4-3-09 Letting, Item 178

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74 ~~X~~	1
FED. ROAD DIST. NO.	ILLINOIS			

CONTRACT NO. 60384

74+4=78

D-91-298-97

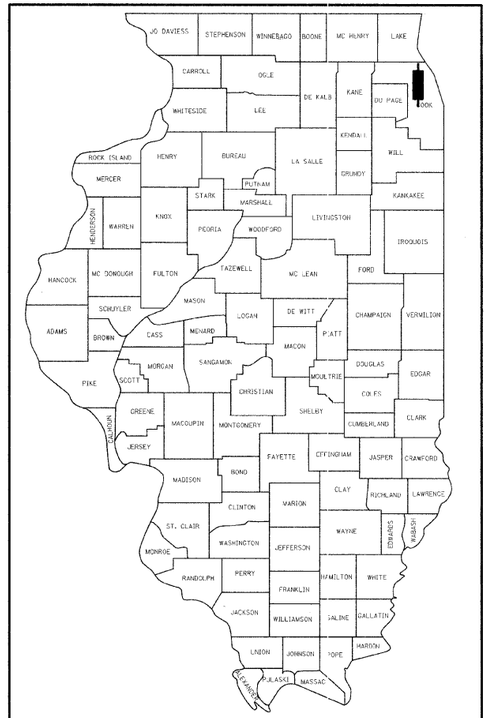
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

SAYRE AVENUE OVER F.A.I. ROUTE 90
SUPERSTRUCTURE REPLACEMENT

SECTION 1414B
PROJECT NO.: ESP-090-4(117)045
COOK COUNTY
C-91-298-97

FOR INDEX OF SHEETS, SEE SHEET NO.2



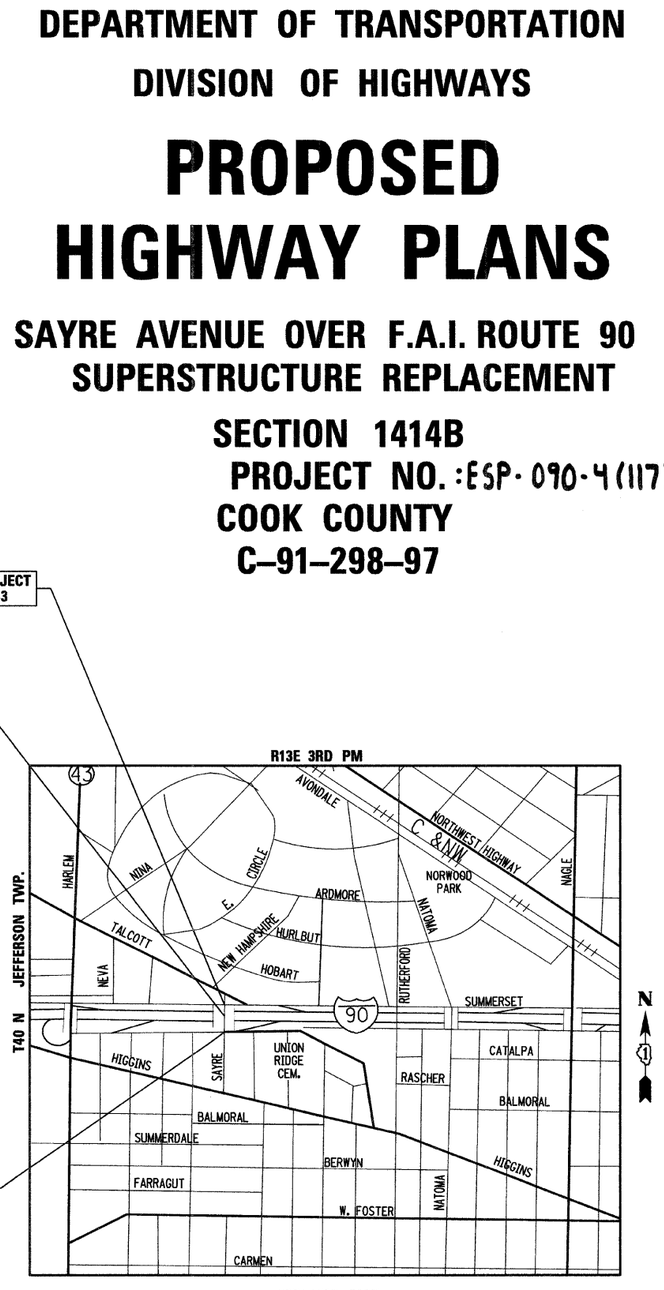
LOCATION OF SECTION INDICATED THUS:- ▬

PROJECT LOCATED IN THE CITY OF CHICAGO

END PROJECT STA. 9+43

℄ STATION 8+02.48
SN 016-1104
SAYRE AVE. BRIDGE OVER
FAI ROUTE 90
BRIDGE SUPERSTRUCTURE
REPLACEMENT AND
SUBSTRUCTURE REPAIR

BEGIN PROJECT STA. 6+57



LOCATION MAP

GROSS & NET LENGTH OF PROJECT = 286.00 LF. = 0.054 MILE

LOCATION MAP SCALE
1" = 1000'
0 1000 2000

TRAFFIC DATA

SAYRE AVENUE

ADT = 7,700 (1998)

POSTED SPEED LIMIT:

SAYRE AVENUE = 30 MPH

I-90 = 55 MPH

100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

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.

FOR UTILITY INFORMATION CONTACT
CHICAGO UTILITY ALERT NETWORK
312-744-7000

PATRICK
ENGINEERING INC.
LISLE, ILLINOIS
FAX: (630) 724-1620
TEL: (630) 795-7200

PAUL M. LOPEZ 062-044095 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

EXP 11-30-09

PATRICK ENGINEERING, INC.
PAUL M. LOPEZ, P.E.
062-044095

Paul M Lopez

DATE: 1-31-08
SIGNATURE AND SEAL APPLY TO DRWG. NOS. 1-18

STATE OF ILLINOIS PAUL M. LOPEZ 081-005231 CHICAGO, ILLINOIS LICENSED STRUCTURAL ENGINEER

EXP 11-30-08

PATRICK ENGINEERING, INC.
PAUL M. LOPEZ, S.E.
081-005231

Paul M Lopez

DATE: 1-31-08
SIGNATURE AND SEAL APPLY TO DRWG. NOS. 30-58

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 31ST 2008

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

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

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

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

BUREAU OF DESIGN - CONSULTANT SERVICE PROJECT MANAGER: BRIAN KUTTAB (847) 705-4431

CONTRACT NO. 60384

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	2
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

INDEX OF SHEETS

STATE STANDARDS

000001-05 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
280001-04 TEMPORARY EROSION CONTROL SYSTEMS
420401-07 BRIDGE APPROACH PAVEMENT
424001-05 CURB RAMPS FOR SIDEWALKS
442201-03 CLASS C AND D PATCHES
515001-03 NAME PLATE FOR BRIDGES
606001-04 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701101-02 OFF ROAD OPERATIONS, MULTILANE, 4.5m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701106-02 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 4.5m (15') AWAY
701311-03 LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY
701400-03 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-05 LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-05 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS > 45 MPH
701446-01 TWO LANE CLOSURE FREEWAY/EXPRESSWAY
701601-03 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701-06 URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-04 LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01 TRAFFIC CONTROL DEVICES
704001-05 TEMPORARY CONCRETE BARRIER
720021-02 SIGN PANELS EXTRUDED ALUMINUM TYPE

GENERAL NOTES

1. PROJECT IS BASED ON 2007 IDOT STANDARD SPECIFICATIONS.

2. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "C.U.A.N." AT 1-312-744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED).

GENERAL NOTES

3. 10 FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS & GUTTERS AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND THE CITY OF CHICAGO.

5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE, OR STORE EQUIPMENT/MATERIALS ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

6. WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 ½INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS AND 1 INCH WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH. WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 3:1 (H:V).

7. WHEN PERFORMING WORK FOR DRAINAGE STRUCTURE ADJUSTMENT (SPECIAL), PLATING OF STRUCTURES WILL NOT BE PERMITTED, FEATHERED ASPHALT TO BE PROVIDED AROUND STRUCTURES. COST CONSIDERED INCLUDED IN THE COST OF THE STRUCTURE ADJUSTMENT.

8. THE EXISTING SIGN PANELS TO BE REMOVED FROM THE BRIDGE WILL NOT BE SALVAGED AND WILL BE PROPERLY DISPOSED OF BY THE CONTRACTOR. COST INCLUDED WITH REMOVE OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED.

9. THE EXISTING HANDRAIL ON THE BRIDGE WILL BE SALVAGED AND WILL BE DELIVERED BY THE CONTRACTOR TO THE IDOT MAINTENANCE FACILITY AT 1101 BIESTERFIELD ROAD, ELK GROVE VILLAGE, IL. 48 HRS ADVANCE NOTICE REQUIRED. TEL. BRIDGE MAINTENANCE YARD AT (847)956-1501. COST FOR DELIVERY, TRANSPORT, UNLOADING, & ALL NECESSARY TASKS TO BE INCLUDED IN THE COST OF REMOVAL OF EXISTING SUPERSTRUCTURES.

10. THE EXISTING PROTECTIVE SHIELD SHALL BE SALVAGED BY THE CONTRACTOR AND DELIVERED TO THE IDOT DISTRICT BRIDGE MAINTENANCE YARD IN ELK GROVE LOCATED AT 1101 BIESTERFIELD ROAD, ELK GROVE VILLAGE, IL 60007. TEL. NUMBER: (847)956-1444 (48 HOURS ADVANCED 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 REMOVAL OF EXISTING SUPERSTRUCTURES.

11. CLASS C PATCHES TYPE I AND TYPE II, LISTED IN THE SUMARY OF QUANTITIES, ARE INTENDED FOR USE BY THE ENGINEER AT LOCATIONS SELECTED IN THE FIELD. PATCH BEFORE MILLING PER IDOT CURRENT POLICY.

12. THIS PROJECT HAS BEEN SIGNED OFF IN-HOUSE FOR SPECIAL WASTE. IF THE PROPOSED SCOPE OF WORK CHANGES OR IF ADDITION ROW/TEMPORARY EASEMENTS ARE REQUIRED, PLEASE CONTACT THE ENVIRONMENT STUDIES UNIT AT (847)705-4101 TO DISCUSS ANY POTENTIAL IMPACTS.

CITY OF CHICAGO NOTES

1. ALL CATCH BASINS IN THE CITY OF CHICAGO MUST MEET THE DEPARTMENT OF SEWERS STANDARDS.

2. PERMITS FROM THE DEPARTMENT OF SEWERS ARE REQUIRED FOR ALL UNDERGROUND STORM, SANITARY OR COMBINED SEWER SYSTEM CONSTRUCTION; AND FOR ALL WORK INVOLVING ADJUSTMENT OF SEWER STRUCTURES. THE DEPARTMENT OF SEWERS PERMIT MUST BE OBTAINED BY A LICENSED SEWER DRAIN LAYER PRIOR TO START OF CONSTRUCTION. THE LICENSED SEWER CONTRACTOR/SUBCONTRACTOR MUST SUBMIT TWO SETS OF PLANS APPROVED BY THE DEPARTMENT OF SEWERS FOR THE ISSUE OF SEWER PERMIT TO SUITE 410, 333 SOUTH STATE STREET, CHICAGO, IL 60604-3971. INSPECTION WILL BE PROVIDED BY THE DEPARTMENT OF SEWERS.

CITY OF CHICAGO NOTES

3. IN CASE OF DAMAGE TO CITY OF CHICAGO SEWERS, PRIVATE AND PUBLIC DRAINS, SEWER STRUCTURES AND/OR BENCH MONUMENTS, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE DEPARTMENT OF SEWERS AT (312) 747-7892 OR (312) 747-7893.

4. BENCH MONUMENT LOCATIONS WITHIN THE LIMITS OF THE IMPROVEMENT CAN BE FROM THE DEPARTMENT OF SEWERS AT 410, 333 SOUTH STATE STREET CHICAGO, IL 60604-3971. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPLACING ANY BENCH MONUMENT DAMAGED OR DESTROYED DURING CONSTRUCTION.

5. SIDEWALK ACCESSIBILITY RAMPS SHALL NOT BE CONSTRUCTED DIRECTLY OVER EXISTING OR PROPOSED DRAINAGE STRUCTURES.

6. ALL BROKEN, CRACKED, WORN OR OTHERWISE DAMAGED OR BICYCLE UNSAFE FRAMES BE REPLACED WITH NEW DEPARTMENT OF SEWERS STANDARD FRAMES AND GRATES OR LIDS. OLD FRAMES AND GRATES OR LIDS SHALL BE DELIVERED TO THE DEPARTMENT OF SEWERS AT 39TH STREET AND ASHLAND AVENUE.

7. PERFORATED LIDS SHALL BE PLACED ON ALL MANHOLES AND CATCH BASINS.

8. CITY OF CHICAGO WATER VALVE VAULTS AND SEWER STRUCTURES SHALL NOT BE CLOSED, COVERED OR OTHERWISE OBSTRUCTED DURING CONSTRUCTION WITHOUT WRITTEN PERMISSION FROM THE CITY OF CHICAGO DEPARTMENT OF WATER AND/OR DEPARTMENT OF SEWERS.

9. CURB AND GUTTER CONSTRUCTION SHALL PROVIDE A MINIMUM CURB HEIGHT OF 75 MM (3")

10. BACKFILL MATERIAL UNDER SIDEWALKS SHALL BE FA-2.

11. THE CONTRACTOR IS RESPONSIBLE FOR THE ADEQUATE PROTECTION OF THE EXISTING SEWERS, DRAIN CONNECTIONS, SEWER STRUCTURES AND BENCH MONUMENTS DURING CONSTRUCTION OF NEW UTILITIES AND/OR ADJUSTMENTS TO EXISTING UTILITIES AND THE USE OF HEAVY EQUIPMENT WITHIN THE LIMITS OF THE PROJECT.

12. MANHOLES, CATCH BASINS AND INLETS MUST BE PROTECTED FROM ENTRY OF ASPHALT/ DEBRIS INTO THE SEWER SYSTEM DURING CONSTRUCTION. THE CONTRACTOR SHALL MARK LOCATIONS OF ALL SEWER STRUCTURES ON THE SIDEWALK BEFORE STARTING PAVEMENT REMOVAL/REPLACEMENT. ADJUSTMENT OF FRAMES AND LIDS OF SEWER STRUCTURES MUST BE COMPLETED PRIOR TO STREET RESURFACING.

13. IN LOCATIONS WHERE THE MAIN SEWER IS NOT BEING REPLACED AND THE EXISTING DRAINAGE FACILITIES ARE DISTURBED OR DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO RESTORE AND REPLACE THE DAMAGED FACILITIES AT HIS/HER EXPENSE TO THE SATISFACTION OF THE DEPARTMENT OF SEWERS. THE SEWER FLOWS MUST BE MAINTAINED AT ALL TIMES.

14. AS-BUILT PLANS MUST BE SUBMITTED SOON AFTER WORK COMPLETION. FINAL PAYMENT SHALL NOT BE MADE TO THE CONTRACTOR UNTIL THE DEPARTMENT OF SEWERS ACKNOWLEDGES RECEIPT OF AS-BUILT PLANS.

COMMITMENTS

1. NONE

REVISIONS NAME	DATE

Rev.

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

INDEX OF SHEETS, STATE STANDARDS, GENERAL NOTES AND COMMITMENTS

SCALE: NONE — DRAWN BY TCK
DATE JAN. 2009 — CHECKED BY PML

PATRICK ENGINEERING INC.
LISLE, ILLINOIS
mplnel(Lisle_R) 1/16/2009 3:04:22 PM a:\idot\987_00\drawings\rdwy\shts\rd\S_Gnote.dgn

LOCATION OF WORK: INTERSTATE I-90 AT SAYRE AVE.-COOK COUNTY

100% FED.
URBAN
X781-2A J000-2A

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODES		
				Rdwy.	Bridge	LIGHTING
Code No.	Item	Unit	Total Qty.	J000-2A		
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	21	21		
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	58	58		
20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	3	3		
20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	3	3		
20101400	NITROGEN FERTILIZER NUTRIENT	POUND	9	9		
20101500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	9	9		
20101600	POTASSIUM FERTILIZER NUTRIENT	POUND	9	9		
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	169		169	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	139	139		
25000210	SEEDING, CLASS 2A	ACRE	0.1	0.1		
25200110	SODDING, SALT TOLERANT	SQ YD	139	139		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	20	20		
28000400	PERIMETER EROSION BARRIER	FOOT	136	136		
28000510	INLET FILTERS	EACH	4	4		
28100105	STONE RIPRAP, CLASS A3	SQ YD	20	20		
28200200	FILTER FABRIC	SQ YD	20	20		
42001300	PROTECTIVE COAT	SQ YD	255	255		
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	238	238		
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	96	96		
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	852	852		
42400800	DETECTABLE WARNINGS	SQ FT	96	96		
44000100	PAVEMENT REMOVAL	SQ YD	96	96		
44000500	COMBINATION CONCRETE CURB AND GUTTER REMOVAL	FOOT	136	136		
44000600	SIDEWALK REMOVAL	SQ FT	852	852		
44000700	APPROACH SLAB REMOVAL	SQ YD	208	208		
44201351	CLASS C PATCHES, TYPE I, 10 1/2 INCH	SQ YD	25	25		
44201355	CLASS C PATCHES, TYPE II, 10 1/2 INCH	SQ YD	25	25		
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1	
50102400	CONCRETE REMOVAL	CU YD	35.8		35.8	
50157300	PROTECTIVE SHIELD	SQ YD	1,672		1,672	
50200100	STRUCTURE EXCAVATION	CU YD	169		169	
50300225	CONCRETE STRUCTURES	CU YD	62.3		62.3	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	589.0		589.0	
50300260	BRIDGE DECK GROOVING	SQ YD	1,243		1,243	
50300300	PROTECTIVE COAT	SQ YD	1,837		1,837	
50401005	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 48 IN.	FOOT	2,314		2,314	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	14148	COOK	74	3
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

100% FED.
URBAN
X781-2A J000-2A

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODES		
				Rdwy.	Bridge	LIGHTING
Code No.	Item	Unit	Total Qty.	J000-2A		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	116,770		116,770	
50800515	BAR SPLICERS	EACH	817		817	
50901730	BRIDGE FENCE RAILING	FOOT	459		459	
51205200	TEMPORARY SHEET PILING	SQ FT	901		901	
51500100	NAME PLATES	EACH	1		1	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	132		132	
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	40		40	
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	20		20	
52100520	ANCHOR BOLTS, 1"	EACH	40		40	
52100530	ANCHOR BOLTS, 1 1/4"	EACH	80		80	
52100540	ANCHOR BOLTS, 1 1/2"	EACH	4		4	
** 55039700	STORM SEWERS TO BE CLEANED	FOOT	118	118		
58700300	CONCRETE SEALER	SQ FT	326		326	
59000200	EPOXY CRACK INJECTION	FOOT	144.6		144.6	
60202505	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID (CITY OF CHICAGO)	EACH	4	4		
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	4	4		
60500050	REMOVING CATCH BASINS	EACH	4	4		
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	48	48		
66400560	CHAIN LINK FENCE, 6' (SPECIAL)	FOOT	124	124		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	17	7	10	
67100100	MOBILIZATION	L SUM	1	0.5	0.5	
70101800	TRAFFIC CONTROL AND PROTECTION,(SPECIAL)	L SUM	1	0.5	0.5	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	30	15	15	
70300220	TEMPORARY PAVEMENT MARKING-LINE 4"	FOOT	498	498		
70300240	TEMPORARY PAVEMENT MARKING-LINE 6"	FOOT	450	450		
70300280	TEMPORARY PAVEMENT MARKING-LINE 24"	FOOT	20	20		
70300510	PAVEMENT MARKING TAPE,TYPE III -LETTERS AND SYMBOLS	SQ FT	70	70		
70300520	PAVEMENT MARKING TAPE,TYPE III, 4"	FOOT	1,560	1,560		
70300550	PAVEMENT MARKING TAPE,TYPE III, 8"	FOOT	1,069	1,069		
70300560	PAVEMENT MARKING TAPE,TYPE III, 12"	FOOT	23	23		

** NON-PARTICIPATING ITEM (100% STATE)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

SUMMARY OF QUANTITIES

SCALE: NONE
DATE JAN. 2009

DRAWN BY TCK
CHECKED BY TWL

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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LOCATION OF WORK: INTERSTATE I-90 AT SAYRE AVE.-COOK COUNTY

100% FED. URBAN — X781-2A J000-2A

Code No.	Item	Unit	Total Qty.	Rdwy. J000-2A	Bridge	LIGHTING
70300570	PAVEMENT MARKING TAPE,TYPE III, 24"	FOOT	95	95		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1,019	1,019		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	750	750		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	300	300		
* 72000300	SIGN PANEL-TYPE 3	SQ FT	529	529		
* 73304000	OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED	FOOT	72	72		
* 73602000	REMOVE OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED	EACH	4	4		
* 78000200	THERMOPLASTIC PAVEMENT MARKING-LINE 4"	FOOT	224	224		
* 78000650	THERMOPLASTIC PAVEMENT MARKING-LINE 24"	FOOT	39	39		
* 78003110	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B-LINE 4"	FOOT	624	624		
* 78003130	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B-LINE 6"	FOOT	207	207		
* 78003180	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B-LINE 24"	FOOT	46	46		
78200100	MONODIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	36	36		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	261	261		
* 81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	320			320
* 81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" x 6" x 4"	EACH	8			8
* 81300530	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" x 10" x 6"	EACH	4			4
* 81300730	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 16" x 14" x 6"	EACH	4			4
* 81700110	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 1/C NO.10	FOOT	1,784			1,784
* 81800300	AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE	FOOT	370			370
* 81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	320			320
* 82107100	UNDERPASS LUMINAIRE, 70 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	8			8
* 83057350	LIGHT POLE, WOOD, 60 FOOT, CLASS 4	EACH	4			4
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	0.5	0.5	
** Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	5	5		
Z0018800	DRAINAGE SYSTEM	L SUM	1		1	
Z0018940	DRILL EXISTING MANHOLE OR HANDHOLE	EACH	8			8
Z0022800	FENCE REMOVAL	FOOT	124	124		
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	0.5	0.5	
Z0065730	SLOPE WALL SLURRY PUMPING	CU YD	10.7		10.7	
△ Z0076600	TRAINEES	HOUR	500	500		
* X0322141	REMOVE TEMPORARY WOOD POLE	EACH	4			4
* X0322194	POLYMER MODIFIED PORTLAND CEMENT MORTAR	SQ FT	60		60	
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	30	30		
* X0322683	CONCRETE FOUNDATION 24" DIA.	FOOT	36			36

△ TRAINEES Y080

** NON PARTICIPATING (100% STATE)

100% FED. URBAN — X781-2A J000-2A

Code No.	Item	Unit	Total Qty.	Rdwy. J000-2A	Bridge	LIGHTING
* X0322689	POLE, STEEL, ANCHOR BASE, 10" DIA., 7-GAUGE, 34'-6"	EACH	4			4
* X0322695	MAST ARM, STEEL, STREET LIGHTING, 12 FT.	EACH	6			6
* X0322700	FUSE, IN-LINE, 10 AMP	EACH	12			12
* X0323080	DRAINAGE SCUPPERS, DS-12	EACH	16		16	
* X0323574	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	7			7
* X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES	SQ FT	300		300	
* X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES	SQ FT	519		519	
* X0325494	GALVANIZED STEEL CONDUIT IN TRENCH, 2" DIA., SCH. 40	FOOT	20			20
* 81900302	TRENCH AND BACKFILL WITH SCREENINGS OR SAND	FOOT	20			20
* X0329888	REMOVE EXISTING STREET LIGHTING EQUIPMENT	L SUM	1			1
* X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	0.5	0.5	
* 70106800	CHANGEABLE MESSAGE SIGN	CAL MO	4	4		
* 81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	140			140
* 81100320	CONDUIT ATTACHED TO STRUCTURE, 1" DIA., GALVANIZED STEEL (PVC COATED)	FOOT	181			181
* 81200230	CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	677			677
* X8160370	UNIT DUCT, WITH 3-1/C NO. 4 AND 1/C NO. 6 GROUND, 600 V (EPR - TYPE RHW), 1 1/4" DIA., POLYETHYLENE	FOOT	372			372
* X8210305	PROTECTION AND MAINTENANCE OF EXISTING UNDERPASS LIGHTING	L SUM	1			1
* X8210450	LUMINAIRE, STREET LIGHTING, HIGH PRESSURE SODIUM VAPOR, 310 WATT, 240 VOLT	EACH	6			6
* 84200600	REMOVAL OF EXISTING LIGHTING UNIT, NO SALVAGE	EACH	8			8
* X0326326	CABLE IN CONDUIT, TRIPLEX, 2-1/C NO. 6 AND 1-1/C NO.8 GROUND	FOOT	558			558
* X0326327	POLE, STEEL, ANCHOR BASE, 8-1/2" DIAMETER, 7-GAUGE, 32'-6"	EACH	2			2
* X0326324	REMOVE AND REPLACE WEATHER STATION SENSORS	L SUM	1	1		

* SPECIALTY ITEM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	4

STA. TO STA.

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

CONTRACT NO. 60384

REVISIONS: NAME | DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

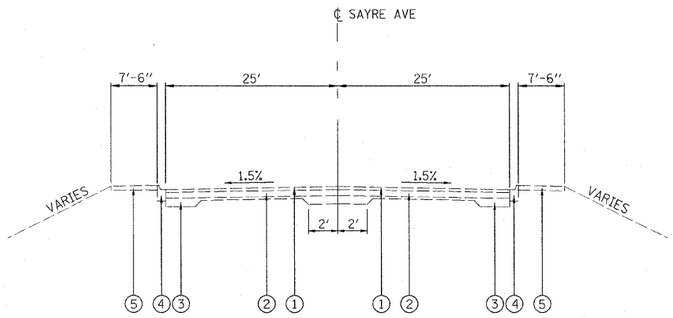
SUMMARY OF QUANTITIES

SCALE: NONE
DATE JAN. 2009
DRAWN BY TCK
CHECKED BY PML

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	5
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

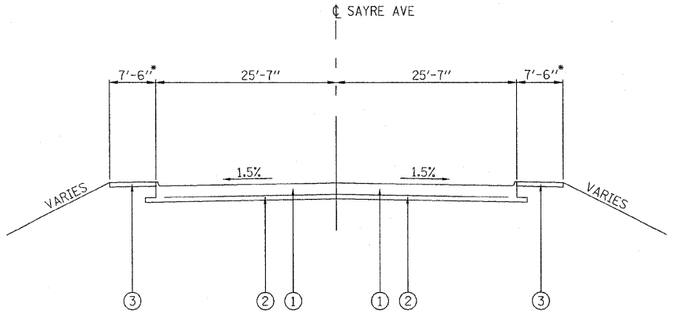
CONTRACT NO. 60384



EXISTING TYPICAL SECTION
SAYRE AVE

LEGEND

1. 3"± BITUMINOUS PAVEMENT
2. 10½" PCC BRIDGE APPROACH PAVEMENT
3. PCC EDGE BEAM
4. CURB & GUTTER
5. SIDEWALK

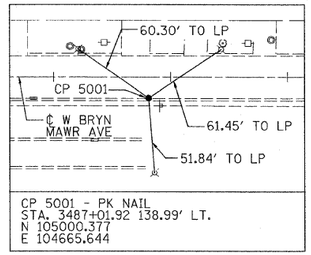


* MATCH EXISTING

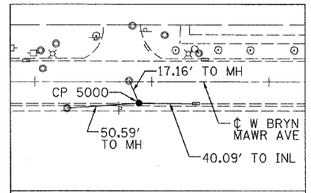
PROPOSED TYPICAL SECTION
SAYRE AVE

LEGEND

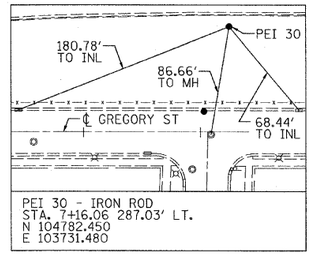
1. 15" PCC BRIDGE APPROACH PAVEMENT (STD. 420401)
2. 4" SUBBASE GRANULAR MATERIAL, TYPE A
3. SIDEWALK



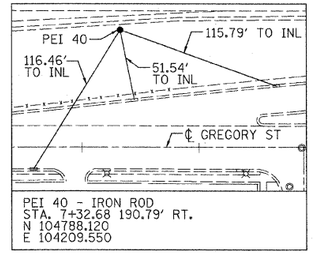
CP 5001 - PK NAIL
STA. 3487+01.92 138.99' LT.
N 105000.377
E 104665.644



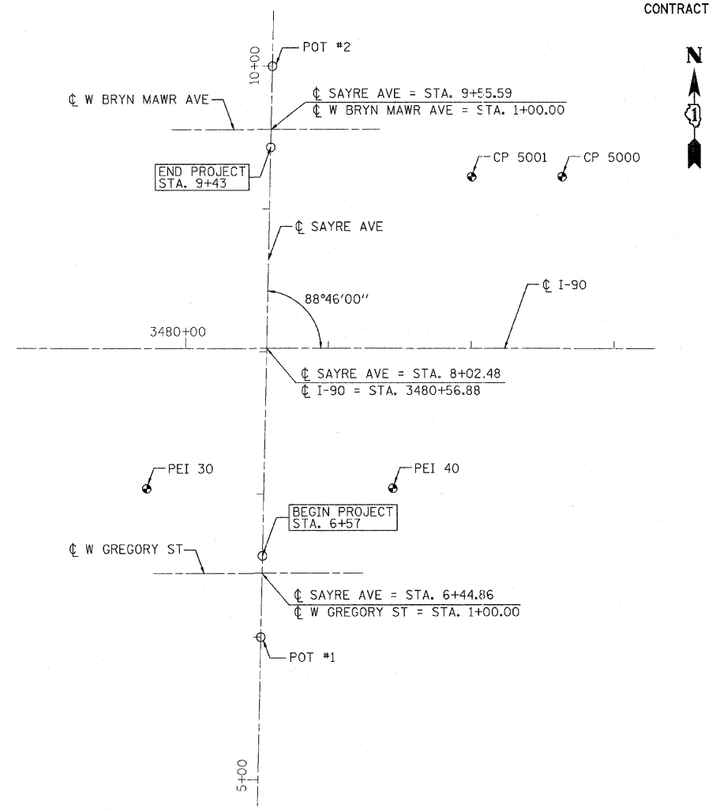
CP 5000 - PK NAIL
STA. 3490+36.27 139.07' LT.
N 104999.990
E 104999.990



PEI 30 - IRON ROD
STA. 7+16.06 287.03' LT.
N 104782.450
E 103731.480



PEI 40 - IRON ROD
STA. 7+32.68 190.79' RT.
N 104788.120
E 104209.550



SAYRE AVE COORDINATE TABLE		
ALIGNMENT POINT	NORTHING	EASTING
POT #1 STA. 6+00.00	104659.844	104015.772
POT #2 STA. 10+00.00	105059.739	104024.934

SIDE ROAD COORDINATE TABLE		
LOCATION	NORTHING	EASTING
℄ SAYRE AVE = STA. 6+44.86 ℄ W GREGORY ST = STA. 1+00.00	104704.696	104016.799
℄ SAYRE AVE = STA. 8+02.48 ℄ I-90 = STA. 3480+56.88	104862.274	104020.409
℄ SAYRE AVE = STA. 9+55.59 ℄ W BRYN MAWR AVE = STA. 1+00.00	105015.340	104023.916

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

ALIGNMENT, TIES &
TYPICAL SECTIONS

SCALE: NONE
DATE JAN. 2008

DRAWN BY MJP
CHECKED BY PML

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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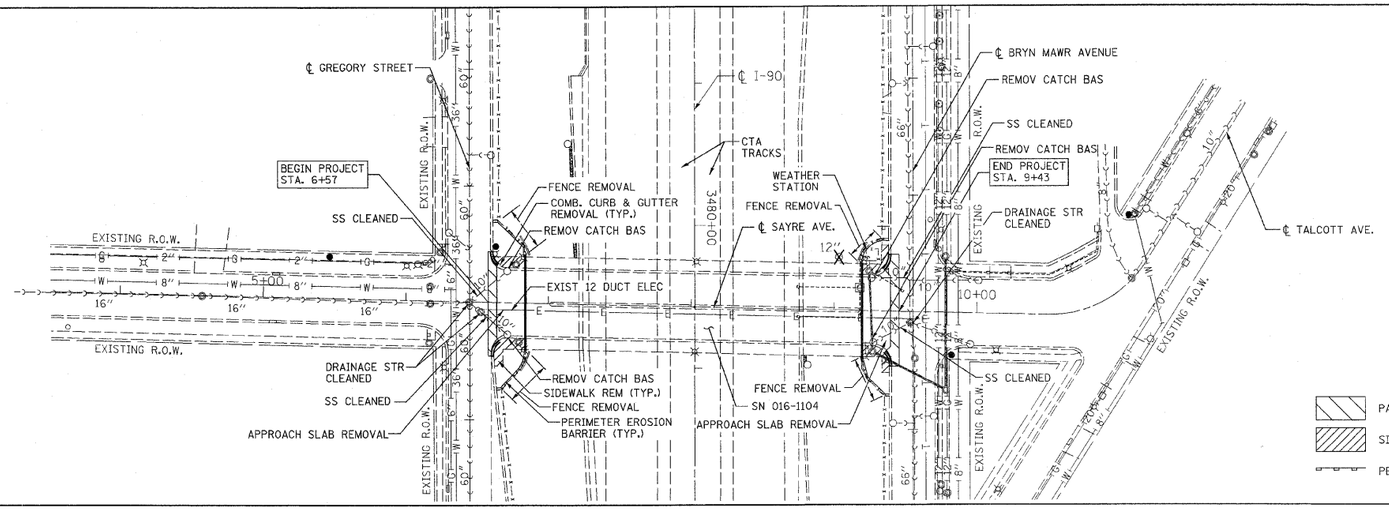
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	6
STA. 6+57		TO STA. 9+43		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



NOTES:

1. FOR LIGHTING REMOVAL SEE LIGHTING PLANS

PAVEMENT REMOVAL

SIDEWALK REMOVAL

PERIMETER EROSION BARRIER

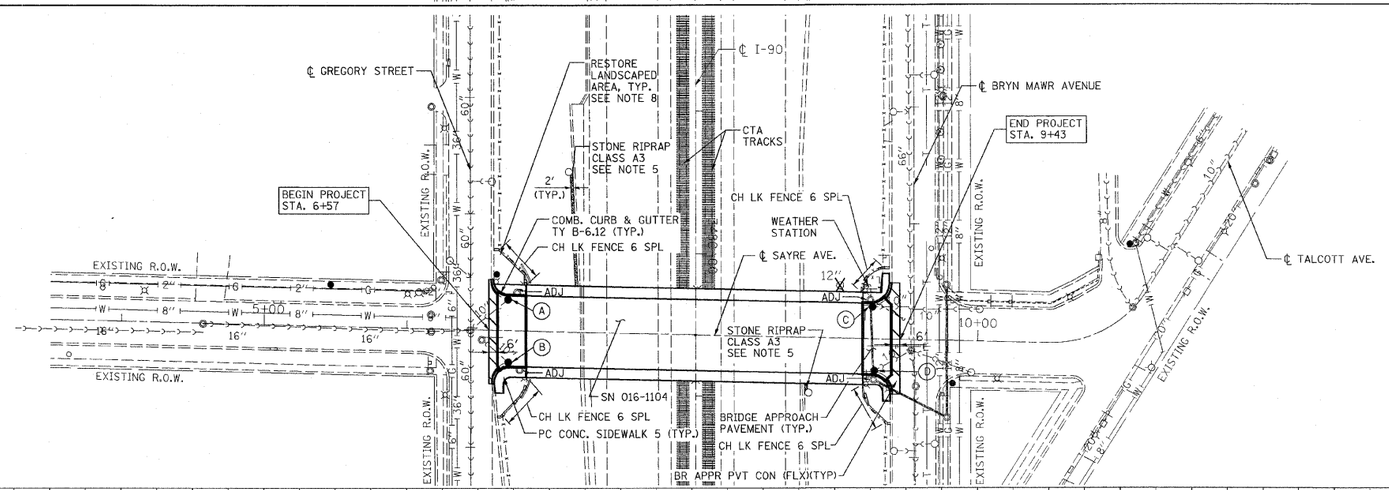
EXISTING ROADWAY PLAN

Ⓐ STR: CB TA 4D T1F OL (CHGO)
STA/OFF: 6+73.09/24.0' LT
T/F: 644.61
INV: MATCH EXISTING

Ⓑ STR: CB TA 4D T1F OL (CHGO)
STA/OFF: 6+72.65/24.0' RT
T/F: 644.61
INV: MATCH EXISTING

Ⓒ STR: CB TA 4D T1F OL (CHGO)
STA./OFF: 9+25.84/24.0' LT
T/F/: 646.57
INV: MATCH EXISTING

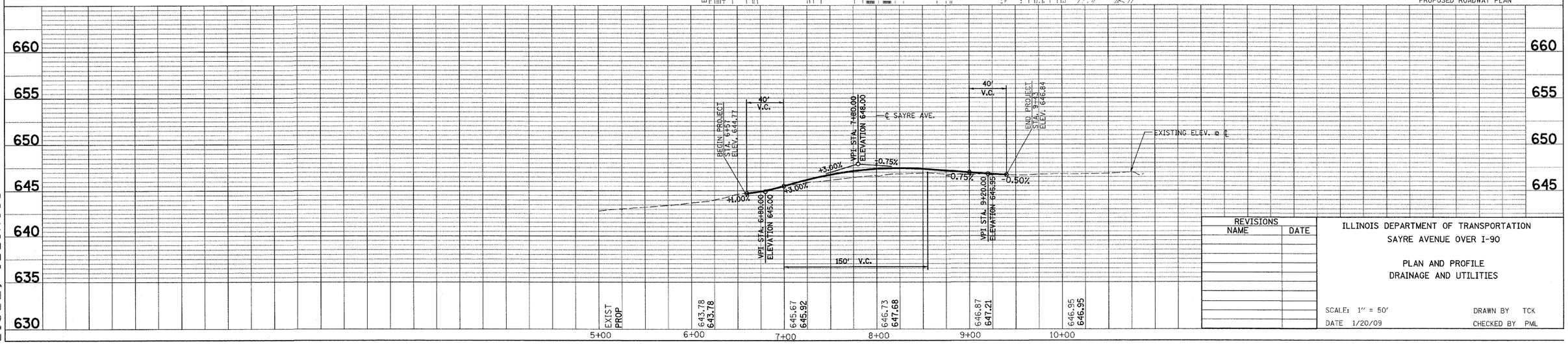
Ⓓ STR: CB TA 4D T1F OL (CHGO)
STA/OFF: 9+24.98/24.0' RT
T/F: 646.57
INV: MATCH EXISTING



NOTES:

1. CONSTRUCT PCC SIDEWALK TO MATCH EXISTING AND AS DIRECTED BY THE ENGINEER
2. CONSTRUCT SIDEWALK HANDICAP RAMPS WITH DETECTABLE WARNINGS PER IDOT ADA STANDARDS
3. EXTEND STORM SEWERS WITH EXTRA STRENGTH VITRIFIED CLAY PIPE AS REQUIRED TO MEET PROPOSED CATCH BASINS
4. EXISTING SAYRE AVE. PAVEMENT TO BE REMOVED IS COMPRISED OF 10" PCC AND 3" BITUMINOUS MATERIALS
5. STONE RIPRAP WITH FILTER FABRIC SHALL BE PLACED FROM THE EXISTING BRIDGE SLOPEWALL TO THE EXISTING DRAINAGE STRUCTURE AND AS DIRECTED BY THE ENGINEER. THE THICKNESS OF THE RIPRAP WILL BE ONE (1) FOOT.
6. FOR LIGHTING IMPROVEMENTS SEE LIGHTING PLANS
7. CHAIN LINK FENCE 6 SPL SHALL BE CONSTRUCTED IN THE SAME LOCATION AS THE EXISTING FENCE THAT WAS REMOVED AND AS DIRECTED BY THE ENGINEER
8. TOPSOIL AND SODDING, SALT TOLERANT TO BE APPLIED AT EACH BRIDGE QUADRANT

PROPOSED ROADWAY PLAN



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

PLAN AND PROFILE
DRAINAGE AND UTILITIES

SCALE: 1" = 50'
DATE 1/20/09

DRAWN BY TCK
CHECKED BY PML

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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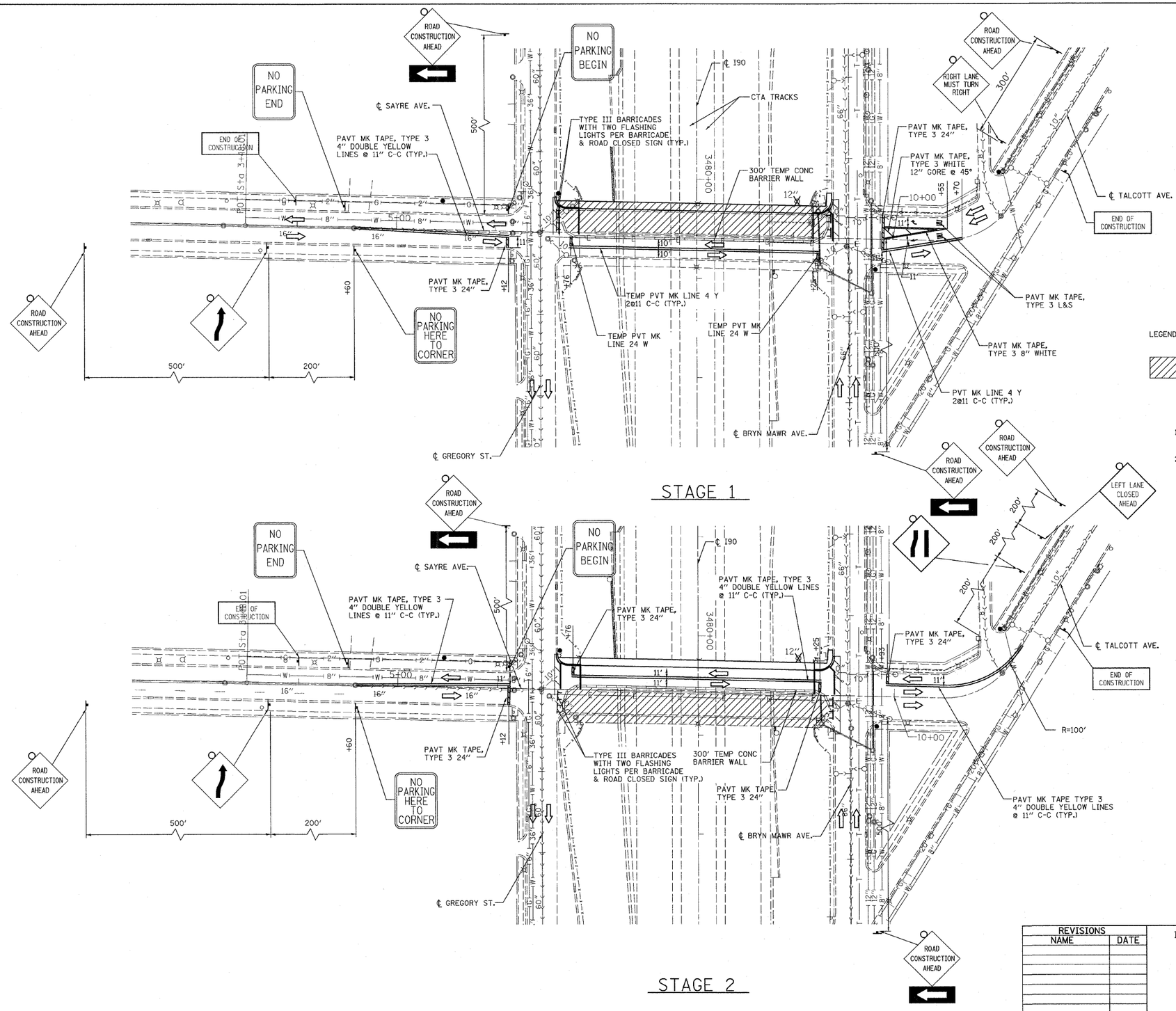
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	7
STA. 4+50	TO STA. 11+00			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



LEGEND:

WORK ZONE

NOTES:

1. FOR TYPICAL SECTIONS ACROSS BRIDGE SEE BRIDGE PLANS
2. NUMBER OF TY III BARRICADES, TEMPORARY CONCRETE BARRIERS WILL BE AS DIRECTED BY ENGINEER FOR PROPER CLOSURE

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL STAGES 1 & 2

SCALE: 1"=50' DRAWN BY TCK
DATE DEC. 2001 CHECKED BY TWL

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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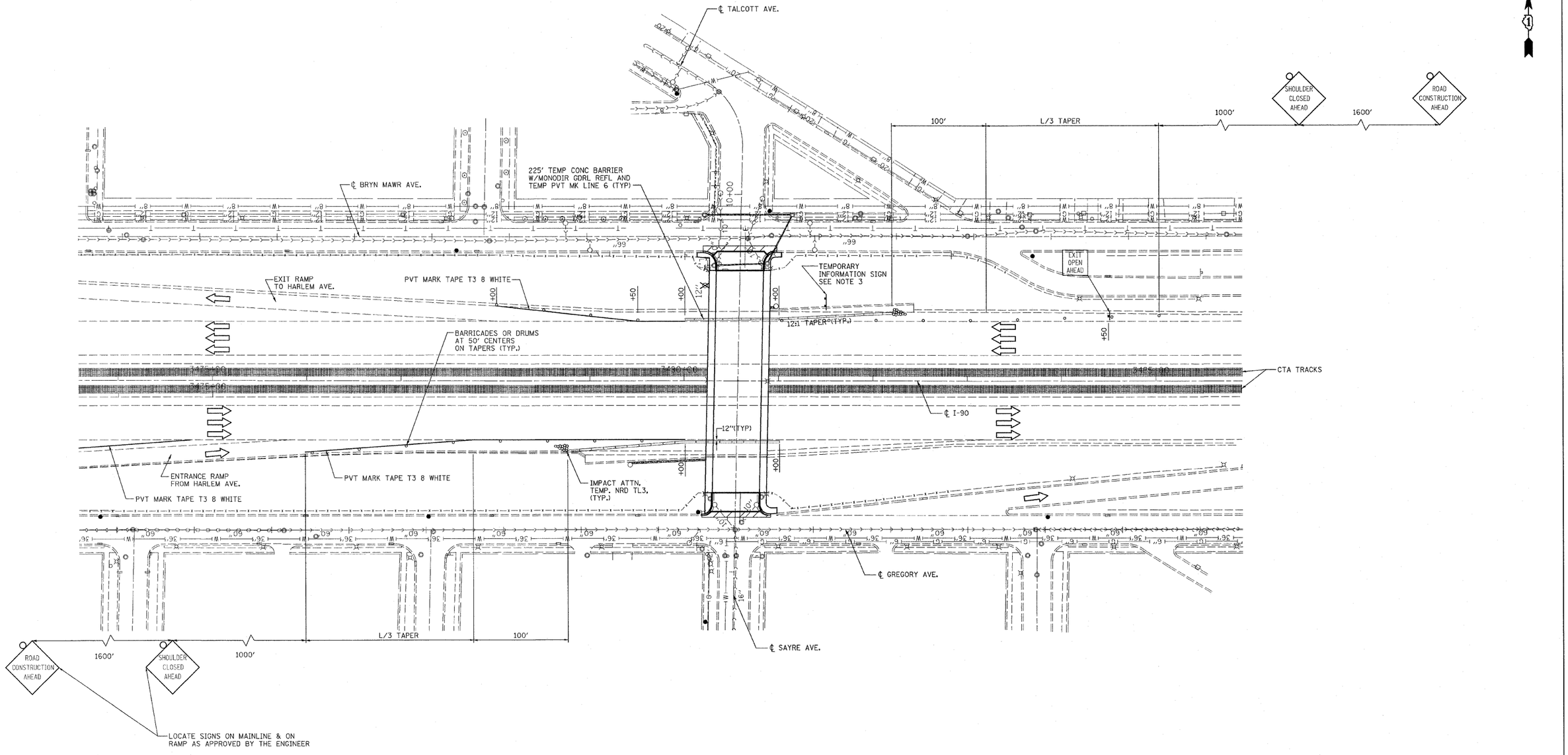
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	8
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

NOTES:

1. FOR ADDITIONAL INFORMATION ON SHOULDER CLOSURE ON I-90 SEE SHEET TC-17
2. FOR ADDITIONAL INFORMATION ON EXIT RAMP TO HARLEM AVE. SEE IDOT STD 701411
3. THE TEMPORARY INFORMATION SIGN SHALL BE PLACED AT A LOCATION AS APPROVED BY THE ENGINEER.



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL I-90 SHOULDER CLOSURE

SCALE: 1"=50' DRAWN BY TCK
DATE DEC. 2001 CHECKED BY TWL

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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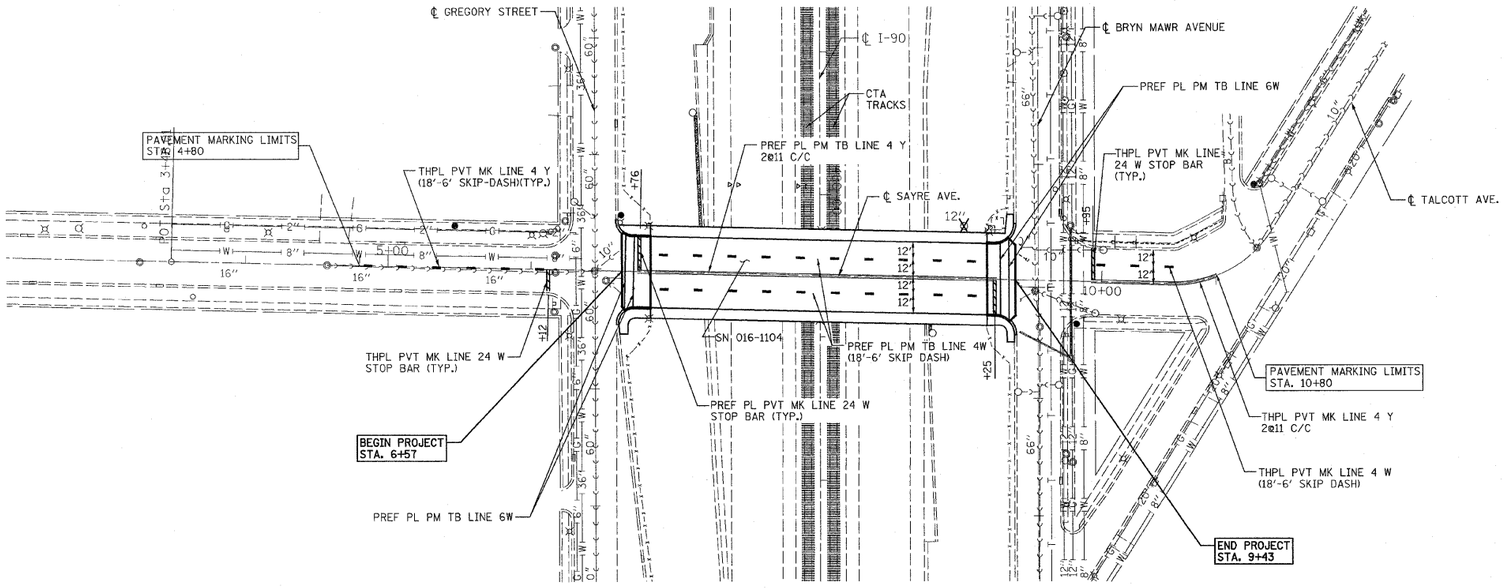
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	9
STA. 6+57		TO STA. 9+43		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



NOTES:

1. ALL PAVEMENT MARKINGS WILL BE PER CDOT STANDARDS.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

PAVEMENT MARKINGS

SCALE: 1"=50' DRAWN BY TCK
DATE DEC. 2001 CHECKED BY TML

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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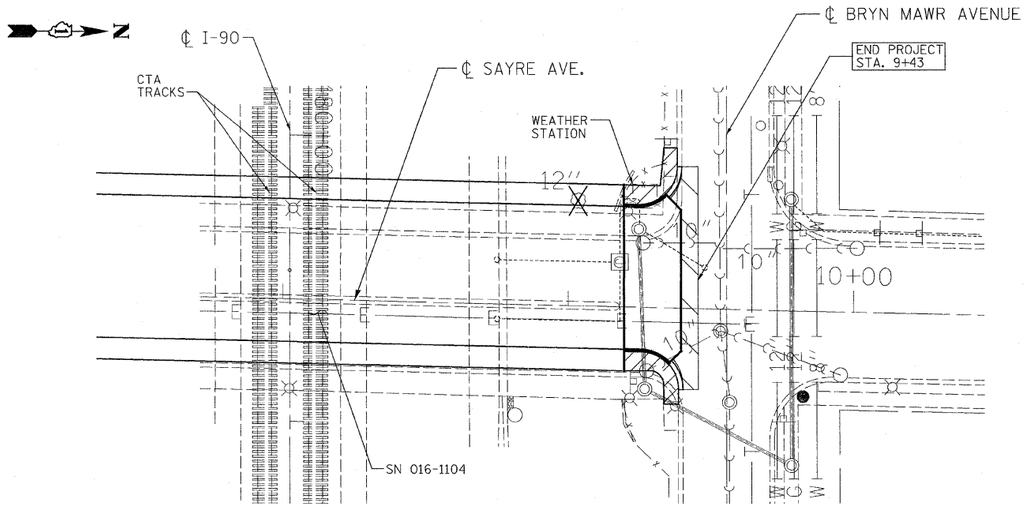
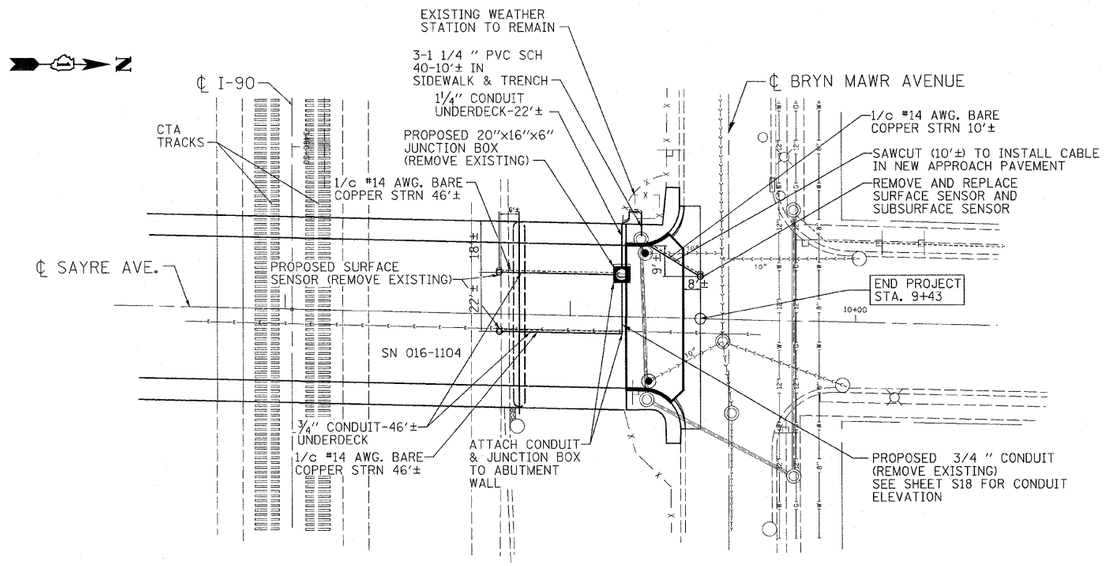
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	10
STA.	TO STA.			
FED. ROAD DIST. NO.7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



PLAN VIEW

EXISTING ROADWAY PLAN
PROPOSED ROADWAY PLAN



PLAN VIEW

NOTE: ALL WORK ON THIS SHEET IS INCLUDED IN COST OF REMOVE AND REPLACE WEATHER STATION SENSORS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

WEATHER STATION SENSOR PLAN

SCALE: 1"=25'
DATE DEC. 2001
DRAWN BY TCK
CHECKED BY PML

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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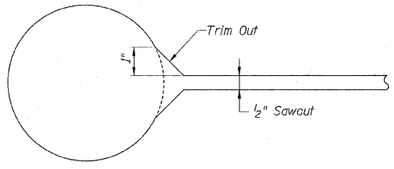
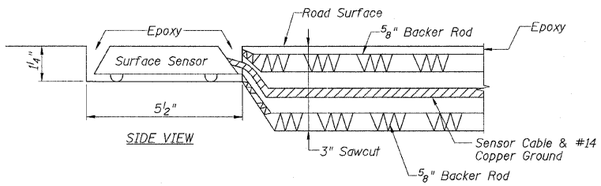
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

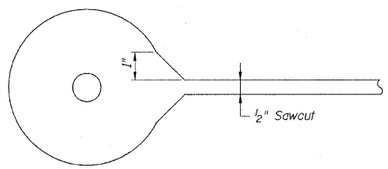
CONTRACT NO. 60384



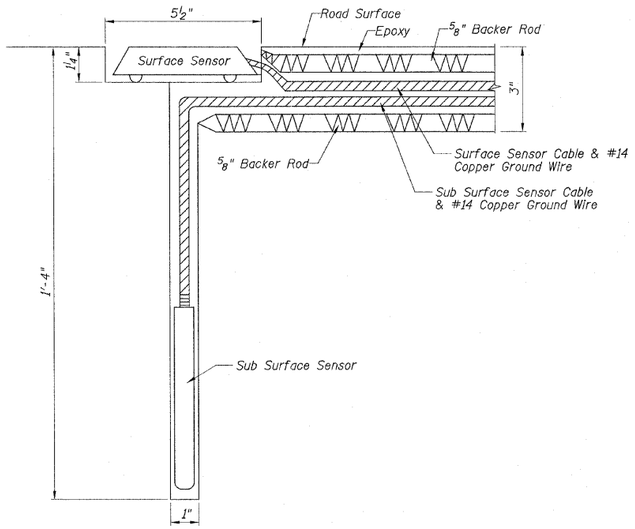
TOP VIEW OF REMOVED ROAD SURFACE



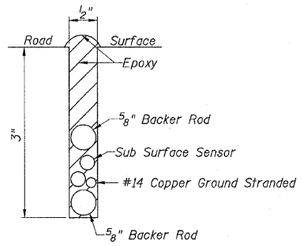
SURFACE SENSOR DETAIL
(In Road Surface)



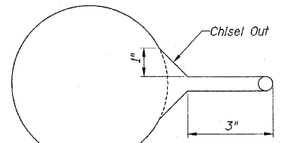
TOP VIEW OF REMOVED ROAD SURFACE



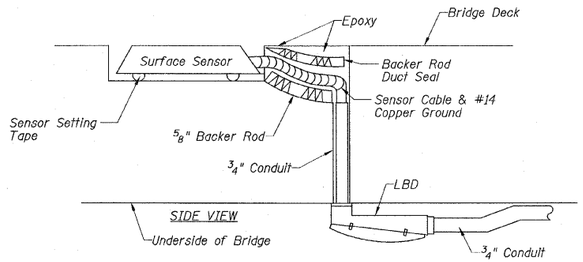
SURFACE AND SUB SURFACE SENSORS DETAIL



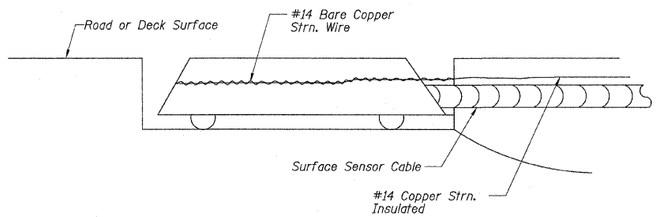
SAWCUT DETAIL
(Cross-Section)



TOP VIEW OF REMOVED ROAD SURFACE



SURFACE SENSOR DETAIL
(In Bridge Deck)



SURFACE SENSOR GROUNDING DETAIL

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SAYRE AVENUE OVER I-90

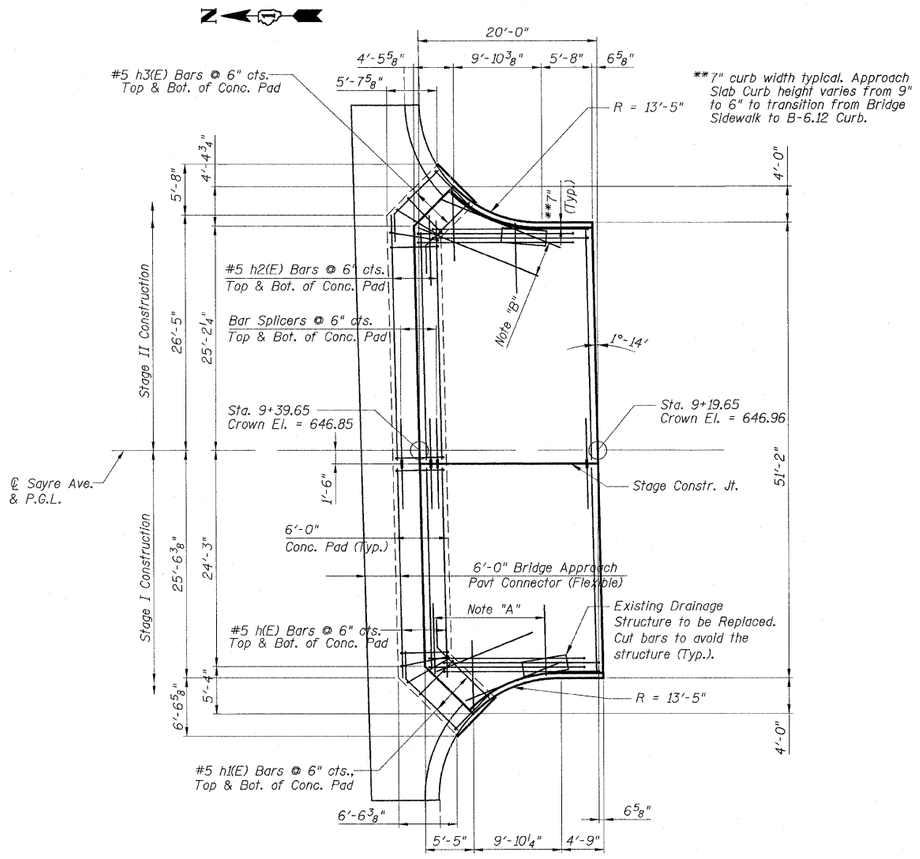
WEATHER STATION SENSOR DETAILS

SCALE: NONE DRAWN BY M. Belton

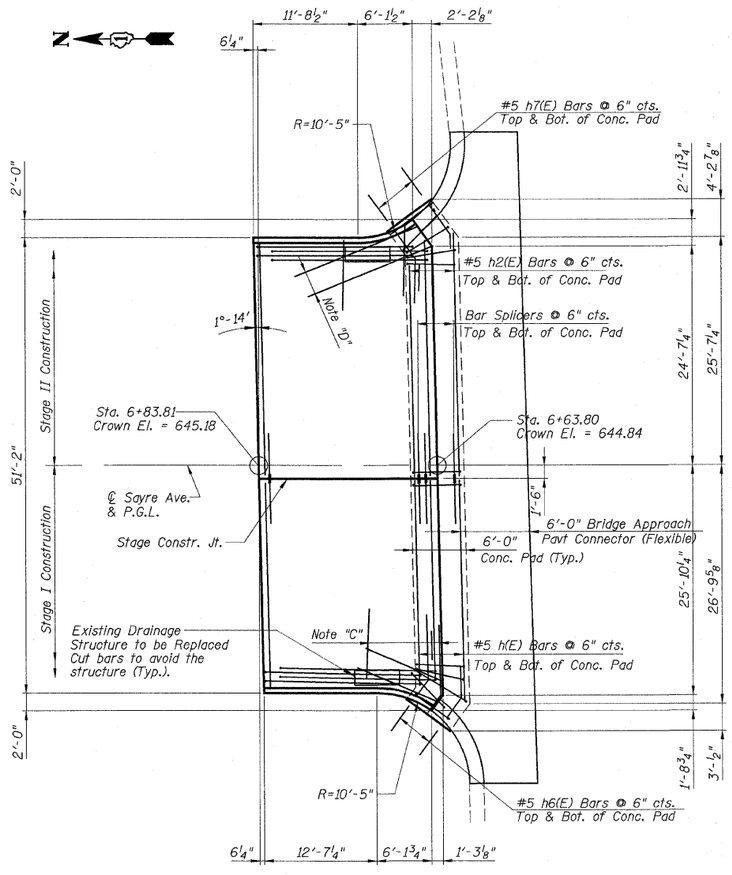
DATE DEC. 2007 CHECKED BY G. Hatlestad

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	12
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

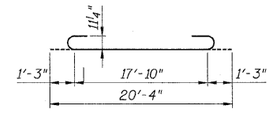
CONTRACT NO. 60384



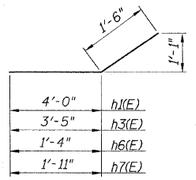
NORTH BRIDGE APPROACH PAVEMENT PLAN



SOUTH BRIDGE APPROACH PAVEMENT PLAN



BAR a(E)



NOTES:

FOR ADDITIONAL DETAILS SEE IDOT STANDARD DRAWING 420401.

