

01-15-2016 LETTING ITEM 059

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

SEE SHEET 2 FOR INDEX OF SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	85	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	61C15	
+1 = 86				

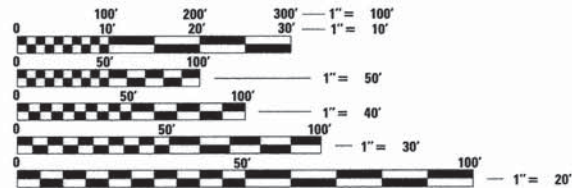
FEDERAL AID PROGRAM ENGINEER: FAWAD AQUEEL, P.E., P.T.O.E. 847-705-4021, SCHAUMBURG, IL

**DESIGN DESIGNATION**

BIKE PATH

**POSTED SPEED LIMIT**

BIKE PATH 20 M.P.H.



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

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



SIGNATURE  
*David D. Landweer*  
DATE  
10/7/15  
LICENSE EXPIRES 11/30/2015

## CAL-SAG GREENWAY TRAIL CHATHAM STREET BRIDGE OVER THE CALUMET SAG CHANNEL BRIDGE REHABILITATION

SECTION NO. 08-00178-01-BR  
PROJECT NO. M-4003(598)  
CITY OF BLUE ISLAND  
COOK COUNTY  
JOB NO: C-91-095-16

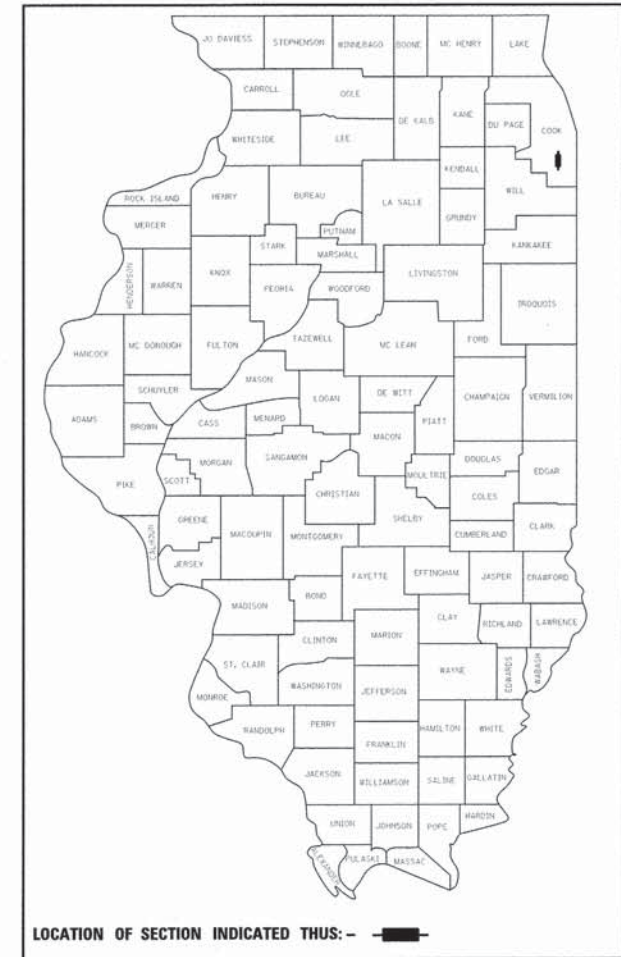


BEGIN IMPROVEMENT  
STA. 18 + 06.00

END IMPROVEMENT  
STA. 23 + 02.74

LOCATION MAP  
(NOT TO SCALE)

NET LENGTH OF PROJECT = 496.74 FT = 0.094 MI



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

Approved *October 9 2015*  
*Don P. Halloran*  
CITY OF BLUE ISLAND

Passed *October 28 2015*  
*C. Holt* CHRISTOPHER HOLT  
DISTRICT #1 ENGINEER OF LOCAL ROADS AND STREETS

Releasing for Bid  
Based on Limited  
Review *October 29 2015*  
*John F. ...*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION #1 ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

PLANS PREPARED BY:  
**AECOM** 303 East Wacker Drive  
Suite 1400, Chicago, IL 60601  
T 1-312-373-7700 F 1-312-373-6800

CONTRACT NO. 61C15



**GENERAL CONSTRUCTION NOTES**

**SEDIMENTATION AND EROSION CONTROL NOTES**

**INDEX OF SHEETS**

- 1 TITLE SHEET
- 2 GENERAL CONSTRUCTION NOTES & STATE STANDARDS
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- 8 ROADWAY BRIDGE APPROACH - PROPOSED PLAN
- 9 WATER MAIN PLAN AND PROFILE
- 10-11 DETAILS
- 12-13 DISTRICT ONE STANDARDS
- 14-18A BRIDGE LIGHTING PLANS
- 19-54 CHATHAM STREET PEDESTRIAN BRIDGE PLANS
- 55-85 CHATHAM STREET BRIDGE AS-BUILT PLANS

**GENERAL NOTES**  
 THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT 847-705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED UTILITY FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED).  
 ALL STATION-OFFSET CALL OUTS AND CURVE DATA ON THE PLANS REFER TO THE PROPOSED CENTERLINE UNLESS OTHERWISE SHOWN.  
 IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS.  
 ANY WORK ON HOLIDAYS AND WEEKENDS WILL NEED PRIOR APPROVAL FROM THE CITY.

**SPECIFICATIONS**  
 ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2012, THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2015, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", JULY 2009 6TH EDITION, THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", LATEST EDITION, THE DETAILS INCLUDED IN THE PLANS, AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.

**STANDARDS**  
 ANY REFERENCE TO "STANDARDS" THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARD OF IDOT AS LISTED ON THIS SHEET.

**COORDINATION**  
 THE CONTRACTOR SHALL NOTIFY THE CITY OF BLUE ISLAND AT LEAST 48 HOURS IN ADVANCE OF BEGINNING WORK, AND SHALL COORDINATE ALL CONSTRUCTION OPERATIONS WITH THE ENGINEER. THE CONTRACTOR SHALL ALSO OBTAIN ANY AND ALL NECESSARY PERMITS REQUIRED BEFORE THE START OF ANY CONSTRUCTION.

**PUBLIC OR PRIVATE UTILITIES**  
 THE LOCATIONS OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE, AND THE DEPARTMENT AND DISTRICT DO NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR SHALL BE REQUIRED TO ASCERTAIN THE EXACT LOCATIONS OF SUCH UTILITIES AND EXERCISE CARE DURING CONSTRUCTION OPERATIONS SO AS NOT TO DAMAGE THEM, IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND ARTICLE 107.20 OF THE "STANDARD SPECIFICATIONS". THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE UTILITY OWNERS SO THAT THEIR FACILITIES MAY BE ADJUSTED OR RELOCATED, IF NECESSARY, PRIOR TO THE START OF CONSTRUCTION OPERATIONS UNLESS OTHERWISE NOTED IN THE PLANS. ALL RELOCATION WORK ON EXISTING PRIVATE UTILITIES WILL BE DONE BY THE OWNER OF THAT UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR DESTRUCTION OF PUBLIC OR PRIVATE PROPERTY, AND SHALL RESTORE SUCH PROPERTY AT HIS/HER OWN EXPENSE.

- A. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
- B. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF UPLAND DISTURBANCE.
- C. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS WITHIN 14 CALENDAR DAYS OF THE END OF ACTIVE HYDROLOGIC DISTURBANCE. PERMANENT STABILIZATION SHALL BE DONE WITHIN 14 DAYS AFTER COMPLETION OF FINAL GRADING.
- D. ALL STORM SEWER FACILITIES THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, FILTERED, OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- E. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY STABILIZED.
- F. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION.
- G. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.
- H. EROSION CONTROL MEASURES SHALL COMPLY WITH THE MINIMUM REQUIREMENTS OF THE COOK COUNTY STORMWATER AND FLOODPLAIN ORDINANCE SPECIFICATIONS AT ALL TIMES.

**HIGHWAY STANDARDS**

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 424001-08 PERPENDICULAR CURB RAMPS FOR SIDEWALKS
- 515001-03 NAME PLATE FOR BRIDGES
- 701001-02 OFF-ROAD OPERATIONS, 2L 2W, MORE THAN 15' AWAY
- 701006-05 OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
- 701801-05 SIDEWALK CORNER OR CROSSWALK CLOSURE
- 701901-04 TRAFFIC CONTROL DEVICES

**SURVEY AND MONUMENTS**  
 ALL ELEVATIONS IN THE PLANS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)  
 THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS OR PROPERTY OR REFERENCE MARKERS UNTIL THE OWNER, HIS AGENT OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE MONUMENTS ARE REMOVED.

**DISTRICT ONE DETAILS**

- BD-24 CURB AND GUTTER REMOVAL AND REPLACEMENT
- TC-10 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

**DISPOSAL OF MATERIALS**  
 THE CONTRACTOR SHALL BE REQUIRED TO DISPOSE OF ALL SIDEWALK, CURB AND GUTTER, PAVEMENT, AND ALL OTHER MATERIALS EXCAVATED OR REMOVED DUE TO CONSTRUCTION OPERATIONS, AT HIS EXPENSE. NO PAYMENT WILL BE MADE FOR HAULING OR TRUCKING MATERIAL TO LOCATIONS, PROVIDED BY THE CONTRACTOR, OUTSIDE THE LIMITS OF THE IMPROVEMENT.

**BENCHMARKS /CONTROL POINTS**

SEE BRIDGE APPROACH PLAN AND BRIDGE PLAN

**EXISTING DRAINAGE STRUCTURES**  
 DURING CONSTRUCTION OPERATIONS, WHENEVER ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES, SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED BY THE CONTRACTOR AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF EARTH EXCAVATION.

**CONSTRUCTION ACCESS LOCATIONS**

THE CONSTRUCTION ACCESS LOCATIONS SHALL AVOID WETLAND, WETLAND BUFFER AND RIPARIAN AREAS.

**UNSUITABLE MATERIAL**  
 BEFORE REMOVAL OF ANY UNSUITABLE MATERIAL, THE CONTRACTOR SHALL TREAT THE SUBGRADE AS PER ARTICLE 301.03 OF THE "STANDARD SPECIFICATIONS" TO THE SATISFACTION OF THE ENGINEER. UNSUITABLE MATERIAL SHALL NOT BE USED AS EMBANKMENT OR FILL UNDER THE PROPOSED TRAIL.

**COMMITMENTS**

NONE

**STOCKPILES**  
 STOCKPILES OF TOPSOIL AND OTHER MATERIALS SHALL NOT BE LOCATED WITHIN A SPECIAL MANAGEMENT AREA. APPROVAL OF THE LOCATION MUST BE OBTAINED FROM THE ENGINEER PRIOR TO PLACEMENT. IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS, EROSION CONTROL MEASURES SHALL BE PROVIDED. STOCKPILES TO REMAIN IN PLACE FOR 30 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.

**ACCESS TO PROPERTY**  
 THE CONTRACTOR SHALL MAINTAIN ACCESS TO ABUTTING PROPERTY DURING THE CONSTRUCTION OF THIS PROJECT, EXCEPT FOR PERIODS OF SHORT DURATION AS APPROVED BY THE ENGINEER.

**SAW CUTTING**  
 THE LIMITS OF REMOVAL OF ALL CONCRETE OR BITUMINOUS PAVEMENTS, CURBING OR SIDEWALKS SHALL BE SAWCUT IN ACCORDANCE WITH SECTION 440 OF THE "STANDARD SPECIFICATIONS" AND AT THE DIRECTION OF THE ENGINEER. THE SAW CUTTING OF BITUMINOUS PAVEMENT, DRIVEWAYS, CURBING OR SIDEWALK SHALL BE CONSIDERED INCLUDED IN THE COST OF PAVEMENT REMOVAL, CURB AND GUTTER REMOVAL AND SIDEWALK REMOVAL.

**RESTORATION ACCESS**  
 GRASS AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH SIX INCHES OF TOPSOIL AND SEED OR SOD.

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USER NAME = ken_moj	DESIGNED - KLM	REVISED -
	DRAWN - KLM	REVISED -
PLOT SCALE = 1/8" = 1'-0"	CHECKED - DDL	REVISED -
PLOT DATE = 11/13/2015	DATE - NOVEMBER 13, 2015	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>CAL-SAG GREENWAY BIKE TRAIL (CHATHAM ST. BRIDGE)</b>	
<b>INDEX OF SHEETS, GENERAL CONSTRUCTION NOTES AND HIGHWAY STANDARDS</b>	
SCALE: —	SHEET 1 OF 1 SHEETS STA. — TO STA. —

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	2
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				



CODE NO.	ITEM	UNIT	TOTAL QUANTITY 0028
20400800	FURNISHED EXCAVATION	CU YD	43
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	82
21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	308
25200110	SODDING, SALT TOLERANT	SQ YD	308
25200200	SUPPLEMENTAL WATERING	UNIT	5
28000400	PERIMETER EROSION BARRIER	FOOT	188
28100107	STONE RIPRAP, CLASS A4	SQ YD	610
28200200	FILTER FABRIC	SQ YD	780
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	71
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	121
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	6
42001300	PROTECTIVE COAT	SQ YD	33
42400300	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	386
42400800	DETECTABLE WARNINGS	SQ FT	68
44000100	PAVEMENT REMOVAL	SQ YD	100
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	161
44000600	SIDEWALK REMOVAL	SQ FT	1327
45200100	JOINT OR CRACK ROUTING (PC CONCRETE PAVEMENT AND SHOULDER)	FOOT	150.0
45200300	JOINT OR CRACK FILLING	POUND	150.0
50102400	CONCRETE REMOVAL	CU YD	15.3

CODE NO.	ITEM	UNIT	TOTAL QUANTITY 0028
50104650	SLOPE WALL REMOVAL	SQ YD	485.0
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1.0
50157300	PROTECTIVE SHIELD	SQ YD	1,498
50300225	CONCRETE STRUCTURES	CU YD	6.3
50300300	PROTECTIVE COAT	SQ YD	961
50401205	PRECAST CONCRETE CAPS	EACH	3
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	1,386
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	57,030
* 50901760	PIPE HANDRAIL	FOOT	1,288
51500100	NAME PLATES	EACH	1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	74
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	3
52100505	ANCHOR BOLTS, 5/8"	EACH	38
52100520	ANCHOR BOLTS, 1"	EACH	4
* 56103300	DUCTILE IRON WATER MAIN 12"	FOOT	529
* 56105200	WATER VALVES 12"	EACH	2
58700300	CONCRETE SEALER	SQ FT	2,452
59000200	EPOXY CRACK INJECTION	FOOT	22
* 60248900	VALVE VAULTS, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2

\* SPECIALTY ITEMS

FILE NAME = SDD\_Cal-Sag\_Chatham.dgn



USER NAME = ken\_moy  
 PLOT SCALE = 20.0000' / 1"  
 PLOT DATE = 11/17/2015

DESIGNED - KLM  
 DRAWN - KLM  
 CHECKED - DDL  
 DATE - NOVEMBER 13, 2015

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CAL-SAG GREENWAY BIKE TRAIL (CHATHAM ST. BRIDGE)  
 SUMMARY OF QUANTITIES

SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	3
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				



CODE NO.	ITEM	UNIT	TOTAL QUANTITY 0028
* 63200310	GUARDRAIL REMOVAL	FOOT	32
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	4
67100100	MOBILIZATION	L SUM	1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1
72000100	SIGN PANEL - TYPE 1	SQ FT	2
72400100	REMOVE SIGN PANEL ASSEMBLY TYPE A	EACH	1
72900100	METAL POST - TYPE A	FOOT	10
* 78005130	EPOXY PAVEMENT MARKING - LINE 6"	FOOT	265
* 80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
* 80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
* 81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	500
* 81100200	CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA. GALVANIZED STEEL	FOOT	110
* 81100300	CONDUIT ATTACHED TO STRUCTURE, 1" DIA. GALVANIZED STEEL	FOOT	248
* 81100500	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA. GALVANIZED STEEL	FOOT	346
* 81101100	CONDUIT ATTACHED TO STRUCTURE, 5" DIA., GALVANIZED STEEL	FOOT	1,299
* 81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	4
* 81300320	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 8" X 8" X 6"	EACH	14
* 81300550	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 6"	EACH	4
* 81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1,018
* 81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	6,460

CODE NO.	ITEM	UNIT	TOTAL QUANTITY 0028
* 81702400	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 2	FOOT	520
* 82200605	WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED	EACH	6
* 82500350	LIGHTING CONTROLLER, BASE MOUNTED, 240VOLT, 100AMP	EACH	1
* 84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	4
* 84301200	REMOVAL OF NAVIGATION OBSTRUCTION WARNING LIGHTING SYSTEM	L SUM	1
X0300062	GRAFFITI REMOVAL	SQ YD	306
X0300635	PLANTER	EACH	4
X2080250	TRENCH BACKFILL, SPECIAL	CU YD	50
X0321322	DROP GATES	EACH	2
X0321865	ANTI-GRAFFITI PROTECTION SYSTEM	SQ FT	4,279
X0326103	DRILL BRIDGE ABUTMENT	EACH	6
* X0326331	CLEANING AND PAINTING BEARINGS	EACH	4
* X0326654	ORNAMENTAL LIGHT UNIT, COMPLETE	EACH	6
X4200720	PORTLAND CEMENT CONCRETE OVERLAY, 2"	SQ YD	76
X5051900	STEEL GRATE WALKWAY	SQ YD	150
* X5091725	BICYCLE RAILING, SPECIAL	FOOT	861
* X5610712	WATER MAIN REMOVAL, 12"	FOOT	529
* X5610752	WATER MAIN LINE STOP 12"	EACH	1
* X5630712	CONNECTION TO EXISTING WATER MAIN 12"	EACH	2
* X6026622	VALVE VAULTS TO BE REMOVED	EACH	1

\* SPECIALTY ITEMS

FILE NAME = S00\_Cal-Sag\_Chatham.dgn



USER NAME = ker\_moj  
 PLOT SCALE = 20,0000' / 1in.  
 PLOT DATE = 11/17/2015

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CAL-SAG GREENWAY BIKE TRAIL (CHATHAM ST. BRIDGE)  
 SUMMARY OF QUANTITIES

SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	4
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CODE NO.	ITEM	UNIT	TOTAL QUANTITY 0028
* X8211125	LUMINAIRE, LED, HORIZONTAL MOUNT, SPECIAL	EACH	14
* X8300001	LIGHT POLE, SPECIAL	EACH	2
* X8430100	REMOVE EXISTING CONDUIT ATTACHED TO STRUCTURE	FOOT	1,155
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	157,080
Z0001905	STRUCTURAL STEEL REPAIR	POUND	32,960
Z0003802	REMOVAL OF EXISTING BEARINGS	EACH	35
Z0003850	BENCHES	EACH	2
Z0004552	APPROACH SLAB REMOVAL	SQ YD	40
Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	25
Z0005880	BRIDGE HANDRAIL REMOVAL	FOOT	770
* Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1
* Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	700
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	350
Z0012800	CONCRETE PAVEMENT SCARIFICATION	SQ YD	76
Z0013798	CONSTRUCTION LAYOUT	LSUM	1
Z0022800	FENCE REMOVAL	FOOT	120
Z0042300	PORTLAND CEMENT CONCRETE SIDEWALK CURB	FOOT	90
Z0073500	TEMPORARY SUPPORT SYSTEM	L SUM	1
Δ Z0076600	TRAINEES	HOUR	500

CODE NO.	ITEM	UNIT	TOTAL QUANTITY 0028
Δ Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500
* XX003402	WATER MAIN INSULATION	FOOT	378
XX005206	EXPLORATORY EXCAVATION	FOOT	30
XX009043	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE	CU YD	200.2
* XX009041	EBAA FLEX-TEND JOINT ASSEMBLY	EACH	2
* XX009042	EBAA EX-TEND 200	EACH	2
* XX003037	DUCTILE IRON FITTINGS AND ACCESSORIES	POUND	2,500

\* SPECIALTY ITEMS  
Δ 0042

FILE NAME = 500\_Cal-Sag\_Chatham.dgn



USER NAME = ken\_moj  
PLOT SCALE = 20,0000' / 1" =  
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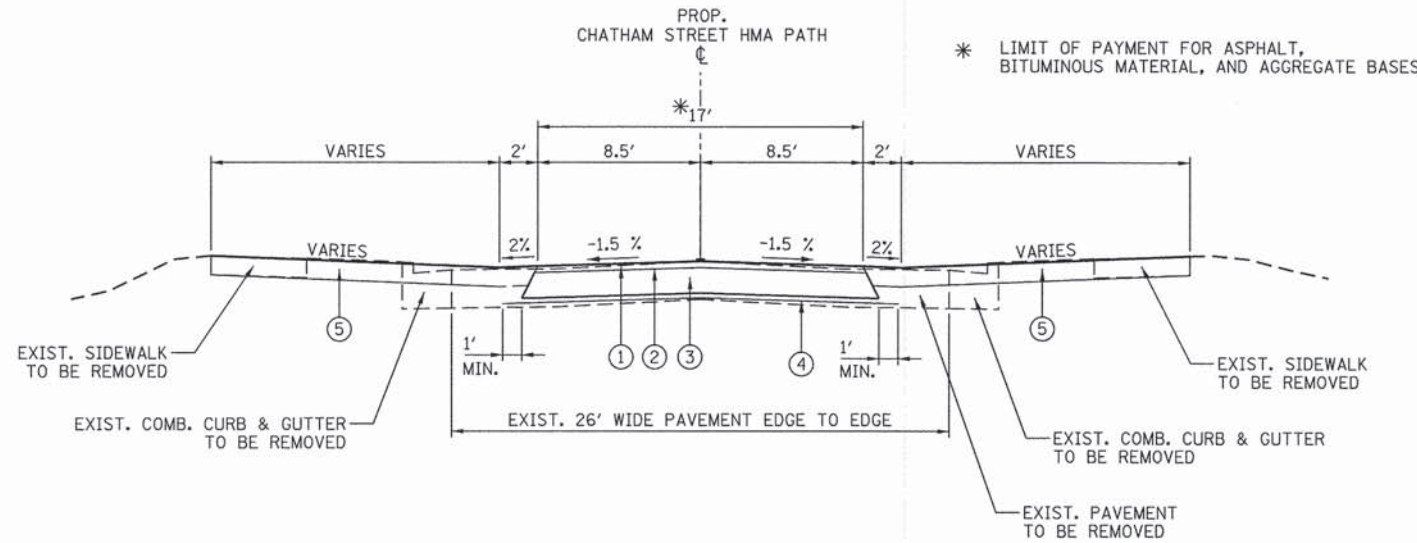
CAL-SAG GREENWAY BIKE TRAIL (CHATHAM ST. BRIDGE)  
SUMMARY OF QUANTITIES  
SCALE: SHEET 3 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	5
CONTRACT NO. 61C15				
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**LEGEND:**

- ① HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2"
- ② BITUMINOUS MATERIALS (PRIME COAT)
- ③ AGGREGATE BASE COURSE, TYPE B, 8"
- ④ GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
- ⑤ TOPSOIL FURNISH AND PLACE, 6", AND SODDING, SALT TOLERANT



**PROPOSED TYPICAL SECTION**  
 STA. 22+68.18 TO STA. 22+96.74  
 (LOOKING NORTH)

**NOTE 1:**  
 ADDITIONAL FILL MATERIAL TO BE PLACED ABOVE FABRIC IN CUT SECTIONS SHALL NOT BE MEASURED FOR PAYMENT. MATERIAL SHALL BE SUITABLE EMBANKMENT MATERIAL.

**BITUMINOUS MIXTURE REQUIREMENTS**

ITEM	VOIDS	USAGE
HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50 (IL 9.5mm)	4% @ 50 GYR	BIKE PATH SURFACE
HOT-MIX ASPHALT BINDER COURSE, IL-19.0 N50	4% @ 50 GYR	BIKE PATH BINDER

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURES IS 112 LBS/SQYD/IN.

THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS

FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.

FILE NAME = TwpSec.Chatham.dgn



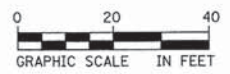
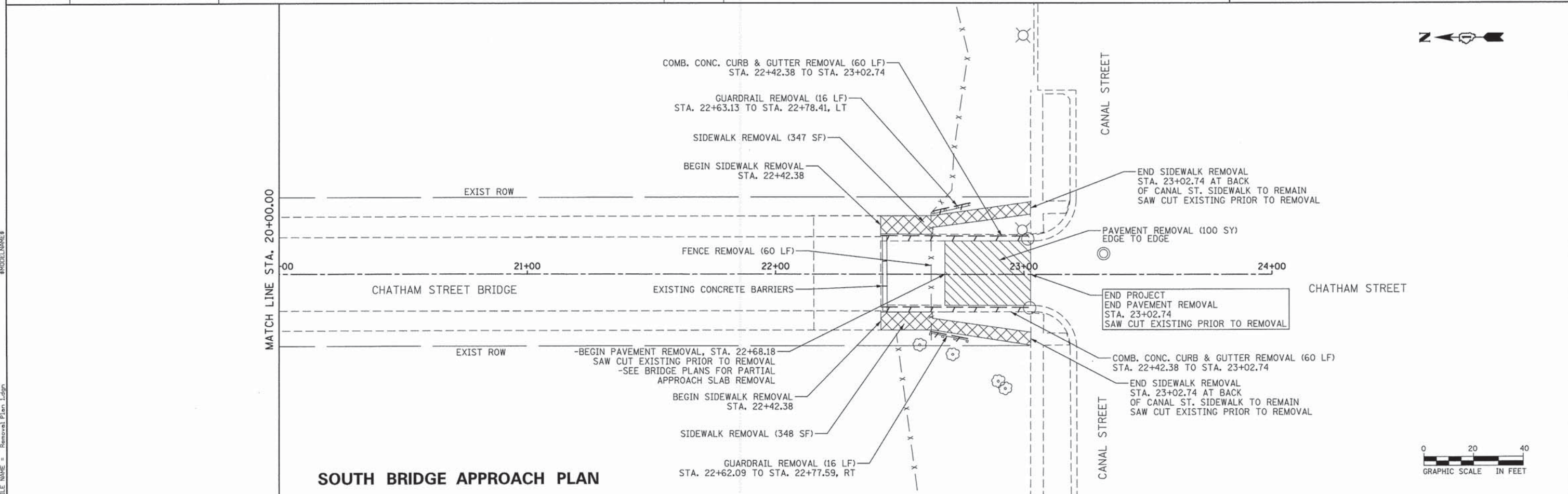
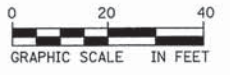
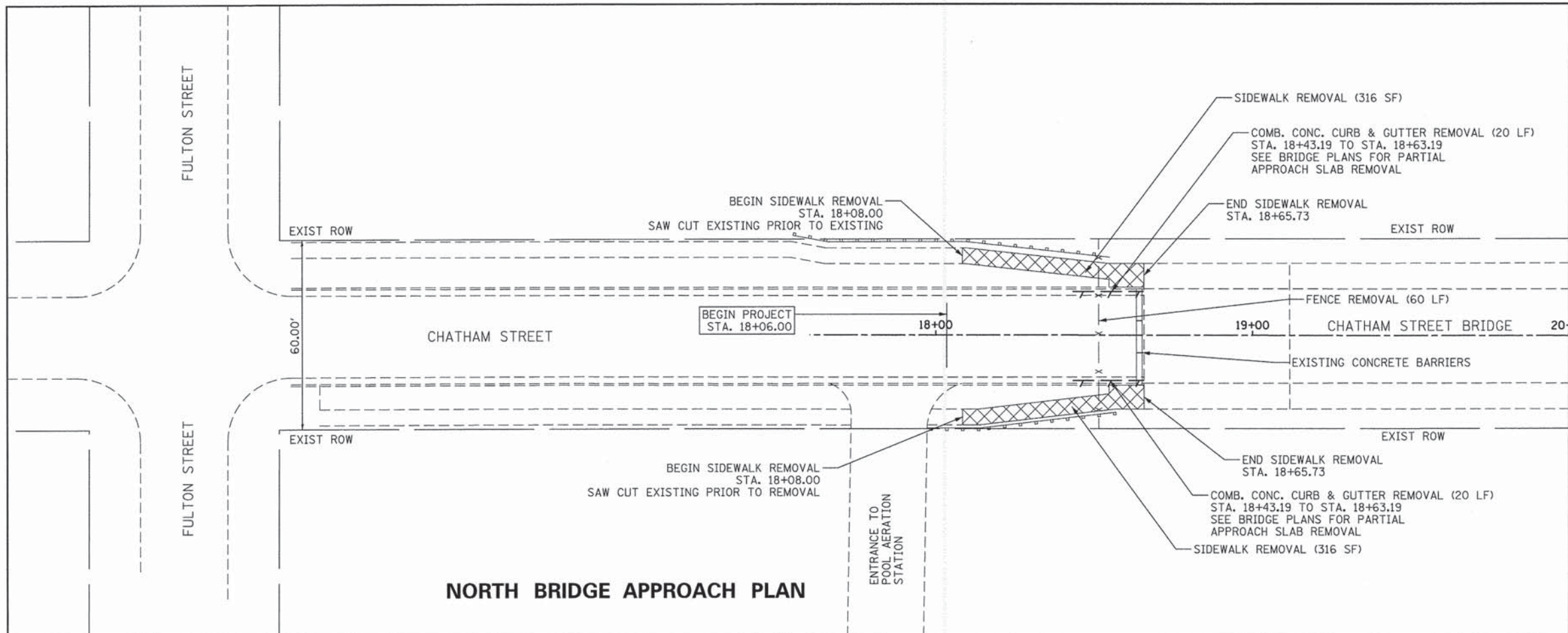
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PLOT SCALE = 50,0000' / in.	DRAWN - KLM	REVISED -
PLOT DATE = 11/13/2015	CHECKED - DDL	REVISED -
	DATE - NOVEMBER 13, 2015	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>CAL-SAG GREENWAY BIKE TRAIL (CHATHAM ST. BRIDGE)</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>PROPOSED TYPICAL SECTIONS</b>			08-00178-01-BR	COOK	54	6
SCALE:	SHEET OF SHEETS	STA.	TO STA.		CONTRACT NO. 61C15	

ILLINOIS FED. AID PROJECT

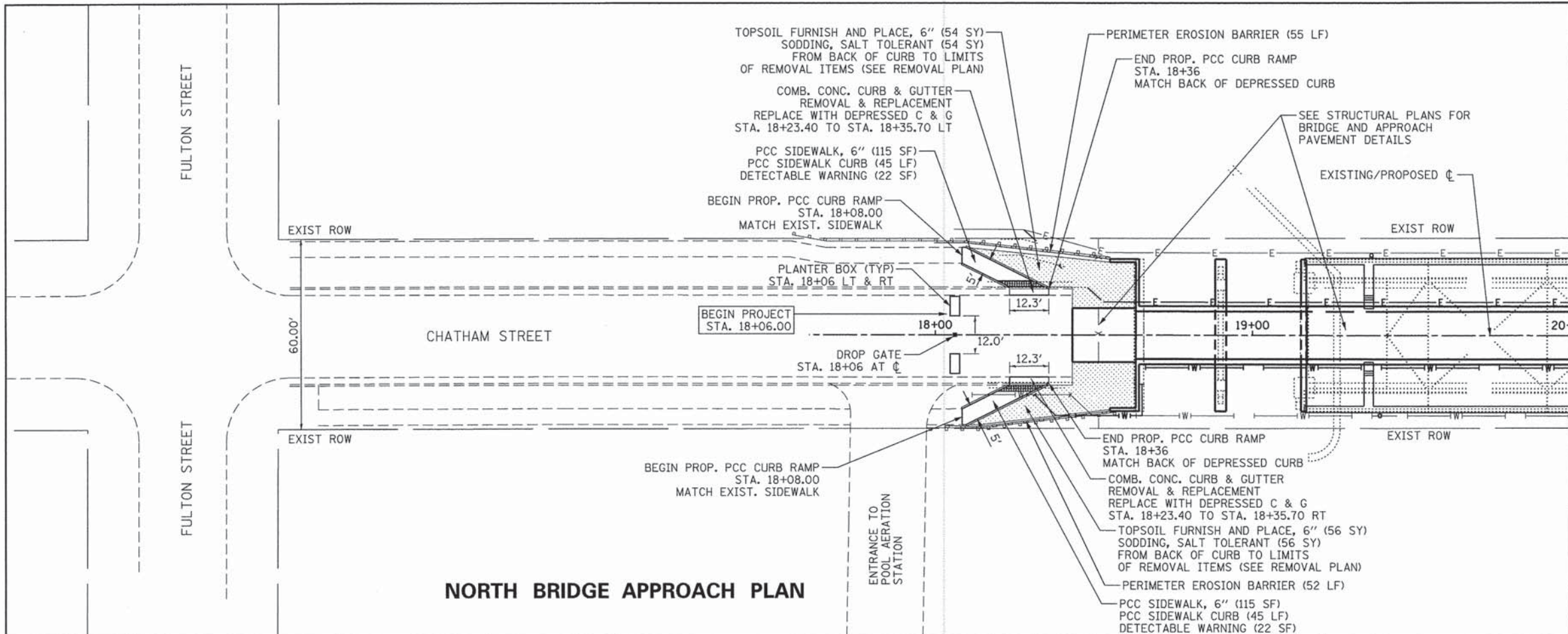




FILE NAME = Removal Plan\_1.dgn

<p>303 East Wacker Drive, Suite 1400, Chicago, IL 60601 T 1-312-373-7700 F 1-312-373-6800</p>	USER NAME = ken_may	DESIGNED - KLM	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>CAL-SAG GREENWAY BIKE TRAIL (CHATHAM ST. BRIDGE)</b> <b>BRIDGE APPROACH REMOVAL PLAN</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 28.8875' / in.	DRAWN - KLM	REVISED -					08-00178-01-BR	COOK	54	7	
	PLOT DATE = 11/13/2015	CHECKED - DDL	REVISED -					CONTRACT NO. 61C15				
	DATE - NOVEMBER 13, 2015	REVISED -	ILLINOIS FED. AID PROJECT									
SCALE:		SHEET OF SHEETS		STA. TO STA.								



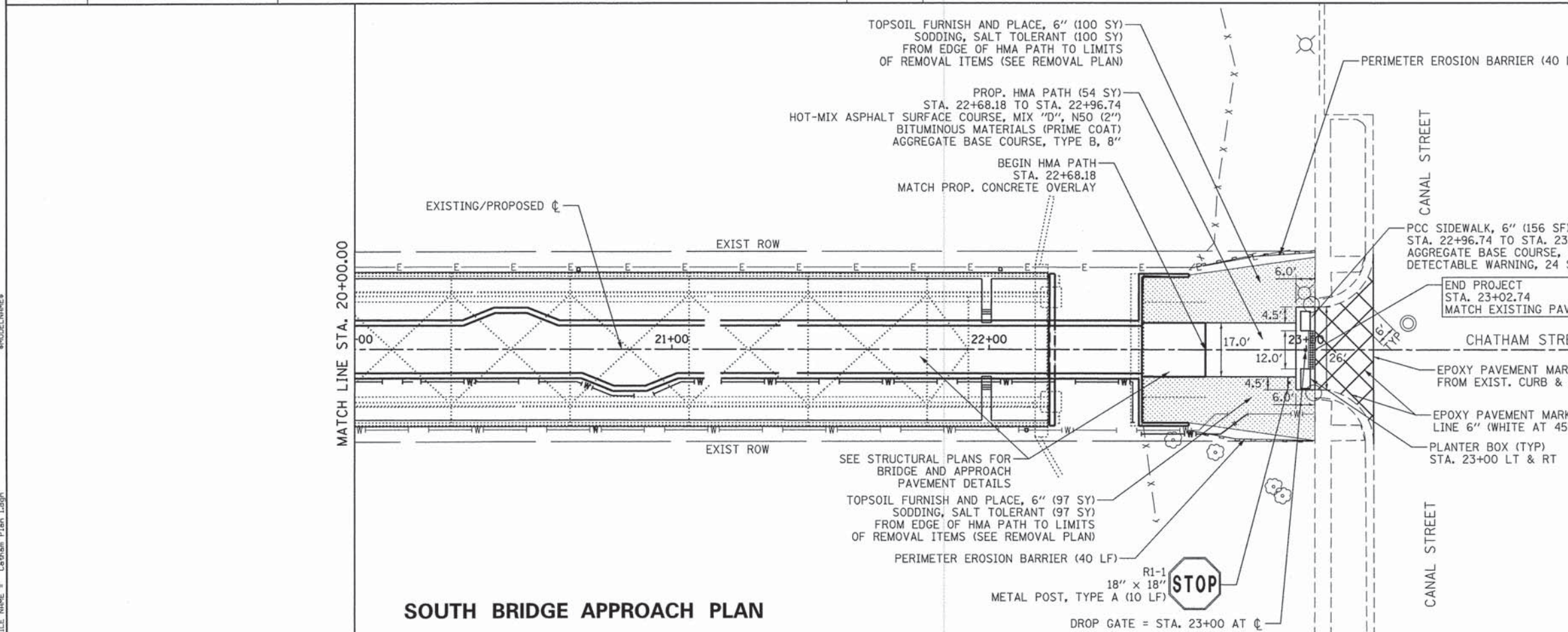


**NORTH BRIDGE APPROACH PLAN**

- ROADWAY NOTES**
1. PLANTER BOXES SHALL BE PLACED 12.0' APART WITH PROPOSED DROP GATE AT CENTER OF CHATHAM STREET AT STATIONS SHOWN.
  2. GRADES AND SLOPES FOR PROPOSED PCC CURB RAMPS AND SIDEWALKS MUST COMPLY WITH ADA REQUIREMENTS. ACTUAL GRADES WILL BE DETERMINED BY FIELD CONDITIONS AT THE DESIGNATED LOCATIONS.

**ALIGNMENT COORDINATES - CHATHAM ST. BRIDGE**

POINT	STATION	NORTHING	EASTING
C/L	18+00	1816834.8823	1164040.9633
C/L	19+00	1816734.9358	1164044.2351
C/L	20+00	1816634.9840	1164047.5070
C/L	21+00	1816535.0429	1164050.7789
C/L	22+00	1816435.0965	1164054.0508
C/L	23+00	1816335.1500	1164057.3226
C/L	24+00	1816235.2035	1164060.5945



**SOUTH BRIDGE APPROACH PLAN**



FILE NAME = Chatham Plan\_1.dgn



USER NAME = ken_moy	DESIGNED - KLM	REVISED -
PLOT SCALE = 20.0075' / 1" =	DRAWN - KLM	REVISED -
PLOT DATE = 11/13/2015	CHECKED - DDL	REVISED -
	DATE - NOVEMBER 13, 2015	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CAL-SAG GREENWAY BIKE TRAIL (CHATHAM ST. BRIDGE)  
BRIDGE APPROACH PLAN**

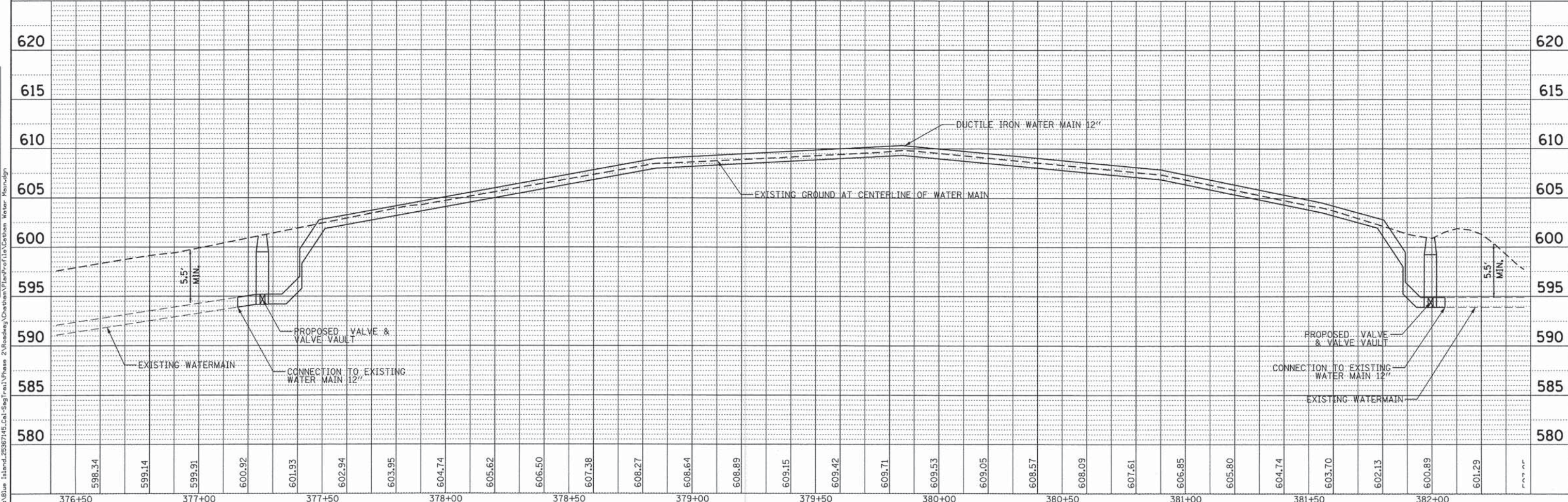
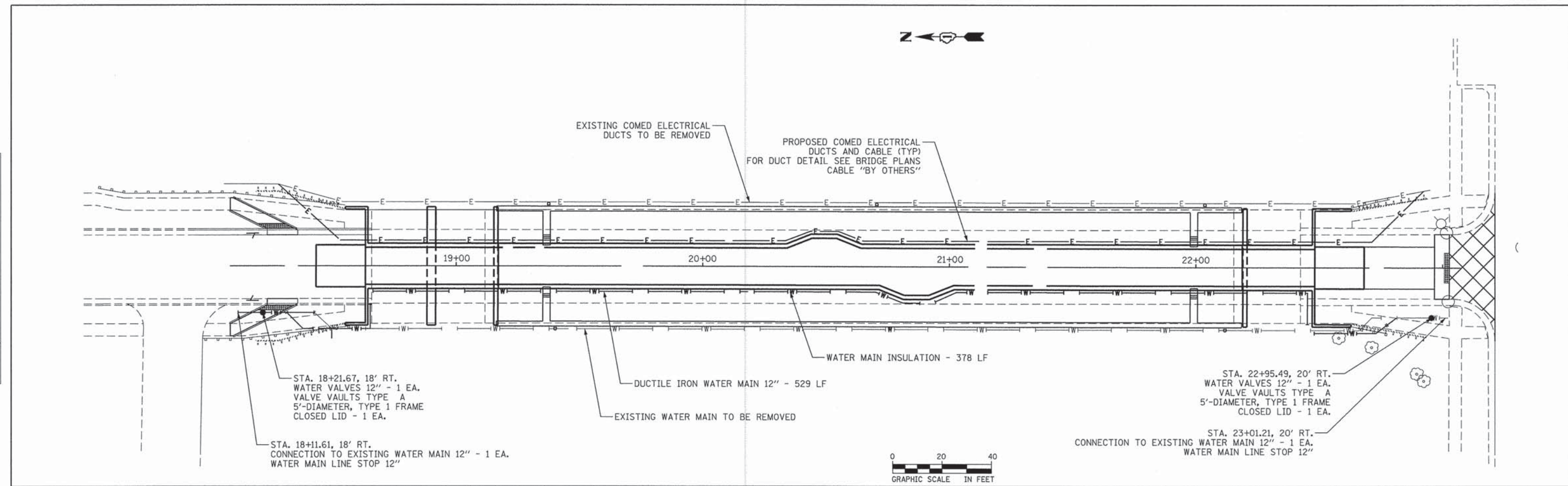
SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	8
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				



PLAN	REVISION	DATE
NO.	PLOTTED	
NO.	ALIGNMENT CHECKED	
NO.	NOTE BOOK	
NO.	FILE NAME	

PROFILE	REVISION	DATE
NO.	GRADES CHECKED	
NO.	STRUCTURE NOTATIONS OK'D	
NO.	FILE NAME	



376+50	598.34	377+00	599.14	599.91	600.92	601.93	602.94	603.95	604.74	605.62	606.50	607.38	608.27	608.64	608.89	609.15	609.42	609.71	609.53	609.05	608.57	608.09	607.61	606.85	605.80	604.74	603.70	602.13	600.89	601.29	601.29
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**AECOM**  
383 East Wacker Drive, Suite 1400, Chicago, IL 60601  
T 312-373-7700 F 312-373-6800

USER NAME = ken_moy	DESIGNED - DDL	REVISED -
PLOT SCALE = 20.0000' / 1"	DRAWN - KLM	REVISED -
PLOT DATE = 11/13/2015	CHECKED - MK	REVISED -
	DATE - NOVEMBER 13, 2015	REVISED -

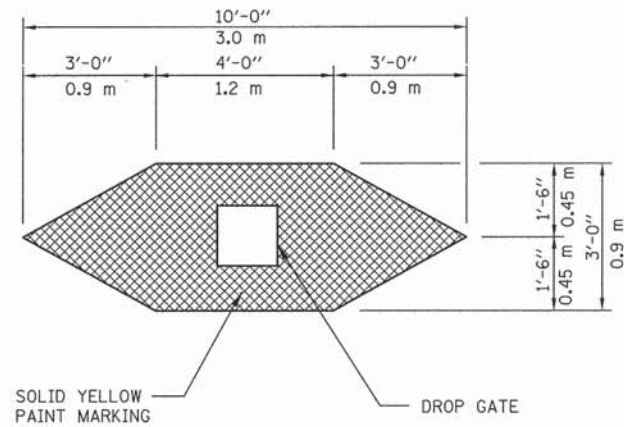
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CAL-SAG GREENWAY BIKE TRAIL (CHATHAM ST. BRIDGE)  
WATERMAIN PLAN AND PROFILE**

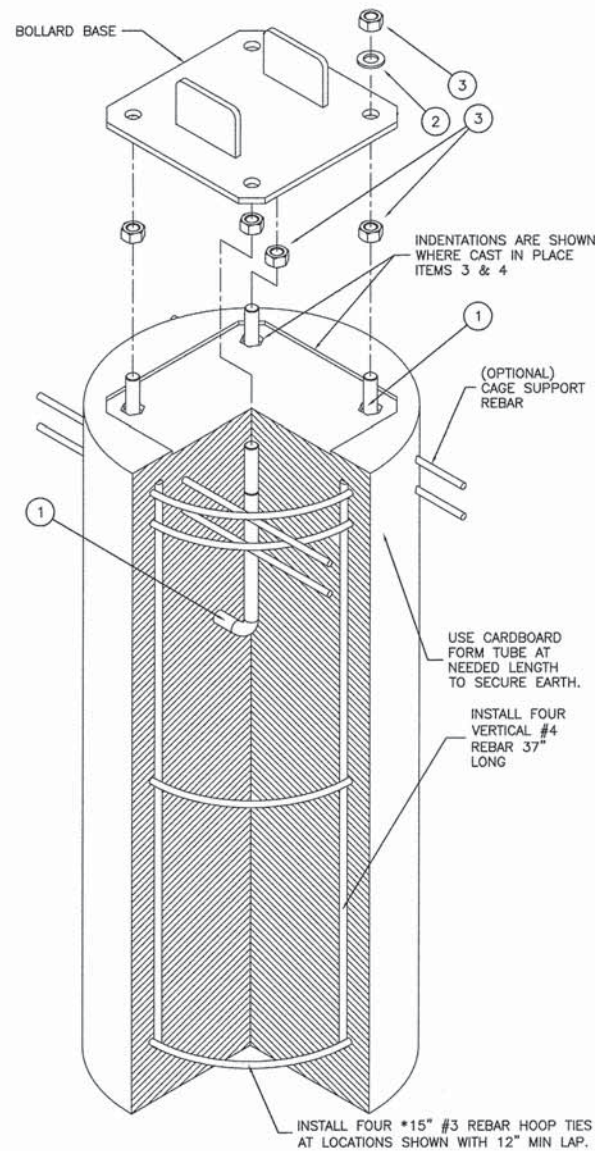
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	9
CONTRACT NO. 61C15		ILLINOIS FED. AID PROJECT		

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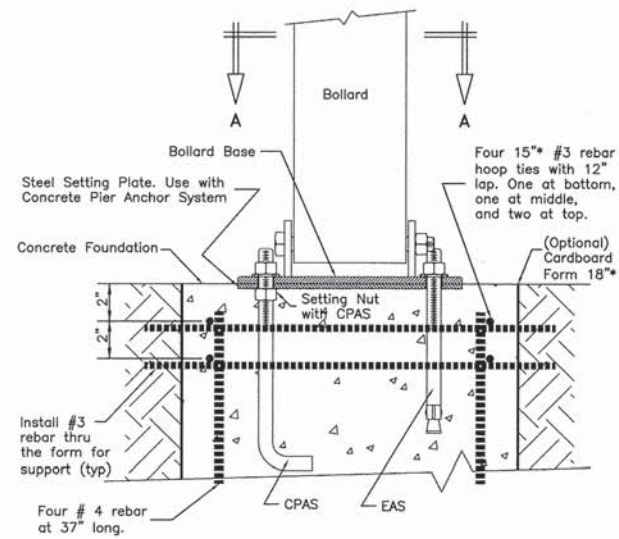




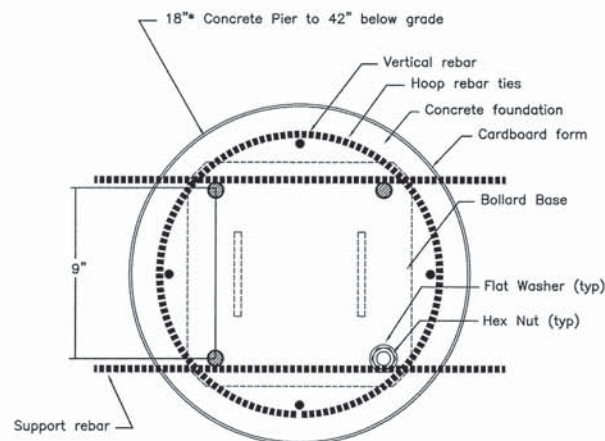
**DROP GATE MARKING DETAIL**  
N.T.S.



**CONCRETE PIER ANCHOR SYSTEM (CPAS)**

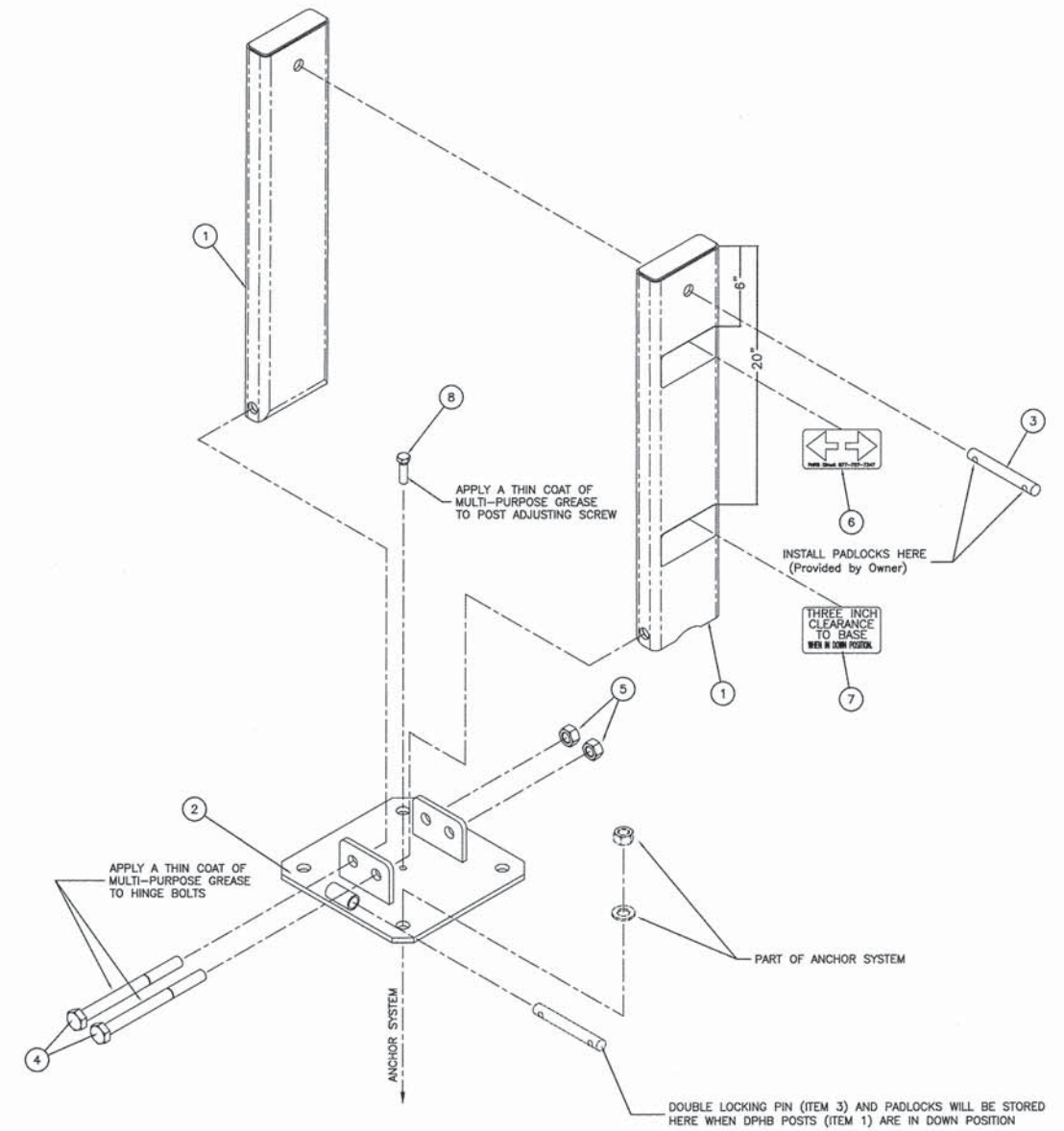


**FRONT ELEVATION SECTION**



**PLAN SECTION "A-A"**

**DROP GATE, INSTALLATION DETAIL**  
N.T.S.



**DROP GATE DETAIL**

FILE NAME = Details\_02\_DropGate.dgn



USER NAME = ken_maj	DESIGNED - KLM	REVISED -
PLOT SCALE = 10,0000' / 1in.	DRAWN - KLM	REVISED -
PLOT DATE = 11/13/2015	CHECKED - DDL	REVISED -
	DATE - NOVEMBER 13, 2015	REVISED -

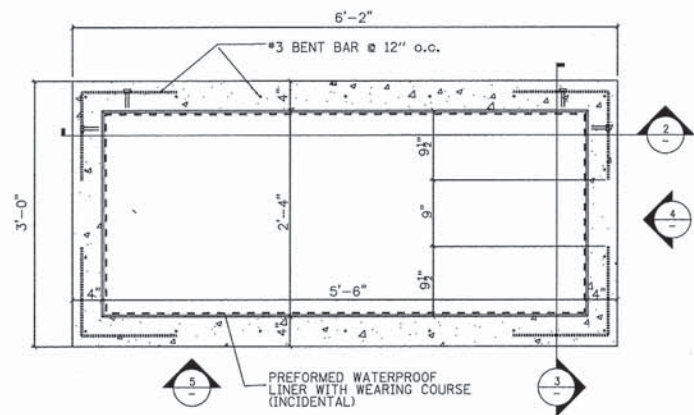
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CAL-SAG GREENWAY BIKE TRAIL (CHATHAM ST. BRIDGE)  
MISCELLANEOUS DETAILS**

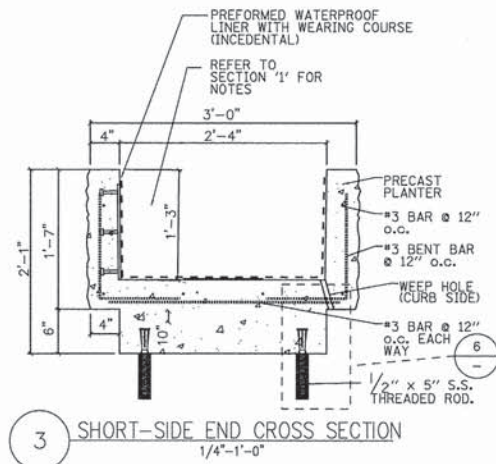
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				

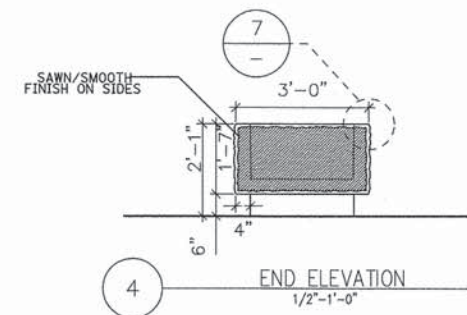




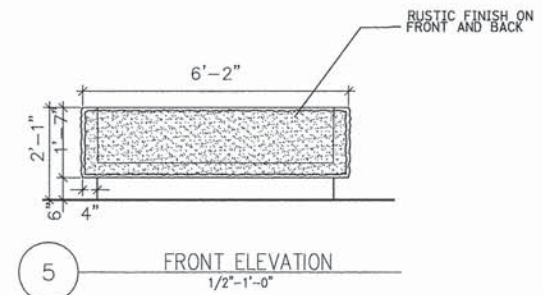
1 PLAN  
RUSTIC FINISH CONCRETE PLANTER  
1'-1'-0"



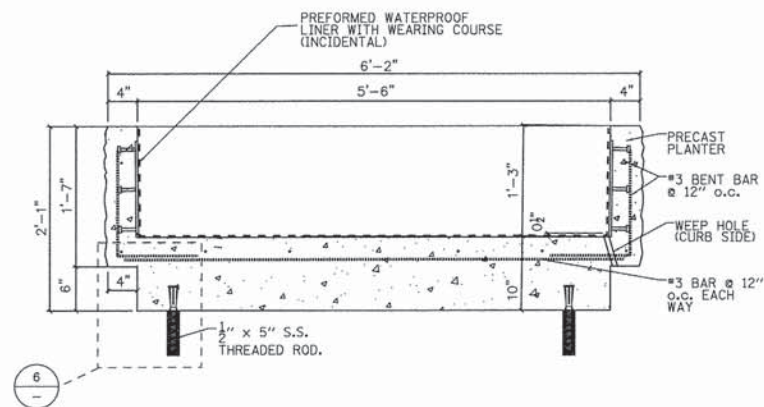
3 SHORT-SIDE END CROSS SECTION  
1/4'-1'-0"



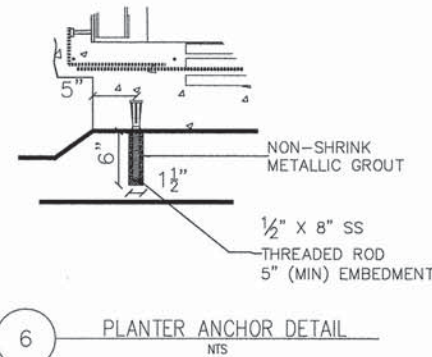
4 END ELEVATION  
1/2'-1'-0"



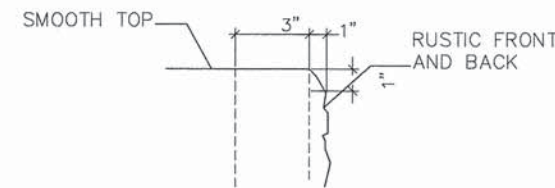
5 FRONT ELEVATION  
1/2'-1'-0"



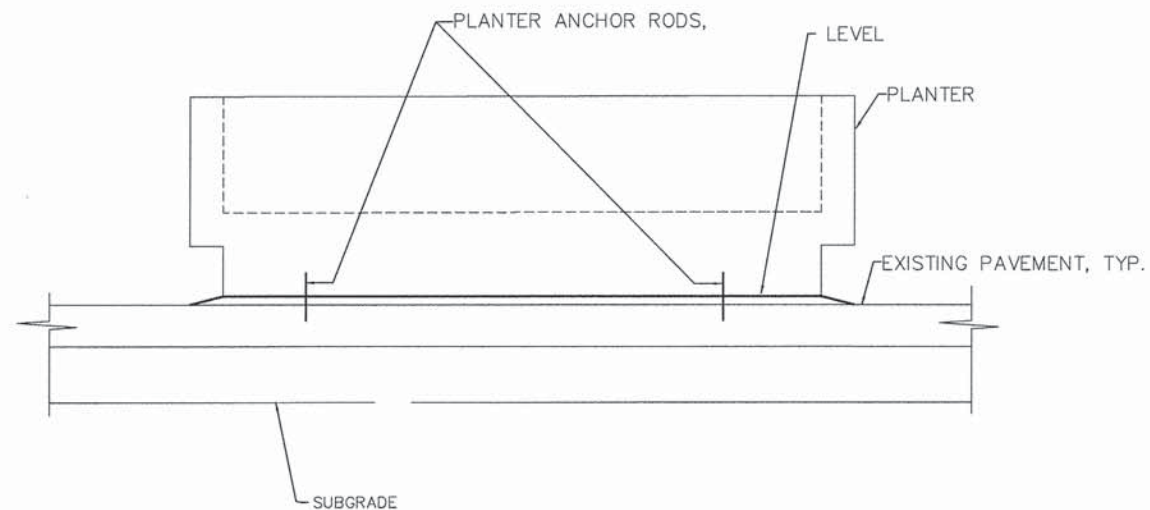
2 LONG-SIDE END CROSS SECTION  
1/4'-1'-0"



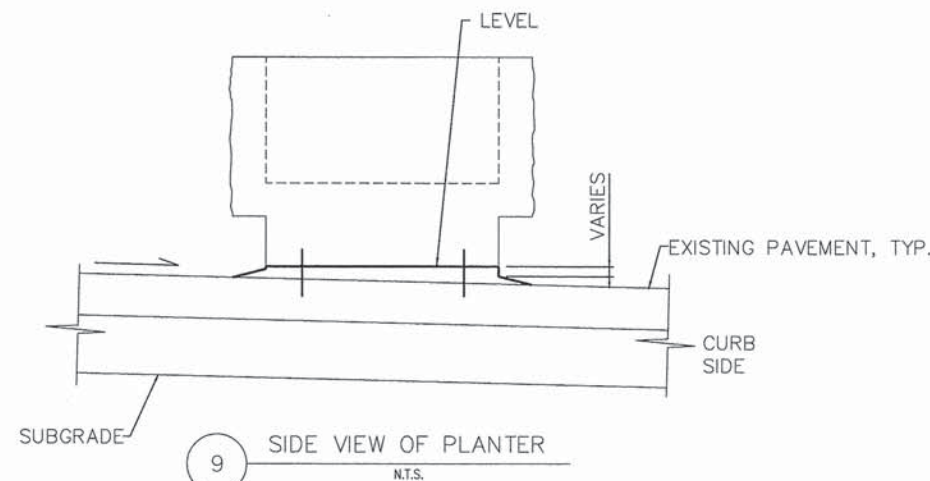
6 PLANTER ANCHOR DETAIL  
N.T.S.



7 RUSTIC FACE THICKNESS  
N.T.S.



8 ELEVATION VIEW OF PLANTER  
N.T.S.



9 SIDE VIEW OF PLANTER  
N.T.S.

- NOTE:
1. FIELD LOCATE PLANTERS AS REFERENCED IN THE BRIDGE APPROACH PLAN
  2. ALL FASTENER SHALL BE TAMPERPROOF
  3. COORDINATE WITH THE DROP GATE MOUNTING LOCATIONS
  4. ALL PLANTER FEATURES ANCHORED TO STRUCTURAL SLABS SHALL BE WEATHERPROOFED
  5. ALL HOLES CORED THROUGH EXISTING PAVEMENT SHALL BE FILLED WITH NON-SHRINK GROUT AFTER INSTALLATION OF FASTENER
  6. ALL PRECAST CONCRETE SHALL BE TINTED TO MATCH CARNELIAN BROWN VELVET GRANITE

FILE NAME = Details B3.Planters.dgn



USER NAME = ken_moj	DESIGNED - KLM	REVISED -
PLOT SCALE = 1/8" = 1'-0"	DRAWN - KLM	REVISED -
PLOT DATE = 11/13/2015	CHECKED - DDL	REVISED -
	DATE - NOVEMBER 13, 2015	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CAL-SAG GREENWAY BIKE TRAIL (CHATHAM ST. BRIDGE)  
MISCELLANEOUS DETAILS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	11
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				

SCALE: SHEET OF SHEETS STA. TO STA.



VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001  
EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

1/4" (5) \*\*

18" (450) MAX.

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

3" (75) MIN.

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

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

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

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

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

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

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

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

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

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

SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY,

② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED

③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

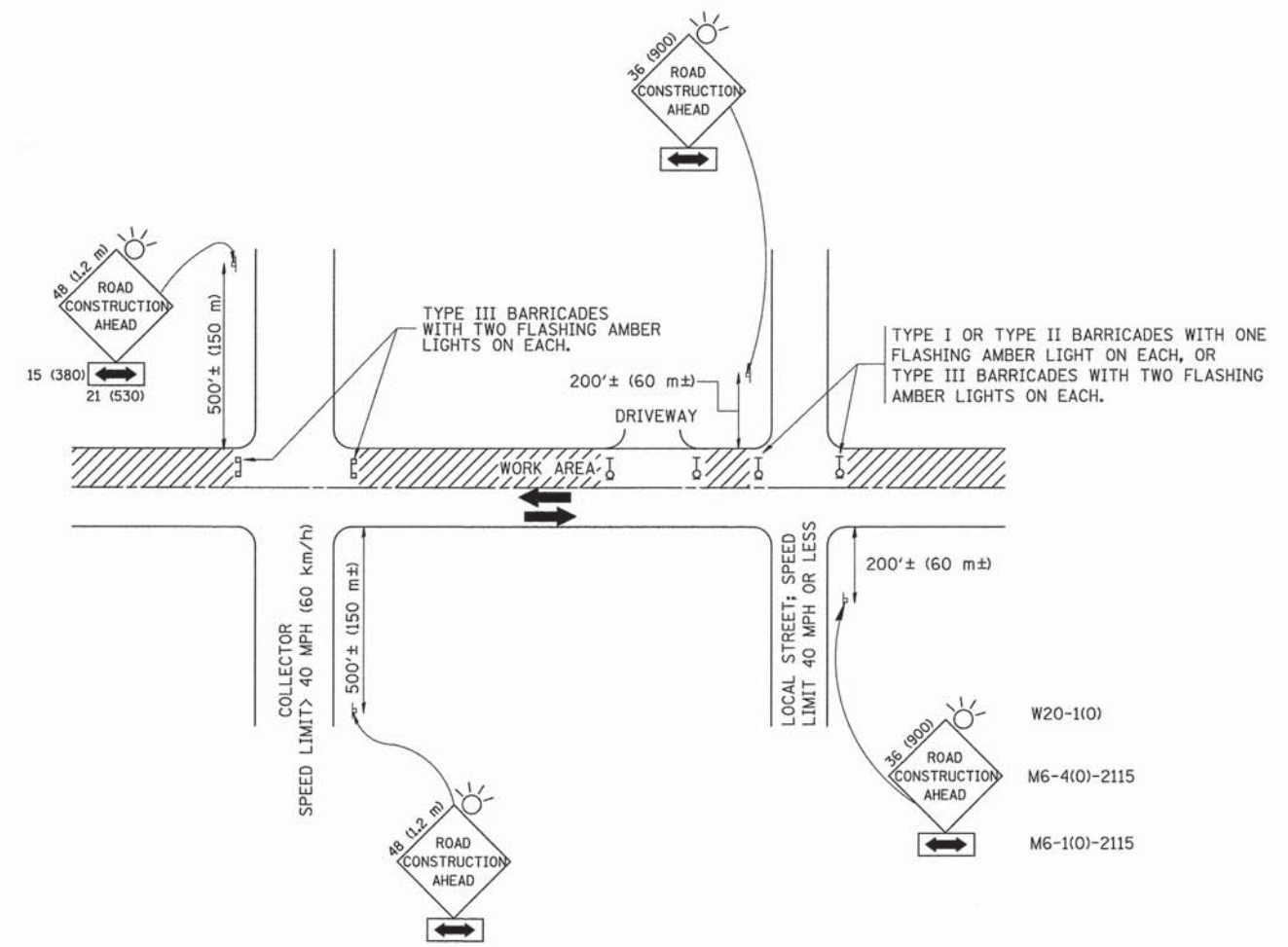
⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME =	USER NAME = drivakosgn	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw\work\pwsdot\drivakosgn\080178\bd24.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	08-00178-01-BR	COOK	53	12	
		CHECKED -	REVISED - M. GOMEZ 01-22-01					BD600-06 (BD-24)				
		DATE - 03-11-94	REVISED - R. BORO 12-15-09					CONTRACT NO.				
							FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT					





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

NOTES:

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

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

FILE NAME =	USER NAME = gegl1enobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
W:\diststd\22x34\to10.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	53	13
TC-10		CONTRACT NO.		
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				



**SCOPE OF WORK**

1. REMOVE EXISTING ROADWAY FIXTURES.
2. REMOVE AND REPLACE EXISTING NAVIGATION LIGHT FIXTURES. EXISTING FIXTURES MUST REMAIN OPERABLE UNTIL NEW FIXTURES ARE INSTALLED AND OPERABLE OR PROVIDE TEMPORARY FIXTURES AS REQUIRED PER USCG REGULATIONS.
3. FURNISH AND INSTALL NEW LED STYLE FIXTURES AS SHOWN ON PLANS TO ILLUMINATE THE PEDESTRIAN WALKWAY.
4. FURNISH AND INSTALL NEW ARCHITECTURAL UP-LIGHTING OF TRUSS STRUCTURE.
5. FURNISH AND INSTALL NEW LIGHTING CONTROLLER AND ELECTRICAL SERVICE.

**GENERAL NOTES**

1. ELECTRICAL CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS PRIOR TO BIDDING AND COVER IN HIS BID ALL WORK TO BE PERFORMED.
2. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE LATEST CODES, RULES AND ORDINANCES OF NEC AND FIRE PROTECTION CODES. COSTS ASSOCIATED WITH ALL PERMITS SHALL BE INCLUDED IN CONTRACTOR'S BID.
3. ELECTRICAL DEVICES AND EQUIPMENT ARE SHOWN SYMBOLICALLY ON THE PLANS. THE USE OF SYMBOLS AND NOTATIONS (OR THE OMISSION THEREOF) DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING A SAFE, COMPLETE AND FULLY FUNCTIONAL SYSTEM. FIELD LOCATE DEVICES AND EQUIPMENT TO FACILITATE ACCESSIBILITY WITH RESPECT TO OPERATIONS AND MAINTENANCE CONDITIONS.
4. COORDINATE ELECTRICAL WORK WITH GENERAL CONTRACTOR AND EXISTING CONDITIONS TO AVOID CONFLICTS AND DELAYS.
5. ALL MOUNTING HARDWARE SHALL BE 300 SERIES STAINLESS STEEL. ALL EXTERIOR BOXES SHALL BE NEMA 4X STAINLESS STEEL.
6. PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM, TEST THE ENTIRE INSTALLATION FOR GROUNDS, SHORTS OR IMPROPER CONNECTION UTILIZING MEGGER TESTER.
7. ALL CONDUIT ROUTING SHOWN IS DIAGRAMMATIC AND IS SHOWN ONLY FOR GENERAL GUIDANCE FOR THE CONTRACTOR IN SUBMITTING BIDS.
8. MINIMUM CONDUIT SIZE IS 3/4".
9. ALL NEW CONDUITS AND FITTINGS INSTALLED IN EXPOSED OUTDOOR AREAS SHALL BE RIGID GALVANIZED STEEL. ALL PULL BOXES AND JUNCTION BOXES IN OUTDOOR AREAS SHALL BE STAINLESS STEEL. NEMA TYPE 4X. AND CORROSION RESISTANT.
10. CONTRACTOR TO PROVIDE SHOP DRAWING SUBMITTALS FOR REVIEW AND APPROVAL. INCLUDING BUT NOT LIMITED TO LIGHT FIXTURE DATA SHEETS, LIGHTING PHOTOMETRIC CALCULATIONS, INSTALLATION DETAILS, CONDUIT LAYOUT, NAVIGATION LIGHTING DATA SHEETS, LIGHT FIXTURE COLOR SAMPLES, AND TEMP NAVIGATION LIGHT SYSTEM.
11. INSTALL A COMPLETE INTEGRATED GROUNDING AND BONDING SYSTEM FOR ALL NEW EQUIPMENT AND DEVICES PER NEC 250.

**FIXTURE SCHEDULE**

TYPE	MANUFACTURER	DESCRIPTION	VOLTS	WATTS	REMARKS	MOUNTING
	STERNBERG LIGHTING	OMEGA MODEL 1W-152IRLED-EZ-SV2-2ARC-45-T3-F-MDLO3-FHD-CUSTOM OR APPROVED EQUAL	240	78	COLOR TO MATCH BRIDGE	STRUCTURE
	STERNBERG LIGHTING	OMEGA MODEL 1W-152IRLED-EZ-SV2-2ARC-45-T3-F-MDLO3-FHD-CUSTOM POLE; 2800 CONCOURSE SERIES CANDY CANE POLE, MODEL 28, 16 FOOT MOUNTING HEIGHT, STRAIGHT SMOOTH. OR APPROVED EQUAL	240	78	COLOR TO MATCH BRIDGE	POLE
	CREE	CREE MODEL FLD-0L-N6-D2-14-D-UL-SV-700-40K OR APPROVED EQUAL	240	66	UP-LIGHT	TOP OF RAILING
	B&B ROADWAY	GREEN CENTER CHANNEL LIGHT, TYPE CC LED STYLE	120	20	NAVIGATION LIGHT	STRUCTURE
	B&B ROADWAY	RED CHANNEL MARKER LIGHT, TYPE CM LED STYLE	120	20	NAVIGATION LIGHT	STRUCTURE

**QUANTITY & PAY ITEM SCHEDULE**

ELECTRICAL & LIGHTING QUANTITIES			
Item #	Description	Units	QTY
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	500
81100200	CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA. GALVANIZED STEEL	FOOT	110
81100300	CONDUIT ATTACHED TO STRUCTURE, 1" DIA. GALVANIZED STEEL	FOOT	248
81100500	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA. GALVANIZED STEEL	FOOT	346
81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	4
81300320	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 8" X 8" X 6"	EACH	14
81300550	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 6"	EACH	4
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1018
81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	6460
81702400	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 2	FOOT	520
82200605	WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED	EACH	6
82600105	NAVIGATION OBSTRUCTION LIGHTING CONTROLLER	EACH	1
84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	4
84301200	REMOVAL OF NAVIGATION OBSTRUCTION WARNING LIGHTING SYSTEM	L SUM	1
X0326654	ORNAMENTAL LIGHT UNIT, COMPLETE	EACH	6
X8211125	LUMINAIRE, LED, HORIZONTAL MOUNT, SPECIAL	EACH	14
X8300001	LIGHT POLE, SPECIAL	EACH	2
X8430100	REMOVE EXISTING CONDUIT ATTACHED TO STRUCTURE	FOOT	1155



USER NAME =	DESIGNED - DAD	REVISED
	CHECKED - MAE	REVISED
PLOT SCALE =	DRAWN - MAE	REVISED
PLOT DATE = 11/13/2015	CHECKED - MBQ	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHTING NOTES AND FIXTURE SCHEDULE  
STRUCTURE NO. 016-6620

SHEET NO. E-1 OF E-5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	14
CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	

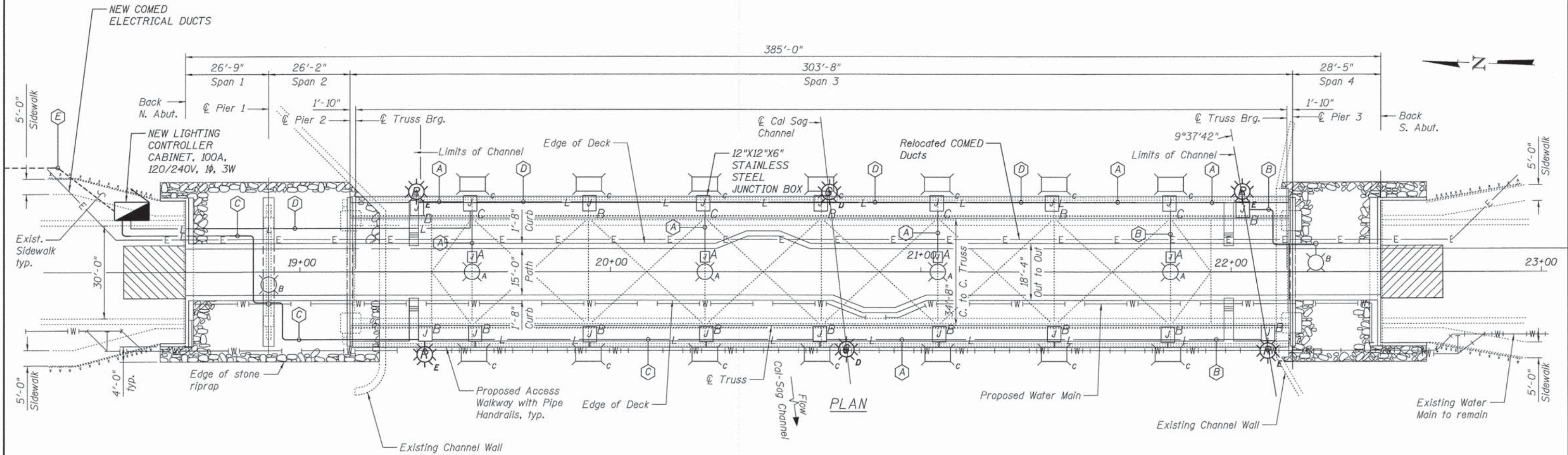


# LEGEND

- J<sub>A</sub> 6"X6"X4" JUNCTION BOX, NEMA 4X, STAINLESS STEEL
- J<sub>B</sub> 8"X8"X6" JUNCTION BOX, NEMA 4X, STAINLESS STEEL
- J<sub>C</sub> 12"X12"X6" JUNCTION BOX, NEMA 4X, STAINLESS STEEL

# CABLE LEGEND

- L- RIGID GALVANIZED STEEL CONDUIT
- A 1" RGS CONDUIT  
4-1/C #8 AWG, 1-1/C #10 AWG GND
- B 3/4" RGS CONDUIT  
2-1/C #8 AWG, 1-1/C #10 AWG GND
- C 1 1/2" RGS CONDUIT  
6-1/C #8 AWG, 1-1/C #10 AWG GND
- D 1 1/2" RGS CONDUIT  
8-1/C #8 AWG, 1-1/C #10 AWG GND
- E 2" RGS CONDUIT  
3-1/C #2 AWG, SERVICE CONDUCTORS FROM UTILITY TRANSFORMER



USER NAME =	DESIGNED - DAD	REVISED
PLOT SCALE =	CHECKED - MAE	REVISED
PLOT DATE = 11/13/2015	DRAWN - MAE	REVISED
	CHECKED - MBQ	REVISED

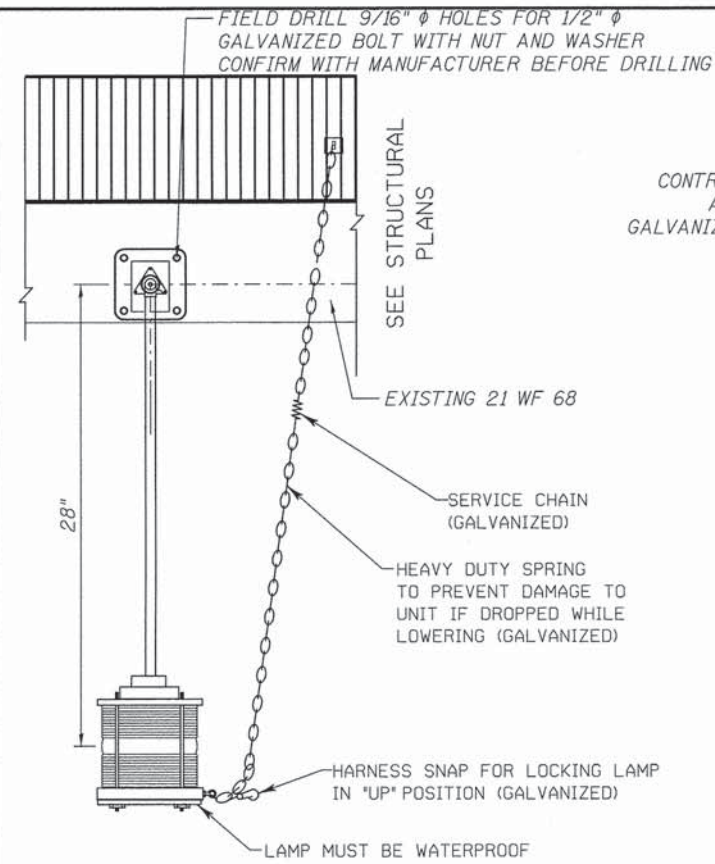
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN**

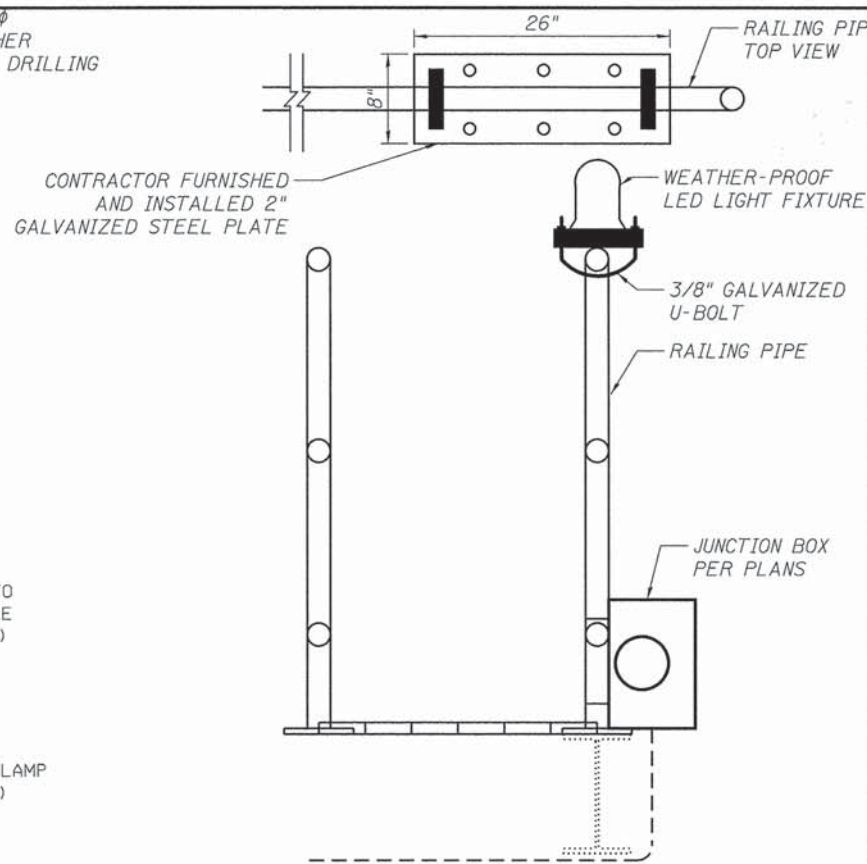
SHEET NO. E-2 OF E-6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	54	15
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				





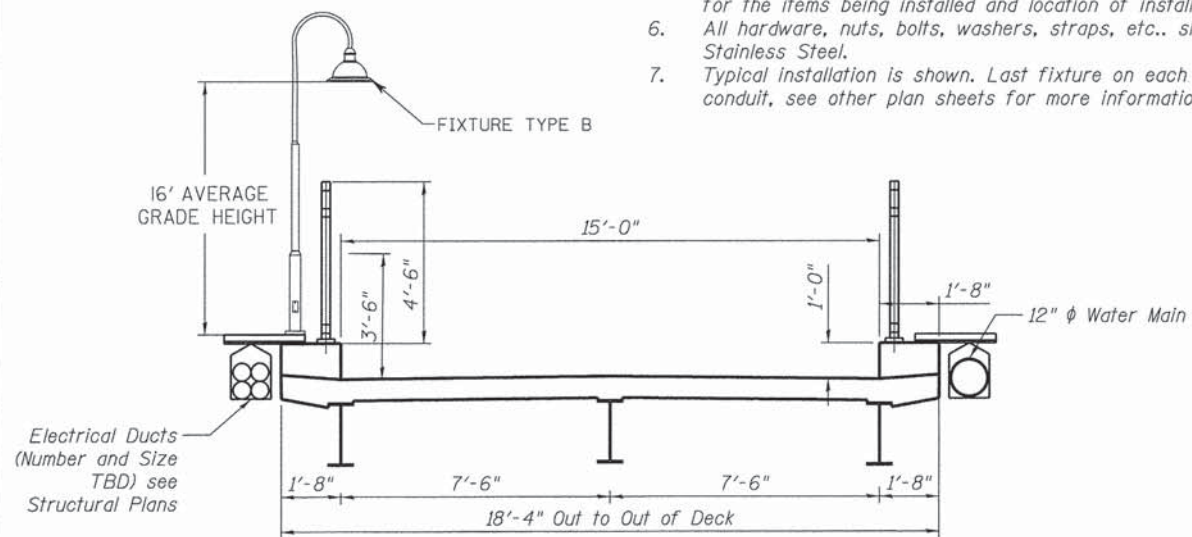
**VIEW B-B**  
N.T.S.



