

ADDENDUM NO. 1
SEWER SYSTEM IMPROVEMENTS
CONTRACT 17-01
SEWAGE PUMPING STATION RENOVATIONS
LIVINGSTON, TENNESSEE
WAUFORD PROJECT NO. 2067

Date of Addendum: Tuesday, October 10, 2017
Bid Opening: Thursday, October 19, 2017, 2:00 P.M. Local Time

1. Detailed Specifications, Section 4. Site Preparation and Development, Piping and Valves. Paragraph 17. Pump Discharge Check Valves, Page DS 4-20:

Modify this paragraph as shown.

“17. Pump Discharge Check Valves

Check valves on pump discharges shall be of the flexible disc type and shall have cast iron body ASTM A126 Class B and shall be suitable for operation in horizontal lines. The valve shall achieve a tight closure and a non-slam characteristic by means of short disc stroke – not more than 35 degrees.

Check valves shall have a ductile iron body and Buna N disc. Check valves shall be Valmatic Bulletin 500 or approved equal. Check valves shall be flanged with flanges dimensioned and drilled ANSI Class 125.”

2. Detailed Specifications, Section 5. Wet Pit Submersible Pumps and Controls, Paragraph 6. Pump Equipment and Materials, Page DS 5-6:

Delete Subparagraph c. Motor Cooling System.

3. Detailed Specifications, Section 5. Wet Pit Submersible Pumps and Controls, Paragraph 7. Automatic Pump Control System, Page SD 5-9:

Modify Subparagraph a. Scope of the Work as follows:

“a. Scope of the Work

The work described consists of the pump vendor furnishing and installing the control system to automatically start and stop each pump

in response to input signals relating to the wetwell level and time. ***Each station is equipped with a level transducer to provide primary signals and float switches to provide secondary (back up) signals.*** The control vendor shall supply all instruments and accessories necessary for installation as depicted at the accompanying Plans.

Electrical work associated with equipment described herein, including all connecting signal and power wiring, is depicted in the accompanying Plans and should be reviewed and taken into account by the Vendor of equipment described at this Section.”

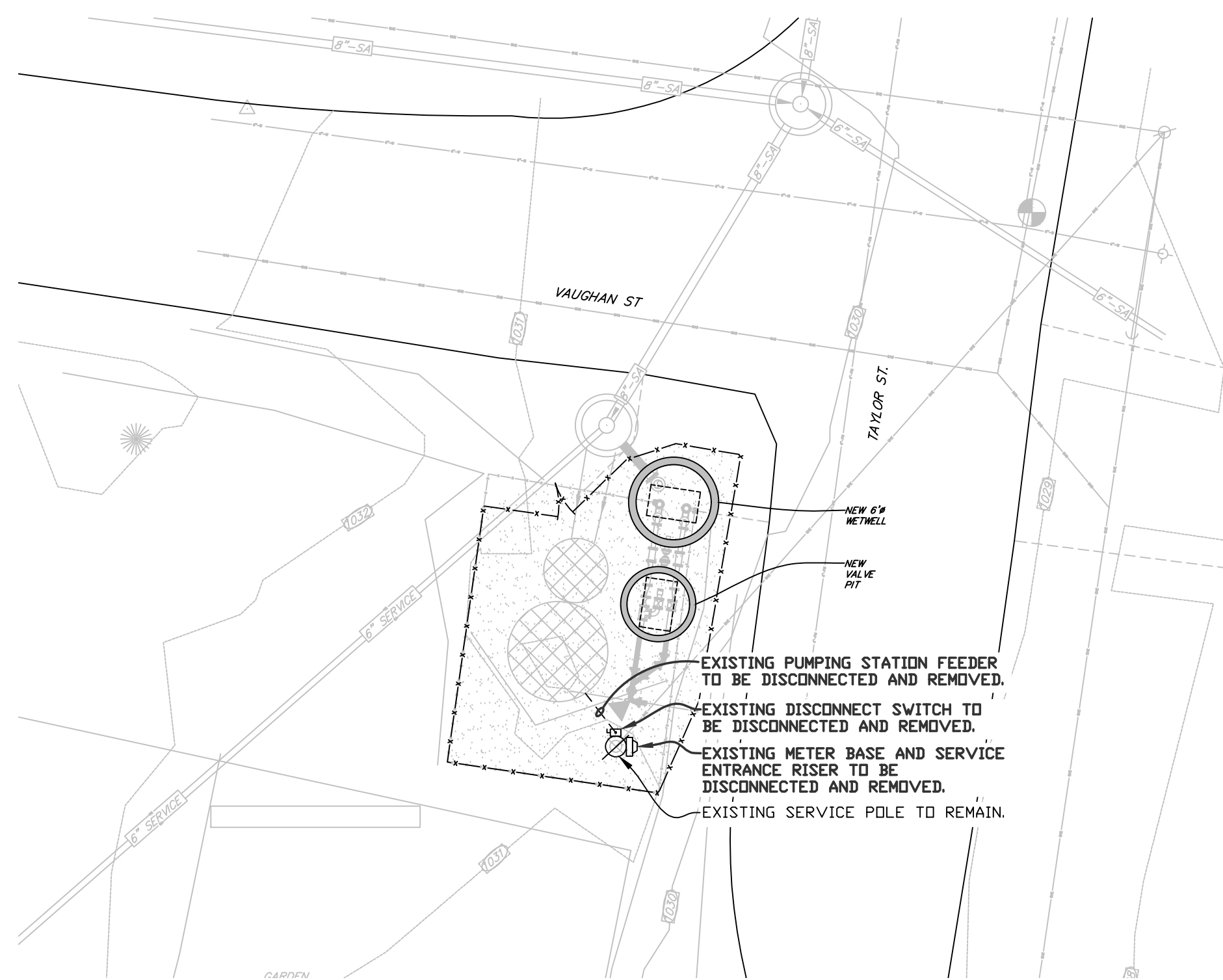
4. Plans, Sheets 3, 5, 7, 9, 11, 13, 15 and 16

Revised as shown on the attached sheets.

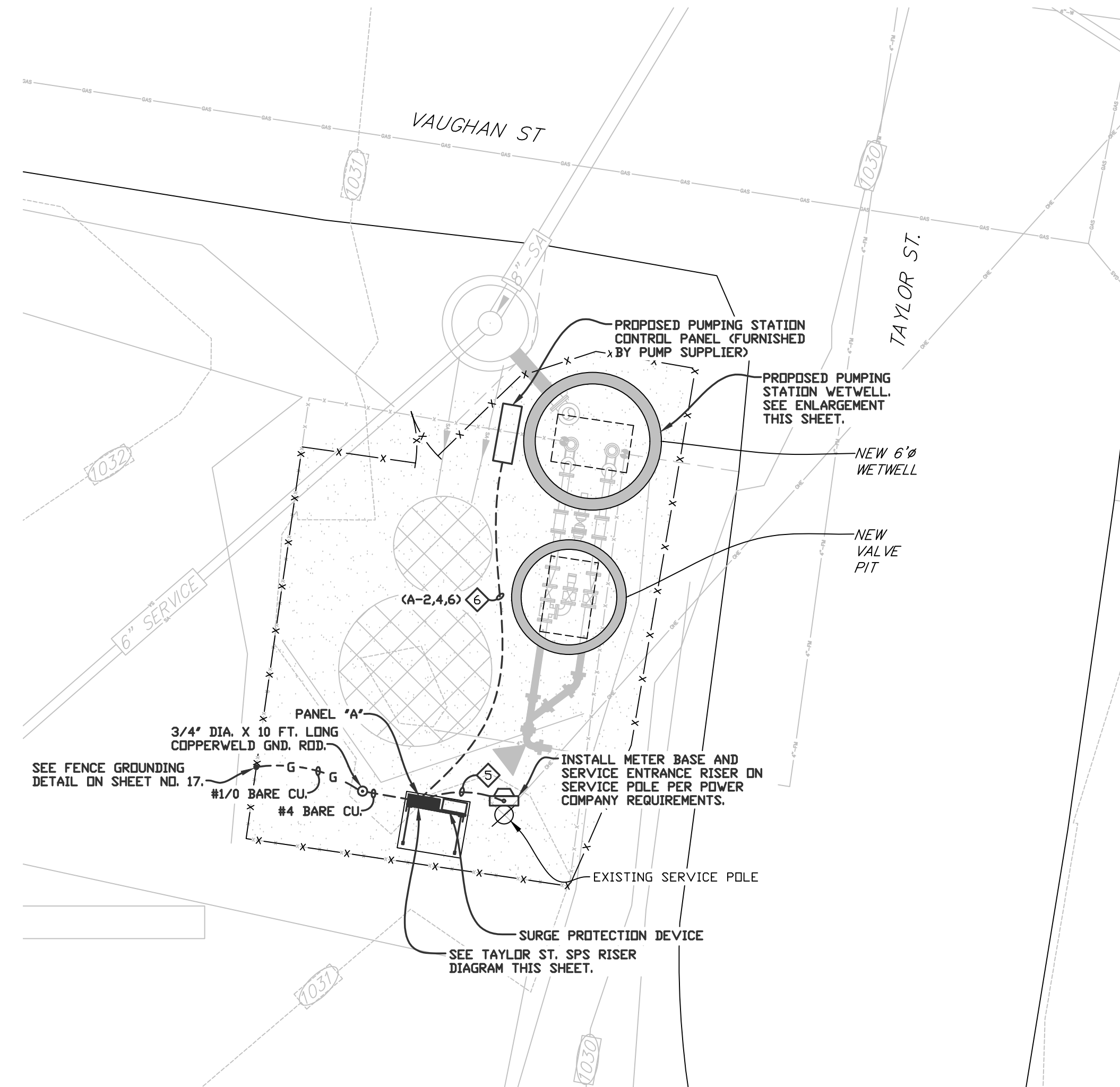
J. R. WAUFORD & COMPANY,
CONSULTING ENGINEERS, INC.



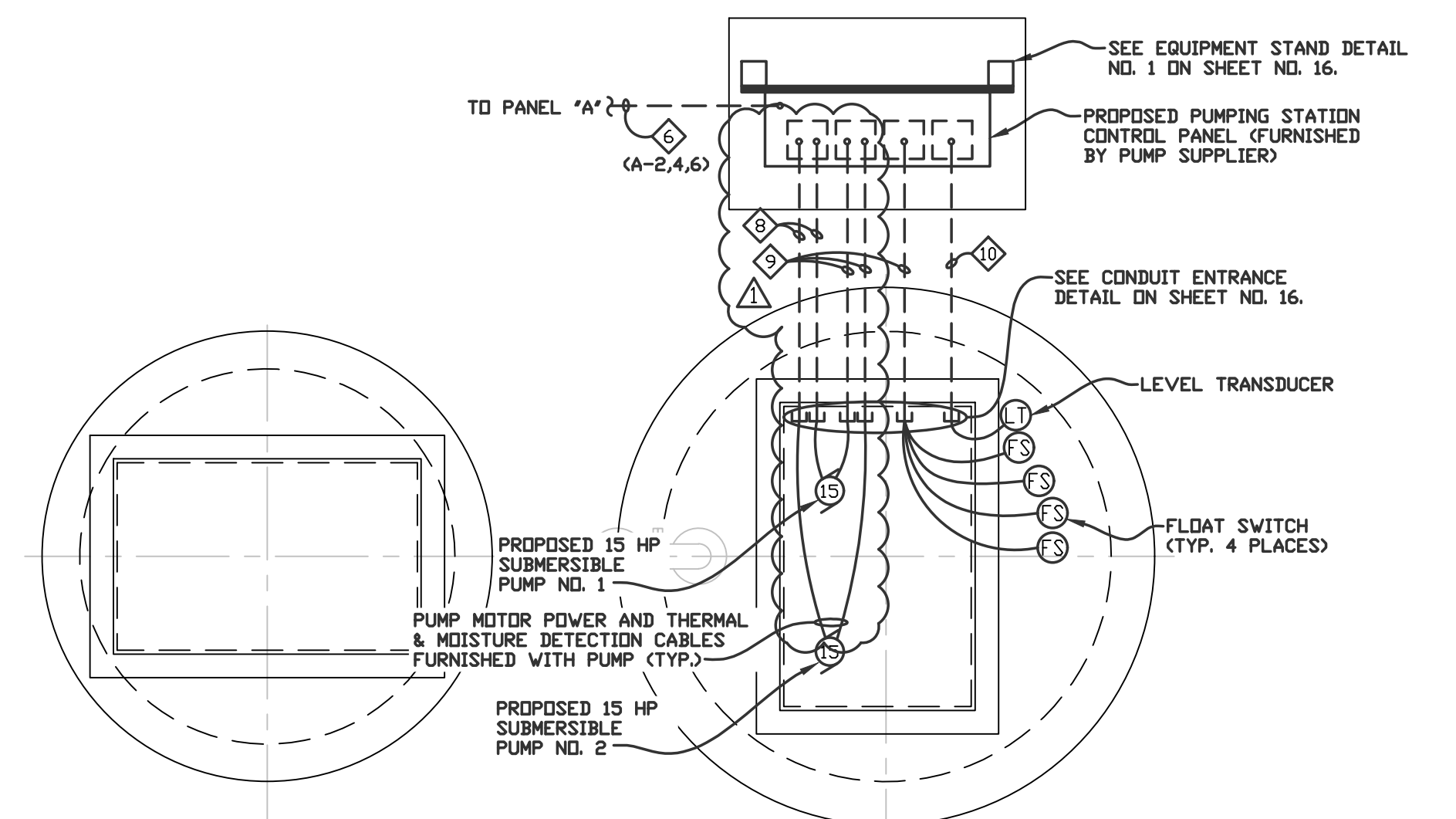
J. Gregory Davenport, P.E.
Tennessee License No. 104881



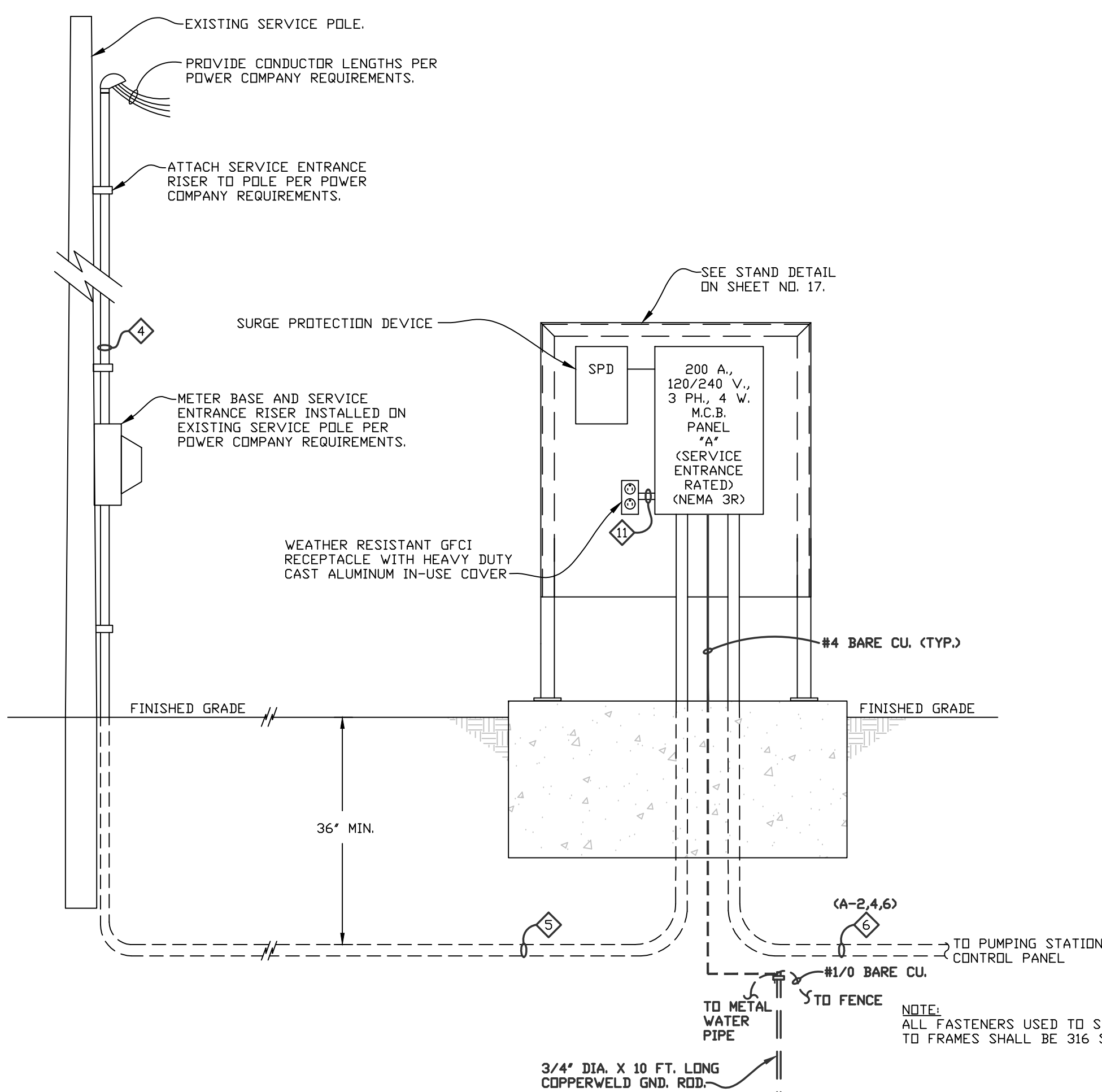
TAYLOR ST. SPS SITE ELECTRICAL DEMOLITION PLAN
 Scale: 1" = 10'-0"



TAYLOR ST. SPS SITE ELECTRICAL MODIFICATIONS PLAN
 Scale: 3/16" = 1'-0"



TAYLOR ST. SPS ENLARGEMENT
 Scale: NONE



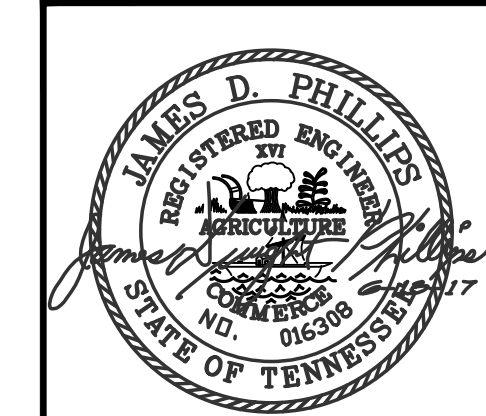
TAYLOR ST. SPS RISER DIAGRAM
 Scale: NONE

TYPE: _____		SERVICE: 120/240 V., 3 PH., 4 W.		POLES: 3		LOCATION: TAYLOR ST. SPS		* UNLESS OTHERWISE NOTED, SIZE CONDUITS PER NEC. BASE ON TYPE THHN.		BUS AMPACITY: 200 A.		MAINS: 200 A.		NEUTRAL: FULL		SHORT CIRCUIT RATING: 22,000 @	
PANEL "A"		(SERVICE ENTRANCE RATED)		NEMA 1		NEMA 3R											
CKT. KVA	CB TRIP	WIRE	LOAD NAME			LOAD NAME	WIRE	CONDUIT	CB TRIP	CKT. KVA							
0.2	60/3	#10	SURGE PROTECTION DEVICE	1	2	PUMPING STATION CONTROL PANEL	#1/0	2"	150/3	13.0							
			SURGE PROTECTION DEVICE	3	4	PUMPING STATION CONTROL PANEL	#1/0			13.0							
			SURGE PROTECTION DEVICE	5	6	PUMPING STATION CONTROL PANEL	#1/0			13.0							
			RECEPTACLE	7	8	SPACE											
			SPACE	9	10	SPACE											
			SPACE	11	12	SPACE											
			SPACE	13	14	SPACE											
			SPACE	15	16	SPACE											
			SPACE	17	18	SPACE											
			SPACE	19	20	SPACE											
0.2			TOTAL CONNECTED KVA:	39.2							13.0	13.0	13.0				

NOTE: (1) PROVIDE GFCI PROTECTED CIRCUIT BREAKERS AS REQUIRED.
 (2) DO NOT CONNECT ANY 120 V., 1 PH., 1 POLE CIRCUITS TO THE "B" PHASE.
 (3) IDENTIFY THE "B" PHASE OR "HI-LEG" CONDUCTOR BY AN OUTER FINISH THAT IS ORANGE IN COLOR AT EACH POINT WHERE A CONNECTION IS MADE IF THE NEUTRAL CONDUCTOR IS ALSO PRESENT.