"A" 5-#4 b4(E) Bars, 7'-0" long, @ ±4'-0" cts., Top of Slab
& 16-#5 b5(E) Bars, 7'-6" long, @ 12" cts., Bottom of Slab
(Typ. N. Bridge Appr. Pav't.)

"B" 6-#5 a4(E) Bars, 10'-3" long, @ 12" cts., Top of Slab
& 12-#7 a5(E) Bars, 11'-6" long, @ 6" cts., Bottom of Slab
(Typ. N. Bridge Appr. Pav't.)

"C" 3-#4 b6(E) Bars, 7'-0" long, @ ±4'-0" cts., Top of Slab
& 9-#5 b5(E) Bars, 7'-6" long, @ 12" cts., Bottom of Slab
(Typ. S. Bridge Appr. Pav't.)

"D" 4-#5 a4(E) Bars, 10'-3" long, @ 12" cts., Top of Slab
& 8-#7 a5(E) Bars, 11'-6" long, @ 6" cts., Bottom of Slab
(Typ. S. Bridge Appr. Pav't.)

BILL OF MATERIAL

	Item	Unit	Quantity
*	Bridge Approach Pavement (Special)	Sq. Yd.	238
	Bridge Approach Pavement Connector (FLX)	Sq. Yd.	96

* See Special Provisions

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

BRIDGE APPROACH
PAVEMENT (SPECIAL)

SCALE: NONE — DRAWN BY RJC
DATE DEC. 2001 — CHECKED BY GJH

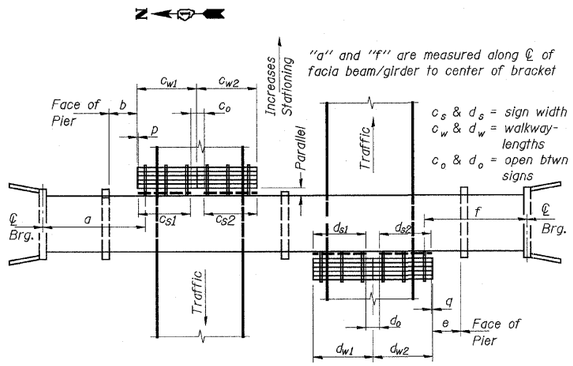
PATRICK ENGINEERING INC.
LISLE, ILLINOIS

mplnelli.sle.pl
1/5/2009 5:52:34 PM c:\idot\987_b0\drawings\rdwy\shts\Rd\apprpvt.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	13
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

*For Sign Support spacing see Sheet S8.

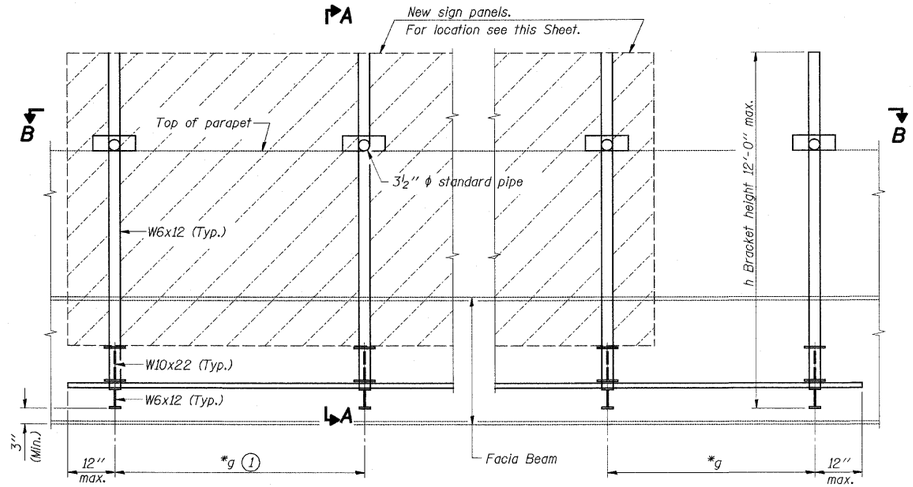


PLAN

(For Sign Skew ≤ 15°, all brackets constant)

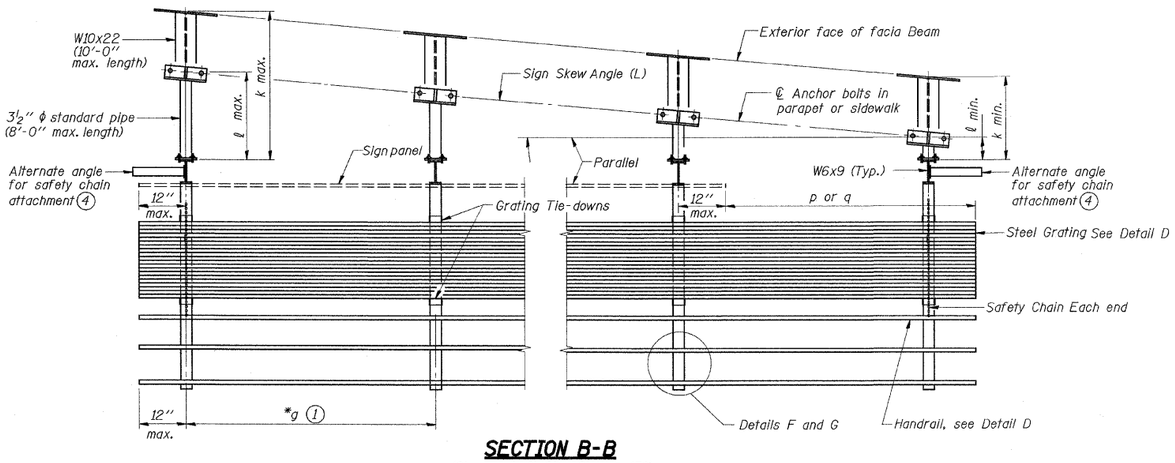
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath structure varies.)



TYPICAL FRONT ELEVATION

(With lights, safety chain and handrail omitted for clarity.)



SECTION B-B

(Shown: Left Sign Skew >15°)

Structure Number	Sign Skew Angle (L) or (R)	Bridge Station	Bridge Structure Number	Contract Route Designation	a	b	c_{s1}	c_o	c_{s2}	c_{w1}	c_{w2}	d_{s1}	d_o	d_{s2}	d_{w1}	d_{w2}	e	f	No. of Brackets (Total)	p	q	Total Grating/ Handrl. Lengths (c_w + d_w)
1B016I090R081.5	0.0	3480+56.88	016-1104	F.A.I. RT. 90								15'-0"	6'-0"	14'-0"	18'-0"	17'-0"	9'-0"	45'-3"	8		0'-0"	36'-6"
1B016I090L081.5	0.0	3480+56.88	016-1104	F.A.I. RT. 90	51'-9"	11'-3"	17'-0"	5'-0"	15'-0"	19'-6"	17'-6"								9	0'-0"		38'-8"

Dimensions a, b, e, f & g may vary as approved by the Engineer, see (1).
When c_w < c_s and/or d_w < d_s, use alternate brackets without walkway supports where applicable, see (3).

GENERAL NOTES

SPECIFICATIONS:

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications") (2)

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

MINIMUM CLEARANCE: 3" greater than bridge members at all locations. (All Obstructions)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 Structural Welding Code (Steel) and the Standard Specifications.

MATERIALS: All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.
All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 (M183, M223 Gr. 50.).

HIGH STRENGTH BOLTS: All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: All-threaded rod conforming to ASTM A307, ¾" ϕ x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

(1) Bracket spacing g ≤ 6'-0" max. Spacing shall be uniform if possible but may vary ±6" to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.
(2) Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
(3) Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items.
Limits of payment are based on grating length (cw, dw) unless otherwise specified.
For Section A-A and dimensions k & ℓ, see Sheet 14.
For Safety Chain Details and Details D, F and G, see Sheet 16.
(4) If walkway bracket at safetey chain loation is behind sign, add angle to bracket. See detail on Sheet 16.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Overhead Sign Structure - Bridge Mounted	Foot	72
Sign Panel Type 3	Sq. Ft.	529

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

BRIDGE MOUNTED SIGN STRUCTURES

SCALE: NONE
DATE 1/20/09
DRAWN BY RWK
CHECKED BY PML

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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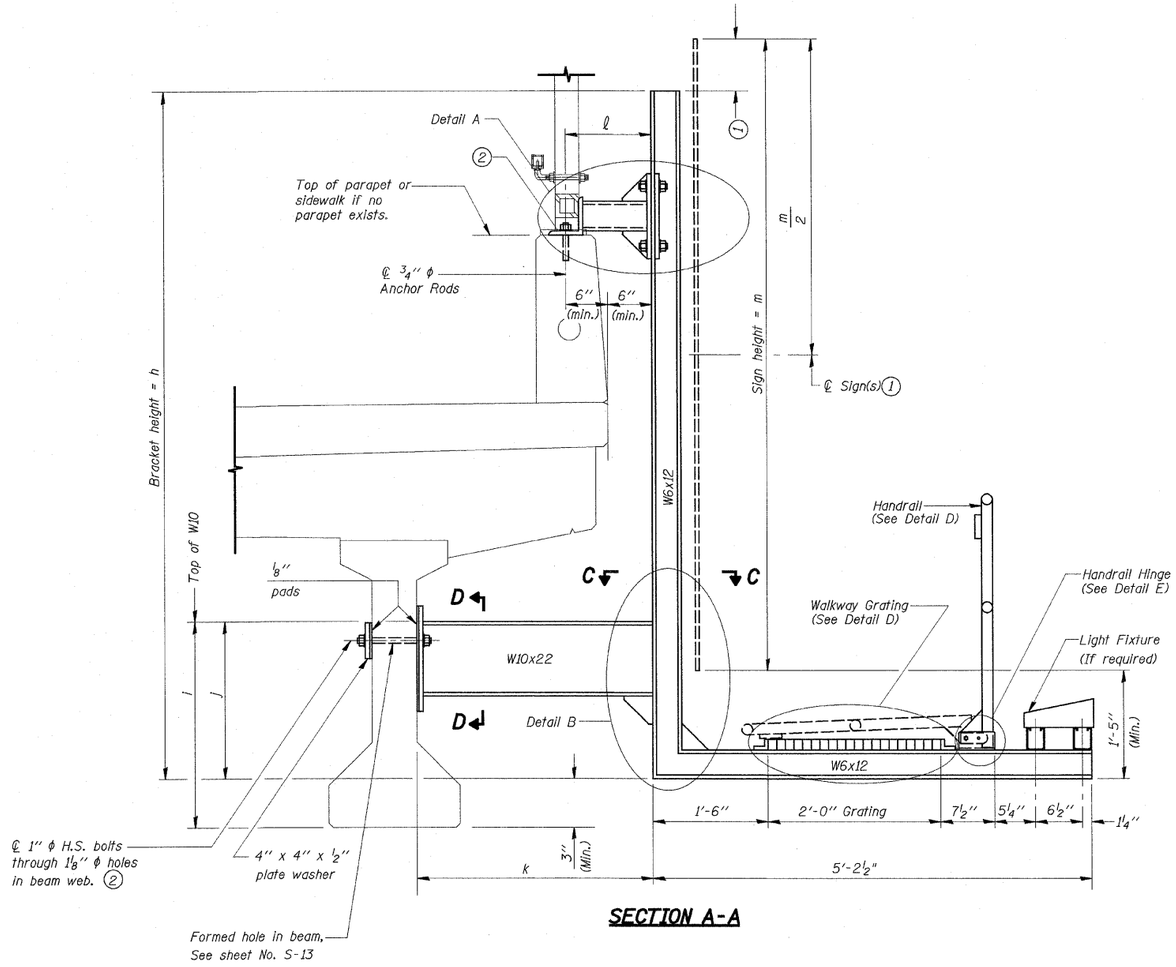
1/20/2009 5:43:57 PM q:\dot\3187_b0\drawings\rdwy\shts\rd\bridgemountsign2004.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	14
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



SECTION A-A

NOTES:

Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval.
Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.
The Engineer may adjust dimension "l" to meet the above condition and to keep the sign level.

(1) *Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)*

(2) *For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation.*
For bridge mounted sign structrues installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.

Structure Number	Station	h (12'-0" max.)	i	j	k max. (10'-0" max.)	ℓ max. (8'-0" max.)	m (10'-10" max.)
1B016I090R081.5	3480+56.88	9'-5"	3'-2"	2'-11"	3'-3"	1'-2"	8'-6" & 8'-0"
1B016I090L081.5	3480+56.88	10'-5"	3'-2"	2'-11"	3'-3"	1'-2"	9'-6" & 8'-6"

For Details A & B, Sections C-C and E-E, see Sheet 12.
For Details D & E, see Sheet 13.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

BRIDGE MOUNTED SIGN STRUCTURES

SCALE: NONE
DATE 1/20/09
DRAWN BY RWK
CHECKED BY PML

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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1/20/2009 5:44:01 PM
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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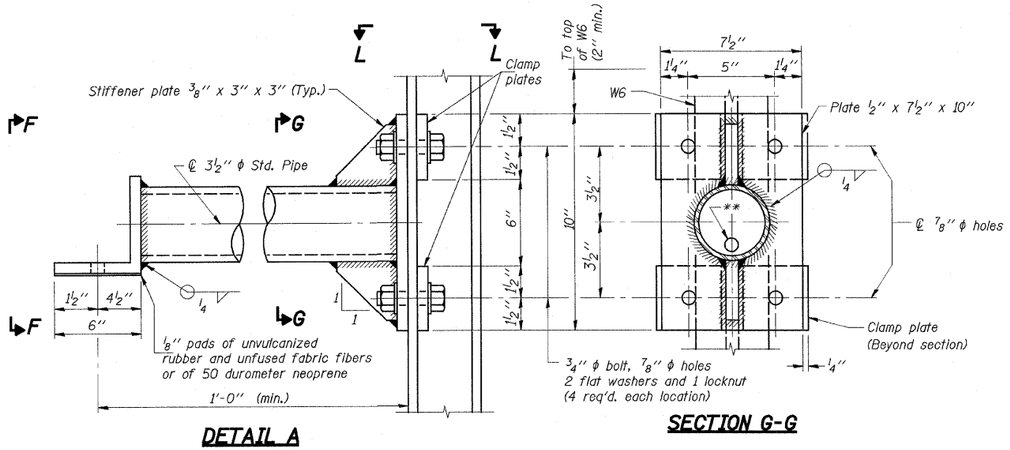
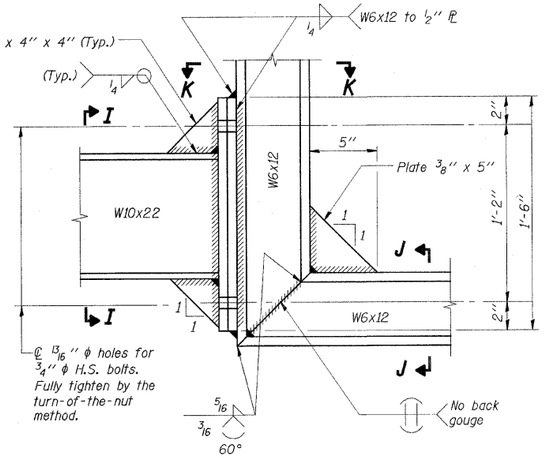
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



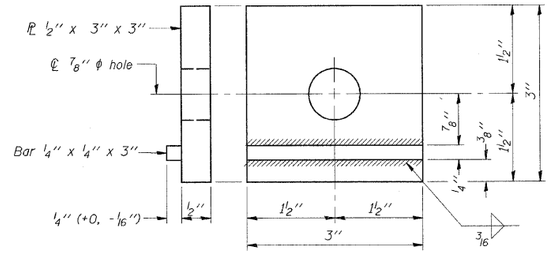
DETAIL A

SECTION G-G

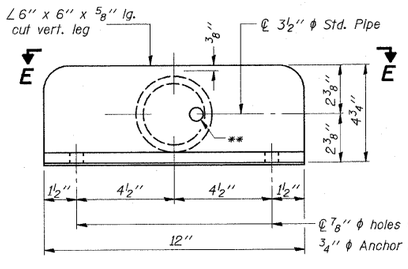


DETAIL B - ALTERNATE BOLTED W10x22 TO W6x12 CONNECTION

Alternate may be substituted by contractor to facilitate construction or galvanizing, especially on long struts for skewed bridges.



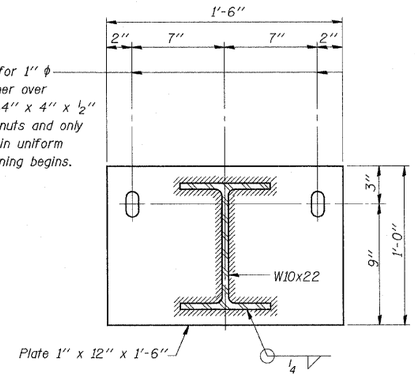
CLAMP PLATE DETAILS



VIEW F-F

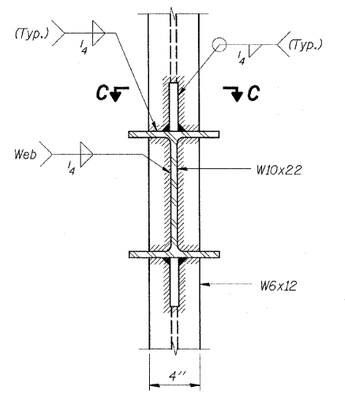
**13/16" ϕ holes for galvanizing. After galvanizing, install 7/8" ϕ A.307 hot-dip galvanized bolt to close hole in angle. (No bolt required in 1/2" plate.)

℄ 1 1/8" x 2" slotted holes in plate for 1" ϕ H.S. bolts with hardened plate washer over slot, and standard flat washer and 4" x 4" x 1/2" plate washer on far end. Use locknuts and only snug-tighten bolts, insuring pad is in uniform contact with concrete before tightening begins.



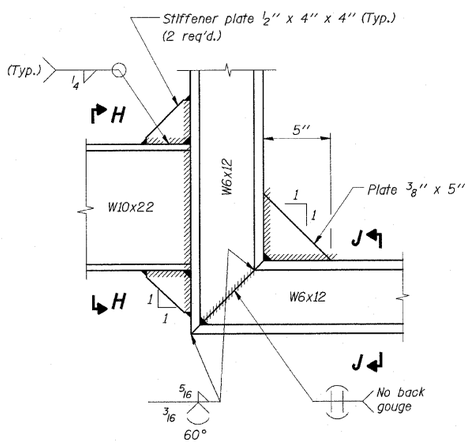
SECTION D-D

Concrete beam or girder connection plate details.

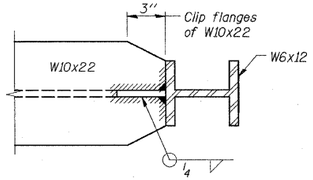


SECTION H-H

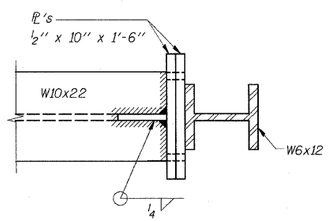
SECTION L-L



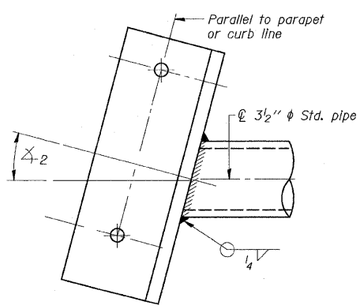
DETAIL B - WELDED W10x22 TO W6x12 CONNECTION



SECTION C-C

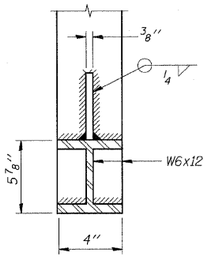


SECTION K-K

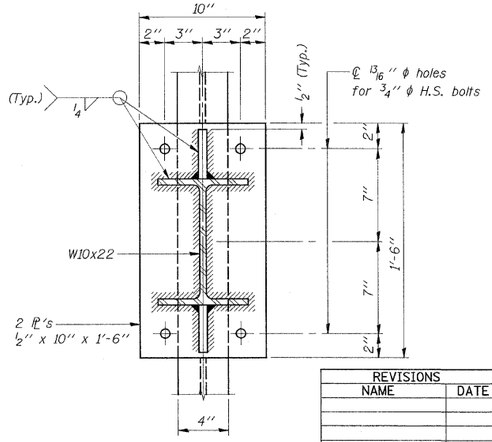


SECTION E-E

Skewed connection detail for 3 1/2" ϕ pipe to parapet.



SECTION J-J



SECTION I-I

Note: For constant slab overhang at facia beam, ∠1 = ∠2 = sign angle. For flared beams or other special cases where ∠1 / ∠2 ∠1

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

BRIDGE MOUNTED SIGN STRUCTURES
CONNECTION DETAILS

SCALE: NONE — DRAWN BY RWK
DATE 1/20/09 — CHECKED BY PML

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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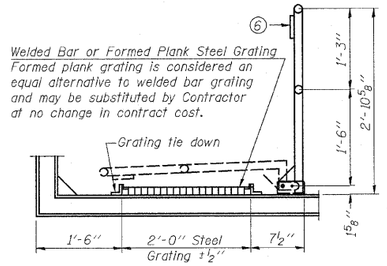
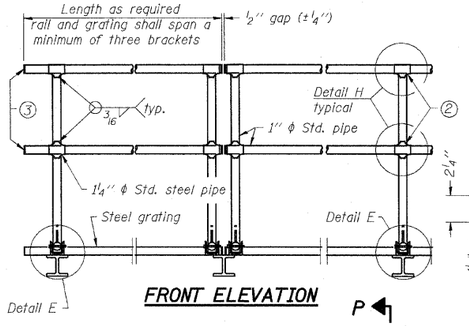
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	16
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

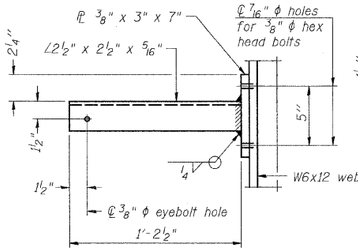
CONTRACT NO. 60384



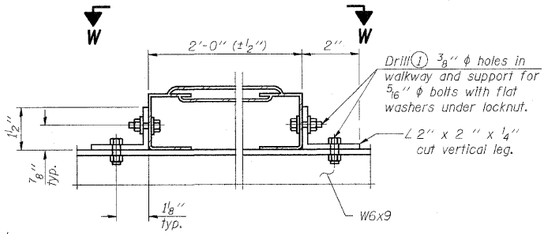
SIDE ELEVATION



FRONT ELEVATION

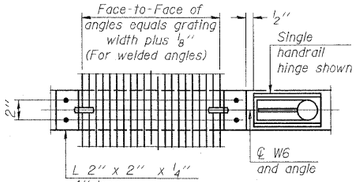


SECTION P-P

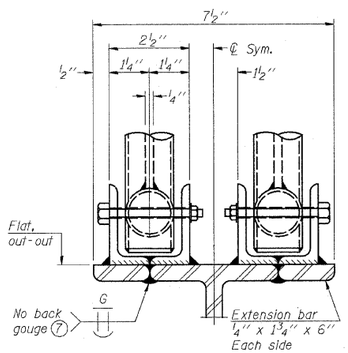


ALTERNATE FORMED PLANK GRATING DETAILS

Plank Grating: nominal depth = 2½" (±½"); perforated or expanded steel sheet with a non-skid surface (non-serrated) concentrated load capacity = 500 lbs. with 6'-0" clear span.

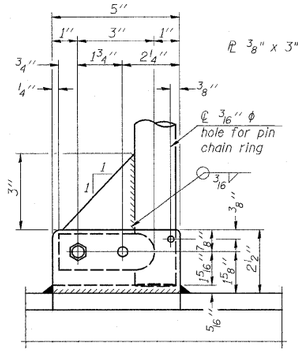


(WALKWAY GRATING CONTINUOUS)

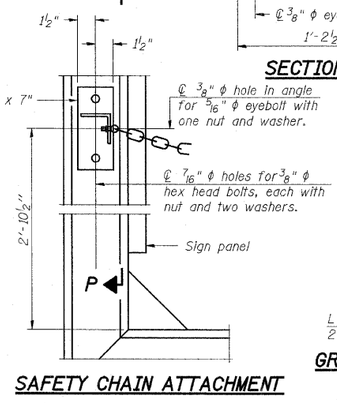


ELEVATION AT HANDRAIL JOINT

(Details not shown same as "FRONT ELEVATION")

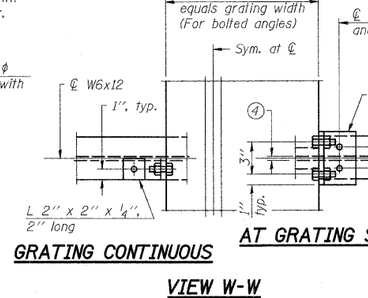


SIDE ELEVATION



SAFETY CHAIN ATTACHMENT

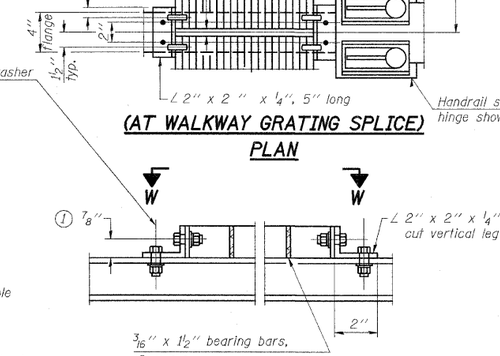
(With Sign Present)
Items not shown same as "SIDE ELEVATION" and "SAFETY CHAIN"



GRATING CONTINUOUS

AT GRATING SPLICE

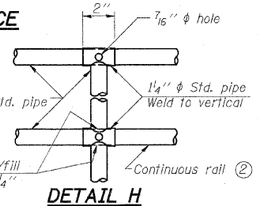
VIEW W-W



(AT WALKWAY GRATING SPLICE)

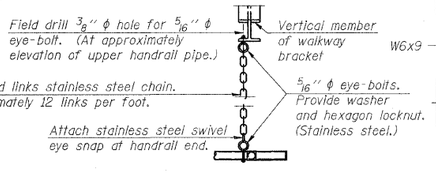
PLAN

WELDED BAR GRATING DETAILS



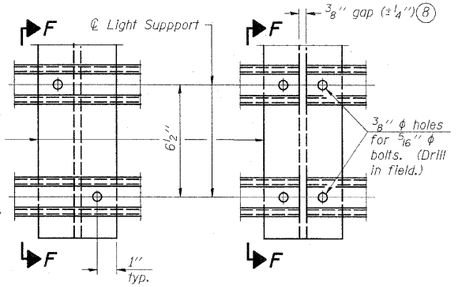
DETAIL H

Welds 3/16" continuous



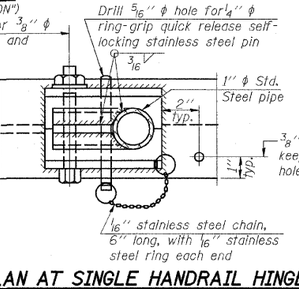
SAFETY CHAIN

One (1) required for each end of each walkway.



DETAIL F

DETAIL G

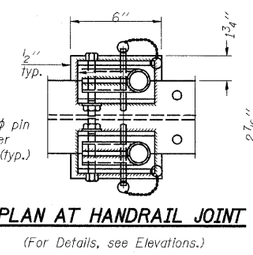


FRONT ELEVATION

(See above Elevations for dimensions.)

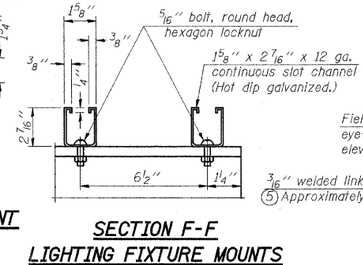
PLAN AT SINGLE HANDRAIL HINGE

DETAIL E



PLAN AT HANDRAIL JOINT

(For Details, see Elevations.)



SECTION F-F

LIGHTING FIXTURE MOUNTS

(If required)

NOTES

(1) Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment. Field drilled holes must be touched up with galvanized paint.

(2) Horizontal rail member shall be continuous thru 1¼" ϕ pipe. Provide 7/16" ϕ hole in 1¼"ϕ pipe for ⅜" ϕ bolt. Field drill 7/16" ϕ hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 7/16" ϕ holes on top rail at ends only.)

(3) Install standard force-fit end caps or weld ⅛" end plates with ⅛" c.f.w. and grind smooth. (All rail ends.)

(4) ⅜" (±¼") gap between grating panels at splice.

(5) Chain to be type 304L stainless steel suitable for prolonged exterior exposure. Approximately 3'-6" long chain per location. Maximum sag with handrail erected = 4".

(6) PL ⅛" x ½" x 2" welded to handrail posts to protect locations that contact grating.

(7) Extrusions may be used in lieu of details shown, with approval by Engineer.

(8) Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

BRIDGE MOUNTED SIGN STRUCTURES
WALKWAY DETAILS

SCALE: NONE
DATE 1/20/09
DRAWN BY RWK
CHECKED BY PML

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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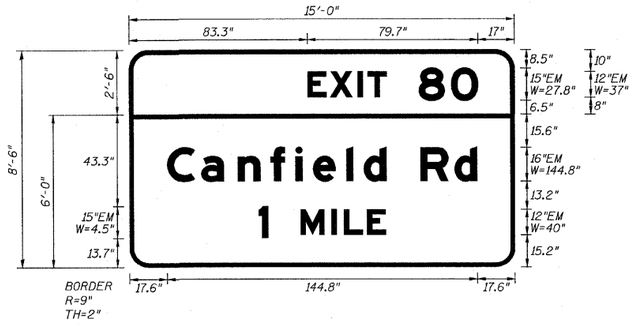
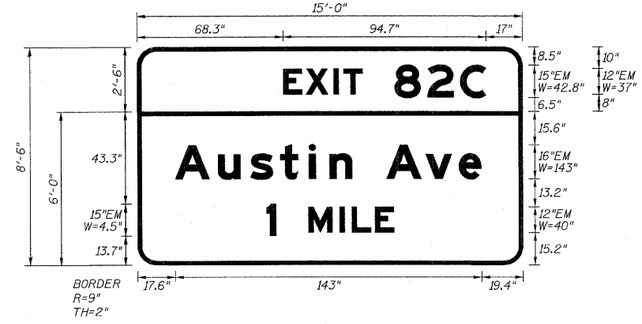
STA.	TO STA.			
FED. ROAD DIST. NO.7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

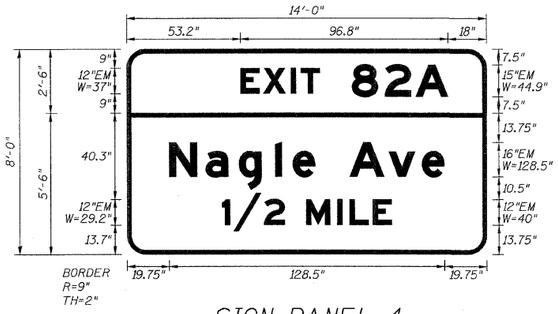


SIGN PANEL 1



SIGN PANEL 3

SIGN PANEL 2



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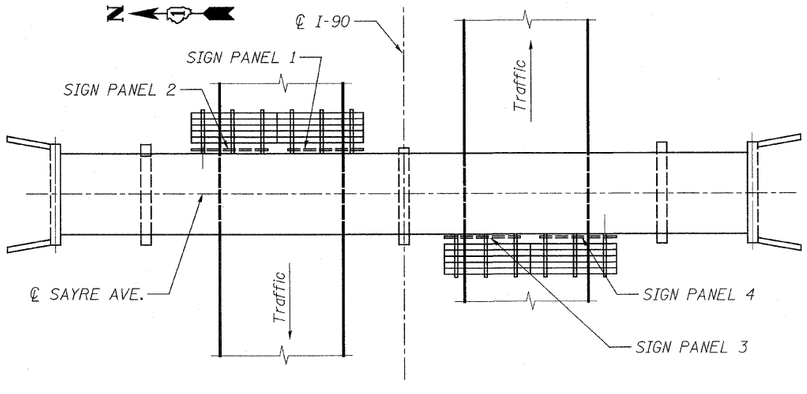

BRIDGE MOUNTED SIGN PANEL LAYOUT

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SAYRE AVENUE OVER I-90

BRIDGE MOUNTED SIGN PANELS

SCALE: NONE
DATE 1/20/09
DRAWN BY MJP
CHECKED BY PML

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	18
STA.	TO STA.			
FED. ROAD DIST. NO.7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

TEMPORARY INFORMATION SIGN

COLORS

PANEL BACKGROUND - GREEN

BORDER, LETTERING, ARROW - WHITE

ILLINOIS 43 - WHITE BACKGROUND, BLACK LETTERING

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SAYRE AVENUE OVER I-90

TEMPORARY INFORMATION SIGN

SCALE: NONE

DATE 1/20/09

DRAWN BY MJP

CHECKED BY PML

PATRICK ENGINEERING INC. LISLE, ILLINOIS

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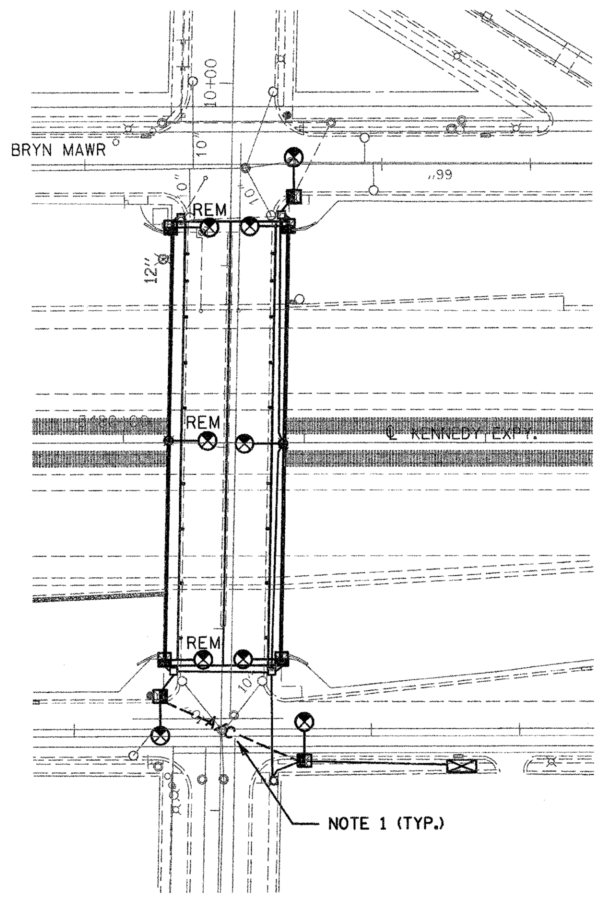
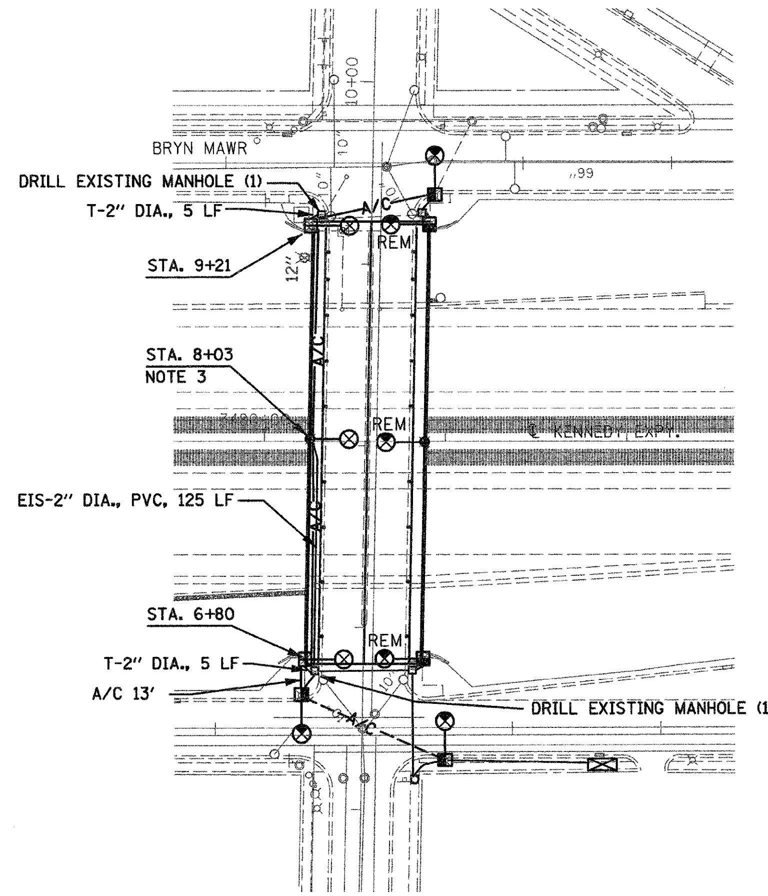
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	19
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT # 60384

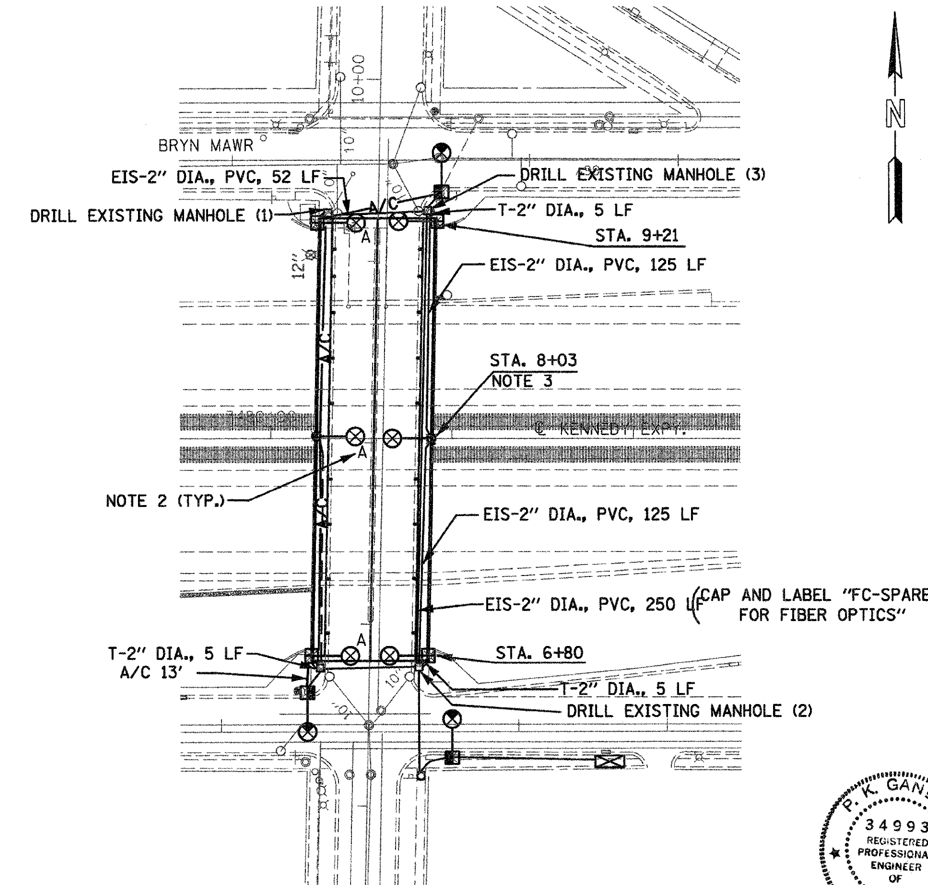
N



LIGHTING STAGE I



LIGHTING STAGE II



LIGHTING STAGE III

P. K. GANDHI 34993 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

P.K. Gandhi. 1/14/2009
Exp. 11/30/2009

LEGEND

PROPOSED LIGHTING UNIT, 35 FT. MOUNTING HEIGHT, 12 FT. MAST ARM, 310 WATT HIGH PRESSURE SODIUM LUMINAIRE

EXISTING LIGHTING UNIT, 35 FT. MOUNTING HEIGHT, 12 FT. MAST ARM, 310 WATT HIGH PRESSURE SODIUM LUMINAIRE

REM — EXISTING LIGHTING UNIT TO BE REMOVED, 35 FT. MOUNTING HEIGHT, 12 FT. MAST ARM, 310 WATT HIGH PRESSURE SODIUM LUMINAIRE

--A/C-- AERIAL CABLE, STREET LIGHT, 2 1/C #6, HDNS

T-4" DIA., 65 L.F. — RIGID STEEL CONDUIT (R.S.C.): THE DIAMETER AND LENGTH AS INDICATED ON THE CONTRACT DRAWINGS. PUSHED (P), TRENCHED (T), OR EMBEDDED IN STRUCTURE (EIS), AS INDICATED ON THE CONTRACT DRAWINGS.

EXISTING CONDUIT: THE DIAMETER AND LENGHT AS INDICATED ON THE CONTRACT DRAWINGS.

POLE SETBACK — MINIMUM 6 FT. FROM FACE OF THE CURB TO FACE OF POLE AND/OR AS DIRECTED BY THE ENGINEER.

EXISTING STREET LIGHTING CONTROLLER

PROPOSED STREET LIGHTING CONTROLLER

EXISTING CITY HANDHOLE

PROPOSED POLE, CITY STEEL, ANCHOR BASE, 32'-6", 7 GA., AND FND. WITH $11^{1}/_{2}$" B.C. AND 1" ANCHOR RODS DWG. #762.

EXISTING POLE, CITY STEEL, ANCHOR BASE, 32'-6", 7 GA., AND FND. WITH $11^{1}/_{2}$" B.C. AND 1" ANCHOR RODS DWG. #762.

EXISTING MANHOLE, CITY 3'X4'X4' DWG. #729 OR 730; 4'X6'X6' DWG. #732 OR 733

STREET LIGHTING SCHEDULE OF QUANTITIES

DESIGNATION	UNIT	QUANTITY
DRILL EXISTING MANHOLE OR HANDHOLE	EACH	8
CONCRETE FOUNDATION 24" DIA.	FOOT	36
POLE, STEEL, ANCHOR BASE, 10" DIA., 7-GAUGE, 34'-6"	EACH	4
MAST ARM, STEEL, STREET LIGHTING, 12 FT.	EACH	6
FUSE, IN-LINE, 10 AMP	EACH	12
CABLE IN CONDUIT, TRIPLEX, 2-1/C NO. 6 AND 1-1/C NO. 8 GROUND	FOOT	558
GALVANIZED STEEL CONDUIT IN TRENCH, 2"	FOOT	20
TRENCH AND BACKFILL WITH SCREENINGS AND/OR SAND	FOOT	20
REMOVE EXISTING STREET LIGHTING EQUIPMENT	L SUM	1
CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC (SCHEDULE 40)	FOOT	677
LUMINAIRE, STREET LIGHTING, HIGH PRESSURE SODIUM VAPOR, 310 WATT, 240 VOLT	EACH	6
POLE, STEEL, ANCHOR BASE, 8-1/2" DIAMETER, 7 GAUGE, 32' - 6"	EACH	2

GENERAL NOTES:

1. LIGHTING SHALL BE MAINTAINED AT LEAST ON ONE SIDE OF THE BRIDGE AT ALL TIMES.

INSTALLATION NOTES:

NOTE 1 INSTALL AERIAL CABLE, AS NEEDED, FOR MAINTANING EXISTING LIGHTING UNTIL THE PROPOSED LIGHTING IS FULLY OPERATIONAL. THIS ITEM WILL NOT BE PAID FOR SEPARATELY BUT IS INCIDENTAL TO "REMOVE EXISTING STREET LIGHTING EQUIPMENT".

NOTE 2 'A' NEXT TO THE POLE AND LUMINAIRE INDICATES THAT THESE WERE INSTALLED IN LIGHTING STAGE 2.

NOTE 3 THE CONTRACTOR SHALL BUILD BASE FOR 32'-6" TALL STEEL POLE AT THE LOCATIONS SHOWN ON THE PLAN AND AS DIRECTED BY THE ENGINEER, WITH 60" LONG & 1" DIA. ANCHOR BOLTS SET IN 11-1/2 " DIA. BOLT CIRCLE AND PROPERLY ANCHORED IN THE BRIDGE STRUCTURE. (REFER TO BOE STD. DWG. 818, 837). ALSO SEE STRUCTURAL BRIDGE PLANS AND DETAILS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

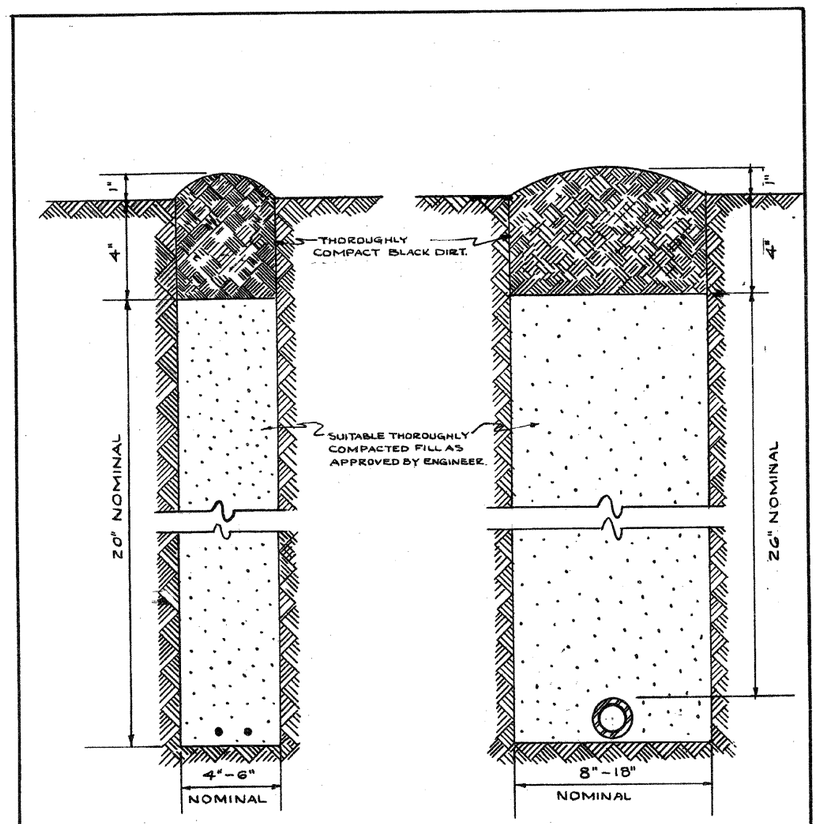
STREET LIGHTING
SAYRE AVENUE OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)

SCALE: 1"=50'
DATE: 2/1/2008
DRAWN BY: BC/MAE
CHECKED BY: MK

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	20
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT # 60384



CABLE TRENCH

CONDUIT TRENCH

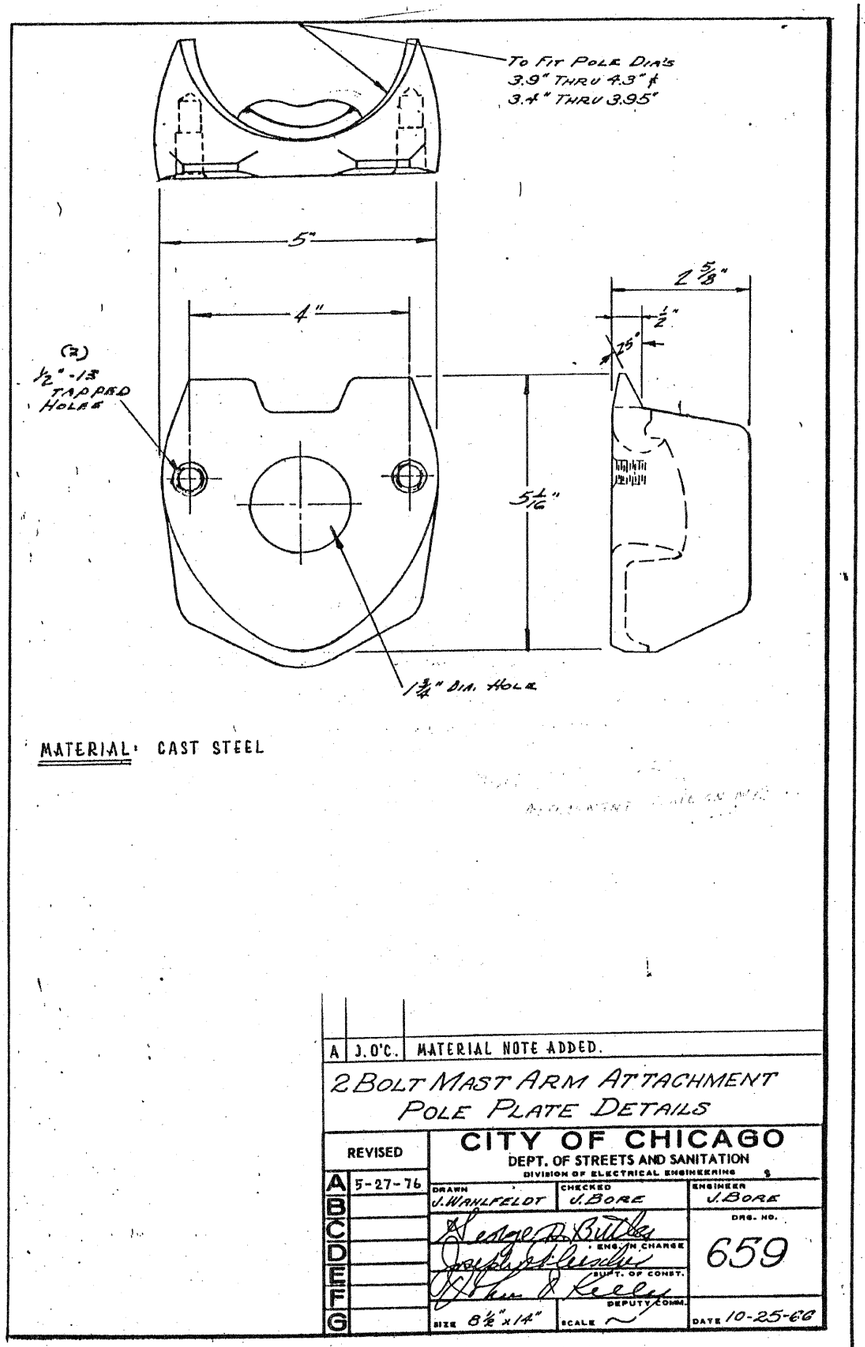
NOTE

EXCESS SOIL FROM TRENCH TO BE COMPLETELY REMOVED FROM SITE AS SOON AS PRACTICABLE.

BLACK DIRT TO BE TAMPED & THOROUGHLY COMPACTED AS SHOWN.

STANDARD METHOD FOR BACKFILLING CABLE & CONDUIT TRENCHES IN SODDED PARKWAY & LAWNS

REVISION	CITY OF CHICAGO DEPT. OF STREETS & SANITATION DIVISION OF ELECTRICAL ENGINEERING.		
A	DRAWN: W. E. HARP.	CHECKED: M. S. Kane	ENGINEER: J. O'CONNOR.
B	ENGINEER IN CHARGE: Bradley D. Butler		DRG. NO.
C	SUPT. OF CONST.: Joseph P. Murphy		579
D	DEPUTY COMM.: Arthur J. Kelly		
E			
F			
G			
H	SIZE: 8½"x14"	SCALE: N	DATE: 7-14-61



MATERIAL: CAST STEEL

REVISED		
A	5-27-76	J. O'C. MATERIAL NOTE ADDED.
B		
C		
D		
E		
F		
G		

2 BOLT MAST ARM ATTACHMENT POLE PLATE DETAILS

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
DIVISION OF ELECTRICAL ENGINEERING

DRAWN	CHECKED	ENGINEER
J. WAHLFELDT	J. BORE	J. BORE

ENGINEER IN CHARGE: Bradley D. Butler
SUPT. OF CONST.: Joseph P. Murphy
DEPUTY COMM.: Arthur J. Kelly

DRG. NO. 659

SIZE 8½"x14" SCALE ~ DATE 10-25-60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

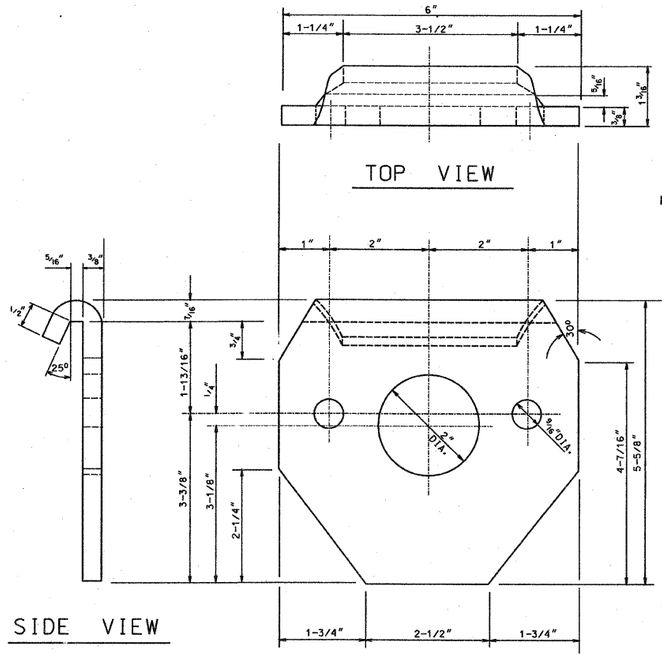
CITY OF CHICAGO
BUREAU OF ELECTRICITY
LIGHTING STANDARDS
SAYRE AVENUE OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)

SCALE: NONE DRAWN BY: MAE
DATE: 2/1/2008 CHECKED BY: MK/PKG

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT # 60384

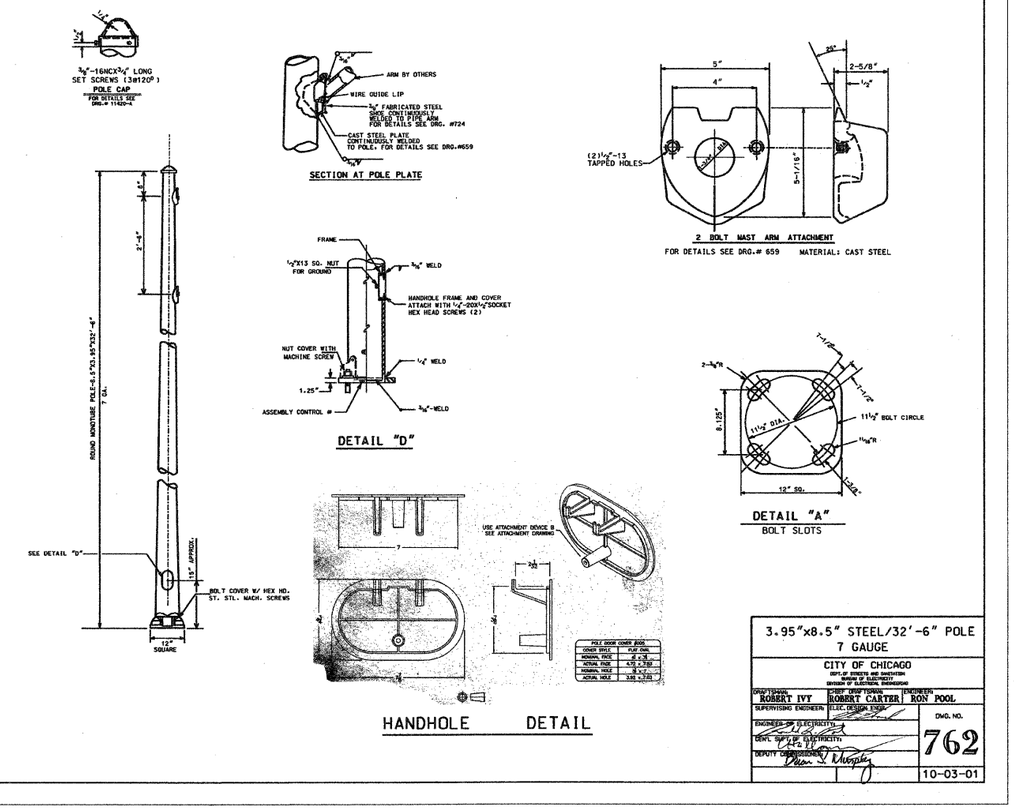


03-01-02	REDRAWN

TWO BOLT
MAST ARM ATTACHMENT
(BRACKET DETAILS)

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN: ROBERT IVY	CHIEF DRAFTSMAN: ROBERT CARTER	ENGINEER: RON POOL
SUPERVISING ENGINEER:	ELEC. DESIGN ENGR.:	DWG. NO. 724
ENGINEER OF ELECTRICITY:		
ASST. SUPT. OF ELECTRICITY:		
DEPUTY COMMISSIONER:		
SIZE:	SCALE: NONE	DATE: 03-01-73



3.95"x8.5" STEEL/32'-6" POLE	
7 GAUGE	

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN: ROBERT IVY	CHIEF DRAFTSMAN: ROBERT CARTER	ENGINEER: RON POOL
SUPERVISING ENGINEER:	ELEC. DESIGN ENGR.:	DWG. NO. 762
ENGINEER OF ELECTRICITY:		
ASST. SUPT. OF ELECTRICITY:		
DEPUTY COMMISSIONER:		10-03-01

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
BUREAU OF ELECTRICITY
LIGHTING STANDARDS
SAYRE AVENUE OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)

SCALE: NONE — DRAWN BY: MAE
DATE: 2/1/2008 — CHECKED BY: MK/PKG

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

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14 JAN 2009
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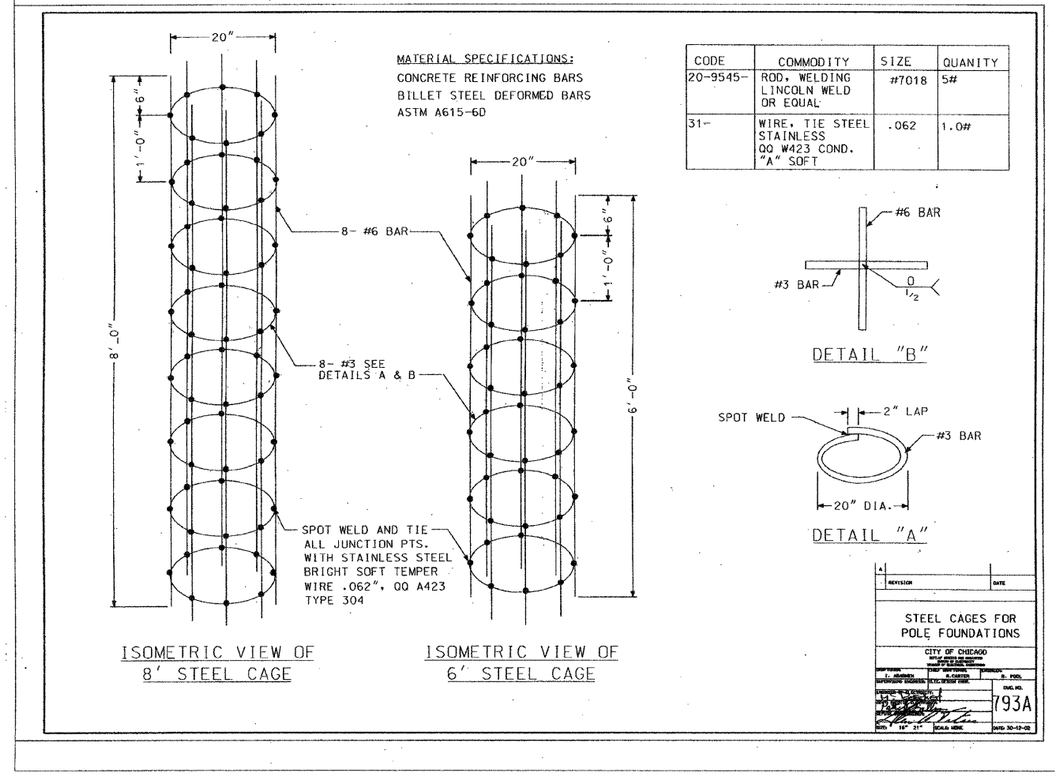
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	22
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT # 60384



MATERIAL SPECIFICATIONS:
CONCRETE REINFORCING BARS
BILLET STEEL DEFORMED BARS
ASTM A615-6D

CODE	COMMODITY	SIZE	QUANITY
20-9545-	ROD, WELDING LINCOLN WELD OR EQUAL	#7018	5#
31-	WIRE, TIE STEEL STAINLESS QQ W423 COND. "A" SOFT	.062	1.0#

DETAIL "B"

DETAIL "A"

REVISION	DATE

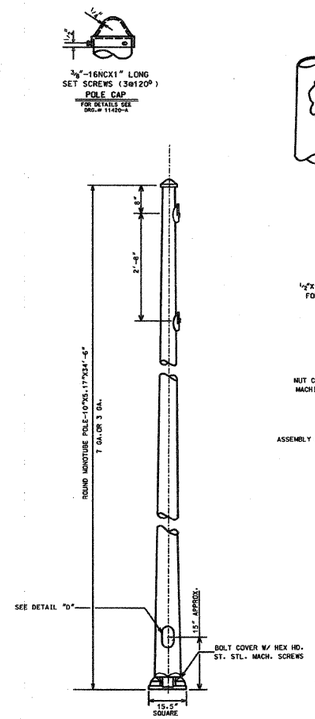
STEEL CAGES FOR POLE FOUNDATIONS

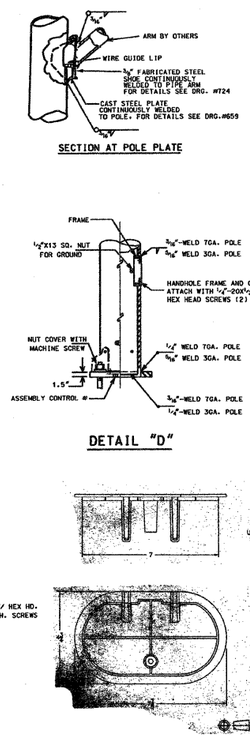
CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN	CHIEF DRAFTSMAN	ENGINEER
R. MUNRO	R. CARTER	R. POOL
SUPERVISING ENGINEER	ELEC. DESIGN ENGR.	

