

# CITY OF GEORGETOWN

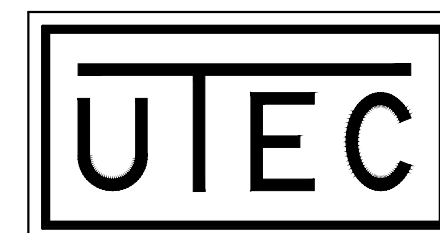
## GEORGETOWN, SOUTH CAROLINA

# FRONT STREET ELECTRIC UPGRADE PH. 1

### S H E E T I N D E X

G1001	FRONT STREET ELECTRIC UPGRADE PH. 1 TITLE SHEET	E1011	FRONT STREET ELECTRIC UPGRADE PH. 1 MISCELLANEOUS DETAILS
G1002	FRONT STREET ELECTRIC UPGRADE PH. 1 LEGEND, ABBREVIATIONS & GENERAL NOTES	E1012	FRONT STREET ELECTRIC UPGRADE PH. 1 CABLE RACKING DETAILS MANHOLE T1A
E1001	FRONT STREET ELECTRIC UPGRADE PH. 1 OVERALL EQUIPMENT LOCATION PLAN	E1013	FRONT STREET ELECTRIC UPGRADE PH. 1 CABLE RACKING DETAILS MANHOLE T1B
E1002-1	FRONT STREET ELECTRIC UPGRADE PH. 1 ELECTRICAL PLAN EXISTING	E1021	FRONT STREET ELECTRIC UPGRADE PH. 1 CABLE RACKING DETAILS PULLBOX 1
E1002-2	FRONT STREET ELECTRIC UPGRADE PH. 1 ELECTRICAL PLAN EXISTING	E1022	FRONT STREET ELECTRIC UPGRADE PH. 1 CABLE RACKING DETAILS PULLBOX 2
E1003-1	FRONT STREET ELECTRIC UPGRADE PH. 1 ELECTRICAL PLAN NEW	E1023	FRONT STREET ELECTRIC UPGRADE PH. 1 CABLE RACKING DETAILS PULLBOX 3
E1003-2	FRONT STREET ELECTRIC UPGRADE PH. 1 ELECTRICAL PLAN NEW	E1040	FRONT STREET ELECTRIC UPGRADE PH. 1 CONDUIT AND CABLE SCHEDULE
E1004-1	FRONT STREET ELECTRIC UPGRADE PH. 1 CONSTRUCTION SEQUENCE STEPS 1-3	E1050	FRONT STREET ELECTRIC UPGRADE PH. 1 TRANSFORMER DETAILS
E1004-2	FRONT STREET ELECTRIC UPGRADE PH. 1 CONSTRUCTION SEQUENCE STEP 4	E1100-1	FRONT STREET ELECTRIC UPGRADE PH. 1 ONE-LINE DIAGRAM EXISTING
E1005	FRONT STREET ELECTRIC UPGRADE PH. 1 BILL OF MATERIALS	E1100-2	FRONT STREET ELECTRIC UPGRADE PH. 1 ONE-LINE DIAGRAM NEW
		S1001	FRONT STREET ELECTRIC UPGRADE PH. 1 STRUCTURAL TRANSFORMER PADS

PROJECT NO. 171007

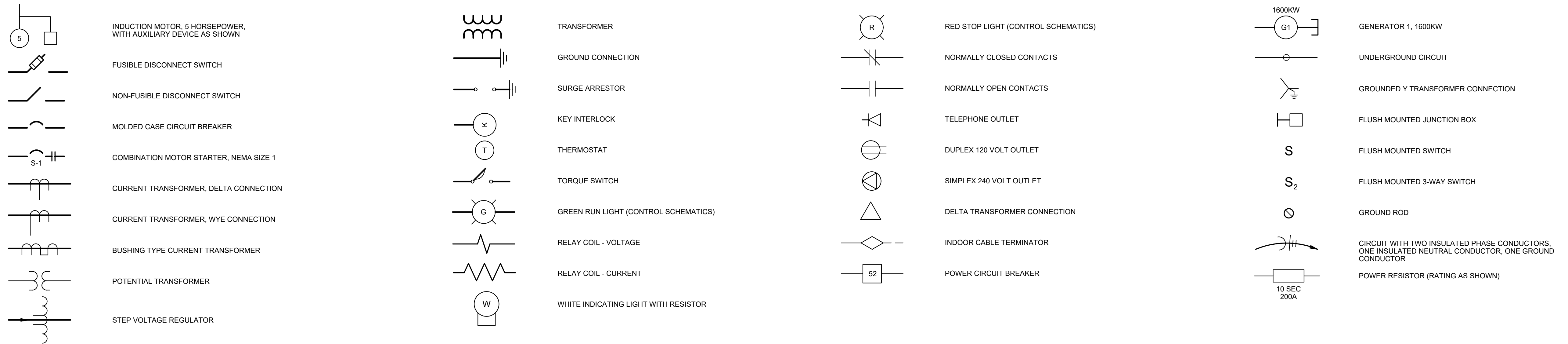


**UTILITY TECHNOLOGY**  
ENGINEERS - CONSULTANTS

Asheboro, North Carolina  
Spartanburg, South Carolina

MARCH, 2019

		<b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION		CITY OF GEORGETOWN GEORGETOWN, SC FRONT ST ELECTRIC UPGRADE - PH. 1 TITLE SHEET	
		REVISION 03/22/19		<b>UTEC</b> UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS P.O. Box 2629 • Asheboro, North Carolina • 27204	
0	BID ISSUE	04/05/19		DWN. EMM	DATE: 03/22/19
	NO.	REVISIONS	DATE	SCALE: None	JOB NO. 171007
					DWG. NO. G1001
					SHEET NO. 1 OF 1



### PROTECTIVE RELAYING DEVICE NUMBERS AND FUNCTIONS

2	TIME-DELAY STARTING, OR CLOSING, RELAY	30	ANNUNCIATOR RELAY	50	INSTANTANEOUS OVERCURRENT, OR RATE-OF-RISE RELAY	79	A-C RECLOSING RELAY
14	UNDER-SPEED DEVICE	32	DIRECTIONAL POWER RELAY	51	A-C TIME OVERCURRENT RELAY	81	FREQUENCY RELAY
15	SPEED OR FREQUENCY, MATCHING DEVICE	38	BEARING PROTECTIVE DEVICE	52	A-C CIRCUIT BREAKER	86	LOCKING-OUT RELAY
18	ACCELERATING OR DECELERATING DEVICE	40	FIELD RELAY	59	OVERVOLTAGE RELAY	87	DIFFERENTIAL PROTECTIVE RELAY
19	STARTING-TO-RUNNING TRANSITION CONTACTOR	43	MANUAL TRANSFER OR SELECTOR DEVICE	60	VOLTAGE BALANCE RELAY	89	LINE SWITCH
21	DISTANCE RELAY	46	REVERSE PHASE OR NEGATIVE SEQUENCE OVERCURRENT RELAY	62	TIME-DELAY STOPPING OR OPENING RELAY	94	TRIPPING OR TRIP-FREE RELAY
25	SYNCHRONIZING OR SYNCHRONISM-CHECK DEVICE	47	PHASE-SEQUENCE VOLTAGE RELAY	63	LIQUID OR GAS PRESSURE, LEVEL, OR FLOW RELAY		
27	UNDERVOLTAGE RELAY	49	MACHINE, OR TRANSFORMER, THERMAL RELAY	67	A-C DIRECTIONAL OVERCURRENT RELAY		

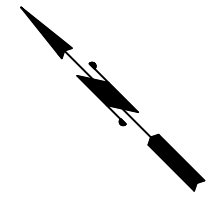
### ELECTRICAL ABBREVIATIONS

a	CONTACT OPEN WHEN MAIN DEVICE IS IN STANDARD REFERENCE POSITION	G, GDG	GROUND, GROUNDING	PT	POTENTIAL TRANSFORMER	VARM	VARMETER
A	AMPERES	GFCI	GROUND FAULT CURRENT INTERRUPTER	Q	NEGATIVE SEQUENCE	VM	VOLTMETER
AM	AMMETER	H	HIGH SIDE	RBC	REMOTE BUILDING CONTROLLER	VS	VOLTMETER SWITCH
AS	AMMETER SWITCH	I/O	INPUT/OUTPUT	RP	RECEPTACLE PANEL	VT	VOLTAGE TRANSFORMER
b	CONTACT CLOSED WHEN MAIN DEVICE IS IN STANDARD REFERENCE POSITION	JB	JUNCTION BOX	RTD	RESISTANCE TEMPERATURE DEVICE	WHD	WATTHOUR DEMAND METER
C1	INSTRUMENT CIRCUIT 1	KVA	THOUSAND VOLT-AMPERES	SD	SMOKE DETECTOR	WHM	WATTHOUR METER
CC	CLOSING COIL	MCC	MOTOR CONTROL CENTER	SS1	STARTING SWITCH, NO. 1	WM	WATT METER
CPT	CONTROL POWER TRANSFORMER	MOG	MOTOR OPERATED GANG SWITCH	T	TRANSFORMER, TELEPHONE CIRCUIT	W/V METER	WATT/VAR METER
CT	CURRENT TRANSFORMER	N	NEGATIVE, NEUTRAL	TC	TRIP COIL	XDUCER	TRANSDUCER
CSW	CIRCUIT SWITCHER	P	POLE, POSITIVE, PHASE	UH	UNIT HEATER	XFMR	TRANSFORMER
CS	CONTROL SWITCH	PE	PHOTO-ELECTRIC CELL	V	VOLTS		
FL	FAULT LOCATOR	PMAG	PERMANENT MAGNET	VAC, VDC	VOLTS AC, VOLTS DC		
		PP-4A	POWER PANEL CIRCUIT 4A				

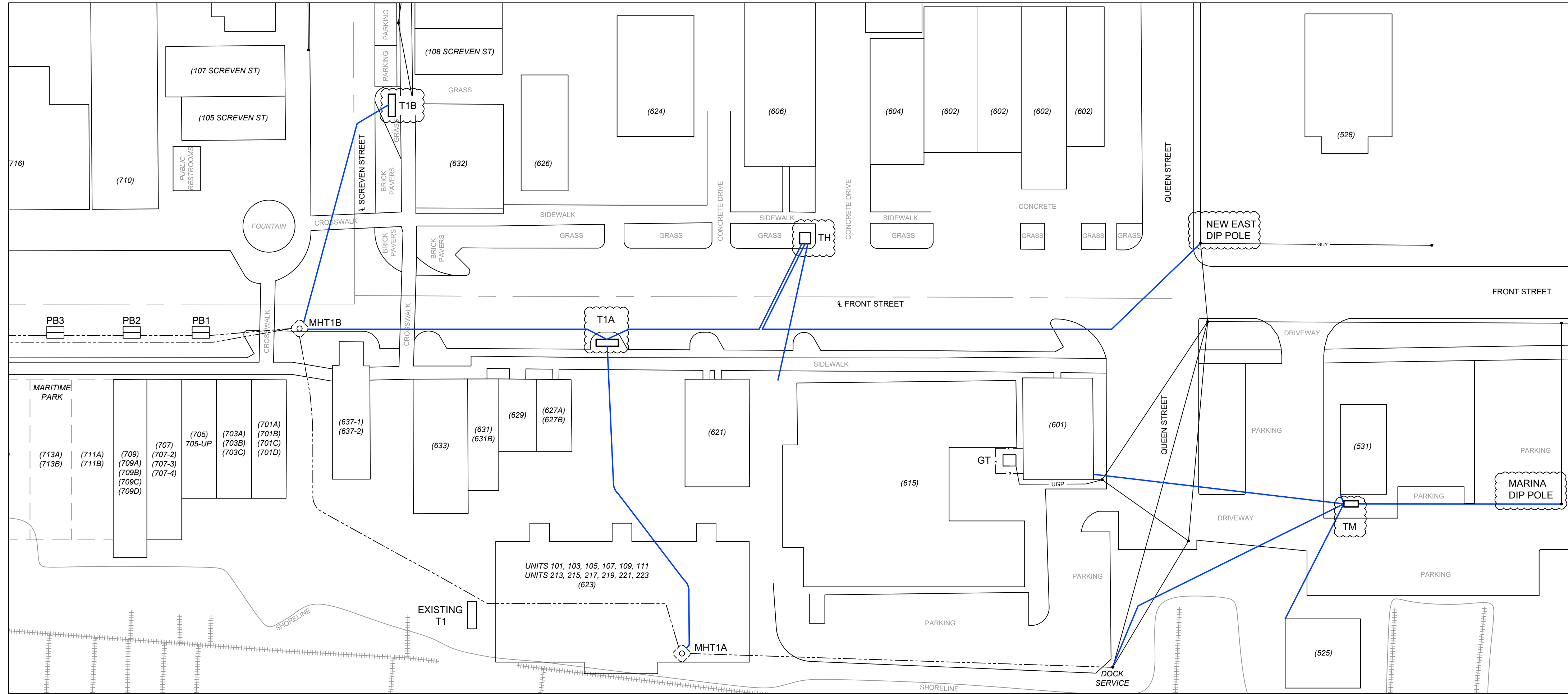
### GENERAL

MARKS CHANGES MADE IN REVISION 1

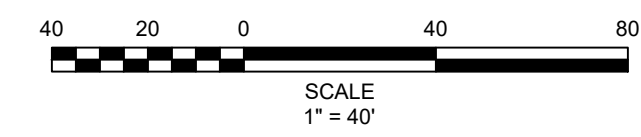
<p align="center"><b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION</p>		<p align="center">CITY OF GEORGETOWN GEORGETOWN, SC FRONT ST ELECTRIC UPGRADE - PH. 1 LEGEND, ABBREVIATIONS &amp; GENERAL NOTES</p>	
<p>REVISION 03/22/19</p>		<p align="center"><b>UTEC</b> UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS P.O. Box 2629 • Asheboro, North Carolina • 27204</p>	
DWN. EMM	DATE: 03/22/19	DWG. NO.	G1002
SCALE: None	JOB NO. 171007	SHEET NO.	1 OF 1



**LEGEND:**  
 --- EXISTING DUCT BANK  
 --- NEW EQUIPMENT  
 --- NEW DIRECT BORE



Y:\Georgetown\Front St\Phase 1E1001 FSEU Eqmt Location Plan Rev 0.dwg Layout: E1001  
 Apr 04, 2019 - 8:59am



NO.	REVISIONS	DATE
0	BID ISSUE	04/05/19

**PRELIMINARY**  
 NOT TO BE USED FOR CONSTRUCTION  
 REVISION 03/21/19

**CITY OF GEORGETOWN**  
 GEORGETOWN, SC  
**FRONT ST ELECTRIC UPGRADE - PH. 1**  
 SIMPLE PLAN VIEW  
 NEW

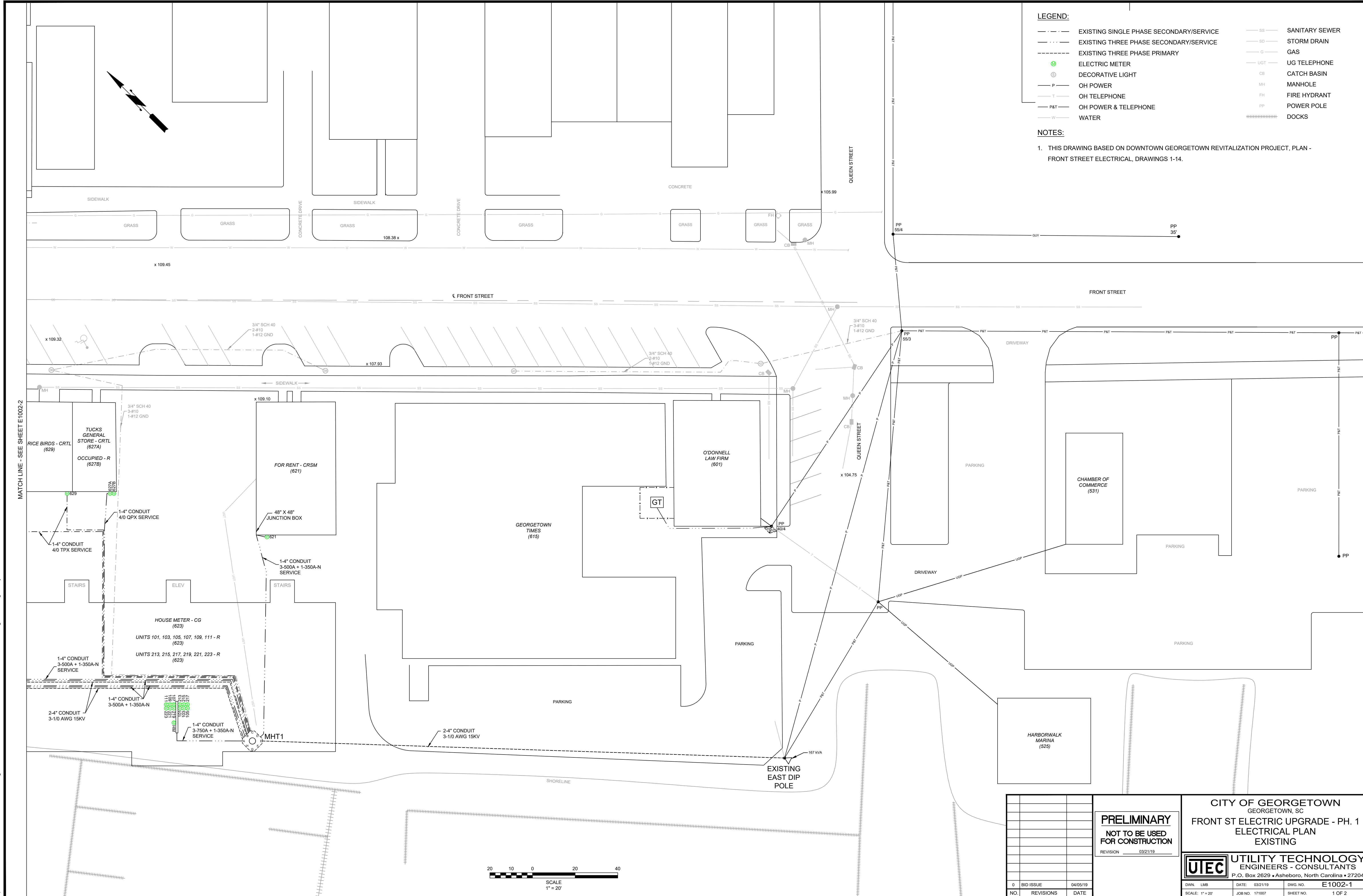
**UTEC** **UTILITY TECHNOLOGY**  
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 P.O. Box 2629 • Asheboro, North Carolina • 27204

DWN. LMB	DATE: 03/21/19	DWG. NO. E1001
SCALE: 1" = 40'	JOB NO. 171007	SHEET NO. 1 OF 1

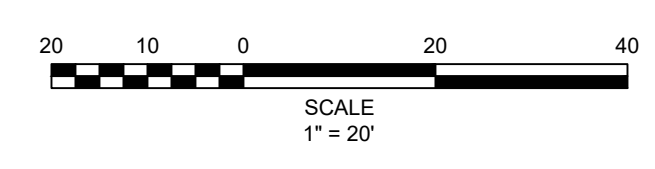
- LEGEND:**
- EXISTING SINGLE PHASE SECONDARY/SERVICE
  - EXISTING THREE PHASE SECONDARY/SERVICE
  - EXISTING THREE PHASE PRIMARY
  - ⊕ ELECTRIC METER
  - ⊙ DECORATIVE LIGHT
  - P OH POWER
  - T OH TELEPHONE
  - P&T OH POWER & TELEPHONE
  - W WATER
  - SS SANITARY SEWER
  - SD STORM DRAIN
  - G GAS
  - UGT UG TELEPHONE
  - CB CATCH BASIN
  - MH MANHOLE
  - FH FIRE HYDRANT
  - PP POWER POLE
  - DOCKS

**NOTES:**

- THIS DRAWING BASED ON DOWNTOWN GEORGETOWN REVITALIZATION PROJECT, PLAN - FRONT STREET ELECTRICAL, DRAWINGS 1-14.



