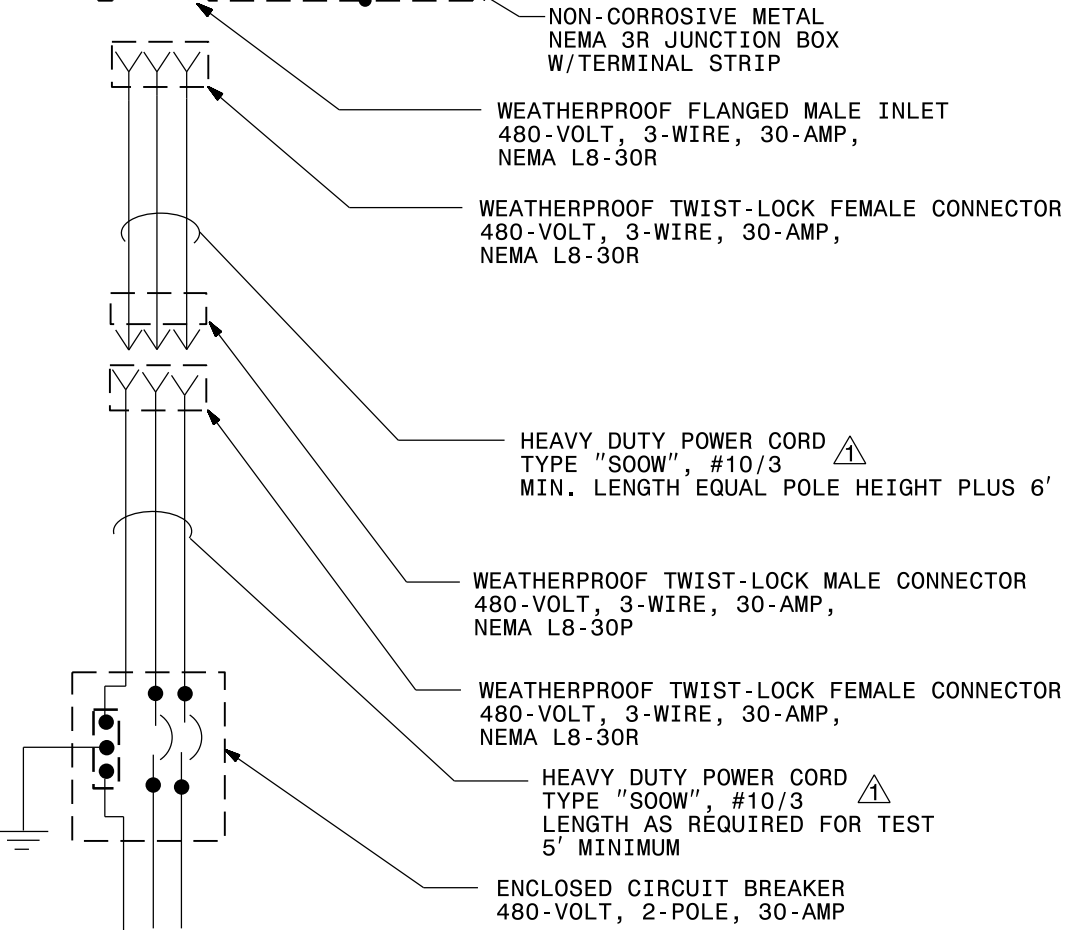
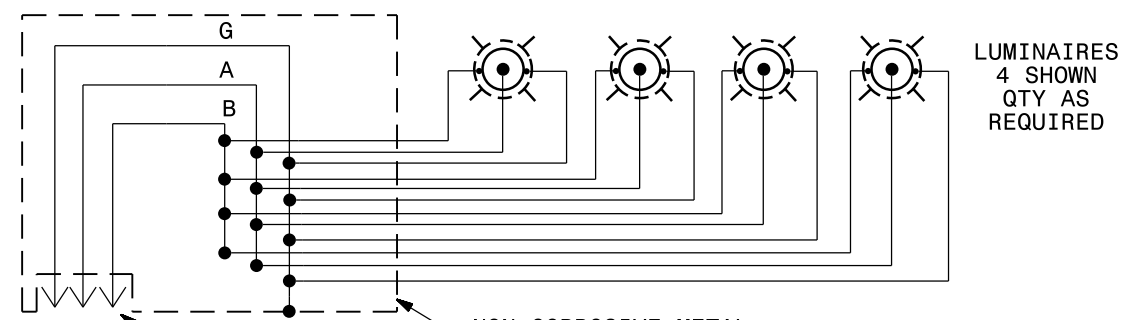


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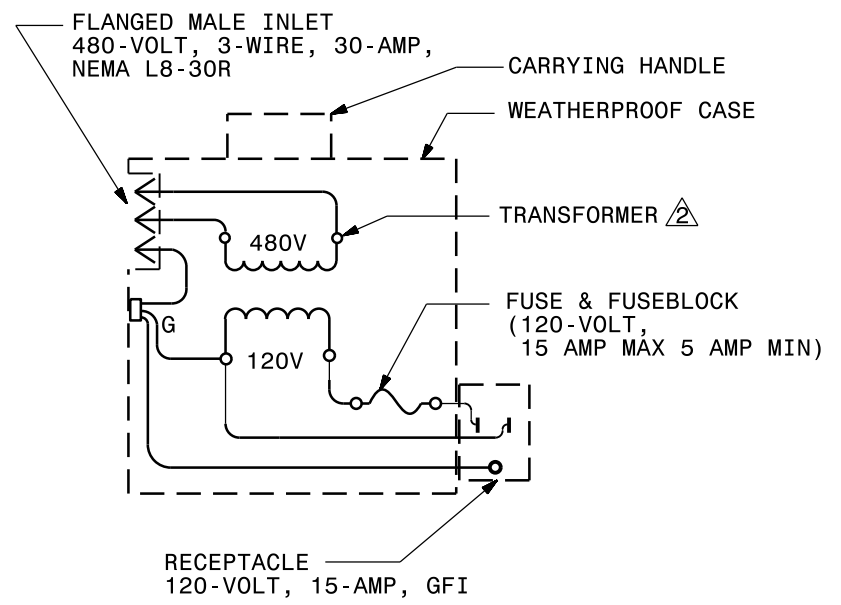
ROADWAY STANDARD DRAWING FOR  
**HIGH MOUNT STANDARD**  
ASSEMBLY

1-24

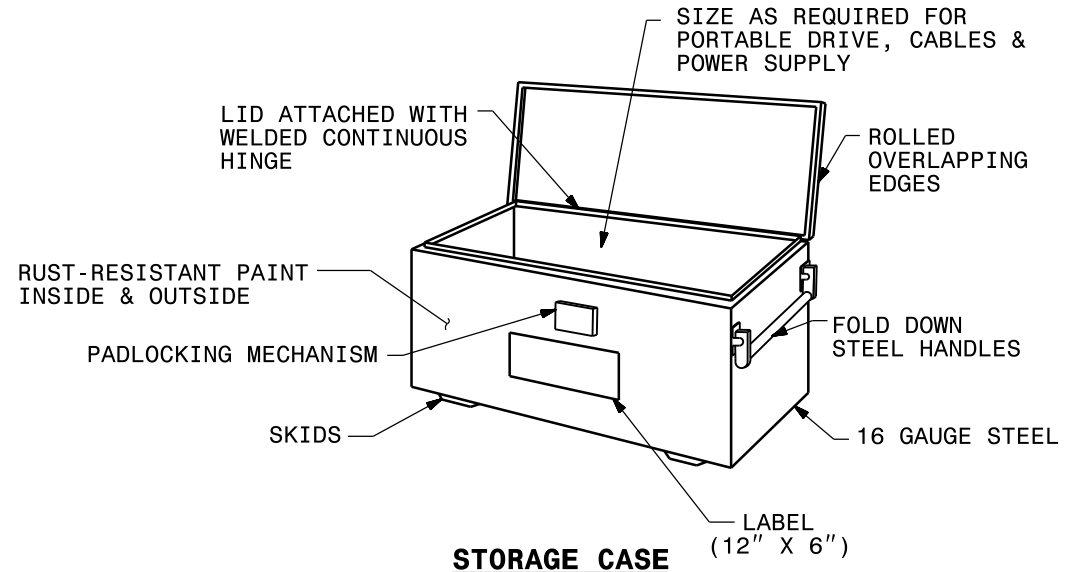


480-VOLT  
SINGLE PHASE, 3-WIRE  
POWER SUPPLY

**HIGH MOUNT WIRING DIAGRAM**



**PORTABLE DRIVE POWER SUPPLY**



**STORAGE CASE**

**NOTES**

- ⚠ IF SOOW CABLE CONTAINS A WHITE CONDUCTOR USED AS AN UNGROUNDED CONDUCTOR, PERMANENTLY REIDENTIFY THE WHITE CONDUCTOR AS AN UNGROUNDED CONDUCTOR IN ACCORDANCE WITH ARTICLE 200.7 OF NEC.
- ⚠ SIZE TRANSFORMER AS REQUIRED BASED ON THE CURRENT RATING OF THE PORTABLE DRIVE MOTOR.

PROJECT LOCATION: \_\_\_\_\_  
 TIP NO.: \_\_\_\_\_  
 LET DATE: \_\_\_\_\_  
 XFORMER PRIMARY VOLTAGE: \_\_\_\_\_  
 LOWERING DEVICE MFG.: \_\_\_\_\_

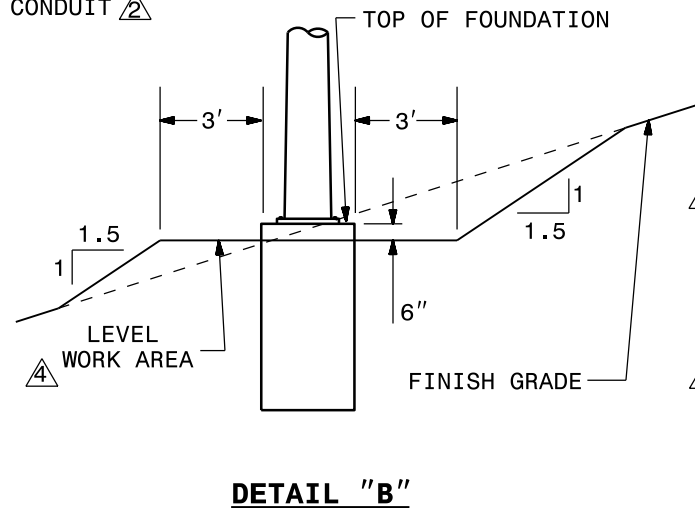
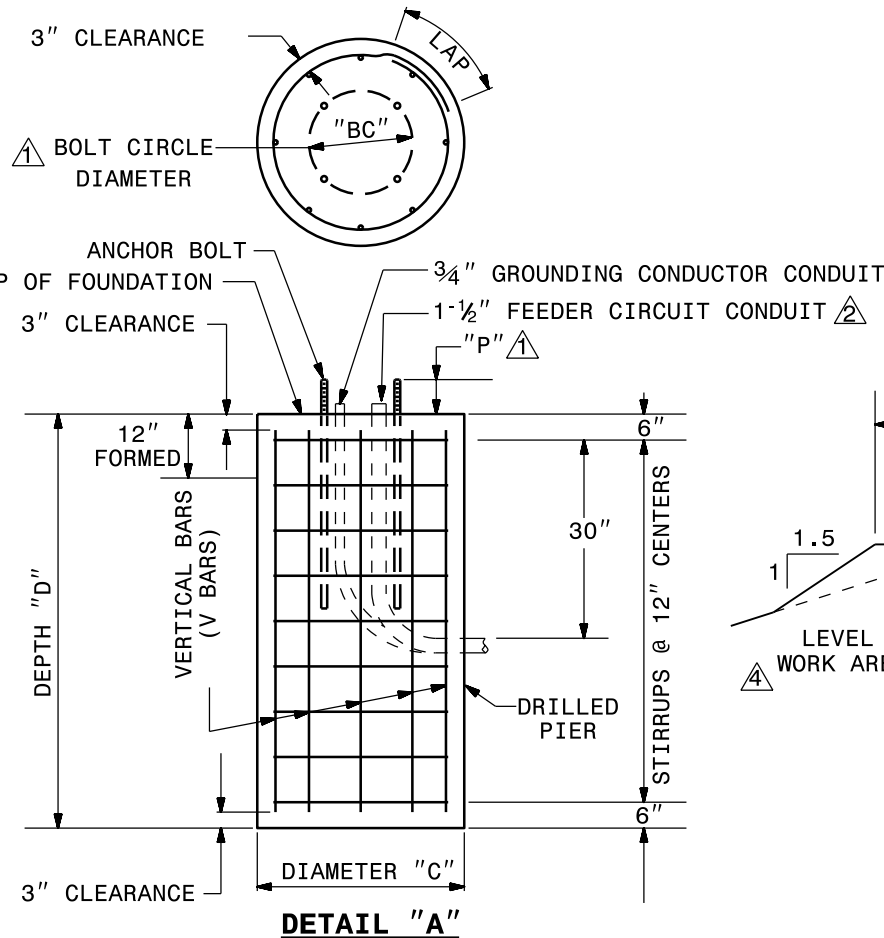
**STORAGE CASE LABEL**

**TABLE OF FOUNDATION DIMENSIONS AND QUANTITIES**

③

HEIGHT OF HIGH MOUNT FT	DIAMETER "C" FT	STIRRUPS		WIND VELOCITY MPH														
				90					110				130					
		SIZE	LAP-FT	DEPTH "D" FT	V BARS		REINF.* STEEL LBS	CONCRETE CY	DEPTH "D" FT	V BARS		REINF.* STEEL LBS	CONCRETE CY	DEPTH "D" FT	V BARS		REINF.* STEEL LBS	CONCRETE CY
			QTY	SIZE				QTY	SIZE				QTY	SIZE				
60	3.5	#3	1.0	11	8	#8	280	3.9	12	8	#8	306	4.3	13	8	#8	331	4.6
80	3.5	#3	1.0	12	8	#8	306	4.3	13	8	#8	331	4.6	15	8	#8	382	5.3
100	4.0	#3	1.0	13	8	#9	413	6.1	15	8	#9	477	7.0	16	8	#9	509	7.4
120	4.5	#3	1.0	15	8	#10	557	8.8	16	8	#10	636	9.4	18	8	#10	716	10.6

\* INCLUDES STIRRUPS AND VERTICAL BARS (V BARS)



**NOTES**

① **ANCHOR BOLTS**

CONFORM NUMBER, SIZE, AND LENGTH OF ANCHOR BOLTS, BOLT CIRCLE DIAMETER "BC", AND ANCHOR BOLT PROJECTION "P" TO APPROVED HIGH MOUNT STANDARD DRAWINGS.

② **CONDUITS**

MATCH ORIENTATION, QUANTITY, TYPE, AND SIZE OF CONDUITS TO THE LAYOUT SHEETS. STUB AND CAP ONE SPARE CONDUIT AT EACH FOUNDATION. PROJECT CONDUIT A MAXIMUM OF 2" ABOVE TOP OF FOUNDATION. PLACE CONDUIT 30" BENEATH FINISH GRADE. INCLUDE 3/4" CONDUIT FOR GROUNDING ELECTRODE CONDUCTOR TO GROUND ROD IN HIGH MAST JUNCTION BOX.

③ **DIMENSIONS & QUANTITIES**

DIMENSIONS AND QUANTITIES OF CONCRETE AND REINFORCING STEEL ARE GIVEN FOR THE PURPOSE OF OBTAINING BID PRICES ONLY. SEE PROJECT SPECIAL PROVISIONS FOR OTHER STRUCTURAL REQUIREMENTS.

④ **WORK AREA**

PROVIDE A LEVEL WORK AREA AROUND EACH FOUNDATION. CUT/FILL SLOPES MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

⑤ **ELEVATION**

SET TOP OF FOUNDATION AT 6" ABOVE LEVEL WORK AREA. SEE DETAIL "B".