- NOTES:
- THE CONTRACTOR SHALL REFER TO THE CIVIL, STRUCTURAL AND PIPING PLANS FOR ALL DIMENSIONS, SECTIONS, DETAILS, ELEVATIONS, VOLTAGE REQUIREMENTS AND PHYSICAL SIZE OF ALL EQUIPMENT FURNISHED BY OTHER TRADES. COORDINATE AND ADJUST ALL ELECTRICAL INSTALLATIONS ACCORDINGLY.
 - ALL CONDUIT ROUTING SHOWN IS DIAGRAMMATIC. THE CONTRACTOR SHALL COORDINATE ALL OF THE RACEWAY INSTALLATIONS WITH OTHER TRADES TO AVOID INTERFERENCES WITH STRUCTURES AND PIPING.
 - THIS DRAWING IS DIAGRAMMATIC AND IS INTENDED TO SHOW THE GENERAL EXTENT OF MODIFICATIONS. ALL OUTLETS & DEVICES TO BE REMOVED OR RELOCATED MAY NOT BE SHOWN OR SHOWN IN EXACT LOCATION. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL MODIFICATIONS TO MEET REQUIREMENTS OF OTHER TRADES.
 - ALL DEMOLITION WORK AND INSTALLATION OF PROPOSED ELECTRICAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH ENGINEER AND CONTRACTOR'S DETAILED PHASING SEQUENCE. ALL NECESSARY EXISTING & PROPOSED PANELBOARDS & CIRCUITS SHALL BE TEMPORARILY POWERED AS REQUIRED.
 - ALL ELECTRICAL INSTALLATIONS SHALL CONFORM TO THE 2008 NATIONAL ELECTRICAL CODE, 2012 INTERNATIONAL BUILDING CODE AND ALL STATE AND LOCAL CODES.
 - DO NOT CONNECT ANY 120 V., 1 PH., 1 POLE CIRCUITS TO THE "B" PHASE ON ANY THREE PHASE PANELBOARD.
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 - THE EXACT AIC RATING OF ALL PANELBOARDS SHALL BE COORDINATED WITH THE POWER COMPANY'S AVAILABLE FAULT CURRENT AND ADJUSTED ACCORDINGLY.
 - ALL CONDUITS ENTERING WETWELLS OR OTHER WASTEWATER HOLDING STRUCTURES SHALL BE EQUIPPED WITH HAZARDOUS LOCATION SEALING FITTINGS TO PREVENT WASTEWATER GASES FROM ENTERING RACEWAY AROUND CONDUCTORS OR CABLES. PROVIDE STAINLESS STEEL KELLEM TYPE CORD GRIP W/STRAIN RELIEF FOR ALL CABLES TERMINATING IN RACEWAYS, JUNCTION BOXES OR ENCLOSURES.

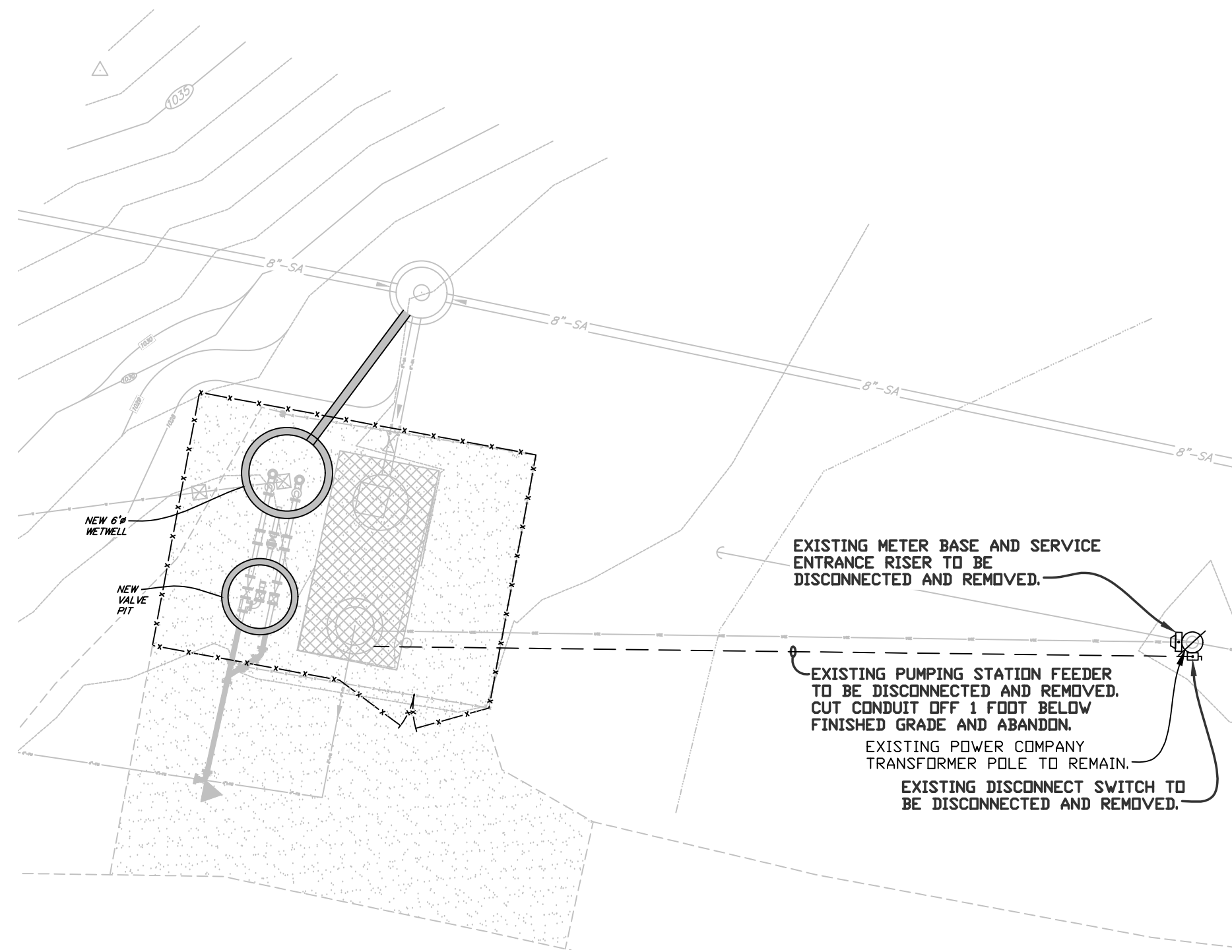
SHEET 3 OF 19		SEWER SYSTEM IMPROVEMENTS CONTRACT 17-01 SEWAGE PUMPING STATION RENOVATIONS	
REVISIONS		TAYLOR STREET SPS SITE ELECTRICAL DEMOLITION AND MODIFICATIONS PLANS, RISER DIAGRAM AND PANEL SCHEDULE	
ADDENDUM NO. 1		FOR LIVINGSTON, TENNESSEE	
SCALE	AS SHOWN	DESIGNED	MLK
PROJECT NUMBER	2067	DRAWN	TWR
DATE	JUNE 2017	CHECKED	JDP
WAUFORD		J. R. Wauford & Company, Consulting Engineers, Inc. Nashville, Tennessee (615) 983-3243 www.jrwauford.com	



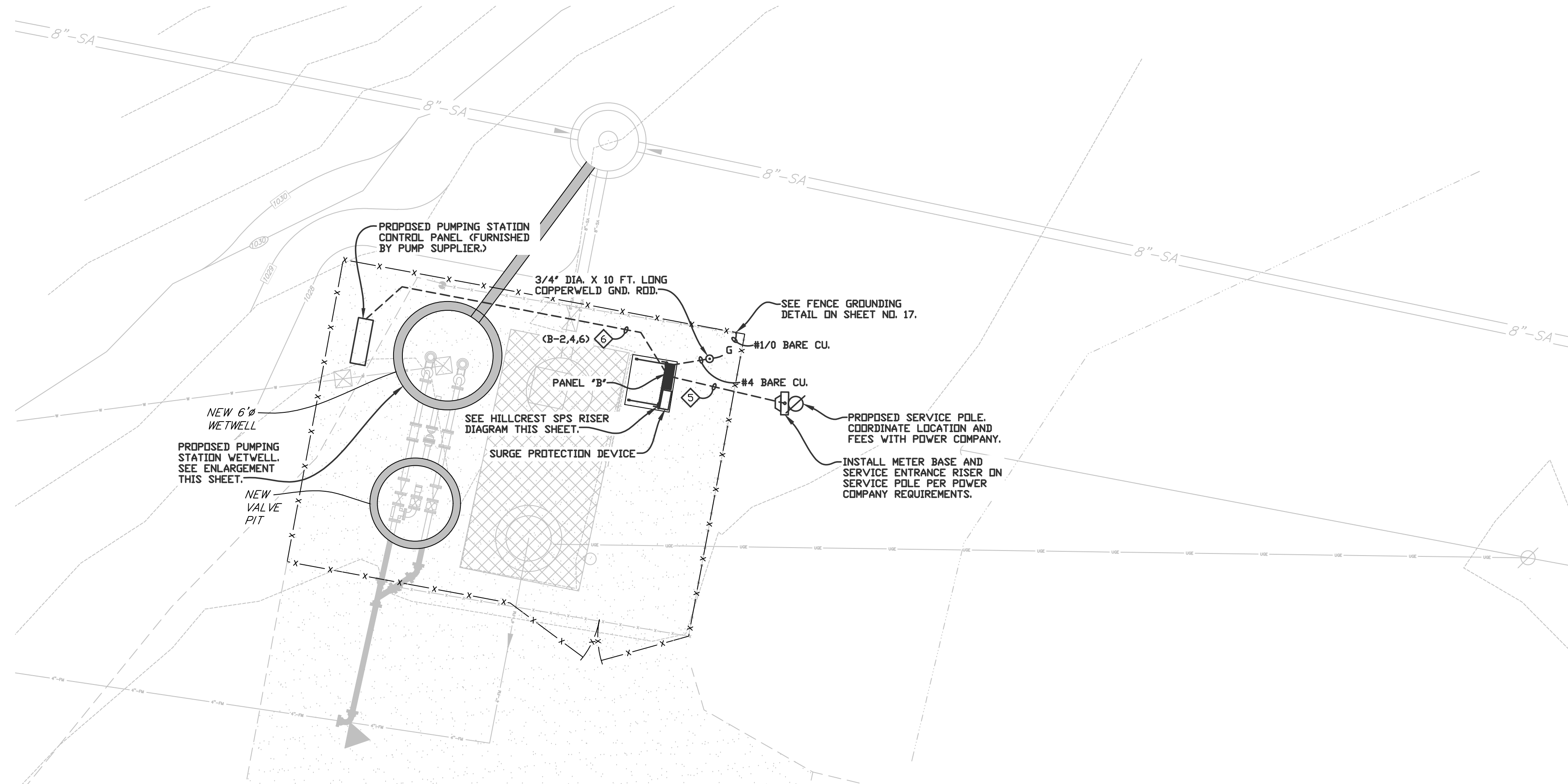
PHILLIPS ENGINEERING, INC.
 ELECTRICAL DESIGN
 P.O. BOX 585
 617 S. FIRST ST.
 UNION CITY, TN 38261
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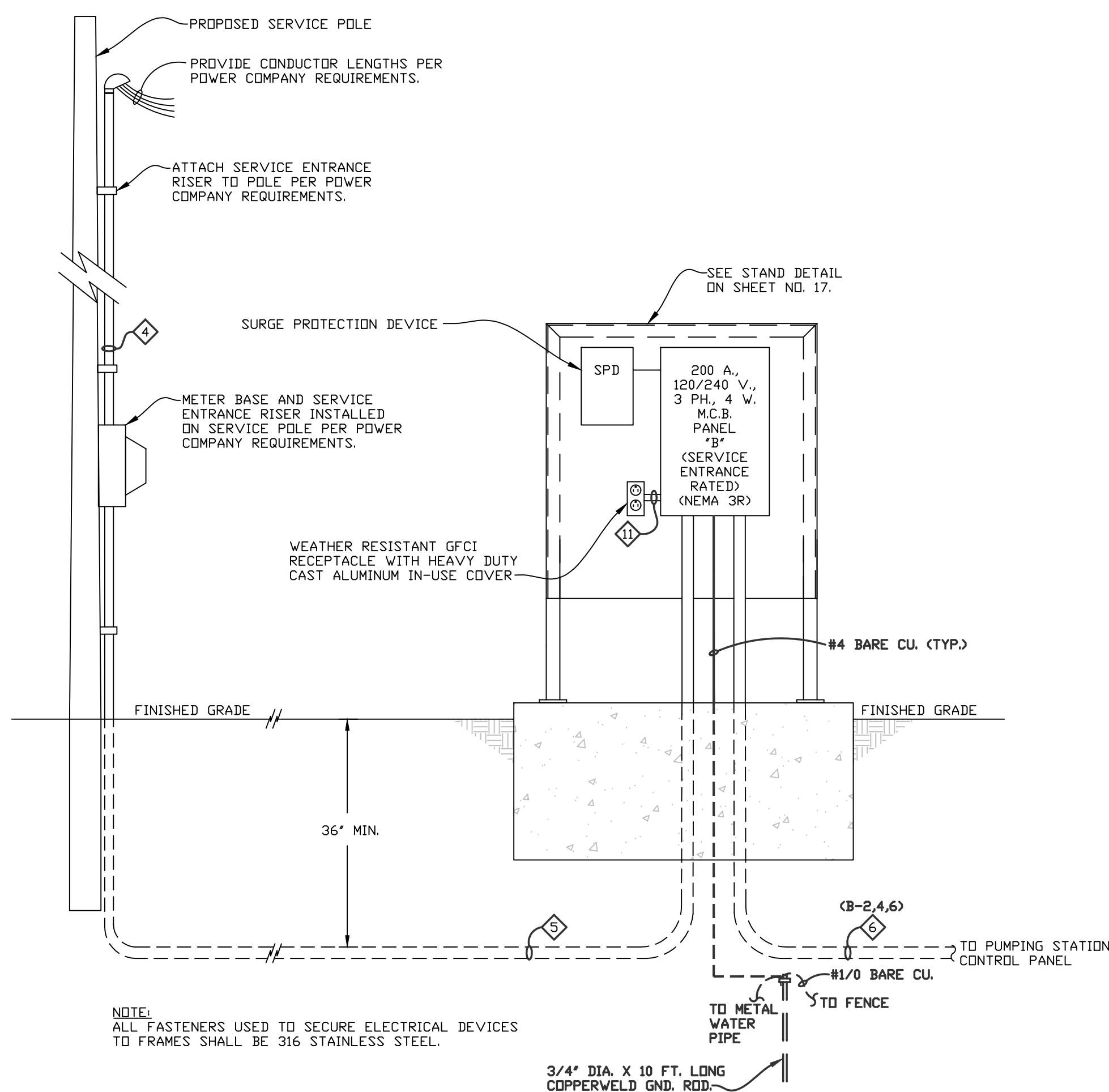
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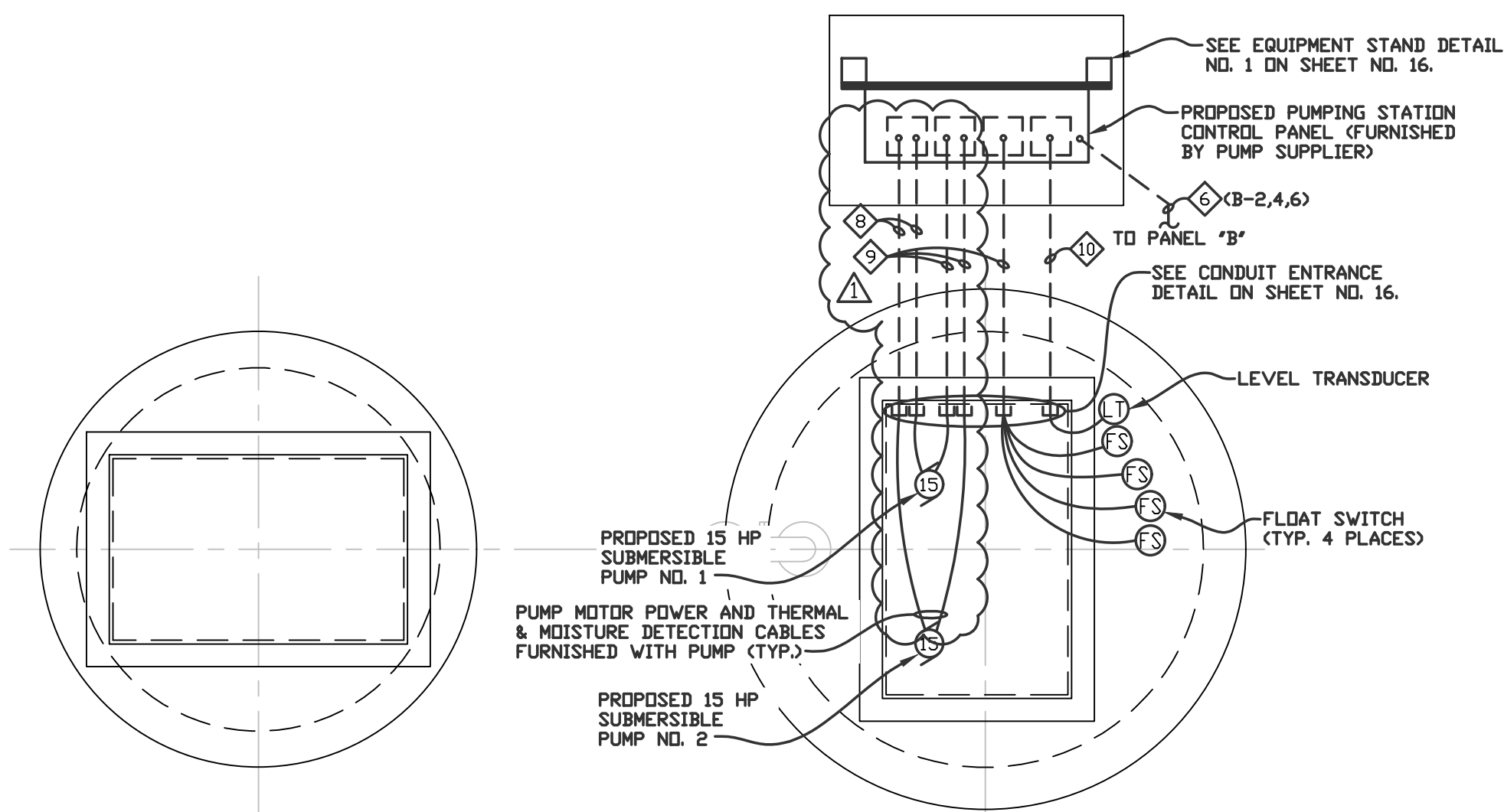
HILLCREST SPS SITE ELECTRICAL DEMOLITION PLAN
Scale: 1" = 10'-0"