MATCHLINE - SEE SHEET E1002-2



0	BID ISSUE	04/05/19
NO.	REVISIONS	DATE

**PRELIMINARY**  
NOT TO BE USED FOR CONSTRUCTION  
REVISION 03/21/19

**CITY OF GEORGETOWN**  
GEORGETOWN, SC  
**FRONT ST ELECTRICAL UPGRADE - PH. 1**  
ELECTRICAL PLAN  
EXISTING

**UTEC** UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS  
P.O. Box 2629 • Asheboro, North Carolina • 27204

DWN. LMB	DATE: 03/21/19	DWG. NO. E1002-1
SCALE: 1" = 20'	JOB NO. 171007	SHEET NO. 1 OF 2

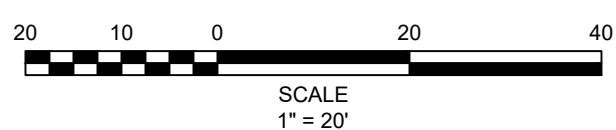
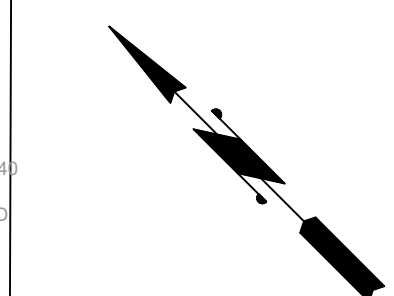
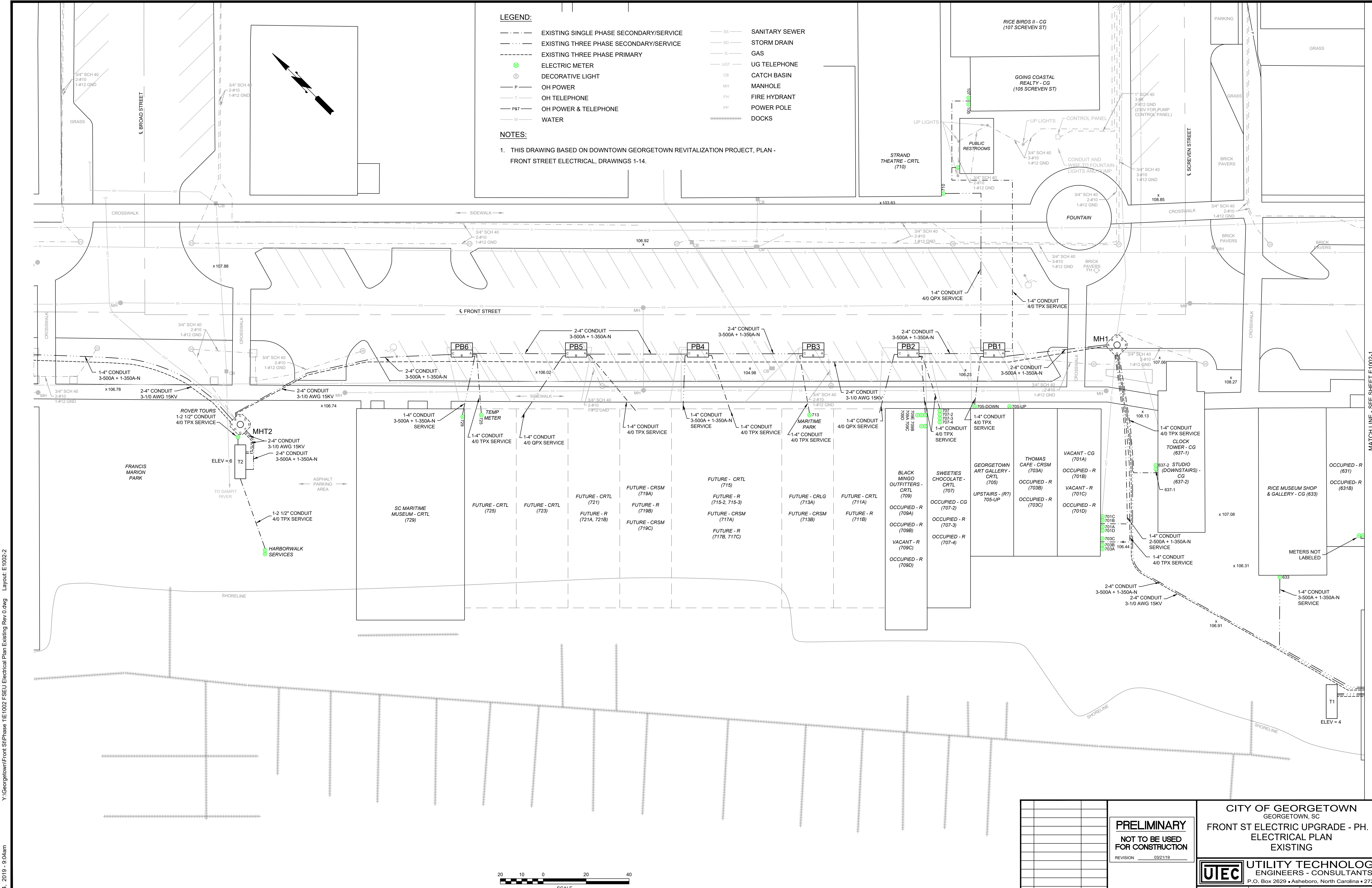


**LEGEND:**

- EXISTING SINGLE PHASE SECONDARY/SERVICE
- EXISTING THREE PHASE SECONDARY/SERVICE
- EXISTING THREE PHASE PRIMARY
- ⊙ ELECTRIC METER
- ⊙ DECORATIVE LIGHT
- P — OH POWER
- T — OH TELEPHONE
- P&T — OH POWER & TELEPHONE
- W — WATER
- SS — SANITARY SEWER
- SD — STORM DRAIN
- G — GAS
- UGT — UG TELEPHONE
- CB — CATCH BASIN
- MH — MANHOLE
- FH — FIRE HYDRANT
- PP — POWER POLE
- DOCKS

**NOTES:**

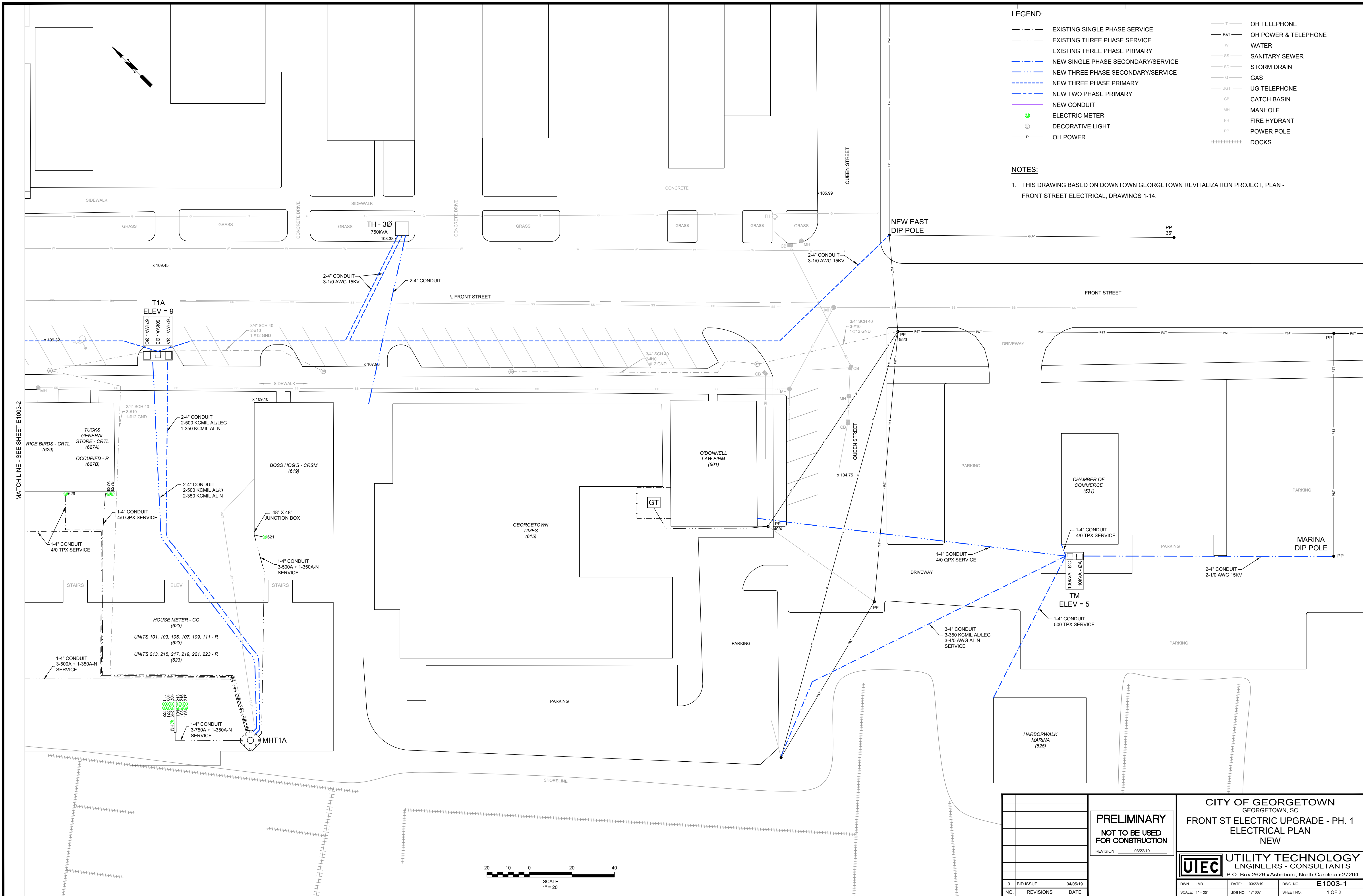
1. THIS DRAWING BASED ON DOWNTOWN GEORGETOWN REVITALIZATION PROJECT, PLAN - FRONT STREET ELECTRICAL, DRAWINGS 1-14.



<b>PRELIMINARY</b>		<b>CITY OF GEORGETOWN</b>	
NOT TO BE USED FOR CONSTRUCTION		GEORGETOWN, SC	
REVISION 03/21/19		<b>FRONT ST ELECTRICAL UPGRADE - PH. 1</b>	
REVISION		<b>EXISTING</b>	
0 BID ISSUE 04/05/19		<b>UTILITY TECHNOLOGY</b>	
NO REVISIONS DATE		<b>ENGINEERS - CONSULTANTS</b>	
NO REVISIONS DATE		P.O. Box 2629 • Asheboro, North Carolina • 27204	
NO REVISIONS DATE		DWN. LMB DATE: 03/21/19 DWG. NO. E1002-2	
NO REVISIONS DATE		SCALE: 1" = 20' JOB NO. 171007 SHEET NO. 2 OF 2	

Y:\Georgetown\From SitPhase 1E1002 FSEU Electrical Plan Existing Rev 0.dwg Layout: E1002-2  
 Apr 04, 2019 - 9:04am

MATCH LINE - SEE SHEET E1002-1

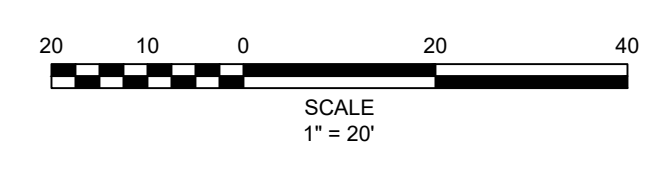


- LEGEND:**
- EXISTING SINGLE PHASE SERVICE
  - EXISTING THREE PHASE SERVICE
  - EXISTING THREE PHASE PRIMARY
  - NEW SINGLE PHASE SECONDARY/SERVICE
  - NEW THREE PHASE SECONDARY/SERVICE
  - NEW THREE PHASE PRIMARY
  - NEW TWO PHASE PRIMARY
  - NEW CONDUIT
  - ⊕ ELECTRIC METER
  - ⊙ DECORATIVE LIGHT
  - P — OH POWER
  - T — OH TELEPHONE
  - P&T — OH POWER & TELEPHONE
  - W — WATER
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  - CB CATCH BASIN
  - MH MANHOLE
  - FH FIRE HYDRANT
  - PP POWER POLE
  - ===== DOCKS

**NOTES:**

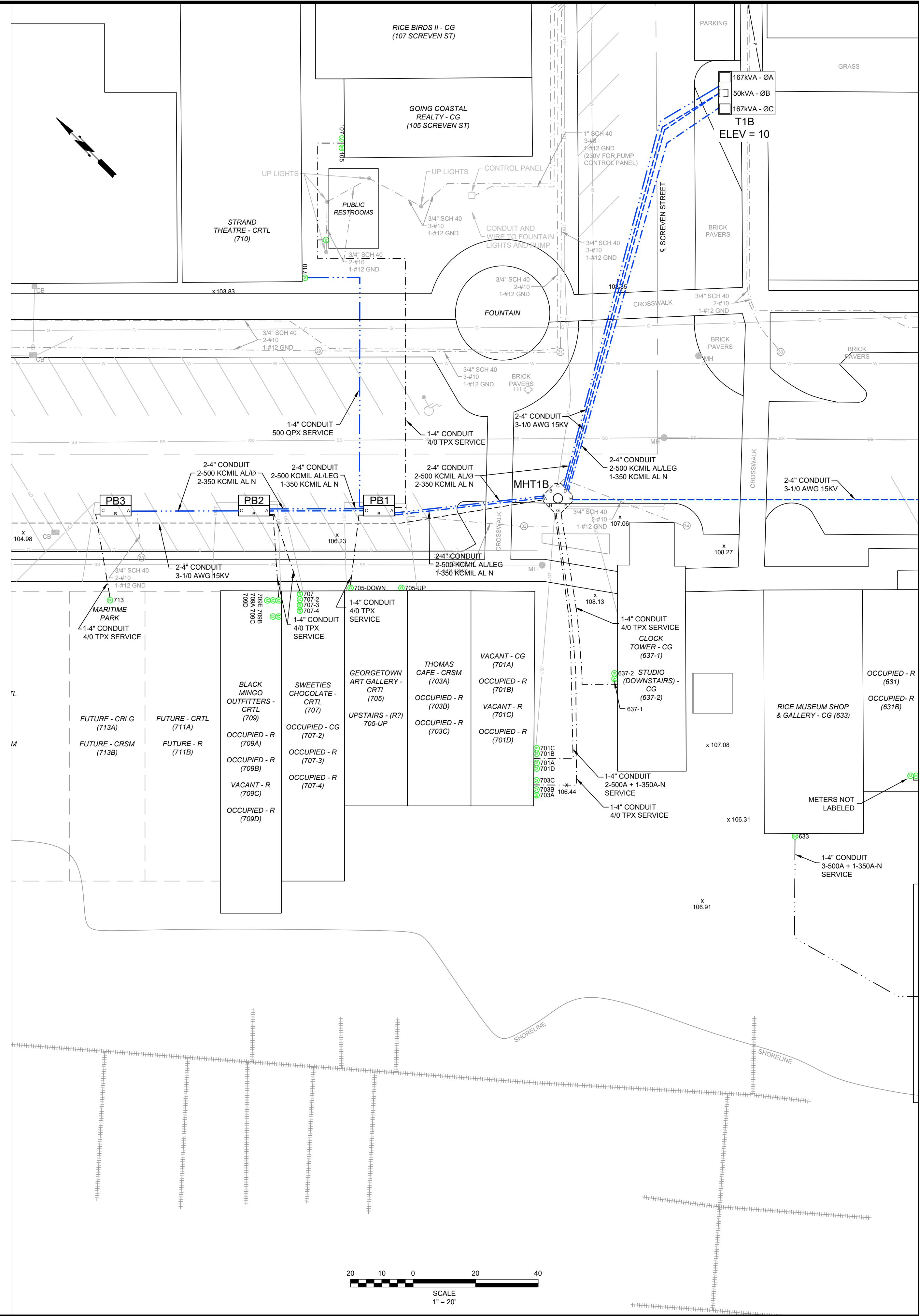
- THIS DRAWING BASED ON DOWNTOWN GEORGETOWN REVITALIZATION PROJECT, PLAN - FRONT STREET ELECTRICAL, DRAWINGS 1-14.

MATCHLINE - SEE SHEET E1003-2



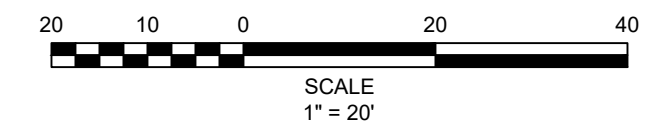
<p><b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION</p>		<p>CITY OF GEORGETOWN GEORGETOWN, SC <b>FRONT ST ELECTRICAL UPGRADE - PH. 1</b> ELECTRICAL PLAN NEW</p>	
		<p><b>UTILITY TECHNOLOGY</b> ENGINEERS - CONSULTANTS P.O. Box 2629 • Asheboro, North Carolina • 27204</p>	
NO.	REVISIONS	DATE	
0	BID ISSUE	04/05/19	
<p>REVISION 03/22/19</p>			
DWN.	LMB	DATE: 03/22/19	DWG. NO. E1003-1
SCALE: 1" = 20'		JOB NO. 171007	SHEET NO. 1 OF 2



