963	184.795
A	61.626	3.963	184.852
Bk. W. Abut.	64.626	3.963	184.911

⊘ ROADWAY & PGL

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
End W. Appr. Pav't.	58.530	0	184.874
A	61.626	0	184.931
Bk. W. Abut.	64.626	0	184.990

STAGE CONSTRUCTION LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
End W. Appr. Pav't.	58.530	-0.103	184.872
A	61.626	-0.103	184.929
Bk. W. Abut.	64.626	-0.103	184.988

SOUTH CURB LINE

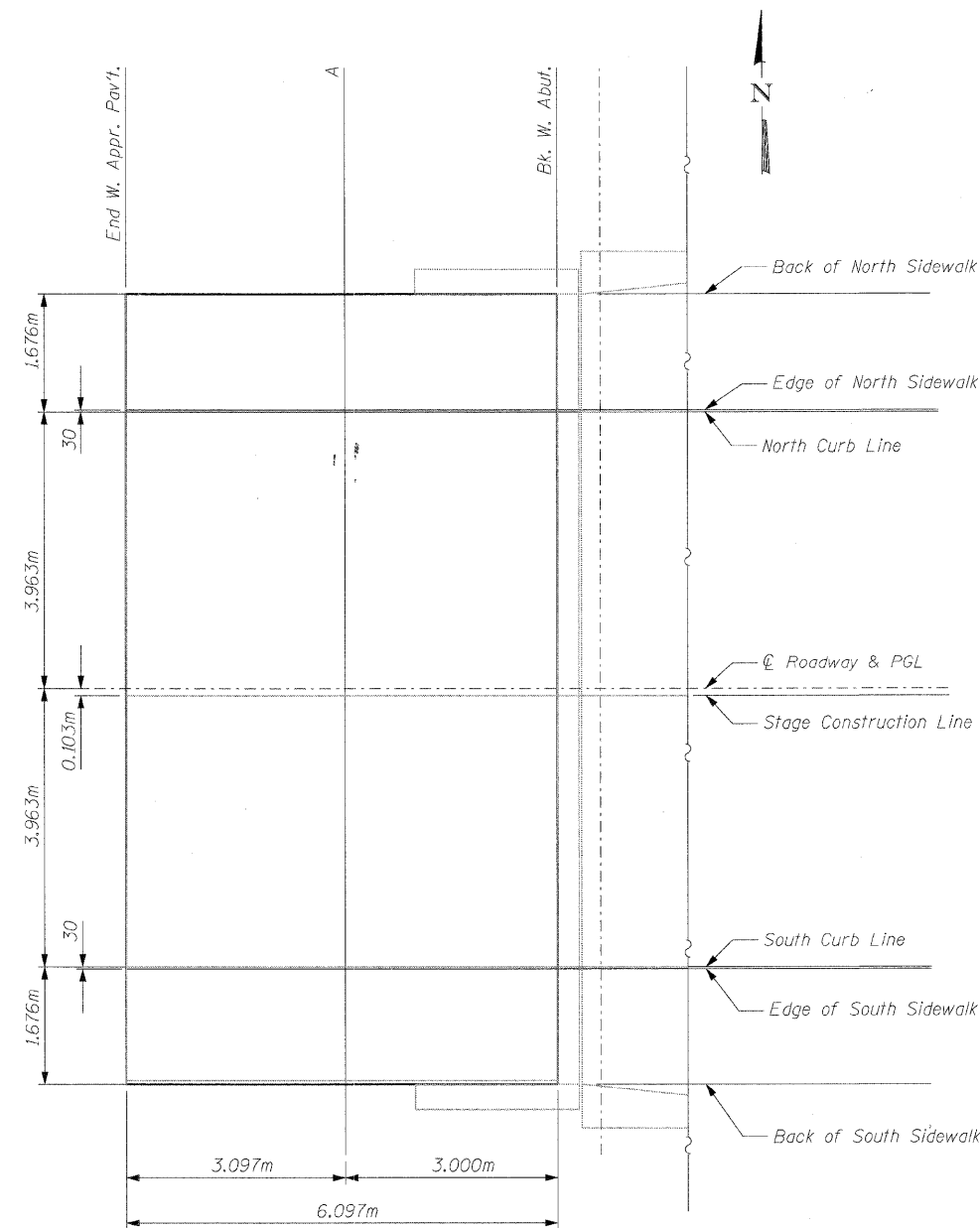
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
End W. Appr. Pav't.	58.530	-3.963	184.838
A	61.626	-3.963	184.875
Bk. W. Abut.	64.626	-3.963	184.911

EDGE OF SOUTH SIDEWALK

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
End W. Appr. Pav't.	58.530	-3.993	185.039
A	61.626	-3.993	185.090
Bk. W. Abut.	64.626	-3.993	185.140

BACK OF SOUTH SIDEWALK

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
End W. Appr. Pav't.	58.530	-5.639	185.044
A	61.626	-5.639	185.105
Bk. W. Abut.	64.626	-5.639	185.165



PLAN

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

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WEST APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 016-2034

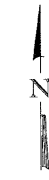
SHEET NO. S-7	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818.3B-R	COOK	58	31
CONTRACT NO. 60862					
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

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1/16/2009

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



EDGE OF NORTH SIDEWALK

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
Bk. E. Abut.	127.797	3.963	185.140
B	130.797	4.078	184.987
End. E. Appr. Pav't	133.876	5.320	184.852

BACK OF NORTH SIDEWALK

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
Bk. E. Abut.	127.797	3.963	185.165
B	130.797	5.749	184.956
End. E. Appr. Pav't	132.945	6.655	184.822

NORTH CURB LINE

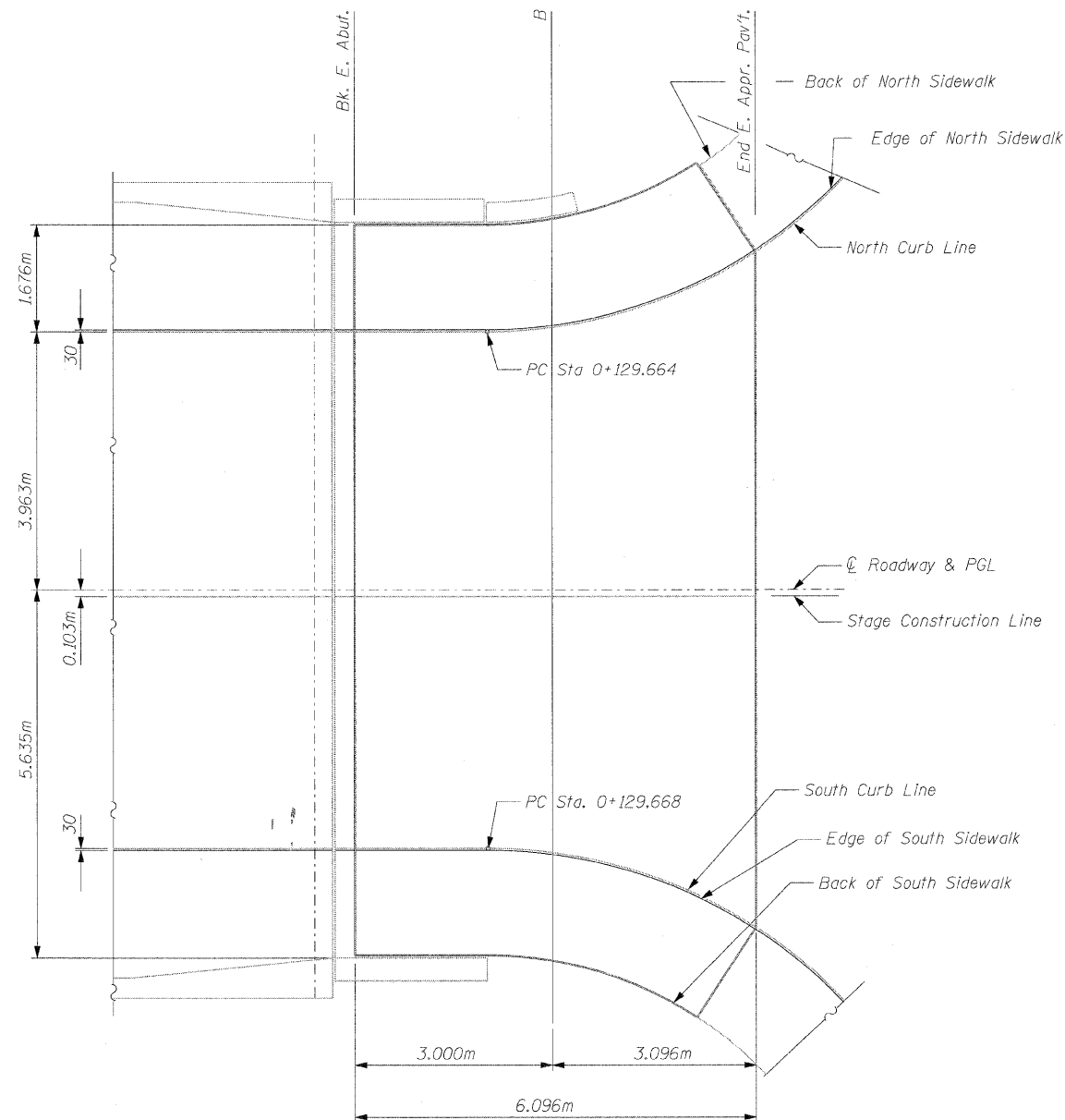
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
Bk. E. Abut.	127.797	3.963	184.911
B	130.797	4.049	184.803
End. E. Appr. Pav't	133.893	5.275	184.695

☉ ROADWAY & PGL

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
Bk. E. Abut.	127.797	0	184.990
B	130.797	0	184.931
End. E. Appr. Pav't	133.893	0	184.877

STAGE CONSTRUCTION LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
Bk. E. Abut.	127.797	-0.103	184.988
B	130.797	-0.103	184.929
End. E. Appr. Pav't	133.893	-0.103	184.875



PLAN

SOUTH CURB LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
Bk. E. Abut.	127.797	-3.963	184.911
B	130.797	-4.049	184.783
End. E. Appr. Pav't	133.893	-5.275	184.675

EDGE OF SOUTH SIDEWALK

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
Bk. E. Abut.	127.797	-3.963	185.140
B	130.797	-4.078	184.949
End. E. Appr. Pav't	133.876	-5.320	184.790

BACK OF SOUTH SIDEWALK

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
Bk. E. Abut.	127.797	-3.963	185.165
B	130.797	-5.749	184.943
End. E. Appr. Pav't	132.945	-6.655	184.808

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM



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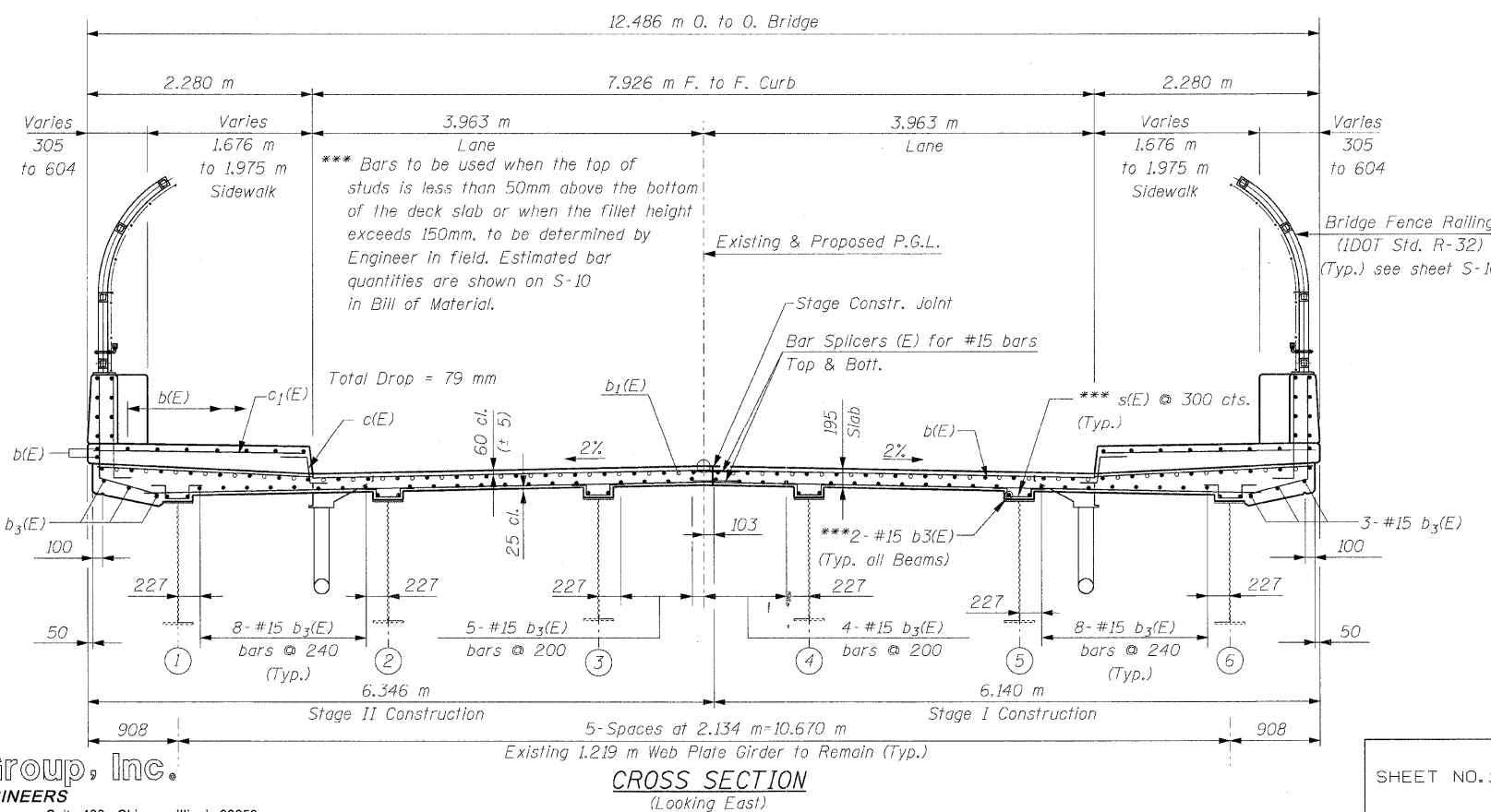
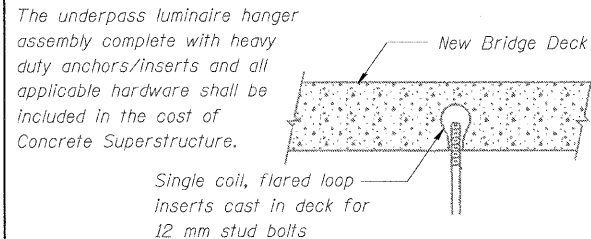
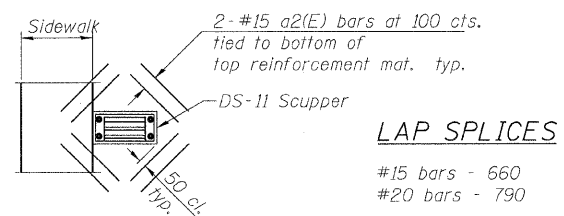
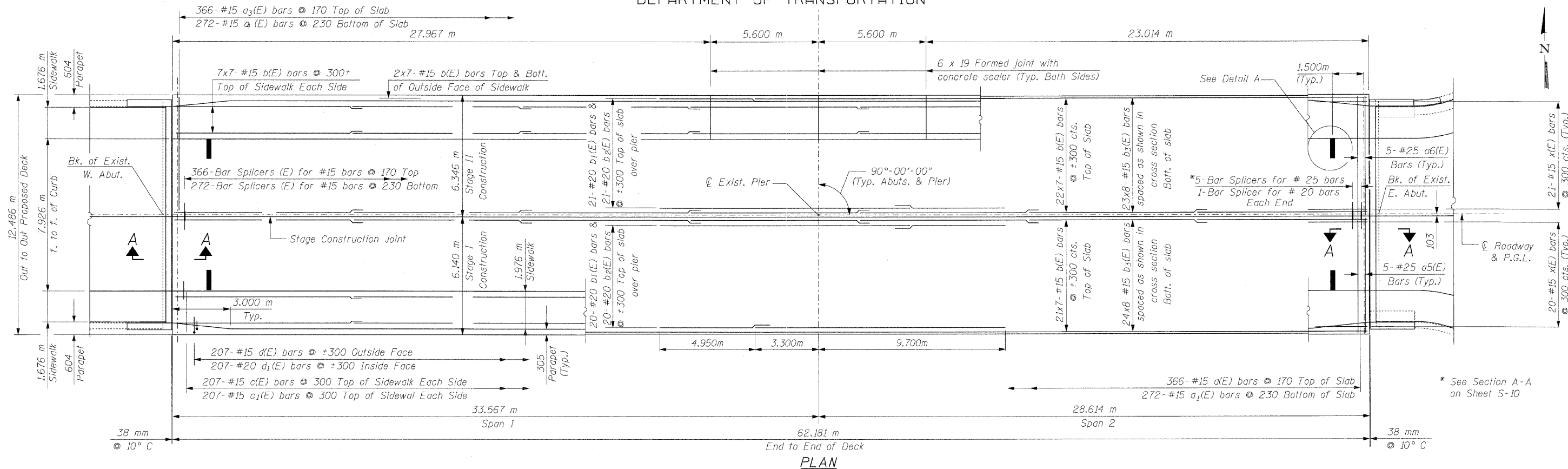
EAST APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 016-2034

SHEET NO. S-8	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818.3B-R	COOK	58	32
			CONTRACT NO. 60862		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

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 1/16/2009  
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



- NOTES:**
1. Reinforcement bars designated (E) shall be epoxy coated.
  2. Bars indicated thus 1 x 2-#15 etc. indicates 1 line of bars with 2 lengths per line
  3. Work this sheet with sheet S-10.

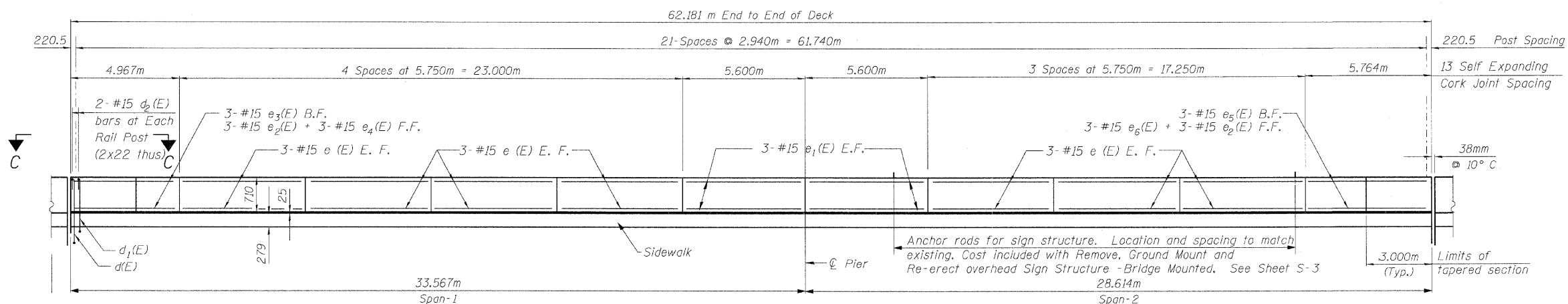
DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

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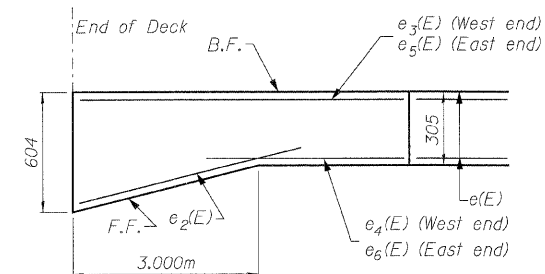
**SUPERSTRUCTURE  
STRUCTURE NO. 016-2034**

SHEET NO. S-9	F.A.I. RTE. 57	SECTION 1818.3B-R	COUNTY COOK	TOTAL SHEETS 58	SHEET NO. 33
S-26 SHEETS			CONTRACT NO. 60862		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



INSIDE ELEVATION OF PARAPET



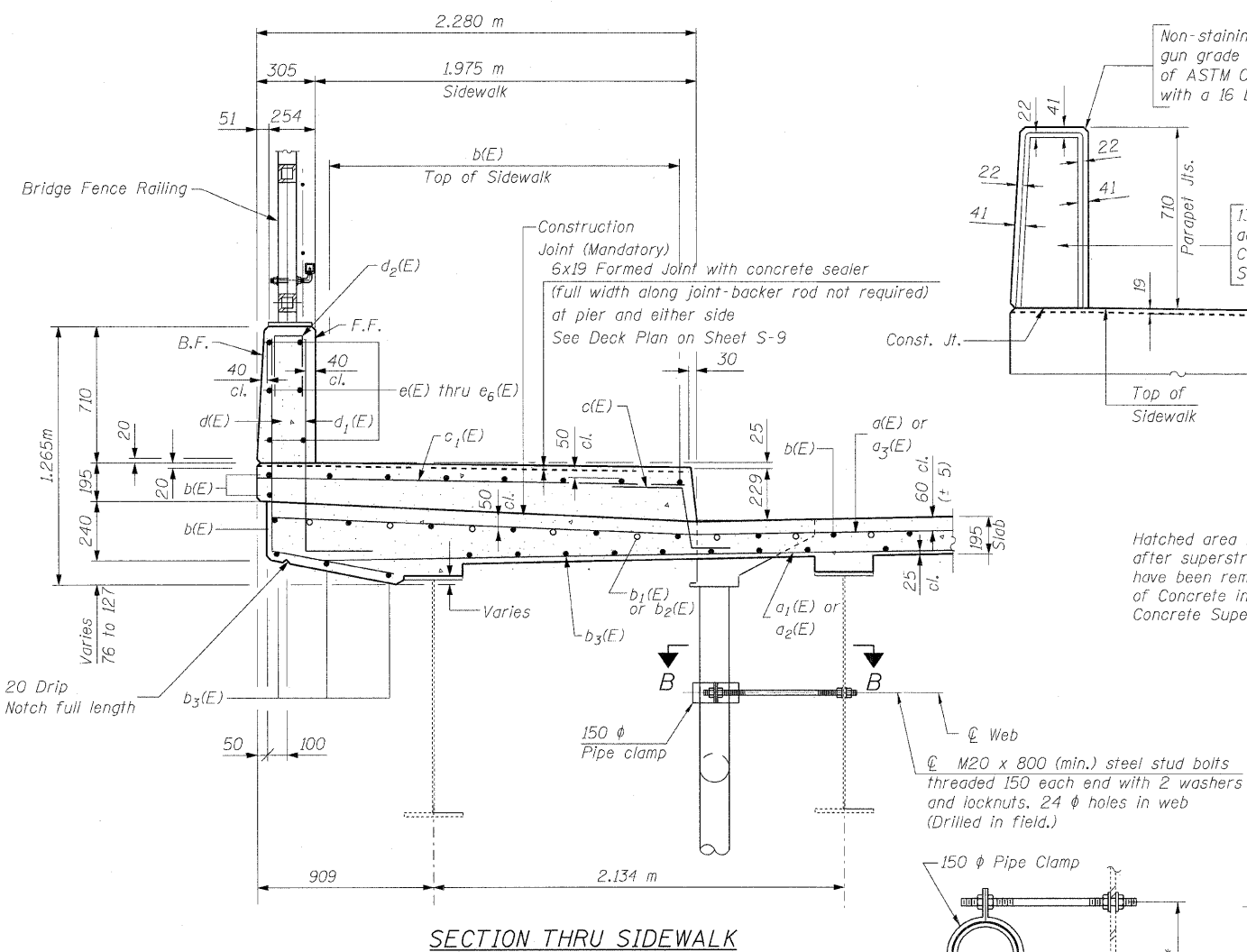
SECTION C-C

SUPERSTRUCTURE  
BILL OF MATERIAL

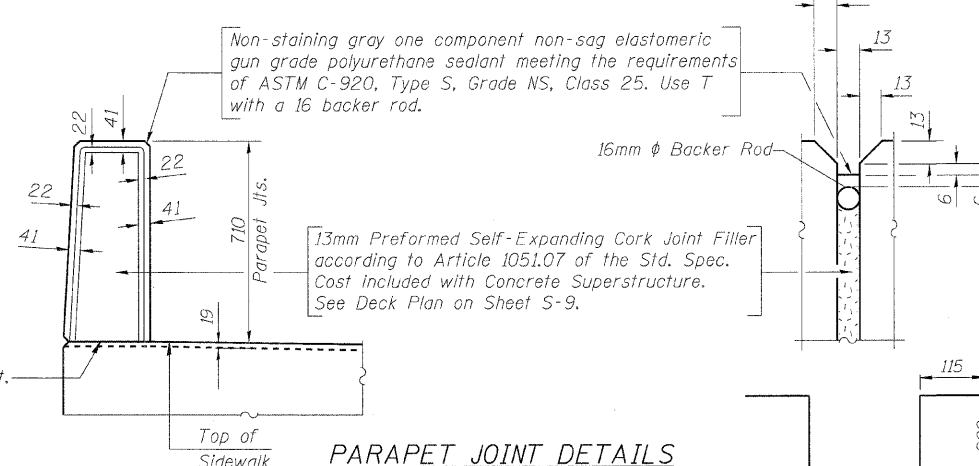
Bar	No.	Size	Length (m)	Shape
a(E)	366	# 15	6.010	—
a1(E)	272	# 15	5.460	—
a2(E)	32	# 15	0.600	—
a3(E)	366	# 15	6.220	—
a4(E)	272	# 15	5.670	—
a5(E)	10	# 25	6.010	—
a6(E)	10	# 25	6.220	—
a7(E)	8	# 20	2.470	—
a8(E)	2	# 20	1.090	—
a9(E)	2	# 20	1.300	—
b(E)	427	# 15	9.420	—
b1(E)	41	# 20	13.000	—
b2(E)	41	# 20	5.740	—
b3(E)	413	# 15	8.320	—
c(E)	414	# 15	0.730	—
c1(E)	414	# 15	2.200	—
d(E)	414	# 15	1.690	—
d1(E)	414	# 20	1.310	—
d2(E)	88	# 15	0.610	—
e(E)	84	# 15	5.670	—
e1(E)	24	# 15	5.520	—
e2(E)	6	# 15	3.610	—
e3(E)	6	# 15	4.890	—
e4(E)	6	# 15	2.590	—
e5(E)	6	# 15	5.690	—
e6(E)	6	# 15	3.370	—
s(E)	950	# 15	0.830	—
x(E)	82	# 15	1.730	—
Reinforcement Bars, Epoxy Coated			kg	32,840
Concrete Superstructure			Cu. m	276.1
Bridge Deck Grooving			Sq. m	456
Protective Coat			Sq. m	893
Bar Splicers			Each	650

NOTES:

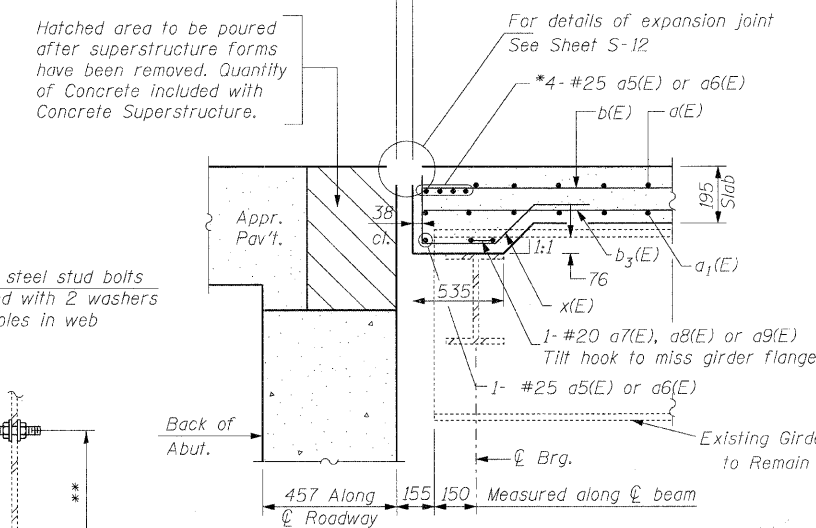
1. Reinforcement bars designated (E) shall be epoxy coated.
2. Bars indicated thus 1 x 4 - #15 etc. indicates 1 line of bars with 4 lengths per line.
3. All edges shall have 20 chamfer
4. For Bridge Fence Railing see sheet S-11.
5. Work this sheet with sheet S-9.
6. For Details of Bridge Drainage System, see sheet S-13.



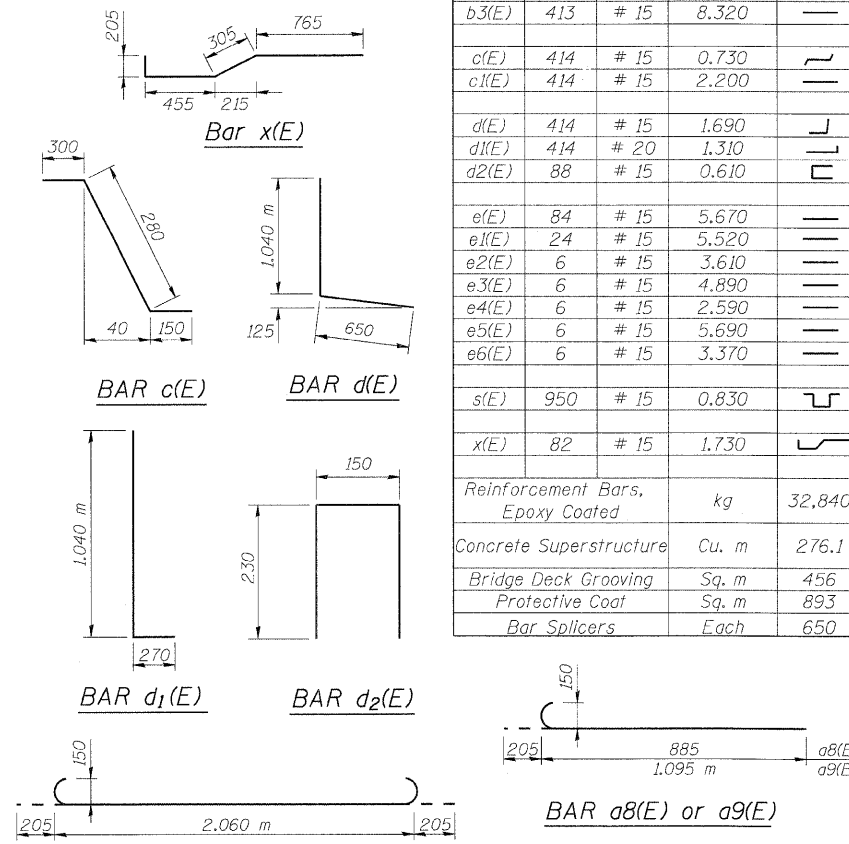
SECTION THRU SIDEWALK



PARAPET JOINT DETAILS



SECTION A-A



SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 016-2034

DESIGNED -	EKM
CHECKED -	SCD
DRAWN -	RD
CHECKED -	EKM

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SECTION B-B  
\*\* Dimension as required by Pipe Clamp

\* 4 - #25 a5(E) or a6(E) Bars @ 102 spacing. Place under longitudinal Bars.