DWG. NO. 793A

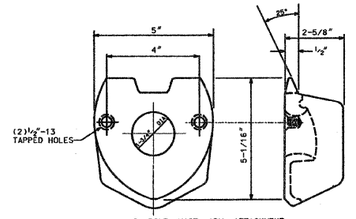
SCALE: 16" = 21" DRAWN HERE DATE: 10-12-00



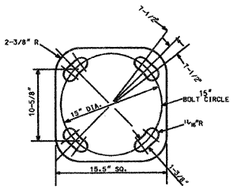


SECTION AT POLE PLATE

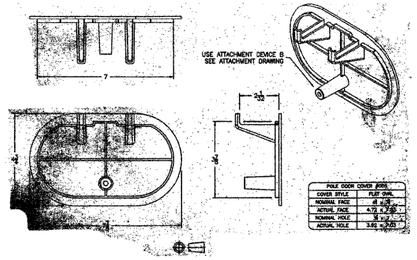
DETAIL "D"



2 BOLT MAST ARM ATTACHMENT
FOR DETAILS SEE DRG.# 659 MATERIAL: CAST STEEL



DETAIL "A"
BOLT SLOTS



HANDHOLE DETAIL

5.17"x10.0" STEEL/34'-6" POLE
7 OR 3 GAUGE

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN	CHIEF DRAFTSMAN	ENGINEER
ROBERT IVY	ROBERT CARTER	RON POOL
SUPERVISING ENGINEER	ELEC. DESIGN ENGR.	
ENGINEER OF ELECTRICITY		
DEPUTY COMMISSIONER OF ELECTRICITY		
DEPUTY COMMISSIONER		

DWG. NO. 808

10-03-01

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

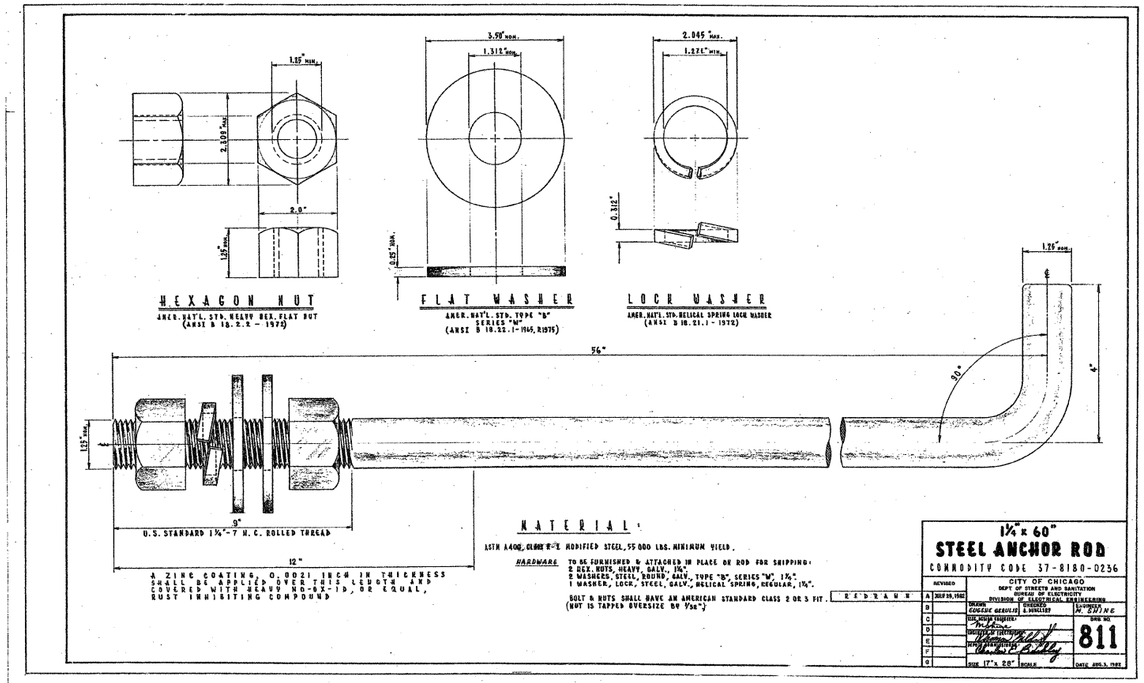
CITY OF CHICAGO
BUREAU OF ELECTRICITY
LIGHTING STANDARDS
SAYRE AVENUE OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)

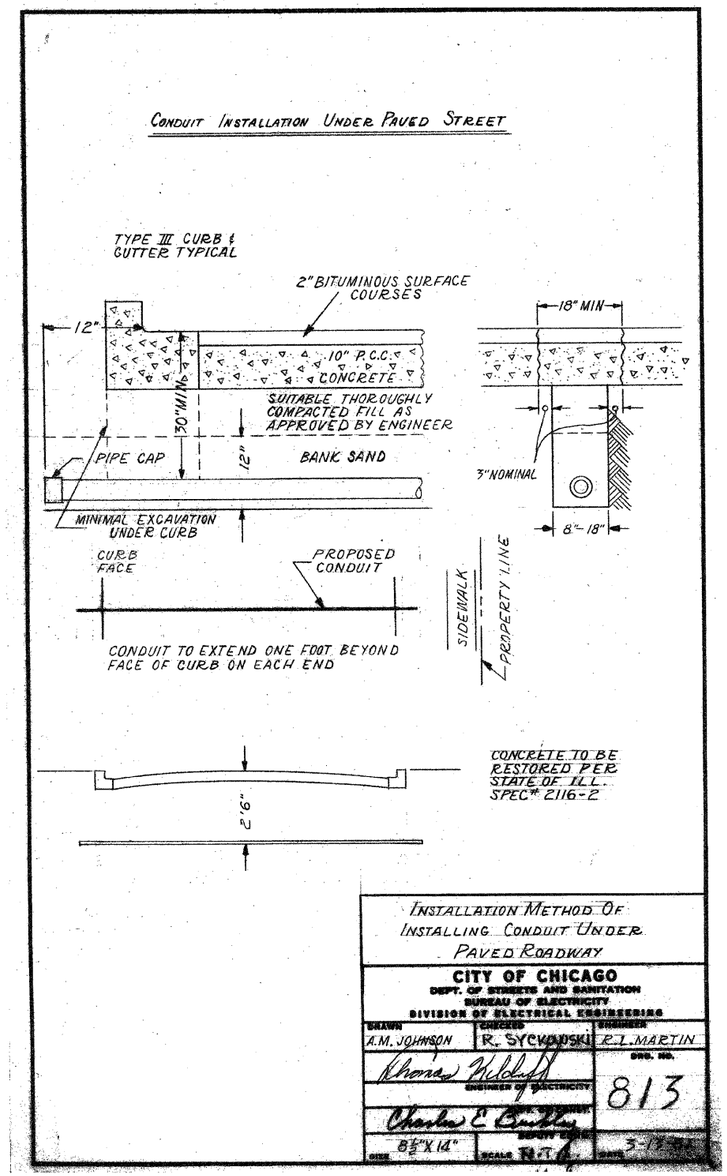
SCALE: NONE DRAWN BY: MAE
DATE: 2/1/2008 CHECKED BY: MK/PKG

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

E5 OF E11	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	90	1414B	COOK	74	23
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT # 60384





REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
BUREAU OF ELECTRICITY
LIGHTING STANDARDS
SAYRE AVENUE OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)

SCALE: NONE
DRAWN BY: MAE
DATE: 2/1/2008
CHECKED BY: MK/PKG

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

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14 JAN 2009
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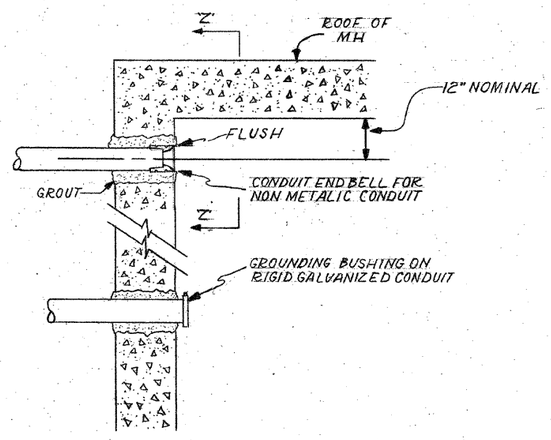
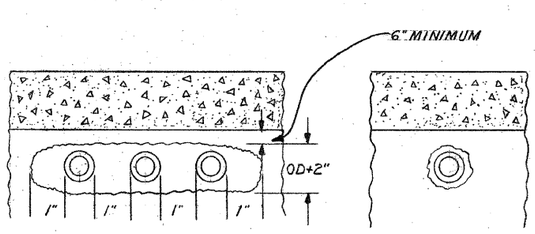
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	24
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT # 60384

CONDUIT INSTALLATION THROUGH EXISTING MANHOLE OR HANDHOLE WALL





SECTION Z'-Z'

OPENING THROUGH WALL TO BE KEPT TO MINIMUM SIZE TO ADMIT CONDUIT AND SUFFICIENT GROUT TO ASSURE SEALING WALL.

INSTALLATION METHOD OF INSTALLING CONDUIT THRU MANHOLE WALL

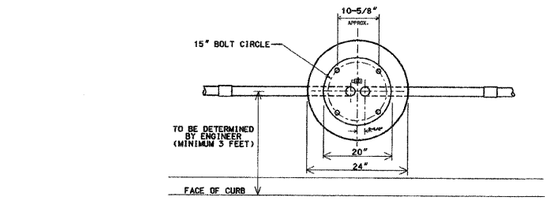
CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAWN	CHECKED	ENGINEER
A.M. JOHNSON	R. SYCKOWSKI	R.L. MARTIN

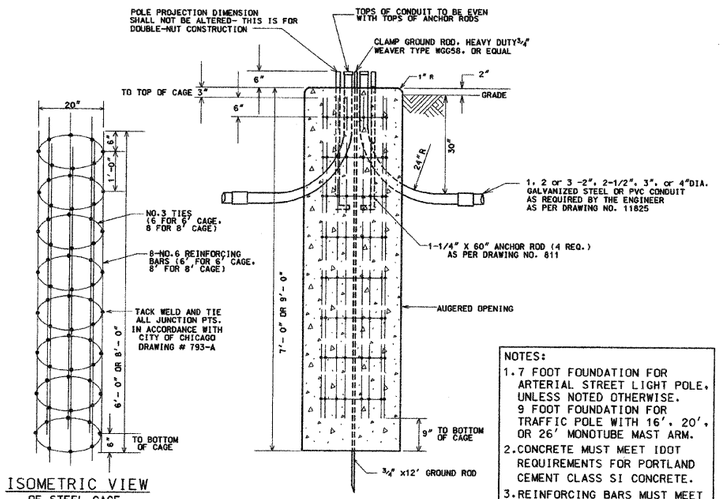
ENGINEER OF ELECTRICITY

DWG. NO. 814

SIZE 8½"X14" SCALE N.T.S. DATE



TOP VIEW



ISOMETRIC VIEW OF STEEL CAGE

ELEVATION

NOTES:
1. 7 FOOT FOUNDATION FOR ARTERIAL STREET LIGHT POLE, UNLESS NOTED OTHERWISE. 9 FOOT FOUNDATION FOR TRAFFIC POLE WITH 16', 20', OR 26' MONOTUBE MAST ARM.
2. CONCRETE MUST MEET IDOT REQUIREMENTS FOR PORTLAND CEMENT CLASS SI CONCRETE.
3. REINFORCING BARS MUST MEET ASTM A-615 GRADE 60.

NOTE: HOLE FOR FOUNDATION MUST BE AUGURED IN UNDISTURBED SOIL

CODE	COMMODITY	SIZE	QUANTITY
05-3267-2940	REDI-MIX CONCRETE	CU. YD.	0.82 OR 1.05
09-4001-	ELBOW, LARGE RADIUS	2",2-1/2",3",4"	VARIES
37-8180-0200	ANCHOR ROD	1-1/4" X 60"	4
05-5054-6910	RE-BAR CAGE	20"Ø X 6'(or 8')	1
09-7796-3200	GROUND ROD	¾" X 12'-0"	1
09-2636-3240	GROUND ROD CLAMP	3/4 "	1
09-2092-	GROUND BUSHING	2",2-1/2",3" OR 4"	VARIES

DATE	REVISION
8/21/02	SUPERCEDES DWG #818 DRAWN 4/21/81

FOUNDATION FOR 34'-6" ARTERIAL STREET LIGHT OR TRAFFIC SIGNAL POLE -3 OR 7 GAUGE WITH 15' BOLT CIRCLE

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN	CHIEF DRAFTSMAN	ENGINEER
B. GARNSEY	R. CARTER	B. GARNSEY

ELECTRICAL DESIGN ENGINEER

ENGINEER OF ELECTRICITY

GENERAL SUPERINTENDENT

DEPUTY COMMISSIONER

DRAWING NO. 818

SIZE 11" x 17" SCALE NONE DATE 8/21/02

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
BUREAU OF ELECTRICITY
LIGHTING STANDARDS
SAYRE AVENUE OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)

SCALE: NONE DRAWN BY: MAE
DATE: 2/1/2008 CHECKED BY: MK/PKG

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5980

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14 JAN 2009
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	25
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT * 60384

PROPOSED	PRESENT	
⊶	⊷	SIGNAL, TRAFFIC 3 SECTION 1-WAY ADJUSTABLE, 12" OR AS NOTED
⊸⊶	⊷⊶	SIGNAL, TRAFFIC 3 SECTION 2-WAY ADJUSTABLE, 12" OR AS NOTED
✳	✳	SIGNAL OPTICALLY PROGRAMMED
		SIGNAL, PEDESTRIAN, DON'T WALK/WALK
⊶	→	SIGNAL FACE ARROW, 12" COLOR AS NOTED
	Y G	SIGNAL FACE, 1 SECTION YELLOW/GREEN ARROW DUAL INDICATION
◎	⊙	PUSH BUTTON, PEDESTRIAN
H E L P		SIGN, ILLUMINATED, WITH MESSAGE OR SYMBOL AS INDICATED
⊣	⊣	MAST ARM, MONOTUBE, STEEL. SIZE AS INDICATED (SEE DWG. #870)
		MAST ARM, TRUSS, ALUMINUM. SIZE AS INDICATED
		CONTROLLER, TRAFFIC SIGNAL. PEDESTAL OR BASE MOUNTED AS INDICATED
⊠	⊠	CONTROLLER, STREET LIGHTING. PEDESTAL OR BASE MOUNTED. (DWG. 876 or 880)
		CONTROLLER, STREET LIGHTING. POLE MOUNTED (DWG. #11940)
		POLE, WOOD. COMMONWEALTH EDISON COMPANY, SERVICE
		POLE, CITY STEEL, ANCHOR BASE, 34'-6", 7 GA. 10" DI A. AND 15"B.C. 24"X7" FND. W/1 1/4" ANCHOR RODS DRG. #818.
		POLE, CITY STEEL, ANCHOR BASE, 34'-6", 3 GA. 10" DIA. AND 15" B.C. 24"X9" FND. W/1 1/4" ANCHOR RODS DRG. #818 (16',20' or 26' M.A.)
		POLE, CITY STEEL, ANCHOR BASE, 34"-6", 3GA., 11" DIA. AND 17 1/4" B.C. 30"X9" FND. W/1 1/4" ANCHOR RODS DRG. #816. (30' M.A.)
		POLE, CITY STEEL, ANCHOR BASE 34'-6", 3 GA. 12 1/2" DIA. AND 16 1/2"B.C. 30"X11" FND. W/1 1/2" ANCHOR RODS DRG.#817. (35',40' or 44' M.A.)
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA. 10" DIA., WITH 3 GA. BAL. HSG. BASE AND 17 1/4 B. C. ON 30"X9" FND. W/ 11/4" ANCHOR RODS DRG. #816.
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6", 7 GA. WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DRG. #716.
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6", 3 GA., WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DWG.#719.
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6" 7 GA., AND FND. WITH 10" B.C. AND 1" ANCHOR RODS DWG. #11408B.
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6" 3 GA..AND FND. WITH 10" B.C. AND 1" ANCHOR RODS DWG. #11408B.
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 7 GA., AND FND. WITH 11 1/2" B.C. AND 1" ANCHOR RODS DWG. #753.
		POLE, CITY STEEL, ANCHR BASE, 32'-6", 3 GA., AND FND. WITH 11 1/2" B.C. AND 1" ANCHOR RODS DWG. #753.
		POLE, CITY STEEL, ANCHOR BASE, 32'-6" 7 GA., ALUM. BHB AND FND. WITH 15" B.C.-24"X7' WITH 1" ANCHOR RODS DRG. #691.
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA., ALUM. BHB AND FND. WITH 15" B.C. 24"X 7' WITH 1" ANCHOR RODS DWG. #691.
		POLE, CITY ALUMINUM, WITH ROUND BAL. HSG. BASE, 25', 28', or 30' ON FND.WITH 14" B.C., ACQUIRED FROM CHICAGO PARK DISTRICT.
		POLE, CITY STEEL, EMBEDDED, 4"X 9"X 35' 7 GA., TAPERED TUBULAR. (DWG. #658)
		POLE, CITY STEEL, EMBEDDED, 4"X 9"X 35' 3 GA., TAPERED TUBULAR. (DWG. #658)
		POLE, CITY STEEL, EMBEDDED. (ACQUIRED FROM CTA)
		COLUMN, ELEVATED STRUCTURE
		POLE, WOOD. (SIZE AS NOTED)
		POLE, FOUNDATION WITH ELBOWS AS INDICATED. (SIZE AS NOTED)
		POLE, ORNAMENTAL OR OTHER, AS INDICATED ON THE PLANS

PROPOSED	PRESENT	
		HANDHOLE, HEAVY DUTY, 36" I.D. (DWG.#866)
		HANDHOLE, CIRCULAR WITH 24"FRAME & COVER.30"I.D. (#867)
		MANHOLE, CITY 3'X4'X4' DWG. #729 or 730; 4'X6'X6' DWG. #732or 733.
		FOUNDATION, CONTROLLER OR PEDESTAL, 13" B.C.,20"X5' (DWG. #709)
		FOUNDATION, TRAFFIC CONTROLLER DWG. #854. F.A. TERMINAL FND. DWG. #11972
	P	FOUNDATION, TRAFFIC TYPE "P", BASE MOUNT. (DWG. #888)
		FOUNDATION, CONTROLLER STREET LIGHT ,SPECIAL, 100A & 200A. (DWG.#876 & # 880)
		FOUNDATION, TRANSCLOSURE; TRANSCLOSURE HOUSING. (DWG.# 583 & #891)
		CONTROLLER, UNDERPASS LIGHTING 120V. & 240V. (DWG. #860 & #861)
	E	MANHOLE, UTILITY, E=COMMONWEALTH EDISON; T=ILL.BELL TEL.; G=PEOPLES GAS; W=CITY WATER; P=CHGO PARK DISTRICT; CTA=C.T.A; S= SEWER
		JUNCTION BOX, IN PAVEMENT (DWG. #815)
		DETECTOR LOOP IN PAVEMENT
		CONDUIT or P.V.C., NUMBER, SIZE & TYPE. (AS NOTED)
2D	2D	CONDUIT or P.V.C. ENCASED IN CONCRETE. (SECTION or NUMBER OF CONDUIT INDICATED
		LUMINAIRE, H.P.S.V. 400W LAMP, 240V, SEMI-CUTOFF
		LUMINAIRE, H.P.S.V. 400W LAMP, 240V, CUTOFF
		LUMINAIRE, H.P.S.V. 310W LAMP, 240V
		LUMINAIRE, H.P.S.V. 310W LAMP 240V, CUTOFF
		LUMINAIRE, H.P.S.V. 150W LAMP, 240V
		LUMINAIRE, H.P.S.V. 150W LAMP, 120V
		LUMINAIRE, H.P.S.V. 250W LAMP, 120V, (ALLEY LIGHT)
		LUMINAIRE, H.P.S.V. 250W LAMP, 120V
		TERMINAL, CABINET F.A. & P.C.
		FIRE ALARM BOX, MOUNTED
		FIRE ALARM BOX, POLE MOUNTED
PR	PR	CABLE, TRAFFIC SIGNAL, COMMUNICATION, 1-PAIR #14 SHIELDED, IN CONDUIT
--2--	--2--	CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C- #4, 600 V. EPR. IN CONDUIT
--III--	--III--	CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2 1/C-#2 or #1/0 600V. EPR IN CONDUIT
--II--	--II--	CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C-#10 or #6, 600V NSRI, IN CONDUIT
-VII-	-VII-	CABLE, TRAFFIC SIGNAL, 7/C-#12 or #14, 600V, EPR IN CONDUIT
--X--	--X--	CABLE, TRAFFIC SIGNAL, 10/C-#12 600V. EPR IN CONDUIT
	-XIV-	CABLE, TRAFFIC SIGNAL, 14/C-#14, 600V. EPR IN CONDUIT
-XIX-	-XIX-	CABLE, TRAFFIC SIGNAL, 19/C-#12 600V, EPR IN CONDUIT
--2N--	--2N--	CABLE, STREET LIGHT, 2 1/C-#6, 600V. RINS IN PARKWAY
-2NC-	-2NC-	CABLE, STREET LIGHT, 2 1/C-#6, 600V. RINS IN CONDUIT
-3TC-	-3TC-	CABLE, STREET LIGHT, 2 1/C-#6 EPRN 600V. & 1 1/C-#8 GREEN, TRIPLEXED, IN CONDUIT
--3NC--	--3NC--	CABLE, STREET LIGHT, 3 1/C-#1/0, or #2/0, or #4, 600V. EPR IN CONDUIT
--2W--	--2W--	WIRE, STREET LIGHT, 2 1/C-#6, HDNS. AERIAL
--3W--	--3W--	WIRE, STREET LIGHT, 2 1/C-#6 & 1 1/C #8, HDNS. AERIAL
-III-	-III-	CABLE, STREET LIGHT AERIAL, 3 1/C-#4 or #2 SELF SUPPORTING, 600V EPR
W FA	W FA	WIRE, F.A. & P.C. AERIAL, 1/C-#10, NUMERAL DENOTES QUANTITY
PR	PR	CABLE, F.A. & P.C. AERIAL, W/ MESSENGER #19-(NUMBER OF PAIRS AS INDICATED)
PR 6 6	6 PR	CABLE, F.A. & P.C. AERIAL, SELF SUPPORTING, #19-(NUMBER OF PAIRS AS INDICATED)
37 PR	37 PR	CABLE, F.A. & P.C., IN CONDUIT, #19-(NUMBER OF PAIRS AS INDICATED)
		DOWNLIGHT ASSEMBLY. (DWG. #850)
		LIGHT, TRAFFIC SAFETY ISLAND
		FLASHING BEACON & DOWNLIGHT

ORNAMENTAL LUMINAIRES

PROPOSED	EXISTING		
		310W PENDANT	(240V)
		400W PENDANT	(240V)
		250W PENDANT	(240V)
		150W ACORN	(120V)
		150W ACORN	(240V)
		50W ACORN	(240V)
		100W ACORN	(240V)
		150W GLOBE	(240V)
		100W GLOBE	(240V)
		50W GLOBE	(240V)

C	04-01-02	REVISED/REDRAW R.POOL/B.I.
B	12-4-01	ADDED ORNAMENTAL SYMBOLS
A	8-6-96	REDRAWN
DATE		REVISION

STANDARD CODE FOR TRAFFIC SIGNALS/ STREET LIGHTING

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN:	CHIEF DRAFTSMAN:	ENGINEER:
R. IVY	R. CARTER	R. POOL/R.C/W.T.

SUPERVISING ENGINEER: ELEC. DESIGN ENGR.
ENGINEER OF ELECTRICITY:
CENT. SUPT. OF CONSTRUCTION:
DEPUTY COMMISSIONER:

DWG. NO. 826

SIZE: 22"| 36" SCALE: DATE:

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
BUREAU OF ELECTRICITY
LIGHTING STANDARDS
SAYRE AVENUE OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)

SCALE: NONE DRAWN BY: MAE
DATE: 2/1/2008 CHECKED BY: MK/PKG

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5180

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14 JAN 2009
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	26
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT # 60384

INSTALLATION NOTES

STEP 1 COAT EXPOSED PORTION OF ANCHOR BOLTS WITH APPROVED ANTI RUSTING GREASE ("NO-OX" OR EQUAL).

STEP 2 INSTALL LOWER LEVELLING NUTS & WASHERS. SET AT PROPER GRADE WITH HAND LEVEL, USE TABLE FOR APPROPRIATE DIMENSIONS.

STEP 3 MOUNT POLE OR PEDESTAL, ATTACH TOP WASHERS & NUTS HAND TIGHT.

STEP 4 PLUMB POLE OR PEDESTAL AFTER ALL MASTARMS, STREET LIGHTS, TRAFFIC SIGNALS & OTHER APPURTENANCES ARE ATTACHED TO POLE & TIGHTEN ALL NUTS.

STEP 5 ATTACH NUT COVERS WHERE REQUIRED.

STEP 6 DO NOT GROUT IN SPACE BETWEEN BOTTOM OF POLE & TOP OF FOUNDATION. TOP OF FOUNDATION OR SURFACE OF SIDEWALK MUST BE LEFT CLEAN AND SMOOTH.

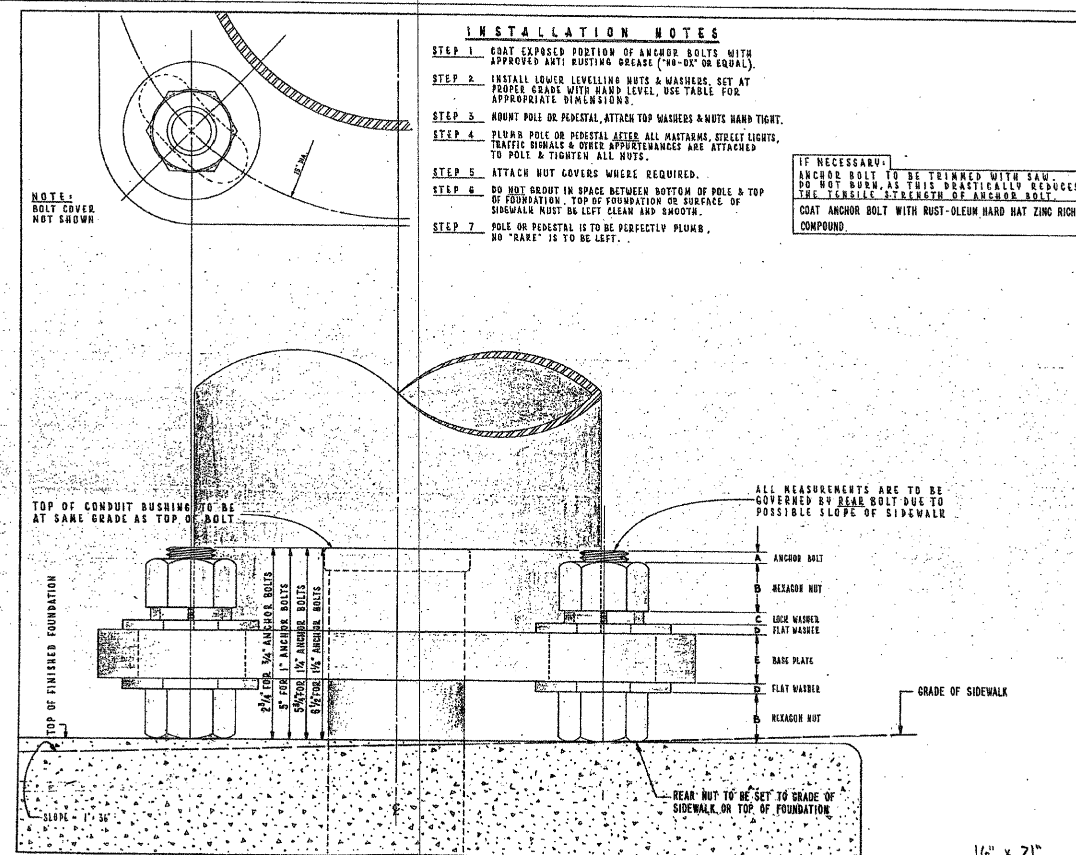
STEP 7 POLE OR PEDESTAL IS TO BE PERFECTLY PLUMB, NO "RAKE" IS TO BE LEFT.

IF NECESSARY: ANCHOR BOLT TO BE TRIMMED WITH SAW. DO NOT BURN, AS THIS DRASTICALLY REDUCES THE TENSILE STRENGTH OF ANCHOR BOLT.

COAT ANCHOR BOLT WITH RUST-OLEUM HARD HAT ZINC RICH COMPOUND.

TABLE

UNIT	ANCHOR BOLT SIZE 1"		1¼"		1½"		¾"
	POLE GAUGES						ALUM. PED.
	7 GA.	3 GA.	7 GA.	3 GA.	7 GA.	3 GA.	
A	7/16"	7/16"	1⅛"	1 5/16"	1⅛"	⅞"	¾"
B	1"	1"	1¼"	1¼"	1½"	1½"	¾"
C	¼"	¼"	5/16"	5/16"	⅜"	⅜"	3/16"
D	5/32"	5/32"	¼"	¼"	¼"	¼"	5/32"
E	1"	1"	1¼"	1½"	1½"	1¾"	⅝"



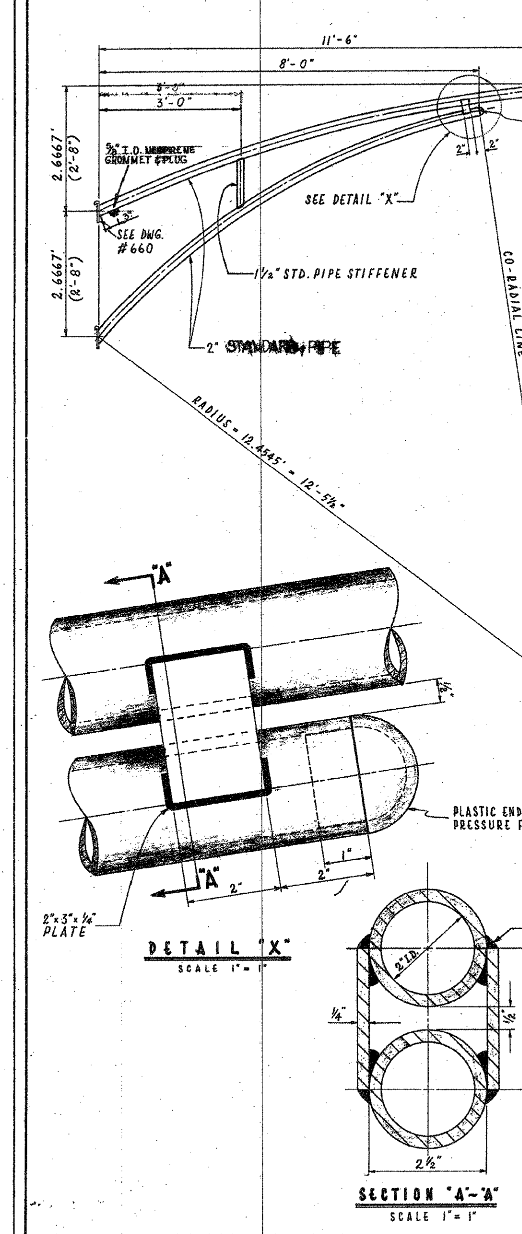
CONSTRUCTION METHOD FOR "DOUBLE-NUT" INSTALLATION OF POLES AND PEDESTALS

CITY OF CHICAGO

EUGENE GERULIS · M.J.S.

837

16" x 21"



12' MAST ARM FOR 2-BOLT ATTACHMENT

CITY OF CHICAGO

E. GERULIS · R.J.S. · M.J.S.

839

DATE 7-8-1985

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
BUREAU OF ELECTRICITY
LIGHTING STANDARDS
SAYRE AVENUE OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)

REVISIONS	
NAME	DATE

SCALE: NONE
DATE: 2/1/2008
DRAWN BY: MAE
CHECKED BY: MK/PKG

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

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14 JAN 2009
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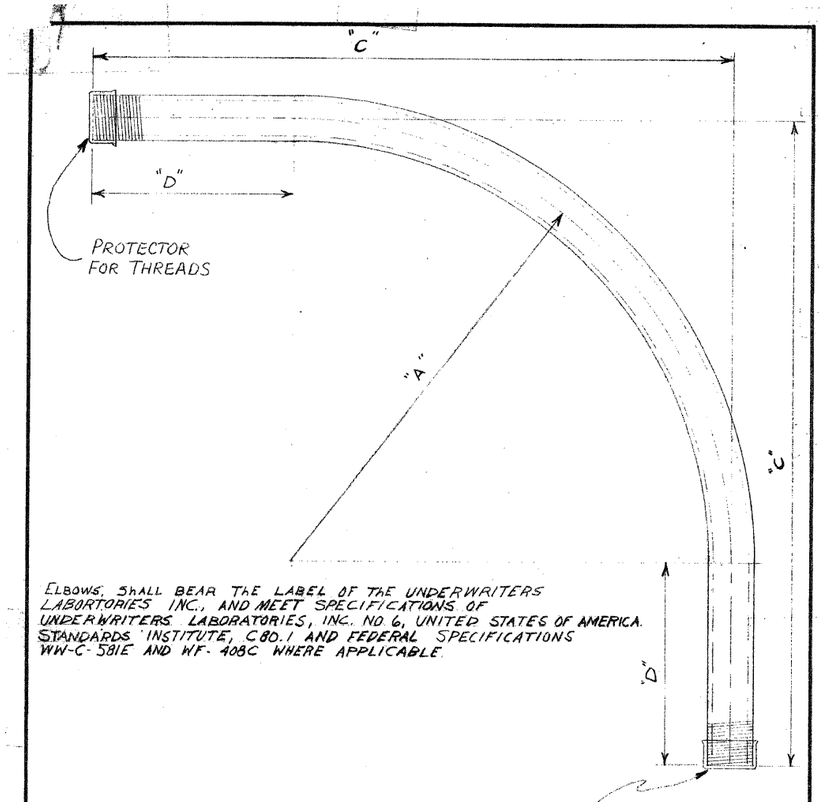
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	27
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT # 60384



ELBOWS SHALL BEAR THE LABEL OF THE UNDERWRITERS LABORTORIES INC., AND MEET SPECIFICATIONS OF UNDERWRITERS LABORATORIES, INC. NO 6, UNITED STATES OF AMERICA STANDARDS INSTITUTE, C80.1 AND FEDERAL SPECIFICATIONS WW-C-581E AND WF-408C WHERE APPLICABLE.

NOTE:
TWO THREAD PROTECTORS TO BE FURNISHED ON EACH ELBOW, PROTECTOR TO COVER A MINIMUM OF TEN THREADS.

TABLE OF DIMENSIONS

CONDUIT SIZE	DIMENSIONS "A"	"C"	"D"	COMMODITY CODE
1¼"	24"	35"	11"	09-4001-0510
1½"	24"	35"	11"	09-4001-0520
2"	24"	35"	11"	09-4001-4126
2½"	24"	35"	11"	09-4001-4128
3"	24"	35"	11"	09-4001-4230
4"	24"	35"	11"	09-4001-0000

REVISED	
B	SPECIFICATIONS REVISED
A	REVISED DIMENSIONS ON 3" & 4" CONDUIT L.P.

ELBOW, CONDUIT, RIGID GALVANIZED STEEL. LARGE RADIUS

REVISED	
A	7-22-71
B	4-3-73
C	
D	
E	
F	
G	

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAWN	CHECKED	ENGINEER
LON BURDY	M.S.	M. SHINE

DRG. NO. 11825

SIZE 8½" x 14" | DEPUTY COMM. SCALE: 3/16" | DATE 6-2-71

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
BUREAU OF ELECTRICITY
LIGHTING STANDARDS
SAYRE AVENUE OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)

SCALE: NONE | DRAWN BY: MAE
DATE: 2/1/2008 | CHECKED BY: MK/PKG

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14 JAN 2009
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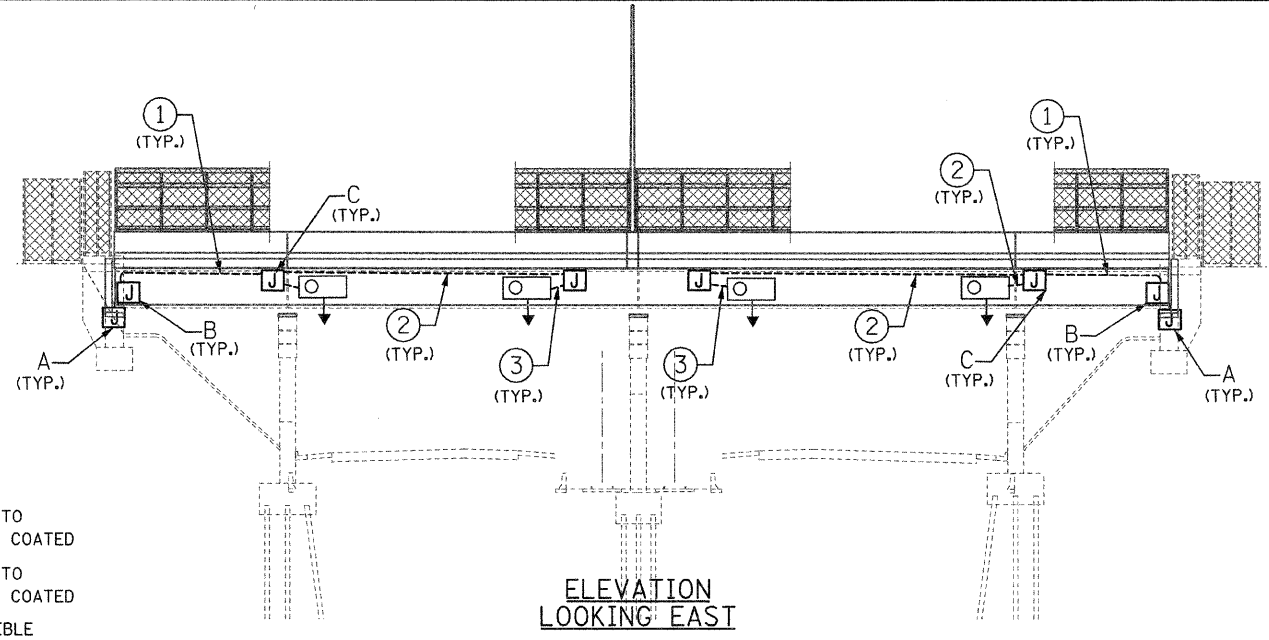
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

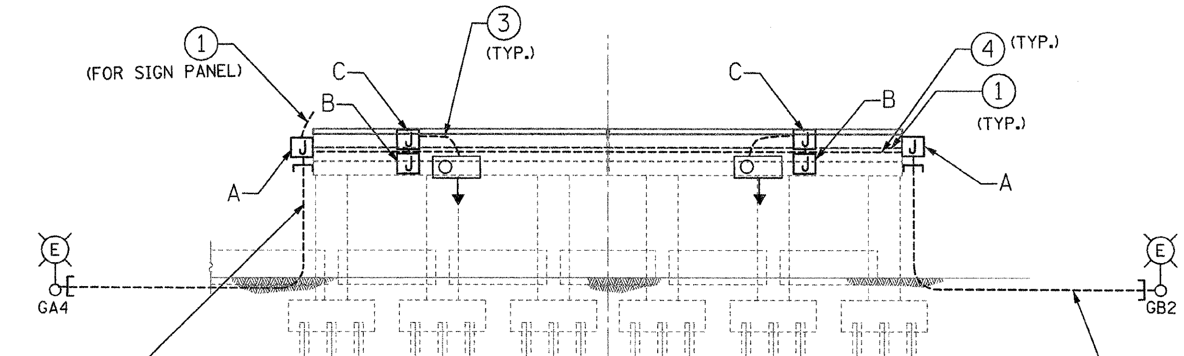
CONTRACT # 60384

LEGEND

- UNDERPASS LUMINAIRE, 70 WATT, HIGH PRESSURE SODIUM
- J A — JUNCTION BOX, ATTACHED TO STRUCTURE, 16" X 14" X 6"
- J B — JUNCTION BOX, ATTACHED TO STRUCTURE, 12" X 10" X 6"
- J C — JUNCTION BOX, ATTACHED TO STRUCTURE, 6" X 6" X 4"
- (1) 3/C#10, 1/C#10 GND. IN CONDUIT ATTACHED TO STRUCTURE, 1" DIA. GALVANIZED STEEL, PVC COATED
- (2) 2/C#10, 1/C#10 GND. IN CONDUIT ATTACHED TO STRUCTURE, 1" DIA. GALVANIZED STEEL, PVC COATED
- (3) 2/C#10, 1/C#10 GND. IN LIQUID TIGHT FLEXIBLE METALLIC CONDUIT, 3/4 INCH (SEE NOTE 2)
- (4) 3/C#4, 1/C#6 GND. 1 1/4" UNIT DUCT IN CONDUIT ATTACHED TO STRUCTURE, 2 1/2" DIA. GALVANIZED STEEL, PVC COATED
- EXISTING COMMONWEALTH EDISON CO. SERVICE POLE
- TEMPORARY WOOD POLE, 60 FT., CLASS 4
- EXISTING LIGHTING POLE
- — A/C — TEMPORARY AERIAL CABLE, 3/C#2, W/MW
- EXISTING LIGHTING CONTROLLER CABINET "G"

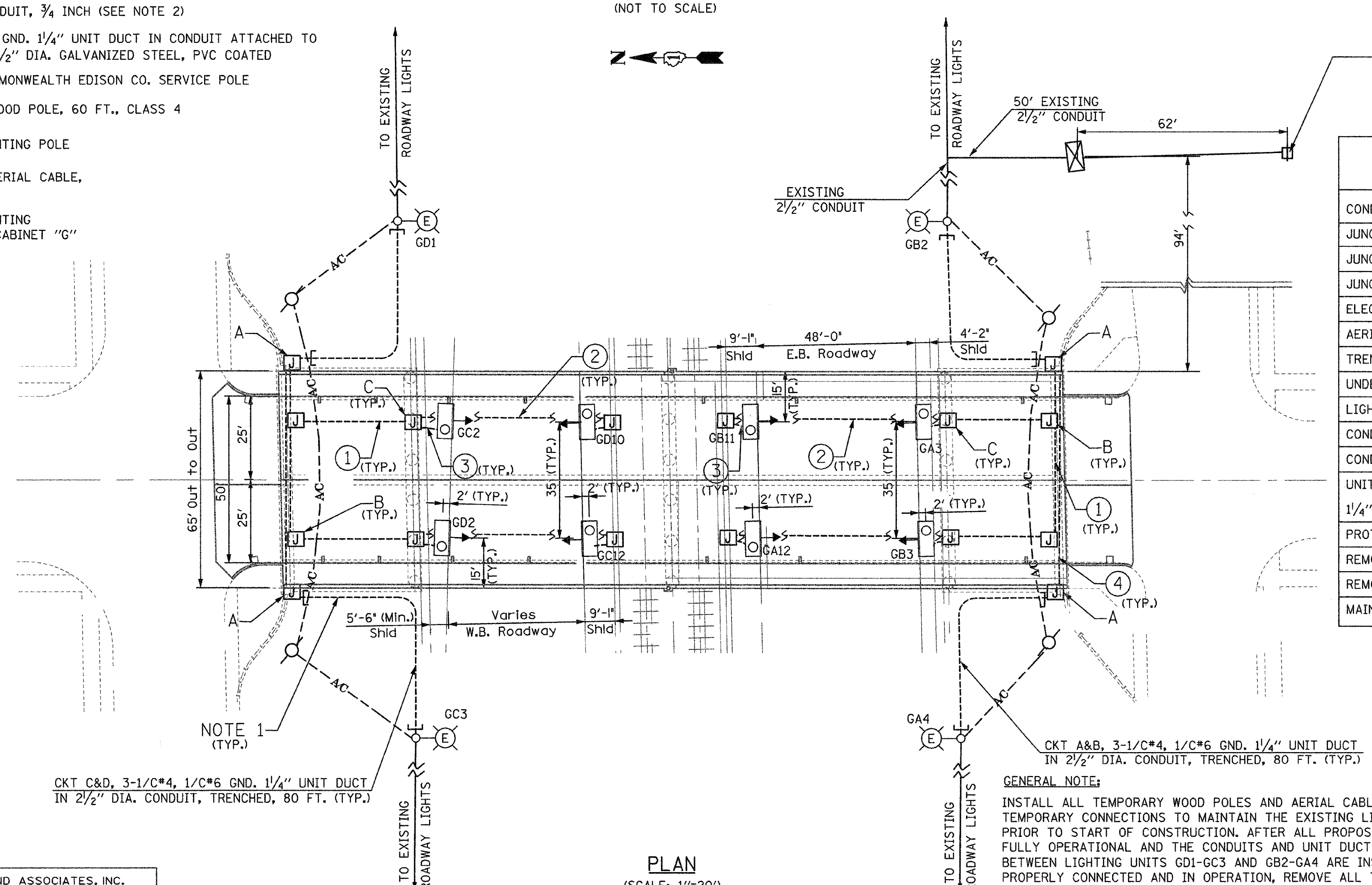


ELEVATION
LOOKING EAST
(NOT TO SCALE)



SIDE VIEW
LOOKING NORTH
(NOT TO SCALE)

CKT A&B, 3-1/C#4, 1/C#6 GND. 1 1/4" UNIT DUCT IN 2 1/2" DIA. CONDUIT, TRENCHED, 80 FT. (TYP.)



PLAN
(SCALE: 1"=20')

UNDERPASS LIGHTING SUMMARY OF QUANTITIES

DESCRIPTION	ITEM QUANTITY UNIT	QUANTITY
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	320
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
ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 1/C NO. 10	FOOT	1784
AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE	FOOT	370
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	320
UNDERPASS LUMINAIRE, 70 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	8
LIGHT POLE, WOOD, 60 FOOT, CLASS 4	EACH	4
CONDUIT ATTACHED TO STRUCTURE, 2 1/2" DIA. GALVANIZED STEEL, PVC COATED	FOOT	140
CONDUIT ATTACHED TO STRUCTURE, 1" DIA. RIGID GALVANIZED STEEL, PVC COATED	FOOT	181
UNIT DUCT, WITH 3-1/C NO. 4 AND 1/C NO. 6 GROUND, 600V (EPR-TYPE RHW), 1 1/4" DIA., POLYETHYLENE	FOOT	372
PROTECTION AND MAINTENANCE OF EXISTING UNDERPASS LIGHTING	L SUM	1
REMOVE EXISTING UNDERPASS LUMINAIRE, NO SALVAGE	EACH	8
REMOVE TEMPORARY WOOD POLE	EACH	4
MAINTENANCE OF LIGHTING SYSTEM	CAL MO	7

NOTE 1: THIS CONDUIT RUNS ALONG THE EMBANKMENT SLOPE IN THE TRENCH PARALLEL TO AND IN CLOSE PROXIMITY OF ABUTMENT WALL.

NOTE 2: QUANTITY OF LIQUID TIGHT FLEXIBLE METALLIC CONDUIT 3/4 INCH IS INCIDENTAL TO THE UNDERPASS LUMINAIRE.

NOTE 3: THE CONTRACTOR SHALL ISOLATE THE UNDERPASS LIGHTING SYSTEM WITH FUSING DURING THE CONSTRUCTION PERIOD.

GENERAL NOTE:

INSTALL ALL TEMPORARY WOOD POLES AND AERIAL CABLES AND MAKE ALL TEMPORARY CONNECTIONS TO MAINTAIN THE EXISTING LIGHTING ALONG I-90, PRIOR TO START OF CONSTRUCTION. AFTER ALL PROPOSED LIGHTING IS MADE FULLY OPERATIONAL AND THE CONDUITS AND UNIT DUCT IN CONDUIT BETWEEN LIGHTING UNITS GD1-GC3 AND GB2-GA4 ARE INSTALLED AND PROPERLY CONNECTED AND IN OPERATION, REMOVE ALL TEMPORARY WOOD POLES AND AERIAL CABLE CONNECTIONS. THE WOOD POLES, AERIAL CABLES, CONDUITS AND UNIT DUCT IN CONDUIT ARE PAID FOR SEPARATELY AND SHALL INCLUDE ALL TEMPORARY CONNECTIONS AND MATERIALS NECESSARY.

REVISIONS NAME	DATE

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

ILLINOIS DEPARTMENT OF TRANSPORTATION

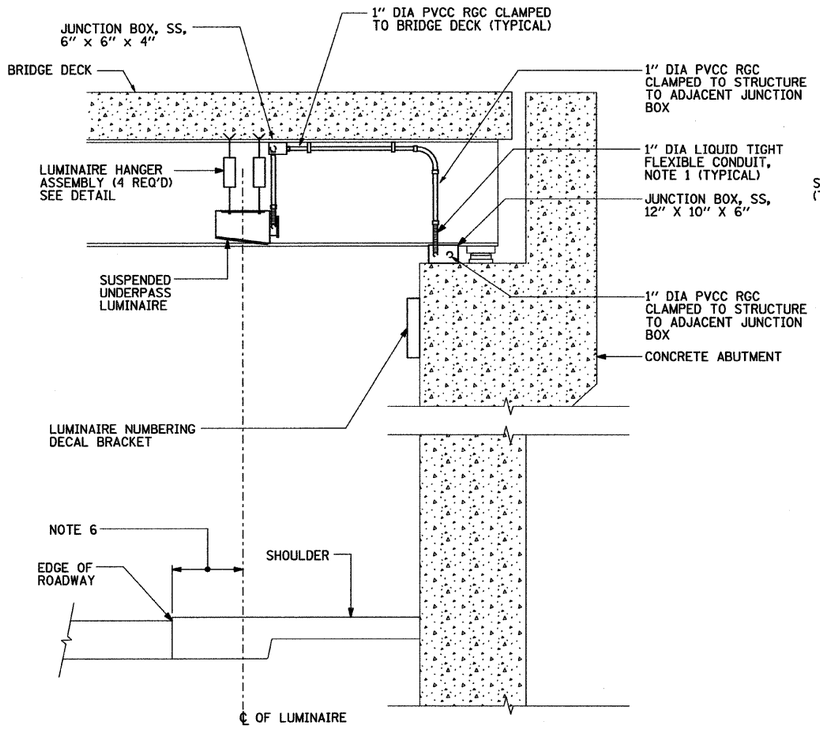
UNDERPASS LIGHTING
SAYRE AVENUE OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)

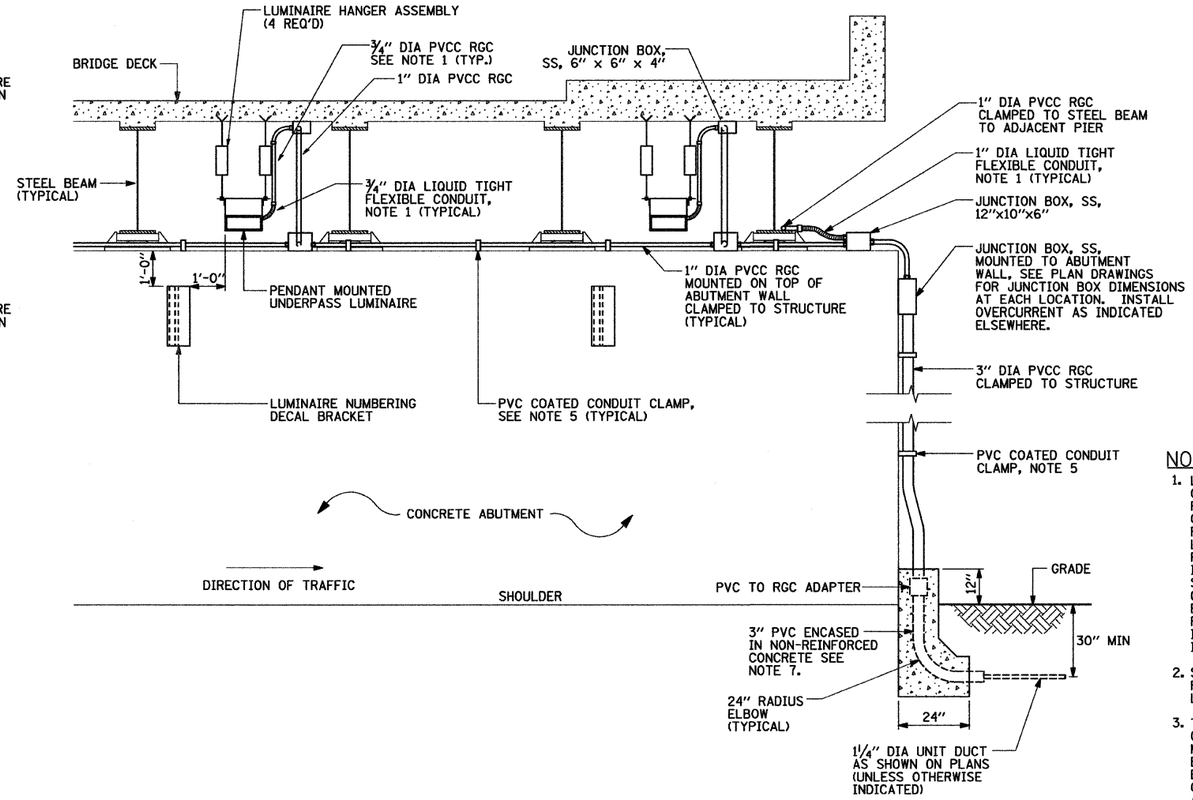
SCALE: AS NOTED
DATE: 2/1/2008
DRAWN BY: BC/MAE
CHECKED BY: MK

CONTRACT NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	29
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

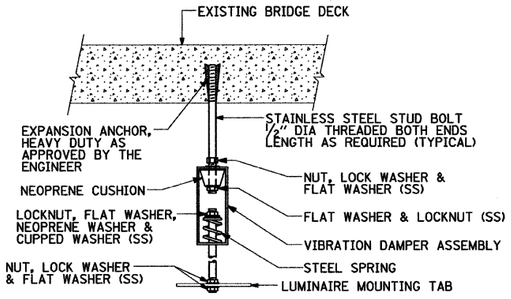
CONTRACT # 60384



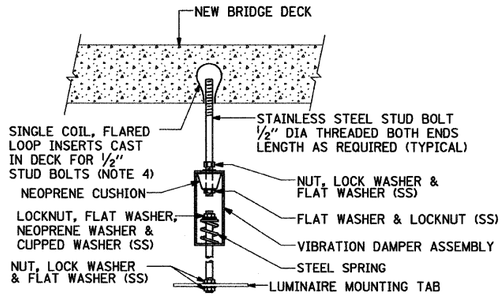


NOTES:

1. 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 ¾" DIA. CONDUIT AND ¾" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF UNDERPASS LUMINAIRE INSTALLATION.
2. SEE UNDERPASS LIGHTING PLANS FOR INSTALLATION LOCATION OF UNDERPASS LIGHTING LUMINAIRES.
3. 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.
4. 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.
5. 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.
6. 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
7. THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
8. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.

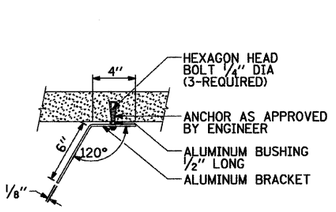


EXISTING BRIDGE DECK INSTALLATION



NEW BRIDGE DECK INSTALLATION

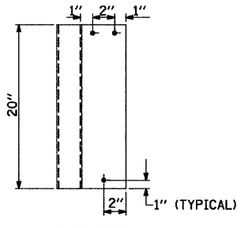
TYPICAL LUMINAIRE HANGER ASSEMBLY DETAILS



TOP VIEW

LUMINAIRE NUMBERING DECAL BRACKET

NOT TO SCALE



ELEVATION

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. HORIZ. DATE

DRAWN BY

CHECKED BY

BE-900

PLOT DATE = 6/21/2007
FILE NAME = K:\district6\BE900.DGN
PLOT SCALE = 50.0000 ' / In.
USER NAME = lagan

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	30
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60384

Bench Mark:

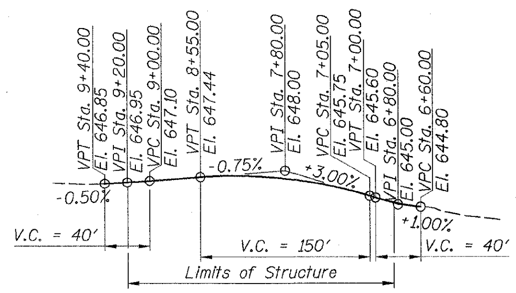
Chiseled square on east side of light pole foundation located off of the south shoulder of Eastbound I-90, 255' west of the existing bridge. Elev. 627.00.

Existing Structure:

S.N. 016-1104 built as F.A. Rte. 173 Sec. 267-1414 F-15D in 1958. The existing bridge has four simple spans which consist of a reinforced concrete deck 235'-10" long by 65'-0" wide supported on 48"PPC I-beams. The existing bridge superstructure shall be removed and replaced. The existing substructure shall be retained and rehabilitated. Traffic to be maintained utilizing stage construction.

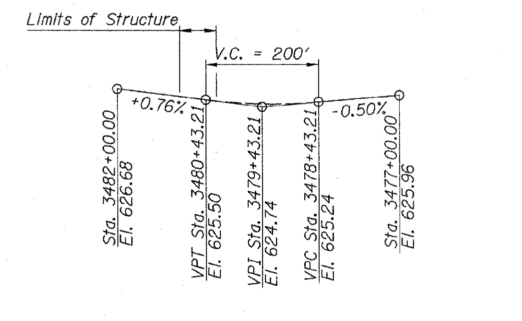
Salvage existing metal handrails.

Contractor is to verify existing vertical clearances prior to construction. Cost included in Construction Layout pay item.



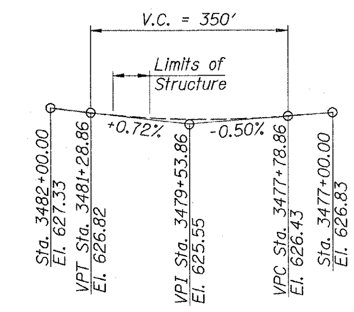
PROFILE GRADE SAYRE AVE.

(Along PGL Roadway)



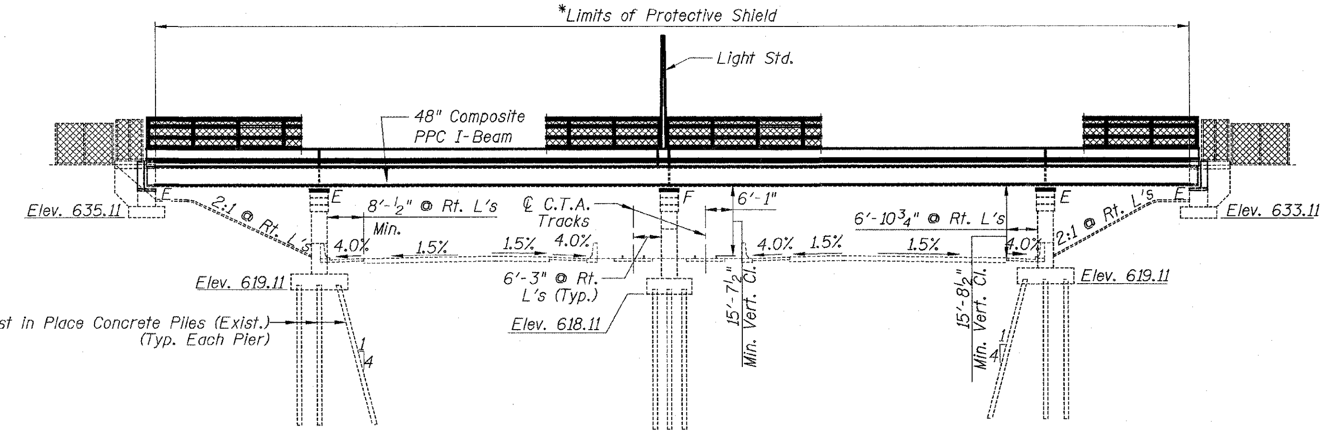
PROFILE GRADE I-90 (KENNEDY EXPRWY.)

(Along PGL Roadway - Existing)

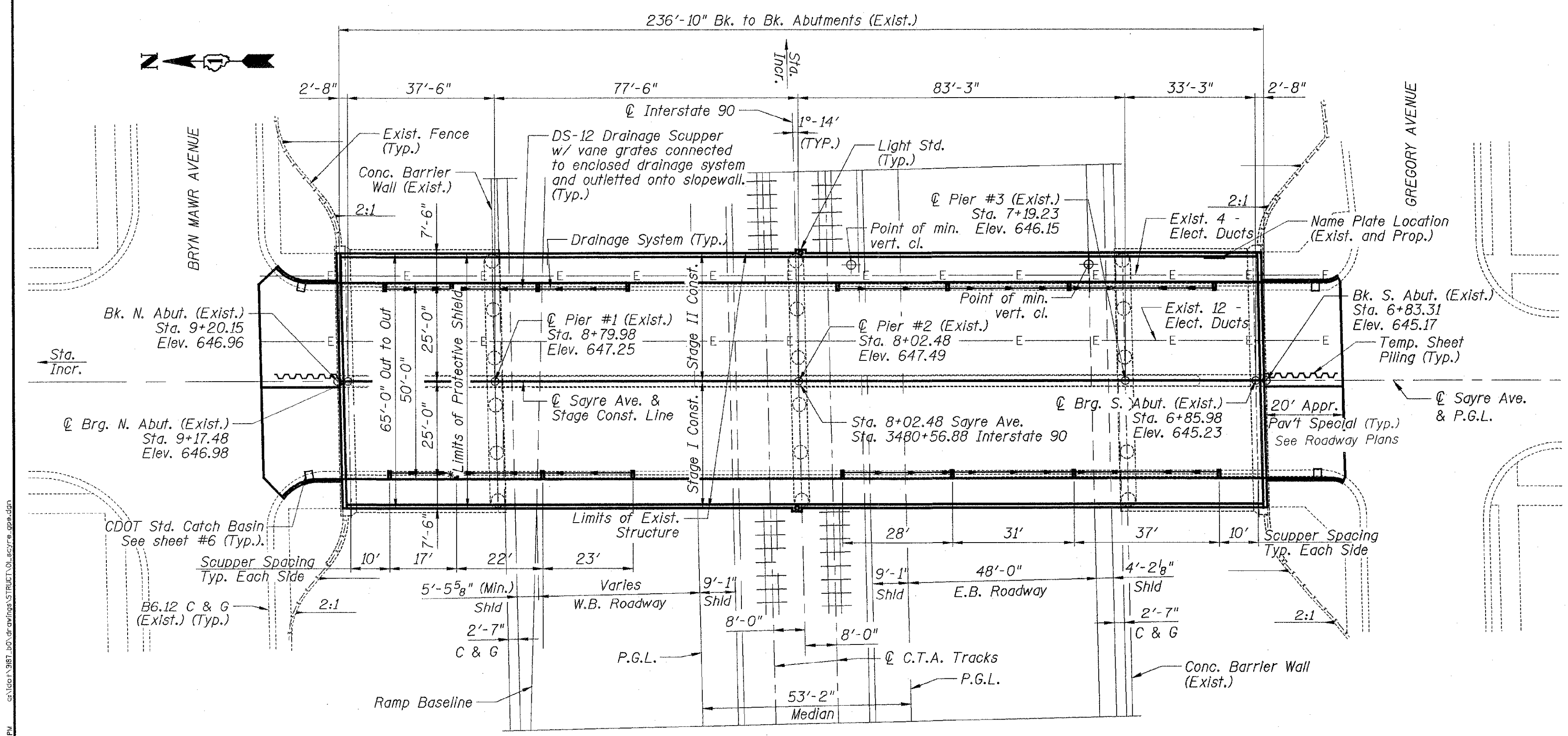


PROFILE GRADE C.T.A. TRACKS

(Top of Rail - Existing)



ELEVATION



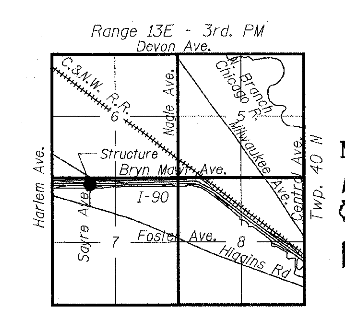
PLAN

* Protective shield already exists between pier 1 and pier 3 and between the existing fascia beams. Existing protective shield shall be removed and salvaged per note on sheet S2 and new protective shield installed to the limits shown prior to removal of existing deck.

STATION 8+02.48
REBUILT 200_ BY
STATE OF ILLINOIS
F.A. RT. 173 SEC. 267-1414-15D
LOADING HS20
STR. NO. 016-1104

NAME PLATE

See Standard 515001
(Existing name plate shall be cleaned and relocated next to new name plate, cost included with name plates.)



LOCATION SKETCH

INDEX OF SHEETS

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PATRICK ENGINEERING INC.
PAUL M. LOPEZ, S.E.

STATE OF ILLINOIS — PAUL M. LOPEZ — 081-005231 — CHICAGO, ILLINOIS — LICENSED STRUCTURAL ENGINEER

Paul M. Lopez
PAUL M. LOPEZ, S.E.
IL. REG. NO. 081-005231

EXP 11-30-08

DATE 1-31-08

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)
fy = 36,000 psi (M270 Gr. 36)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
f's = 270,000 psi (1/2" ϕ low lax. strands)
fsi = 201,960 psi (1/2" ϕ low lax. strands)

DESIGN SPECIFICATIONS

1996 AASHTO Standard Specifications for Highway Bridges and 1997-1999 Interims

LOADING HS20

Allowance for Future Wearing Surface = 50 lb/ft²

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.0

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN & ELEVATION
FA ROUTE 173 (SAYRE AVENUE) OVER INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: S. Benson
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

GENERAL NOTES

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

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the 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 seat area of the abutments.

Detailed Demolition Plans shall be submitted to the C.T.A. and the Engineer for review and approval. Refer to Specification Section 501 and Special Provision for additional requirements.

The existing metal handrail shall be salvaged and delivered undamaged to IDOT's maintenance facility at the following address:

1101 Biesterfield Road
Elk Grove Village, IL 60007

Cost to be included with Removal of Existing Superstructures .

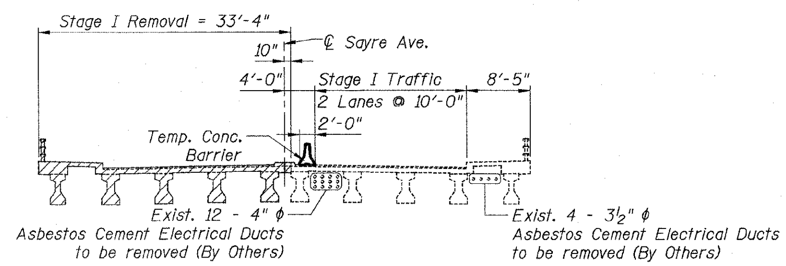
The existing protective shield shall be salvaged by the Contractor and delivered to IDOT's Maintenance Yard in Elk Grove (see address above). Maintenance Yard requires 48 hours advance notice (Phone 847-956-1444). This work shall include removing, transporting and unloading the protective shield at the above yard which cost shall be considered included in the cost of Removal of Existing Superstructures.