⑥ **GUARDRAIL**

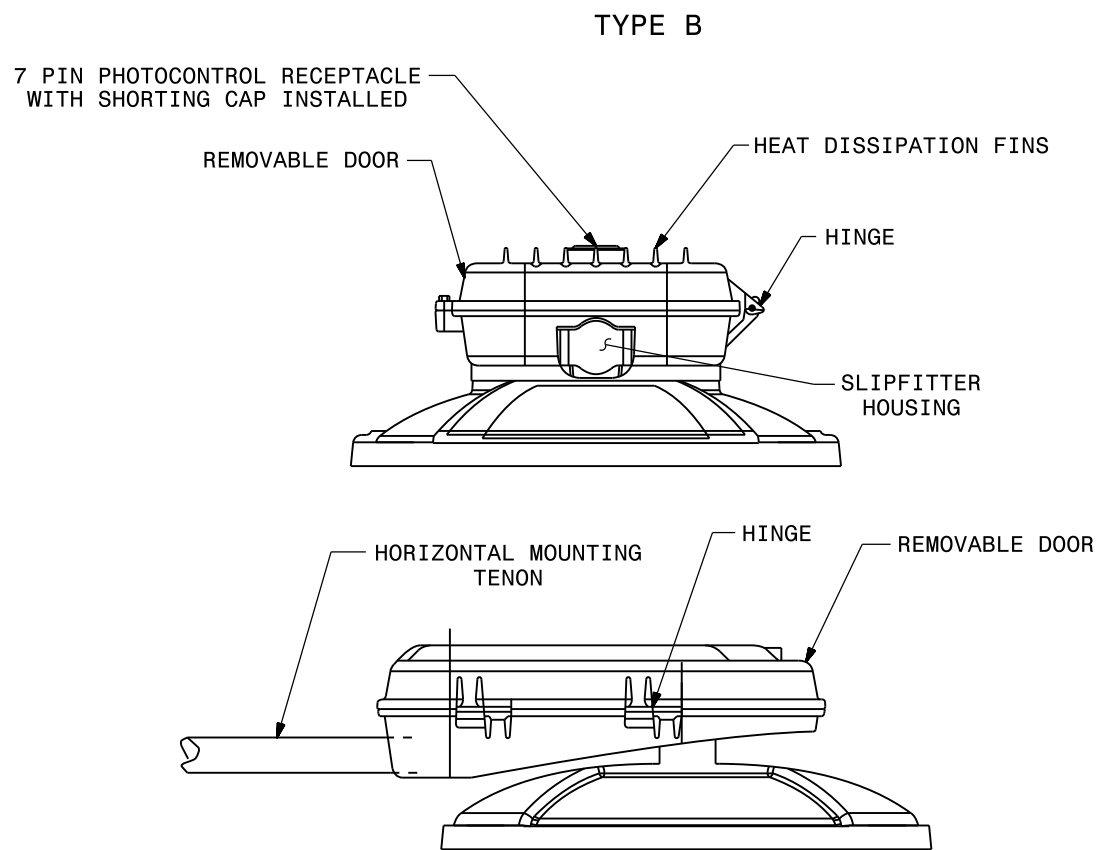
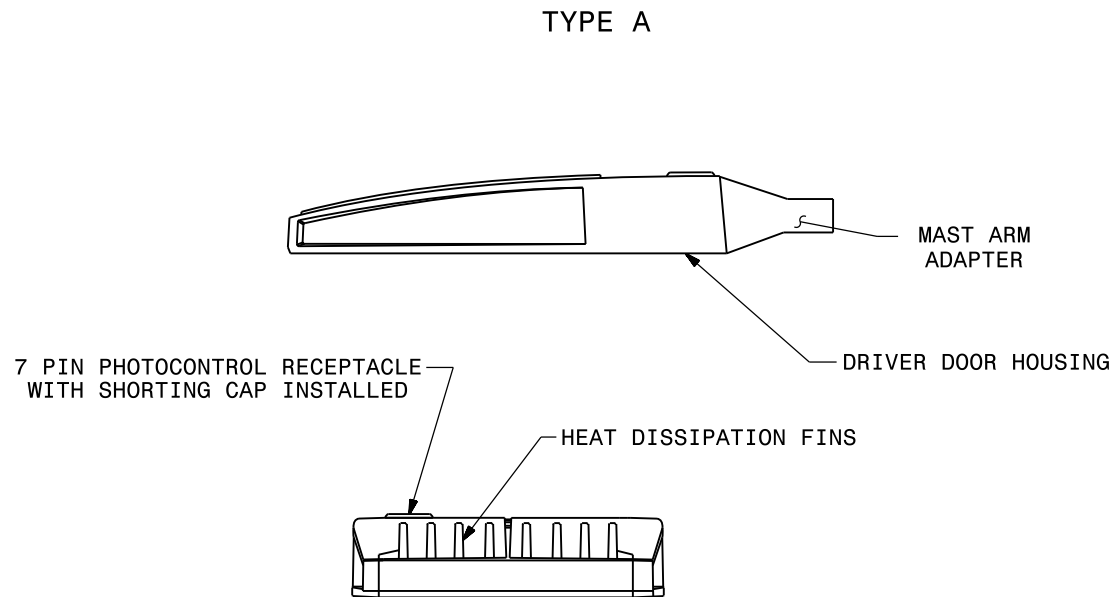
WHERE GUARDRAIL IS REQUIRED TO BE INSTALLED AS PART OF LIGHTING WORK, SET GUARDRAIL NO MORE THAN 8' FROM CENTER OF HIGH MAST FOUNDATION.

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ROADWAY STANDARD DRAWING FOR  
**HHIGH MOUNT FOUNDATION**

TYPICAL CONFIGURATION TYPES  $\triangle 3$



LED LUMEN PACKAGES $\triangle 1$					
MOUNTING HEIGHT	# OF LUMINAIRES	MAXIMUM LUMINAIRE WATTAGE	MINIMUM LUMINAIRE MAINTAINED LUMENS	MINIMUM PERCENT OF INITIAL OUTPUT (70K HOURS & 25° C)	COLOR TEMP.
60'	4	320	$\triangle 4$	87%	3,500K $\pm$ 500K
80'	8	320	$\triangle 4$	87%	3,500K $\pm$ 500K
100'	6	550	$\triangle 4$	87%	3,500K $\pm$ 500K
120'	8	550	$\triangle 4$	87%	3,500K $\pm$ 500K

$\triangle$  NOTES

- $\triangle 1$  SEE PLANS FOR IES DISTRIBUTION
- $\triangle 2$  CONTRACTOR SHALL ENSURE AND PROVIDE EVIDENCE THAT REQUIRED NUMBER SELECTED LUMINAIRES CAN BE MOUNTED ON SELECTED LOWERING DEVICE.
- $\triangle 3$  OTHER LUMINAIRE TYPES MEETING THE SPECIFICATIONS FOUND IN THE PROJECT SPECIAL PROVISIONS ARE ALSO ACCEPTABLE.
- $\triangle 4$  SEE PROJECT SPECIAL PROVISIONS FOR MINIMUM MAINTAINED DELIVERED LUMEN VALUES.

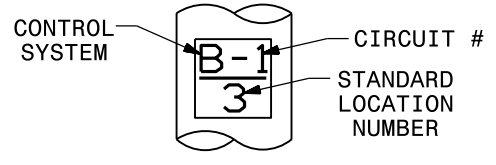
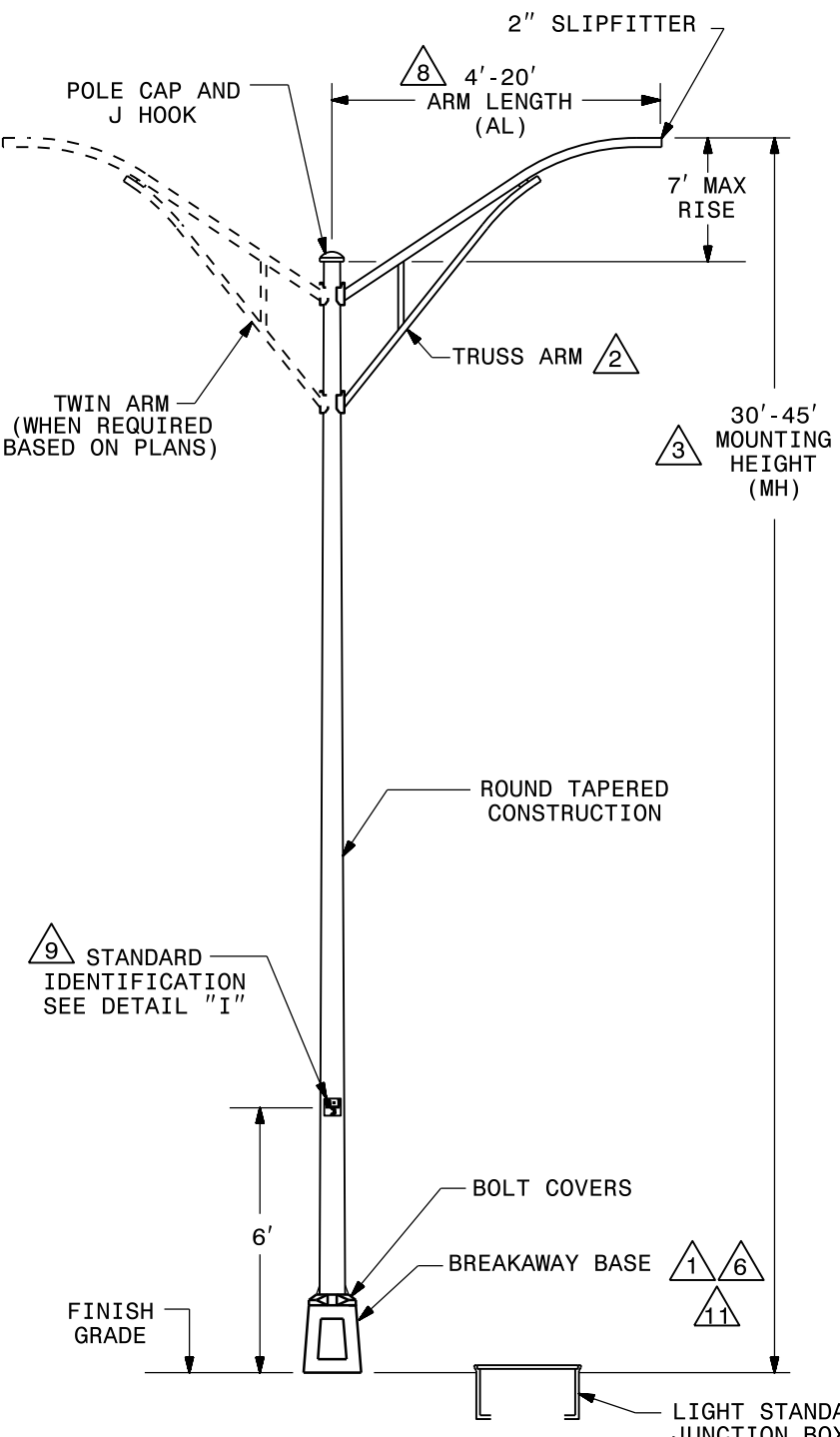
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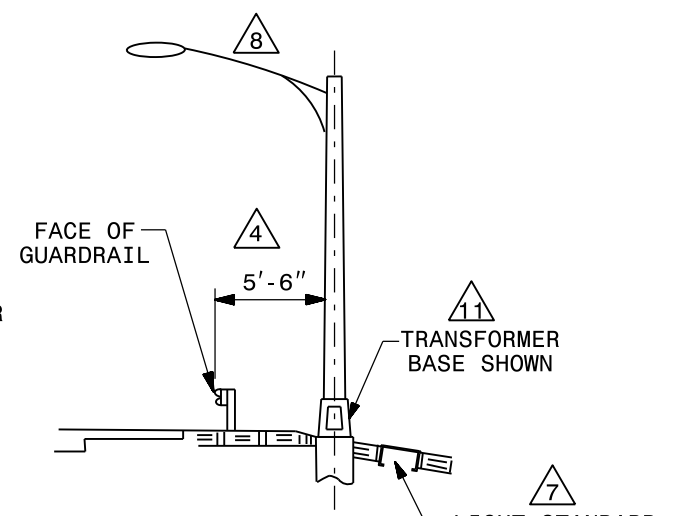
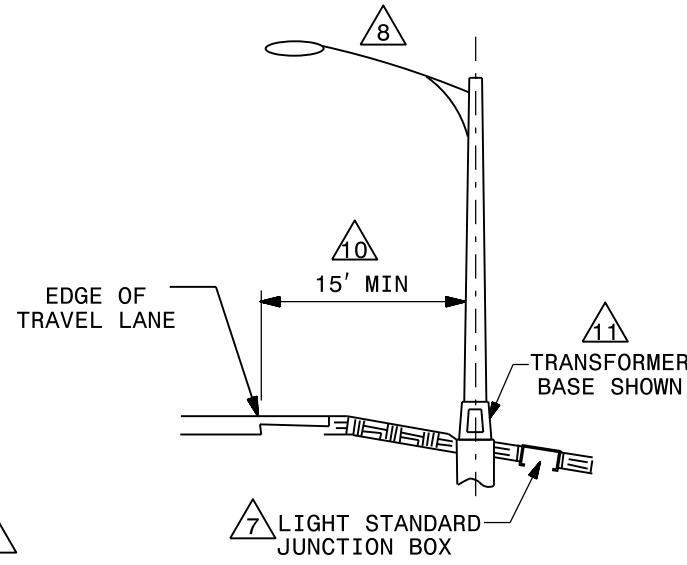
ROADWAY STANDARD DRAWING FOR  
**HIGH MOUNT LED LUMINAIRES**

**NOTES**

- 1 TRANSFORMER BASE SHOWN. OTHER SUPPORTS MEETING AASHTO BREAKAWAY REQUIREMENTS MAY BE PROVIDED IF APPROVED BY THE ENGINEER. SEE "BASE DETAILS" ON SHEET 3 OF 3.
- 2 SINGLE-MEMBER ARMS MAY BE PROVIDED IN LIEU OF TRUSS ARMS, WHEN SPECIFIED ARM LENGTH IS 8' OR LESS AND MOUNTING HEIGHT IS 35' OR LESS.
- 3 MOUNTING HEIGHT INCLUDES BREAKAWAY SUPPORT FOR LIGHT STANDARDS WHERE BREAKAWAY SUPPORTS ARE REQUIRED. SEE "BASE DETAILS" ON SHEET 3 OF 3.
- 4 STANDARD PLACEMENT MAY BE REDUCED TO 3'-6" BEHIND FACE OF GUARDRAIL WHEN POSTS ARE SPACED 3'-1 1/2".
- 5 INSERT MOUNTING HEIGHT (MH) AND ARM LENGTH (AL) FROM PAY ITEM DESCRIPTION TO DETERMINE PROPOSED LIGHT STANDARDS. MTLT IS METAL POLE SHORT, 35' OR LESS. MTLT IS METAL POLE TALL, GREATER THAN 35'. MOUNTING HEIGHT SHOWN IN THE PLANS.
- 6 LIGHT STANDARDS MOUNTED ON BRIDGE OUTRIGGERS OR BEHIND RETAINING/BARRIER WALLS DO NOT REQUIRE BREAKAWAY SUPPORTS.
- 7 PROVIDE LIGHT STANDARD JUNCTION BOX WITHIN 5' OF LIGHT STANDARD FOUNDATION FOR CONNECTION OF CIRCUITRY. JUNCTION BOX SHALL BE PLACED TO THE SIDE OR BEHIND THE LIGHT STANDARD, AS VIEWED FROM THE ROADWAY. SIZE AS SHOWN IN THE PLANS.
- 8 WHEN DIRECT POLE MOUNTED LUMINAIRES ARE USED, BRACKET ARM IS NOT REQUIRED.
- 9 STENCIL CONTROL SYSTEM, CIRCUIT NUMBER AND STANDARD LOCATION NUMBER ON POLE IN BLACK PAINT. STICKERS ARE NOT ACCEPTABLE. POSITION POLE ID'S SO THEY CAN BE SEEN FROM CONTROL SYSTEM LOCATION.
- 10 USE AS OFFSET UNLESS ALTERNATE OFFSET IS SHOWN IN THE PLANS.
- 11 REFER TO STANDARD DRAWING 1405.01 FOR FOUNDATION INSTALLATION DETAILS.