HILLCREST SPS SITE ELECTRICAL MODIFICATIONS PLAN
Scale: 3/16" = 1'-0"



HILLCREST SPS RISER DIAGRAM
Scale: NONE



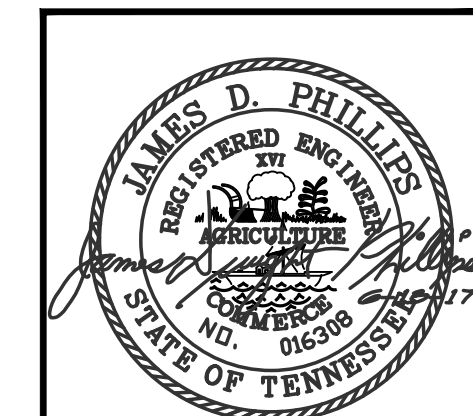
HILLCREST SPS ENLARGEMENT
Scale: NONE

TYPE:		SERVICE: 120/240 V., 3 PH., 4 W.		POLES: 3		LOCATION: HILLCREST SPS		* UNLESS OTHERWISE NOTED, SIZE CONDUITS PER NEC. BASE ON TYPE THHN.		BUS AMPACITY: 200 A.		MAINS: 200 A.		NEUTRAL: FULL		SHORT CIRCUIT RATING: 22,000 @	
		PANEL "B"															
		☑ SURFACE		☐ FLUSH													
CKT. KVA	CB TRIP	CONDUIT	WIRE	LOAD NAME		LOAD NAME	WIRE	CONDUIT	CB TRIP	CKT. KVA	ΦA	ΦB	ΦC				
—	60/3			SURGE PROTECTION DEVICE	1	PUMPING STATION CONTROL PANEL	#1/0	2"	150/3	13.0	—	—	—				
—	—			SURGE PROTECTION DEVICE	3	PUMPING STATION CONTROL PANEL	#1/0			13.0	—	—	—				
—	—			SURGE PROTECTION DEVICE	5	PUMPING STATION CONTROL PANEL	#1/0			13.0	—	—	—				
0.2	20/1	3/4"	#10	RECEPTACLE	7	SPACE											
—	—			SPACE	9	SPACE											
—	—			SPACE	11	SPACE											
—	—			SPACE	13	SPACE											
—	—			SPACE	15	SPACE											
—	—			SPACE	17	SPACE											
—	—			SPACE	19	SPACE											
0.2				TOTAL CONNECTED KVA:		39.2					13.0	13.0	13.0				

NOTE: (1) PROVIDE GFCI PROTECTED CIRCUIT BREAKERS AS REQUIRED.
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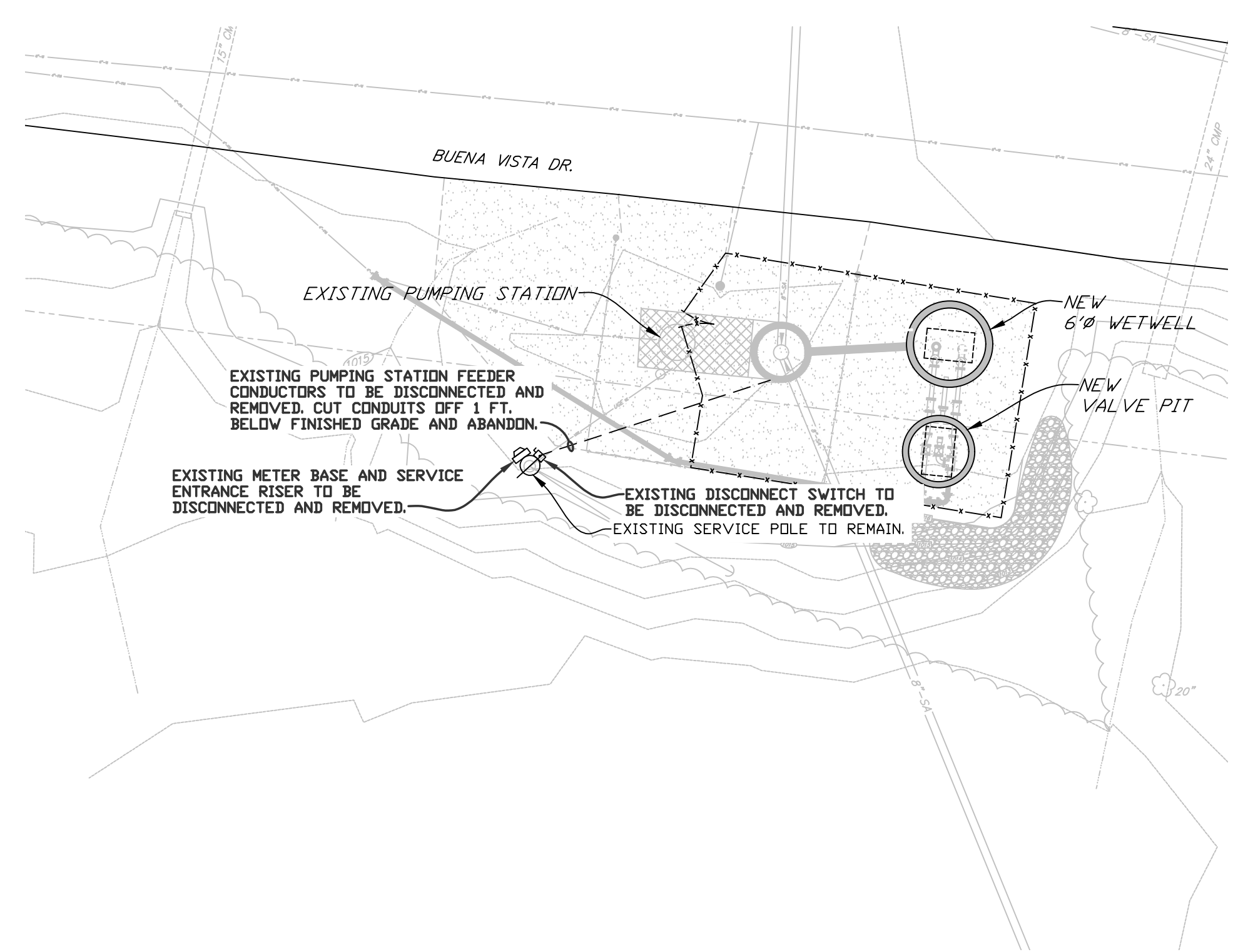
SHEET 5 OF 19		SEWER SYSTEM IMPROVEMENTS CONTRACT 17-01 SEWAGE PUMPING STATION RENOVATIONS	
REVISIONS		HILLCREST SPS SITE ELECTRICAL DEMOLITION AND MODIFICATIONS PLANS, RISER DIAGRAM AND PANEL SCHEDULE	
ADDENDUM NO. 1		FOR LIVINGSTON, TENNESSEE	
SCALE	AS SHOWN	DESIGNED	MLK
PROJECT NUMBER	2067	DRAWN	TWR
DATE	JUNE 2017	CHECKED	JDP
J. R. Wauford & Company, Consulting Engineers, Inc. Nashville, Tennessee (615) 883-3243 www.jrwauford.com		WAUFORD	



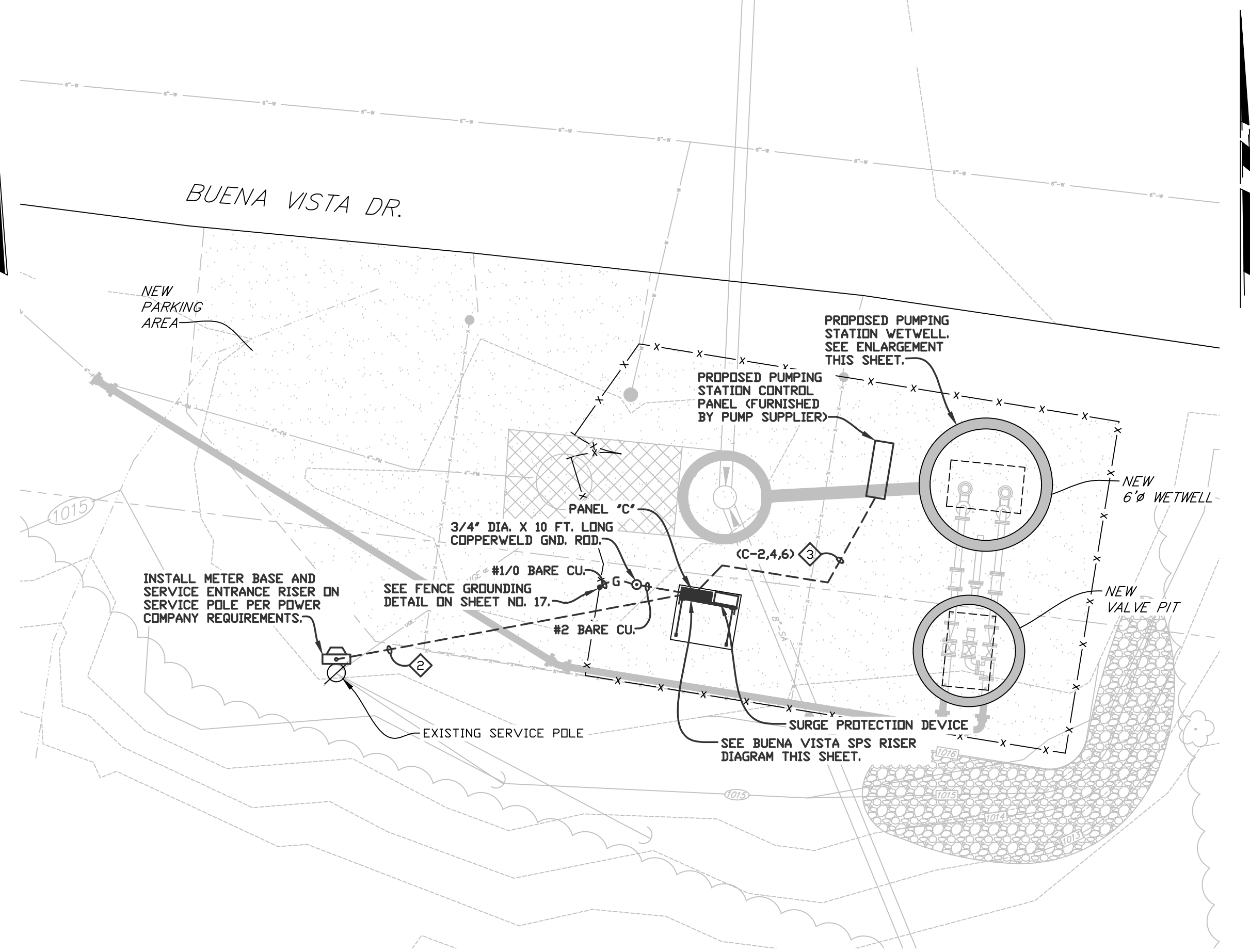
**PHILLIPS
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ELECTRICAL DESIGN
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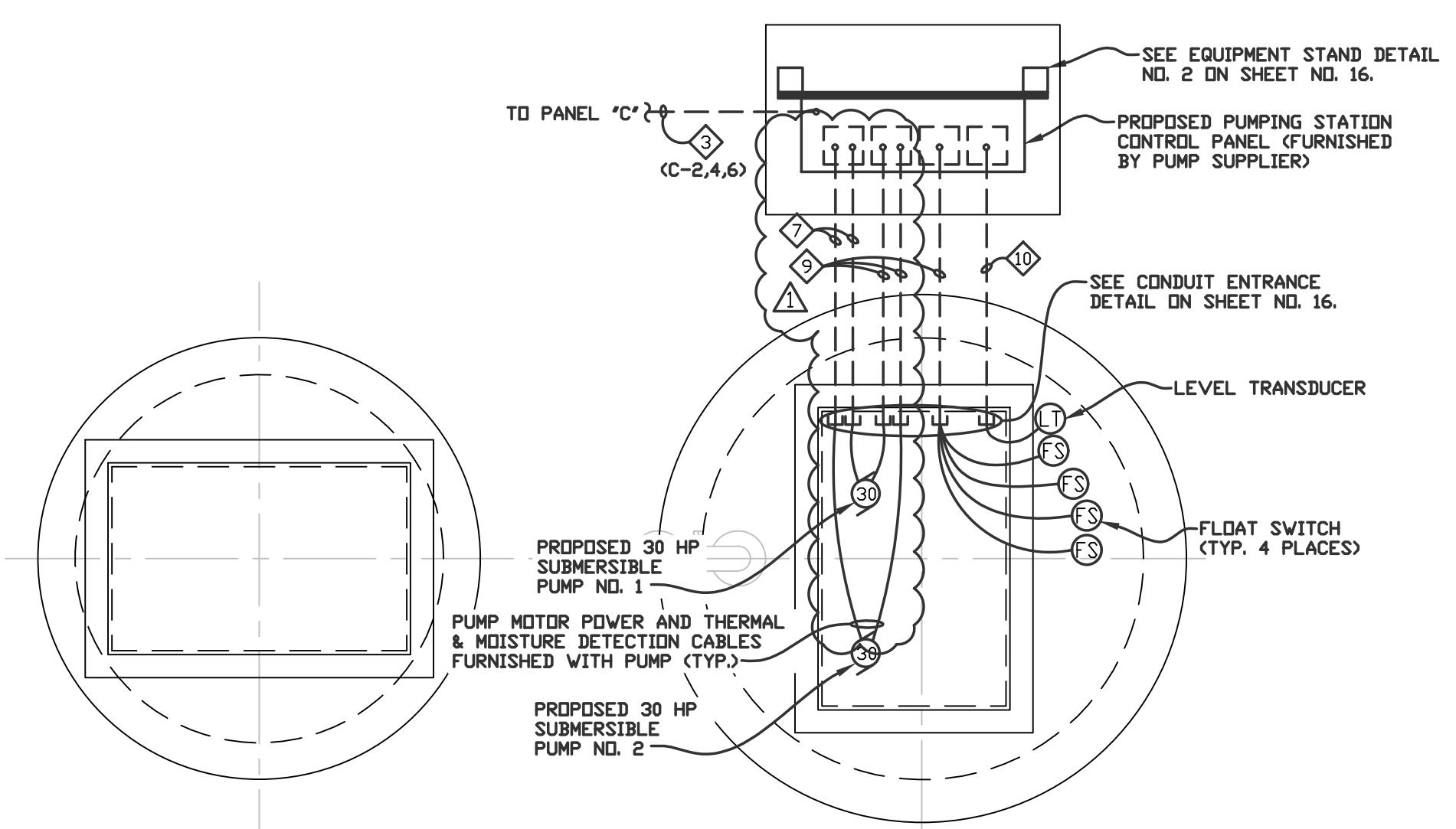
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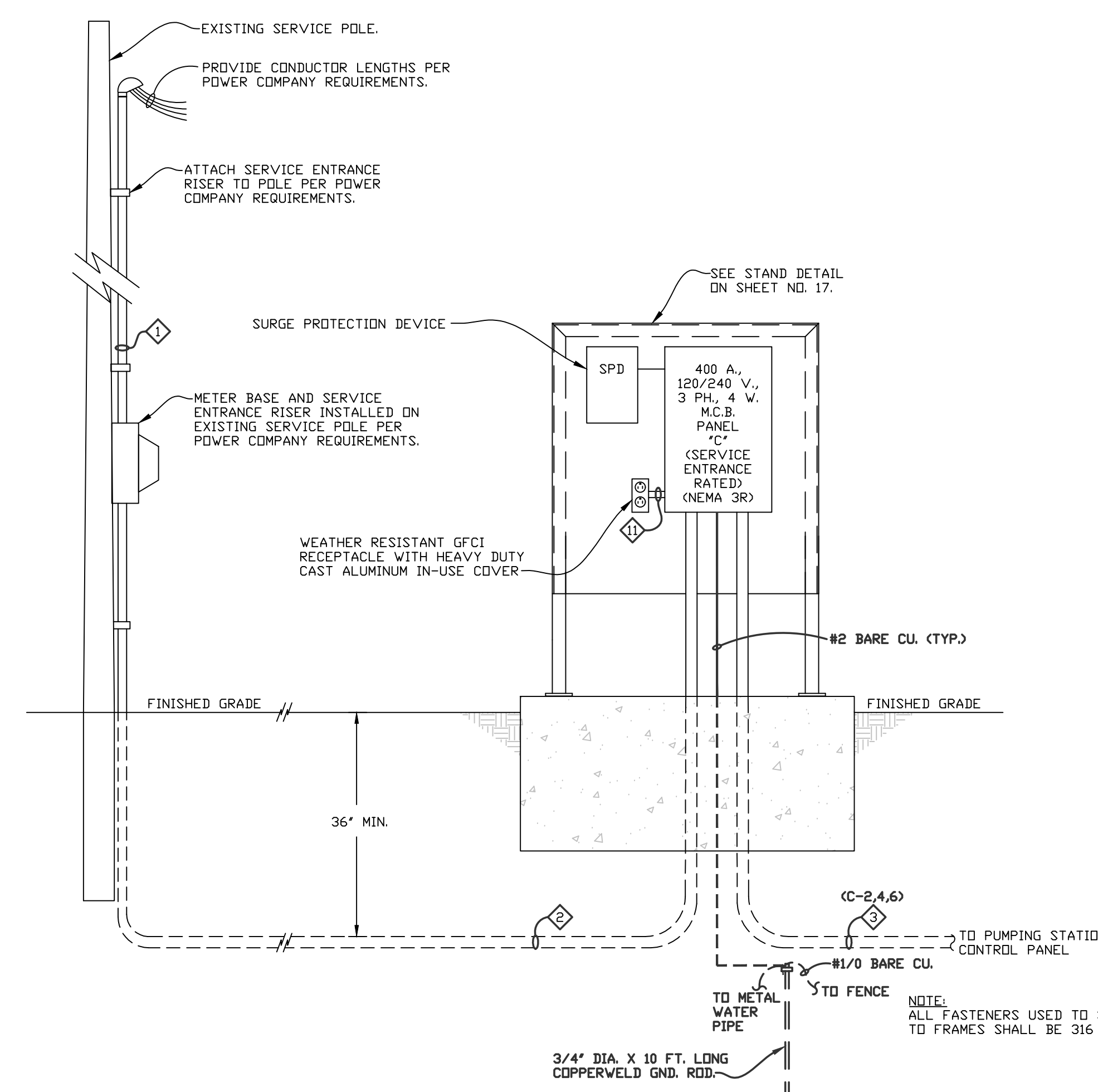
BUENA VISTA SPS SITE ELECTRICAL DEMOLITION PLAN
Scale: 1" = 10'-0"



BUENA VISTA SPS SITE ELECTRICAL MODIFICATIONS PLAN
Scale: 3/16" = 1'-0"



BUENA VISTA SPS ENLARGEMENT
Scale: NONE



BUENA VISTA SPS RISER DIAGRAM
Scale: NONE

TYPE: _____ SERVICE: 120/240 V., 3 PH., 4 W. POLES: 3 LOCATION: BUENA VISTA SPS SURFACE FLUSH

PANEL "C" (SERVICE ENTRANCE RATED) * UNLESS OTHERWISE NOTED, SIZE CONDUITS PER NEC. BASE ON TYPE THHN.

