



## SPECIFICATIONS FOR PRECAST TRANSFORMER LOCATION

WORK REQUEST NO. 7872220

DATE: October 30, 2017

NAME OF CUSTOMER: Nassau County

ADDRESS: 76212 NICHOLAS CUTINHA RD

FPL REPRESENTATIVE: Robert Haddock

TEL. NO 904-225-3003

SECONDARY DELIVERY VOLTAGE 277/480 VOLT Wye, Three PHASE, Four WIRE

### CUSTOMER AGREES TO:

#### 1. GENERAL:

- 1.1 PROVIDE A SUITABLE LOCATION, COMPACTED AND LEVEL TO 3" BELOW FINAL GRADE, FOR FPL TRANSFORMER PAD AND INSTALL SECONDARY/SERVICE FROM PAD TO BUILDING AS SPECIFIED ON THE ATTACHED EXHIBIT "A" AND AS OUTLINED BELOW.
- 1.2 IT IS FURTHER UNDERSTOOD AND AGREED THAT SUBSEQUENT RELOCATION OR REPAIR OF THE FPL SYSTEM, ONCE INSTALLED, WILL BE PAID BY THE CUSTOMER IF SAID RELOCATION OR REPAIR IS A RESULT OF A CHANGE IN THE LAYOUT OR GRADING BY THE CUSTOMER OR ANY OF THE CUSTOMER'S CONTRACTORS OR SUBCONTRACTORS FROM THE TIME THE UNDERGROUND FACILITIES WERE INSTALLED; AND THAT SUBSEQUENT REPAIR TO FPL'S SYSTEM, ONCE INSTALLED, WILL BE PAID BY THE CUSTOMER IF SAID REPAIR IS A RESULT OF DAMAGE CAUSED BY THE CUSTOMER OR ANY OF THE CUSTOMER'S CONTRACTORS OR SUBCONTRACTORS.
- 1.3 NOTIFY GENERAL CONTRACTOR, ELECTRICAL CONTRACTOR AND APPLIANCE SUPPLIERS OF THE SERVICE VOLTAGE TO BE SUPPLIED BY FPL.

#### 2. EASEMENTS:

PROVIDE FPL WITH GOOD AND SUFFICIENT RECORDED EASEMENTS, INCLUDING LEGAL DESCRIPTIONS AND SURVEY WORK TO PRODUCE SUCH EASEMENTS, FOR THE INSTALLATION AND MAINTENANCE OF ITS ELECTRIC DISTRIBUTION FACILITIES MUST BE GRANTED OR OBTAINED, AT NO COST TO FPL, PRIOR TO FPL'S ENERGIZING ITS FACILITIES.

#### 3. SITE REQUIREMENTS:

- 3.1 GRADE: WITHIN THE EASEMENT, FILL OR CUT TO WITHIN 6" OF FINAL GRADE, PROVIDE GRADE STAKES AND CLEAR EASEMENT OF TREES, STUMPS, CONSTRUCTION MATERIALS, AND OTHER OBSTACLES BEFORE AND DURING CONSTRUCTION BY FPL OR FPL CONTRACTORS.
- 3.2 COMPACTION: AFTER FPL OR ITS CONTRACTOR HAS BACKFILLED THE TRENCH USING ROUGH-GRADING TECHNIQUES, THE CUSTOMER IS RESPONSIBLE FOR PROVIDING COMPACTION OR OTHER SPECIAL BACKFILL. FPL WILL NOT BE RESPONSIBLE FOR SETTLING OF THE TRENCH ROUTE.
- 3.3 PLANS: PROVIDE FPL WITH LOCATION AND DEPTH INFORMATION AND/OR DRAWINGS OF ALL EXISTING OR PROPOSED UNDERGROUND FACILITIES ON THE CUSTOMER'S PROPERTY. LOCATE OR EXPOSE UNDERGROUND FACILITIES WHEN REQUESTED BY FPL.
- 3.4 NOTIFICATION: PROVIDE FPL WITH AT LEAST THREE (3) WEEKS NOTICE PRIOR TO THE COMMENCEMENT OF PAVING, LANDSCAPING, SODDING, SPRINKLER SYSTEMS AND OTHER SURFACE WORK. CUSTOMER WILL BEAR THE COST OF RESTORING THESE OBSTRUCTIONS TO THEIR ORIGINAL CONDITION IF ABOVE NOTICE IS NOT PROVIDED.

#### 4. TRANSFORMER PAD LOCATION:

- 4.1 LOCATION: PAD WILL BE INSTALLED AT GRADE LEVEL AND LOCATED see sheet EO-1. SEE EXHIBIT "A" FOR EXACT LOCATION OF PRECAST CONCRETE PADS, HANDHOLES, AND CONDUIT TRENCHES.
- 4.2 CLEARANCES: A MINIMUM CLEARANCE OF THREE (3) FEET MUST BE MAINTAINED AT SIDES AND REAR OF TRANSFORMER PAD AND EIGHT (8) FEET IN FRONT OF PAD AS SHOWN ON THE ATTACHED DRAWING



DCS UN-21. THIS CLEARANCE APPLIES TO ALL TYPES OF OBSTRUCTIONS INCLUDING LANDSCAPING AND FENCES.

