

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	(46,47)L	SHELBY	16	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 74289		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

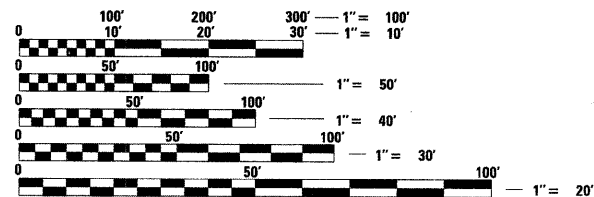
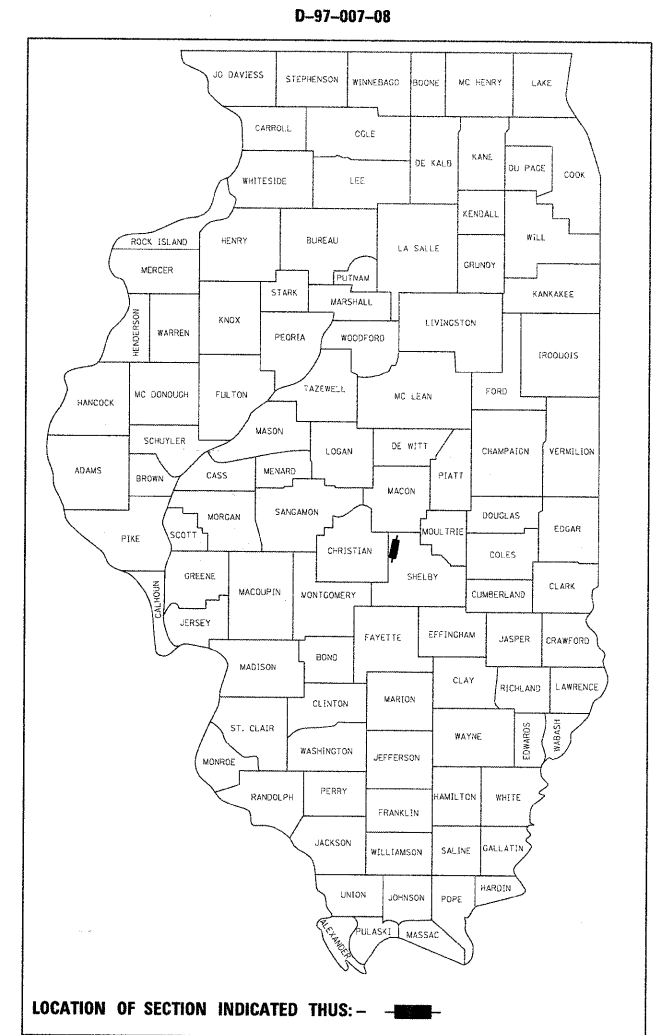
**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 322 (U.S. 51)
SECTION (46,47)L

SHELBY COUNTY

C-97-020-08

FOR INDEX OF SHEETS, SEE SHEET NO. 2

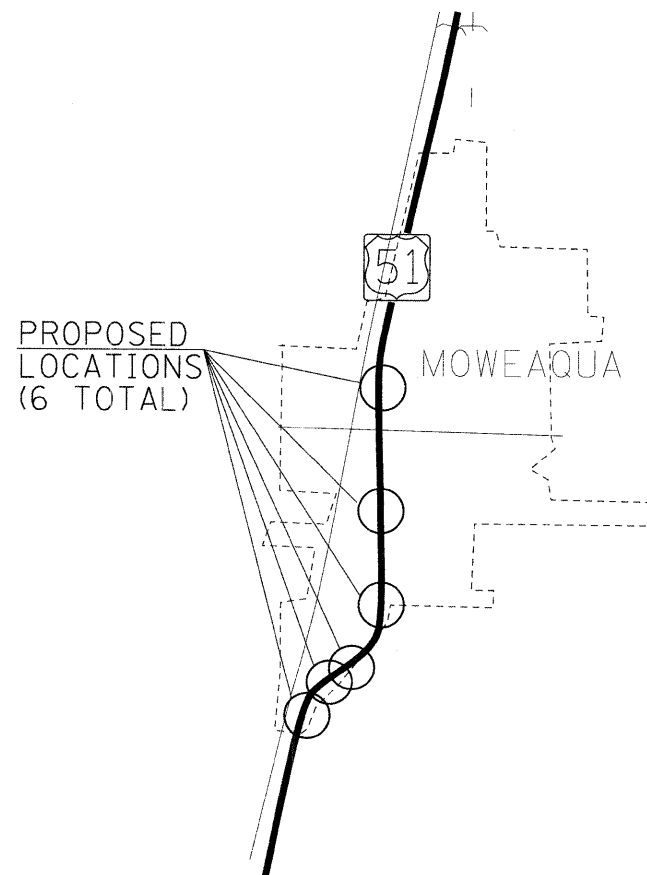


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER—ROB MACKLIN
PROJECT DESIGNER—LYNN McCLELLAN

CONTRACT NO. 74289



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED February 7 20 08

Christine M. Reed
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 21, 20 08
Eric E. Harms
ENGINEER OF DESIGN AND ENVIRONMENT

March 21, 20 08
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2007; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2008; AND "THE SPECIAL PROVISIONS" INCLUDED IN THE PROPOSAL.

THIS PROJECT IS LOCATED ON FAP 322 (US 51) AROUND THE VILLAGE OF MOWEAQUA, IN SHELBY COUNTY. THE WORK INCLUDED AT 6 SEPARATE LOCATIONS IN THIS SECTION CONSISTS OF THE INSTALLATION OF HIGHWAY LIGHTING AND ALL OTHER WORK NECESSARY TO COMPLETE THIS SECTION.

THE LOCATION OF BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE, AND ARE SHOWN FOR THE CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVE GROUND UTILITY LOCATIONS, IDENTIFICATION, AND MARKINGS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC., OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVE GROUND UTILITIES, REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CALL J.U.L.I.E. AT 1-800-892-0123.

THE CONTRACTOR IS RESPONSIBLE FOR UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK IS TO BE INCLUDED WITH THE TRENCH AND BACKFILL FOR ELECTRICAL WORK PAY ITEM.

KNOWN UTILITIES LOCATED WITHIN THE LIMITS OF THIS IMPROVEMENT ARE:

SHELBY ELECTRIC COOPERATIVE
 JAMES A. MATLOCK
 ROUTE 128 & NORTH SIXTH STREET
 P. O. BOX 560
 SHELBYVILLE, IL 62565
 PH. 217-774-3986
 800-677-2612
 jmatlock@shelbyelectric.coop

FRONTIER COMMUNICATIONS
 BRAD SMETANKO
 117 W. JEFFERSON
 MT. PULASKI, IL 62548
 PH. 217-792-0205
 CELL: 309-826-2723
 Brad.Smetanko@frontiercorp.com

AMEREN-CIPS
 RILEY ADAMS
 420 NORTH 2400 EAST RD
 PANA, IL 62557
 PH. 217-562-1441
 CELL: 217-246-0213
 radams@ameren.com

SUDDENLINK COMMUNICATIONS
 DARREN GILLUM
 127 S. MAIN
 MOWEAQUA, IL 62550
 CELL: 217-855-7956
 darren.gillum@cebridgeus.com

A T & T
 TOM LONG
 2250 N. JASPER
 DECATUR, IL 62526
 PH. 217-429-8596

VILLAGE OF MOWEAQUA
 DON "BOOMER" NEECE
 122 NORTH MAIN ST.
 MOWEAQUA, IL 62550
 PH. 217-768-3435
 CELL: 217-972-9316

INDEX OF SHEETS

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2	INDEX OF SHEETS AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	LIGHTING SCHEDULE
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6	HIGHWAY LIGHTING LOCATION #2 (S MAIN ST INTERSECTION)
7	HIGHWAY LIGHTING LOCATION #3 (S PUTNAM ST INTERSECTION)
8	HIGHWAY LIGHTING LOCATION #4 (E MAIN ST INTERSECTION)
9	HIGHWAY LIGHTING LOCATION #5 (GORDON ST INTERSECTION)
10	HIGHWAY LIGHTING LOCATION #6 (N MOWEAQUA CONNECTOR)
11	CONTROL INSTALLATION SERVICE POLE INSTALLTION
12	CONTROL INSTALLATION PEDESTAL MOUNT CABINET
13	LIGHT POLE FOUNDATION
14	POLE STANDARDS
15	DETAIL FOR NIGHTTIME LIGHTING INSPECTION

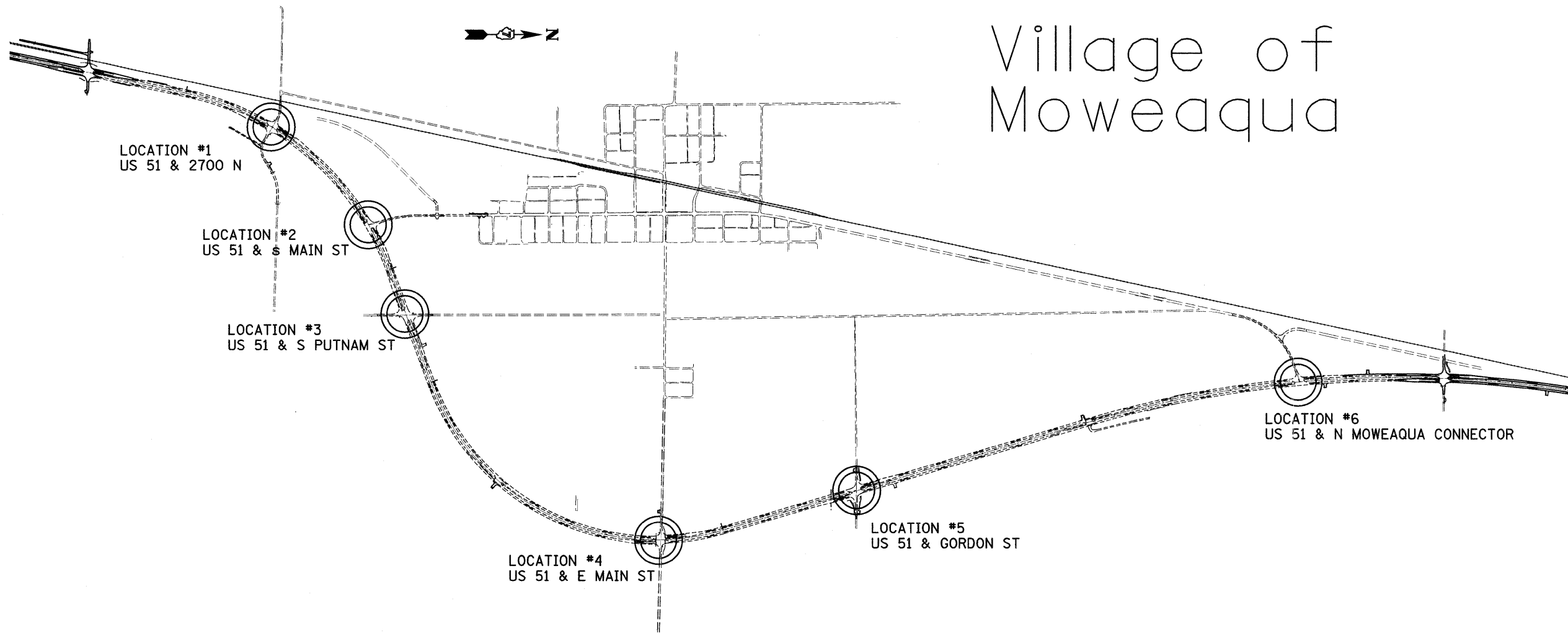
THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 15:

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701101-01	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-01	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701421-01	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS >=45 MPH TO 55 MPH
701901	TRAFFIC CONTROL DEVICES

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS & GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -			322	(46,47)L	SHELBY	16	2	
PLOT SCALE = #SCALE#		CHECKED -	REVISED -			CONTRACT NO. 74289					
PLOT DATE = #DATE#		DATE -	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.

