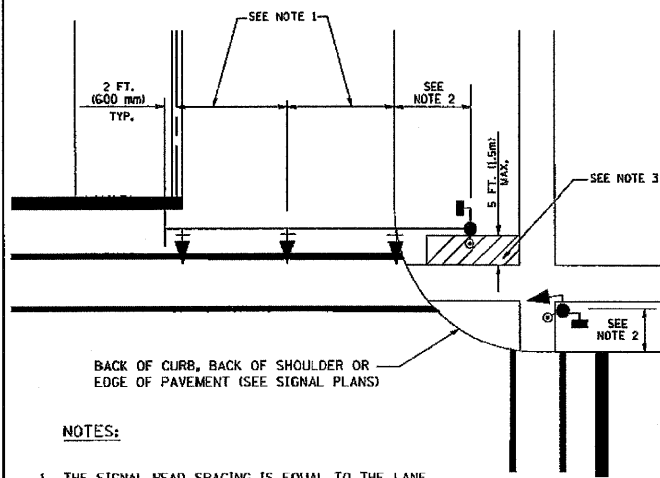


TRAFFIC SIGNAL MAST ARM AND SIGNAL POST
 MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA, INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.

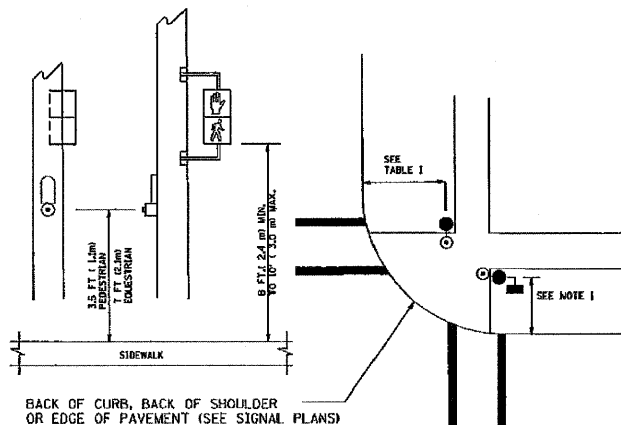


BACK OF CURB, BACK OF SHOULDER OR EDGE OF PAVEMENT (SEE SIGNAL PLANS)

NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST

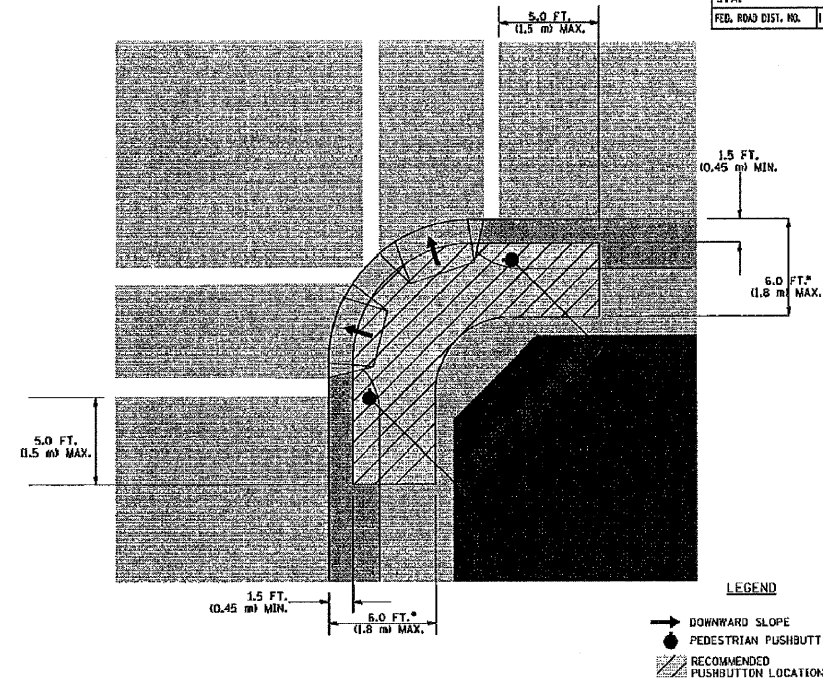


BACK OF CURB, BACK OF SHOULDER OR EDGE OF PAVEMENT (SEE SIGNAL PLANS)

NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPARATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD AFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

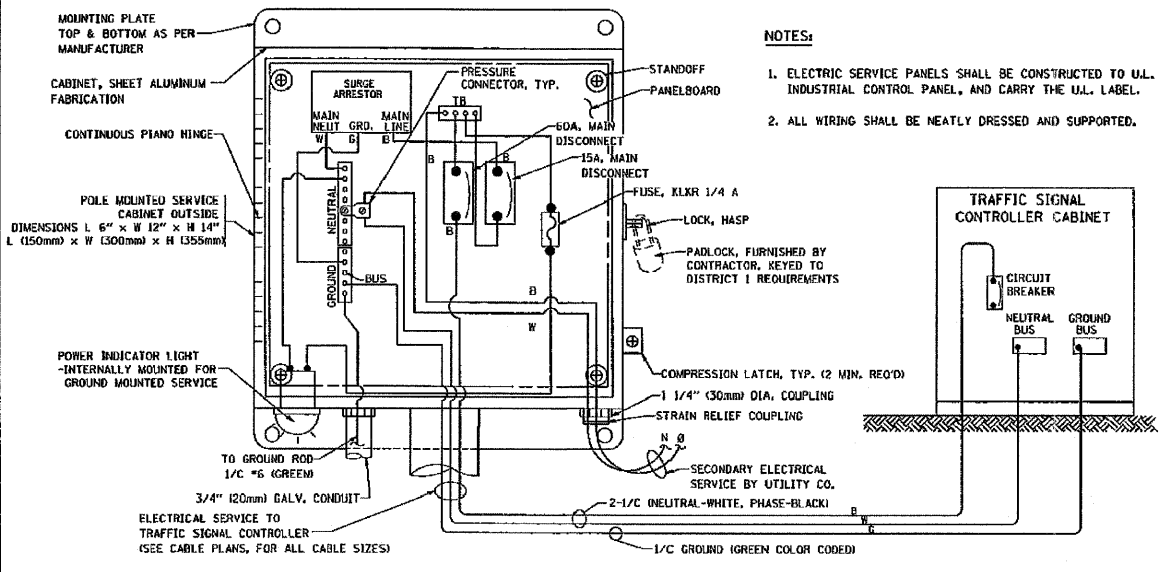
REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	1/01/02
BCK	10/28/09

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT 1
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS

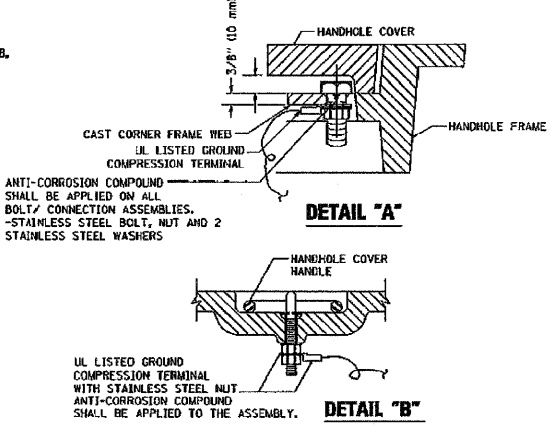
SCALE: NONE

DRAWN BY: BCK
 DESIGNED BY: DAD
 CHECKED BY: DAD
 SHEET 2 OF 6
 TS05

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9H, HB & SBIR-1	COOK	741	202



- NOTES:**
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
 2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

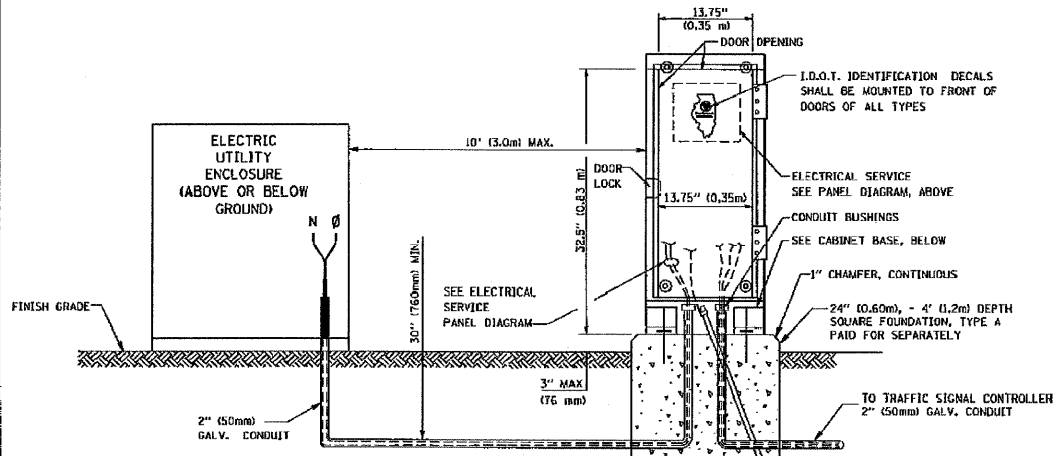


NOTES:

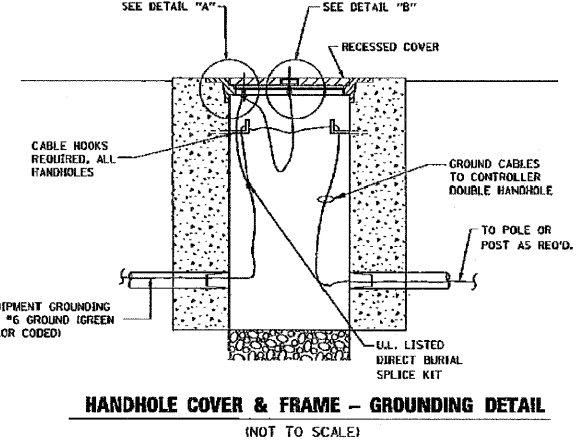
GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

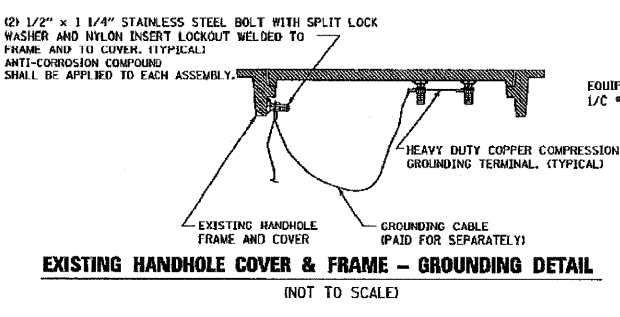
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)



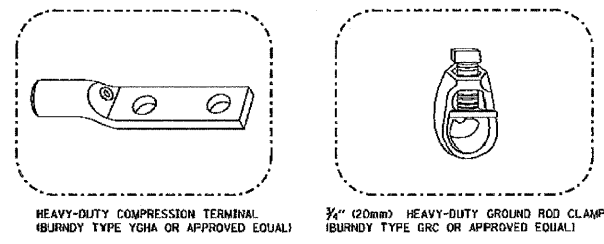
SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)



HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)

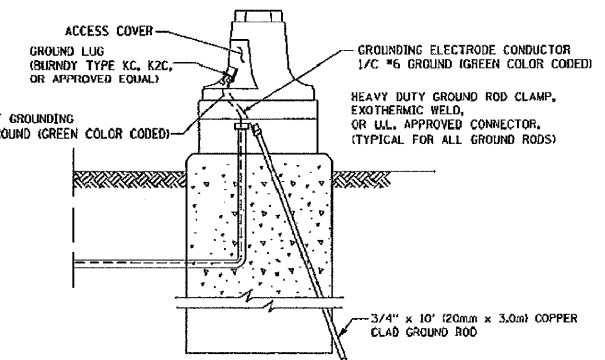


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)



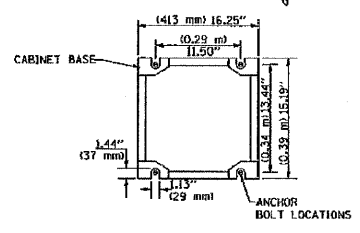
NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
- 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
- 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
- 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)

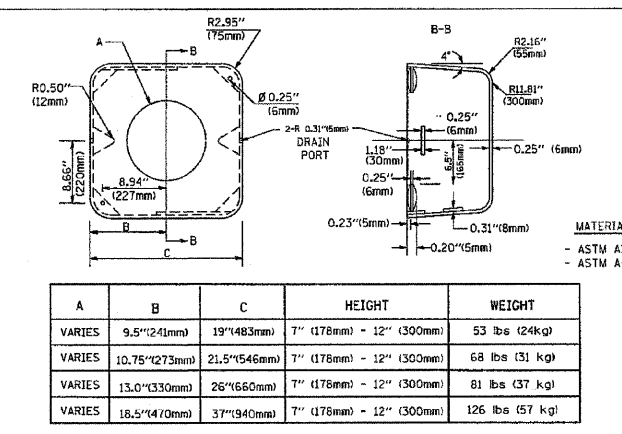
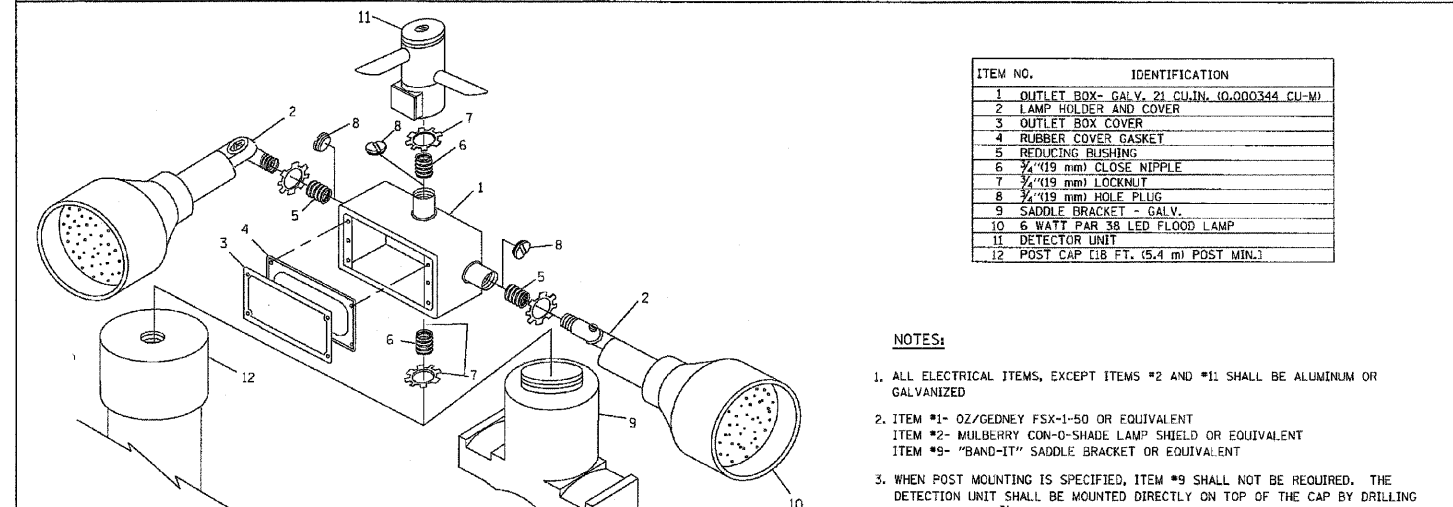
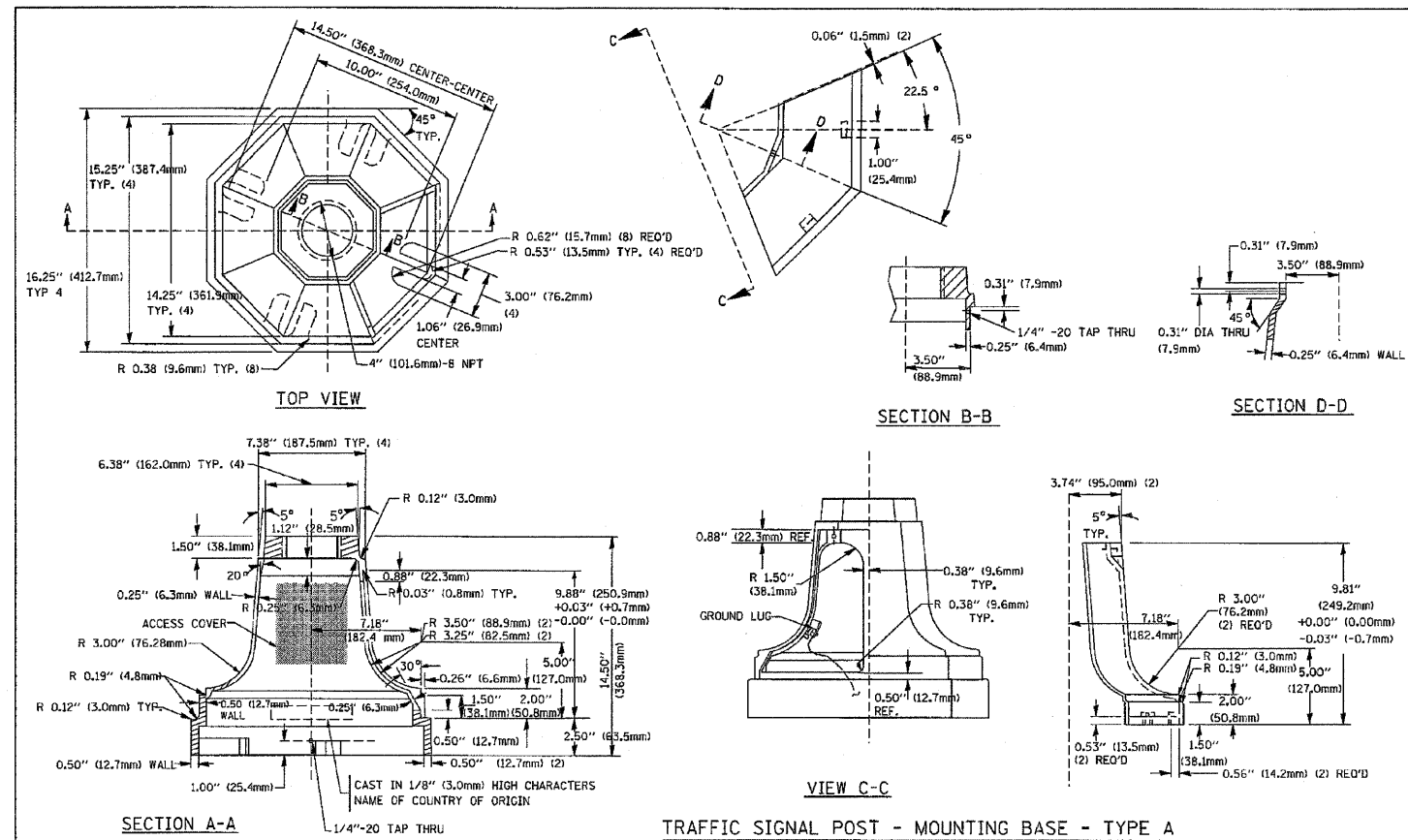
CABINET - BASE BOLT PATTERN (NOT TO SCALE)



REVISIONS	
NAME	DATE
CADD	5/30/00
CADD	3/15/01
BUREAU OF TRAFFIC	1/01/02
BCK	10/28/03

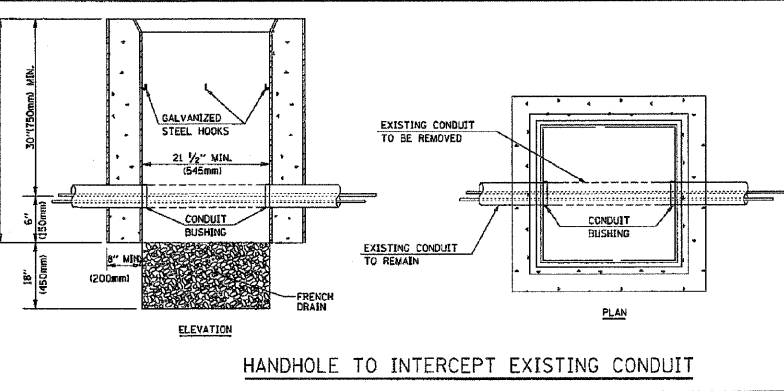
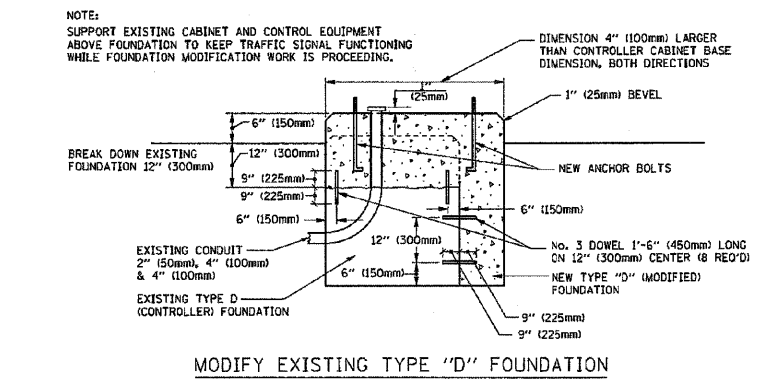
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE
DRAWN BY: BCK
DESIGNED BY: DAD
CHECKED BY: DAD
SHEET 3 OF 6
TS05



NOTES:

- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	5/30/00
BUREAU OF TRAFFIC	3/15/01
BUREAU OF TRAFFIC	11/12/03
BUREAU OF TRAFFIC	1-10-02
BCK	10/28/08

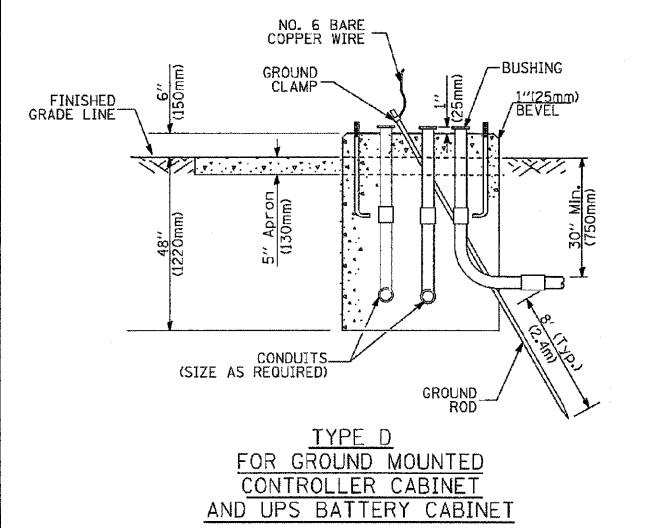
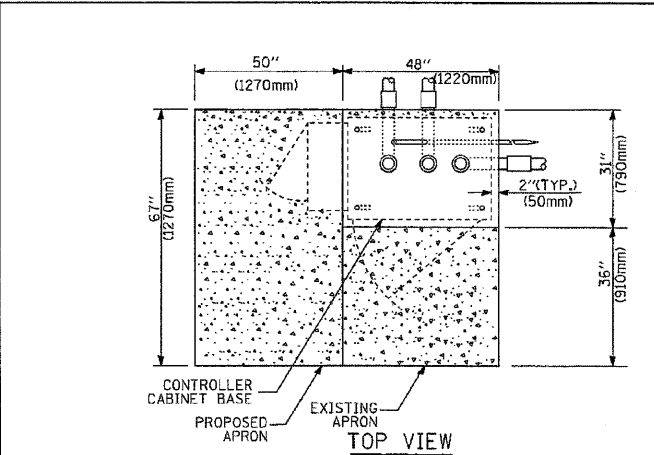
ILLINOIS DEPARTMENT OF TRANSPORTATION

**DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS**

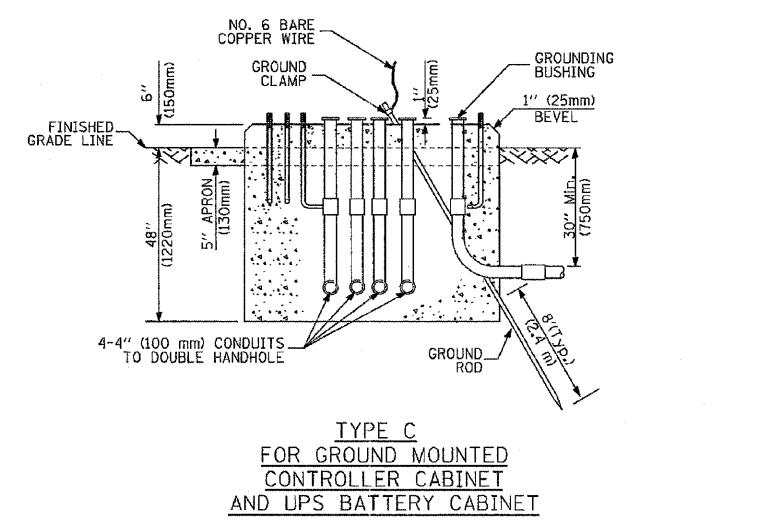
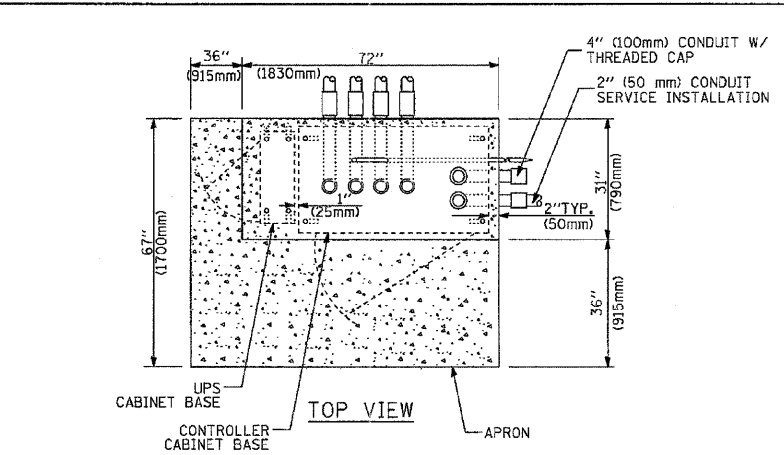
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DRAWN BY: BCK
DESIGNED BY: DAD
CHECKED BY: DAD
SHEET 4 OF 6
TS05

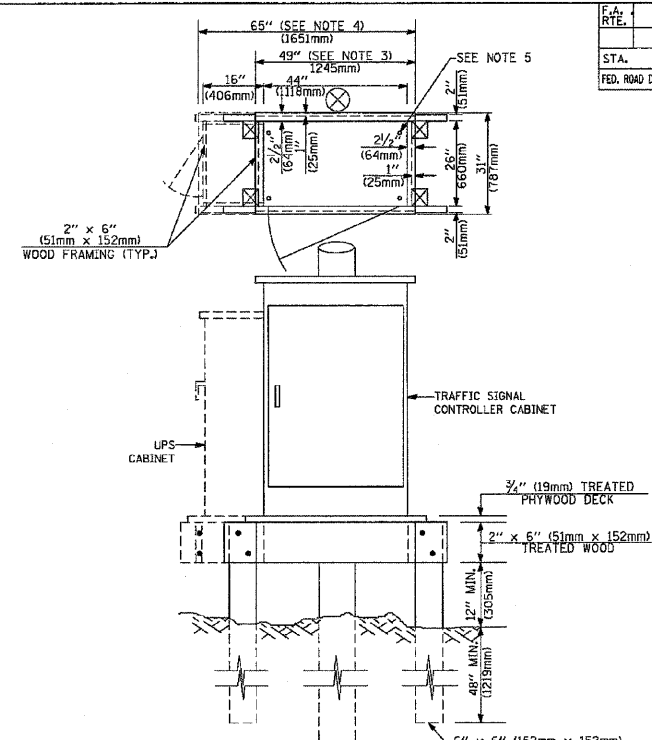
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9H, HB & SBR-1	COOK	741	204
STA. TO STA.		CONTRACT NO. 60999		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



- NOTES:**
- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 - BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
 - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
 - DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
 - FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0-L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

MAST ARM LENGTH	FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and up to 56' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 55' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 55' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:**
- These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
 - Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
 - Combination mast arm assemblies under 55 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
 - For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

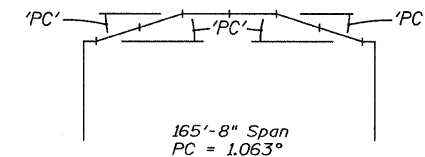
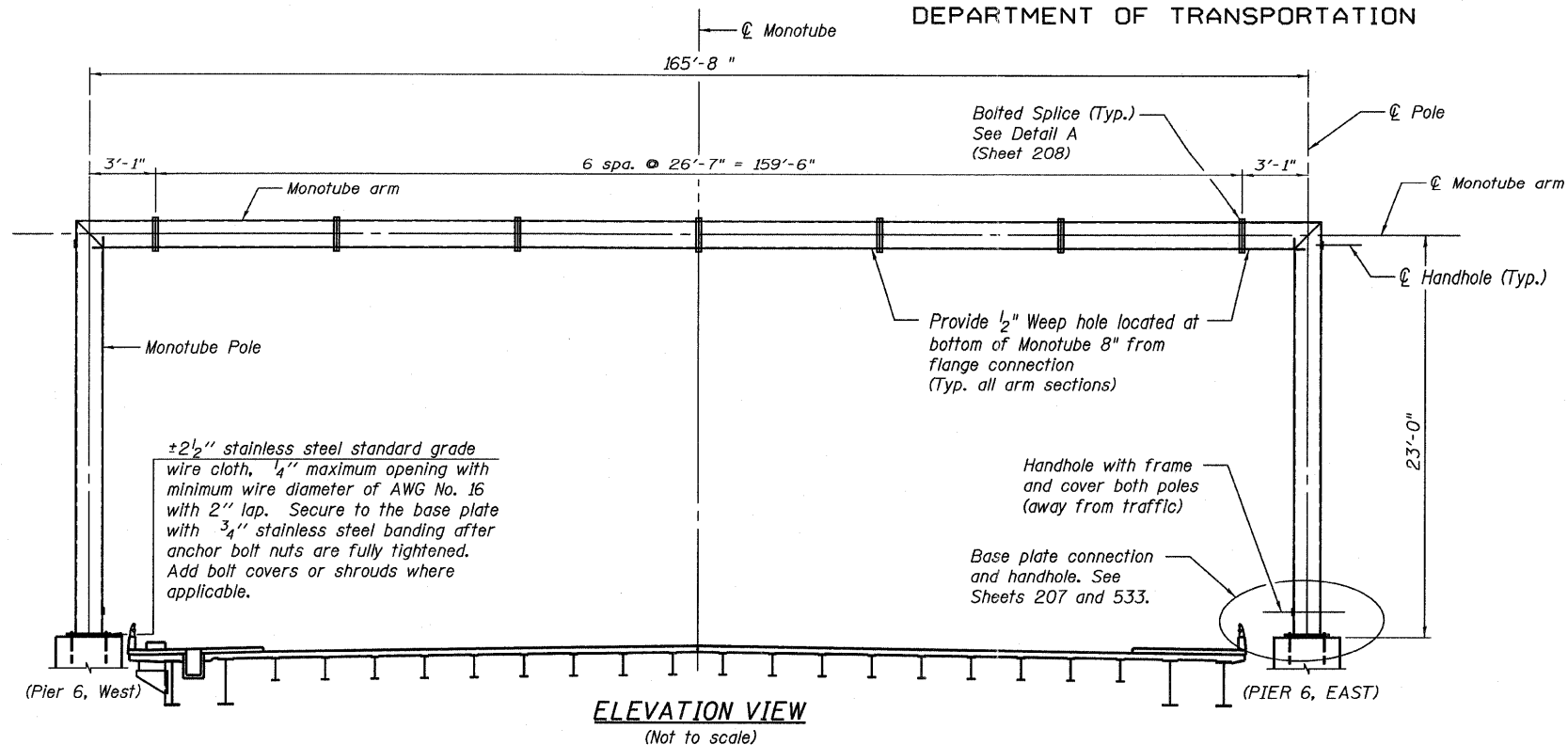
DEPTH OF FOUNDATION

REVISIONS	DATE
NAME	DATE
	5/30/00
	3/15/01
	11/12/01

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS
SCALE: NONE
DRAWN BY: BCK
DESIGNED BY: DAD
CHECKED BY: DAD
SHEET 5 OF 6
TS05

USER NAME = #USER#	DESIGNED - PKT	REVISED -
PLOT SCALE = #SCALE#	DRAWN - PKT	REVISED -
PLOT DATE = 3/22/2011	CHECKED - GR	REVISED -
	DATE - 3-25-2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



CAMBER DETAILS

Note: Fabricate with rolling camber up.

MONOTUBE SIGNAL STRUCTURE NOTES

* Note: Contractor shall verify these dimensions prior to fabrication of pole and arm.

1. DESIGN: Current (at time of letting) AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals.

2. Signal structure materials shall be as follows:

- Poles & Monotube Arm -> ASTM A252 GRADE III (Fy = 46 ksi)
- Handhole Frame -> ASTM A709 GRADE 36
- Handhole Cover -> ASTM A607, GRADE 50, 55 OR 60 ksi
- Steel Plates -> ASTM A709 GRADE 50
- Weld Metal -> E70XX
- Bolts (except Anchor Bolts) -> ASTM A325 TYPE I
- Anchor Bolts -> ASTM F1554 GRADE 105 ksi
- Nuts for Anchor Bolts -> ASTM A563 GRADE A HEAVY HEX
- Washers for Anchor Bolts -> ASTM F436 TYPE I
- Stainless Steel Screws -> AISI TYPE 316
- Aluminum Nut Cover -> ASTM B26 (356-T6)

3. CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Recurring Special Provisions. ("Standard Specifications") All references to "Mast Arm Assembly and Pole" are applicable, unless otherwise noted.

4. All welding to be continuous unless otherwise shown.

All welding shall conform to the American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (current edition) and the Standard Specifications.

5. GALVANIZING: All plates, shapes and pipe shall be hot dip galvanized after fabrication in accordance with AASHTO M111.

6. No welding shall be permitted on anchor rods.

7. FASTENERS: All connection bolts shall be High Strength Bolts M164, Galvanize M232 (A153), Type 3, or stainless steel heavy hex conforming to ASTM A193, Grade B8 or B8M, Class 1. U-bolts shall be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished, or an equivalent material acceptable to the Engineer. Nuts for stainless steel bolts shall be stainless steel conforming to ASTM A194, Grade 8 (AISI Type 304) or Grade 8F (AISI Type 303). All nuts shall be "locknuts" with nylon or steel inserts and semifinished hexagonal heads equivalent to the finished heavy hex series of the American National Standard. Washers for stainless steel bolts shall be stainless steel conforming to ASTM A240, Type 302 or 304.

8. The design wind speed is 90 mph.

9. Except for Anchor Bolts, all bolt hole diameters shall be equal to the bolt diameter plus 1/16", prior to galvanizing. Hole diameters for Anchor Bolts shall not exceed the bolt diameter plus 1/2".

10. The pole shall be installed vertically. Arm camber shall be accounted for in the Flange Connections.

11. Locate handhole 180° from monotube arm.

12. All signals shall be installed vertically.

13. Monotube Arm & Poles shall be fabricated from round pipe.

BILL OF MATERIAL

Item	Unit	Total
Overhead Sign Structure - Monotube (Special)	Foot	165.7

**MONOTUBE SIGNAL STRUCTURE
ELEVATION, NOTES AND CAMBER
DETAILS**

TYLIN INTERNATIONAL

DESIGNED - MAU	REVISIONS	
	NAME	DATE
CHECKED - AMD,		
DRAWN - MAU		
CHECKED - AMD,		
DATE - 03/25/2011		

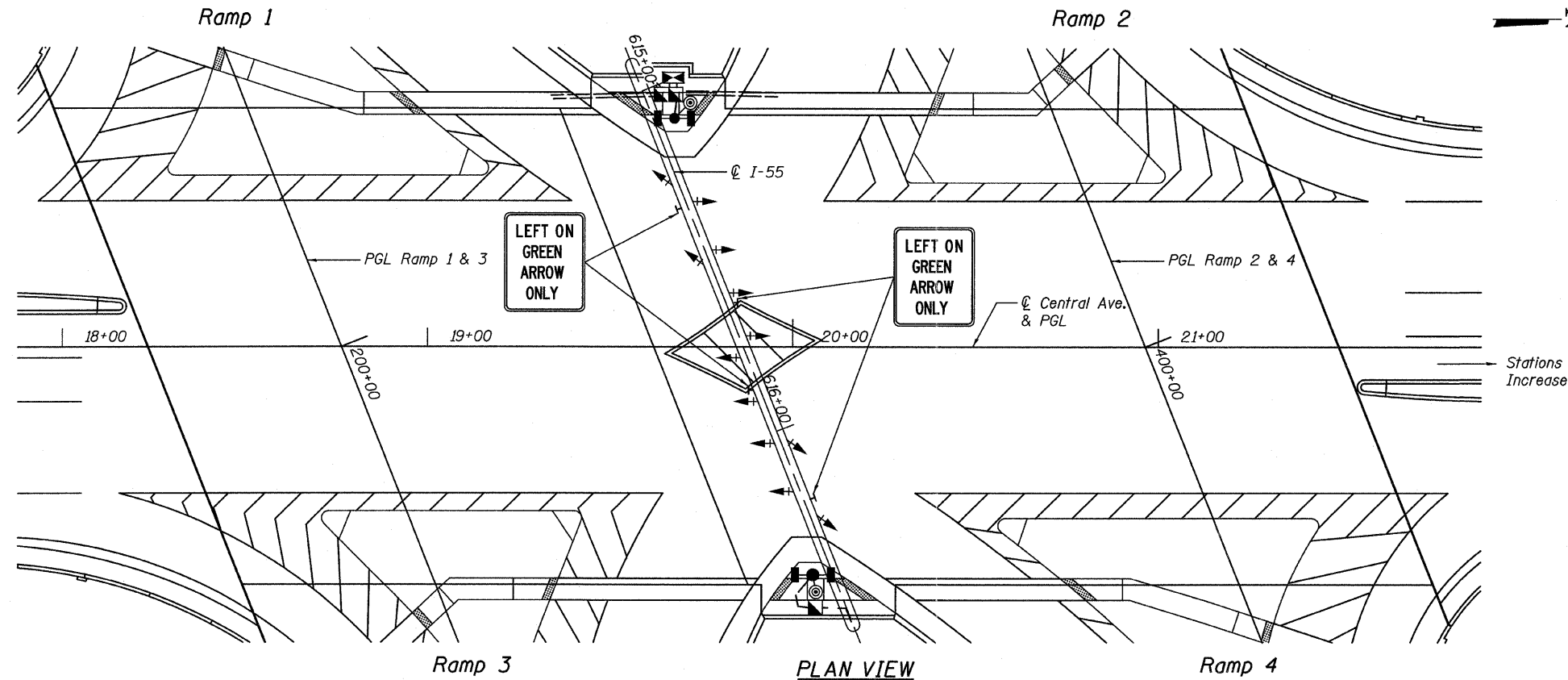
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				SHEETS	NO.
55		0711.2R & 1011.1BR	COOK	741	205
SHEETS			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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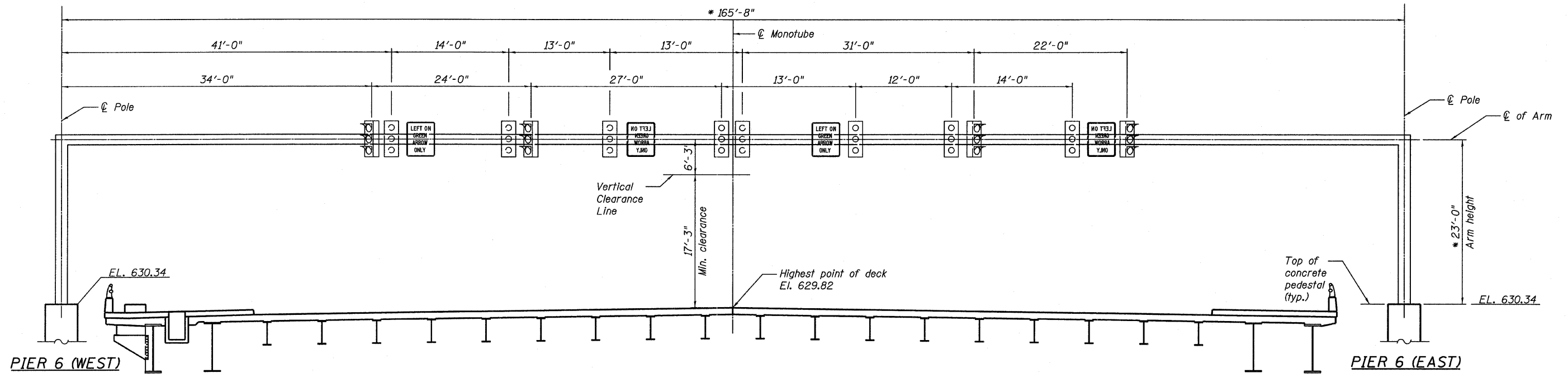
LEGEND

- 1 face, 3 section optically programmed traffic signal head.
- Pedestrian signal post.

NOTES:

The plan and elevation views on this sheet show signal heads and sign panels considered in design of the monotube span, and do not show other appertenant items that are shown in the traffic signal installation plans.

* Contractor shall verify these dimensions prior to facrication of pole



MONOTUBE STRUCTURE ELEVATION
(Looking north)

**MONOTUBE SIGNAL STRUCTURE
DESIGN INTERSECTION
AND DESIGN LOAD TREE**

TYLIN INTERNATIONAL

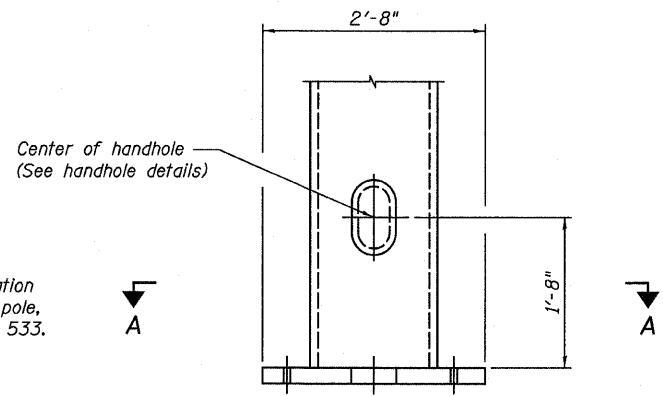
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DATE - 03/25/2011		

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SHEETS			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

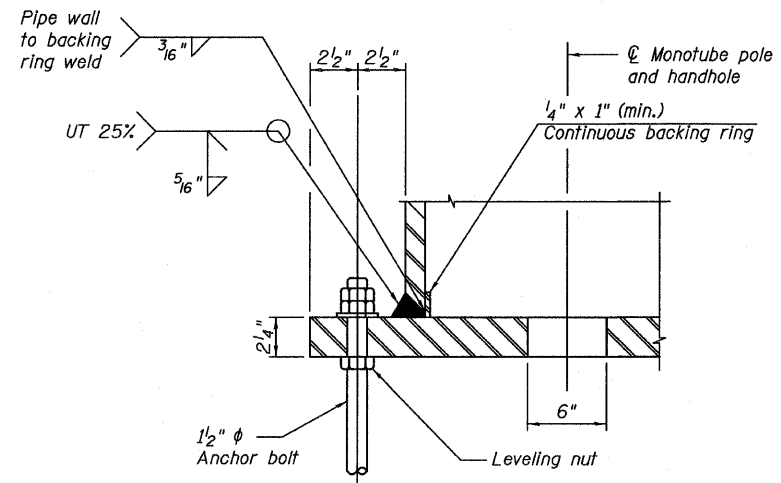
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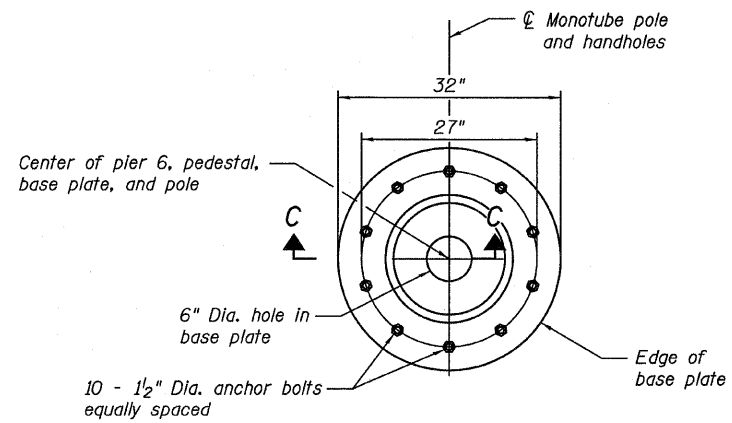
NOTE:
For additional information
at base of monotube pole,
see detail 1 on Sheet 533.



BASE PLATE AND ANCHORAGE ELEVATION



SECTION C-C



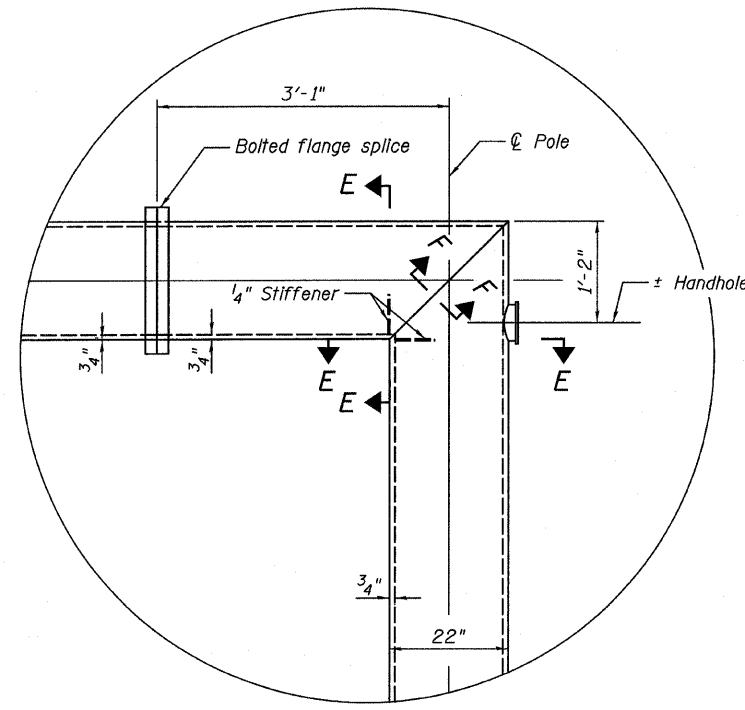
SECTION D-D

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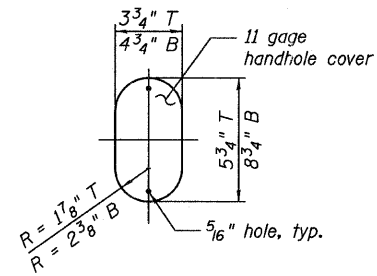
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DATE	- 03/25/2011		

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEETS					
CONTRACT NO. 60999					
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

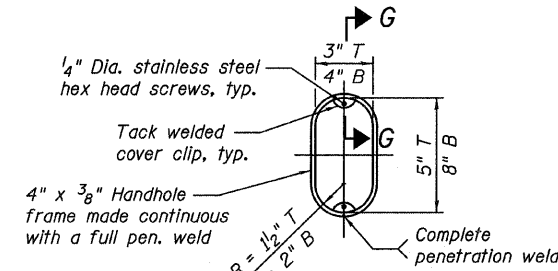
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



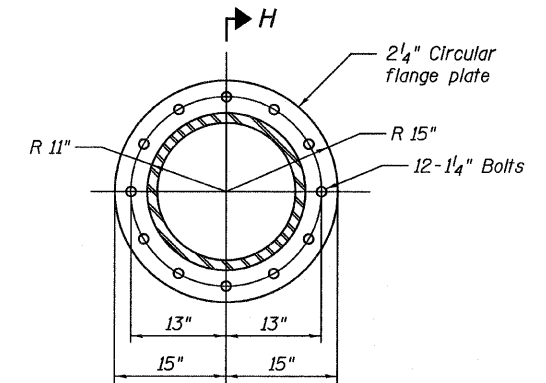
DETAIL 'A'



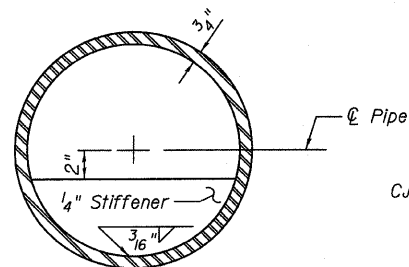
HANDHOLE COVER



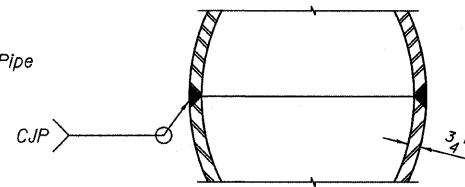
HANDHOLE FRAME



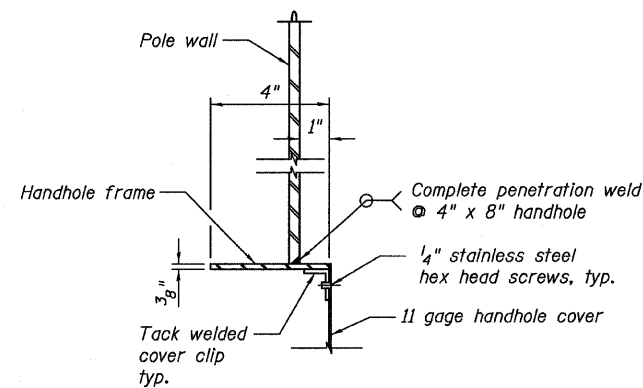
FLANGE SPLICE DETAILS



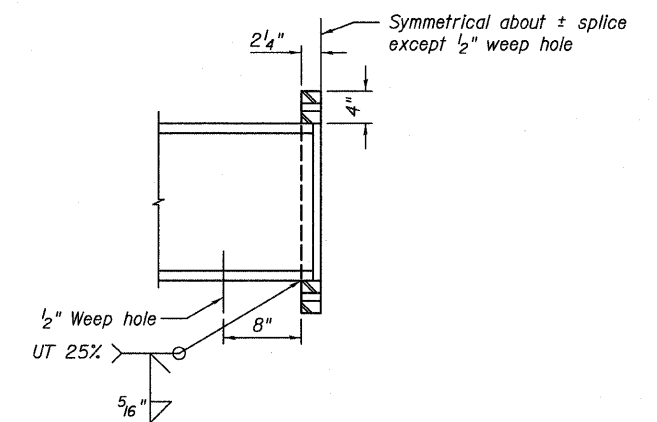
SECTION E-E



SECTION F-F



SECTION G-G



SECTION H-H

MONOTUBE SIGNAL STRUCTURE
ARM CONNECTION DETAILS
& TABLE OF VARIABLES

TYLIN INTERNATIONAL	DESIGNED - MAU	REVISIONS		SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	208	
	DRAWN - MAU				SHEETS		CONTRACT NO. 60999			
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

ELECTRICAL GENERAL NOTES:

1. CONTRACTOR TO EXERCISE EXTREME CAUTION IN THE VICINITY OF THE COM ED HIGH VOLTAGE TRANSMISSION LINES CROSSING OVER CENTRAL AVENUE.
2. SPECIAL CARE SHALL BE TAKEN DURING TRENCHING OPERATIONS DUE TO THE NUMBER OF UTILITIES ALONG INTERSTATE 55 AND CENTRAL AVENUE.
3. NO LIGHT POLE SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED PER ARTICLE 1020.13 OF THE STANDARD SPECIFICATIONS, AS APPROVED BY THE ENGINEER.
4. TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE ALUMINUM POLES WITH MAST ARMS, POLES SHALL NOT BE ERECTED WITHOUT THE LUMINAIRES. NOTE THAT THE POLES SHALL NOT BE PAID UNTIL THE LUMINAIRES ARE INSTALLED.
5. QUANTITIES OF PUSHED CONDUIT, CONDUIT IN TRENCH AND CONDUIT EMBEDDED IN STRUCTURE WHERE INDICATED ON PLAN DRAWINGS, ARE APPROXIMATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLETE COMPLIANCE WITH SPECIFIED REQUIREMENTS.
6. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR GROUNDING. GROUNDING CONNECTIONS AT FOUNDATIONS SHALL BE EXOTHERMIC, AS APPLICABLE, AND SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO ENERGIZING THE LIGHTING CIRCUITS.
7. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR A BURIED WARNING TAPE INCLUDED AS PART OF THE TRENCH AND BACKFILL FOR ROADWAY LIGHTING. THE INSTALLATION OF THE TAPE SHALL BE INSPECTED BY THE ENGINEER PRIOR TO BACKFILLING OR DURING PLOWING OPERATIONS, AS APPLICABLE.
8. EXISTING UNDERPASS LIGHTING MAY BE USED AS TEMPORARY LIGHTING AS NECESSARY TO SUPPLEMENT TEMPORARY UNDERPASS LIGHTING. TEMPORARY UNDERPASS LIGHTING SHALL BE WIRED AERIALLY DURING STAGE I AND SHALL BE REMOVED WHEN THE PERMANENT UNDERPASS LIGHTING IS INSTALLED AND IS FULLY OPERATIONAL AND AS DIRECTED BY THE ENGINEER. TEMPORARY UNDERPASS LUMINAIRES SHALL BECOME PROPERTY OF OWNER IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS ARTICLE 842.
9. DURING STAGE I, EXISTING OVERPASS LIGHTING POLES ON WEST SIDE OF CENTRAL AVENUE SHALL REMAIN OPERATIONAL AND SERVE AS TEMPORARY LIGHTING.
10. IN STAGE II, WHEN THE PROPOSED OVERPASS LIGHTING ON EAST SIDE OF CENTRAL AVENUE IS INSTALLED AND IS FULLY OPERATIONAL, THE EXISTING OVERPASS LIGHTING ON WEST SIDE OF CENTRAL AVENUE SHALL BE REMOVED AND BECOME PROPERTY OF THE CONTRACTOR TO BE DISPOSED OF OFF SITE AS DIRECTED BY THE ENGINEER.
11. IN STAGE I EXISTING LIGHT TOWER JCD1 SHALL BE WIRED AERIALLY DIRECTLY FROM EXISTING CONTROLLER J.
12. EXPANSION/DEFLECTION FITTINGS SHALL BE FURNISHED AND INSTALLED AT ALL LOCATIONS SUSCEPTIBLE TO EXPANSION, CONTRACTION, OR DEFLECTION. THE COST OF FURNISHING AND INSTALLING SUCH FITTINGS SHALL NOT BE PAID FOR SEPARATELY BUT, SHALL BE INCLUDED IN THE PRICE OF THE ASSOCIATED CONDUIT TO WHICH THESE FITTINGS ARE CONNECTED.

SINGH 300 W. ADAMS ST.
CHICAGO, IL 60606
SINGH & ASSOCIATES, INC. TEL: (312) 629-0240
CONSULTING ENGINEERS FAX: (312) 629-8449

USER NAME = #USER#	DESIGNED - MK	REVISED -
PLOT SCALE = #SCALE#	DRAWN - YJ	REVISED -
PLOT DATE = 3/22/2011	CHECKED - GR	REVISED -
	DATE - 3-25-2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CENTRAL AVENUE OVER I-55
ELECTRICAL GENERAL NOTES**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.



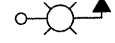

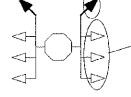
















F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9(H, HB & SB)R-1	COOK	741	209
CONTRACT NO. 60999				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

ABBREVIATIONS

AC	ALTERNATING CURRENT
A/C	AERIAL CABLE
AFG	ABOVE FINISHED GRADE
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CP	CONTROL PANEL
DA	DAVIT ARM
DC	DIRECT CURRENT
DIA	DIAMETER
DP	DISTRIBUTION PANEL
E	EXISTING UNIT TO REMAIN
EM	EXISTING UNIT TO BE MODIFIED
ER	EXISTING RELOCATED UNIT
ET	EXISTING TEMPORARY UNIT TO REMAIN
ETR	EXISTING TEMPORARY RELOCATED UNIT
FND	FOUNDATION
FT	FOOT
FU	FUSE
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
IN	INCH
JB	JUNCTION BOX
KVA	KILOVOLT - AMPERE
KW	KILOWATTS
MA	MAST ARM
MH	MOUNTING HEIGHT
NO, #	NUMBER
PB	PUSH BUTTON
PNL	PANEL
PT	POTENTIAL TRANSFORMER
R	EXISTING UNIT OR EQUIPMENT TO BE REMOVED (OWNER SALVAGED UNLESS NOTED OTHERWISE)
RR	EXISTING UNIT TO BE REMOVED AND REINSTALLED
RECP	RECEPTACLE
RGC	RIGID GALVANIZED CONDUIT
SEL SW	SELECTOR SWITCH
SS	STAINLESS STEEL
STA	STATION

T	TEMPORARY LIGHTING UNIT
TYP	TYPICAL
TEMP	TEMPORARY
TR	TEMPORARY UNIT TO BE REMOVED SALVAGE EQUIPMENT AS SPECIFIED
TRR	TEMPORARY UNIT TO BE REMOVED AND RELOCATED
UD	UNIT DUCT
WP	WEATHERPROOF
XFMR	TRANSFORMER

ELECTRICAL SYMBOLS

	35 FT MH ALUMINUM POLE, 8 FT MAST ARM, 200W HPS LUMINAIRE.
	EXISTING 32 FT MH ALUMINUM POLE, 6 FT MAST ARM, 200W HPS LUMINAIRE.
	35 FT MH COMBINATION TRAFFIC SIGNAL/LIGHT POLE, 8 FT MAST ARM, 200W HPS LUMINAIRE.
	EXISTING LIGHTING UNIT TO BE REMOVED
	PROPOSED TOWER LUMINAIRE, 750W HPS. EXISTING TOWER AND LUMINAIRE (750W HPS) TO REMAIN IN PLACE. ARROWS INDICATE THE QUANTITY AND ORIENTATION OF THE LUMINAIRES.
	UNDERPASS LIGHTING UNIT (PRIMARY LIGHT DISTRIBUTION PATTERN DIRECTION AS INDICATED BY ARROW). 70W HPS LUMINAIRE.
	TEMPORARY LIGHTING LUMINAIRE, 150W HPS
	JUNCTION BOX ATTACHED TO STRUCTURE, SIZE AS INDICATED
	EXISTING LIGHTING CONTROL CABINET
	EXISTING ELECTRIC SERVICE POLE
	TEMPORARY WOOD POLE, CLASS 4
	EXISTING TELEPHONE
	EXISTING GAS
	RACEWAY UNDERGROUND
	EXISTING RIGID STEEL CONDUIT IN TRENCH
	CONCEALED CONDUIT IN STRUCTURE
	EXPOSED CONDUIT
	AERIAL ELECTRIC CABLE WITH MESSENGER WIRE
	CONTROL CABINET DESIGNATION
	CIRCUIT DESIGNATION
	POLE NUMBER ON CIRCUIT

SCHEDULE OF QUANTITIES








DESCRIPTION	UNIT	QUANTITY
CONDUIT PUSHED, 4 " DIA., GALVANIZED STEEL	FOOT	71
CONDUIT PUSHED, 4 " DIA., PVC	FOOT	71
CONDUIT ATTACHED TO STRUCTURE, 1" DIA., GALVANIZED STEEL	FOOT	1307
CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	1155
CONDUIT ATTACHED TO STRUCTURE, 2 1/2" DIA., GALVANIZED STEEL	FOOT	30
CONDUIT EMBEDDED IN STRUCTURE, 1" DIA., PVC	FOOT	40
CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	30
CONDUIT EMBEDDED IN STRUCTURE, 2 1/2" DIA., PVC	FOOT	2339
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" x 6" x 4"	EACH	22
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" x 12" x 6"	EACH	33
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 16" x 12" x 6"	EACH	6
UNIT DUCT, 600V, 3-1C NO. 6, 1/C NO. 8 GROUND, (XLP-TYPE USE), 1" DIA., POLYETHYLENE	FOOT	157
UNIT DUCT, 600V, 3-1C NO. 2, 1/C NO. 4 GROUND, (XLP-TYPE USE), 1 1/4" DIA., POLYETHYLENE	FOOT	177
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	5339
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	3665
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 6	FOOT	3665
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 8	FOOT	233
AERIAL CABLE, 3-1/C NO. 1/0, WITH MESSENGER WIRE	FOOT	646
AERIAL CABLE, 3-1/C NO. 4, WITH MESSENGER WIRE	FOOT	734
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	295
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 200 WATT	EACH	24
LUMINAIRE, SODIUM VAPOR, HIGH MAST, HORIZONTAL MOUNT, 750 WATT	EACH	4
UNDERPASS LUMINAIRE, 70 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	22
UNDERPASS LUMINAIRE, 150 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	7
LIGHT POLE, ALUMINUM, 35 FT. M.H., 8 FT. MAST ARM	EACH	22
LIGHT POLE, WOOD, 30 FOOT, CLASS 4	EACH	5
REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	22
REMOVAL OF LIGHTING CONTROLLER	EACH	1
REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1
REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	377
ROD AND CLEAN EXISTING CONDUIT	FOOT	164
MODIFY EXISTING LIGHTING CONTROLLER	EACH	1
LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	24
MAINTENANCE OF EXISTING LIGHTING SYSTEM COMPLETE	L. SUM	1

SINGH 300 W. ADAMS ST. CHICAGO, IL 60606 SINGH & ASSOCIATES, INC. TEL: (312) 629-0240 CONSULTING ENGINEERS FAX: (312) 629-8449	USER NAME = #USER#	DESIGNED - MK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CENTRAL AVENUE OVER I-55 ELECTRICAL SYMBOLS, ABBREVIATIONS, SCHEDULE OF QUANTITIES			F.A. RTE. 55	SECTION 914, HB & SBIR-1	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 210
	PLOT SCALE = #SCALE#	CHECKED - GR	REVISED -		SCALE: 1" = 20'	SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO. 60999		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	
	PLOT DATE = 3/22/2011	DATE 3-25-2011	REVISED -									

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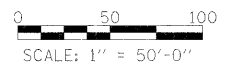
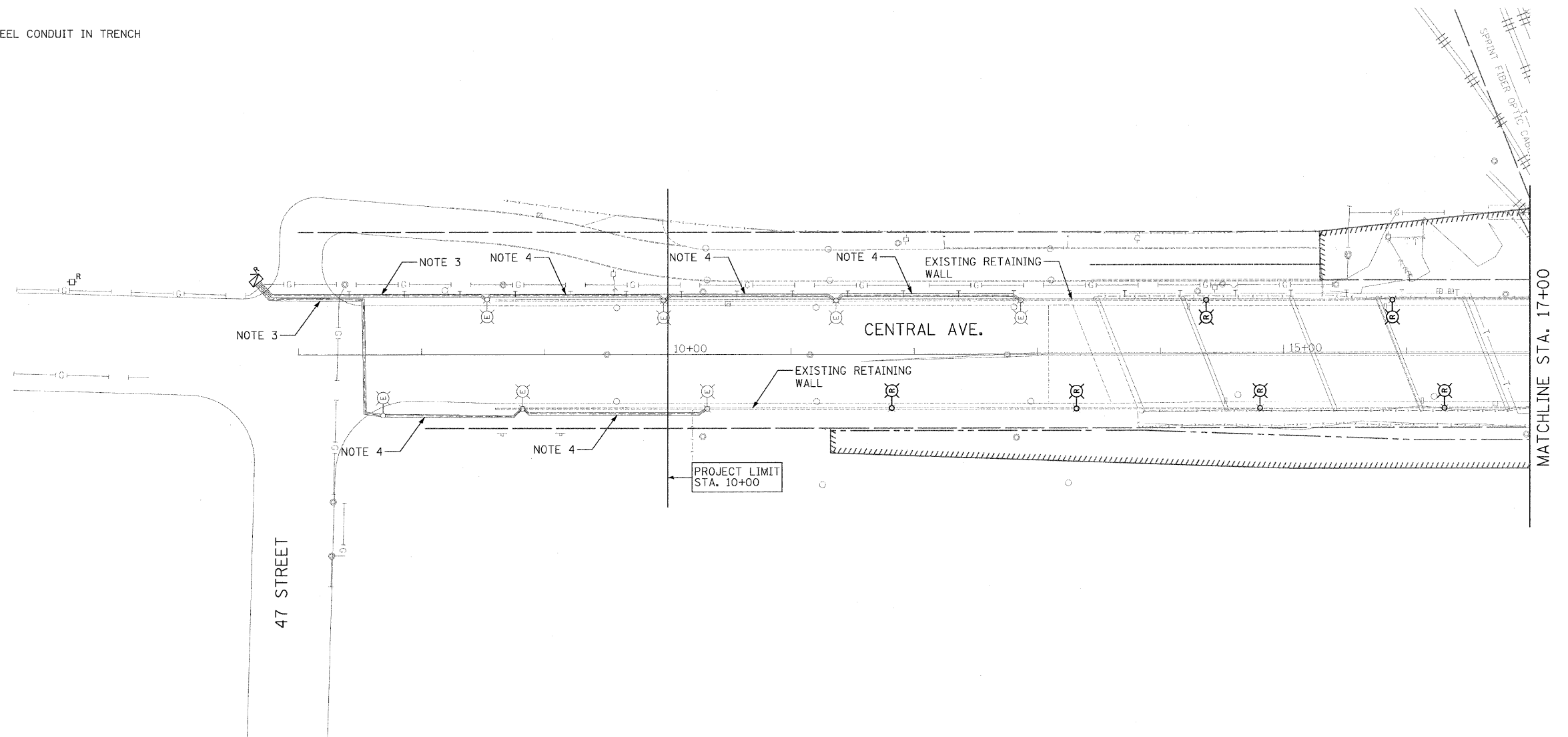
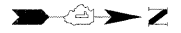
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ELECTRICAL SYMBOLS

-  EXISTING 32 FT MH ALUMINUM POLE, 6 FT MAST ARM, 200W HPS LUMINAIRE.
-  EXISTING LIGHTING UNIT TO BE REMOVED
-  EXISTING LIGHTING CONTROLLER AND FOUNDATION TO BE REMOVED
-  EXISTING SERVICE TO BE REMOVED
-  EXISTING TELEPHOLE
-  EXISTING GAS
-  EXISTING RIGID STEEL CONDUIT IN TRENCH

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL GENERAL NOTES.
2. SEE DRAWING E-2 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
3. REMOVE ELECTRICAL CABLE FROM CONDUIT. ABANDON CONDUIT.
4. EXISTING CABLE AND CONDUIT TO REMAIN OPERATIONAL FOR LIGHTING TO STAY IN PLACE.



E-3

SINGH 300 W. ADAMS ST.
CHICAGO, IL 60606
SINGH & ASSOCIATES, INC. TEL: (312) 629-0240
CONSULTING ENGINEERS FAX: (312) 629-8448

USER NAME = #USER#	DESIGNED - VG	REVISED -
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PLOT DATE = 3/22/2011	CHECKED - GR	REVISED -
	DATE - 3-25-2011	REVISED -







**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**




**CENTRAL AVENUE OVER I-55
LIGHTING REMOVAL PLAN**

SCALE: 50 SHEET NO. OF SHEETS STA. 7+00 TO STA. 17+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9th, HB & SBJR-1	COOK	741	211
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60999	

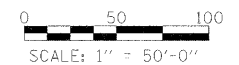
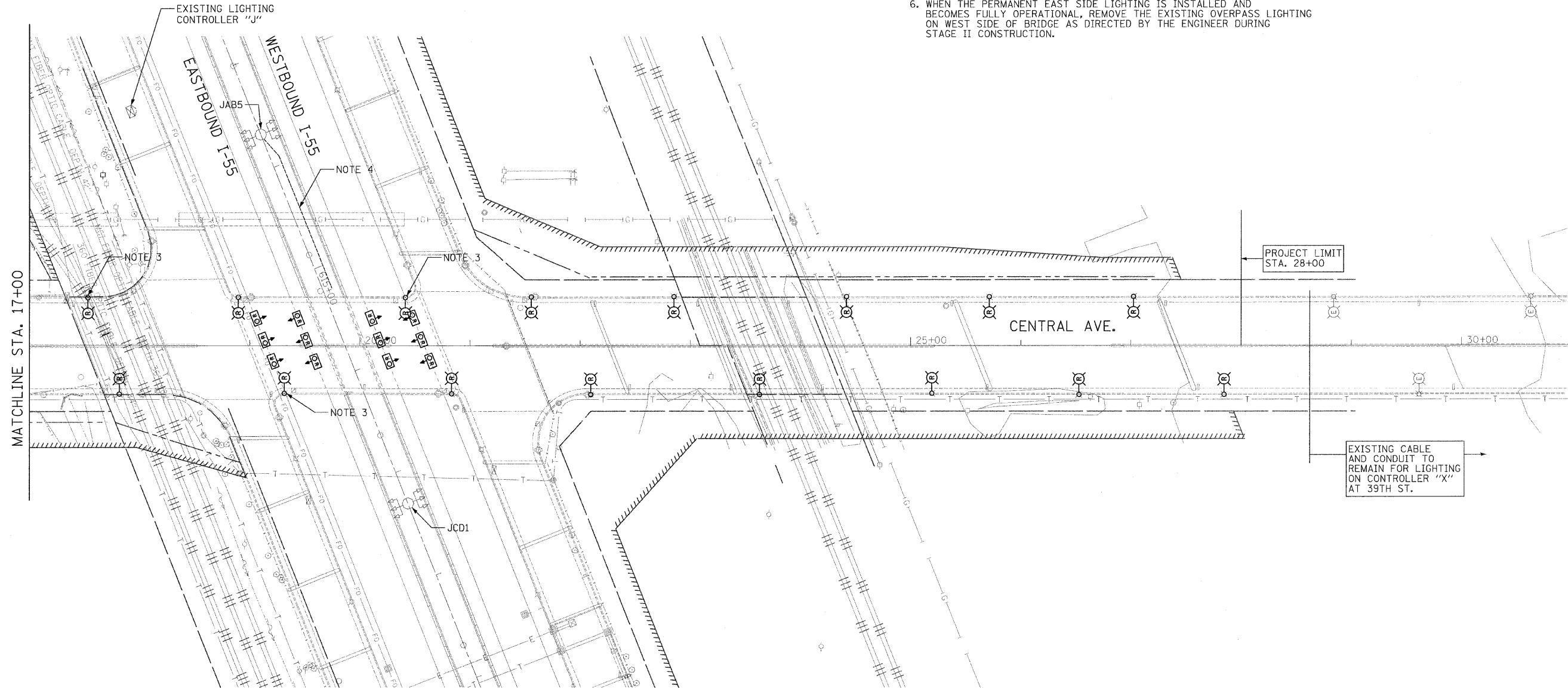
ELECTRICAL SYMBOLS

-  EXISTING LIGHTING UNIT TO REMAIN IN PLACE
-  EXISTING LIGHTING UNIT TO BE REMOVED
-  EXISTING LIGHTING CONTROLLER TO REMAIN IN PLACE
-  EXISTING ELECTRIC SERVICE POLE
-  EXISTING UNDERPASS LUMINAIRE TO BE REMOVED
-  EXISTING TOWER AND LUMINAIRES, 750W HPS, TO REMAIN IN PLACE, ARROWS INDICATE THE QUANTITY AND ORIENTATION OF LUMINAIRES

-  EXISTING TELEPHONE LINE
-  EXISTING GAS
-  EXISTING RIGID STEEL CONDUIT IN TRENCH

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL GENERAL NOTES.
2. SEE DRAWING E-2 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
3. REMOVE EXISTING LUMINAIRE AND MAST ARM FROM COMBINATION TRAFFIC SIGNAL/LIGHTING POLE.
4. IN STAGE II CONSTRUCTION DISCONNECT EXISTING ELECTRIC CABLES OF CKTS. A AND B FOR EXISTING UNDERPASS LIGHTING IN HAND HOLE OF TOWER JAB5 AND REMOVE FROM RACEWAY. ABANDON THE CABLE DUCT IN TRENCH.
5. EXISTING LIGHT POLES ON WEST SIDE OF BRIDGE TO REMAIN AND SERVE AS TEMPORARY LIGHTING DURING STAGE I CONSTRUCTION.
6. WHEN THE PERMANENT EAST SIDE LIGHTING IS INSTALLED AND BECOMES FULLY OPERATIONAL, REMOVE THE EXISTING OVERPASS LIGHTING ON WEST SIDE OF BRIDGE AS DIRECTED BY THE ENGINEER DURING STAGE II CONSTRUCTION.



E-4

SINGH 300 W. ADAMS ST.
CHICAGO, IL 60606
TEL: (312) 629-0240
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS FAX: (312) 629-8449

USER NAME = #USER#	DESIGNED - VG	REVISED -
PILOT SCALE = #SCALE#	DRAWN - YJ	REVISED -
PLOT DATE = 3/22/2011	CHECKED - GR	REVISED -
	DATE - 3-25-2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CENTRAL AVENUE OVER I-55
LIGHTING REMOVAL PLAN**

SCALE: 50 SHEET NO. OF SHEETS STA. 17+00 TO STA. 31+00

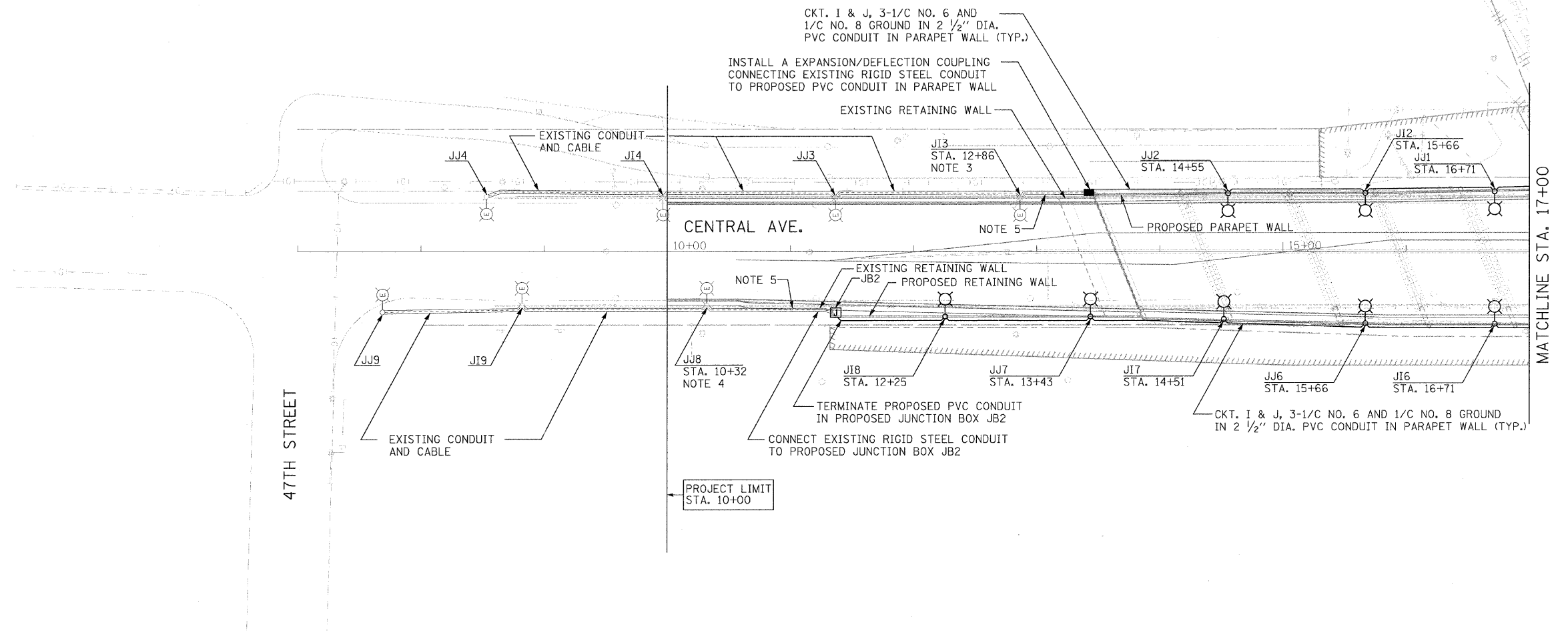
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9th, HB & SBJR-1	COOK	741	212
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60999	

ELECTRICAL SYMBOLS

	35FT MH ALUMINUM POLE, 8FT MAST ARM, 200W HPS LUMINAIRE.
	EXISTING 32FT MH ALUMINUM POLE 6FT MAST ARM, 200W HPS LUMINAIRE.
	JUNCTION BOX ATTACHED TO STRUCTURE, SIZE AS INDICATED
	EXISTING RIGID STEEL CONDUIT IN TRENCH
	EMBEDDED CONDUIT IN STRUCTURE

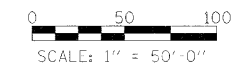
NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL GENERAL NOTES.
- SEE DRAWING E-2 FOR ELECTRICAL SYMBOLS, ABBREVIATIONS AND SCHEDULE OF QUANTITIES.
- CONNECT PROPOSED 3-1/C NO. 6 AND 1/C NO. 8 GROUND TO EXISTING ELECTRIC CABLES IN HANDHOLE OF POLE AT STA. 12+86.
- CONNECT PROPOSED 3-1/C NO. 6 AND 1/C NO. 8 GROUND TO EXISTING ELECTRIC CABLES IN HANDHOLE OF POLE AT STA. 10+32.
- ROD AND CLEAN EXISTING CONDUIT PRIOR TO PULLING NEW CABLES. PROPOSED 3-1/C NO. 6 AND 1/C NO. 8 GROUND IN EXISTING CONDUIT.



JUNCTION BOX SCHEDULE

NO.	SIZE (in.)	DESCRIPTION	QUANTITY
JB2	12 X 12 X 6	STAINLESS STEEL, ATTACHED TO STRUCTURE	1



E-5

SINGH 300 W. ADAMS ST.
CHICAGO, IL 60606
TEL: (312) 629-0240
SINGH & ASSOCIATES, INC. CONSULTING ENGINEERS FAX: (312) 629-8449

USER NAME = #USER#	DESIGNED - VG	REVISED -
	DRAWN - YJ	REVISED -
PLOT SCALE = #SCALE#	CHECKED - GR	REVISED -
PLOT DATE = 3/22/2011	DATE - 3-25-2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CENTRAL AVENUE OVER I-55
PROPOSED LIGHTING PLAN**

SCALE: 50 SHEET NO. OF SHEETS STA. 7+00 TO STA. 17+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9th, HB & SBR-1	COOK	741	213
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60999	

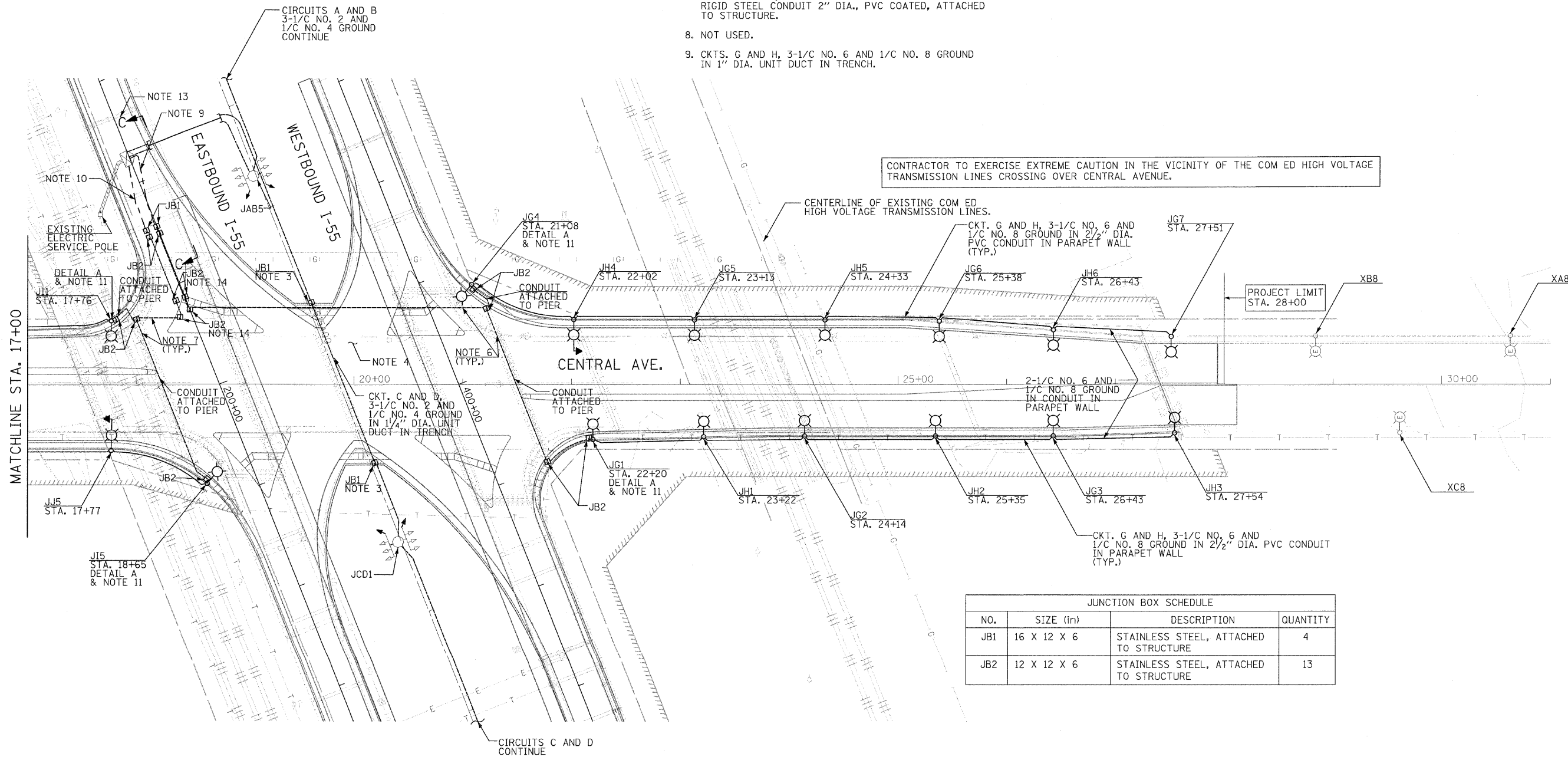
ELECTRICAL SYMBOLS

- 35FT MH ALUMINUM POLE, 8FT MAST ARM, 200W HPS LUMINAIRE.
- EXISTING 32FT MH ALUMINUM POLE 6FT MAST ARM, 200W HPS LUMINAIRE.
- 35FT MH COMBINATION TRAFFIC SIGNAL/LIGHT POLE, 8FT MAST ARM, 200W HPS LUMINAIRE.
- PROPOSED TOWER LUMINAIRE, 750W HPS. EXISTING TOWER AND LUMINAIRE (750W HPS) TO REMAIN IN PLACE. ARROWS INDICATE THE QUANTITY AND ORIENTATION OF THE LUMINAIRES.

- EXISTING LIGHTING CONTROL CABINET
- EXISTING ELECTRIC SERVICE POLE
- JUNCTION BOX ATTACHED TO STRUCTURE, SIZE AS INDICATED IN SCHEDULE.
- RACEWAY UNDERGROUND
- EXISTING RIGID STEEL CONDUIT IN TRENCH
- EMBEDDED CONDUIT IN STRUCTURE
- EXPOSED CONDUIT
-

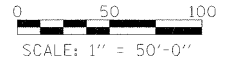
NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL GENERAL NOTES.
2. SEE DRAWING E-2 FOR ELECTRICAL SYMBOLS, ABBREVIATIONS AND SCHEDULE OF QUANTITIES.
3. RECOVER SUFFICIENT LENGTH OF EXISTING UNIT DUCT IN TRENCH WITH EXISTING 3-1/2\"/>
4. SEE DRAWING E-8 FOR PROPOSED UNDERPASS LIGHTING.
5. NOT USED.
6. CKTS. G AND H, 3-1/2\"/>
7. CKTS. I AND J, 3-1/2\"/>
8. NOT USED.
9. CKTS. G AND H, 3-1/2\"/>
10. CKTS. I AND J, 3-1/2\"/>
11. INSTALL A JB2 JUNCTION BOX OVER THE STUBBED CONDUIT BENEATH THE LIGHT POLE FOUNDATION AS SHOWN IN DETAIL A, SHEET E-9.
12. DISCONNECT CIRCUITS A, B, C AND D FROM 70A BREAKERS. FURNISH, INSTALL AND CONNECT FOUR (4) 80A BREAKERS TO CIRCUITS A, B, C AND D. CONNECT CIRCUITS E, F, G, H, I, J TO SEPARATE 70A BREAKERS.
13. SEE DRAWING E-9 FOR SECTION C-C.
14. SEE DRAWING E-9 DETAIL B FOR CONDUIT ROUTING OVER FACIA BEAM.