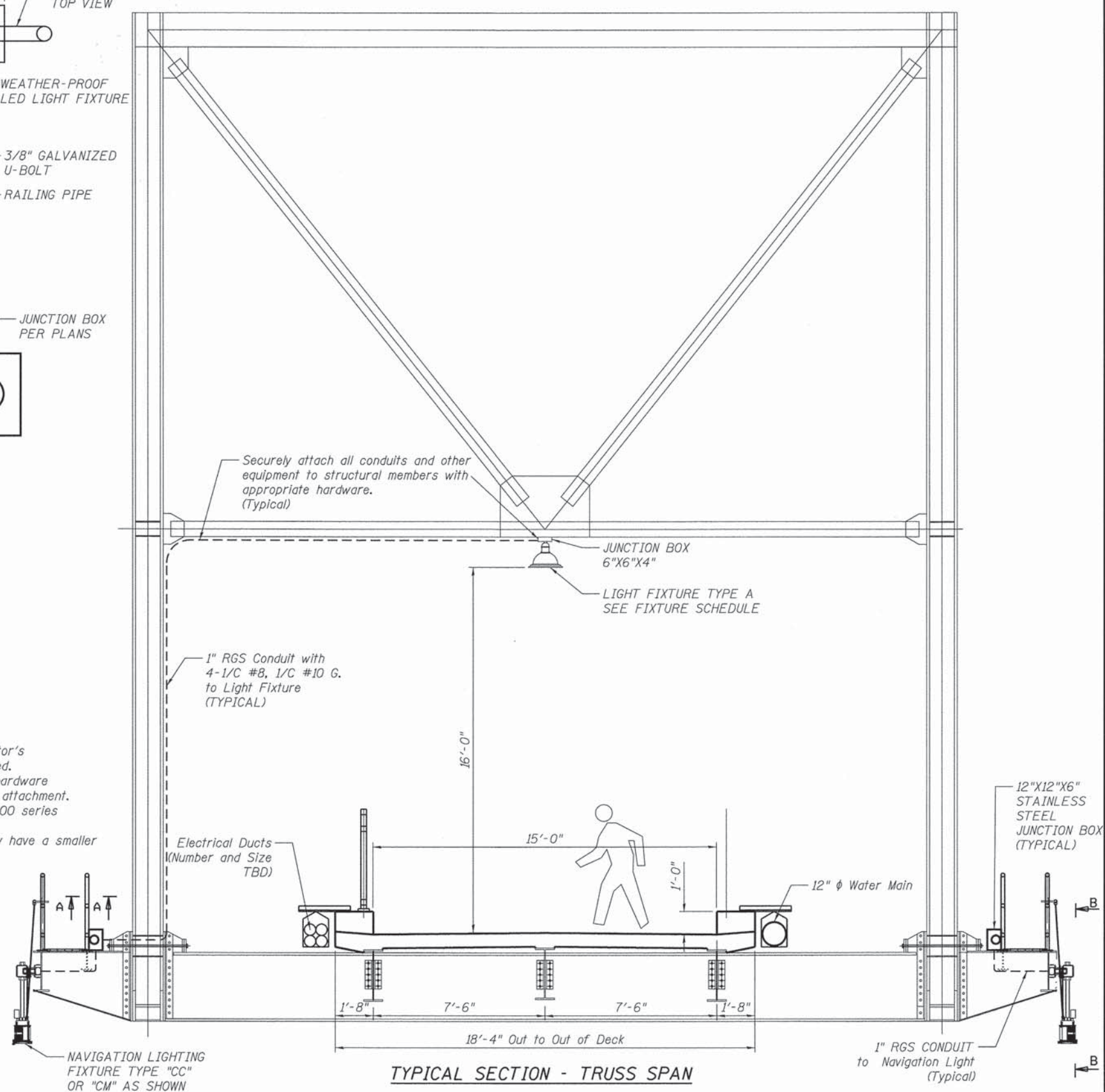
**VIEW A-A**  
N.T.S.

**NOTES:**

1. Materials needed for the Navigation Lighting is paid for under the Navigation Lighting Pay items.
2. Furnish and install all hardware, brackets, and other materials needed for a secure and complete installation.
3. Furnish and Install any additional Materials that are recommended by the equipment manufacturers even if the materials is not supplied by these manufacturers.
4. All materials needed must be accounted for in the contractor's estimate of cost; no additional compensation shall be allowed.
5. Secure all fixtures, boxes, and conduits with appropriate hardware for the items being installed and location of installation or attachment.
6. All hardware, nuts, bolts, washers, straps, etc.. shall be 300 series Stainless Steel.
7. Typical installation is shown. Last fixture on each side may have a smaller conduit, see other plan sheets for more information.



**TYPICAL SECTION - APPROACH SPAN**



**TYPICAL SECTION - TRUSS SPAN**



USER NAME =	DESIGNED -	REVISED
PLOT SCALE =	CHECKED -	REVISED
PLOT DATE = 11/13/2015	DRAWN -	REVISED
	CHECKED -	REVISED

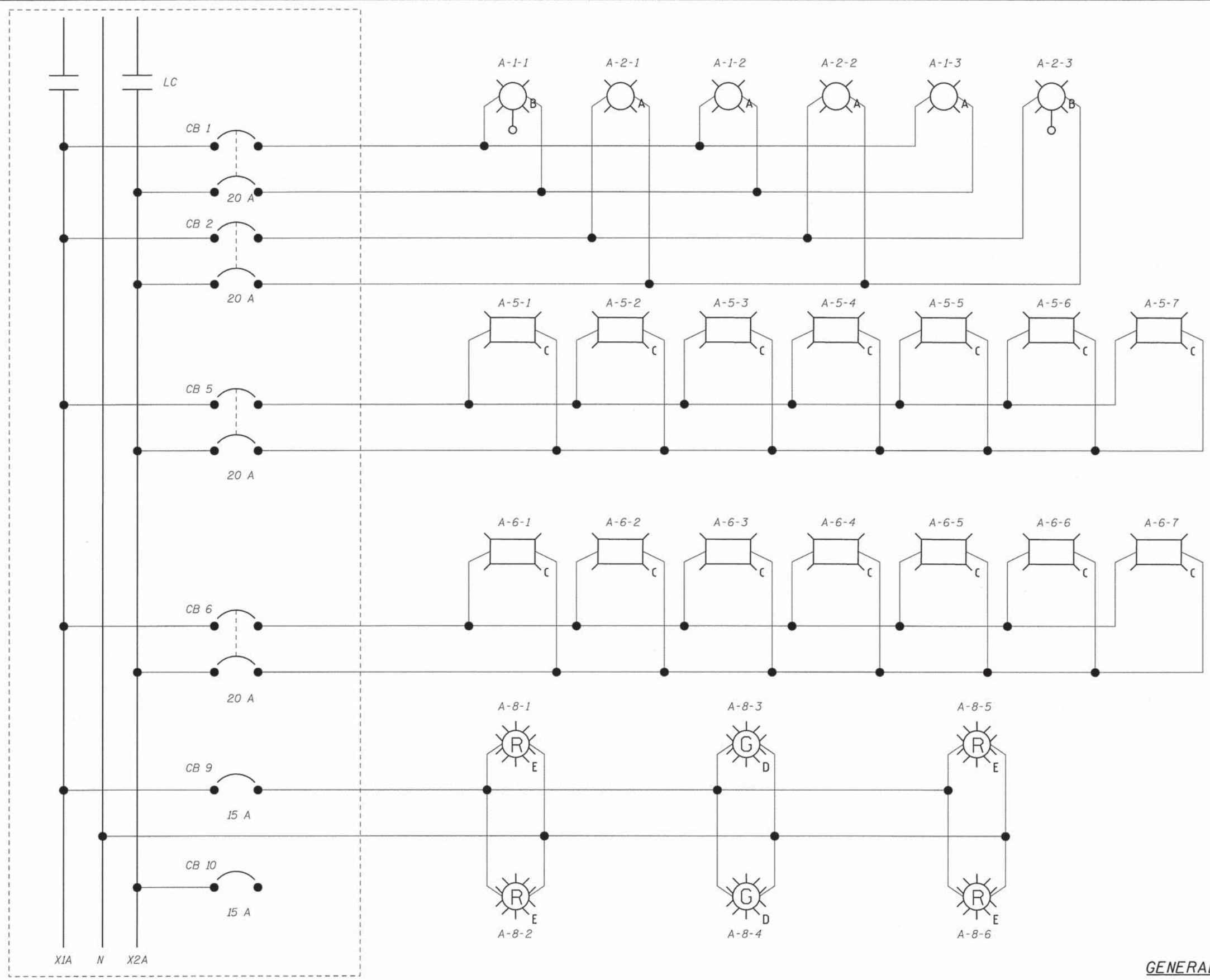
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LIGHTING DETAILS  
STRUCTURE NO. 016-6620**

SHEET NO. E-3 OF E-6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	16
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				





WALKWAY LIGHTS  
(240 V)  
(PHASE-PHASE)  
ALTERNATING CIRCUITS

EAST ARCHITECTURAL  
UP-LIGHTS  
(240 V)  
(PHASE-PHASE)

WEST ARCHITECTURAL  
UP-LIGHTS  
(240 V)  
(PHASE-PHASE)

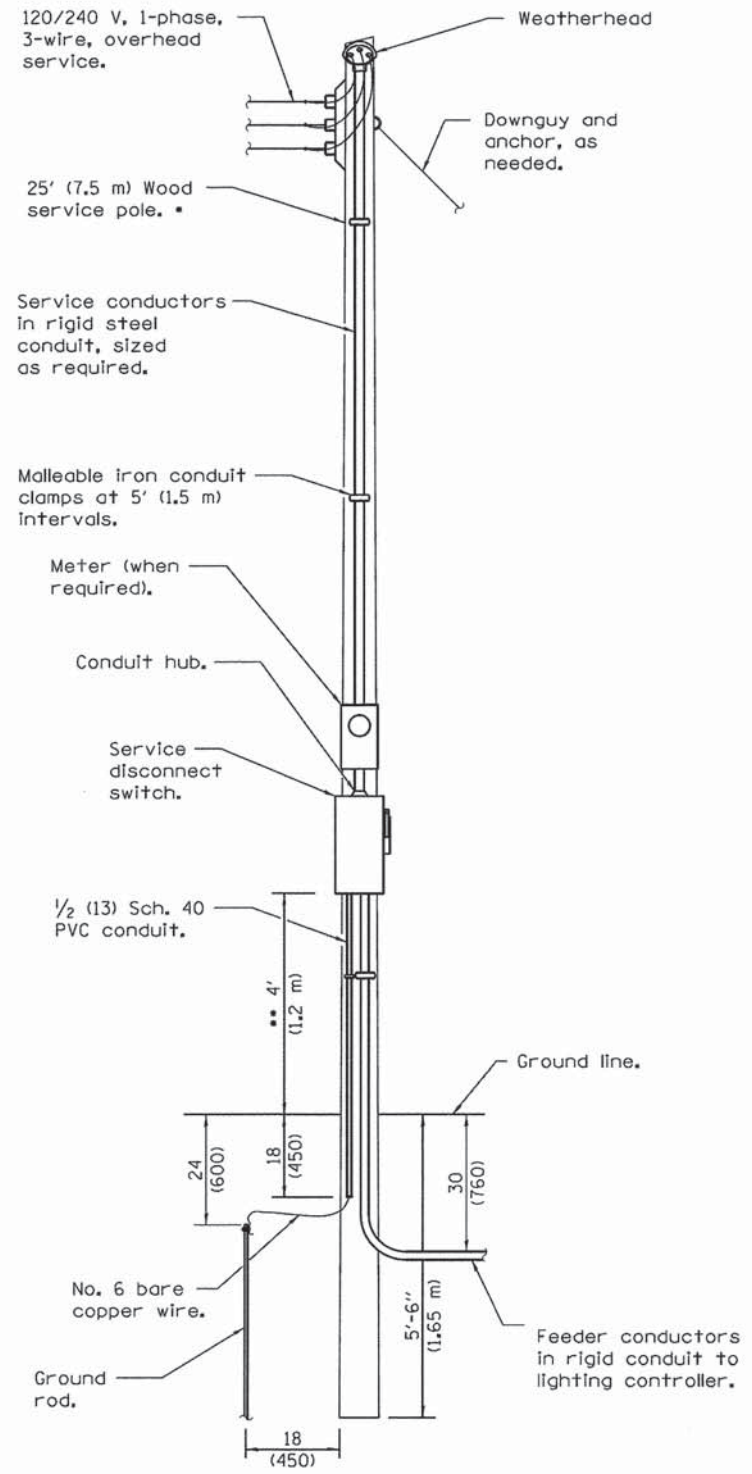
WATERWAY NAVIGATION  
OBSTRUCTION LIGHTS  
(120 V)  
(PHASE-NEUTRAL)

**GENERAL NOTES**

1. GENERAL LOAD WIRING REQUIREMENTS SHOWN ON THIS SHEET.
2. SEE LIGHTING CONTROLLER DETAIL SHEETS FOR ADDITIONAL INFORMATION.

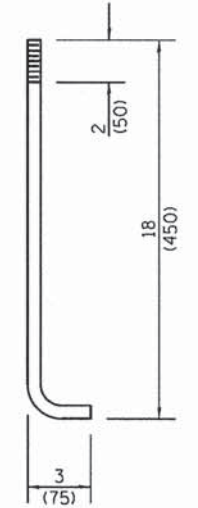
<p>303 East Wacker Drive, Suite 1400, Chicago, IL 60601 T 1-312-373-7700 F 1-312-373-6800</p>	USER NAME =	DESIGNED - DAD	REVISED	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY &amp; NAVIGATION LIGHTING</b> <b>WIRING DIAGRAM</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - MAE	REVISED			08-00178-01-BR	COOK	54	17	
	PLOT SCALE =	DRAWN - KO	REVISED			CONTRACT NO. 61C15				
	PLOT DATE = 11/13/2015	CHECKED - MBQ	REVISED			ILLINOIS FED. AID PROJECT				
SHEET NO. E-4 OF E-6 SHEETS										



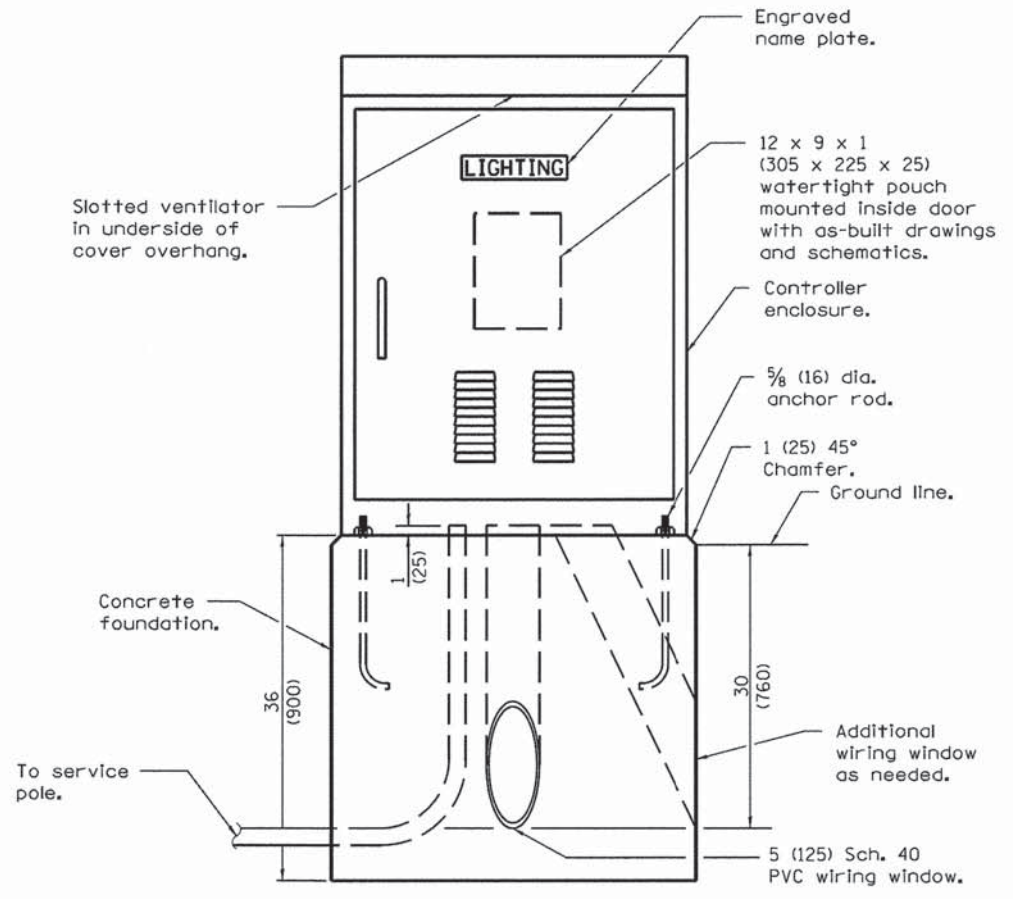


**ELECTRIC SERVICE INSTALLATION**

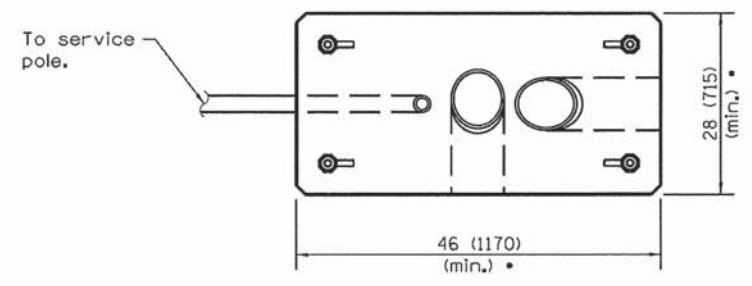
• Size larger as needed.  
 •• Or as directed by Utility Company.



**ANCHOR ROD  
DETAIL**



**LIGHTING CONTROLLER**



**FOUNDATION (PLAN)**

(Work pad not shown.)  
 • Size larger as needed.

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

Illinois Department of Transportation

PASSED January 1, 2015  
 ENGINEER OF PRELIMINARY ENGINEERING  
 APPROVED January 1, 2015  
 ENGINEER OF DESIGN AND ENVIRONMENT

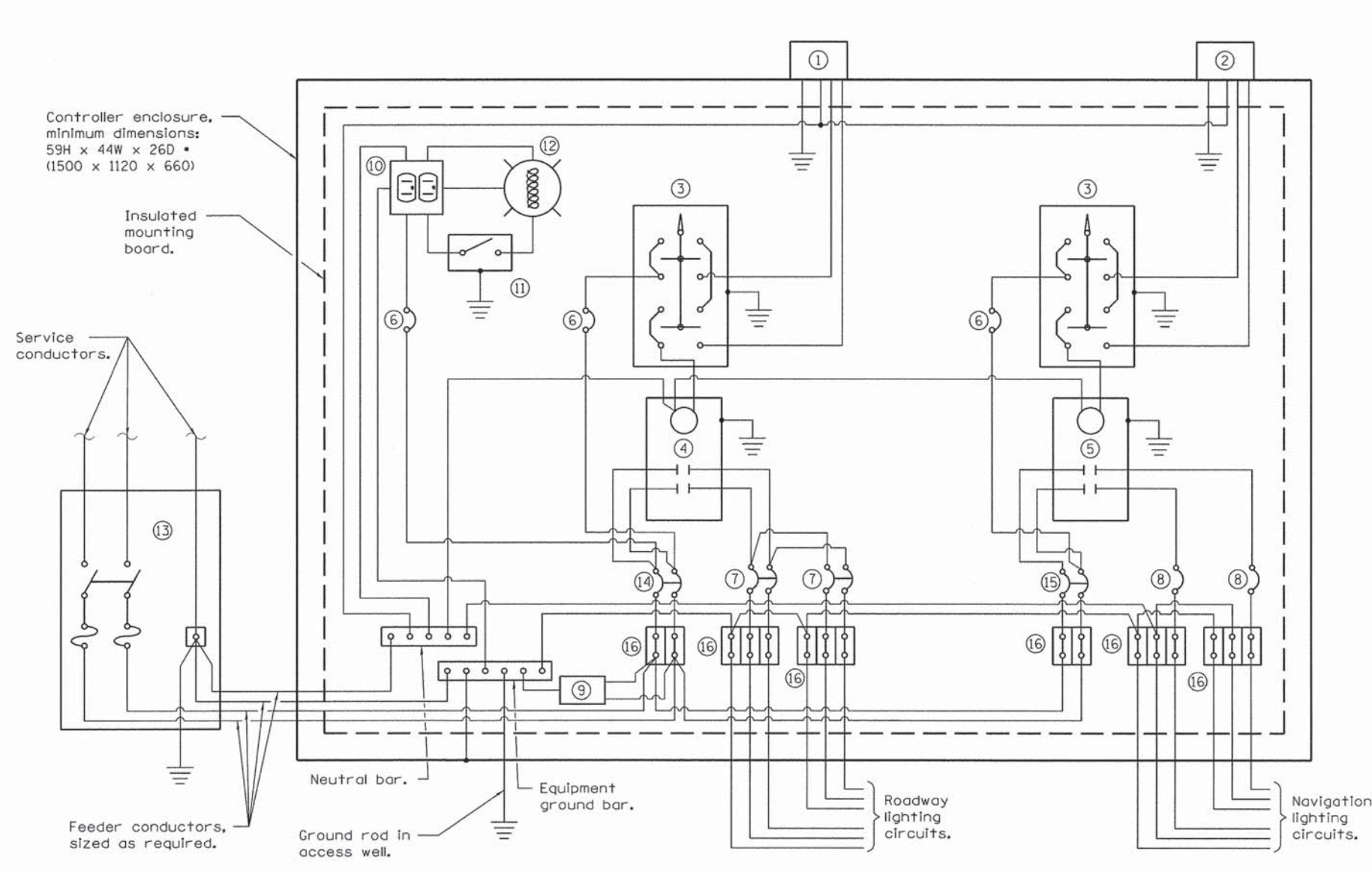
ISSUED 1-1-12

DATE	REVISIONS
1-1-15	Added note (6).
1-1-12	New Standard.

**NAVIGATION OBSTRUCTION  
LIGHTING CONTROLLER, 240V**  
 (Sheet 1 of 2)

**STANDARD 826001-01**





- ① Photocell with integral surge arrester for roadway lighting.
  - ② Photocell with integral surge arrester for navigation lighting.
  - ③ HAND-OFF-AUTO selector switch.
  - ④ 100 amp\*, electrically held contactor.
  - ⑤ 60 amp\*, electrically held contactor.
  - ⑥ 15 amp, 1-pole circuit breaker.
  - ⑦ 20 amp\*, 2-pole circuit breaker (two spares required but not shown).
  - ⑧ 20 amp\*, single-pole circuit breaker (two shown, quantity as required).
  - ⑨ Surge arrester.
  - ⑩ GFCI duplex receptacle.
  - ⑪ Single-pole, single-throw switch.
  - ⑫ Incandescent luminaire, enclosed and gasketed with 100 watt lamp.
  - ⑬ Service disconnect switch - 2-pole, 3-wire, 100 amp\*, fused at 100 amp\*, solid neutral in NEMA 4X enclosure having lockable external handle.
  - ⑭ 60 amp\*, 2-pole circuit breaker.
  - ⑮ 30 amp\*, 2-pole circuit breaker.
  - ⑯ Terminal block sized for conductors as shown on plans.
- \* Size larger as needed.

**CONTROL SCHEMATIC**

Illinois Department of Transportation  
 PASSED January 1, 2015  
 ENGINEER OF PRELIMINARY ENGINEERING  
 APPROVED January 1, 2015  
 ENGINEER OF DESIGN AND ENVIRONMENT  
 ISSUED 1-1-12

**NAVIGATION OBSTRUCTION LIGHTING CONTROLLER, 240V**  
 (Sheet 2 of 2)  
**STANDARD 826001-01**



USER NAME =	DESIGNED - DAD	REVISED
	CHECKED - MAE	REVISED
PLOT SCALE =	DRAWN - KO	REVISED
PLOT DATE = 11/13/2015	CHECKED - MBQ	REVISED

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**LIGHTING CONTROLLER DETAIL SHEET 2 OF 2**  
 SHEET NO. E-6 OF E-6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	18A
				CONTRACT NO. 61C15
ILLINOIS FED. AID PROJECT				



Bench Mark:  
Chiseled square on east side of concrete base of aluminum light pole at southwest corner of Division St. and Grove St.,  
Sta. 12+13.40, 16.60' Lt., Elev. 589.00.

Existing Structure:  
S.N. 016-6620 Built in 1964 as Section 259-0404-V; VB at Sta. 20+75.03 as a four span structure consisting of 28'-5" steel beam South approach span, a 300'-0" steel Warren Truss, and 26'-2" and 26'-9" steel beam North approach spans. Total length = 385'-0" Bk. to Bk. Abuts. (Dimension based on existing plans). The clear roadway width is 30'-0" with 5'-0" sidewalks on either side outside of the truss chords. North and South Abutments and Pier 3 are concrete supported on steel piles. Pier 1 and Pier 2 are concrete on belled caissons in hard pan. Structure is currently closed due to its deteriorated condition.

**DESIGN SPECIFICATIONS**

2012 AASHTO LRFD Bridge  
Design Specifications, 7th Edition  
**LIVE LOADING**  
90 psf Pedestrian Live Load  
20,000 lb Vehicle Load (H-10 Truck)

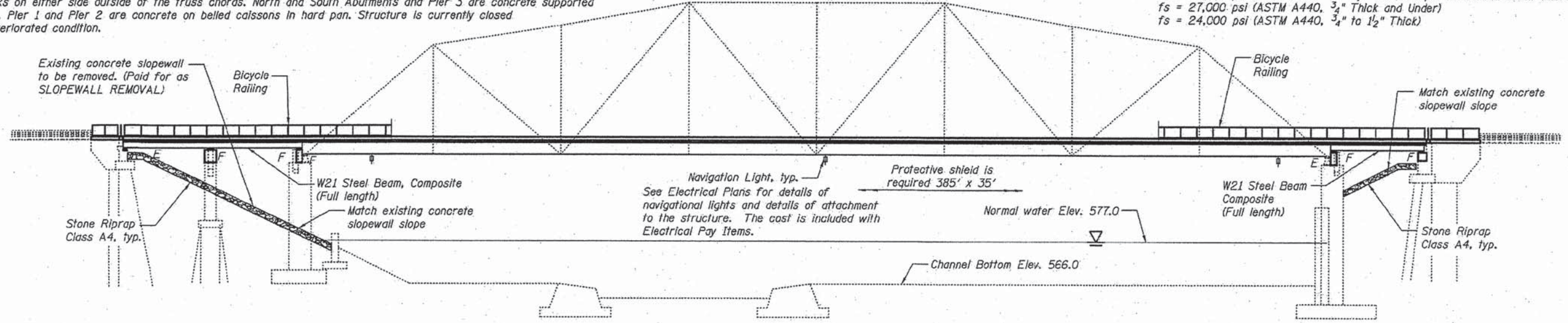
**NOTES**

- For Sections A-A, B-B and C-C, see Sheet S-2.
- Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

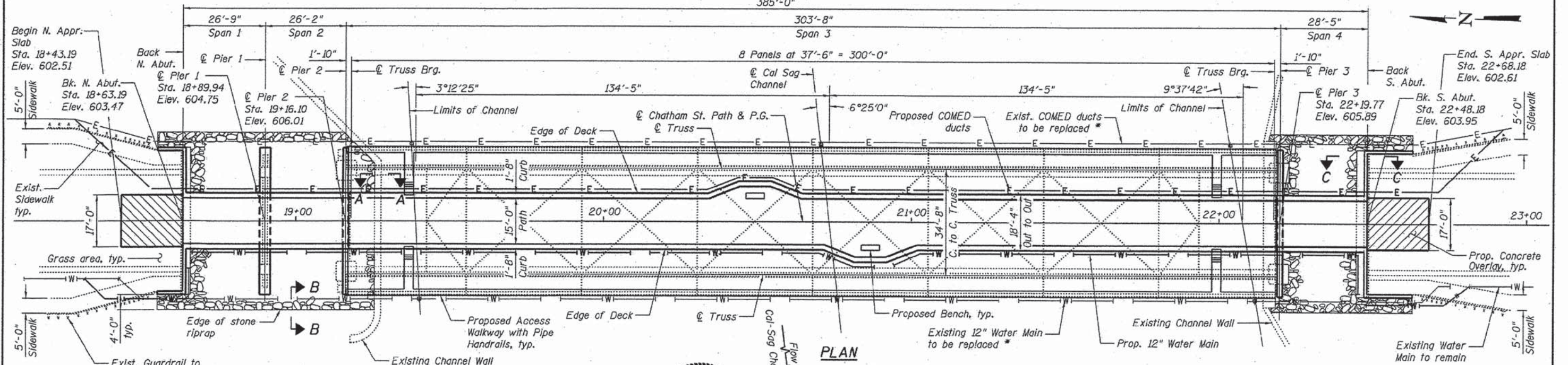
**DESIGN STRESSES**

FIELD UNITS	
EXISTING CONSTRUCTION	PROPOSED CONSTRUCTION
f'c = 3,500 psi	f'c = 3,500 psi (cast-in-place substructure)
Reinforcing Steel	f'c = 4,500 psi (precast substructure)
fs = 20,000 psi	f'c = 4,000 psi HPC (deck)
Structural Steel	fy = 60,000 psi (reinforcement)
fs = 20,000 psi (ASTM A36)	fy = 50,000 psi (Structural steel) (M270 Grade 50)
fs = 27,000 psi (ASTM A440, 3/4" Thick and Under)	
fs = 24,000 psi (ASTM A440, 3/4" to 1/2" Thick)	

No Salvage

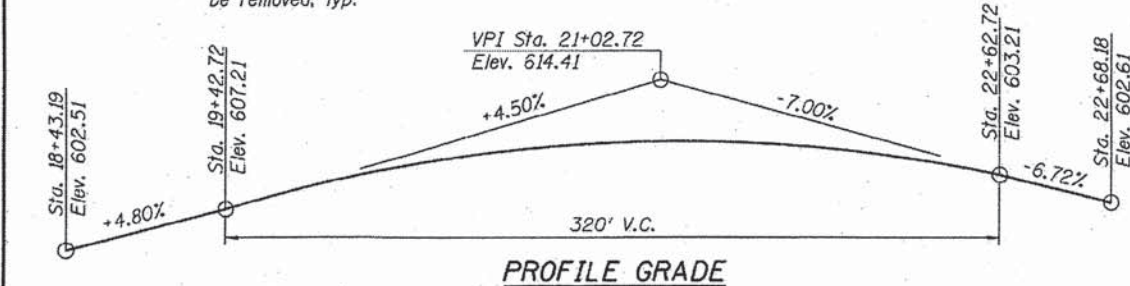


**ELEVATION**



**PLAN**

\*Existing service to be maintained during construction

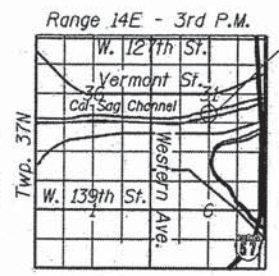


**PROFILE GRADE**



Narendra P. Patel 12/10/2015  
NARENDRA P. PATEL DATE  
LICENSED STRUCTURAL ENGINEER  
STATE OF ILLINOIS 081-4780  
EXPIRES 11/30/2016

"I certify that to the best of my knowledge, information and belief, this bridge/box culvert design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Standard Specifications for Highway Bridges'."



**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION**  
**CHATHAM ST. OVER CAL-SAG CHANNEL**  
**PUBLIC WATER**  
**MS 1030 - SECTION 08-00178-10-BR**  
**COOK COUNTY**  
**STATION 20+73.25**  
**STRUCTURE NO. 016-6620**



USER NAME =	DESIGNED - KO	REVISED
PLOT SCALE =	CHECKED - MBQ	REVISED
PLOT DATE = 12/8/2015	DRAWN - KO	REVISED
	CHECKED - MBQ	REVISED

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

SHEET NO. S-1 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	19
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				



**GENERAL NOTES**

- Fasteners shall be ASTM A325 Type 3. Bolts 7/8 in.  $\phi$ , holes 15/16 in.  $\phi$ , unless otherwise noted.
- Calculated weight of Structural Steel = 82,570 lbs. (M270 Grade 50)
- All structural steel shall be AASHTO M 270 Grade 50 (except expansion joints which shall be AASHTO M 270 Grade 50), unless otherwise noted.
- No field welding is permitted except as specified in the contract documents.
- Anti-Graffiti Protection System shall be applied to all exposed vertical faces of abutments, piers, wingwalls and sea wall. The cost is paid for as ANTI-GRAFFITI PROTECTION SYSTEM.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
- Reinforcement bars designated (E) shall be epoxy coated.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. Existing shear connector shall be protected and reused. Any cracks that cannot be removed by grinding 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- The Contractor shall obtain all necessary permits from the Coast Guard per the Maintenance of Navigation Special Provision. All channel clearances and free navigation shall not be unreasonably interfered with. The Contractor shall submit a plan of operations to the Coast Guard which shall include a schedule of construction site activities. The plan of operations shall be submitted thirty (30) days prior to the start of any work that temporarily alters the navigational clearances or places equipment in or over the waterway that may impede navigation.
- The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Concrete Sealer shall be applied to the designated areas of the pier, abutment and sea wall repairs.
- Cleaning and painting of the existing structural steel shall be as specified in the Special Provisions for "Cleaning and Painting Existing Steel Structures". All existing steel shall be cleaned per Near White Blast Cleaning - SSPC-SP10. All existing steel shall be painted according to the requirement of Paint System 1 - OZ/E/U. The color of the final finish coat for all existing steel surfaces shall be Blue, Munsell No. 2-5PB 5/10. Three color chip samples of the final finish coat shall be submitted to the Engineer for approval. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- The Inorganic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all steel surfaces (except Bicycle Railing and Embankment Railing) shall be Blue Munsell No. 2.5PB 5/10. The color of the final finish coat for the Bicycle Railing and Embankment Railing shall be Black Munsell No. 0. Three color chip samples of the final finish coat shall be submitted to the Engineer for approval prior to finish coating the steel structure.
- A minimum of 4 air monitors will be required to monitor abrasive blasting operations of the site. See Special Provision for "Containment and Disposal of Lead Paint Cleaning Residues".
- The Contractor shall submit calculations and details demonstrating the structural integrity of the bridge is maintained under the additional imposed loads of the containment system. See Special Provisions for "Containment and Disposal of Lead Paint Cleaning Residues".

- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- Plan structural steel and concrete repairs were prepared in accordance with Bridge Condition Report, prepared by AECOM dated October 2014 and a follow up inspection on June 5, 2015. The Engineer may determine during construction that modification to these repairs may be necessary. Any such modification shall be approved by the Engineer and shall be paid for at the same rate as the unit bid price for the particular item.
- The Contractor shall submit Structural Assessment Report(s) as required for the Contractor's means and methods of construction, see Special Provisions. The Contractor shall retain the services of an engineering firm, prequalified in the IDOT consultant selection category of Highway Bridges (Advanced Typical), for preparation of the Structural Assessment Report(s). Contractor's pre-approval shall not be applicable for this project. The Contractor is advised that the existing structure contains members that are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedures for the complete or partial removal, or replacement of the structure. An Existing Structure Information Package is available upon request as noted in the Special Provisions. See Special Provisions.
- Existing plans for S.N. 016-6620 are included (for information only).
- V.I.F. indicates Verify in Field.
- The Contractor shall submit concrete deck pouring sequence for approval. When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck, the next pour shall not be made until both of the following are met:
  - At least 72 hours shall have elapsed from the end of the previous pour.
  - The concrete strength shall have attained a minimum flexure strength of 650 psi or a minimum compressive strength of 3,500 psi.

**SCOPE OF WORK**

- Remove existing concrete deck, railing, deck drains and expansion joints.
- Remove existing Stringers 2 and 6 and connecting diaphragms in Span 3.
- Remove and replace all bottom laterals, and both end floorbeams in Span 3.
- Repair designated floorbeam ends and truss post/diagonal webs in Span 3.
- Remove existing steel floorbeams, stringers and bearings in Spans 1, 2 and 4.
- Repair spalls, delaminations, and open cracks in substructures with formed concrete repair and epoxy crack injection.
- Install new precast concrete pier caps and bearings at Piers 1, 2 and 3.
- Install new bearings and stringers in Spans 1, 2 and 4.
- Clean and paint existing structural steel.
- Place new 7" reinforced concrete deck, new expansion joints and new bicycle railing.
- Install new navigation lighting access walkways.
- Remove and replace upper portion of abutment backwalls and wingwalls (approach pavements to remain) and cast seat pedestals as designated.
- Complete approach work including Concrete overlay.
- Remove existing slopewalls and replace with riprap.
- Temporarily support existing watermain, install new watermain, remove existing watermain.
- Temporarily support existing COMED ducts, install new trapeze hangers. Coordinate new duct installation and removal of existing ducts with COMED.
- Install new navigation lighting. Remove existing navigation lighting after new navigation lighting is operational. See E sheets.
- Install architectural lighting, see E sheets.

STATION  
REBUILT 2016 BY  
STATE OF ILLINOIS  
SECTION NO. 08-00178-01-BR  
LOADING LRFD PEDESTRIAN  
STRUCTURE NO. 016-6620

Existing Name Plate shall be  
relocated next to the new  
Name Plate.

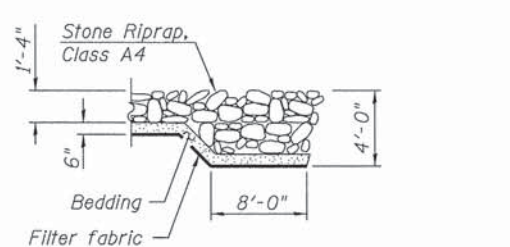
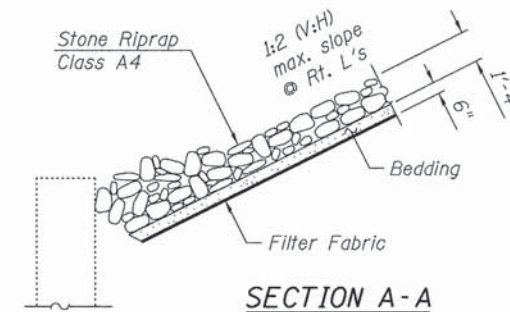
**NAME PLATE**  
See Std. 515001

**INDEX OF SHEETS**

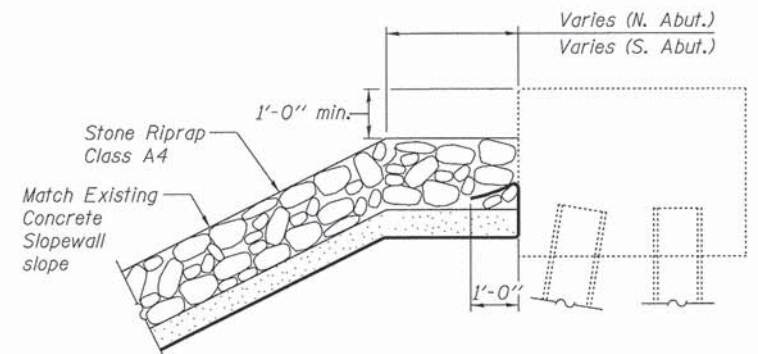
- S-1 General Plan and Elevation
- S-2 General Notes and Bill of Materials
- S-3 Top of Slab Elevations 1
- S-4 Top of Slab Elevations 2
- S-5 Top of Slab Elevations 3
- S-6 Top of Slab Elevations 4
- S-7 Bridge Approach Slab Details
- S-8 Deck Plan and Cross Section - Spans 1, 2 and 4
- S-9 Superstructure Details
- S-10 Deck Plan and Cross Section - Span 3
- S-11 Existing Watermain Temporary Support
- S-12 Watermain Details
- S-13 Framing and Beam Details - Spans 1, 2 and 4
- S-14 Structural Steel Details 1
- S-15 Span 3 Framing Details
- S-16 End Floorbeam Details
- S-17 Structural Steel Details 2
- S-18 Structural Steel Details 3
- S-19 Structural Steel Details 4
- S-20 Structural Steel Details 5
- S-21 Structural Steel Details 6
- S-22 Bicycle Railing
- S-23 Pipe Handrail
- S-24 Preformed Joint Strip Seal
- S-25 Bearing Details 1
- S-26 Bearing Details 2
- S-27 Concrete Removal and Repair Details 1
- S-28 Concrete Removal and Repair Details 2
- S-29 Concrete Removal and Repair Details 3
- S-30 North Abutment Details
- S-31 South Abutment Details
- S-32 Pier 1 Details
- S-33 Pier 2 Details
- S-34 Pier 3 Details
- S-35 Substructure Details
- S-36 Substructure Reinforcement Schedule

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.	-	610	610
Filter Fabric	Sq. Yd.	-	780	780
Concrete Removal	Cu. Yd.	-	15.3	15.3
Slope Wall Removal	Sq. Yd.	-	485	485
Removal of Existing Concrete Deck	Each	1	-	1
Protective Shield	Sq. Yd.	1,498	-	1,498
Concrete Structures	Cu. Yd.	-	6.3	6.3
Protective Coat	Sq. Yd.	961	-	961
Precast Concrete Caps	Each	-	3	3
Furnishing and Erecting Structural Steel	L Sum	1	-	1
Stud Shear Connectors	Each	1,386	-	1,386
Reinforcement Bars, Epoxy Coated	Pound	55,520	1,510	57,030
Bicycle Railing (Special)	Foot	861	-	861
Pipe Handrail	Foot	1,288	-	1,288
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	74	-	74
Elastomeric Bearing Assembly, Type I	Each	3	-	3
Anchor Bolts, 5/8"	Each	38	-	38
Anchor Bolts, 1"	Each	4	-	4
Ductile Iron Watermain, 12"	Foot	438	-	438
Concrete Sealer	Sq. Ft.	-	2,452	2,452
Epoxy Crack Injection	Foot	-	22	22
Conduit Attached to Structure, 5" Dia.	Foot	1299	-	1,299
Galvanized Steel				
Water Main Insulation	Foot	378	-	378
Graffiti Removal	Sq. Yd.	-	306	306
Anti-Graffiti Protection System	Sq. Ft.	-	4,279	4,279
Remove Conduit Attached to Structure	Foot	1,155	-	1,155
Drill Bridge Abutment	Each	6	-	6.0
Cleaning and Painting Bearings	Each	4	-	4
Portland Cement Concrete Overlay, 2"	Sq. Yd.	76	-	76
Steel Grate Walkway	Sq. Yd.	150	-	150
Structural Steel Removal	Pound	157,080	-	157,080
Structural Steel Repair	Pound	32,960	-	32,960
Removal of Existing Bearings	Each	35	-	35
Approach Slab Removal	Sq. Yd.	40	-	40
Bridge Handrail Removal	Foot	770	-	770
Containment and Disposal of Lead Paint Cleaning Residues	L Sum	1	-	1
Cleaning and Painting Steel Bridge No. 1	L Sum	1	-	1
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	-	700	700
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	-	350	350
Concrete Pavement Scarification	Sq. Yd.	76	-	76
Temporary Support System	L Sum	1	-	1
High Performance Concrete Superstructure	Cu. Yd.	193.3	6.9	200.2
EBAA Flex-Tend Joint Assembly	Each	2	-	2.0
EBAA Ex-Tend 200	Each	2	-	2.0



**SECTION B-B**



**SECTION C-C**

(Horiz. dim. @ Rt. L's)  
(South Abut. shown, North Abut. similar by opposite hand)



USER NAME =	DESIGNED - KO	REVISED
	CHECKED - MBQ	REVISED
PLOT SCALE =	DRAWN - KO	REVISED
PLOT DATE = 11/17/2015	CHECKED - MBQ	REVISED

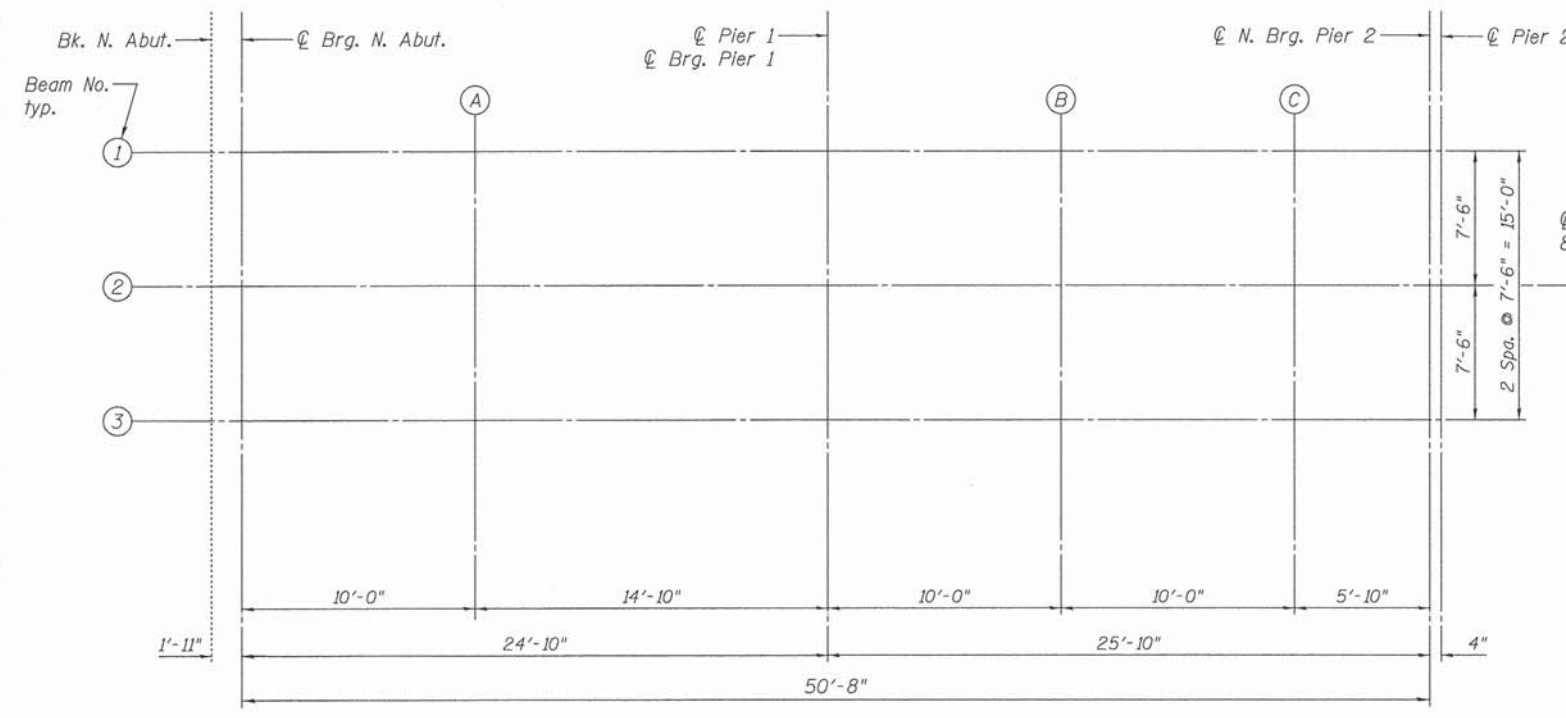
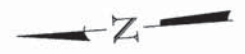
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES AND BILL OF MATERIALS  
STRUCTURE NO. 016-6620**

SHEET NO. S-2 OF S-36 SHEETS

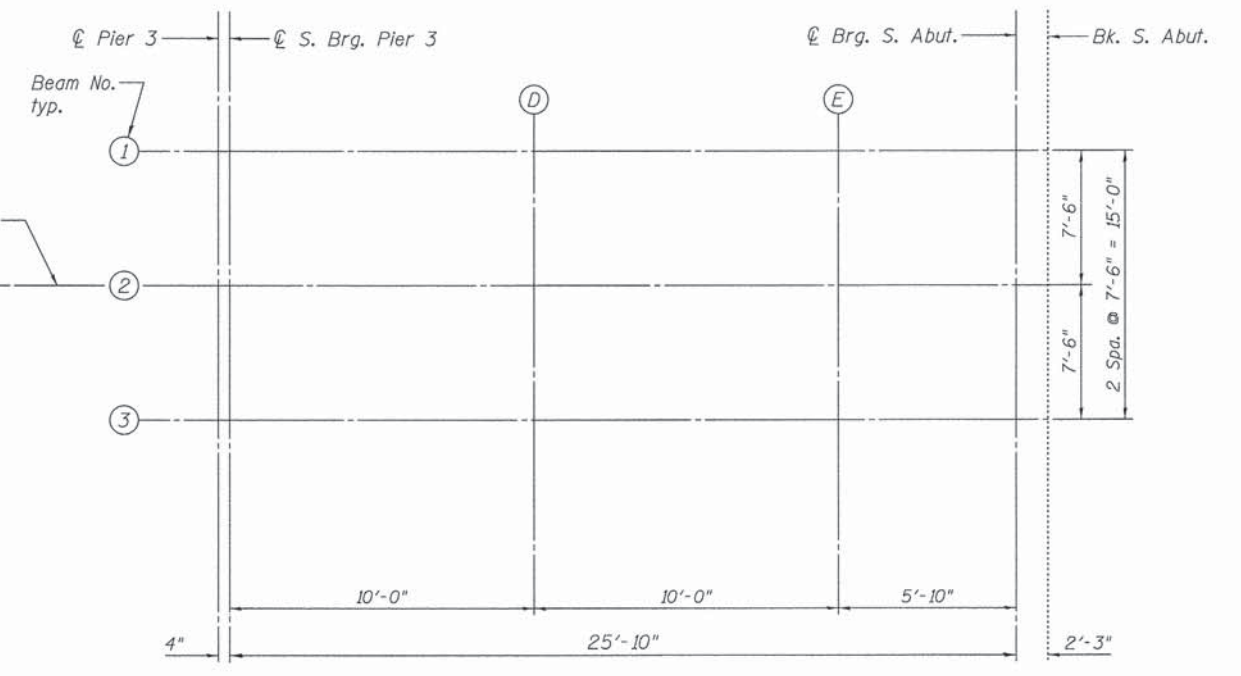
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	20
				CONTRACT NO. 61C15
ILLINOIS FED. AID PROJECT				





PLAN - SPANS 1 & 2

Chatham St. & P.G.



PLAN - SPAN 4



USER NAME =	DESIGNED - BAR	REVISED
	CHECKED - KO	REVISED
PLOT SCALE =	DRAWN - BAR	REVISED
PLOT DATE = 11/13/2015	CHECKED - KO	REVISED

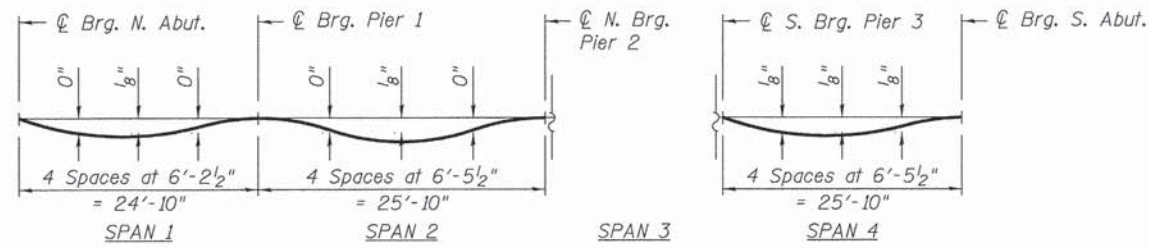
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS 1  
STRUCTURE NO. 016-6620**

SHEET NO. S-3 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	21
CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	



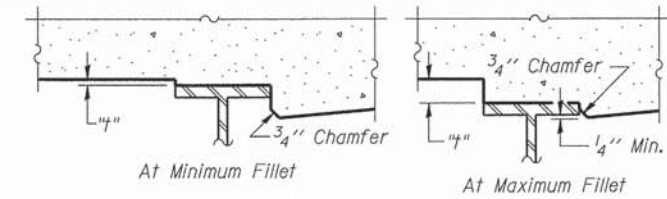


**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only.)

**Note:**

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



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

**FILLET HEIGHTS**

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection	
Bk. N. Abut.	18+63.19	7.50 Lt.	603.35	603.35	
CL Brg. N. Abut. A	18+65.11	7.50 Lt.	603.45	603.45	
	18+75.11	7.50 Lt.	603.93	603.93	
CL Brg. Pier 1	18+89.94	7.50 Lt.	604.64	604.64	
	B	18+99.94	7.50 Lt.	605.12	605.12
	C	19+09.94	7.50 Lt.	605.60	605.60
CL N. Brg. Pier 2	19+15.77	7.50 Lt.	605.88	605.88	
CL S. Brg. Pier 3	22+20.10	7.50 Lt.	605.72	605.72	
	D	22+30.10	7.50 Lt.	605.05	605.07
	E	22+40.10	7.50 Lt.	604.38	604.39
CL Brg. S. Abut.	22+45.93	7.50 Lt.	603.99	603.99	
Bk. S. Abut.	22+48.18	7.50 Lt.	603.84	603.84	

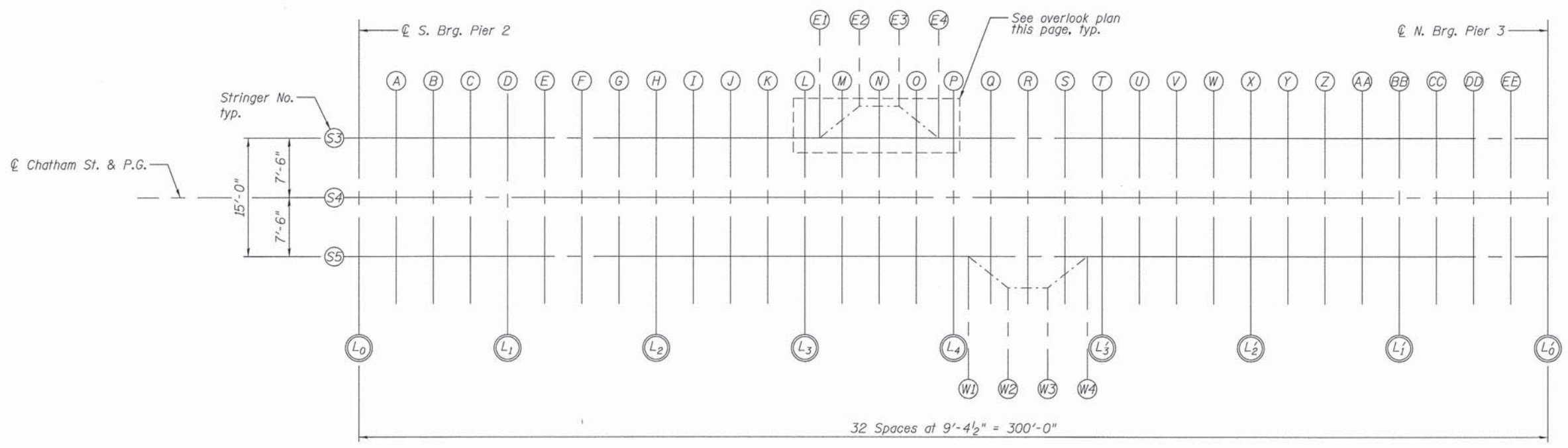
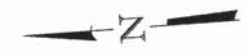
**BEAM 2 & CHATHAM ST.**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection	
Bk. N. Abut.	18+63.19	0.00	603.47	603.47	
CL Brg. N. Abut. A	18+65.11	0.00	603.56	603.56	
	18+75.11	0.00	604.04	604.05	
CL Brg. Pier 1	18+89.94	0.00	604.75	604.75	
	B	18+99.94	0.00	605.23	605.24
	C	19+09.94	0.00	605.71	605.72
CL N. Brg. Pier 2	19+15.77	0.00	605.99	605.99	
CL S. Brg. Pier 3	22+20.10	0.00	605.84	605.84	
	D	22+30.10	0.00	605.17	605.18
	E	22+40.10	0.00	604.49	604.51
CL Brg. S. Abut.	22+45.93	0.00	604.10	604.10	
Bk. S. Abut.	22+48.18	0.00	603.95	603.95	

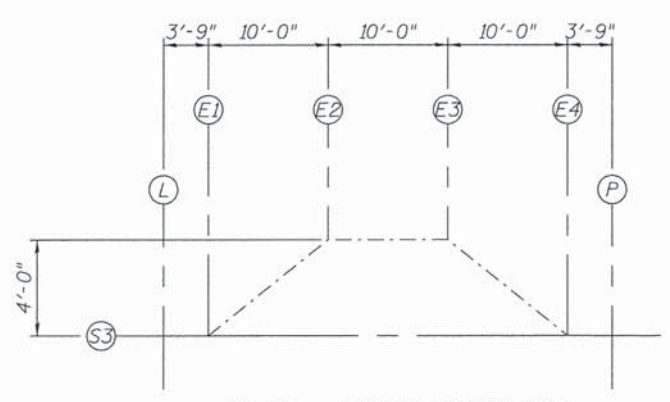
**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection	
Bk. N. Abut.	18+63.19	7.50 Rt.	603.35	603.35	
CL Brg. N. Abut. A	18+65.11	7.50 Rt.	603.45	603.45	
	18+75.11	7.50 Rt.	603.93	603.93	
CL Brg. Pier 1	18+89.94	7.50 Rt.	604.64	604.64	
	B	18+99.94	7.50 Rt.	605.12	605.12
	C	19+09.94	7.50 Rt.	605.60	605.60
CL N. Brg. Pier 2	19+15.77	7.50 Rt.	605.88	605.88	
CL S. Brg. Pier 3	22+20.10	7.50 Rt.	605.72	605.72	
	D	22+30.10	7.50 Rt.	605.05	605.07
	E	22+40.10	7.50 Rt.	604.38	604.39
CL Brg. S. Abut.	22+45.93	7.50 Rt.	603.99	603.99	
Bk. S. Abut.	22+48.18	7.50 Rt.	603.84	603.84	

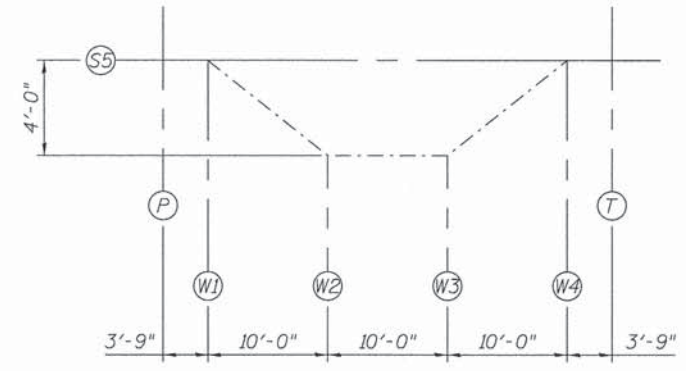




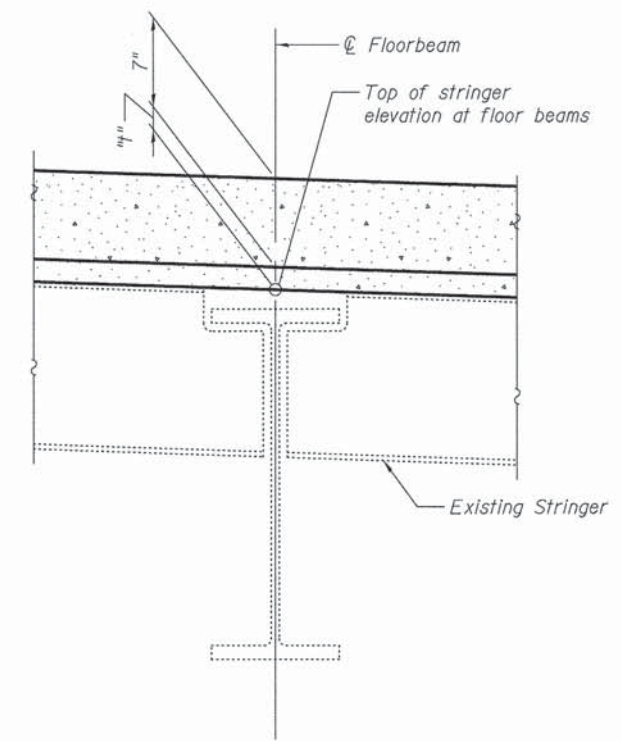
PLAN - SPAN 3



PLAN - EAST OVERLOOK



PLAN - WEST OVERLOOK



TOP OF STRINGER ELEVATION AT FLOOR BEAM

For "+" description and fillet height definition along stringers, see Sheet S-4.



USER NAME =	DESIGNED - BAR	REVISED
	CHECKED - KO	REVISED
PLOT SCALE =	DRAWN - BAR	REVISED
PLOT DATE = 11/13/2015	CHECKED - KO	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS 3  
STRUCTURE NO. 016-6620**

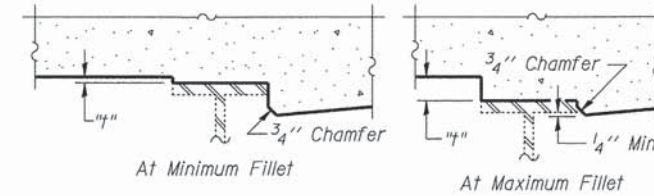
SHEET NO. S-5 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	23
CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	



**OVERLOOK ELEVATIONS**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
E1	20+34.19	7.50 Lt.	609.71	609.82
E2	20+44.19	7.50 Lt.	609.87	610.01
E3	20+54.19	7.50 Lt.	609.94	610.08
E4	20+64.19	7.50 Lt.	609.91	610.03
W1	20+71.69	7.50 Rt.	609.91	610.03
W2	20+81.69	7.50 Rt.	609.94	610.08
W3	20+91.69	7.50 Rt.	609.87	610.01
W4	21+01.69	7.50 Rt.	609.71	609.82



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

**FILLET HEIGHTS**

**STRINGER 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. Pier 2 - L0	19+17.94	7.50 Lt.	605.98	605.98
A	19+27.31	7.50 Lt.	606.40	606.43
B	19+36.69	7.50 Lt.	606.82	606.87
C	19+46.06	7.50 Lt.	607.24	607.30
L1 - D	19+55.44	7.50 Lt.	607.64	607.70
E	19+64.81	7.50 Lt.	608.00	608.08
F	19+74.19	7.50 Lt.	608.33	608.42
G	19+83.56	7.50 Lt.	608.63	608.72
L2 - H	19+92.94	7.50 Lt.	608.90	608.99
I	20+02.31	7.50 Lt.	609.14	609.24
J	20+11.69	7.50 Lt.	609.34	609.46
K	20+21.06	7.50 Lt.	609.52	609.63
L3 - L	20+30.44	7.50 Lt.	609.66	609.77
M	20+39.81	7.50 Lt.	609.77	609.89
N	20+49.19	7.50 Lt.	609.85	609.97
O	20+58.56	7.50 Lt.	609.90	610.02
L4 - P	20+67.94	7.50 Lt.	609.91	610.03
Q	20+77.31	7.50 Lt.	609.90	610.02
R	20+86.69	7.50 Lt.	609.85	609.97
S	20+96.06	7.50 Lt.	609.77	609.89
L3' - T	21+05.44	7.50 Lt.	609.66	609.77
U	21+14.81	7.50 Lt.	609.52	609.63
V	21+24.19	7.50 Lt.	609.34	609.46
W	21+33.56	7.50 Lt.	609.14	609.24
L2' - X	21+42.94	7.50 Lt.	608.90	608.99
Y	21+52.31	7.50 Lt.	608.63	608.72
Z	21+61.69	7.50 Lt.	608.33	608.42
AA	21+71.06	7.50 Lt.	608.00	608.08
L1' - BB	21+80.44	7.50 Lt.	607.64	607.70
CC	21+89.81	7.50 Lt.	607.24	607.30
DD	21+99.19	7.50 Lt.	606.82	606.87
EE	22+08.56	7.50 Lt.	606.36	606.39
☉ Brg. Pier 3 - L0'	22+17.94	7.50 Lt.	605.87	605.87

**STRINGER 4 & ☉ CHATHAM ST.**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. Pier 2 - L0	19+17.94	0.00	606.09	606.10
A	19+27.31	0.00	606.52	606.54
B	19+36.69	0.00	606.94	606.99
C	19+46.06	0.00	607.36	607.41
L1 - D	19+55.44	0.00	607.75	607.82
E	19+64.81	0.00	608.12	608.19
F	19+74.19	0.00	608.45	608.53
G	19+83.56	0.00	608.75	608.84
L2 - H	19+92.94	0.00	609.02	609.11
I	20+02.31	0.00	609.25	609.36
J	20+11.69	0.00	609.46	609.57
K	20+21.06	0.00	609.63	609.74
L3 - L	20+30.44	0.00	609.77	609.89
M	20+39.81	0.00	609.89	610.00
N	20+49.19	0.00	609.96	610.09
O	20+58.56	0.00	610.01	610.13
L4 - P	20+67.94	0.00	610.03	610.15
Q	20+77.31	0.00	610.01	610.13
R	20+86.69	0.00	609.96	610.09
S	20+96.06	0.00	609.89	610.00
L3' - T	21+05.44	0.00	609.77	609.89
U	21+14.81	0.00	609.63	609.74
V	21+24.19	0.00	609.46	609.57
W	21+33.56	0.00	609.25	609.36
L2' - X	21+42.94	0.00	609.02	609.11
Y	21+52.31	0.00	608.75	608.84
Z	21+61.69	0.00	608.45	608.53
AA	21+71.06	0.00	608.12	608.19
L1' - BB	21+80.44	0.00	607.75	607.82
CC	21+89.81	0.00	607.36	607.41
DD	21+99.19	0.00	606.93	606.98
EE	22+08.56	0.00	606.47	606.50
☉ Brg. Pier 3 - L0'	22+17.94	0.00	605.98	605.99

**STRINGER 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. Pier 2 - L0	19+17.94	7.50 Rt.	605.98	605.98
A	19+27.31	7.50 Rt.	606.40	606.43
B	19+36.69	7.50 Rt.	606.82	606.87
C	19+46.06	7.50 Rt.	607.24	607.30
L1 - D	19+55.44	7.50 Rt.	607.64	607.70
E	19+64.81	7.50 Rt.	608.00	608.08
F	19+74.19	7.50 Rt.	608.33	608.42
G	19+83.56	7.50 Rt.	608.63	608.72
L2 - H	19+92.94	7.50 Rt.	608.90	608.99
I	20+02.31	7.50 Rt.	609.14	609.24
J	20+11.69	7.50 Rt.	609.34	609.46
K	20+21.06	7.50 Rt.	609.52	609.63
L3 - L	20+30.44	7.50 Rt.	609.66	609.77
M	20+39.81	7.50 Rt.	609.77	609.89
N	20+49.19	7.50 Rt.	609.85	609.97
O	20+58.56	7.50 Rt.	609.90	610.02
L4 - P	20+67.94	7.50 Rt.	609.91	610.03
Q	20+77.31	7.50 Rt.	609.90	610.02
R	20+86.69	7.50 Rt.	609.85	609.97
S	20+96.06	7.50 Rt.	609.77	609.89
L3' - T	21+05.44	7.50 Rt.	609.66	609.77
U	21+14.81	7.50 Rt.	609.52	609.63
V	21+24.19	7.50 Rt.	609.34	609.46
W	21+33.56	7.50 Rt.	609.14	609.24
L2' - X	21+42.94	7.50 Rt.	608.90	608.99
Y	21+52.31	7.50 Rt.	608.63	608.72
Z	21+61.69	7.50 Rt.	608.33	608.42
AA	21+71.06	7.50 Rt.	608.00	608.08
L1' - BB	21+80.44	7.50 Rt.	607.64	607.70
CC	21+89.81	7.50 Rt.	607.24	607.30
DD	21+99.19	7.50 Rt.	606.82	606.87
EE	22+08.56	7.50 Rt.	606.36	606.39
☉ Brg. Pier 3 - L0'	22+17.94	7.50 Rt.	605.87	605.87



USER NAME =	DESIGNED - BAR	REVISED
	CHECKED - KO	REVISED
PLOT SCALE =	DRAWN - BAR	REVISED
PLOT DATE = 11/13/2015	CHECKED - KO	REVISED

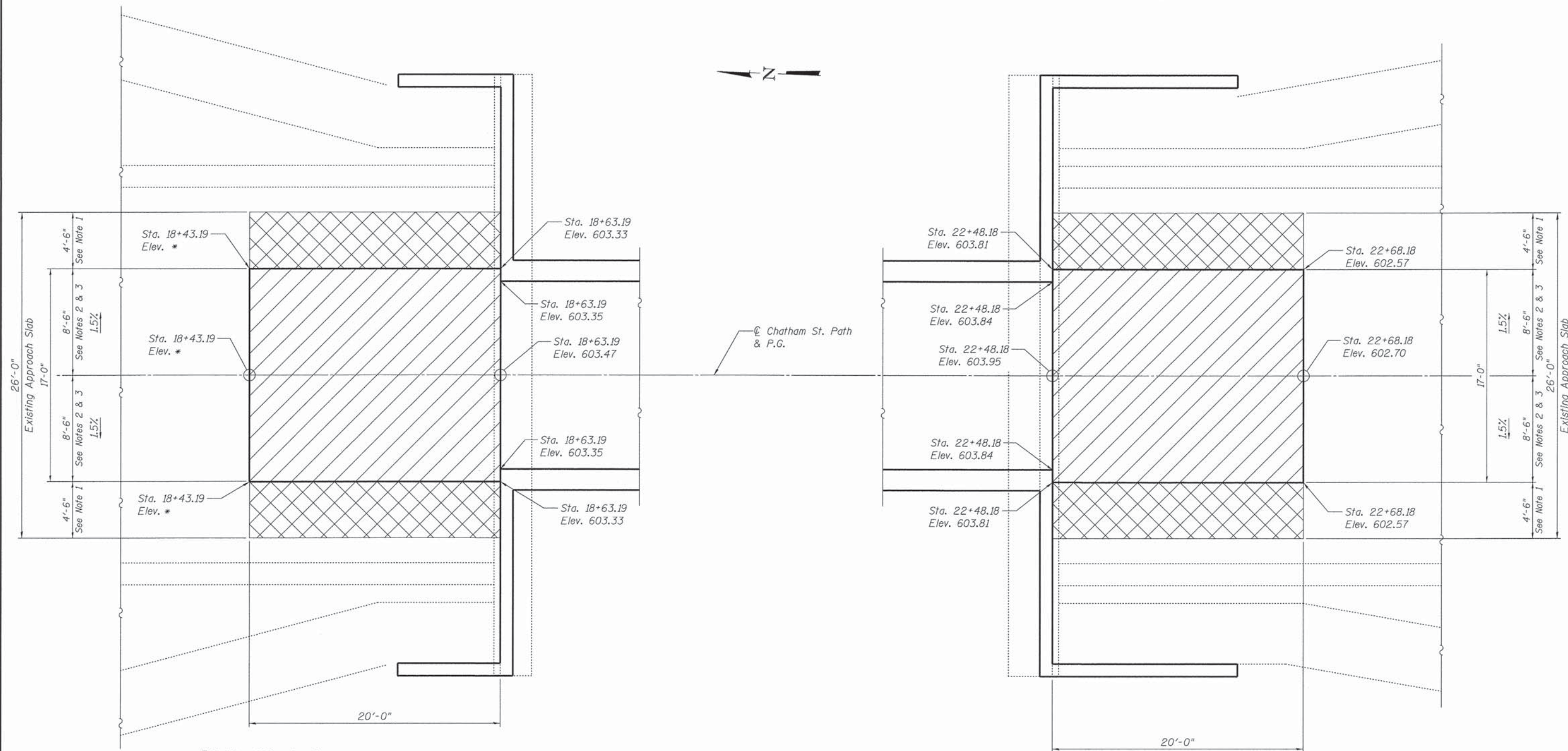
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS 4  
STRUCTURE NO. 016-6620**

SHEET NO. S-6 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	24
CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	





\* Match existing elevations



**PLAN**  
(North Approach Pavement)

**PLAN**  
(South Approach Pavement)

**NOTES**

- Existing transverse reinforcement in Approach Slab Removal are shall be cut off flush with removal lines as shown, ground smooth and sealed with epoxy. Cast included with Approach Slab Removal.
- Concrete Pavement Scarification shall be 1/2" thick minimum and 1" maximum.
- Thickness of Portland Cement Concrete Overlay varies along the length of Approach Slabs and estimated average is 2".

**LEGEND**

-  -Limits of Concrete Pavement Scarification and Portland Cement Concrete Overlay, 2"
-  -Limits of approach slab removal

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Pavement Scarification	Sq. Yd.	76
Portland Cement Concrete Overlay, 2"	Sq. Yd.	76
Approach Slab Removal	Sq. Yd.	40



USER NAME =	DESIGNED - KO	REVISED
	CHECKED - MBO	REVISED
PLOT SCALE =	DRAWN - KO	REVISED
PLOT DATE = 11/13/2015	CHECKED - MBO	REVISED

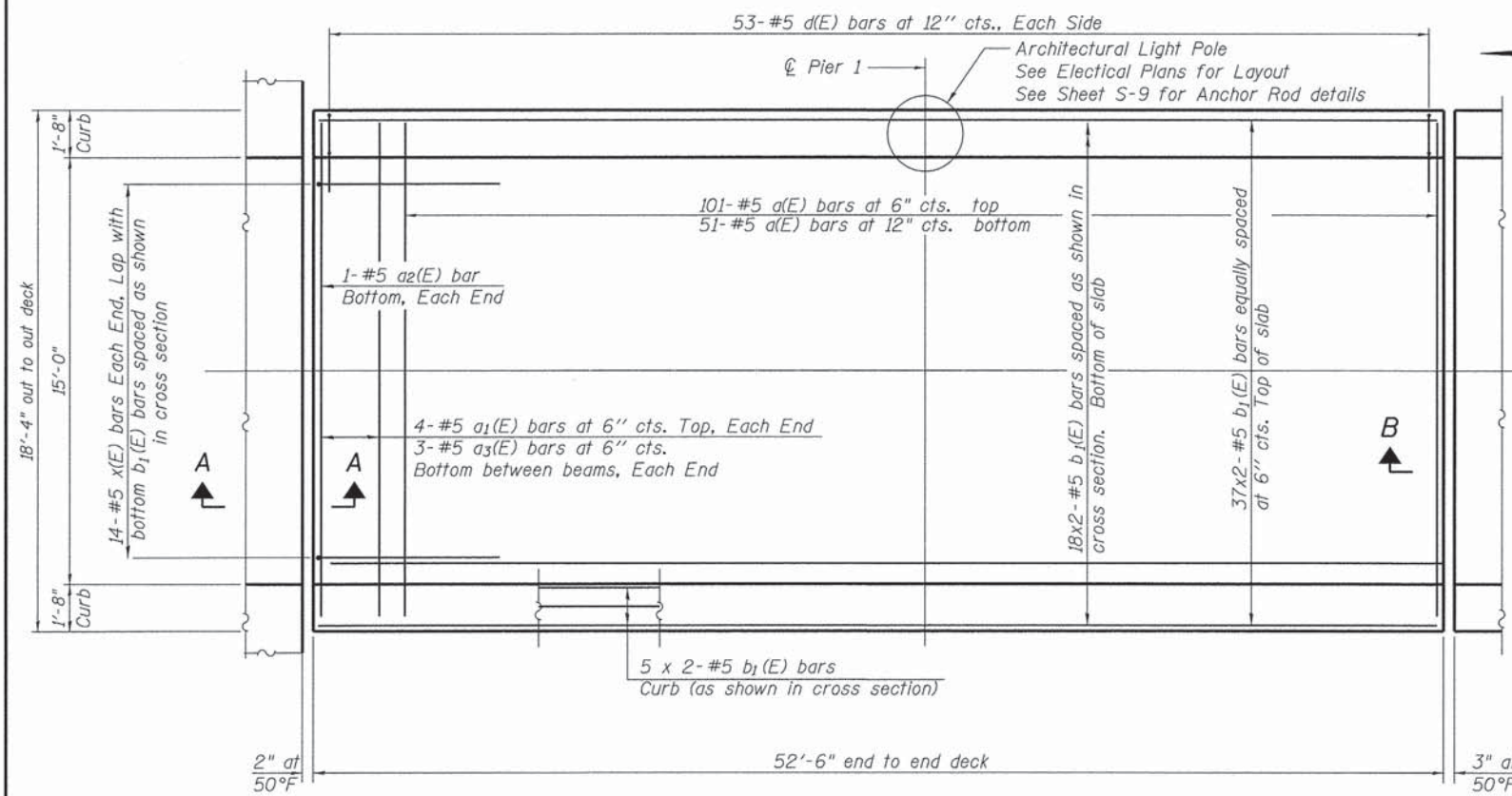
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS  
STRUCTURE NO. 016-6620**

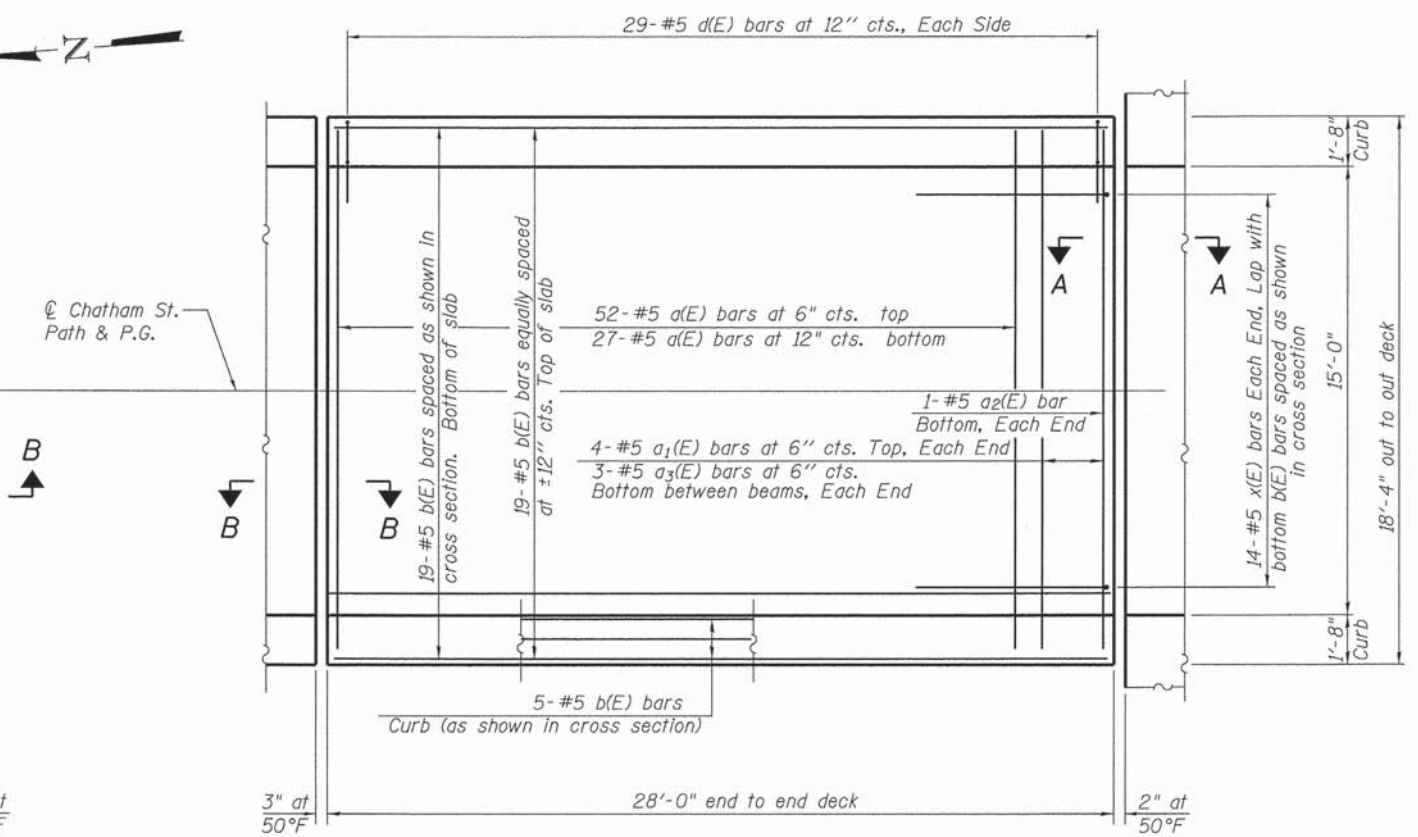
SHEET NO. S-7 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 61C15	
ILLINOIS FED. AID PROJECT				





DECK PLAN - SPANS 1 & 2



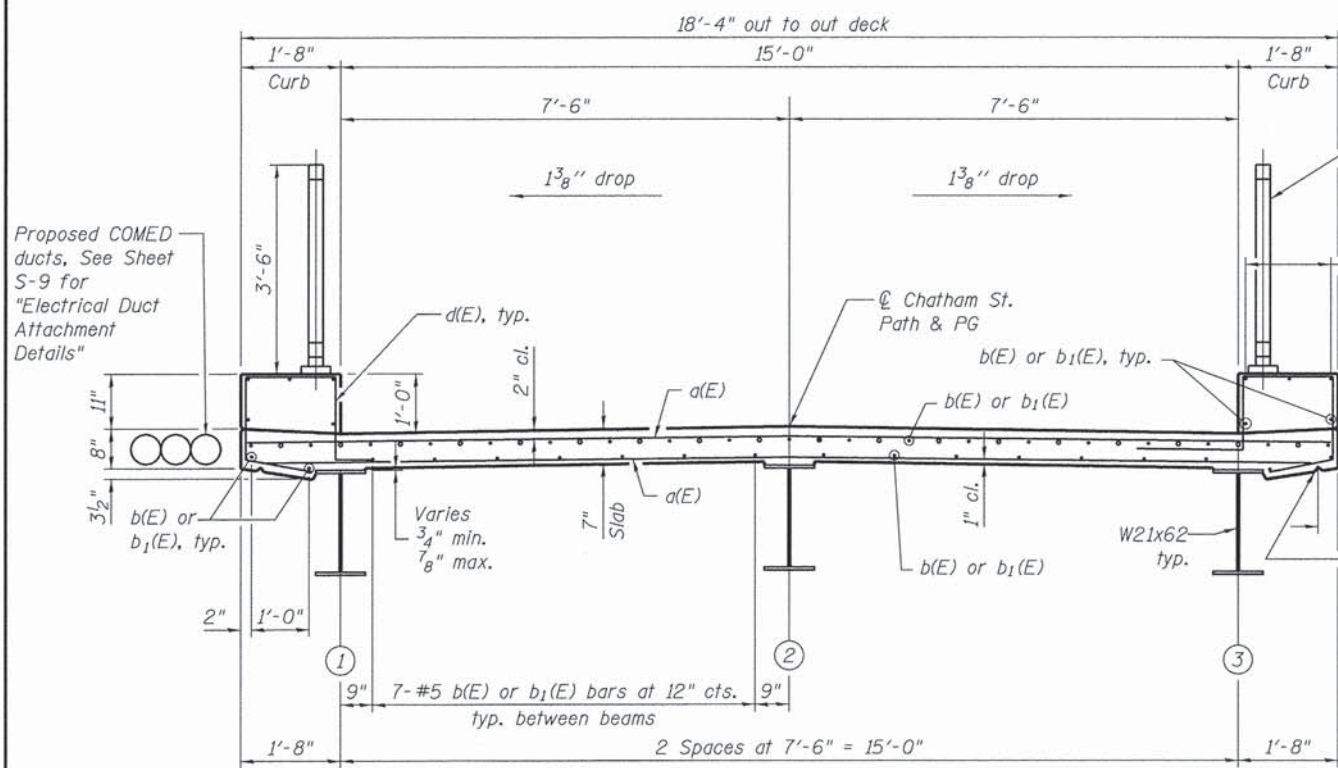
DECK PLAN - SPAN 4

MINIMUM BAR LAPS

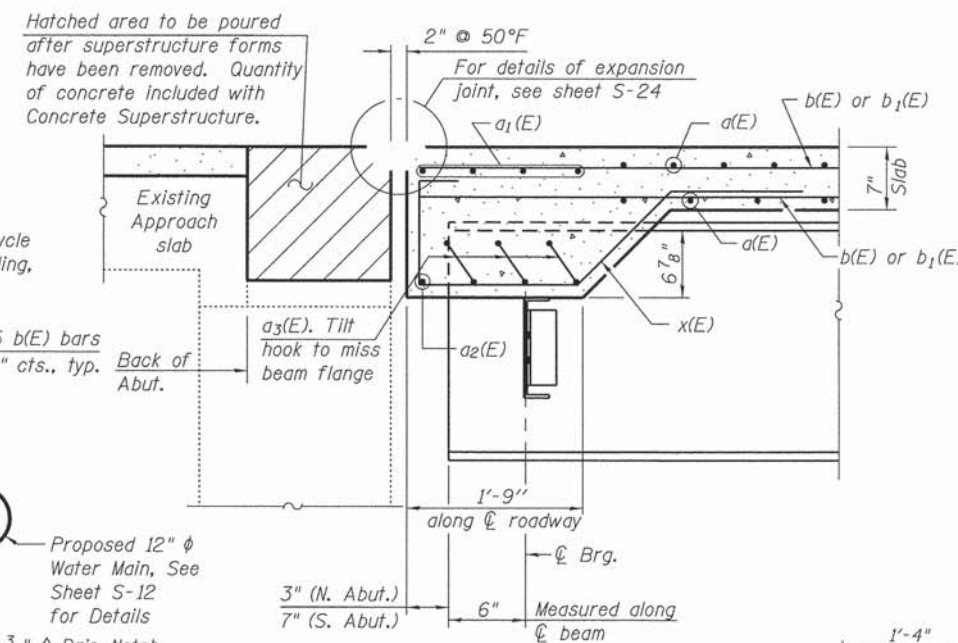
#5 bar = 2'-3"

NOTES

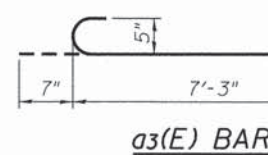
- Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimension may require adjustments to satisfy the details on Base Sheet EJ-SSJ. See Sheet S-24.
- For Bicycle Railing Details, see Sheet S-22.
- See Electrical Plans for lighting details.
- Existing bridge deck shall be entirely removed. Cost included with REMOVAL OF EXISTING CONCRETE DECK. See Sheet S-9 for Section B-B.



