

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	1

* 77-5 = 72

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**

FAI 57 (I-57)
AT
GENOA AVENUE
SECTION: 2222.3B
BRIDGE DECK REPLACEMENT

COOK COUNTY
C-91-040-01

RANGE 14E



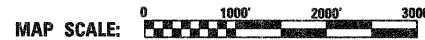
GENOA AVENUE
PROJECT BEGINS
STA 12+06.00

STRUCTURE NUMBER 016-2030
STA 643+08.01 (I-57) =
STA 14+47.54 (GENOA)
LENGTH = 181'-10"
DECK REMOVAL AND
REPLACEMENT 2-SPAN
CONTINUOUS ROLLED STEEL
BEAMS WITH COVER PLATES

GENOA AVENUE
PROJECT ENDS
STA 16+17.11

THIS PROJECT CONSIST OF
PAVEMENT MILLING AND RESURFACING,
BRIDGE DECK REMOVAL AND REPLACEMENT,
UNDERPASS LIGHTING

LOCATION MAP



GROSS AND NET LENGTH OF PROJECT: GENOA AVENUE = 411.11' (0.08 MILES)

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN:
CITY OF CHICAGO

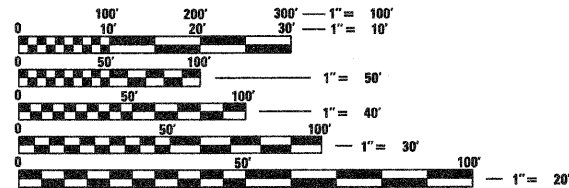
TRAFFIC DATA

ADT: GENOA AVENUE I-57
5,009 VEHICLES (1997) 123,300 VEHICLES (2007)
6,424 VEHICLES (2022)

POSTED SPEED: GENOA AVENUE I-57
30 MPH (50 KPH) 55 MPH (90 KPH)

DESIGN DESIGNATION

5,317 (03) COLLECTOR (RS-10)



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.

C.U.A.N.
CHICAGO UTILITY AREA NETWORK
FOR EXCAVATION 1-312-744-7000

CONTRACT NO. 62119

DISTRICT ONE - DESIGN IDOT PROJECT MANAGER: BRIAN KUTTAB (847) 705-4431



ANTONIO A. CERDA
062-050802
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
EXPIRATION DATE: 11-30-2011
DATE: 2/24/2010
SHEETS 1-20, 28-30, 63-77

EXPIRATION DATE: 11-30-2011
DATE: 2-24-2010
SHEETS 21-27

MICHAEL J. HALEY
063-005999
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
EXPIRATION DATE: 11-30-2010
DATE: 2-23-2010
SHEETS 31-62

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: FEBRUARY 26, 2010

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

May 7 2010
Scott E. Stitt, PE
Acting ENGINEER OF DESIGN AND ENVIRONMENT

May 7 2010
Christine M. Reed
DIVISION OF HIGHWAYS, CHIEF ENGINEER

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	4
STA. 12+06.00		TO STA.16+17.11		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROJECT LOCATION: FAI 57 AT GENOA AVENUE
COOK COUNTY

CODE NUMBER	ITEM	UNIT	100% STATE		
			TOTAL QUANTITY URBAN	ROADWAY 1000-2A	BRIDGE X271-2A
20101000	TEMPORARY FENCE	FOOT	80	80	
20101200	TREE ROOT PRUNING	EACH	1	1	
20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	1	1	
20200100	EARTH EXCAVATION	CU YD	109	109	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	100	100	
20800150	TRENCH BACKFILL	CU YD	10	10	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	898	898	
25000210	SEEDING, CLASS 2A	ACRE	0.2	0.2	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	17	17	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	17	17	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	17	17	
25100630	EROSION CONTROL BLANKET	SQ YD	898	898	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	19	19	
28000400	PERIMETER EROSION BARRIER	FOOT	374	374	
28000510	INLET FILTERS	EACH	6	6	
31101200	SUB-BASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	156	156	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.5	0.5	
40600300	AGGREGATE (PRIME COAT)	TON	2	2	
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	66	66	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	87	87	
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	13	13	
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	99	99	
42001300	PROTECTIVE COAT	SQ YD	414	414	
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	70	70	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1,661	1,661	
42400430	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL	SQ FT	363	363	
44000100	PAVEMENT REMOVAL	SQ YD	187	187	
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	1173	1173	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	422	422	
44000600	SIDEWALK REMOVAL	SQ FT	465	465	
44000700	APPROACH SLAB REMOVAL	SQ YD	234	234	
44002216	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 4"	SQ YD	60	60	
44003100	MEDIAN REMOVAL	SQ FT	85	85	
44201353	CLASS C PATCHES, TYPE II, 10 INCH	SQ YD	30	30	
44201357	CLASS C PATCHES, TYPE III, 10 INCH	SQ YD	30	30	

* SPECIALTY ITEM

PLOT DATE = Monday, March 08, 2010
FILE NAME = S:\11-CADD\01-11\11-04-07_106000.dgn
PLOT SCALE = 50:1
USER NAME = j3679



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
SHEET 1 OF 4
GENOA AVENUE OVER FAI-57

SCALE: VERT. NONE
DATE: 3/1/2010

DRAWN BY: E.D.
CHECKED BY: A.A.C.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	5
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

PROJECT LOCATION: FAI 57 AT GENOA AVENUE
COOK COUNTY

CODE NUMBER	ITEM	UNIT	100% STATE			
			TOTAL QUANTITY URBAN	ROADWAY 1000-2A	BRIDGE X271-2A	LIGHTING Y030-1E
50102400	CONCRETE REMOVAL	CU YD	67		67	
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1		1	
50157300	PROTECTIVE SHIELD	SQ YD	1143		1143	
50200100	STRUCTURE EXCAVATION	CU YD	56		56	
50300225	CONCRETE STRUCTURES	CJ YD	59.6		59.6	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	729.8		729.8	
50300280	BRIDGE DECK GROOVING	SQ YD	1,425		1,425	
50300300	PROTECTIVE COAT	SQ YD	2,244		2,244	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	4,640		4,640	
50500505	STUD SHEAR CONNECTORS	EACH	4,368		4,368	
50500715	JACK AND REMOVE EXISTING BEARINGS	EACH	28		28	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	135,110		135,110	
50800515	BAR SPLICERS	EACH	813		813	
50901730	BRIDGE FENCE RAILING	FOOT	562		562	
51205200	TEMPORARY SHEET PILING	SQ FT	233		233	
51500100	NAME PLATES	EACH	2		2	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	143		143	
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	28		28	
52100520	ANCHOR BOLTS, 1"	EACH	56		56	
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	51	51		
55039700	STORM SEWERS TO BE CLEANED	FOOT	607	607		
58700300	CONCRETE SEALER	SQ FT	853		853	
59000200	EPOXY CRACK INJECTION	FOOT	126		126	
60250200	CATCH BASINS TO BE ADJUSTED	EACH	5	5		
60250400	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, OPEN LID	EACH	1	1		
60255500	MANHOLES TO BE ADJUSTED	EACH	1	1		
60600605	CONCRETE CURB, TYPE B	FOOT	131	131		
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	141	141		
60604200	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (SPECIAL)	FOOT	282	282		
66400105	CHAIN LINK FENCE, 4'	FOOT	40	40		
66410300	CHAIN LINK FENCE REMOVAL	FOOT	40	40		
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		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	210	210		

* SPECIALTY ITEM

PLOT DATE = Monday, March 08, 2010
FILE NAME = S:\11-CADD\11-11-10\11-04-07-980.dwg
PLOT SCALE = 50%
USER NAME = 3696



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
SHEET 2 OF 4
GENOA AVENUE OVER FAI-57

SCALE: VERT. NONE
HORIZ.
DATE: 3/1/2010

DRAWN BY: E.D.
CHECKED BY: A.A.C.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	7
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

PROJECT LOCATION: FAI 57 AT GENOA AVENUE
COOK COUNTY

CODE NUMBER	ITEM	UNIT	100% STATE			
			TOTAL QUANTITY URBAN	ROADWAY 1000-2A	BRIDGE X271-2A	LIGHTING Y030-1E
* 87900200	DRILL EXISTING HANDHOLE	EACH	4			4
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	103	103		
X0323080	DRAINAGE SCUPPERS, DS-12	EACH	4		4	
* X0323574	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	6			6
X0323859	DOWNSPOUT CONNECTION	EACH	2	2		
* X0324198	REMOVAL OF ASBESTOS CEMENT CONDUIT	FOOT	1,148		1148	
* X0324302	REMOVAL OF TEMPORARY LIGHTING FIXTURE, SALVAGE	EACH	12			12
X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	50		50	
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	464		464	
X0325775	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	2777	2777		
X0325837	WET REFLECTIVE TEMPORARY TAPE TYPE III, 6 INCH	FOOT	820	820		
X0325840	WET REFLECTIVE TEMPORARY TAPE TYPE III, 12 INCH	FOOT	353	353		
X0325841	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 24 INCH	FOOT	119	119		
X0325842	WET REFLECTIVE TEMPORARY TAPE, TYPE III, LETTERS AND SYMBOLS	SQ FT	337	337		
* X0326323	UNDERPASS LUMINAIRE, 70 WATT, HIGH PRESSURE SODIUM VAPOR, STAINLESS STEEL HOUSING	EACH	8			8
* X0326328	STREET LIGHTING CABLE, 1/C NO. 6, CITY OF CHICAGO STANDARD	FOOT	1262			1262
* X0326329	STREET LIGHTING CABLE, 1/C NO. 8, CITY OF CHICAGO STANDARD	FOOT	631			631
* X0329887	INSTALL LIGHT POLE MAST ARM & LUMINAIRE (MATERIAL PROVIDED BY THE CITY OF CHICAGO)	EACH	8			8
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1		
X280050	INLET FILTER CLEANING	EACH	12	12		
Z0011400	COLD MILLING EXISTING MEDIAN	SQ YD	33	33		
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	6	6		
Z0018800	DRAINAGE SYSTEM	L SUM	1		1	
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
Z0030255	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2		
Z0030320	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 2	EACH	2	2		
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1		
X8210030	TEMPORARY UNDERPASS LUMINAIRE, 70WATT, HIGH PRESSURE SODIUM VAPOR, STAINLESS STEEL HOUSING (INSTALL ONLY)	EACH	12			12

* SPECIALTY ITEM

PLOT DATE = Monday, March 09, 2010
FILE NAME = S:\11-CADD\11-11\11-11-11-11.dgn
PLOT SCALE = 50%
USER NAME = 3696



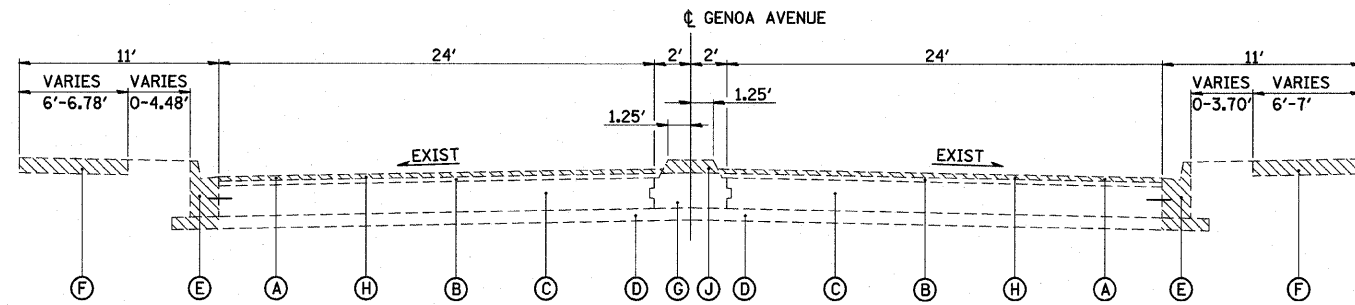
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
SHEET 4 OF 4
GENOA AVENUE OVER FAI-57

SCALE: VERT. NONE
HORIZ.
DATE: 3/1/2010

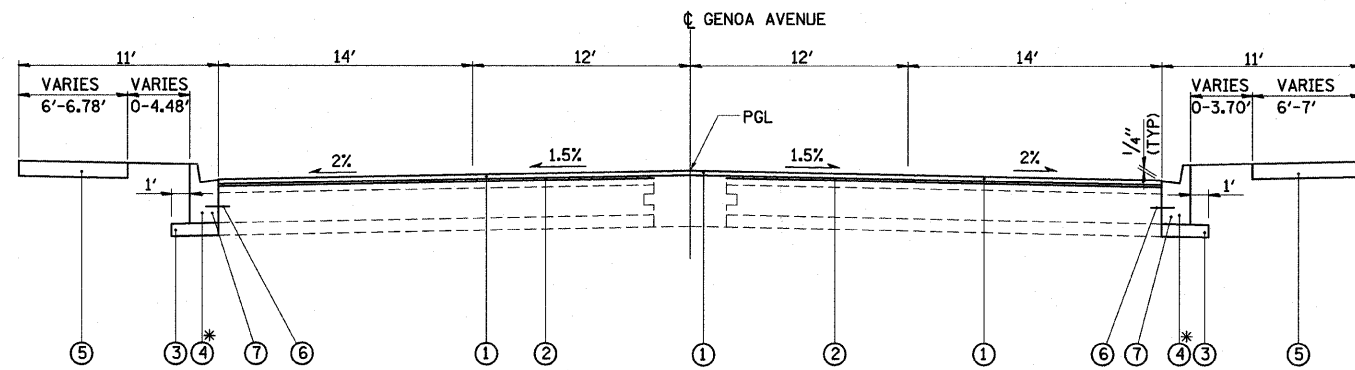
DRAWN BY: E.D.
CHECKED BY: A.A.C.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	8
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



EXISTING

STA 12+06.00 TO STA 16+17.11
BRIDGE LIMITS - STA 13+53.12 TO STA 15+41.96



PROPOSED

STA 12+06.00 TO STA 16+17.11
BRIDGE LIMITS - STA 13+53.12 TO STA 15+41.96

* STA 12+92.56 TO STA 16+02.14

CONTRACTOR SHALL PATCH BEFORE MILLING

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS AT Ndes
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm); 1 1/2"	4% @ 50 Gyr.
LEVELING BINDER (MACHINE METHOD), IL 9.5 mm, N50	4% @ 50 Gyr.
HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm); 4"	4% @ 70 Gyr.

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

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

EXISTING

- (A) HMA SURFACE COURSE
- (B) HMA BINDER COURSE
- (C) PORTLAND CEMENT CONCRETE BASE COURSE
- (D) SUB-BASE GRANULAR MATERIAL
- (E) COMBINATION CONCRETE CURB AND GUTTER, TYPE 3
- (F) PORTLAND CEMENT CONCRETE SIDEWALK, 5"
- (G) PORTLAND CEMENT CONCRETE MEDIAN
- (H) HMA SURFACE REMOVAL, VARIES 3/4" TO 2 1/4"
- (J) COLD MILLING EXISTING MEDIAN

PROPOSED

- (1) HOT-MIX ASPHALT SURFACE COURSE, MIXTURE "D", N50, 1 1/2"
- (2) LEVELING BINDER (MACHINE METHOD), N50, 3/4" (MIN)
- (3) SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
- (4) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (SPECIAL) (VARIABLE HEIGHT 3" TO 9")
- (5) PORTLAND CEMENT CONCRETE SIDEWALK, 5"
- (6) *#6 EPOXY COATED BARS @ 24" CENTERS, 24" LONG, DRILLED AND GROUTED IN PLACE, SHALL BE INCLUDED IN THE COST OF THE ITEM INSTALLED.
- (7) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12

NOTES:

1. HOT-MIX ASPHALT SURFACE REMOVAL WILL VARY FROM 3/4" TO 2 1/4" FOR CROWN CORRECTION AND WILL BE PAID FOR PER SQUARE YARD AS HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2". NO ADDITIONAL COMPENSATION SHALL BE GIVEN FOR INCREASED THICKNESS WITHIN NOTED RANGE.
2. EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE 3 SHALL BE REPLACED WITH COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (SPECIAL) AS DIRECTED BY THE ENGINEER.
3. DOWEL BARS, 18" LONG, SHALL BE INSTALLED IN ACCORDANCE WITH HIGHWAY STANDARD 606001 OR AS DIRECTED BY THE ENGINEER AND INCLUDED IN THE COST OF THE ITEM INSTALLED.

LEGEND:



REMOVAL ITEM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**TYPICAL SECTIONS
GENOA AVENUE OVER FAI-57**

SCALE: VERT. NONE
HORIZ. NONE
DATE: 3/1/2010

DRAWN BY: E.D.
CHECKED BY: A.A.C.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	9
STA. 12+06.00		TO STA.16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

EARTH EXCAVATION (CU YD)

BEGIN STA	END STA	WIDTH	THICKNESS	VOLUME
12+17.12	12+20.12	54 FT	1.25 FT	7.5 CU YD
12+20.12	12+21.12	54 FT	0.75 FT	1.5 CU YD
12+21.12	12+23.12	54 FT	0.54 FT	2.2 CU YD
12+23.12	12+30.12	54 FT	1.25 FT	17.5 CU YD
12+30.12	12+53.12	54 FT	0.42 FT	19.3 CU YD
15+41.96	15+64.96	54 FT	0.42 FT	19.3 CU YD
15+64.96	15+71.96	54 FT	1.25 FT	17.5 CU YD
15+71.96	15+72.96	54 FT	0.75 FT	1.5 CU YD
15+72.96	15+74.96	54 FT	0.54 FT	2.2 CU YD
15+74.96	15+77.96	54 FT	1.25 FT	7.5 CU YD
12+07.00	12+62.00	5.16 FT	0.33 FT	4.2 CU YD
12+94.00	13+54.00	5.16 FT	0.33 FT	4.6 CU YD
15+41.00	16+01.00	5.16 FT	0.33 FT	4.3 CU YD
51+65.00	51+73.00	2.58 FT	0.33 FT	0.3 CU YD

TOTAL = 109 CU YD

REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

BEGIN STA	END STA	WIDTH	AREA (SY)	DEPTH (YD)	VOLUME	NOTES
12+07	12+61	varies	26.3 SY	0.11	2.9	NW CORNER 98TH PLACE
12+03	12+61	varies	38.1 SY	0.11	4.2	SW CORNER 98TH PLACE
12+94	13+67	20.0 FT	161.2 SY	0.11	17.9	SE CORNER 98TH PLACE
12+95	13+67	20.0 FT	159.1 SY	0.11	17.7	NW CORNER 98TH PLACE
14+26	14+71	20.0 FT	99.6 SY	0.11	11.1	FAI-57 MEDIAN NE OF BRIDGE
14+26	14+71	20.0 FT	100.0 SY	0.11	11.1	FAI-57 MEDIAN SW OF BRIDGE
15+30	15+99	20.0 FT	152.3 SY	0.11	16.9	NE CORNER RACINE AVE
15+30	16+00	20.0 FT	156.1 SY	0.11	17.3	SW CORNER RACINE AVE
51+71	51+81	varies	5.8 SY	0.11	0.6	RIGHT SIDE OF RACINE AVE

TOTAL = 100 CU YD

TOPSOIL FURNISH AND PLACE, 4" (SQ YD)

BEGIN STA	END STA	WIDTH	AREA
12+07	12+61	4.39 FT	26.3 SQ YD
12+61	12+62	5.91 FT	38.1 SQ YD
12+94	13+67	20.00 FT	320.2 SQ YD
13+67	13+74	20.00 FT	199.6 SQ YD
13+74	13+97	20.00 FT	308.4 SQ YD
51+71	51+81	5.91 FT	5.8 SQ YD

TOTAL = 898 SQ YD

SEEDING, CLASS 2A (ACRE)

BEGIN STA	END STA	WIDTH	AREA
12+07	12+61	4.39 FT	26.3 SQ YD
12+61	12+62	5.91 FT	38.1 SQ YD
12+94	13+67	20.00 FT	320.2 SQ YD
13+67	13+74	20.00 FT	199.6 SQ YD
13+74	13+97	20.00 FT	308.4 SQ YD
51+71	51+81	5.91 FT	5.8 SQ YD
			898 SQ YD

TOTAL = 0.2 ACRE

NITROGEN FERTILIZER NUTRIENT (LB)

APPLICATION RATE = 90 LB/ACRE

BEGIN STA	END STA	WIDTH	AREA
12+07	12+61	4.39 FT	26.3 SQ YD
12+61	12+62	5.91 FT	38.1 SQ YD
12+94	13+67	20.00 FT	320.2 SQ YD
13+67	13+74	20.00 FT	199.6 SQ YD
13+74	13+97	20.00 FT	308.4 SQ YD
51+71	51+81	5.91 FT	5.8 SQ YD
			898 SQ YD
			0.19 ACRE

TOTAL = 0.19 ACRE * 90 LB/ACRE = 17 LBS

TOTAL = 17 LBS

PHOSPHORUS FERTILIZER NUTRIENT (LB)

APPLICATION RATE = 90 LB/ACRE

BEGIN STA	END STA	WIDTH	AREA
12+07	12+61	4.39 FT	26.3 SQ YD
12+61	12+62	5.91 FT	38.1 SQ YD
12+94	13+67	20.00 FT	320.2 SQ YD
13+67	13+74	20.00 FT	199.6 SQ YD
13+74	13+97	20.00 FT	308.4 SQ YD
51+71	51+81	5.91 FT	5.8 SQ YD
			898 SQ YD
			0.19 ACRE

TOTAL = 0.19 ACRE * 90 LB/ACRE = 17 LBS

TOTAL = 17 LBS

POTASSIUM FERTILIZER NUTRIENT (LB)

APPLICATION RATE = 90 LB/ACRE

BEGIN STA	END STA	WIDTH	AREA
12+07	12+61	4.39 FT	26.3 SQ YD
12+61	12+62	5.91 FT	38.1 SQ YD
12+94	13+67	20.00 FT	320.2 SQ YD
13+67	13+74	20.00 FT	199.6 SQ YD
13+74	13+97	20.00 FT	308.4 SQ YD
51+71	51+81	5.91 FT	5.8 SQ YD
			898 SQ YD
			0.19 ACRE

TOTAL = 0.19 ACRE * 90 LB/ACRE = 17 LBS

TOTAL = 17 LBS

TEMPORARY EROSION CONTROL SEEDING (LB)

APPLICATION RATE = 100 LB/ACRE

BEGIN STA	END STA	WIDTH	AREA
12+07	12+61	4.39 FT	26.3 SQ YD
12+61	12+62	5.91 FT	38.1 SQ YD
12+94	13+67	20.00 FT	320.2 SQ YD
13+67	13+74	20.00 FT	199.6 SQ YD
13+74	13+97	20.00 FT	308.4 SQ YD
51+71	51+81	5.91 FT	5.8 SQ YD
			898 SQ YD
			0.19 ACRE

TOTAL = 0.19 ACRE * 100 LB/ACRE = 19 LBS

TOTAL = 19 LBS

EROSION CONTROL BLANKET (SQ YD)

BEGIN STA	END STA	WIDTH	AREA
12+07	12+61	4.39 FT	26.3 SQ YD
12+61	12+62	5.91 FT	38.1 SQ YD
12+94	13+67	20.00 FT	320.2 SQ YD
13+67	13+74	20.00 FT	199.6 SQ YD
13+74	13+97	20.00 FT	308.4 SQ YD
51+71	51+81	5.91 FT	5.8 SQ YD

TOTAL = 898 SQ YD

PAVEMENT REMOVAL (SQ YD)

BEGIN STA	END STA	WIDTH	AREA
13+14	13+30	52.4 FT	92.6 SQ YD
15+61	15+77	52.4 FT	94.8 SQ YD

TOTAL = 187 SQ FT

HOT MIX ASPHALT SURFACE REMOVAL 1 1/2" (SQ YD)

LOCATION	SQ FT	SQ YD
98TH PLACE INTERSECTION	6986	776.2
RACINE AVE INTERSECTION	3570	396.7

TOTAL = 1,173 SQ YD

PCC SIDEWALK 5 INCH (SQ FT)

BEGIN STA	END STA	AREA
12+39	12+53	LT 90.2 SQ FT
13+02	13+53	LT 346.4 SQ FT
15+43	15+92	LT 335.2 SQ FT

BEGIN STA	END STA	AREA
12+34	12+53	RT 119.0 SQ FT
13+01	13+53	RT 352.5 SQ FT
15+41	15+92	RT 336.6 SQ FT
51+63	51+79	RT 80.8 SQ FT

TOTAL = 1661 SQ FT

PCC SIDEWALK 5 INCH, SPECIAL (SQ FT)

BEGIN STA	END STA	AREA
12+47	12+59	LT 119.2 SQ FT
12+95	13+53	LT 31.6 SQ FT
15+92	15+92	LT 42.0 SQ FT

BEGIN STA	END STA	AREA
12+46	12+58	RT 60.4 SQ FT
12+94	13+01	RT 31.4 SQ FT
15+92	16+00	RT 42.1 SQ FT
51+69	51+74	RT 36.4 SQ FT

TOTAL = 363 SQ FT

SIDEWALK REMOVAL (SQ FT)

BEGIN STA	END STA	AREA
12+14	12+61	LT 187.2 SQ FT
12+07	12+58	RT 168.2 SQ FT
51+65	51+79	RT 109.9 SQ FT

TOTAL = 465 SQ FT

PLOT DATE = Monday, March 08, 2010
 FILE NAME = S:\11-CADD\01-11-11\986ch09.dgn
 PLOT SCALE = 50:1
 USER NAME = 3679



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULES OF QUANTITIES
 SHEET 1 OF 3
GENOA AVENUE OVER FAI-57

SCALE: VERT. NONE
 DATE: 3/1/2010

DRAWN BY: E.D.
 CHECKED BY: A.A.C.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	11
STA. 12+06.00		TO STA.16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**WET REFLECTIVE TEMPORARY TAPE, TYPE III - LINE 6 INCH (FT)
POLYUREA PAVEMENT MARKING - LINE 6" (FT)**

BEGIN STA	END STA	LENGTH	NOTES
12+47	12+52	105.7	GENOA AVE CROSSWALK
12+62	12+95	66.4	N 98TH PLACE CROSSWALK
12+55	12+93	73.3	S 98TH PLACE CROSSWALK
13+21	15+44	223.0	E/B GENOA LANE LINE
13+21	15+44	223.0	W/B GENOA LANE LINE
51+65	51+71	62.2	S RACINE AVE CROSSWALK
52+28	52+34	66.4	N RACINE AVE CROSSWALK
TOTAL =		820	FT

WET REFLECTIVE TEMPORARY TAPE, TYPE III - LINE 24 INCH (FT)

BEGIN STA	LENGTH	NOTES
12+04	25.0 FT	GENOA AVE STOP BAR STAGE 1
12+00	15.1 FT	GENOA AVE STOP BAR STAGE 2
PRIOR TO PERMANENT MARKINGS		
BEGIN STA	LENGTH	NOTES
12+10	28.8	W/B GENOA AVE STOP BAR
12+80	20.4	S/B 98TH PLACE STOP BAR
15+61	29.9	N/B RACINE AVE STOP BAR
TOTAL =		119 FT

POLYUREA PAVEMENT MARKING - LINE 12" (FT)

BEGIN STA	END STA	LENGTH	NOTES
12+16	12+63	44.7 FT	MEDIAN DIAGONALS
TOTAL =		45	FT

WET REFLECTIVE TEMPORARY TAPE, TYPE III - LINE 4 INCH (FT)

BEGIN STA	END STA	LENGTH	NOTES
9+40	10+12	72.7 FT	YELLOW, E/B MOT STAGE 1
9+40	12+04	266.8 FT	YELLOW, E/B MOT STAGE 1
10+98	12+04	111.1 FT	YELLOW, W/B MOT STAGE 1
10+00	12+68	344.7 FT	WHITE, E/B MOT STAGE 1
12+04	12+58	56.0 FT	DOUBLE YELLOW, MOT STAGE 1
9+40	12+38	288.0 FT	YELLOW, E/B MOT STAGE 2
11+40	12+38	96.6 FT	YELLOW, W/B MOT STAGE 2
12+38	12+56	17.3 FT	DOUBLE YELLOW, MOT STAGE 2
11+94	12+68	225.4 FT	WHITE, W/B MOT STAGE 2
13+17	15+82	529.3 FT	DOUBLE YELLOW STAGE 2
PRIOR TO PERMANENT MARKINGS			
BEGIN STA	END STA	LENGTH	NOTES
13+21	15+44	446 FT	CENTERLINE DOUBLE YELLOW
12+06	12+68	251 FT	MEDIAN DOUBLE YELLOW
12+23	12+33	48 FT	99TH STREET SKIP-DASH
51+32	51+42	12 FT	RACINE SKIP DASH
52+33	52+83	12 FT	RACINE SKIP DASH
TOTAL =		2,777	FT

POLYUREA PAVEMENT MARKING - LETTERS AND SYMBOLS (SQ FT)

STATION	OFFSET	SQ FT	NOTES
13+32	6.5 RT	22.9	ONLY
13+32	17.4 RT	22.9	ONLY
13+34	7.9 LT	15.8	LT ARROW
13+34	17.7 LT	11.2	STR ARROW
13+55	18.0 RT	15.8	LT ARROW
13+55	6.6 RT	15.8	LT ARROW
13+58	6.3 LT	22.9	ONLY
13+59	17.7 LT	22.9	ONLY
15+08	6.5 RT	22.9	ONLY
15+08	17.4 RT	22.9	ONLY
15+10	7.9 LT	15.8	LT ARROW
15+10	17.7 LT	11.2	STR ARROW
15+33	18.0 RT	15.8	LT ARROW
15+33	6.6 RT	15.8	LT ARROW
15+33	6.3 LT	22.9	ONLY
15+34	17.7 LT	22.9	ONLY
TOTAL =		300	SQ FT

POLYUREA PAVEMENT MARKING - LINE 24" (FT)

LOCATION	LENGTH	NOTES
12+10	28.8	W/B GENOA AVE STOP BAR
12+80	20.4	S/B 98TH PLACE STOP BAR
15+61	29.9	N/B RACINE AVE STOP BAR
TOTAL =		79 FT

PAVEMENT MARKING REMOVAL (SQ FT)

BEGIN STA	END STA	WIDTH	SQ FT	NOTES
12+06	15+90	4 IN	34.0	W/B GENOA SKIP-DASH
12+09		24 IN	58.0	W/B GENOA STOP BAR
9+50	12+06	4 IN	16.0	E/B 99TH ST SKIP-DASH
TOTAL =			108	SQ FT

WET REFLECTIVE TEMPORARY TAPE, TYPE III - LINE 12 INCH (FT)

BEGIN STA	END STA	LENGTH	NOTES
9+40	12+04	88.8 FT	YELLOW, E/B MOT STAGE 1
9+40	12+38	219.4 FT	YELLOW, E/B MOT STAGE 2
PRIOR TO PERMANENT MARKINGS			
BEGIN STA	END STA	LENGTH	NOTES
12+16	12+63	44.7 FT	MEDIAN DIAGONALS
TOTAL =		353	FT

POLYUREA PAVEMENT MARKING - LINE 4" (FT)

BEGIN STA	END STA	LENGTH	NOTES
13+21	15+44	446 FT	CENTERLINE DOUBLE YELLOW
12+06	12+68	251 FT	MEDIAN DOUBLE YELLOW
12+23	12+33	48 FT	99TH STREET SKIP-DASH
51+32	51+42	12 FT	RACINE SKIP DASH
52+33	52+83	12 FT	RACINE SKIP DASH
TOTAL =		769	FT

PLOT DATE = Thursday, March 04, 2010
 FILE NAME = S:\11-CADD\11-11-09-ILL-5896c\01.dgn
 PLOT SCALE = 50:1
 USER NAME = 3879



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULES OF QUANTITIES
SHEET 3 OF 3
GENOA AVENUE OVER FAI-57

SCALE: VERT. NONE
 HORIZ. DATE: 3/1/2010

DRAWN BY: E.D.
 CHECKED BY: A.A.C.

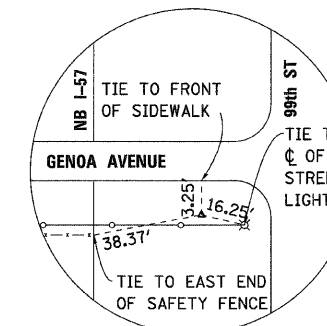
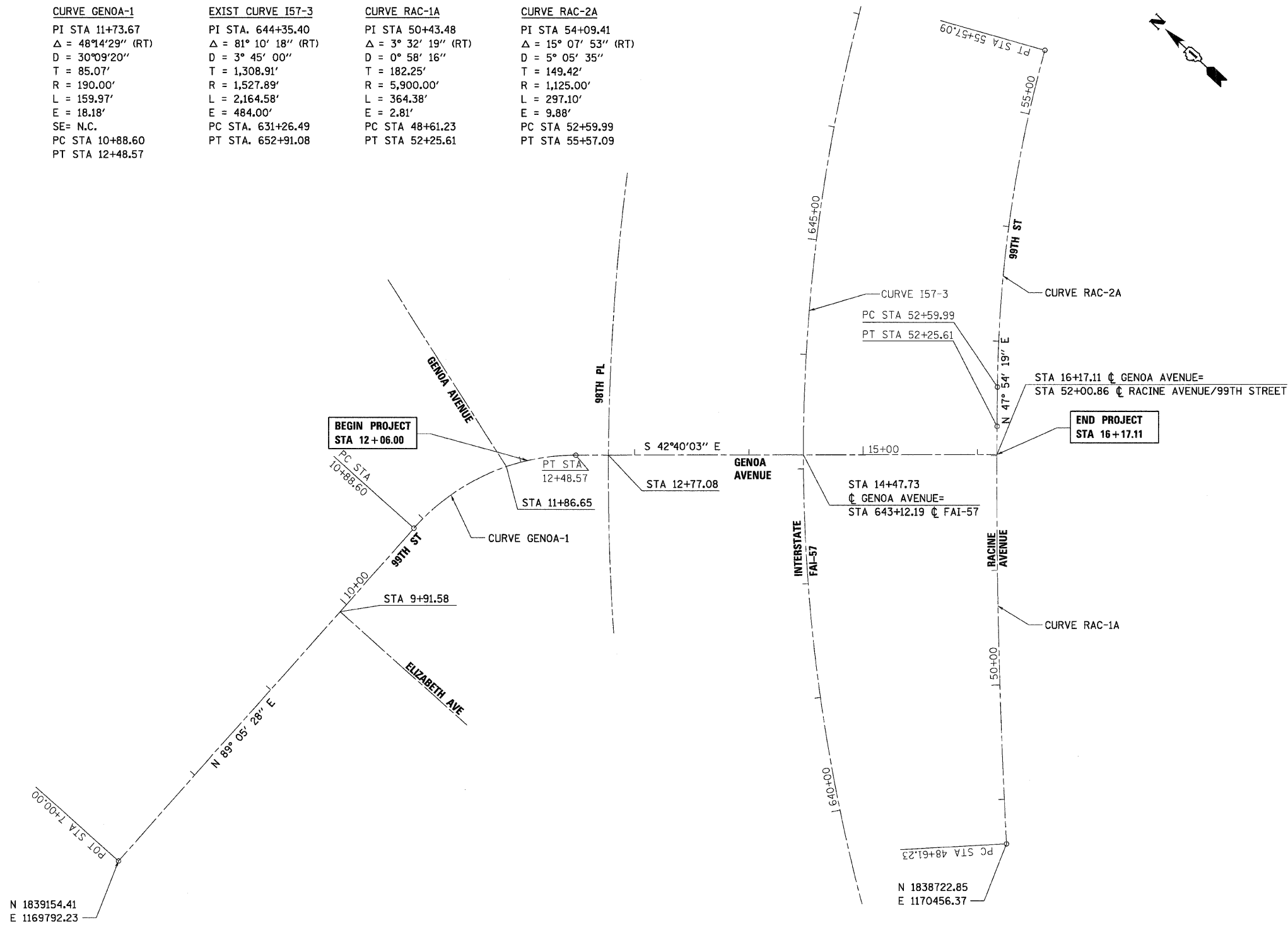
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	12
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CURVE GENOA-1
 PI STA 11+73.67
 $\Delta = 48^{\circ}14'29''$ (RT)
 D = 30'09"20"
 T = 85.07'
 R = 190.00'
 L = 159.97'
 E = 18.18'
 SE= N.C.
 PC STA 10+88.60
 PT STA 12+48.57

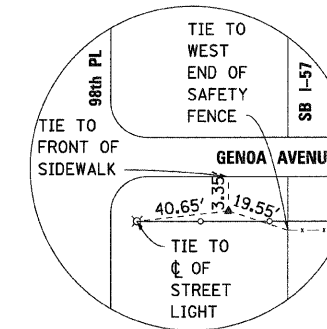
EXIST CURVE I57-3
 PI STA. 644+35.40
 $\Delta = 81^{\circ}10'18''$ (RT)
 D = 3^{\circ}45'00"
 T = 1,308.91'
 R = 1,527.89'
 L = 2,164.58'
 E = 484.00'
 PC STA. 631+26.49
 PT STA. 652+91.08

CURVE RAC-1A
 PI STA 50+43.48
 $\Delta = 3^{\circ}32'19''$ (RT)
 D = 0^{\circ}58'16"
 T = 182.25'
 R = 5,900.00'
 L = 364.38'
 E = 2.81'
 PC STA 48+61.23
 PT STA 52+25.61

CURVE RAC-2A
 PI STA 54+09.41
 $\Delta = 15^{\circ}07'53''$ (RT)
 D = 5^{\circ}05'35"
 T = 149.42'
 R = 1,125.00'
 L = 297.10'
 E = 9.88'
 PC STA 52+59.99
 PT STA 55+57.09



CUT "X" ON SIDEWALK
 STA 15+77.79, 32.24' RT
 EL 610.62
 N 1838836.12
 E 1170523.62



CUT "X" ON SIDEWALK
 STA 13+42.26, 31.29' RT
 EL 610.91
 N 1839009.28
 E 1170363.99

BENCHMARKS

SOUTH BOLT ON FIRE HYDRANT
 GENOA AVENUE AND 99TH STREET
 NORTHWEST CORNER
 ELEVATION = 611.46

PLOT DATE = Thursday, March 04, 2010
 FILE NAME = S:\VI-CADD\01-01\01-01\12_9586a.dgn
 PLOT SCALE = 50:1
 USER NAME = 3679



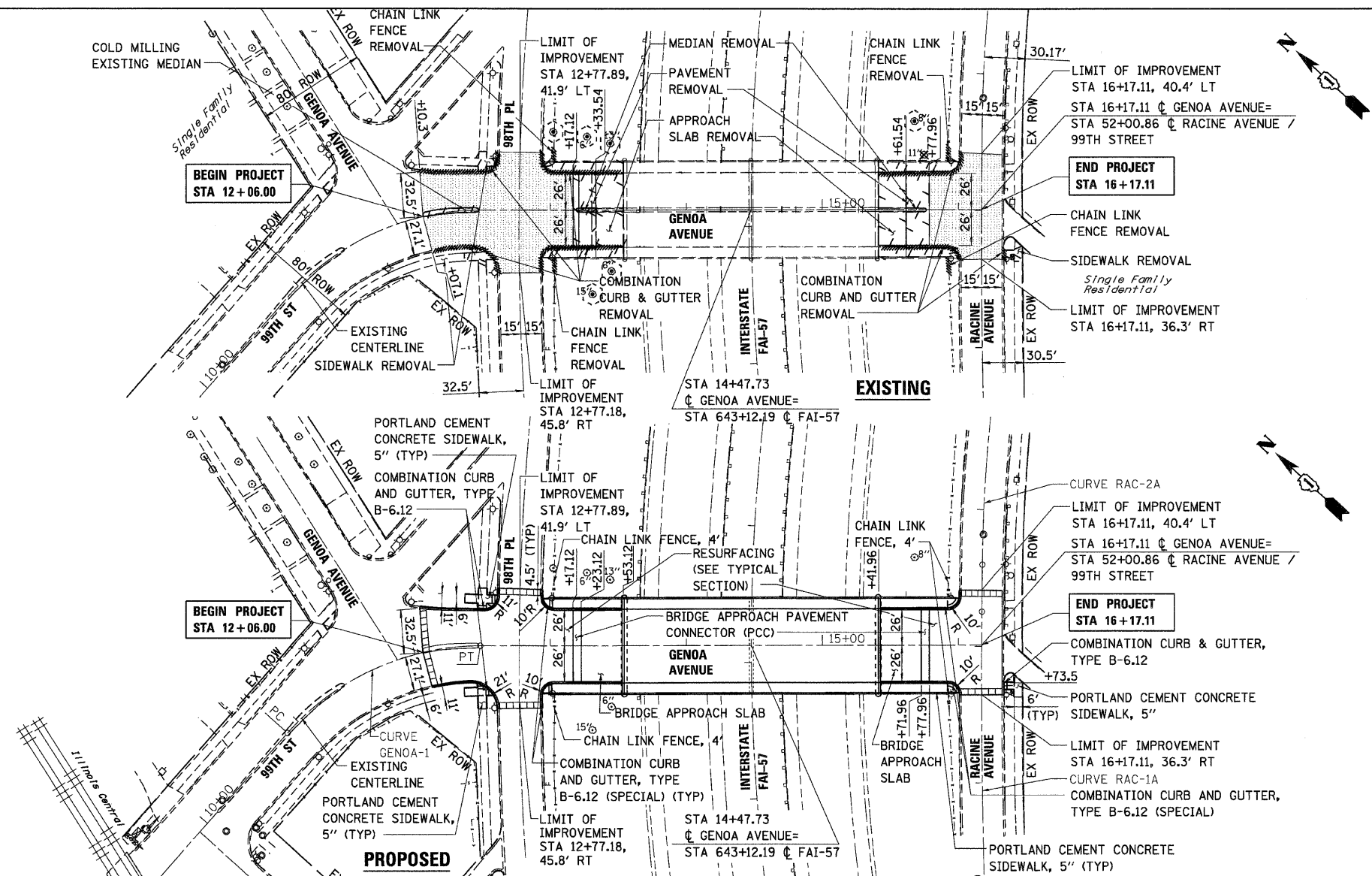
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**ALIGNMENT, TIES AND BENCHMARKS
 GENOA AVENUE OVER FAI-57**

SCALE: VERT. NONE
 HORIZ. DATE: 3/1/2010
 DRAWN BY: E.D.
 CHECKED BY: A.A.C.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	13
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND:

- ▬ HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT
- ▬ HOT-MIX ASPHALT SURFACE REMOVAL
- ▬ REMOVAL ITEMS
- TREE PROTECTION USING TEMPORARY FENCE
- ✕ TREE REMOVAL

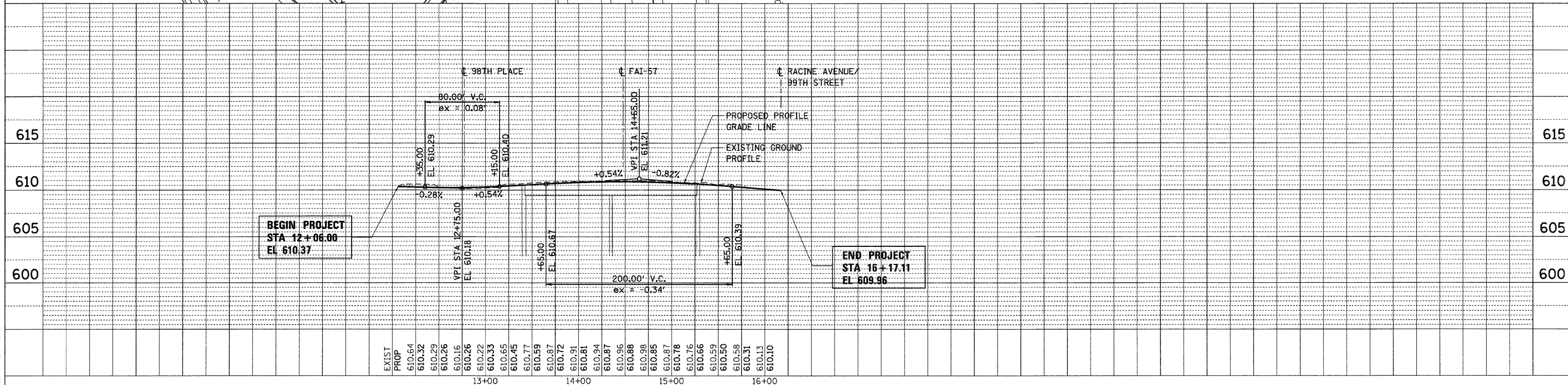
NOTE:

1. SEE BRIDGE PLANS AND APPROACH SLAB DETAILS FOR ADDITIONAL INFORMATION.
2. ANY FILL REQUIRED FOR THE PROPOSED SUBGRADE UNDERNEATH THE SIDEWALK SHALL BE CONSIDERED INCLUDED IN THE COST OF THE PAY ITEM FOR PCC SIDEWALK.
3. PCC SIDEWALK 5 INCH, SPECIAL SHALL BE CONSTRUCTED IN LOCATIONS SHOWN IN THE SCHEDULE OF QUANTITIES AND CONSTRUCTED AS PER THE SPECIAL PROVISIONS.

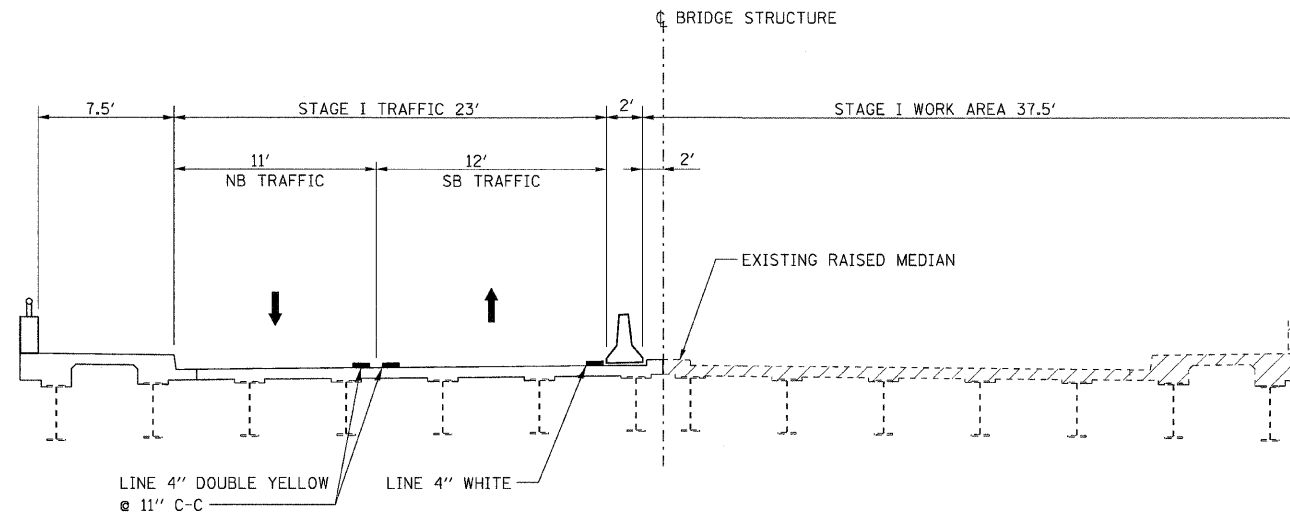
PLAN	SURVEYED	DATE
	BY	
	NO. OF SHEETS	
	NO. OF SHEETS CHECKED	
	CADD FILE NAME	

PROF	E	DATE
	BY	
	NO. OF SHEETS	
	NO. OF SHEETS CHECKED	
	STRUCTURE NOTATION CHKD	

PLOT DATE = Monday, March 06, 2018
 FILE NAME = S:\11-CADD\01-13\13.550\app01.dgn
 PLOT SCALE = 50%
 USER NAME = 3658

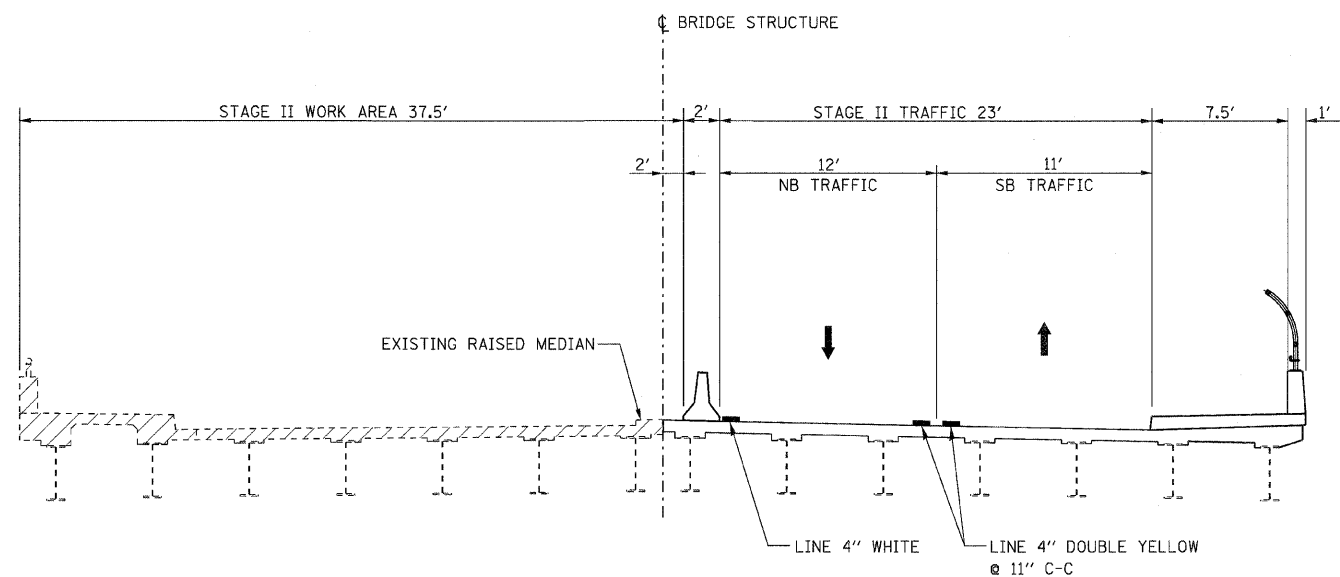


F.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	14
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



STAGE I

(LOOKING SOUTH)



STAGE II

(LOOKING SOUTH)

LEGEND:

- TEMPORARY PAVEMENT MARKING OR WET REFLECTIVE TEMPORARY - TAPE, TYPE III
- ↓ TRAFFIC DIRECTION
- ▲ TEMPORARY CONCRETE BARRIER

REVISIONS	
NAME	DATE

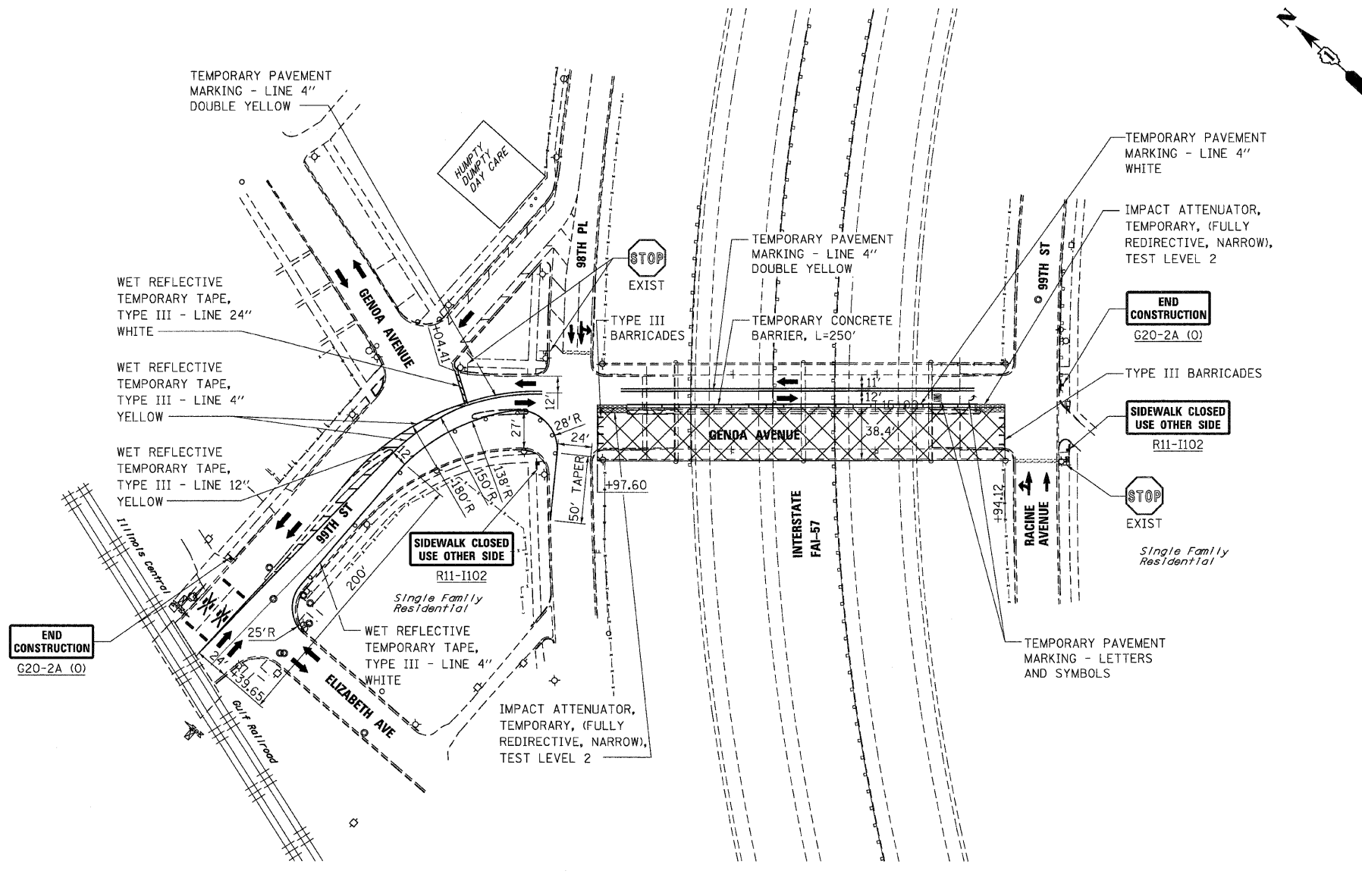
ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE CONSTRUCTION
TYPICAL SECTIONS
GENOA AVENUE OVER FAI-57

SCALE: VERT. NONE
 HORIZ. DATE: 3/1/2010

DRAWN BY: E.D.
 CHECKED BY: A.A.C.






Stanley Consultants INC.
 850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
 www.stanleygroup.com
 Whole Firm Registration No. 04-00533
 (773) 637-9624

CONTRACT NO. 62119				
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	15
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



STAGE 1

LEGEND:

-  WORK AREA
-  TRAFFIC DIRECTION
-  TYPE I OR II BARRICADE @ 50' C-C W/ FLASHING LIGHT
-  TYPE III BARRICADE W/ 2 STEADY BURN LIGHTS
-  FLASHING ARROW BOARD

SUGGESTED MAINTENANCE OF TRAFFIC, PRESTAGE

- GENOA AVE: STAGING**
- TEMPORARY LANE CLOSURES OF INSIDE LANE ADJACENT TO MEDIAN AS PER HWY STD 701606.
- GENOA AVE: CONSTRUCTION**
- MILL EXISTING CONCRETE MEDIAN FLUSH WITH ADJACENT PAVEMENT OR AS DIRECTED BY THE ENGINEER.

SUGGESTED MAINTENANCE OF TRAFFIC, STAGE I

- INTERSTATE 57: STAGING**
- INTERSTATE 57 TEMPORARY SHOULDER/LANE CLOSURES WILL ONLY BE PERMITTED DURING OFF-PEAK HOURS. SEE SPECIAL PROVISION "KEEPING THE EXPRESSWAY OPEN TO TRAFFIC" FOR DAYS AND TIMES.
- GENOA AVE: STAGING**
- SHIFT GENOA AVE TRAFFIC TO THE NORTH AS SHOWN.
- GENOA AVE: CONSTRUCTION**
- REMOVE AND SALVAGE THE EXISTING PROTECTIVE SHIELD AND INSTALL PROTECTIVE SHIELD AS PER STRUCTURE PLANS.
 - PERFORM ABUTMENT REPAIRS PER STRUCTURE PLANS.
 - PERFORM DECK REMOVAL AND REPLACEMENT IN CONSTRUCTION ZONE AS PER STRUCTURE PLANS.
 - COMPLETE ROADWAY IMPROVEMENTS IN WORK ZONE.

NOTES:

- ALL TYPE III BARRICADES SHOULD HAVE 2 STEADY BURN LIGHTS.
- ALL PAVEMENT MARKINGS REMOVED FOR STAGING SHALL BE REPLACED.
- SEE STRUCTURE PLANS FOR STAGING DETAILS ON BRIDGES.
- ADVANCE SIGNING AS PER HWY STD 701606 FOR 99TH STREET, GENOA AVE AND RACINE AVE.
- SIDEWALK CLOSURE AS PER HWY STD 701801 FOR GENOA AVE.
- SHOULDER CLOSURE AS PER TC-17. USE HWY STDS 701400, 701401, AND 701406 FOR TEMPORARY ONE-LANE CLOSURES ON I-57. THIS WORK SHALL BE PAID FOR AS "TRAFFIC CONTROL & PROTECTION (EXPRESSWAYS)".
- THE CONTRACTOR SHALL NOT CLOSE BOTH SHOULDERS IN THE SAME DIRECTION OF I-57 CONCURRENTLY.

PLOT DATE = Thursday, March 04, 2010
 FILE NAME = S:\11-CADD\11-15-10\115-155\mact.dwg
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = 3679



Stanley Consultants INC
 850 West Higgins Road, Suite 730, Chicago, Illinois 6063-2801
 www.stanleygroup.com
 Illinois Firm Registration No. 04-00633
 (773) 633-2524

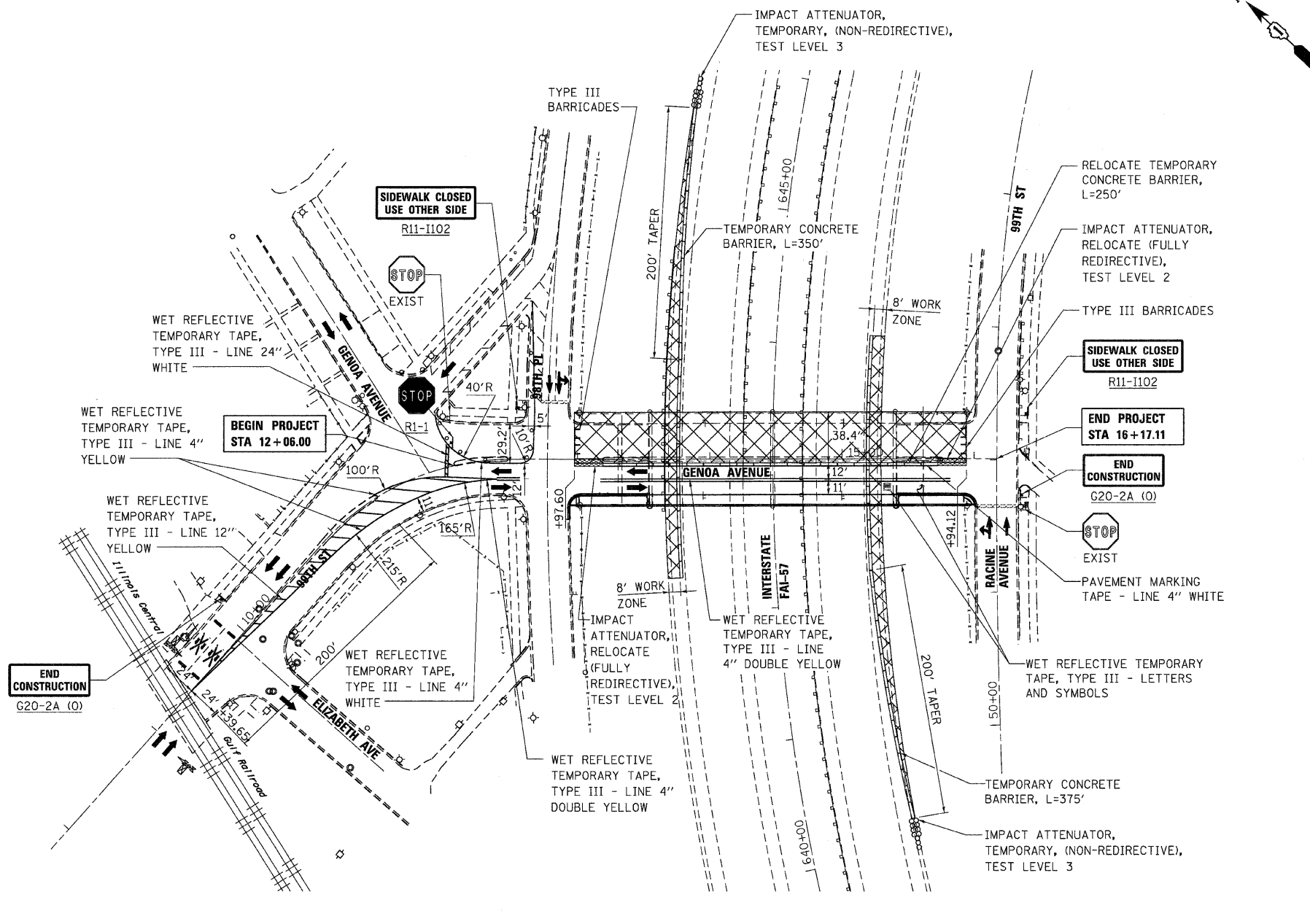
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUGGESTED MAINTENANCE OF TRAFFIC
STAGE 1
GENOA AVENUE OVER FAI-57

SCALE: VERT. 1"=50'
 HORIZ. 1"=50'
 DATE: 3/1/2010

DRAWN BY: E.D.
 CHECKED BY: A.A.C.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	16
STA. 12+06.00		TO STA.16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



SUGGESTED MAINTENANCE OF TRAFFIC, STAGE II

INTERSTATE 57: STAGING
 1. INTERSTATE 57 TEMPORARY SHOULDER/LANE CLOSURES WILL ONLY BE PERMITTED DURING OFF-PEAK HOURS. SEE SPECIAL PROVISION "KEEPING THE EXPRESSWAY OPEN TO TRAFFIC" FOR DAYS AND TIMES.