- 4.3 PROTECTION: PROVIDE AND INSTALL CURBS AND/OR PROTECTIVE BARRIERS, WHEN REQUIRED, AS DETAILED ON DCS UN-21, AFTER THE INSTALLATION OF CONCRETE PADS AND TRANSFORMERS. CURBS AND/OR BARRIERS MUST BE IN PLACE PRIOR TO FPL ENERGIZING THE SERVICE.

5. CT METERING:

WHEN METERING CURRENT TRANSFORMERS (CT'S) ARE REQUIRED, THEY WILL BE LOCATED AS SPECIFIED ON THE ATTACHED EXHIBIT "A" AND INSTALLED BY FPL. THE CUSTOMER WILL PROVIDE AND INSTALL A 1-1/2 INCH GALVANIZED OR SCHEDULE 80 PVC CONDUIT FROM THE METER CABINET TO THE LOCATION OF THE CT'S. CONDUIT RUN IS NOT TO EXCEED 10 FEET IN LENGTH BETWEEN CT'S AND METER WITH NO MORE THAN TWO 90 DEGREE BENDS UNLESS PRE-APPROVED BY FPL. CONDUIT PULL OUTLET BOXES (LB'S) ARE NOT BE USED.

6. SSDR METERING:

IF SOLID STATE DATA RECEIVING (SSDR) METERING IS REQUIRED, THE CUSTOMER WILL PROVIDE AND INSTALL FACILITIES FOR THE SSDR METERING EQUIPMENT AS DETAILED ON THE ATTACHED "CUSTOMER REQUIREMENTS FOR SSDR METERING EQUIPMENT" SHEET.

7. CUSTOMER SERVICE ENTRANCE:

- 7.1 GENERAL: PROVIDE AND INSTALL SECONDARY/SERVICE TO PADMOUNTED TRANSFORMER FROM ELECTRICAL EQUIPMENT/METER ROOM.
- 7.2 CONDUITS: THE MAXIMUM CROSS SECTIONAL AREA TO BE OCCUPIED BY THE CUSTOMER'S SERVICE CONDUITS, IS LIMITED TO THE AREA GIVEN IN THE ATTACHED EXHIBIT "A". TERMINATE CONDUITS IN PAD AT THREE INCHES ABOVE FINAL GRADE. ALL CONDUITS FOR FUTURE SERVICES MUST BE INSTALLED AT THIS TIME.
- 7.3 CONDUCTOR: THE SERVICE CONDUCTORS ARE TO BE LIMITED TO A MAXIMUM OF EIGHT (8) PER PHASE AT EACH TRANSFORMER. PROVIDE 7 FEET OF CABLE PER LIGHTING LEG AND NEUTRAL (AND 7 FEET OF CABLE PER HI-LEG FOR 120/240V 3 PHASE SERVICE) BEYOND CONDUITS FOR CONNECTION TO FPL FACILITIES IN TRANSFORMER COMPARTMENT. MAXIMUM SIZE OF CONDUCTOR IS 600 MCM.

FPL AGREES TO:

1. PROVIDE 5" CONDUITS, CONCRETE PADS, PADMOUNTED TRANSFORMERS, AND PRIMARY CABLE.
2. PROVIDE AND INSTALL GROUND RODS AT PADS.
3. PROVIDE ELECTRONIC MARKERS FOR CUSTOMER'S INSTALLATION WHEN REQUIRED.
4. CONNECT CUSTOMER'S SERVICE CABLES TO FPL FACILITIES IN TRANSFORMER COMPARTMENT.
5. PROVIDE AND INSTALL METERING WIRING BETWEEN METER CABINET AND CT'S WHERE APPLICABLE.
6. MAINTAIN ALL EQUIPMENT AND MATERIAL INSTALLED BY FPL.

IMPORTANT:

THIS SPECIFICATION IS BASED ON THE CUSTOMER'S SUBMITTED PLANS AND ANY CHANGES IN THESE PLANS MAY RESULT IN ADDITIONAL COSTS, WHICH THE CUSTOMER AGREES TO PAY. WHEN REQUIRED, THE CUSTOMER AGREES TO PAY A CONTRIBUTION FOR THE DIFFERENTIAL COST BETWEEN OVERHEAD AND UNDERGROUND SERVICE. THE AGREEMENT AND REQUIREMENTS AS OUTLINED IN THIS SPECIFICATION, EXHIBIT "A", AND ALL ATTACHMENTS MUST BE ADHERED TO. ANY NON-CONFORMANCE OR CHANGES MAY RESULT IN DELAYS UNTIL THESE SPECIFICATIONS ARE MET.

**ANY CHANGES OR VARIATIONS FROM THESE SPECIFICATIONS MUST BE SUBMITTED TO AND APPROVED BY FPL IN WRITING.**



Florida Power & Light Company

**ACCEPTANCE OF SPECIFICATIONS:**

I HEREBY CERTIFY THAT I AM AUTHORIZED TO ACCEPT THESE SPECIFICATIONS ON BEHALF OF THE CUSTOMER AND THAT I WILL DELIVER A COPY OF THESE SPECIFICATIONS TO THE CUSTOMER AND ALL AFFECTED CONTRACTORS:

REPRESENTING THE CUSTOMER:

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

TELEPHONE NUMBER: (       ) \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

I HEREBY CERTIFY THAT I AM AUTHORIZED TO ACCEPT THESE SPECIFICATIONS ON BEHALF OF FPL:

REPRESENTING THE FPL:

NAME: \_\_\_\_\_ TITLE: Senior Technical Specialist

TELEPHONE NUMBER: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_



Florida Power & Light Company

**ACCEPTANCE OF SPECIFICATIONS:**

I HEREBY CERTIFY THAT I AM AUTHORIZED TO ACCEPT THESE SPECIFICATIONS ON BEHALF OF THE CUSTOMER AND THAT I WILL DELIVER A COPY OF THESE SPECIFICATIONS TO THE CUSTOMER AND ALL AFFECTED CONTRACTORS:

REPRESENTING THE CUSTOMER:

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

TELEPHONE NUMBER: (      ) \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

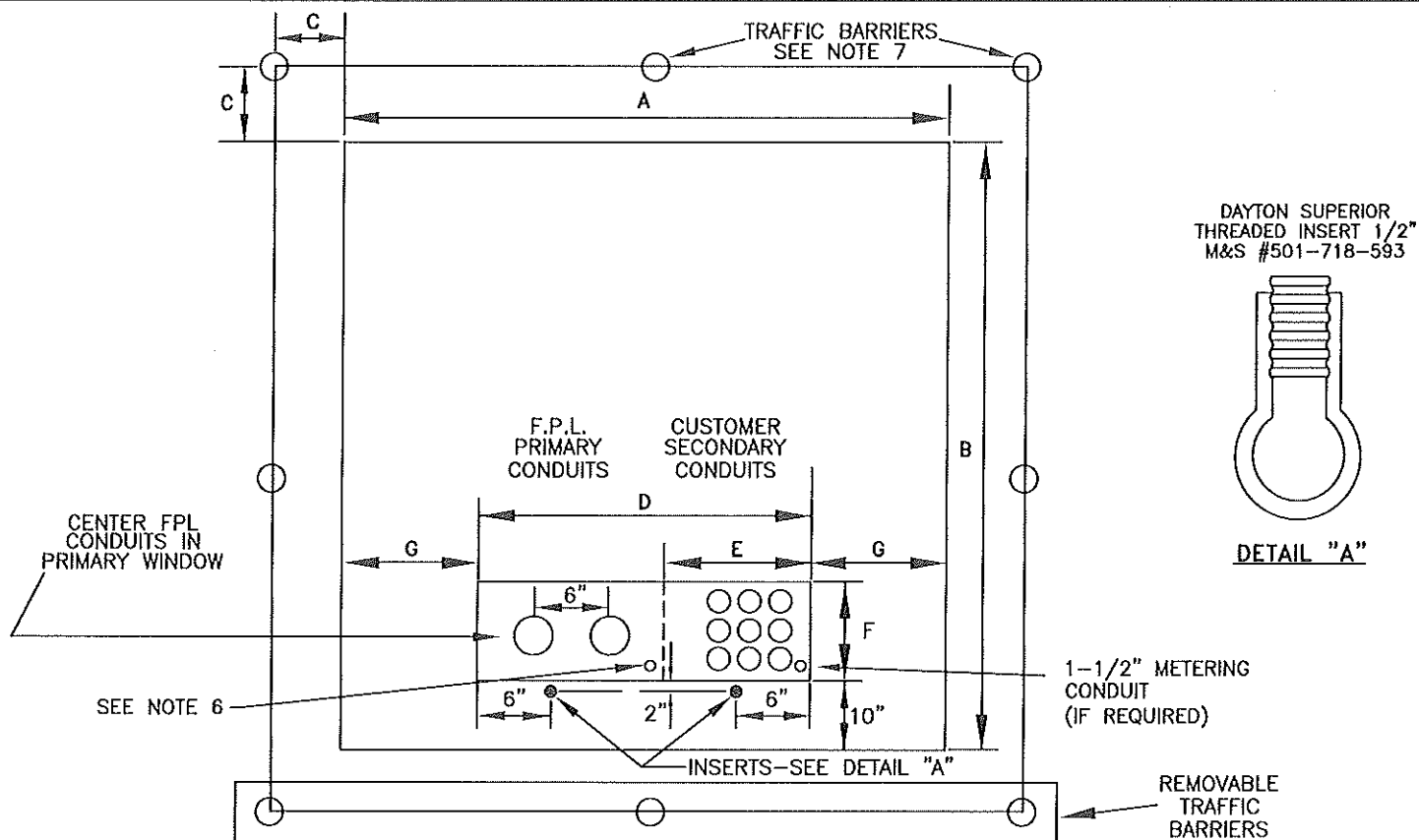
I HEREBY CERTIFY THAT I AM AUTHORIZED TO ACCEPT THESE SPECIFICATIONS ON BEHALF OF FPL:

REPRESENTING THE FPL:

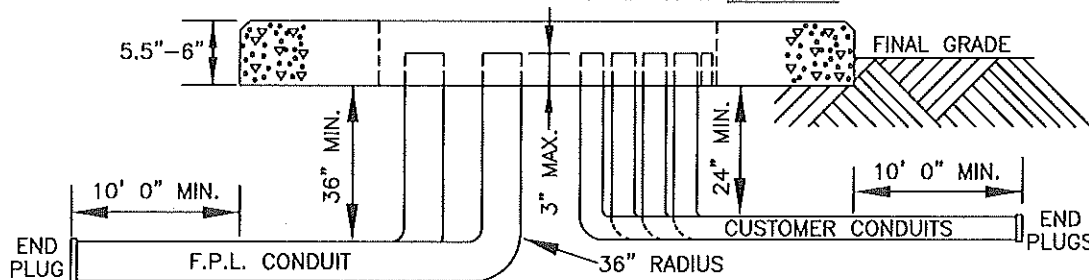
NAME: ROBERT E HADDOCK TITLE: Senior Technical Specialist