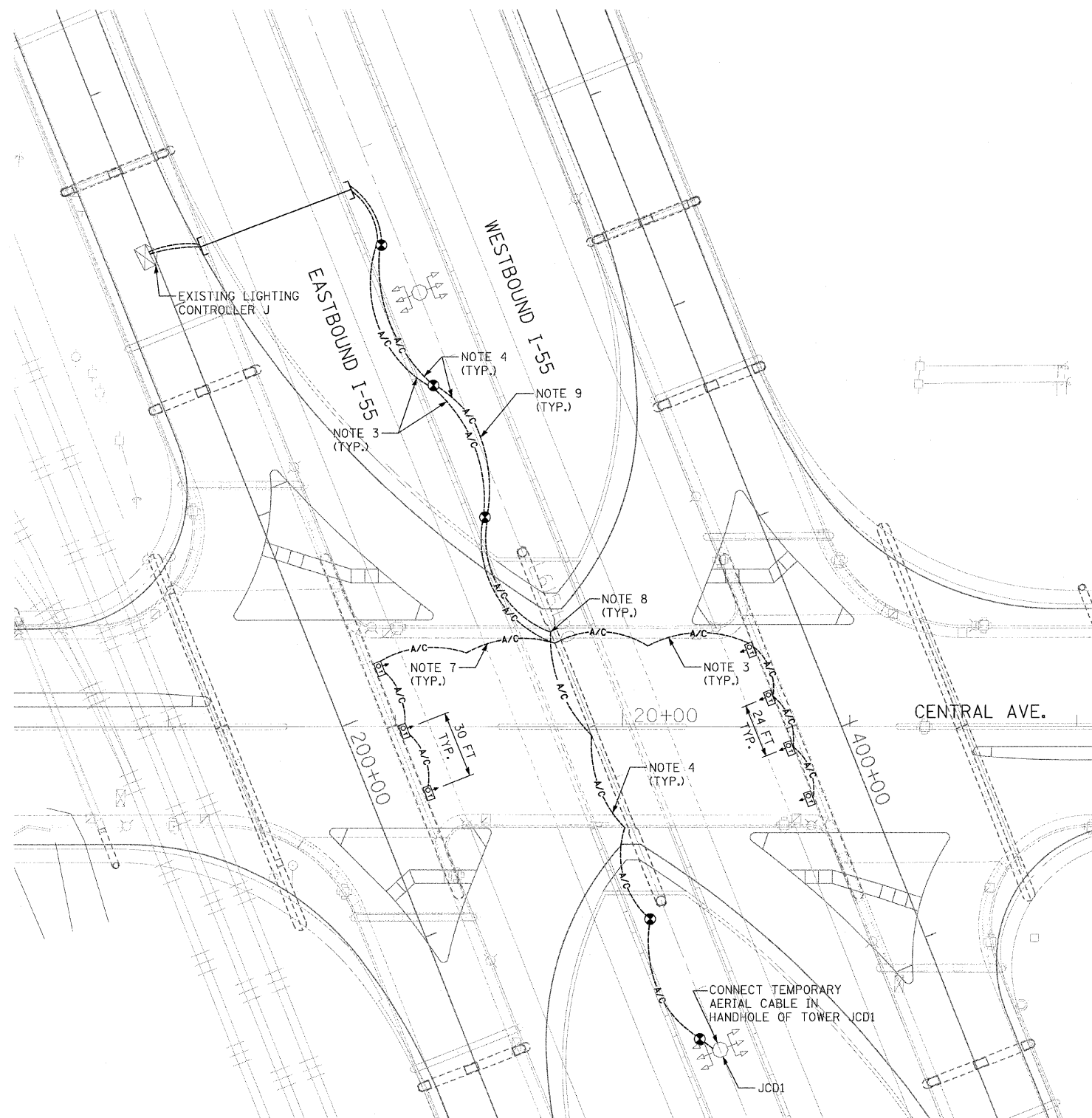
JUNCTION BOX SCHEDULE

NO.	SIZE (in)	DESCRIPTION	QUANTITY
JB1	16 X 12 X 6	STAINLESS STEEL, ATTACHED TO STRUCTURE	4
JB2	12 X 12 X 6	STAINLESS STEEL, ATTACHED TO STRUCTURE	13









E-6

<p>SINGH SINGH & ASSOCIATES, INC. CONSULTING ENGINEERS</p>	USER NAME = #USER# PLOT SCALE = #SCALE# PLOT DATE = 3/22/2011	DESIGNED - VG DRAWN - YJ CHECKED - GR DATE - 3-25-2011	REVISED - REVISED - REVISED - REVISED -	<p>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p>	<p>CENTRAL AVENUE OVER I-55 PROPOSED LIGHTING PLAN</p>	F.A. RTE. 55 SECTION 9(H), HB & SBIR-1 COUNTY COOK TOTAL SHEETS 741 SHEET NO. 214 CONTRACT NO. 60999
	SCALE: 50 SHEET NO. OF SHEETS STA. TO STA.				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

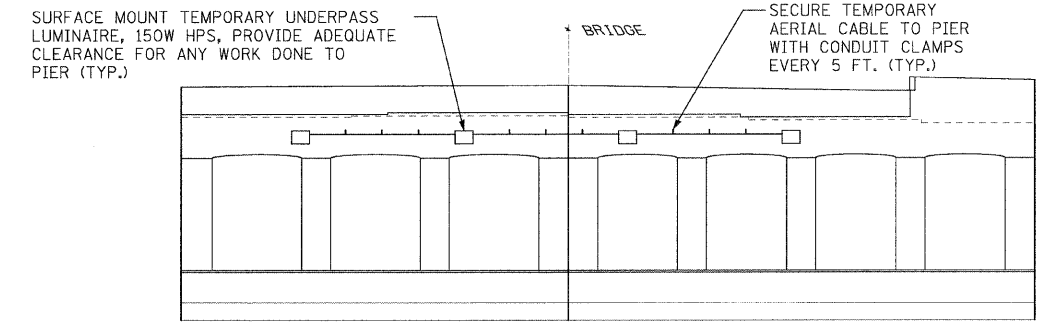


ELECTRICAL SYMBOLS

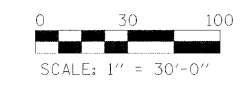
-  TEMPORARY LIGHTING LUMINAIRE, 150W HPS
-  EXISTING TOWER AND LUMINAIRE, 750W HPS, TO REMAIN IN PLACE. ARROWS INDICATE THE QUANTITY AND ORIENTATION OF THE LUMINAIRE.
-  EXISTING LIGHTING CONTROL CABINET TO REMAIN.
-  TEMPORARY WOOD POLE, CLASS 4, 30 FT UNLESS NOTED OTHERWISE
-  AERIAL ELECTRIC CABLE WITH MESSENGER WIRE
-  CONDUIT PUSHED, 4" DIA., PVC SCH 80

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL GENERAL NOTES.
2. SEE DRAWING E-2 FOR ELECTRICAL SYMBOLS, ABBREVIATIONS AND SCHEDULE OF QUANTITIES.
3. CKT. A & B, 3-1/2 NO. 4, ALUMINUM, WITH MESSENGER WIRE FOR TEMPORARY UNDERPASS LIGHTING REQUIRED IN STAGE II.
4. CKT. C & D, 3-1/2 NO. 1/0, ALUMINUM, WITH MESSENGER WIRE TO TOWER JCD1 REQUIRED IN STAGE I.
5. NOT USED.
6. NOT USED.
7. INSTALL AERIAL ELECTRIC CABLES ON TOP OF BEAM DIAPHRAGMS. FASTEN THE CABLES TO EACH DIAPHRAGM WITH SUITABLE CLAMPS AS REQUIRED.
8. FASTEN AERIAL CABLE TO EXISTING PIER WITH CONDUIT CLAMPS. SEE SHEET E-19 FOR DETAIL.
9. PROVIDE A MINIMUM CLEARANCE OF 20 FT.
10. THE TEMPORARY UNDERPASS LIGHTING SHALL BE REMOVED WHEN THE PERMANENT UNDERPASS LIGHTING IS INSTALLED AND BECOMES FULLY OPERATIONAL AND AS DIRECTED BY ENGINEER.



TEMPORARY LIGHTING DETAIL
SCALE: N.T.S



SINGH 300 W. ADAMS ST.
CHICAGO, IL 60606
SINGH & ASSOCIATES, INC. TEL: (312) 629-0240
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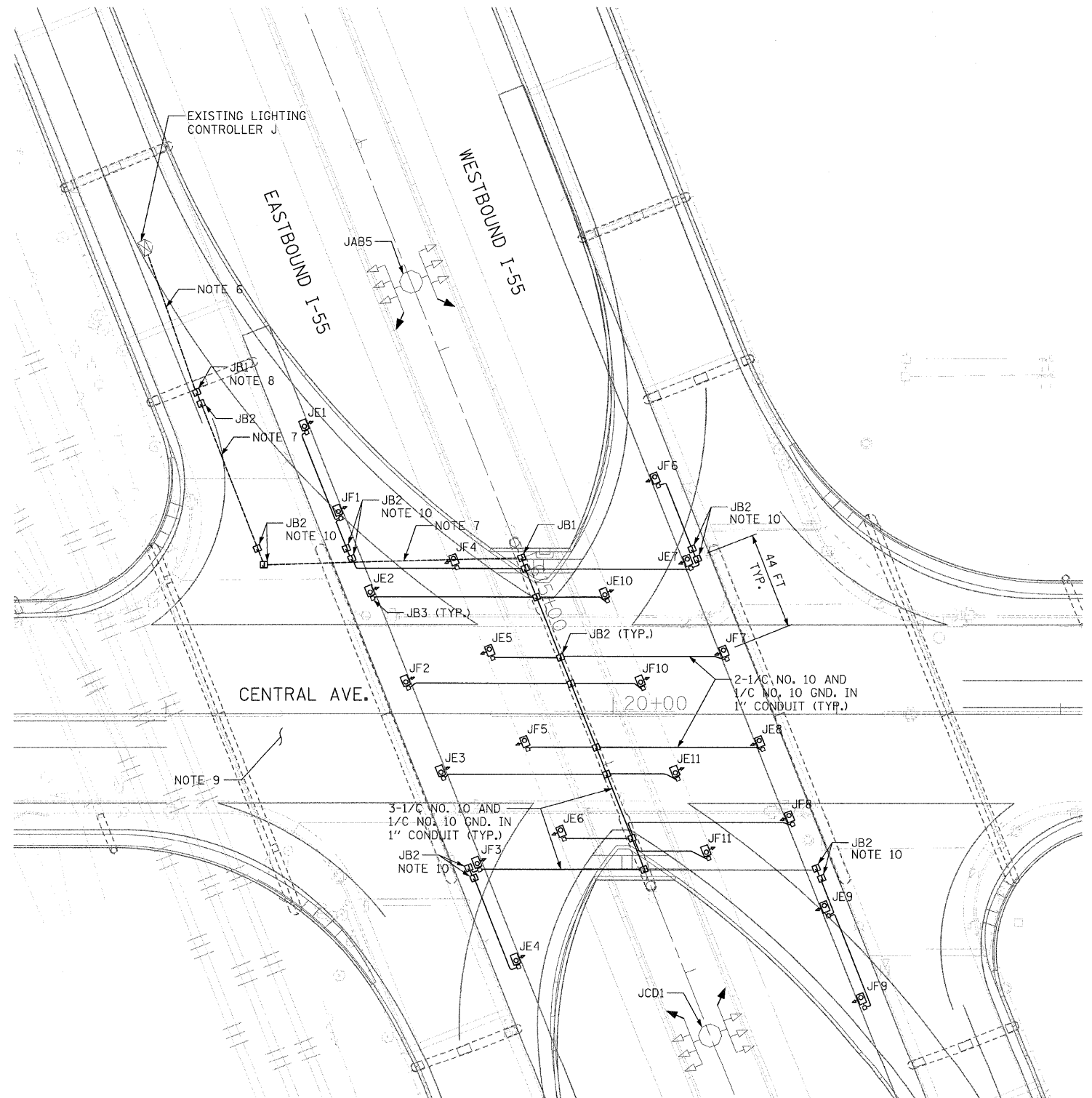
USER NAME = #USER#	DESIGNED - VG	REVISED -
PLOT SCALE = #SCALE#	DRAWN - AM	REVISED -
PLOT DATE = 3/22/2011	CHECKED - GR	REVISED -
	DATE - 3-25-2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CENTRAL AVENUE OVER I-55			
TEMPORARY LIGHTING PLAN			
SCALE: 30	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE. 55	SECTION 9th, HB & SBR-1	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 215
CONTRACT NO. 60999				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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ELECTRICAL SYMBOLS

PROPOSED TOWER LUMINAIRE, 750W HPS.
 EXISTING TOWER AND LUMINAIRE (750W HPS) TO REMAIN IN PLACE. ARROWS INDICATE THE QUANTITY AND ORIENTATION OF THE LUMINAIRES.

UNDERPASS LIGHTING UNIT (PRIMARY LIGHTING DISTRIBUTION PATTERN DIRECTION AS INDICATED BY ARROW). 70W HPS LUMINAIRE.

JUNCTION BOX ATTACHED TO STRUCTURE, SIZE AS INDICATED.

EXISTING LIGHTING CONTROL CABINET TO REMAIN.

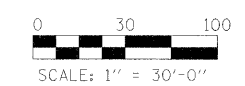
RIGID STEEL CONDUIT, 1" DIA., PVC COATED, ATTACHED TO STRUCTURE.

RACEWAY UNDERGROUND.

EXPOSED CONDUIT.

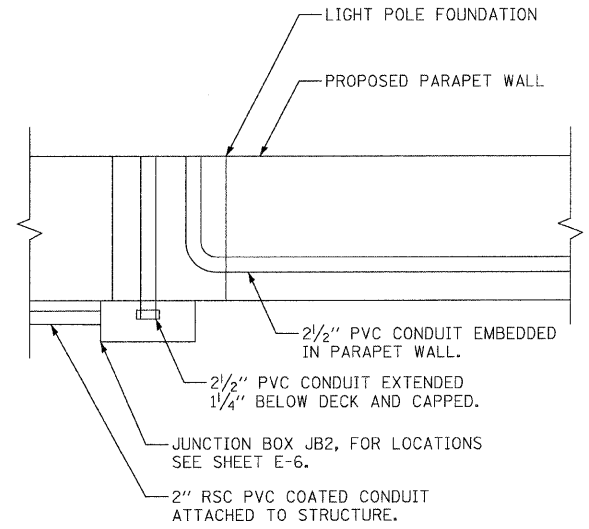
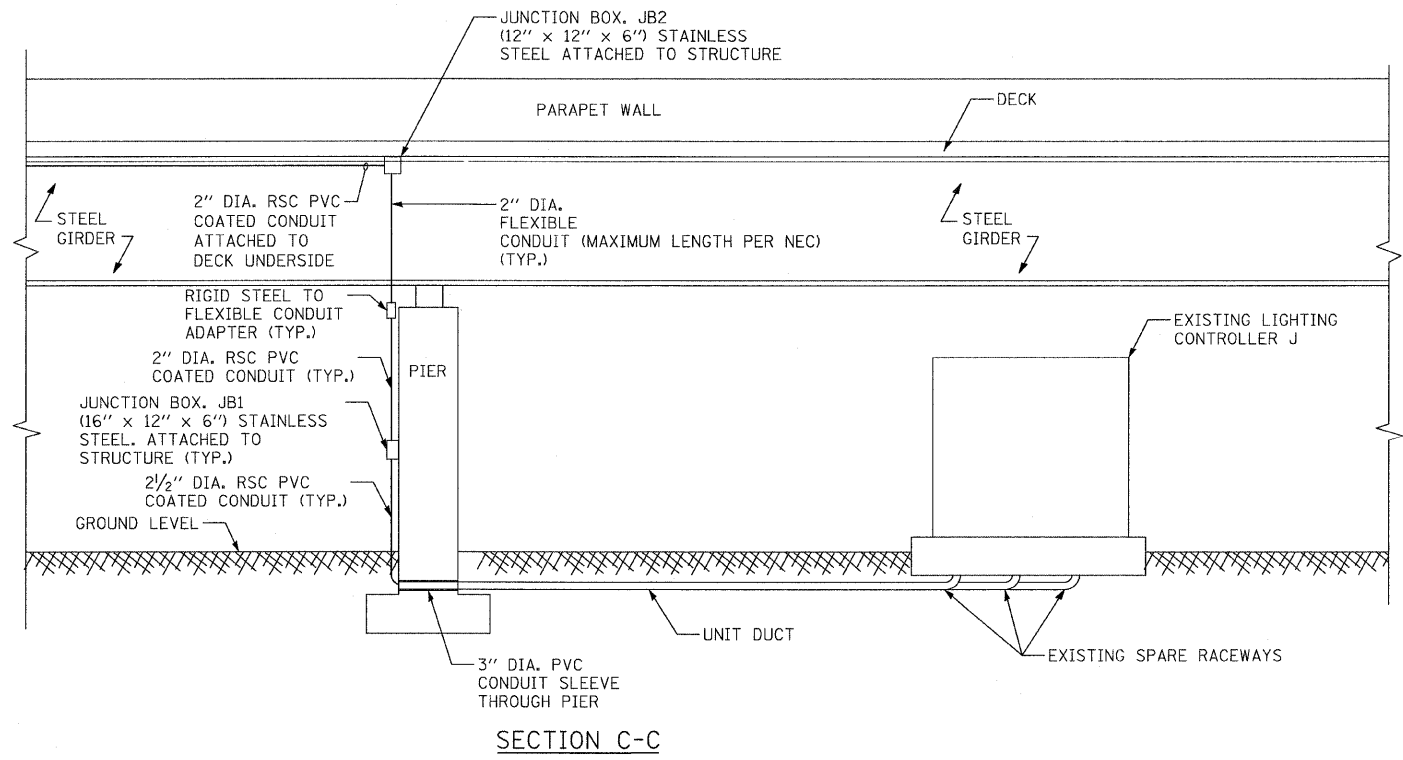
- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL GENERAL NOTES.
 - SEE DRAWING E-2 FOR ELECTRICAL SYMBOLS, ABBREVIATIONS AND SCHEDULE OF QUANTITIES.
 - SEE DRAWING E-9 AND E-19 FOR UNDERPASS LIGHTING DETAILS AND SECTIONS.
 - PROPOSED LUMINAIRES TO BE MOUNTED AT 2 FT. SET BACK FROM EDGE OF PAVEMENT.
 - INSTALL PROPOSED UNDERPASS LUMINAIRES AFTER THE COMPLETION OF THE BRIDGE DECK.
 - CKTS. E AND F, 3-1/2 NO. 6 AND 1/2 NO. 8 GROUND IN 1" DIA. UNIT DUCT IN TRENCH.
 - CKTS. E AND F, 3-1/2 NO. 8 AND 1/2 NO. 10 GROUND IN RIGID STEEL CONDUIT, 2" DIA., PVC COATED, ATTACHED TO STRUCTURE.
 - INSTALL 30A. FUSES WITH DISCONNECT TYPE FUSE HOLDERS FOR PHASE WIRES FOR CIRCUITS E AND F IN THE JB1 JUNCTION BOX. COST TO BE INCLUDED IN THE PRICE FOR JUNCTION BOX JB1.
 - SEE DRAWING E-6 FOR PROPOSED OVERPASS LIGHTING
 - SEE DRAWING E-9 DETAIL B FOR CONDUIT ROUTING OVER FACIA BEAMS.

JUNCTION BOX SCHEDULE			
NO.	SIZE (in)	DESCRIPTION	QUANTITY
JB1	16 X 12 X 6	STAINLESS STEEL, ATTACHED TO STRUCTURE	2
JB2	12 X 12 X 6	STAINLESS STEEL, ATTACHED TO STRUCTURE	19
JB3	6 X 6 X 4	STAINLESS STEEL, ATTACHED TO STRUCTURE	22

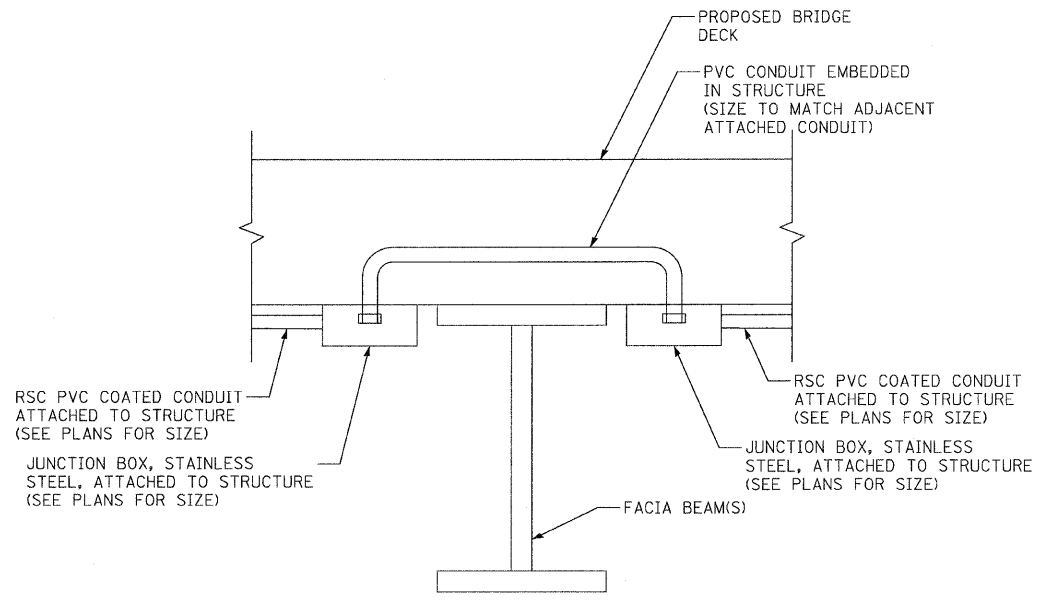


E-8

SINGH 300 W. ADAMS ST. CHICAGO, IL 60606 SINGH & ASSOCIATES, INC. CONSULTING ENGINEERS TEL: (312) 629-0240 FAX: (312) 629-8449	USER NAME = #USER# PLOT SCALE = #SCALE# PLOT DATE = 3/22/2011	DESIGNED - VG DRAWN - AM CHECKED - GR DATE - 3-25-2011	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CENTRAL AVENUE OVER I-55 PROPOSED UNDERPASS LIGHTING PLAN		F.A. RTE. 55 SECTION 9(H), HB & SB/R-1 COUNTY COOK TOTAL SHEETS 741 SHEET NO. 216 CONTRACT NO. 60999
	SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



DETAIL A



DETAIL B

SINGH
 SINGH & ASSOCIATES, INC.
 CONSULTING ENGINEERS

300 W. ADAMS ST.
 CHICAGO, IL 60606
 TEL: (312) 629-0240
 FAX: (312) 629-8449

USER NAME = #USER#	DESIGNED - MK	REVISED -
PLOT SCALE = #SCALE#	DRAWN - AM	REVISED -
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	DATE - 3-25-2011	REVISED -

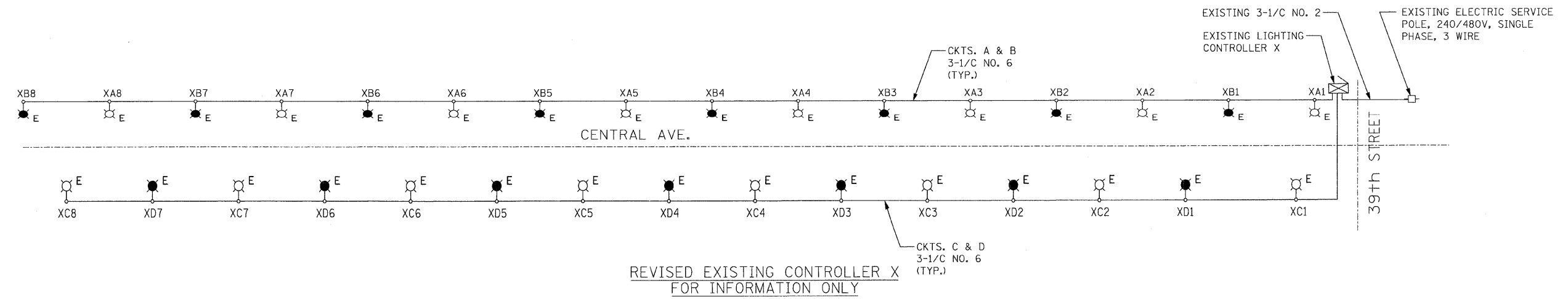
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CENTRAL AVENUE OVER I-55
 UNDERPASS LIGHTING DETAILS AND SECTIONS**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9H, HB & SBIR-1	COOK	741	217
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 60999				

- ELECTRICAL SYMBOLS**
- E EXISTING ROADWAY LUMINAIRE ON BLACK WIRE
 - E EXISTING ROADWAY LUMINAIRE ON RED WIRE
 - 3-1/C NO. 6 IN A RACEWAY, UNLESS NOTED OTHERWISE
 - ⊠ LIGHTING CONTROL CABINET
 - ELECTRIC SERVICE POLE



E-10

SINGH
 SINGH & ASSOCIATES, INC.
 CONSULTING ENGINEERS

300 W. ADAMS ST.
 CHICAGO, IL 60606
 TEL: (312) 629-0240
 FAX: (312) 629-8449

USER NAME = #USER#	DESIGNED - VG	REVISED -
PLOT SCALE = #SCALE#	DRAWN - AM	REVISED -
PLOT DATE = 3/22/2011	CHECKED - GR	REVISED -
	DATE - 3-25-2011	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CENTRAL AVENUE OVER I-55 WIRING DIAGRAM CONTROLLER X			
SCALE: 1" = 20'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9(H, HB & SBJR-1)	COOK	741	218
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 60999				

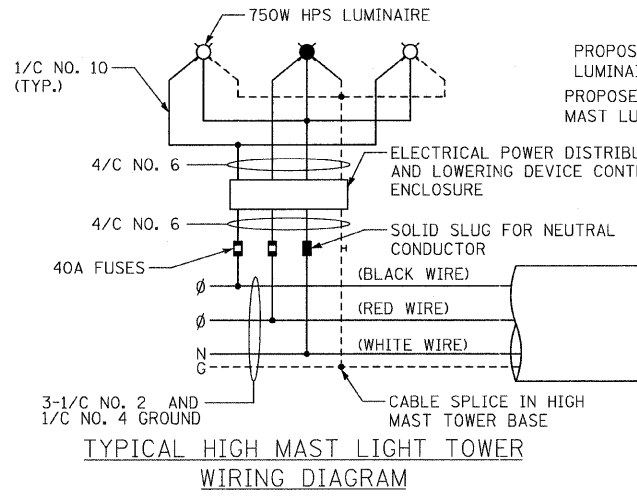
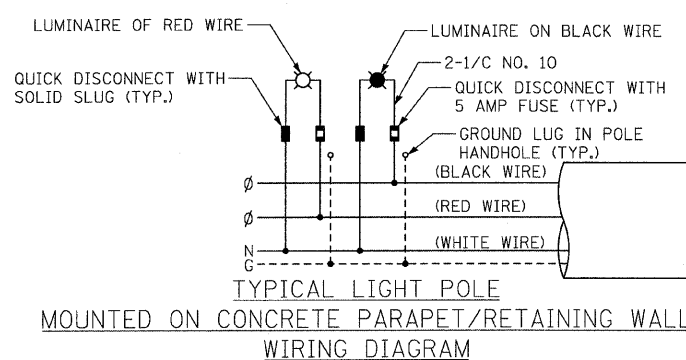
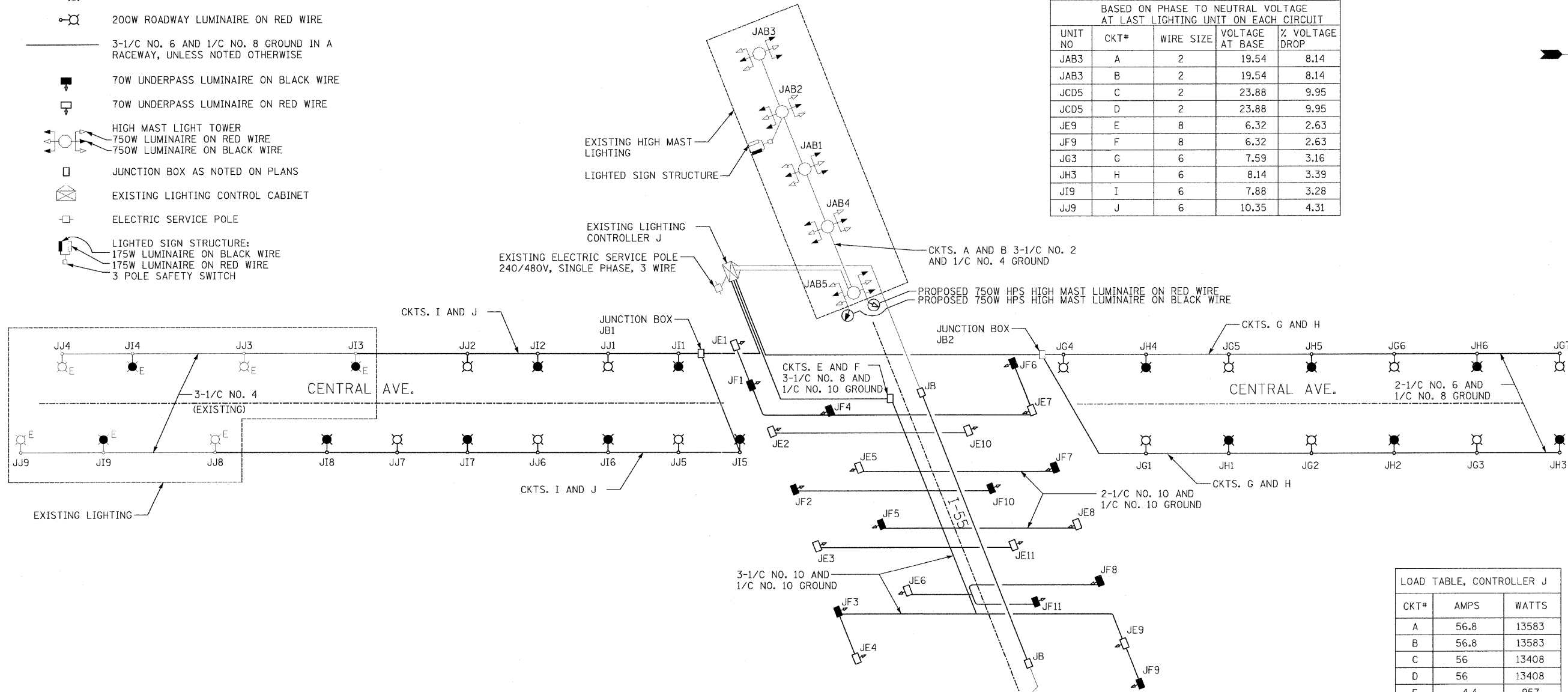
ELECTRICAL SYMBOLS

- 200W ROADWAY LUMINAIRE ON BLACK WIRE
- 200W ROADWAY LUMINAIRE ON RED WIRE
- 3-1/2 NO. 6 AND 1/2 NO. 8 GROUND IN A RACEWAY, UNLESS NOTED OTHERWISE
- 70W UNDERPASS LUMINAIRE ON BLACK WIRE
- 70W UNDERPASS LUMINAIRE ON RED WIRE
- HIGH MAST LIGHT TOWER
750W LUMINAIRE ON RED WIRE
750W LUMINAIRE ON BLACK WIRE
- JUNCTION BOX AS NOTED ON PLANS
- EXISTING LIGHTING CONTROL CABINET
- ELECTRIC SERVICE POLE
- LIGHTED SIGN STRUCTURE:
175W LUMINAIRE ON BLACK WIRE
175W LUMINAIRE ON RED WIRE
3 POLE SAFETY SWITCH

VOLTAGE DROP TABLE, CONTROLLER J

BASED ON PHASE TO NEUTRAL VOLTAGE AT LAST LIGHTING UNIT ON EACH CIRCUIT

UNIT NO	CKT#	WIRE SIZE	VOLTAGE AT BASE	% VOLTAGE DROP
JAB3	A	2	19.54	8.14
JAB3	B	2	19.54	8.14
JCD5	C	2	23.88	9.95
JCD5	D	2	23.88	9.95
JE9	E	8	6.32	2.63
JF9	F	8	6.32	2.63
JG3	G	6	7.59	3.16
JH3	H	6	8.14	3.39
JI9	I	6	7.88	3.28
JJ9	J	6	10.35	4.31

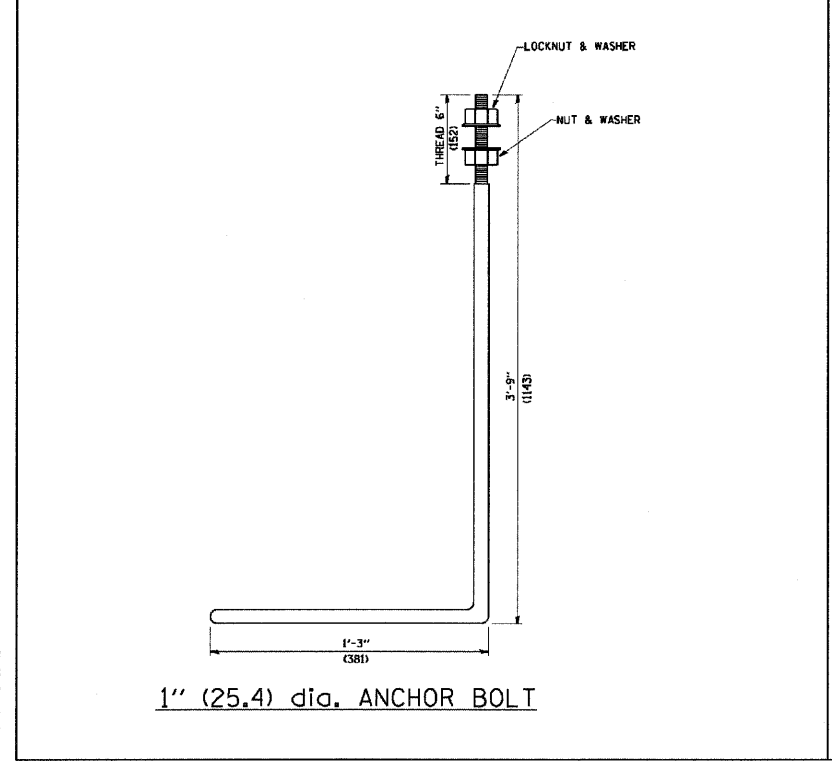
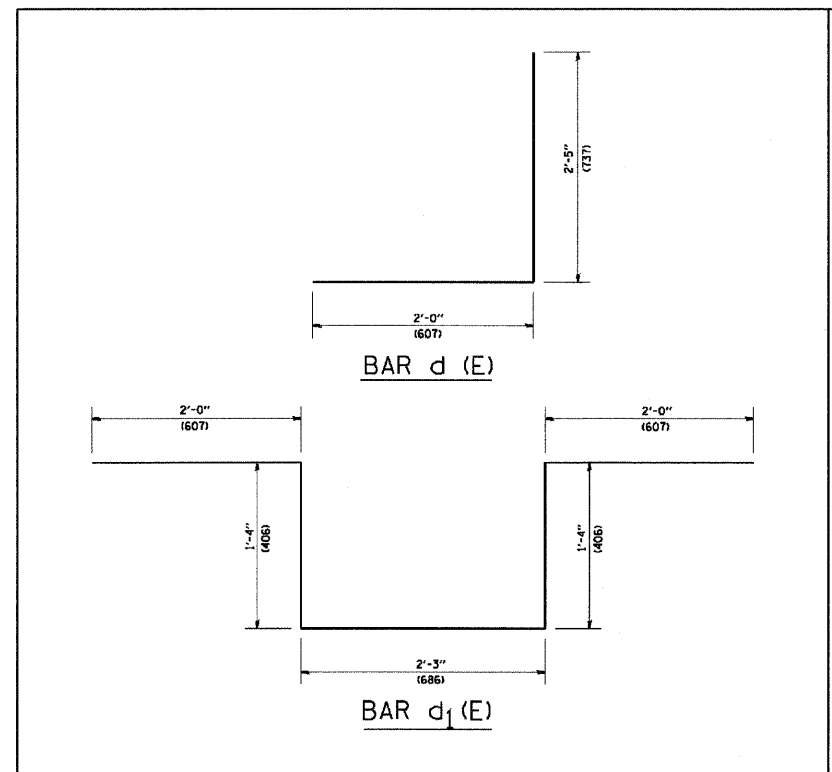


LOAD TABLE, CONTROLLER J

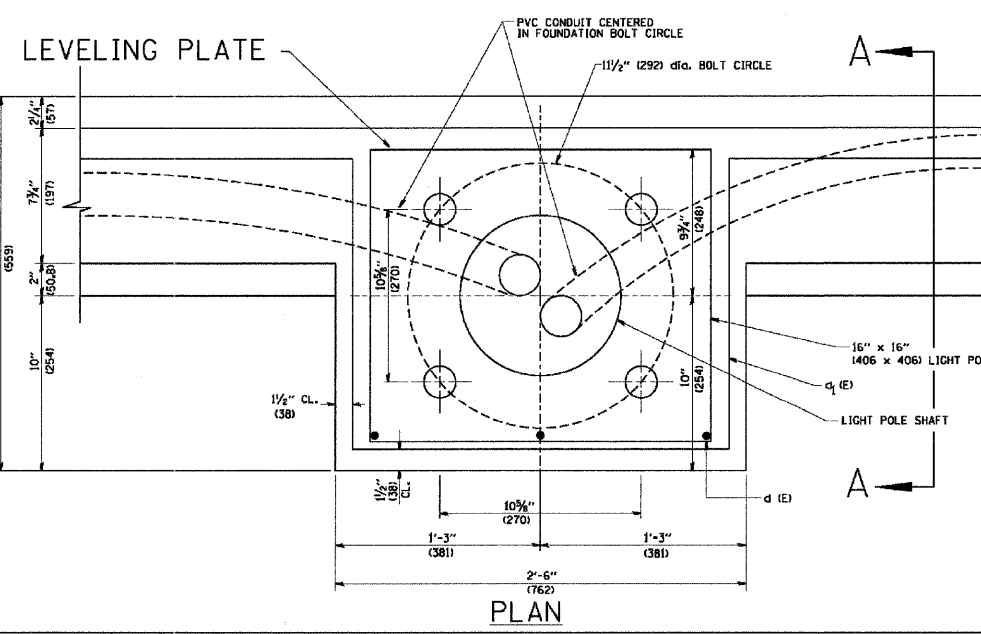
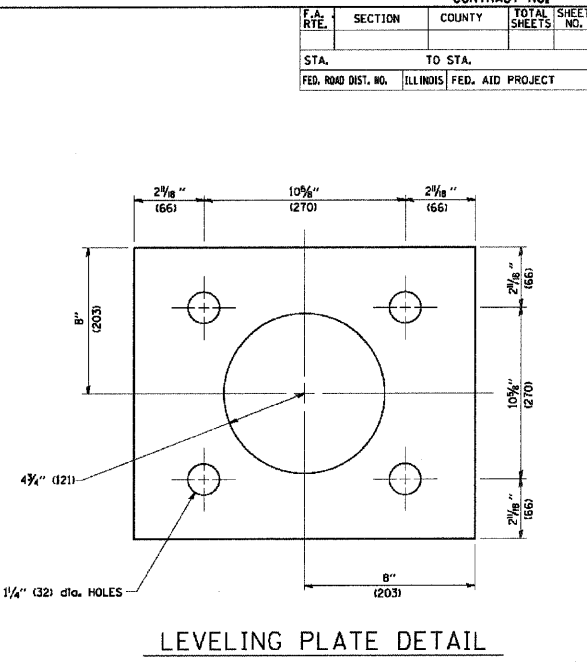
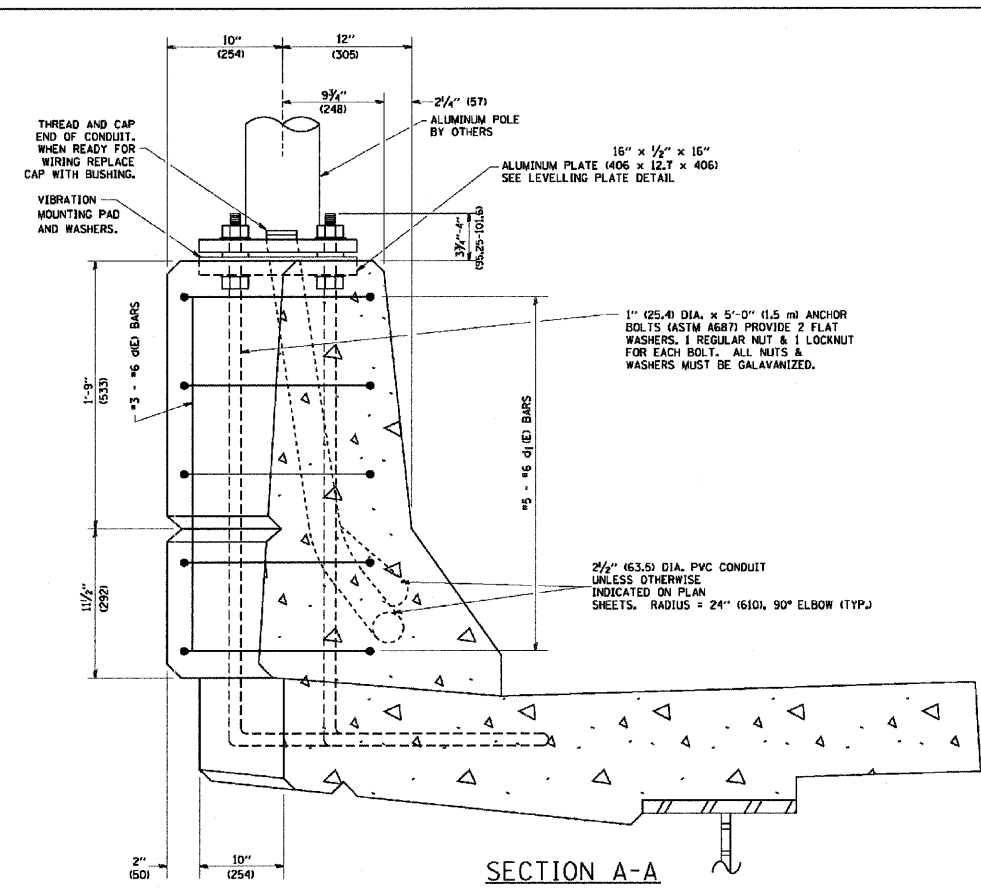
CKT#	AMPS	WATTS
A	56.8	13583
B	56.8	13583
C	56	13408
D	56	13408
E	4.4	957
F	4.4	957
G	7.7	1722
H	6.6	1476
I	9.9	2214
J	9.9	2214
K	SPARE	0
L	SPARE	0
M	SPARE	0
N	SPARE	0
O	SPARE	0
P	SPARE	0
TOTAL	137(A)/137(B)	64488

SINGH 300 W. ADAMS ST. CHICAGO, IL 60606 SINGH & ASSOCIATES, INC. CONSULTING ENGINEERS TEL: (312) 629-0240 FAX: (312) 629-8449 PLOT DATE = 3/22/2011	USER NAME = #USER# PLOT SCALE = #SCALE# DATE = 3-25-2011	DESIGNED - MK DRAWN - AM CHECKED - GR REVISIONS:	DESIGNED - MK DRAWN - AM CHECKED - GR REVISIONS:	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CENTRAL AVENUE OVER I-55 WIRING DIAGRAM CONTROLLER J	F.A. RTE. 55 SECTION 9H, HB & SBIR-1 COUNTY COOK TOTAL SHEETS 741 SHEET NO. 219 CONTRACT NO. 60999	SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.
	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT						

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PLOT DATE = 6/28/07
 FILE NAME = s:\projects\160999\160999.dgn
 PLOT SCALE = 1/8" = 1'-0" / IN.
 USER NAME = jg12



- NOTES**
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 2. LEVEL LIGHT POLE PLATES, USING THE FLANGE NUTS, PRIOR TO POURING THE PARAPET WALL. THE TOP OF THE PLATE SHALL BE AT THE SAME ELEVATION AS THE FINISHED CONCRETE PARAPET.
 3. THE COST OF ANCHOR BOLTS, CONDUIT, LEVELLING PLATE AND FOUNDATION IS INCLUDED IN THE COST OF THE BRIDGE STRUCTURE.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		
	06/28/07		

SCALE: NONE DRAWN BY: BE-329
 CHECKED BY: BE-329

SINGH
 SINGH & ASSOCIATES, INC.
 CONSULTING ENGINEERS

300 W. ADAMS ST.
 CHICAGO, IL 60606
 TEL: (312) 629-0240
 FAX: (312) 629-8449

USER NAME = #USER#	DESIGNED - MK	REVISIONS -
PLOT SCALE = #SCALE#	DRAWN - YJ	REVISIONS -
PLOT DATE = 3/22/2011	CHECKED - GR	REVISIONS -
	DATE - 3-25-2011	REVISIONS -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

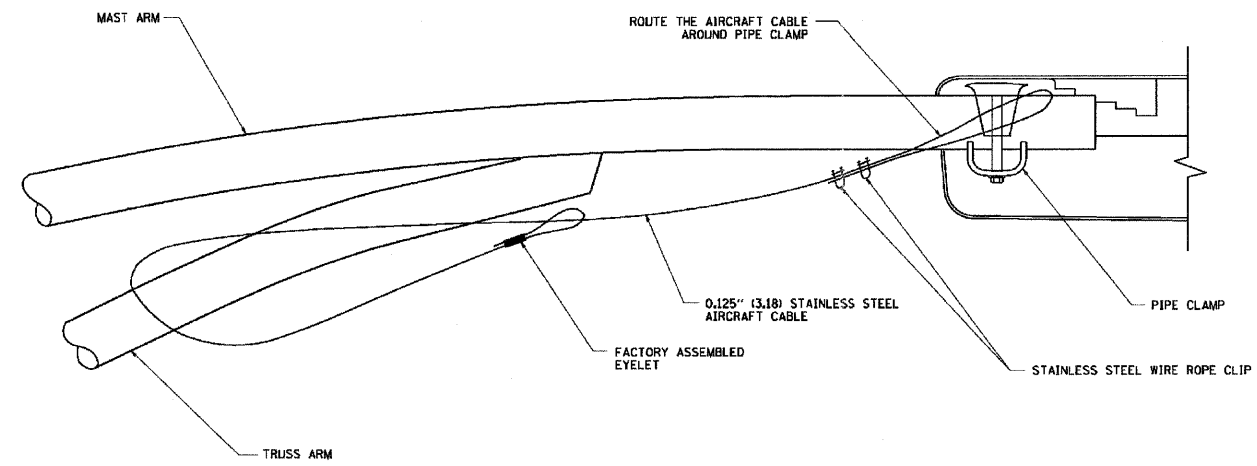
**CENTRAL AVENUE OVER I-55
 IDOT LIGHTING STANDARD DETAILS**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

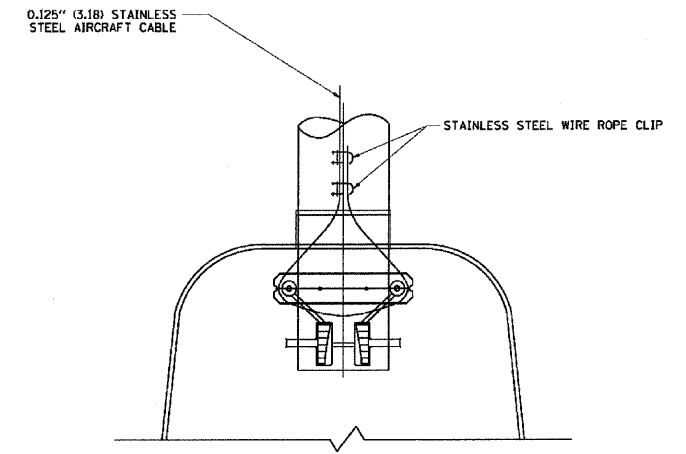
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9(H, HB & SB)R-1	COOK	741	220
CONTRACT NO. 60999				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

J:\155\dgn\0160999-sht-details14.dgn

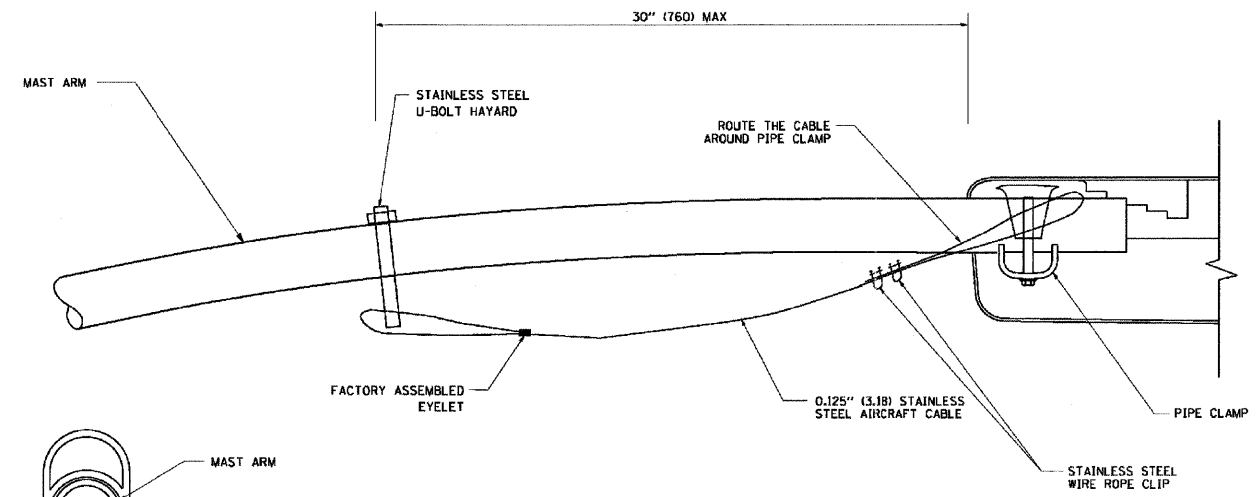
CONTRACT NO.			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	



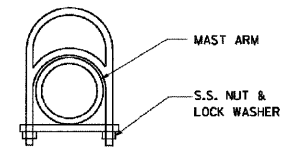
SIDE VIEW (TRUSS ARM)
N.T.S.



BOTTOM VIEW
N.T.S.



SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)
N.T.S.



STAINLESS STEEL U-BOLT HAYARD

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
 2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
 3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
 4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

REVISIONS	
NAME	DATE
	08/08/03

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE SAFETY CABLE ASSEMBLY
SCALE: VERT. NONE
HORIZ. DRAWN BY
CHECKED BY
BE-701

PLOT DATE = 4/16/07
FILE NAME = 0160999-014.dgn
PLOT SCALE = 1/8" = 1'-0"
USER NAME = USER

SINGH 300 W. ADAMS ST.
CHICAGO, IL 60606
TEL: (312) 629-0240
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS FAX: (312) 629-8449

USER NAME = #USER#
DESIGNED - MK
DRAWN - YJ
CHECKED - GR
DATE - 3-25-2011
PLOT SCALE = #SCALE#
PLOT DATE = 3/22/2011

REVISIONS
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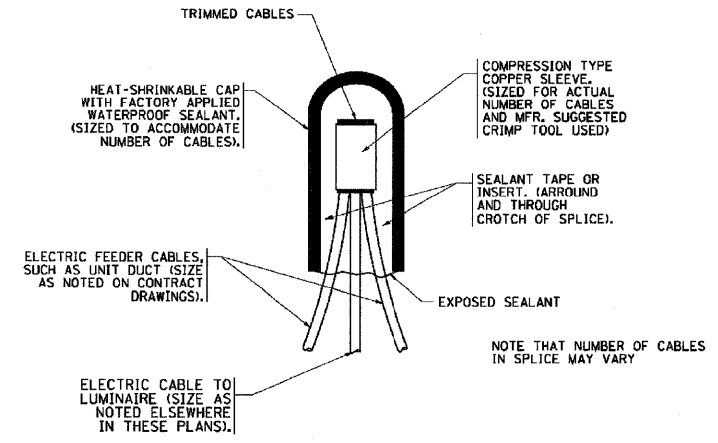
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

CENTRAL AVENUE OVER I-55 IDOT LIGHTING STANDARD DETAILS
SCALE: 1" = 20'
SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9(H, HB & SB)R-1	COOK	741	222
CONTRACT NO. 60999				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

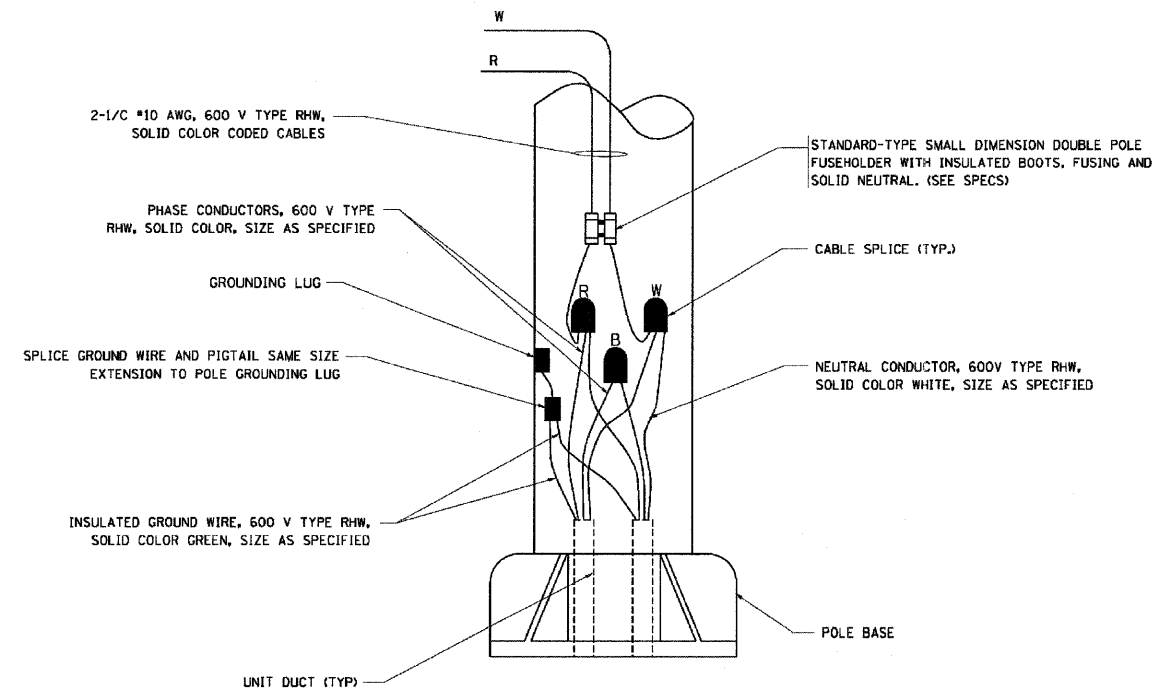
J:\155\dgn\0160999-sht-details14.dgn

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

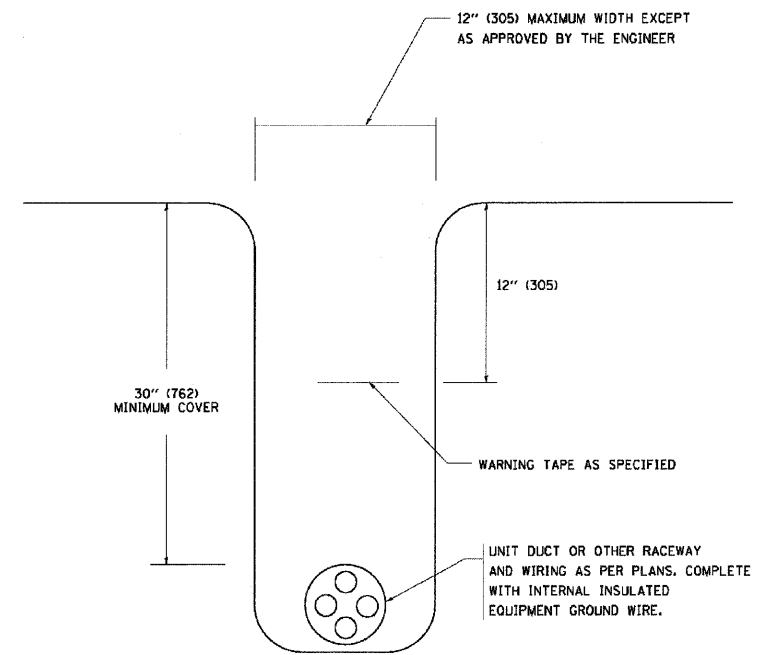


TYPICAL SPLICE DETAIL
N.T.S.

NOTE THAT NUMBER OF CABLES IN SPLICE MAY VARY



POLE WIRING DETAIL
N.T.S.



TYPICAL WIRING IN TRENCH DETAIL
N.T.S.

PLOT DATE = 4/18/07
 FILE NAME = K:\GIS\155\155-sht-details\155.dgn
 PLOT SCALE = 0.0000 1/16"
 USER NAME = USER#

REVISIONS	
NAME	DATE
	08/08/03

ILLINOIS DEPARTMENT OF TRANSPORTATION

MISC. ELECTRICAL DETAILS
SHEET A

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY
BE-702

SINGH 300 W. ADAMS ST.
CHICAGO, IL 60606
TEL: (312) 629-0240
FAX: (312) 629-8449
CONSULTING ENGINEERS

USER NAME = #USER#
DESIGNED - MK
DRAWN - YJ
CHECKED - GR
DATE - 3-25-2011

REVISOR -
REVISION -
REVISOR -
REVISION -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

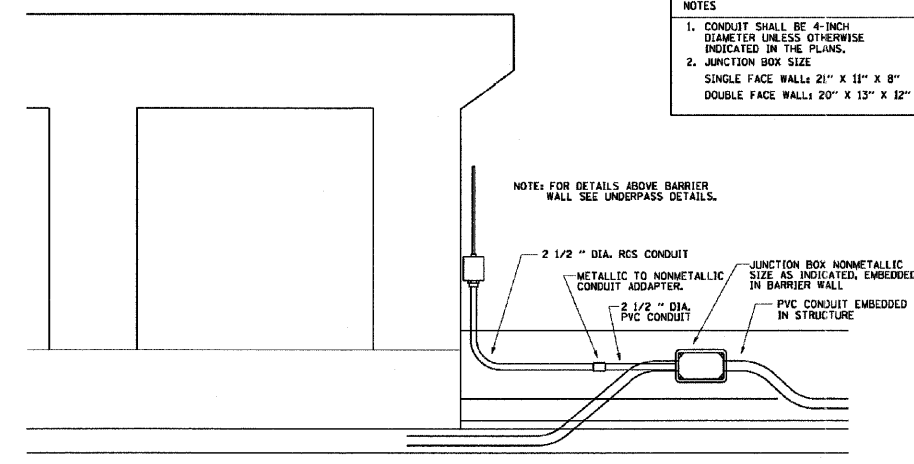
CENTRAL AVENUE OVER I-55
IDOT LIGHTING STANDARD DETAILS

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

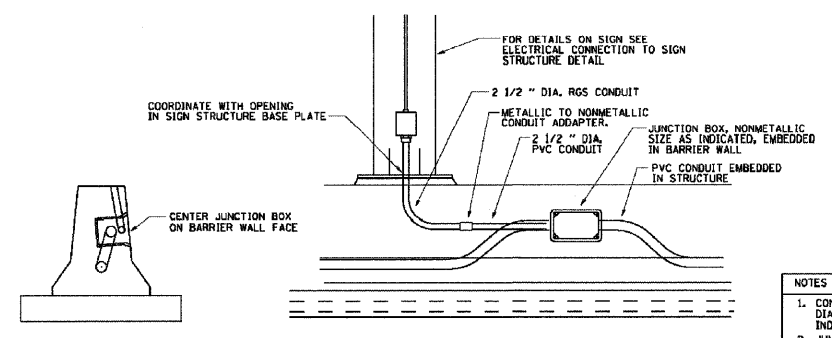
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9(H, HB & SB)R-1	COOK	741	223
CONTRACT NO. 60999				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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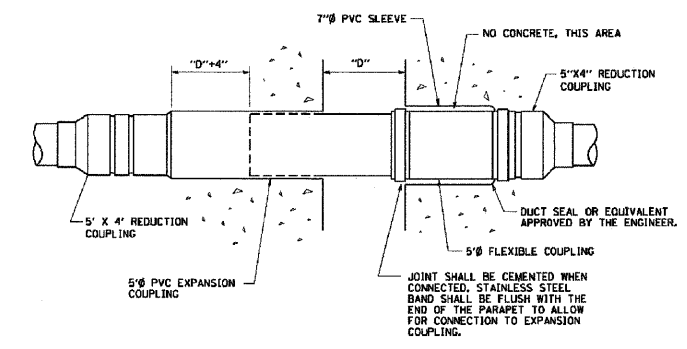
CONTRACT NO.			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	



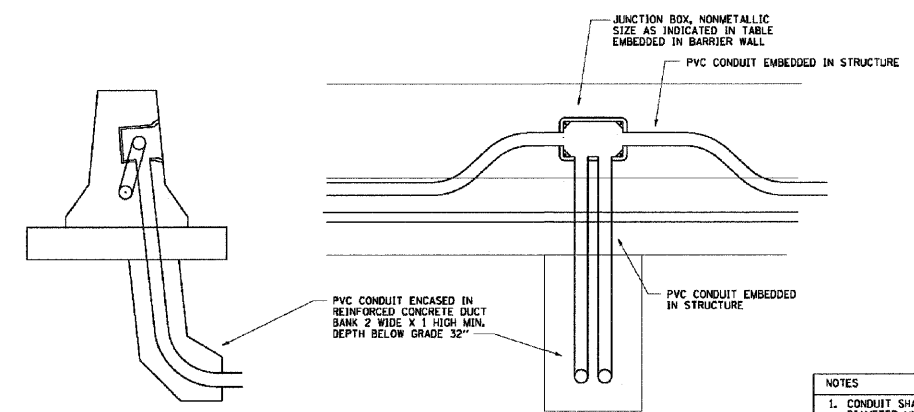
ED - BWD
ELECTRIC CONNECTION TO UNDERPASS LIGHTING



ED - SGN
JUNCTION BOX EMBEDDED IN BARRIER WALL FOR SIGN LIGHTING



INSTALLATION OF CONDUIT
IN BRIDGE PARAPET EXPANSION JOINT
(N.T.S.)



ED - BW
JUNCTION BOX EMBEDDED IN BARRIER WALL

NOTES
1. CONDUIT SHALL BE 4-INCH DIAMETER UNLESS OTHERWISE INDICATED IN THE PLANS.
2. JUNCTION BOX SIZE
SINGLE FACE WALL: 21" X 11" X 8"
DOUBLE FACE WALL: 20" X 13" X 12"

PLOT DATE = 2/20/2011
PLOT SCALE = 1/8" = 1'-0"
PLOT USER = gajindant

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		
CREATED	01/20/2009	MISC. ELECTRICAL DETAILS, SHEET B J BOX EMBEDDED IN BARRIER WALL - INSTALLATION OF CONDUIT IN BRIDGE PARAPET EXPANSION JOINT - ELECTRIC CONNECTION TO UNDERPASS LIGHTING	
		SCALE: NONE	DRAWN BY
			CHECKED BY

BE-703

SINGH 300 W. ADAMS ST.
CHICAGO, IL 60606
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USER NAME = #USER#
DESIGNED - MK
DRAWN - YJ
CHECKED - GR
DATE - 3-25-2011

REVISOR
REVISED -
REVISED -
REVISED -
REVISED -

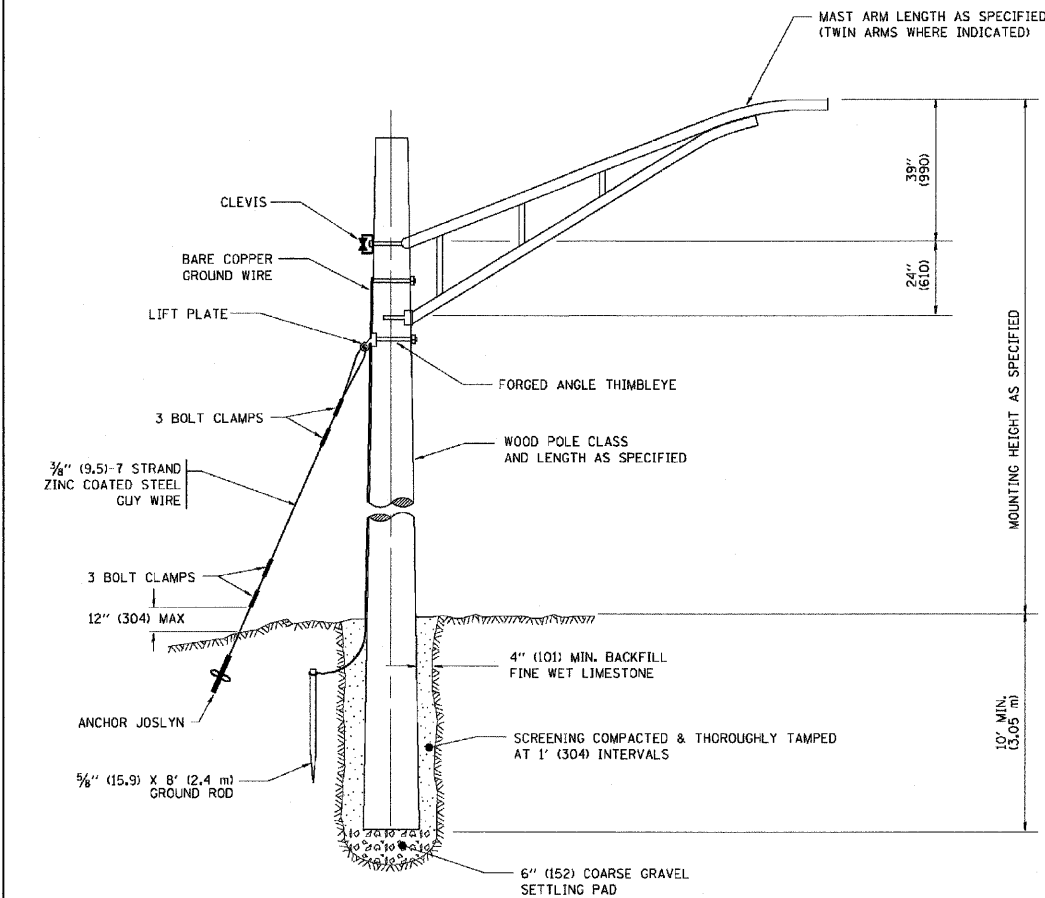
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CENTRAL AVENUE OVER I-55
IDOT LIGHTING STANDARD DETAILS

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

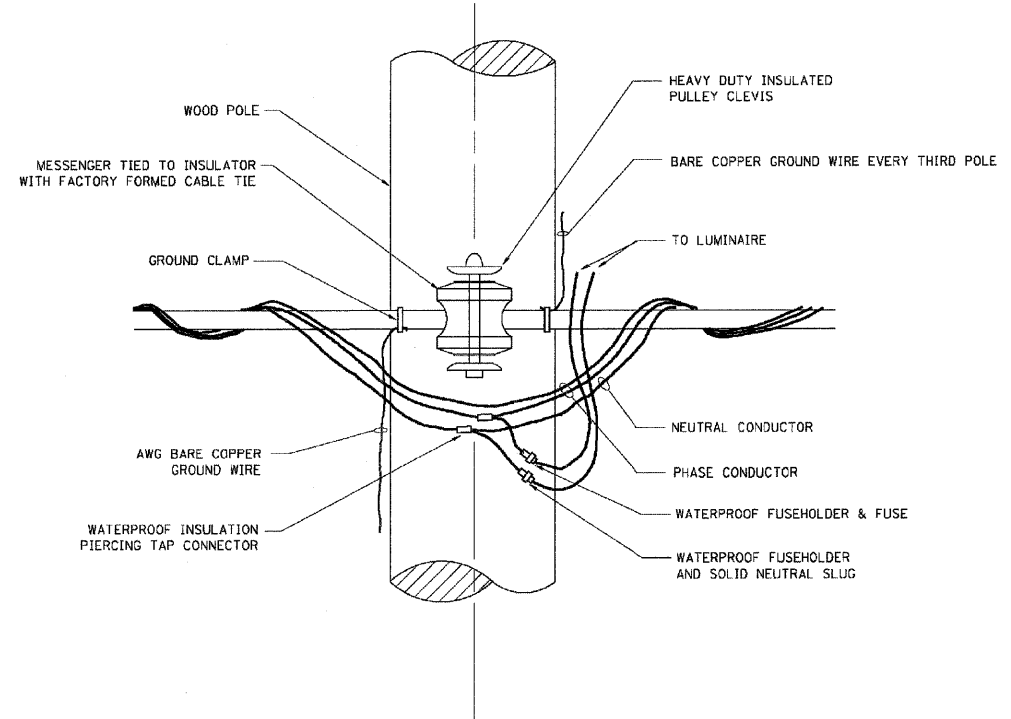
F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
55	90H, HB & SB/R-1	COOK	741 224
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT
CONTRACT NO. 60999			

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



TEMPORARY LIGHT POLE DETAIL

NOTES:
1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED



TEMPORARY LIGHT POLE ATTACHMENT DETAIL

PLOT DATE = 3/22/2011
FILE NAME = J:\155\idot\160999-sht-detail17.dgn
PLOT SCALE = 1/8\"/>

REVISIONS	
NAME	DATE
	08/08/03

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHT POLE DETAILS

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY
BE-800

SINGH 300 W. ADAMS ST.
CHICAGO, IL 60606
SINGH & ASSOCIATES, INC. TEL: (312) 629-0240
CONSULTING ENGINEERS FAX: (312) 629-8449

USER NAME = \$USER\$	DESIGNED - MK	REVISED -
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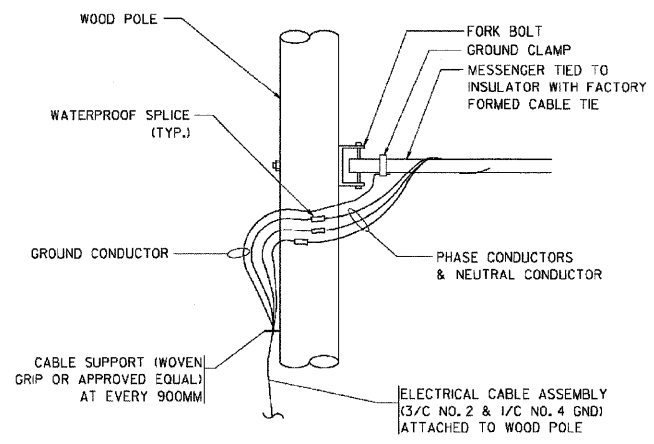
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CENTRAL AVENUE OVER I-55
IDOT LIGHTING STANDARD DETAILS

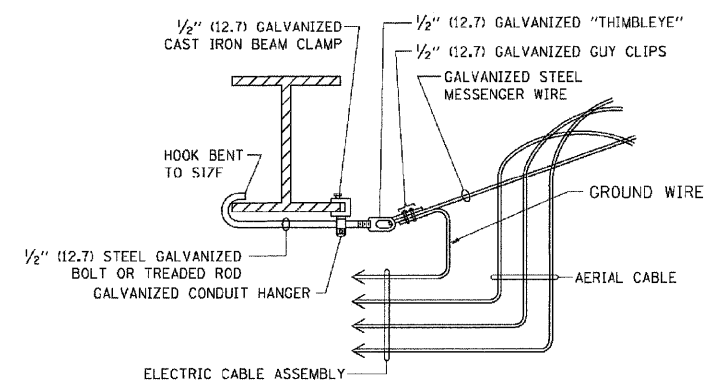
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9(H, HB & SBR-1)	COOK	741	225
CONTRACT NO. 60999				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

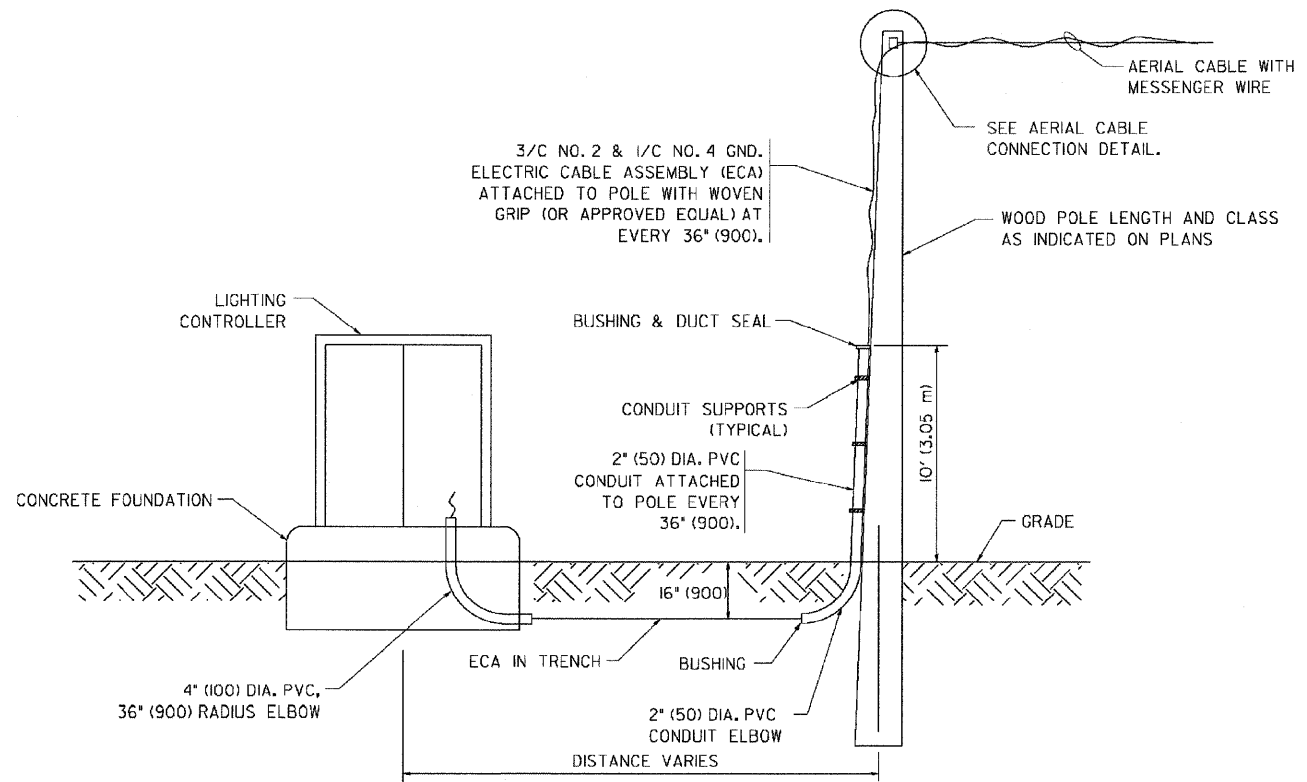
CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



AERIAL CABLE CONNECTION DETAIL
N.T.S.



AERIAL CABLE ATTACHED TO STRUCTURE
NOT TO SCALE



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

NOTES:

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

REVISIONS	
NAME	DATE
	08/08/03

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY AERIAL CABLE INSTALLATION

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY
BE-801

SINGH
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS

300 W. ADAMS ST.
CHICAGO, IL 60606
TEL: (312) 629-0240
FAX: (312) 629-8449

USER NAME = #USER#	DESIGNED - MK	REVISED -
PLOT SCALE = #SCALE#	DRAWN - YJ	REVISED -
PLOT DATE = 3/22/2011	CHECKED - GR	REVISED -
	DATE - 3-25-2011	REVISED -

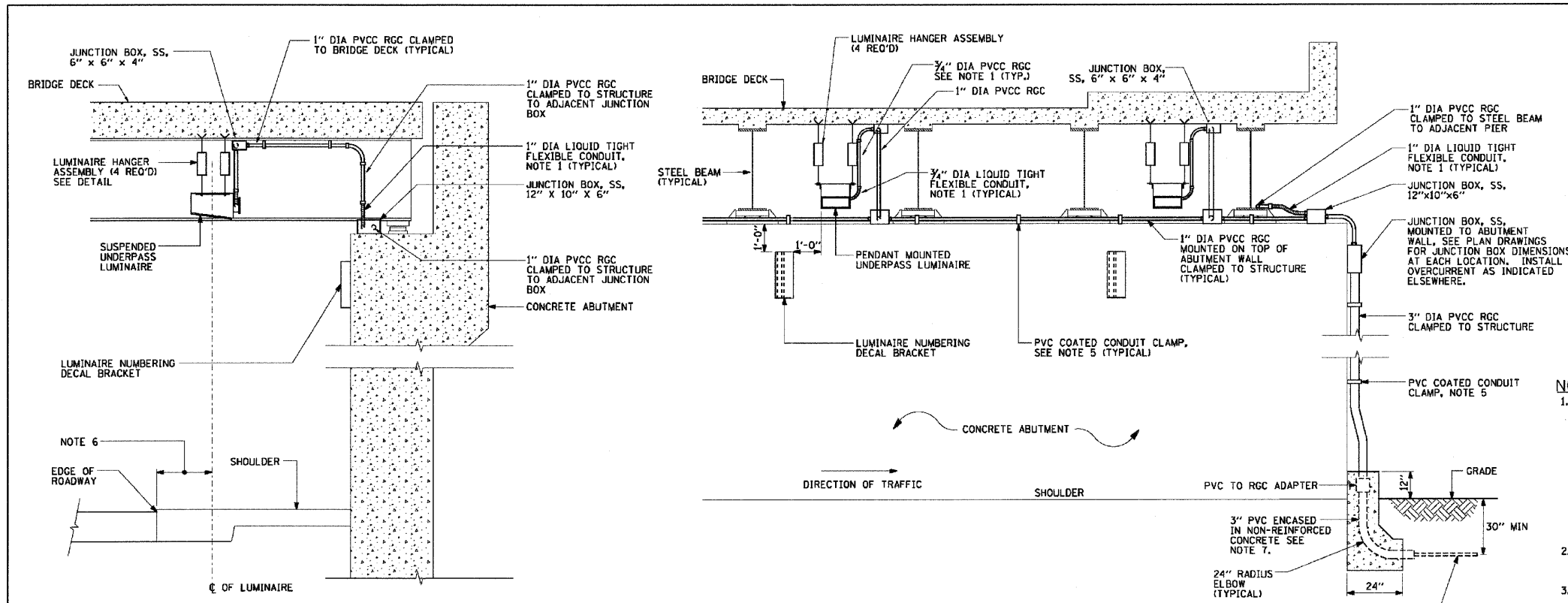
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CENTRAL AVENUE OVER I-55
IDOT LIGHTING STANDARD DETAILS**

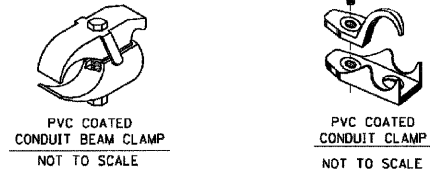
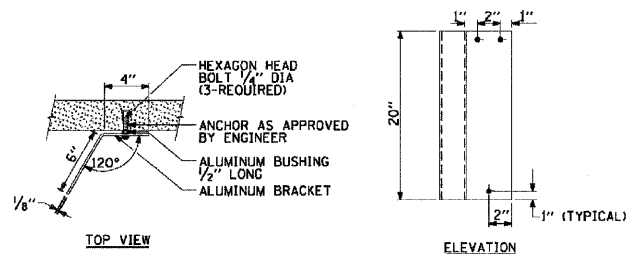
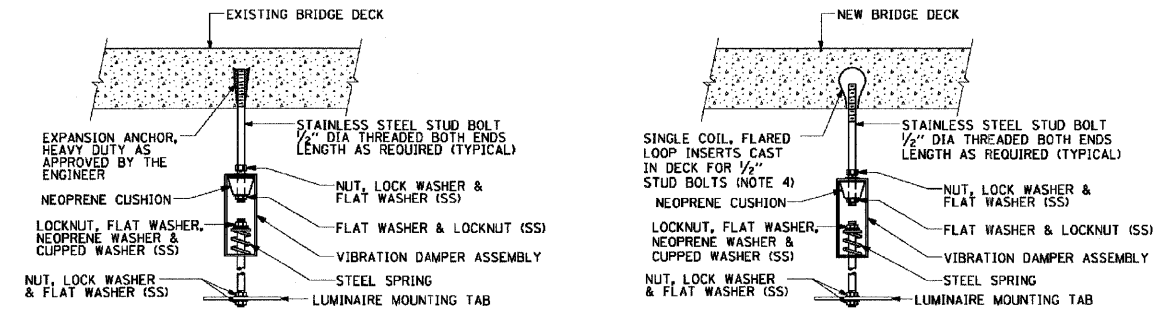
SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	9H, HB & SBIR-1	COOK	741	226
CONTRACT NO. 60999				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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



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



REVISIONS	
NAME	DATE
	12/12/05

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

SINGH 300 W. ADAMS ST.
 CHICAGO, IL 60606
 SINGH & ASSOCIATES, INC. TEL: (312) 629-0240
 CONSULTING ENGINEERS FAX: (312) 629-8449

USER NAME = #USER#	DESIGNED - MK	REVISED -
PLOT SCALE = #SCALE#	DRAWN - YJ	REVISED -
PLOT DATE = 3/22/2011	CHECKED - GR	REVISED -
	DATE - 3-25-2011	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CENTRAL AVENUE OVER I-55
 IDOT LIGHTING STANDARD DETAILS
 SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

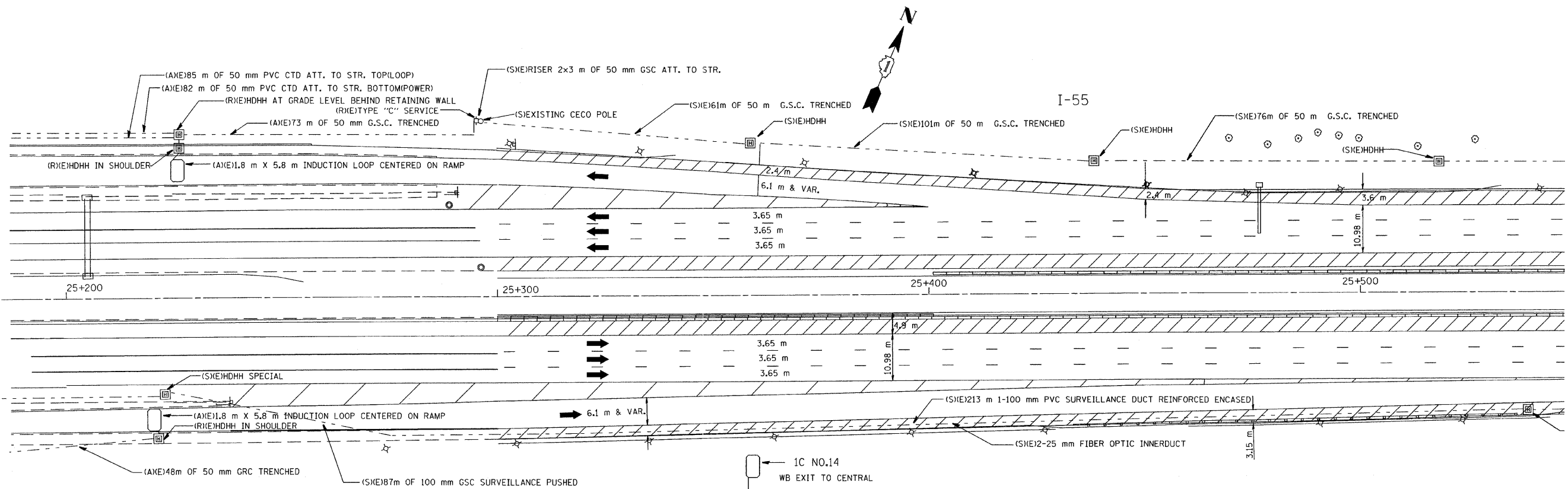
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55	9(H, HB & SJR-1)	COOK	741 227
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT
			CONTRACT NO. 60999

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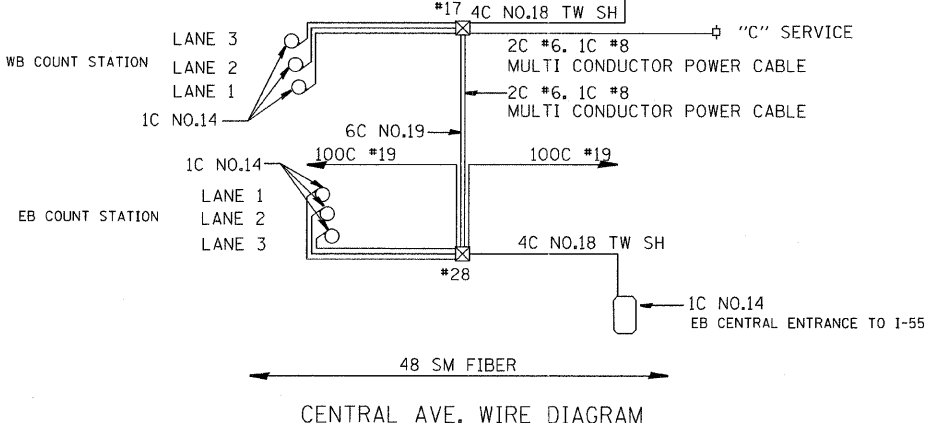
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			228	741
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

- NOTES:
- "C" SERVICE SHALL HAVE 2-SINGLE POLE 30 AMP. BREAKERS.
 - ELECTRIC SERVICE SHALL BE 120/240 SINGLE PHASE 3 WIRE SERVICE.
 - CONTACT TSC ENGINEER PRIOR TO REMOVAL OF EXISTING CABINETS (708)524-2145.
 - 100C #19 TELECOMMUNICATION CABLE SHALL ONLY BE SPLICED IN BARRIER WALL JUNCTION BOXES OR IN SURVEILLANCE CABINETS. IN AREAS WHERE CONDUITS RUN THROUGH EB RIGHT SHOULDER AND HEAVY DUTY HAND HOLE SPECIALS 100C #19 CABLES SHALL BE PULLED CONTINUOUS FROM CABINET TO CABINET. NO SPLICES WILL BE ALLOWED IN HAND HOLES.
 - 48 SM FIBER OPTIC CABLE SHALL BE ORDERED AND PULLED IN MAXIMUM CABLE LENGTHS. ONLY SELECTIVE MIDSPAN CABLE SPLICES SHALL BE ALLOWED BETWEEN 48 SM FIBER AND 4 SM FIBER CABLES.
 - FINAL CCTV LOCATIONS SHALL BE DETERMINED BY BUCKET SURVEY. LOCATIONS SHOWN ON PLANS ARE FOR INFORMATION ONLY. FINAL LOCATIONS MAY VARY FROM LOCATIONS SHOWN.
 - CABINET FOUNDATION/HDH CABINET PAD SHALL BE A MONOLITHIC POUR.
 - CONTRACTOR SHALL CONTACT TSC ENGINEER PRIOR TO INDUCTION LOOP REPLACEMENT (708)524-2145.
 - WHERE 100 mm PVC ENCASED IN REINFORCED CONCRETE CROSSES MEDIAN, CONDUIT ENCASEMENT SHALL BE 1m (36") DEPTH MINIMUM.
 - HEAVY DUTY HAND HOLE SPECIALS SHALL BE INSTALLED PER PLAN AND AT 365 m (1200') INTERVALS MINIMUM.



SYMBOL	LEGEND
□	INDUCTION LOOP
○	ROUND INDUCTION LOOP
⊗	TSC CABINET
⊙	TELEPHONE SERVICE
⊠	SERVICE INSTALLATION
⊞	JUNCTION BOX
⊚	HEAVY DUTY HAND HOLE
---	POLYETHYLENE DUCT
- - -	GALVANIZED STEEL CONDUIT
(E)	EXISTING
(A)	ABANDON
(R)	REMOVE
(S)	SAVE



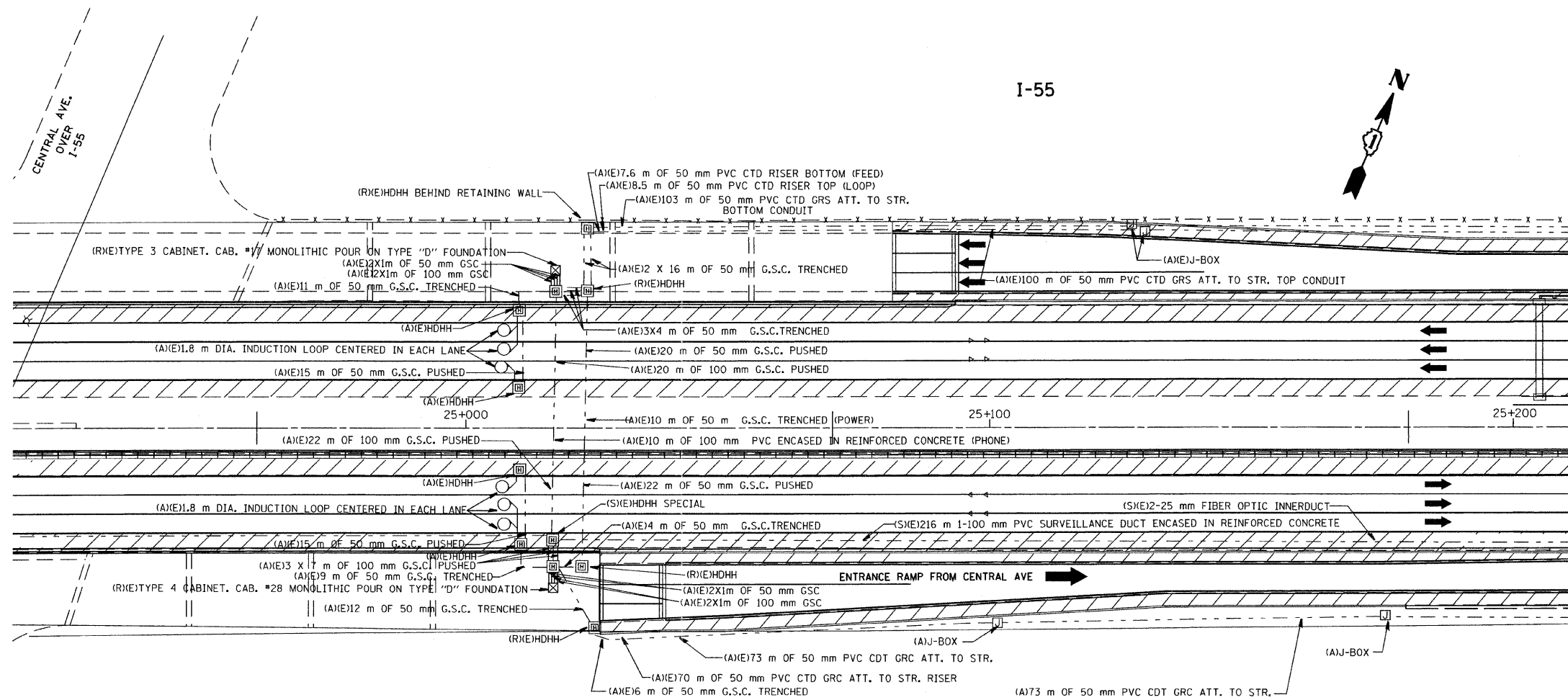
REMOVAL/EXISTING PLAN

REVISIONS	
NAME	DATE
T.R.	09/2010

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER
11
SCALE: 1:500
DATE 3-99
DRAWN BY G.M.
CHECKED BY T.D.