SUMMARY OF QUANTITIES			100% STATE TOTAL QUANTITIES		CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		Y030-1E LIGHTING		
67100100	MOBILIZATION	L SUM	1	1		
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1	1		
80400100	ELECTRIC SERVICE INSTALLATION	EACH	5	5		
81021330	CONDUIT PUSHED, 2" DIA., PVC	FOOT	1419	1419		
81021350	CONDUIT PUSHED, 3" DIA., PVC	FOOT	68	68		
81603010	UNIT DUCT, 600V, 2-1C NO.10, 1/C NO.10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	7554	7554		
81603025	UNIT DUCT, 600V, 2-1C NO.4, 1/C NO.4 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	1156	1156		
81603035	UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	1316	1316		
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	7909	7909		
82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	48	48		
82500510	LIGHTING CONTROLLER TYPE CB-RCS 60AMP - 240VOLT	EACH	1	1		
82500605	LIGHTING CONTROLLER PHOTOCCELL RELAY	EACH	4	4		
83003600	LIGHT POLE, ALUMINUM, 45 FT. M.H., 15 FT. DAVIT ARM	EACH	48	48		
83600355	LIGHT POLE FOUNDATION METAL, 15" BOLT CIRCLE, 8" X 6'	EACH	48	48		
83800650	BREAKAWAY DEVICE, COUPLING, WITH STAINLESS STEEL SCREEN	EACH	192	192		
84200500	REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	8	8		

Village of Moweaqua



FILE NAME =
c:\projects\74289g\shp\pln_74289.dgn

USER NAME = msclellanla

DESIGNED -
DRAWN -

REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LOCATION MAP

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

F.A.P. RTE. 322	SECTION SHELBY	COUNTY	TOTAL SHEETS 16	SHEET NO. 4
CONTRACT NO.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PLOT SCALE = 50,000' / IN.
PLOT DATE = 2/7/2008

CHECKED -
DATE -

REVISED -
REVISED -

LIGHTING SCHEDULE

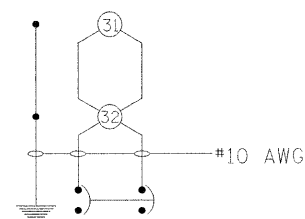
PAYITEM	LOCATION #1	LOCATION #2	LOCATION #3	LOCATION #4	LOCATION #5	LOCATION #6	PROJECT TOTAL
	2700 N INTERSECTION	S. MAIN ST. INTERSECTION	S. PUTNAM ST INTERSECTION	E. MAIN ST INTERSECTION	GORDON ST INTERSECTION	N. MOWEAQUA CONNECTOR	
ELECTRIC SERVICE INSTALLATION	1		1	1	1	1	5
CONDUIT PUSHED, 2" DIA., PVC	235	182	194	308	320	180	1419
CONDUIT PUSHED, 3" DIA., PVC			68				68
UNIT DUCT, 600V, 2-1C #10, 1/C #10 GROUND, (XLP-TYPE USE) 3/4" POLYETHYLENE	1403		1828	1411	1478	1434	7554
UNIT DUCT, 600V, 2-1C #4, 1/C #4 GROUND, (XLP-TYPE USE) 1" POLYETHYLENE		1156					1156
UNIT DUCT, 600V, 2-1C #6, 1/C #6 GROUND, (XLP-TYPE USE) 1" POLYETHYLENE		1316					1316
TRENCH AND BACKFILL FOR ELECTRICAL WORK	1064	2190	1458	993	1054	1150	7909
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	8	8	8	8	8	8	48
LIGHTING CONTROLLER TYPE CB-RCS 60 AMP-240 VOLT			1				1
LIGHTING CONTROLLER PHOTOCELL RELAY	1			1	1	1	4
LIGHT POLE, ALUMINUM, 45 FT. M.H., 15 FT. DAVIT ARM	8	8	8	8	8	8	48
LIGHT POLE, FOUNDATION METAL, 15" BOLT CIRCLE, 8" X 6'	8	8	8	8	8	8	48
BREAKAWAY DEVICE, COUPLING, WITH STAINLESS STEEL SCREEN	32	32	32	32	32	32	192
REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	2	1	2	*	2	1	8

* TO BE REMOVED BY OTHERS

NOTE:
 1) POLES TO BE OFFSET 15' FROM EDGE OF PAVEMENT, FURTHER IF IN FLOWLINE OF DITCH. IN THAT CASE, MOVE FURTHER BACK AND OUT OF THE FLOWLINE OR AS DIRECTED BY THE ENGINEER. IF OBSTACLES ARE ENCOUNTERED, THE POLE WILL BE RELOCATED TO AN APPROPRIATE LOCATION AS DIRECTED BY THE ENGINEER.

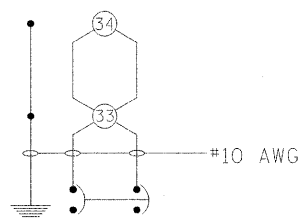
2) WHERE THE ELECTRIC SERVICE FROM THE POWER COMPANY IS UNDERGROUND, THE TOP OF THE CUSTOMER OWNED METER POLE SHALL BE INSTALLED 6'-6" ABOVE GRADE.

3) DISTANCE FROM TRANSFORMER TO CONTROLLER NOT TO EXCEED 250 FT. SEE SHEET NO. 13.



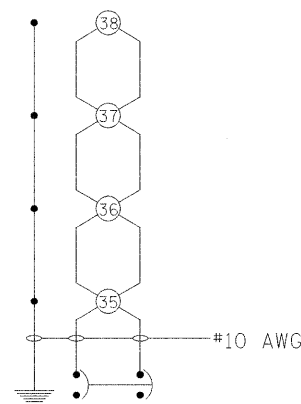
20 AMP, 2 POLE CIRCUIT BREAKER

CIRCUIT NO. 3-1



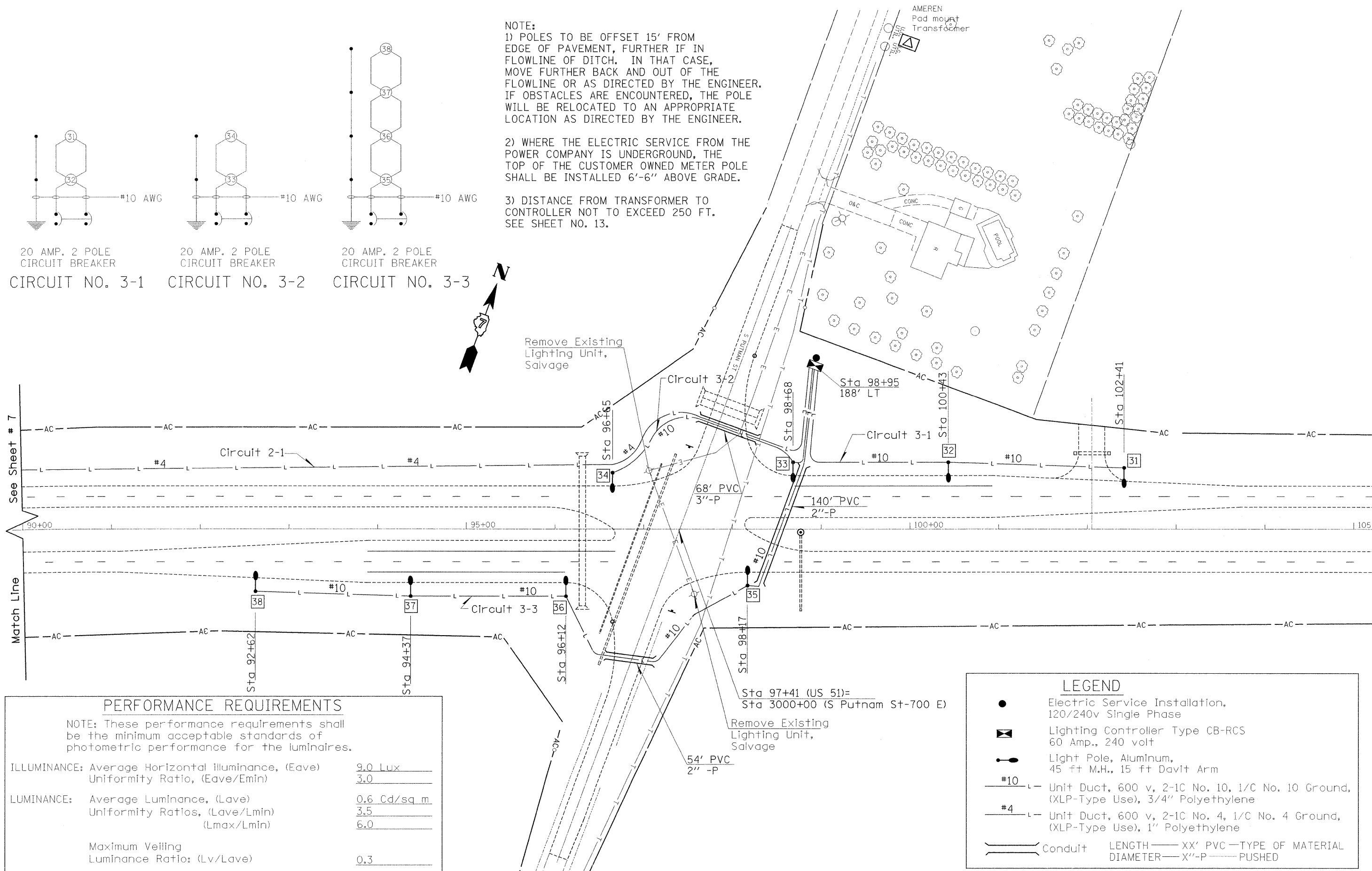
20 AMP, 2 POLE CIRCUIT BREAKER

CIRCUIT NO. 3-2



20 AMP, 2 POLE CIRCUIT BREAKER

CIRCUIT NO. 3-3



See Sheet # 7

Match Line

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaires.