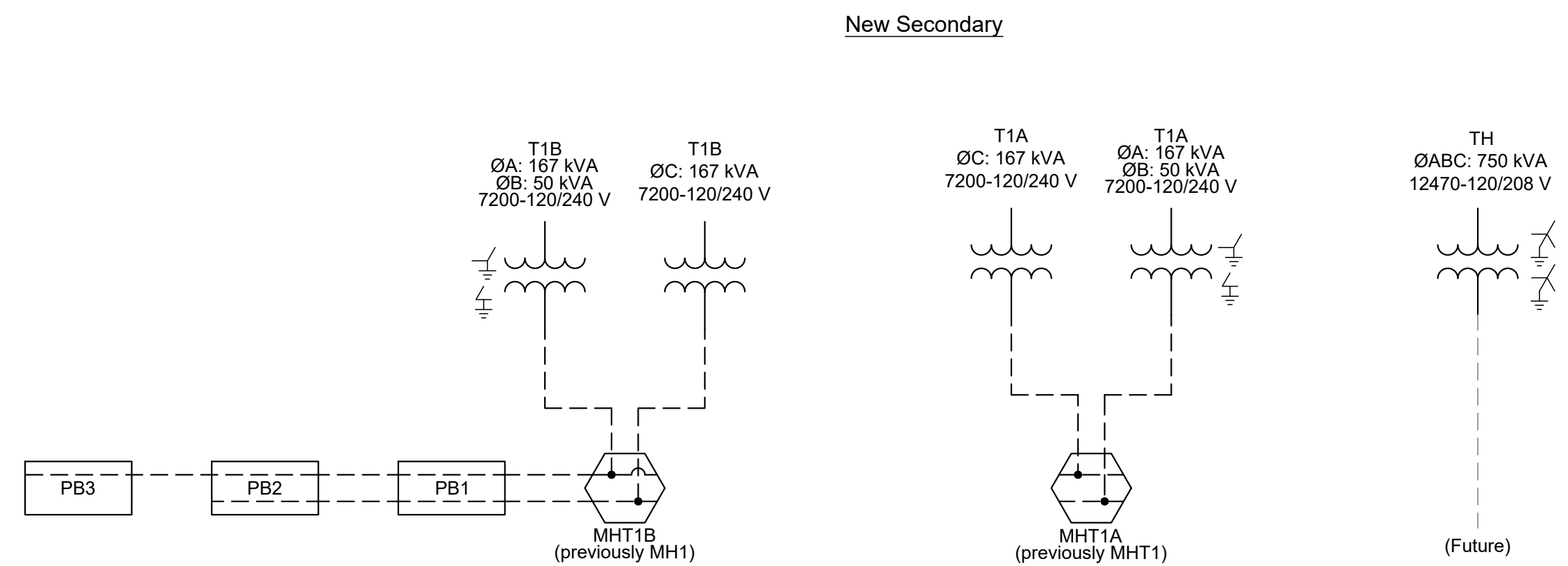
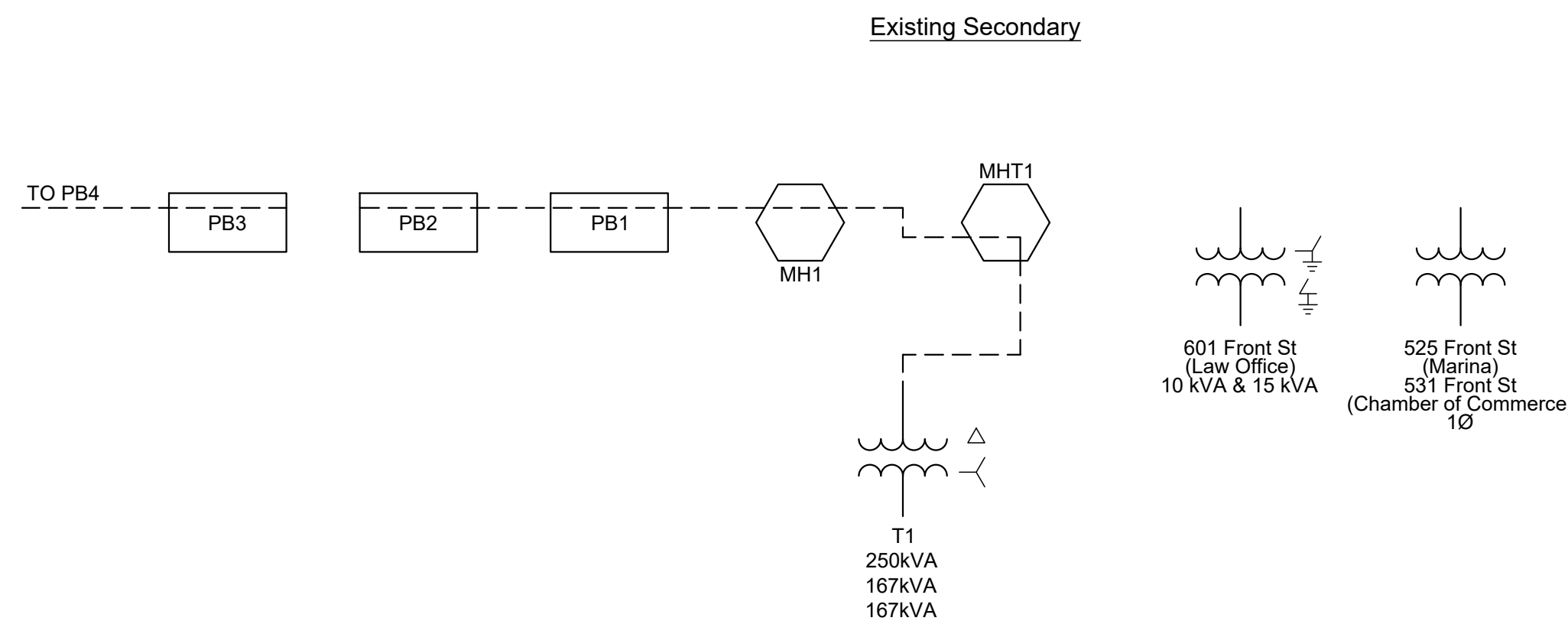
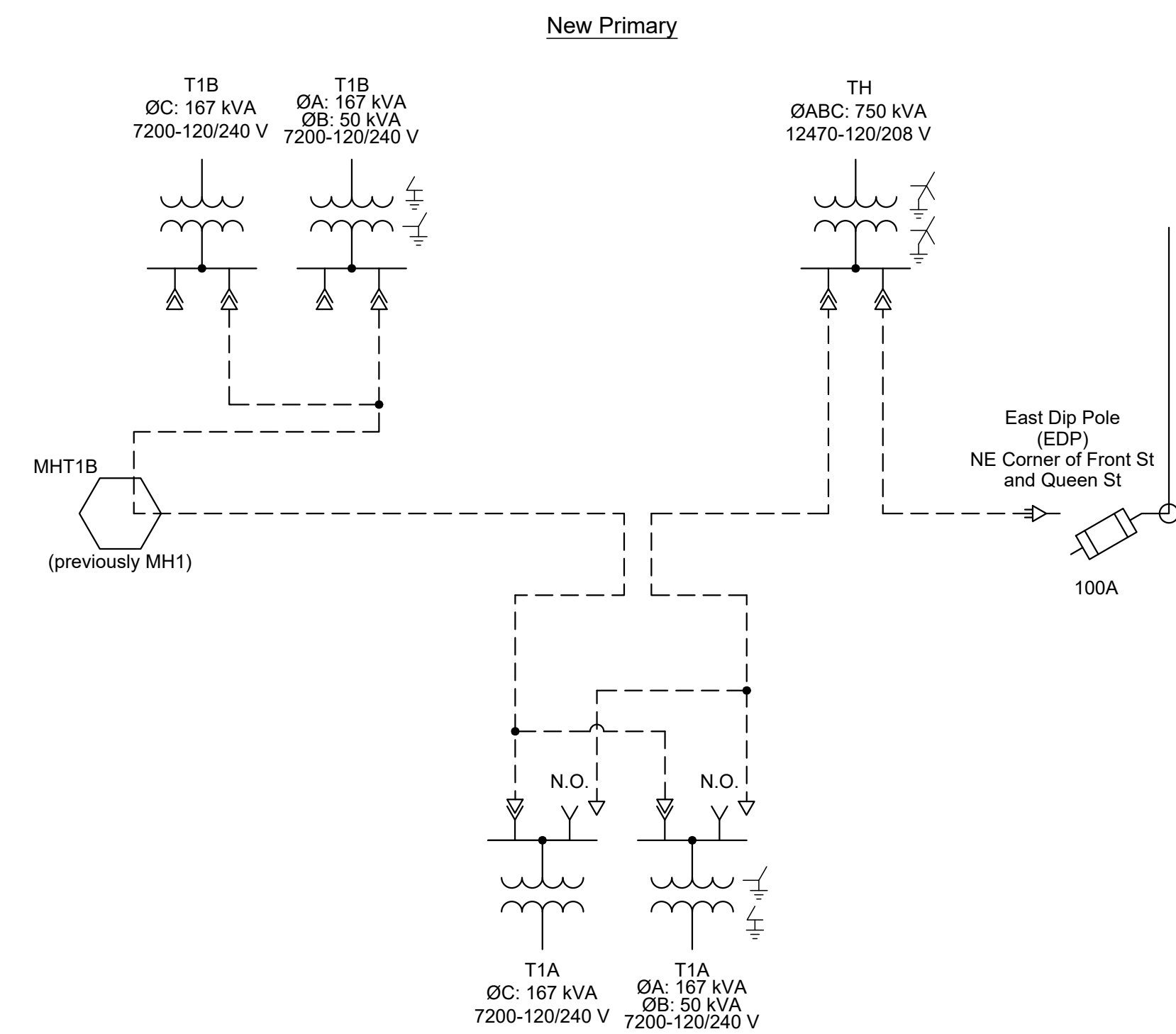
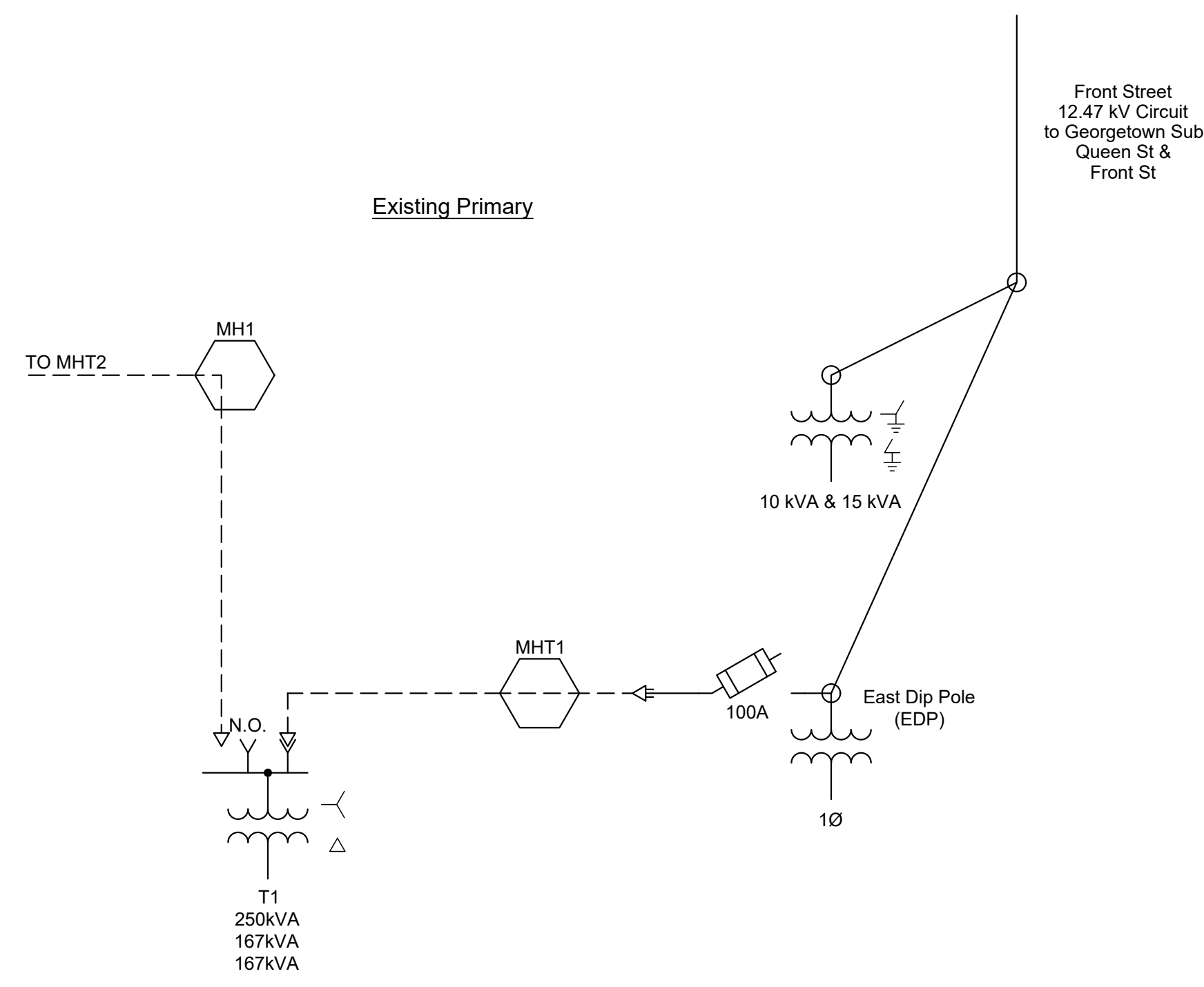


- LEGEND:**
- EXISTING SINGLE PHASE SERVICE
  - EXISTING THREE PHASE SERVICE
  - EXISTING THREE PHASE PRIMARY
  - NEW SINGLE PHASE SECONDARY/SERVICE
  - NEW THREE PHASE SECONDARY/SERVICE
  - NEW THREE PHASE PRIMARY
  - NEW TWO PHASE PRIMARY
  - NEW CONDUIT
  - ⊕ ELECTRIC METER
  - ⊙ DECORATIVE LIGHT
  - P — OH POWER
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  - UGT — UG TELEPHONE
  - CB CATCH BASIN
  - MH MANHOLE
  - FH FIRE HYDRANT
  - PP POWER POLE
  - ===== DOCKS

- NOTES:**
- THIS DRAWING BASED ON DOWNTOWN GEORGETOWN REVITALIZATION PROJECT, PLAN - FRONT STREET ELECTRICAL, DRAWINGS 1-14.



<p><b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION</p>		<p>CITY OF GEORGETOWN GEORGETOWN, SC FRONT ST ELECTRICAL UPGRADE - PH. 1 ELECTRICAL PLAN NEW</p>																	
		<p>UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS P.O. Box 2629 • Asheboro, North Carolina • 27204</p>																	
NO.	REVISIONS	DATE	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">DWN. LMB</td> <td style="width: 20%;">DATE: 03/22/19</td> <td style="width: 20%;">DWG. NO. E1003-2</td> <td style="width: 40%;">SCALE: 1" = 20'</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	DWN. LMB	DATE: 03/22/19	DWG. NO. E1003-2	SCALE: 1" = 20'												
DWN. LMB	DATE: 03/22/19	DWG. NO. E1003-2	SCALE: 1" = 20'																



**STEP 1 - PRE-CONSTRUCTION/MOBILIZATION**

1. PROVIDE DETAILED CONSTRUCTION PLAN AND SCHEDULE
2. PRE-CONSTRUCTION MEETING
3. SET CONSTRUCTION TRAILER
4. TEMPORARY UTILITY SERVICES
5. SITE INSPECTION AND FINALIZE CONSTRUCTION SCHEDULE

**STEP 2 - DIP POLES, FOUNDATIONS, AND DIRECT BORE CONDUITS**

1. INSTALL NEW EAST DIP POLE (EDP) AND MARINA AREA DIP POLE (MADP) (BY OTHERS)
2. INSTALL FOUNDATIONS FOR NEW TM, TH, T1A, AND T1B TRANSFORMERS.
3. INSTALL NEW DIRECT BORE CONDUITS: NEW MADP TO TM; TM TO CUSTOMERS 525 FRONT ST, 531 FRONT ST, 601 FRONT ST, AND MARINA DOCK SERVICE; NEW EDP TO TH; TH TO T1A; TH TO STUB UP JUST INSIDE 615 FRONT ST PROPERTY; T1A TO MHT1A (PREVIOUSLY MHT1) AND MHT1B; T1B TO MHT1B (PREVIOUSLY MH#1).

**STEP 3 - TRANSFORMERS T1A, T1B, AND TH**

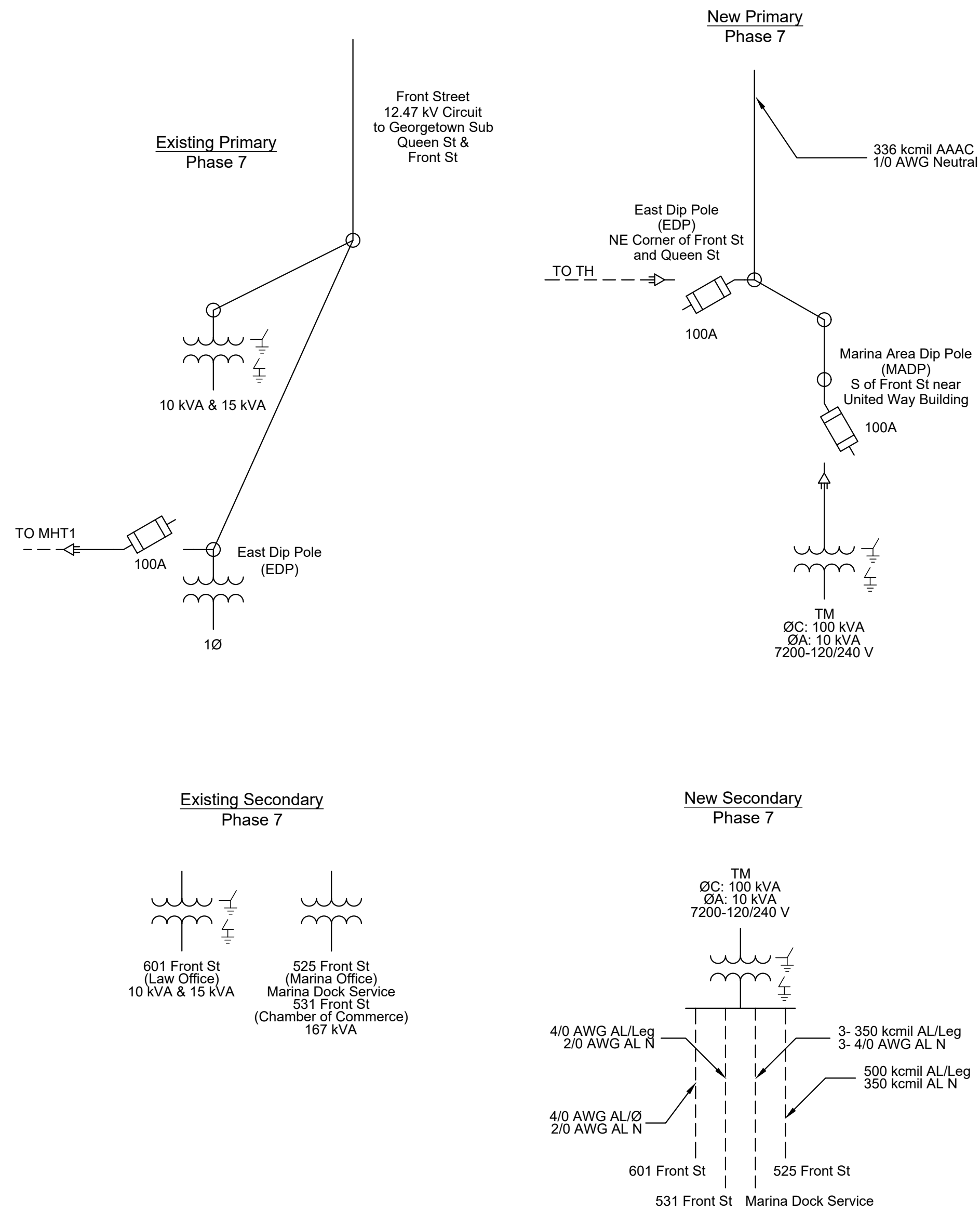
1. INSTALL NEW T1A, T1B, AND TH TRANSFORMERS.
2. INSTALL NEW PRIMARY CABLE FROM NEW EDP TO TH, TH TO T1A.
3. REMOVE EXISTING CABLE WALL CHANNELS AND CABLE SUPPORT BRACKETS IN MHT1A. LEAVE EXISTING CABLES IN MANHOLE.
4. INSTALL NEW CABLE WALL CHANNELS AND CABLE SUPPORT BRACKETS IN MHT1A.
5. INSTALL NEW SECONDARY CABLE FROM T1A TO MHT1A.
6. DE-ENERGIZE EXISTING T1 TRANSFORMERS.
7. DISCONNECT ALL SERVICES IN MHT1A FROM EXISTING T1 TRANSFORMER SECONDARIES. INSTALL INSULATING SLEEVE COVERS ON EXISTING CONNECTORS WHERE SERVICES WERE REMOVED.
8. RE-ENERGIZE EXISTING T1 TRANSFORMERS TO RESTORE SERVICE TO REMAINING T1 CUSTOMERS FED FROM MHT1B, PB1, AND PB2.
9. RECONNECT ALL SERVICES IN MHT1A TO NEW T1A TRANSFORMER SECONDARIES.
10. ENERGIZE NEW T1A TRANSFORMERS FROM NEW TH TRANSFORMER.
11. REMOVE EXISTING CABLE WALL CHANNELS AND CABLE SUPPORT BRACKETS IN MHT1B, PB1, PB2, AND PB3. LEAVE EXISTING CABLES IN MANHOLE/PULLBOXES.
12. INSTALL NEW CABLE WALL CHANNELS AND CABLE SUPPORT BRACKETS IN MHT1B, PB1, PB2, AND PB3.
13. INSTALL NEW PRIMARY CABLE FROM T1A TO T1B.
14. INSTALL NEW SECONDARY CABLE FROM T1B TO MHT1B.

15. INSTALL NEW SECONDARY CABLE FROM MHT1B TO PB1, PB2 AND PB3 FOR THE OPEN-WYE/OPEN-DELTA TRANSFORMER ONLY.
16. DE-ENERGIZE EXISTING T1 TRANSFORMERS.
17. SWAP ALL SERVICES IN MHT1B FROM EXISTING T1 TRANSFORMERS SECONDARIES TO NEW T1B TRANSFORMER SECONDARIES. NEW LARGER SERVICE CABLE TO BE INSTALLED FOR CUSTOMER 701/703 FRONT ST. SWAP ALL SERVICES IN PB1 AND PB2 FROM EXISTING T1 TRANSFORMERS TO NEW T1B OPEN-WYE/OPEN-DELTA TRANSFORMER BANK SECONDARIES ONLY. NEW LARGER SERVICE CABLE TO BE INSTALLED FOR CUSTOMER THEATRE. REMOVE ALL PREVIOUS SECONDARY CABLES IN MHT1A, MHT1B, PB1 AND PB2.
18. ENERGIZE NEW T1B TRANSFORMERS FROM NEW T1A.
19. REMOVE PREVIOUS PRIMARY CABLES FROM EXISTING T1 TO EDP AND TO MHT1B.
20. INSTALL NEW SECONDARY CABLE FROM MHT1B THRU PB1 AND PB2 FOR THE T1B SINGLE PHASE TRANSFORMER.
21. DE-ENERGIZE NEW T1B TRANSFORMERS.
22. SWAP SINGLE PHASE SERVICES IN PB1 AND PB2 TO NEW T1B SINGLE PHASE TRANSFORMER SECONDARY.
23. DE-ENERGIZE EXISTING TRANSFORMER T2.
24. SWAP SERVICE IN PB3 TO NEW T1B OPEN-WYE/OPEN-DELTA TRANSFORMER BANK SECONDARY.
25. REMOVE PREVIOUS SECONDARY BETWEEN PB3 AND PB4. INSTALL INSULATING SLEEVE COVERS ON EXISTING CONNECTORS WHERE SERVICE AND SECONDARY CABLES WERE REMOVED.
26. INSTALL NEW PRIMARY CABLE FROM T1B TO MHT1B. SPLICE NEW PRIMARY FROM T1B TO EXISTING PRIMARY TO T2.

27. RE-ENERGIZE EXISTING TRANSFORMER T2.
28. ENERGIZE NEW T1B TRANSFORMERS FROM NEW T1A.
29. REMOVE EXISTING T1 TRANSFORMERS, ENCLOSURE, CABLES, ASSOCIATED EQUIPMENT AND FOUNDATION. CUT CONDUITS TO BELOW GROUNDLINE. FILL FOUNDATION AREA WITH TOPSOIL AND SEED WITH GRASS.

<p><b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION</p> <p>REVISION 03/22/19</p>		<p><b>CITY OF GEORGETOWN</b> GEORGETOWN, SC</p> <p><b>FRONT ST ELECTRIC UPGRADE - PH. 1</b> CONSTRUCTION SEQUENCE STEPS 1 - 3</p>	
<p>0 BID ISSUE 04/05/19</p>		<p><b>UTEC</b> UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS P.O. Box 2629 • Asheboro, North Carolina • 27204</p>	
DWN. HMS	DATE: 03/22/19	DWG. NO.	E1004-1
SCALE: NONE	JOB NO. 171007	SHEET NO.	1 OF 2





**STEP 4 - TM TRANSFORMER**

1. INSTALL NEW TM TRANSFORMERS
2. INSTALL NEW PRIMARY CABLE FROM NEW MADP TO TM.
3. INSTALL NEW SERVICE CABLES FROM TM TO CUSTOMERS 525, 531, 601 FRONT ST AND MARINA DOCK SERVICE.
4. DE-ENERGIZE EXISTING TRANSFORMER SERVICES TO CUSTOMERS 525, 531, 601 FRONT ST AND MARINA DOCK SERVICE.
5. SWAP CUSTOMERS 525, 531, 601 FRONT ST AND MARINA DOCK SERVICE FROM EXISTING TRANSFORMERS TO NEW TM TRANSFORMER BANK. REMOVE ALL PREVIOUS SERVICE CABLES.
6. ENERGIZE NEW TM TRANSFORMER FROM NEW MADP.