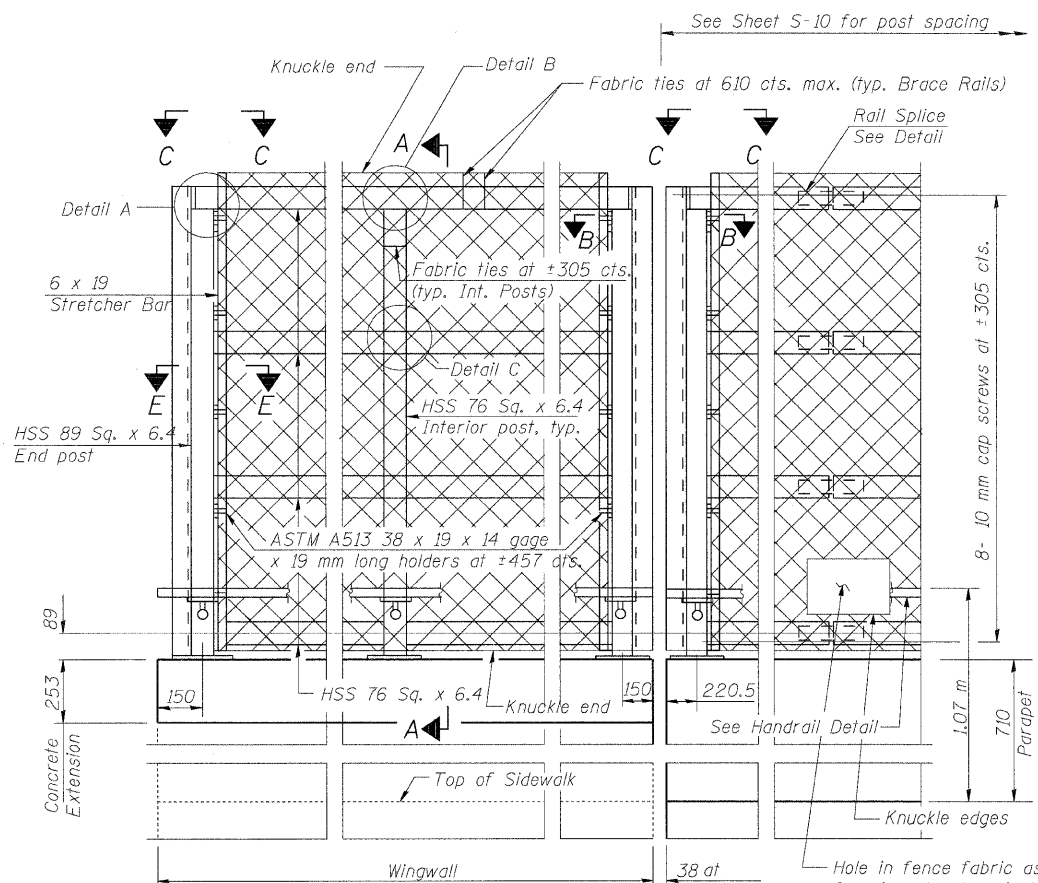
SHEET NO. S-10	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	1818.3B-R	COOK	58	34
S-26 SHEETS		CONTRACT NO. 60862			
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

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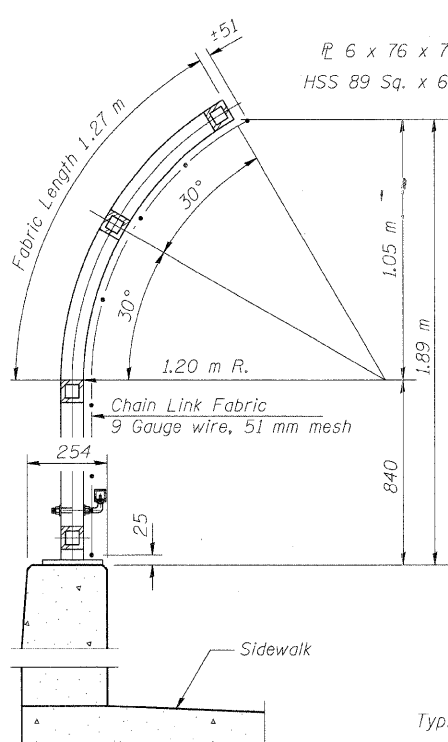
1/18/2009

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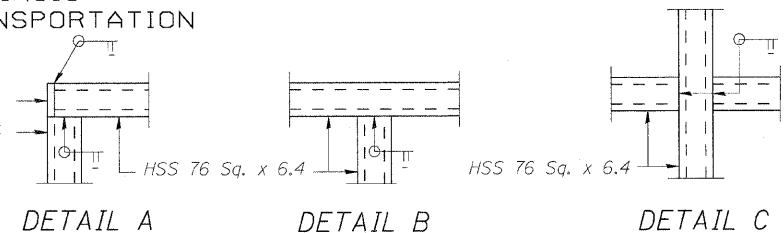
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**ELEVATION**  
(Inside Face)

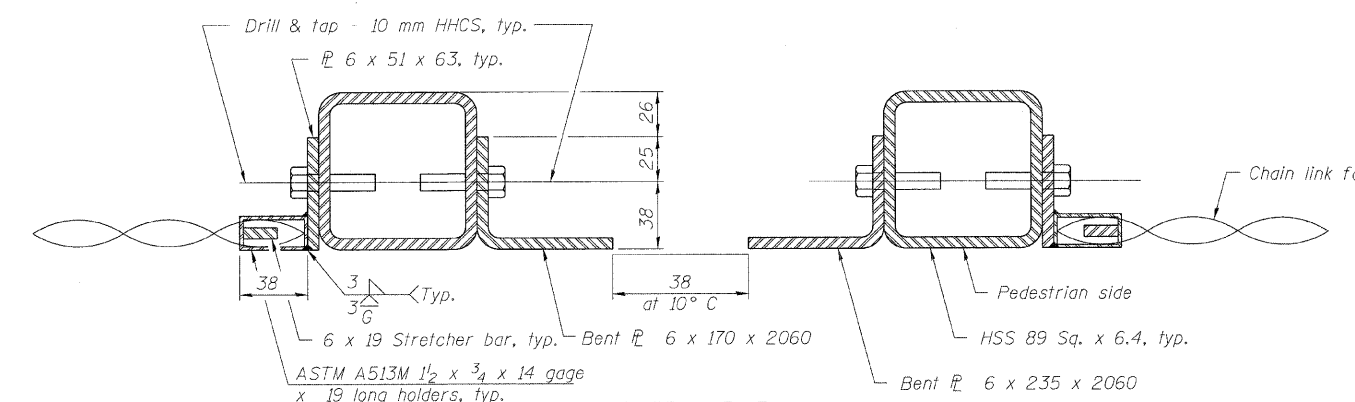


**SECTION A-A**

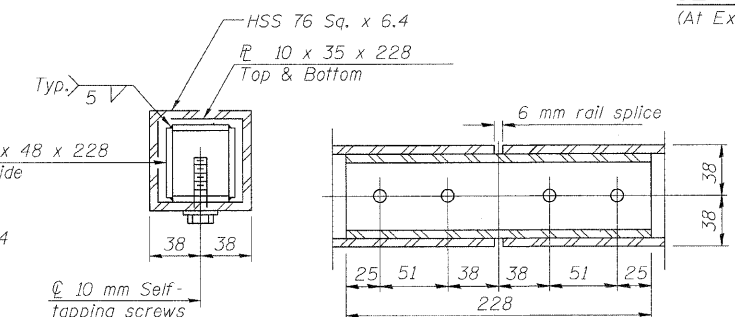


**DETAIL A**      **DETAIL B**      **DETAIL C**

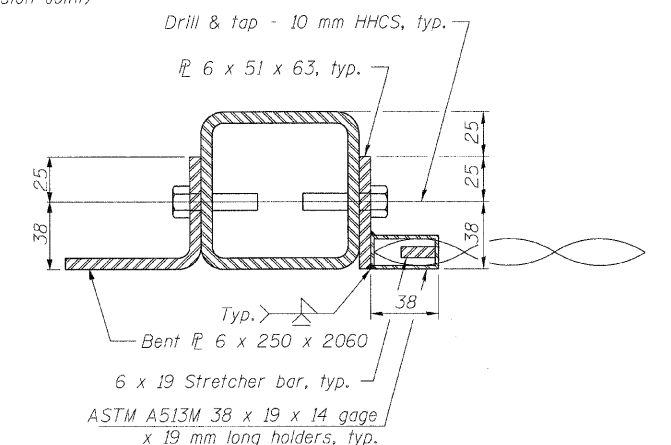
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



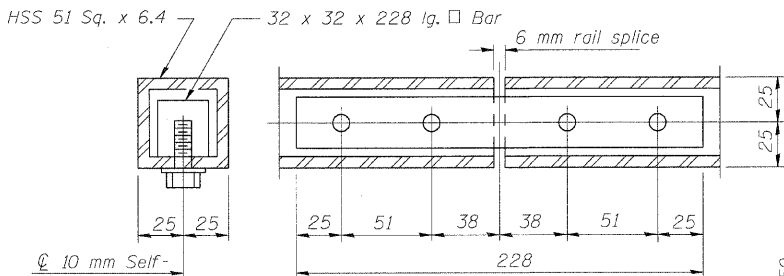
**SECTION B-B**  
(At Expansion Joint)



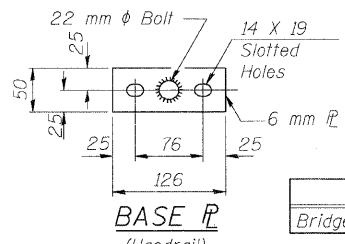
**RAIL SPLICE**



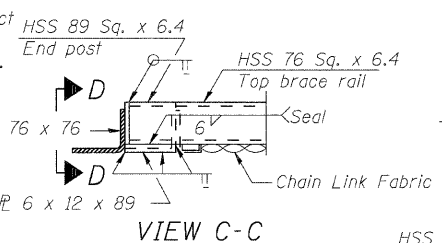
**SECTION E-E**



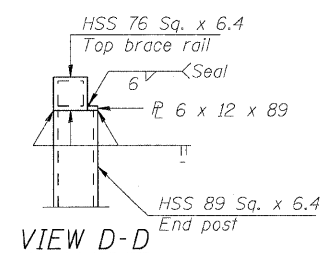
**HANDRAIL SPLICE**



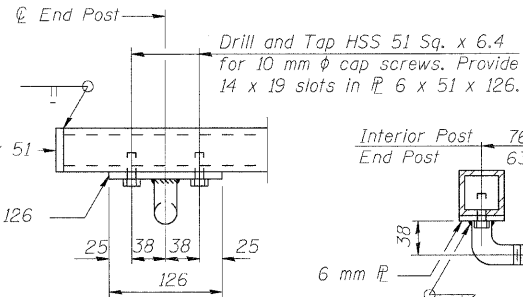
**BASE P**  
(Handrail)



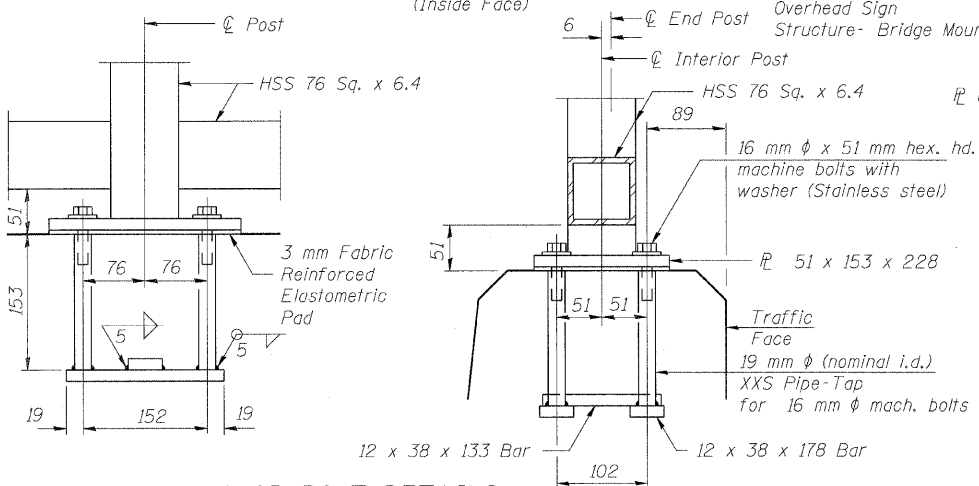
**VIEW C-C**



**VIEW D-D**

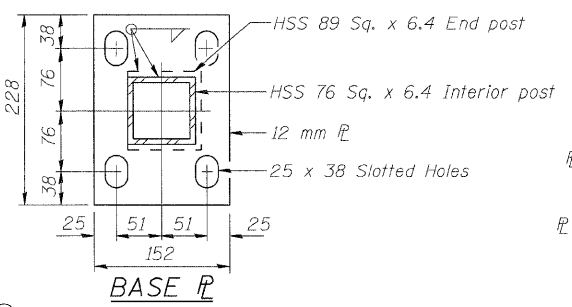


**HANDRAIL DETAIL**



**ANCHOR BOLT DETAILS**

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting M16 φ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



**BASE P**

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Bridge Fence Railing	Meter	135

**BRIDGE FENCE RAILING  
PARAPET MOUNTED  
STRUCTURE NO. 016-2034**

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

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Tel. 773.775.4009 Fax 773.775.4014 Email chicago@giorba.com

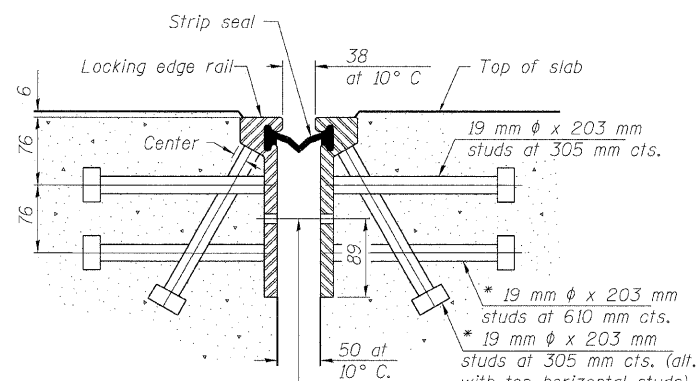
\*Variable - See Plans  
(3.05 m Maximum Post Spacing)

SHEET NO. S-11	F.A.I. RTE. 57	SECTION 1818.3B-R	COUNTY COOK	TOTAL SHEETS 58	SHEET NO. 35
S-26 SHEETS			CONTRACT NO. 60862		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

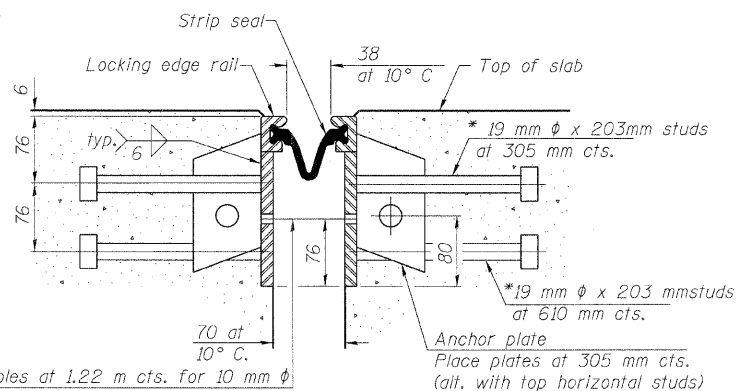
1/16/2004

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DEPARTMENT OF TRANSPORTATION

\*Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



11 mm φ holes at 1.22 m cts. for 10 mm φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



11 mm φ holes at 1.22 m cts. for 10 mm φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 6 mm. The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 100 mm.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

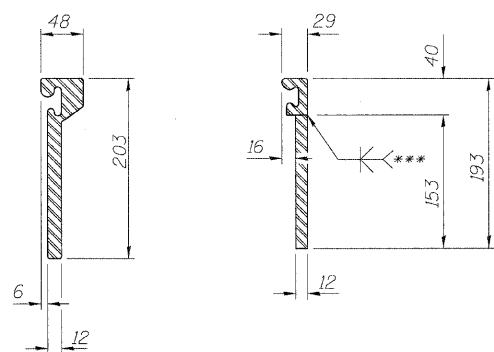
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

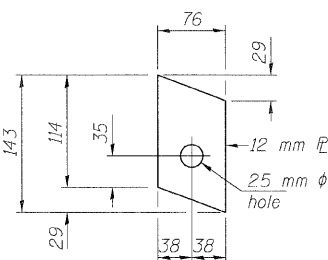
All dimensions are in millimeters (mm) except as noted.

SECTION THRU  
ROLLED RAIL JOINT

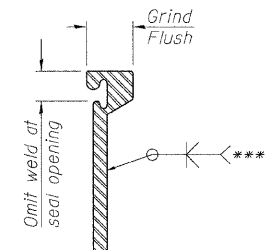


ROLLED  
(EXTRUDED) RAIL    WELDED RAIL

SECTION THRU  
WELDED RAIL JOINT



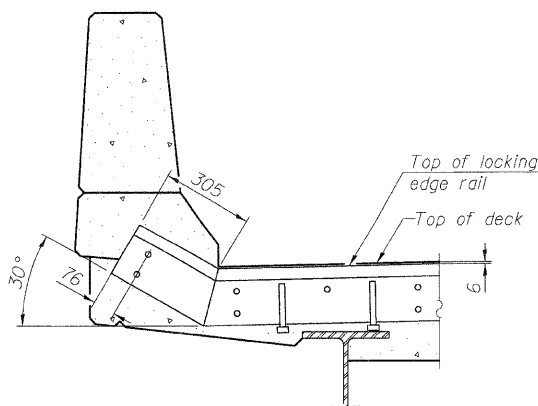
ANCHOR PLATE  
(for welded rail)



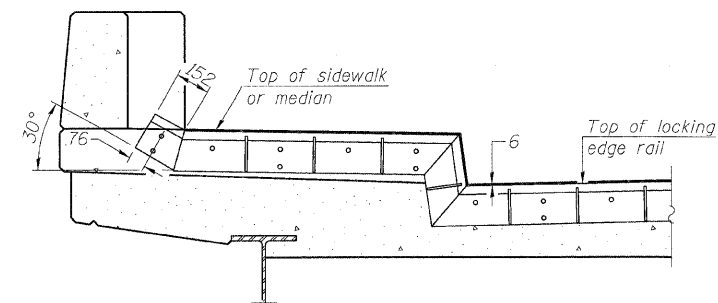
\*\*\*Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE  
RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.



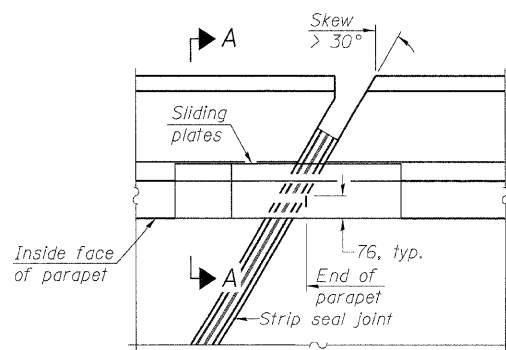
AT PARAPET



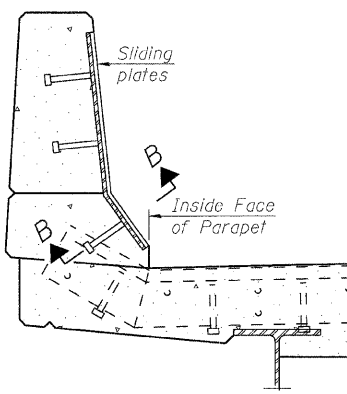
AT SIDEWALK OR MEDIAN

Shorter plates with a single row of studs at 305 cts. may be necessary on medians which are shallower than 228. See manufacturer's recommendation.

LOCKING EDGE RAILS

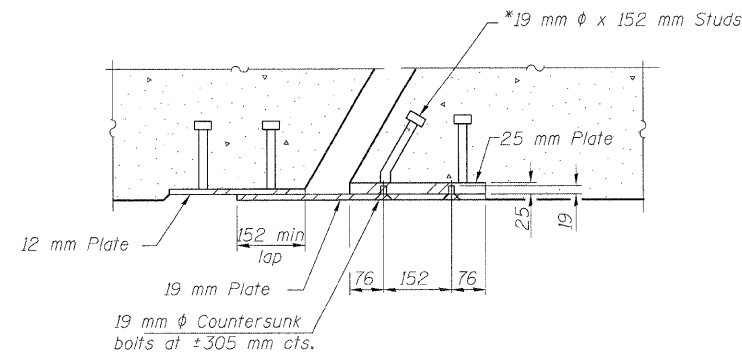


PLAN



SECTION A-A

TYPICAL END TREATMENTS



SECTION B-B

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Preformed Joint Strip Seal	Meter	24.1

PREFORMED JOINT STRIP SEAL  
STRUCTURE NO. 016-2034

SHEET NO. S-12	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818.3B-R	COOK	58	36
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60862					

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM



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CONSULTING ENGINEERS

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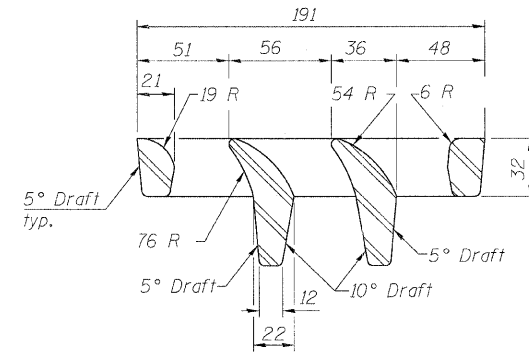
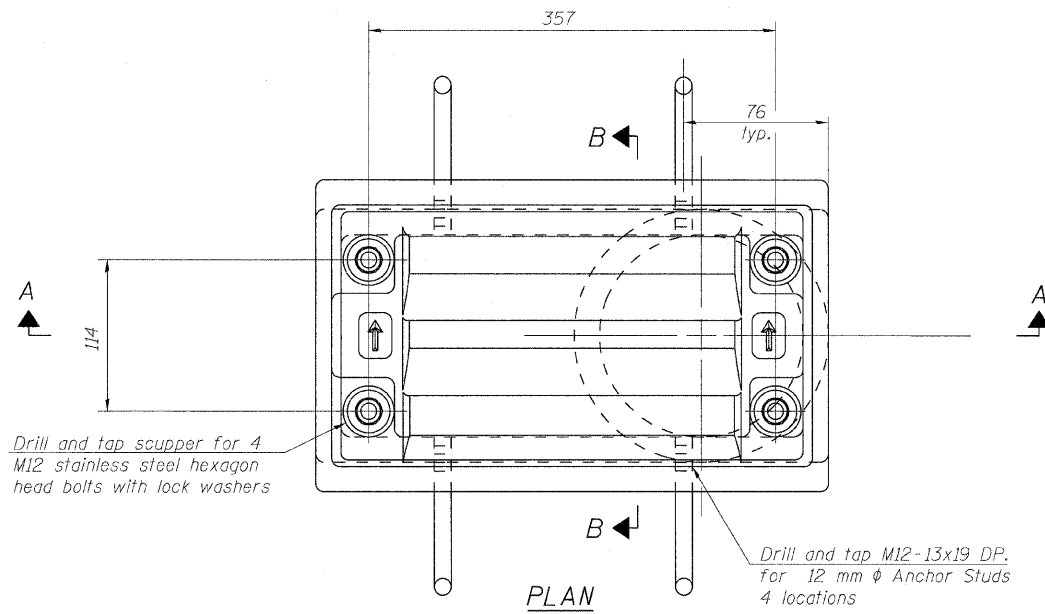
POINT BLOCK DETAILS

(for skews > 30°)

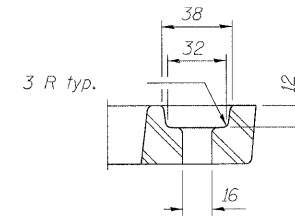
1/16/2009

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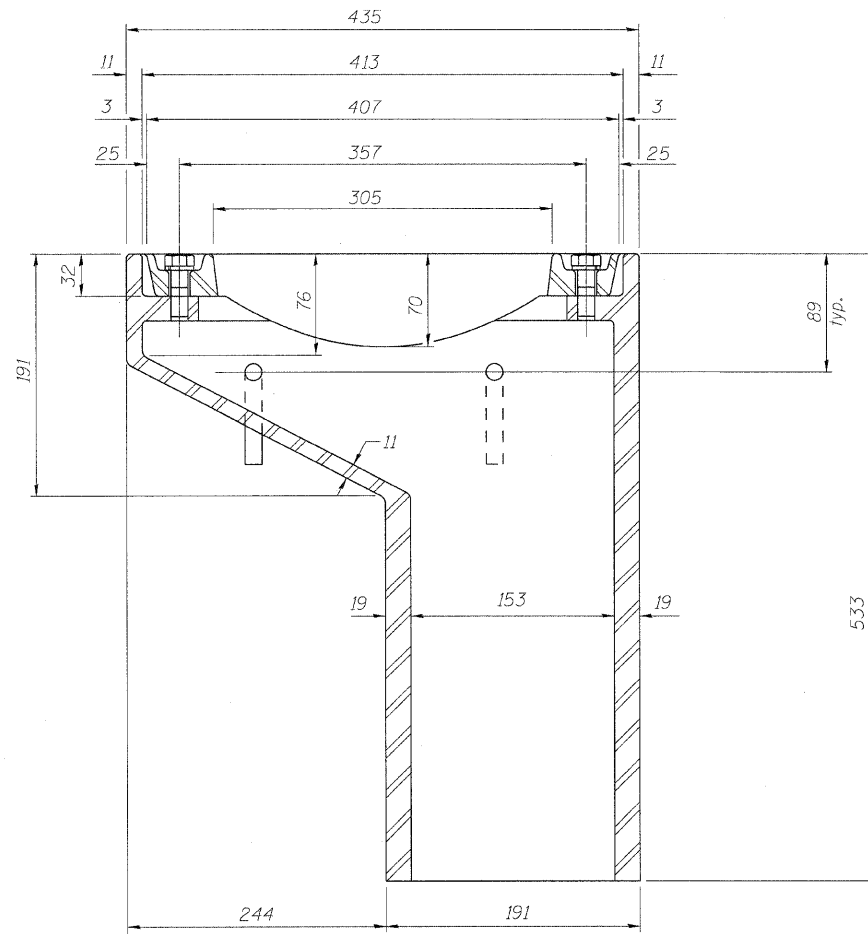
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VANE GRATE DETAIL

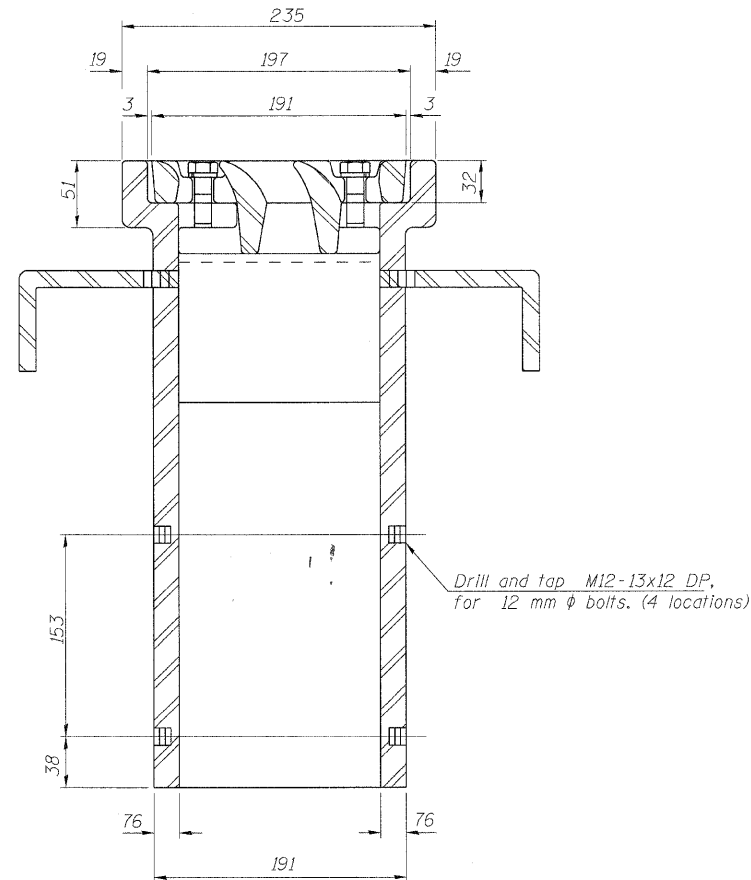


BOLT HOLE DETAIL

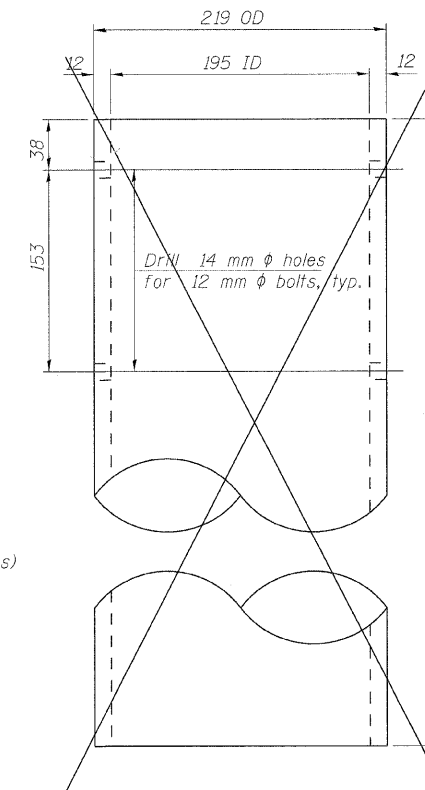


SECTION A-A

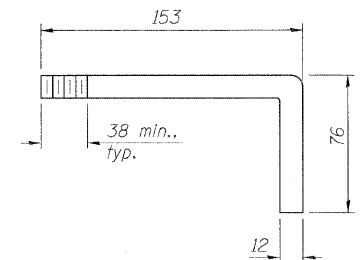
See sheet S-10 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	Each	4

DRAINAGE SCUPPER, DS-11  
STRUCTURE NO. 016-2034

SHEET NO. S-13	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818.3B-R	COOK	58	37
			CONTRACT NO. 60862		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