GENOA AVE: STAGING
 1. SHIFT GENOA AVENUE TRAFFIC TO THE SOUTH AS SHOWN.






GENOA AVE: CONSTRUCTION
 1. PERFORM DECK REMOVAL AND REPLACEMENT IN CONSTRUCTION ZONE AS PER STRUCTURE PLANS.
 2. PERFORM ABUTMENT REPAIRS PER STRUCTURE PLANS.
 3. ATTACH DRAINAGE SCUPPERS AND DOWNSPOUTS TO EXISTING DRAINAGE STRUCTURES.
 4. COMPLETE ROADWAY IMPROVEMENTS IN WORK ZONE.
 5. COLD MILL EXISTING MEDIAN AT 98TH PLACE TO THE ELEVATION OF ADJACENT HOT-MIX ASPHALT SURFACE REMOVAL.
 6. MILL AND OVERLAY PAVEMENT AND MEDIAN AT 98TH PLACE AND RACINE AVE INTERSECTIONS. USE HWY STDS 701606 AND 701701.

NOTES:

- ALL TYPE III BARRICADES SHOULD HAVE 2 STEADY BURN LIGHTS.
- ALL PAVEMENT MARKINGS REMOVED FOR STAGING SHALL BE REPLACED.
- SEE STRUCTURE PLANS FOR STAGING DETAILS ON BRIDGES.
- ADVANCE SIGNING AS PER HWY STD 701606 FOR 99TH STREET, GENOA AVE AND RACINE AVE.
- SIDEWALK CLOSURE AS PER HWY STD 701801 FOR GENOA AVE.
- SHOULDER CLOSURE AS PER TC-17. USE HWY STDS 701400 AND 701401, AND 701406 FOR TEMPORARY ONE-LANE CLOSURES ON I-57. THIS WORK SHALL BE PAID FOR AS "TRAFFIC CONTROL & PROTECTION (EXPRESSWAYS)".
- THE CONTRACTOR SHALL NOT CLOSE BOTH SHOULDERS IN THE SAME DIRECTION OF I-57 CONCURRENTLY.

STAGE 2

LEGEND:

-  WORK AREA
-  TRAFFIC DIRECTION
-  TYPE I OR II BARRICADE @ 50' C-C W/ FLASHING LIGHT
-  TYPE III BARRICADE W/ 2 STEADY BURN LIGHTS
-  FLASHING ARROW BOARD

PLOT DATE = Thursday, March 04, 2010
 FILE NAME = SAN-CADD\01-rtk\16.959\mct_2.dgn
 PLOT SCALE = 50:1
 USER NAME = 3679



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUGGESTED MAINTENANCE OF TRAFFIC
STAGE 2
GENOA AVENUE OVER FAI-57

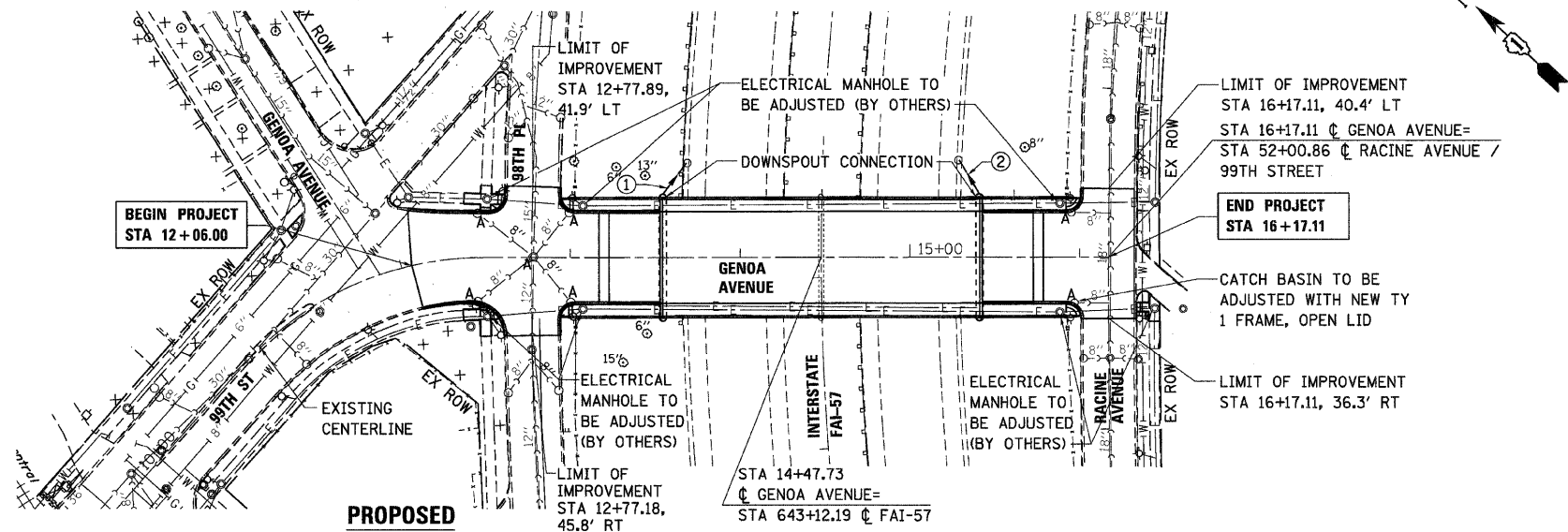
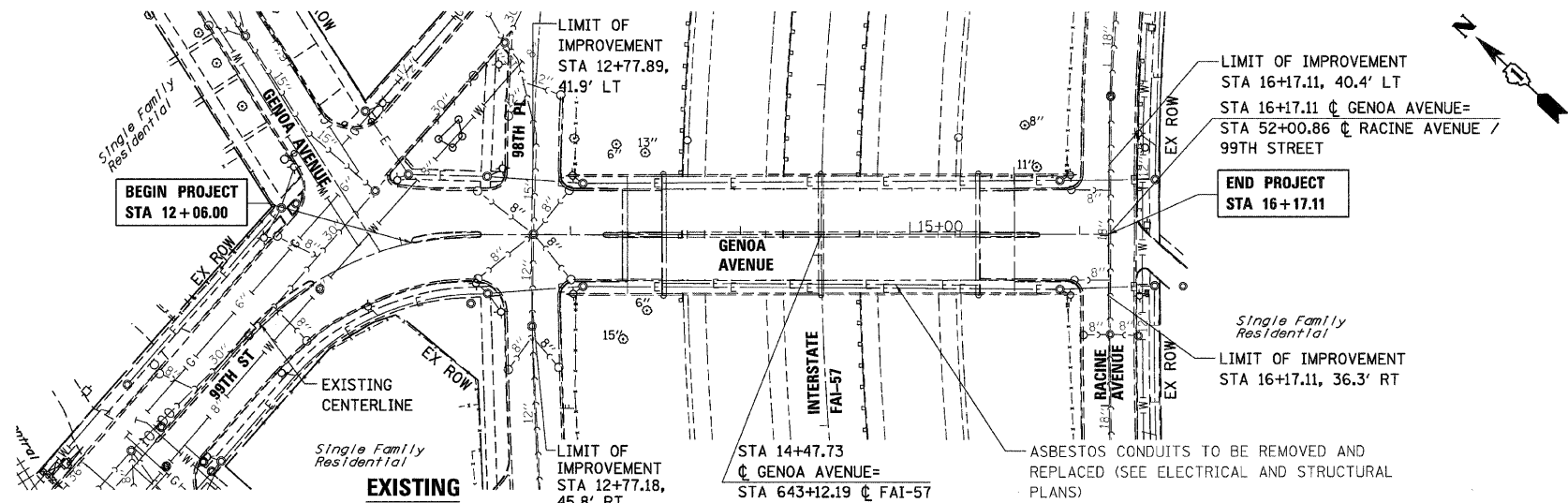
SCALE: VERT. 1"=50'
 HORIZ. 1"=50'
 DATE: 3/1/2010
 DRAWN BY: E.D.
 CHECKED BY: A.A.C.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	17
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

DATE	BY
DATE	BY
DATE	BY
DATE	BY

DATE	BY
DATE	BY
DATE	BY
DATE	BY

PLOT DATE = Thursday, March 04, 2010
 FILE NAME = S:\11-CADD\11-shaft-988ad-01.dgn
 PLOT SCALE = 60:1
 USER NAME = 3698



MANHOLE TO BE ADJUSTED (EACH)

STA	OFFSET
12+78.11	0.39' RT
TOTAL = 1 EACH	

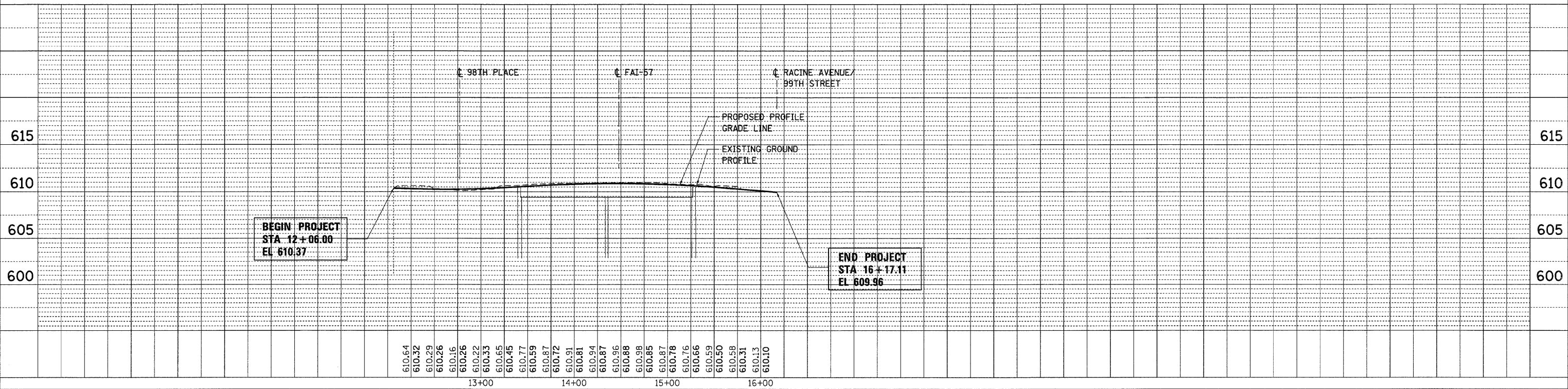
CATCH BASINS TO BE ADJUSTED (EACH)

STA	OFFSET
12+46.05	30.11' RT
12+46.52	21.75' LT
13+00.41	22.20' LT
13+01.32	30.49' RT
15+96.27	22.10' LT
TOTAL = 5 EACH	

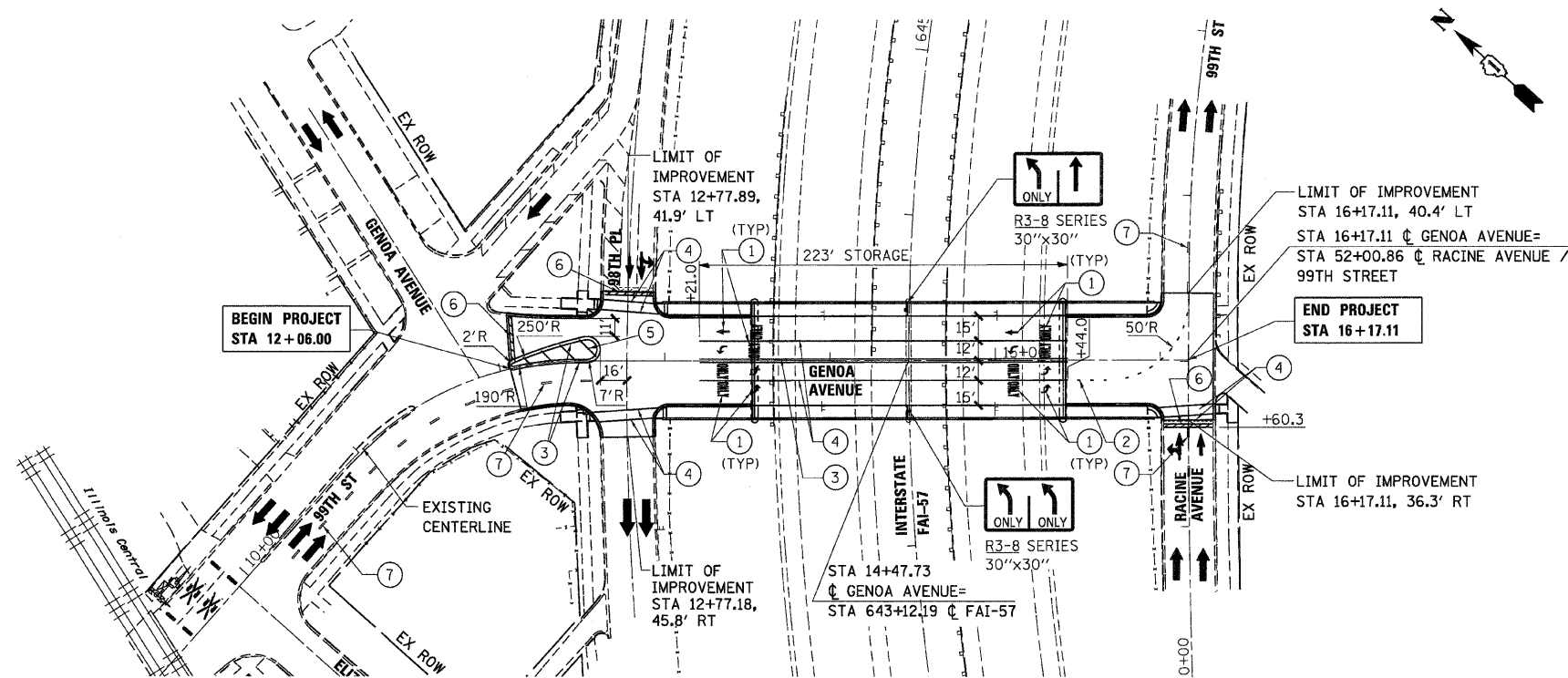
CATCH BASIN TO BE ADJUSTED WITH NEW TYPE 1 FRAME, OPEN LID (EACH)

STA	OFFSET
15+98.00	31.10' RT
TOTAL = 1 EACH	

PIPE NO	STA (SIDE @ E.O.P.)	CLASS / TYPE	DIAMETER (IN)	LENGTH (FT)	SLOPE	I-57 STRUCTURE		
						DOWNSPOUT INVERT	RIM	INVERT
1	13+58.64 (LT)	CL A, TY I	12	26	1.00	587.12	591.26	586.86
2	15+39.00 (LT)	CL A, TY I	12	25	1.00	586.94	588.09	583.69



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	18
STA. 12+06.00		TO STA.16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



LEGEND:

- ① POLYUREA PAVEMENT MARKING - LETTERS AND SYMBOLS
- ② POLYUREA PAVEMENT MARKING - LINE 4", WHITE, SKIP DASH - 6' SKIP - 2' DASH
- ③ POLYUREA PAVEMENT MARKING - LINE 4", DOUBLE YELLOW
- ④ POLYUREA PAVEMENT MARKING - LINE 6", WHITE
- ⑤ POLYUREA PAVEMENT MARKING - LINE 12", YELLOW
- ⑥ POLYUREA PAVEMENT MARKING - LINE 24", WHITE
- ⑦ POLYUREA PAVEMENT MARKING - LINE 4", WHITE SKIP DASH, 18' SKIP - 6' DASH

NOTES:

- 1. SEE DISTRICT ONE STANDARD 'CITY OF CHICAGO TYPICAL PAVEMENT MARKINGS' FOR ADDITIONAL INFORMATION.

PLOT DATE = Thursday, March 04, 2010
 FILE NAME = S:\J-CARD\01-CH\118.586.asd.dgn
 PLOT SCALE = 80%
 USER NAME = 3679



REVISIONS	
NAME	DATE

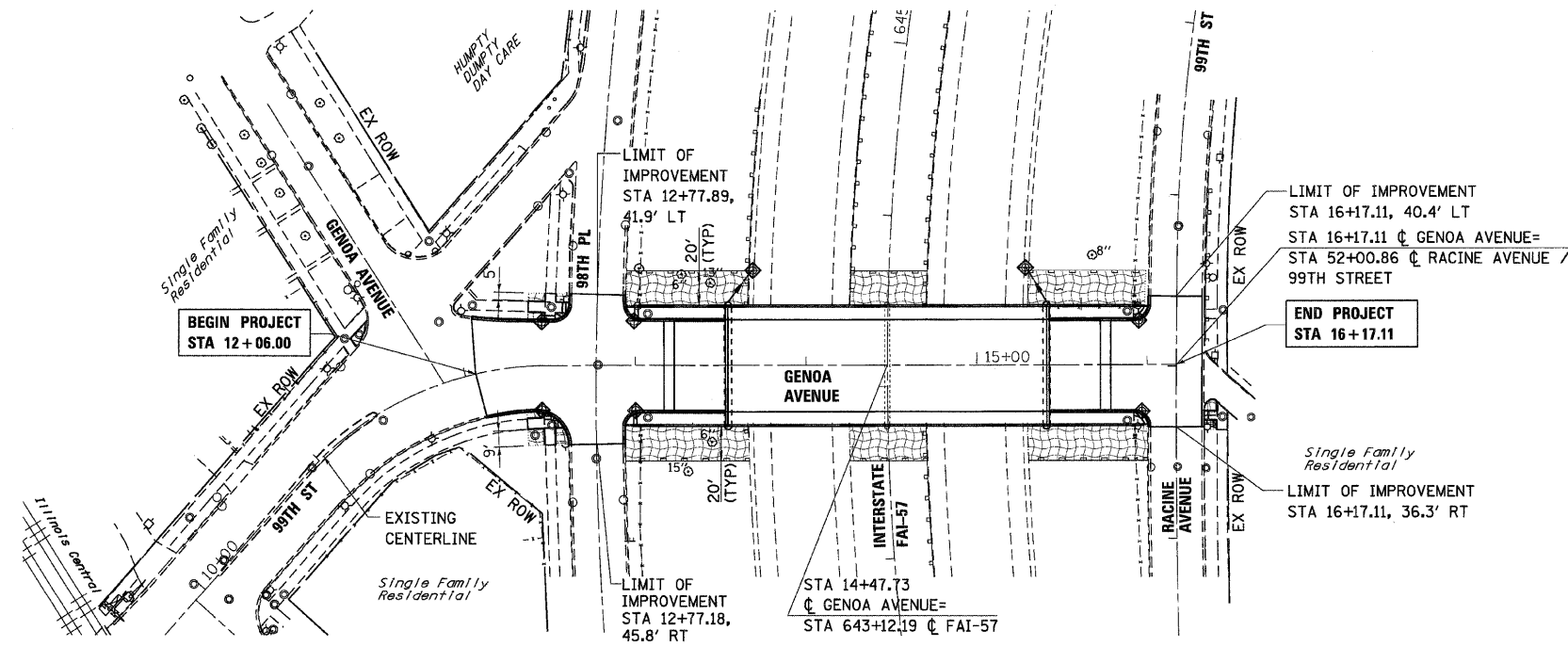
ILLINOIS DEPARTMENT OF TRANSPORTATION

**SIGNING /PAVEMENT MARKING PLAN
GENOA AVENUE OVER FAI-57**

SCALE: VERT. 1"=50'
 HORIZ. 1"=50'
 DATE: 3/1/2010

DRAWN BY: E.D.
 CHECKED BY: A.A.C.

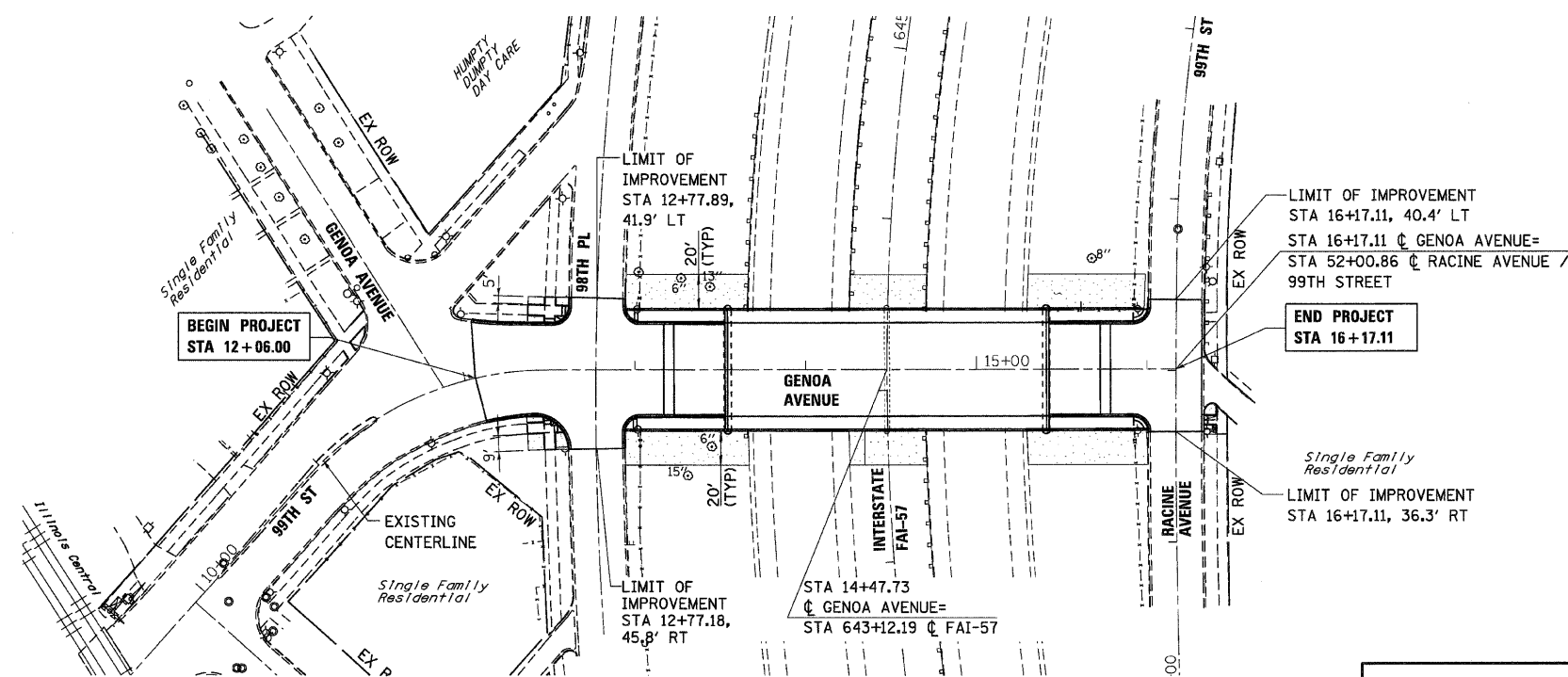
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	19
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



EROSION CONTROL

NOTE:

1. EROSION CONTROL MEASURES ARE A HIGH PRIORITY ON THIS CONTRACT. THE ENGINEER WILL IMPLEMENT ALL PROVISIONS OF THE SPECIFICATION NECESSARY TO ASSURE THAT EROSION CONTROL ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY MANNER. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES THAT MAY POTENTIALLY CREATE ERODIBLE CONDITIONS.
2. THE EROSION CONTROL MEASURES SHOWN ARE A GRAPHICAL REPRESENTATION OF SUGGESTED MEASURES. DEVIATIONS FROM THIS MAY BE REQUIRED PENDING A JOBSITE INSPECTION BETWEEN THE CONTRACTOR AND ENGINEER.
3. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN SEDIMENT CONTROL MEASURES PRIOR TO STRIPPING EXISTING VEGETATION.
4. NO SLOPE SHALL BE LEFT UNDISTURBED FOR MORE THAN 7 DAYS WITHOUT THE PLACEMENT OF TEMPORARY OR PERMANENT SEEDING.



LANDSCAPING

LEGEND:

- DRAINAGE STRUCTURE INLET FILTER
- TEMPORARY EROSION CONTROL SEEDING
- PERIMETER EROSION BARRIER
- SEEDING, CLASS 2A WITH EROSION CONTROL BLANKET

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL /LANDSCAPING PLAN

GENOA AVENUE OVER FAI-57

SCALE: VERT. 1"=50'
 HORIZ. 1"=50'

DATE: 3/1/2010

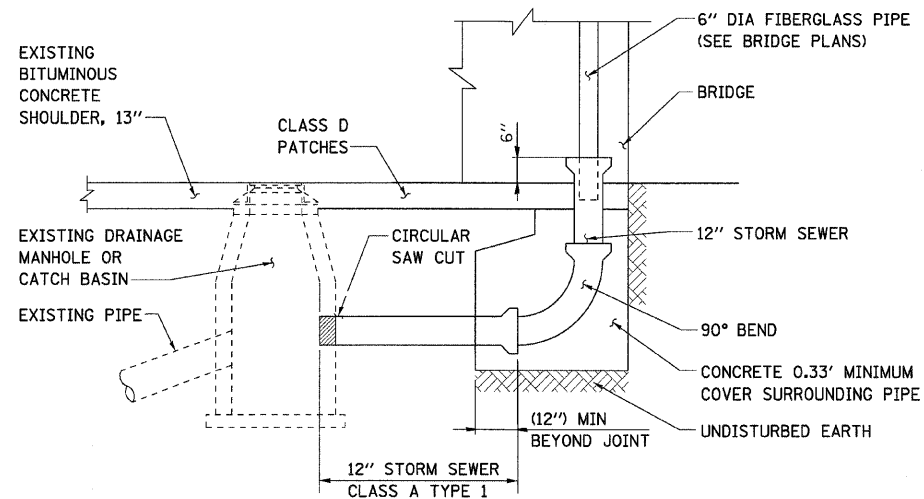
DRAWN BY: E.D.
 CHECKED BY: A.A.C.

Stanley Consultants INC

550 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
 www.stanleygroup.com
 Illinois Firm Registration No. 04-00533
 (773) 622-2624

PLOT DATE = Thursday, March 04, 2010
 FILE NAME = S:\11-CADD\01-11\110500.dwg
 PLOT SCALE = 0.81
 USER NAME = 3679

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	20
STA. 12+06.00		TO STA.16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



DOWNSPOUT CONNECTION DETAIL

NOTES:

1. SEE DRAINAGE PLANS FOR PIPE LENGTHS.
2. STORM SEWER SHALL BE PAID FOR AS STORM SEWER OF THE CLASS, TYPE, AND SIZE SHOWN.
3. TRENCH BACKFILL WILL BE MEASURED AND PAID FOR SEPERATELY.

DESCRIPTION:

THIS ITEM SHALL CONSIST OF CONNECTING A FIBERGLASS DOWNSPOUT FROM THE BRIDGE DECK DRAINAGE SCUPPERS TO AN EXISTING MANHOLE OR OTHER DRAINAGE STRUCTURE AS SHOWN ON THE PLANS AND THE DOWNSPOUT CONNECTION DETAIL.

GENERAL REQUIREMENTS:

THE CONNECTION HOLE IN THE DRAINAGE STRUCTURE SHALL BE A CIRCULAR SAW CUT NO MORE THAN AN INCH LARGER THAN THE OUTSIDE DIAMETER OF THE CONNECTION PIPE. A CONDUIT OF THE SIZE REQUIRED SHALL BE INSTALLED IN THE HOLE. THE SPACE BETWEEN THE CONDUIT AND THE MANHOLE SHALL BE SEALED WITH MASONRY TO PROVIDE A WATERPROOF CONNECTION.

BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR DOWNSPOUT CONNECTION AND INCLUDE PIPE MATERIALS, CONCRETE, EXCAVATION, CONNECTING TO THE EXISTING DRAINAGE STRUCTURE, AND ALL OTHER INCIDENTALS NECESSARY TO CONNECT THE 6" FIBERGLASS DOWNSPOUT TO AN EXISTING DRAINAGE STRUCTURE. THE STORM SEWER AND TRENCH BACKFILL SHALL BE MEASURED AND PAID FOR SEPARATELY.

PLOT DATE = Thursday, March 04, 2010
 FILE NAME = S:\11-CADD\01-INT\A.20-5884101.dgn
 PLOT SCALE = 50%
 USER NAME = 3679



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**MISCELLANEOUS DETAILS
 GENOA AVENUE OVER FAI-57**

SCALE: VERT. NONE
 HORIZ.
 DATE: 3/1/2010

DRAWN BY: E.D.
 CHECKED BY: A.A.C.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	068-2222-3B	COOK	77	21
STA. -		TO STA. -		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

ELECTRICAL NOTES

PART 1: GENERAL

A. DESCRIPTION

PROVIDE ALL REQUIREMENTS AND CRITERIA FOR SAFETY AND RELIABILITY TO FURNISH AND INSTALL COMPLETE OPERATING ELECTRICAL SYSTEM, INCLUDING MATERIALS, LABOR, NECESSARY EQUIPMENT AS HEREIN SPECIFIED. COMPLY WITH IDOT, NATIONAL ELECTRICAL CODE, AND ALL APPLICABLE CODES AND STANDARDS.








B. ELECTRICAL WORK

- CONTRACTOR SHALL FURNISH AND INSTALL COMPLETE ELECTRICAL/SITE LIGHTING SYSTEM WITH ALL LUMINARIES, FOUNDATION, JUNCTION BOXES, TEMPORARY LIGHTING, CONDUITS, HANGERS, SUPPORTS, DEVICES, WIRING, ETC., REQUIRED FOR A COMPLETE AND OPERATIONAL INSTALLATION.
- THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE RULES AND REGULATIONS SET FORTH BY IDOT. THE WORK SHALL ALSO MEET THE LAWS AND ORDINANCE REQUIRED BY THOSE AGENCIES HAVING JURISDICTION.
- CONTRACTOR SHALL VISIT THE SITE AND MAKE HIMSELF/HERSELF THOROUGHLY FAMILIAR WITH EXISTING CONDITIONS. PRIOR TO SUBMITTING THE PROPOSAL, INCLUDE ANY RELOCATION AND/OR ALTERNATIONS TO THE NEW ELECTRICAL SYSTEM, COMPONENTS OR EQUIPMENT REQUIRED TO ACCOMMODATE THE NEW CONSTRUCTION.
- CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED TO PERFORM HIS WORK. PREPARE AND SUBMIT TO THE AUTHORITIES ANY AND ALL DATA, DRAWING AND DETAILS REQUIRED FOR APPROVAL BEFORE COMMENCING THE INSTALLATION.
- CONTRACTOR SHALL COORDINATE WORK WITH ALL TRADES AND AVOID CONFLICTS AND DELAYS.
- NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE NEW WORK. LACK OF NOTIFICATION SHALL INDICATE THAT NO DISCREPANCIES OR CONFLICTS EXISTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE CAUSED BY HIM/HER IN ANY AREA OF THE PROJECT SUCH AS PAVEMENT, DRIVEWAYS, AND SIDEWALKS AND SHALL RESTORE THEM TO THEIR ORIGINAL CONDITION AS DIRECTED BY THE ENGINEER. LANDSCAPED AREAS SHALL BE RESTORED AND DAMAGED PLANT MATERIALS REPLACED TO THE SATISFACTION OF THE ENGINEER.
- MAINTENANCE OF EXISTING LIGHTING SYSTEM PAY ITEM SHALL INCLUDE PROTECTION AND MAINTENANCE OF THE EXISTING UNDERPASS LIGHTING.
- REFER TO STRUCTURAL PLANS FOR DETAILS ON ATTACHING NEW LIGHTING POLES. COORDINATE CONDUIT PENETRATION AND PROVIDE ALL ASSOCIATED ACCESSORIES FOR COMPLETE FUNCTIONAL INSTALLATION.
- THE CONTRACTOR SHALL USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN MOUNTING SUSPENDED CONDUITS UNDER BRIDGE 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 CONDUITS UNDER BRIDGE AS REQUIRED TO SUPPORT CONDUITS WEIGHT AND AS APPROVED BY IDOT AND CITY OF CHICAGO.

C. SEQUENCE OF OPERATION

IN ORDER TO MAINTAIN LIGHTING AT THE BRIDGE AT ALL TIME, THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF OPERATION:
 OBTAIN TEMPORARY LIGHTING FROM STATE STOCK
 INSTALL ALL WIRING AND JUNCTION BOXES TO TEMPORARY FIXTURES LOCATION.
 REMOVE EXISTING UNDERPASS FIXTURES.
 INSTALL NEW UNDERPASS LIGHTING
 REMOVE TEMPORARY LIGHTING AND WIRING
 TEST THE SYSTEM.

LEGEND

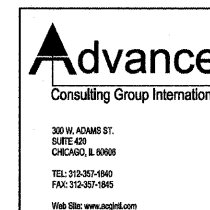
- RIGID GALVANIZED STEEL CONDUIT, PVC COATED
- UNIT DUCT, 3'-0" BELOW GRADE
- A/C --- TEMPORARY AERIAL CABLE
3-1/C NO. 2, ALUMINUM,
WITH MESSENGER WIRE
-  EXISTING UNDERPASS LUMINAIRE
TO BE REMOVED
-  TEMPORARY UNDERPASS LUMINAIRE, 70W HPS,
WALL MOUNTED
-  TEMPORARY UNDERPASS LUMINAIRE
TO BE REMOVED
-  UNDERPASS LIGHTING LUMINAIRE, 70W HPS,
CIRCUIT NUMBER AS NOTED
-  JUNCTION BOX ATTACHED TO STRUCTURE
-  EXISTING LIGHTING UNIT AND POLE TO REMAIN
-  BG6
LIGHTING UNIT NUMBER
CIRCUIT NAME
LIGHTING CONTROLLER NAME

BILL OF MATERIAL FOR IDOT LIGHTING - UNDERPASS LIGHTING

FULL DESCRIPTION	UNIT	TOTAL QUANTITY
CONDUIT IN TRENCH, 4" DIA., PVC	FOOT	100
CONDUIT ATTACHED TO STRUCTURE, 1" DIA., PVC COATED, GALVANIZED STEEL	FOOT	210
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	8
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	4
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 16" X 14" X 6"	EACH	4
UNIT DUCT, 600V, 3-1/C NO.4 AND 1/C NO. 6 GROUND (EPR-TYPE RHW), 1 1/4" DIA., POLYETHYLENE	FOOT	94
ELECTRIC CABLE IN CONDUIT, 600V(EPR-TYPE RHW) 1/C NO. 10	FOOT	1100
ELECTRIC CABLE IN CONDUIT, 600V(EPR-TYPE RHW) 1/C NO. 6	FOOT	138
ELECTRIC CABLE IN CONDUIT, 600V(EPR-TYPE RHW) 1/C NO. 4	FOOT	413
AERIAL CABLE 3-1/C NO. 2 WITH MESSENGER WIRE	FOOT	600
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	440
REMOVAL OF EXISTING LIGHTING UNIT, NO SALVAGE	EACH	12
DRILL EXISTING FOUNDATION	EACH	4
MAINTENANCE OF LIGHTING SYSTEM	CAL MO	6
REMOVAL OF TEMPORARY LIGHTING FIXTURE, SALVAGE	EACH	12
CONDUIT ATTACHED TO STRUCTURE, 2 1/2" DIA., PVC COATED GALVANIZED STEEL	FOOT	140
UNDERPASS LUMINAIRE, 70WATT, HIGH PRESSURE SODIUM VAPOR, STAINLESS STEEL HOUSING	EACH	8
TEMPORARY UNDERPASS LUMINAIRE, 70WATT, HIGH PRESSURE SODIUM VAPOR, STAINLESS STEEL HOUSING (INSTALL ONLY)	EACH	12

BILL OF MATERIAL FOR GENOA AVE.

FULL DESCRIPTION	UNIT	TOTAL QUANTITY
CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	650
CONDUIT EMBEDDED IN STRUCTURE, 3" DIA., PVC	FOOT	20
REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	8
DRILL EXISTING HANDHOLE	EACH	4
INSTALL LIGHT POLE, MAST ARM & LUMINAIRE(MATERIAL PROVIDED BY CITY OF CHICAGO)	EACH	8
CONDUIT ATTACHED TO STRUCTURE, 4" DIA, PVC COATED GALVANIZED STEEL	FOOT	1148
STREET LIGHTING CABLE, 1/C NO. 6, CITY OF CHICAGO STANDARD	FOOT	1262
STREET LIGHTING CABLE, 1/C NO. 8, CITY OF CHICAGO STANDARD	FOOT	631



REVISIONS	
NAME	DATE

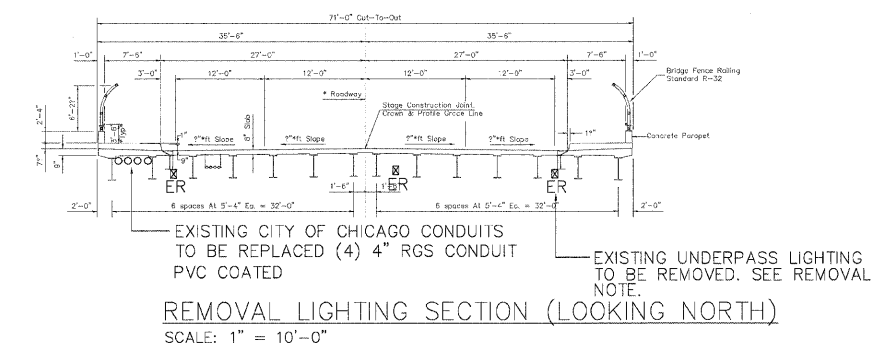
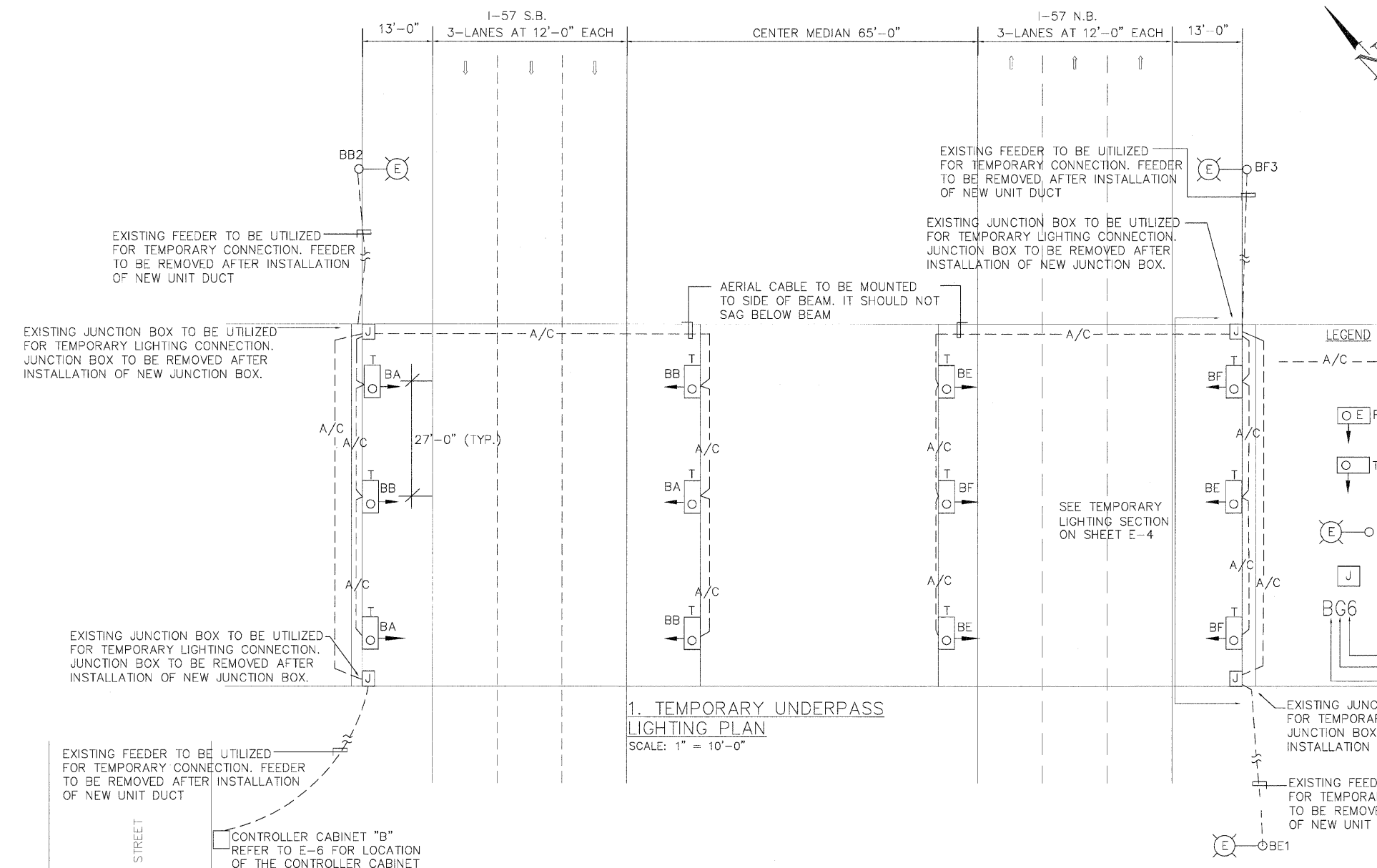
ILLINOIS DEPARTMENT OF TRANSPORTATION

GENOA AVE LIGHTING
GENERAL NOTES AND QUANTITIES

DRAWN BY EHE
CHECKED BY EE

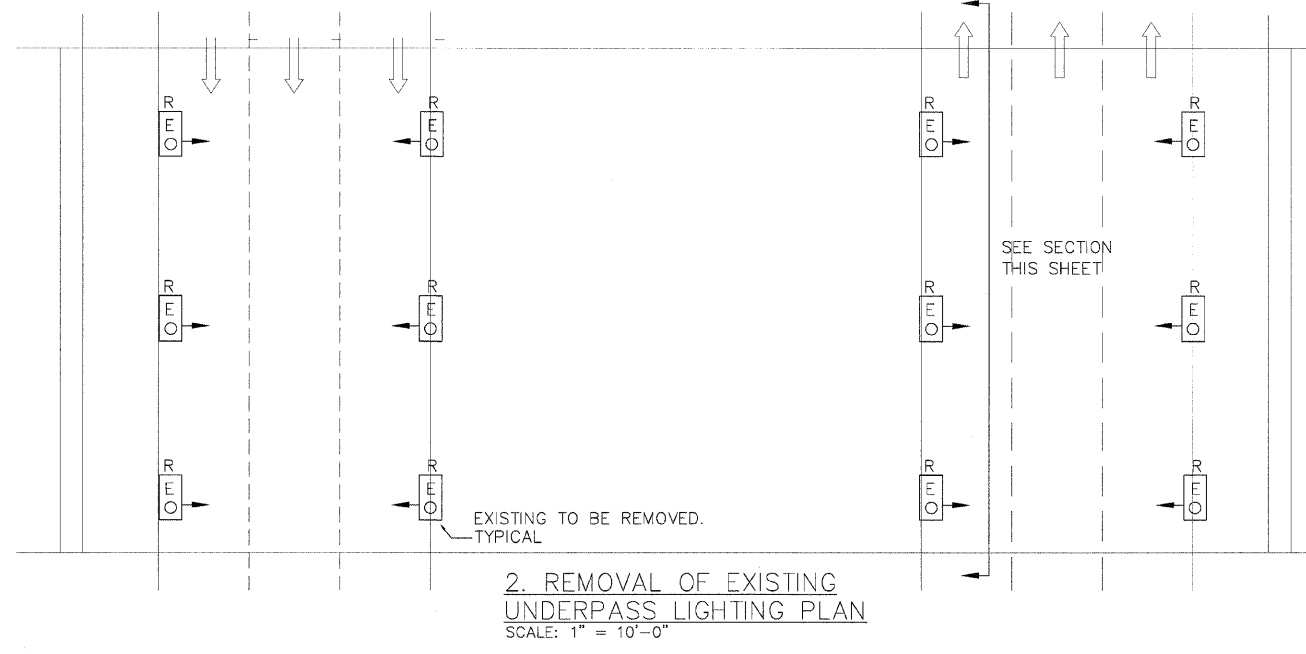
DATE 2-26-10

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



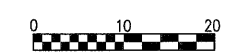
- LEGEND**
- A/C ---
 - E R
 - T
 - E ○
 - J
 - BG6
- TEMPORARY AERIAL CABLE
3-1/2" NO. 2, ALUMINUM,
WITH MESSENGER WIRE
- EXISTING UNDERPASS LUMINAIRE
TO BE REMOVED
- TEMPORARY UNDERPASS LUMINAIRE, 70W HPS,
WALL MOUNTED 15'-0" FROM GRADE
- EXISTING LIGHTING UNIT AND POLE TO REMAIN,
CIRCUIT NUMBER AS NOTED.
- JUNCTION BOX ATTACHED TO STRUCTURE
- LIGHTING UNIT NUMBER
CIRCUIT NAME
LIGHTING CONTROLLER NAME

- SEQUENCE OF INSTALLATION NOTES:**
- INSTALL TEMPORARY LIGHTING LUMINAIRES WITH ALL ASSOCIATED AERIAL CABLES AND SUPPORT AS REQUIRED FOR OPERATION. OBTAIN TEMPORARY LIGHTING LUMINAIRES FROM THE STATE STOCK. TEMPORARY UNDERPASS LIGHTING PICKUP SHALL BE COORDINATED WITH NEIL THAKKAR, ELECTRICAL MAINTENANCE SECTION OF IDOT AT TELEPHONE NUMBER (847) 221-3078 (48 HOURS ADVANCE NOTICE REQUIRED). ENSURE FULL FUNCTIONAL OPERATION. REFER TO THIS SHEET (1. TEMPORARY UNDERPASS LIGHTING PLAN) FOR LOCATION OF TEMPORARY LIGHTING.
 - REMOVE EXISTING UNDERPASS LIGHTING UNITS INCLUDING ALL ASSOCIATED CONDUITS, WIRING, JUNCTION BOXES AND ALL ASSOCIATED EQUIPMENT PART OF REMOVAL WORK. REFER TO THIS SHEET (2. REMOVAL OF EXISTING UNDERPASS LIGHTING PLAN) FOR REMOVAL OF EXISTING LIGHTING.
 - INSTALL NEW UNDERPASS LIGHTING AS INDICATED ON SHEET E-3 (1. PROPOSED UNDERPASS LIGHTING PLAN)
 - REMOVE TEMPORARY UNDERPASS LIGHTING AND ALL ASSOCIATED WIRING, JUNCTION BOXES, ETC. PART OF THE TEMPORARY LIGHTING WORK. REFER TO E-4 (2. REMOVAL OF TEMPORARY UNDERPASS LIGHTING PLAN) FOR REMOVAL OF TEMPORARY LIGHTING.
 - COMPONENTS OTHER THAN 70W HPS TEMPORARY UNDERPASS LUMINAIRES COMPRISING THE TEMPORARY LIGHTING SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT. THE CONTRACTOR SHALL PACK THE TEMPORARY 70W HPS UNDERPASS LUMINAIRES INTO ORIGINAL BOXES AND RETURN THEM TO THE STATE STOCK. COORDINATE WITH NEIL THAKKAR, ELECTRICAL MAINTENANCE SECTION OF IDOT AT TELEPHONE NUMBER (847) 221-3078 (48 HOURS ADVANCE NOTICE REQUIRED).



Advance
Consulting Group International

303 W. ADAMS ST.
SUITE 322
CHICAGO, IL 60606
TEL: 312-357-1540
FAX: 312-357-1845
EMAIL: advance@cgint.com



REVISIONS	
NAME	DATE

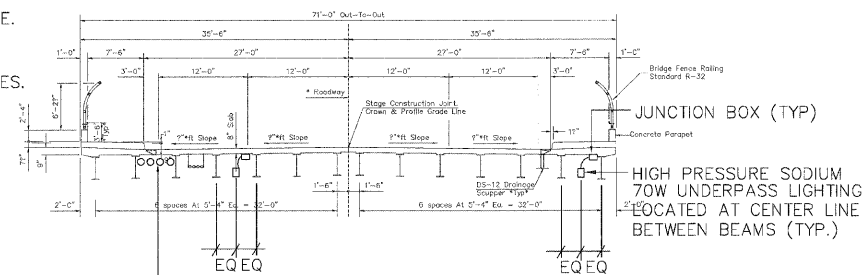
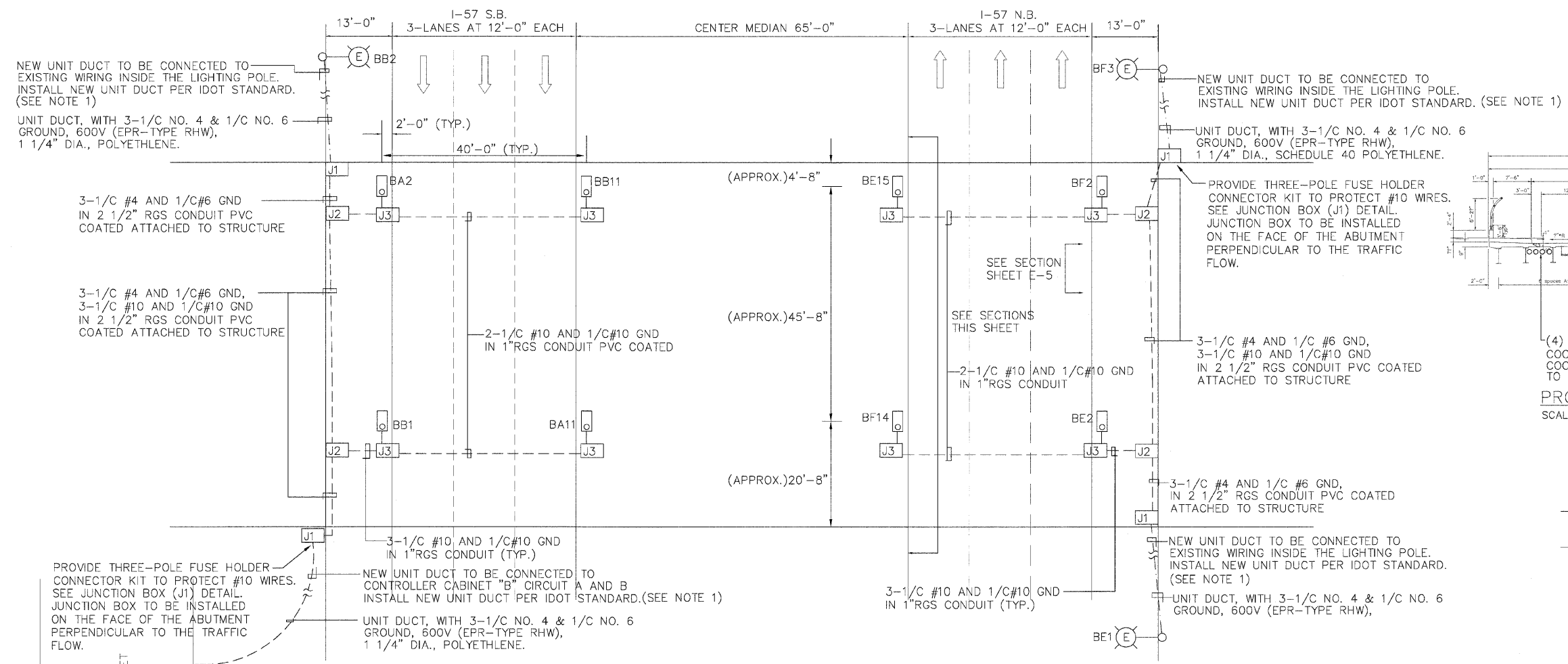
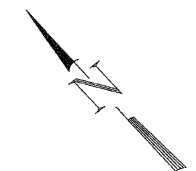
ILLINOIS DEPARTMENT OF TRANSPORTATION

GENOA AVE UNDERPASS
TEMPORARY AND REMOVAL LIGHTING PLAN

DATE 8-4-09

DRAWN BY EHE
CHECKED BY EE

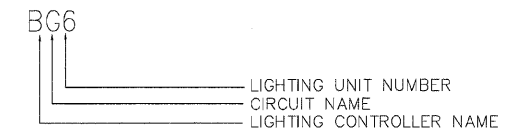
F.A. I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	068-2222-3B	COOK	77	23
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PROPOSED LIGHTING SECTION (LOOKING NORTH)
SCALE: 1" = 10'-0"

LEGEND

- RIGID STEEL CONDUIT, PVC COATED
- UNIT DUCT, 3'-0" BELOW GRADE
- J JUNCTION BOX ATTACHED TO STRUCTURE
- UNDERPASS LIGHTING LUMINAIRE, 70W HPS MOUNTED AT 16'-0" FROM GRADE CIRCUIT NUMBER AS NOTED
- ⊙ EXISTING LIGHTING UNIT AND POLE TO REMAIN

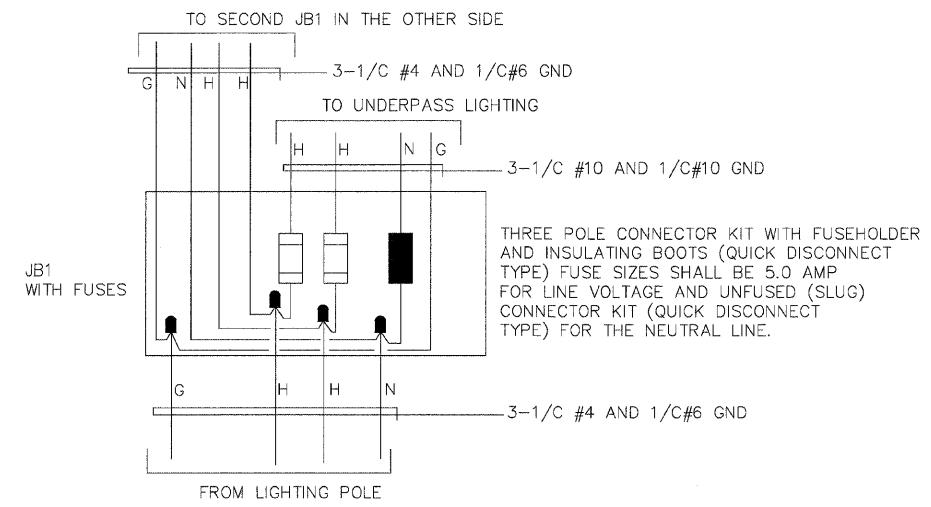


1. PROPOSED UNDERPASS LIGHTING PLAN
SCALE: 1" = 10'-0"

NOTE 1:
CONTRACTOR SHALL CONNECT NEW WIRING BETWEEN LIGHTING POLE AND JUNCTION BOX 1 (J1) AS SHOWN IN THREE LOCATIONS. ALSO BETWEEN JUNCTION BOX 1 (J1) AND CONTROLLER CABINET B THIS WORK SHALL BE PART OF UNIT DUCT INSTALLATION TO ENSURE CONTINUITY OF SERVICE BETWEEN THE TWO POINTS.

S. ELIZABETH STREET

CONTROLLER CABINET "B"
REFER TO E-6 FOR LOCATION OF THE CONTROLLER CABINET



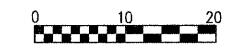
2. PROPOSED JUNCTION BOX (JB1) WITH FUSES
SCALE: N.T.S.

NO.	SIZE	DESCRIPTION	QUANTITY
J1	16 X 14 X 6	SS JUNCTION BOX	4
J2	12 X 10 X 6	SS JUNCTION BOX	4
J3	6 X 6 X 4	SS JUNCTION BOX	8

NOTE: ALL J1 SHALL BE PROVIDED WITH FUSES, SEE DETAIL IN THIS SHEET.

