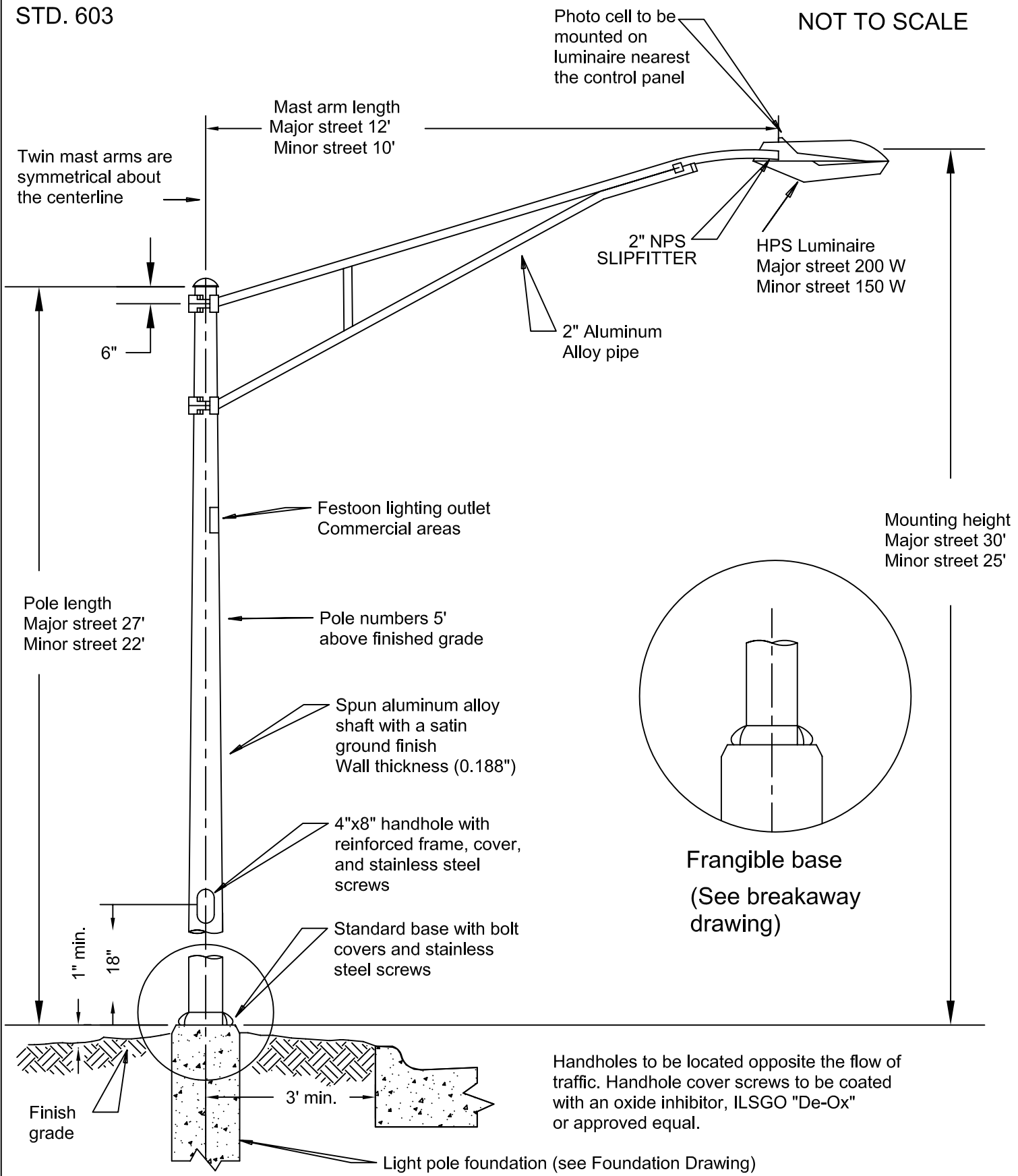
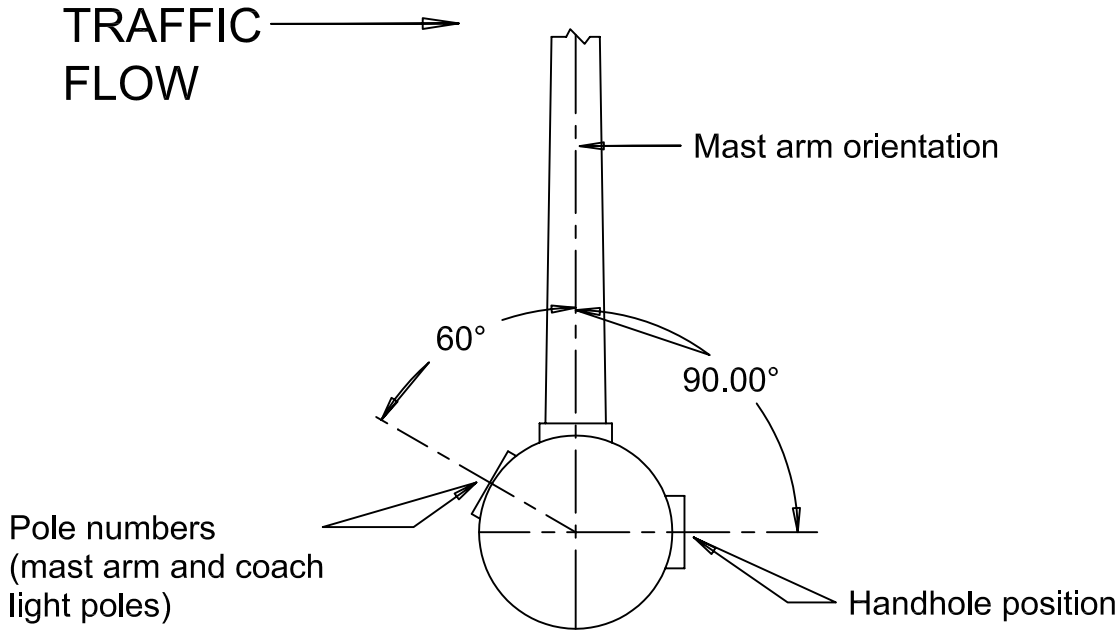




TYPICAL LIGHT POLE MAST ARM

REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94  R. ESPEDIDO, P.E., VILLAGE ENGINEER
8/03		



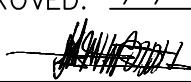
Notes:

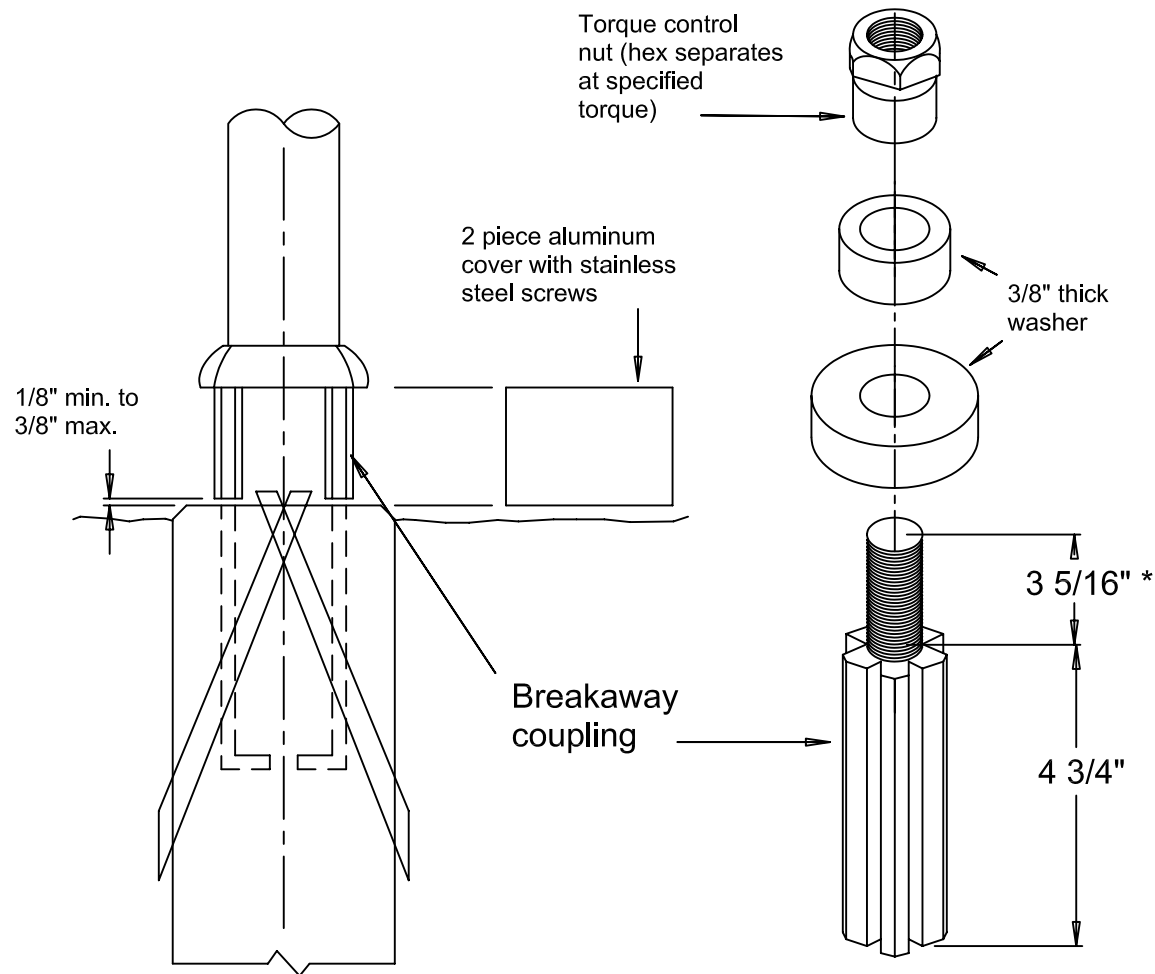
- 1. Light pole numbers shall be 4" tall, black on white, and installed 5' above the finished grade.
- 2. Twin mast arms shall have (2) sets of numbers installed 180 degrees apart.
- 3. Hand hole and pole number locations shall be similar for mast arm and coach light poles.

