

ADDENDUM NO. 1 TO CONTRACT DOCUMENTS

Project: Hyattown Pumping Station
Hazen and Sawyer Project No. 30961-010

DATE: March 30, 2016

Owner: DAVIDSON WATER, INC.

To: ALL BIDDERS

Bidders for the above named project shall take note of the following changes, additions, deletions, clarifications, etc., in the Contract Documents, which shall become a part of the Contract Documents, and shall be taken into consideration and be included in the Bid.

Please acknowledge receipt of Addendum No. 1 in the Bid in the space provided. Initial and circle Addendum Number where required in the Bid as evidence that the Bidder has received and reviewed this Addendum and has followed instructions outlined herein.

The return receipt requested with this communication will be deemed evidence that the Bidder has received this Addendum. Please sign, date, clearly print company name, and fax or email this sheet back to Hazen and Sawyer at (704) 357-3152 or mbenchich@hazenandsawyer.com upon receipt.

Company Name

Hazen and Sawyer
4944 Parkway Plaza Boulevard
Suite 375
Charlotte, NC 28217
Tel. No. (704) 357-3150
Fax No. (704) 357-3152

Acknowledgement of Receipt

Michael Benchich, P.E.
HAZEN AND SAWYER

Date



DAVIDSON WATER, INC.

HAZEN AND SAWYER PROJECT #30961-010

HYATTOWN PUMPING STATION

ADDENDUM NO. 1

A. SPECIFICATIONS

Section 00010 – Page 00010-1

In the first paragraph, **insert** after the word “received”:

“from invited Bidders only”

Section 00010 – Page 00010-1

At the end of the fourth paragraph, **add**:

“No Bid shall be accepted by the Owner from any Bidder that does not attend the pre-bid conference.”

Section 00100, Page 00100-3

In Paragraph 7.1, **replace** the first two sentences in their entirety with:

“Each Bid must be accompanied with the names of subcontractors, equipment manufacturers, and suppliers that the Bidder proposes to use to execute the Work where indicated in forms included with the Proposal. If requested by the Owner or Engineer, the Bidder shall provide to the Owner within 48 hours of the initial request an experience statement for each subcontractor, equipment manufacturer, and supplier with pertinent information as to similar projects and other evidence of qualifications.”

Section 00100, Page 00100-5

Replace the sentence under Article 11 (Opening and Review of Bids) in its entirety with:

“The Owner will open Bids on April 8, 2016 in their main office immediately after 3:00 p.m., local time. Bidders are permitted to be present for the Bid opening. Written bid results will be disseminated to all Bidders after all Bids have been reviewed by Engineer and Owner.”

Section 00100, Page 00100-6

In Article 14.1, at the end of the first paragraph, **add**:

“No Bid shall be accepted by the Owner from any Bidder that does not attend the pre-bid conference.”

Section 00300, Page 00300-4

Replace page 00300-4 with page 00300-4 attached to this Addendum as Attachment 1.

Section 00800, Page 00800-3

In Article 4.06, **replace** 4.06.A with:

“4.06.A The Owner has not identified and is otherwise unaware any Hazardous Environmental Conditions at the Site.”

Section 00800, Page 00800-3

In Article 4.06, **replace** Paragraph 4.06.B with:

“4.06.B Delete Paragraph 4.06.B in its entirety.”

Section 01010, Page 01010-2

In Article 1.04.A, **replace** paragraph 2 in its entirety with:

“2. NCDOT Driveway Access Permit No. 16-006-DD”

Section 01010, Attachments Section

Replace the page that says “ATTACH ENCROACHMENT AGREEMENT(S) HERE IF APPLICABLE” with the Attachment 2 attached to this Addendum.

Section 01015, Page 01015-2

Add Part 1.03:

“1.03 ESTIMATED VALUE OF OWNER-FURNISHED EQUIPMENT

A. The value of the Owner-furnished equipment is estimated as shown in the table below.

Equipment	Estimated Value
Eight (8) vertical can pumps, ten (10) cans, sixteen (16) air relief/vacuum valves, sixteen (16) pressure gauges	\$968,000
Motor control centers MCC-1 and MCC-2	\$152,000
Main switchgear assembly	\$232,000
Six (6) 36” butterfly valves and twelve (12) 24” butterfly valves	\$165,000

Section 01210, All pages

Replace page numbers in the footers with "01210-", followed by the appropriate page number.

Section 01210, Page 3

Delete Paragraph 1.05.A.4 in its entirety.

Section 01400, Page 01400-1

In Part 1.01.A.1, **replace** the word "Contractor" with "Owner".