		<b>PRELIMINARY</b>		CITY OF GEORGETOWN GEORGETOWN, SC	
		NOT TO BE USED FOR CONSTRUCTION		FRONT ST ELECTRIC UPGRADE - PH. 1 CONSTRUCTION SEQUENCE STEP 4	
		REVISION 03/22/19		<b>UTEC</b> UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS	
				P.O. Box 2629 • Asheboro, North Carolina • 27204	
0	BID ISSUE	04/05/19	DWN.	HMS	DATE: 03/22/19
	NO.	REVISIONS	DATE	DWG. NO.	E1004-2
				SCALE: NONE	JOB NO. 171007
				SHEET NO.	2 OF 2

Equipment Description	Manufacturer (or Equal)	Part Number (or Equal)	Quantity
10 kVA Single Phase Pad-Mounted Transformer (by Owner)			1
50 kVA Single Phase Pad-Mounted Transformer (by Owner)			2
100 kVA Single Phase Pad-Mounted Transformer (by Owner)			1
167 kVA Single Phase Pad-Mounted Transformer (by Owner)			4
750 kVA Three Phase Pad-Mounted Transformer (by Owner)			1
15 kV, 200 A Loadbreak Elbow			20
15 kV Cable Splice			3
15 kV OH to UG Terminator			3
Flood-Seal Multi-port Bus Connectors, 6 outlets, with rubber insulating sleeve covers	Homac	175 Series	32
Flood-Seal Dual Adapter Kit	Homac	175 Series	2
Flood-Seal Multi-port Bus Connectors, 3 outlets, Y type, with rubber insulating sleeve covers	Homac	125 Series	14
Manhole Wall Support, stainless steel slotted channel, 72" long, 13/16" x 1-5/8", 12 GA			13
Pull Box Wall Support, stainless steel slotted channel, 38" long, 13/16" x 1-5/8", 12 GA			9
Cable Support Bracket, stainless steel slotted channel, 18" long, 1-5/8"x1-5/8", 12 GA			84
Cable Clamp, 1-7/8", polymer, with stainless steel strap	ZSi	Porce-a-Clamp	312
600 V Terminal Lug, 750 kcmil AL, 2-hole NEMA			3
600 V Terminal Lug, 500 kcmil AL, 2-hole NEMA			119
600 V Terminal Lug, 350 kcmil AL, 2-hole NEMA			41
600 V Terminal Lug, # 4/0 AWG AL, 2-hole NEMA			27
600 V Terminal Lug, # 2/0 AWG AL, 2-hole NEMA			12
600 V Terminal Lug, # 10 AWG AL, 2-hole NEMA			3
600 V Terminal Lug, # 12 AWG AL, 2-hole NEMA			2
600 V Terminal Lug, 500 kcmil AL, 1-hole NEMA			8
600 V Terminal Lug, 350 kcmil AL, 1-hole NEMA			3
600 V Terminal Lug, # 4/0 AWG AL, 1-hole NEMA			14
600 V Terminal Lug, # 2/0 AWG AL, 1-hole NEMA			5
600 V Terminal Lug, # 10 AWG AL, 1-hole NEMA			4
600 V Terminal Lug, # 12 AWG AL, 1-hole NEMA			2
4-hole NEMA Stud Connector			17
6-hole NEMA Stud Connector			4

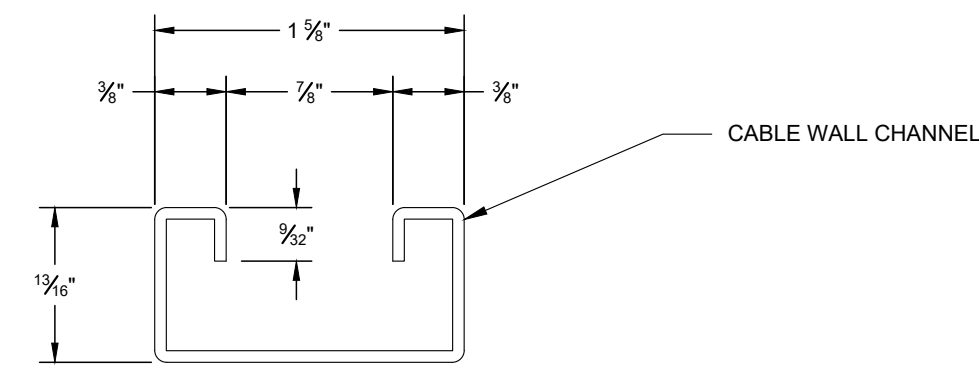
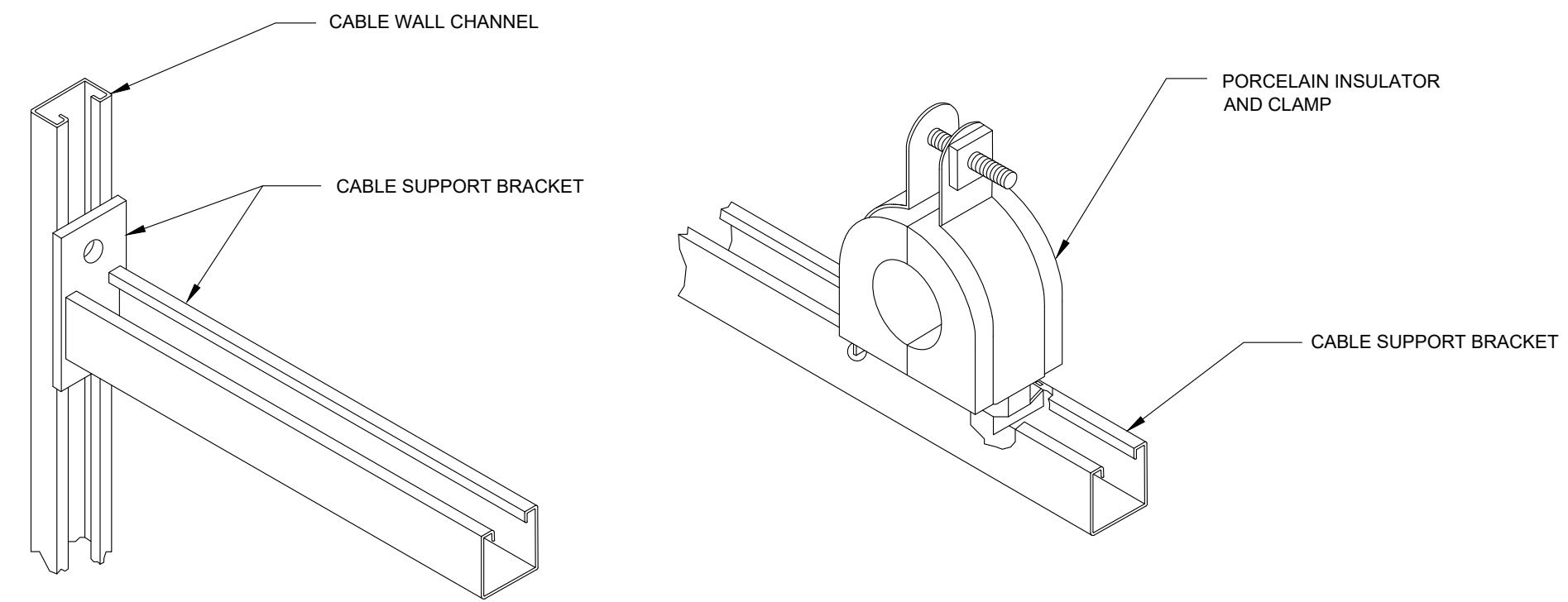
0	BID ISSUE	04/05/19
NO.	REVISIONS	DATE

**PRELIMINARY**  
 NOT TO BE USED FOR CONSTRUCTION  
 REVISION 04/05/19

CITY OF GEORGETOWN  
 GEORGETOWN, SC  
**FRONT ST ELECTRIC UPGRADE - PH. 1**  
**BILL OF MATERIALS**

**UTEC** UTILITY TECHNOLOGY  
 ENGINEERS - CONSULTANTS  
 P.O. Box 2629 • Asheboro, North Carolina • 27204

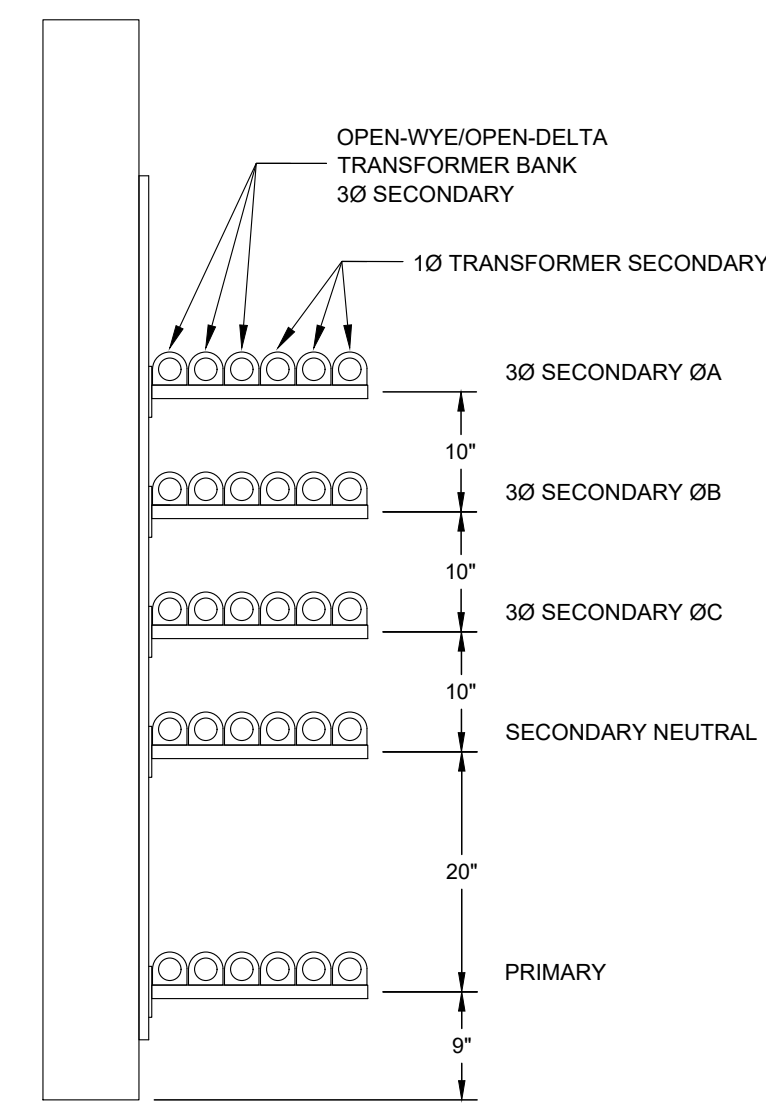
DWN. LMB	DATE: 03/22/19	DWG. NO. E1005
SCALE: NONE	JOB NO. 171007	SHEET NO. 1 OF 1



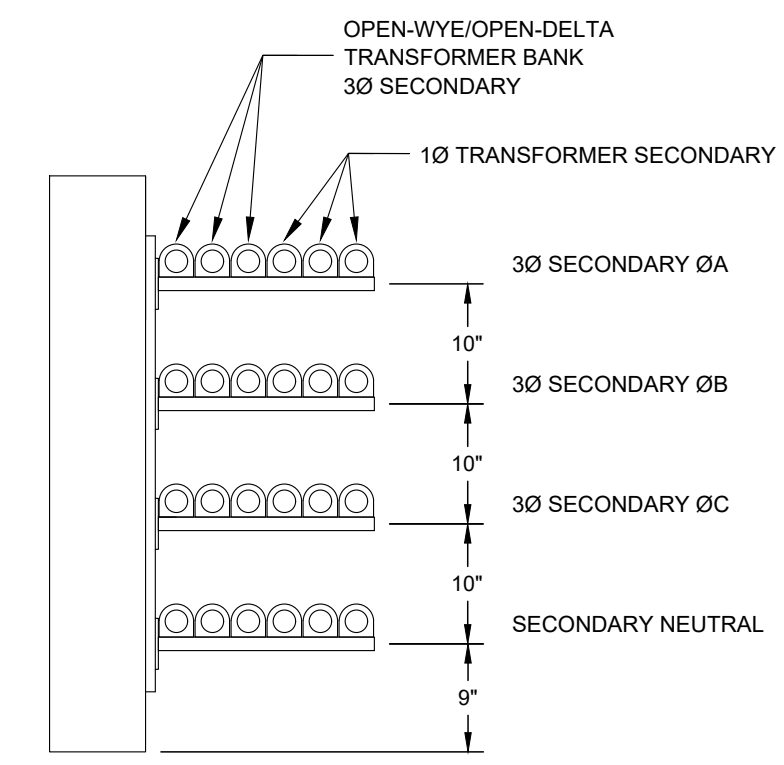
CABLE RACK ASSEMBLY DETAILS  
NTS

NOTES: CABLE RACKING

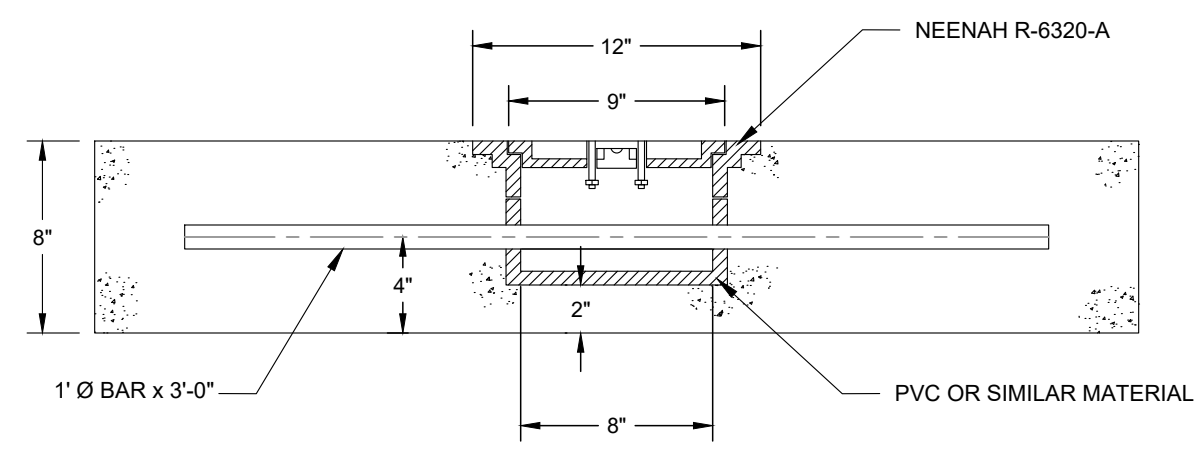
1. CABLE SUPPORT BRACKETS TO BE INSTALLED ONLY WHERE SHOWN ON THE MANHOLE AND PULLBOX DRAWINGS.
2. SIX CABLE INSULATORS SHOWN PER BRACKET. INSTALL ONLY ENOUGH INSULATORS FOR THE CABLES AS SHOWN ON THE MANHOLE AND PULLBOX DRAWINGS.



MANHOLE BRACKET  
ELEVATION - TYPICAL  
3/4" = 1'-0"



PULLBOX BRACKET  
ELEVATION - TYPICAL  
3/4" = 1'-0"



EXISTING LIFT LUGS  
3/4" = 1'-0"

0	BID ISSUE	04/05/19
NO.	REVISIONS	DATE

**PRELIMINARY**  
NOT TO BE USED  
FOR CONSTRUCTION  
REVISION 03/22/19

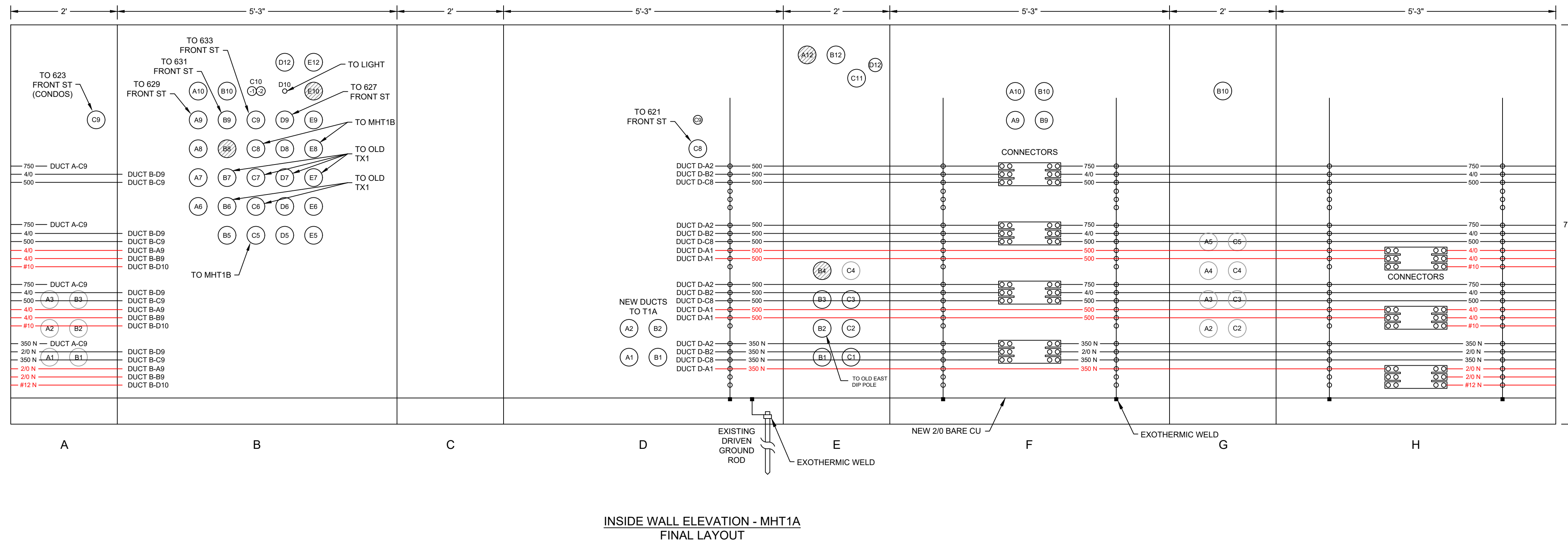
CITY OF GEORGETOWN  
GEORGETOWN, SC  
FRONT ST ELECTRIC UPGRADE - PH. 1  
MISCELLANEOUS DETAILS

**UTEC** UTILITY TECHNOLOGY  
ENGINEERS - CONSULTANTS  
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DWN. LMB	DATE: 03/22/19	DWG. NO. E1011
SCALE: NOTED	JOB NO. 171007	SHEET NO. 1 OF 1



Apr 04, 2019 - 10:08am Y:\Georgetown\Front St\Phase 1E1012 FSEU Manhole T1A Rev 0.dwg Layout: E1012-T1A

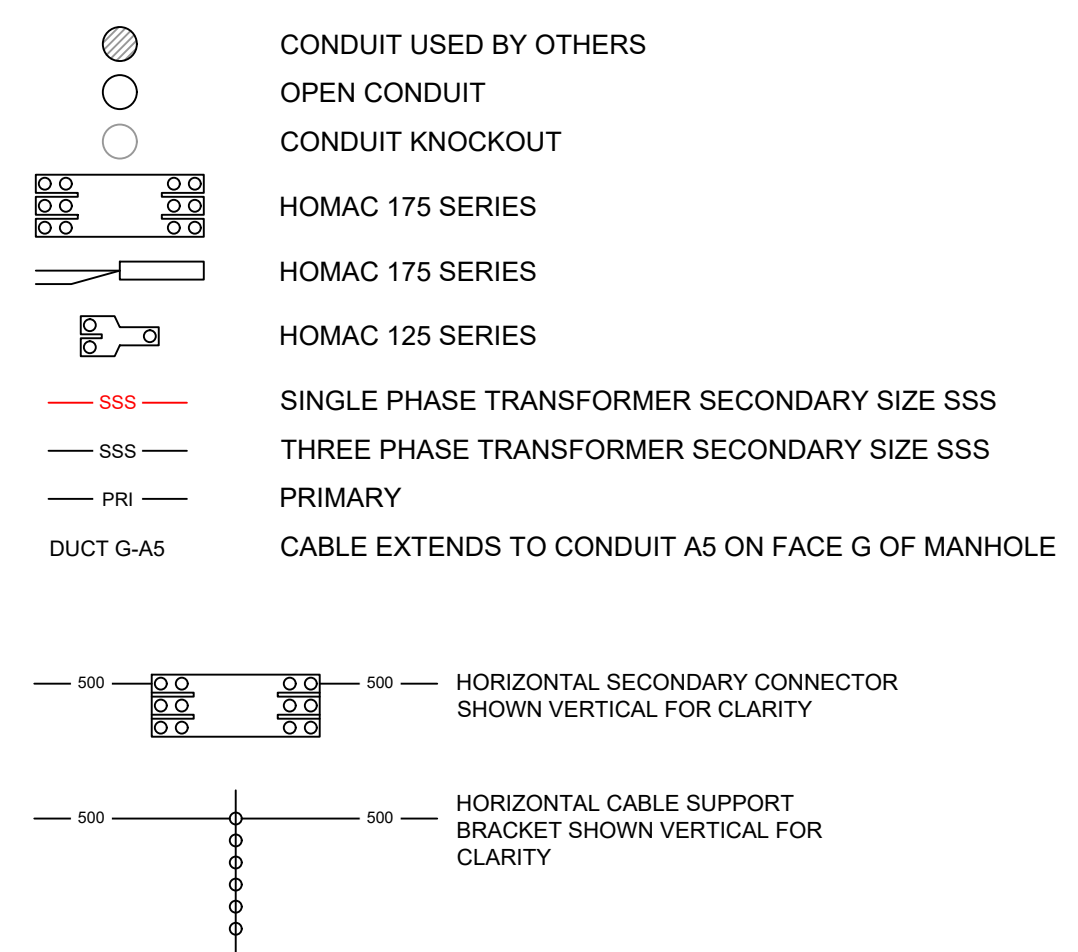


INSIDE WALL ELEVATION - MHT1A  
FINAL LAYOUT

**NOTES:**

1. SEE DWG E1004 FOR DETAILED CONSTRUCTION SEQUENCE.
2. VERIFY PHASE ROTATION OF 3-PHASE SERVICES BEFORE DISCONNECTING THE SERVICE FROM THE EXISTING SECONDARY CABLES AND AFTER CONNECTING TO THE NEW SECONDARY CABLE, BUT BEFORE CLOSING THE SERVICE DISCONNECT.
3. ALL EXISTING SERVICE CABLES TO BE KEPT IF IN ACCEPTABLE CONDITION UNLESS OTHERWISE NOTED. ALL SERVICE CABLES TO BE TAGGED WITH SERVICE ADDRESSES.
4. RECONNECT ALL LIGHTING/OUTLET CABLES NOT SHOWN ON THE DRAWING.
5. VERIFY CONDUIT PATHS BEFORE PULLING NEW CABLES.
6. ALL EXISTING CABLE WALL SUPPORTS SHALL BE REMOVED AND REPLACED. ALL EXISTING CABLE SUPPORT BRACKETS SHALL BE REMOVED AND NEW BRACKETS INSTALLED AS SHOWN. NEW GROUND CABLE SHOULD BE INSTALLED FROM EXISTING GROUND ROD TO NEW CHANNELS.