RD-C1_TERRY/55_METSHEET1.DGN
RF-IP27690AE.DGN

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			229	741
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



SYMBOL	LEGEND
□	INDUCTION LOOP
○	ROUND INDUCTION LOOP
⊗	TSC CABINET
⊙	TELEPHONE SERVICE
□	SERVICE INSTALLATION
□	JUNCTION BOX
⊠	HEAVY DUTY HAND HOLE
---	POLYETHYLENE DUCT
- - -	GALVANIZED STEEL CONDUIT
(E)	EXISTING
(A)	ABANDON
(R)	REMOVE
(S)	SAVE

NOTES:

- 1.- CONTACT TSC ENGINEER PRIOR TO REMOVAL OF EXISTING CABINETS (708)524-2145.
- 2.- 100C #19 TELECOMMUNICATION CABLE SHALL BE CAREFULLY DISCONNECTED FROM TYPE 66 CONNECTOR BLOCK.
- 3.- THE FULL LENGTH OF 100C #19 TELECOMMUNICATIONS CABLE SHALL BE PULLED BACK AND STORED IN (E) HDHH SPECIAL. THE CABLE SHALL NOT BE DAMAGED IN ANY WAY.
- 4.- 100C #19 TELECOMMUNICATIONS CABLE SHALL BE SPLICED WITH UIB CONNECTORS IN THE (E) HDHH SPECIAL. THIS IS A TEMPORARY SPLICE.
- 5.- WHEN THE JUNCTION BOX TO BE EMBEDDED IN THE RETAINING WALL IS FINISHED, THE 100C #19 TELECOMMUNICATIONS CABLE SHALL BE PULLED IN AND SPLICE THERE.

REMOVAL/EXISTING PLAN

REVISIONS	
NAME	DATE
T.R.	09/2010

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

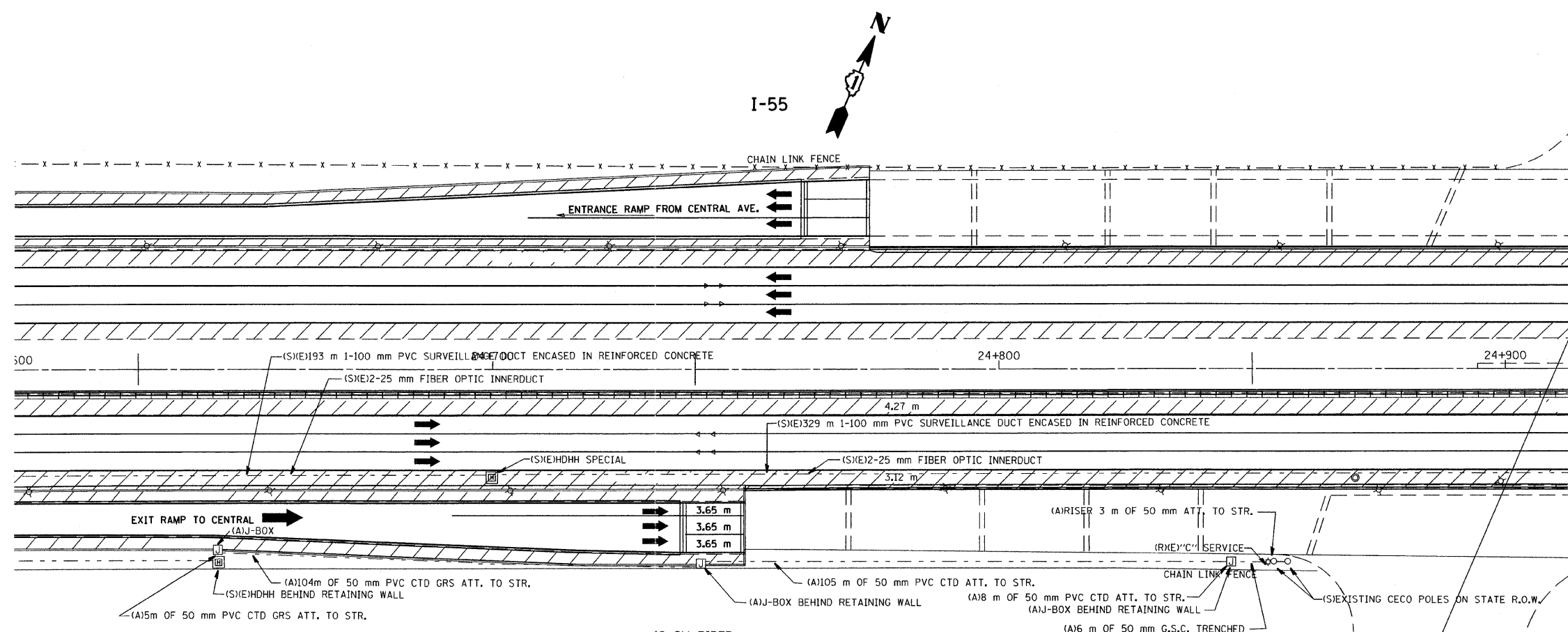
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DATE 3-99

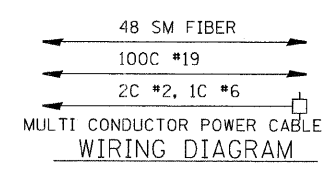
DRAWN BY G.M.
CHECKED BY T.D.

RD-C4 TERRY/55 METSHEET1.DGN
RF-P27690AD.DGN

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			230	741
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



SYMBOL	LEGEND
□	INDUCTION LOOP
○	ROUND INDUCTION LOOP
⊗	TSC CABINET
○	TELEPHONE SERVICE
□	SERVICE INSTALLATION
⊠	JUNCTION BOX
⊞	HEAVY DUTY HAND HOLE
---	POLYETHYLENE DUCT
---	GALVANIZED STEEL CONDUIT
(E)	EXISTING
(A)	ABANDON
(R)	REMOVE
(S)	SAVE



NOTES:

- 1.- CONTACT TSC ENGINEER PRIOR TO REMOVAL OF EXISTING CABINETS (708)524-2145.
- 2.- 100C #19 TELECOMMUNICATION CABLE SHALL ONLY BE SPLICED IN BARRIER WALL JUNCTION BOXES OR IN SURVEILLANCE CABINETS. IN AREAS WHERE CONDUITS RUN THROUGH EB RIGHT SHOULDER AND HEAVY DUTY HAND HOLE SPECIALS 100C #19 CABLES SHALL BE PULLED CONTINUOUS FROM CABINET TO CABINET. NO SPLICES WILL BE ALLOWED IN HAND HOLES.
- 3.- 48 SM FIBER OPTIC CABLE SHALL BE ORDERED AND PULLED IN MAXIMUM CABLE LENGTHS. ONLY SELECTIVE MIDSPAN CABLE SPLICES SHALL BE ALLOWED BETWEEN 48 SM FIBER AND 4 SM FIBER CABLES.
- 4.- FINAL CCTV LOCATIONS SHALL BE DETERMINED BY BUCKET SURVEY. LOCATIONS SHOWN ON PLANS ARE FOR INFORMATION ONLY.
- 5.- CABINET FOUNDATION/HDDH CABINET PAD SHALL BE A MONOLITHIC POUR.
- 6.- CONTRACTOR SHALL CONTACT TSC ENGINEER PRIOR TO INDUCTION LOOP REPLACEMENT (708)524-2145.
- 7.- WHERE 100 mm PVC ENCASED IN REINFORCED CONCRETE CROSSES MEDIAN, CONDUIT ENCASEMENT SHALL BE 1m (36") DEPTH MINIMUM.
- 8.- HEAVY DUTY HAND HOLE SPECIALS SHALL BE INSTALLED PER PLAN AND AT 365 m (1200') INTERVALS MINIMUM.

REMOVAL/EXISTING PLAN

REVISIONS	
NAME	DATE
T.R.	09/2010

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

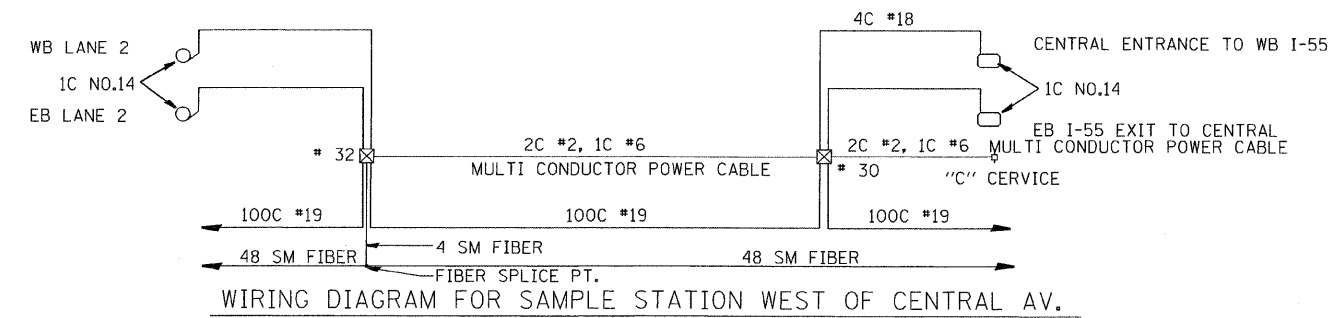
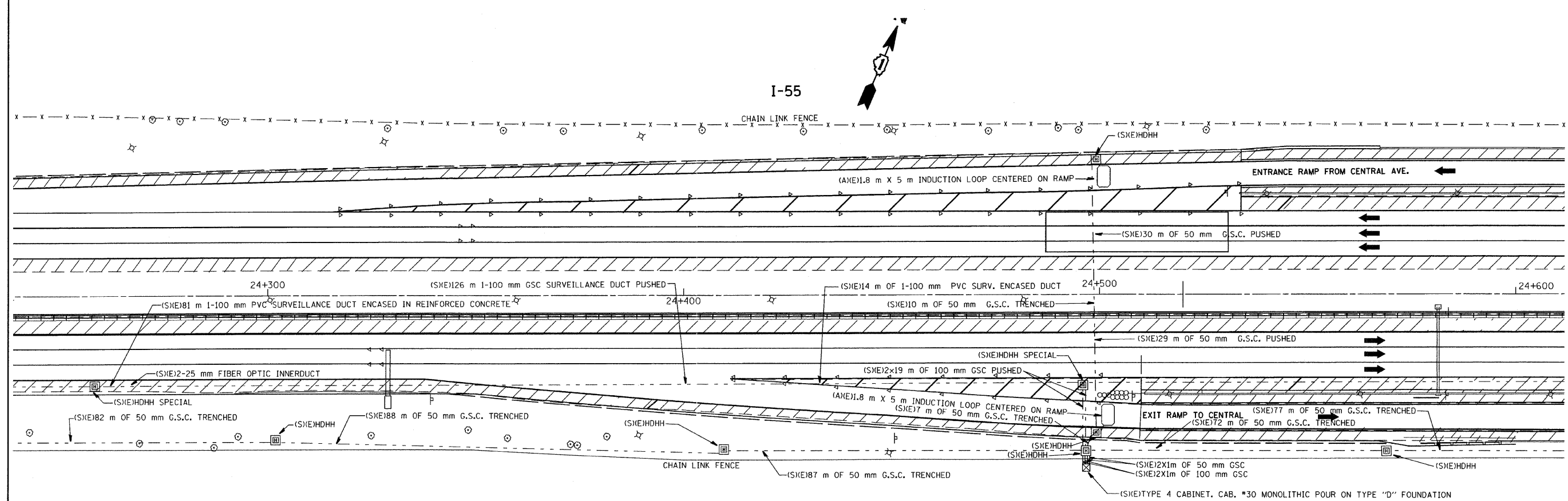
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SCALE: 1:500
DATE 3-99

DRAWN BY G.M.
CHECKED BY T.D.

RD: C: TERRY155 METSHEET1.DGN
RF: PZ7650AD.DGN

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			231	741
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



SYMBOL	LEGEND
□	INDUCTION LOOP
○	ROUND INDUCTION LOOP
⊗	TSC CABINET
○	TELEPHONE SERVICE
□	SERVICE INSTALLATION
⊠	JUNCTION BOX
⊞	HEAVY DUTY HAND HOLE
---	POLYETHYLENE DUCT
---	GALVANIZED STEEL CONDUIT
(E)	EXISTING
(A)	ABANDON
(R)	REMOVE
(S)	SAVE

- NOTES:
- CONTACT TSC ENGINEER PRIOR TO REMOVAL OF EXISTING CABINETS (708)524-2145.
 - 100C #19 TELECOMMUNICATION CABLE SHALL ONLY BE SPLICED IN BARRIER WALL JUNCTION BOXES OR IN SURVEILLANCE CABINETS. IN AREAS WHERE CONDUITS RUN THROUGH EB RIGHT SHOULDER AND HEAVY DUTY HAND HOLE SPECIALS 100C #19 CABLES SHALL BE PULLED CONTINUOUS FROM CABINET TO CABINET, NO SPLICES WILL BE ALLOWED IN HAND HOLES.
 - 48 SM FIBER OPTIC CABLE SHALL BE ORDERED AND PULLED IN MAXIMUM CABLE LENGTHS. ONLY SELECTIVE MIDSPAN CABLE SPLICES SHALL BE ALLOWED BETWEEN 48 SM FIBER AND 4 SM FIBER CABLES.
 - FINAL CCTV LOCATIONS SHALL BE DETERMINED BY BUCKET SURVEY. LOCATIONS SHOWN ON PLANS ARE FOR INFORMATION ONLY. FINAL LOCATIONS MAY VARY FROM LOCATIONS SHOWN.
 - CABINET FOUNDATION/HDHH CABINET PAD SHALL BE A MONOLITHIC POUR.
 - CONTRACTOR SHALL CONTACT TSC ENGINEER PRIOR TO INDUCTION LOOP REPLACEMENT (708)524-2145.
 - WHERE 100 mm PVC ENCASED IN REINFORCED CONCRETE CROSSES MEDIAN, CONDUIT ENCASEMENT SHALL BE 1m (36") DEPTH MINIMUM.
 - HEAVY DUTY HAND HOLE SPECIALS SHALL BE INSTALLED PER PLAN AND AT 365 m (1200') INTERVALS MINIMUM.

REMOVAL/EXISTING PLAN

REVISIONS	
NAME	DATE
T.R.	10-2010

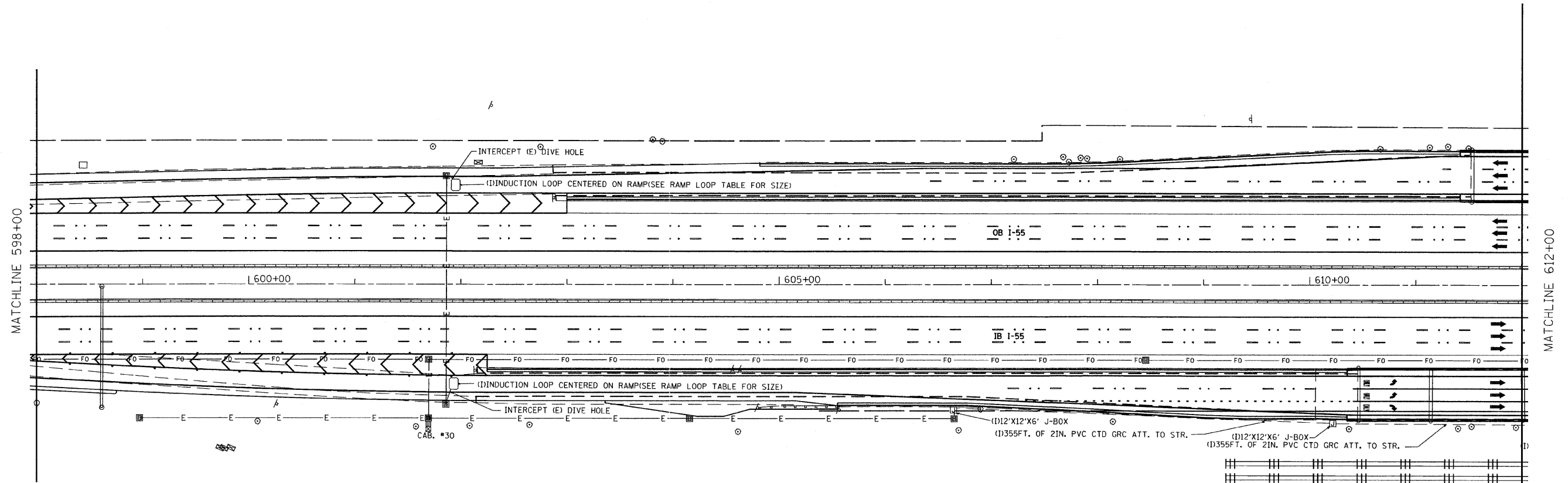
ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

14

SCALE: 1:500
DATE 3-99

DRAWN BY G.M.
CHECKED BY T.D.

RD-C, TERRY155 METSHEET.DGN
RF-#27690.DGN



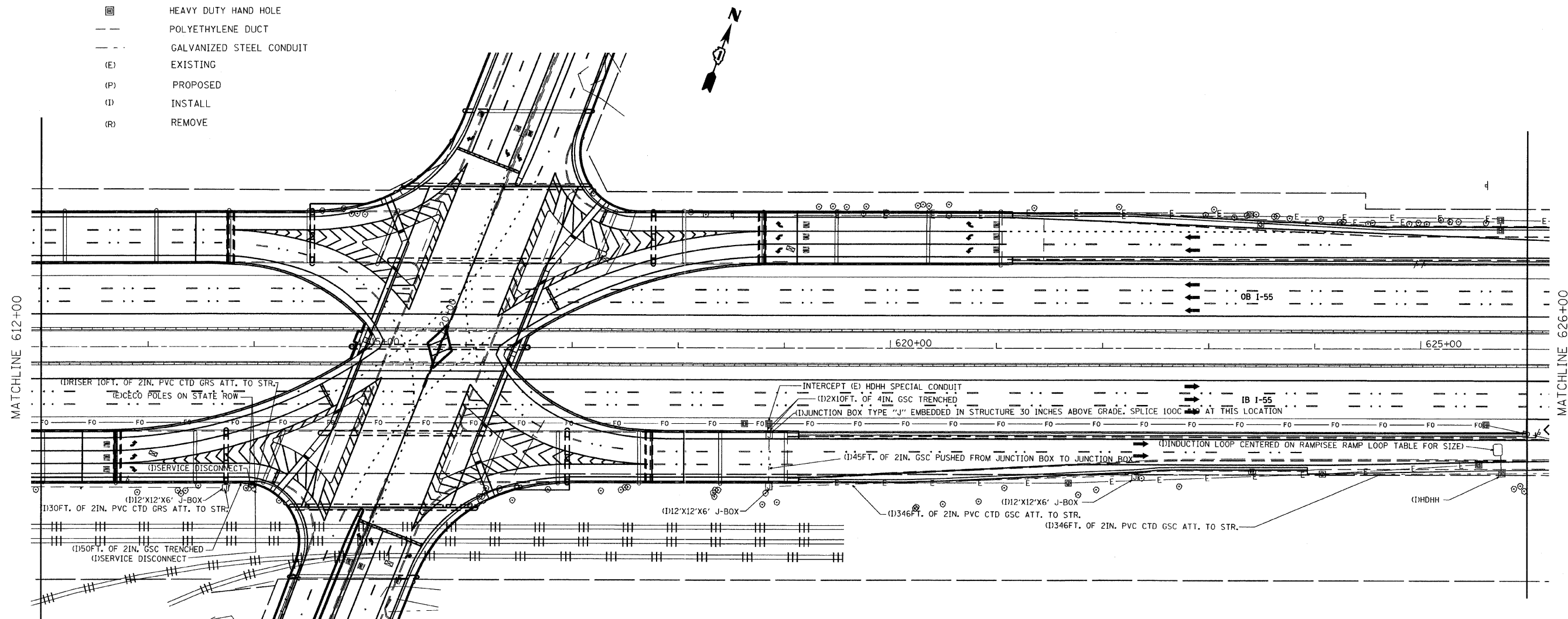
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	ROUND INDUCTION LOOP
	TSC CABINET
	TELEPHONE SERVICE
	SERVICE INSTALLATION
	JUNCTION BOX
	HEAVY DUTY HAND HOLE
	POLYETHYLENE DUCT
	GALVANIZED STEEL CONDUIT
(E)	EXISTING
(P)	PROPOSED
(I)	INSTALL
(R)	REMOVE

- NOTES:**
- IF ANY EXISTING FIBER OPTIC CABLE, COPPER CABLE, CONDUIT OR HDHH SPECIAL ARE DAMAGED THEY SHALL BE REPLACED AT CONTRACTORS EXPENCE. THE FIBER OPTIC CABLE AND COPPER CABLE WILL BE REPLACED BETWEEN SPLICE POINTS AT CCTV LOCATIONS CABINET #32 TO #26.
 - 100C #19 TELECOMMUNICATIONS CABLE SHALL ONLY BE SPLICED IN TYPE "J" JUNCTION BOX OR SURVEILLANCE CABINETS.
 - CABINET FOUNDATION/HDHH CABINET PAD SHALL BE MONOLITHIC POUR.
 - CONTRACTOR SHALL CONTACT TSC ENGINEER PRIOR TO INDUCTION LOOP INSTALLATION AT (708)524-2145.
 - FIBER OPTIC CABLE TO BE SPLICED IF NECESSARY ONLY AT ENGINEER'S APPROVED LOCATION, USUALLY AT CCTV SITES.

RF=C:\TERRY155\TSCSHEETS.DGN

FILE NAME = C:\Terry155\TSCSHEETS.dgn	USER NAME = mezag	DESIGNED - T.R.	REVISED -	TRAFFIC SYSTEMS CENTER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED WEST OF CENTRAL AVE. INSTALLATION			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
	PLOT SCALE = 100.0985' / IN.	DRAWN - G.M.	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	155	9(H, HB & SB)R-1	COOK	741	232
	PLOT DATE = 10/1/2010	CHECKED - T.R.	REVISED -									CONTRACT NO. 60999			
		DATE - 09/30/2010	REVISED -									ILLINOIS FED. AID PROJECT			

SYMBOL	LEGEND
	INDUCTION LOOP
	ROUND INDUCTION LOOP
	TSC CABINET
	TELEPHONE SERVICE
	SERVICE INSTALLATION
	JUNCTION BOX
	HEAVY DUTY HAND HOLE
	POLYETHYLENE DUCT
	GALVANIZED STEEL CONDUIT
(E)	EXISTING
(P)	PROPOSED
(I)	INSTALL
(R)	REMOVE

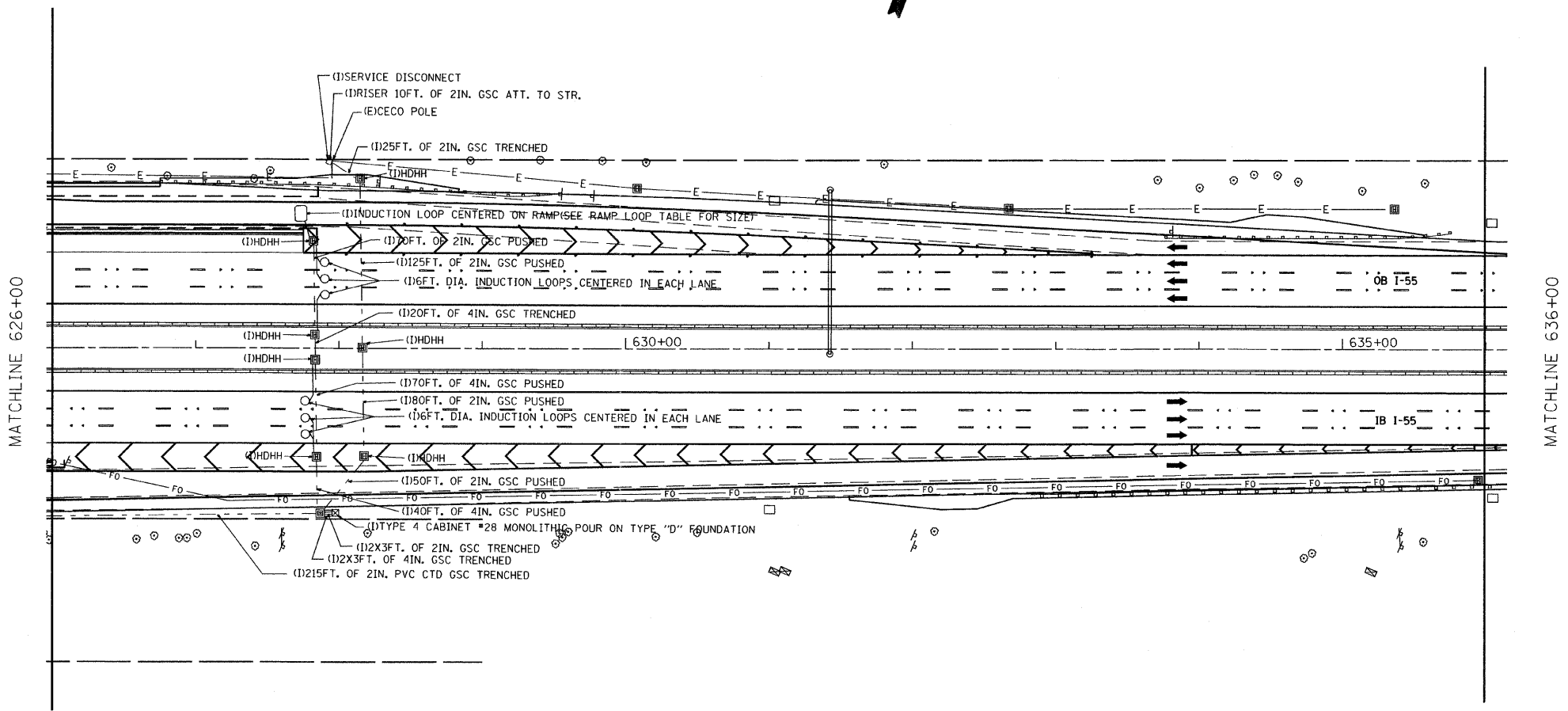


NOTES:

- IF ANY EXISTING FIBER OPTIC CABLE, COPPER CABLE, CONDUIT OR HDHH SPECIAL ARE DAMAGED THEY SHALL BE REPLACED AT CONTRACTORS EXPENCE. THE FIBER OPTIC CABLE AND COPPER CABLE WILL BE REPLACED BETWEEN SPLICE POINTS AT CCTV LOCATIONS CABINET #32 TO #26.
- 100C #19 TELECOMMUNICATIONS CABLE SHALL ONLY BE SPLICED IN TYPE "J" JUNCTION BOX OR SURVEILLANCE CABINETS.
- CABINET FOUNDATION/HDHH CABINET PAD SHALL BE MONOLITHIC POUR.
- CONTRACTOR SHALL CONTACT TSC ENGINEER PRIOR TO INDUCTION LOOP INSTALLATION AT (708)524-2145.
- FIBER OPTIC CABLE TO BE SPLICED IF NECESSARY ONLY AT ENGINEER'S APPROVED LOCATION, USUALLY AT CCTV SITES.

RF-C: TERRY155 TSCSHEETS.DGN

FILE NAME = C:\terry155\TSCSHEETS.dgn	USER NAME = mezag	DESIGNED - T.R.	REVISED -	TRAFFIC SYSTEMS CENTER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CENTRAL AVE. INSTALLATION			F.A. RTE. 155	SECTION 9(H, HB & SB)R-1	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 233
					SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 60999	
					ILLINOIS FED. AID PROJECT							

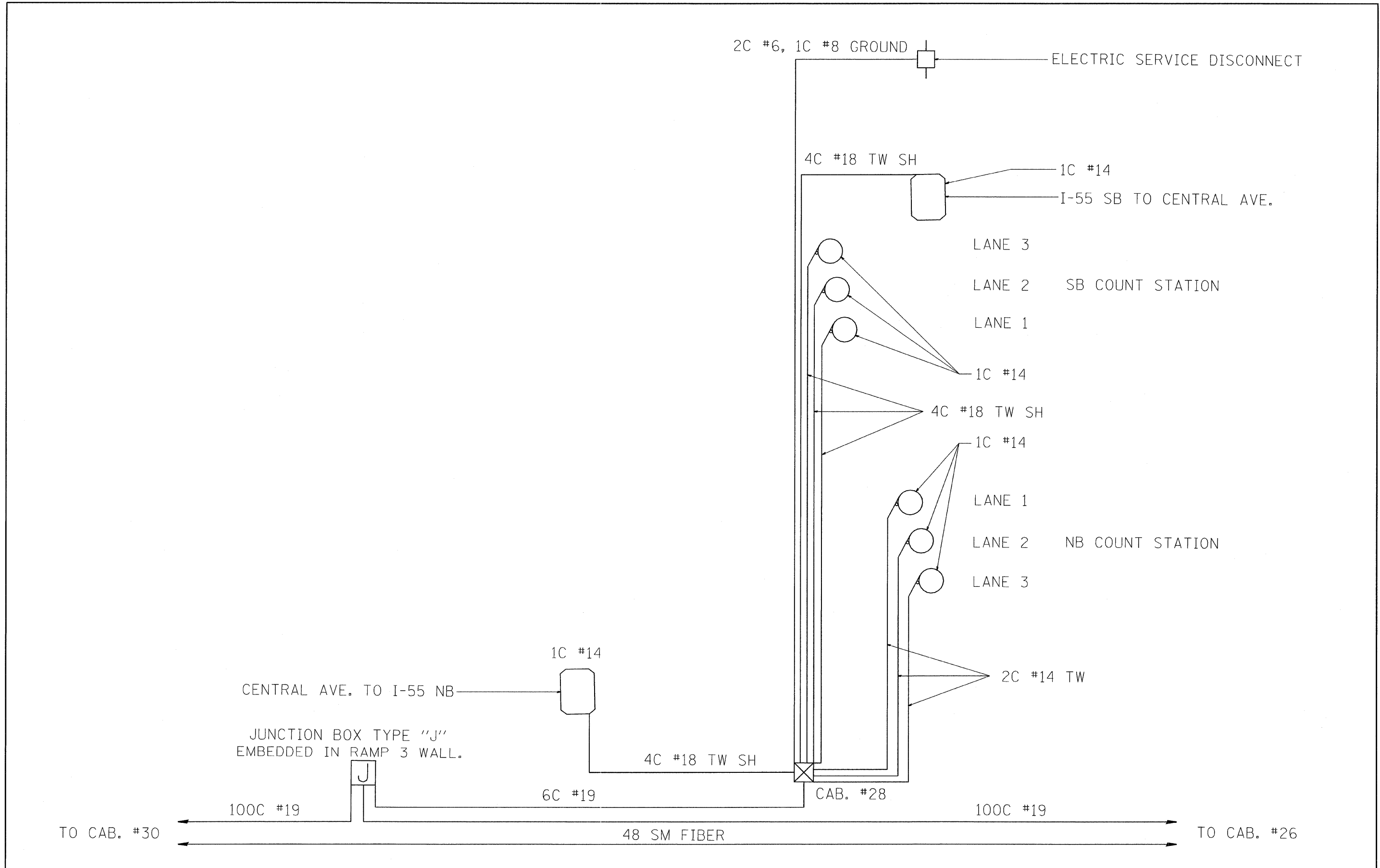


SYMBOL	LEGEND
	INDUCTION LOOP
	ROUND INDUCTION LOOP
	TSC CABINET
	TELEPHONE SERVICE
	SERVICE INSTALLATION
	JUNCTION BOX
	HEAVY DUTY HAND HOLE
	POLYETHYLENE DUCT
	GALVANIZED STEEL CONDUIT
(E)	EXISTING
(P)	PROPOSED
(I)	INSTALL
(R)	REMOVE

- NOTES:**
- 1.- IF ANY EXISTING FIBER OPTIC CABLE, COPPER CABLE, CONDUIT OR HDHH SPECIAL ARE DAMAGED THEY SHALL BE REPLACED AT CONTRACTORS EXPENCE. THE FIBER OPTIC CABLE AND COPPER CABLE WILL BE REPLACED BETWEEN SPLICE POINTS AT CCTV LOCATIONS CABINET #32 TO #26.
 - 2.- 100C #19 TELECOMMUNICATIONS CABLE SHALL ONLY BE SPLICED IN TYPE "J" JUNCTION BOX OR SURVEILLANCE CABINETS.
 - 3.- CABINET FOUNDATION/HDHH CABINET PAD SHALL BE MONOLITHIC POUR.
 - 4.- CONTRACTOR SHALL CONTACT TSC ENGINEER PRIOR TO INDUCTION LOOP INSTALLATION AT (708)524-2145.
 - 5.- FIBER OPTIC CABLE TO BE SPLICED IF NECESSARY ONLY AT ENGINEER'S APPROVED LOCATION, USUALLY AT CCTV SITES.
 - 6.- CONTRACT 60999 SHALL COORDINATE AND COOPERATE WITH CONTRACT 60I64.

REF: TERR155 TSCSHEETS.DGN
SP:CG TERR155 55STRIPLEDGN

FILE NAME = C:\terry155\TSCSHEETS.dgn	USER NAME = mezag	DESIGNED - T.R.	REVISED - 11/24/2010	TRAFFIC SYSTEMS CENTER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED EAST OF CENTRAL AVE. INSTALLATION			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 100.0' = 1" / IN.	PLOT DATE = 11/24/2010	DRAWN - G.M.	REVISED -					155	9(H, HB & SB)R-1	COOK	741	234	
		CHECKED - T.R.	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.	CONTRACT NO. 60999	
		DATE - 09/30/2010	REVISED -		ILLINOIS FED. AID PROJECT								



RF-C: TERRY155 TSCSHEETS.DGN

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		DRAWN - G.M.	REVISED -
		CHECKED - T.R.	REVISED -
		DATE - 09/30/2010	REVISED -

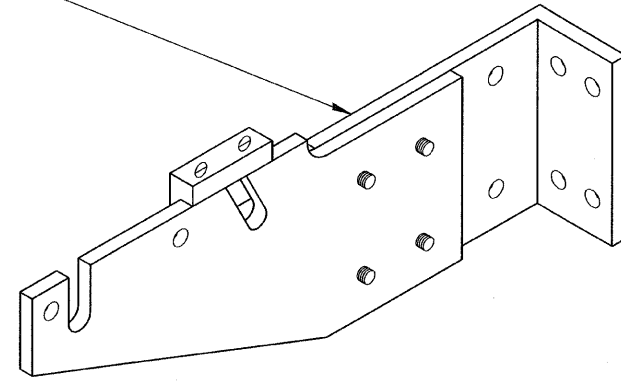
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED WIRE DIAGRAM FOR CENTRAL AVE. INSTALLATION

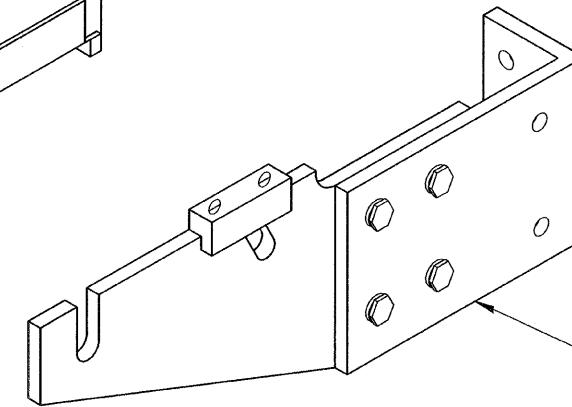
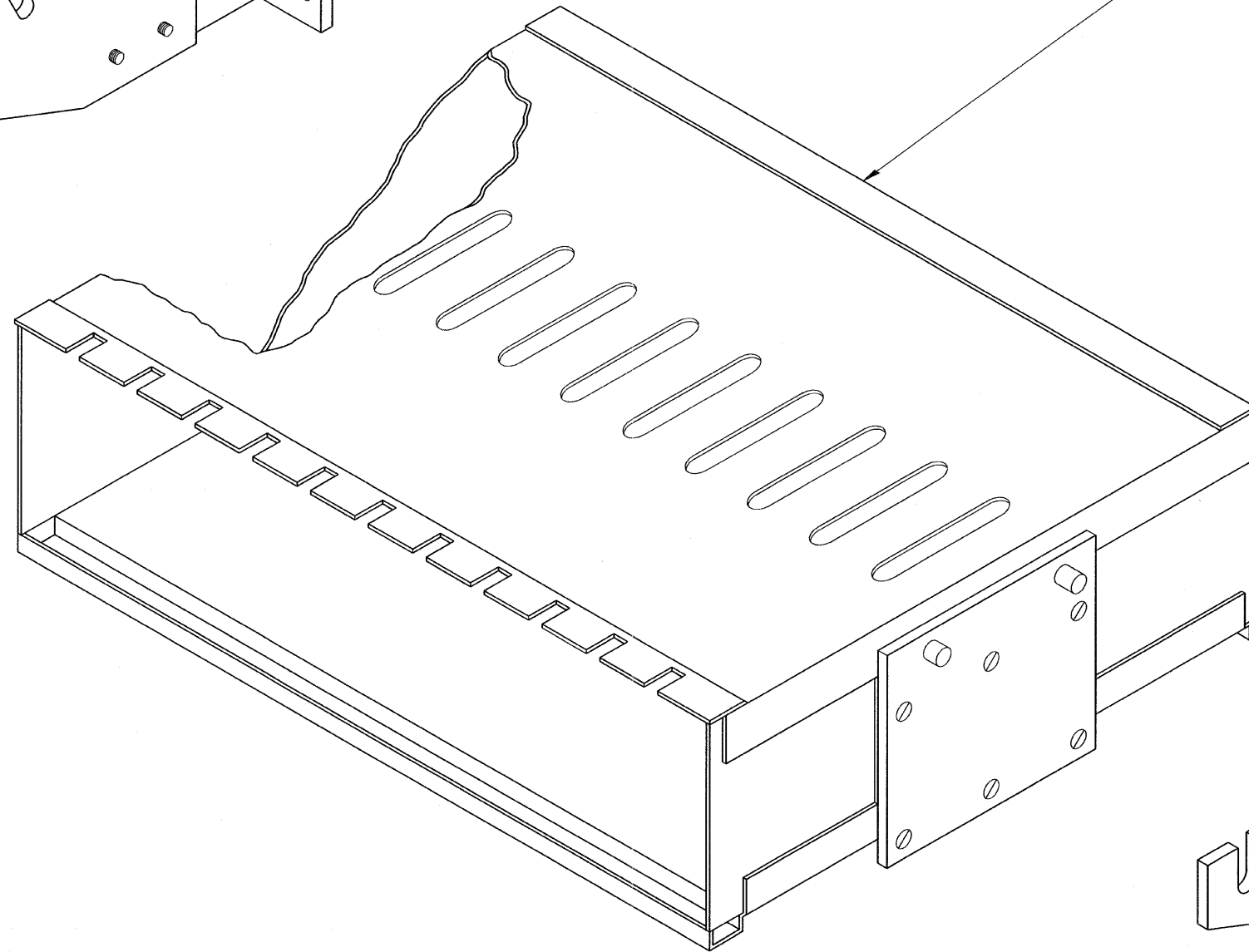
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I55	9(H, HB & SB)R-1	COOK	741	235
CONTRACT NO. 60999			ILLINOIS FED. AID PROJECT	

CRADLE



II MODULE MOUNTING FRAME
(FOR II TYPE "A" PLUG-IN TYPE TONE MODULES)

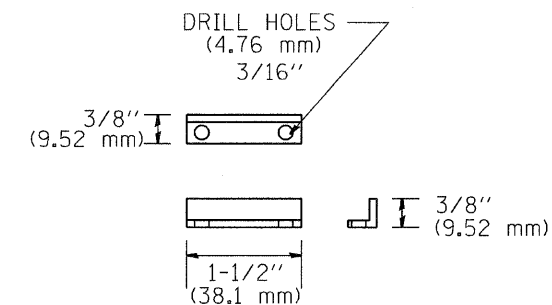
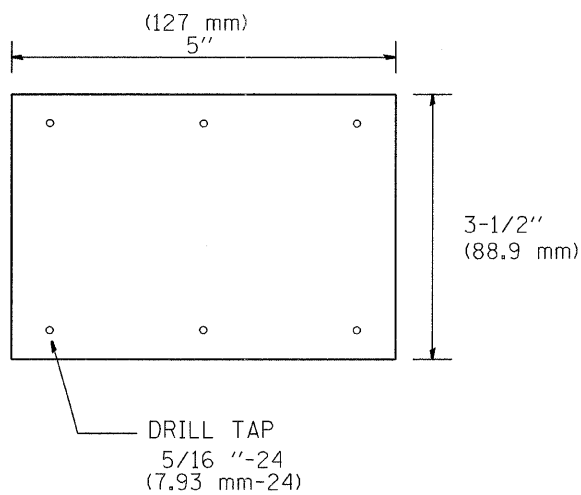
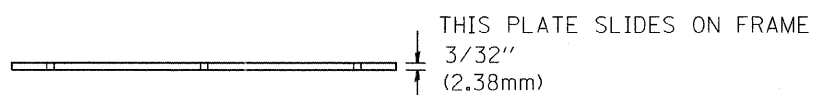
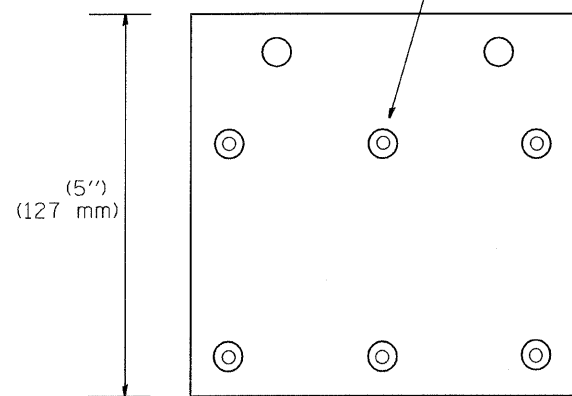
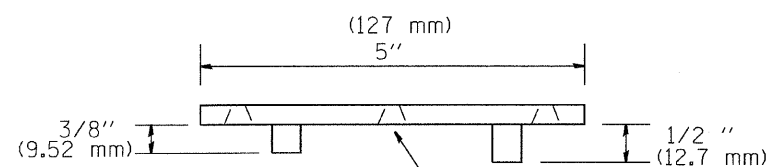
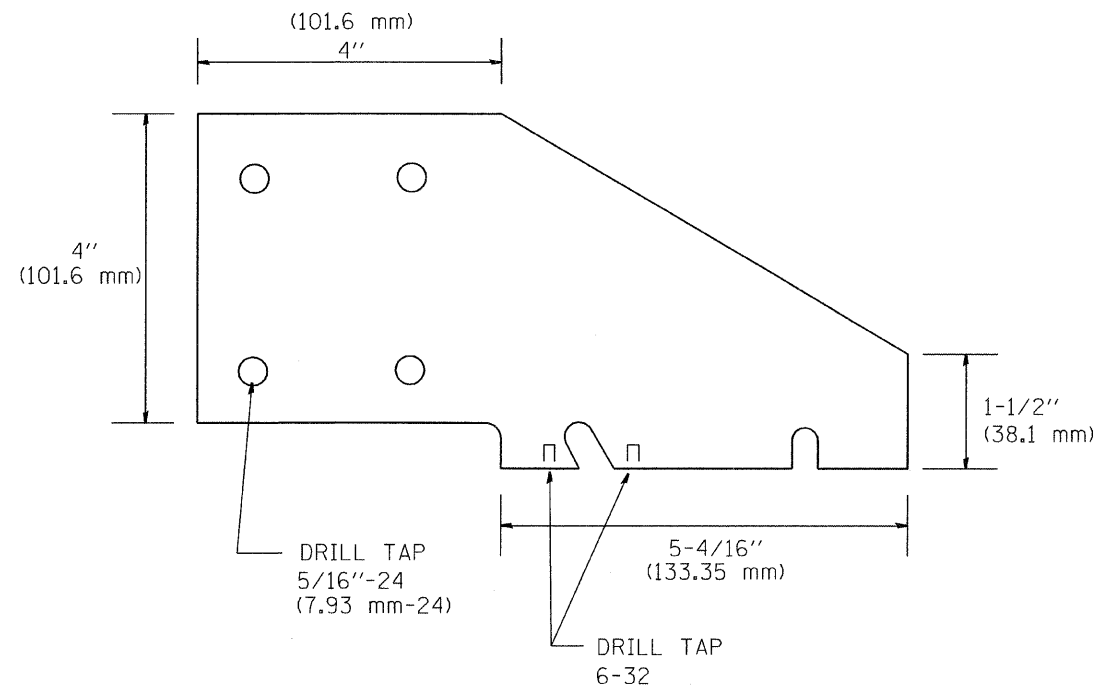
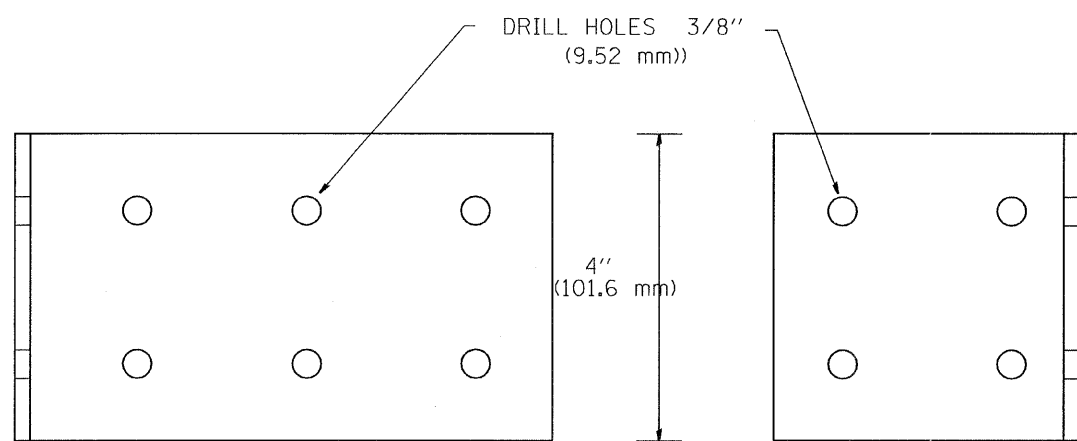
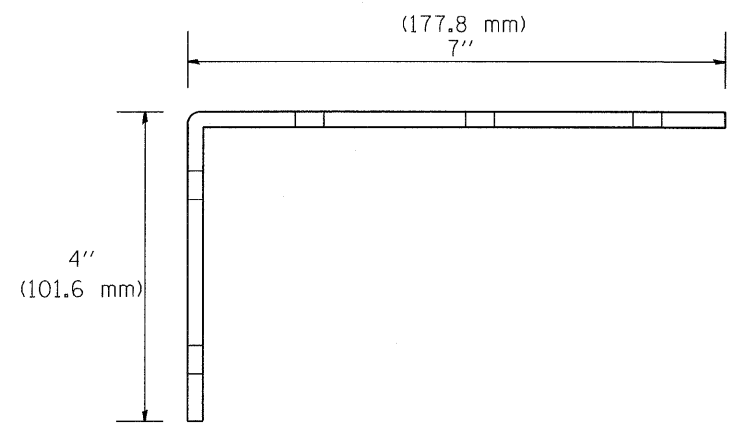


CRADLE

NOTE:

TYPE "A" TONE MODULES ARE PLUG
IN UNIT MEASURING 5-7/32" (132.55 mm) X 1.5" (38.1 mm) X 13-3/4" (349.25 mm)

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		DRAWN - G.M.	REVISED - 09/96								741	236
		CHECKED - R.L.	REVISED -		SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO.				
		DATE - 06/21/94	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							



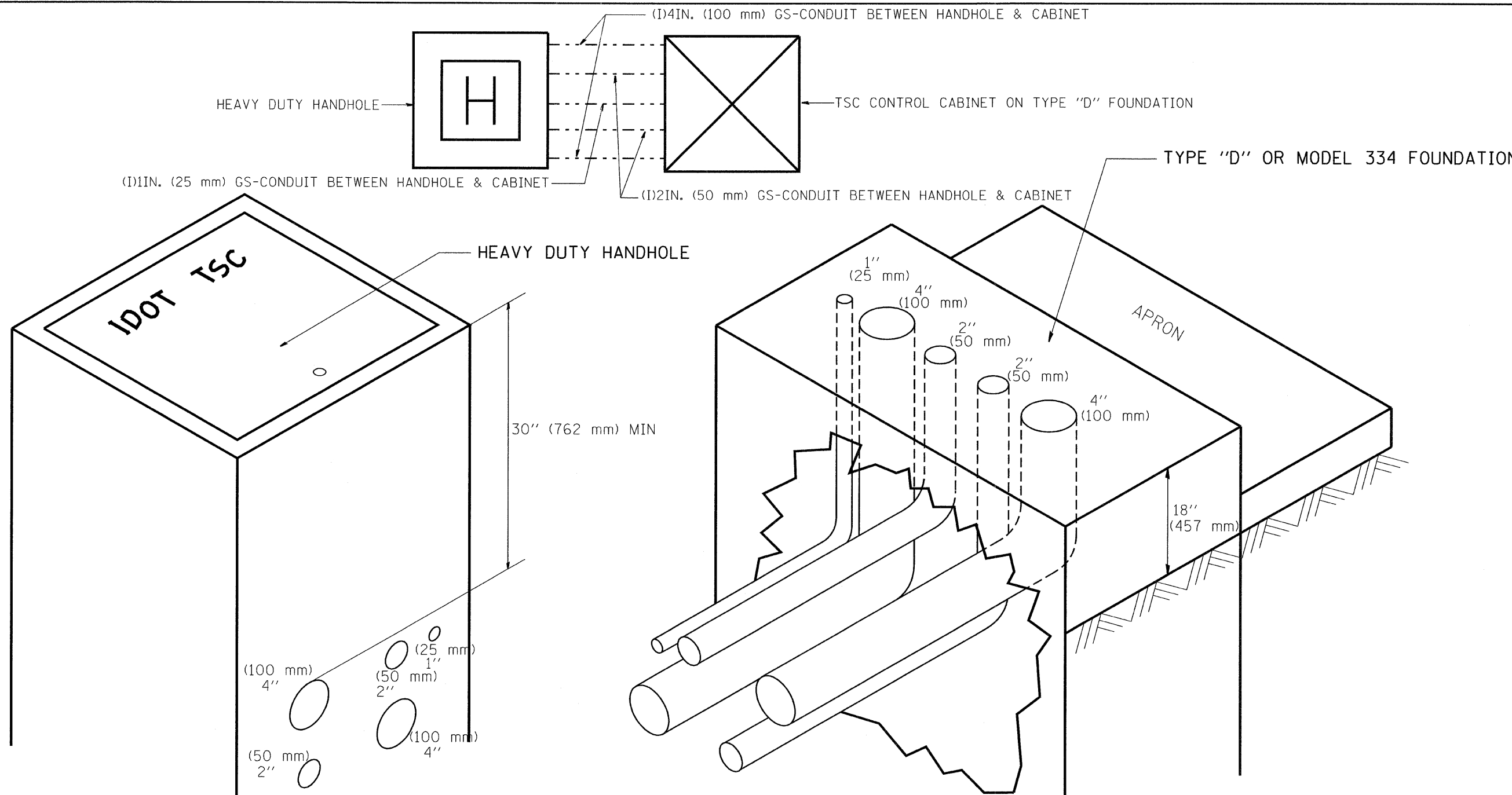
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PLOT DATE = 10/1/2010		DATE - 06/21/94	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

FIELD CRADLE ASSEMBLY			
SCALE: NONE	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			741	237
CONTRACT NO.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TRAFFIC SYSTEMS CENTER (TY-1TSC-400#7)



- NOTES:
- 1) ALL DUCTS SHALL BE CONED IN HANDHOLES.
 - 2) ALL DUCTS SHALL BE GS-CONDUIT & GS 90 DEG. ELBOWS USED WHERE NEEDED.
 - 3) ALL DUCTS ENTER HANDHOLE AT MINIMUM DEPTH OF 30 INCH (762 mm)
 - 4) ALL HANDHOLE COVERS SHALL READ "IDOT TSC".
 - 5) ALL CABINET HANDHOLES SHALL BE HEAVY DUTY.
 - 6) DUCTS SHALL BE CENTERED IN CABINET FOUNDATION/HANDHOLE AS SHOWN.
 - 7) CONDUITS SHALL BE SPACED 305 mm (1 FOOT) CENTER TO CENTER IN HEAVY DUTY HANDHOLE.
 - 8) INSTALL 3/4" X 10' (20 mm X 3 m) COPPER CLAD STEEL GROUND ROD IN HDHH PROVIDED AS CABINET PAD. EXOTHERMIC WELD CONNECTION FROM GROUND ROD TO #6 GROUND WIRE INSULATED (GREEN).
 - 9) BOND ALL GSC CONDUITS IN CABINET FOUNDATION.
 - 10) INSTALL #6 GROUND WIRE IN 1IN. (25 mm) GSC FROM HANDHOLE TO CABINET.
 - 11) TYPE "D" FOUNDATION SHALL BE 18" FROM TOP OF FOUNDATION TO FINISHED GRADE.

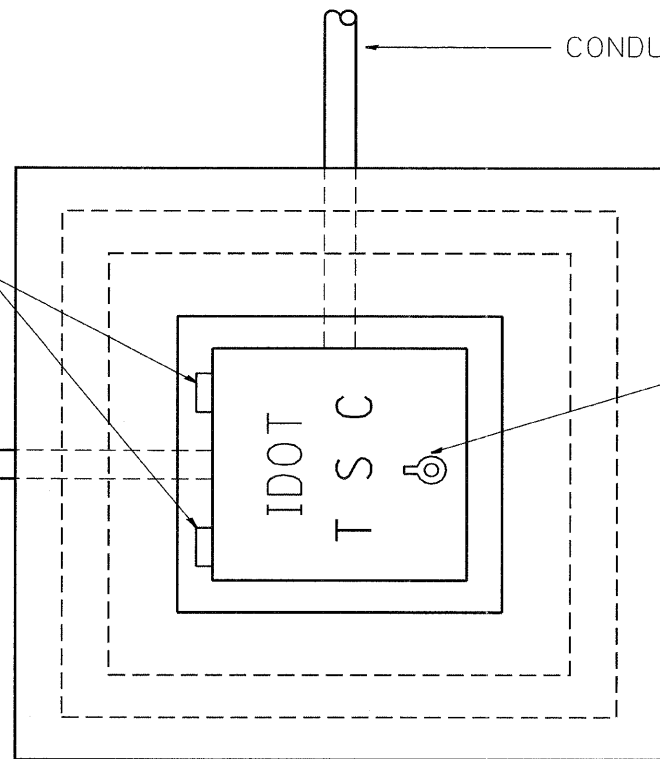
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C:\Projects\TSC\TYPICALS\155ARSENAL\TYPI	AL.dgn	DRAWN - G.M.	REVISED - 03/99		SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.				741	238
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	PLOT DATE = 9/29/2010	DATE - 06/05/96	REVISED - 07/2010					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TYPE "T" HINGES REQUIRED ONLY ON
ON HEAVY DUTY SPECIAL.

CONDUIT TYP.

CONDUIT TYP.

TYPE "G" HANDLE FOR BOTH HDHH AND HDHH SPECIAL

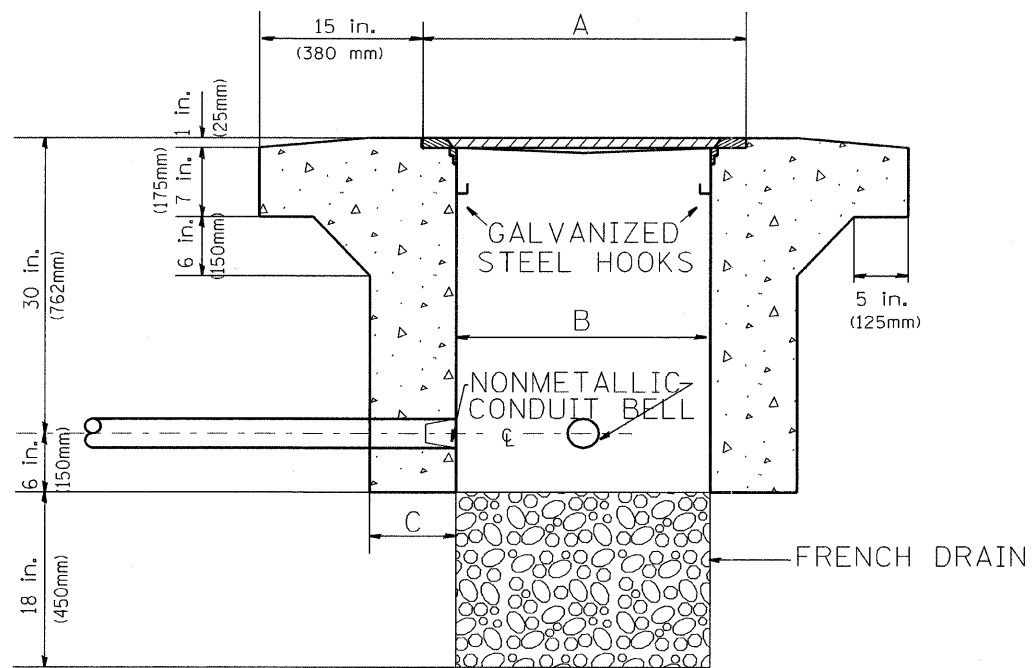


PLAN

HEAVY DUTY HANDHOLE MINIMUM DIMENSIONS (UNHINGED)

A	28" (711 mm)
B	22" (559 mm)
C	8" (200 mm)

(FRAME AND COVER 260 LBS. (118 Kg.) MIN.)



ELEVATION

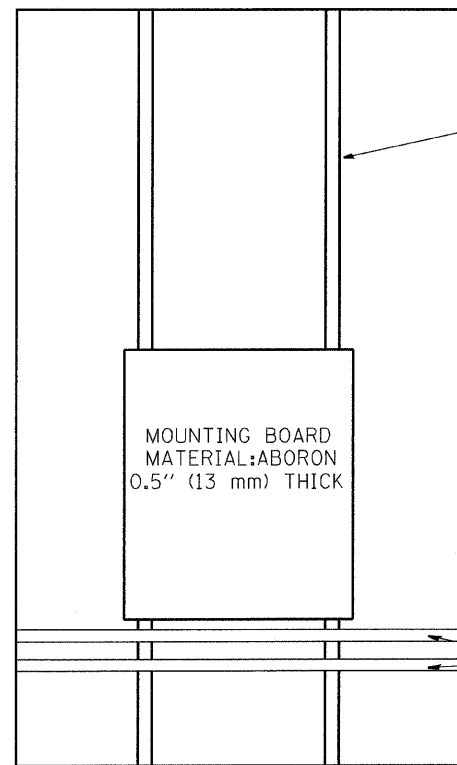
HEAVY DUTY HANDHOLE SPECIAL MINIMUM DIMENSIONS

A	31.5" (800 mm)
B	30" (762 mm)
C	10" (250 mm)

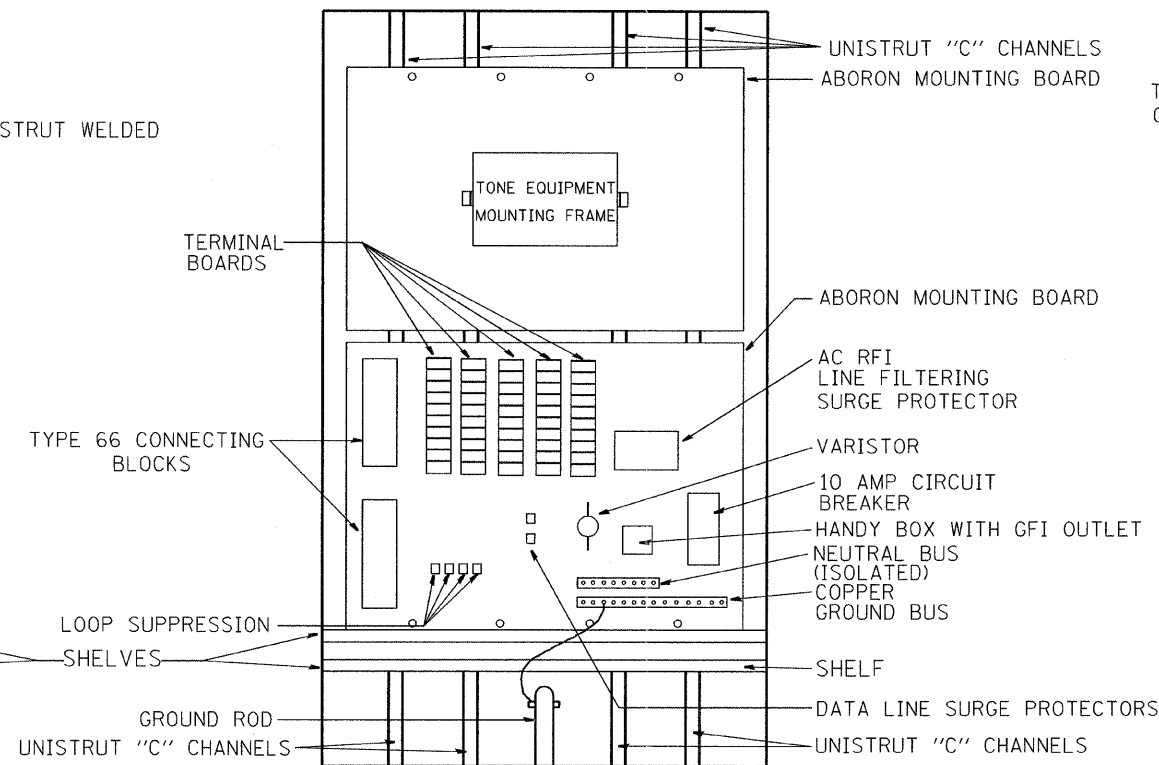
(FRAME AND COVER 405 LBS. (184 Kg. (405))

PC CONCRETE - HEAVY DUTY HAND HOLE

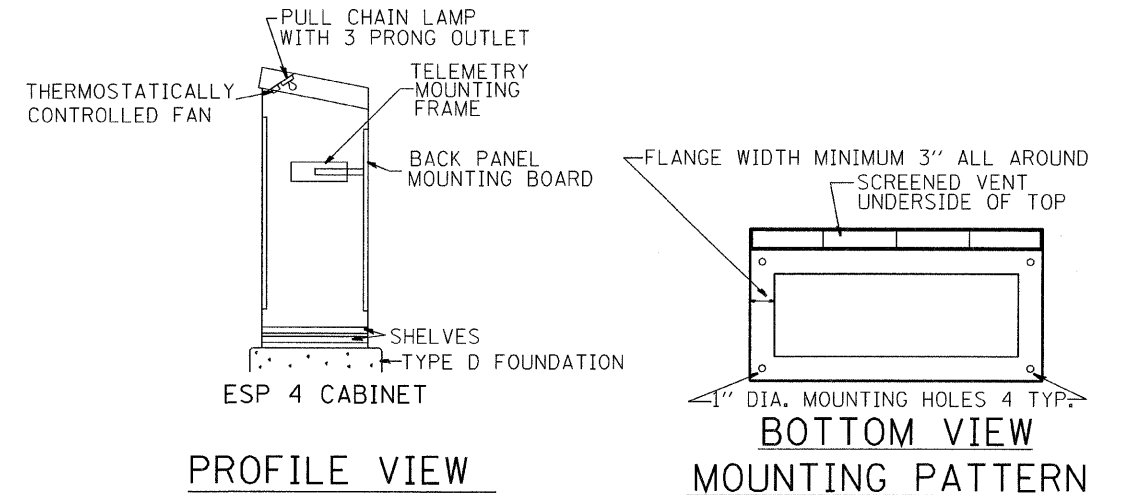
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AL.dgn	DRAWN - G.M.	REVISED -								741	239
PLOT SCALE = 5000.0000 / IN.	CHECKED - R.L.	REVISED -									
PLOT DATE = 9/29/2010	DATE - 09/11/96	REVISED -									
SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT CONTRACT NO.					



SIDE VIEW ESP 4 CABINET



FRONT VIEW ESP 4 CABINET



TYPICAL CABINET INTERIORS
STANDARD TRAFFIC SYSTEMS CENTER CABINETS

TYPE	MINIMUM DIMENSIONS			INSIDE THICKNESS (IN-mm)	MATERIAL
	HEIGHT (IN-m)	WIDTH (IN-m)	DEPTH (IN-mm)		
ESP4	55" (1.4 m)	44" (1.12 m)	26" (660.4 mm)	3/16" (4.76mm)	FABRICATED ALUMINUM

NOTES:

- CABINETS, CABINET POSTS AND CABINET PEDESTALS SHALL BE PRIMED AND PAINTED IN ACCORDANCE WITH SECTION T637 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS". THE FINAL COAT SHALL BE (X) IN COLOR. THE INTERIOR SHALL BE PAINTED WHITE. SIGNAL POSTS AND HEADS TO BE FEDERAL YELLOW 89-19(MAUTZ).
- CABINETS SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION T400 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS".
- ALL CABINETS WHICH ARE SERVICED BY 117 VOLTS A.C. POWER SHALL BE EQUIPPED WITH A 10 AMP CIRCUIT BREAKER, A.C. R.F.I. LINE FILTERING SURGE PROTECTOR, VARIATOR, DATA SURGE AND LOOP SURGE PROTECTORS AS INCIDENTAL TO THE COST OF THE CABINET. CMS CABINETS TYPE IV SHALL HAVE A 60 AMP. CIRCUIT BREAKER MINIMUM.
- ESP 4 CABINETS SHALL BE FITTED WITH A THERMOSTATICALLY CONTROLLED FAN. IT SHALL BE MOUNTED AT THE TOP OF THE CABINET. THE FAN SHALL BE CAPABLE OF OPERATING AT 130 CPM AT 160' (48.8 m) OF STATIC WATER PRESSURE. A PORCLAIN BASED PULL CHAIN FIXTURE WITH 3 PRONG OUTLET SHALL ALSO BE PROVIDED.
- INCIDENTAL TO THE COST OF EACH CABINET THE CONTRACTOR SHALL CONSTRUCT A 5 INCH (130mm) PCC SIDEWALK OF A RECTANGULAR AREA 3 FEET (915 mm) BY 4 FEET (1.25 m) IMMEDIATELY ADJACENT TO THE CABINET FOUNDATION ON THE SAME SIDE OF THE FOUNDATION AS THE CABINET DOOR TO PROVIDE FOOTING DURING INSTALLATION AND MAINTENANCE.
- ANCHOR BOLTS FOR PEDESTAL AND BASE MOUNTED CABINETS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CABINET.
- ALL CABINETS SHALL HAVE TERMINAL BLOCKS AND SHELVES AS SHOWN. THESE ITEMS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CABINET.
- THE CABINET DOOR SHALL BE HINGED ON THE RIGHT SIDE WHEN FACING THE CABINET. THE DOOR SHALL BE FURNISHED WITH A GASKET THAT SHALL FORM A WEATHER TIGHT SEAL BETWEEN THE CABINET AND DOOR. THE HINGES SHALL BE CONTINUOUS AND BOLTED TO THE CABINET AND DOOR UTILIZING 1/4-20 STAINLESS STEEL CARRIAGE BOLTS AND NY-LOCK NUTS. THE HINGES WILL BE MADE OF STAINLESS STEEL WITH A 0.25 INCH (6.35 mm) DIAMETER STAINLESS STEEL HINGE PIN. THE HINGE PIN SHALL BE CAPPED TOP AND BOTTOM BY WELD TO RENDER IT TAMPER PROOF.
- THE LATCHING MECHANISM SHALL BE A 3 POINT DRAW ROLLER TYPE. THE CENTER CATCH AND PUSHRODS SHALL BE EITHER CADMIUM OR ZINC PLATED, TYPE II CLASS I. PUSHRODS WILL BE TURNED EDGEWISE AT THE OUTWARD SUPPORTS AND SHALL BE 0.25 INCH (6.35 mm) BY 0.75 INCH (19.05 mm), MINIMUM. ROLLERS SHALL HAVE A MINIMUM DIAMETER OF 0.875 INCH (22.22 mm) AND WILL BE MADE OF NYLON. THE CENTER CATCH SHALL BE FABRICATED FROM 0.14 INCH (3.55 mm) STEEL, MINIMUM. WHEN THE DOOR IS CLOSED AND LATCHED, IT WILL BE LOCKED. THE LATCHING HANDLE SHALL HAVE A PROVISION FOR PADLOCKING IN THE CLOSED POSITION. AN OPERATING HANDLE SHALL BE FURNISHED WITH EACH LOCK. THE HANDLE WILL BE STAINLESS STEEL WITH A 0.75 INCH (19.05 mm) DIAMETER SHANK.
- THE ENCLOSURE SHALL BE EQUIPPED WITH TWO "C" MOUNTING CHANNELS WELDED ON BOTH SIDE WALLS AND BACK WALL OF THE ENCLOSURE, ALLOWING VERSATILE POSITIONING OF SHELVES OR PANELS. MOUNTING CHANNELS SHALL BE FACTORY PAINTED SAME COLOR AS INTERIOR OF CABINET.
- CABINET DOOR SHALL NOT HAVE COMPARTMENT DOORS OR LOUVERS.
- ALL FIELD CABINETS SHALL BE FITTED WITH BRASS LOCKS.
- ESP TYPE 4 CABINETS FITTED WITH TWO SHELVES AS SHOWN.
- POST TOP MOUNTED CABINETS, SHALL HAVE A 0.25 INCH (6.3 mm) BOTTOM OF CABINET WELDED.
- THE CONTROL CABINET SHALL BE SET PLUMB ON THE FOUNDATION AND FASTENED TO THE ANCHOR BOLTS WITH NUTS AND WASHERS. FLAT WASHERS SHALL BE INSTALLED BELOW AND ABOVE THE BASE PLATE OF THE CONTROL CABINET. LOCKWASHERS SHALL BE INSTALLED ON TOP OF THE TOP FLAT WASHER.

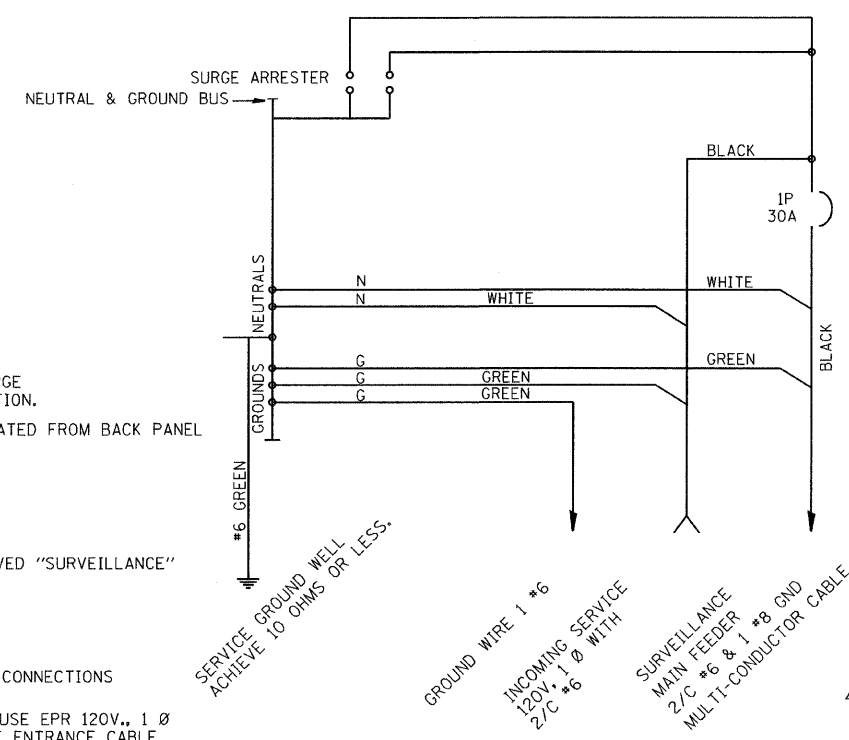
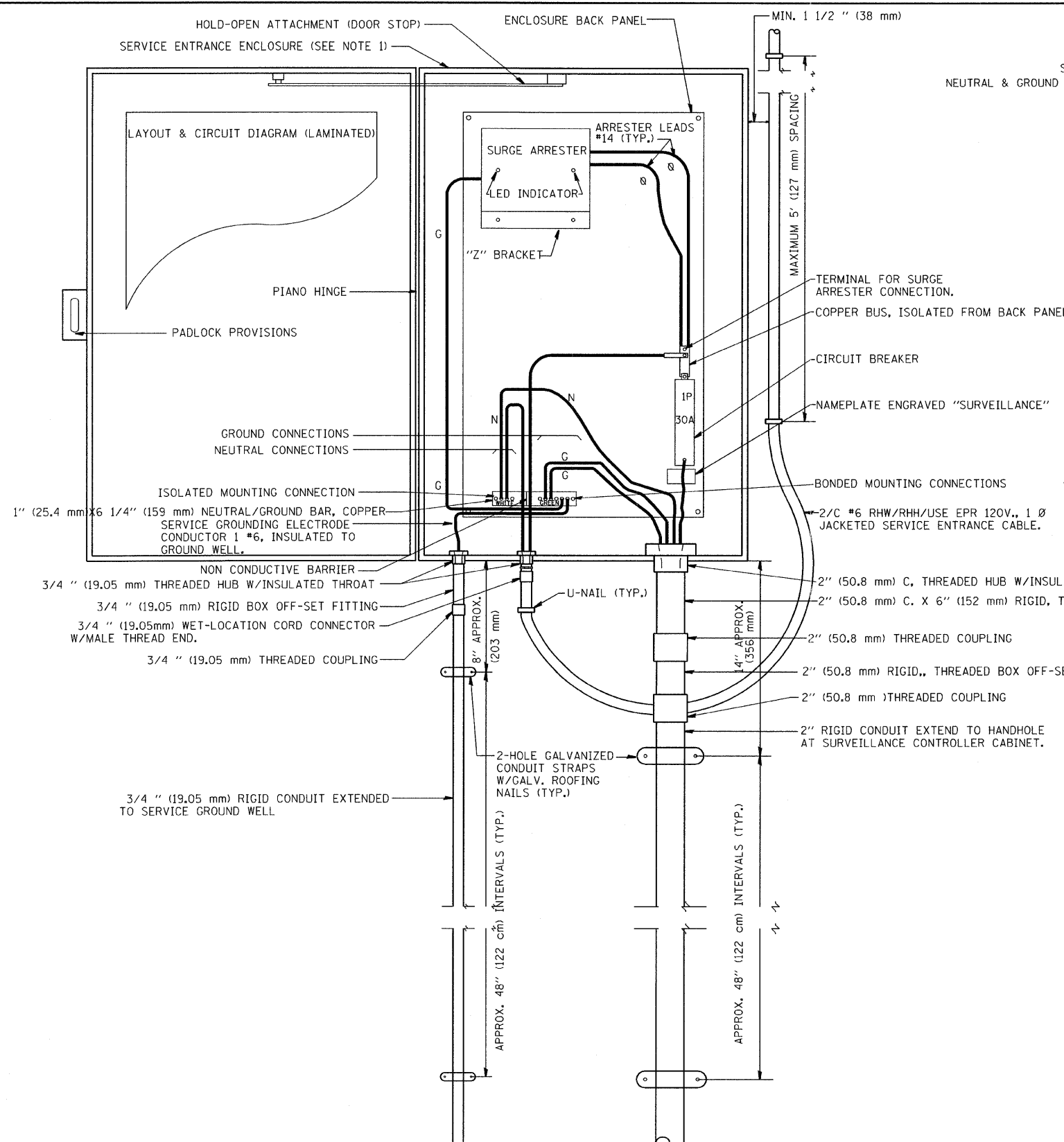
EDENS	WALNUT *
KENNEDY	BLUE STREAK **
EISENHOWER	CARIBBEAN BLUE *
I-290/IL53/I-355	POST OFFICE BLUE **
RYAN	YELLOW STONE II **
I-55	MEDIUM BRONZE *
I-57	RED BARON **
CAL-KING	BLUE STREAK **
LAKE SHORE DR.	GREEN *
I-80	STATUARY BRONZE **

ALL RAMP METERING CABINETS LIME GREEN ***. ALL POSTS, T.S. HEADS AND SERVICES WILL BE PAINTED FEDERAL YELLOW.

- * MORTON POWDER PAINT COLOR OR EQUIVALENT.
- ** O'BRIEN POWDER PAINT COLOR OR EQUIVALENT.
- *** BENJAMIN MOORE ENAMEL COLOR OR EQUIVALENT.

NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR CONFORMING TO COLOR REQUIREMENTS

FILE NAME = C:\Projects\TSC\TYPICALS\TSC\TYP08.dgn	USER NAME = mezag	DESIGNED - R.L.	REVISED - 02/98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	TYPE 4 CABINET DETAIL SHEET			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - G.M.	REVISED - 03/99		SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.				741	240
		CHECKED - R.L.	REVISED -		CONTRACT NO.							
		DATE - 04/26/97	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							



SCHEMATIC DIAGRAM

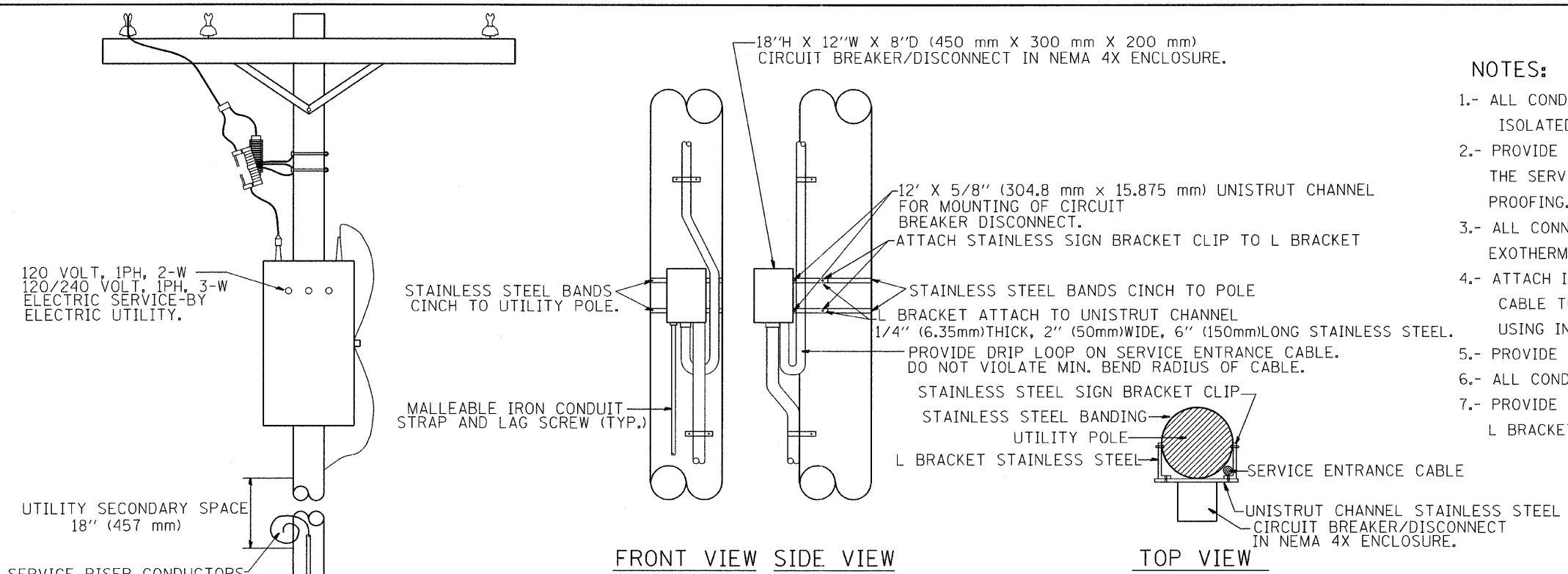
**ELECTRIC SERVICE
GENERAL LAYOUT DIAGRAM**

- NOTES:**
- 1.- ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED. WHERE 120-VOLT SERVICE IS INDICATED, SERVICE DROP CABLE SHALL BE INSTALLED ACCORDINGLY AND LIGHTING MAIN FEEDER CABLE SHALL BE OMITTED.
 - 2.- THE ELECTRIC SERVICE BOX SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12" (305 mm) X 18" (457 mm) X 8" (203 mm), WITH PIANO HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS, DOOR STOP KIT AND STEEL BACK PANEL, HOFFMAN CATALOG A-16H120856LP/A-16P2/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.
 - 3.- THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LABELED, SUITABLE FOR USE AS SERVICE EQUIPMENT.
 - 4.- CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
 - 5.- THE SURGE PROTECTOR SHALL BE SUITABLE FOR 240/120 VOLT SINGLE PHASE 60HZ AC ELECTRICAL SERVICE, WITH A SURGE ENERGY CAPABILITY OF >3600 JOULES OR BETTER AT 8/20 MICROSECONDS, RATED -40 TO 65 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449. CUTLER-HAMMER CMOV 230L065XST OR APPROVED EQUAL. SURGE PROTECTOR SHALL BE WIRED FOR 120 V SERVICE. FOLLOW MANUFACTURER RECOMMENDED WIRING SPECIFICATIONS.
 - 6.- BUS BARS, CONNECTORS AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS.
 - 7.- THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE.
 - 8.- A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE AFFIXED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
 - 9.- A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
 - 10.- PROVIDE ON LAYOUT AND CIRCUIT DIAGRAM A BILL OF MATERIALS USED WITH CATALOG NUMBERS.
 - 11.- REFER TO T.S.C. TYPICAL DRAWING TY-1TSC-400#20 FOR POLE MOUNTED DISCONNECT MOUNTING DETAILS.

FILE NAME =	USER NAME = mezoq	DESIGNED - R.L.	REVISED - 03/01/99
C:\Projects\TSC\TYPICALS\155ARSENALTYP	AL.dgn	DRAWN - G.M.	REVISED - 03/30/99
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PLOT DATE = 9/29/2010		DATE - 02/24/99	REVISED - 04/12/99

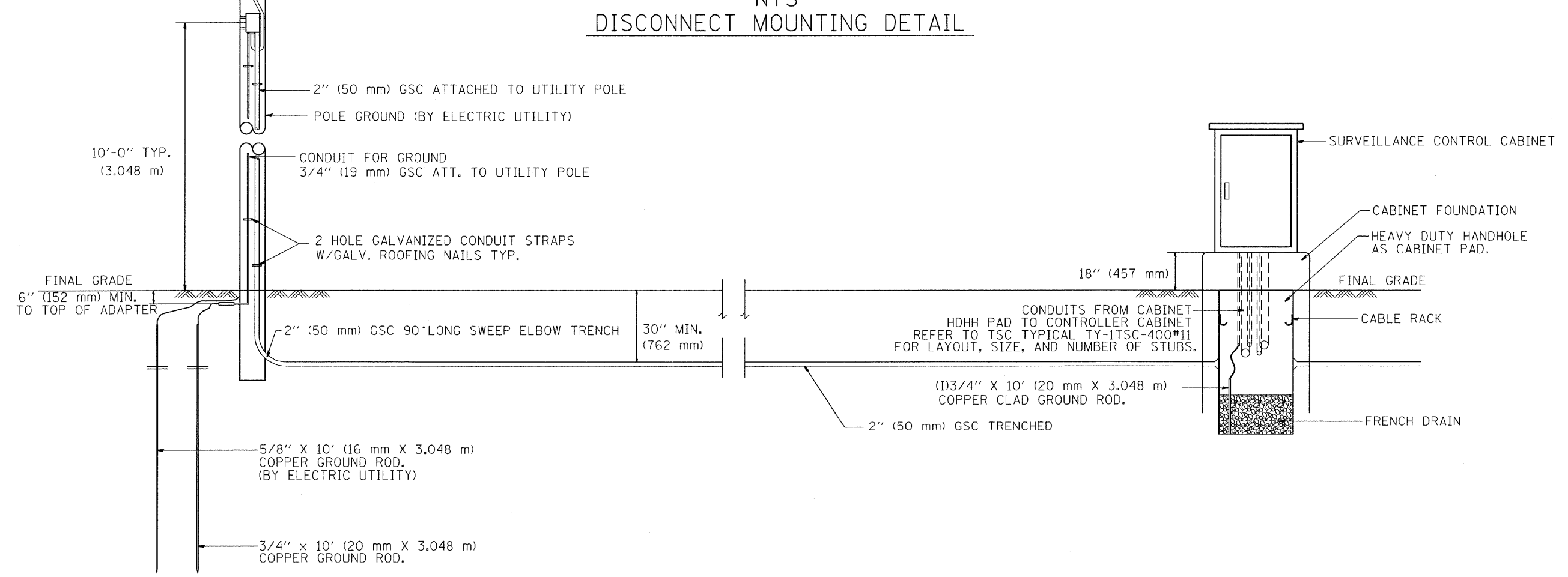
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER**

DISTRICT 1		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SURVEILLANCE POLE-MOUNTED					741	241
ELECTRIC SERVICE BOX DETAIL		CONTRACT NO.				
SCALE: NONE	SHEET NO. OF SHEETS	STA.	TO STA.			

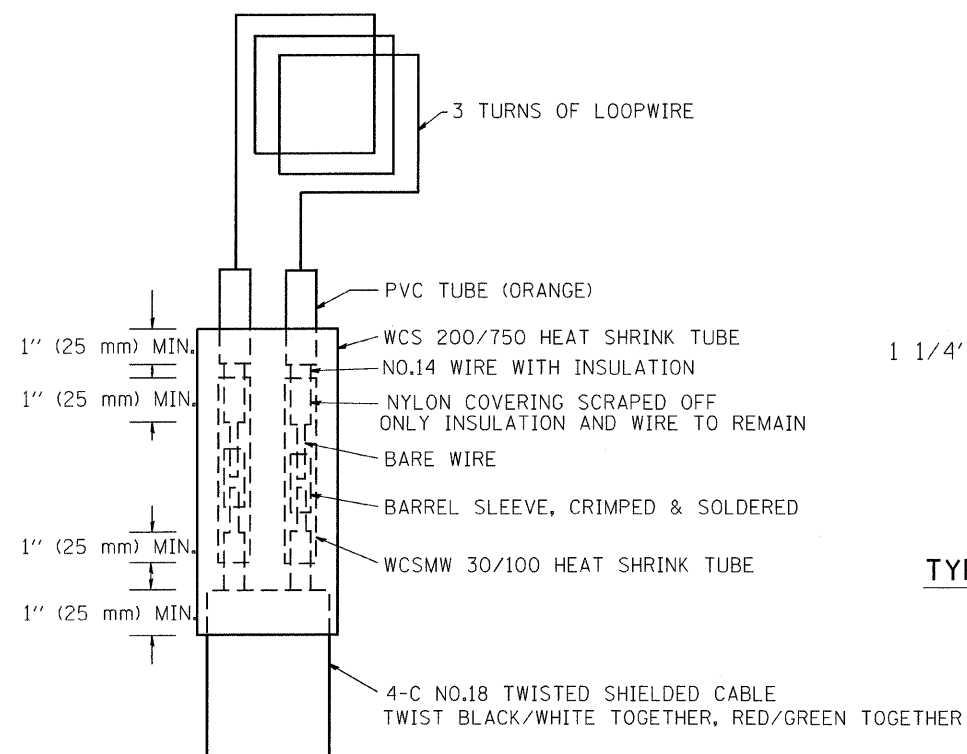


- NOTES:**
- 1.- ALL CONDUIT BUSHINGS SHALL HAVE AN ISOLATED THROAT.
 - 2.- PROVIDE HEAT SHRINK BOOT AT THE TOP OF THE SERVICE ENTRANCE CABLE FOR MOISTURE PROOFING.
 - 3.- ALL CONNECTIONS TO GROUND RODS SHALL BE EXOTHERMIC UNLESS OTHERWISE NOTED.
 - 4.- ATTACH INCOMING ELECTRIC SERVICE CABLE TO UTILITY POLE EVERY 5 FEET USING INSULATED U-NAIL.
 - 5.- PROVIDE CABLE RACK IN HANDHOLES.
 - 6.- ALL CONDUCTORS SHALL BE COPPER.
 - 7.- PROVIDE STAINLESS STEEL HARDWARE TO ATTACH L BRACKETS TO UNISTRUT AND TO SIGN HANGER.