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300 W. ADAMS ST.
SUITE 302
CHICAGO, IL 60606
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FAX: 312-351-1845
EMAIL: advance@cgint.com



NAME	DATE

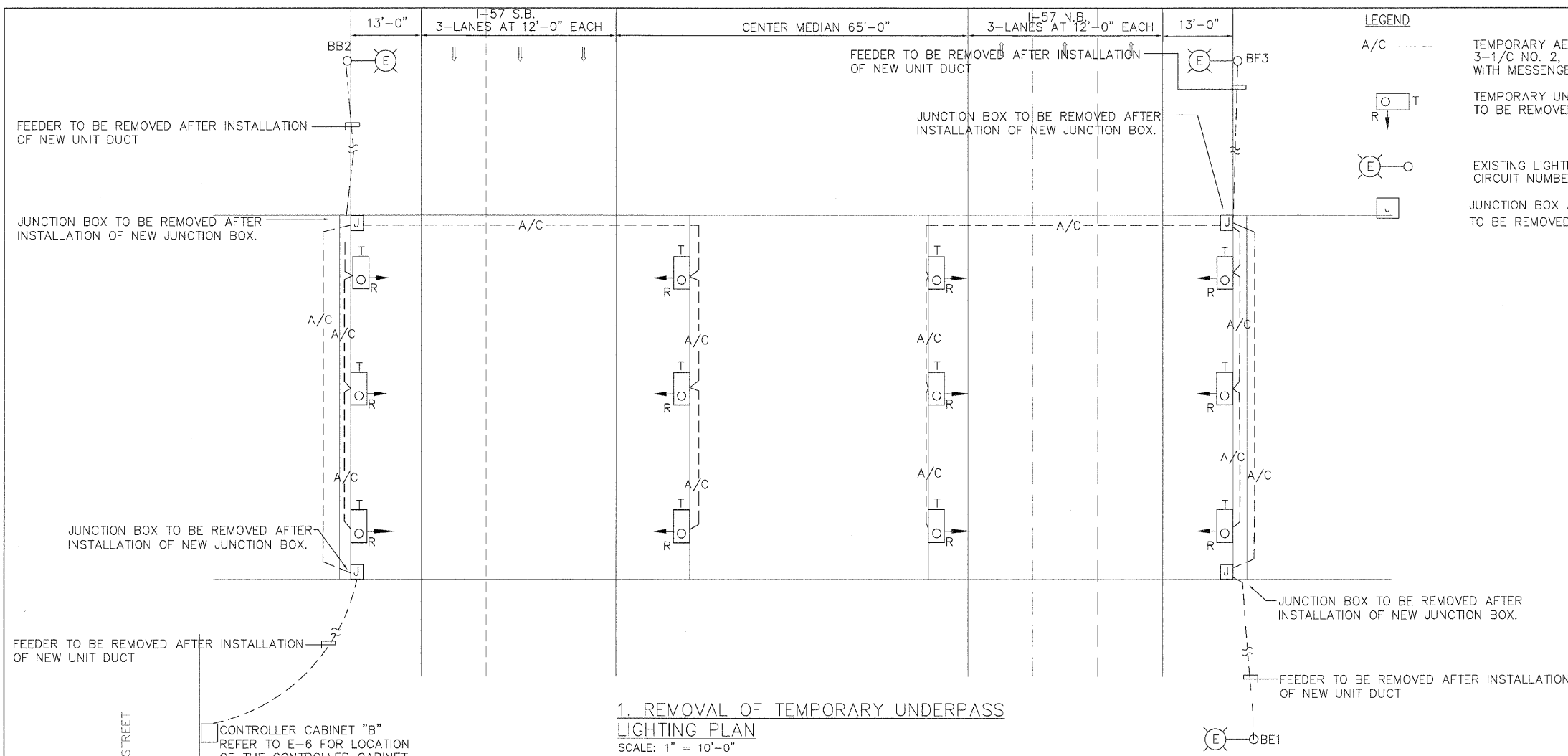
ILLINOIS DEPARTMENT OF TRANSPORTATION

GENOA AVE PROPOSED UNDERPASS LIGHTING PLAN

DATE 8-4-09

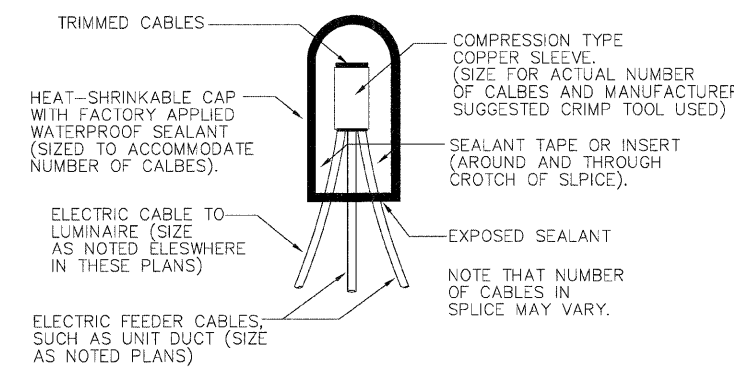
DRAWN BY EHE
CHECKED BY EE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	068-2222-3B	COOK	77	24
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND

- A/C --- TEMPORARY AERIAL CABLE 3-1/C NO. 2, ALUMINUM, WITH MESSENGER WIRE TO BE REMOVED
- [Symbol] T TEMPORARY UNDERPASS LUMINAIRE TO BE REMOVED
- [Symbol] E EXISTING LIGHTING UNIT AND POLE TO REMAIN, CIRCUIT NUMBER AS NOTED.
- [Symbol] J JUNCTION BOX ATTACHED TO STRUCTURE TO BE REMOVED

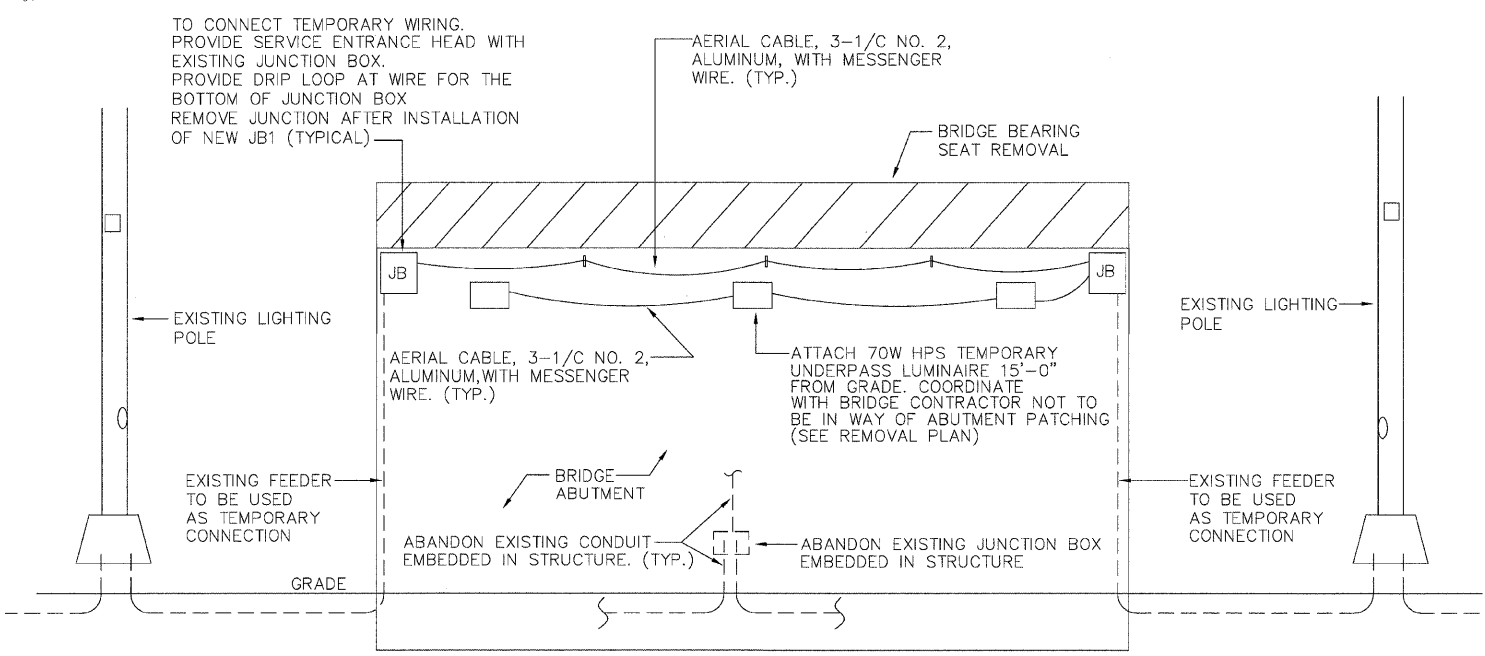


**3. SPLICING ELECTRIC CABLES
BASIC MATERIALS AND METHODS**
N.T.S.

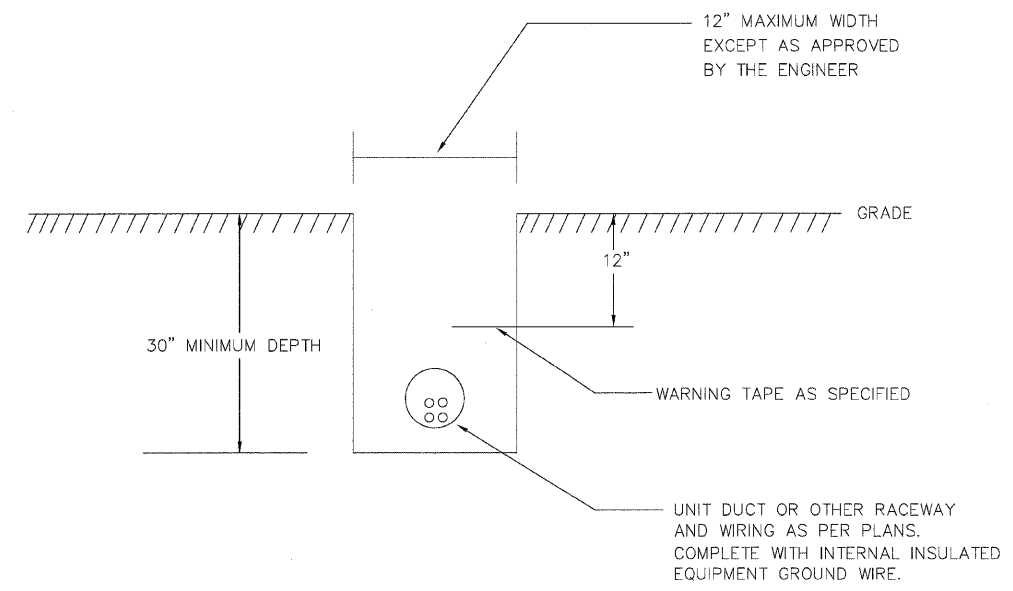
1. REMOVAL OF TEMPORARY UNDERPASS LIGHTING PLAN
SCALE: 1" = 10'-0"

S. ELIZABETH STREET

CONTROLLER CABINET "B"
REFER TO E-6 FOR LOCATION OF THE CONTROLLER CABINET



2. TEMPORARY LIGHTING SECTION FOR UNDERPASS LIGHTING
N.T.S.



4. TYPICAL WIRING IN TRENCH DETAILS
N.T.S.

Advance
Consulting Group International

300 W. ADAMS ST.
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CHICAGO, IL 60606
TEL: 312-357-1940
FAX: 312-357-1945
EMAIL: advance@acgintl.com

REVISIONS	
NAME	DATE

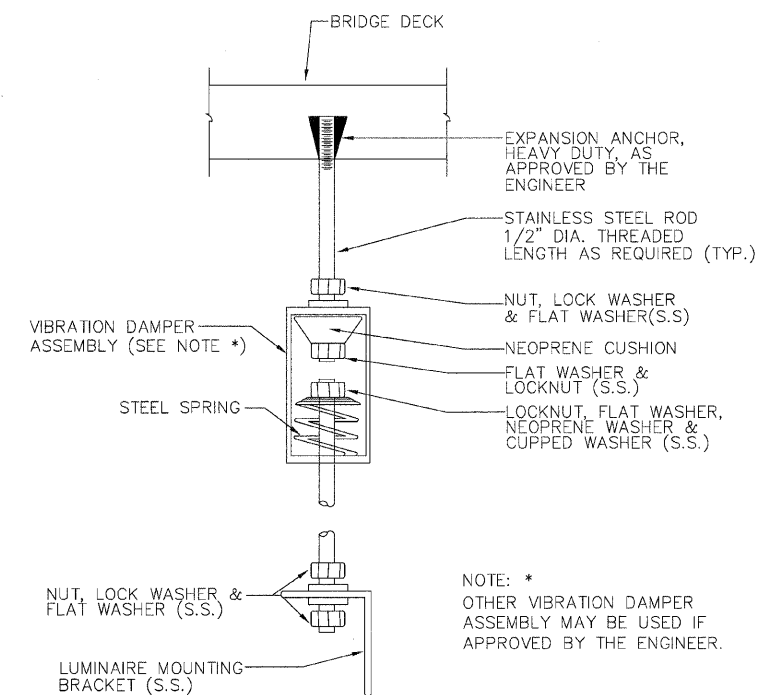
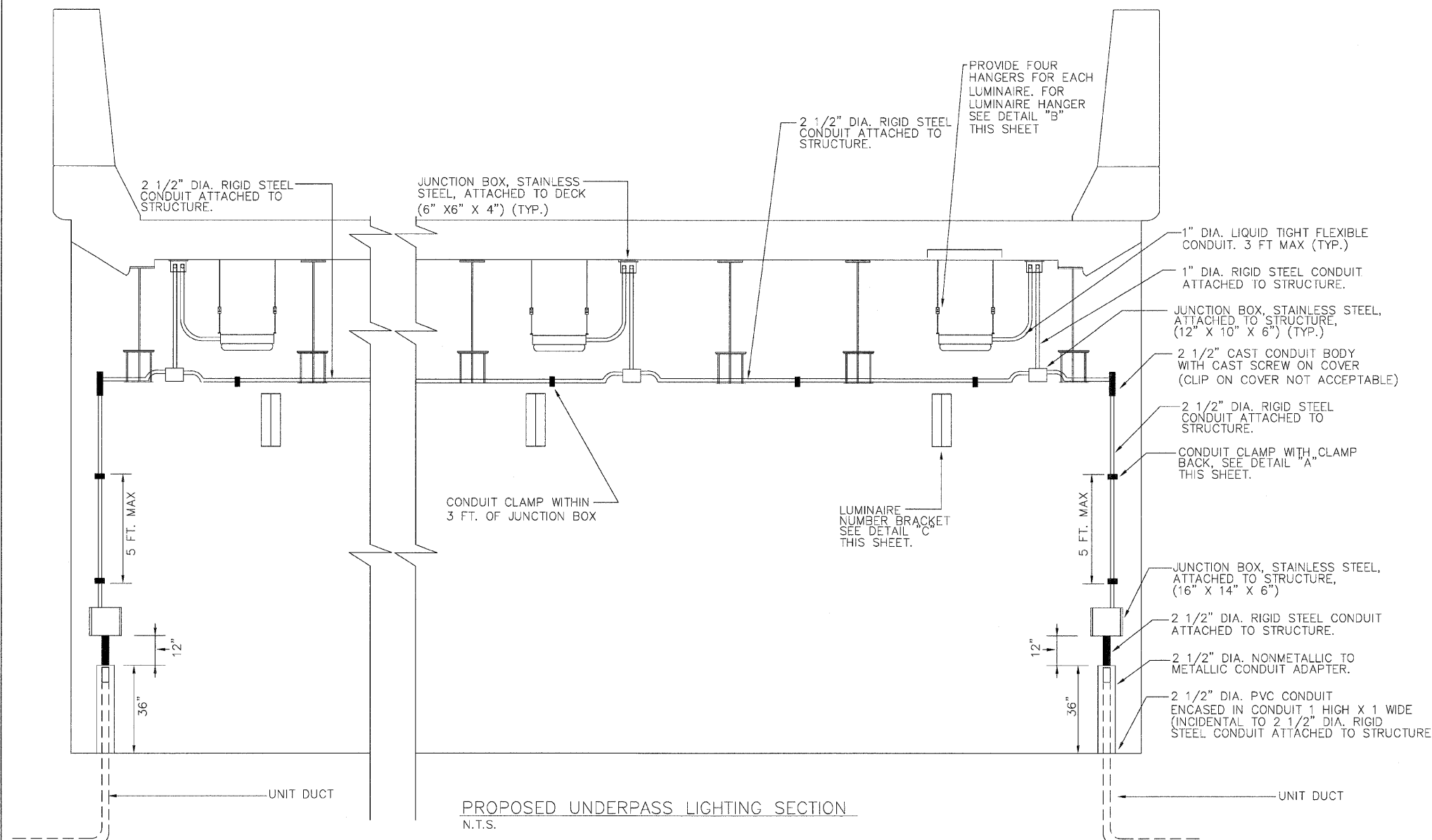
ILLINOIS DEPARTMENT OF TRANSPORTATION

GENOA AVE
ELECTRICAL DETAILS

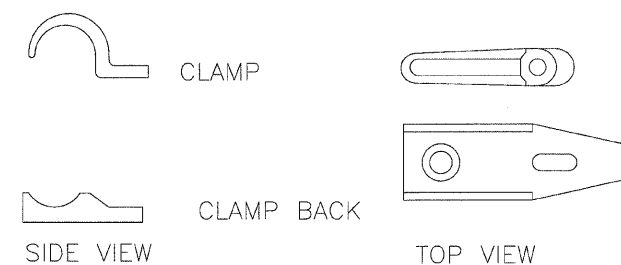
DATE 8-4-09

DRAWN BY EHE
CHECKED BY EE

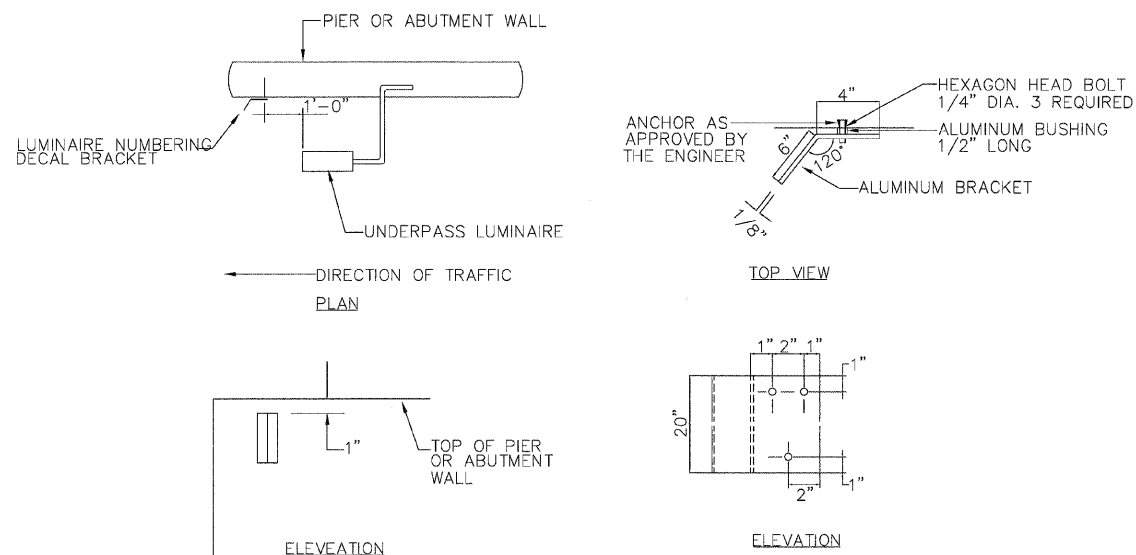
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	068-2222-3B	COOK	77	25
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



DETAIL B - LUMINAIRE HANGER ASSEMBLY



DETAIL A - CONDUIT CLAMP



DETAIL C - LUMINAIRE NUMBERING DECAL BRACKET

Advance
Consulting Group International

300 W. ADAMS ST.
SUITE 320
CHICAGO, IL 60606
TEL: 312-351-1840
FAX: 312-351-1845
EMAIL: advance@cgint.com

REVISIONS	
NAME	DATE

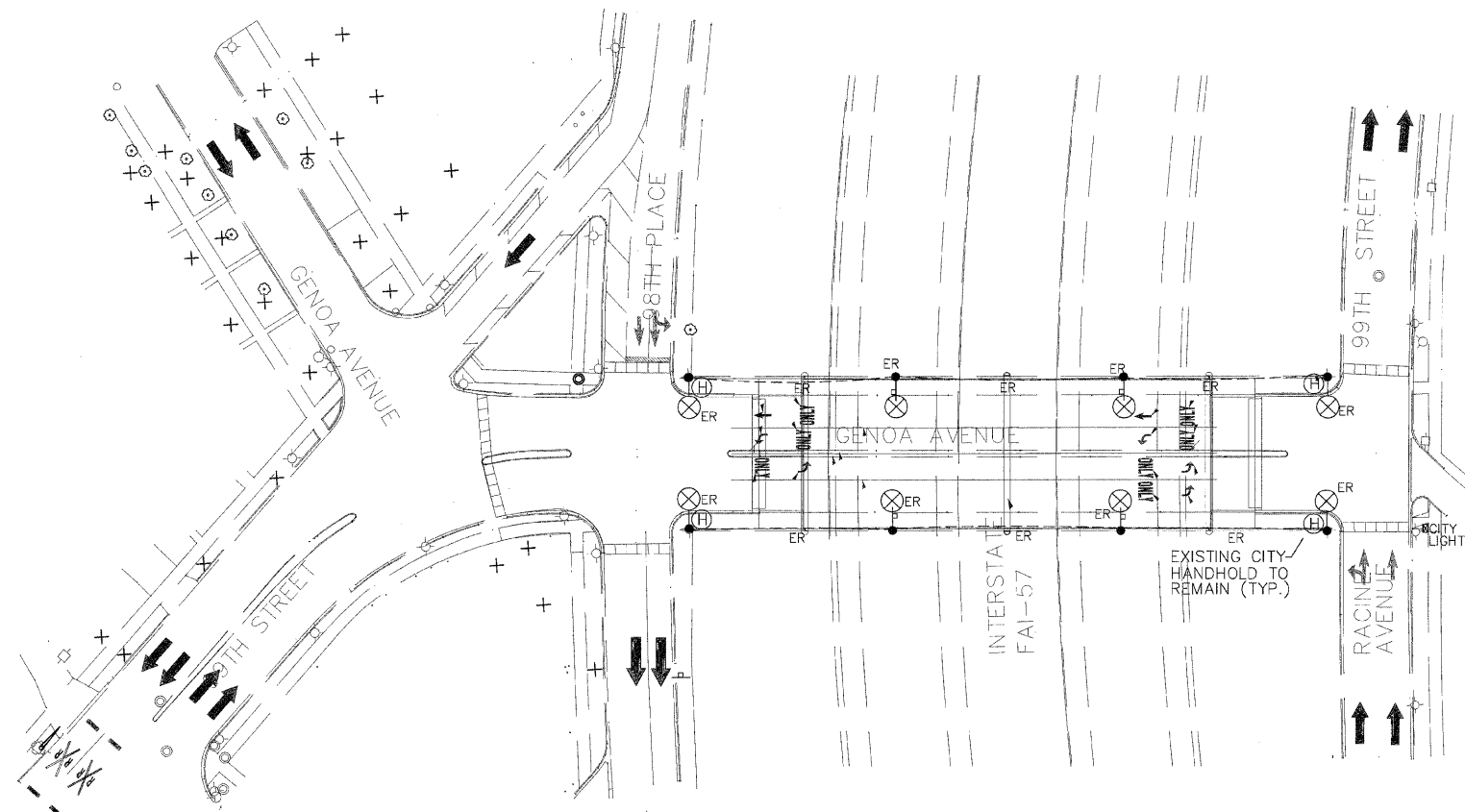
ILLINOIS DEPARTMENT OF TRANSPORTATION

GENOA AVE
ELECTRICAL DETAILS

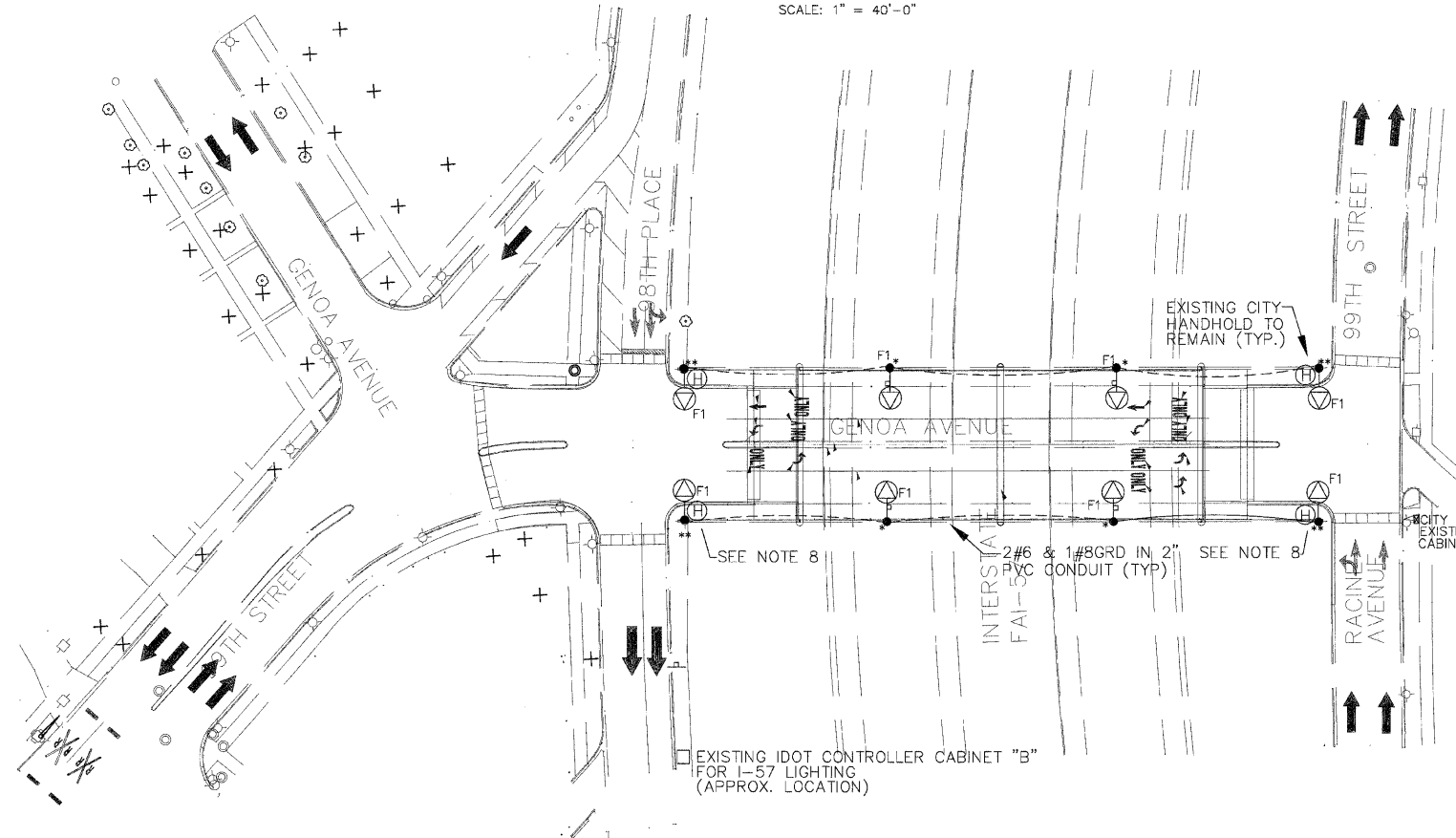
DATE 8-4-09

DRAWN BY EHE
CHECKED BY EE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	068-2222-3B	COOK	77	26
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



REMOVAL OF EXISTING GENOA AVE
BRIDGE LIGHTING PLAN
SCALE: 1" = 40'-0"



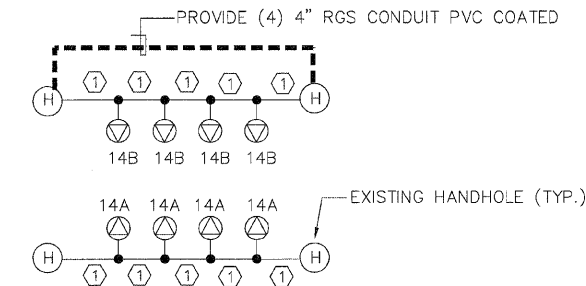
PROPOSED GENOA AVE
BRIDGE LIGHTING PLAN
SCALE: 1" = 10'-0"

REMOVAL NOTES:

- CONTRACTOR SHALL REMOVE EXISTING CITY STREET LIGHTING, INCLUDING ALL ASSOCIATED WIRING, CONDUITS, FOUNDATION, ETC. TO ALLOW FOR THE NEW CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE REMOVAL WORK WITH CITY OF CHICAGO BUREAU OF ELECTRICITY. LIGHT POLES SHALL BE SALVAGED BY THE CONTRACTOR AND DELIVERED TO TONY WILKINS, CITY OF CHICAGO, DEPARTMENT OF STREET AND SANITATION BUREAU OF ELECTRICITY AT TELEPHONE NUMBER (312) 746-5048 (48 HOURS ADVANCE NOTICE REQUIRED). THIS WORK SHALL INCLUDE REMOVING, TRANSPORTING AND UNLOADING THE ALL LUMINARIES, ARMS AND POLES AT THE ABOVE YARD WHICH COST SHALL BE CONSIDERED INCLUDED IN THE PAY ITEM: "REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE".

PROPOSED NOTES:

- COORDINATE EXACT ROUTING OF CONDUITS WITH OTHER TRADES TO AVOID ANY CONFLICT.
- ALL UNDERGROUND CONDUITS SHALL BE ROUTED 36" BELOW GRADE.
- "**" INDICATE POLE MOUNTED ON PARAPET WALL, REFER TO BRIDGE DETAIL FOR FOUNDATION MOUNTED AT BRIDGE PARAPET.
- NEW POLES, ARMS, AND FIXTURES WILL BE PROVIDED BY THE CITY OF CHICAGO BUREAU OF ELECTRICITY, AND INSTALLED BY THE CONTRACTOR. COORDINATE EXACT REQUIREMENT WITH TONY WILKINS, CITY OF CHICAGO, DEPARTMENT OF STREET AND SANITATION BUREAU OF ELECTRICITY AT TELEPHONE NUMBER (312) 746-5048 (48 HOURS ADVANCE NOTICE REQUIRED) FOR PICKUP AND COMPLETE FUNCTIONAL INSTALLATION. CONTRACTOR TO PROVIDE VIBRATION MOUNTING PAD, WASHERS, LOCKNUT, ETC. FOR COMPLETE INSTALLATION OF CITY POLES. ALL THESE ITEMS ARE PART OF POLE INSTALLATION PAY ITEM.
- PROVIDE TEMPORARY OVERHEAD CABLES TO MAINTAIN SERVICE FOR OTHER POLES NOT AFFECTED BY THIS WORK.
- REINSTALL SIGNS AFTER INSTALLATION OF NEW LIGHT POLES AT BOTH BRIDGES.
- "**" INDICATE POLE MOUNTED ON WING WALL, REFER TO BRIDGE DETAIL FOR FOUNDATION MOUNTED AT BRIDGE WING WALL. TWO CONDUITS SHOULD STUB OUT OF THE FOUNDATION: (1) FOR A 2" PVC CONDUIT AND (1) FOR A 3" PVC CONDUIT. REFER TO BRIDGE DRAWINGS FOR EXACT ROUTING.
- PROVIDE (4) 4" RGS CONDUIT PVC COATED BETWEEN HANDHOLES AS SHOWN. THIS WORK SHALL INCLUDE ALL NECESSARY EXCAVATION, BACKFILLING, MOUNTING, SUPPORT, ATTACHING, AND ALL LABOR AND MATERIALS ASSOCIATED WITH CONNECTING THE NEW CONDUITS BETWEEN THE TWO HANDHOLES. CONTRACTOR SHALL ADJUST HANDHOLES TO ALLOW FOR REMOVAL AND INSTALLATION OF NEW CONDUITS.



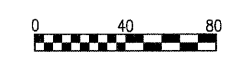
- LEGEND
- NEW 400W HPS 240V FIXTURE WITH 34'-6" POLE AT GRADE OR 32'-6" POLE AT PARAPET WALL.
 - EXISTING CITY OF CHICAGO ELECTRIC HANDHOLE TO REMAIN
- KEYED NOTES:
- 2#6 & 1#8GRD IN 2" PVC CONDUIT

FOR MORE INFORMATION ABOUT EXISTING CABINETS REFER TO CITY OF CHICAGO ATLAS DRAWINGS. MAINTAIN SERVICE TO EXISTING CIRCUITS NOT PART OF THIS WORK, PROVIDE TEMPORARY OVERHEAD CABLES AS REQUIRED TO MAINTAIN LIGHTING DURING CONSTRUCTION.

PARTIAL WIRING DIAGRAM FOR GENOA STREET BRIDGE

Advance
Consulting Group International

330 W. ALAMIS ST.
SUITE 202
CHICAGO, IL 60606
TEL: 312.367.1940
FAX: 312.367.1945
EMAIL: advance@cgint.com



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

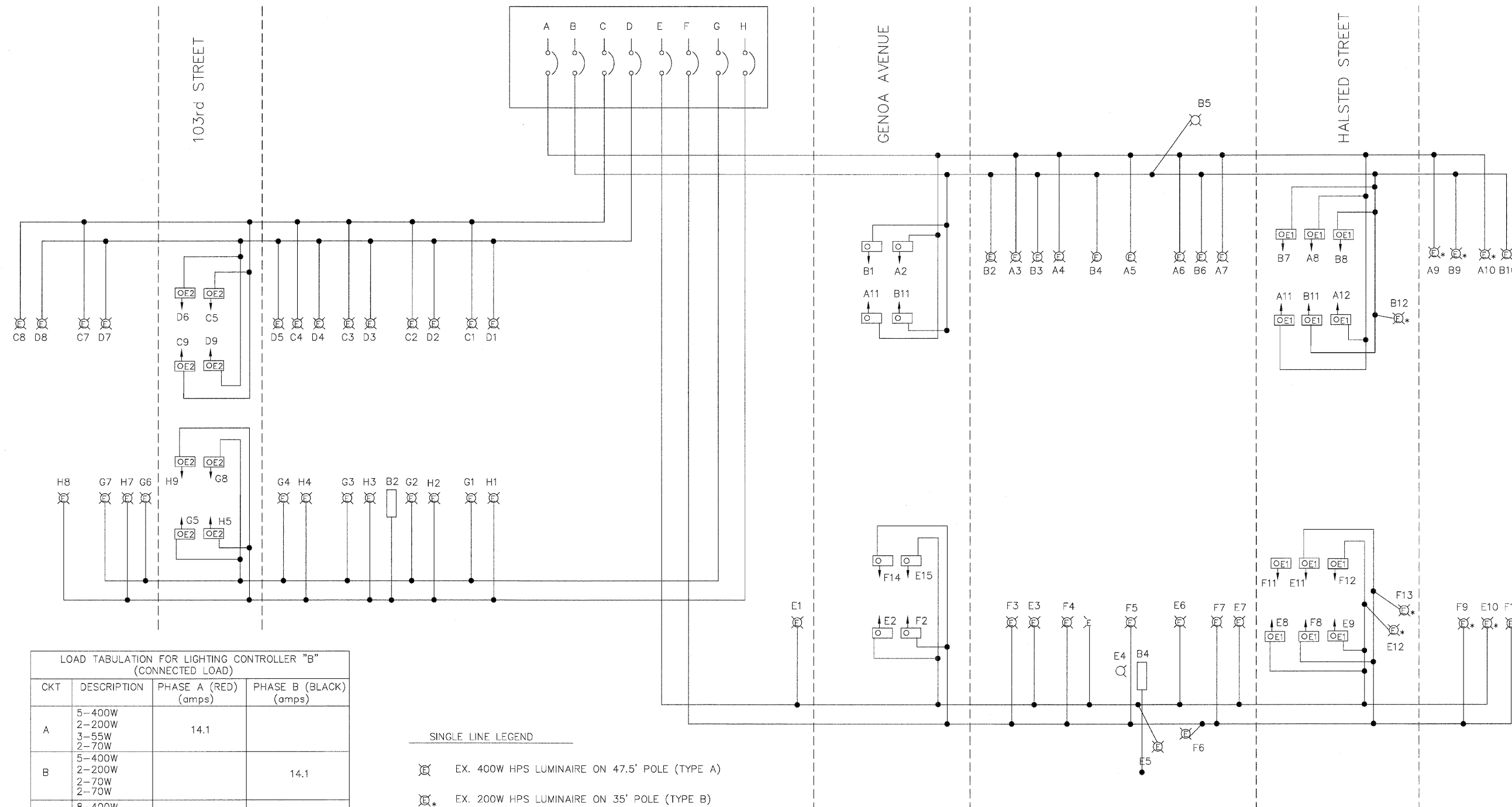
GENOA AVE LIGHTING
(CITY OF CHICAGO)

DATE 8-4-09

DRAWN BY EHE
CHECKED BY EE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	068-2222-3B	COOK	77	27
STA. --		TO STA. --		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTROLLER CABINET "B"
240/480V, 1PH, (2)125A MAIN
50A BRANCH CIRCUIT BREAKERS



LOAD TABULATION FOR LIGHTING CONTROLLER "B"
(CONNECTED LOAD)

CKT	DESCRIPTION	PHASE A (RED) (amps)	PHASE B (BLACK) (amps)
A	5-400W 2-200W 3-55W 2-70W	14.1	
B	5-400W 2-200W 2-70W 2-70W		14.1
C	8-400W 2-70W	17.2	
D	8-400W 2-70W		17.2
E	6-400W 2-200W 4-85W 3-55W 2-70W	17.9	
F	5-400W 3-200W 2-85W 3-55W 2-70W		17.9
G	7-400W 2-70W 2-85W	16.2	
H	7-400W 2-70W 2-85W		18.2
TOTALS		65.4	65.4

- SINGLE LINE LEGEND
- ⊗ EX. 400W HPS LUMINAIRE ON 47.5' POLE (TYPE A)
 - ⊗* EX. 200W HPS LUMINAIRE ON 35' POLE (TYPE B)
 - ⊗E1 EX. 55W LPS UNDERPASS LUMINAIRE
 - ⊗E2 EX. 70W LPS UNDERPASS LUMINAIRE
 - ⊗ NEW 70W HPS UNDERPASS LUMINAIRE
 - ⊡ FUSED DISCONNECT
 - ⌋ CIRCUIT BREAKER
 - CONNECTION
 - LIGHTED SIGN STRUCTURE--
B2 = 2 FIXTURES (4 - 85W FLUORESCENT)
B4 = 3 FIXTURES (6 - 85W FLUORESCENT)

LIGHTING CABINET "B" SINGLE LINE DIAGRAM
N.T.S.

Advance
Consulting Group International
300 W. ADAMS ST.
SUITE 420
CHICAGO, IL 60608
TEL: 312-361-1840
FAX: 312-361-1845
Web Site: www.acgill.com

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENOA AVE LIGHTING
ELECTRICAL DETAILS

DRAWN BY EHE
CHECKED BY EE
DATE 8-4-09

TOTAL SHEETS	SHEET NO.
77	31

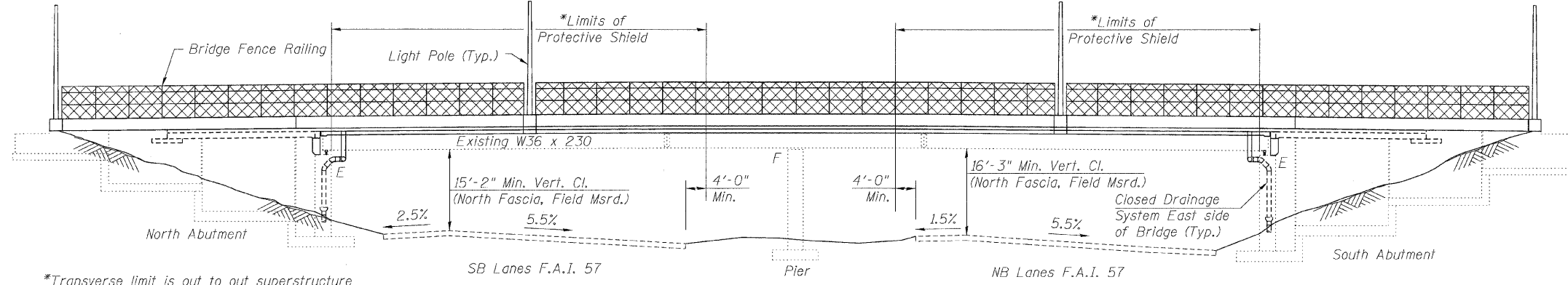
Bench Mark: Kam #8 - South bolt on fire hydrant at northwest corner of Genoa Avenue and 99th Street. Elev. 611.465

STATE OF ILLINOIS

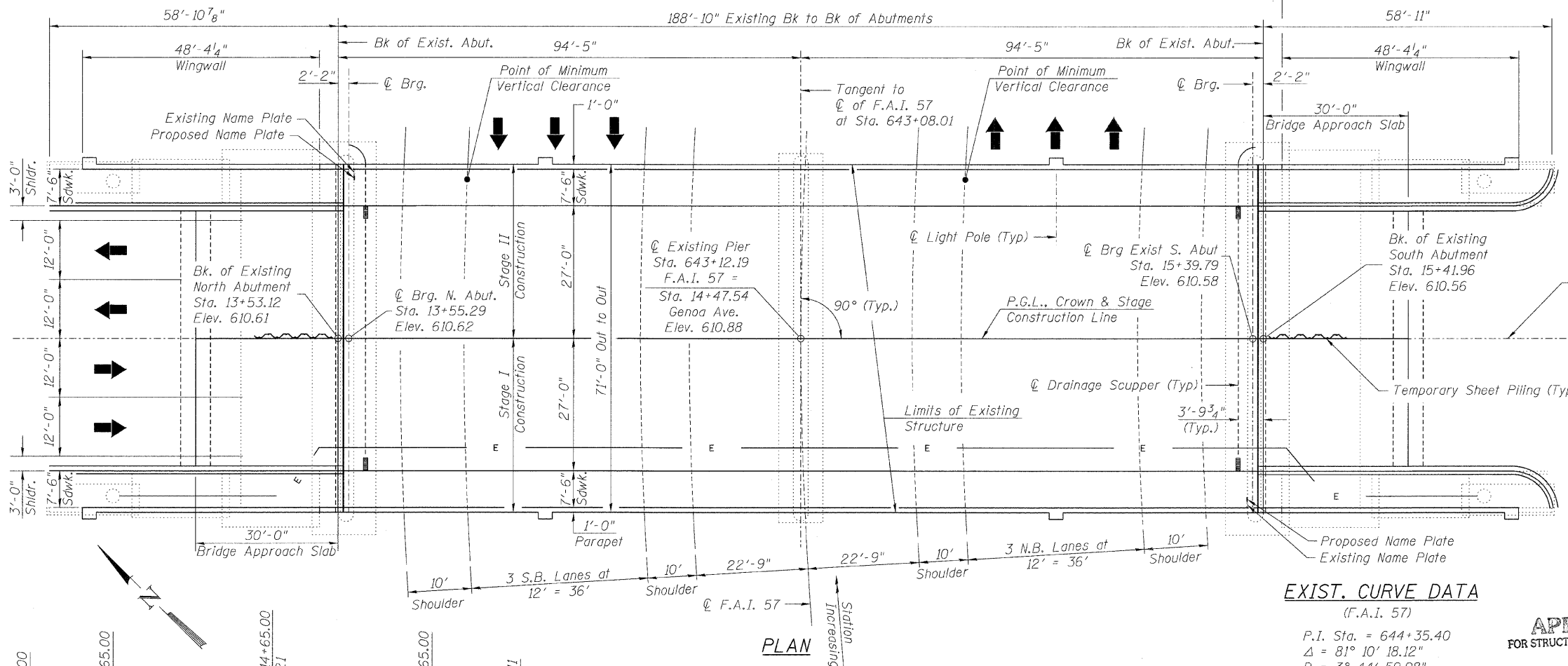
Existing Structure: Structure Number 016-2030, Built as Genoa Road under Section 068-2222.3-C.F. at Sta. 643+08.01. DEPARTMENT OF TRANSPORTATION
 Superstructure - 2 span continuous non-composite rolled steel beams with cover plates supporting a reinforced concrete deck, 71'-0" out to out and 188'-10" back to back abutments.
 Substructure - The abutments, center pier, and wingwalls are constructed of reinforced concrete with spread footings.
 Traffic is to be maintained during the rehabilitation utilizing staged construction.
 Salvage existing Protective Shield and City of Chicago Light Poles.

INDEX OF SHEETS

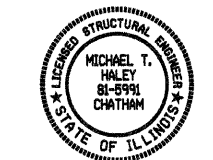
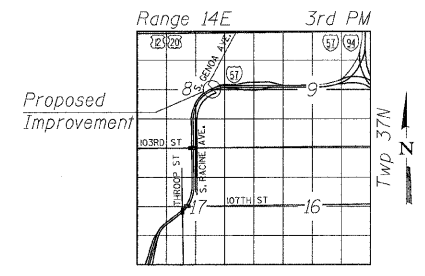
1. General Plan and Elevation
2. General Notes And Total Bill of Material
3. Stage Construction Details
4. Temporary Concrete Barrier for Stage Construction
5. Top of Slab Elevations-1
6. Top of Slab Elevations-2
7. Top of Slab Elevations-3
8. Top of Slab Elevations-4
9. Top of North Approach Slab Elevations
10. Top of South Approach Slab Elevations
11. Superstructure
12. Superstructure Details-1
13. Superstructure Details-2
14. Superstructure Details-3
15. Bridge Approach Slab Details-1
16. Bridge Approach Slab Details-2
17. Bridge Fence Railing Parapet Mounted
18. Preformed Joint Strip Seal
19. Framing Plan & Design Data
20. Existing Steel Beam Alterations
21. Bearing Details
22. North Abutment Removal & Repairs
23. North Abutment Alterations
24. North Abutment Wingwall Alterations
25. North Abutment Details
26. South Abutment Removal & Repairs
27. South Abutment Alterations
28. South Abutment Wingwall Alterations
29. South Abutment Details
30. Pier Repairs
31. Drainage Scupper, DS-12
32. Bar Splicer Assembly Details



ELEVATION
(Looking East)



PLAN



Michael T. Haley 3/4/2010
 Michael T. Haley Date
 Licensed Structural Engineer
 State of Illinois No. 81-5991
 Expires 11/30/2010

EXIST. CURVE DATA
(F.A.I. 57)

P.I. Sta. = 644+35.40
 $\Delta = 81^\circ 10' 18.12''$
 $D = 3^\circ 44' 59.98''$
 $R = 1527.89'$
 $T = 1308.91'$
 $L = 2164.58'$
 $E = 484.00'$
 $P.C. Sta. = 631+26.49$
 $P.T. Sta. = 652+91.08$
 $S.E. = 5.5\%$

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

Robert E. Anderson (TSE)
 ENGINEER OF BRIDGES AND STRUCTURES

DESIGN SPECIFICATIONS

2002 AASHTO "Standard Specifications for Highway Bridges"

LOADING HS 20-44

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

SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.04 g
 Site Coefficient (S) = 1.0

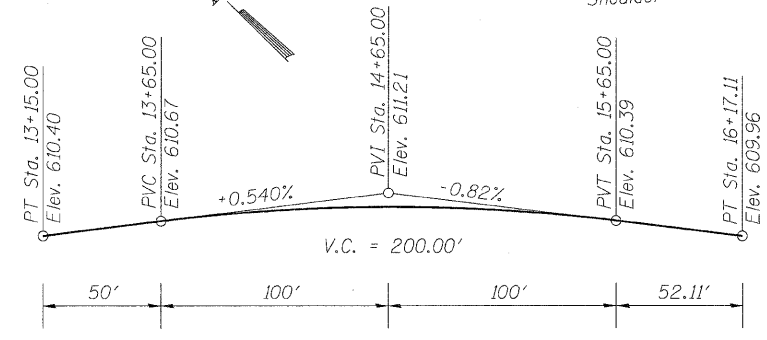
DESIGN STRESSES

New Construction (Field Units)
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (Structural Steel) (M270 Grade 36)

Existing Construction (Field Units)
 $f'_c = 1400$ psi (Without Earth Pressure)
 $f'_c = 800$ psi (With Earth Pressure)
 $f'_s = 20,000$ psi (Reinforcement)
 $f_y = 33,000$ psi (Structural Steel)

PROPOSED PROFILE GRADE

(Genoa Avenue along ϕ of roadway)



Designed By: ESH
 Checked By: MTH
 Date: 7/2009
 Drawn By: ESH
 File: 06-2030.dgn

SHEET NO. 1	F.A.I. RTE. 57	SECTION 2222.3B	COUNTY COOK	TOTAL SHEETS 77	SHEET NO. 31
32 SHEETS	CONTRACT NO. 62119		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

GENERAL PLAN AND ELEVATION
 GENOA AVENUE OVER I-57
 FAI RTE 57 - SECTION 2222.3B
 COOK COUNTY
 STATION 14+47.54
 STRUCTURE NO. 016-2030

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts.
Bolts 7/8 in. ϕ , holes 15/16 in. ϕ , unless otherwise noted.

No field welding is permitted except as specified in the contract documents.

The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. 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 1/4 inch 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 new concrete surfaces at the front face of new backwalls and bearing seat extensions.

Cleaning and field painting of existing 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.

Existing structural steel shall only be cleaned and painted as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

All new structural steel shall be shop painted with an organic zinc rich primer. See Special Provisions.

The Contractor shall resurvey the I-57 vertical clearance over each lane and shoulder following the deck replacement. This work will not be paid for separately, but shall be included with the contract lump sum price for "Construction Layout".

Existing 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, Illinois, 60007. Telephone number: (847) 956-1444 (48 hours advance notice required). This work shall include removing, transporting and unloading the protective shield at the above yard which cost shall be considered included in the cost of bridge deck removal.

Existing light poles shall be salvaged by the Contractor and delivered to the City of Chicago's required site. See Electrical Plans for details and payment of this work.

Slipforming of the parapets is not allowed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	-	66.8	66.8
Removal of Existing Concrete Deck	Each	1	-	1
Protective Shield	Sq. Yd.	1143	-	1143
Structure Excavation	Cu. Yd.	-	56.0	56.0
Concrete Structures	Cu. Yd.	-	59.6	59.6
Concrete Superstructure	Cu. Yd.	729.8	-	729.8
* Bridge Deck Grooving	Sq. Yd.	1425	-	1425
* Protective Coat	Sq. Yd.	2244	-	2244
Furnishing and Erecting Structural Steel	Pound	-	4640	4640
Stud Shear Connectors	Each	4368	-	4368
Jack & Remove Existing Bearings	Each	-	28	28
Reinforcement Bars, Epoxy Coated	Pound	126710	8400	135110
Bar Splicers	Each	703	110	813
Bridge Fence Railing	Foot	562	-	562
Temporary Sheaf Piling	Sq. Ft.	-	233	233
Name Plates	Each	-	2	2
Preformed Joint Strip Seal	Foot	143	-	143
Elastomeric Bearing Assembly, Type 1	Each	-	28	28
Anchor Bolts, 1"	Each	-	56	56
Concrete Sealer	Sq. Ft.	-	853	853
Epoxy Crack Injection	Foot	-	126	126
Drainage System	L. Sum	1	-	1
Drainage Scuppers, DS-12	Each	4	-	4
Removal of Asbestos Cement Conduit	Foot	1148	-	1148
** Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	-	464	464
*** Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	-	50	50

* Includes Approach Slab

**An increase of 140 square feet of Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches) has been added to the areas shown in the plans per the direction of IDOT District One.

***An amount of 50 square feet of Structural Repair of Concrete (Depth Greater Than 5 Inches) has been added per the direction of IDOT District One.

STATION 14+47.54
REBUILT BY
STATE OF ILLINOIS
F.A.I. RT. 57 SECTION 2222.3B
LOADING HS 20
STRUCTURE NO. 016-2030


NAME PLATES

See Std. 515001

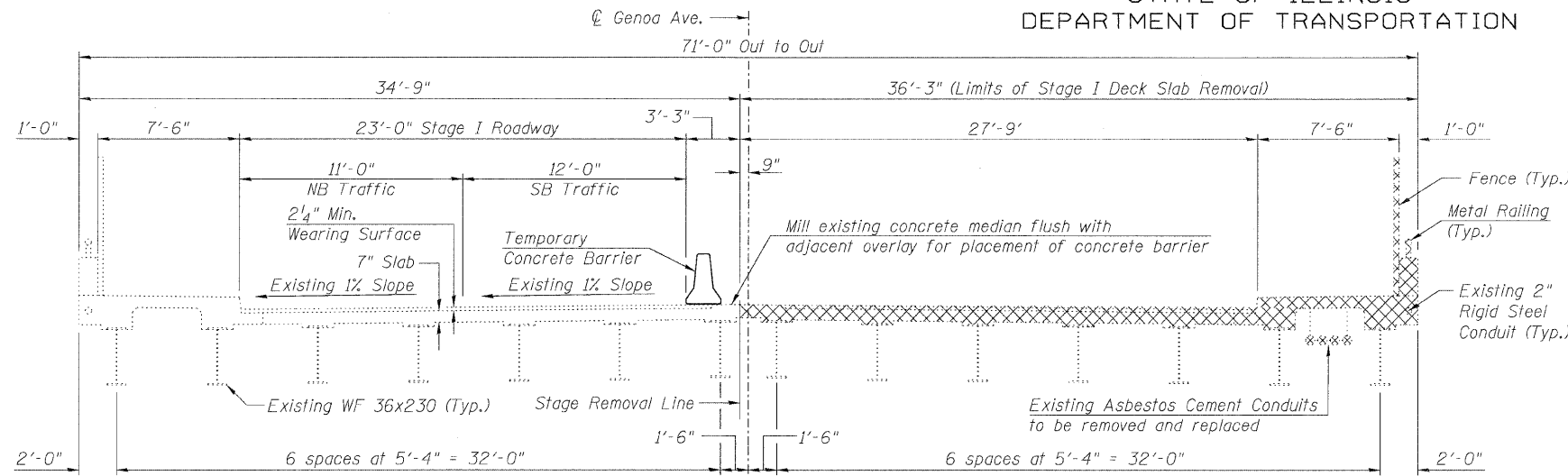
The Name Plates shall be attached to both abutments adjacent to the existing name plates according to Section 515 of the Standard Specifications except that the Name Plate shall be surface mounted using vandal-proof screws.

In addition to the requirements of Article 501.03 in the Standard Specifications, the Contractor shall evaluate the condition of the existing Protective Shield. Such evaluation shall be performed by a licensed Structural Engineer in Illinois. The cost of this evaluation is included with Protective Shield. If structurally adequate, the existing Protective Shield shall remain in place for demolition of the existing bridge deck. The Contractor shall be paid for this work based on the total quantity of existing and new Protective Shield actually required at the Contract unit price per square yard for Protective Shield.

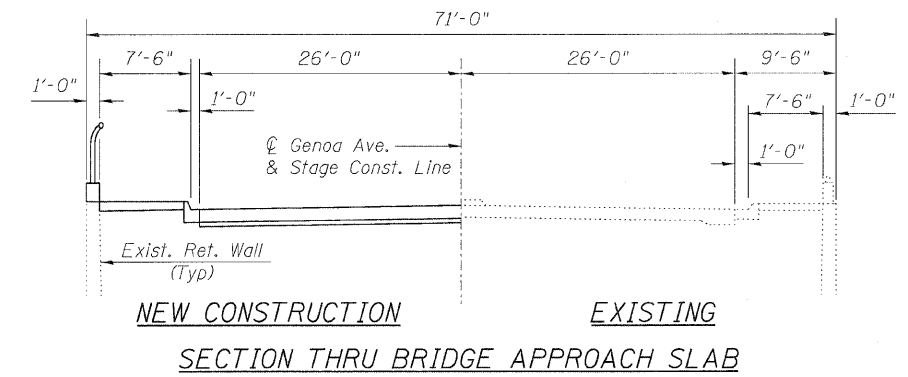
**GENERAL NOTES AND
TOTAL BILL OF MATERIAL
STRUCTURE NO. 016-2030**

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 2	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	32
Designed By: ESH Date: 7/25/09		Checked By: MTH File: 016-2030.dgn		Drawn By: ESH		CONTRACT NO. 62119
		FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT

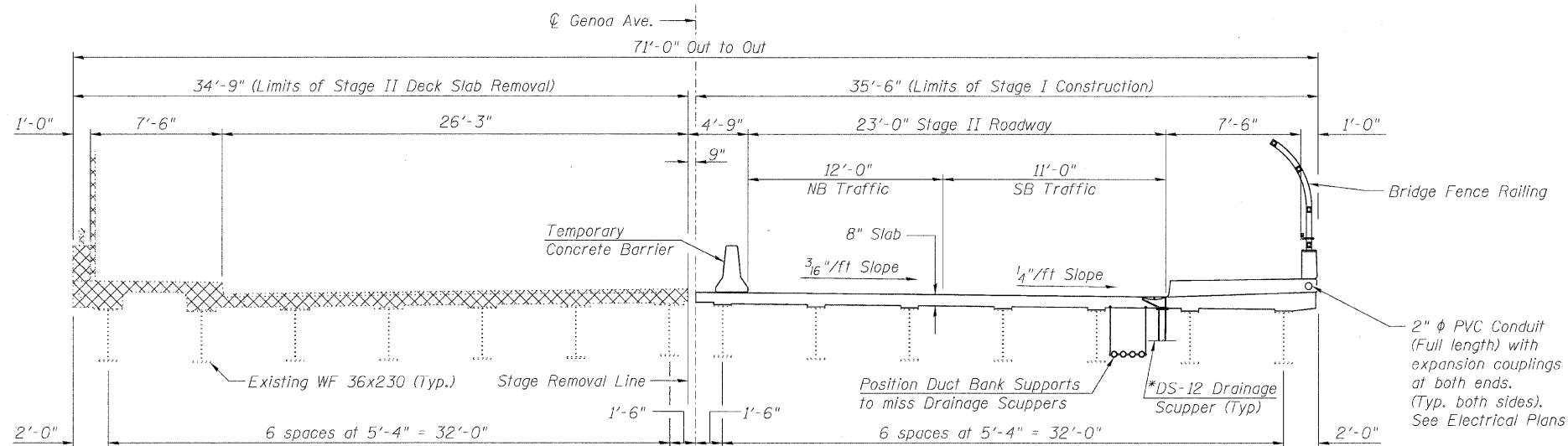
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STAGE I REMOVAL
(Looking South)

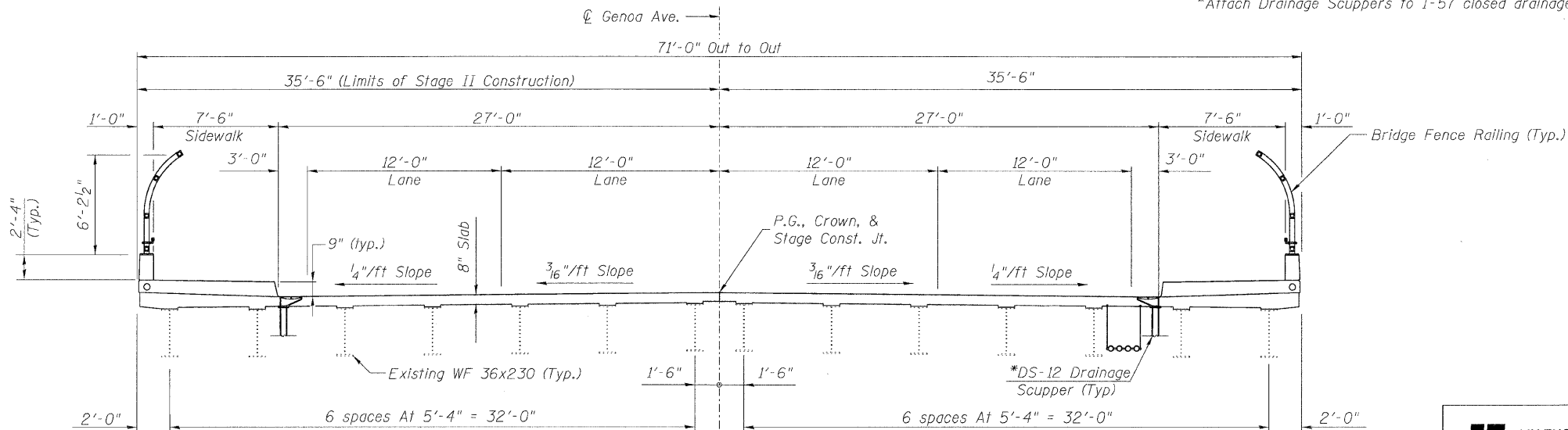


Notes:
See Sheet 4 of 32 for Details for Temporary Concrete Barrier.
See Roadway Plans for quantity of Temporary Concrete Barrier.
Cost of removal of existing rigid steel conduit encased in the bridge deck vaulted sidewalk, deck fence, wearing surface and metal railing mounted on the bridge and wingwall parapets are included with Removal of Existing Concrete Deck.
See Electrical Plans for removal of existing light poles.
The existing City of Chicago conduits shall be temporarily supported in place during construction to the satisfaction of the Engineer and City of Chicago until such time that they may be removed. See Electrical Plans for pay items specifying the removal of asbestos cement conduit and replacement with rigid galvanized steel conduit.