BRIDGE BILL OF MATERIAL

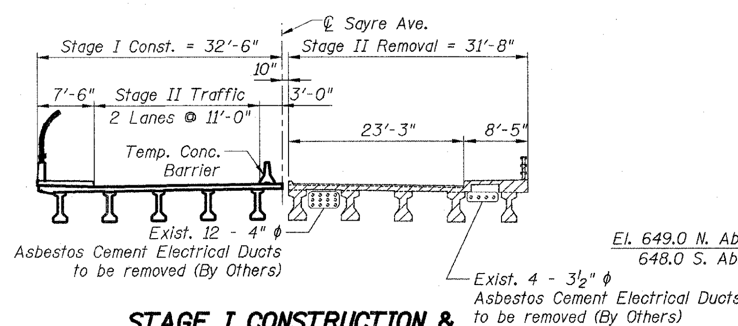
	ITEM	UNIT	SUPER.	SUB.	TOTAL
	Protective Coat	Sq. Yd.	1,837		1,837
	Removal of Existing Superstructures	Each	1		1
	Concrete Removal	Cu. Yd.		35.8	35.8
	Structure Excavation	Cu. Yd.		169	169
	Preformed Joint Strip Seal	Foot	132		132
	Concrete Structures	Cu. Yd.		62.3	62.3
	Concrete Superstructure	Cu. Yd.	589.0		589.0
	Bridge Deck Grooving	Sq. Yd.	1,243		1,243
	Elastomeric Bearing Assembly, Type I	Each	40		40
	Elastomeric Bearing Assembly, Type II	Each	20		20
	Anchor Bolts, 1"	Each	40		40
	Anchor Bolts, 1¼"	Each	80		80
	Anchor Bolts, 1½"	Each	4		4
*	Polymer Modified Portland Cement Mortar	Sq. Ft.		60	60
*	Structural Repair of Concrete (Depth Greater than 5")	Sq. Ft.		300	300
*	Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.		519	519
	Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48"	Foot	2,314		2,314
	Reinforcement Bars, Epoxy Coated	Pound	111,230	5,540	116,770
*	Temporary Sheet Piling	Sq. Ft.		901	901
	Name Plates	Each	1		1
	Concrete Sealer	Sq. Ft.		326	326
	Epoxy Crack Injection	Foot		144.6	144.6
	Bridge Fence Railing	Foot	459		459
	Bar Splicers	Each	665	142	817
*	Protective Shield	Sq. Yd.	1,672		1,672
*	Slope Wall Slurry Pumping	Cu. Yd.		10.7	10.7
*	Drainage System	L. Sum		1	1
	Drainage Scuppers, DS-12	Each	16		16
*	Porous Granular Embankment (Special)	Cu. Yd.		169	169

* See Special Provisions

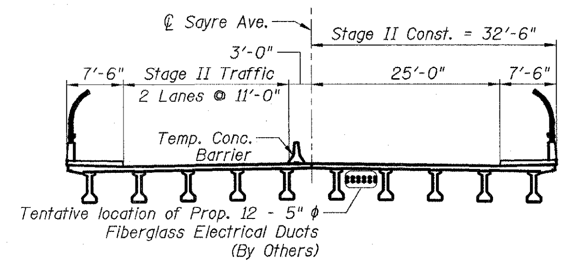
PATRICK ENGINEERING INC.
LISLE, ILLINOIS



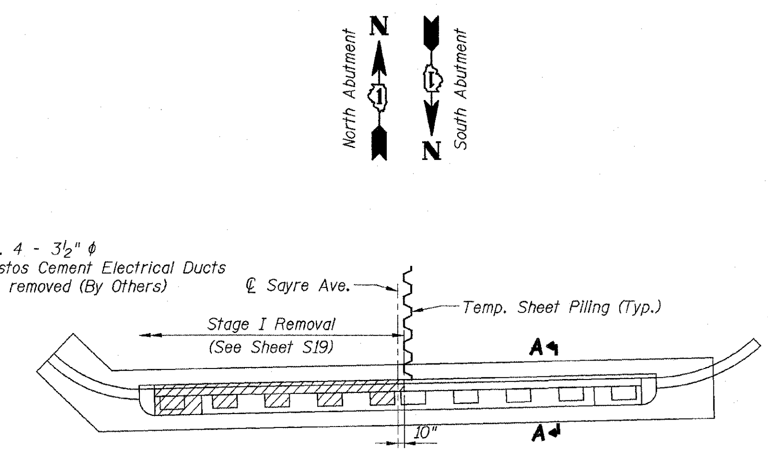
STAGE I REMOVAL
(Looking North)



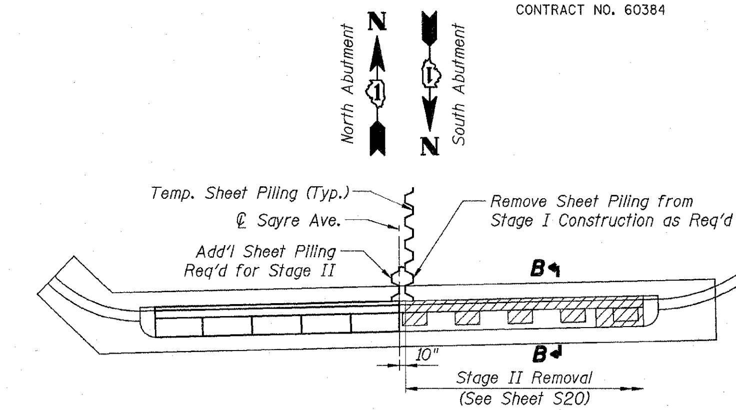
STAGE I CONSTRUCTION & STAGE 2 REMOVAL
(Looking North)



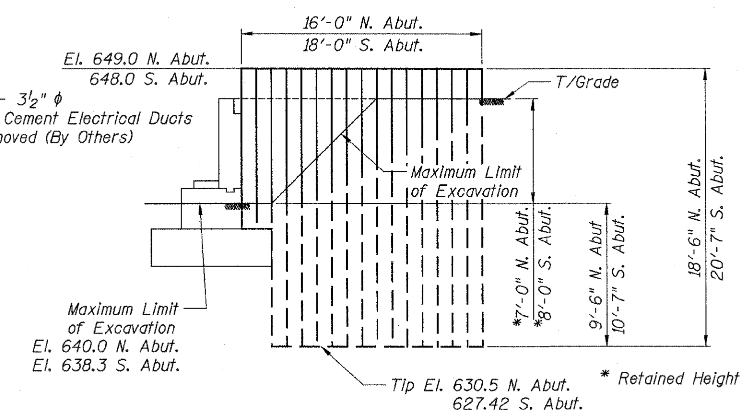
STAGE II CONSTRUCTION
(Looking North)



PLAN
(North Abut. Shown - South Abut. Similar)

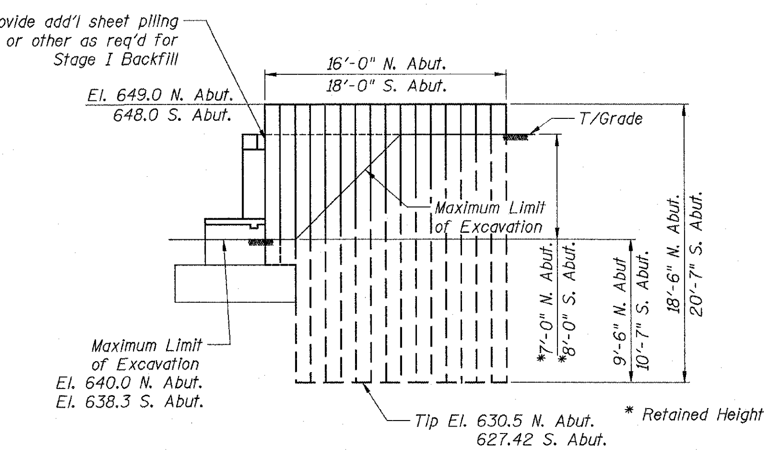


PLAN
(North Abut. Shown - South Abut. Similar)



SECTION A-A

TEMPORARY SHEET PILING FOR STAGE I CONSTRUCTION



SECTION B-B

TEMPORARY SHEET PILING FOR STAGE II CONSTRUCTION

NOTES:

1. All cross sections looking north unless shown otherwise. Hatched abutment areas indicate portion of "Concrete Removal". Hatched superstructure areas indicate "Removal of Existing Superstructures
2. For temporary concrete barrier see Sheet #S3. Pay items for temporary concrete barrier are included in roadway plans.
3. Minimum section modulus for temporary sheeting shall be 7.1 in^3 per foot of length. Fy=38,500 psi for temporary sheet piling.
4. If the contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans for lesser design requirements, then full design submittals with the required seals will be expected by the Department, for review and approval.

SUGGESTED SEQUENCE OF STAGE REMOVAL AND CONSTRUCTION OF SHEET PILING

1. Install sheet piling for stage I construction.
2. Sawcut existing slab and backwall @ stage I removal line and excavate around stage I removal prior to removal of existing structure.
3. Remove stage I structure.
4. Proceed stage I construction.
5. Install additional sheet piling for stage I backfill and stage II construction.
6. Excavate around stage II removal prior to removal of stage II structure.
7. Remove stage II structure.
8. Proceed stage II construction.
9. Remove sheet piling to a limit at least 2 feet below top of pavement elevation.

BILL OF MATERIAL

	Item	Unit	Quantity
*	Temporary Sheet Piling	Sq. Ft.	901

* See Special Provisions

REVISIONS	
NAME	DATE

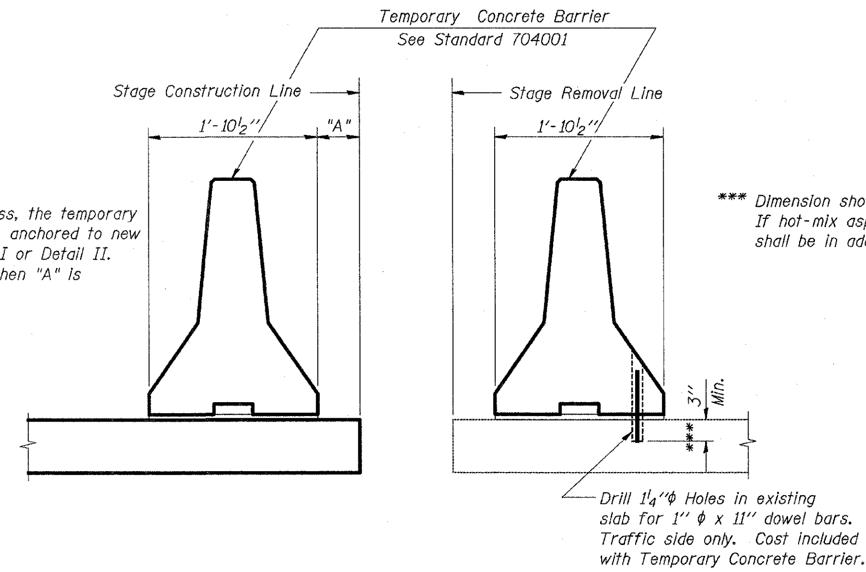
ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL NOTES &
BRIDGE BILL OF MATERIAL
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	32
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60384

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



*** 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.

NEW SLAB

EXISTING SLAB

SECTIONS THRU SLAB

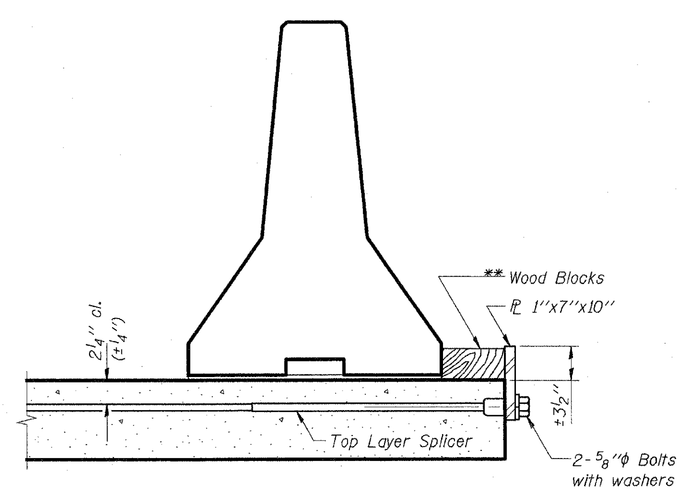
NOTES

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

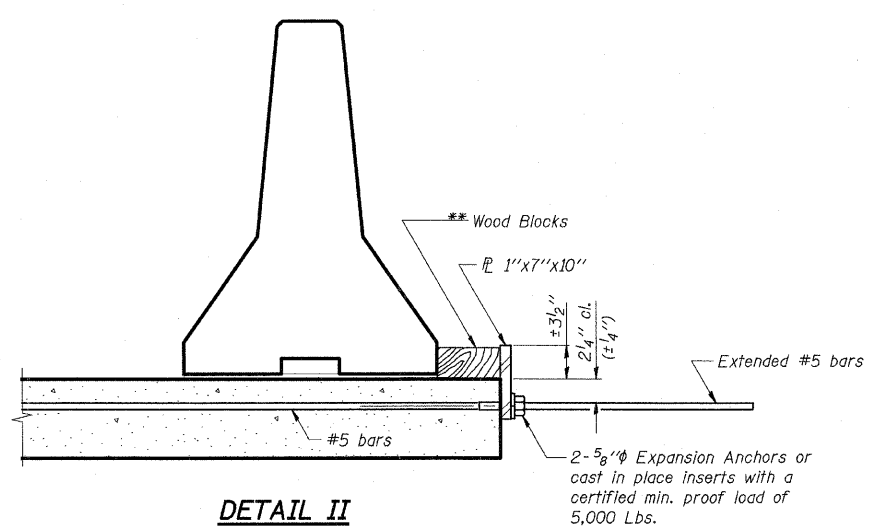
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝"ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

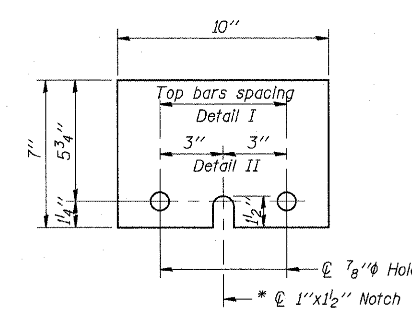
The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



DETAIL I



DETAIL II



STEEL RETAINER ℙ 1"x7"x10"

* Required only with Detail II

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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY BARRIER FOR
STAGE CONSTRUCTION
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

PATRICK
ENGINEERING INC.
LISLE, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	33
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60384

BEAM #1

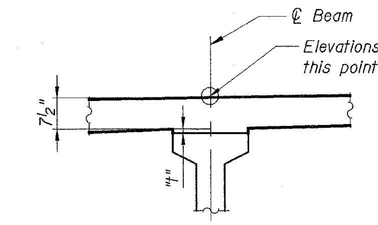
Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	9+20.79	29.50	646.52	646.52
℄ Brg. N. Abut.	9+18.12	29.50	646.53	646.53
A	9+08.12	29.50	646.60	646.60
B	8+98.12	29.50	646.67	646.67
C	8+88.12	29.50	646.75	646.75
℄ Pier #1	8+80.62	29.50	646.80	646.80
D	8+70.62	29.50	646.88	646.91
E	8+60.62	29.50	646.95	647.01
F	8+50.62	29.50	647.03	647.11
G	8+40.62	29.50	647.08	647.16
H	8+30.62	29.50	647.10	647.17
I	8+20.62	29.50	647.11	647.16
J	8+10.62	29.50	647.08	647.10
℄ Pier #2	8+03.12	29.50	647.05	647.05
K	7+93.12	29.50	646.98	647.02
L	7+83.12	29.50	646.89	646.96
M	7+73.12	29.50	646.77	646.87
N	7+63.12	29.50	646.63	646.74
O	7+53.12	29.50	646.46	646.56
P	7+43.12	29.50	646.27	646.35
Q	7+33.12	29.50	646.05	646.10
R	7+23.12	29.50	645.81	645.82
℄ Pier #3	7+19.87	29.50	645.73	645.73
S	7+09.87	29.50	645.45	645.45
T	6+99.87	29.50	645.15	645.15
U	6+89.87	29.50	644.88	644.88
℄ Brg. S. Abut.	6+86.62	29.50	644.80	644.80
Bk. S. Abut.	6+83.95	29.50	644.74	644.74

BEAM #2

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	9+20.64	22.94	646.61	646.61
℄ Brg. N. Abut.	9+17.97	22.94	646.63	646.63
A	9+07.97	22.94	646.70	646.70
B	8+97.97	22.94	646.77	646.77
C	8+87.97	22.94	646.85	646.85
℄ Pier #1	8+80.47	22.94	646.90	646.90
D	8+70.47	22.94	646.98	647.01
E	8+60.47	22.94	647.05	647.11
F	8+50.47	22.94	647.12	647.20
G	8+40.47	22.94	647.18	647.26
H	8+30.47	22.94	647.20	647.27
I	8+20.47	22.94	647.20	647.25
J	8+10.47	22.94	647.18	647.20
℄ Pier #2	8+02.97	22.94	647.15	647.15
K	7+92.97	22.94	647.08	647.12
L	7+82.97	22.94	646.99	647.06
M	7+72.97	22.94	646.87	646.97
N	7+62.97	22.94	646.72	646.83
O	7+52.97	22.94	646.56	646.66
P	7+42.97	22.94	646.36	646.44
Q	7+32.97	22.94	646.15	646.20
R	7+22.97	22.94	645.90	645.91
℄ Pier #3	7+19.72	22.94	645.82	645.82
S	7+09.72	22.94	645.54	645.54
T	6+99.72	22.94	645.25	645.25
U	6+89.72	22.94	644.97	644.97
℄ Brg. S. Abut.	6+86.47	22.94	644.90	644.90
Bk. S. Abut.	6+83.80	22.94	644.84	644.84

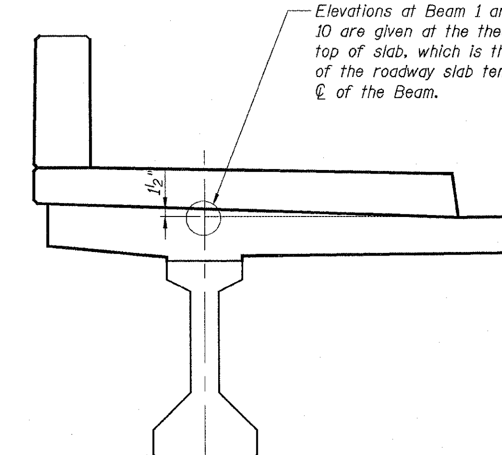
BEAM #3

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	9+20.50	16.39	646.71	646.71
℄ Brg. N. Abut.	9+17.83	16.39	646.73	646.73
A	9+07.83	16.39	646.80	646.80
B	8+97.83	16.39	646.87	646.87
C	8+87.83	16.39	646.95	646.95
℄ Pier #1	8+80.33	16.39	647.00	647.00
D	8+70.33	16.39	647.08	647.11
E	8+60.33	16.39	647.15	647.21
F	8+50.33	16.39	647.22	647.30
G	8+40.33	16.39	647.27	647.35
H	8+30.33	16.39	647.30	647.37
I	8+20.33	16.39	647.30	647.35
J	8+10.33	16.39	647.28	647.30
℄ Pier #2	8+02.83	16.39	647.24	647.24
K	7+92.83	16.39	647.17	647.21
L	7+82.83	16.39	647.08	647.15
M	7+72.83	16.39	646.96	647.06
N	7+62.83	16.39	646.82	646.93
O	7+52.83	16.39	646.65	646.75
P	7+42.83	16.39	646.46	646.54
Q	7+32.83	16.39	646.24	646.29
R	7+22.83	16.39	646.00	646.01
℄ Pier #3	7+19.58	16.39	645.92	645.92
S	7+09.58	16.39	645.64	645.64
T	6+99.58	16.39	645.34	645.34
U	6+89.58	16.39	645.07	645.07
℄ Brg. S. Abut.	6+86.33	16.39	644.99	644.99
Bk. S. Abut.	6+83.66	16.39	644.93	644.93

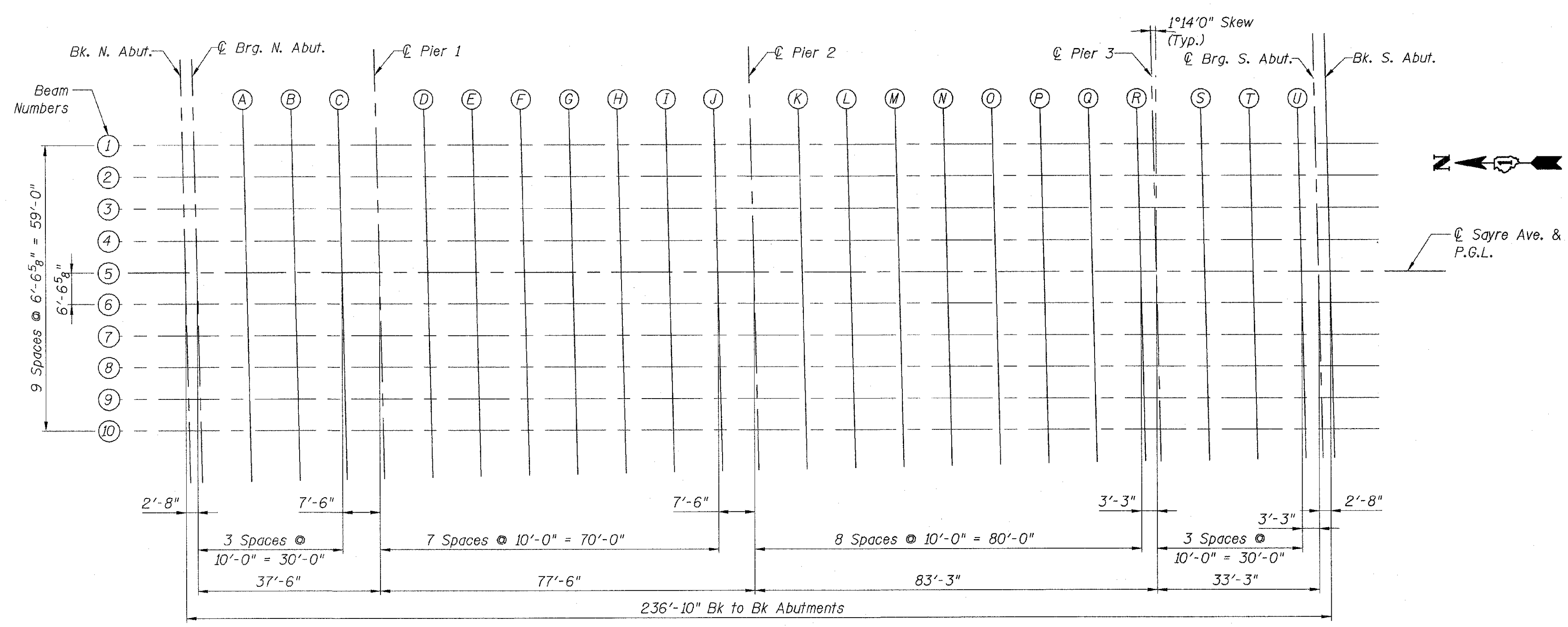


FILLET HEIGHTS

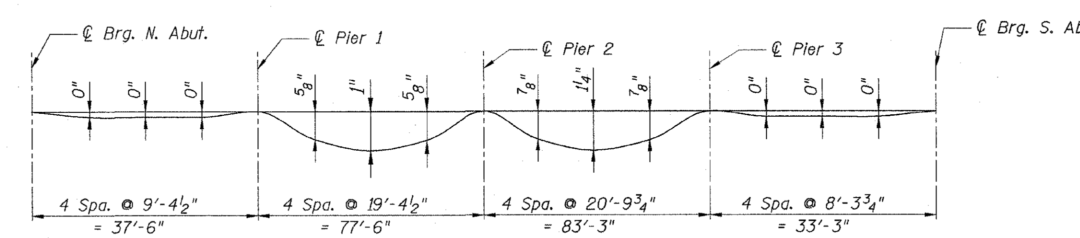
To determine "t": after all beams have been erected, elevations of the top flanges of the beams shall be taken at intervals show below. These elevations subtracted from the "Theorectical Grade Elevations Adjusted For Dead Load Deflection" show on sheets S4 thru S6, minus deck thickness, equals the fillet heights "t" above top flange on beams.



LOCATION OF ELEVATIONS AT EDGE OF BEAMS



PLAN



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of cast-in-place concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load dereflections as shown above.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS I
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION NO. 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE
DATE: DEC. 2007
DRAWN BY: R. Clinton
CHECKED BY: G. Hatlestad

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	34
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

BEAM #4

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	9+20.36	9.83	646.81	646.81
℄ Brg. N. Abut.	9+17.69	9.83	646.83	646.83
A	9+07.69	9.83	646.90	646.90
B	8+97.69	9.83	646.97	646.97
C	8+87.69	9.83	647.04	647.04
℄ Pier #1	8+80.19	9.83	647.10	647.10
D	8+70.19	9.83	647.18	647.21
E	8+60.19	9.83	647.25	647.31
F	8+50.19	9.83	647.32	647.40
G	8+40.19	9.83	647.37	647.45
H	8+30.19	9.83	647.40	647.47
I	8+20.19	9.83	647.40	647.45
J	8+10.19	9.83	647.38	647.40
℄ Pier #2	8+02.69	9.83	647.34	647.34
K	7+92.69	9.83	647.27	647.31
L	7+82.69	9.83	647.18	647.25
M	7+72.69	9.83	647.06	647.16
N	7+62.69	9.83	646.92	647.03
O	7+52.69	9.83	646.75	646.85
P	7+42.69	9.83	646.56	646.64
Q	7+32.69	9.83	646.34	646.39
R	7+22.69	9.83	646.09	646.10
℄ Pier #3	7+19.44	9.83	646.01	646.01
S	7+09.44	9.83	645.73	645.73
T	6+99.44	9.83	645.44	645.44
U	6+89.44	9.83	645.16	645.16
℄ Brg. S. Abut.	6+86.19	9.83	645.09	645.09
Bk. S. Abut.	6+83.52	9.83	645.03	645.03

BEAM #5

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	9+20.22	3.28	646.91	646.91
℄ Brg. N. Abut.	9+17.55	3.28	646.93	646.93
A	9+07.55	3.28	647.00	647.00
B	8+97.55	3.28	647.07	647.07
C	8+87.55	3.28	647.14	647.14
℄ Pier #1	8+80.05	3.28	647.20	647.20
D	8+70.05	3.28	647.28	647.31
E	8+60.05	3.28	647.35	647.41
F	8+50.05	3.28	647.42	647.50
G	8+40.05	3.28	647.47	647.55
H	8+30.05	3.28	647.50	647.57
I	8+20.05	3.28	647.50	647.55
J	8+10.05	3.28	647.47	647.49
℄ Pier #2	8+02.55	3.28	647.44	647.44
K	7+92.55	3.28	647.37	647.41
L	7+82.55	3.28	647.28	647.35
M	7+72.55	3.28	647.16	647.26
N	7+62.55	3.28	647.01	647.12
O	7+52.55	3.28	646.84	646.94
P	7+42.55	3.28	646.65	646.73
Q	7+32.55	3.28	646.43	646.48
R	7+22.55	3.28	646.19	646.20
℄ Pier #3	7+19.30	3.28	646.10	646.10
S	7+09.30	3.28	645.83	645.83
T	6+99.30	3.28	645.53	645.53
U	6+89.30	3.28	645.26	645.26
℄ Brg. S. Abut.	6+86.05	3.28	645.18	645.18
Bk. S. Abut.	6+83.38	3.28	645.12	645.12

CENTERLINE ROADWAY, P.G. & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	9+20.15	0.00	646.96	646.96
℄ Brg. N. Abut.	9+17.48	0.00	646.98	646.98
A	9+07.48	0.00	647.05	647.05
B	8+97.48	0.00	647.12	647.12
C	8+87.48	0.00	647.19	647.19
℄ Pier #1	8+79.98	0.00	647.25	647.25
D	8+69.98	0.00	647.33	647.36
E	8+59.98	0.00	647.40	647.46
F	8+49.98	0.00	647.47	647.55
G	8+39.98	0.00	647.52	647.60
H	8+29.98	0.00	647.55	647.62
I	8+19.98	0.00	647.55	647.60
J	8+09.98	0.00	647.52	647.54
℄ Pier #2	8+02.48	0.00	647.49	647.49
K	7+92.48	0.00	647.42	647.46
L	7+82.48	0.00	647.32	647.39
M	7+72.48	0.00	647.21	647.31
N	7+62.48	0.00	647.06	647.17
O	7+52.48	0.00	646.89	646.99
P	7+42.48	0.00	646.70	646.78
Q	7+32.48	0.00	646.48	646.53
R	7+22.48	0.00	646.24	646.25
℄ Pier #3	7+19.23	0.00	646.15	646.15
S	7+09.23	0.00	645.87	645.87
T	6+99.23	0.00	645.58	645.58
U	6+89.23	0.00	645.31	645.31
℄ Brg. S. Abut.	6+85.98	0.00	645.23	645.23
Bk. S. Abut.	6+83.31	0.00	645.17	645.17

BEAM #6

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	9+20.08	-3.28	646.91	646.91
℄ Brg. N. Abut.	9+17.41	-3.28	646.93	646.93
A	9+07.41	-3.28	647.00	647.00
B	8+97.41	-3.28	647.07	647.07
C	8+87.41	-3.28	647.15	647.15
℄ Pier #1	8+79.91	-3.28	647.20	647.20
D	8+69.91	-3.28	647.28	647.31
E	8+59.91	-3.28	647.35	647.41
F	8+49.91	-3.28	647.42	647.50
G	8+39.91	-3.28	647.47	647.55
H	8+29.91	-3.28	647.50	647.57
I	8+19.91	-3.28	647.50	647.55
J	8+09.91	-3.28	647.47	647.49
℄ Pier #2	8+02.41	-3.28	647.44	647.44
K	7+92.41	-3.28	647.37	647.41
L	7+82.41	-3.28	647.27	647.34
M	7+72.41	-3.28	647.16	647.26
N	7+62.41	-3.28	647.01	647.12
O	7+52.41	-3.28	646.84	646.94
P	7+42.41	-3.28	646.65	646.73
Q	7+32.41	-3.28	646.43	646.48
R	7+22.41	-3.28	646.19	646.20
℄ Pier #3	7+19.16	-3.28	646.10	646.10
S	7+09.16	-3.28	645.82	645.82
T	6+99.16	-3.28	645.53	645.53
U	6+89.16	-3.28	645.25	645.25
℄ Brg. S. Abut.	6+85.91	-3.28	645.18	645.18
Bk. S. Abut.	6+83.24	-3.28	645.12	645.12

BEAM #7

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	9+19.94	-9.83	646.82	646.82
℄ Brg. N. Abut.	9+17.27	-9.83	646.83	646.83
A	9+07.27	-9.83	646.90	646.90
B	8+97.27	-9.83	646.97	646.97
C	8+87.27	-9.83	647.05	647.05
℄ Pier #1	8+79.77	-9.83	647.10	647.10
D	8+69.77	-9.83	647.18	647.21
E	8+59.77	-9.83	647.25	647.31
F	8+49.77	-9.83	647.33	647.41
G	8+39.77	-9.83	647.38	647.46
H	8+29.77	-9.83	647.40	647.47
I	8+19.77	-9.83	647.40	647.45
J	8+09.77	-9.83	647.37	647.39
℄ Pier #2	8+02.27	-9.83	647.34	647.34
K	7+92.27	-9.83	647.27	647.31
L	7+82.27	-9.83	647.17	647.24
M	7+72.27	-9.83	647.05	647.15
N	7+62.27	-9.83	646.91	647.02
O	7+52.27	-9.83	646.74	646.84
P	7+42.27	-9.83	646.55	646.63
Q	7+32.27	-9.83	646.33	646.38
R	7+22.27	-9.83	646.08	646.09
℄ Pier #3	7+19.02	-9.83	646.00	646.00
S	7+09.02	-9.83	645.72	645.72
T	6+99.02	-9.83	645.42	645.42
U	6+89.02	-9.83	645.15	645.15
℄ Brg. S. Abut.	6+85.77	-9.83	645.08	645.08
Bk. S. Abut.	6+83.10	-9.83	645.02	645.02

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TOP OF DECK SLAB ELEVATIONS II
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION NO. 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	35
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

BEAM #8

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	9+19.80	-16.39	646.72	646.72
℄ Brg. N. Abut.	9+17.13	-16.39	646.73	646.73
A	9+07.13	-16.39	646.80	646.80
B	8+97.13	-16.39	646.88	646.88
C	8+87.13	-16.39	646.95	646.95
℄ Pier #1	8+79.63	-16.39	647.01	647.01
D	8+69.63	-16.39	647.08	647.11
E	8+59.63	-16.39	647.16	647.22
F	8+49.63	-16.39	647.23	647.31
G	8+39.63	-16.39	647.28	647.36
H	8+29.63	-16.39	647.30	647.37
I	8+19.63	-16.39	647.30	647.35
J	8+09.63	-16.39	647.27	647.29
℄ Pier #2	8+02.13	-16.39	647.24	647.24
K	7+92.13	-16.39	647.17	647.21
L	7+82.13	-16.39	647.07	647.14
M	7+72.13	-16.39	646.95	647.05
N	7+62.13	-16.39	646.81	646.92
O	7+52.13	-16.39	646.64	646.74
P	7+42.13	-16.39	646.45	646.53
Q	7+32.13	-16.39	646.23	646.28
R	7+22.13	-16.39	645.98	645.99
℄ Pier #3	7+18.88	-16.39	645.90	645.90
S	7+08.88	-16.39	645.62	645.62
T	6+98.88	-16.39	645.32	645.32
U	6+88.88	-16.39	645.05	645.05
℄ Brg. S. Abut.	6+85.63	-16.39	644.97	644.97
Bk. S. Abut.	6+82.96	-16.39	644.92	644.92

BEAM #9

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	9+19.66	-22.94	646.62	646.62
℄ Brg. N. Abut.	9+16.99	-22.94	646.64	646.64
A	9+06.99	-22.94	646.70	646.70
B	8+96.99	-22.94	646.78	646.78
C	8+86.99	-22.94	646.85	646.85
℄ Pier #1	8+79.49	-22.94	646.91	646.91
D	8+69.49	-22.94	646.98	647.01
E	8+59.49	-22.94	647.06	647.12
F	8+49.49	-22.94	647.13	647.21
G	8+39.49	-22.94	647.18	647.26
H	8+29.49	-22.94	647.20	647.27
I	8+19.49	-22.94	647.20	647.25
J	8+09.49	-22.94	647.18	647.20
℄ Pier #2	8+01.99	-22.94	647.14	647.14
K	7+91.99	-22.94	647.07	647.11
L	7+81.99	-22.94	646.97	647.04
M	7+71.99	-22.94	646.85	646.95
N	7+61.99	-22.94	646.71	646.82
O	7+51.99	-22.94	646.54	646.64
P	7+41.99	-22.94	646.34	646.42
Q	7+31.99	-22.94	646.12	646.17
R	7+21.99	-22.94	645.88	645.89
℄ Pier #3	7+18.74	-22.94	645.79	645.79
S	7+08.74	-22.94	645.52	645.52
T	6+98.74	-22.94	645.22	645.22
U	6+88.74	-22.94	644.95	644.95
℄ Brg. S. Abut.	6+85.49	-22.94	644.87	644.87
Bk. S. Abut.	6+82.82	-22.94	644.81	644.81

BEAM #10

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflections
Bk. N. Abut.	9+19.51	-29.50	646.52	646.52
℄ Brg. N. Abut.	9+16.84	-29.50	646.54	646.54
A	9+06.84	-29.50	646.61	646.61
B	8+96.84	-29.50	646.68	646.68
C	8+86.84	-29.50	646.76	646.76
℄ Pier #1	8+79.34	-29.50	646.81	646.81
D	8+69.34	-29.50	646.89	646.92
E	8+59.34	-29.50	646.96	647.02
F	8+49.34	-29.50	647.03	647.11
G	8+39.34	-29.50	647.08	647.16
H	8+29.34	-29.50	647.11	647.18
I	8+19.34	-29.50	647.10	647.15
J	8+09.34	-29.50	647.08	647.10
℄ Pier #2	8+01.84	-29.50	647.04	647.04
K	7+91.84	-29.50	646.97	647.01
L	7+81.84	-29.50	646.87	646.94
M	7+71.84	-29.50	646.75	646.85
N	7+61.84	-29.50	646.61	646.72
O	7+51.84	-29.50	646.44	646.54
P	7+41.84	-29.50	646.24	646.32
Q	7+31.84	-29.50	646.02	646.07
R	7+21.84	-29.50	645.78	645.79
℄ Pier #3	7+18.59	-29.50	645.69	645.69
S	7+08.59	-29.50	645.41	645.41
T	6+98.59	-29.50	645.12	645.12
U	6+88.59	-29.50	644.85	644.85
℄ Brg. S. Abut.	6+85.34	-29.50	644.77	644.77
Bk. S. Abut.	6+82.67	-29.50	644.71	644.71

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

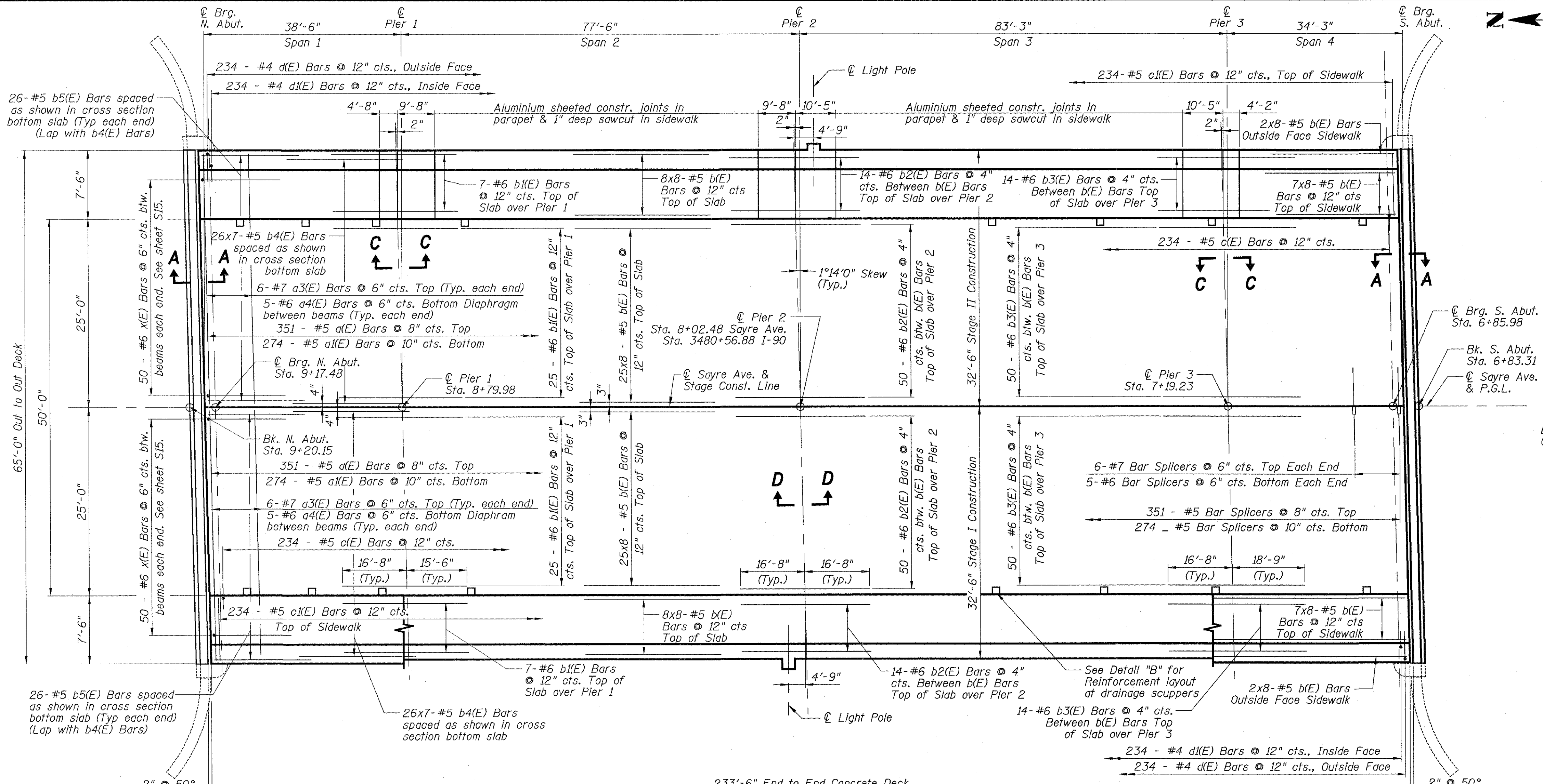
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TOP OF DECK SLAB ELEVATIONS III
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION NO. 267-1414-15D
STRUCTURE NO. 016-1104

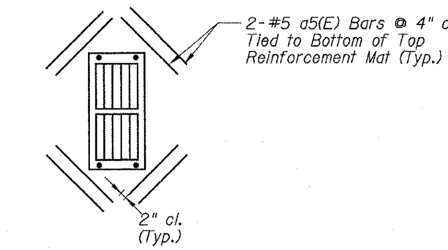
SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	36
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

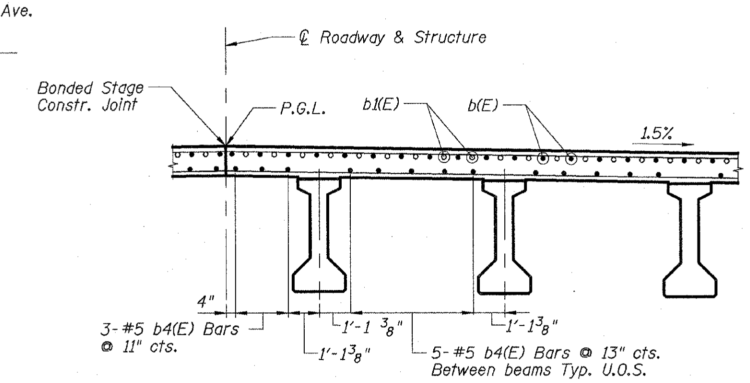


PLAN



DETAIL "B"

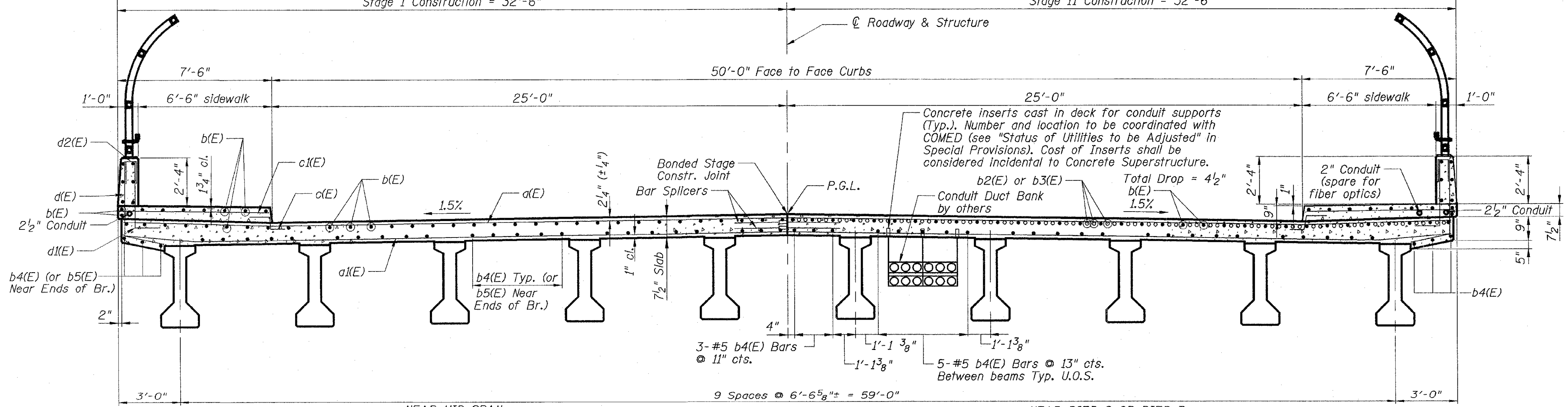
Cut longitudinal reinforcement to clear drainage scuppers.



DETAIL "A"

(Reinforcement Near Pier 1, Looking North)

TYP. LAP SPLICE	
Bar Size	Min. Lap
#5	1'-8"



CROSS SECTION

(Looking North)

Notes:

Dimensions are based on a Rolled Rail Joint. If the Contractor elects to use the Welded Rail Joint, the dimensions may require adjustments to satisfy the details on Sheet S10.

Bars indicated thus 20 x 3 - #5 etc. indicates 20 lines of bars with 3 lengths per line.

U.O.S. = Unless Otherwise Shown

See Sheet S8 for superstructure details and Bill of Material.

See Sheet S15 for sections A-A, C-C & D-D.

See Sheet S29 for Bar Splicer Details.

See Sheet S8 for Parapet details and reinforcement.

See Sheet S1 for location of Drainage Scuppers.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DECK PLAN
FA ROUTE 173 (SAYRE AVENUE) OVER INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION NO. 267-1414-15D
STRUCTURE NO. 016-1104

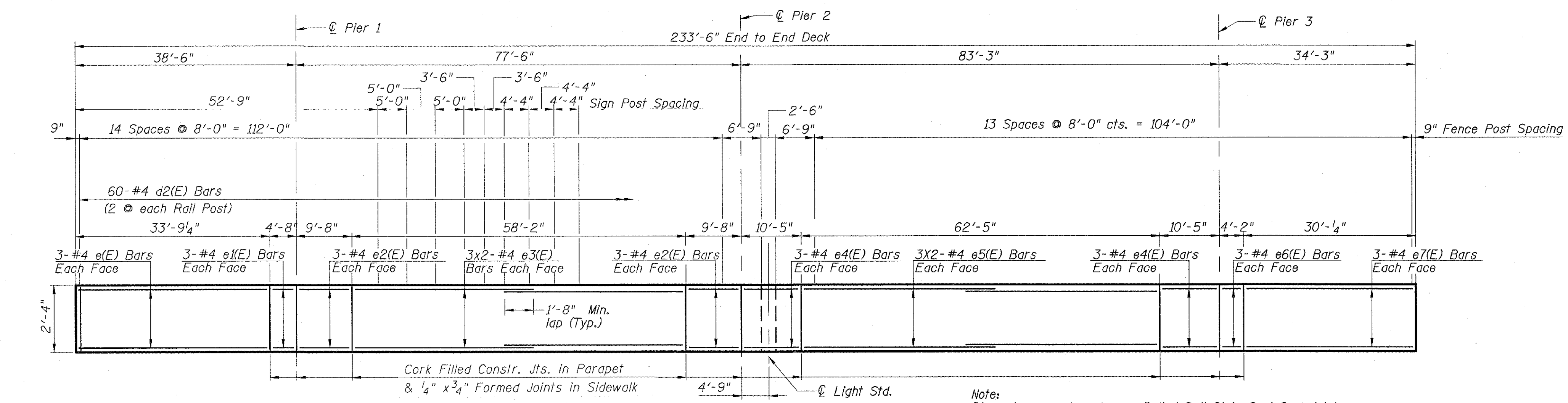
SCALE: NONE
DRAWN BY: R. Kaye
DATE: DEC. 2007
CHECKED BY: R. Clinton

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

Sheet S8 of S29

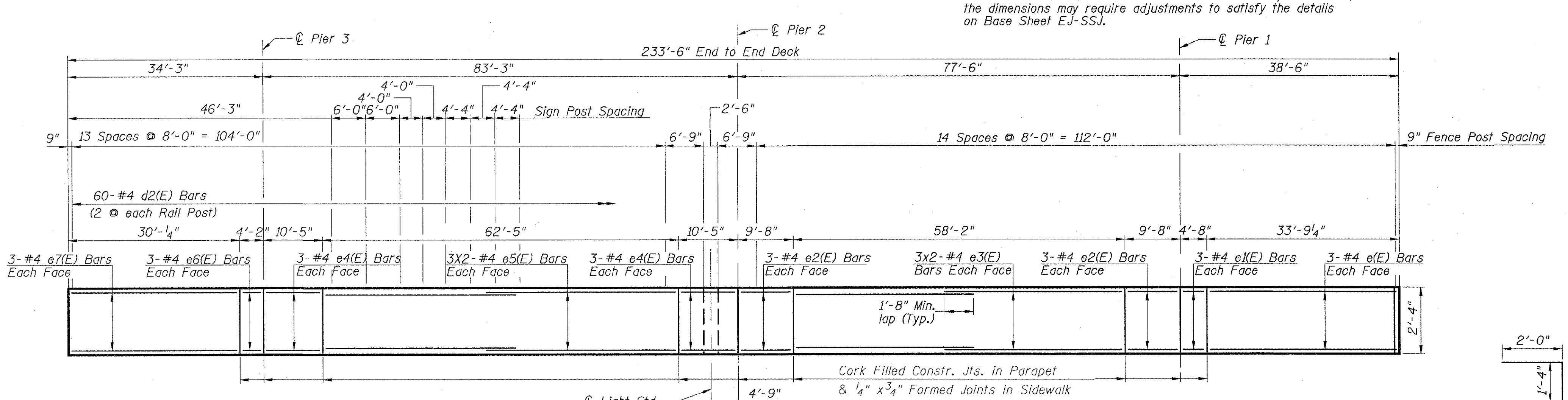
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	37
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60384



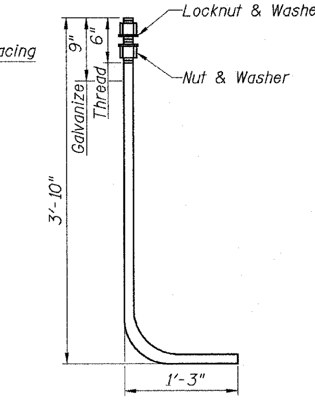
INSIDE ELEVATION OF EAST PARAPET

Note:
Dimensions are based on a Rolled Rail Strip Seal Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, the dimensions may require adjustments to satisfy the details on Base Sheet EJ-SSJ.

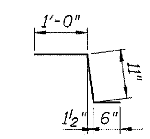


INSIDE ELEVATION OF WEST PARAPET

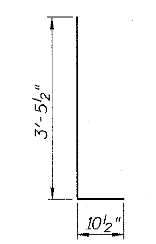
Note:
Dimensions are based on a Rolled Rail Joint. If the contractor elects to use the Welded Rail Joint, the dimensions may require adjustments to satisfy the details on Sheet S10.



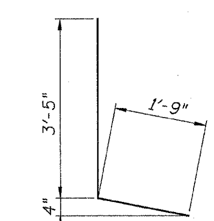
1" ϕ ANCHOR BOLT



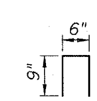
BAR a(E)



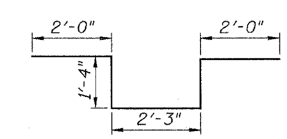
BAR d1(E)



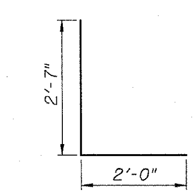
BAR d(E)



BAR d2(E)



BAR d4(E)



BAR d3(E)

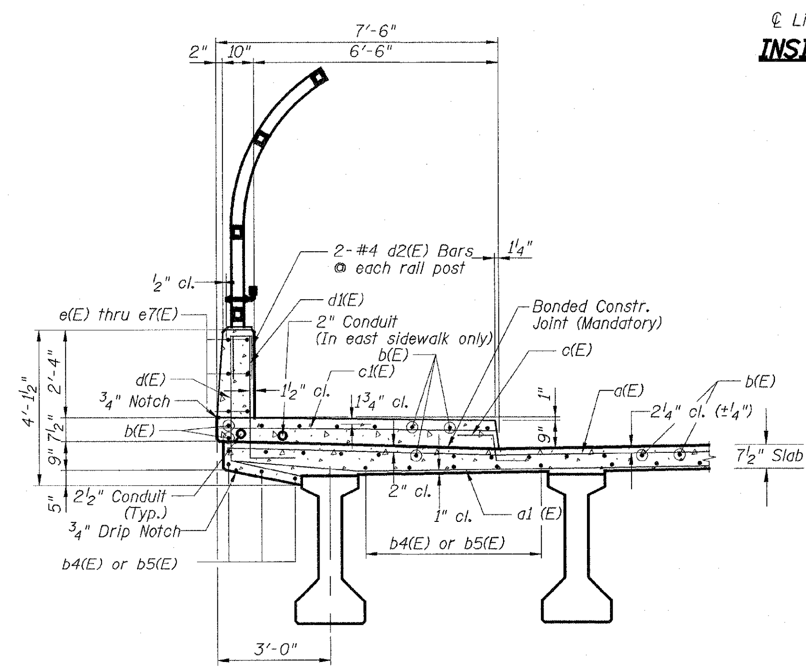
SUPERSTRUCTURE BILL OF MATERIALS

Bar	No.	Size	Length	Shape
a(E)	702	5	32'-0"	straight
a1(E)	548	5	32'-0"	straight
a3(E)	24	7	32'-0"	straight
a4(E)	90	6	5'-7"	straight
a5(E)	128	5	2'-0"	straight
b(E)	672	5	30'-7"	straight
b1(E)	64	6	32'-2"	straight
b2(E)	128	6	33'-4"	straight
b3(E)	128	6	35'-5"	straight
b4(E)	364	5	30'-7"	straight
b5(E)	104	5	16'-2"	straight
c(E)	468	5	2'-5"	
c1(E)	468	5	7'-1"	straight
d(E)	468	4	5'-2"	
d1(E)	468	6	4'-4"	
d2(E)	120	4	2'-0"	
d3(E)	6	6	4'-7"	
d4(E)	10	6	8'-11"	
e(E)	12	4	33'-5"	straight
e1(E)	12	4	4'-4"	straight
e2(E)	24	4	9'-4"	straight
e3(E)	24	4	29'-9"	straight
e4(E)	24	4	10'-1"	straight
e5(E)	24	4	31'-10"	straight
e6(E)	12	4	3'-10"	straight
e7(E)	12	4	29'-8"	straight
m(E)	108	4	5'-7"	straight
m1(E)	54	6	4'-6"	straight
m2(E)	30	8	5'-10"	straight
s(E)	36	4	11'-6"	
s1(E)	72	4	11'-2"	straight
x(E)	200	6	7'-6"	
Concrete Superstructure			Cu. Yd.	589.0
Reinforcing Bars, Epoxy Coated			Pound	111,230
Bar Splicers			Each	665
Protective Coat			Sq. Yd.	1,837
Bridge Deck Grooving			Sq. Yd.	1,243

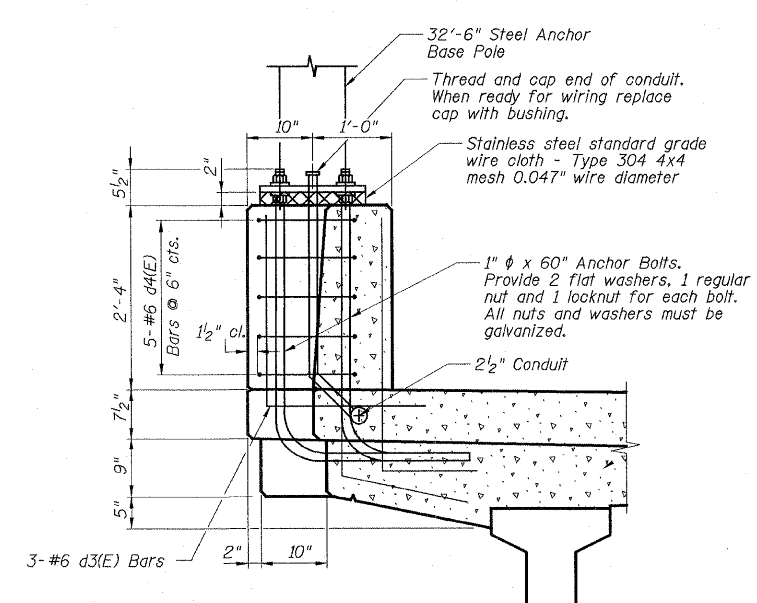
Notes:

Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

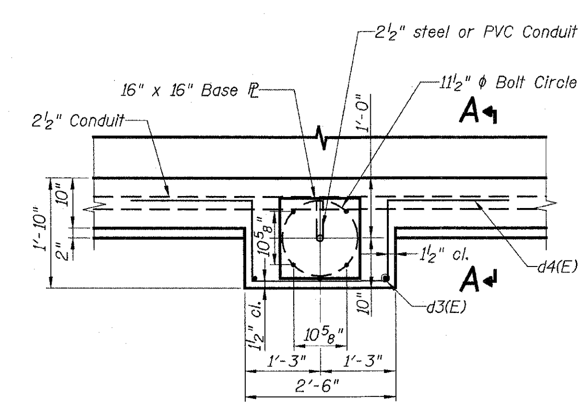
See Sheet S15 for Bars m(E), m1(E), m2(E), s(E) and s1(E).



SECTION THROUGH WALKWAY & PARAPET

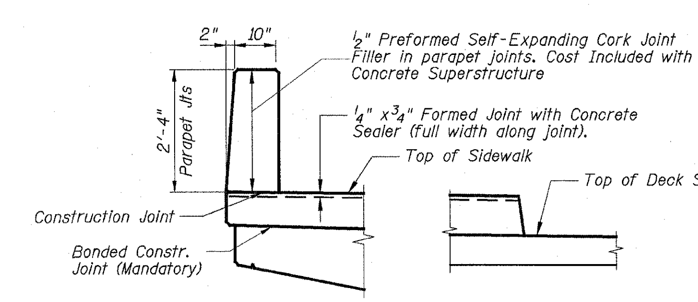


SECTION A-A



LIGHT POLE MOUNTINGS PLAN

Note:
Cost of anchor bolts & conduit is included with Concrete Superstructure.



PARAPET JOINT DETAILS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

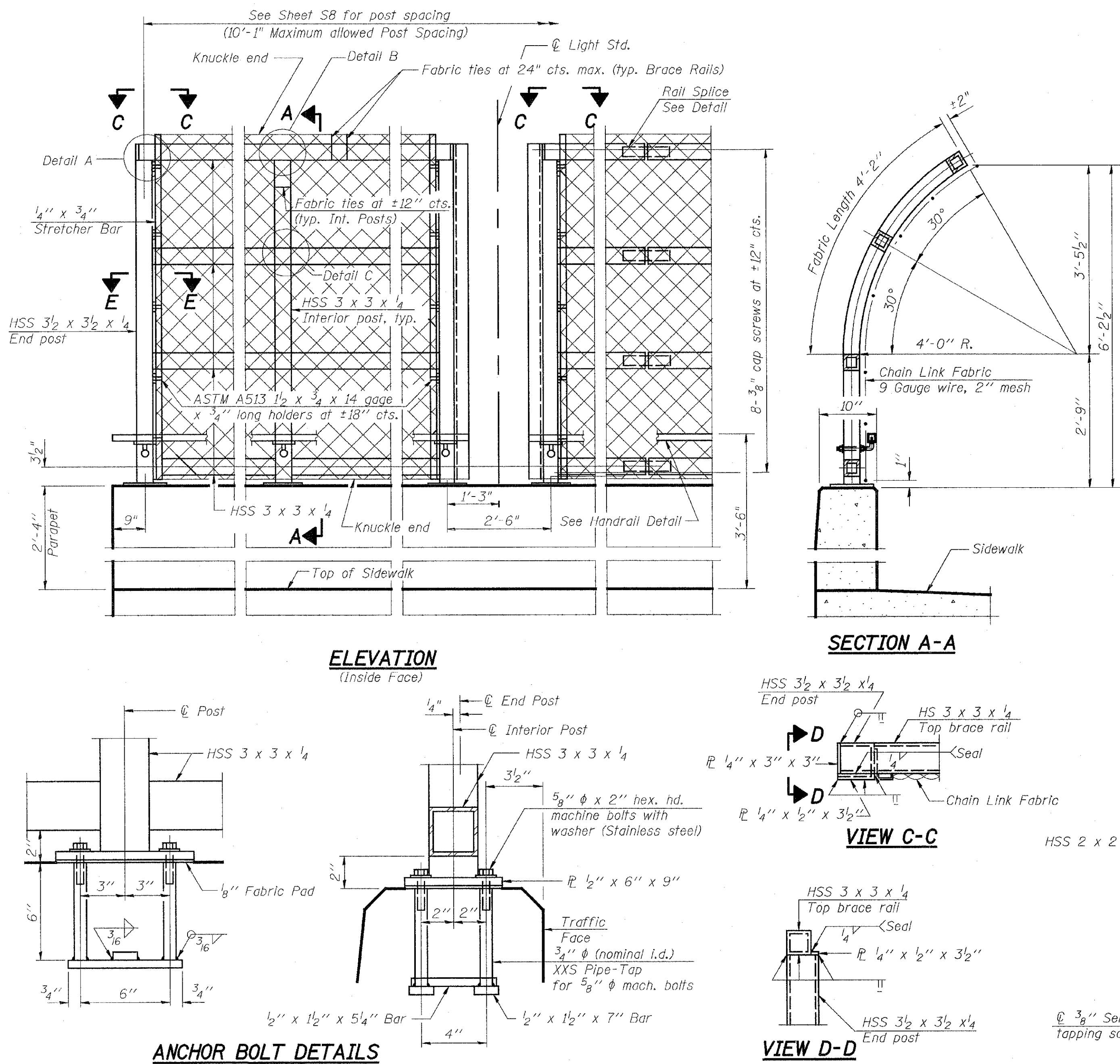
SUPERSTRUCTURE DETAILS
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION NO. 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE
DATE: DEC. 2007
DRAWN BY: R. Kaye
CHECKED BY: R. Clinton

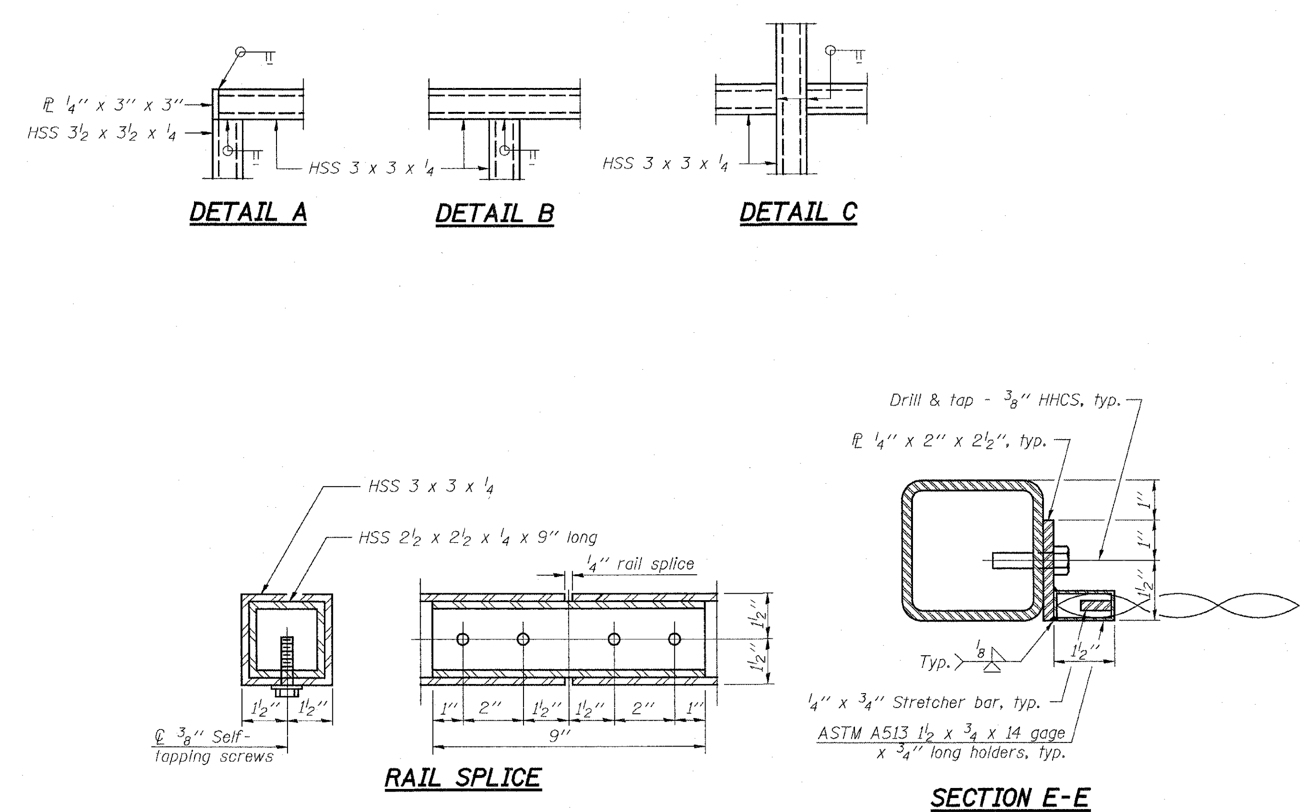
PATRICK ENGINEERING INC.
LISLE, ILLINOIS

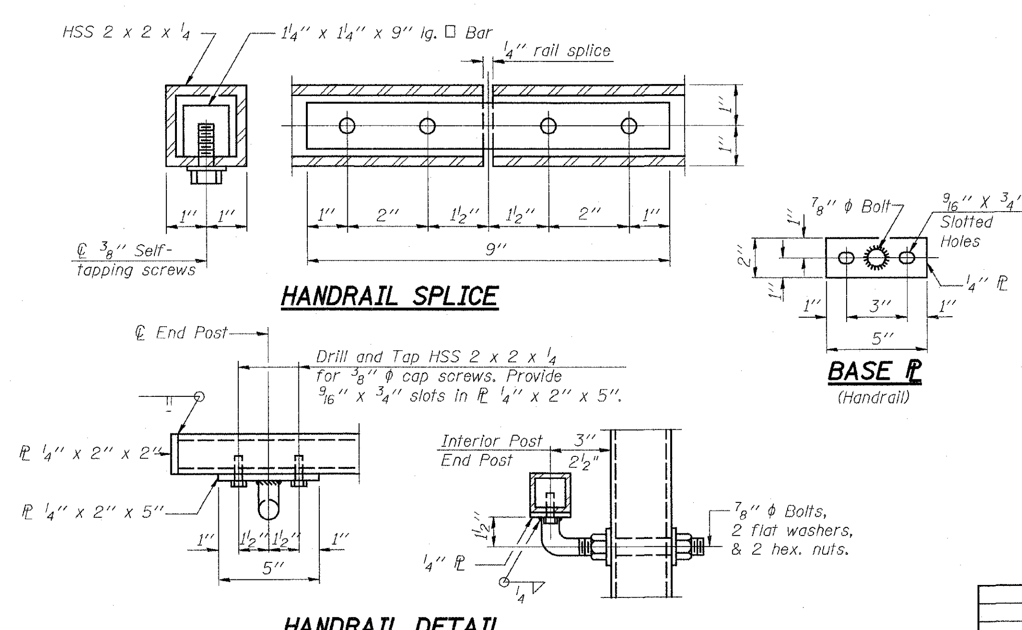
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.