89	Control cabinet number
B	Circuit
3	Pole number

Pole numbers

POSITION OF HANDHOLE
AND POLE NUMBERS

REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94
		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER

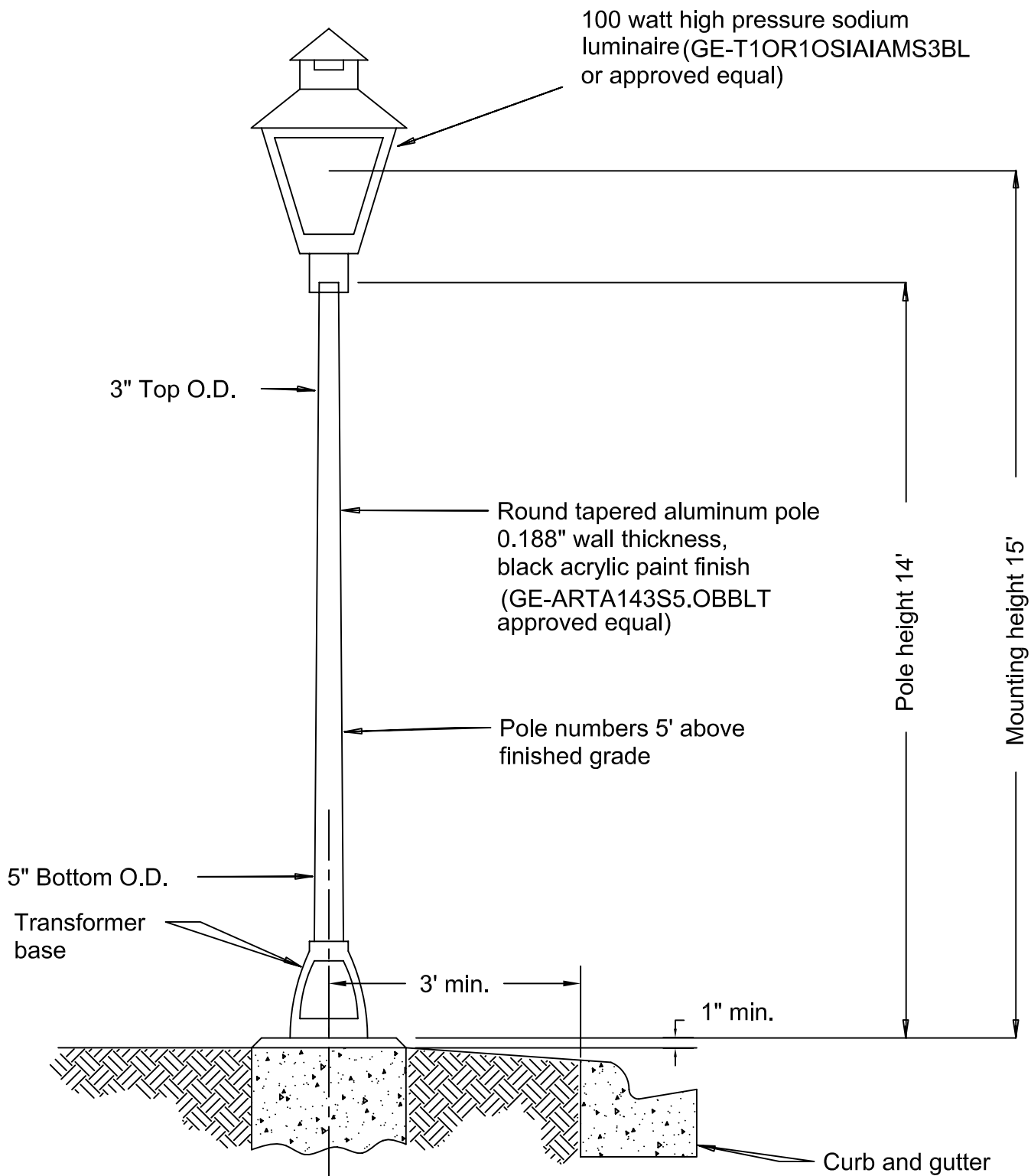


- NOTES:**
1. Dimensional tolerances not shown or implied are intended to be those consistent with the proper function of the part, including appearance and accepted manufacturing practices.
 2. Breakaway couplings shall be installed between anchor bolts and the base of the light pole to provide a breakaway performance in accordance with AASHTO specifications.
 3. Breakaway couplings shall be installed 1/8" minimum to 3/8" maximum off the concrete foundation to provide for leveling the light pole base.
 4. Breakaway couplings shall be used where the speed limit is 35 mph. or greater.

* For 1 1/2" max. base thickness

BREAKAWAY SUPPORT SYSTEM

REVISIONS		VILLAGE OF ADDISON
		APPROVED: 2/2/94
		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER

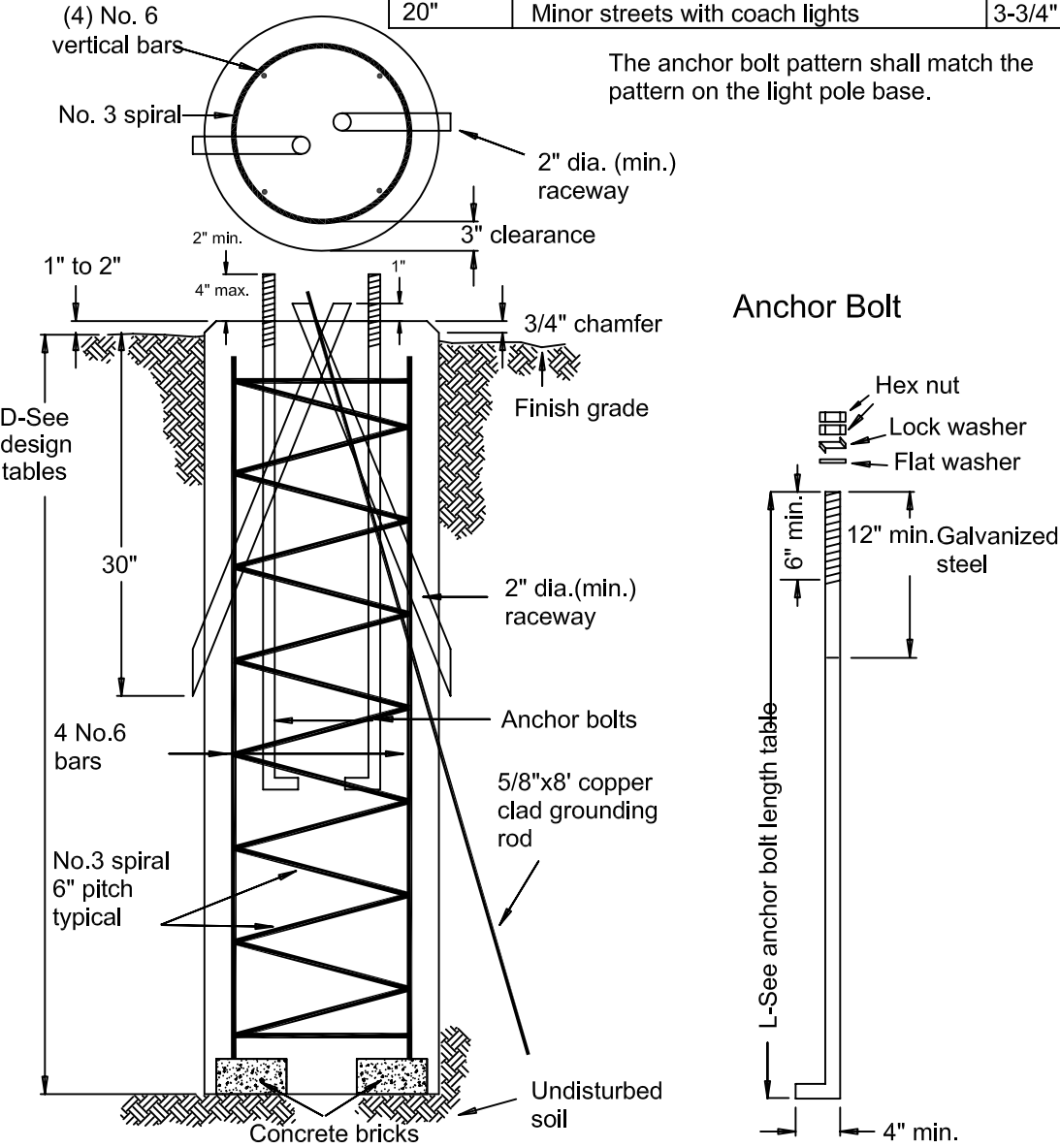


Handholes to be located opposite the flow of traffic. Handhole cover screws to be coated with an oxide inhibitor, ILSCO "De-Ox" or approved equal.