DESIGNED - EKM  
CHECKED - SCD  
DRAWN - RD  
CHECKED - EKM



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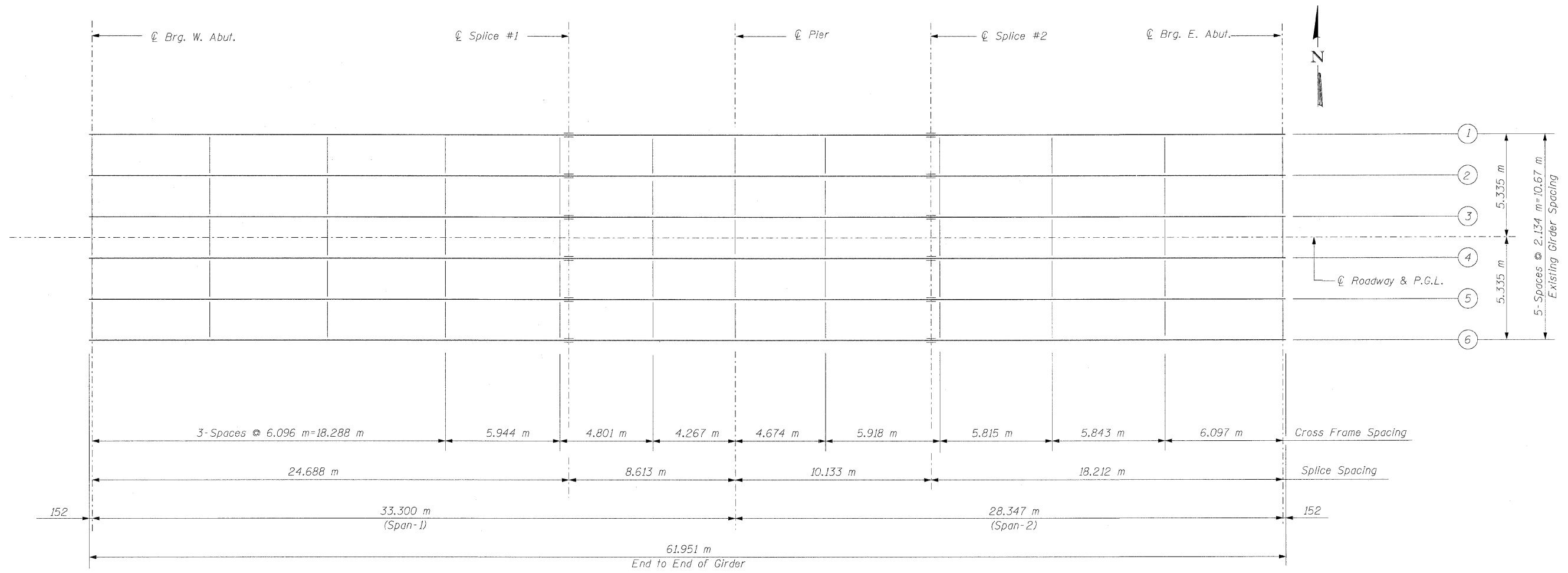
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Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

rdan/lej

1/15/2009

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STATE OF ILLINOIS  
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FRAMING PLAN

EXISTING FRAMING PLAN  
STRUCTURE NO. 016-2034

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

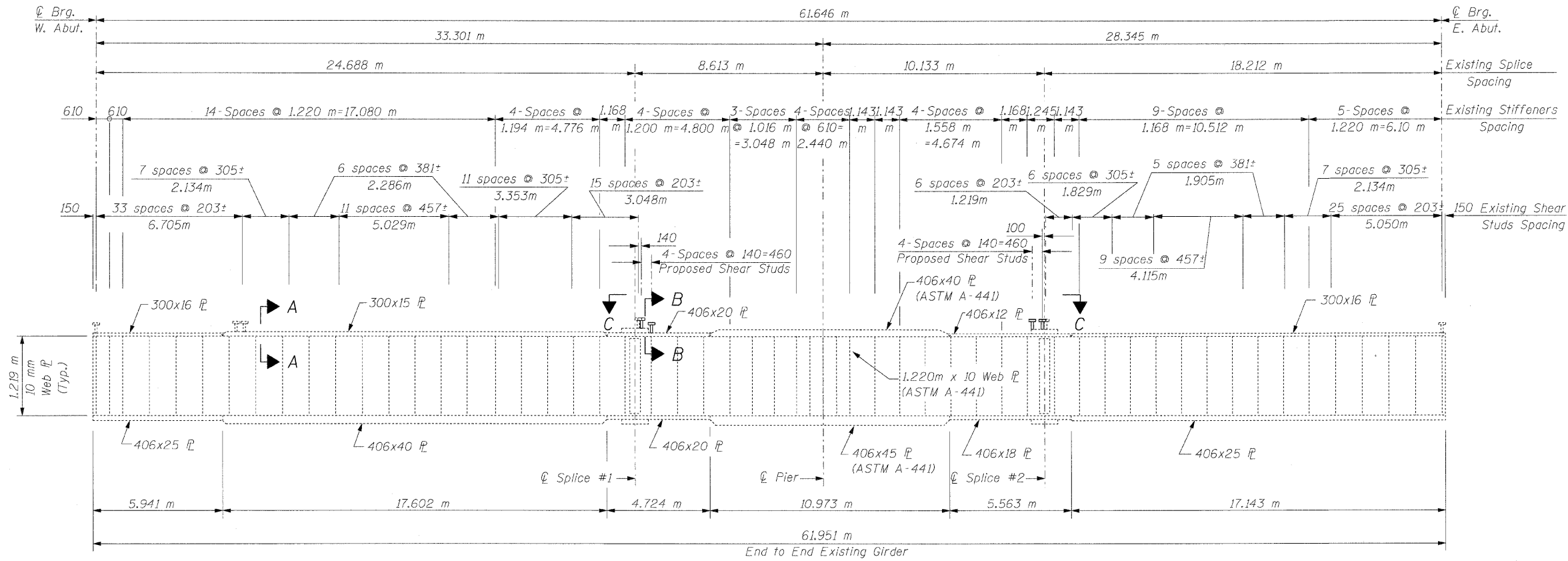
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SHEET NO. S-14 S-26 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	1818.3B-R	COOK	58	38
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60862					

1/16/2009

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

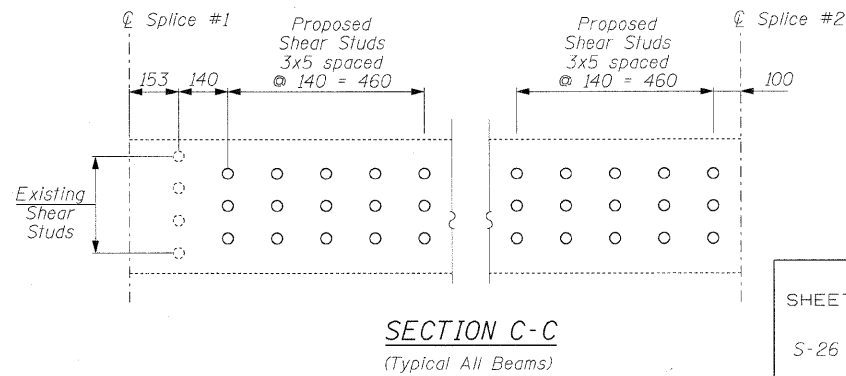
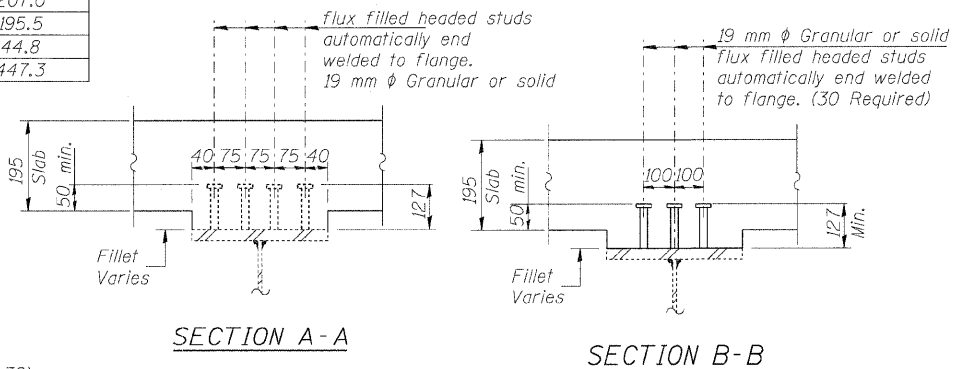


**EXISTING GIRDER ELEVATION**  
All steel ASTM A36 unless otherwise noted

		0.40 Sp #1	Pier	0.60 Sp. #2
$I_s$	( $10^6 \text{ mm}^4$ )	9,560	16,976	6,841
$I_c (n)$	( $10^6 \text{ mm}^4$ )	28,195		20,809
$I_c (3n)$	( $10^6 \text{ mm}^4$ )	19,535		14,869
$S_s$	( $10^3 \text{ mm}^3$ )	20,340	25,839	13,493
$S_c (n)$	( $10^3 \text{ mm}^3$ )	27,724		19,285
$S_c (3n)$	( $10^3 \text{ mm}^3$ )	25,603		17,765
$Z$	( $10^3 \text{ mm}^3$ )			
$D$	(kN/m)	12.8	14.0	12.2
$M_R$	(kN·m)	988	2,880	486
$s_R$	(kN/m)	8.89		8.89
$M_{sR}$	(kN·m)	764		440
$M_L$	(kN·m)	1,137	909	959
$M (Imp)$	(kN·m)	243	201	220
$M_3 [M_L + M (Imp)]$	(kN·m)	2,300	1,850	1,965
$M_a$	(kN·m)	5,267	6,148	3,758
$M_u$	(kN·m)	6,539		4,548
$f_s \ell$ non-comp	(MPa)	49	111	36
$f_s \ell$ (comp)	(MPa)	30		25
$f_s \ell [M_L + M (Imp)]$	(MPa)	83	72	102
$f_s$ (Overload)	(MPa)	161	183	163
$f_s$ (Total)	(MPa)		238	
$VR$	(kN)	236		221

		W. Abut	Pier	E. Abut
$R_R$	(kN)	280.2	870.4	207.0
$R_L$	(kN)	204.5	308.8	195.5
$R_I$	(kN)	43.7	68.3	44.8
$R$ (Total)	(kN)	528.4	1,247.6	447.3

$I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $f_s$  (Total & Overload).  
 $I_c(n)$  and  $S_c(n)$  are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.  
 $I_c(3n)$  and  $S_c(3n)$  are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)  
 $VR$  is the maximum Live Load + Impact shear range in span.  
 $Z$  is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.  
 $M_a$  (Applied Moment) =  $1.3[M_R + M_{sR} + M_3(M_L + M_{Imp})]$ .  
 The Plastic Moment capacity ( $M_u$ ) is computed according to AASHTO 10.48.1 and 10.50.1.1.  
 $f_s$  (Overload) is the sum of the stresses due to  $M_R + M_{sR} + M_3(M_L + M_{Imp})$ .  
 $f_s$  (Total) (Non-compact section) is the sum of the stresses due to  $1.3[M_R + M_{sR} + M_3(M_L + M_{Imp})]$ .



**BILL OF MATERIALS**

ITEM	UNIT	QUANTITY
Stud Shear Connectors	Each	180

**EXISTING GIRDER ELEVATION  
& DETAILS  
STRUCTURE NO. 016-2034**

SHEET NO. S-15	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818.3B-R	COOK	58	39
CONTRACT NO. 60862					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

DESIGNED - EKM  
CHECKED - SCD  
DRAWN - RD  
CHECKED - EKM

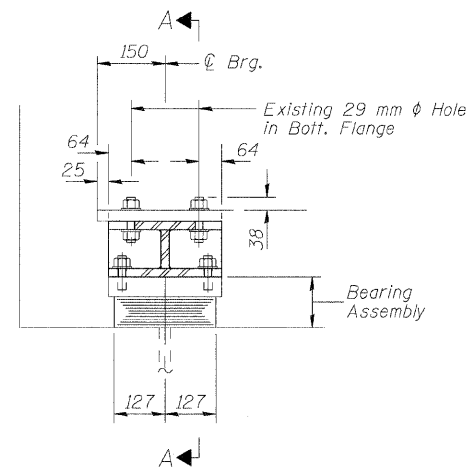
**CG** Ciorba Group, Inc.  
CONSULTING ENGINEERS  
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Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

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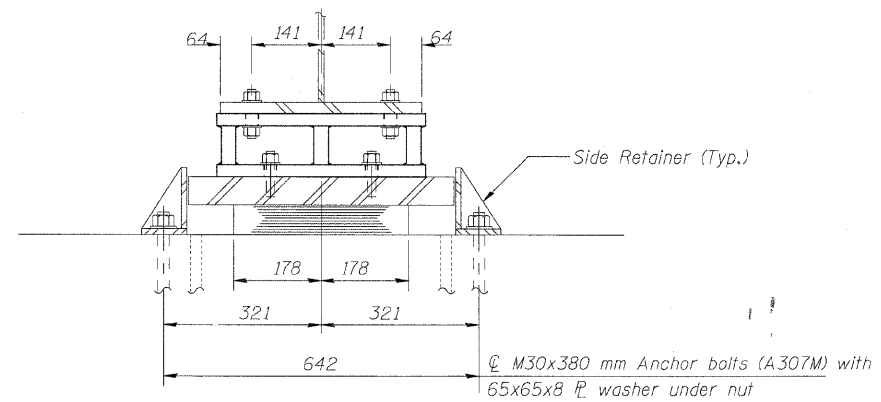
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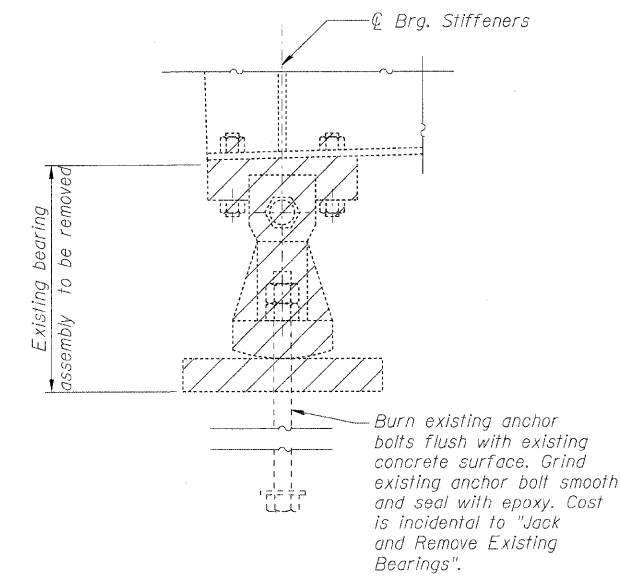
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DEPARTMENT OF TRANSPORTATION



ELEVATION AT ABUT.



SECTION A-A



EXISTING BEARING REMOVAL DETAIL

TYPE I ELASTOMERIC EXP. BRG.

NOTES:

The overall depth dimension for the new bearing steel extension shall match the total depth of the replaced existing bearings. The contractor shall field verify depth dimensions for all bearings and existing holes in bottom flanges.

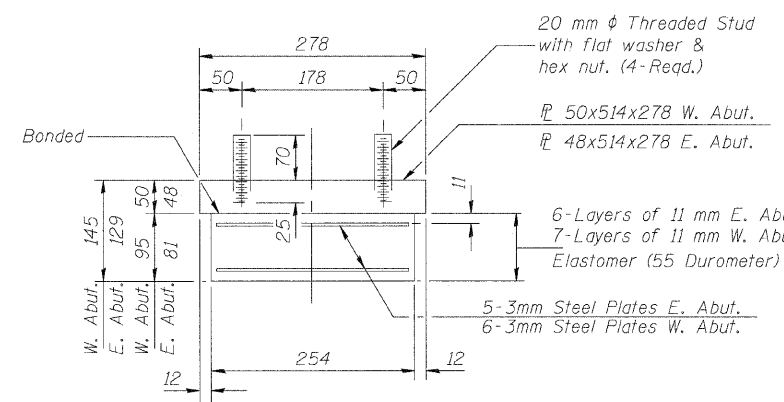
Anchor bolts shall be ASTM F1554M all-thread (or an Engineer-approved alternate material), ASTM A307M Grade C anchor bolts may be used in lieu of ASTM F1554M Grade 750. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554M.

Anchor bolts for side retainers may be installed in holes drilled before or after members are in place. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications. Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Weight of steel extensions included with Furnishing and Erecting Structural Steel.

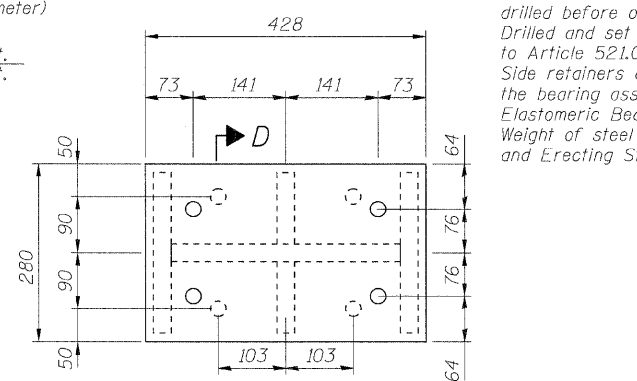
JACKING AND CRIBBING NOTES:

1. The work shall be done in accordance with the special provision "Jack and Remove Existing Bearings".
2. The Contractor shall submit for approval by the Engineer, plans for jacking prior to commencing any work at the bearings.
3. The maximum reaction per bearing is 60 kN at the abutment. Minimum jack capacity is 120kN.
4. The new bearings shall be in place and the jacks lowered before the new concrete deck is poured.
5. A synchronous lifting system should be used to control and equalize individual jack pressures to insure that the superstructure is lifted uniformly without exceeding the above stated relative elevation differentials.
6. The diaphragms should not be used as load carrying members in the jacking and cribbing system.
7. The jack should be centered under the web and a steel plate should be placed between the top of the jack and the bottom flange of the beam. When web stiffeners bearing on the bottom flange do not exist directly over the location of the jack under a steel beam, hardwood timbers should be installed tightly between the top and bottom flange to prevent flange rotation. Steel stiffening angles should be attached to the web of the beam when the beam web thickness is not adequate to carry the jacking load. Steel plates should be placed under jacks bearing directly on the existing substructure to distribute the jacking load and prevent damage to the existing concrete.

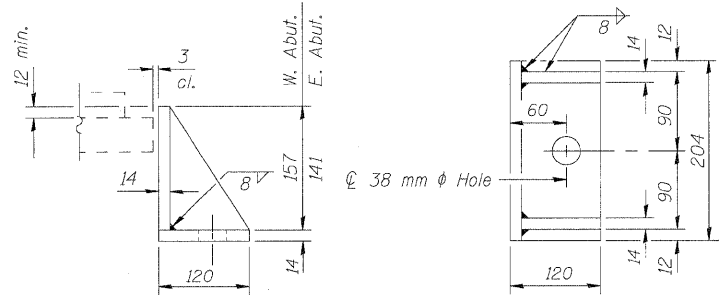


BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.

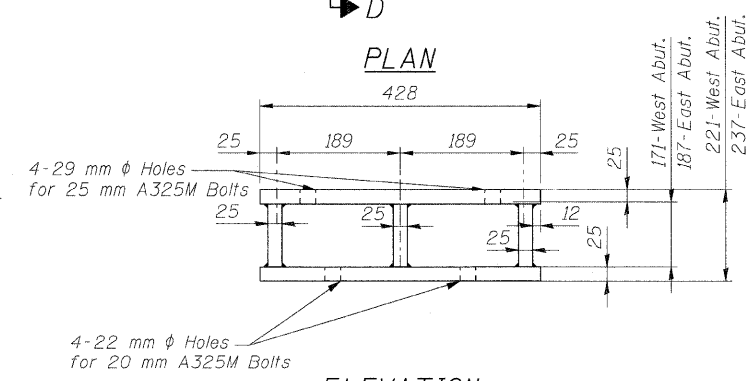


PLAN

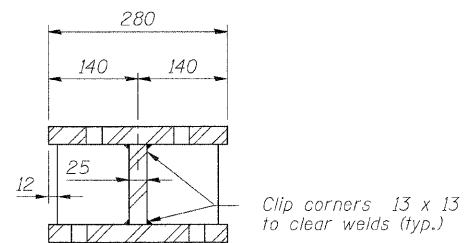


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



ELEVATION



SECTION D-D

EXPANSION STEEL EXTENSION  
AT ABUTMENTS

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12
Jack and Remove Existing Bearings	Each	12
Anchor Bolts, M30	Each	24
Furnishing and Erecting Structural Steel	kg	1,040

ELASTOMERIC BEARING ASSEMBLY TYPE I  
STRUCTURE NO. 016-2034

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

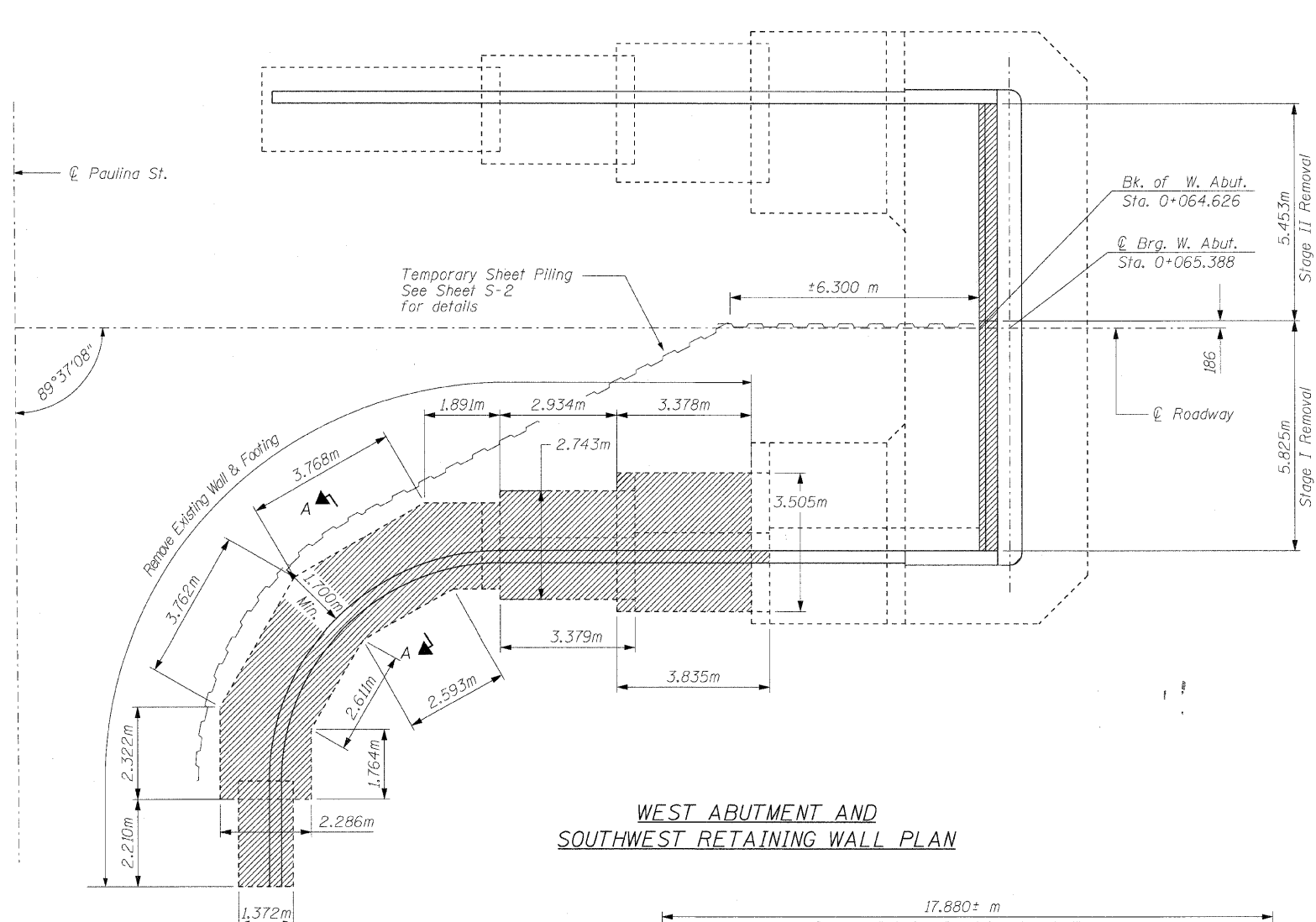
**CG** Ciorba Group, Inc.  
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Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

SHEET NO. S-16 S-26 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	1818.3B-R	COOK	58	40
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60862					

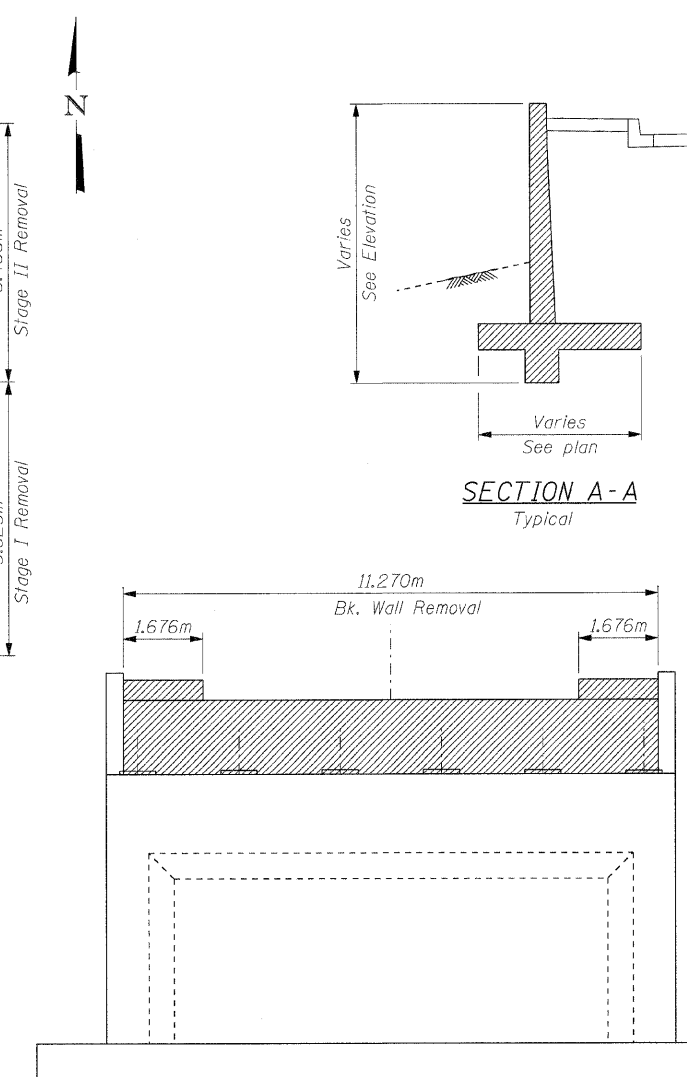
1/16/2009 rdenley



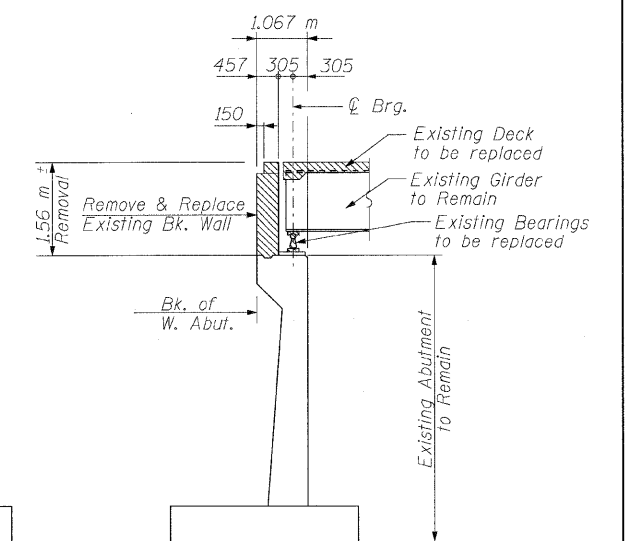
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



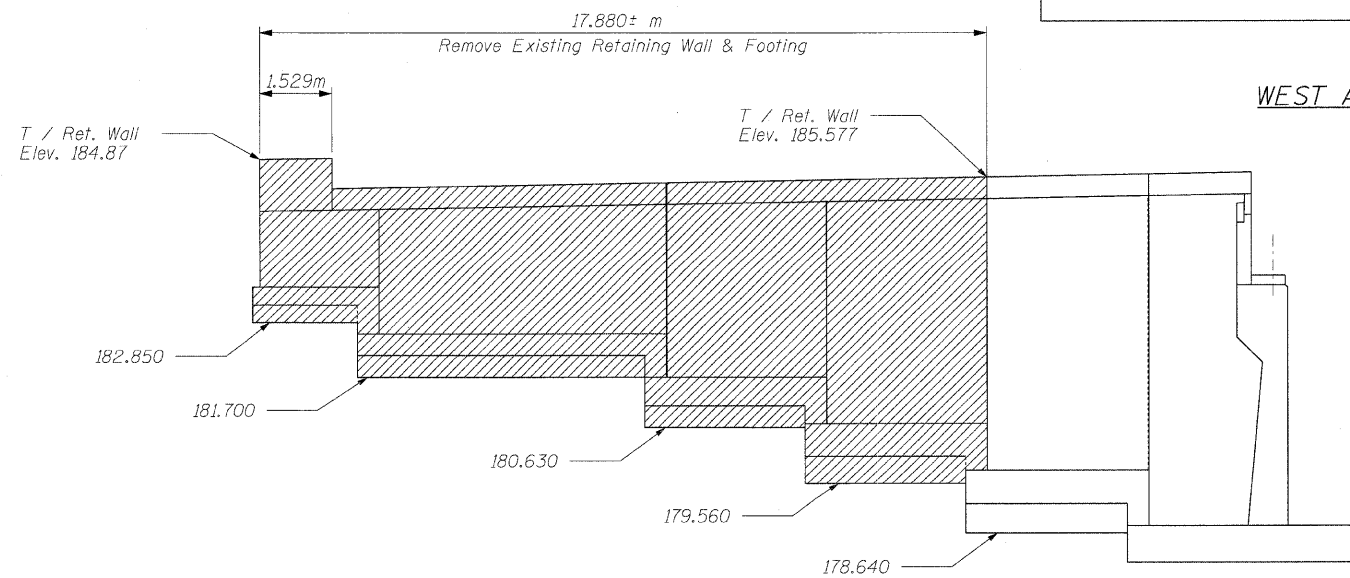
WEST ABUTMENT AND  
SOUTHWEST RETAINING WALL PLAN



WEST ABUTMENT ELEVATION  
East Abutment Similar



SECTION THRU WEST ABUTMENT



SOUTHWEST RETAINING WALL  
ELEVATION

LEGEND

Concrete Removal



NOTES:

- Existing vertical reinforcement protruding from the abutment backwall and horizontal reinforcement protruding from the wingwalls to remain in place. The existing reinforcement shall be sandblasted clean, straightened and incorporated into the new construction. 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.
- See Sheet S-18 for Bill of Material.