ILLUMINANCE: Average Horizontal Illuminance, (Eave)	9.0 Lux
Uniformity Ratio, (Eave/Emin)	3.0
LUMINANCE: Average Luminance, (Lave)	0.6 Cd/sq m
Uniformity Ratios, (Lave/Lmin)	3.5
(Lmax/Lmin)	6.0
Maximum Veiling Luminance Ratio: (Lv/Lave)	0.3

LEGEND

- Electric Service Installation, 120/240v Single Phase
- ⊠ Lighting Controller Type CB-RCS 60 Amp., 240 volt
- ⊢ Light Pole, Aluminum, 45 ft M.H., 15 ft Davit Arm
- #10 Unit Duct, 600 v, 2-1C No. 10, 1/C No. 10 Ground, (XLP-Type Use), 3/4" Polyethylene
- #4 Unit Duct, 600 v, 2-1C No. 4, 1/C No. 4 Ground, (XLP-Type Use), 1" Polyethylene
- ══ Conduit LENGTH — XX' PVC —TYPE OF MATERIAL DIAMETER — X"-P —PUSHED

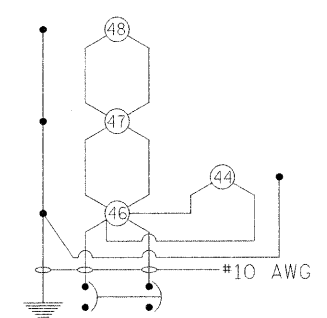
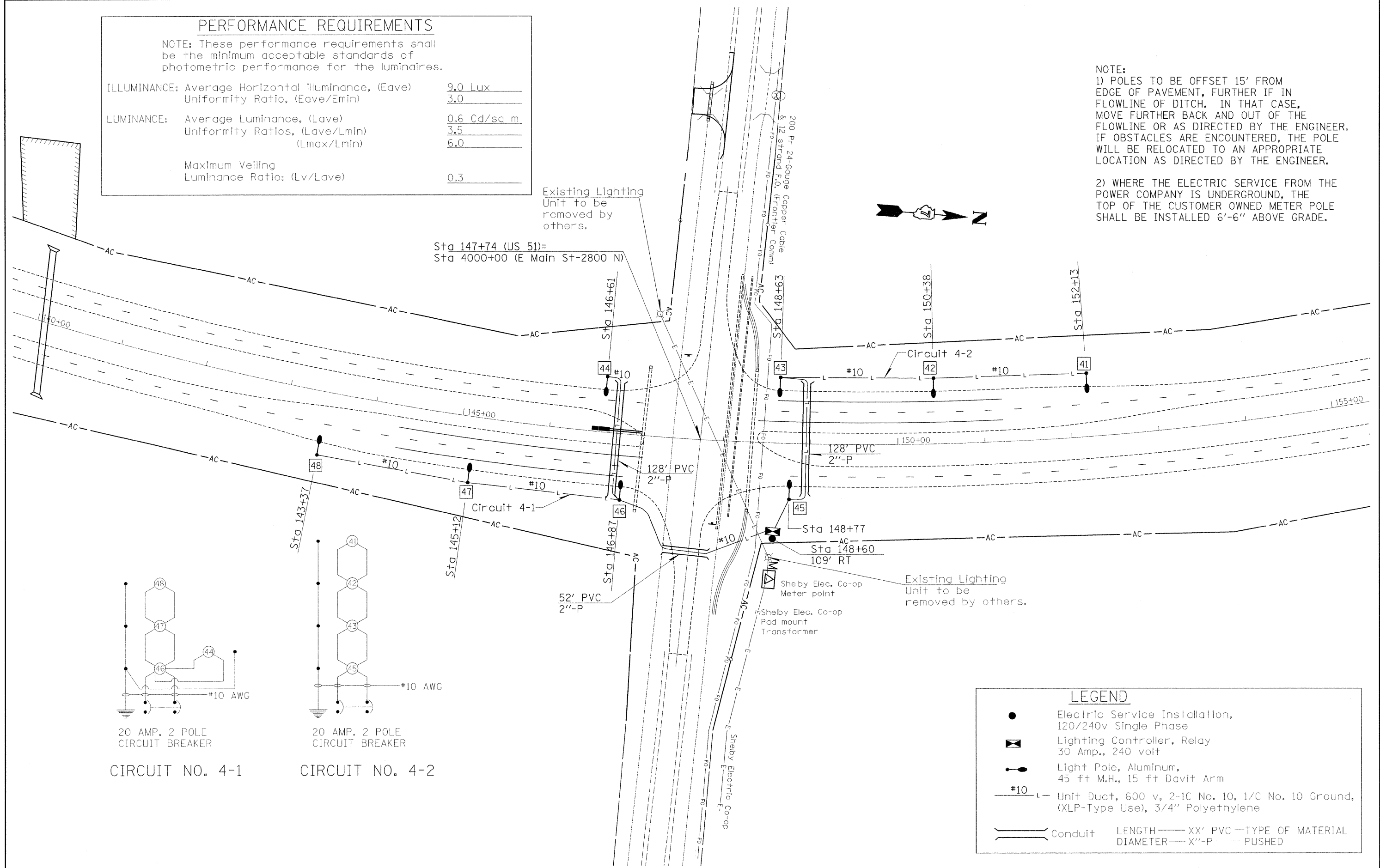
PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaires.

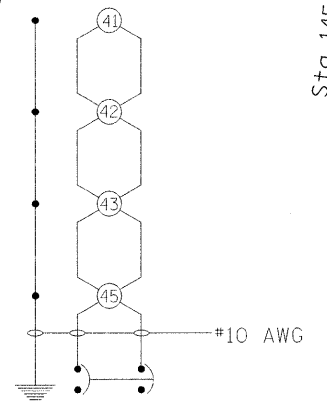
ILLUMINANCE: Average Horizontal Illuminance, (Eave)	9.0 Lux
Uniformity Ratio, (Eave/Emin)	3.0
LUMINANCE: Average Luminance, (Lave)	0.6 Cd/sq m
Uniformity Ratios, (Lave/Lmin)	3.5
(Lmax/Lmin)	6.0
Maximum Veiling Luminance Ratio: (Lv/Lave)	0.3

NOTE:
1) POLES TO BE OFFSET 15' FROM EDGE OF PAVEMENT, FURTHER IF IN FLOWLINE OF DITCH. IN THAT CASE, MOVE FURTHER BACK AND OUT OF THE FLOWLINE OR AS DIRECTED BY THE ENGINEER. IF OBSTACLES ARE ENCOUNTERED, THE POLE WILL BE RELOCATED TO AN APPROPRIATE LOCATION AS DIRECTED BY THE ENGINEER.

2) WHERE THE ELECTRIC SERVICE FROM THE POWER COMPANY IS UNDERGROUND, THE TOP OF THE CUSTOMER OWNED METER POLE SHALL BE INSTALLED 6'-6" ABOVE GRADE.



CIRCUIT NO. 4-1



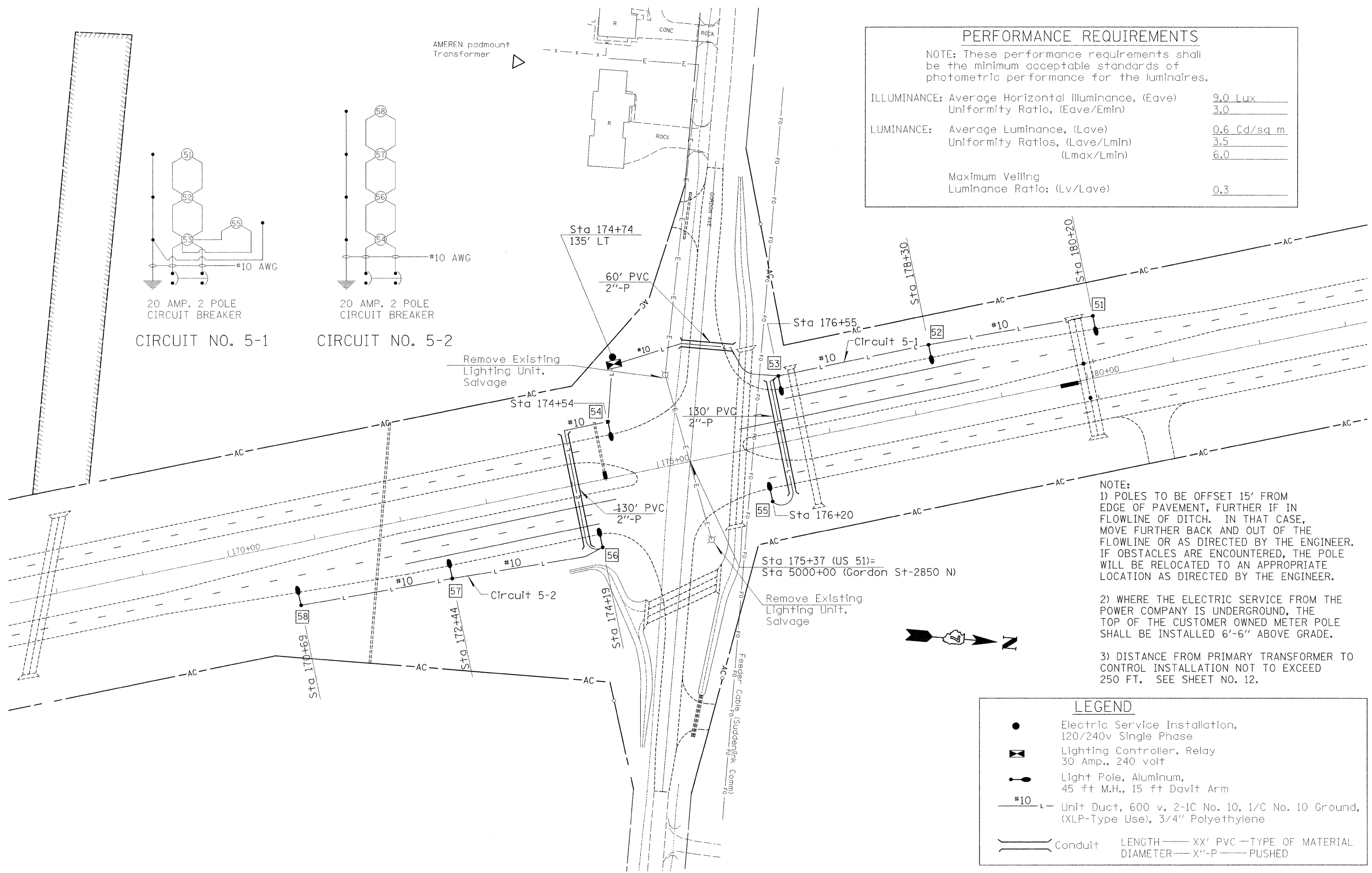
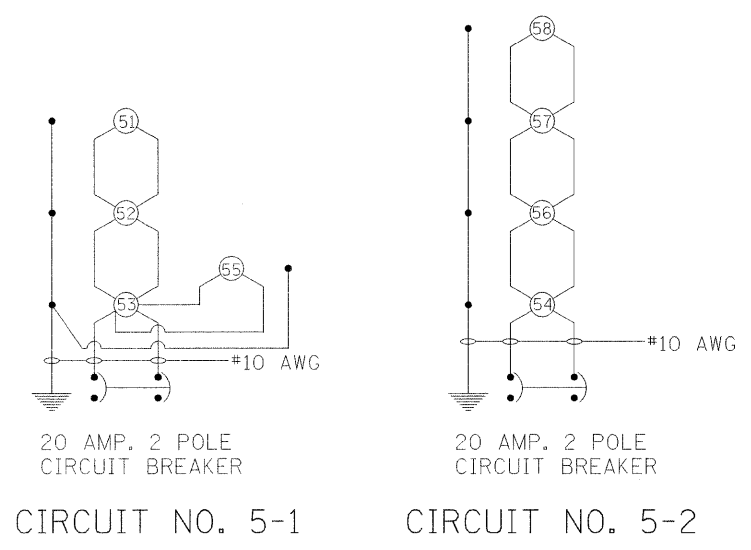
CIRCUIT NO. 4-2