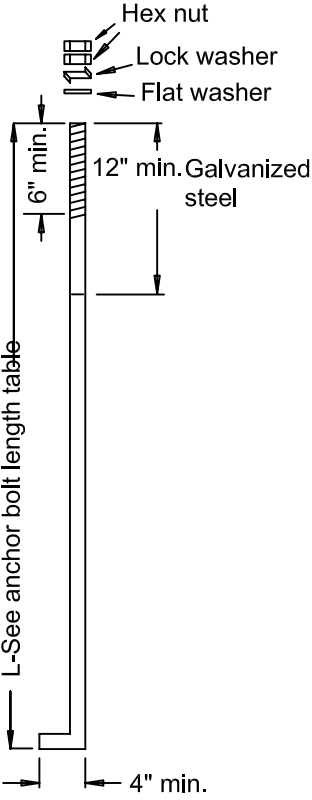
TYPICAL LIGHT POLE
COACH LIGHT

REVISIONS		VILLAGE OF ADDISON
8/03		APPROVED: 2/2/94
		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER

LENGTH	LOCATION	SIZE
42"	Major streets with mast arms	4-1"
30"	Minor streets with mast arms	4-1"
20"	Minor streets with coach lights	3-3/4"



Anchor Bolt



NOTES:

1. The engineer shall determine the class of soil during the excavation and select the depth of the foundation from the design tables.
2. Excavation of the foundation shall be made with a 24" diameter auger.
3. The contractor shall use a No. 3 spiral cage with a 6" pitch, or at his option, may substitute with No. 3 hoops at 12" on centers.
4. Each anchor bolt shall be furnished with (1) lockwasher, (1) flat washer and (2) hex nuts. They shall be galvanized to match the anchor bolts.
5. Raceways shall be installed parallel to the edge of pavement.
6. Anchor bolts, raceways, and reinforcing steel shall be secured in place before the concrete is placed in the form.
7. Concrete shall be a 6 bag mix, with a minimum strength of 3000 PSI.
8. The concrete shall cure for a minimum of 10 days before erecting the light pole.
9. The cable trench shall be backfilled and firmly compacted before erecting the light pole.
10. Anchor bolts shall project a minimum of 2" and a maximum of 4" above the top of the foundation.
11. Raceways shall project 1" above the top of the foundation.
12. All ground rod connections shall be made above grade, inside the pole base, with exothermic or inert gas welds.

REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94 R. ESPEDIDO, P.E., VILLAGE ENGINEER
8/03		

LIGHT POLE FOUNDATION

STD. 605B

LIGHT POLE FOUNDATION DESIGN TABLES

MAJOR STREETS WITH MAST ARMS

TYPE OF SOIL	DESIGN DEPTH		REINFORCEMENT IN FOUNDATION			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM VERT. BARS	SPIRAL	TWIN ARM VERT. BARS	SPIRAL
SOFT CLAY	13'0"	15'-0"	4-#6X12'-6"	#3X122'	4-#6X14'-6"	#3X141'
MEDIUM CLAY	9'-6"	10'-9"	4-#6X9'-0"	#3X90'	4-#6X10'-3"	#3X100'
STIFF CLAY	8'-0"	8'-0"	4-#6X7'-6"	#3X76'	4-#6X7'-6"	#3X76'
LOOSE SAND	9'-0"	10'-0"	4-#6X8'-6"	#3X85'	4-#6X9'-6"	#3X94'
MEDIUM SAND	8'-3"	9'-0"	4-#6X7'-9"	#3X78'	4-#6X8'-6"	#3X85'
DENSE SAND	8'-0"	9'-0"	4-#6X7'-6"	#3X76'	4-#6X8'-6"	#3X85'

MINOR STREETS WITH MAST ARMS

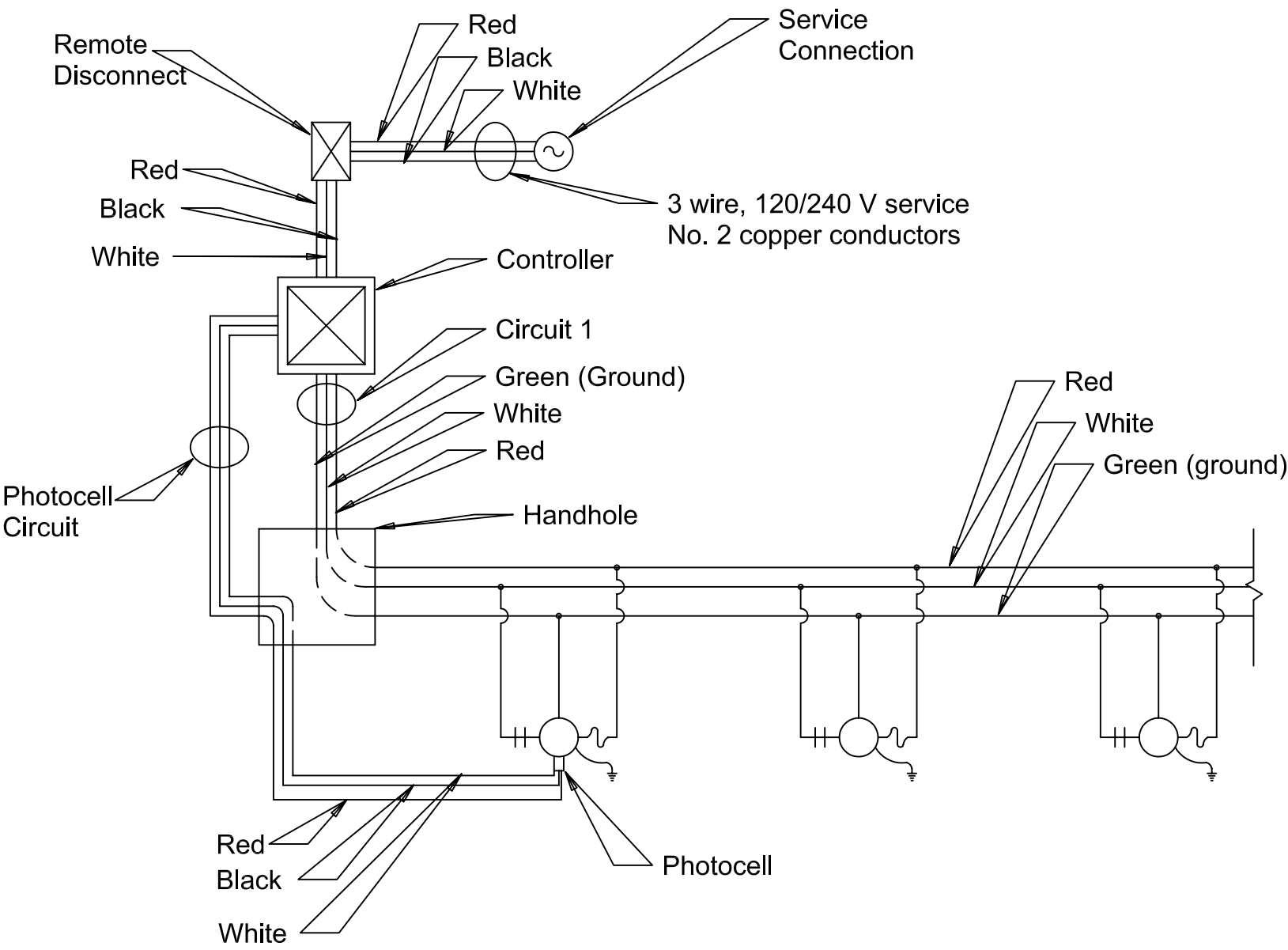
TYPE OF SOIL	DESIGN DEPTH		REINFORCEMENT IN FOUNDATION			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM VERT. BARS	SPIRAL	TWIN ARM VERT. BARS	SPIRAL
SOFT CLAY	11'0"	13'-0"	4-#6X10'-6"	#3X103'	4-#6X12'-6"	#3X122'
MEDIUM CLAY	8'-0"	9'-3"	4-#6X7'-6"	#3X76'	4-#6X8'-9"	#3X87'
STIFF CLAY	6'-0"	6'-0"	4-#6X5'-6"	#3X56'	4-#6X5'-6"	#3X56'
LOOSE SAND	8'-0"	9'-0"	4-#6X7'-6"	#3X76'	4-#6X8'-6"	#3X85'
MEDIUM SAND	7'-0"	8'-0"	4-#6X6'-6"	#3X66'	4-#6X7'-6"	#3X76'
DENSE SAND	6'-0"	7'-0"	4-#6X5'-6"	#3X56'	4-#6X6'-6"	#3X66'

MINOR STREETS WITH COACH LIGHTS

REINFORCEMENT IN FOUNDATION			
TYPE OF SOIL	DESIGN DEPTH D	VERT. BARS	SPIRAL
SOFT CLAY	7'0"	4-#6X6'-6"	#3X66'
MEDIUM CLAY	6'-0"	4-#6X5'-6"	#3X56'
STIFF CLAY	5'-0"	4-#6X4'-6"	#3X47'
LOOSE SAND	7'-0"	4-#6X6'-6"	#3X66'
MEDIUM SAND	6'-0"	4-#6X5'-6"	#3X56'
DENSE SAND	5'-0"	4-#6X4'-6"	#3X47'

Contractor at his option may substitute No.3 hoops at 12" on centers for spiral cage