STAGE II REMOVAL & STAGE I CONSTRUCTION
(Looking South)

*Attach Drainage Scuppers to I-57 closed drainage system

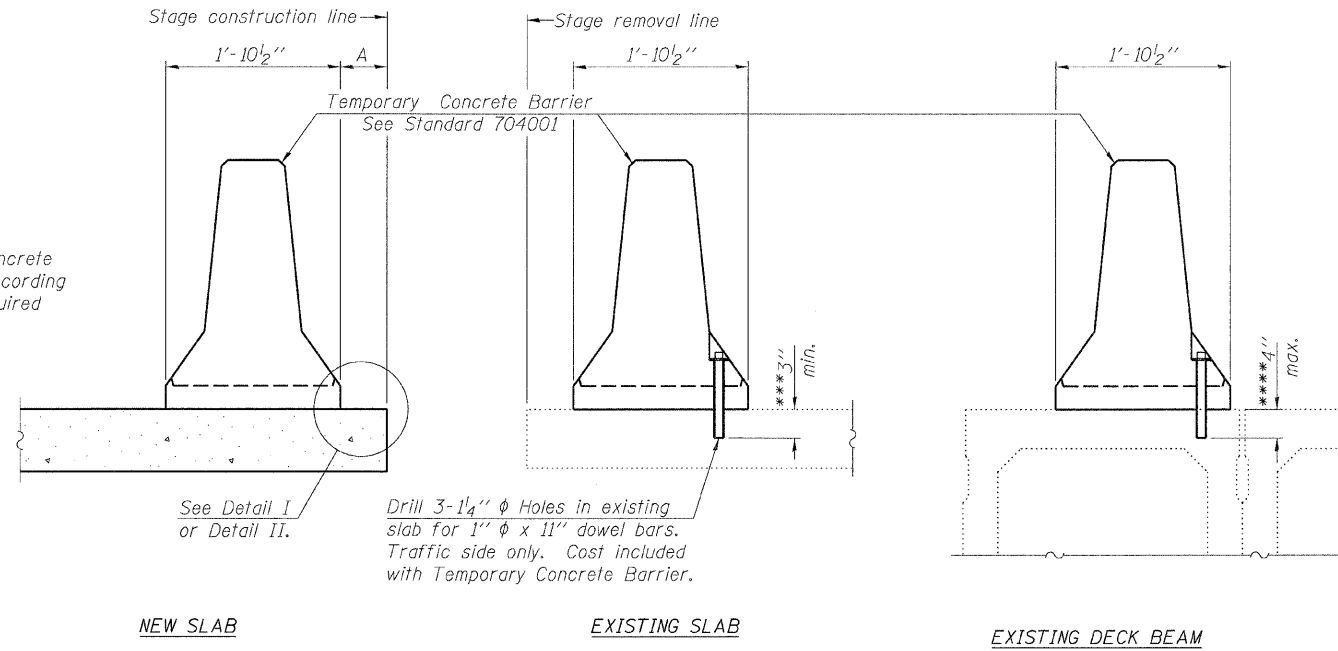


STAGE II CONSTRUCTION
(Looking South)

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 016-2030

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 3	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	33
<small>Designed By: ESH Date: 7/2009</small>			<small>Checked By: MTH File: 016-2030.dgn</small>			<small>Drawn By: ESH</small>
		FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT
				CONTRACT NO. 62119		

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



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

NOTES

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

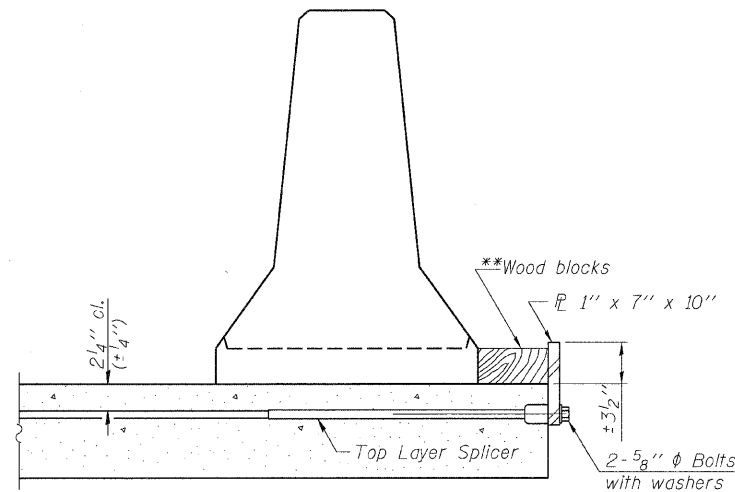
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{L} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

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

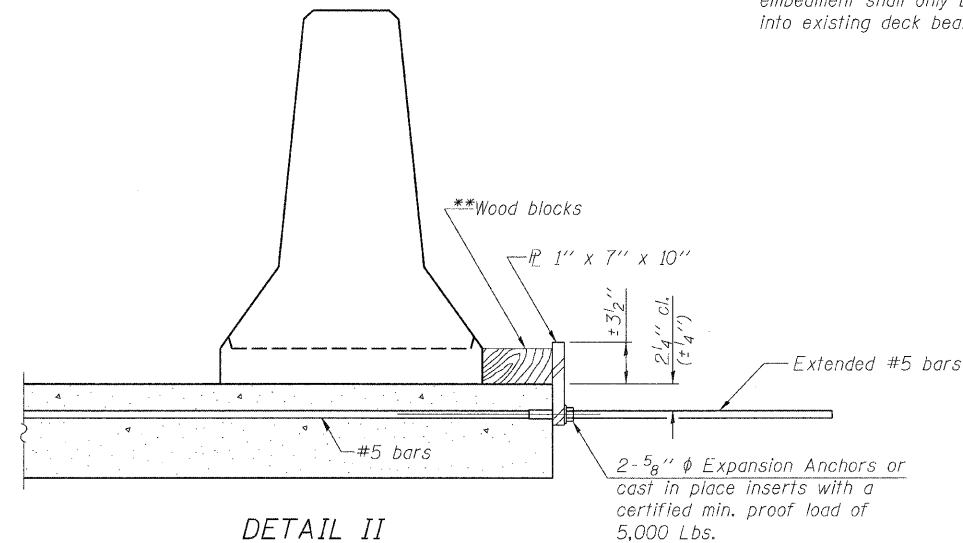
SECTIONS THRU SLAB OR DECK BEAM

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

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

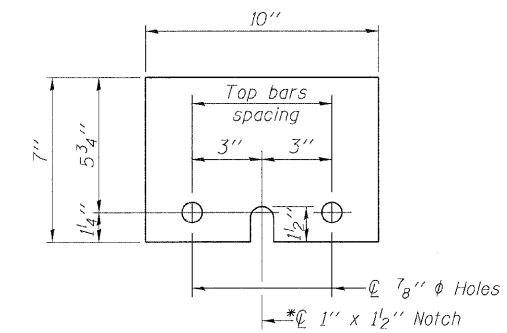


DETAIL I



DETAIL II

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



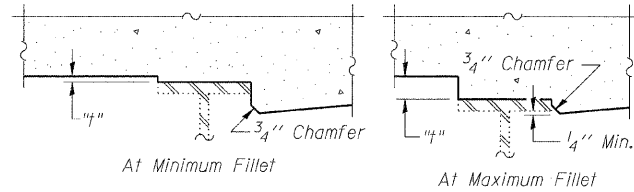
STEEL RETAINER 1" x 7" x 10"

* Required only with Detail II

**TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
STRUCTURE NO. 016-2030**

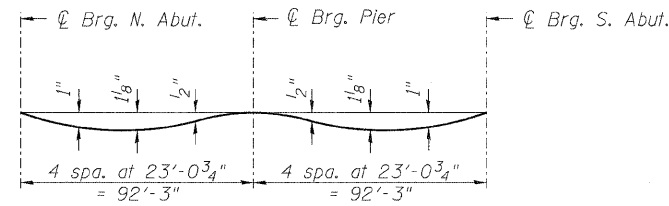
<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 4	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	34
Designed By: ESH Date: 7/2009			Checked By: MTH File: 016-2030.dgn			Drawn By: ESH
FED. ROAD DIST. NO.			ILLINOIS		FED. AID PROJECT	
CONTRACT NO. 62119						

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

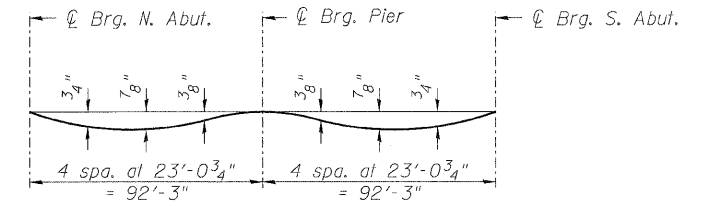


To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 6 thru 8 of 32, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



BEAMS 1, 2, 13 & 14

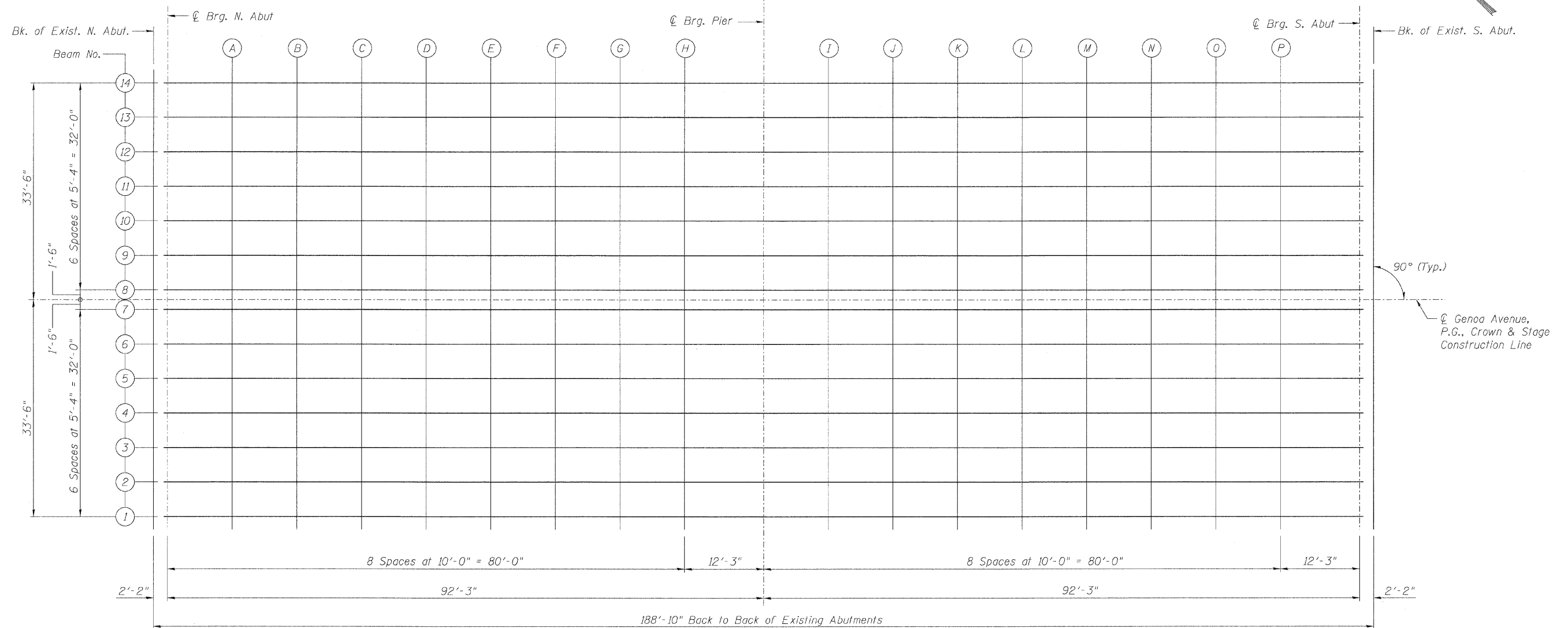


BEAMS 3 THRU 12

DEAD LOAD DEFLECTION DIAGRAMS

(Includes weight of concrete deck and all superimposed loads except FWS)

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 sheets 6 thru 8 of 32.



PLAN

TOP OF SLAB ELEVATIONS -1
STRUCTURE NO. 016-2030

LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 5	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	35
Designed By: ESH Checked By: MTH Date: 7/2009		Drawn By: ESH File: 016-2030.dgn		CONTRACT NO. 62119		
		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	33.50	610.11	610.11
☉ Brg. N. Abut.	13+55.29	33.50	610.12	610.12
A	13+65.29	33.50	610.17	610.22
B	13+75.29	33.50	610.22	610.31
C	13+85.29	33.50	610.27	610.37
D	13+95.29	33.50	610.30	610.41
E	14+05.29	33.50	610.33	610.43
F	14+15.29	33.50	610.36	610.43
G	14+25.29	33.50	610.37	610.41
H	14+35.29	33.50	610.38	610.40
☉ Brg. Pier	14+47.54	33.50	610.38	610.38
I	14+57.54	33.50	610.38	610.39
J	14+67.54	33.50	610.37	610.40
K	14+77.54	33.50	610.35	610.42
L	14+87.54	33.50	610.32	610.42
M	14+97.54	33.50	610.29	610.40
N	15+07.54	33.50	610.25	610.36
O	15+17.54	33.50	610.20	610.29
P	15+27.54	33.50	610.15	610.21
☉ Brg. S. Abut.	15+39.79	33.50	610.08	610.08
Bk. Exist. S. Abut.	15+41.96	33.50	610.06	610.06

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	28.17	610.11	610.11
☉ Brg. N. Abut.	13+55.29	28.17	610.12	610.12
A	13+65.29	28.17	610.17	610.21
B	13+75.29	28.17	610.22	610.30
C	13+85.29	28.17	610.27	610.36
D	13+95.29	28.17	610.30	610.40
E	14+05.29	28.17	610.33	610.42
F	14+15.29	28.17	610.36	610.42
G	14+25.29	28.17	610.37	610.41
H	14+35.29	28.17	610.38	610.40
☉ Brg. Pier	14+47.54	28.17	610.38	610.38
I	14+57.54	28.17	610.38	610.39
J	14+67.54	28.17	610.37	610.40
K	14+77.54	28.17	610.35	610.41
L	14+87.54	28.17	610.32	610.41
M	14+97.54	28.17	610.29	610.39
N	15+07.54	28.17	610.25	610.35
O	15+17.54	28.17	610.20	610.28
P	15+27.54	28.17	610.15	610.20
☉ Brg. S. Abut.	15+39.79	28.17	610.08	610.08
Bk. Exist. S. Abut.	15+41.96	28.17	610.06	610.06

BEAM 3

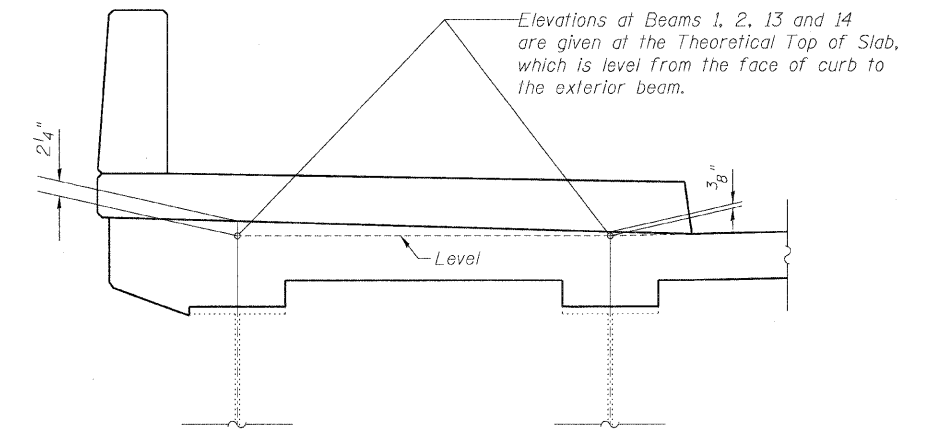
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	22.83	610.19	610.19
☉ Brg. N. Abut.	13+55.29	22.83	610.20	610.20
A	13+65.29	22.83	610.26	610.29
B	13+75.29	22.83	610.31	610.37
C	13+85.29	22.83	610.35	610.43
D	13+95.29	22.83	610.39	610.47
E	14+05.29	22.83	610.42	610.49
F	14+15.29	22.83	610.44	610.50
G	14+25.29	22.83	610.46	610.49
H	14+35.29	22.83	610.47	610.48
☉ Brg. Pier	14+47.54	22.83	610.47	610.47
I	14+57.54	22.83	610.47	610.47
J	14+67.54	22.83	610.45	610.48
K	14+77.54	22.83	610.43	610.49
L	14+87.54	22.83	610.41	610.48
M	14+97.54	22.83	610.38	610.46
N	15+07.54	22.83	610.34	610.42
O	15+17.54	22.83	610.29	610.36
P	15+27.54	22.83	610.24	610.28
☉ Brg. S. Abut.	15+39.79	22.83	610.16	610.16
Bk. Exist. S. Abut.	15+41.96	22.83	610.15	610.15

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	17.50	610.30	610.30
☉ Brg. N. Abut.	13+55.29	17.50	610.32	610.32
A	13+65.29	17.50	610.37	610.40
B	13+75.29	17.50	610.42	610.48
C	13+85.29	17.50	610.46	610.54
D	13+95.29	17.50	610.50	610.58
E	14+05.29	17.50	610.53	610.60
F	14+15.29	17.50	610.55	610.61
G	14+25.29	17.50	610.57	610.60
H	14+35.29	17.50	610.58	610.59
☉ Brg. Pier	14+47.54	17.50	610.58	610.58
I	14+57.54	17.50	610.58	610.58
J	14+67.54	17.50	610.56	610.59
K	14+77.54	17.50	610.55	610.59
L	14+87.54	17.50	610.52	610.59
M	14+97.54	17.50	610.49	610.57
N	15+07.54	17.50	610.45	610.53
O	15+17.54	17.50	610.40	610.47
P	15+27.54	17.50	610.35	610.39
☉ Brg. S. Abut.	15+39.79	17.50	610.27	610.27
Bk. Exist. S. Abut.	15+41.96	17.50	610.26	610.26

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	12.17	610.41	610.41
☉ Brg. N. Abut.	13+55.29	12.17	610.43	610.43
A	13+65.29	12.17	610.48	610.51
B	13+75.29	12.17	610.53	610.59
C	13+85.29	12.17	610.57	610.65
D	13+95.29	12.17	610.61	610.69
E	14+05.29	12.17	610.64	610.71
F	14+15.29	12.17	610.66	610.72
G	14+25.29	12.17	610.68	610.71
H	14+35.29	12.17	610.69	610.70
☉ Brg. Pier	14+47.54	12.17	610.69	610.69
I	14+57.54	12.17	610.69	610.69
J	14+67.54	12.17	610.68	610.70
K	14+77.54	12.17	610.66	610.70
L	14+87.54	12.17	610.63	610.70
M	14+97.54	12.17	610.60	610.67
N	15+07.54	12.17	610.56	610.63
O	15+17.54	12.17	610.51	610.58
P	15+27.54	12.17	610.46	610.50
☉ Brg. S. Abut.	15+39.79	12.17	610.38	610.38
Bk. Exist. S. Abut.	15+41.96	12.17	610.37	610.37



LOCATION OF ELEVATIONS
BEAMS 1, 2, 13 & 14

Note:
Work this sheet with sheet 5 of 32.

TOP OF SLAB ELEVATIONS -2
STRUCTURE NO. 016-2030

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 6	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	32 SHEETS	57	2222.3B	COOK	77	36	
<small>Designed By: ESH Checked By: MTH Drawn By: ESH</small> <small>Date: 7/2009 File: 016-2030.dgn</small>		CONTRACT NO. 62119				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	6.83	610.50	610.50
☉ Brg. N. Abut.	13+55.29	6.83	610.51	610.51
A	13+65.29	6.83	610.56	610.60
B	13+75.29	6.83	610.62	610.67
C	13+85.29	6.83	610.66	610.73
D	13+95.29	6.83	610.70	610.77
E	14+05.29	6.83	610.73	610.79
F	14+15.29	6.83	610.75	610.80
G	14+25.29	6.83	610.77	610.79
H	14+35.29	6.83	610.77	610.78
☉ Brg. Pier	14+47.54	6.83	610.78	610.78
I	14+57.54	6.83	610.77	610.78
J	14+67.54	6.83	610.76	610.78
K	14+77.54	6.83	610.74	610.79
L	14+87.54	6.83	610.71	610.78
M	14+97.54	6.83	610.68	610.76
N	15+07.54	6.83	610.64	610.72
O	15+17.54	6.83	610.60	610.66
P	15+27.54	6.83	610.54	610.58
☉ Brg. S. Abut.	15+39.79	6.83	610.47	610.47
Bk. Exist. S. Abut.	15+41.96	6.83	610.45	610.45

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	1.50	610.58	610.58
☉ Brg. N. Abut.	13+55.29	1.50	610.59	610.59
A	13+65.29	1.50	610.65	610.67
B	13+75.29	1.50	610.70	610.74
C	13+85.29	1.50	610.74	610.80
D	13+95.29	1.50	610.78	610.84
E	14+05.29	1.50	610.81	610.86
F	14+15.29	1.50	610.83	610.87
G	14+25.29	1.50	610.85	610.87
H	14+35.29	1.50	610.86	610.87
☉ Brg. Pier	14+47.54	1.50	610.86	610.86
I	14+57.54	1.50	610.86	610.86
J	14+67.54	1.50	610.84	610.86
K	14+77.54	1.50	610.82	610.86
L	14+87.54	1.50	610.80	610.85
M	14+97.54	1.50	610.77	610.82
N	15+07.54	1.50	610.73	610.78
O	15+17.54	1.50	610.68	610.73
P	15+27.54	1.50	610.63	610.66
☉ Brg. S. Abut.	15+39.79	1.50	610.55	610.55
Bk. Exist. S. Abut.	15+41.96	1.50	610.54	610.54

☉ ROADWAY, P.G. & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	0.00	610.61	610.61
☉ Brg. N. Abut.	13+55.29	0.00	610.62	610.62
A	13+65.29	0.00	610.67	610.70
B	13+75.29	0.00	610.72	610.77
C	13+85.29	0.00	610.77	610.82
D	13+95.29	0.00	610.80	610.86
E	14+05.29	0.00	610.83	610.88
F	14+15.29	0.00	610.86	610.89
G	14+25.29	0.00	610.87	610.89
H	14+35.29	0.00	610.88	610.89
☉ Brg. Pier	14+47.54	0.00	610.88	610.88
I	14+57.54	0.00	610.88	610.88
J	14+67.54	0.00	610.87	610.88
K	14+77.54	0.00	610.85	610.88
L	14+87.54	0.00	610.82	610.87
M	14+97.54	0.00	610.79	610.85
N	15+07.54	0.00	610.75	610.81
O	15+17.54	0.00	610.70	610.75
P	15+27.54	0.00	610.65	610.68
☉ Brg. S. Abut.	15+39.79	0.00	610.58	610.58
Bk. Exist. S. Abut.	15+41.96	0.00	610.56	610.56

BEAM 8


Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	-1.50	610.58	610.58
☉ Brg. N. Abut.	13+55.29	-1.50	610.59	610.59
A	13+65.29	-1.50	610.65	610.67
B	13+75.29	-1.50	610.70	610.74
C	13+85.29	-1.50	610.74	610.80
D	13+95.29	-1.50	610.78	610.84
E	14+05.29	-1.50	610.81	610.86
F	14+15.29	-1.50	610.83	610.87
G	14+25.29	-1.50	610.85	610.87
H	14+35.29	-1.50	610.86	610.87
☉ Brg. Pier	14+47.54	-1.50	610.86	610.86
I	14+57.54	-1.50	610.86	610.86
J	14+67.54	-1.50	610.84	610.86
K	14+77.54	-1.50	610.82	610.86
L	14+87.54	-1.50	610.80	610.85
M	14+97.54	-1.50	610.77	610.82
N	15+07.54	-1.50	610.73	610.78
O	15+17.54	-1.50	610.68	610.73
P	15+27.54	-1.50	610.63	610.66
☉ Brg. S. Abut.	15+39.79	-1.50	610.55	610.55
Bk. Exist. S. Abut.	15+41.96	-1.50	610.54	610.54

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	-6.83	610.50	610.50
☉ Brg. N. Abut.	13+55.29	-6.83	610.51	610.51
A	13+65.29	-6.83	610.56	610.60
B	13+75.29	-6.83	610.62	610.67
C	13+85.29	-6.83	610.66	610.73
D	13+95.29	-6.83	610.70	610.77
E	14+05.29	-6.83	610.73	610.79
F	14+15.29	-6.83	610.75	610.80
G	14+25.29	-6.83	610.77	610.79
H	14+35.29	-6.83	610.77	610.78
☉ Brg. Pier	14+47.54	-6.83	610.78	610.78
I	14+57.54	-6.83	610.77	610.78
J	14+67.54	-6.83	610.76	610.78
K	14+77.54	-6.83	610.74	610.79
L	14+87.54	-6.83	610.71	610.78
M	14+97.54	-6.83	610.68	610.76
N	15+07.54	-6.83	610.64	610.72
O	15+17.54	-6.83	610.60	610.66
P	15+27.54	-6.83	610.54	610.58
☉ Brg. S. Abut.	15+39.79	-6.83	610.47	610.47
Bk. Exist. S. Abut.	15+41.96	-6.83	610.45	610.45

Note:
Work this sheet with sheet 5 of 32.

TOP OF SLAB ELEVATIONS -3
STRUCTURE NO. 016-2030

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 7	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	32 SHEETS	57	2222.3B	COOK	77	37	
<small>Designed By: ESH Checked By: MTH Drawn By: ESH</small> <small>Date: 7/2009 File: 05-2030.dgn</small>		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				CONTRACT NO. 62119	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	-12.17	610.41	610.41
⊙ Brg. N. Abut.	13+55.29	-12.17	610.43	610.43
A	13+65.29	-12.17	610.48	610.51
B	13+75.29	-12.17	610.53	610.59
C	13+85.29	-12.17	610.57	610.65
D	13+95.29	-12.17	610.61	610.69
E	14+05.29	-12.17	610.64	610.71
F	14+15.29	-12.17	610.66	610.72
G	14+25.29	-12.17	610.68	610.71
H	14+35.29	-12.17	610.69	610.70
⊙ Brg. Pier	14+47.54	-12.17	610.69	610.69
I	14+57.54	-12.17	610.69	610.69
J	14+67.54	-12.17	610.68	610.70
K	14+77.54	-12.17	610.66	610.70
L	14+87.54	-12.17	610.63	610.70
M	14+97.54	-12.17	610.60	610.67
N	15+07.54	-12.17	610.56	610.63
O	15+17.54	-12.17	610.51	610.58
P	15+27.54	-12.17	610.46	610.50
⊙ Brg. S. Abut.	15+39.79	-12.17	610.38	610.38
Bk. Exist. S. Abut.	15+41.96	-12.17	610.37	610.37

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	-17.50	610.30	610.30
⊙ Brg. N. Abut.	13+55.29	-17.50	610.32	610.32
A	13+65.29	-17.50	610.37	610.40
B	13+75.29	-17.50	610.42	610.48
C	13+85.29	-17.50	610.46	610.54
D	13+95.29	-17.50	610.50	610.58
E	14+05.29	-17.50	610.53	610.60
F	14+15.29	-17.50	610.55	610.61
G	14+25.29	-17.50	610.57	610.60
H	14+35.29	-17.50	610.58	610.59
⊙ Brg. Pier	14+47.54	-17.50	610.58	610.58
I	14+57.54	-17.50	610.58	610.58
J	14+67.54	-17.50	610.56	610.59
K	14+77.54	-17.50	610.55	610.59
L	14+87.54	-17.50	610.52	610.59
M	14+97.54	-17.50	610.49	610.57
N	15+07.54	-17.50	610.45	610.53
O	15+17.54	-17.50	610.40	610.47
P	15+27.54	-17.50	610.35	610.39
⊙ Brg. S. Abut.	15+39.79	-17.50	610.27	610.27
Bk. Exist. S. Abut.	15+41.96	-17.50	610.26	610.26

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	-22.83	610.19	610.19
⊙ Brg. N. Abut.	13+55.29	-22.83	610.20	610.20
A	13+65.29	-22.83	610.26	610.29
B	13+75.29	-22.83	610.31	610.37
C	13+85.29	-22.83	610.35	610.43
D	13+95.29	-22.83	610.39	610.47
E	14+05.29	-22.83	610.42	610.49
F	14+15.29	-22.83	610.44	610.50
G	14+25.29	-22.83	610.46	610.49
H	14+35.29	-22.83	610.47	610.48
⊙ Brg. Pier	14+47.54	-22.83	610.47	610.47
I	14+57.54	-22.83	610.47	610.47
J	14+67.54	-22.83	610.45	610.48
K	14+77.54	-22.83	610.43	610.49
L	14+87.54	-22.83	610.41	610.48
M	14+97.54	-22.83	610.38	610.46
N	15+07.54	-22.83	610.34	610.42
O	15+17.54	-22.83	610.29	610.36
P	15+27.54	-22.83	610.24	610.28
⊙ Brg. S. Abut.	15+39.79	-22.83	610.16	610.16
Bk. Exist. S. Abut.	15+41.96	-22.83	610.15	610.15

BEAM 13


Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	-28.17	610.11	610.11
⊙ Brg. N. Abut.	13+55.29	-28.17	610.12	610.12
A	13+65.29	-28.17	610.17	610.21
B	13+75.29	-28.17	610.22	610.30
C	13+85.29	-28.17	610.27	610.36
D	13+95.29	-28.17	610.30	610.40
E	14+05.29	-28.17	610.33	610.42
F	14+15.29	-28.17	610.36	610.42
G	14+25.29	-28.17	610.37	610.41
H	14+35.29	-28.17	610.38	610.40
⊙ Brg. Pier	14+47.54	-28.17	610.38	610.38
I	14+57.54	-28.17	610.38	610.39
J	14+67.54	-28.17	610.37	610.40
K	14+77.54	-28.17	610.35	610.41
L	14+87.54	-28.17	610.32	610.41
M	14+97.54	-28.17	610.29	610.39
N	15+07.54	-28.17	610.25	610.35
O	15+17.54	-28.17	610.20	610.28
P	15+27.54	-28.17	610.15	610.20
⊙ Brg. S. Abut.	15+39.79	-28.17	610.08	610.08
Bk. Exist. S. Abut.	15+41.96	-28.17	610.06	610.06

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. N. Abut.	13+53.12	-33.50	610.11	610.11
⊙ Brg. N. Abut.	13+55.29	-33.50	610.12	610.12
A	13+65.29	-33.50	610.17	610.22
B	13+75.29	-33.50	610.22	610.31
C	13+85.29	-33.50	610.27	610.37
D	13+95.29	-33.50	610.30	610.41
E	14+05.29	-33.50	610.33	610.43
F	14+15.29	-33.50	610.36	610.43
G	14+25.29	-33.50	610.37	610.41
H	14+35.29	-33.50	610.38	610.40
⊙ Brg. Pier	14+47.54	-33.50	610.38	610.38
I	14+57.54	-33.50	610.38	610.39
J	14+67.54	-33.50	610.37	610.40
K	14+77.54	-33.50	610.35	610.42
L	14+87.54	-33.50	610.32	610.42
M	14+97.54	-33.50	610.29	610.40
N	15+07.54	-33.50	610.25	610.36
O	15+17.54	-33.50	610.20	610.29
P	15+27.54	-33.50	610.15	610.21
⊙ Brg. S. Abut.	15+39.79	-33.50	610.08	610.08
Bk. Exist. S. Abut.	15+41.96	-33.50	610.06	610.06

Note:
Work this sheet with sheet 5 of 32.

TOP OF SLAB ELEVATIONS -4
STRUCTURE NO. 016-2030

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 8	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	38
<small>Designed By: ESH Date: 7/2009</small>		<small>Checked By: MTH File: 016-2030.dgn</small>		CONTRACT NO. 62119		
		FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOTAL SHEETS	SHEET NO.
77	39

EAST EDGE OF PAVEMENT

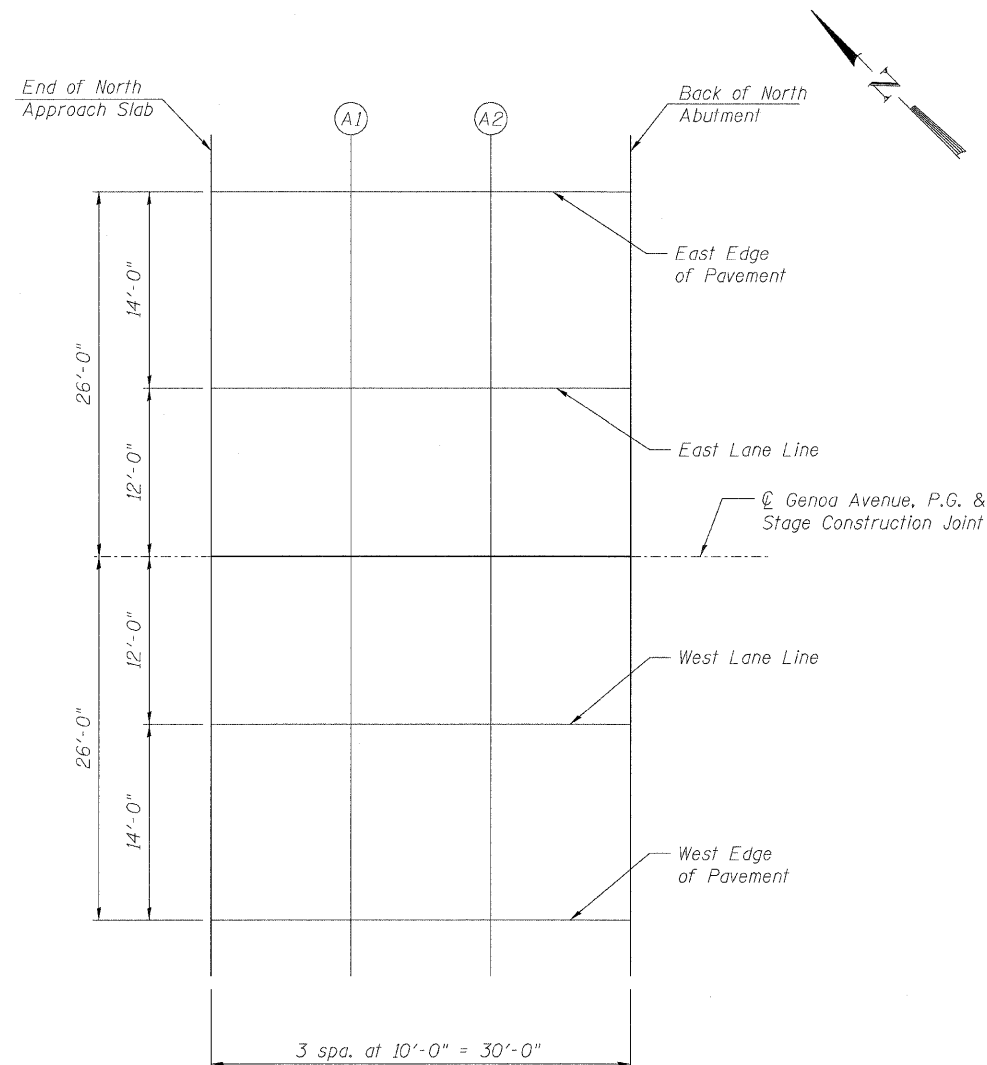
Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	13+23.12	-26.00	609.96
A1	13+33.12	-26.00	610.02
A2	13+43.12	-26.00	610.07
Bk. N. Abut.	13+53.12	-26.00	610.13

EAST LANE LINE

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	13+23.12	-12.00	610.25
A1	13+33.12	-12.00	610.31
A2	13+43.12	-12.00	610.36
Bk. N. Abut.	13+53.12	-12.00	610.42

☉ ROADWAY, P.G. & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	13+23.12	0.00	610.44
A1	13+33.12	0.00	610.50
A2	13+43.12	0.00	610.55
Bk. N. Abut.	13+53.12	0.00	610.61



PLAN

WEST LANE LINE

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	13+23.12	12.00	610.25
A1	13+33.12	12.00	610.31
A2	13+43.12	12.00	610.36
Bk. N. Abut.	13+53.12	12.00	610.42

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	13+23.12	26.00	609.96
A1	13+33.12	26.00	610.02
A2	13+43.12	26.00	610.07
Bk. N. Abut.	13+53.12	26.00	610.13

TOP OF NORTH APPROACH
SLAB ELEVATIONS
STRUCTURE NO. 016-2030

	SHEET NO. 9	F.A.I. RTE. 57	SECTION 2222.3B	COUNTY COOK	TOTAL SHEETS 77	SHEET NO. 39
	32 SHEETS	CONTRACT NO. 62119			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOTAL SHEETS	SHEET NO.
77	40

EAST EDGE OF PAVEMENT

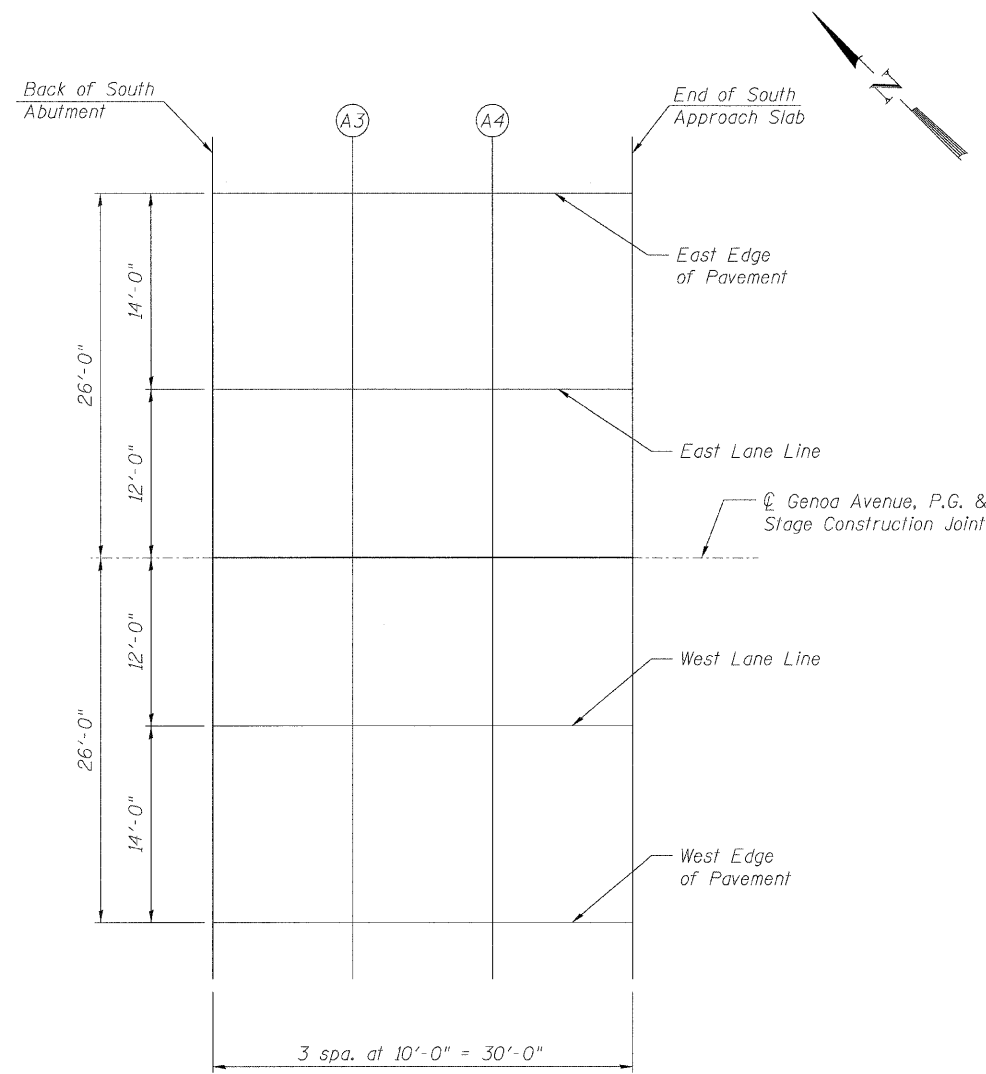
Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	15+41.96	-26.00	610.08
A3	15+51.96	-26.00	610.01
A4	15+61.96	-26.00	609.93
End S. Appr. Slab	15+71.96	-26.00	609.85

EAST LANE LINE

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	15+41.96	-12.00	610.37
A3	15+51.96	-12.00	610.30
A4	15+61.96	-12.00	610.22
End S. Appr. Slab	15+71.96	-12.00	610.14

☉ ROADWAY, P.G. & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	15+41.96	0.00	610.56
A3	15+51.96	0.00	610.49
A4	15+61.96	0.00	610.41
End S. Appr. Slab	15+71.96	0.00	610.33



PLAN

WEST LANE LINE

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	15+41.96	12.00	610.37
A3	15+51.96	12.00	610.30
A4	15+61.96	12.00	610.22
End S. Appr. Slab	15+71.96	12.00	610.14

WEST EDGE OF PAVEMENT

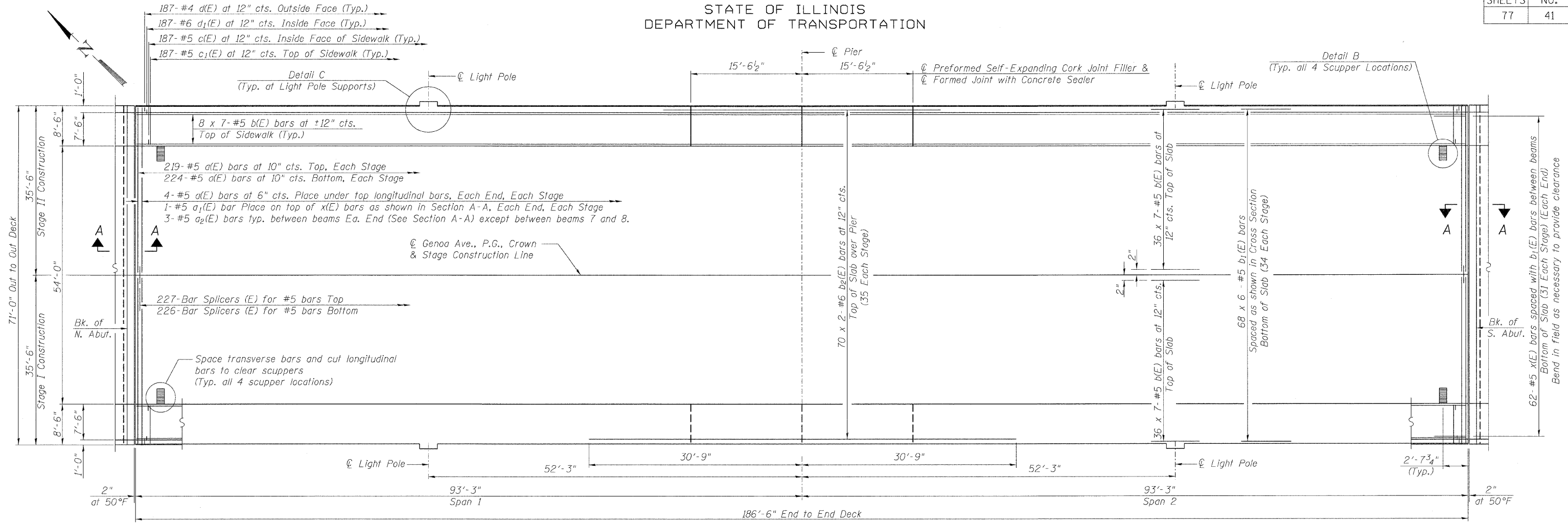
Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	15+41.96	26.00	610.08
A3	15+51.96	26.00	610.01
A4	15+61.96	26.00	609.93
End S. Appr. Slab	15+71.96	26.00	609.85

TOP OF SOUTH APPROACH
SLAB ELEVATIONS
STRUCTURE NO. 016-2030

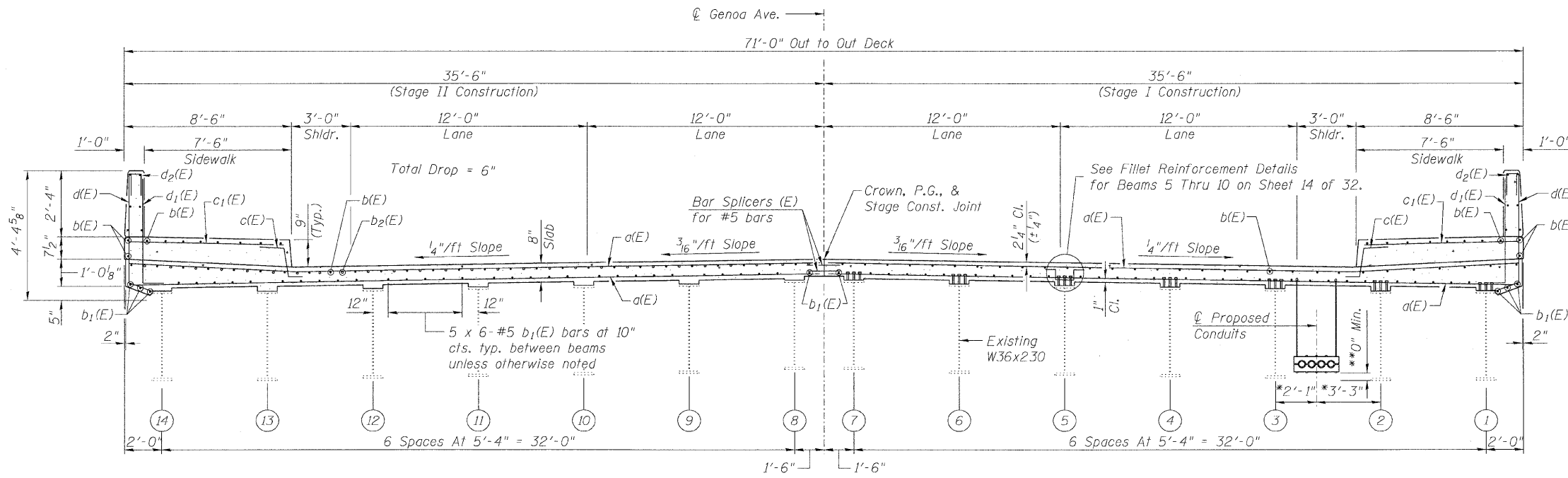
 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 10	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	40
Designed By: ESH Date: 7/2009	Checked By: MTH File: 016-2030.dgn	Drawn By: ESH	CONTRACT NO. 62119			
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOTAL SHEETS	SHEET NO.
77	41



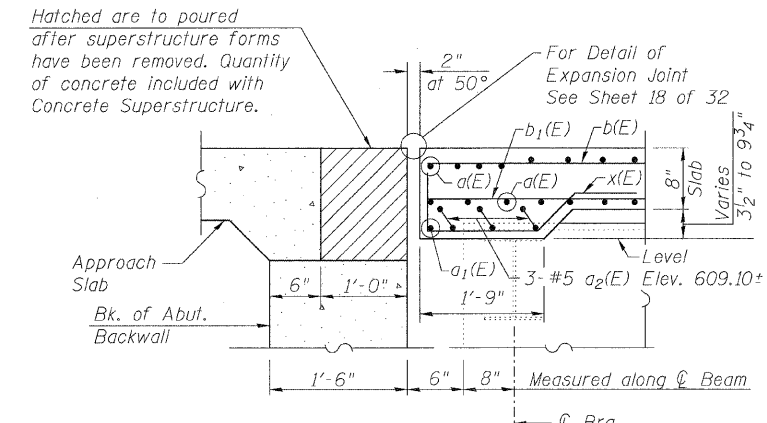
PLAN



NEAR PIER

CROSS SECTION
(Looking South)

NEAR MIDSPAN



SECTION A-A

MIN BAR LAP
#4 Bar = 1'-8"
#5 Bar = 2'-2"
#6 Bar = 2'-7"

SUPERSTRUCTURE
STRUCTURE NO. 016-2030

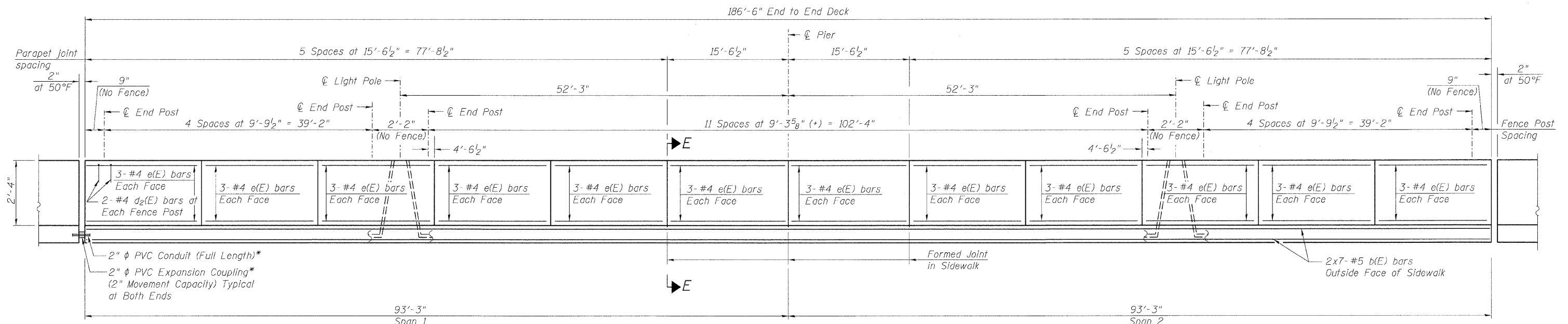
Notes:
Bars indicated thus 36 x 7-#5 etc. indicates 36 lines of bars with 7 lengths per line.
See Sheet 12 of 32 for Parapet Reinforcement.
See Sheet 13 of 32 for Detail B.
See Sheet 14 of 32 for Bill of Material and Detail C.

* Contractor to confirm location of conduits not in conflict with deck drainage system and adjust location if needed.
** Conduit bank and supports shall be above low steel of adjacent girders. Contractor shall survey all diaphragms between girder lines 2 and 3 prior to ordering material for conduit supports to ensure that conduit banks and their support system fit within space shown. Modification to conduit bank configuration is included with the pay item for the conduits.

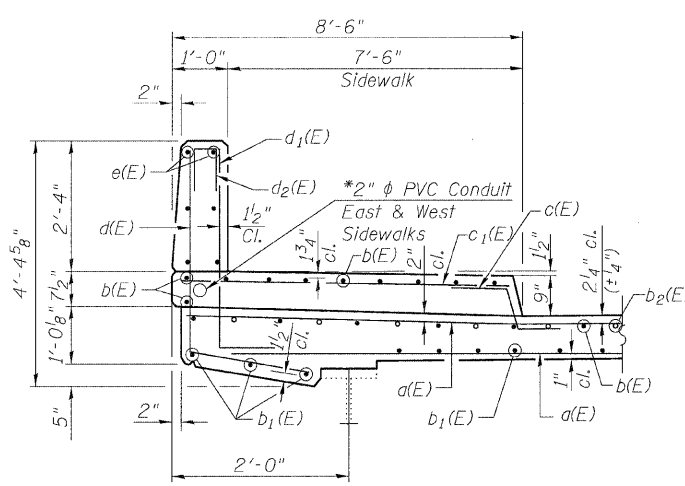
LE LIN ENGINEERING, LTD.
Consulting Engineers
Chatham, Illinois

Designed By: ESH Checked By: MTH Drawn By: ESH
Date: 7/2009 File: 016-2030.dgn

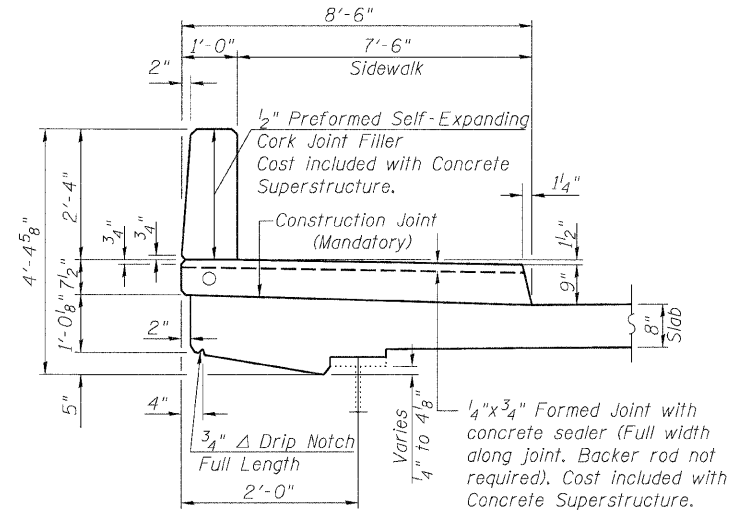
SHEET NO. 11 32 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	2222.3B	COOK	77	41
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62119					



INSIDE ELEVATION OF EAST PARAPET AND SIDEWALK
(West Parapet and Sidewalk Similar)

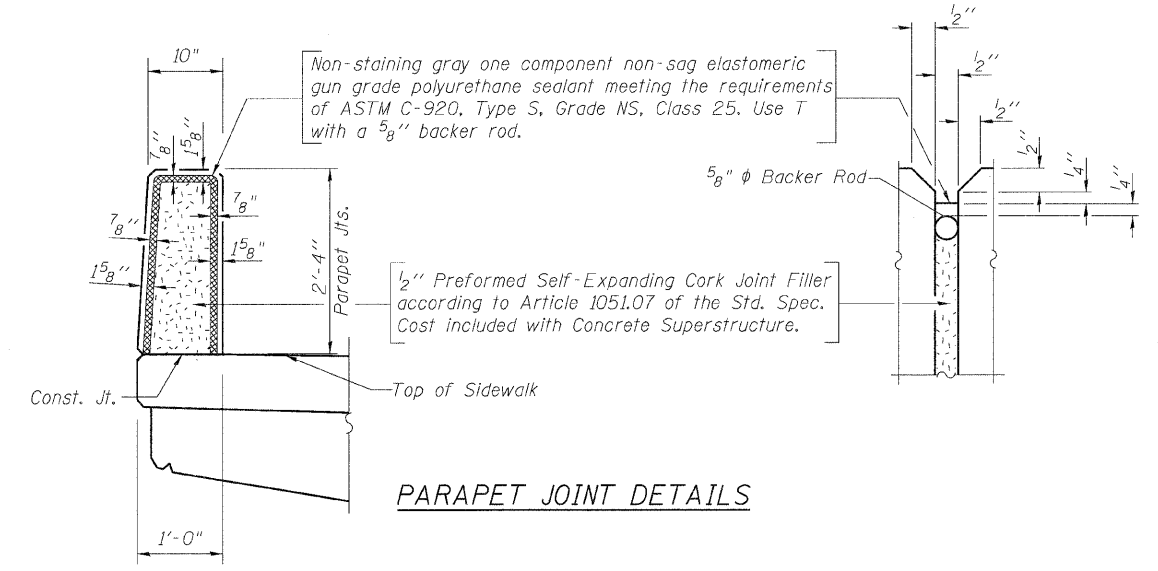


SECTION THRU PARAPET & SIDEWALK



**SECTION E-E
PARAPET JOINT DETAIL**

MINIMUM BAR LAP
(Parapet)
#5 bar = 1'-8"



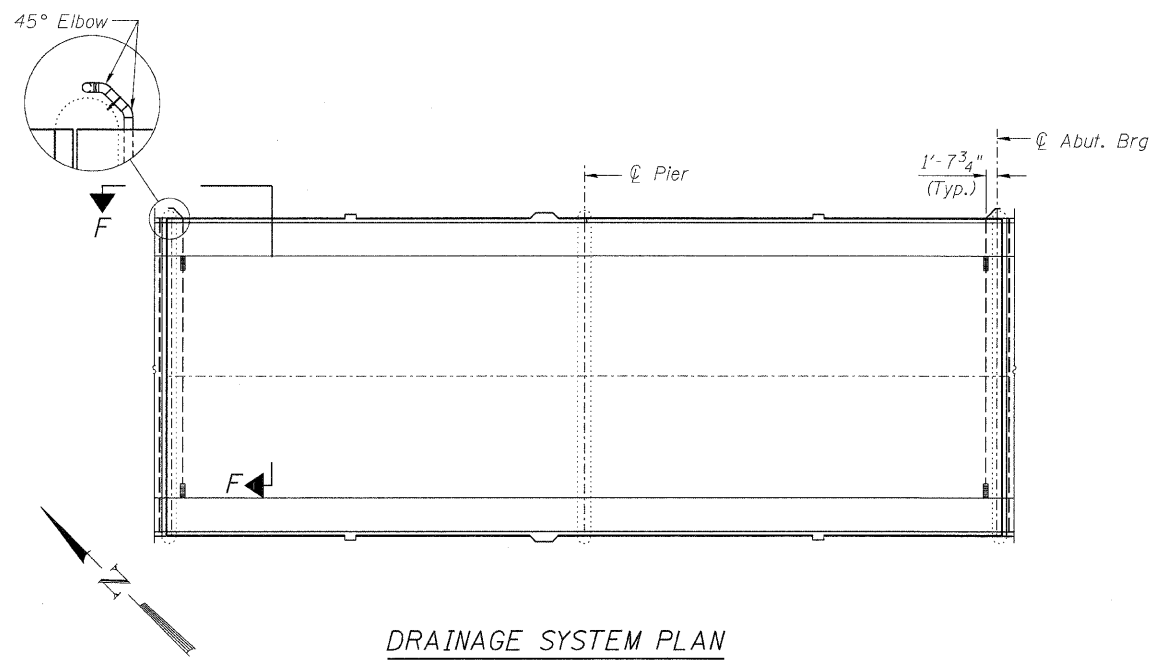
PARAPET JOINT DETAILS

Notes:
Bar indicated thus 2x7-#5 etc. indicates 2 lines of #5 bars with 7 lengths per line.
See Sheet 11 of 32 for Deck Plan and Cross Section.
See Sheet 14 of 32 for Bill of Material.
* For Pay Item see Electrical Plans

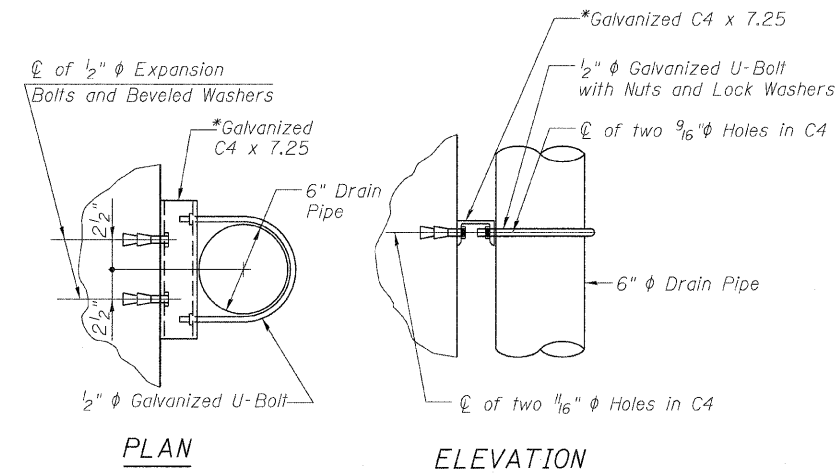
SUPERSTRUCTURE DETAILS - 1
STRUCTURE NO. 016-2030

	SHEET NO. 12	F.A.I. RTE. 57	SECTION 2222.3B	COUNTY COOK	TOTAL SHEETS 77	SHEET NO. 42
	32 SHEETS	CONTRACT NO. 62119			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

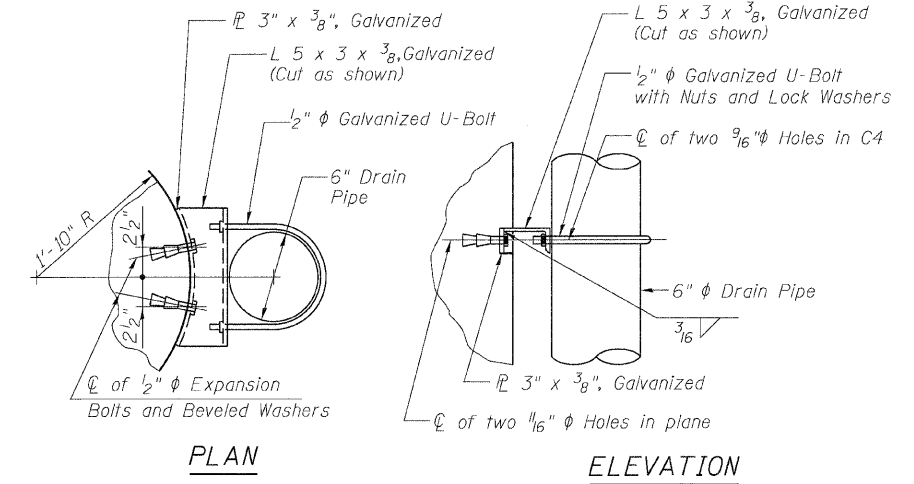


DRAINAGE SYSTEM PLAN



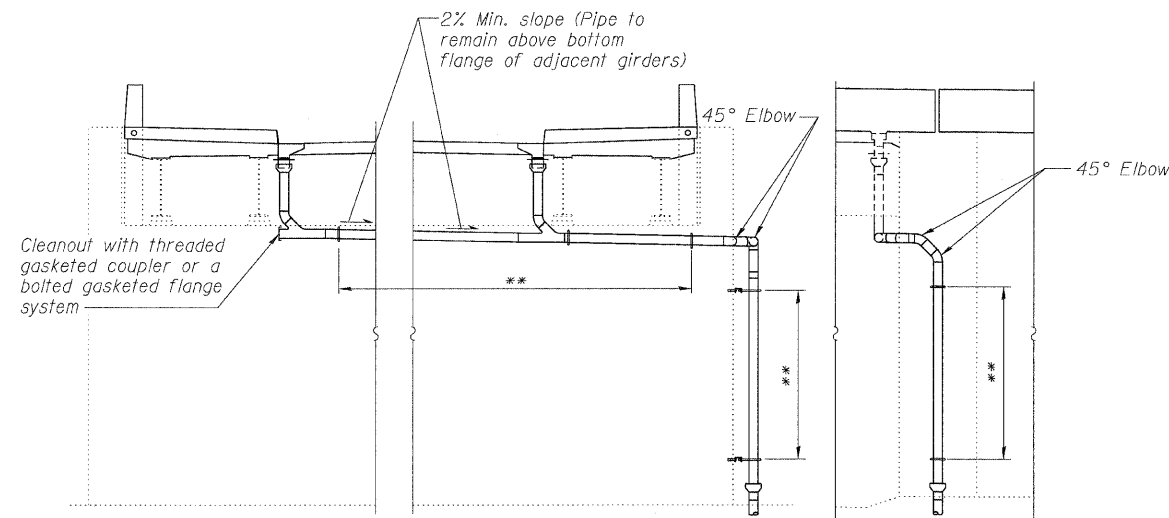
PLAN ELEVATION

PIPE SUPPORT DETAIL
ON FLAT SURFACE

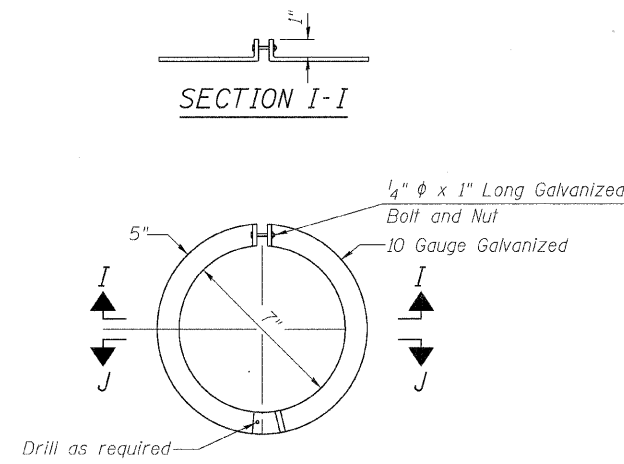


PLAN ELEVATION

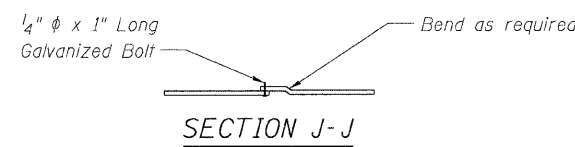
PIPE SUPPORT DETAIL
ON CURVED SURFACE



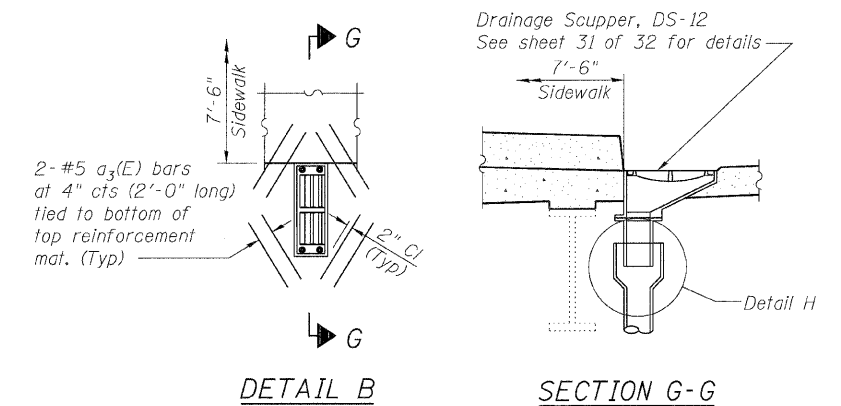
SECTION F-F



EXPANSION COLLAR PLAN

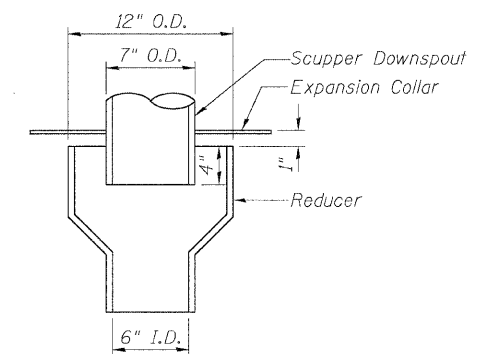


SECTION J-J



DETAIL B

SECTION G-G



DETAIL H

SUPERSTRUCTURE DETAILS -2
STRUCTURE NO. 016-2030

Notes:

See Special Provisions for Drainage System installation and material.