**LEGEND:**



0	BID ISSUE	04/05/19
NO.	REVISIONS	DATE

**PRELIMINARY**  
NOT TO BE USED FOR CONSTRUCTION  
REVISION 03/22/19

CITY OF GEORGETOWN  
GEORGETOWN, SC  
FRONT ST ELECTRIC UPGRADE - PH. 1  
CABLE RACKING DETAILS  
MANHOLE T1A

**UTEC** UTILITY TECHNOLOGY  
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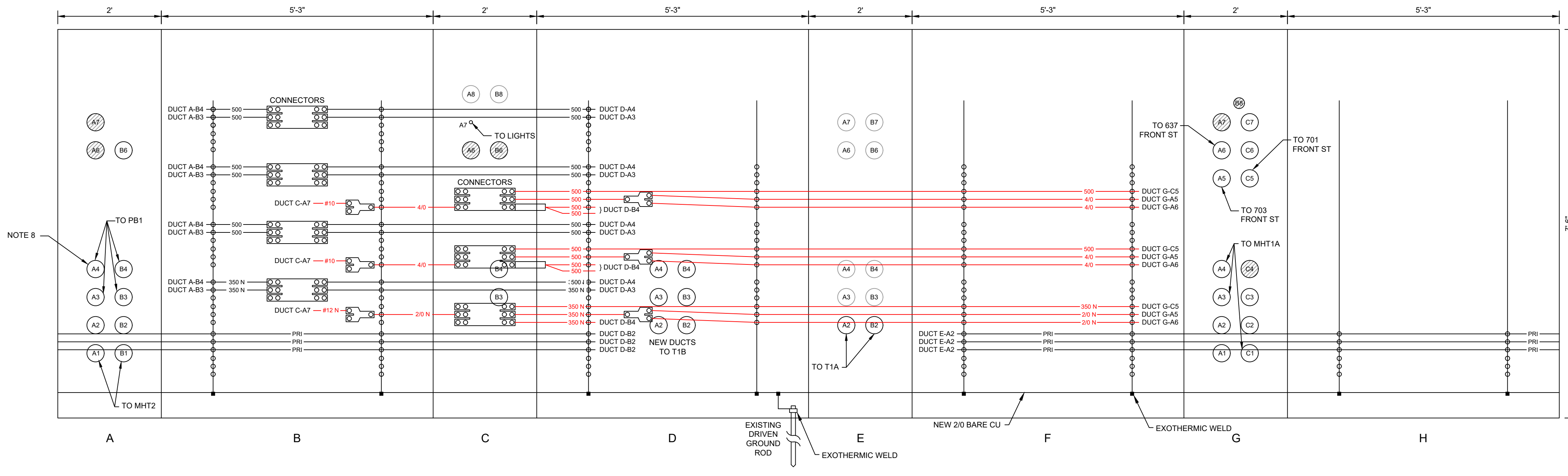
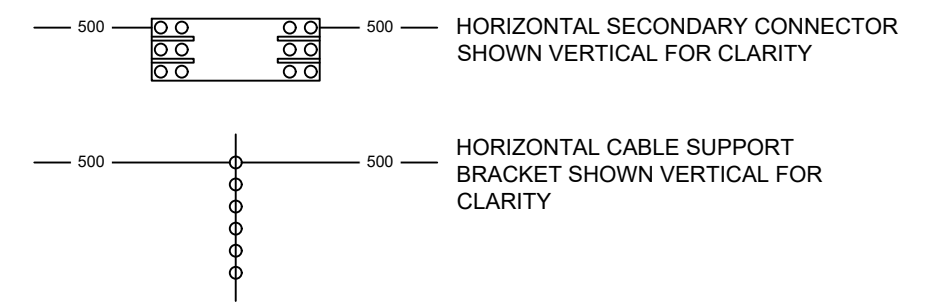
DWN. LMB	DATE: 03/22/19	DWG. NO. E1012
SCALE: 3/4" = 1'-0"	JOB NO. 171007	SHEET NO. 1 OF 1

**NOTES:**

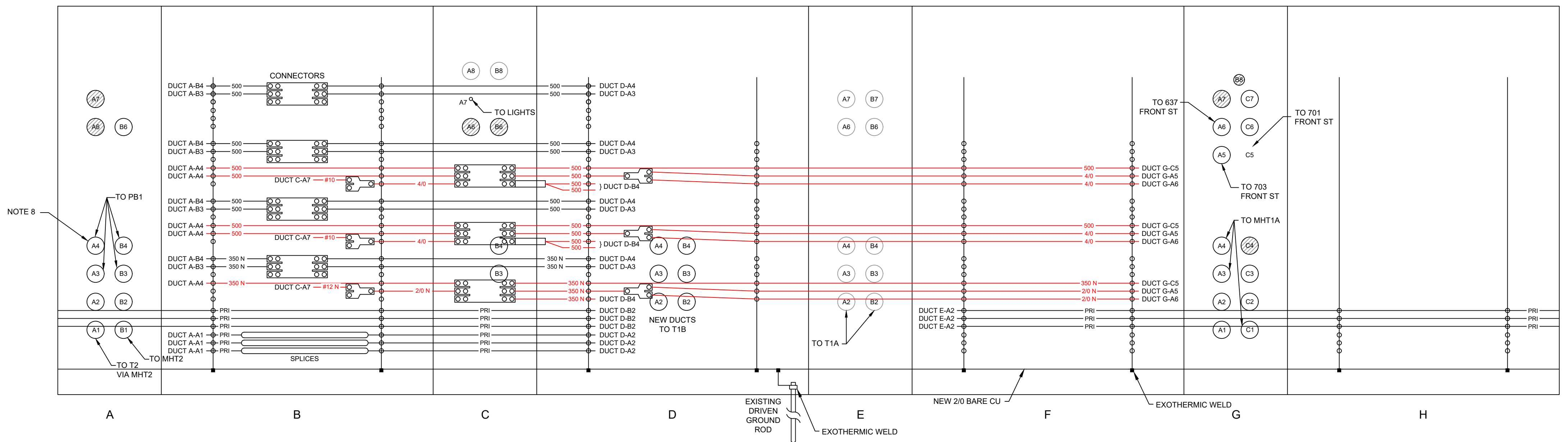
1. SEE DWG E1004 FOR DETAILED CONSTRUCTION SEQUENCE.
2. VERIFY PHASE ROTATION OF 3-PHASE SERVICES BEFORE DISCONNECTING THE SERVICE FROM THE EXISTING SECONDARY CABLES AND AFTER CONNECTING TO THE NEW SECONDARY CABLE, BUT BEFORE CLOSING THE SERVICE DISCONNECT.
3. ALL EXISTING SERVICE CABLES TO BE KEPT IF IN ACCEPTABLE CONDITION UNLESS OTHERWISE NOTED. ALL SERVICE CABLES TO BE TAGGED WITH SERVICE ADDRESSES.
4. RECONNECT ALL LIGHTING/OUTLET CABLES NOT SHOWN ON THE DRAWING.
5. VERIFY CONDUIT PATHS BEFORE PULLING NEW CABLES.
6. ALL EXISTING CABLE WALL SUPPORTS SHALL BE REMOVED AND REPLACED. ALL EXISTING CABLE SUPPORT BRACKETS SHALL BE REMOVED AND NEW BRACKETS INSTALLED AS SHOWN. NEW GROUND CABLE SHOULD BE INSTALLED FROM EXISTING GROUND ROD TO NEW CHANNELS.
7. FIREPROOFING TAPE SHALL BE INSTALLED ON PRIMARY CABLES WHERE ONE PRIMARY CIRCUIT IS ROUTED ADJACENT TO ANOTHER PRIMARY CIRCUIT. TIGHTLY WRAP STRIPS OF FIREPROOFING TAPE AROUND EACH CABLE SPIRALLY IN HALF-LAPPED WRAPPING. INSTALL TAPE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. EXTEND TAPE TO THE END OF THE WALL WHERE THE CIRCUITS ARE ADJACENT.
8. EXISTING SECONDARY CABLE IS INSTALLED IN THIS CONDUIT. SERVICES IN PB1 AND PB2 MUST BE SWAPPED TO NEW T1B THREE PHASE SECONDARY BEFORE EXISTING CABLE IS REMOVED AND NEW CABLE IS PULLED.

**LEGEND:**

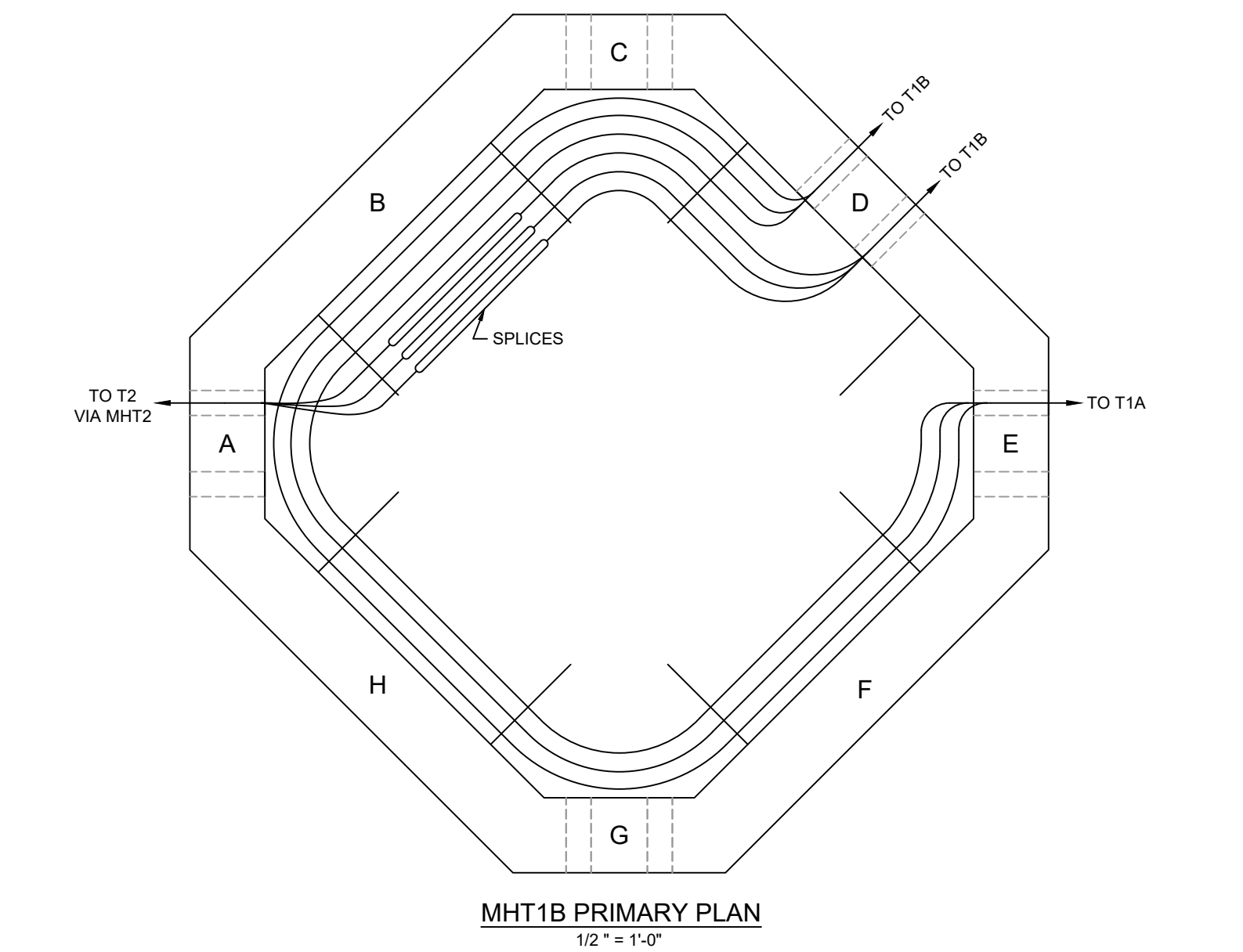
- CONDUIT USED BY OTHERS
- OPEN CONDUIT
- CONDUIT KNOCKOUT
- HOMAC 175 SERIES
- HOMAC 175 SERIES
- HOMAC 125 SERIES
- SINGLE PHASE TRANSFORMER SECONDARY SIZE SSS
- THREE PHASE TRANSFORMER SECONDARY SIZE SSS
- PRIMARY
- CABLE EXTENDS TO CONDUIT A5 ON FACE G OF MANHOLE



INSIDE WALL ELEVATION - MHT1B  
TEMPORARY LAYOUT



INSIDE WALL ELEVATION - MHT1B  
FINAL LAYOUT

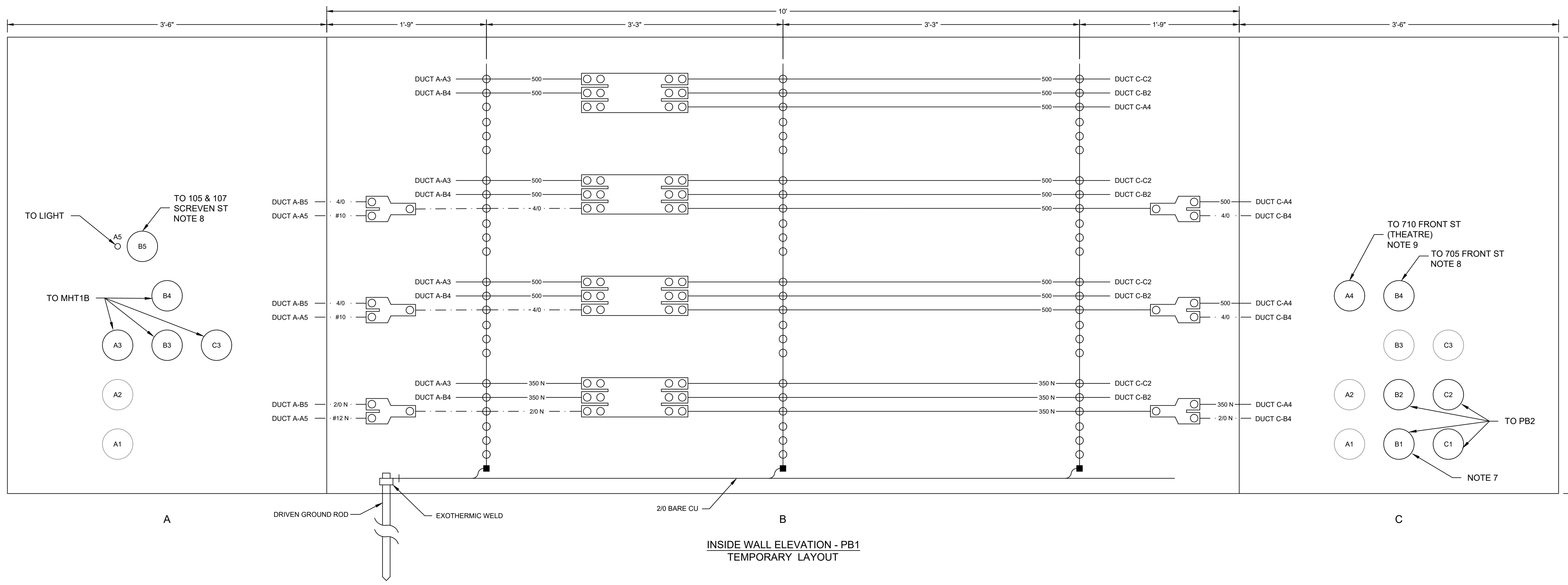


MHT1B PRIMARY PLAN  
1/2" = 1'-0"

Apr 04, 2019 - 10:09am Y:\Georgetown\Front St\Phase 1E1013 FSEU Manhole T1B Rev 0.dwg Layout: E1013-T1B

<p><b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION</p>		<p>CITY OF GEORGETOWN GEORGETOWN, SC FRONT ST ELECTRIC UPGRADE - PH. 1 CABLE RACKING DETAILS MANHOLE T1B</p>	
<p>REVISION 03/22/19</p>		<p><b>UTEC</b> UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS P.O. Box 2629 • Asheboro, North Carolina • 27204</p>	
DWN. LMB	DATE: 03/22/19	DWG. NO.	E1013
NO. REVISIONS	DATE	SCALE: 3/4" = 1'-0"	JOB NO. 171007 SHEET NO. 1 OF 1

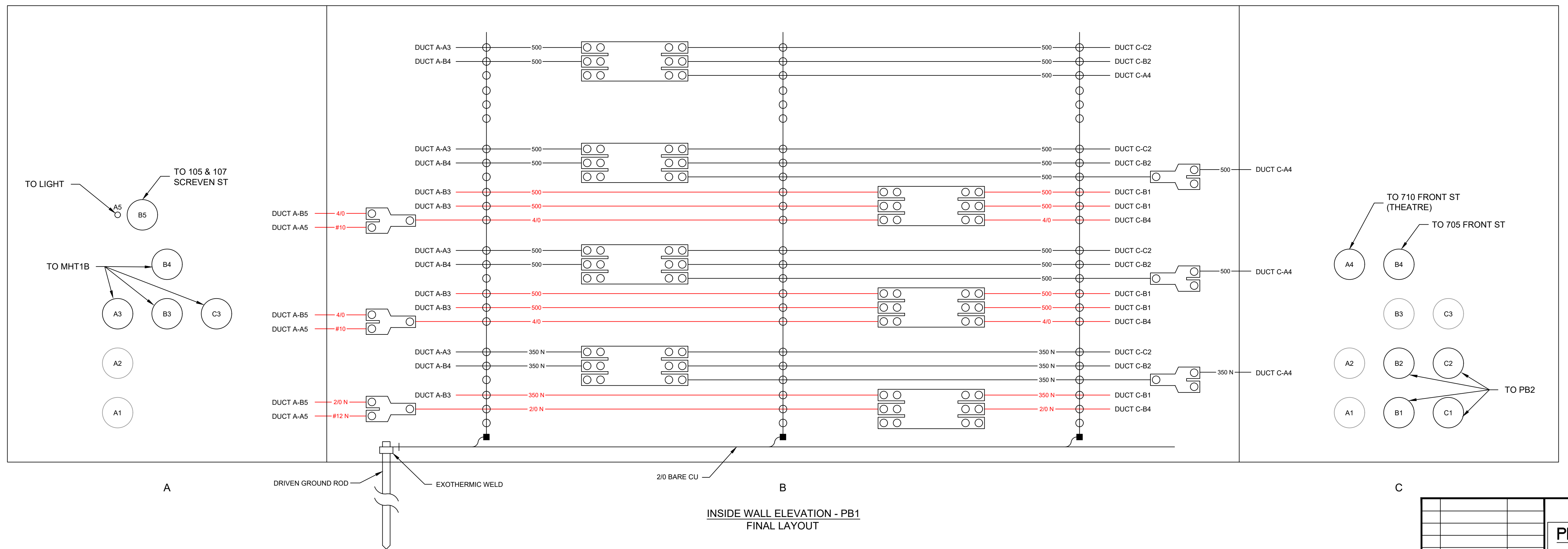
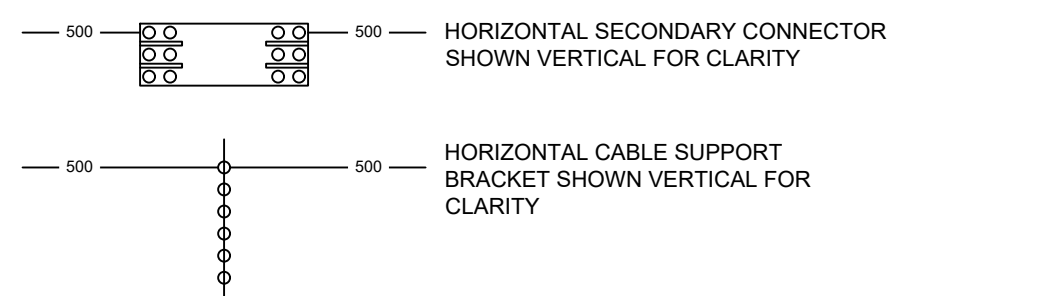




INSIDE WALL ELEVATION - PB1  
TEMPORARY LAYOUT

- NOTES:**
- SEE DWG E1004 FOR DETAILED CONSTRUCTION SEQUENCE.
  - VERIFY PHASE ROTATION OF 3-PHASE SERVICES BEFORE DISCONNECTING THE SERVICE FROM THE EXISTING SECONDARY CABLES AND AFTER CONNECTING TO THE NEW SECONDARY CABLE, BUT BEFORE CLOSING THE SERVICE DISCONNECT.
  - ALL EXISTING SERVICE CABLES TO BE KEPT IF IN ACCEPTABLE CONDITION UNLESS OTHERWISE NOTED. ALL SERVICE CABLES TO BE TAGGED WITH SERVICE ADDRESSES.
  - RECONNECT ALL LIGHTING/OUTLET CABLES NOT SHOWN ON THE DRAWING.
  - VERIFY CONDUIT PATHS BEFORE PULLING NEW CABLES.
  - ALL EXISTING CABLE WALL SUPPORTS SHALL BE REMOVED AND REPLACED. ALL EXISTING CABLE SUPPORT BRACKETS SHALL BE REMOVED AND NEW BRACKETS INSTALLED AS SHOWN. NEW GROUND CABLE SHOULD BE INSTALLED FROM EXISTING GROUND ROD TO NEW CHANNELS.
  - CONDUCTOR TO BE PULLED AFTER EXISTING T1 SECONDARY CABLES REMOVED.
  - CUSTOMER MUST BE TEMPORARILY CONNECTED TO T1B OPEN-WYE/OPEN-DELTA SECONDARY WHILE T1B SINGLE PHASE TRANSFORMER SECONDARY CABLE IS PULLED THROUGH CONDUIT WHERE EXISTING SECONDARY CABLE MUST BE REMOVED.
  - REPLACE EXISTING SERVICE CABLE WITH 500 KCMIL PHASE, 350 KCMIL NEUTRAL.