WEST ABUTMENT & SW RETAINING WALL REMOVAL  
STRUCTURE NO. 016-2034

DESIGNED -	EKM
CHECKED -	SCD
DRAWN -	RD
CHECKED -	EKM



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Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

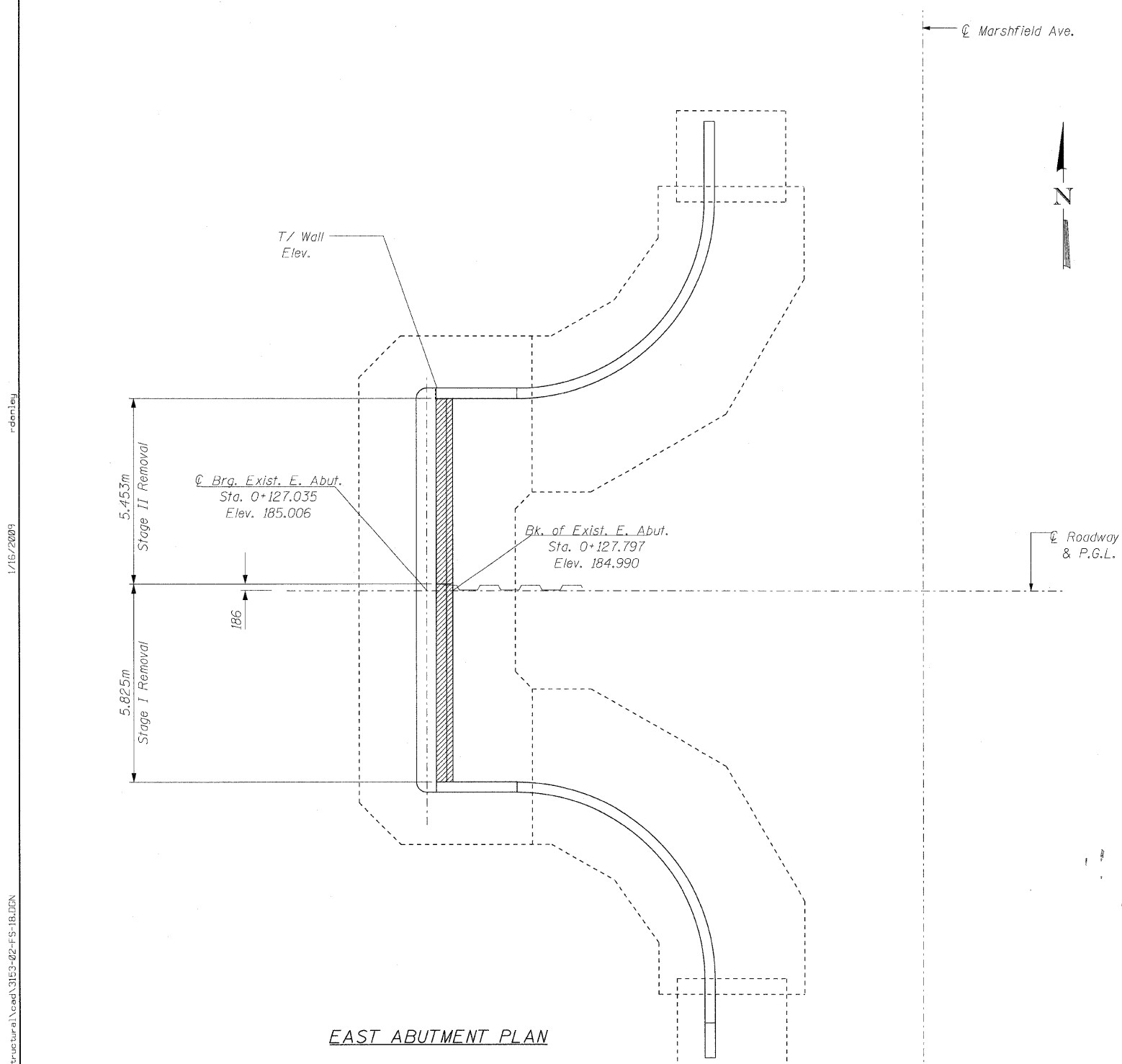
SHEET NO. S-17	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818.3B-R	COOK	58	41
			CONTRACT NO. 60862		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

rdonley

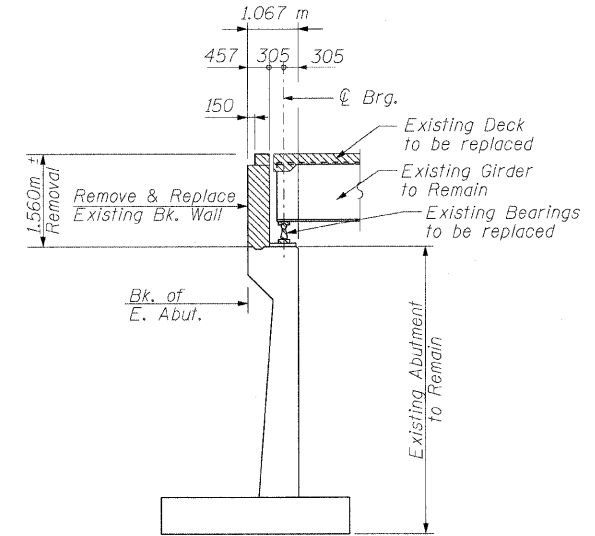
1/16/2009

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



EAST ABUTMENT PLAN



SECTION THRU EAST ABUTMENT

NOTES:

- For Abutment Elevation see Sheet S-17.
- Existing vertical reinforcement protruding from the abutment backwall and horizontal reinforcement protruding from the wingwalls to remain in place. The existing reinforcement shall be sandblasted clean, straightened and incorporated into the new construction. 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.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. m	62.5

LEGEND

Concrete Removal

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

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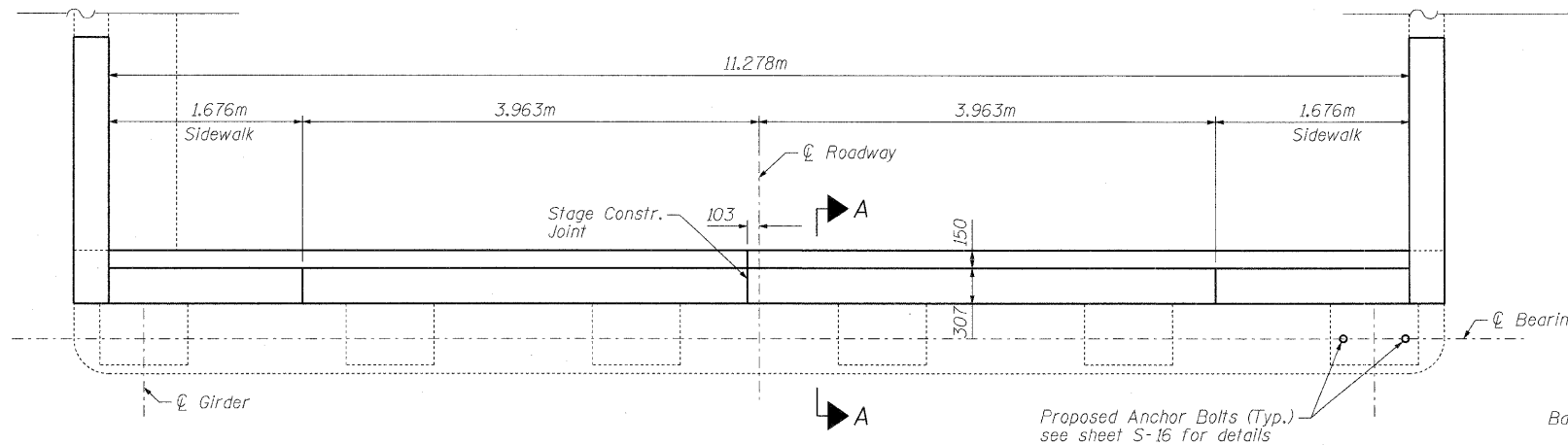
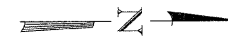
EAST ABUTMENT REMOVAL  
STRUCTURE NO. 016-2034

SHEET NO. S-18	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	1818.3B-R	COOK	58	42
S-26 SHEETS		CONTRACT NO. 60862			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

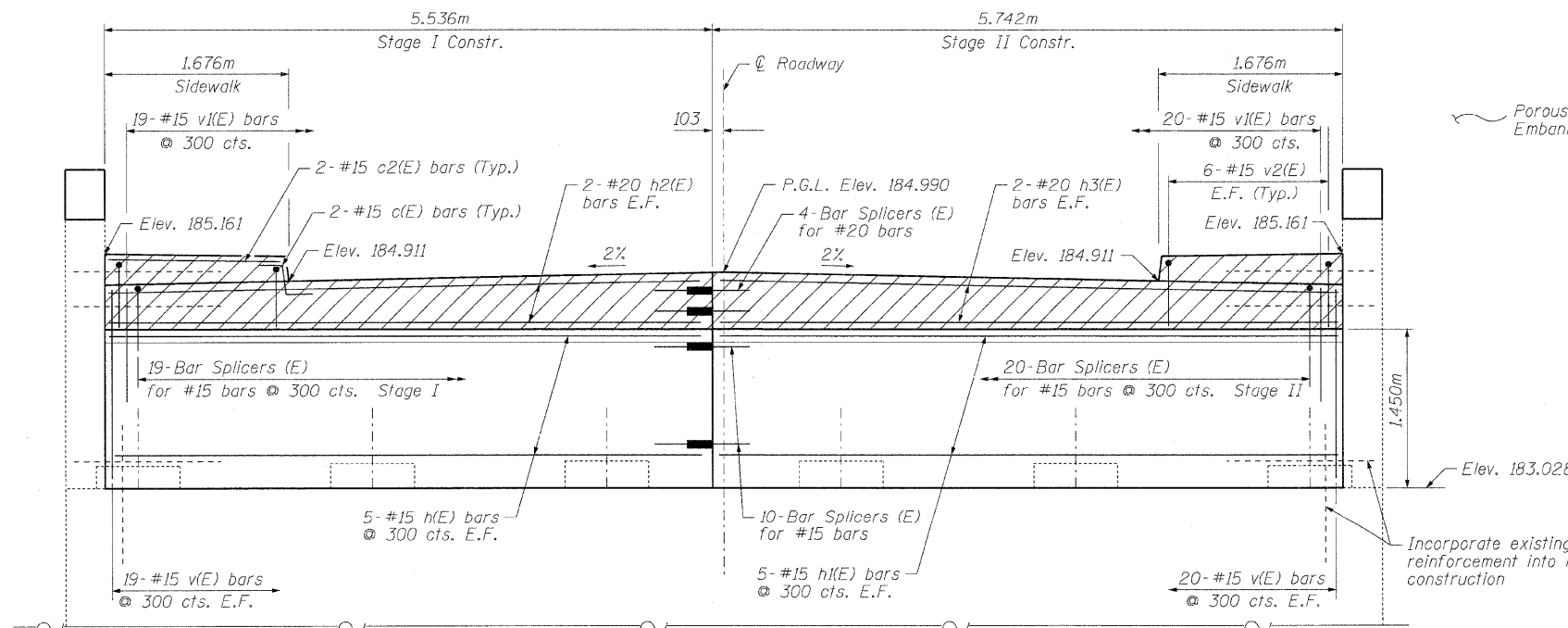
1/15/2009

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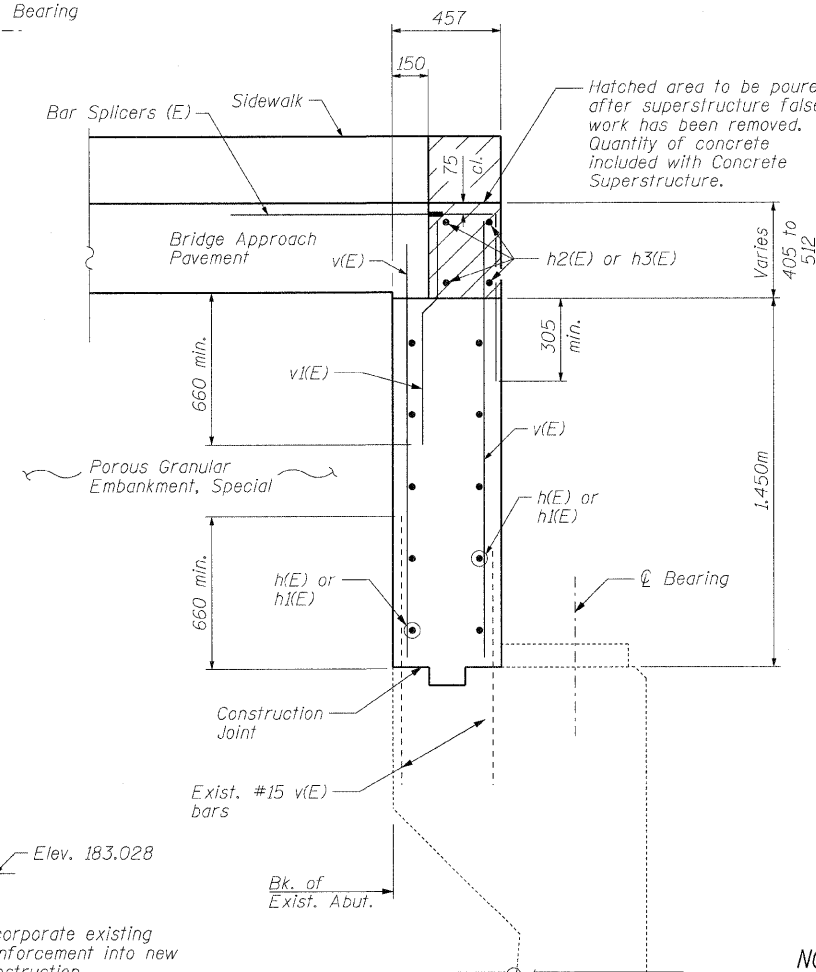
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



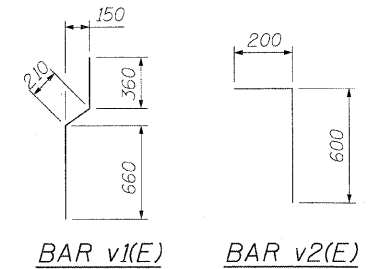
**WEST ABUTMENT PLAN**  
East Abutment Similar



**WEST ABUTMENT ELEVATION**  
East Abutment Similar



**SECTION A-A**



**BAR v1(E)**      **BAR v2(E)**

**BILL OF MATERIAL**

Bar	No.	Size	Length (m)	Shape
h(E)	20	#15	5.460	—
h <sub>1</sub> (E)	20	#15	5.660	—
h <sub>2</sub> (E)	8	#20	5.460	—
h <sub>3</sub> (E)	8	#20	5.660	—
c(E)	8	#15	0.730	—
c <sub>2</sub> (E)	8	#15	1.590	—
v(E)	156	#15	1.400	—
v <sub>1</sub> (E)	78	#15	1.230	—
v <sub>2</sub> (E)	48	#15	0.800	—
Concrete Sealer		Sq. m	46	
Concrete Structures		Cu. m	14.9	
Reinforcement Bars, Epoxy Coated		Kg	1,140	
Structure Excavation		Cu. m	52	
Bar Splicers		Each	106	
Porous Granular Embankment, Special		Cu. m	20	

For two (2) abutments.

**NOTES:**

Reinforcement bars designated (E) shall be epoxy coated.

Apply concrete sealer to bridge side of backwall and bearing seat at both abutments.

Dimensions for bar c(E) shown on sheet S-10.

For structure excavation details see sheet S-2.

**WEST & EAST ABUTMENT DETAILS**  
**STRUCTURE NO. 016-2034**

**LAP SPLICES**

#15 bars - 660  
#20 bars - 790

DESIGNED -	EKM
CHECKED -	SCD
DRAWN -	RD
CHECKED -	EKM

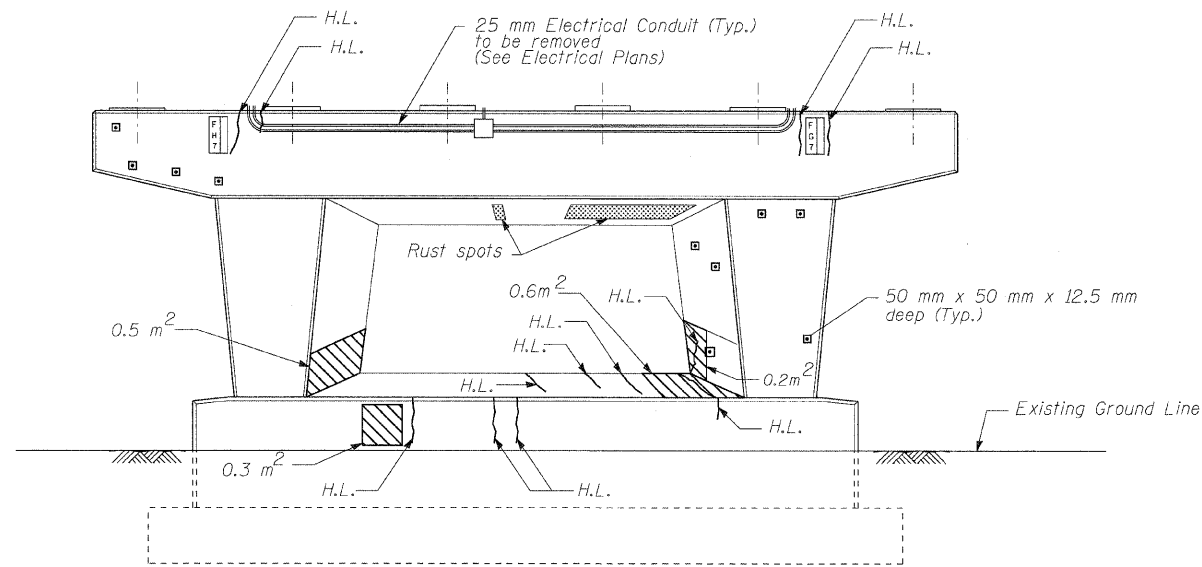
**CG** Ciorba Group, Inc.  
CONSULTING ENGINEERS  
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Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

SHEET NO. S-19	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	1818.3B-R	COOK	58	43
S-26 SHEETS		CONTRACT NO. 60862			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

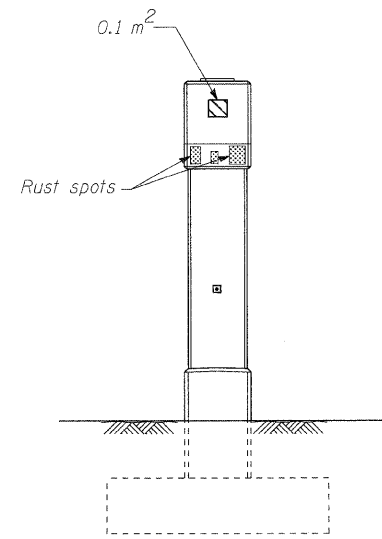
rdan/leg

1/16/2009

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**WEST ELEVATION**  
(Looking East)



**END VIEW**  
(Looking North)

**BILL OF MATERIAL**

Item	Unit	Total
Structural Repair of Concrete (Depth equal to or less than 125 mm)	Sq. m	4.6

**LEGEND**

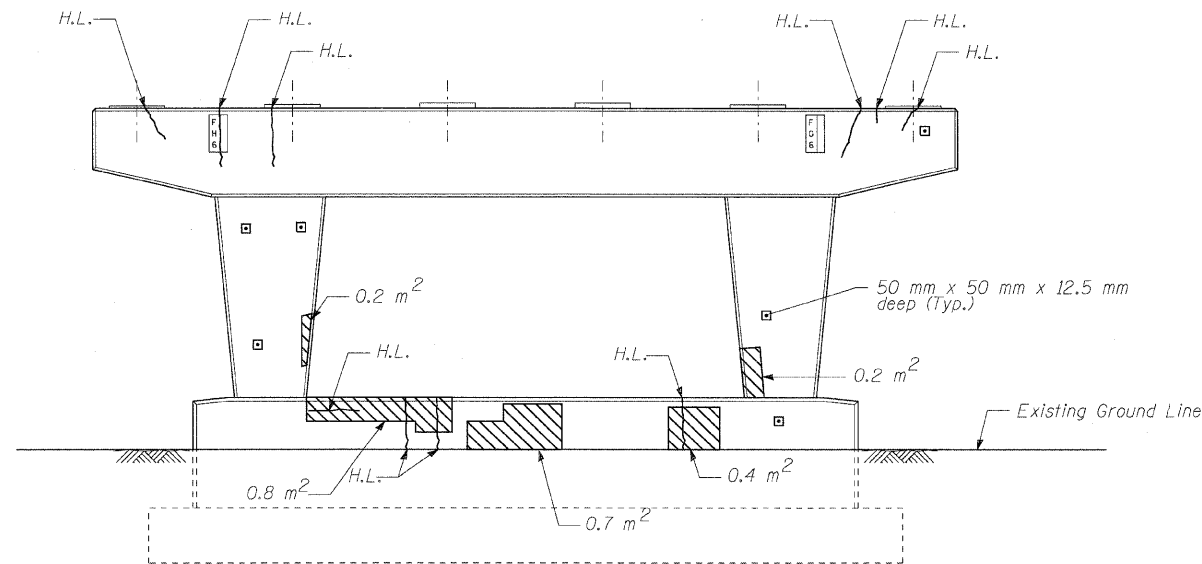
- Structural Repair of Concrete (Depth  $\leq$  125 mm)
- Crack Length 1590
- Exposed Reinforcement

Note:  
Crack widths are 3 mm  $\pm$  1 mm unless otherwise noted.  
H.L. denotes Hairline Crack - Not to be sealed

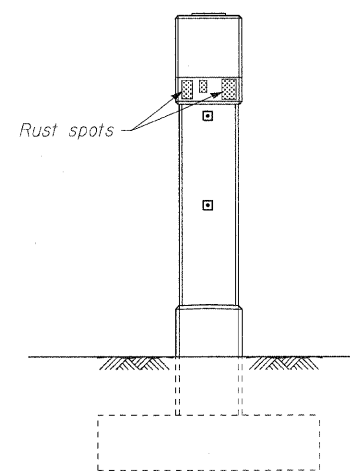
**NOTE:**

Repair of the Existing Pier shall include but not be limited to the areas shown. The actual areas to be determined by the Engineer at the time of construction.

Repairs indicated on plans are based on in-depth inspection performed on April 2002. Total quantity reported in Bill of material has been increased by 15% from the original to take into account deterioration that may have occurred after inspection.



**EAST ELEVATION**  
(Looking West)



**END VIEW**  
(Looking South)

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

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**PIER REPAIRS**  
**STRUCTURE NO. 016-2034**

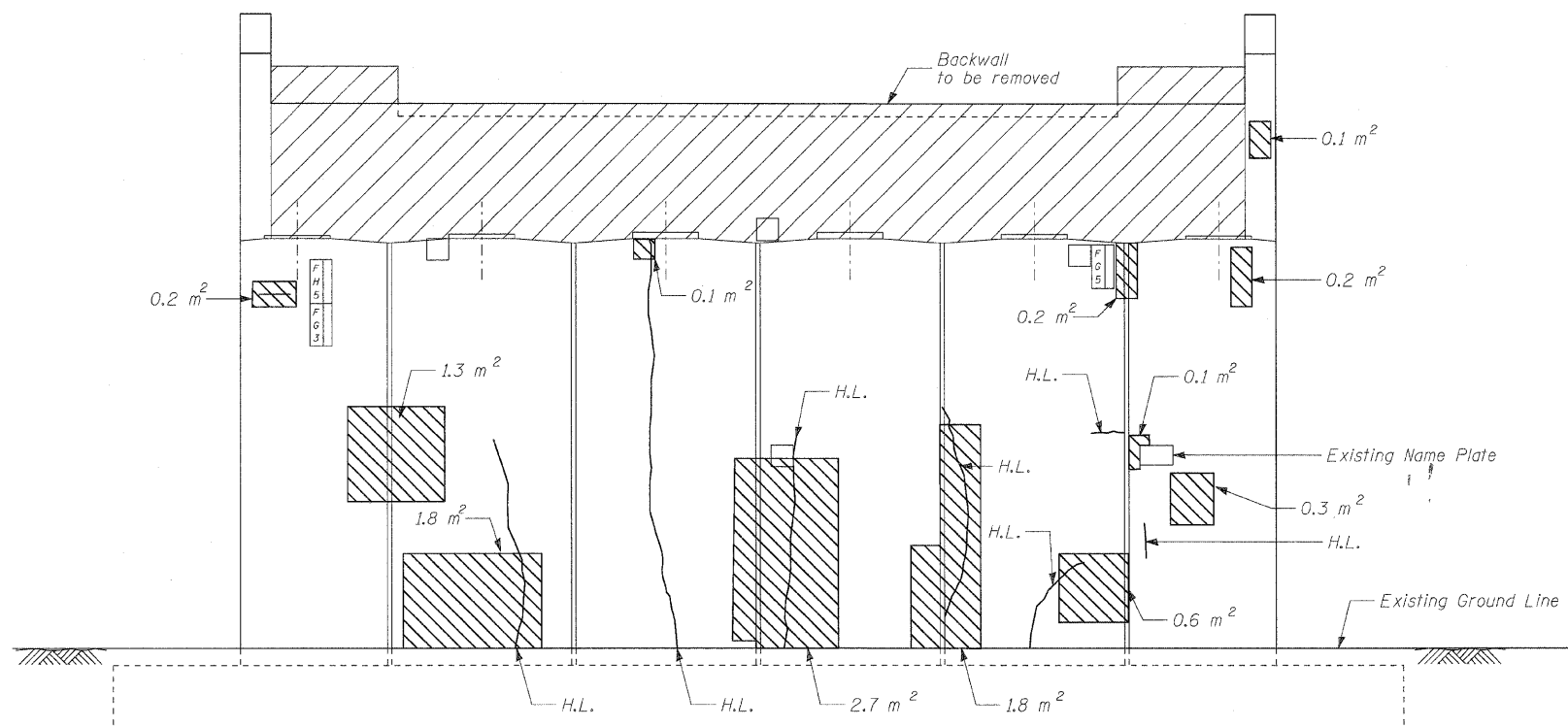
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818.3B-R	COOK	58	44
			CONTRACT NO. 60862		
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

rdonley

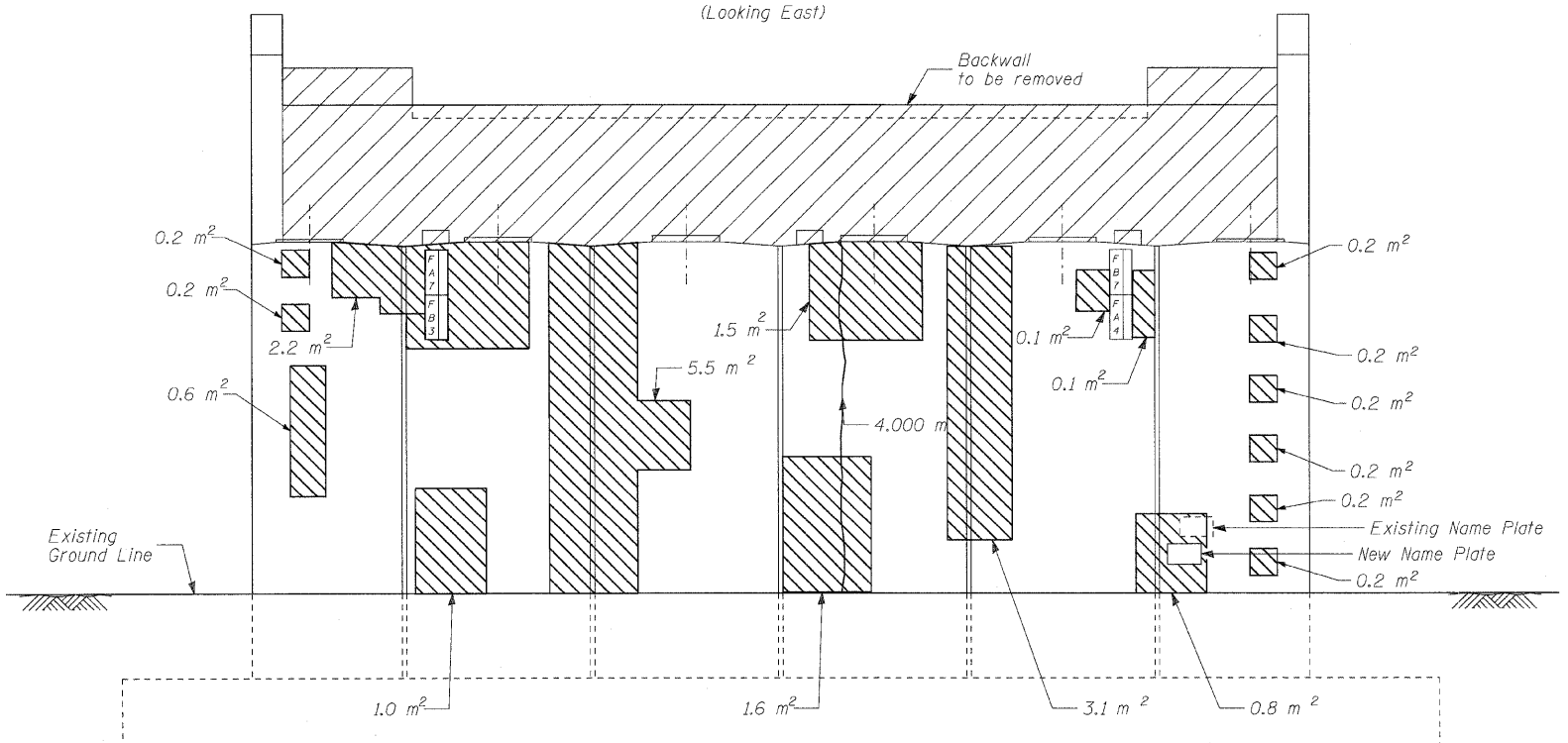
1/16/2009

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DEPARTMENT OF TRANSPORTATION

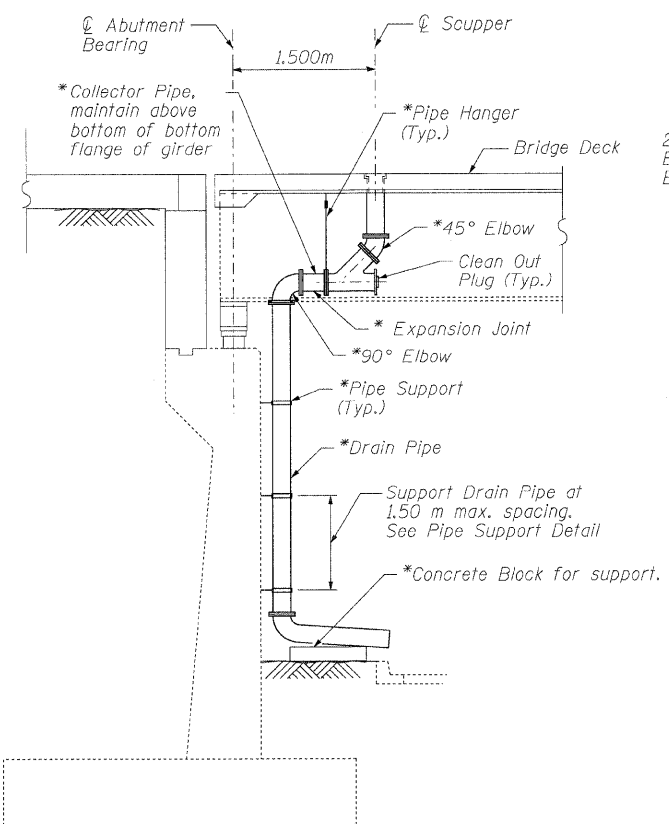


**EAST ABUTMENT**  
(Looking East)



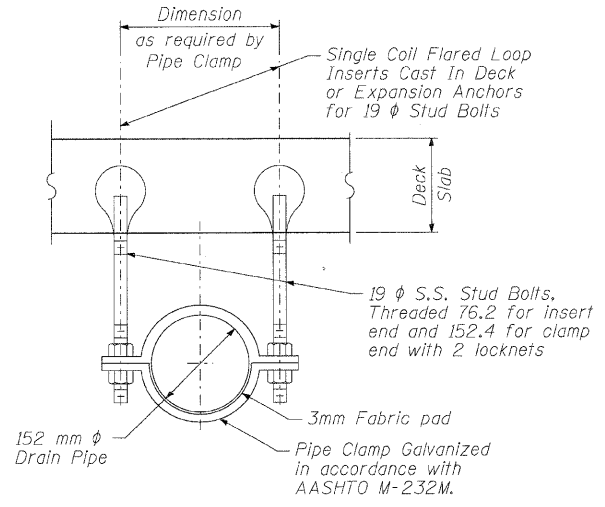
**WEST ABUTMENT**  
(Looking West)

Note:  
Crack widths are 3 mm ± 1 mm unless otherwise noted.  
H.L. denotes Hairline Crack - Not to be sealed

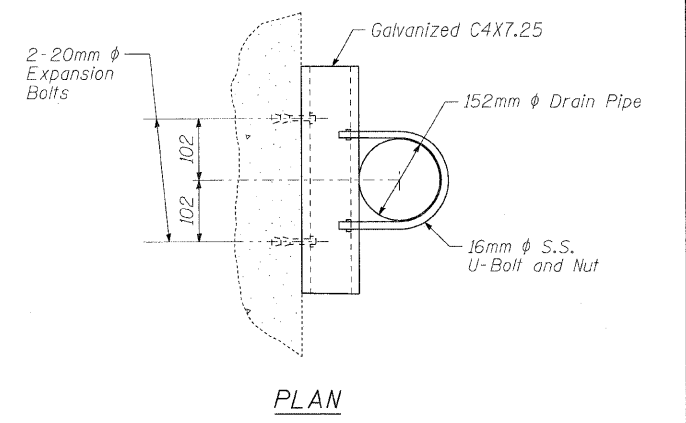


**DRAIN PIPE DETAIL**  
(Typical 4 locations)

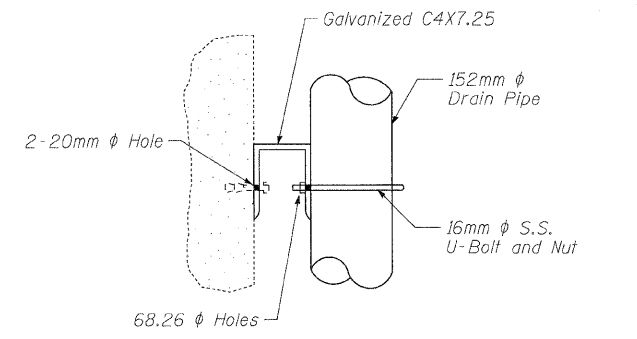
\* Cost Included with Drainage System



**PIPE HANGER DETAILS**



**PLAN**



**ELEVATION**

**PIPE SUPPORT DETAIL**

**NOTES:**

- Repairs shall include but not be limited to the areas shown. The actual areas to be determined by the Engineer at the time of construction.
- Removal and attachment of plates embedded in Abutment stem is included with Structural Repair of Concrete.
- Repairs indicated on plans are based on in-depth inspection performed on April 2002. Total quantity reported in Bill of material has been increased by 15% from the original to take into account deterioration that may have occurred after inspection.