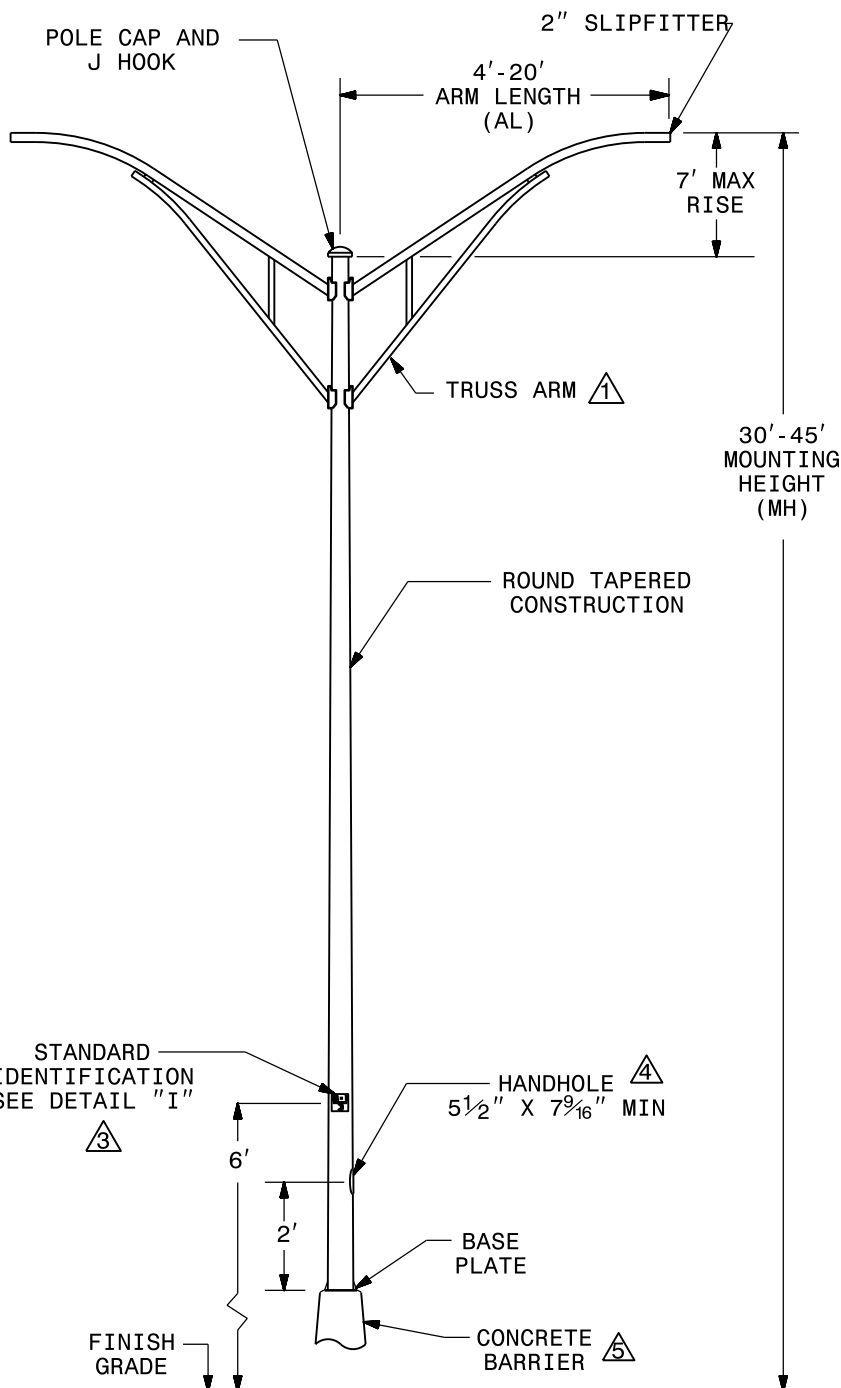
**DETAIL "I"** 9  
3" HIGH CHARACTERS WITH 3/8" THICK LINES



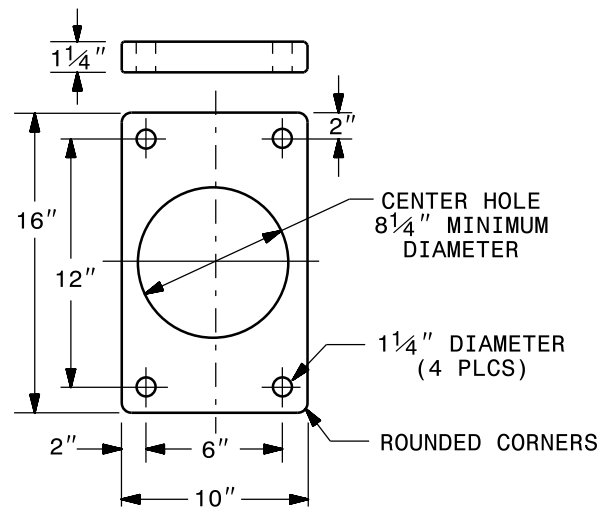
**LIGHT STANDARD IN SHOULDER OR GRASSY MEDIAN**

TYPE MTLT/MTLS (MH) SA OR TA (AL) 5

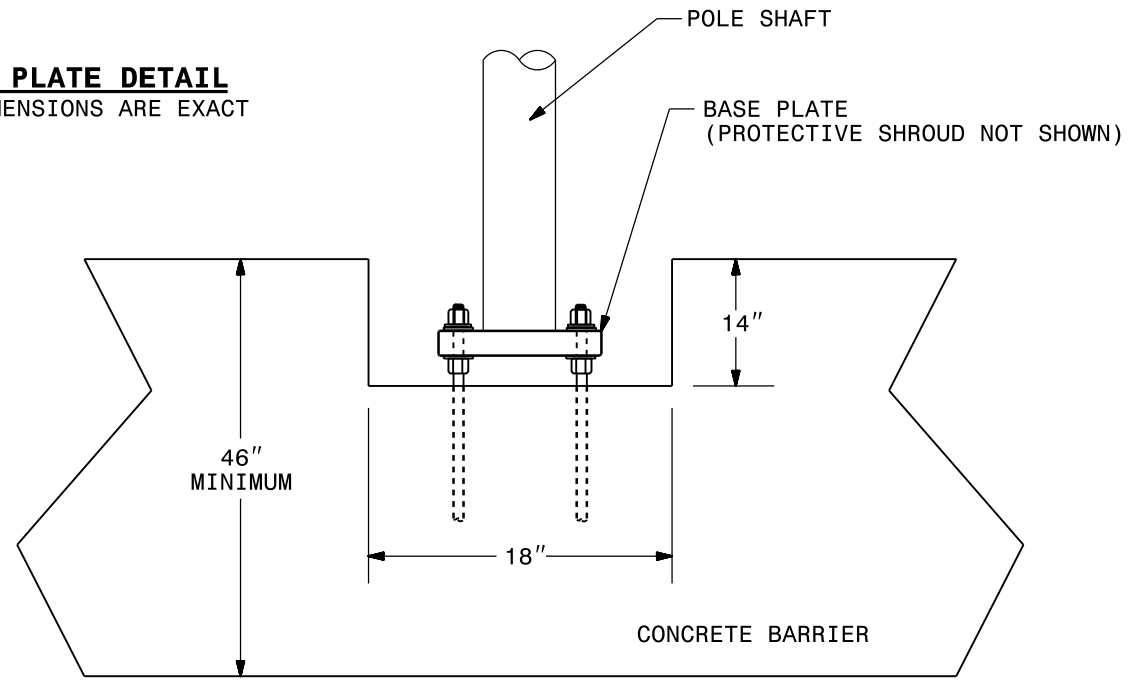
**STANDARD PLACEMENT**




**LIGHT STANDARD ON BARRIER**  
 TYPE MTLT/MTLS (MH) SA OR TA (AL)  









**BASE PLATE DETAIL**  
 ALL DIMENSIONS ARE EXACT



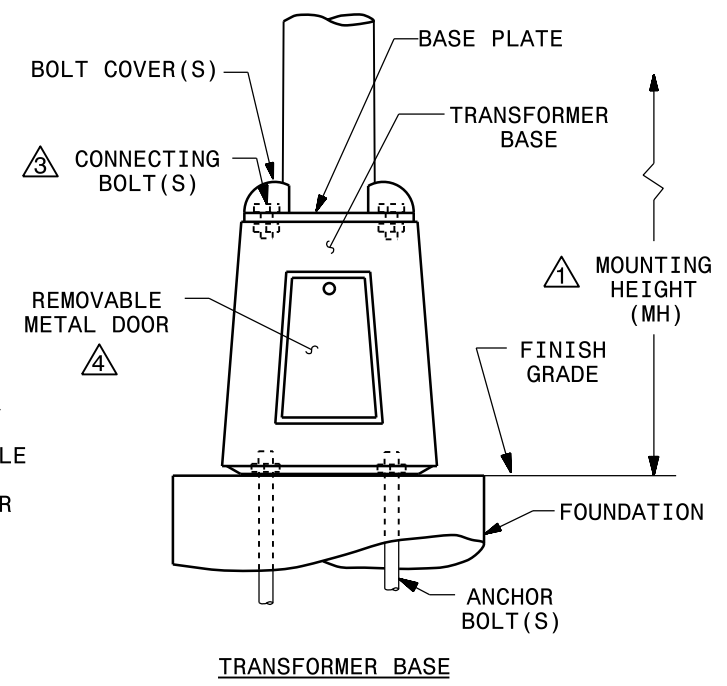
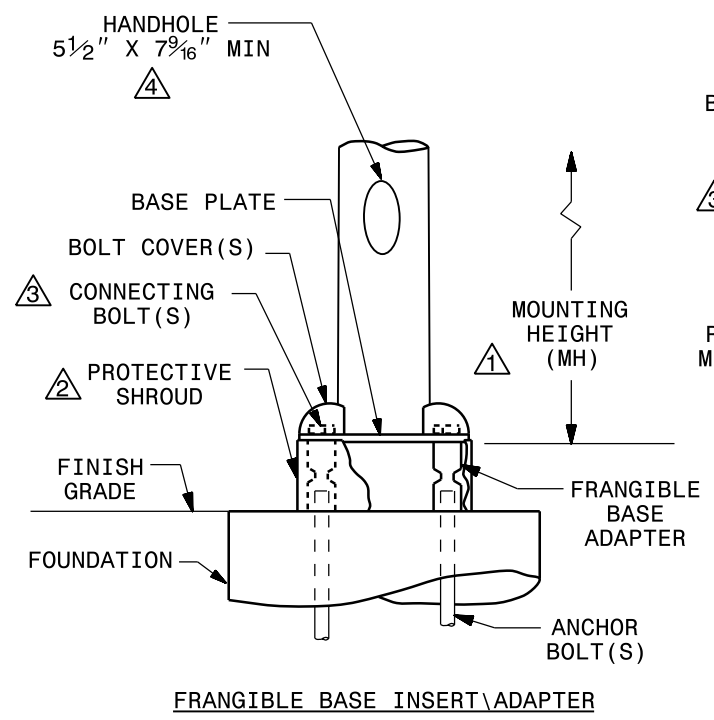
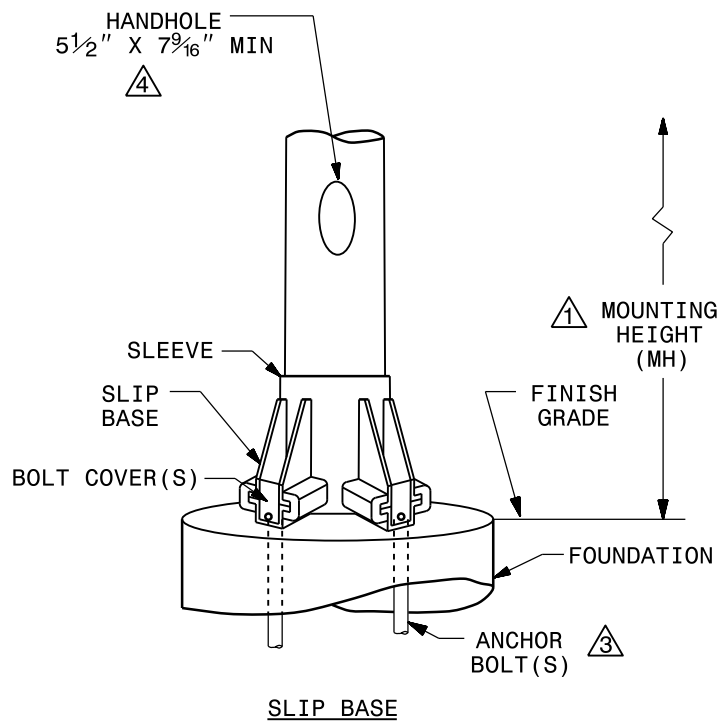
**NOTCH PROFILE VIEW**   
 ALL DIMENSIONS ARE EXACT  
 DRAWING NOT TO SCALE

**NOTES**

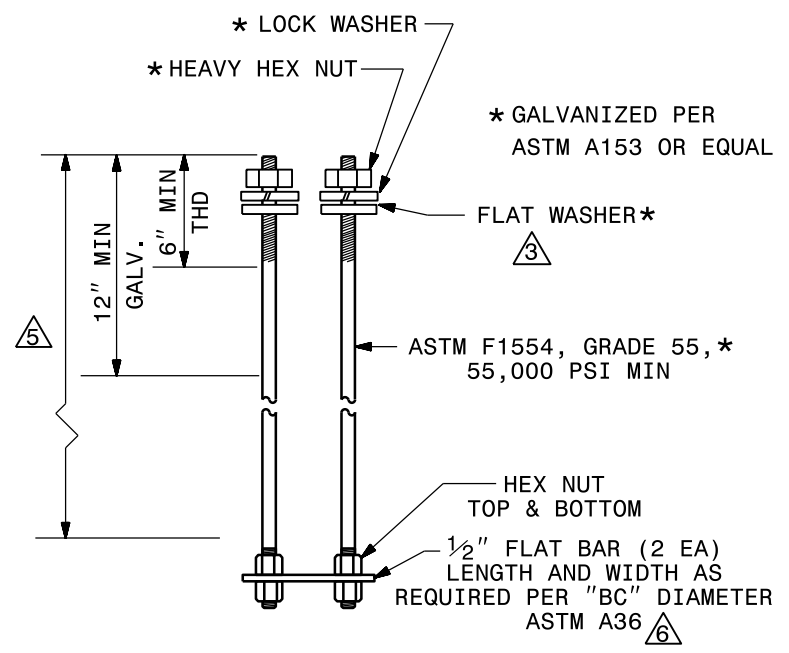
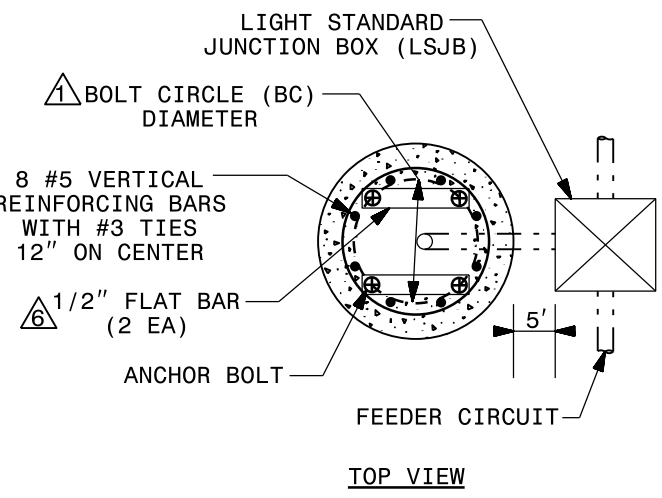
-  SINGLE-MEMBER ARMS MAY BE PROVIDED IN LIEU OF TRUSS ARMS, WHEN SPECIFIED ARM LENGTH IS 8' OR LESS AND MOUNTING HEIGHT IS 35' OR LESS.
-  INSERT MOUNTING HEIGHT (MH) AND ARM LENGTH (AL) FROM PAY ITEM DESCRIPTION TO DETERMINE PROPOSED TWIN-ARM LIGHT STANDARDS. MTLT IS METAL POLE SHORT, 35' OR LESS. MTLT IS METAL POLE TALL, GREATER THAN 35'. MOUNTING HEIGHT SHOWN IN THE PLANS.
-  SEE SHEET 1 OF 3 FOR DETAIL "I".
-  PROVIDE ACCESSIBLE GROUNDING LUG INSIDE.
-  REQUIRED BARRIER NOTCH NOT SHOWN FOR CLARITY. SEE NOTCH PROFILE VIEW, THIS SHEET.
-  SEE STANDARD DRAWING 1405.01 FOR FOUNDATION DETAILS.

**NOTES**

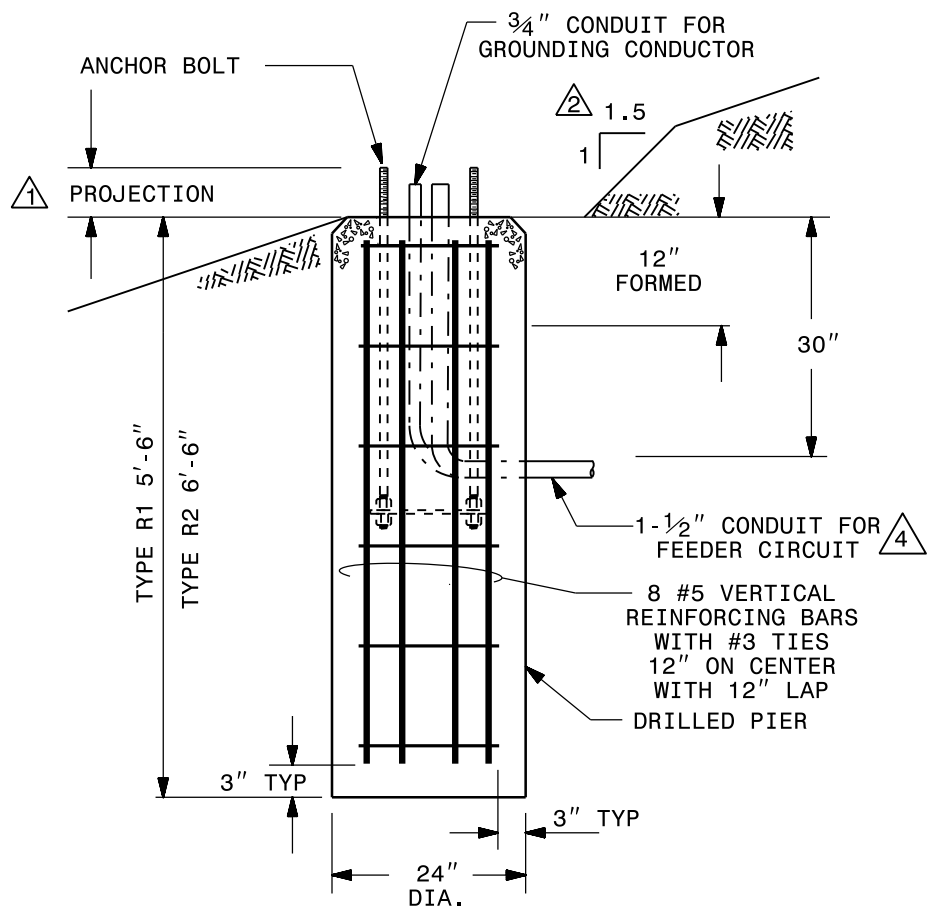
- ① MOUNTING HEIGHT INCLUDES BREAKAWAY SUPPORT FOR LIGHT STANDARDS WHERE BREAKAWAY SUPPORTS ARE REQUIRED.
- ② FIT PROTECTIVE SHROUD SNUGLY AROUND BASE PLATE TO PROTECT CONDUIT AND WIRING AT BASE OF STANDARD.
- ③ PROVIDE WASHERS AND SHIMS REQUIRED BY BASE MANUFACTURER.
- ④ PROVIDE ACCESSIBLE GROUNDING LUG INSIDE.
- ⑤ LABEL ALL BASES TO SHOW COMPLIANCE WITH AASHTO BREAKAWAY REQUIREMENTS.