LEGEND	
●	Electric Service Installation, 120/240v Single Phase
⊠	Lighting Controller, Relay 30 Amp., 240 volt
⊙	Light Pole, Aluminum, 45 ft M.H., 15 ft Davit Arm
—#10—	Unit Duct, 600 v, 2-1C No. 10, 1/C No. 10 Ground, (XLP-Type Use), 3/4" Polyethylene
—	Conduit LENGTH — XX' PVC — TYPE OF MATERIAL DIAMETER — X"-P — PUSHED

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaires.

ILLUMINANCE: Average Horizontal Illuminance, (Eave)	9.0 Lux
Uniformity Ratio, (Eave/Emin)	3.0
LUMINANCE: Average Luminance, (Lave)	0.6 Cd/sq m
Uniformity Ratios, (Lave/Lmin)	3.5
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Maximum Veiling Luminance Ratio: (Lv/Lave)	0.3

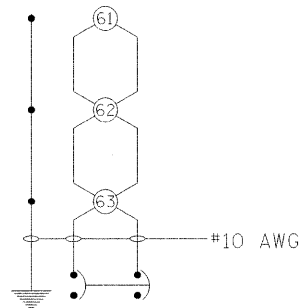


NOTE:

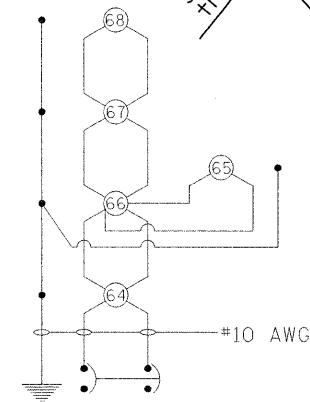
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- 2) WHERE THE ELECTRIC SERVICE FROM THE POWER COMPANY IS UNDERGROUND, THE TOP OF THE CUSTOMER OWNED METER POLE SHALL BE INSTALLED 6'-6" ABOVE GRADE.
- 3) DISTANCE FROM PRIMARY TRANSFORMER TO CONTROL INSTALLATION NOT TO EXCEED 250 FT. SEE SHEET NO. 12.

LEGEND

- Electric Service Installation, 120/240v Single Phase
- ⊠ Lighting Controller, Relay 30 Amp., 240 volt
- ⊢ Light Pole, Aluminum, 45 ft M.H., 15 ft Davit Arm
- #10 Unit Duct, 600 v, 2-1C No. 10, 1/C No. 10 Ground, (XLP-Type Use), 3/4" Polyethylene
- || Conduit LENGTH — XX' PVC — TYPE OF MATERIAL
DIAMETER — X"-P — PUSHED