- LEGEND:**
- CONDUIT USED BY OTHERS
  - OPEN CONDUIT
  - CONDUIT KNOCKOUT
  - HOMAC 175 SERIES
  - HOMAC 125 SERIES
  - SINGLE PHASE TRANSFORMER SECONDARY SIZE SSS
  - THREE PHASE TRANSFORMER SECONDARY SIZE SSS
  - TEMPORARY SECONDARY SERVICES SIZE SSS
  - PRIMARY
  - CABLE EXTENDS TO CONDUIT A5 ON FACE C OF PULLBOX

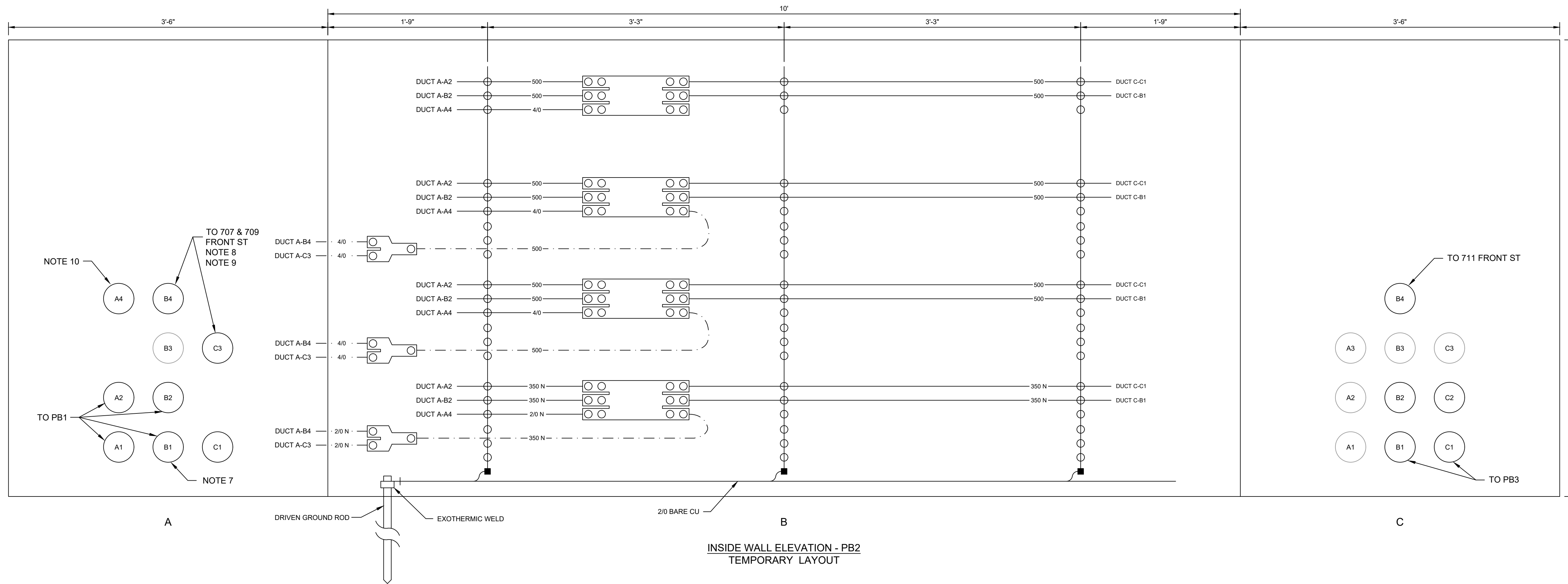


INSIDE WALL ELEVATION - PB1  
FINAL LAYOUT

<p><b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION</p>		<p>CITY OF GEORGETOWN GEORGETOWN, SC FRONT ST ELECTRIC UPGRADE - PH. 1 CABLE RACKING DETAILS PULLBOX 1</p>	
<p>REVISION 03/22/19</p>		<p><b>UTEC</b> UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS P.O. Box 2629 • Asheboro, North Carolina • 27204</p>	
DWN. LMB	DATE: 03/22/19	DWG. NO.	E1021
SCALE: 1-1/2" = 1'-0"	JOB NO. 171007	SHEET NO.	1 OF 1

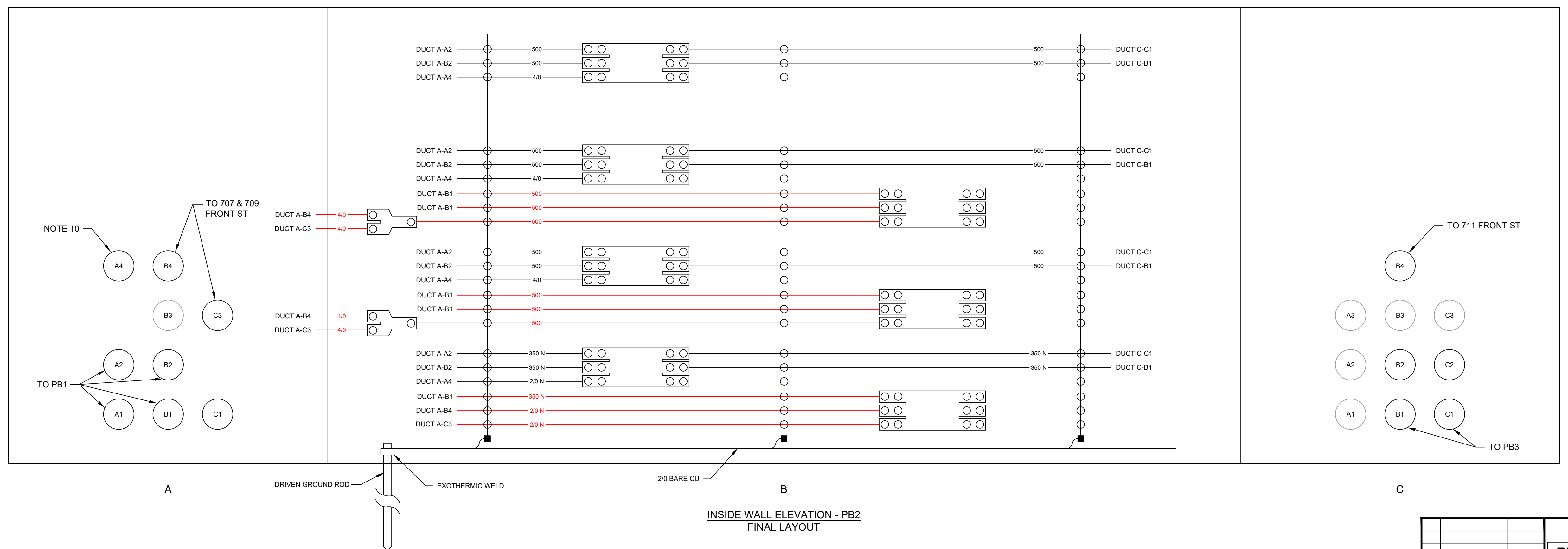
Apr 04, 2019 - 10:10am  
 Y:\Georgetown\Front St\Phase 1\E1021 FSEU Pullbox 1 Rev 0.dwg Layout E1021





- NOTES:**
- SEE DWG E1004 FOR DETAILED CONSTRUCTION SEQUENCE.
  - VERIFY PHASE ROTATION OF 3-PHASE SERVICES BEFORE DISCONNECTING THE SERVICE FROM THE EXISTING SECONDARY CABLES AND AFTER CONNECTING TO THE NEW SECONDARY CABLE, BUT BEFORE CLOSING THE SERVICE DISCONNECT.
  - ALL EXISTING SERVICE CABLES TO BE KEPT IF IN ACCEPTABLE CONDITION UNLESS OTHERWISE NOTED. ALL SERVICE CABLES TO BE TAGGED WITH SERVICE ADDRESSES.
  - RECONNECT ALL LIGHTING/OUTLET CABLES NOT SHOWN ON THE DRAWING.
  - VERIFY CONDUIT PATHS BEFORE PULLING NEW CABLES.
  - ALL EXISTING CABLE WALL SUPPORTS SHALL BE REMOVED AND REPLACED. ALL EXISTING CABLE SUPPORT BRACKETS SHALL BE REMOVED AND NEW BRACKETS INSTALLED AS SHOWN. NEW GROUND CABLE SHOULD BE INSTALLED FROM EXISTING GROUND ROD TO NEW CHANNELS.
  - CONDUCTOR TO BE PULLED AFTER EXISTING T1 SECONDARY CABLES REMOVED.
  - CUSTOMER MUST BE TEMPORARILY CONNECTED TO T1B OPEN-WYE/OPEN-DELTA SECONDARY WHILE T1B SINGLE PHASE TRANSFORMER SECONDARY CABLE IS PULLED THROUGH CONDUIT WHERE EXISTING SECONDARY CABLE MUST BE REMOVED.
  - VERIFY WHICH CONDUIT GOES TO WHICH ADDRESS AND TAG CABLES ACCORDINGLY.
  - DETERMINE WHAT THIS CONDUIT SERVES AND TAG ACCORDINGLY.

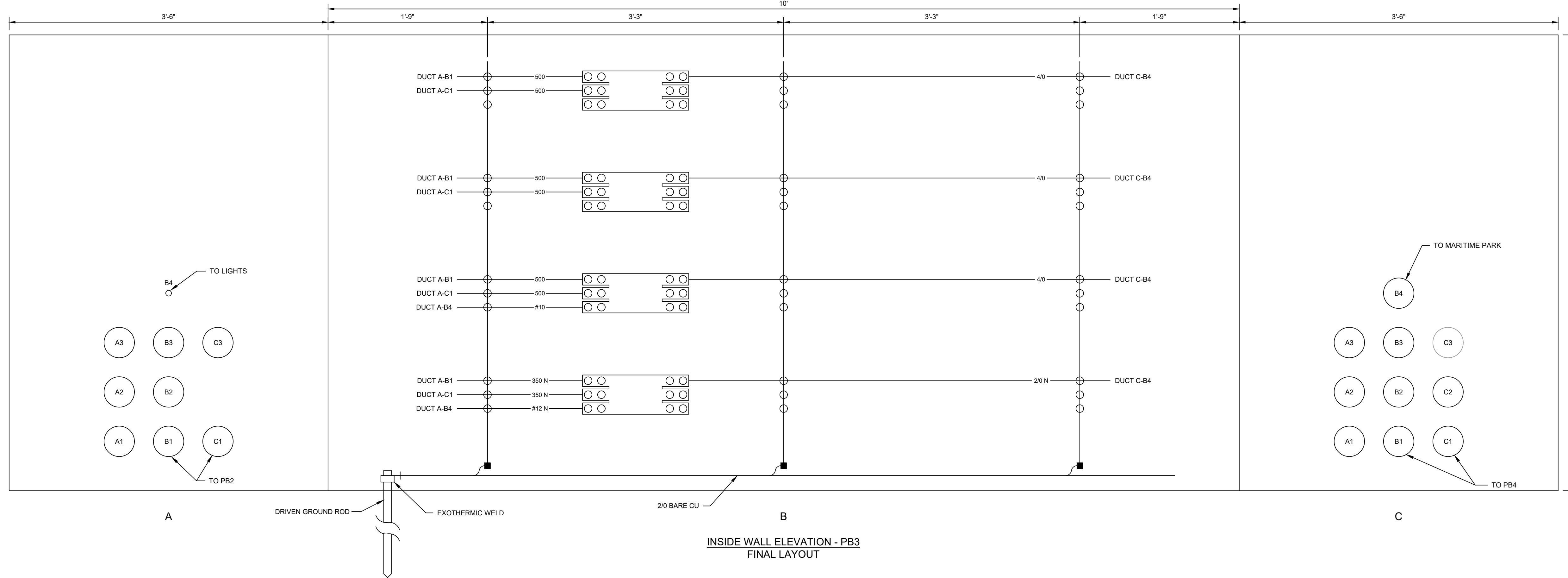
- LEGEND:**
- CONDUIT USED BY OTHERS
  - OPEN CONDUIT
  - CONDUIT KNOCKOUT
  - HOMAC 175 SERIES
  - HOMAC 175 SERIES
  - HOMAC 125 SERIES
  - SINGLE PHASE TRANSFORMER SECONDARY SIZE SSS
  - THREE PHASE TRANSFORMER SECONDARY SIZE SSS
  - TEMPORARY SECONDARY SERVICES SIZE SSS
  - PRIMARY
  - CABLE EXTENDS TO CONDUIT A5 ON FACE C OF PULLBOX



- HORIZONTAL SECONDARY CONNECTOR SHOWN VERTICAL FOR CLARITY
- HORIZONTAL CABLE SUPPORT BRACKET SHOWN VERTICAL FOR CLARITY

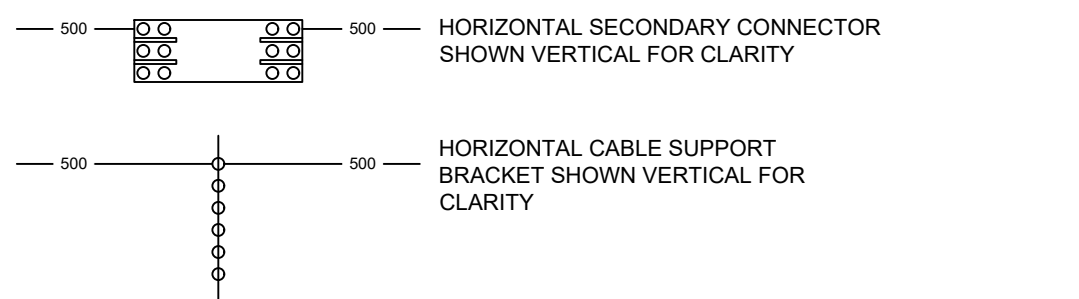
Y:\Georgetown\Front St\Phase 1E1022 FSEU Pullbox 2 Rev 0.dwg Layout E1022 Apr 04, 2019 - 10:16am

<b>PRELIMINARY</b>		<b>CITY OF GEORGETOWN</b>	
NOT TO BE USED FOR CONSTRUCTION		GEORGETOWN, SC	
REVISION 03/22/19		FRONT ST ELECTRIC UPGRADE - PH. 1	
REVISION		CABLE RACKING DETAILS	
REVISION		PULLBOX 2	
REVISION		<b>UTEC</b>	
REVISION		UTILITY TECHNOLOGY	
REVISION		ENGINEERS - CONSULTANTS	
REVISION		P.O. Box 2629 • Asheboro, North Carolina • 27204	
DWN. LMB	DATE: 03/22/19	DWG. NO.	E1022
SCALE: 3/4" = 1'-0"	JOB NO. 171007	SHEET NO.	1 OF 1



- NOTES:**
- SEE DWG E1004 FOR DETAILED CONSTRUCTION SEQUENCE.
  - VERIFY PHASE ROTATION OF 3-PHASE SERVICES BEFORE DISCONNECTING THE SERVICE FROM THE EXISTING SECONDARY CABLES AND AFTER CONNECTING TO THE NEW SECONDARY CABLE, BUT BEFORE CLOSING THE SERVICE DISCONNECT.
  - ALL EXISTING SERVICE CABLES TO BE KEPT IF IN ACCEPTABLE CONDITION UNLESS OTHERWISE NOTED. ALL SERVICE CABLES TO BE TAGGED WITH SERVICE ADDRESSES.
  - RECONNECT ALL LIGHTING/OUTLET CABLES NOT SHOWN ON THE DRAWING.
  - VERIFY CONDUIT PATHS BEFORE PULLING NEW CABLES.
  - ALL EXISTING CABLE WALL SUPPORTS SHALL BE REMOVED AND REPLACED. ALL EXISTING CABLE SUPPORT BRACKETS SHALL BE REMOVED AND NEW BRACKETS INSTALLED AS SHOWN. NEW GROUND CABLE SHOULD BE INSTALLED FROM EXISTING GROUND ROD TO NEW CHANNELS.

- LEGEND:**
- CONDUIT USED BY OTHERS
  - OPEN CONDUIT
  - CONDUIT KNOCKOUT
  - HOMAC 175 SERIES
  - HOMAC 175 SERIES
  - HOMAC 125 SERIES
  - SINGLE PHASE TRANSFORMER SECONDARY SIZE SSS
  - THREE PHASE TRANSFORMER SECONDARY SIZE SSS
  - TEMPORARY SECONDARY SERVICES SIZE SSS
  - PRIMARY
  - DUCT C-A5 CABLE EXTENDS TO CONDUIT A5 ON FACE C OF PULLBOX



INSIDE WALL ELEVATION - PB3  
FINAL LAYOUT

Y:\Georgetown\Front St\Phase 1\E1023 FSEU Pullbox 3 Rev 0.dwg Layout: E1023  
Apr 04, 2019 - 10:18am

<b>PRELIMINARY</b>		<b>CITY OF GEORGETOWN</b>	
NOT TO BE USED FOR CONSTRUCTION		GEORGETOWN, SC	
REVISION 03/22/19		FRONT ST ELECTRIC UPGRADE - PH. 1	
REVISION		CABLE RACKING DETAILS	
REVISION		PULLBOX 3	
REVISION		<b>UTEC</b> UTILITY TECHNOLOGY	
REVISION		ENGINEERS - CONSULTANTS	
REVISION		P.O. Box 2629 • Asheboro, North Carolina • 27204	
DWN. LMB	DATE: 03/22/19	DWG. NO. E1023	
SCALE: 3/4" = 1'-0"	JOB NO. 171007	SHEET NO.	1 OF 1

CONDUIT SCHEDULE					
Conduit No.	Installation Type	From	To	Length	Cables
1	Direct Bore	Marina Area Dip Pole (MADP)	Transformer TM	125	P1
2					Spare
3	Direct Bore	Transformer TM	525 Front St	80	S1
4	Direct Bore	Transformer TM	531 Front St	10	S2
5	Direct Bore	Transformer TM	601 Front St	155	S3
6	Direct Bore	Transformer TM	Marina Dock	180	S4
7					S4
8					S4
9	Direct Bore	East Dip Pole (EDP)	Transformer TH	335	P2
10					Spare
11	Direct Bore	Transformer TH	Transformer T1A	150	P3
12					Spare
13	Direct Bore	Transformer TH	Stub Up at 615 Front St	85	Spare
14					Spare
15					Spare
16					Spare
17					Spare
18					Spare
19	Direct Bore	Transformer T1A	Manhole MHT1A	200	S6
20					S6
21					S7
22					Spare
23	Direct Bore	Transformer T1A	Manhole MHT1B	185	P4
24					Spare
25	Direct Bore	Manhole MHT1B	Transformer T1B	155	P4
26					P5
27					S9
28					S9
29					S10
30					Spare

CABLE SCHEDULE							
Cable No.	Cable Type	Cable Size	Cable Length	From	To	MH / PB	
P1	A	2 - 1/0 AWG AL	175	MADP	TM		
P2	A	3 - 1/0 AWG AL	385	EDP	TH		
P3	A	3 - 1/0 AWG AL	160	TH	T1A - H1A		
P4	A	3 - 1/0 AWG AL	380	T1A - H1B	T1B - H1A	MHT1B	
P5	A	3 - 1/0 AWG AL	180	T1B - H1B	MHT1B		
S1	C	1-500 kcmil AL/Leg 1-350 kcmil AL N	100	TM	525 Front St		
S2	C	1-4/0 AWG AL/Leg 1-2/0 AWG AL N	30	TM	531 Front St		
S3	C	1-4/0 AWG AL/Ø 1-2/0 AWG AL N	175	TM	601 Front St		
S4	C	1-350 kcmil AL/Leg 1-4/0 AWG AL N	200	TM	Marina Dock		
S5	B	2-500 kcmil AL	15	T1A - 3Ø 167 kVA X1	T1A - 3Ø 50 kVA X3		
S6	B	2-500 kcmil AL/Ø 2-350 kcmil AL N	220	T1A - 3Ø Secondary	MHT1A		
S7	B	2-500 kcmil AL/Leg 1-350 kcmil AL N	220	T1A - 1Ø Secondary	MHT1A		
S8	B	2-500 kcmil AL	15	T1B - 3Ø 167 kVA X1	T1B - 3Ø 50 kVA X3		
S9	B	2-500 kcmil AL/Ø 2-350 kcmil AL N	330	T1B - 3Ø Secondary	PB3	MHT1B	PB1 PB2
S10	B	2-500 kcmil AL/Leg 1-350 kcmil AL N	285	T1B - 1Ø Secondary	PB2	MHT1B	PB1
S11	C	1-500 kcmil AL/Ø 1-350 kcmil AL N	125	PB1	Theatre		
S12	B	1-500 kcmil AL	15	TM - 100 kVA X1	TM - 10 kVA X3		