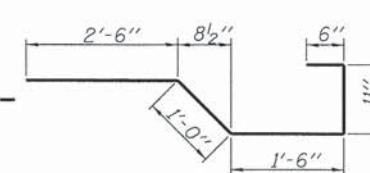
CROSS SECTION - SPANS 1, 2, & 4  
(Looking South)



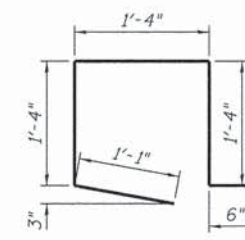
SECTION A-A



a3(E) BAR



BAR x(E)



BAR d(E)

SUPERSTRUCTURE SPANS 1, 2, & 4

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	231	#5	18'-0"	—
a1(E)	16	#5	18'-0"	—
a2(E)	4	#5	18'-0"	—
a3(E)	24	#5	8'-5"	U
b(E)	47	#5	27'-8"	—
b1(E)	94	#5	27'-3"	—
d(E)	164	#5	5'-7"	□
x(E)	56	#5	6'-5"	~
Reinforcement Bars, Epoxy Coated			Pound	10,290
High Performance Concrete Superstructure			Cu. Yd.	48.4
Protective Coat			Sq. Yd.	201

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



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	CHECKED - MBQ	REVISED

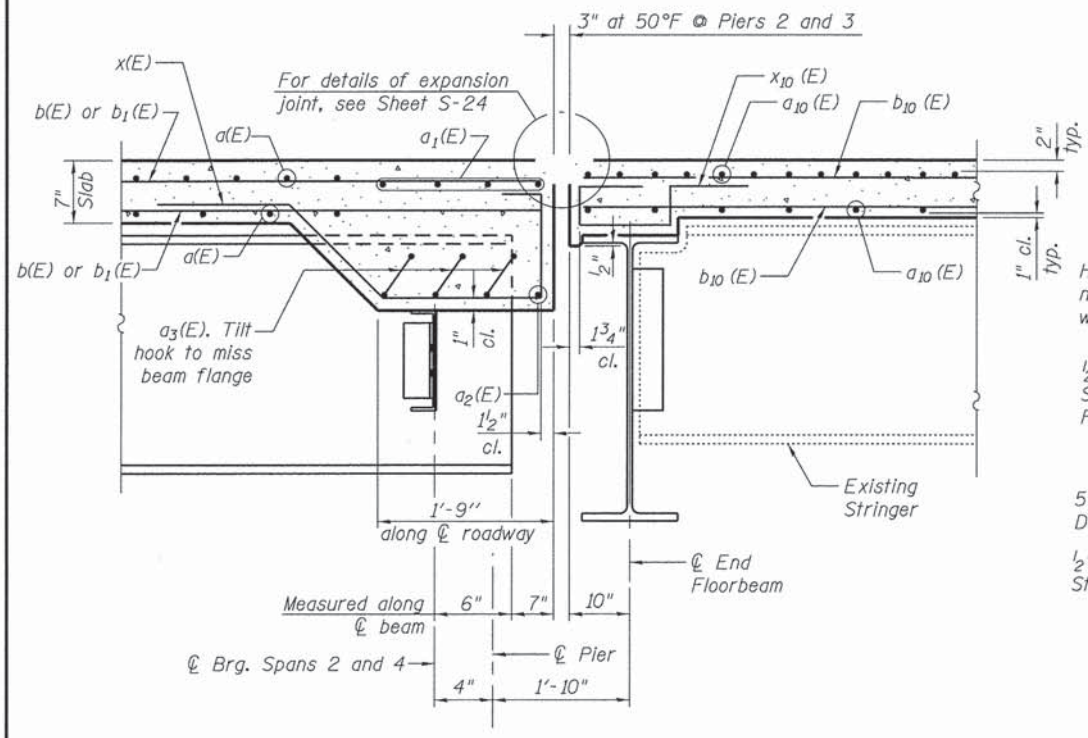
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DECK PLAN AND CROSS SECTION - SPANS 1, 2 AND 4  
STRUCTURE NO. 016-6620

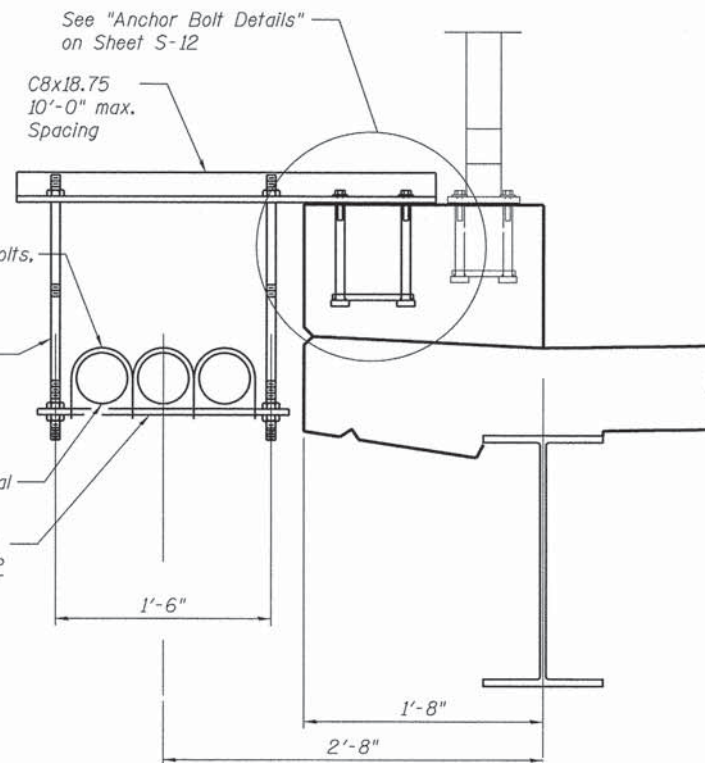
SHEET NO. S-8 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	26
CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	



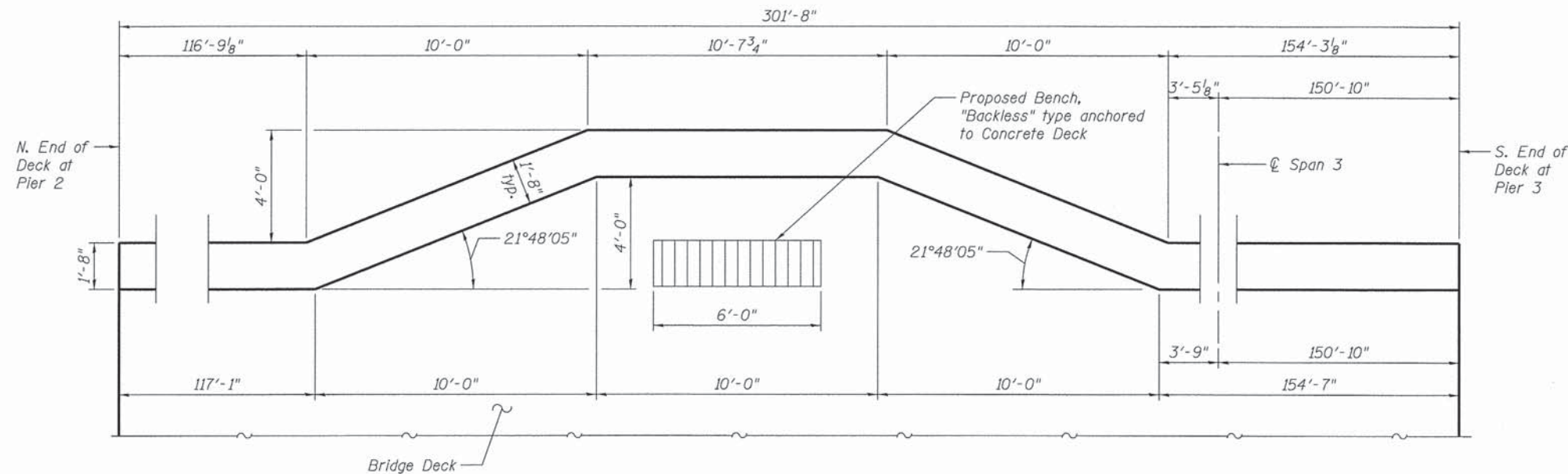


**SECTION B-B**



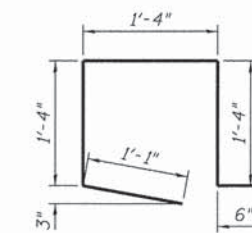
**ELECTRICAL DUCT ATTACHMENT DETAILS**

1. All COMED Ducts supports and associated hardware shall be hot-dip galvanized according to AASHTO M 232.
2. The cost of furnishing all labor and materials to install COMED Ducts supports is included with CONDUIT ATTACHED TO STRUCTURE, 5" DIA., GALVANIZED.

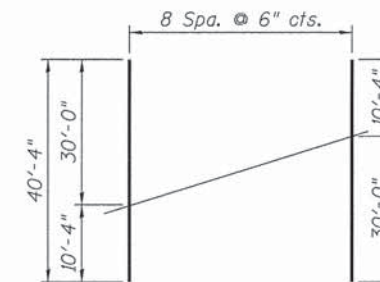


**OVERLOOK DETAIL**

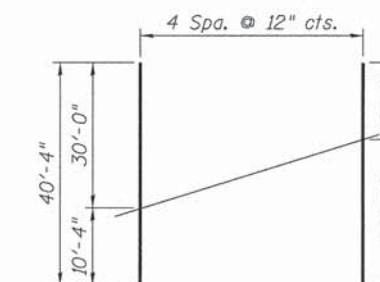
(East Curb shown, West Curb similar by opposite hand)



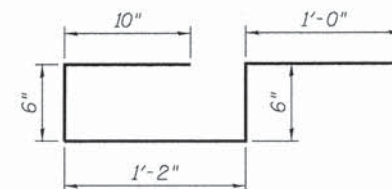
**BAR d<sub>10</sub>(E)**



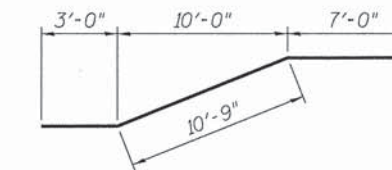
**BAR b<sub>13</sub>(E)**



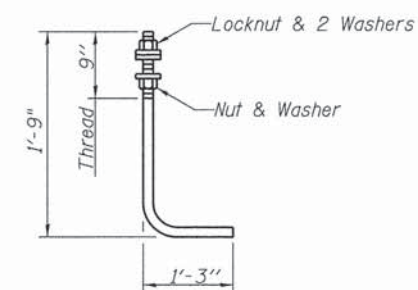
**BAR b<sub>14</sub>(E)**



**BAR x<sub>10</sub>(E)**

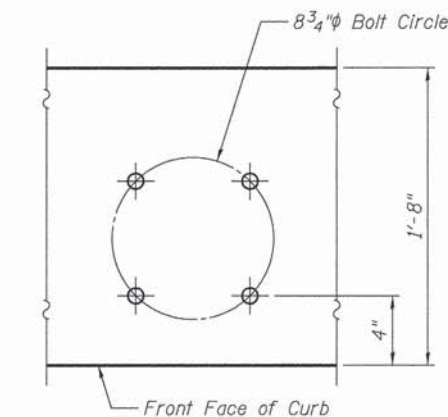


**BAR b<sub>12</sub>(E)**



**ANCHOR ROD**

Diameter as specified per light pole manufacturer (ASTM F 1554 Grade 105)



**ANCHOR ROD LAYOUT**

For Architectural Light Pole See Electrical Plans for Layout

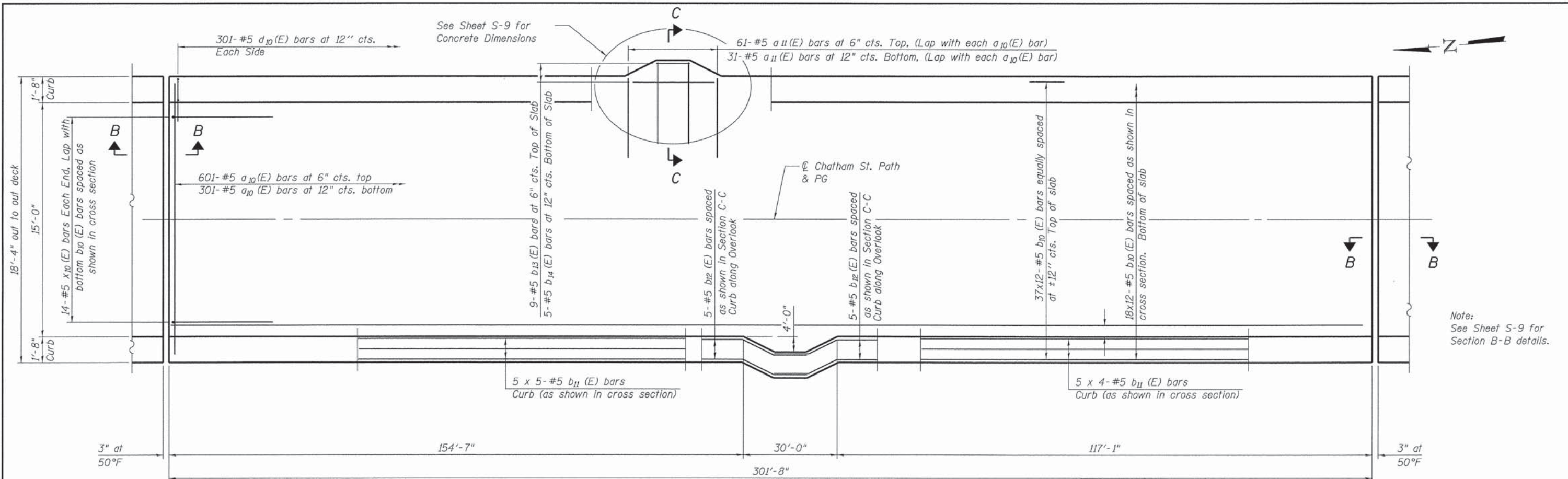
**SUPERSTRUCTURE SPAN 3**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a <sub>10</sub> (E)	902	#5	18'-0"	—
a <sub>11</sub> (E)	184	#5	8'-6"	—
b <sub>10</sub> (E)	660	#5	27'-6"	—
b <sub>11</sub> (E)	90	#5	32'-10"	—
b <sub>12</sub> (E)	20	#5	20'-9"	—
b <sub>13</sub> (E)	9	#5	40'-4"	—
b <sub>14</sub> (E)	5	#5	40'-4"	—
d <sub>10</sub> (E)	602	#5	5'-7"	□
x <sub>10</sub> (E)	28	#5	4'-0"	⌋
Reinforcement Bars, Epoxy Coated			Pound	45,230
High Performance Concrete Superstructure			Cu. Yd.	144.9
Protective Coat			Sq. Yd.	760

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



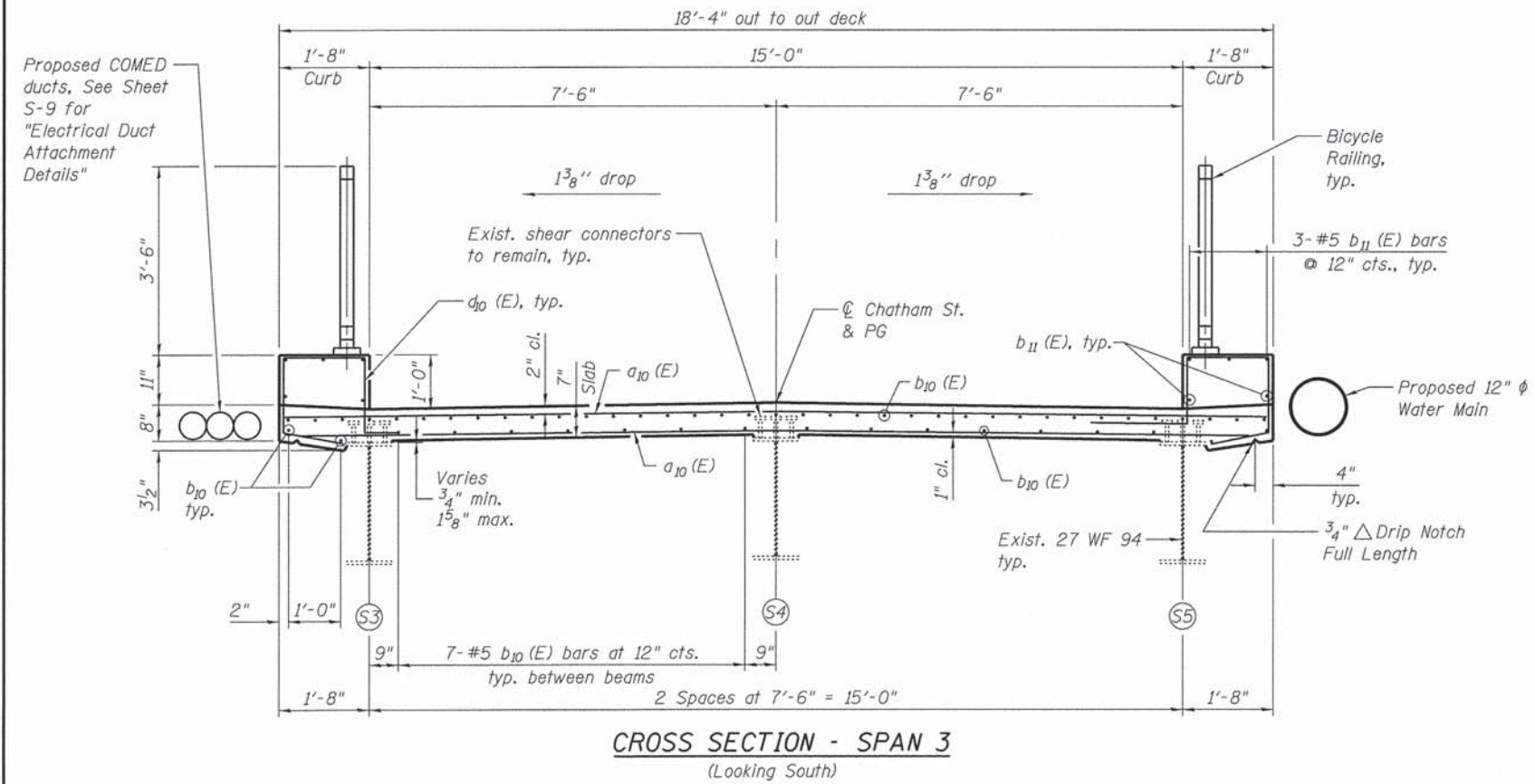


**DECK PLAN - SPAN 3**

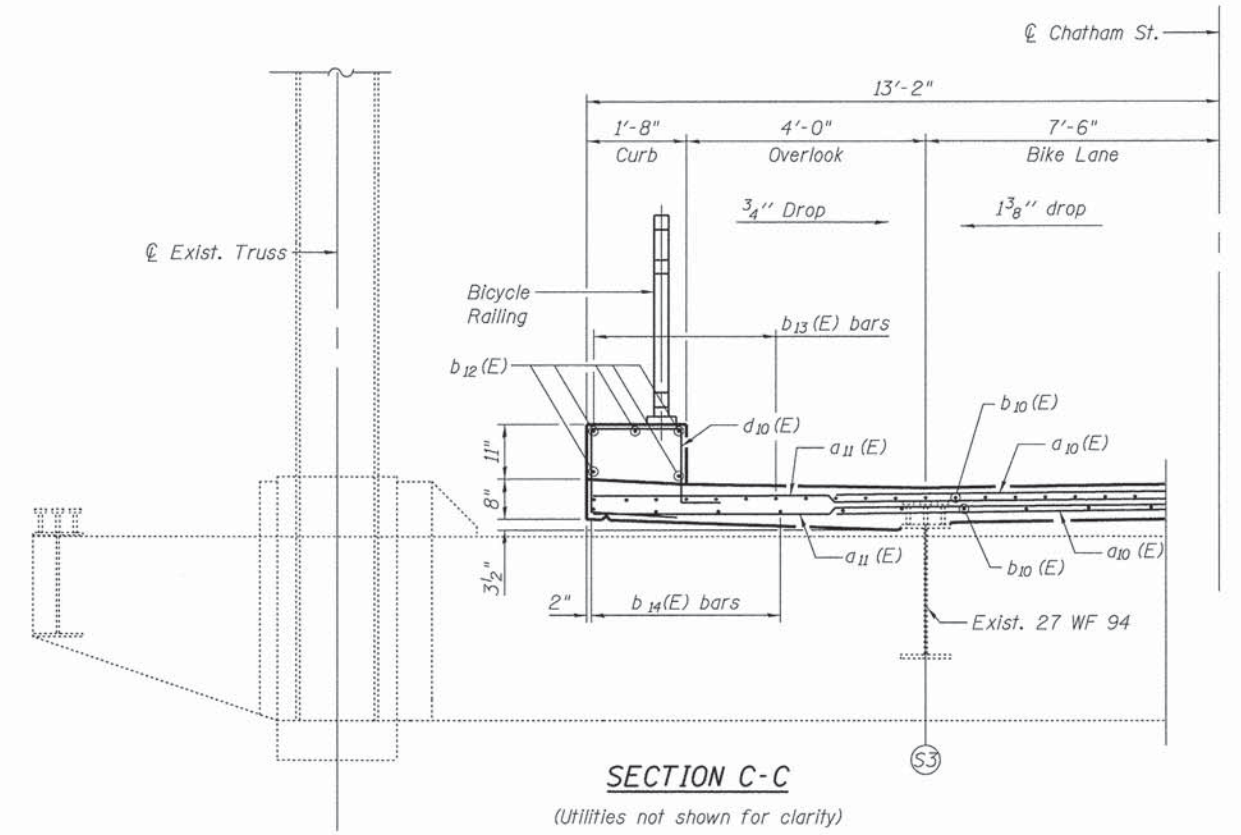
Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

**MINIMUM BAR LAPS**

#5 bar = 2'-3"



**CROSS SECTION - SPAN 3**  
(Looking South)



**SECTION C-C**  
(Utilities not shown for clarity)



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PLOT DATE = 11/13/2015	DRAWN - KO	REVISED
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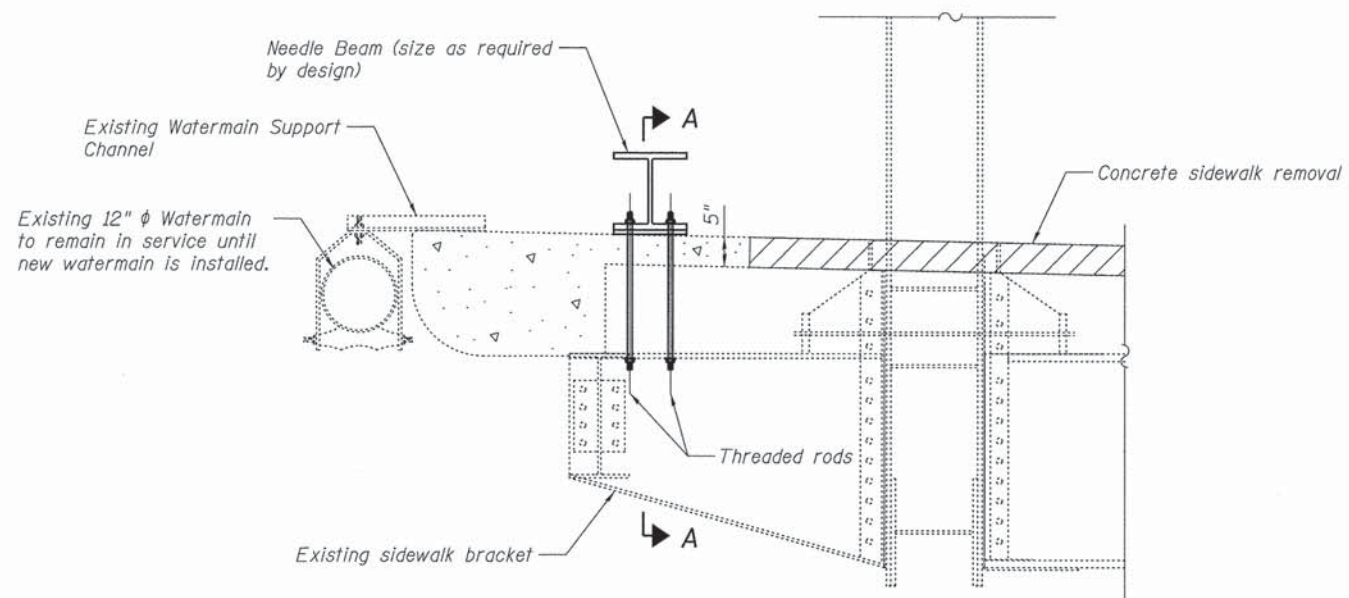
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DECK PLAN AND CROSS SECTION - SPAN 3**  
**STRUCTURE NO. 016-6620**

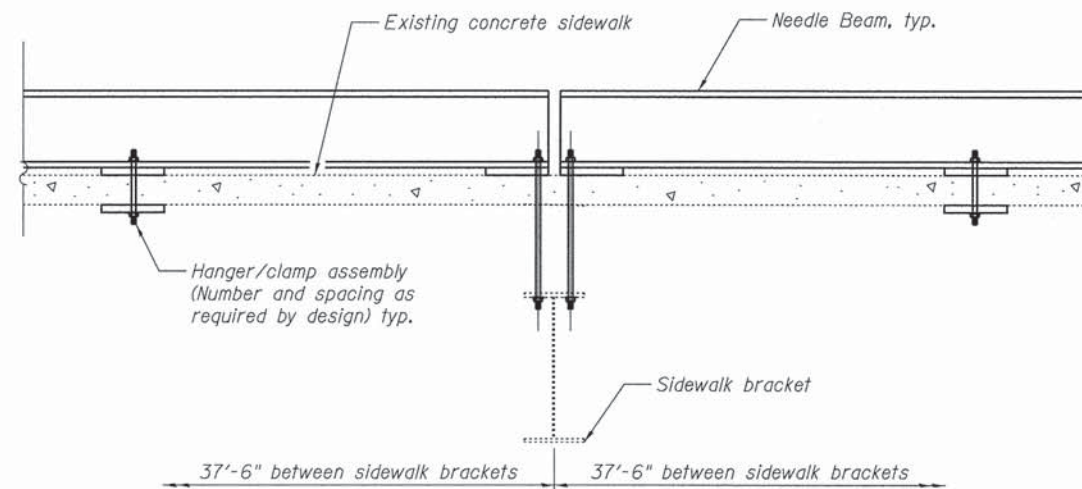
SHEET NO. S-10 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	28
CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	





**SUGGESTED TEMPORARY SUPPORT-SPAN 3**

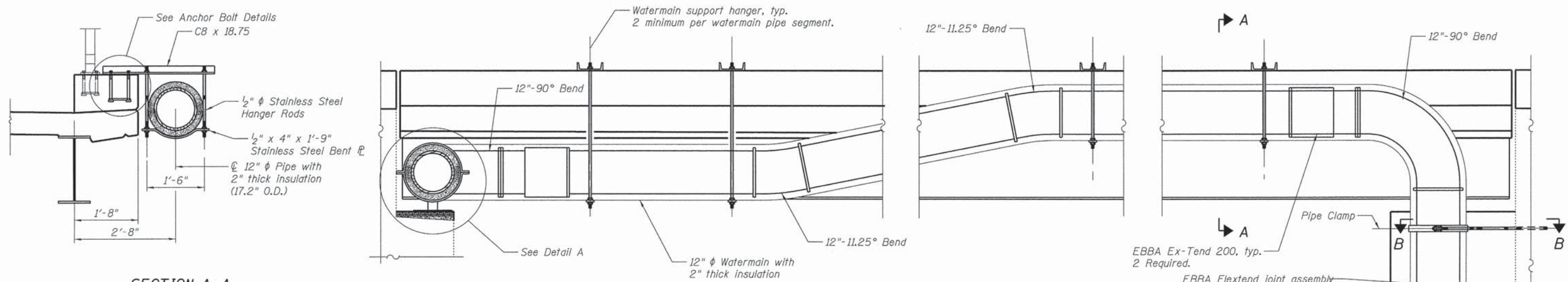


**SECTION A-A**

**NOTES:**

1. Provide temporary shoring in Spans 1, 2 and 4 and temporary connection to existing structural steel in Span 3 to support and protect the existing watermain during reconstruction. Coordinate shore locations with existing structure removal and the installation of the precast pier caps, new end floor beams and new approach framing. Cost is included with TEMPORARY SUPPORT SYSTEM.
2. See Special Provisions for additional information on Temporary Support System.



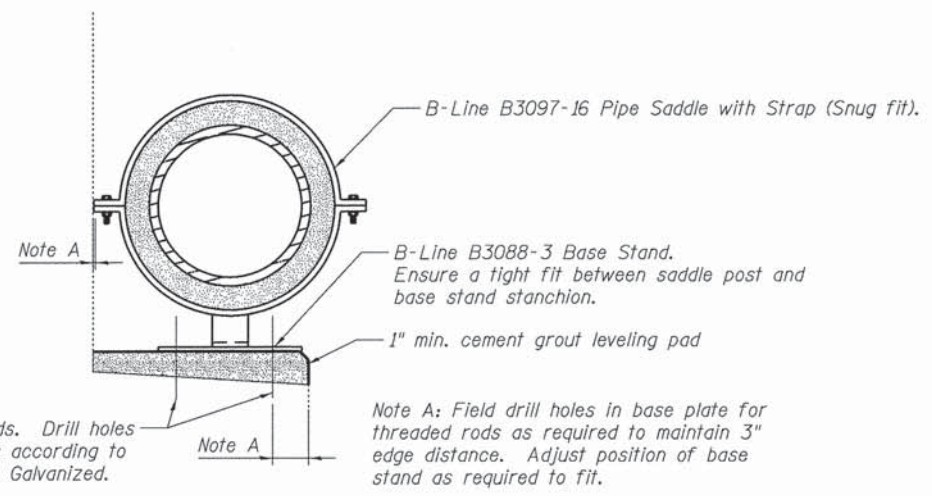


**SECTION A-A**

**N. ABUT.**

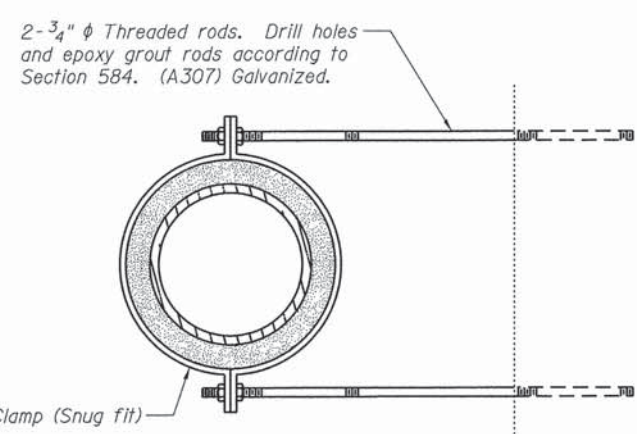
**WATERMAIN ELEVATION**

**S. ABUT.**



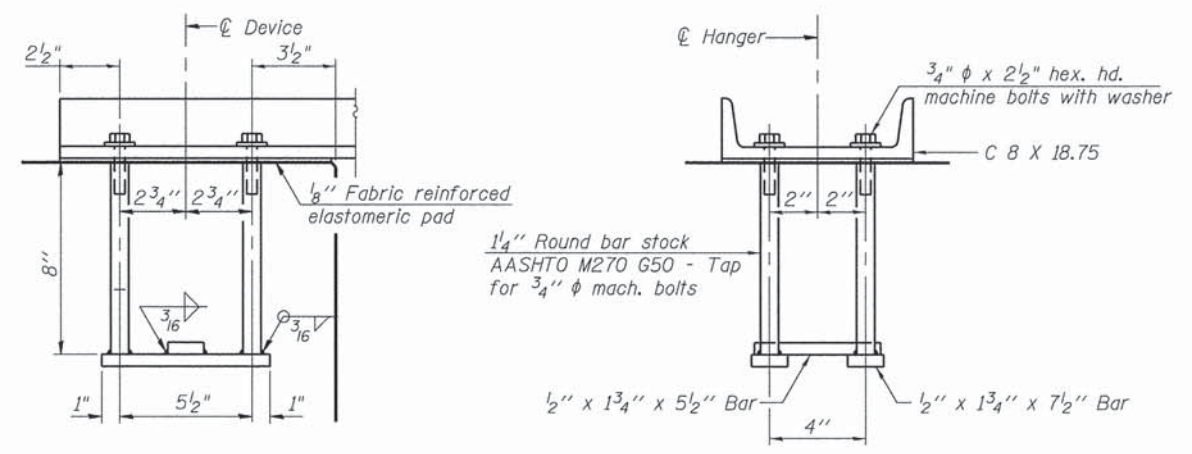
**DETAIL A**

North Abut. Shown, South Abut. Similar  
4 Required (2 at each abutment)



**SECTION B-B**

1 Required (South abutment)



**ANCHOR BOLT DETAILS**

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 3/4\"/>

**NOTES:**

1. Except as noted, all watermain supports and associated hardware shall be hot-dip galvanized according to AASHTO M 232.
2. The cost of furnishing all labor and materials to install watermain supports is included with DUCTILE IRON WATERMAIN, 12\"/>



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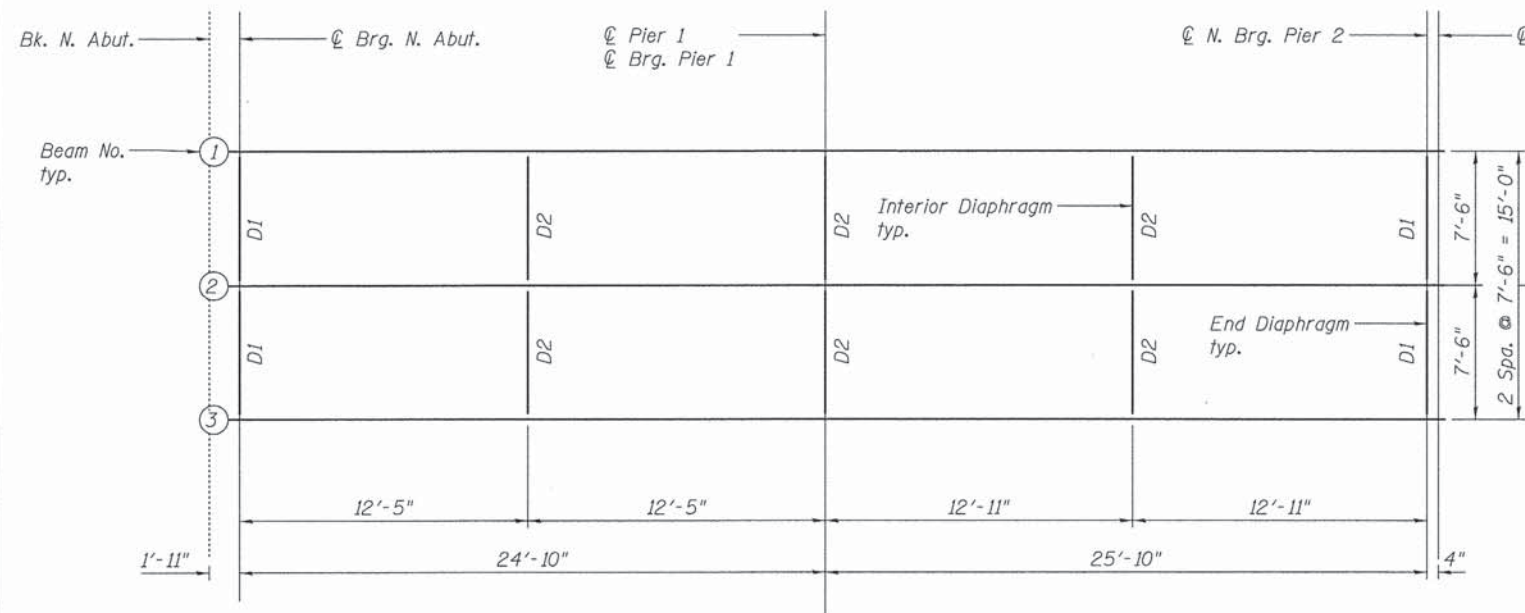
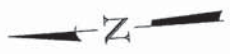
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**WATERMAIN DETAILS  
STRUCTURE NO. 016-6620**

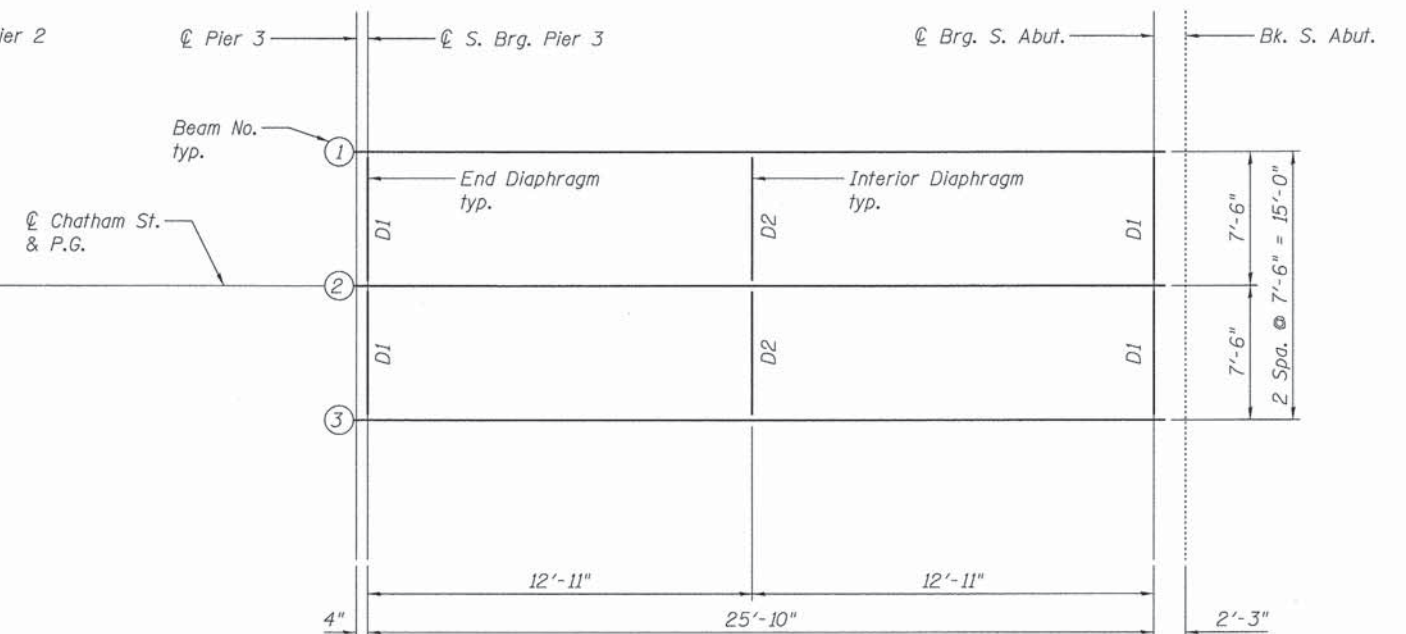
SHEET NO. S-12 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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				61C15
ILLINOIS FED. AID PROJECT				

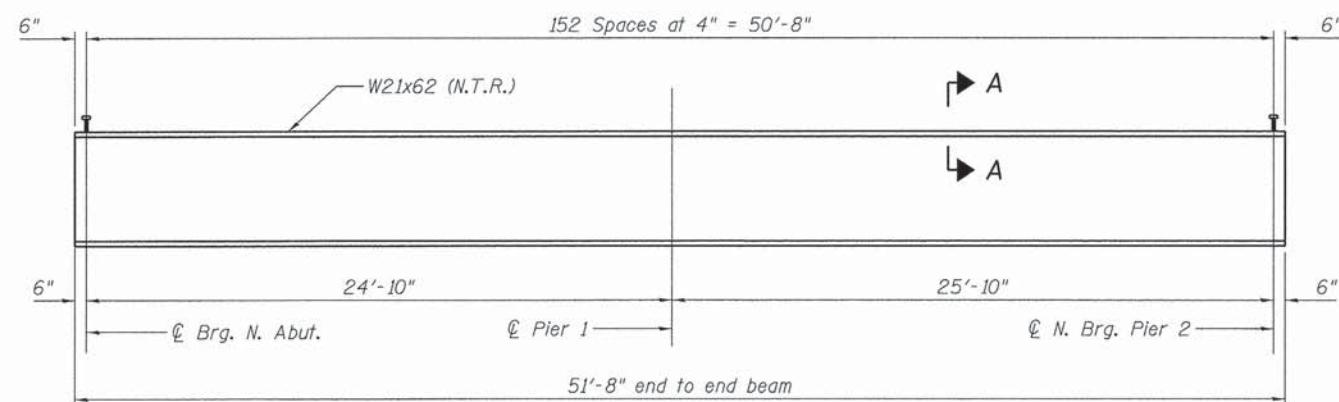




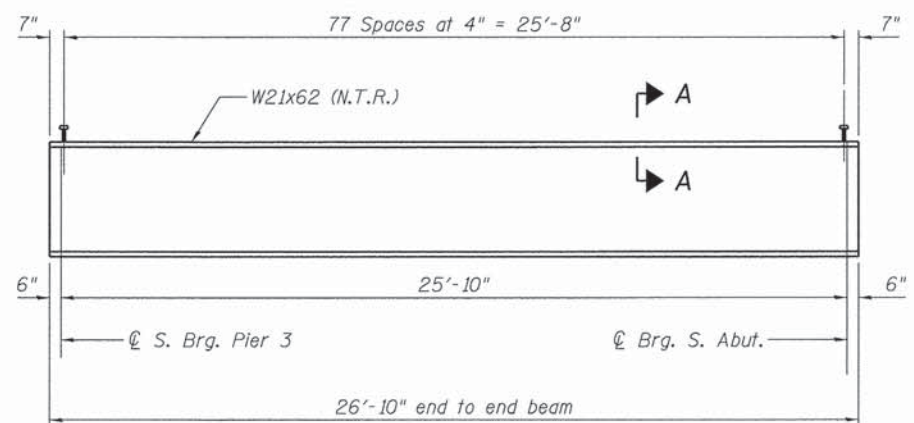
FRAMING PLAN - SPANS 1 & 2



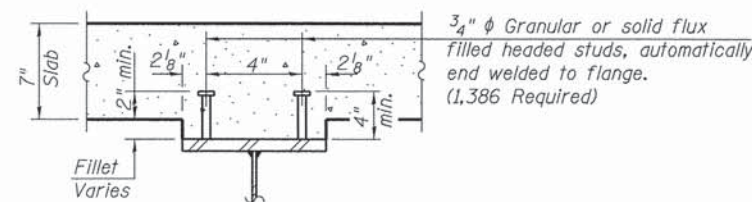
FRAMING PLAN - SPAN 4



BEAM ELEVATION - SPANS 1 AND 2



BEAM ELEVATION - SPAN 4



SECTION A-A

**NOTES**

1. For diaphragm details, see Sheet S-14.
2. Existing steel to be removed. See Sheet S-15 for existing steel framing plan.
3. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
4. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.



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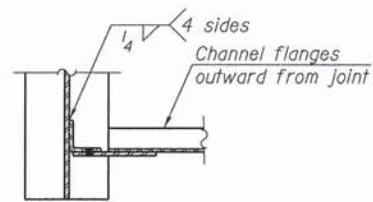
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FRAMING AND BEAM DETAILS - SPANS 1, 2, AND 4  
STRUCTURE NO. 016-6620**

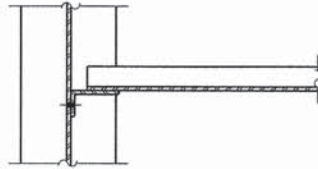
SHEET NO. S-13 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	

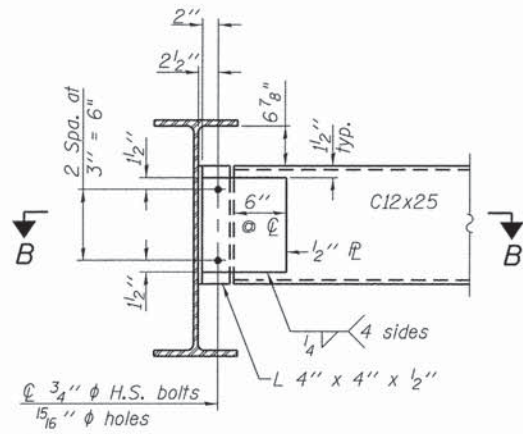




**SECTION B-B**

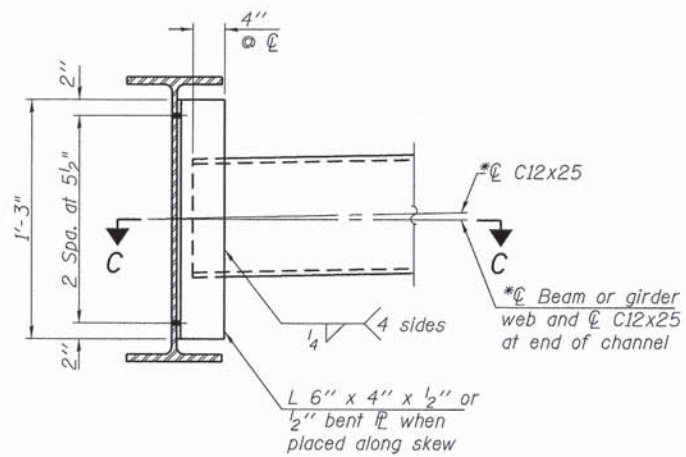


**SECTION C-C**



**END DIAPHRAGM (D1)**

Note:  
Two hardened washers required for each set of oversized holes.



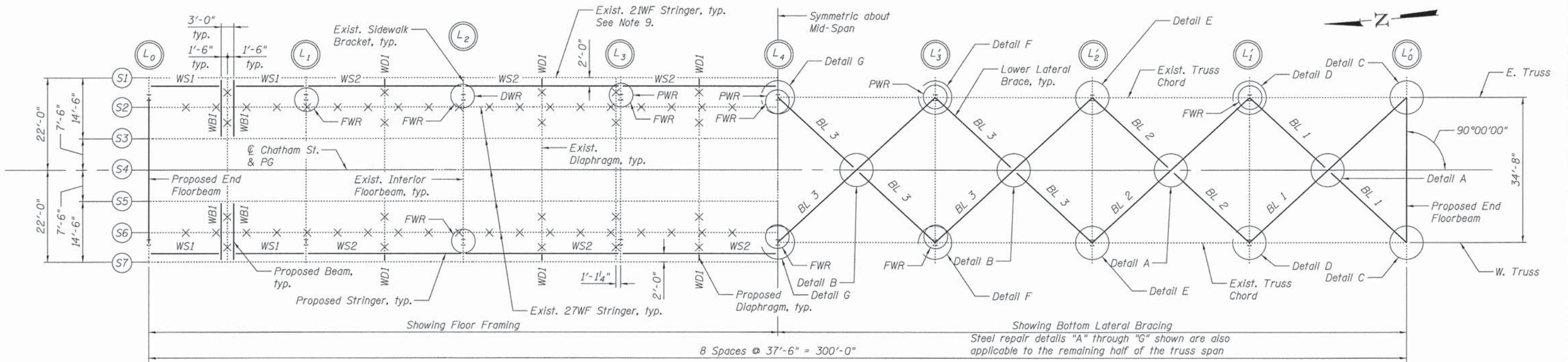
**INTERIOR DIAPHRAGM (D2)**

Notes:  
Two hardened washers required for each set of oversized holes.  
\*Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.  
\*\*3/4 inch diameter HS bolts, 15/16 inch diameter holes

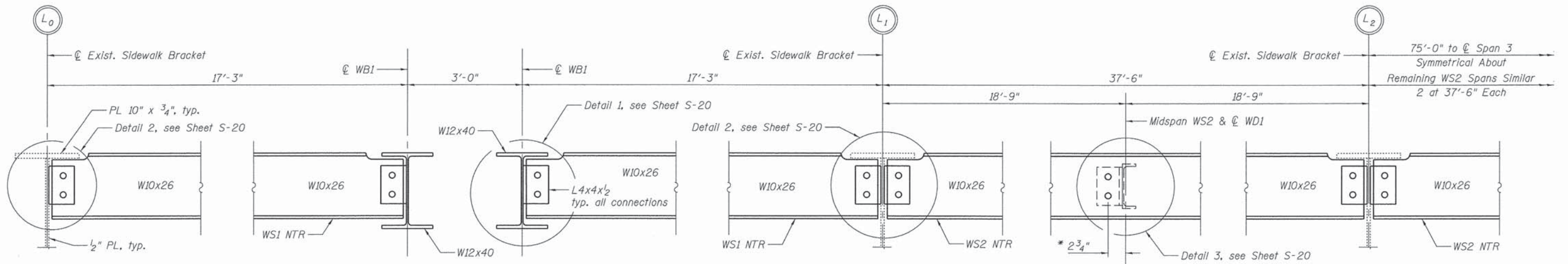
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	32
CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	





**FRAMING PLAN - SPAN 3**



**WALKWAY STRINGER ELEVATION**

West side of bridge shown, looking West. East side of bridge similar.

\* Field Drill  $\frac{15}{16}$ "  $\phi$  Holes in existing sidewalk stringer for WD1 connection.

**LEGEND**

DWR - Truss Diagonal Web Repair, See Sheet S-19 for details  
 FWR - Floorbeam Web Repair, See Sheet S-19 for details  
 PWR - Truss Post Web Repair, See Sheet S-19 for details

X X - Existing Stringer/Diaphragm removal  
 • - New Fastener

**BOTTOM LATERALS**

BL1 - WT9X30  
 BL2 - WT8X22.5  
 BL3 - WT8X18

**NOTES**

- All dimensions not shown shall be verified in field by the Contractor.
- See Sheet S-17 for Details A and B.
- See Sheet S-18 for Details C, D, E, F, and G.
- The Contractor shall remove and replace W27 Steel stringer (S2 and S6), steel diaphragms, and bottom laterals as designated. Removal of existing stringers, diaphragms, and bottom laterals shall be paid as STRUCTURAL STEEL REMOVAL.
- See Sheet S-20 for Detail 1, Detail 2, Detail 3 and Walkway Beam Elevation.
- See As-Built Plan attached for Truss Camber Diagram and Truss Steel Dead Loads.
- See Sheet S-10 for typical truss span cross section at floorbeams.
- Load carrying components designated "NTR" shall conform to the impact testing requirement, Zone 2.
- Contractor to remove existing shear connectors on existing fascia beams and grind smooth surface. Cost included in STRUCTURAL STEEL REMOVAL.



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PLOT DATE = 11/13/2015	CHECKED - MBQ	REVISED

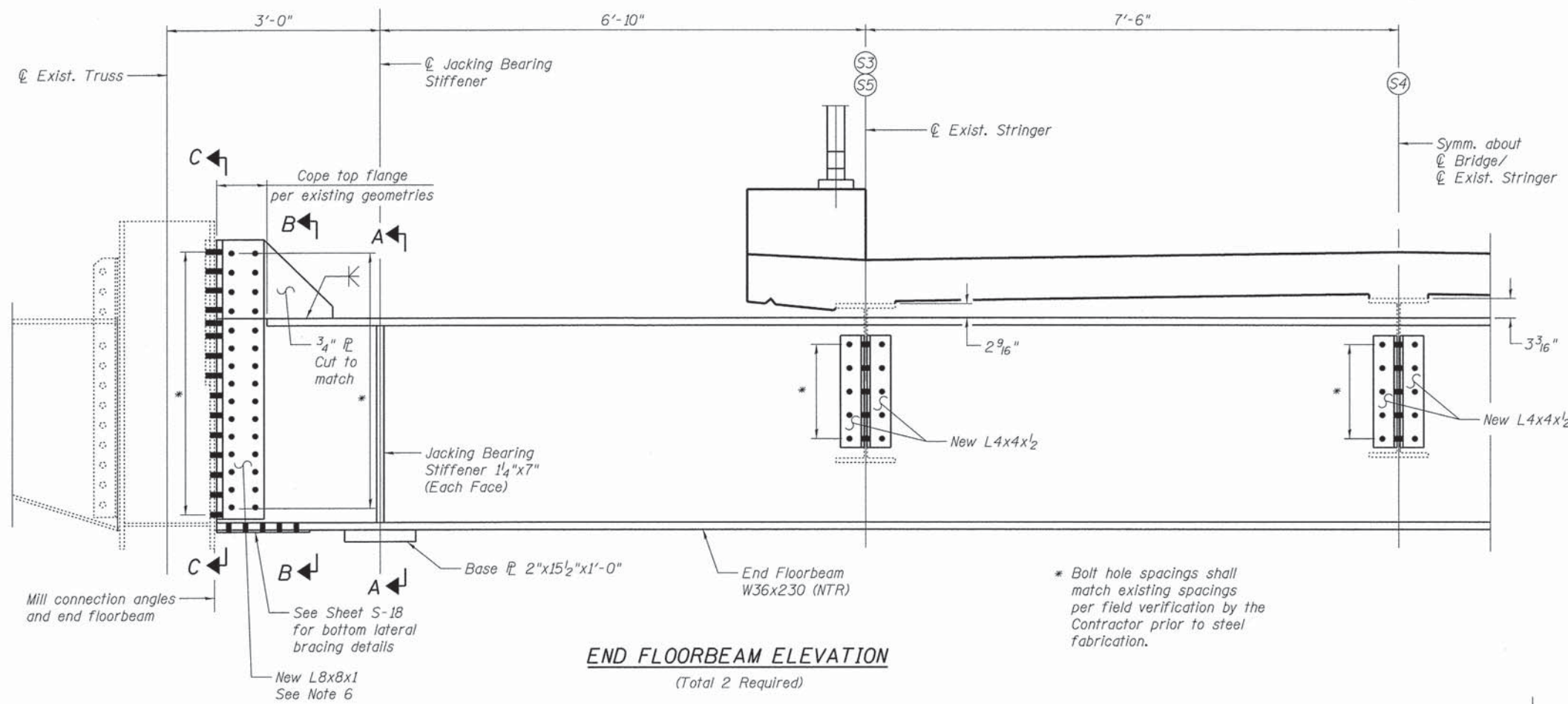
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SPAN 3 FRAMING DETAILS  
 STRUCTURE NO. 016-6620**

SHEET NO. S-15 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	33
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				



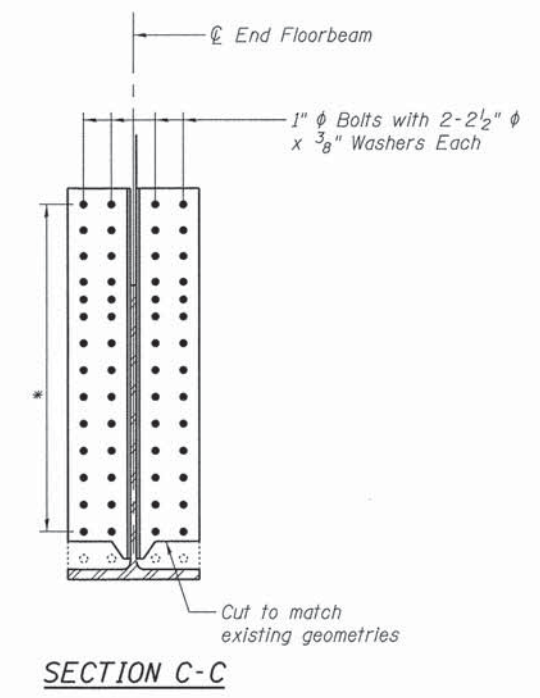
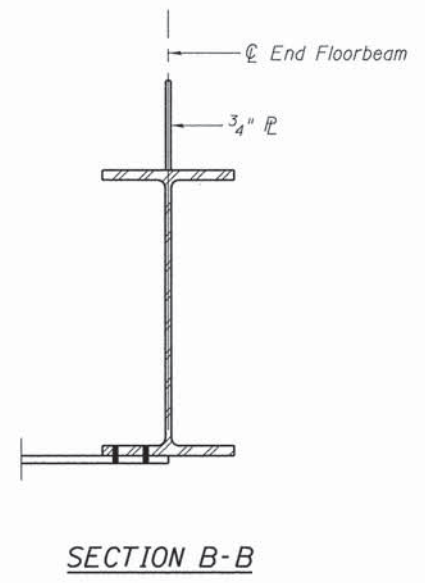
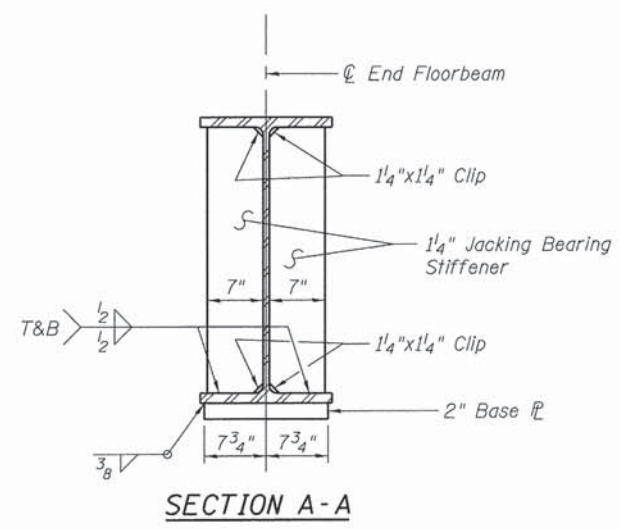


**END FLOORBEAM ELEVATION**  
(Total 2 Required)

- NOTES**
- Existing stringers shall be temporarily supported when the end floorbeam is replaced. The Contractor is responsible to protect and maintain the geometries of all remaining steel members and connections during steel erection.
  - Sidewalk brackets and existing stringers connected to the end floorbeams shall be temporarily supported during end floorbeam replacement. Cost of temporary support is included with STRUCTURAL STEEL REMOVAL.
  - Existing End Floorbeam to Truss connection angles are to be removed and replaced one at a time.
  - Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

**VERIFY IN FIELD**

It shall be the Contractor's responsibility to verify all existing dimensions and details in the field prior to ordering of materials and steel fabrication.



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

**END FLOORBEAM DETAILS**  
**STRUCTURE NO. 016-6620**

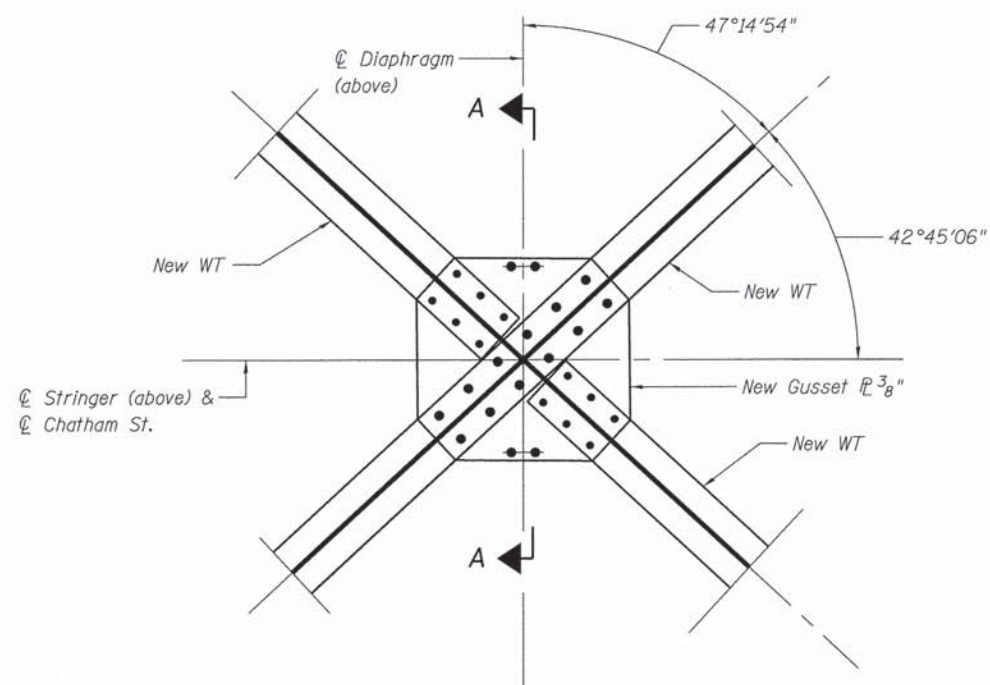
SHEET NO. S-16 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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				CONTRACT NO. 61C15
ILLINOIS FED. AID PROJECT				

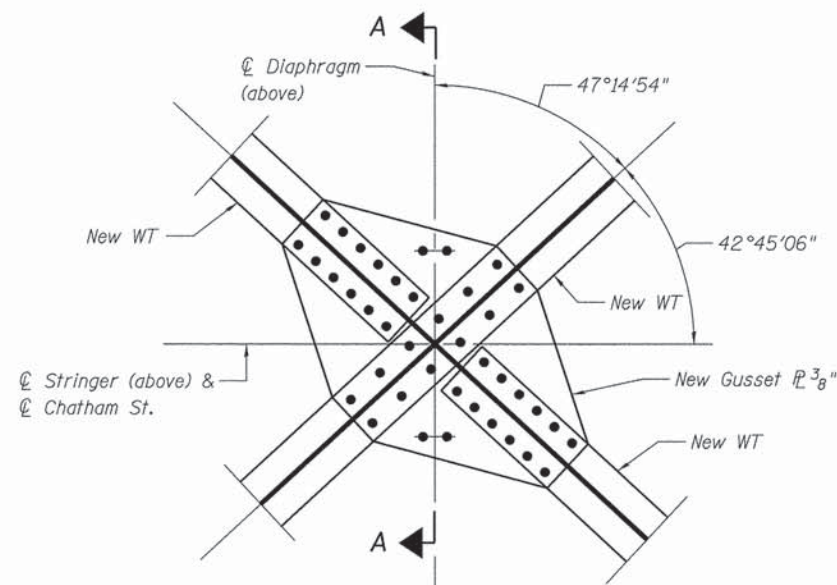


**VERIFY IN FIELD**

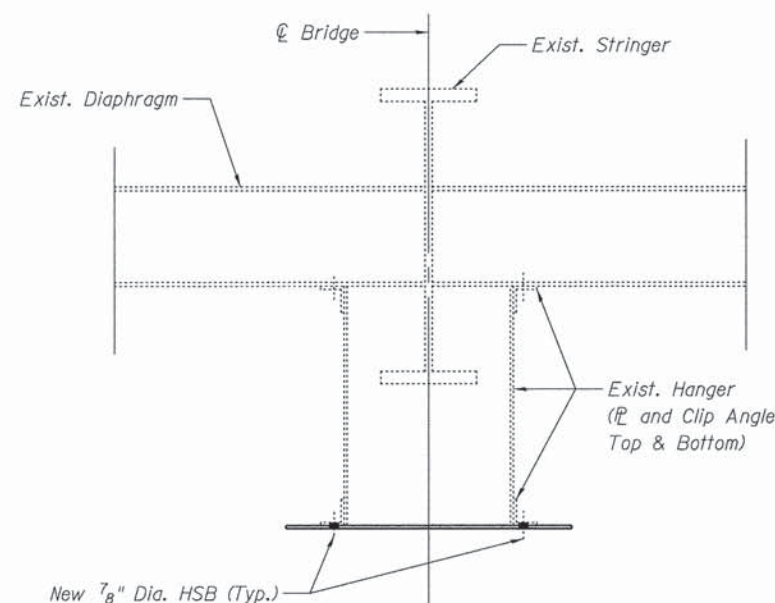
*It shall be the Contractor's responsibility to verify existing bolt sizes and spacings, gusset plate, connection angle, and fill plate dimensions and all applicable member connection geometries in the field prior to ordering of materials and steel fabrication.*



**DETAIL A**  
(4 locations)



**DETAIL B**  
(4 locations)



**SECTION A-A**  
(WT Laterals not shown for clarity.)

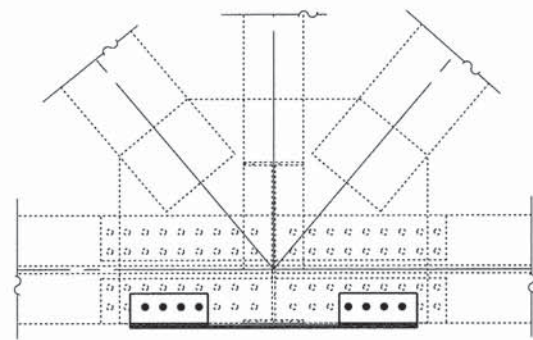
**NOTE**

- The Contractor shall remove and replace W27 Steel stringer (S2 and S6), steel diaphragms, and bottom laterals as designated. Removal of existing stringers, diaphragms, and bottom laterals shall be paid as STRUCTURAL STEEL REMOVAL.

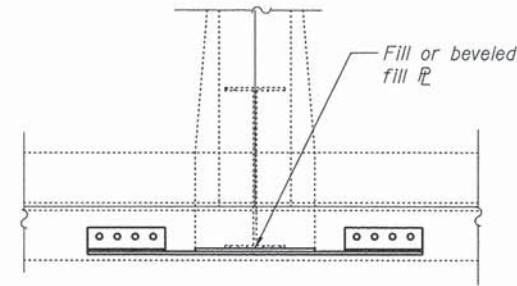
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	35
CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	

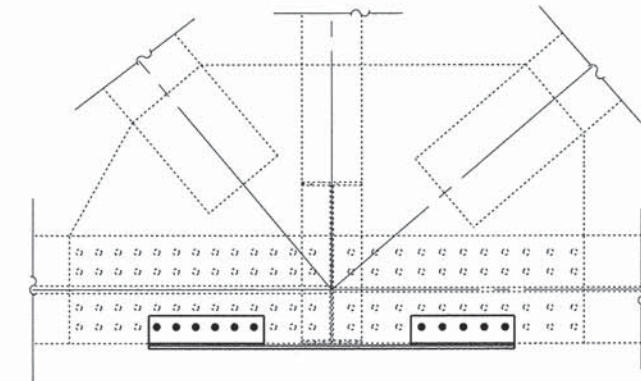




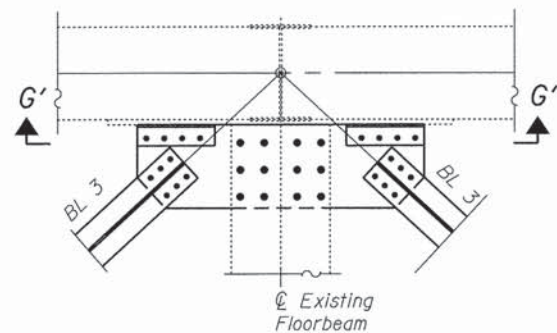
SECTION G'-G'



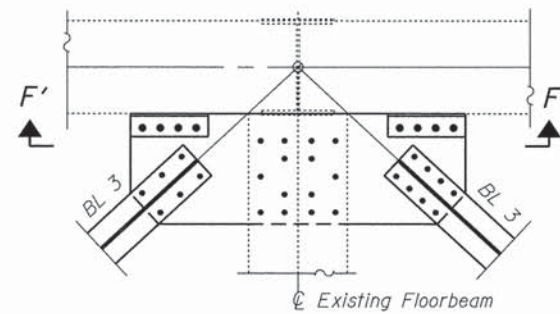
SECTION F'-F'



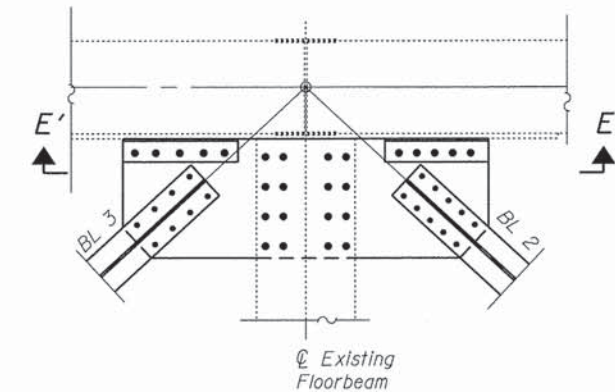
SECTION E'-E'



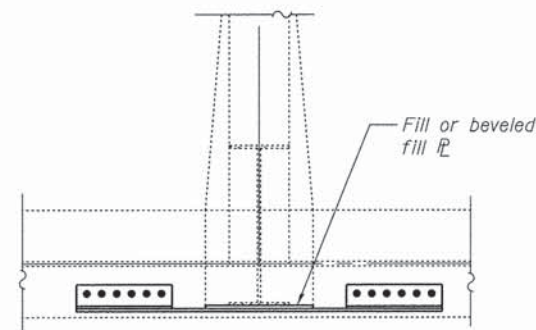
DETAIL G  
(2 locations)



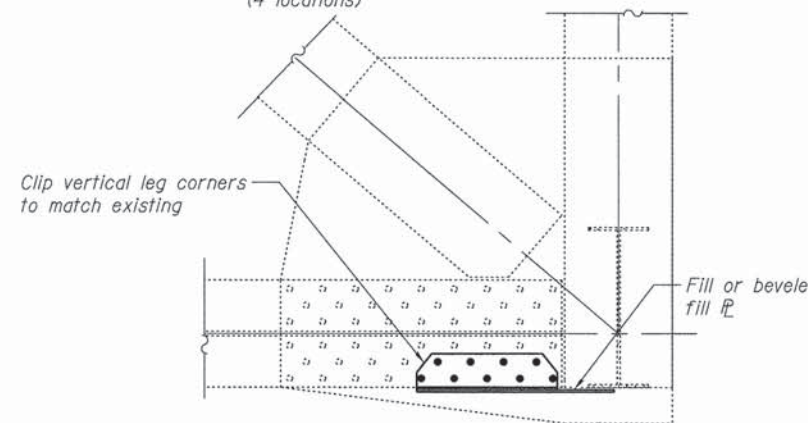
DETAIL F  
(4 locations)



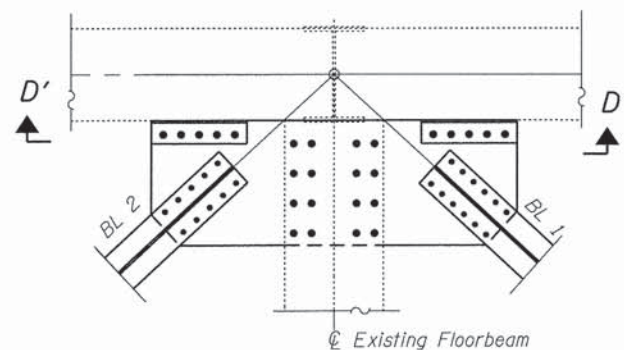
DETAIL E  
(4 locations)



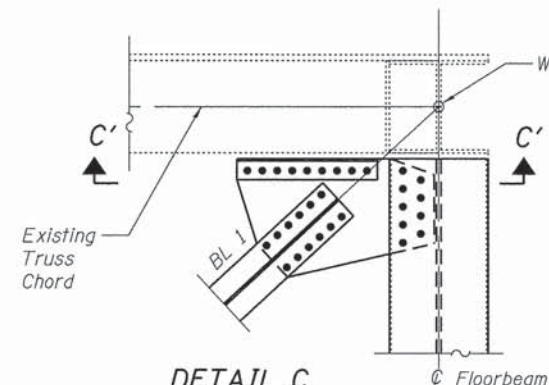
SECTION D'-D'



SECTION C'-C'



DETAIL D  
(4 locations)



DETAIL C  
(4 locations)

**VERIFY IN FIELD**

It shall be the Contractor's responsibility to verify existing bolt sizes and spacings, gusset plate, connection angle, and fill plate dimensions and all applicable member connection geometries in the field prior to ordering of materials and steel fabrication.

**LEGEND**

- Existing fastener to remain
- Existing fastener to be Removed & Replaced

**NOTES:**

1. All bottom lateral gusset plates are assumed 3/8" thick.
2. All bottom lateral gusset connection angles assumed 3/8" thick. Verify leg sizes in field and match.
3. For location of Details C, D, E, F, and G see Sheet S-15.



USER NAME =	DESIGNED - KO	REVISED
	CHECKED - MBO	REVISED
PLOT SCALE =	DRAWN - KO	REVISED
PLOT DATE = 11/13/2015	CHECKED - MBO	REVISED

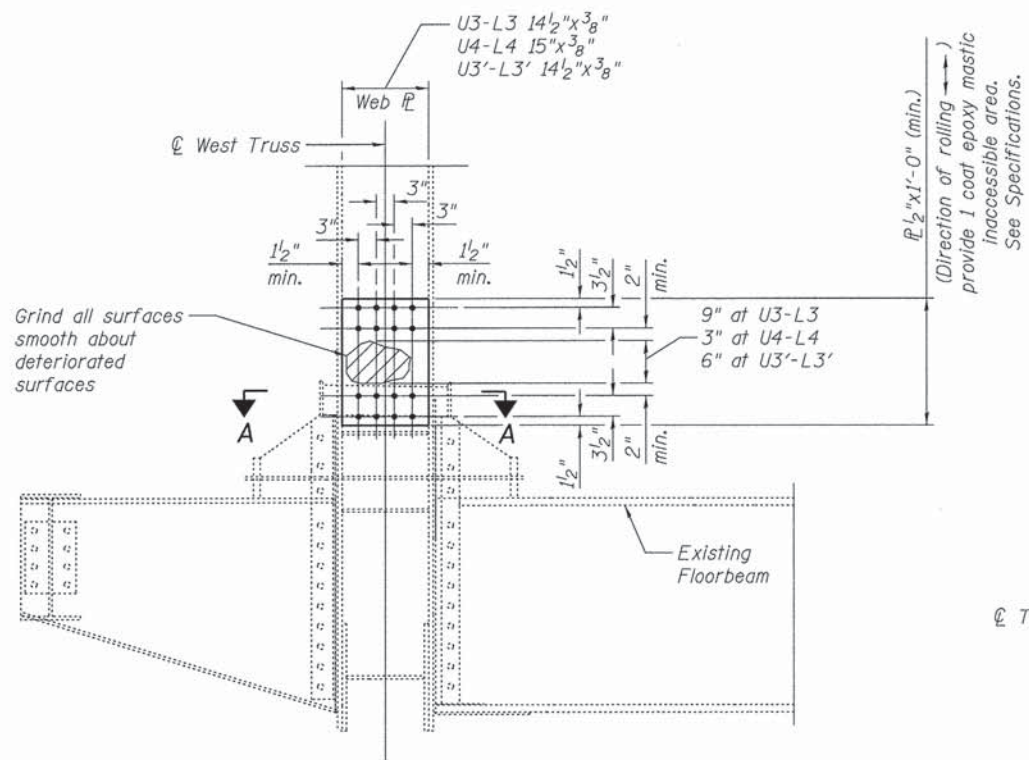
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS 3  
STRUCTURE NO. 016-6620

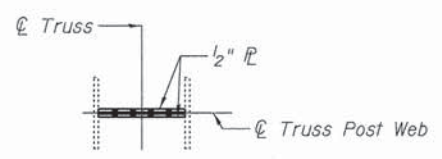
SHEET NO. S-18 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	36
CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	

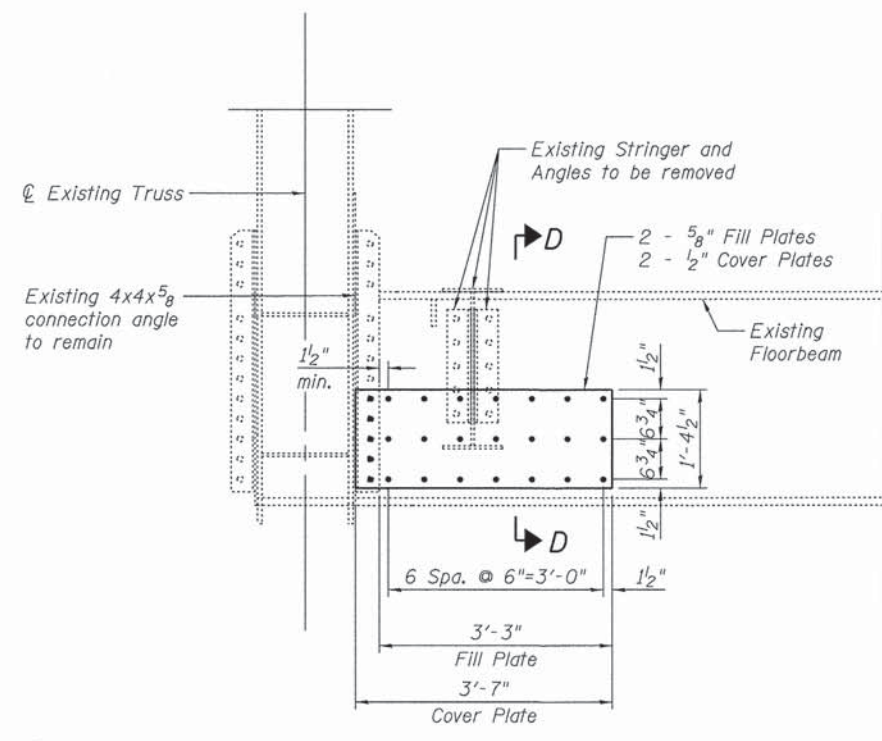




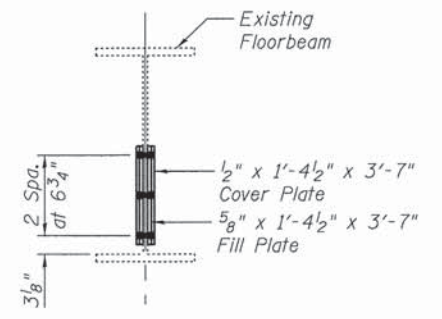
**TRUSS POST WEB REPAIR (PWR)**  
(3 locations)



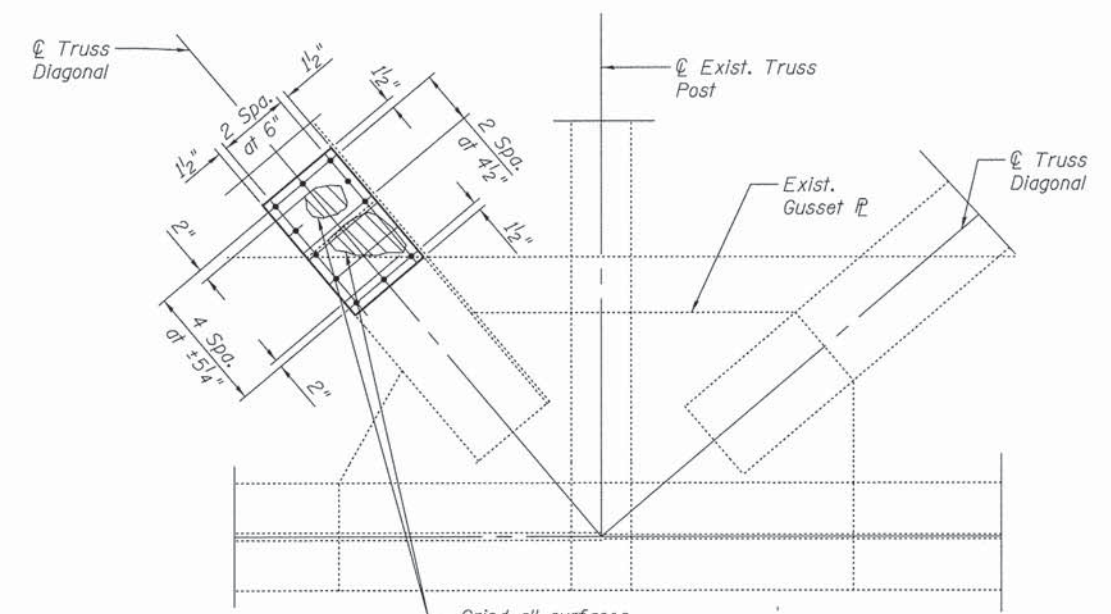
**SECTION A-A**



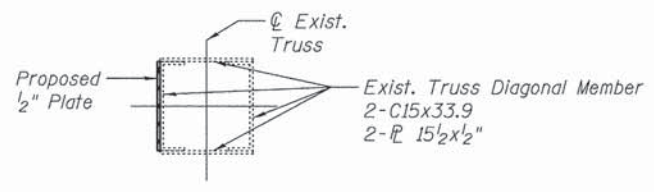
**FLOORBEAM WEB REPAIR (FWR)**  
(8 locations)



**SECTION D-D**



**TRUSS DIAGONAL WEB REPAIR (DWR)**  
(1 location)



**SECTION B-B**

**VERIFY IN FIELD**

It shall be the Contractor's responsibility to verify all existing dimensions and details in the field prior to ordering of materials and steel fabrication.