20 AMP. 2 POLE
CIRCUIT BREAKER
CIRCUIT NO. 6-1

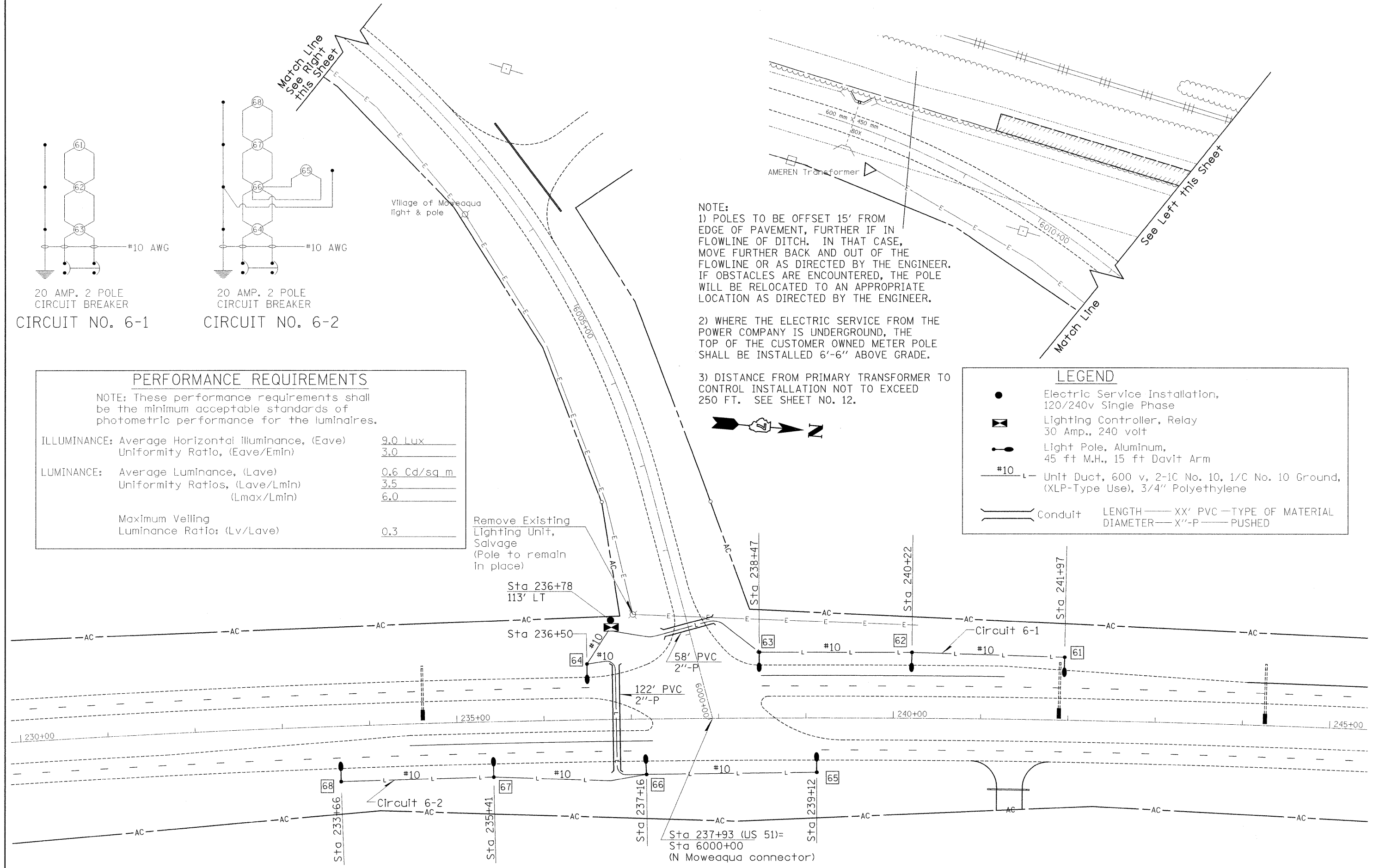


20 AMP. 2 POLE
CIRCUIT BREAKER
CIRCUIT NO. 6-2

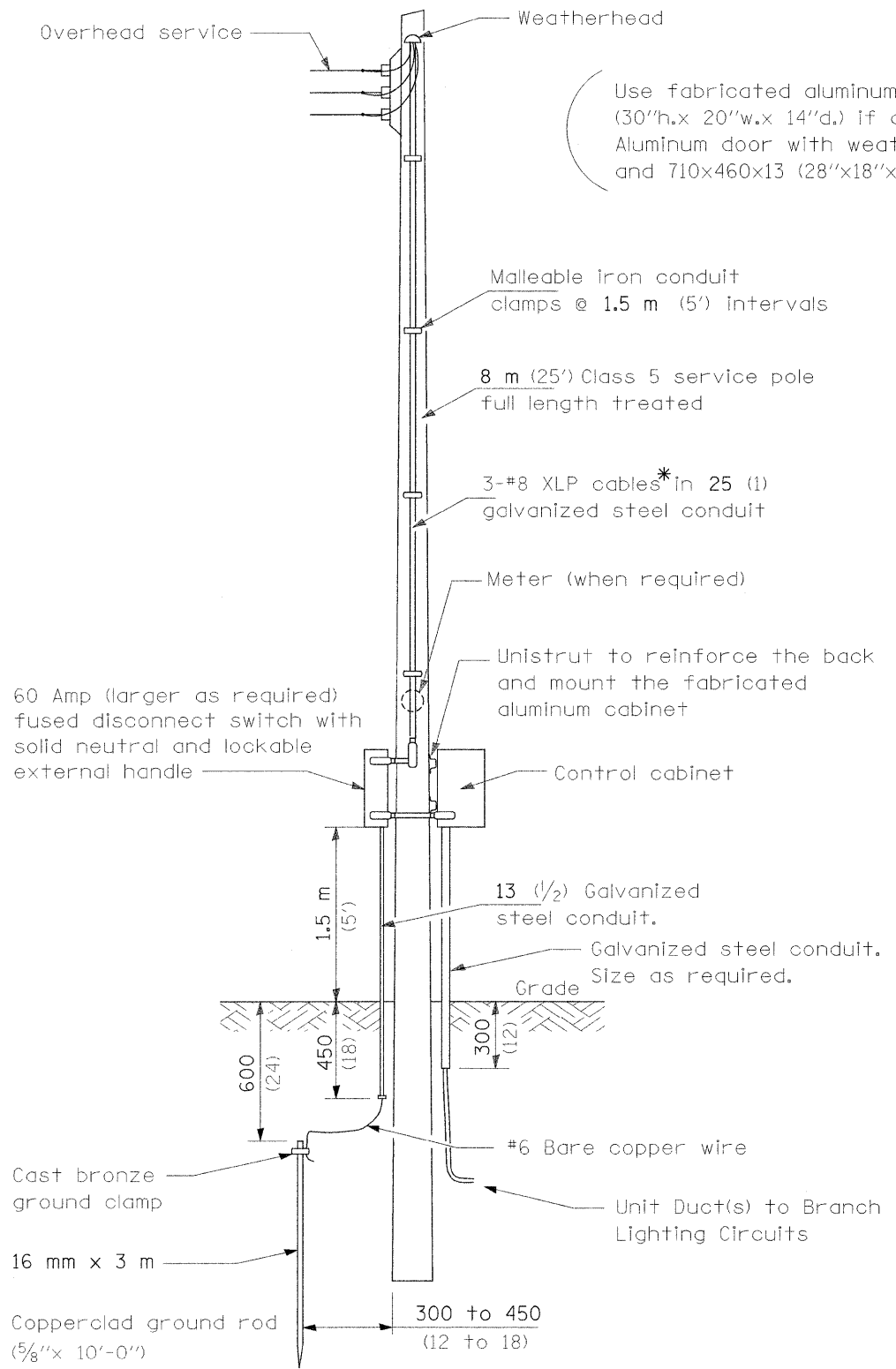
PERFORMANCE REQUIREMENTS	
NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaires.	
ILLUMINANCE: Average Horizontal Illuminance, (Eave)	9.0 Lux
Uniformity Ratio, (Eave/Emin)	3.0
LUMINANCE: Average Luminance, (Lave)	0.6 Cd/sq m
Uniformity Ratios, (Lave/Lmin)	3.5
(Lmax/Lmin)	6.0
Maximum Veiling Luminance Ratio: (Lv/Lave)	0.3

- NOTE:
- 1) POLES TO BE OFFSET 15' FROM EDGE OF PAVEMENT, FURTHER IF IN FLOWLINE OF DITCH. IN THAT CASE, MOVE FURTHER BACK AND OUT OF THE FLOWLINE OR AS DIRECTED BY THE ENGINEER. IF OBSTACLES ARE ENCOUNTERED, THE POLE WILL BE RELOCATED TO AN APPROPRIATE LOCATION AS DIRECTED BY THE ENGINEER.
 - 2) WHERE THE ELECTRIC SERVICE FROM THE POWER COMPANY IS UNDERGROUND, THE TOP OF THE CUSTOMER OWNED METER POLE SHALL BE INSTALLED 6'-6" ABOVE GRADE.
 - 3) DISTANCE FROM PRIMARY TRANSFORMER TO CONTROL INSTALLATION NOT TO EXCEED 250 FT. SEE SHEET NO. 12.

LEGEND	
●	Electric Service Installation, 120/240v Single Phase
⊠	Lighting Controller, Relay 30 Amp., 240 volt
⊙	Light Pole, Aluminum, 45 ft M.H., 15 ft Davit Arm
#10	Unit Duct, 600 v, 2-iC No. 10, 1/C No. 10 Ground, (XLP-Type Use), 3/4" Polyethylene
—	Conduit LENGTH—XX' PVC—TYPE OF MATERIAL
—	DIAMETER—X"—P—PUSHED

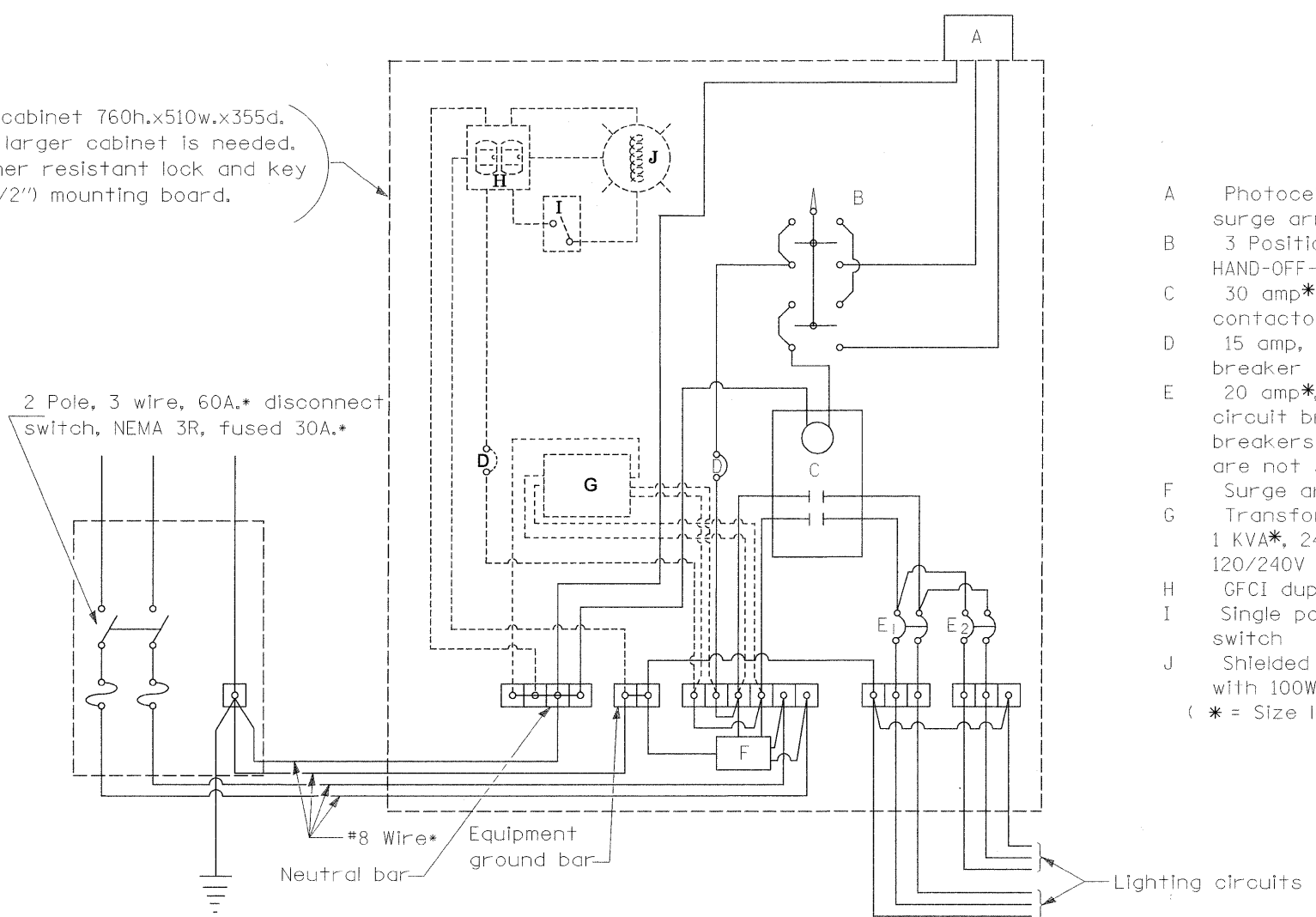


120/240V., 1 PHASE, 3 WIRE SERVICE



SERVICE POLE

Use fabricated aluminum cabinet 760h.x510w.x355d. (30"h.x 20"w.x 14"d.) if a larger cabinet is needed. Aluminum door with weather resistant lock and key and 710x460x13 (28"x18"x1/2") mounting board.



DISCONNECT SWITCH

PHOTOCELL RELAY

- A Photocell with integral surge arrester
 - B 3 Position selector switch HAND-OFF-AUTO
 - C 30 amp* electrically held contactor
 - D 15 amp, 1 pole, circuit breaker
 - E 20 amp*, 2 pole, branch circuit breaker. Two spare breakers are required but are not shown
 - F Surge arrester
 - G Transformer (see notes), 1 KVA*, 240/480V primary, 120/240V sec, single phase
 - H GFCI duplex receptacle
 - I Single pole, single throw switch
 - J Shielded security fixture with 100W lamp
- (* = Size larger as needed)

GENERAL NOTES

Wiring shall be panel board fashion. All bends shall be right angles. All runs shall be vertical or parallel to panel board. Wires shall be grouped or laced.

All control installation components shall be U.L. listed.

Label equipment ground and neutral.

Locate service pole and control installation adjacent to R.O.W. line with a minimum distance of 9 m (30') from the edge of pavement. Exact location shall be established by the Engineer.

The total distance between the control installation and primary transformer shall not exceed 76 m (250').