Section 16000, Page 16000-15

Add the following articles after Article 2.20:

2.21 DRY TYPE TRANSFORMERS

- A. Dry type transformers are to be air-cooled, 60 Hertz, two winding type, single or three phase as indicated. Voltage rating shall be 480-208/120 volts delta primary, wye secondary for three phase units, unless otherwise shown, KVA rating as indicated. Transformers for 30-KVA and above are to have four (4) 2-1/2% FCBN taps and two (2) FCAN, suitable for indoor service and arranged for floor or wall mounting as indicated. Insulation for 30-KVA and above shall be Class H with an average temperature rise not exceeding 150° C. based on 40° C. ambient at full load. Below 30-KVA, Class B, F or H insulation and two (2) 5% FCBN taps. UL listing mark is required. Three phase transformers shall have separate coil winding for each phase.
- B. Mount transformers on rubber-in-shear vibration dampeners or integral vibration dampeners. Rated sound level shall not be less than 5% below NEMA maximums. Make all external wiring connections to units with flexible steel Seal tight conduit. All transformers shall meet all local, state and national energy standards.
- C. All floor-mounted transformers shall be installed on a 4" concrete pad with vibration isolators.

2.22 LIGHTING PANELS (LP), 120/208VAC, 3 Phase

- A. Unless otherwise specified, each lighting panel shall be dead-front, circuit breaker, 240/120 volt, 3-phase panel board type in accordance with the drawings and the following specifications.
- B. The panel shall have a surface-mounted enclosure with a NEMA type enclosure designation as required by the location where it will be installed. The enclosure shall have a door with latch and lock. A directory inside the door shall have the panel and all circuit identities neatly typewritten at completion of the contract.

- C. Circuit breakers shall be thermal-magnetic, bolt-in, individually front replaceable, and shall indicate "On", "Off", and "Tripped". Breakers indicated, as multiple-pole shall be common trip. Breakers shall have interrupting ratings not less than 10,000 amperes. Handle clips to prevent casual operation of breakers shall be provided for 10 percent (minimum of two) of the breakers and applied to the circuits directed. Breakers and provisions for future breakers shall be provided in the quantities, poles, and ampere ratings indicated on the drawings. Breakers shall be single pole, 20 amperes, unless otherwise indicated.
- D. The panel shall have main and neutral buses insulated from the cabinet, and a ground bus. Buses shall be copper, with ampere ratings and main lugs or main breaker as indicated. The ground bus shall be similar to a neutral bus and shall have a good ground connection to the cabinet, a removable bond to the neutral bus, clamp type lugs for the ground cable in each supply conduit, and connections for a ground cable in each load conduit.
- E. Lighting panels shall have nameplates identifying the panel, and unit numbers where applicable. Nameplates shall be laminated black-over-white plastic, with 1/8 inch engraved letters, and shall be securely fastened to the enclosure.
- F. TVSS shall be provided at each 208Y/120 volt circuit breaker panel shall be suitable for use on a 208Y/120V 3-phase 4-wire grounded wye system. Maximum Suppressed Voltage Rating (SVR) per UL1449 2nd Edition shall not exceed 400 volts for L-N, N-G, & L-G and 800 volts for L-L. The TVSS shall be designed to withstand a maximum continuous operating voltage (MCOV) of not less than 125% of nominal RMS voltage. The total surge current based on an 8 x 20 microsecond waveform that the device is capable of surviving shall not be less than 100kA per mode.
- G. TVSS minimum life shall be 2000 current surges of 5,000 amperes on a 10 x 20 microsecond waveshape, and the subsequent power-follow current, per mode.
- H. TVSS shall be integral to the panel, listed for installation in the panel, and connected through a disconnecting means to the bus. Overcurrent protection shall be as recommended by the manufacturer.
- I. TVSS shall have visual and audible status indication plus form "C" relay contacts that change state when the TVSS has been damaged or is no longer providing protection.
- J. TVSS shall be UL1449 Second Edition listed.

2.23 POWER PANELS (PP) 480/277 Vac, 3 Phase

- A. Unless otherwise specified, each power panel with neutral shall be dead-front, circuit breaker, 3 phase, panel-board type in accordance with the drawings and the following.
- B. The panel shall have a flush-mounted or surface-mounted enclosure with

a NEMA type enclosure designation as required by the location where it will be installed. The enclosure shall have a door with latch and lock. A directory inside the door shall have a panel and all circuit identities neatly typewritten at completion of the contract.