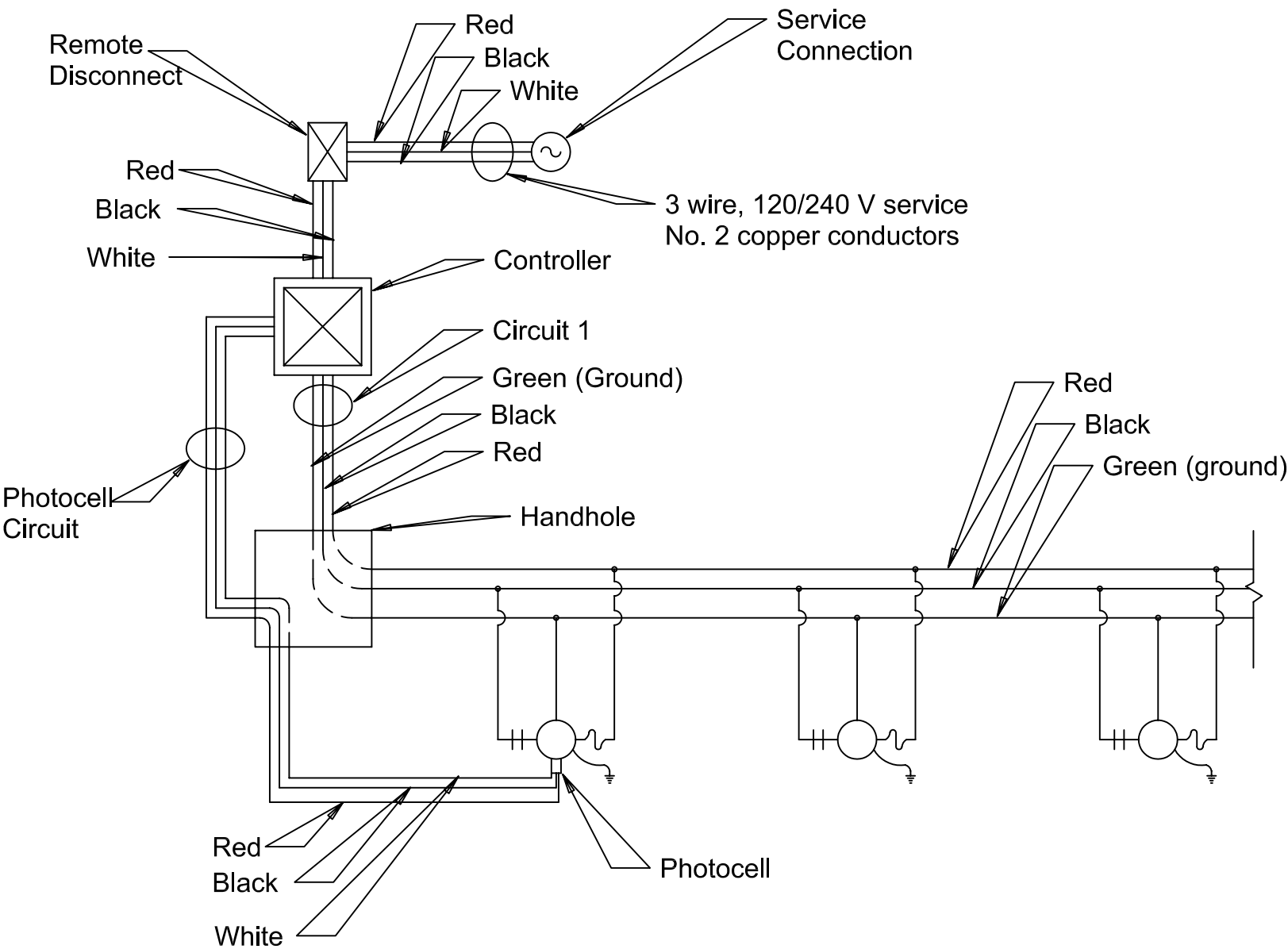
REVISIONS		VILLAGE OF ADDISON
		APPROVED: 2/2/94
		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER



SYSTEM SCHEMATIC DIAGRAM

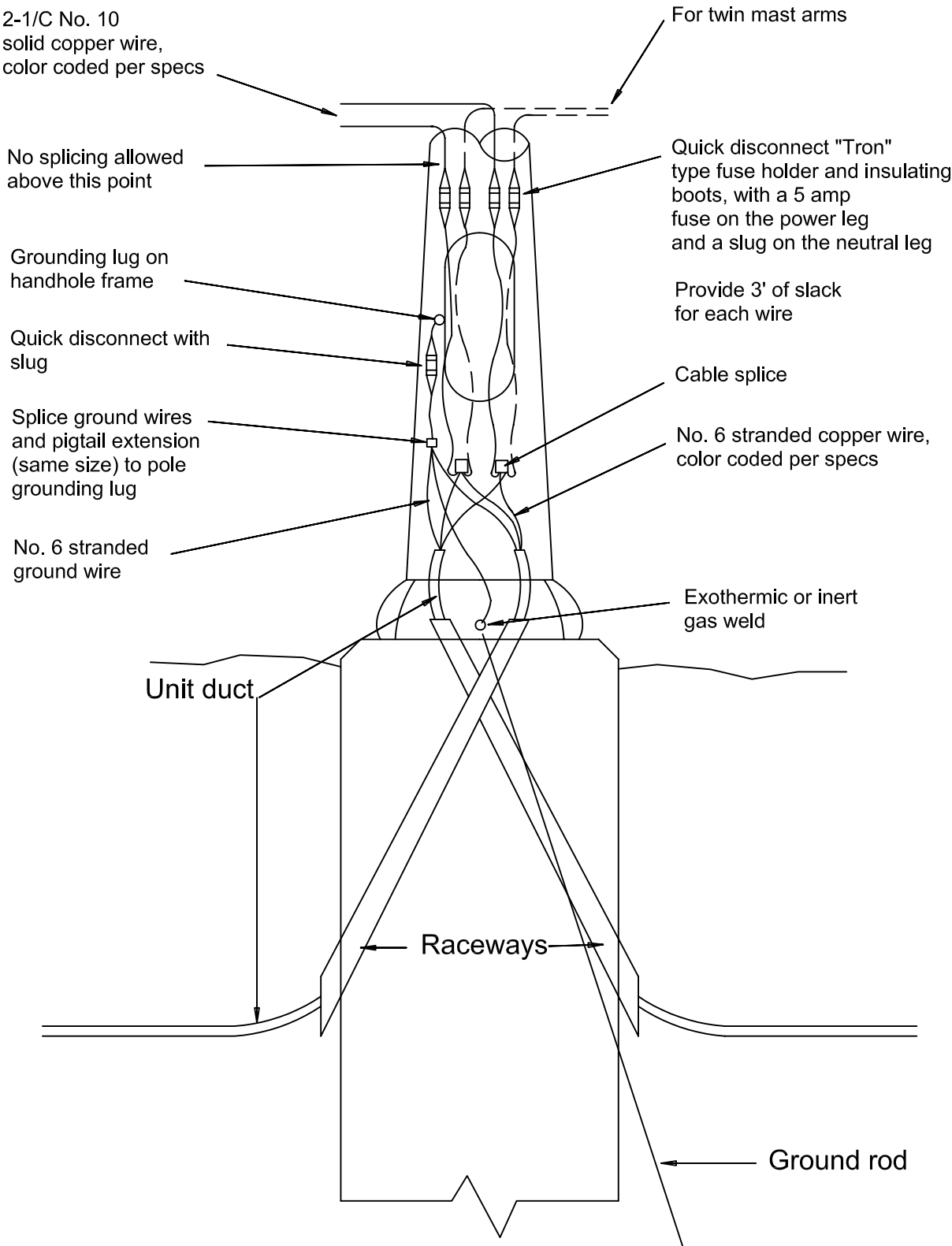
(120 VOLT)

REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94
		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER



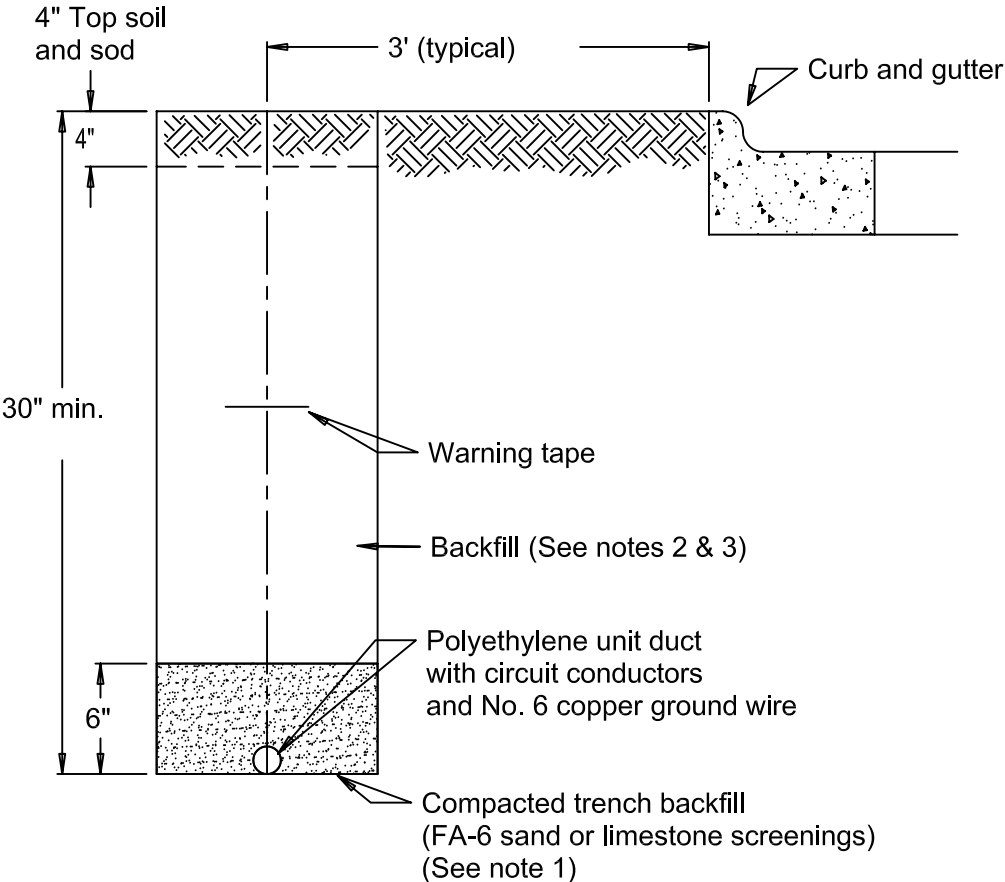
SYSTEM SCHEMATIC DIAGRAM
(240 VOLT)

REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94
		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER



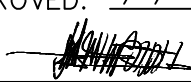
LIGHT POLE
BASE WIRING

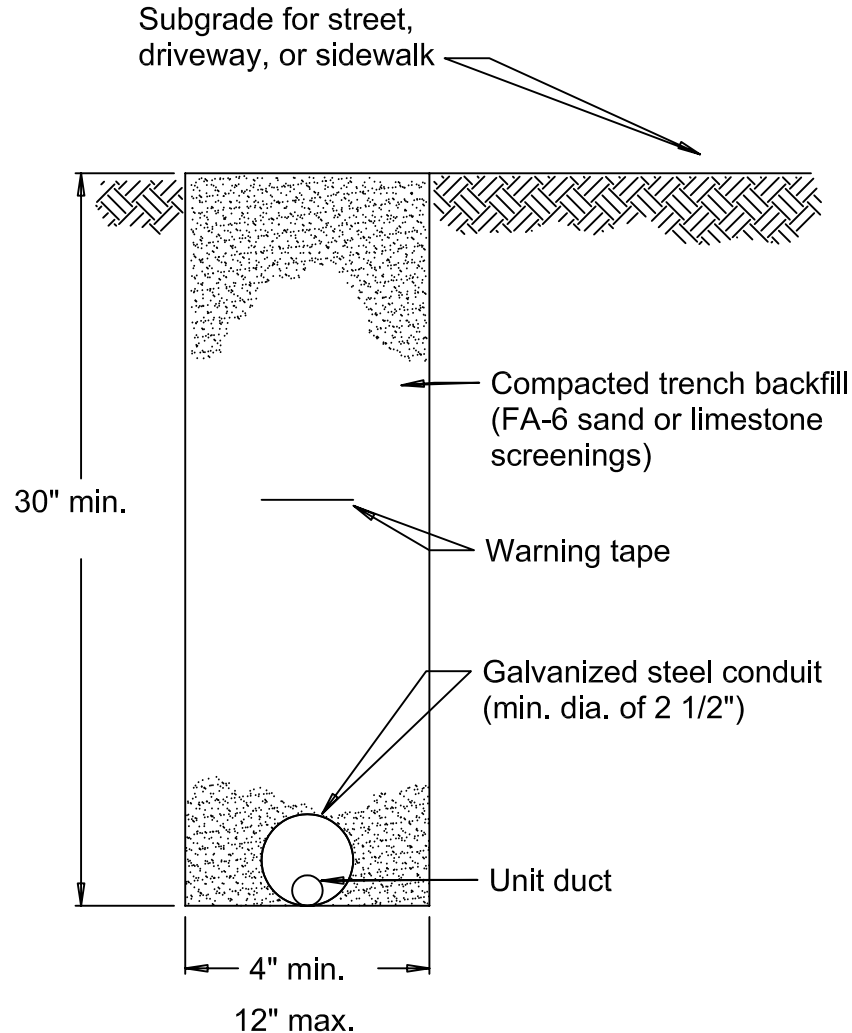
REVISIONS		VILLAGE OF ADDISON
		APPROVED: 2/2/94
		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER



- Notes:
- Unit duct installed in trenches shall be covered with a minimum of 6" of compacted FA-6, or limestone screenings.
 - In grassy areas, the backfill may be compacted earth.
 - Trenches within 2' of proposed or existing streets, driveways, or sidewalks shall be backfilled with compacted FA-6 sand or limestone screenings.
 - Where more than (1) unit duct runs adjacent to each other, they shall be placed in a common trench so as not to cross each other.
 - 6" wide reinforced metallic warning tape, red with black lettering to read "Caution-Electrical line buried below". Warning tape to be placed 1' minimum to 2' maximum below finished grade.
 - All grassy areas disturbed during construction shall be restored with 4" of top soil and sod.

UNIT DUCT TRENCH

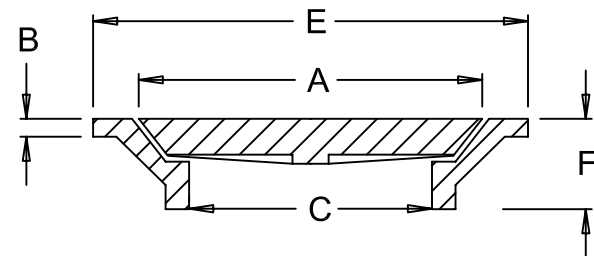
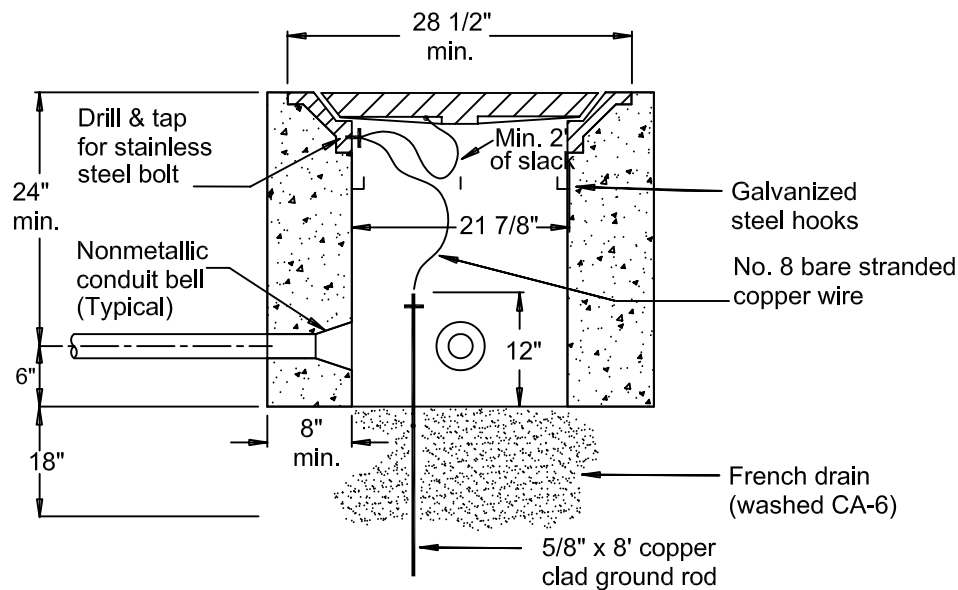
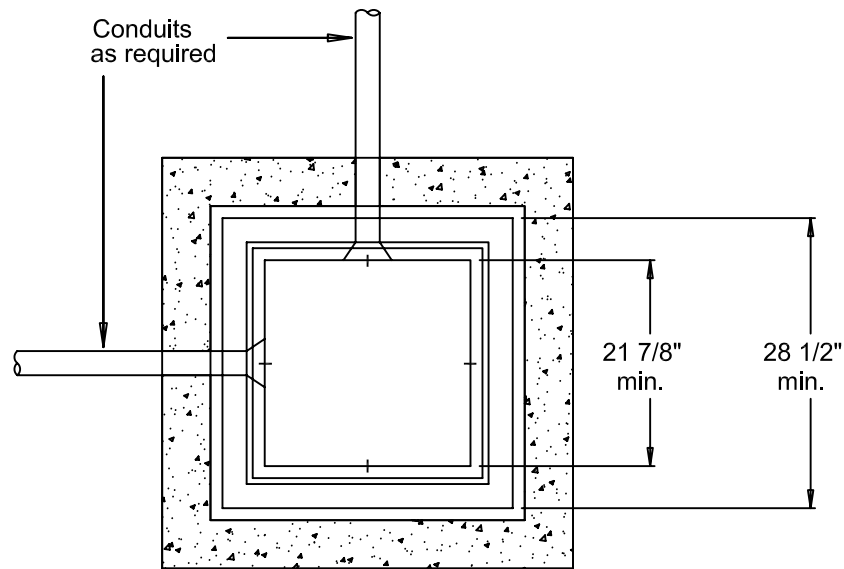
REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94  R. ESPEDIDO, P.E., VILLAGE ENGINEER
8/03		



- Notes:
1. Conduit shall be hot dip galvanized steel, a minimum of 2 1/2" in diameter.
 2. Conduit shall extend a minimum of 1' beyond the street, driveway, or sidewalk.
 3. Conduit shall have both ends capped until used.
 4. When placed into service, conduit shall be provided with an insulated fiber bushing, and sealed with a workable soft plastic sealing compound at each end.
 5. 6" wide reinforced metallic warning tape, red with black lettering to read "Caution - Electrical line buried below". Warning tape to be placed 1' minimum to 2' maximum below finished grade.
 6. All grassy areas disturbed during construction shall be restored with 4" of topsoil and sod.