See Sheet 11 of 32 for locations of Detail B.

See Roadway Drainage and Utilities Sheets for connection of drainage system to existing I-57 catch basin structures.

* Larger channel sections may be used if required for drain pipe to clear miscellaneous attachments to substructure units as approved by the engineer.

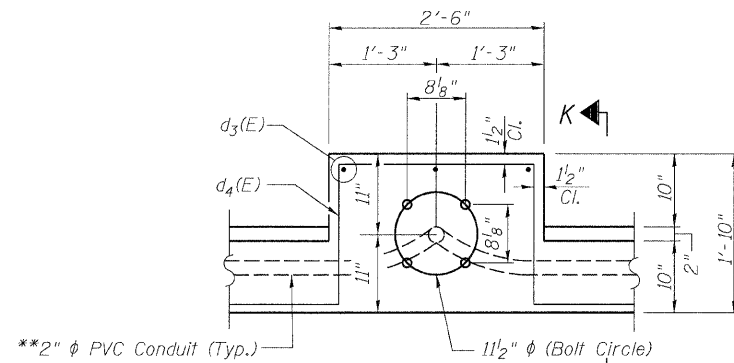
** Pipe Supports @ 5'-0" Max Spacing.

	SHEET NO.13	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	43
Designed By: ESH Checked By: MTH Date: 7/2/09		Drawn By: ESH File: 016-2030.dwg		CONTRACT NO. 62119		
		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

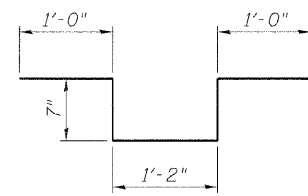
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	902	#5	35'-0"	—
a ₁ (E)	4	#5	33'-0"	—
a ₂ (E)	72	#5	5'-0"	—
a ₃ (E)	32	#5	2'-0"	—
a ₄ (E)	648	#4	4'-4"	—
b(E)	644	#5	28'-6"	—
b ₁ (E)	408	#5	32'-11"	—
b ₂ (E)	140	#6	32'-1"	—
b ₃ (E)	48	#5	28'-0"	—
c(E)	374	#5	2'-5"	—
c ₁ (E)	374	#5	8'-1"	—
d(E)	374	#4	4'-8"	—
d ₁ (E)	374	#6	4'-7"	—
d ₂ (E)	92	#4	2'-0"	—
d ₃ (E)	12	#6	4'-8"	—
d ₄ (E)	20	#6	8'-11"	—
e(E)	144	#4	15'-3"	—
x(E)	124	#5	5'-11"	—
Concrete Superstructure		Cu. Yd.	575.4	
Reinforcement Bars, Epoxy Coated		Pound	87230	

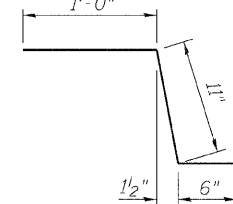
Notes:
See Sheet 11 of 32 for Deck Plan and Cross Section.
** For Pay Item see Electrical Plans.



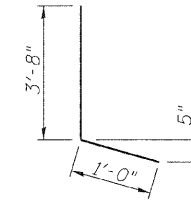
**2" φ PVC Conduit (Typ.)
1 1/2" φ (Bolt Circle)
**LIGHT POLE MOUNTED
ON CONCRETE PARAPET PLAN
DETAIL C**



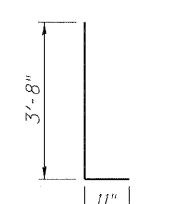
BAR a₄(E)



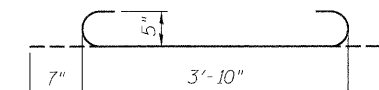
BAR c(E)



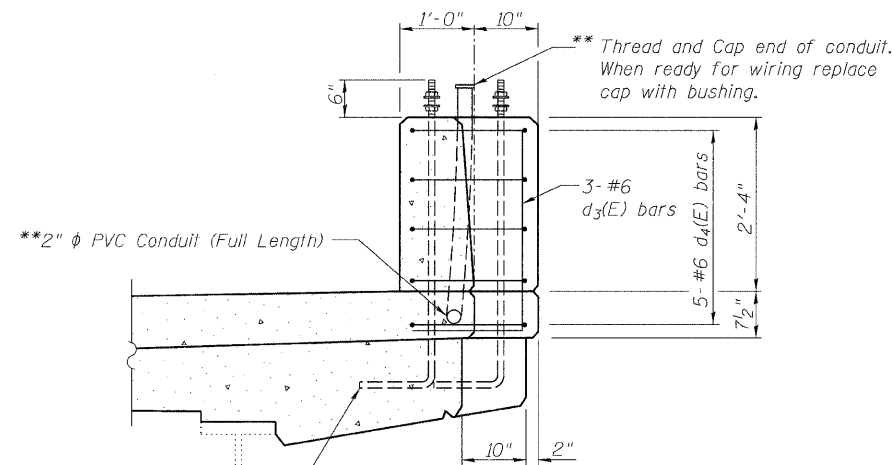
BAR d(E)



BAR d₁(E)

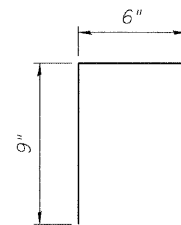


BAR a₂(E)

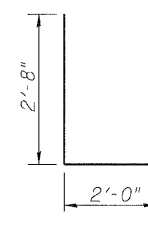


**2" φ PVC Conduit (Full Length)
3- #6 d₃(E) bars
5- #6 d₄(E) bars
1" φ x 5'-2" Anchor Bolts, Provide 3 flat washers, 1 regular nut & 1 locknut for each bolt. All nuts & washers shall be galvanized. See Light Pole Anchor Rod Detail.

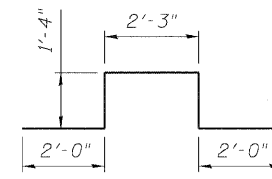
SECTION K-K



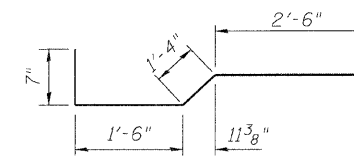
BAR d₂(E)



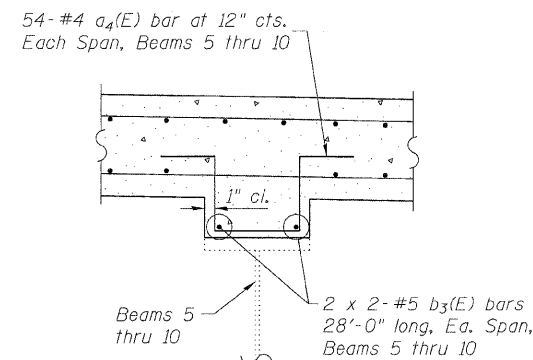
BAR d₃(E)



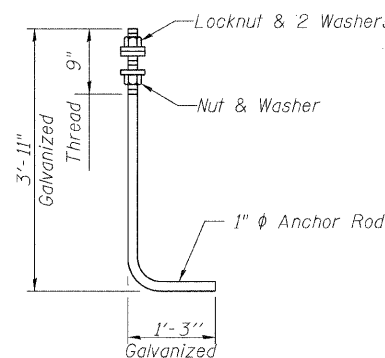
BAR d₄(E)



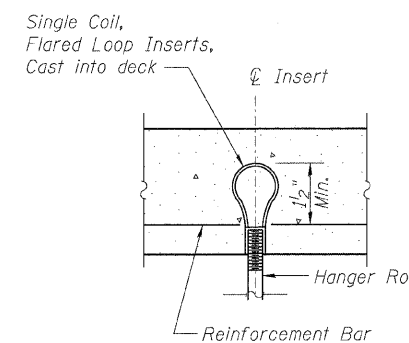
BAR x(E)



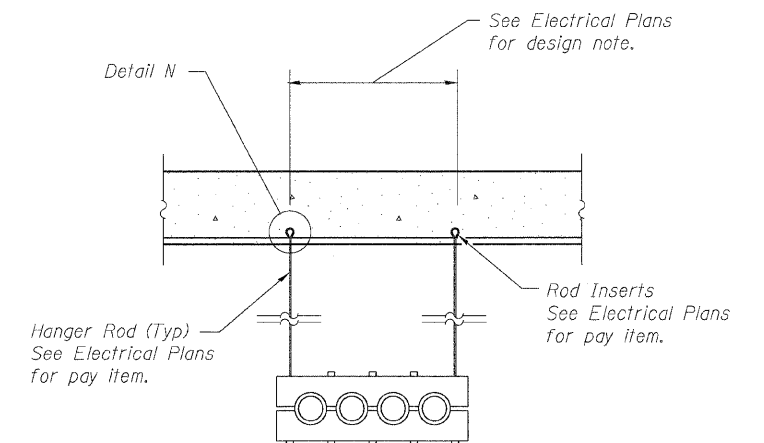
**FILLET REINFORCEMENT
DETAILS**
(For Fillet heights > 6")



**LIGHT POLE
ANCHOR ROD DETAIL**
(ASTM F 1554 Grade 105)
Cost of Anchor Bolt is included with Concrete Superstructure



DETAIL N



4 CONDUIT BANK SUPPORT DETAIL
See Electrical Plans for Design note and payment

**SUPERSTRUCTURE DETAILS -3
STRUCTURE NO. 016-2030**

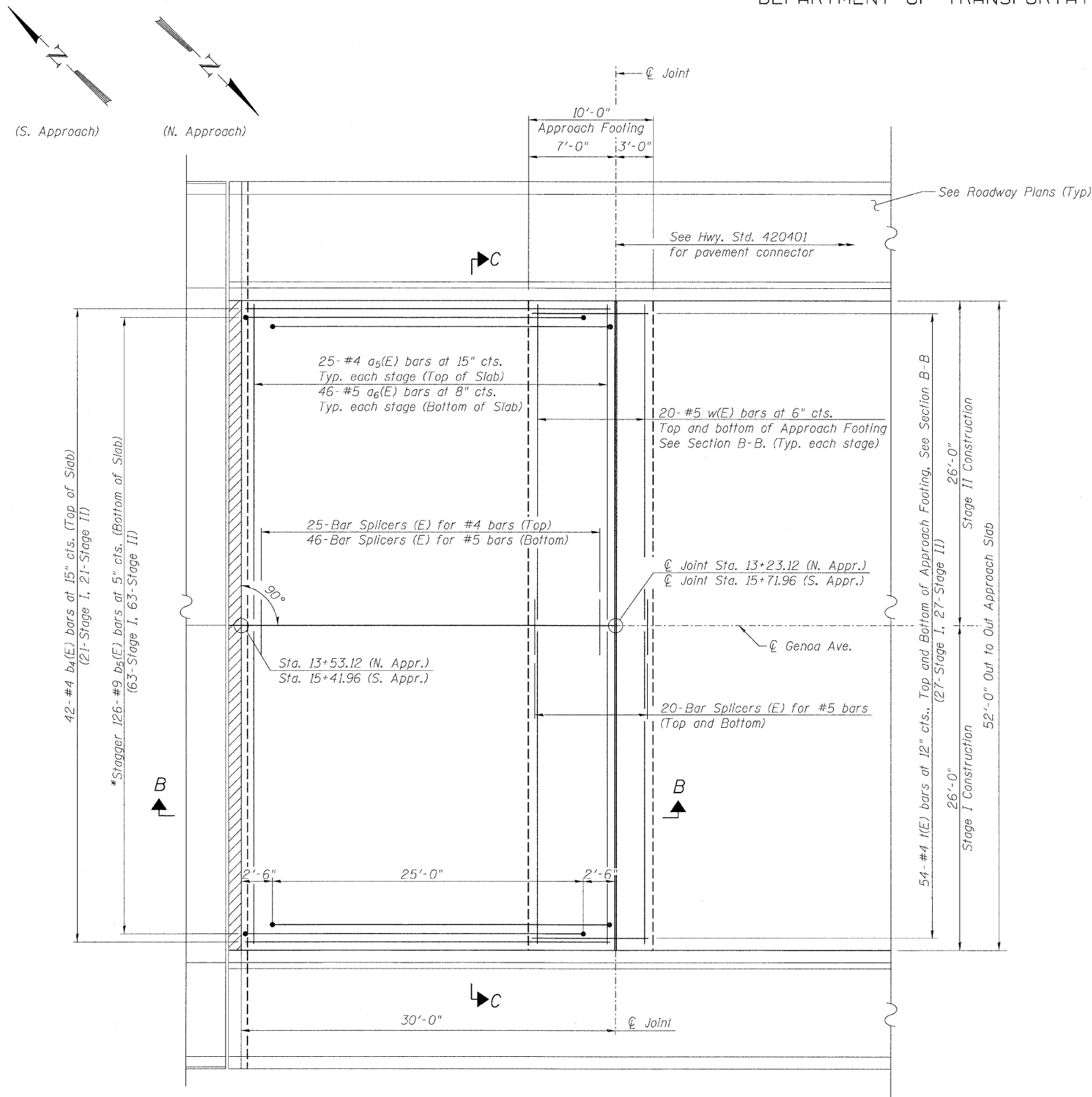
<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 14	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	44
<p>Designed By: ESH Date: 7/2/09</p>		<p>Checked By: MTH Date: 05-20-09</p>		<p>CONTRACT NO. 62119</p>		
		<p>FED. ROAD DIST. NO.</p>		<p>ILLINOIS FED. AID PROJECT</p>		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOTAL SHEETS	SHEET NO.
77	45

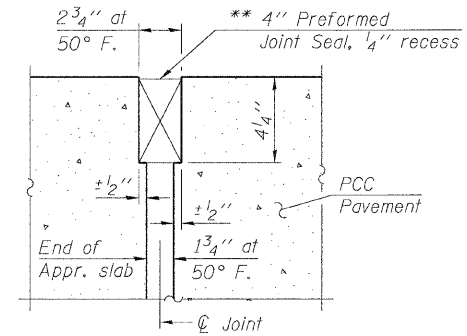
Note:
See sheet 16 of 32 for Sections B-B and C-C.

** Cost included with Concrete Superstructure.



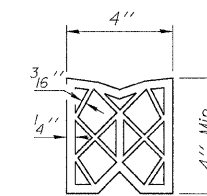
PLAN

*Tilt #9 b5(E) bars as required to maintain clearance



RIGID PAVEMENT

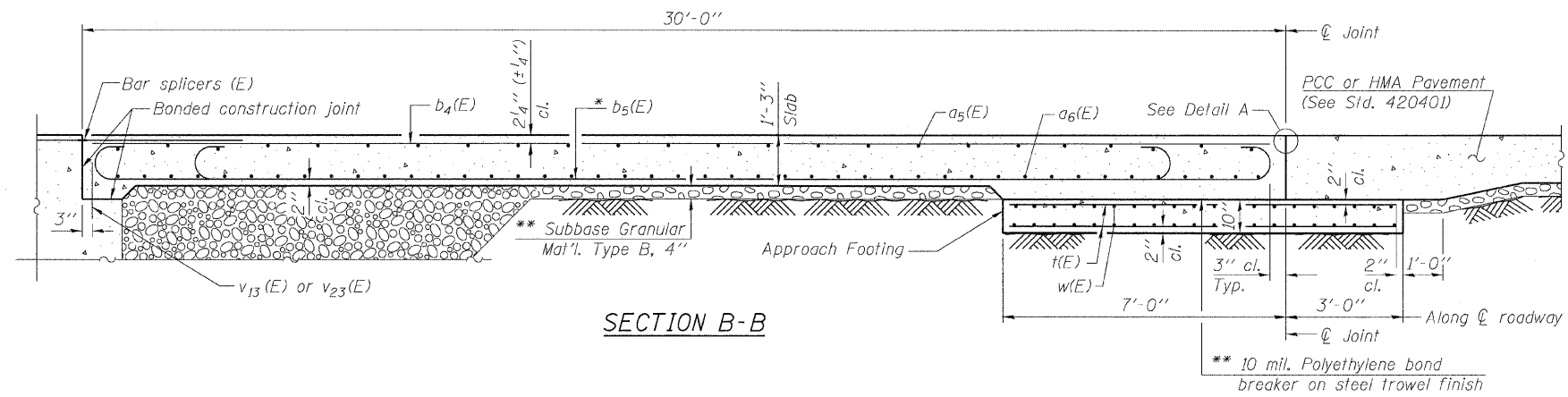
DETAIL A



PREFORMED JOINT SEAL

BRIDGE APPROACH SLAB DETAILS - 1
STRUCTURE NO. 016-2030

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 15	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	45
Designed By: ESH Checked By: MTH Date: 7/2009		Drawn By: ESH File: 016-2030.dgn		CONTRACT NO. 62119		
		FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		

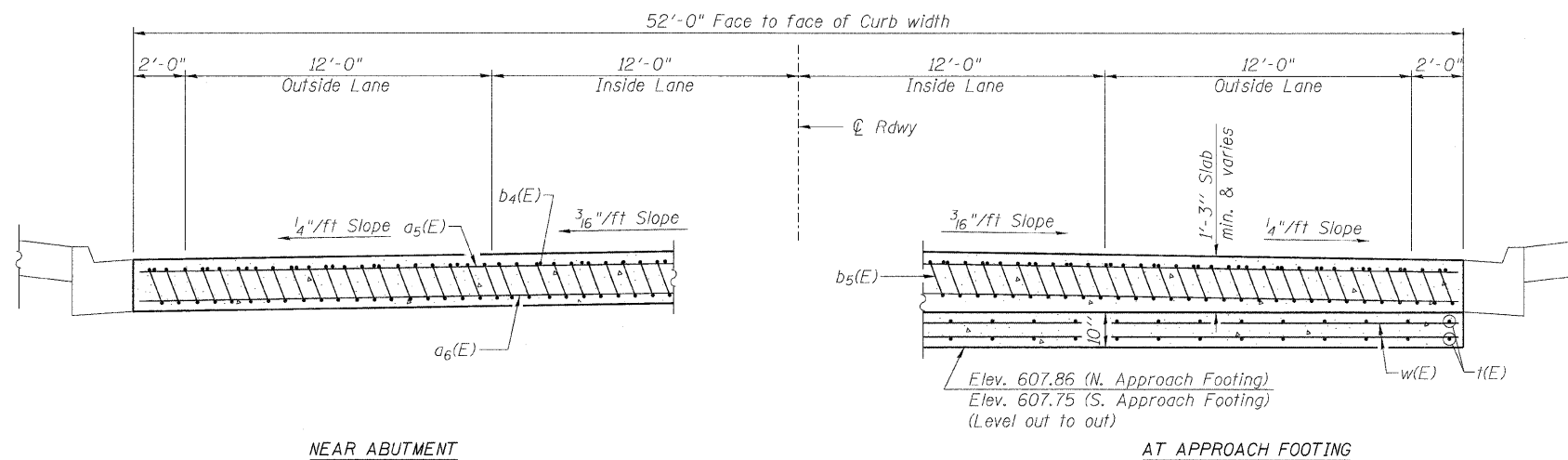


Notes:
See sheet 15 of 32 for Detail A.
Approach slab concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For $v_{13}(E)$ and $v_{23}(E)$ bar details, see sheets 23 and 27 of 32.
The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
For bar splicer details, see sheet 32 of 32.
Cost of excavation for approach footing included with Concrete Structures.

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_5(E)$	100	#4	25'-8"	—
$a_6(E)$	184	#5	25'-8"	—
$b_4(E)$	84	#4	29'-8"	—
$b_5(E)$	252	#9	29'-9"	⌒
$t(E)$	216	#4	9'-8"	—
$w(E)$	160	#5	25'-8"	—
Concrete Superstructure		Cu. Yd.	154.4	
Concrete Structures		Cu. Yd.	32.1	
Reinforcement Bars, Epoxy Coated		Pound	39480	

* Tilt #9 $b_5(E)$ bars as required to maintain clearance.
** Cost included with Concrete Superstructure.

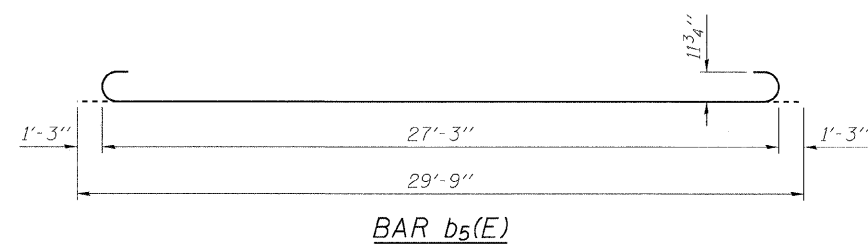


NEAR ABUTMENT

SECTION C-C

(See Plan for dimensions not shown)

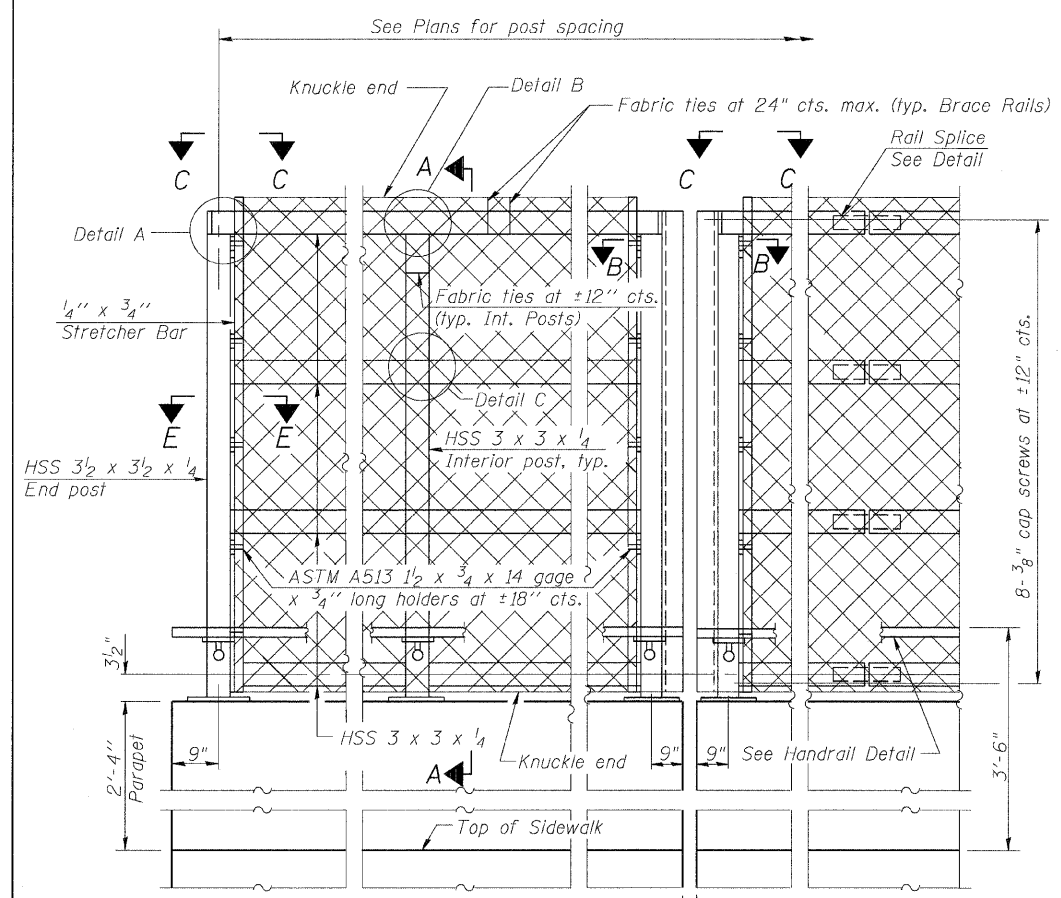
AT APPROACH FOOTING



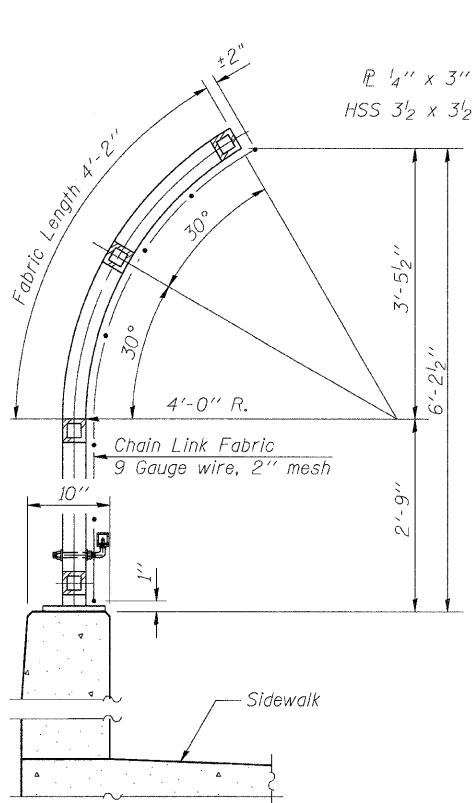
BRIDGE APPROACH SLAB DETAILS -2
STRUCTURE NO. 016-2030

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 16	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	32 SHEETS	57	2222.3B	COOK	77	46	
<p>Designed By: ESH Checked By: MTH Drawn By: ESH</p> <p>Date: 7/2009 File: 016-2030.dgn</p>		<p>FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT</p>				<p>CONTRACT NO. 62119</p>	

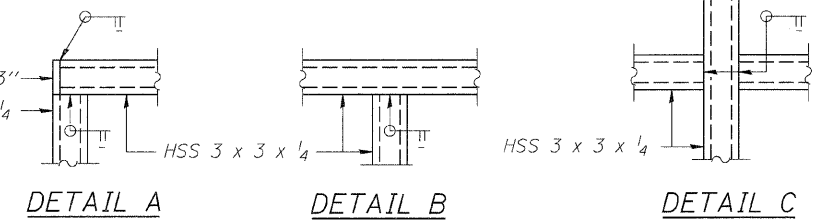
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION
(Inside Face)

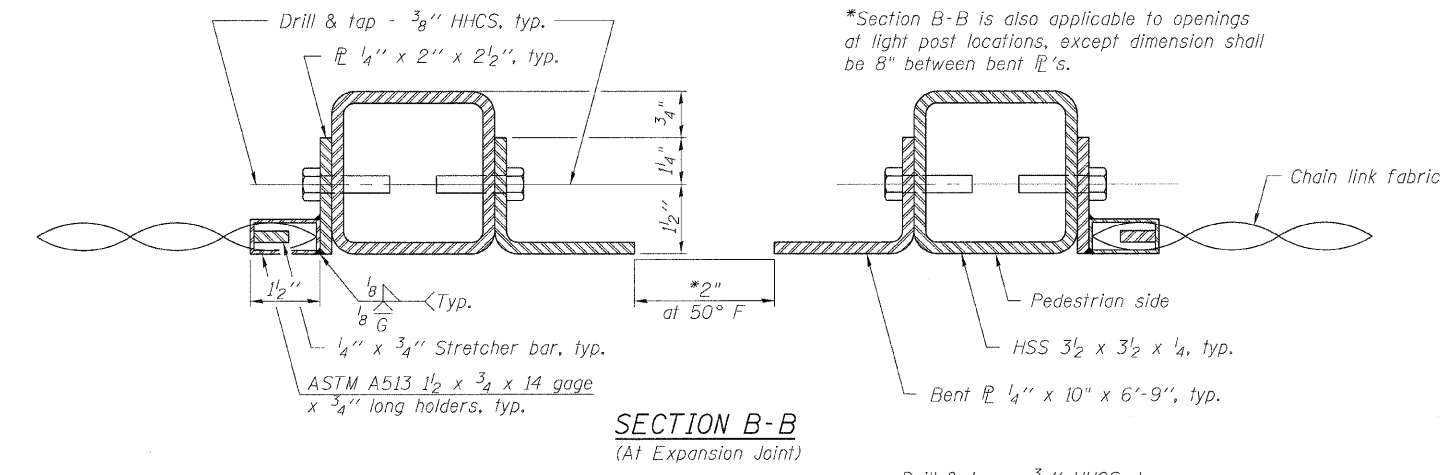


SECTION A-A

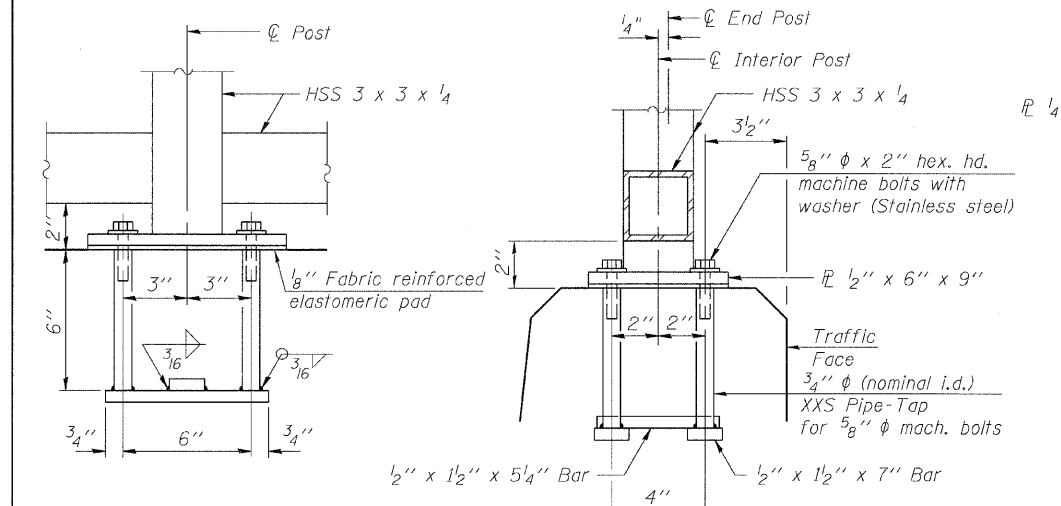


DETAIL A **DETAIL B** **DETAIL C**

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

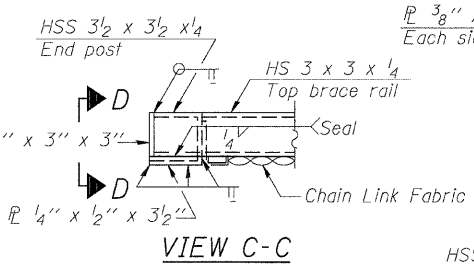


SECTION B-B
(At Expansion Joint)

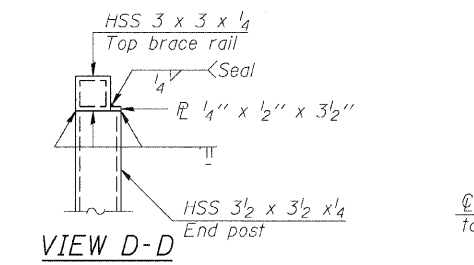


ANCHOR BOLT DETAILS

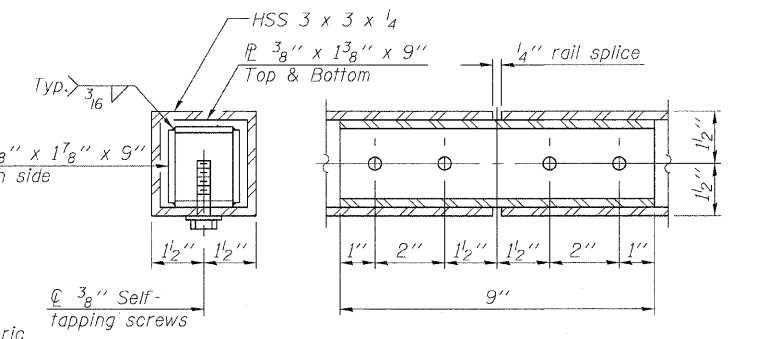
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8\"/>



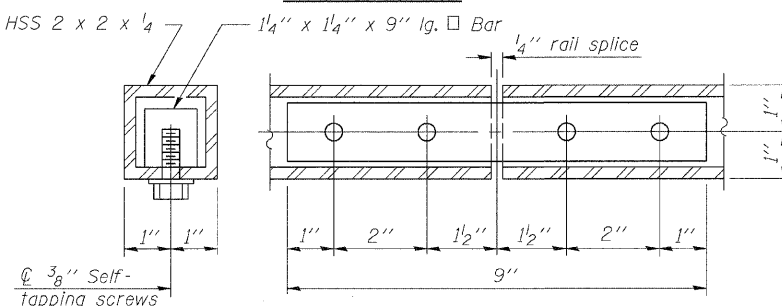
VIEW C-C



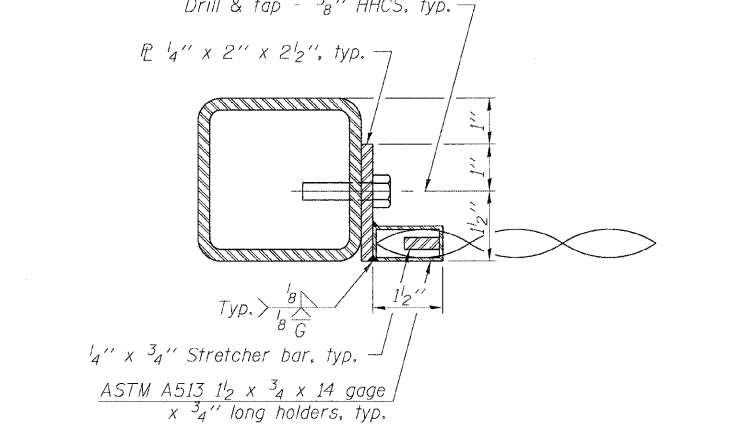
VIEW D-D



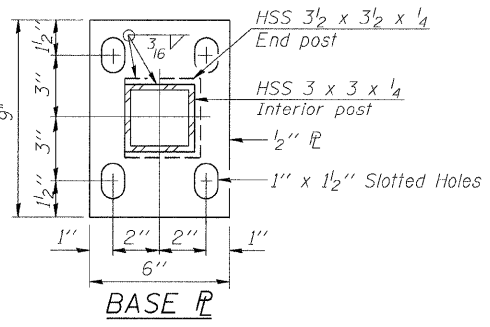
RAIL SPLICE



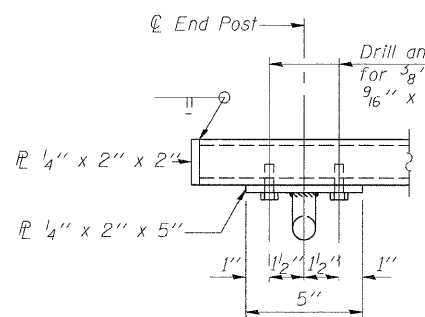
HANDRAIL SPLICE



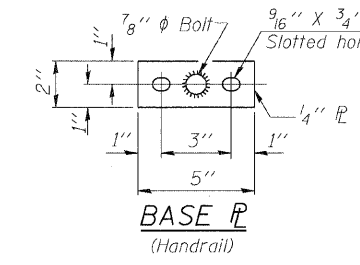
SECTION E-E



BASE P



HANDRAIL DETAIL



BASE P
(Handrail)

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Fool	562

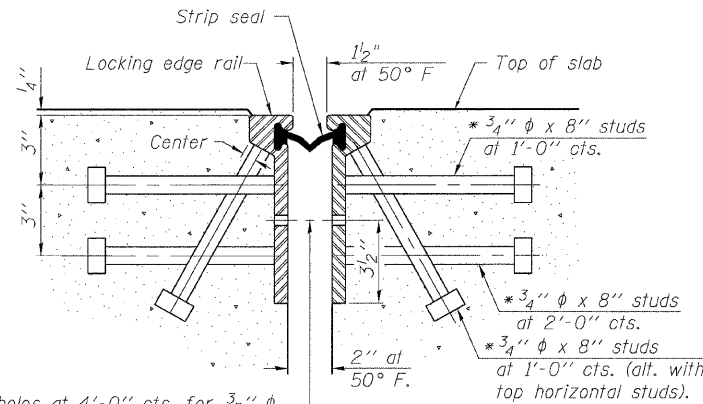
**BRIDGE FENCE RAILING
PARAPET MOUNTED
STRUCTURE NO. 016-2030**

LIN ENGINEERING, LTD.
Consulting Engineers
Chatham, Illinois

Designed By: ESH Checked By: MTH Drawn By: ESH
Date: 7/2009 File: 016-2030.dwg

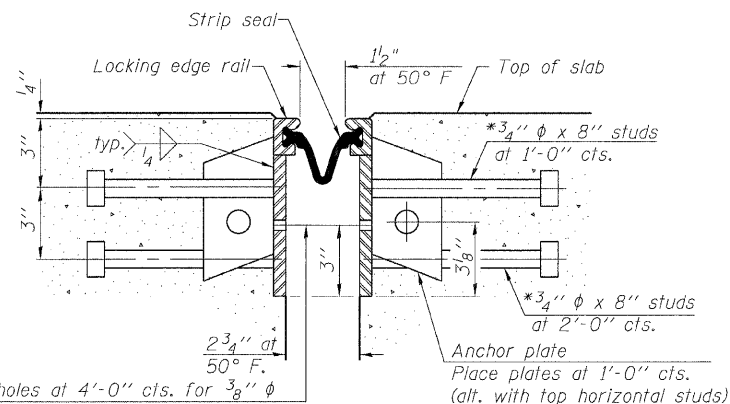
SHEET NO. 17	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
32 SHEETS	57	2222.3B	COOK	77	47
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62119					

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



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
ROLLED RAIL JOINT



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
WELDED RAIL JOINT

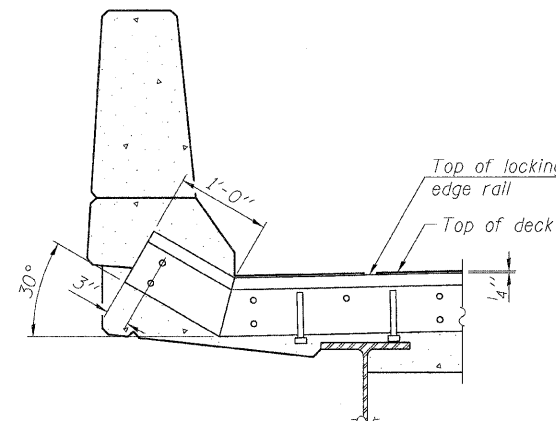
Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". 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 4 inches.

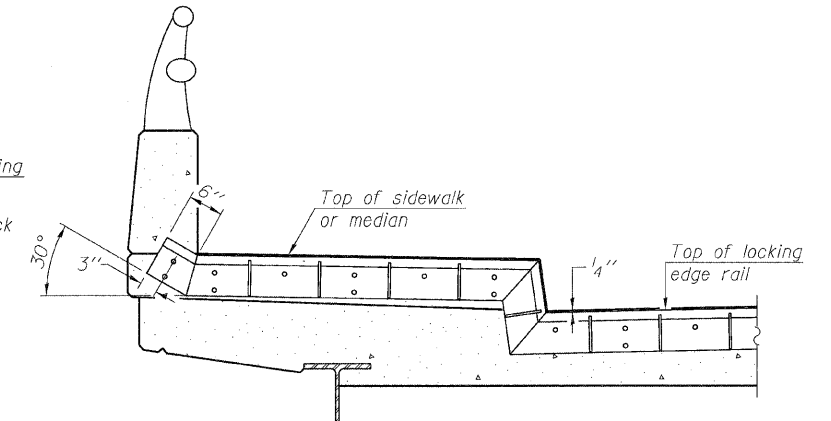
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and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

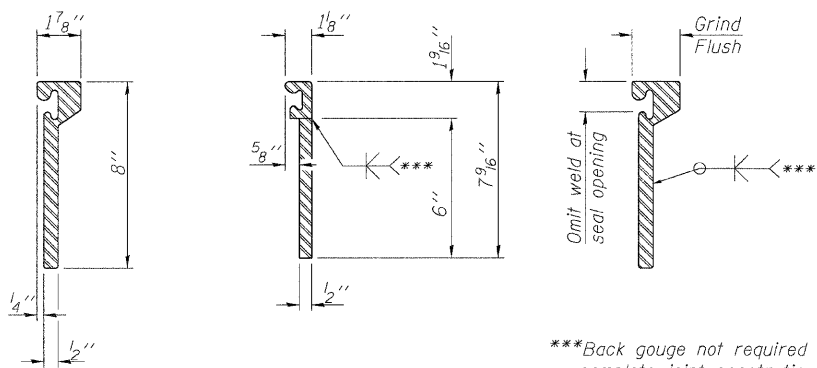


AT PARAPET



AT SIDEWALK OR MEDIAN

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

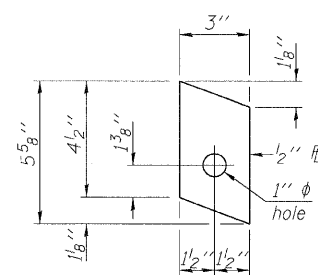


ROLLED
EXTRUDED RAIL

WELDED RAIL

LOCKING EDGE
RAIL SPLICE

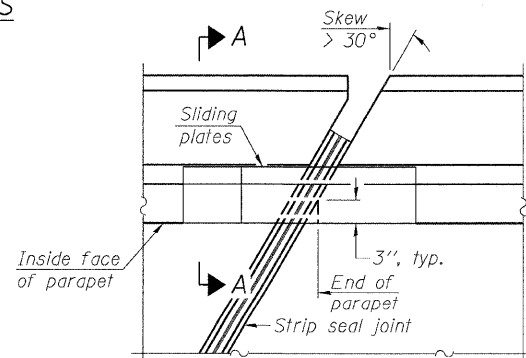
The inside of the locking edge rail groove shall be free of weld residue.



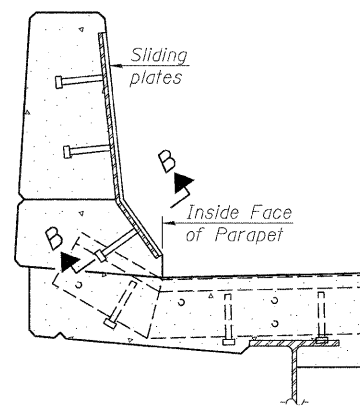
ANCHOR PLATE
(for welded rail)

TYPICAL END TREATMENTS

LOCKING EDGE RAILS

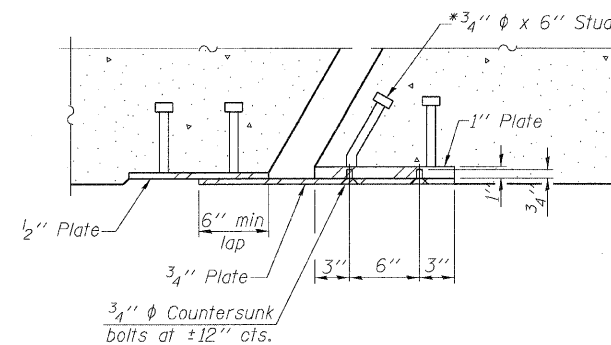


PLAN



SECTION A-A

POINT BLOCK DETAILS
(for skews > 30°)



SECTION B-B

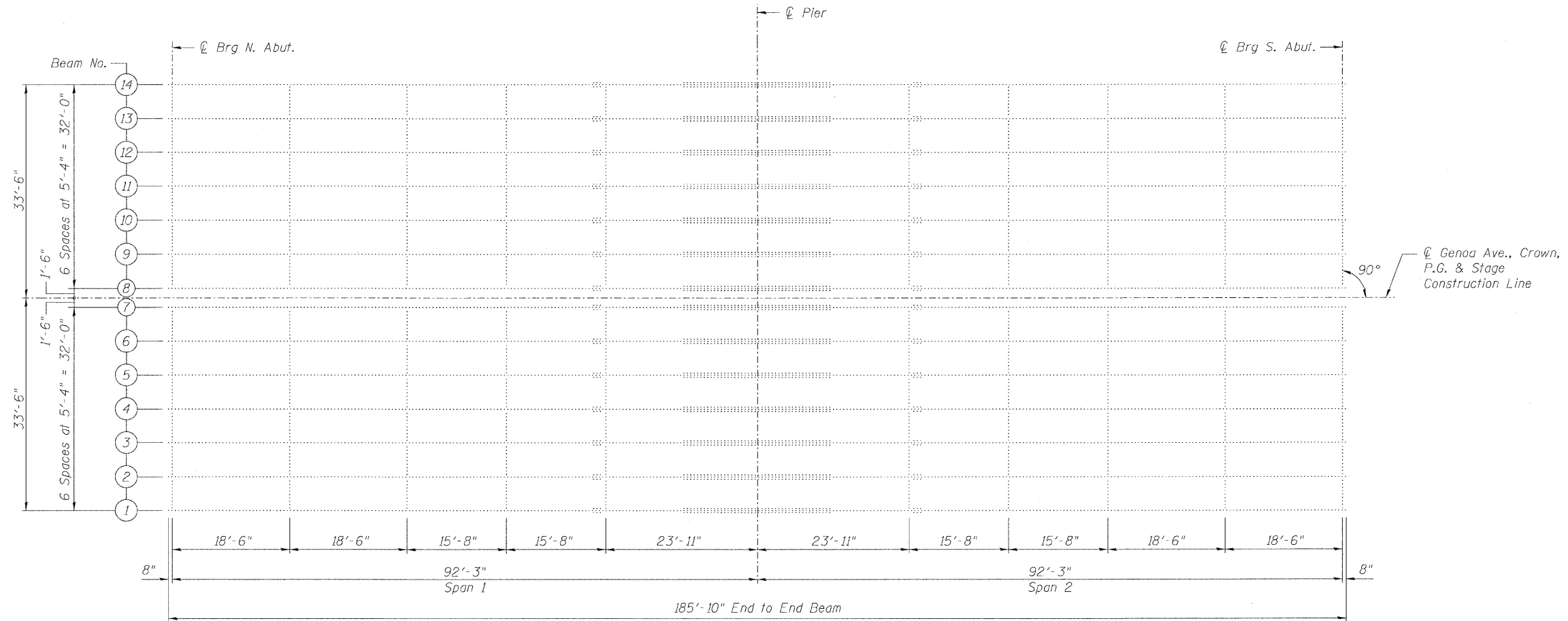
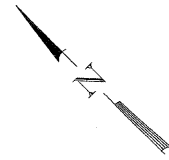
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	143

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 016-2030

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 18	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	48
Designed By: ESH Date: 7/2009		Checked By: MTH File: 016-2030.rvt		Drawn By: ESH		CONTRACT NO. 62119
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN

		0.4 Sp. 1 or 0.6 Sp. 2	Pier
I_s	(in ⁴)	15,000	25,555
$I_c(n)$	(in ⁴)	35,721	-
$I_c(3n)$	(in ⁴)	24,889	-
S_s	(in ³)	836	1349
$S_c(n)$	(in ³)	1203	-
$S_c(3n)$	(in ³)	1056	-
ρ	(k/')	0.83	0.88
$M \rho$	(k)	464	1020
$s \rho$	(k/')	0.43	0.43
$M_s \rho$	(k)	264	466
$M \ddagger$	(k)	563	441
M_{IM}	(k)	129	101
$\frac{5}{3} [M \ddagger + i]$	(k)	1153	903
M_o	(k)	2445	3106
M_u	(k)	4118	4512
$f_s \rho$ non-comp	(ksi)	6.7	9.1
$f_s \rho$ (comp)	(ksi)	3.0	4.1
$f_s \frac{5}{3} [M \ddagger + M_I]$	(ksi)	11.5	8.0
f_s (Overload)	(ksi)	21.2	21.2
f_s (Total)	(ksi)	-	-
VR	(k)	45.4	-

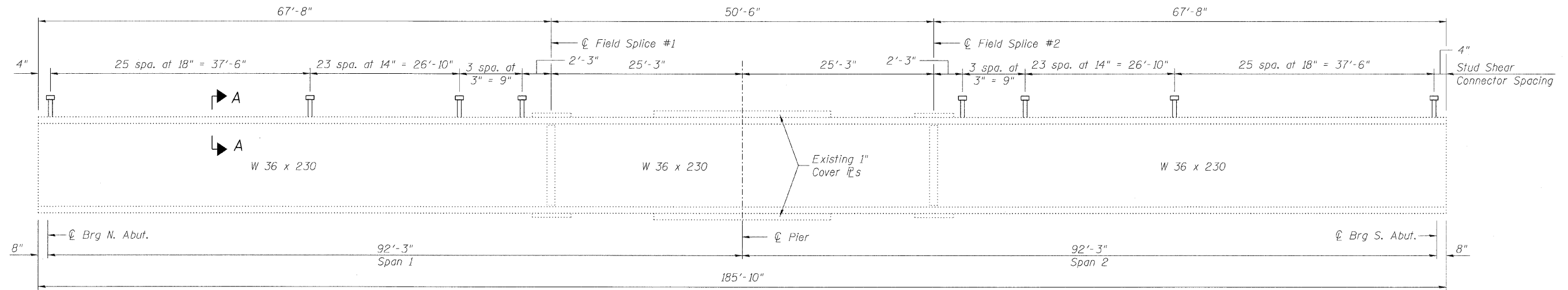
* Compact section

		Abut.	Pier
$R \rho$	(k)	44.2	154.2
$R \ddagger$	(k)	33.2	47.7
R_I	(k)	7.6	7.7
R_{Total}	(k)	85.0	209.6

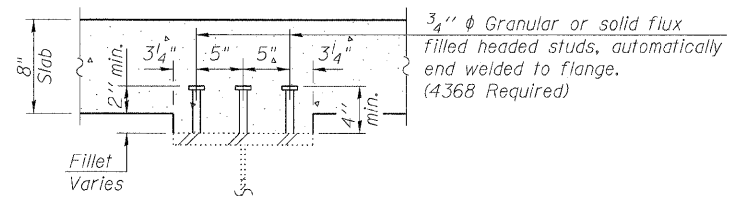
- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).
- $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).
- ρ : Un-factored non-composite dead load (kips/ft.).
- $M \rho$: Un-factored moment due to non-composite dead load (kip-ft.).
- $s \rho$: Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s \rho$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- $M \ddagger$: Un-factored live load moment (kip-ft.).
- M_I : Un-factored moment due to impact (kip-ft.).
- M_o : Factored design moment (kip-ft.).
 $1.3 [M \rho + M_s \rho + \frac{5}{3} (M \ddagger + M_I)]$
- M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
- f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M \rho + M_s \rho + \frac{5}{3} (M \ddagger + M_I)$
- f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M \rho + M_s \rho + \frac{5}{3} (M \ddagger + M_I)]$
- VR: Maximum \ddagger + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

FRAMING PLAN & DESIGN DATA
STRUCTURE NO. 016-2030

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 19	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	49
Designed By: ESH Checked By: MTH Drawn By: ESH Date: 1/2/09 File: 016-2030.dwg			CONTRACT NO. 62119			
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		




EXISTING BEAM ELEVATION

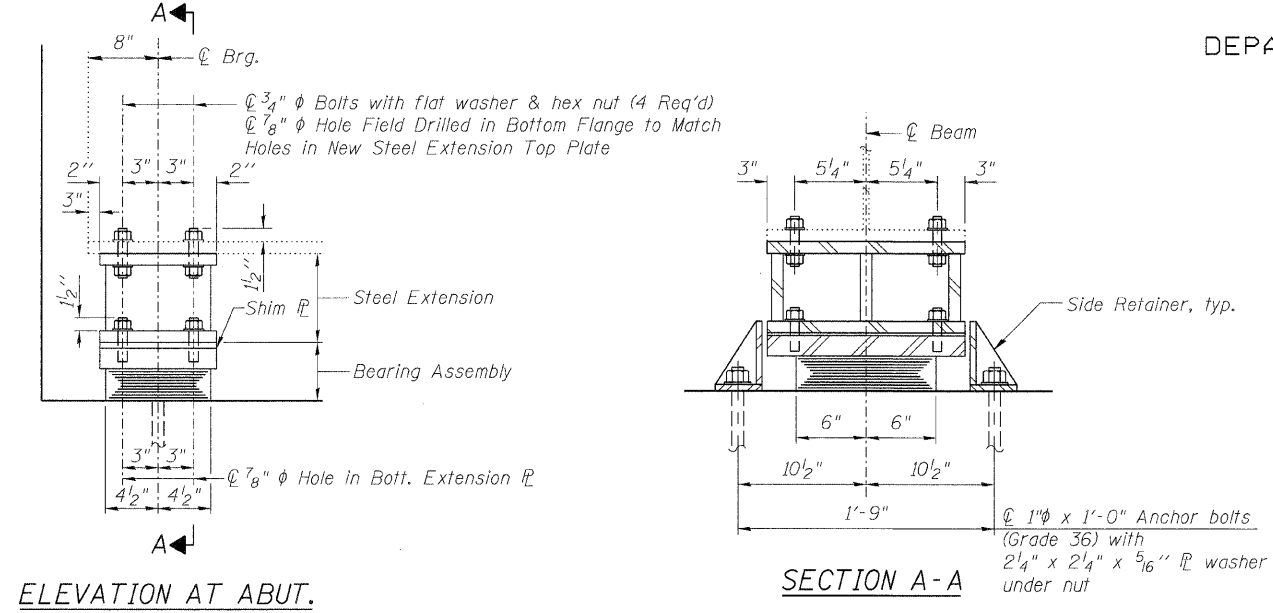


SECTION A-A

EXISTING STEEL BEAM ALTERATIONS
STRUCTURE NO. 016-2030

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 20	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	50
<small>Designed By: ESH Date: 7/2009</small>		<small>Checked By: MTH File: 016-2030.dgn</small>		CONTRACT NO. 62119		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT						

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TYPE I ELASTOMERIC EXP. BRG.