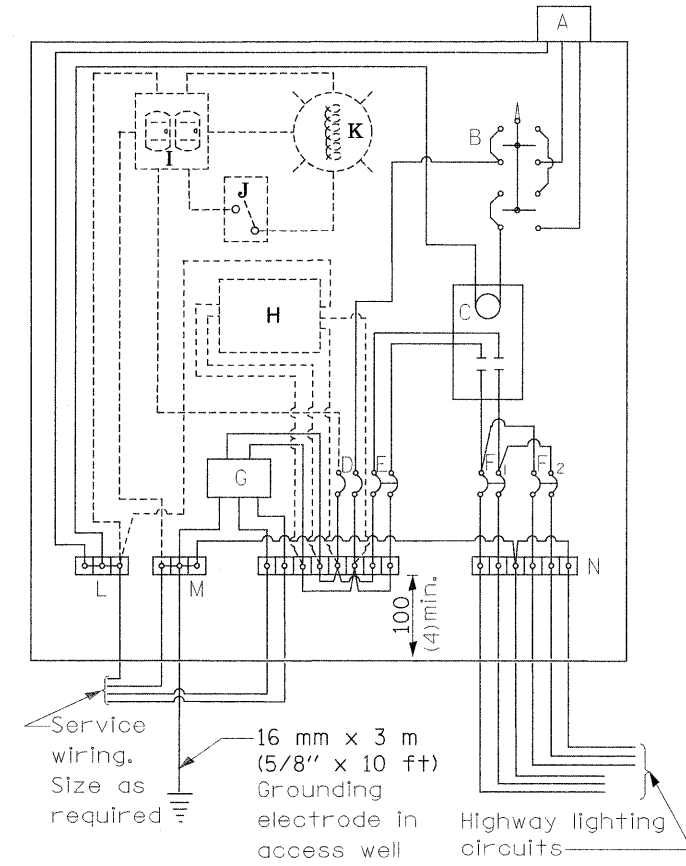
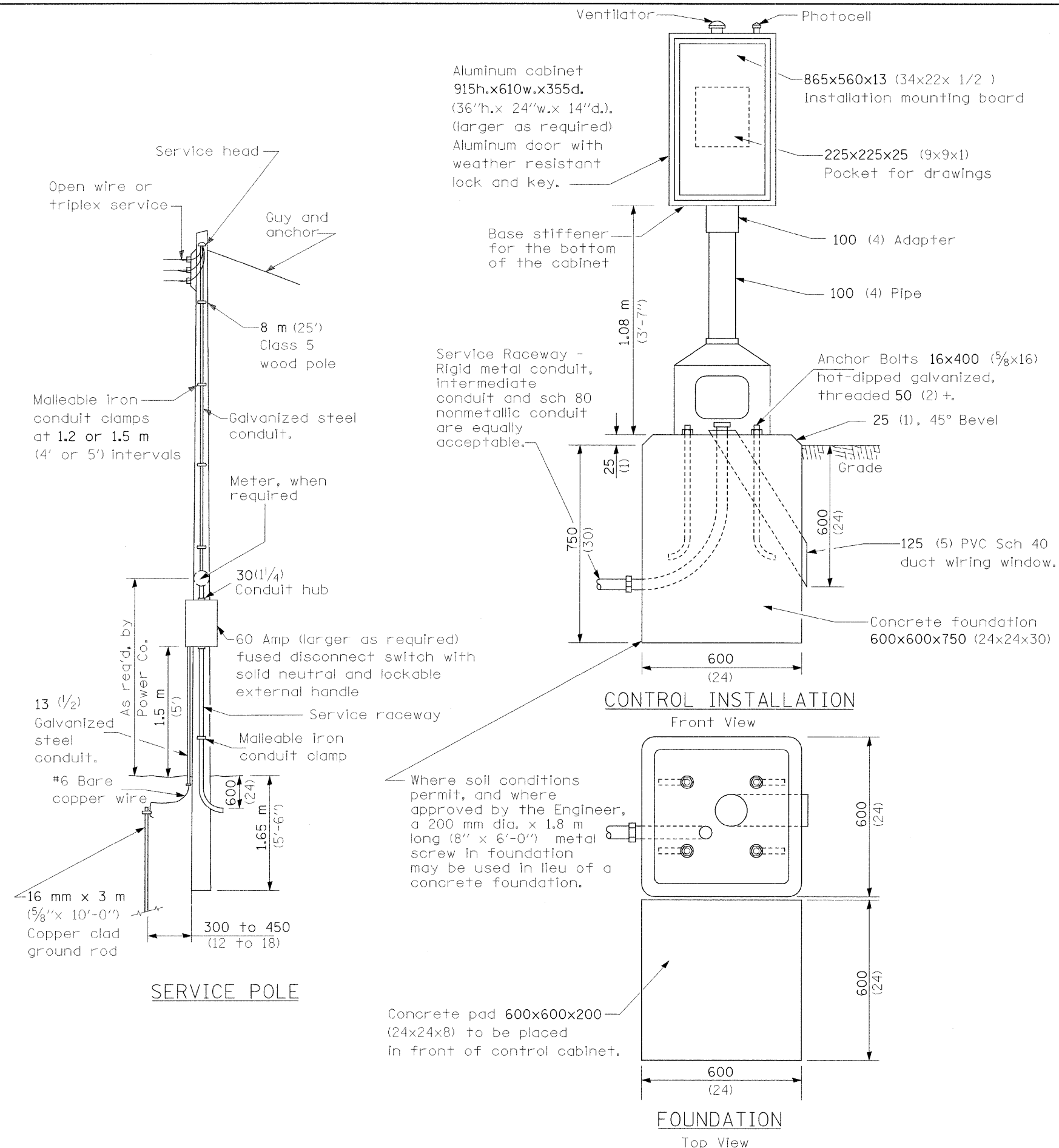
For 480 V service, a step down transformer (dashed lines) is required.

Add receptacle, light, and switch in control cabinet, when specified.

- 240 V. SERVICE
- 480 V. SERVICE

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

FILE NAME = c:\projects\74289\shp\in_74289.dgn	USER NAME = mcellellan	DESIGNED -	REVISED - Corrected 1/19/06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONTROL INSTALLATION SERVICE POLE INSTALLTION				F.A.P. RTE. 322	SECTION (46,47)L	COUNTY SHELBY	TOTAL SHEETS 16	SHEET NO. 12
PLOT SCALE = 50,0000 "/ IN.	CHECKED -	REVISIED - 1/17/08 Service disconnect	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 74289
PLOT DATE = 2/7/2008	DATE -	REVISED -	REVISED -										



- ### MATERIALS
- A Photocell w/ integral surge arrester (remote mount in urban areas)
 - B 3 position selector switch HAND-OFF-AUTO
 - C 2 pole, 100 amp*, electrically held contactor, 120V operating coil
 - D 15 amp, 1 pole, circuit breaker
 - E 60 amp*, 2 pole, main circuit breaker
 - F 20 amp*, 2 pole, branch circuit breaker (typ). 2 spare c.b. required but not shown
 - G Surge arrester
 - H Transformer (see notes), 1 KVA*, 240/480V primary, 120/240V sec, single phase
 - I GFCI duplex receptacle
 - J Single pole, single throw switch
 - K Shielded security fixture with 100W lamp
 - L Neutral bar
 - M Equipment ground bar
 - N Terminal block (typ)
- (* = Size larger as needed)

CONTROL SCHEMATIC

GENERAL NOTES

Locate service pole and control installation adjacent to R.O.W. line with a minimum distance of 9 m (30') from the edge of pavement. Locate in close proximity to the utility transformer so the service drop does not exceed 46 m (150ft) and the total distance of overhead and underground cable (utility transformer to lighting controller) does not exceed 76 m (250ft). Exact location shall be established by the Engineer.

Wiring shall be panel board fashion. All bends shall be right angles. All runs shall vertical or parallel to panel board. Wires shall be grouped or laced.

All control installation components shall be U.L. listed.

Add receptacle, light, and switch in control cabinet, when specified.

For 480 V service, a step down transformer (dashed lines) is required.

Raceways shall terminate 75 (3) above top of concrete foundation.

Label equipment ground buss and neutral buss.

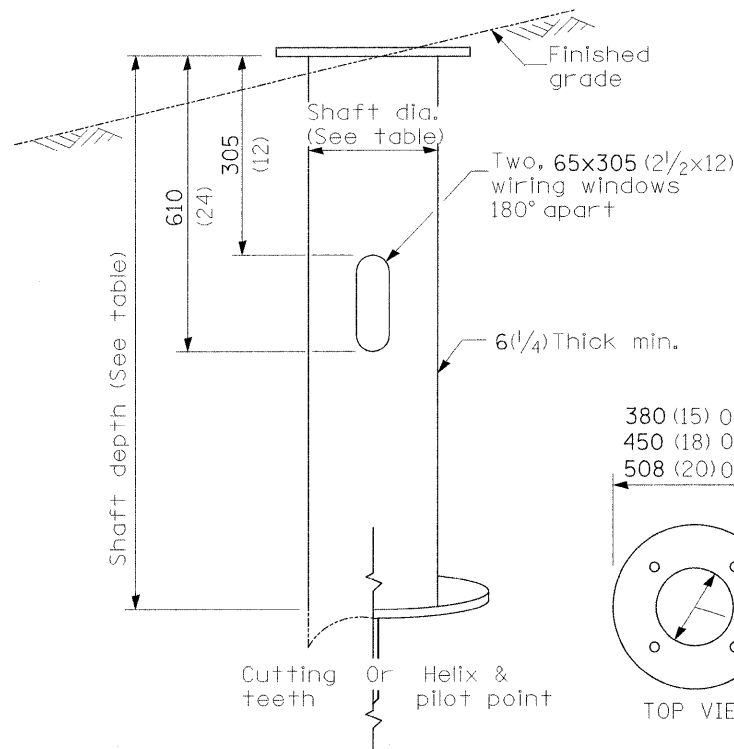
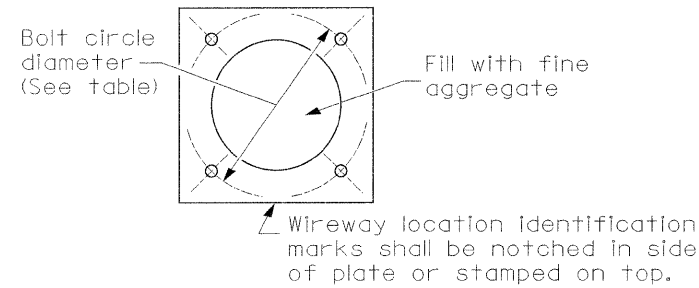
- 240 V. SERVICE
- 480 V. SERVICE

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

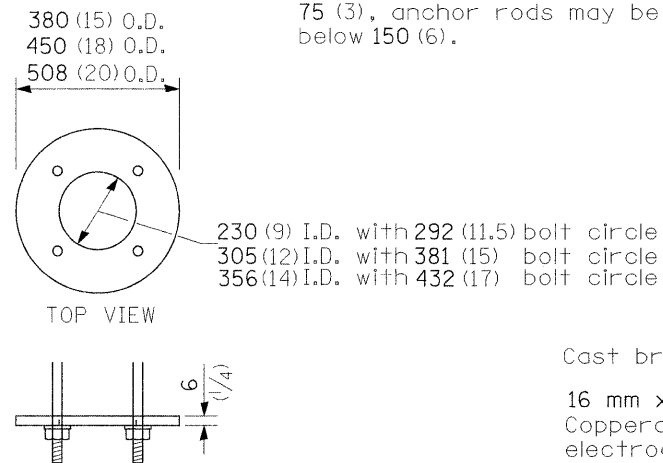
FILE NAME = c:\projects\74289\ahp\ln.74289.dgn	USER NAME = mcsellan1a	DESIGNED -	REVISED - Corrected 1/20/06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONTROL INSTALLTION PEDESTAL MOUNT CABINET			F.A.P. RTE. 322	SECTION (46,47)L	COUNTY SHELBY	TOTAL SHEETS 16	SHEET NO. 13
	PLOT SCALE = 50,0000'' / IN.	DRAWN -	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 74289		
	PLOT DATE = 2/7/2008	CHECKED -	REVISED -									
		DATE -	REVISED -									