CONDUIT TRENCH

REVISIONS		VILLAGE OF ADDISON
8/03		APPROVED: 2/2/94
		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER



NEENAH R-6660-JP

DIMENSIONS IN INCHES

- A: 23 1/2 X 23 1/2
- B: 3/4
- C: 21 7/8 X 21 7/8
- E: 28 1/2 X 28 1/2
- F: 4

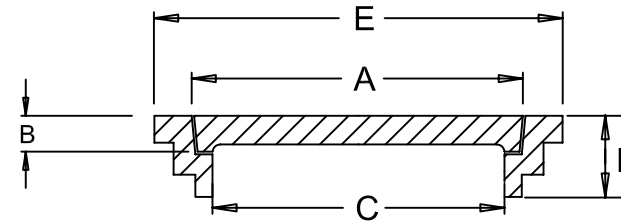
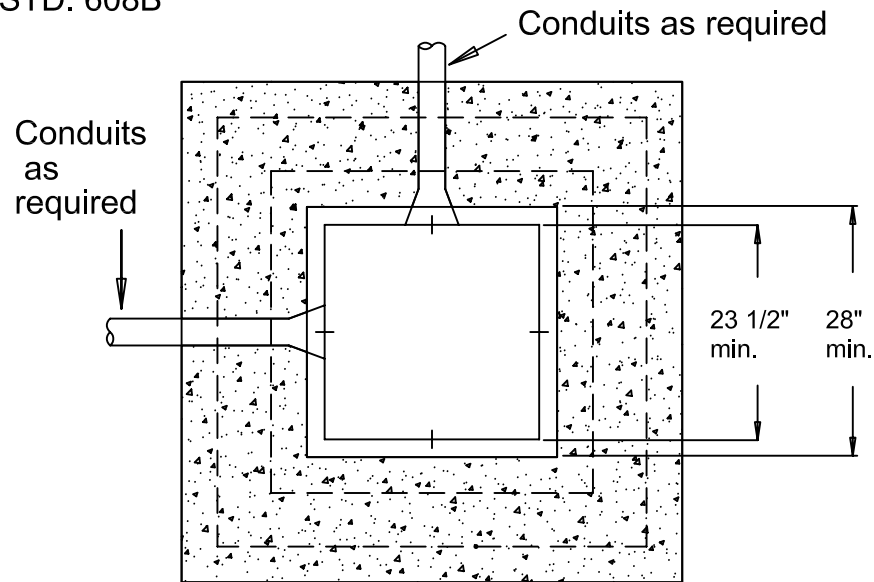
- NOTE:
1. Cover to be imprinted with "Street Lighting". Frames shall be furnished with Type "G" lifting handles.
 2. Frame shall be grounded per N.E.C. Drill and tap the frame and lid. Connect No. 8 bare stranded copper jumper wire with stainless steel hex head bolts and lock washers.

LIGHT DUTY HANDHOLE
(Concrete)

REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94 R. ESPEDIDO, P.E., VILLAGE ENGINEER
8/03		

STD. 608B

NOT TO SCALE



NEENAH R-6662-HP

DIMENSIONS IN INCHES

A: $23 \frac{1}{2} \times 23 \frac{1}{2}$

B: 1 1/2

C: 22 X 22

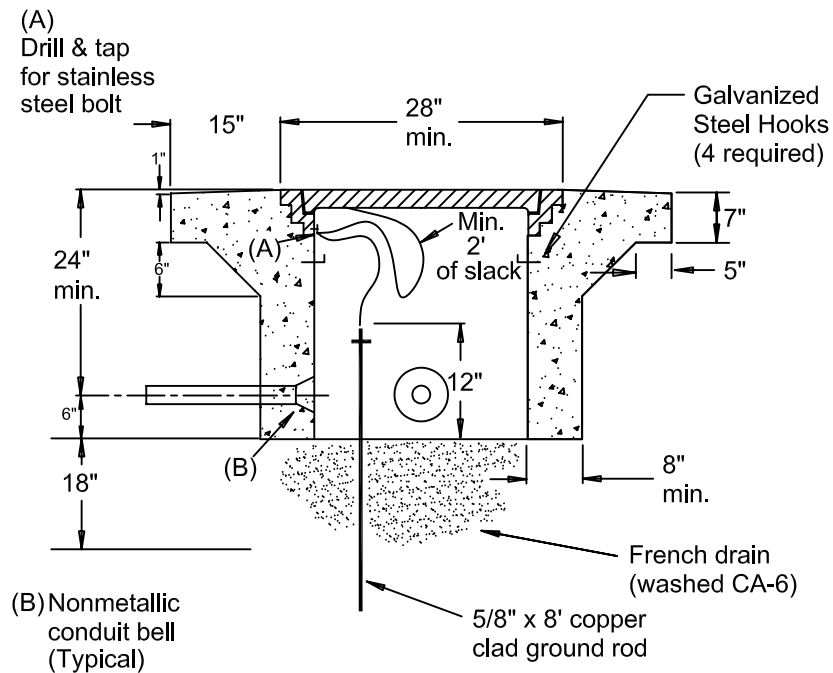
E: 28 X 28

F: 4

NOTE:

1. Cover to be imprinted with "Street Lighting".
Frames shall be furnished with Type "G" lifting handles.

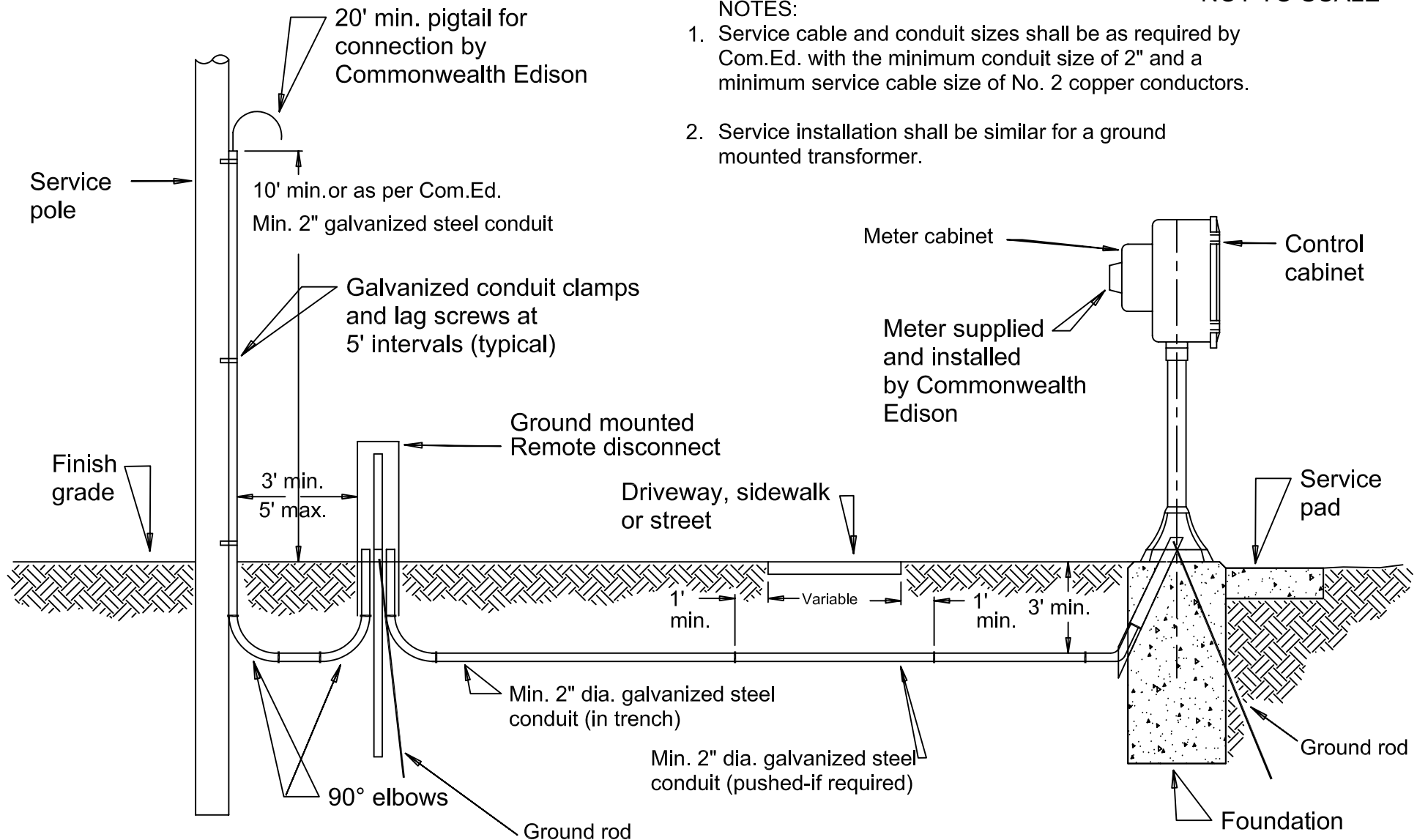
2. Frame shall be grounded per N.E.C. Drill and tap the frame and lid. Connect No. 8 bare stranded copper jumper wire with stainless steel hex head bolts and lock washers.