**NTS
DISCONNECT MOUNTING DETAIL**



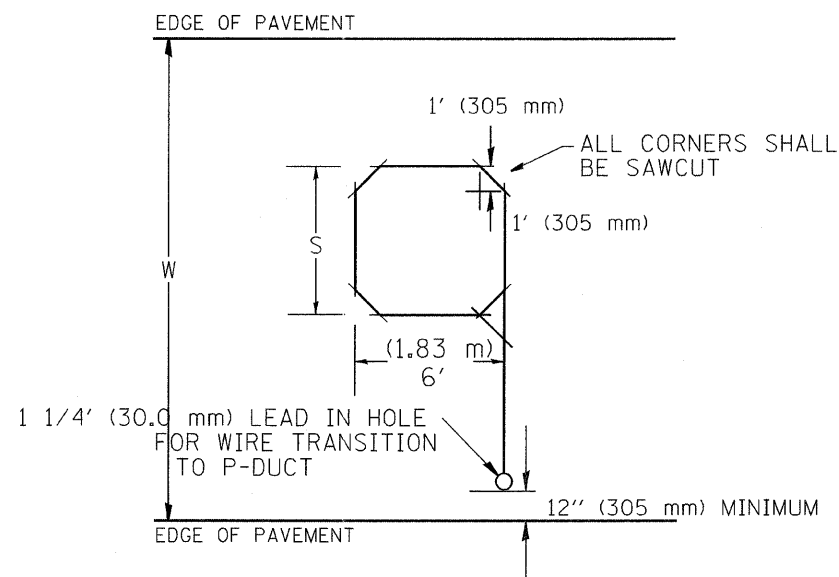
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PLOT SCALE = 5000.0000 "/>												
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		DATE - 03/30/99	REVISED - ---				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



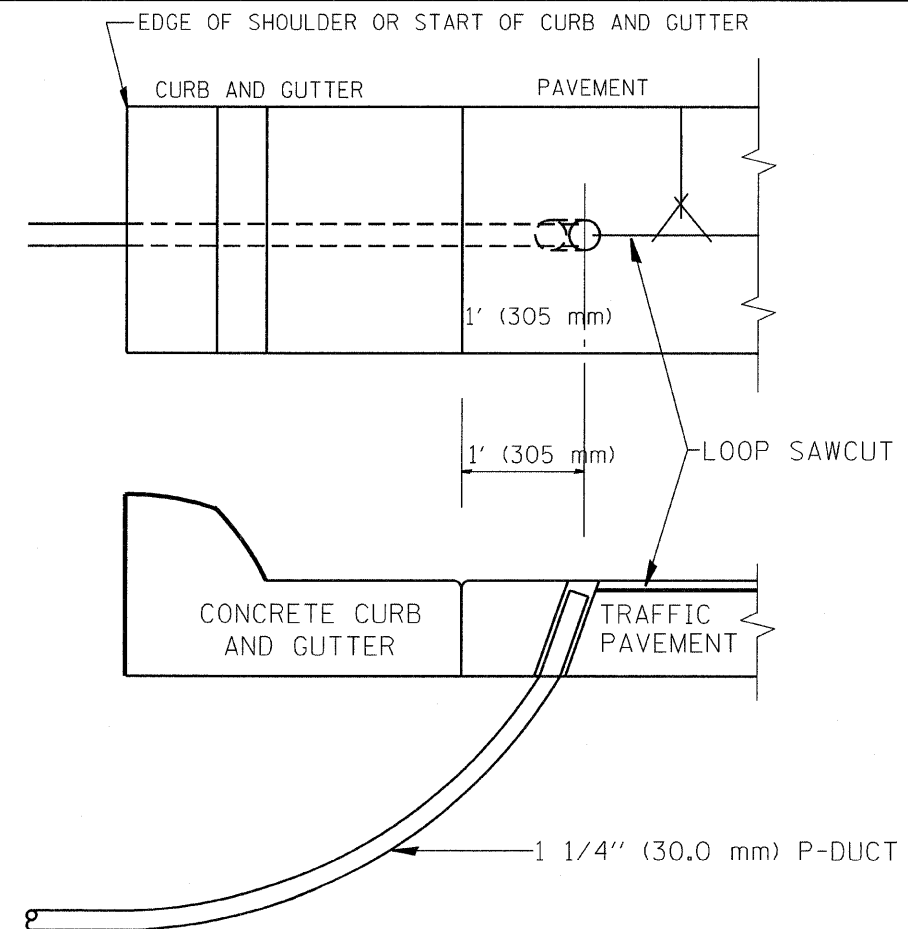
MINIMUM 1" (25 mm) HEAT SHRINK TUBING OVERLAP ON WIRE, PVC & SHIELDED CABLE TO FORM WATER TIGHT SEAL

LOOP SPLICING REQUIREMENTS

WIDTH (W)	WIDTH (S)
12' (3.7 m)	8' (2.5 m)
13' (4.0 m)	9' (2.8 m)
14' (4.3 m)	10' (3.1 m)
15' (4.6 m)	11' (3.4 m)
16' (4.9 m)	12' (3.7 m)
17' (5.2 m)	13' (4.0 m)
18' (5.5 m)	14' (4.3 m)
19' (5.8 m)	15' (4.6 m)
20' (6.1 m)	18' (4.9 m)
21' (6.4 m)	17' (5.2 m)
22' (6.7 m)	18' (5.5 m)
23' (7.0 m)	19' (5.8 m)
24' (7.3 m)	20' (6.1 m)
25' (7.6 m)	21' (6.4 m)



TYPICAL "S" FT. BY 6' (1.83 m) INDUCTION LOOP SAWCUT LAYOUT FOR RAMP

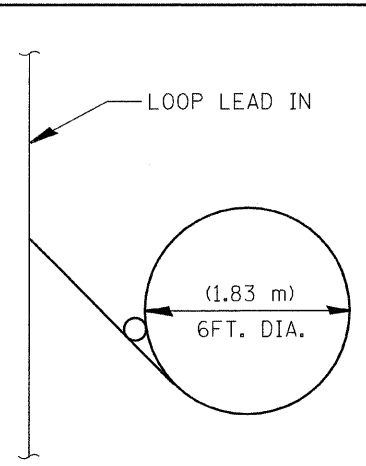


CURB AND GUTTER LOOP LEAD-IN TRANSITION DETAIL

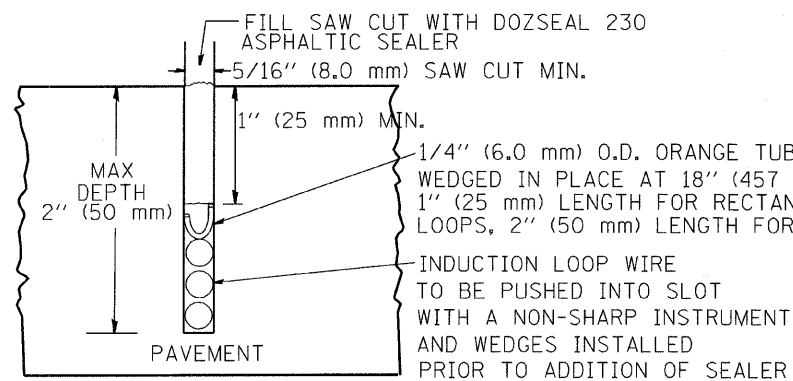
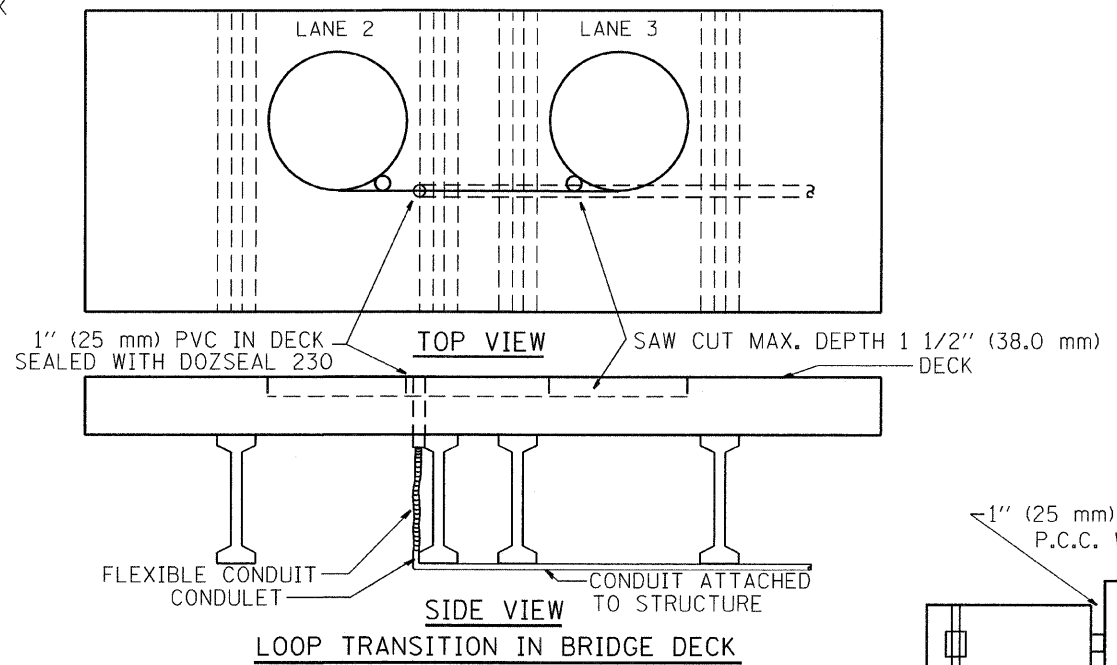
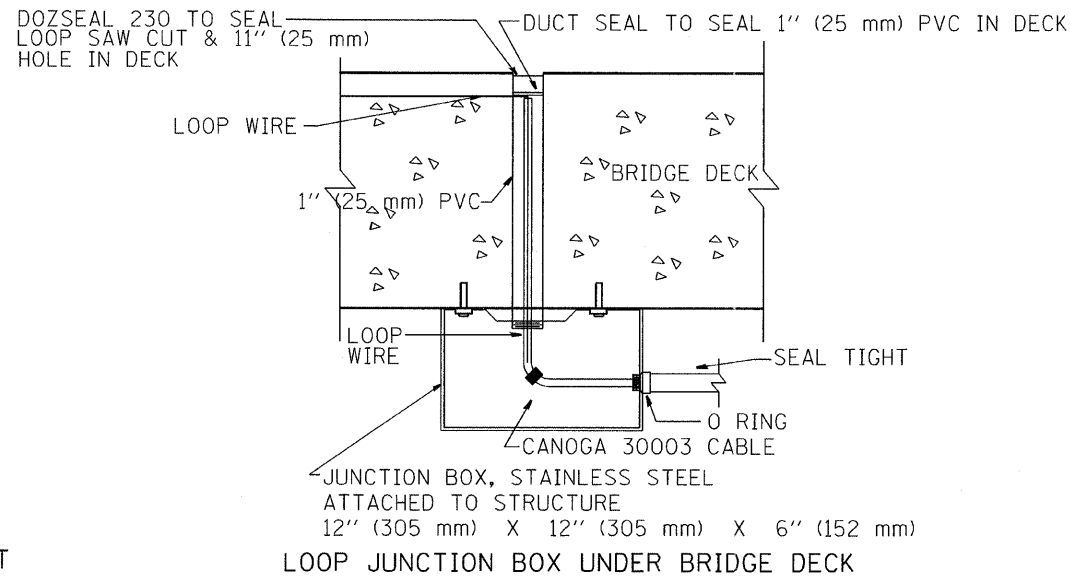
NOTES

1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 150' (45 m) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

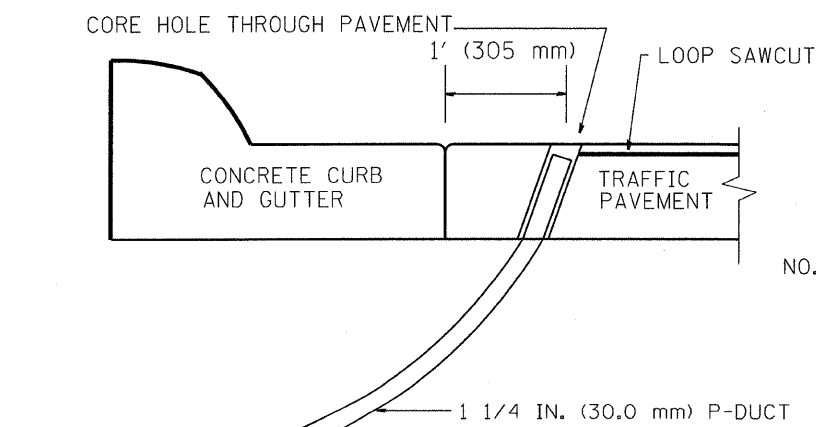
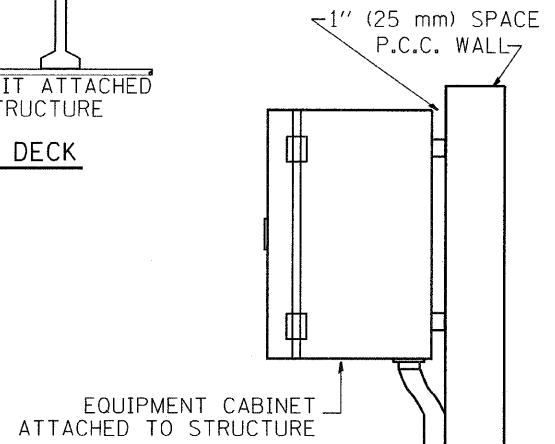
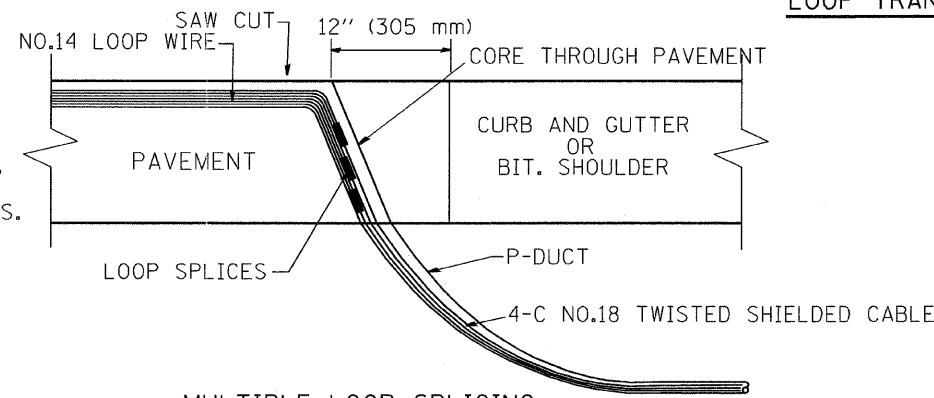
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		DRAWN - G.M.	REVISED - 11/95		SCALE: NONE	SHEET NO.	OF SHEETS	STA.	TO STA.			741	243
		CHECKED - R.L.	REVISED - 05/96		CONTRACT NO.								
		DATE - 6-22-94	REVISED - 10/96		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT								



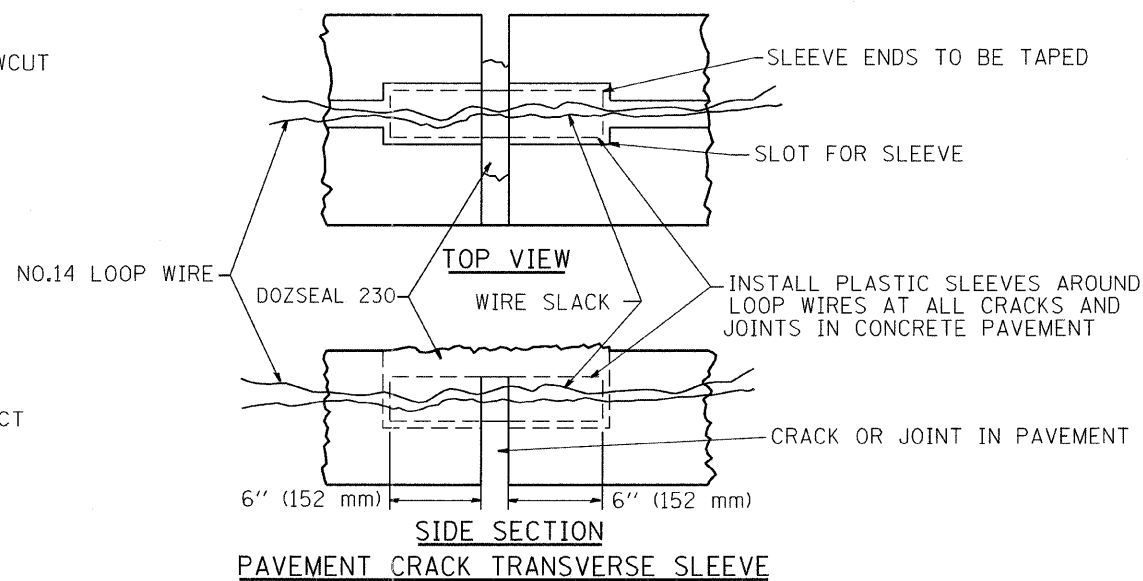
TYPICAL LOOP SAWCUT LAYOUT



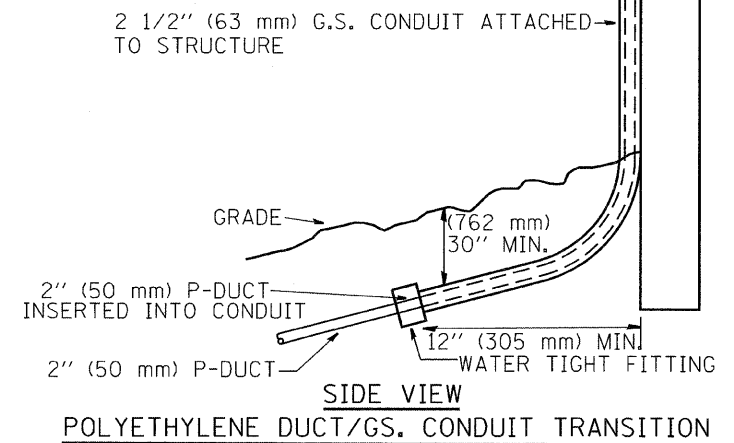
LOOP CROSS SECTION IN PAVEMENT



SIDE SECTION LOOP LEAD-IN TRANSITION DETAIL



SIDE SECTION PAVEMENT CRACK TRANSVERSE SLEEVE



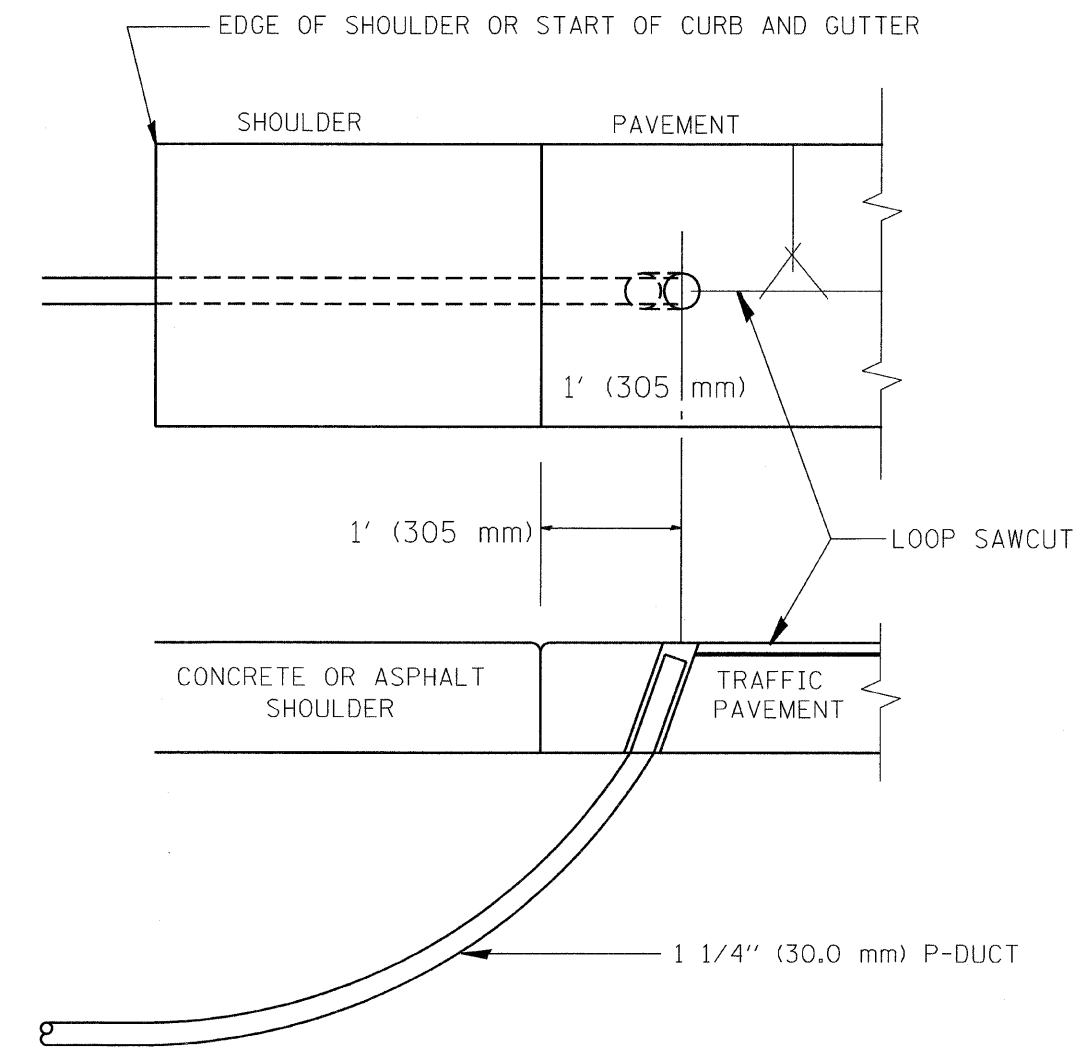
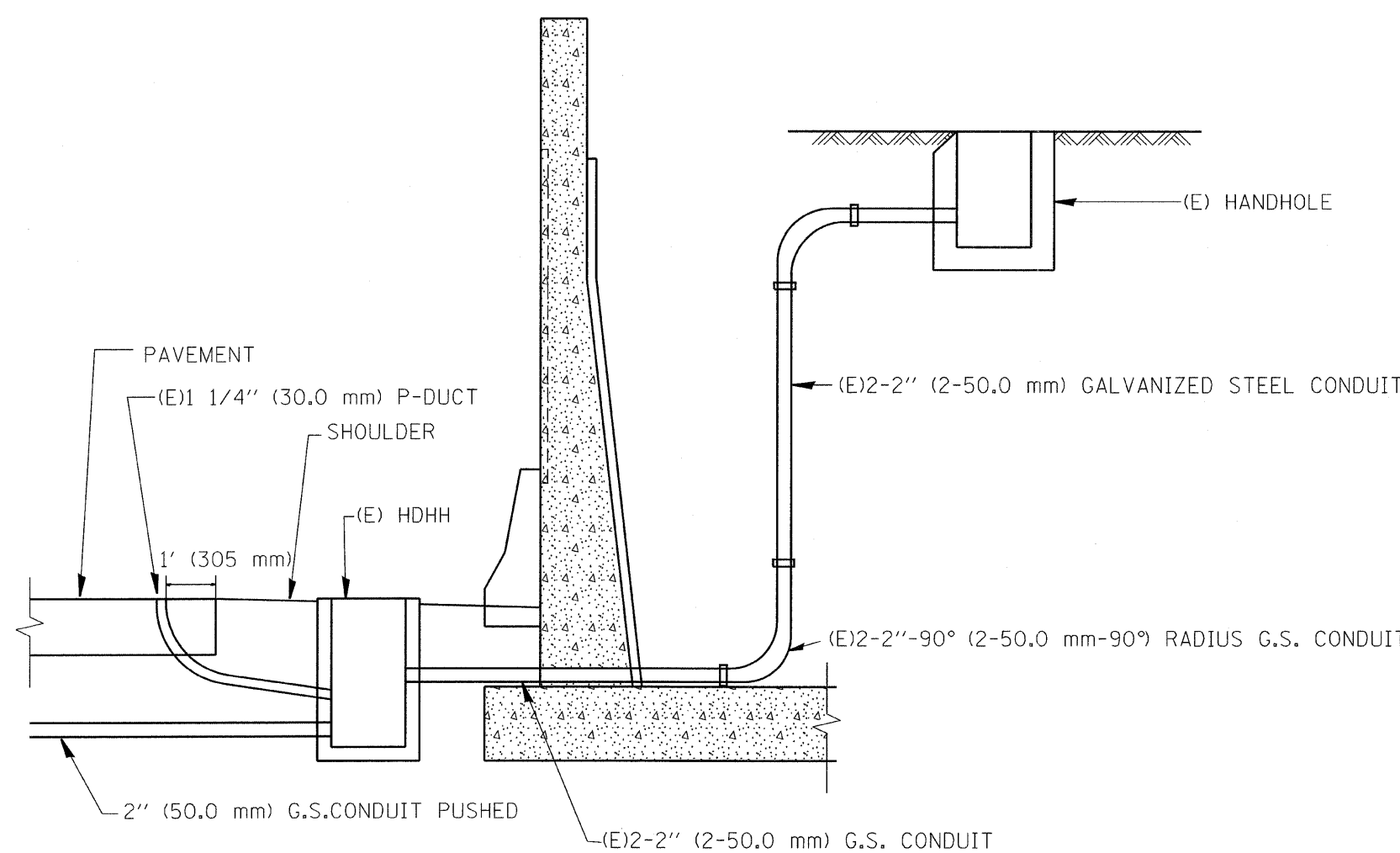
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		CHECKED - R.L.	REVISED - 11/95
		DATE - 06/22/94	REVISED - 10/96

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

LOOP, CONDUIT & DUCT
INSTALLATION DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			741	244
CONTRACT NO.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SHOULDER LOOP LEAD-IN
TRANSITION DETAIL

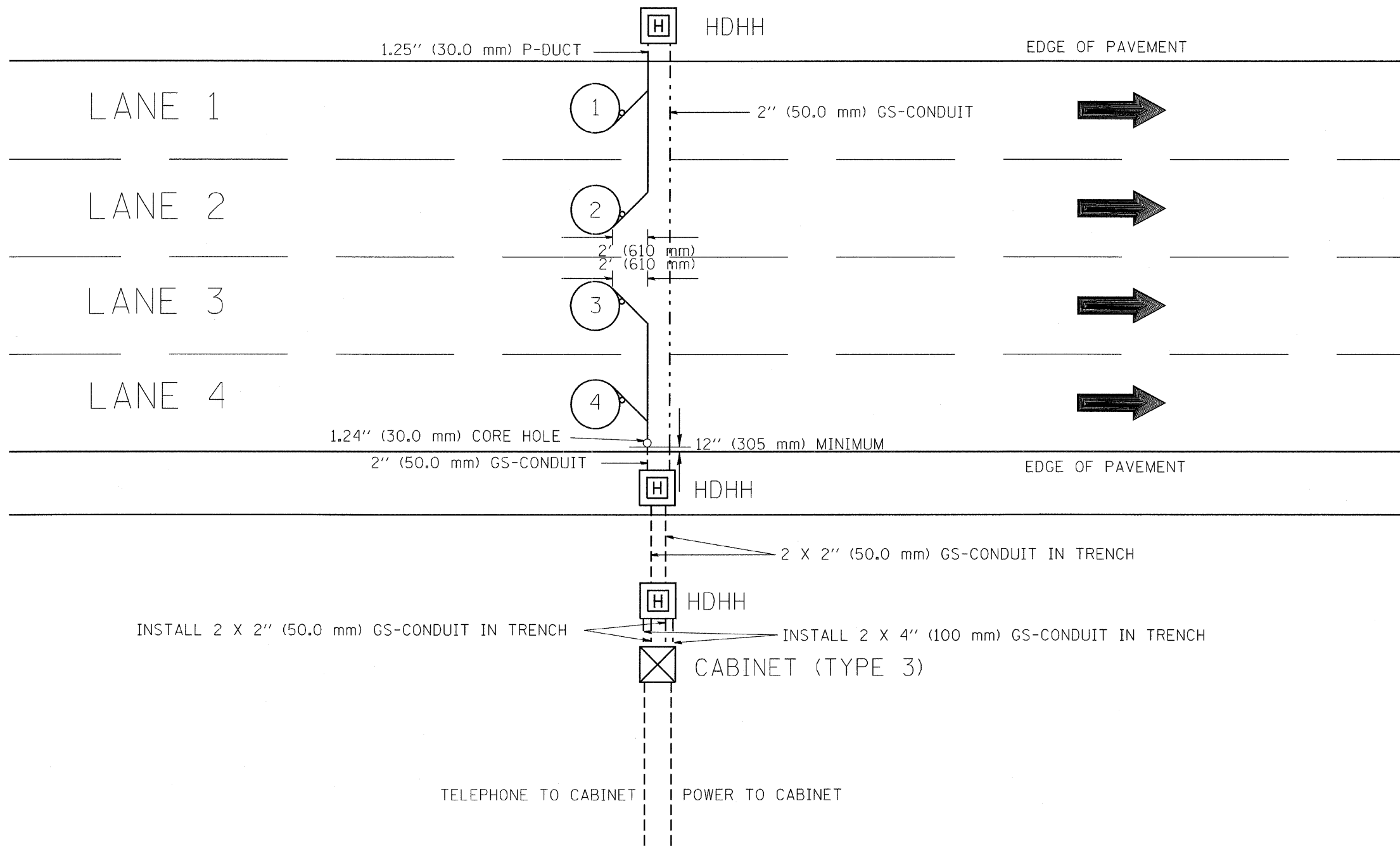
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		CHECKED - R.L.	REVISED - 05/96
		DATE - 6-22-94	REVISED - 10/96

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

TYPICAL INDUCTION LOOP LEAD-IN TRANSITION DIAGRAMS			
SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			741	245
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO.				

NOTE: ALL MAIN LINE LOOPS ARE ROUND 6' DIA. (1.83 m)

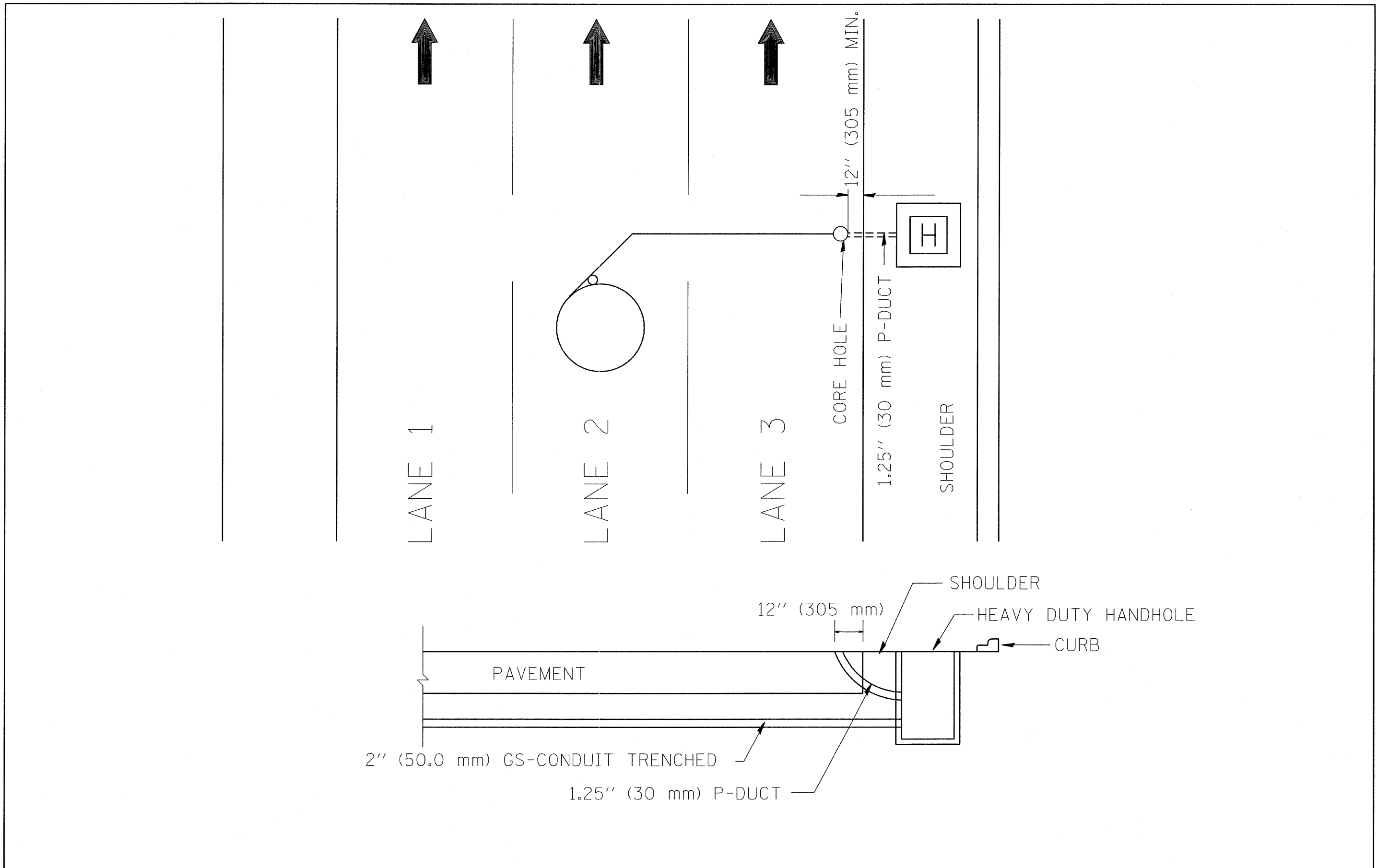


NOTES

1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 150' (45 m) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

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		DRAWN - G.M.	REVISED - R.L.		SCALE: NONE	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	741	246
		CHECKED - R.L.	REVISED - T.C.										
		DATE - 6-27-94	REVISED - T.C.										

TRAFFIC SYSTEMS CENTER (TY-1TSC-418#6)



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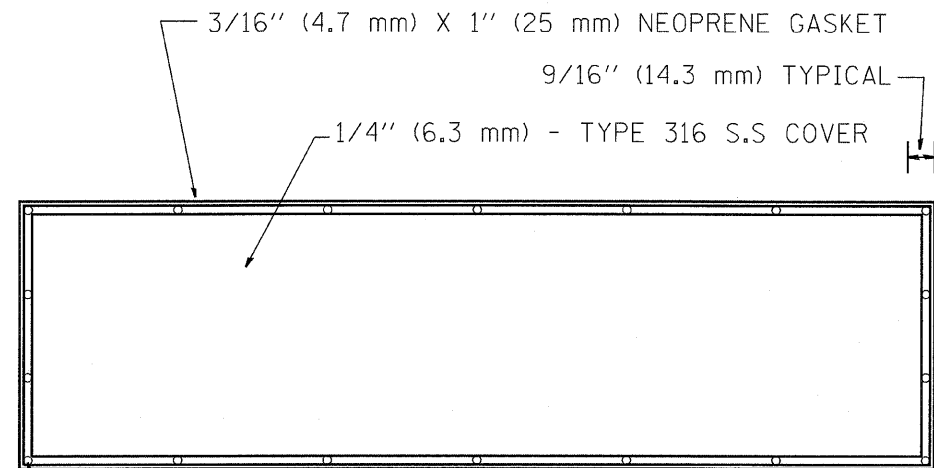
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CHECKED - R.L.
DATE - 11/7/95

REVISED - R.L.
REVISED - T.C.
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

DIVE HOLE DUCT SYSTEM
SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.

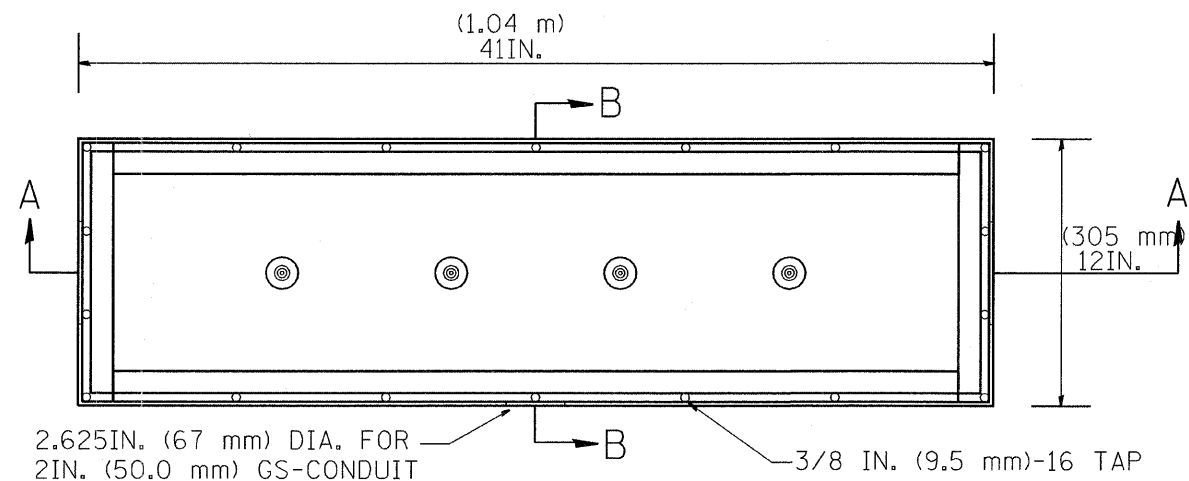
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			741	248
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO.				



DRILL AND COUNTERSINK TOP OF COVER FOR
3/8" (9.5 mm) 16 X 3/4" (19 mm)
FLAT HEAD STAINLESS STEEL SLOTTED SCREWS

BACK VIEW

STAINLESS STEEL COVER WITH NEOPRENE GASKET

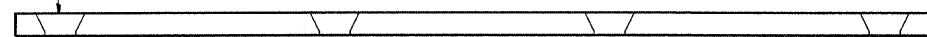


2.625 IN. (67 mm) DIA. FOR
2 IN. (50.0 mm) GS-CONDUIT

3/8 IN. (9.5 mm)-16 TAP

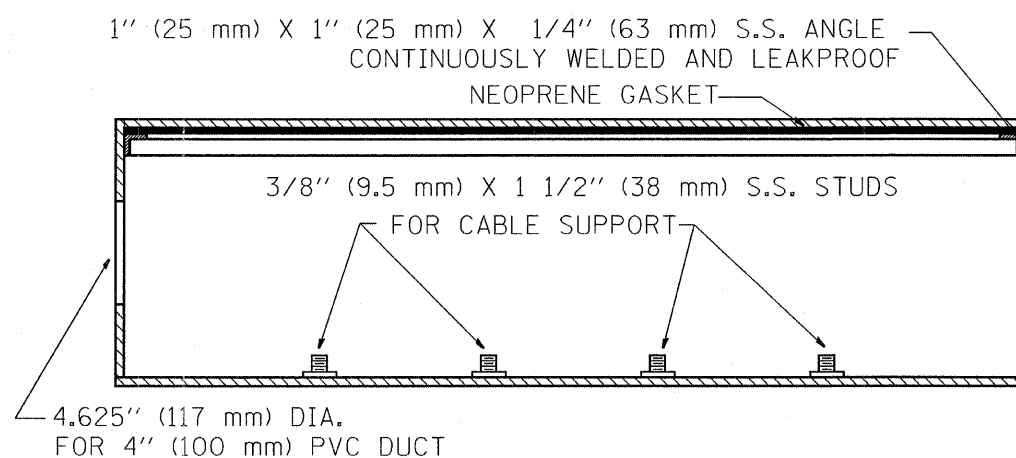
TOP VIEW

STAINLESS STEEL JUNCTION BOX TYPE "J"



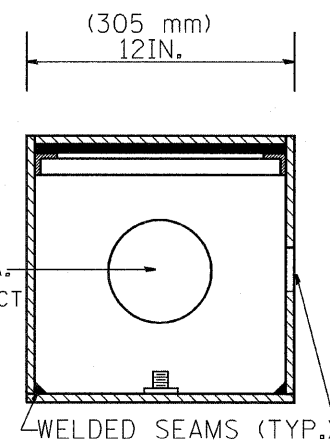
SIDE VIEW

STAINLESS STEEL COVER



4.625" (117 mm) DIA.
FOR 4" (100 mm) PVC DUCT

SIDE VIEW SECTION A-A



2.625 IN. (67 mm) DIA. HOLE

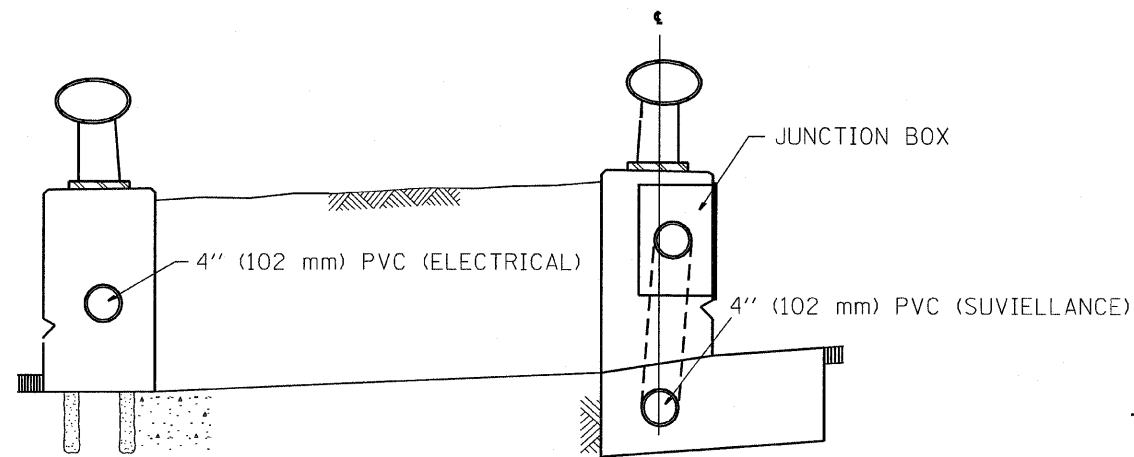
SIDE VIEW SECTION B-B

NOTE:

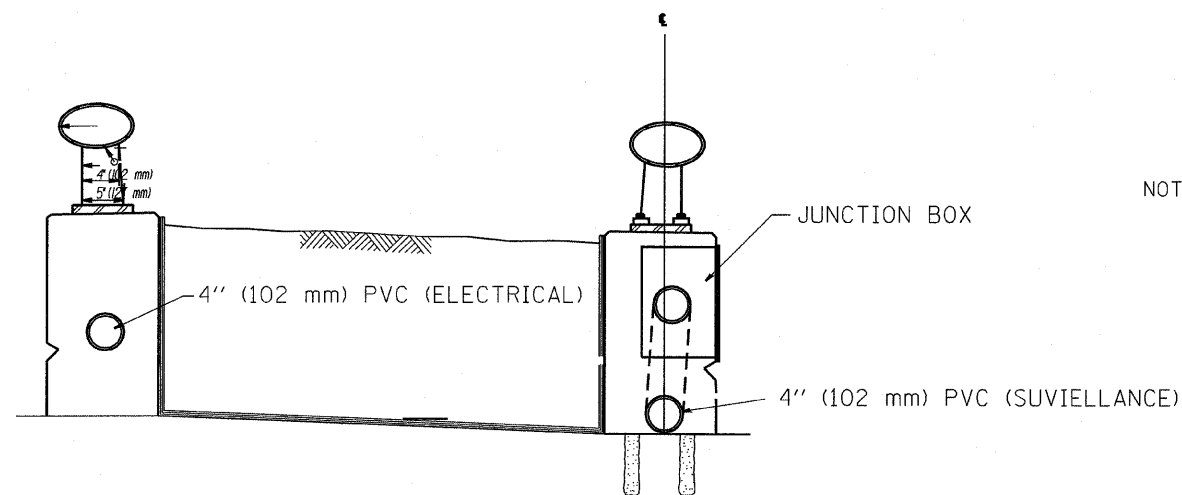
JUNCTION BOX TO BE CONSTRUCTED OF
1/4 IN. (6.3 mm) TYPE 316 STAINLESS STEEL
ALL WELDS SHALL BE CONTINUOUS AND LEAKPROOF
ALL COVERS SHALL BE UNIVERSAL IN FIT.

BARRIER WALL SHALL BE GAPPED A MINIMUM OF 15FT. (4.57 m) FOR PROPER PLACEMENT OF JUNCTION BOX TYPE "J" AND
FOR A SMOOTH TRANSITION OF 4IN. (100 mm) PVC SURVEILLANCE DUCT(S) FROM BARRIER WALL FOOTER INTO JUNCTION BOX.

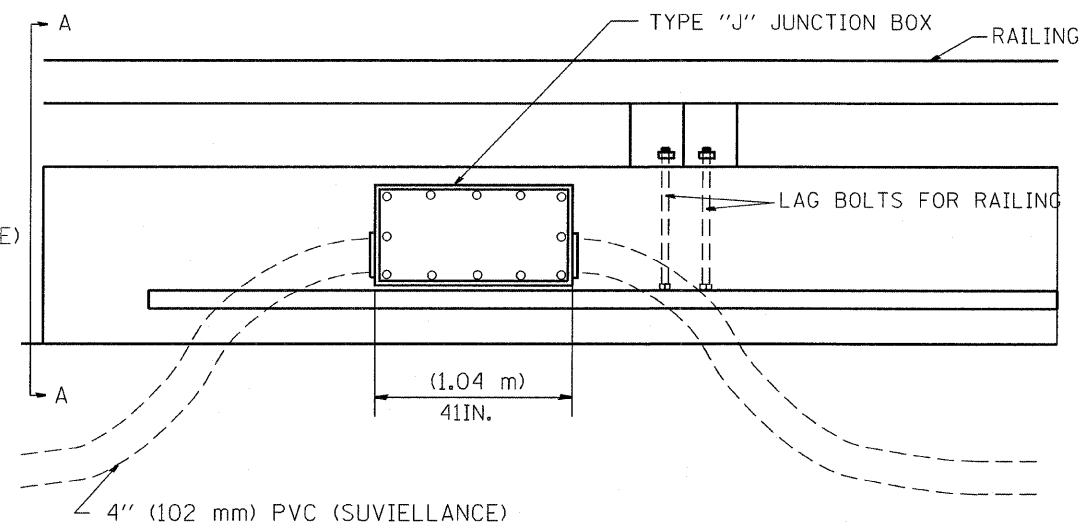
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		DRAWN - G.M.	REVISED - 10/96		SCALE: NONE	SHEET NO. OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	741	249
		CHECKED - R.L.	REVISED -										
		DATE - 06/22/94	REVISED -										



SECTION FACING NORTH
SECTION A-A
WITH CURB AND GUTTER REMOVAL



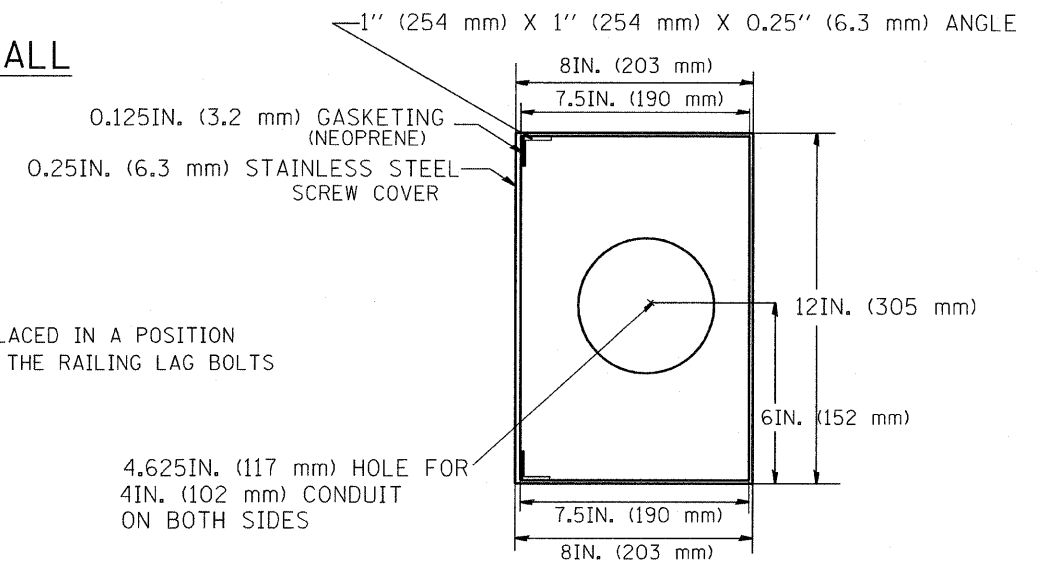
SECTION FACING NORTH
SECTION A-A
WITHOUT CURB AND GUTTER REMOVAL



ELEVATION DETAIL

CHICAGO BARRIER WALL
WITH RAILING

NOTE: JUNCTION BOXES WILL BE PLACED IN A POSITION
TO AVOID A CONFLICT WITH THE RAILING LAG BOLTS



SIDE VIEW
JUNCTION BOX TYPE "J"

ALL WELDS SHALL BE CONTINUOUS AND LEAK PROOF
BOX AND COVER SHALL BE 0.25 IN. (6.3 mm) TYPE 316 STAINLESS STEEL

BARRIER WALL SHALL BE GAPPED A MINIMUM OF 15 FT. (4.57 m) FOR PROPER PLACEMENT OF JUNCTION BOX TYPE "J"
AND FOR A SMOOTH TRANSITION OF 4 IN. (100 mm) PVC SURVEILLANCE DUCT(S) FROM BARRIER WALL FOOTER INTO JUNCTION BOX.

FILE NAME = C:\Projects\TSC\TYPICALS\TCTYP08.dgn	USER NAME = mezag	DESIGNED - R.L.	REVISED - 06/94
		DRAWN - G.M.	REVISED - 10/96
		CHECKED - R.L.	REVISED - 02/98
		DATE - 06/22/94	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			741	250
CONTRACT NO.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TRAFFIC SYSTEMS CENTER (TY-1TSC-663#7)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Anna M. Dukas
ENGINEER OF BRIDGES AND STRUCTURES

LIST OF SHEETS

- OVERALL GENERAL PLAN
- OVERALL TOTAL BILL OF MATERIALS
- OVERALL STAGE CONSTRUCTION

DESIGN SPECIFICATION

2002 AASHTO Standard Specifications for Highway Bridges

SEISMIC DATA

Seismic performance category (SPC) = A
Bedrock Acceleration Coefficient = 0.04
Site Coefficient = 1.50

LOADING HS20-44

Allow 50 psf for future wearing surface

DESIGN STRESSES

FIELD UNITS

Concrete: $f'_c = 3,500$ psi
Struct. Steel: $f_y = 50,000$ psi
(M 270, GR 50)
Reinforcement: $f_y = 60,000$ psi

ALLOWABLE STRESSES FOR EXISTING STEEL AND CONCRETE

Concrete: $f'_c = 3,500$ psi
Struct. Steel: $f_y = 36,000$ psi
Reinforcement: $f_y = 40,000$ psi

Existing Structure: Structure No. 016-0724 built in 1964. Sec. 207-1011.1-C.F. Mainline: Structure, which carries Central Avenue over I-55. Four spans, consisting of a two span continuous flanked by two single spans with framing to ramps. Total length 325'-11 3/8", width 88'-10 7/8". Ramp 1: Five spans, consisting of a two span continuous and a three span continuous. Total Length 360'-2", width 48'-10 5/8". Ramp 2: Five spans, consisting of a two span continuous and a three span continuous. Total Length 360'-2 1/2", width 48'-10 5/8". Ramp 3: Four spans, consisting of a four span continuous. Total Length 276'-6 1/8", width 48'-10 5/8". Ramp 4: Five spans, consisting of a two span continuous and a three span continuous. Total Length 360'-2 1/2", width 48'-10 5/8". All existing structure consists of WF beams on concrete piers and abutments. Existing superstructure and substructure are to be repaired and reused.

Structure No. 016-3240 built in 1964. Sec. 046-0404.05-MFT. 33-Span Structure which carries Central Avenue over the Sanitary Drainage and Ship Canal, north of Interstate 55, and back to grade at 39th Street. Only five spans, are affected by the SPUI widening, consisting of a two span continuous and a three spans of a 5-span continuous. Sixteen (16) wide-flange steel stringers for the 3-span and fourteen (14) wide-flange steel stringers for the 2-span structure support a 7" thick (existing) reinforced concrete deck. Reinforced concrete abutments and piers support the stringers. Total length 1433'-8 3/4", width 88'-10 7/8".

Structure Number 016-3241 built in 1964. Sec. 207-1011.1-C.F. South approach structure which carries Central Avenue from grade at 47th Street over the Illinois Central (IC) Railroad, south of Interstate 55. Six spans, consisting of a three span continuous and another three span continuous. Sixteen (16) wide-flange steel stringers support a 7" thick (original) reinforced concrete deck. Reinforced concrete abutments and piers support the stringers. Total length 458'-1", width 88'-10 7/8".

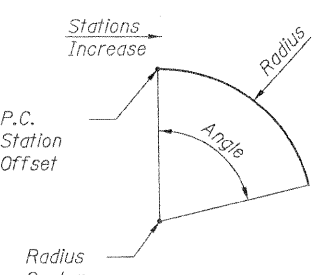
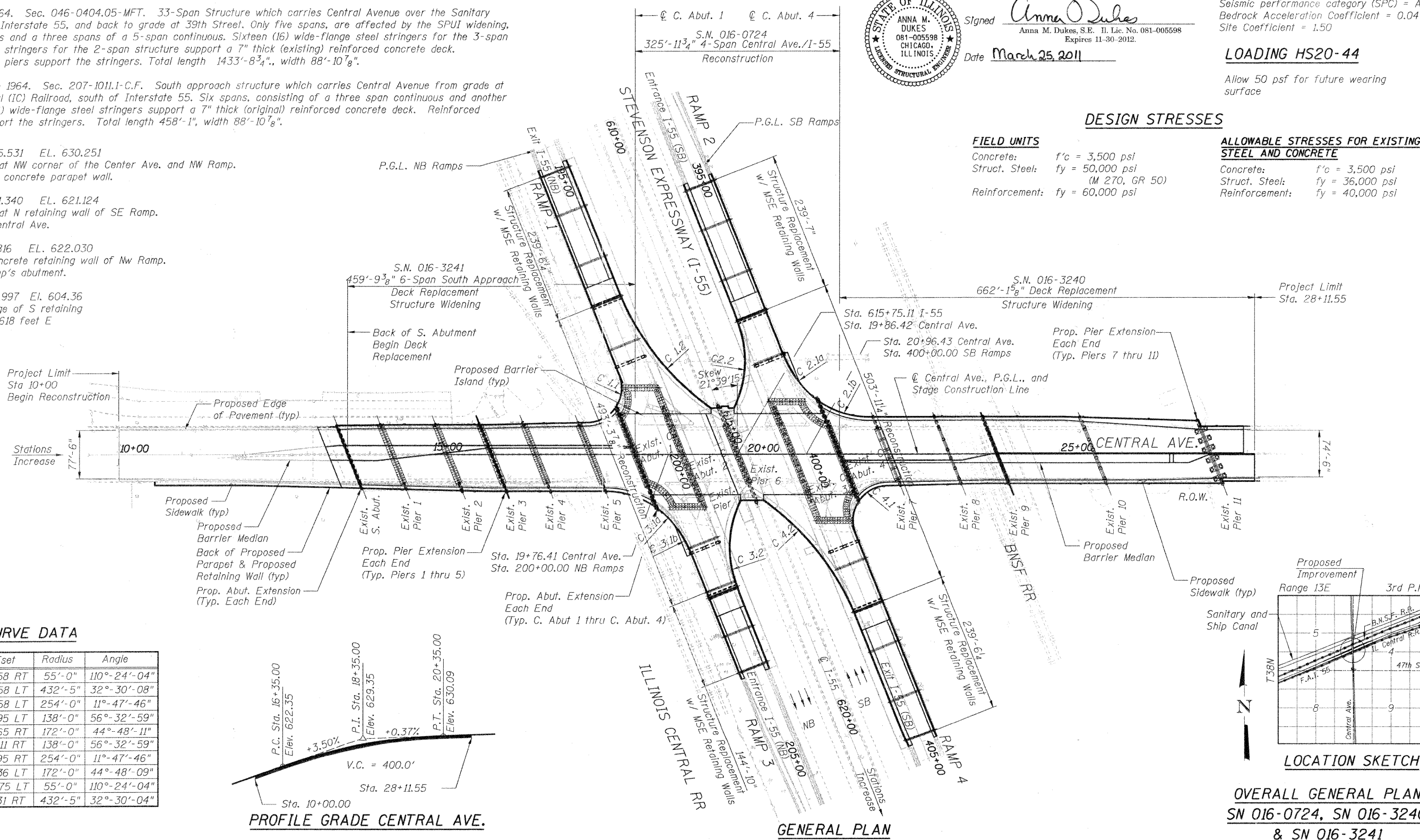
Bench Marks:

BM 51 N 1874340.015 E 1139725.531 EL. 630.251
Cut square on top of pier at NW corner of the Center Ave. and NW Ramp.
1.88 Feet NW from back of concrete parapet wall.

BM 60 N 1874267.729 E 1140141.340 EL. 621.124
Cut square on top of pier at N retaining wall of SE Ramp.
Approx. 1050 Feet E of Central Ave.

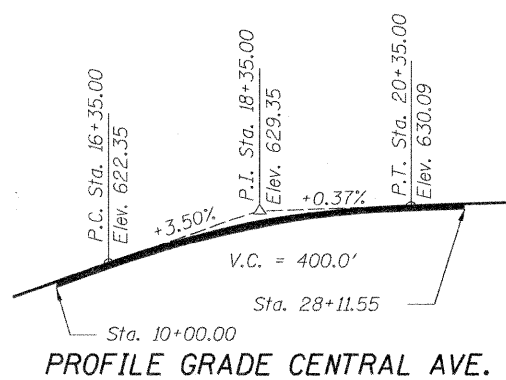
BM 64 N 1874131.115 E 1139419.816 EL. 622.030
Cut square on top of S concrete retaining wall of Nw Ramp.
Approx. 66' Feet E of ramp's abutment.

BM 65 N 1873896.493 E 1138873.997 EL. 604.36
Cut square on top of N edge of S retaining wall of NW Ramp. Approx. 618 feet E of W end of wall.

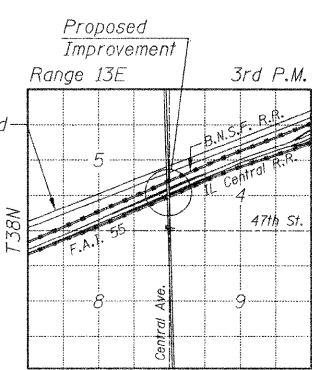


HORIZONTAL CURVE DATA

Ramp	Curve	Station	Offset	Radius	Angle
1	C 1.1	198+53.05	26.58 RT	55'-0"	110°-24'-04"
	C 1.2	197+23.77	23.58 LT	432'-5"	32°-30'-08"
2	C 2.1a	398+29.17	25.58 LT	254'-0"	11°-47'-46"
	C 2.1b	398+81.09	30.95 LT	138'-0"	56°-32'-59"
3	C 2.2	397+69.29	24.65 RT	172'-0"	44°-48'-11"
	C 3.1a	200+18.85	115.11 RT	138'-0"	56°-32'-59"
	C 3.1b	201+18.90	30.95 RT	254'-0"	11°-47'-46"
	C 3.2	201+12.04	80.36 LT	172'-0"	44°-48'-09"
4	C 4.1	400+95.40	100.75 LT	55'-0"	110°-24'-04"
	C 4.2	400+43.88	91.31 RT	432'-5"	32°-30'-04"



PROFILE GRADE CENTRAL AVE.



LOCATION SKETCH

OVERALL GENERAL PLAN
SN 016-0724, SN 016-3240,
& SN 016-3241

TYLIN INTERNATIONAL

DESIGNED	JMA	REVISIONS	
CHECKED	AMD,	NAME	DATE
DRAWN	JMA		
CHECKED	AMD,		
DATE	03/25/2011		

SHEET NO. 1	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	251
3 SHEETS		CONTRACT NO. 60999			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

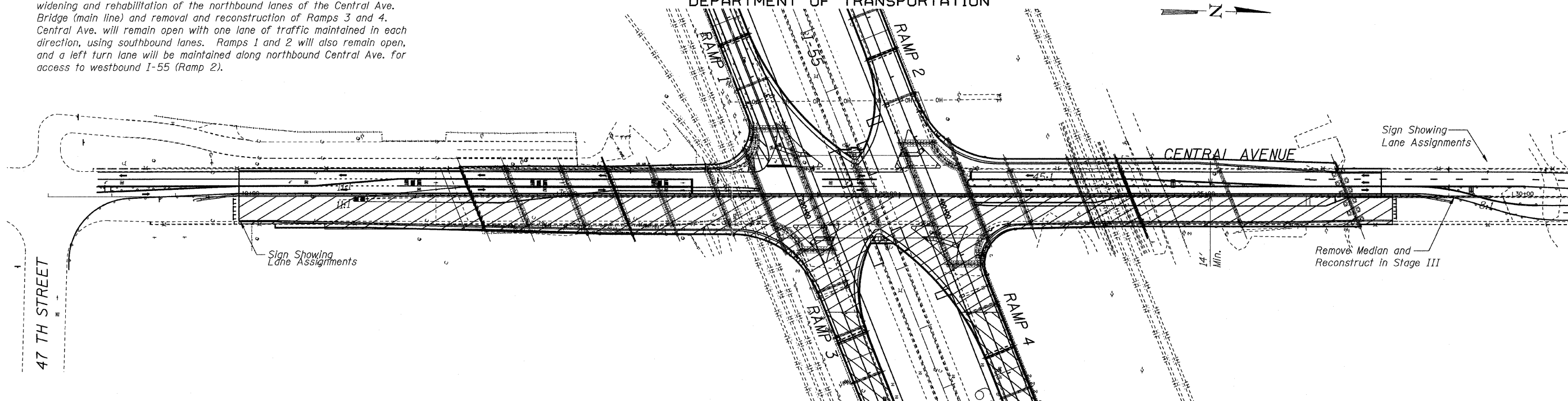
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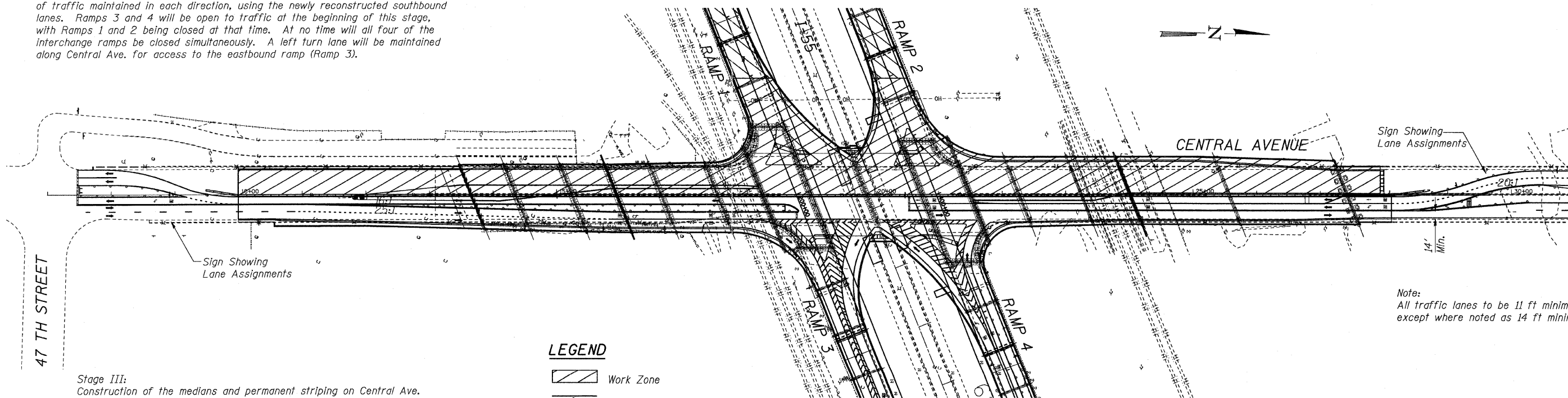
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Stage I:
Construction of east half of the new SPUI. This includes the widening and rehabilitation of the northbound lanes of the Central Ave. Bridge (main line) and removal and reconstruction of Ramps 3 and 4. Central Ave. will remain open with one lane of traffic maintained in each direction, using southbound lanes. Ramps 1 and 2 will also remain open, and a left turn lane will be maintained along northbound Central Ave. for access to westbound I-55 (Ramp 2).



STAGE I





Stage II:
Construction of west half of the new SPUI. This includes the rehabilitation of the southbound lanes of Central Ave. Bridge (main line) and removal and reconstruction of Ramps 1 and 2. Central Ave. will remain open with one lane of traffic maintained in each direction, using the newly reconstructed southbound lanes. Ramps 3 and 4 will be open to traffic at the beginning of this stage, with Ramps 1 and 2 being closed at that time. At no time will all four of the interchange ramps be closed simultaneously. A left turn lane will be maintained along Central Ave. for access to the eastbound ramp (Ramp 3).



STAGE II

Stage III:
Construction of the medians and permanent striping on Central Ave. within the geometric limits of the SPUI. The two center lanes along Central Ave. will be closed during this stage. Only one through lane in each direction will be available. Auxiliary left (one) lane and right turn lanes will be in place for Stage III operations; phasing will be adjusted on the reduced number of lanes available.

LEGEND

-  Work Zone
-  Travel Lanes
-  Pavement Marking
-  Barricades

Note:
All traffic lanes to be 11 ft minimum width except where noted as 14 ft minimum.

**OVERALL STAGE
CONSTRUCTION**
SN 016-0724, SN 016-3240
& SN 016-3241

TYLIN INTERNATIONAL

DESIGNED - MI	REVISIONS	
	NAME	DATE
CHECKED - AMD, TD		
DRAWN - PL, CS		
CHECKED - AMD, MI, TD		
DATE - 03/25/2011		

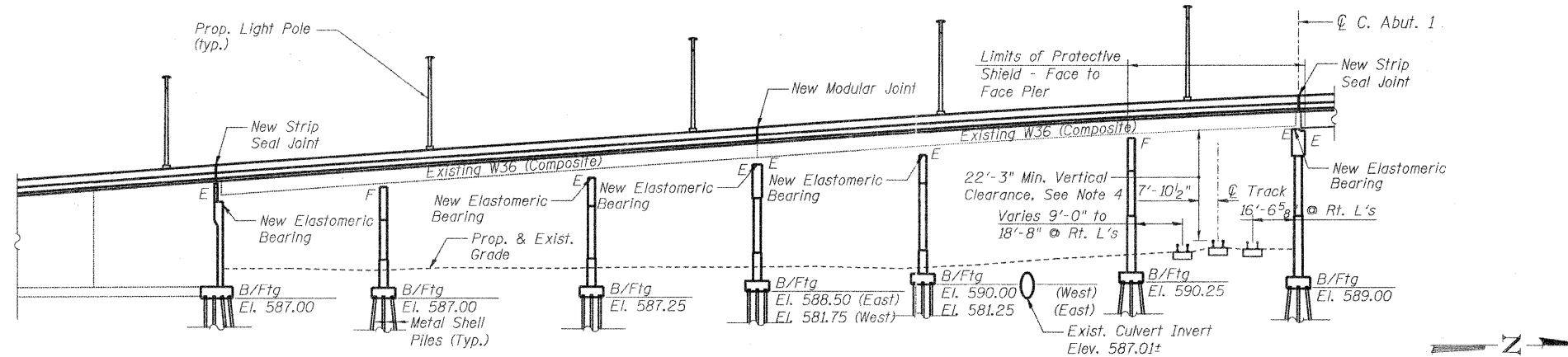
SHEET NO. 3	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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3 SHEETS			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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4/28/2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DESIGN SPECIFICATION
2002 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES
FIELD UNITS
Concrete: $f'_c = 3,500$ psi
Struct. Steel: $f_y = 50,000$ psi (M 270, GR 50)
Reinforcement: $f_y = 60,000$ psi

SEISMIC DATA
Seismic performance category (SPC) = A
Bedrock Acceleration Coefficient = 0.04
Site Coefficient = 1.50

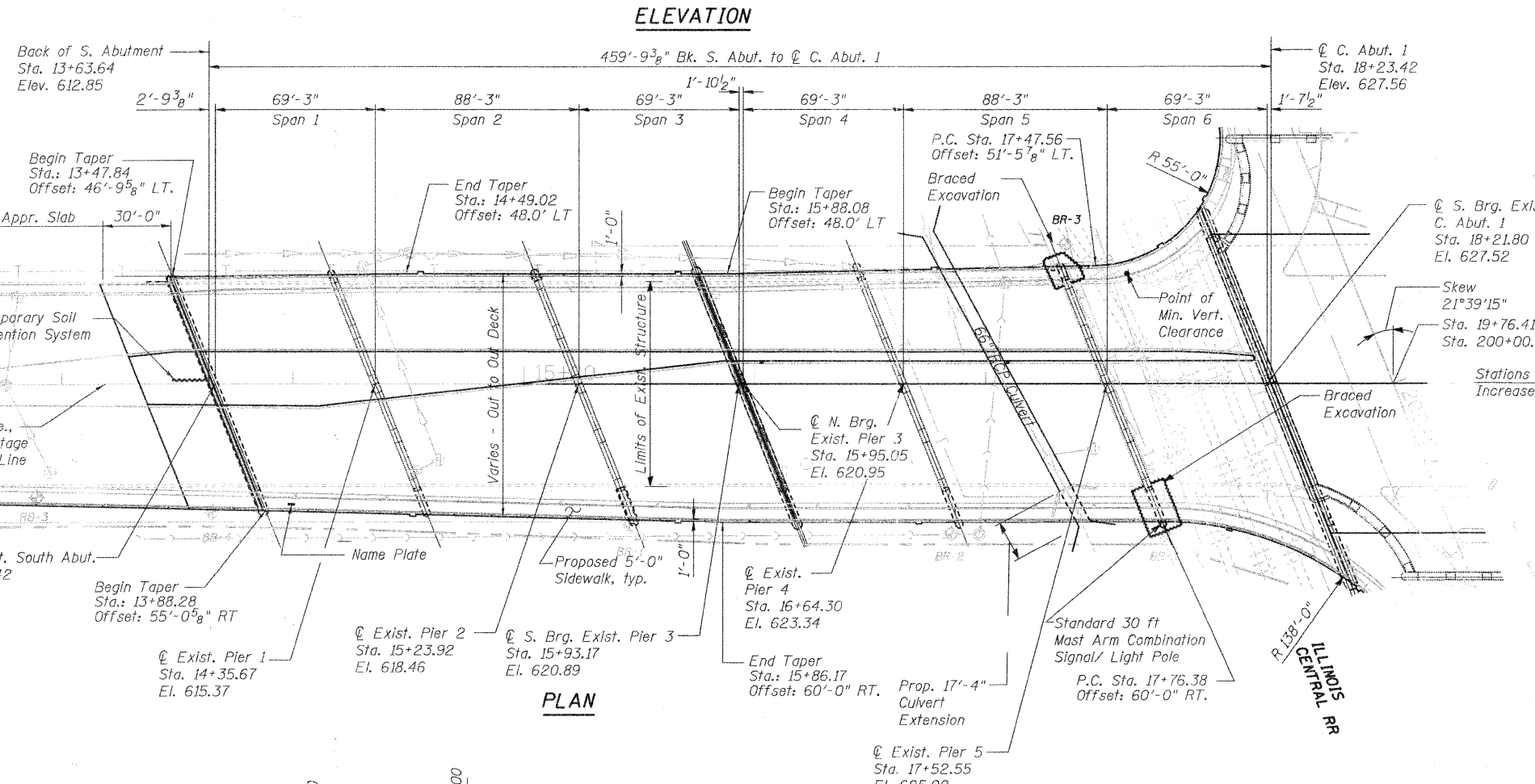
LOADING HS20-44
Allow 50 psf for future wearing surface

ALLOWABLE STRESSES FOR EXISTING STEEL AND CONCRETE
Concrete: $f'_c = 3,500$ psi
Struct. Steel: $f_y = 36,000$ psi
Reinforcement: $f_y = 40,000$ psi

BORING LOCATIONS

No.	Station	**Offset
RB-4	13+65.3	55.6' RT
BR-1	15+46.1	61.5' RT
BR-2	16+85.2	65.2' RT
BR-3	17+34.4	60.8' LT
BR-4	17+77.4	65.6' RT

** Offset from C Central Avenue



NOTES:

- For C. Abutment 1 details, see plans for S.N. 016-0724
- For culvert extension details, see drainage plans.
- Controlling Vertical Clearance governed by existing beams.

STATION 15+94.11
REBUILT 20... BY
STATE OF ILLINOIS
FAP 366
FAI ROUTE 55
SEC. 0711.2R & 1011.1BR
LOADING HS20-44
STR. NO. 016-3241

NAME PLATE

(See Std. 515001)*

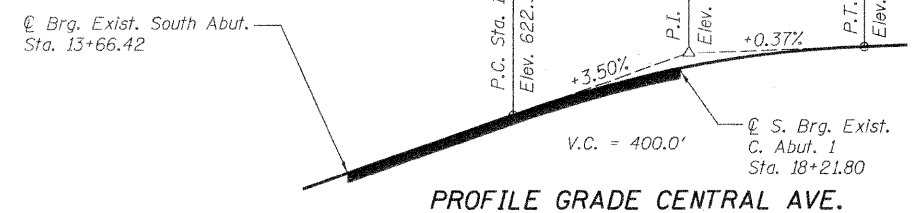
* The existing Name Plate shall be cleaned and relocated next to the new Name Plate. Cost is included with Name Plates.

LEGEND

Boring Location

SCOPE OF WORK

- Widen the existing Superstructure and Substructure.
- Remove and replace the Existing Deck with a 7 1/2" Deck.
- Clean and Paint the Existing Structural Steel.
- Make existing structural steel composite.
- Remove and replace End Diaphragms located below deck expansion joints.
- Remove and replace South Abutment stem and backwall.
- Rebuild Pier 3 and C. Abutment 1.
- Construct new Pier & Abutment Extensions.
- Perform Formed Concrete Repairs on Piers.
- Replace Existing Rocker Expansion Bearings with Elastomeric Bearings.
- Install new deck Expansion Joints.
- Remove and replace the Drainage System.
- Extend the existing culvert.



PROFILE GRADE CENTRAL AVE.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

ENGINEER OF BRIDGES AND STRUCTURES



Signed
Anna M. Dukes, S.E. Il. Lic. No. 081-005598
Expires 11-30-2012.
Date March 25, 2011

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL

DESIGNED	SP	REVISIONS	
CHECKED	AMD,	NAME	DATE
DRAWN	SP		
CHECKED	AMD,		
DATE	03/25/2011		

SHEET NO. 1	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	71 SHEETS	55	0711.2R & 1011.1BR	COOK	741 254
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		

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GENERAL NOTES

- Fasteners shall be AASHTO M164 Type I, mechanically galvanized bolts. Bolts 3/8-in. φ, holes 15/16-in. φ, unless otherwise noted.
- Calculated weight of Structural Steel =
Grade 50 = 400,850lbs **
Grade 36 = 59,940 lbs **
- The Organic Zinc Rich Primer/Epoxy/Urethane paint system shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that the exterior surfaces and bottom of the bottom flange of the fascia beams, masked off connection surfaces, and field installed fasteners, all of which shall be touched up and finish coated in the field. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures".
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
- 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.
- 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 new bridge seats at the South Abutment and Pier 3.
- Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.
- Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings, and other structural steel within 5 ft (measured along the beam) on either side of the proposed deck joints shall be cleaned per Near White Blast Cleaning - SSPC-SP10. The exterior surfaces and the bottom flange of the fascia beams shall be cleaned per Commercial Grade Power Tool Cleaning - SSPC - SP15. All remaining structural steel shall be cleaned per Power Tool Cleaning - Modified SSPC-SP3.
- The designated areas cleaned per Near White Blast Cleaning and per Commercial Grade Power Tool Cleaning shall be painted according to the requirements of Paint System 1 - OZ/E/U. The designated areas cleaned per Power Tool Cleaning - Modified SSPC-SP3 shall be painted according to the requirements of Paint System 2 - PS/EM/U. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

- Any reinforcement bars that are damaged during concrete removal operations for abutments and piers shall be repaired or replaced using approved bar splicer or anchorage system. Cost included to "Concrete Removal".
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.
Any cracks that cannot be removed by grinding 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.
- All information (layout, details, quantities) for C. Abutment 1 is included in sheets 181 thru 184 for S.N. 016-0724.
- Details and quantities for the Strip Seal Joint at C. Abutment 1 are presented in Central Avenue/I-55 Mainline (S.N. 016-0724).
- Slipforming of the Parapets is not allowed.
- Reinforcement bars designated (E) shall be epoxy coated.
- 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.
- A minimum of one air monitor will be required to monitor abrasive blasting operations at this site. See special provisions for "Containment and Disposal of Lead Paint Cleaning Residues."
- The Contractor shall retain the services of an engineering firm prequalified in the IDOT consultant selection category of Highway Bridges Complex, for preparation of the Structural Assessment Report. Contractor's pre-approval shall not be applicable for this project. See Special Provision.

TOTAL BILL OF MATERIAL

ITEM	SOUTH APPROACH			TOTAL
	UNIT	SUPER	SUB	
POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD		342	342
CONCRETE REMOVAL	CU YD		469.7	469.7
PROTECTIVE SHIELD	SQ YD	5642.1		5642.1
STRUCTURE EXCAVATION	CU YD		956	956
CONCRETE STRUCTURES	CU YD	9.3	908.5	917.8
CONCRETE SUPERSTRUCTURE	CU YD	1551.2		1551.2
BRIDGE DECK GROOVING	SQ-YD	4309		4309
PROTECTIVE COAT	SQ-YD	6005		6005
ERECTING STRUCTURAL STEEL	L SUM	0.08		0.08
STUD SHEAR CONNECTORS	EACH	23570		23570
JACK AND REMOVE EXISTING BEARINGS	EACH	32		32
STRUCTURAL STEEL REMOVAL	L SUM	0.45		0.45
CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1		1
CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1		1
REINFORCEMENT BARS, EPOXY COATED	POUND	452,750	140,780	593,530
BAR SPLICERS	EACH	1559	159	1718
ALUMINUM RAILING, TYPE L	FOOT	971.4		971.4
FURNISHING METAL SHELL PILES 12"X 0.250"	FOOT		2799	2799
DRIVING PILES	FOOT		2799	2799
TEST PILE METAL SHELLS	EACH		6	6
TEMPORARY SOIL RETENTION SYSTEM	SQ-FT		745	745
NAME PLATES	EACH	1		1
ERECTING ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	82		82
ERECTING ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	38		38
CONCRETE SEALER	SQ-FT		7910	7910
FIELD MEASUREMENTS	L SUM		0.18	0.18
DRAINAGE SCUPPERS, DS-12	EACH	22		22
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5")	SQ-FT		161	161
ERECTING MODULAR EXPANSION JOINT 6"	FOOT	99		99
REMOVAL OF EXISTING CONCRETE DECK NO. 1	EACH	1		1
DRAINAGE SYSTEM	L SUM	0.18		0.18
JACKING EXISTING SUPERSTRUCTURE	L SUM	0.55		0.55
ANCHOR BOLTS, 1"	EACH	252		252
GEOCOMPOSITE WALL DRAIN	SQ YD		268	268
PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT		133	133
BRACED EXCAVATION	CU YD		116	116
MECHANICAL SPLICERS	EACH		96	96
REMOVAL OF EXISTING BEARINGS	EACH	66		66
STRUCTURAL STEEL REPAIR	POUND	45090		45090
PREFORMED JOINT STRIP SEAL	FOOT	110		110
DRAINAGE SCUPPERS, DS-II	EACH	2		2
BRIDGE RAIL REMOVAL	FOOT	953		953

** Structural steel furnished under a separate contract shall be erected under pay item Erecting Structural Steel. The listed weights include structural steel framing comprised of beams, diaphragms, fill plates, connection plates, bolts and steel extensions.

Current Ratings on File for Existing Structure

Inventory: HS 20
Operating: HS 27.3
Live Load Restrictions: No

Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.

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18 SUPERSTRUCTURE SPANS 4, 5 & 6	32 FRAMING PLAN - SPANS 4, 5 & 6	49 SOUTH ABUTMENT SECTIONS AND DETAILS - 1 OF 2	66-71 BORING LOGS
18A SUPERSTRUCTURE FLARED DECK	33 MOMENT & REACTION TABLES	50 SOUTH ABUTMENT SECTIONS AND DETAILS - 2 OF 2	
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20 SUPERSTRUCTURE CROSS SECTION - SPANS 4, 5 & 6	35 GIRDER ELEVATIONS SPANS 4, 5 & 6	52 PIER 1 DETAILS	

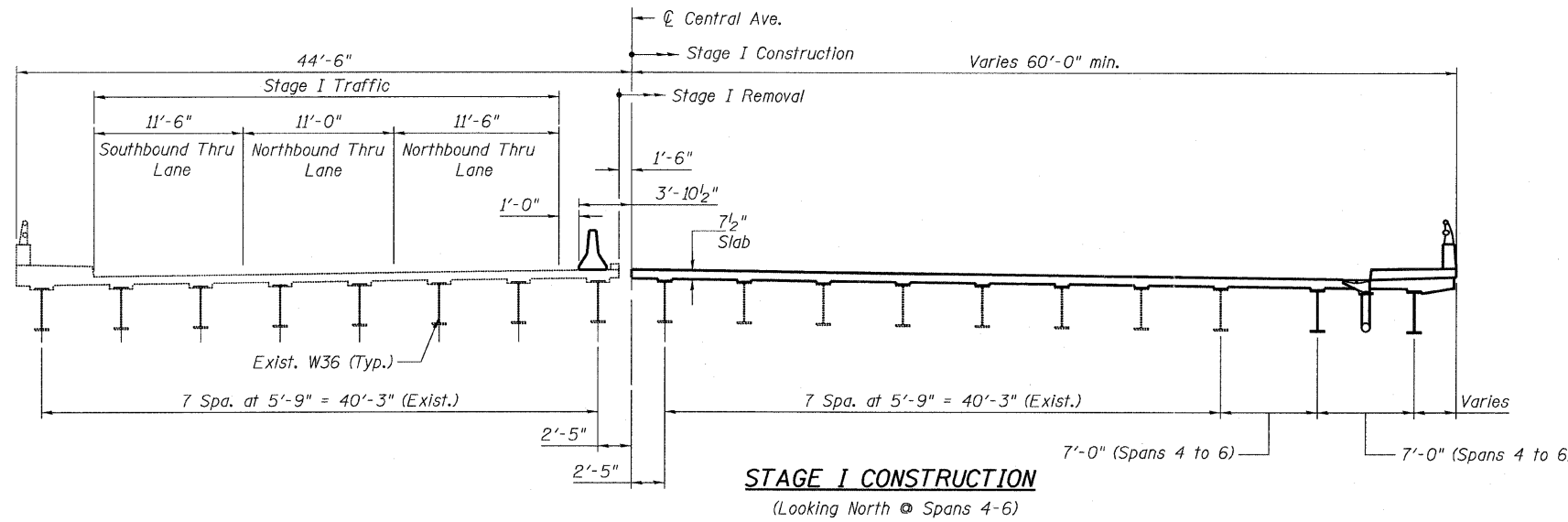
**GENERAL NOTES, INDEX OF SHEETS & BILL OF MATERIAL
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED - MAU	REVISIONS		SHEET NO. 2	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - AMD,	NAME	DATE		55				
	DRAWN - MAU								
	CHECKED - AMD,								
	DATE - 03/25/2011			71 SHEETS	FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I REMOVAL

1. Install temporary concrete barrier as shown and divert traffic to the existing Southbound bridge.
2. Install Temporary Soil Retention System and Braced Excavation at locations shown.
3. Remove Stage I limits of the existing concrete deck.
4. Remove Stage I limits of substructure units as shown on Sheet 6. Jack and Crib Stage I existing beams at S. Abutment, Pier 3 and south beams on C. Abut. 1. Paid for as "Jacking Existing Superstructure."
5. Remove and replace existing bearings for Stage I beams on Piers 2 and 4. Removing existing bearings and shoring of beams paid for as "Jack and Remove Existing Bearings."
6. Remove existing end steel diaphragms at the South Abutment, Pier 3 and the south bearings at C. Abut. 1.



LEGEND

Stage I Removal

STAGE I CONSTRUCTION

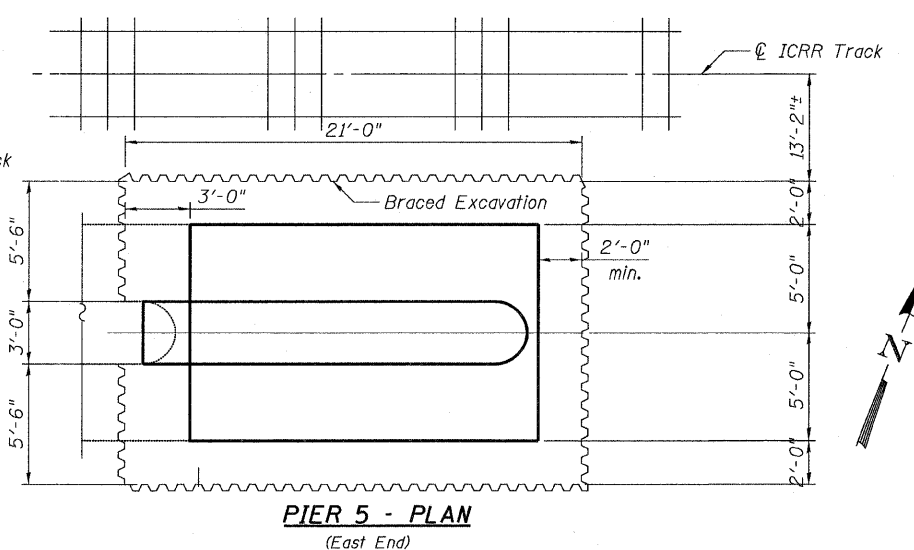
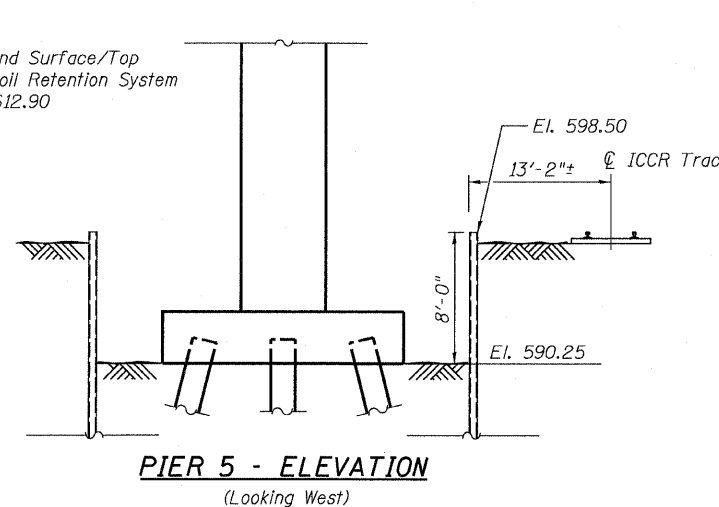
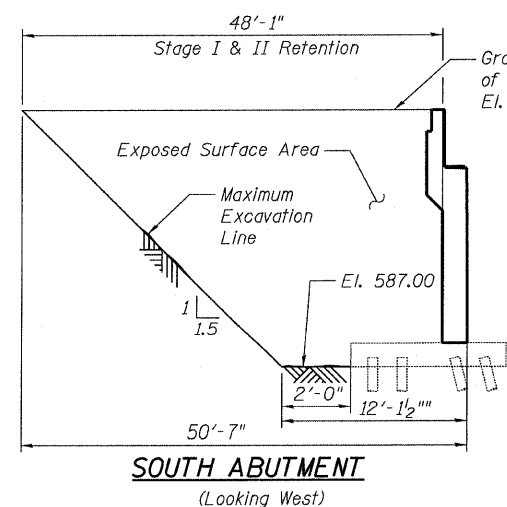
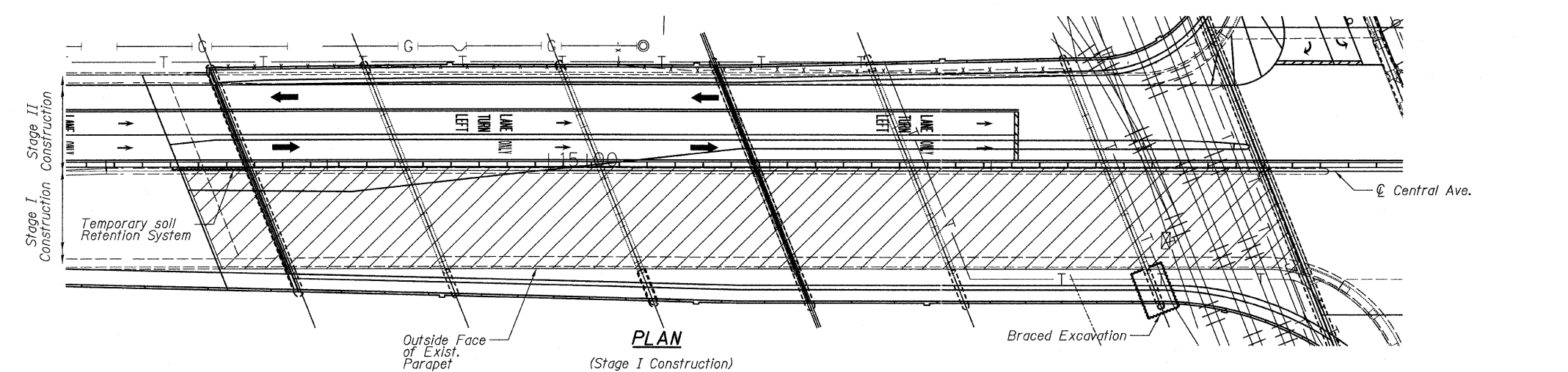
1. Construct widened portions of piers 1, 2, 4 and 5.
2. Reconstruct and widen the South Abutment, Pier 3 & C. Abutment 1, within the limits of Stage I.
3. Replace existing expansion bearings on Piers 2 and 4.
4. Paint existing structural steel beams and diaphragms, within the limits of Stage I.
5. Erect new Stage I structural steel.
6. Construct new Stage I bridge deck.