NOTES

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

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Foot	459

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BRIDGE FENCE RAILING
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

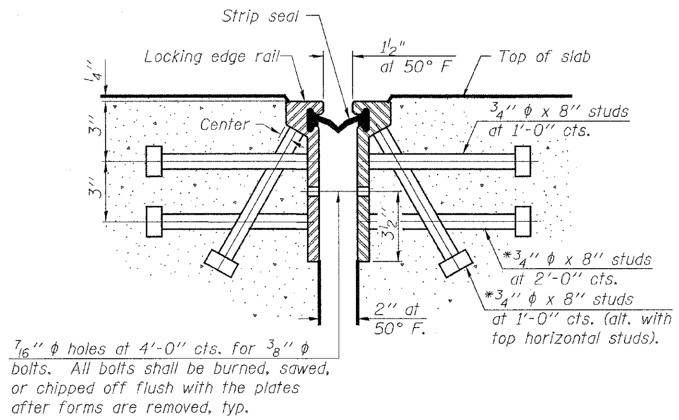
SCALE: NONE
DRAWN BY: R. Clinton
DATE: DEC. 2007
CHECKED BY: G. Hatlestad

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

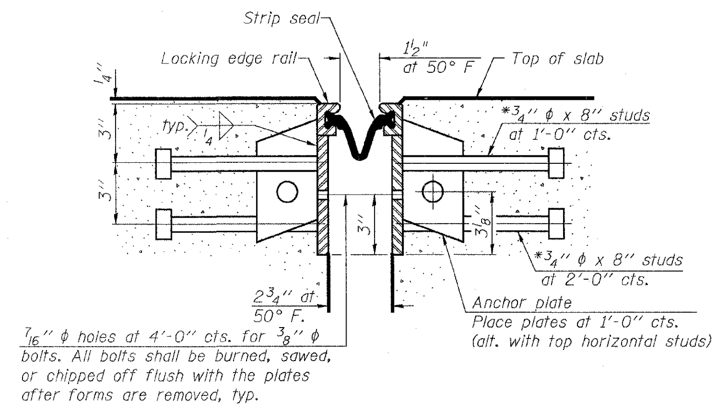
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

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



SECTION THRU ROLLED RAIL JOINT



SECTION THRU WELDED RAIL JOINT

Notes:

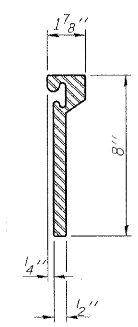
The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 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.

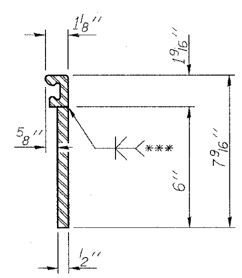
The manufacturer's recommended installation methods shall be followed.

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.

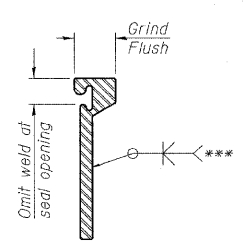
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.



ROLLED (EXTRUDED) RAIL



WELDED RAIL

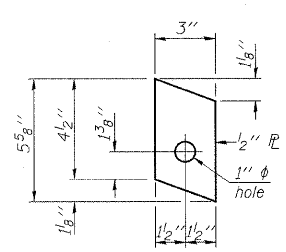


***Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

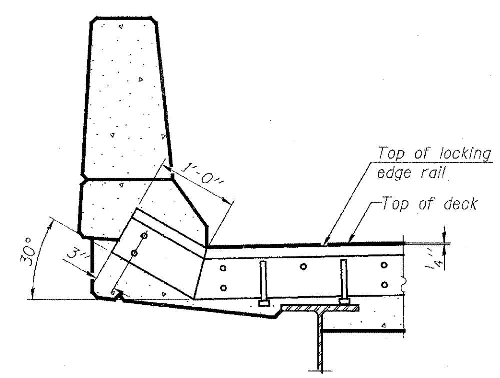
The inside of the locking edge rail groove shall be free of weld residue.

LOCKING EDGE RAILS

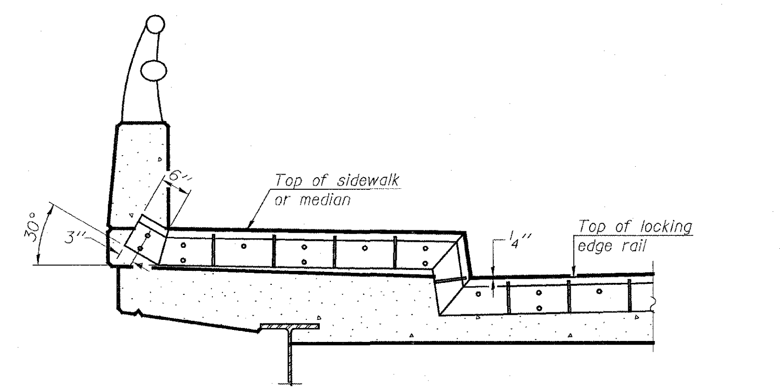


ANCHOR ℙ

(for welded rail)



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.

TYPICAL END TREATMENTS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	132

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

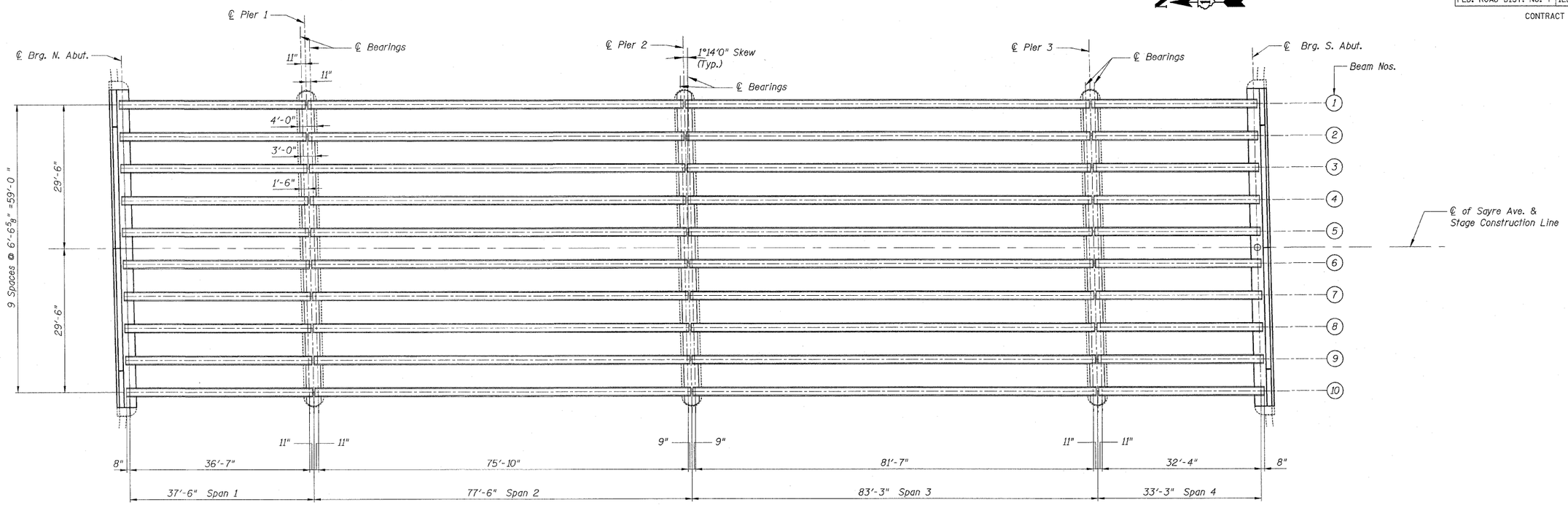
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXPANSION JOINT DETAILS
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	40
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



FRAMING PLAN

INTERIOR GIRDER MOMENT TABLE								
		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.5 Span 3	Pier 3	0.6 Span 4
I	(in4)	144,117		144,117		144,117		144,117
I'	(in4)	382,797		382,797		382,797		382,797
Sb	(in3)	6,834		6,834		6,834		6,834
Sb'	(in3)	11,054		11,054		11,054		11,054
St	(in3)	5,355		5,355		5,355		5,355
St'	(in3)	28,628		28,628		28,628		28,628
DL	(k/')	1.228		1.238		1.247		1.228
MDL	('k)	207		929		1,080		163
sDL	(k/')	0.517	0.517	0.517	0.517	0.517	0.517	0.517
MsDL	('k)	13	-185	138	-316	176	-228	-23
MLL	('k)	206	-335	397	-384	423	-383	173
M (Imp.)	('k)	62	-92	98	-93	101	-105	52

INTERIOR BEAM REACTION TABLE									
		North Abut.	Pier 1		Pier 2		Pier 3		South Abut.
			Span 1	Span 2	Span 2	Span 3	Span 3	Span 4	
RDL	(k)	23.2	23.2	48.0	48.0	51.5	51.5	20.6	20.6
RSDL	(k)	4.8	16.5	16.5	22.2	22.2	18.0	18.0	1.7
RLL	(k)	35.4	24.0	24.0	24.5	24.5	24.8	24.8	34.1
Imp.	(k)	10.6	6.6	6.6	6.0	6.0	6.8	6.8	10.2
R (Total)	(k)	74.0	70.3	95.1	100.7	104.2	101.1	70.2	66.7

I and I' are the moment of inertia and composite moment of inertia of the beam section.

Sb and Sb' are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.

St and St' are the non-composite and composite section modulus for the top fiber of the prestressed beam.

$M_{\underline{D}}$ is the moment due to dead loads on the non-composite prestressed beam. It is conservatively calculated at 0.5 of the span.

$Ms_{\underline{D}}$ is the moment due to dead loads on the composite section.

$M_{\underline{L}}$ is the moment due to live load on the composite section.

M (Imp) is the moment due to live load impact on the composite section.

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

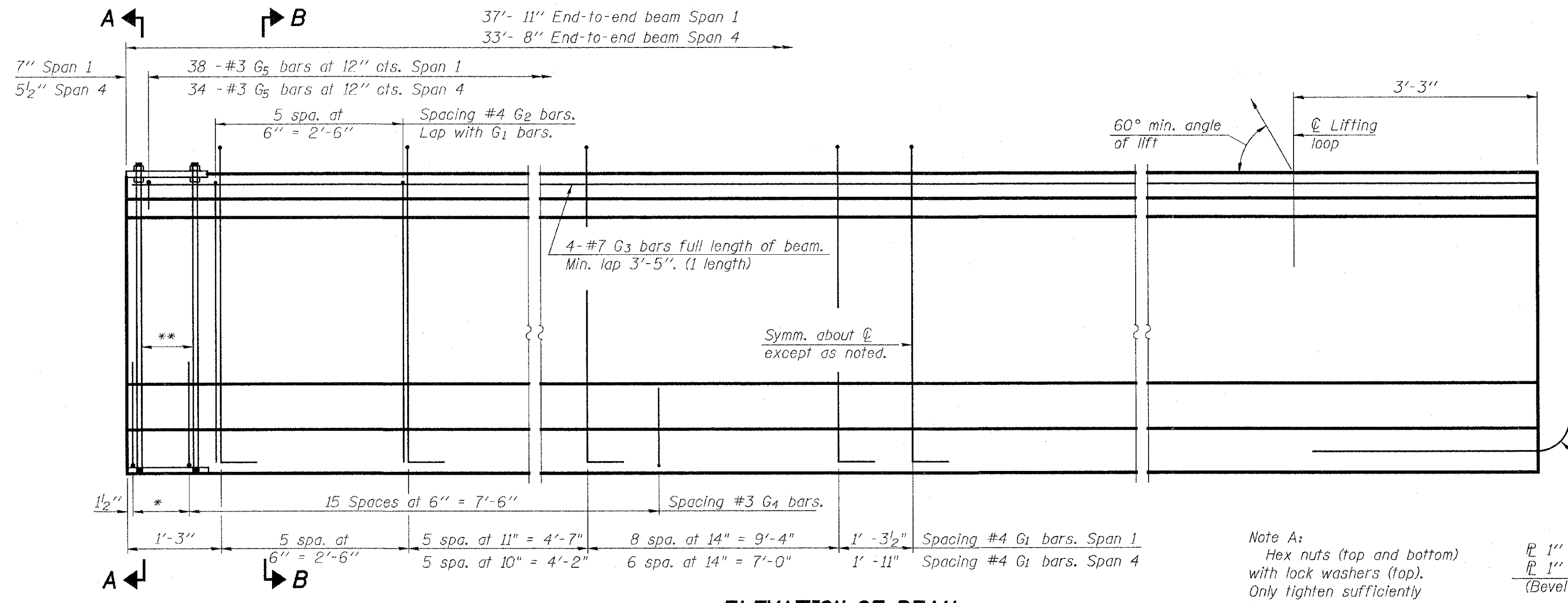
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
FRAMING PLAN
FA ROUTE 173 (SAYRE AVENUE) OVER INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

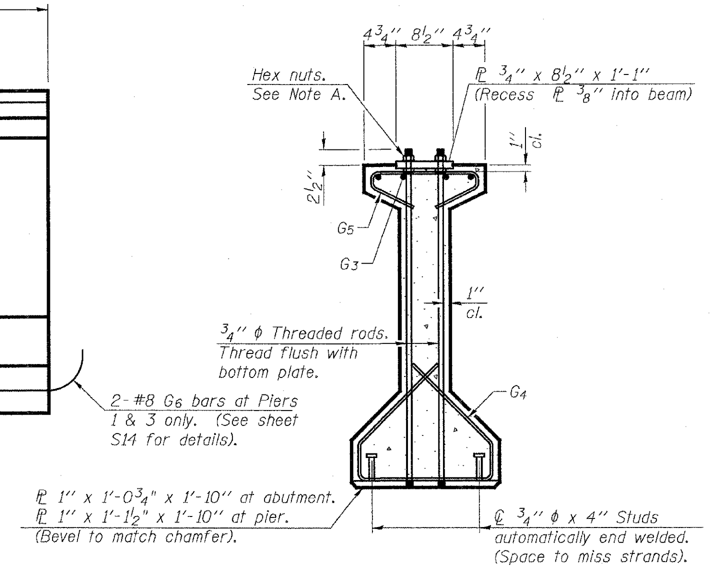


ELEVATION OF BEAM

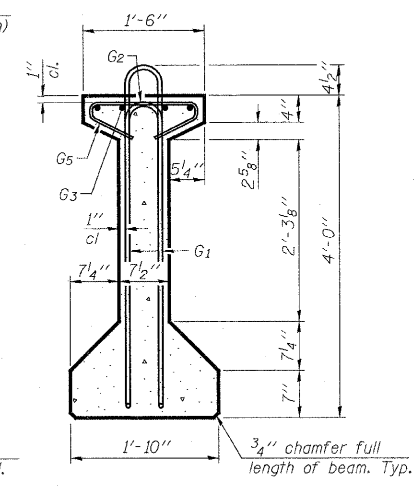
(Showing reinforcement & dimensions)

* 3 spaces at 3" = 9".
** 4-¾" ϕ threaded dowel rods at 3" cts., each face.

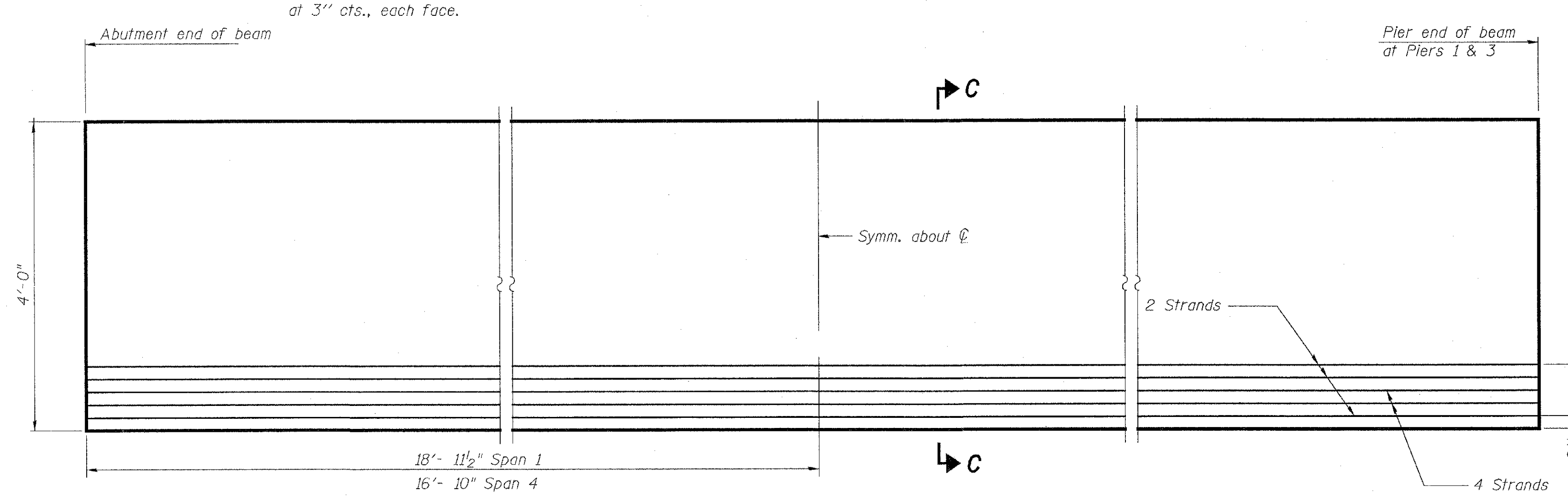
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



SECTION A-A

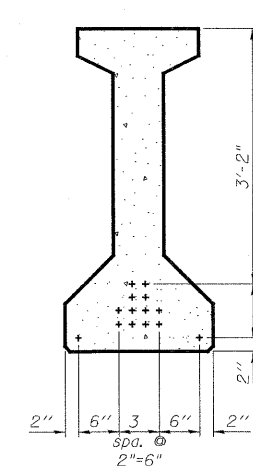


SECTION B-B



ELEVATION OF BEAM

(Showing prestressing steel)



SECTION C-C

Notes:
See sheet S14 for additional details.
Required release strength, f'ci, shall be 5000 psi.

***SPAN 1 BAR LIST ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	39	#4	9'-6"	
G_2	12	#4	7'-11"	
G_3	4	#7	37'-7"	
G_4	38	#3	5'-3"	
G_5	38	#3	2'-9"	
G_6	2	#8	3'-9"	

*** For information only

***SPAN 4 BAR LIST ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	35	#4	9'-6"	
G_2	12	#4	7'-11"	
G_3	4	#7	33'-3"	
G_4	38	#3	5'-3"	
G_5	34	#3	2'-9"	
G_6	2	#8	3'-9"	

*** For information only

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48"	Ft.	716

REVISIONS	
NAME	DATE

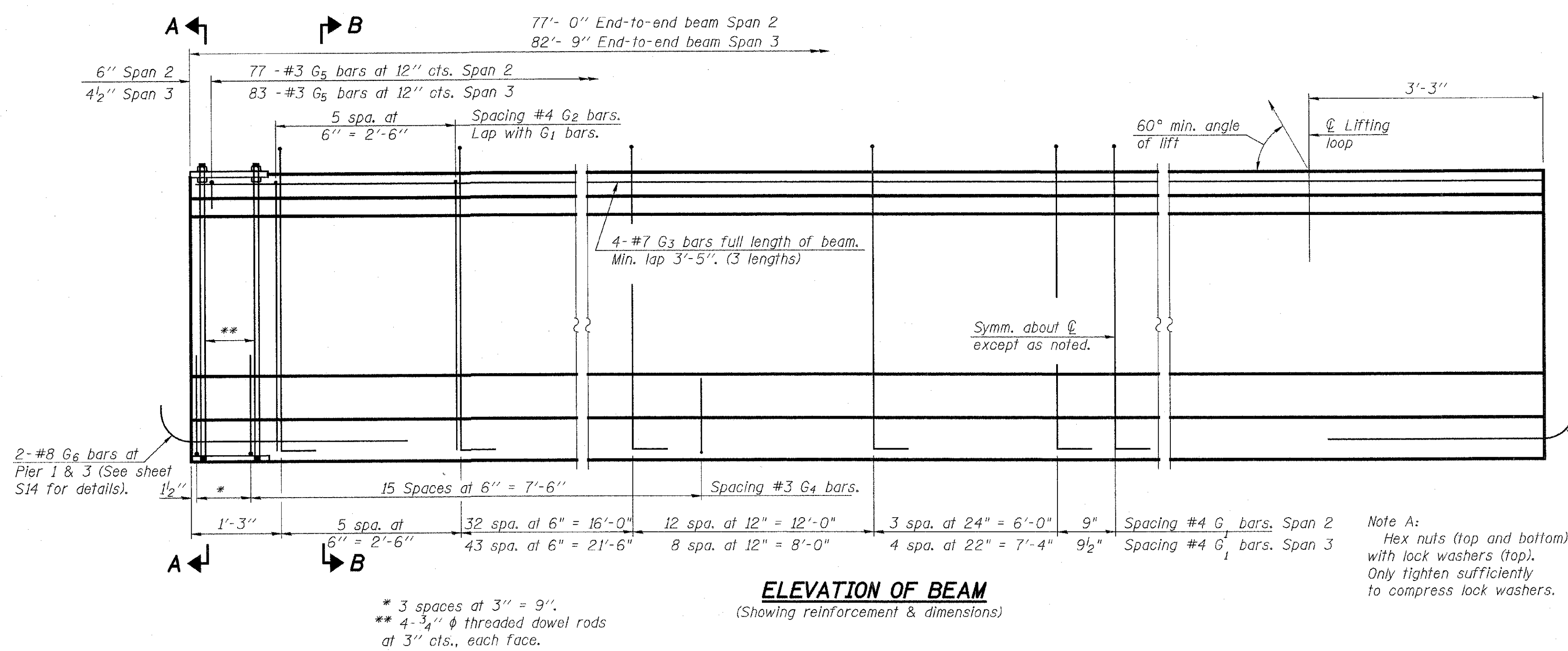
ILLINOIS DEPARTMENT OF TRANSPORTATION
PRESTRESSED BEAM DETAILS
SPANS 1 & 4
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE
DRAWN BY: R. Clinton
DATE: DEC. 2007
CHECKED BY: G. Hatlestad

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	42
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60384

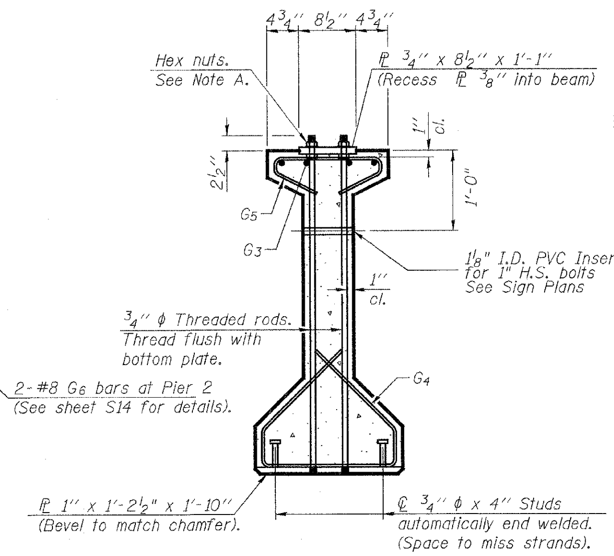


ELEVATION OF BEAM

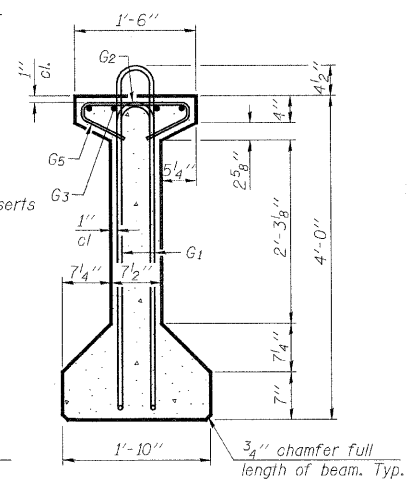
(Showing reinforcement & dimensions)

* 3 spaces at 3" = 9".
** 4-¾" ϕ threaded dowel rods at 3" cts., each face.

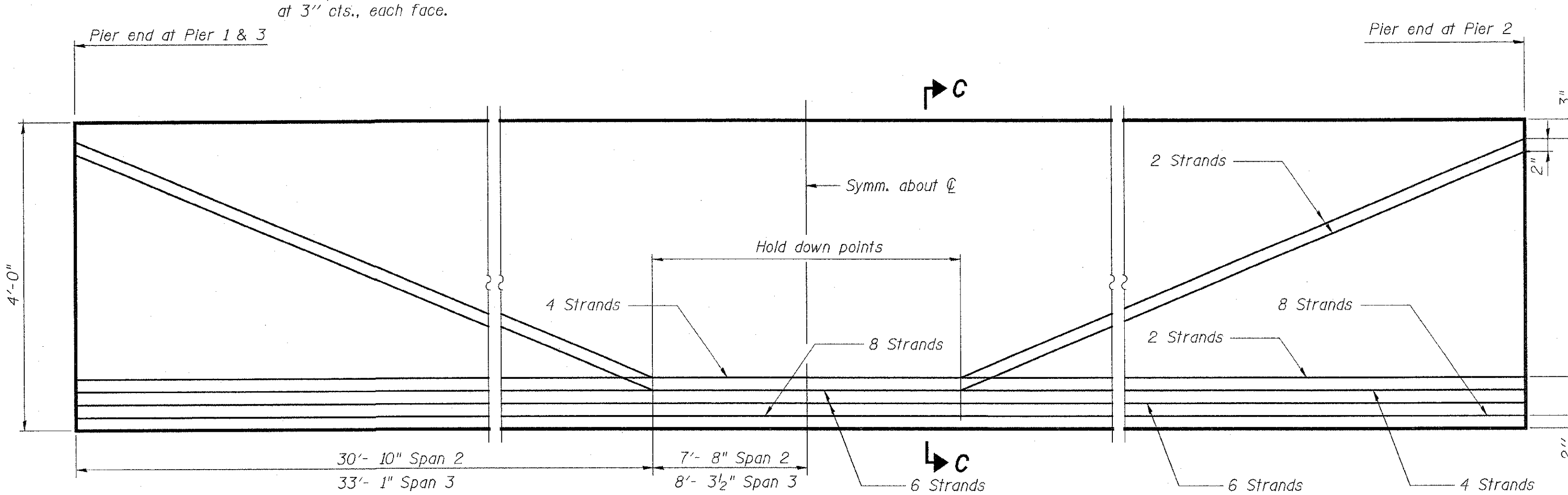
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



SECTION A-A

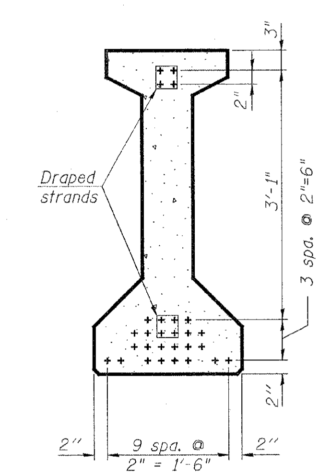


SECTION B-B



ELEVATION OF BEAM

(Showing prestressing steel)



SECTION C-C

***SPAN 2 BAR LIST
ONE BEAM ONLY

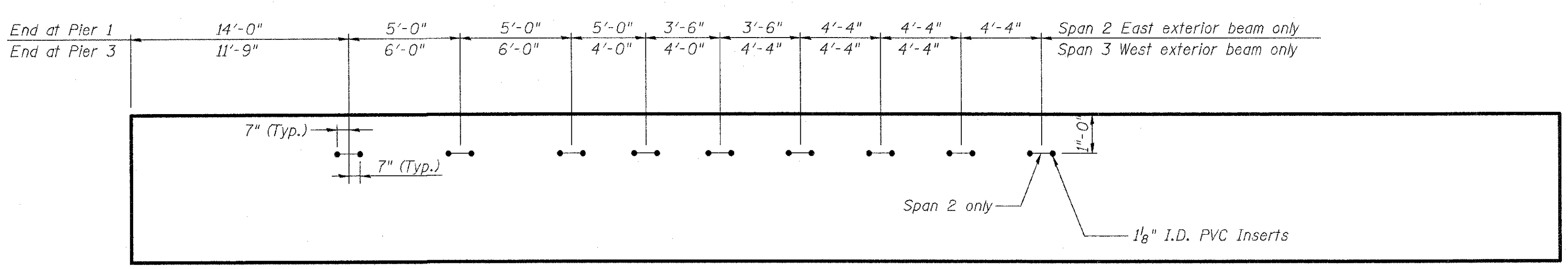
Bar	No.	Size	Length	Shape
G_1	107	#4	9'-6"	
G_2	12	#4	7'-11"	
G_3	12	#7	27'-10"	
G_4	38	#3	5'-3"	
G_5	77	#3	2'-9"	
G_6	4	#8	3'-9"	

*** For information only

***SPAN 3 BAR LIST
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	123	#4	9'-6"	
G_2	12	#4	7'-11"	
G_3	12	#7	29'-9"	
G_4	38	#3	5'-3"	
G_5	83	#3	2'-9"	
G_6	4	#8	3'-9"	

*** For information only



ELEVATION OF BEAM

(Showing PVC Inserts)

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48"	Ft.	1,598

Notes:
See sheet S14 for additional details.
Required release strength, f'ci, shall be 5000 psi.

REVISIONS	
NAME	DATE

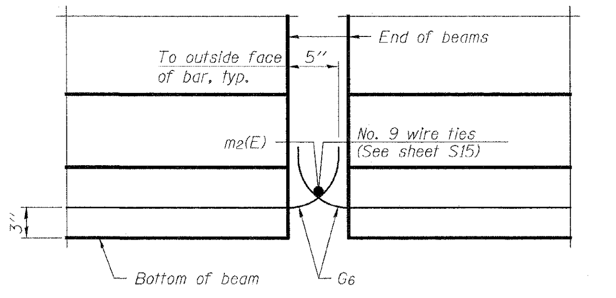
ILLINOIS DEPARTMENT OF TRANSPORTATION
PRESTRESSED BEAM DETAILS
SPANS 2 & 3
FA ROUTE 173 (SAYRE AVENUE) OVER INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: 1/20/09 CHECKED BY: PML

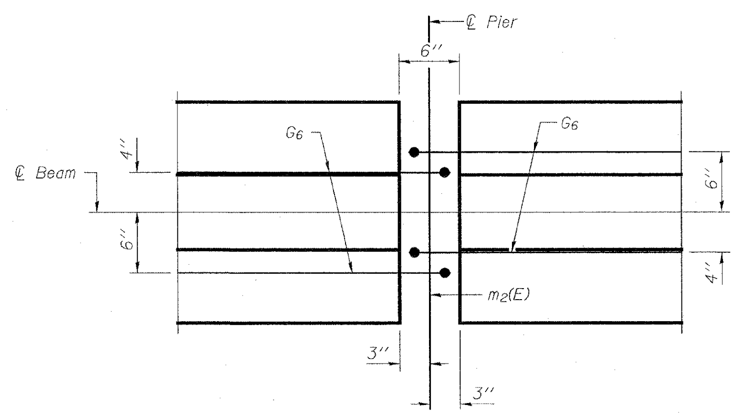
PATRICK ENGINEERING INC.
LISLE, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	43
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

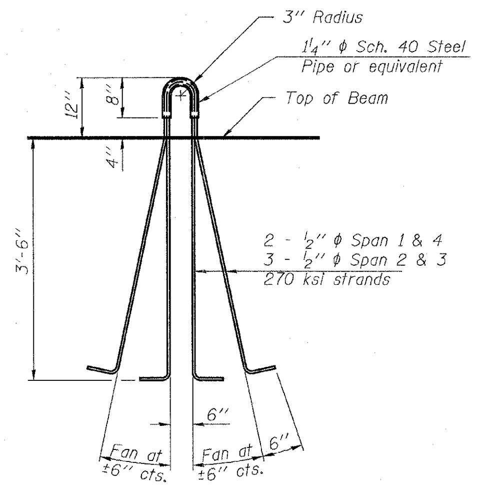
CONTRACT NO. 60384



ELEVATION OF BEAM AT PIER



PLAN OF BEAM AT PIER



LIFTING LOOP DETAIL

NOTES

Inserts for ¾″ ϕ threaded dowel rods, when specified, are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be ½″ and the nominal cross-sectional area shall be 0.153 sq. in.

Non-prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.

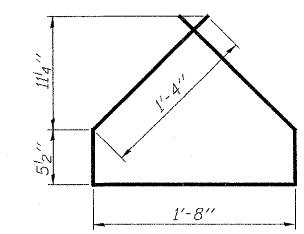
A minimum 2½″ ϕ lifting pin shall be used to engage the lifting loops during handling.

Cut G_6 bars when necessary to maintain 1½″ clearance.

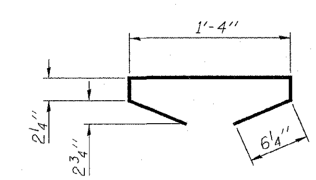
The top and bottom plates shall be AASHTO M270 Grade 50.

The bottom plates and studs shall be galvanized according to AASHTO M111

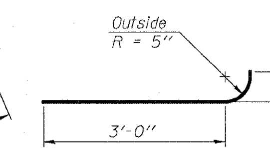
Threaded rods shall be ASTM F 1554 Grade 55.



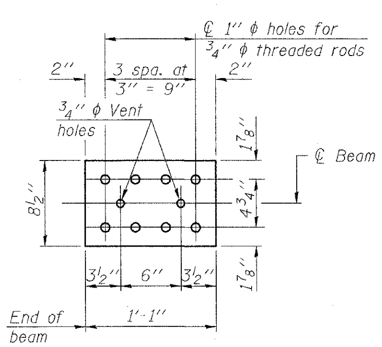
BAR G4



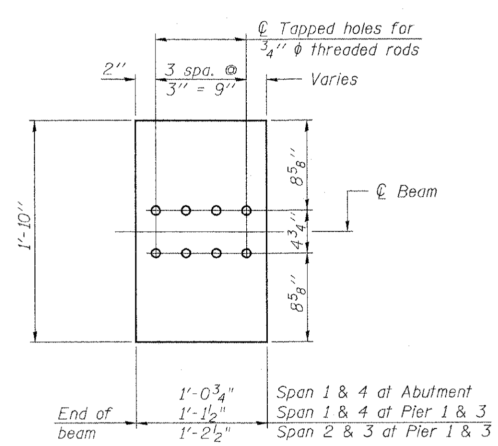
BAR G5



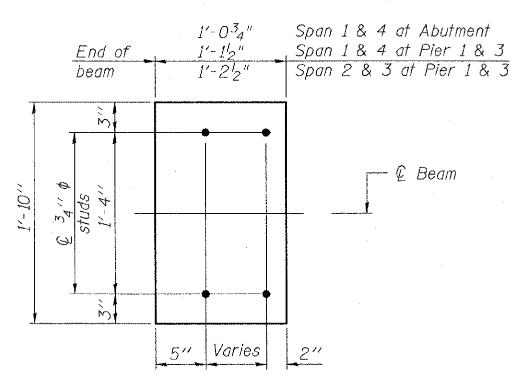
BAR G6



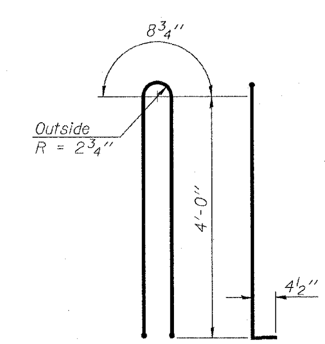
TOP PLATE



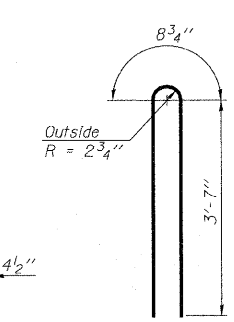
BOTTOM PLATE
(Showing threaded rods)



BOTTOM PLATE
(Showing studs)



BAR G1



BAR G2

See bearing details for pintle hole locations when required.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

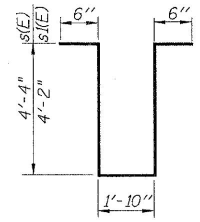
PRESTRESSED BEAM DETAILS
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE
DRAWN BY: R. Clinton
DATE: DEC. 2007
CHECKED BY: G. Hatlestad

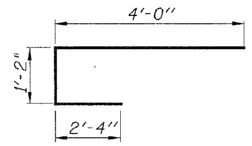
PATRICK ENGINEERING INC.
LISLE, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	44
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

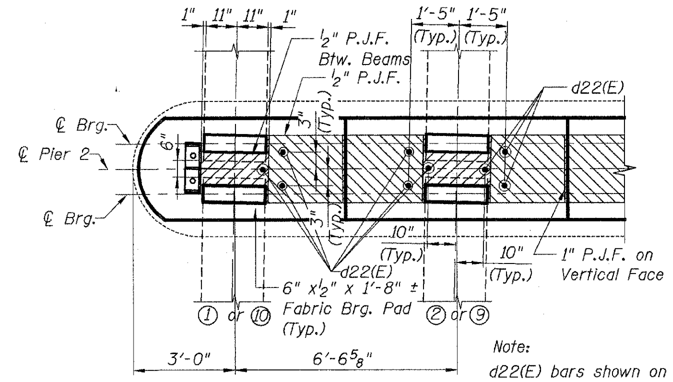
CONTRACT NO. 60384



BARS s(E) & s1(E)



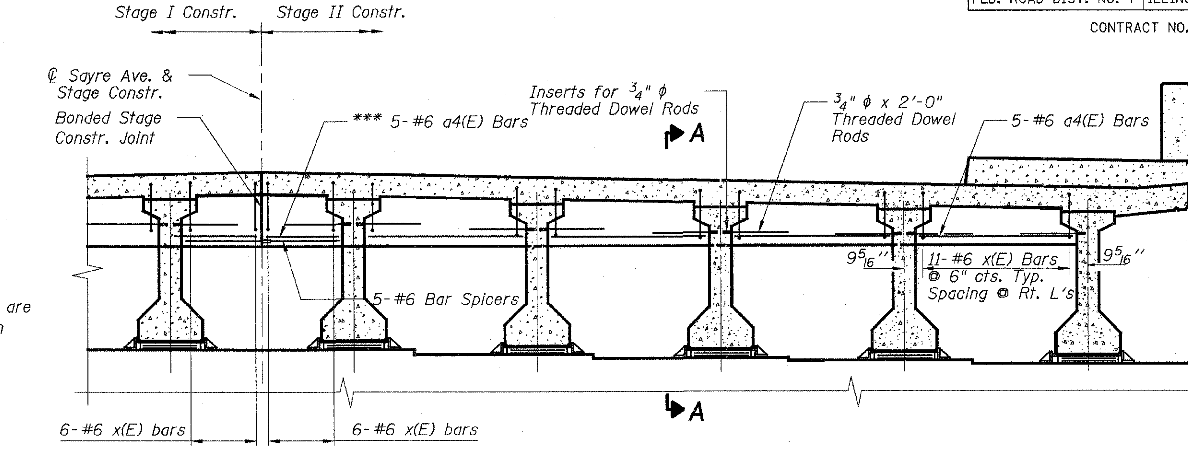
BAR x (E)



PIER 2 DETAILS

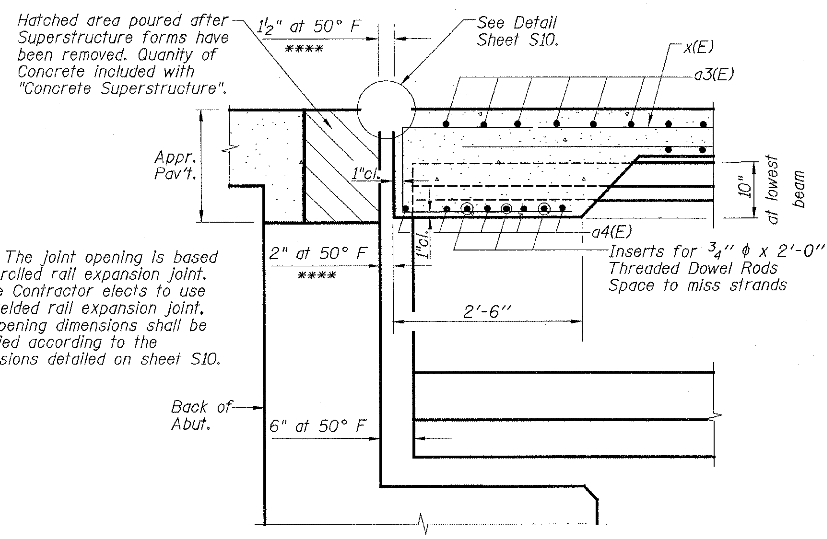
(Fixed)

Note:
d22(E) bars shown on this sheet are included in Bill of Materials on Sheet S26.



DIAPHRAGM AT ABUTMENT

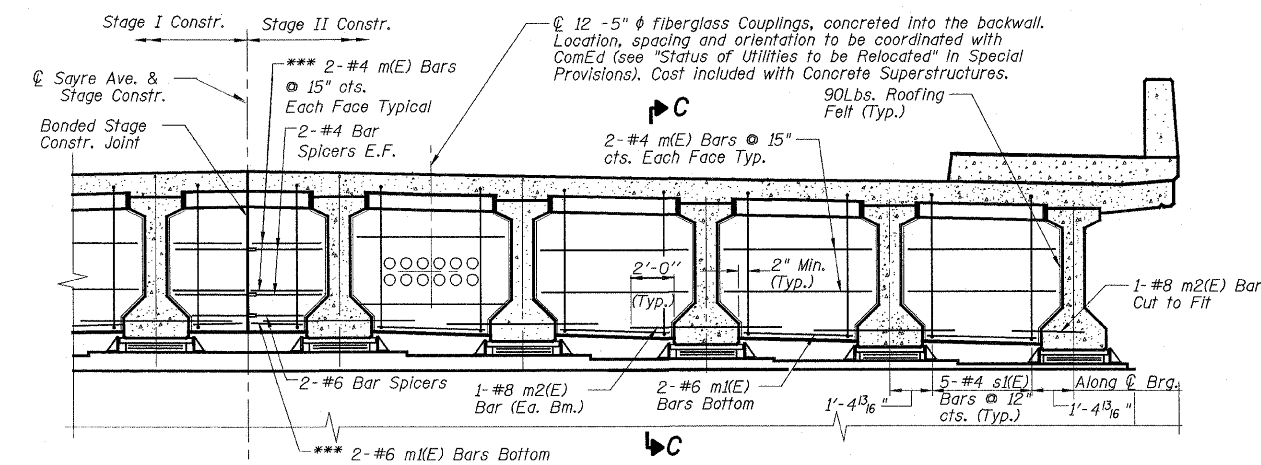
(Looking North)



**** The joint opening is based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening dimensions shall be modified according to the dimensions detailed on sheet S10.

SECTION A-A AT ABUTMENT

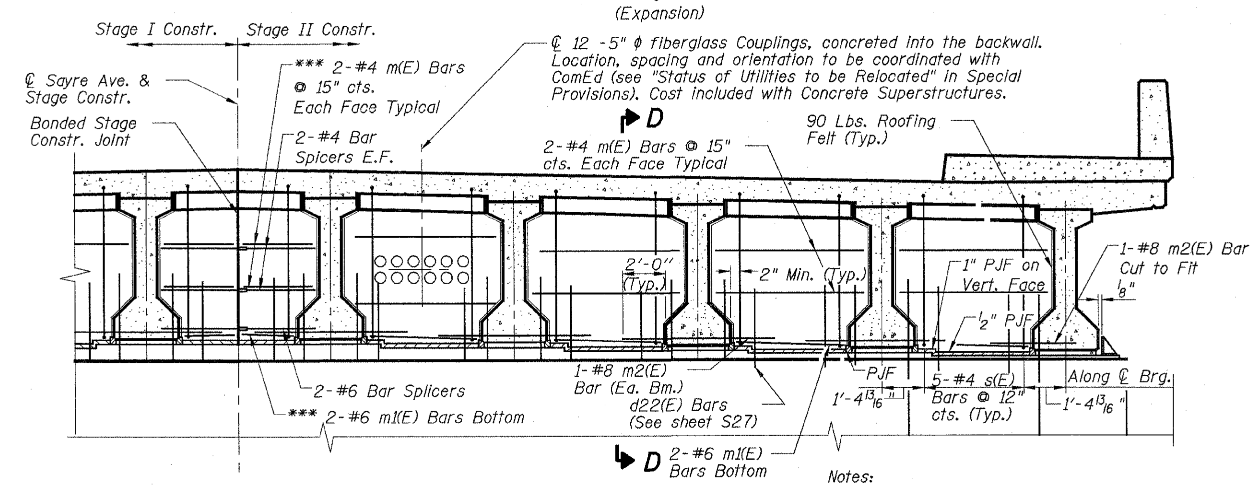
(at Rt. L's)



DIAPHRAGM AT PIER 1 OR 3

(Looking North)

(Expansion)



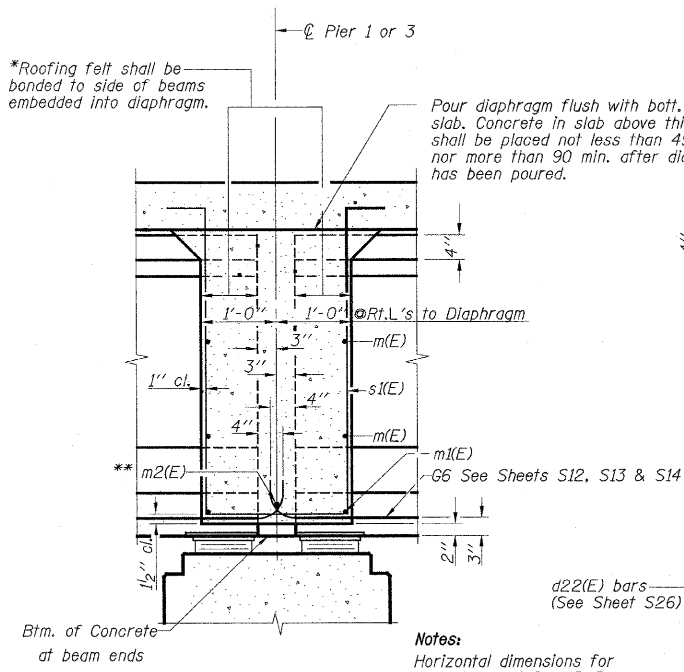
DIAPHRAGM AT PIER 2

(Looking North)

(Fixed)

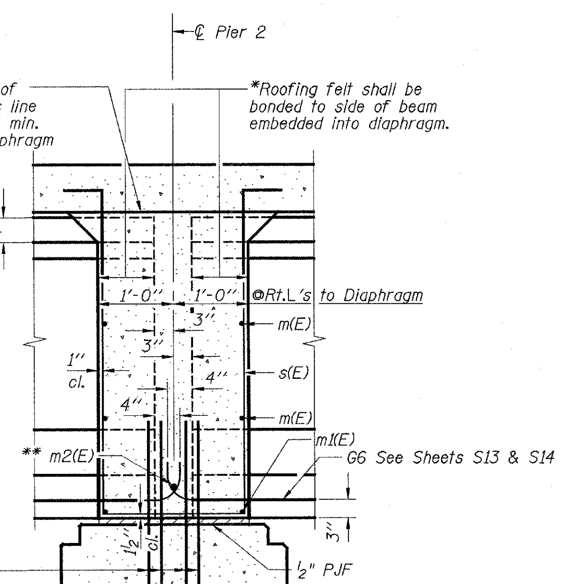
Notes:
For Bill of Material see Sheet S8 unless otherwise stated
E.F. denotes Each Face

*** Order bar full length and cut to fit Stage I Construction. Use remainder for Stage II Construction.



SECTION C-C AT PIER

(Expansion)



SECTION D-D AT PIER

(Fixed)

Notes:
Horizontal dimensions for Sec. C-C and Sec. D-D are along ℄ of beam unless otherwise noted.
G6(E) bars shown on this sheet are included in Bill of Materials Sheets S12, S13 & S14

* Cost of 90 lb. roofing felt is included with to "Concrete Superstructure"

** Tightly fasten the #8 bars together with No. 9 wire ties.

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

REVISIONS	
NAME	DATE

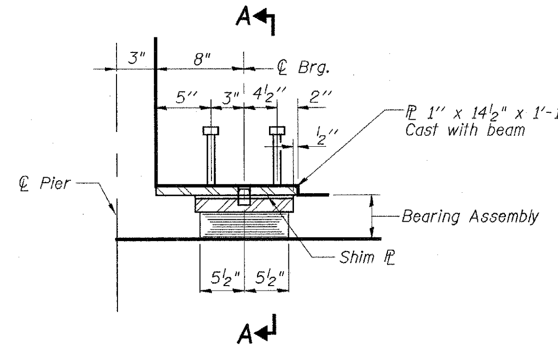
ILLINOIS DEPARTMENT OF TRANSPORTATION

DIAPHAGM DETAILS
FA ROUTE 173 (SAYRE AVENUE) OVER INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

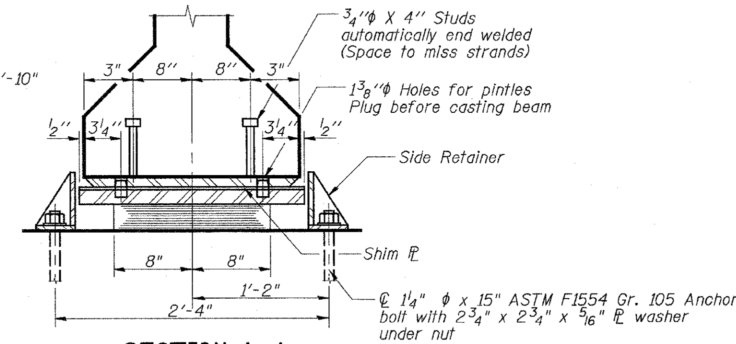
SCALE: NONE
DRAWN BY: R. Clinton
DATE: DEC. 2007
CHECKED BY: R. Kaye

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	45
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

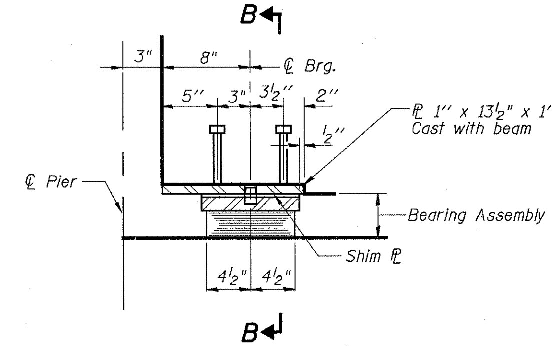
CONTRACT NO. 60384



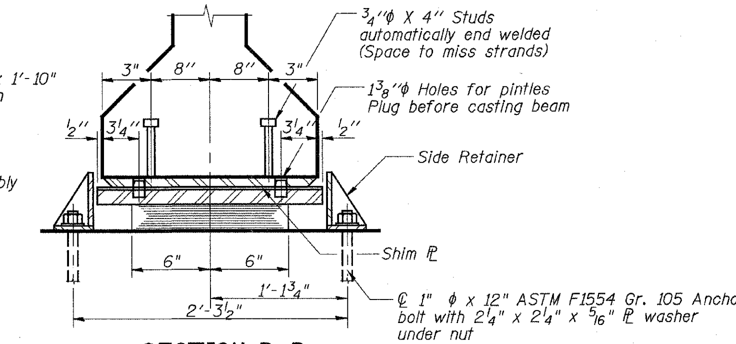
SECTION AT PIERS 1 &3
(Spans 2 & 3)



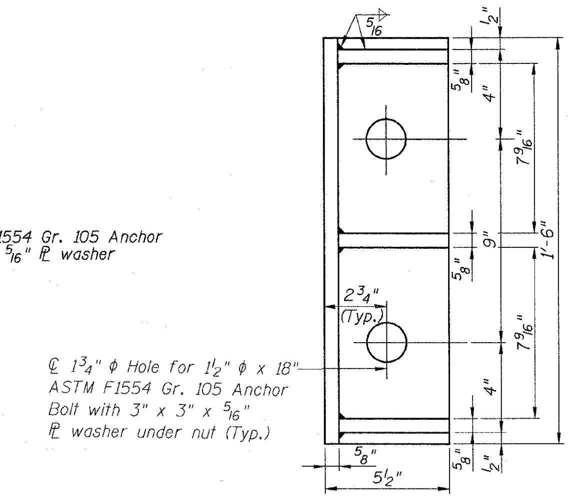
SECTION A-A



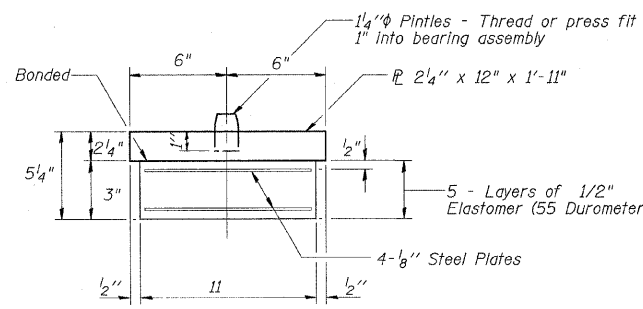
SECTION AT PIERS 1 &3
(Spans 1 & 4)



SECTION B-B

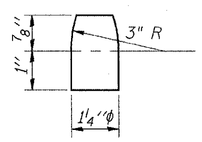


SIDE RETAINER FOR PIER 2 PLAN

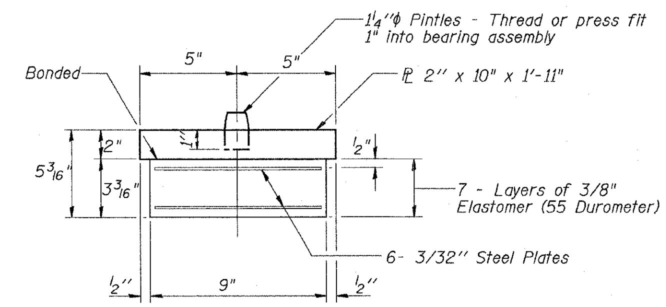


BEARING ASSEMBLY
(Spans 2 & 3)

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

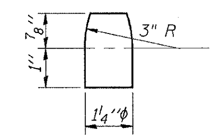


PINTLE

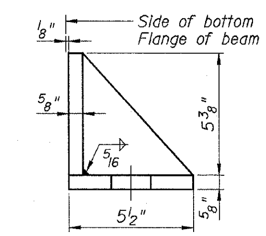


BEARING ASSEMBLY
(Spans 1 & 4)

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

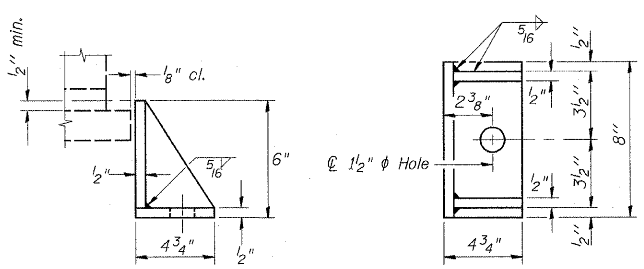


PINTLE



SIDE RETAINER FOR PIER 2 ELEVATION

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

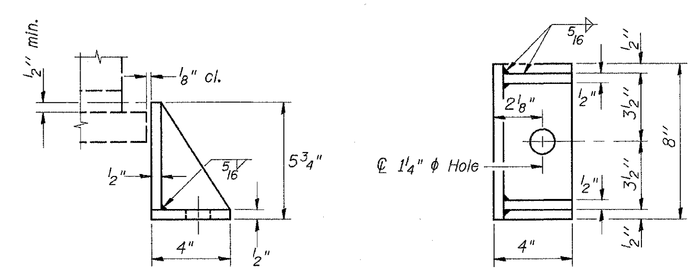


SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

TYPE I ELASTOMERIC EXP. BRG.
(Spans 2 & 3)

Notes:

1. After beams have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place.
2. All embedded and separate bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 (as applicable).
3. H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298.
4. Side retainers and other steelmembers required for the bearing assembly shall be included in the cost of Elastometric Bearing Assembly, Type I.
5. 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.
6. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



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

TYPE I ELASTOMERIC EXP. BRG.
(Spans 1 & 4)

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	40
Anchor Bolts, 1¼"	Each	80
Anchor Bolts, 1½"	Each	4

REVISIONS	
NAME	DATE

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

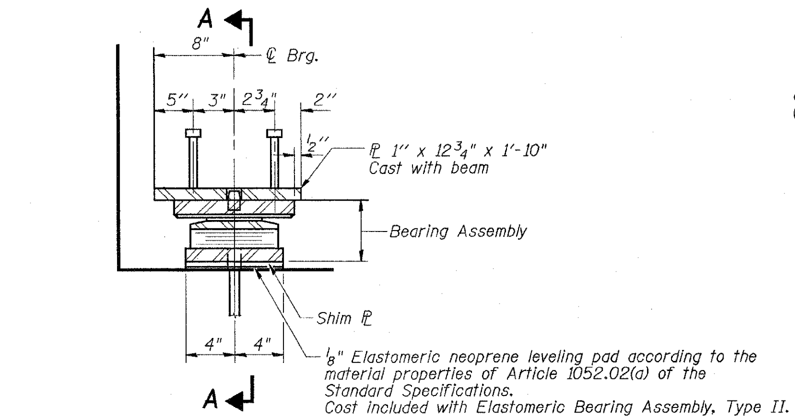
ILLINOIS DEPARTMENT OF TRANSPORTATION
BEARING DETAILS I
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: R. Kaye

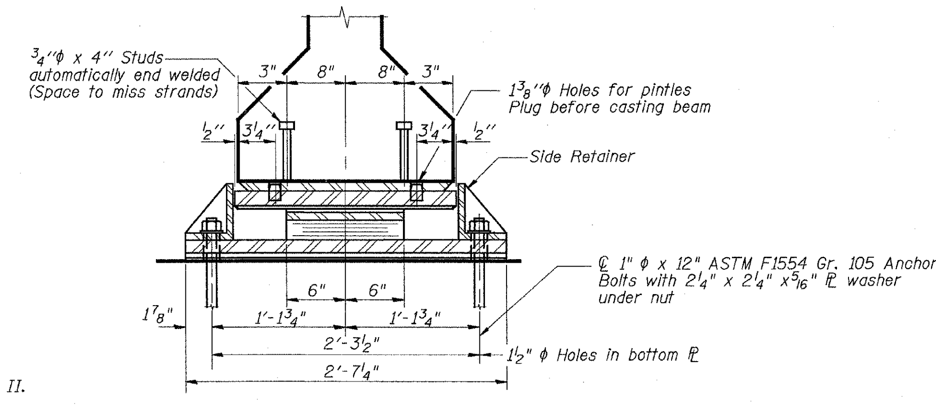
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	46
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

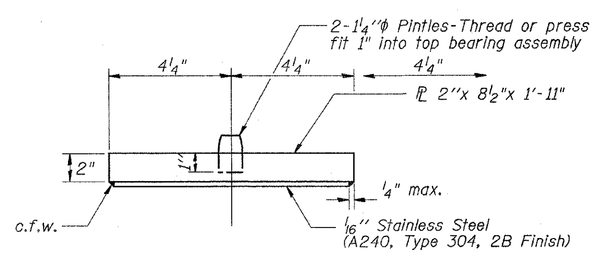
TYPE II ELASTOMERIC EXP. BRG.



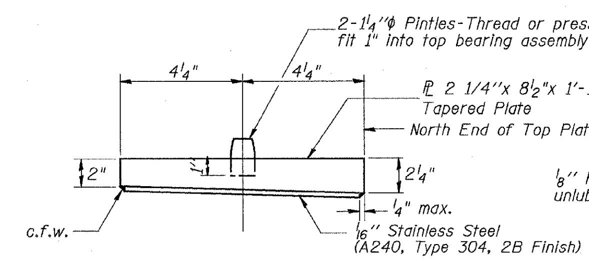
SECTION AT ABUTMENTS



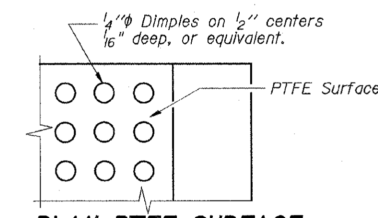
SECTION A-A



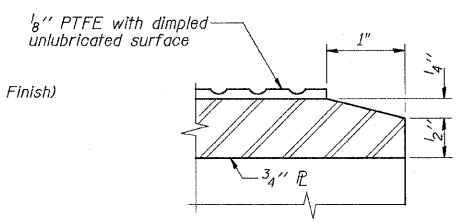
TOP BEARING ASSEMBLY
(N. Abut.)



TAPERED TOP BEARING ASSEMBLY
(S. Abut.)



PLAN-PTFE SURFACE

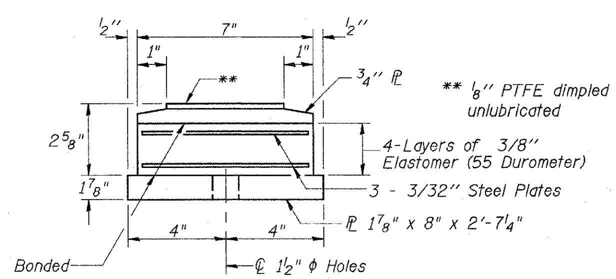


SECTION THRU PTFE

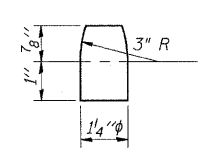
Note:
The ⅛" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of ⅛" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

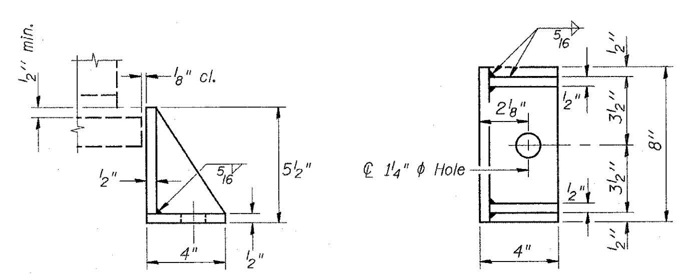
See sheet S14 for additional details of plate cast with beam.



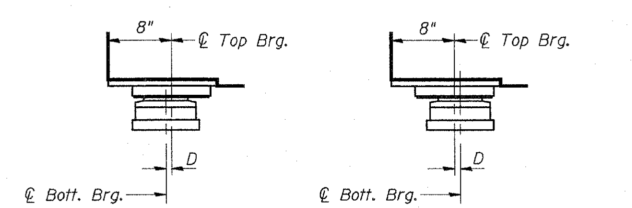
BOTTOM BEARING ASSEMBLY



PINTLE



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



BELOW 50°F.
(Move bott. brg. away from fixed brg.)