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

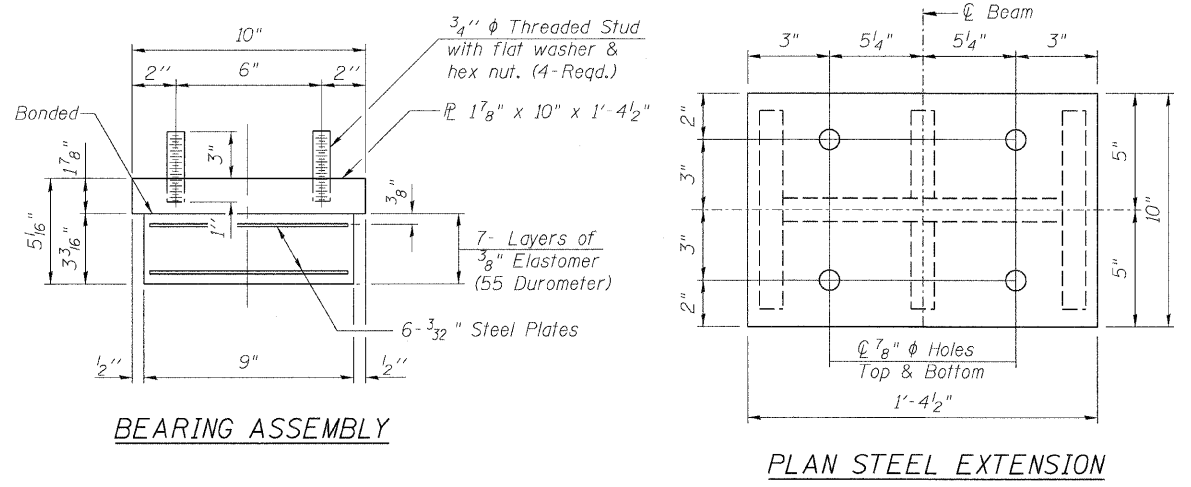
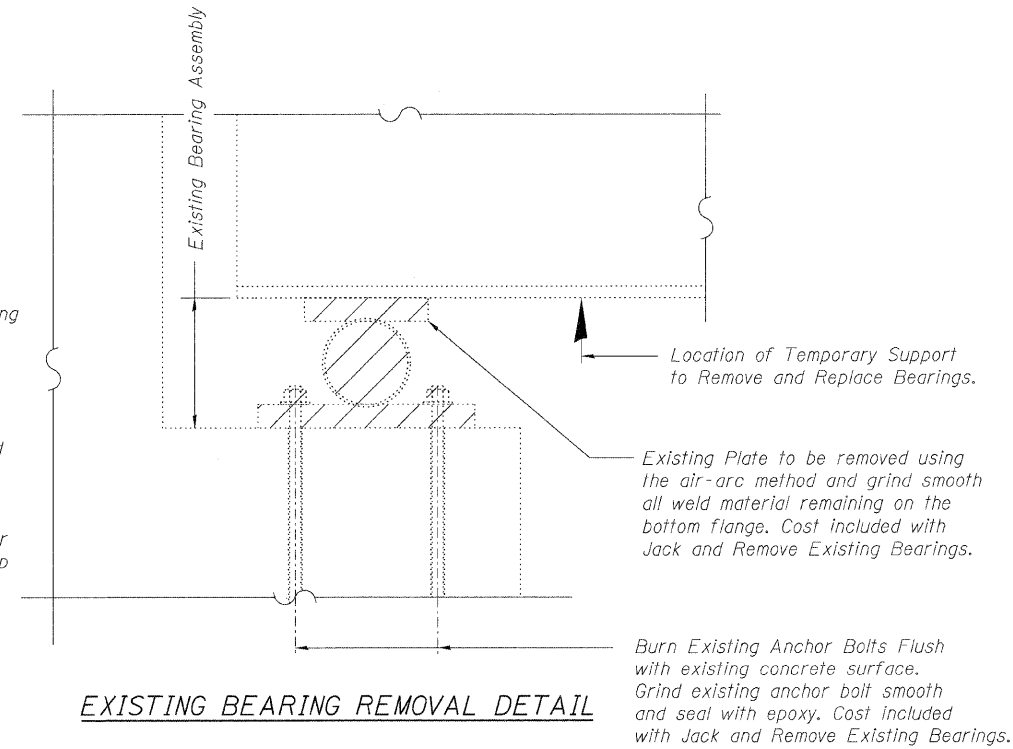
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Steel Extensions shall be included in the cost of Furnishing and Erecting Structural Steel.

The Contractor is to verify the existing dimensions prior to fabricating the steel extensions. It is intended to keep the existing beams at their current elevation.



Notes:

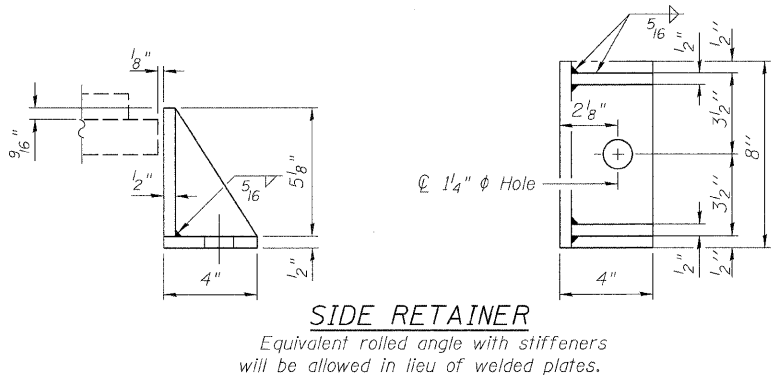
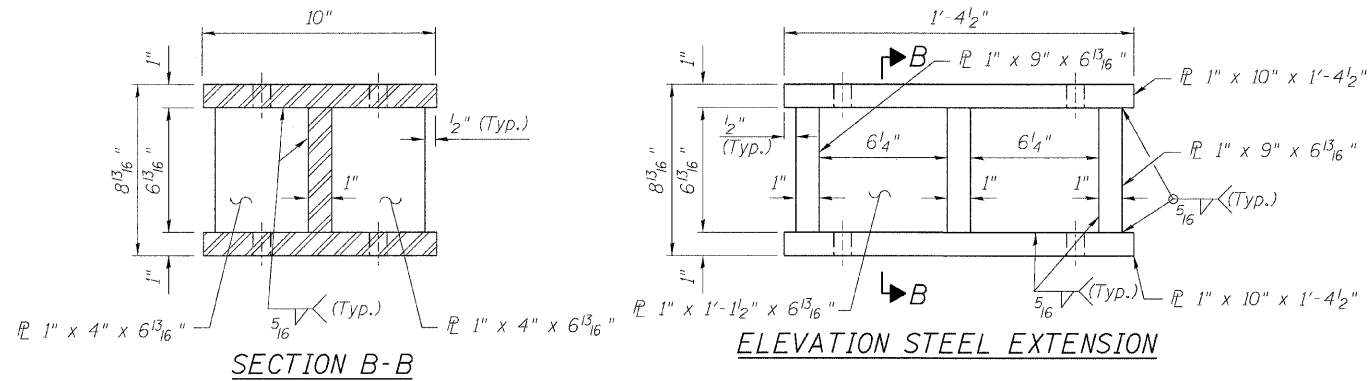
Hatch area indicates Bearing removal. See Special Provision for Jack and Remove Existing Bearings.

Estimated Max. Dead Load Reaction of Superstructure Steel only = 9.5 kips/beam.

Minimum Jack Capacity = 7.5 Tons.

Note:

Shim plates shall not be placed under Bearing Assembly.



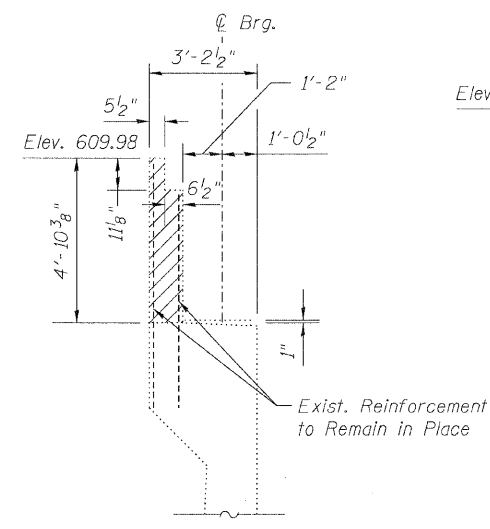
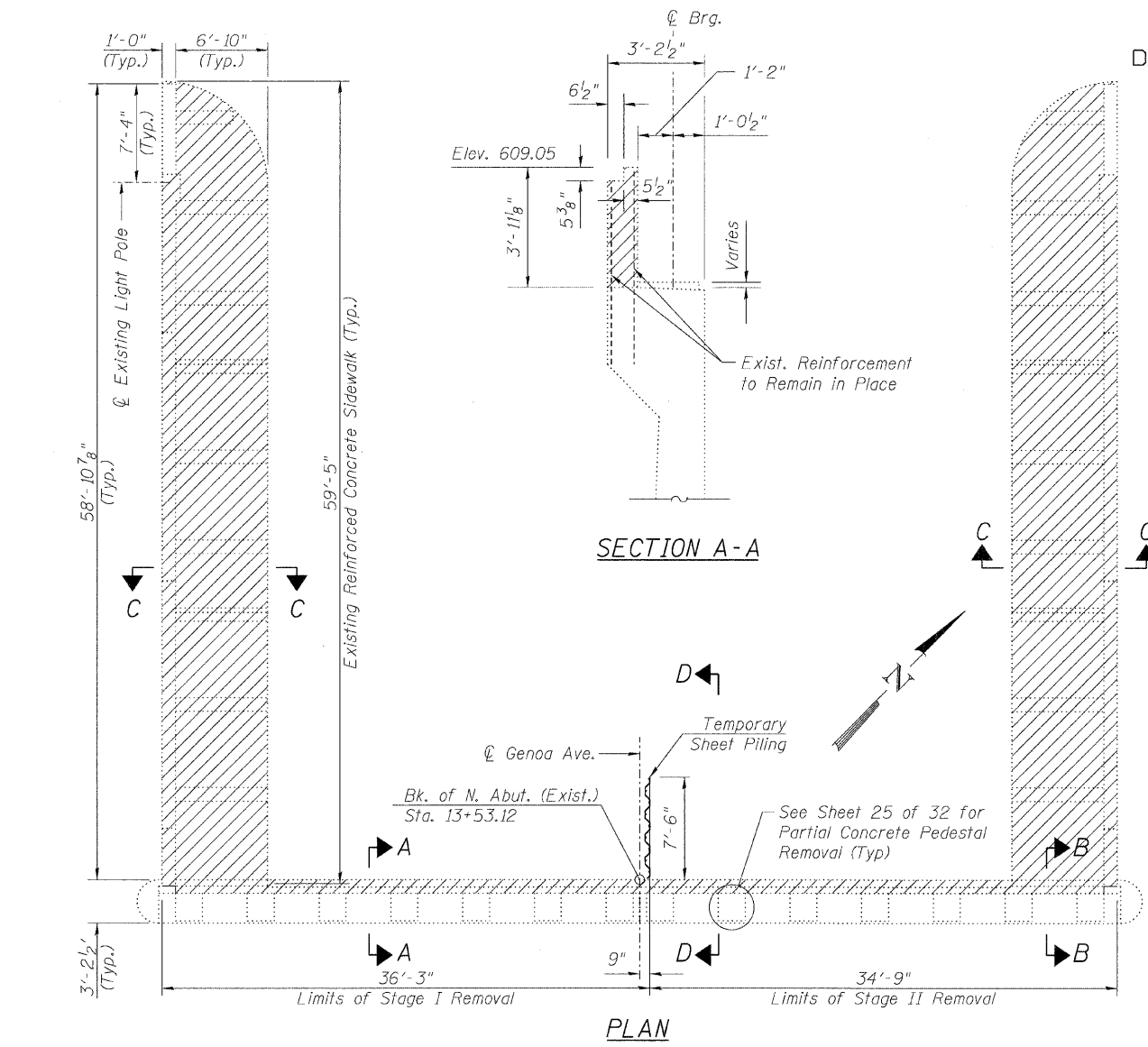
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	28
Anchor Bolts, 1"	Each	56
Jack and Remove Existing Bearings	Each	28

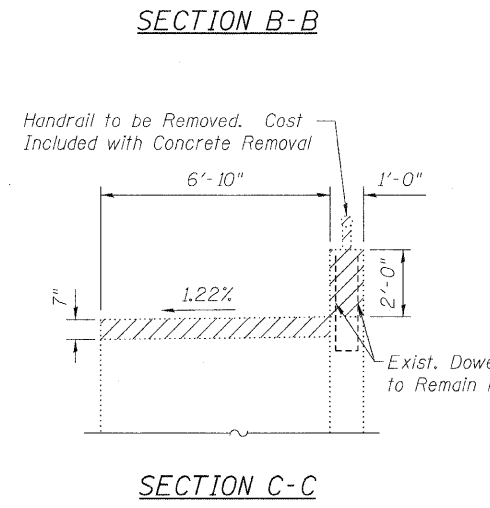
**BEARING DETAILS
STRUCTURE NO. 016-2030**

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 21	F.A.I. RTE. 57	SECTION 2222.3B	COUNTY COOK	TOTAL SHEETS 77	SHEET NO. 51
	32 SHEETS	CONTRACT NO. 62119		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

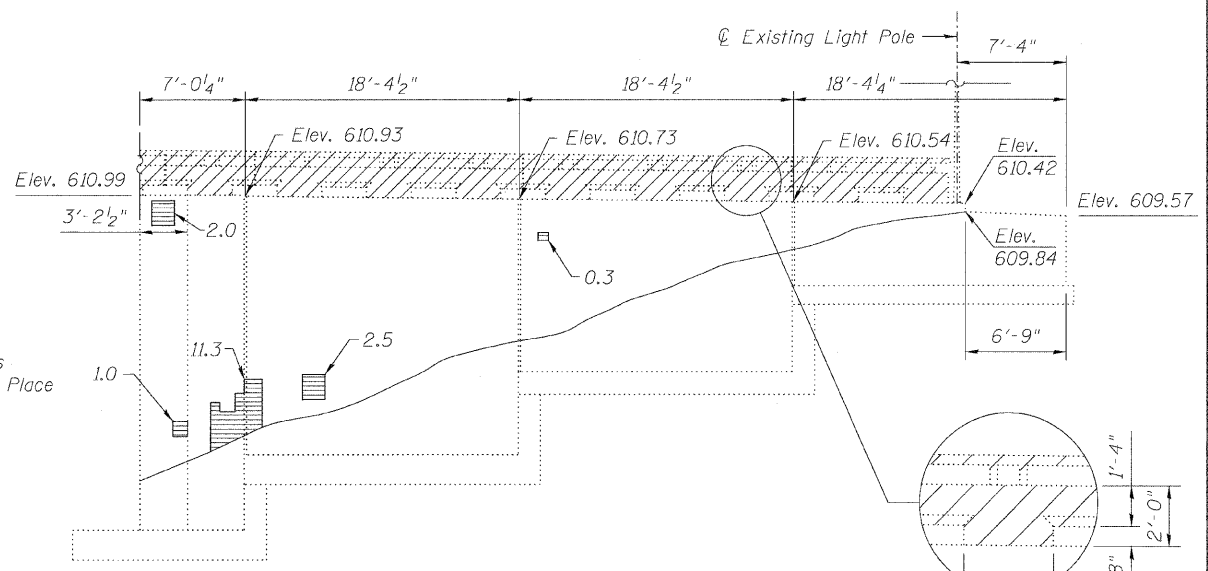
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



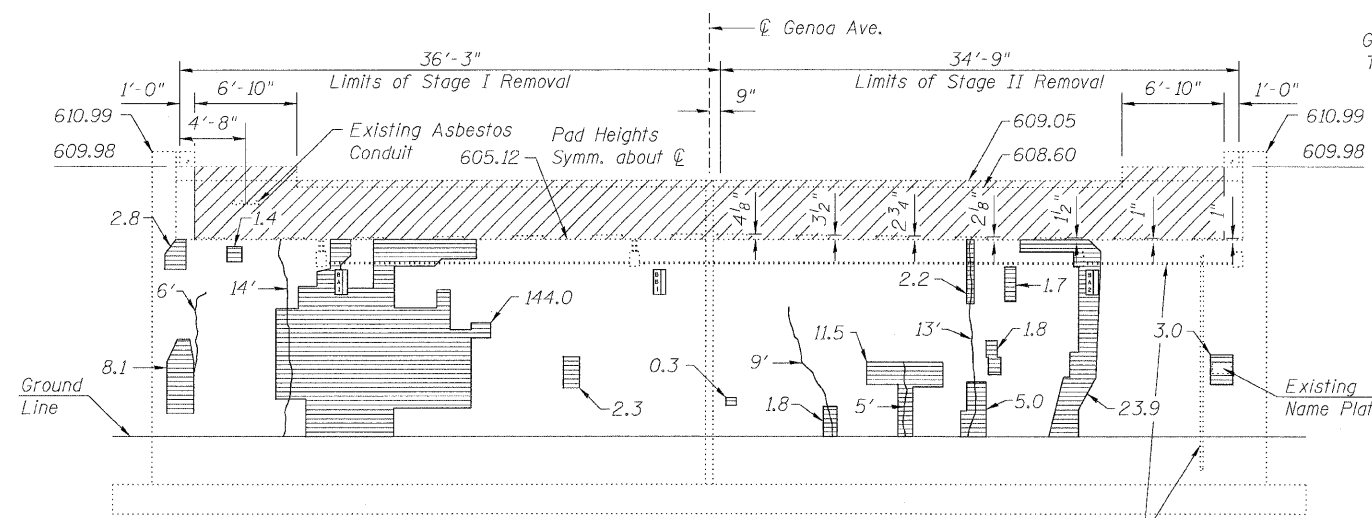
WEST WINGWALL ELEVATION
(Looking East)



SECTION C-C



EAST WINGWALL ELEVATION
(Looking West)



SECTION D-D

LEGEND
 [Hatched Area] Indicates Limits of Concrete Removal
 [Solid Area] Indicates Limits of Structural Repair of Concrete
 [Line with 6' Label] Indicates Length of Epoxy Crack Injection

ELEVATION
(Looking North)

See Electrical Plans for Removal Limits of Existing Underpass Lighting Conduits Attached to Structure

* Minimum required section modulus is 4.65 in³/ft.

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.

NOTES

- Existing vertical and horizontal reinforcement bars projecting from the abutment and wingwalls are to remain in place. Existing reinforcement shall be sandblasted clean, straightened and incorporated into the new construction. Cost included with Concrete Removal.
- Repair of the existing abutment shall include but not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction.
- If removal and remounting of the existing name plate is required to facilitate concrete repair, payment will not be made separately, but shall be included with the payment for Structural Repair of Concrete.

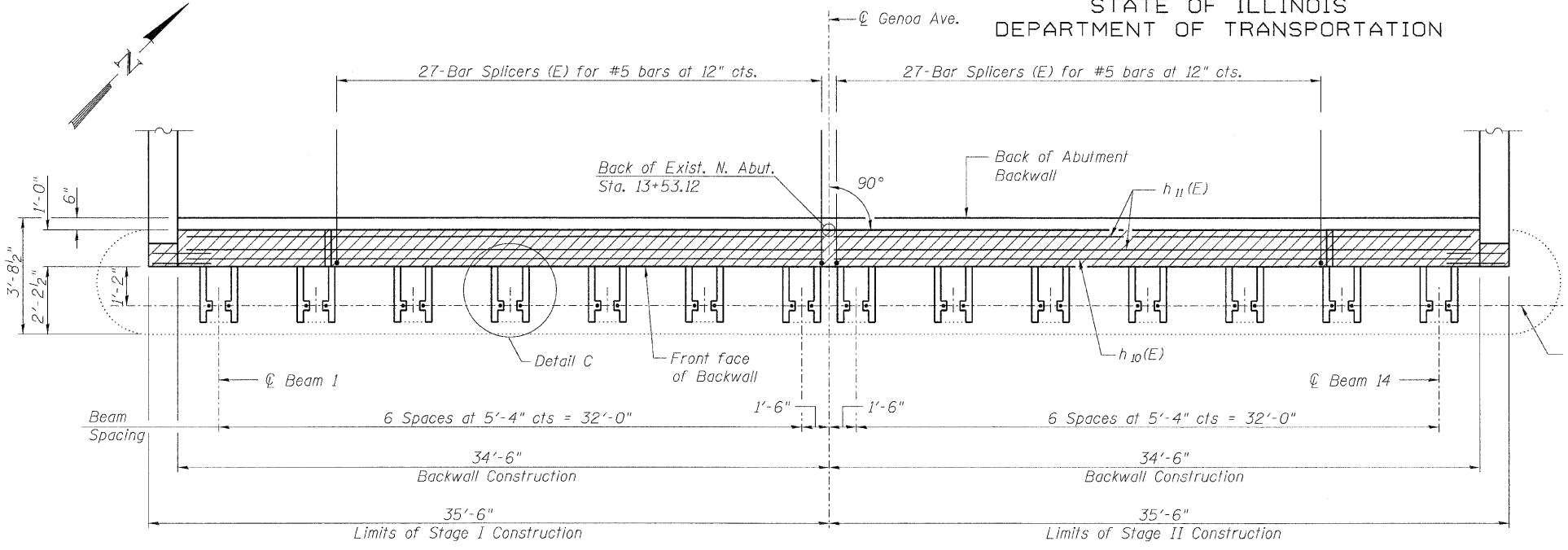
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu Yd	33.4
Temporary Sheet Piling	Sq Ft	117
Epoxy Crack Injection	Foot	59
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq Ft	240

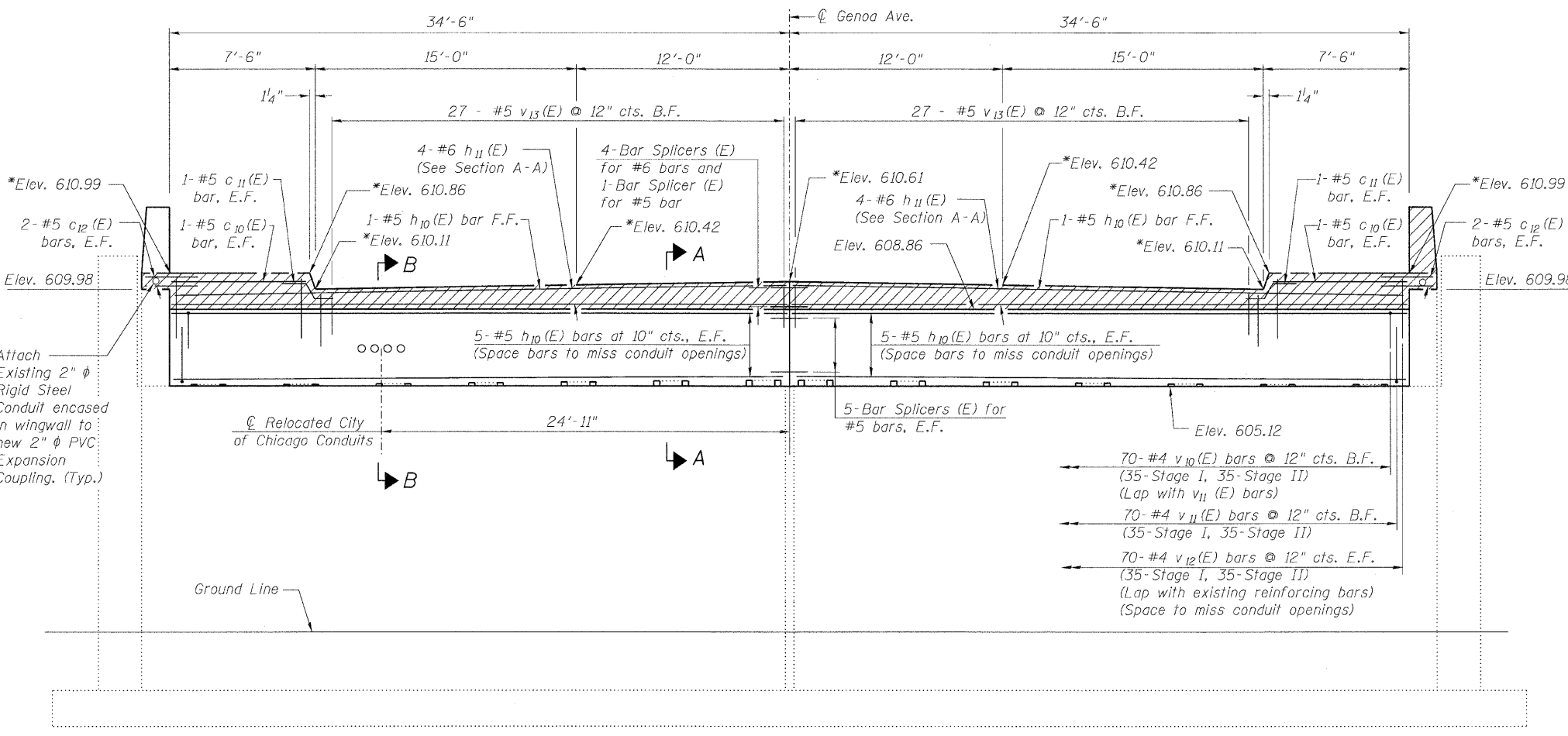
**NORTH ABUTMENT REMOVAL & REPAIRS
STRUCTURE NO. 016-2030**

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 22	F.A.I. RTE. 57	SECTION 2222.3B	COUNTY COOK	TOTAL SHEETS 77	SHEET NO. 52
	32 SHEETS	CONTRACT NO. 62119		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

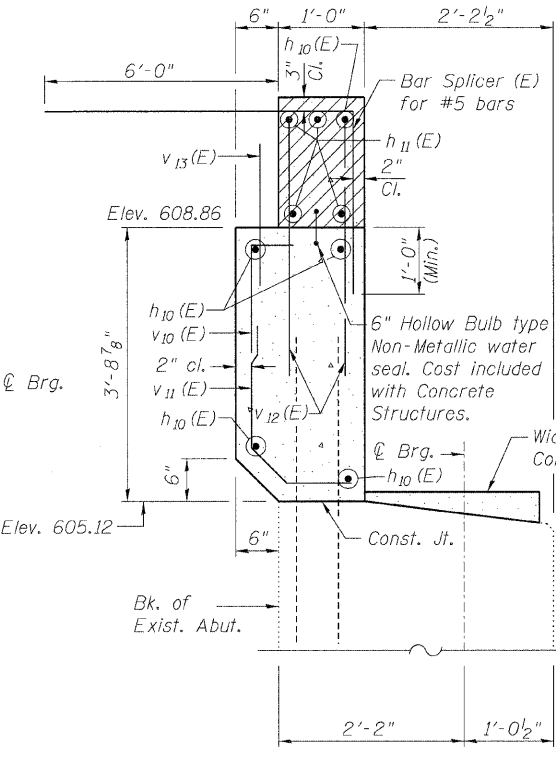
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN



ELEVATION
(Looking North)



SECTION A-A

SECTION B-B

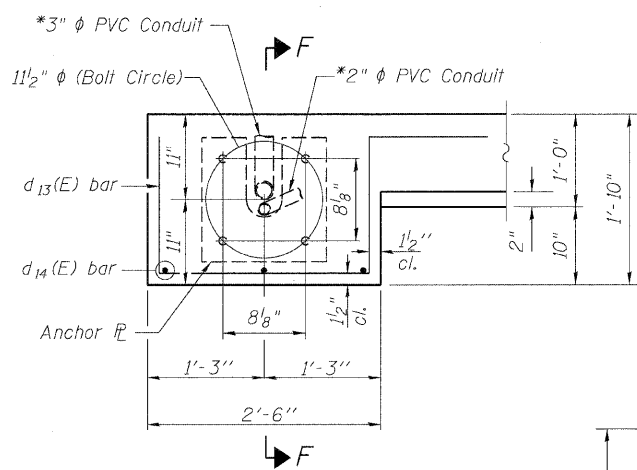
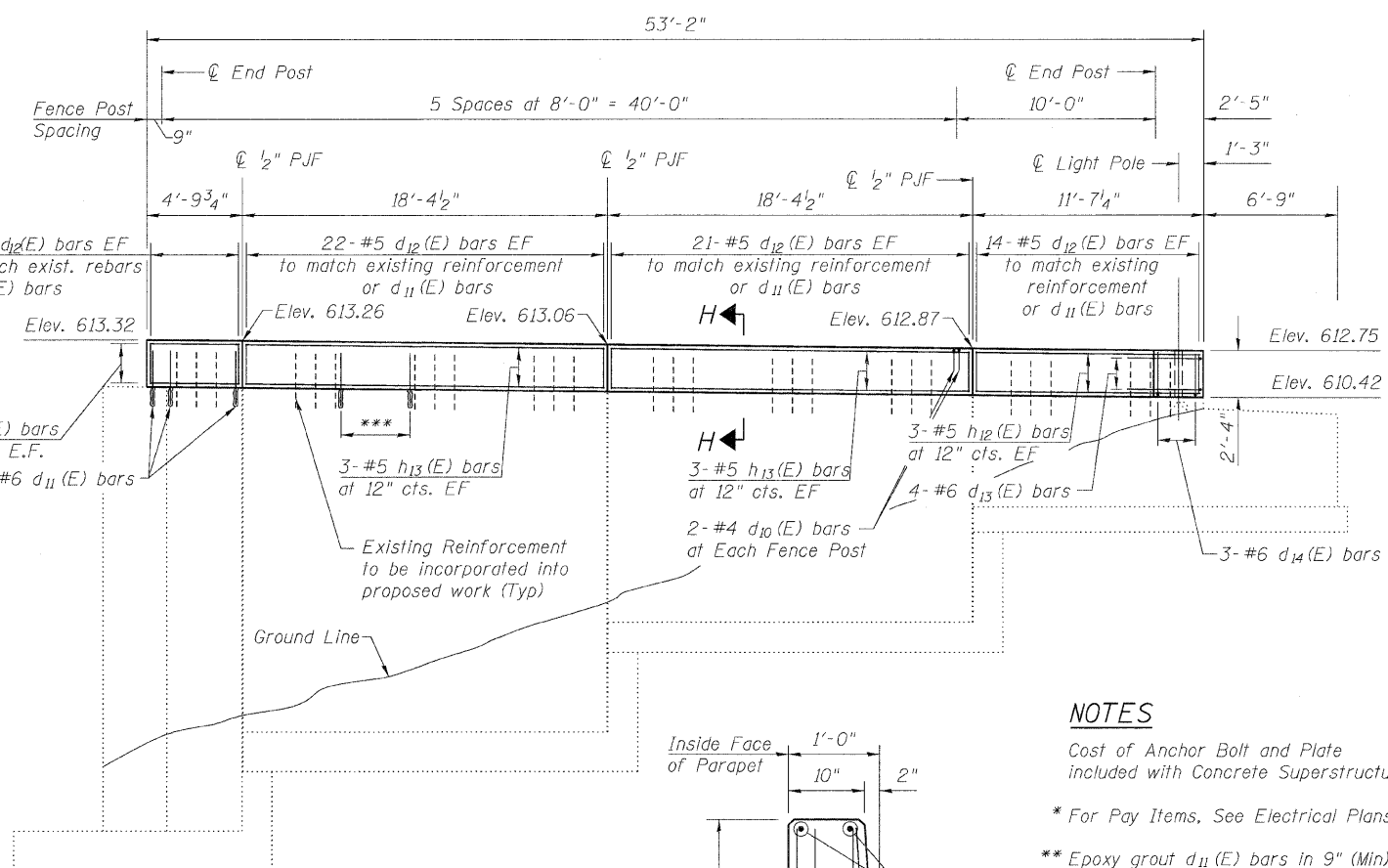
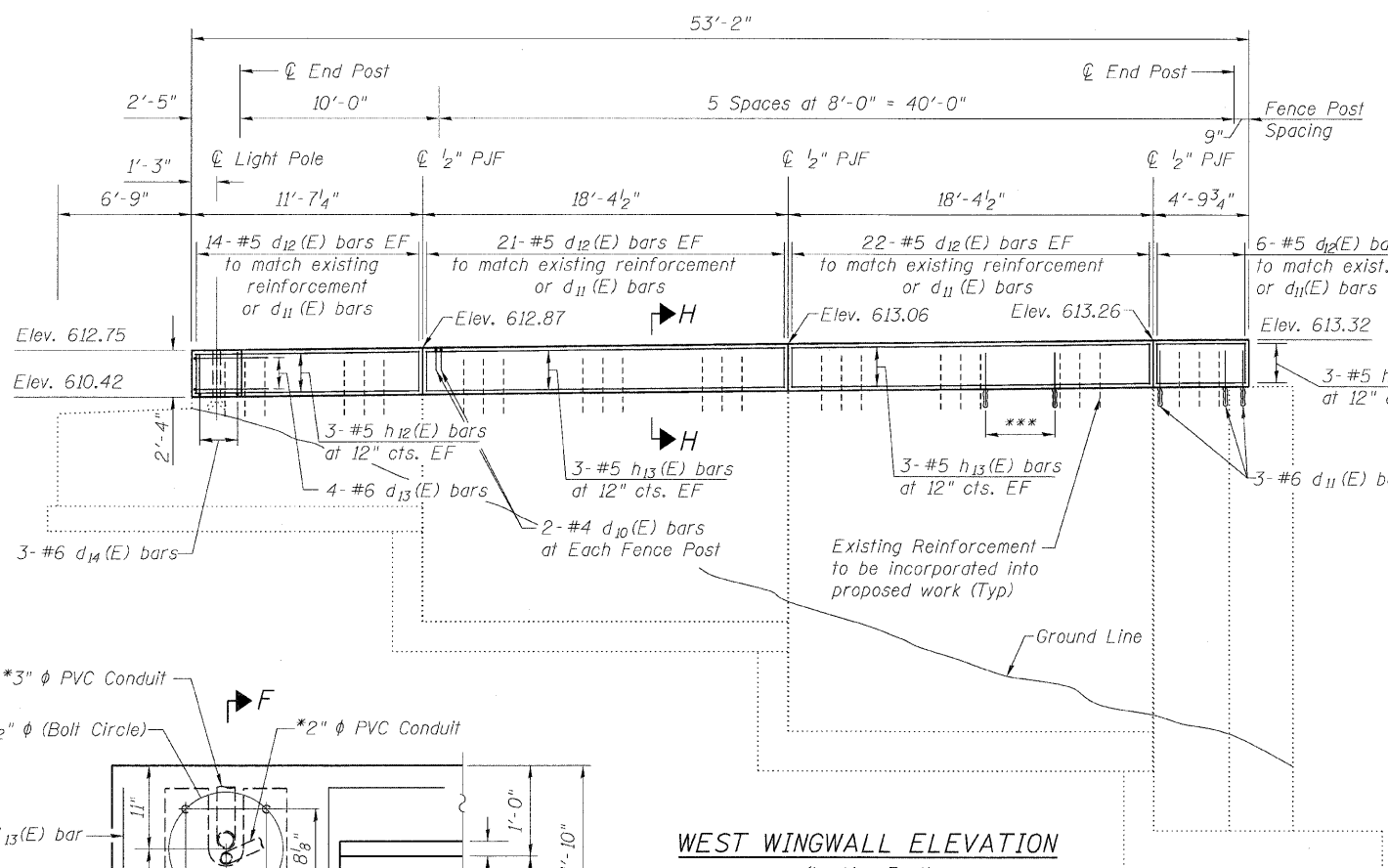
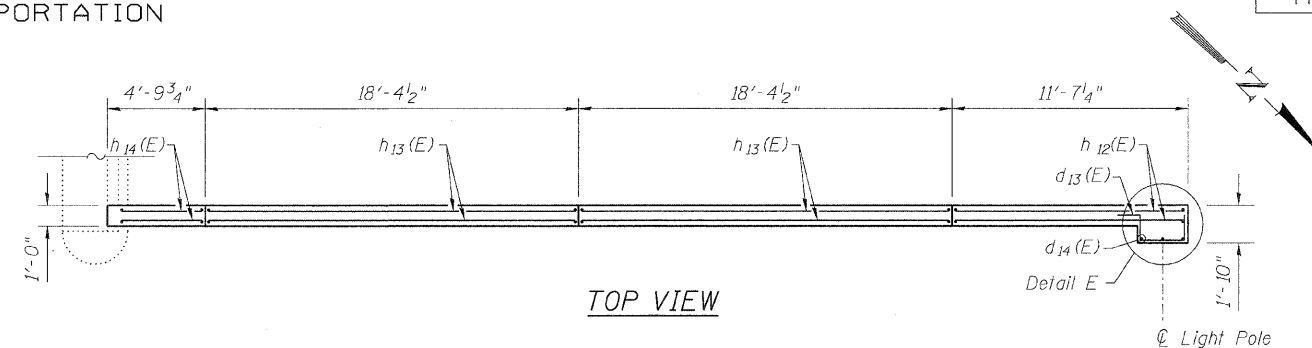
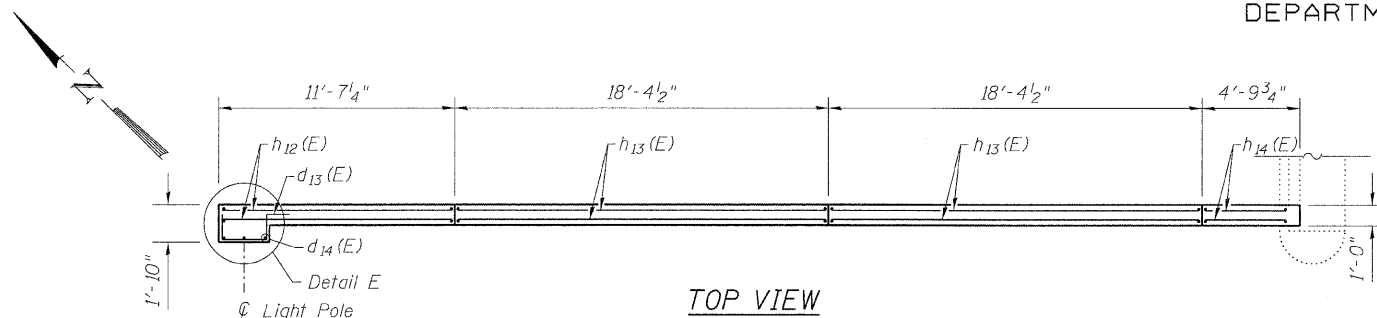
Existing Reinforcement Bars
Extending into Abutment Backwall
to remain in place

- Notes:
- Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
 - For Detail C see sheet 25 of 32.
 - Apply Concrete Sealer to front face of backwall, top of existing beam seat and top and sides of widened concrete pedestals.
- * Elevations are taken at Back of Abutment (Existing)
** See Electrical Plans for Payment.
*** Vertical location of conduit to be set in field.
- E.F. = Each Face
F.F. = Front Face
B.F. = Back Face

MINIMUM BAR LAP
#4 bar = 1'-4"
#5 bar = 1'-8"

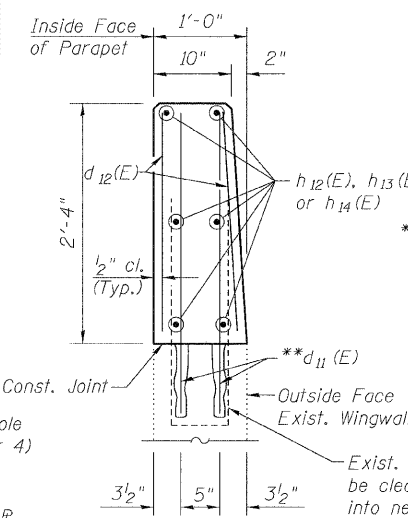
NORTH ABUTMENT ALTERATIONS
STRUCTURE NO. 016-2030

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 23	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	53
Designed By: ESH Checked By: MTH Date: 7/2009			CONTRACT NO. 62119			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT				

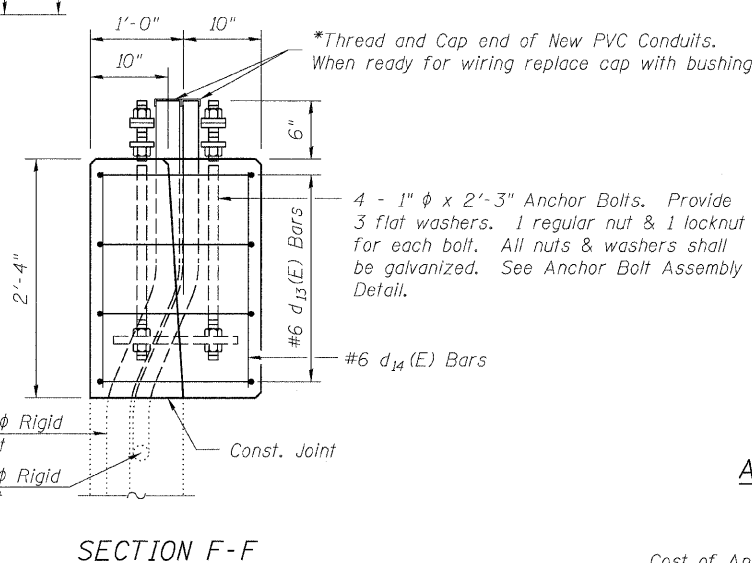


WEST WINGWALL ELEVATION
(Looking East)

EAST WINGWALL ELEVATION
(Looking West)

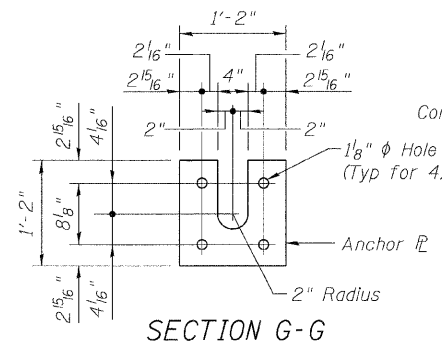
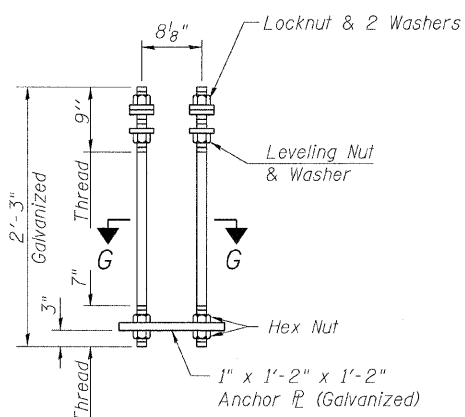


SECTION H-H
NORTH ABUTMENT
WINGWALL ALTERATIONS
STRUCTURE NO. 016-2030



ANCHOR BOLT ASSEMBLY DETAIL
1" DIA ANCHOR BOLTS
(ASTM F 1554 Grade 105)

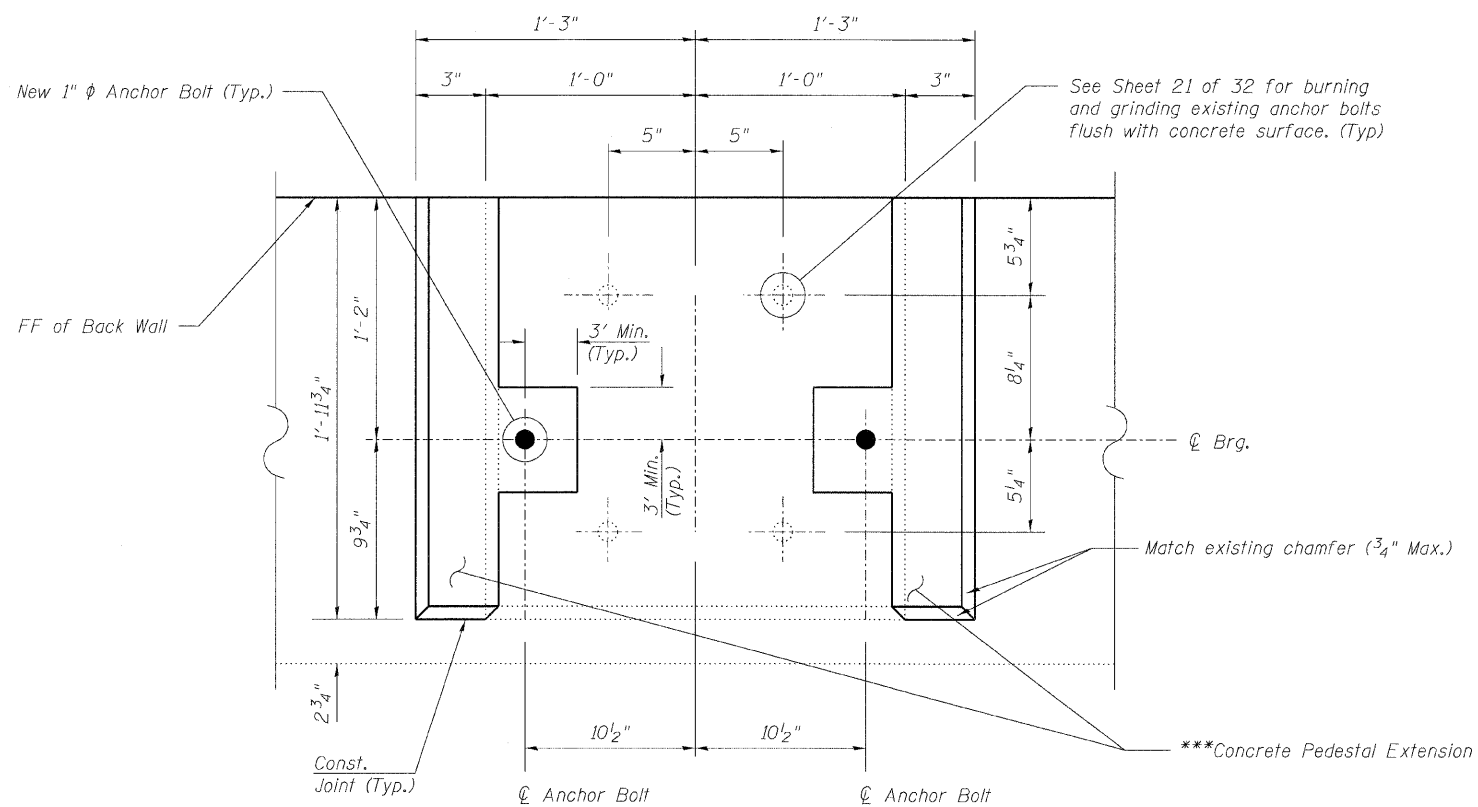
Cost of Anchor Bolt Assembly included with Concrete Superstructure



SECTION G-G

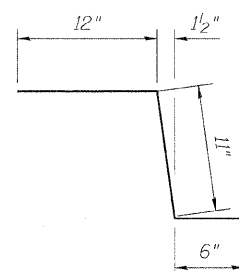
- NOTES**
- Cost of Anchor Bolt and Plate included with Concrete Superstructure.
 - * For Pay Items, See Electrical Plans
 - ** Epoxy grout d11(E) bars in 9" (Min). Drill holes according to Section 584 of the Standard Specifications.
 - *** 4-#6 d11(E) bars at 12" cts. EF Typical between existing sets of rebar unless noted otherwise.

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 24	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	54
		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 62119				

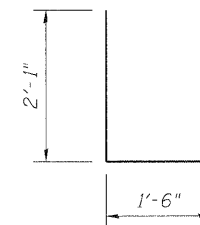


ANCHOR BOLT LAYOUT DETAIL C

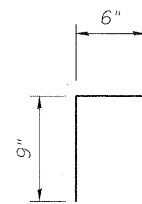
*** Remove existing bearing seat pedestal within 3" minimum around new anchor bolt location down to top of existing beam seat. Clean surface below concrete pedestal extension of debris, calcification deposits and any other foreign (non-concrete) material. Construct pedestal extension to locations shown level with existing concrete pedestal. If resulting surface is uneven, grind smooth. Cost included with Concrete Structures.



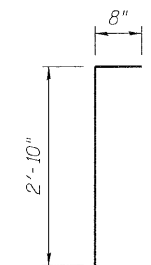
BAR c₁₁ (E)



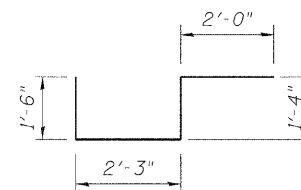
BAR d₁₄ (E)



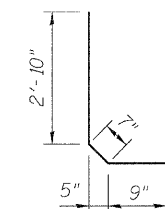
BAR d₁₀ (E)



BAR v₁₀ (E)



BAR d₁₃ (E)



BAR v₁₁ (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
c ₁₀ (E)	4	#5	7'-2"	—
c ₁₁ (E)	4	#5	2'-5"	—
c ₁₂ (E)	8	#5	3'-0"	—
d ₁₀ (E)	28	#4	2'-0"	⊏
d ₁₁ (E)	144	#6	2'-11"	—
d ₁₂ (E)	252	#5	2'-1"	—
d ₁₃ (E)	8	#6	7'-1"	⊏
d ₁₄ (E)	6	#6	3'-7"	⊏
h ₁₀ (E)	22	#5	34'-2"	—
h ₁₁ (E)	8	#6	34'-2"	—
h ₁₂ (E)	12	#5	11'-4"	—
h ₁₃ (E)	24	#5	18'-2"	—
h ₁₄ (E)	12	#5	4'-7"	—
v ₁₀ (E)	70	#4	3'-6"	⊏
v ₁₁ (E)	70	#4	4'-2"	⊏
v ₁₂ (E)	140	#4	4'-0"	—
v ₁₃ (E)	54	#5	3'-10"	—
Structure Excavation			Cu. Yd.	28.0
Concrete Structures			Cu. Yd.	13.9
Reinforcement Bars, Epoxy Coated			Pound	4200
Concrete Sealer			Sq. Ft.	428

NOTES

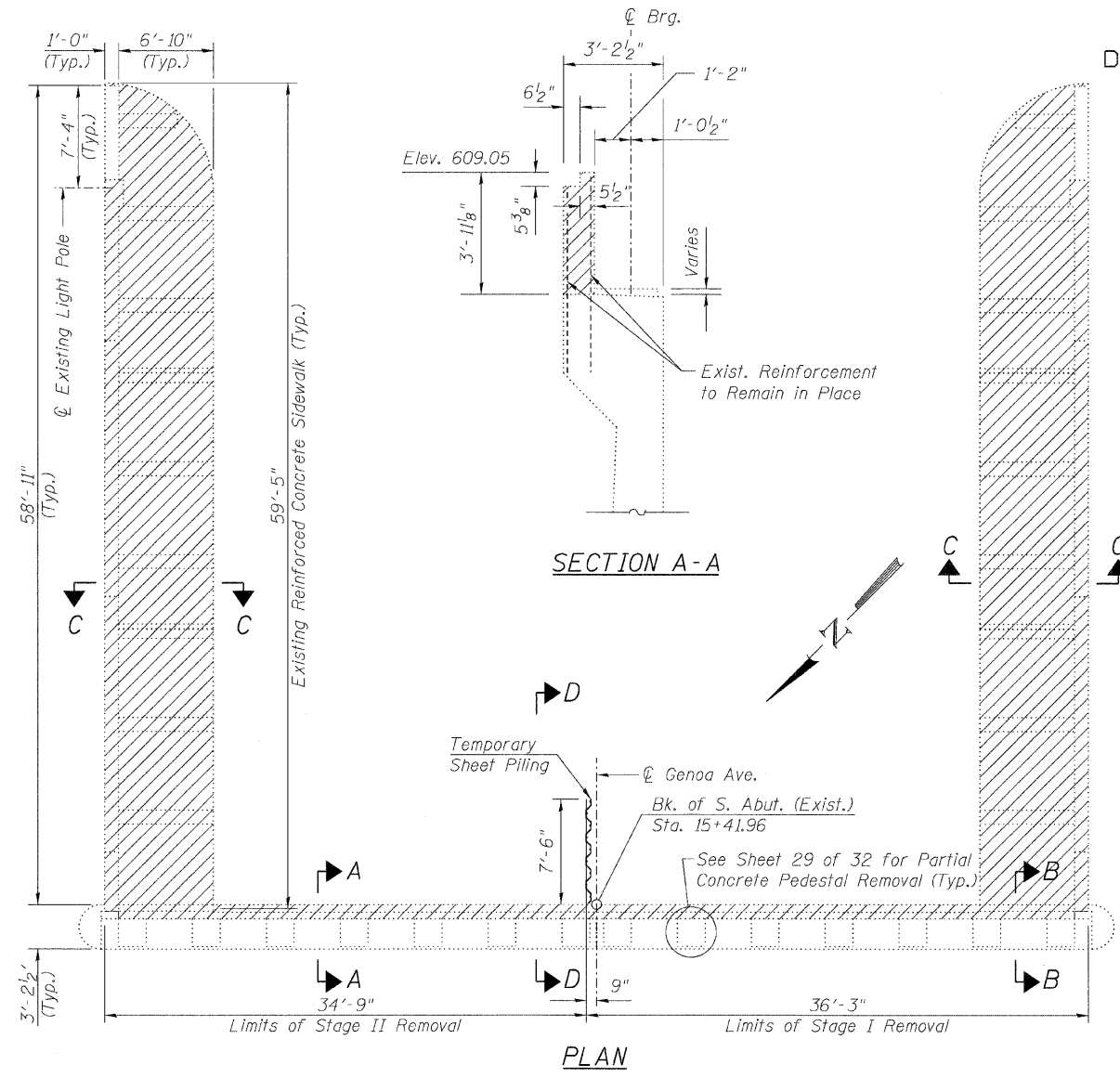
- For location of Detail C, see Sheet 23 of 32.
- For details of Bar Splicers, see Sheet 32 of 32.

NORTH ABUTMENT DETAILS
STRUCTURE NO. 016-2030

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 25	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	55
<p>Designed By: ESH Checked By: MTH Drawn By: ESH Date: 7/2009 File: 016-2030.dgn</p>		<p>FED. ROAD DIST. NO.</p>		<p>ILLINOIS FED. AID PROJECT</p>		

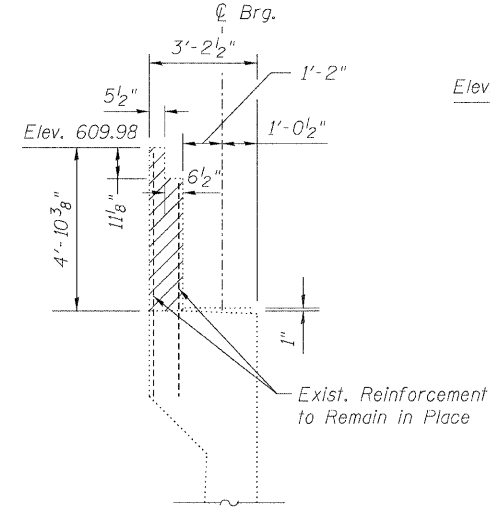
CONTRACT NO. 62119

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

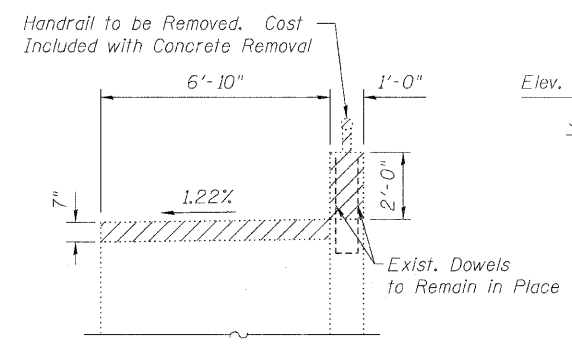


SECTION A-A

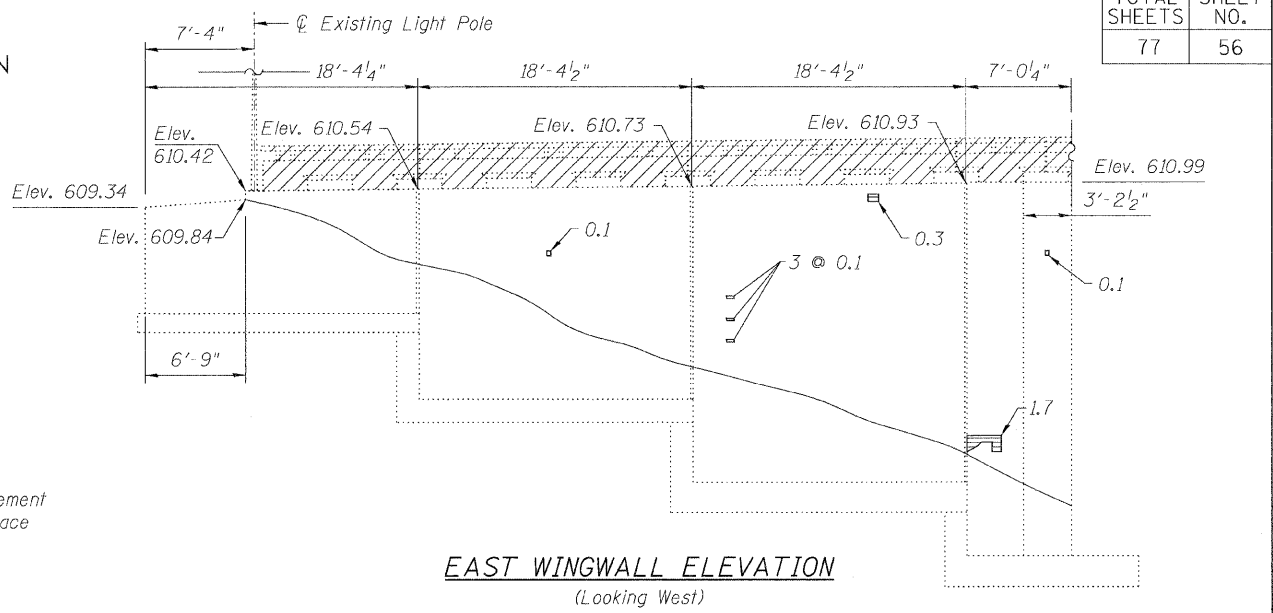
PLAN



SECTION B-B

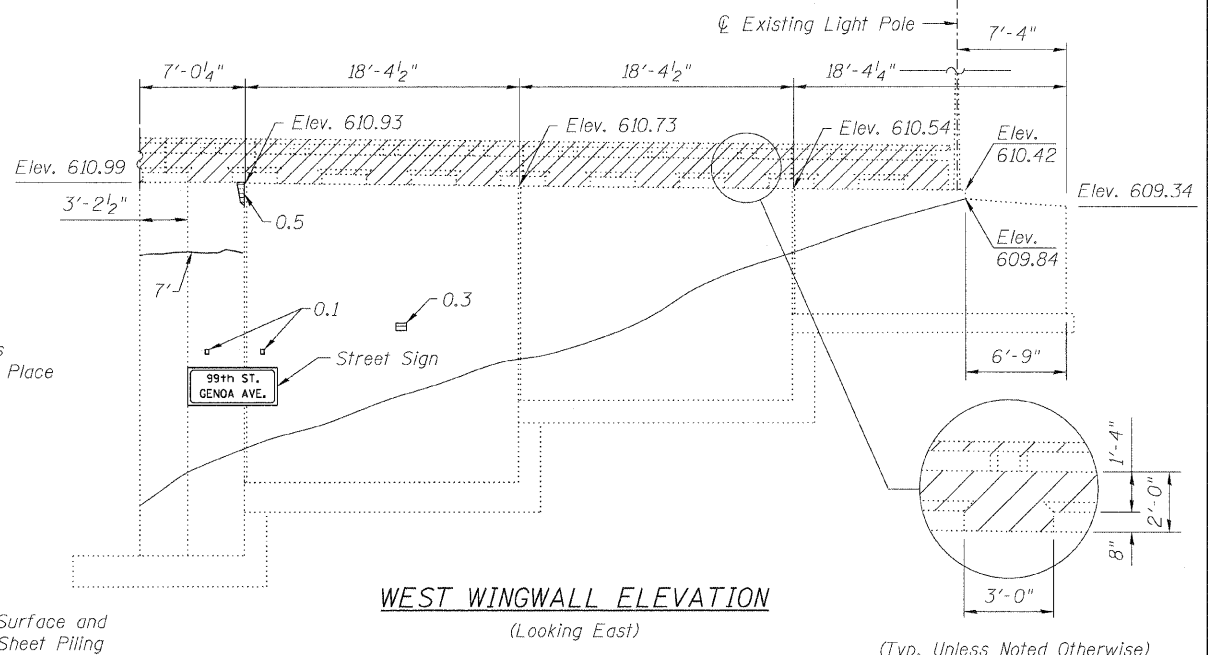


SECTION C-C



EAST WINGWALL ELEVATION

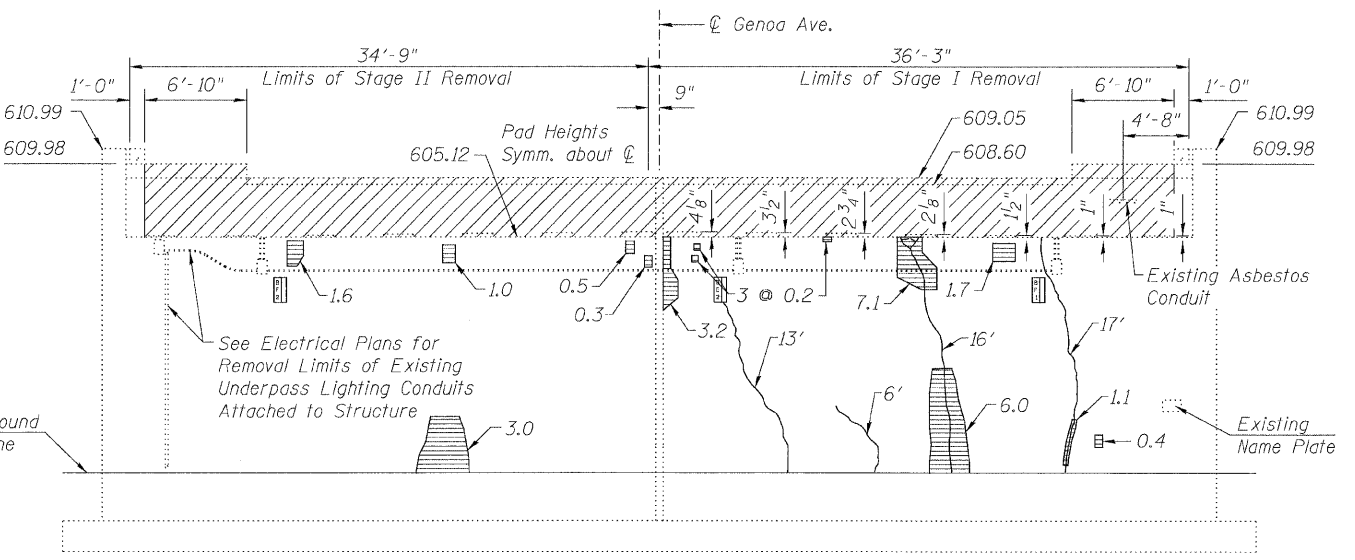
(Looking West)



WEST WINGWALL ELEVATION

(Looking East)

(Typ. Unless Noted Otherwise)



SECTION D-D

* Minimum required section modulus is 4.65 in³/ft.