HEAVY DUTY HANDHOLE (Concrete)

REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94
8/03		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER

STD. 608B



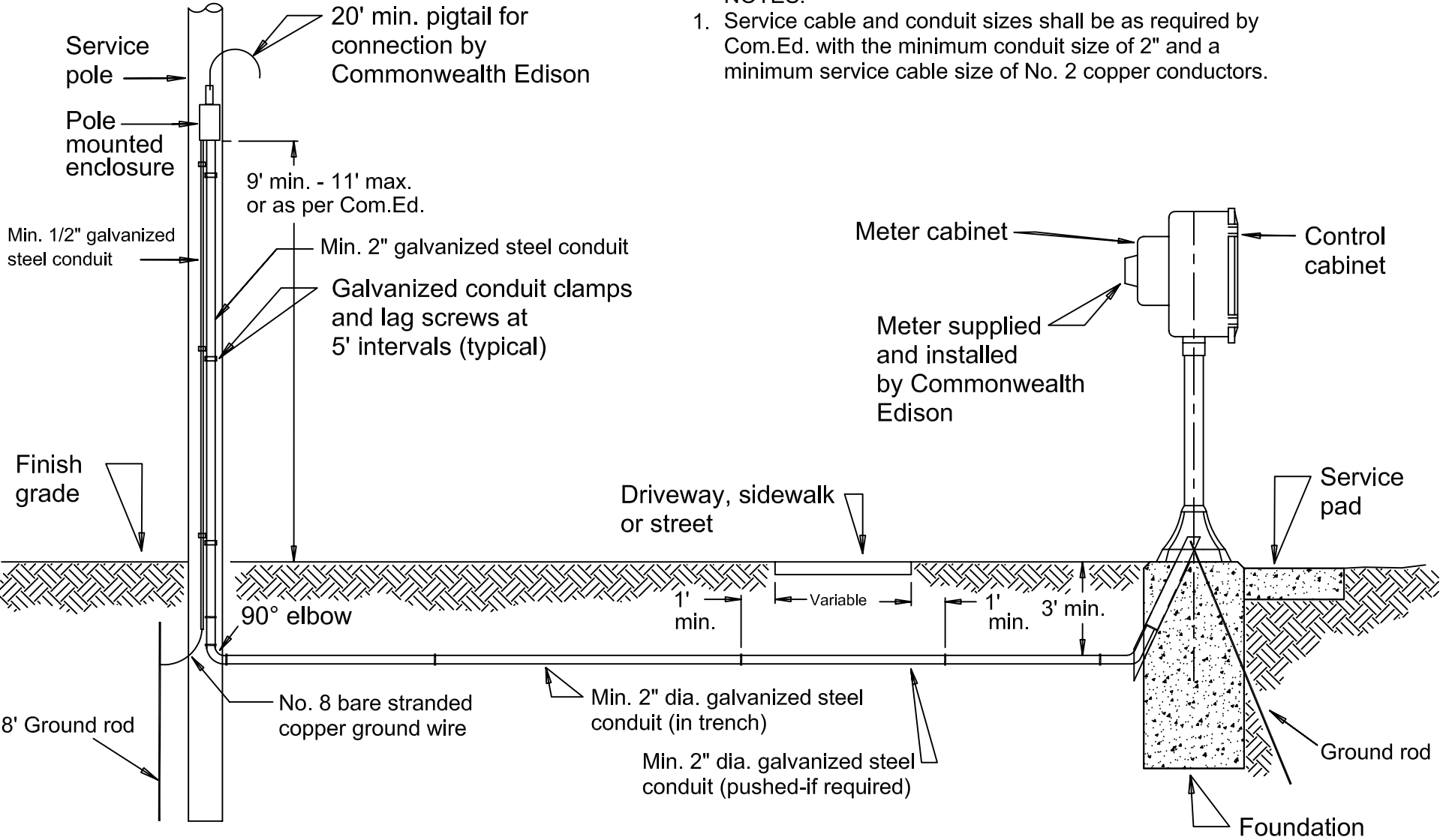
NOTES:

1. Service cable and conduit sizes shall be as required by Com.Ed. with the minimum conduit size of 2" and a minimum service cable size of No. 2 copper conductors.
2. Service installation shall be similar for a ground mounted transformer.

SERVICE INSTALLATION

(WITH GROUND MOUNTED REMOTE DISCONNECT)

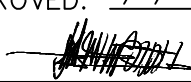
REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94 R. ESPEDIDO, P.E., VILLAGE ENGINEER
8/03		



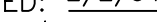
- NOTES:
1. Service cable and conduit sizes shall be as required by Com.Ed. with the minimum conduit size of 2" and a minimum service cable size of No. 2 copper conductors.

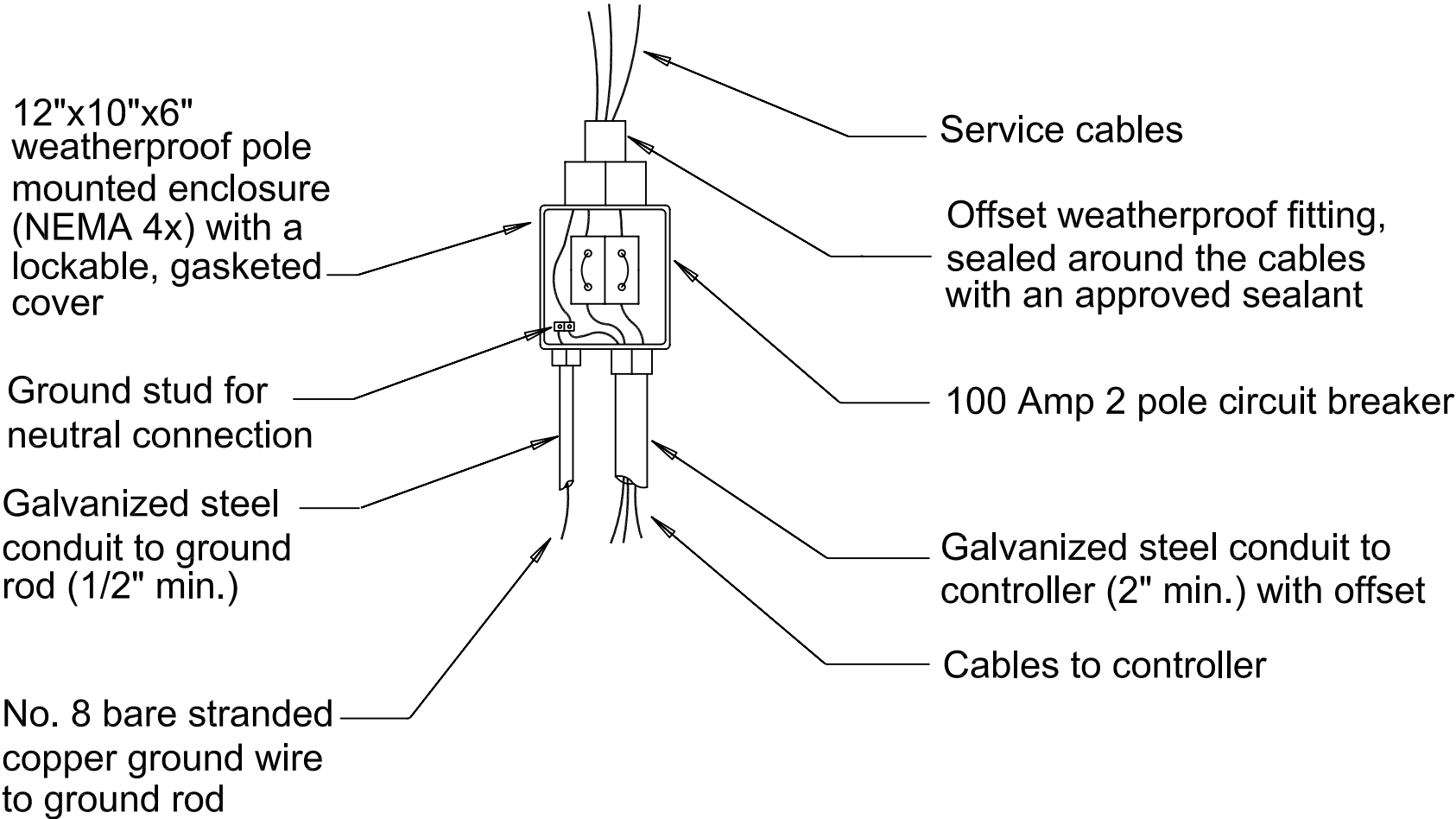
SERVICE INSTALLATION

(WITH POLE MOUNTED REMOTE DISCONNECT)

REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94  R. ESPEDIDO, P.E., VILLAGE ENGINEER
9/03		