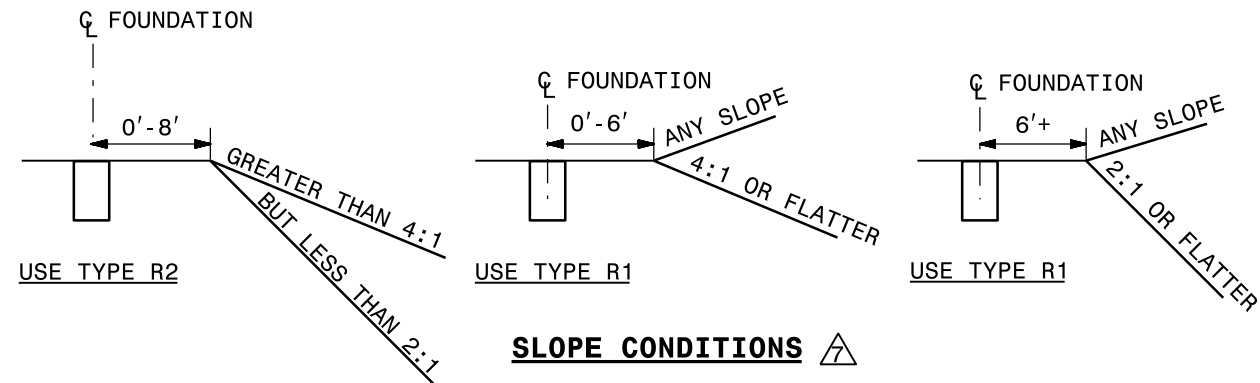
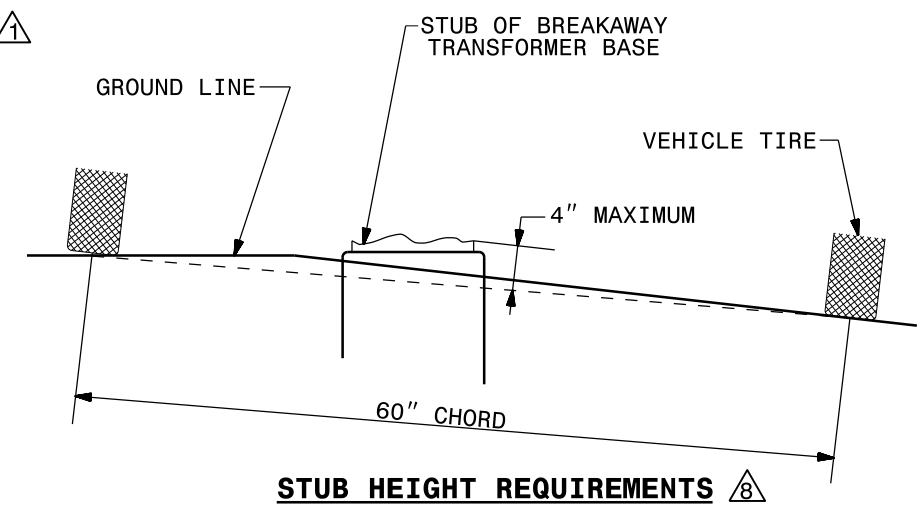
**BREAKAWAY SUPPORT BASE DETAILS**



- NOTES**
- 1 CONFORM ANCHOR BOLT SIZE, LENGTH, BOLT CIRCLE (BC) DIAMETER AND PROJECTION TO APPROVED LIGHT STANDARD SHOP DRAWINGS.
  - 2 ADJUST SURROUNDING GRADE AS REQUIRED FOR ANCHOR BOLT PROJECTION TO MEET 4" CLEARANCE REQUIREMENT OVER 60" CHORD, AS SHOWN IN STUB HEIGHT REQUIREMENTS BELOW.
  - 3 PROVIDE WASHERS AND SHIMS REQUIRED BY APPROVED BASE MANUFACTURER.
  - 4 FEEDER CIRCUIT CONDUIT CONTINUES TO LIGHT STANDARD JUNCTION BOX (LSJB). SEE STANDARD DRAWING 1406.01.
  - 5 ANCHOR BOLT SIZE AND LENGTH AS PROVIDED IN SHOP DRAWINGS.
  - 6 FLAT BARS ARE USED TO CONNECT A PAIR OF ANCHOR BOLTS. SEE SECTION A-A AND ELEVATION VIEW ON 1405.01, SHEET 2.
  - 7 SEE 1404.01 FOR FOUNDATION SETBACK FROM EDGE OF TRAVEL.
  - 8 WHERE NOT PROTECTED BY GUARDRAIL OR BARRIER OR IN SIGNIFICANT SLOPE CONDITIONS.



**STANDARD FOUNDATION**  
TYPE R1 & TYPE R2

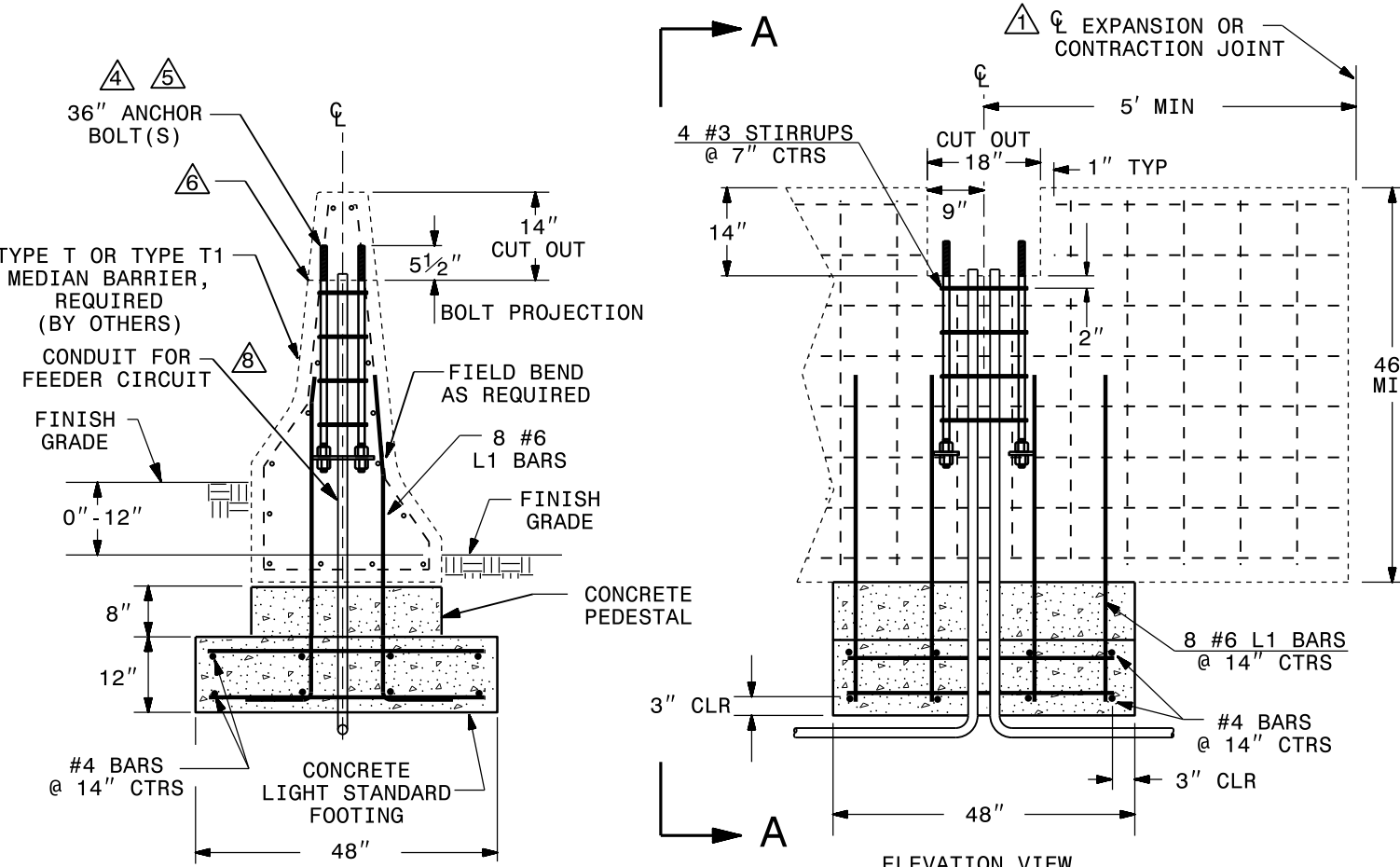


**SLOPE CONDITIONS**

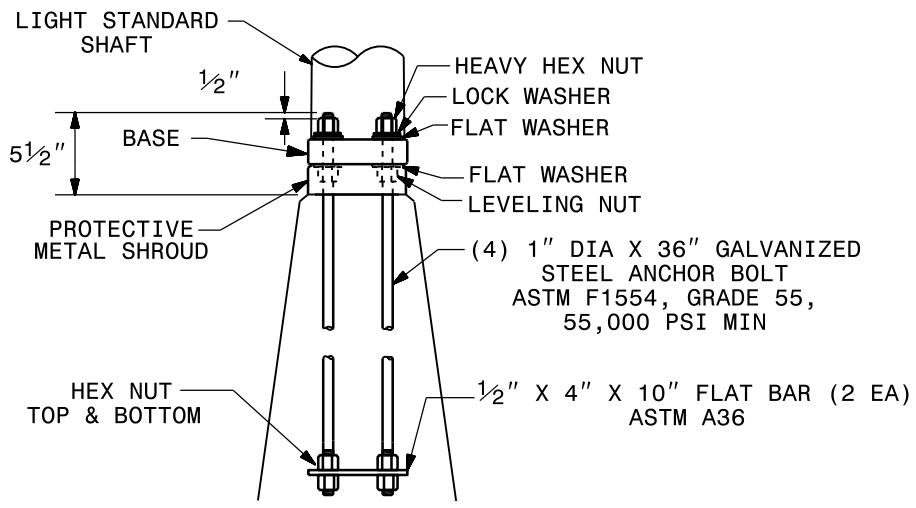
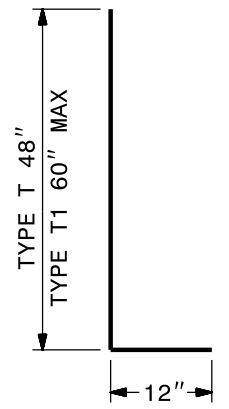
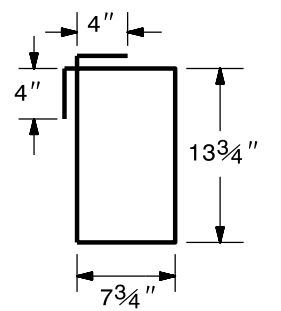


**NOTES**

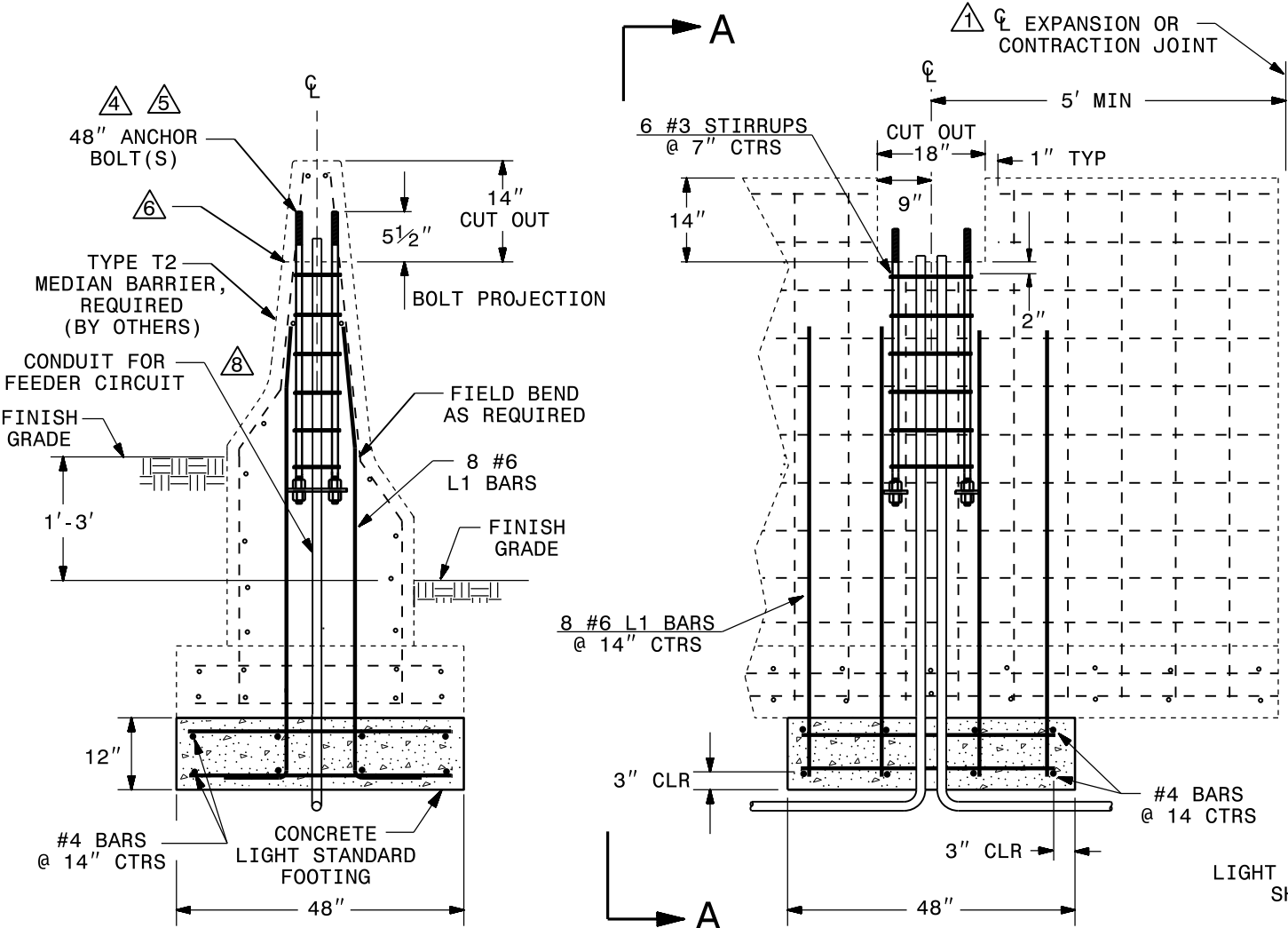
- 1 LOCATE EXPANSION OR CONTRACTION JOINT 5' MINIMUM FROM CENTER LINE OF LIGHT STANDARD FOUNDATION.
- 2 ALL SPECIFIED STEEL AND CONCRETE ON THIS SHEET IS IN ADDITION TO THAT REQUIRED FOR THE MEDIAN BARRIER.
- 3 DIMENSIONS FOR #3 STIRRUPS ARE APPROXIMATE. FIT STIRRUPS TIGHTLY AROUND ANCHOR BOLTS.
- 4 PROTECT ANCHOR BOLTS AND CONDUIT DURING PLACEMENT OF CONCRETE.
- 5 FURNISH ALL ANCHOR BOLTS WITH HEAVY HEX NUTS, LEVELING NUTS, FLAT WASHERS, LOCK WASHERS AND FLAT CONNECTING BAR.
- 6 PROVIDE 1/2" RADIUS ON ALL EXPOSED EDGES SIMILAR TO TOP OF BARRIER.
- 7 USE TYPE M1 STANDARD FOUNDATION WITH TYPE T AND TYPE T1 MEDIAN BARRIER. SEE STANDARD DRAWING 854.02 FOR BARRIER DIMENSIONS.
- 8 SEE LIGHTING LAYOUT PLANS FOR SIZE AND ORIENTATION OF CONDUIT FOR FEEDER CIRCUITS.