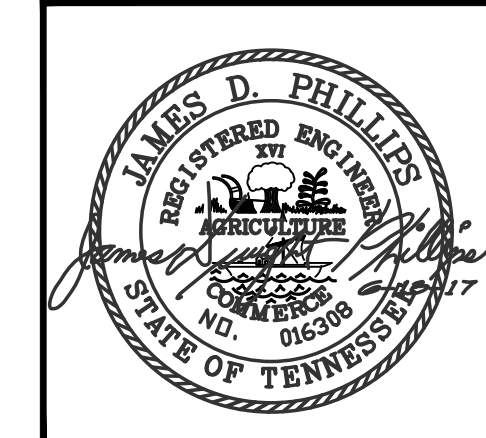
BUS AMPACITY: 400 A. MAINS: 400 A. NEUTRAL: FULL SHORT CIRCUIT RATING: 22,000 @ NEMA 1 NEMA 3R

CKT.	KVA	CB TRIP	WIRE	LOAD NAME	WIRE	CONDUIT	CB TRIP	CKT. KVA	
ØA	ØB	ØC					ØA	ØB	ØC
—	—	60/3		SURGE PROTECTION DEVICE	#250	3"	250/3	—	—
—	—	—		SURGE PROTECTION DEVICE	#250		—	23.5	—
—	—	—		SURGE PROTECTION DEVICE	#250		—	—	23.5
0.2	—	20/1	3/4" #10	RECEPTACLE				—	—
—	—	—		SPACE				—	—
—	—	—		SPACE				—	—
—	—	—		SPACE				—	—
—	—	—		SPACE				—	—
—	—	—		SPACE				—	—
—	—	—		SPACE				—	—
—	—	—		SPACE				—	—
0.2	—	—	—	TOTAL CONNECTED KVA	—	—	—	23.5	23.5
								23.5	23.5

NOTE: (1) PROVIDE GFCI PROTECTED CIRCUIT BREAKERS AS REQUIRED.
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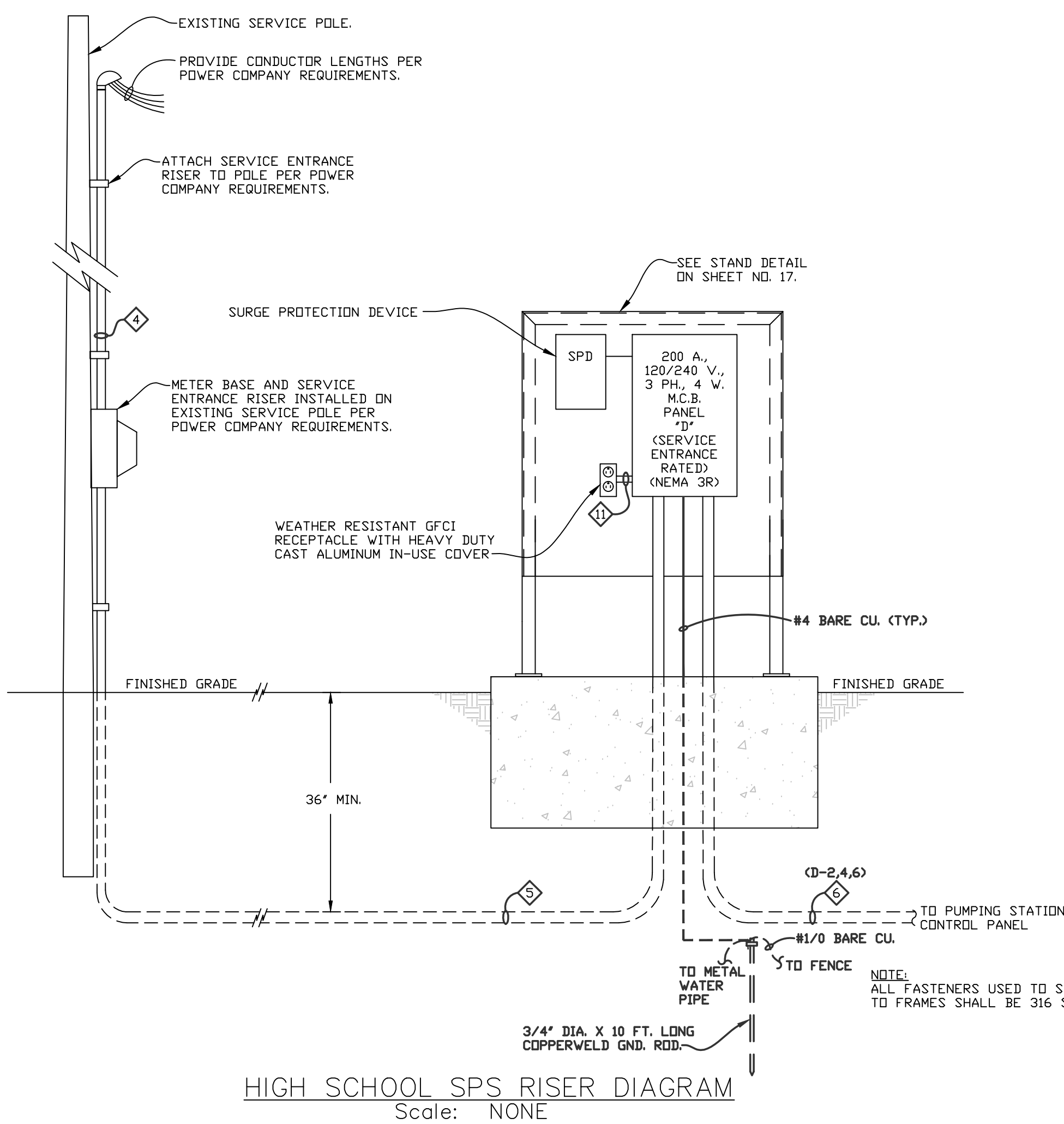
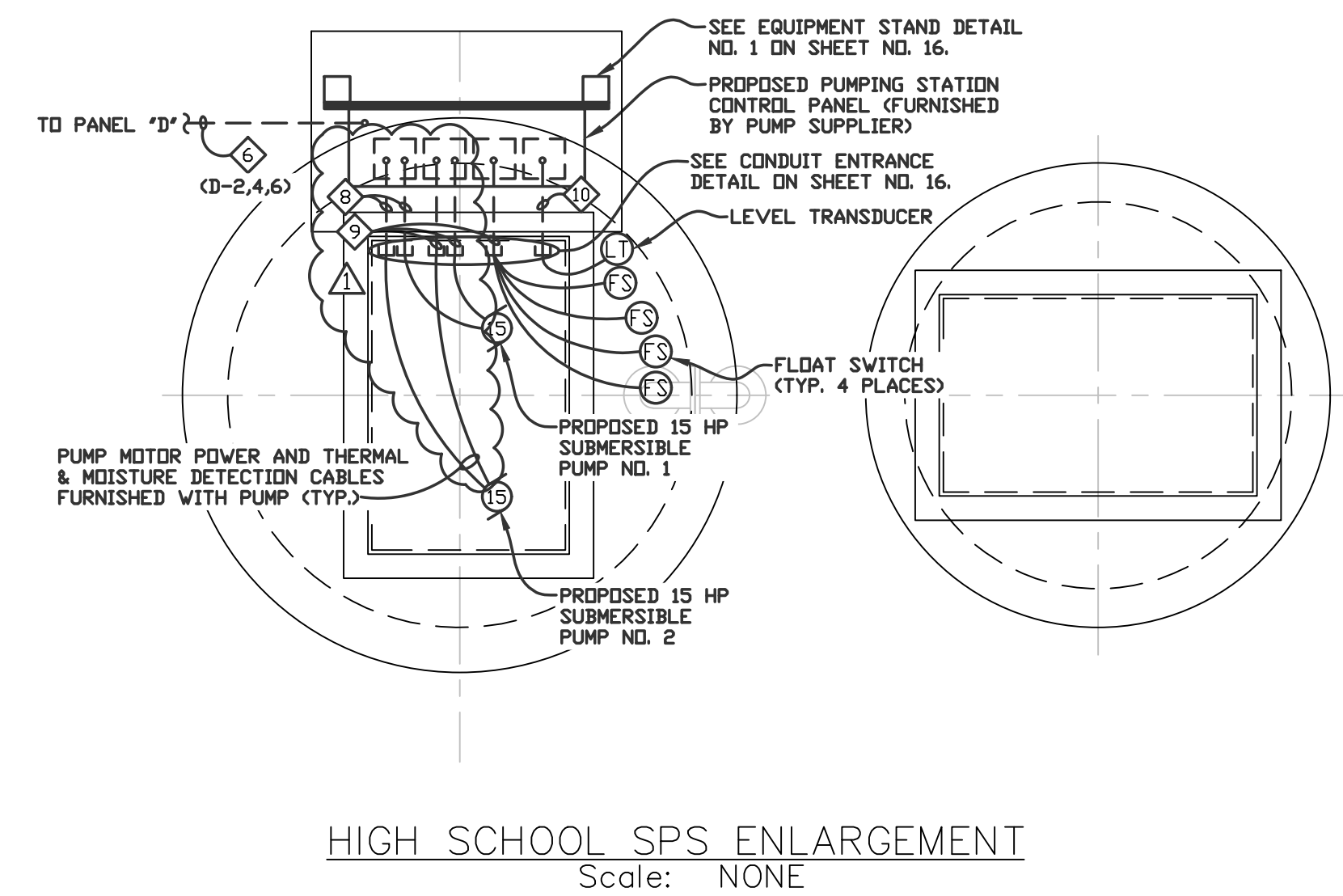
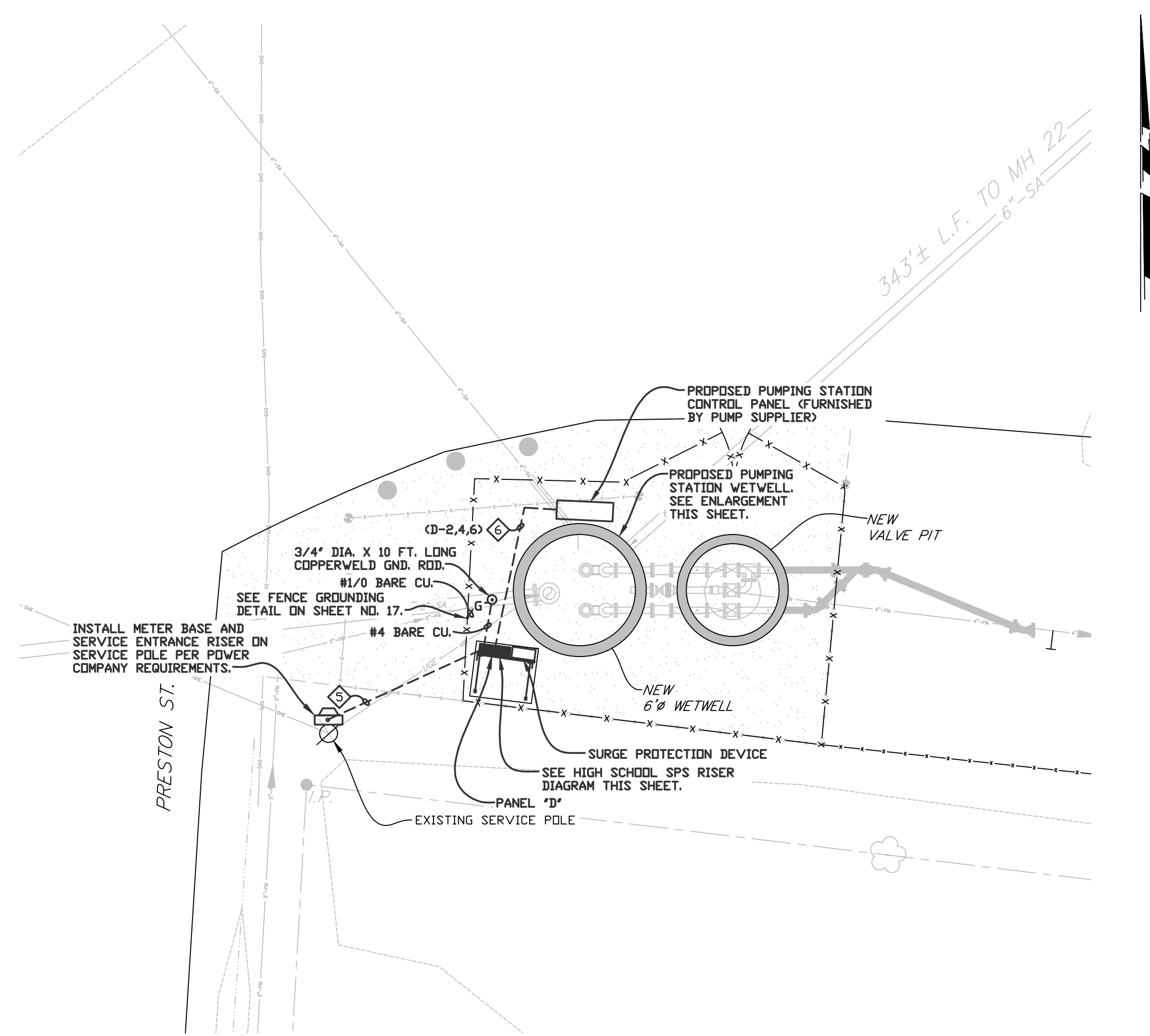
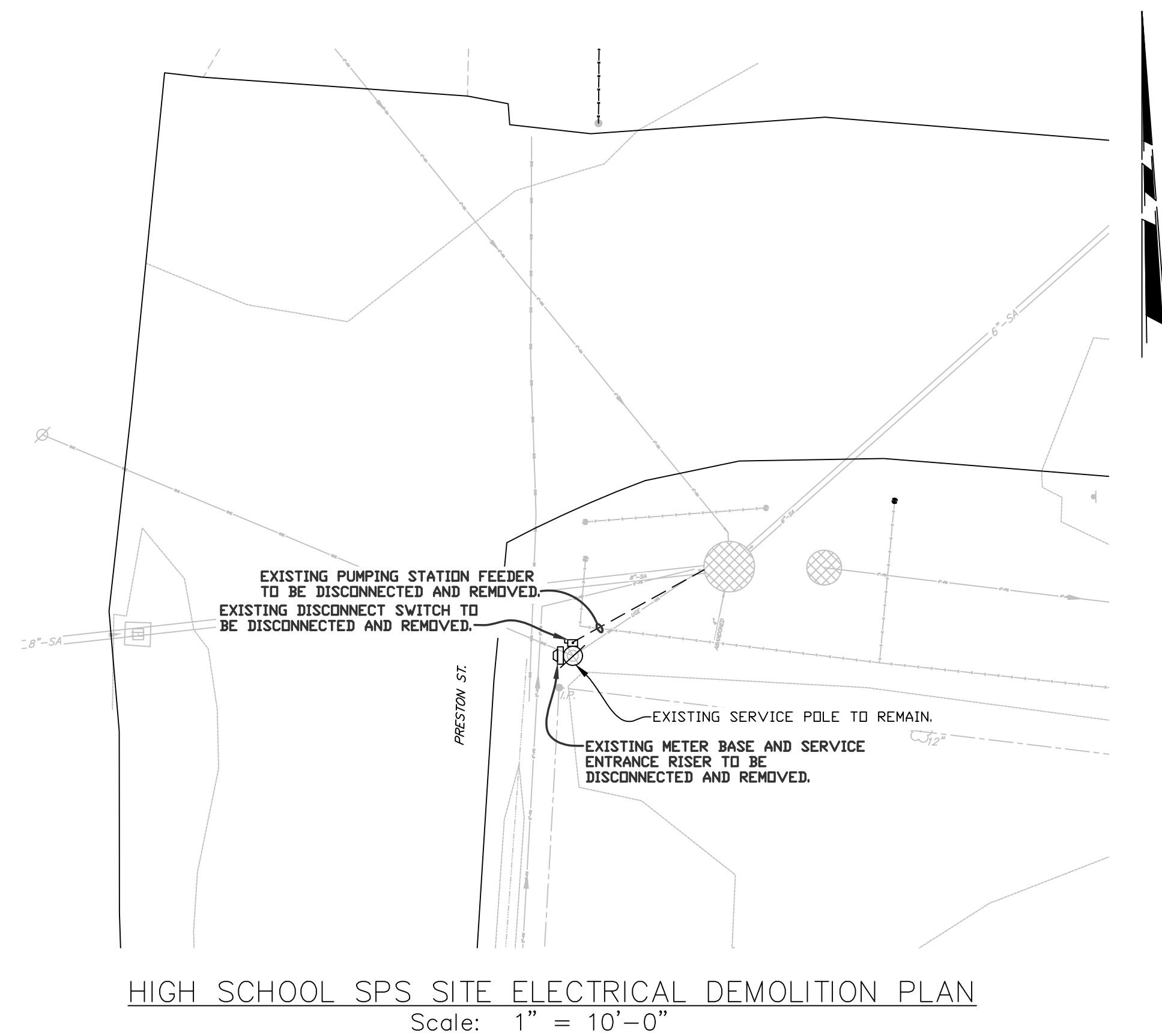
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ELECTRICAL DESIGN
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SHEET 7 OF 19	SEWER SYSTEM IMPROVEMENTS CONTRACT 17-01 SEWAGE PUMPING STATION RENOVATIONS
REVISIONS	BUENA VISTA SPS SITE ELECTRICAL DEMOLITION AND MODIFICATIONS PLANS, RISER DIAGRAM AND PANEL SCHEDULE
ADDENDUM NO. 1	LIVINGSTON, TENNESSEE
SCALE AS SHOWN	DESIGNED MLK DRAWN TWR CHECKED JDP
PROJECT NUMBER 2067	DATE JUNE 2017 J. R. Wauford & Company, Consulting Engineers, Inc. Nashville, Tennessee (615) 883-3243 www.jrwauford.com

17006SH17R1



TYPE: _____ SERVICE: 120/240 V., 3 PH., 4 W. POLES: 3 LOCATION: HIGH SCHOOL SPS SURFACE FLUSH

PANEL "D" (SERVICE ENTRANCE RATED) * UNLESS OTHERWISE NOTED, SIZE CONDUITS PER NEC. BASE ON TYPE THHN.