NOTES:

1. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
2. All temporary shoring systems that support or impact the Railroad's tracks or operations shall be designed and constructed to provide safe and adequate rigidity. The Contractor's design and installation shall meet the requirements of the current American Railway Engineering and Maintenance-of-Way Association (AREMA) Manual of Recommended Practice and any specific requirements of the Illinois Central Railroad Company and its Parent.
3. The Contractor shall coordinate the installation of the Braced Excavation with the IC/CN Railroad.

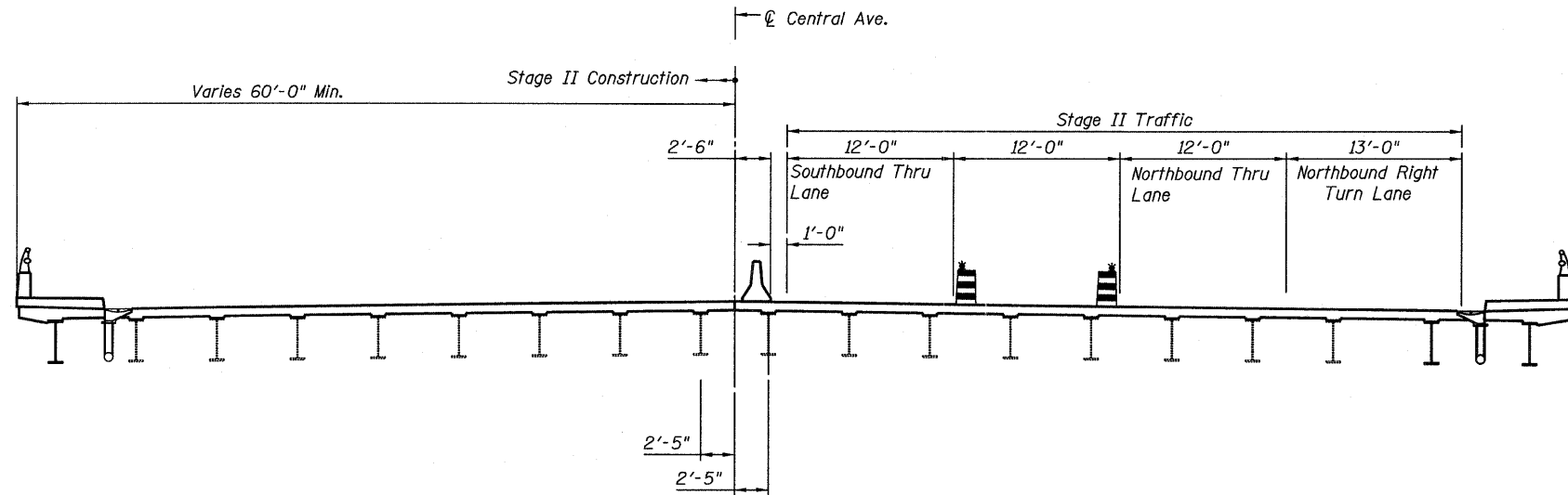
ITEM	UNIT	TOTAL
Temporary Soil Retention System	SQ FT	745
Braced Excavation	CU YD	87

**STAGE I CONSTRUCTION
STRUCTURE NO. 016-3241**



TYLIN INTERNATIONAL	DESIGNED - PK	REVISIONS		SHEET NO. 3	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.									
	CHECKED - AMD,	NAME	DATE							71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	256			
	DRAWN - EMK, PK															CONTRACT NO. 60999		
	CHECKED - AMD,																	
DATE - 03/25/2011			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT															

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



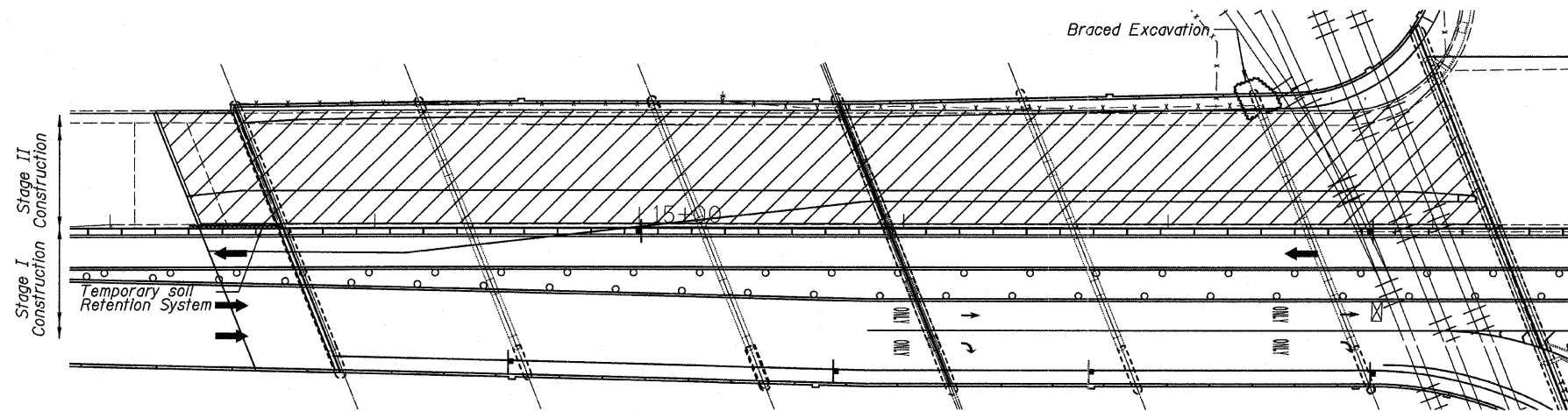
STAGE II CONSTRUCTION
(Looking North Thru Spans 4-6)

STAGE II REMOVAL

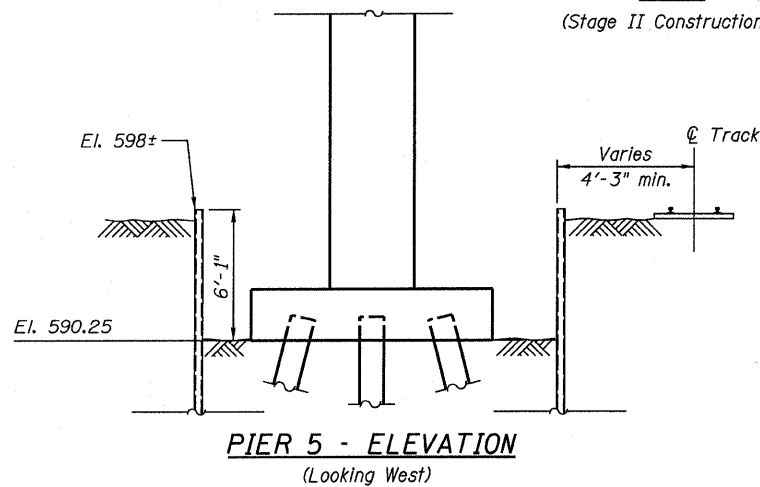
1. Install temporary concrete barrier as shown and divert traffic to the constructed portion of new bridge.
2. Install Braced Excavation at west end of Pier 5 as shown.
3. Remove Stage II limits of the existing concrete deck.
4. Remove Stage II limits of substructure units as shown on sheet 4. Jack and Crib Stage II existing beams at S. Abutment, Pier 3 and south beams on C. Abut. 1. Paid for as "Jacking Existing Superstructure."
5. Remove and replace existing bearings for Stage II beams on Piers 2 and 4. Removing existing bearings and shoring of beams paid for as "Jack and Remove Existing Bearings."
6. Remove existing end steel diaphragms at the South Abutment, Pier 3 and the south bearings at C. Abut. 1.

STAGE II CONSTRUCTION

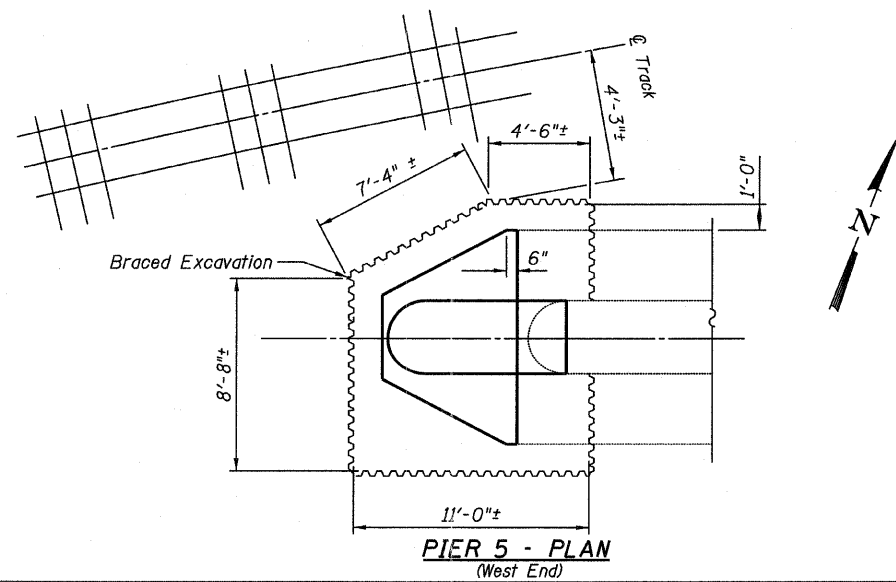
1. Construct widened portions of piers 1, 2, 4 and 5.
2. Reconstruct and widen the South Abutment, Pier 3 & C. Abutment 1, within the limits of Stage II.
3. Replace existing expansion bearings on Piers 2 and 4.
4. Paint existing structural steel beams and diaphragms, within the limits of Stage II.
5. Erect new Stage II structural steel.
6. Construct new Stage II bridge deck.



PLAN
(Stage II Construction)



PIER 5 - ELEVATION
(Looking West)



PIER 5 - PLAN
(West End)

NOTES:

1. See Stage I construction sheet for Temporary Soil Retention and Braced Excavation details.
2. The Contractor shall coordinate the installation of the Braced Excavation with IC/CN Railroad.

LEGEND

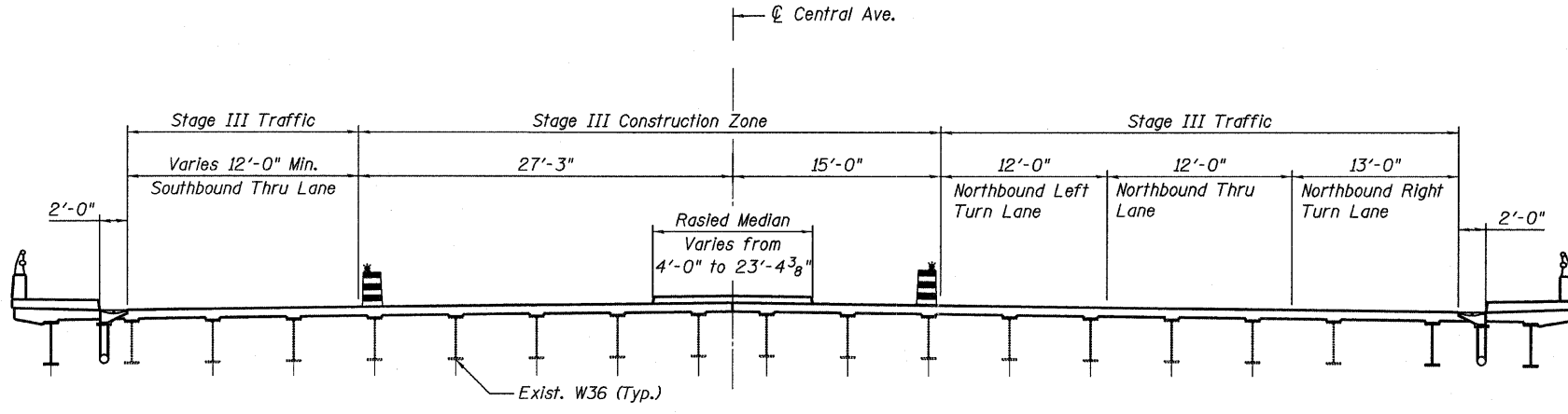
Stage II Removal

ITEM	UNIT	TOTAL
Braced Excavation	CU YD	29

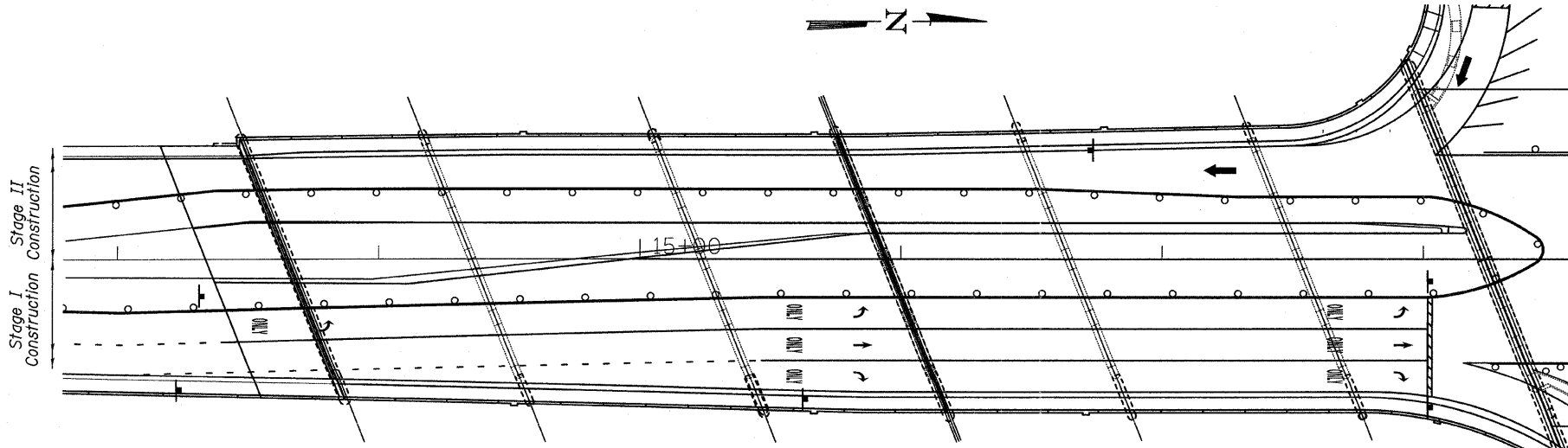
STAGE II CONSTRUCTION
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - PK	REVISIONS		SHEET NO. 4	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					
	CHECKED - AMD,	NAME	DATE							55	0711.2R & 1011.1BR	COOK	741	257
	DRAWN - EMK, PK									CONTRACT NO. 60999				
	CHECKED - AMD,									FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
	DATE - 03/25/2011			71 SHEETS										

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STAGE III CONSTRUCTION
(Looking North From Spans 4-6)



PLAN
(Stage III Construction)

Centerline & P.G.L.
Central Ave.

STAGE III CONSTRUCTION

1. Construct new Raised Concrete Median.
2. Complete installation of expansion joints at South Abutment and Pier 3 over the Median.

STAGE III CONSTRUCTION
STRUCTURE NO. 016-3241

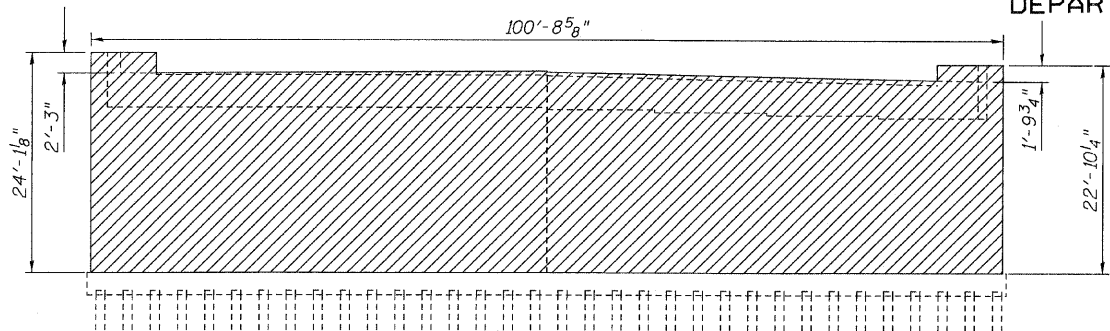
TYLIN INTERNATIONAL

DESIGNED - PK	REVISIONS	
CHECKED - AMD,	NAME	DATE
DRAWN - EMK, PK		
CHECKED - AMD,		
DATE - 03/25/2011		

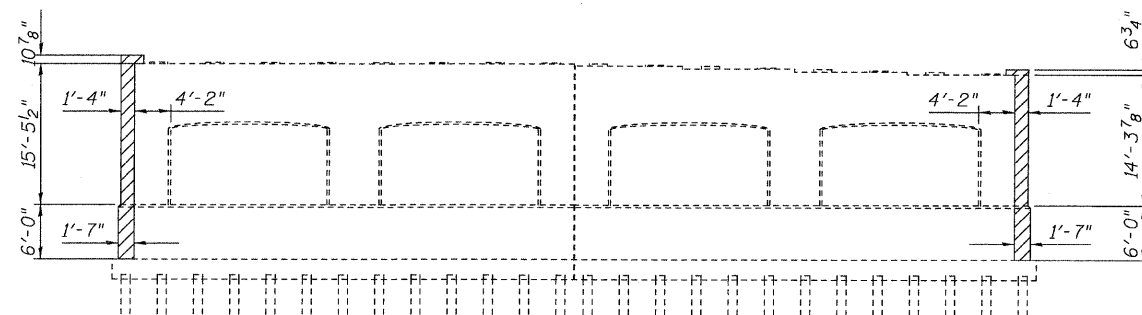
SHEET NO. 5	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	258
71 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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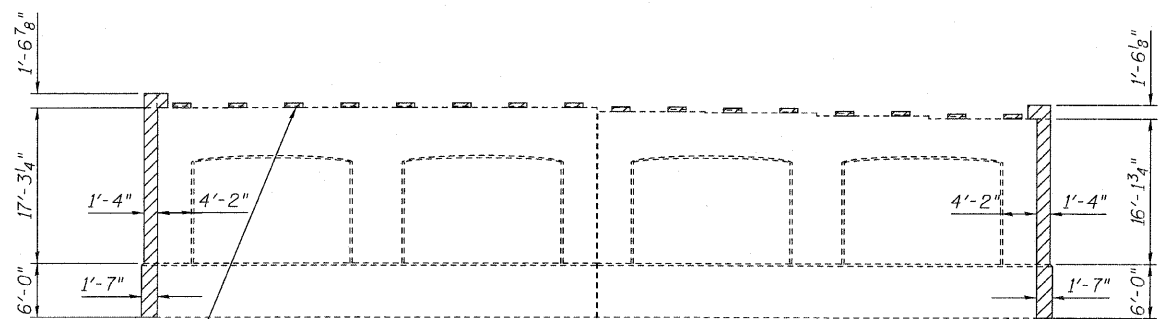
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



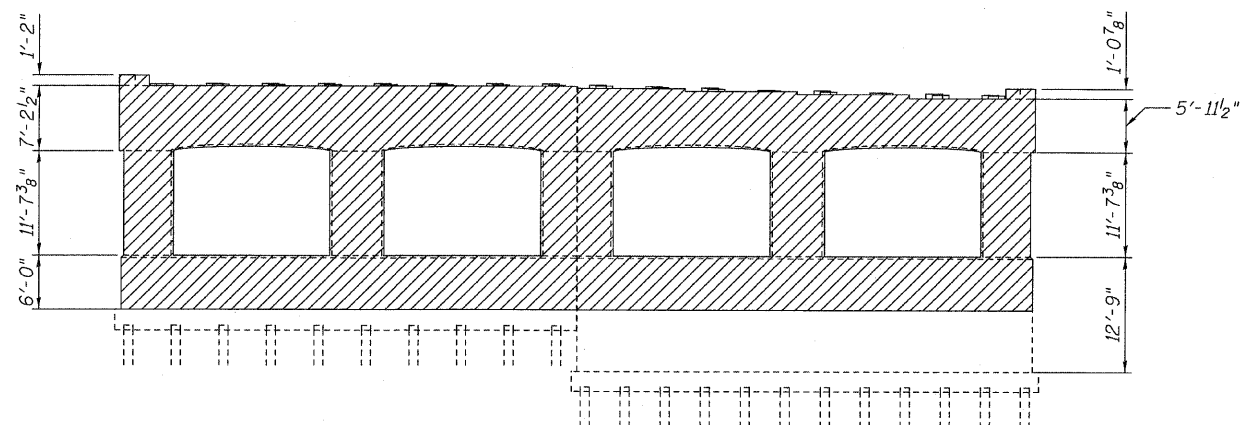
SOUTH ABUTMENT



PIER 1

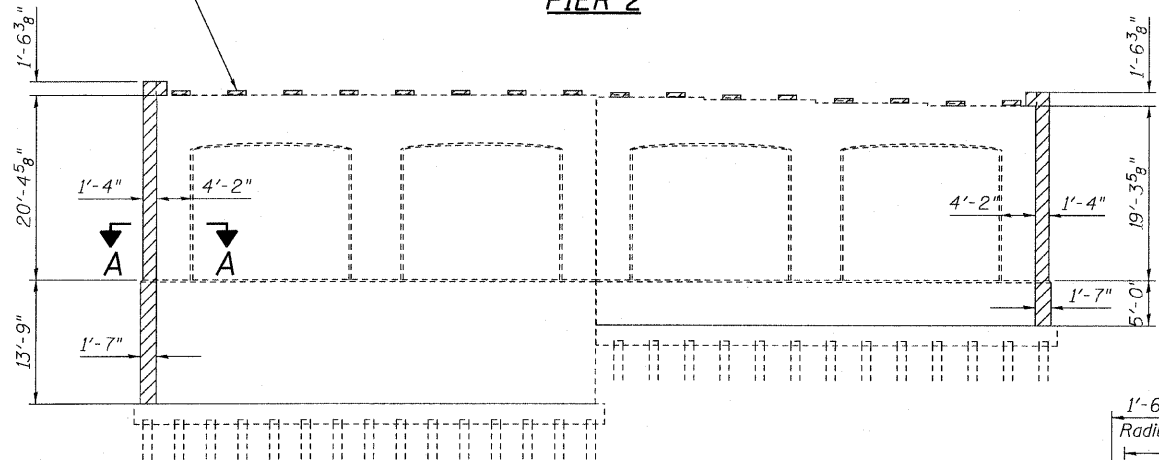


PIER 2

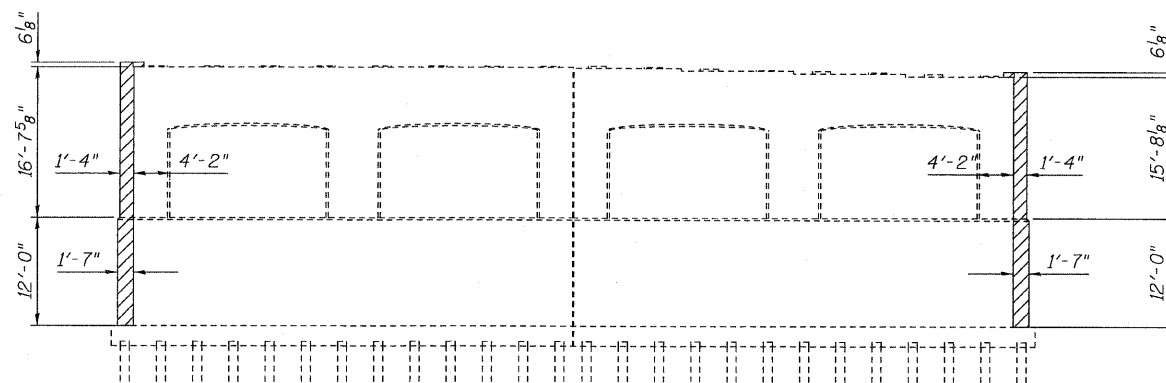


PIER 3

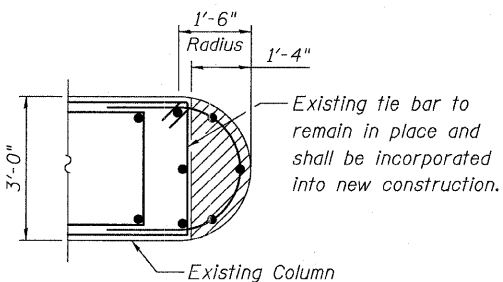
Existing pads above pier cap to be removed, typ. Piers 2 and 4



PIER 4



PIER 5



**SECTION A-A
TYPICAL RADIUS REMOVAL**

LEGEND



Concrete Removal

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	CU YD	469.7

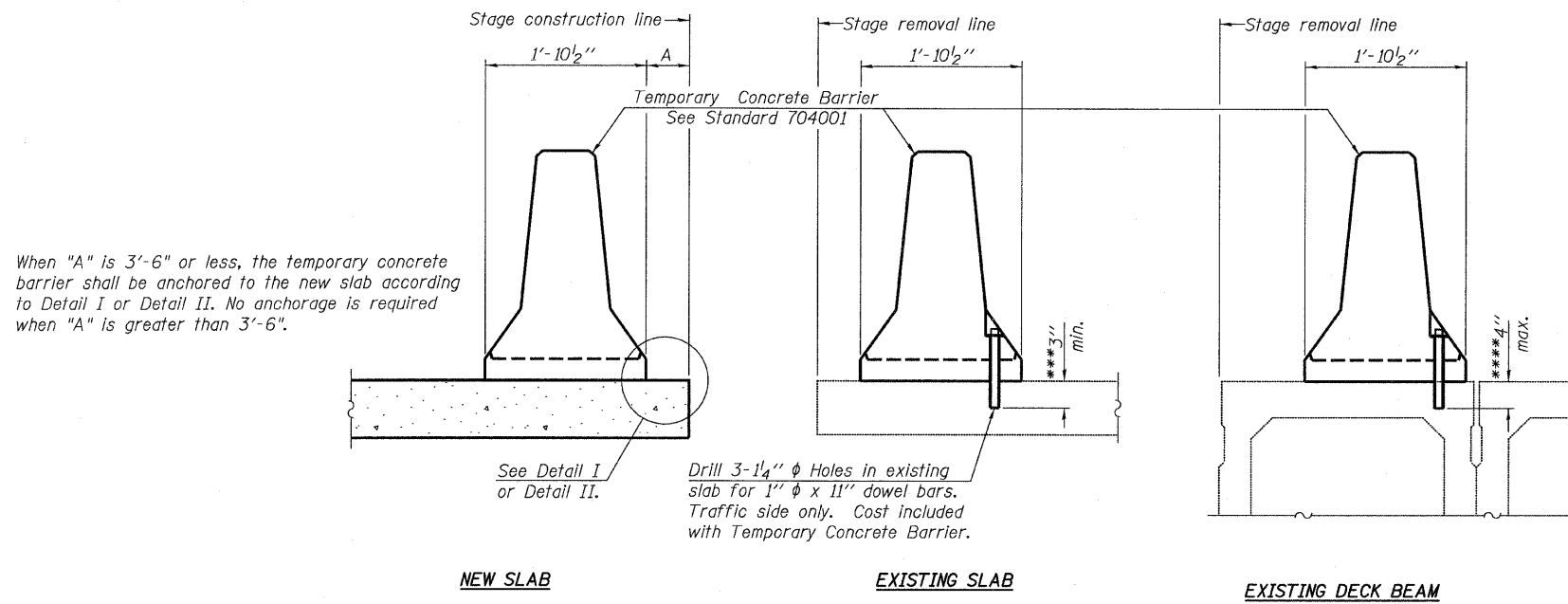
NOTES

For removal limits of C. Abut. 1, see sheet 308.

**REMOVAL PLAN
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED - MAU	REVISIONS		SHEET NO. 6	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 259
	CHECKED - AMD,	NAME	DATE						
	DRAWN - MAU								
	CHECKED - AMD,								
	DATE - 03/25/2011			71 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT									

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



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

NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

NOTES

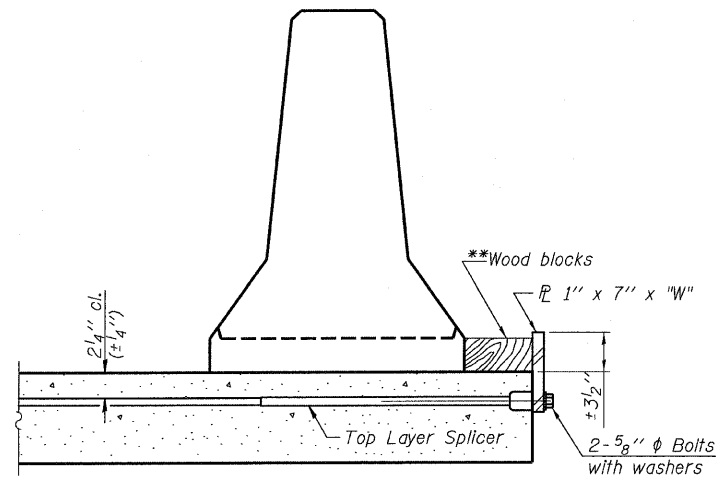
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{L} to the top layer of couplers with 2- $\frac{5}{8}$ " ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

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

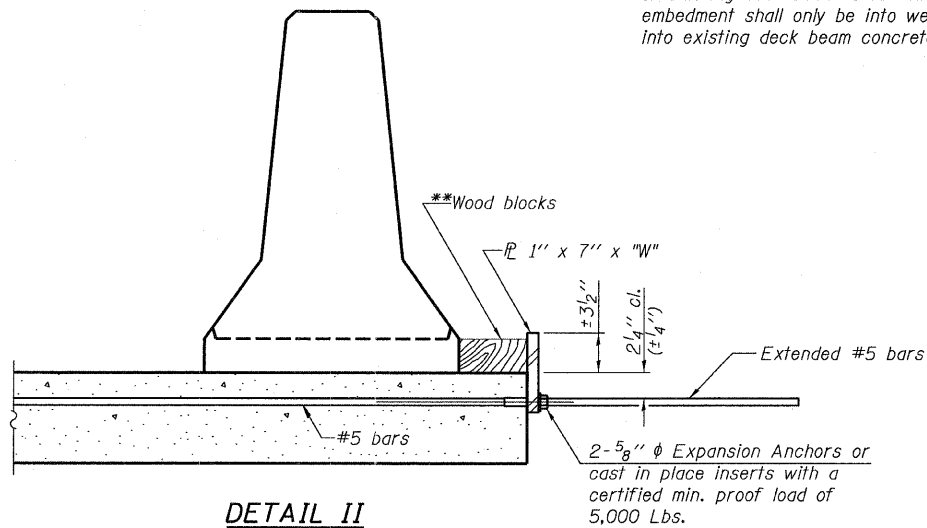
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

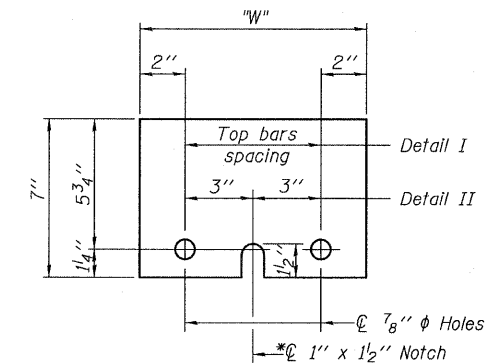
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{L} 1" x 7" x 10"

* Required only with Detail II

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

"W" = Top bars spacing + 4"

R-27

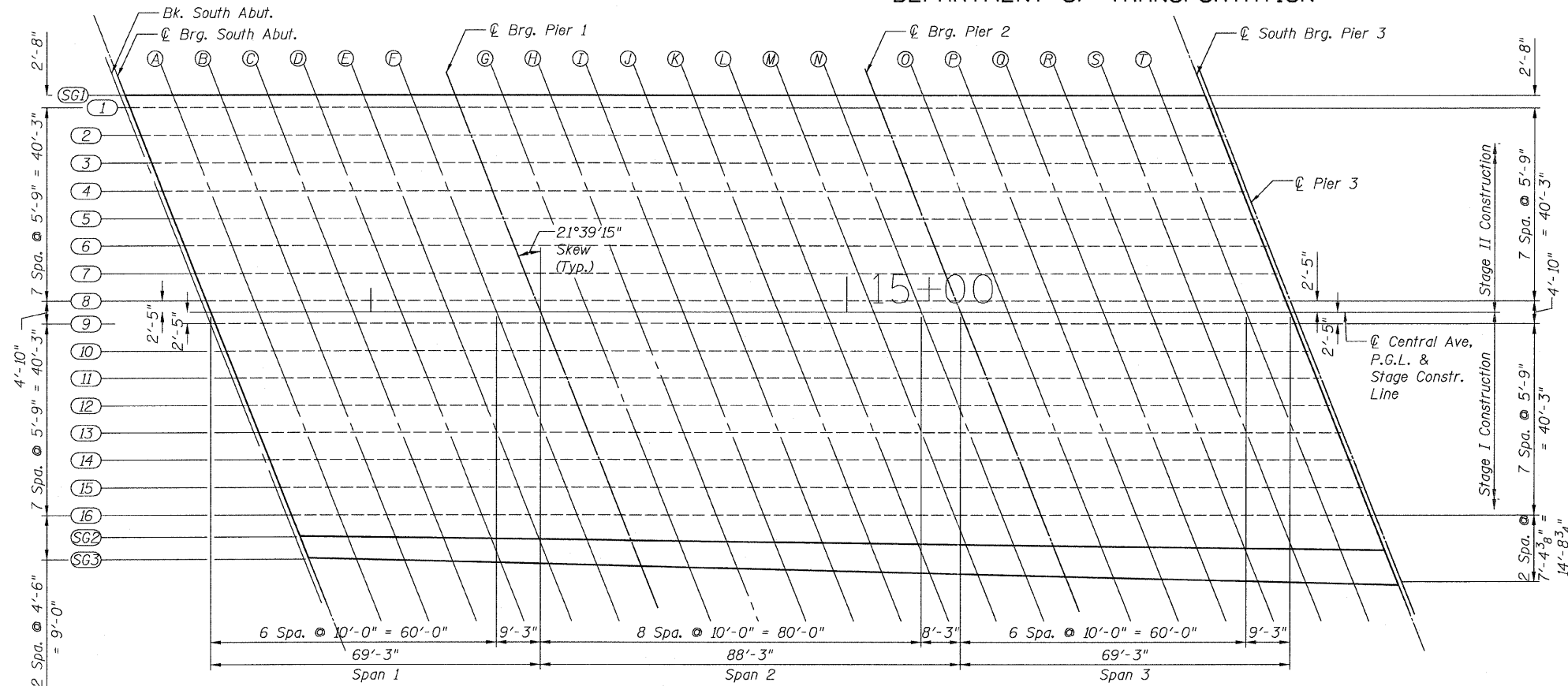
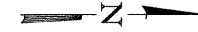
11-1-09

TEMPORARY CONCRETE BARRIER
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - JMA	REVISIONS		SHEET NO. 7	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	260	
	DRAWN - JMA				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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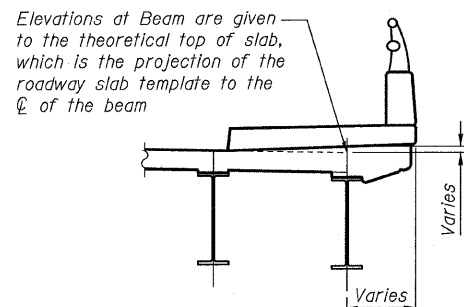
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



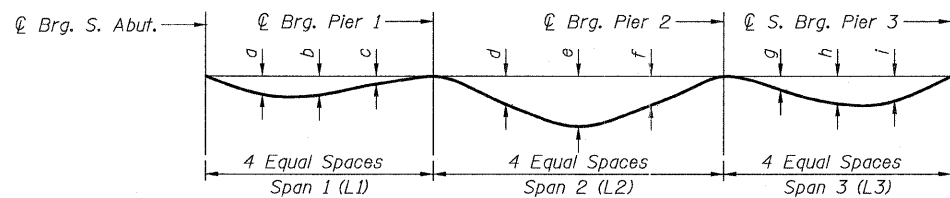
P.G.L.-SPANS 1, 2 & 3

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Bk. S. Abut.	013+63.64	0.00	612.85	612.85
Q Brg. S. Abut.	013+66.42	0.00	612.95	612.95
A	013+76.42	0.00	613.30	613.32
B	013+86.42	0.00	613.65	613.68
C	013+96.42	0.00	614.00	614.03
D	014+06.42	0.00	614.35	614.37
E	014+16.42	0.00	614.70	614.71
F	014+26.42	0.00	615.05	615.05
Q Brg. Pier 1	014+35.67	0.00	615.37	615.37
G	014+45.67	0.00	615.72	615.74
H	014+55.67	0.00	616.07	616.09
I	014+65.67	0.00	616.42	616.46
J	014+75.67	0.00	616.77	616.81
K	014+85.67	0.00	617.12	617.16
L	014+95.67	0.00	617.47	617.50
M	015+05.67	0.00	617.82	617.84
N	015+15.67	0.00	618.17	618.18
Q Brg. Pier 2	015+23.92	0.00	618.46	618.46
O	015+33.92	0.00	618.81	618.82
P	015+43.92	0.00	619.16	619.18
Q	015+53.92	0.00	619.51	619.54
R	015+63.92	0.00	619.86	619.89
S	015+73.92	0.00	620.21	620.24
T	015+83.92	0.00	620.56	620.58
Q S. Brg. Pier 3	015+93.17	0.00	620.89	620.89
Q Pier 3	015+94.11	0.00	620.92	620.92

PLAN
(Spans 1, 2 & 3)



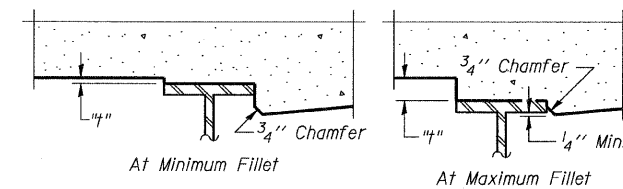
SECTION THRU PARAPET



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 above.



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

FILLET HEIGHTS

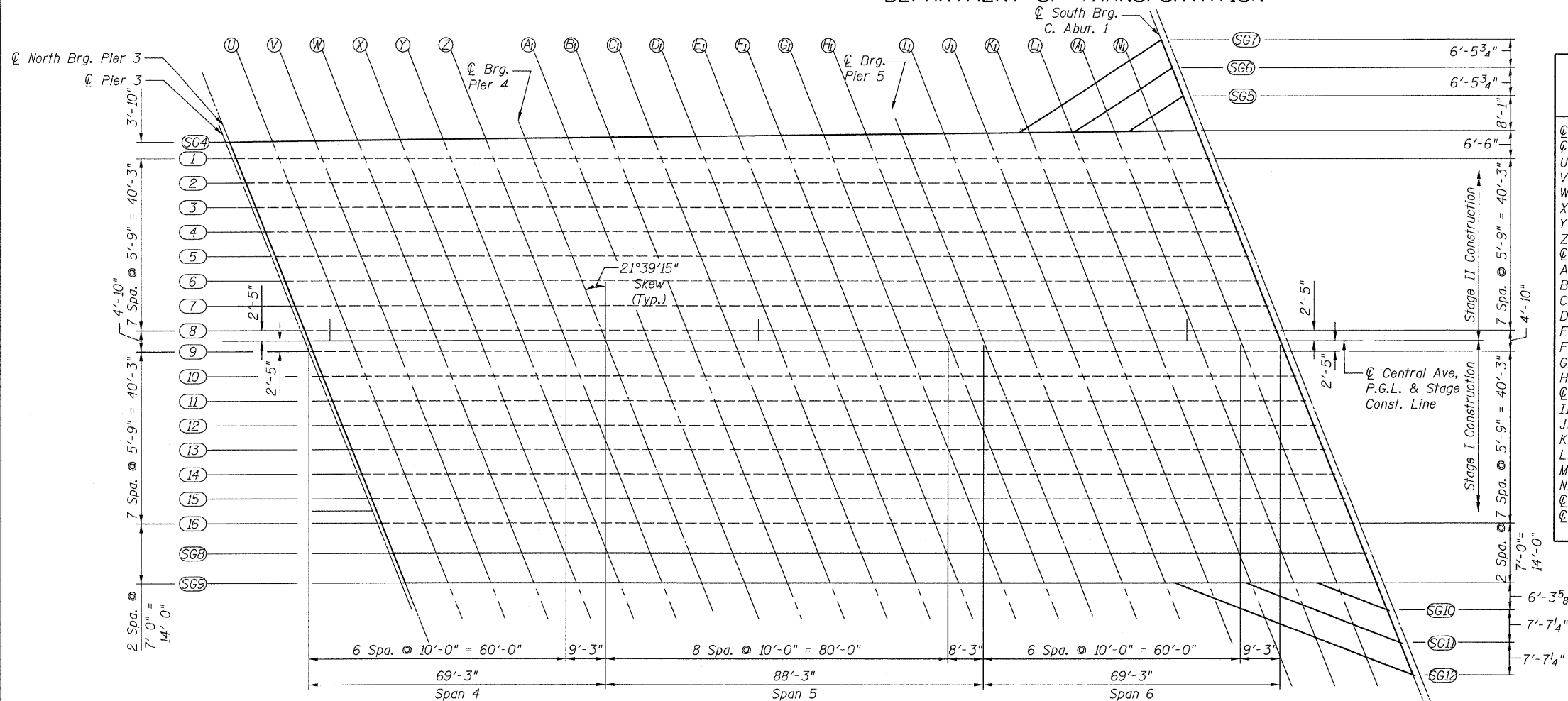
Girder	a	b	c	d	e	f	g	h	i	L1	L2	L3
SG1	1/4"	3/8"	1/2"	1/4"	2"	1/4"	3/8"	1/2"	3/4"	69'-3"	88'-3"	69'-3"
I-16	1/4"	3/8"	1/2"	1/4"	2"	1/4"	3/8"	1/2"	3/4"	69'-3"	88'-3"	69'-3"
SG2	1/4"	3/8"	1/2"	3/8"	5/8"	3/8"	1/4"	3/8"	3/4"	69'-7 1/4"	88'-8 3/8"	69'-7 1/4"
SG3	1/4"	3/8"	1/2"	3/8"	5/8"	3/8"	1/4"	3/8"	3/4"	69'-11 3/8"	89'-2"	69'-11 3/8"

TOP OF SLAB ELEVATIONS
LAYOUT SPANS 1, 2 & 3
STRUCTURE NO. 016-3241

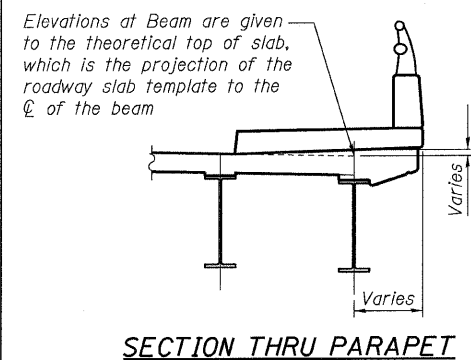
TYLIN INTERNATIONAL	DESIGNED - SP, EKH	REVISIONS		SHEET NO. 8	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
	CHECKED - AMD,	NAME	DATE		55					0711.2R & 1011.1BR	COOK	741	261
	DRAWN - SP, EKH				CONTRACT NO. 60999								
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								
	DATE - 03/25/2011												

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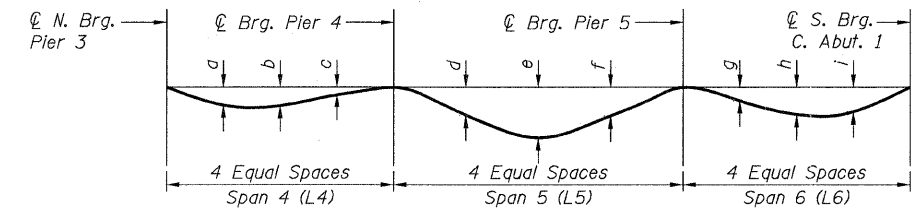
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN
(Spans 4, 5 & 6)



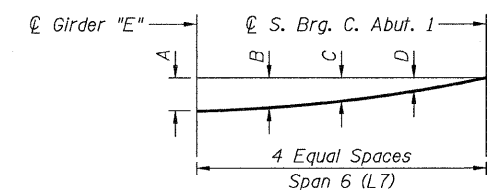
SECTION THRU PARAPET



DEAD LOAD DEFLECTION DIAGRAM
(includes weight of concrete only)

Girder	a	b	c	d	e	f	g	h	i	L4	L5	L6
SG4	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	68'-11 1/2"	87'-10 1/8"	68'-11 1/8"
I	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	69'-3"	88'-3"	69'-3"
2-16	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	69'-3"	88'-3"	69'-3"
SG8	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	69'-3"	88'-3"	69'-3"
SG9	3/8"	3/8"	1/4"	1/4"	1/4"	1/4"	5/8"	1 1/8"	3/4"	69'-3"	88'-3"	69'-3"

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 above.



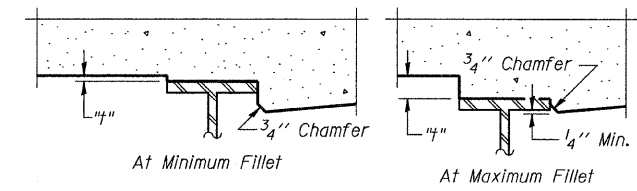
DEAD LOAD DEFLECTION DIAGRAM
(GIRDERS SG5 THRU SG7 AND SG10 THRU SG12)
(includes weight of concrete only)

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 above.

Girder	A	B	C	D	E	L7
SG5	5/8"	1/2"	3/8"	1/4"	SG4	15'-2 1/2"
SG6	5/8"	3/8"	3/8"	1/4"	SG4	27'-4 1/4"
SG7	3/4"	5/8"	3/8"	1/4"	SG4	39'-6 1/4"
SG10	1/2"	3/8"	1/4"	1/8"	SG9	17'-5 3/8"
SG11	1 1/8"	1 1/8"	3/4"	3/8"	SG9	38'-6 3/8"
SG12	1/8"	1"	1/8"	1/2"	SG9	59'-7 1/8"

P.G.L. - SPANS 4, 5 & 6

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
☉ Pier 3	015+94.11	0.00	620.92	620.92
☉ N. Brg. Pier 3	015+95.05	0.00	620.95	620.95
U	016+05.05	0.00	621.30	621.32
V	016+15.05	0.00	621.65	621.68
W	016+25.05	0.00	622.00	622.03
X	016+35.05	0.00	622.35	622.37
Y	016+45.05	0.00	622.70	622.71
Z	016+55.05	0.00	623.04	623.04
☉ Brg. Pier 4	016+64.30	0.00	623.34	623.34
A1	016+74.30	0.00	623.67	623.68
B1	016+84.30	0.00	623.98	624.00
C1	016+94.30	0.00	624.29	624.32
D1	017+04.30	0.00	624.59	624.63
E1	017+14.30	0.00	624.88	624.92
F1	017+24.30	0.00	625.16	625.19
G1	017+34.30	0.00	625.44	625.46
H1	017+44.30	0.00	625.71	625.71
☉ Brg. Pier 5	017+52.55	0.00	625.92	625.92
I1	017+62.55	0.00	626.18	626.18
J1	017+72.55	0.00	626.42	626.44
K1	017+82.55	0.00	626.66	626.69
L1	017+92.55	0.00	626.89	626.92
M1	018+02.55	0.00	627.12	627.14
N1	018+12.55	0.00	627.33	627.34
☉ S. Brg. C. Abut. 1	018+21.80	0.00	627.52	627.52
☉ C. Abut. 1	018+23.42	0.00	627.56	627.56



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

FILLET HEIGHTS

TOP OF SLAB ELEVATIONS LAYOUT SPANS 4, 5 & 6 STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - SP, EKH	REVISIONS		SHEET NO. 9	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS	SHEET NO.
	CHECKED - AMD,	NAME	DATE					741	262
	DRAWN - SP, EKH							CONTRACT NO. 60999	
	CHECKED - AMD,							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
	DATE - 03/25/2011			71 SHEETS					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER SG1

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Bk. S. Abut.	013+45.64	-45.33	611.45	611.45
⊙ Brg. S. Abut.	013+48.42	-45.33	611.55	611.55
A	013+58.42	-45.33	611.90	611.91
B	013+68.42	-45.33	612.25	612.27
C	013+78.42	-45.33	612.60	612.63
D	013+88.42	-45.33	612.95	612.97
E	013+98.42	-45.33	613.30	613.31
F	014+08.42	-45.33	613.65	613.65
⊙ Brg. Pier 1	014+17.67	-45.33	613.97	613.97
G	014+27.67	-45.33	614.32	614.34
H	014+37.67	-45.33	614.67	614.69
I	014+47.67	-45.33	615.02	615.06
J	014+57.67	-45.33	615.37	615.41
K	014+67.67	-45.33	615.72	615.76
L	014+77.67	-45.33	616.07	616.10
M	014+87.67	-45.33	616.42	616.44
N	014+97.67	-45.33	616.77	616.78
⊙ Brg. Pier 2	015+05.92	-45.33	617.06	617.06
O	015+15.92	-45.33	617.41	617.41
P	015+25.92	-45.33	617.76	617.77
Q	015+35.92	-45.33	618.11	618.13
R	015+45.92	-45.33	618.46	618.49
S	015+55.92	-45.33	618.81	618.83
T	015+65.92	-45.33	619.16	619.17
⊙ S. Brg. Pier 3	015+75.17	-45.33	619.48	619.48
⊙ Pier 3	015+76.11	-45.33	619.52	619.52

GIRDER SG2

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Bk. S. Abut.	013+82.36	47.15	612.70	612.70
⊙ Brg. S. Abut.	013+85.15	47.17	612.80	612.80
A	013+95.20	47.29	613.15	613.16
B	014+05.25	47.42	613.50	613.52
C	014+15.30	47.55	613.84	613.87
D	014+25.35	47.67	614.19	614.21
E	014+35.40	47.80	614.54	614.55
F	014+45.45	47.92	614.89	614.89
⊙ Brg. Pier 1	014+54.74	48.04	615.22	615.22
G	014+64.79	48.17	615.56	615.59
H	014+74.84	48.29	615.91	615.94
I	014+84.89	48.42	616.26	616.30
J	014+94.94	48.55	616.61	616.66
K	015+04.99	48.67	616.96	617.01
L	015+15.04	48.80	617.31	617.35
M	015+25.09	48.93	617.66	617.68
N	015+35.14	49.05	618.01	618.01
⊙ Brg. Pier 2	015+43.44	49.16	618.30	618.30
O	015+53.49	49.28	618.65	618.65
P	015+63.54	49.41	619.00	619.02
Q	015+73.59	49.54	619.34	619.38
R	015+83.64	49.66	619.69	619.73
S	015+93.69	49.79	620.04	620.07
T	016+03.74	49.91	620.39	620.41
⊙ S. Brg. Pier 3	016+13.03	50.03	620.72	620.72
⊙ Pier 3	016+13.98	50.04	620.75	620.75

GIRDER SG3

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Bk. S. Abut.	013+84.14	51.64	612.67	612.67
⊙ Brg. S. Abut.	013+86.93	51.67	612.77	612.77
A	013+97.03	51.92	613.12	613.13
B	014+07.13	52.17	613.47	613.49
C	014+17.23	52.43	613.81	613.84
D	014+27.33	52.68	614.16	614.19
E	014+37.43	52.93	614.51	614.53
F	014+47.53	53.18	614.86	614.86
⊙ Brg. Pier 1	014+56.88	53.42	615.18	615.18
G	014+66.98	53.67	615.53	615.56
H	014+77.08	53.92	615.88	615.91
I	014+87.18	54.18	616.23	616.27
J	014+97.28	54.43	616.58	616.63
K	015+07.38	54.68	616.92	616.97
L	015+17.48	54.93	617.27	617.31
M	015+27.58	55.19	617.62	617.64
N	015+37.68	55.44	617.97	617.98
⊙ Brg. Pier 2	015+46.01	55.65	618.26	618.26
O	015+56.11	55.90	618.61	618.61
P	015+66.21	56.15	618.95	618.97
Q	015+76.31	56.40	619.30	619.33
R	015+86.41	56.66	619.65	619.68
S	015+96.51	56.91	620.00	620.03
T	016+06.61	57.16	620.35	620.36
⊙ S. Brg. Pier 3	016+15.96	57.39	620.67	620.67
⊙ Pier 3	016+16.91	57.42	620.70	620.70

**TOP OF SLAB ELEVATIONS I
SPANS 1-3
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED - SP, EKH	REVISIONS		SHEET NO. 10	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 263
	CHECKED - AMD,	NAME	DATE						
	DRAWN - SP, EKH								
	CHECKED - AMD,								
DATE - 03/25/2011			CONTRACT NO. 60999						
						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 1					BEAM 2					BEAM 3					BEAM 4				
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. S. ABUT	013+46.70	-42.67	611.54	611.54	BK. S. ABUT	013+48.98	-36.92	611.74	611.74	BK. S. ABUT	013+51.27	-31.17	611.93	611.93	BK. S. ABUT	013+53.55	-25.42	612.12	612.12
⊙ BRG. S. ABUT	013+49.48	-42.67	611.64	611.64	⊙ BRG. S. ABUT	013+51.76	-36.92	611.83	611.83	⊙ BRG. S. ABUT	013+54.05	-31.17	612.03	612.03	⊙ BRG. S. ABUT	013+56.33	-25.42	612.22	612.22
A	013+59.48	-42.67	611.99	612.00	A	013+61.76	-36.92	612.18	612.20	A	013+64.05	-31.17	612.38	612.39	A	013+66.33	-25.42	612.57	612.58
B	013+69.48	-42.67	612.34	612.36	B	013+71.76	-36.92	612.53	612.56	B	013+74.05	-31.17	612.73	612.75	B	013+76.33	-25.42	612.92	612.94
C	013+79.48	-42.67	612.69	612.72	C	013+81.76	-36.92	612.88	612.91	C	013+84.05	-31.17	613.08	613.11	C	013+86.33	-25.42	613.27	613.29
D	013+89.48	-42.67	613.04	613.06	D	013+91.76	-36.92	613.23	613.26	D	013+94.05	-31.17	613.43	613.45	D	013+96.33	-25.42	613.62	613.64
E	013+99.48	-42.67	613.39	613.40	E	014+01.76	-36.92	613.58	613.60	E	014+04.05	-31.17	613.78	613.79	E	014+06.33	-25.42	613.97	613.98
F	014+09.48	-42.67	613.74	613.74	F	014+11.76	-36.92	613.93	613.94	F	014+14.05	-31.17	614.13	614.13	F	014+16.33	-25.42	614.32	614.32
⊙ PIER 1	014+18.73	-42.67	614.06	614.06	⊙ PIER 1	014+21.01	-36.92	614.26	614.26	⊙ PIER 1	014+23.30	-31.17	614.45	614.45	⊙ PIER 1	014+25.58	-25.42	614.64	614.64
G	014+28.73	-42.67	614.41	614.43	G	014+31.01	-36.92	614.61	614.63	G	014+33.30	-31.17	614.80	614.82	G	014+35.58	-25.42	614.99	615.01
H	014+38.73	-42.67	614.76	614.78	H	014+41.01	-36.92	614.96	614.98	H	014+43.30	-31.17	615.15	615.15	H	014+45.58	-25.42	615.34	615.36
I	014+48.73	-42.67	615.11	615.15	I	014+51.01	-36.92	615.31	615.34	I	014+53.30	-31.17	615.50	615.54	I	014+55.58	-25.42	615.69	615.72
J	014+58.73	-42.67	615.46	615.50	J	014+61.01	-36.92	615.66	615.70	J	014+63.30	-31.17	615.85	615.89	J	014+65.58	-25.42	616.04	616.08
K	014+68.73	-42.67	615.81	615.85	K	014+71.01	-36.92	616.01	616.05	K	014+73.30	-31.17	616.20	616.24	K	014+75.58	-25.42	616.39	616.43
L	014+78.73	-42.67	616.16	616.19	L	014+81.01	-36.92	616.36	616.39	L	014+83.30	-31.17	616.55	616.58	L	014+85.58	-25.42	616.74	616.77
M	014+88.73	-42.67	616.51	616.53	M	014+91.01	-36.92	616.71	616.73	M	014+93.30	-31.17	616.90	616.92	M	014+95.58	-25.42	617.09	617.11
N	014+98.73	-42.67	616.86	616.87	N	015+01.01	-36.92	617.06	617.06	N	015+03.30	-31.17	617.25	617.26	N	015+05.58	-25.42	617.44	617.44
⊙ PIER 2	015+06.98	-42.67	617.15	617.15	⊙ PIER 2	015+09.26	-36.92	617.35	617.35	⊙ PIER 2	015+11.55	-31.17	617.54	617.54	⊙ PIER 2	015+13.83	-25.42	617.73	617.73
O	015+16.98	-42.67	617.50	617.51	O	015+19.26	-36.92	617.70	617.70	O	015+21.55	-31.17	617.89	617.90	O	015+23.83	-25.42	618.08	618.08
P	015+26.98	-42.67	617.85	617.87	P	015+29.26	-36.92	618.05	618.06	P	015+31.55	-31.17	618.24	618.26	P	015+33.83	-25.42	618.43	618.44
Q	015+36.98	-42.67	618.20	618.23	Q	015+39.26	-36.92	618.40	618.42	Q	015+41.55	-31.17	618.59	618.62	Q	015+43.83	-25.42	618.78	618.80
R	015+46.98	-42.67	618.55	618.58	R	015+49.26	-36.92	618.75	618.77	R	015+51.55	-31.17	618.94	618.97	R	015+53.83	-25.42	619.13	619.16
S	015+56.98	-42.67	618.90	618.93	S	015+59.26	-36.92	619.10	619.12	S	015+61.55	-31.17	619.29	619.32	S	015+63.83	-25.42	619.48	619.50
T	015+66.98	-42.67	619.25	619.27	T	015+69.26	-36.92	619.45	619.46	T	015+71.55	-31.17	619.64	619.66	T	015+73.83	-25.42	619.83	619.84
⊙ S. BRG. PIER 3	015+76.23	-42.67	619.57	619.57	⊙ S. BRG. PIER 3	015+78.51	-36.92	619.77	619.77	⊙ S. BRG. PIER 3	015+80.80	-31.17	619.96	619.96	⊙ S. BRG. PIER 3	015+83.08	-25.42	620.15	620.15
⊙ PIER 3	015+77.17	-42.67	619.61	619.61	⊙ PIER 3	015+79.45	-36.92	619.80	619.80	⊙ PIER 3	015+81.74	-31.17	620.00	620.00	⊙ PIER 3	015+84.02	-25.42	620.18	620.18

BEAM 5					BEAM 6					BEAM 7					BEAM 8				
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. S. ABUT	013+55.83	-19.67	612.28	612.28	BK. S. ABUT	013+58.11	-13.92	612.45	612.45	BK. S. ABUT	013+60.40	-8.17	612.62	612.62	BK. S. ABUT	013+62.68	-2.42	612.78	612.78
⊙ BRG. S. ABUT	013+58.61	-19.67	612.38	612.38	⊙ BRG. S. ABUT	013+60.89	-13.92	612.55	612.55	⊙ BRG. S. ABUT	013+63.18	-8.17	612.71	612.71	⊙ BRG. S. ABUT	013+65.46	-2.42	612.88	612.88
A	013+68.61	-19.67	612.73	612.75	A	013+70.89	-13.92	612.90	612.91	A	013+73.18	-8.17	613.06	613.08	A	013+75.46	-2.42	613.23	613.25
B	013+78.61	-19.67	613.08	613.11	B	013+80.89	-13.92	613.25	613.27	B	013+83.18	-8.17	613.41	613.44	B	013+85.46	-2.42	613.58	613.61
C	013+88.61	-19.67	613.43	613.46	C	013+90.89	-13.92	613.60	613.63	C	013+93.18	-8.17	613.76	613.79	C	013+95.46	-2.42	613.93	613.96
D	013+98.61	-19.67	613.78	613.81	D	014+00.89	-13.92	613.95	613.97	D	014+03.18	-8.17	614.11	614.14	D	014+05.46	-2.42	614.28	614.30
E	014+08.61	-19.67	614.13	614.15	E	014+10.89	-13.92	614.30	614.31	E	014+13.18	-8.17	614.46	614.48	E	014+15.46	-2.42	614.63	614.64
F	014+18.61	-19.67	614.48	614.49	F	014+20.89	-13.92	614.65	614.65	F	014+23.18	-8.17	614.81	614.82	F	014+25.46	-2.42	614.98	614.98
⊙ PIER 1	014+27.86	-19.67	614.81	614.81	⊙ PIER 1	014+30.14	-13.92	614.97	614.97	⊙ PIER 1	014+32.43	-8.17	615.14	615.14	⊙ PIER 1	014+34.71	-2.42	615.30	615.30
G	014+37.86	-19.67	615.16	615.17	G	014+40.14	-13.92	615.32	615.34	G	014+42.43	-8.17	615.49	615.51	G	014+44.71	-2.42	615.65	615.67
H	014+47.86	-19.67	615.51	615.53	H	014+50.14	-13.92	615.67	615.69	H	014+52.43	-8.17	615.84	615.86	H	014+54.71	-2.42	616.00	616.02
I	014+57.86	-19.67	615.86	615.89	I	014+60.14	-13.92	616.02	616.05	I	014+62.43	-8.17	616.19	616.22	I	014+64.71	-2.42	616.35	616.39
J	014+67.86	-19.67	616.21	616.25	J	014+70.14	-13.92	616.37	616.41	J	014+72.43	-8.17	616.54	616.58	J	014+74.71	-2.42	616.70	616.74
K	014+77.86	-19.67	616.56	616.59	K	014+80.14	-13.92	616.72	616.76	K	014+82.43	-8.17	616.89	616.93	K	014+84.71	-2.42	617.05	617.09
L	014+87.86	-19.67	616.91	616.94	L	014+90.14	-13.92	617.07	617.10	L	014+92.43	-8.17	617.24	617.27	L	014+94.71	-2.42	617.40	617.44
M	014+97.86	-19.67	617.26	617.27	M	015+00.14	-13.92	617.42	617.44	M	015+02.43	-8.17	617.59	617.61	M	015+04.71	-2.42	617.75	617.77
N	015+07.86	-19.67	617.61	617.61	N	015+10.14	-13.92	617.77	617.78	N	015+12.43	-8.17	617.94	617.94	N	015+14.71	-2.42	618.10	618.11
⊙ PIER 2	015+16.11	-19.67	617.89	617.89	⊙ PIER 2	015+18.39	-13.92	618.06	618.06	⊙ PIER 2	015+20.68	-8.17	618.23	618.23	⊙ PIER 2	015+22.96	-2.42	618.39	618.39
O	015+26.11	-19.67	618.24	618.25	O	015+28.39	-13.92	618.41	618.41	O	015+30.68	-8.17	618.58	618.58	O	015+32.96	-2.42	618.74	618.75
P	015+36.11	-19.67	618.59	618.61	P	015+38.39	-13.92	618.76	618.77	P	015+40.68	-8.17	618.93	618.94	P	015+42.96	-2.42	619.09	619.11
Q	015+46.11	-19.67	618.94	618.97	Q	015+48.39	-13.92	619.11	619.13	Q	015+50.68	-8.17	619.28	619.30	Q	015+52.96	-2.42	619.44	619.47
R	015+56.11	-19.67	619.29	619.32	R	015+58.39	-13.92	619.46	619.49	R	015+60.68	-8.17	619.63	619.66	R	015+62.96	-2.42	619.79	619.82
S	015+66.11	-19.67	619.67	619.67	S	015+68.39	-13.92	619.81	619.84	S	015+70.68	-8.17	619.98	620.00	S	015+72.96	-2.42	620.14	620.17
T	015+76.11	-19.67	619.99	620.01	T	015+78.39	-13.92	620.16	620.17	T	015+80.68	-8.17	620.33	620.34	T	015+82.96	-2.42	620.49	620.51
⊙ S. BRG. PIER 3	015+85.36	-19.67	620.32	620.32	⊙ S. BRG. PIER 3	015+87.64	-13.92	620.48	620.48	⊙ S. BRG. PIER 3	015+89.93	-8.17	620.65	620.65	⊙ S. BRG. PIER 3	015+92.21	-2.42	620.82	620.82
⊙ PIER 3	015+86.30	-19.67	620.35	620.35	⊙ PIER 3	015+88.58	-13.92	620.52	620.52	⊙ PIER 3	015+90.87	-8.17	620.68	620.68	⊙ PIER 3	015+93.15	-2.42	620.85	620.85

TOP OF SLAB ELEVATIONS 2
SPANS 1-3
STRUCTURE NO. 016-3241

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 9

BEAM 10

BEAM 11

BEAM 12

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. S. ABUT	013+64.60	2.42	612.85	612.85	BK. S. ABUT	013+66.88	8.17	612.84	612.84	BK. S. ABUT	013+69.17	13.92	612.84	612.84	BK. S. ABUT	013+71.45	19.67	612.83	612.83
Ⓞ BRG. S. ABUT	013+67.38	2.42	612.95	612.95	Ⓞ BRG. S. ABUT	013+69.66	8.17	612.94	612.94	Ⓞ BRG. S. ABUT	013+71.95	13.92	612.93	612.93	Ⓞ BRG. S. ABUT	013+74.23	19.67	612.93	612.93
A	013+77.38	2.42	613.30	613.31	A	013+79.66	8.17	613.29	613.31	A	013+81.95	13.92	613.28	613.30	A	013+84.23	19.67	613.28	613.29
B	013+87.38	2.42	613.65	613.67	B	013+89.66	8.17	613.64	613.67	B	013+91.95	13.92	613.63	613.66	B	013+94.23	19.67	613.63	613.65
C	013+97.38	2.42	614.00	614.03	C	013+99.66	8.17	613.99	614.02	C	014+01.95	13.92	613.98	614.01	C	014+04.23	19.67	613.98	614.01
D	014+07.38	2.42	614.35	614.37	D	014+09.66	8.17	614.34	614.36	D	014+11.95	13.92	614.33	614.36	D	014+14.23	19.67	614.33	614.35
E	014+17.38	2.42	614.70	614.71	E	014+29.66	8.17	614.69	614.70	E	014+21.95	13.92	614.68	614.70	E	014+24.23	19.67	614.68	614.69
F	014+27.38	2.42	615.05	615.05	F	014+39.66	8.17	615.04	615.04	F	014+31.95	13.92	615.03	615.04	F	014+34.23	19.67	615.03	615.03
Ⓞ PIER 1	014+36.63	2.42	615.37	615.37	Ⓞ PIER 1	014+38.91	8.17	615.36	615.36	Ⓞ PIER 1	014+41.20	13.92	615.36	615.36	Ⓞ PIER 1	014+43.48	19.67	615.35	615.35
G	014+46.63	2.42	615.72	615.74	G	014+48.91	8.17	615.71	615.73	G	014+51.20	13.92	615.71	615.73	G	014+53.48	19.67	615.70	615.72
H	014+56.63	2.42	616.07	616.09	H	014+58.91	8.17	616.06	616.09	H	014+61.20	13.92	616.06	616.08	H	014+63.48	19.67	616.05	616.07
I	014+66.63	2.42	616.42	616.45	I	014+68.91	8.17	616.41	616.45	I	014+71.20	13.92	616.41	616.44	I	014+73.48	19.67	616.40	616.43
J	014+76.63	2.42	616.77	616.81	J	014+78.91	8.17	616.76	616.80	J	014+81.20	13.92	616.76	616.80	J	014+83.48	19.67	616.75	616.79
K	014+86.63	2.42	617.12	617.16	K	014+88.91	8.17	617.11	617.15	K	014+91.20	13.92	617.11	617.15	K	014+93.48	19.67	617.10	617.14
L	014+96.63	2.42	617.47	617.50	L	014+98.91	8.17	617.46	617.50	L	015+01.20	13.92	617.46	617.49	L	015+03.48	19.67	617.45	617.48
M	015+06.63	2.42	617.82	617.84	M	015+08.91	8.17	617.81	617.83	M	015+11.20	13.92	617.81	617.83	M	015+13.48	19.67	617.80	617.82
N	015+16.63	2.42	618.17	618.18	N	015+18.91	8.17	618.16	618.17	N	015+21.20	13.92	618.16	618.16	N	015+23.48	19.67	618.15	618.16
Ⓞ PIER 2	015+24.88	2.42	618.46	618.46	Ⓞ PIER 2	015+27.16	8.17	618.45	618.45	Ⓞ PIER 2	015+29.45	13.92	618.45	618.45	Ⓞ PIER 2	015+31.73	19.67	618.44	618.44
O	015+34.88	2.42	618.81	618.81	O	015+37.16	8.17	618.80	618.81	O	015+39.45	13.92	618.80	618.80	O	015+41.73	19.67	618.79	618.79
P	015+44.88	2.42	619.16	619.17	P	015+47.16	8.17	619.15	619.17	P	015+49.45	13.92	619.15	619.16	P	015+51.73	19.67	619.14	619.16
Q	015+54.88	2.42	619.51	619.53	Q	015+57.16	8.17	619.50	619.53	Q	015+59.45	13.92	619.50	619.52	Q	015+61.73	19.67	619.49	619.51
R	015+64.88	2.42	619.86	619.89	R	015+67.16	8.17	619.85	619.88	R	015+69.45	13.92	619.85	619.88	R	015+71.73	19.67	619.84	619.87
S	015+74.88	2.42	620.21	620.24	S	015+77.16	8.17	620.20	620.23	S	015+79.45	13.92	620.20	620.22	S	015+81.73	19.67	620.19	620.22
T	015+84.88	2.42	620.56	620.57	T	015+87.16	8.17	620.55	620.57	T	015+89.45	13.92	620.55	620.56	T	015+91.73	19.67	620.54	620.55
Ⓞ S. BRG. PIER 3	015+94.13	2.42	620.88	620.88	Ⓞ S. BRG. PIER 3	015+96.41	8.17	620.88	620.88	Ⓞ S. BRG. PIER 3	015+98.70	13.92	620.87	620.87	Ⓞ S. BRG. PIER 3	016+00.98	19.67	620.86	620.86
Ⓞ PIER 3	015+95.07	2.42	620.92	620.92	Ⓞ PIER 3	015+97.35	8.17	620.91	620.91	Ⓞ PIER 3	015+99.64	13.92	620.90	620.90	Ⓞ PIER 3	016+01.92	19.67	620.90	620.90

BEAM 13

BEAM 14

BEAM 15

BEAM 16

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. S. ABUT	013+73.73	25.42	612.82	612.82	BK. S. ABUT	013+76.01	31.17	612.80	612.80	BK. S. ABUT	013+78.30	36.92	612.76	612.76	BK. S. ABUT	013+80.58	42.67	612.73	612.73
Ⓞ BRG. S. ABUT	013+76.51	25.42	612.92	612.92	Ⓞ BRG. S. ABUT	013+78.79	31.17	612.89	612.89	Ⓞ BRG. S. ABUT	013+81.08	36.92	612.86	612.86	Ⓞ BRG. S. ABUT	013+83.36	42.67	612.82	612.82
A	013+86.51	25.42	613.27	613.29	A	013+88.79	31.17	613.24	613.26	A	013+91.08	36.92	613.21	613.22	A	013+93.36	42.67	613.17	613.19
B	013+96.51	25.42	613.62	613.65	B	013+98.79	31.17	613.59	613.62	B	014+01.08	36.92	613.56	613.59	B	014+03.36	42.67	613.52	613.55
C	014+06.51	25.42	613.97	614.00	C	014+08.79	31.17	613.94	613.97	C	014+11.08	36.92	613.91	613.94	C	014+13.36	42.67	613.87	613.90
D	014+16.51	25.42	614.32	614.35	D	014+18.79	31.17	614.29	614.32	D	014+21.08	36.92	614.26	614.28	D	014+23.36	42.67	614.22	614.25
E	014+26.51	25.42	614.67	614.69	E	014+28.79	31.17	614.64	614.66	E	014+31.08	36.92	614.61	614.62	E	014+33.36	42.67	614.57	614.59
F	014+36.51	25.42	615.02	615.03	F	014+38.79	31.17	614.99	615.00	F	014+41.08	36.92	614.96	614.96	F	014+43.36	42.67	614.92	614.93
Ⓞ PIER 1	014+45.76	25.42	615.35	615.35	Ⓞ PIER 1	014+48.04	31.17	615.32	615.32	Ⓞ PIER 1	014+50.33	36.92	615.28	615.28	Ⓞ PIER 1	014+52.61	42.67	615.25	615.25
G	014+55.76	25.42	615.70	615.71	G	014+58.04	31.17	615.67	615.69	G	014+60.33	36.92	615.63	615.63	G	014+62.61	42.67	615.60	615.62
H	014+65.76	25.42	616.05	616.07	H	014+68.04	31.17	616.02	616.04	H	014+70.33	36.92	615.98	616.00	H	014+72.61	42.67	615.95	615.97
I	014+75.76	25.42	616.40	616.43	I	014+78.04	31.17	616.37	616.40	I	014+80.33	36.92	616.33	616.37	I	014+82.61	42.67	616.30	616.33
J	014+85.76	25.42	616.75	616.79	J	014+88.04	31.17	616.72	616.76	J	014+90.33	36.92	616.68	616.72	J	014+92.61	42.67	616.65	616.69
K	014+95.76	25.42	617.10	617.13	K	014+98.04	31.17	617.07	617.11	K	015+00.33	36.92	617.03	617.07	K	015+02.61	42.67	617.00	617.04
L	015+05.76	25.42	617.45	617.48	L	015+08.04	31.17	617.42	617.45	L	015+10.33	36.92	617.38	617.41	L	015+12.61	42.67	617.35	617.38
M	015+15.76	25.42	617.80	617.81	M	015+18.04	31.17	617.77	617.79	M	015+20.33	36.92	617.73	617.75	M	015+22.61	42.67	617.70	617.72
N	015+25.76	25.42	618.15	618.15	N	015+28.04	31.17	618.12	618.12	N	015+30.33	36.92	618.08	618.09	N	015+32.61	42.67	618.05	618.05
Ⓞ PIER 2	015+34.01	25.42	618.43	618.43	Ⓞ PIER 2	015+36.29	31.17	618.41	618.41	Ⓞ PIER 2	015+38.58	36.92	618.37	618.37	Ⓞ PIER 2	015+40.86	42.67	618.34	618.34
O	015+44.01	25.42	618.78	618.79	O	015+46.29	31.17	618.76	618.76	O	015+48.58	36.92	618.72	618.73	O	015+50.86	42.67	618.69	618.69
P	015+54.01	25.42	619.13	619.15	P	015+56.29	31.17	619.11	619.12	P	015+58.58	36.92	619.07	619.09	P	015+60.86	42.67	619.04	619.05
Q	015+64.01	25.42	619.48	619.51	Q	015+66.29	31.17	619.46	619.48	Q	015+68.58	36.92	619.42	619.45	Q	015+70.86	42.67	619.39	619.41
R	015+74.01	25.42	619.83	619.86	R	015+74.29	31.17	619.81	619.84	R	015+78.58	36.92	619.77	619.80	R	015+80.86	42.67	619.74	619.77
S	015+84.01	25.42	620.18	620.21	S	015+86.29	31.17	620.16	620.16	S	015+88.58	36.92	620.12	620.15	S	015+90.86	42.67	620.09	620.11
T	015+94.01	25.42	620.53	620.55	T	015+96.29	31.17	620.51	620.52	T	015+98.58	36.92	620.47	620.49	T	016+00.86	42.67	620.44	620.45
Ⓞ S. BRG. PIER 3	016+03.26	25.42	620.86	620.86	Ⓞ S. BRG. PIER 3	016+05.54	31.17	620.83	620.83	Ⓞ S. BRG. PIER 3	016+07.83	36.92	620.80	620.80	Ⓞ S. BRG. PIER 3	016+10.11	42.67	620.76	620.76
Ⓞ PIER 3	016+04.20	25.42	620.89	620.89	Ⓞ PIER 3	016+06.48	31.17	620.86	620.86	Ⓞ PIER 3	016+08.77	36.92	620.83	620.83	Ⓞ PIER 3	016+11.05	42.67	620.79	620.79

**TOP OF SLAB ELEVATIONS 3
SPANS 1-3
STRUCTURE NO. 016-3241**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 1					BEAM 2					BEAM 3					BEAM 4				
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Q PIER 3	015+77.17	-42.67	619.61	619.61	Q PIER 3	015+79.45	-36.92	619.80	619.80	Q PIER 3	015+81.74	-31.17	620.00	620.00	Q PIER 3	015+84.02	-25.42	620.18	620.18
Q N. BRG. PIER 3	015+78.11	-42.67	619.64	619.64	Q N. BRG. PIER 3	015+80.39	-36.92	619.84	619.84	Q N. BRG. PIER 3	015+82.68	-31.17	620.03	620.03	Q N. BRG. PIER 3	015+84.96	-25.42	620.22	620.22
U	015+88.11	-42.67	619.99	620.01	U	015+90.39	-36.92	620.19	620.20	U	015+92.68	-31.17	620.38	620.40	U	015+94.96	-25.42	620.57	620.58
V	015+98.11	-42.67	620.34	620.37	V	016+00.39	-36.92	620.54	620.56	V	016+02.68	-31.17	620.73	620.76	V	016+04.96	-25.42	620.92	620.94
W	016+08.11	-42.67	620.69	620.72	W	016+10.39	-36.92	620.89	620.91	W	016+12.68	-31.17	621.08	621.11	W	016+14.96	-25.42	621.27	621.29
X	016+18.11	-42.67	621.04	621.07	X	016+20.39	-36.92	621.24	621.26	X	016+22.68	-31.17	621.43	621.45	X	016+24.96	-25.42	621.62	621.64
Y	016+28.11	-42.67	621.39	621.41	Y	016+30.39	-36.92	621.59	621.60	Y	016+32.68	-31.17	621.78	621.79	Y	016+34.96	-25.42	621.97	621.98
Z	016+38.11	-42.67	621.74	621.75	Z	016+40.39	-36.92	621.93	621.94	Z	016+42.68	-31.17	622.13	622.13	Z	016+44.96	-25.42	622.31	622.32
Q PIER 4	016+47.36	-42.67	622.06	622.06	Q PIER 4	016+49.64	-36.92	622.25	622.25	Q PIER 4	016+51.93	-31.17	622.44	622.44	Q PIER 4	016+54.21	-25.42	622.63	622.63
A1	016+57.36	-42.67	622.39	622.41	A1	016+59.64	-36.92	622.59	622.60	A1	016+61.93	-31.17	622.78	622.79	A1	016+64.21	-25.42	622.96	622.98
B1	016+67.36	-42.67	622.72	622.74	B1	016+69.64	-36.92	622.91	622.93	B1	016+71.93	-31.17	623.10	623.12	B1	016+74.21	-25.42	623.28	623.30
C1	016+77.36	-42.67	623.04	623.07	C1	016+79.64	-36.92	623.23	623.26	C1	016+81.93	-31.17	623.42	623.45	C1	016+84.21	-25.42	623.60	623.63
D1	016+87.36	-42.67	623.36	623.39	D1	016+89.64	-36.92	623.54	623.58	D1	016+91.93	-31.17	623.73	623.77	D1	016+94.21	-25.42	623.90	623.94
E1	016+97.36	-42.67	623.66	623.69	E1	016+99.64	-36.92	623.85	623.88	E1	017+01.93	-31.17	624.03	624.07	E1	017+04.21	-25.42	624.20	624.24
F1	017+07.36	-42.67	623.96	623.98	F1	017+09.64	-36.92	624.14	624.17	F1	017+11.93	-31.17	624.32	624.35	F1	017+14.21	-25.42	624.50	624.53
G1	017+17.36	-42.67	624.25	624.26	G1	017+19.64	-36.92	624.43	624.45	G1	017+21.93	-31.17	624.61	624.63	G1	017+24.21	-25.42	624.78	624.80
H1	017+27.36	-42.67	624.53	624.53	H1	017+29.64	-36.92	624.71	624.71	H1	017+31.93	-31.17	624.89	624.89	H1	017+34.21	-25.42	625.06	625.06
Q PIER 5	017+35.61	-42.67	624.76	624.76	Q PIER 5	017+37.89	-36.92	624.93	624.93	Q PIER 5	017+40.18	-31.17	625.11	625.11	Q PIER 5	017+42.46	-25.42	625.28	625.28
I1	017+45.61	-42.67	625.02	625.04	I1	017+47.89	-36.92	625.20	625.20	I1	017+50.18	-31.17	625.37	625.38	I1	017+52.46	-25.42	625.54	625.54
J1	017+55.61	-42.67	625.28	625.31	J1	017+57.89	-36.92	625.46	625.47	J1	017+60.18	-31.17	625.63	625.64	J1	017+62.46	-25.42	625.79	625.81
K1	017+65.61	-42.67	625.54	625.58	K1	017+67.89	-36.92	625.71	625.73	K1	017+70.18	-31.17	625.88	625.90	K1	017+72.46	-25.42	626.04	626.06
L1	017+75.61	-42.67	625.78	625.83	L1	017+77.89	-36.92	625.95	625.98	L1	017+80.18	-31.17	626.15	626.18	L1	017+82.46	-25.42	626.28	626.31
M1	017+85.61	-42.67	626.02	626.06	M1	017+87.89	-36.92	626.18	626.21	M1	017+90.18	-31.17	626.35	626.38	M1	017+92.46	-25.42	626.51	626.53
N1	017+95.61	-42.67	626.24	626.27	N1	017+97.89	-36.92	626.41	626.42	N1	018+00.18	-31.17	626.58	626.59	N1	018+02.46	-25.42	626.73	626.75
Q S.BRG C. ABUT 1	018+04.86	-42.67	626.45	626.45	Q S.BRG C. ABUT 1	018+07.14	-36.92	626.61	626.61	Q S.BRG C. ABUT 1	018+09.43	-31.17	626.78	626.78	Q S.BRG C. ABUT 1	018+11.71	-25.42	626.93	626.93
Q C. ABUT. 1	018+06.48	-42.67	626.48	626.48	Q C. ABUT. 1	018+08.76	-36.92	626.65	626.65	Q C. ABUT. 1	018+11.04	-31.17	626.81	626.81	Q C. ABUT. 1	018+13.33	-25.42	626.97	626.97

BEAM 5					BEAM 6					BEAM 7					BEAM 8				
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS	LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Q PIER 3	015+86.30	-19.67	620.35	620.35	Q PIER 3	015+88.58	-13.92	620.52	620.52	Q PIER 3	015+90.87	-8.17	620.68	620.68	Q PIER 3	015+93.15	-2.42	620.85	620.85
Q N. BRG. PIER 3	015+87.24	-19.67	620.38	620.38	Q N. BRG. PIER 3	015+89.52	-13.92	620.55	620.55	Q N. BRG. PIER 3	015+91.81	-8.17	620.72	620.72	Q N. BRG. PIER 3	015+94.09	-2.42	620.88	620.88
U	015+97.24	-19.67	620.73	620.75	U	015+99.52	-13.92	620.90	620.91	U	016+01.81	-8.17	621.07	621.08	U	016+04.09	-2.42	621.23	621.25
V	016+07.24	-19.67	621.08	621.11	V	016+09.52	-13.92	621.25	621.27	V	016+11.81	-8.17	621.42	621.44	V	016+14.09	-2.42	621.58	621.61
W	016+17.24	-19.67	621.43	621.46	W	016+19.52	-13.92	621.60	621.63	W	016+21.81	-8.17	621.77	621.79	W	016+24.09	-2.42	621.93	621.96
X	016+27.24	-19.67	621.78	621.81	X	016+29.52	-13.92	621.95	621.97	X	016+31.81	-8.17	622.12	622.14	X	016+34.09	-2.42	622.28	622.30
Y	016+37.24	-19.67	622.13	622.15	Y	016+39.52	-13.92	622.30	622.31	Y	016+41.81	-8.17	622.46	622.48	Y	016+44.09	-2.42	622.63	622.64
Z	016+47.24	-19.67	622.48	622.48	Z	016+49.52	-13.92	622.64	622.65	Z	016+51.81	-8.17	622.80	622.81	Z	016+54.09	-2.42	622.97	622.97
Q PIER 4	016+56.49	-19.67	622.79	622.79	Q PIER 4	016+58.77	-13.92	622.95	622.95	Q PIER 4	016+61.06	-8.17	623.11	623.11	Q PIER 4	016+63.34	-2.42	623.27	623.27
A1	016+66.49	-19.67	623.12	623.14	A1	016+68.77	-13.92	623.28	623.30	A1	016+71.06	-8.17	623.44	623.46	A1	016+73.34	-2.42	623.60	623.62
B1	016+76.49	-19.67	623.44	623.46	B1	016+78.77	-13.92	623.60	623.62	B1	016+81.06	-8.17	623.76	623.78	B1	016+83.34	-2.42	623.91	623.93
C1	016+86.49	-19.67	623.75	623.78	C1	016+88.77	-13.92	623.91	623.94	C1	016+91.06	-8.17	624.07	624.10	C1	016+93.34	-2.42	624.22	624.25
D1	016+96.49	-19.67	624.06	624.10	D1	016+98.77	-13.92	624.21	624.25	D1	017+01.06	-8.17	624.37	624.41	D1	017+03.34	-2.42	624.52	624.56
E1	017+06.49	-19.67	624.36	624.39	E1	017+08.77	-13.92	624.51	624.55	E1	017+11.06	-8.17	624.66	624.70	E1	017+13.34	-2.42	624.82	624.85
F1	017+16.49	-19.67	624.65	624.68	F1	017+18.77	-13.92	624.80	624.83	F1	017+21.06	-8.17	624.95	624.98	F1	017+23.34	-2.42	625.10	625.13
G1	017+26.49	-19.67	624.93	624.95	G1	017+28.77	-13.92	625.08	625.10	G1	017+31.06	-8.17	625.23	625.25	G1	017+33.34	-2.42	625.38	625.39
H1	017+36.49	-19.67	625.20	625.21	H1	017+38.77	-13.92	625.35	625.36	H1	017+41.06	-8.17	625.50	625.50	H1	017+43.34	-2.42	625.65	625.65
Q PIER 5	017+44.74	-19.67	625.42	625.42	Q PIER 5	017+47.02	-13.92	625.57	625.57	Q PIER 5	017+49.31	-8.17	625.72	625.72	Q PIER 5	017+51.59	-2.42	625.86	625.86
I1	017+54.74	-19.67	625.68	625.69	I1	017+57.02	-13.92	625.83	625.83	I1	017+59.31	-8.17	625.97	625.98	I1	017+61.59	-2.42	626.12	626.12
J1	017+64.74	-19.67	625.94	625.95	J1	017+67.02	-13.92	626.08	626.09	J1	017+69.31	-8.17	626.22	626.24	J1	017+71.59	-2.42	626.36	626.38
K1	017+74.74	-19.67	626.18	626.21	K1	017+77.02	-13.92	626.32	626.35	K1	017+79.31	-8.17	626.46	626.49	K1	017+81.59	-2.42	626.60	626.63
L1	017+84.74	-19.67	626.42	626.45	L1	017+87.02	-13.92	626.56	626.59	L1	017+89.31	-8.17	626.70	626.72	L1	017+91.59	-2.42	626.84	626.86
M1	017+94.74	-19.67	626.65	626.67	M1	017+97.02	-13.92	626.79	626.81	M1	017+99.31	-8.17	626.92	626.95	M1	018+01.59	-2.42	627.06	627.08
N1	018+04.74	-19.67	626.87	626.88	N1	018+07.02	-13.92	627.00	627.02	N1	018+09.31	-8.17	627.14	627.15	N1	018+11.59	-2.42	627.27	627.29
Q S.BRG C. ABUT 1	018+13.99	-19.67	627.07	627.07	Q S.BRG C. ABUT 1	018+16.27	-13.92	627.20	627.20	Q S.BRG C. ABUT 1	018+18.56	-8.17	627.33	627.33	Q S.BRG C. ABUT 1	018+20.84	-2.42	627.47	627.47
Q C. ABUT. 1	018+15.61	-19.67	627.10	627.10	Q C. ABUT. 1	018+17.89	-13.92	627.23	627.23	Q C. ABUT. 1	018+20.17	-8.17	627.37	627.37	Q C. ABUT. 1	018+22.46	-2.42		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 9