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth equal to or less than 125 mm)	Sq. m	31.6
Epoxy Crack Injection	Meter	4.0
Drainage System	L. Sum	1
Name Plates	Each	1

**ABUTMENT REPAIRS  
STRUCTURE NO. 016-2034**

**LEGEND**

Structural Repair of Concrete (Depth ≤ 125 mm)



Crack Length



Exposed Reinforcement



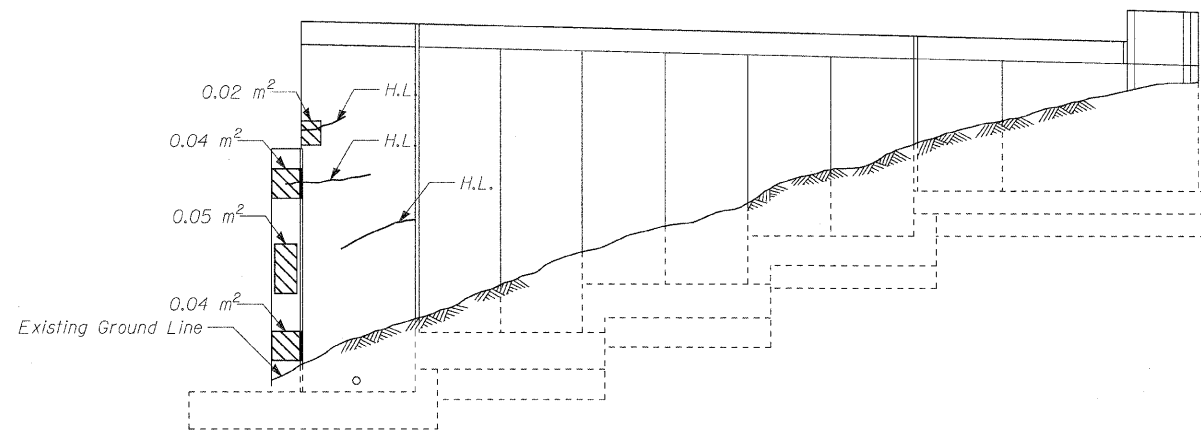
DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

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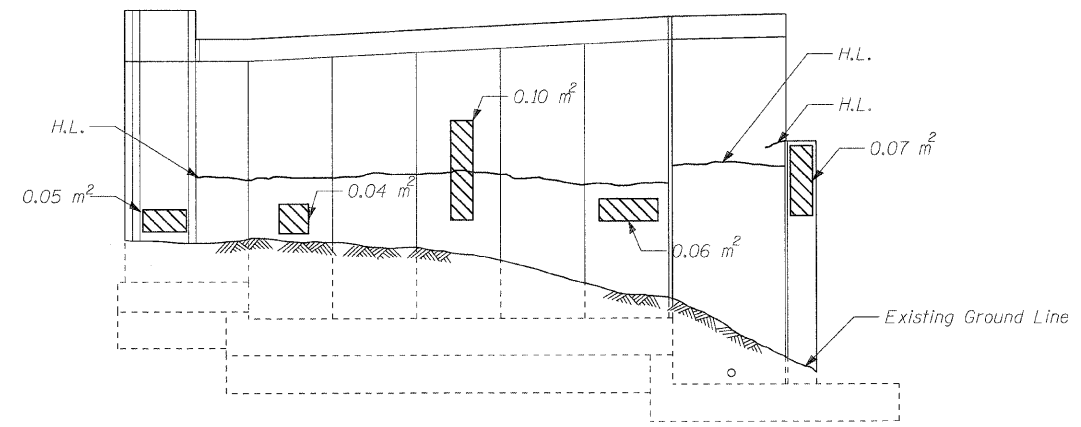
SHEET NO. S-21	F.A.I. RTE. 57	SECTION 1818.3B-R	COUNTY COOK	TOTAL SHEETS 58	SHEET NO. 45
S-26 SHEETS			CONTRACT NO. 60862		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

1/16/2009 rdmtlbg

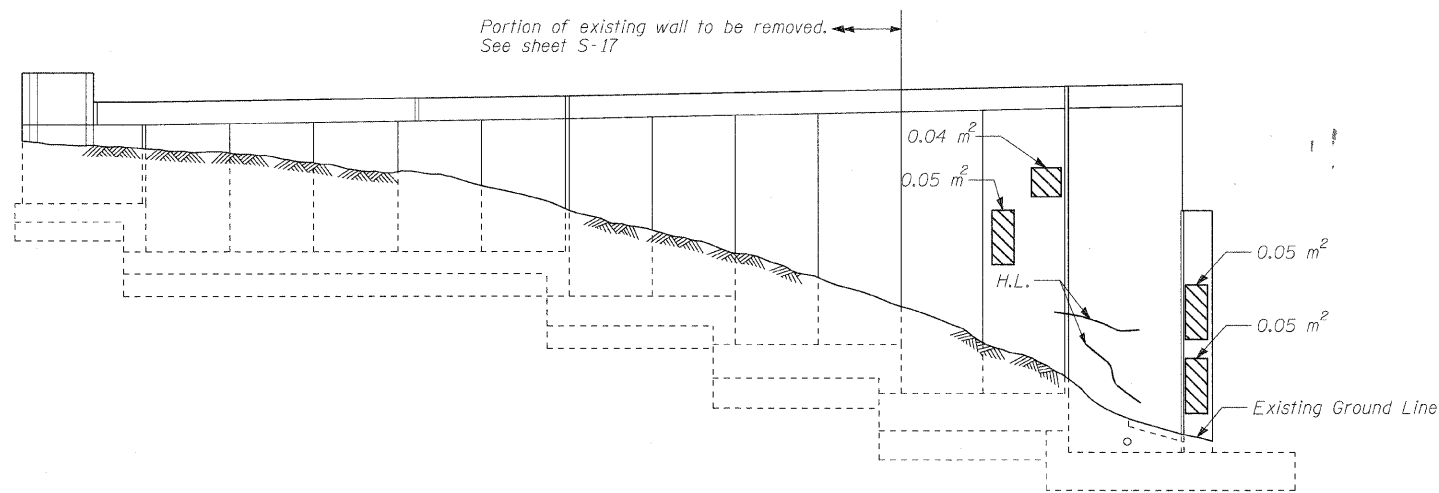
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



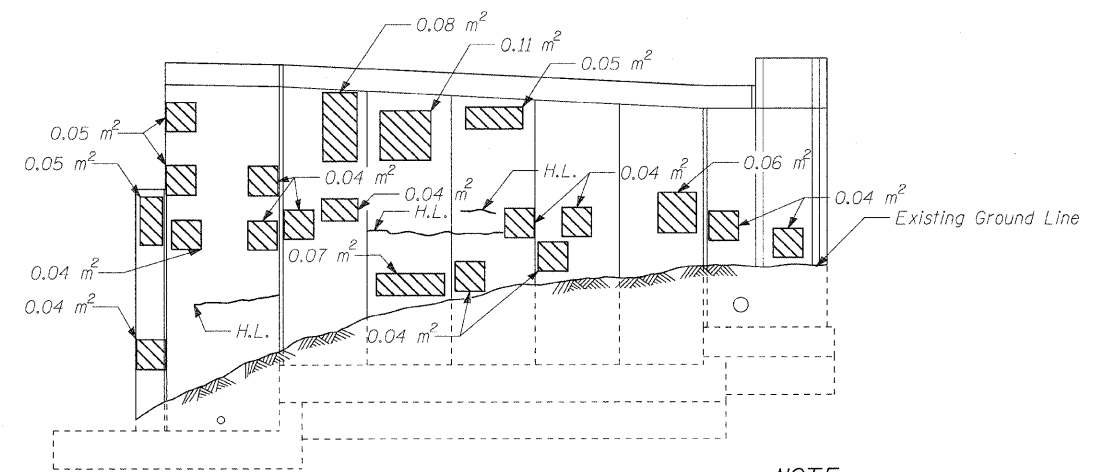
NORTHWEST RETAINING WALL ELEVATION



NORTHEAST RETAINING WALL ELEVATION



SOUTHWEST RETAINING WALL ELEVATION



SOUTHEAST RETAINING WALL ELEVATION

**LEGEND**

- Structural Repair of Concrete (Depth  $\leq$  125 mm)
- Crack Length 1590

Note:  
Crack widths are 3 mm  $\pm$  1 mm unless otherwise noted.  
H.L. denotes Hairline Crack - Not to be sealed

**BILL OF MATERIAL**

Item	Unit	Total
Structural Repair of Concrete (Depth equal to or less than 125 mm)	Sq. m	1.9

**NOTE:**

Repairs shall include but not be limited to the areas shown. The actual areas to be determined by the Engineer at the time of construction.

Repairs indicated on plans are based on in-depth inspection performed on April 2002. Total quantity reported in Bill of material has been increased by 15% from the original to take into account deterioration that may have occurred after inspection

**RETAINING WALLS REPAIRS  
STRUCTURE NO. 016-2034**

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

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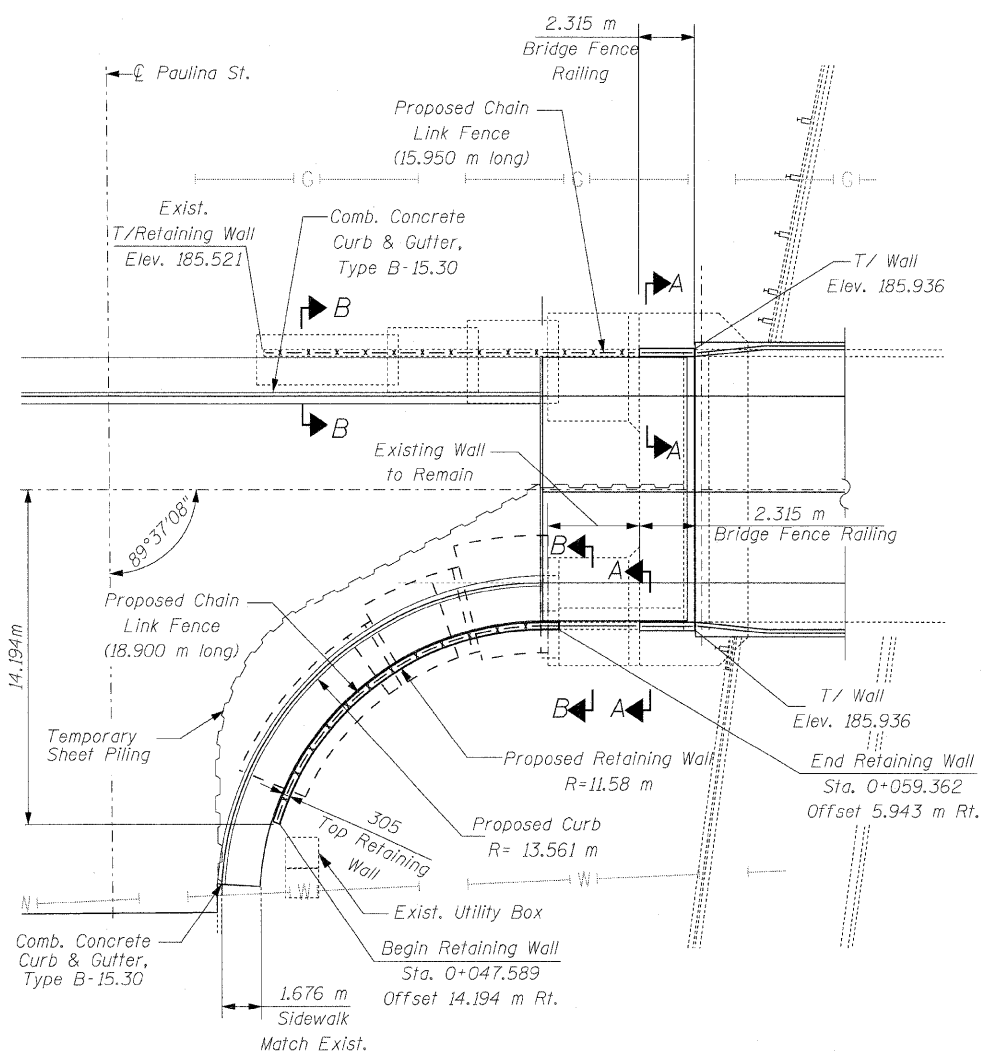
SHEET NO. S-22	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818.3B-R	COOK	58	46
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60862					

rdn:ley

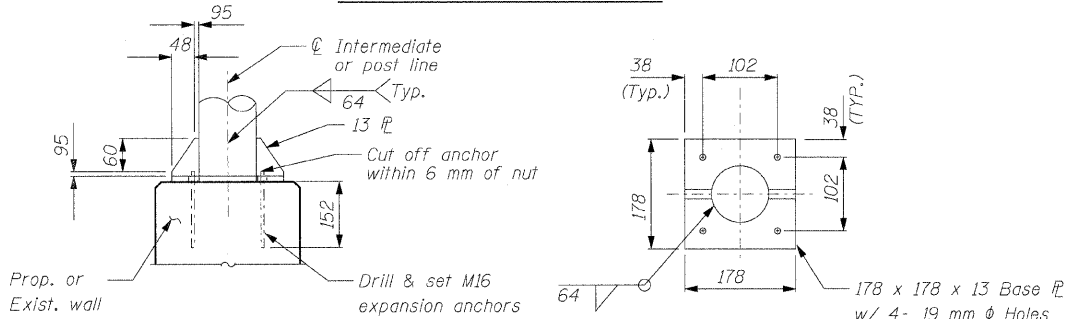
1/16/2004

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



WEST RETAINING WALLS



ELEVATION

PLAN

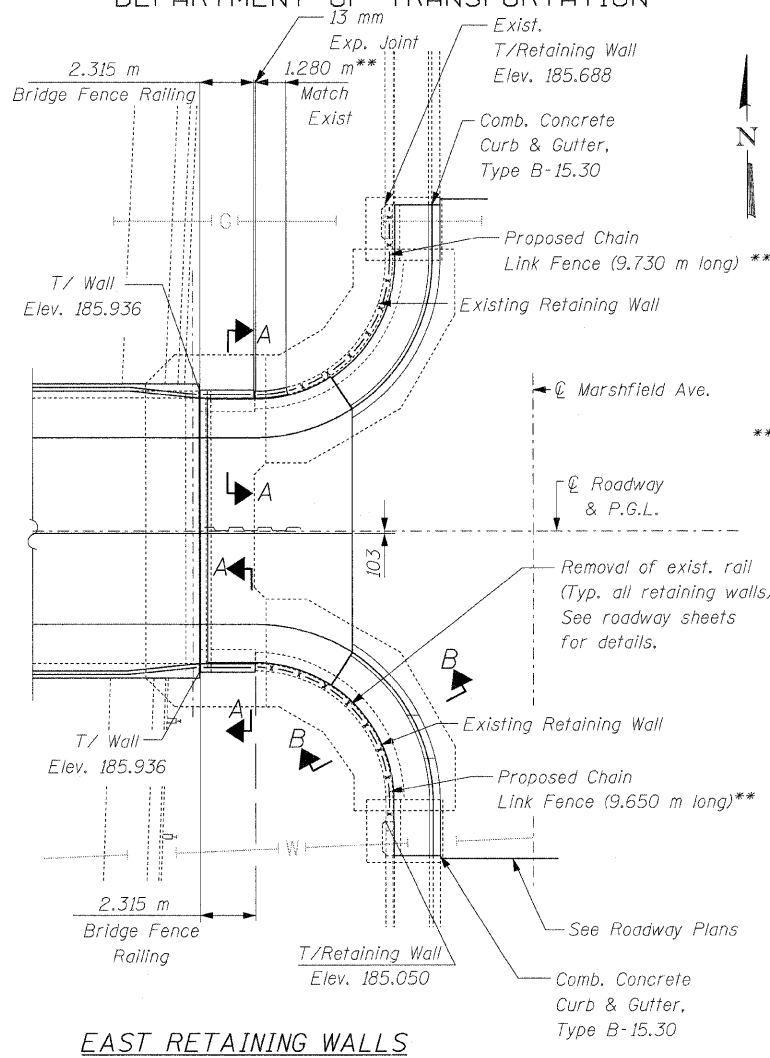
Note:  
The cost of the base plates and anchor bolts for mounting fence on the retaining wall is included with the cost of the "Concrete Structures."

FENCE POST MOUNTING DETAIL

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM



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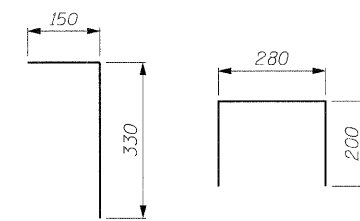
EAST RETAINING WALLS



\*\* Field Verify

SECTION A-A

SECTION B-B



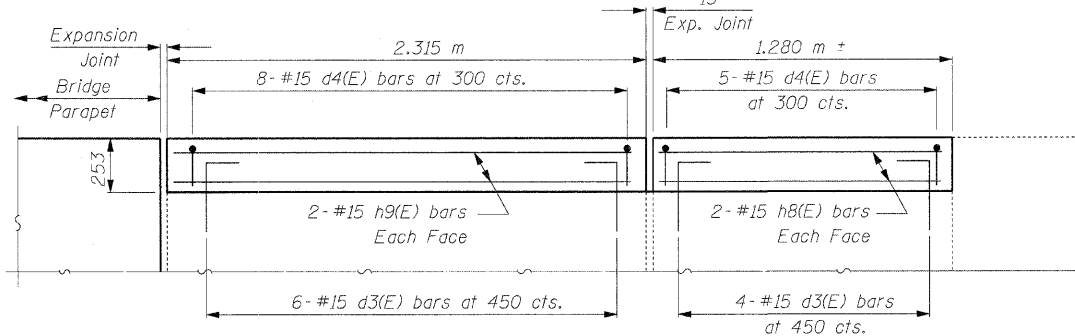
BAR d3(E)

BAR d4(E)

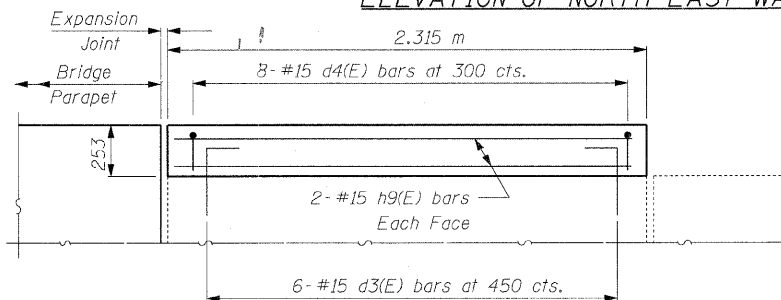
\* #15 d3(E) bars at 450 cts. Epoxy grouted in 20 φ holes.

CONCRETE EXTENSION  
EXIST. RETAINING WALL

\* The cost of drilling and grouting is included with Concrete Structures.



ELEVATION OF NORTH-EAST WALL



ELEVATION OF NW, SE & SW WALL

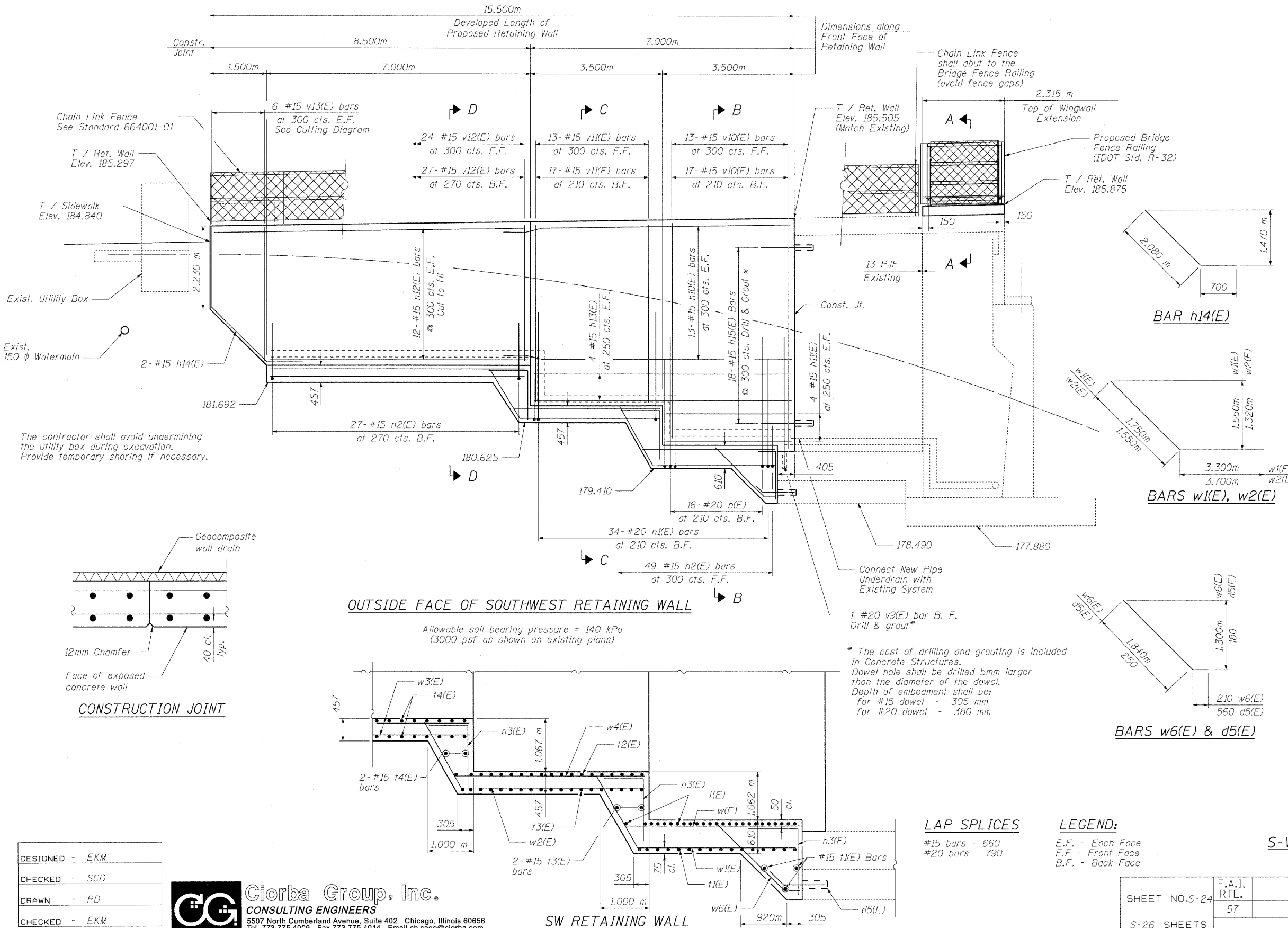
NOTE:

Work this sheet with sheets S-24 and S-25.

RETAINING WALLS PLAN & DETAILS  
STRUCTURE NO. 016-2034

SHEET NO. S-23	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	1818.3B-R	COOK	58	47
S-26 SHEETS	CONTRACT NO. 60862				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d3(E)	28	# 15	0.480 m	
d4(E)	37	# 15	0.680 m	
d5(E)	14	# 15	0.810 m	
h8(E)	4	# 15	1.200 m	
h9(E)	16	# 15	2.230 m	
h10(E)	26	# 15	7.820 m	
h11(E)	8	# 15	3.470 m	
h12(E)	24	# 15	8.720 m	
h13(E)	8	# 15	6.980 m	
h14(E)	2	# 15	2.780 m	
h15(E)	18	# 15	0.900 m	
n(E)	16	# 20	3.670 m	
n1(E)	34	# 20	3.070 m	
n2(E)	76	# 15	1.430 m	
n3(E)	42	# 15	0.540 m	
t(E)	25	# 20	4.900 m	
t1(E)	19	# 15	4.900 m	
t2(E)	19	# 20	3.900 m	
t3(E)	21	# 15	3.900 m	
t4(E)	56	# 15	3.200 m	
v9(E)	1	# 20	3.450 m	
v10(E)	30	# 15	5.400 m	
v11(E)	30	# 15	4.270 m	
v12(E)	51	# 15	3.080 m	
v13(E)	6	# 15	5.210 m	
w(E)	23	# 15	3.000 m	
w1(E)	13	# 15	5.050 m	
w2(E)	11	# 15	5.250 m	
w3(E)	66	# 15	3.150 m	
w4(E)	19	# 15	3.520 m	
w5(E)	31	# 15	2.000 m	
w6(E)	17	# 15	2.050 m	
Porous Granular Embankment, Special			Cu. m	57
Structure Excavation			Cu. m	272
Concrete Structures			Cu. m	65.9
Reinforcement Bars, Epoxy Coated			kg	4,210
Geocomposite Wall Drain			Sq. m	48
Pipe Underdrains for Structures 100 mm			Meter	17

- NOTES:**
1. Reinforcement bars designated (E) shall be epoxy coated.
  2. Bars indicated thus 1 x 4-#15 etc. indicates 1 line of bars with 4 lengths per line.
  3. All edges shall have 20 mm chamfer.
  4. For Sections B-B, C-C and D-D see Sheet S-25, for section A-A see Sheet S-23.
  5. Work this sheet with S-23 and S-25.