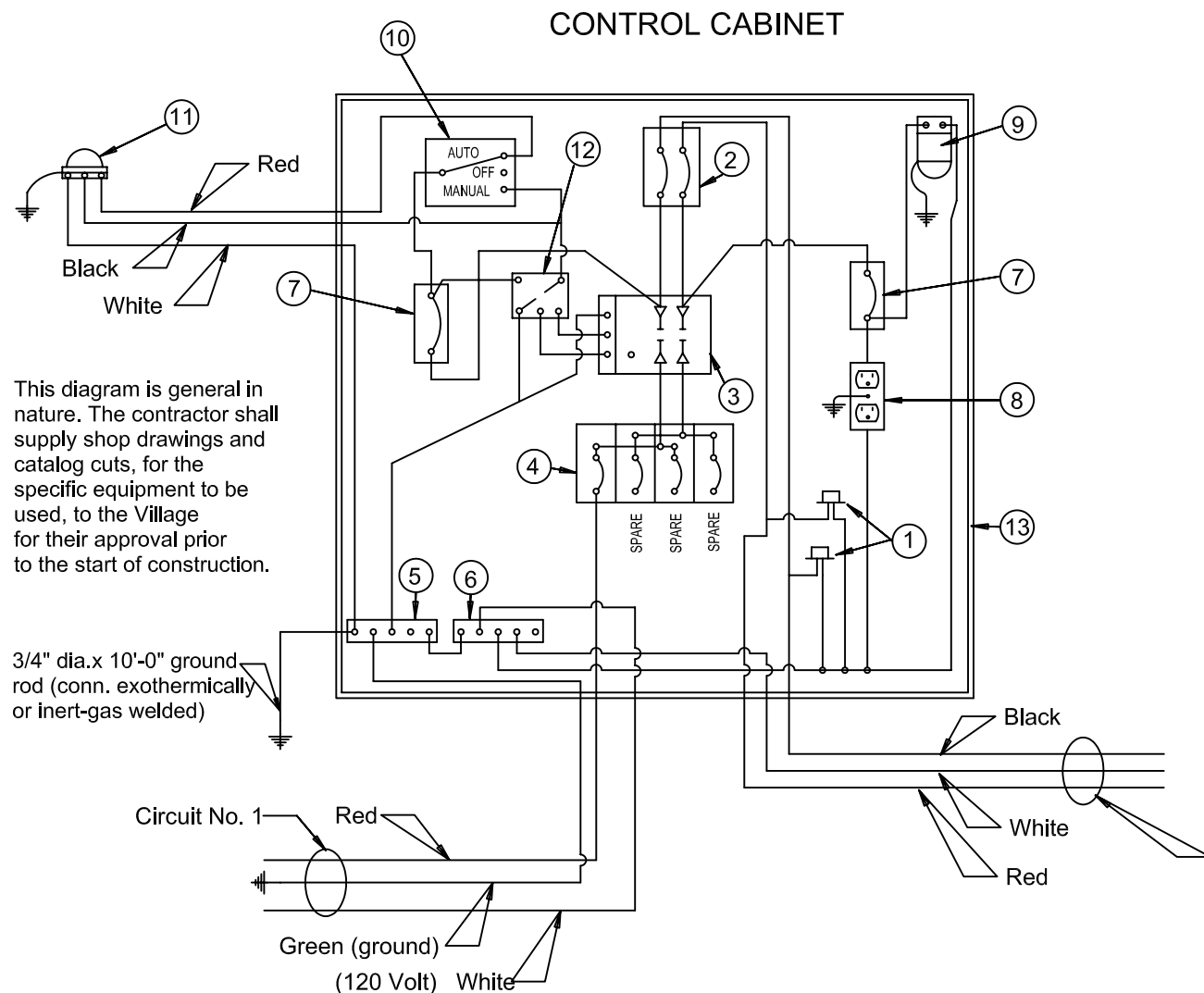
REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94
9/03		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER



REMOTE DISCONNECT
(Pole mounted)

REVISIONS		VILLAGE OF ADDISON
		APPROVED: 2/2/94
		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER

LEGEND



- ① Two surge protectors
- ② 100 amp. 2 pole main circuit breaker, 120 V. (Type 'TEB')
- ③ 100 amp. 2 pole, single throw, electrically operated and mechanically held contactor, 120 V.
- ④ Four 20 amp, 1 pole circuit breaker, 120 V. (Type 'TEB')
- ⑤ 1"x12" ground strip labeled "GROUND"
- ⑥ 1"x12" neutral strip labeled "Neutral" and joined to the ground strip with a bonding jumper
- ⑦ Two 15 amp, 1 pole circuit breakers, 120 V. (Type 'TEB')
- ⑧ 15 amp, 120 V. duplex outlet
- ⑨ Incandescent lighting fixture with 120 V. 75 watt bulb and a pull chain switch
- ⑩ 20 amp, SPDT HOA switch, 120 V. mounted in a 4"x4" box
- ⑪ Photo-cell with 2 minute time delay, 120 V. mounted on luminaire nearest controller
- ⑫ 10 amp. DPDT on-delay photo-cell control relay
- ⑬ Benelex 1/2" thick panel board

CONTROLLER SCHEMATIC DIAGRAM

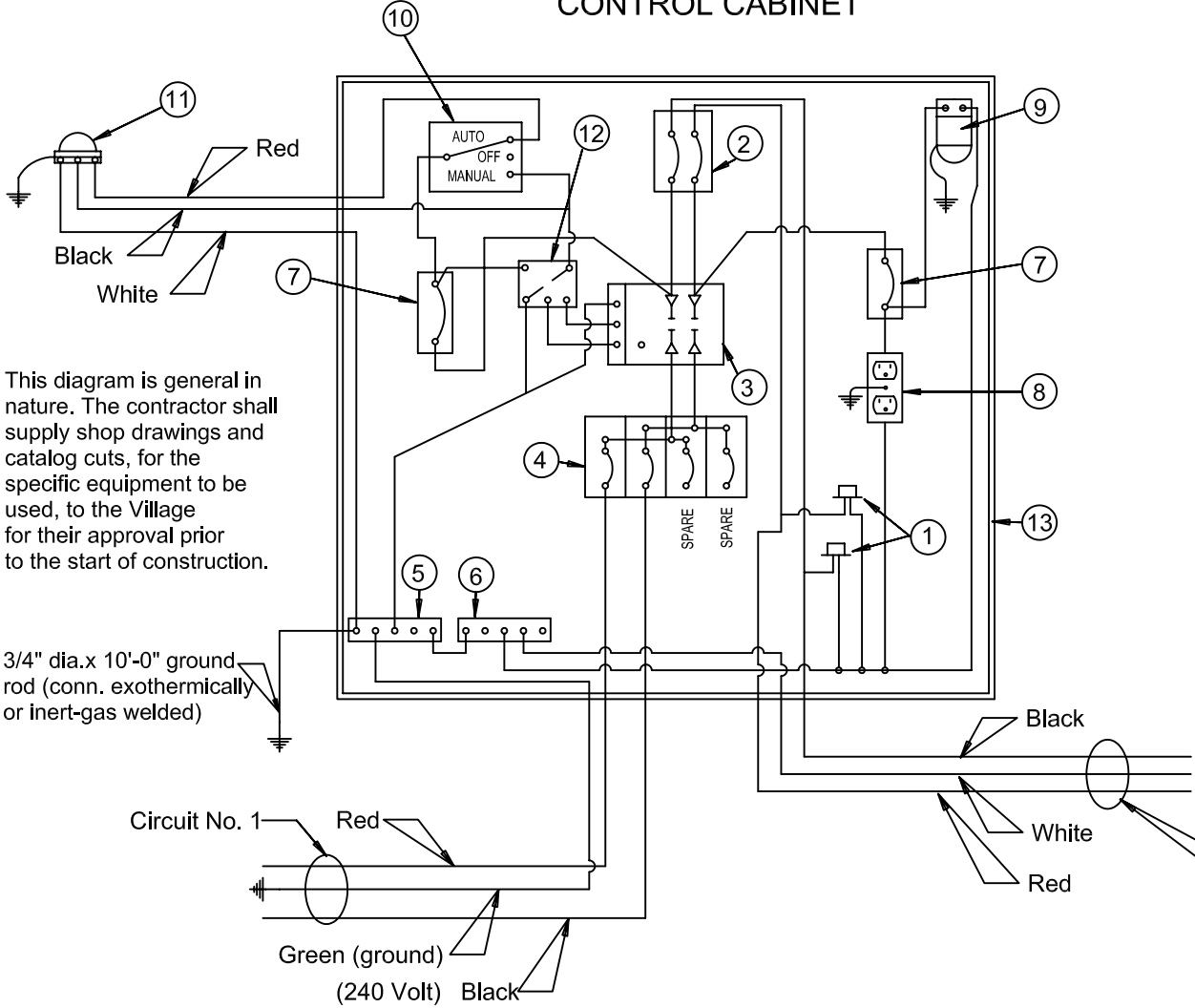
(120 VOLT)

REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94
		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER

LEGEND

- ① Two surge protectors
- ② 100 amp. 2 pole main circuit breaker, 120 V. (Type 'TEB')
- ③ 100 amp. 2 pole, single throw, electrically operated and mechanically held contactor, 120 V.
- ④ Four 20 amp, 1 pole circuit breaker, 120 V. (Type 'TEB')
- ⑤ 1"x12" ground strip labeled "GROUND"
- ⑥ 1"x12" neutral strip labeled "Neutral" and joined to the ground strip with a bonding jumper
- ⑦ Two 15 amp, 1 pole circuit breakers, 120 V. (Type 'TEB')
- ⑧ 15 amp, 120 V. duplex outlet
- ⑨ Incandescent lighting fixture with 120 V. 75 watt bulb and a pull chain switch
- ⑩ 20 amp, SPDT HOA switch, 120 V. mounted in a 4"x4" box
- ⑪ Photo-cell with 2 minute time delay, 120 V. mounted on luminaire nearest controller
- ⑫ 10 amp. DPDT on-delay photo-cell control relay
- ⑬ Benelex 1/2" thick panel board

CONTROL CABINET



This diagram is general in nature. The contractor shall supply shop drawings and catalog cuts, for the specific equipment to be used, to the Village for their approval prior to the start of construction.

3/4" dia.x 10'-0" ground rod (conn. exothermically or inert-gas welded)

Circuit No. 1

3 wire, 120/240 V service No. 2 copper conductors

CONTROLLER SCHEMATIC DIAGRAM
(240 VOLT)

REVISIONS		VILLAGE OF ADDISON
5/98		APPROVED: 2/2/94
		
		R. ESPEDIDO, P.E., VILLAGE ENGINEER