**LEGEND**

- ⊙ Existing fastener to remain
- New fastener

**NOTES**

1. For locations of Truss Post Web Repair (PWR) see Sheet S-15.
2. For locations of Floorbeam Web Repair (FWR) see Sheet S-15.
3. For locations of Truss Diagonal Web Repair (DWR) see Sheet S-15.



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	CHECKED - MBQ	REVISED
PLOT SCALE =	DRAWN - KO	REVISED
PLOT DATE = 11/13/2015	CHECKED - MBQ	REVISED

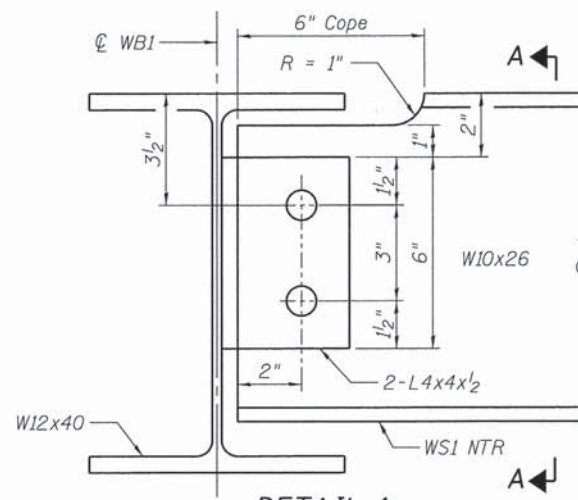
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL DETAILS 4**  
**STRUCTURE NO. 016-6620**

SHEET NO. S-19 OF S-36 SHEETS

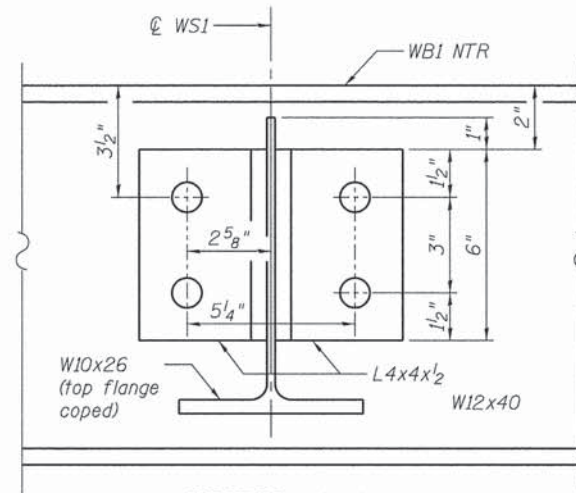
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	37
CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	



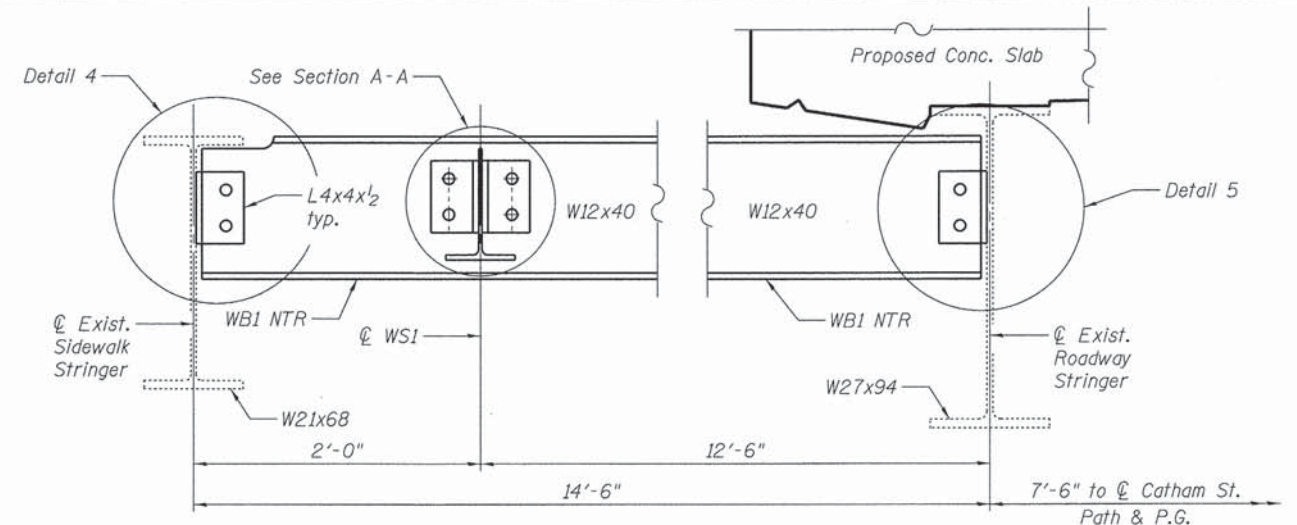


**DETAIL 1**

See sheet S-15 for location of Detail 1  
Dimensions shown are typical for all stringer connections to Walkway Beam WB1.  
Profile not shown for clarity.

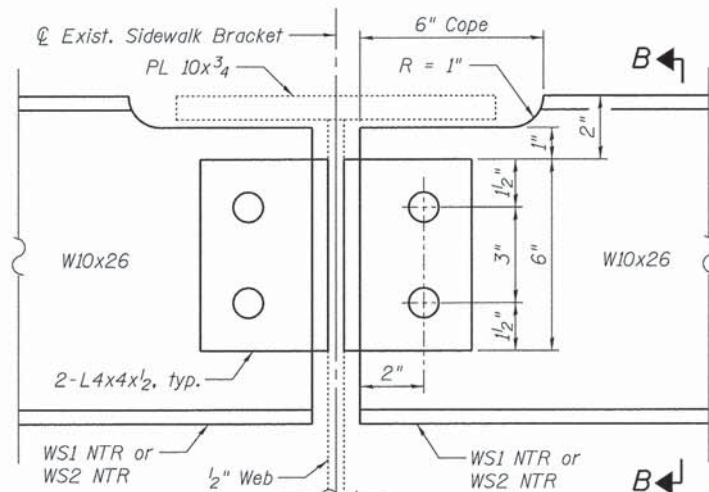


**SECTION A-A**



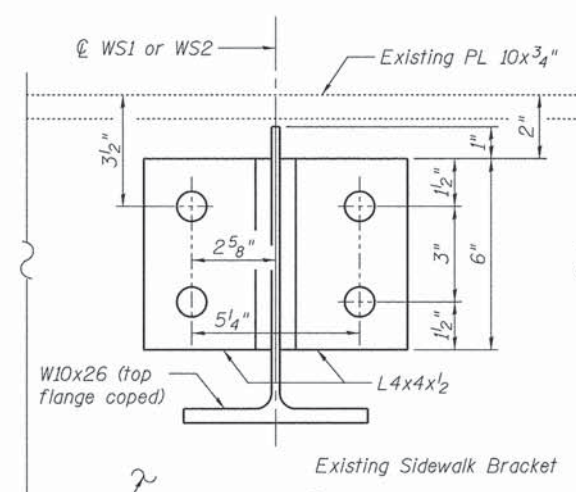
**WALKWAY BEAM ELEVATION**

West side of bridge shown, looking North. East side of bridge similar opposite hand.



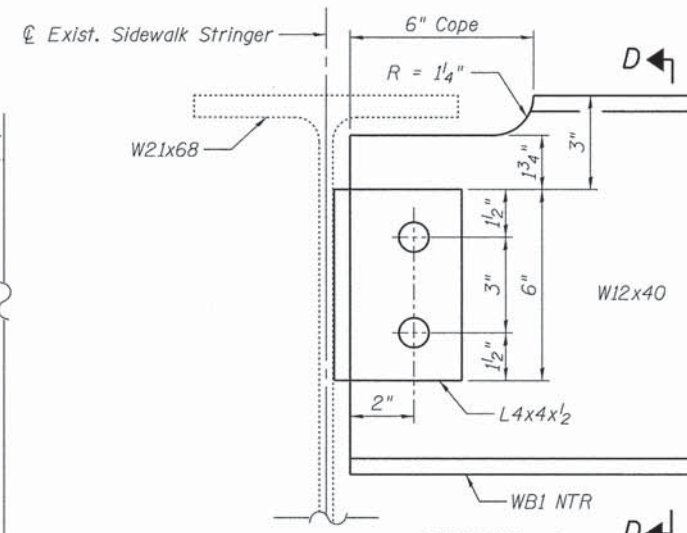
**DETAIL 2**

See sheet S-15 for location of Detail 2  
Dimensions shown are typical for all stringer connections to existing sidewalk bracket.  
Profile not shown for clarity.

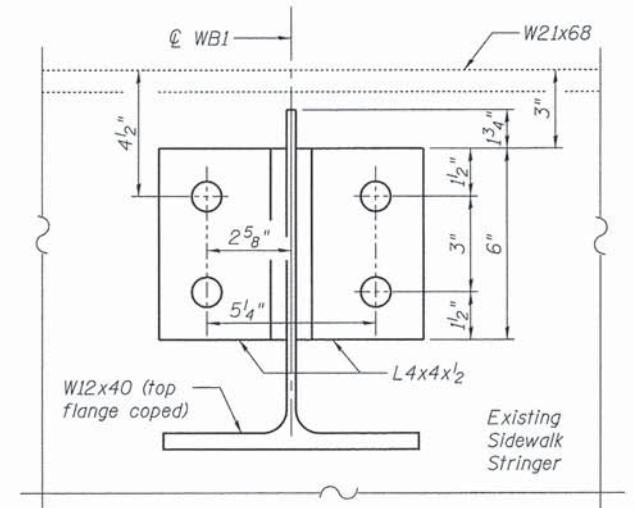


**SECTION B-B**

Dimensions shown are typical for all stringer connections to existing sidewalk bracket.  
Field drill Holes in sidewalk bracket.

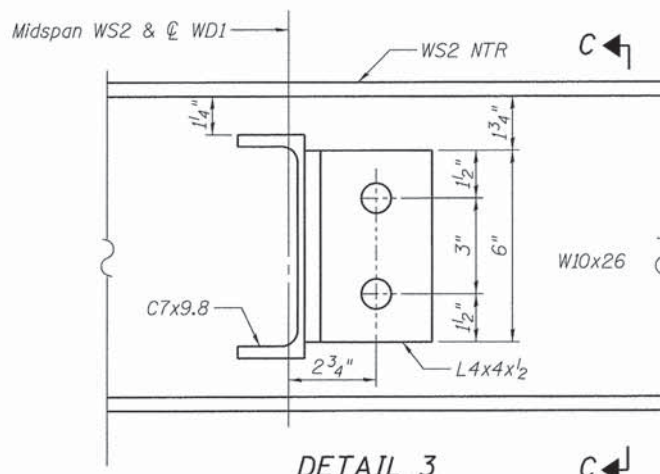


**DETAIL 4**



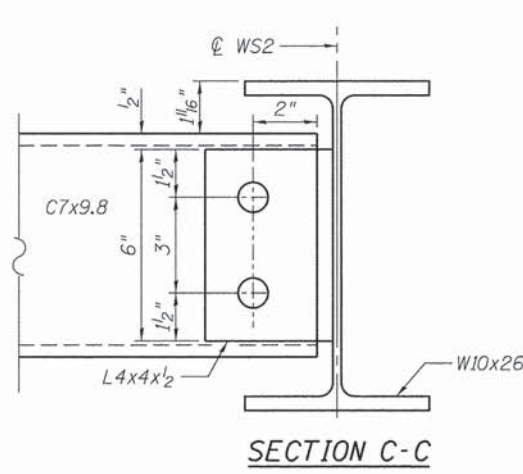
**SECTION D-D**

Field drill Holes in sidewalk stringer.



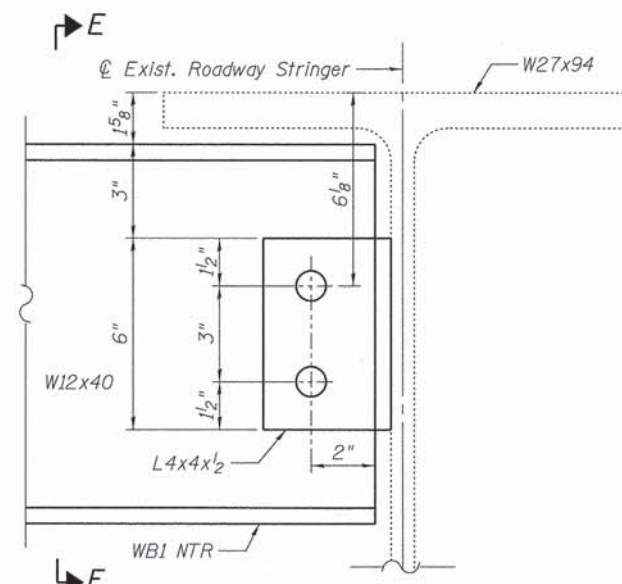
**DETAIL 3**

See sheet S-15 for location of Detail 3  
Detail shown at WS2 connection, connection to Existing Sidewalk Stringer similar.  
Field drill holes in sidewalk stringer.

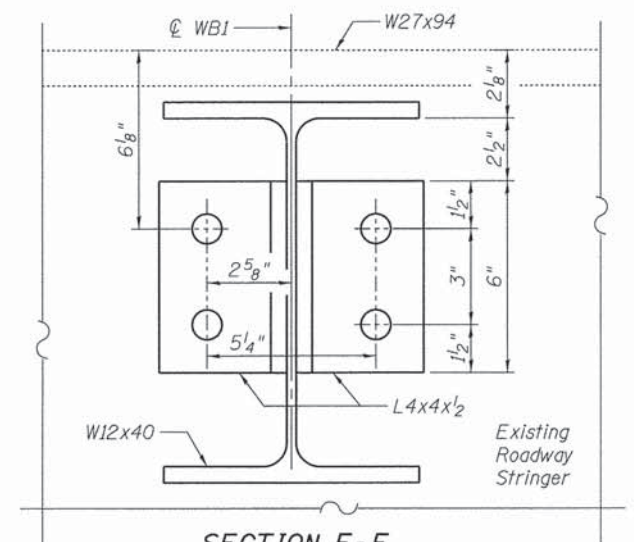


**SECTION C-C**

Detail shown at WS2 connection, connection to Existing Sidewalk Stringer similar opposite hand.



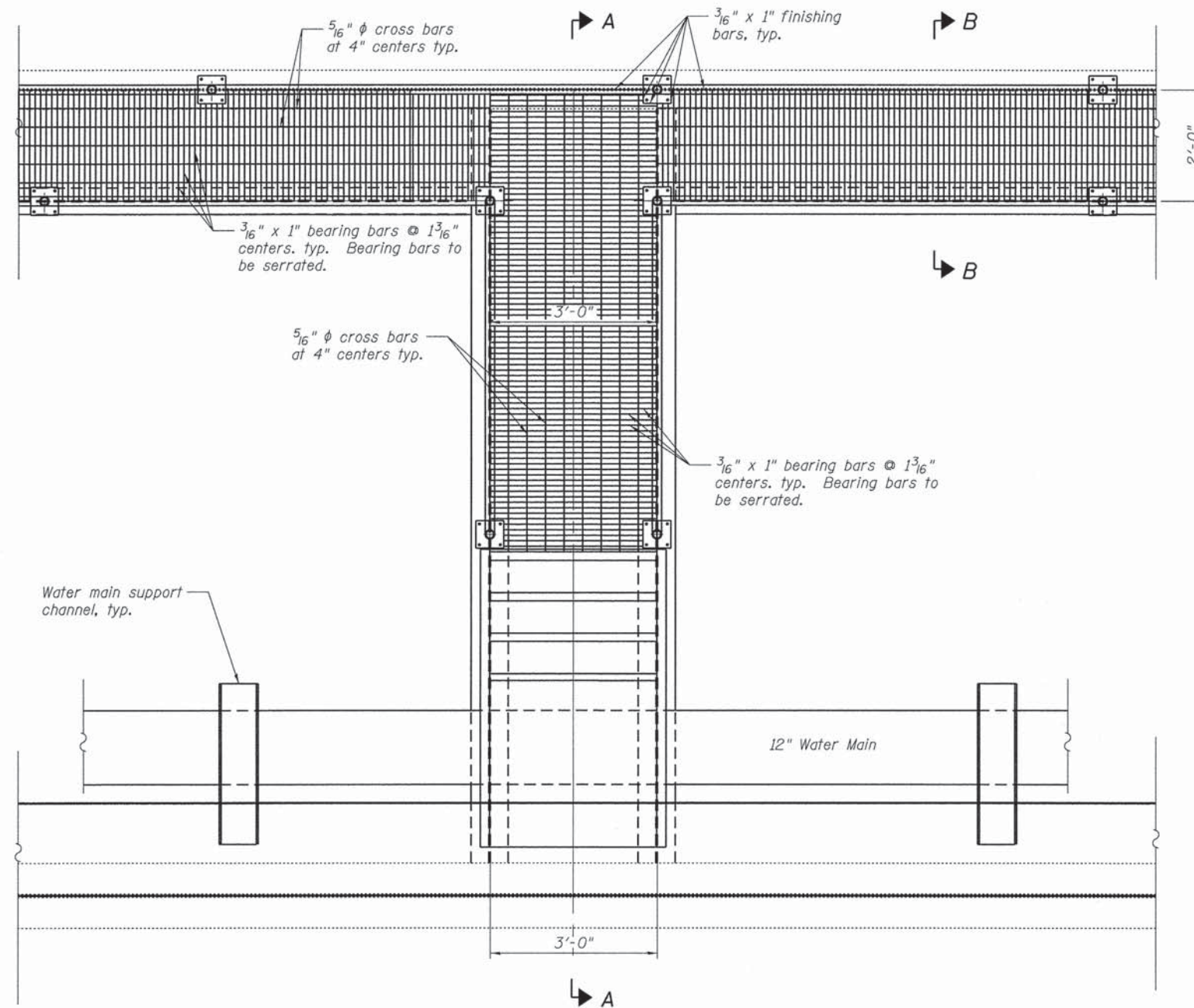
**DETAIL 5**



**SECTION E-E**

Field drill Holes in roadway stringer.

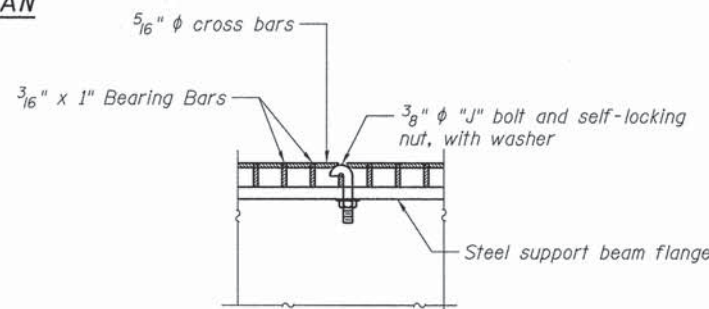




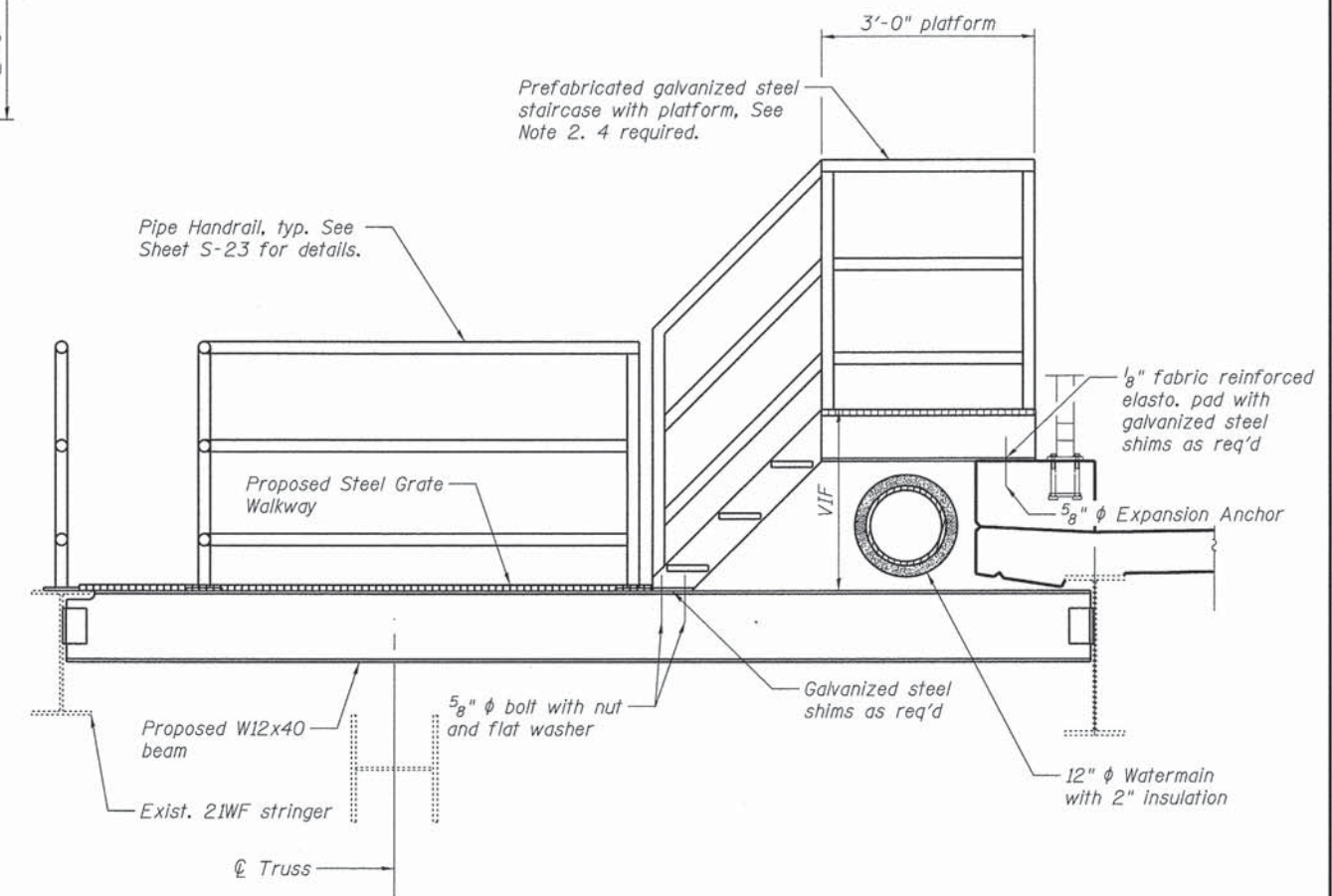
**NOTES:**

1. Grating shall be bolted to support beams by means of "J" bolt or other type bolts approved by the Engineer. Each panel shall have one bolt in each corner with a maximum spacing of 1'-6". Drill 7/16" diameter holes in field.
2. Prefabricated galvanized steel stairs and platforms shall conform to OSHA 45° standard with 8.75" rise/run and 36" tread width. Stairs and platforms shall be paid as part of STEEL GRATE WALKWAY.
3. See "General Plan and Elevation" for walkway layout.
4. See "Span 3 Framing Details" sheet for walkway support structural steel.
5. Steel grate shall be hot-dip galvanized according to ASTM A-123 and the hardware in accordance with AASHTO M 232.

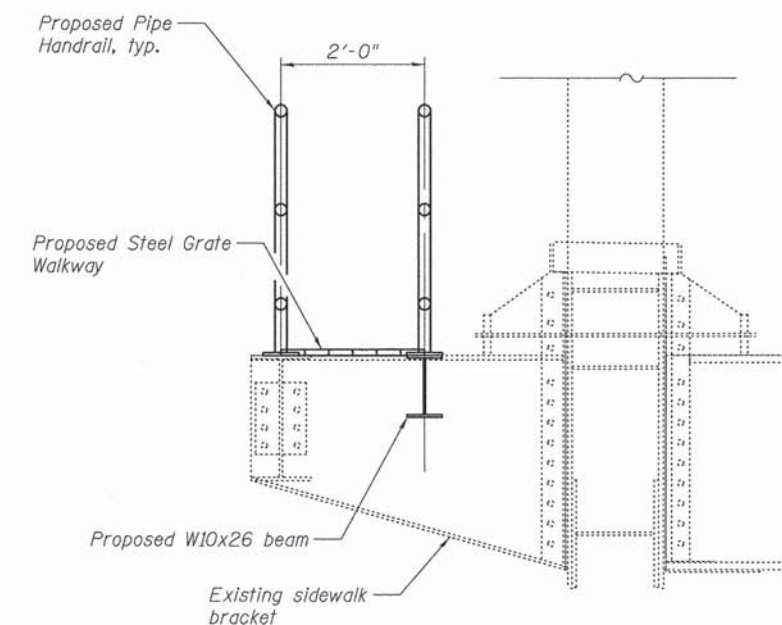
**ACCESS WALKWAY - PART PLAN**



**"J" BOLT DETAIL**



**SECTION A-A**



**SECTION B-B**



USER NAME =	DESIGNED - MBO	REVISED
PLOT SCALE =	CHECKED - NPP	REVISED
PLOT DATE = 015	DRAWN - MBO	REVISED
	CHECKED - NPP	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

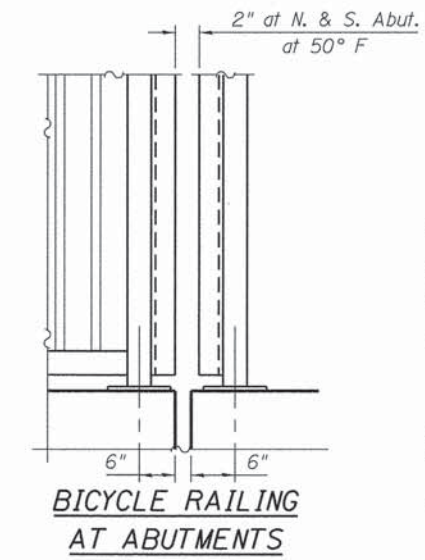
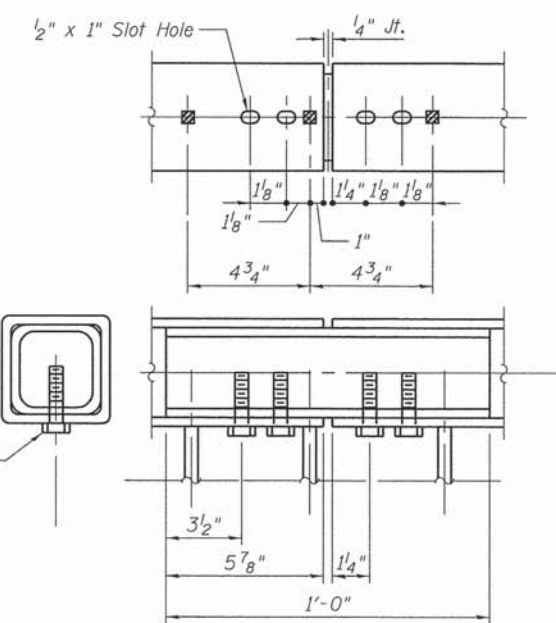
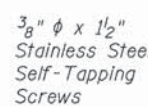
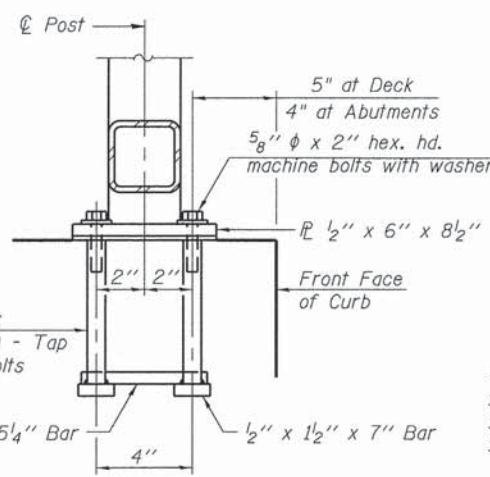
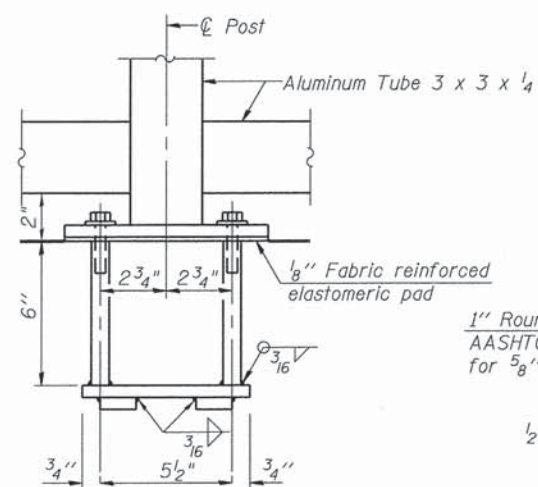
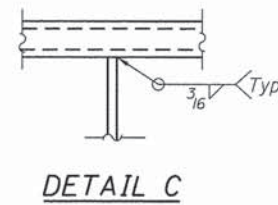
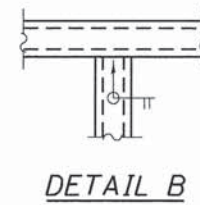
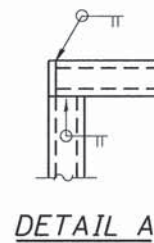
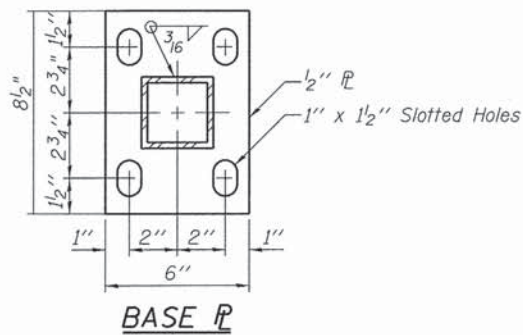
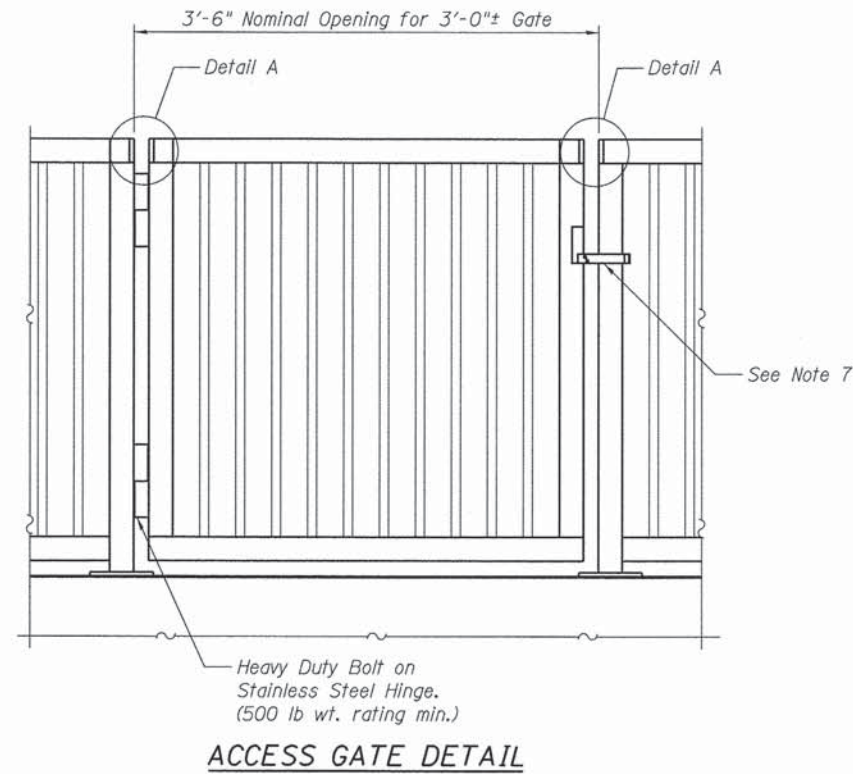
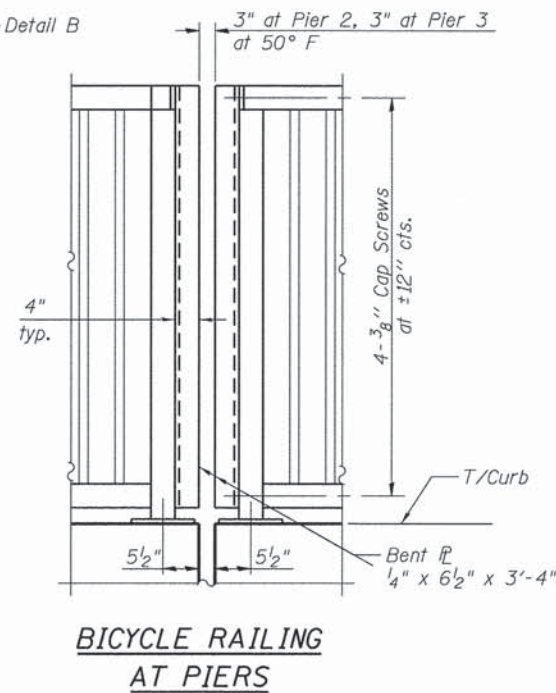
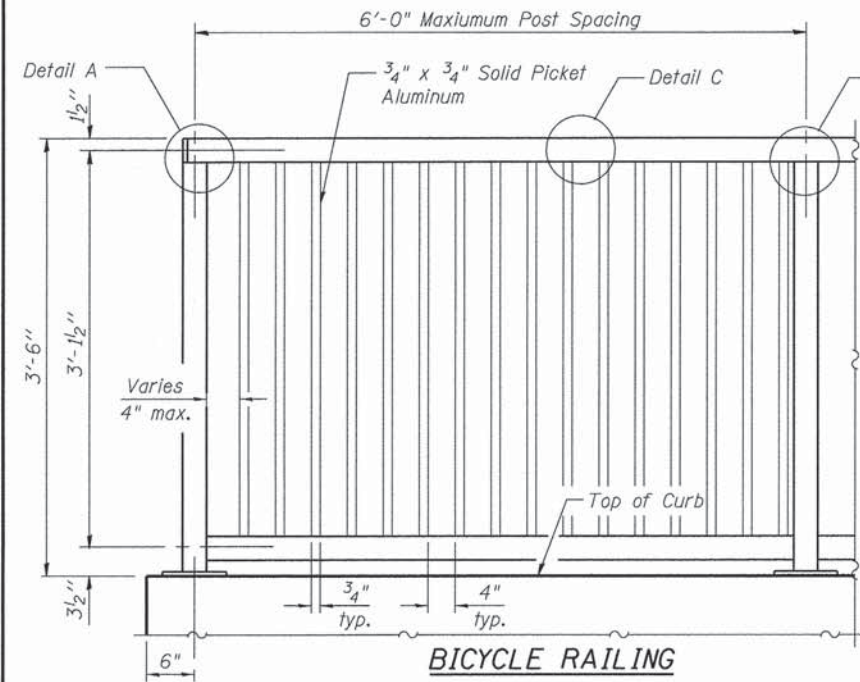
**STRUCTURAL STEEL DETAILS 6  
STRUCTURE NO. 016-6620**

SHEET NO. S-21 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	39
				61C15

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**ANCHOR BOLT DETAILS**

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.

**BILL OF MATERIAL**

Item	Unit	Quantity
Bicycle Railing (Special)	Foot	861

**NOTES:**

- Bicycle railings shall be according to Section 509 of the IDOT Standard Specifications, except as noted.
- All tubing shall be aluminum alloy 6063-T52.
- All posts and rails shall be painted in accordance with Section 506 of the IDOT Standard Specifications.
- All rail shall be sandblasted per SSPC-SP7 brush-off blast followed by shop applied primer and top coat as follows: 3.00 MILS epoxy interim coat, then 2.00 MILS acrylic polyurethane topcoat - black.
- All bolts, screws, nuts and washers shall be stainless steel.
- Shop drawings including proposed post layout, must be submitted to the resident engineer for approval.
- Gate locking mechanisms (keyed dead bolt or padlock hasp) to be reviewed and approved by the City of Blue Island.



USER NAME =	DESIGNED - BAR	REVISED
PLOT SCALE =	CHECKED - MBQ	REVISED
PLOT DATE = 11/17/2015	DRAWN - BAR	REVISED
	CHECKED - MBQ	REVISED

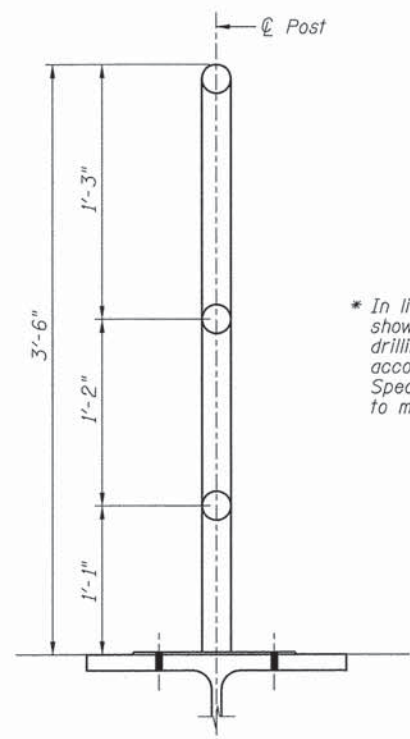
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BICYCLE RAILING  
STRUCTURE NO. 016-6620

SHEET NO. S-22 OF S-36 SHEETS

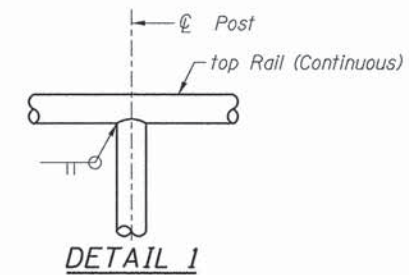
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	40
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				



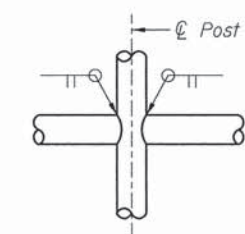


RAIL POST CONNECTION

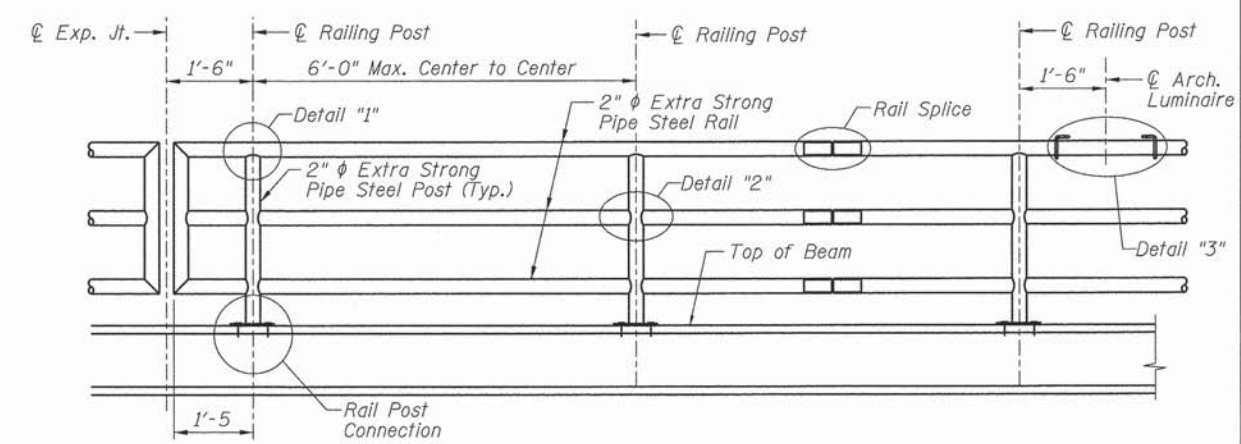
\* In lieu of the cast-in-place anchor rods shown, the Contractor has the option of drilling and setting 3/4" dia. anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to manufacturer's specifications.



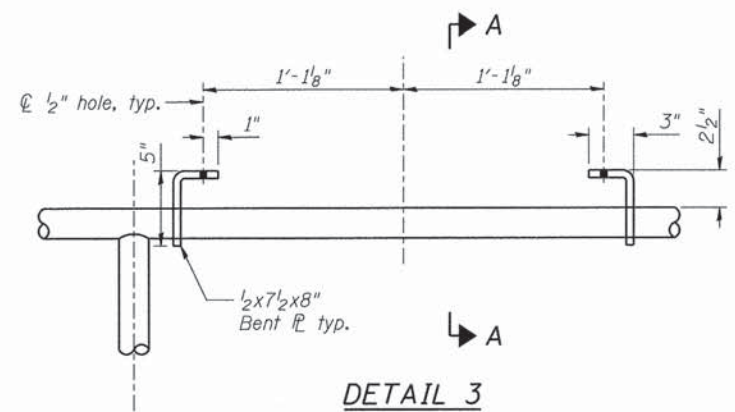
DETAIL 1



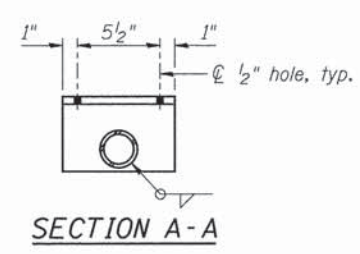
DETAIL 2



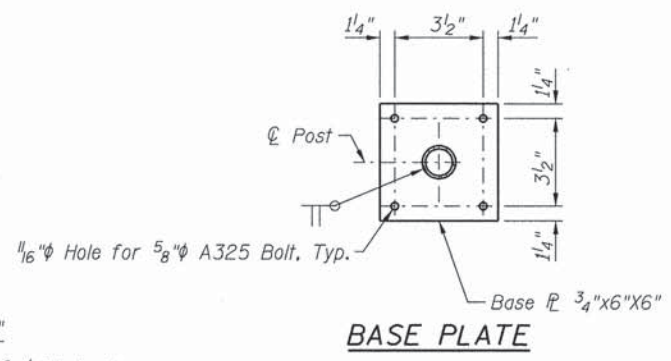
TYPICAL PIPE HANDRAIL ELEVATION



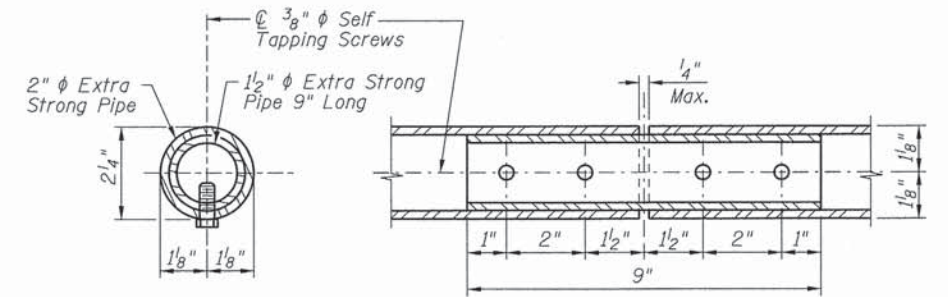
DETAIL 3



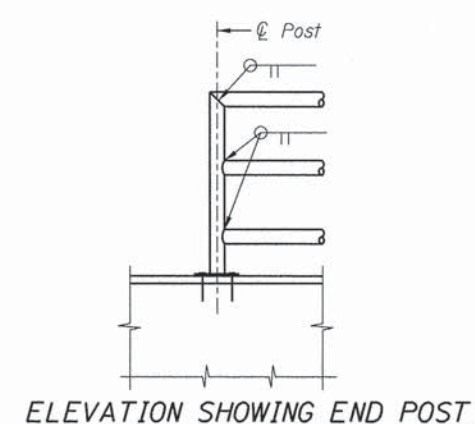
SECTION A-A



BASE PLATE



RAIL SPLICE



ELEVATION SHOWING END POST

NOTES:

- Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot.
- Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, Structural Steel Tubing.
- All other steel shapes and plates shall conform to the requirements of AASHTO M-270, Grade 36.
- All posts, railing, splices, anchor devices, and bent plates shall be galvanized after shop fabrication according to AASHTO M-111 and ASTM A-385. All bolts, nuts and washers shall be galvanized according to AASHTO M-232.
- Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.
- See Electrical Sheets for Architectural Lighting locations. Light fixture support based on architectural fixture specified on Electrical drawings. Coordinate luminaire mounting details for actual fixture furnished. Notify Engineer of discrepancies.



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	CHECKED - MBQ	REVISED
PLOT SCALE =	DRAWN - BAR	REVISED
PLOT DATE = 11/17/2015	CHECKED - MBQ	REVISED

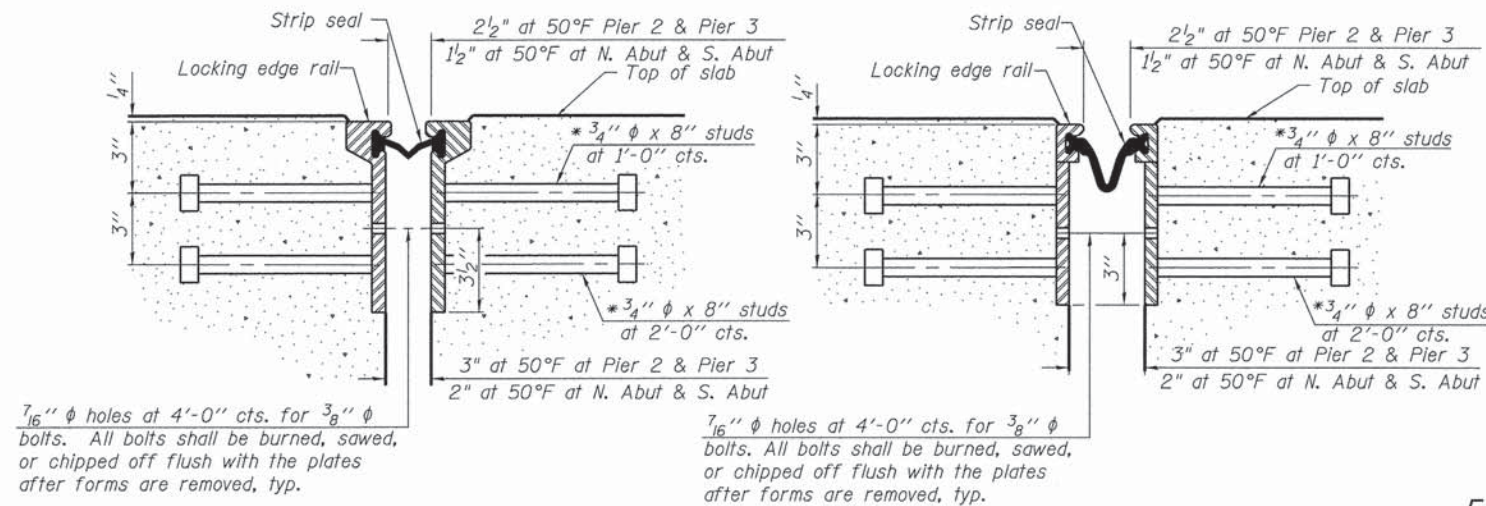
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PIPE HANDRAIL  
STRUCTURE NO. 016-6620

SHEET NO. S-23 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	41
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				





**SECTION THRU  
ROLLED RAIL JOINT**

**SECTION THRU  
WELDED RAIL JOINT**

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

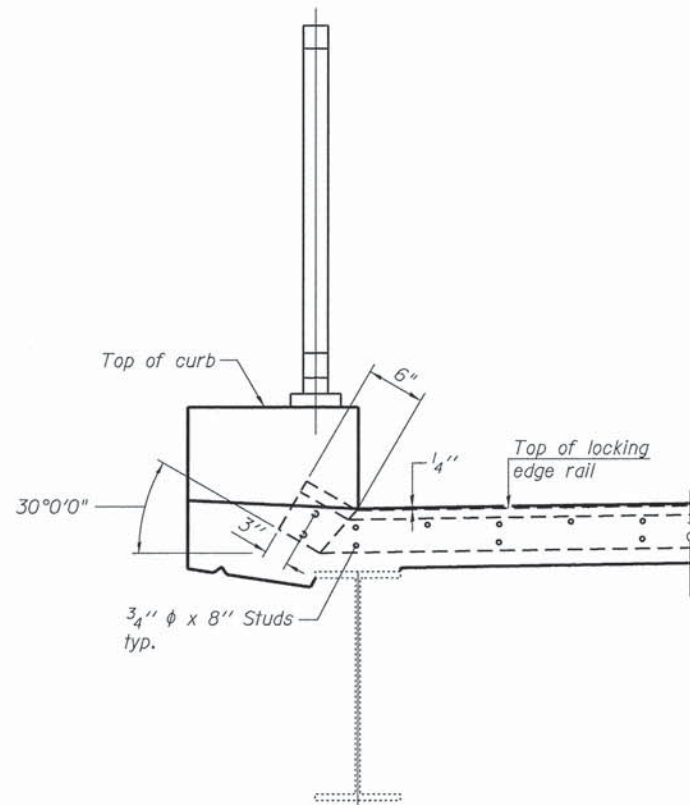
**ROLLED  
EXTRUDED RAIL**

**WELDED RAIL**

**LOCKING EDGE  
RAIL SPLICE**

The inside of the locking edge rail groove shall be free of weld residue.  
Rolled rail shown, welded rail similar.

**LOCKING EDGE RAILS**



**TYPICAL END TREATMENT  
AT CURB**

**Notes:**

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. 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.

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.

Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	74



USER NAME =	DESIGNED - KO	REVISED
	CHECKED - MBO	REVISED
PLOT SCALE =	DRAWN - KO	REVISED
PLOT DATE = 11/13/2015	CHECKED - MBO	REVISED

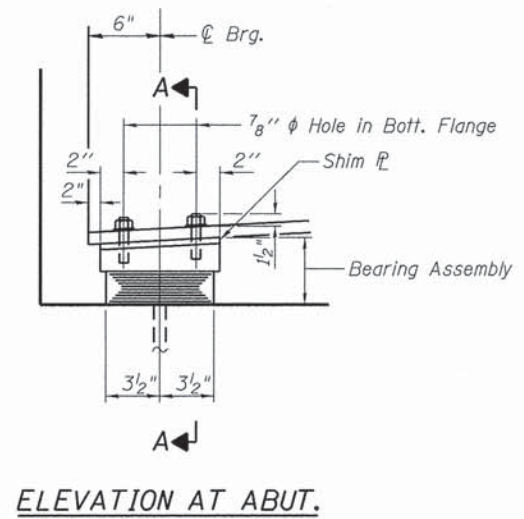
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL  
STRUCTURE NO. 016-6620**

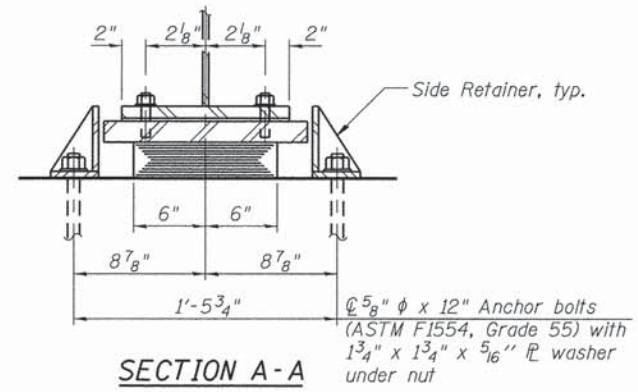
SHEET NO. S-24 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	42
				CONTRACT NO. 61C15
[ILLINOIS] FED. AID PROJECT				



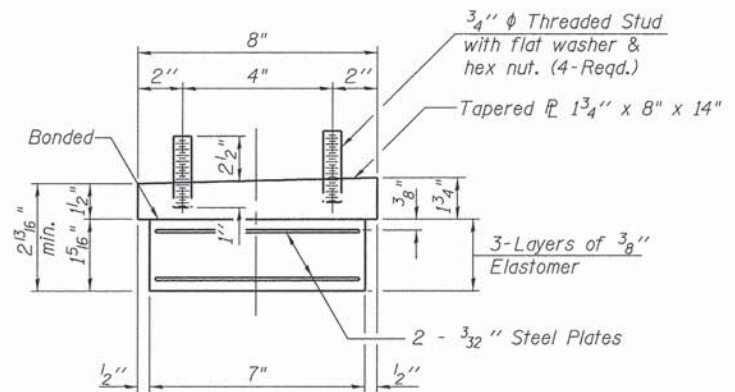


ELEVATION AT ABUT.



SECTION A-A

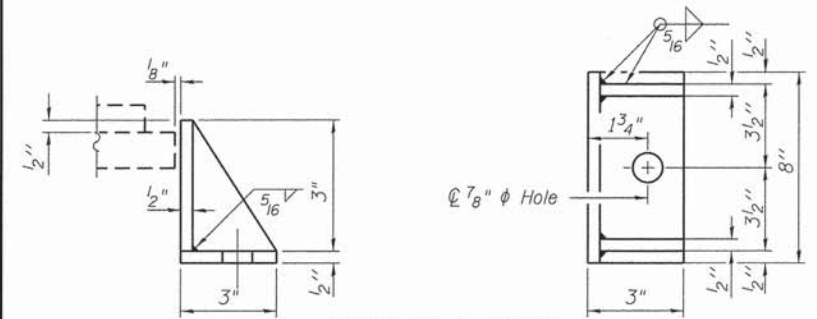
**TYPE I ELASTOMERIC EXP. BRG. AT NORTH ABUTMENT**  
(3 Required)



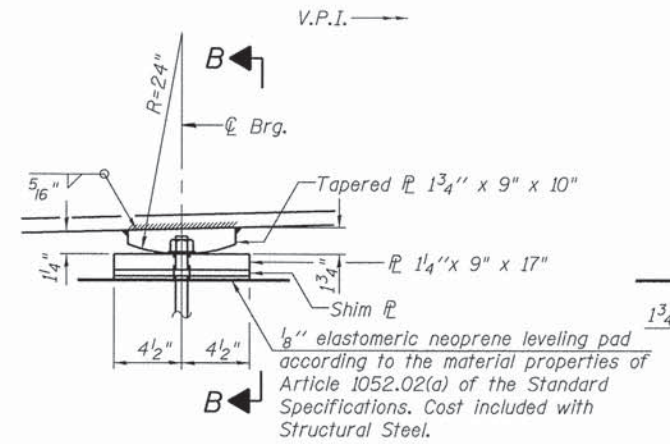
BEARING ASSEMBLY

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

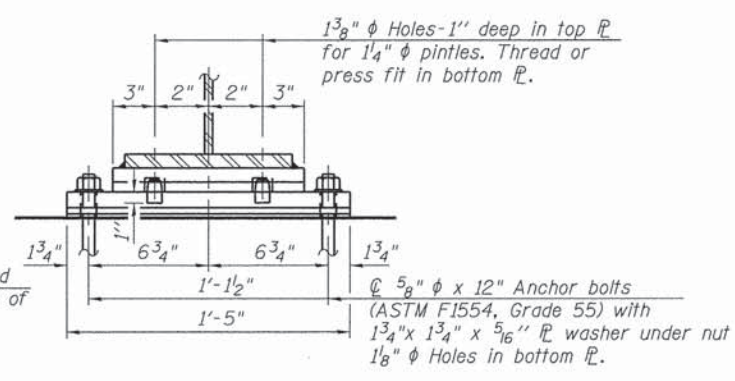
Notes:  
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.  
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.  
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.  
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.



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

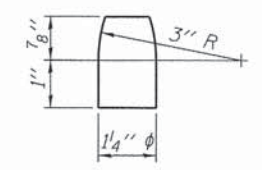


ELEVATION



SECTION B-B

**FIXED BEARING AT PIERS 1, 2, & 3, SOUTH ABUTMENT**  
(3 Required at each Piers 1, 2, 3 and South Abutment)



PINTLE

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	3
Anchor Bolts, 5/8"	Each	30



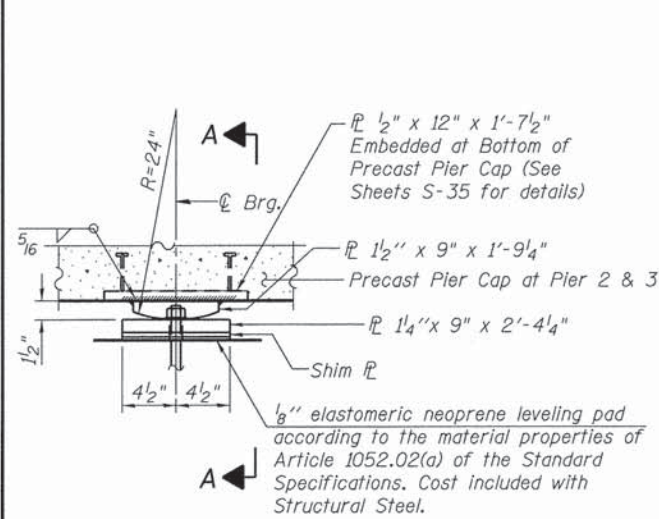
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PLDT SCALE =	CHECKED - KO	REVISED
PLDT DATE = 11/13/2015	DRAWN - KO	REVISED
	CHECKED - MBO	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS 1  
STRUCTURE NO. 016-6620  
SHEET NO. S-25 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	43
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				

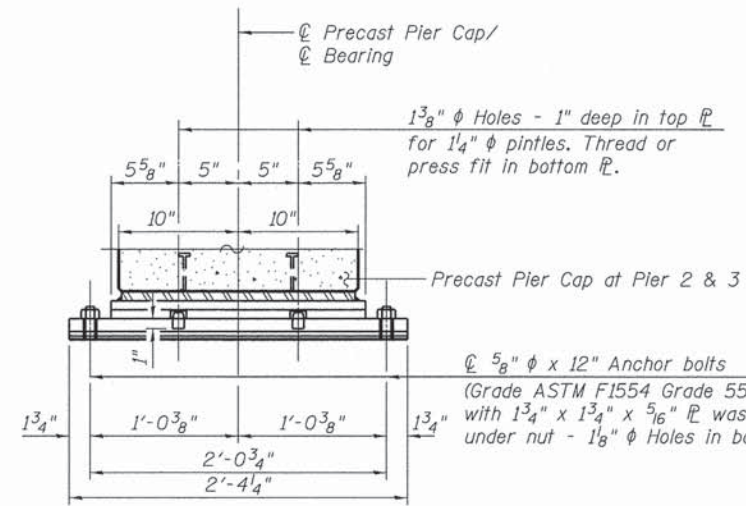




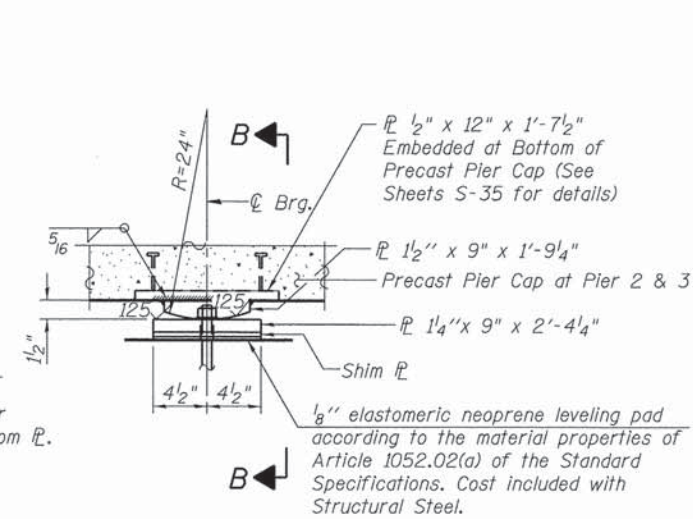
ELEVATION AT PIER

EAST FIXED BEARING AT PIER 2 AND PIER 3

(Total 2 Req'd)



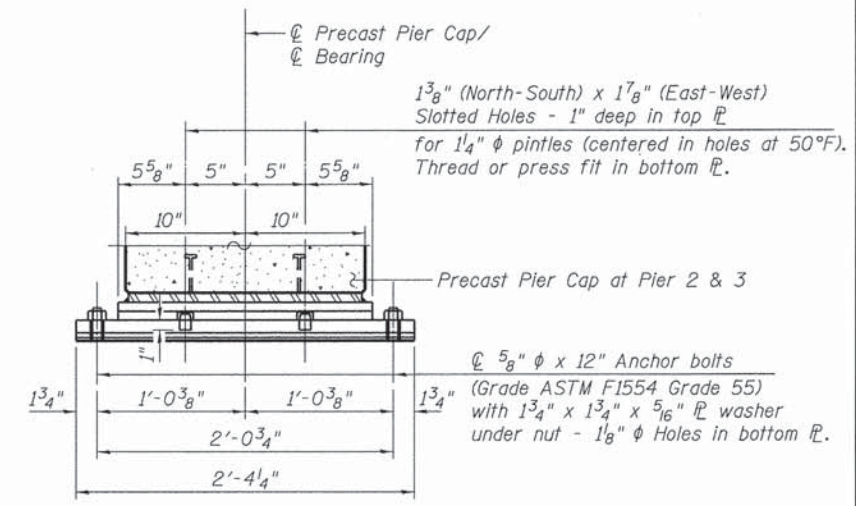
SECTION A-A



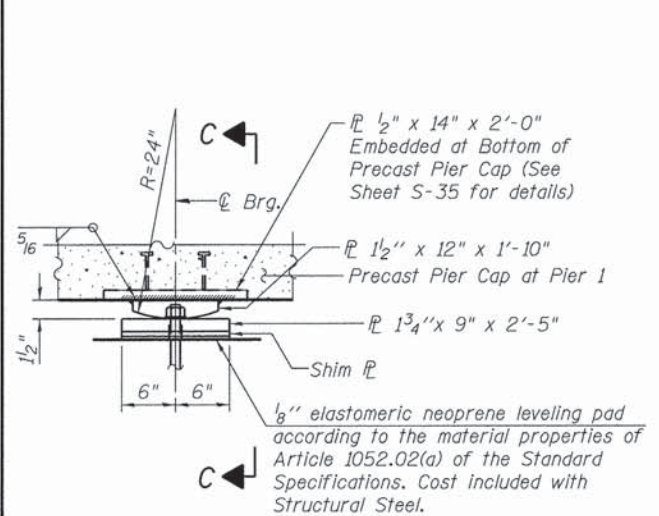
ELEVATION AT PIER

WEST EXP. BEARING AT PIER 2 AND PIER 3

(Total 2 Req'd)



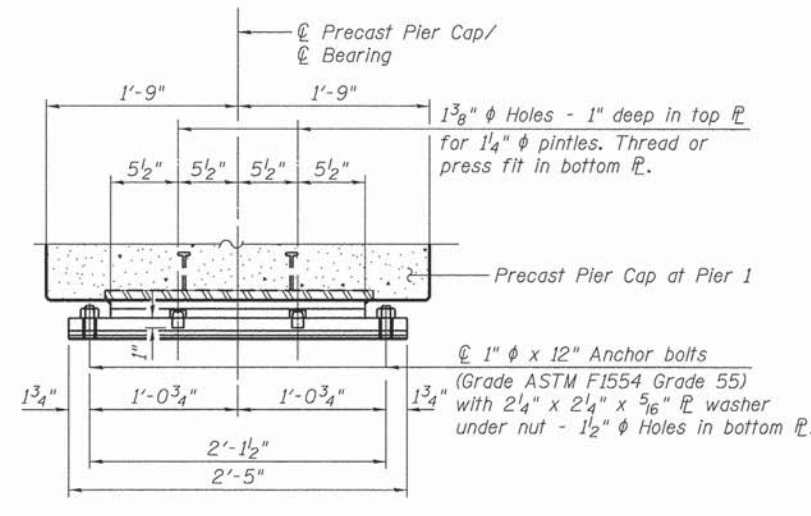
SECTION B-B



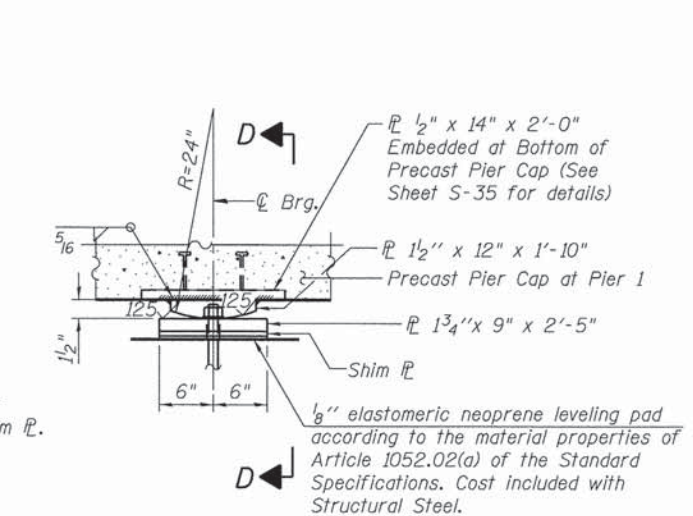
ELEVATION AT PIER

EAST FIXED BEARING AT PIER 1

(Total 1 Req'd)



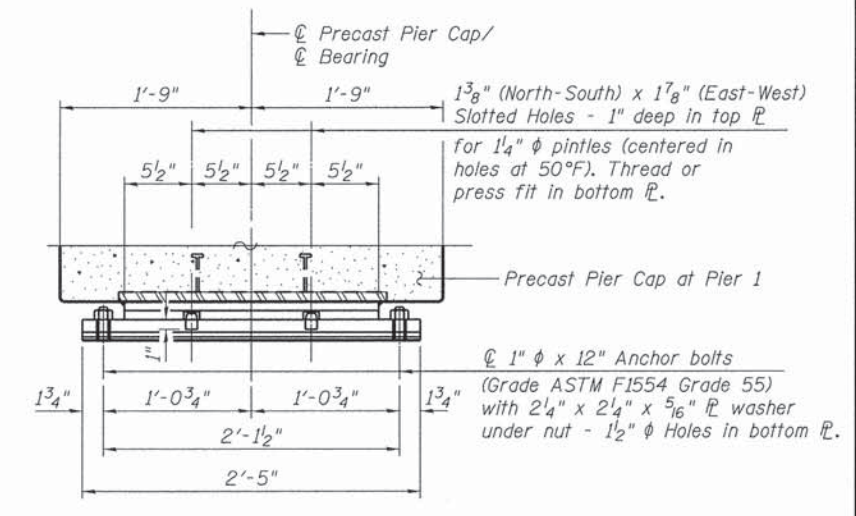
SECTION C-C



ELEVATION AT PIER

WEST EXP. BEARING AT PIER 1

(Total 1 Req'd)



SECTION D-D

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 5/8"	Each	8
Anchor Bolts, 1"	Each	4

Notes:

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

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications. See Sheet S-25 for pintle detail.



USER NAME =  
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PLOT DATE = 11/13/2015

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REVISOR

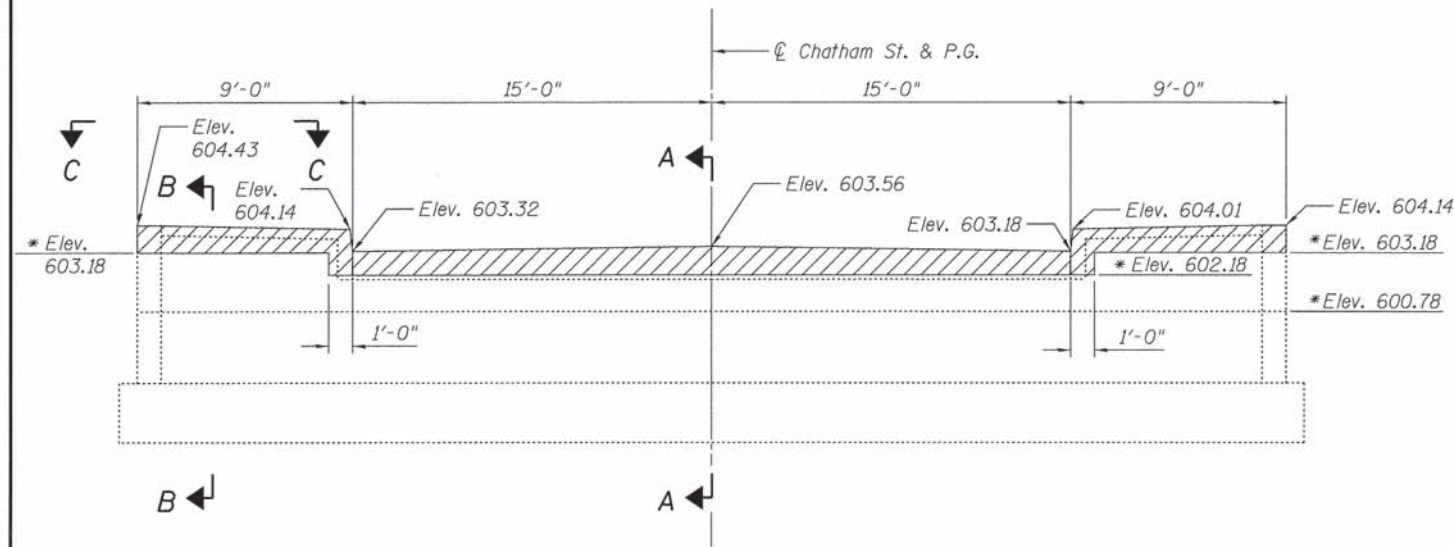
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS 2  
STRUCTURE NO. 016-6620

SHEET NO. S-26 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	44
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				

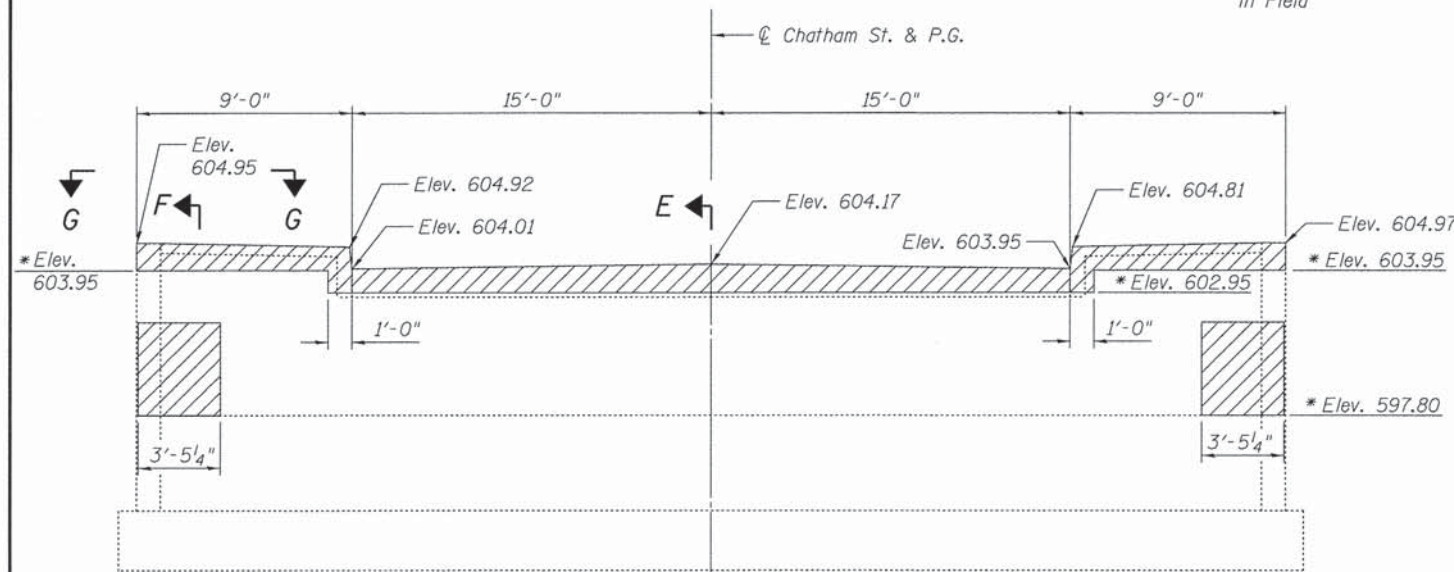




**NORTH ABUTMENT ELEVATION**

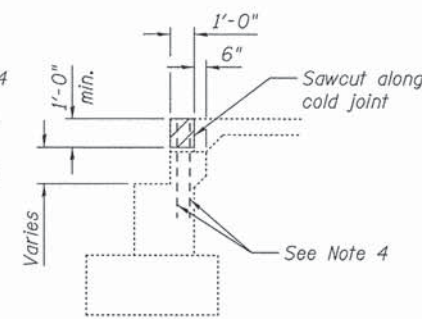
(Looking North)

\* Verify Elevation in Field

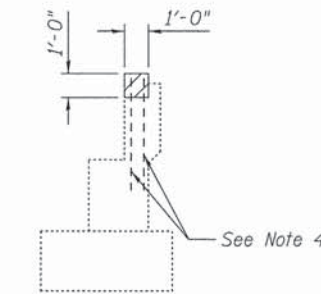


**SOUTH ABUTMENT ELEVATION**

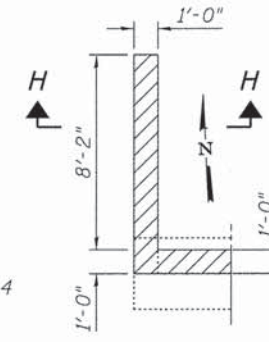
(Looking South)



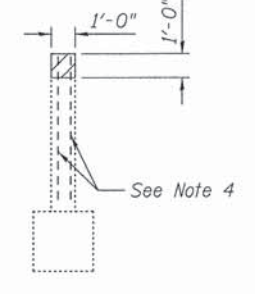
**SECTION A-A**



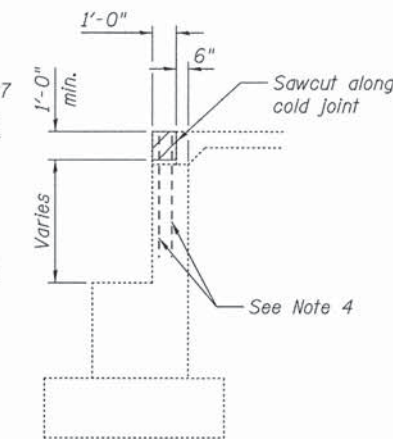
**SECTION B-B**



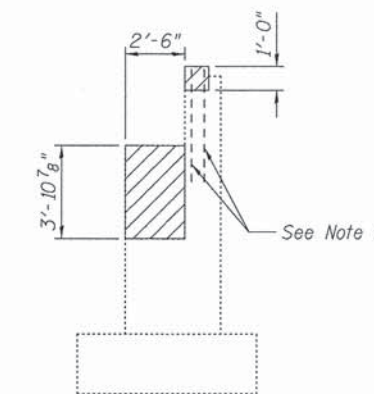
**VIEW C-C**



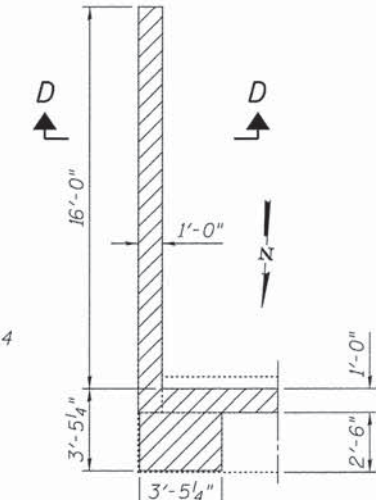
**SECTION D-D**



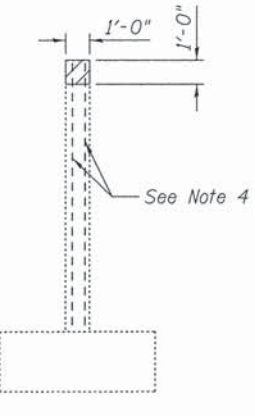
**SECTION E-E**



**SECTION F-F**



**VIEW G-G**



**SECTION H-H**

**LEGEND:**

- Indicates Concrete Removal

**SOUTH ABUTMENT BILL OF MATERIAL**

Item	Unit	Total
Graffiti Removal	Sq. Yd.	76
Removal of Existing Bearings	Each	7
Concrete Removal	Cu. Yd.	5.7

**NORTH ABUTMENT BILL OF MATERIAL**

Item	Unit	Total
Removal of Existing Bearings	Each	7
Concrete Removal	Cu. Yd.	2.9

**NOTES:**

- Existing wingwall reinforcement shall be cleaned and incorporated into the new construction. Cost included with CONCRETE REMOVAL.
- All existing reinforcement within concrete removal limits shall be burned flush to remaining concrete surface. Grind existing reinforcement smooth and seal with epoxy. Cost included with CONCRETE REMOVAL.
- Existing bearings shall be removed. Existing anchor bolts shall be burned flush to remaining concrete surface. Grind existing reinforcement smooth and seal with epoxy. Cost included with REMOVAL OF EXISTING BEARINGS.
- Existing vertical reinforcement shall be cleaned and incorporated into new construction. Any existing reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system at the Contractor's expense.



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	CHECKED - MBO	REVISED
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PLOT DATE = 11/13/2015	CHECKED - MBO	REVISED

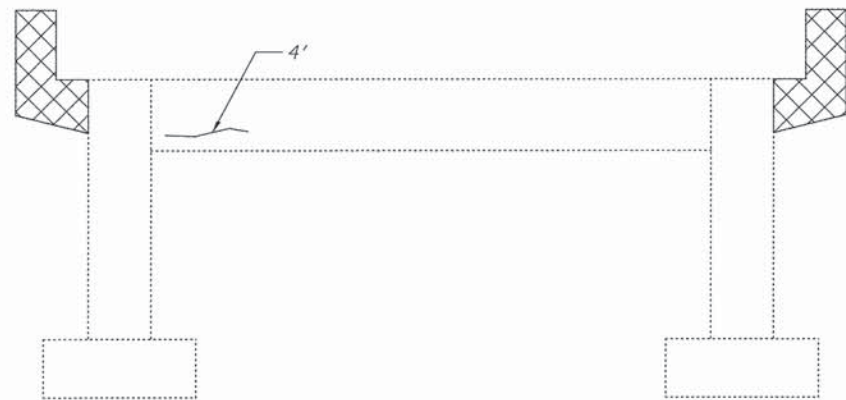
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONCRETE REMOVAL AND REPAIR DETAILS 1  
STRUCTURE NO. 016-6620**

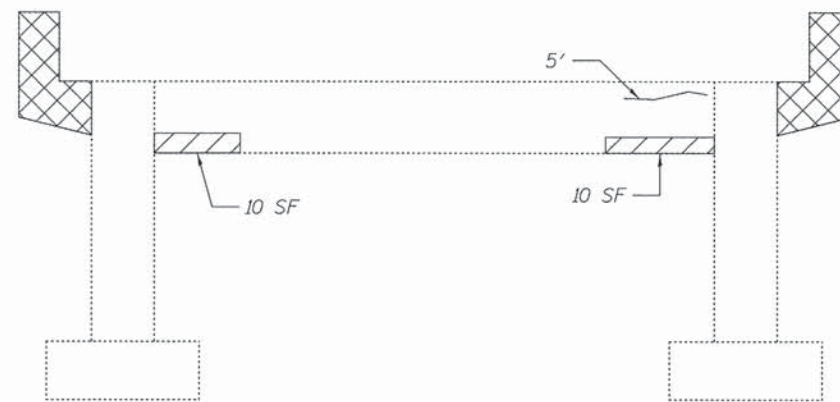
SHEET NO. S-27 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	

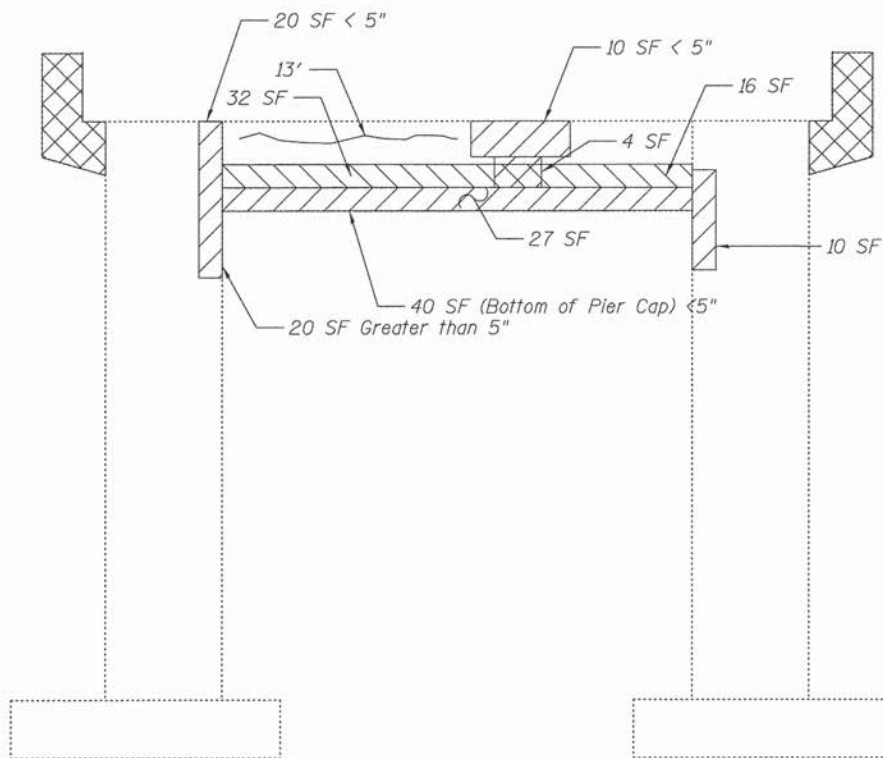




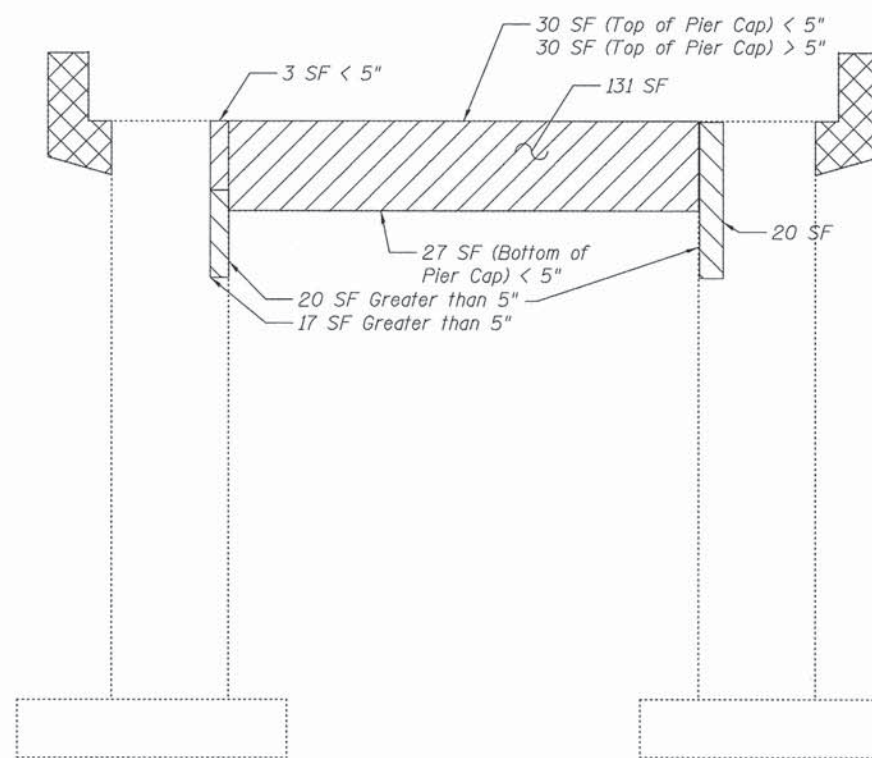
**ELEVATION - PIER 1**  
(Looking South)



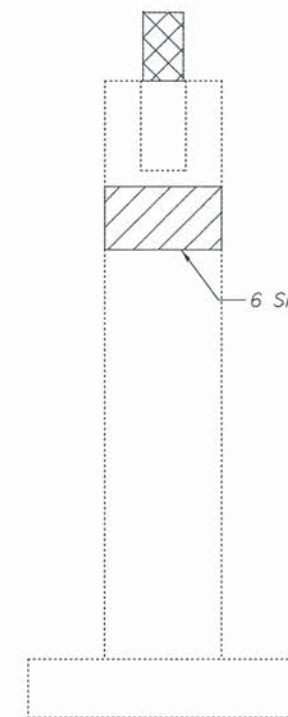
**ELEVATION - PIER 1**  
(Looking North)



**ELEVATION - PIER 2**  
(Looking South)



**ELEVATION - PIER 2**  
(Looking North)



**PIER 2 - EAST COLUMN**  
(Looking East)

**PIER 1 BILL OF MATERIAL**

Item	Unit	Total
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	20
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	68
Epoxy Crack Injection	Foot	9
Concrete Removal	Cu. Yd.	2.1
Graffiti Removal	Sq. Yd.	66
Removal of Existing bearings	Each	7

**PIER 2 BILL OF MATERIAL**

Item	Unit	Total
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	308
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	175
Epoxy Crack Injection	Foot	13
Concrete Removal	Cu. Yd.	2.6
Graffiti Removal	Sq. Yd.	103
Removal of Existing bearings	Each	7

**NOTES:**

- Crack widths are  $\frac{1}{8}$ "  $\pm$   $\frac{1}{16}$ " unless otherwise noted. The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on As-Built plans.
- Existing graffiti on exposed vertical faces of pier elements to remain shall be removed. Cost included with GRAFFITI REMOVAL.
- Existing Span 1 and Span 2 bearings shall be removed (2 at Pier 1 and 2 at Pier 2). Existing anchor bolts shall be burned flush to remaining concrete surface. Grind existing reinforcement smooth and seal with epoxy. Cost included with REMOVAL OF EXISTING BEARINGS.
- All existing reinforcement within concrete removal limits shall be burned flush to remaining concrete surface. Grind existing reinforcement smooth and seal with epoxy. Cost included with CONCRETE REMOVAL.