BEAM 10

BEAM 11

BEAM 12

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Q PIER 3	015+95.07	2.42	620.92	620.92
Q N. BRG. PIER 3	015+96.01	2.42	620.95	620.95
U	016+06.01	2.42	621.30	621.31
V	016+16.01	2.42	621.65	621.67
W	016+26.01	2.42	622.00	622.03
X	016+36.01	2.42	622.35	622.37
Y	016+46.01	2.42	622.69	622.71
Z	016+56.01	2.42	623.03	623.04
Q PIER 4	016+65.26	2.42	623.34	623.34
A1	016+75.26	2.42	623.66	623.68
B1	016+85.26	2.42	623.97	623.99
C1	016+95.26	2.42	624.28	624.31
D1	017+05.26	2.42	624.58	624.62
E1	017+15.26	2.42	624.87	624.91
F1	017+25.26	2.42	625.15	625.18
G1	017+35.26	2.42	625.43	625.45
H1	017+45.26	2.42	625.70	625.70
Q PIER 5	017+53.51	2.42	625.91	625.91
I1	017+63.51	2.42	626.17	626.17
J1	017+73.51	2.42	626.41	626.43
K1	017+83.51	2.42	626.65	626.67
L1	017+93.51	2.42	626.88	626.91
M1	018+03.51	2.42	627.10	627.13
N1	018+13.51	2.42	627.31	627.33
Q S.BRG C. ABUT 1	018+22.76	2.42	627.51	627.51
Q C. ABUT. 1	018+24.38	2.42	627.54	627.54

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Q PIER 3	015+97.35	8.17	620.91	620.91
Q N. BRG. PIER 3	015+98.29	8.17	620.94	620.94
U	016+08.29	8.17	621.29	621.31
V	016+18.29	8.17	621.64	621.67
W	016+28.29	8.17	621.99	622.02
X	016+38.29	8.17	622.34	622.37
Y	016+48.29	8.17	622.69	622.70
Z	016+58.29	8.17	623.02	623.03
Q PIER 4	016+67.54	8.17	623.33	623.33
A1	016+77.54	8.17	623.65	623.66
B1	016+87.54	8.17	623.96	623.98
C1	016+97.54	8.17	624.26	624.29
D1	017+07.54	8.17	624.56	624.60
E1	017+17.54	8.17	624.85	624.89
F1	017+27.54	8.17	625.13	625.16
G1	017+37.54	8.17	625.41	625.42
H1	017+47.54	8.17	625.67	625.68
Q PIER 5	017+55.79	8.17	625.88	625.88
I1	017+65.79	8.17	626.14	626.14
J1	017+75.79	8.17	626.38	626.39
K1	017+85.79	8.17	626.62	626.64
L1	017+95.79	8.17	626.84	626.87
M1	018+05.79	8.17	627.06	627.09
N1	018+15.79	8.17	627.28	627.29
Q S.BRG C. ABUT 1	018+25.04	8.17	627.47	627.47
Q C. ABUT. 1	018+26.66	8.17	627.50	627.50

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Q PIER 3	015+99.64	13.92	620.90	620.90
Q N. BRG. PIER 3	016+00.58	13.92	620.94	620.94
U	016+10.58	13.92	621.29	621.30
V	016+20.58	13.92	621.64	621.66
W	016+30.58	13.92	621.99	622.01
X	016+40.58	13.92	622.34	622.36
Y	016+50.58	13.92	622.68	622.69
Z	016+60.58	13.92	623.01	623.01
Q PIER 4	016+69.83	13.92	623.31	623.31
A1	016+79.83	13.92	623.63	623.65
B1	016+89.83	13.92	623.94	623.96
C1	016+99.83	13.92	624.25	624.28
D1	017+09.83	13.92	624.54	624.58
E1	017+19.83	13.92	624.83	624.87
F1	017+29.83	13.92	625.11	625.14
G1	017+39.83	13.92	625.38	625.40
H1	017+49.83	13.92	625.64	625.65
Q PIER 5	017+58.08	13.92	625.86	625.86
I1	017+68.08	13.92	626.11	626.11
J1	017+78.08	13.92	626.35	626.36
K1	017+88.08	13.92	626.58	626.61
L1	017+98.08	13.92	626.81	626.84
M1	018+08.08	13.92	627.03	627.05
N1	018+18.08	13.92	627.24	627.25
Q S.BRG C. ABUT 1	018+27.33	13.92	627.43	627.43
Q C. ABUT. 1	018+28.94	13.92	627.46	627.46

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Q PIER 3	016+01.92	19.67	620.90	620.90
Q N. BRG. PIER 3	016+02.86	19.67	620.93	620.93
U	016+12.86	19.67	621.28	621.29
V	016+22.86	19.67	621.63	621.66
W	016+32.86	19.67	621.98	622.01
X	016+42.86	19.67	622.33	622.35
Y	016+52.86	19.67	622.67	622.68
Z	016+62.86	19.67	623.00	623.00
Q PIER 4	016+72.11	19.67	623.30	623.30
A1	016+82.11	19.67	623.62	623.63
B1	016+92.11	19.67	623.93	623.95
C1	017+02.11	19.67	624.23	624.26
D1	017+12.11	19.67	624.52	624.56
E1	017+22.11	19.67	624.81	624.84
F1	017+32.11	19.67	625.08	625.11
G1	017+42.11	19.67	625.35	625.37
H1	017+52.11	19.67	625.62	625.62
Q PIER 5	017+60.36	19.67	625.83	625.83
I1	017+70.36	19.67	626.08	626.08
J1	017+80.36	19.67	626.32	626.33
K1	017+90.36	19.67	626.55	626.57
L1	018+00.36	19.67	626.77	626.80
M1	018+10.36	19.67	626.99	627.01
N1	018+20.36	19.67	627.20	627.21
Q S.BRG C. ABUT 1	018+29.61	19.67	627.38	627.38
Q C. ABUT. 1	018+31.23	19.67	627.42	627.42

BEAM 13

BEAM 14

BEAM 15

BEAM 16

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Q PIER 3	016+04.20	25.42	620.89	620.89
Q N. BRG. PIER 3	016+05.14	25.42	620.92	620.92
U	016+15.14	25.42	621.27	621.29
V	016+25.14	25.42	621.62	621.65
W	016+35.14	25.42	621.97	622.00
X	016+45.14	25.42	622.32	622.34
Y	016+55.14	25.42	622.66	622.67
Z	016+65.14	25.42	622.99	622.99
Q PIER 4	016+74.39	25.42	623.29	623.29
A1	016+84.39	25.42	623.60	623.62
B1	016+94.39	25.42	623.91	623.93
C1	017+04.39	25.42	624.21	624.24
D1	017+14.39	25.42	624.50	624.54
E1	017+24.39	25.42	624.78	624.82
F1	017+34.39	25.42	625.06	625.09
G1	017+44.39	25.42	625.33	625.35
H1	017+54.39	25.42	625.59	625.59
Q PIER 5	017+62.64	25.42	625.80	625.80
I1	017+72.64	25.42	626.04	626.05
J1	017+82.64	25.42	626.28	626.30
K1	017+92.64	25.42	626.51	626.54
L1	018+02.64	25.42	626.74	626.76
M1	018+12.64	25.42	626.95	626.98
N1	018+22.64	25.42	627.16	627.17
Q S.BRG C. ABUT 1	018+31.89	25.42	627.34	627.34
Q C. ABUT. 1	018+33.51	25.42	627.37	627.37

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Q PIER 3	016+06.48	31.17	620.86	620.86
Q N. BRG. PIER 3	016+07.42	31.17	620.90	620.90
U	016+17.42	31.17	621.25	621.26
V	016+27.42	31.17	621.60	621.62
W	016+37.42	31.17	621.95	621.97
X	016+47.42	31.17	622.29	622.31
Y	016+57.42	31.17	622.63	622.64
Z	016+67.42	31.17	622.96	622.96
Q PIER 4	016+76.67	31.17	623.25	623.25
A1	016+86.67	31.17	623.57	623.58
B1	016+96.67	31.17	623.87	623.89
C1	017+06.67	31.17	624.17	624.20
D1	017+16.67	31.17	624.46	624.50
E1	017+26.67	31.17	624.74	624.78
F1	017+36.67	31.17	625.02	625.05
G1	017+46.67	31.17	625.28	625.30
H1	017+56.67	31.17	625.54	625.55
Q PIER 5	017+64.92	31.17	625.75	625.75
I1	017+74.92	31.17	625.99	626.00
J1	017+84.92	31.17	626.23	626.24
K1	017+94.92	31.17	626.46	626.48
L1	018+04.92	31.17	626.68	626.71
M1	018+14.92	31.17	626.89	626.92
N1	018+24.92	31.17	627.10	627.11
Q S.BRG C. ABUT 1	018+34.17	31.17	627.28	627.28
Q C. ABUT. 1	018+35.79	31.17	627.31	627.31

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Q PIER 3	016+08.77	36.92	620.83	620.83
Q N. BRG. PIER 3	016+09.71	36.92	620.86	620.86
U	016+19.71	36.92	621.21	621.23
V	016+29.71	36.92	621.56	621.59
W	016+39.71	36.92	621.91	621.94
X	016+49.71	36.92	622.25	622.28
Y	016+59.71	36.92	622.59	622.60
Z	016+69.71	36.92	622.91	622.92
Q PIER 4	016+78.96	36.92	623.21	623.21
A1	016+88.96	36.92	623.52	623.54
B1	016+98.96	36.92	623.83	623.84
C1	017+08.96	36.92	624.12	624.15
D1	017+18.96	36.92	624.41	624.45
E1	017+28.96	36.92	624.69	624.73
F1	017+38.96	36.92	624.96	624.99
G1	017+48.96	36.92	625.23	625.24
H1	017+58.96	36.92	625.48	625.49
Q PIER 5	017+67.21	36.92	625.69	625.69
I1	017+77.21	36.92	625.93	625.94
J1	017+87.21	36.92	626.17	626.18
K1	017+97.21	36.92	626.39	626.42
L1	018+07.21	36.92	626.61	626.64
M1	018+17.21	36.92	626.82	626.85
N1	018+27.21	36.92	627.03	627.04
Q S.BRG C. ABUT 1	018+36.46	36.92	627.21	627.21
Q C. ABUT. 1	018+38.07	36.92	627.24	627.24

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
Q PIER 3	016+11.05	42.67	620.79	620.79
Q N. BRG. PIER 3	016+11.99	42.67	620.83	620.83
U	016+21.99	42.67	621.18	621.19
V	016+31.99	42.67	621.53	621.55
W	016+41.99	42.67	621.87	621.90
X	016+51.99	42.67	622.22	622.24
Y	016+61.99	42.67	62	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER SG4

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
☉ Pier 3	015+75.65	-46.49	619.48	619.48
☉ N. Brg. Pier 3	015+76.59	-46.50	619.51	619.51
U	015+86.54	-46.62	619.86	619.87
V	015+96.50	-46.74	620.20	620.23
W	016+06.45	-46.85	620.55	620.58
X	016+16.40	-46.97	620.89	620.92
Y	016+26.35	-47.09	621.24	621.26
Z	016+36.31	-47.21	621.59	621.60
☉ Brg. Pier 4	016+45.52	-47.31	621.90	621.90
A1	016+55.47	-47.43	622.24	622.24
B1	016+65.42	-47.55	622.56	622.57
C1	016+75.38	-47.61	622.88	622.90
D1	016+85.33	-47.67	623.19	623.21
E1	016+95.28	-47.73	623.50	623.51
F1	017+05.23	-47.78	623.79	623.80
G1	017+15.19	-47.90	624.08	624.08
H1	017+25.14	-48.02	624.36	624.36
☉ Brg. Pier 5	017+33.35	-48.35	624.58	624.58
I1	017+43.31	-48.47	624.85	624.87
J1	017+53.26	-48.59	625.11	625.15
K1	017+63.21	-48.71	625.36	625.42
L1	017+73.17	-48.82	625.60	625.67
M1	017+83.12	-48.94	625.83	625.89
N1	017+93.07	-49.06	626.06	626.09
☉ S.Brg.C.Abut.1	018+02.28	-49.17	626.26	626.26
☉ C. Abut. 1	018+03.89	-49.19	626.30	626.30

GIRDER SG8

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
☉ Pier 3	016+13.83	49.67	620.75	620.75
☉ N. Brg. Pier 3	016+14.77	49.67	620.78	620.78
U	016+24.77	49.67	621.13	621.15
V	016+34.77	49.67	621.48	621.51
W	016+44.77	49.67	621.83	621.86
X	016+54.77	49.67	622.17	622.20
Y	016+64.77	49.67	622.50	622.52
Z	016+74.77	49.67	622.82	622.83
☉ Brg. Pier 4	016+84.02	49.67	623.11	623.11
A1	016+94.02	49.67	623.42	623.44
B1	017+04.02	49.67	623.72	623.74
C1	017+14.02	49.67	624.01	624.05
D1	017+24.02	49.67	624.30	624.34
E1	017+34.02	49.67	624.57	624.61
F1	017+44.02	49.67	624.84	624.87
G1	017+54.02	49.67	625.10	625.12
H1	017+64.02	49.67	625.36	625.36
☉ Brg. Pier 5	017+72.27	49.67	625.56	625.56
I1	017+82.27	49.67	625.80	625.81
J1	017+92.27	49.67	626.03	626.06
K1	018+02.27	49.67	626.25	626.30
L1	018+12.27	49.67	626.47	626.52
M1	018+22.27	49.67	626.67	626.72
N1	018+32.27	49.67	626.87	626.90
☉ S.Brg.C.Abut.1	018+41.52	49.67	627.05	627.05
☉ C. Abut. 1	018+43.14	49.67	627.08	627.08

GIRDER SG9

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
☉ Pier 3	016+16.61	56.67	620.71	620.71
☉ N. Brg. Pier 3	016+17.55	56.67	620.74	620.74
U	016+27.55	56.67	621.09	621.11
V	016+37.55	56.67	621.44	621.47
W	016+47.55	56.67	621.78	621.82
X	016+57.55	56.67	622.12	622.15
Y	016+67.55	56.67	622.45	622.47
Z	016+77.55	56.67	622.77	622.78
☉ Brg. Pier 4	016+86.80	56.67	623.06	623.06
A1	016+96.80	56.67	623.37	623.38
B1	017+06.80	56.67	623.66	623.67
C1	017+16.80	56.67	623.95	623.97
D1	017+26.80	56.67	624.23	624.26
E1	017+36.80	56.67	624.51	624.53
F1	017+46.80	56.67	624.78	624.79
G1	017+56.80	56.67	625.03	625.04
H1	017+66.80	56.67	625.28	625.28
☉ Brg. Pier 5	017+75.05	56.67	625.49	625.49
I1	017+85.05	56.67	625.72	625.75
J1	017+95.05	56.67	625.95	626.01
K1	018+05.05	56.67	626.17	626.25
L1	018+15.05	56.67	626.39	626.47
M1	018+25.05	56.67	626.59	626.66
N1	018+35.05	56.67	626.79	626.83
☉ S.Brg.C.Abut.1	018+44.30	56.67	626.96	626.96
☉ C. Abut. 1	018+45.91	56.67	626.99	626.99

GIRDER SG5

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
End of Beam	17+86.35	-48.98	625.91	625.86
N1	17+91.72	-52.47	625.96	625.93
☉ S.Brg.C.Abut.1	17+99.07	-57.25	626.03	626.03

GIRDER SG10

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
End of Beam	18+30.52	56.67	626.70	626.66
N1	18+35.87	58.74	626.76	626.73
☉ S.Brg.C.Abut.1	18+46.80	62.97	626.88	626.88

GIRDER SG6

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
End of Beam	17+73.57	-48.68	625.61	625.54
M1	17+81.20	-53.79	625.69	625.64
N1	17+89.15	-58.95	625.77	625.74
☉ S.Brg.C.Abut.1	17+96.50	-63.73	625.84	625.84

GIRDER SG11

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
End of Beam	18+13.89	56.67	626.36	626.27
L1	18+15.26	57.20	626.38	626.29
M1	18+27.08	61.77	626.53	626.46
N1	18+38.89	66.34	626.67	626.63
☉ S.Brg.C.Abut.1	18+49.82	70.57	626.79	626.79

GIRDER SG7

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
End of Beam	17+60.79	-48.68	625.29	625.23
K1	17+62.73	-49.94	625.32	625.26
L1	17+70.68	-55.10	625.41	625.36
M1	17+78.63	-60.26	625.50	625.47
N1	17+86.58	-65.43	625.58	625.56
☉ S.Brg.C.Abut.1	17+93.93	-70.20	625.66	625.66

GIRDER SG12

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
End of Beam	17+97.27	56.67	626.00	626.07
K1	18+06.46	60.23	626.13	626.21
L1	18+18.28	64.80	626.29	626.36
M1	18+30.09	69.37	626.44	626.50
N1	18+41.91	73.94	626.57	626.60
☉ S.Brg.C.Abut.1	18+52.84	78.17	626.69	626.69

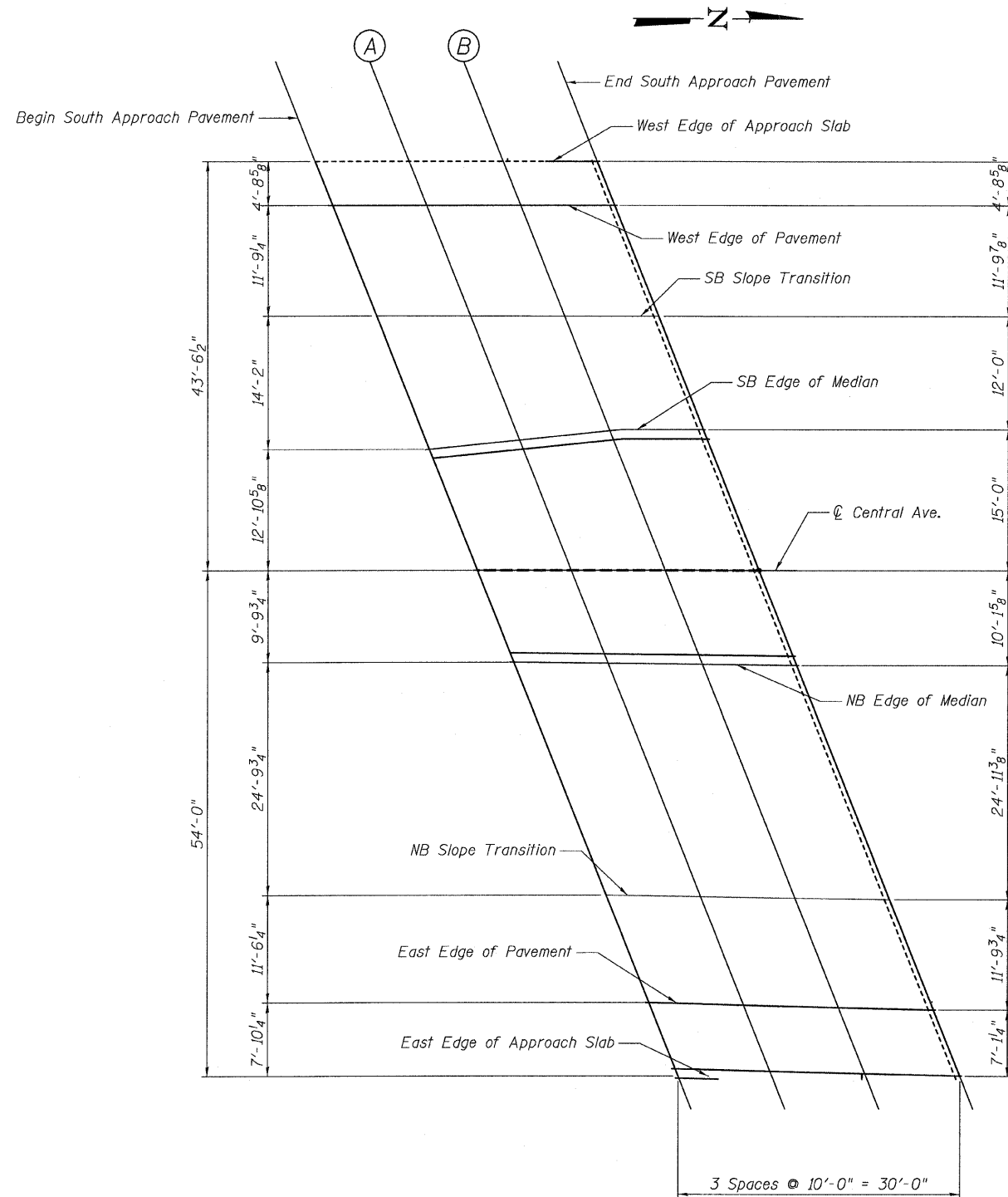
TOP OF SLAB ELEVATIONS 6
SPANS 4-6
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL DESIGNED - SP, EKH CHECKED - AMD, DRAWN - SP, EKH CHECKED - AMD, DATE - 03/25/2011	REVISIONS		SHEET NO. 15 71 SHEETS	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS	SHEET NO.
	NAME	DATE					741	268
							CONTRACT NO. 60999	
							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

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DEPARTMENT OF TRANSPORTATION



WEST EDGE OF APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
Begin S. Appr. Pav't	13+16.35	-43.54	612.20
A	13+26.35	-43.54	612.55
B	13+36.35	-43.54	612.90
End S. Appr. Pav't	13+46.35	-43.54	613.25

N.B. EDGE OF MEDIAN

Location	Station	Offset	Theoretical Grade Elevations
Begin S. Appr. Pav't	13+37.54	9.81	611.88
A	13+47.58	9.92	612.23
B	13+57.62	10.03	612.58
End S. Appr. Pav't	13+67.67	10.14	612.93

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Begin S. Appr. Pav't	13+18.23	-38.82	612.18
A	13+28.23	-38.82	612.53
B	13+38.23	-38.82	612.88
End S. Appr. Pav't	13+48.23	-38.82	612.23

N.B. SLOPE TRANSITION

Location	Station	Offset	Theoretical Grade Elevations
Begin S. Appr. Pav't	13+47.39	34.62	611.77
A	13+57.45	34.78	612.12
B	13+67.51	34.93	612.46
End S. Appr. Pav't	13+77.57	35.09	612.81

S.B. SLOPE TRANSITION

Location	Station	Offset	Theoretical Grade Elevations
Begin S. Appr. Pav't	13+22.90	-27.06	612.03
A	13+32.91	-27.04	612.38
B	13+42.92	-27.01	612.73
End S. Appr. Pav't	13+52.92	-27.00	613.08

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Begin S. Appr. Pav't	13+51.96	46.14	611.66
A	13+62.06	46.39	612.01
B	13+72.16	46.65	612.36
End S. Appr. Pav't	13+82.26	46.90	612.72

S.B. EDGE OF MEDIAN

Location	Station	Offset	Theoretical Grade Elevations
Begin S. Appr. Pav't	13+28.52	-12.89	612.02
A	13+38.13	-13.88	612.35
B	13+47.74	-14.86	612.69
End S. Appr. Pav't	13+57.69	-15.00	613.04

EAST EDGE OF APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
Begin S. Appr. Pav't	13+55.08	54.00	611.61
A	13+65.08	54.00	611.96
B	13+75.08	54.00	612.31
End S. Appr. Pav't	13+85.08	54.00	612.66

CENTRAL AVENUE P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
Begin S. Appr. Pav't	13+33.64	0.00	611.94
A	13+43.64	0.00	612.29
B	13+53.64	0.00	612.64
End S. Appr. Pav't	13+63.64	0.00	612.99

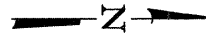
**TOP OF SOUTH APPROACH
SLAB ELEVATIONS
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED - EKH	REVISIONS	
	CHECKED - AMD,	NAME	DATE
	DRAWN - EKH		
	CHECKED - AMD,		
	DATE - 03/25/2011		

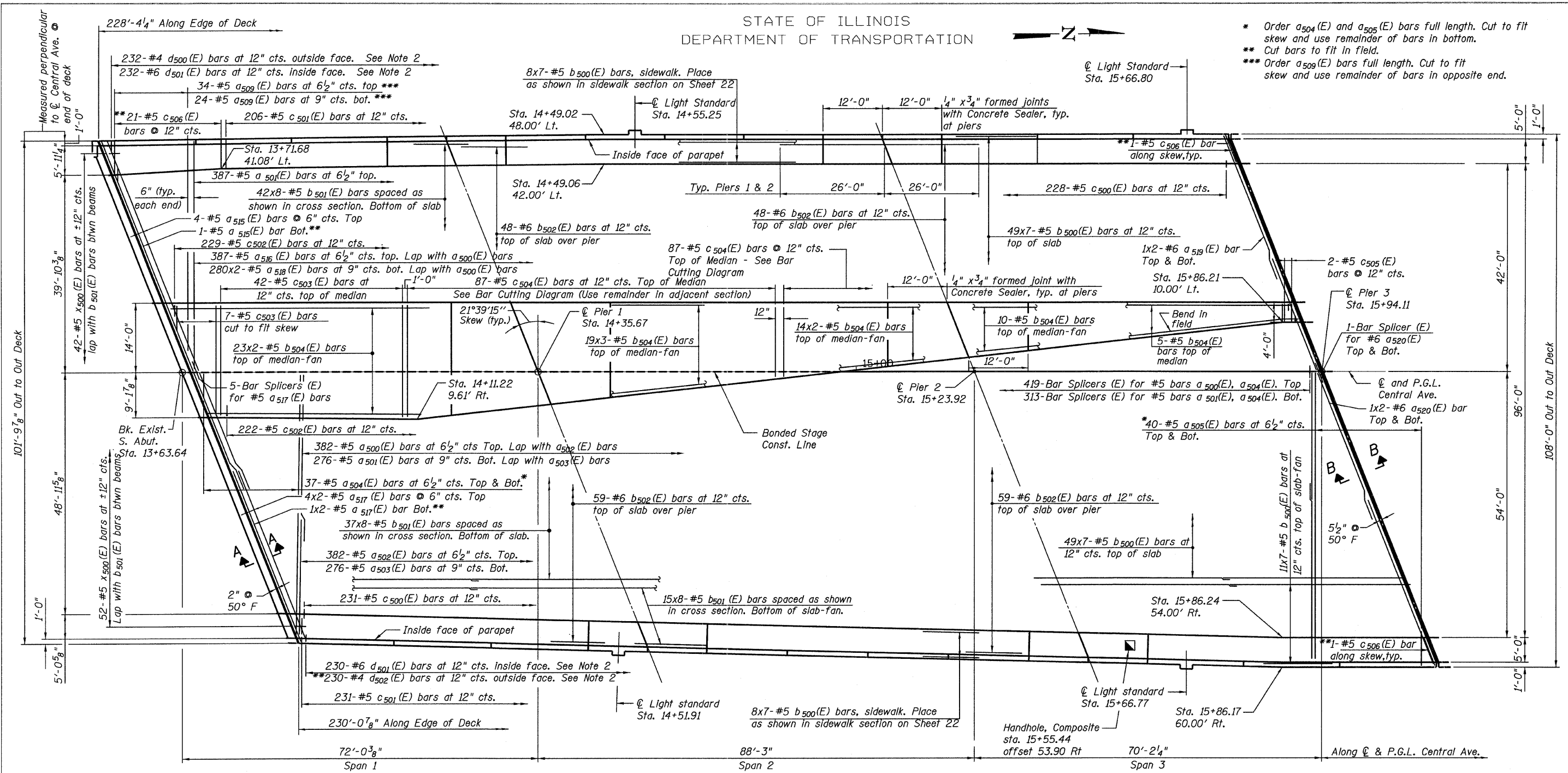
SHEET NO. 16	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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71 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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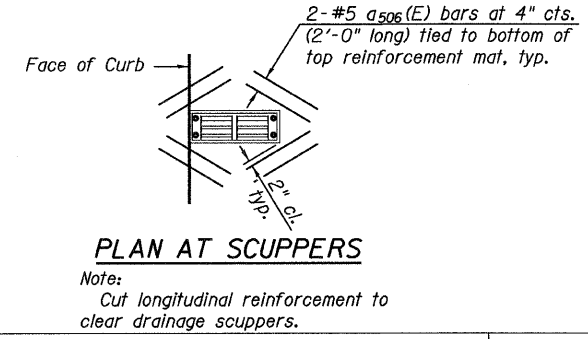
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



- * Order $a_{504}(E)$ and $a_{505}(E)$ bars full length. Cut to fit skew and use remainder of bars in bottom.
- ** Cut bars to fit in field.
- *** Order $a_{509}(E)$ bars full length. Cut to fit skew and use remainder of bars in opposite end.



PLAN SPANS 1-3



MINIMUM BAR LAPS

Bar Size	Min. Lap
#4	2'-7"
#5	3'-3"
#6	4'-5"

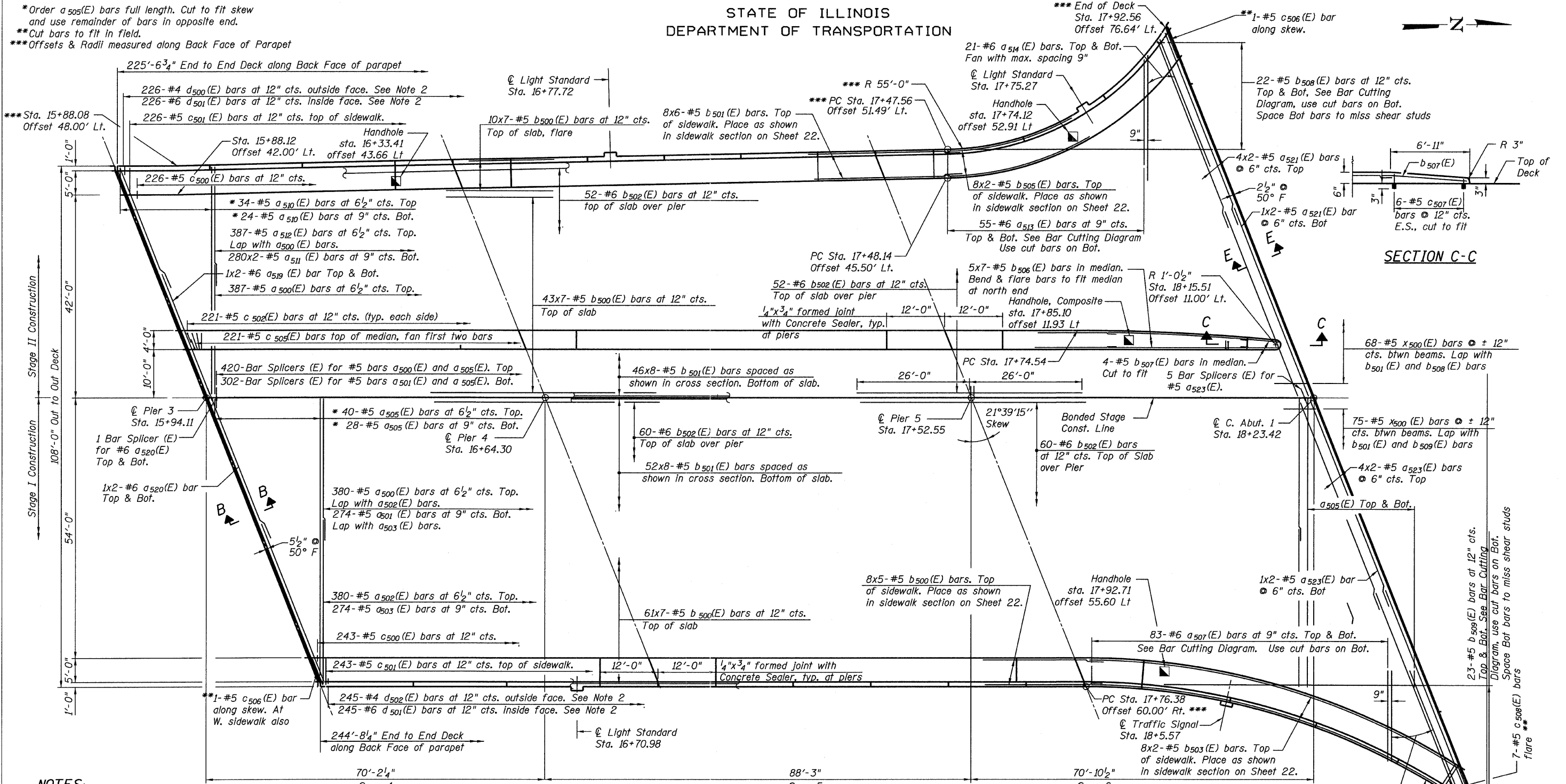
NOTES:

1. Bars indicated thus 49 x 8-#5 etc. indicates 49 lines of bars with 8 lengths per line.
2. Place bars $d_{500}(E)$ thru $d_{502}(E)$ to miss Aluminum Sheeted Joint Location in Parapets.
3. For Section A-A and Section B-B, see Sheet 22.
4. For Cross Section see Sheet 19.
5. For parapet reinforcement, see Sheet 21.
6. Dimensions are based on a Rolled Rail Strip Seal Joint at the S. Abutment. If the Contractor elects to use a Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 26.
7. For Scupper locations, see Sheet 28.
8. For handhole details, see Sheet 23A.
9. For Bill of Materials, see Sheet 23.

SUPERSTRUCTURE
SPANS 1, 2 & 3
STRUCTURE NO. 016-3241

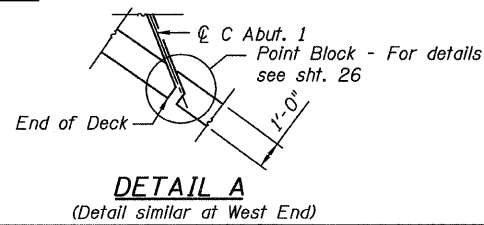
TYLIN INTERNATIONAL	DESIGNED - JRE	REVISIONS		SHEET NO. 17 71 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - AMD, MMB	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	270
	DRAWN - MAU				CONTRACT NO. 60999				
	CHECKED - AMD, MMB				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
	DATE - 03/25/2011								

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NOTES:

1. Bars indicated thus 49 x 8-#5 etc. indicates 49 lines of bars with 8 lengths per line.
2. Place bars d500(E) thru d504(E) to miss Aluminum Sheeted Joint Location in Parapets.
3. For Section A-A, Section B-B and Section E-E see Sheet 22.
4. For Cross Section see Sheet 20.
5. For parapet reinforcement, see Sheet 21.
6. For Scupper locations, see Sheet 28.
7. For handhole details, see Sheet 23A.
8. For Bill of Materials, see Sheet 23.



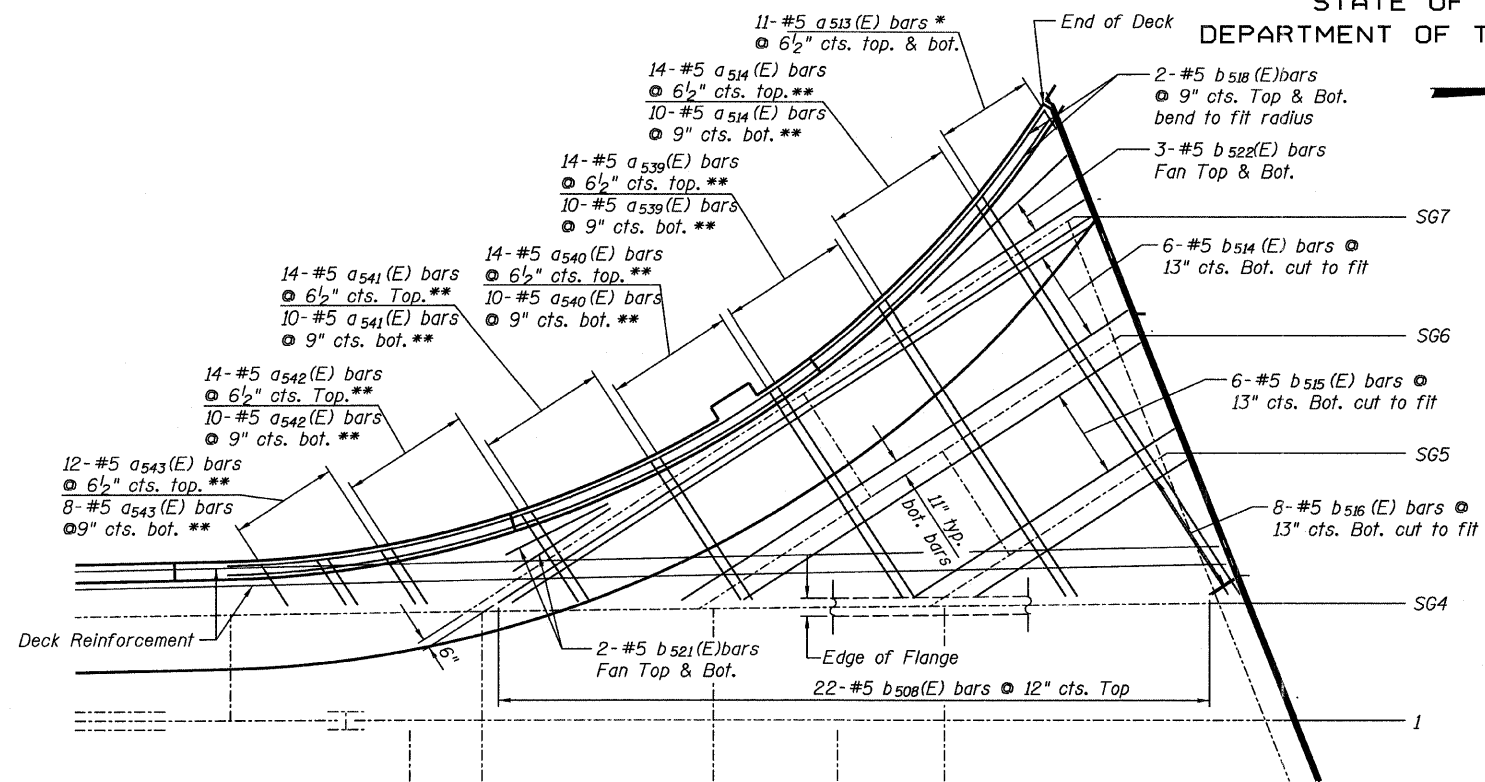
**SUPERSTRUCTURE
SPANS 4, 5 & 6
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED - JRE	REVISIONS	
	CHECKED - AMD, MMB	NAME	DATE
	DRAWN - MAU		
	CHECKED - AMD, MMB		
	DATE - 03/25/2011		

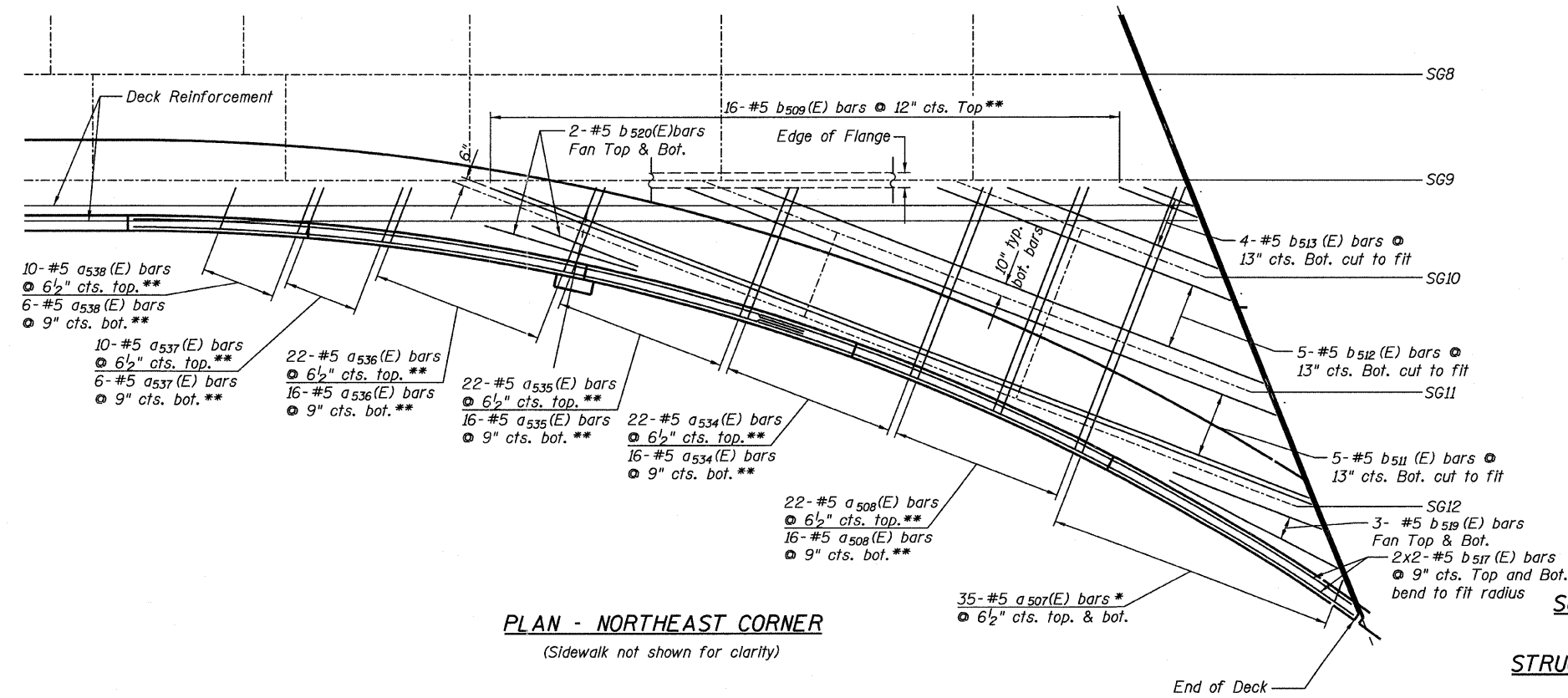
SHEET NO. 18	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	71 SHEETS	55	0711.2R & 1011.1BR	COOK	741 271
			CONTRACT NO. 60999		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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PLAN - NORTHWEST CORNER
(Sidewalk not shown for clarity)



PLAN - NORTHEAST CORNER
(Sidewalk not shown for clarity)

* Order bars full length. Cut as shown in Bar Cutting Diagram and use remainder of bars in bottom.
** Order bars full length. Cut as shown in Bar Cutting Diagram.

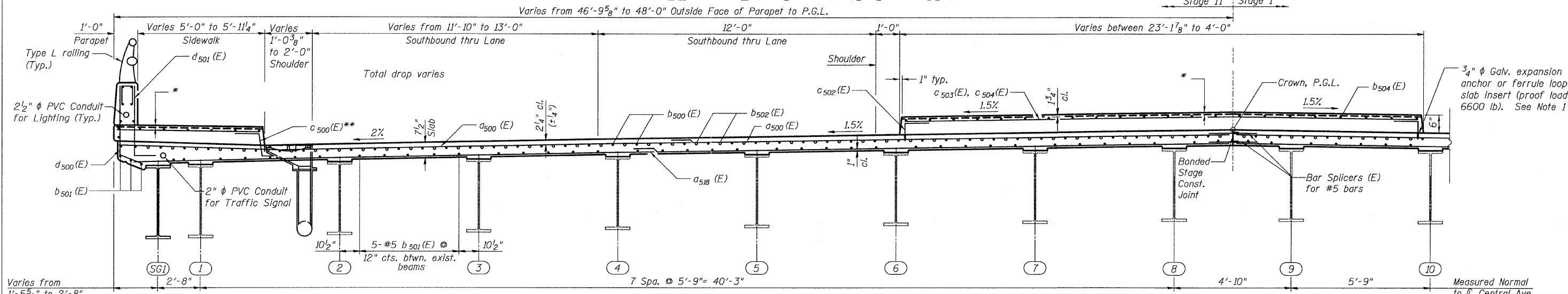
**SUPERSTRUCTURE
FLARED DECK
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED - EKH	REVISIONS		SHEET NO. 18A	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	271A	
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	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

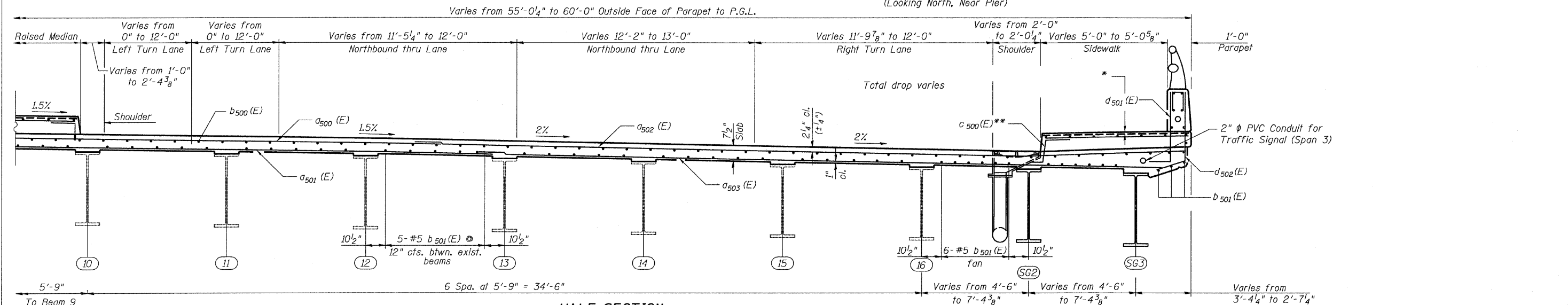
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Central Ave.
Stage II Stage I



HALF SECTION
(Looking North, Near Pier)



HALF SECTION
(Looking North, Near Midspan)

* 1/4" x 3/4" formed joint with concrete sealer (full width along joint-backer not required) at piers end either side. See Sheet 17 for locations.

** In lieu of bottom leg c₅₀₀(E) bars may be cored and set according to article 509.06 of the Standard Specifications. Cored holes shall be roughened or sealed per Manufacturer's Recommendations, maximum depth of cored hole shall not exceed 4".

NOTES

- The cost of expansion anchors/ inserts is included in the cost of "Reinforcement Bars, Epoxy Coated."
- For parapet reinforcement, see Sheet 21.

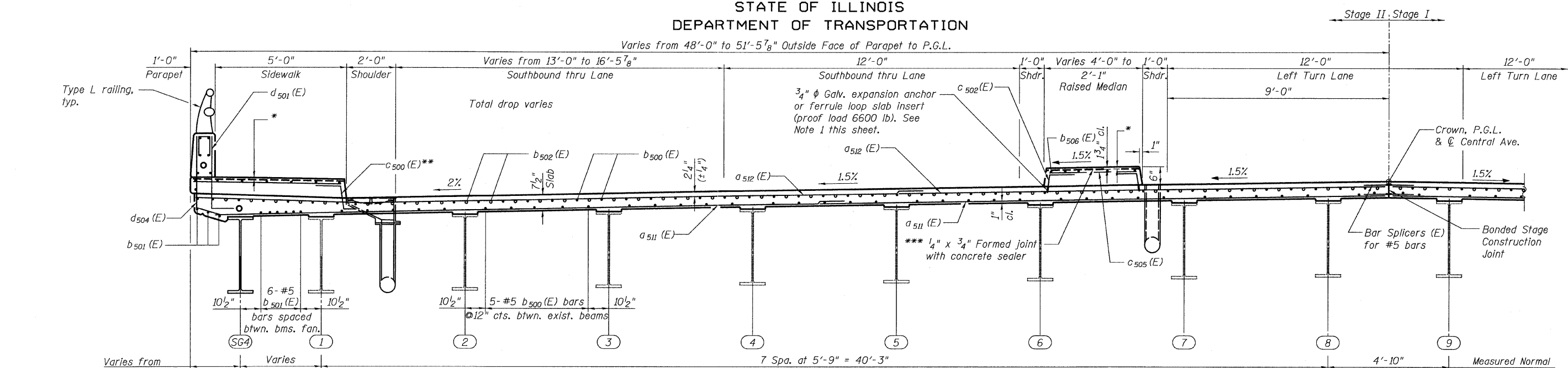
SUPERSTRUCTURE CROSS SECTION - SPANS 1, 2, & 3
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - AMD, MI, DJR	REVISIONS	
	CHECKED - AMD, TD, MAI	NAME	DATE
	DRAWN - DJR, CBS		
	CHECKED - AMD, MMB		
	DATE - 03/25/2011		

SHEET NO. 19	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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71 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

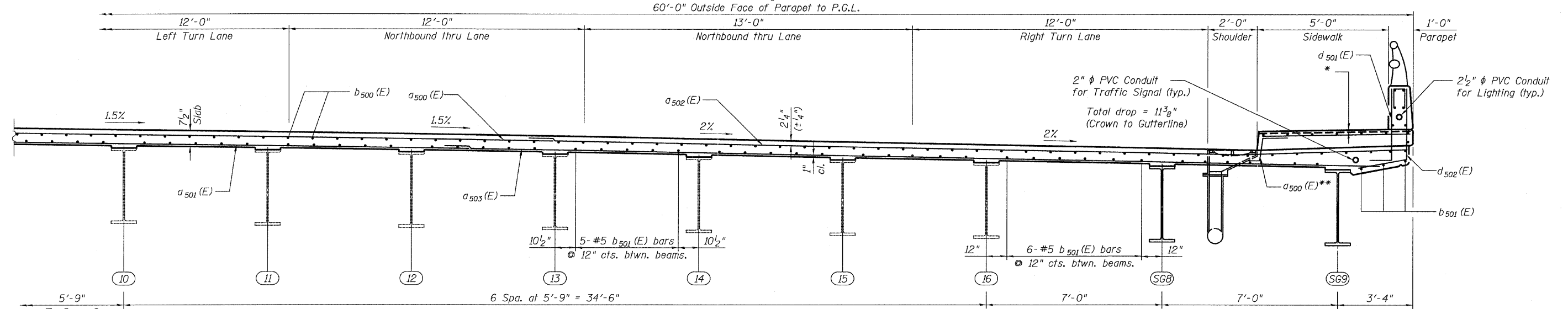
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4/28/2011

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HALF SECTION

(Valid to Sta. 17+47.56)
(Looking North, Near Pier)



HALF SECTION

(Valid to Sta. 17+76.38)
(Looking North, Near Midspan)

* 1/4" x 3/4" formed joint with concrete sealer
(full width along joint-backer not required)
at piers end either side. See Sheet 18 for locations.

** In lieu of bottom leg c₅₀₃(E) bars may be cored
and set according to article 509.06 of the Standard
Specifications. Cored holes shall be roughened or
sealed per Manufacturer's Recommendations,
maximum depth of cored hole shall not exceed 4".

NOTES

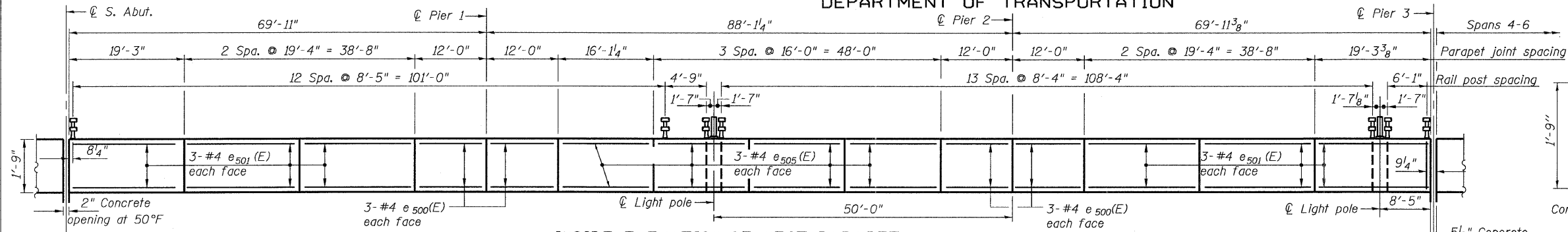
- The cost of expansion anchors/
Inserts is included in the cost of
"Reinforcement Bars, Epoxy Coated."
- For parapet reinforcement, see Sheet 21.

**SUPERSTRUCTURE CROSS
SECTION - SPANS 4, 5 & 6
STRUCTURE NO. 016-3241**

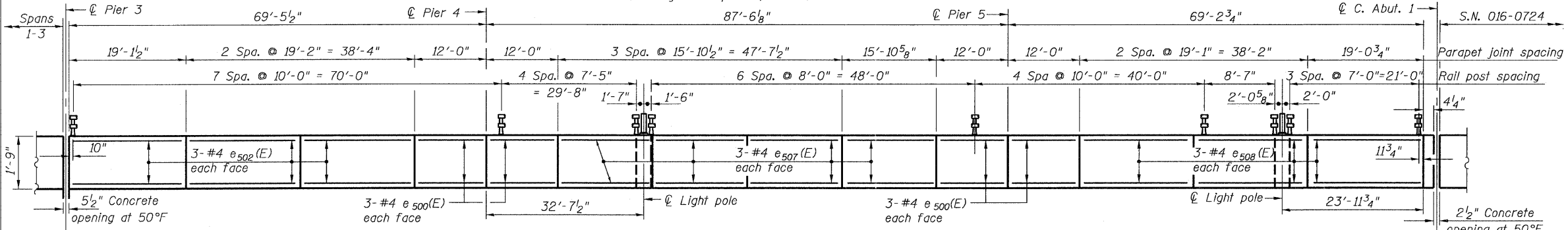
TYLIN INTERNATIONAL	DESIGNED - MAU	REVISIONS		SHEET NO. 20	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD, MMB	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	273	
	DRAWN - MAU				CONTRACT NO. 60999					
	CHECKED - AMD, MMB				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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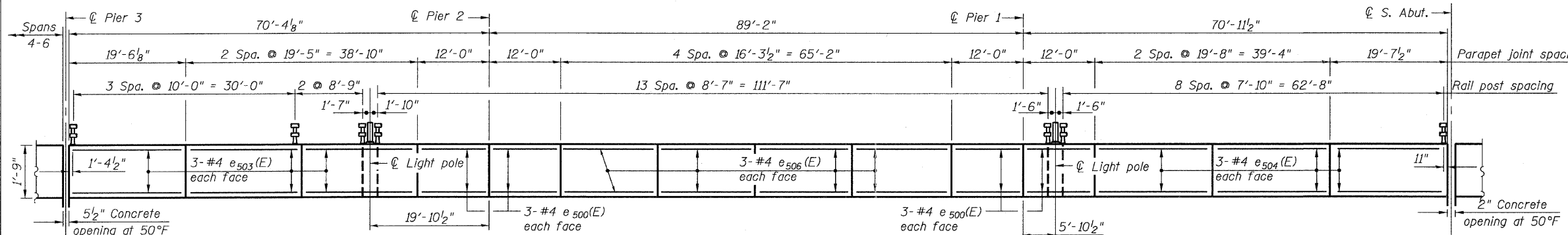
STATE OF ILLINOIS
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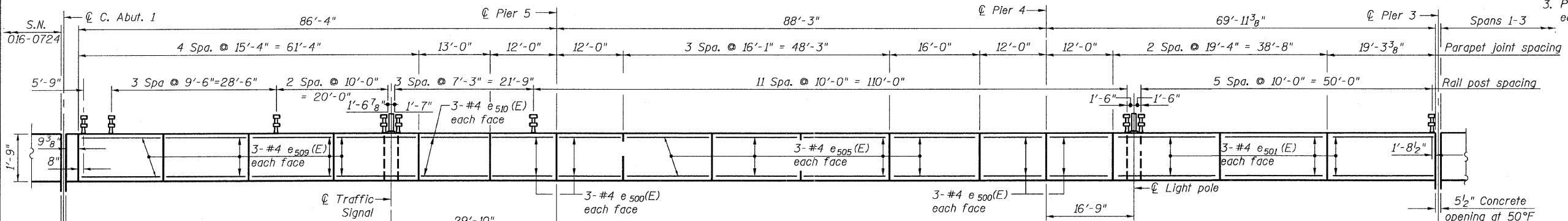
INSIDE ELEVATION OF WEST PARAPET
(Looking West Spans 1, 2 & 3)



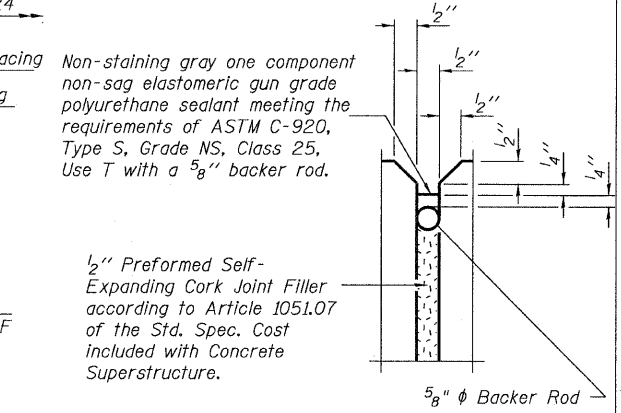
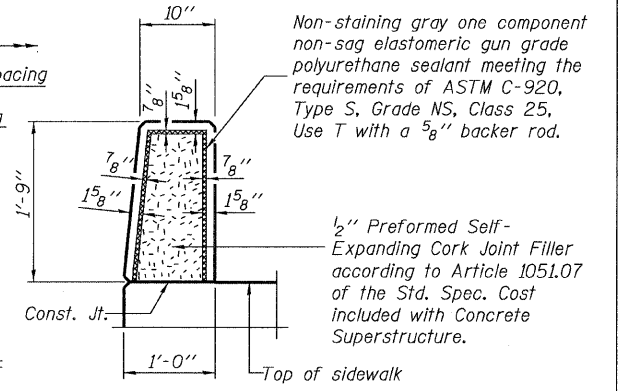
INSIDE ELEVATION OF WEST PARAPET
(Looking West Spans 4, 5 & 6)



INSIDE ELEVATION OF EAST PARAPET
(Looking East Spans 1, 2 & 3)



INSIDE ELEVATION OF EAST PARAPET
(Looking East Spans 4, 5 & 6)



PARAPET JOINT DETAILS

NOTES

1. Parapet dimensions and rail post spacing are taken along the front face of parapet.
2. For geometry of the parapet, see Sheets 17 & 18.
3. Place 1-#4 d505(E) bar on each side of each rail post.

**SUPERSTRUCTURE
PARAPET ELEVATIONS
STRUCTURE NO. 016-3241**

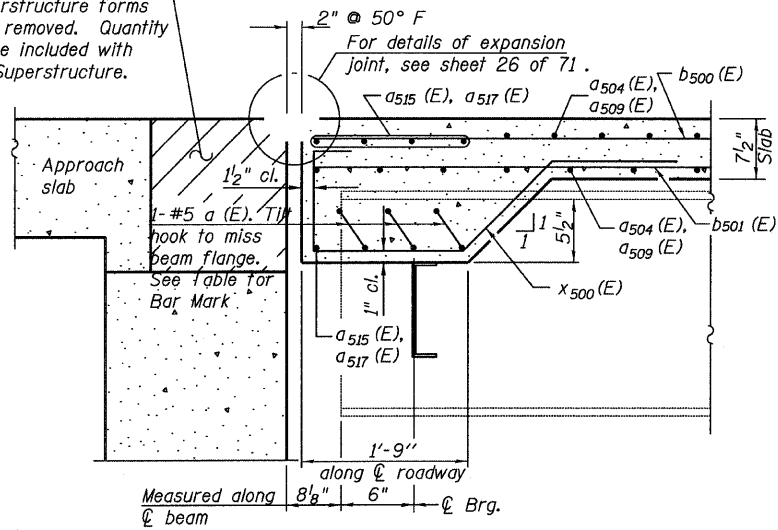
TYLIN INTERNATIONAL

DESIGNED - JRE		REVISIONS	
CHECKED - AMD,		NAME	DATE
DRAWN - MAU			
CHECKED - AMD,			
DATE - 03/25/2011			

SHEET NO. 21	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 60999		
			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

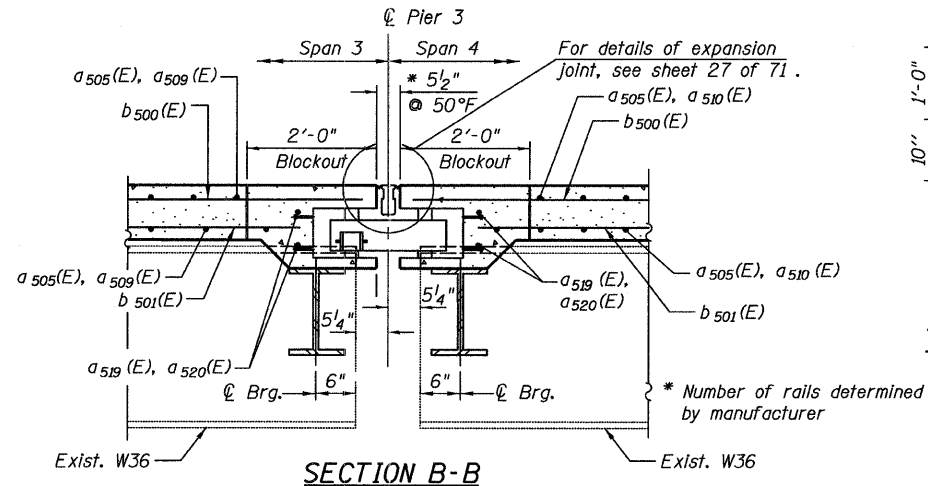
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.

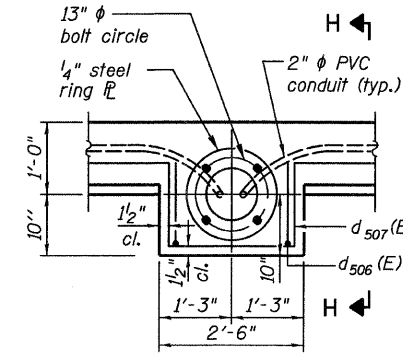


SECTION A-A

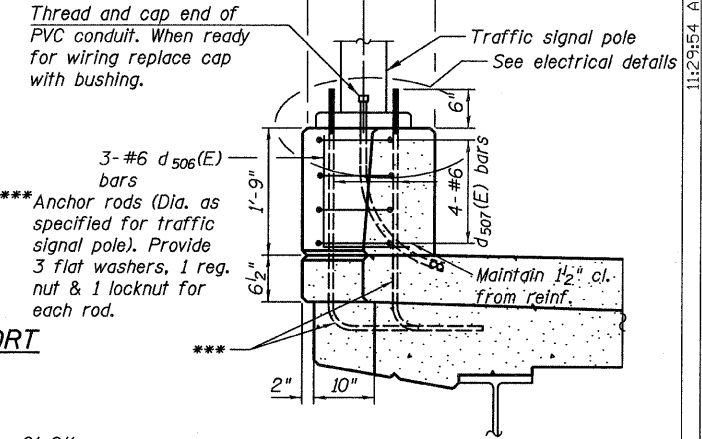
Beams	Mark
SG1 - 1	a525(E)
1-2 Thru 7-8	a526(E)
8 - 9	a527(E)
9-10 Thru 15-16	a528(E)
16 - SG2	a529(E)
SG2 - SG3	a530(E)



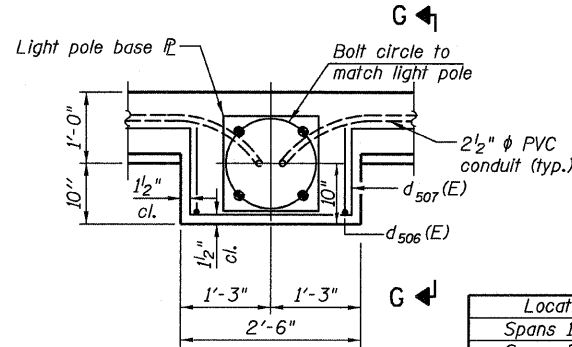
SECTION B-B



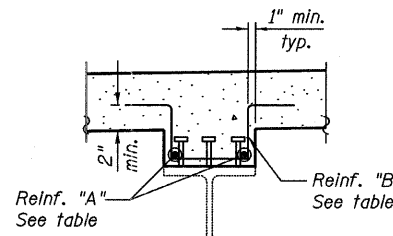
PLAN
TRAFFIC SIGNAL POLE SUPPORT
(MOUNTED ON PARAPET)



SECTION H-H

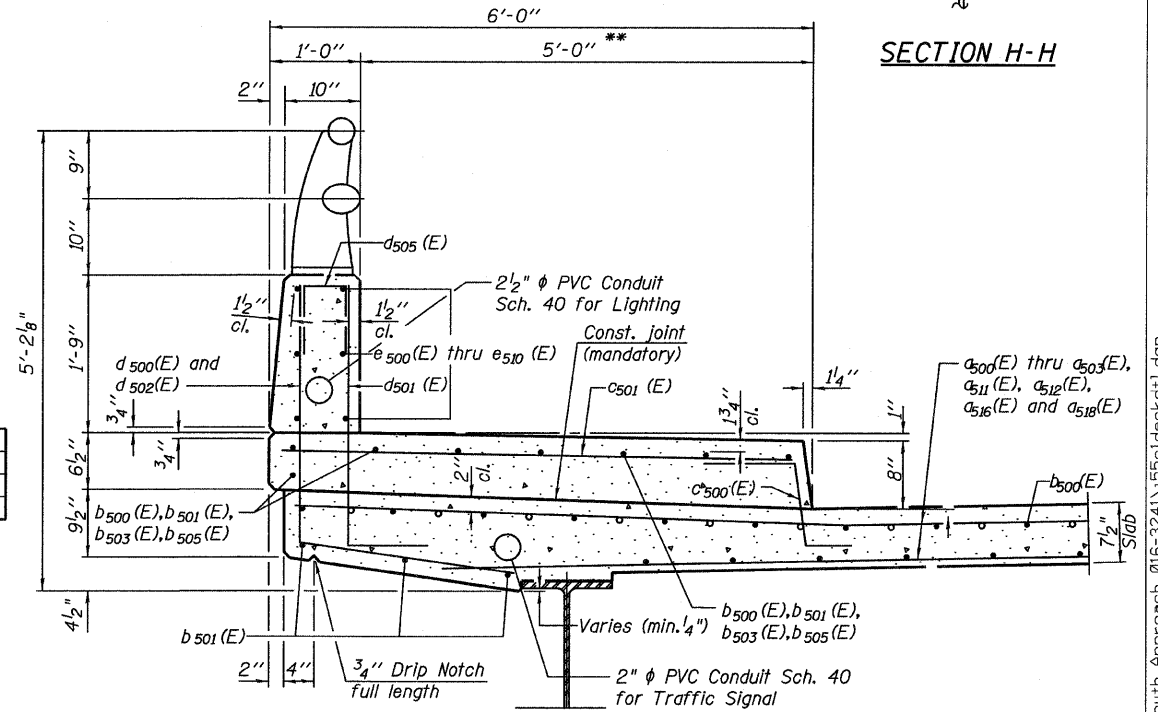


PLAN
LIGHT POLE SUPPORT
(MOUNTED ON PARAPET)



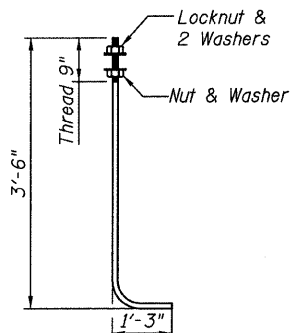
FILLET REINFORCEMENT

Location	Beams	Reinforcement "A"	Reinforcement "B"
Spans 1-3	8 & 9	1x7-#4 bars	228-#4 bars @ 12" cts.
Spans 5-6	3-13	1x5-#4 bars	159-#4 bars @ 12" cts.



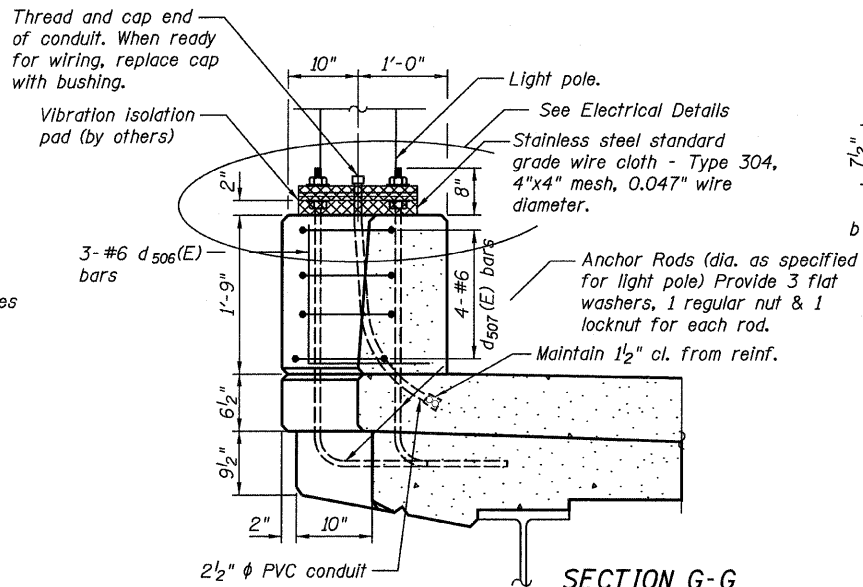
SECTION THRU SIDEWALK & PARAPET

** Measured perpendicular to face of Parapet.

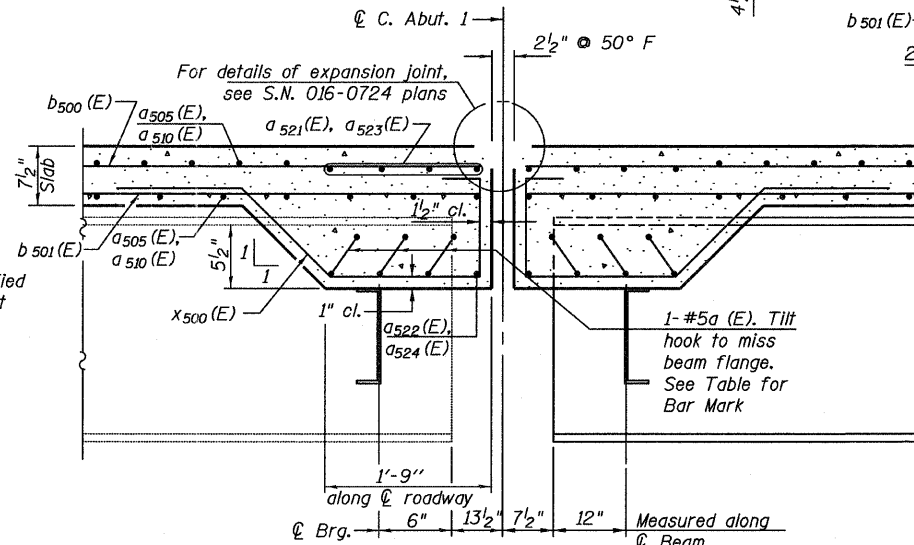


ANCHOR ROD

Diameter as specified for light poles/traffic signal poles (ASTM F 1554 Grade 105)



SECTION G-G



SECTION E-E

Beams	Mark
SG7-SG6	a529(E)
SG6-SG5	a529(E)
SG5-SG4	a530(E)
SG4-1	a529(E)
1-2 Thru 7-8	a526(E)
8-9	a527(E)
9-10 Thru 15-16	a528(E)
16-SG8	a531(E)
SG8-SG9	a531(E)
SG9-SG10	a532(E)
SG10-SG11	a533(E)
SG11-SG12	a533(E)

NOTES

- Cost of anchor bolts & conduit is included with Concrete Superstructure.
- Bars indicated thus 1x7-#5 etc. indicates 1 line of bars with 7 lengths per line.
- For locations of sections A-A and B-B see Sheet 17.

SUPERSTRUCTURE
DETAILS
STRUCTURE NO. 016-3241

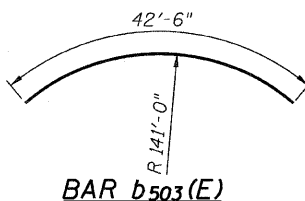
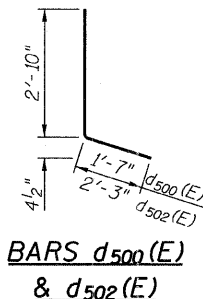
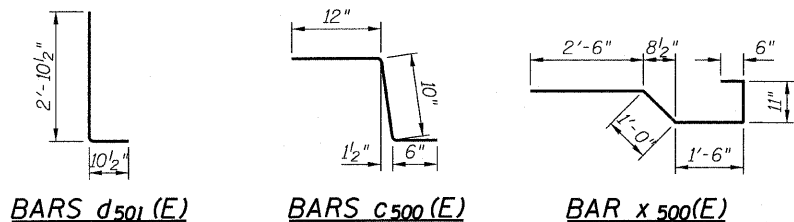
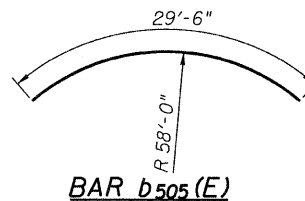
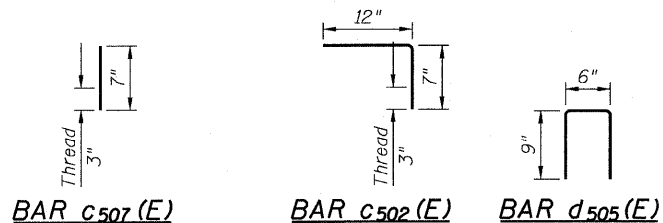
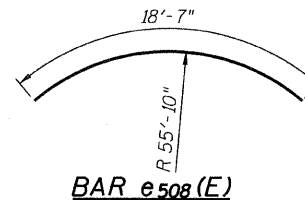
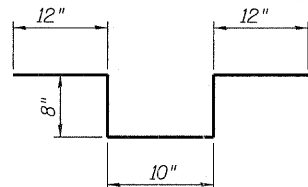
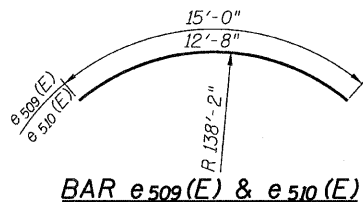
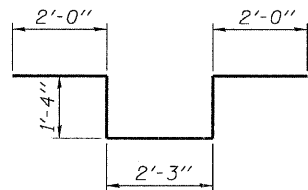
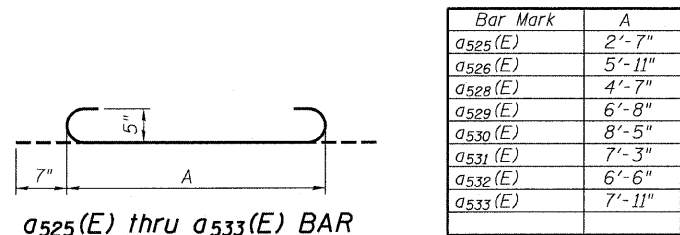
TYLIN INTERNATIONAL

DESIGNED	JRE	REVISIONS	
CHECKED	AMD, MMB	NAME	DATE
DRAWN	MAU		
CHECKED	AMD, MMB		
DATE	03/25/2011		

SHEET NO. 22	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	275
CONTRACT NO. 60999					
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE BILL OF MATERIAL

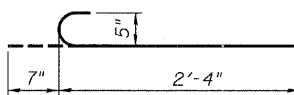
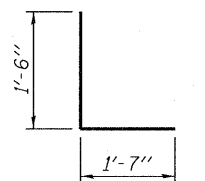
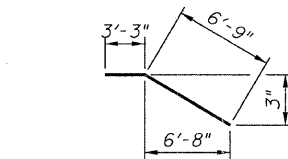


Bar	No.	Size	Length	Shape
a500(E)	1536	#5	29'-6"	---
a501(E)	550	#5	38'-5"	---
a502(E)	762	#5	33'-3"	---
a503(E)	550	#5	24'-3"	---
a504(E)	37	#5	54'-7"	---
a505(E)	108	#5	59'-7"	---
a506(E)	176	#5	2'-0"	---
a507(E)	35	#5	20'-5"	---
a508(E)	19	#5	32'-2"	---
a509(E)	58	#5	47'-6"	---
a510(E)	58	#5	51'-2"	---
a511(E)	560	#5	27'-2"	---
a512(E)	387	#5	24'-8"	---
a513(E)	11	#5	27'-4"	---
a514(E)	12	#5	45'-1"	---
a515(E)	5	#5	49'-8"	---
a516(E)	387	#5	21'-6"	---
a517(E)	10	#5	31'-6"	---
a518(E)	560	#5	25'-6"	---
a519(E)	8	#6	28'-4"	---
a520(E)	8	#6	34'-10"	---
a521(E)	8	#5	46'-4"	---
a523(E)	8	#5	51'-0"	---
a525(E)	3	#5	3'-9"	---
a526(E)	84	#5	7'-1"	---
a527(E)	12	#5	2'-11"	---
a528(E)	6	#5	5'-9"	---
a529(E)	9	#5	7'-10"	---
a530(E)	3	#5	9'-7"	---
a531(E)	6	#5	8'-5"	---
a532(E)	3	#5	7'-8"	---
a533(E)	6	#5	9'-1"	---
a534(E)	19	#5	22'-8"	---
a535(E)	19	#5	15'-3"	---
a536(E)	19	#5	9'-10"	---
a537(E)	8	#5	7'-1"	---
a538(E)	8	#5	6'-2"	---
a539(E)	12	#5	32'-11"	---
a540(E)	12	#5	22'-10"	---
a541(E)	12	#5	15'-0"	---
a542(E)	12	#5	9'-4"	---
a543(E)	10	#5	6'-2"	---
b500(E)	1713	#5	36'-0"	---
b501(E)	1584	#5	32'-0"	---
b502(E)	438	#6	52'-0"	---
b503(E)	16	#5	42'-6"	---
b504(E)	146	#5	28'-10"	---
b505(E)	16	#5	29'-6"	---
b506(E)	35	#5	34'-6"	---
b507(E)	4	#5	10'-0"	---
b508(E)	11	#5	40'-7"	---
b509(E)	8	#5	63'-8"	---
b510(E)	138	#4	34'-6"	---
b511(E)	5	#5	57'-0"	---
b512(E)	5	#5	35'-11"	---
b513(E)	4	#5	14'-10"	---
b514(E)	6	#5	38'-3"	---
b515(E)	6	#5	26'-1"	---
b516(E)	8	#5	13'-9"	---
b517(E)	8	#5	44'-7"	---
b518(E)	4	#5	53'-11"	---
b519(E)	6	#5	12'-7"	---
b520(E)	4	#5	10'-5"	---
b521(E)	4	#5	6'-4"	---
b522(E)	6	#5	11'-0"	---
c500(E)	928	#5	2'-4"	---
c501(E)	906	#5	5'-9"	---
c502(E)	893	#5	1'-7"	---
c503(E)	49	#5	22'-10"	---
c504(E)	87	#5	26'-6"	---
c505(E)	223	#5	3'-8"	---
c506(E)	28	#5	6'-8"	---
c507(E)	12	#5	7"	---
c508(E)	7	#5	8'-6"	---
d500(E)	458	#4	4'-5"	---
d501(E)	933	#6	3'-9"	---
d502(E)	475	#4	5'-1"	---
d505(E)	234	#4	2'-0"	---
d506(E)	27	#6	3'-1"	---
d507(E)	36	#6	8'-11"	---
e500(E)	96	#4	11'-8"	---
e501(E)	54	#4	19'-0"	---
e502(E)	18	#4	18'-10"	---
e503(E)	18	#4	19'-2"	---
e504(E)	18	#4	19'-4"	---
e505(E)	48	#4	15'-9"	---
e506(E)	24	#4	15'-11"	---
e507(E)	24	#4	15'-7"	---
e508(E)	18	#4	18'-10"	---
e509(E)	24	#4	15'-0"	---
e510(E)	6	#4	12'-8"	---
s580(E)	2205	#4	4'-2"	---
x500(E)	237	#5	6'-5"	---
Protective Coat	SQ YD	6005		
Bridge Deck Grooving	SQ YD	4309		
Concrete Superstructure	CU YD	1,397.5		
Reinforcement Bars, Epoxy Coated	POUND	414,680		
Bar Splicers	EACH	1,468		

Bar	A	B	C	D	E	F	G
c504(E)	3'-8"	22'-10"	26'-5"	13'-3"	13'-3"	87	-
b508(E)	1'-7"	39'-0"	40'-7"	21'-2"	19'-5"	11	-
b509(E)	5'-6"	58'-2"	63'-8"	30'-1"	33'-7"	8	-
a514(E)	19'-6"	25'-7"	45'-1"	22'-3"	22'-10"	7	5
a539(E)	13'-11"	19'-0"	32'-11"	16'-3"	16'-8"	7	5
a540(E)	9'-4"	13'-6"	22'-10"	11'-3"	11'-7"	7	5
a541(E)	5'-11"	9'-1"	15'-0"	7'-5"	7'-7"	7	5
a542(E)	3'-7"	5'-9"	9'-4"	4'-7"	4'-9"	7	5
a543(E)	2'-8"	3'-6"	6'-2"	3'-1"	3'-1"	6	4
a509(E)	13'-7"	18'-7"	32'-2"	16'-0"	16'-2"	11	8
a534(E)	9'-4"	13'-4"	22'-8"	11'-3"	11'-5"	11	8
a535(E)	6'-1"	9'-2"	15'-3"	7'-6"	7'-9"	11	8
a536(E)	3'-11"	5'-11"	9'-10"	4'-10"	5'-0"	11	8
a537(E)	3'-3"	3'-10"	7'-1"	3'-6"	3'-7"	5	3
a538(E)	2'-11"	3'-3"	6'-2"	3'-1"	3'-1"	5	3
a507(E)	1'-6"	18'-11"	20'-5"	18'-11"	1'-6"	35	-
a513(E)	1'-2"	26'-2"	27'-4"	26'-2"	1'-2"	11	-

BAR CUTTING DIAGRAM

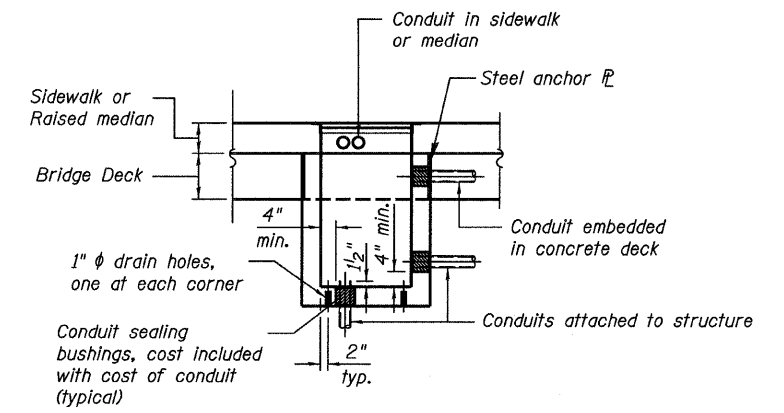
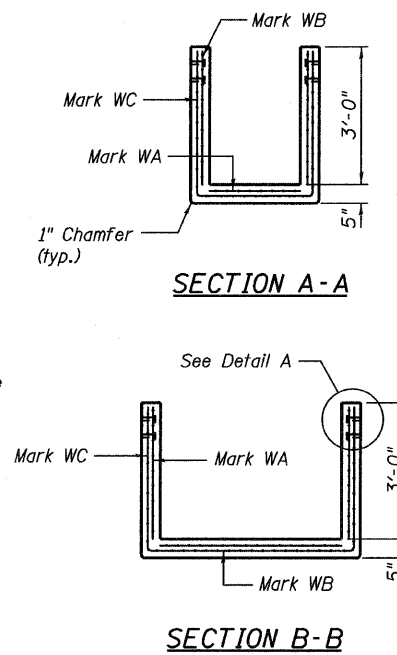
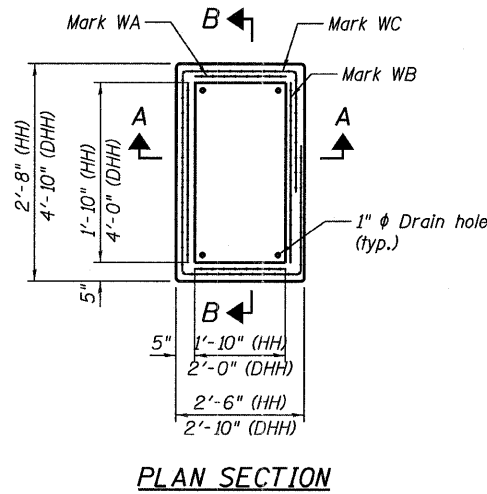
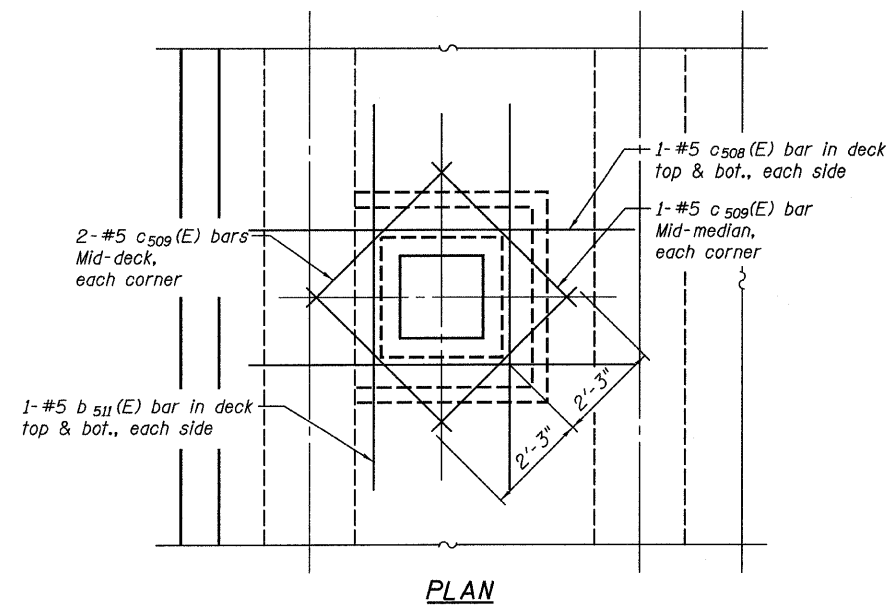
Order bars full length. Cut as shown.