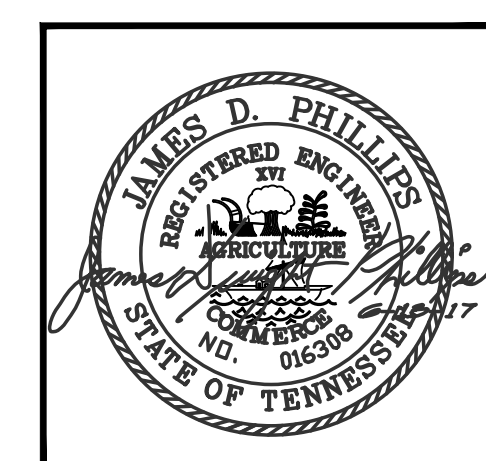
BUS AMPACITY: 200 A. MAINS: 200 A. NEUTRAL: FULL SHORT CIRCUIT RATING: 22,000 NEMA 1 NEMA 3R

CKT.	KVA	CB TRIP	CONDUIT	WIRE	LOAD NAME	WIRE	CONDUIT	CB TRIP	CKT.	KVA	
ΦA	ΦB	ΦC							ΦA	ΦB	ΦC
—	—	60/3			SURGE PROTECTION DEVICE	1/0	2"	150/3	13.0	—	—
—	—	—			SURGE PROTECTION DEVICE	3/4		—	—	13.0	—
—	—	—			SURGE PROTECTION DEVICE	5/8		—	—	13.0	—
0.2	—	20/1	3/4"	#10	RECEPTACLE	7/8		—	—	—	—
—	—	—			SPACE	9/10		—	—	—	—
—	—	—			SPACE	11/12		—	—	—	—
—	—	—			SPACE	13/14		—	—	—	—
—	—	—			SPACE	15/16		—	—	—	—
—	—	—			SPACE	17/18		—	—	—	—
—	—	—			SPACE	19/20		—	—	—	—
0.2	—	—	—	—	TOTAL CONNECTED KVA:	—	—	—	13.0	13.0	13.0

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 - THIS DRAWING IS DIAGRAMMATIC AND IS INTENDED TO SHOW THE GENERAL EXTENT OF MODIFICATIONS. ALL OUTLETS & DEVICES TO BE REMOVED OR RELOCATED MAY NOT BE SHOWN OR SHOWN IN EXACT LOCATION. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL MODIFICATIONS TO MEET REQUIREMENTS OF OTHER TRADES.
 - ALL DEMOLITION WORK AND INSTALLATION OF PROPOSED ELECTRICAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH ENGINEER AND CONTRACTOR'S DETAILED PHASING SEQUENCE. ALL NECESSARY EXISTING & PROPOSED PANELBOARDS & CIRCUITS SHALL BE TEMPORARILY POWERED AS REQUIRED.
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 - DO NOT CONNECT ANY 120 V., 1 PH., 1 POLE CIRCUITS TO THE "B" PHASE ON ANY THREE PHASE PANELBOARD.
 - IDENTIFY THE "B" PHASE OR "HI-LEG" CONDUCTOR BY AN OUTER FINISH THAT IS ORANGE IN COLOR AT EACH POINT WHERE A CONNECTION IS MADE IF THE NEUTRAL CONDUCTOR IS ALSO PRESENT.
 - CONTRACTOR TO COORDINATE INSTALLATION OF PROPOSED PUMP CONTROL PANEL WITH PUMPS SUPPLIER. PROVIDE ALL POWER AND CONTROL CONDUIT AND CONDUCTORS FOR INTERCONNECTION OF CONTROL PANEL AND PUMPING EQUIPMENT.
 - THE CONTRACTOR IS TO CONFIRM ALL SERVICE ENTRANCE INSTALLATIONS WITH THE LOCAL POWER COMPANY AND COMPLY WITH ALL NECESSARY REQUIREMENTS.
 - THE EXACT AIC RATING OF ALL PANELBOARDS SHALL BE COORDINATED WITH THE POWER COMPANY'S AVAILABLE FAULT CURRENT AND ADJUSTED ACCORDINGLY.
 - ALL CONDUITS ENTERING WETWELLS OR OTHER WASTEWATER HOLDING STRUCTURES SHALL BE EQUIPPED WITH HAZARDOUS LOCATION SEALING FITTINGS TO PREVENT WASTEWATER GASES FROM ENTERING RACEWAY AROUND CONDUCTORS OR CABLES. PROVIDE STAINLESS STEEL KELLETT TYPE CORD GRIP W/STRAIN RELIEF FOR ALL CABLES TERMINATING IN RACEWAYS, JUNCTION BOXES OR ENCLOSURES.

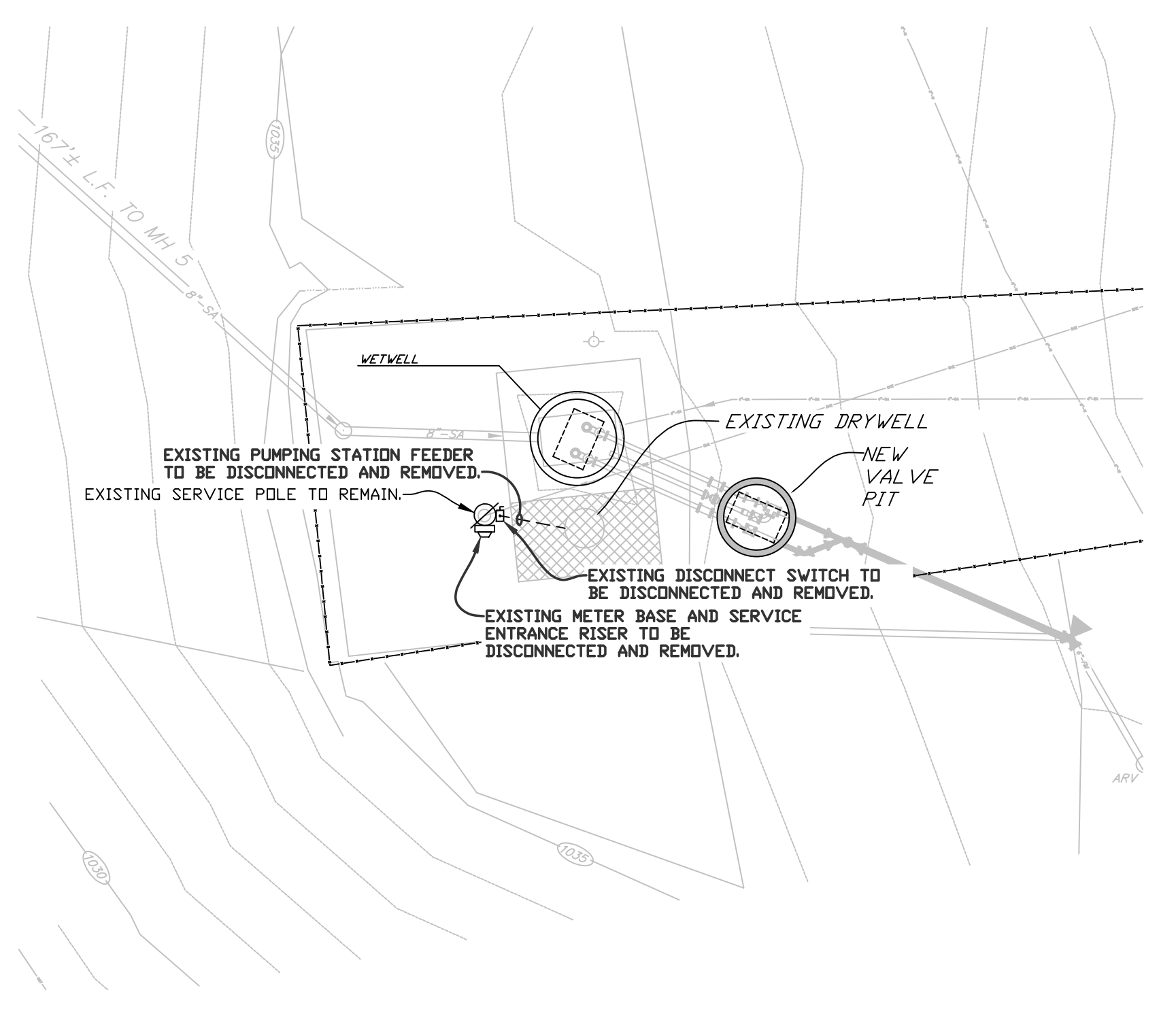
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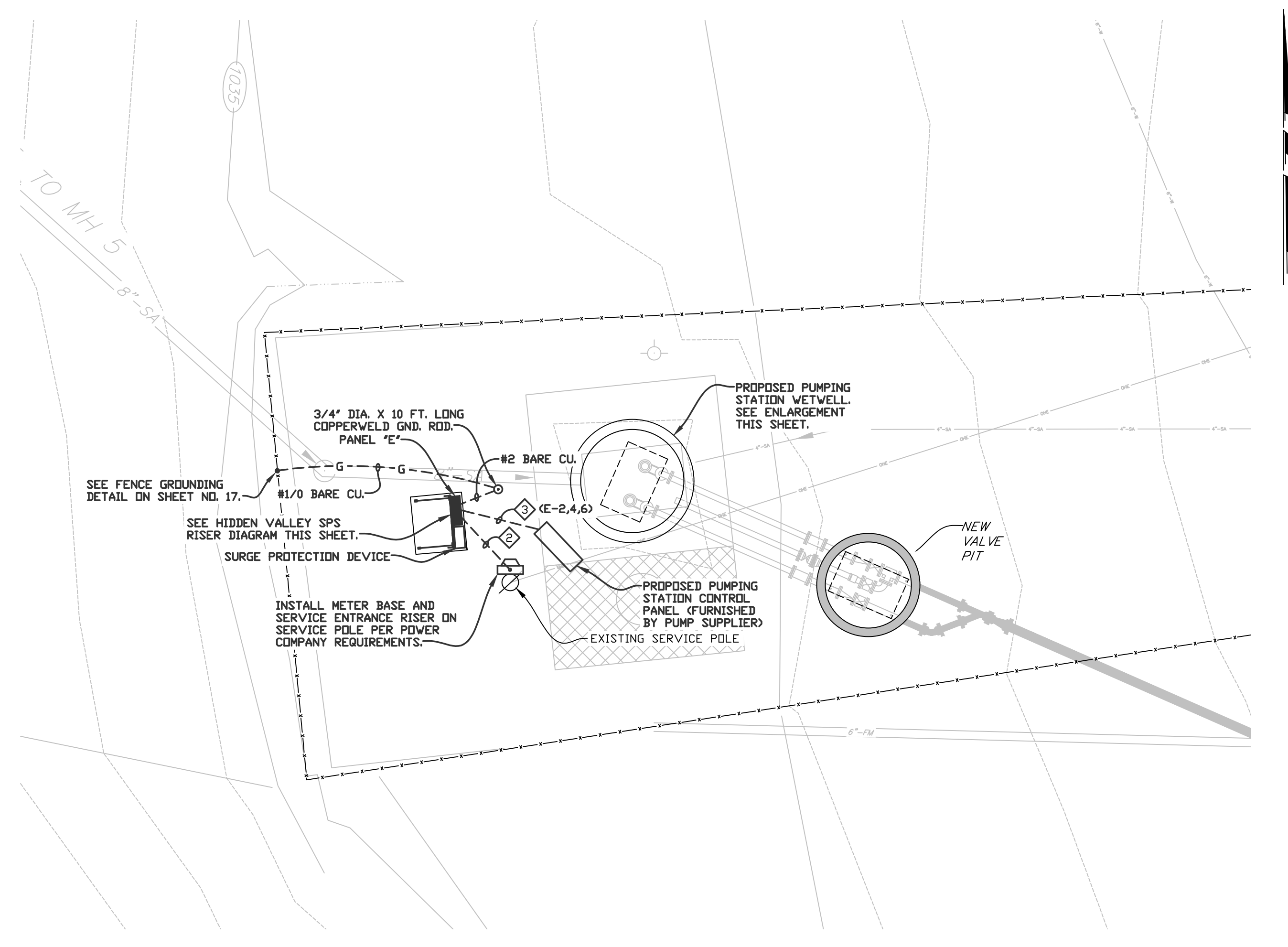
PHILLIPS ENGINEERING, INC.
 ELECTRICAL DESIGN
 P.O. BOX 585
 617 S. FIRST ST.
 UNION CITY, TN 38261
 (731) 885-9532

SHEET 9 OF 19	SEWER SYSTEM IMPROVEMENTS CONTRACT 17-01
REVISIONS	SEWAGE PUMPING STATION RENOVATIONS
ADDENDUM NO. 1	HIGH SCHOOL SPS SITE ELECTRICAL DEMOLITION AND MODIFICATIONS PLANS, RISER DIAGRAM AND PANEL SCHEDULE
FOR	LIVINGSTON, TENNESSEE
SCALE AS SHOWN	DESIGNED MLK DRAWN TWR CHECKED JDP
PROJECT NUMBER 2067	DATE JUNE 2017
J. R. Wauford & Company, Consulting Engineers, Inc. Nashville, Tennessee (615) 883-3243 www.jrwauford.com	

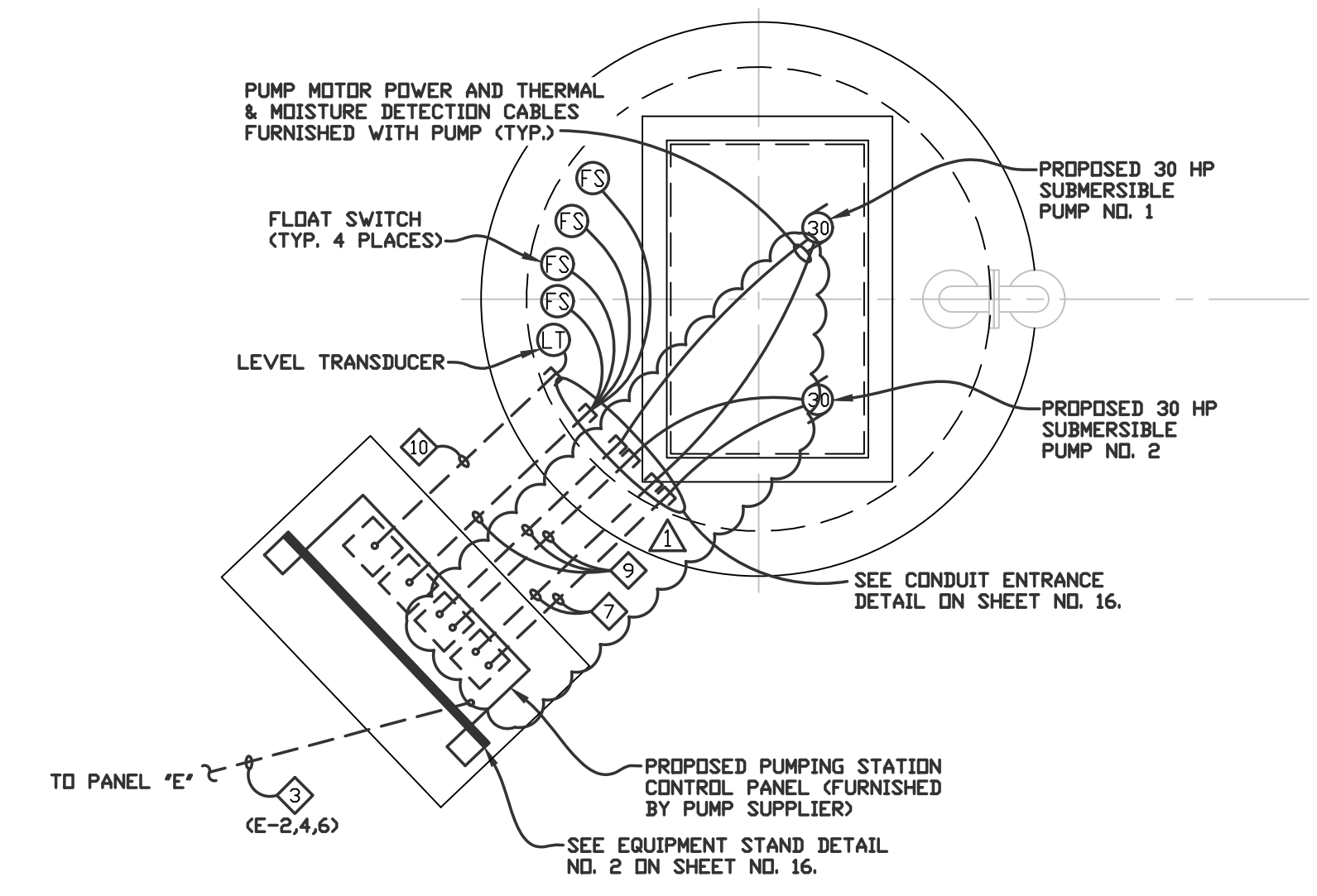
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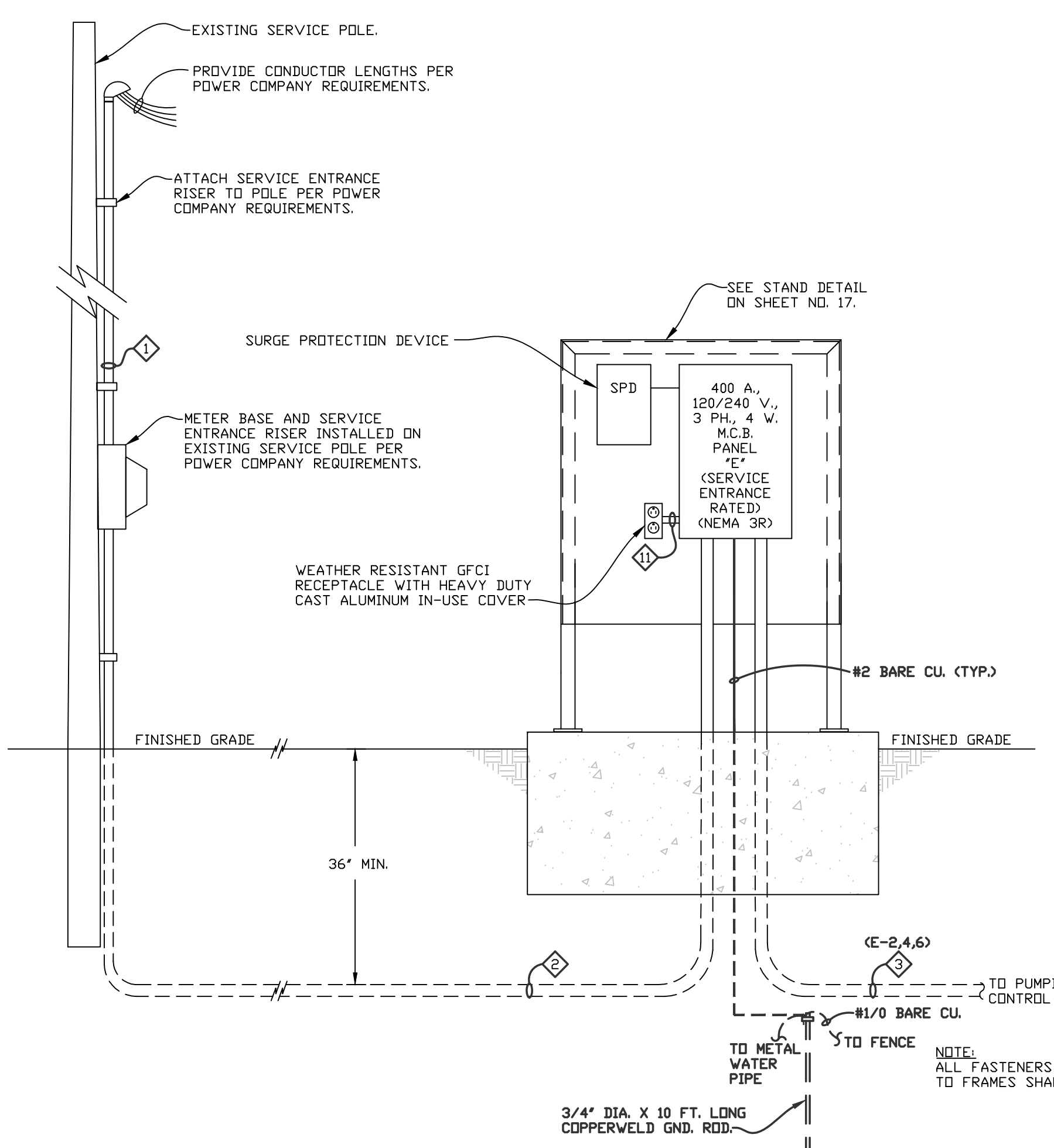
HIDDEN VALLEY SPS SITE ELECTRICAL DEMOLITION PLAN
Scale: 1" = 10'-0"