**LEGEND**

- Structural Repair of Concrete (Depth equal to or less than 5")
- Structural Repair of Concrete (Depth Greater Than 5 inches)
- Concrete Removal
- Epoxy Crack Injection



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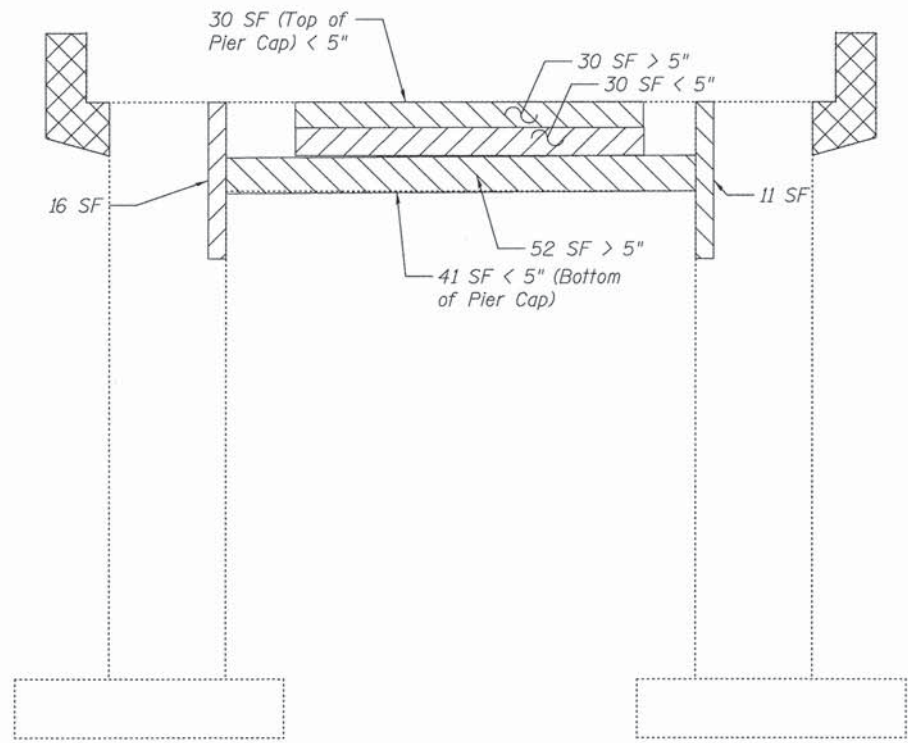
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CONCRETE REMOVAL AND REPAIR DETAILS 2**  
**STRUCTURE NO. 016-6620**

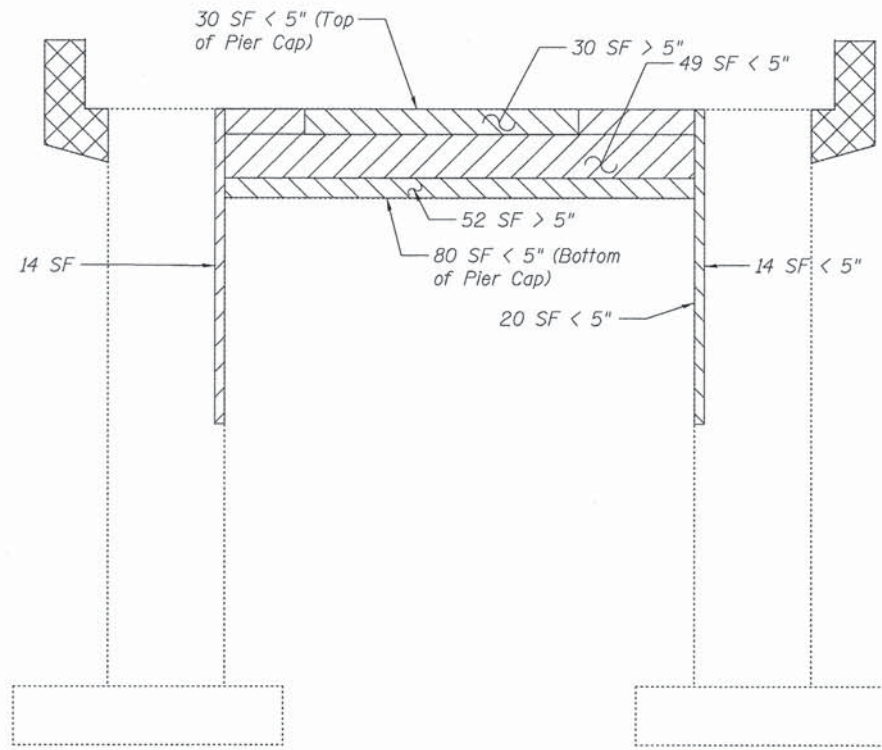
SHEET NO. S-28 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	46
			CONTRACT NO. 61C15	
ILLINOIS FED. AID PROJECT				

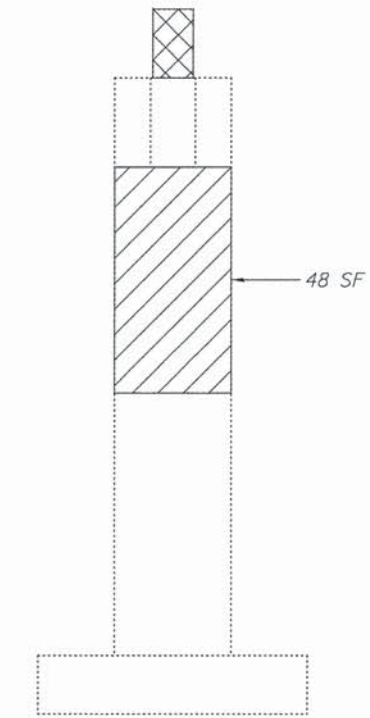




**ELEVATION - PIER 3**  
(Looking South)



**ELEVATION - PIER 3**  
(Looking North)



**PIER 3 - WEST COLUMN**  
(Looking West)

**PIER 3 BILL OF MATERIAL**

Item	Unit	Total
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	372
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	175
Concrete Removal	Cu. Yd.	2.0
Graffiti Removal	Sq. Yd.	61
Removal of Existing bearings	Each	7

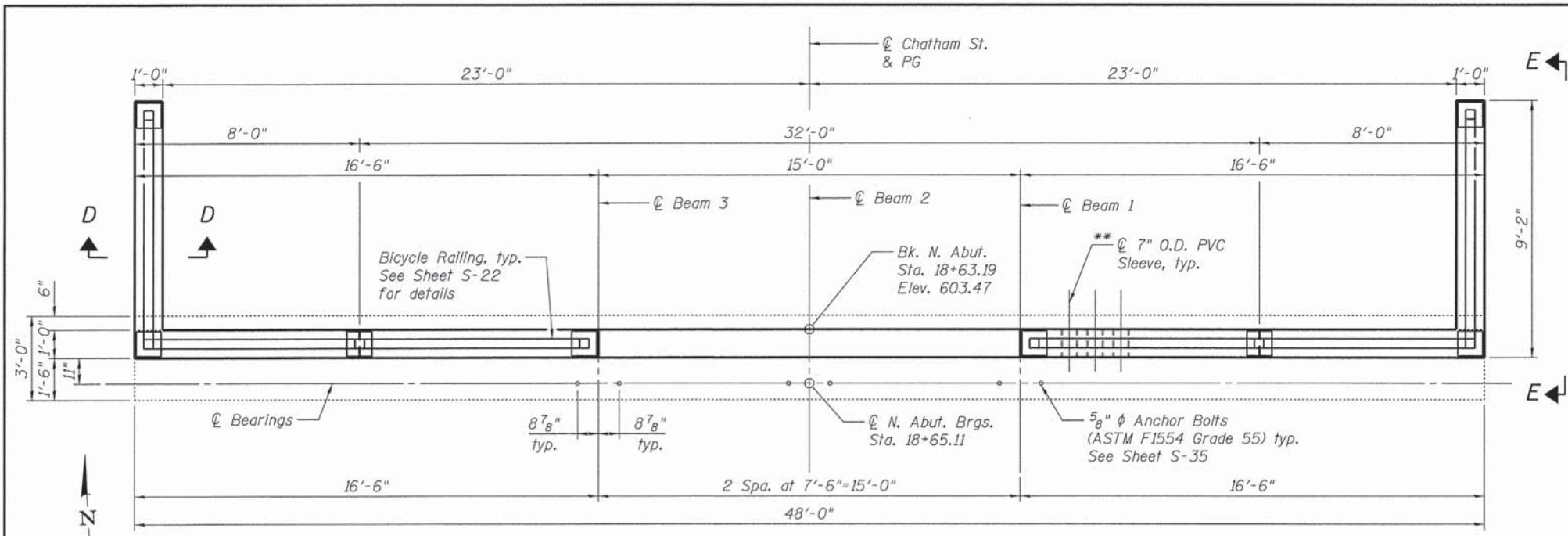
**NOTES:**

- Crack widths are  $\frac{1}{8}$ "  $\pm$   $\frac{1}{16}$ " unless otherwise noted. The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on As-Built plans.
- Existing graffiti on exposed vertical faces of pier elements to remain shall be removed. Cost included with GRAFFITI REMOVAL.
- Existing Span 3 bearings shall be removed (2 at Pier 3). Existing anchor bolts shall be burned flush to remaining concrete surface. Grind existing reinforcement smooth and seal with epoxy. Cost included with REMOVAL OF EXISTING BEARINGS.
- All existing reinforcement within concrete removal limits shall be burned flush to remaining concrete surface. Grind existing reinforcement smooth and seal with epoxy. Cost included with CONCRETE REMOVAL.

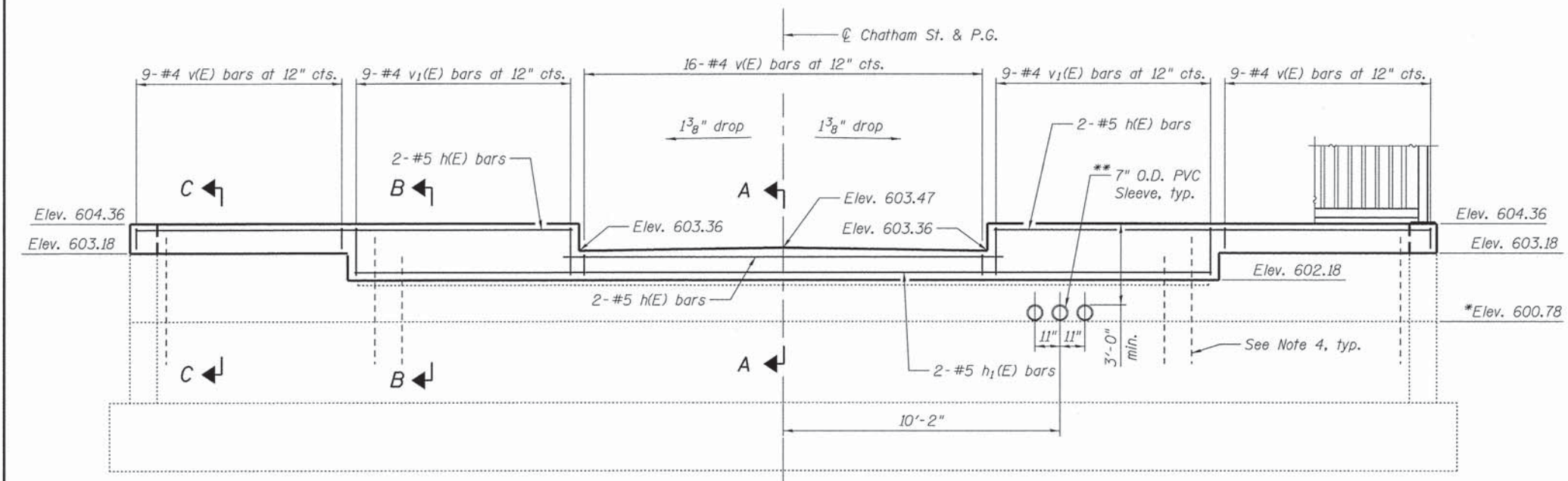
**LEGEND**

- Structural Repair of Concrete (Depth equal to or less than 5") and Concrete Sealer
- Structural Repair of Concrete (Depth Greater Than 5 inches)
- Concrete Removal





**TOP PLAN**



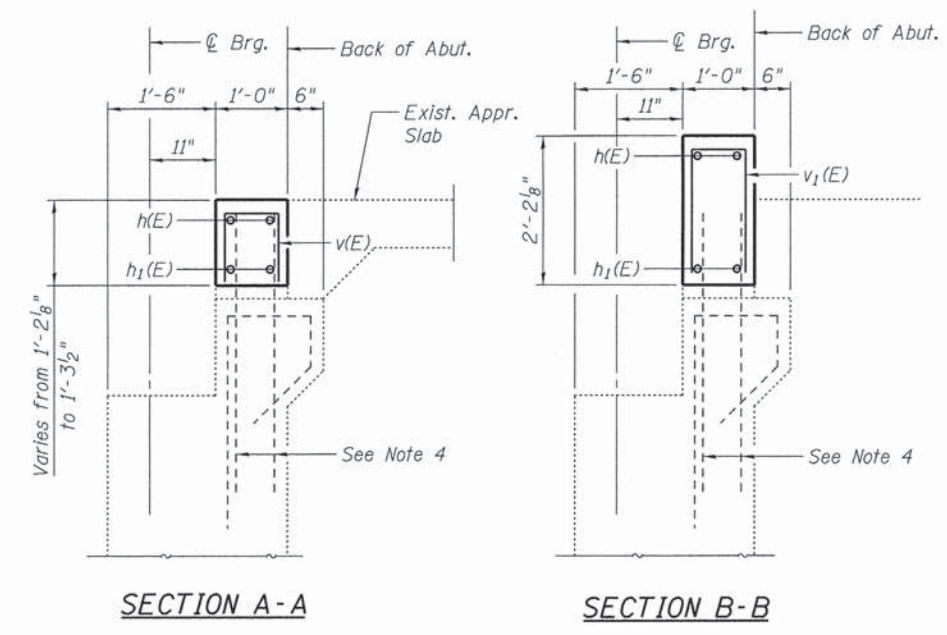
**NORTH ABUTMENT ELEVATION**

(Looking North)  
(All elevations shown are at back of abutment)

**NOTES:**

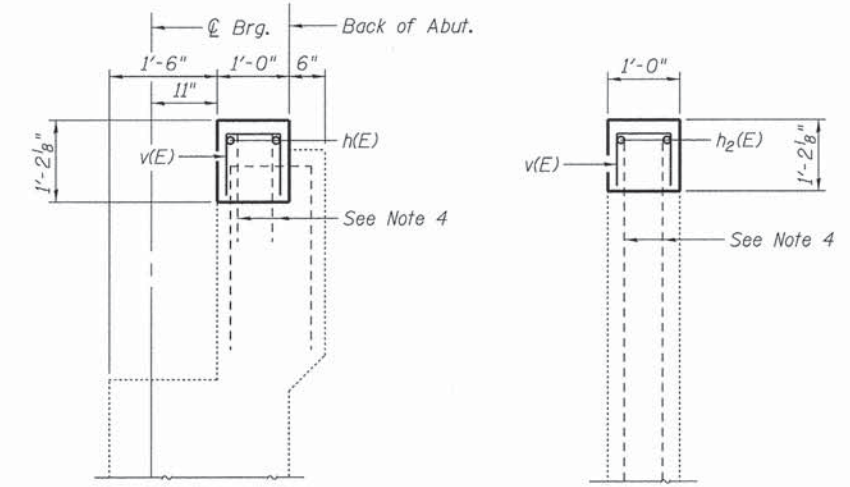
1. Space reinforcement to miss anchor bolts.
2. Apply Concrete Sealer to front face of Backwall.
3. See Sheets S-27 thru S-29 for details of existing concrete removal.
4. Existing vertical reinforcement shall be cleaned and incorporated into new construction. Any existing reinforcement bars that are damaged during concrete removal shall be replaced with equivalent size bars drilled and grouted at the Contractor's expense.
5. Contractor shall locate existing reinforcement prior to drilling bearing anchor bolts. Adjust bearing anchor bolt spacings and corresponding bearing plates and shim plates dimensions, and bolt hole spaces to cooperate with adjusted bearing anchor bolt spaces.

- \* Per survey information Verify in Field
- \*\* Field drill 7/2" φ holes in the concrete backwall at spacings shown for 3-7" φ PVC Sleeves for 3-5" φ electrical ducts. Spaces between the holes in backwall and sleeves and ducts shall be grouted and watertight. All costs associated PVC Sleeves are included with DRILL BRIDGE ABUTMENT.



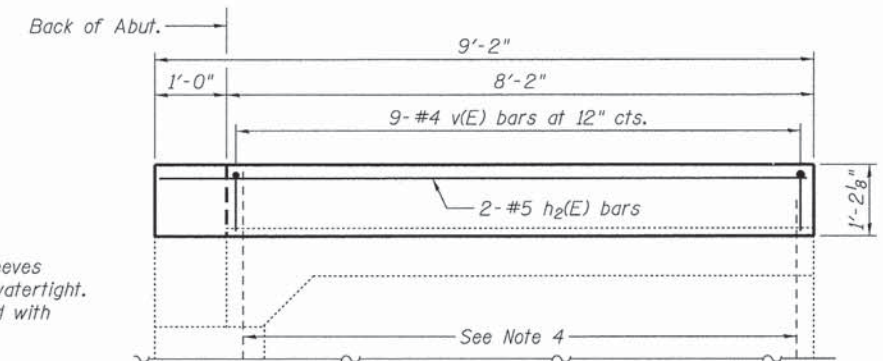
**SECTION A-A**

**SECTION B-B**



**SECTION C-C**

**SECTION D-D**



**VIEW E-E**

(East Wingwall shown, West Wingwall similar by opposite hand)  
(Bicycle Railing not shown)



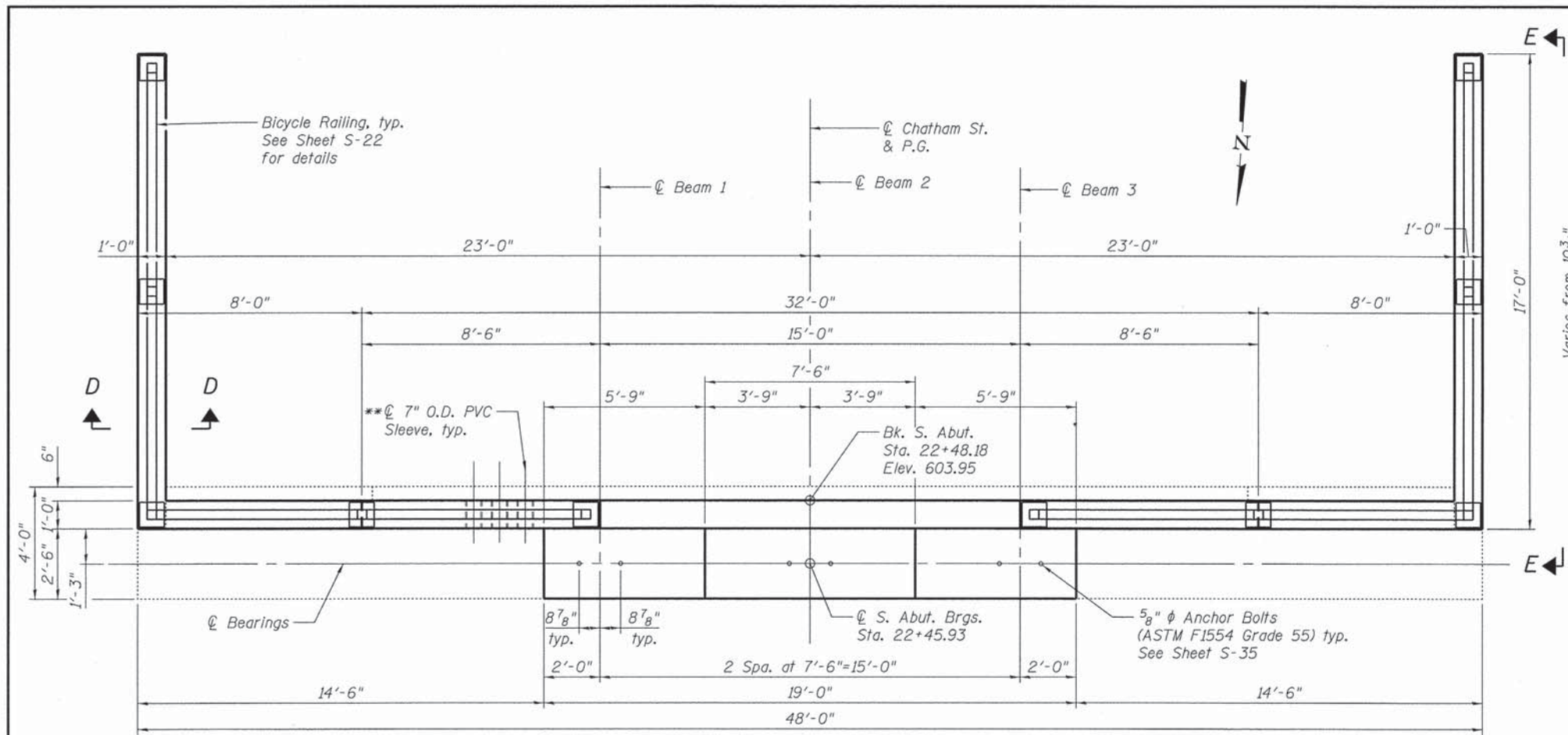
USER NAME =	DESIGNED - KO	REVISED
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PLOT DATE = 11/13/2015	DRAWN - KO	REVISED
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DEPARTMENT OF TRANSPORTATION**

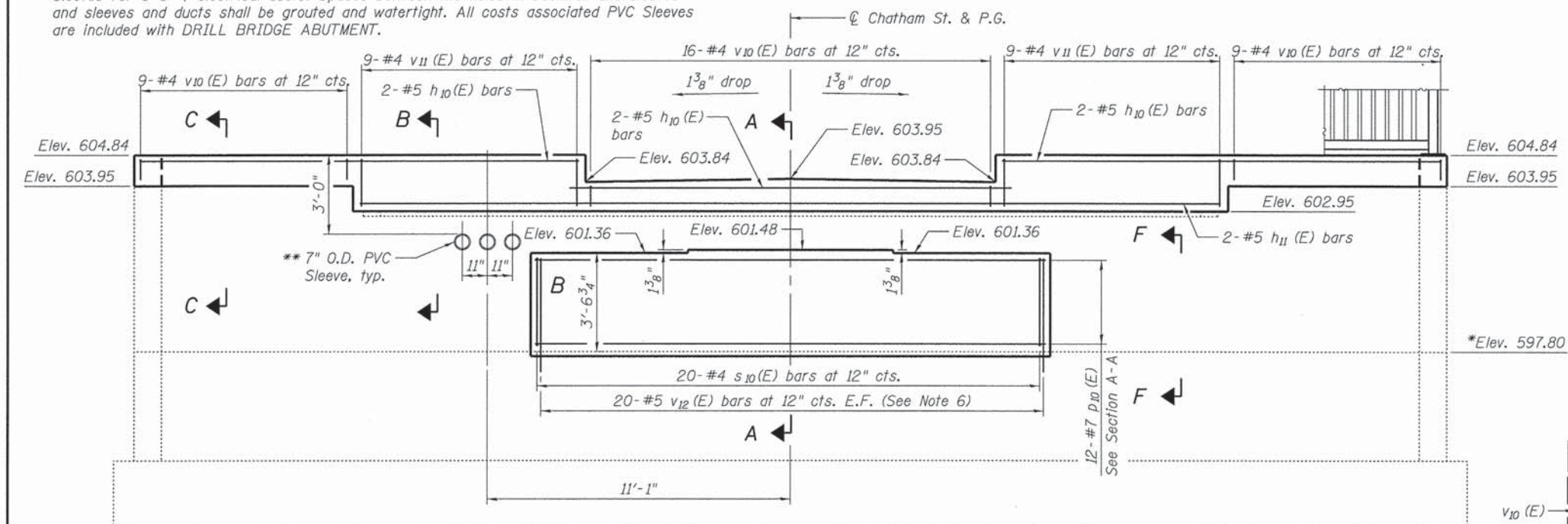
**NORTH ABUTMENT DETAILS  
STRUCTURE NO. 016-6620**  
SHEET NO. S-30 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	48
CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	



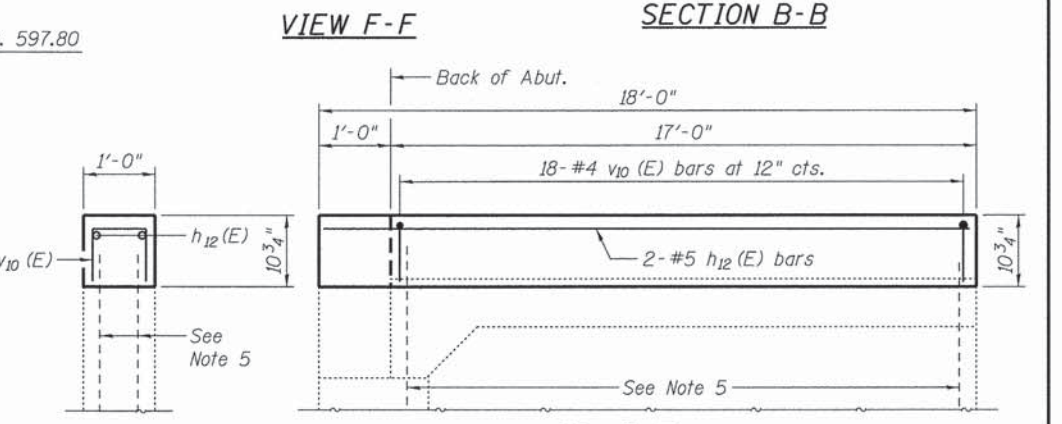
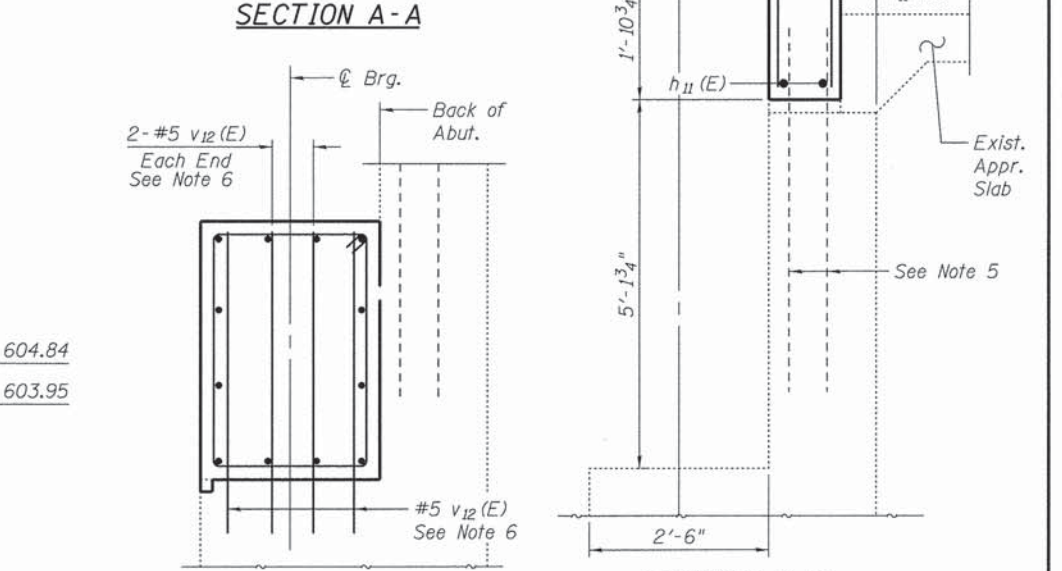
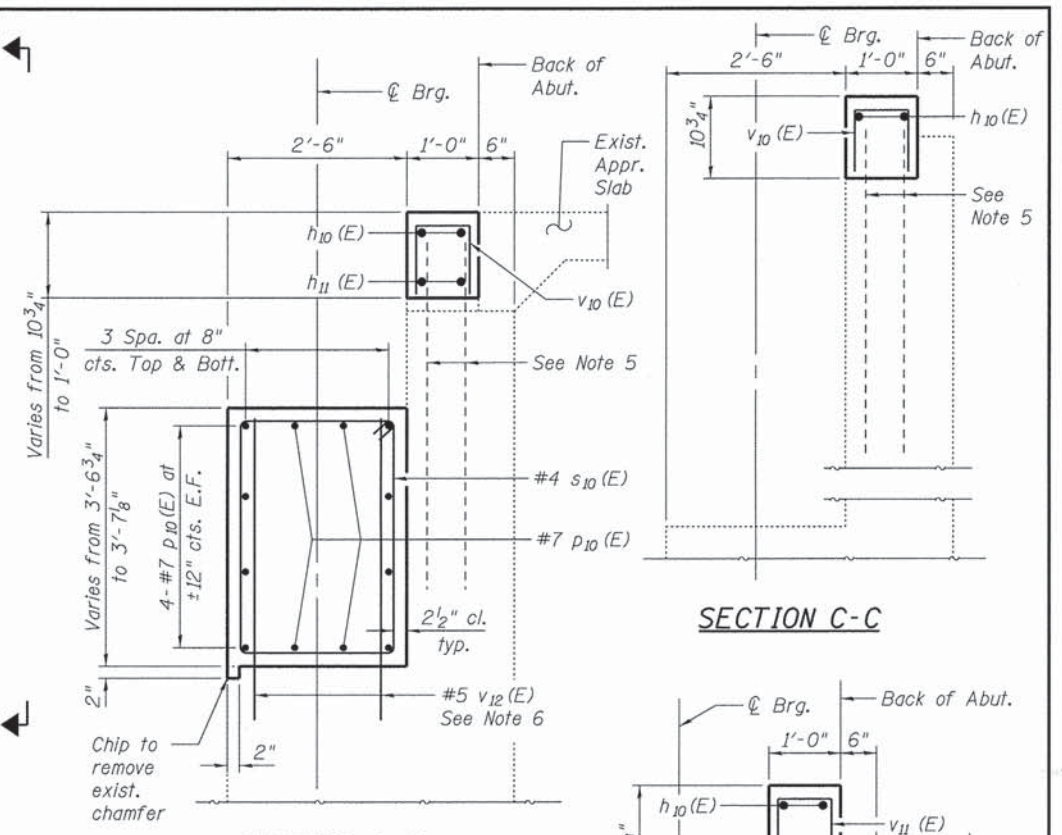


\*\* Field drill 7"  $\phi$  holes in the concrete backwall at spacings shown for 3-7"  $\phi$  PVC Sleeves for 3-5"  $\phi$  electrical ducts. Spaces between the holes in backwall and sleeves and ducts shall be grouted and watertight. All costs associated PVC Sleeves are included with DRILL BRIDGE ABUTMENT.



**SOUTH ABUTMENT ELEVATION**  
(Looking South)  
(All elevations shown are at back of abutment)

- NOTES:**
- Space reinforcement to miss anchor bolts.
  - Apply Concrete Sealer to front face of Backwall.
  - See Sheet S-27 thru S-29 for details of existing concrete removal.
  - Space reinforcement to miss anchor bolts.
  - Existing vertical reinforcement shall be cleaned and incorporated into new construction. Any existing reinforcement bars that are damaged during concrete removal shall be replaced with equivalent size bars drilled and grouted at the Contractor's expense.
  - Drill and epoxy grout 9" min. into existing abutment according to Article 584 of the Standard Specifications. Cost included with REINFORCEMENT BARS, EPOXY COATED. Contractor shall locate existing reinforcement prior to drilling and adjust reinforcement spacing to avoid existing reinforcement.



**SECTION D-D**  
**VIEW E-E**  
(West Wingwall shown, East Wingwall similar by opposite hand)  
(Bicycle Railing not shown)



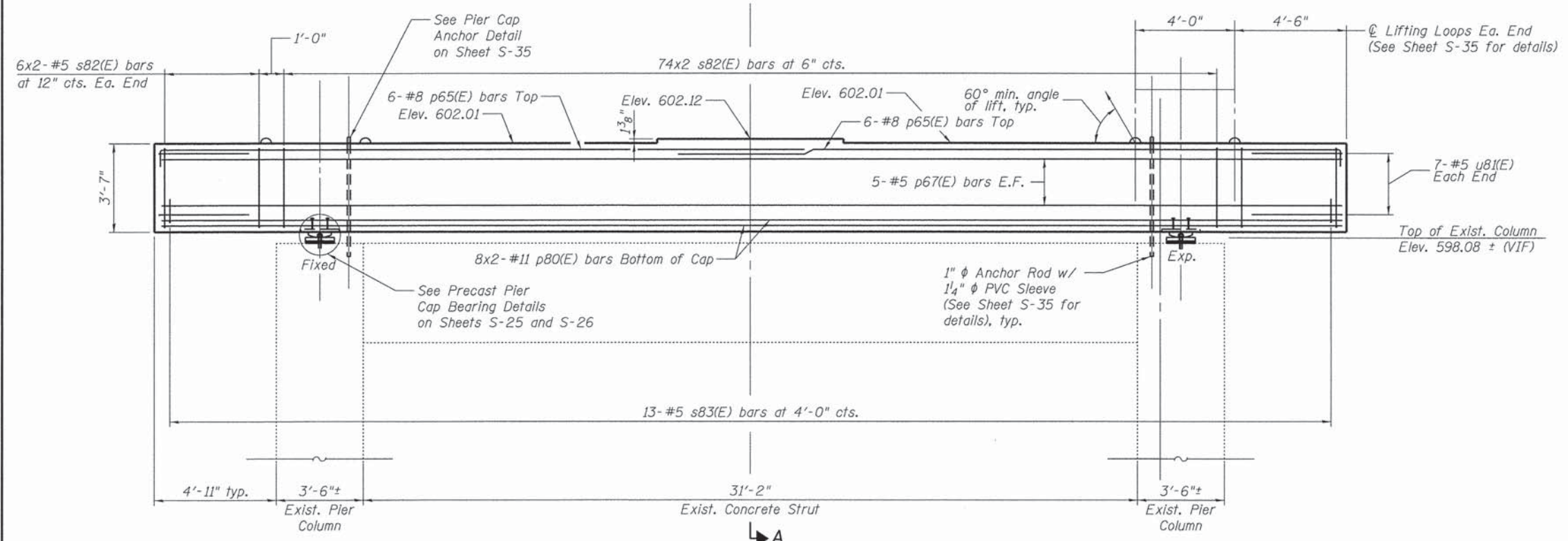
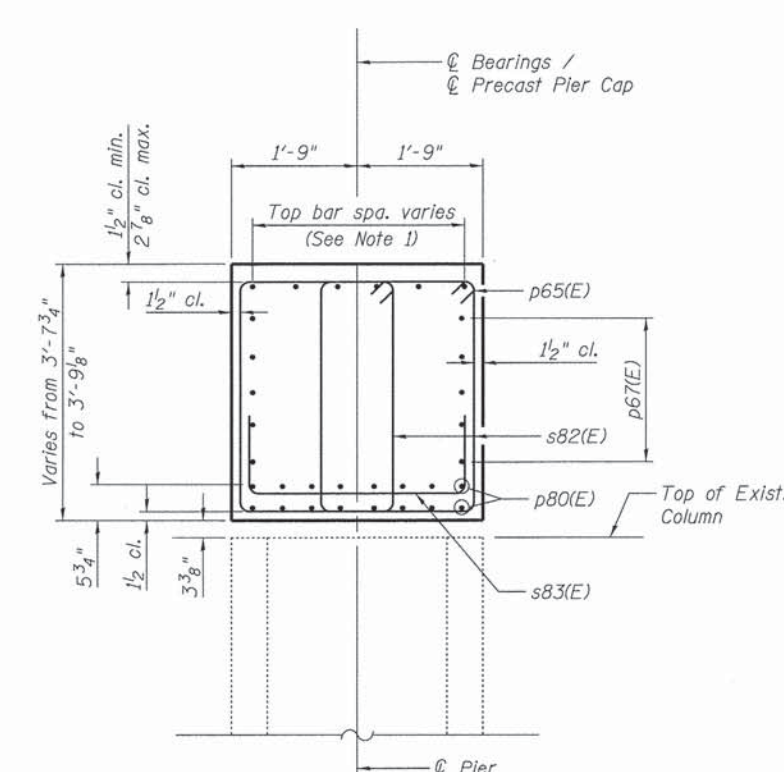
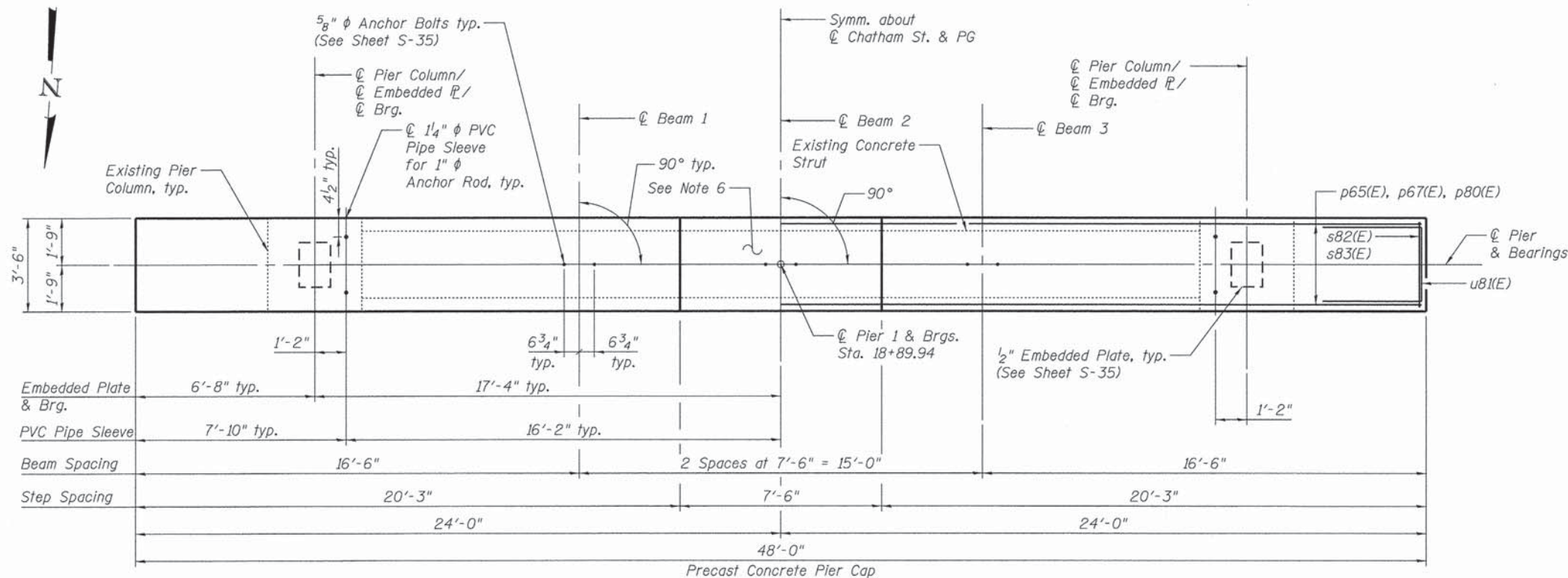
USER NAME =	DESIGNED - KO	REVISED
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PLLOT DATE = 11/13/2015	DRAWN - KO	REVISED
	CHECKED - MBQ	REVISED

**STATE OF ILLINOIS**  
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**SOUTH ABUTMENT DETAILS**  
**STRUCTURE NO. 016-6620**  
SHEET NO. S-31 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	49
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				

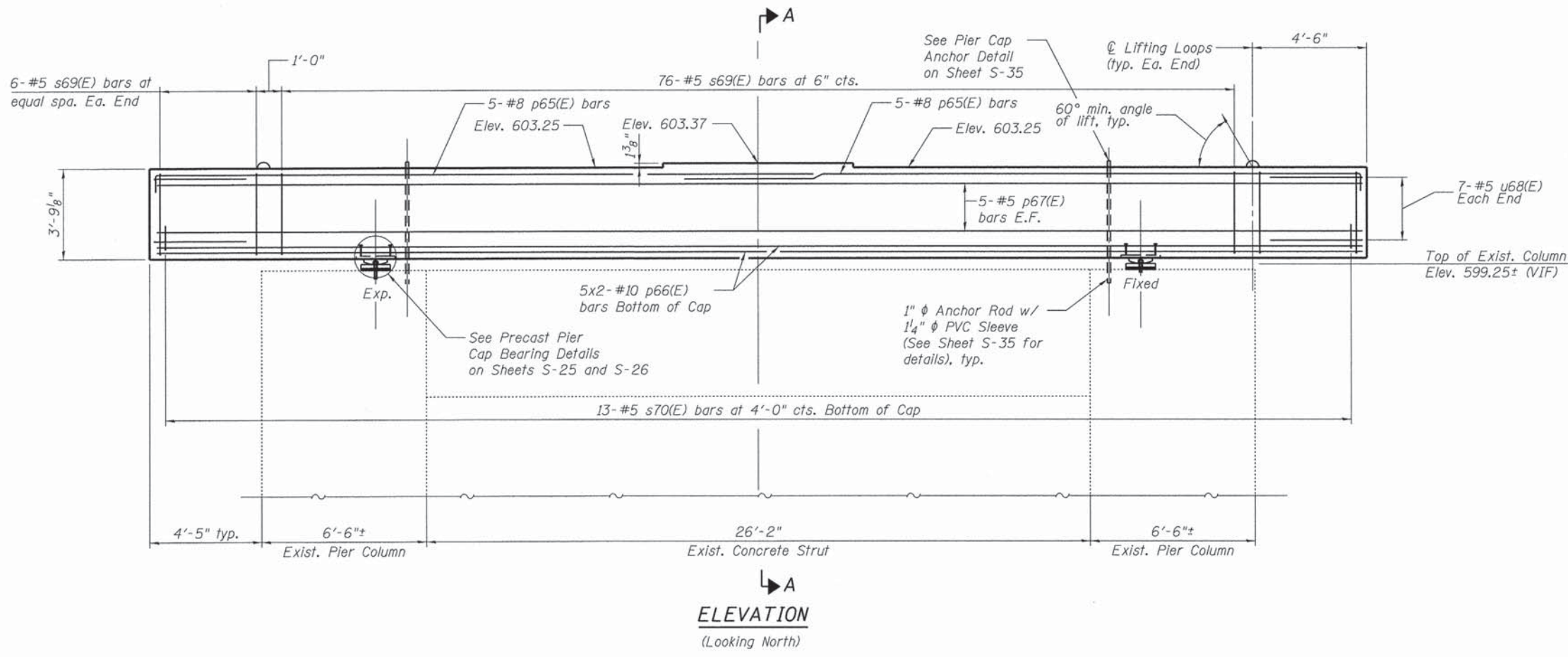
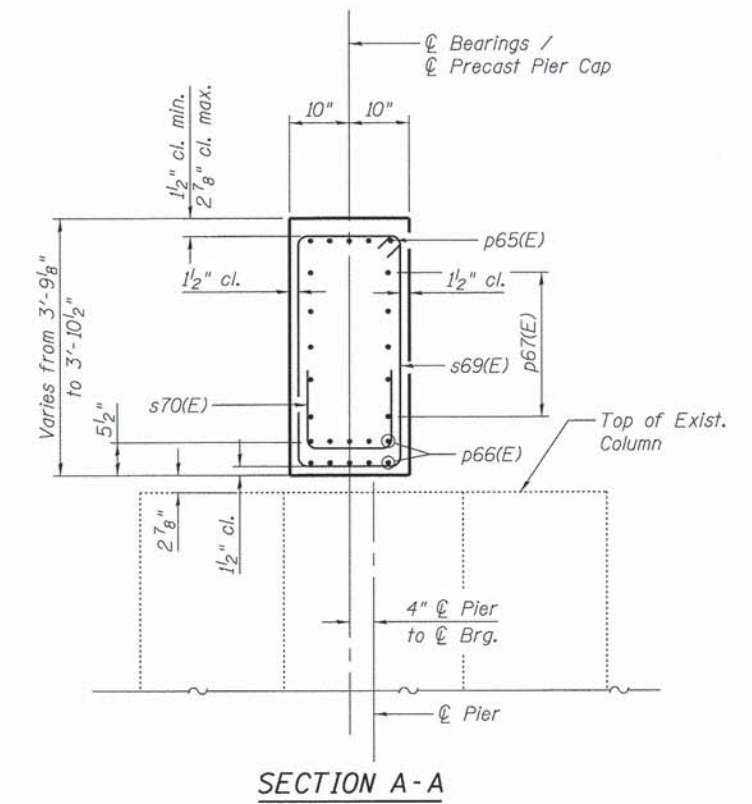
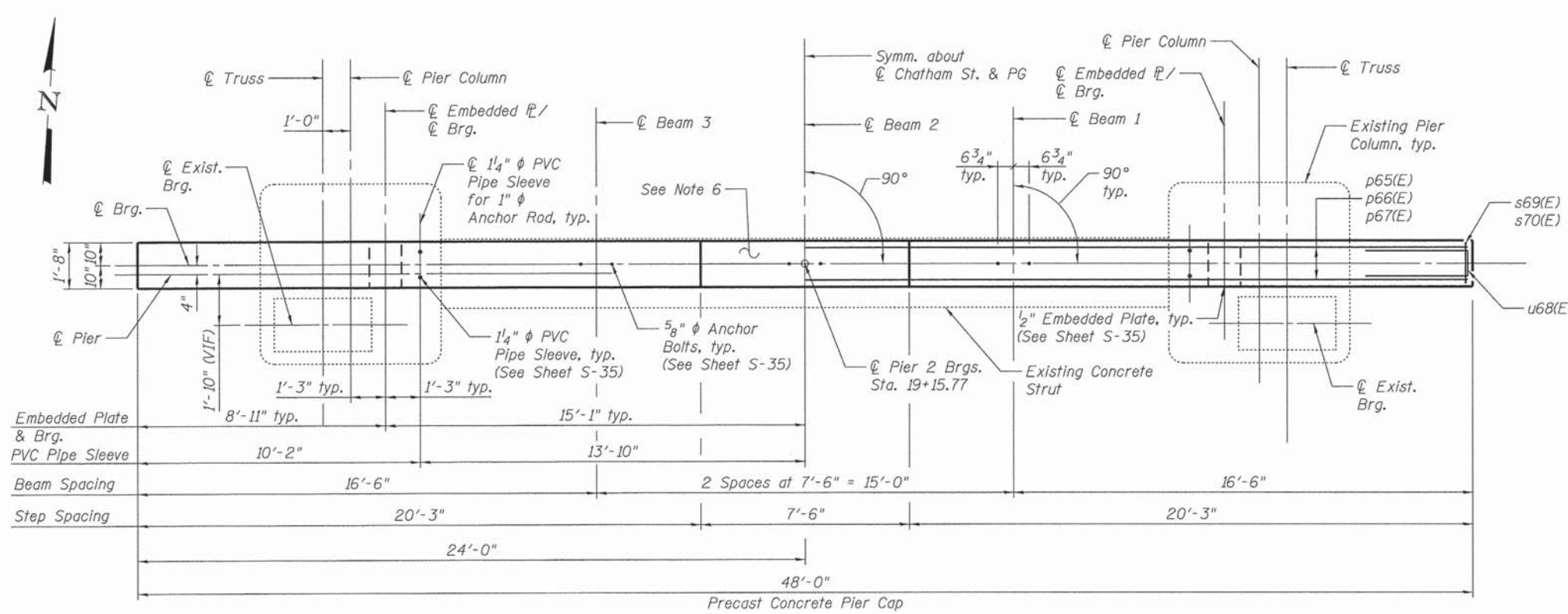




- NOTES:**
1. Space reinforcement in cap to miss anchor rods.
  2. Pour steps monolithically with cap.
  3. Contractor to coordinate actual anchor bolt locations for the girder bearings and step heights with final bearing design.
  4. All edges shall have 3/4" chamfer.
  5. Precast concrete pier cap shall be paid for under PRECAST CONCRETE CAPS.
  6. Apply Concrete Sealer to all surfaces of Precast Pier Cap

<p>303 East Wacker Drive, Suite 1400, Chicago, IL 60601 T 1-312-373-7700 F 1-312-373-6800</p>	USER NAME =	DESIGNED - KO	REVISED	<p align="center"><b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b></p>	<p align="center"><b>PIER 1 DETAILS</b> <b>STRUCTURE NO. 016-6620</b></p>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLLOT DATE = 11/13/2015	DRAWN - KO	REVISED			CONTRACT NO. 61C15				
		CHECKED - NPP	REVISED			ILLINOIS FED. AID PROJECT				
SHEET NO. S-32 OF S-36 SHEETS										





- NOTES:**
- Space reinforcement in cap to miss anchor rods.
  - Pour steps monolithically with cap.
  - Contractor to coordinate actual anchor bolt locations for the girder bearings and step heights with final bearing design.
  - All edges shall have 3/4" chamfer.
  - Precast concrete pier cap shall be paid for under PRECAST CONCRETE CAPS.
  - Apply Concrete Sealer to all surfaces of Precast Pier Cap.



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PLOT SCALE =	CHECKED - MBQ	REVISED
PLOT DATE = 11/13/2015	DRAWN - KO	REVISED
	CHECKED - NPP	REVISED

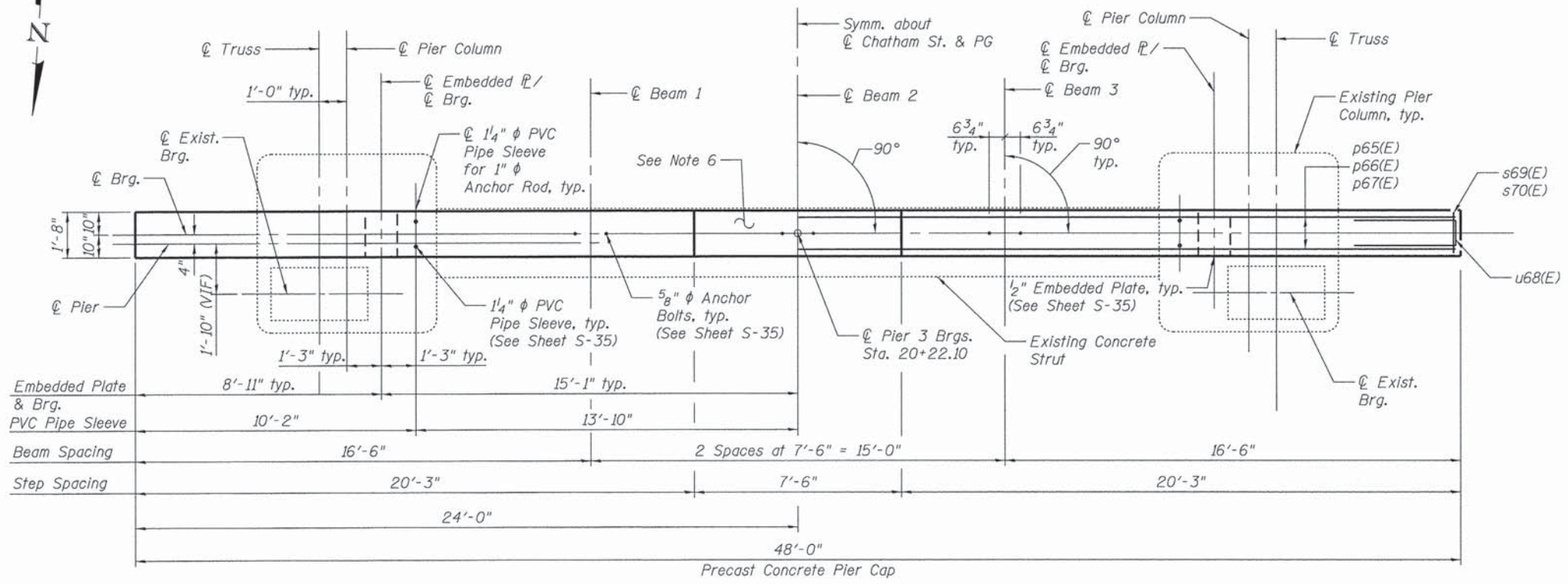
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 2 DETAILS  
STRUCTURE NO. 016-6620**

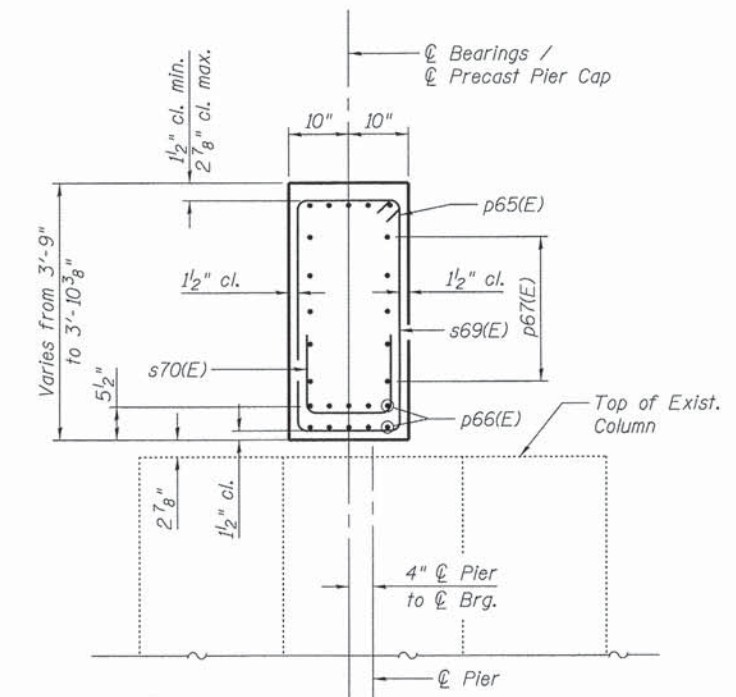
SHEET NO. S-33 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 61C15			ILLINOIS FED. AID PROJECT	

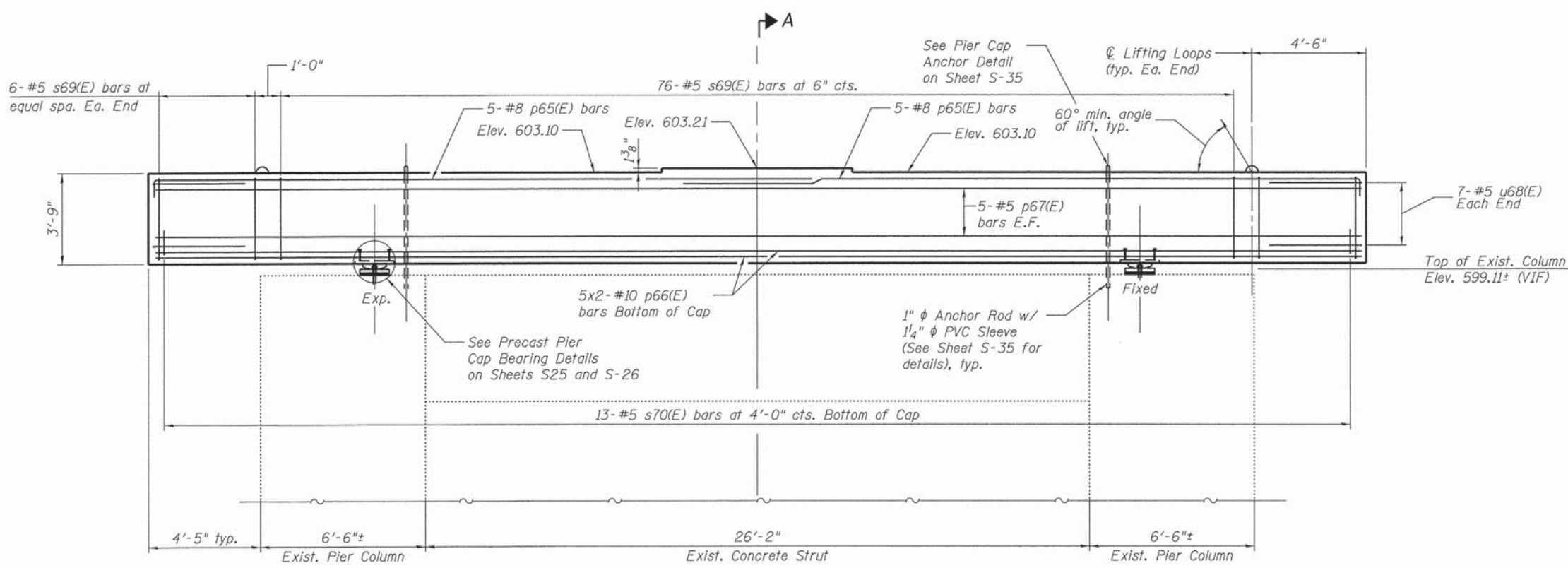




**TOP PLAN**



**SECTION A-A**



**ELEVATION**  
(Looking South)

**NOTES:**

1. Space reinforcement in cap to miss anchor rods.
2. Pour steps monolithically with cap.
3. Contractor to coordinate actual anchor bolt locations for the girder bearings and step heights with final bearing design.
4. All edges shall have 3/4" chamfer.
5. Precast concrete pier cap shall be paid for under PRECAST CONCRETE CAPS.
6. Apply Concrete Sealer to all surfaces of Precast Pier Cap.



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	CHECKED - MBO	REVISED
PLOT SCALE =	DRAWN - KO	REVISED
PLOT DATE = 11/13/2015	CHECKED - NPP	REVISED

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

**PIER 3 DETAILS**  
**STRUCTURE NO. 016-6620**

SHEET NO. S-34 OF S-36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00178-01-BR	COOK	54	52
CONTRACT NO. 61C15				
ILLINOIS FED. AID PROJECT				



1"  $\phi$  Anchor Rod threaded 9" Top  
(ASTM F1554 Gr. 55, Galvanized)  
with 2 - ASTM A563DH Heavy Hex  
Nuts with washer (Galvanized) Top. Cost  
is included with ANCHOR BOLTS, 1"

4" x "A" x  $\frac{3}{8}$ "  $\bar{P}$  (Galvanized)  
(See 'Dimensions' Table)  
Cost is included with  
ANCHOR BOLT, 1"

$\bar{P}$  Pipe Sleeve/  
 $\bar{P}$  1"  $\phi$  Anchor Rod/  
 $\bar{P}$  1 $\frac{1}{4}$ "  $\phi$  Hole in  $\frac{3}{8}$ "  $\bar{P}$

1 $\frac{1}{4}$ "  $\phi$  Schedule 40 PVC Pipe  
Sleeve, typ. (4 Required Ea. Beam)  
Cost is included with  
PRECAST CONCRETE CAPS.

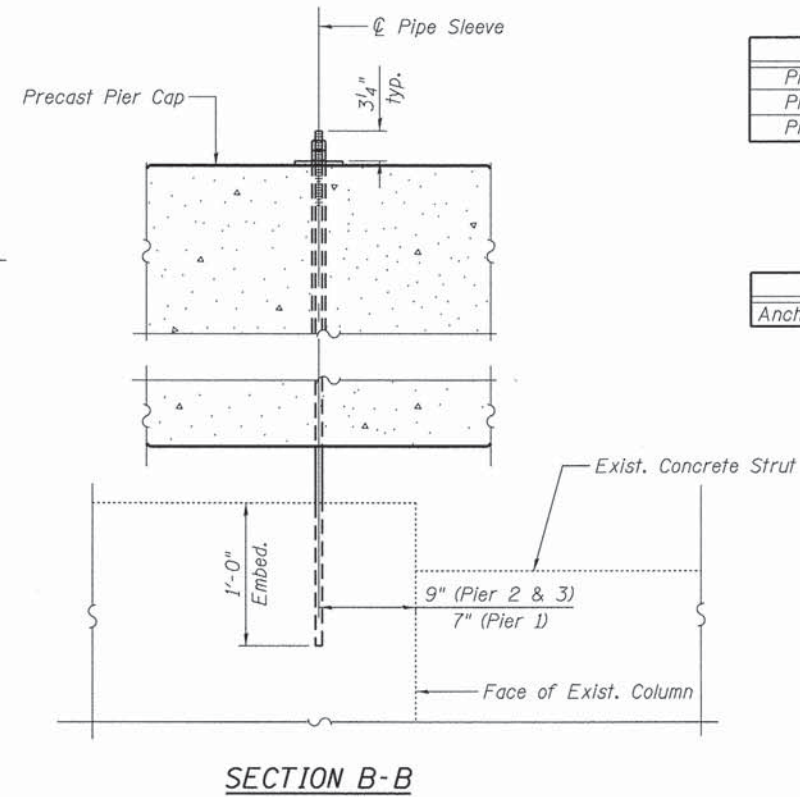
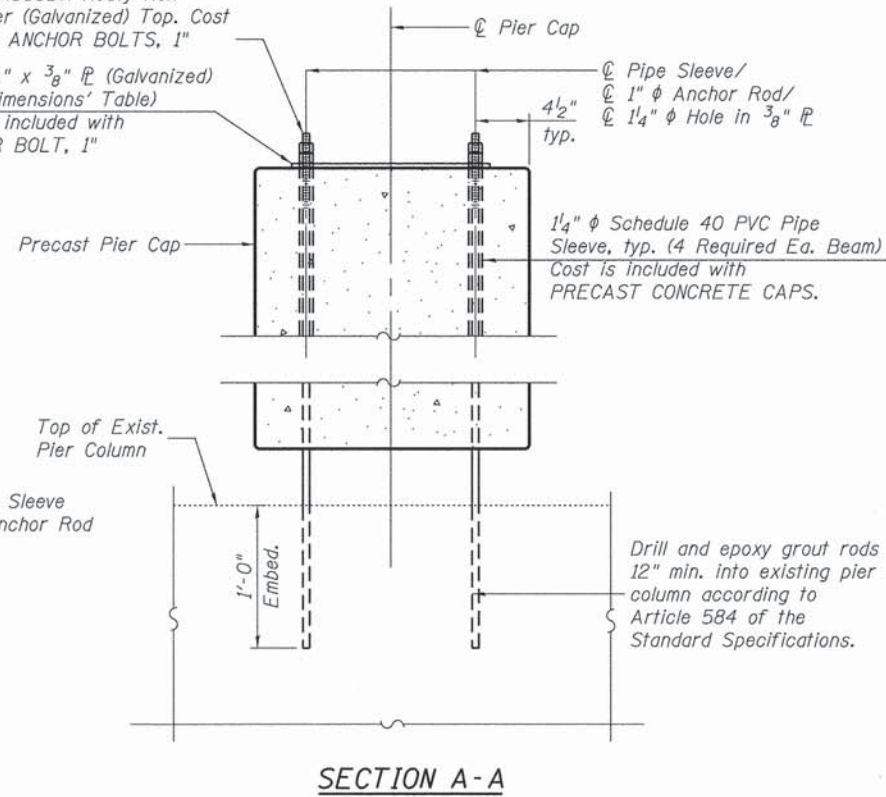
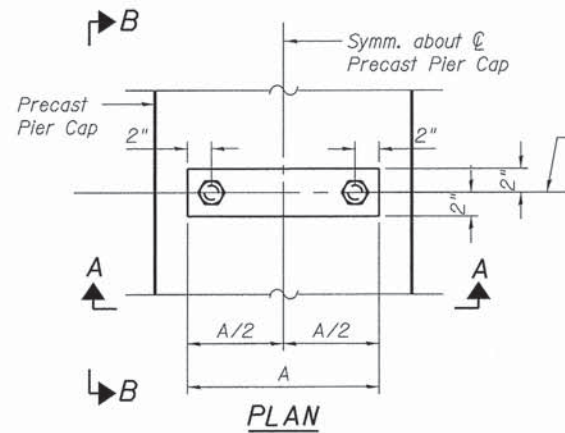
Drill and epoxy grout rods  
12" min. into existing pier  
column according to  
Article 584 of the  
Standard Specifications.

**DIMENSIONS**

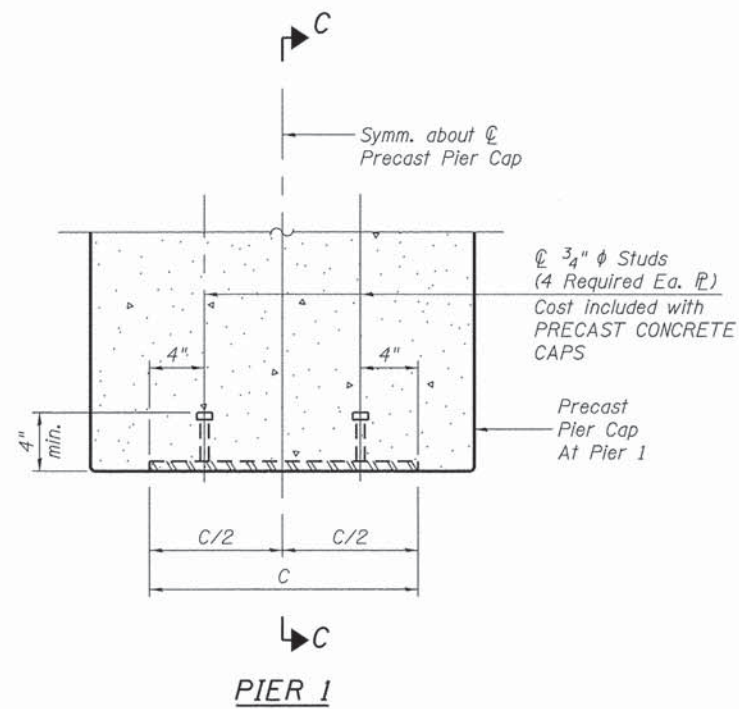
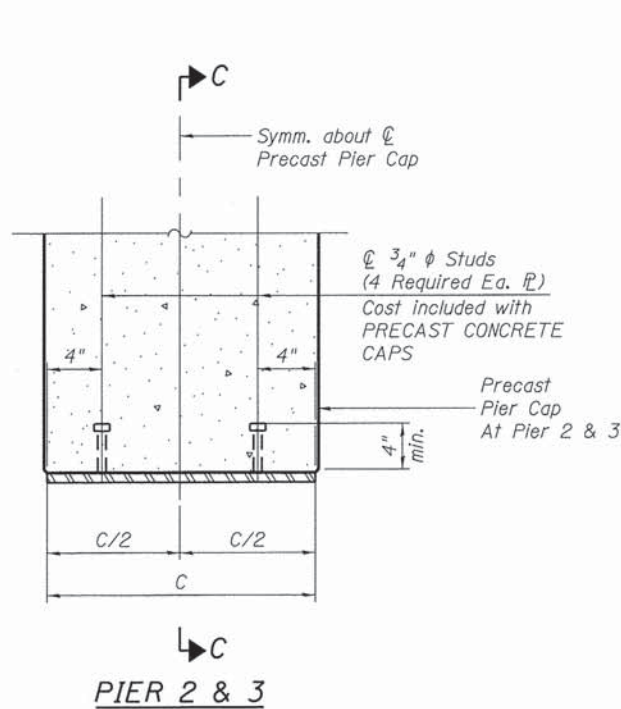
	A	B	C
Pier 1	3'-1"	1'-2"	2'-0"
Pier 2	1'-3"	1'-0"	1'-7 $\frac{1}{2}$ "
Pier 3	1'-3"	1'-0"	1'-7 $\frac{1}{2}$ "

**BILL OF MATERIAL**

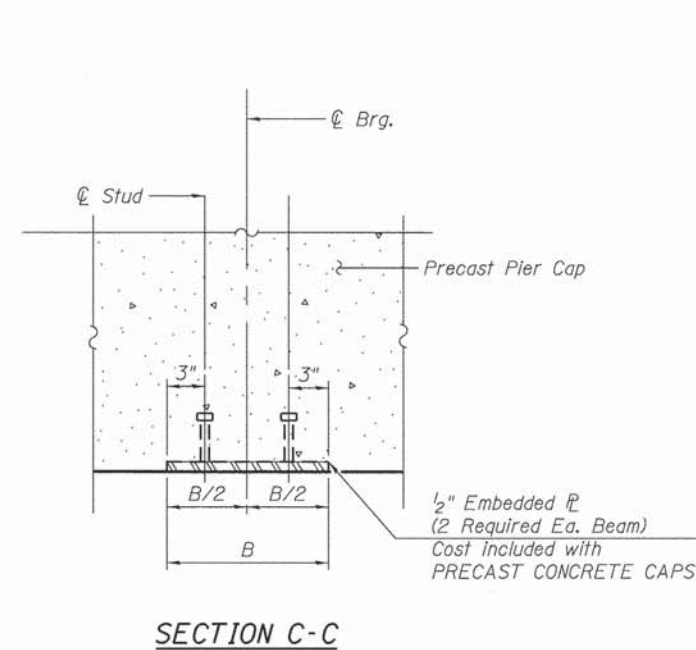
ITEM	UNIT	TOTAL
Anchor Bolts, 1"	Each	12



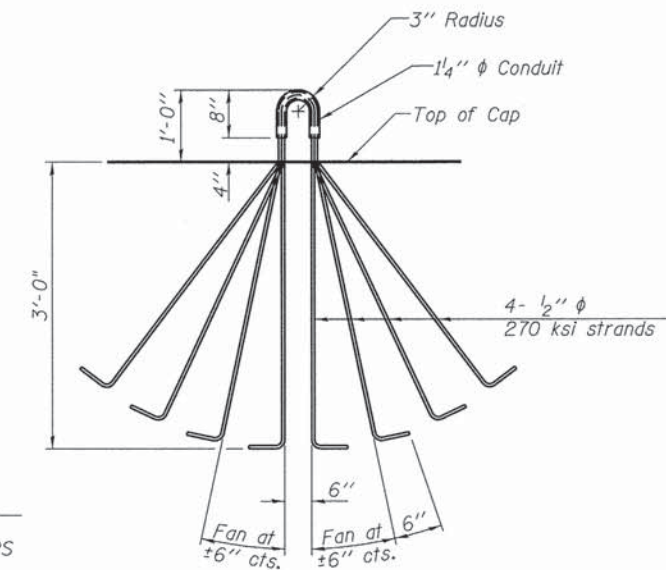
**PIER CAP ANCHOR DETAIL**  
Piers 2 & 3 Shown, Pier 1 similar



**EMBEDDED PLATE DETAIL**



**SECTION C-C**



**LIFTING LOOP DETAIL**



**NORTH ABUTMENT  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	6	#5	16'-2"	—
h <sub>1</sub> (E)	2	#5	31'-8"	—
h <sub>2</sub> (E)	4	#5	8'-10"	—
v(E)	52	#4	2'-4"	□
v <sub>1</sub> (E)	18	#4	4'-4"	□
Reinforcement Bars, Epoxy Coated			Pound	340
Anti-Graffiti Protection System			Sq. Ft.	388
High Performance Concrete Superstructure			Cu. Yd.	3.5
Drill Bridge Abutment			Each	3

**SOUTH ABUTMENT  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h <sub>10</sub> (E)	6	#5	16'-2"	—
h <sub>11</sub> (E)	2	#5	31'-8"	—
h <sub>12</sub> (E)	4	#5	17'-8"	—
p <sub>10</sub> (E)	12	#7	18'-8"	—
s <sub>10</sub> (E)	20	#4	11'-1"	□
v <sub>10</sub> (E)	70	#4	1'-10"	□
v <sub>11</sub> (E)	18	#4	3'-10"	□
v <sub>12</sub> (E)	44	#5	4'-1"	—
Reinforcement Bars, Epoxy Coated			Pound	1,170
Anti-Graffiti Protection System			Sq. Ft.	202
High Performance Concrete Superstructure			Cu. Yd.	3.4
Drill Bridge Abutment			Each	3

**PIER 1  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
p65(E)	12	#8	34'-3"	□
p67(E)	10	#5	47'-8"	—
p80(E)	16	#11	47'-8"	—
s82(E)	172	#5	12'-1"	□
s83(E)	13	#5	5'-1"	□
u81(E)	14	#5	4'-10"	□
Precast Concrete Caps			Each	1
Concrete Sealer			Sq. Ft.	716
Anti-Graffiti Protection System			Sq. Ft.	918

**PIER 2  
BILL OF MATERIAL**

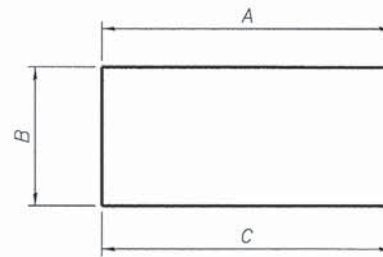
Bar	No.	Size	Length	Shape
p65(E)	10	#8	34'-3"	□
p66(E)	10	#10	47'-8"	—
p67(E)	10	#5	47'-8"	—
s70(E)	13	#5	3'-3"	□
s69(E)	88	#5	10'-10"	□
u68(E)	14	#5	2'-10"	□
Precast Concrete Caps			Each	1
Concrete Sealer			Sq. Ft.	836
Anti-Graffiti Protection System			Sq. Ft.	1,540

**PIER 3  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
p65(E)	10	#8	34'-3"	□
p66(E)	10	#10	47'-8"	—
p67(E)	10	#5	47'-8"	—
s69(E)	88	#5	10'-9"	□
s70(E)	13	#5	3'-3"	□
u68(E)	14	#5	2'-10"	□
Precast Concrete Caps			Each	1
Concrete Sealer			Sq. Ft.	900
Anti-Graffiti Protection System			Sq. Ft.	1,231

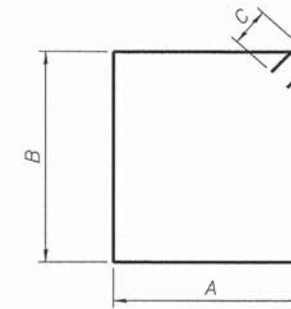
**MIN. BAR LAP**

Size	Lap
#5	3'-8"
#8	8'-11"



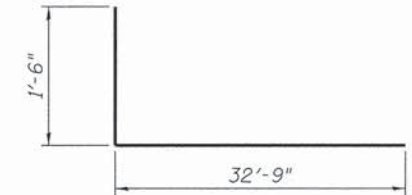
**BARS s70(E), u68(E), u81(E), v(E), v<sub>1</sub>(E), v<sub>10</sub>(E), & v<sub>11</sub>(E)**

Bar	A	B	C
s70(E)	11"	1'-5"	11"
u68(E)	10"	1'-2"	10"
u81(E)	10 <sup>1</sup> / <sub>4</sub> "	3'-1 <sup>1</sup> / <sub>2</sub> "	10 <sup>1</sup> / <sub>4</sub> "
v(E)	10"	8"	10"
v <sub>1</sub> (E)	1'-10"	8"	1'-10"
v <sub>10</sub> (E)	7"	8"	7"
v <sub>11</sub> (E)	1'-7"	8"	1'-7"



**BARS s69(E), s79(E), s82(E)**

Bar	A	B	C
s69(E)	1'-5"	3'-4 <sup>1</sup> / <sub>2</sub> "	6"
s79(E)	1'-5"	3'-4 <sup>3</sup> / <sub>4</sub> "	6"
s82(E)	2'-1 <sup>1</sup> / <sub>2</sub> "	3'-4"	6"
s <sub>10</sub> (E)	2'-0"	3'-2"	6"



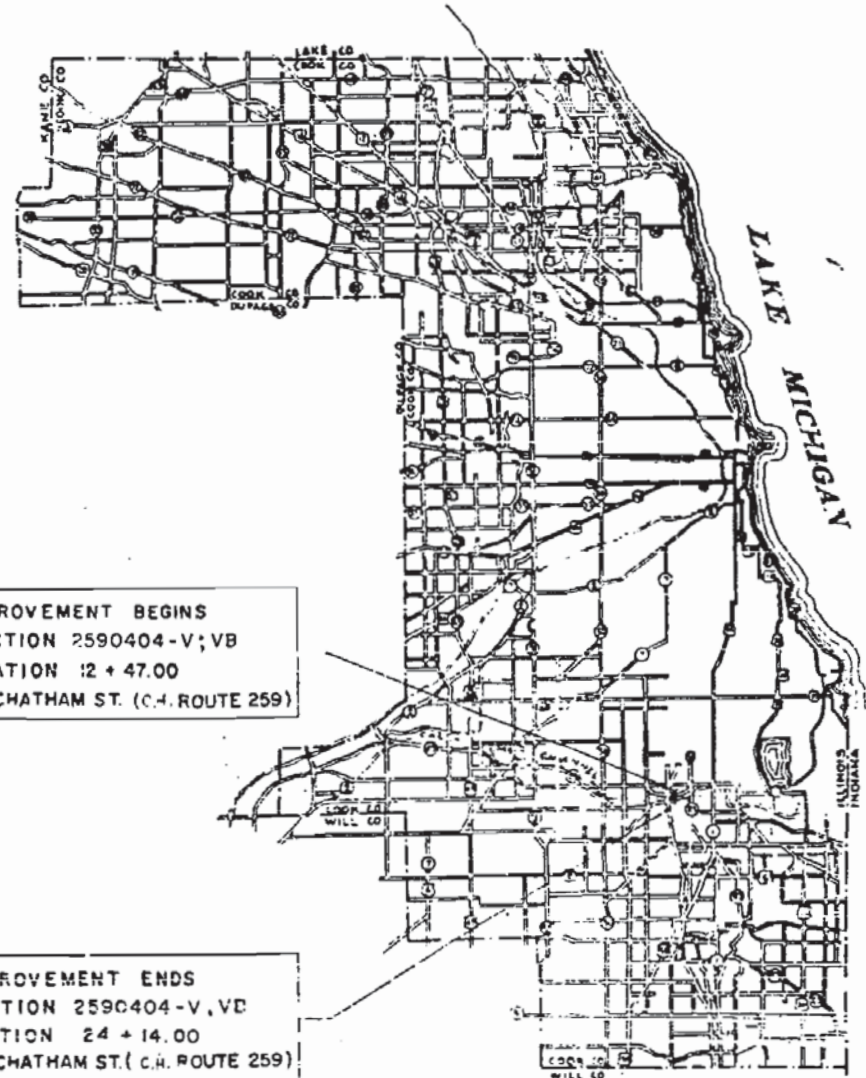
**BAR p65(E)**



STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS AND BUILDINGS  
 DIVISION OF HIGHWAYS  
 PLANS FOR PROPOSED  
 STATE BOND ISSUE HIGHWAY  
 DISTRICT 10  
 CALUMET-SAG NAVIGATION PROJECT  
 BRIDGE CONSTRUCTION  
 (CHATHAM STREET) C.H. ROUTE 259  
 SECTION 259-0404-V;VB  
 COOK COUNTY

GROSS LENGTH: 1167 L'N. FT. = 0.221 MILES  
 NET LENGTH: 1167 LIN. FT. = 0.221 MILES

SEC	COUNTY	BOOK	PAGE
259	COOK	50	1



IMPROVEMENT BEGINS  
 SECTION 2590404-V;VB  
 STATION 12 + 47.00  
 ON CHATHAM ST. (C.H. ROUTE 259)

IMPROVEMENT ENDS  
 SECTION 2590404-V;VB  
 STATION 24 + 14.00  
 ON CHATHAM ST. (C.H. ROUTE 259)

SECTION 2590404-V, VB CONSISTS OF THE CONSTRUCTION, INCLUDING THE FURNISHING, FABRICATING, SHOP PAINTING AND DELIVERY OF STRUCTURAL STEEL, OF A 300 FOOT FIXED THROUGH TRUSS BRIDGE WITH A 30'-3" W-BEAM APPROACH SPAN ON THE SOUTH AND 29'-0" AND 20'-9" W-BEAM APPROACH SPANS ON THE NORTH CARRYING CHATHAM STREET (C.H. ROUTE 259) OVER THE CALUMET-SAG CHANNEL. THIS SECTION ALSO INCLUDES THE EARTH FILL EMBANKMENT AND CONCRETE PAVEMENT FOR THE APPROACHES AT STATION 20+10.68

CONTRACT NO. 28269

SHEET NO. 55  
 CONTRACT NO. 61C15

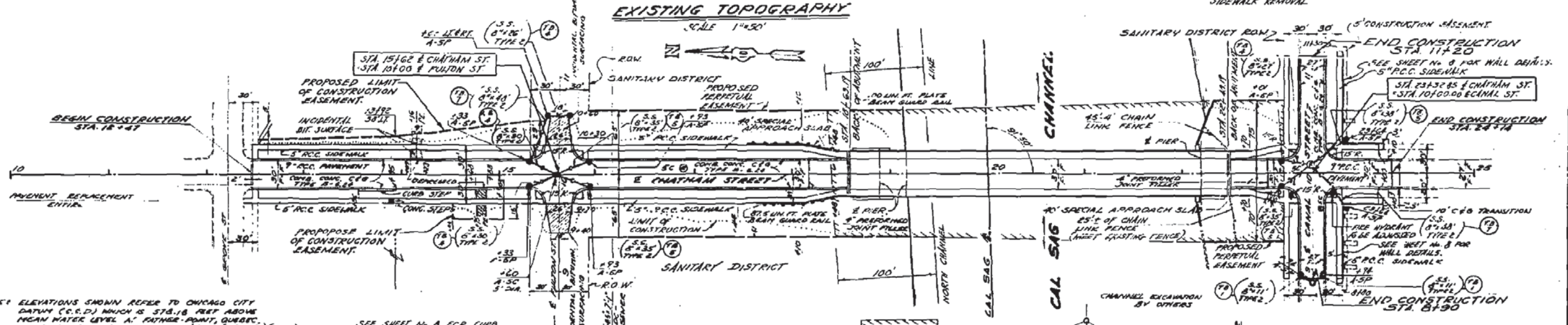
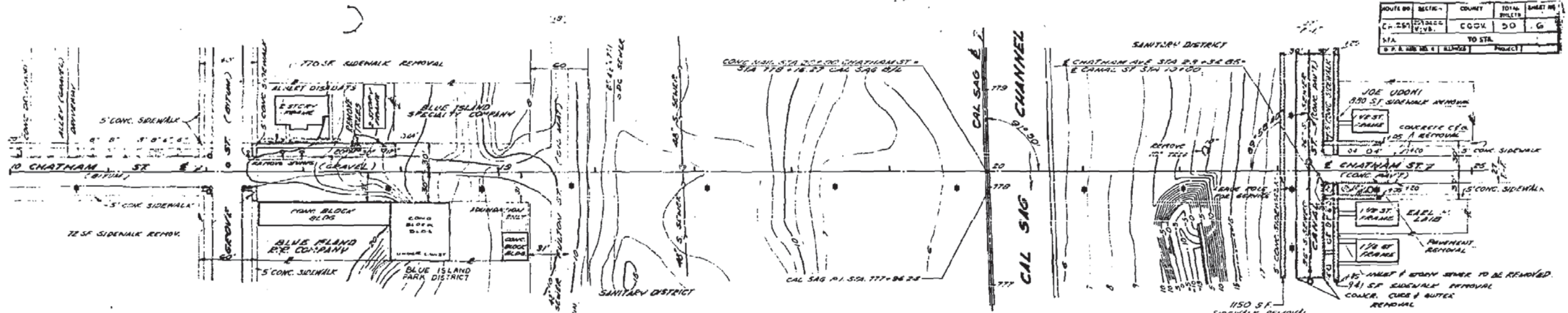
1. APR.  
 W. Beermann 10/7/63

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	
DESIGNED BY	<i>Masada Hill</i>
STARTING DATE	October 11, 1963
DESIGNED BY	<i>William Marshall</i>
ISSUED DATE	October 11, 1963
APPROVED BY	<i>[Signature]</i>
APPROVED DATE	October 11, 1963

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS	U. S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS CHICAGO, ILLINOIS
CALUMET SAG NAVIGATION PROJECT CALUMET SAG CHANNEL CHATHAM STREET HIGHWAY BRIDGE	
APPROVED ASST. CHIEF, ENR. DIVISION	APPROVED CHIEF, ENGINEERING DIVISION
DATE: 24 JUN 64	SCALE: 1" = 100'
APPROVED COLONEL, CORPS OF ENGINEERS DISTRICT ENGINEER	INVENTORY NO. SHEET 1 OF 50

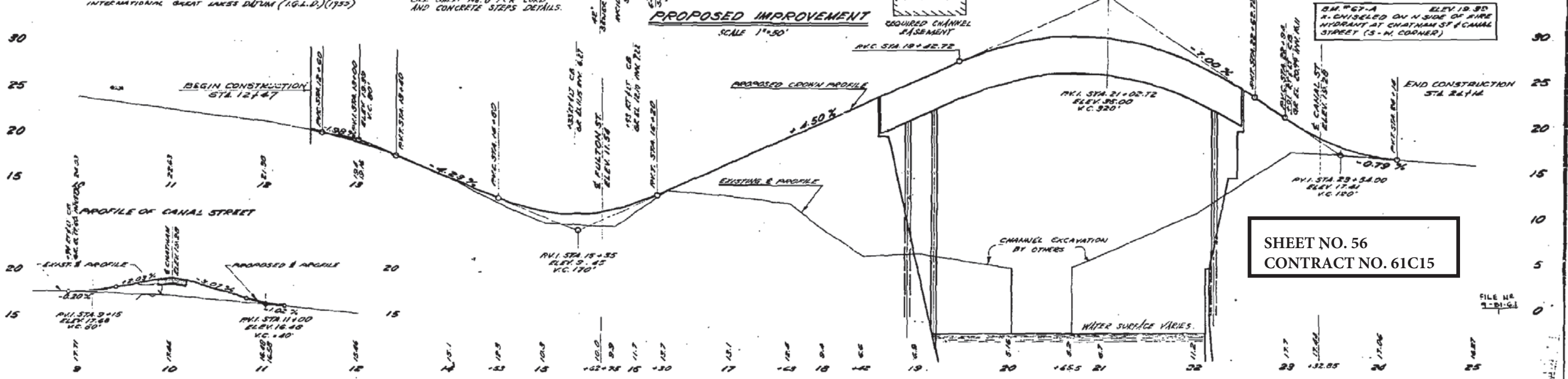


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C-251	115B	COOK	50	6
PROJECT		TO STA.		
S.P. & M.E. 1		PROJECT		



NOTE: ELEVATIONS SHOWN REFER TO CHICAGO CITY DATUM (C.C.D.) WHICH IS 578.18 FEET ABOVE MEAN WATER LEVEL AT FATHERS POINT, QUEBEC, INTERNATIONAL GREAT LAKES DATUM (I.G.L.D.) (1952)

SEE SHEET NO. 8 FOR CURB AND CONCRETE STEPS DETAILS.