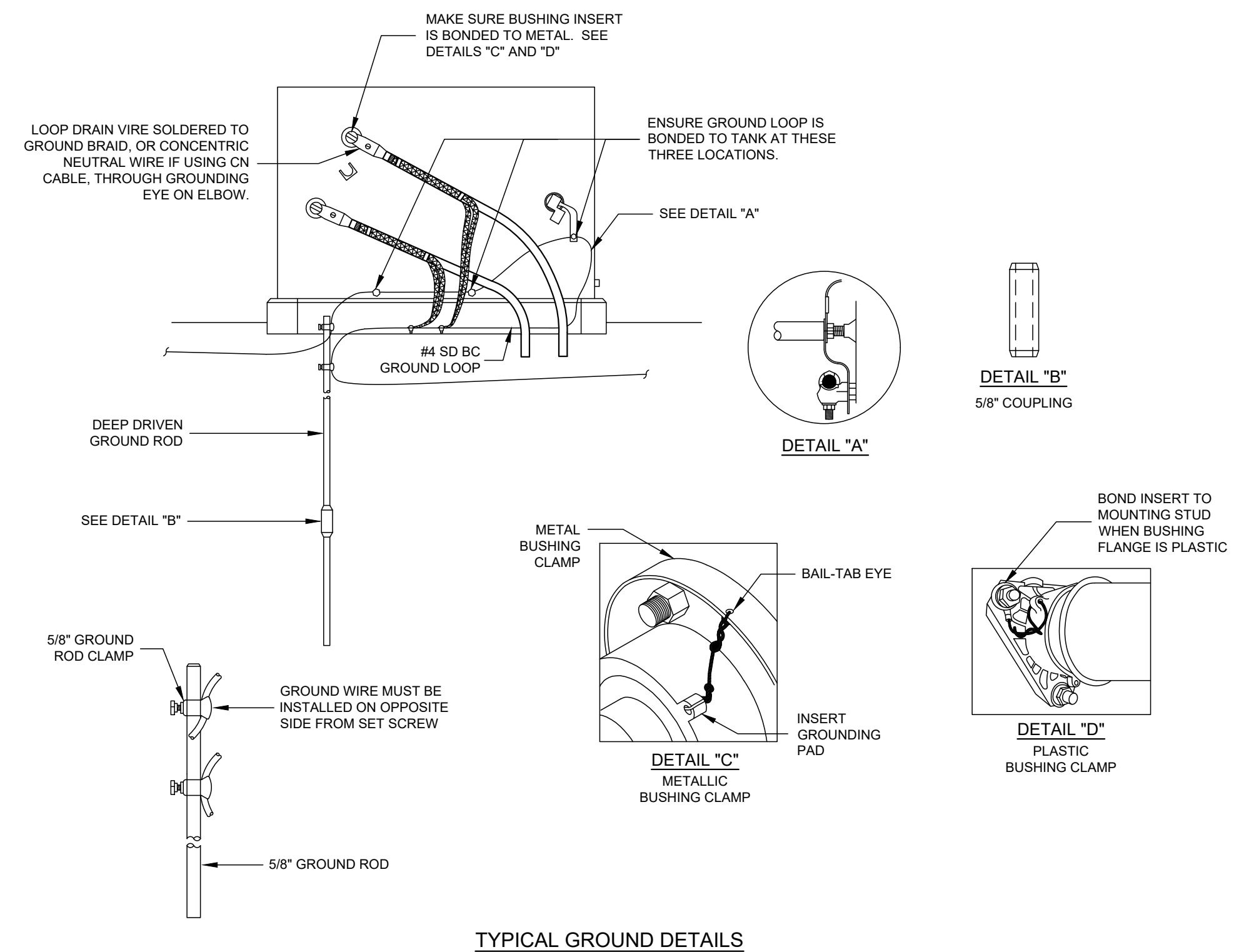
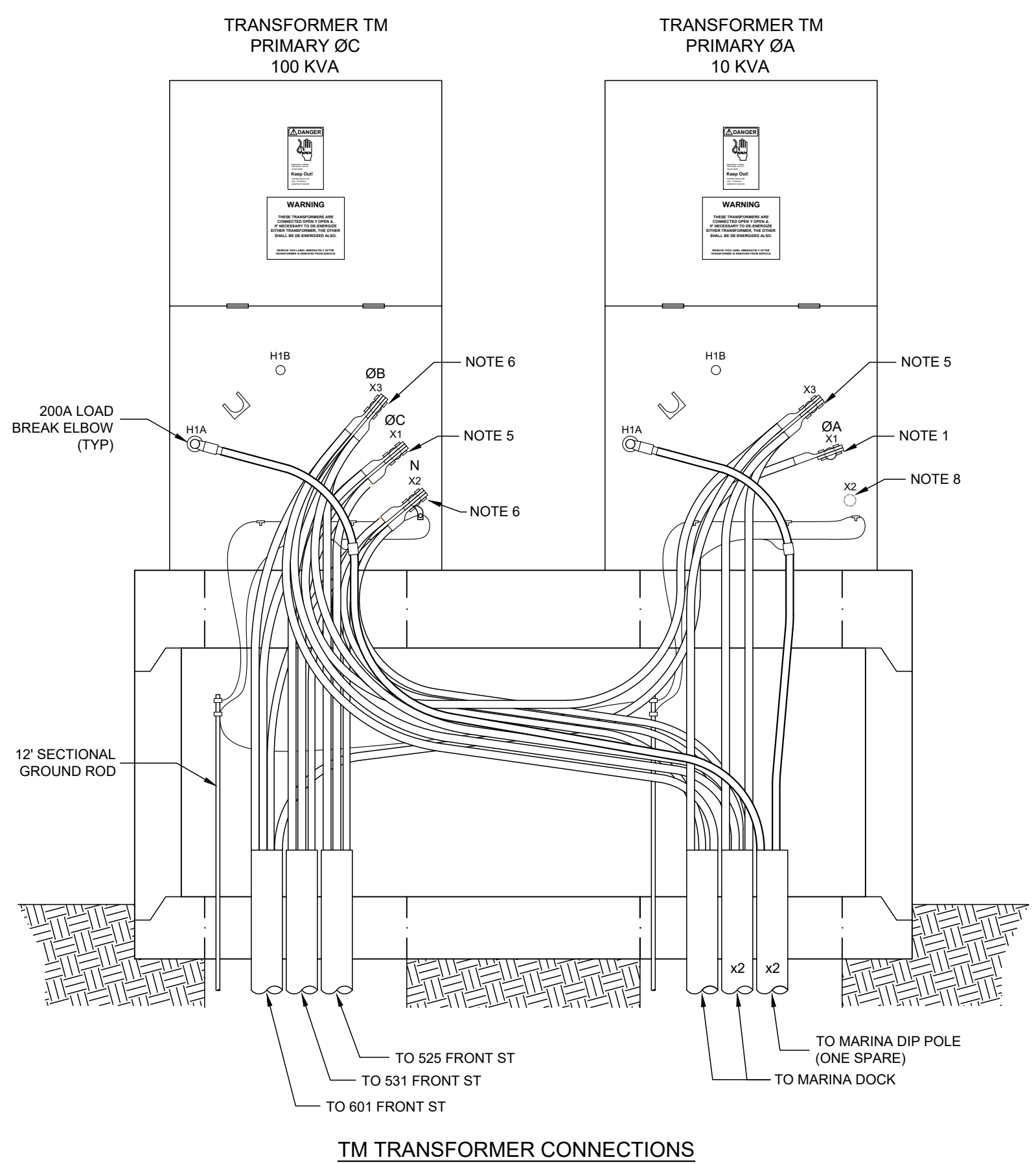
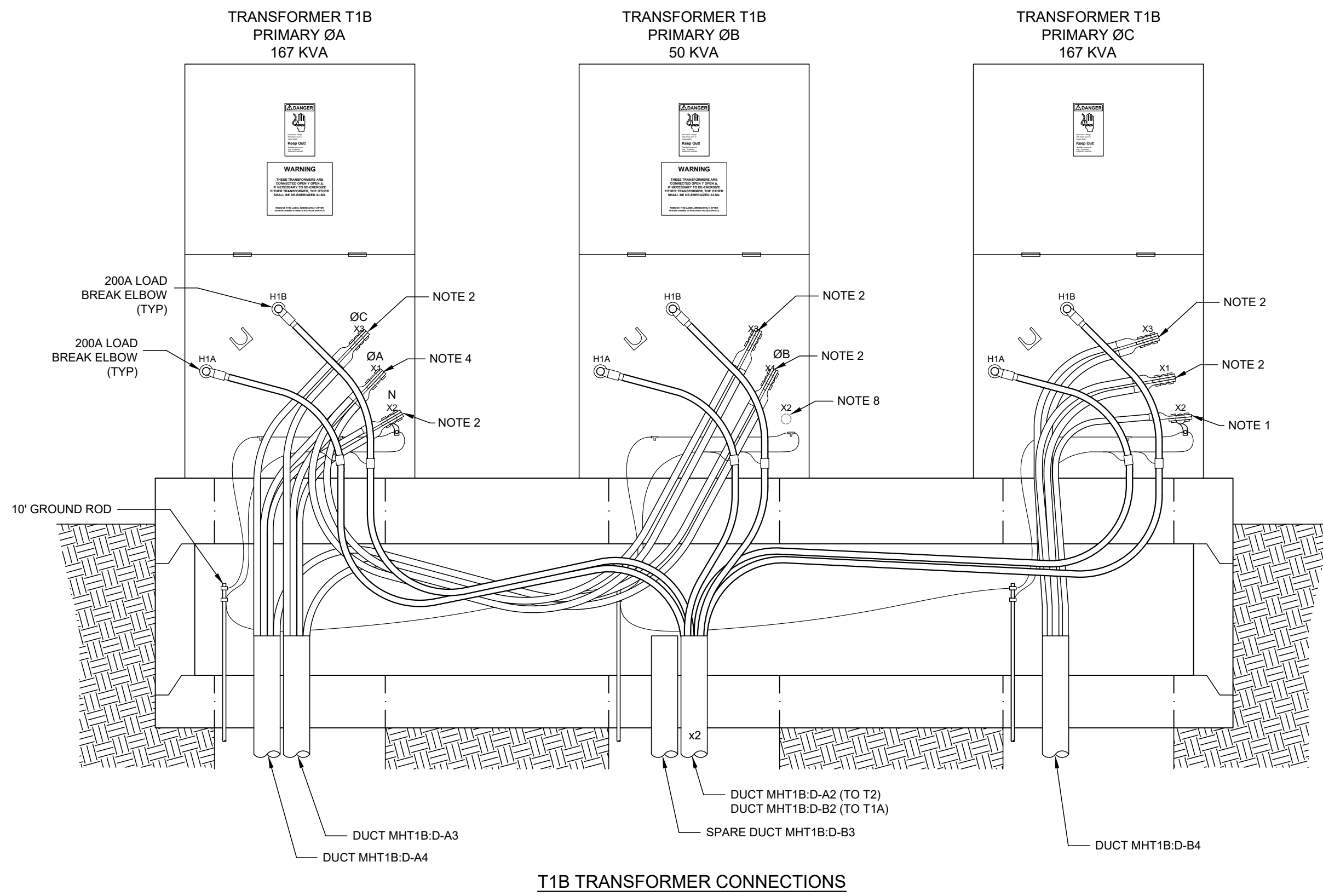
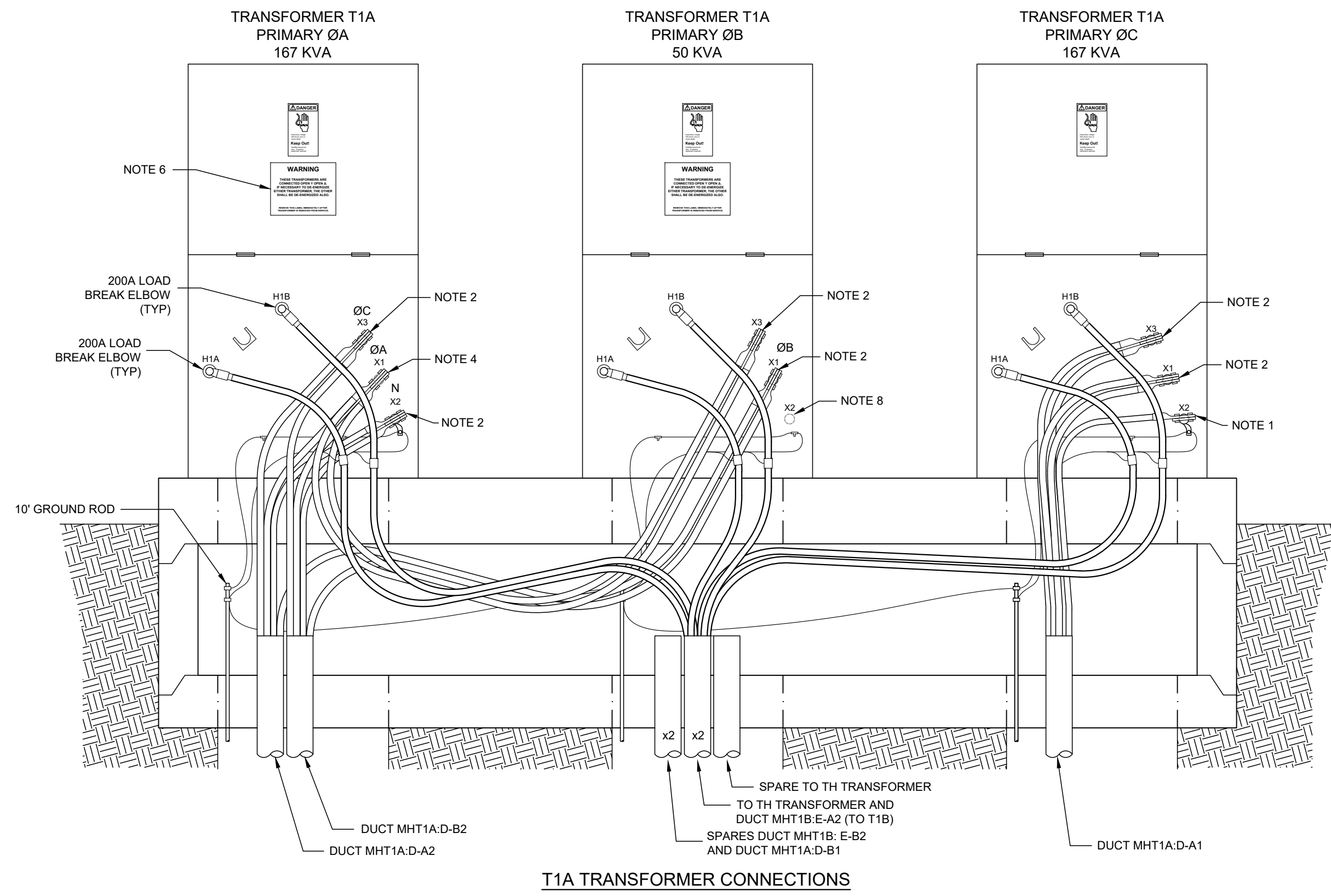
Cable Type	Description																														
A	15 kV underground primary distribution cable. #1/0 AWG aluminum filled strand conductor, 19 strand, 6 x #14 AWG wire copper concentric neutral, 105°C rating, 175 mil EPR insulation, 90 mil low density PE jacket.																														
B	600 volt single conductor secondary UD. Stranded compressed aluminum conductor, XLPE insulation.																														
	<table border="1"> <thead> <tr> <th>Size</th> <th>Stranding</th> <th>Insulation Thickness</th> </tr> </thead> <tbody> <tr> <td>#1/0 AWG</td> <td>9</td> <td>80 mils</td> </tr> <tr> <td>#4/0 AWG</td> <td>18</td> <td>80 mils</td> </tr> <tr> <td>350 kcmil</td> <td>37</td> <td>95 mils</td> </tr> <tr> <td>500 kcmil</td> <td>37</td> <td>95 mils</td> </tr> <tr> <td>750 kcmil</td> <td>61</td> <td>110 mils</td> </tr> </tbody> </table>	Size	Stranding	Insulation Thickness	#1/0 AWG	9	80 mils	#4/0 AWG	18	80 mils	350 kcmil	37	95 mils	500 kcmil	37	95 mils	750 kcmil	61	110 mils												
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C	600 volt service conductor, triplex and quadruplex. Stranded compressed aluminum conductor, XLPE insulation.																														
	<table border="1"> <thead> <tr> <th colspan="3">Phase Conductor</th> <th colspan="3">Neutral Conductor</th> </tr> <tr> <th>Size</th> <th>Stranding</th> <th>Insulation Thickness</th> <th>Size</th> <th>Stranding</th> <th>Insulation Thickness</th> </tr> </thead> <tbody> <tr> <td>#4/0 AWG</td> <td>18</td> <td>80 mils</td> <td>#2/0 AWG</td> <td>11</td> <td>80 mils</td> </tr> <tr> <td>350 kcmil</td> <td>37</td> <td>95 mils</td> <td>#4/0 AWG</td> <td>18</td> <td>80 mils</td> </tr> <tr> <td>500 kcmil</td> <td>37</td> <td>95 mils</td> <td>350 kcmil</td> <td>37</td> <td>95 mils</td> </tr> </tbody> </table>	Phase Conductor			Neutral Conductor			Size	Stranding	Insulation Thickness	Size	Stranding	Insulation Thickness	#4/0 AWG	18	80 mils	#2/0 AWG	11	80 mils	350 kcmil	37	95 mils	#4/0 AWG	18	80 mils	500 kcmil	37	95 mils	350 kcmil	37	95 mils
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D	600 volt single conductor power cable, copper conductor, XLPE insulation, for use in streetlight or outlet services.																														
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<p><b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION</p>		<p>CITY OF GEORGETOWN GEORGETOWN, SC</p>	
<p>REVISION 03/22/19</p>		<p>FRONT ST ELECTRIC UPGRADE - PH. 1 CONDUIT AND CABLE SCHEDULE</p>	
<p>0 BID ISSUE 04/05/19</p>		<p><b>UTEC</b> UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS P.O. Box 2629 • Asheboro, North Carolina • 27204</p>	
<p>NO REVISIONS DATE</p>		<p>DWN. LMB DATE: 03/22/19 DWG. NO. E1040 SCALE: NONE JOB NO. 171007 SHEET NO. 1 OF 1</p>	



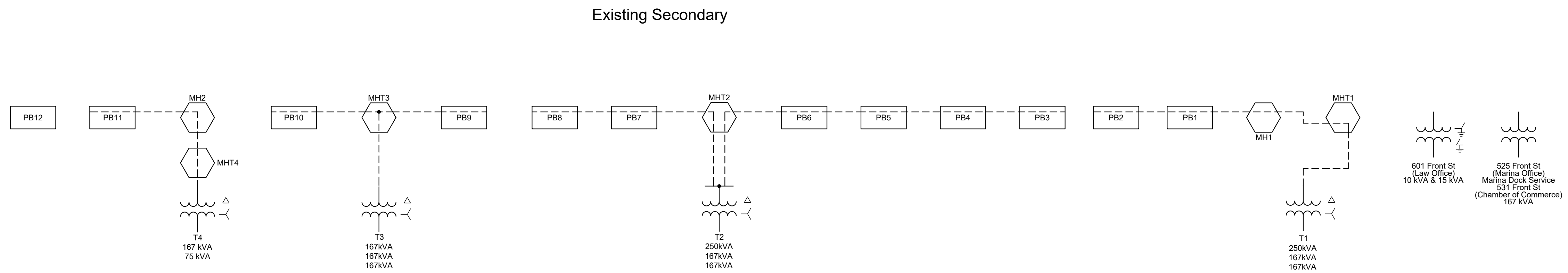
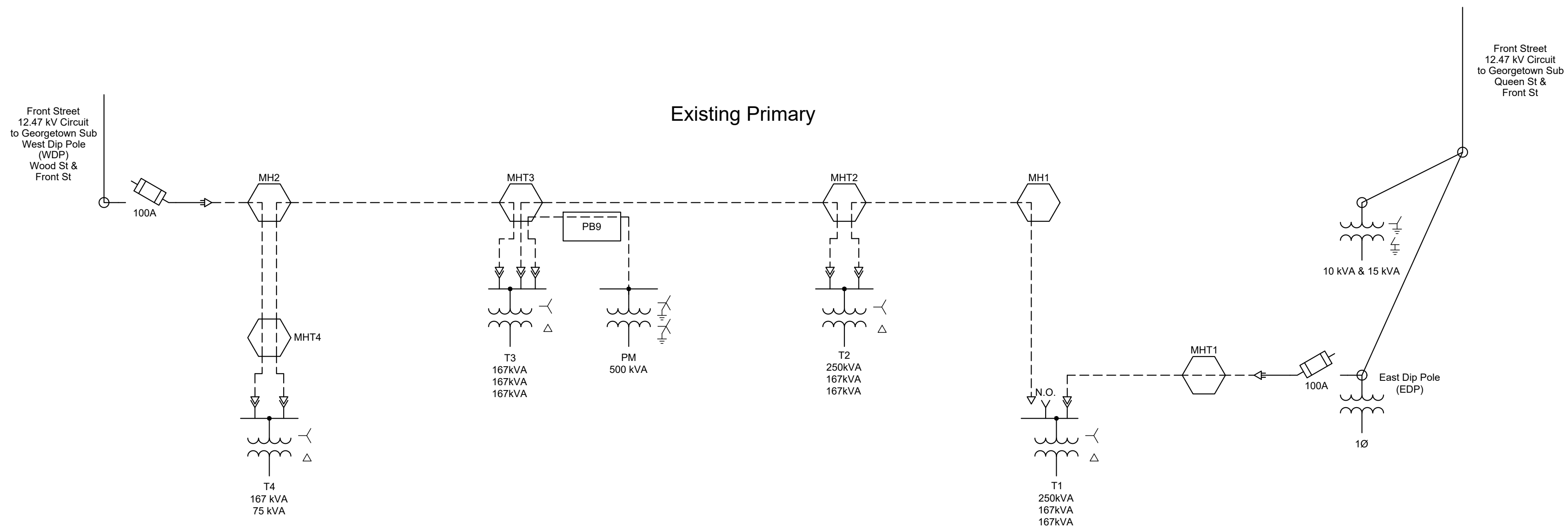
**NOTES:**

1. PROVIDE 1 4-HOLE NEMA STUD CONNECTOR AND 1 2-HOLE NEMA TERMINAL CONNECTOR.
2. PROVIDE 1 4-HOLE NEMA STUD CONNECTOR AND 2 2-HOLE NEMA TERMINAL CONNECTORS.
3. SEE IEEE STANDARD C57.12.38 FIGURE 4 DETAIL C FOR STUD SIZE.
4. PROVIDE 1 4-HOLE NEMA STUD CONNECTOR AND 4 2-HOLE NEMA TERMINAL CONNECTORS.
5. PROVIDE 1 6-HOLE NEMA STUD CONNECTOR AND 5 2-HOLE NEMA TERMINAL CONNECTORS.
6. PROVIDE 1 6-HOLE NEMA STUD CONNECTOR AND 6 2-HOLE NEMA TERMINAL CONNECTORS.
7. CONTRACTOR TO PROVIDE OPEN-WYE/OPEN-DELTA TRANSFORMER BANK WARNING SIGNS AS SHOWN.
8. REMOVE GROUND STRAP. TAPE BUSHING WITH VINYL TAPE.
9. LABEL ALL CABLES.
10. CONDUIT TO EXTEND TO WITHIN 14" OF BOTTOM OF FOUNDATION LID.
11. GROUND ROD TO EXTEND TO WITHIN 6" OF BOTTOM OF FOUNDATION LID.