**TYPE M1 FOUNDATION**



BARRIER CUT OUT NOT SHOWN



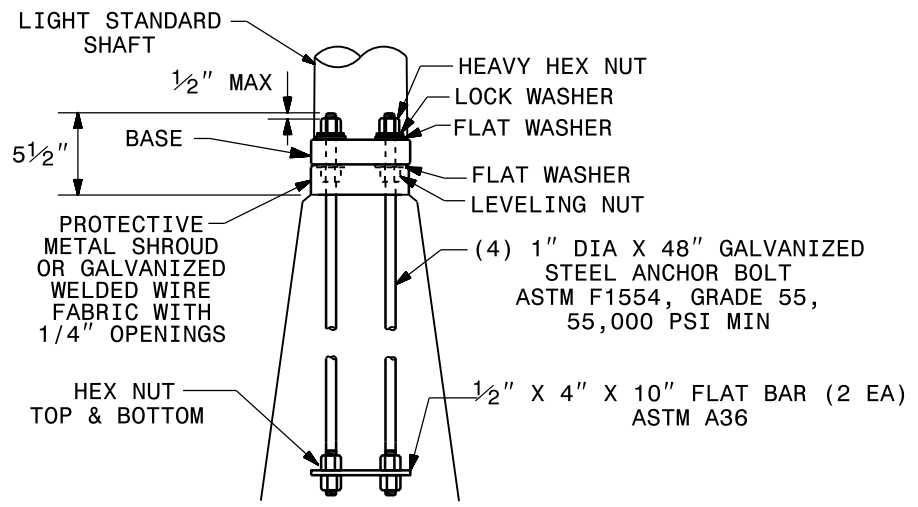
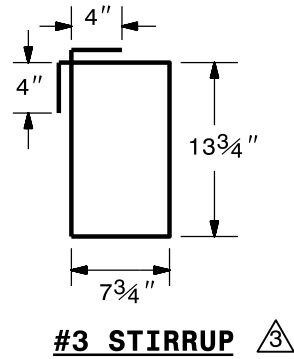
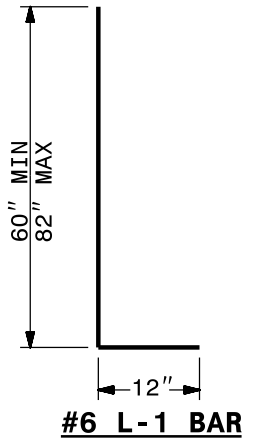
**NOTES**

- 1 LOCATE EXPANSION OR CONTRACTION JOINT 5' MINIMUM FROM CENTER LINE OF LIGHT STANDARD FOUNDATION.
- 2 ALL SPECIFIED STEEL AND CONCRETE ON THIS SHEET IS IN ADDITION TO THAT REQUIRED FOR THE MEDIAN BARRIER.
- 3 DIMENSIONS FOR #3 STIRRUPS ARE APPROXIMATE. FIT STIRRUPS TIGHTLY AROUND ANCHOR BOLTS.
- 4 PROTECT ANCHOR BOLTS AND CONDUIT DURING PLACEMENT OF CONCRETE.
- 5 FURNISH ALL ANCHOR BOLTS WITH HEAVY HEX NUTS, LEVELING NUTS, FLAT WASHERS, LOCK WASHERS AND FLAT CONNECTING BAR.
- 6 PROVIDE 1/2" RADIUS ON ALL EXPOSED EDGES SIMILAR TO TOP OF BARRIER.
- 7 USE TYPE M2 STANDARD FOUNDATION WITH TYPE T2 MEDIAN BARRIER. SEE STANDARD DRAWING 854.02 FOR BARRIER DIMENSIONS.
- 8 SEE LIGHTING LAYOUT PLANS FOR SIZE AND ORIENTATION OF CONDUIT FOR FEEDER CIRCUITS.

SECTION A-A

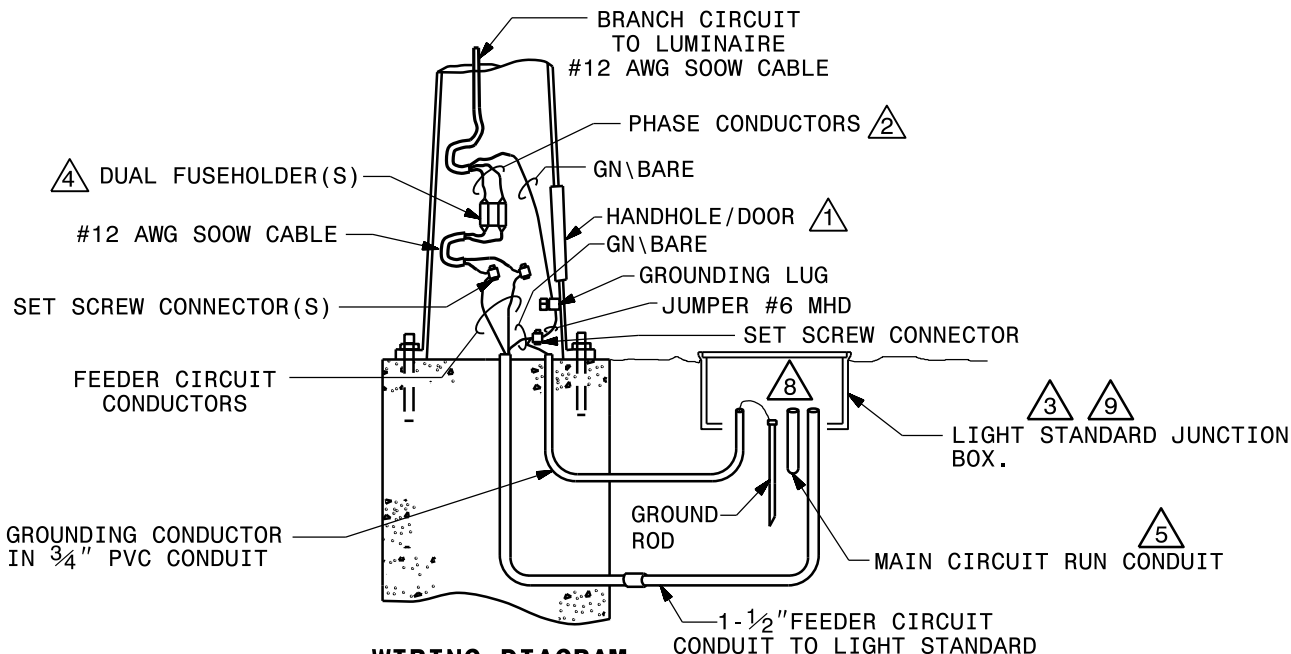
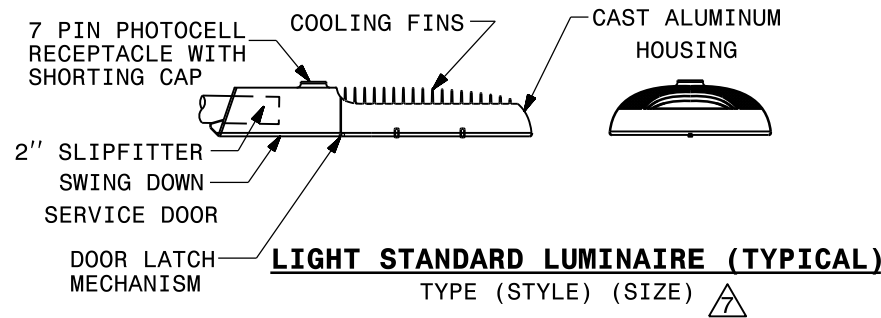
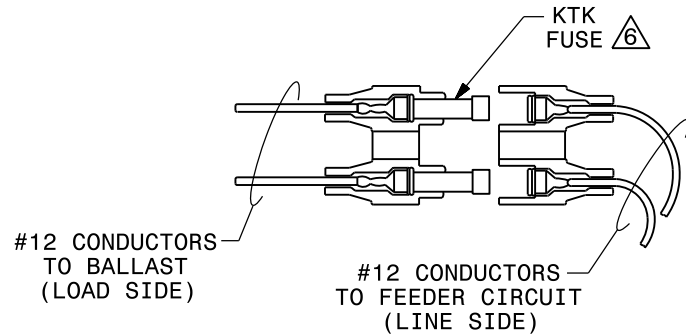
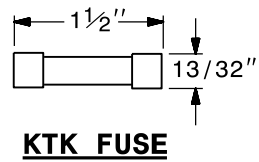
ELEVATION VIEW

**TYPE M2 FOUNDATION**



**ANCHOR BOLT DETAIL**

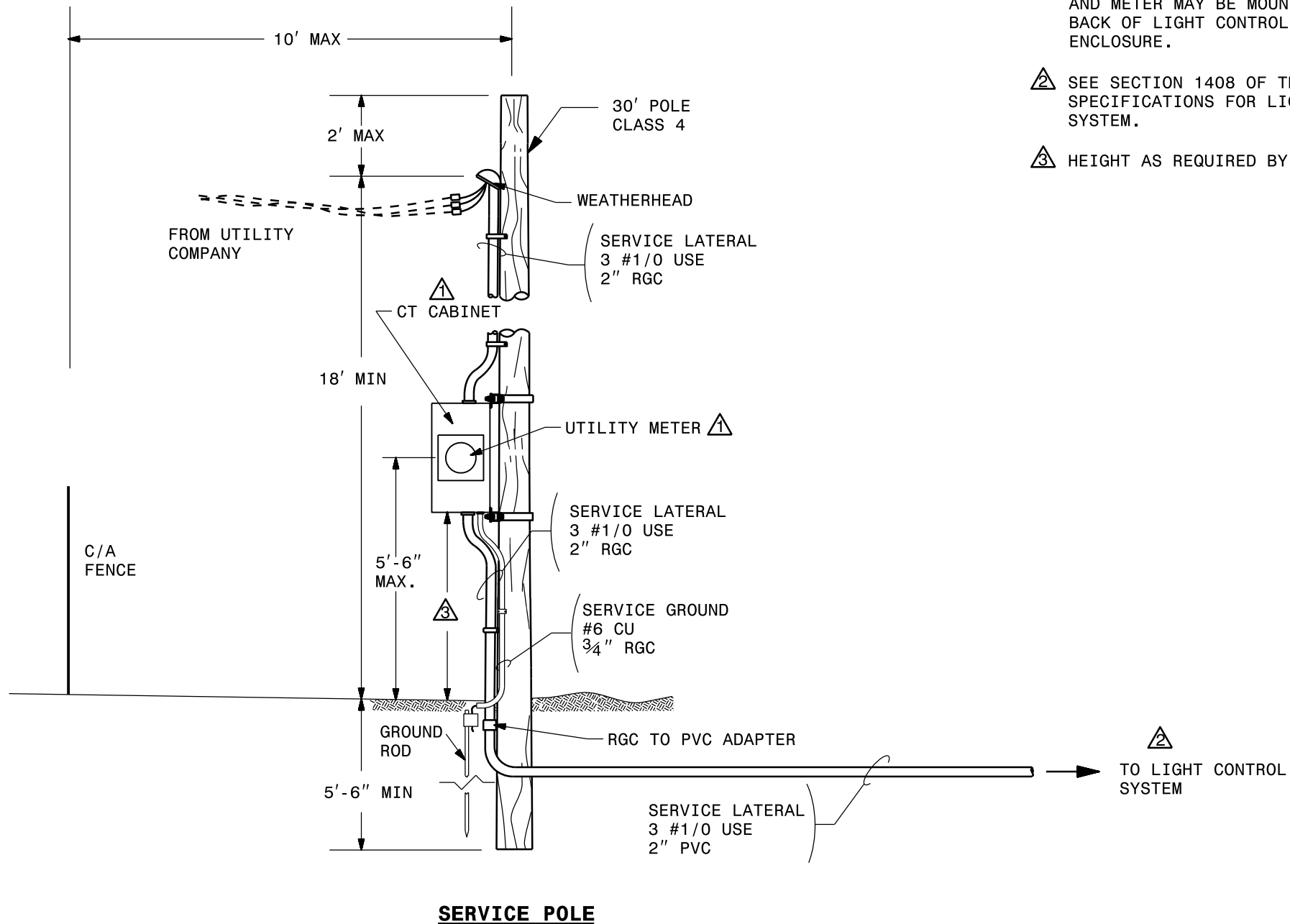
BARRIER CUT OUT NOT SHOWN



LUMINAIRE CHARACTERISTICS				
SPEC TYPE	HPS REPLACEMENT EQUIVALENT	COLOR TEMP	MINIMUM PERCENT OF INITIAL OUTPUT (70K HOURS & 25°C)	MINIMUM MAINTAINED LUMENS
185W (MAX) LED FIXTURE	250W	3,500K $\pm 500K$	83%	$\triangle 10$
285W (MAX) LED FIXTURE	400W	3,500K $\pm 500K$	83%	$\triangle 10$

$\triangle$  **NOTES**

- $\triangle 1$  PROVIDE ACCESS TO FUSEHOLDERS FROM HANDHOLE OR TRANSFORMER BASE.
- $\triangle 2$  SEE STANDARD SPECIFICATIONS SECTION 1400-4(F) FOR WIRING METHODS. USE TAPE OR HEAT SHRINK TO COLOR CONDUCTORS TO MATCH PHASE COLOR (RED/BLACK/BLUE).
- $\triangle 3$  MAKE SPLICES IN ACCORDANCE WITH SECTION 1400-4(F) OF THE STANDARD SPECIFICATIONS.
- $\triangle 4$  BREAKAWAY FUSEHOLDERS REQUIRED AT ALL BREAKAWAY LIGHT STANDARDS.
- $\triangle 5$  SIZE FEEDER CIRCUIT CONDUCTORS AS SHOWN IN THE PLANS.
- $\triangle 6$  SEE STANDARD SPECIFICATIONS SECTION 1400-2(E) FOR FUSEHOLDERS.
- $\triangle 7$  INSERT STYLE AND SIZE FROM PAY ITEM DESCRIPTION TO DETERMINE PROPOSED LUMINAIRES.
- $\triangle 8$  PERMANENTLY ATTACH GROUNDING CONDUCTOR TO GROUND ROD VIA IRREVERSIBLE CLAMP.
- $\triangle 9$  SEE STANDARD DRAWING 1411.01 FOR LIGHT STANDARD JUNCTION BOX REQUIREMENTS.
- $\triangle 10$  SEE PROJECT SPECIAL PROVISIONS FOR MINIMUM MAINTAINED DELIVERED LUMEN VALUES.



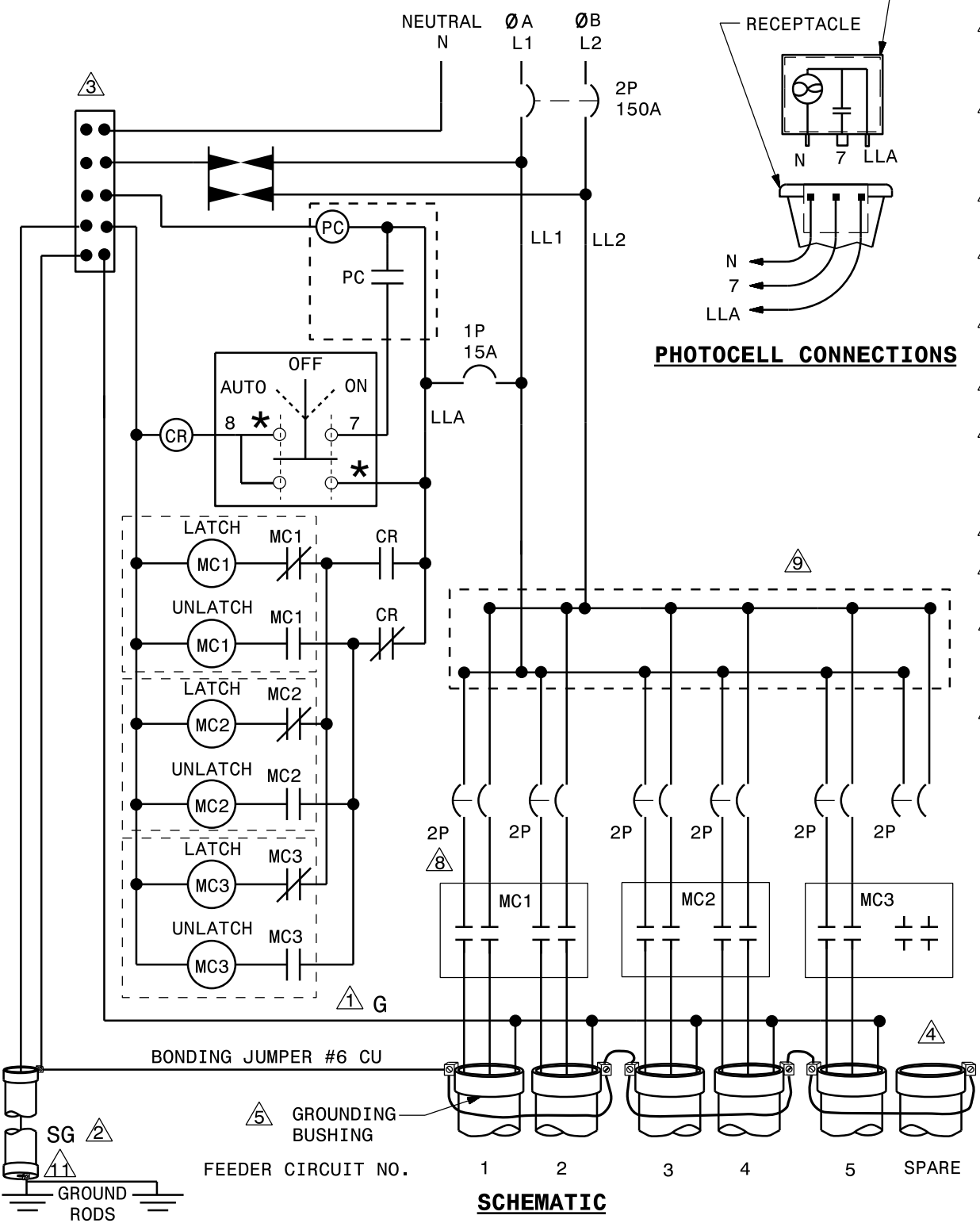
△ NOTES

△ CURRENT TRANSFORMER (CT) CABINET AND METER MAY BE MOUNTED ON BACK OF LIGHT CONTROL SYSTEM ENCLOSURE.