- C. A ground stud bolt shall be provided through the cabinet, with a removable 1/0 AWG bond to the panel ground bus and an external clamp connector for a station ground cable.
- D. Circuit breakers shall be thermal magnetic, bolt-in, individually front replaceable, and shall indicate "On", "Off", and "Tripped". Breakers indicated as multiple pole shall be common trip. Breakers shall be rated 600 volts with interrupting ratings not less than 65,000 amperes at 480 volts. Handle clips to prevent casual operation of breakers shall be provided for 10 percent (minimum of two) of the breakers and applied to the circuits directed. Breakers and provisions for future breakers shall be provided in the quantities, poles, and ampere ratings indicated.
- E. The panel shall have 3 phase buses, a neutral bus insulated from the cabinet, and a ground bus. Buses shall be copper, with ampere and voltage ratings and main lugs or breaker as indicated. The ground bus shall be similar to a neutral bus and shall have a good ground connection to the cabinet, a removable bond to the neutral bus, and clamp type lugs for the ground cable in each supply conduit, and connections for a ground cable in each load conduit.
- F. Panels shall have nameplates identifying the panel, and unit numbers where applicable. Nameplates shall be laminated black-over-white plastic, with 1/8 inch engraved letters, and shall be securely fastened to the enclosure.
- G. TVSS shall be provided at each panel shall be suitable for use on a 480Y/277V 3-phase 4-wire grounded wye system. Maximum Suppressed Voltage Rating (SVR) per UL1449 2nd Edition shall not exceed 800 volts for L-N, N-G, & L-G and 1500 volts for L-L. The TVSS shall be designed to withstand a maximum continuous operating voltage (MCOV) of not less than 115% of nominal RMS voltage. The total surge current based on an 8 x 20 microsecond waveform that the device is capable of surviving shall not be less than 100kA per mode.
- H. TVSS minimum life shall be 2000 current surges of 5,000 amperes on a 10 x 20 microsecond waveshape, and the subsequent power-follow current, per mode.
- I. TVSS shall be integral to the panel, listed for installation in the panel, and connected through a disconnecting means to the bus. Overcurrent protection shall be as recommended by the manufacturer.
- J. TVSS shall have visual and audible status indication plus form "C" relay contacts that change state when the TVSS has been damaged or is no longer providing protection.
- K. TVSS shall be UL1449 Second Edition listed."

B. DRAWINGS

Drawing S22

In Section A, **change** top of pump base elevation from “823.42” to “823.58”.

Drawing S22

In Section A, **change** bottom of pump can elevation from “803.67” to “803.50”.

Drawing S23

In Section B, **change** top of pump base elevation from “823.42” to “823.58”.

Drawing S23

In Section B, **change** bottom of pump can elevation from “803.67” to “803.50”.

Drawing E2

Replace Drawing E2 with the revised Drawing E2 attached to this addendum.

Drawing E10

Replace Drawing E10 with the revised Drawing E10 attached to this addendum.

Drawing E21

Replace Drawing E21 with the revised Drawing E21 attached to this addendum.

Drawing E22

Replace Drawing E22 with the revised Drawing E22 attached to this addendum.

Drawing E23

Relocate feed, including disconnect, for DOOR OPERATOR from MCC1 to PANELBOARD PP1.

Drawing E26

In the last sentence of Note 4, **replace** the word “Contractor” with “Equipment Supplier”.

Drawing E28

Replace Drawing E28 with the revised Drawing E28 attached to this addendum.

Drawing E29

Replace Drawing E29 with the revised Drawing E29 attached to this addendum.

C. ATTACHMENTS TO ADDENDUM NO. 1

1. Section 00300: Page 00300-4, consisting of 1 page.
2. NCDOT Driveway Access Permit 16-006-DD.
3. Drawing E2.
4. Drawing E10.
5. Drawing E21.
6. Drawing E22.
7. Drawing E28.
8. Drawing E29.

- END OF ADDENDUM No. 1 -

CERTIFIED LIST OF SUBCONTRACTORS

The Bidder, _____, as part of the procedure for the submission of Bids on this project known as Hyattown Pumping Station _____, submits the following list of Subcontractors to be used in the performance of work to be done on said Project. The list of Subcontractors furnished shall be based on requirements of the Contract Documents. Changes to this list after the Bid opening shall only be as approved by the Owner upon request by the Contractor or as required by the Owner based upon review of Contractor's submittals:

Subcontractor	Description of Work Subdivision
Crom Corp. / Precon Corp. <i>(circle one)</i>	New 48" Tank Outlet Construction
	Electrical

It is understood and agreed that, if awarded a Contract, the Contractor will not make any additions, deletions or substitutions to this Certified list without the consent of the Owner.

CERTIFICATION AFFIDAVIT

THE ABOVE INFORMATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER UNDERSTAND AND AGREE THAT, IF AWARDED A CONTRACT, THIS CERTIFICATION SHALL BE ATTACHED THERETO AND BECOME A PART THEREOF.

NAME OF SIGNER: _____
(Please Print or Type)

TITLE OF SIGNER:: _____
(Please Print or Type)

SIGNATURE: _____

DATE: _____



PAT McCRORY
Governor

NICHOLAS J. TENNYSON
Secretary

March 14, 2016

Davidson County

Subject: COMMERCIAL DRIVEWAY PERMIT
Davidson Water Hyattown Pumping Station
SR 1417 – Leonard Road
Driveway Permit No. 16-006-DD

Mr. Robert Walters
Davidson Water, Inc.
PO Box 969
Welcome, NC 27374

Dear Mr. Walters:

This will refer to your Commercial Driveway Permit application and plans requesting driveway entrance onto SR 1417 in Davidson County.