S-W RETAINING WALL - ELEVATION  
STRUCTURE NO. 016-2034

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

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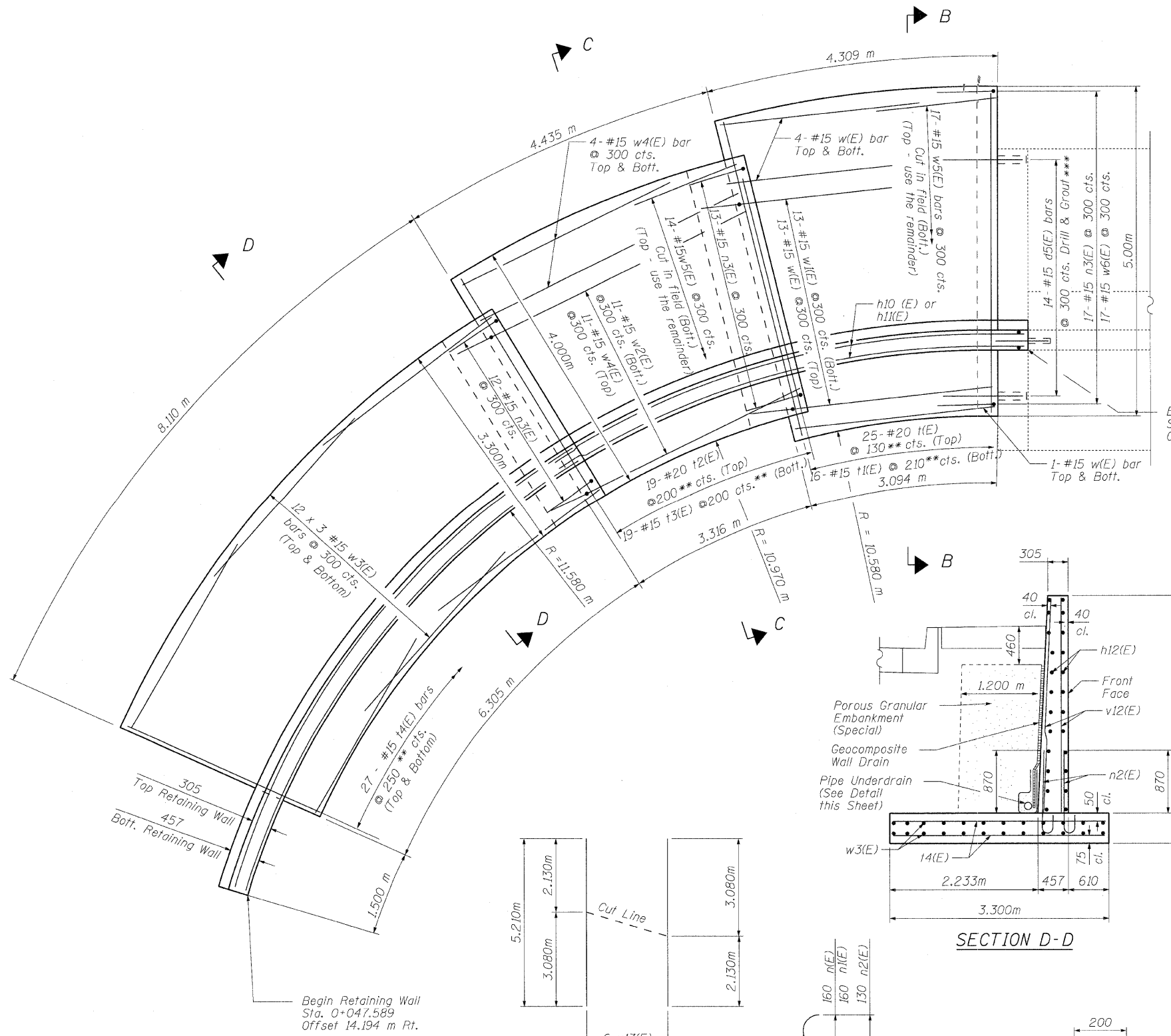
**LAP SPLICES**  
#15 bars - 660  
#20 bars - 790

**LEGEND:**  
E.F. - Each Face  
F.F. - Front Face  
B.F. - Back Face

SHEET NO. S-24	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	48	
S-26 SHEETS					
CONTRACT NO. 60862					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



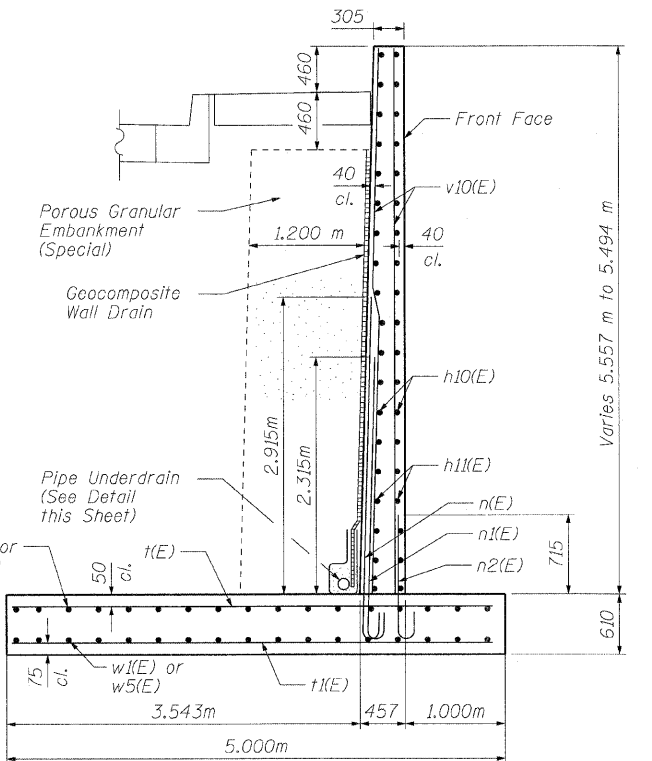
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



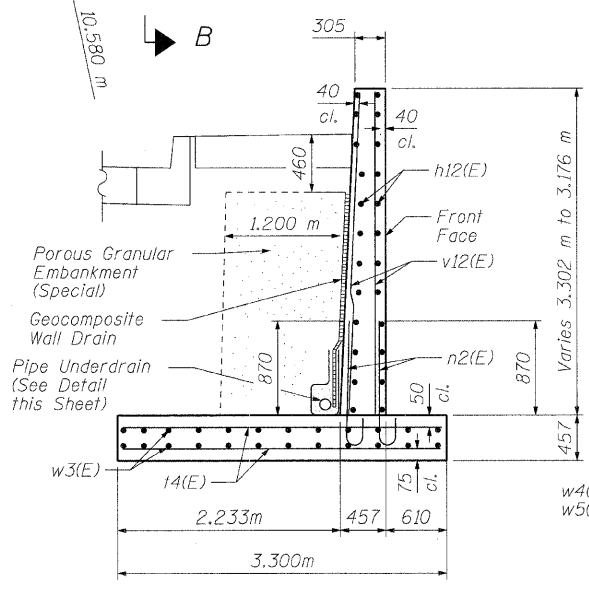
\*\* Measured along the front face of Retaining Wall

\*\*\* The cost of drilling and grouting is included in "Concrete Structures." Dowel hole shall be drilled 5mm larger than the diameter of the dowel. Depth of embedment shall be: for #15 dowel - 305 mm for #20 dowel - 380 mm

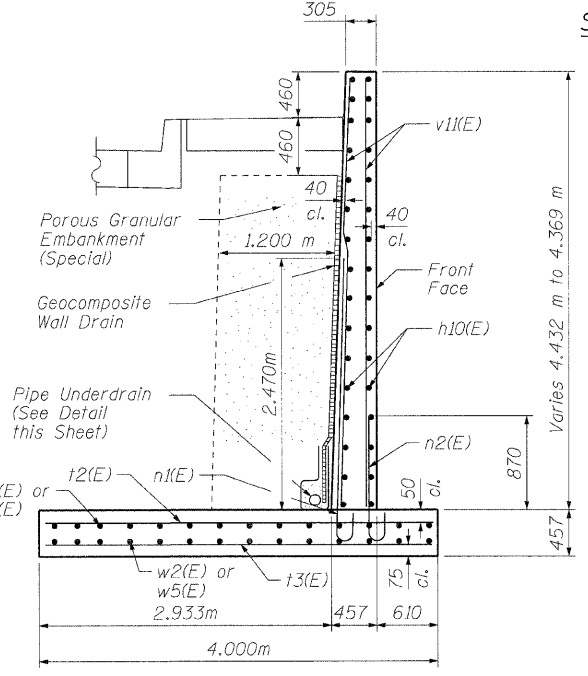
End Retaining Wall  
Sta. 0+059.362  
Offset 5.943 m Rt.



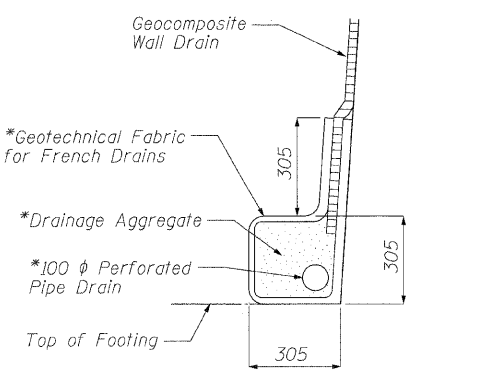
SECTION B-B



SECTION D-D



SECTION C-C



PIPE UNDERDRAIN DETAIL

\* Included in the cost of "Pipe Underdrain for Structures"

Note:  
Work this sheet with S-23 and S-24.

LAP SPLICES  
#15 bars - 660  
#20 bars - 790

S-W RETAINING WALL - PLAN & SECTIONS  
STRUCTURE NO. 016-2034

DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

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Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

SHEET NO. S-25	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	1818.3B-R	COOK	58	49
S-26 SHEETS			CONTRACT NO. 60862		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

1/16/2009 rdh/ley

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

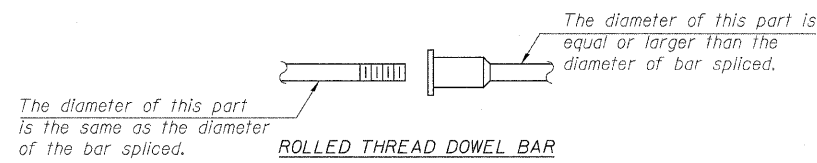
NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
Splicer rods shall be of minimum 414 MPa yield strength, threaded or coiled full length.  
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

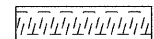
- ① Minimum Capacity =  $1.25 \times 10^{-3} \times f_y \times A_f$   
(Tension in kN)
- ② Minimum \*Pull-out Strength  
(Tension in kN) =  $1.25 \times 10^{-3} \times f_{s\ allow} \times A_f$

Where  $f_y$  = Yield strength of lapped reinforcement bars in MPa.  
 $f_{s\ allow}$  = Allowable tensile stress in lapped reinforcement bars in MPa (Service Load)  
 $A_f$  = Tensile stress area of lapped reinforcement bars.  
\* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kN - tension	Min. Pull-Out Strength kN - tension
#10	508 mm	65.4	35.1
#15	610 mm	102.3	54.7
#20	790 mm	147.2	77.4
#22	1.04 m	200.6	105.9
#25	1.37 m	262.0	139.2
#30	1.75 m	333.6	176.1
#32	2.21 m	422.6	223.7
#35	2.74 m	522.2	274.9

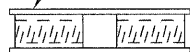


ROLLED THREAD DOWEL BAR



\*\* ONE PIECE

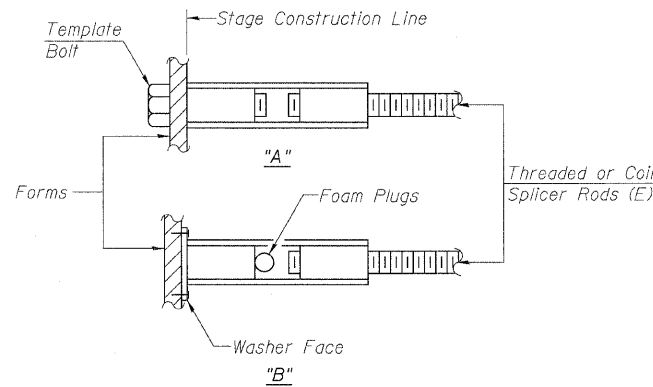
Wire Connector



WELDED SECTIONS

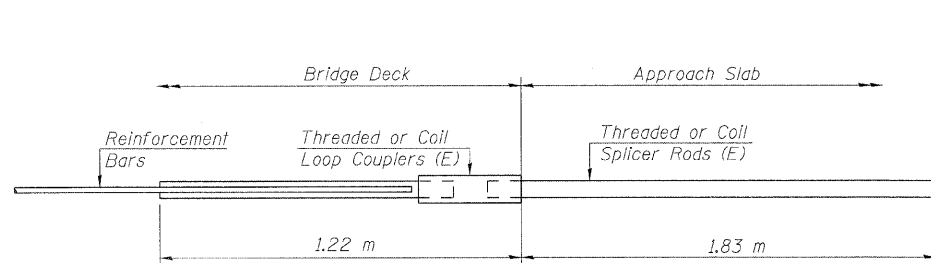
BAR SPLICER ASSEMBLY ALTERNATIVES

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



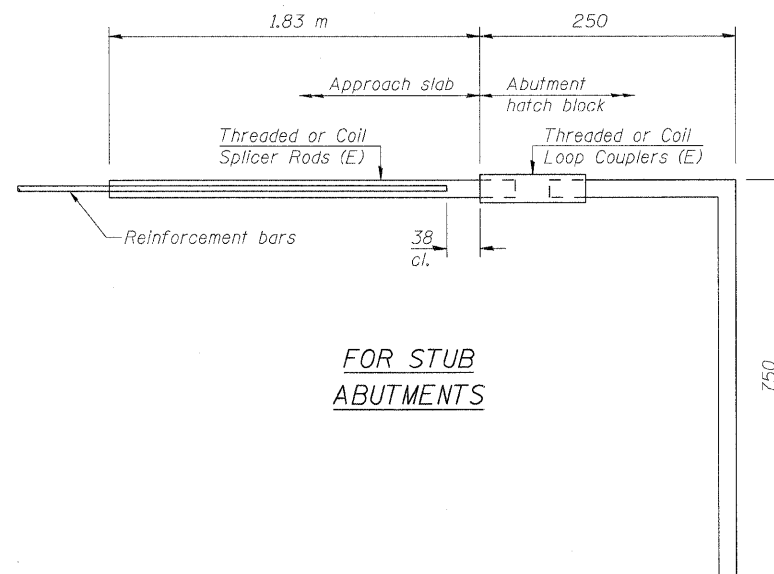
INSTALLATION AND SETTING METHODS

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



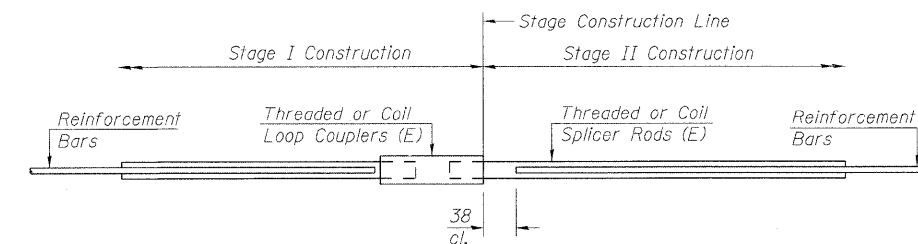
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #15 bar
Min. Capacity = 102.3 kN - tension
Min. Pull-out Strength = 54.7 kN - tension
No. Required =



FOR STUB ABUTMENTS

Bar Splicer for #15 bar
Min. Capacity = 102.3 kN - tension
Min. Pull-out Strength = 54.7 kN - tension
No. Required = 78



STANDARD

Bar Size	No. Assemblies Required	Location
#15	638	Deck
#25	10	End of Deck
#20	2	End of Deck
#20	8	Abutment
#15	20	Abutment

BAR SPLICER ASSEMBLY DETAILS  
STRUCTURE NO. 016-2034

SHEET NO. S-26	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-26 SHEETS	57	1818.3B-R	COOK	58	50
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60862					

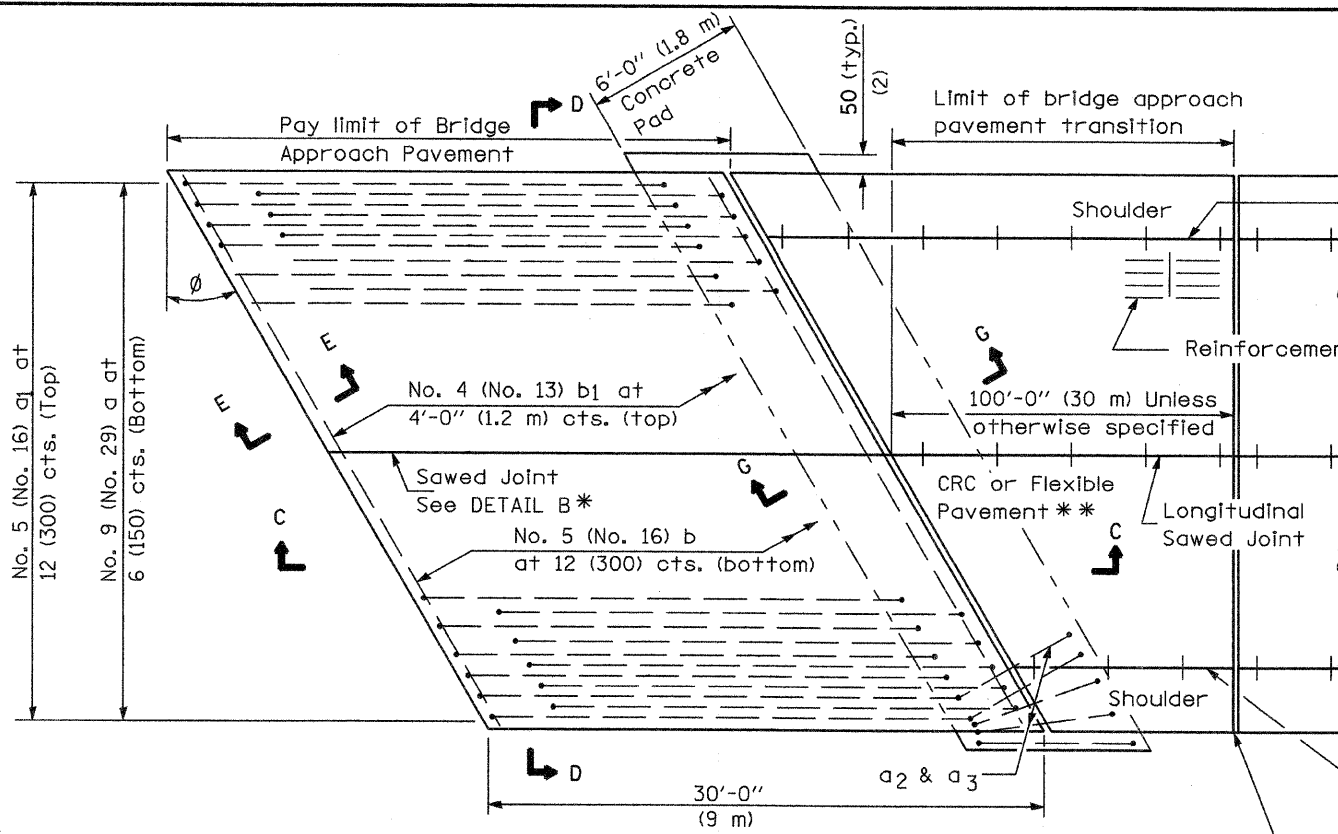
DESIGNED - EKM
CHECKED - SCD
DRAWN - RD
CHECKED - EKM

**CG** Ciorba Group, Inc.  
CONSULTING ENGINEERS  
5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656  
Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

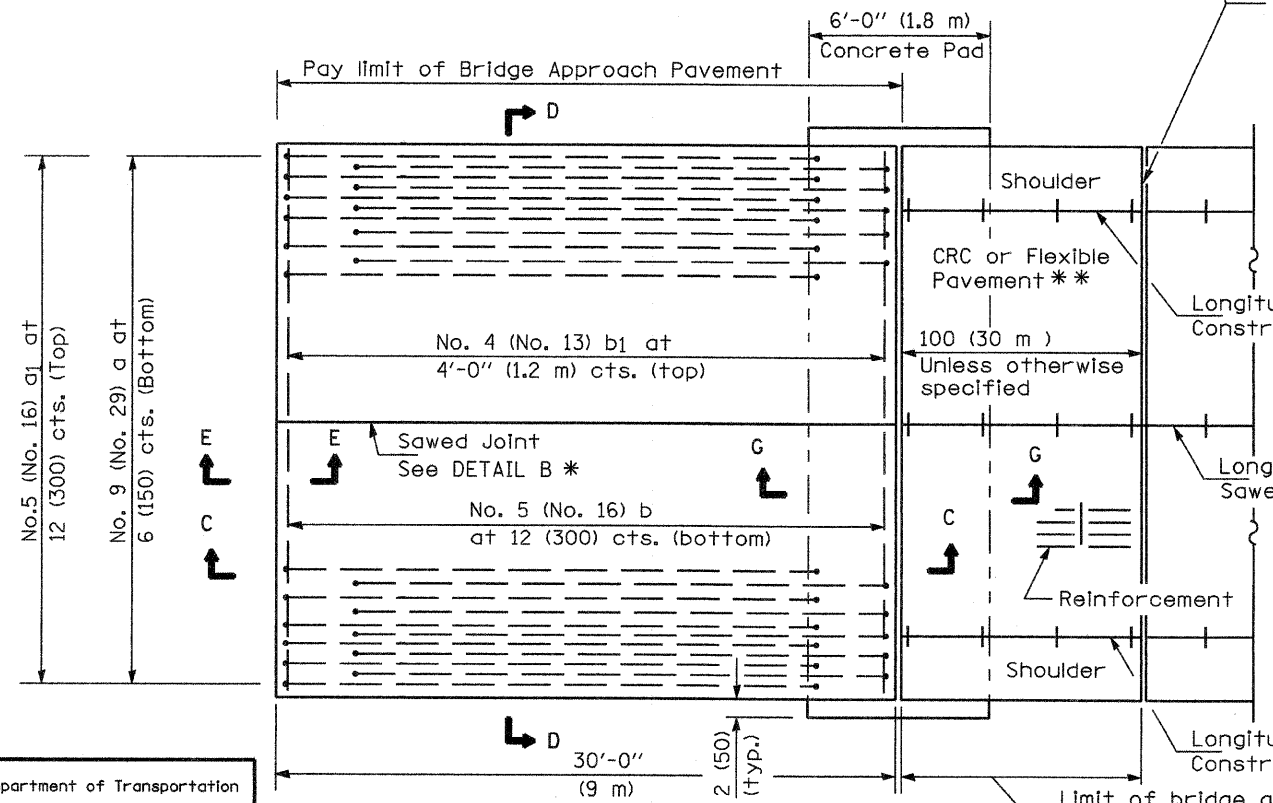
rdanlej

1/16/2009

rt:\prow\3153\125\prow\design\structural\lead\3153-02-F5-26.dgn

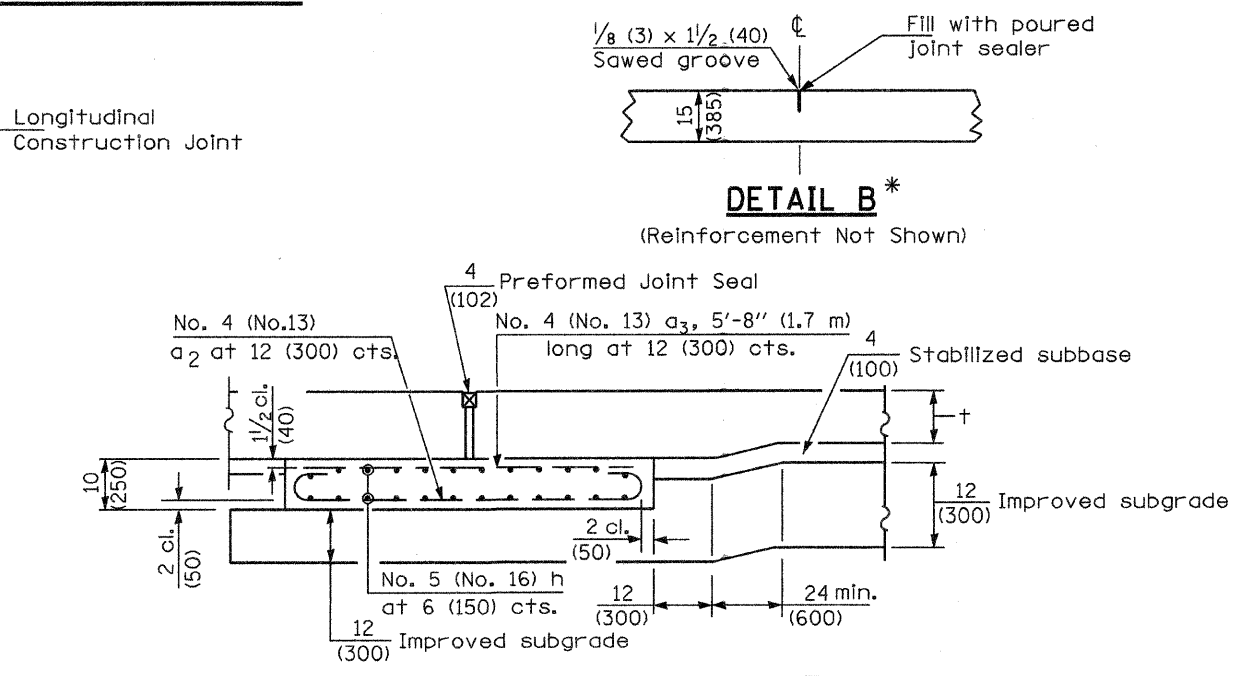


**PLAN - WITH SKEW**



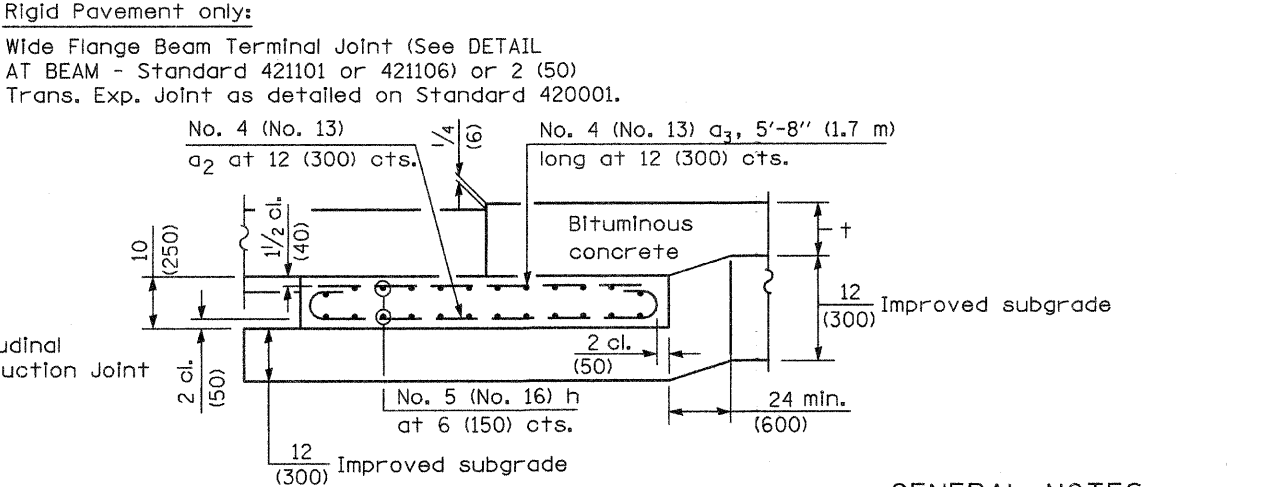
**PLAN - WITHOUT SKEW**

**NEW CONSTRUCTION**



**SECTION G-G - RIGID PAVEMENT**

(Showing reinforcement)



**SECTION G-G - FLEXIBLE PAVEMENT**

(Showing reinforcement)

**GENERAL NOTES**

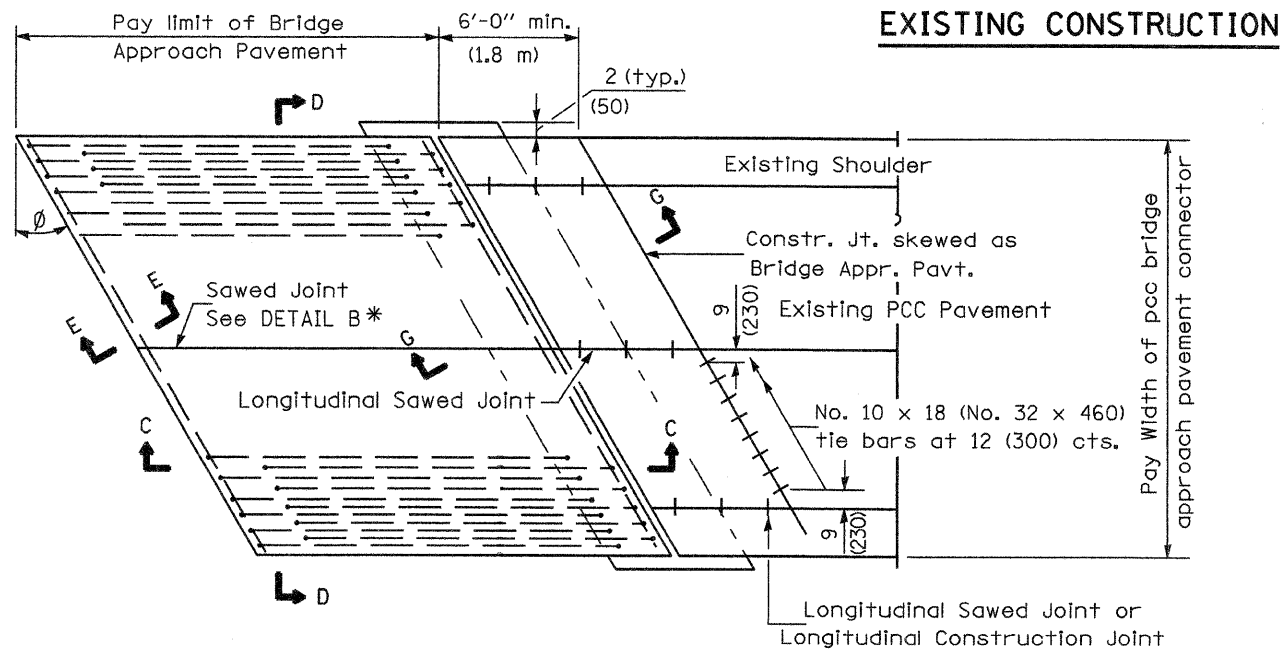
THICKNESS-"+"=Thickness of Pavement.  
 See Standard 421001 for reinforcement details not shown.  
 See Standard 420001 for joint details not shown.  
 All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation  
 APPROVED January 1, 2008  
 ENGINEER OF BRIDGES AND STRUCTURES  
 APPROVED January 1, 2008  
 ENGINEER OF DESIGN AND ENVIRONMENT

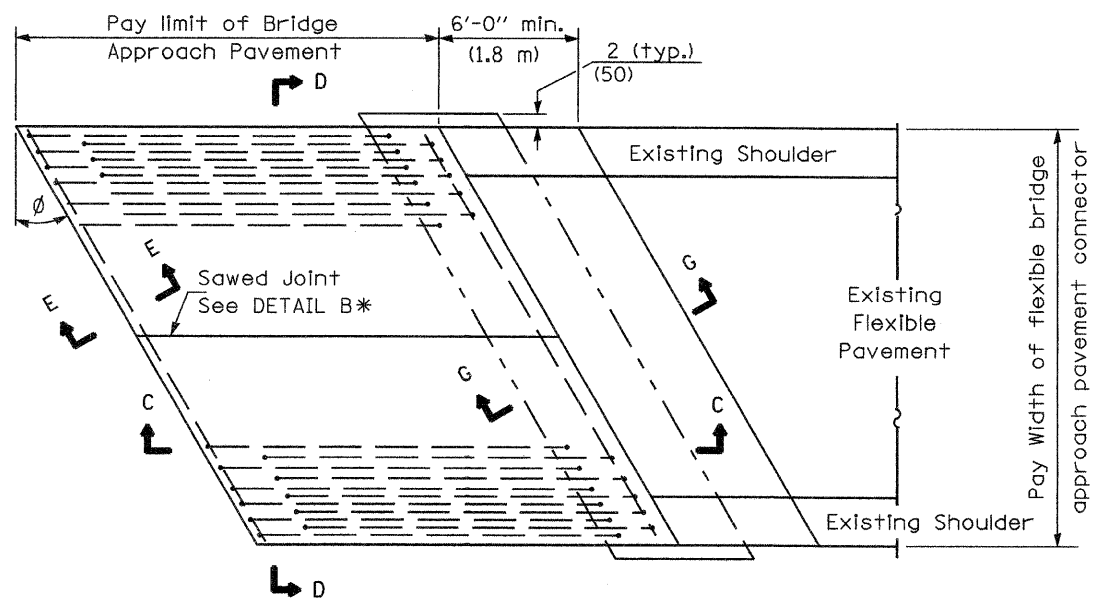
\* Saw  $\phi$  or lane edge if poured two or more lane widths at a time.  
 \*\* Omit Reinforcement, tie bars and Long. sawed Jt. for Flexible Pavement.

DATE	REVISIONS
1-1-08	Switched units to English (metric). Moved rebar epoxy coat note to Standard Spec.
1-1-04	Rev. size of Trans. Exp. Jt. and soft converted metric reinf.