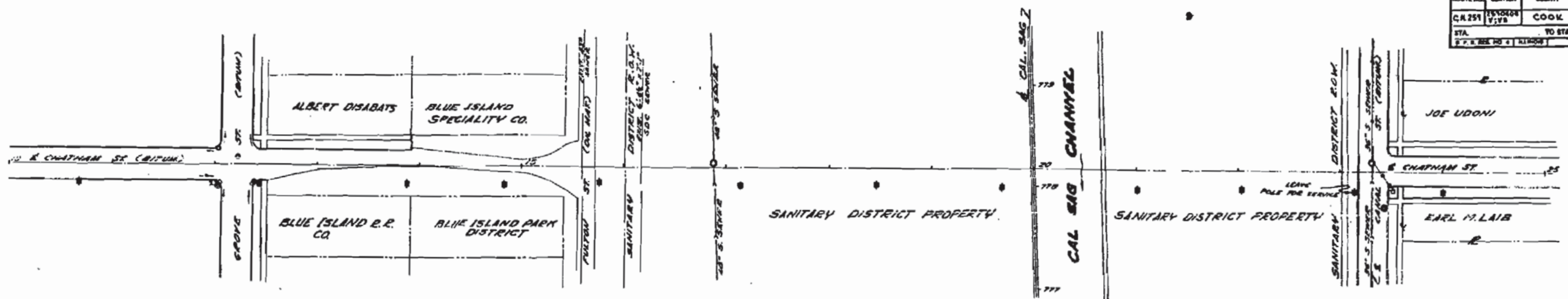


SHEET NO. 56  
CONTRACT NO. 61C15

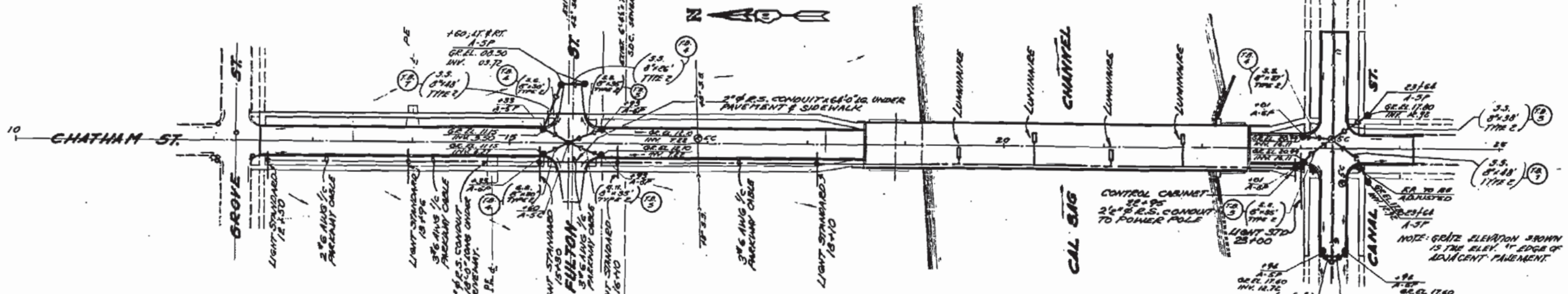
FILE NO. 2-11-61



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CA 251	2590404-V & VB	COOK	50	7
STA.	TO STA.			
27+00	27+00			



**EXISTING DRAINAGE & UTILITIES**  
SCALE 1" = 50'



**PROPOSED DRAINAGE & LIGHTING**  
SCALE 1" = 50'



SHEET NO. 57  
CONTRACT NO. 61C15

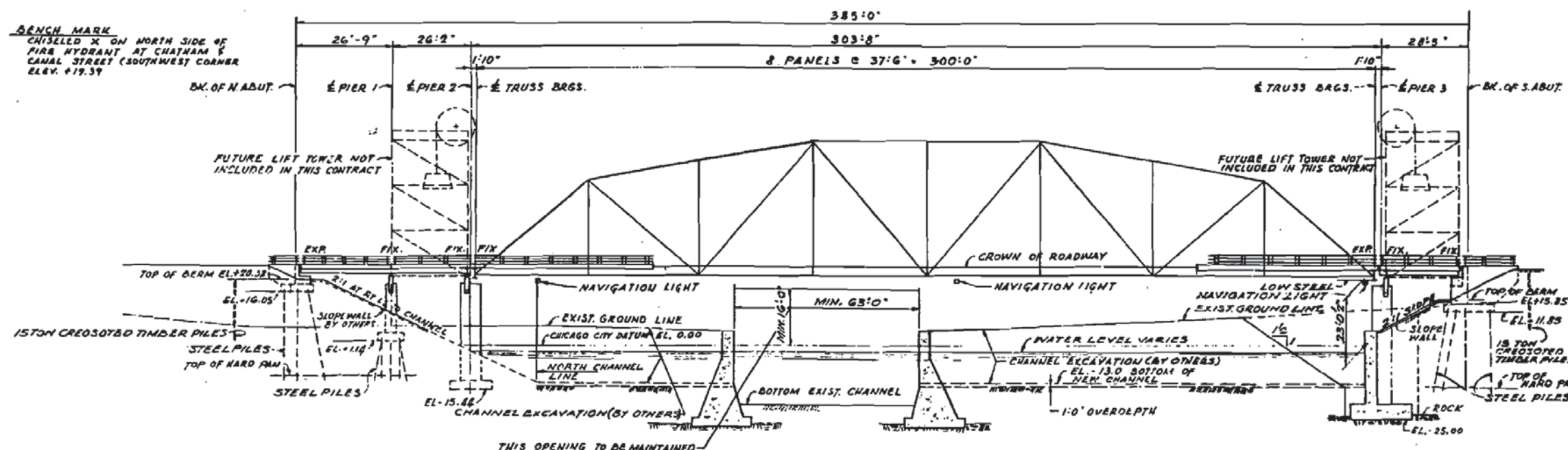
DRAINAGE & UTILITIES PLAN  
CHATHAM STREET  
SECTIONS 2590404-V & VB  
COOK COUNTY  
SCALE: 1" = 50'



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 269	VIADUCT	COOK	50	11
STA.	TO STA.		PROJECT	
117+00	121+00		CHATHAM ST. BRIDGE	

SHEET 1 OF 23

**BENCH MARK**  
CHISELED 'X' ON NORTH SIDE OF  
FIRE HYDRANT AT CHATHAM &  
CANAL STREET (SOUTHWEST CORNER)  
ELEV. +19.39

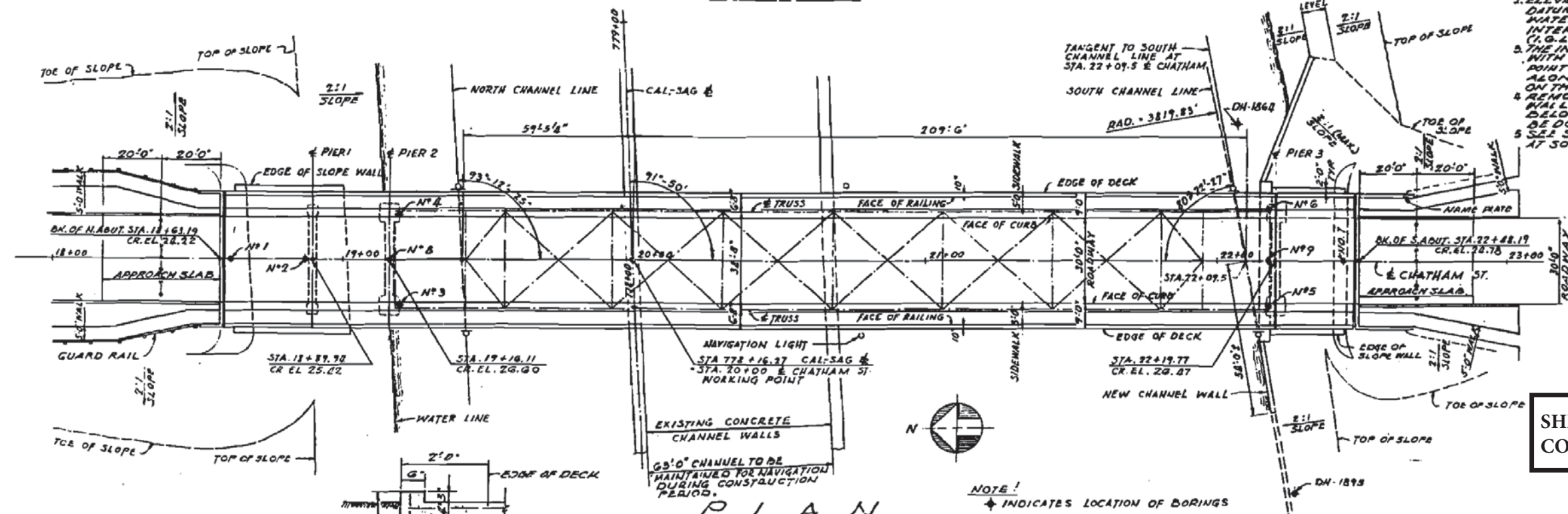


**ELEVATION**  
SCALE: 1" = 20'

**DESIGN DATA**

- DESIGN LOADS**  
LIVE LOAD - H 20-316-88  
FUTURE DEAD LOAD - 1/2" BIT WEARING SURFACE
- DESIGN STRESSES**
- CONCRETE**  
f<sub>c</sub> = 3600 P.S.I.  
f<sub>c</sub> = 1800 P.S.I.  
f<sub>c</sub> = 1000 P.S.I. (WITH EARTH PRESSURE)  
v = 75 P.S.I. (FOOTINGS)
- REINFORCING STEEL**  
f<sub>s</sub> = 20,000 P.S.I.
- STRUCTURAL STEEL**  
CARBON STEEL  
f<sub>s</sub> = 20,000 P.S.I. (ASTM A-36)  
LOW ALLOY STEEL  
f<sub>s</sub> = 27,000 P.S.I. (3/8" THICK (UNDER))  
f<sub>s</sub> = 26,000 P.S.I. (3/4" TO 1 1/2" THICK)
- FOUNDATION**  
ABUTMENTS & PIER 1: 30 TON STEEL PILES  
PIER 2: FOOTING ON HARDPAN 12,000 P.S.F.  
PIER 3 & CHANNEL WALL: FOOTING ON ROCK
- EARTH PRESSURE**  
EQUIVALENT FLUID PRESSURE = 40 LBS. P.S.F.
- DESIGN DESIGNATION**  
CHATHAM STREET 3125 ADT - M-30
- DESIGN SPECIFICATIONS**  
DESIGN & CONSTRUCTION SPECIFICATIONS FOR HIGHWAY BRIDGES, 1961 ED.  
CONSTRUCTION MATERIALS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1988; AND SUPPLEMENTAL SPECIFICATIONS, 1966; OF THE STATE OF ILLINOIS.  
WELDING I.A.W.S. STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES.

- NOTES:**
1. STA. 20+00 CHATHAM ST SURVEY = STA. 778+16.27 CAL-SAG
  2. ELEVATIONS SHOWN REFER TO CHICAGO CITY DATUM (C.C.D.) WHICH IS 578.18 FEET ABOVE MEAN WATER LEVEL AT FATHER POINT, QUEBEC, INTERNATIONAL GREAT LAKES DATUM (I.G.L.D.) - (1985)
  3. THE INTERSECTION OF THE E OF CHATHAM STREET WITH THE CAL-SAG BASE LINE WILL BE THE MARKING POINT FOR THIS PROJECT. ALL STATIONING ALONG CHATHAM STREET SHALL BE BASED ON THE STATION EQUATION AT THIS POINT.
  4. REMOVAL OF UPPER PORTION OF CHANNEL WALLS AND EXCAVATION OF CHANNEL BED AND ADJACENT TO BRIDGE TO BE DONE BY OTHERS.
  5. SEE SHEET 26 FOR DETAILS OF EXCAVATION AT SOUTH CHANNEL WALL.



**PLAN**  
SCALE: 1" = 20'

**BILL OF MATERIAL SLOPEWALL**

ITEM	UNIT	QUANTITY SOUTH BANK
SLOPEWALL - 4"	SQ.YD.	175

**DETAIL OF EDGE OF SLOPEWALL**

NOTE: THE 2'-0" EDGEWALL IS CONSIDERED 3.0 SQ.FT. OF 4" SLOPEWALL  
SCALE: 3" = 1'-0"

SHEET NO. 58  
CONTRACT NO. 61C15

ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE

**GENERAL PLAN AND ELEVATION**

SCALE: AS NOTED DATE: 24 JUNE 1968

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS  
10 SOUTH WABASH AVE CHICAGO, ILLINOIS



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 239	1110000	COOK	50	12
STA.	TO STA.		PROJECT	
R.F.D. DIST. NO. 27 KILBOUR				

SHEET 2 OF 28

INDEX OF SHEETS (BRIDGE)

SHEET NO.	TITLE
1	GENERAL PLAN AND ELEVATION
2	INDEX OF SHEETS, GENERAL NOTES AND SUMMARY OF QUANTITIES
3	LOG OF BORINGS
4	DECK REINFORCEMENT PLAN - SPANS 1, 2 AND 4
5	DECK REINFORCEMENT PLAN - SPAN 3
6	CONCRETE FILLERS
7	CROSS SECTION & DETAILS - SPANS 1, 2 AND 4
8	FRAMING PLAN AND BEARING DETAILS - SPANS 1, 2 AND 4
9	TRUSS ELEVATION & STRESS TABLE
10	FRAMING PLAN & TOP OF STRINGER ELEVATIONS - SPAN 3
11	CROSS SECTION - FLOOR BEAM AND STRINGER CONNECTION
12	MISCELLANEOUS TRUSS DETAILS
13	TRUSS DETAILS - L <sub>0</sub> - L <sub>2</sub>
14	TRUSS DETAILS - L <sub>2</sub> - L <sub>4</sub>
15	TRUSS BEARING DETAILS
16	EXPANSION DEVICE
17	HANDRAIL DETAILS
18	NAVIGATION LIGHTS
19	NAVIGATION LIGHT DETAILS
20	NORTH ABUTMENT
21	SOUTH ABUTMENT
22	PIER 1
23	PIER 2
24	PIER 3 & SOUTH CHANNEL WALL
25	PIER 3 & SOUTH CHANNEL WALL
26	EXCAVATION DETAILS
27	REINFORCEMENT BAR LISTS
28	TOP OF SLAB ELEVATIONS

GENERAL NOTES (BRIDGE)

CLASS X CONCRETE SHALL BE USED THROUGHOUT. CONCRETE FOR FLOOR SLABS TO BE PLACED IN ONE CONTINUOUS OPERATION BETWEEN CONSTRUCTION JOINTS SHOWN, AND SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.19 OF THE STANDARD SPECIFICATIONS.

COARSE AGGREGATE TO BE USED IN WINGWALLS OF ABUTMENTS MUST BE ABSOLUTELY FREE OF CHERT, FLINT, LIMONITE, LIGNITE AND SOFT SANDSTONE.

PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING THE CONCRETE FLOOR.

ALL REINFORCEMENT BARS SHALL BE LAPPED 20 DIAMETERS UNLESS OTHERWISE SHOWN.

ALL STRUCTURAL STEEL SHALL CONFORM TO A.S.T.M. A36 EXCEPT AS OTHERWISE SHOWN OR NOTED.

WELDING SHALL BE IN ACCORDANCE WITH CURRENT SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES OF THE AMERICAN WELDING SOCIETY AND AS NOTED ON THE PLANS AND IN THE SPECIAL PROVISIONS.

ALL SHOP CONNECTIONS FOR STRUCTURAL STEEL SHALL BE 7/8" DIAMETER RIVETS IN 15/16" DIAMETER HOLES EXCEPT AS OTHERWISE SHOWN OR NOTED ON THE PLANS.

ALL FIELD CONNECTIONS SHALL BE 7/8" DIAMETER HIGH STRENGTH FRICTION TYPE BOLTS IN 15/16" DIAMETER HOLES EXCEPT AS OTHERWISE SHOWN OR NOTED.

HOLES FOR RIVETS OR BOLTS FOR ALL MAIN TRUSS CONNECTIONS, BOTH SHOP AND FIELD AND ALL FLOOR BEAM CONNECTIONS TO TRUSSES SHALL BE SUB-PUNCHED AND REAMED TO PROPER SIZE OR DRILLED FROM SOLID METAL WITH ALL MATERIAL ASSEMBLED IN THE SHOP IN ITS PROPER POSITION. LEAVE ASSEMBLED FOR INSPECTION.

ENDS OF FLOOR BEAMS SHALL BE MILLED TO EXACT LENGTH SHOWN ON DRAWINGS, AFTER CONNECTION ANGLES ARE RIVETED IN PLACE. THE MAXIMUM AMOUNT OF MILLING ON OUTSTANDING LEG OF CONNECTION ANGLES SHALL BE 1/8".

ALL CAST STEEL BOCKERS AND SHOES, BEARING PLATES, BRONZE PLATES, LEAD PLATES AND ANCHOR BOLT ASSEMBLIES SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 51.15 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL AND STRUCTURAL STEEL (LOW ALLOY). ESTIMATED WEIGHT: CAST STEEL 7,220 LBS.; BEARING PLATES, ANCHOR BOLT ASSEMBLIES, BRONZE PLATES AND LEAD PLATES 3,710 LBS.; BASE PLATES (LOW ALLOY) 2,190 LBS.

ROADWAY EXPANSION ANGLES SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ARTICLE 51.13(a) OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT: 3,160 LBS.

THE ROADWAY EXPANSION PLATES SHALL BE FABRICATED AND ERECTED TO FIT THE CROWN OF ROADWAY. THE EXPANSION GUARD SHALL BE ASSEMBLED IN THE SHOP IN THE PROPER POSITION WITH THE ADJACENT ENDS IN PLACE AND SHALL BE LEFT ASSEMBLED FOR SHOP INSPECTION. PLATES SHALL BE FLAME CUT AS PROVIDED IN ARTICLE 54.5(1) OF THE STANDARD SPECIFICATIONS. EXPANSION GUARDS ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT 1,620 LBS.

ANCHOR BOLTS SHALL BE SET BEFORE RIVETING DIAPHRAGMS OVER PIERS AND ABUTMENTS.

STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT EXCEPT AS OTHERWISE SPECIFIED. ALL PAINT TO BE FURNISHED AND APPLIED BY THE CONTRACTOR. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS.

THE EXPOSED SURFACES OF THE EXPANSION ANGLES AND PLATES, AND ALL INACCESSIBLE SURFACES, SHALL BE GIVEN TWO SHOP COATS OF RED LEAD PAINT; THE CONTACT SURFACES SHALL BE GIVEN ONE SHOP COAT OF RED LEAD PAINT. ANCHOR STUDS SHALL NOT BE PAINTED.

SHOP INSPECTION OF STRUCTURAL STEEL SHALL BE BY ILLINOIS DIVISION OF HIGHWAYS BEFORE PAINTING.

THE CONTRACTOR SHALL DRIVE STEEL TEST PILES IN PERMANENT LOCATIONS AT EACH ABUTMENT AND AT PIER 1, AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE STEEL PILES.

BILL OF MATERIAL (BRIDGE)

PAY ITEM	UNIT	TOTAL	SUB-STRUCTURE	SUPER-STRUCTURE
EARTH EXCAVATION	CU. YD.	81.62	81.62	
EMBANKMENT	CU. YD.	29.56	29.56	
POREOUS GRANULAR SUBANKMENT	CU. YD.	14.12	14.12	
CLASS A EXCAVATION FOR STRUCTURES	CU. YD.	1,930	1,930	
CLASS B EXCAVATION FOR STRUCTURES	CU. YD.	2,979	2,979	
ROCK EXCAVATION FOR STRUCTURES	CU. YD.	305	305	
CLASS X CONCRETE	CU. YD.	1,738.1	1,738.1	509.8
PROTECTIVE COAT	SQ. YD.	2,123		2,123
FURNISHING AND ERECTING STRUCTURAL STEEL (CARBON)	POUND	479,760	3,400	475,360
FURNISHING AND ERECTING STRUCTURAL STEEL (LOW ALLOY)	POUND	479,750		479,750
FURNISHING AND ERECTING METAL HANDRAIL	LIN. FT.	816		816
REINFORCEMENT BARS	POUND	257,790	145,190	112,540
FURNISHING CHROSOYD PILES 20.1 TO 38 FEET	LIN. FT.	300	300	
DRIVING TIMBER PILES	LIN. FT.	300	300	
FURNISHING STEEL PILES 8PP36	LIN. FT.	1,207	1,207	
TEST PILE STEEL 8PP36	EACH	3	3	
DRIVING STEEL PILES	LIN. FT.	1,207	1,207	
NAME PLATES	EACH	1		1
PERFORATED CORRUGATED METAL PIPE 6"	LIN. FT.	180	180	
SLOPE WALL 4 INCH	SQ. YD.	175	175	
BRIDGE SEAT SEALANT	LUMP SUM	1	1	
NAVIGATION LIGHTING SYSTEM, COMPLETE	LUMP SUM	1		1

CHATHAM STREET BRIDGE  
BUILT BY  
STATE OF ILLINOIS  
C.H. ROUTE 239  
SEC. 2590404-  
LOADING H20-316

SEE STATE OF ILLINOIS STD. 3115-  
"NAME PLATE DETAILS"  
LETTERING FOR NAME PLATE

SHEET NO. 59  
CONTRACT NO. 61C15

REVISED 12 AUG 1963

FILE NO  
9-51-61

ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
INDEX OF SHEETS, GENERAL NOTES  
AND SUMMARY OF QUANTITIES

ALFRED BENESCH & COMPANY  
10 SOUTH WABASH AVE

CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

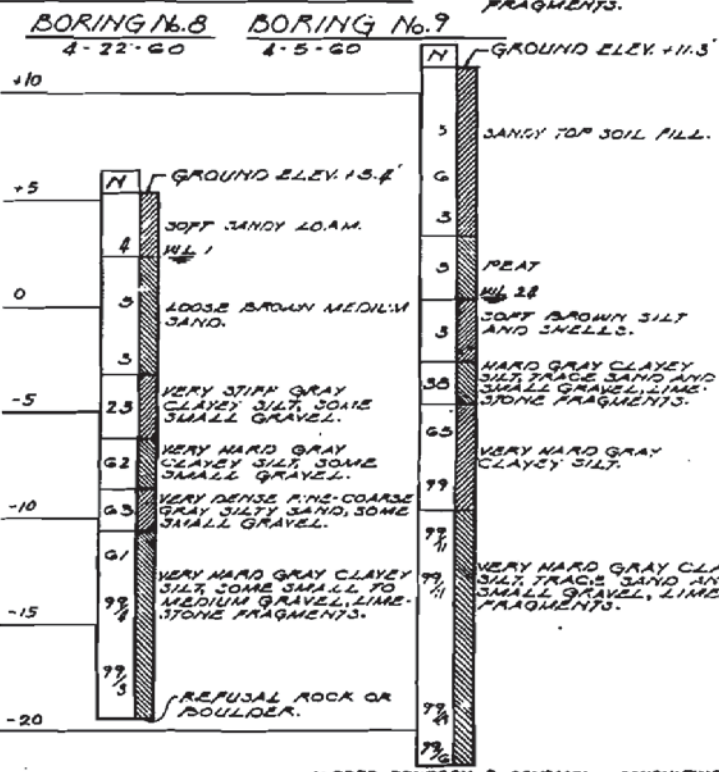
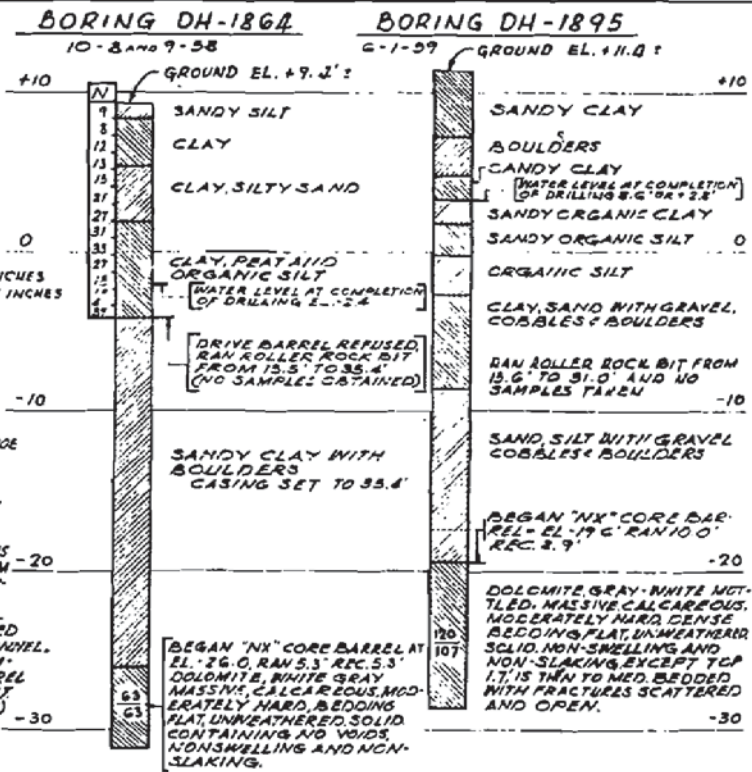
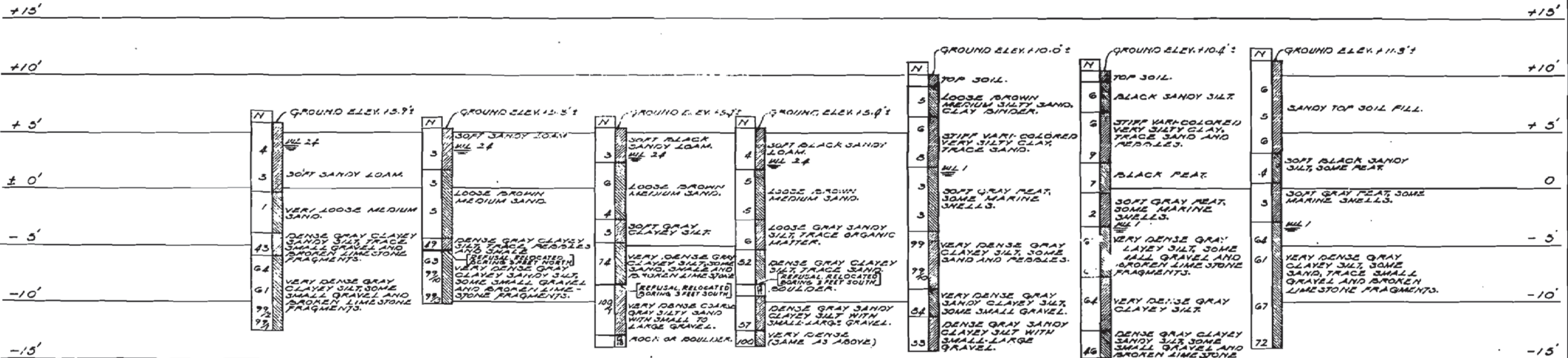
SCALE: NONE

DATE: 24 JUNE 1963



# SOIL TEST BORINGS

**BORING No. 1**    **BORING No. 2**    **BORING No. 3**    **BORING No. 4**    **BORING No. 5**    **BORING No. 6**    **BORING No. 7**  
 2-11-60            2-12-60            2-24-60            2-17-60            2-25-60            2-19-60            2-22-60



**NOTES:**

FIGURES IN COLUMNS MARKED "N" INDICATE NUMBER OF BLOWS REQUIRED TO DRIVE 2" O.D. SAMPLING PIPE ONE FOOT USING 100 LB. WEIGHT FALLING 30 INCHES. BORING DATA SHOWN ARE ONLY A GUIDE TO THE BIDDERS IN ESTIMATING SOIL CONDITIONS WHICH MAY BE ENCOUNTERED IN THE WORK.

FIGURES NOTED THUS "A" INDICATES AMOUNT OF ROCK CORED IN INCHES "B" INDICATES AMOUNT OF ROCK RECOVERED IN INCHES

WL 24 INDICATES WATER LEVEL 24 HOURS AFTER COMPLETION OF BORING.

UNCONFINED COMPRESSIVE TESTS WERE NOT MADE BECAUSE ALL CLAY SAMPLES TAKEN WERE TOO SILTY OR SANDY.

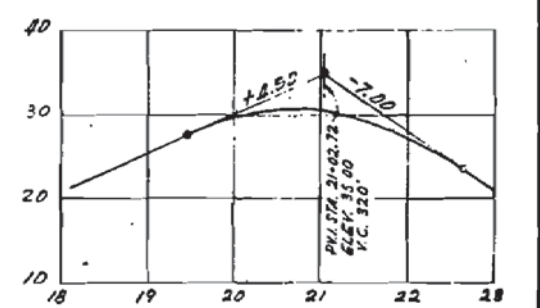
FOR LOCATION OF BORINGS SEE GENERAL PLAN SH. 1 BORINGS NUMBERED 1 THRU 9 WERE DRILLED ON THE DATES SHOWN BY THE CORPUS OF ENGINEERS PERSONNEL. BORING DATA SHOWN BY THE RAYMOND CONCRETE PIPE CO., 111 W. HURON STREET CHICAGO 3, ILL., FOR THE ALFRED BENESCH & CO., CHICAGO 3, ILL.

CLASSIFICATIONS WERE MADE BY VISUAL INSPECTION BY THE SHIFT FOREMAN.

REFUSAL, WHICH MAY BE DUE TO BOULDERS OR CONCRETE, WAS ENCOUNTERED IN BORINGS NUMBERED 2, 3, 4, AND THE HOLES WERE RELOCATED. IN EACH CASE, SAMPLES WERE NOT TAKEN FROM THE RELOCATED HOLES UNTIL THE DEPTH OF THE REFUSED BORING HAD BEEN REACHED.

BORINGS NUMBERED DH-1864 & DH-1895 WERE DRILLED ON THE DATES SHOWN BY THE CORPUS OF ENGINEERS PERSONNEL. FIGURES IN THE COLUMN MARKED "N" INDICATE THE NUMBER OF BLOWS REQUIRED TO ADVANCE THE DRIVE BARREL ONE FOOT USING 370 POUND WEIGHT FALLING 1.7 FEET UNDISTURBED SOIL SAMPLES ("SHELBY TUBE SAMPLES") WERE TAKEN IN DH-1895 FROM 0' TO 15.6'

**NOTES:**  
ELEVATIONS SHOWN REFER TO CHICAGO CITY DATUM (C.C.D.) WHICH IS 578.15 FEET ABOVE MEAN WATER LEVEL AT FATHER POINT, QUEBEC, INTERNATIONAL GREAT LAKES DATUM (I.G.L.D.) (1955).



**PROFILE - E CHATHAM ST.**  
SCALE: VERT. 1"=10'    HORIZ. 1"=100'  
**SHEET NO. 60**  
**CONTRACT NO. 61C15**    FILE NO. 9-B1-G1

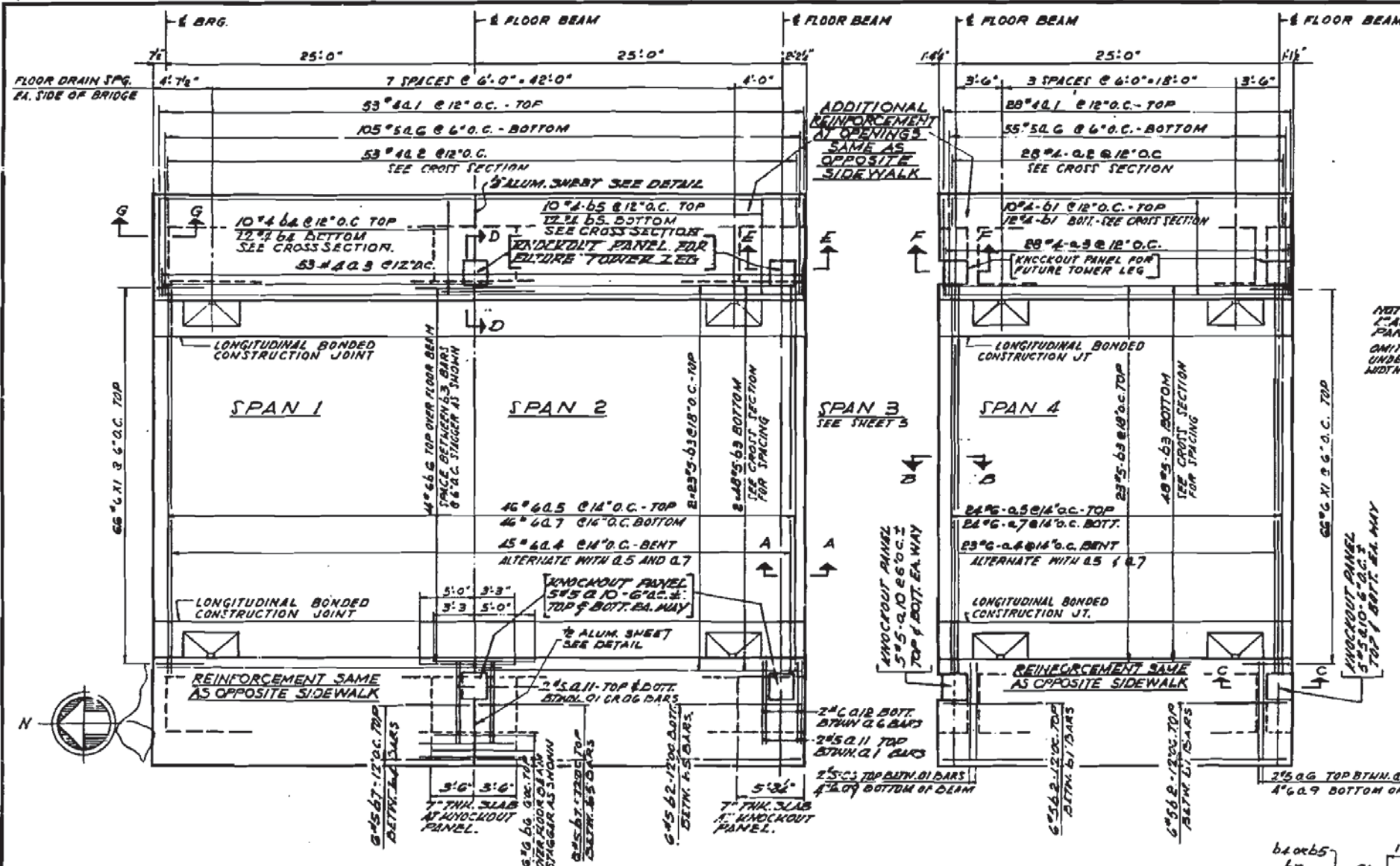
ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
**LOG OF BORINGS**  
SCALE: AS NOTED    DATE: 24 JUNE 1965



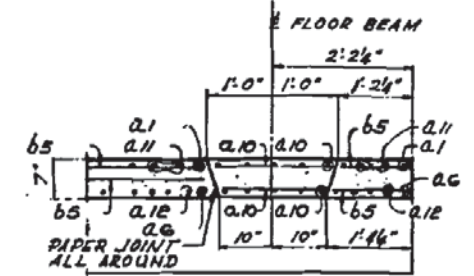
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
61	240314	COOK	50	18
STA.	TO STA.		PROJECT	
E. P. & M. NO. 1	LENGTH	MILEAGE		

SHEET 4 OF 28

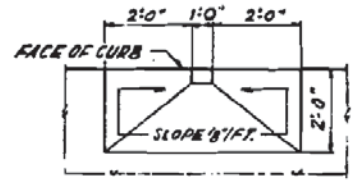
**NOTES**  
 BARS INTERFERING WITH KNOCKOUT PANELS TO BE CUT IN FIELD.  
 BARS INDICATED THUS 2-3#5 ETC. INDICATE 3 LENGTHS OF BARS PER LINE WITH 23 LINES OF BARS.  
 FOR SPAN 3 SEE SHEET 5.  
 FOR REINFORCEMENT BAR LIST SEE SHEET 27.  
 FOR SECTION B-B SEE SHEET 16.



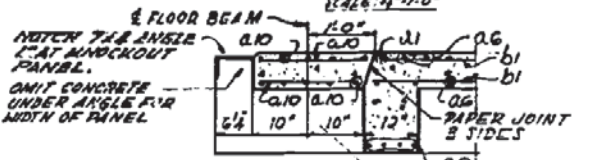
PLAN OF DECK REINFORCEMENT - SPANS 1, 2 & 4  
 SCALE: 1/8" = 1'-0"



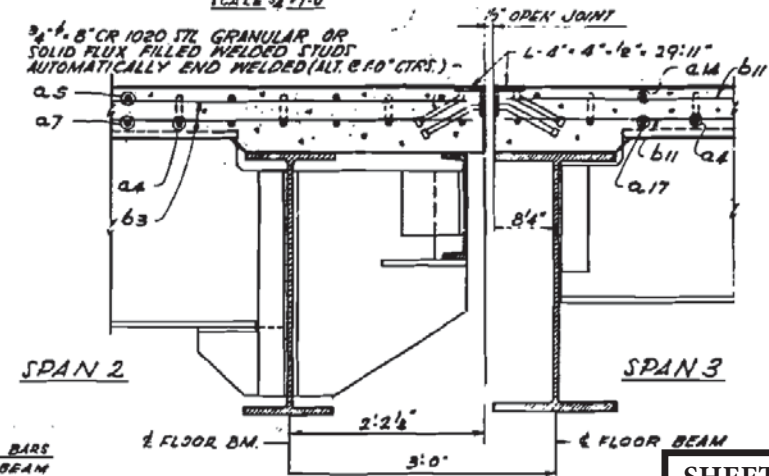
SECTION E-E  
 SCALE: 1/4" = 1'-0"



PLAN AT DRAIN  
 SCALE: 1/2" = 1'-0"

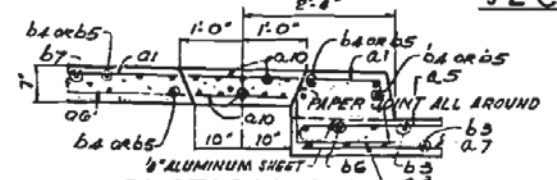


SECTION E-F  
 SCALE: 1/4" = 1'-0"

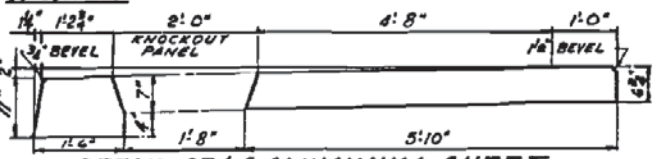


SECTION A-A  
 SCALE: 1" = 1'-0"

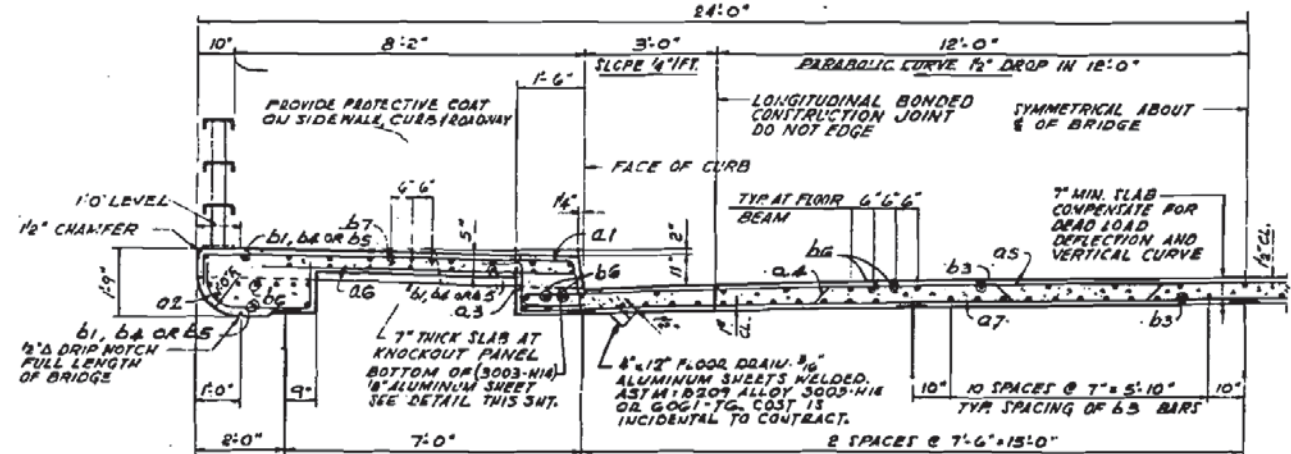
SHEET NO. 61  
 CONTRACT NO. 61C15



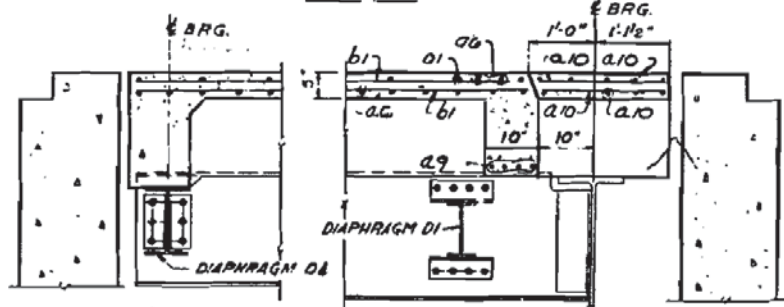
SECTION D-D  
 SCALE: 1/2" = 1'-0"



DETAIL OF 1/2 ALUMINUM SHEET  
 USED IN CURB JOINTS (3003-H14)  
 SCALE: 3/4" = 1'-0"



HALF CROSS SECTION OF SPANS 1, 2 AND 4  
 SCALE: 1/8" = 1'-0"



SECTION G-G  
 SCALE: 3/4" = 1'-0"

SECTION C-C  
 SCALE: 3/4" = 1'-0"

**BILL OF MATERIAL**

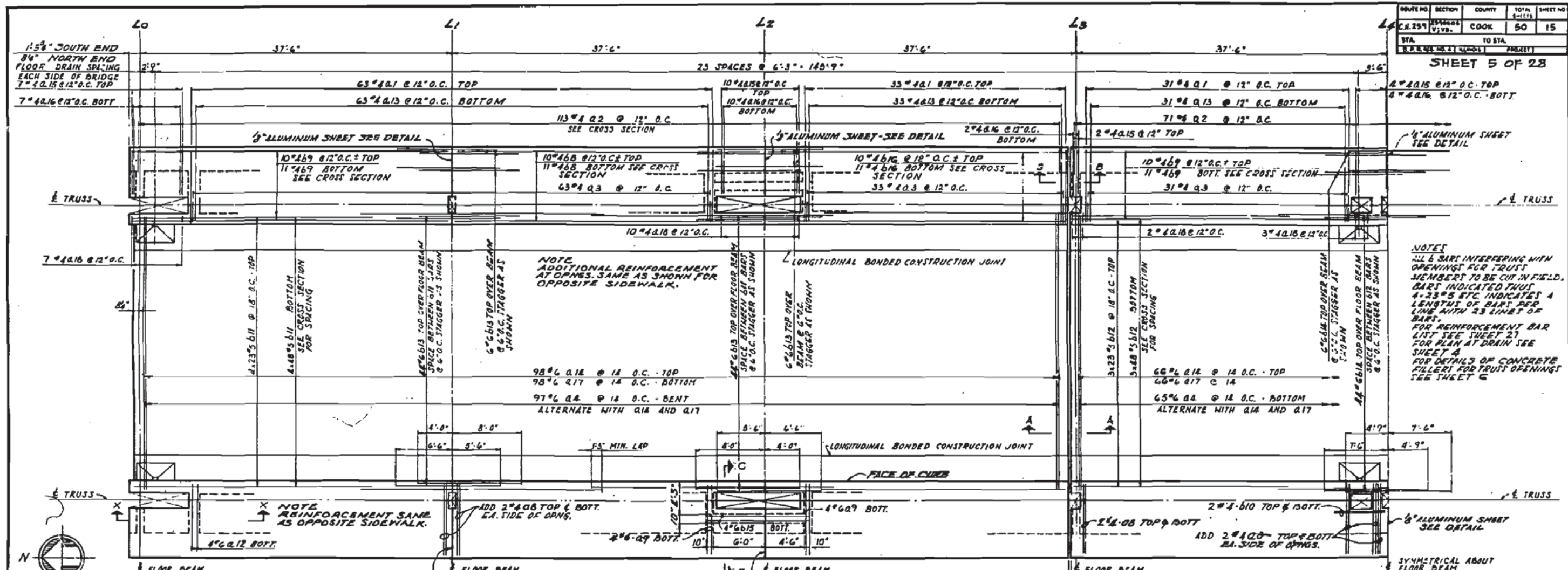
ITEM	UNIT	QUANTITY	SPAN 1	SPAN 2	SPAN 4
CLASS X CONCRETE	CY. YD.	71.1		37.7	
REINFORCEMENT BARS	LB.	17,010		8,660	
PROTECTIVE COAT	SQ. YD.	275		183	

ILLINOIS DIVISION OF HIGHWAYS  
 CALUMET-SAG NAVIGATION PROJECT  
 CHATHAM STREET HIGHWAY BRIDGE  
 DECK REINFORCEMENT PLAN  
 SPANS 1, 2 AND 4

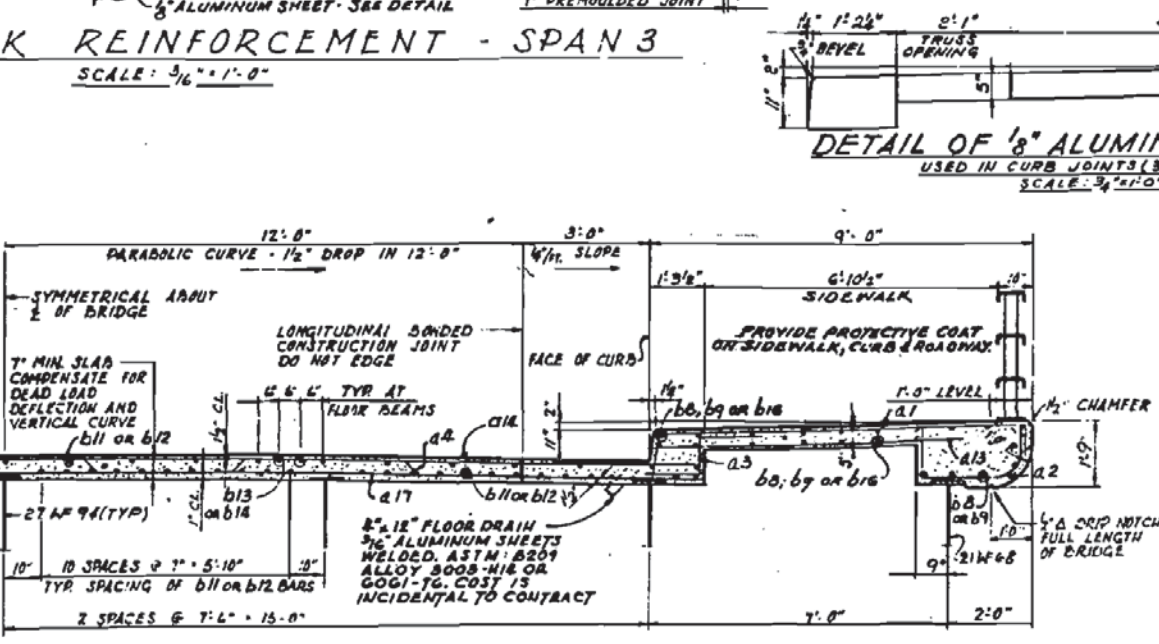
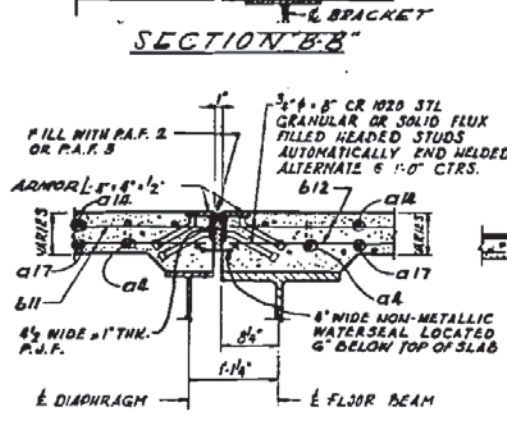
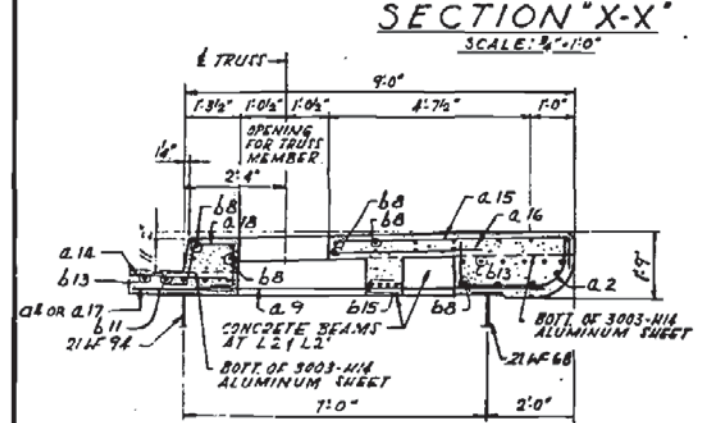
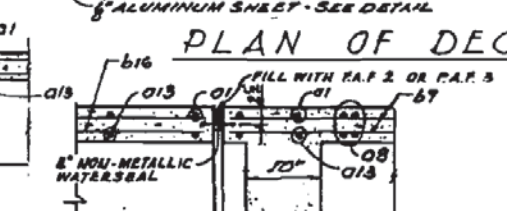
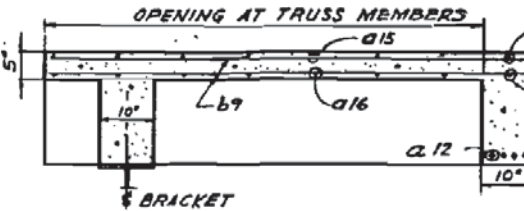
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS  
 10 SOUTH WABASH AVE CHICAGO, ILLINOIS

SCALE: AS NOTED DATE: 24 JUNE 1963





**NOTES**  
 ALL BARS INTERFERING WITH OPENINGS FOR TRUSS MEMBERS TO BE CUT IN FIELD. BARS INDICATED THUS 4-23#5 ETC. INDICATES A LENGTH OF BARS PER LONG WITH 23 INSET OF BARS.  
 FOR REINFORCEMENT BAR LIST SEE SHEET 27 FOR PLAN AT DRAIN SEE SHEET 4 FOR DETAILS OF CONCRETE FILLER FOR TRUSS OPENINGS SEE SHEET 6



**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY SPAN 3
CLASS X CONCRETE	CU. YDS.	401.0
REINFORCEMENT BARS	LBS.	86,870
PROTECTIVE COAT	SQ. YD.	1677

SHEET NO. 62  
 CONTRACT NO. 61C15  
 FILE NO. 9-91-9-1

ILLINOIS DIVISION OF HIGHWAYS  
 CALUMET-SAG NAVIGATION PROJECT  
 CHATHAM STREET HIGHWAY BRIDGE  
 DECK REINFORCEMENT PLAN  
 SPAN 3

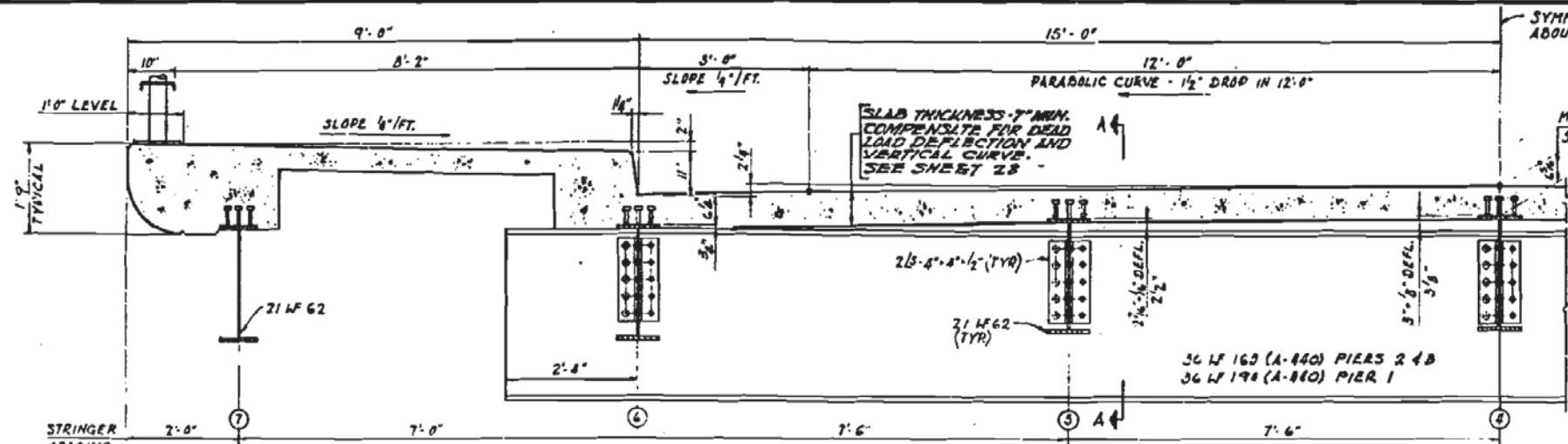




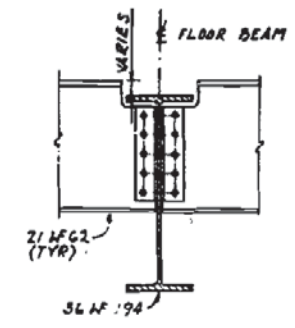


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 259	1750	COOK	50	17
STA.	TO STA.		PROJECT	
1750 + 0.00	1750 + 100.00		ILLINOIS	

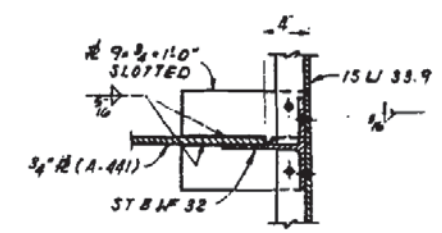
SHEET 7 OF 28



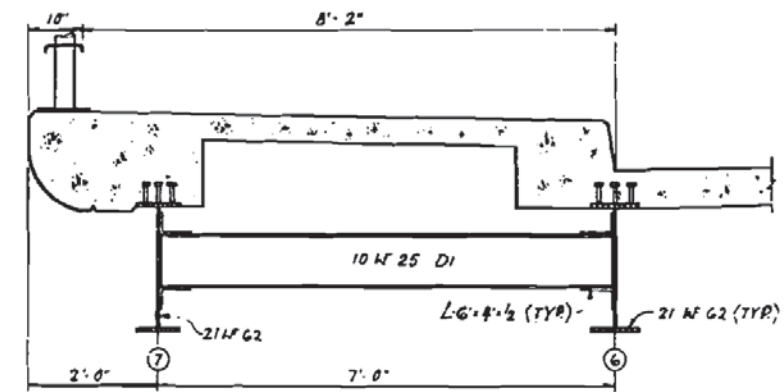
TYPICAL CROSS-SECTION AT FLOOR BEAMS  
SCALE: 3/4" = 1'-0"



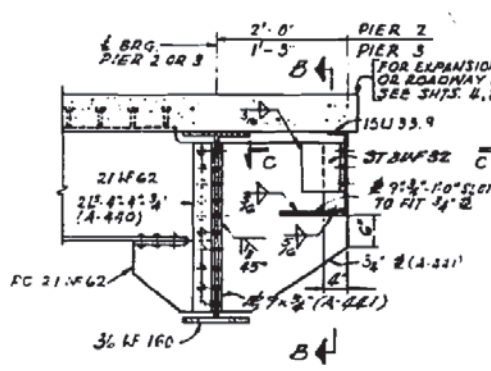
SECTION A-A  
SCALE: 1/4" = 1'-0"



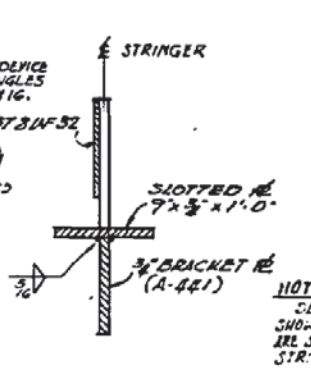
SECTION C-C  
SCALE: 1/4" = 1'-0"



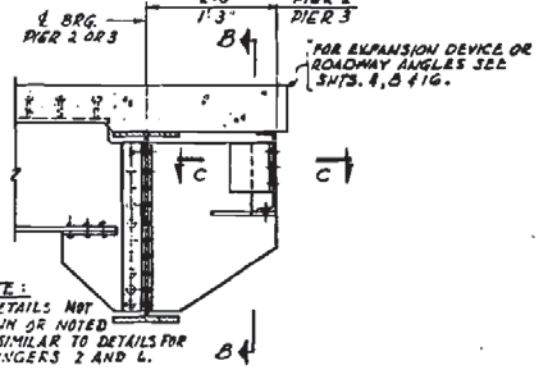
TYP. CROSS-SECTION AT DIAPHRAGM 'DI'  
SCALE: 3/4" = 1'-0"



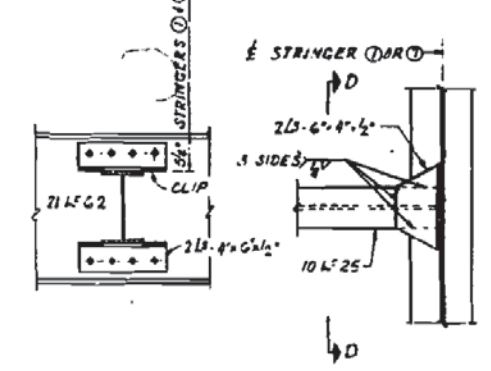
STRINGERS 2 AND 6  
SCALE: 3/4" = 1'-0"



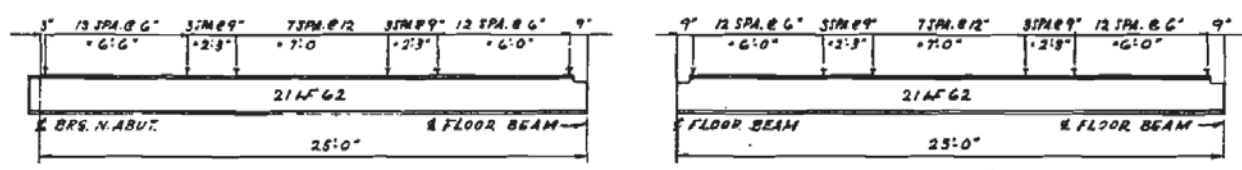
SECTION B-B  
SCALE: 1/2" = 1'-0"



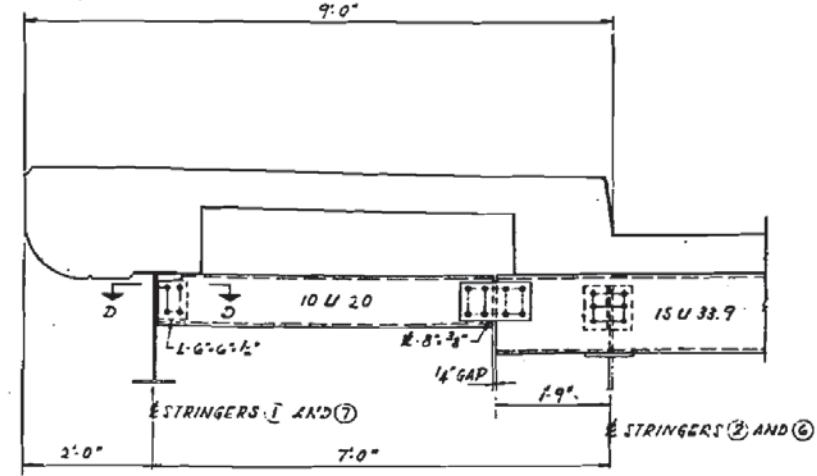
STRINGERS 3, 4 AND 5  
SCALE: 3/4" = 1'-0"



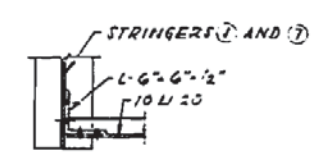
SECTION D-D  
SCALE: 1" = 1'-0"



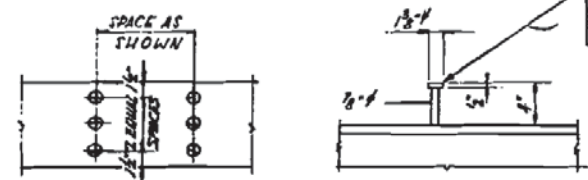
SHEAR CONNECTOR SPACING  
NO SCALE



CHANNEL DETAIL AT SIDEWALK  
SCALE: 3/4" = 1'-0"



SECTION "D-D"  
SCALE: 1" = 1'-0"



WELDED STUD SHEAR CONNECTOR

3/8" x 4" OR 1020STL GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED. (EST. WT. 1950 LBS. INCLUDED IN STRUCTURAL STEEL.)

SHEET NO. 64  
CONTRACT NO. 61C15

FILE NO. 9-B1-G1

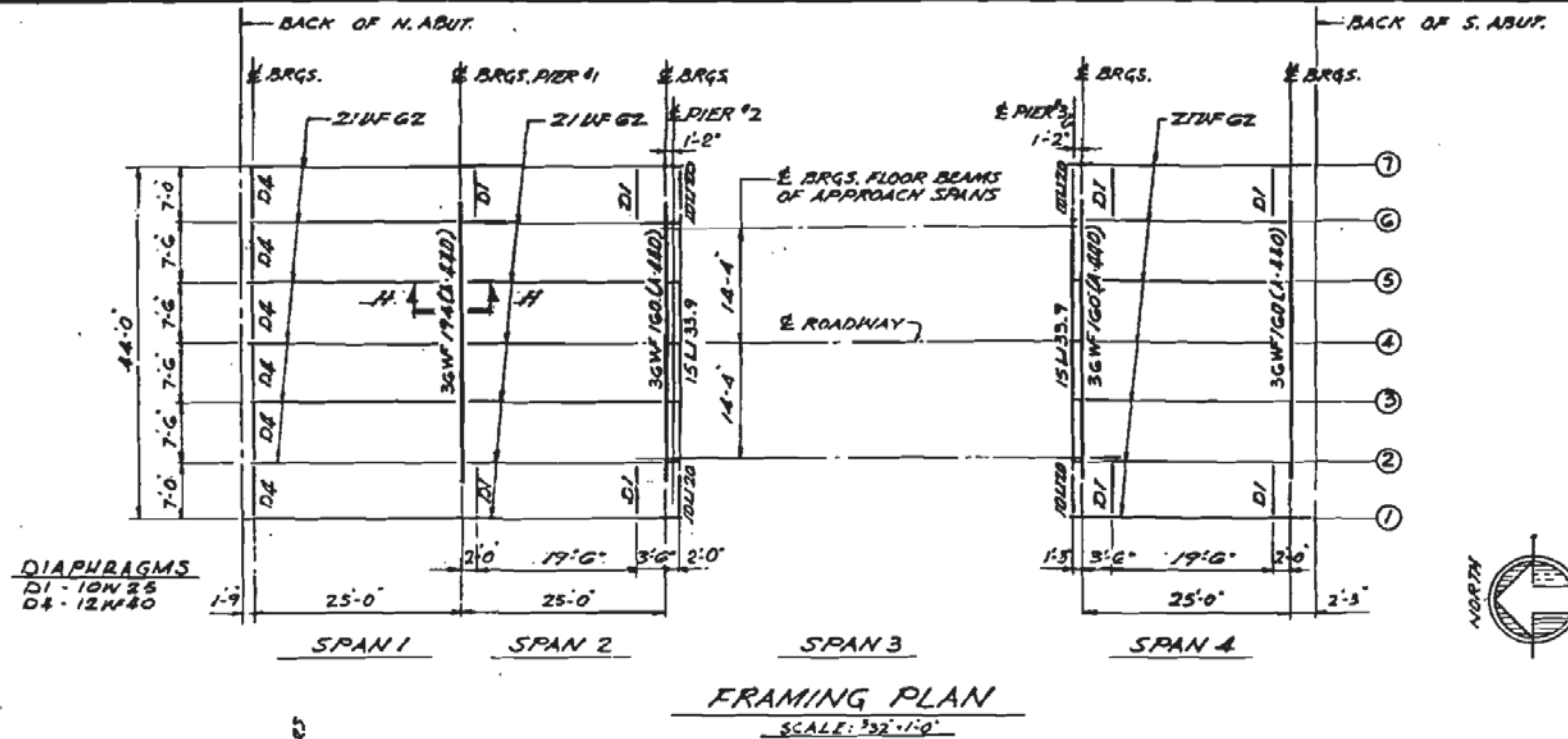
ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
CROSS-SECTION AND DETAILS  
SPANS 1, 2 AND 4

ALFRED BENESCH & COMPANY  
10 SOUTH WABASH AVE  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

SCALE AS NOTED

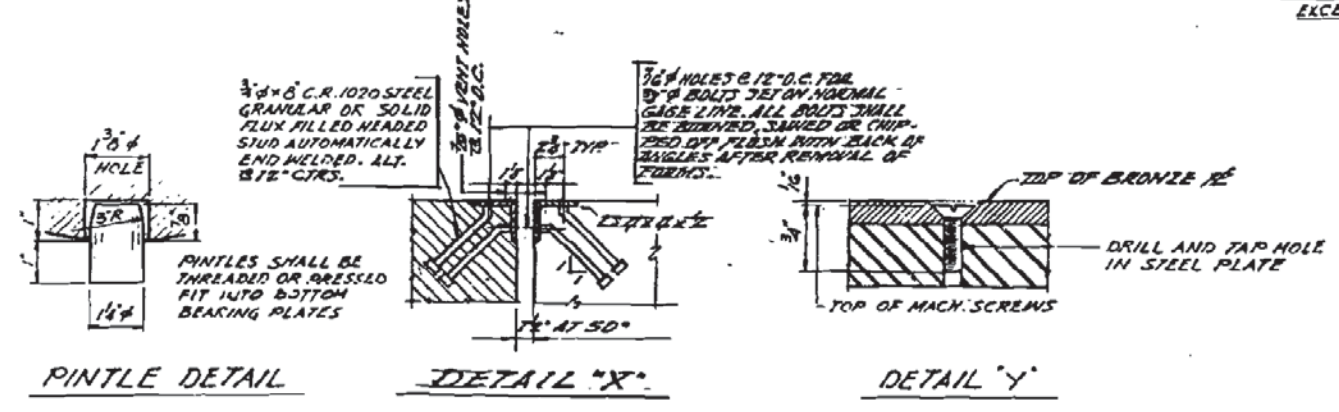
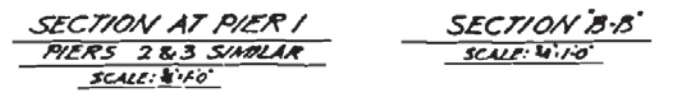
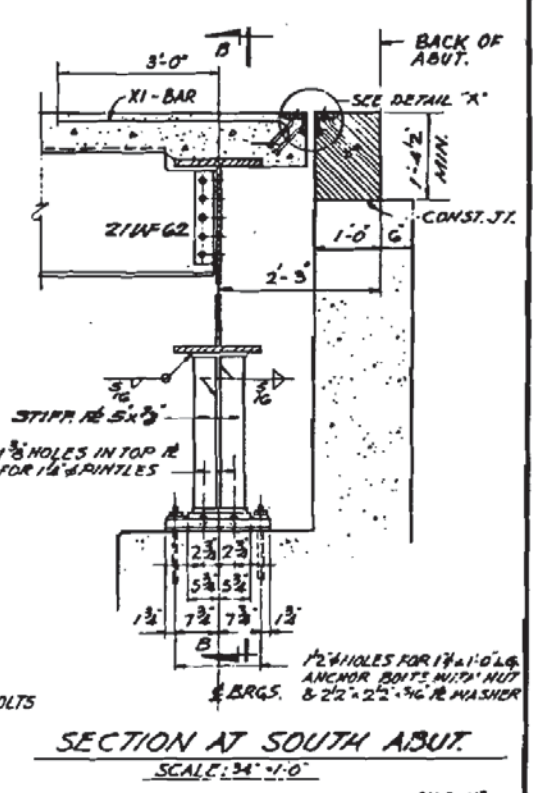
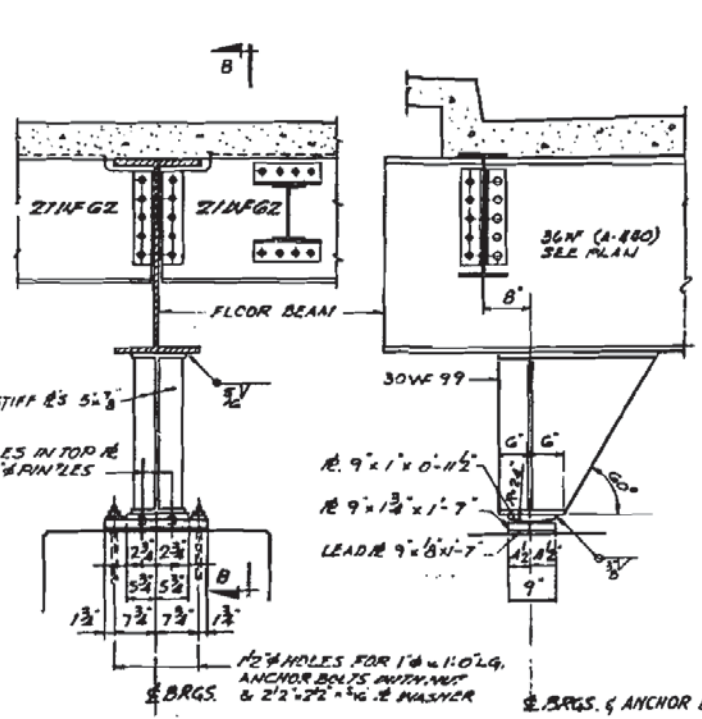
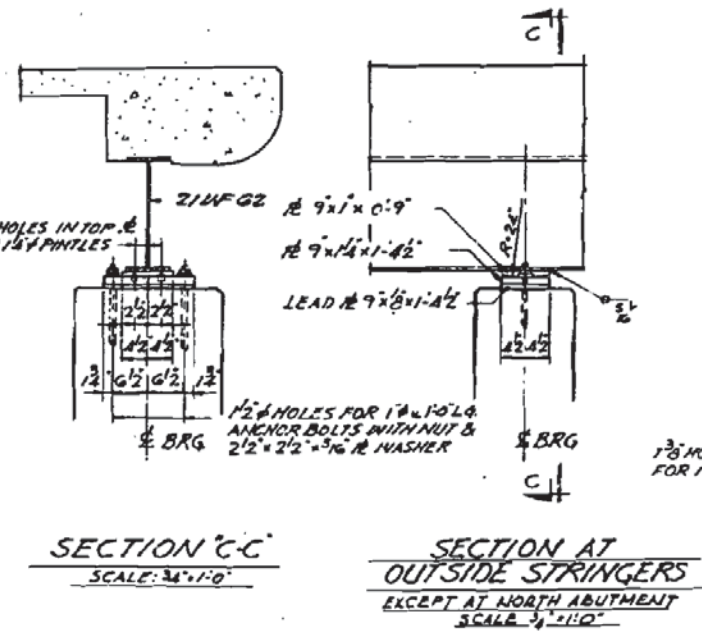
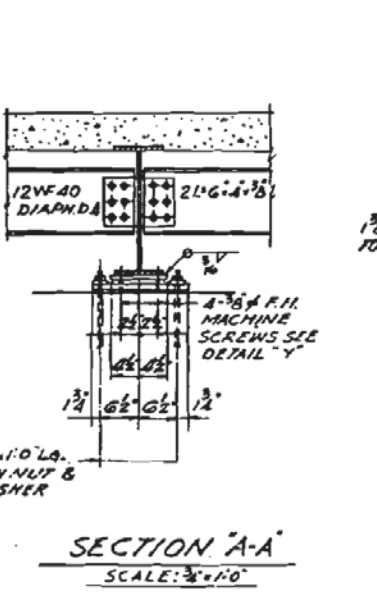
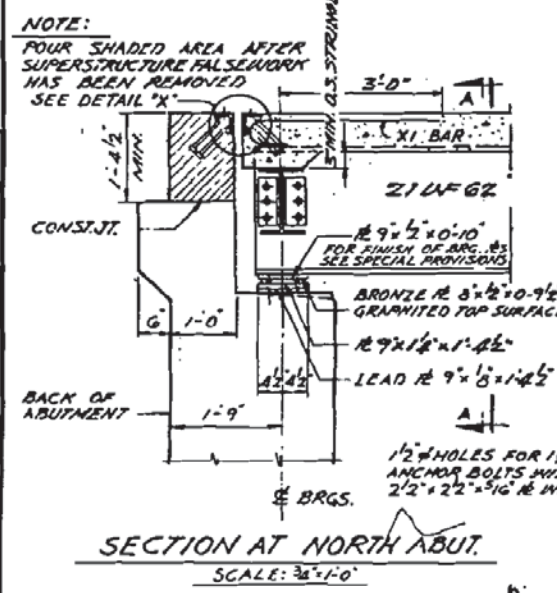
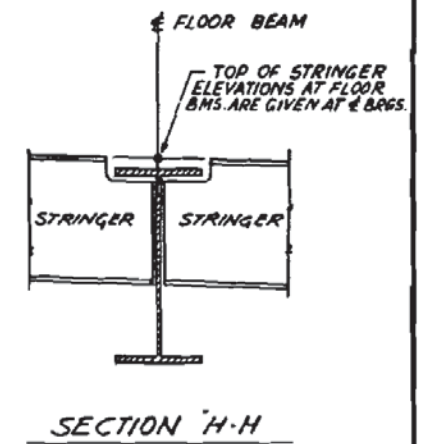
DATE: 24 JUNE 1965





**TOP OF STRINGER ELEVATIONS**  
(FOR FABRICATION ONLY)

STRINGER NO. LOCATION	1 AND 7	2 AND 6	3 AND 5	4
E. BRGS. NORTH ABUTMENT	23.581	23.581	23.720	23.769
E. BRGS. PIER 1 SPAN 1	24.706	24.706	24.845	24.874
E. BRGS. PIER 2 SPAN 2	25.831	25.831	25.970	26.019
E. BRGS. PIER 3 SPAN 4	25.693	25.693	25.832	25.881
E. BRGS. SOUTH ABUTMENT	24.205	24.205	24.344	24.393



**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
STRUCTURAL STEEL	LBS	32,620 26,680
STRUCTURAL STEEL (LOW ALLOY)	LBS	14,960 12,760

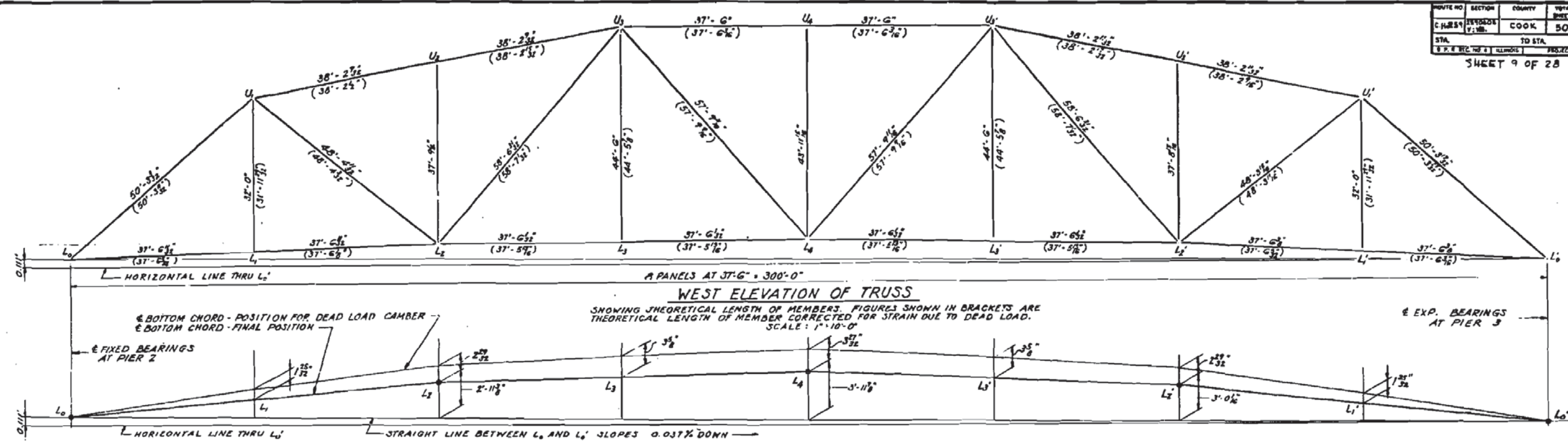
ILLINOIS DIVISION OF HIGHWAYS  
CAUMMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
FRAMING PLAN AND BEARING DETAILS  
SPANS 1, 2 AND 4

SCALE: AS NOTED    DATE: 24 JUNE 1965

SHEET NO. 65  
CONTRACT NO. 61C15

ALFRED BENESCH & COMPANY    CONSULTING ENGINEERS  
10 SOUTH WABASH AVE    CHICAGO, ILLINOIS





**STRESS TABLE**

MEMBER	SECTION	LENGTH C. TO C. JOINT FEET	X-X	Y-Y	L-12	AREA SQ. IN.	STRESSES - KIPS				WIND STRESS - KIPS		Z STRESSES - KIPS			UNIT STRESS * KIPS PER SQ. IN.			ALLOWED UNIT STRESS KIPS PER SQ. IN.	D/L DEFORM. IN INCHES D/L A-E	GRADE OF STEEL	MEMBER		
							DEAD LOAD D	LIVE LOAD L	IMPACT I	SIDE-WALK SN-LL	W	WL	A	B	C	A	B	C						
L0-U1	2-18 L15 2 COV. R15 1/2	50.258	6.46	6.80	93.4	78.40	-833	-192	-23	-41	-28	-1089	-861	-1097	16.81	20.31	18.90	17.10	21.40	-1/4	A440	L0-U1		
U1-U2	2-18 L15 2 COV. R15 1/2	38.191	6.40	6.81	71.6	76.46	-920	-198	-23	-46	-40	-1187	-960	-1199	18.07	15.38	18.55	19.13	23.90	-1/8	A440	U1-U2		
U3-U4	2-18 L15 2 COV. R15 1/2	37.500	6.30	6.77	71.4	83.22	-1033	-223	-26	-51	-44	-1333	-1077	-1346	18.50	15.69	18.80	19.14	23.92	-3/8	A440	U3-U4		
U5-U6	SAME AS U1-U2	38.196	6.40	6.81	71.6	76.46	-920	-198	-23	-46	-40	-1187	-960	-1199	18.07	15.38	18.55	19.13	23.90	-1/8	A440	U5-U6		
U7-U8	SAME AS L0-U1	50.295	6.46	6.80	93.5	78.40	-833	-192	-23	-41	-28	-1089	-861	-1097	16.81	20.31	18.90	17.10	21.40	-1/4	A440	U7-U8		
L0-L2	2-R 18 x 1 1-R 14 x 1/2 WELDED	37.528	4.58	6.89	98.2	46.50	+622	+134	+16	+31	+119	+30	+803	+741	+869	23.56	22.68	25.48	24.00	30.00	+1/8	A441	L0-L2	
L2-L4	2-R 18 x 1/2 1-R 13 x 1/2 WELDED	37.503	4.56	6.61	98.6	70.25	+958	+206	+24	+47	+159	+44	+1235	+1117	+1327	23.91	22.40	25.67	24.00	30.00	+7/16	A441	L2-L4	
L4-L2'	SAME AS L2-L4	37.503	SAME AS L2-L4																				L4-L2'	
L2'-L0'	SAME AS L0-L2	37.531	SAME AS L0-L2																					L2'-L0'
U1-L2	2-R 15 x 1/2 1-R 14 x 1/2 WELDED	48.362	3.52	6.78	165.0	27.98	+362	+98	+14	+20	-	-	+492	-	-	26.81	-	-	27.00	-	+1/4	A441	U1-L2	
L2-U3	2-15 L33.9 2-COV. R15 1/2	58.581	6.40	6.75	110.0	35.30	-86	-55	-9	-11	-	-	-161	-	-	7.26	-	-	12.22	-	-1/8	A-3G	L2-U3	
U3-L4	2-R 15 x 1/2 1-R 15 x 1/2 WELDED	57.808	3.69	6.97	188.0	20.63	+116	+60	+11	+11	-	-	+198	-	-	18.00	-	-	20.00	-	+1/8	A-3G	U3-L4	
L4-U5	SAME AS U3-L4	57.808	3.69	6.97	188.0	20.63	+116	+60	+11	+11	-	-	+198	-	-	18.00	-	-	20.00	-	+1/8	A-3G	L4-U5	
U5-L2'	SAME AS L2-U3	58.581	6.40	6.75	110.0	35.30	-85	-55	-9	-11	-	-	-160	-	-	7.23	-	-	12.22	-	-1/8	A-3G	U5-L2'	
L2'-U1'	SAME AS U1-L2	48.327	3.52	6.76	164.8	27.98	+363	+96	+14	+20	-	-	+493	-	-	26.84	-	-	27.00	-	+1/4	A441	L2'-U1'	
U1-L1	2-R 10 x 1/2 1-R 14 x 1/2 WELDED	32.000	2.48	6.88	155.0	20.44	+152	+65	+20	+7	-	-	+244	-	-	15.00	-	-	20.00	-	+3/8	A-3G	U1-L1	
U2-L2	2-R 10 x 1/2 1-R 15 x 1/2 WELDED	37.772	3.745	4.00	7.75	113.2	15.63	-4.00	-16	-	-	-	-16	-	-	4.00	-	-	11.97	-	-	A-3G	U2-L2	
U3-L3	2-R 12 x 1/2 1-R 14 x 1/2 WELDED	44.500	3.04	6.98	176.0	23.44	+152	+65	+20	+7	-	-	+244	-	-	12.35	-	-	20.00	-	+1/8	A-3G	U3-L3	
U4-L4	SAME AS U1-L2	43.995	4.00	7.75	132.0	15.63	-4.00	-18	-	-	-	-	-18	-	-	4.50	-	-	10.35	-	-	A-3G	U4-L4	

\* INCLUDES BENDING STRESS DUE TO WEIGHT OF MEMBER AND WIND ON MEMBER.