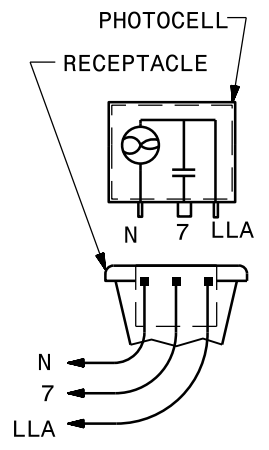
△ SEE SECTION 1408 OF THE STANDARD SPECIFICATIONS FOR LIGHT CONTROL SYSTEM.

△ HEIGHT AS REQUIRED BY UTILITY.

240/480V  
1Ø, 3 WIRE



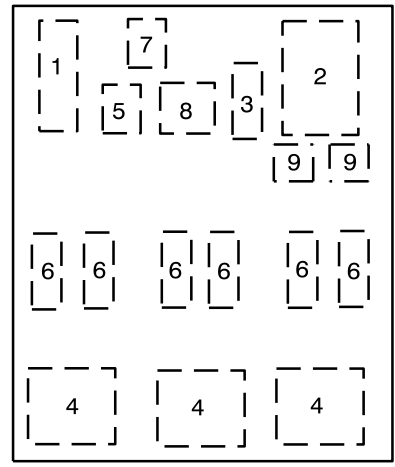
**PHOTOCELL CONNECTIONS**



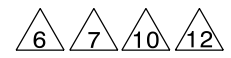
**SCHEMATIC**

**NOTES**

- 1 EQUIPMENT GROUNDS (G) SHALL BE SIZED ACCORDING TO CIRCUIT DESCRIPTION. SEE PLANS.
- 2 SYSTEM GROUND (SG) SHALL BE CONTINUOUS FROM THE NEUTRAL BAR TO THE GROUNDING ELECTRODE (GROUND ROD).
- 3 THE NEUTRAL BAR SHALL BE BONDED TO THE PANEL.
- 4 INSTALL 6 CONDUITS AS SHOWN. UNUSED CONDUIT SHALL BE CAPPED IN THE CONTROL SYSTEM JUNCTION BOX.
- 5 INSTALL A GROUNDING BUSHING ON EACH METAL CONDUIT. CONNECT BONDING JUMPER AS REQUIRED BY NEC.
- 6 SEE SHEET 3 OF 3 FOR ENCLOSURE.
- 7 THE CONTROL SYSTEM MUST BE LABELED "SUITABLE FOR USE AS SERVICE EQUIPMENT." REFER TO STANDARD SPECIFICATION 1408-2 FOR OTHER REQUIREMENTS.
- 8 SEE PLANS FOR BREAKER SIZES.
- 9 PROVIDE MULTI-TAP LOAD LUGS OR POWER DISTRIBUTION BLOCKS.
- 10 PROVIDE MANUFACTURER SUPPLIED MOUNTING BRACKETS OR SCREW STUDS PERMANENTLY ATTACHED TO THE BACK PANEL, FOR MOUNTING COMPONENTS.
- 11 PROVIDE AND INSTALL A CONDUIT CHOKE ON THE UNDERGROUND END OF THE 3/4" RGS SYSTEM GROUND CONDUIT.
- 12 INCLUDE SERVICE BARRIERS AS REQUIRED BY THE NEC.



**INTERIOR PANEL COMPONENT LAYOUT**



COMPONENT LIST			
#	QTY	DESCRIPTION	SPECIFICATIONS
1	1	NEUTRAL BAR	
2	1	SERVICE CIRCUIT BREAKER	2P, 480V, 150A
3	1	CONTROL CIRCUIT BREAKER	1P, 240V, 15A
4	*	MECHANICALLY HELD CONTACTORS	4P, 480V, 60A W/240V COIL
5	1	CONTROL RELAY W/NC & NO CONTACT	240V, 10A, W/240V COIL
6	**	FEEDER CIRCUIT BREAKERS	2P, 480V
7	1	TYPE 1 SURGE PROTECTION DEVICE	20,000A RATED
8	1	SELECTOR SWITCH (ON-OFF-AUTO)	240V, 10A
9	2	POWER DISTRIBUTION LUGS OR BLOCKS	
		MOUNTING BRACKETS OR SCREW STUDS	

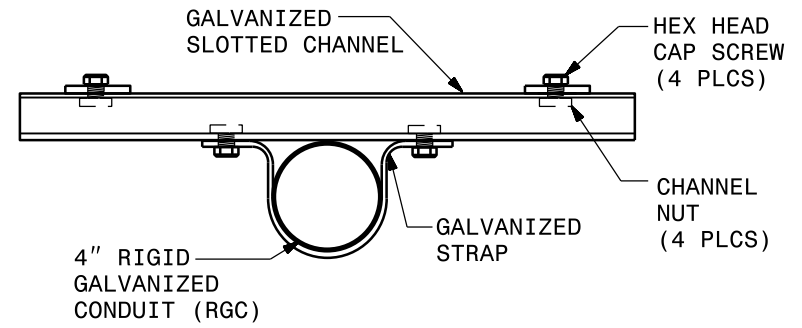
\*NUMBER OF CONTACTORS VARY BASED ON NUMBER OF FEEDER CIRCUITS SHOWN IN THE LOAD SCHEDULE. FOR 1 FEEDER CIRCUIT, PROVIDE 1 CONTACTOR; FOR 2 TO 3 FEEDER CIRCUITS PROVIDE 2 CONTACTORS; FOR 4 TO 6 FEEDER CIRCUITS, PROVIDE 3 CONTACTORS.

\*\*PROVIDE THE NUMBER OF BREAKERS SIZED AS SHOWN IN THE LOAD SCHEDULE ON THE PLANS. INCLUDE SPARE BREAKER AS WELL.

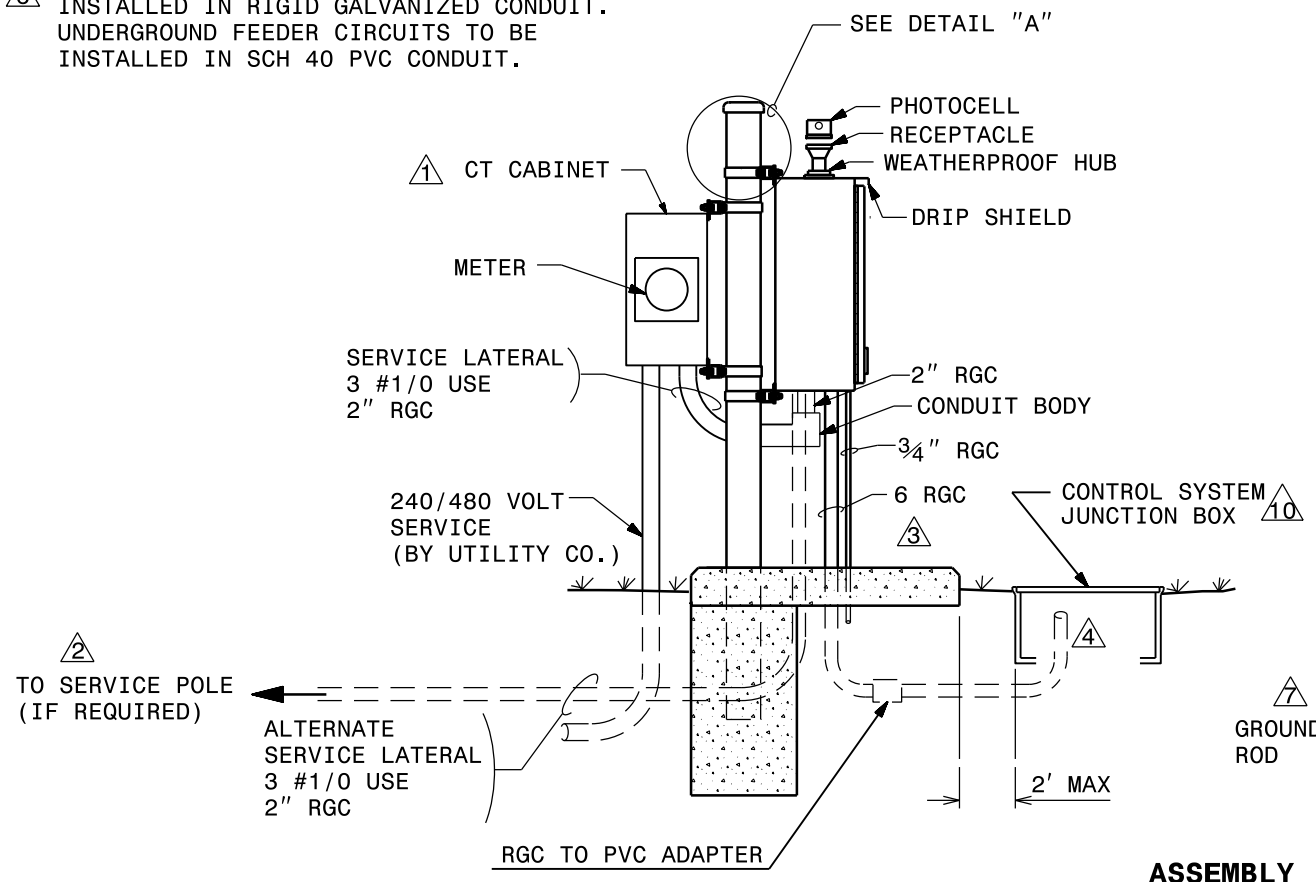
△ NOTES

- △1 CURRENT TRANSFORMER (CT) CABINET AND METER MAY BE MOUNTED ON SERVICE POLE OR BACK OF CONTROL ENCLOSURE.
- △2 SEE SECTION 1407 OF THE STANDARD SPECIFICATIONS FOR SERVICE POLE AND SERVICE LATERAL.
- △3 SEE PLANS FOR SIZE OF CONDUITS AND/OR ELECTRICAL DUCT.
- △4 STUB FEEDER CIRCUIT CONDUITS INTO JUNCTION BOX. CAP UNUSED CONDUITS. FEEDER CIRCUITS MUST BE MINIMUM 30" BELOW GRADE
- △5 SEE SECTION 1411 OF THE STANDARD SPECIFICATIONS FOR JUNCTION BOX INSTALLATION.
- △6 ALL ABOVE GROUND CIRCUITRY TO BE INSTALLED IN RIGID GALVANIZED CONDUIT. UNDERGROUND FEEDER CIRCUITS TO BE INSTALLED IN SCH 40 PVC CONDUIT.

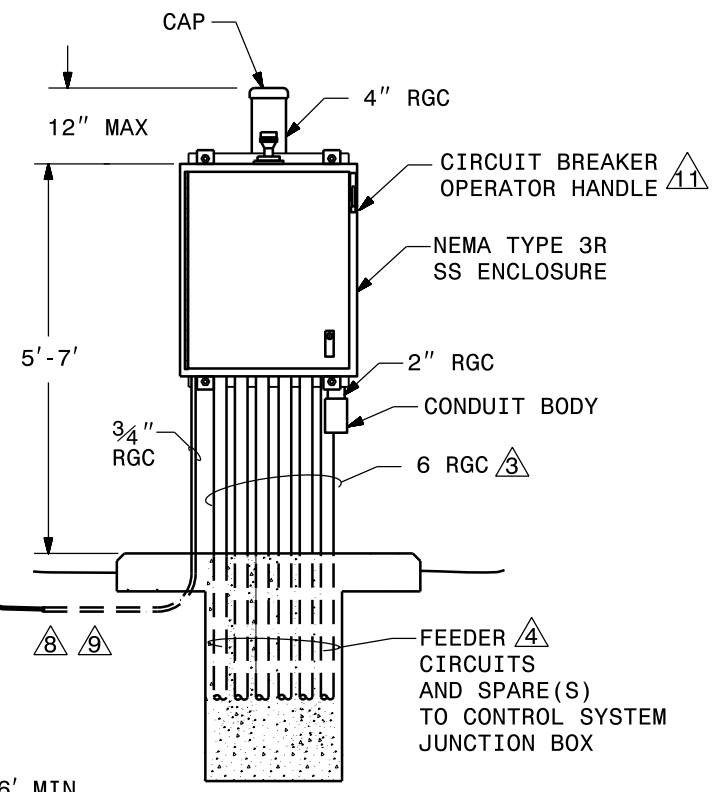
- △7 TOP OF GROUND ROD(S) SHALL BE NO MORE THAN FOUR INCHES BELOW GRADE TO ALLOW FOR EASE OF INSPECTION BY DEPARTMENT OF INSURANCE, OFFICE OF STATE FIRE MARSHAL PERSONNEL.
- △8 INSTALL A CONDUIT GROUND CHOKE AND BOND THE EQUIPMENT GROUNDING CONDUCTOR TO THE END OF THE 3/4" CONDUIT UNDERGROUND PER NEC ARTICLE 250.64E.
- △9 GROUNDING ELECTRODE CONDUCTOR 3/4" CONDUIT SHALL NOT TERMINATE BELOW THE CONCRETE FOUNDATION PAD.
- △10 SEE STANDARD DRAWING 1411.01 FOR CONTROL SYSTEM JUNCTION BOX REQUIREMENTS.
- △11 TOP OF OPERATOR HANDLE SHALL BE NO HIGHER THAN 6'-7" FROM TOP OF FOUNDATION.



**DETAIL "A"**  
MOUNTING HARDWARE

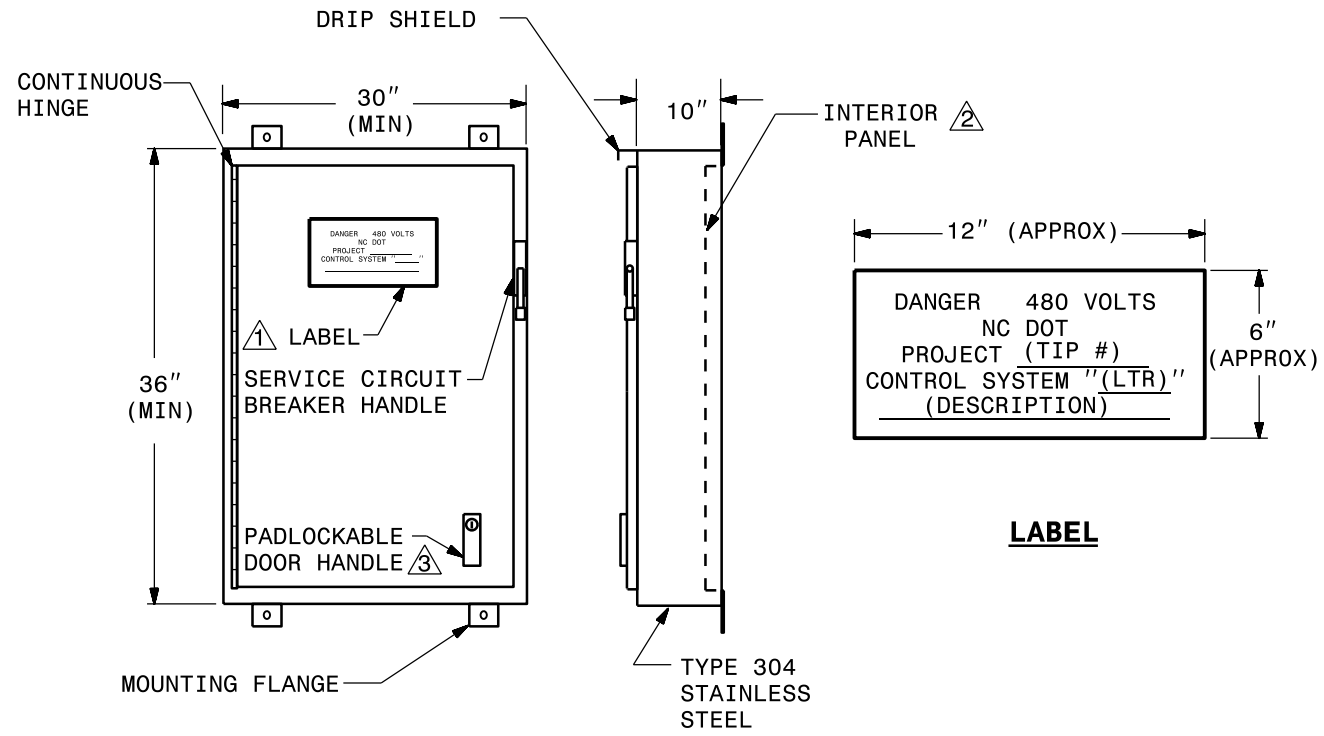
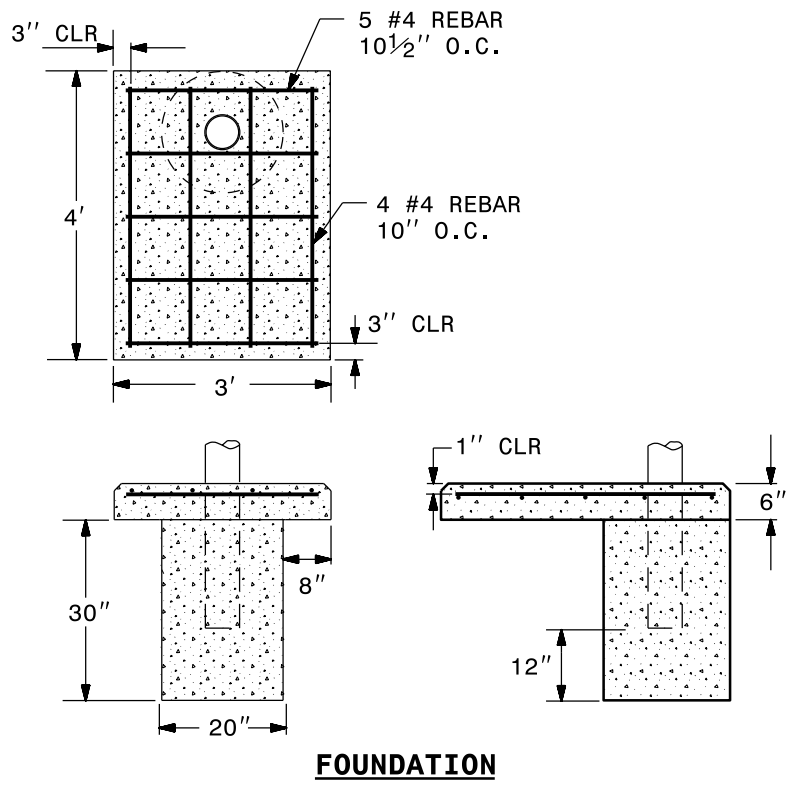