TELEPHONE NUMBER: 904-225-3003

SIGNATURE: Robert E Haddock



PLAN VIEW FIGURE 1



PROFILE FIGURE 2

PAD M&S NUMBER	WEIGHT	TRANSFORMER KVA	SECONDARY VOLTAGE	MAX. NUMBER OF CONDUCTORS & SIZE		MAX. NUMBER OF CONDUITS & SIZES	A	B	C	D	E	F	G
162-750-120	2,700LBS	750	277/480 V	8 SETS SEE NOTE 8	750KCMIL AL 750KCMIL CU*	8 - 5" MAX.	78	78	18	60	25	21	9
162-750-120	2,700LBS	750	120/208 V	12 SETS	750KCMIL AL 750KCMIL CU*	12 - 5" MAX.	78	78	18	60	25	21	9
162-100-000	3,600LBS	1000	120/208 V 277/480 V	12 SETS	750KCMIL AL 750KCMIL CU*	12 - 5" MAX.	88	88	18	60	25	21	14
162-150-200	4,050LBS	1500-2000	277/480 V	12 SETS 14 SETS	600-750KCMIL* 500KCMIL OR LESS	12 - 5" MAX 14 - 5" MAX	94	94	18	64	26	21	15
162-250-025	5,050LBS	2500	277/480 V	12 SETS 16 SETS	600-750KCMIL* 500KCMIL OR LESS	12 - 5" MAX 16 - 5" MAX	106	106	18	66	28	26	20

## NOTES:

- FOR CONSTRUCTION DETAILS AND INSTALLATION GUIDELINES.
- (\*) CABLES LARGER THAN 500 CU WILL REQUIRE MULTITAP CONNECTORS 103-806-300 AND 103-806-400.
- FOR ANY NEW INSTALLATION WHICH HAS MORE THAN 6 SETS OF 750 KCMIL CU OR MORE THAN 12 SETS OF A SMALLER SIZE CONDUCTOR, IT IS RECOMMENDED TO USE THE LARGE THREE -PHASE SECONDARY CABINET, M&S #161-401-003, AS SHOWN IN DCS I-75.0.0.
- #4 TYPE OF STEEL RE-BAR (1/2") ON ALL 4 CORNERS.
- 6" X 6" WIRE MESH SURROUNDING ALL OPENINGS.
- INSTALL 2" SLEEVE FOR GROUND ROD, 48" LONG.
- FOR TRAFFIC BARRIERS INFORMATION REFER TO UN-21.0.0.
- REFER TO I-63.0.1 FOR DETAILS OF EXTENSION BARS USE TO ACCOMMODATE UP TO 12 SETS OF CABLES
- USE APPROVED TOOL M&S #594-106-003 FOR LIFTING AND HANDLING THESE PADS.
- IF CT'S ARE REQUIRED, CABLES/CONDUITS REQUIRING CT METERING MUST BE PLACED TOWARDS THE FRONT OF THE PAD.

11	12/14/15	UPDATE TABLE	ARR	ELS	RDH
10	11/9/15	UPDATE TABLE	ARR	ELS	RDH
9	9/9/15	ADD NOTE 8	ARR	ELS	RDH
8	7/23/15	UPDATE TABLE AND ADD NOTE 7	ARR	ELS	RDH
7	2/27/15	UPDATE NOTES	ARR	ELS	RDH
NO.	DATE	REVISION	ORIG.	DRAWN	APPR.

**F P L**  
OH & UG DISTRIBUTION SYSTEM STANDARDS  
ORIGINATOR: MV  
DATE: 10/9/96  
APPROVED: J.J. MCEVOY  
SUPERVISOR, OH/UG PRODUCT SUPPORT SERVICES  
DRAWN BY: E. SCHILLING  
NO SCALE