A review of your application and plans has been completed by the staff personnel of the District Office. I am approving your entrances under the following conditions:

Approval is granted subject to the following conditions:

1. That no signs, fencing, or parking will be permitted within the right-of-way of any state maintained highway.
2. That vehicle circulation on site shall not restrict or impede the ingress flow of traffic from SR 1417.
3. That the proposed driveway shall connect perpendicular to SR 1417 and not at a skew angle for sight purposes.
4. That the low point of the driveway profile shall be at or close to the flow line for drainage purposes to prevent water from flowing across the highway pavement.
5. That entrance should be kept free of obstructions within the right-of-way for sight view purposes.
6. If you anticipate adding a sign on site, or a directional sign in the area, contact Mr. Phillip Craver or myself at 704-630-3200 for placement. No signs are permitted within the right-of-way.



7. That the driveway shall be paved for a distance of 50 feet from the existing edge of pavement. This section shall consist of a minimum of eight inches compacted ABC stone paved with a minimum of two inches of Type S9.B asphalt surface course.
8. That all materials and workmanship shall conform to the N.C. Department of Transportation's Standards and Specifications for Roads and Structures.
9. All roadway signs that are removed due to construction shall be reinstalled as soon as possible.
10. That all disturbed areas are to be fully restored to NCDOT minimum roadway standards.
11. Proper temporary and permanent measures shall be used to control erosion and sedimentation in accordance with all local, State, and Federal regulations.
12. Effective July 1, 2010, all flagging operations within NCDOT Right of Way require qualified and trained Work Zone Flaggers.

Effective July 1, 2011, qualified and trained Work Zone Traffic Control Supervisors will be required on Significant Projects.

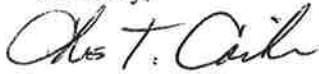
Training for this certification will be provided by NCDOT approved training sources and by private entities that have been pre-approved to train themselves. If you have questions, visit our website at www.ncdot.org/~wztc, or contact Stuart Bourne with NCDOT Work Zone Traffic Control Unit at (919) 250-4159 or sbourne@ncdot.gov.

13. Adequate turnaround facilities shall be provided to prevent vehicles from backing into the roadway.
14. Proper traffic control devices, signs, etc. shall be installed to ensure public safety in accordance with the latest edition of the Manual on Uniform Traffic Control Devices and any supplements thereto. Substandard traffic control at the construction site shall result in the immediate suspension of the project.
15. Any work requiring equipment or personnel within five feet (5') of the edge of the travel lane shall require a lane closure with appropriate tapers.
16. Contact the appropriate utility company(ies) involved and make satisfactory arrangements to adjust the utilities in conflict with the proposed work prior to construction.
17. It is the responsibility of the contractor to prevent any mud/dirt from tracking onto the roadway. Any dirt which may collect on the roadway pavement from equipment and/or truck traffic on site shall be removed to avoid any unsafe traffic conditions.
18. Strict compliance with the Policies and Procedures for Accommodating Utilities on Highway Rights-of-Way manual shall be required.

19. The applicant should be aware that the NCDOT may at any time, when deemed necessary for safety, mobility and efficiency of the roadway, modify, remove, or relocate any access point, and may redesign the roadway including any medians, auxiliary lanes and turning movement restrictions.
20. The driveway width and radii shall be large enough to accommodate the anticipated traffic. The minimum and maximum widths are 20' and 36', and the minimum and maximum radii are 20' and 50'. The driveway and radii shall not encroach on the adjacent property owner.
21. That prior to beginning construction, Mr. Mark Crook, PE, County Maintenance Engineer, (telephone 336-224-3200) shall be contacted in order that he may schedule his inspections accordingly.
22. Failure to comply with these conditions will void your driveway access permit and may result in the removal of your driveway entrances.

If I can be of further service to you in this matter, please advise.

Sincerely,



Chris T. Corriher, PE
District Engineer

CTC/tlb
Attachment(s)

cc: Mr. S.P. Ivey, PE, Division Engineer
Mr. Mark Crook, PE, County Maintenance Engineer
Mr. Guy Cornman III, Davidson County Planning Department
PO Box 1067, Lexington, NC 27293
✓ Mr. Michael Benchich, Hazen and Sawyer
4944 Parkway Plaza Blvd., Suite 375, Charlotte, NC 28217

APPLICATION IDENTIFICATION		N.C. DEPARTMENT OF TRANSPORTATION STREET AND DRIVEWAY ACCESS PERMIT APPLICATION
Driveway Permit No. <u>16-006-DD</u>	Date of Application	
County: <u>Davidson</u>		
Development Name: <u>Davidson Water, Inc. Hyattown Pumping Station</u>		

LOCATION OF PROPERTY:

Route/Road: 1417

Exact Distance 1,260 Miles Feet N S E W


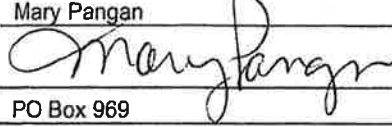
From the Intersection of Route No. 1457 and Route No. 1417 Toward U.S Highway 52

Property Will Be Used For: Residential /Subdivision Commercial Educational Facilities TND Emergency Services Other
Property: is is not within Lexington City Zoning Area.