**ASSEMBLY**

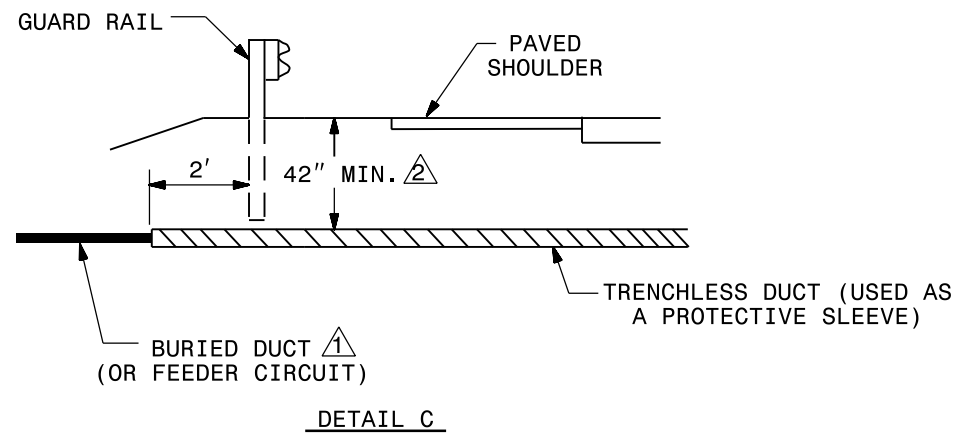
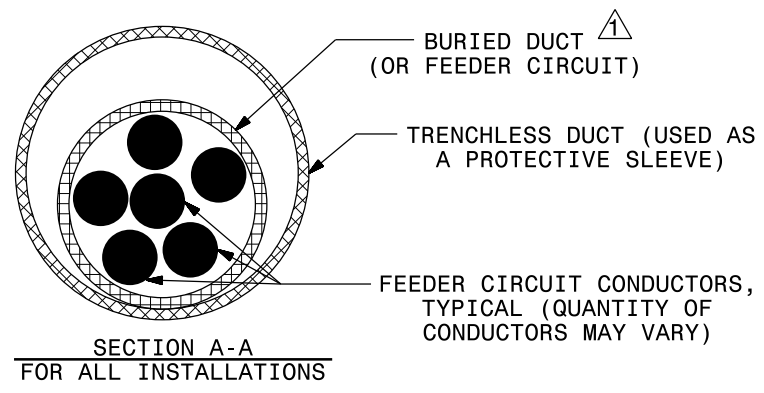
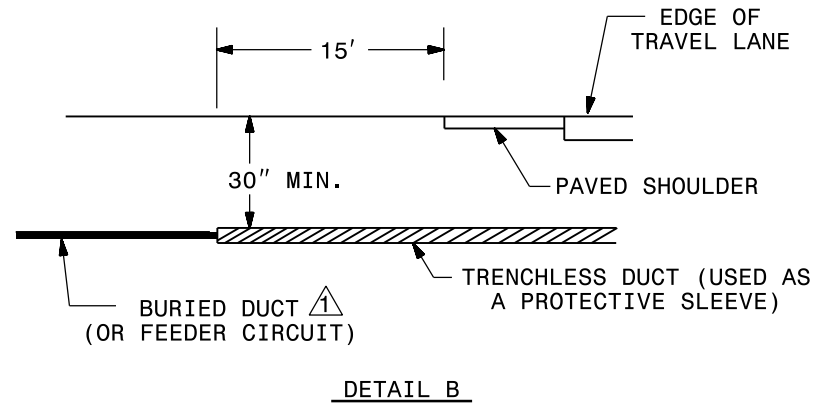
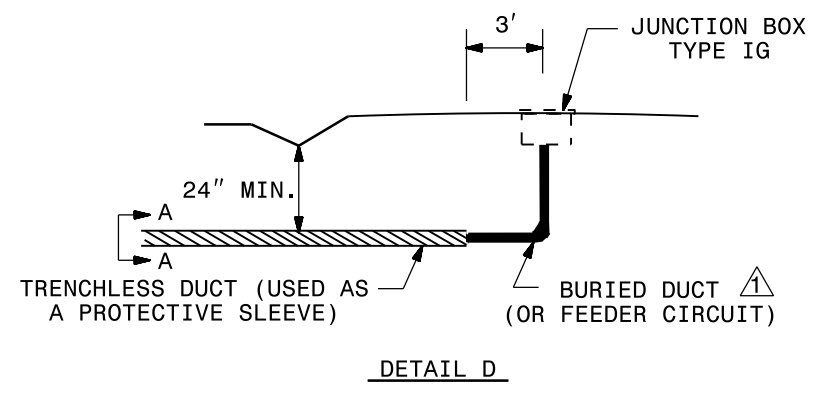
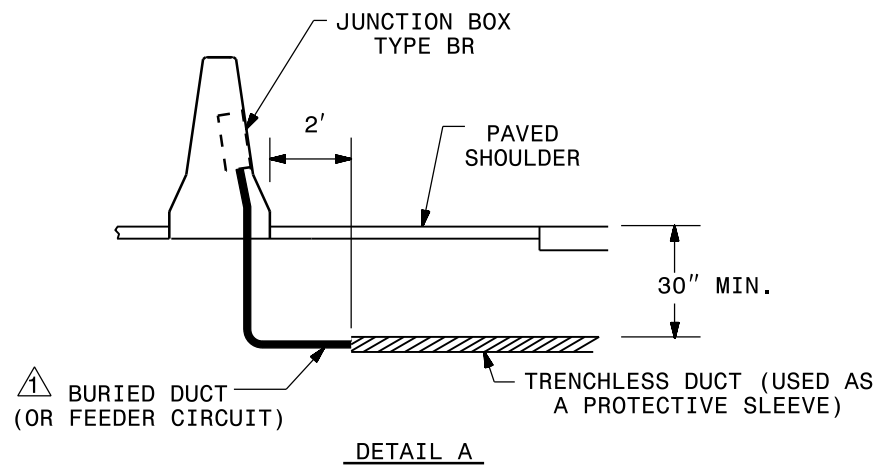


△ NOTES

- ① PERMANENTLY ATTACH A LABEL TO THE ENCLOSURE DOOR SHOWING THE WORK ORDER NUMBER, CONTROL SYSTEM LETTER DESIGNATION AND LOCATION DESCRIPTION SHOWN IN THE LOAD SCHEDULE AT EACH CONTROL SYSTEM IN THE PLANS.
- ② SEE SHEET 1 OF 3 FOR INTERIOR PANEL AND COMPONENT LAYOUT.
- ③ PROVIDE DOOR CLOSING MECHANISM INTERLOCKED WITH SERVICE CIRCUIT BREAKER HANDLE. SEE STANDARD SPECIFICATIONS FOR DETAILS.
- ④ PHOTOCCELL NOT SHOWN.
- ⑤ INCLUDE ARC FLASH AND SHOCK HAZARD WARNING LABEL IN ACCORANCE WITH NEC ARTICLE 110.16.



**NEMA TYPE 3R STAINLESS STEEL ENCLOSURE** ④ ⑤



**NOTES**

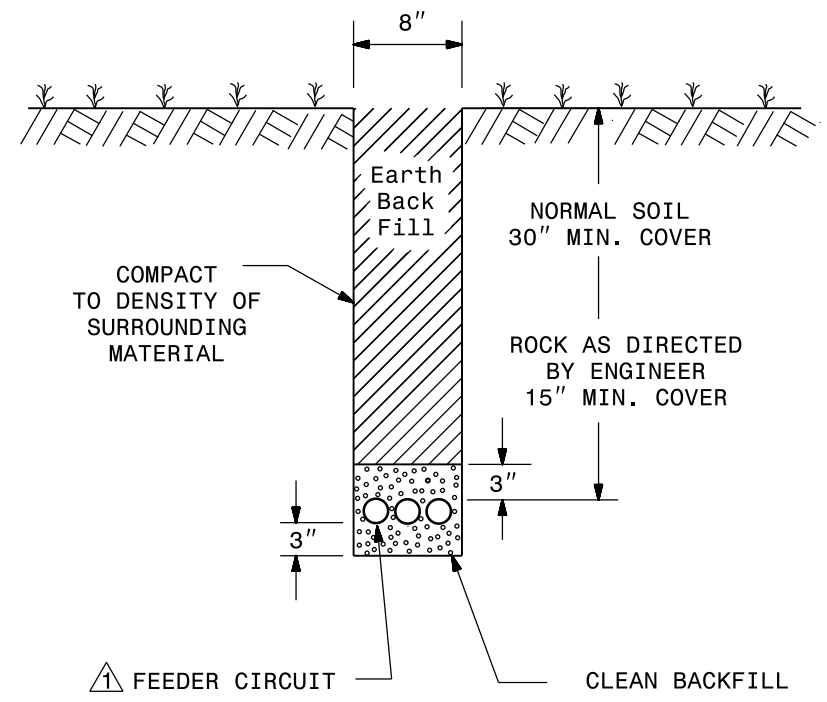
- 1 BURIED DUCT IN A PROTECTIVE SLEEVE IS CONSIDERED A RACEWAY WHEN MORE THAN ONE CIRCUIT IS INSTALLED.
- 2 DEPTH ASSUMES STANDARD LENGTH GUARDRAIL POST. COORINDATE WITH THE ENGINEER IF EXTRA LENGTH GUARDRAIL POST IS USED.

**ELECTRICAL DUCT INSTALLATION**

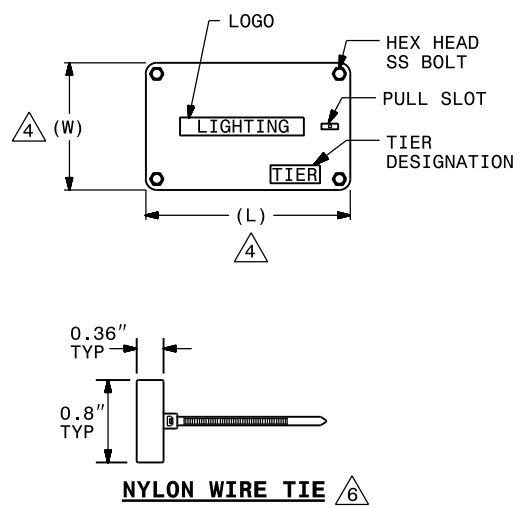
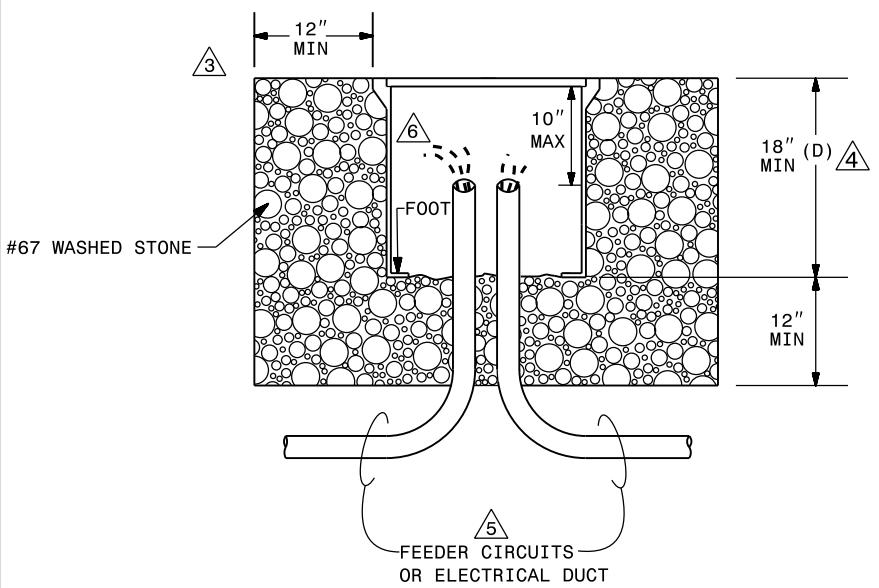


△ NOTES

- △1 SEE PLANS FOR APPROPRIATE NUMBER OF CIRCUITS.
- △2 REFER TO 1405.01 SHEETS 2 & 3 FOR FEEDER CIRCUIT INSTALLATION UNDER MEDIAN BARRIER.

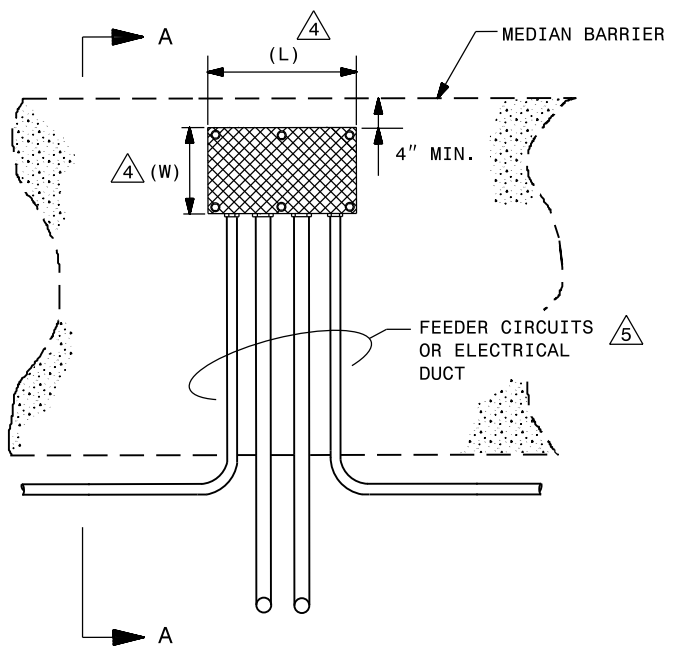


**FEEDER CIRCUIT INSTALLATION** △2

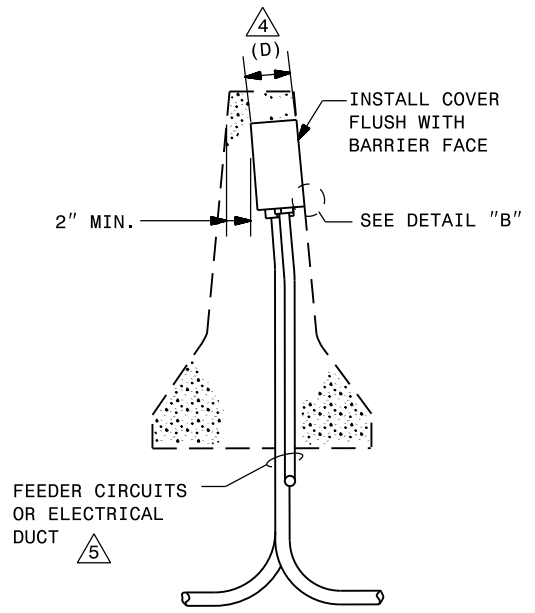


**ELECTRICAL JUNCTION BOX TYPE IG (SIZE)** 2

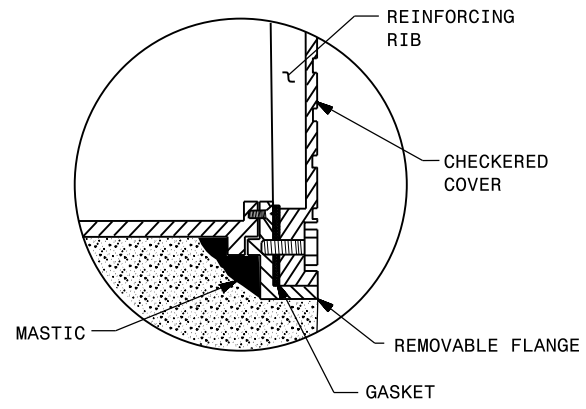
- NOTES
- 1 IN GROUND (IG) JUNCTION BOXES SHALL BE STACKABLE.
  - 2 INSERT PAY ITEM DESCRIPTION FOR (SIZE) TO DETERMINE PROPOSED JUNCTION BOX. HIGH MAST JUNCTION BOXES, LIGHT STANDARD JUNCTION BOXES AND CONTROL SYSTEM JUNCTION BOXES WILL BE PAID FOR AS RESPECTIVE JUNCTION BOX LINE ITEMS AND NOT AS PART OF HIGH MAST FOUNDATION, LIGHT STANDARD FOUNDATION OR CONTROL SYSTEM LINE ITEMS.
  - 3 SET TOP OF BOX FLUSH WITH CONCRETE IF REQUIRED TO BE PLACED IN SIDEWALKS OR OTHER CONCRETE STRUCTURES.
  - 4 SIZE IS SPECIFIED AS NOMINAL INSIDE DIMENSIONS FOR WIDTH (W), LENGTH (L) AND DEPTH (D). SEE PLANS FOR PROPOSED DIMENSIONS.
  - 5 SEE LAYOUT SHEETS FOR NUMBER AND SIZE OF FEEDER CIRCUITS AND ELECTRICAL DUCT.
  - 6 APPROPRIATELY IDENTIFY EACH CIRCUIT CONDUCTOR USING A NYLON CABLE TIE WITH LABEL.