## Electric Service Standards

DATE  
02-13-17

PREPARED BY

SUBJECT

SECTION: PAGE

Delivery Assurance –  
Design Support

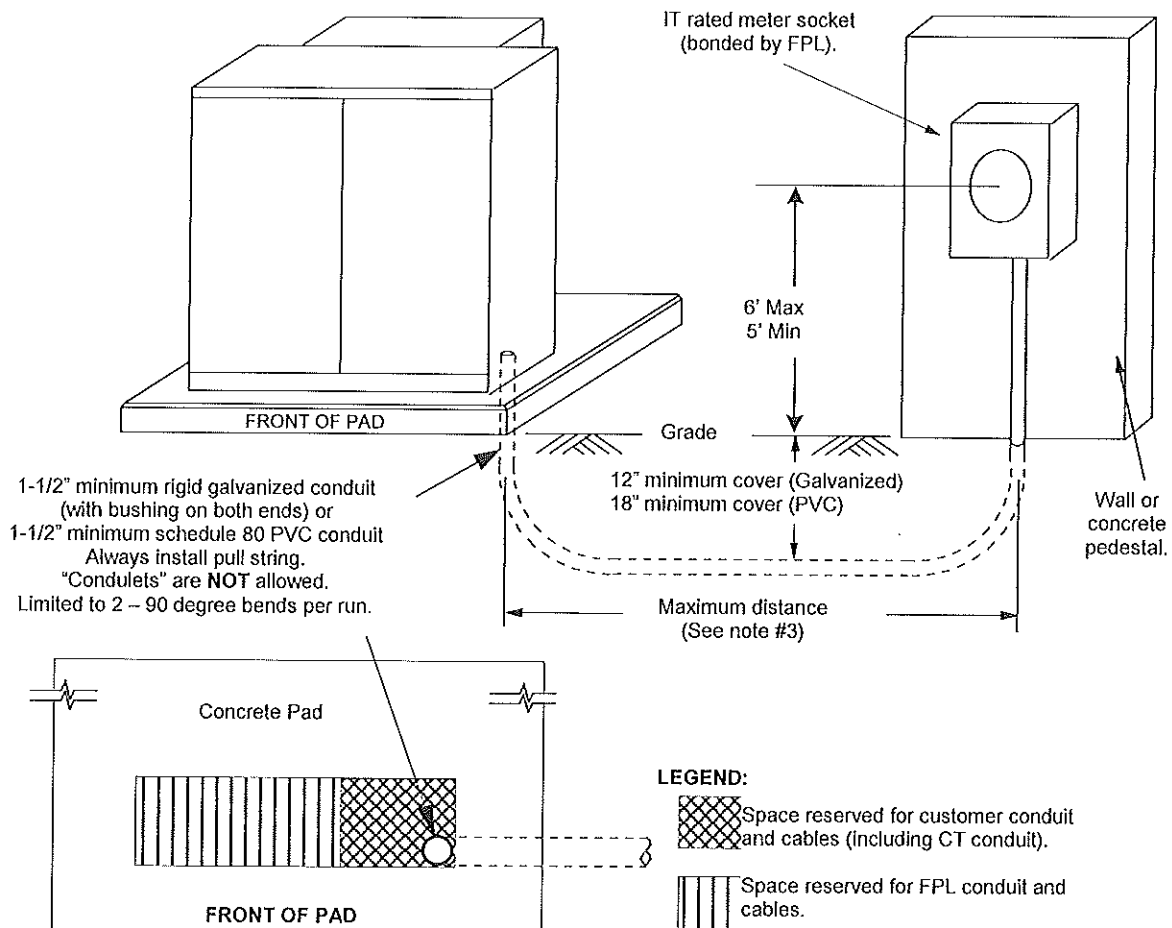
### VI. METERING EQUIPMENT

VI - 7 of 17

**FIGURE VI-2**  
**CT Metering Configuration 6 - CTs in Padmounted Transformer or Vault**

1. IT rated meter socket provided and installed by customer: \_\_\_\_ 1 ph or \_\_\_\_ 3 ph (check one)
2. Current transformers (CTs) provided and installed in padmounted transformer by FPL.
3. 1-1/2" minimum rigid galvanized or Schedule 80 PVC conduit with pull string installed between meter socket and padmounted transformer provided and installed by customer. Condulets are NOT allowed, and limited to 2 – 90 degree bends per run. For maximum distance between transformer and meter socket, see table below.
4. Restricted to one customer per padmounted transformer. Exceptions must be approved by FPL.
5. CT ratio determined by FPL.

CT Ratio	Max Amps	Max Distance (feet)	Max Cable Length (feet)
✓ Ratio			
300:5	600	10	20
600:5	1200	40	50
1200:5	2400	40	50
2000:5	3000	40	50