ABOVE 50°F.
(Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.
D=⅛" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

Notes:

1. After beams have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place.
2. All embedded and separate bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 (as applicable).
3. H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298.
4. Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastometric Bearing Assembly, Type II.
5. 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.
6. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	20
Anchor Bolts, 1"	Each	40

REVISIONS	
NAME	DATE

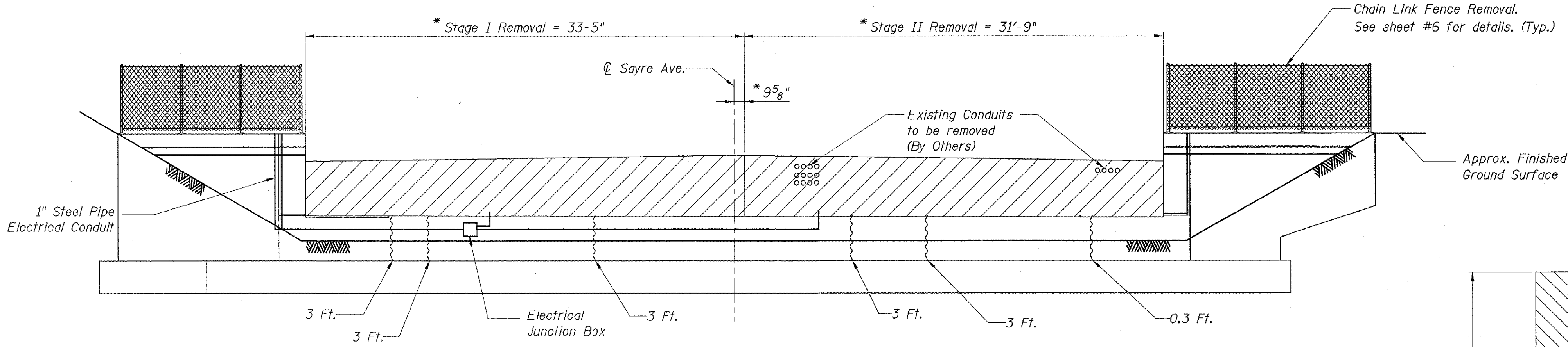
ILLINOIS DEPARTMENT OF TRANSPORTATION
BEARING DETAILS II
FA ROUTE 173 (SAYRE AVENUE) OVER INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: R. Kaye

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

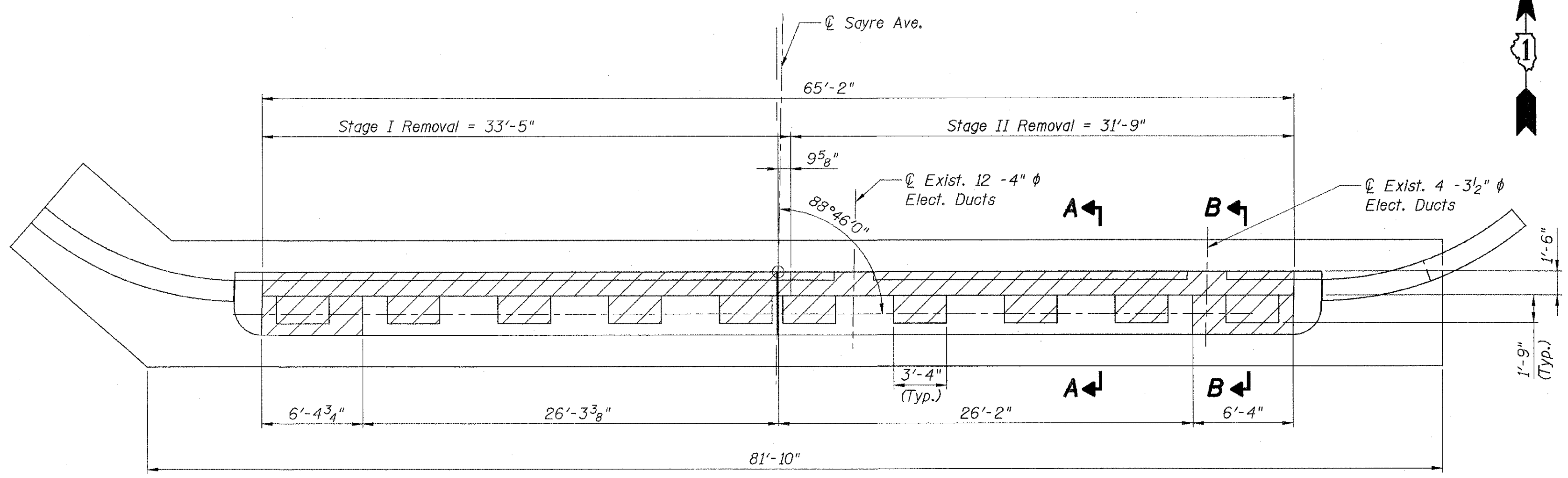
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	47
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60384

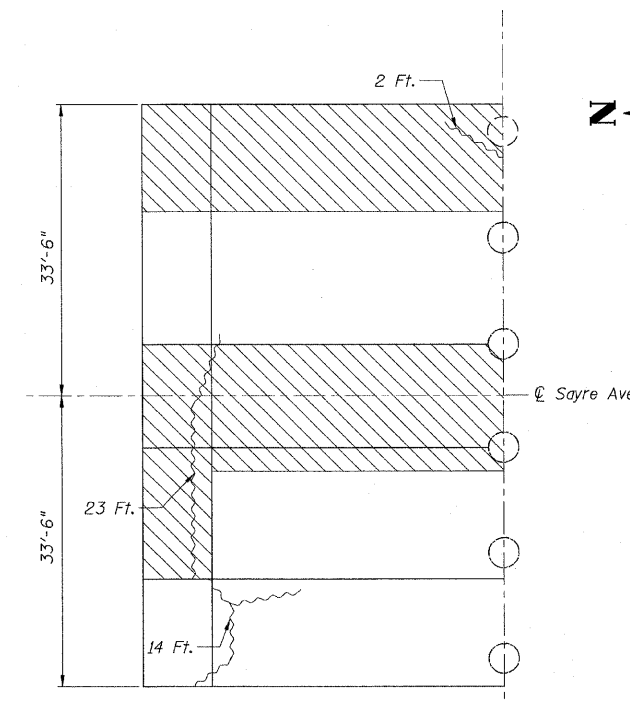


ELEVATION
(Looking North)

* Measured Along Back of Abutment



PLAN



SLOPEWALL PLAN

Notes:

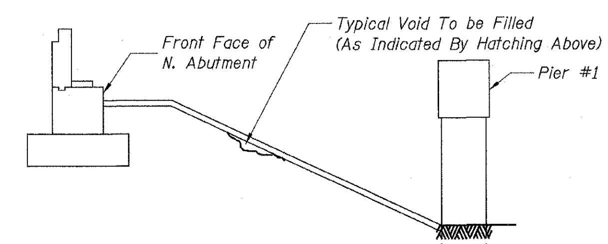
Sawcut existing abutment backwall at stage removal line before removing existing backwall.

Existing reinforcement extending into new construction shall be cleaned, straightened, and incorporated into new construction. Cost shall be included with Concrete Removal.

Existing reinforcement not extending into new construction shall be cut off and covered with a 2" layer of cement grout. Cost shall be included with Concrete Removal.

LEGEND:

- Indicates limits of Conncrete Removal
- Indicates limits of Epoxy Crack Injection
- Indicates limits of Slope Wall Slurry Pumping

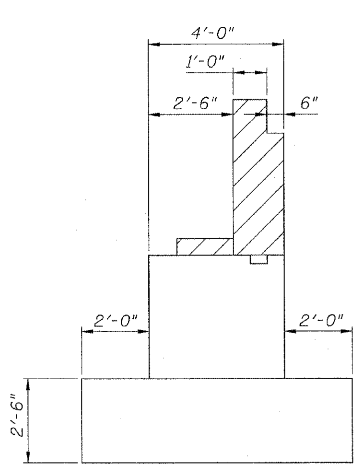


ELEVATION
North Slopewall

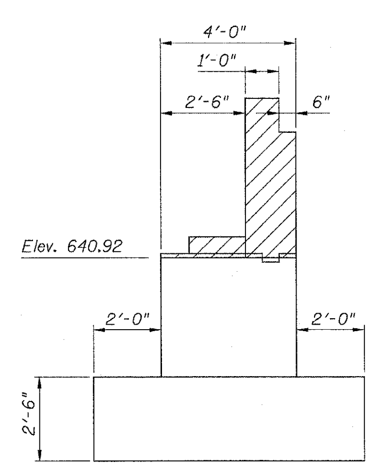
BILL OF MATERIALS

ITEM	UNIT	QUANTITY
Epoxy Crack Injection	Foot	52.3
Concrete Removal	Cu. Yd.	15.3
* Slope Wall Slurry Pumping	Cu. Yd.	7.4
Structure Excavation	Cu. Yd.	77

* See Special Provisions



SECTION A-A



SECTION B-B

PATRICK
ENGINEERING INC.
LISLE, ILLINOIS

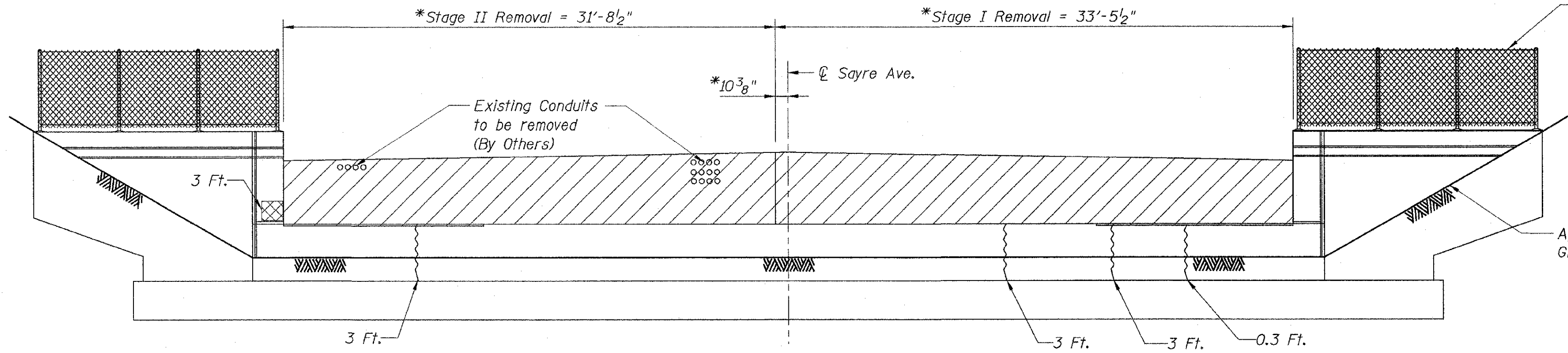
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
NORTH ABUTMENT REMOVAL
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

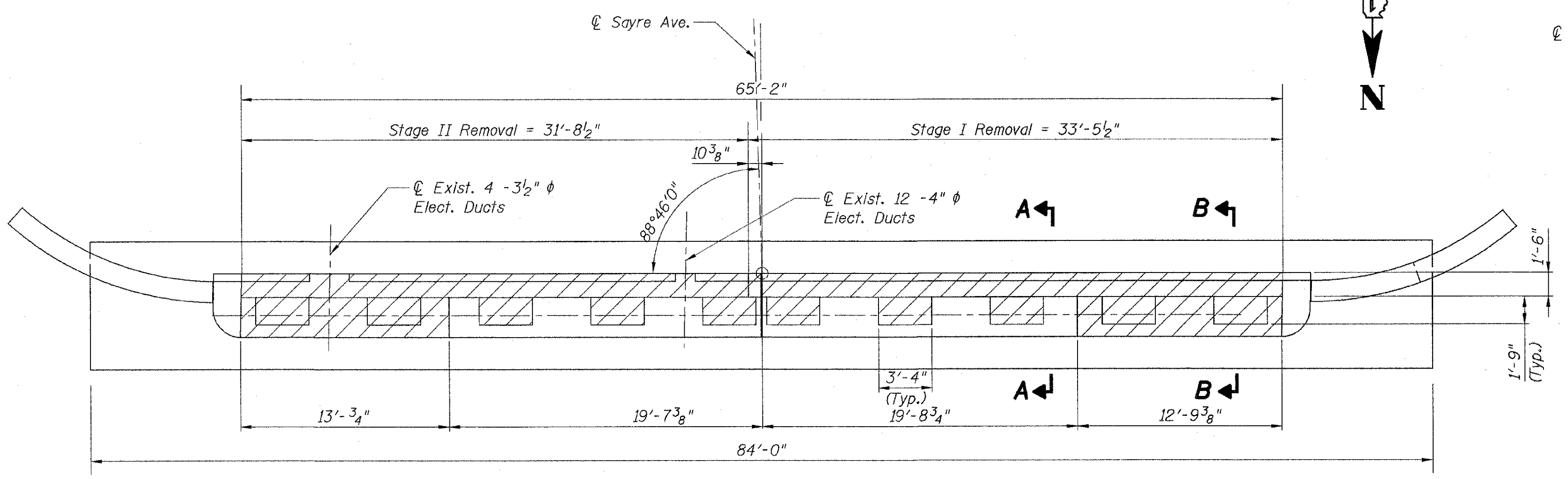
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	48
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

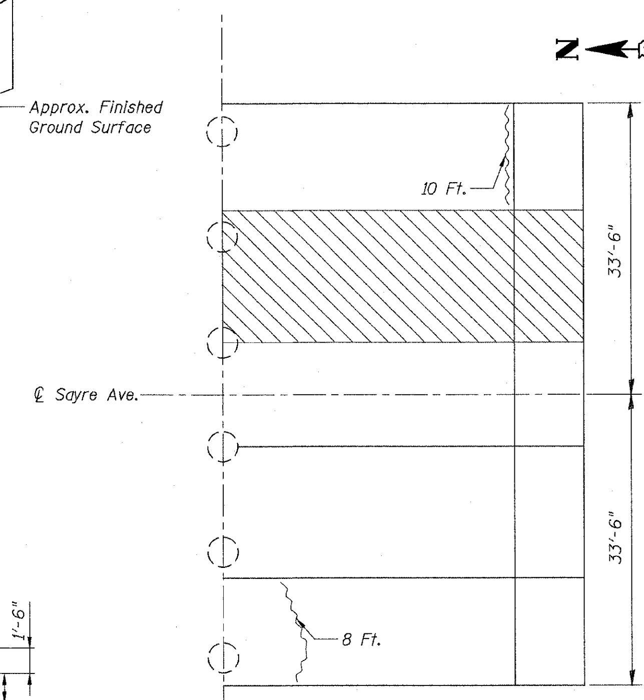


ELEVATION
(Looking South)

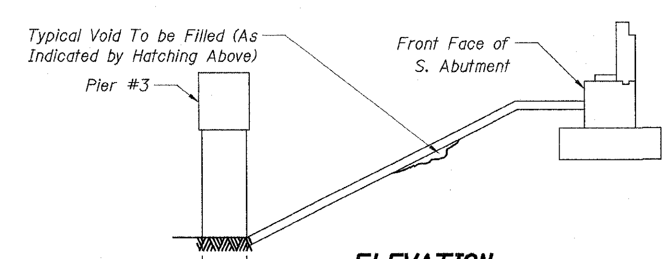
* Measured Along Back of Abutment



PLAN



PLAN



ELEVATION
South Slopewall

Notes:

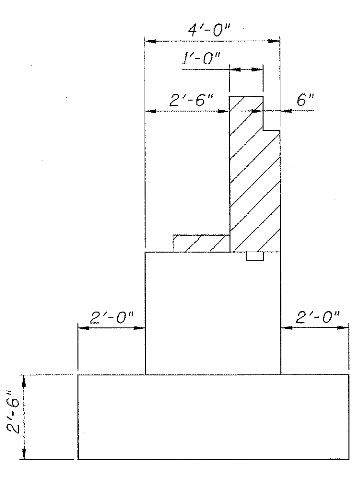
Sawcut existing abutment backwall at stage removal line before removing existing backwall.

Existing reinforcement extending into new construction shall be cleaned, straightened, and incorporated into new construction. Cost shall be included with Concrete Removal.

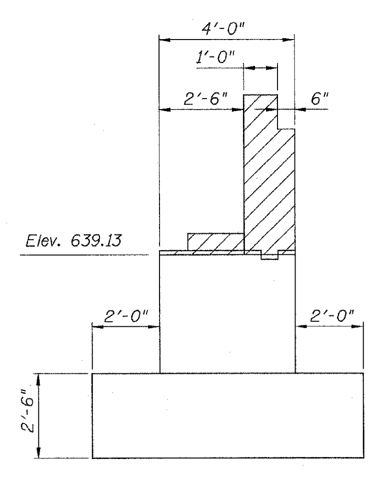
Existing reinforcement not extending into new construction shall be cut off and covered with a 2" layer of cement grout. Cost shall be included with Concrete Removal.

LEGEND:

- Indicates areas of Concrete Removal
- Indicates limits of Epoxy Crack Injection
- Indicates limits of Structural Repair of Concrete (depth equal to or less than 5")
- Indicates limits of Slope Wall Slurry Pumping



SECTION A-A



SECTION B-B

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Epoxy Crack Injection	Foot	27.3
Structural Repair of Concrete (Depth Equal to Less than 5")	Sq. Ft.	3
Concrete Removal	Cu. Yd.	15.7
* Slope Wall Slurry Pumping	Cu. Yd.	3.3
Structure Excavation	Cu. Yd.	92

* See Special Provisions

REVISIONS	
NAME	DATE

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

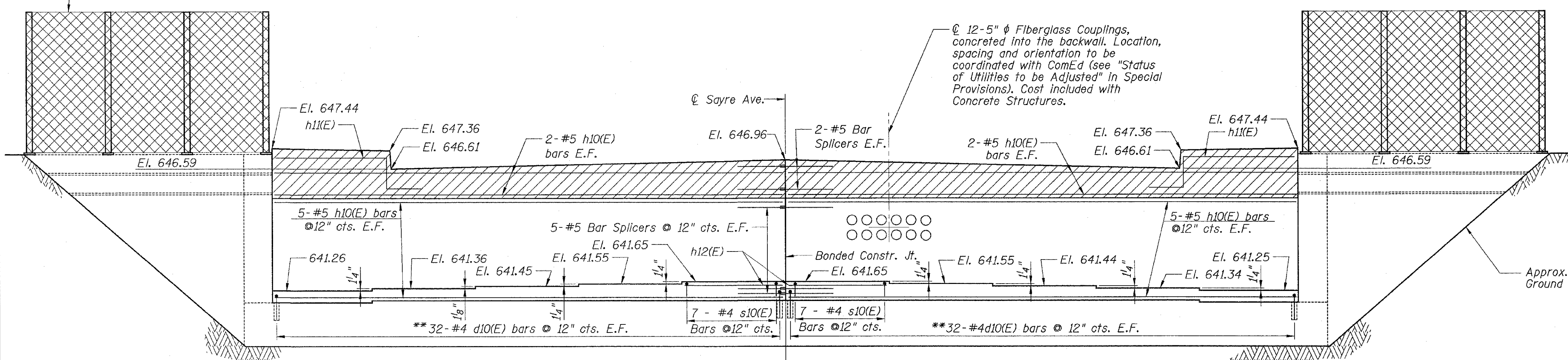
ILLINOIS DEPARTMENT OF TRANSPORTATION
SOUTH ABUTMENT REMOVAL
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	49
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

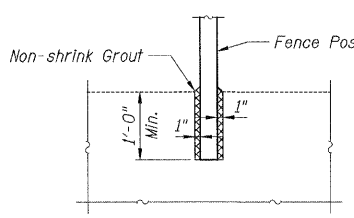
- Indicates Concrete Placed after Superstructure Forms Have Been Removed. Quantity of Concrete Included with Concrete Superstructures.



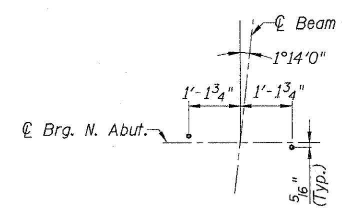
ELEVATION

(Looking North)

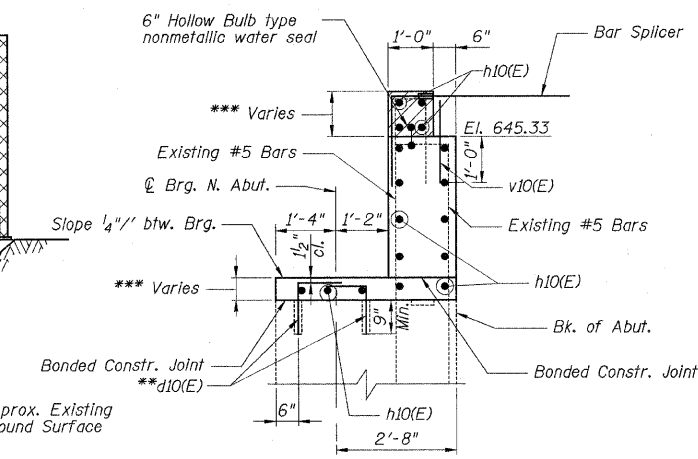
** - Epoxy grout d10(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications.



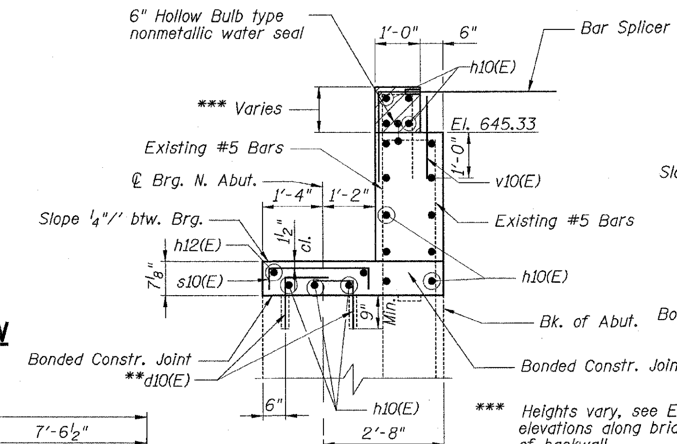
DETAIL "A"



ANCHOR BOLT LOCATION

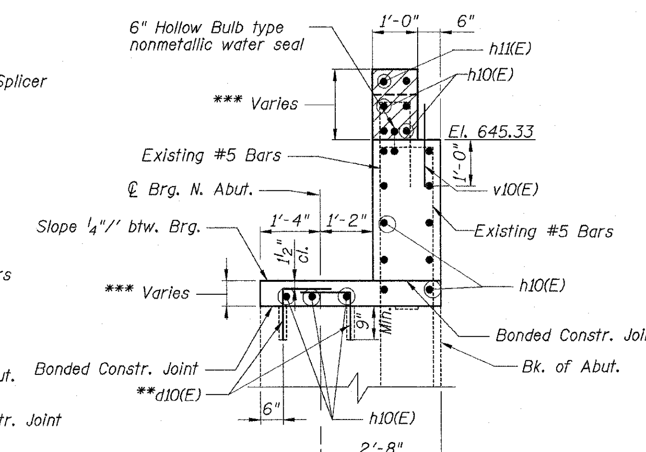


SECTION A-A

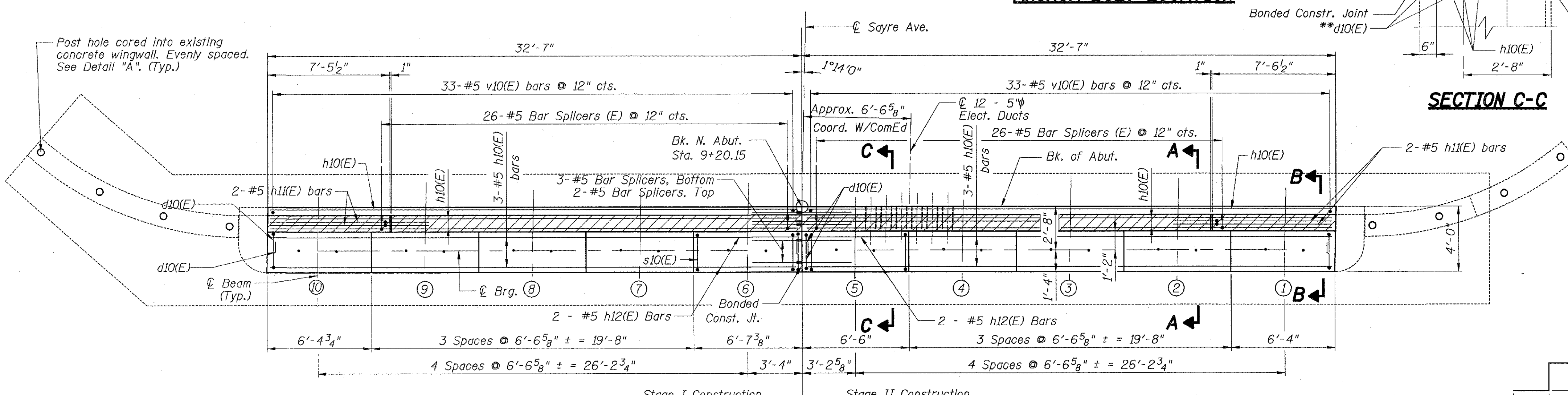


SECTION C-C

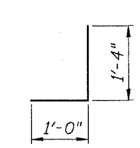
*** Heights vary, see Elevation view for elevations along bridge seat and top of backwall.



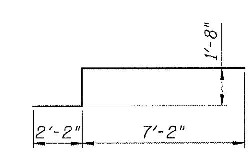
SECTION B-B



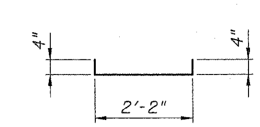
PLAN



Bar d10(E)



Bar h11(E)



Bar s10(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d10(E)	128	4	2'-4"	
h10(E)	34	5	32'-2"	
h11(E)	4	5	11'-0"	
h12(E)	4	5	6'-2"	
s10(E)	14	4	2'-10"	
v10(E)	66	5	2'-0"	
* Porous Granular Embankment (Special)		Cu. Yd.	77	
Concrete Structures		Cu. Yd.	18.4	
Reinforcement Bars, Epoxy Coated		Pound	1,580	
Concrete Sealer		Sq. Ft.	163	
Bar Splicer		Each	71	

* See Special Provisons

Notes:

Space reinforcement in cap to miss anchor bolts.
For Anchor Bolt Installation see Sheet S17.
For N. Abutment Repair and Concrete Removal see Sheet S18.
All edges shall have a standard ¾" chamfer except as noted.
E.F. denotes each face.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
NORTH ABUTMENT REHABILITATION
FA ROUTE 173 (SAYRE AVENUE) OVER INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

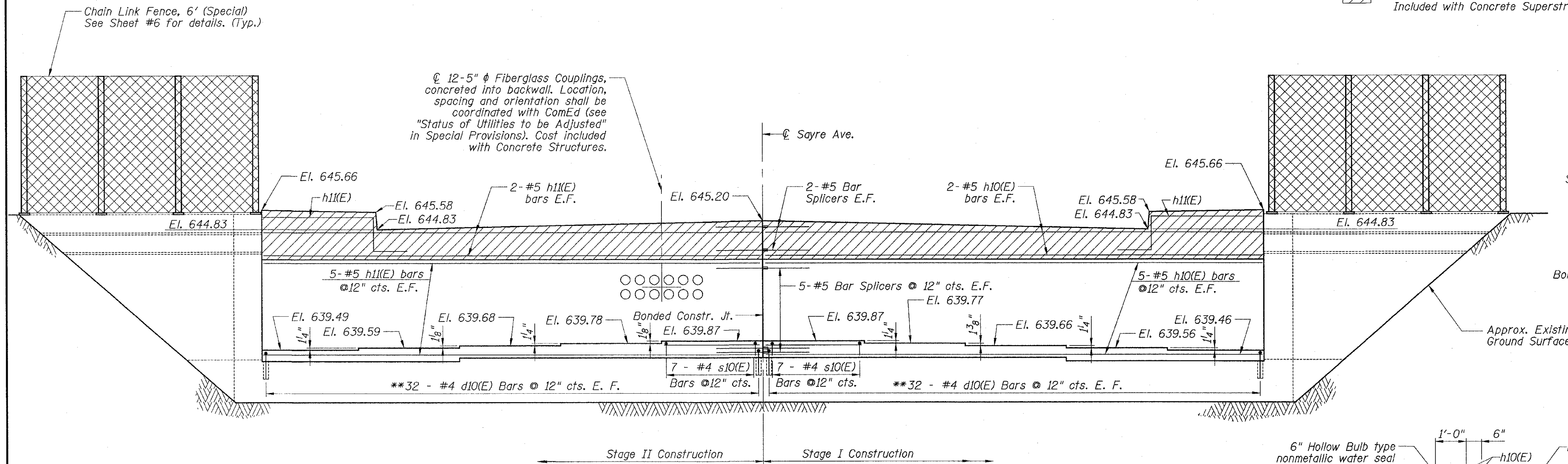
SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

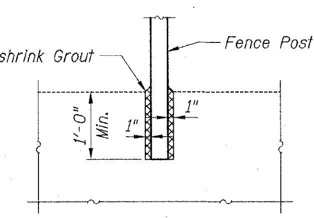
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	50
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60384

- Indicates Concrete Placed after Superstructure Forms Have Been Removed. Quantity of Concrete Included with Concrete Superstructures.

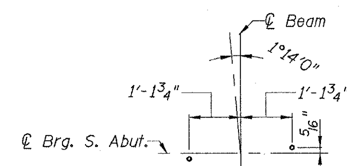


ELEVATION
(Looking South)

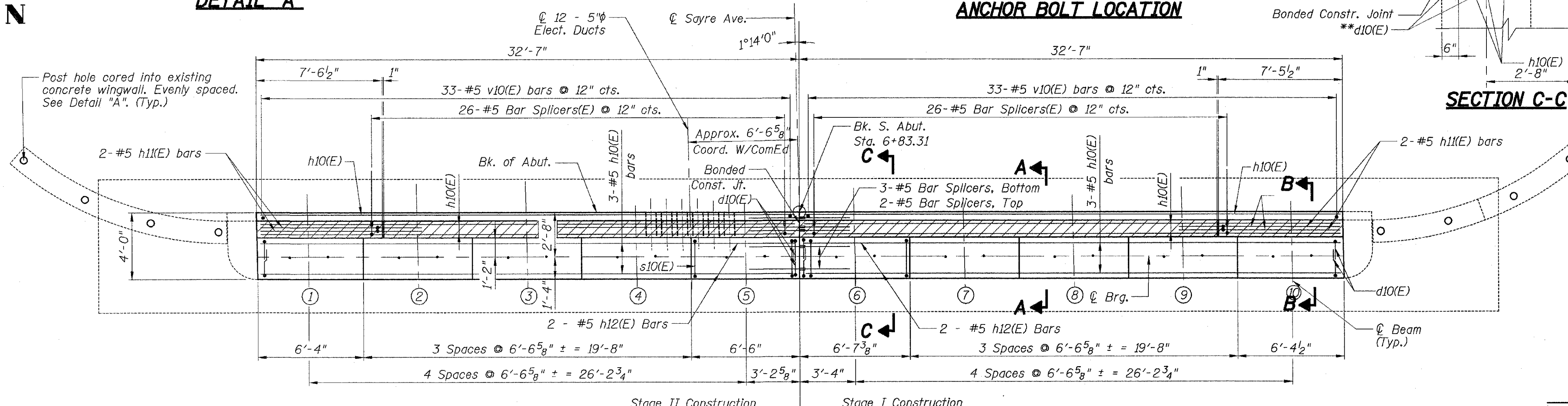


DETAIL "A"

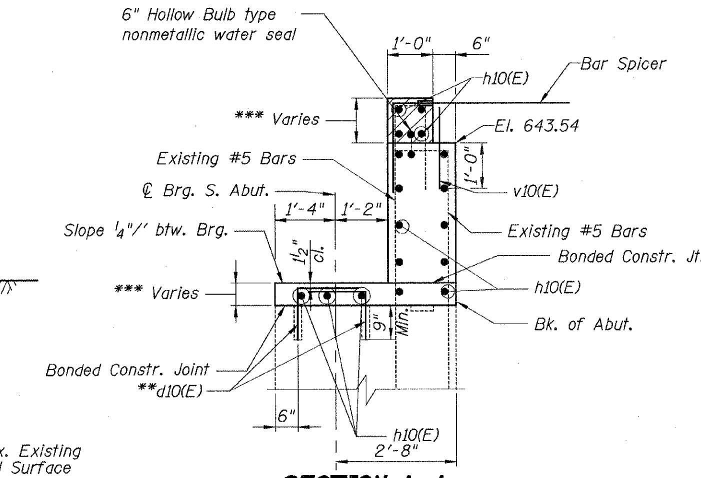
** - Epoxy grout d10(E) bars in 9" min. drilled holes according to Section 584 or the Standard Specifications



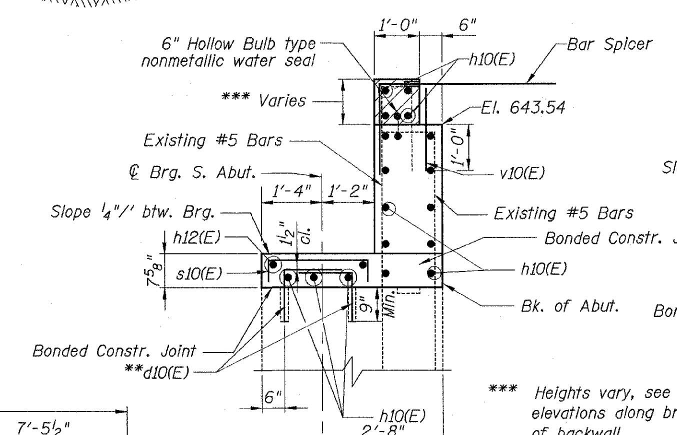
ANCHOR BOLT LOCATION



PLAN

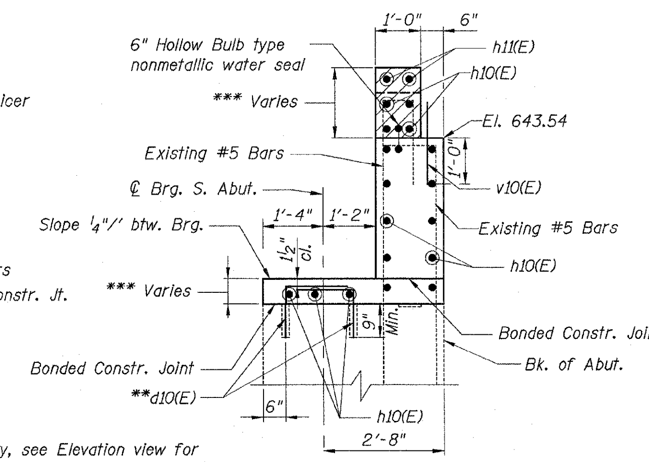


SECTION A-A

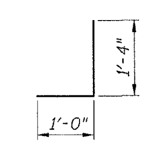


SECTION C-C

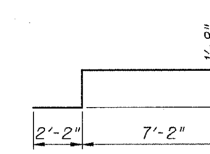
*** Heights vary, see Elevation view for elevations along bridge seat and top of backwall.



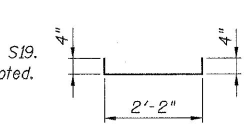
SECTION B-B



Bar d10(E)



Bar h11(E)



Bar s10(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d10(E)	128	4	2'-4"	
h10(E)	34	5	32'-2"	
h11(E)	4	5	11'-0"	
h12(E)	4	5	6'-2"	
s10(E)	14	4	2'-10"	
v10(E)	66	5	2'-0"	
* Porous Granular Embankment (Special)			Cu. Yd.	92
Concrete Structures			Cu. Yd.	18.3
Reinforcement Bars, Epoxy Coated			Pound	1,580
Concrete Sealer			Sq. Ft.	163
Bar Splicers			Each	71

* See Special Provisons

Notes:

Space reinforcement in cap to miss anchor bolts.
For Anchor Bolt Installation see Sheet S17.
For S. Abutment Repair and Concrete Removal see Sheet S19.
All edges shall have a standard ¾" chamfer except as noted.

REVISIONS	
NAME	DATE

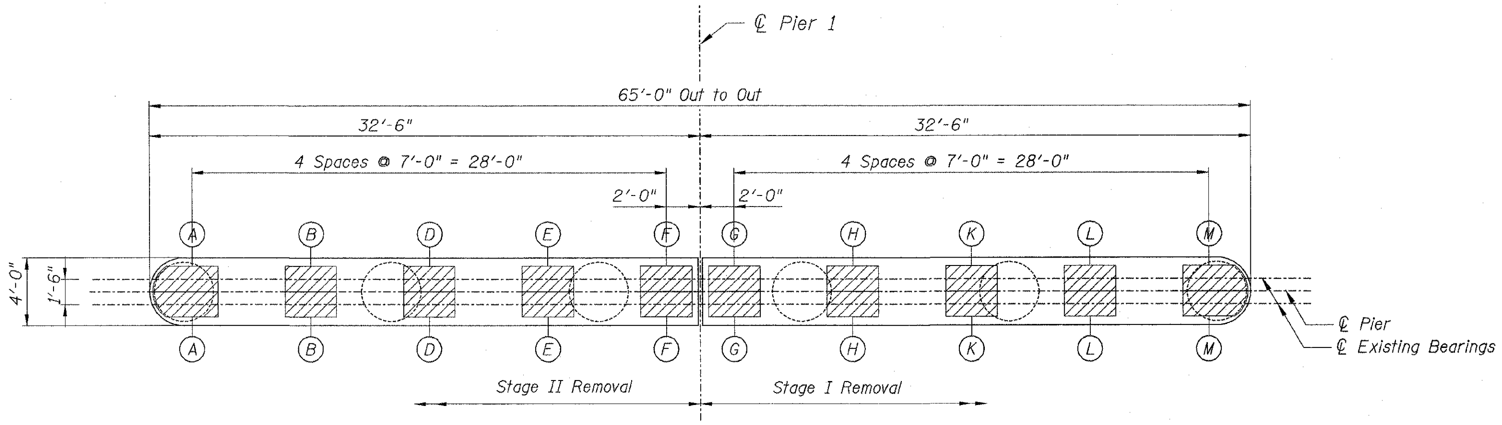
ILLINOIS DEPARTMENT OF TRANSPORTATION
SOUTH ABUTMENT REHABILITATION
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

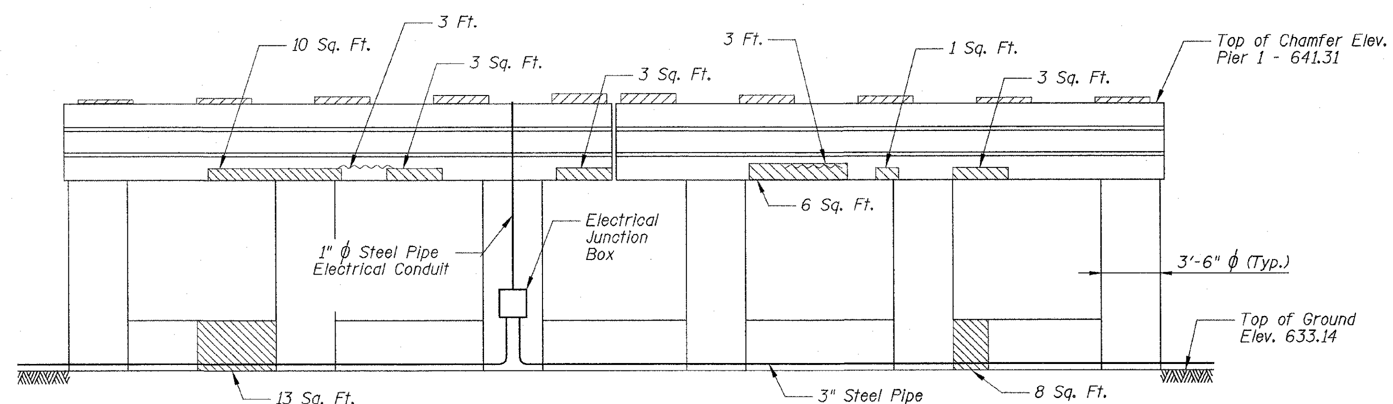
PATRICK ENGINEERING INC.
LISLE, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	51
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

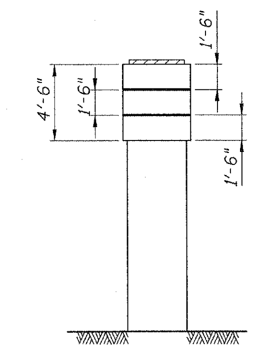
CONTRACT NO. 60384



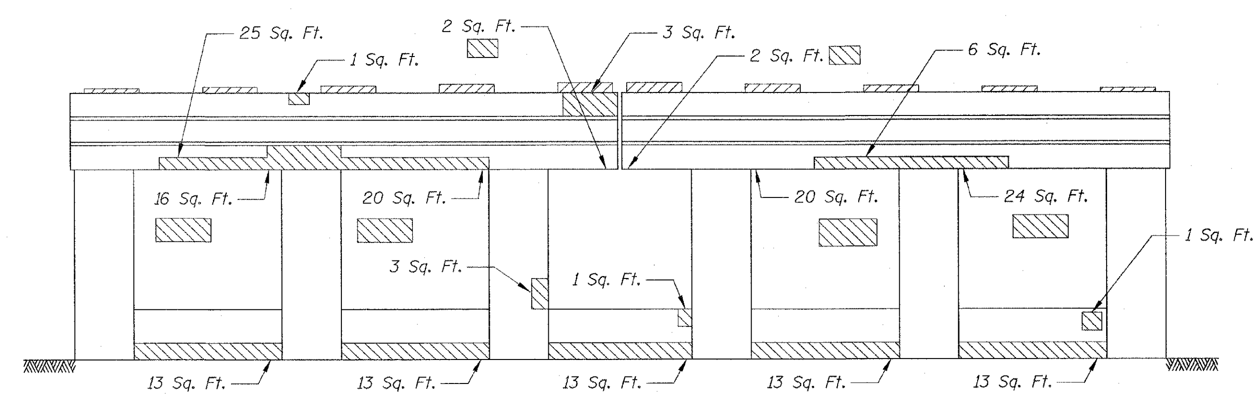
PLAN



ELEVATION
(North Face)



END ELEVATION
(West & East End Similiar)



ELEVATION
(South Face)

NOTES:

1. Pier repair operations shall begin after removal of the existing superstructure and shall be completed prior to erection of the new beams.
2. All electrical conduits shall be protected during construction. Any conduit damage during construction shall be removed and replaced by the Contractor at the Contractor's expense.
3. Quantities shown in the Bill of Material have been increased above the theoretical values to allow for additional repairs authorized by the Engineer.

LEGEND:

- Indicates limits of Structural Repair of Concrete (depth equal to or less than 5")
- Indicates limits of Epoxy Crack Injection
- Indicates areas of concrete removal

BILL OF MATERIAL

	ITEM	UNIT	QUANTITY
*	Polymer Modified Portland Cement Mortar	Sq. Ft.	20
*	Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	260
*	Structural Repair of Concrete (Depth Greater than 5")	Sq. Ft.	100
	Epoxy Crack Injection	Foot	10.0
	Concrete Removal	Cu. Yd.	1.5

* See Special Provisions

REVISIONS	
NAME	DATE

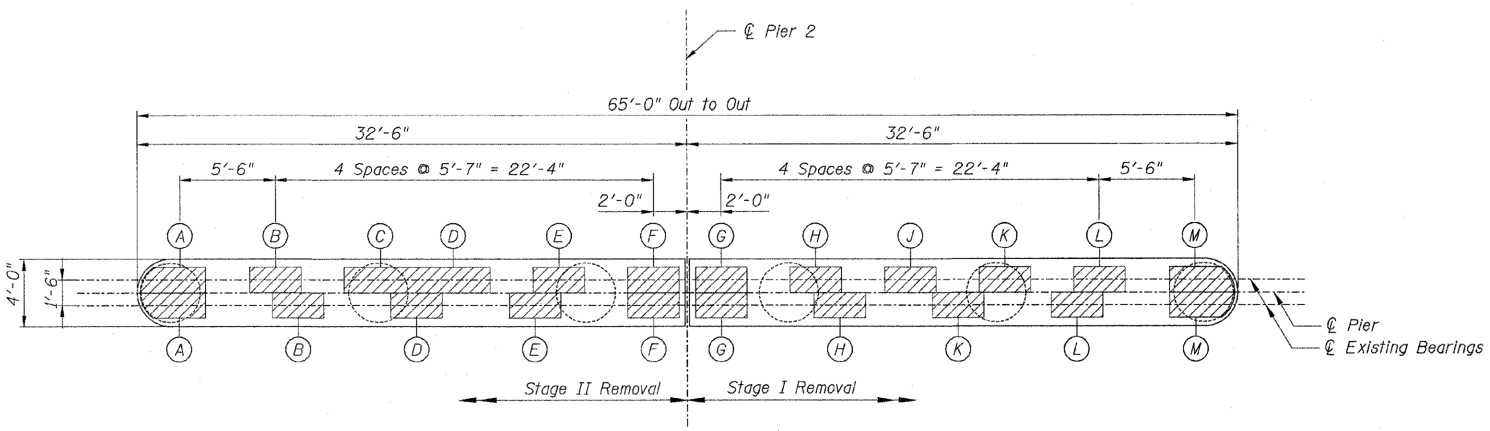
ILLINOIS DEPARTMENT OF TRANSPORTATION
PIER 1 REPAIR
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

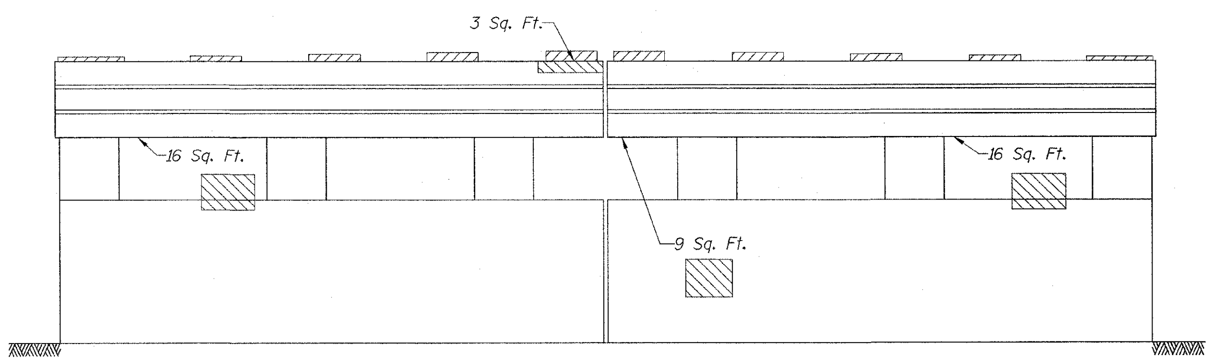
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	52
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

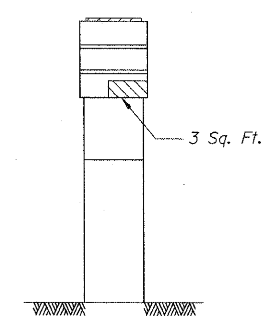


PLAN

N



ELEVATION
(North Face)



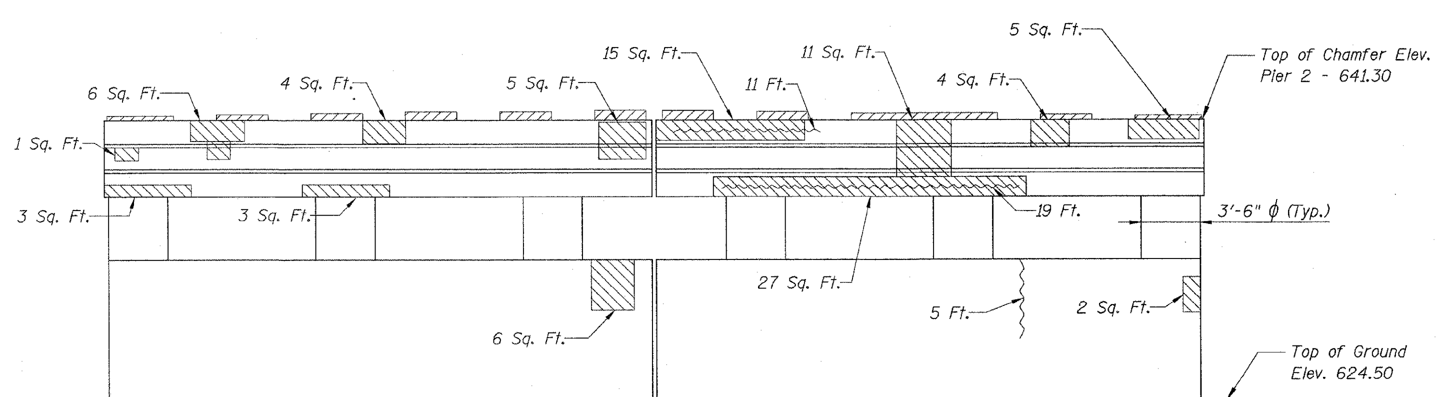
ELEVATION
(West End)

NOTE:

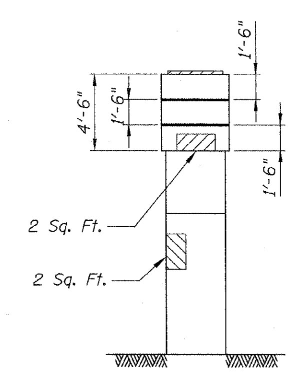
1. Pier repair operations shall begin after removal of the existing superstructure and shall be completed prior to erection of the beams.
2. Quantities shown in the Bill of Material have been increased above the theoretical values to allow for additional repairs authorized by the Engineer.

LEGEND:

- (cross-hatch) — Indicates limits of Structural Repair of Concrete (depth equal to or less than 5")
- (wavy line) — Indicates limits of epoxy crack injection
- (hatch) — Indicates areas of concrete removal



ELEVATION
(South Face)



ELEVATION
(East End)

BILL OF MATERIAL

	ITEM	UNIT	QUANTITY
*	Polymer Modified Portland Cement Mortar	Sq. Ft.	20
*	Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	160
*	Structural Repair of Concrete (Depth Greater than 5")	Sq. Ft.	100
	Epoxy Crack Injection	Foot	40.0
	Concrete Removal	Cu. Yd.	1.6

* See Special Provisions

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

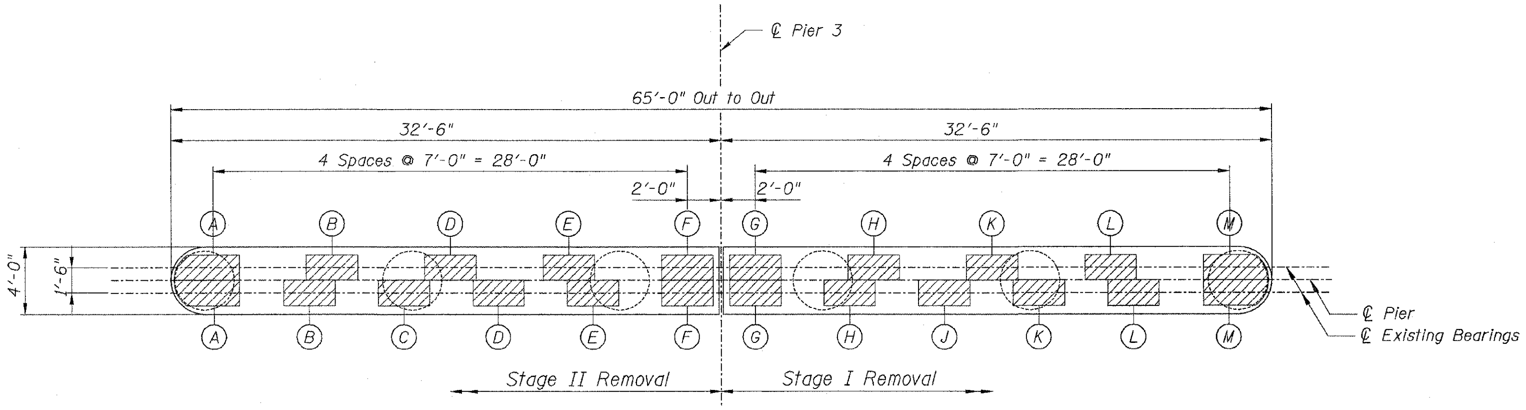
PIER 2 REPAIR
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE DRAWN BY: R. Clinton
DATE: DEC. 2007 CHECKED BY: G. Hatlestad

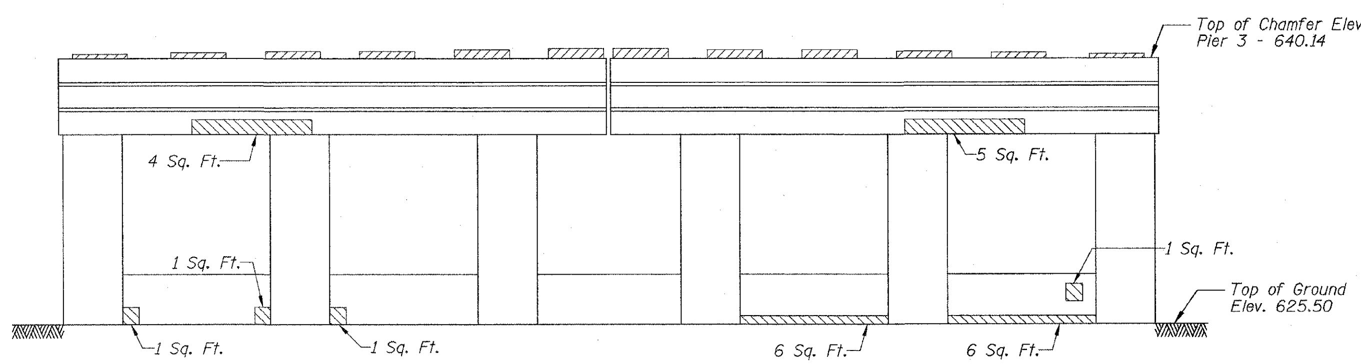
PATRICK ENGINEERING INC.
LISLE, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	53
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

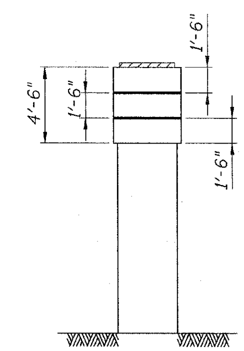
CONTRACT NO. 60384



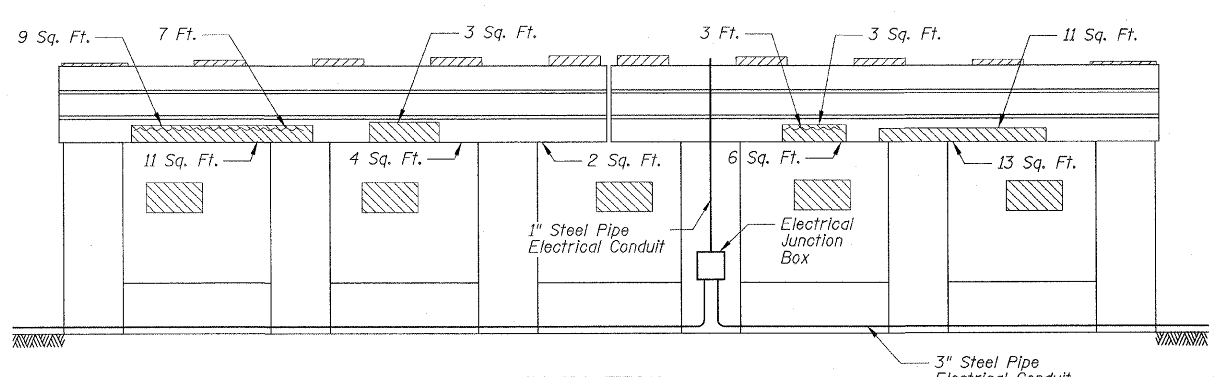
PLAN



ELEVATION
(North Face)



END ELEVATION
(West & East End Similar)



ELEVATION
(South Face)

NOTES:

1. Pier repair operations shall begin after removal of the existing superstructure and shall be completed prior to erection of the new beams.
2. All electrical conduits shall be protected during construction. Any conduit damage during construction shall be removed and replaced by the Contractor at the Contractor's expense.
3. Quantities shown in the Bill of Material have been increased above the theoretical values to allow for additional repairs authorized by the Engineer.

LEGEND:

— Indicates limits of Structural Repair of Concrete (depth equal to or less than 5")

— Indicates limits of Epoxy Crack Injection

— Indicates areas of concrete removal

BILL OF MATERIAL

	ITEM	UNIT	QUANTITY
*	Polymer Modified Portland Cement Mortar	Sq. Ft.	20
*	Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	96
*	Structural Repair of Concrete (Depth Greater than 5")	Sq. Ft.	100
	Epoxy Crack Injection	Foot	15.0
	Concrete Removal	Cu. Yd.	1.7

* See Special Provisions

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

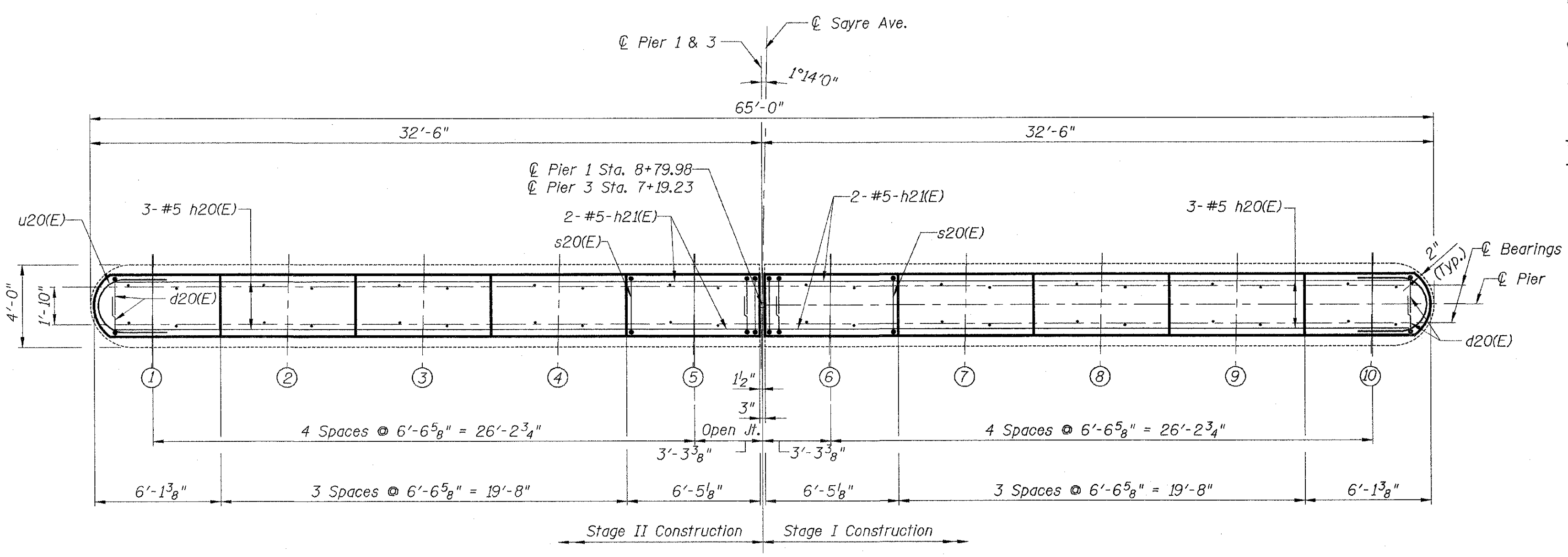
PIER 3 REPAIR
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE — DRAWN BY: R. Clinton
DATE: DEC. 2007 — CHECKED BY: G. Hatlestad

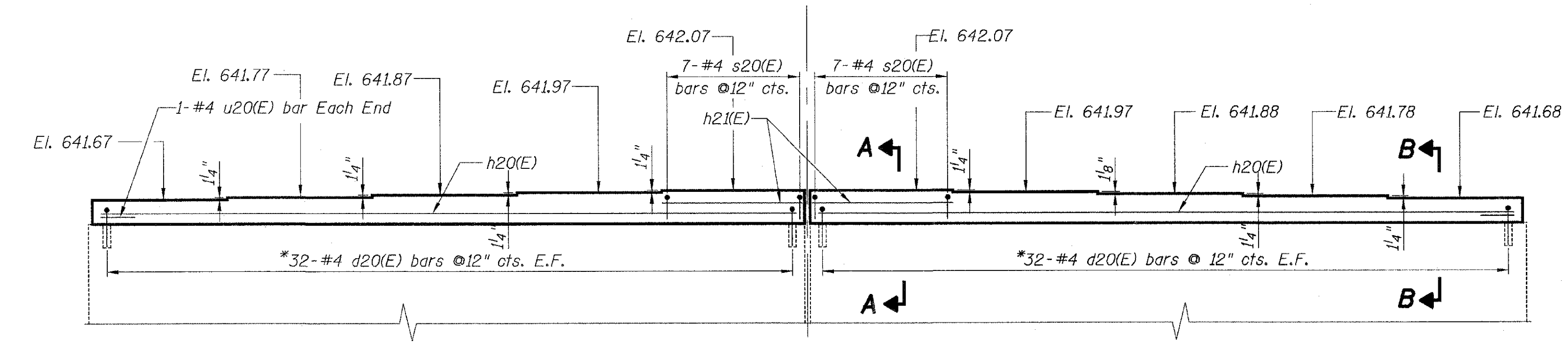
PATRICK ENGINEERING INC.
LISLE, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	54
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

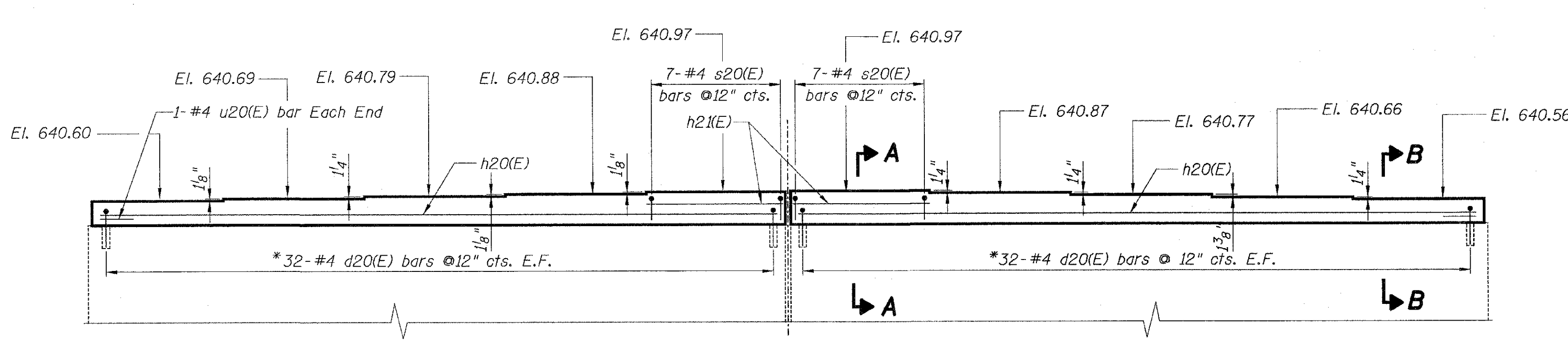
CONTRACT NO. 60384



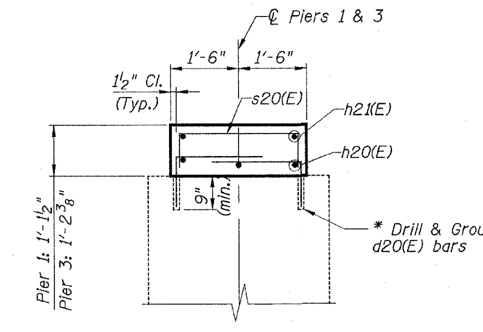
PLAN



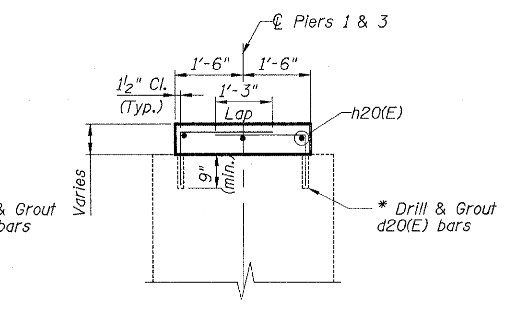
ELEVATION PIER 1
(Looking North)



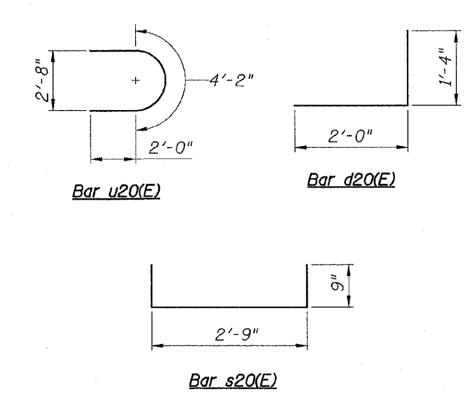
ELEVATION PIER 3
(Looking North)

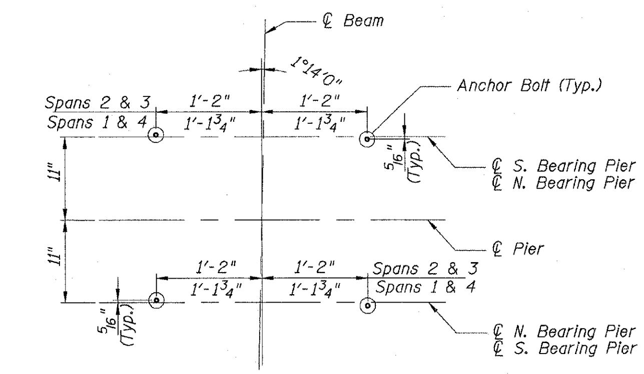


SECTION A-A



SECTION B-B





ANCHOR BOLT LOCATION

PIER 1 - BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d20(E)	128	4	3'-4"	
h20(E)	6	5	31'-10"	
h21(E)	4	5	6'-1"	
s20(E)	14	4	4'-3"	
u20(E)	2	4	8'-2"	
Concrete Structures			Cu. Yd.	6.7
Reinforcement Bars, Epoxy Coated			Pound	560

PIER 3 - BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d20(E)	128	4	3'-4"	
h20(E)	6	5	31'-10"	
h21(E)	4	5	6'-1"	
s20(E)	14	4	4'-3"	
u20(E)	2	4	8'-2"	
Concrete Structures			Cu. Yd.	7.3
Reinforcement Bars, Epoxy Coated			Pound	560

* Epoxy grout d20(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications.

Notes:
Space reinforcement in cap to miss anchor bolts.
For Anchor Bolt Installation see Sheet S16.
For Pier Repair and Concrete Removal see Sheets S22 & S23.
All edges shall have a standard ¾" chamfer except as noted.