**ELEVATIONS**

PANEL POINT	TOP OF CROWN	2 BOTTOM CHORD
L0	26.685	23.135
L1	28.343	25.136
L2	29.607	26.597
L3	30.365	27.102
L4	30.617	27.607
L5	30.365	27.102
L6	29.607	26.597
L7	28.343	25.081
L8	26.574	23.564

**TRUSS REACTIONS (KIPS)**

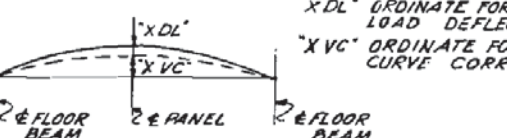
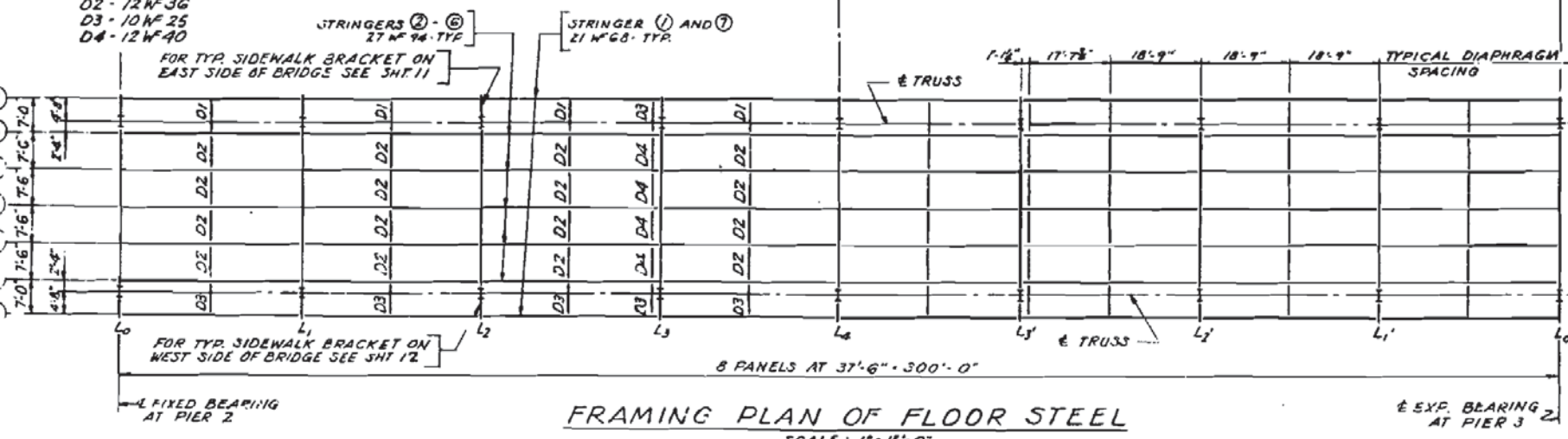
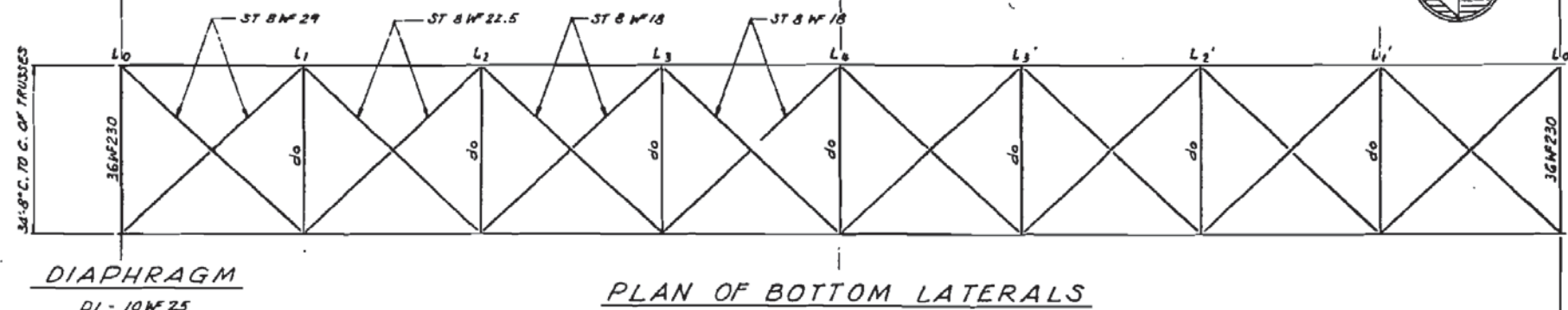
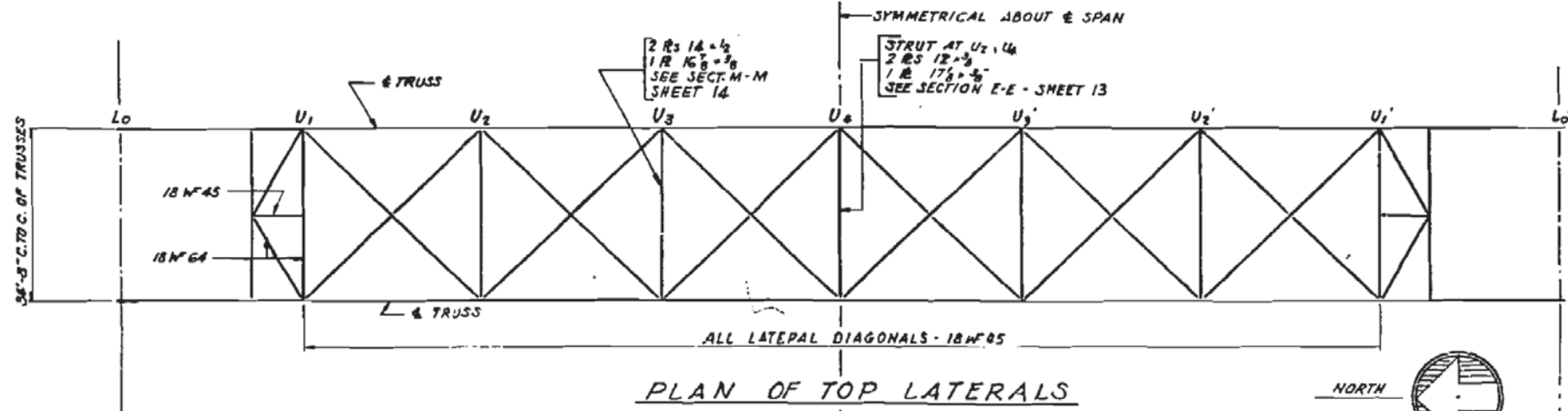
DEAD LOAD	6.25
LIVE LOAD	14.0
IMPACT	1.6
SIDEWALK LIVE LOAD	3.0
TOTAL	81.1

NOTES:  
FOR GENERAL NOTES SEE SHEET 2  
FOR ADDITIONAL NOTES SEE SHEET 13  
ELEVATIONS GIVEN ARE AFTER DEAD LOAD DEFLECTION.

SHEET NO. 66  
CONTRACT NO. 61C15

ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
**TRUSS ELEVATION & STRESS TABLE**

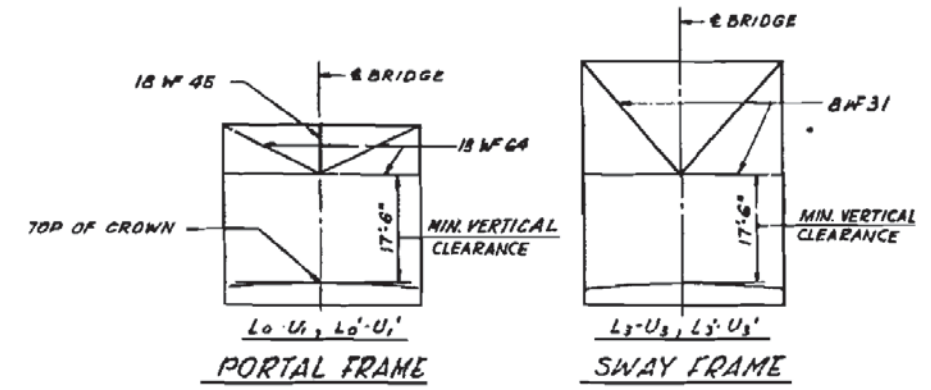




STRINGER	PANELS	XVC	XDL	TOTAL CAMBER
1 & 7	L <sub>0</sub> -L <sub>1</sub>	3/8"	1/16"	1/2"
2 THRU 6	L <sub>1</sub> -L <sub>2</sub>	3/8"	7/16"	NO CAMBER
1 & 7	L <sub>1</sub> TO L <sub>0</sub> '	3/8"	1/16"	1 1/2"
2 THRU 6	L <sub>1</sub> TO L <sub>0</sub> '	3/8"	7/16"	1 1/2"

$\epsilon$ FLOOR BEAM AT JOINT	L <sub>0</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>3</sub> '	L <sub>2</sub> '	L <sub>1</sub> '	L <sub>0</sub> '
STRINGER 1 & 7	25.977	27.635	28.899	29.657	29.909	29.657	28.899	27.635	25.866
STRINGER 2 & 6	25.977	27.635	28.899	29.657	29.909	29.657	28.899	27.635	25.866
STRINGER 3 & 5	26.115	27.773	29.037	29.795	30.047	29.795	29.037	27.773	26.004
STRINGER 4	26.164	27.822	29.086	29.844	30.096	29.844	29.086	27.822	26.053

ELEVATIONS GIVEN ARE AFTER DEAD LOAD DEFLECTION



PANEL DEAD LOADS - KIPS

POINT	SIDE WALK CONCRETE	ROADWAY SLAB AND WEARING SURFACE	FLOOR STEEL	TRUSS STEEL	TOTAL
L <sub>0</sub> OR L <sub>0</sub> '	23.0	29.6	11.8	14.9	79.3
L <sub>1</sub> OR L <sub>1</sub> '	46.1	59.3	19.2	27.4	152.0
L <sub>2</sub> OR L <sub>2</sub> '	46.1	59.3	19.2	30.0	154.6
L <sub>3</sub> OR L <sub>3</sub> '	46.1	59.3	20.3	35.4	161.1
L <sub>4</sub>	46.1	59.3	19.2	31.6	156.2

PANEL LIVE LOADS - KIPS (2 LANES)

TYPE	LOAD
UNIFORM LOAD	27.6
CONCENTRATED LOAD (MOMENT)	20.6
CONCENTRATED LOAD (SHEAR)	29.8
TRUCK LOADINGS	65.2
SIDEWALK	7.5

STRESS TABLE FOR STRINGERS AND FLOOR BEAMS

MEMBER	MOMENT (FT. KIPS)				REACTION (KIPS)				SECTION	GRADE OF STEEL
	DL	LL	I	TOTAL	DL	LL	I	TOTAL		
ROADWAY STRINGER	163	276	83	522	171	36.9	11.0	65.0	27 WF 94	A36 <sup>b</sup>
SIDEWALK STRINGER	212 <sup>a</sup>	43	-	255	92.8 <sup>a</sup>	4.5	-	27.3	21 WF 68	A36
INTERIOR FLOOR BEAM	765	705	211	1681	92.5	65.2	19.6	177.3	36 WF 230	A440
END FLOOR BEAM	405	666	200	1271	48.9	61.3	18.5	129.2	36 WF 230	A440
END FLOOR BEAM JACKING, FULL D.L.	-1756 <sup>c</sup>	-	-	-1756	635.1 <sup>d</sup>	-	-	635.1	36 WF 230	A440

<sup>a</sup> JACKING LOAD APPLIED AT 3'-0" FROM  $\epsilon$  TRUSS.

<sup>b</sup> INCLUDES 10.0 KIPS FOR FUTURE L<sub>0</sub>-U<sub>0</sub>-U<sub>1</sub> MEMBERS.

<sup>c</sup> COMPOSITE BEAM

<sup>d</sup> INCLUDES 0.12<sup>1/2</sup> IN. FT. FOR FUTURE 12"  $\phi$  WATER MAIN

NOTES:  
FOR GENERAL NOTES SEE SHEET 2  
FOR ADDITIONAL NOTES SEE SHEET 13

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
STRUCTURAL STEEL	LBS	418,720
STRUCTURAL STEEL (LOW ALLOY)	LBS	452,630

SHEET NO. 67  
CONTRACT NO. 61C15

ALFRED BENESCH & COMPANY  
10 SOUTH WABASH AVE  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

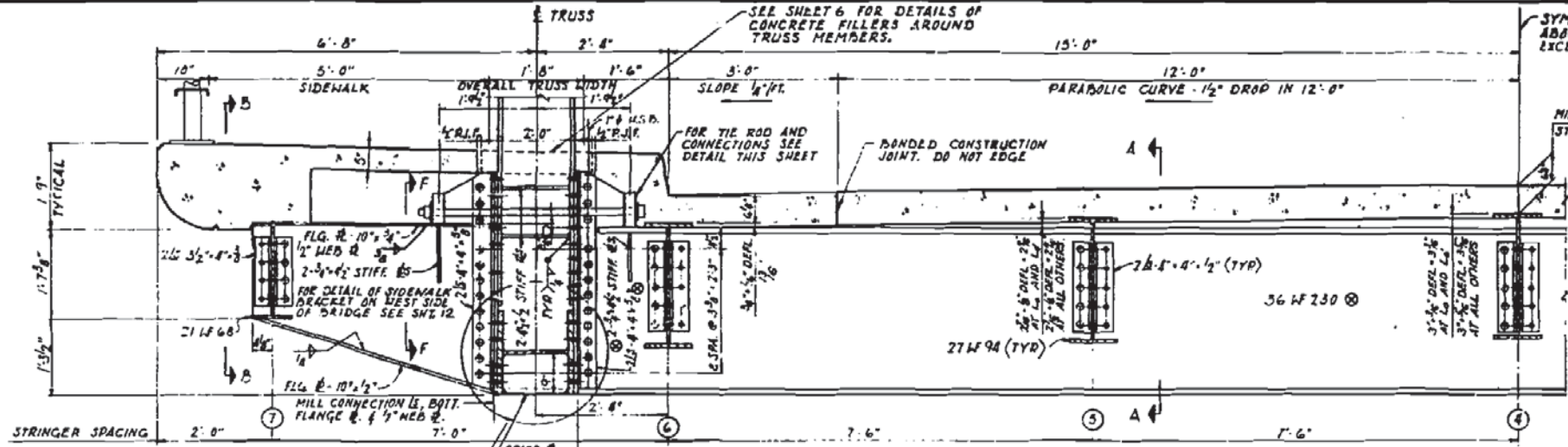
ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-JAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
FRAMING PLAN AND TOP OF STRINGER ELEVATIONS - SPAN 3

SCALE: AS NOTED DATE: 24 JUNE 1965

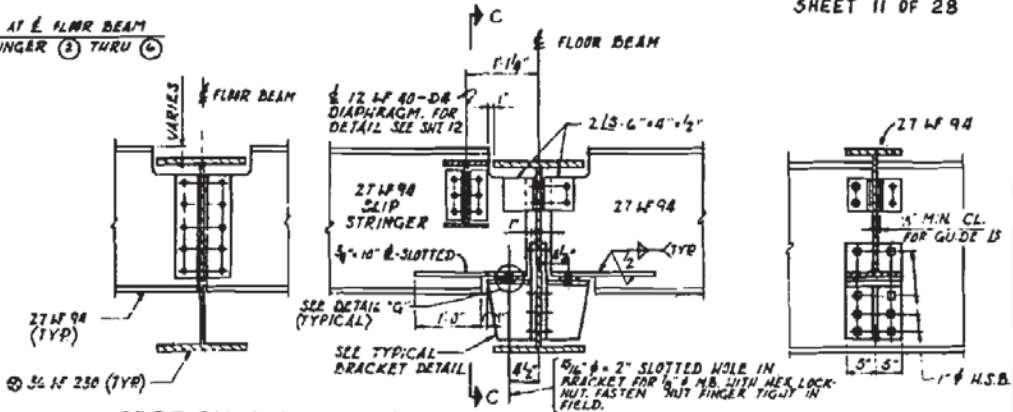


PROJECT NO.	SECTION	DRAWN BY	CHECKED BY	SHEET NO.	TOTAL SHEETS
CH 259	2510404	COOK	50	21	
STA.	TO STA.	PROJECT			
1.75	1.75				

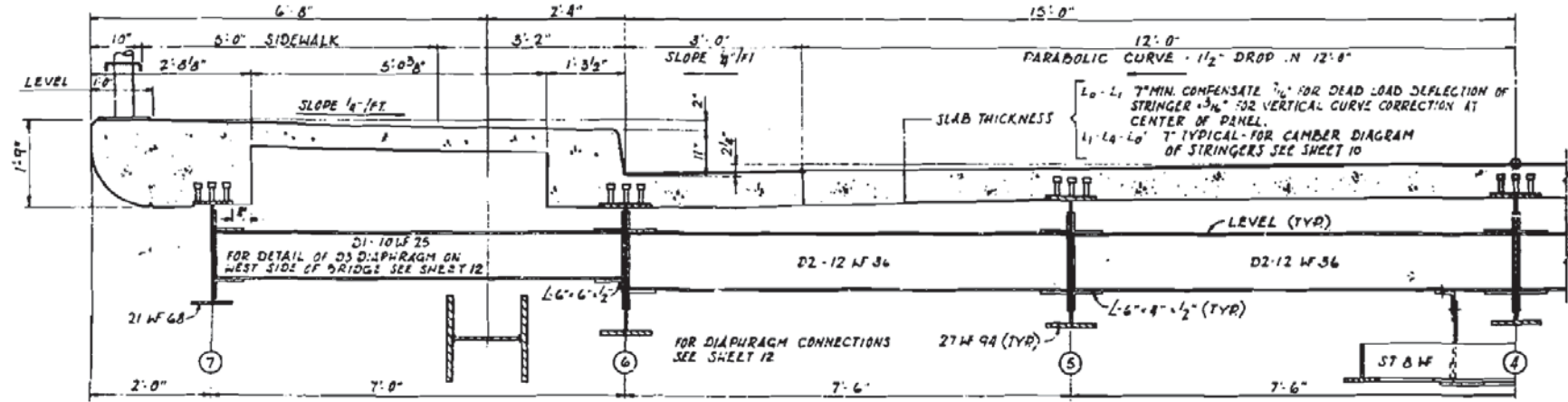
SHEET 11 OF 28



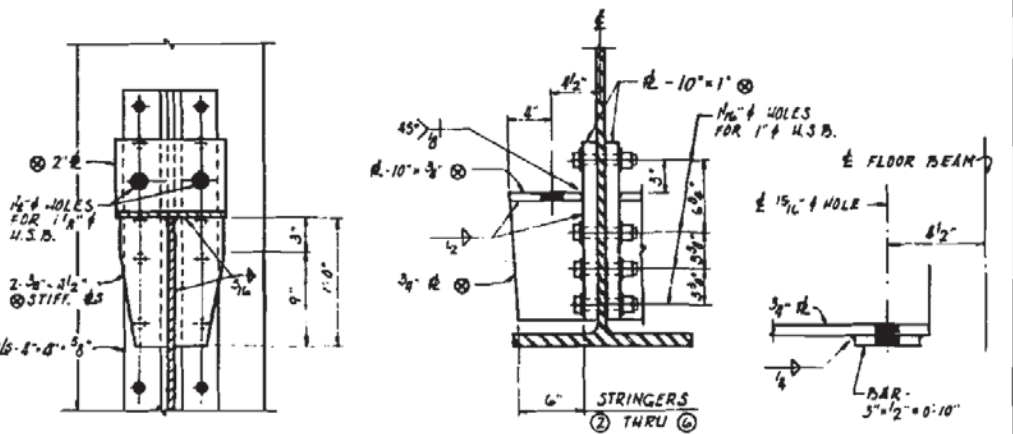
**TYPICAL CROSS-SECTION AT FLOOR BEAMS EXCEPT AS NOTED**  
 FOR FLOOR BEAM CONNECTIONS AT L<sub>1</sub> AND L<sub>3</sub> SEE DETAIL ON SHEET 12  
 SCALE: 3/4" = 1'-0"



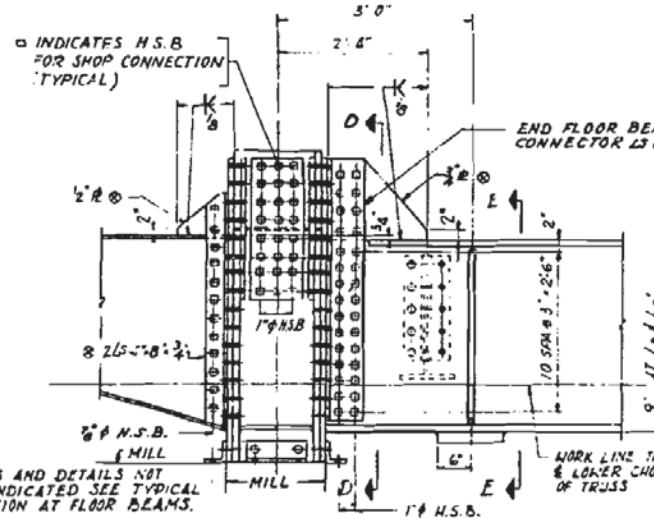
**SECTION A-A SECTION A-A AT L<sub>3</sub> AND L<sub>3</sub> SECTION C-C**  
**STRINGER TO FLOOR BEAM CONNECTIONS**  
 TYPICAL FOR STRINGERS 2 THRU 6  
 FOR STRINGERS 1 AND 7 SEE SHEET 12  
 SCALE: 3/8" = 1'-0"



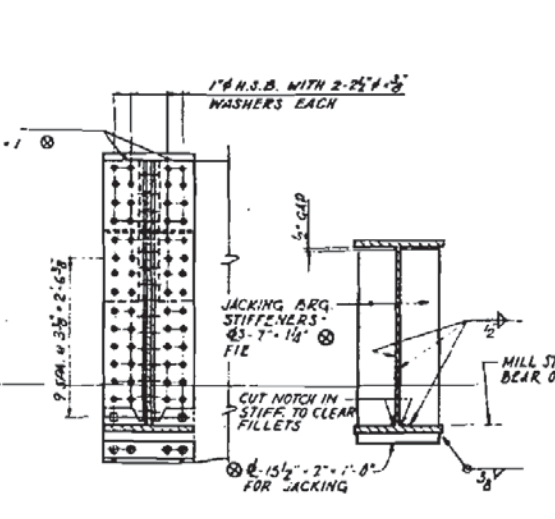
**TYPICAL CROSS-SECTION BETWEEN FLOOR BEAMS**  
 SCALE: 3/4" = 1'-0"



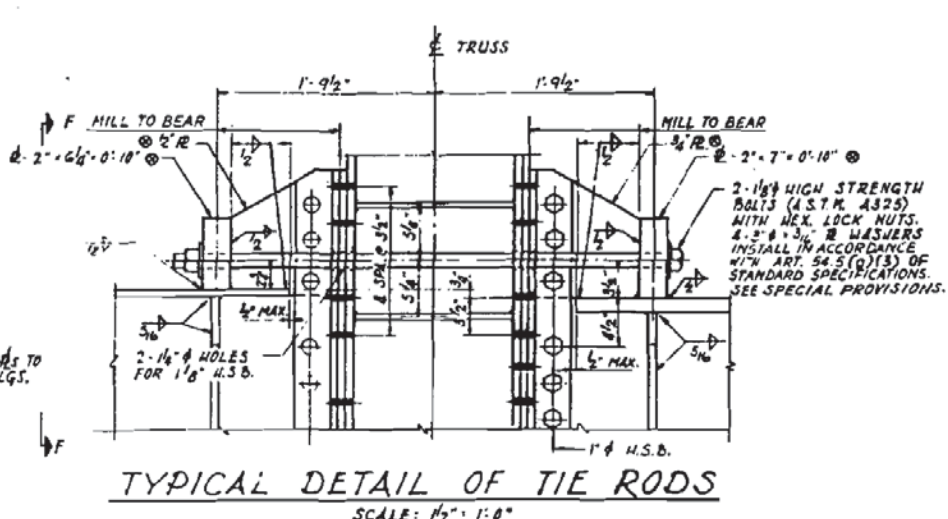
**SECTION F-F TYP. BRACKET DETAIL**  
 SCALE: 1/2" = 1'-0" SCALE: 1/2" = 1'-0"



**END FLOOR BEAM CONNECTION**  
 SCALE: 3/4" = 1'-0"



**SECTION D-D SECTION E-E**  
 SCALE: 3/4" = 1'-0" SCALE: 3/4" = 1'-0"



**TYPICAL DETAIL OF TIE RODS**  
 SCALE: 1/2" = 1'-0"

**NOTES:**  
 FOR GENERAL NOTES SEE SHEET 2  
 FOR ADDITIONAL NOTES SEE SHEET 13  
 ALL SHOP CONNECTIONS 1/2" RIVETS IN 1 1/2" HOLES, UNLESS NOTED.  
 ALL FIELD CONNECTIONS 3/4" HIGH STRENGTH BOLTS IN 1 1/2" HOLES, UNLESS NOTED.  
 FOR SECTION B-B SEE SHEET 12  
 FOR ADDITIONAL DETAILS SEE SHEET 12

**SHEET NO. 68**  
**CONTRACT NO. 61C15**

ILLINOIS DIVISION OF HIGHWAYS  
 CALUMET-JAG NAVIGATION PROJECT  
 CHATHAM STREET HIGHWAY BRIDGE  
**CROSS SECTION, FLOOR BEAM AND STRINGER CONNECTION**

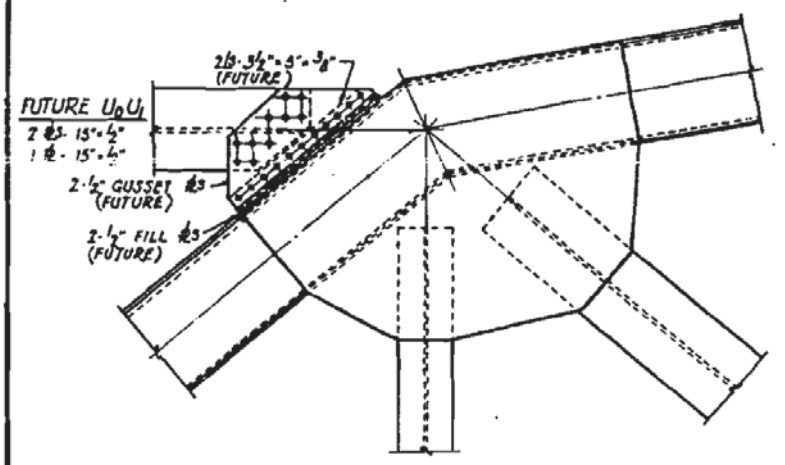
SCALE: AS NOTED DATE: 24 JUNE 1963

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS  
 10 SOUTH WABASH AVE CHICAGO, ILLINOIS

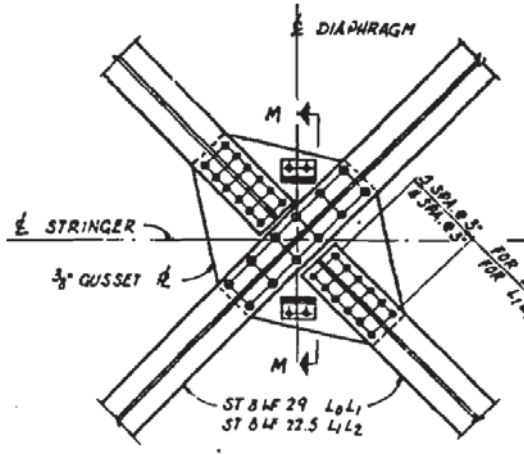


ROUTE NO.	DISTRICT	COUNTY	TOTAL SHEETS	SHEET NO.
CH259	ASTORIA	COOK	50	22
STA.	SCALE			
117.4	1" = 10'			

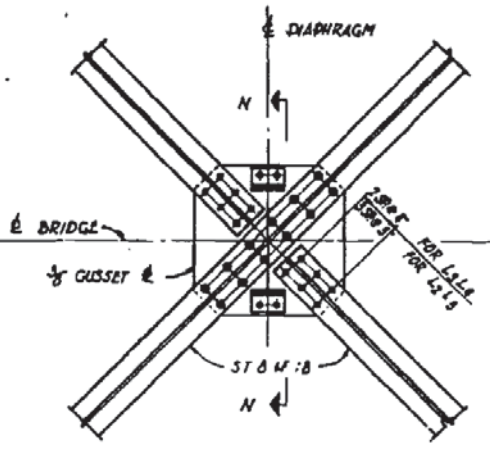
SHEET 12 OF 28



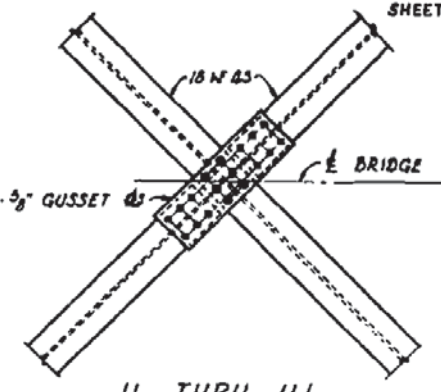
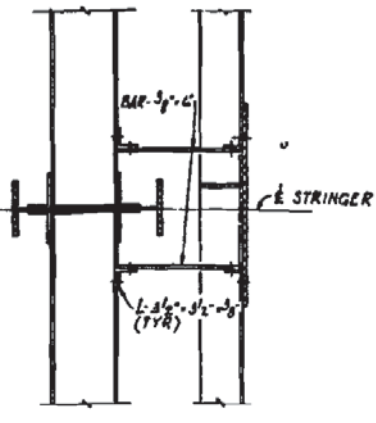
FUTURE  $U_0U_1$  CONNECTION AT  $U_1 \& U_1'$   
SCALE:  $\frac{3}{8}" = 1'-0"$



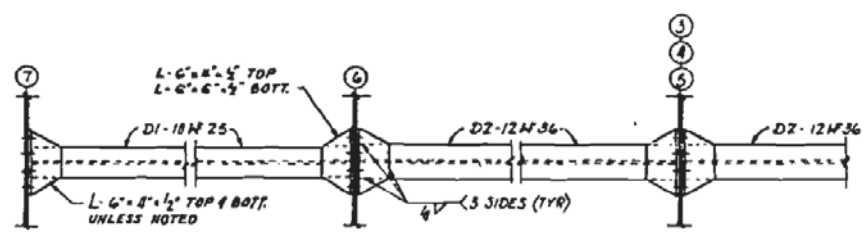
CONNECTION OF BOTTOM LATERAL BRACING  
SCALE:  $\frac{3}{8}" = 1'-0"$



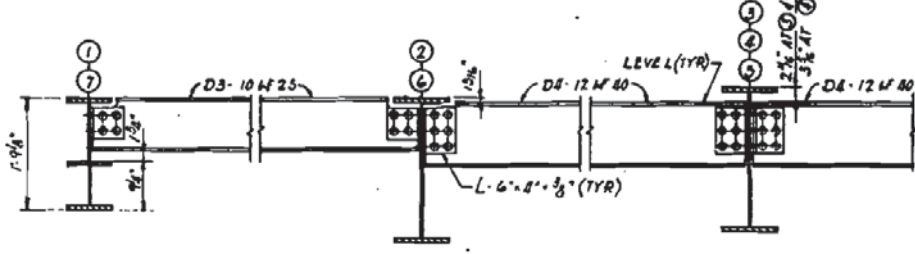
SECTION N-N (SHOWN)  
SECTION N-N (SIMILAR)  
SCALE:  $\frac{3}{8}" = 1'-0"$



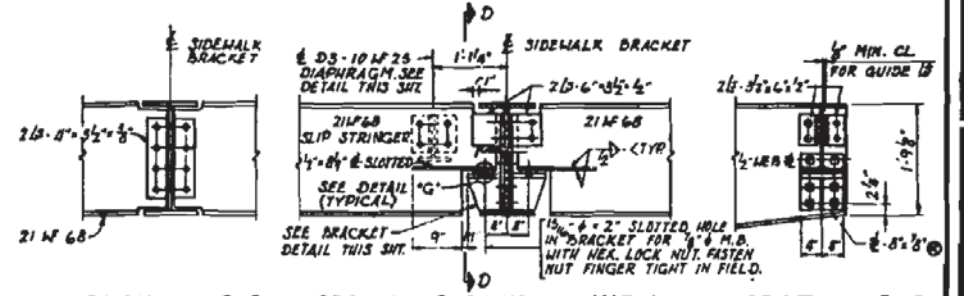
$U_1$  THRU  $U_1'$   
CONNECTION OF TOP LATERAL BRACING  
SCALE:  $\frac{3}{8}" = 1'-0"$



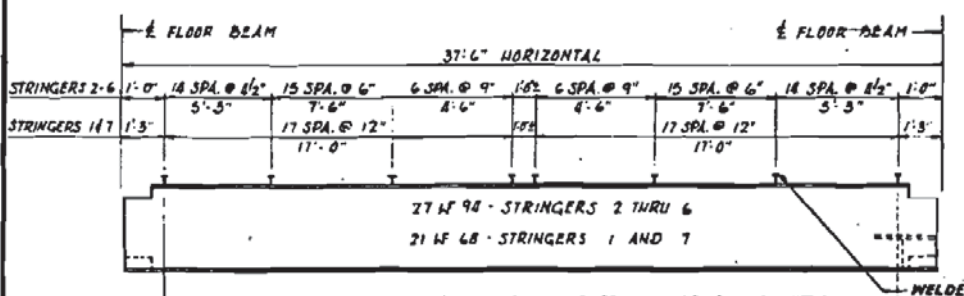
TYPICAL DIAPHRAGM CONNECTIONS  
SCALE:  $\frac{3}{8}" = 1'-0"$



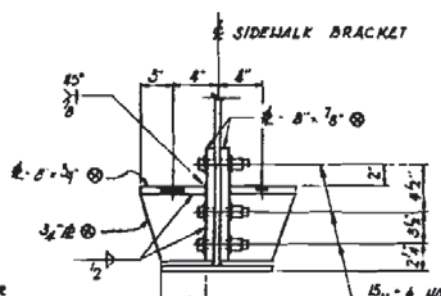
DIAPHRAGM CONNECTIONS AT  $L_3$  AND  $L_3'$   
SCALE:  $\frac{3}{8}" = 1'-0"$



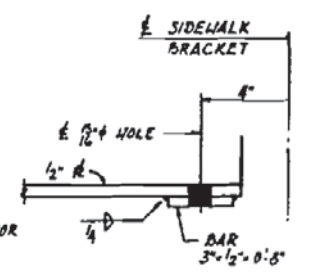
SECTION B-B SECTION B-B AT  $L_3$  AND  $L_3'$  SECTION D-D  
STRINGER TO SIDEWALK BRACKET CONNECTIONS  
TYPICAL FOR STRINGERS 1 AND 7  
FOR LOCATION OF SECT. B-B SEE SMT. II  
SCALE:  $\frac{3}{8}" = 1'-0"$



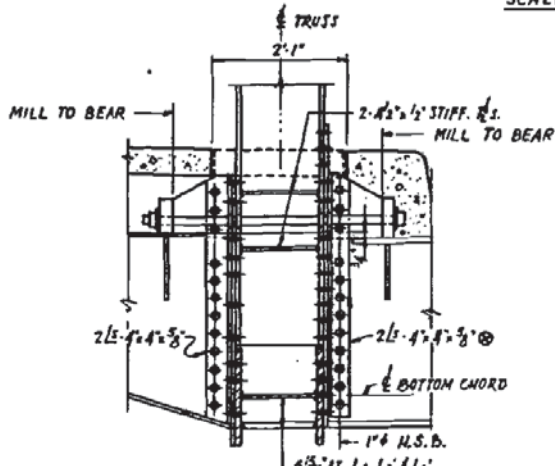
FOR DETAIL OF WELDED STUD SHEAR CONNECTOR SEE SHEET 7  
BLOCK STRINGERS AS REQUIRED, SEE CONNECTION DETAILS  
SHEAR CONNECTOR SPACING  
NO SCALE



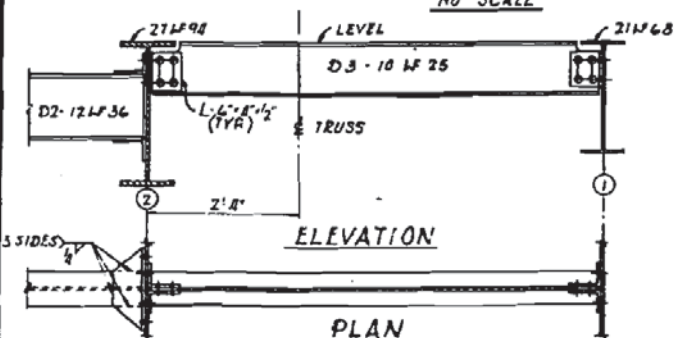
BRACKET DETAIL FOR STRINGERS 1 AND 7  
SCALE:  $1\frac{1}{2}" = 1'-0"$



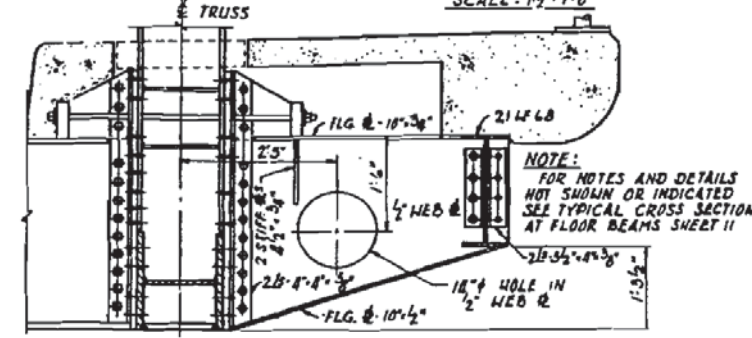
DETAIL 'G'  
SCALE:  $5" = 1'-0"$



FLOOR BEAM CONNECTION AT  $L_1$  AND  $L_1'$   
SCALE:  $\frac{3}{8}" = 1'-0"$



DIAPH. D3 AT TYP. CROSS SECTION BETWEEN FL. BMS  
SCALE:  $\frac{3}{8}" = 1'-0"$



DETAIL OF SIDEWALK BRACKET ON WEST SIDE OF BRIDGE  
SCALE:  $\frac{3}{8}" = 1'-0"$

NOTES:  
FOR GENERAL NOTES SEE SHEET 2  
FOR ADDITIONAL NOTES SEE SHEET 13

SHEET NO. 69  
CONTRACT NO. 61C15

FILE NO. 7-B1-C1

ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
MISCELLANEOUS TRUSS DETAILS

SCALE: AS NOTED DATE: 24 JUNE 1968

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS  
10 SOUTH WABASH AVE CHICAGO, ILLINOIS



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS
CN 259	2590808	COOK	50
STA.	TO STA.	PROJECT	
P. A. W. REG. NO. 41	ILLINOIS		

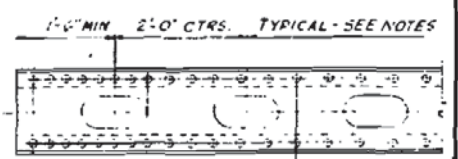
SHEET 13 OF 28

**SECTION E-E**  
TYPICAL STRUT

**NOTES:**  
 FOR GENERAL NOTES SEE SHEET 2  
 ALL SHOP CONNECTIONS 5/8" RIVETS 4 1/2" x 4 HOLES UNLESS NOTED.  
 ALL FIELD CONNECTIONS 3/4" HIGH STRENGTH BOLTS (U.S.B.) IN 1/2" x 4 HOLES UNLESS NOTED.  
 @ DESIGNATES HIGH STRENGTH LOW ALLOY STEEL:  
 A.S.T.M. - A 340 FOR RIVETED SECTIONS.  
 A.S.T.M. - A 331 FOR WELDED SECTIONS.  
 ALL OTHER STEEL SHALL BE CARBON STEEL:  
 A.S.T.M. - A 36

FOR TYPICAL HANDRAILS SEE SHEET 14  
 FOR FLOOR BEAM CONNECTIONS SEE SHEET 11  
 FOR HANDRAIL DETAILS AND CONNECTIONS SEE SHEET 17  
 FOR TRUSS BEARING DETAILS SEE SHEET 15  
 FOR SECTIONS D-D AND R-R SEE SHEET 14  
 DRAIN HOLES: WIDE FLANGE SECTIONS FORMING HORIZONTAL OR NEARLY HORIZONTAL TRUSS AND OTHER POINTS WHERE WATER MAY COLLECT SHALL BE ADEQUATELY DRAINED. DRAIN HOLES WHERE INDICATED IN THE DETAILS SHALL BE USED. DRAIN HOLES SHALL BE LOCATED ON DETAILS WITH DUE REGARD TO MAINTAINING DESIGNED NET SECTIONS OF MEMBERS.  
 FOR CONCRETE FILLERS AROUND TRUSS MEMBERS SEE SHEET 6  
 ALL HANDRAILS SHALL BE ADJUSTED SO THAT BOTTOM EDGE OF OPENING IS 3" VERTICALLY ABOVE TOP OF SIDEWALK.  
 ALL FILL @S WHICH WOULD OTHERWISE BE SHIPPED LOOSE SHALL BE SHOP WELDED IN PLACE BEFORE REAMING.

**TYP. DRAIN HOLES FOR INCLINED MEMBERS**

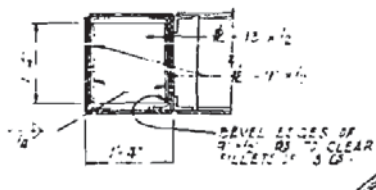
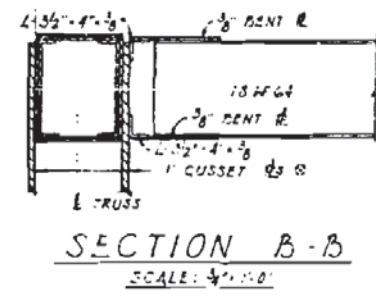


**VIEW T-T**

**SHEET NO. 70**  
**CONTRACT NO. 61C15**

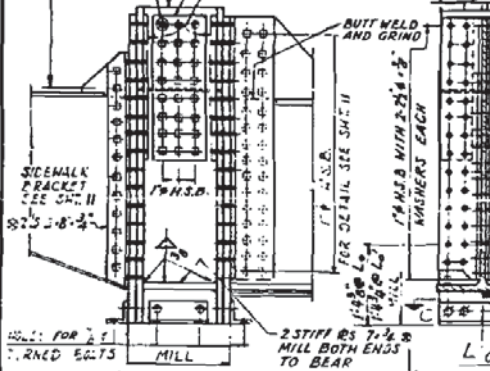
ILLINOIS DIVISION OF HIGHWAYS  
 CALUMET-SAG NAVIGATION PROJECT  
 CHATHAM STREET HIGHWAY BRIDGE  
**TRUSS DETAILS L0-L2**

SCALE: AS NOTED      DATE: 24 JUNE 1963

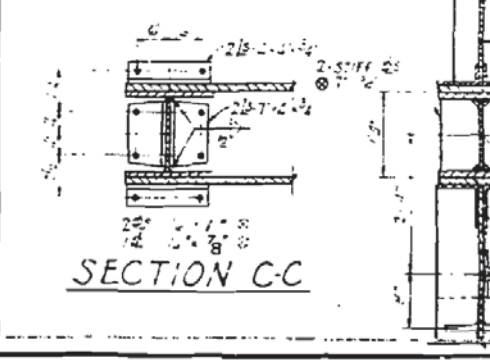


**SECTION F-F**

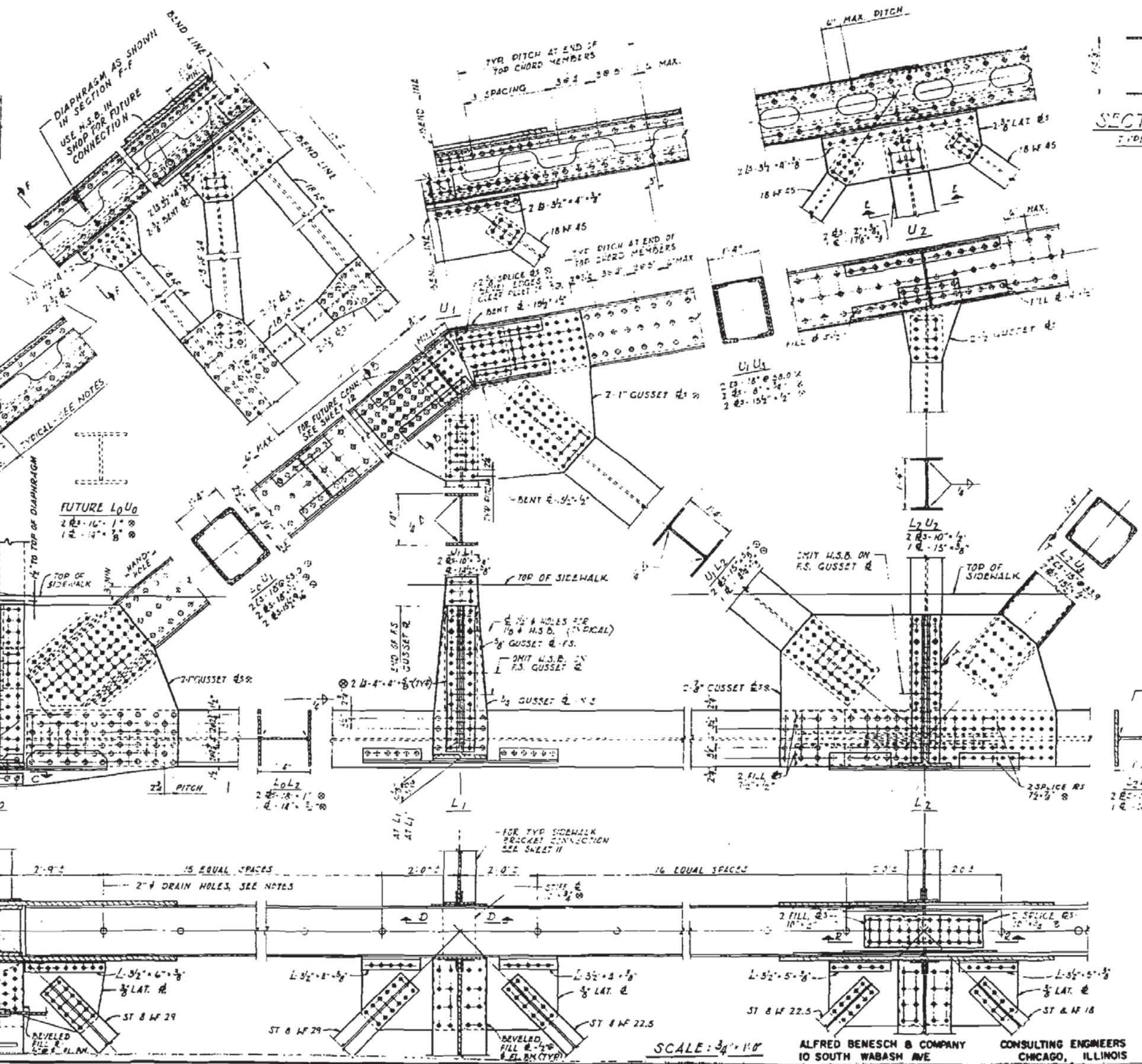
REMOVE TOP PIECE TO CONNECT VERTICAL FOR FUTURE CONNECTION TO LIFT SPAN.



**VIEW A-A**  
SCALE: 3/4\"/>



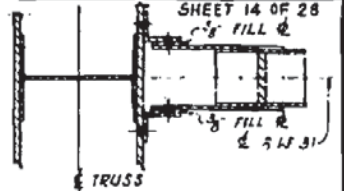
**SECTION C-C**



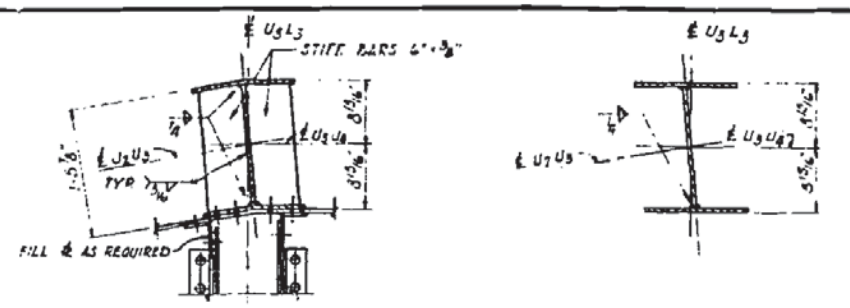
ALFRED BENESCH & COMPANY CONSULTING ENGINEERS  
 10 SOUTH WABASH AVE CHICAGO, ILLINOIS



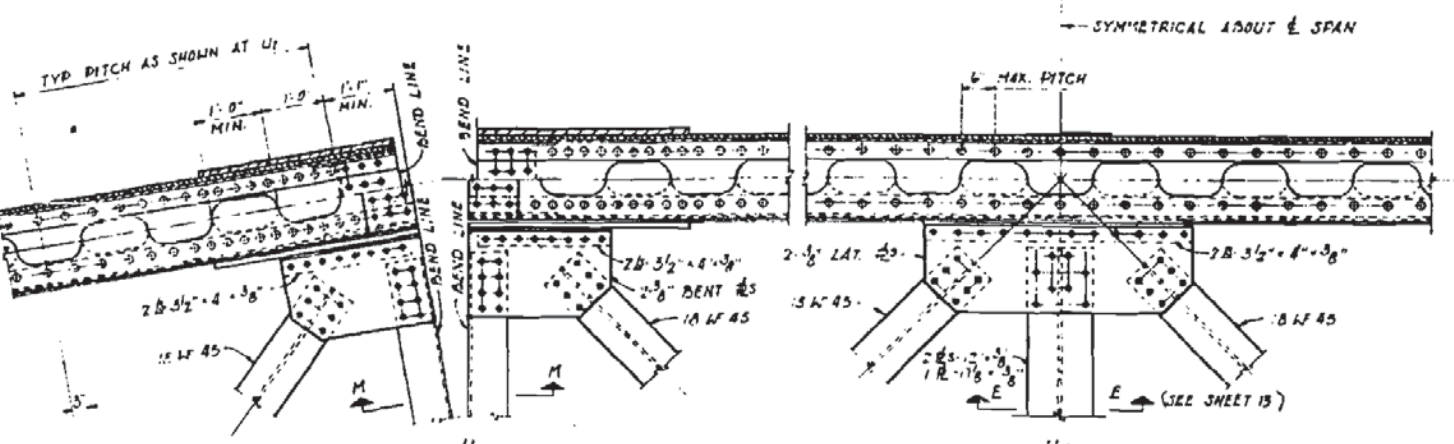
PROJECT NO.	SECTION	DATE	TOTAL SHEETS	SHEET NO.
CH259	U.V.B.	COOK	50	24
TO STA.				
PROJECT				



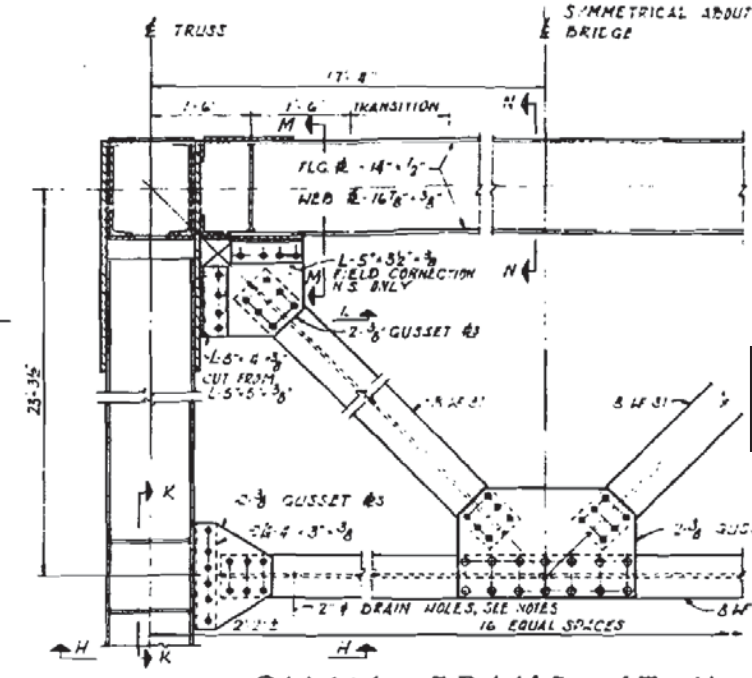
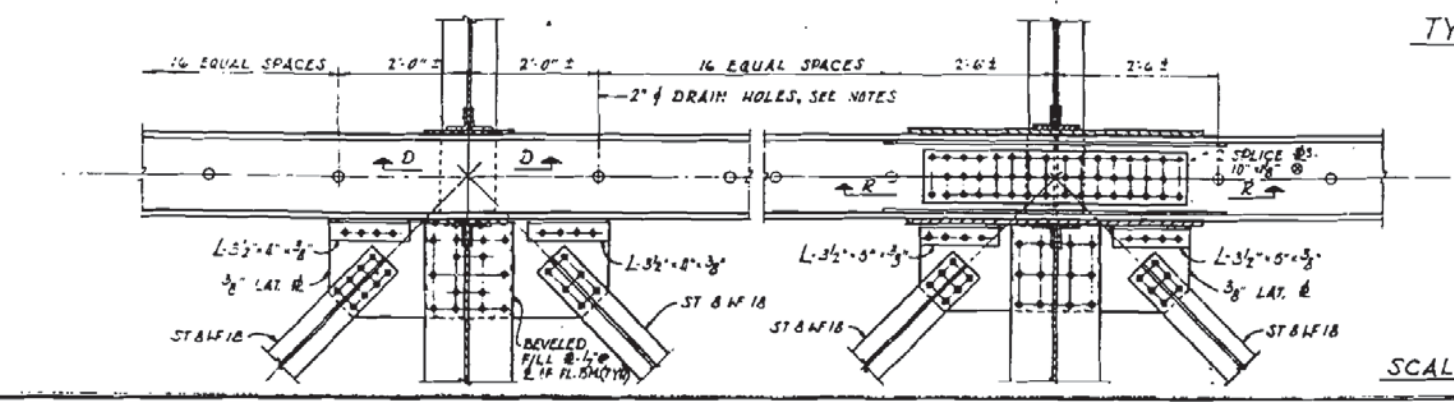
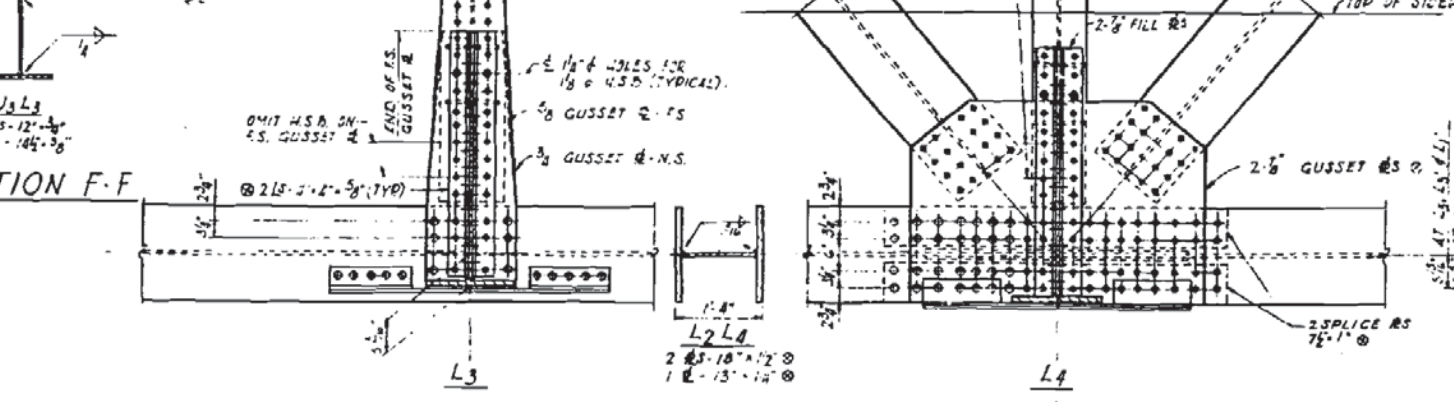
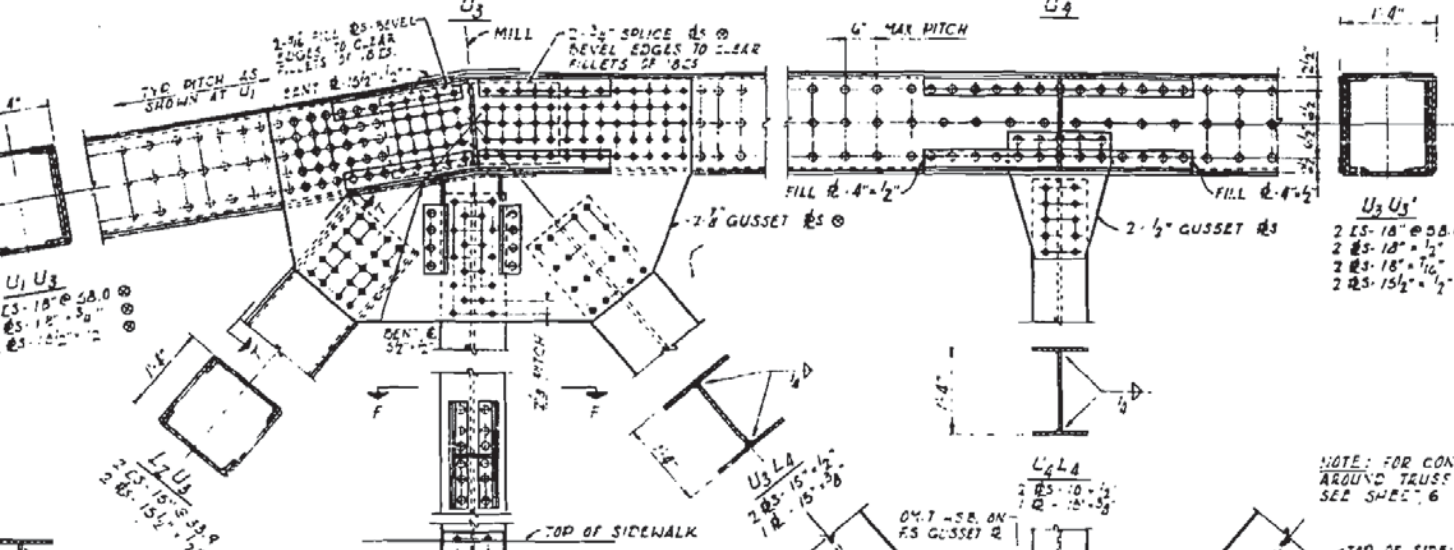
SECTION L-L  
SCALE: 1" = 1'-0"



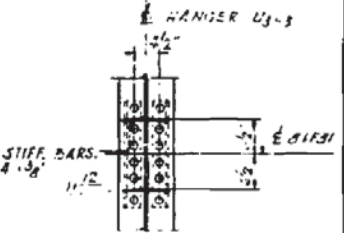
SECTION M-M SCALE: 1" = 1'-0"  
SECTION N-N SCALE: 1" = 1'-0"



—SYMMETRICAL ABOUT E SPAN

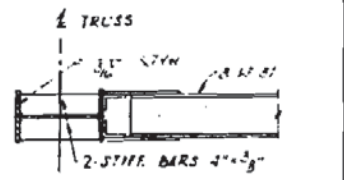


SWAY FRAME AT U3

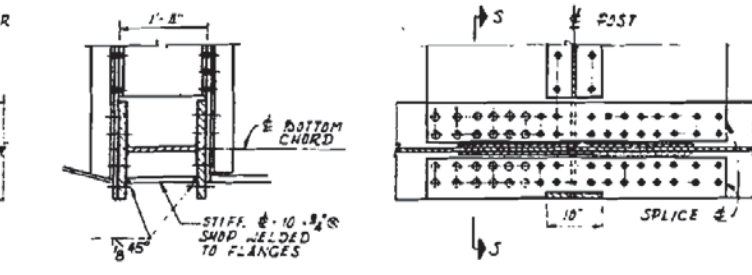


SECTION K-K

SHEET NO. 71  
CONTRACT NO. 61C15

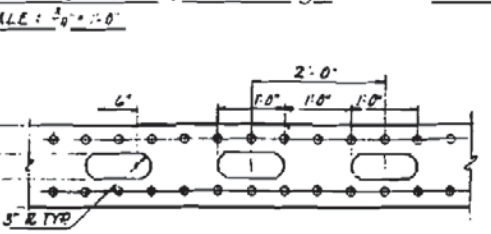


SECTION H-H



SECTION Z-R  
SECTION S-S  
TYP. STIFFENER AT L2 AND L4  
L4 SHOWN, L2 SIMILAR  
SCALE: 1/2" = 1'-0"

SECTION D-D  
SECTION P-P  
TYP. STIFFENER AT L1 AND L3  
SCALE: 3/4" = 1'-0"



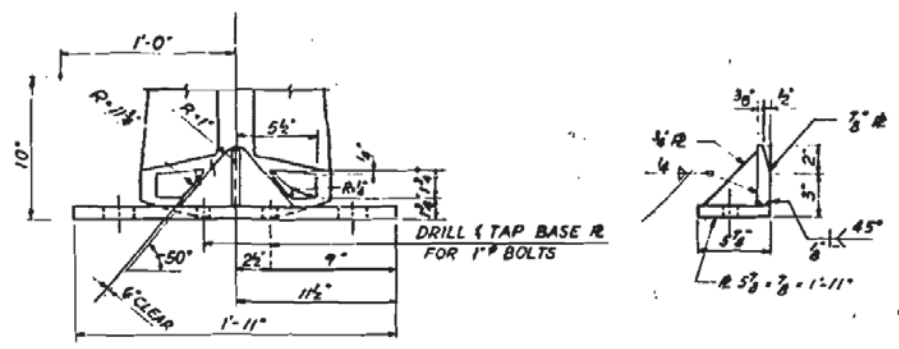
TYP. DETAILS OF HANDHOLES  
SCALE: 3/4" = 1'-0"

NOTES:  
FOR GENERAL NOTES SEE SHEET 2  
FOR ADDITIONAL NOTES SEE SHEET 13  
FOR VIEW T-T SEE SHEET 13

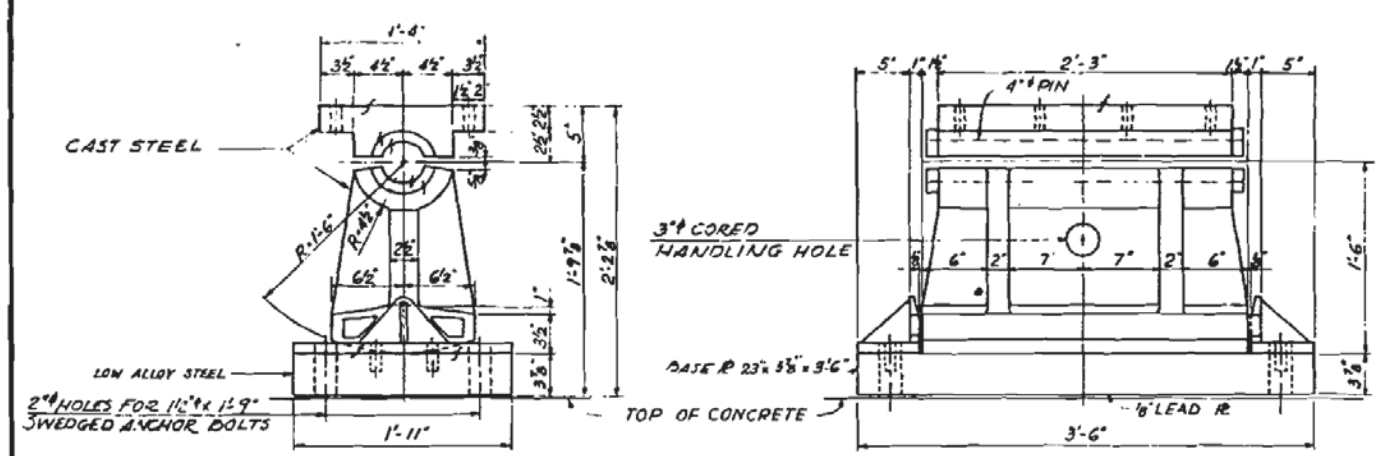
ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
TRUSS DETAILS L2-L4  
SHEET NO. 58  
CONTRACT NO. 61C15  
SCALE: AS NOTED  
DATE: 24 JUNE 1963

ALFRED BENESCH & COMPANY  
10 SOUTH WABASH AVE  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

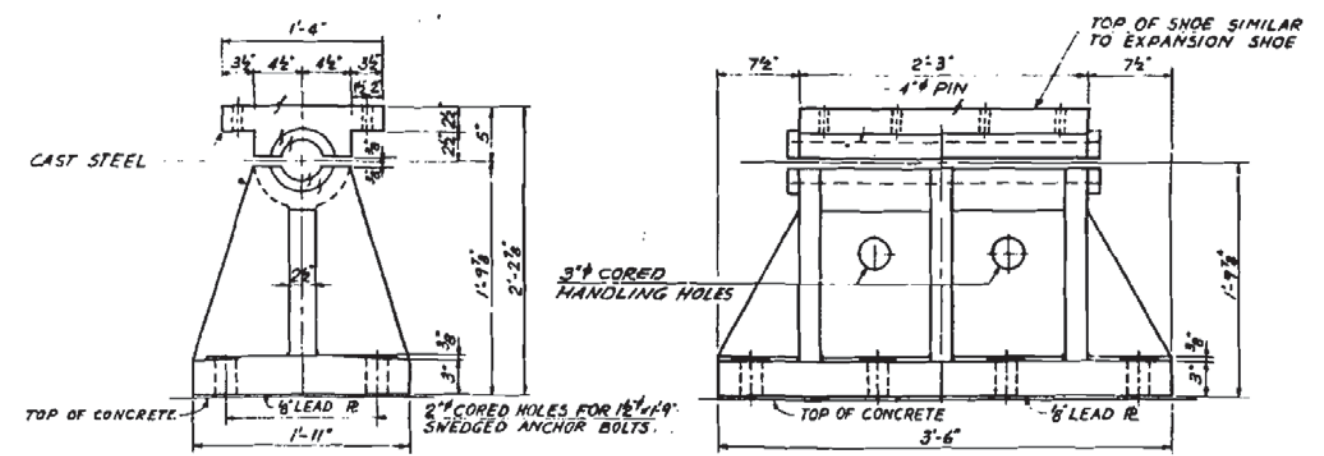




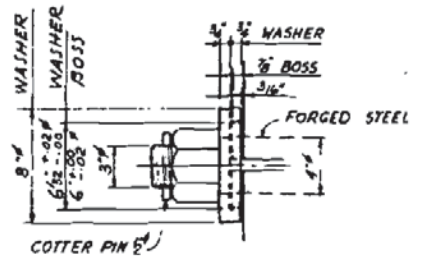
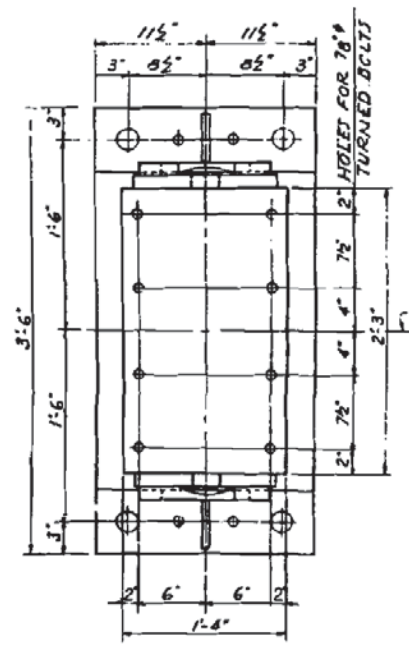
DETAIL OF GUIDE LUGS  
SCALE: 2"=1'-0"



EXPANSION SHOES AT POINT L0'  
SCALE: 1/2"=1'-0"

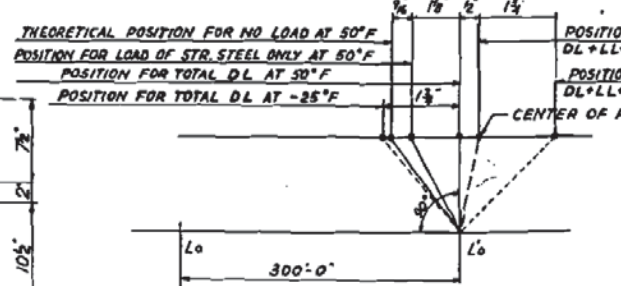
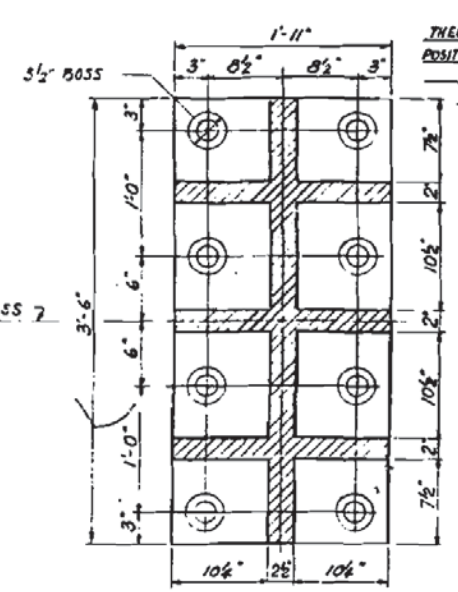


FIXED SHOES AT POINT L0'  
SCALE: 1/2"=1'-0"



PIN DETAIL  
SCALE: 2 1/2"=1'-0"

NOTES:  
CAST STEEL SHALL CONFORM TO A.S.T.M. SPEC. A-128 GRADE 80-50, FULL ANNEALED.  
FORGED STEEL SHALL CONFORM TO A.S.T.M. SPEC. A-237, CLASS A.  
MATERIAL IN GUIDE LUGS SHALL CONFORM TO A.S.T.M. SPEC. A-36.  
HOLES FOR SWEDGED ANCHOR BOLTS SHALL BE DRILLED IN THE PIER AND THE ANCHOR BOLTS SHALL BE SET WITH GROOVE.  
ALL FILLETS ON CASTINGS SHALL BE 1/4" RADIUS.  
MATERIAL IN BASE PLATE OF EXPANSION BEARING SHALL CONFORM TO A.S.T.M. SPEC. A-242 OR A-440.



FOR LOADING CONDITIONS  
ROCKER SETTINGS  
CORRECTION FOR TEMPERATURES  
NO SCALE

TEMP	A	B
110°F	-	1 1/8"
95°F	-	1 1/16"
80°F	-	1/8"
65°F	0	3/8"
50°F	0	0
35°F	3/8"	-
20°F	1/2"	-
5°F	1 1/8"	-
-10°F	1 3/8"	-

SHEET NO. 72  
CONTRACT NO. 61C15

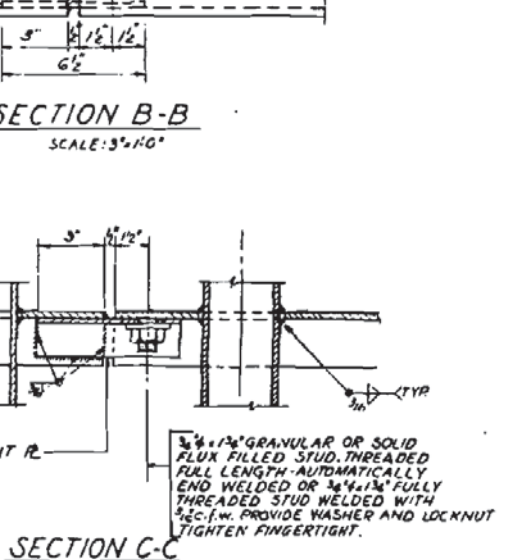
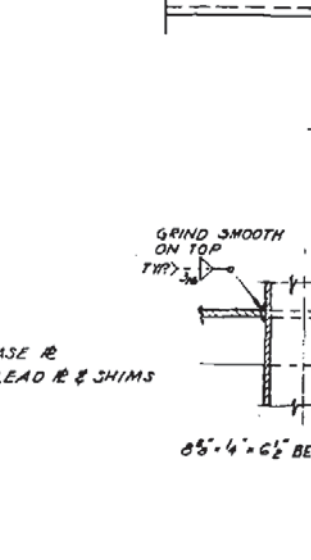
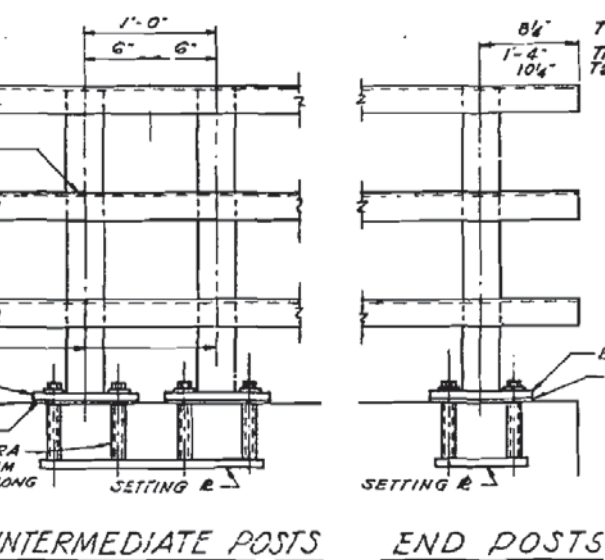
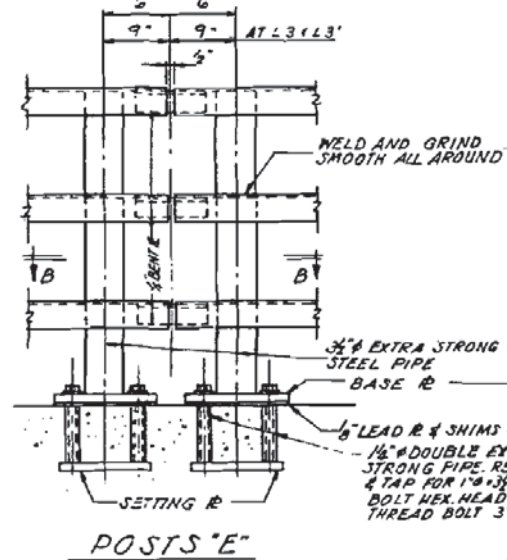
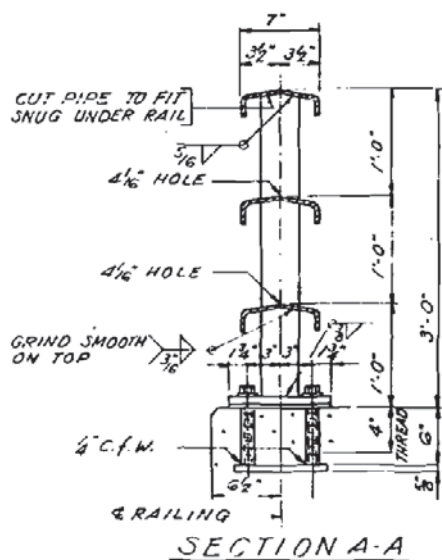
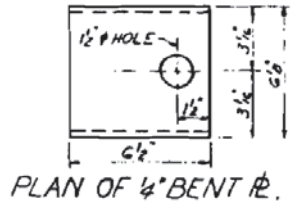
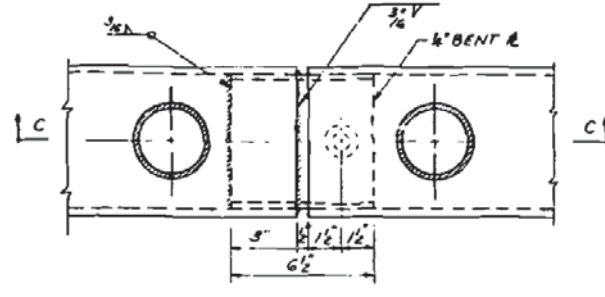
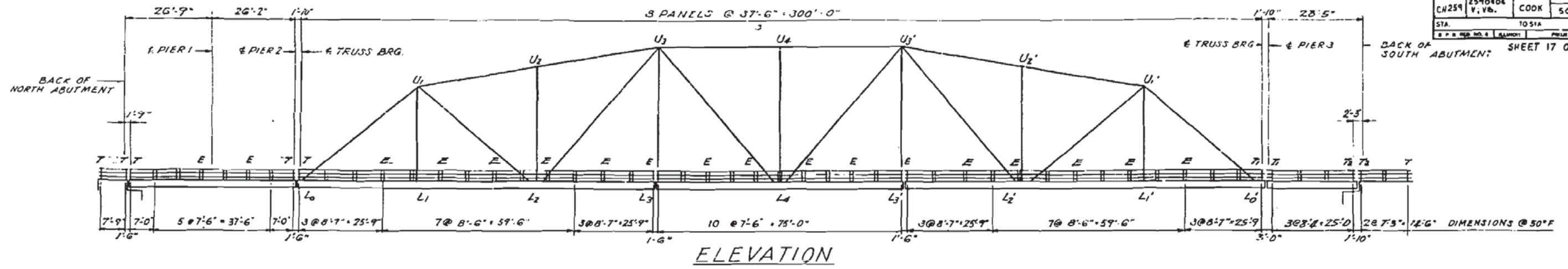
ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
TRUSS BEARING DETAILS



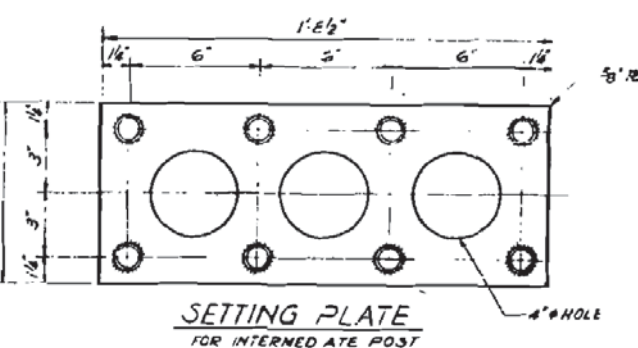
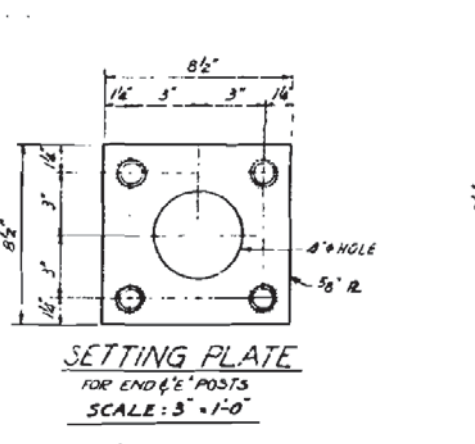
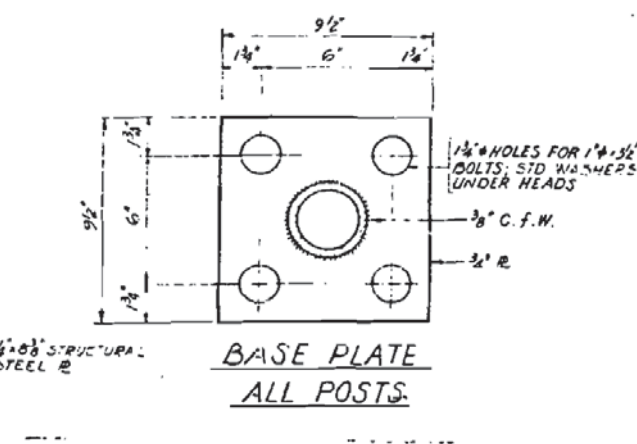
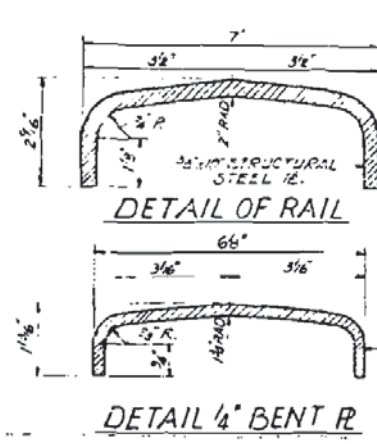




ROUTE NO.	SECTION	DATE	TOTAL SHEETS	SHEET NO.
CN259	V. VB.	COOK	50	27
STA.	TQ51A		PROJECT	
I.P. & M.D. NO. 4		SAVING	SHEET 17 OF 28	



**NOTES:**  
 ALL DIMENSIONS ARE HORIZONTAL AND NOT TRUE DIMENSIONS ALONG RAILING.  
 RAIL SHALL BE FABRICATED AND ERECTED TO CONFORM TO PROFILE GRADE OF ROADWAY.  
 POSTS SHALL BE TRULY VERTICAL.  
 WELDING OF RAIL POSTS TO HORIZONTAL MEMBERS AND BASE PLATES SHALL BE CONTINUOUS WELDS ALL AROUND.  
 RAIL POSTS SHALL CONFORM TO THE STANDARD SPECIFICATION FOR WELDED AND SEAMLESS STEEL PIPE A.S.T.M. A53 WITH MINIMUM YIELD POINT OF 30,000 P.S.I.  
 HANDRAIL SHALL BE GIVEN ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT. SEE SPECIFICATIONS.  
 SHIM PLATES FOR RAIL POSTS: FURNISH SHIMS CONSISTING OF ONE 6" SHIM AND TWO 3" SHIMS AT 50% OF RAIL POSTS FOR VERTICAL ADJUSTMENT OF POSTS.  
 SIZE OF SHIM PLATES, LEAD PLATES AND SPACING OF HOLES SHALL BE SAME AS FOR BASE PLATES OF POSTS.  
 AFTER ERECTION ALL BOLTS AND WASHERS SHALL BE SPOT PAINTED WITH ONE COAT OF RED LEAD AND TWO COATS OF ALUMINUM PAINT.