# Florida Power & Light

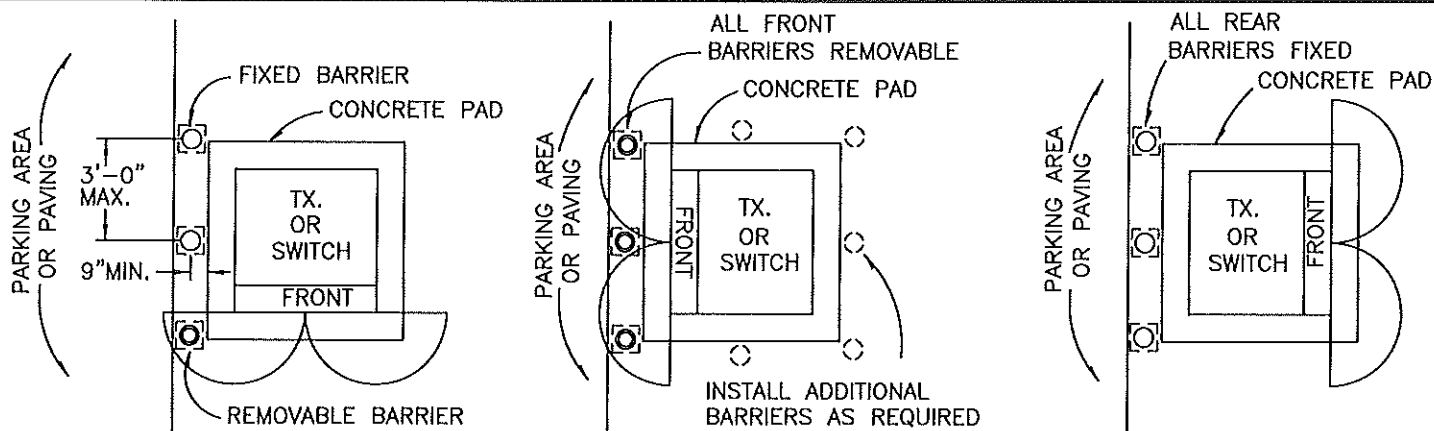
## Approved Transformer Rated Equipment

2/08/2017

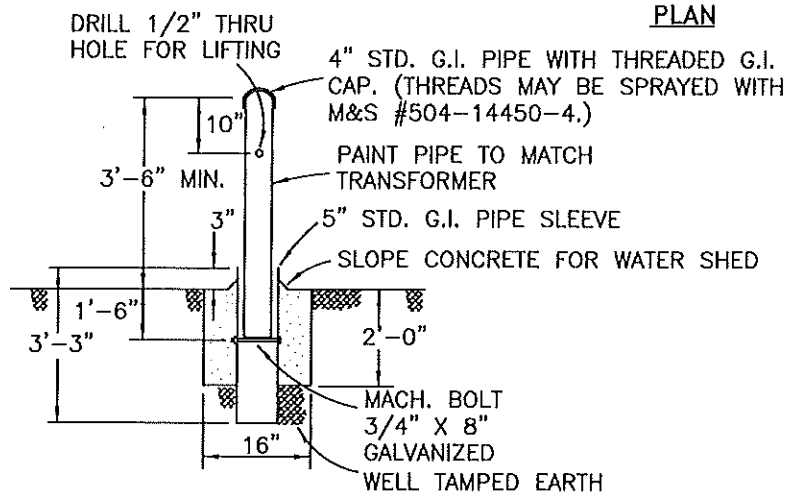
Note: Instrument Transformer Rated Meter Sockets and Cabinets on this list are only approved for use in the FPL Service Area. Before purchase, please contact your FPL Representative. Instrument Transformer Metering must be approved by FPL.

### INSTRUMENT RATED METER SOCKETS

Manufacture	Amps	Catalog Number	Phase	Service	Pos	Term	Test Switch	Config
Brooks Utility Produ	20	602U3010C13-387 (TUV Steel)	3	Ov/Un	1	13	Y	6-12
Brooks Utility Produ	20	602U3010C6-388 (Q6 Steel)	1	Ov/Un	1	6	Y	6-12
Brooks Utility Produ	20	605U8010C13-934 (TUV Steel Snap 2)	3	Ov/Un	1	13	Y	6-12
Brooks Utility Produ	20	652U3010C13-387 (TUV Alum)	3	Ov/Un	1	13	Y	6-12
Brooks Utility Produ	20	652U3010C6-388 (Q6 Alum)	1	Ov/Un	1	6	Y	6-12
Brooks Utility Produ	20	655U8010C13-934 (TUV Alum Snap 2)	3	Ov/Un	1	13	Y	6-12
Talon	20	9837-0422 (PTS-6 Aluminum)	1	Ov/Un	1	6	Y	6-12
Talon	20	9837-0423 (PTS-6 Steel)	1	Ov/Un	1	6	Y	6-12
Talon	20	9837-0424 (PTS-13 Alum)	3	Ov/Un	1	13	Y	6-12
Talon	20	9837-0425 (PTS-13 Steel)	3	Ov/Un	1	13	Y	6-12
Anchor	20	RTSA13-13-FP&L (Alum)	3	Ov/Un	1	13	Y	6-12
Anchor	20	RTSA6-73-FP&L (Alum)	1	Ov/Un	1	6	Y	6-12
Anchor	20	RTSS13-13-FP&L (Steel)	3	Ov/Un	1	13	Y	6-12
Anchor	20	RTSS6-73-FP&L (Steel)	1	Ov/Un	1	6	Y	6-12
Cooper B-Line	20	ST02063N1ALIF (Q6 ALUM)	1	Ov/Un	1	6	Y	6-12
Cooper B-Line	20	ST02063N1GRIF (Q6 STEEL)	1	Ov/Un	1	6	Y	6-12
Cooper B-Line	20	ST02133N1ALIF (TUV ALUM)	3	Ov/Un	1	13	Y	6-12
Cooper B-Line	20	ST02133N1GRIF (TUV STEEL)	3	Ov/Un	1	13	Y	6-12
Milbank	20	UAPC4511 (Q6 Alum)	1	Ov/Un	1	6	Y	6-12
Milbank	20	UAPC4512 (TUV Alum)	3	Ov/Un	1	13	Y	6-12
Milbank	20	UC4511 (Q6 Steel)	1	Ov/Un	1	6	Y	6-12
Milbank	20	UC4512 (TUV Steel)	3	Ov/Un	1	13	Y	6-12