HIDDEN VALLEY SPS SITE ELECTRICAL MODIFICATIONS PLAN
Scale: 3/16" = 1'-0"



HIDDEN VALLEY SPS ENLARGEMENT
Scale: NONE



HIDDEN VALLEY SPS RISER DIAGRAM
Scale: NONE

TYPE: _____ SERVICE: 120/240 V., 3 PH., 4 W. POLES: 3 LOCATION: HIDDEN VALLEY SPS * UNLESS OTHERWISE NOTED, SIZE CONDUITS PER NEC. BASE ON TYPE THHN. SURFACE FLUSH

PANEL "E" (SERVICE ENTRANCE RATED)

BUS AMPACITY: 400 A. MAINS: 400 A. NEUTRAL: FULL SHORT CIRCUIT RATING: 22,000 NEMA 1 NEMA 3R

CKT.	KVA	CB TRIP	WIRE	LOAD NAME	LOAD NAME	WIRE	CONDUIT	CB TRIP	CKT. KVA
ØA	ØB	ØC	CONDUIT						ØA ØB ØC
—	—	60/3		SURGE PROTECTION DEVICE	1 2 PUMPING STATION CONTROL PANEL #250	3"	250/3	23.5	—
—	—			SURGE PROTECTION DEVICE	3 4 PUMPING STATION CONTROL PANEL #250			23.5	—
—	—			SURGE PROTECTION DEVICE	5 6 PUMPING STATION CONTROL PANEL #250			23.5	—
0.2	—	20/1	3/4" #10	RECEPTACLE	7 8 SPACE			—	—
—	—			SPACE	9 10 SPACE			—	—
—	—			SPACE	11 12 SPACE			—	—
—	—			SPACE	13 14 SPACE			—	—
—	—			SPACE	15 16 SPACE			—	—
—	—			SPACE	17 18 SPACE			—	—
—	—			SPACE	19 20 SPACE			—	—
0.2				TOTAL CONNECTED KVA:				23.5	23.5 23.5

NOTE: (1) PROVIDE GFCI PROTECTED CIRCUIT BREAKERS AS REQUIRED.
(2) DO NOT CONNECT ANY 120 V., 1 PH., 1 POLE CIRCUITS TO THE "B" PHASE.
(3) IDENTIFY THE "B" PHASE OR "HI-LEG" CONDUCTOR BY AN OUTER FINISH THAT IS ORANGE IN COLOR AT EACH POINT WHERE A CONNECTION IS MADE IF THE NEUTRAL CONDUCTOR IS ALSO PRESENT.

- NOTES:
- THE CONTRACTOR SHALL REFER TO THE CIVIL, STRUCTURAL AND PIPING PLANS FOR ALL DIMENSIONS, SECTIONS, DETAILS, ELEVATIONS, VOLTAGE REQUIREMENTS AND PHYSICAL SIZE OF ALL EQUIPMENT FURNISHED BY OTHER TRADES. COORDINATE AND ADJUST ALL ELECTRICAL INSTALLATIONS ACCORDINGLY.
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SHEET 11 OF 19

REVISIONS

ADDENDUM NO. 1

SEWER SYSTEM IMPROVEMENTS CONTRACT 17-01 SEWAGE PUMPING STATION RENOVATIONS

HIDDEN VALLEY SPS SITE ELECTRICAL DEMOLITION AND MODIFICATIONS PLANS, RISER DIAGRAM AND PANEL SCHEDULE

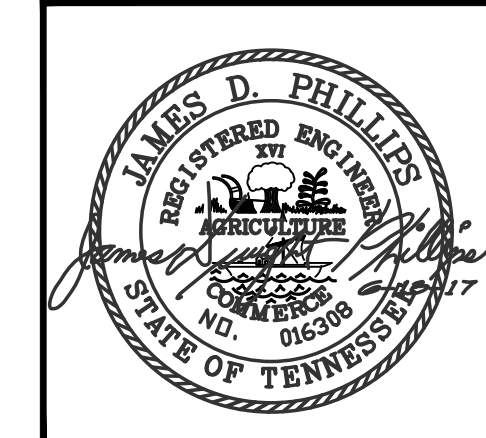
FOR LIVINGSTON, TENNESSEE

SCALE AS SHOWN

PROJECT NUMBER 2067

DATE JUNE 2017

DESIGNED MLK
DRAWN TWR
CHECKED JDP

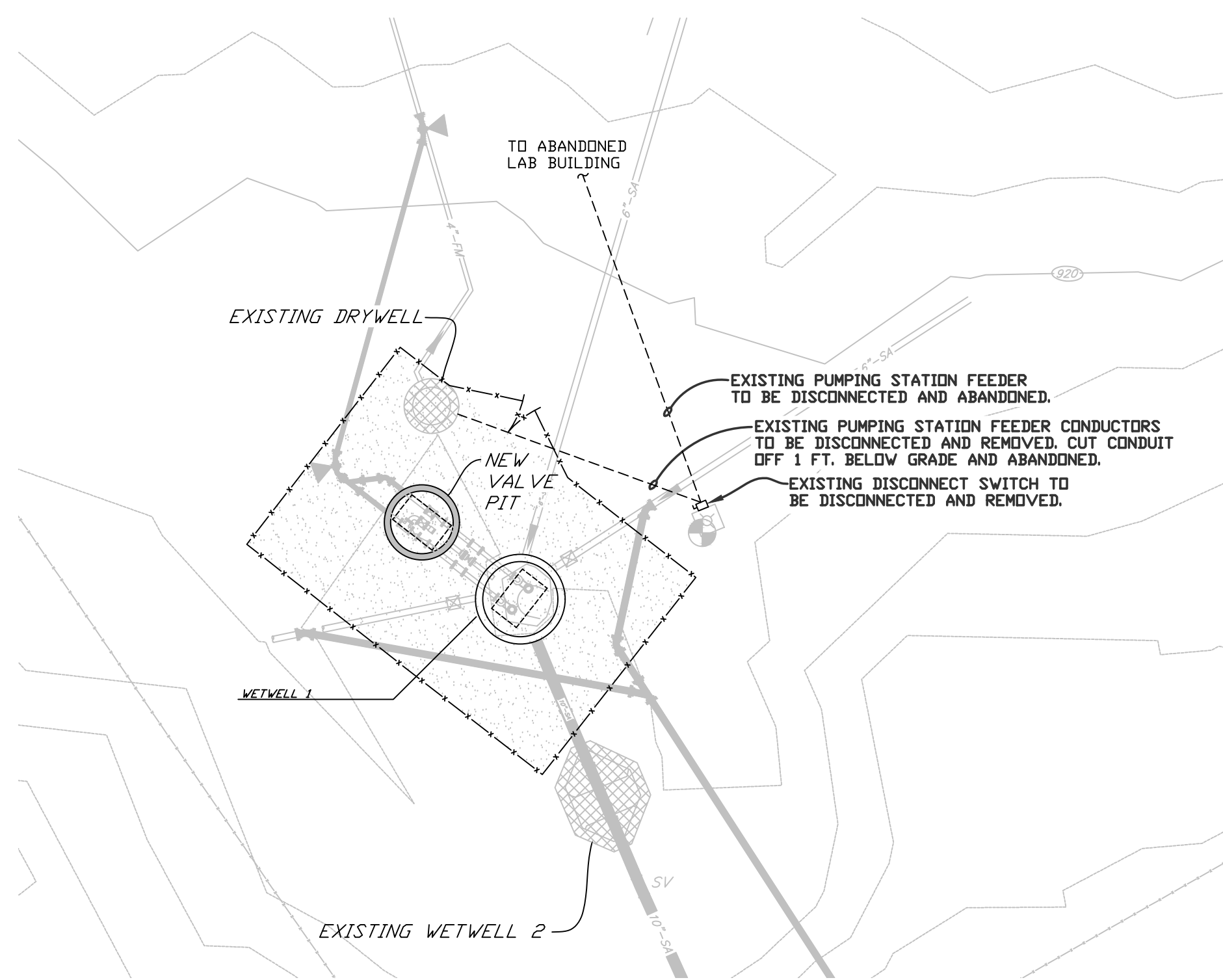


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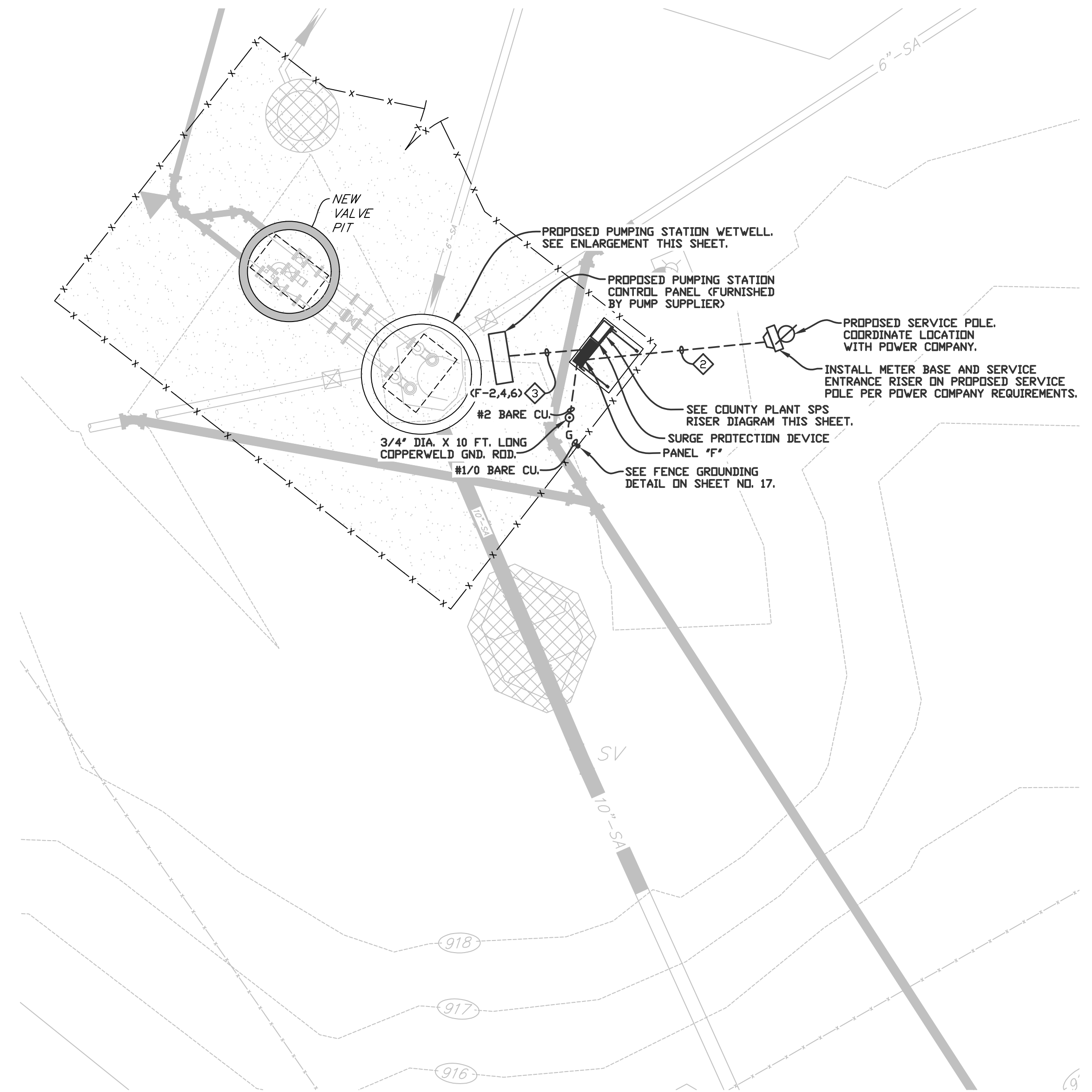
ELECTRICAL DESIGN
P.O. BOX 585
617 S. FIRST ST.
UNION CITY, TN 38261
(731) 886-9532

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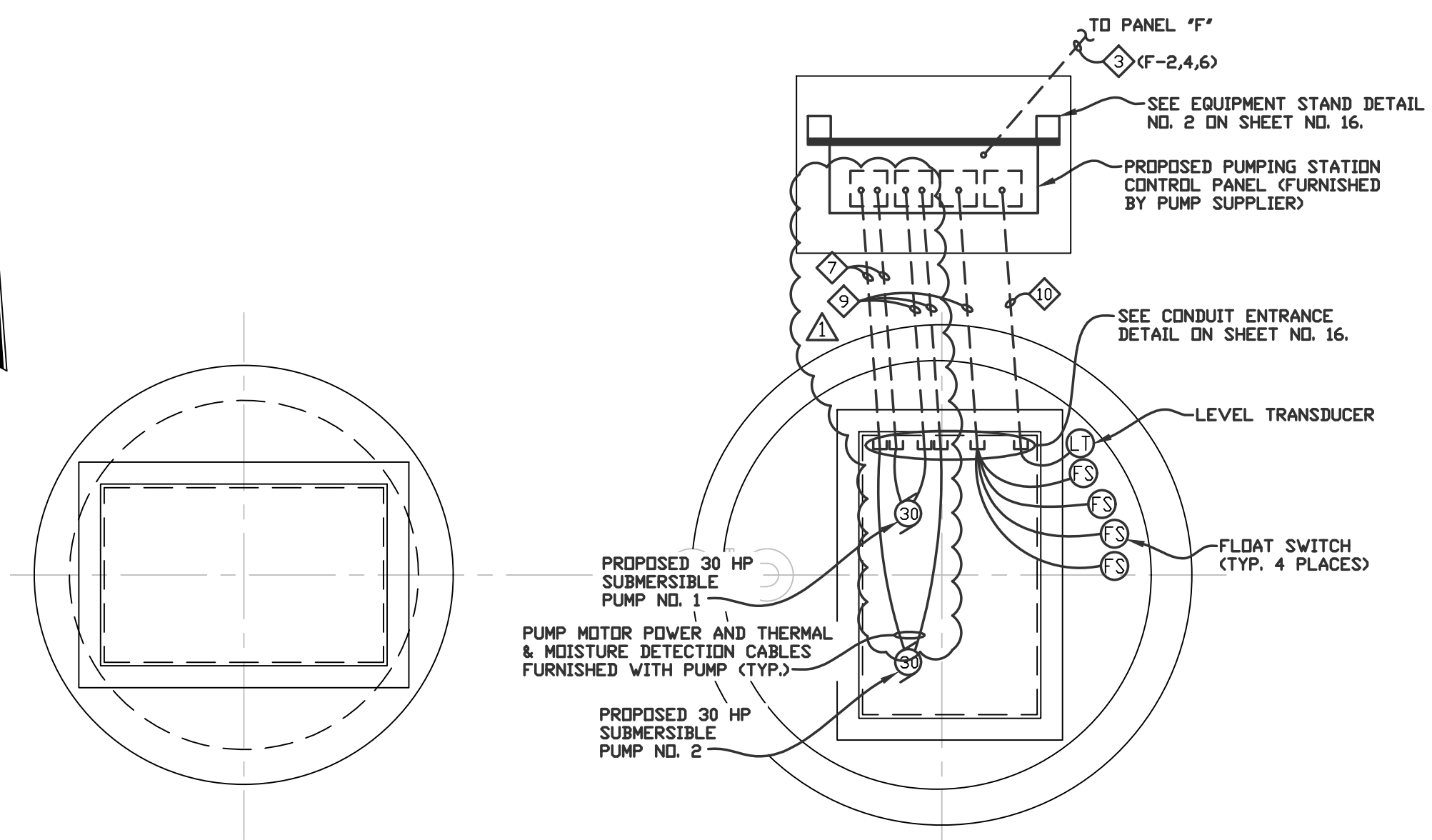
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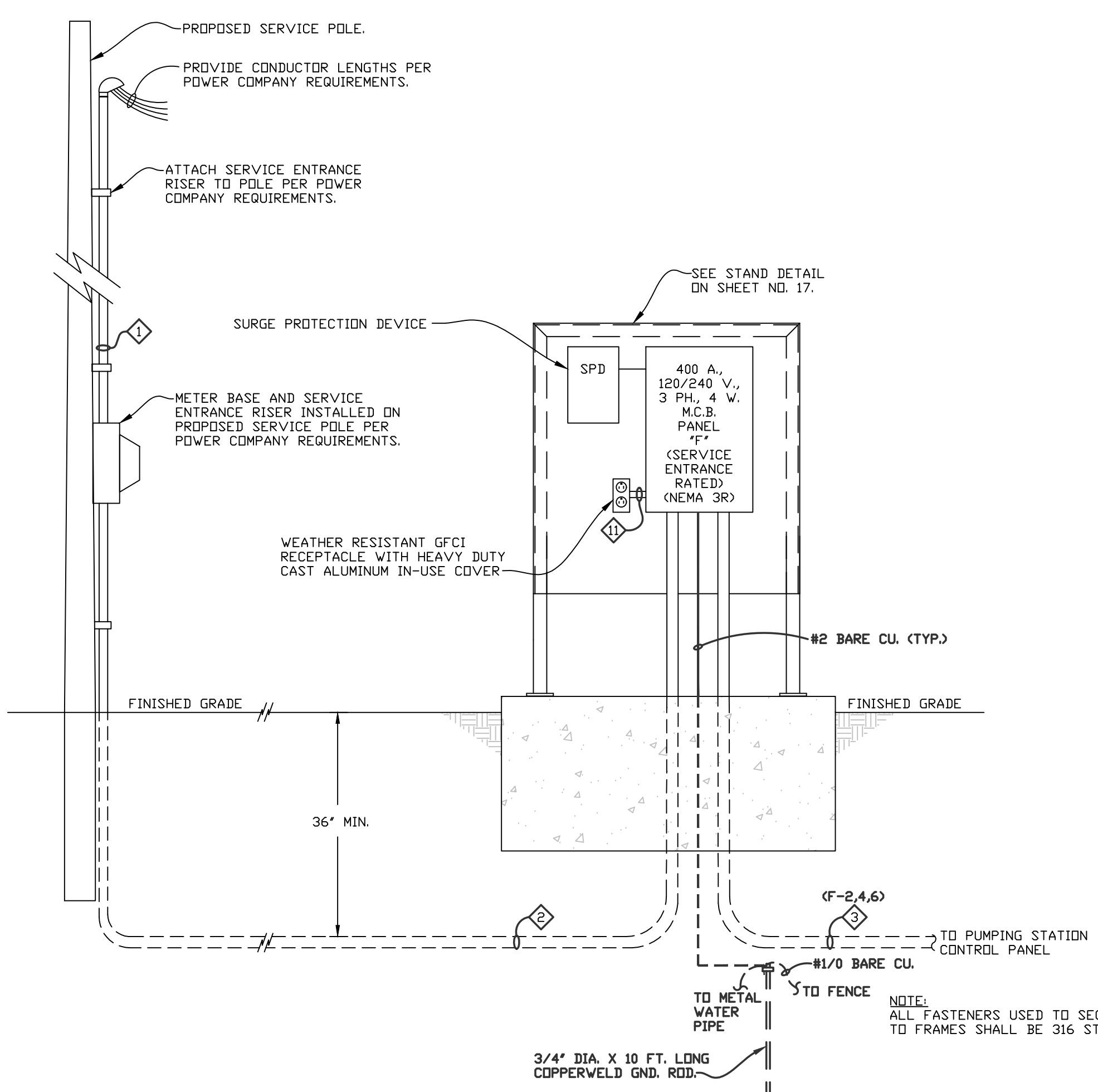
COUNTY PLANT SPS SITE ELECTRICAL DEMOLITION PLAN
Scale: 1" = 10'-0"