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.

NOTES

- Existing vertical and horizontal reinforcement bars projecting from the abutment and wingwalls are to remain in place. Existing reinforcement shall be sandblasted clean, straightened and incorporated into the new construction. Cost included with Concrete Removal.
- Repair of the existing abutment shall include but not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction.
- If removal and remounting of the existing name plate is required to facilitate concrete repair, payment will not be made separately, but shall be included with the payment for Structural Repair of Concrete.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu Yd	33.4
Temporary Sheet Piling	Sq Ft	116
Epoxy Crack Injection	Foot	59
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq Ft	30

SOUTH ABUTMENT REMOVAL & REPAIRS
STRUCTURE NO. 016-2030

LEGEND

- Indicates Limits of Concrete Removal
- Indicates Limits of Structural Repair of Concrete
- Indicates Length of Epoxy Crack Injection

ELEVATION

(Looking South)

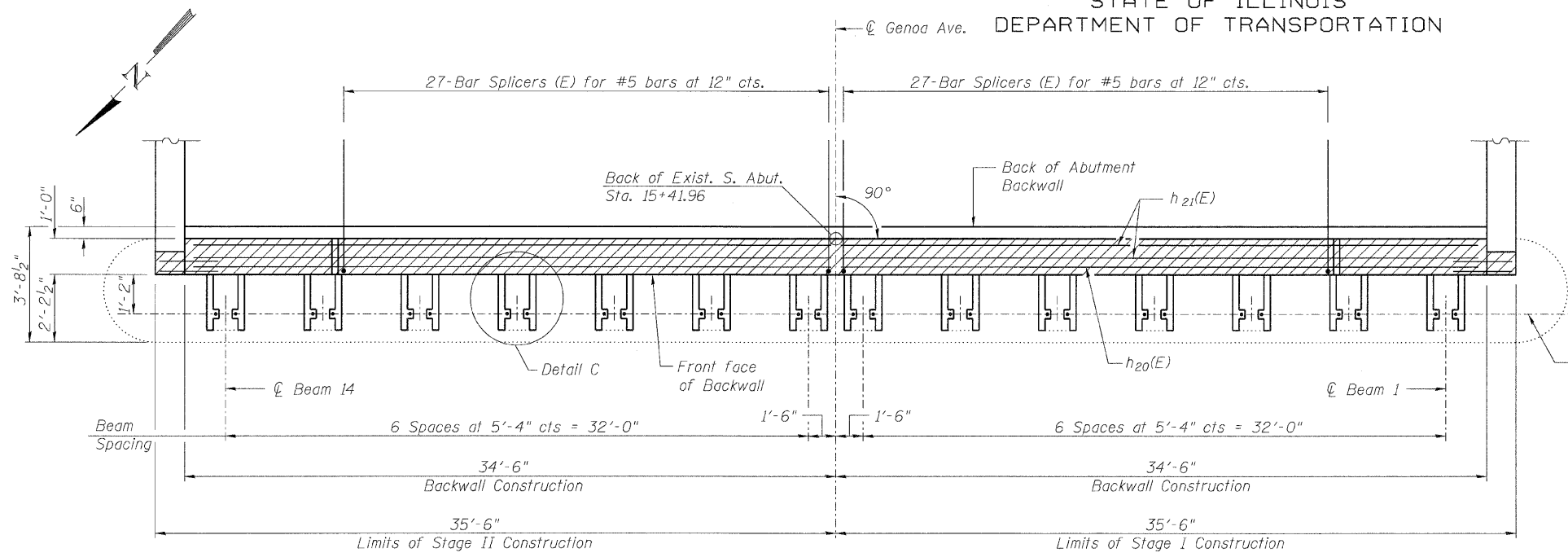
LIN ENGINEERING, LTD.
Consulting Engineers
Chatham, Illinois

Designed By: ESH
Checked By: MTH
Drawn By: ESH
Date: 7/2009 File: 016-2030.dgn

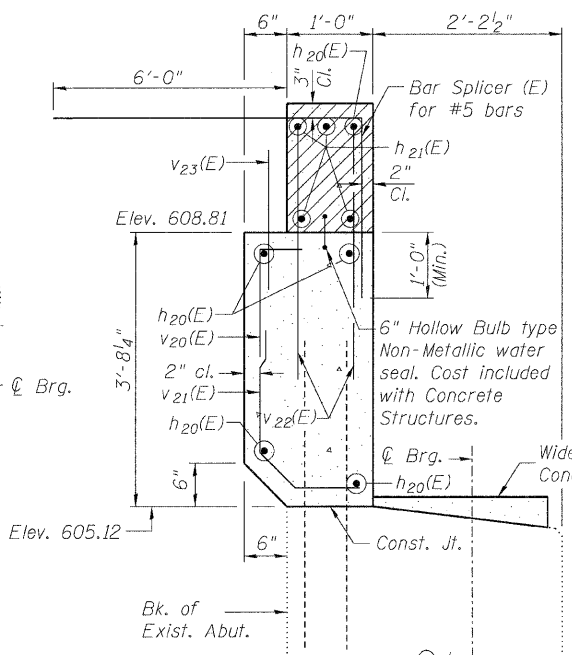
SHEET NO. 26
32 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	56
CONTRACT NO. 62119				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

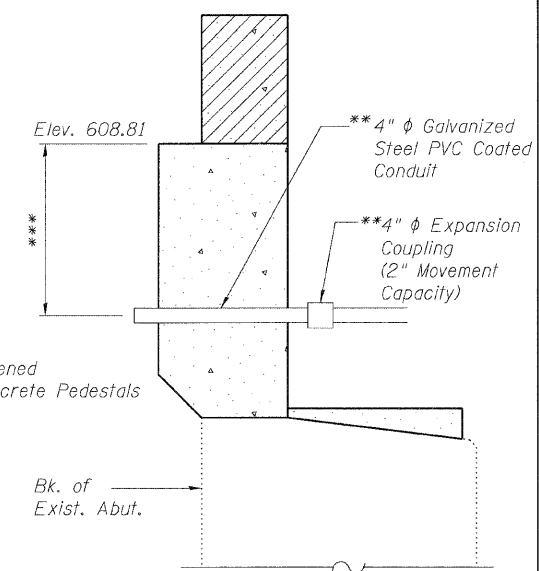


PLAN

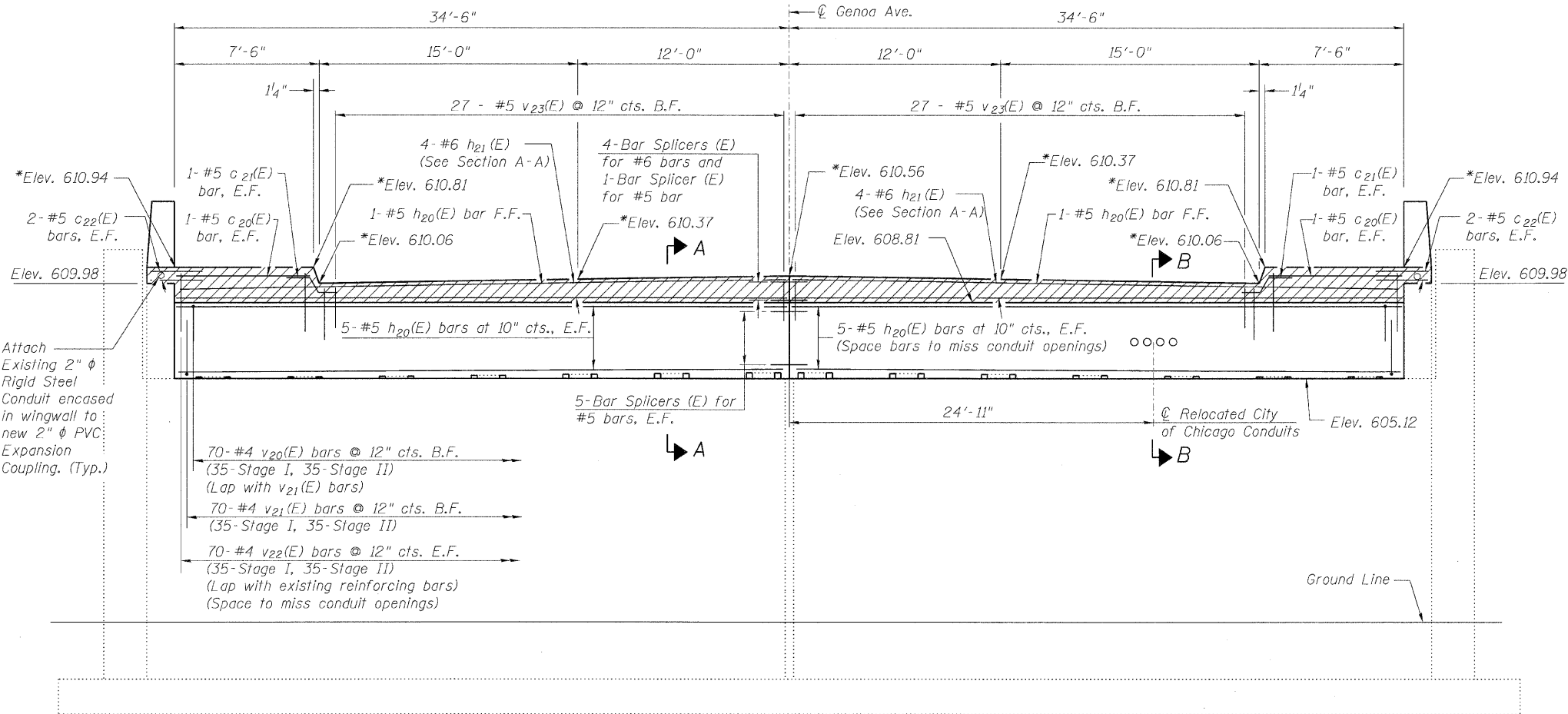


SECTION A-A

Existing Reinforcement Bars
Extending into Abutment Backwall
to remain in place



SECTION B-B



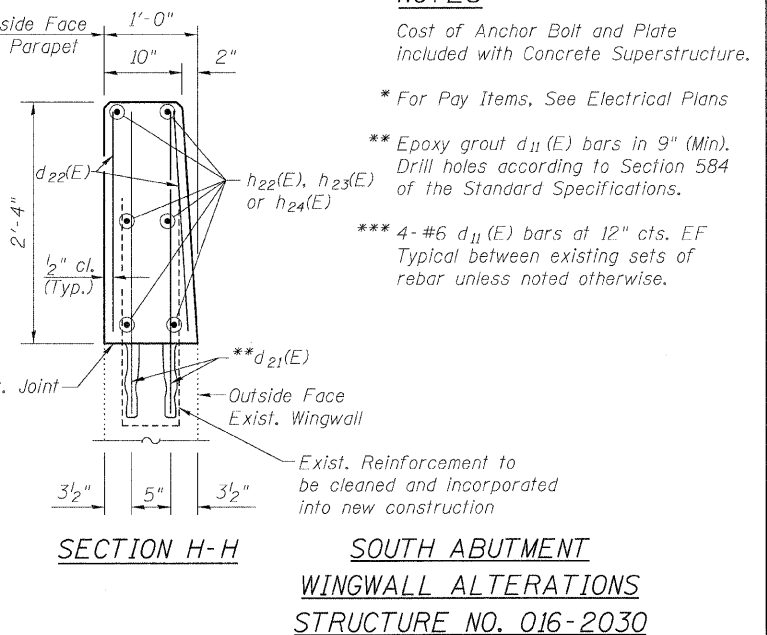
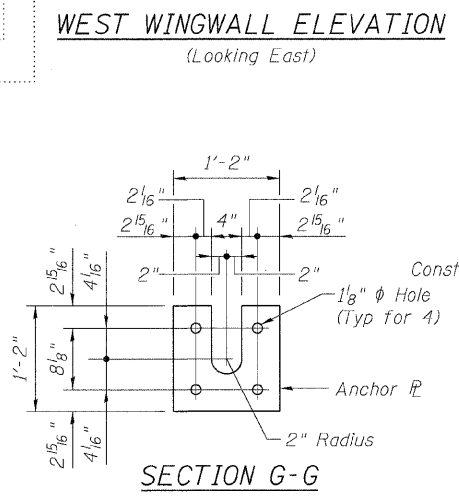
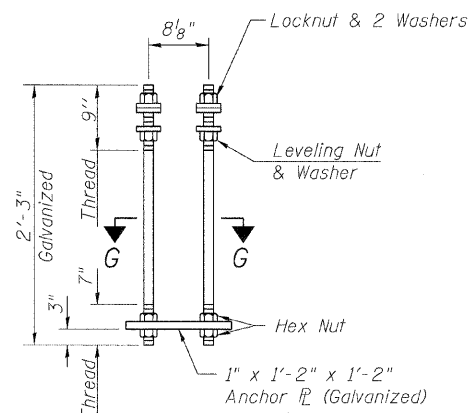
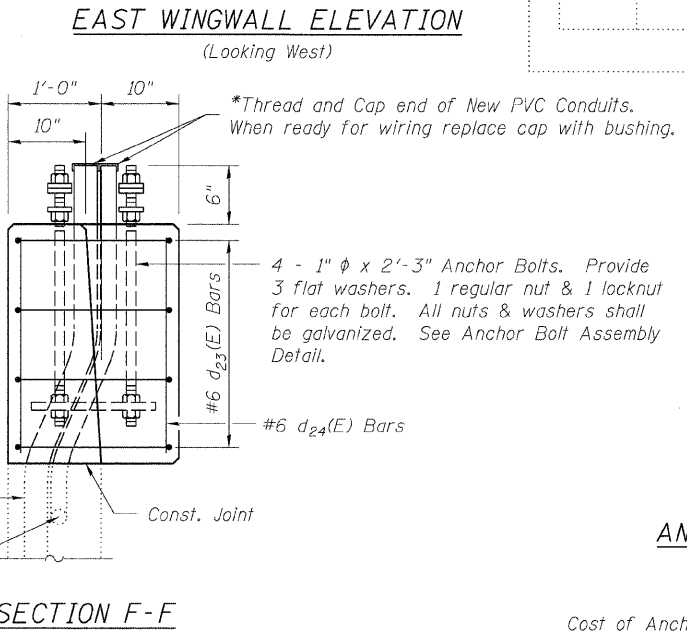
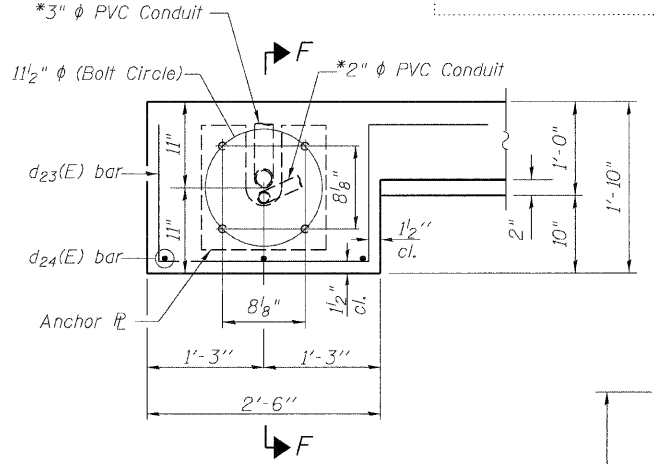
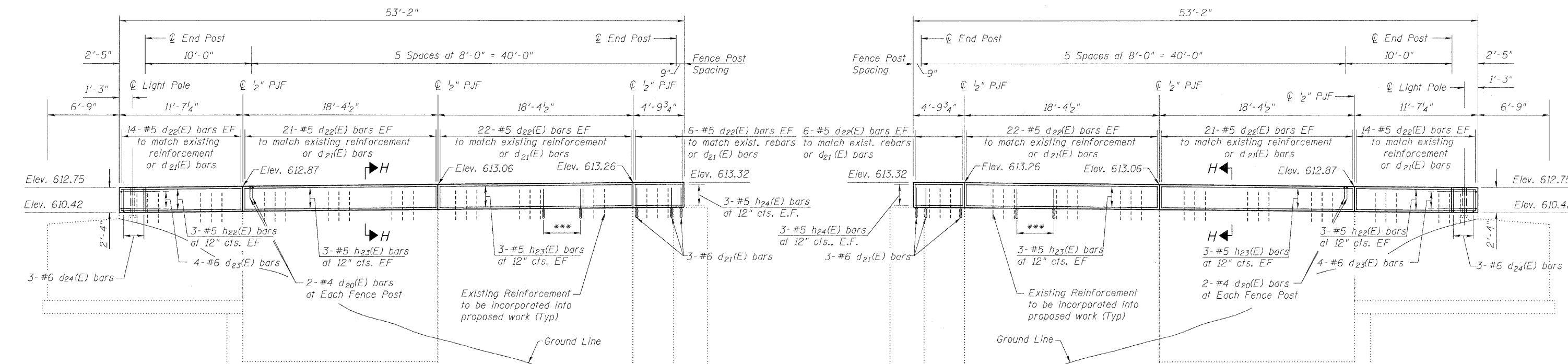
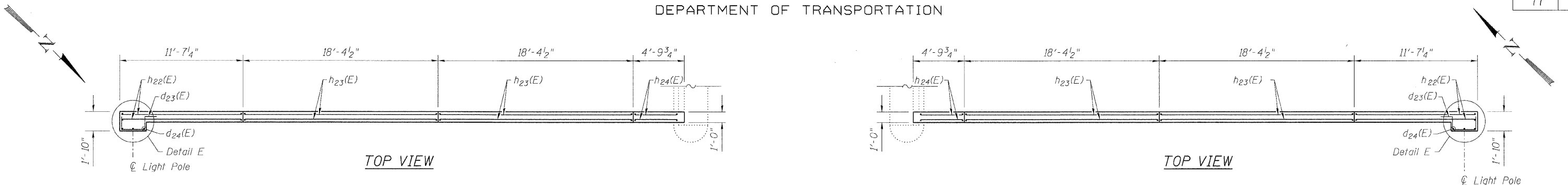
ELEVATION
(Looking South)

- Notes:
- Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
 - For Detail C see sheet 29 of 32.
 - Apply Concrete Sealer to front face of backwall, top of existing beam seat and top and sides of widened concrete pedestals.
- * Elevations are taken at Back of Abutment (Existing)
 - ** See Electrical Plans for Payment.
 - *** Vertical location of conduit to be set in field.

MINIMUM BAR LAP
#4 bar = 1'-4"
#5 bar = 1'-8"

**SOUTH ABUTMENT ALTERATIONS
STRUCTURE NO. 016-2030**

	SHEET NO. 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	57
Designed By: ESH Date: 7/2009		Checked By: MTH File: 016-2030.dgn		Drawn By: ESH		CONTRACT NO. 62119
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT				



NOTES

Cost of Anchor Bolt and Plate included with Concrete Superstructure.

* For Pay Items. See Electrical Plans

** Epoxy grout d₁₁(E) bars in 9" (Min). Drill holes according to Section 584 of the Standard Specifications.

*** 4-#6 d₁₁(E) bars at 12" cts. EF Typical between existing sets of rebar unless noted otherwise.

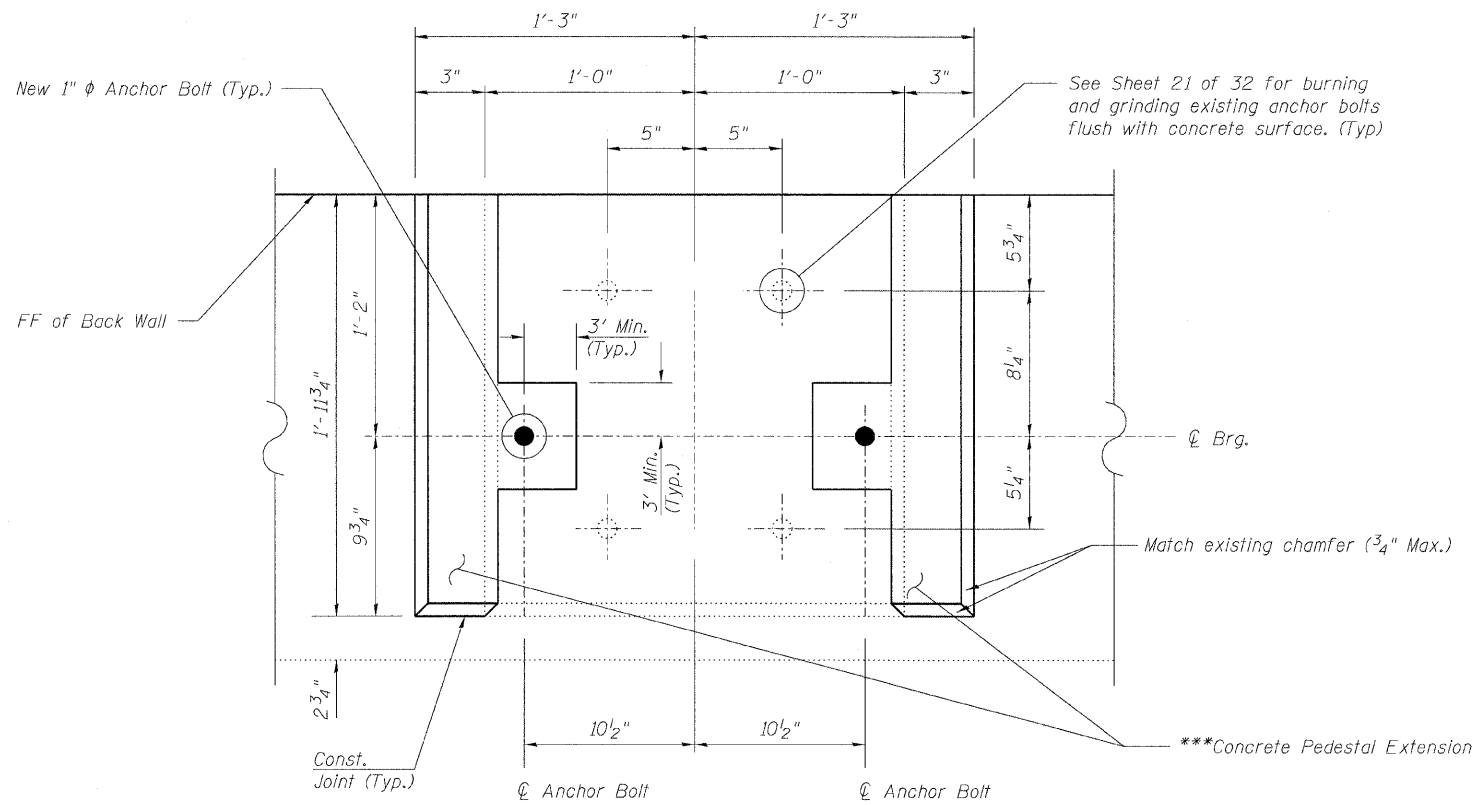
**SOUTH ABUTMENT
WINGWALL ALTERATIONS
STRUCTURE NO. 016-2030**

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 28	F.A.I. RTE. 57	SECTION 2222.3B	COUNTY COOK	TOTAL SHEETS 77	SHEET NO. 58
	32 SHEETS	CONTRACT NO. 62119		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

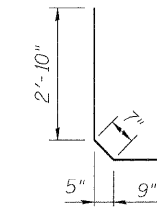
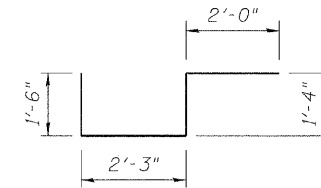
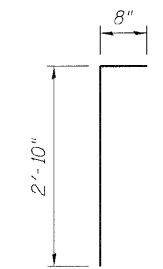
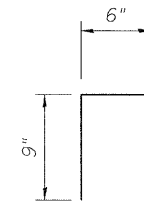
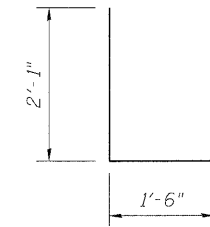
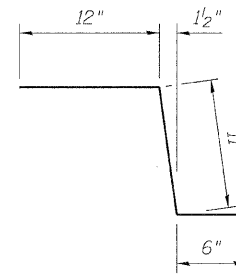
Cost of Anchor Bolt Assembly included with Concrete Superstructure

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
C 20(E)	4	#5	7'-2"	—
C 21(E)	4	#5	2'-5"	—
C 22(E)	8	#5	3'-0"	—
d 20(E)	28	#4	2'-0"	⊏
d 21(E)	144	#6	2'-11"	—
d 22(E)	252	#5	2'-1"	—
d 23(E)	8	#6	7'-1"	⊏
d 24(E)	6	#6	3'-7"	⊏
h 20(E)	22	#5	34'-2"	—
h 21(E)	8	#6	34'-2"	—
h 22(E)	12	#5	11'-4"	—
h 23(E)	24	#5	18'-2"	—
h 24(E)	12	#5	4'-7"	—
v 20(E)	70	#4	3'-6"	⊏
v 21(E)	70	#4	4'-2"	⊏
v 22(E)	140	#4	4'-0"	—
v 23(E)	54	#5	3'-10"	—
Structure Excavation		Cu. Yd.	28.0	
Concrete Structures		Cu. Yd.	13.6	
Reinforcement Bars, Epoxy Coated		Pound	4200	
Concrete Sealer		Sq. Ft.	425	



*** Remove existing bearing seat pedestal within 3" minimum around new anchor bolt location down to top of existing beam seat. Clean surface below concrete pedestal extension of debris, calcification deposits and any other foreign (non-concrete) material. Construct pedestal extension to locations shown level with existing concrete pedestal. If resulting surface is uneven, grind smooth. Cost included with Concrete Structures.

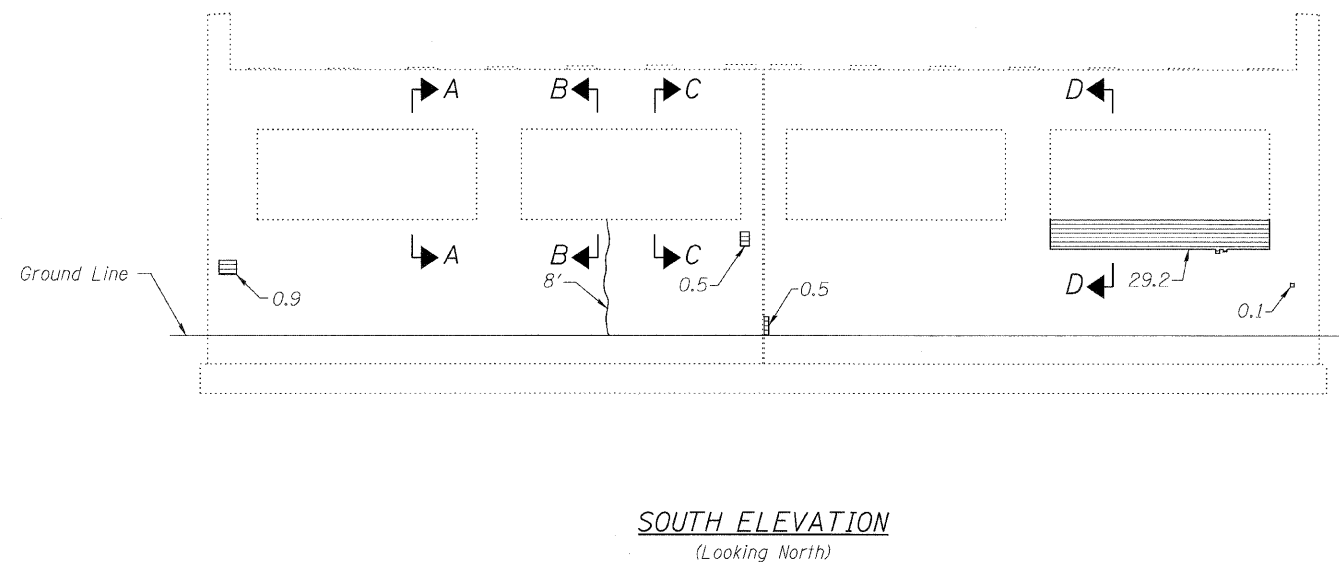
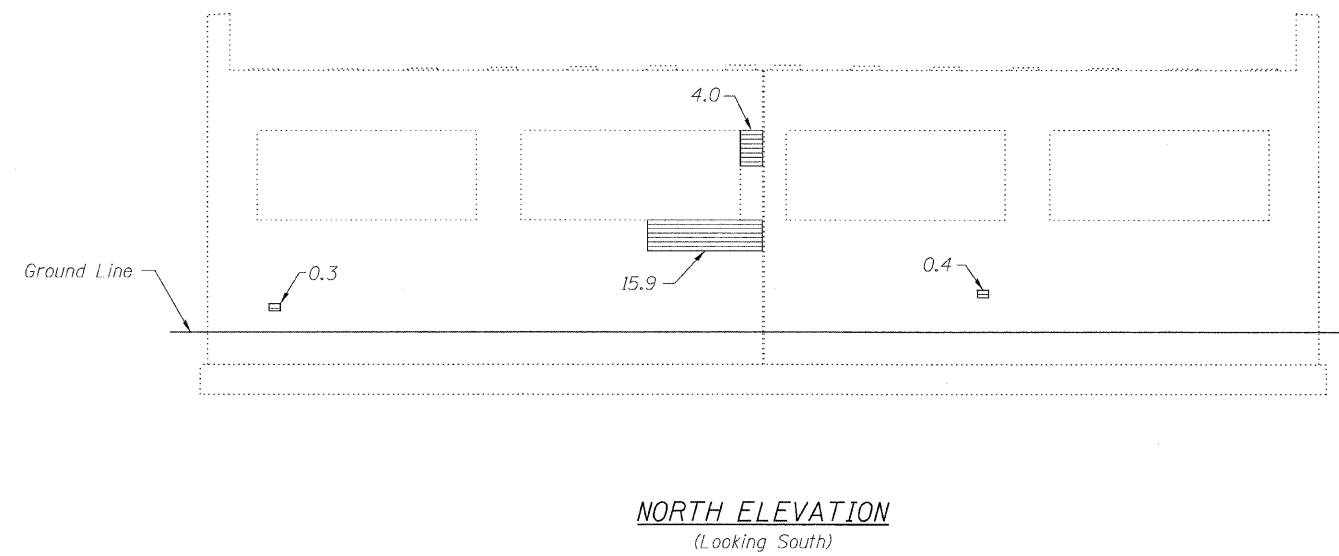
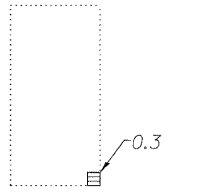
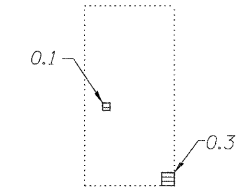
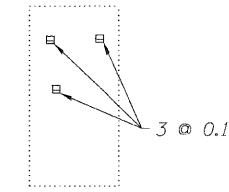
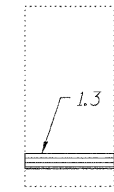
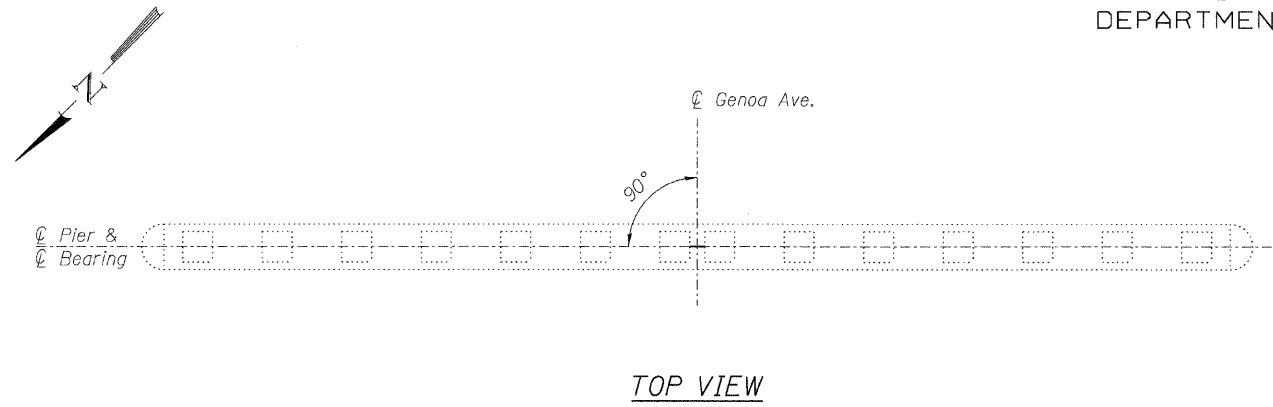


NOTES

- For location of Detail C, see Sheet 27 of 32.
- For details of Bar Splicers, see Sheet 32 of 32.

SOUTH ABUTMENT DETAILS
STRUCTURE NO. 016-2030

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 29	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	59
Designed By: ESH Date: 7/2009		Checked By: MTH File: 016-2030.dgn		Drawn By: ESH		CONTRACT NO. 62119
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT		



NOTES:

1. Repair of the existing pier shall include but not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction.
2. All areas are in square feet.
3. All crack lengths are in feet.

LEGEND

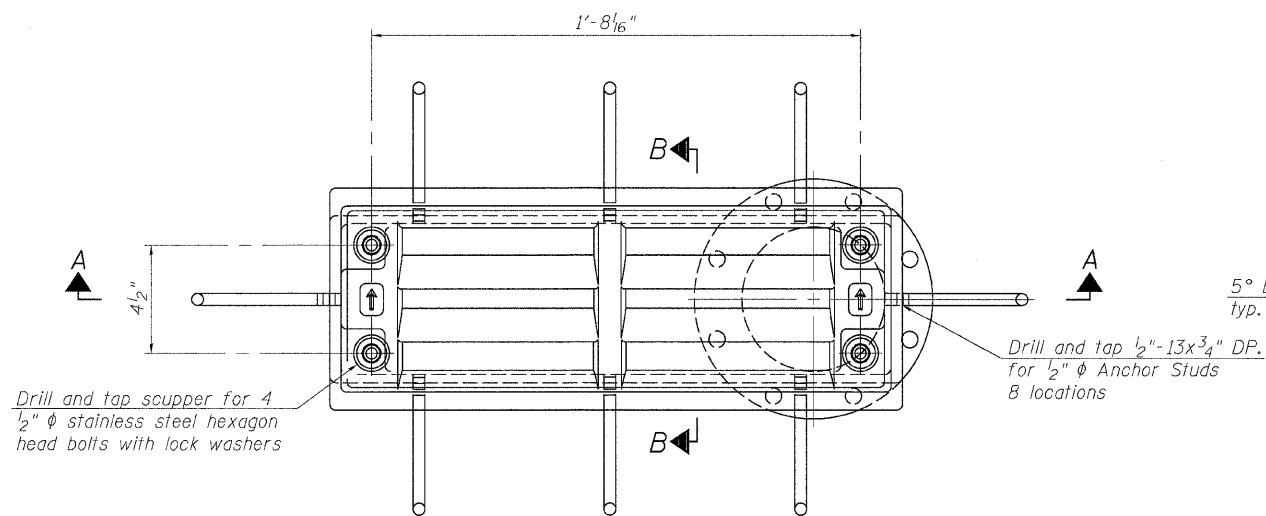
- Indicates Limits of Structural Repair of Concrete
- Indicates Length of Epoxy Crack Injection

BILL OF MATERIAL

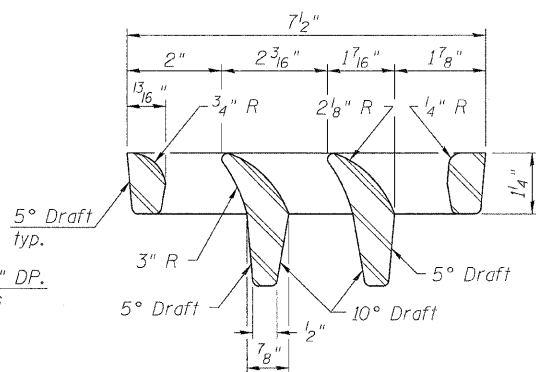
ITEM	UNIT	QUANTITY
Epoxy Crack Injection	Foot	8
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq Ft	54

PIER REPAIRS
STRUCTURE NO. 016-2030

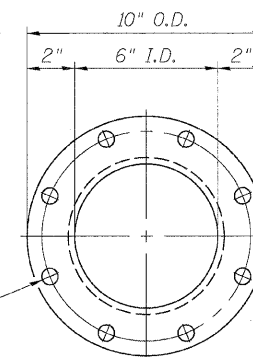
<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 30	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32 SHEETS	57	2222.3B	COOK	77	60
<p>Designed By: ESH Checked By: MTH Drawn By: ESH Date: 7/2009 File: 016-2030.dgn</p>		<p>CONTRACT NO. 62119</p>				
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



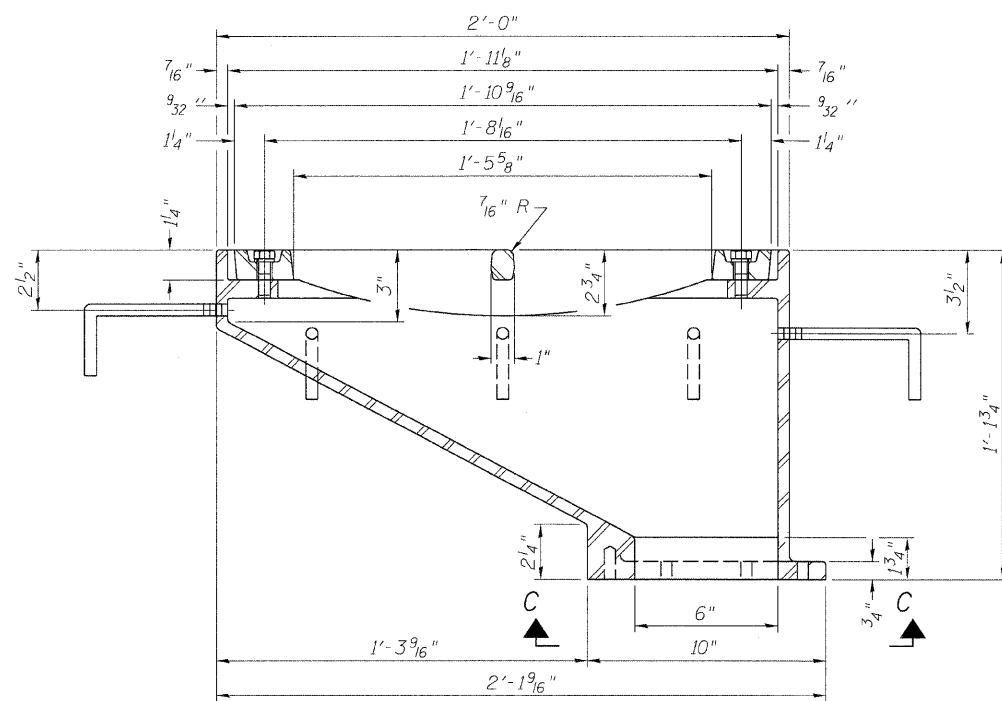
PLAN



VANE GRATE DETAIL

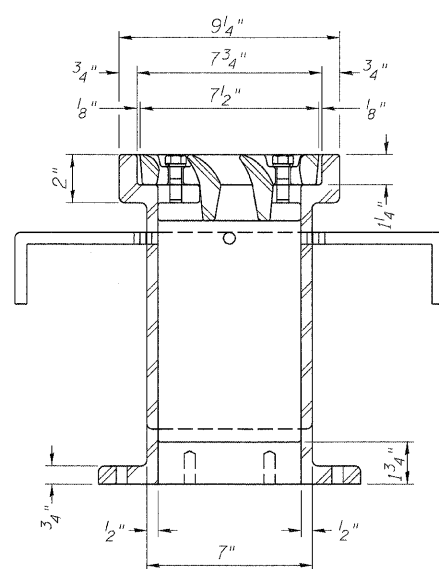


8-9/16" φ holes on an 8 3/4" φ bolt circle

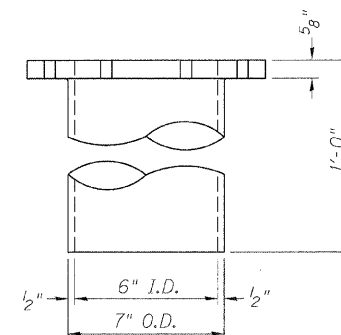


SECTION A-A

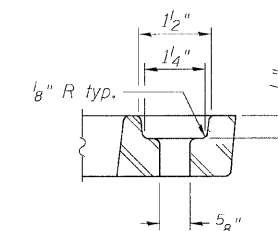
See sheet 13 of 32 for scupper location relative to parapet.



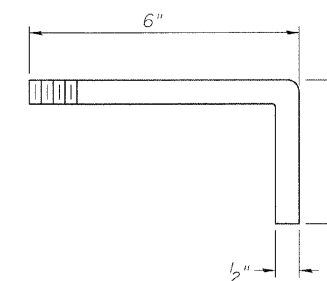
SECTION B-B



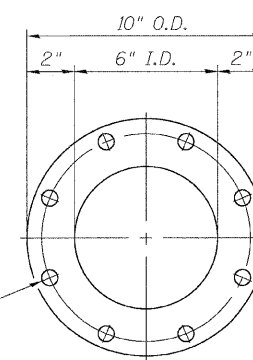
DOWNSPOUT



BOLT HOLE DETAIL



ANCHOR STUD DETAIL



VIEW C-C

Drill and tap 8 holes for 1/2"-13 bolts on an 8 3/4" φ bolt circle. (2 blind holes are 1 1/4" deep, 6 thru holes)

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

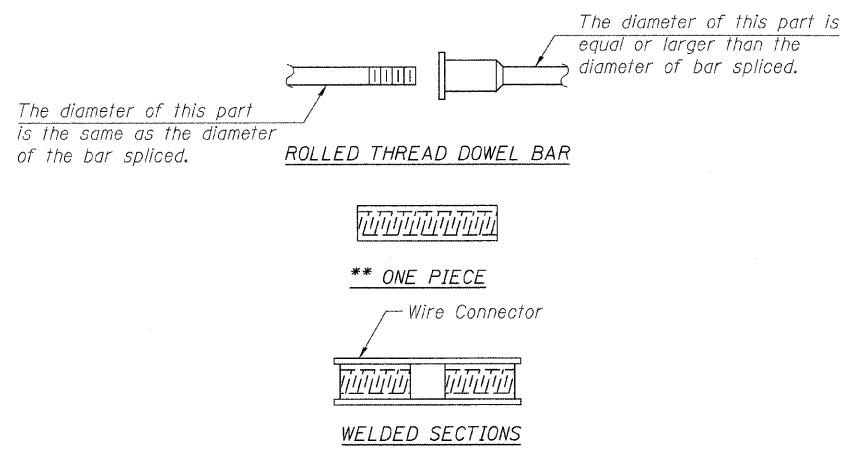
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

BILL OF MATERIAL

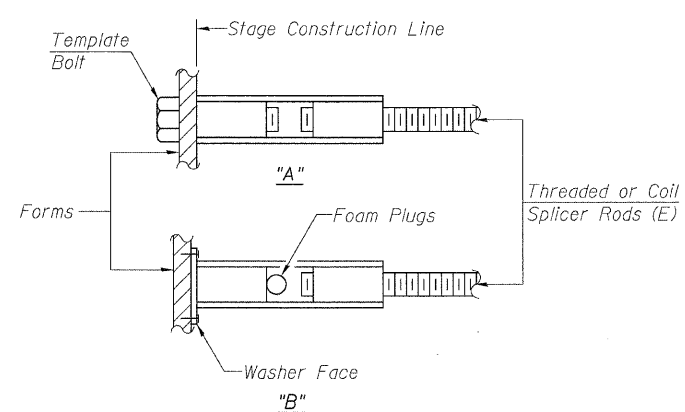
ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	4

DRAINAGE SCUPPER, DS-12
STRUCTURE NO. 016-2030



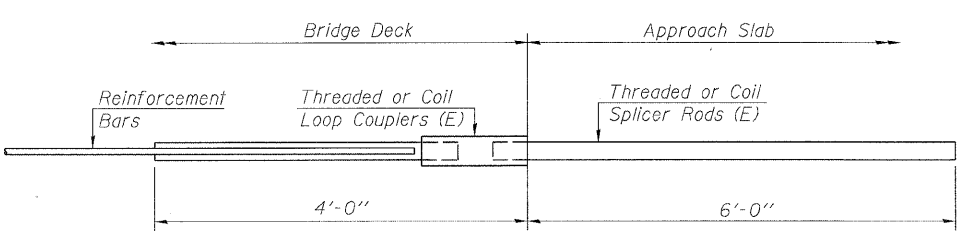
BAR SPLICER ASSEMBLY ALTERNATIVES

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



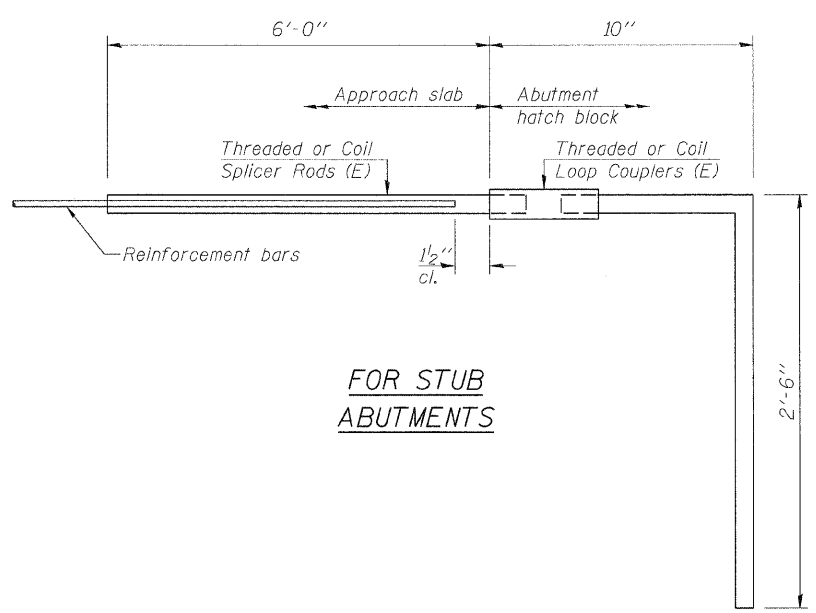
INSTALLATION AND SETTING METHODS

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



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



FOR STUB ABUTMENTS

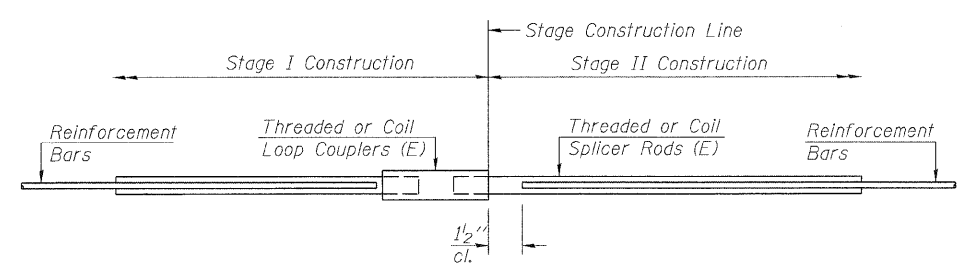
Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 108

NOTES

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

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

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

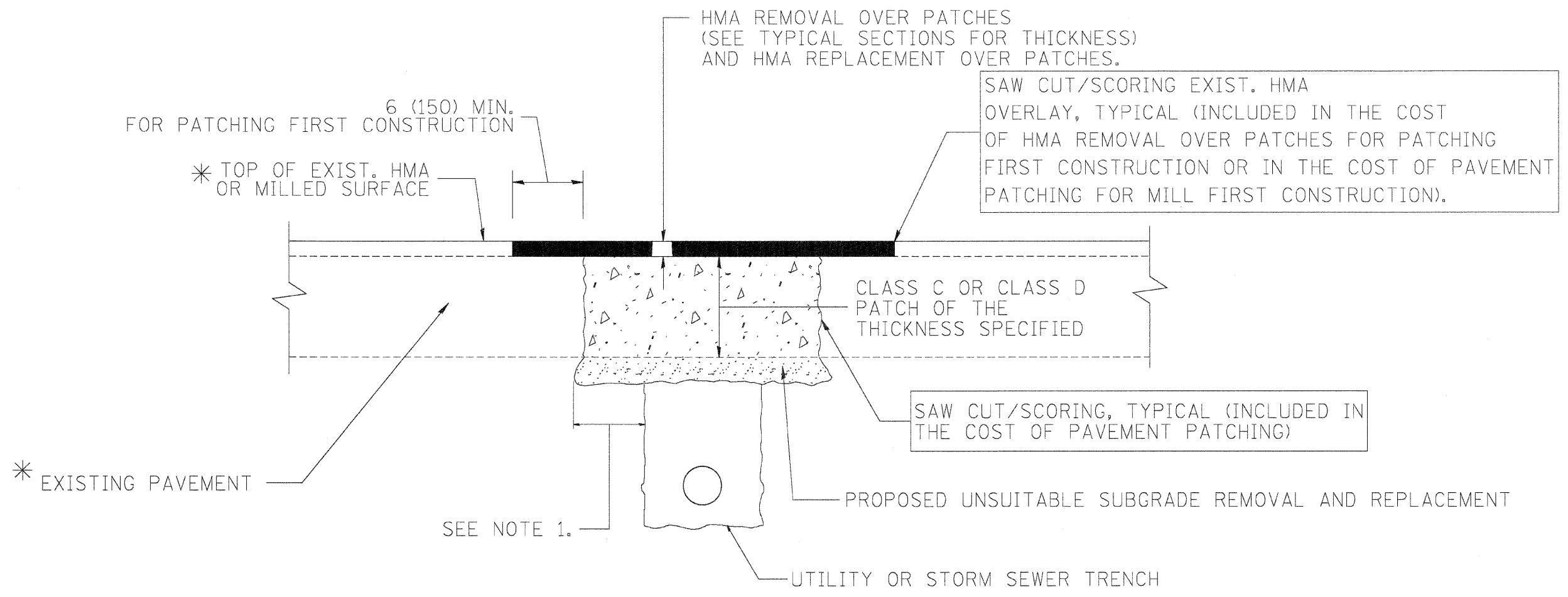


STANDARD

Bar Size	No. Assemblies Required	Location
#5	453	Deck Slab
#4	50	Approach Slabs
#5	172	Approach Slabs
#5	22	Abutments
#6	8	Abutments

**BAR SPLICER ASSEMBLY DETAILS
STRUCTURE NO. 016-2030**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	65
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



* 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.

REVISIONS	
NAME	DATE
R. SHAH	01/14/95
R. SHAH	03/23/95
R. SHAH	04/24/95
A. HOUSEH	03/15/96
A. ABBAS	03/21/97
A. ABBAS	01/20/98
ART ABBAS	04/27/98
R. BORO	01/01/07
R. BORO	09/04/07
K. ENG	10/27/08

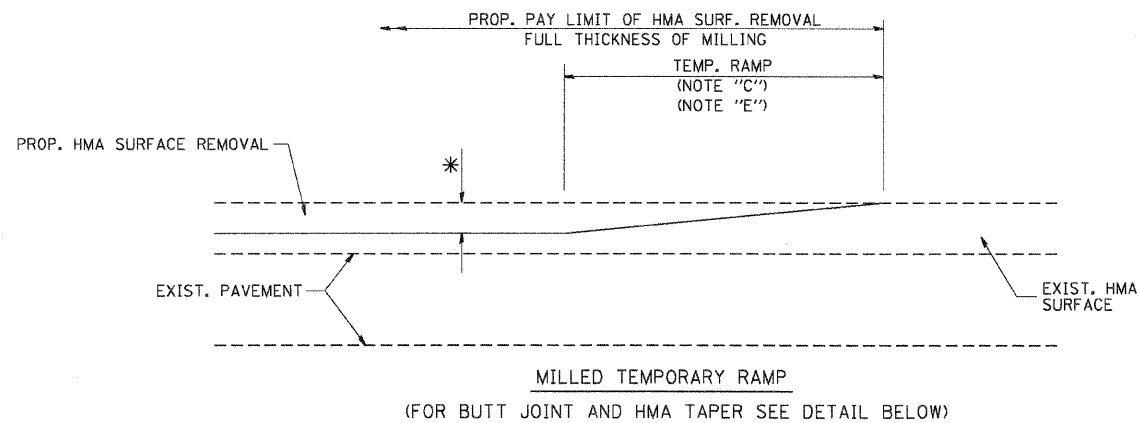
ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

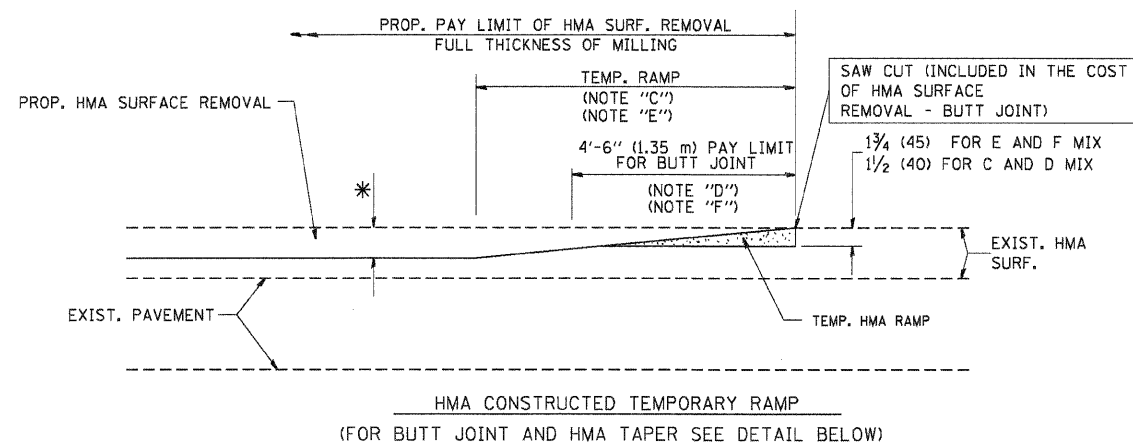
SCALE: VERT. NONE
HORIZ. NONE
DRAWN BY
CHECKED BY
BD400-04 (BD-22)

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USER NAME = baward1

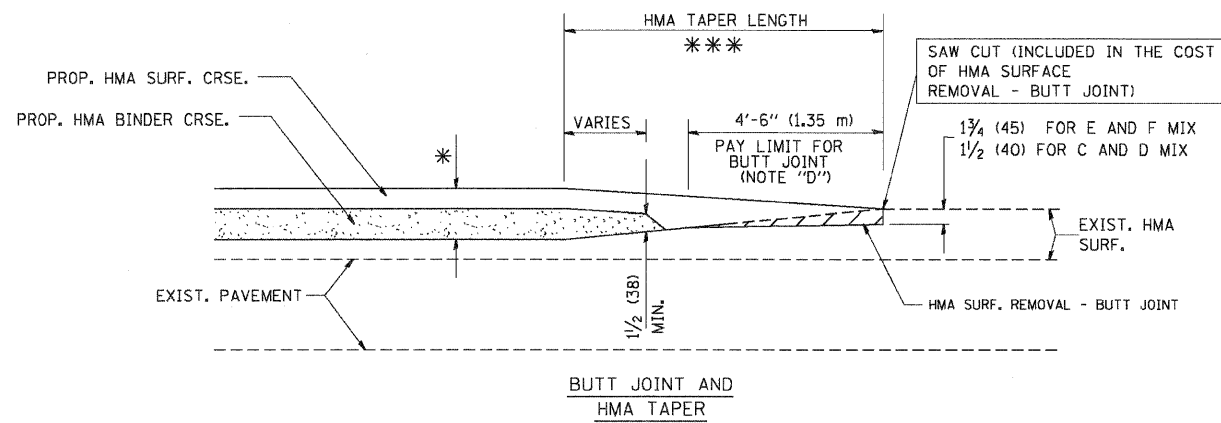
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	66
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



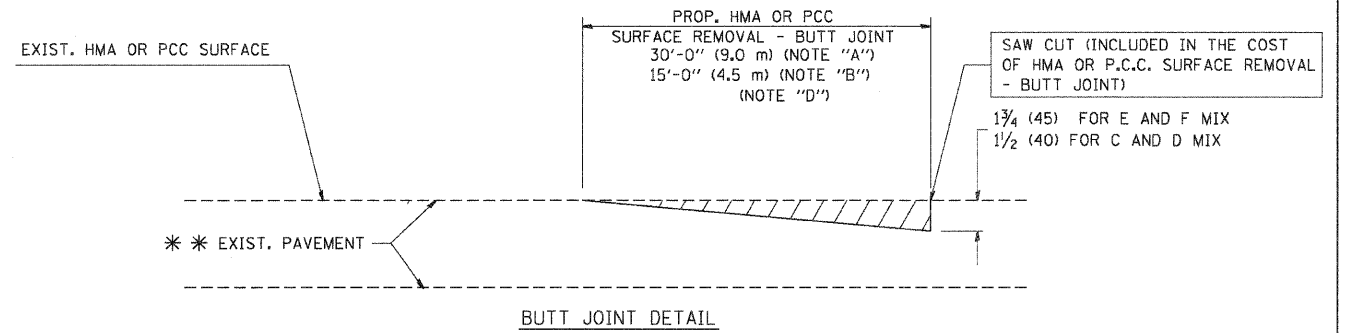
OPTION 1



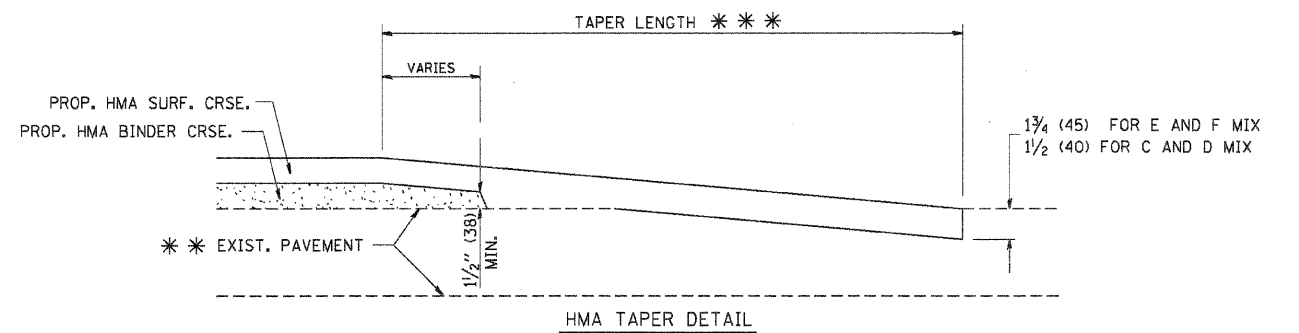
OPTION 2
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT 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. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND
HMA TAPER
DETAILS

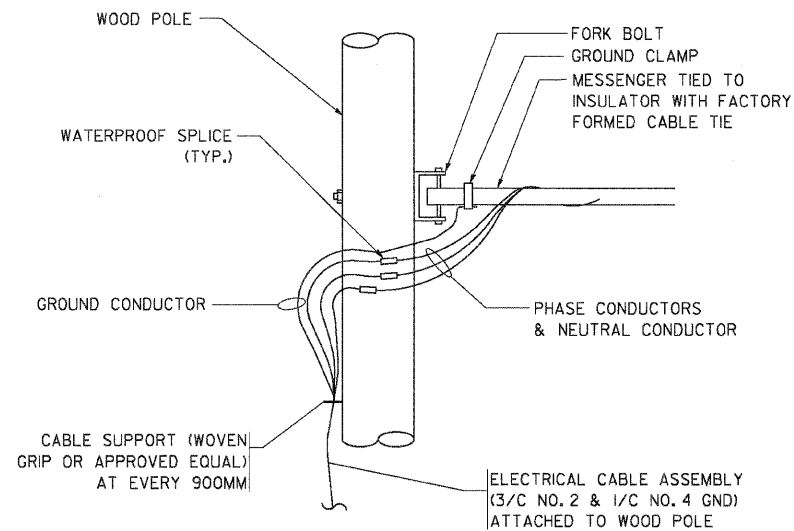
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HORIZ.