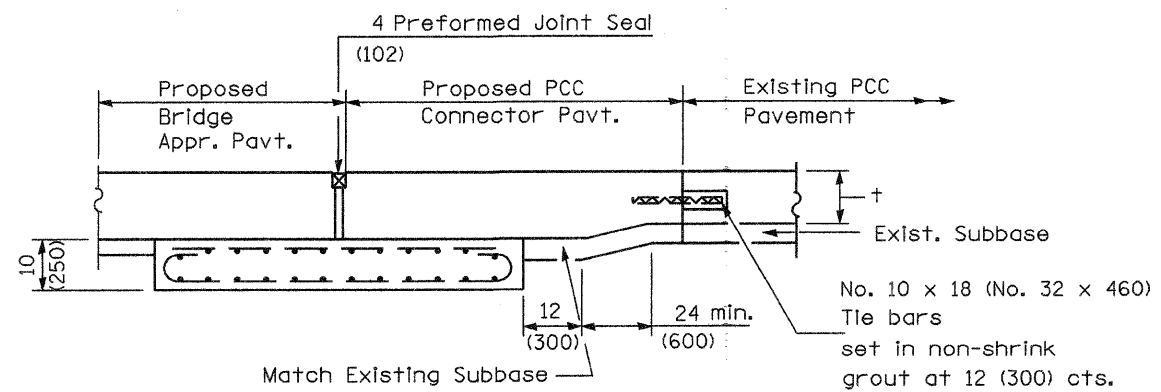
**BRIDGE APPROACH PAVEMENT**  
 (Sheet 1 of 4)  
 Contract 60862 Sheet 50A.



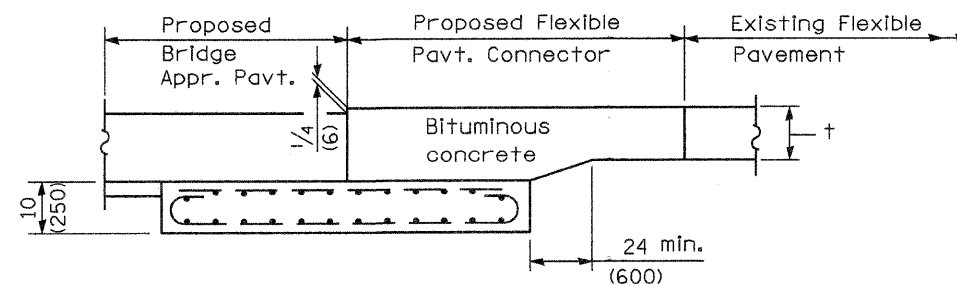
**BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)**



**BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)**



**SECTION G-G - RIGID PAVEMENT**



**SECTION G-G - FLEXIBLE PAVEMENT**

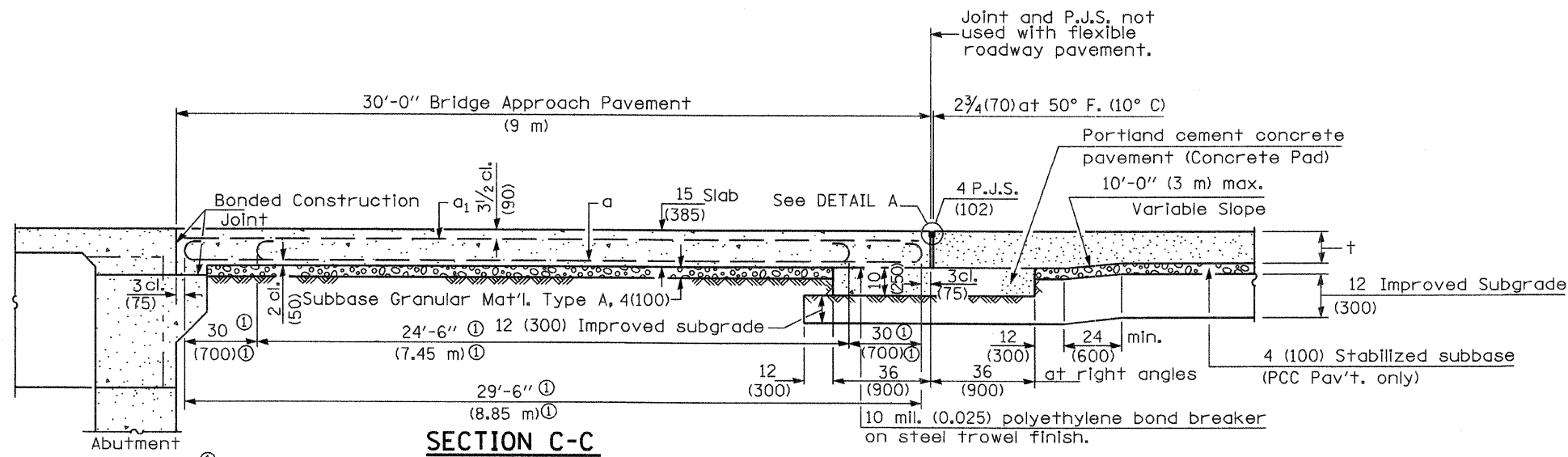
Illinois Department of Transportation  
 APPROVED January 1, 2008  
*Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES  
 APPROVED January 1, 2008  
*Ken E. Han*  
 ENGINEER OF DESIGN AND ENVIRONMENT  
 ISSUED 1-1-97

**BRIDGE APPROACH PAVEMENT**

(Sheet 2 of 4)

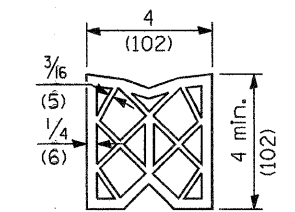
Contract 60862 Sheet 50 B.

*02.01.14*

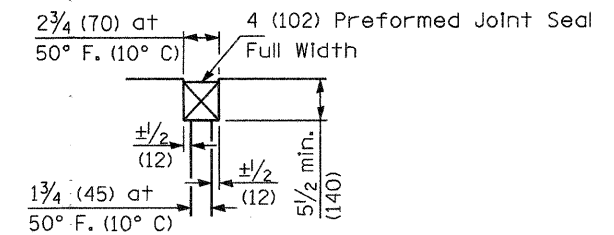


**SECTION C-C**

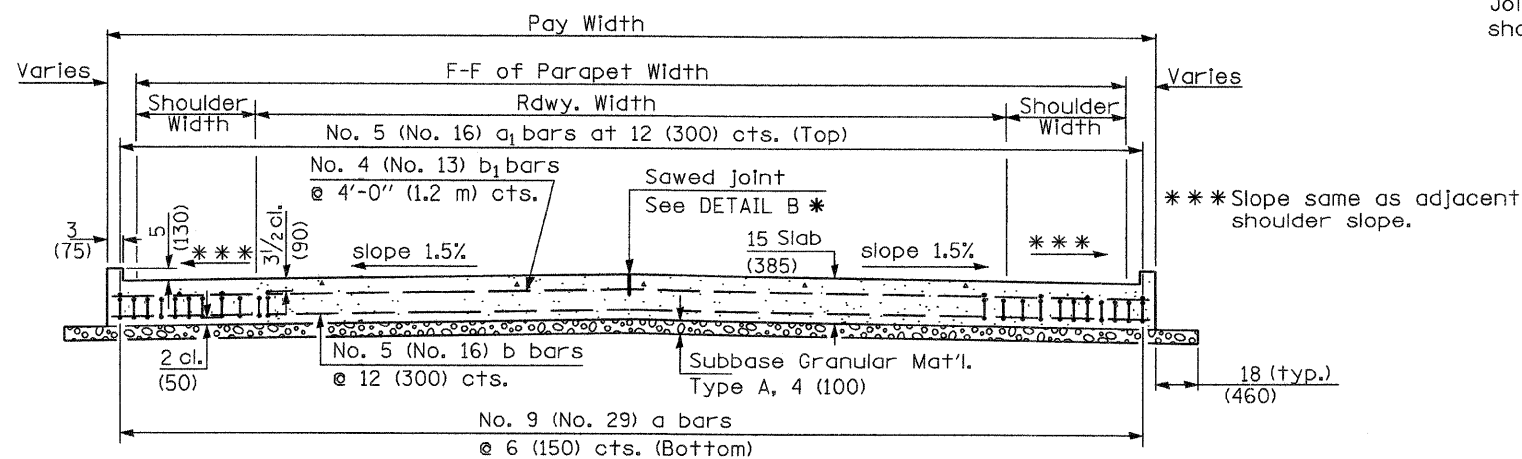
① Stagger No. 9 (No. 29) a bars as shown on plan - full width



**PREFORMED JOINT SEAL**



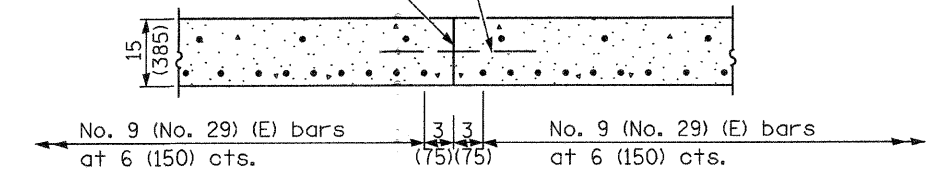
**DETAIL A**



**SECTION D-D**

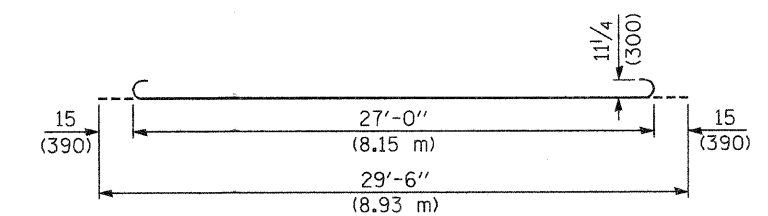
(See Plan for Dimensions not shown)

Longitudinal Construction Joint in accordance with details shown on Standard 420001.

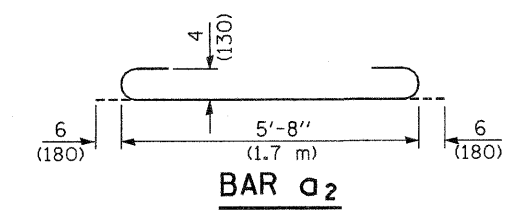


**OPTIONAL LONGITUDINAL CONSTRUCTION JOINT**

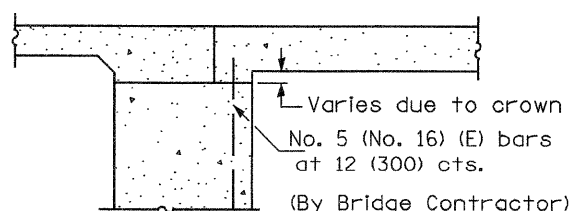
As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.



**BAR a**

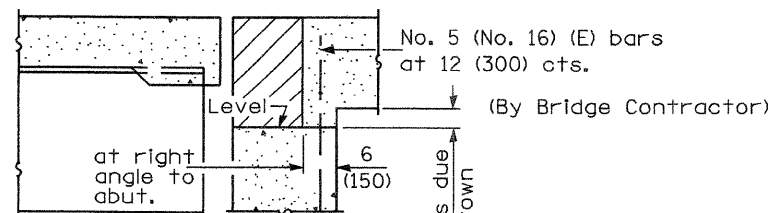


**BAR a<sub>2</sub>**



**SECTION E-E**

(Integral Abutments)



**SECTION E-E**

(Jointed Abutments)

**DESIGN STRESSES**

f<sub>y</sub> = 60,000 p.s.i. (400 MPa)  
 f'<sub>c</sub> = 3,500 p.s.i. (24 MPa)  
 n = 8.5

**BRIDGE APPROACH PAVEMENT**

(Sheet 3 of 4)

Contract 60862

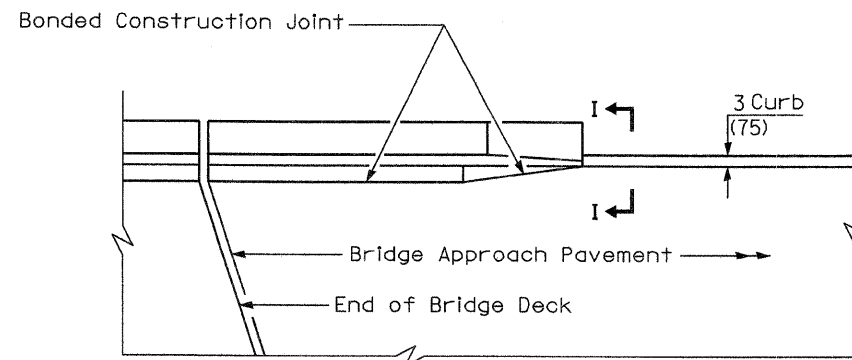
Sheet 50c.

Illinois Department of Transportation

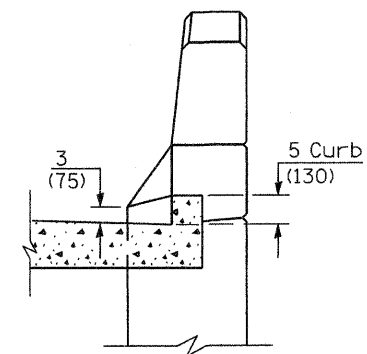
APPROVED January 1, 2008  
*Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

APPROVED January 1, 2008  
*Ken E. Han*  
 ENGINEER OF DESIGN AND ENVIRONMENT

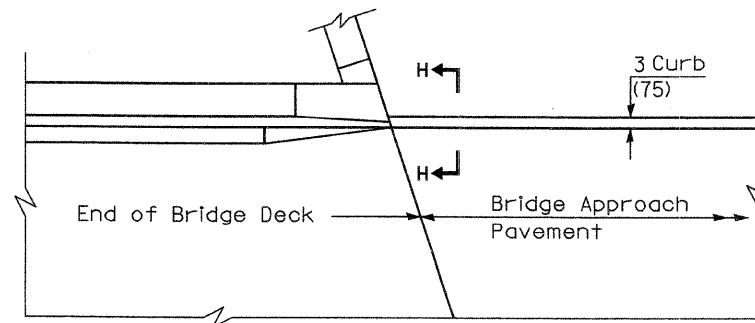
ISSUED 1-1-97



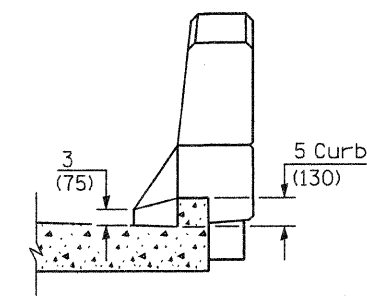
**PARAPET TO CURB TRANSITION  
PILE BENT ABUTMENT**



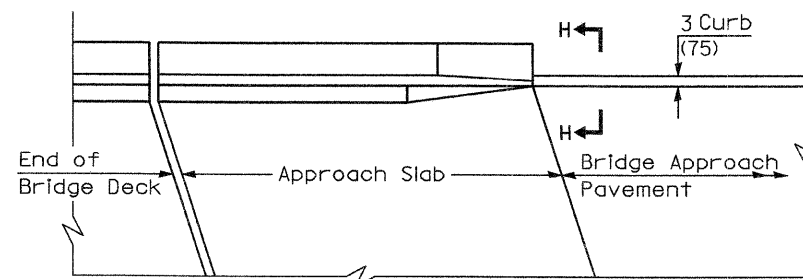
**SECTION I - I**



**PARAPET TO CURB TRANSITION  
INTEGRAL ABUTMENT**



**SECTION H - H**



**PARAPET TO CURB TRANSITION  
VAULTED ABUTMENT**

Illinois Department of Transportation  
 APPROVED January 1, 2008  
*Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES  
 APPROVED January 1, 2008  
*Ken E. Han*  
 ENGINEER OF DESIGN AND ENVIRONMENT  
 ISSUED 1-1-97

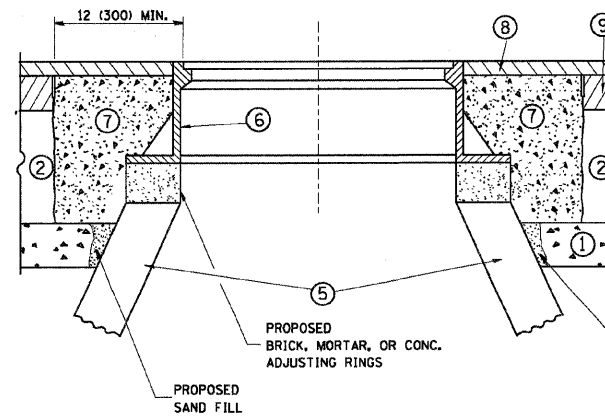
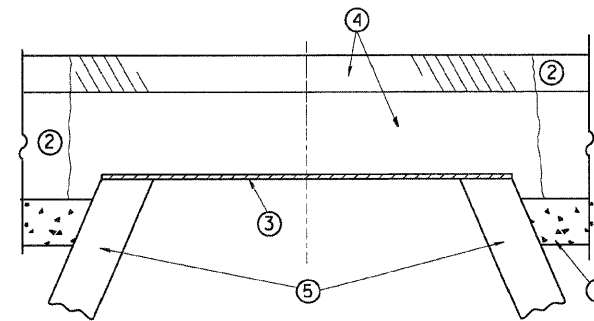
**BRIDGE APPROACH PAVEMENT**

(Sheet 4 of 4)

Contract 60862

Sheet 50 D.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	51
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



**CONSTRUCTION PROCEDURES**

**STAGE 1 (BEFORE PAVEMENT MILLING)**

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

**STAGE 2 (AFTER PAVEMENT MILLING)**

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

**LOCATION OF STRUCTURES:**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

**BASIS OF PAYMENT:** THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"  
NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**NOTES:**

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

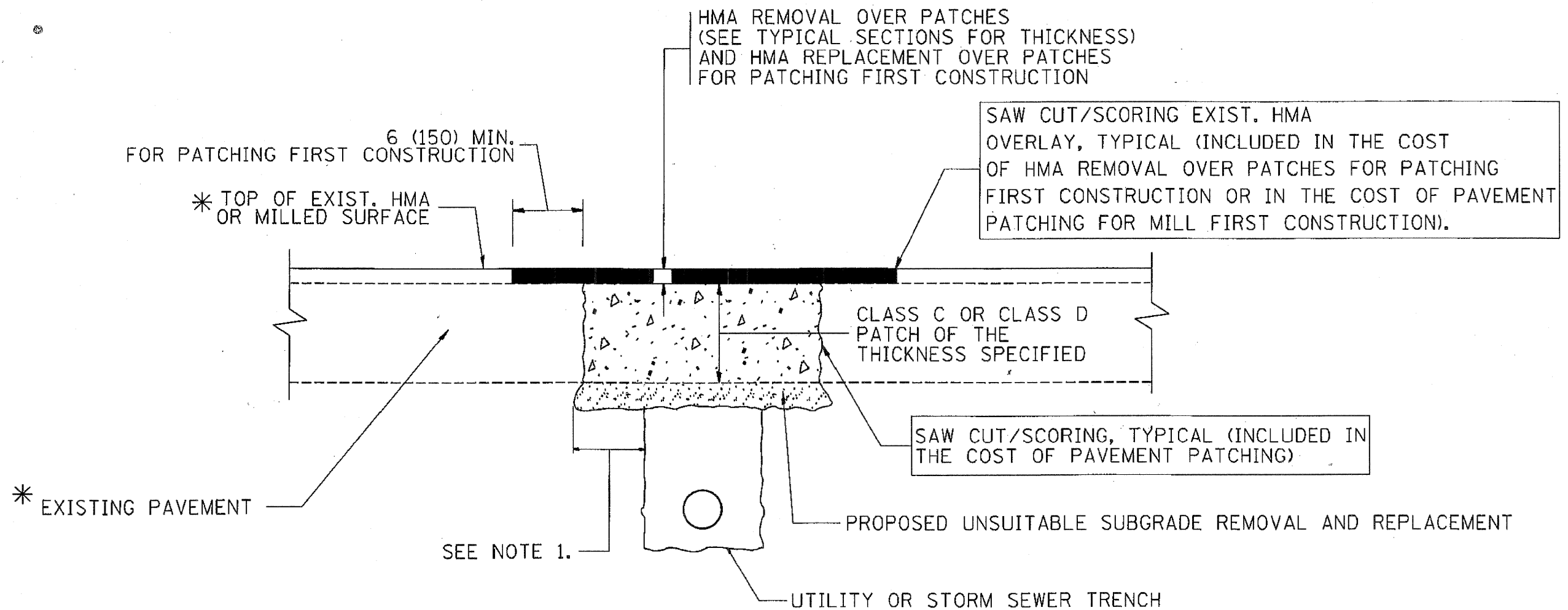
**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/30/95
R. SHAH	03/10/95
A. ABBAS	03/21/97
R. WIEDEMAN	05/14/04
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETAILS FOR  
FRAMES AND LIDS ADJUSTMENT  
WITH MILLING**

SCALE: VERT. NONE  
HORIZ. NONE  
DRAWN BY  
CHECKED BY  
BD600-03 (BD-8)



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

**NOTES:**

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME *	USER NAME * baurdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98
ct:\projects\dist\td22x34\bd22.dgn		DRAWN -	REVISED - R. BORO 01-01-07
		CHECKED -	REVISED - R. BORO 09-04-07
PLOT SCALE = 1/8" = 1' / IN.		DATE - 10-25-94	REVISED - K. ENG 10-27-08
PLOT DATE = 10/27/2000			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

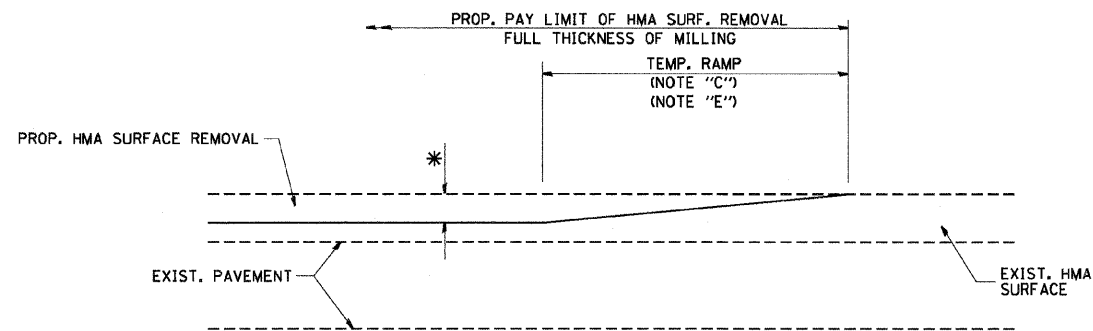
PAVEMENT PATCHING FOR  
HMA SURFACED PAVEMENT

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	52
BD400-04 (BD-22)		CONTRACT NO. 60862		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

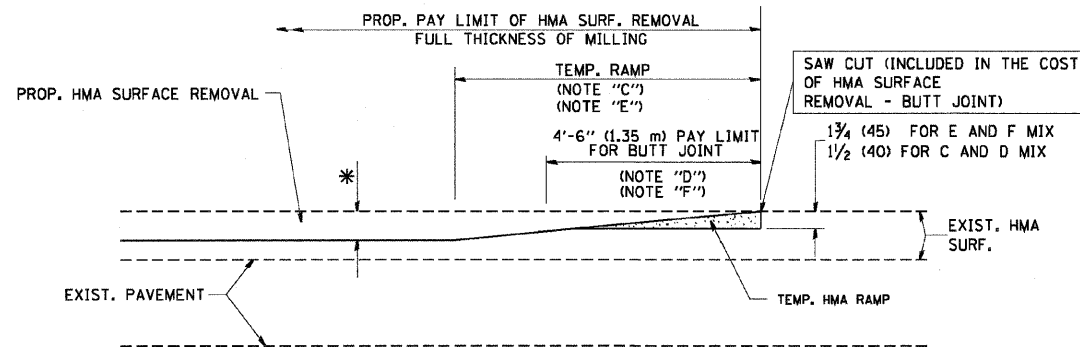


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	53
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



MILLED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

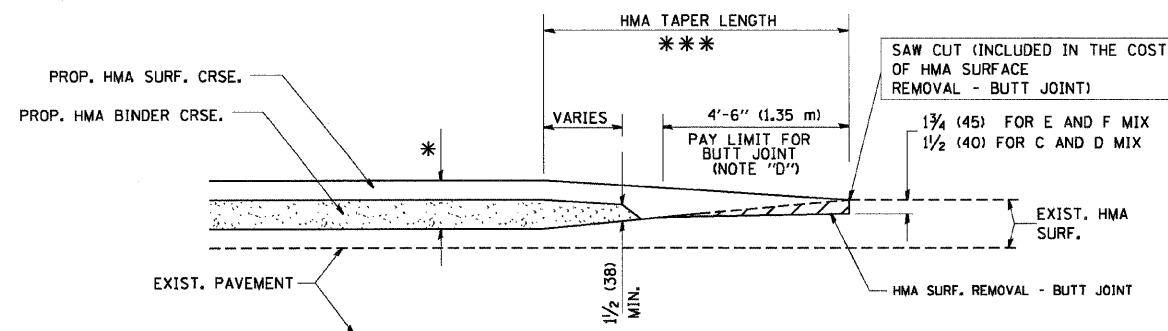
**OPTION 1**



HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

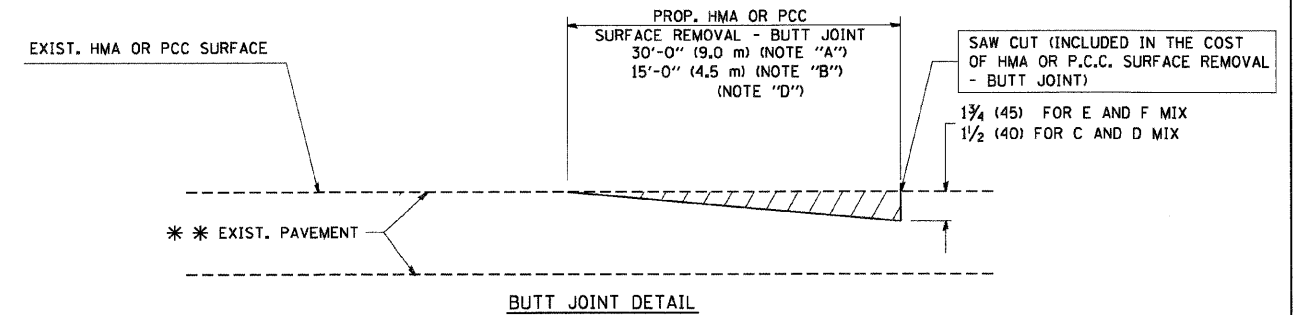
**OPTION 2**

**TYPICAL TEMPORARY RAMP**

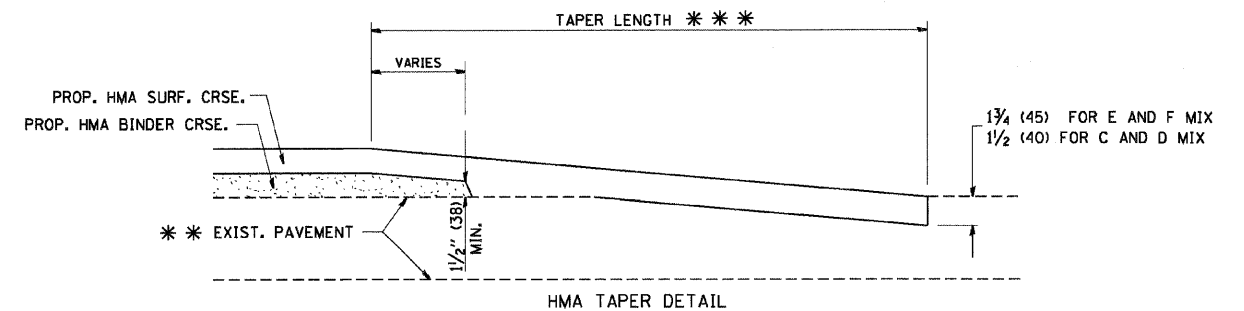


BUTT JOINT AND  
HMA TAPER

**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
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. COMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

**BUTT JOINT AND  
HMA TAPER  
DETAILS**

SCALE: VERT. NONE  
HORIZ. NONE

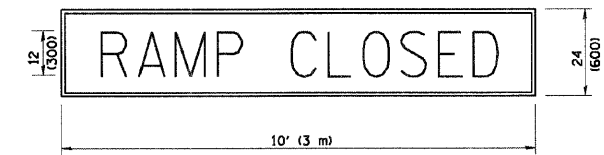
DRAWN BY

CHECKED BY

BD400-05 (V1=BD32)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	54
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

RAMP CLOSURE ADVANCE WARNING SIGN

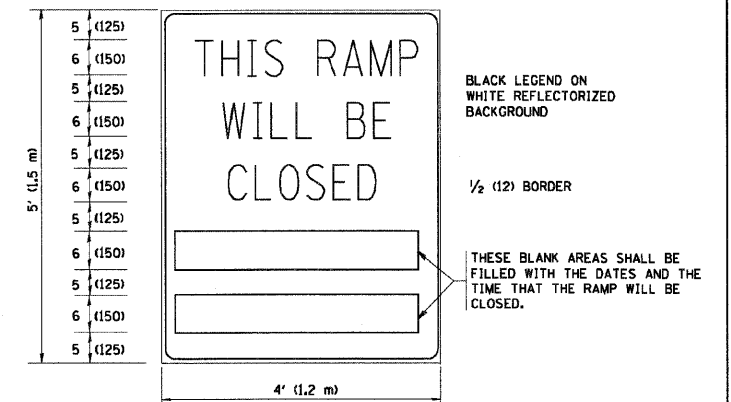


BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND

1 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMP.

RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON WHITE REFLECTORIZED BACKGROUND

1/2 (12) BORDER

THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

GENERAL NOTES:

1. CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
2. STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
3. A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
4. ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
5. THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
7. THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED TWENTY-FOUR (24) HOURS IN LENGTH.