COUNTY PLANT SPS SITE ELECTRICAL MODIFICATIONS PLAN
Scale: 3/16" = 1'-0"



COUNTY PLANT SPS ENLARGEMENT
Scale: NONE



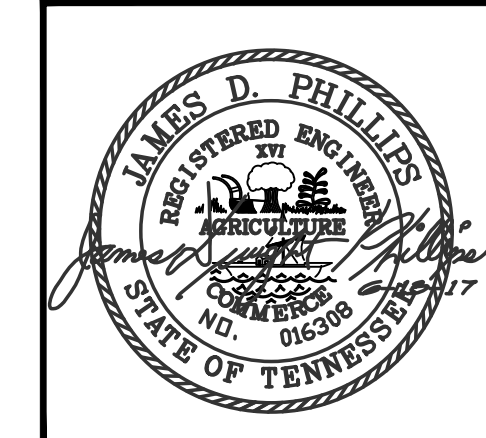
COUNTY PLANT SPS RISER DIAGRAM
Scale: NONE

TYPE: _____		PANEL "F"		BUS AMPACITY: 400 A.			
SERVICE: 120/240 V., 3 PH, 4 W.		ENTRANCE RATED		MAINS: 400 A.			
POLES: 3		LOCATION: COUNTY PLANT SPS		NEUTRAL: FULL			
* UNLESS OTHERWISE NOTED, SIZE CONDUITS PER NEC. BASE ON TYPE THHN.		SHORT CIRCUIT RATING: 22,000		□ NEMA 1 <input checked="" type="checkbox"/> NEMA 3R			
☑ SURFACE □ FLUSH							
CKT. KVA	CB TRIP	WIRE	LOAD NAME	WIRE	CONDUIT	CB TRIP	CKT. KVA
—	60/3		SURGE PROTECTION DEVICE	1 2	PUMPING STATION CONTROL PANEL #250	3' 250/3	23.5
—	—		SURGE PROTECTION DEVICE	3 4	PUMPING STATION CONTROL PANEL #250	—	23.5
—	—		SURGE PROTECTION DEVICE	5 6	PUMPING STATION CONTROL PANEL #250	—	23.5
0.2	—	20/1 3/4 #10	RECEPTACLE	7 8	SPACE	—	—
—	—		SPACE	9 10	SPACE	—	—
—	—		SPACE	11 12	SPACE	—	—
—	—		SPACE	13 14	SPACE	—	—
—	—		SPACE	15 16	SPACE	—	—
—	—		SPACE	17 18	SPACE	—	—
—	—		SPACE	19 20	SPACE	—	—
0.2	—		TOTAL CONNECTED KVA: 70.7			23.5	23.5

NOTE: (1) PROVIDE GFCI PROTECTED CIRCUIT BREAKERS AS REQUIRED.
(2) DO NOT CONNECT ANY 120 V., 1 PH., 1 POLE CIRCUITS TO THE "B" PHASE.
(3) IDENTIFY THE "B" PHASE OR "HI-LEG" CONDUCTOR BY AN OUTER FINISH THAT IS ORANGE IN COLOR AT EACH POINT WHERE A CONNECTION IS MADE IF THE NEUTRAL CONDUCTOR IS ALSO PRESENT.

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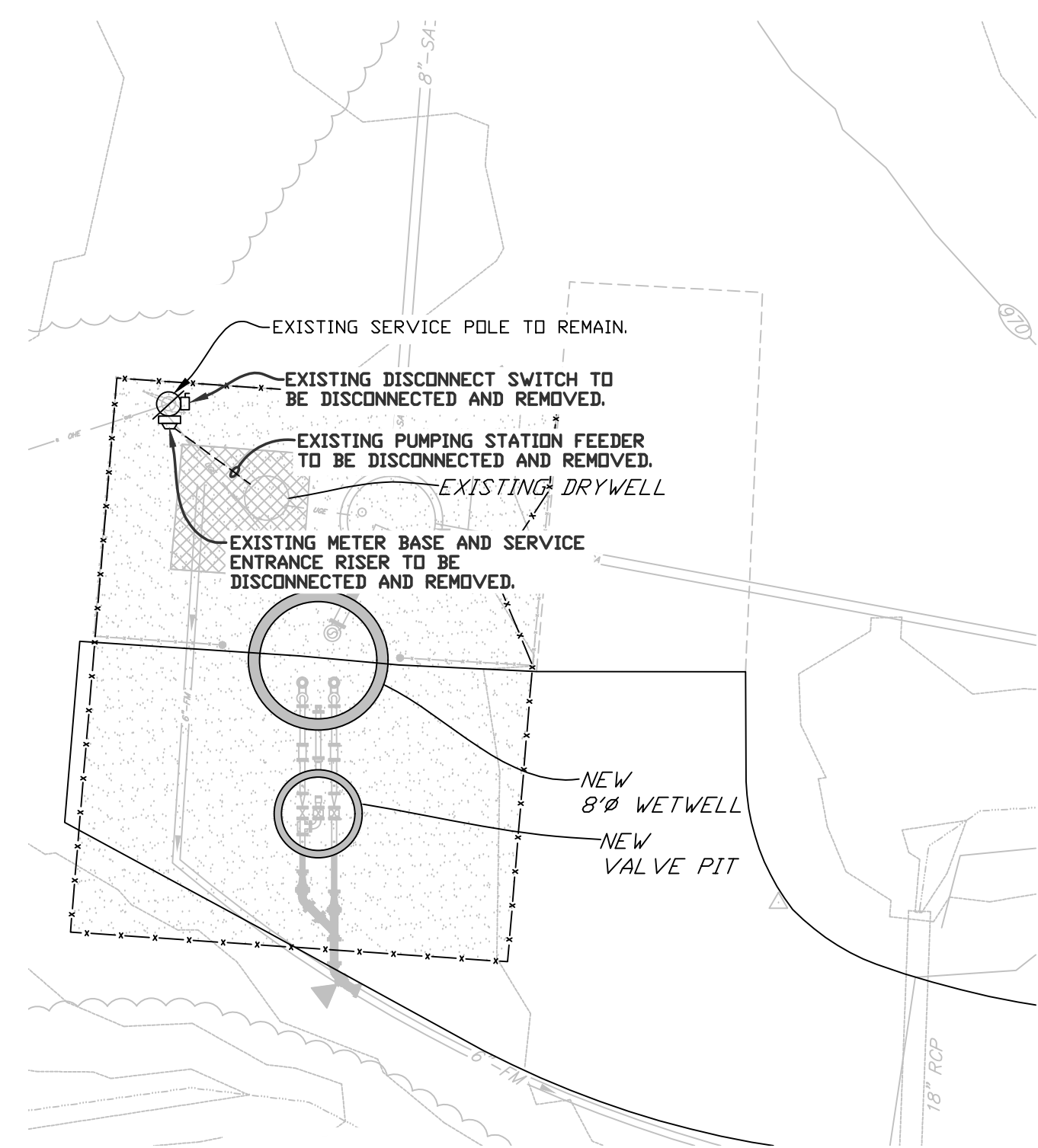
SHEET 13 OF 19		SEWER SYSTEM IMPROVEMENTS CONTRACT 17-01 SEWAGE PUMPING STATION RENOVATIONS	
REVISIONS		ADDENDUM NO. 1	
FOR		COUNTY PLANT SPS SITE ELECTRICAL DEMOLITION AND MODIFICATIONS PLANS, RISER DIAGRAM AND PANEL SCHEDULE	
FOR		LIVINGSTON, TENNESSEE	
SCALE	AS SHOWN	DATE	JUNE 2017
PROJECT NUMBER	2067	DESIGNED	MLK
		DRAWN	TWR
		CHECKED	JDP



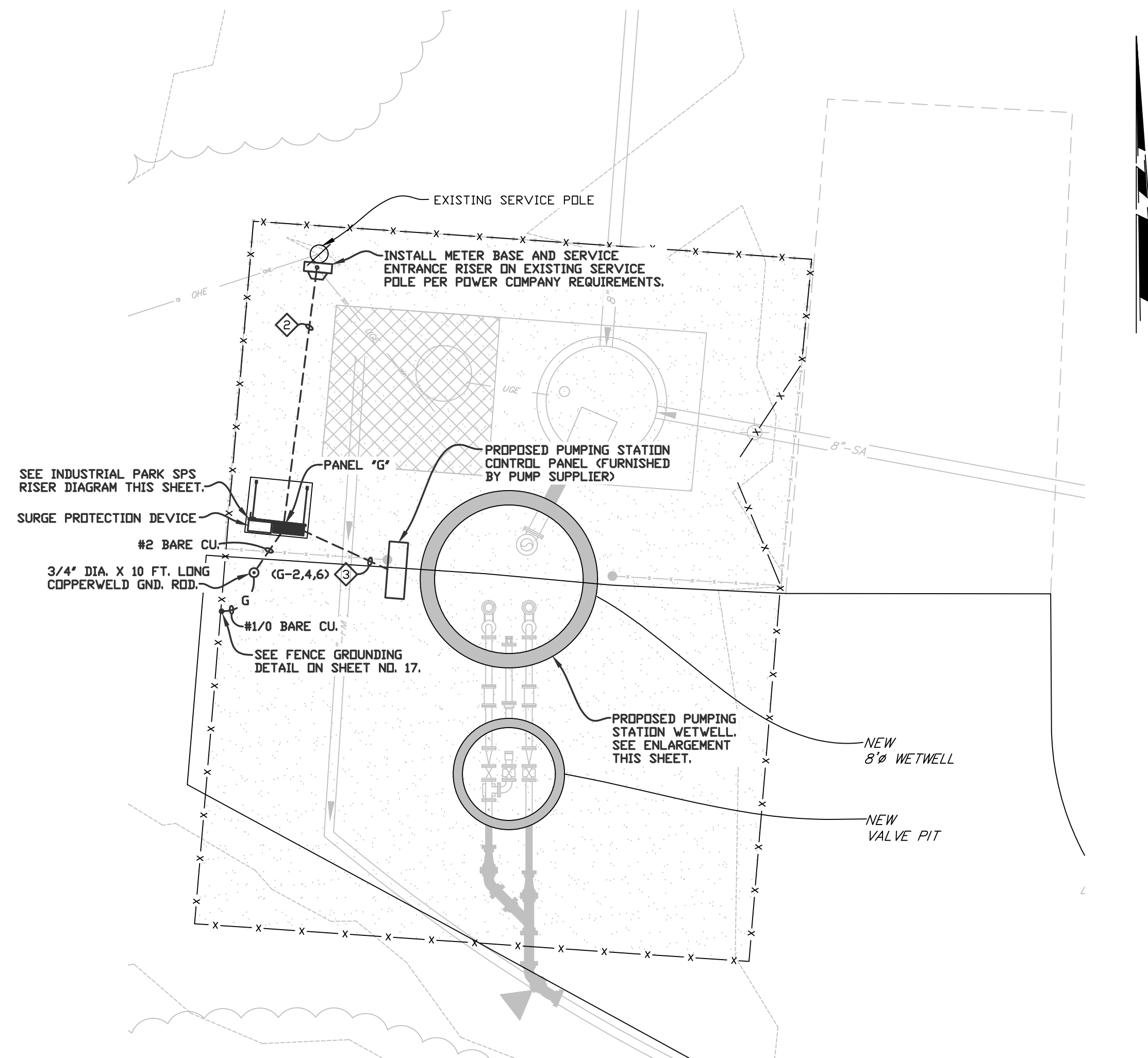
PHILLIPS ENGINEERING, INC.
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P.O. BOX 585
617 S. FIRST ST.
UNION CITY, TN 38261
(731) 886-9532

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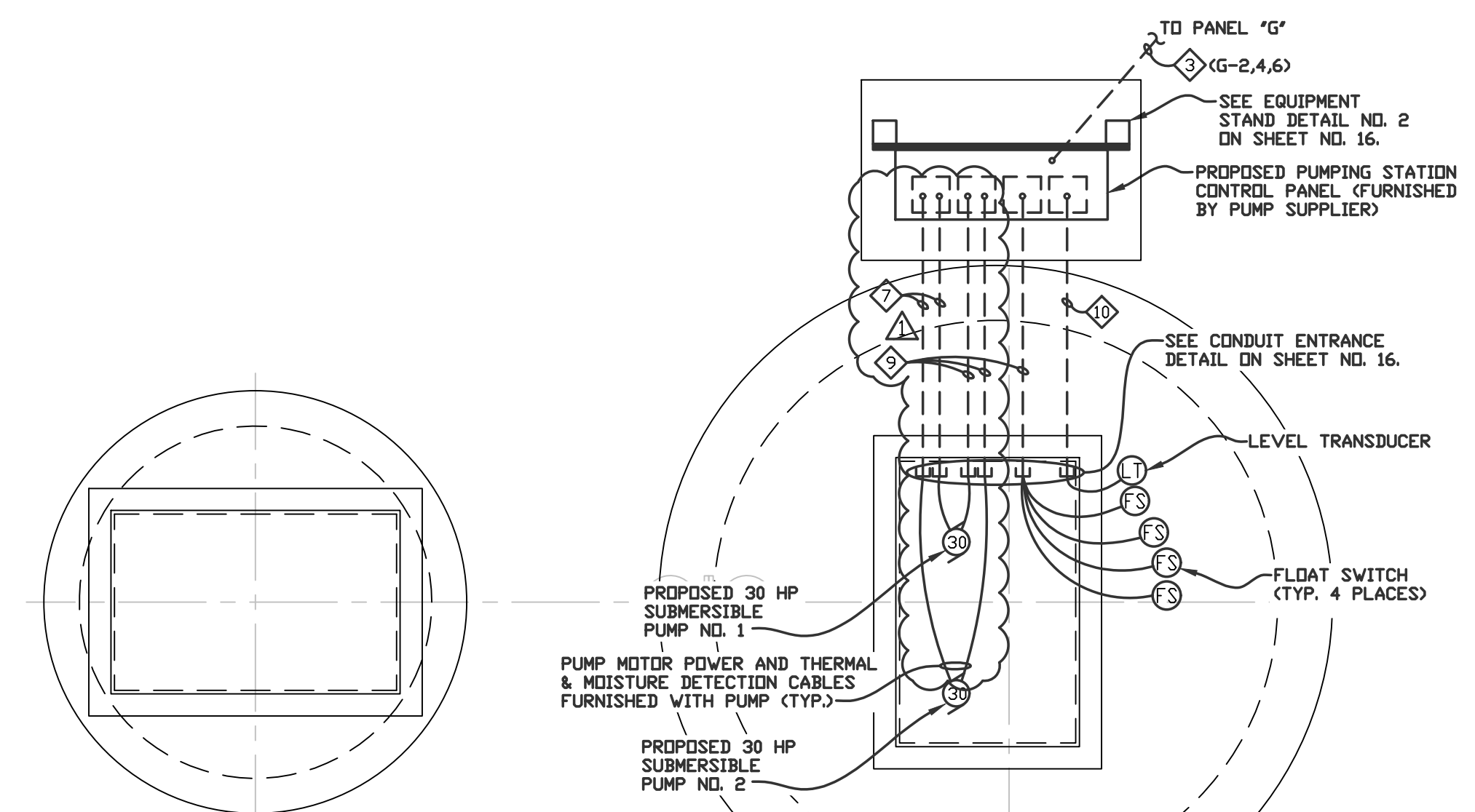
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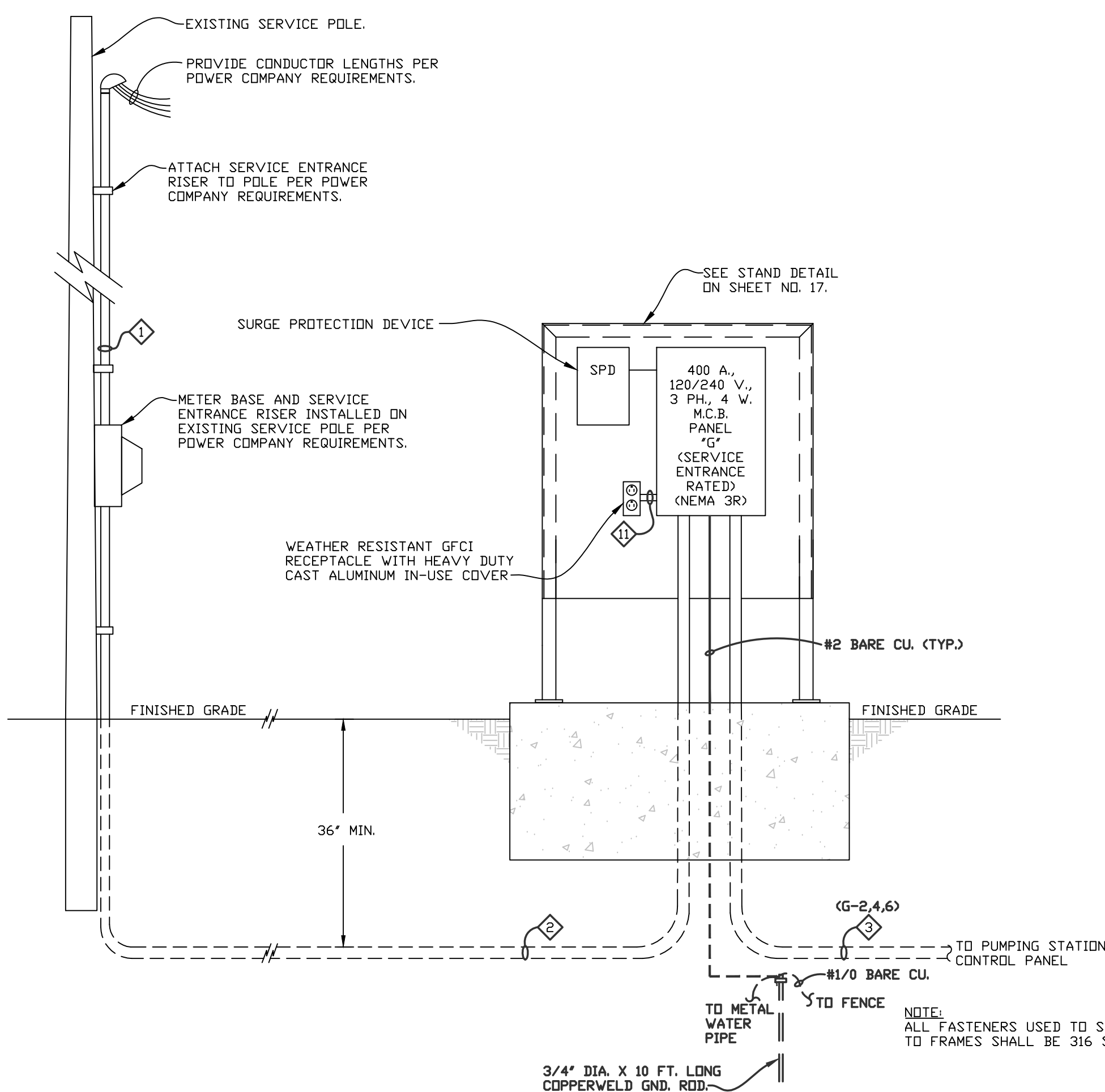
INDUSTRIAL PARK SPS SITE ELECTRICAL DEMOLITION PLAN
Scale: 1" = 10'-0"