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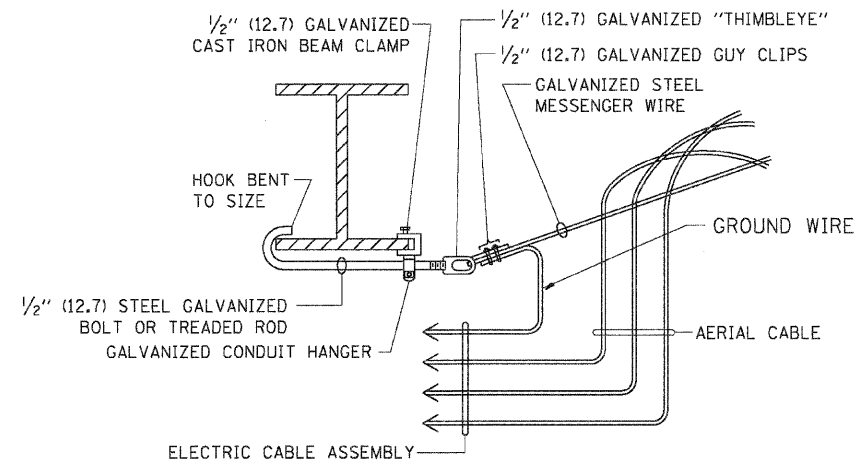
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BD400-05 (VI-BD32)

F.A.1 RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



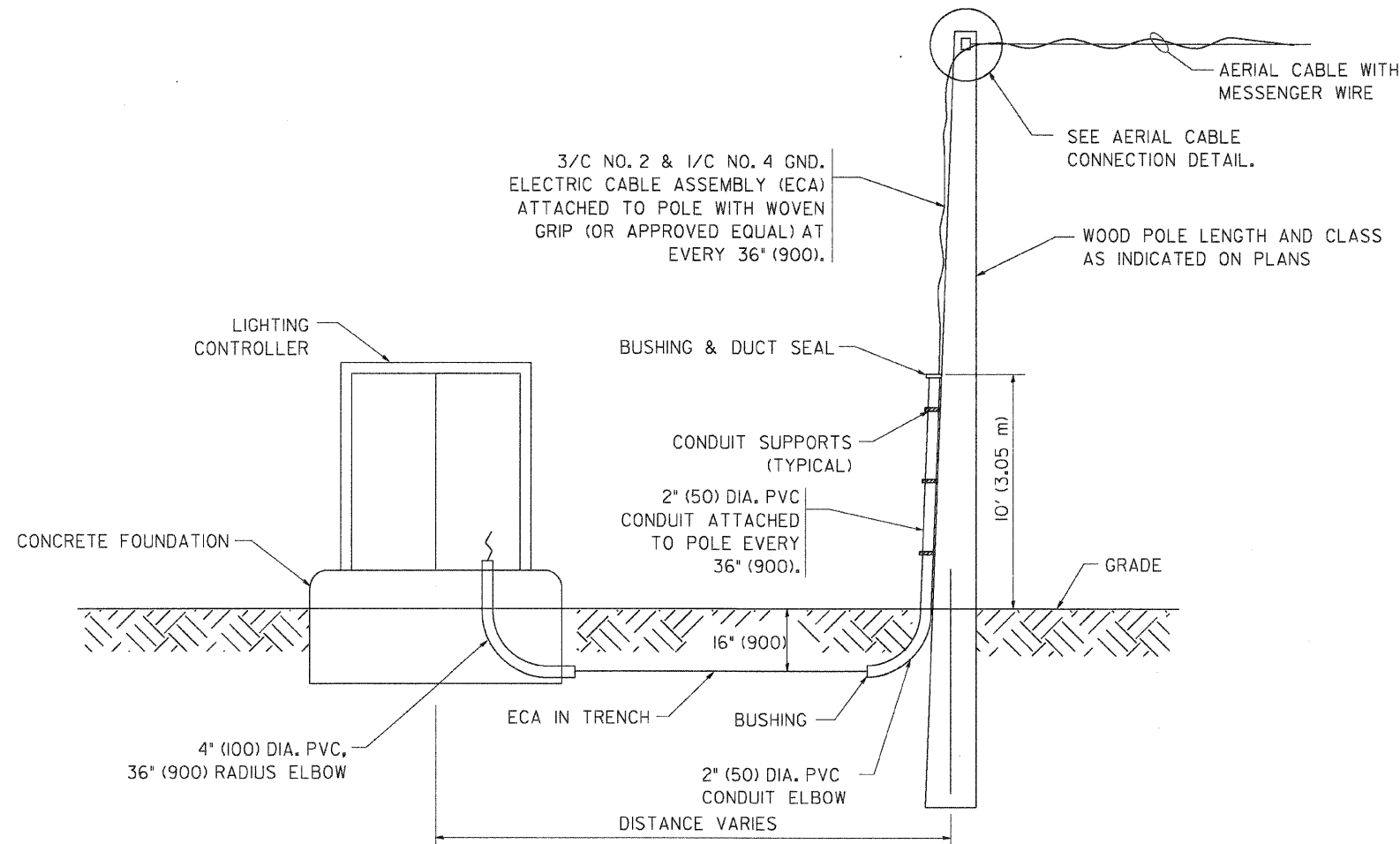
AERIAL CABLE CONNECTION DETAIL
N.T.S.



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 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

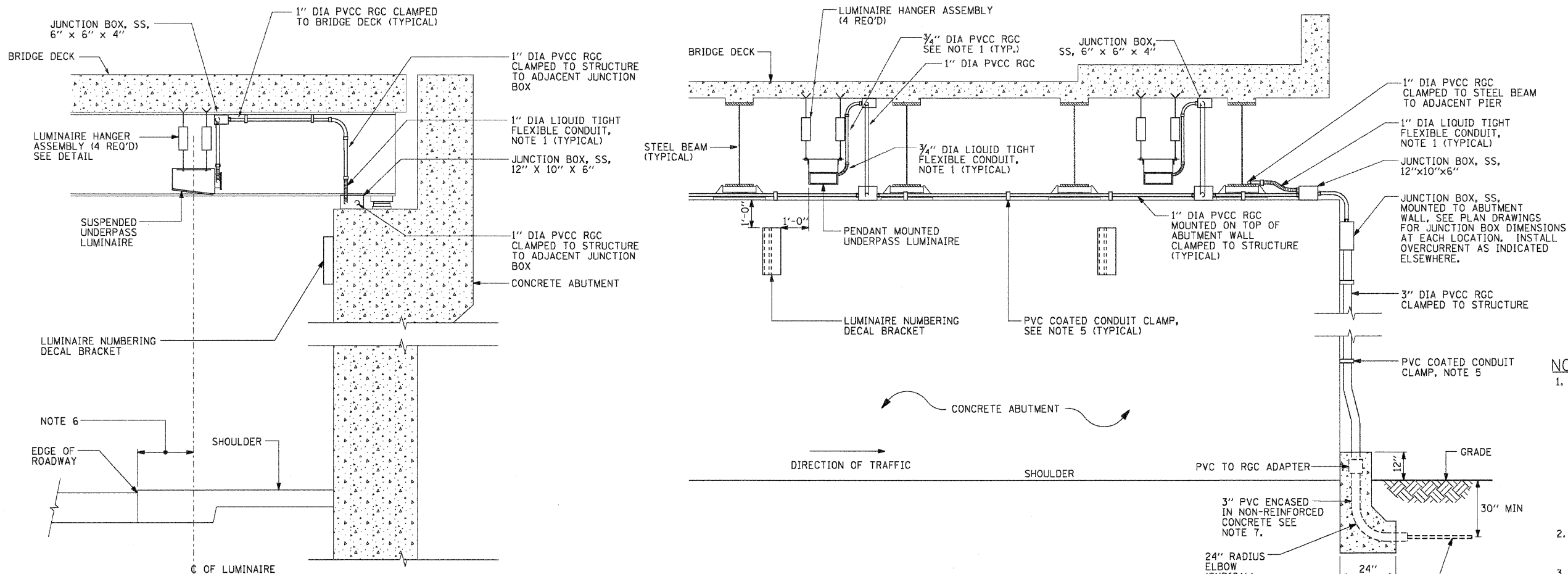
ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY AERIAL CABLE INSTALLATION

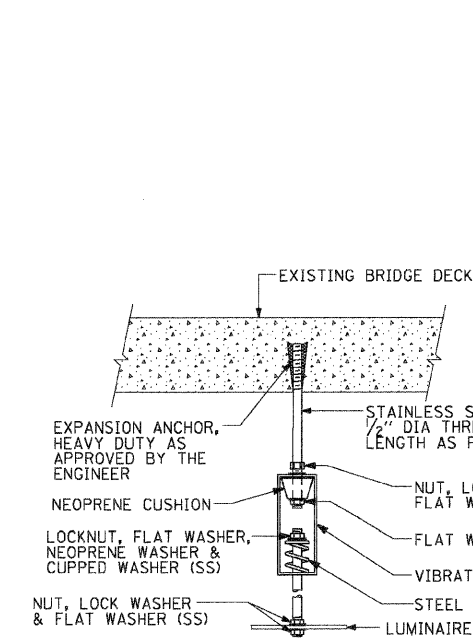
SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY
BE-801

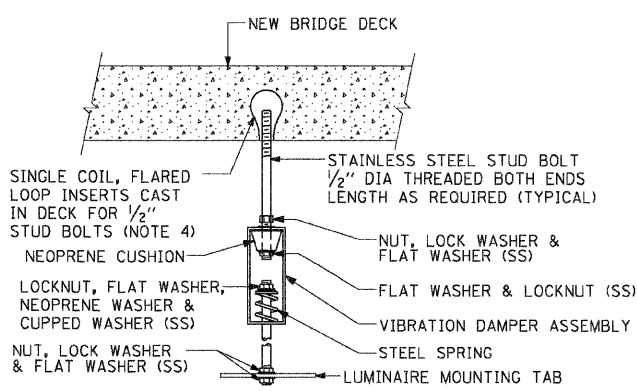
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	68
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



- 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 3/4" 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.

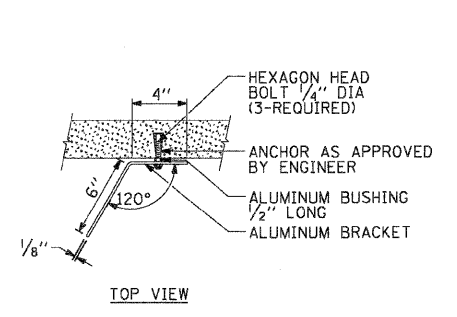


EXISTING BRIDGE DECK INSTALLATION

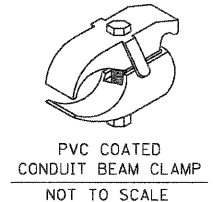


NEW BRIDGE DECK INSTALLATION

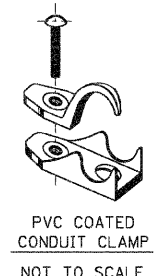
TYPICAL LUMINAIRE HANGER ASSEMBLY DETAILS



LUMINAIRE NUMBERING DECAL BRACKET NOT TO SCALE



PVC COATED CONDUIT BEAM CLAMP NOT TO SCALE



PVC COATED CONDUIT CLAMP NOT TO SCALE

REVISIONS	
NAME	DATE
	12/12/05

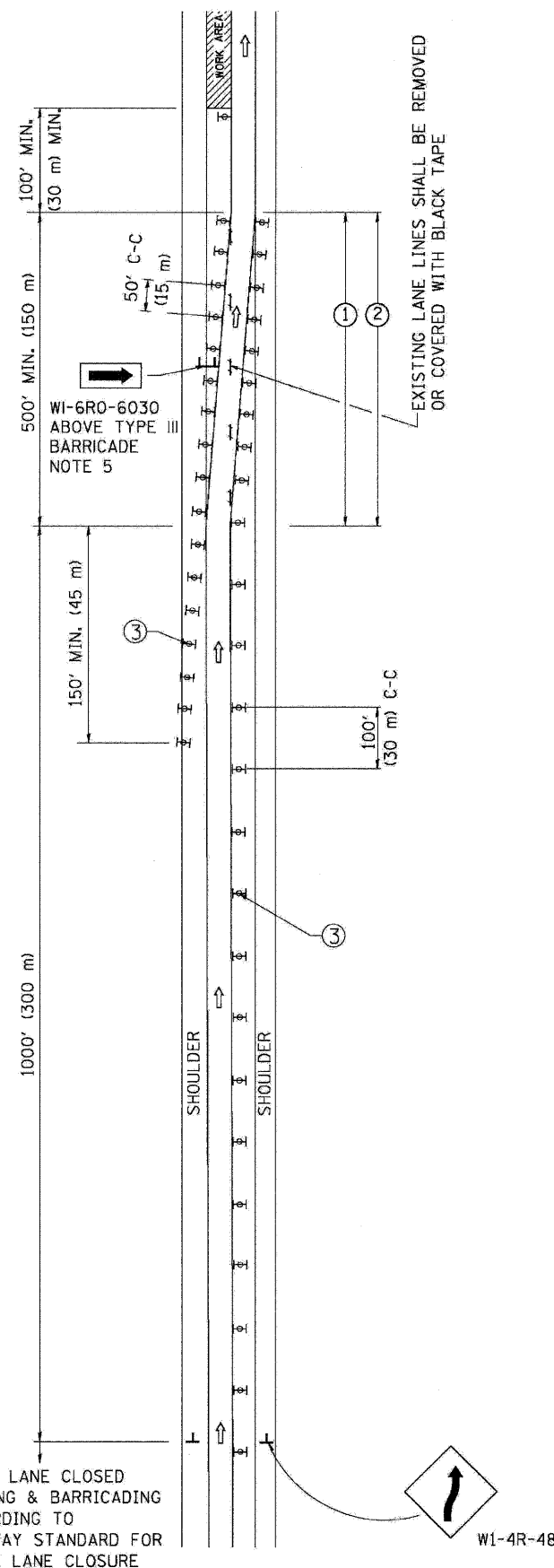
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUSPENDED MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS

SCALE: VERT. DATE
HORIZ. DRAWN BY
CHECKED BY
BE-900

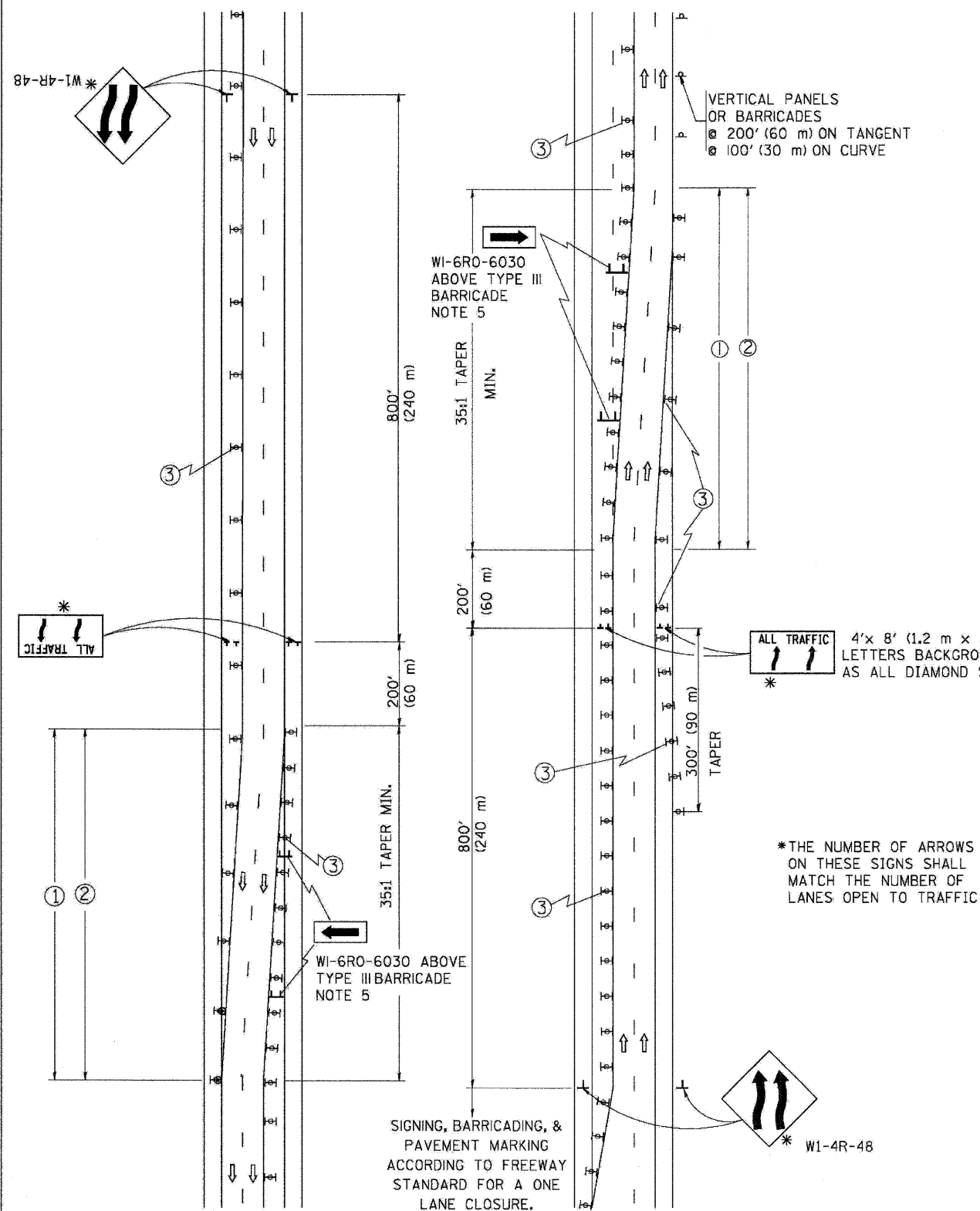
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PLOT SCALE = 50,000 / 1"
USER NAME = jaygo

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	69
STA. 12+06.00		TO STA. 16+17.11		
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

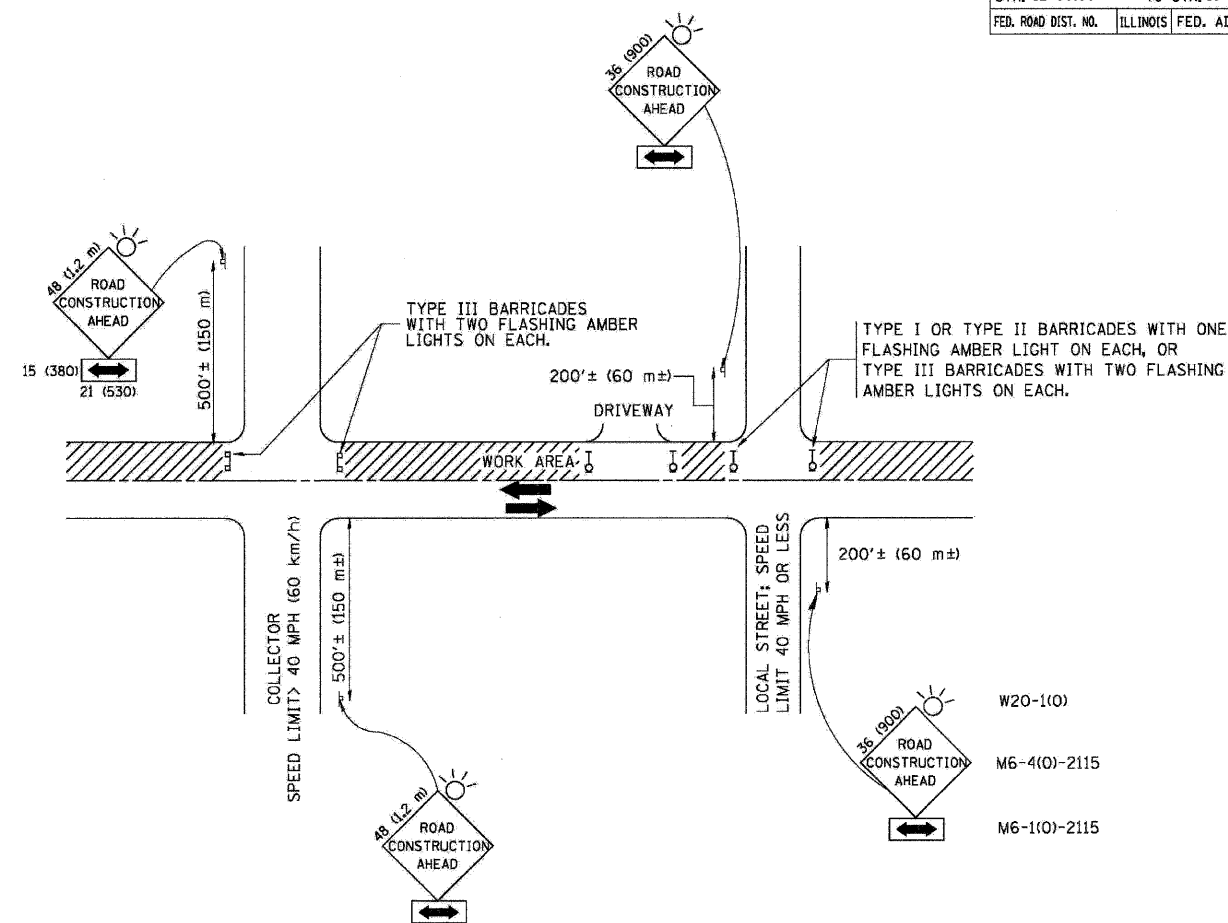
REVISIONS	
NAME	DATE
DWS	2/87
DWS	1/90
DWS	12/27/94
DWS	11/96
JAF	4/03
JAF	2/06
SPB	1/07

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.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	70
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

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

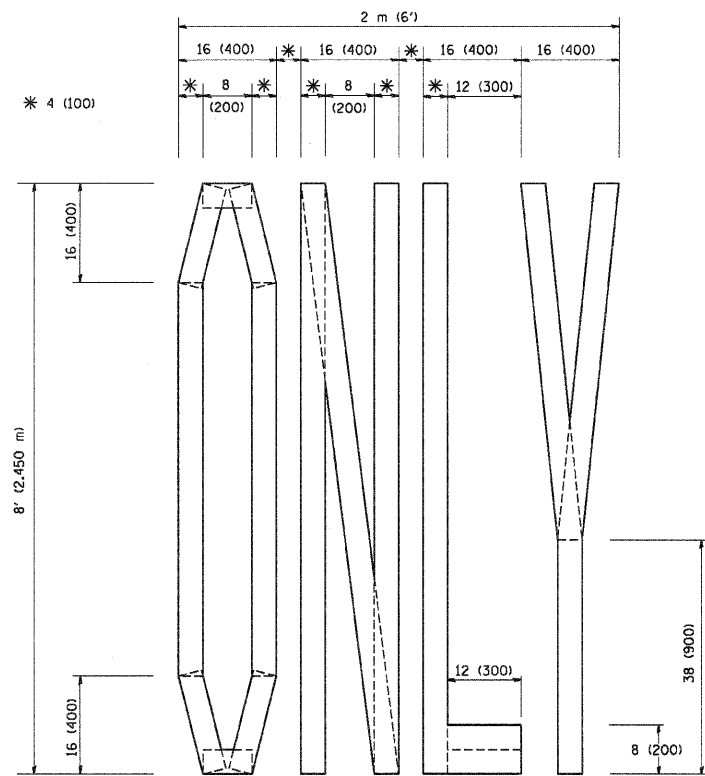
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DRAWN BY

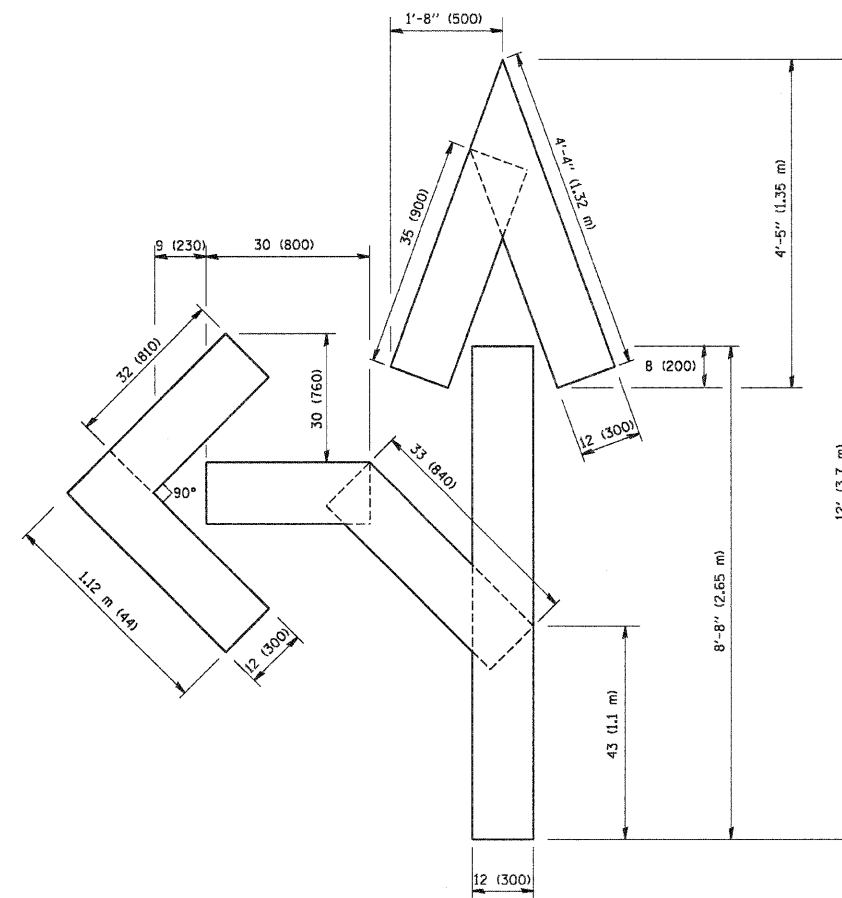
CHECKED BY

TC-10

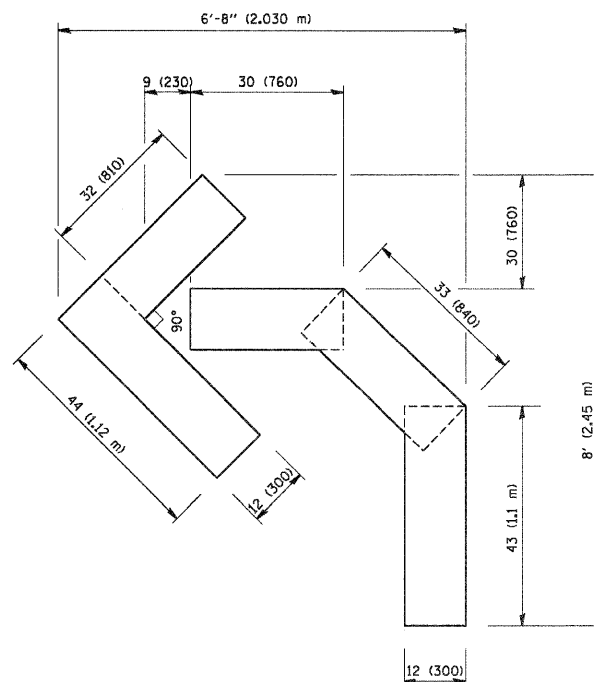
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	71
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



QUANTITY
 4 (100) LINE = 82.5 ft. (25.3 m)
 27.5 sq. ft. (2.53 sq. m)



QUANTITY
 4 (100) LINE = 45.5 ft. (13.9 m)
 15.2 sq. ft. (1.39 sq. m)

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

REVISIONS	
NAME	DATE
T. RAMMACHER	09/18/94
J. OBERLE	06/01/96
T. RAMMACHER	06/05/96
T. RAMMACHER	11/04/97
T. RAMMACHER	03/02/98
E. GOMEZ	08/28/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKING
 LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING**

SCALE: NONE

DRAWN BY CADD

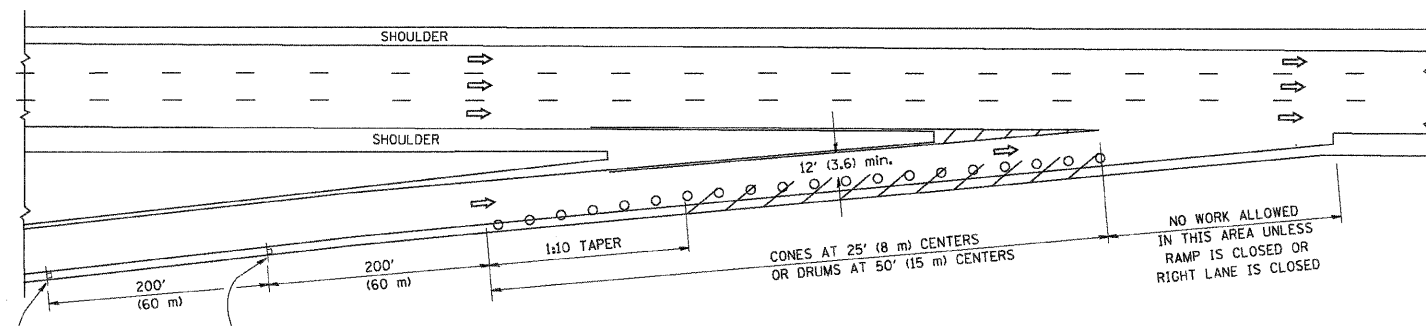
CHECKED BY

TC-16

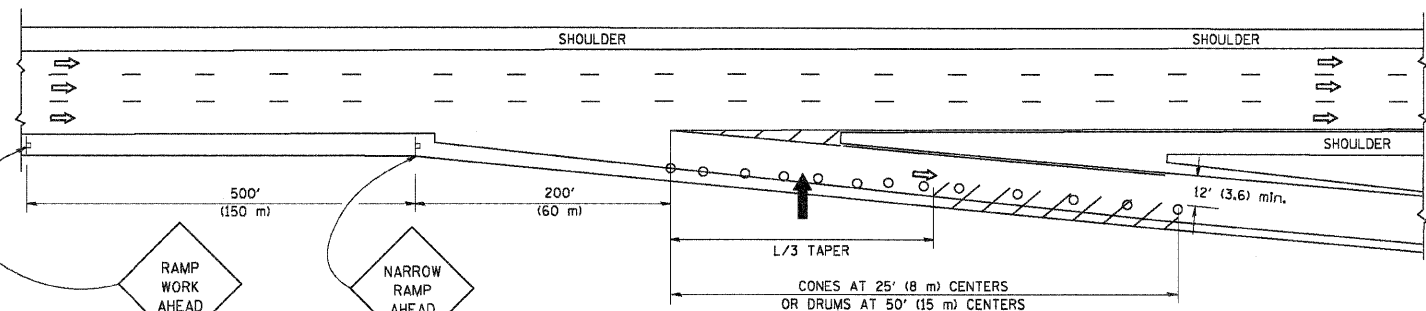
PARTIAL RAMP CLOSURE DETAILS

SHOULDER CLOSURE DETAILS

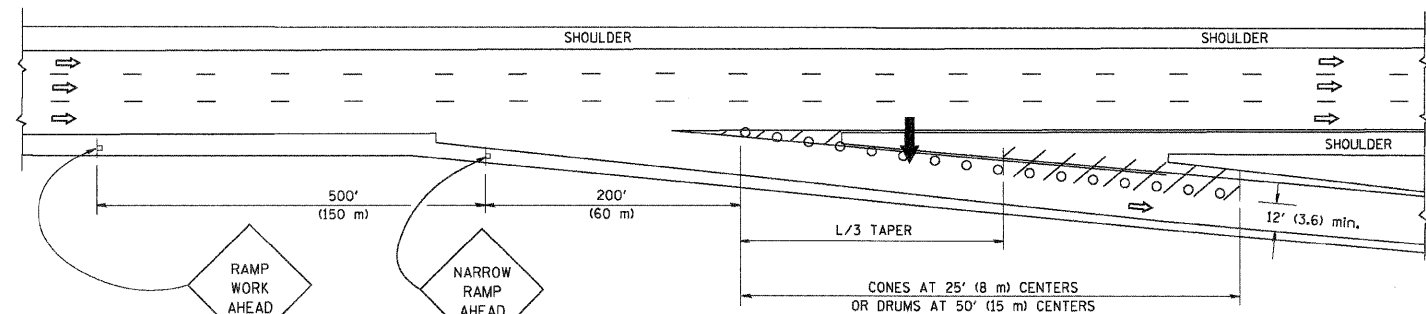
F.A.I. RY.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	72
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



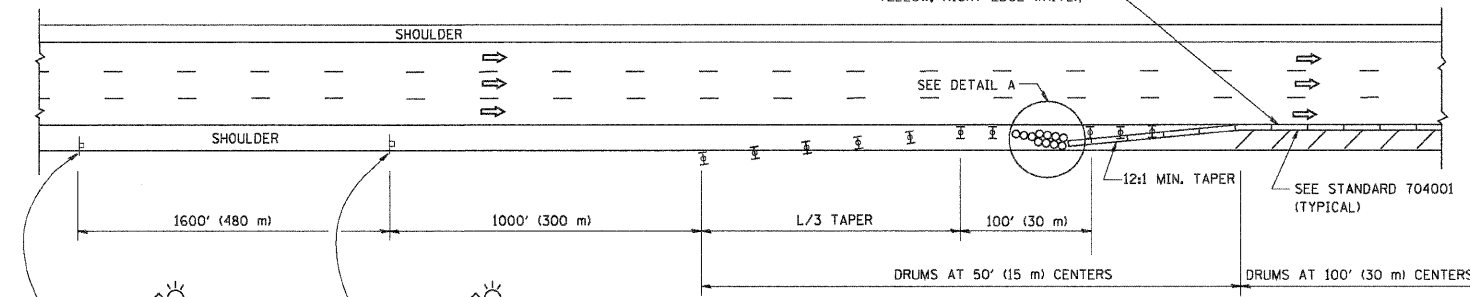
TYPICAL EXIT RAMP

SYMBOLS

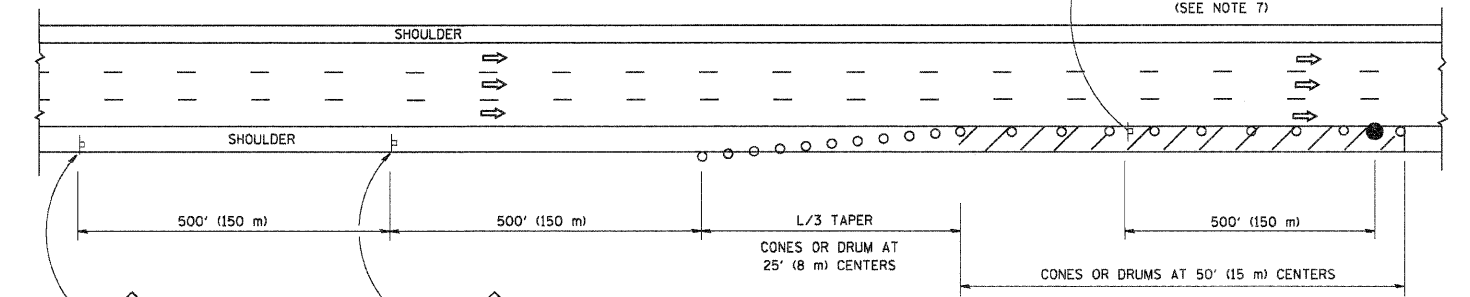
- ARROWBOARD
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

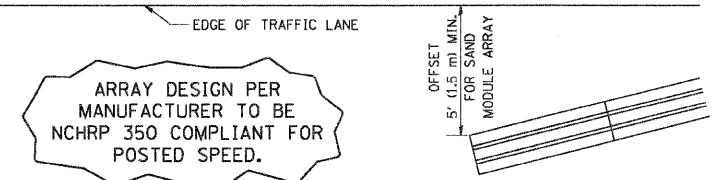
- THE "L" DISTANCE EQUALS:
SPEED LIMIT FORMULAS
45 mph (80 km/h) METRIC ENGLISH
OR GREATER: $L=0.65(W)(S)$ $L=(W)(S)$
W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)
- PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME 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.



PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE



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

REVISIONS	
NAME	DATE
DWS	11/96
JAF	12/02
NCHRP 350	04/03
JAF	2/06
SPB	1/07

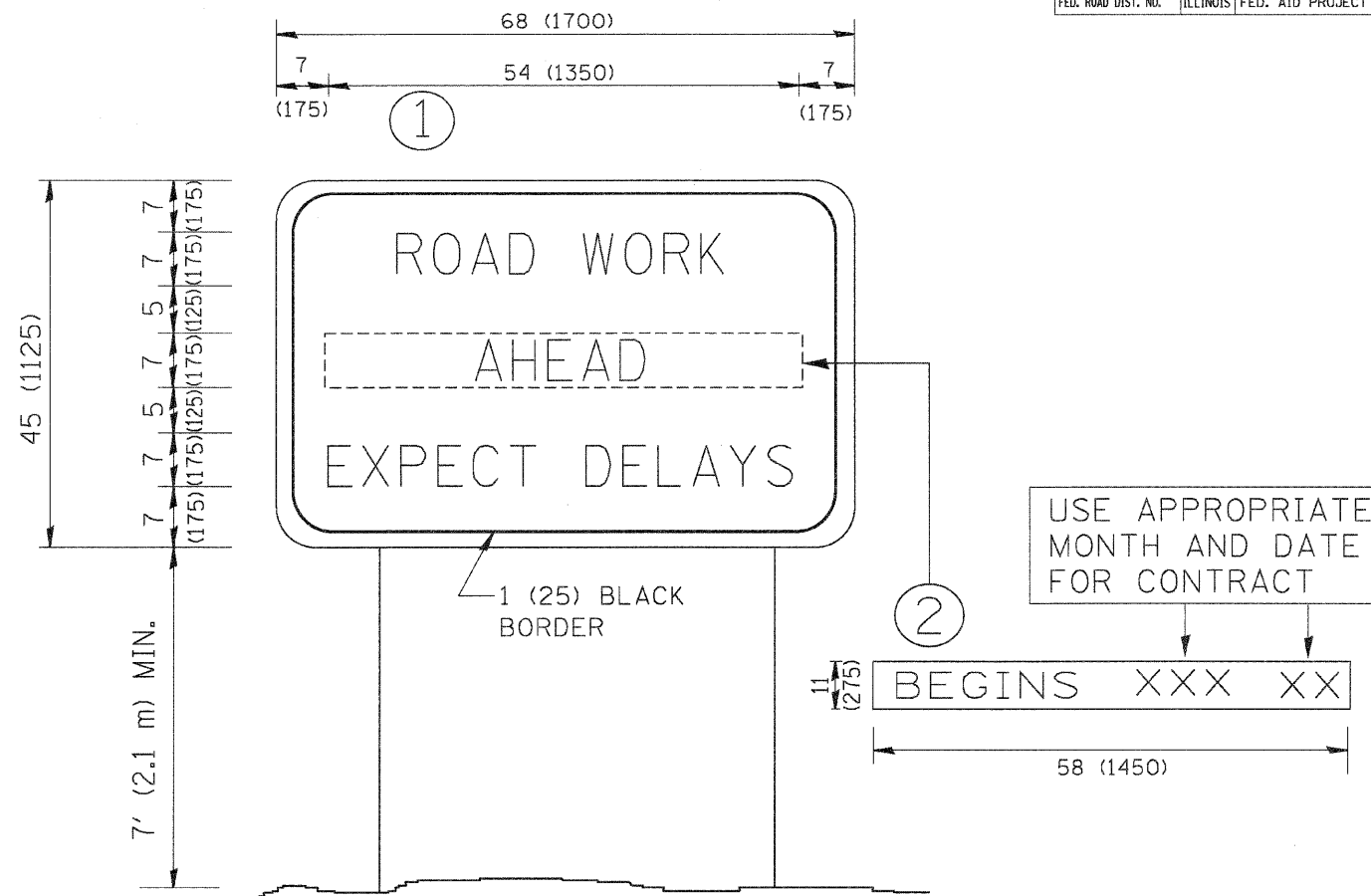
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL DETAILS
FOR FREEWAY
SHOULDER CLOSURES
PARTIAL RAMP CLOSURES

SCALE: NONE
DESIGNED BY: DWS
DRAWN BY:
CHECKED BY:
TC-17

PLOT DATE = 3/7/2007
FILE NAME = K:\advised\test7.dgn
PLOT SCALE = 50.0000 / 1 IN.
USER NAME = bawardl

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	73
STA. 12+06.00		TO STA. 16+17.11		
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

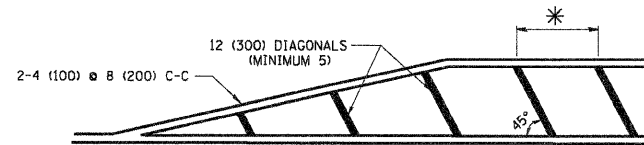
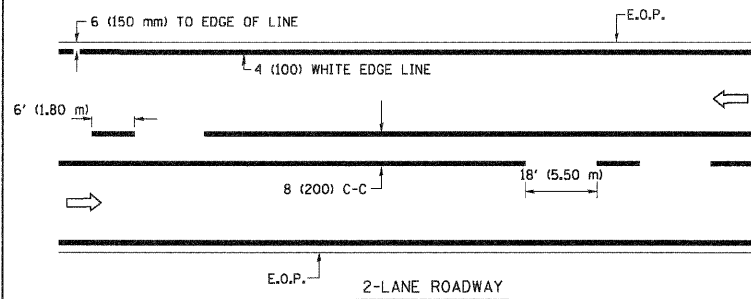
SCALE: NONE

DRAWN BY DESIGN

CHECKED BY

TC22

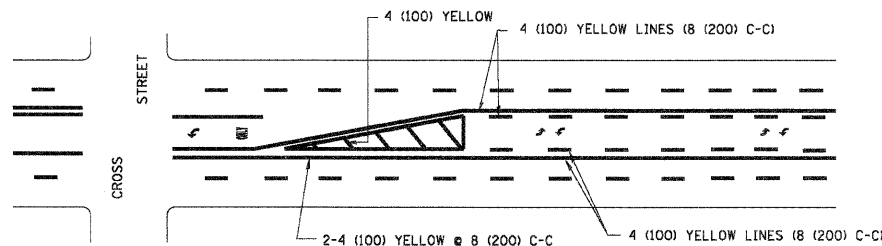
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	74
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



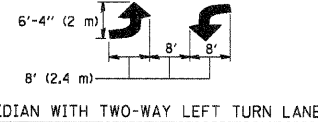
* FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

* DIAGONAL LINE SPACING: 20' (6.1 m) C-C

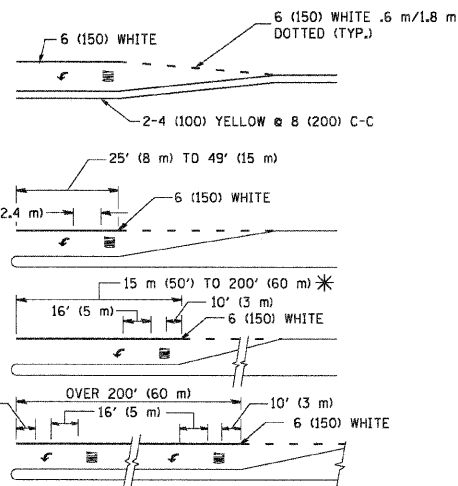
PAINTED MEDIANS



A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



TYPICAL PAINTED MEDIAN MARKING

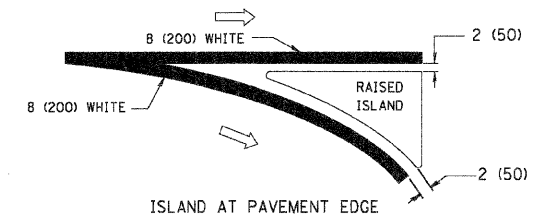
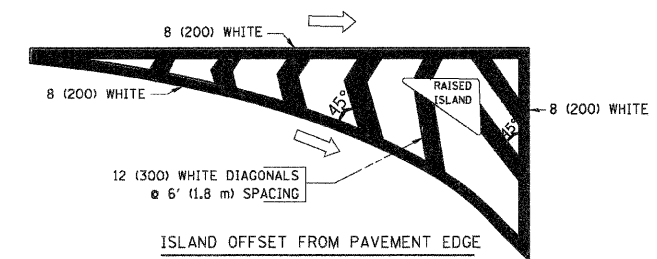


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 AREA = 15.8 SQ. FT. (1.47 m²) ONLY AREA = 22.9 SQ. FT. (2.13 m²)

* 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".

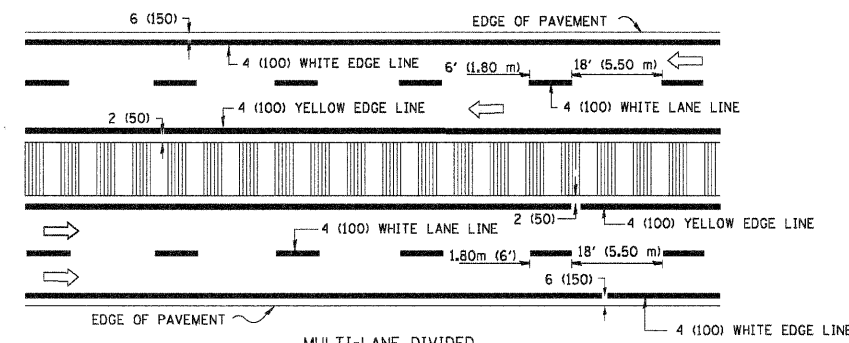
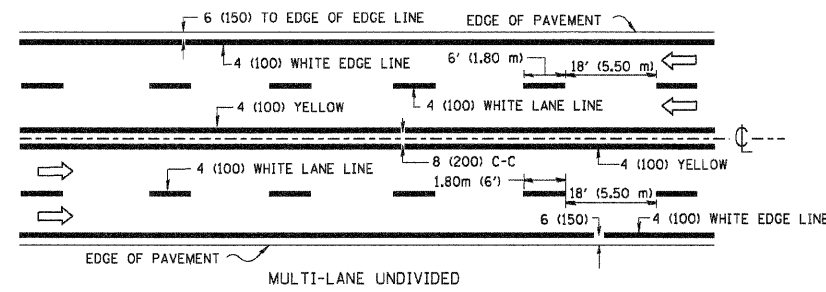
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



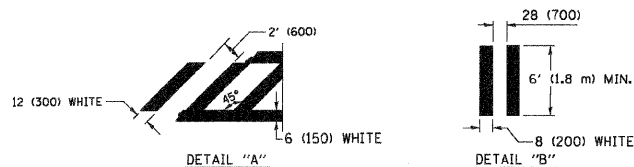
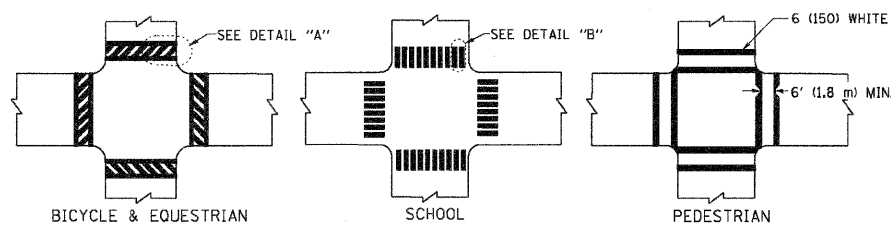
TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	6' (1.80 m) LINE WITH 18' (5.50 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	8 (200) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	8 (200) C-C
FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	6' (1.80 m) LINE WITH 18' (5.50 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) 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' (2.4 m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	6' (1.8 m) LINE WITH 18' (5.50 m) SPACE FOR SKIP-DASH; 8 (200) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4 m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 8 (200) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2'-4" (700) 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°	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	8 (200) 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: 20' (6.1 m) (LESS THAN 30 MPH (50 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)



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

TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STREET MARKING STANDARDS, PRINTED BY CITY OF CHICAGO, DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC.

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

REVISIONS	
NAME	DATE
T. RAMMACHER	12/07/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 CITY OF CHICAGO
 TYPICAL PAVEMENT MARKINGS

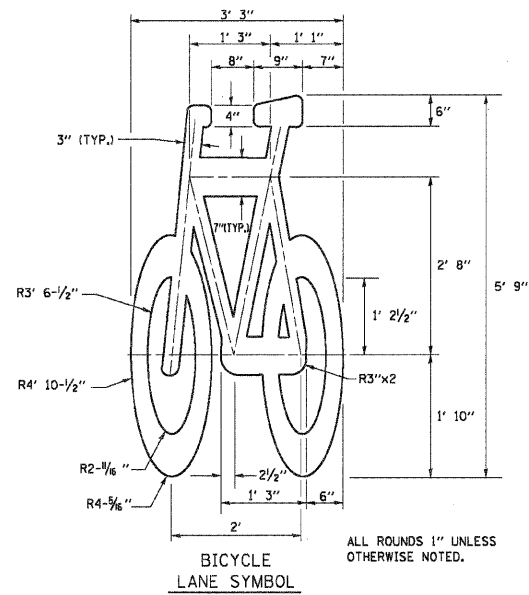
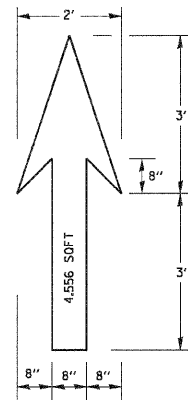
SCALE: NONE

DRAWN BY CADD

CHECKED BY

TC-24

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



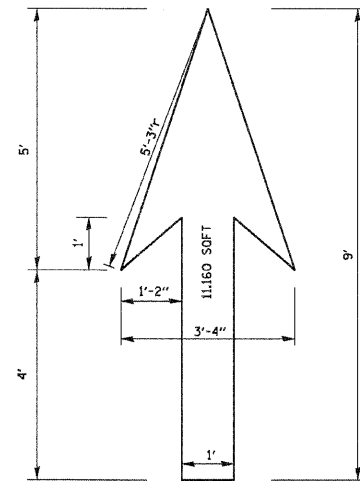
NOTE:
 1.) FOR BIKE LANE SYMBOLS ONLY, USE PRE-FORMED THERMOPLASTIC WITH A MINIMUM THICKNESS OF 90 MILS, MINIMUM SKID RESISTANCE VALUE OF 60 BPN, & A MINIMUM INDEX OF REFRACTION OF 1.50.

2.) THE RESIDENT ENGINEER SHALL CONTACT MR. BEN GOMBERG AT 312-744-8093 AT LEAST ONE CALENDAR WEEK PRIOR TO INSTALLING BIKE LANE SYMBOLS.

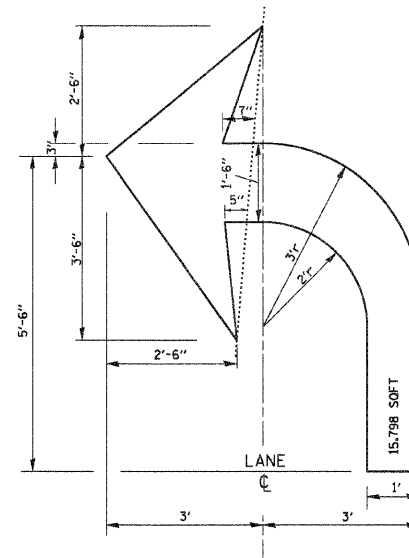
TYPICAL BIKE LANE SYMBOLS
 DRAWING #28

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 USER NAME = bboard1

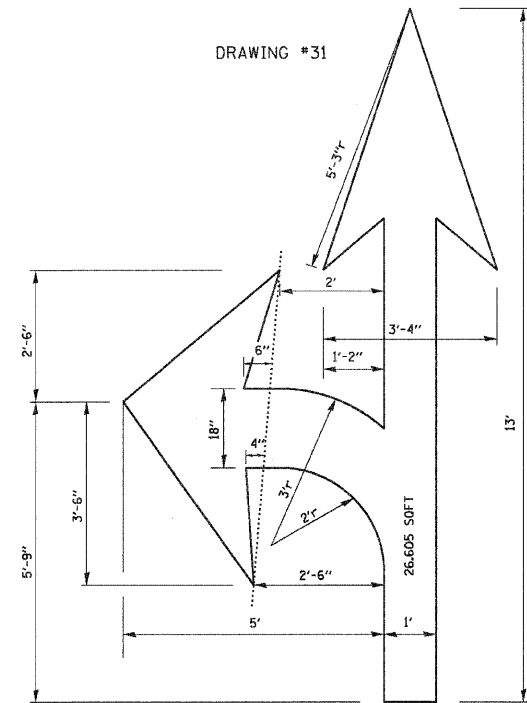
DRAWING #29



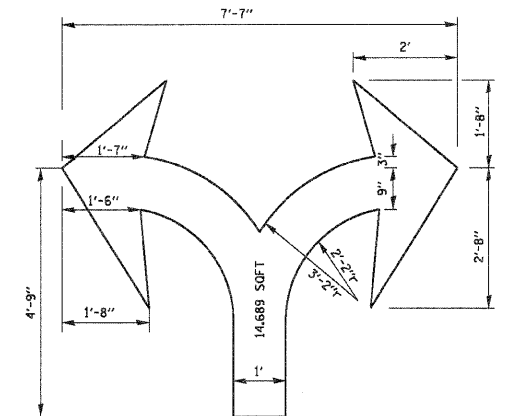
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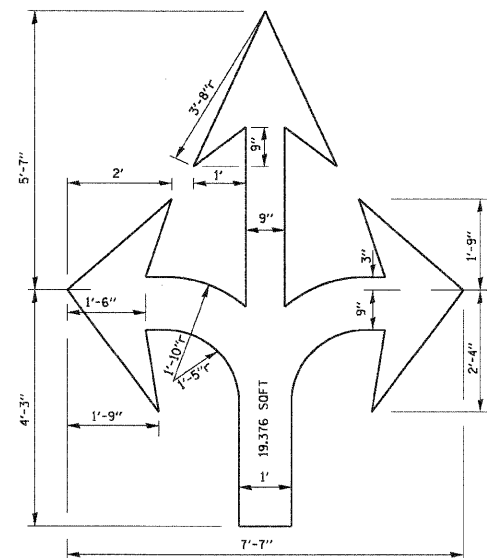
DRAWING #31



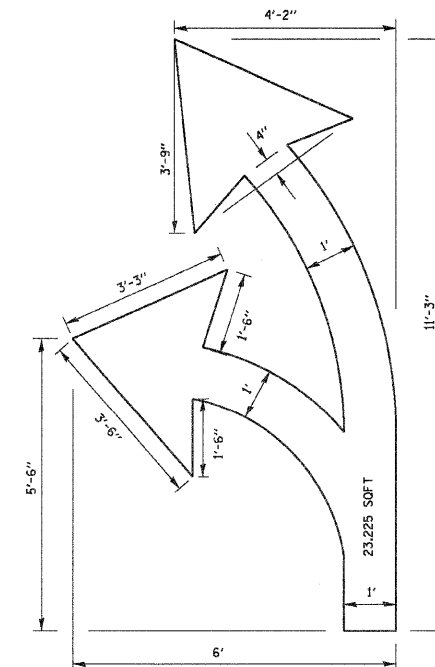
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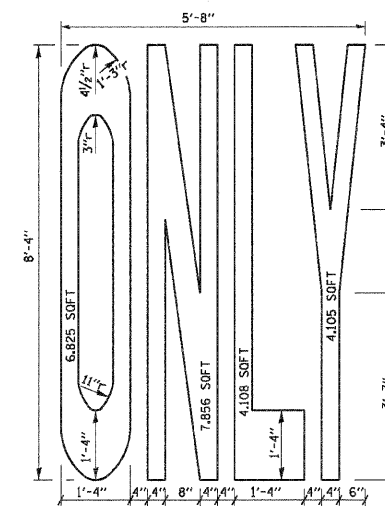
DRAWING #33



DRAWING #34



DRAWING #35



NOTE:
 ALL MARKINGS SHALL BE SOLID WHITE UNLESS OTHERWISE NOTED IN THE PLANS

REVISIONS	
NAME	DATE
T. RAMMACHER	12/07/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
 TYPICAL PAVEMENT
 MARKINGS

SCALE: NONE

DRAWN BY
 CHECKED BY
 TC-24

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

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

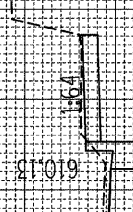
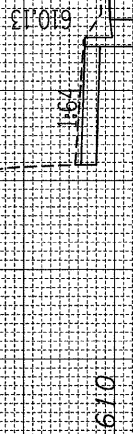
GENOA AVENUE CROSS SECTIONS

45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45

615

PROPOSED CENTERLINE

615



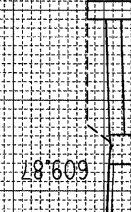
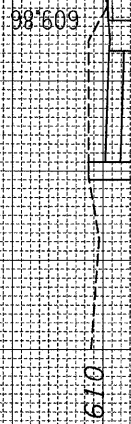
13+50.00

12+50.00

615

PROPOSED CENTERLINE

615



13+00.00

12+77.08

615

PROPOSED CENTERLINE

615

98TH STREET

98TH STREET

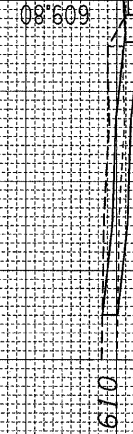
610

610

615

PROPOSED CENTERLINE

615



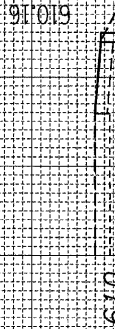
12+50.00

12+12.00

615

PROPOSED CENTERLINE

615



12+12.00

12+12.00

610

610

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	76
STA. 12+06.00 TO STA. 16+17.11				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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

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

GENOA AVENUE CROSS SECTIONS

45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45

615

PROPOSED CENTERLINE

615

RACINE AVENUE

610

RACINE AVENUE

610

605

16 + 17.11 605

615

PROPOSED CENTERLINE

615

609.77

11%

609.64

15%

610

605

16 + 00.00 605

615

PROPOSED CENTERLINE

615

610.0

2.0%

610.50

1.5%

610.04

2.0%

610.64

610

610

15 + 50.00

BRIDGE OMISSION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2222.3B	COOK	77	77
STA. 12+06.00		TO STA. 16+17.11		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		