**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
METAL HANDRAIL	LIN. FT.	816

**SHEET NO. 74**  
**CONTRACT NO. 61C15**

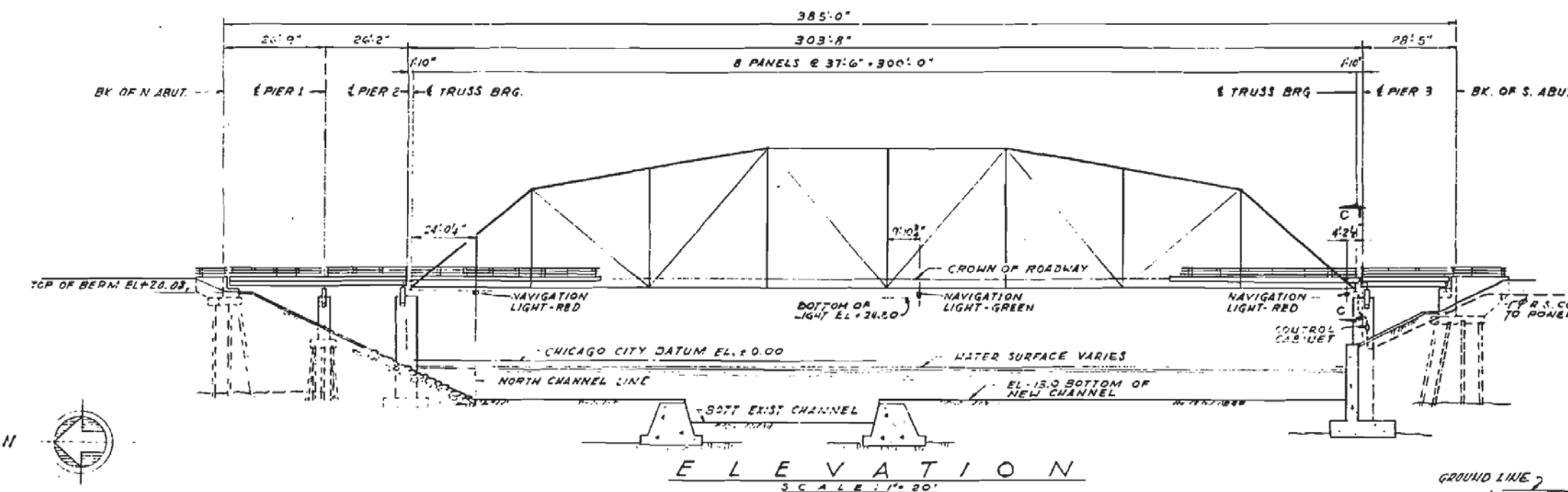
ILLINOIS DIVISION OF HIGHWAYS  
 CALUMET-SAG NAVIGATION PROJECT  
 CHATHAM STREET HIGHWAY BRIDGE  
**HANDRAIL DETAILS**



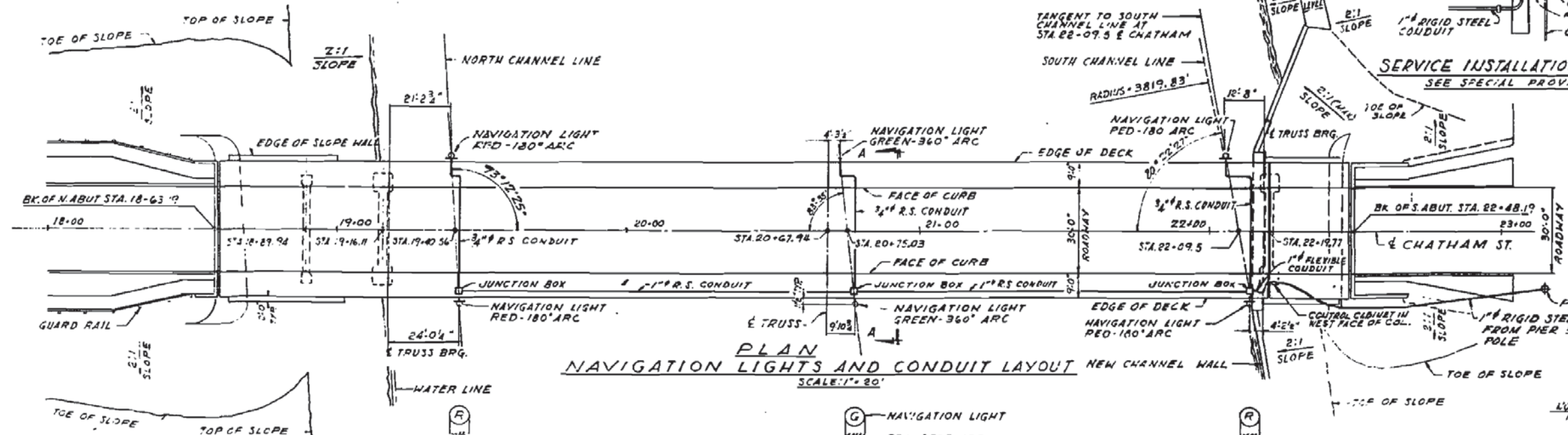
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
61.259	258254	COOK	50	28
STA.	TO STA.		PROJECT	
97 R. 415 NO. 2	ILLINOIS			

SHEET 18 OF 28

**NOTE:**  
 CROSS SECTION OF CHANNEL AS SHOWN IS FINAL CROSS SECTION AFTER COMPLETION OF CHANNEL EXCAVATION BY OTHERS.



**ELEVATION**  
 SCALE: 1" = 20'

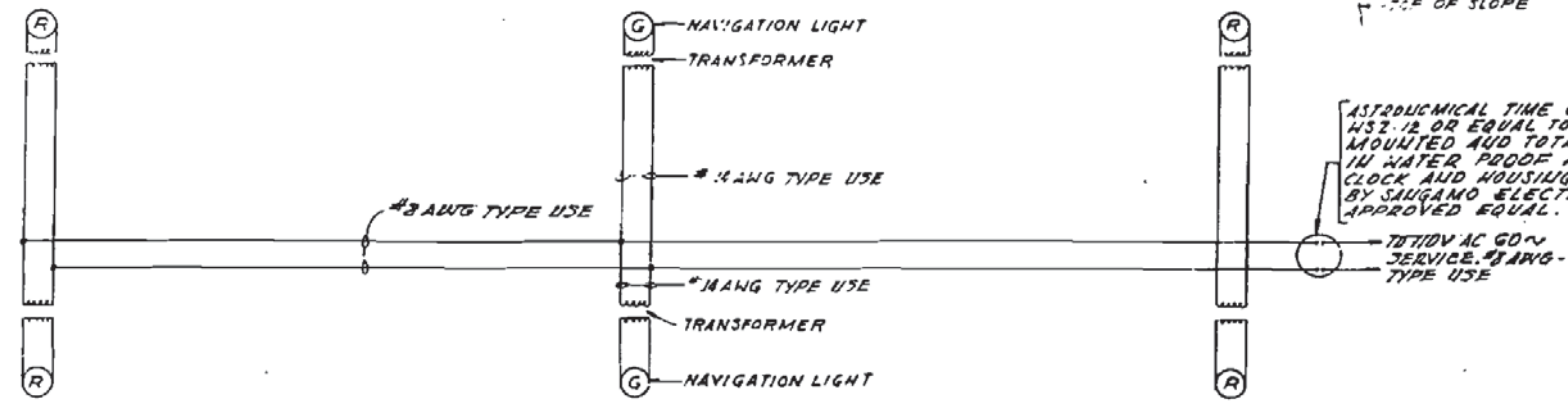


**PLAN**  
 NAVIGATION LIGHTS AND CONDUIT LAYOUT  
 SCALE: 1" = 20'

**SERVICE INSTALLATION - TYPE "B"**  
 SEE SPECIAL PROVISIONS

**SHEET NO. 75**  
**CONTRACT NO. 61C15**

NOTE FOR SECTIONS A-A & C-C SEE SHEET 17.



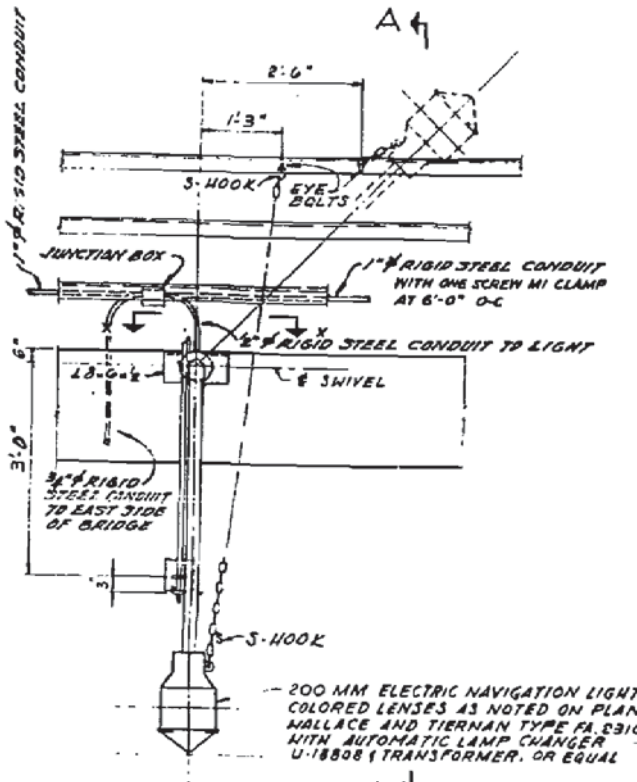
**WIRING DIAGRAM**

ILLINOIS DIVISION OF HIGHWAYS  
 CALUMET-SAG NAVIGATION PROJECT  
 CHATHAM STREET HIGHWAY BRIDGE  
 NAVIGATION LIGHTS

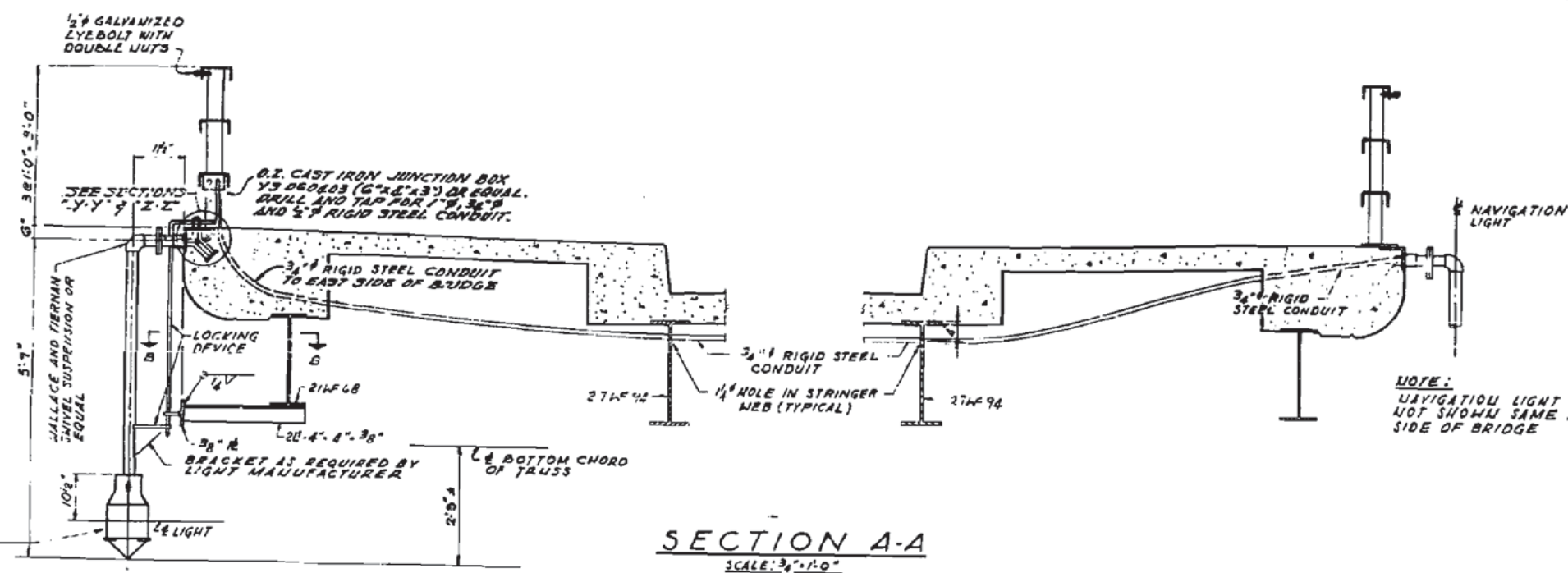


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 259	BRIDGE	COOK	50	29
STA.	TO STA.			
8 P. REL. NO. 1	ILL. 808	PROJECT		

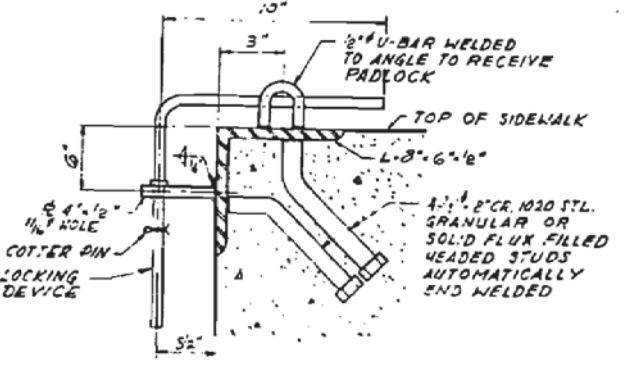
SHEET 19 OF 20



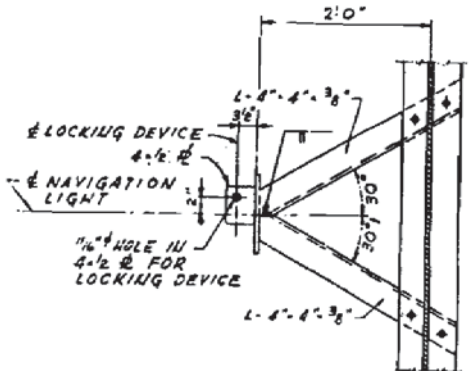
ELEVATION NAVIGATION LIGHTS  
SCALE: 3/4" = 1'-0"



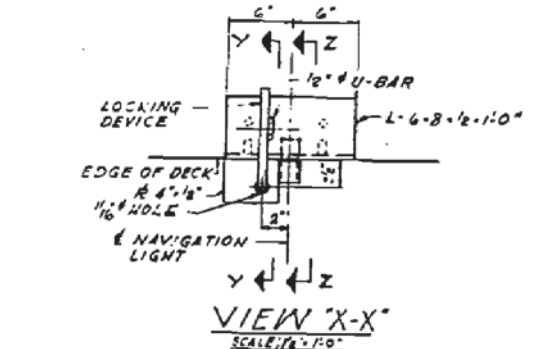
SECTION A-A  
SCALE: 3/4" = 1'-0"



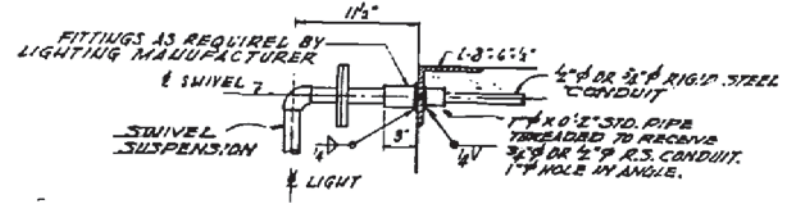
SECTION "Y-Y"  
LOCKING DEVICE  
SCALE: 3/4" = 1'-0"



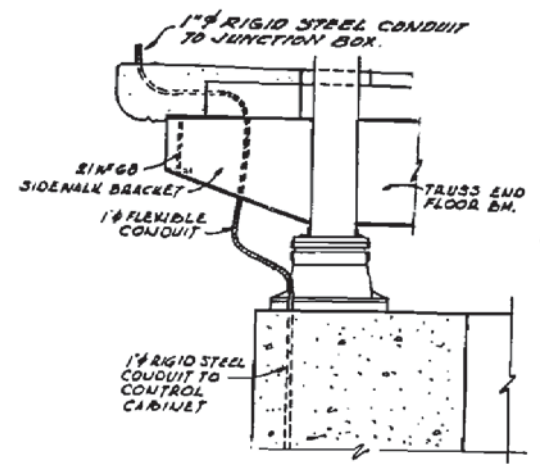
SECTION "B-B"  
SCALE: 1" = 1'-0"



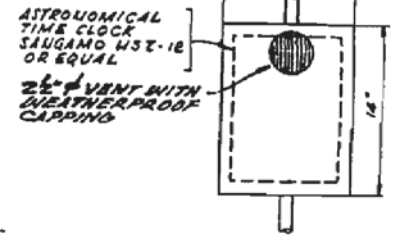
VIEW "X-X"  
SCALE: 1/2" = 1'-0"



SECTION "Z-Z"  
SCALE: 1/2" = 1'-0"



SECTION C-C  
SCALE: 3/4" = 1'-0"



CONTROL CABINET  
18" x 24" x 6"

GENERAL NOTES

ALL JUNCTION BOXES SHALL BE CAST IRON AND SHALL BE DR Y3 06003 (6"x6"x3") OR EQUAL, DRILLED AND TAPPED FOR 1" RIGID STEEL CONDUIT, SEE PLAN SHEET 18. ANGLES AND PLATES USED IN NAVIGATION LIGHT ASSEMBLY SHALL BE A.S.T.M. A36 STEEL.

CONTROL CABINET SHALL BE CAST ALUMINUM, 18"x24"x6" CABINET SHALL BE COMPLETE WITH INTERIOR MOUNTING BUTTONS, DRILLED AND TAPPED CONDUIT ENTRANCES FOR 1" RIGID STEEL CONDUIT, HASP FOR PADLOCK AND RINGED COVER WITH 2 1/2" VENT WITH WEATHERPROOF CAPPING. CABINET SHALL BE LOCATED ON THE WEST FACE OF THE WEST COLUMN OF PIER 3. SEE SHEET 24.

LOCKING DEVICE AND CHAINS WITH HOOKS SHALL BE FURNISHED WITH NAVIGATION LIGHTS.

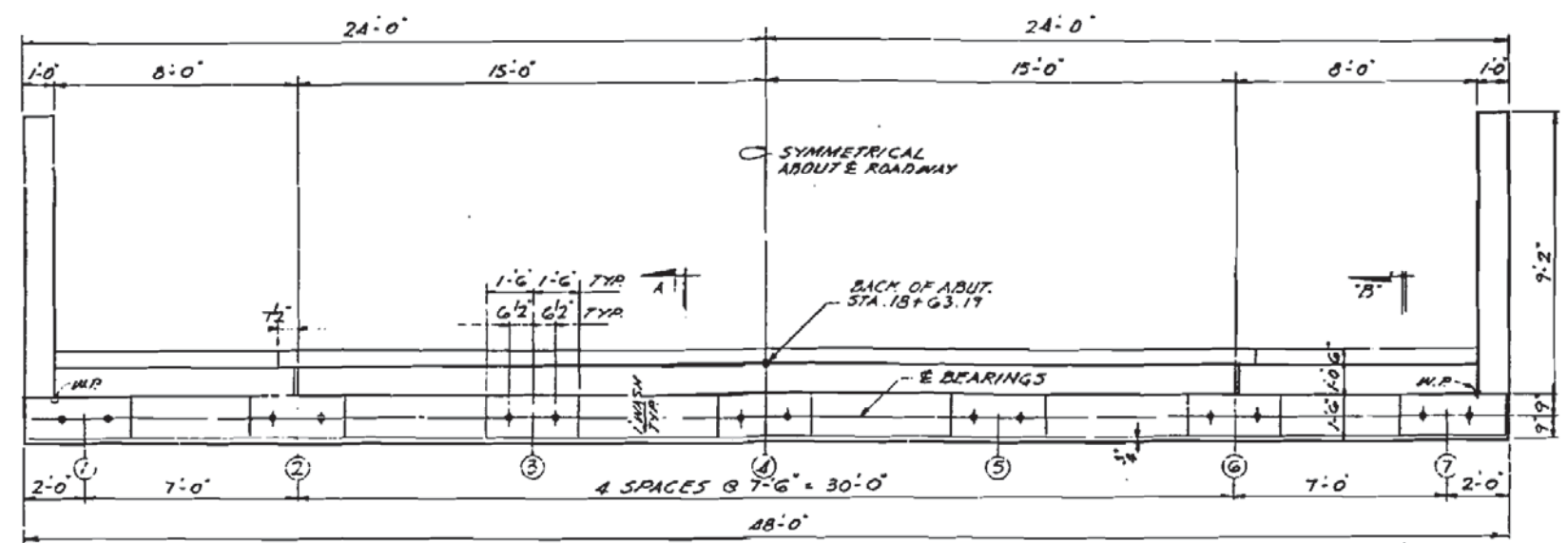
FURNISHING AND INSTALLING OF ALL EQUIPMENT AND MATERIAL ON THIS SHEET COMPLETE IN PLACE IS INCLUDED IN THE ITEM "NAVIGATION LIGHTING SYSTEM, COMPLETE"

FOR OTHER REQUIREMENTS SEE SPECIAL PROVISIONS.

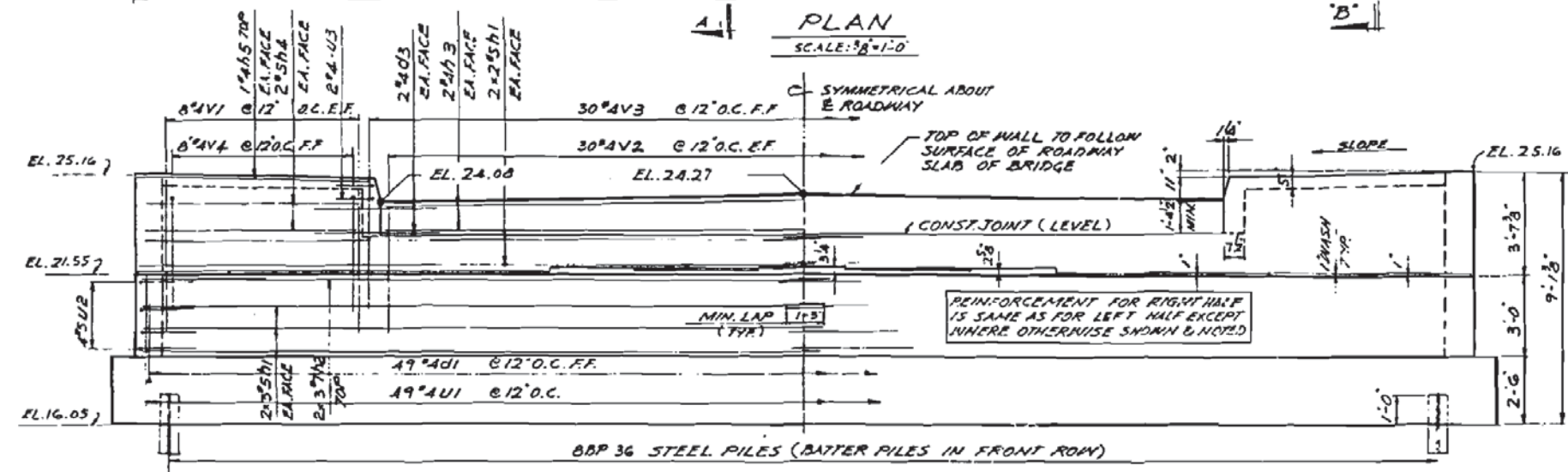
SHEET NO. 76  
CONTRACT NO. 61C15

ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-JAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
NAVIGATION LIGHT DETAILS



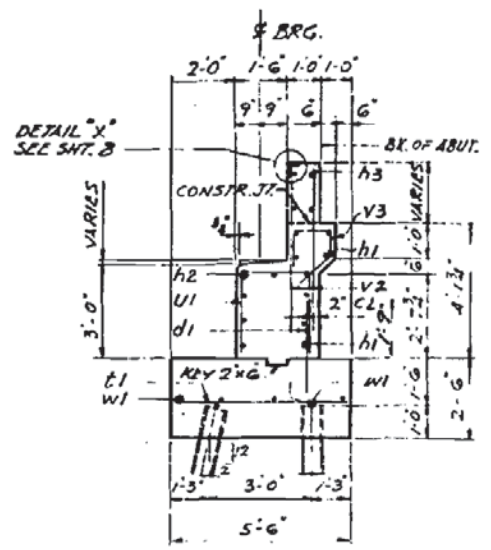


**PLAN**  
SCALE: 3/8"=1'-0"

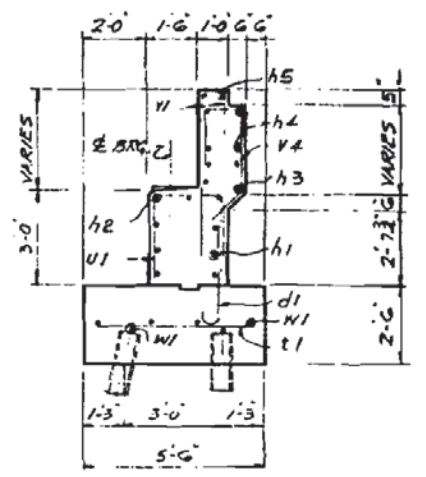


**FRONT ELEVATION**  
SCALE: 3/8"=1'-0"

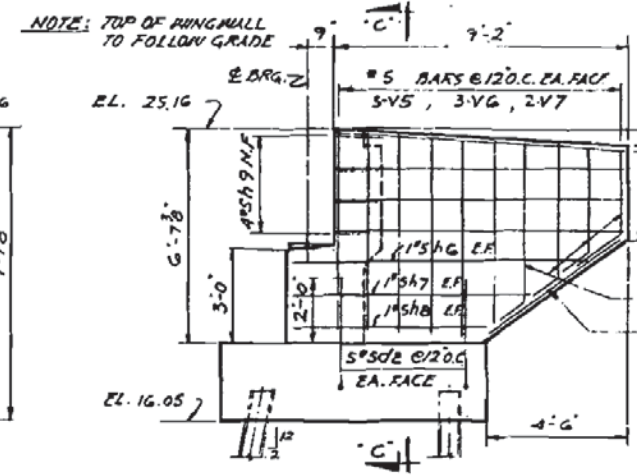
**PILE DATA**  
CAPACITY = 50 TONS  
EST. LENGTH = 27 FEET  
NO. REQUIRED = 15 #  
# INCLUDES ONE TEST PILE



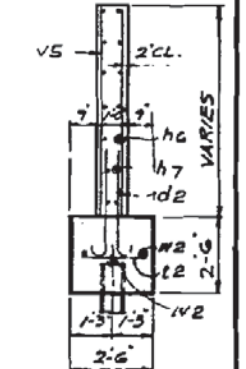
**SECTION A-A**  
SCALE: 3/8"=1'-0"



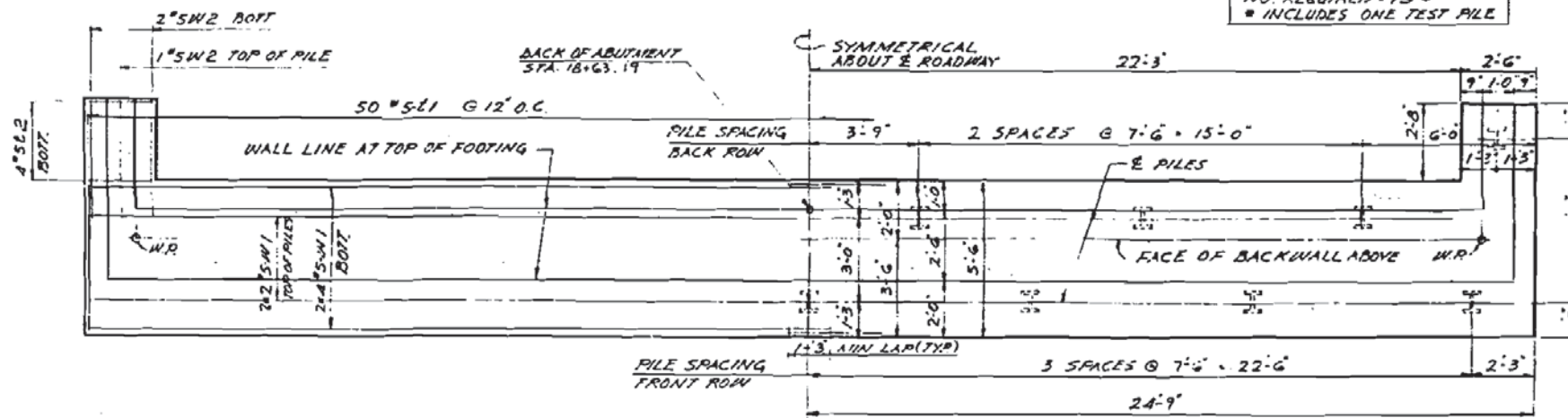
**SECTION B-B**  
SCALE: 3/8"=1'-0"



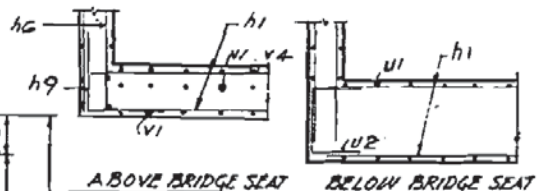
**WING WALL ELEVATION**  
SCALE: 3/8"=1'-0"



**SECTION C-C**  
SCALE: 3/8"=1'-0"



**FOOTING PLAN**  
SCALE: 3/8"=1'-0"



**CORNER DETAILS**

**BILL OF MATERIAL**  
WING WALLS INCLUDED

ITEM	UNIT	QUANTITY
CLASS X CONCRETE	CU. YD.	50.4
REINFORCEMENT BARS	LBS.	3100
STEEL PILES BBP36	TY. FT.	378
TEST PILE STEEL BBP36	EACH	1

**NOTES:**  
ELEVATIONS SHOWN ABOVE BRIDGE SEAT ARE GIVEN AT FACE OF BACKWALL. ADJUST SPACING OF REINFORCEMENT TO AVOID INTERFERENCE WITH DRILLING OF HOLES FOR ANCHOR BOLTS.  
PEDestal BLOCKS TO BE POURED AT ANGLE WITH BRIDGE SEAT.  
BARS SHOWN THUS 2#2 ETC. INDICATE LENGTHS OF BARS PER LINE WITH 2 TYPES OF BARS.  
FOR REINFORCEMENT BAR LIST SEE SHT. 27 FOR APPLICATION OF BRIDGE SEAT SEALANT SEE SPECIAL PROVISIONS FOR STEEL PILES ENCASEMENT APP. 11-11-61

**SHEET NO. 77**  
**CONTRACT NO. 61C15**  
FILE NO. 7-81-61

ILLINOIS - VISION OF HIGHWAYS  
CALUMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
**NORTH ABUTMENT**





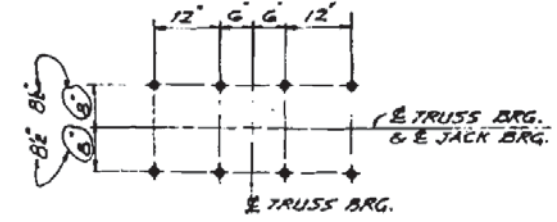
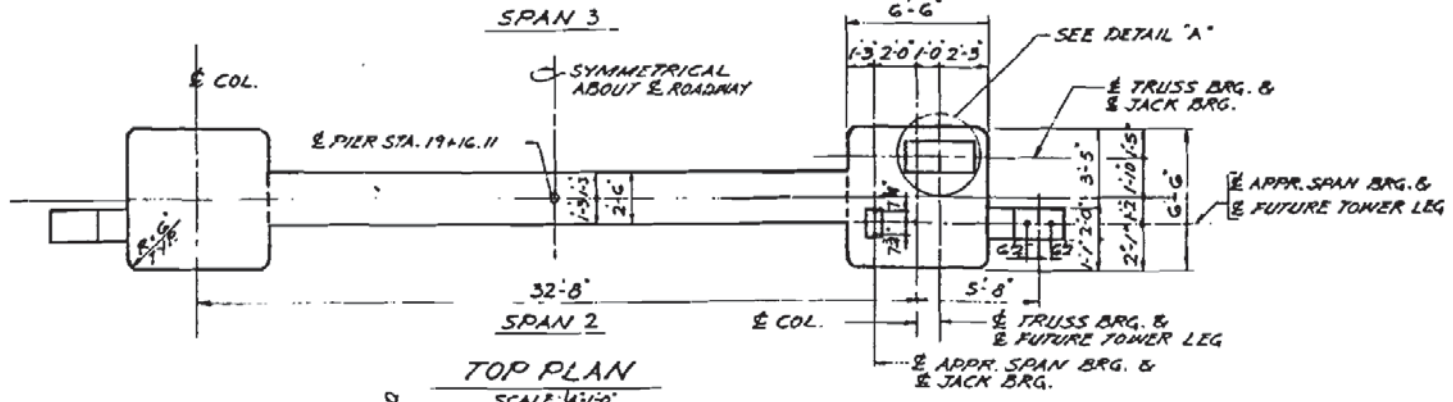




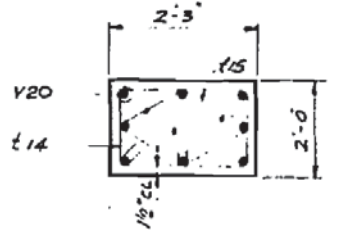


PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 254	BRIDGE	COOK	50	33
STA.	TO STA.		PROJECT	
19+16.11	19+16.11		ILLINOIS	

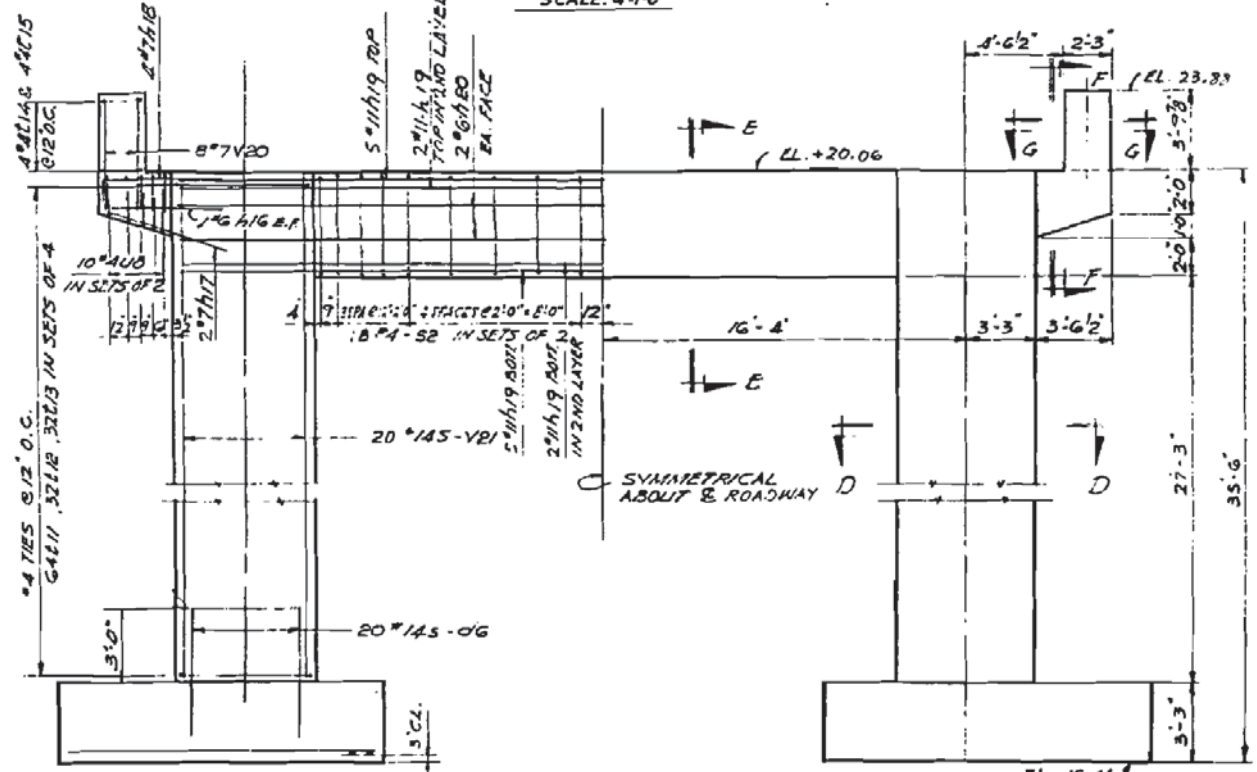
SHEET 23 OF 28



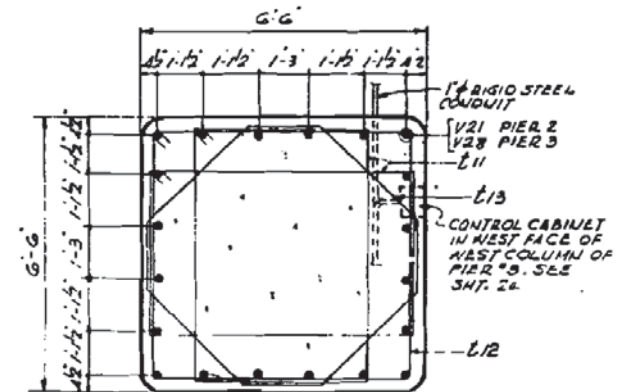
DETAIL "A"  
SPACING OF 2" DRILLED HOLES FOR ANCHOR BOLTS. ADJUST SPACING OF REINFORCEMENT BARS TO AVOID INTERFERENCE WITH DRILLING OF HOLES FOR ANCHOR BOLTS.



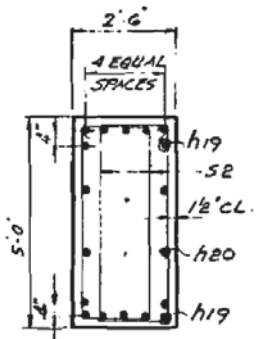
SECTION "G-G"  
SCALE: 1/4"=1'-0"



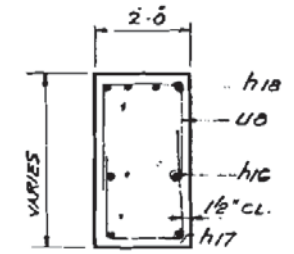
ELEVATION  
SCALE: 1/4"=1'-0"



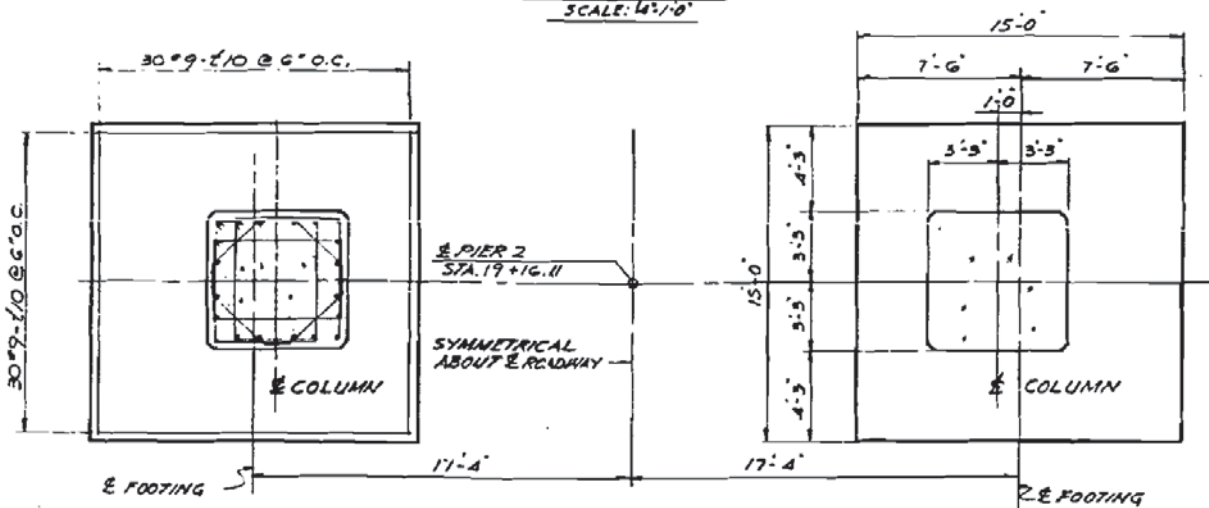
SECTION "D-D"  
SCALE: 1/2"=1'-0"



SECTION "E-E"  
SCALE: 1/2"=1'-0"



SECTION "F-F"  
SCALE: 1/2"=1'-0"



FOOTING PLAN  
SCALE: 1/4"=1'-0"

SHEET NO. 80  
CONTRACT NO. 61C15

NOTE! FOR APPLICATION OF BRIDGE SEAT SEALANT SEE SPECIAL PROVISION.

AS BUILT

FILE UP 9-81-61

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
CLASS X CONCRETE	CU. YD.	169.3
REINFORCEMENT BARS	LBS.	25,120
CLASS A EXCAVATION	CU. YD.	209
CLASS B EXCAVATION	CU. YD.	386

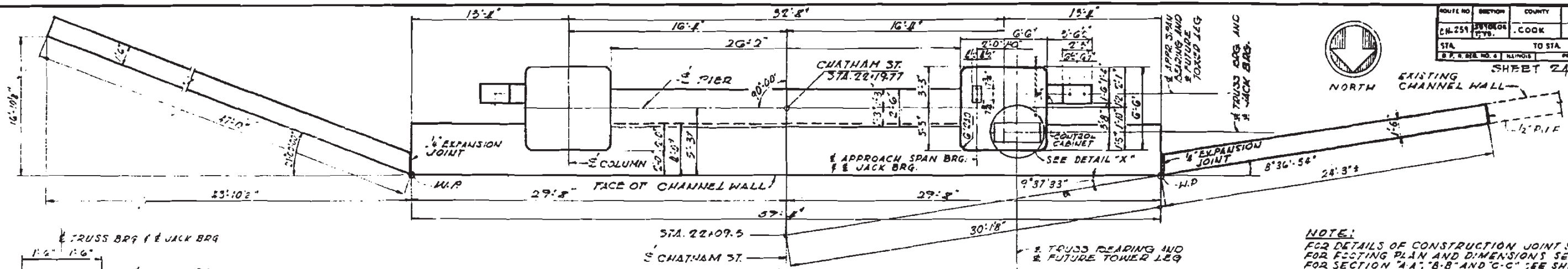
ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
PIER 2

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS  
10 SOUTH WABASH AVE CHICAGO, ILLINOIS

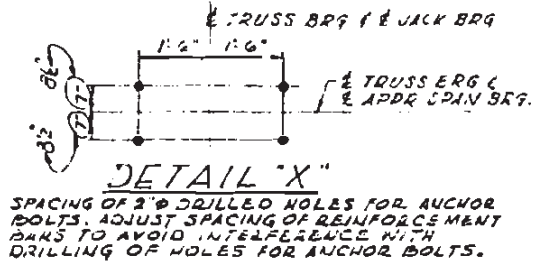
SCALE: AS NOTED DATE: 24 JUNE 1968

REV 1-27-64 DETAIL 'A' 8" to 8 1/2" R.P.E.



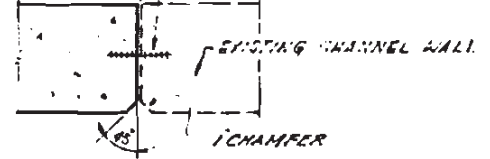


**TOP PLAN**  
SCALE: 1/4" = 1'-0"



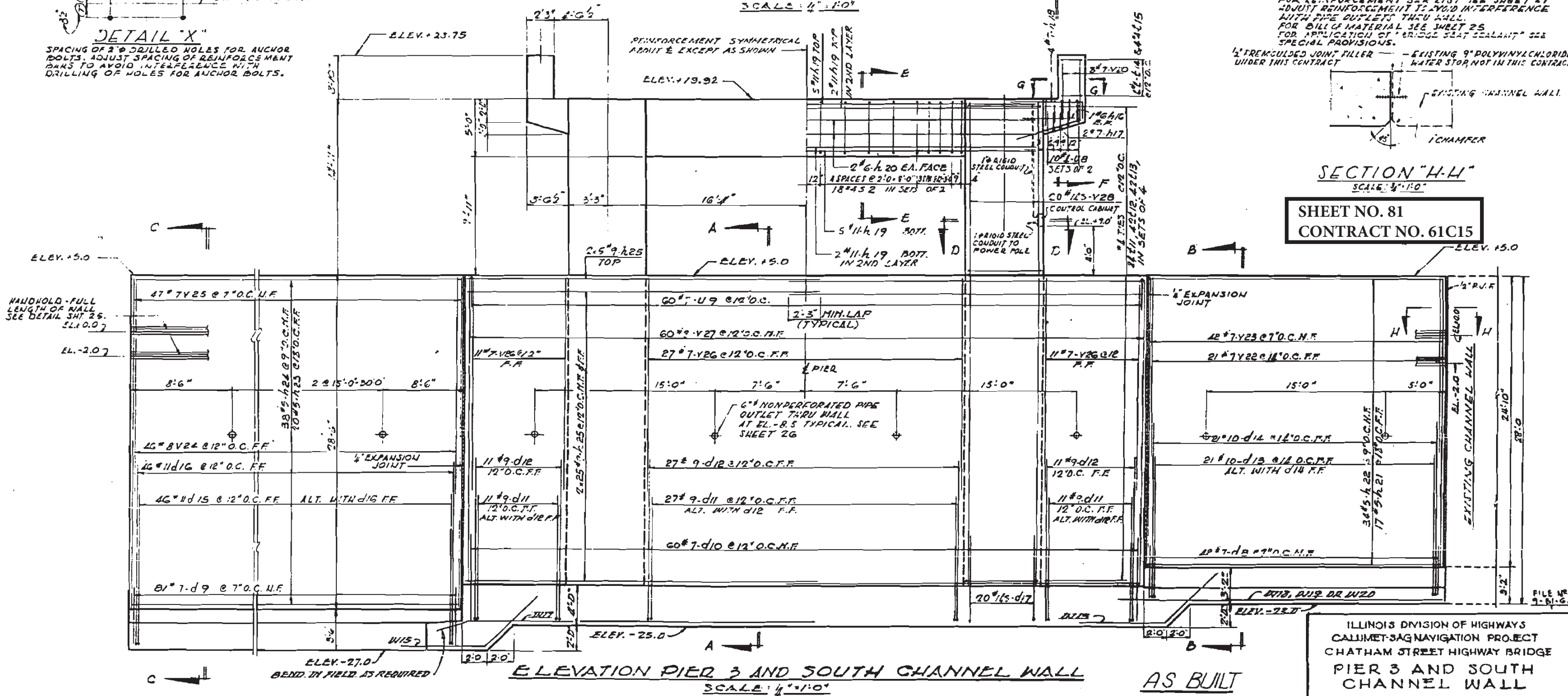
**NOTE:**  
FOR DETAILS OF CONSTRUCTION JOINT SEE SHT 25 FOR FOOTING PLAN AND DIMENSIONS SEE SHT 25 FOR SECTION "A-A", "B-B" AND "C-C" SEE SHT. 25 FOR OTHER SECTIONS SEE SHEET 25 FOR REINFORCEMENT BAR LIST SEE SHEET 27 ADJUST REINFORCEMENT TO AVOID INTERFERENCE WITH PIPE OUTLET THRU WALL. FOR BILL OF MATERIAL SEE SHEET 25 FOR APPLICATION OF "BRIDGE SEAT SEALANT" SEE SPECIAL PROVISIONS.

1/2" TREM-CULGED JOINT FILLER UNDER THIS CONTRACT



**SECTION "H-H"**  
SCALE: 3/4" = 1'-0"

**SHEET NO. 81**  
**CONTRACT NO. 61C15**



**ELEVATION PIER 3 AND SOUTH CHANNEL WALL**  
SCALE: 1/4" = 1'-0"

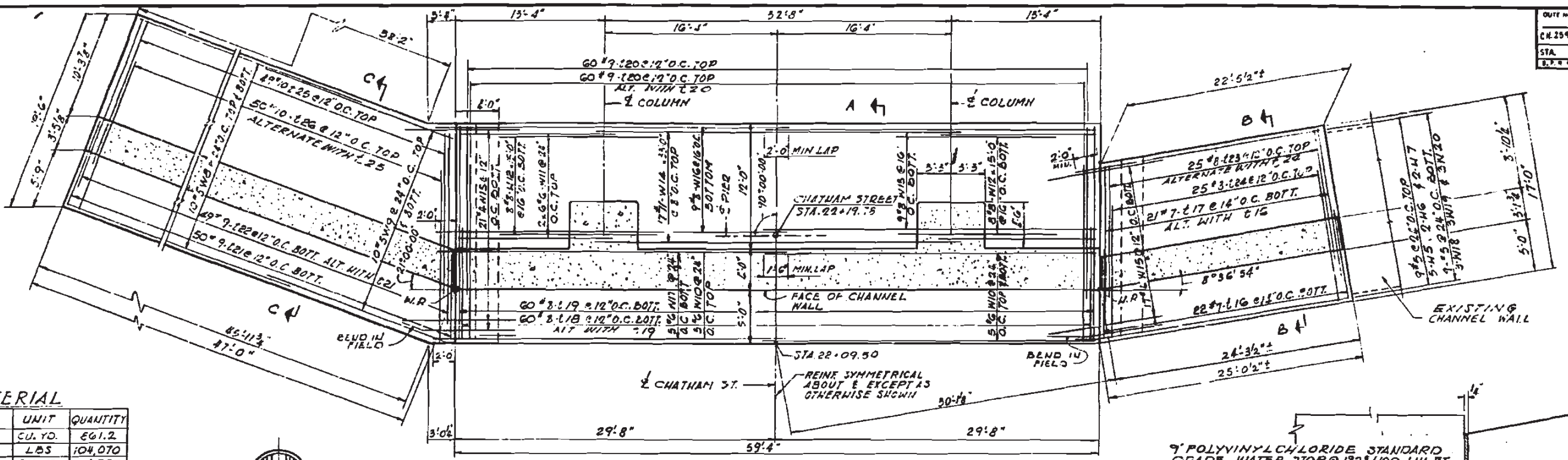
**AS BUILT**

ILLINOIS DIVISION OF HIGHWAYS  
CALLUMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
PIER 3 AND SOUTH CHANNEL WALL

ALFRED BENECH & COMPANY  
10 SOUTH WABASH AVE  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

SCALE: AS NOTED  
DATE: 24 JUNE 1968



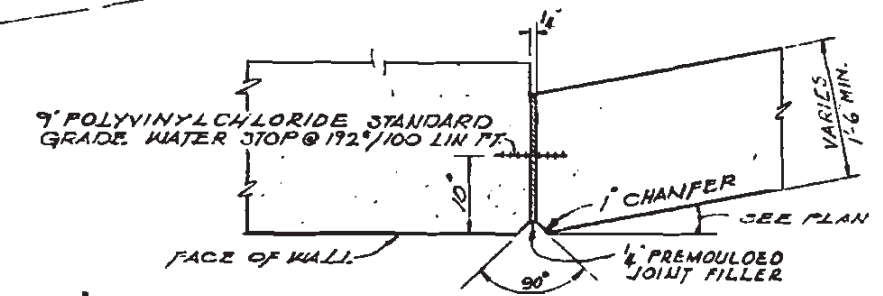


FOOTING PLAN PIER #3 AND SOUTH CHANNEL WALL  
SCALE: 3/16" = 1'-0"

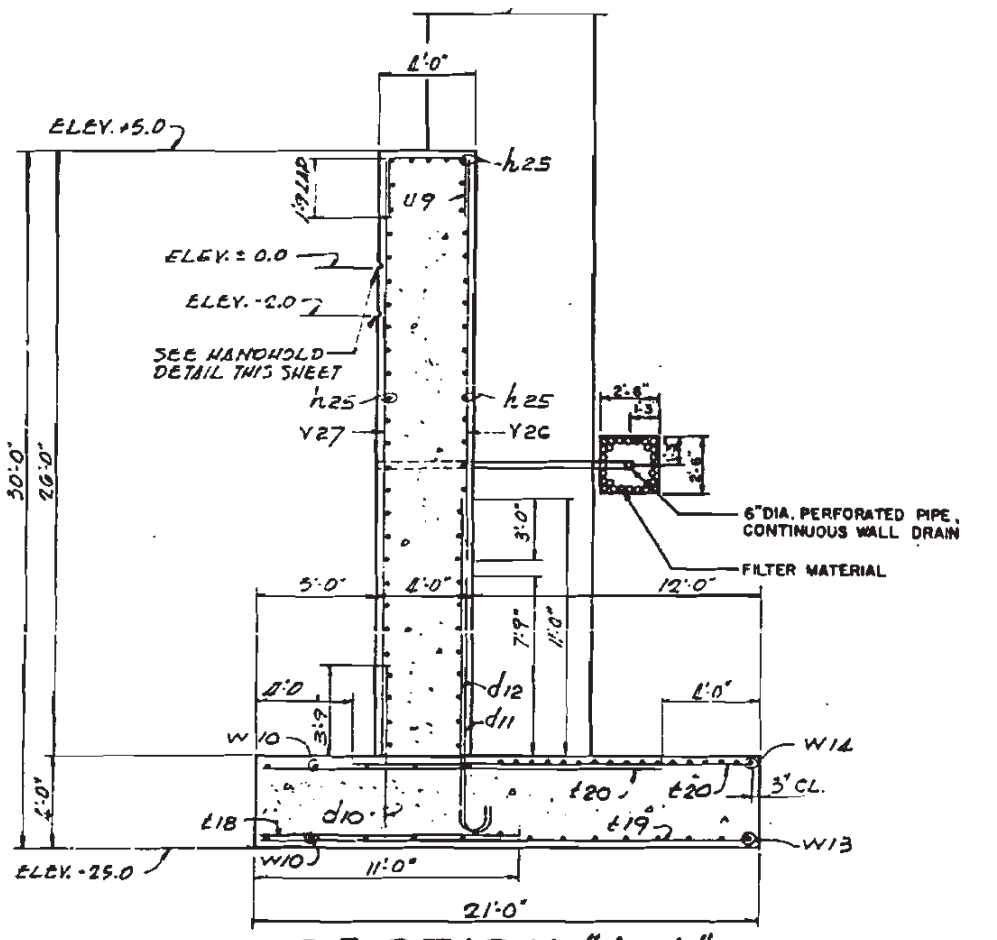
**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
CLASS X CONCRETE	CU. YD.	661.2
REINFORCEMENT BARS	LBS.	104,070
CLASS A EXCAVATION	CU. YD.	1,575
CLASS B EXCAVATION	CU. YD.	2,593
ROCK EXCAVATION	CU. YD.	205
# STRUCTURAL STEEL	LBS.	3400
POROUS GRANULAR EMBANKMENT	CU. YD.	7,368
EARTH EXCAVATION	CU. YD.	13,285

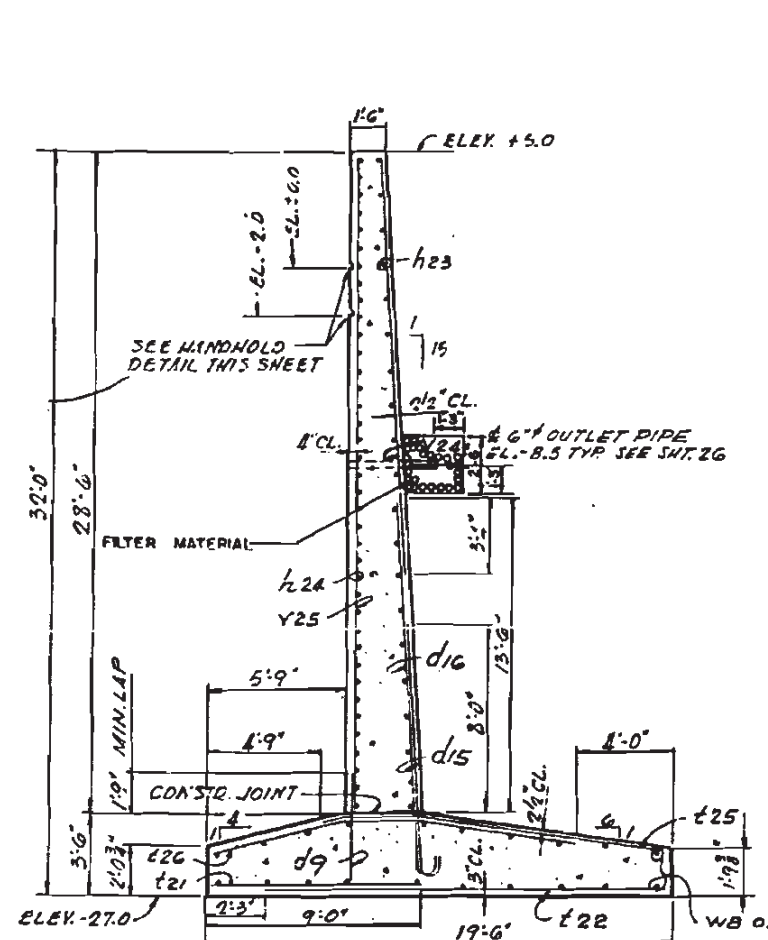
\* HANDHOLD DETAIL IN FACE OF CHANNEL WALL



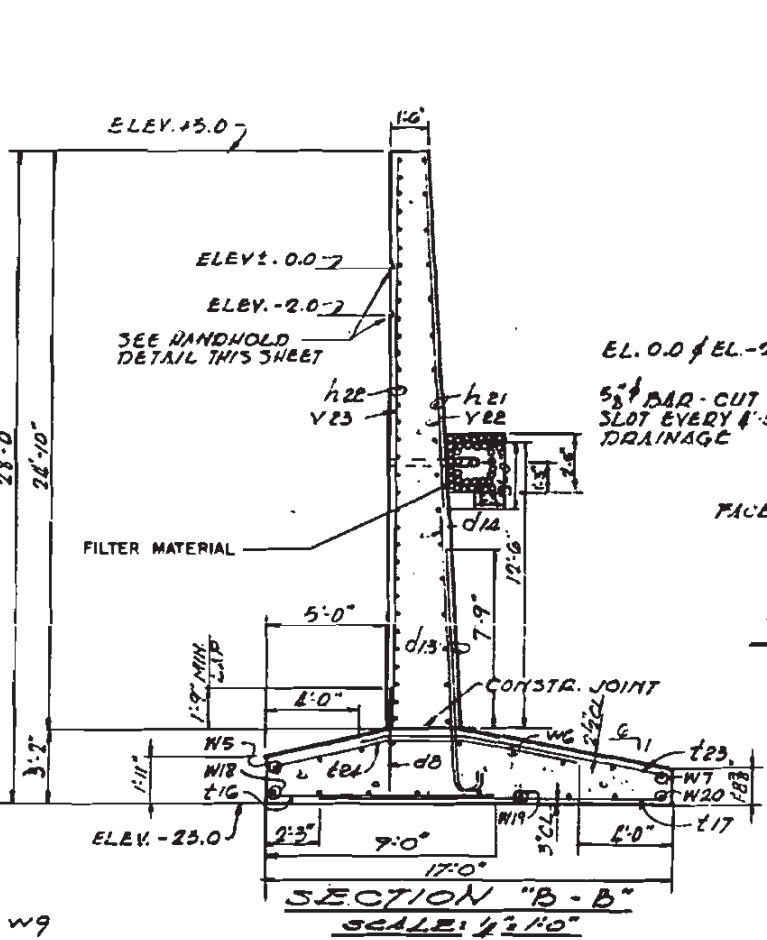
DETAIL OF 1/4" EXPANSION JOINT



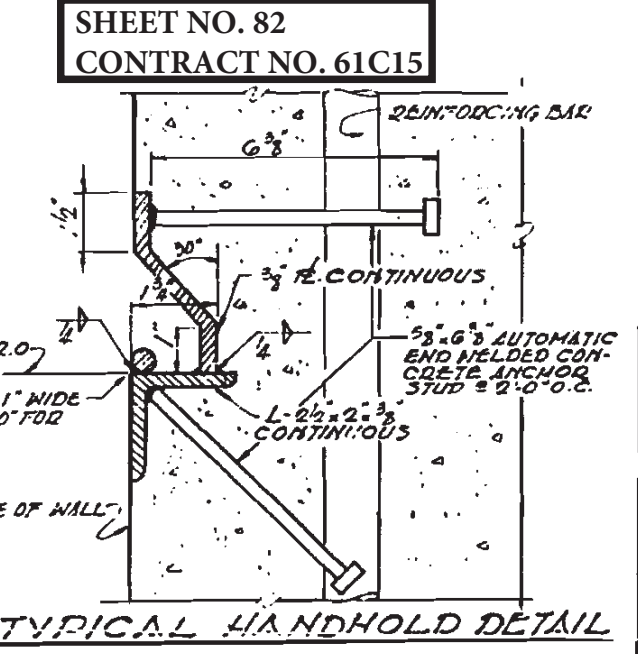
SECTION "A-A"  
SCALE: 1/4" = 1'-0"



SECTION "C-C"



SECTION "B-B"  
SCALE: 1/2" = 1'-0"



TYPICAL HANDHOLD DETAIL

SHEET NO. 82  
CONTRACT NO. 61C15

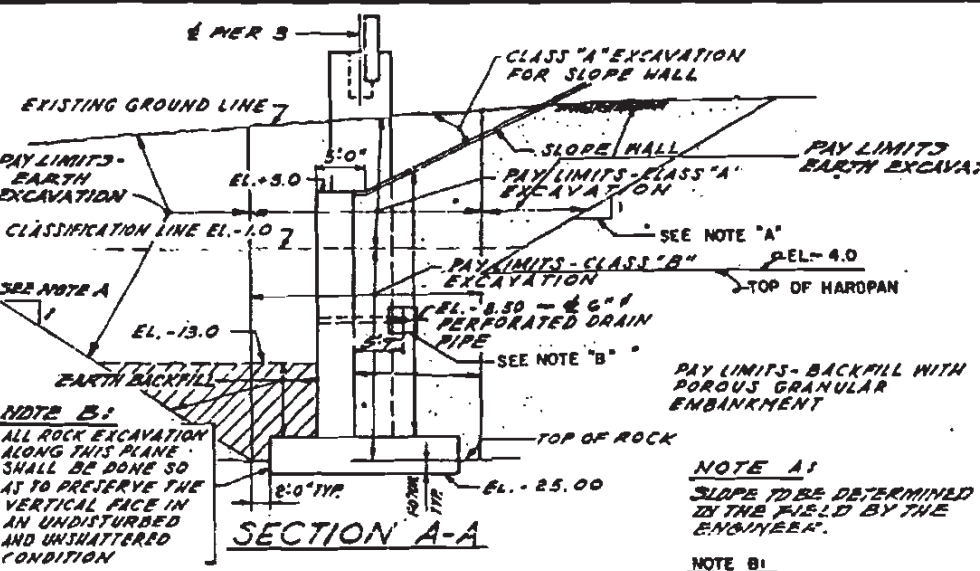
REVISED 19 SEPT. 1963  
REVISED 12 AUG 1963

ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-SAG NAVIGATION PROJECT  
CHATHAM STREET HIGHWAY BRIDGE  
PIER 3 AND SOUTH CHANNEL WALL

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS  
10 SOUTH WABASH AVE CHICAGO, ILLINOIS

SCALE: AS NOTED DATE: 24 JUNE 1963

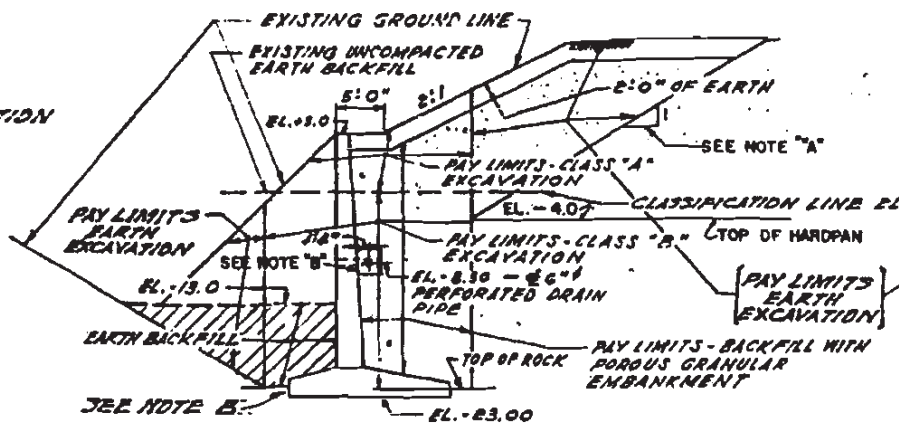




NOTE B:  
ALL ROCK EXCAVATION ALONG THIS PLANE SHALL BE DONE SO AS TO PRESERVE THE VERTICAL FACE IN AN UNDISTURBED AND UNSHATTERED CONDITION

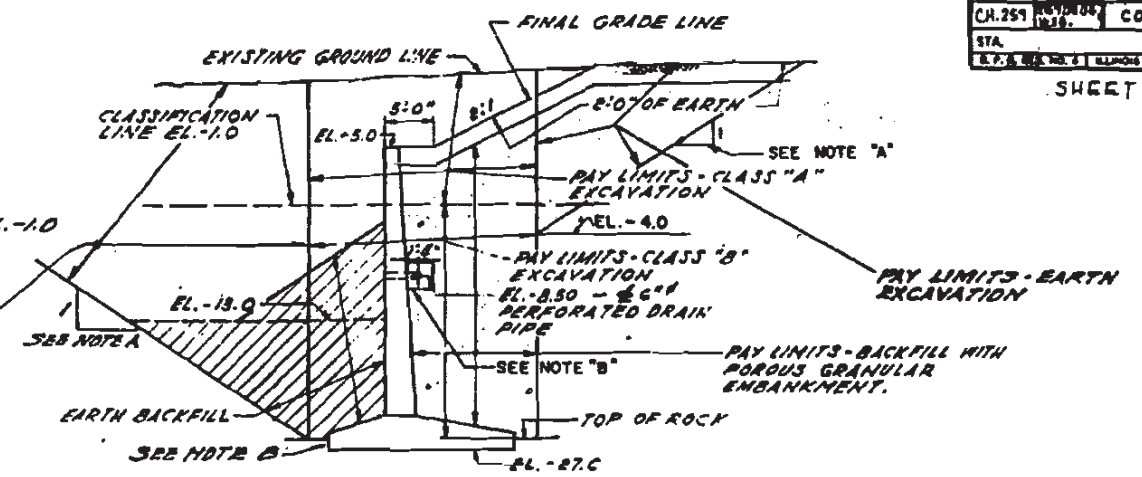
NOTE A:  
SLOPE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

NOTE B1:  
FOR DETAILS OF FILTER MATERIAL AT PERFORATED PIPE DRAIN, SEE SHEET 25 OF 28.

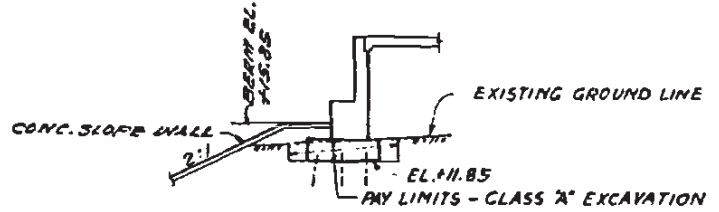


SEE NOTE B

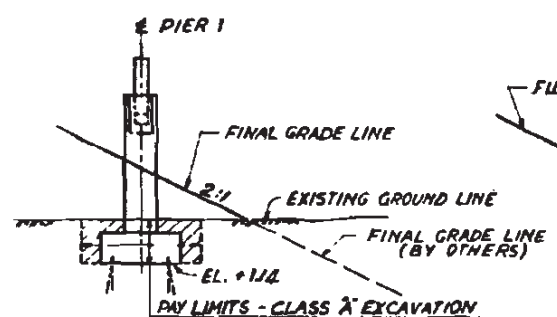
SECTION B-B



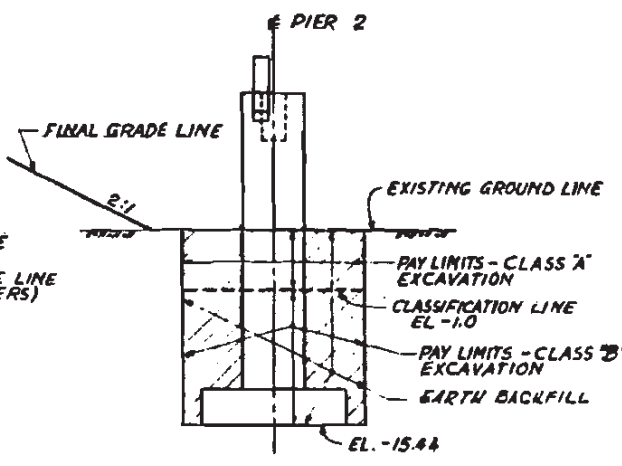
SECTION C-C



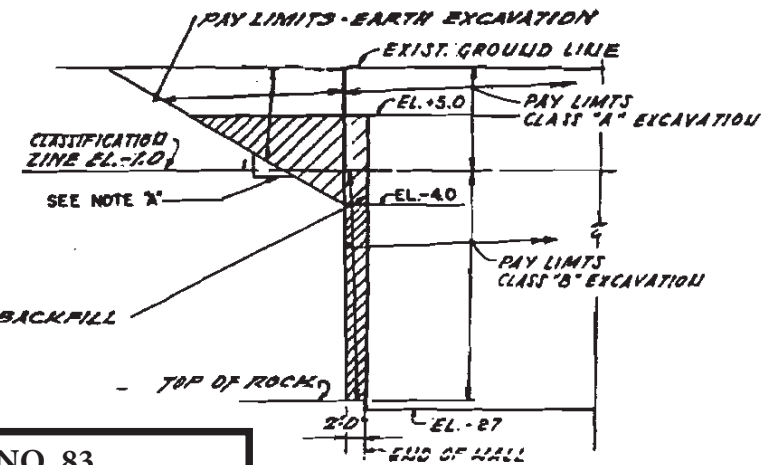
SECTION AT S. ABUTMENT  
(SECTION AT N. ABUT. COMPLETELY ON FILL)  
SCALE: 1"=10'



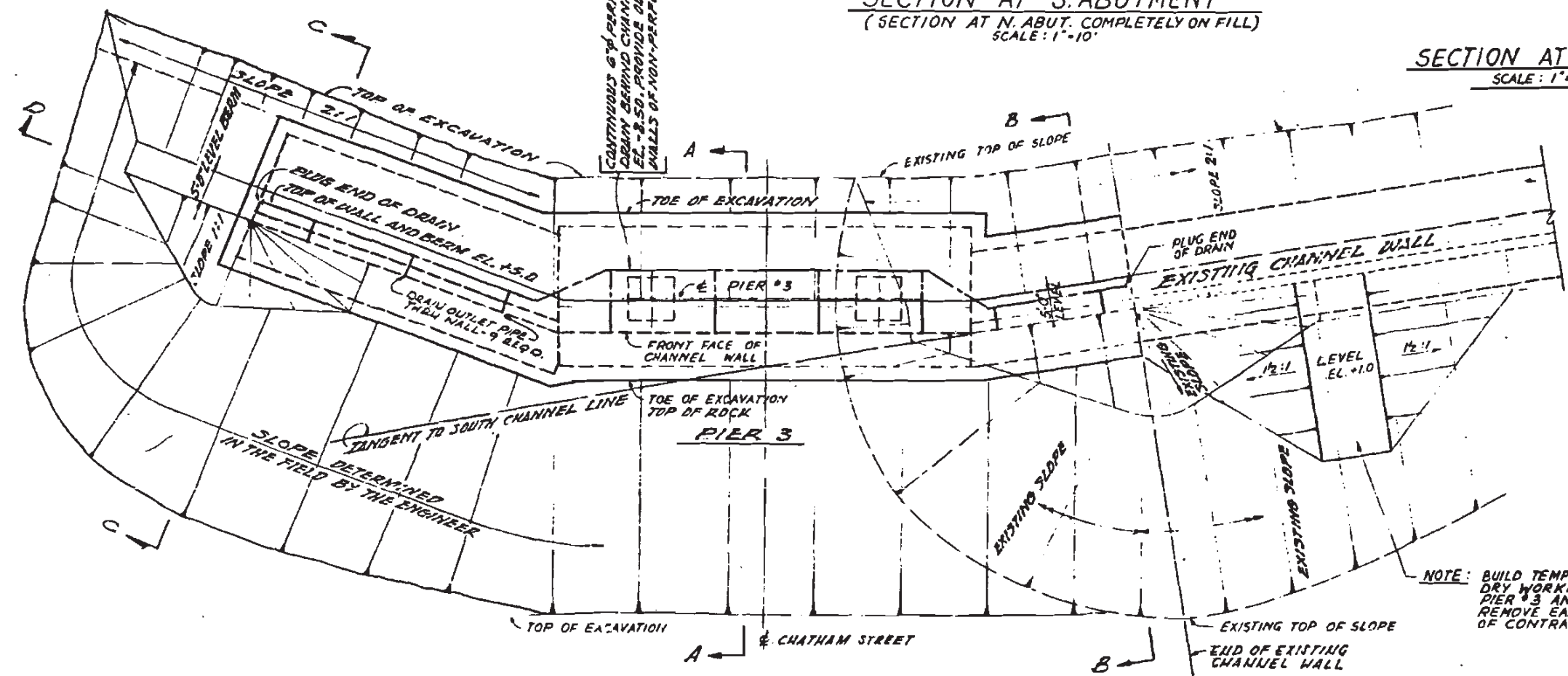
SECTION AT PIER 1  
SCALE: 1"=10'



SECTION AT PIER 2  
SCALE: 1"=10'



SECTION D  
SCALE: 1"=10'  
REVISED 18 SEPT. 1963  
REVISED 12 AUG 1963



PLAN AT PIER 3 AND CHANNEL WALLS  
(SHOWING FINISHED CONDITIONS AND EXCAVATION LIMITS)  
SCALE: 1"=10'

NOTE: BUILD TEMPORARY EARTH DAM TO PROVIDE DRY WORKING CONDITIONS WHEN CONSTRUCTING PIER #3 AND ADJACENT CHANNEL WALLS. REMOVE EARTH DAM PRIOR TO COMPLETION OF CONTRACT. SEE SPECIAL PROVISIONS.

SHEET NO. 83  
CONTRACT NO. 61C15

ILLINOIS DIVISION OF HIGHWAYS  
CALUMET-SAG NAVIGATION PROJECT  
CHATNAM STREET HIGHWAY BRIDGE  
EXCAVATION DETAILS

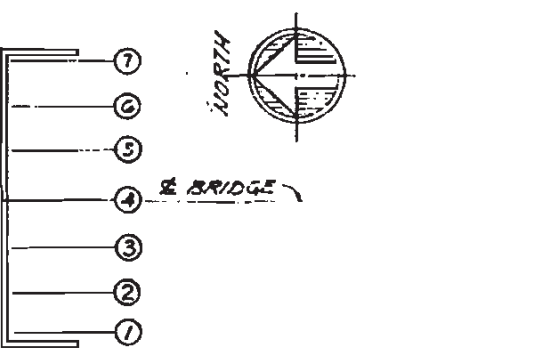
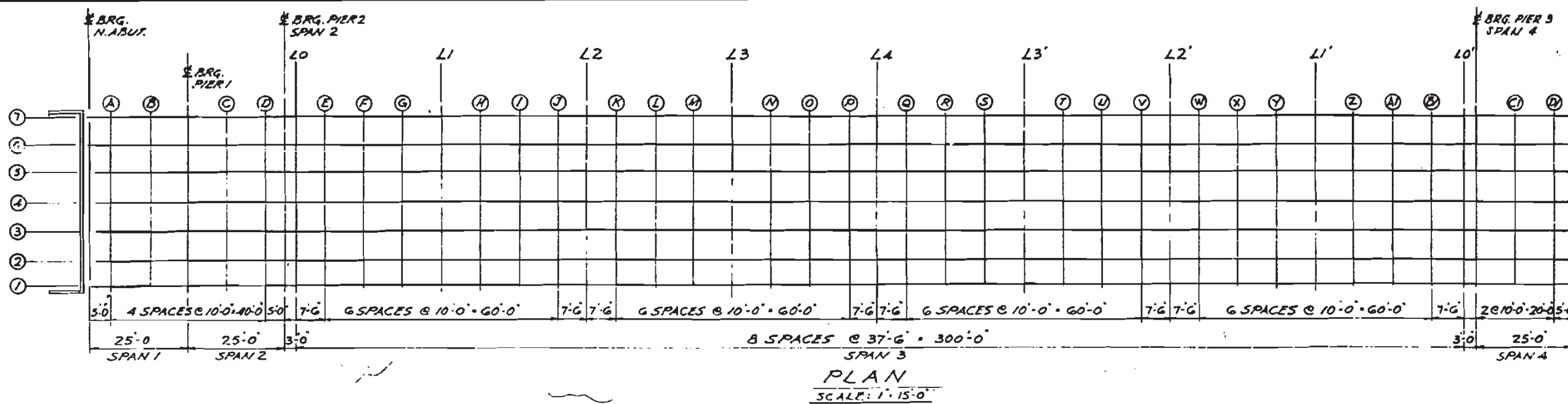
ALFRED BENESCH & COMPANY  
10 SOUTH WABASH AVE.  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

SCALE: AS NOTED  
DATE: 24 JUNE 1963

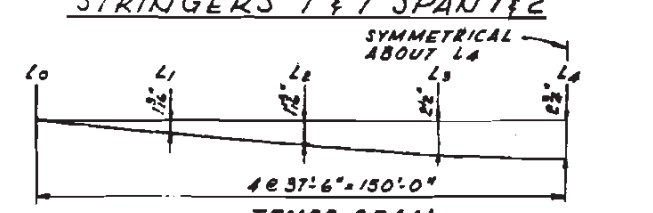
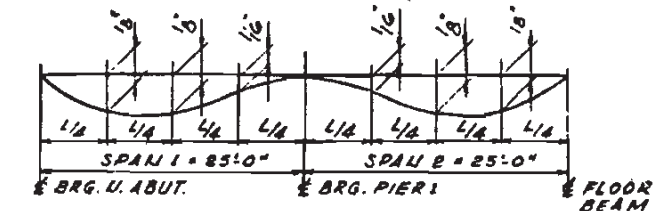
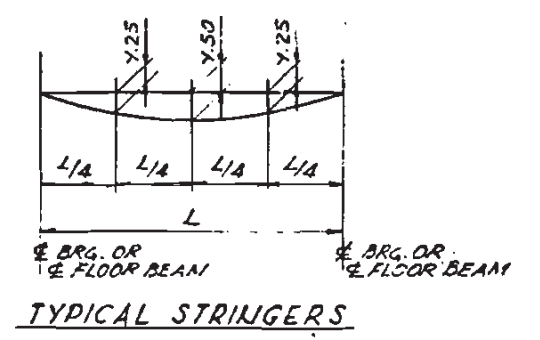








LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION	LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION	LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION	LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
1,7		1884,940	22,000	23,987	25,173	1,7		1955,440	22,000	26,010	29,323	1,7		2060,440	22,000	30,274	31,776	1,7		2160,440	22,000	28,747	30,180
2,6		1864,940	15,000	24,112	24,112	2,6		1985,440	15,000	26,156	28,238	2,6		2060,440	15,000	30,420	30,667	2,6		2160,440	15,000	28,892	29,059
3,5		1864,940	7,500	24,251	24,251	3,5		1985,440	7,500	26,294	28,404	3,5		2060,440	7,500	30,594	30,615	3,5		2160,440	7,500	29,031	29,202
4		1864,940	.000	24,300	24,300	4		1985,440	.000	26,343	28,453	4		2060,440	.000	30,607	30,864	4		2160,440	.000	29,080	29,251



DEAD LOAD DEFLECTION DIAGRAMS  
HEIGHT OF STRUCTURAL STEEL NOT INCLUDED

**TABLE OF DEAD LOAD DEFLECTIONS**

SPAN	L	STRINGER	Y. 25	Y. 50	Y. 75
1 & 2	25'-0"	1 & 7	SEE DIAGRAM		
3	8@37'-6"	2 THRU 6	1/8"	3/16"	1/8"
4	25'-0"	1 & 7	3/8"	1"	3/8"
		2 THRU 6	1/8"	3/16"	1/8"

NOTE: THE ABOVE DEFLECTIONS ARE NOT FOR USE IN THE FIELD IF THE ENGINEER IS WORKING FROM THE THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION

SHEET NO. 85  
CONTRACT NO. 61C15