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

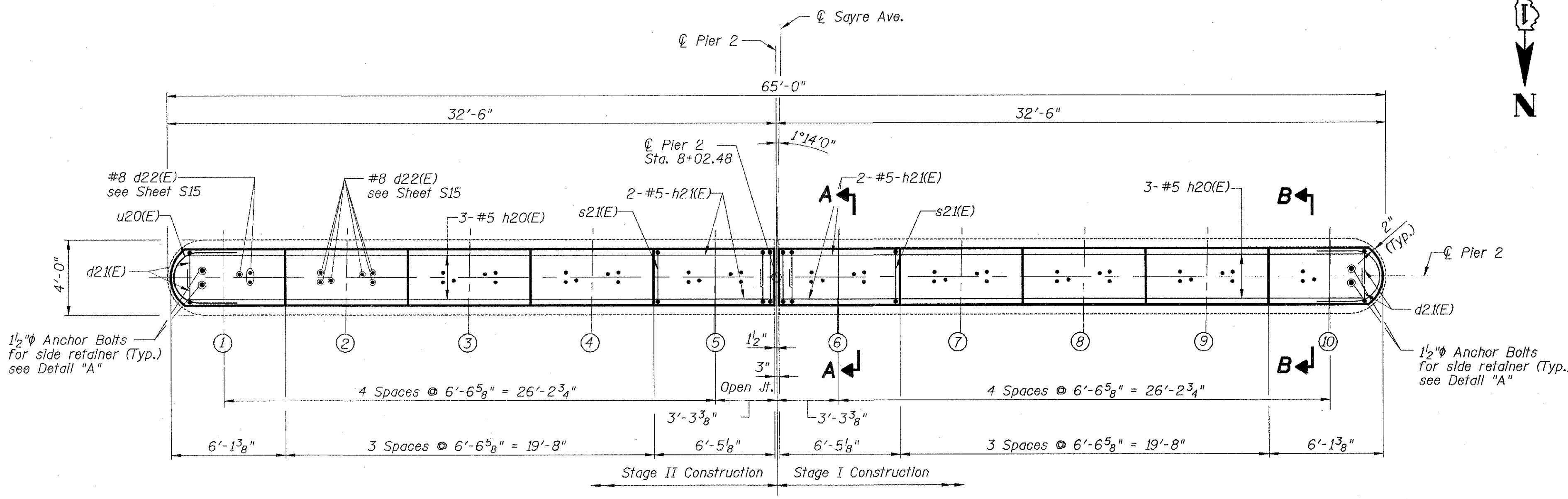
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PIERS 1 & 3 REHABILITATION
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

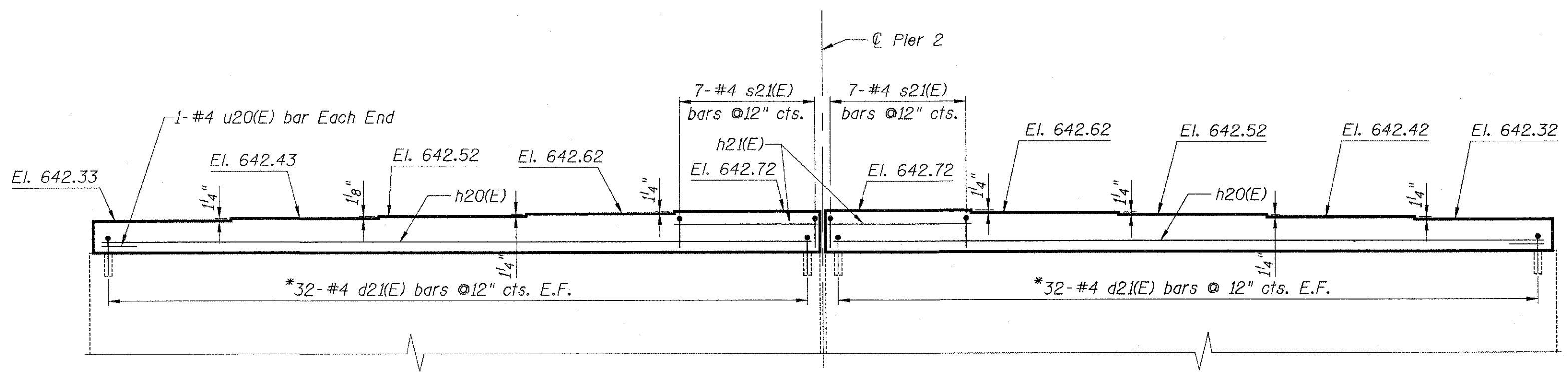
SCALE: NONE
DRAWN BY: R. Clinton
DATE: DEC. 2007
CHECKED BY: R. Kaye

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	55
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60384

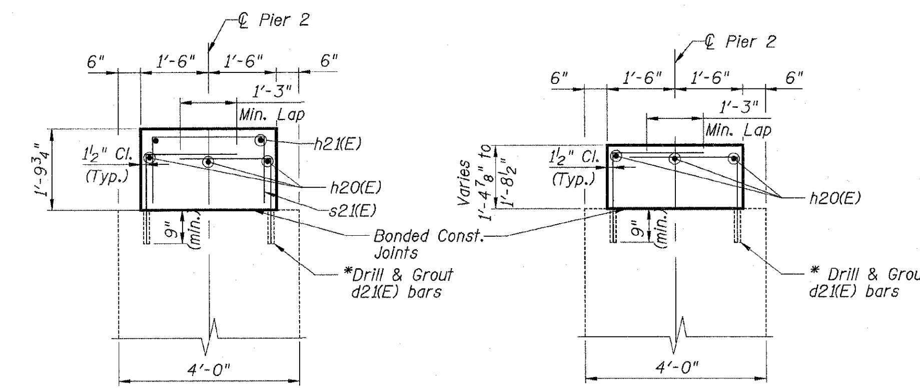


PLAN



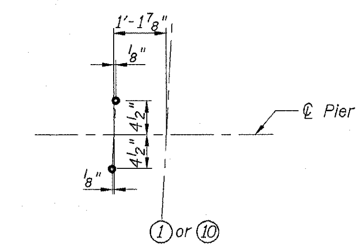
ELEVATION PIER 2
(Looking North)

* Epoxy grout d21(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications.

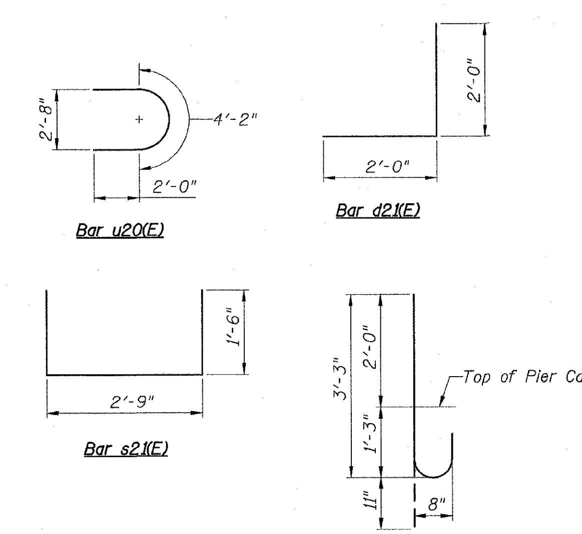


SECTION A-A

SECTION B-B



DETAIL "A"



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d21(E)	128	4	4'-0"	
d22(E)	54	8	4'-2"	
h20(E)	6	5	31'-10"	
h21(E)	4	5	6'-1"	
s21(E)	14	4	5'-9"	
u20(E)	2	4	8'-2"	
Concrete Structures			Cu. Yd.	11.6
Reinforcement Bars, Epoxy Coated			Pound	1,260

NOTES:

Space reinforcement in cap to miss Anchor Bolts.

All edges shall have standard ¾" chamfer.

For Pier Repair and Concrete Removal see Sheet S23.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PIER 2 REHABILITATION

FA ROUTE 173 (SAYRE AVENUE) OVER INTERSTATE 90 (KENNEDY EXPRESSWAY)

COOK COUNTY STATION 8+02.48

SECTION 267-1414-15D

STRUCTURE NO. 016-1104

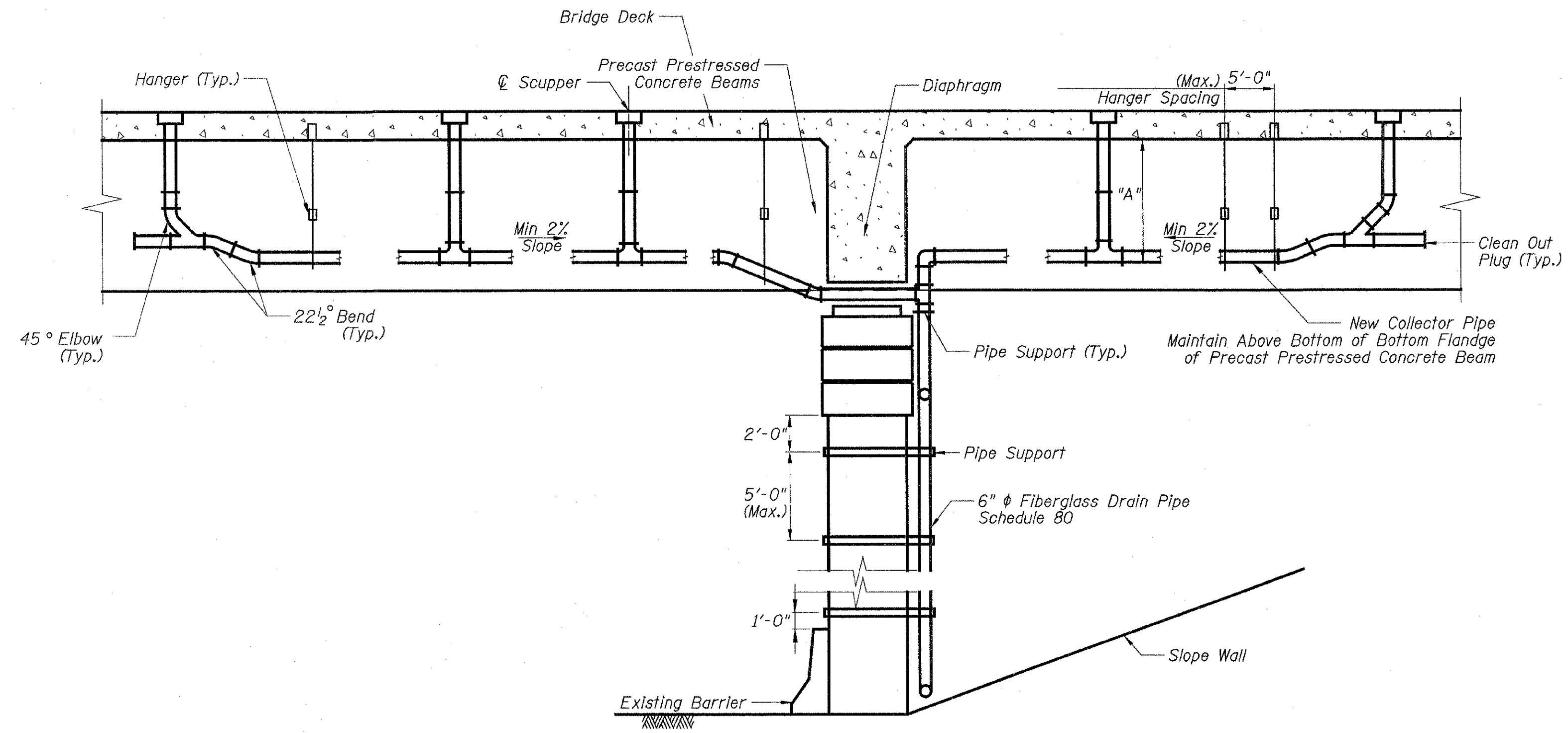
SCALE: NONE DRAWN BY: R. Clinton

DATE: DEC. 2007 CHECKED BY: R. Kaye

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

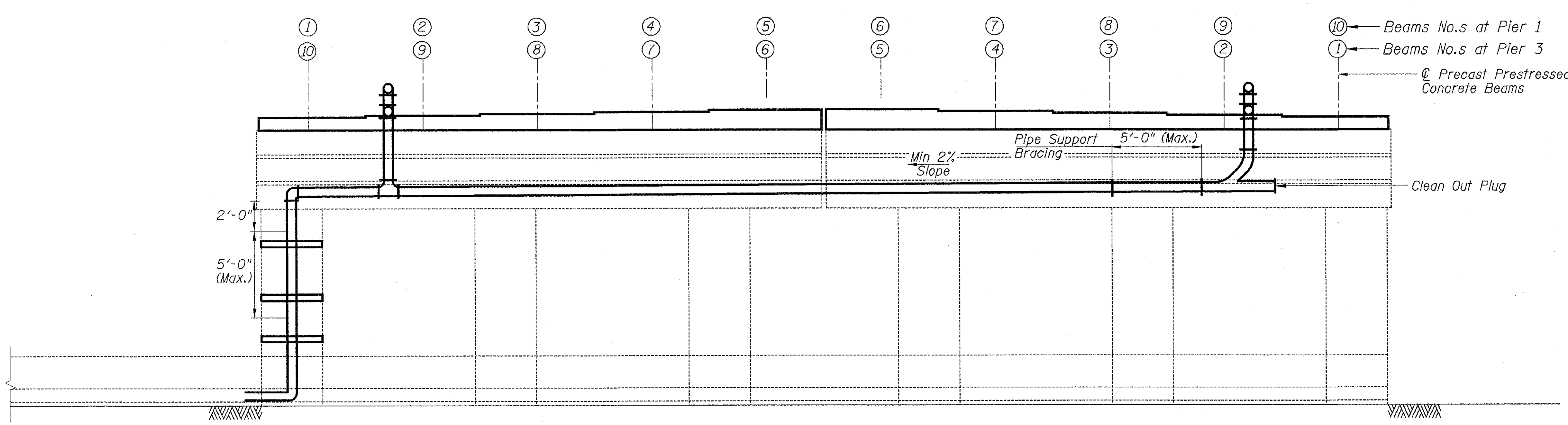
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	56
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60384



END ELEVATION PIERS 1 & 3

(Looking West at Pier 1 or Looking East at Pier 3)



ELEVATIONS PIERS 1 & 3

(Looking South at Pier 1 or Looking North at Pier 3)

Notes:

All drain pipes and fittings shall be reinforced fiberglass conforming to ASTM standard D2996 RTRP.

All pipe hangers, supports and hardware shall be galvanized by the hot-dip process. The zinc coatings shall conform to the requirements of AASHTO M232.

Pipe hangers/ supports shall be provided on all horizontal/ vertical pipes at each tee, elbow or change in direction and at intermediate points as specified by the manufacturer, but not to exceed 5'-0" on centers.

Dimension "A" shall be adjusted in the field by the Engineer to fit existing conditions and to maximize slope.

For scupper locations see Sheet S1.

BILL OF MATERIAL

	ITEM	UNIT	QUANTITY
*	Drainage System	L. Sum	1

* See Special Provisions

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

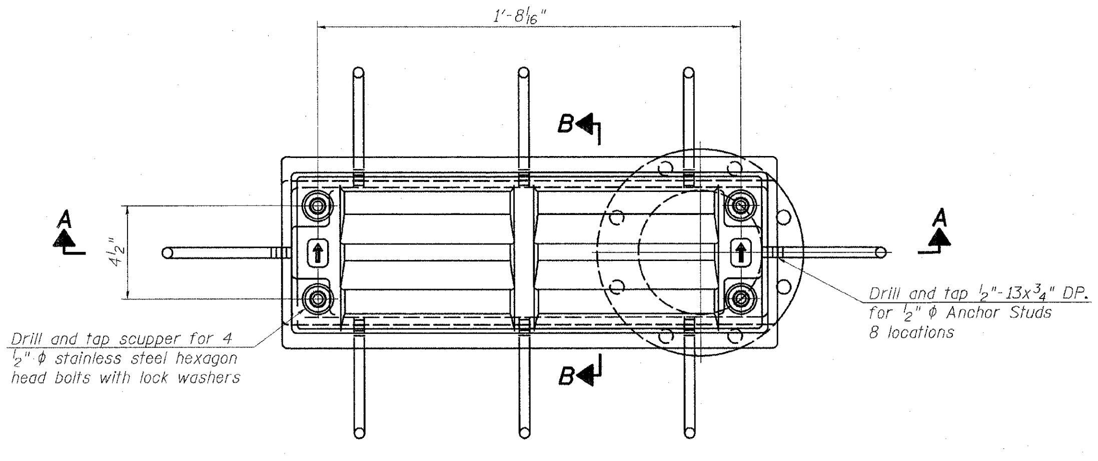
DECK DRAINAGE
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

SCALE: NONE
DRAWN BY: R. Clinton
DATE: DEC. 2007
CHECKED BY: G. Hatlestad

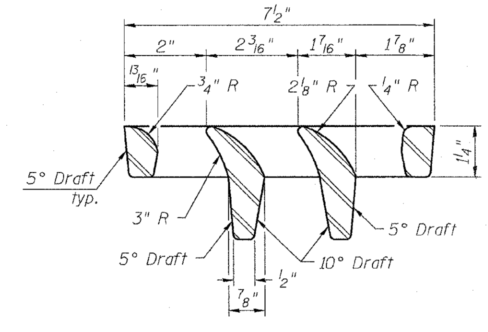
PATRICK ENGINEERING INC.
LISLE, ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	57
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

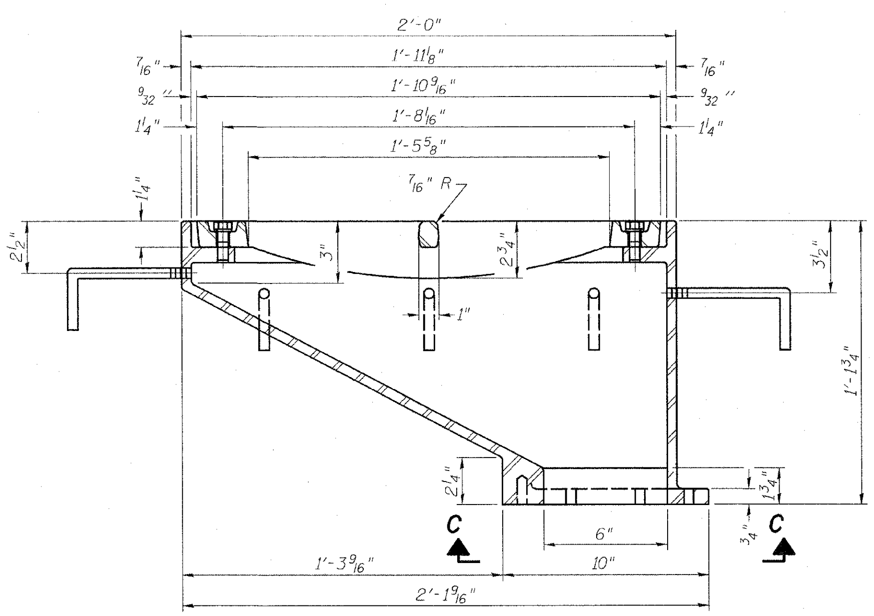
CONTRACT NO. 60384



PLAN

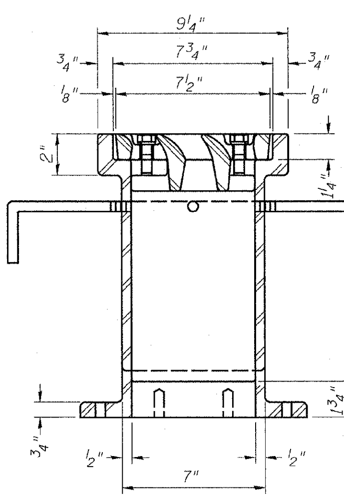


VANE GRATE DETAIL

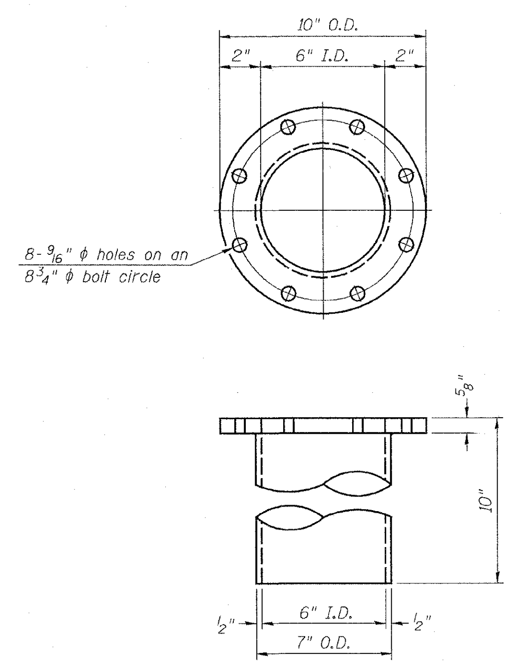


SECTION A-A

See scupper location relative to sidewalk detail.



SECTION B-B



DOWNSPOUT

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.

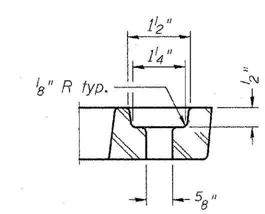
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

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.

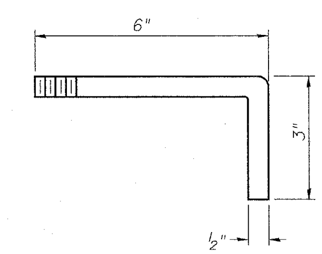
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

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.

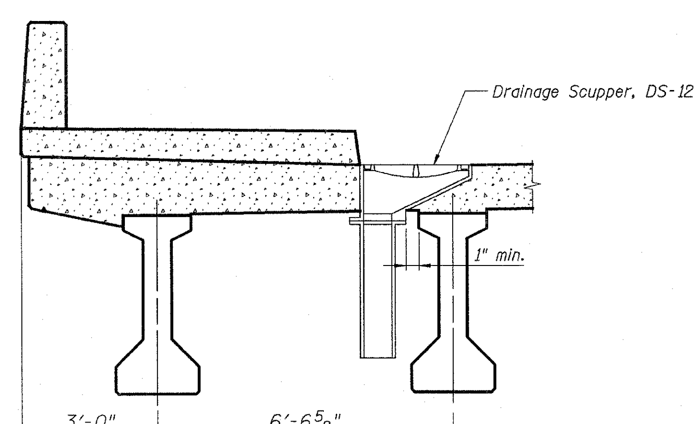
Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



BOLT HOLE DETAIL

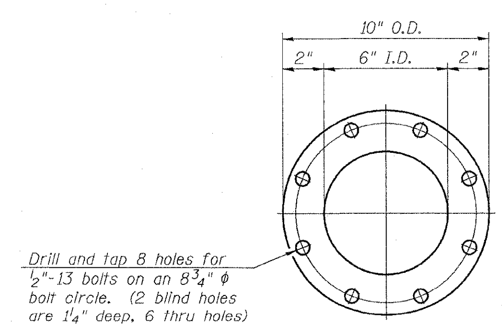


ANCHOR STUD DETAIL



SCUPPER LOCATION

(Relative to sidewalk)



VIEW C-C

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-12	Each	16

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER

FA ROUTE 173 (SAYRE AVENUE) OVER INTERSTATE 90 (KENNEDY EXPRESSWAY)

COOK COUNTY STATION 8+02.48

SECTION 267-1414-15D

STRUCTURE NO. 016-1104

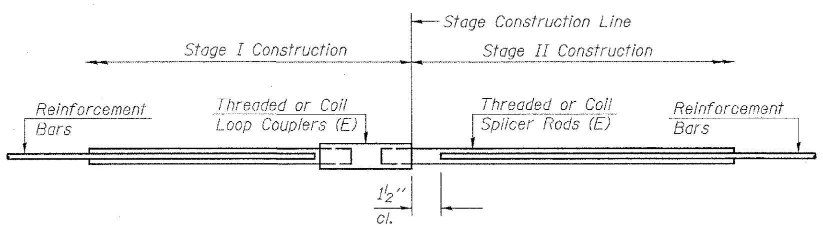
SCALE: NONE DRAWN BY: R. Clinton

DATE: DEC. 2007 CHECKED BY: G. Hatlestad

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

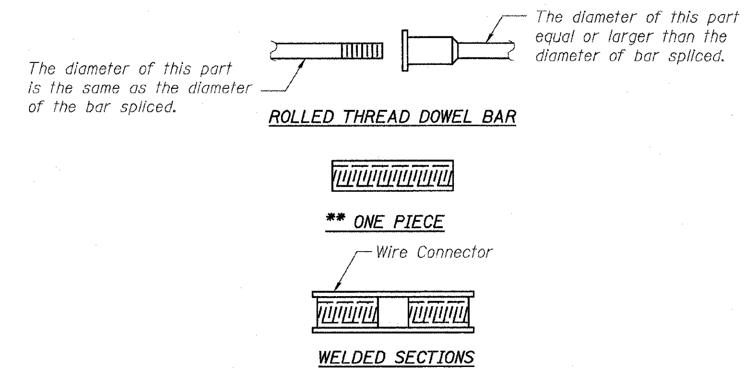
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	58
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



STANDARD

Bar Size	No. Assemblies Required	Location
#4	4	Pier 1 - Diaphragm
#4	4	Pier 2 - Diaphragm
#4	4	Pier 3 - Diaphragm
#5	19	North Abutment
#5	19	South Abutment
#5	351	Top of Deck
#5	274	Bottom of Deck
#6	10	Bottom of Deck
#6	2	Pier 1 - Diaphragm
#6	2	Pier 2 - Diaphragm
#6	2	Pier 3 - Diaphragm
#7	12	Top of Deck



BAR SPLICER ASSEMBLY ALTERNATIVES

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

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

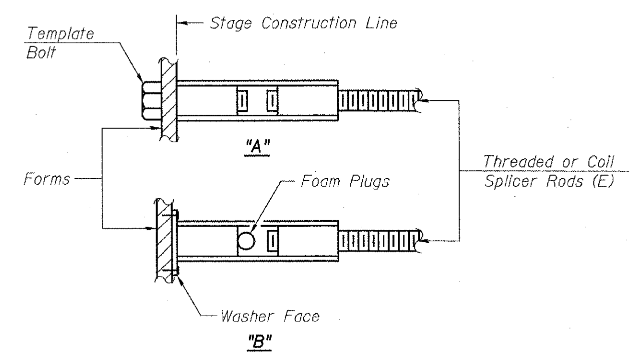
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times fy \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times fy \times A_t$

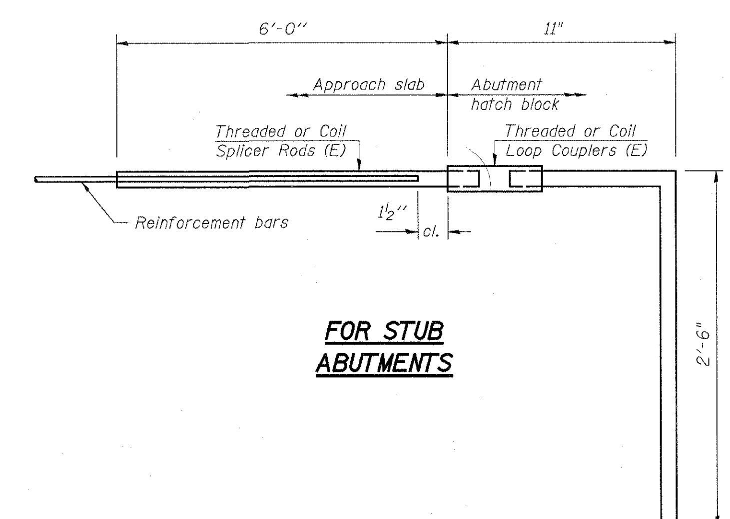
Where fy = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



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 STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 104

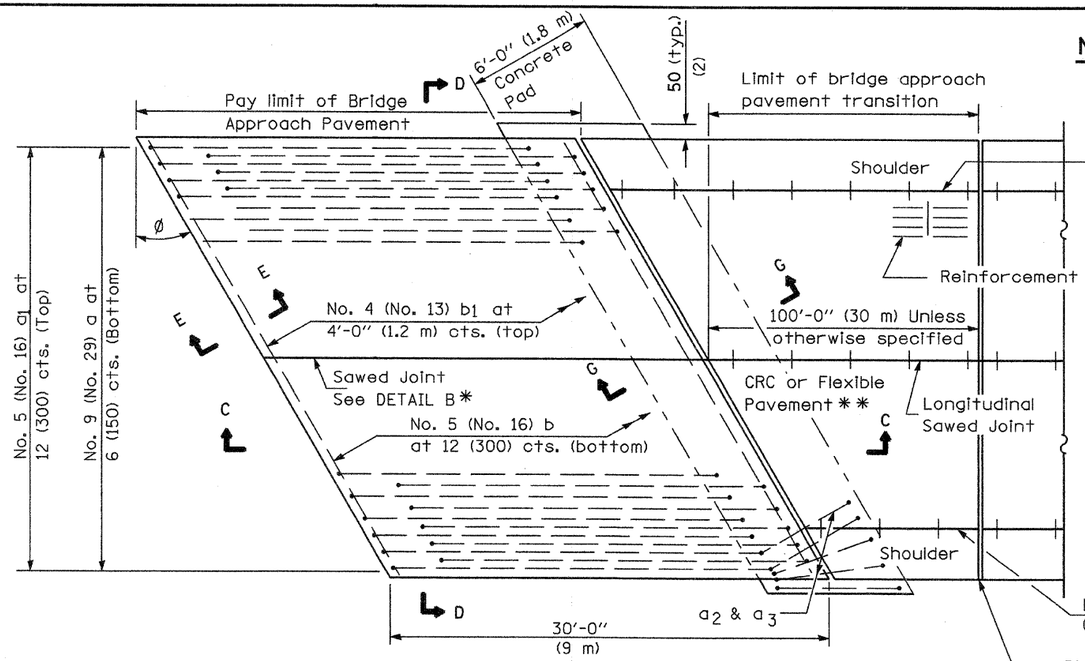
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BAR SPLICER DETAILS
FA ROUTE 173 (SAYRE AVENUE) OVER
INTERSTATE 90 (KENNEDY EXPRESSWAY)
COOK COUNTY STATION 8+02.48
SECTION 267-1414-15D
STRUCTURE NO. 016-1104

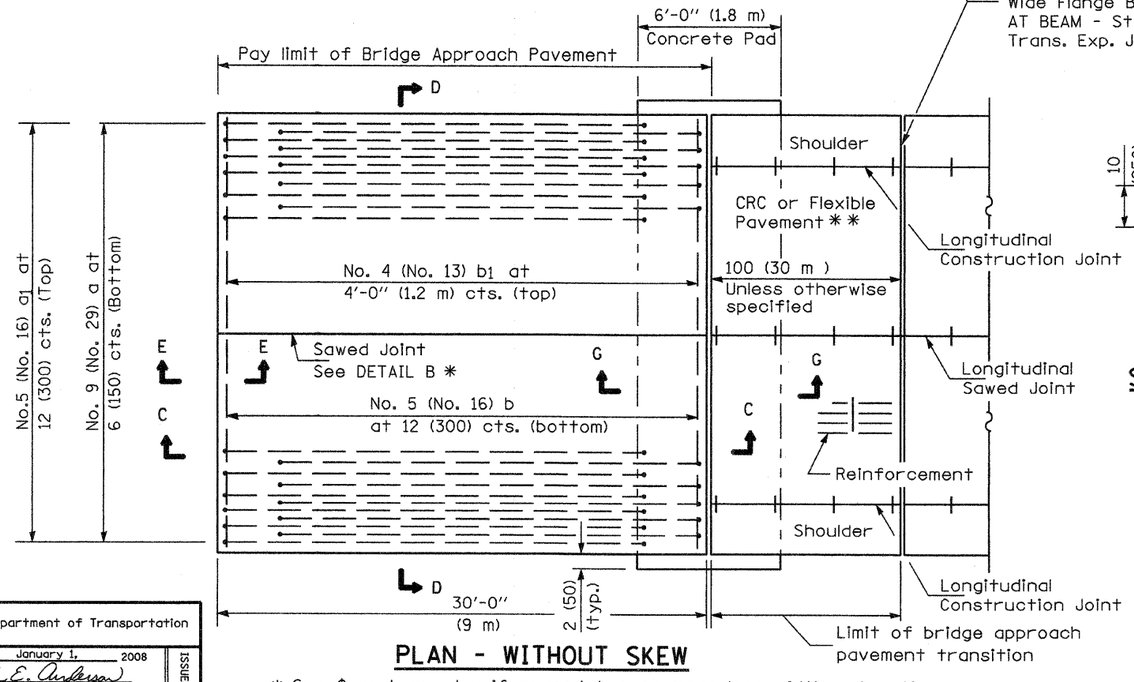
SCALE: NONE
DRAWN BY: R. Clinton
DATE: DEC. 2007
CHECKED BY: G. Hatlestad

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

NEW CONSTRUCTION

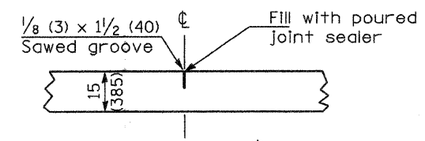


PLAN - WITH SKEW



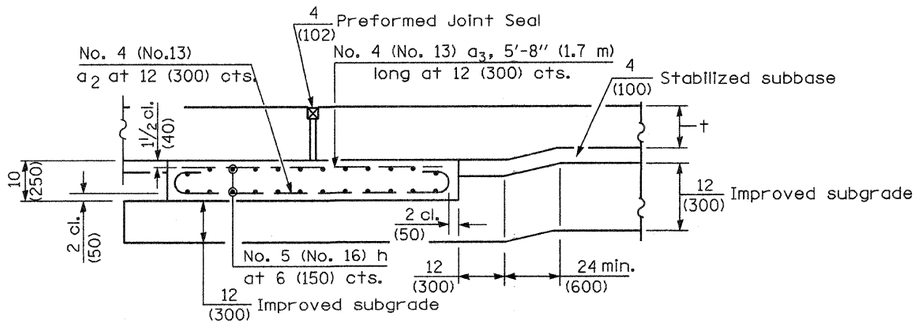
PLAN - WITHOUT SKEW

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



DETAIL B*

(Reinforcement Not Shown)

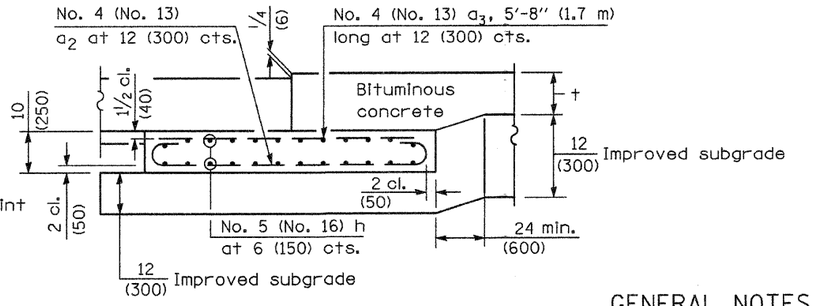


SECTION G-G - RIGID PAVEMENT

(Showing reinforcement)

Rigid Pavement only:

Wide Flange Beam Terminal Joint (See DETAIL AT BEAM - Standard 421101 or 421106) or 2 (50) Trans. Exp. Joint as detailed on Standard 420001.



SECTION G-G - FLEXIBLE PAVEMENT

(Showing reinforcement)

GENERAL NOTES

THICKNESS-"t"=Thickness of Pavement.

See Standard 421001 for reinforcement details not shown.

See Standard 420001 for joint details not shown.

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

Illinois Department of Transportation

APPROVED January 1, 2008
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED January 1, 2008
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-08

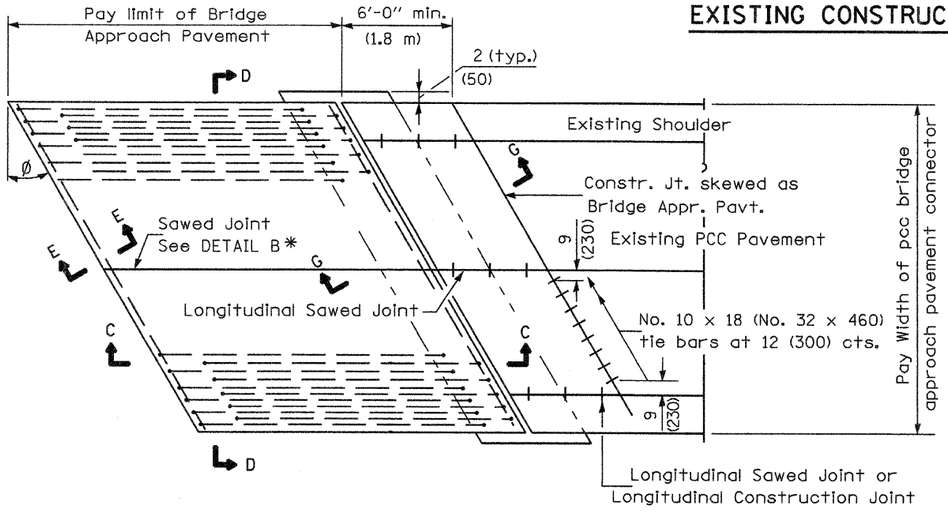
DATE	REVISIONS
1-1-08	Switched units to English
	(metric). Moved rebar epoxy
	coat note to Standard Spec.
1-1-04	Rev. size of Trans. Exp.
	Jt. and soft converted
	metric reinf.

BRIDGE APPROACH PAVEMENT

(Sheet 1 of 4)

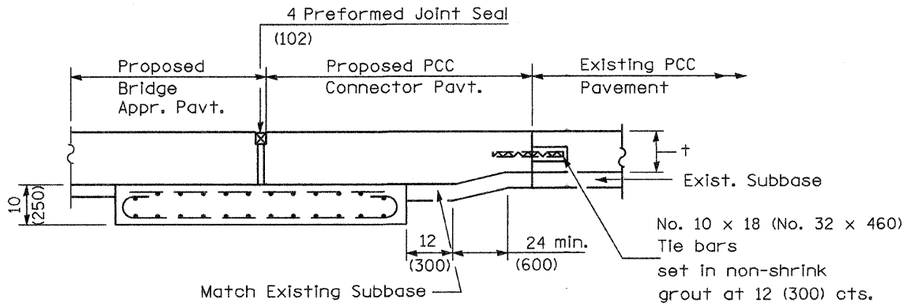
Contract 60384

Sheet 58A.

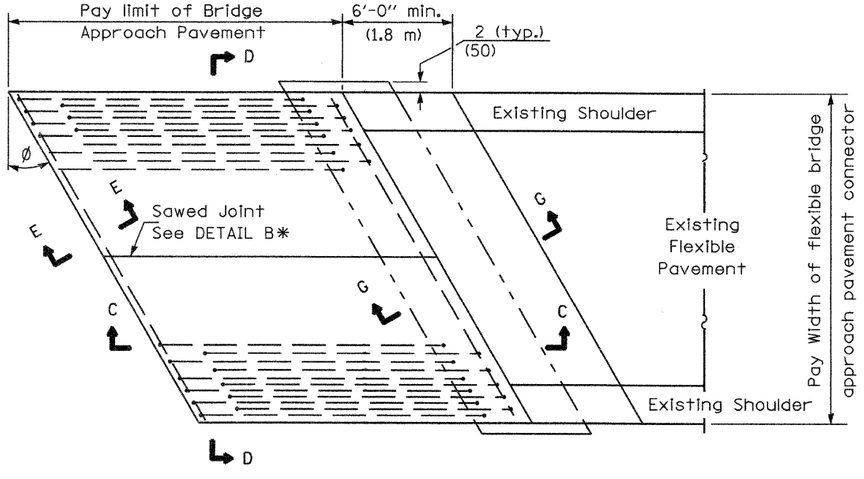


EXISTING CONSTRUCTION

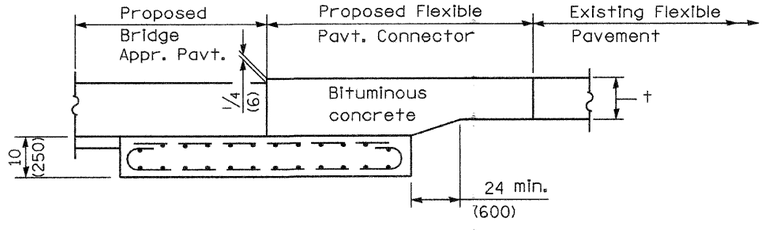
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)



SECTION G-G - RIGID PAVEMENT



BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)



SECTION G-G - FLEXIBLE PAVEMENT

Illinois Department of Transportation

APPROVED January 1, 2008
ENGINEER OF BRIDGES AND STRUCTURES

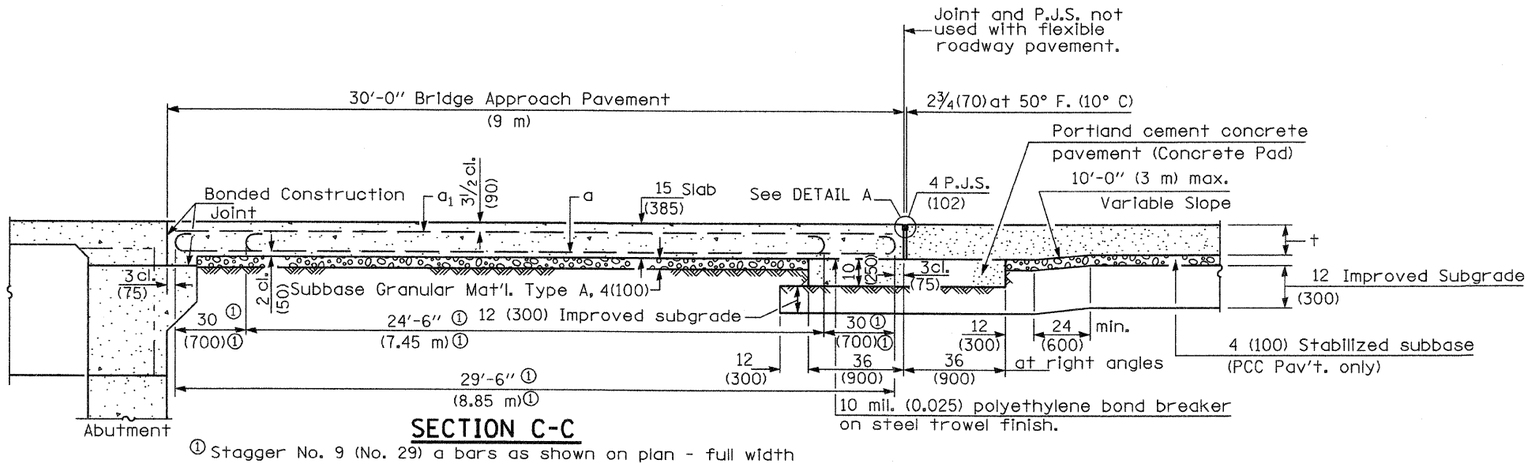
APPROVED January 1, 2008
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

BRIDGE APPROACH PAVEMENT

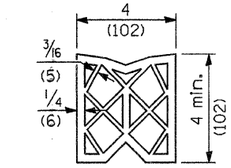
(Sheet 2 of 4)

Contract 60384 Sheet 58B.

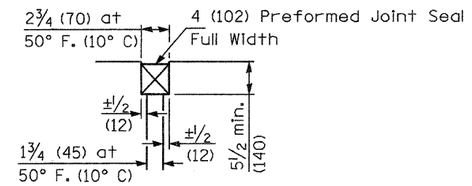


SECTION C-C

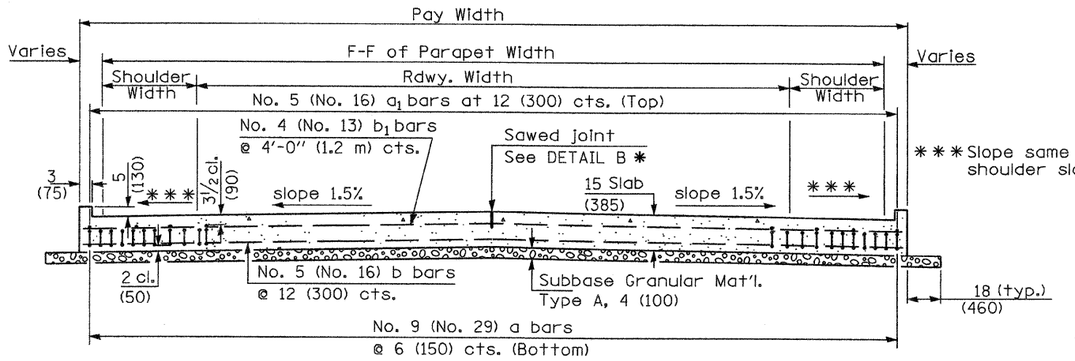
① Stagger No. 9 (No. 29) a bars as shown on plan - full width



PREFORMED JOINT SEAL



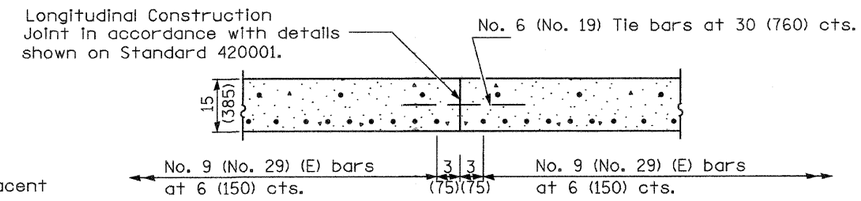
DETAIL A



*** Slope same as adjacent shoulder slope.

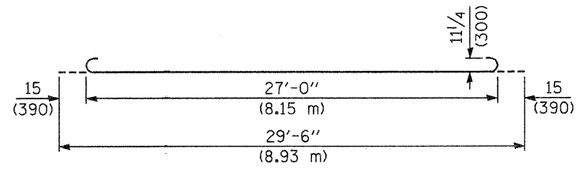
SECTION D-D

(See Plan for Dimensions not shown)

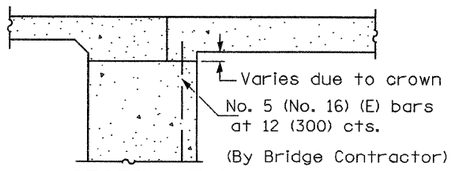


OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

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

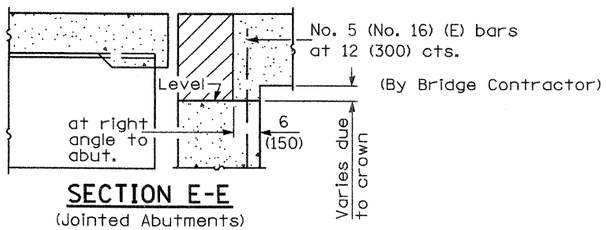


BAR a



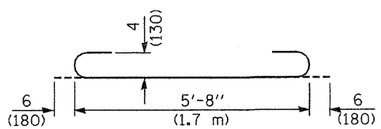
SECTION E-E

(Integral Abutments)



SECTION E-E

(Jointed Abutments)



BAR a2

DESIGN STRESSES

fy = 60,000 p.s.i. (400 MPa)
f'c = 3,500 p.s.i. (24 MPa)
n = 8.5

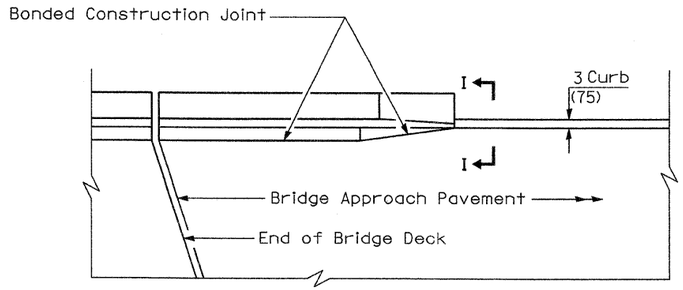
Illinois Department of Transportation

APPROVED January 1, 2008
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED January 1, 2008
ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

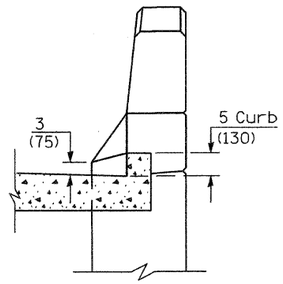
BRIDGE APPROACH PAVEMENT

(Sheet 3 of 4)

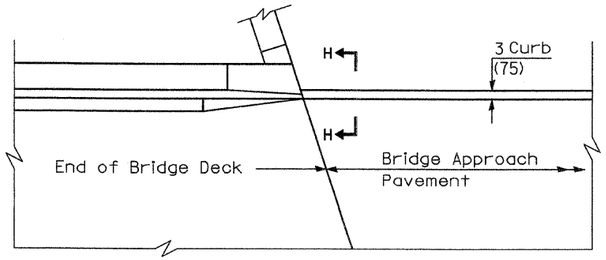
Contract 60384 Sheet 58C.



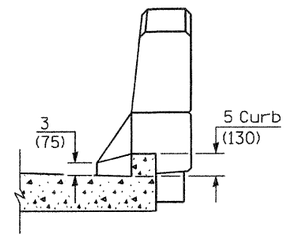
PARAPET TO CURB TRANSITION
PILE BENT ABUTMENT



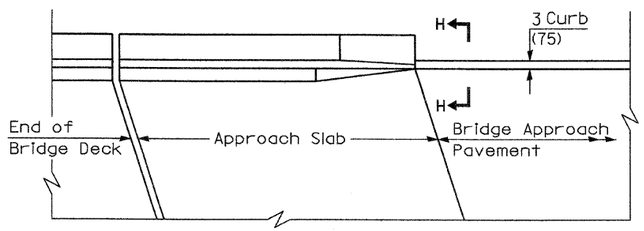
SECTION I - I



PARAPET TO CURB TRANSITION
INTEGRAL ABUTMENT



SECTION H - H



PARAPET TO CURB TRANSITION
VAULTED ABUTMENT

Illinois Department of Transportation

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

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

ISSUED 1-1-97

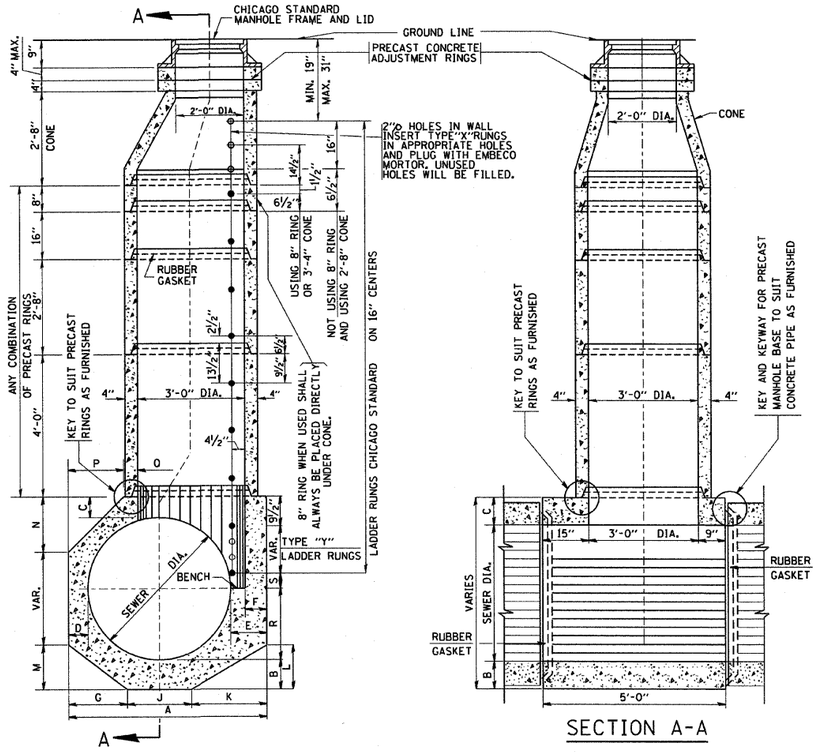
BRIDGE APPROACH PAVEMENT

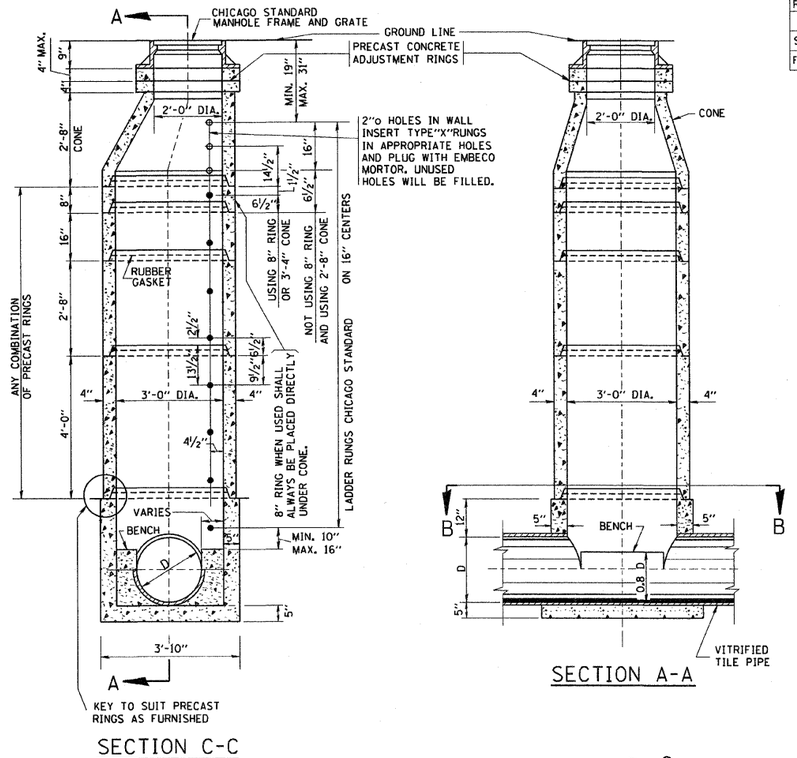
(Sheet 4 of 4)

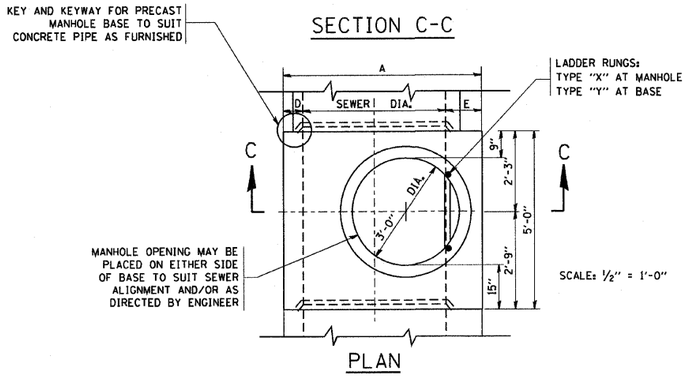
Contract 60384 Sheet 58 D.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	59
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384







TYPE "A" MANHOLE

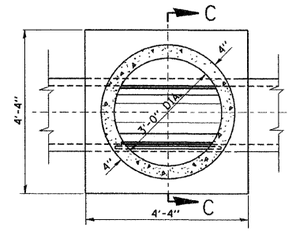
FOR SEWERS
24" TO 120" DIAMETER
PRECAST BASES AND RINGS

SEWER DIA.	PART OF ITEM	DIMENSIONS OF PRECAST MANHOLE BASE															NO. "Y" RINGS
		A	B	C	D	E	F	G	J	K	L	M	N	P	O	R	
120"	----	12'-4½"	12"	12"	12"	16½"	12"	4'-0"	4'-0"	4'-4½"	2'-7½"	2'-5"	3'-7"	3'-7"	4'-8½"	2'-0"	2½"	7
108"	----	11'-4½"	12"	12"	12"	16½"	12"	3'-8"	3'-8"	4'-0½"	2'-5"	2'-2"	3'-4"	3'-4"	4'-0½"	2'-0"	6½"	6
102"	----	10'-10½"	12"	12"	12"	16½"	12"	3'-6"	3'-6"	3'-10½"	2'-4"	2'-1"	3'-2"	3'-2"	3'-8½"	2'-0"	16½"	5
96"	10-A	10'-2½"	11"	11"	11"	15½"	11"	3'-3"	3'-3"	3'-8½"	2'-3"	23"	2'-11"	2'-11"	3'-4½"	2'-0"	9½"	5
90"	10-B	9'-8½"	11"	11"	11"	15½"	11"	3'-1"	3'-1"	3'-6½"	2'-1½"	22"	2'-10"	2'-10"	2'-11½"	2'-0"	3½"	5
84"	10-C	9'-0½"	10"	10"	10"	14½"	10"	2'-11"	2'-11"	3'-2½"	23"	21"	2'-7"	2'-7"	2'-7½"	2'-0"	12½"	4
78"	10-D	8'-6½"	10"	10"	10"	14½"	10"	2'-9"	2'-9"	3'-0½"	22"	20"	2'-6"	2'-6"	2'-2½"	2'-0"	6½"	4
72"	10	7'-10½"	9"	9"	9"	13½"	9"	2'-6"	2'-6"	2'-10½"	21"	18"	2'-3"	2'-3"	22½"	2'-0"	15½"	3
66"	11	7'-4½"	9"	9"	9"	13½"	9"	2'-4"	2'-4"	2'-8½"	19½"	17"	2'-1"	2'-1"	18½"	2'-0"	9½"	3
60"	12	6'-8½"	8"	8"	8"	12½"	8"	2'-1½"	2'-1"	2'-6"	18"	15"	23"	23"	13½"	2'-0"	2½"	3
54"	13	6'-2½"	8"	8"	8"	12½"	8"	23½"	23"	2'-4"	17"	14"	21"	21"	9½"	2'-0"	12½"	2
48"	14	5'-6½"	7"	7"	7"	11½"	7"	20½"	21"	2'-1"	15"	12½"	18½"	18½"	5"	2'-0"	5½"	2
42"	15	5'-0½"	7"	7"	7"	11½"	7"	18½"	19"	23"	14"	11"	---	---	17½"	21"	2½"	2
36"	16	4'-4½"	6"	6"	6"	10½"	6"	16"	16"	20½"	12½"	9½"	---	---	10½"	18"	14½"	1
30"	17	4'-0"	6"	6"	6"	12"	6"	14"	14"	20"	12"	8½"	---	---	6"	15"	11½"	1
24"	18	4'-0"	6"	6"	12"	12"	6"	16"	16"	16"	9½"	9½"	---	---	6"	12"	8½"	1

FOR STATE CONTRACT ALL DIMENSIONS SHOULD BE PREPARED IN METRIC UNITS SOFT CONVERSION METHOD SHOULD BE USED.

TYPE "A" MANHOLE

FOR SEWERS
21" DIAMETER AND SMALLER
PRECAST BASES AND RINGS



REVISIONS NAME	DATE
	6-18-82
	9-22-90

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
DRAINAGE
DETAILS

SCALE: VERT. NONE HORIZ.

DRAWN BY

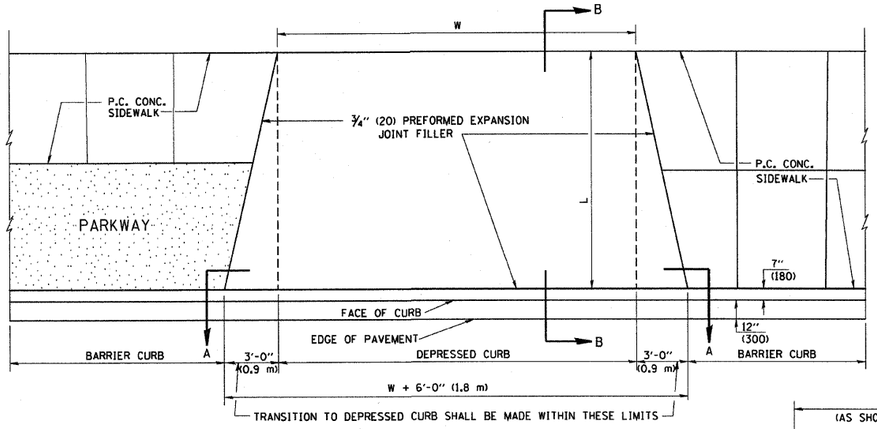
CHECKED BY

BD600-12 (BD-9)

PLOT DATE = 3/5/2007
FILE NAME = k:\district\bd89\dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = bauerdl

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	60
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

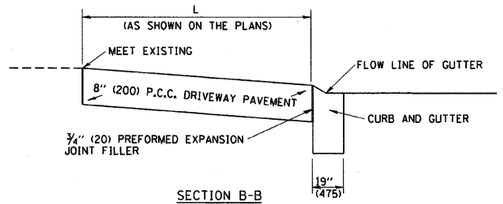
CONTRACT NO. 60384



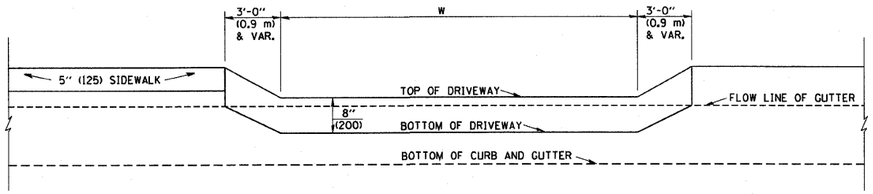
PLAN VIEW

NOTES:

1. EXPANSION JOINTS SHALL BE CONSTRUCTED AS SHOWN ON THE DETAILS FOR P.C.C. SIDEWALK.
2. THE CURB BETWEEN ADJACENT DRIVEWAYS SHALL BE FULL HEIGHT FOR A DISTANCE OF AT LEAST FOUR 4 FEET (1.2 METERS)
3. P.C. CONCRETE DRIVEWAYS SHALL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
4. ¾" (20) PREFORMED EXPANSION JOINTS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO P.C.C. DRIVEWAY PAVEMENT 8" (200).
5. COMBINATION CONC. CURB AND GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE TRANSITION CURB AND GUTTER.

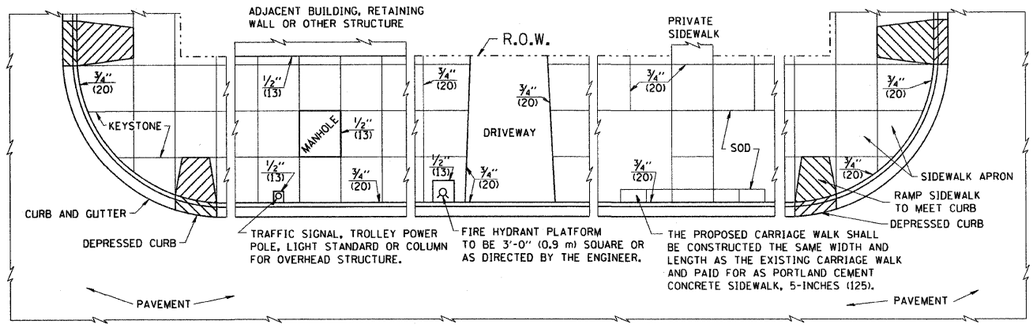


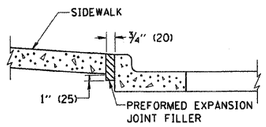
SECTION B-B



SECTION A-A

P.C.C. DRIVEWAY PAVEMENT DETAIL





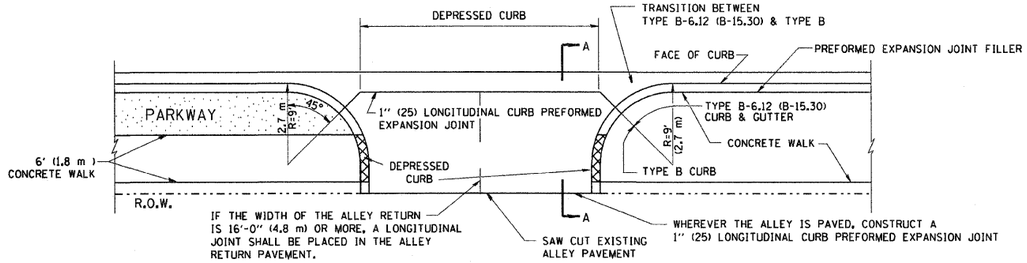
SLOPE FOR SIDEWALK
1" (25) IN 3'-0" (0.9 m) IN CHICAGO

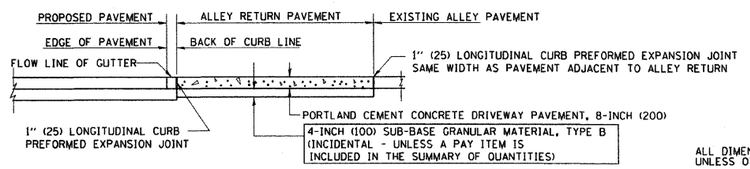
NOTES:

1. ONE-HALF INCH THICK EXPANSION JOINTS SHALL BE PLACED BETWEEN THE SIDEWALK AND ALL STRUCTURES SUCH AS LIGHT STANDARDS, TRAFFIC LIGHT STANDARDS, MANHOLES, WHICH EXTEND THROUGH THE SIDEWALK.
2. ¾" (20) THICK EXPANSION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 100 FEET (30 METERS) IN THE SIDEWALK. WHERE THE SIDEWALK IS CONSTRUCTED ADJACENT TO PAVEMENT OR CURB HAVING EXPANSION JOINTS, THE EXPANSION JOINTS IN THE SIDEWALK SHALL BE PLACED OPPOSITE THE EXISTING EXPANSION JOINTS AS NEARLY AS PRACTICABLE. EXPANSION JOINTS SHALL ALSO BE PLACED WHERE THE SIDEWALK ABUTS EXISTING SIDEWALKS, BETWEEN DRIVEWAY PAVEMENT AND SIDEWALK, AND BETWEEN SIDEWALK AND CURBS WHERE THE SIDEWALK ABUTS A CURB.

PORTLAND CEMENT CONCRETE SIDEWALK DETAILS

NOTES: NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE GUTTER FLARE





SECTION A-A

ALLEY RETURN DETAIL

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
M. DE YONG	06/13/90

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO DETAILS FOR P.C. CONCRETE DRIVEWAY, ALLEY RETURN AND SIDEWALK

SCALE: VERT. NONE HORIZ.