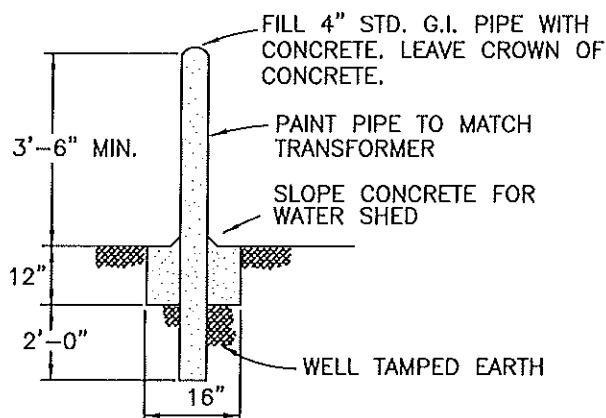


## PLAN

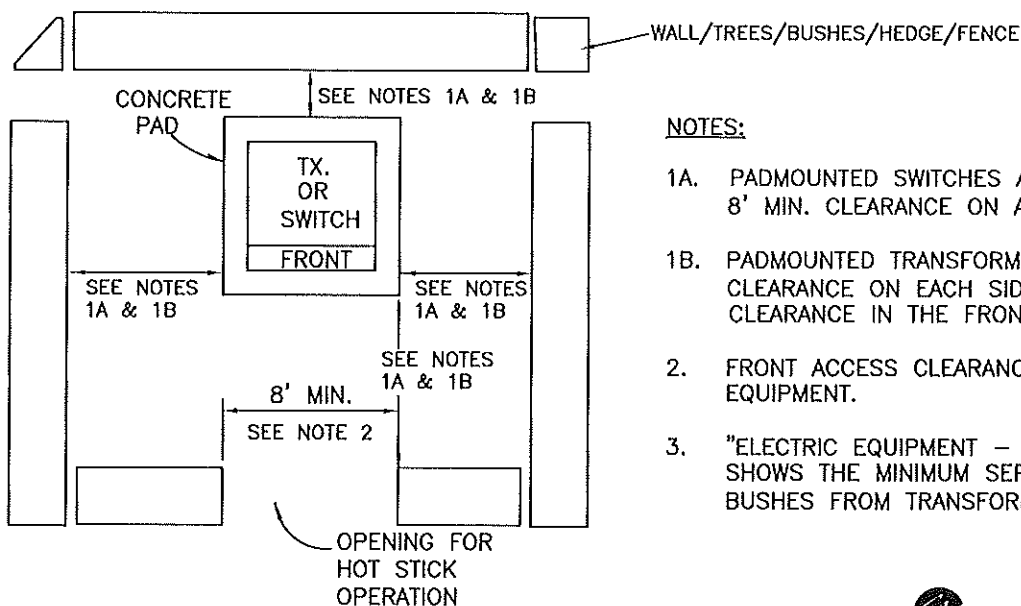


## REMOVABLE BARRIER

## SECTION



## FIXED BARRIER



## PLAN

## NOTES:

- 1A. PADMOUNTED SWITCHES AND CAPACITOR BANKS REQUIRE 8' MIN. CLEARANCE ON ALL SIDES.
- 1B. PADMOUNTED TRANSFORMERS REQUIRE 3' MIN. CLEARANCE ON EACH SIDE AND BACK AND 8' CLEARANCE IN THE FRONT.
2. FRONT ACCESS CLEARANCE SHOULD BE 8' FOR ALL EQUIPMENT.
3. "ELECTRIC EQUIPMENT - KEEP OUT" DECAL THAT SHOWS THE MINIMUM SEPARATION DISTANCES FOR BUSHES FROM TRANSFORMERS IS M&S #548-560-101.



F P L

OH &amp; UG DISTRIBUTION SYSTEM STANDARDS

UN

5	3/3/17	UPDATE DRAWING (NOTES)	ARR	ELS	RDH
4	9/13/16	UPDATE DRAWING (NOTES)	ARR	ELS	RDH
3	9/17/13	UPDATE DRAWING (NOTES)	JJR	ELS	WM
2	7/16/01	UPDATE DRAWING (NOTES)	RAP	JES	JJM
1	8/27/99	UPDATE DRAWING (NOTES)	RAP	JES	JJM
0	9/30/94	ORIGINAL DRAWING	CJM	PMG	RJS
NO.	DATE	REVISION	ORIG.	DRAWN	APPR.