AGREEMENT

- I, the undersigned property owner, request access and permission to construct driveway(s) or street(s) on public right-of-way at the above location.
- I agree to construct and maintain driveway(s) or street entrance(s) in absolute conformance with the current "Policy on Street and Driveway Access to North Carolina Highways" as adopted by the North Carolina Department of Transportation.
- I agree that no signs or objects will be placed on or over the public right-of-way other than those approved by NCDOT.
- I agree that the driveway(s) or street(s) will be constructed as shown on the attached plans.
- I agree that that driveway(s) or street(s) as used in this agreement include any approach tapers, storage lanes or speed change lanes as deemed necessary.
- I agree that if any future improvements to the roadway become necessary, the portion of driveway(s) or street(s) located on public right-of-way will be considered the property of the North Carolina Department of Transportation, and I will not be entitled to reimbursement or have any claim for present expenditures for driveway or street construction.
- I agree that this permit becomes void if construction of driveway(s) or street(s) is not completed within the time specified by the "Policy on Street and Driveway Access to North Carolina Highways".
- I agree to pay a \$50 construction inspection fee. Make checks payable to NCDOT. This fee will be reimbursed if application is denied.
- I agree to construct and maintain the driveway(s) or street(s) in a safe manner so as not to interfere with or endanger the public travel.
- I agree to provide during and following construction proper signs, signal lights, flaggers and other warning devices for the protection of traffic in conformance with the current "Manual on Uniform Traffic Control Devices for Streets and Highways" and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the District Engineer.
- I agree to indemnify and save harmless the North Carolina Department of Transportation from all damages and claims for damage that may arise by reason of this construction.
- I agree that the North Carolina Department of Transportation will assume no responsibility for any damages that may be caused to such facilities, within the highway right-of-way limits, in carrying out its construction.
- I agree to provide a Performance and Indemnity Bond in the amount specified by the Division of Highways for any construction proposed on the State Highway system.
- The granting of this permit is subject to the regulatory powers of the NC Department of Transportation as provided by law and as set forth in the N.C. Policy on Driveways and shall not be construed as a contract access point.
- I agree that the entire cost of constructing and maintaining an approved private street or driveway access connection and conditions of this permit will be borne by the property owner, the applicant, and their grantees, successors, and assignees.
- **I AGREE TO NOTIFY THE DISTRICT ENGINEER WHEN THE PROPOSED WORK BEGINS AND WHEN IT IS COMPLETED.**

SIGNATURES OF APPLICANT

PROPERTY OWNER (APPLICANT)		WITNESS	
COMPANY <u>Davidson Water, Inc.</u>	NAME <u>Mary Pangan</u>		
SIGNATURE <u></u> Robert Walters VP	SIGNATURE <u></u>		
ADDRESS <u>7040 Old U.S. 52/ PO Box 969, Welcome, NC 27374</u> <u>Lexington, NC 27295</u> Phone No. <u>336.731.2341</u>	ADDRESS <u>PO Box 969</u> <u>Welcome, NC 27374</u>		

AUTHORIZED AGENT		WITNESS	
COMPANY _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
ADDRESS _____	ADDRESS _____		
_____ Phone No. _____	_____		

APPROVALS

APPLICATION RECEIVED BY DISTRICT ENGINEER

SIGNATURE DATE

APPLICATION APPROVED BY LOCAL GOVERNMENTAL AUTHORITY (when required)