LIGHT POLE MOUNTING HEIGHT	BOLT CIRCLE DIAMETER	STEEL FOUNDATION			CONCRETE FOUNDATION		
		SHAFT DIAMETER	SHAFT DEPTH	TOP PLATE (min)	SHAFT DIAMETER	SHAFT DEPTH	ANCHOR ROD LENGTH ①
< 9.1 m (30')	292 (11.5)	220 (8 5/8)	1.83 m (6')	300 x 300 x 25 12 x 12 x 1	610 (24)	1.52 m (5'-0")	1.45 m (4'-9")
9.4 m - 10.7 m (31'-35')	292 (11.5)	220 (8 5/8)	1.83 m (6')	300 x 300 x 25 12 x 12 x 1	610 (24)	1.67 m (5'-6")	1.60 m (5'-3")
10.9 m - 12.2 m (36'-40')	381 (15) ③	220 (8 5/8)	1.83 m (6') ②	375 x 375 x 31 15 x 15 x 1 1/4	762 (30)	1.83 m (6'-0")	1.75 m (5'-9")
12.5 m - 13.7 m (41'-45')	381 (15) ③	220 (8 5/8)	1.83 m (6') ②	375 x 375 x 31 15 x 15 x 1 1/4	762 (30)	1.98 m (6'-6")	1.90 m (6'-3")
14.0 m - 15.2 m (46'-50')	381 (15) ③	220 (8 5/8)	2.44 m (8')	375 x 375 x 31 15 x 15 x 1 1/4	762 (30)	2.13m (7'-0")	2.00 m (6'-9")

- ① Length does not include 100(4)hook
- ② 220 mm x 2.44 m (8 5/8" x 8'-0") for Twin luminaires
- ③ Bolt circle diam. shall be 430 (17) when a TB3-17 transformer base is used



STEEL FOUNDATION



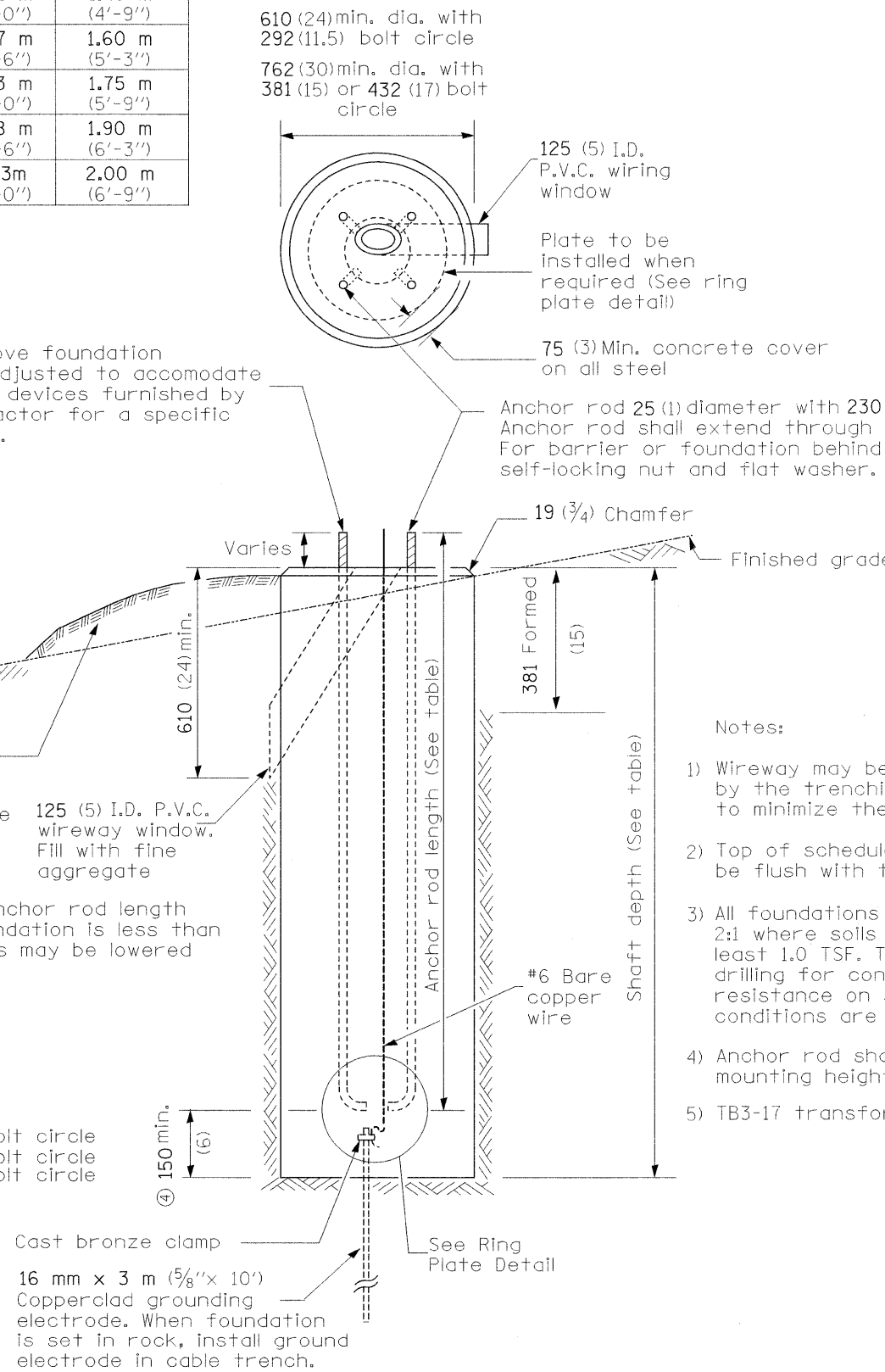
RING PLATE DETAIL

(When rock is encountered and foundation is shallower)

Length above foundation shall be adjusted to accommodate breakaway devices furnished by the contractor for a specific installation.

Use dirt removed from foundation to meet 1.52m (5 ft.) chord fill around foundation top. Grade dirt level with bottom of concrete

- ④ If the required anchor rod length above top of foundation is less than 75 (3), anchor rods may be lowered below 150 (6).

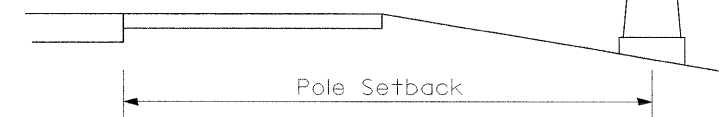


CONCRETE FOUNDATION

Pole Foundation Setback:

For horizontal mounted luminaires, setback shall be a minimum of 6.1 m (20') from edge of pavement.

For vertical mount luminaires, setback shall be a minimum of 9 m (30') from edge of pavement. Poles shall be located 1.5 m (5') behind guardrail or other protective barriers, or as directed by the Engineer.



- Notes:
- 1) Wireway may be on front, back or side of foundation as required by the trenching. Place door of transformer base on wireway side to minimize the number of unit duct bends.
 - 2) Top of schedule 40 125 (5) I.D. PVC wiring window, shall be flush with the top of foundation for drainage.
 - 3) All foundations are designed to be located on slopes not exceeding 2:1 where soils have an unconfined compressive strength of at least 1.0 TSF. The contractor shall verify the soil strength during drilling for concrete foundations or by monitoring installation resistance on steel foundations and notify the engineer if other conditions are encountered.
 - 4) Anchor rod shall be increased to 31 (1 1/4) diameter for 15.24 (50') mounting height or above.
 - 5) TB3-17 transformer base is not to be used on metal foundation

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

FILE NAME =	USER NAME = mcelleanla	DESIGNED -	REVISED - 10/7/02 Bridge Office depth calc.
c:\projects\74289\shp\In_74289.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

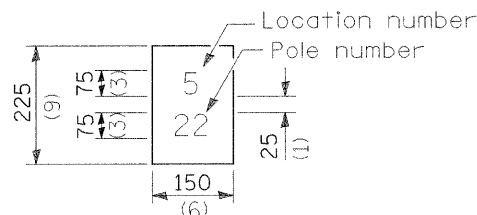
LIGHT POLE FOUNDATION

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

F.A.P. RTE. 322	SECTION (46,47)L	COUNTY SHELBY	TOTAL SHEETS 16	SHEET NO. 14
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 74289	

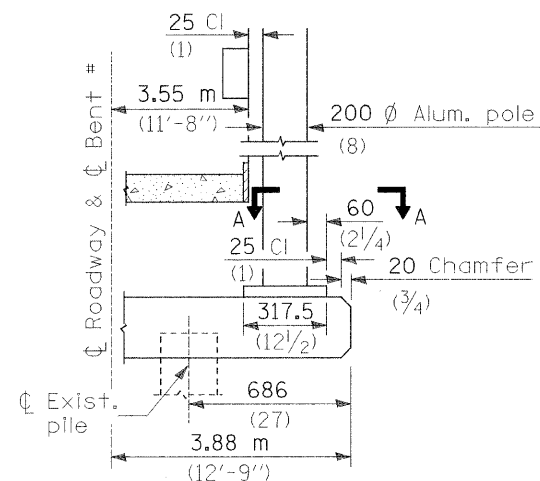
"Install and orient arm bracket over pole tenon and firmly hand tighten the two set screws. Use third hole in arm bracket as a guide to drill a 8.3 (2/64) diameter hole through tenon. Install and tighten self-tapping screw. Tighten set screws an additional (1/4 to 3/8) turn with hex key (not provided). Install locknuts on set screws if threaded projection allows."

Pole shall meet AASHTO Standard Specifications for 128.72 km (80 mph) wind loading and 40.82 kg (90 lb.), .37 m² (4.0 sq. ft.) E.P.A. luminaire.