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

REVISIONS	
NAME	DATE
DWS	2-83
DWS	1/90
DWS	9/94
DWS	12/94
DWS/JAF	12/02
JAF	2/06
SPB	1/07
Revise devices to meet NCHRP 350	4/03

ILLINOIS DEPARTMENT OF TRANSPORTATION

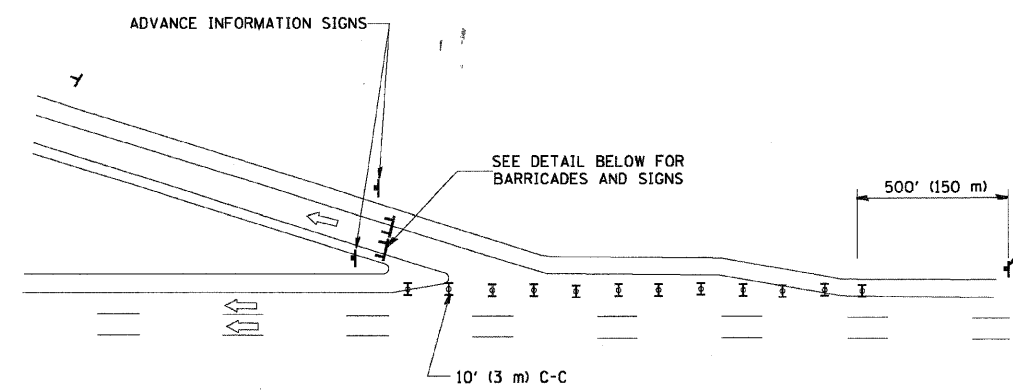
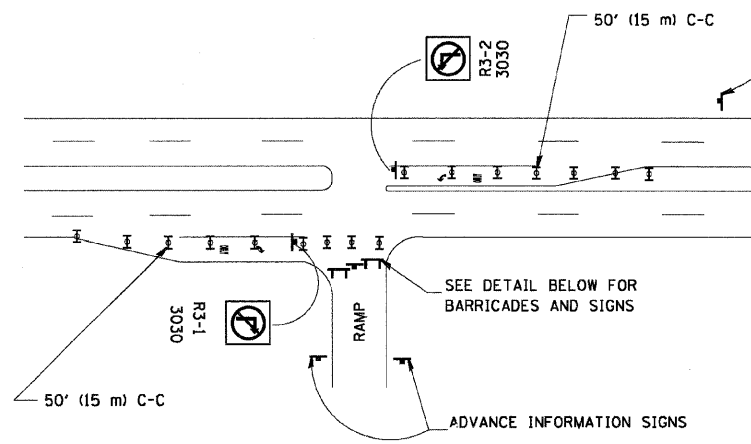
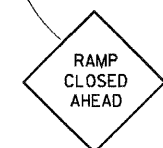
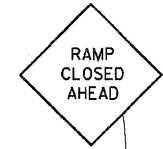
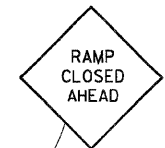
FREWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS

SCALE: NONE

DRAWN BY

CHECKED BY

TC-8



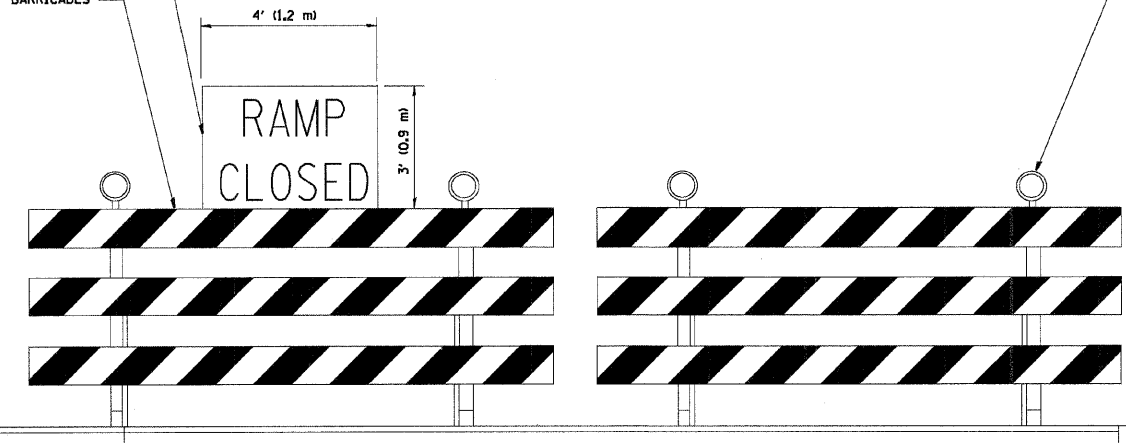
ENTRANCE RAMP CLOSURE

EXIT RAMP CLOSURE

THE "RAMP CLOSED" SIGN SHALL BE B/W WITH 8 (200) CAPS. IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS DIRECTLY IN FRONT OF THE BARRICADE.

FLASHER UNIT AMBER BOTH SIDES OF EACH TYPE III BARRICADE

TYPE III BARRICADES



DETAIL FOR REQUIRED BARRICADES & SIGNS

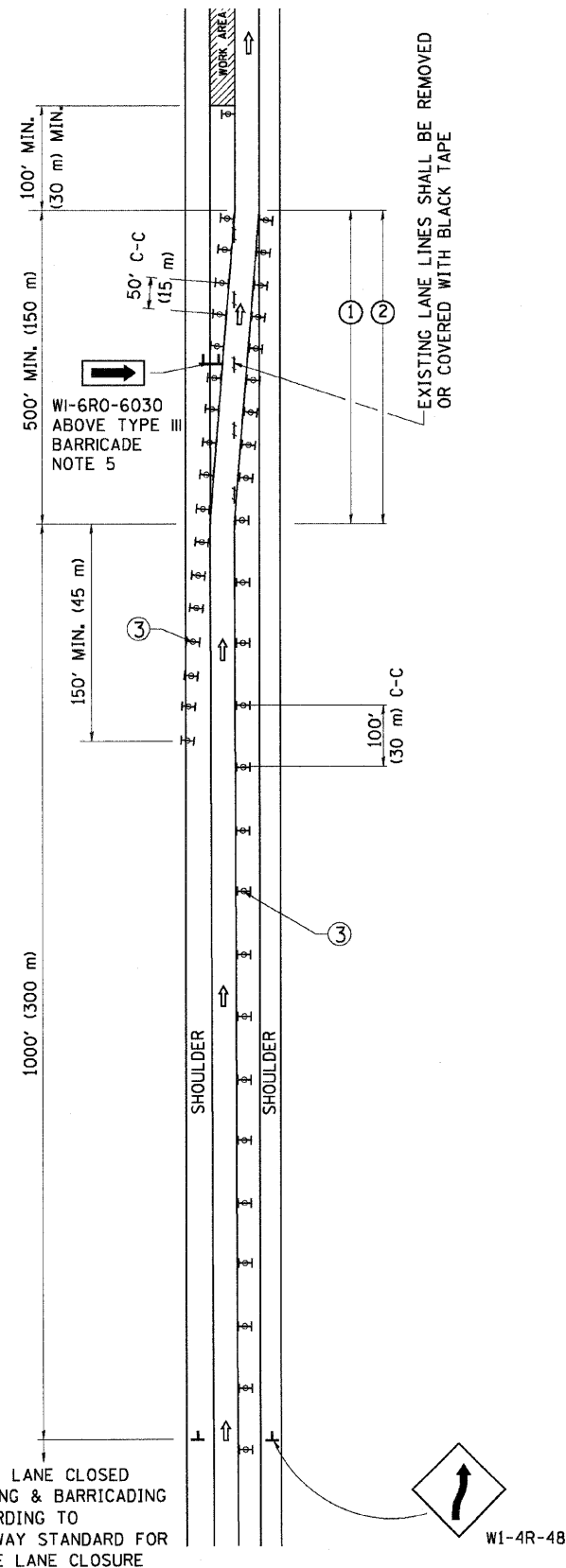
SYMBOLS

- ▬ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- ▬ TYPE III BARRICADE WITH FLASHING LIGHT

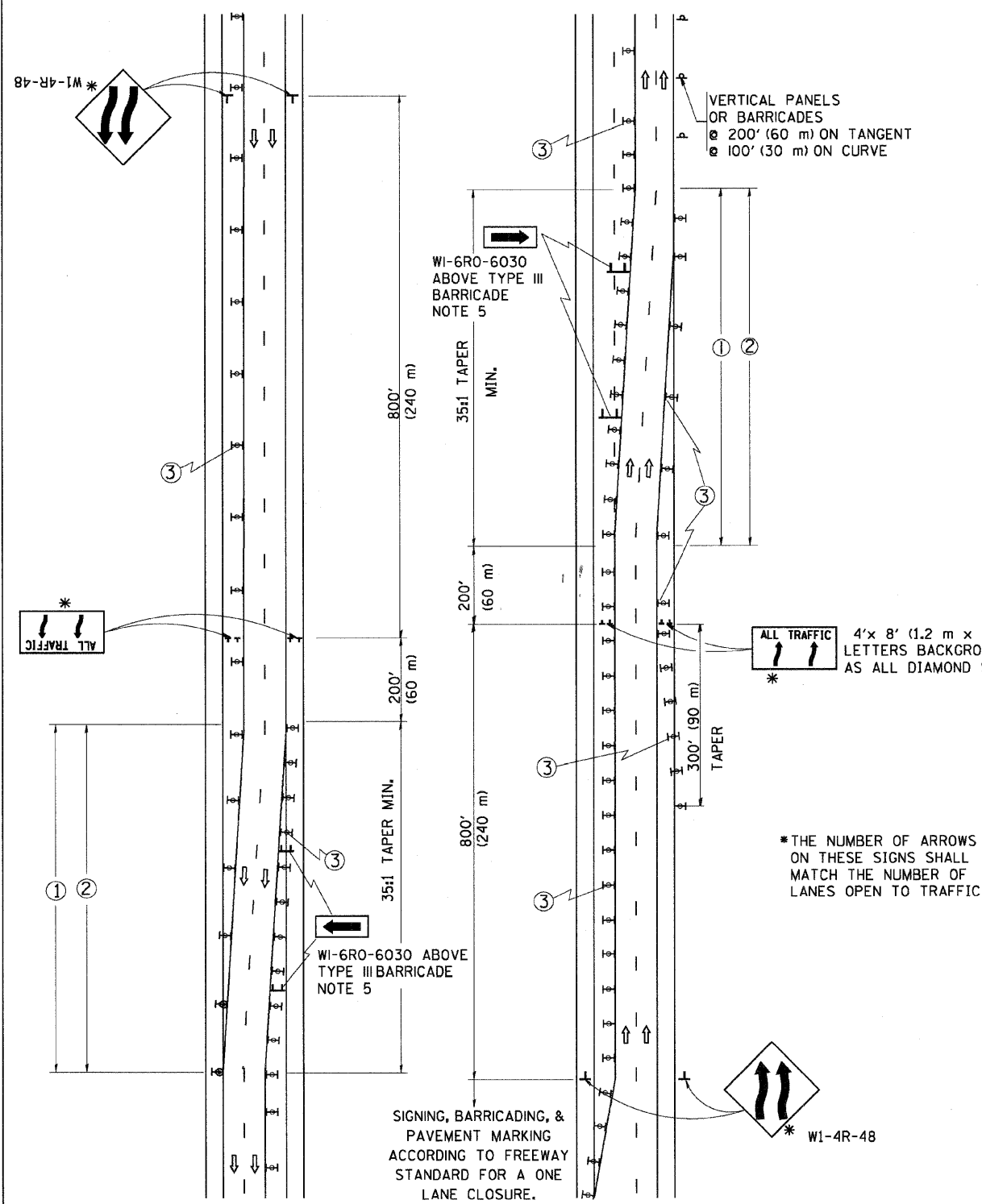
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 USER NAME = lbauerdl

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	55
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

### SINGLE LANE WEAVE



### MULTI-LANE WEAVE



#### GENERAL NOTES

- EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED OR COVERED WITH BLACK TAPE. PAVEMENT MARKING REMOVAL OR BLACK TAPE SHALL NOT BE REQUIRED FOR LANE CLOSURES UNDER 24 HOURS IN DURATION.
- CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVE LANE LINES SHALL BE 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS DIRECTLY IN FRONT OF THE BARRICADE.
- IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.

#### SYMBOLS

- DIRECTION OF TRAFFIC
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONO-DIRECTIONAL STEADY BURNING LIGHT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

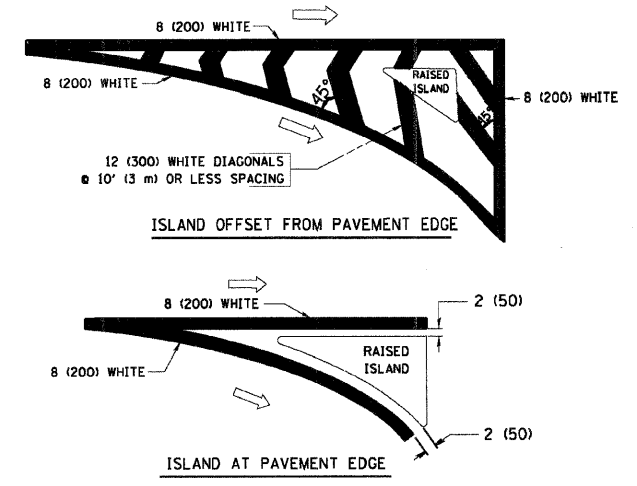
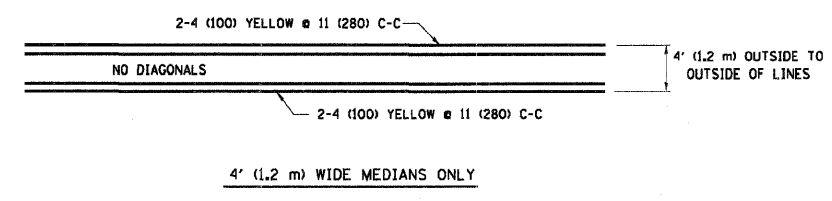
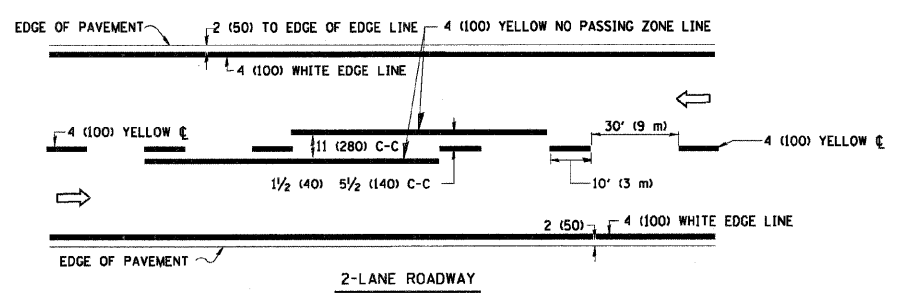
REVISIONS	
NAME	DATE
DWS	2/87
DWS	1/90
DWS	12/21/94
DWS	11/96
JAF	4/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
TRAFFIC CONTROL DETAILS  
FOR FREEWAY  
SINGLE & MULTI-LANE WEAVE

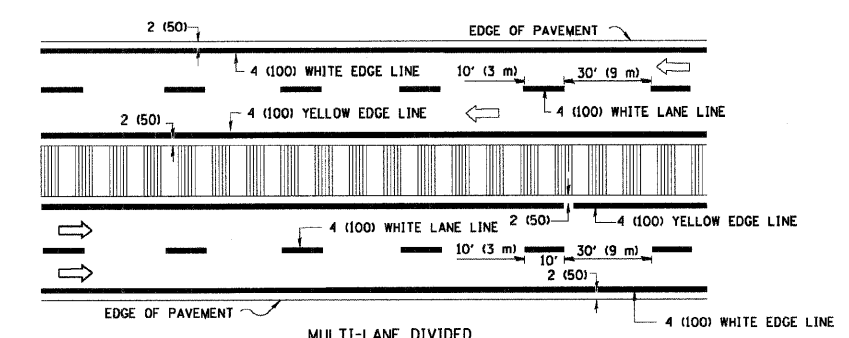
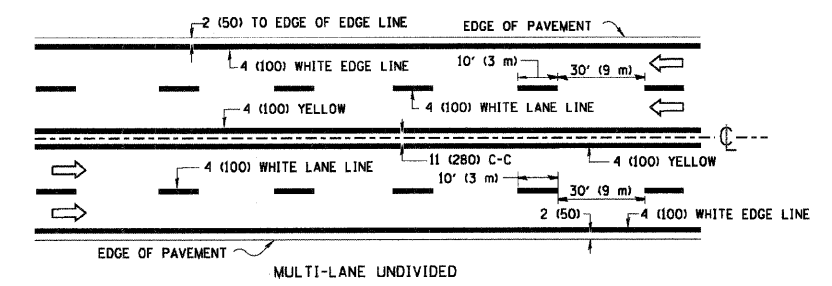
SCALE: NONE

DRAWN BY R.H.  
CHECKED BY  
TC-9

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

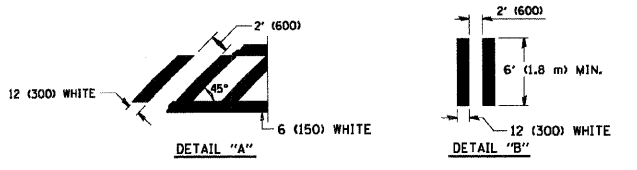
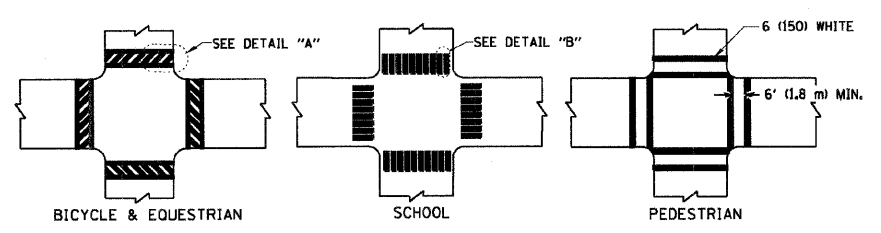


TYPICAL ISLAND MARKING

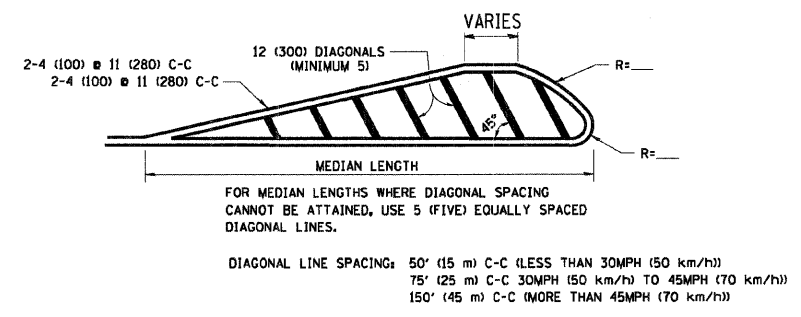


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

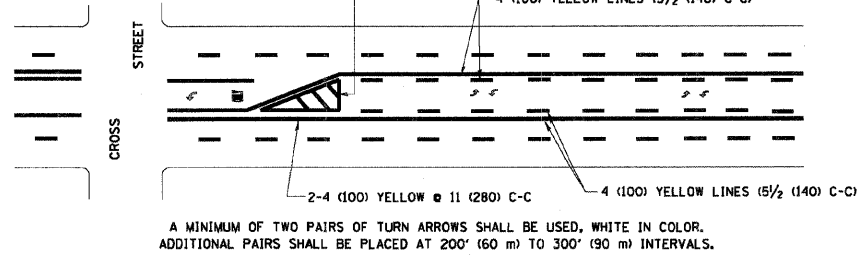
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

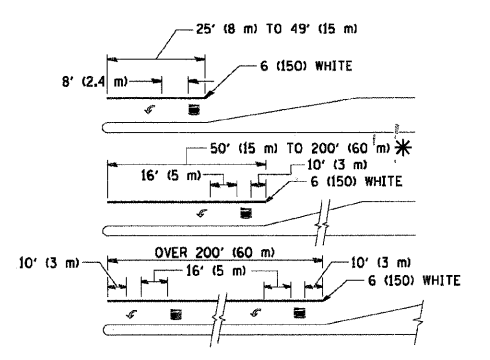


MEDIANS OVER 4' (1.2 m) WIDE



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

\* 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".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE 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	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
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 (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN A. DIAGONALS (BICYCLE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL))	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID	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 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD 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 THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING 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; "RR" 15' (4.5 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 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' (25 m) C-C 30 MPH (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
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT ONE  
TYPICAL PAVEMENT MARKINGS

SCALE: NONE

DRAWN BY CADD

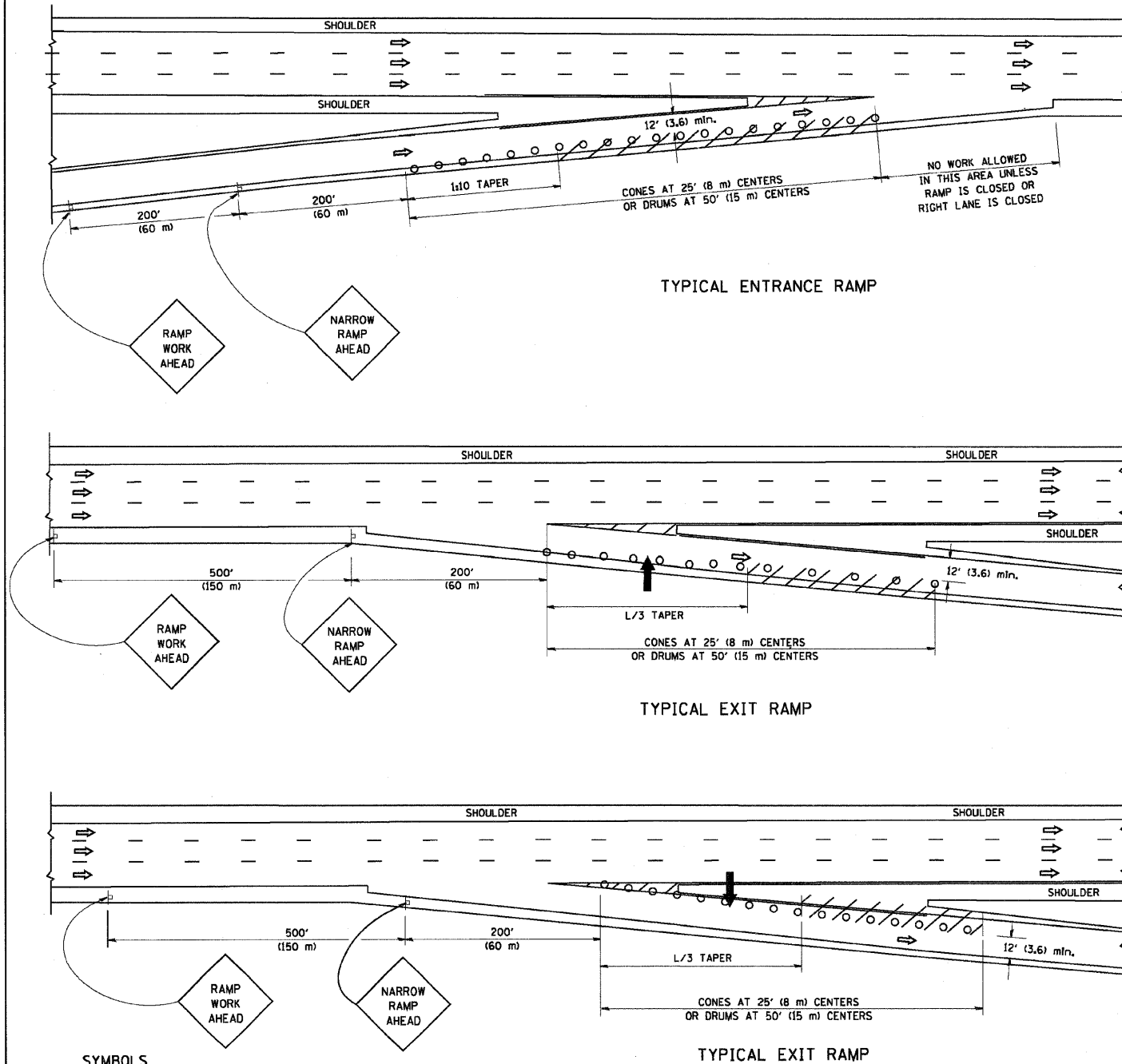
CHECKED BY

TC-13

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USER NAME = bbauprd

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	57
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

PARTIAL RAMP CLOSURE DETAILS



SYMBOLS

- ARROWBOARD
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

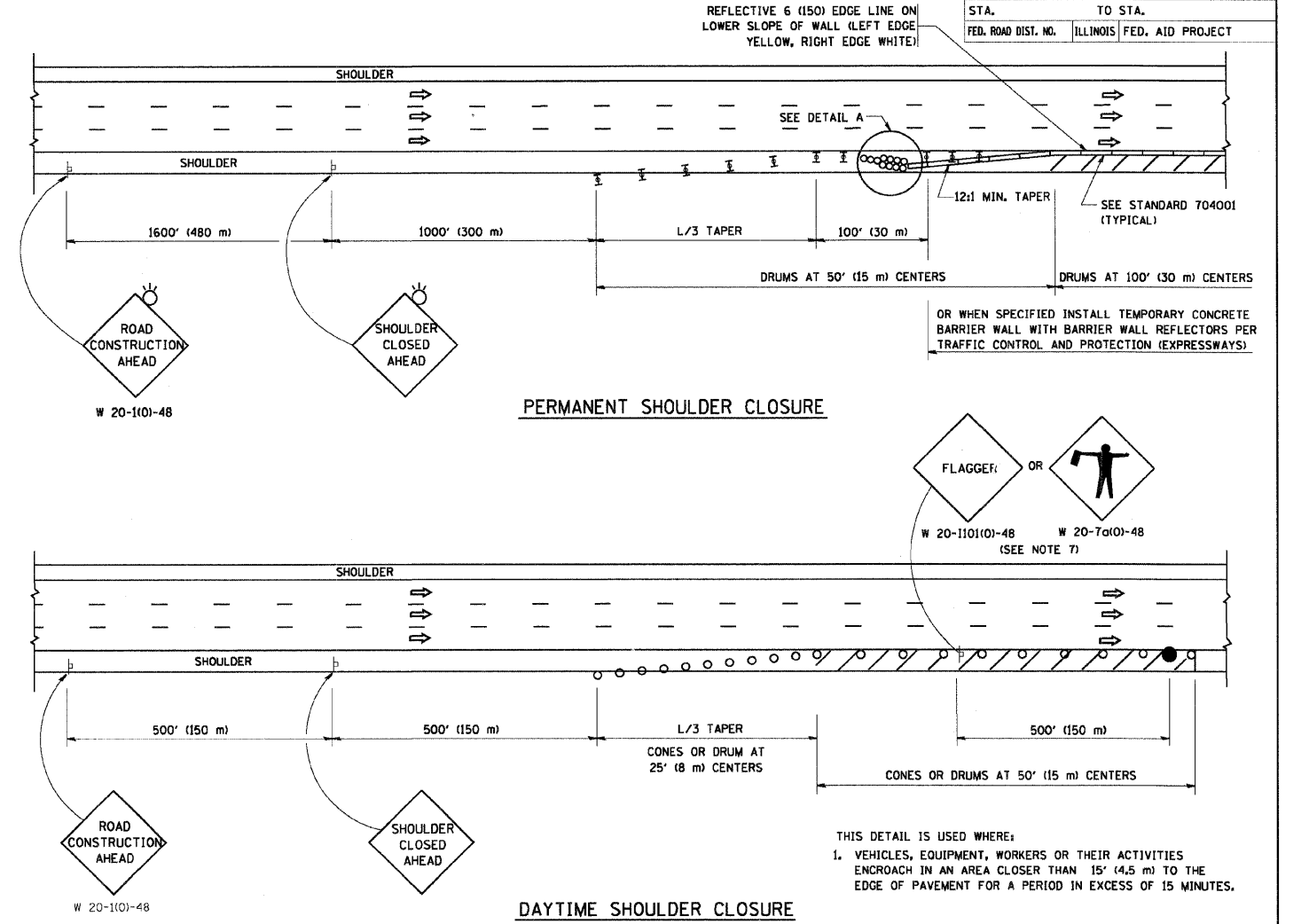
GENERAL NOTES

- THE "L" DISTANCE EQUALS:  

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC ENGLISH
	$L=0.65(WXS)$ $L=(WXS)$

W = WIDTH OF OFFSET IN FEET (METERS)  
 S = NORMAL POSTED SPEED MPH (KM/H)
- PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS



PERMANENT SHOULDER CLOSURE

DAYTIME SHOULDER CLOSURE

ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350 COMPLIANT FOR POSTED SPEED.

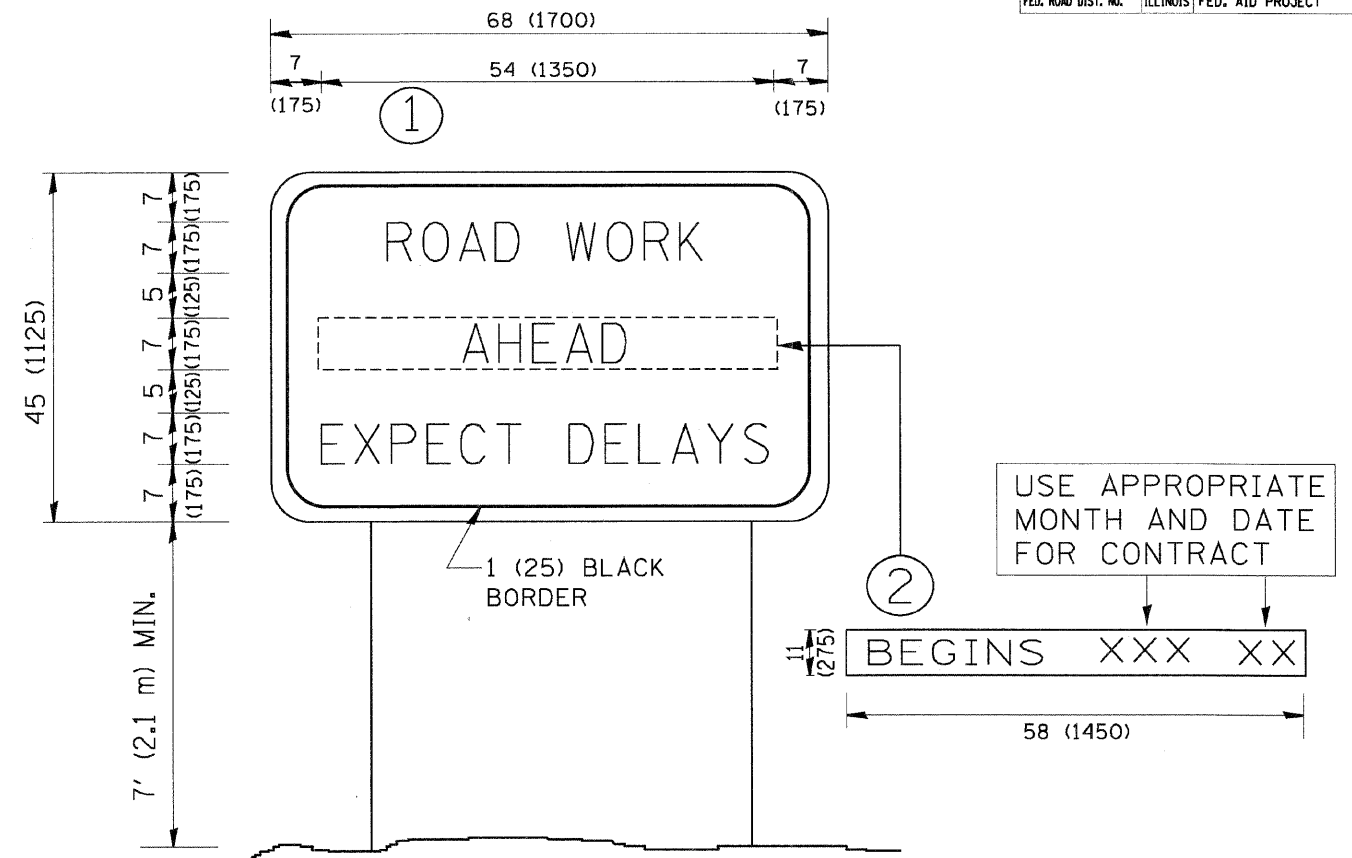
DETAIL "A"  
IMPACT ATTENUATOR, TEMPORARY  
(SEE NOTE 5)

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

REVISIONS	
NAME	DATE
DWS	11/95
JAF	12/02
NCHRP 350	04/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL DETAILS  
 FOR FREEWAY  
 SHOULDER CLOSURES  
 PARTIAL RAMP CLOSURES**  
 DESIGNED BY: DWS  
 DRAWN BY:  
 CHECKED BY:  
 TC-17

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1818.3B-R	COOK	58	58
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99
C. JUCIUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE

DRAWN BY DESIGN

CHECKED BY

TC22