SIGNATURE TITLE DATE

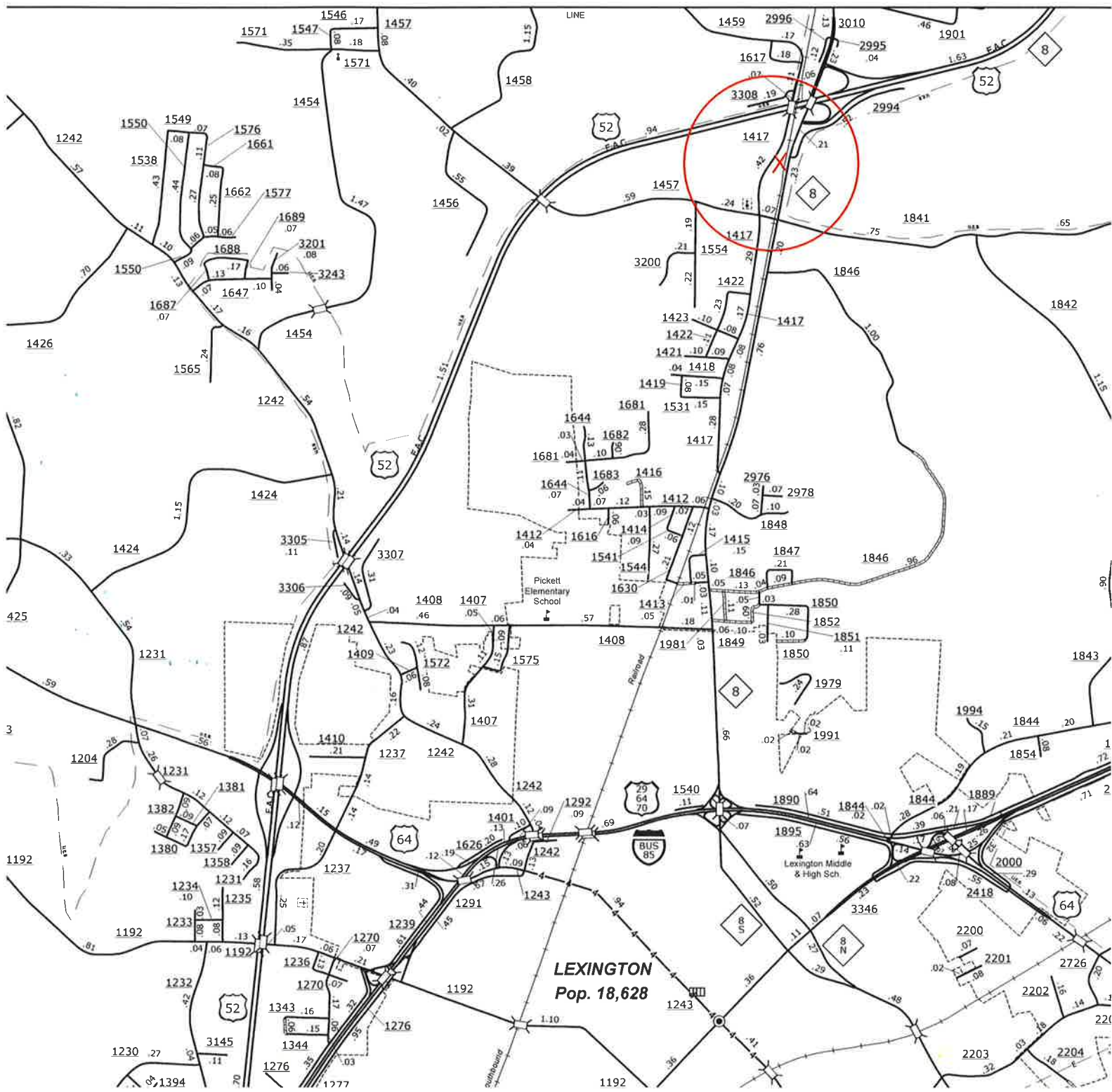
APPLICATION APPROVED BY NCDOT

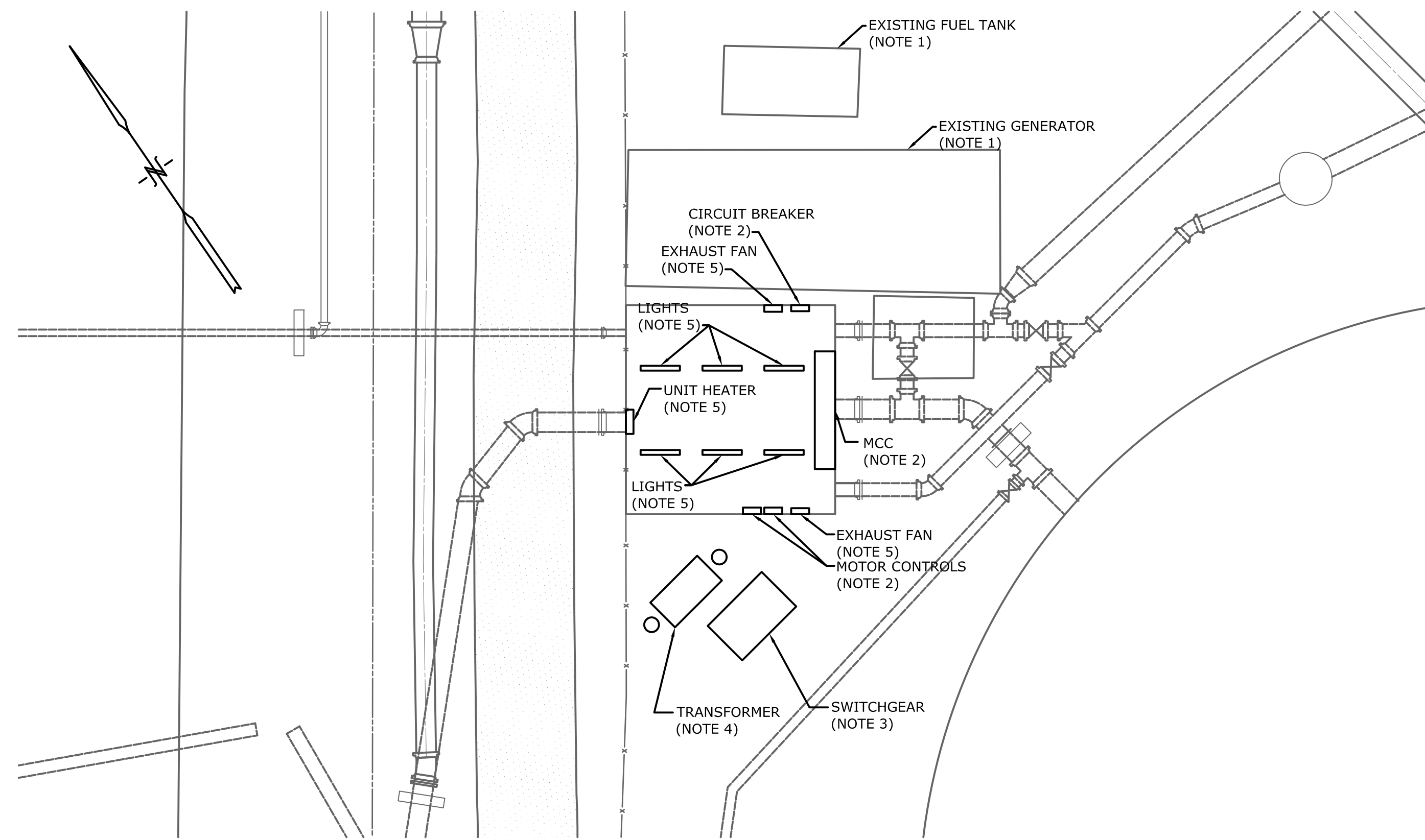

SIGNATURE TITLE DATE

INSPECTION BY NCDOT

SIGNATURE TITLE DATE

COMMENTS:





ELECTRICAL DEMOLITION PLAN

SCALE 1" = 10'-0"

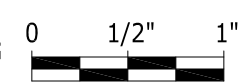
NOTES:

1. ENGINE GENERATOR & FUEL TANK REMOVED BY OWNER.
2. EQUIPMENT TO BE REMOVED BY OWNER.
3. SWITCHGEAR, PAD, AND ASSOCIATED CABLE AND CONDUIT DEMOLISHED BY CONTRACTOR. CUT CONDUIT BELOW GRADE.
4. TRANSFORMER AND STRUCTURE REMOVED BY DUKE ENERGY. CONDUITS BY CONTRACTOR.
5. CONTRACTOR TO REFEED EXHAUST FAN, LOUVERS, RECEPTACLES, UNIT HEATER, AND LIGHTS FROM NEW PANEL.

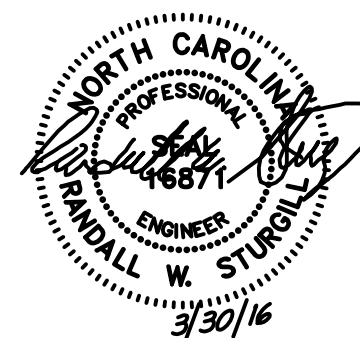
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 Plot Date: 2016/03/20 10:46 AM BY: LAWSON

REV	ISSUED FOR	DATE	BY
4	BID COMMENTS	3-30-16	RWS
3	CONSTRUCTION	3-8-16	RWS
2	BUILDING PERMIT REVIEW	2-26-16	RWS
1	REGULATORY REVIEW	1-20-16	RWS

PROJECT ENGINEER:	R. W. STURGILL
DESIGNED BY:	R. W. STURGILL
DRAWN BY:	R. W. LAWSON
CHECKED BY:	-
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	