ORIGINATOR: CJM

DRAWN BY: PTH

DATE: 9/30/94

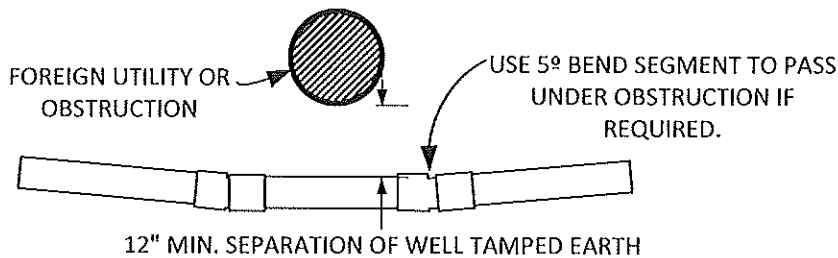
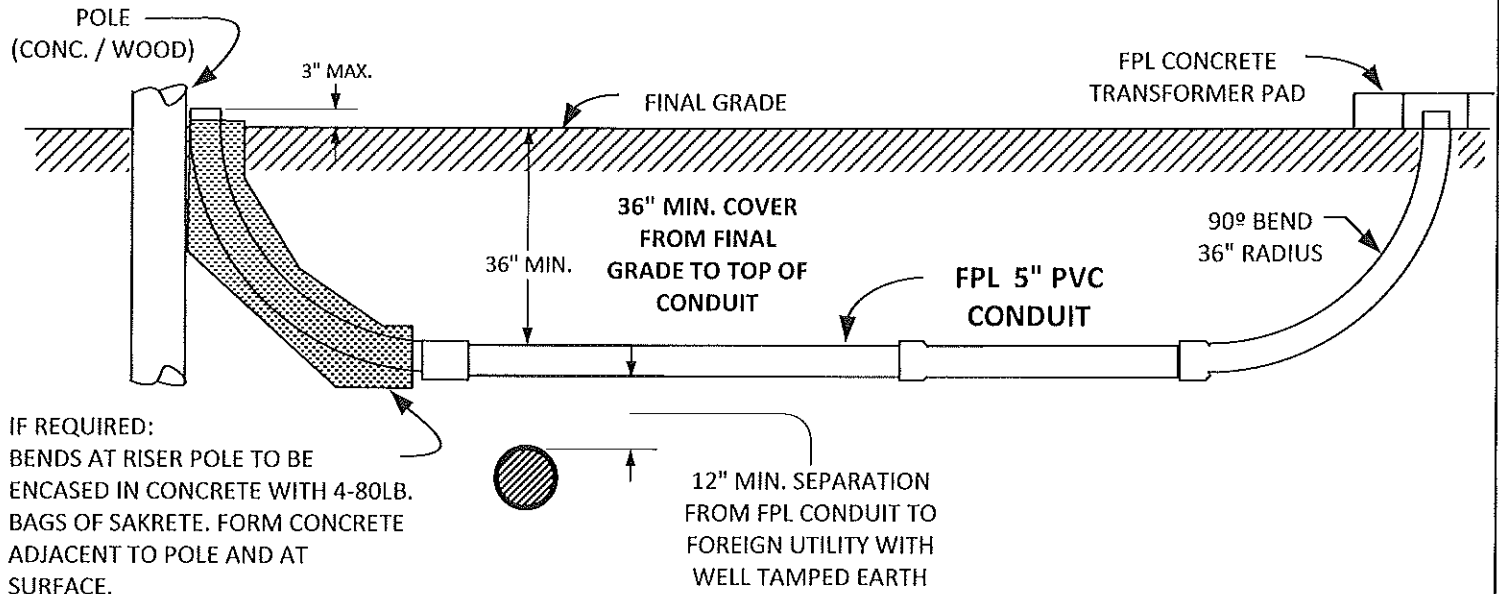
APPROVED: R.J. SALESKY  
DIRECTOR, DISTRIBUTION ENGINEERING  
AND OPERATIONS SERVICES

NO SCALE

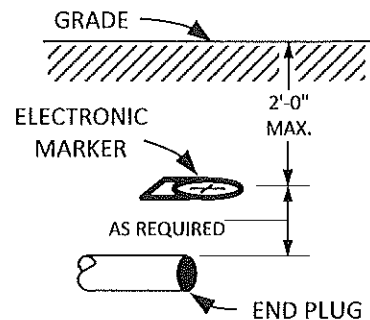


**\*\*\*\* NOTICE \*\*\*\***

- CALL SUNSHINE 1-800-432-4770 48HOURS BEFORE YOU DIG FOR UNDERGROUND LOCATIONS.
- NOTIFY FPL REP. FOR INSPECTION OF TRENCH DEPTH & PVC INSTALLATION PRIOR TO BACKFILLING TRENCH.



**FPL CONDUIT CROSSING UNDER A FOREIGN UTILITY**



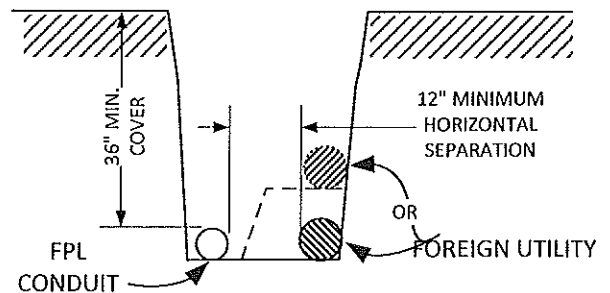
**DUCT END MARKING  
(IF REQUIRED)**

**NOTES:**

- o BACK-FILL WITHIN 4" OF THE CONDUIT TO BE FREE OF MATERIAL THAT MAY DAMAGE CONDUIT SYSTEM (BOARDS, ROCKS LARGER THAN 1" IN DIAMETER, DEBRIS, ETC.)
- o IF COMPACTION OF TRENCH ROUTE IS REQUIRED FOR PAVING, ETC. BEGIN MACHINE COMPACTION 6" MINIMUM ABOVE CONDUIT.
- o WHERE 36" OF COVER CANNOT BE MAINTAINED, 30" OF COVER WILL BE ALLOWED WITH 3" OF CONCRETE ENCASEMENT AROUND THE CONDUIT. (N.E.S.C. RULE FOR PRIMARY VOLTAGES)
- o INSTALL A CONTINUOUS LENGTH OF PULL STRING IN ALL CONDUIT RUNS.

**MATERIAL LIST 5" PVC SCH 40 CONDUIT**

20' LENGTH (BELLED END)	164-33800-1
90° BEND 36" RADIUS	164-25250-5
90° BEND 48" RADIUS	164-25200-9
45° BEND 48" RADIUS	164-61400-8
5° BEND SEGMENT	164-56100-1
22.5° SWEEP 12'-6" RADIUS	164-13000-1
STRAIGHT COUPLING	164-44900-7
REPAIR SLEEVE 6' LONG	164-47530-0
END PLUG	164-53500-1
ELECTRONIC MARKER	590-61601-5



**INSTALLATION OF FPL CONDUIT  
PARALLEL WITH - OR - IN A SHARED TRENCH WITH A  
FOREIGN UTILITY.**

**FPL SUPPLIED 5" PVC CONDUIT  
TYPICAL CUSTOMER INSTALLATION DETAILS  
(PORTIONS OF UN-6, UN-15, CONC. & PAD DETAILS)**