**SUPERSTRUCTURE
DETAILS
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED - JRE	REVISIONS		SHEET NO. 23	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - AMD, MMB	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	276
	DRAWN - MAU				71 SHEETS	CONTRACT NO. 60999			
	CHECKED - AMD, MMB				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
	DATE - 03/25/2011								

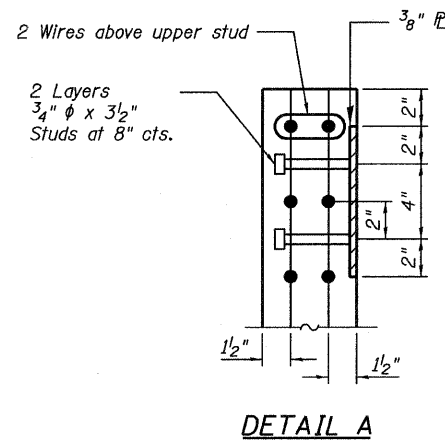
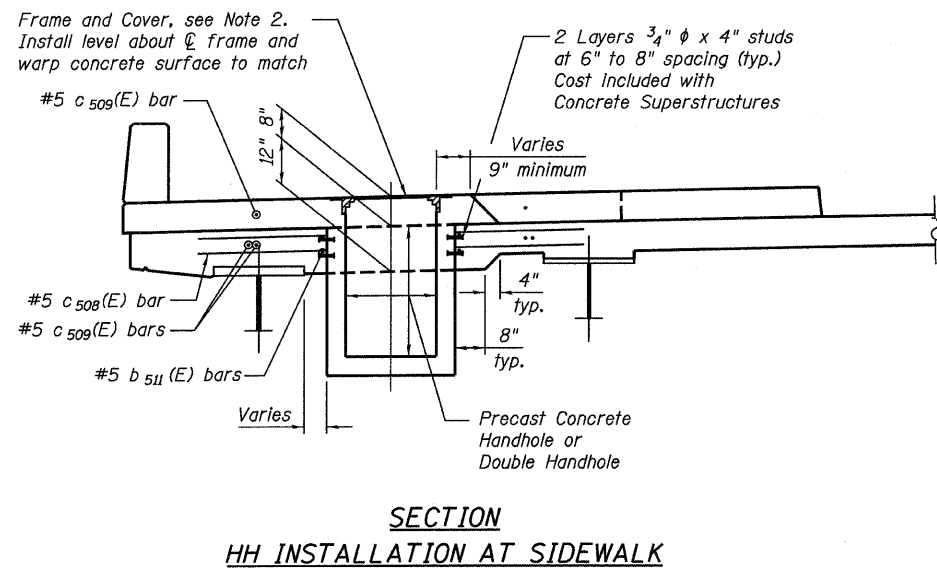
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



CONDUIT DETAILS & HANDHOLES

- Holes for conduit penetration must be cast in or cored in shop. Min. clear spacing between conduit holes shall be 5 in.
- Conduit holes shall be compatible with Fabricator's Conduit Sealing System.
- The contractor shall coordinate the sizes & locations of the conduits with the conduit installation plan, and include the sizes & locations of the conduit holes in the shop drawings for fabrication of the handholes. The conduit installation plan shall be submitted for information with the Handhole shop drawings.

PRECAST CONCRETE HH & DHH DETAILS



NOTES:

- Frame and cover shall be Neenah R6662-GP for single handhole, and R6663-KH for double handhole; or approved equal. Cost included with Handhole (Special).
- For concrete handhole locations, see Sheet 18.
- Cost of handhole concrete, reinforcement, embedded studs and 3/8" Ⓡ shall be included in Handhole (Special).
- For bar list and bar details, see Sheet 23.

MARK	WWR	HH		DHH	
		L [ft]	T [ft]	L [ft]	T [ft]
WA	*	8'-2"	1'-11"	10'-4"	2'-1"
WB	*	8'-6"	1'-11"	8'-8"	4'-1"
WC	*	10'-0"	3'-4"	14'-8"	3'-4"

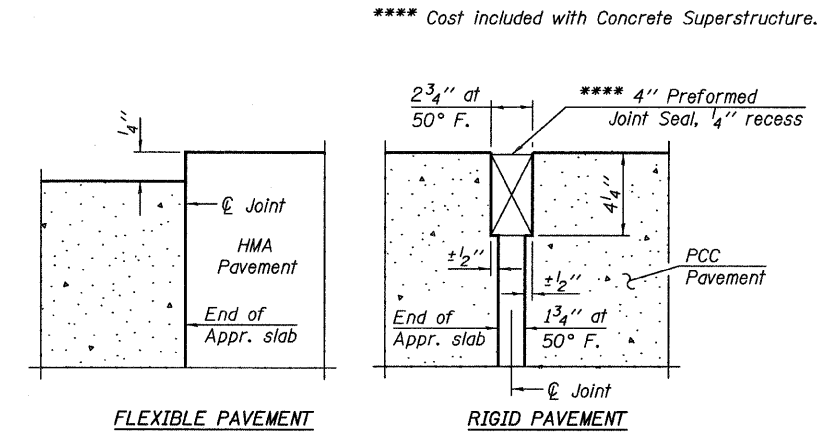
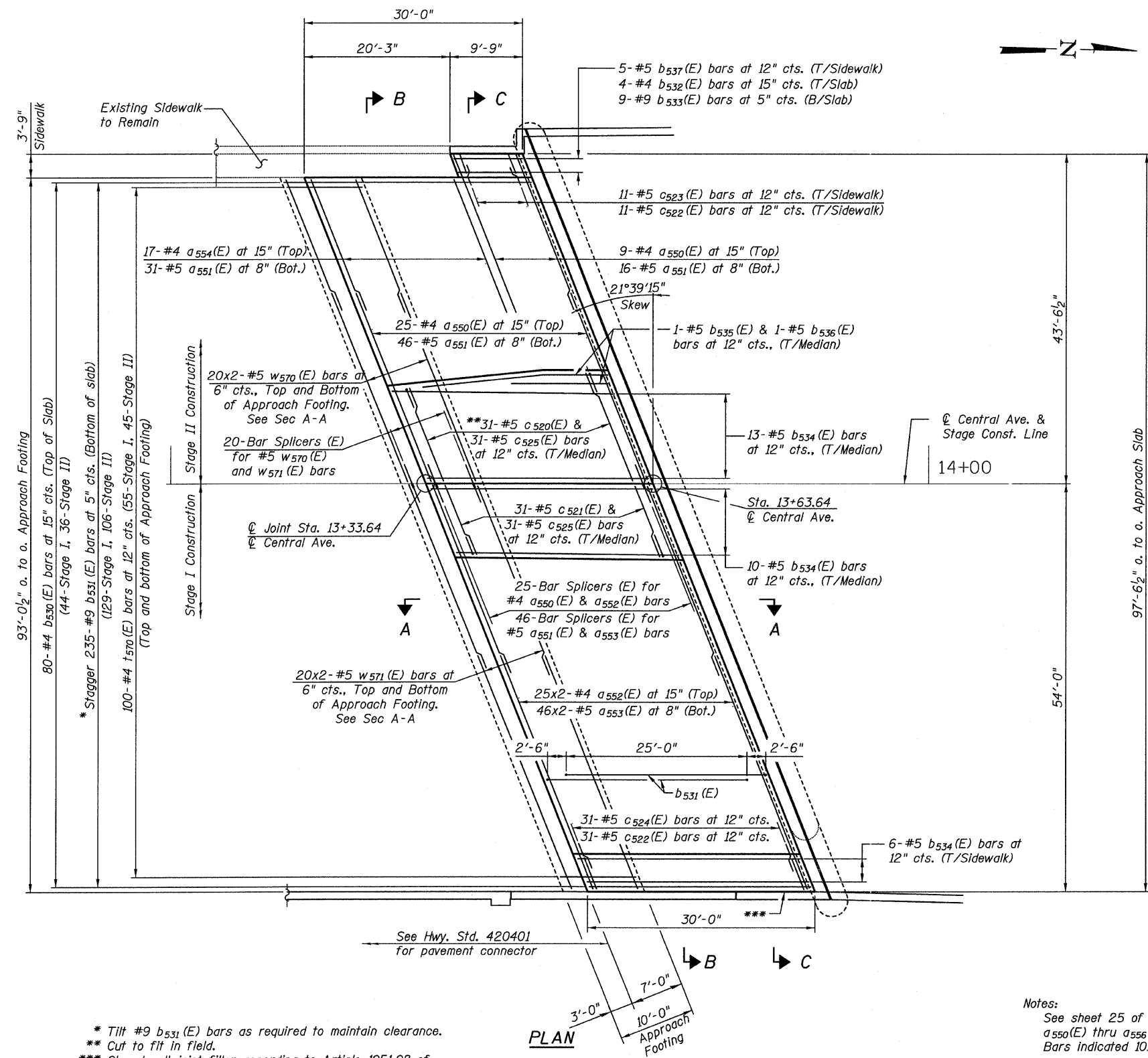
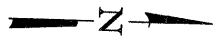
* All WWR shall be epoxy coated 4" x 4" - MW26xMW26. All bend radii 1". Min. lap 6".

Note:
Work this sheet with Traffic Signal and Lighting Plans.

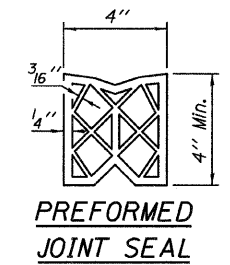
**STRUCTURE-MOUNTED
HANDHOLE DETAILS
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED - MMB	REVISIONS		SHEET NO. 23A	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	276A
	DRAWN - MMB				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DETAIL A



PREFORMED JOINT SEAL

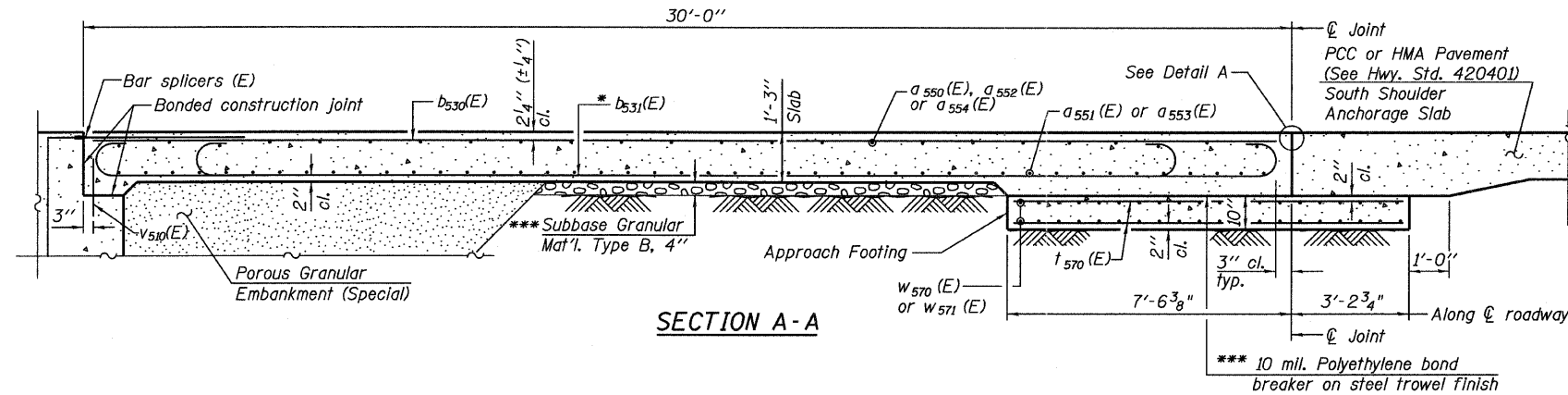
- * Tilt #9 b531(E) bars as required to maintain clearance.
- ** Cut to fit in field.
- *** Closed cell joint filler according to Article 1051.08 of the Std. Specifications: full depth of slab, full length of parapet. Typ. each parapet.

Notes:
See sheet 25 of 71 for Sections A-A, B-B and C-C.
a550(E) thru a556(E) bar spacings measured along C.Rdw.
Bars indicated 10x2 indicates 10 lines of bars with 2 lengths per line.

TYLIN INTERNATIONAL	DESIGNED - CBS	REVISIONS		SHEET NO. 24 71 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		55	0711.2R & 1011.1BR	COOK	741	277	
	DRAWN - CBS, MMB				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

11:29:58 AM
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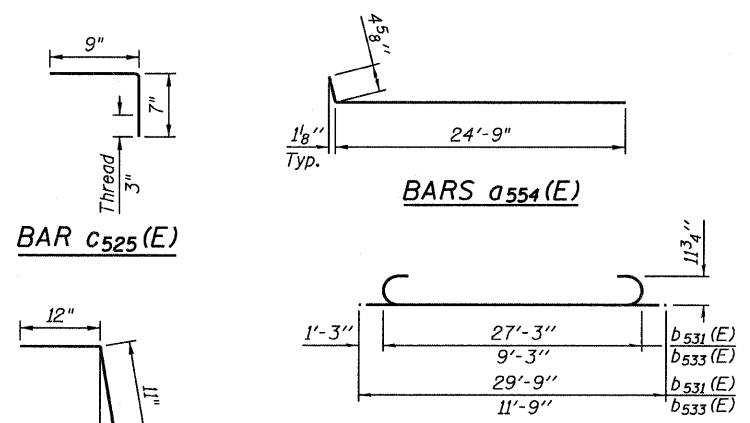
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION A-A

Notes:
See sheet 24 for Detail A.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 64.
Cost of excavation for approach footing included with Concrete Structures.

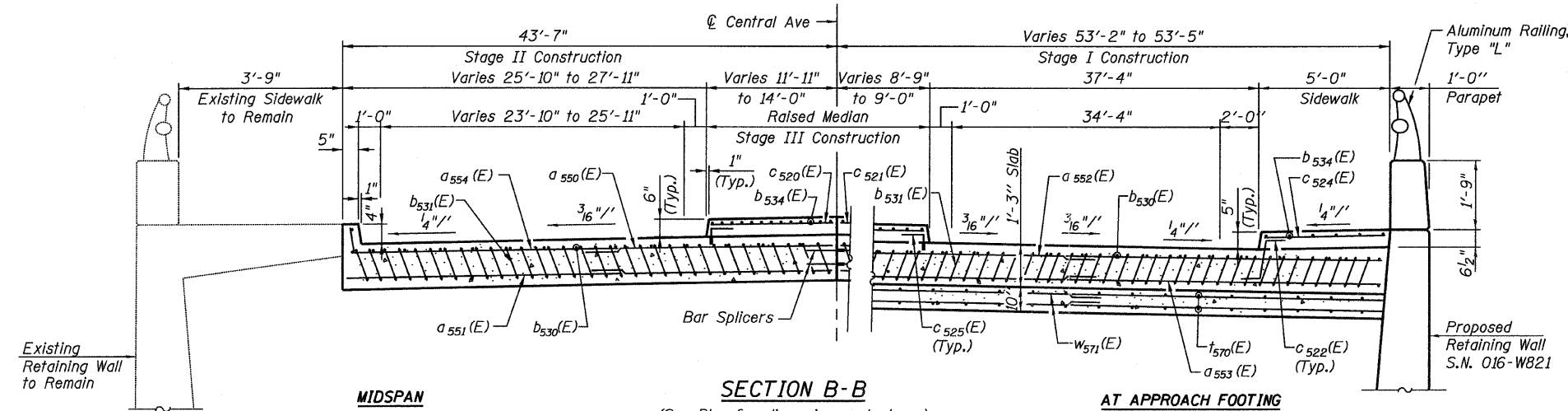
The quantity for Bridge Deck Grooving & Protective Coat for approach slab is included with the quantities on sheet 23.



BAR C525 (E)

BARS a554 (E)

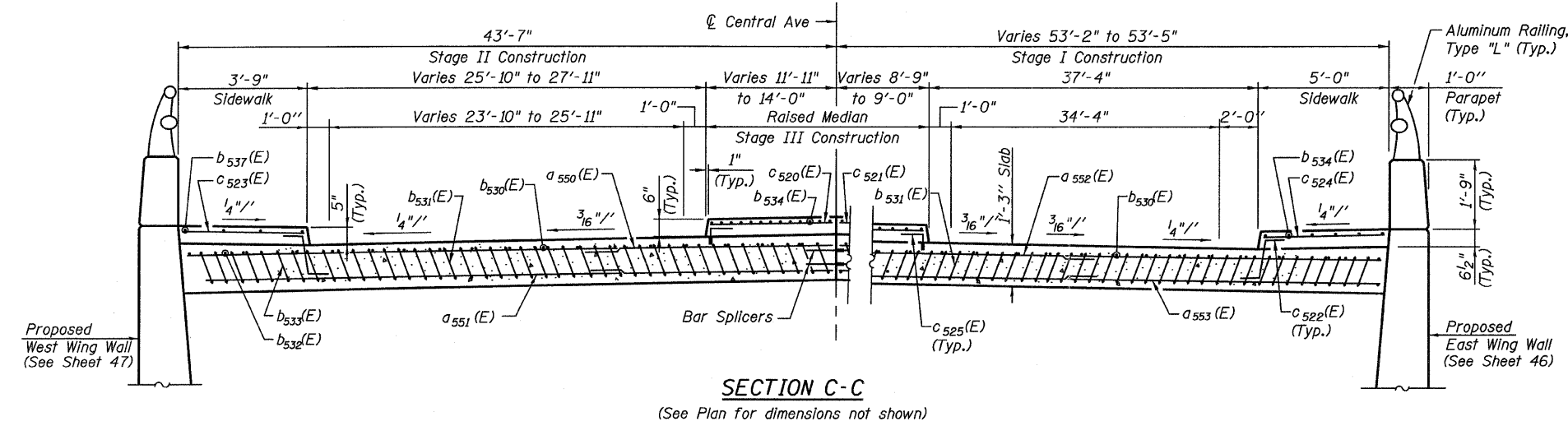
BAR b531 (E) & bar 533 (E)



SECTION B-B

(See Plan for dimensions not shown)

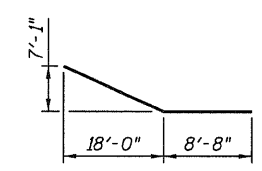
AT APPROACH FOOTING



SECTION C-C

(See Plan for dimensions not shown)

* Tilt #9 b531(E) bars as required to maintain clearance.
*** Cost included with Concrete Superstructure.



BARS b536 (E)

MINIMUM LAP	
#4	2'-11"
#5	3'-8"

APPROACH
BILL OF MATERIAL

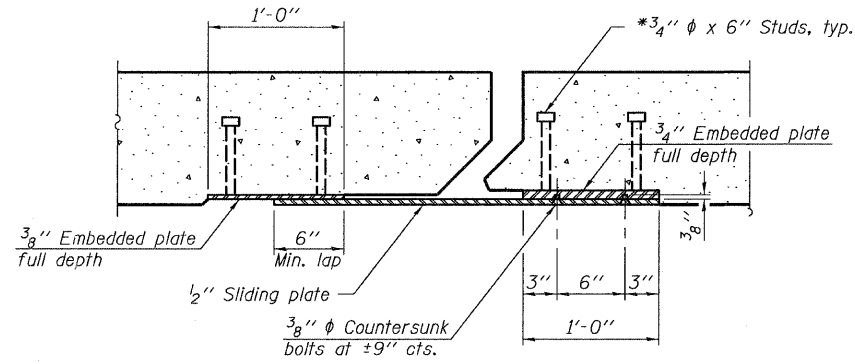
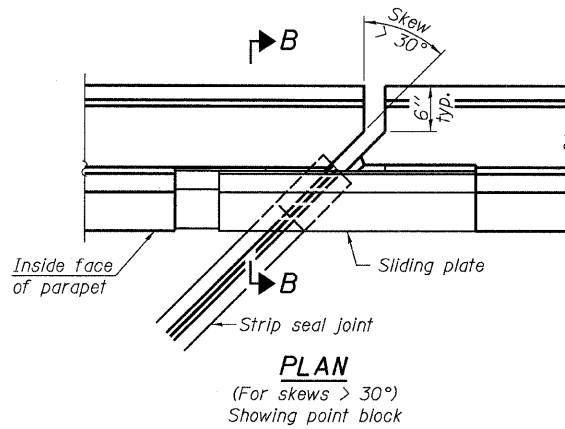
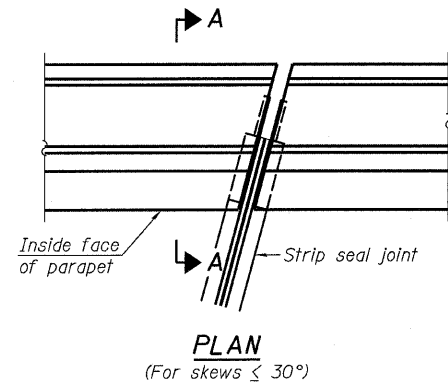
Bar	No.	Size	Length	Shape
a550(E)	34	#4	24'-9"	—
a551(E)	93	#5	25'-1"	—
a552(E)	50	#4	29'-11"	—
a553(E)	92	#5	30'-4"	—
a554(E)	17	#4	25'-2"	—
b530(E)	80	#4	29'-8"	—
b531(E)	235	#9	29'-9"	C
b532(E)	4	#4	9'-5"	—
b533(E)	9	#9	11'-9"	C
b534(E)	29	#5	29'-8"	—
b535(E)	1	#5	15'-0"	—
b536(E)	1	#5	26'-8"	—
b537(E)	5	#5	9'-5"	—
c520(E)	31	#5	13'-8"	—
c521(E)	31	#5	8'-6"	—
c522(E)	42	#5	2'-5"	L
c523(E)	11	#5	3'-8"	—
c524(E)	31	#5	5'-1"	—
c525(E)	62	#5	1'-4"	L
t570(E)	100	#4	10'-6"	—
w570(E)	40	#5	25'-1"	—
w571(E)	40	#5	30'-4"	—
Concrete Superstructure		Cu. Yd.	153.7	
Concrete Structures		Cu. Yd.	9.3	
Reinforcement Bars, Epoxy Coated		Pound	38,070	
Bar Splicers		Each	91	

SOUTH APPROACH SLAB DETAILS
STRUCTURE NO. 016-3241

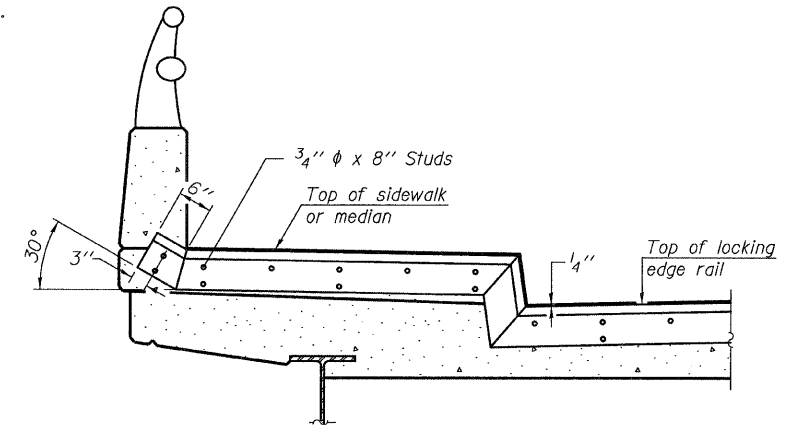
TYLIN INTERNATIONAL DESIGNED - CBS CHECKED - AMD DRAWN - CBS, MMB CHECKED - AMD, DATE - 03/25/2011	REVISIONS NAME DATE		SHEET NO. 25 71 SHEETS	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 278		
									CONTRACT NO. 60999	
									FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

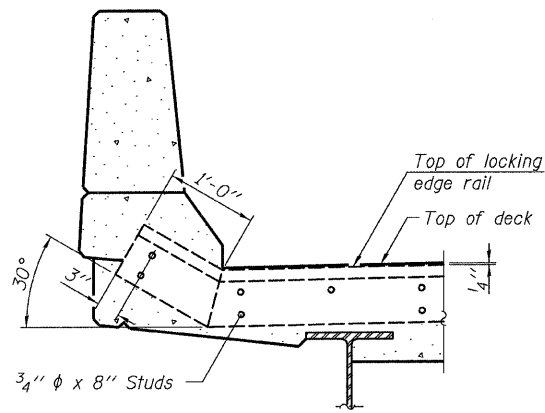


SECTION C-C

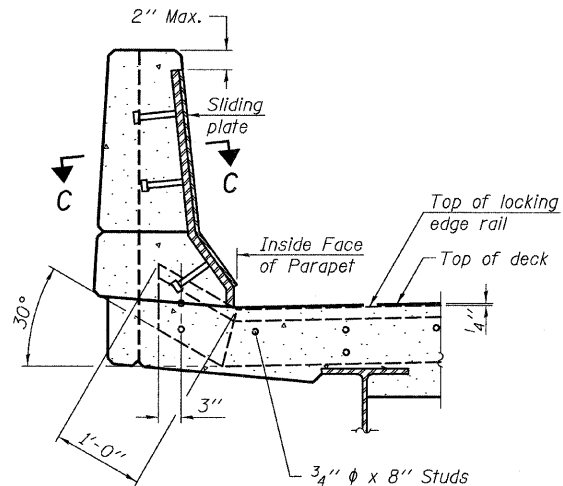


TYPICAL END TREATMENT
AT SIDEWALK OR MEDIAN

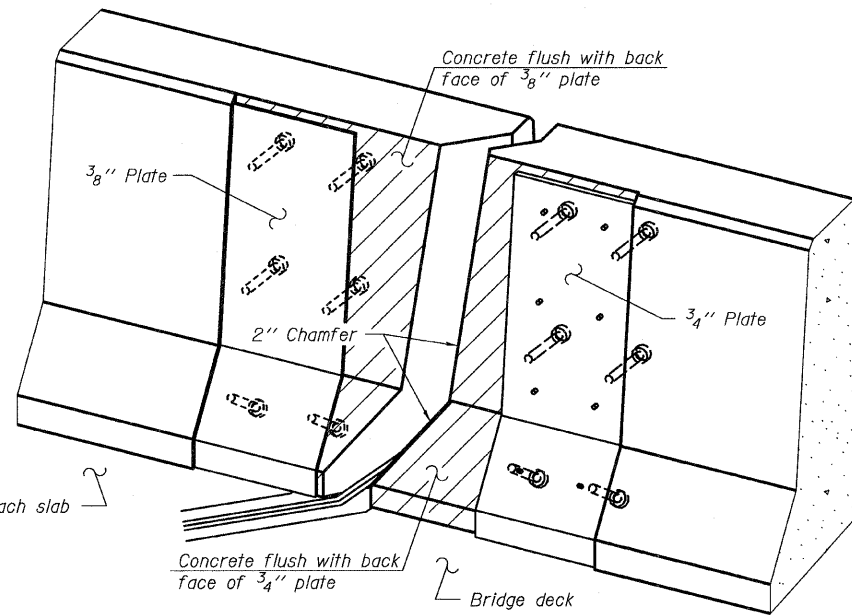
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



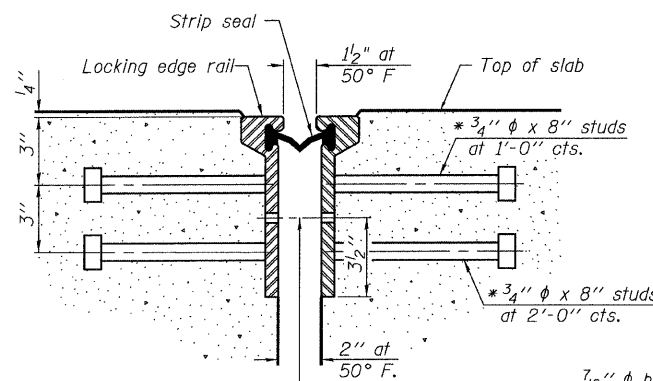
SECTION A-A



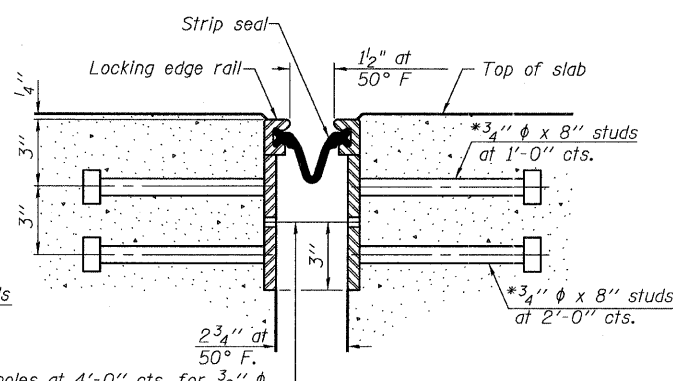
SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)



SECTION THRU
ROLLED RAIL JOINT



SECTION THRU
WELDED RAIL JOINT

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

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

ROLLED EXTRUDED RAIL WELDED RAIL

LOCKING EDGE RAILS

LOCKING EDGE RAIL SPLICE

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

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

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 at stage lines shall be 3/16", sealed with a suitable sealant.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	110

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 016-3241

EJ-SSJ 7-1-10

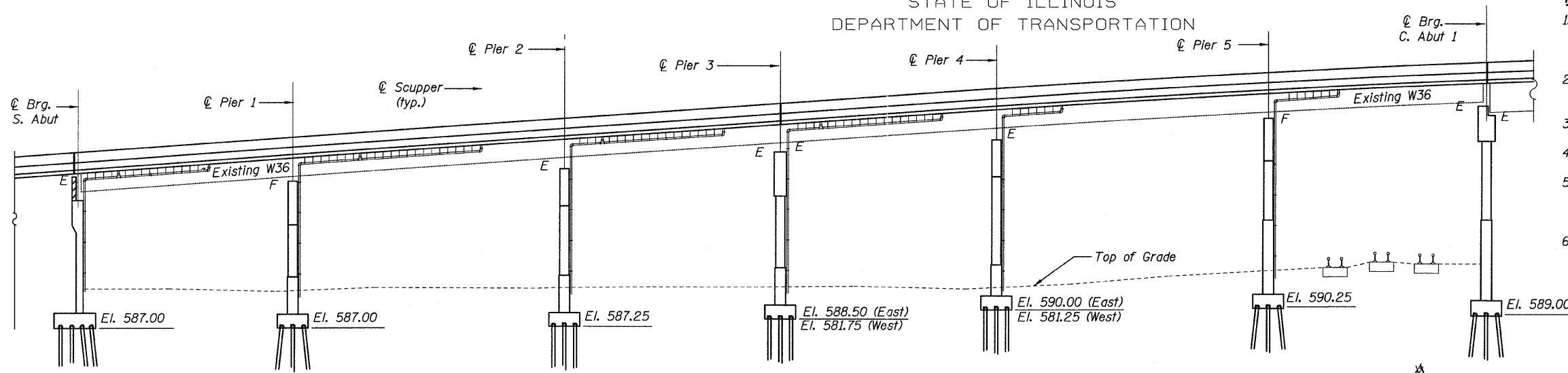
TYLIN INTERNATIONAL

DESIGNED -	REVISIONS
CHECKED - JMA	NAME DATE
DRAWN -	
CHECKED - AMD,	
DATE - 03/25/2011	

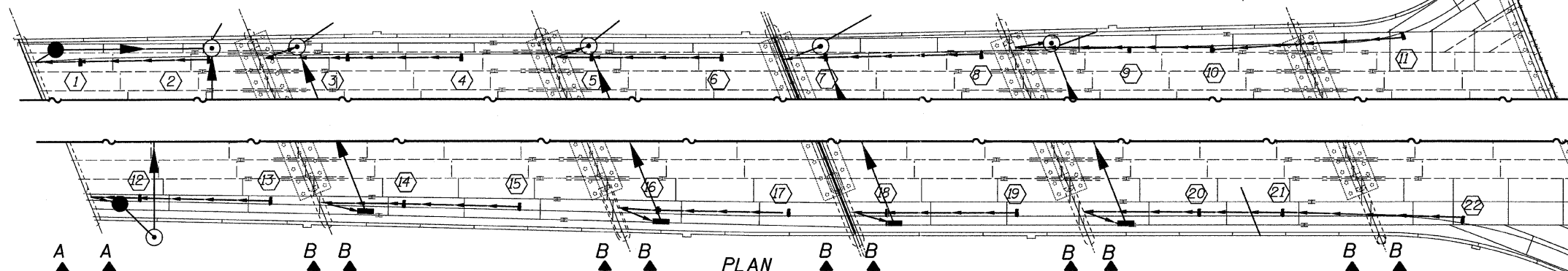
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

SHEET NO. 26	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 279
71 SHEETS					
CONTRACT NO. 60999					
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

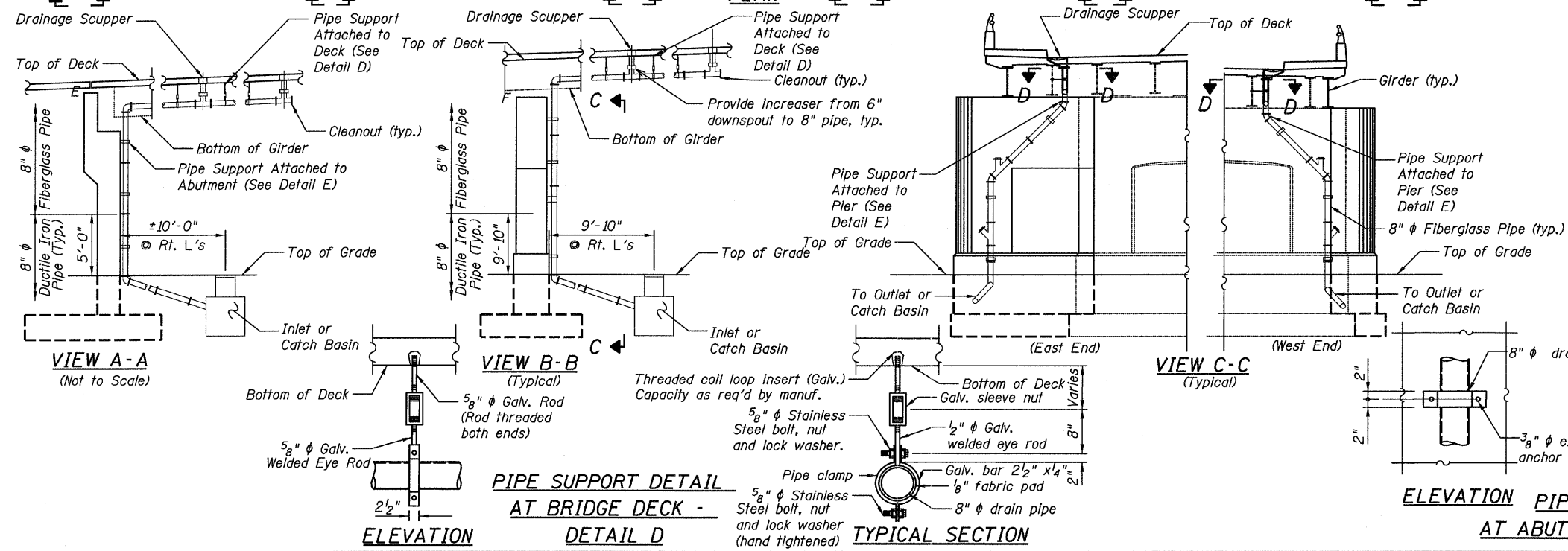
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION



PLAN



ELEVATION

PIPE SUPPORT DETAIL AT BRIDGE DECK - DETAIL D

TYPICAL SECTION

ELEVATION PIPE SUPPORT DETAIL AT ABUTMENT & PIER - DETAIL E

PLAN DRAINAGE SYSTEM STRUCTURE NO. 016-3241

- NOTES:**
- The cost of the ductile iron pipe, connection to proposed catch basin, trenching and backfilling shall be included in Drainage System.
 - All pipe supports and hardware shall be hot dipped galvanized. See Special Provisions.
 - See Special Provisions for additional information.
 - Contractor to provide shop drawings for Drainage System.
 - The Pipe Support Detail at the Abutment shall be such as to provide for a total movement based on thermal expansion of 1".
 - The cost for the removal of the existing drainage system is included with the cost of "Removal of Existing Concrete Deck."

SCUPPER LOCATION TABLE

Scupper No.	Type	Station	Offset	Lt/Rt
1	DS-12	13+65.47	40.74	Lt
2	DS-12	14+04.31	41.47	Lt
3	DS-12	14+46.36	41.97	Lt
4	DS-12	14+80.73	42.00	Lt
5	DS-12	15+20.10	42.00	Lt
6	DS-12	15+59.47	42.00	Lt
7	DS-12	15+91.04	42.06	Lt
8	DS-12	16+38.03	42.76	Lt
9	DS-12	16+82.79	44.07	Lt
10	DS-12	17+07.78	44.62	Lt
11	DS-12	17+65.28	48.49	Lt
12	DS-12	14+01.24	49.38	Rt
13	DS-12	14+40.77	50.36	Rt
14	DS-12	14+81.13	51.37	Rt
15	DS-12	15+16.06	52.25	Rt
16	DS-12	15+57.94	53.29	Rt
17	DS-12	15+97.59	54.00	Rt
18	DS-12	16+27.24	54.00	Rt
19	DS-12	16+66.61	54.00	Rt
20	DS-12	17+21.72	54.00	Rt
21	DS-12	17+46.93	54.00	Rt
22	DS-12	18+01.30	56.17	Rt
** 23	DS-11	16+07.34	10.00	Rt
** 24	DS-11	17+09.47	10.00	Rt

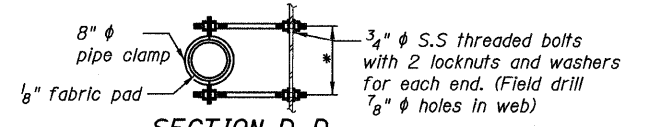
Offsets are measured from the ± of Central Ave. to the intersection of the ± of scupper with face of curb.

*Offset is to edge of scuppers placed 4" from face of curb.

** At center median.

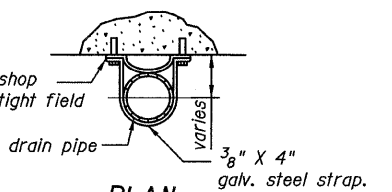
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Drainage System	L SUM	0.18



SECTION D-D

* Dimension as required by pipe clamp



PLAN

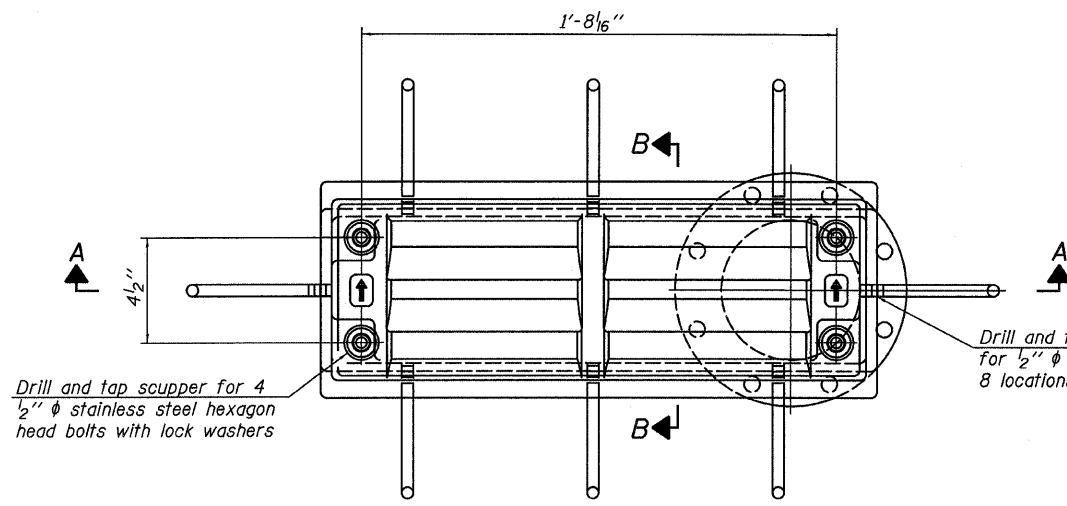
TYLIN INTERNATIONAL

DESIGNED	MAU	REVISIONS	NAME	DATE
CHECKED	AMD, MMB			
DRAWN	MAU			
CHECKED	AMD, MMB			
DATE	03/25/2011			

SHEET NO. 28	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	281
71 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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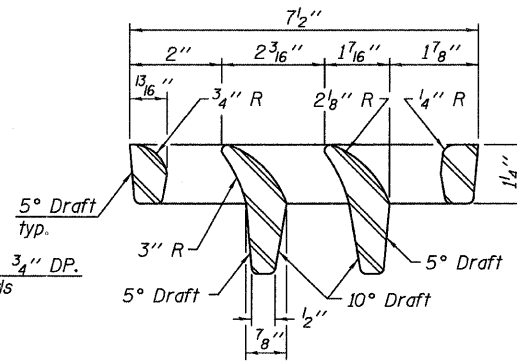
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



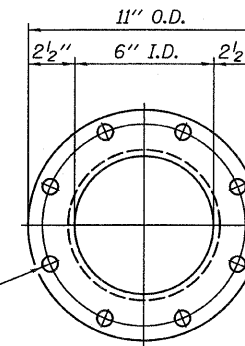
Drill and tap scupper for 4
1/2" φ stainless steel hexagon
head bolts with lock washers

Drill and tap 1/2"-13 x 3/4" DP.
for 1/2" φ Anchor Studs
8 locations

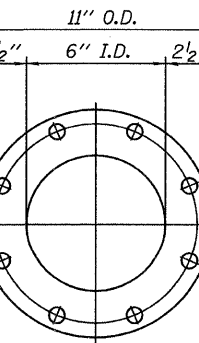
PLAN



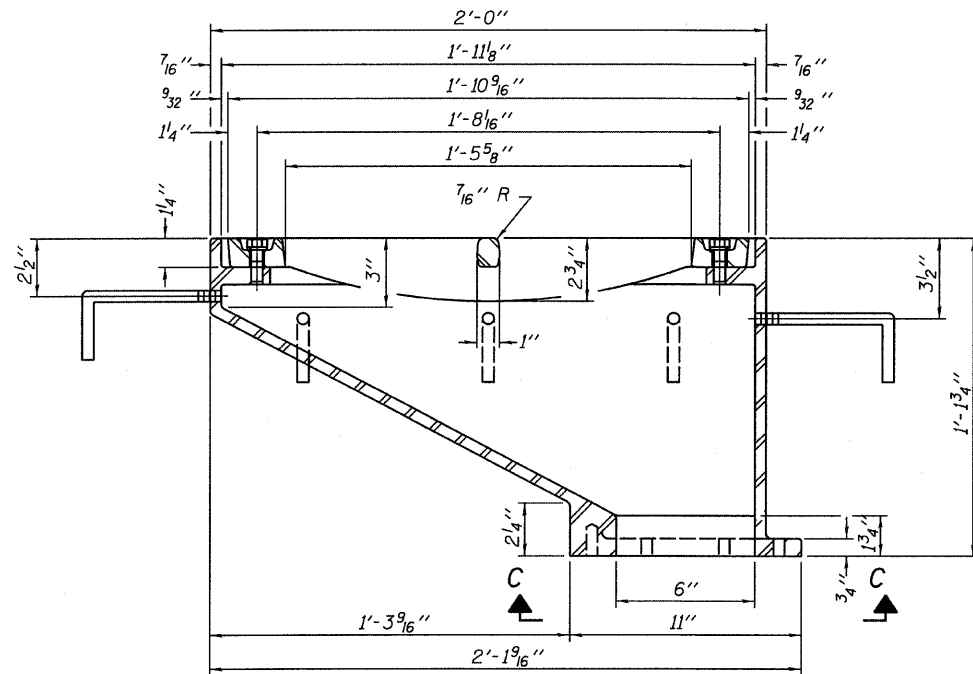
VANE GRATE DETAIL



8-9/16" φ holes on an
9 1/2" φ bolt circle

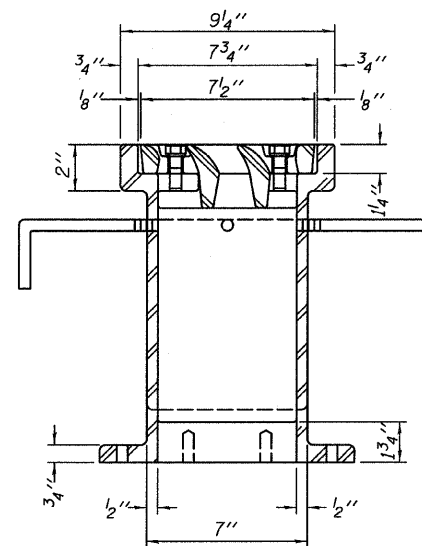


VIEW C-C

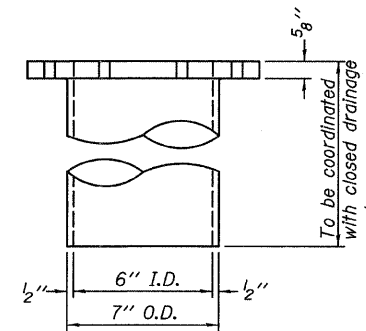


SECTION A-A

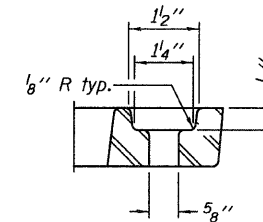
See sheet of for scupper location relative to parapet.



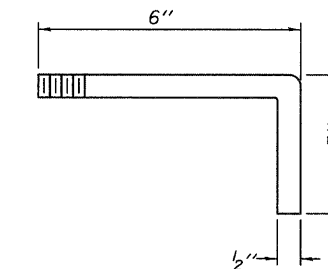
SECTION B-B



DOWNSPOUT



BOLT HOLE DETAIL



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	22

DRAINAGE SCUPPER, DS-12
STRUCTURE NO. 016-3241

Notes:

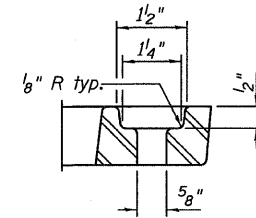
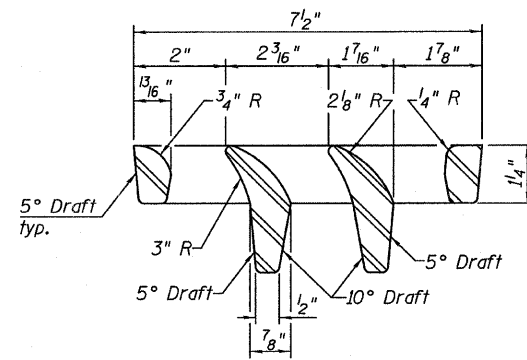
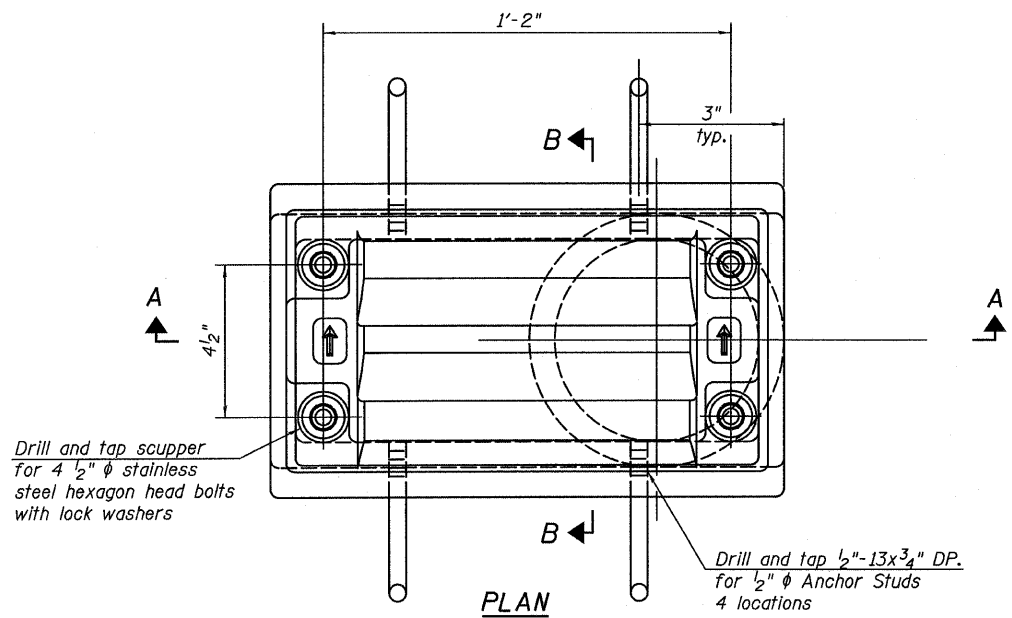
- All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
- Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
- Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
- As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
- Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.
- The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
- Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.
- Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

DS-12

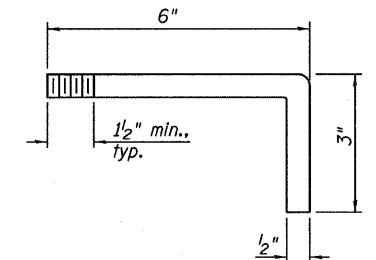
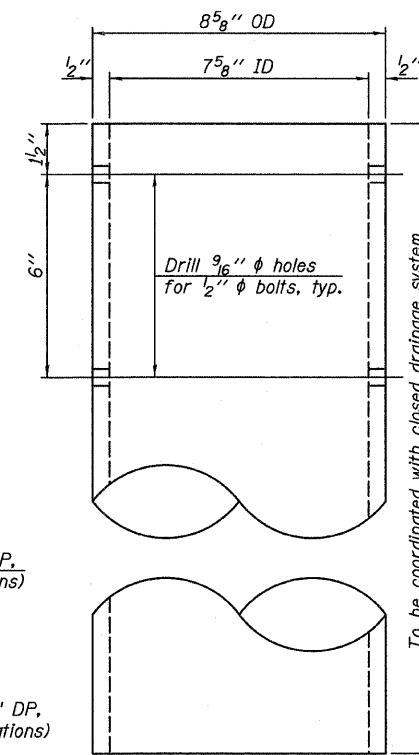
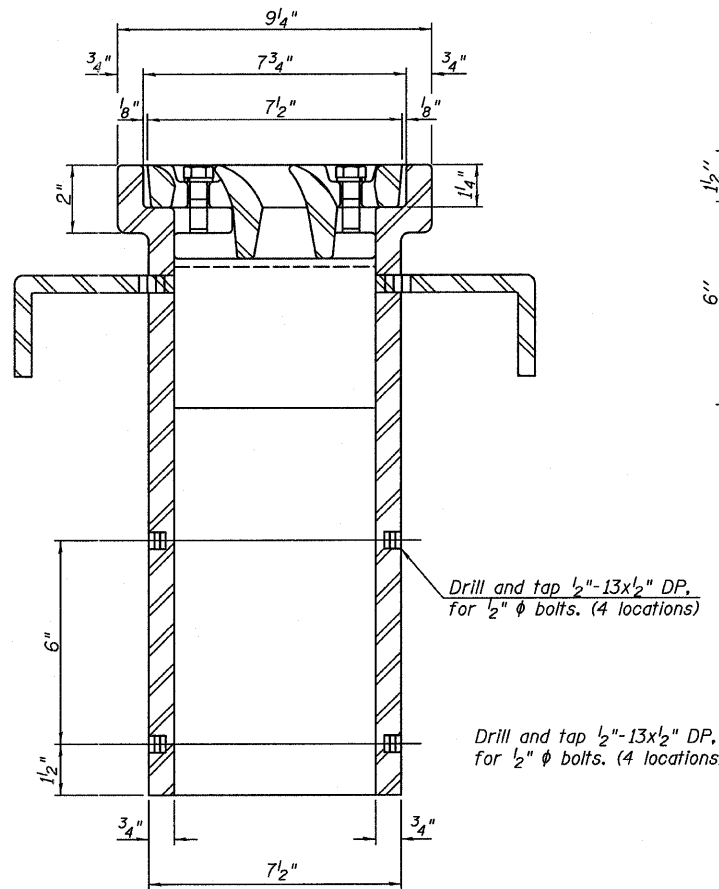
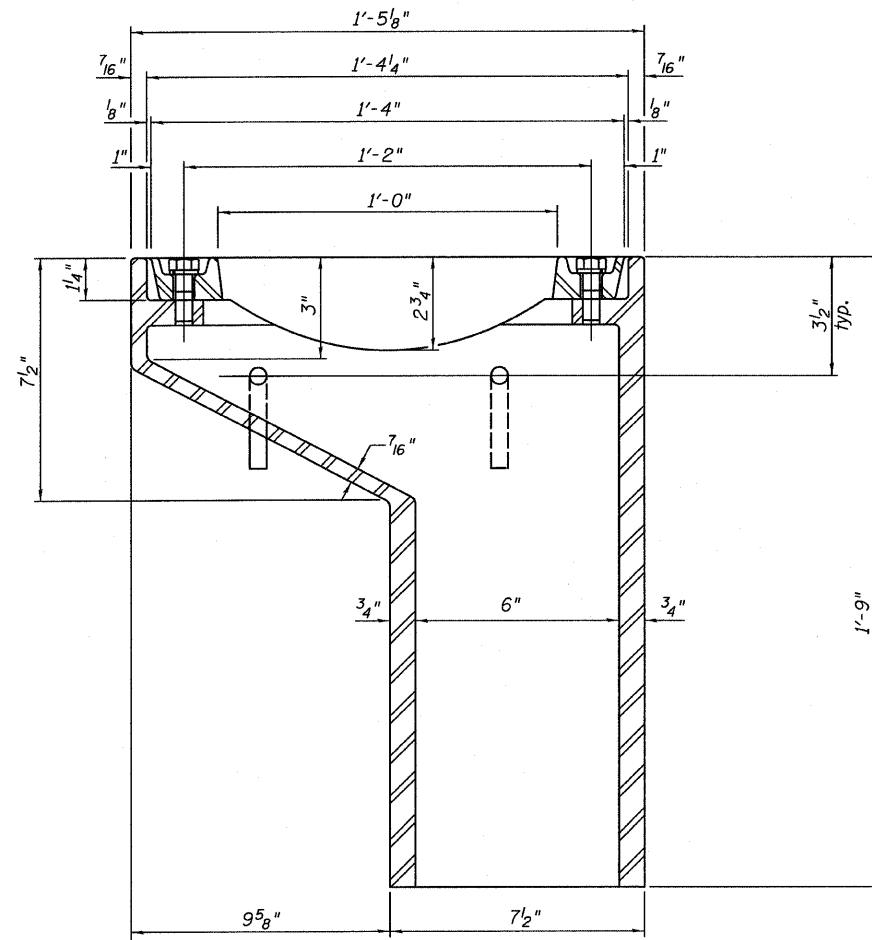
7-1-10

TYLIN INTERNATIONAL	DESIGNED - MAU	REVISIONS		SHEET NO. 29	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 282
	CHECKED - AMD,	NAME	DATE						
	DRAWN - MAU								
	CHECKED - AMD,								
	DATE - 03/25/2011								
				71 SHEETS	CONTRACT NO. 60999				
				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Notes:
All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.
Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	2

DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 016-3241

DS-11 7-1-10

TYLIN INTERNATIONAL	DESIGNED - MAU	REVISIONS	
	CHECKED - AMD,	NAME	DATE
	DRAWN - MAU		
	CHECKED - AMD,		
	DATE - 03/25/2011		

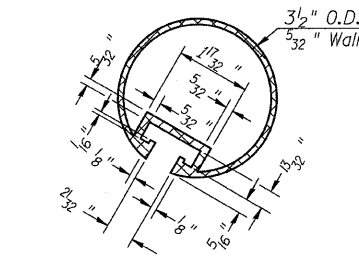
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71 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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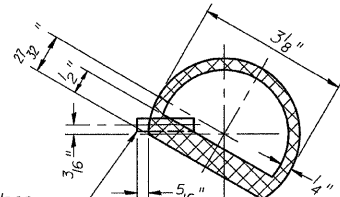
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOTES:

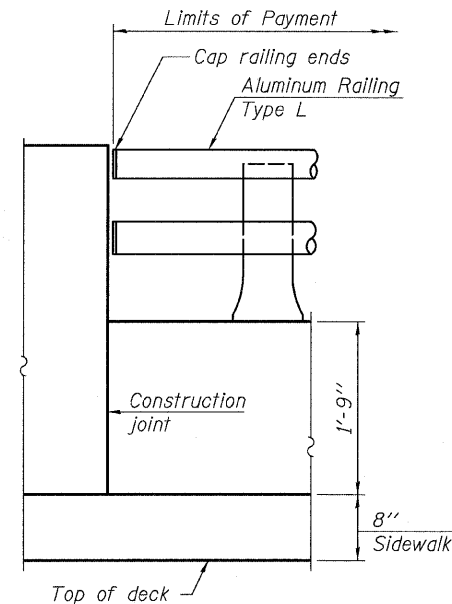
1. All Posts shall be normal to parapet.
2. All joints in rail shall be spliced per detail.
3. All exposed rail ends shall be capped per detail.
4. Provide 1-1/8" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.
5. See sheet 21 for rail post spacing.



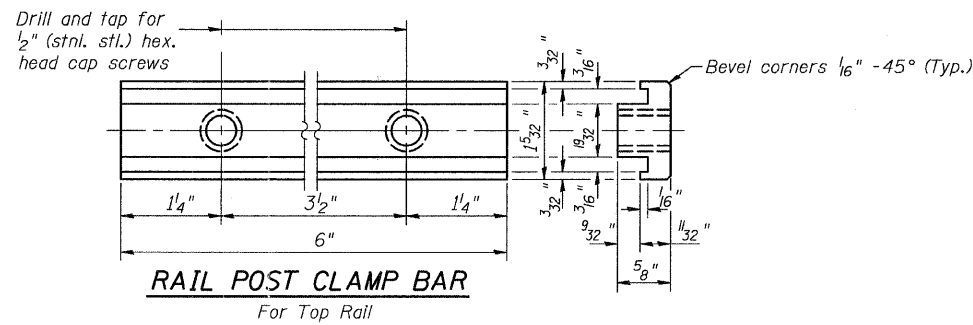
SECTION THRU TOP RAIL



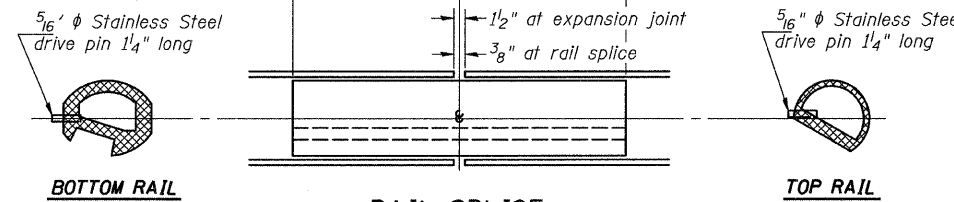
SECTION THRU SPLICE
TOP RAIL



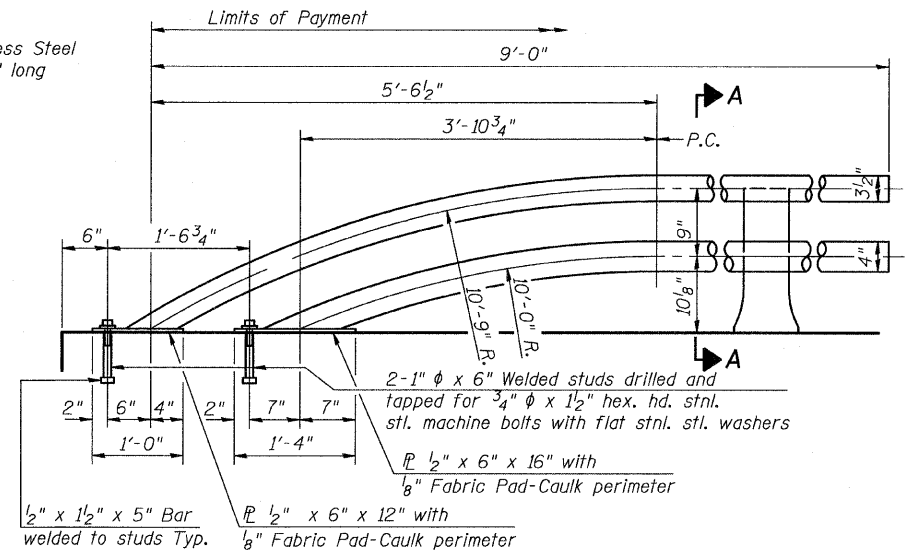
RAIL END TREATMENT FOR
TYPE 5 AND 6 TERMINAL



RAIL POST CLAMP BAR
For Top Rail

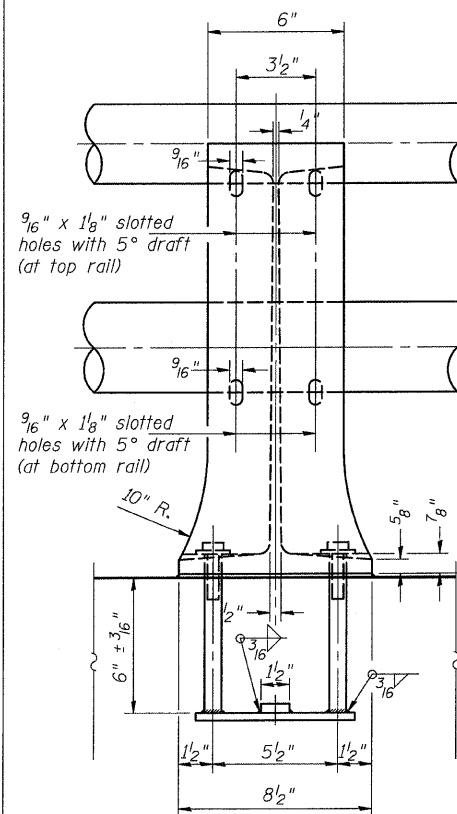


RAIL SPLICE

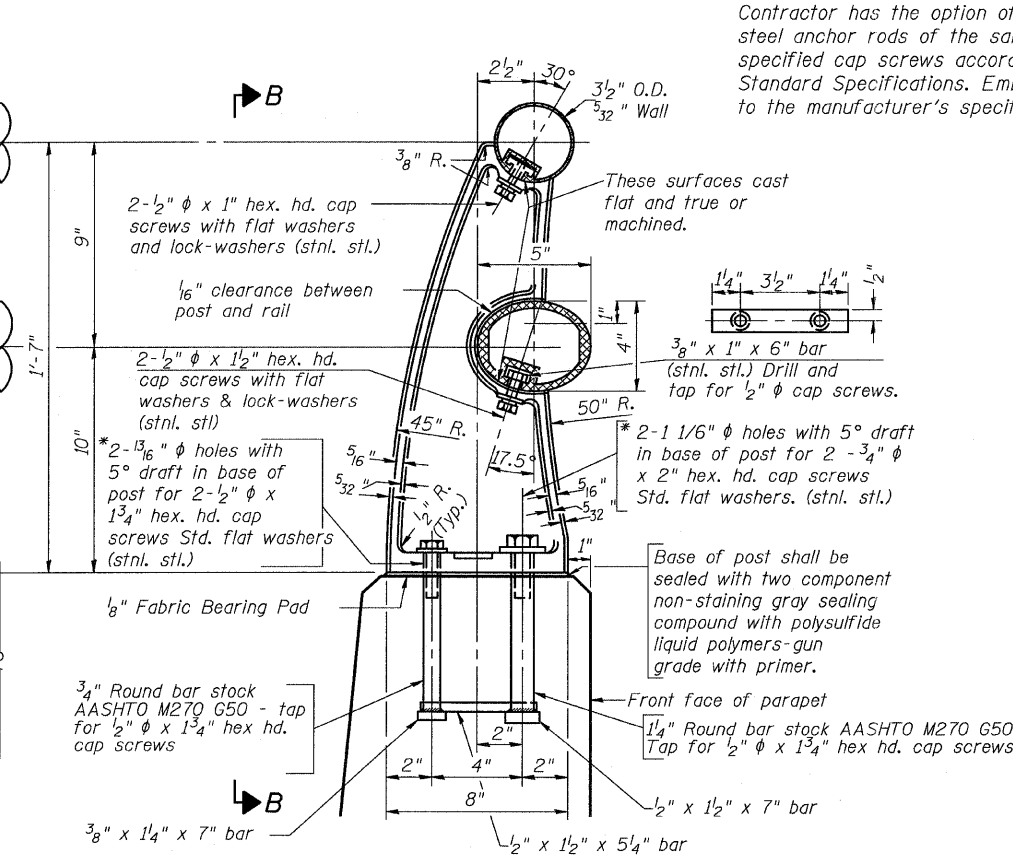


RAIL TERMINAL SECTION

NOTE: The end rail post shall be set back as required for the terminal rail section.

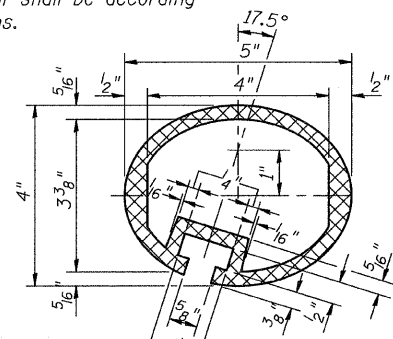


VIEW B-B

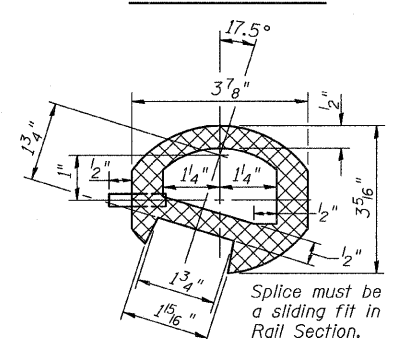


RAIL POST DETAILS

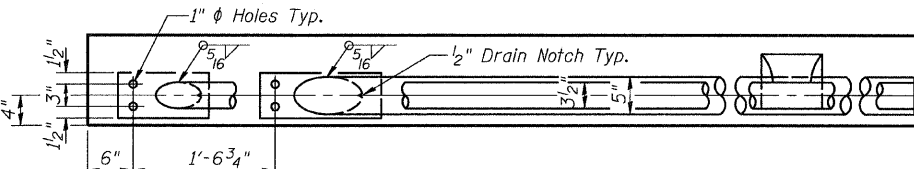
SECTION A-A



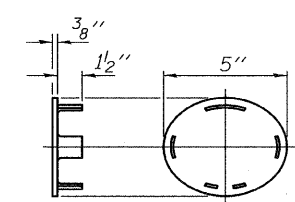
SEC. THRU ELLIPTICAL
RAIL SECTION



SEC. THRU SPLICE



CAST END CAP
For top rail



CAST END CAP
For bottom rail
DRIVE FIT TYPE

BILL OF MATERIAL

ITEM	UNIT	QTY
Aluminum Railing, Type L	FOOT	971.4

ALUMINUM RAILING, TYPE L
STRUCTURE NO. 016-3241

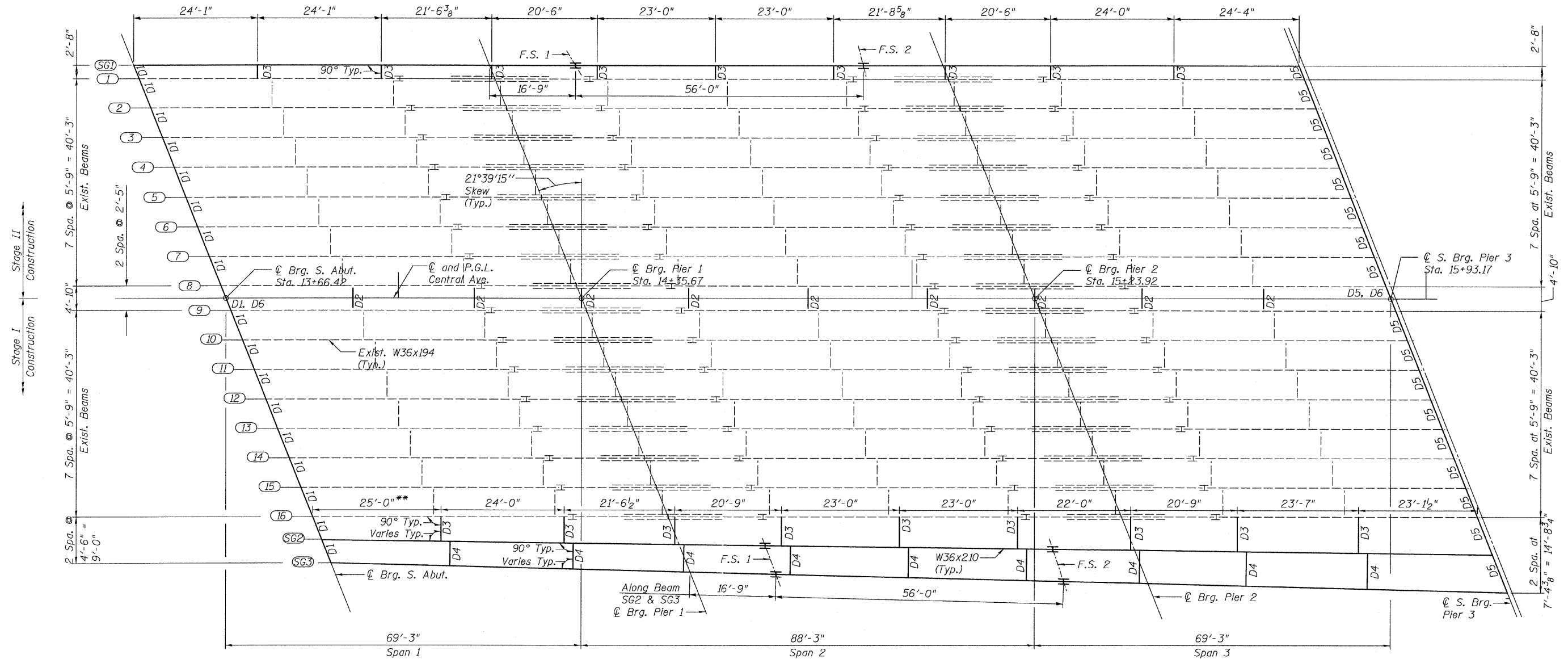
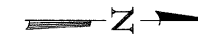
TYLIN INTERNATIONAL

DESIGNED -	REVISIONS
CHECKED - AMD,	NAME DATE
DRAWN -	
CHECKED - AMD,	
DATE - 03/25/2011	

SHEET NO. 30	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	283
71 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

4/28/2011 11:30:05 AM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING PLAN

TOP OF FLANGE ELEVATIONS - SPANS 1,2,3*

Girder	℄ Brg. S. Abut.	℄ Pier 1	Field Splice 1	Field Splice 2	℄ Pier 2	℄ S. Brg. Pier 3
SG1	610.87	613.21	613.78	615.74	616.30	618.81
SG2	612.12	614.45	615.00	616.95	617.54	620.04
SG3	612.09	614.42	614.95	616.89	617.50	619.99

* For fabrication use only

** Diaphragm Spacing shown is along the ℄ of Beam 16 and SG2.

NOTES:

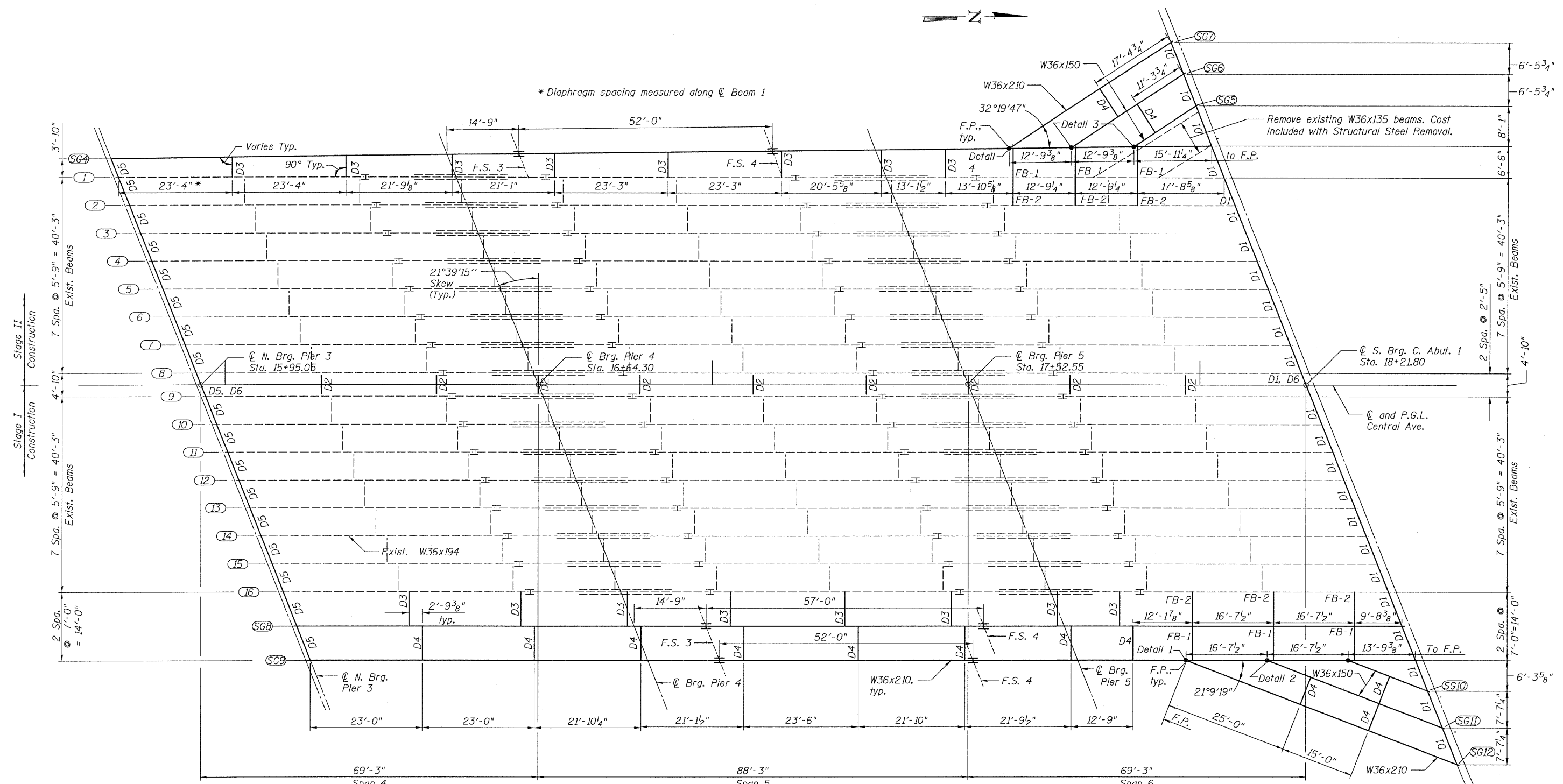
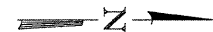
1. For General Notes, see Sheet 2.
2. F.S. - denotes girder Field Splice.
3. For Diaphragm details, see Sheet 38.
4. For Field Splice Details, see Sheet 41.
5. F.P. - denotes Framing Point.
6. Structural Steel for beams, splices, diaphragms marked "FB" and associated connection plates shall conform to the requirements of AASHTO M270 Grade 50.
7. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
8. New structural steel members are furnished under a separate contract.

**FRAMING PLAN -
SPANS 1, 2 & 3
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED - SP	REVISIONS		SHEET NO. 31	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
	CHECKED - AMD,	NAME	DATE		55					0711.2R & 1011.1BR	COOK	741	284
	DRAWN - SP				CONTRACT NO. 60999								
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								
	DATE - 03/25/2011			71 SHEETS									

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TOP OF FLANGE ELEVATIONS - SPANS 4,5,6**

FRAMING PLAN

NOTES:

- For General Notes, see Sheet 2.
- For Details 1-4, see Sheets 39 & 40.
- F.P. denotes Framing Point
- F.S. denotes girder Field Splice.
- For Diaphragm details, see Sheet 38.
- For Field Splice Details, see Sheet 41.
- Structural Steel for beams, splices, diaphragms, marked "FB" and associated connection plates shall conform to the requirements of AASHTO M270 Grade 50.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
- New structural steel members are furnished under a separate contract.

Girder	℄ N. Brg. Pier 3	℄ Pier 4	Field Splice 3	Field Splice 4	℄ Pier 5	℄ S. Brg. C. Abut. 1
SG4	618.83	621.11	621.60	623.20	623.75	625.58
SG8	620.11	622.30	622.76	624.35	624.74	626.37
SG9	620.06	622.24	622.71	624.28	624.66	626.29

Girder	F.P.	℄ S. Brg. C. Abut. 1
SG5	625.13	625.35
SG6	624.78	625.16
SG7	624.42	624.98

Girder	F.P.	℄ S. Brg. C. Abut. 1
SG10	625.91	626.20
SG11	625.53	626.11
SG12	625.14	626.01

** For fabrication use only

TYLIN INTERNATIONAL

DESIGNED - PK	REVISIONS	
CHECKED - AMD,	NAME	DATE
DRAWN - PK		
CHECKED - AMD,		
DATE - 03/25/2011		

SHEET NO. 32	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	71 SHEETS	55	0711.2R & 1011.1BR	COOK	741 285
CONTRACT NO. 60999			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MOMENT TABLE - SPANS 1, 2 & 3

	SG2					EXISTING GIRDER 16				
	0.4 Sp. 1	Pier 1	.5 Sp. 2	Pier 2	0.6 Sp. 3	0.4 Sp. 1	Pier 1	.5 Sp. 2	Pier 2	0.6 Sp. 3
Is (in ⁴)	13200	13200	13200	13200	13200	12,100	15,865	12,100	15,865	12,100
Ic (n) (in ⁴)	26673	--	28241	--	29559	25,686	--	26,327	--	27,011
Ic (3n) (in ⁴)	19517	--	20595	--	21582	18,742	--	19,208	--	19,728
Ss (in ³)	719	719	719	719	719	664	846	664	846	664
Sc (n) (in ³)	952	--	968	--	981	889	--	896	--	903
Sc (3n) (in ³)	853	--	869	--	883	798	--	806	--	813
Z (in ³)	--	--	--	--	--	--	--	--	--	--
ϕ (k/')	0.70	1.32	0.81	1.47	0.91	0.78	1.42	0.83	1.51	0.88
Mϕ (k)	224	795	283	898	305	240	872	265	927	280
sϕ (k/')	0.53	--	0.6	--	0.65	0.57	--	0.59	--	0.62
Msϕ (k)	180	--	251	--	236	189	--	226	--	212
Mϕ (k)	371	285	503	324	528	400	312	477	334	476
M (IM) (k)	95	71	118	81	136	103	77	112	82	122
ϕ ₃ [Mϕ+I] (k)	778	593	1035	675	1107	839	648	982	693	997
Ma (k)	1537	1807	2041	2047	2145	1,651	1,978	1,917	2,108	1,938
*Mu (k)	4360	--	4643	--	4546	2,967	--	3,402	--	2,978
fsϕ non-comp (ksi)	3.7	13.3	4.7	15.0	5.1	4.4	12.4	4.8	13.1	5.1
fsϕ comp (ksi)	2.5	--	3.5	--	3.2	2.8	--	3.4	--	3.1
fs ⁵ ₃ (Mϕ+MI) (ksi)	9.8	9.9	12.8	11.3	13.5	11.3	9.2	13.1	9.8	13.2
fs (Overload) (ksi)	16.1	23.2	21.0	26.3	21.8	18.5	21.6	21.3	23.0	21.4
**fs (Total) (ksi)	--	30.1	--	34.2	--	--	28.0	--	29.9	--
VR (k)	40.9	--	39.7	--	52.4	42.8	--	38.5	--	49.6

Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs (Total and Overload) due to non-composite dead loads (in.4 and in.3).
Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs (Total and Overload) due to short-term composite live loads (in.4 and in.3).
Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs (Total and Overload) due to long-term composite (superimposed) dead loads (in.4 and in.3).
Z: Plastic Section Modulus of the steel section in non-composite areas (in.3).
ϕ: Un-factored non-composite dead load (kips/ft.).
Mϕ: Un-factored moment due to non-composite dead load (kip-ft.).
sϕ: Un-factored long-term composite (superimposed) dead load (kips/ft.).
Msϕ: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
Mϕ: Un-factored live load moment (kip-ft.).
M (IM): Un-factored moment due to impact (kip-ft.).
Ma: Factored design moment (kip-ft.).
1.3 [Mϕ + Msϕ + $\frac{5}{8}$ (Mϕ + M (IM))]
Mu: Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
fs (Overload): Sum of stresses as computed from the moments below (ksi).
Mϕ + Msϕ + $\frac{5}{8}$ (Mϕ + M (IM))
fs (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
1.3 [Mϕ + Msϕ + $\frac{5}{8}$ (Mϕ + M (IM))]
VR: Maximum ϕ + impact shear range within the composite portion of the span for stud shear connector design (kips).

MOMENT TABLE - SPANS 4, 5 & 6

	SG8			SG9				SG12	
	0.4 Sp. 4 or 0.6 Sp. 6	Pier 4 or 5	0.5 Sp. 5	0.4 Sp. 4	Pier 4	.5 Sp. 5	Pier 5	0.6 Sp. 6	.5 Sp. 6
Is (in ⁴)	13200	13200	13200	13200	13200	13200	13200	13200	13200
Ic (n) (in ⁴)	29559	--	29559	29370	--	29370	--	29370	25844
Ic (3n) (in ⁴)	21582	--	21582	21436	--	21436	--	21436	18986
Ss (in ³)	719	719	719	719	719	719	719	719	719
Sc (n) (in ³)	982	--	982	980	--	980	--	980	941
Sc (3n) (in ³)	884	--	884	882	--	882	--	882	842
Z (in ³)	--	--	--	--	--	--	--	--	--
ϕ (k/')	0.91	1.56	0.91	0.89	1.36	0.89	1.36	0.89	0.74
Mϕ (k)	295	932	315	317	714	225	1197	680	296
sϕ (k/')	0.65	--	0.65	0.47	--	0.47	--	0.47	0.43
Msϕ (k)	228	--	268	182	--	145	--	406	181
Mϕ (k)	529	353	585	505	336	558	349	513	287
M (IM) (k)	136	87	137	130	83	131	86	132	78
ϕ ₃ [Mϕ+I] (k)	1108	732	1203	1058	699	1147	724	1076	608
Ma (k)	2123	2166	2326	2026	1837	1975	2499	2813	1411
*Mu (k)	4517	--	4767	4645	--	4749	--	4749	4143
fsϕ non-comp (ksi)	4.9	15.6	5.3	5.3	11.9	3.8	20.0	11.3	4.9
fsϕ comp (ksi)	3.1	--	3.6	2.5	--	2.0	--	5.5	2.6
fs ⁵ ₃ (Mϕ+MI) (ksi)	13.5	12.2	14.7	13.0	11.7	14.0	12.0	13.2	7.8
fs (Overload) (ksi)	21.6	27.8	23.6	20.7	23.6	19.8	32.1	30.0	15.3
**fs (Total) (ksi)	--	36.1	--	--	30.6	--	41.7	--	--
VR (k)	54.3	--	45.8	51.9	--	44.7	--	52.7	38.8

(1) Average

* Compact section
** Braced non-compact and partially braced section

REACTION TABLE - SPANS 1, 2 & 3

	SG2				EXISTING GIRDER 16			
	S. Abut.	Pier 1	Pier 2	S. Brg. Pier 3	S. Abut.	Pier 1	Pier 2	S. Brg. Pier 3
Rϕ (k)	31.7	114.4	188.9	42.4	34.6	121.0	128.1	39.6
Rϕ (k)	28.9	42.8	49.9	37.7	30.0	43.7	47.2	35.5
RI (k)	7.4	7.6	8.8	9.7	7.7	7.7	8.4	9.1
R (Total) (k)	68.1	164.8	187.5	89.8	72.4	172.5	183.7	84.2

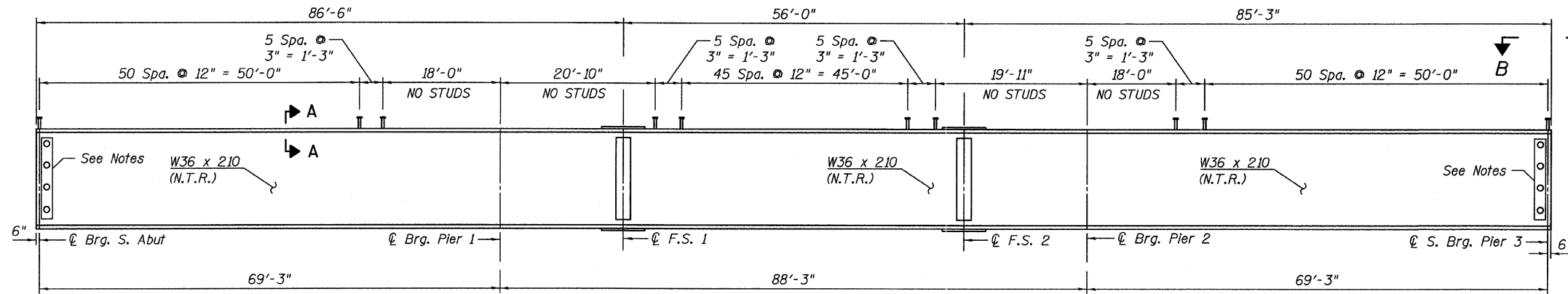
REACTION TABLE - SPANS 4, 5 & 6

	SG8		SG9			SG12	
	N. Brg. Pier 3 / S. Brg. C. Abut. 1	Pier 4 or 5	N. Brg. Pier 3	Pier 4	Pier 5	S. Brg. C. Abut. 1	S. Brg. C. Abut. 1
Rϕ (k)	41.3	136.1	37.7	162.9	162.9	66.7	34.8
Rϕ (k)	38.8	53.3	37.0	50.7	51.1	37.1	26.7
RI (k)	9.7	9.1	9.5	9.0	9.1	9.6	7.2
R (Total) (k)	89.0	198.5	84.2	170.6	223.1	113.4	68.7

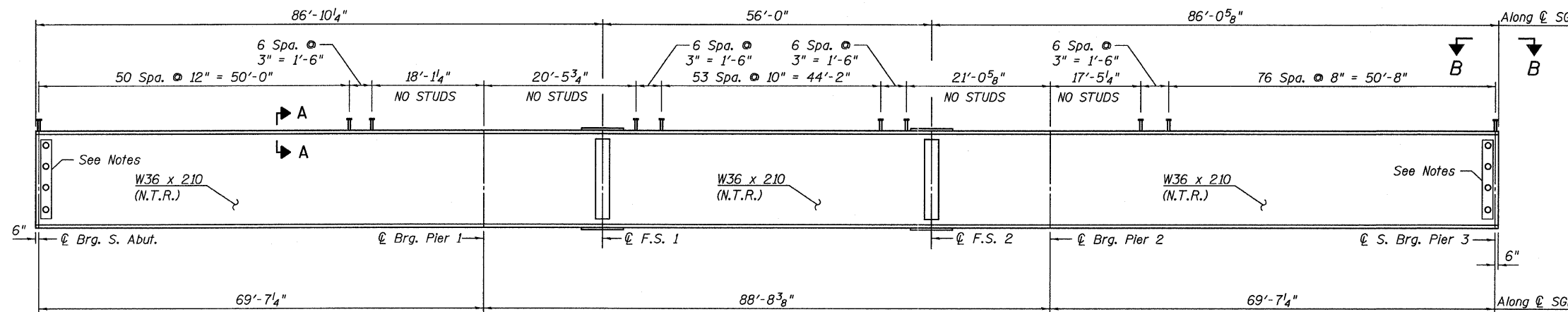
MOMENT & REACTION
TABLES
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - PK	REVISIONS		SHEET NO. 33	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					
	CHECKED - AMD,	NAME	DATE		55					0711.2R & 1011.1BR	COOK	741	286	
	DRAWN - PK				71 SHEETS					CONTRACT NO. 60999				
	CHECKED - AMD,									FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
	DATE - 03/25/2011													

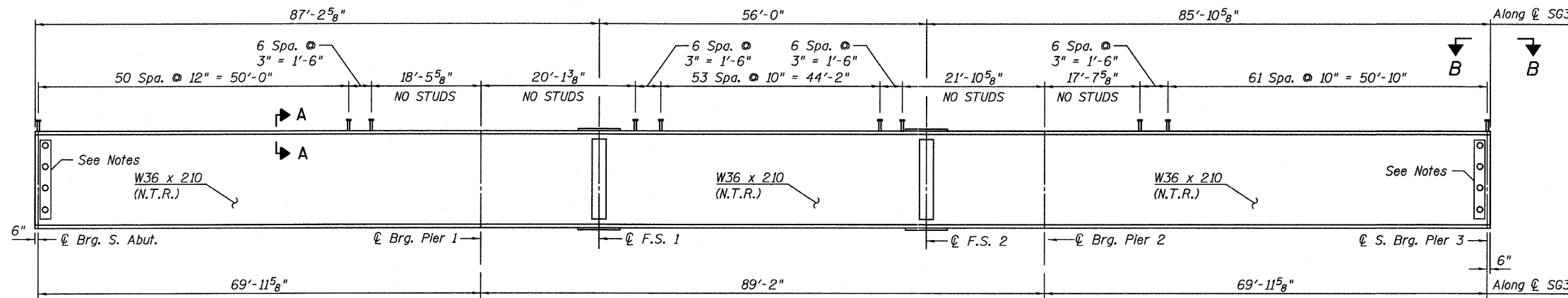
STATE OF ILLINOIS
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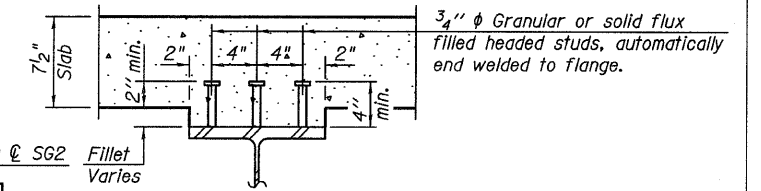
GIRDER ELEVATION - SG1



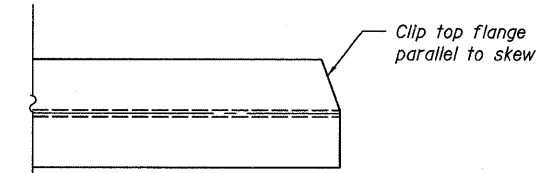
GIRDER ELEVATION - SG2



GIRDER ELEVATION - SG3



SECTION A-A



VIEW B-B

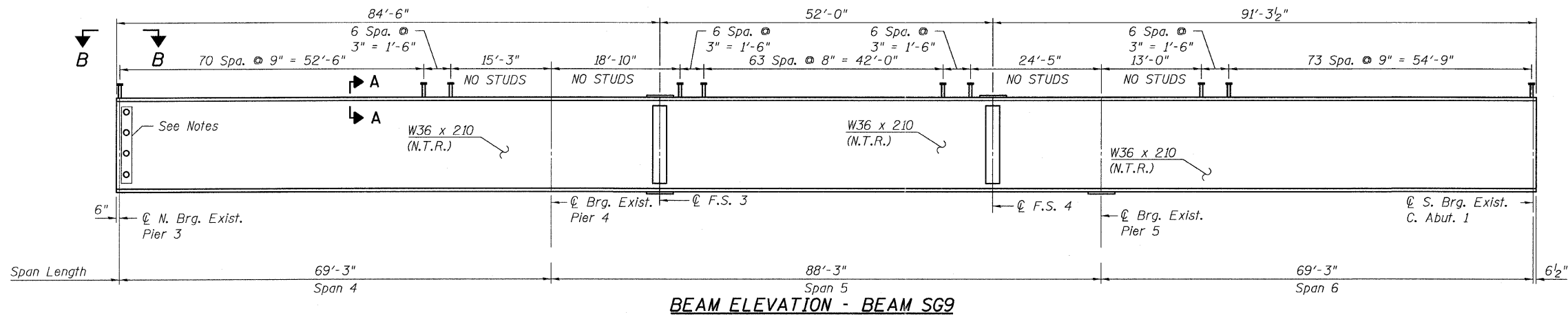
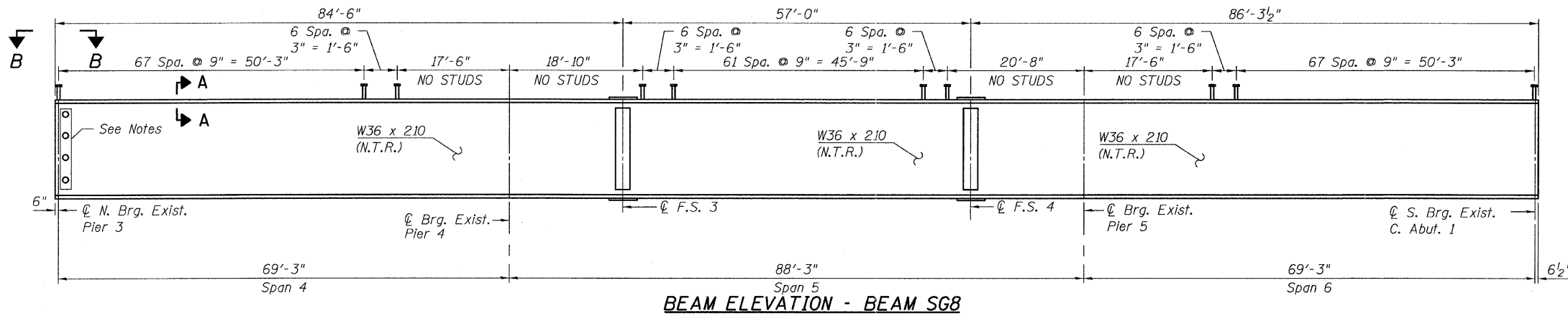
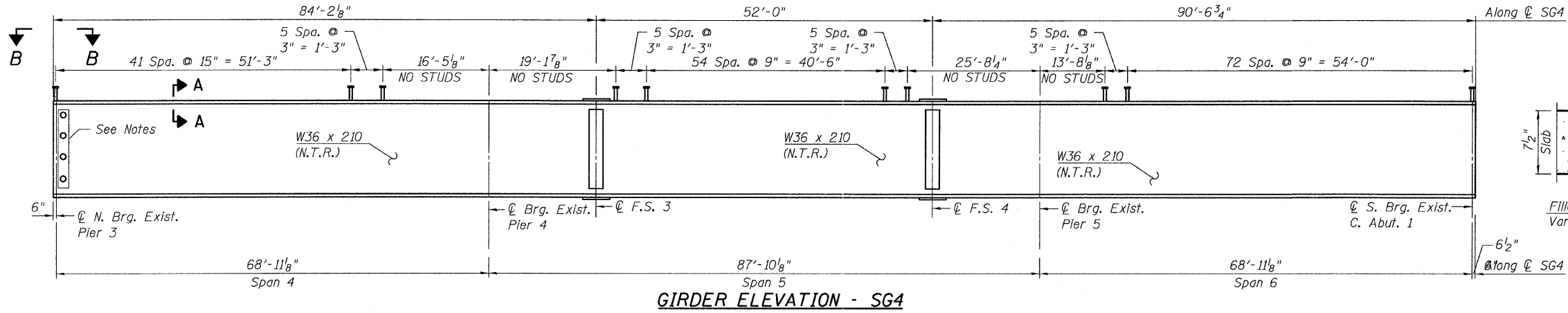
- NOTES**
- See Sheet No. 38 for number and location of holes in beam webs.
 - Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
 - New structural steel members are furnished under a separate contract.