Apr 04, 2019 - 10:31 am  
 Y:\Georgetown\Front St\Phase 1E1050 FSEU Transformer Dets Rev 0.dwg Layout: E1050

<b>PRELIMINARY</b> NOT TO BE USED FOR CONSTRUCTION REVISION 03/22/19		CITY OF GEORGETOWN GEORGETOWN, SC FRONT ST ELECTRIC UPGRADE - PH. 1 TRANSFORMER DETAILS	
0 BID ISSUE 04/05/19 NO REVISIONS DATE		UTEC UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS P.O. Box 2629 • Asheboro, North Carolina • 27204 DWN. HMS DATE: 03/22/19 DWG. NO. E1050 SCALE: 1/2" = 1'-0" JOB NO. 171007 SHEET NO. 1 OF 1	



Y:\Georgetown\Front St\Phase 1\E1100-1 FSEU One Line Existing Rev 0.dwg Layout: E1100-1

Apr 04, 2019 - 10:31 am

NO.	REVISIONS	DATE
0	BID ISSUE	04/05/19

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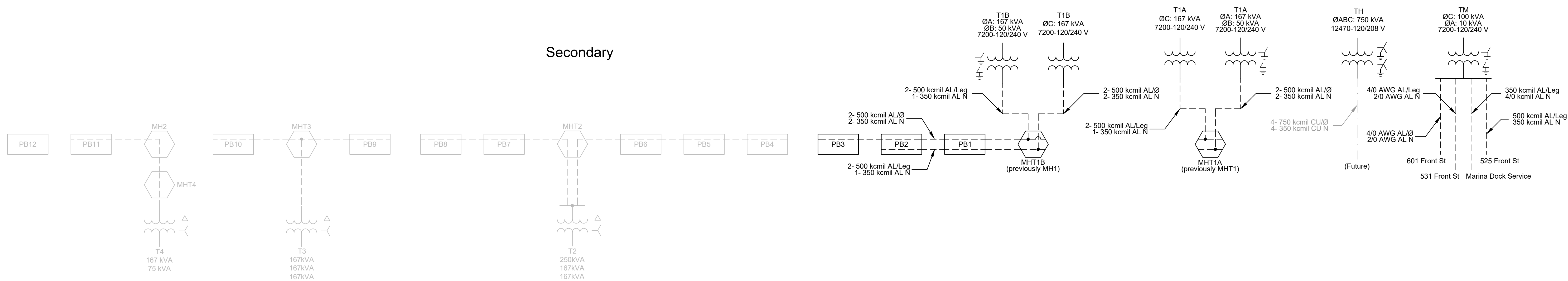
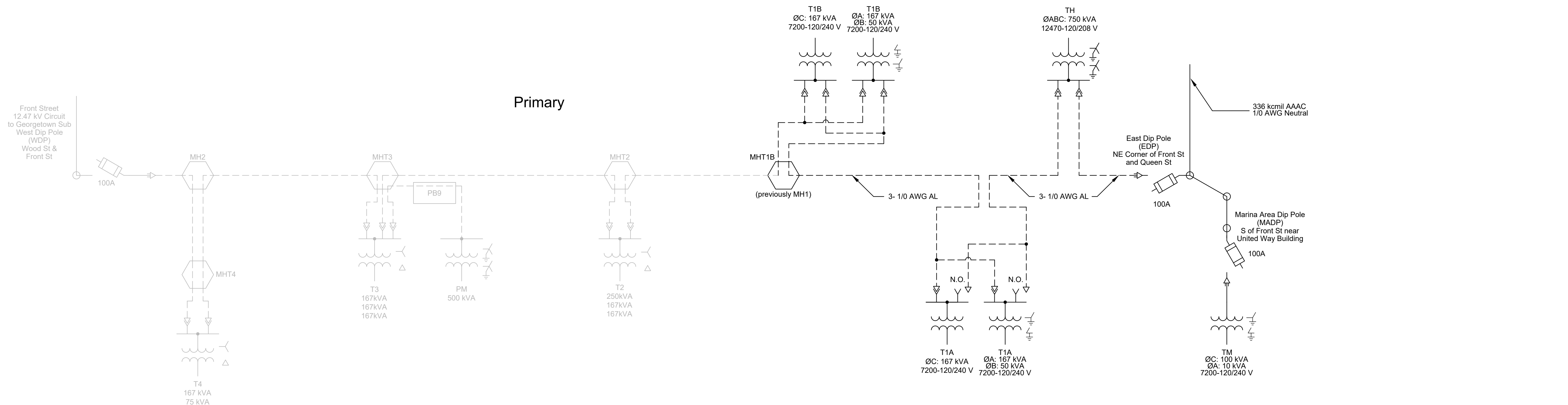
**CITY OF GEORGETOWN**  
 GEORGETOWN, SC  
**FRONT ST ELECTRIC UPGRADE - PH. 1**  
 ONE-LINE DIAGRAM  
 EXISTING

**UTEC** UTILITY TECHNOLOGY  
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DWN: HMS	DATE: 03/22/19	DWG. NO. E1100-1
SCALE: NONE	JOB NO. 171007	SHEET NO. 1 OF 2

**LEGEND:**

- EXISTING
- NEW
- - - FUTURE



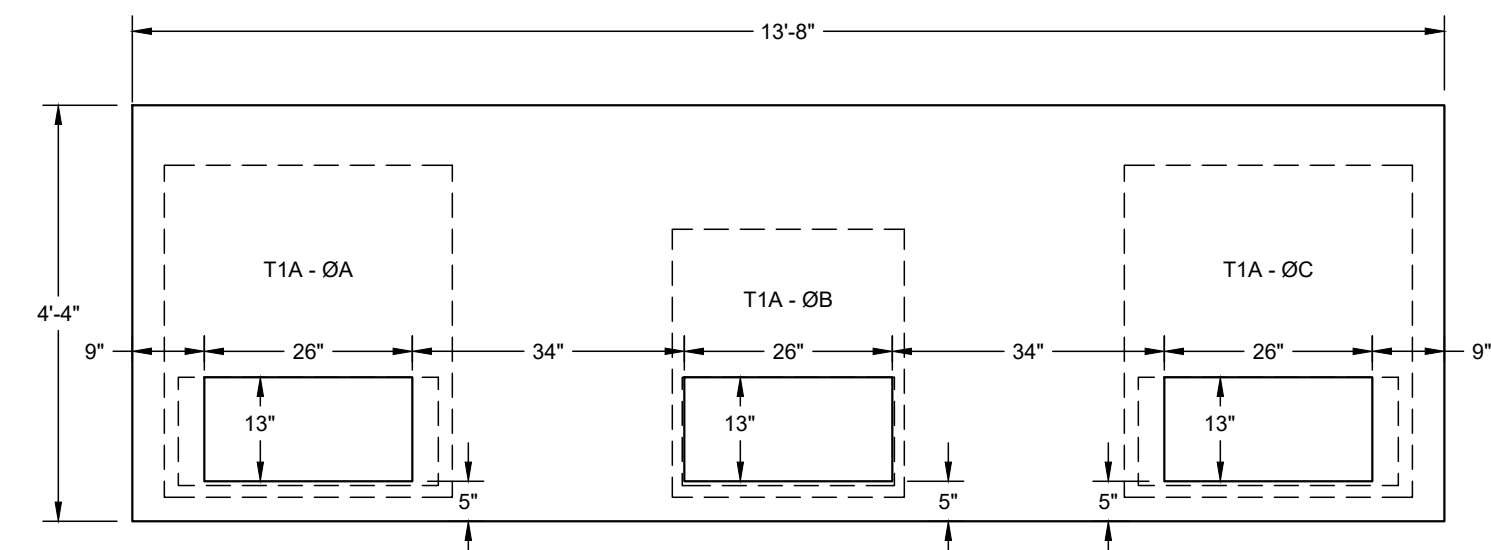
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Apr 04, 2019 - 10:32am

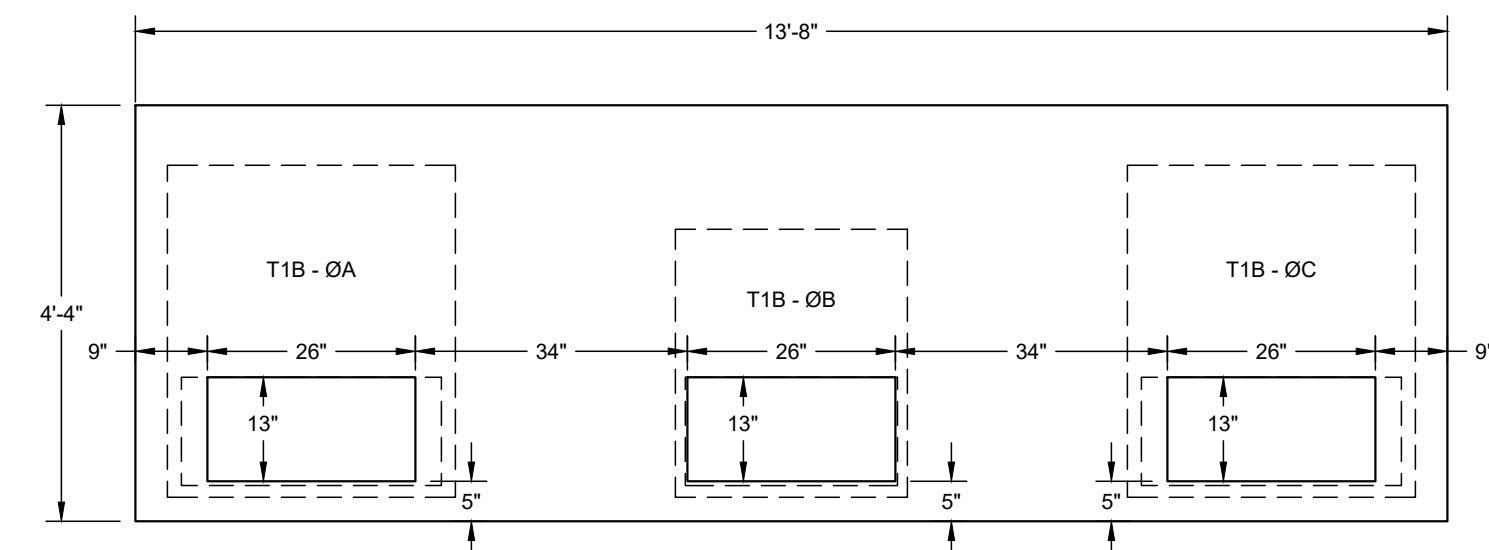
<p><b>PRELIMINARY</b></p> <p>NOT TO BE USED FOR CONSTRUCTION</p> <p>REVISION 03/22/19</p>		<p><b>CITY OF GEORGETOWN</b> GEORGETOWN, SC</p> <p><b>FRONT ST ELECTRIC UPGRADE - PH. 1</b> <b>ONE-LINE DIAGRAM</b> <b>NEW</b></p>	
<p>0 BID ISSUE 04/05/19</p>		<p><b>UTEC</b> <b>UTILITY TECHNOLOGY ENGINEERS - CONSULTANTS</b> P.O. Box 2629 • Asheboro, North Carolina • 27204</p>	
NO.	REVISIONS	DATE	<p>DWN. HMS DATE: 03/22/19 DWG. NO. <b>E1100-2</b></p> <p>SCALE: NONE JOB NO. 171007 SHEET NO. 2 OF 2</p>

**NOTES:**

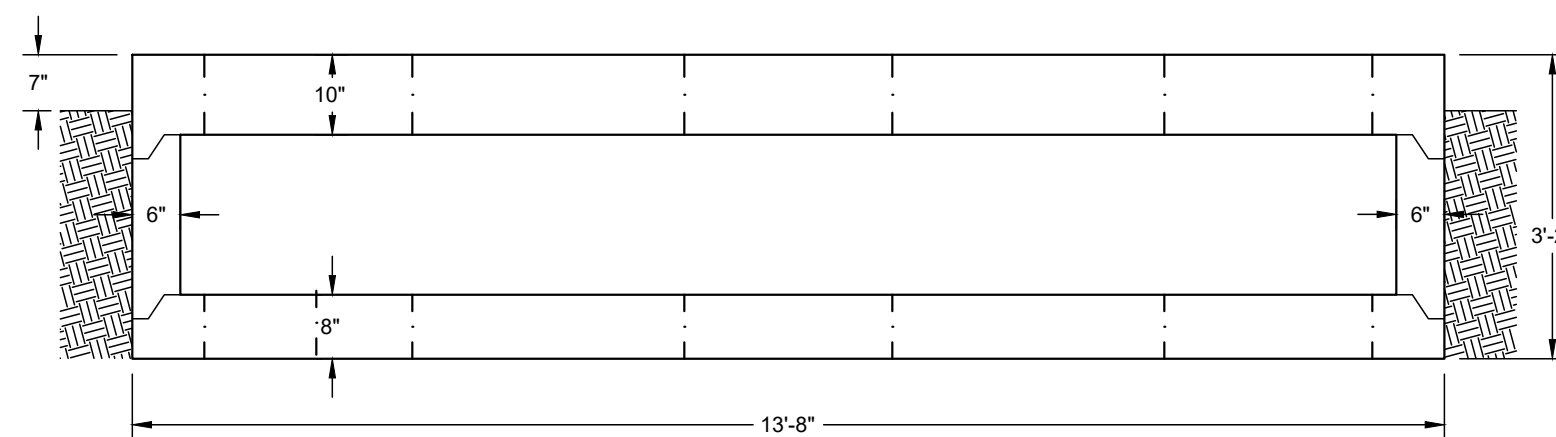
1. PROVIDE PLATE TO COVER CONDUIT OPENING FOR FUTURE 3Ø PADMOUNT TRANSFORMER. PLATE MUST BE ABLE TO BE SECURED TO FOUNDATION TO PREVENT UNAUTHORIZED ACCESS.
2. INSIDE EDGE OF FRONT BASE SILL OF PAD-MOUNTED TRANSFORMER SHALL NOT BE SET MORE THAN 2" FROM PAD OPENING.



FOUNDATION PAD - TOP VIEW

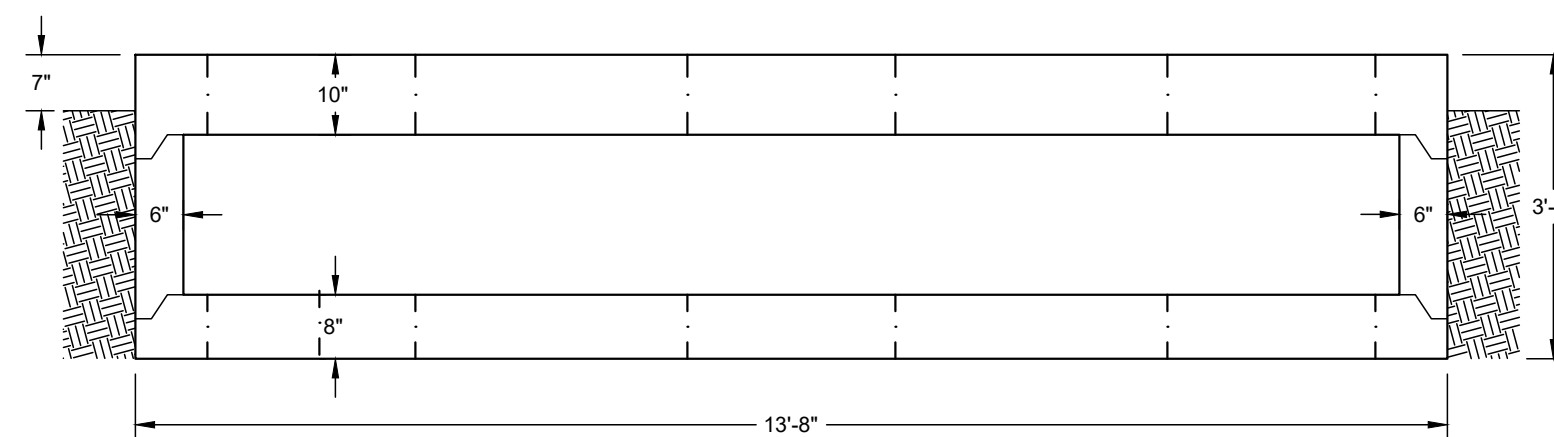


FOUNDATION PAD - TOP VIEW



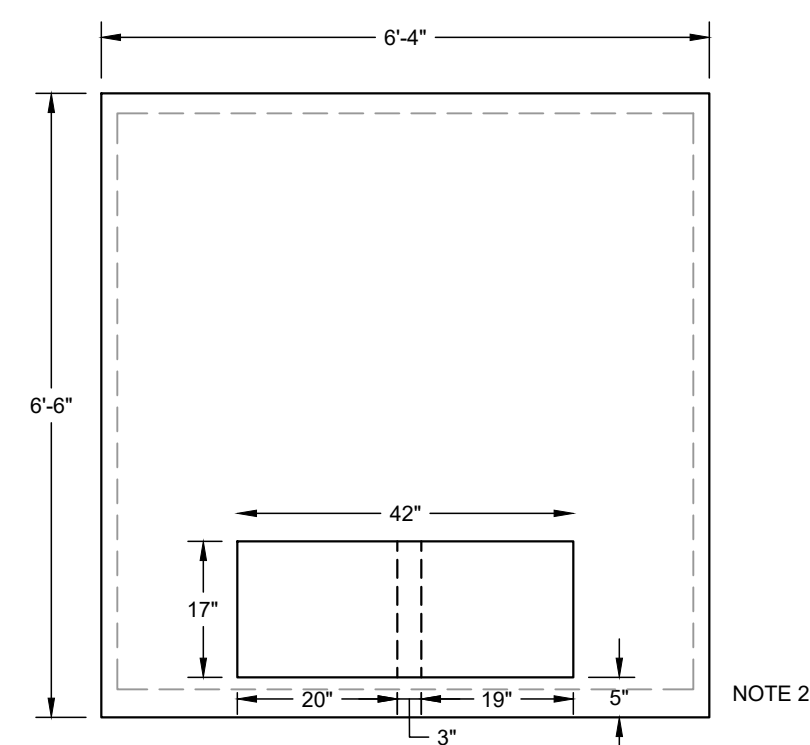
FOUNDATION PAD - FRONT VIEW

T1A TRANSFORMERS FOUNDATION

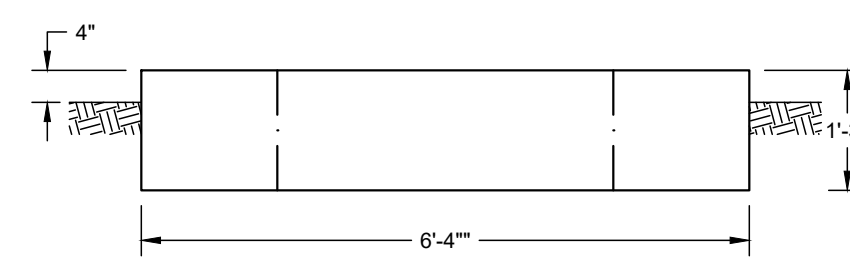


FOUNDATION PAD - FRONT VIEW

T1B TRANSFORMERS FOUNDATION

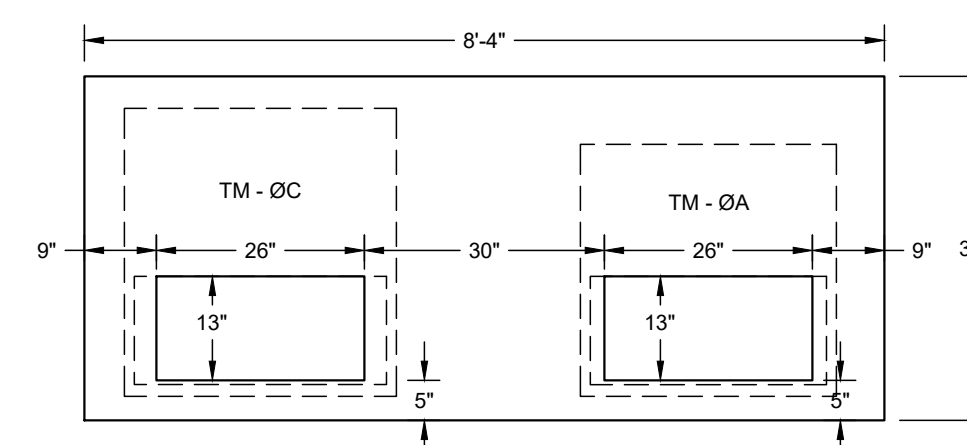


PAD PLAN VIEW

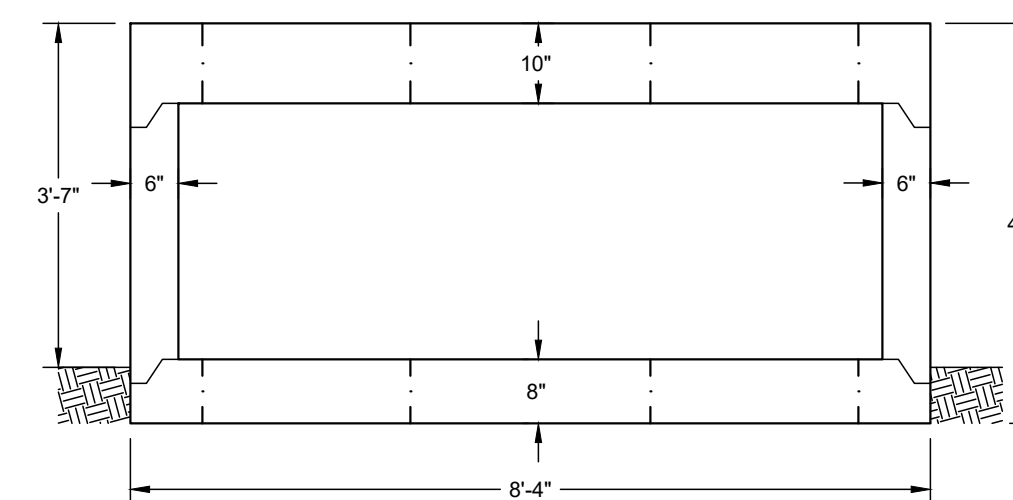


PAD FRONT VIEW

FUTURE TH TRANSFORMER FOUNDATION



FOUNDATION LID - TOP VIEW



FOUNDATION - SIDE VIEW

TM TRANSFORMERS FOUNDATION

NO.	REVISIONS	DATE
0	BID ISSUE	04/05/19

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CITY OF GEORGETOWN  
GEORGETOWN, SC  
FRONT ST ELECTRIC UPGRADE - PH. 1  
STRUCTURAL  
TRANSFORMER PADS

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DWN.	HMS	DATE	DWG. NO.
		03/21/19	S1001

SCALE: 1/2" = 1'-0"    JOB NO. 171007    SHEET NO. 1 OF 1