DRAWN BY

CHECKED BY

BD400-03 (BD-17)

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USER NAME = bauerd

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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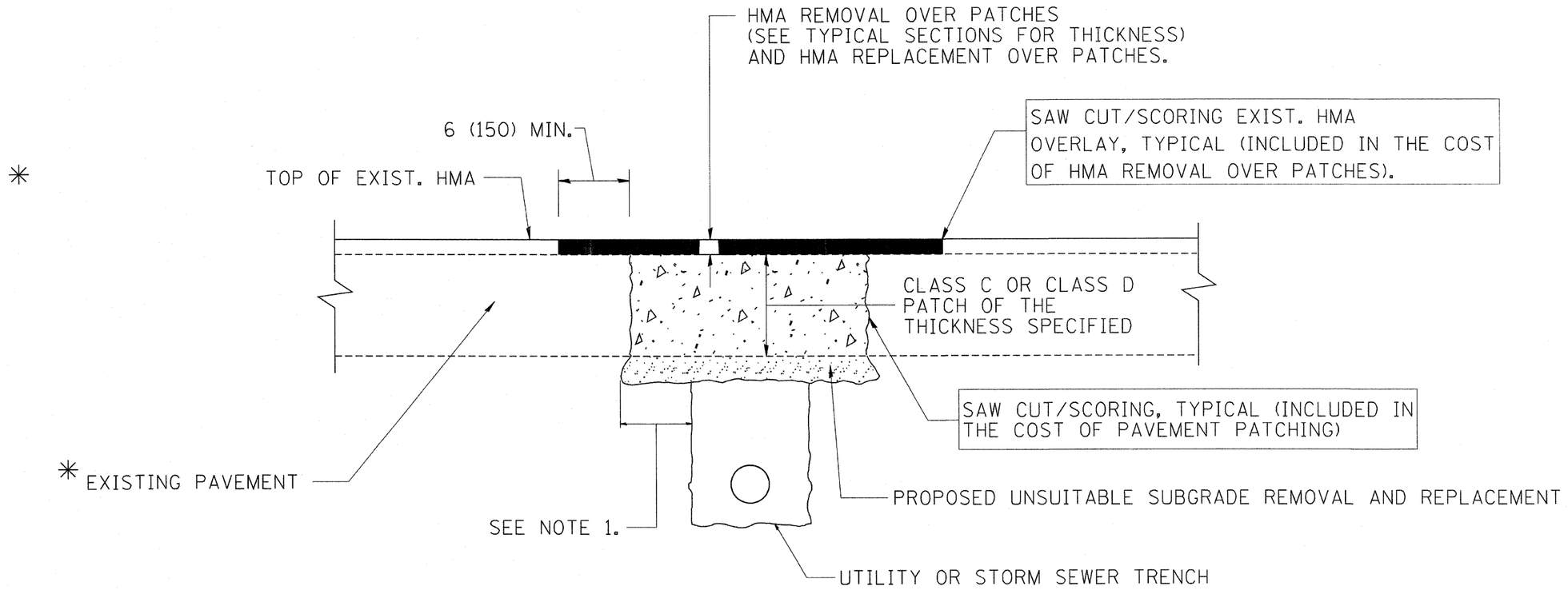
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



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

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE FULL DEPTH PATCHES
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

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

REVISIONS	
NAME	DATE
R. SHAH	10/25/94
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

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

SCALE: VERT. NONE HORIZ.

DRAWN BY

CHECKED BY

BD400-04 (BD-22)

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USER NAME = bbaerd

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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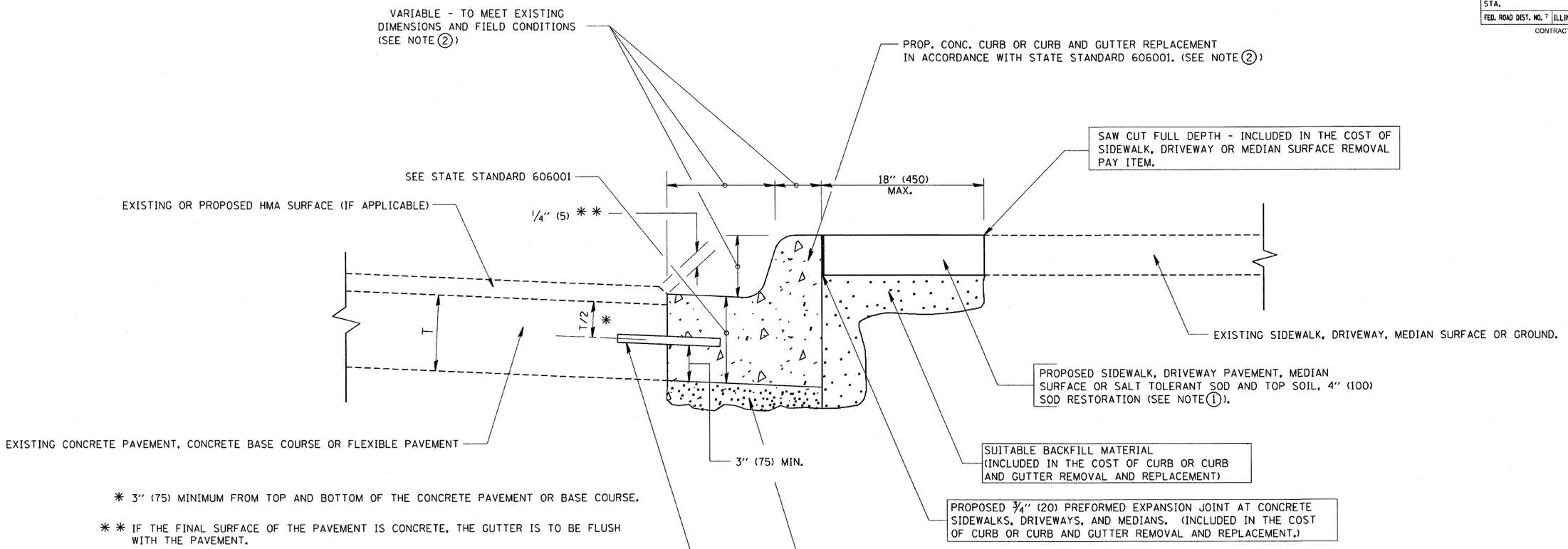
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

* * IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: (1) SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

(2) CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

(3) FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

(4) LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

(5) THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

(6) THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

(7) THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

BASIS OF PAYMENT:

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

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

REVISIONS	
NAME	DATE
A. HOUSEH	03/11/94
R. SHAH	02/24/95
R. SHAH	03/02/95
R. SHAH	08/19/96
R. SHAH	09/12/96
R. SHAH	09/19/96
R. SHAH	10/03/96
A. ABBAS	03/21/97
M. GOMEZ	01/22/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: VERT. NONE HORIZ.

DRAWN BY

CHECKED BY

BD600-06 (BD-24)

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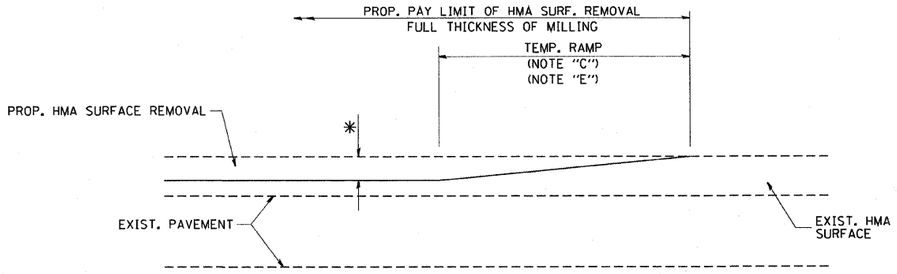
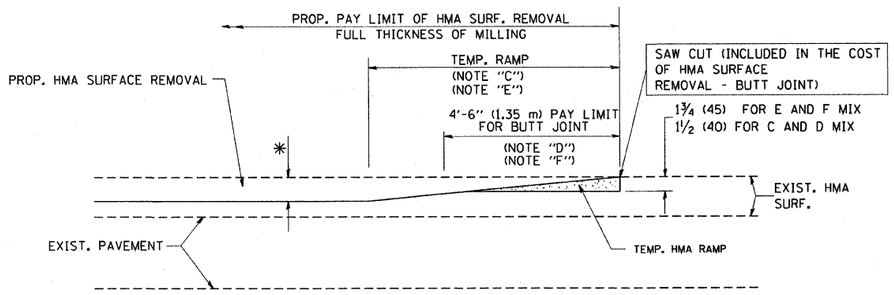


MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

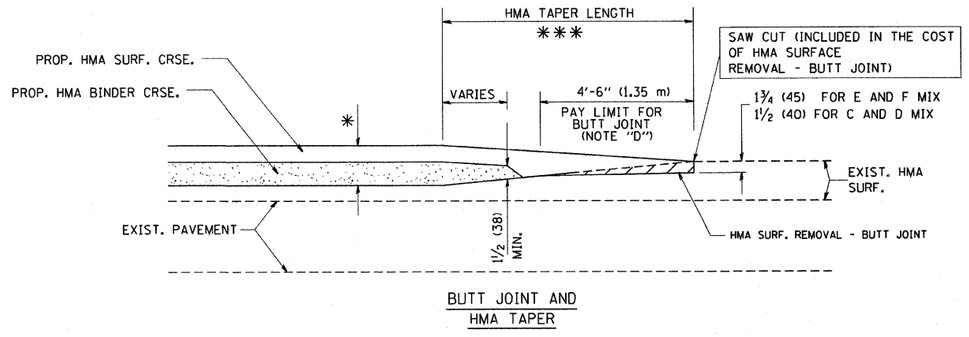


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2

TYPICAL TEMPORARY RAMP



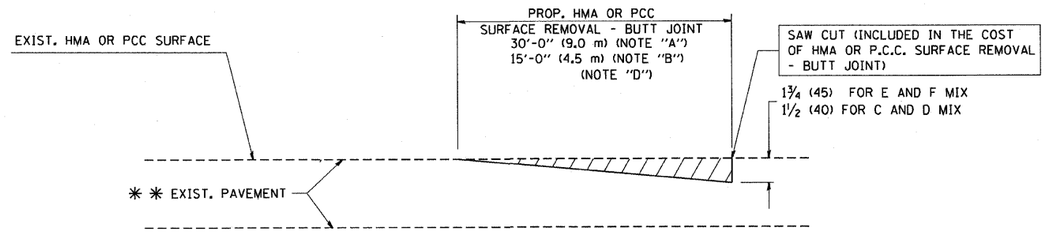
BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

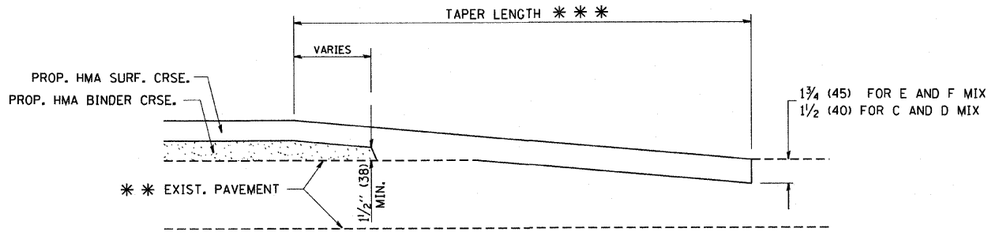
PLOT DATE = 3/5/2007
FILE NAME = c:\projects\bd32.dgn
PLOT SCALE = 50.8889 ' / IN.
USER NAME = bauerdl

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	63
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

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

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

BASIS OF PAYMENT:

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

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. HORIZ. NONE

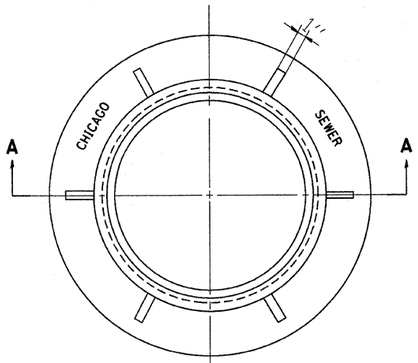
DRAWN BY

CHECKED BY

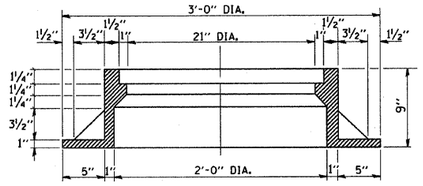
BD400-05 (VI=BD32)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	64
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



PLAN

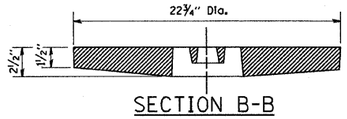


SECTION A-A

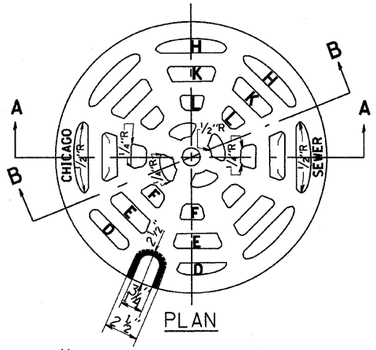
NOTE: METAL PLATES MUST BE FURNISHED FOR PERFORATED LIDS ON MANHOLES

CHICAGO STANDARD MANHOLE FRAME

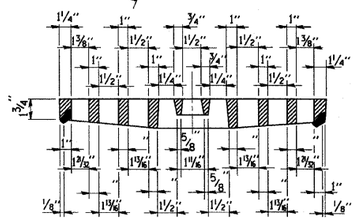
SCALE: 1½"=1'-0"
MATERIAL: CAST IRON



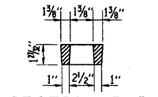
SECTION B-B



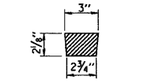
PLAN



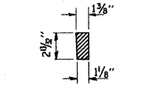
SECTION A-A



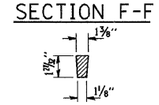
SECTION D-D



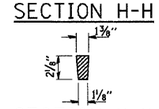
SECTION E-E



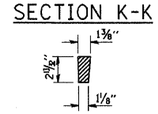
SECTION F-F



SECTION H-H



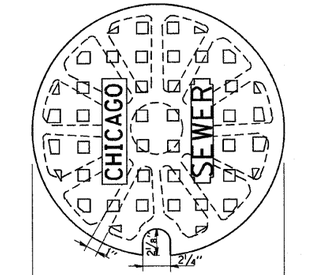
SECTION K-K



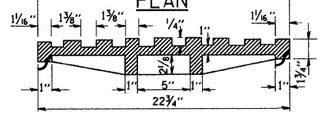
SECTION L-L

PERFORATED LID FOR CATCH BASINS & MANHOLES

SCALE: 2"=1'-0"
MATERIAL: CAST IRON



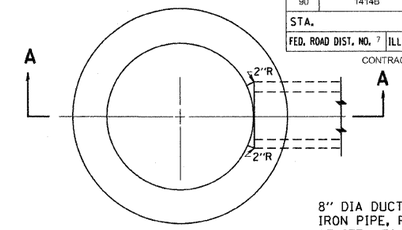
PLAN



SECTION

SOLID LID FOR MANHOLES

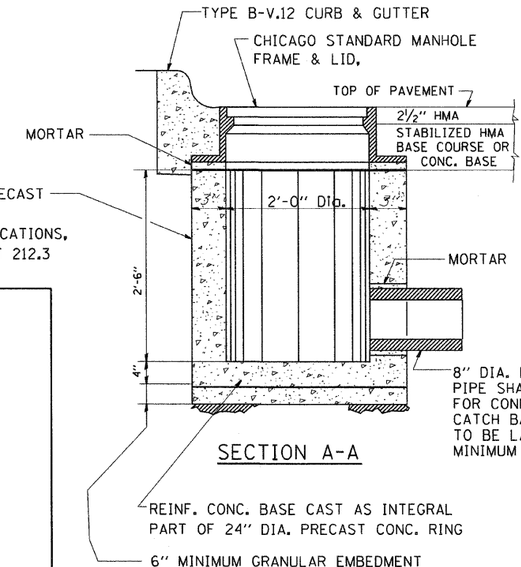
SCALE: NONE
MATERIAL: CAST IRON



PLAN

(FRAME & LID NOT SHOWN)

8" DIA DUCTILE IRON PIPE, PART OF ITEM 7G



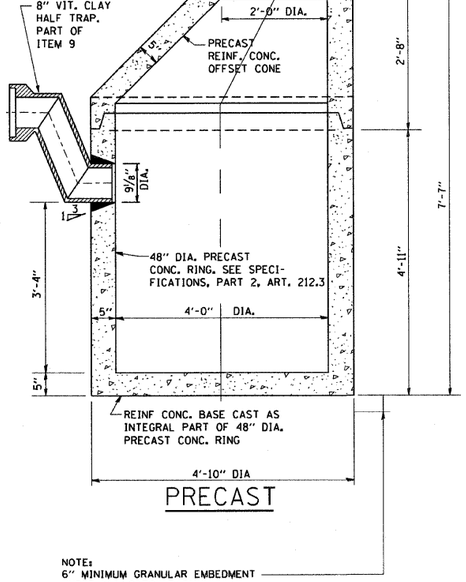
SECTION A-A

STANDARD INLETS

SCALE 1"= 1'-0"
ITEM 12

THIS INLET DETAIL IS SOMETIMES REFERRED TO AS "CHICAGO STANDARD INLET, TYPE A"

NOTE:
INLETS SHALL NOT BE CONSTRUCTED UNLESS IT IS IMPOSSIBLE TO CONSTRUCT A CATCH BASIN. THE CONTRACTOR SHALL HAVE THE DEPARTMENT OF SEWERS APPROVAL BEFORE CONSTRUCTING INLETS.

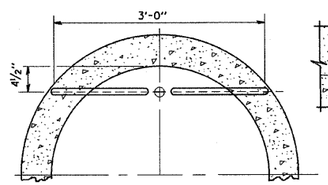


PRECAST

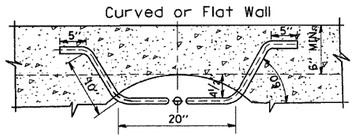
NOTE:
6" MINIMUM GRANULAR EMBEDMENT UNDER ALL CATCH BASINS

STANDARD CATCH BASINS

SCALE: ¾"= 1'-0"
ITEM 9



PLAN



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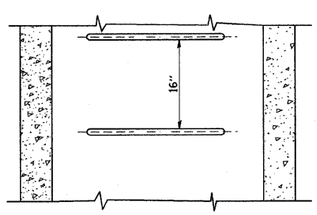
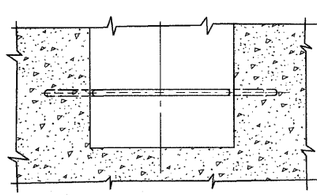
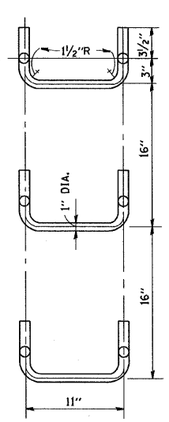


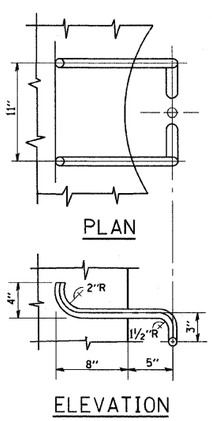
ELEVATION
TYPE X
SCALE: 1"=1'-0"



ELEVATION
TYPE Y
SCALE: 1"=1'-0"



SPACING



ELEVATION

HANDHOLD-TYPE Z RUNG

Scale: 1½"=1'-0"

STANDARD LADDER RUNGS

ALL LADDER RUNGS SHALL BE ALUMINUM OR GALVANIZED WROUGHT IRON AS SPECIFIED IN THE SPECIFICATIONS, PART 2, ARTICLE 214.2. RUNGS SHALL BE 1" DIAMETER OR OF A SHAPE HAVING AN EQUIVALENT CROSS-SECTIONAL AREA.

CITY OF CHICAGO
DEPARTMENT OF SEWERS
ENGINEERING DIVISION

REVISIONS	
NAME	DATE
M. GOMEZ	01/25/01

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
CATCH BASIN, INLET AND MANHOLE DETAILS

SCALE: VERT. NONE HORIZ.
DRAWN BY
CHECKED BY

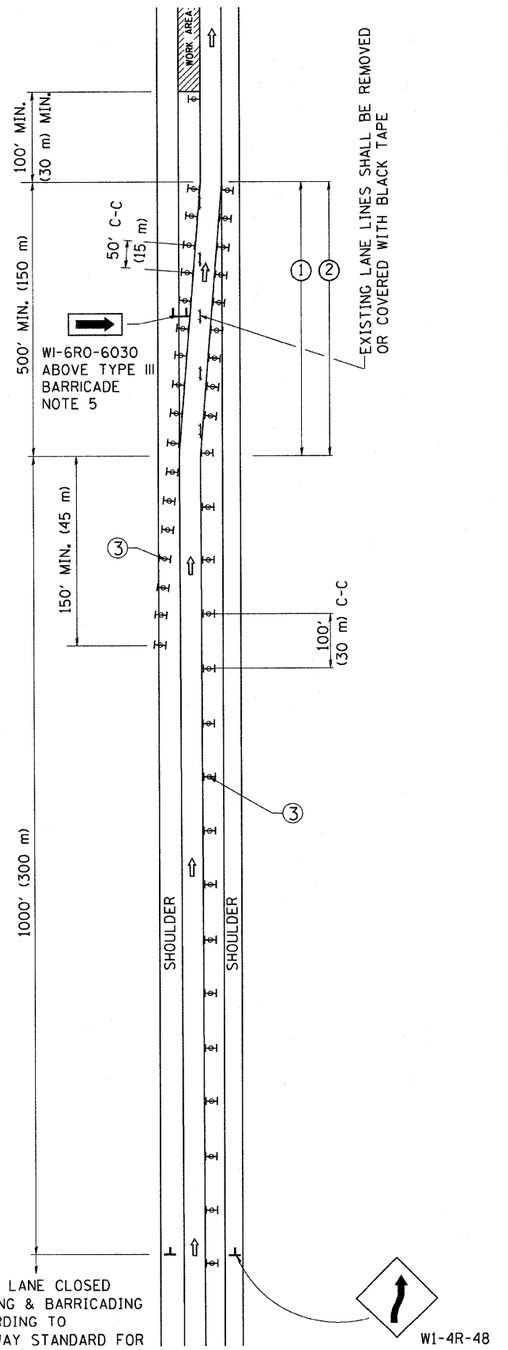
BD600-13 (BD47)

PLOT DATE = 3/5/2007
FILE NAME = K:\district\bd47.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = bauerdl

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	65
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

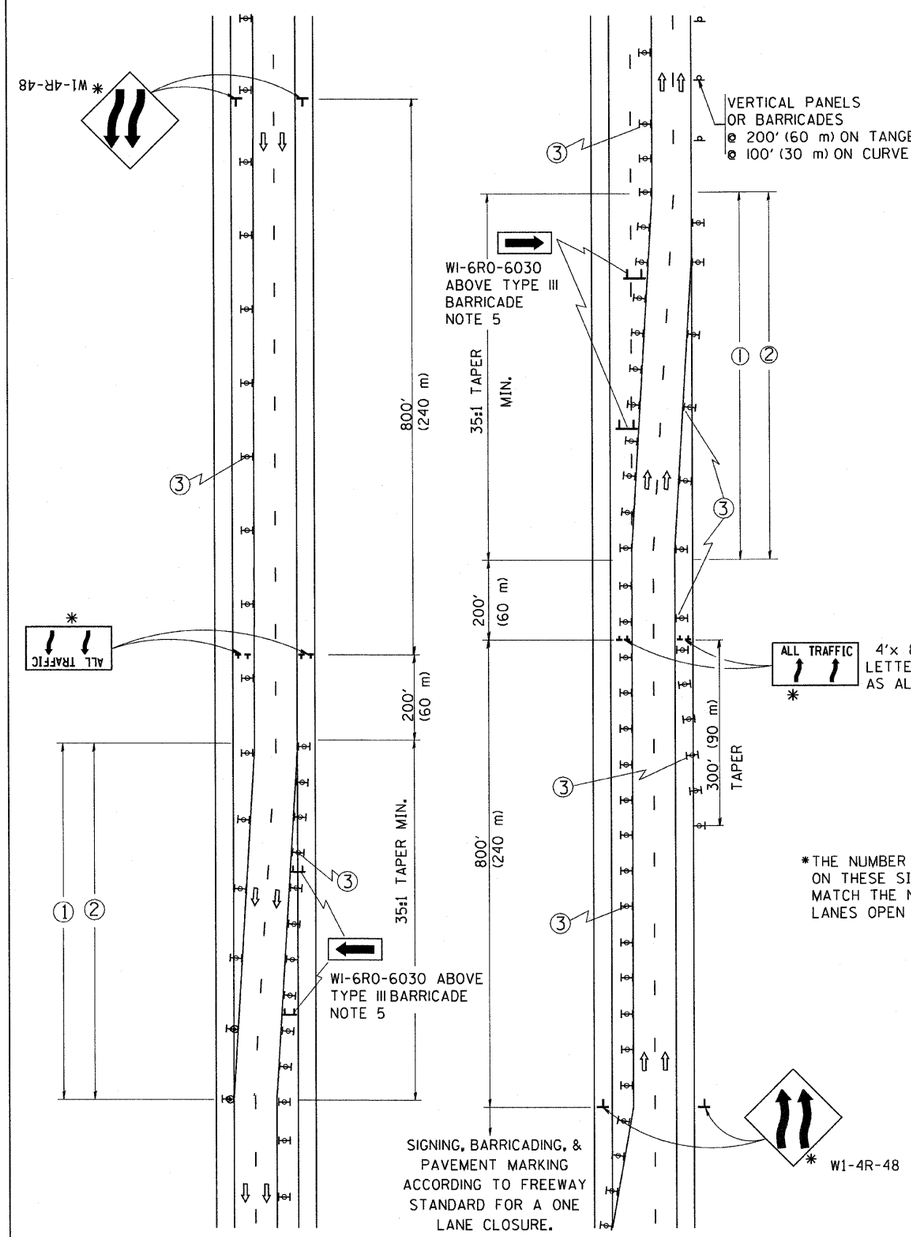
CONTRACT NO. 60384

SINGLE LANE WEAVE



RIGHT LANE CLOSED
SIGNING & BARRICADING
ACCORDING TO
FREEWAY STANDARD FOR
A ONE LANE CLOSURE

MULTI-LANE WEAVE



SIGNING, BARRICADING, & PAVEMENT MARKING ACCORDING TO FREEWAY STANDARD FOR A ONE LANE CLOSURE.

ALL TRAFFIC — 4'x 8' (1.2 m x 2.4 m); 1 (25) BORDER; 10 (250) CAPITAL LETTERS BACKGROUND SHEETING SHALL BE THE SAME AS ALL DIAMOND SHAPED CONSTRUCTION SIGNS.

*THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC

GENERAL NOTES

1. 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.
2. CONTINOUS 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.
3. PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
4. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
5. 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.
6. 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.

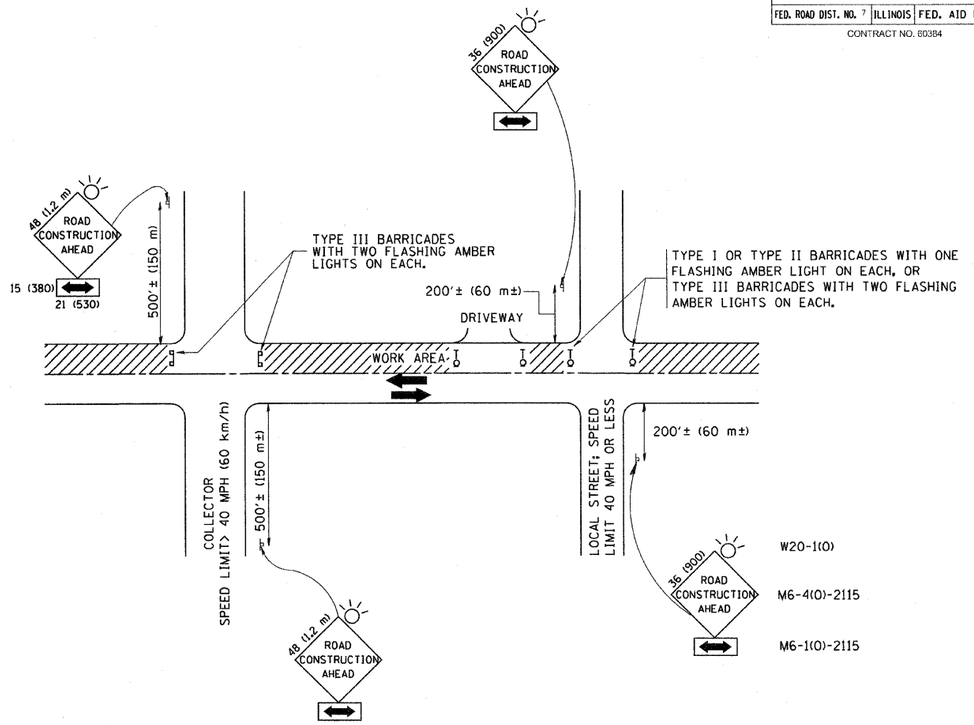
CHECKED BY

TC-9

PLOT DATE = 3/6/2007
FILE NAME = K:\district\tc09.dgn
PLOT SCALE = 50.000 ' / IN.
USER NAME = bauerdl

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	66
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



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

SCALE: NONE

DRAWN BY

CHECKED BY

TC-10

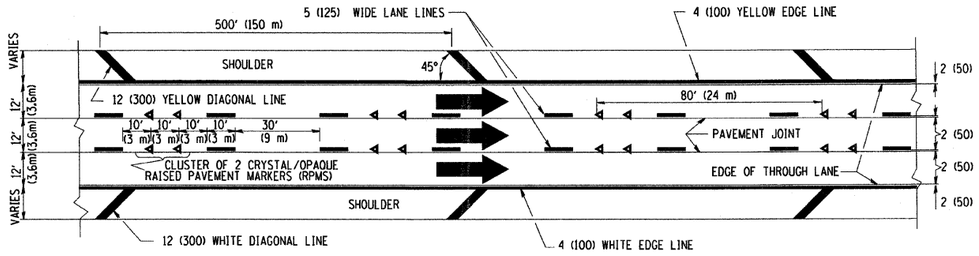
PLOT DATE = 3/6/2007
FILE NAME = K:\diststd\tc10.dgn
PLOT SCALE = 50.000 ' / IN.
USER NAME = bauerdl

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	67
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH

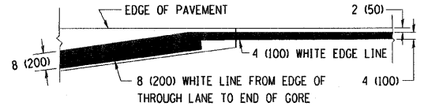
THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH



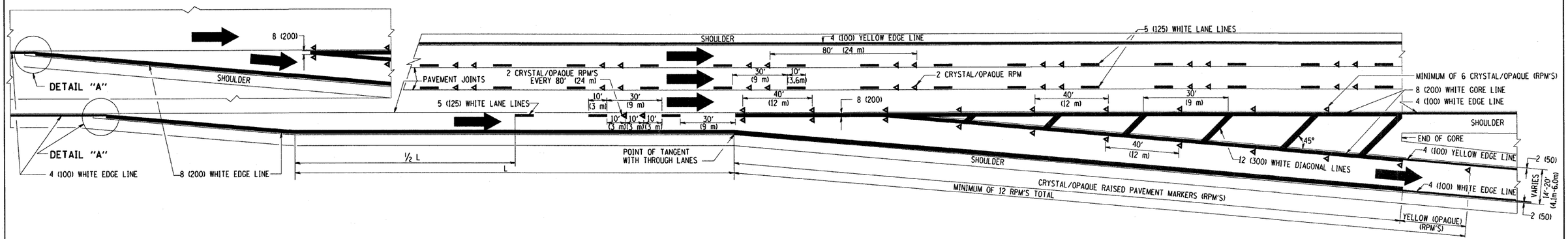
TYPICAL EDGE LINES & LANE LINES

NOTES:

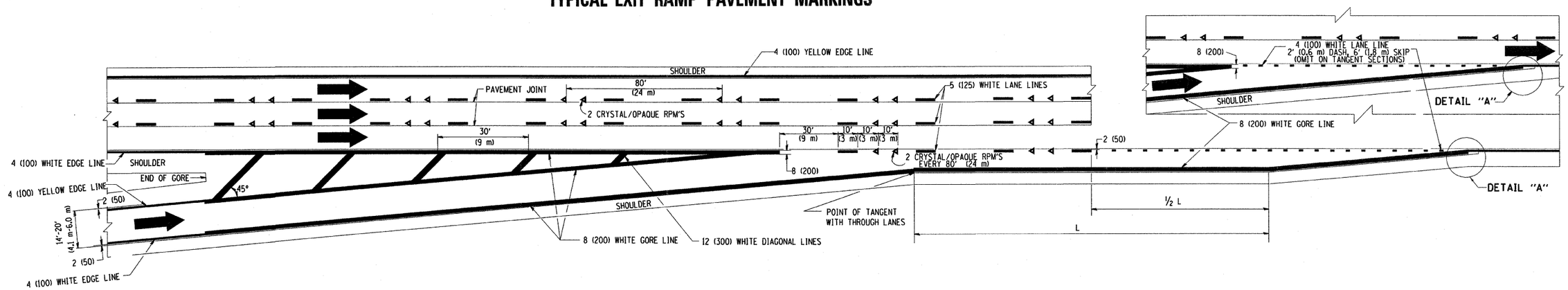
1. THERMO PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR THE EDGE LINES, GORE LINES, AND DIAGONAL LINES ON BITUMINOUS PAVEMENT ONLY.
2. PREFORMED PLASTIC TYPE B PAVEMENT MARKING LINE SHALL BE USED FOR ALL LANE LINES ON BITUMINOUS PAVEMENT
3. POLYUREA PAVEMENT MARKING SHALL BE USED FOR ALL MARKINGS ON PCC



DETAIL "A"



TYPICAL EXIT RAMP PAVEMENT MARKINGS



TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS

REVISIONS	
NAME	DATE
DWS	1/90
DWS	5/91
AH	3/96
DWS	7/96
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS

SCALE: NONE

DRAWN BY C.A.D.D.

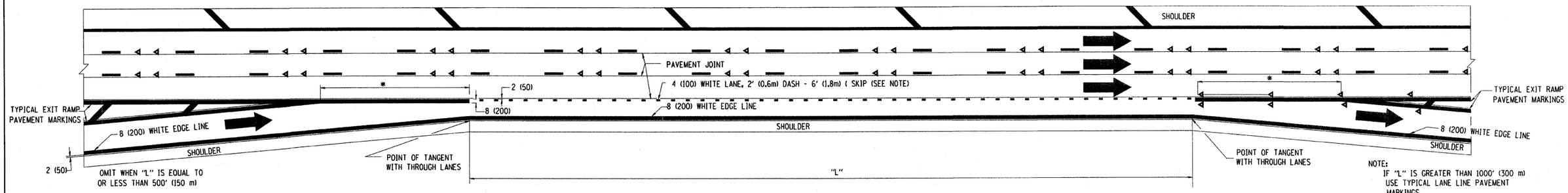
CHECKED BY

TC12 SHEET 1 OF 2

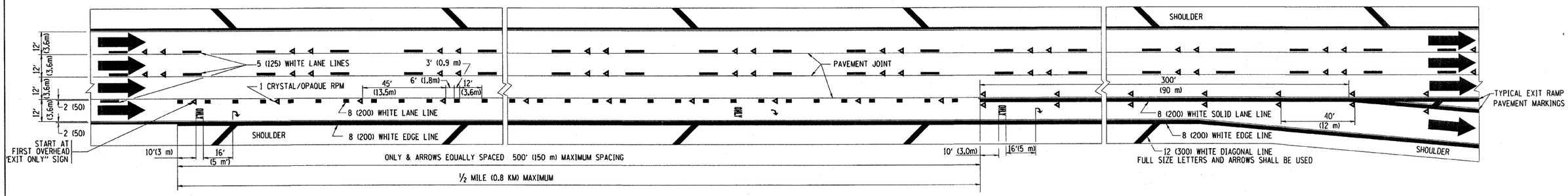
PLOT DATE = 3/6/2007
FILE NAME = K:\district\tc12.dgn
PLOT SCALE = 50.000 ' / IN.
USER NAME = boardt

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	68
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

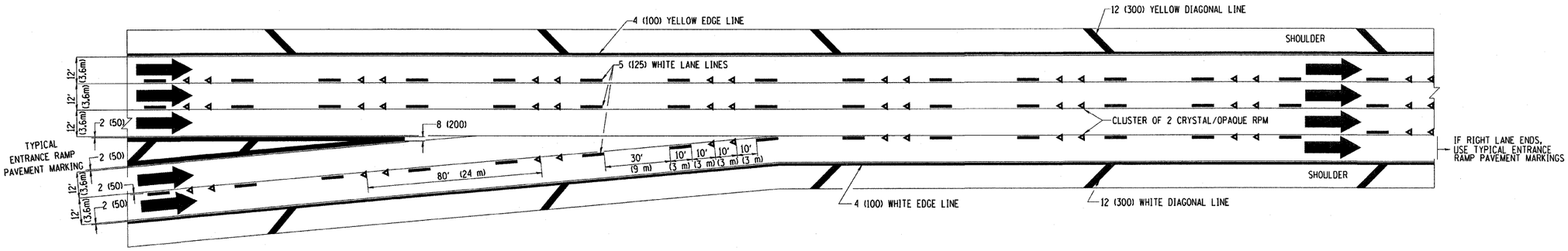
CONTRACT NO. 60384



TYPICAL ENTRANCE/EXIT RAMP COMBINATION PAVEMENT MARKINGS



TYPICAL EXIT ONLY LANE PAVEMENT MARKINGS



TYPICAL TWO LANE ENTRANCE RAMP PAVEMENT MARKINGS

REVISIONS	
NAME	DATE
DWS	1/90
DWS	5/91
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS

SCALE: NONE

DRAWN BY C.A.D.D.

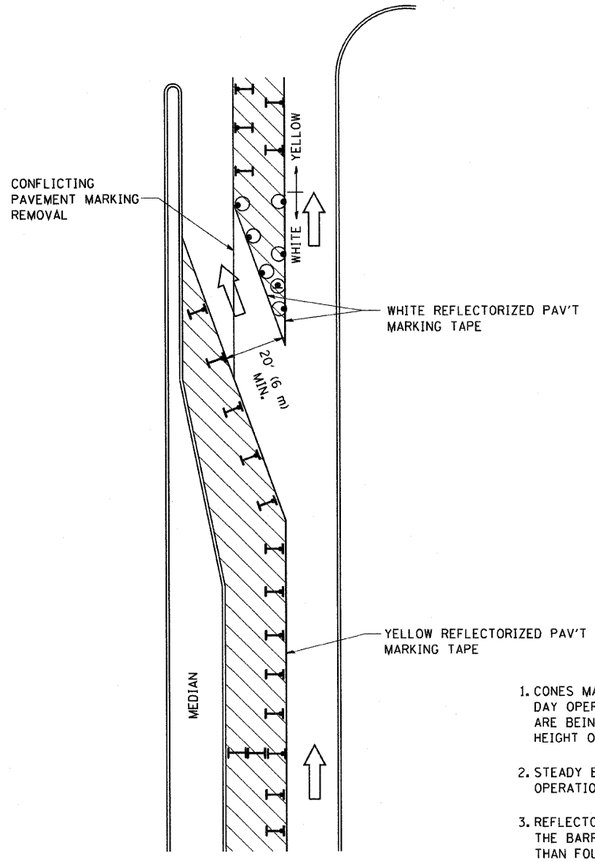
CHECKED BY

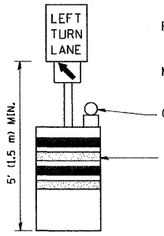
TC12 SHEET 2 OF 2

PLOT DATE = 3/6/2007
FILE NAME = K:\district\tc12.dgn
PLOT SCALE = 50.000 ' / IN.
USER NAME = bauerdl

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	69
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384





R 3-1100L 24 x 24 (600 x 600)

M6-2L 21 x 15 (530 x 380)

OPTIONAL FLASHING LIGHT

STANDARD 702001
DRUM FILLED WITH ENOUGH
SAND (BAGS) FOR STABILIZATION

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

REVISIONS	
NAME	DATE
T. RAMMACHER	09/08/94
A. HOUSEH	11/07/95
A. HOUSEH	10/12/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)

SCALE: NONE

DRAWN BY

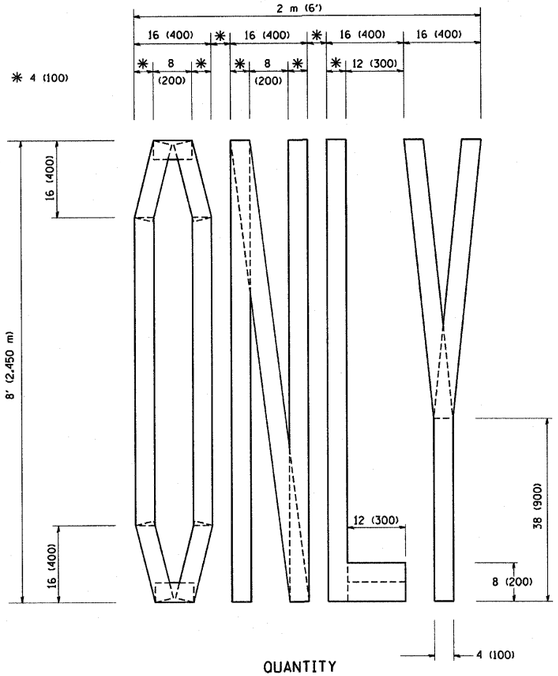
CHECKED BY LHA

TC-14

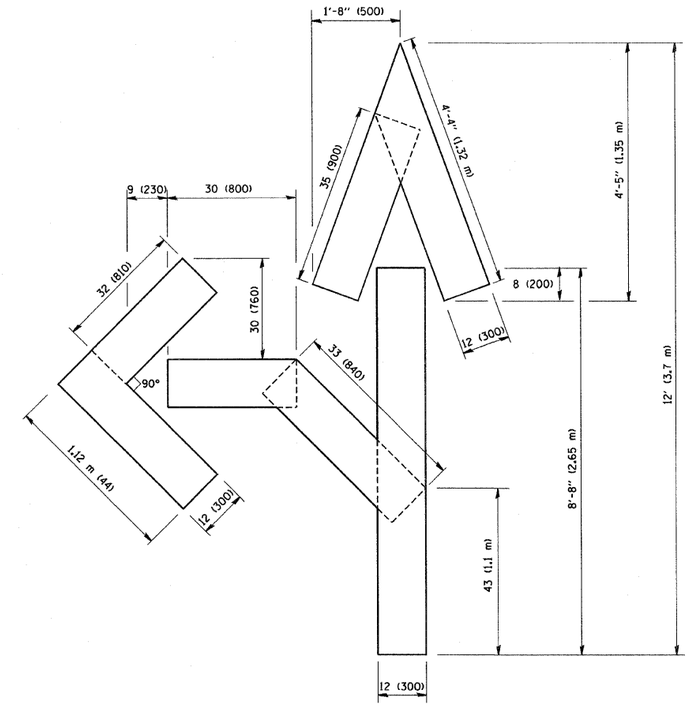
PLOT DATE = 3/6/2007
FILE NAME = K:\dist\tc\tc14.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = bourdi

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	70
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

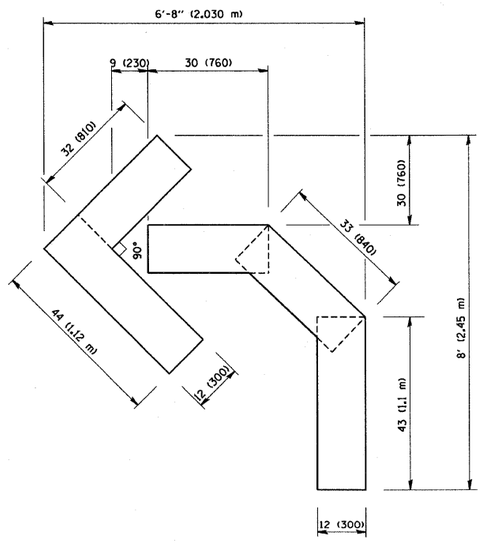
CONTRACT NO. 60384



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

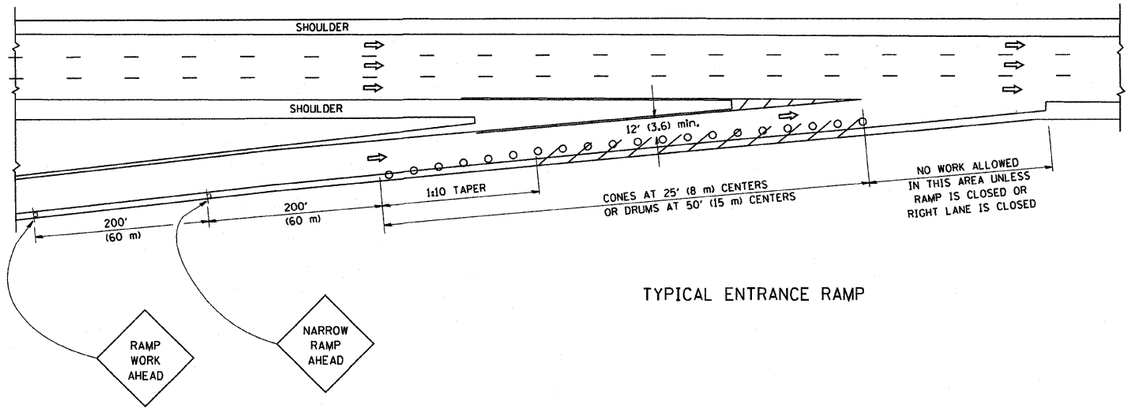
CHECKED BY

TC-16

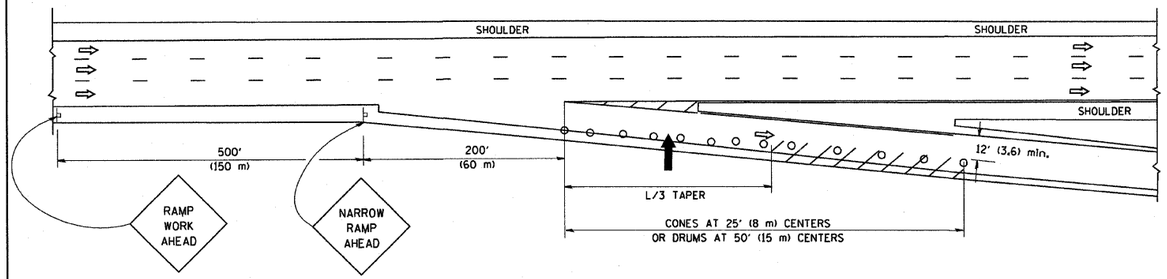
PLOT DATE = 3/7/2007
FILE NAME = K:\district1\tc16.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = bsoardi

CREATED: 03-23-95

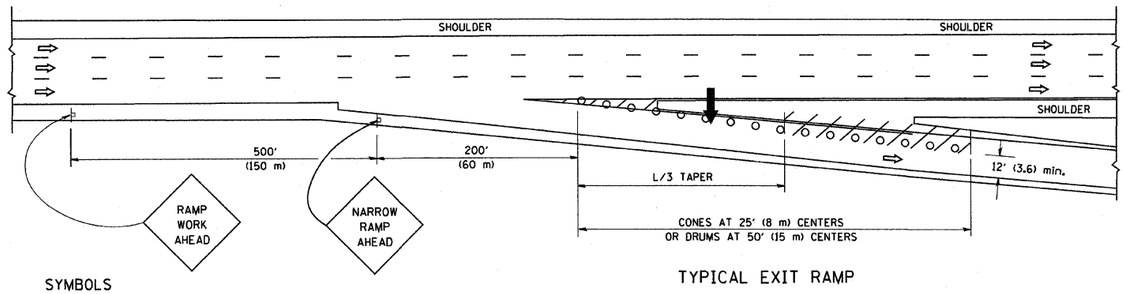
PARTIAL RAMP CLOSURE DETAILS



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

1. THE "L" DISTANCE EQUALS:

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

W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)

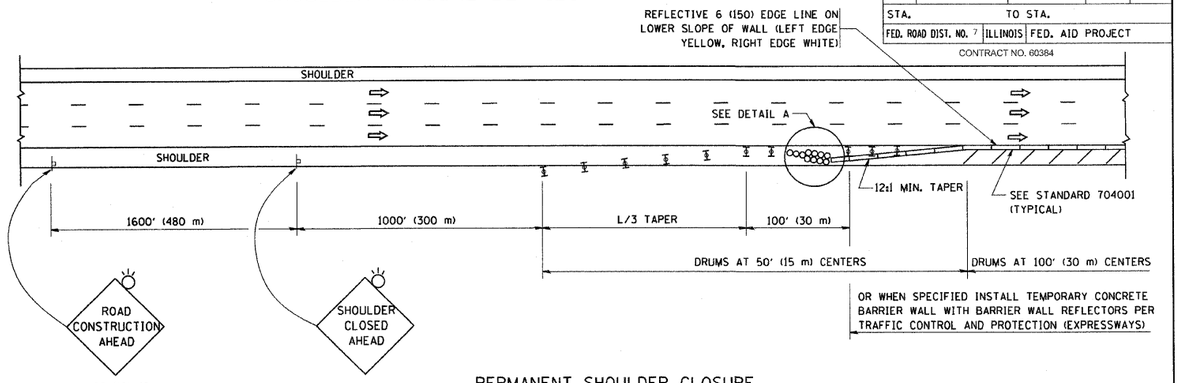
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. THE IMPACT ATTENTUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE "TRAFFIC BARRIER TERMINAL, TYPE III, TEMPORARY" DEVICE TO MEET NCHRP350 FOR POSTED SPEED.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
   a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
   b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.

   THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

SHOULDER CLOSURE DETAILS

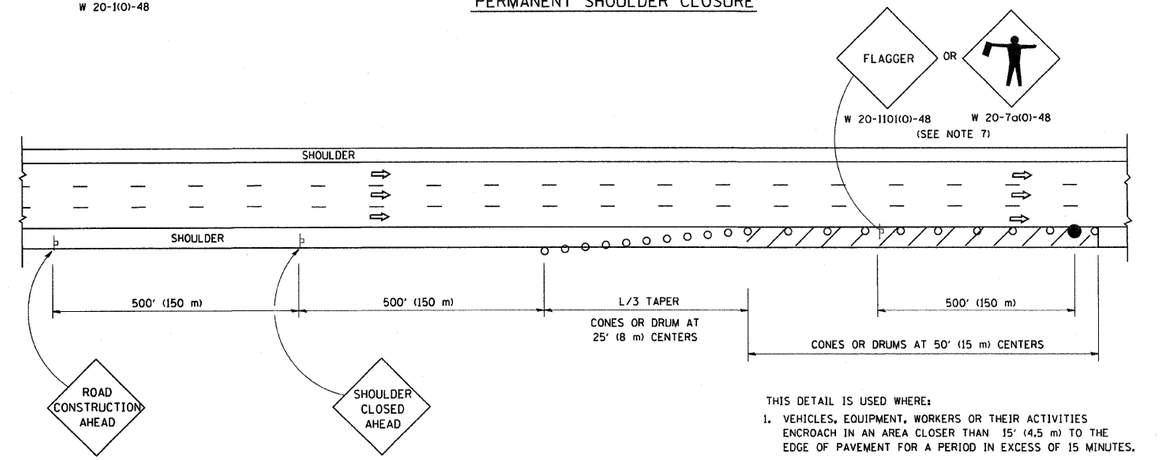
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	71
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



W 20-1(0)-48

PERMANENT SHOULDER CLOSURE

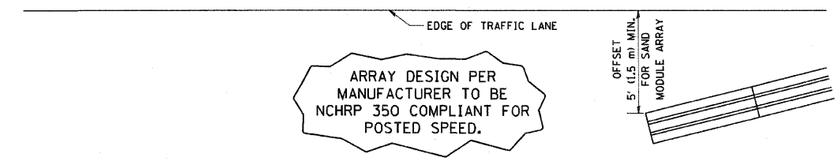


W 20-1(0)-48

THIS DETAIL IS USED WHERE:

1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

DAYTIME SHOULDER CLOSURE



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

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES PARTIAL RAMP CLOSURES

SCALE: NONE

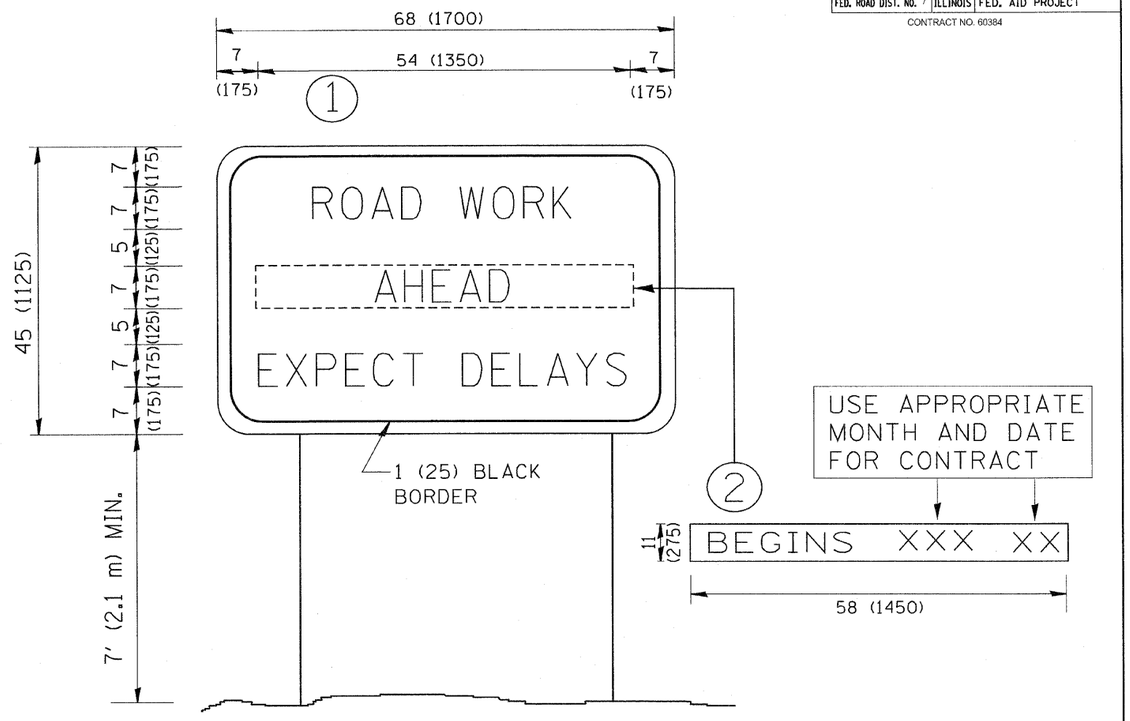
DESIGNED BY: DWS
DRAWN BY
CHECKED BY

TC-17

PLOT DATE = 3/7/2007
FILE NAME = K:\district\tc17.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = bwardt

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	72
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384



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

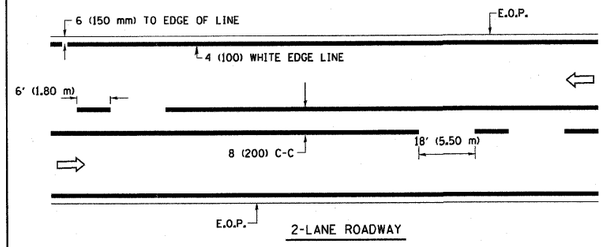
ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE

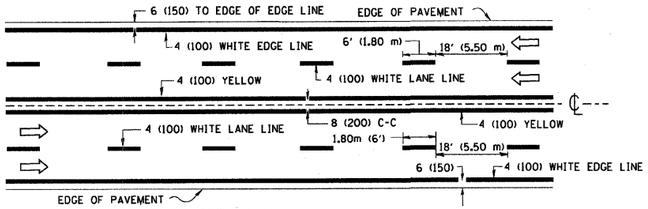
DRAWN BY DESIGN

CHECKED BY TC22

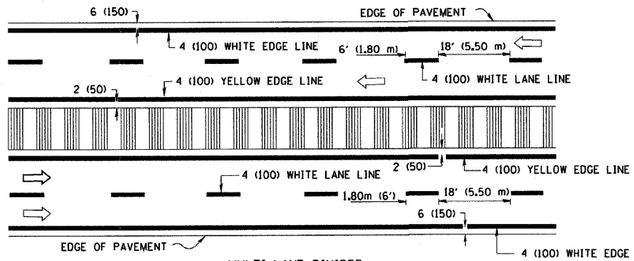
PLOT DATE = 3/8/2007
FILE NAME = K:\district\tc22.dgn
PLOT SCALE = 50.000 ' / IN.
USER NAME = bauerdl



2-LANE ROADWAY



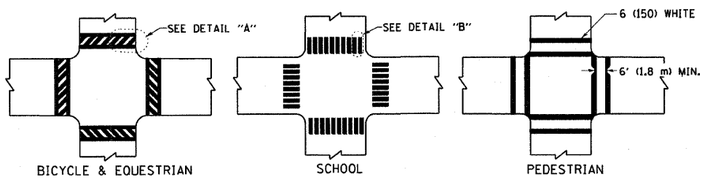
MULTI-LANE UNDIVIDED

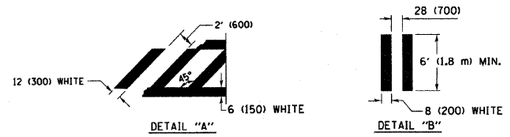


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

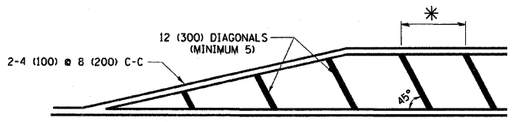
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING





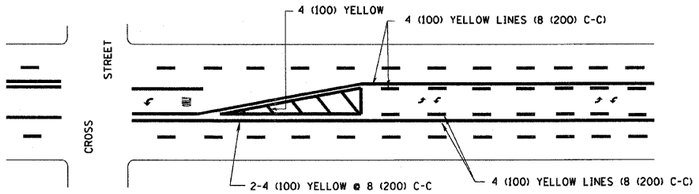
TYPICAL CROSSWALK MARKING



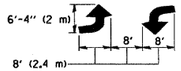
* FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

PAINTED MEDIANS

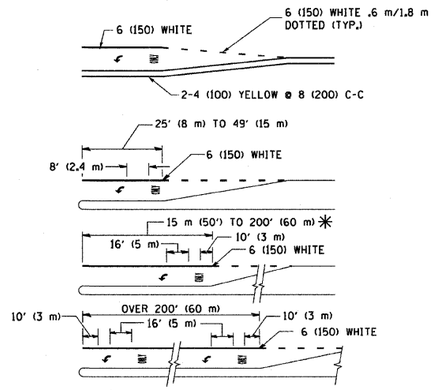


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

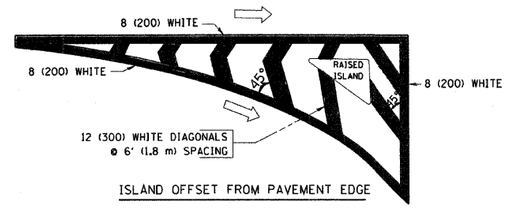


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.8 SQ. FT. (1.47 m^2) **ONLY** AREA = 22.9 SQ. FT. (2.13 m^2)

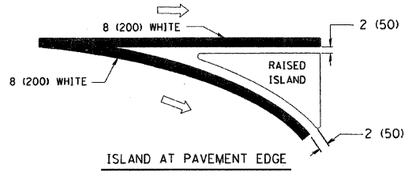
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

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 FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	8 (200) C-C
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 8' (2.4 m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	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 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)

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.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	73
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384

1 OF 2

REVISIONS	
NAME	DATE
T. RAMMACHER	12/07/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
TYPICAL PAVEMENT MARKINGS

SCALE: NONE

DRAWN BY CADD

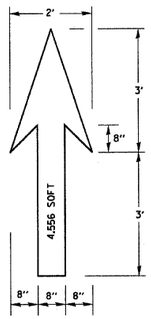
CHECKED BY

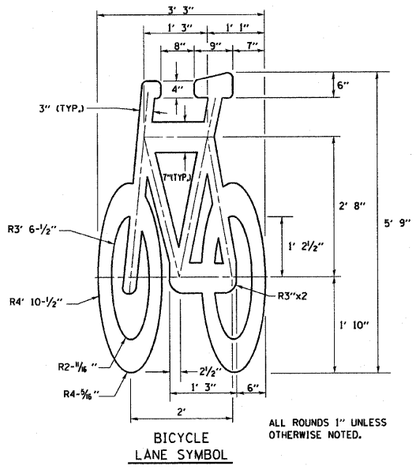
TC-24

PLOT DATE = 3/7/2007
FILE NAME = K:\diasta\tc24.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = bsworcl

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	74
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60384





BICYCLE
LANE SYMBOL

ALL ROUNDS 1" UNLESS OTHERWISE NOTED.

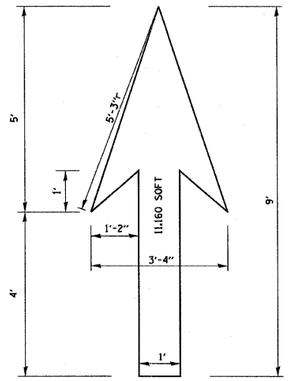
NOTE:

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.

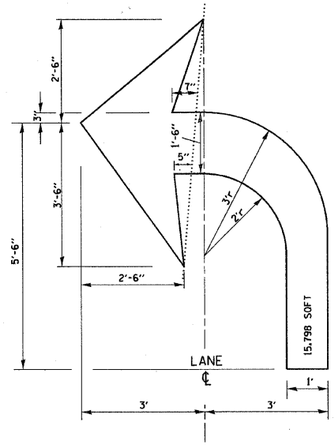
2.) THE RESIDENT ENGINEER SHALL CONTACT MR. BEN GOMBERG AT 312-744-8093 AT LEAST ONE CALENDAR WEEK PRIOR TO INSTALLING BIKE LANE SYMBOLS.

TYPICAL BIKE LANE SYMBOLS
DRAWING #28

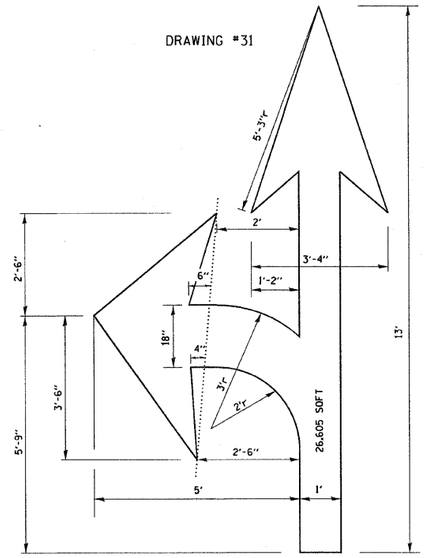
DRAWING #29



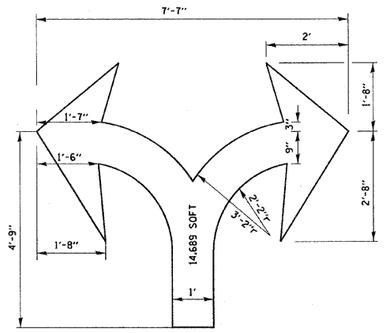
DRAWING #30



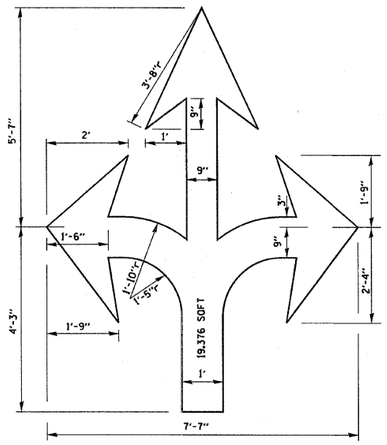
DRAWING #31



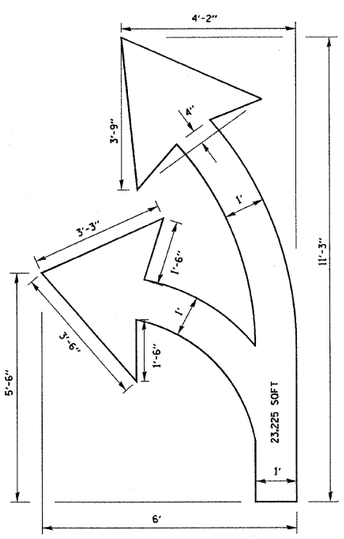
DRAWING #32



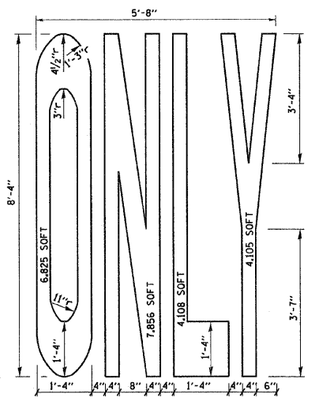
DRAWING #33



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

PLOT DATE = 3/7/2007
FILE NAME = K:\district\tc24.dgn
PLOT SCALE = 50.000 ' / IN.
USER NAME = bsandi