GIRDER ELEVATIONS
SPANS 1, 2 & 3
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - PK	REVISIONS		SHEET NO. 34	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	287
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	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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DEPARTMENT OF TRANSPORTATION



NOTES

See Sheet No. 38 for number and location of holes in beam webs.

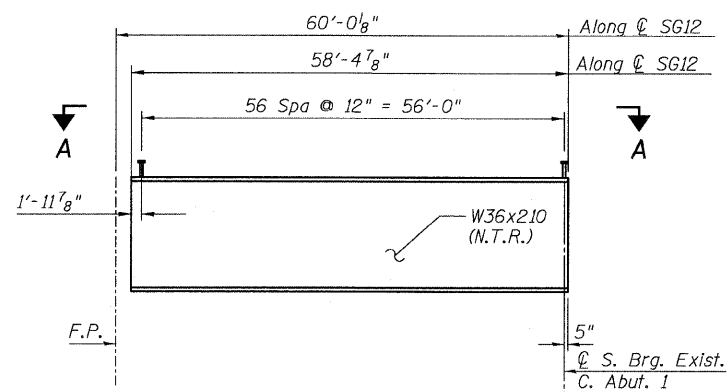
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

New structural steel members are furnished under a separate contract.

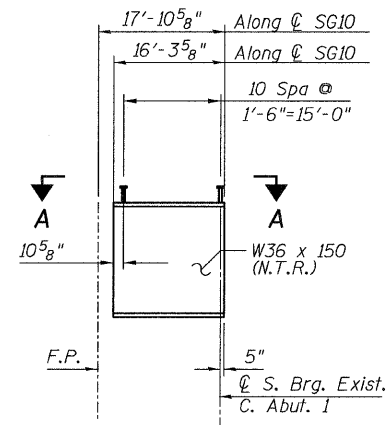
**GIRDER ELEVATIONS
SPANS 4, 5 & 6
STRUCTURE NO. 016-3241**

TYLIN INTERNATIONAL	DESIGNED - PK	REVISIONS		SHEET NO. 35	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	288
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	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

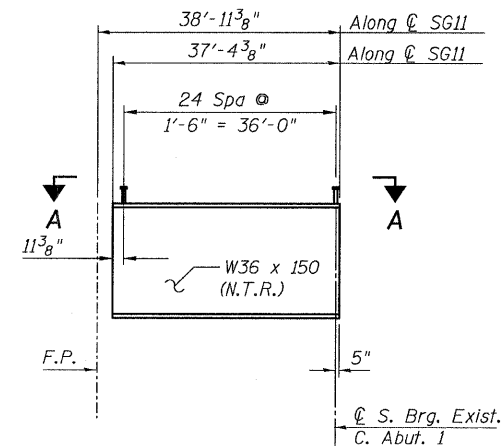
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



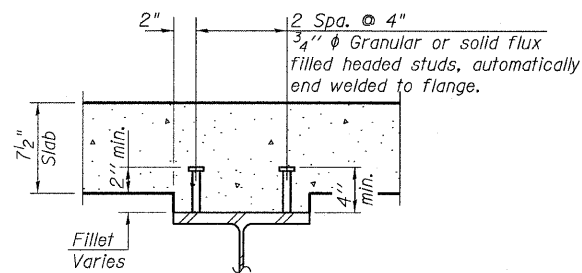
GIRDER ELEVATION - SG12



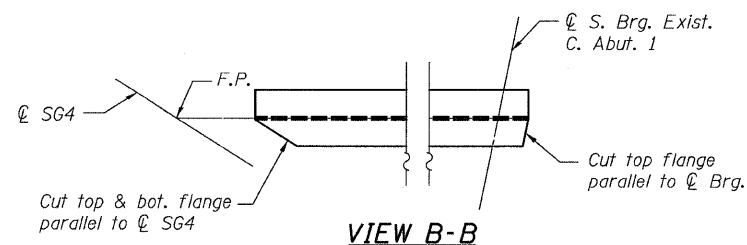
GIRDER ELEVATION - SG10



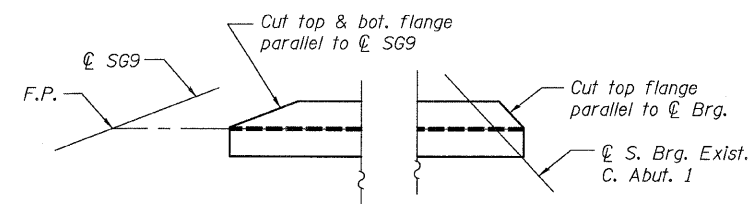
GIRDER ELEVATION - SG11



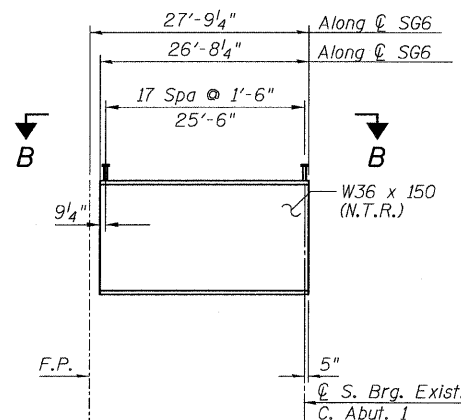
SHEAR STUD LAYOUT



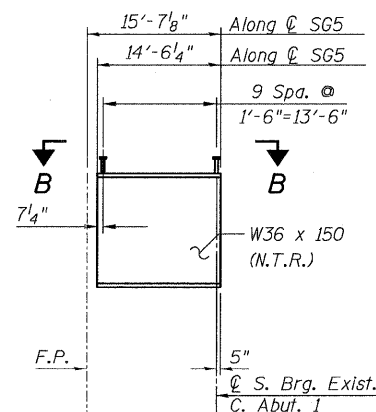
VIEW B-B



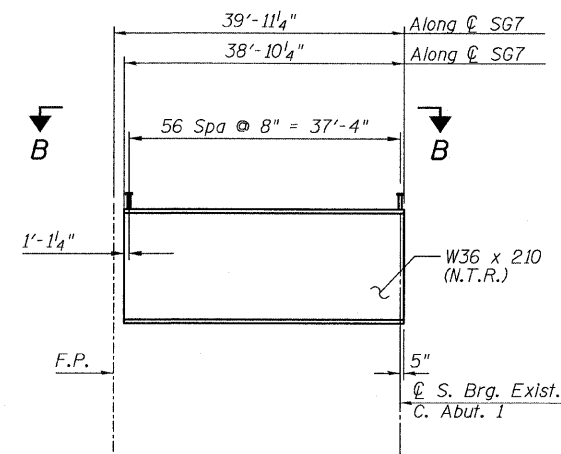
VIEW A-A



GIRDER ELEVATION - SG6



GIRDER ELEVATION - SG5



GIRDER ELEVATION - SG7

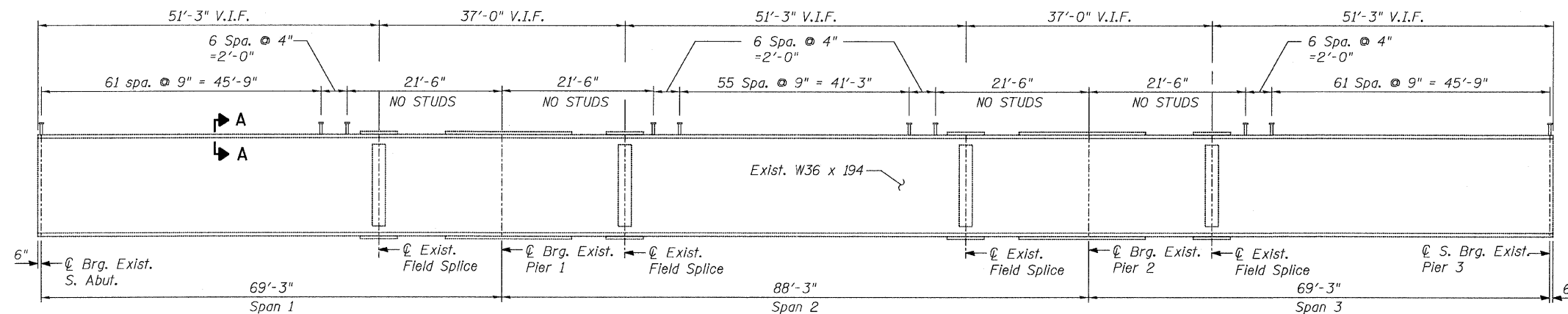
NOTES:

1. F.P. - denotes Framing Point
2. Lengths shown are along beam C.
3. Work this sheet with sheets 34 & 35.
4. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
5. New structural steel members are furnished under a separate contract.

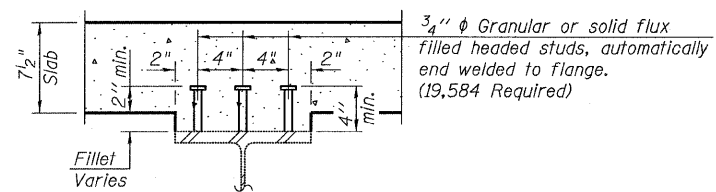
GIRDER ELEVATIONS FLARED GIRDERS
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - SP	REVISIONS		SHEET NO. 36	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	289
	DRAWN - SP				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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GIRDER ELEVATION - EXIST. G1 THRU G16 (SPANS 1, 2 & 3)
GIRDER ELEVATION - EXIST. G1 THRU G16 (SPANS 4, 5 & 6)



SECTION A-A

ITEM	UNIT	TOTAL
Stud Shear Connectors	EACH	23,570

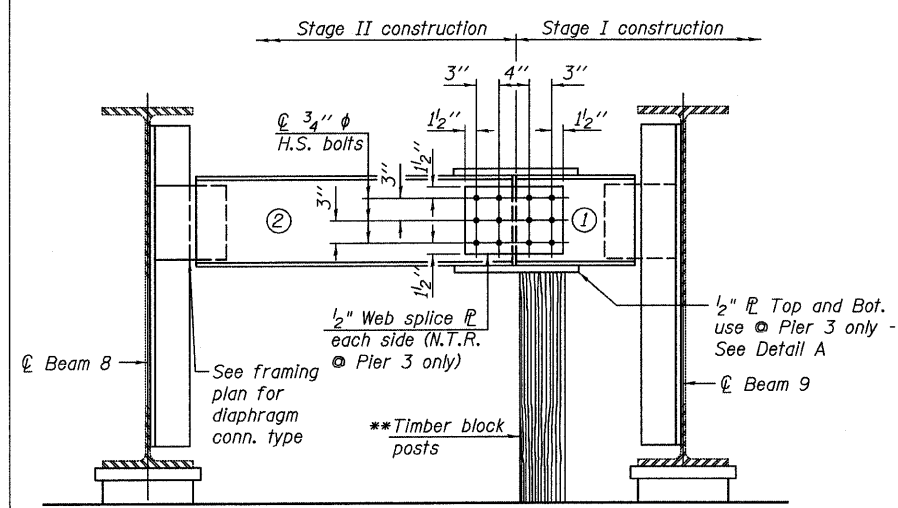
EXIST. BEAM ELEVATION
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - MAU	REVISIONS		SHEET NO. 37	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED - AMD,	NAME	DATE		71 SHEETS	55	0711.2R & 1011.1BR	COOK	741	290
	DRAWN - MAU				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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** Cost of Timber Block Posts is included with Erecting Structural Steel.

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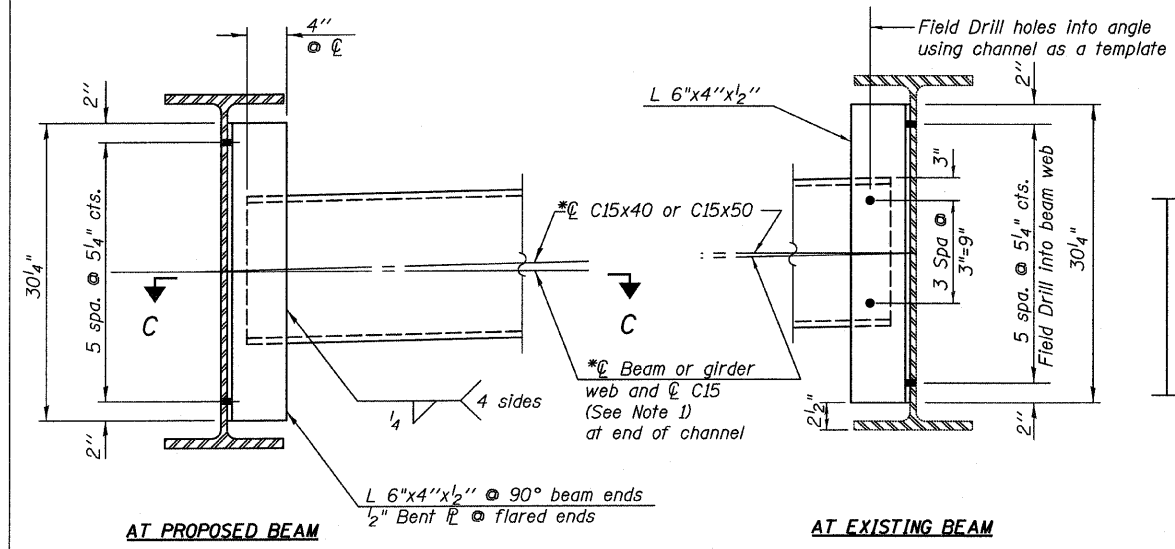


END DIAPHRAGM (D6)

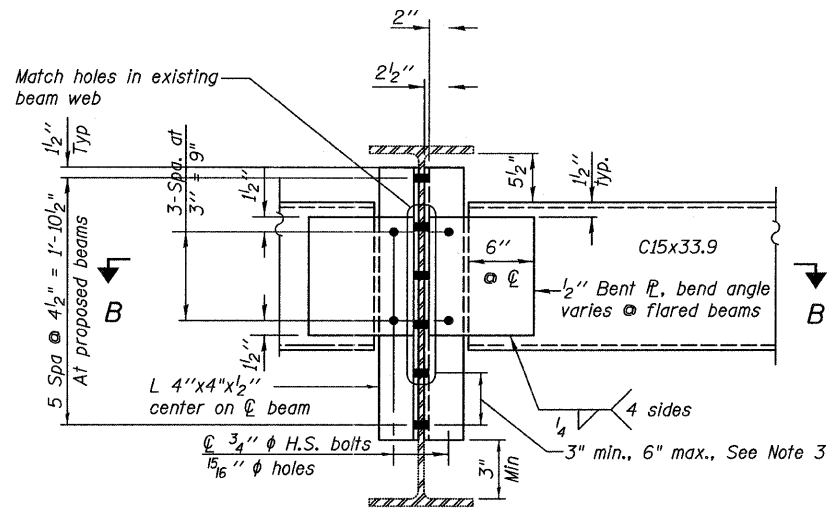
END DIAPHRAGM STAGE
CONSTRUCTION SEQUENCE

- 1.) Order diaphragm in two sections.
- 2.) Attach section ① of diaphragm to beam 9
- 3.) Place timber block posts between section ① of diaphragm and abutment bearing section.
- 4.) Attach section ② of diaphragm to both beam 8 and section ① of diaphragm during stage II construction with splice plates.
- 5.) Remove timber block posts.

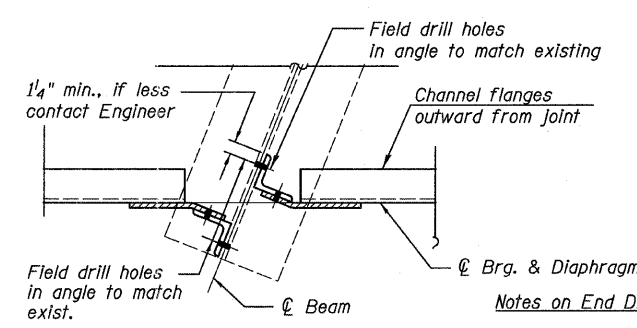
Note:
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



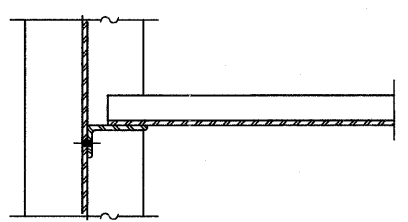
INTERIOR DIAPHRAGMS (D2 THRU D4)



END DIAPHRAGM (D1)



SECTION B-B



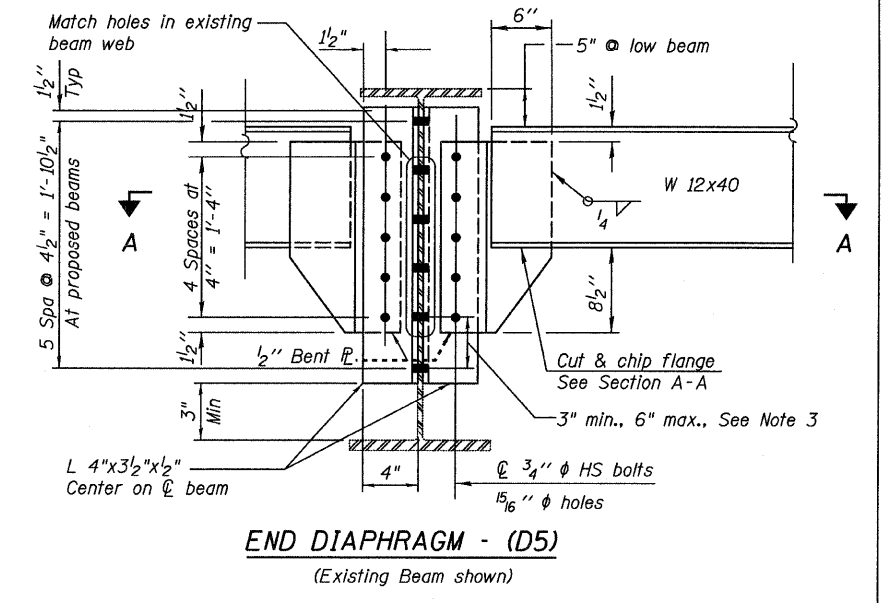
SECTION C-C

Notes on End Diaphragms (D1, D5):

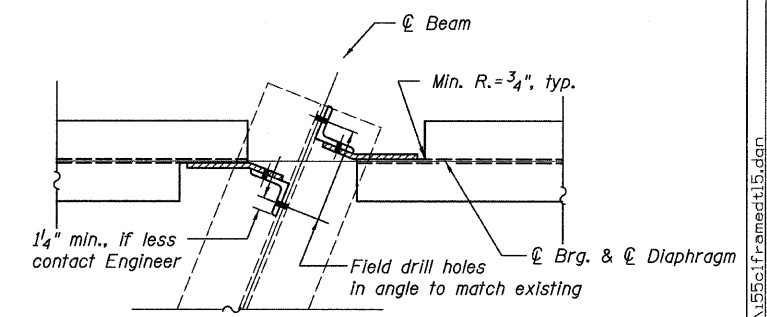
1. The details shown are similar at the proposed beams. Field drilling permitted only at connections to existing beams.
2. Place additional holes in existing beam web as necessary, use 6 bolts minimum.
3. All bolts in beam webs shall be 7/8" H.S. Bolts, 15/16" φ holes.
4. Two hardened washers required for each set of oversized holes.
5. Cost of Field Drilling to be included with the item "Erecting Structural Steel".

Notes on Interior Diaphragms (D2 thru D4):

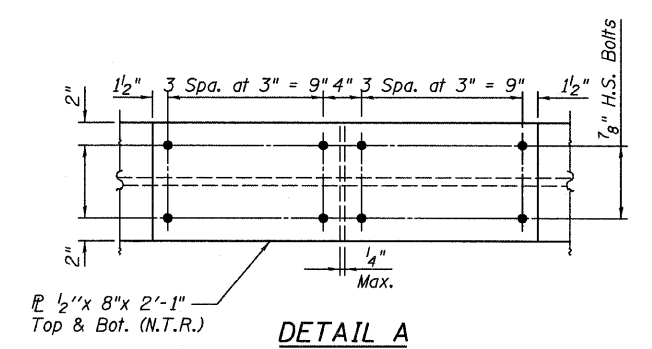
1. Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
2. The alternate, if utilized, shall be provided at no additional cost to the Department.
3. 3/4" H.S. Bolts, 15/16" φ holes.
4. Two hardened washers required for each set of oversized holes.



END DIAPHRAGM - (D5)
(Existing Beam shown)



SECTION A-A



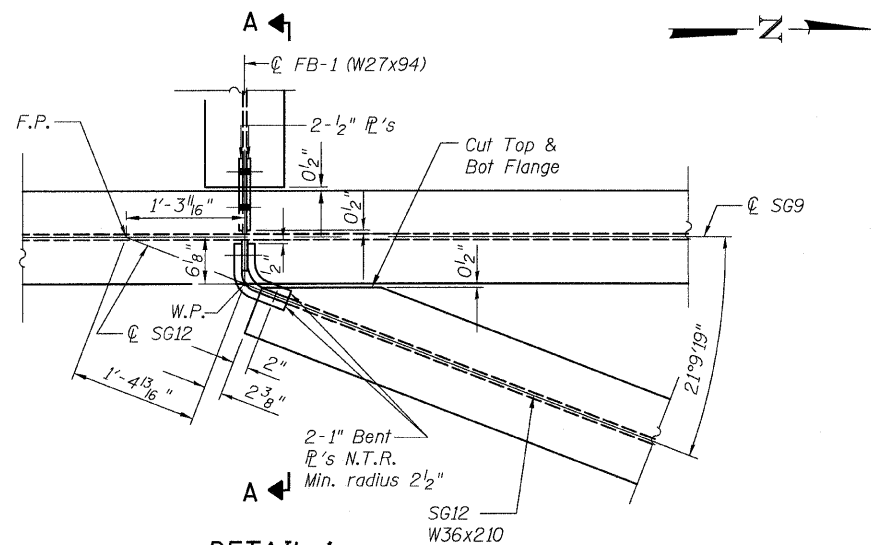
DETAIL A
FRAMING DETAILS I
DIAPHRAGMS
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - JMA	REVISIONS	
	CHECKED - AMD,	NAME	DATE
	DRAWN - JMA		
	CHECKED - AMD,		
	DATE - 03/25/2011		

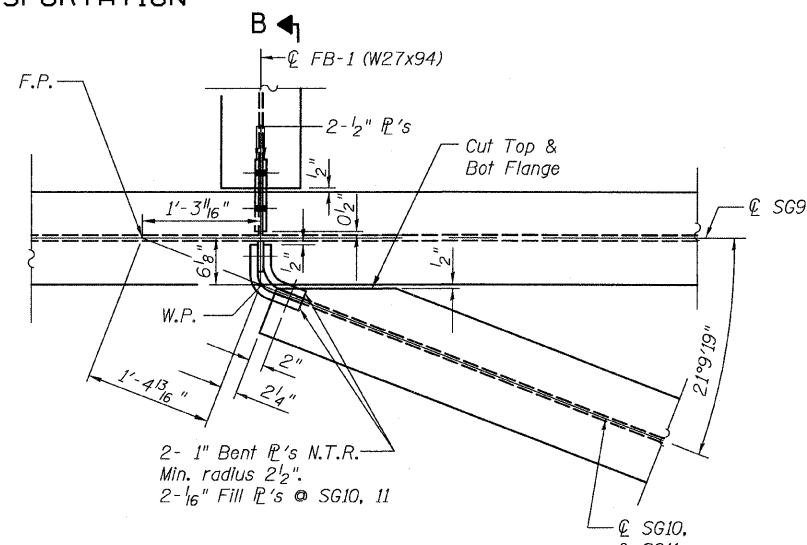
SHEET NO. 38 71 SHEETS	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 291
	CONTRACT NO. 60999			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

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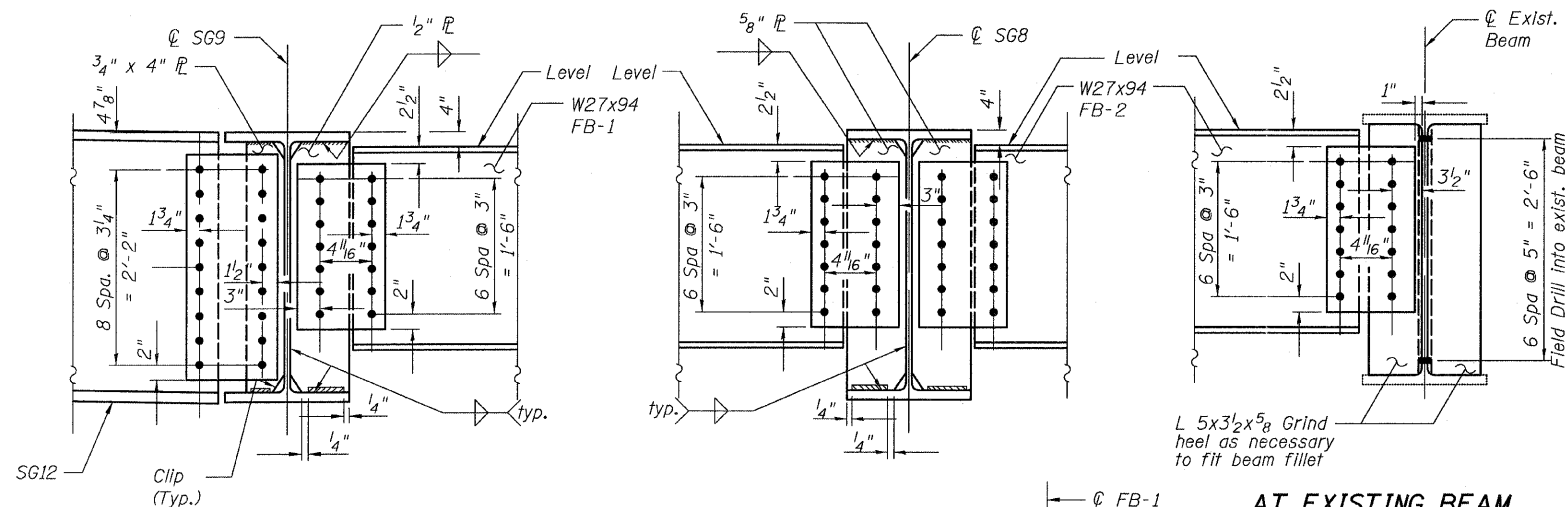
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DETAIL 1

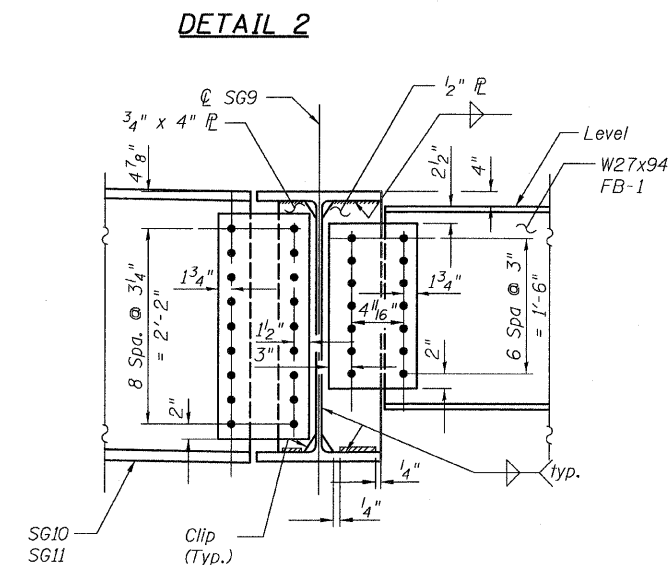


DETAIL 2



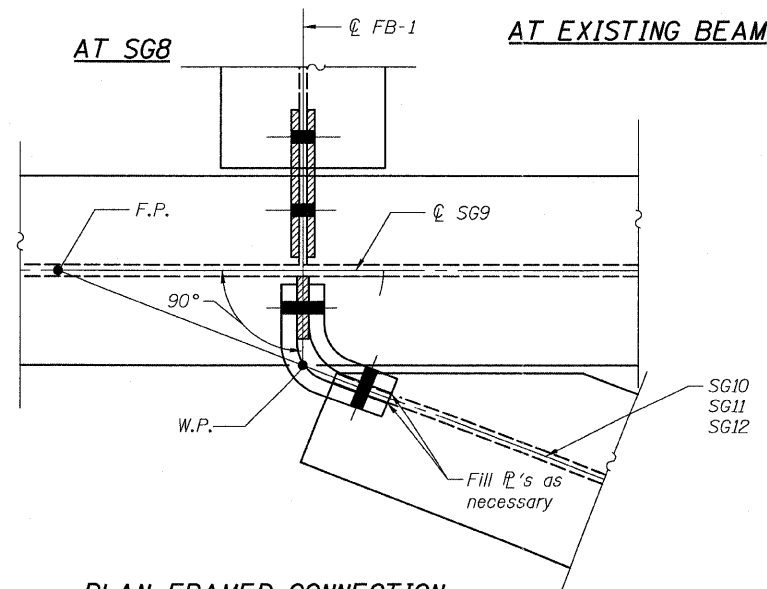
SECTION A-A

All bolts shall be 7/8" φ. Holes shall be 15/16" φ



SECTION B-B

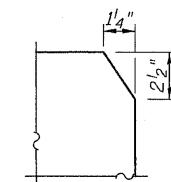
All bolts shall be 7/8" φ. Holes shall be 15/16" φ



PLAN-FRAMED CONNECTION

NOTES:

1. Structural Steel shall conform to the requirement of AASHTO M270 Grade 50.
2. F.P. denotes Framing Point.
3. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
4. All Fillet Welds shall be 5/16".
5. Steel grain is to run horizontally in bent plates.



TYPICAL CLIPPING
DETAIL

FRAMING DETAILS 2
CONNECTIONS - EAST
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL

	DESIGNED - JMA	REVISIONS	
		NAME	DATE
CHECKED - AMD,			
DRAWN - JMA			
CHECKED - AMD,			
DATE - 03/25/2011			

SHEET NO. 39
71 SHEETS

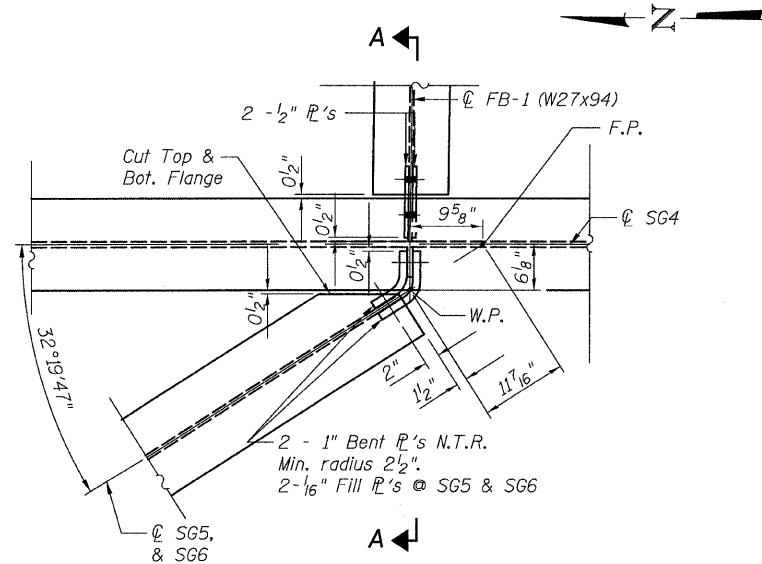
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55	0711.2R & 1011.1BR	COOK	741	292
CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

4/28/2011

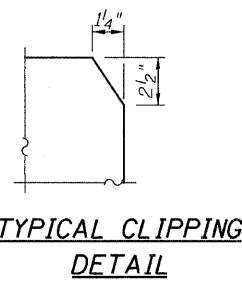
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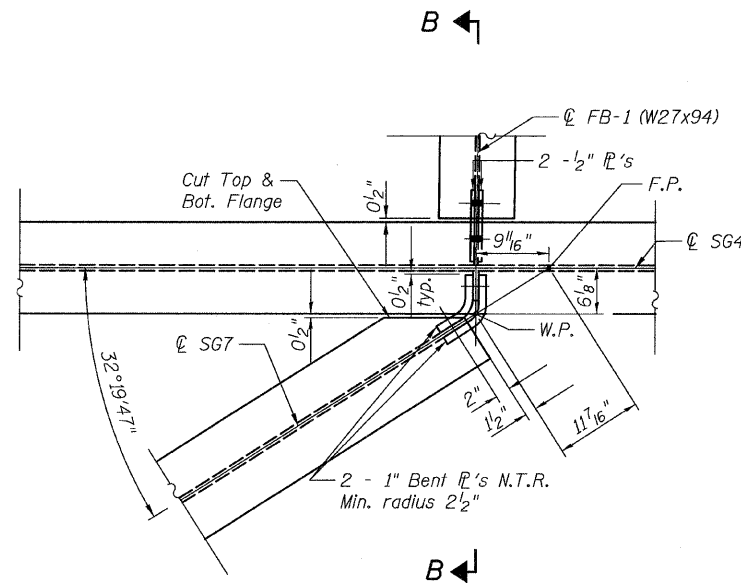
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



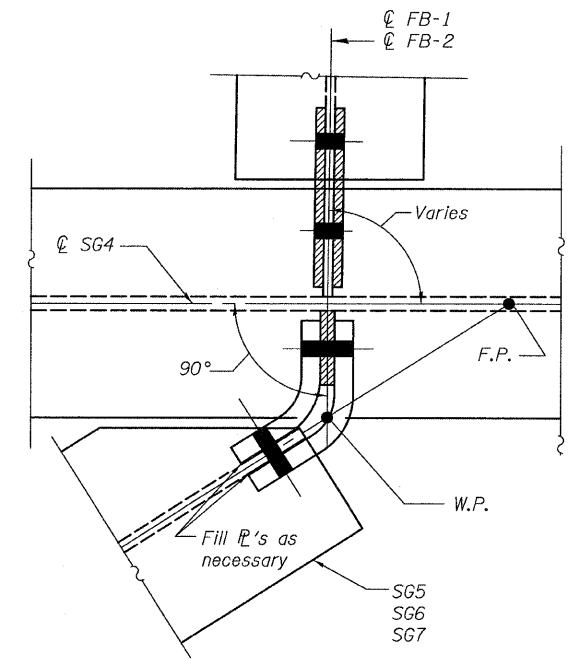
DETAIL 3



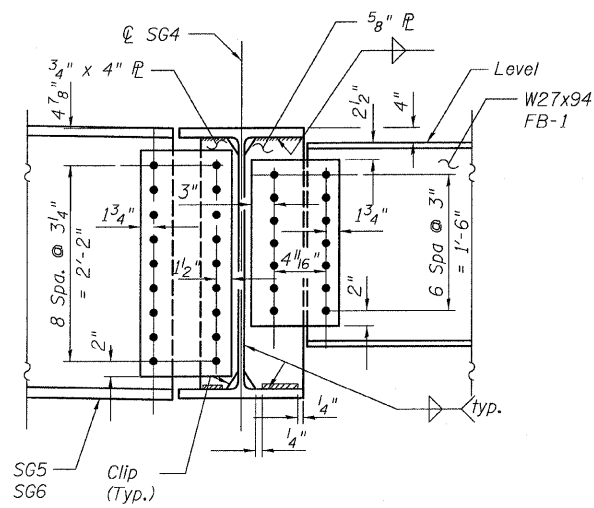
TYPICAL CLIPPING
DETAIL



DETAIL 4

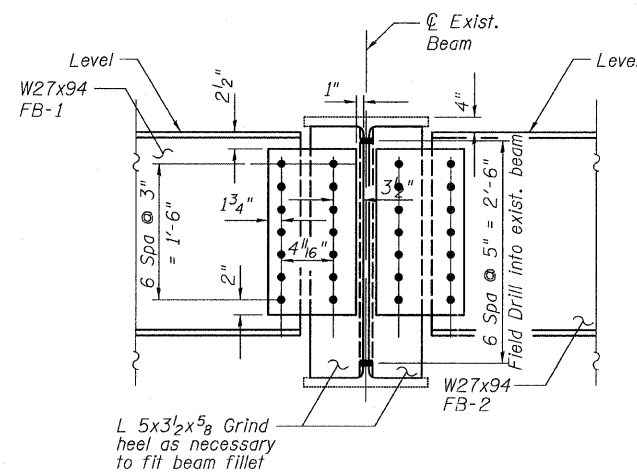


PLAN-FRAMED CONNECTION



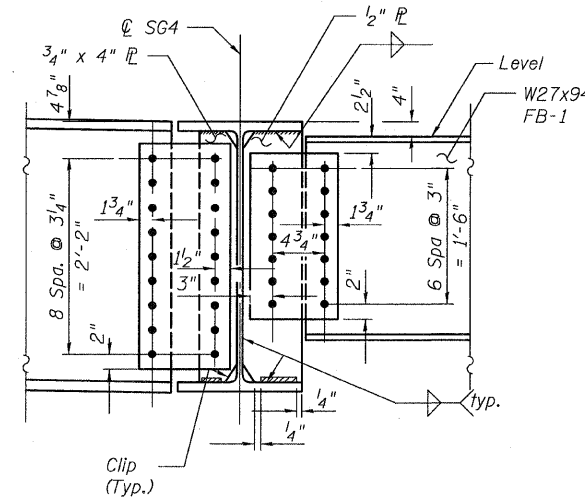
SECTION A-A

All bolts shall be $\frac{7}{8}$ " ϕ . Holes shall be $\frac{15}{16}$ " ϕ



AT EXISTING BEAM

(G1 shown, G2 similar with exception of W27x94 on 1 side only)



SECTION B-B

All bolts shall be $\frac{7}{8}$ " ϕ . Holes shall be $\frac{15}{16}$ " ϕ

NOTES:

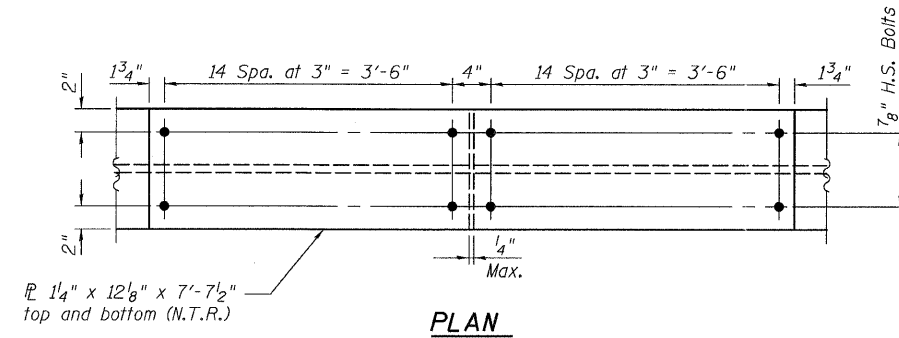
1. Structural Steel shall conform to the requirement of AASHTO M270 Grade 50.
2. F.P. denotes Framing Point
3. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
4. All Fillet Welds shall be $\frac{5}{16}$ ".
5. Steel grain is to run horizontally in bent plates.

FRAMING DETAILS 3
CONNECTIONS - WEST
STRUCTURE NO. 016-3241

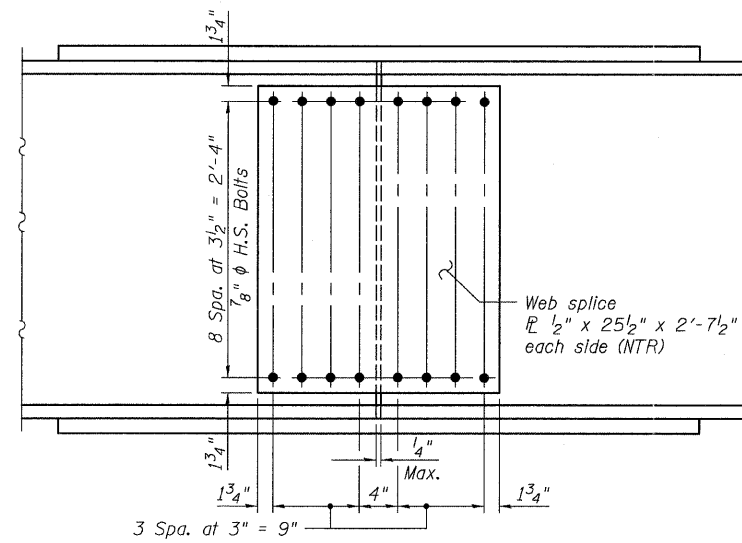
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	DRAWN - JMA				CONTRACT NO. 60999					
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SI-35



PL 1 1/4" x 12 1/8" x 7'-7 1/2"
top and bottom (N.T.R.)



SPLICE DETAIL
F.S. 1 THRU F.S. 4

Load carrying components designated "NTR"
shall conform to the Supplemental Requirements
for Notch Toughness, Zone 2.

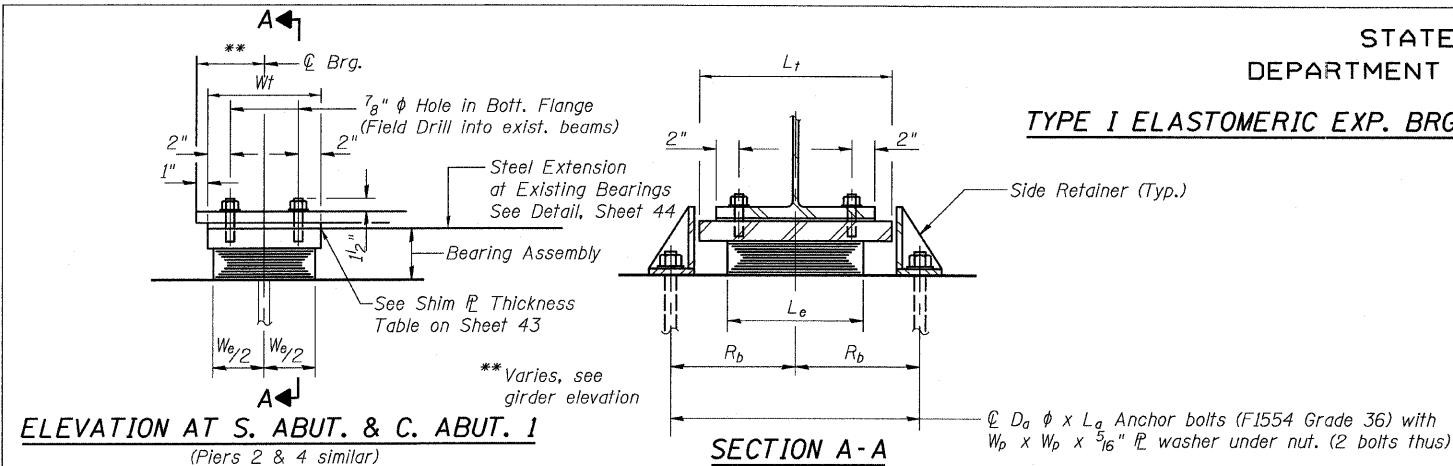
FRAMING DETAILS 4
FIELD SPLICES
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL	DESIGNED - JMA	REVISIONS		SHEET NO. 41	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 294
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	DRAWN - JMA								
	CHECKED - AMD,								
	DATE - 03/25/2011								
					71 SHEETS				
					CONTRACT NO. 60999				
					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

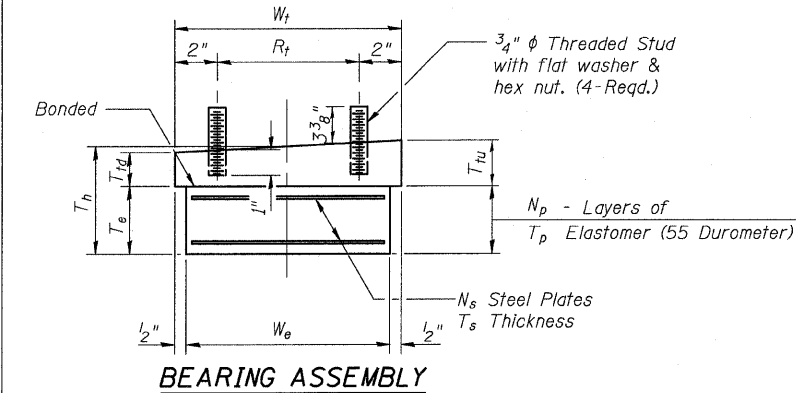
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

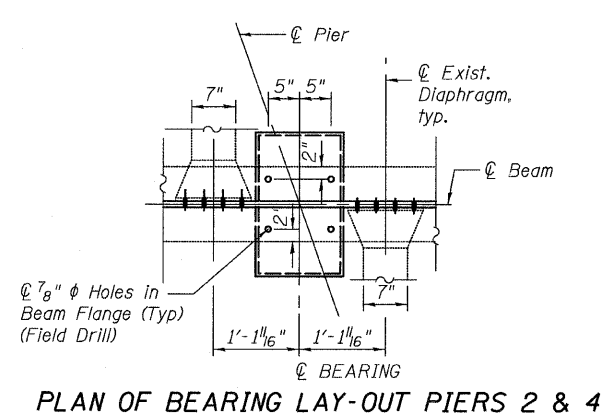
TYPE I ELASTOMERIC EXP. BRG.



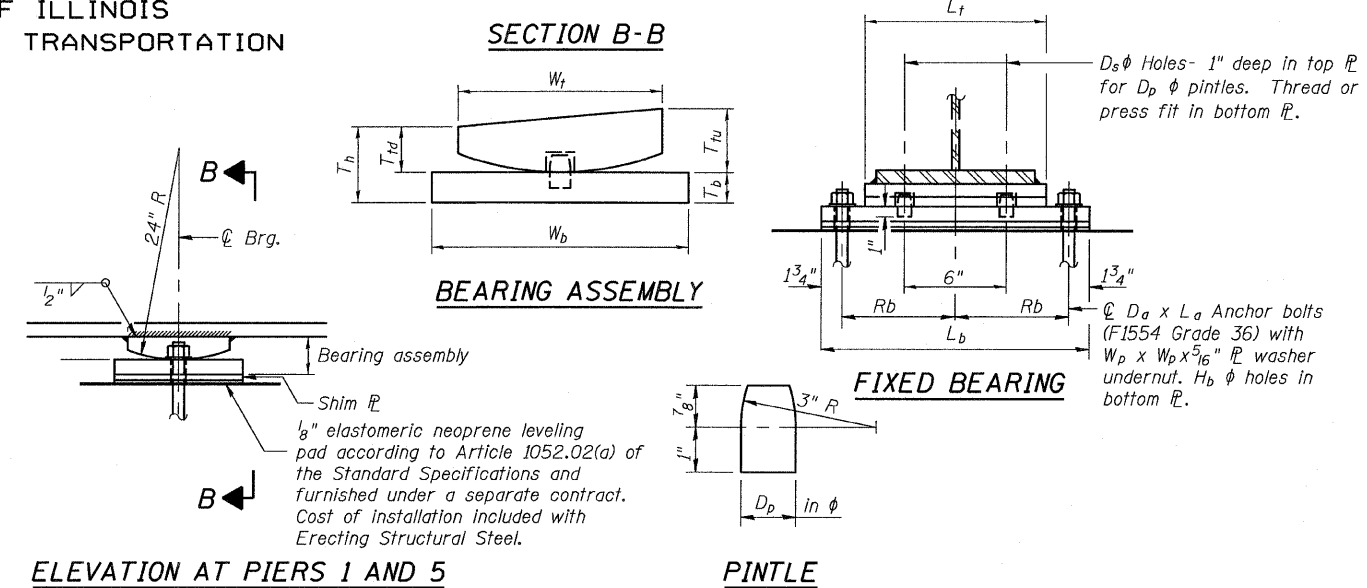
ELEVATION AT S. ABUT. & C. ABUT. 1
(Piers 2 & 4 similar)



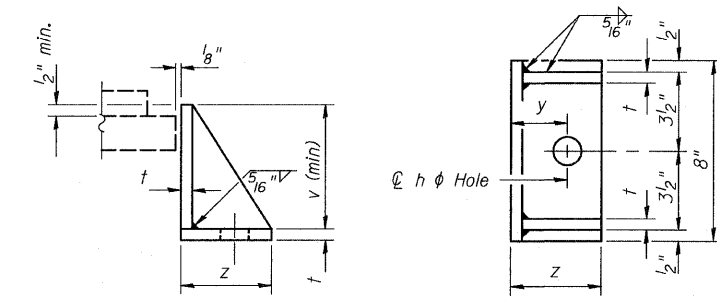
BEARING ASSEMBLY
Note: Shim plates shall not be placed under Bearing Assembly.



PLAN OF BEARING LAY-OUT PIERS 2 & 4



ELEVATION AT PIERS 1 AND 5



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

BILL OF MATERIAL

Item	Unit	Total
Erecting Elastomeric Bearing Assembly, Type I	Each	82
Anchor Bolts, 1"	Each	176

*Anchor bolts for type I and fixed bearings

BEARING DIMENSION TABLE

(For Details of Type II Bearings and for Shim Plate Thickness Table, See Sheet 43)

Bearing Location	Beams	Type	No. Req'd.	Tn* (in.)	Elastomer					Top Plate					Bottom Plate			Anchor Bolts			Pintles		Side Retainers								
					We (in.)	Le (in.)	Te (in.)	Tp (in.)	Np	Ts (in.)	Ns	Wt (in.)	Lf (in.)	Tid (in.)	Ttu (in.)	Rt (in.)	Wb (in.)	Lb (in.)	Tb (in.)	Da (in.)	La (in.)	Rb (in.)	Hb (in.)	Wp (in.)	Dp (in.)	Ds (in.)	y (in.)	z (in.)	t (in.)	h (in.)	v (in.)
South Abutment	1 THRU 16	I	16	3 15/16	9	12	2 1/4	3/8	5	3/32	4	10	14	1 1/2	1 1/8	6	-	-	-	1	12	9 1/4	-	2 1/4	-	-	2 1/8	4	1/2	1 1/4	4
South Abutment	SG1,SG2,SG3	I	3	3 15/16	9	12	2 1/4	3/8	5	3/32	4	10	14	1 1/2	1 1/8	6	-	-	-	1	12	9 1/4	-	2 1/4	-	-	2 1/8	4	1/2	1 1/4	4
Pier 1		Fix																													
Pier 1	SG1,SG2,SG3	Fix	3									9	13 3/4	1	1 3/8		9 1/8	21	1 3/8	1	12	8 3/4	1 1/2	2 1/4	1 1/4	1 3/8					
Piers 2	1 THRU 16	I	16	5 5/16	13	20	3 1/6	5/8	4	3/16	3	14	22	2 1/4	2 1/4	10	-	-	-	1	12	13 1/4	-	2 1/4	-	-	2 1/8	4	1/2	1 1/4	6
Piers 2	SG1,SG2,SG3	I	3	5 5/16	13	20	3 1/6	5/8	4	3/16	3	14	22	2 1/4	2 1/4	10	-	-	-	1	12	13 1/4	-	2 1/4	-	-	2 1/8	4	1/2	1 1/4	6
S. Brgs. Pier 3	1 THRU 16	II	16	6 15/16	9	12	4 1/6	3/8	7	3/32	6	10	14	1 1/2	1 1/8	6	10	22 1/4	1	1	12	9 1/4	1 1/2	2 1/4	-	-	2 1/8	4	1/2	1 1/4	6
S. Brgs. Pier 3	SG1,SG2,SG3	II	3	6 15/16	9	12	4 1/6	3/8	7	3/32	6	10	14	1 1/2	1 1/8	6	10	22 1/4	1	1	12	9 1/4	1 1/2	2 1/4	-	-	2 1/8	4	1/2	1 1/4	6
N. Brgs. Pier 3	1 THRU 16	II	16	6 15/16	9	12	4 1/6	3/8	7	3/32	6	10	14	1 1/2	1 1/8	6	10	22 1/4	1	1	12	9 1/4	1 1/2	2 1/4	-	-	2 1/8	4	1/2	1 1/4	6
N. Brgs. Pier 3	SG4,SG8,SG9	II	3	6 15/16	9	12	4 1/6	3/8	7	3/32	6	10	14	1 1/2	1 1/8	6	10	22 1/4	1	1	12	9 1/4	1 1/2	2 1/4	-	-	2 1/8	4	1/2	1 1/4	6
Pier 4	1 THRU 16	I	16	5 5/16	13	20	3 1/6	5/8	4	3/16	3	14	22	2 1/4	2 1/4	10	-	-	-	1	12	13 1/4	-	2 1/4	-	-	2 1/8	4	1/2	1 1/4	6
Pier 4	SG4,SG8,SG9	I	3	5 5/16	13	20	3 1/6	5/8	4	3/16	3	14	22	2 1/4	2 1/4	10	-	-	-	1	12	13 1/4	-	2 1/4	-	-	2 1/8	4	1/2	1 1/4	6
Pier 5		Fix																													
Pier 5	SG4,SG8,SG9	Fix	3									9	13 3/4	1 1/4	1 1/2		11 1/8	21	1 3/4	1	12	8 3/4	1 1/2	2 1/4	1 1/4	1 3/8					
C. Abut. S. Bearing	1 THRU 16	I	16	3 7/8	9	12	2 1/4	3/8	5	3/32	4	10	14	1 1/2	1 3/4	6	-	-	-	1	12	9 1/4	-	2 1/4	-	-	2 1/8	4	1/2	1 1/4	4
C. Abut. S. Bearing	SG4,SG8,SG9	I	3	4 3/8	10	14	2 1/6	1/16	5	3/8	4	11	16	1 3/4	2	7	-	-	-	1	12	10 1/4	-	2 1/4	-	-	2 1/8	4	1/2	1 1/4	4
C. Abut. S. Bearing	SG5,6,7,10,11,12	I	6	3 3/8	7	12	1 3/4	3/8	4	3/32	3	8	14	1 1/2	1 3/4	4	-	-	-	1	12	9 1/4	-	2 1/4	-	-	2 1/8	4	1/2	1 1/4	4

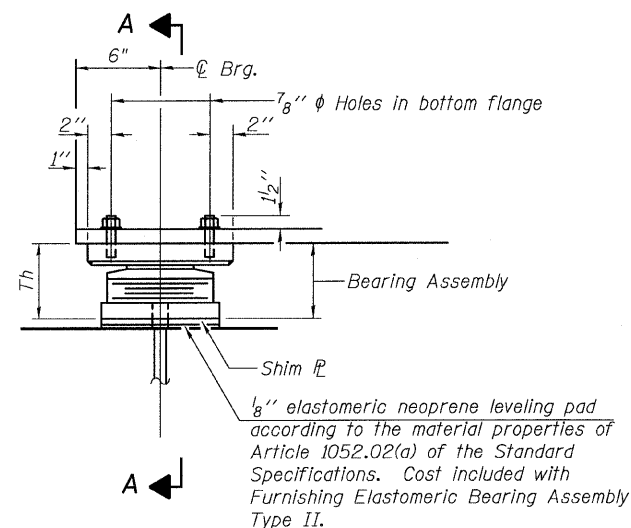
Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
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 bearing assembly are furnished under a separate contract. Installation of these items are included in the cost of Erecting Elastomeric Bearing Assembly, Type I.
The Structural Steel plates of the bearing assembly shall conform to the requirements of AASHTO M270 Grade 50.
Two 1/2" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on the bearing details.

ELASTOMERIC BEARINGS
TYPE I
STRUCTURE NO. 016-3241

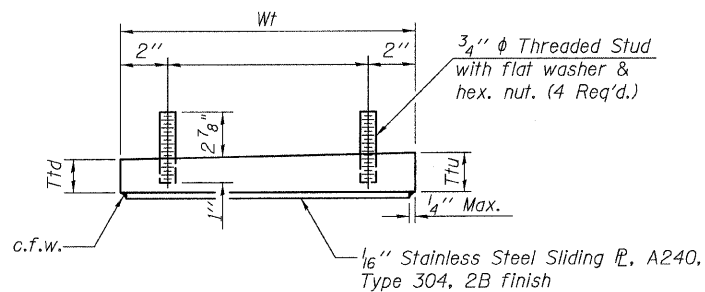
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	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
	DATE - 03/25/2011									

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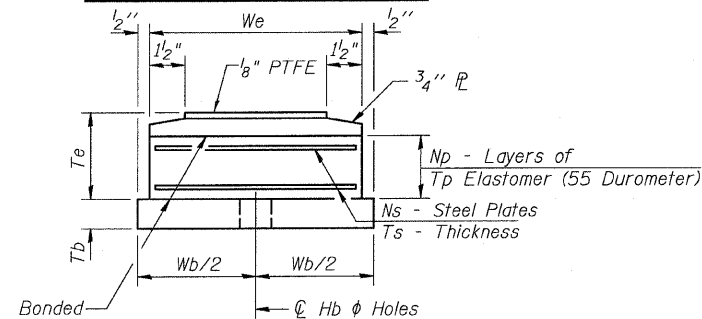
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



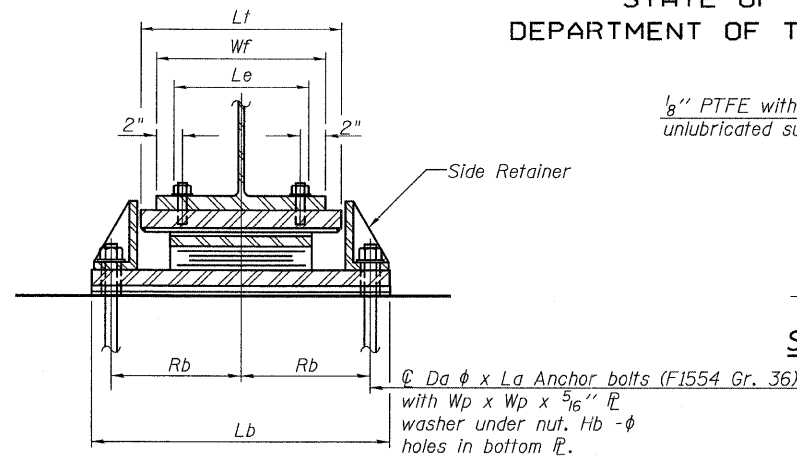
ELEVATION AT PIER 3



TOP BEARING ASSEMBLY

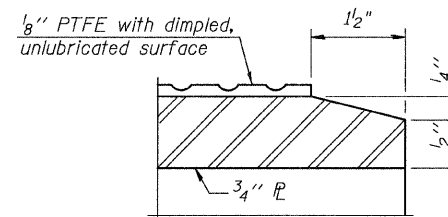


BOTTOM BEARING ASSEMBLY

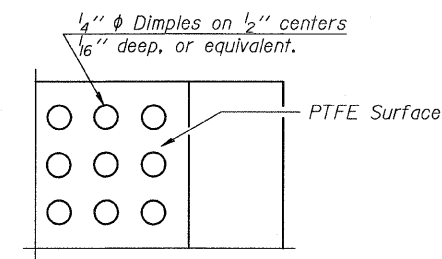


SECTION A-A

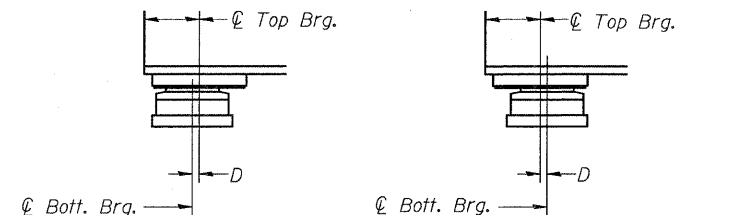
TYPE II ELASTOMERIC EXP. BRG.



SECTION THRU PTFE

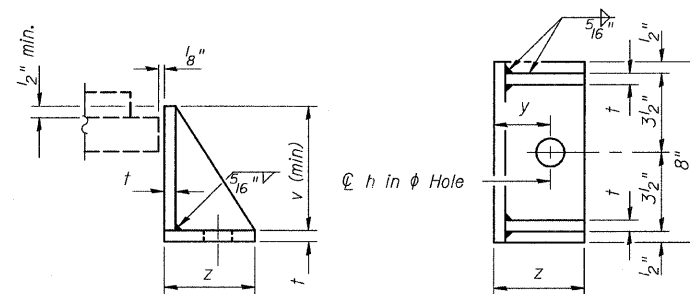


PLAN-PTFE SURFACE



SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



SIDE RETAINER

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

SHIM PLATE THICKNESS TABLE

Bearing Location	Beam															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
South Abutment	--	--	--	--	--	--	--	1/8"	1/8"	1/4"	1/4"	3/8"	1/2"	5/8"	--	--
Pier 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pier 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pier 3, South	--	--	--	1/8"	1/8"	1/4"	1/2"	1/2"	--	--	1/8"	1/4"	3/8"	1/2"	--	--
Pier 3, North	--	--	--	--	--	--	--	--	5/8"	5/8"	5/8"	5/8"	1/2"	1/2"	1/2"	--
Pier 4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Abutment IC, S. Brg.	1/2"	--	--	--	--	--	--	--	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	--

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly are furnished under a separate contract. Installation of these items are included in the cost of Erecting Elastomeric Bearing Assembly, Type II.
The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.
The Structural Steel plates of the bearing assembly shall conform to the requirements of AASHTO M270 Grade 50.
Two 1/2" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on the bearing details.

BILL OF MATERIAL

Item	Unit	Total
Erecting Elastomeric Bearing Assembly, Type II	Each	38
Anchor Bolts, 1"	Each	76

See Sheet 42 for Table of Dimensions.

ELASTOMERIC BEARINGS
TYPE 2
STRUCTURE NO. 016-3241

TYLIN INTERNATIONAL

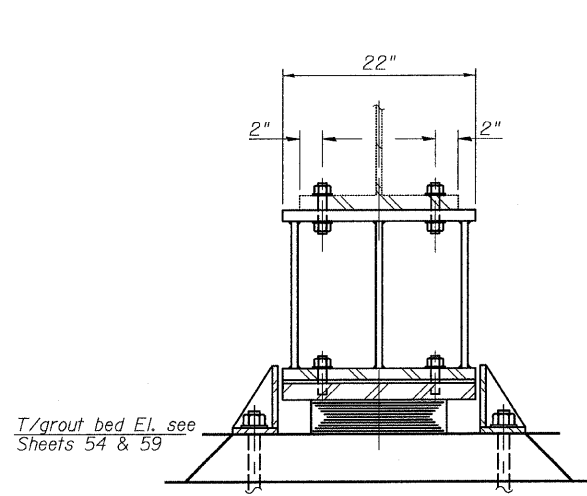
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	NAME	DATE
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DRAWN - JMA		
CHECKED - AMD,		
DATE - 03/25/2011		

SHEET NO. 43	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		
CONTRACT NO. 60999					

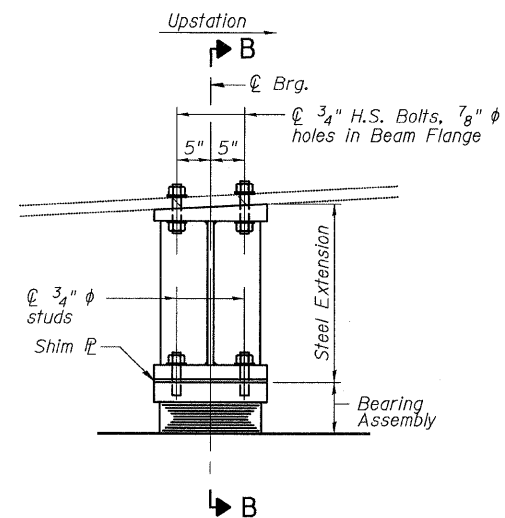
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

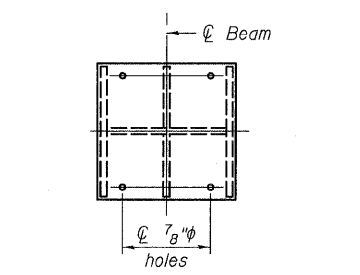


SECTION B-B

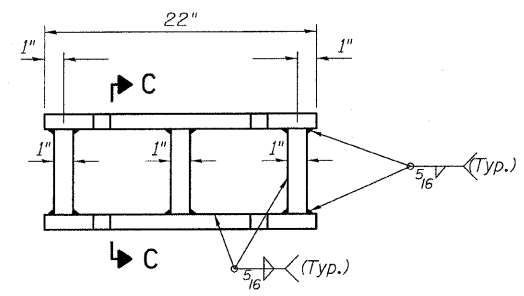


**BEARING ELEVATION WITH
STEEL EXTENSION**

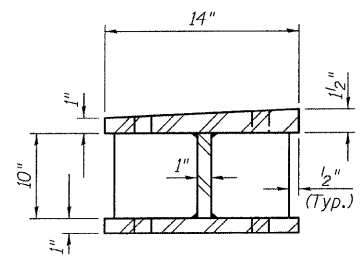
Side Retainers and Anchor Bolts
Not Shown for Clarity



PLAN STEEL EXTENSION



ELEVATION STEEL EXTENSION



SECTION C-C

NOTES

The details shown on this sheet applies to the existing beams on Piers 2 and 4 only.

The Structural Steel plates shall conform to the requirements of AASHTO M270 Grade 50.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

Place 1/16" shim plate at each bearing, located as shown on this sheet.

Work this drawing with Sheet 42.

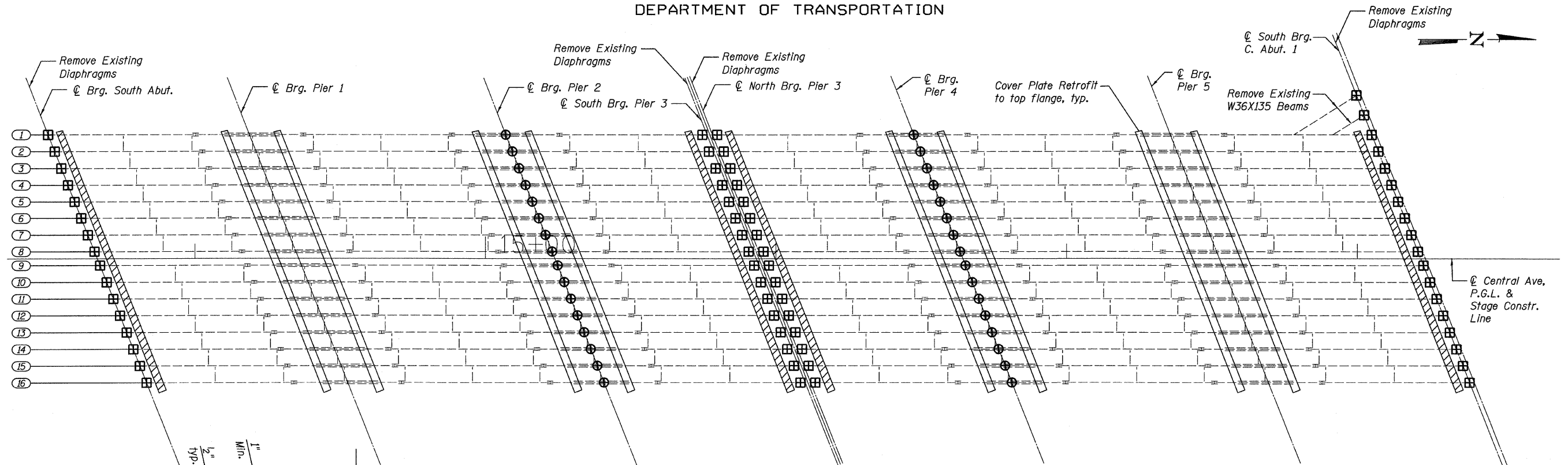
Steel extensions are furnished under a separate contract. Cost to erect the steel extensions is included with "Erecting Structural Steel".

**STEEL EXTENSION DETAILS
STRUCTURE NO. 016-3241**

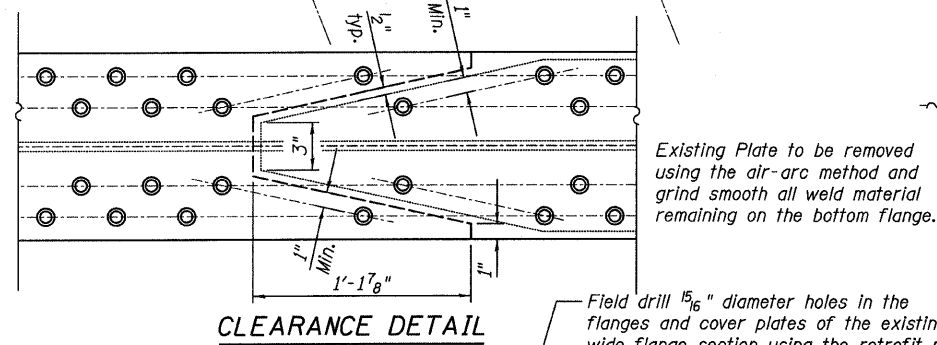
TYLIN INTERNATIONAL	DESIGNED - JMA	REVISIONS		SHEET NO. 44	F.A.I RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 297
	CHECKED - AMD,	NAME	DATE						
	DRAWN - JMA								
	CHECKED - AMD,								
	DATE - 03/25/2011								
					71 SHEETS		CONTRACT NO. 60999		
					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

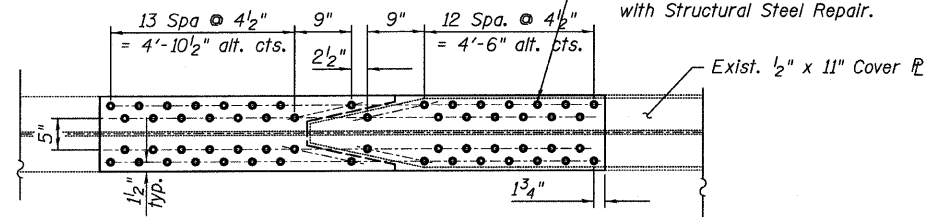


PLAN



CLEARANCE DETAIL

Field drill $\frac{5}{16}$ " diameter holes in the flanges and cover plates of the existing wide flange section using the retrofit plates as template. Cost of field drilling included with Structural Steel Repair.



EXISTING BEARING REMOVAL DETAIL

Remove existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy. Cost is included with "Jack and Remove Existing Bearings" and "Removal of Existing Bearings".

LEGEND

- ⊕ Jack and Remove Existing Bearings
- ⊞ Remove Existing Bearings
- ▨ Jacking Existing Superstructure

BILL OF MATERIAL

Item	Unit	Total
Jack and Remove Existing Bearings	Each	32
Jacking Existing Superstructure	L Sum	0.55
Structural Steel Removal	L Sum	0.45
Structural Steel Repair	Pound	45,090
Removal of Existing Bearings	Each	66

** The total estimated weight for Structural Steel Removal is approximately 18,800 lbs.

JACK EXISTING SUPERSTRUCTURE

- Work shall be performed in accordance with these plans and the Special Provision "Jacking Existing Superstructure".
- Jacking Existing Superstructure shall be performed on the beams after deck removal.
- The following dead loads and jack capacities shall be applicable to each girder at S. Brg. C. Abutment 1, Pier 3 & the S. Abutment:

Dead Loads = 6 kips
Minimum Jack Capacity = 6 Tons

NOTES:

All work is to be performed under staged construction. See Stage Construction Sheets 3 through 5 for details.

Clean and prepare all surfaces that will be in contact with new steel retrofit or sole plates as specified in the Special Provision "Cleaning and Painting Contact Surface Areas for Existing Steel Structures".

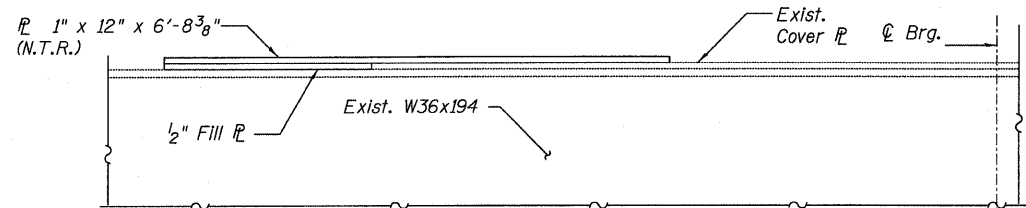
The cost for the removal of the bearing plates, pintles, and anchor bolts is included in "Jack and Remove Existing Bearings", or "Removal of Existing Bearings".

The cost for removal of existing diaphragms and W36 beams is included in "Structural Steel Removal".

Structural Steel shall conform to the requirements of AASHTO M270 Grade 50.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

COVER PLATE RETROFIT
& BEARING REMOVAL
STRUCTURE NO. 016-3241



COVER PLATE REHABILITATION - ELEVATION

JACK AND REMOVE EXISTING BEARING

- Work shall be performed in accordance with these plans and the Special Provision "Jack and Remove Existing Bearings". This work shall be done after existing concrete deck is removed and prior to pouring of the new concrete deck. The maximum service dead load reaction per girder at Pier 2 and Pier 4 (weight of steel only) is 20 kips. Minimum jack capacity = 18 Tons.
- Prior to ordering any material, the Contractor shall verify steel extension and shim plate thickness required at each bearing.

TYLIN INTERNATIONAL	DESIGNED - SP	REVISIONS	
	CHECKED - AMD,	NAME	DATE
	DRAWN - SP		
	CHECKED - AMD,		
	DATE - 03/25/2011		

SHEET NO. 45	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	0711.2R & 1011.1BR	COOK	741	298
71 SHEETS	CONTRACT NO. 60999				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

NOTES:

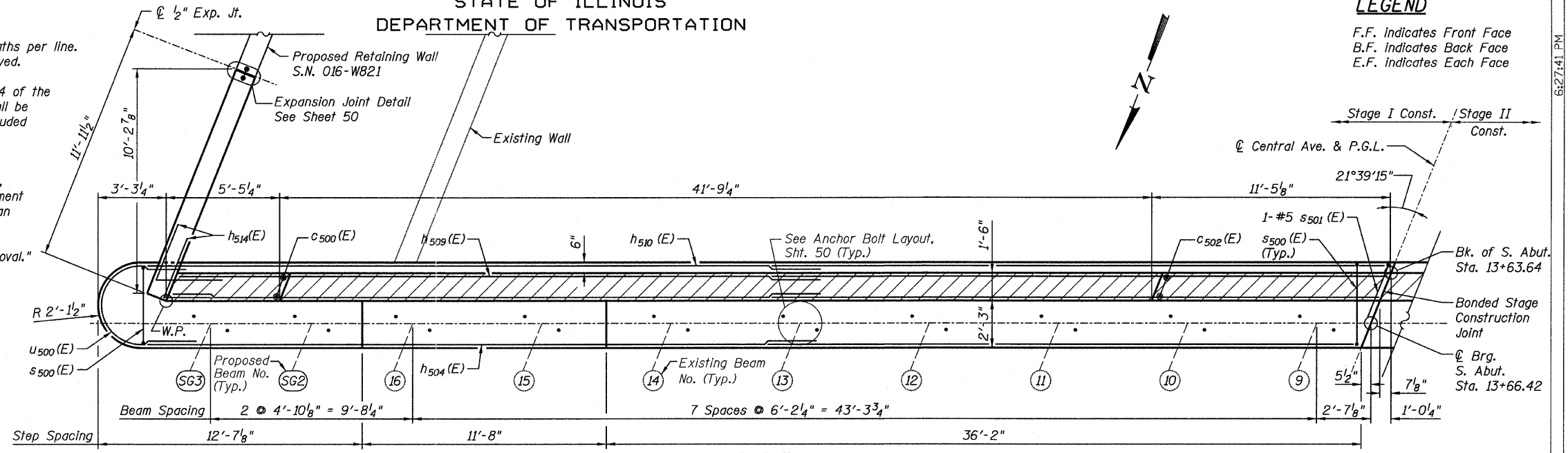
1. Space reinforcement in abutment seat to miss anchor bolts.
2. Work this sheet with Sheets 47 through 50.
3. Bars indicated thus : 5x2-#5 etc. Indicate 5 lines of bars with 2 lengths per line.
4. Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
5. Epoxy grout d500(E), d502(E) and d503(E) bars according to Article 584 of the Standard Specifications. The epoxy grout and method of application shall be approved by the Engineer. All drilling and grouting of rebar to be included with the cost of "Reinforcement Bars, Epoxy Coated."
6. For Section A-A, Section B-B and Section C-C, see Sheet 49.
7. For Concrete Removal, see Sheet 6.
8. Existing reinforcement extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost shall be included with Concrete Removal.
9. Excavation behind abutment backwall to be included with "Concrete Removal."
10. Elevations at top of abutment are shown for Back Face unless noted otherwise.

* Cut to fit in field

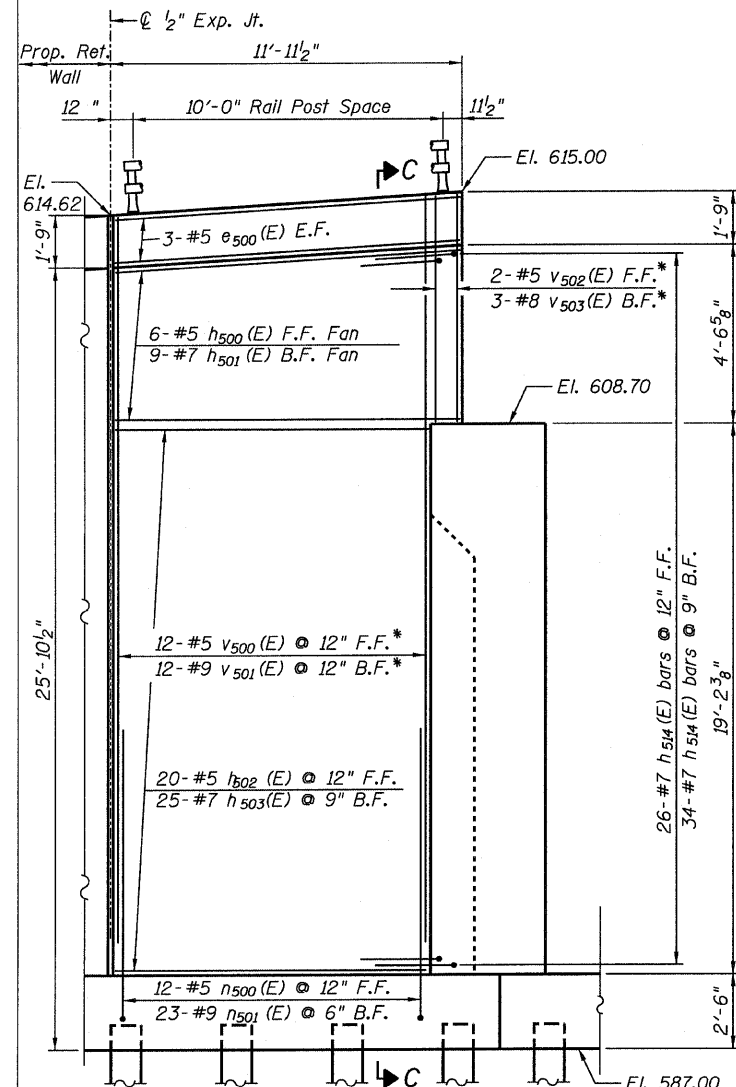
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LEGEND

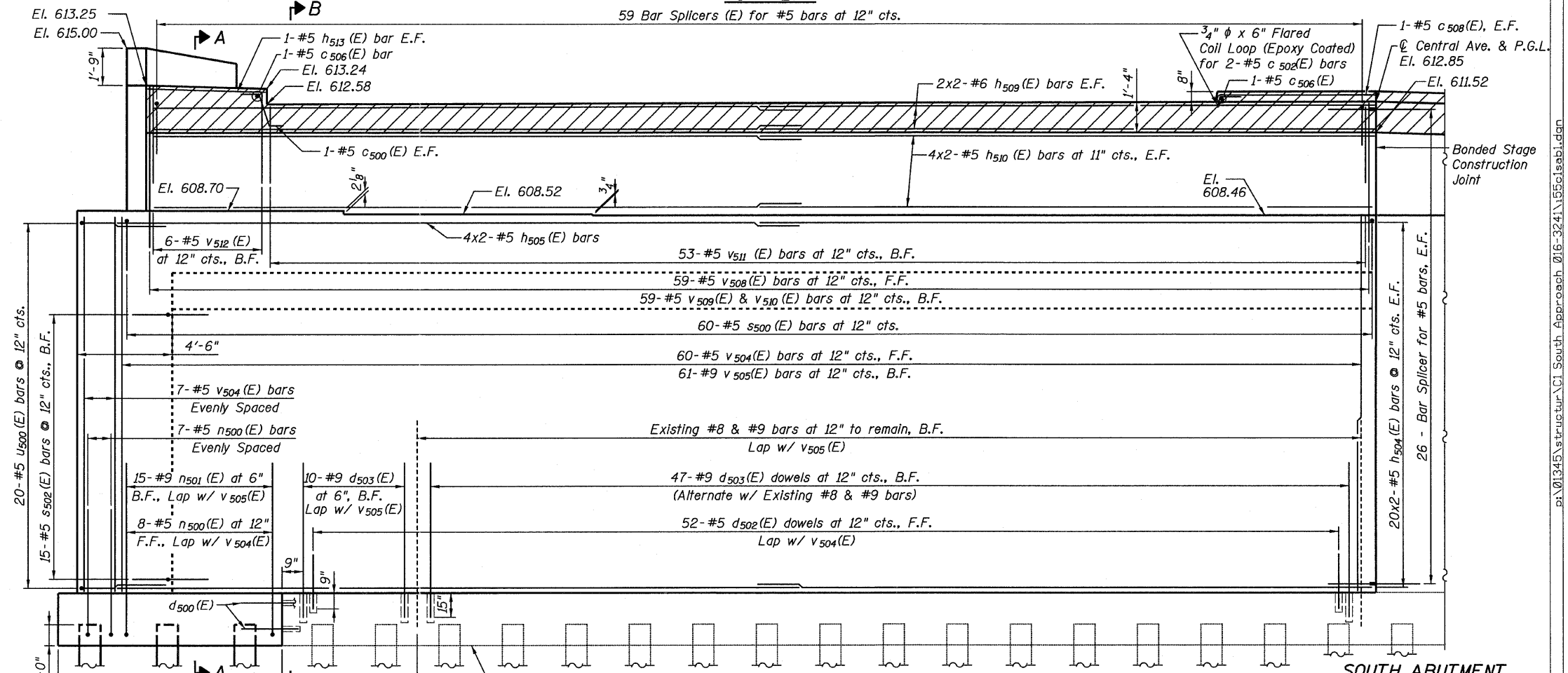
F.F. indicates Front Face
B.F. indicates Back Face
E.F. indicates Each Face



TOP PLAN



WINGWALL ELEVATION



ELEVATION
(Looking South)

**SOUTH ABUTMENT
WIDENING - EAST
STRUCTURE NO. 016-3241**

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	CHECKED - AMD,	NAME	DATE
	DRAWN - MMB		
	CHECKED - AMD,		
	DATE - 03/25/2011		

SHEET NO. 46	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 741	SHEET NO. 299
71 SHEETS					
CONTRACT NO. 60999					
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

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