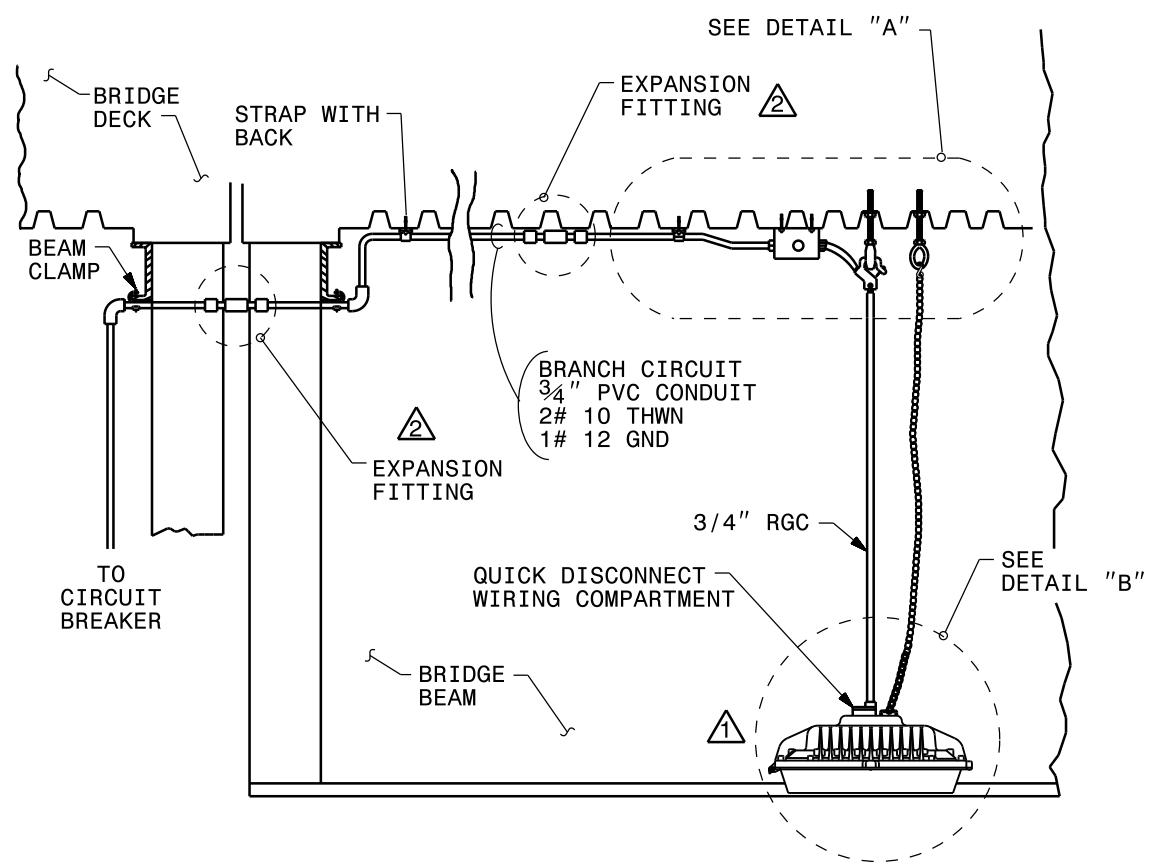
**ELECTRICAL JUNCTION BOX TYPE BR (SIZE)** 2



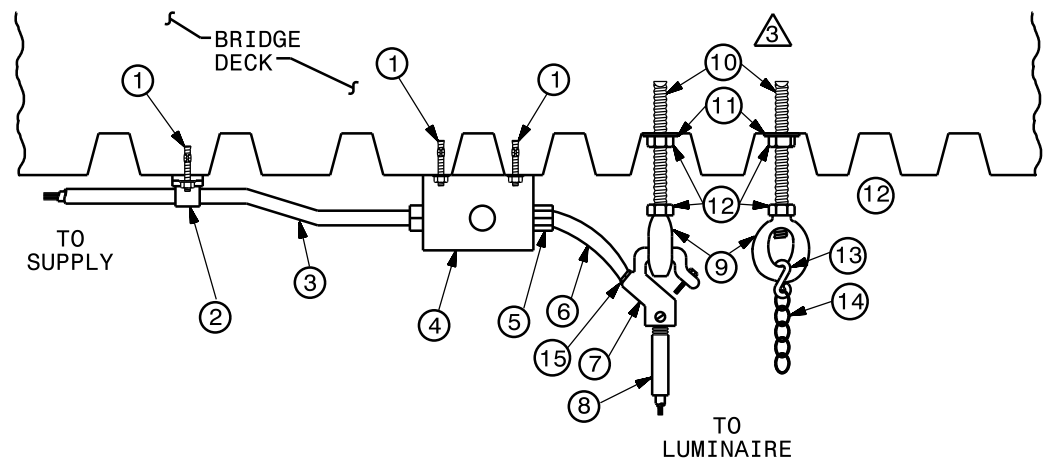
**SECTION A-A**



**DETAIL "B"**



**TYPE PM LUMINAIRE AND CIRCUITRY**



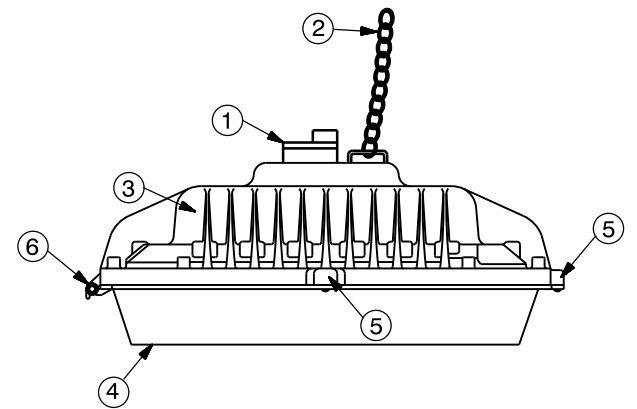
**DETAIL "A"**

**COMPONENTS**

- ① 1/4" SS WEDGE ANCHOR
- ② STRAP WITH BACK
- ③ 3/4" PVC CONDUIT
- ④ ROUND PVC BOX W/4-3/4" HUBS AND GASKETED COVER
- ⑤ CORD GRIP
- ⑥ 3 COND. "SOOW" CORD (12 AWG 600 VAC)
- ⑦ HOOK, FEMALE
- ⑧ 3/4" RGS CONDUIT
- ⑨ 3/8" GALV. EYE NUT
- ⑩ 3/8" SS THREADED ROD AND DROP IN OR EXPANSION ANCHOR
- ⑪ 3/8" SS FLAT WASHER
- ⑫ 3/8" SS HEX NUT
- ⑬ CHAIN "S" LINK
- ⑭ SAFETY CHAIN
- ⑮ SEALER

**COMPONENTS**

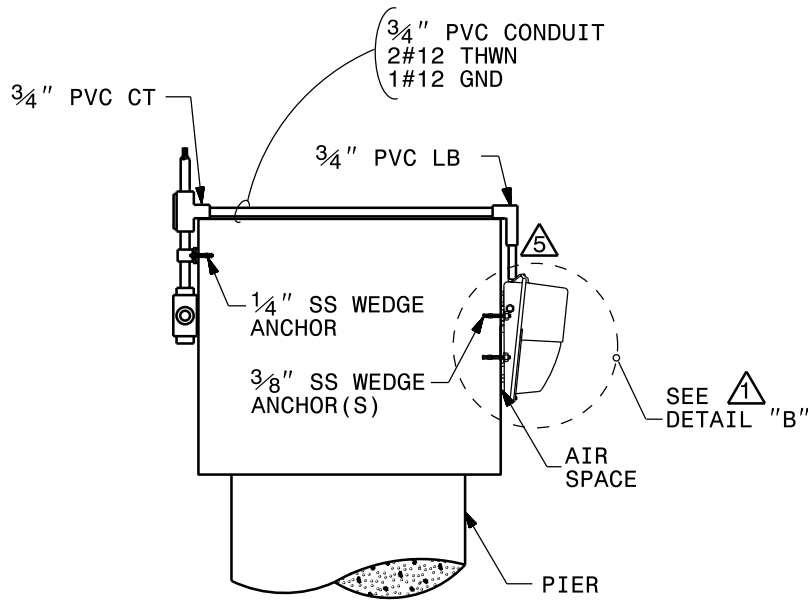
- ① ELECTRICAL MOUNTING RECEPTACLE WITH 3/4" CONDUIT CONNECTION
- ② SAFETY CHAIN
- ③ ALUMINUM DRIVER HOUSING WITH COOLING FINS
- ④ PRISMATIC GLASS REFRACTOR
- ⑤ REFRACTOR ATTACHMENT SCREWS
- ⑥ REFRACTOR DOOR HINGE ATTACHMENT



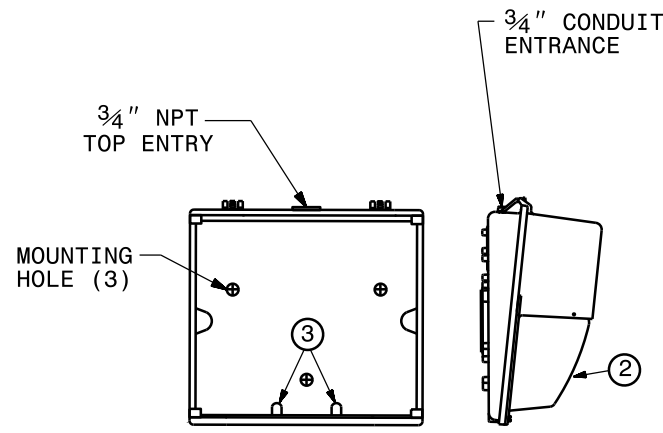
**DETAIL "B"**

**NOTES**

- ⚠ MOUNT TYPE PM LUMINAIRE FLUSH WITH BOTTOM OF BEAMS.
- ⚠ PROVIDE EXPANSION FITTINGS AT EACH BRIDGE EXPANSION JOINT. PROVIDE AT LEAST 1 EXPANSION JOINT IN SECTIONS OF CONDUIT GREATER THAN 20' BETWEEN JUNCTION BOXES OR LIGHT FIXTURES, AND 1 EXPANSION JOINT EVERY 80' FOR LONGER RUNS.
- ⚠ REFER TO STANDARD SPECIFICATION 1074-2 FOR EXPANSION ANCHOR UNITS.

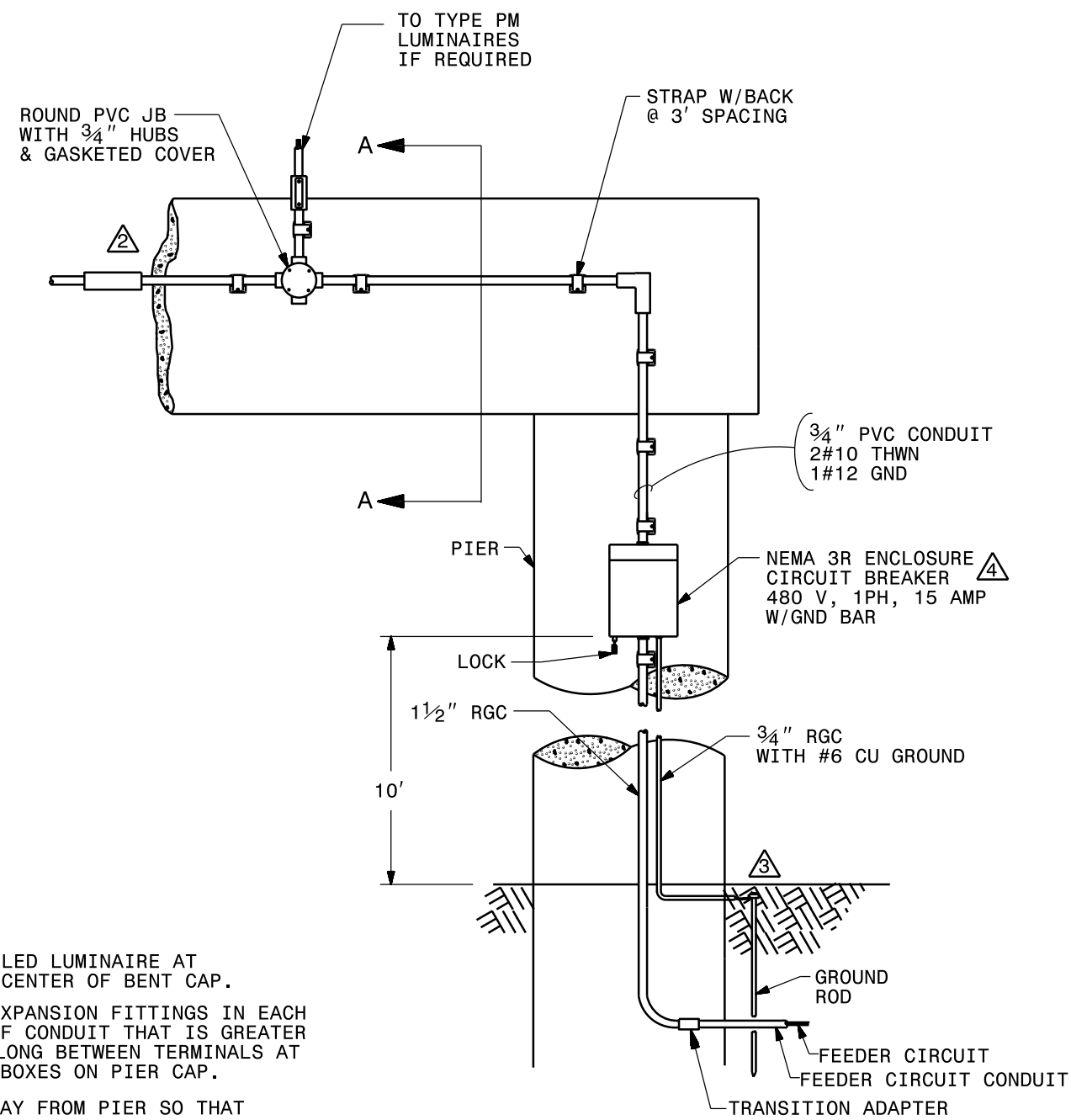


**SECTION A-A**



**BACK SIDE  
DETAIL "B"**

- COMPONENTS**
- ① DIE CAST ALUMINUM HOUSING, DOOR & HINGE
  - ② PRISMATIC GLASS REFRACTOR
  - ③ TWO SCREW LATCH



**TYPE WM LED LUMINAIRE AND CIRCUITRY**

- NOTES**
- ① MOUNT WM LED LUMINAIRE AT VERTICAL CENTER OF BENT CAP.
  - ② PROVIDE EXPANSION FITTINGS IN EACH SECTION OF CONDUIT THAT IS GREATER THAN 20' LONG BETWEEN TERMINALS AT JUNCTION BOXES ON PIER CAP.
  - ③ EXTEND AWAY FROM PIER SO THAT GROUND ROD WILL MISS FOOTING.
  - ④ INSTALL INSULATED GROUNDING BUSHING FOR INCOMING AND DEPARTING FEEDER CIRCUIT IN RGC CONDUIT.
  - ⑤ LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT (LFMC) MAY BE USED IN LIEU OF PVC CONDUIT BETWEEN LB AND LUMINAIRE.