INDUSTRIAL PARK SPS SITE ELECTRICAL MODIFICATIONS PLAN
Scale: 3/16" = 1'-0"



INDUSTRIAL PARK SPS ENLARGEMENT
Scale: NONE



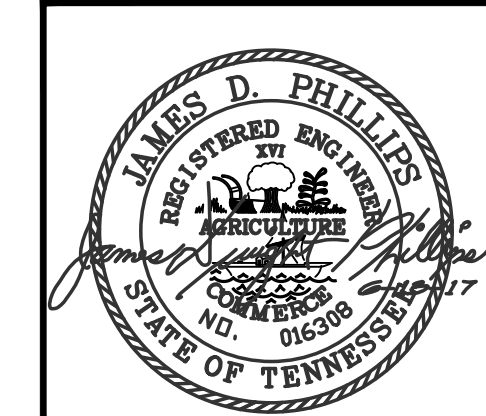
INDUSTRIAL PARK SPS RISER DIAGRAM
Scale: NONE

TYPE:		PANEL "G"		BUS AMPACITY: 400 A.			
SERVICE: 120/240 V., 3 PH., 4 W.		(SERVICE ENTRANCE RATED)		MAINS: 400 A.			
POLES: 3				NEUTRAL: FULL			
LOCATION: INDUSTRIAL PARK SPS		* UNLESS OTHERWISE NOTED, SIZE CONDUITS PER NEC. BASE ON TYPE THHN.		SHORT CIRCUIT RATING: 22,000			
<input checked="" type="checkbox"/> SURFACE <input type="checkbox"/> FLUSH				<input type="checkbox"/> NEMA 1 <input checked="" type="checkbox"/> NEMA 3R			
CKT. KVA	CB TRIP	WIRE	LOAD NAME	LOAD NAME	WIRE	CB TRIP	CKT. KVA
—	60/3		SURGE PROTECTION DEVICE	1 2 PUMPING STATION CONTROL PANEL #250	3' 250/3	23.5	—
—	—		SURGE PROTECTION DEVICE	3 4 PUMPING STATION CONTROL PANEL #250	—	—	23.5
—	—		SURGE PROTECTION DEVICE	5 6 PUMPING STATION CONTROL PANEL #250	—	—	23.5
0.2	—	20/1 3/4 #10	RECEPTACLE	7 8 SPACE	—	—	—
—	—	—	SPACE	9 10 SPACE	—	—	—
—	—	—	SPACE	11 12 SPACE	—	—	—
—	—	—	SPACE	13 14 SPACE	—	—	—
—	—	—	SPACE	15 16 SPACE	—	—	—
—	—	—	SPACE	17 18 SPACE	—	—	—
—	—	—	SPACE	19 20 SPACE	—	—	—
0.2	—	—	TOTAL CONNECTED KVA: 70.7	—	—	23.5	23.5

NOTE: (1) PROVIDE GFCI PROTECTED CIRCUIT BREAKERS AS REQUIRED.
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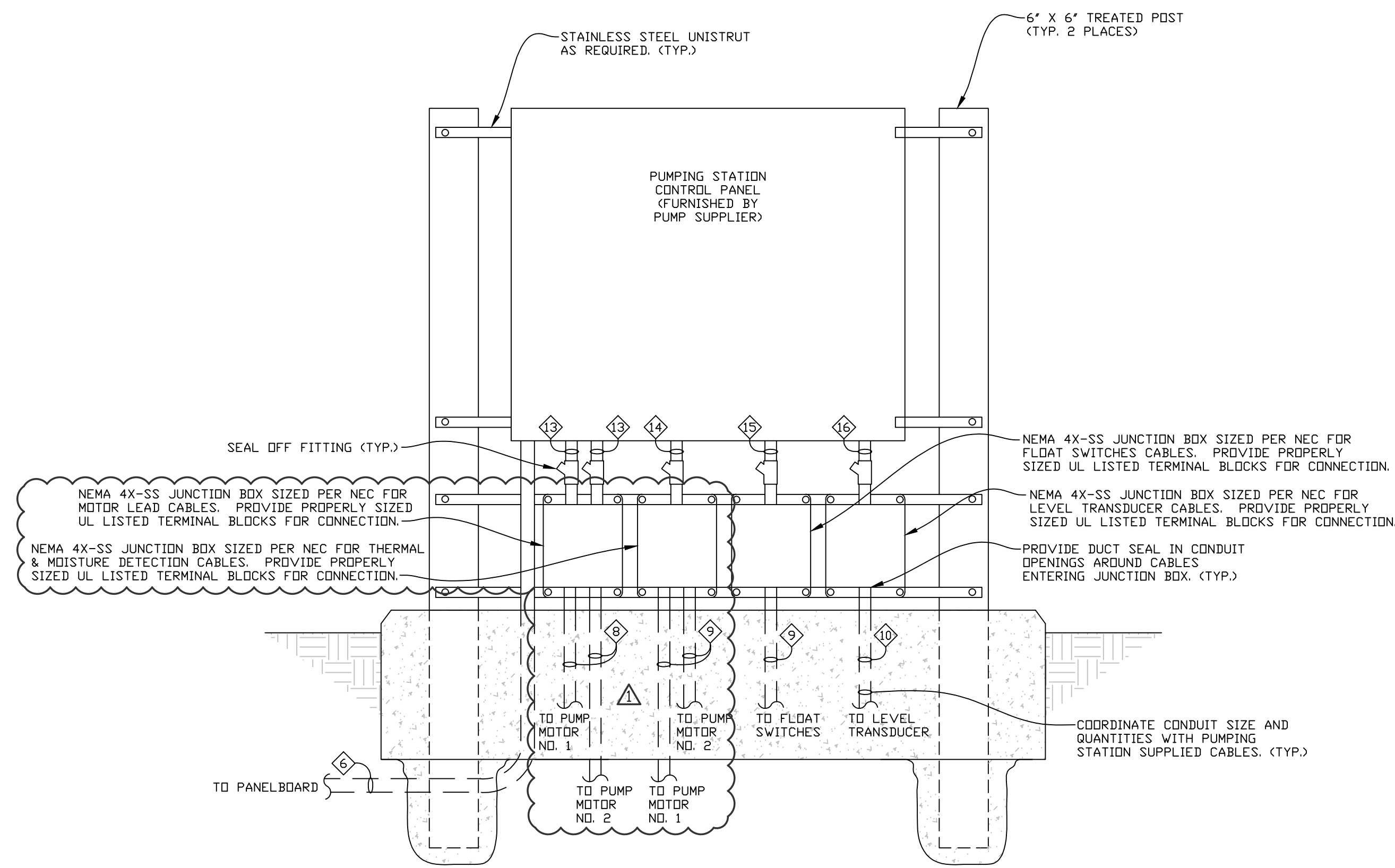
SHEET 15 OF 19		SEWER SYSTEM IMPROVEMENTS CONTRACT 17-01 SEWAGE PUMPING STATION RENOVATIONS	
REVISIONS		INDUSTRIAL PARK SPS SITE ELECTRICAL DEMOLITION AND MODIFICATIONS PLANS, RISER DIAGRAM AND PANEL SCHEDULE	
FOR		LIVINGSTON, TENNESSEE	
SCALE	AS SHOWN	DESIGNED	MLK
PROJECT NUMBER	2067	DRAWN	TWR
DATE	JUNE 2017	CHECKED	JDP
WAUFORD		J. R. Wauford & Company, Consulting Engineers, Inc. Nashville, Tennessee (615) 883-3243 www.jrwauford.com	



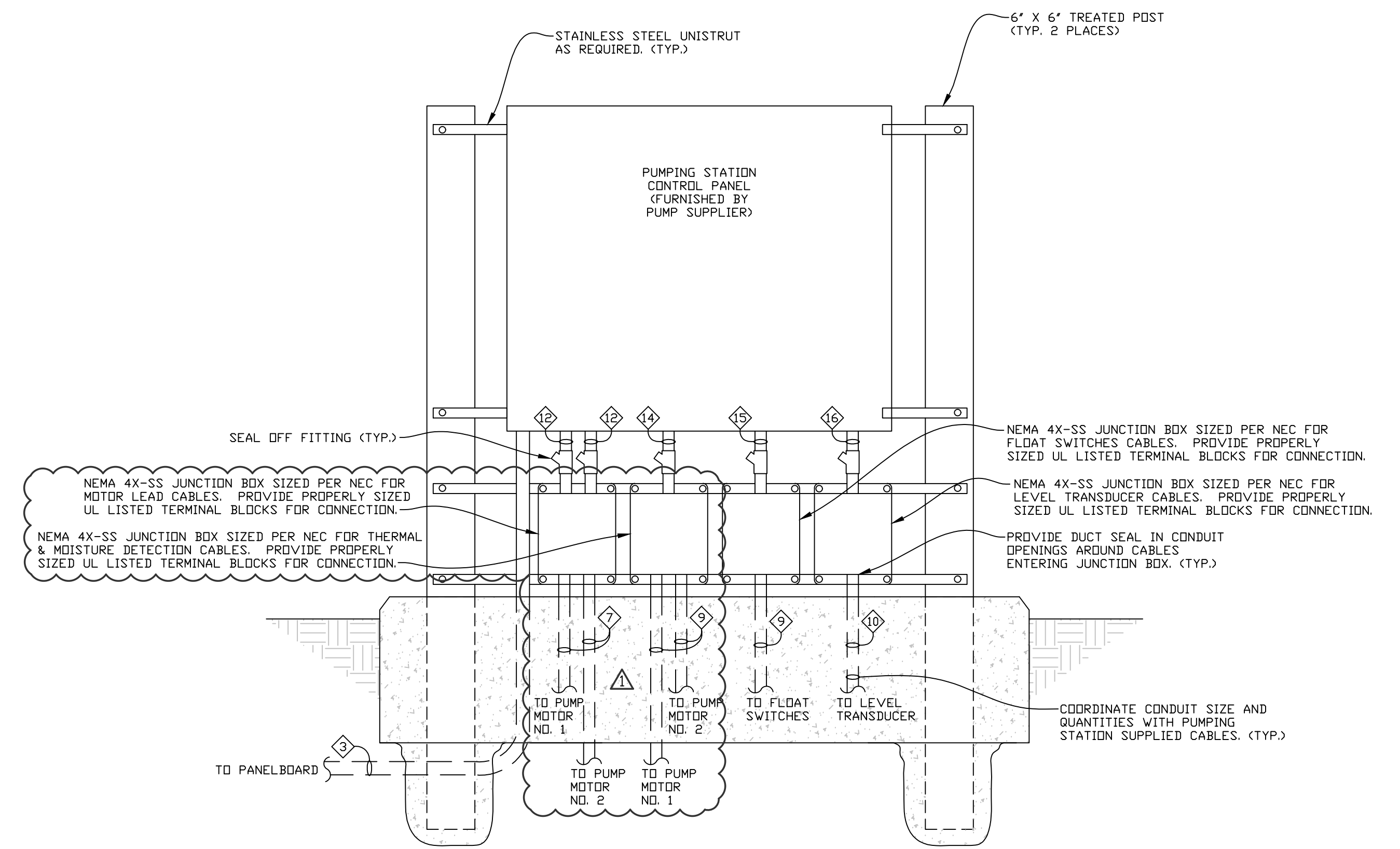
**PHILLIPS
ENGINEERING, INC.**
ELECTRICAL DESIGN
P.O. BOX 585
617 S. FIRST ST.
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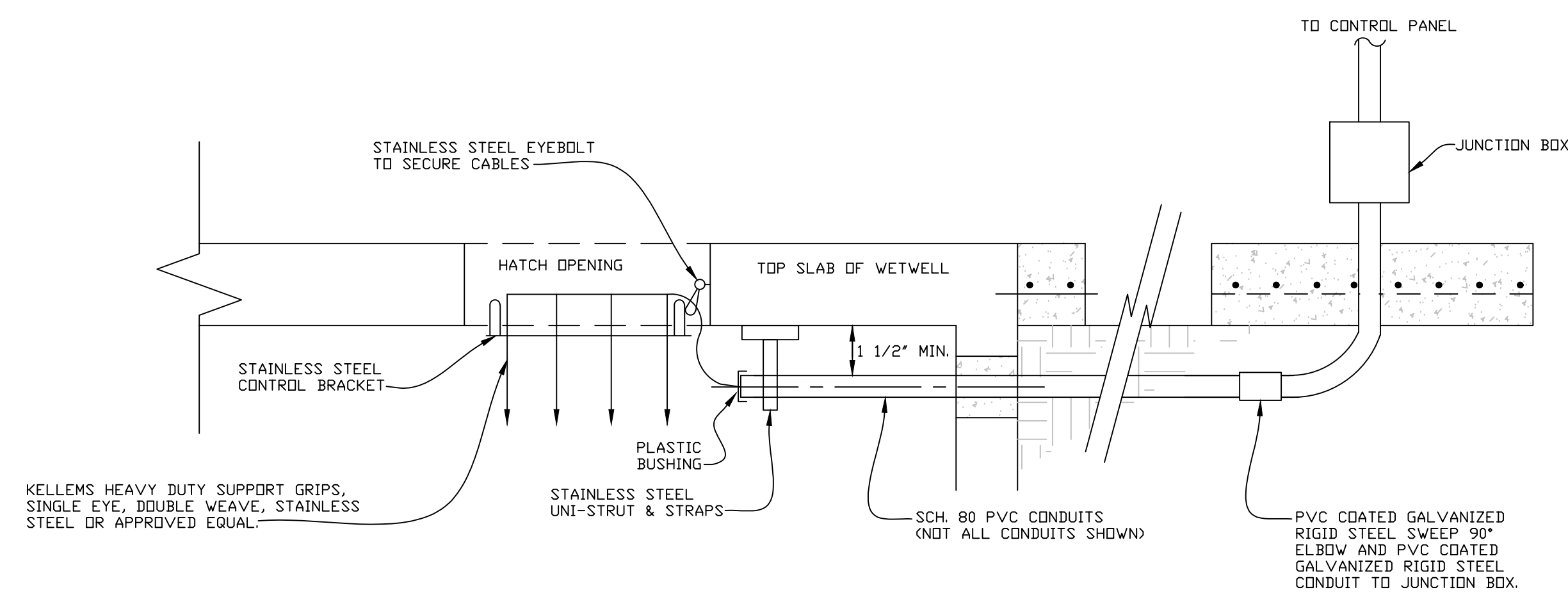
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EQUIPMENT STAND DETAIL NO. 1
Scale: NONE



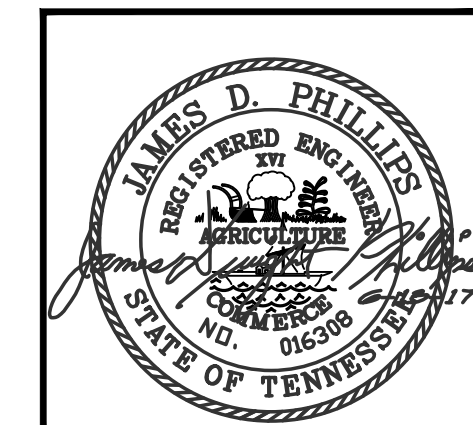
EQUIPMENT STAND DETAIL NO. 2
Scale: NONE



CONDUIT ENTRANCE DETAIL
Scale: NONE

- NOTES:**
- ① ALL ELECTRICAL INSTALLATIONS SHALL CONFORM TO THE 2008 NATIONAL ELECTRICAL CODE, 2012 INTERNATIONAL BUILDING CODE AND ALL STATE AND LOCAL CODES.
 - ② ALL FASTENERS USED TO SECURE ELECTRICAL DEVICES TO FRAMES AND ANCHOR BOLTS SHALL BE 316 STAINLESS.

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17006SHT16R1

SHEET 16 OF 19		SEWER SYSTEM IMPROVEMENTS CONTRACT 17-01 SEWAGE PUMPING STATION RENOVATIONS	
REVISIONS		ELECTRICAL DETAILS	
ADDENDUM NO. 1		FOR LIVINGSTON, TENNESSEE	
SCALE	AS SHOWN	DATE	JUNE 2017
PROJECT NUMBER	2067	DESIGNED	MLK
		DRAWN	TWR
		CHECKED	JDP
		WAUFORD J. R. Wauford & Company, Consulting Engineers, Inc. Nashville, Tennessee (615) 883-3243 www.jrwauford.com	