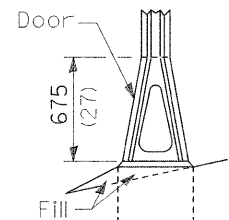


The contractor shall furnish and install a light pole identification of each new light pole, as shown above, incidental to the respective light pole pay item. The numerals shall be 75 (3) series "D", black, screened on silver-white type B pressure sensitive reflective sheeting conforming to the requirements of section T602.01 of the Standard Specifications for Traffic Control Items. The numerals shall conform to the FHWA "Standard Alphabets for Highway Signs".

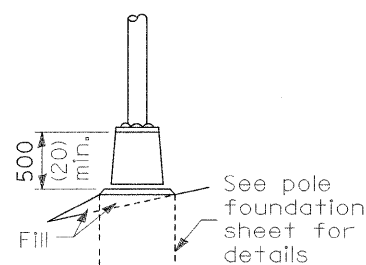
The light pole identification shall be applied to sign base material as specified in section 1085.05 of the Standard Specifications, approximately 180 (7) above the adjacent pavement grade visible to approaching traffic in accordance with Highway Standard 2319.



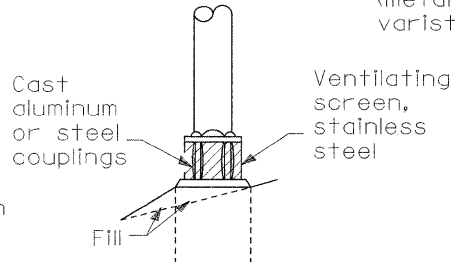
BENT #
(Looking)



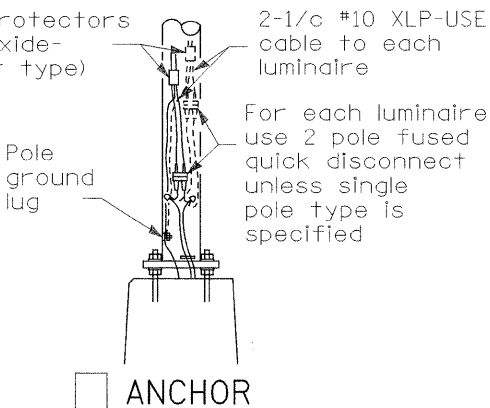
STAINLESS STEEL FLAIR BASE



TRANSFORMER BASE



BREAKAWAY COUPLING

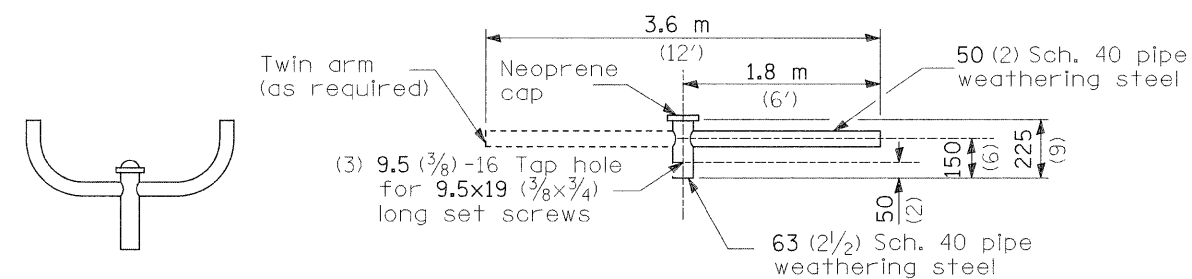


ANCHOR

FRANGIBLE

METAL OR CONCRETE

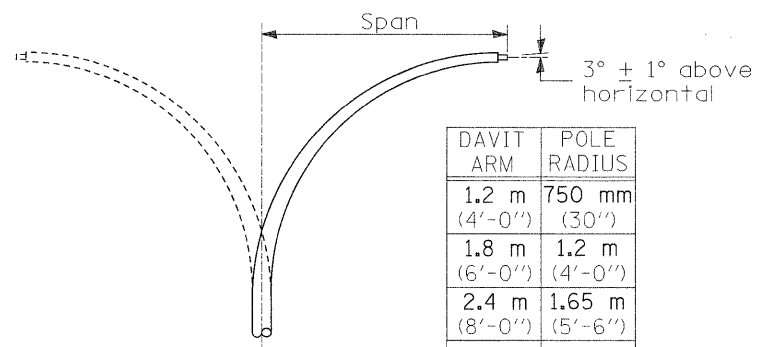
Details for underground distribution if required



TWIN TENON

TENON MOUNT BRACKET ARM

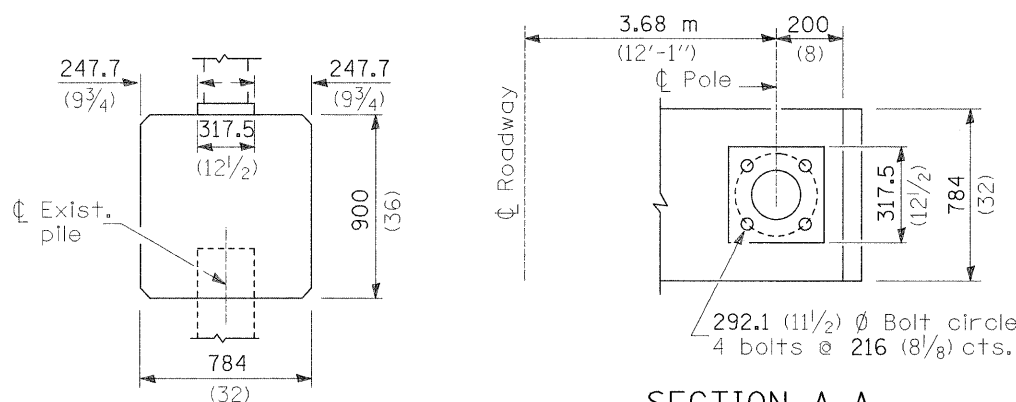
NOTE: Single or twin arm assembly shall be tilted 3° above horizontal.



DAVIT ARM	POLE RADIUS
1.2 m (4'-0")	750 mm (30")
1.8 m (6'-0")	1.2 m (4'-0")
2.4 m (8'-0")	1.65 m (5'-6")
3.6 m (12'-0")	1.65 m (5'-6")

DAVIT ARM

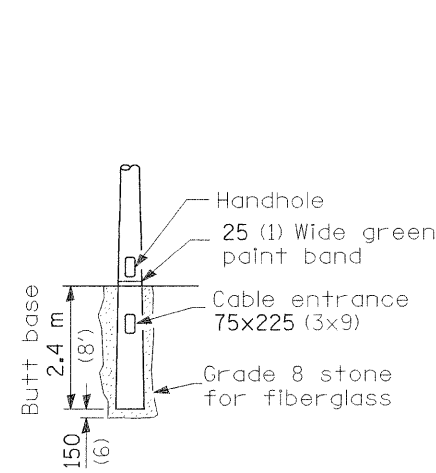
DAVIT ARM-TWIN



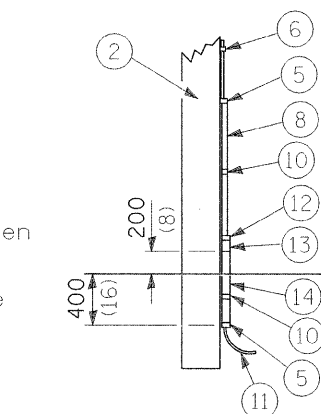
BRIDGE PIER MOUNT

SECTION A-A

- ① Luminaire
- ② Wood pole, class 3 or better
- ③ 63 (2 1/2) Galv. steel conduit
- ④ Single offset pole band
- ⑤ Conduit bushing
- ⑥ Cable clamps on 600 (24) centers
- ⑦ 2/c #12 Type use cable
- ⑧ 25 (1) Galv. steel conduit 3.0 m (10') in length
- ⑨ 16 (5/8) Ø hot dipped galvanized bolt with flat washer & locknut (3 req'd)
- ⑩ Conduit clamps on 900 (36) centers
- ⑪ Unit duct
- ⑫ Threaded reducer
- ⑬ "C" Condulet, threaded
- ⑭ 40 (1 1/2) Galv. steel conduit for 1 unit duct or 75 (3) galv. steel conduit for 2 or 3 unit ducts.



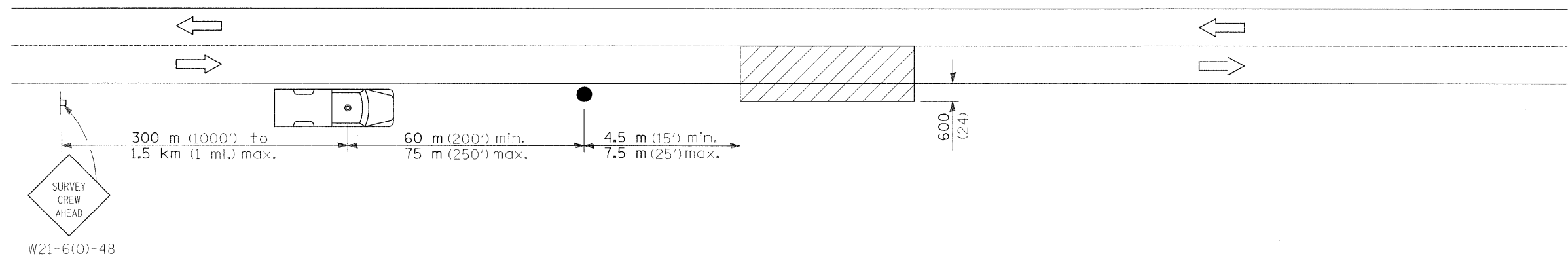
BUTT BASE



POLE, WOOD

POLE LENGTH	DEPTH IN GROUND
19.8 m (65')	3.6 m (12')
18.0 m (60')	3.0 m (10')
16.8 m (55')	2.7 m (9')
16.0 m (50')	2.4 m (8')
13.7 m (45')	2.1 m (7')
12.0 m (40')	2.0 m (6.5')
10.7 m (35')	1.8 m (6')
9.0 m (30')	1.7 m (5.5')

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



SYMBOLS

Work area

Sign on portable or permanent support

Truck with flashing amber light and dual emergency flashers

Flagger with traffic control sign

TYPICAL APPLICATIONS
Utility operations

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

FILE NAME = c:\projects\74289\shp\ln.74289.dgn	USER NAME = mceileiana	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAIL FOR NIGHTTIME LIGHTING INSPECTION				F.A.P. RTE. 322	SECTION (46,47)L	COUNTY SHELBY	TOTAL SHEETS 16	SHEET NO. 16
	PLOT SCALE = 50,0000 / / IN.	DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 74289		
	PLOT DATE = 2/7/2008	CHECKED -	REVISED -		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT						
		DATE -	REVISED -										