ISSUED FOR CONSTRUCTION



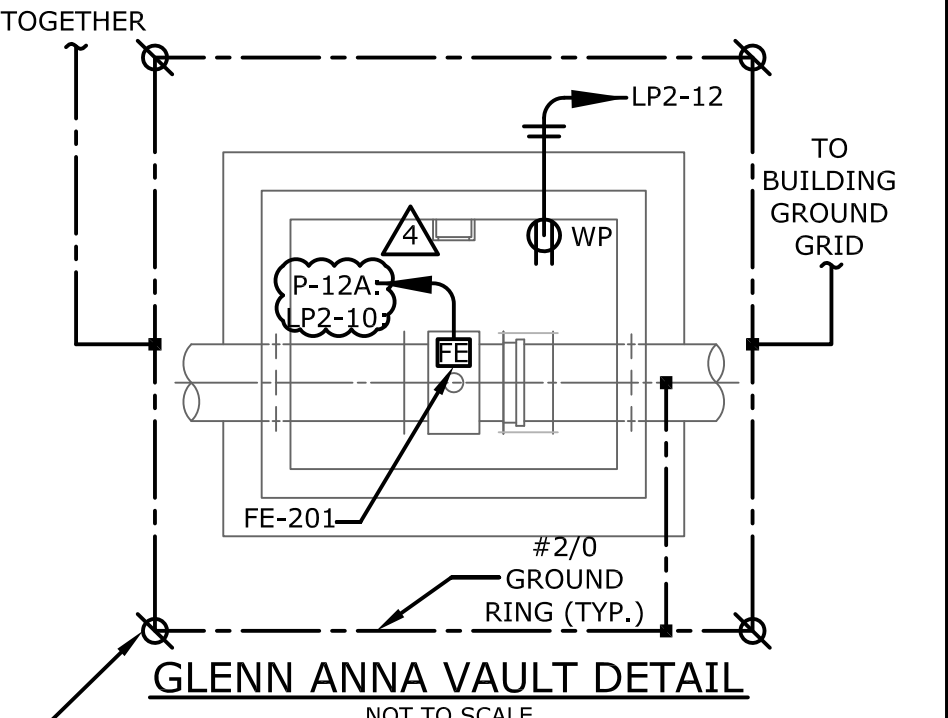
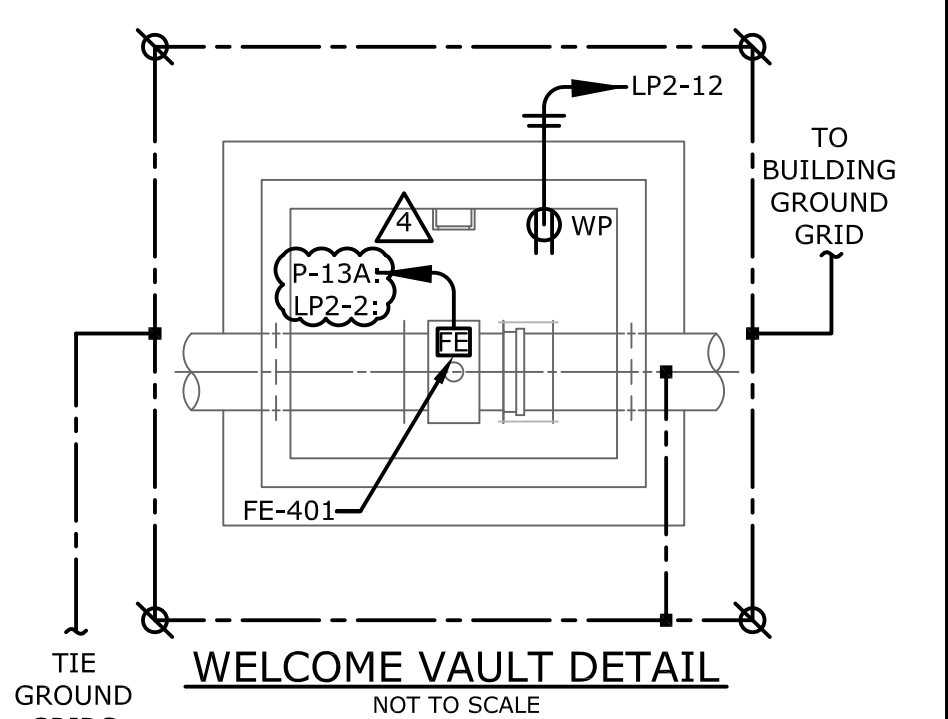
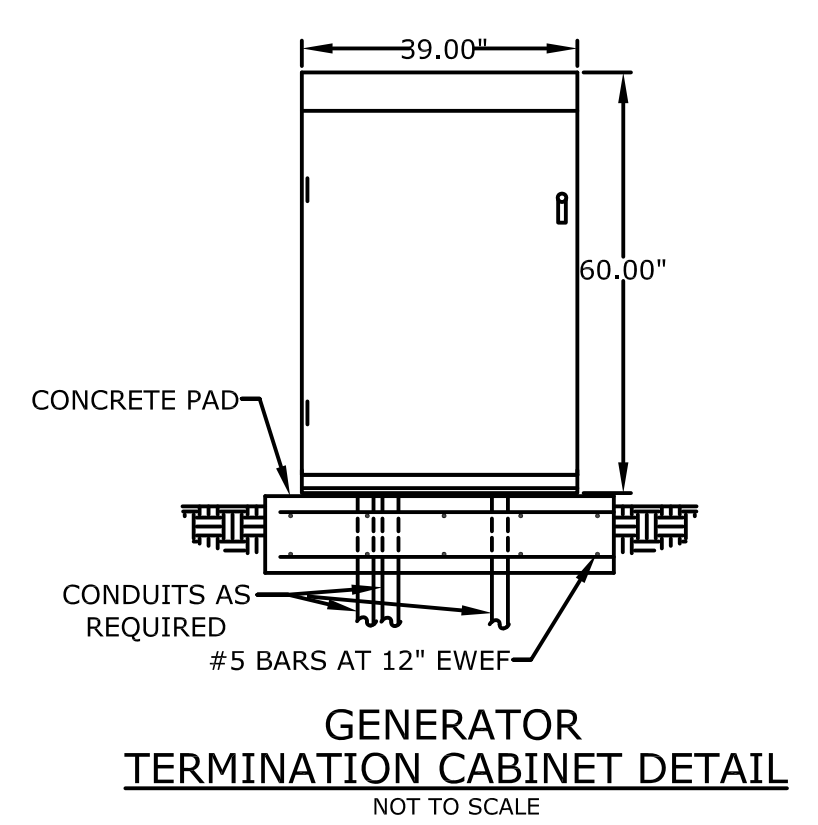
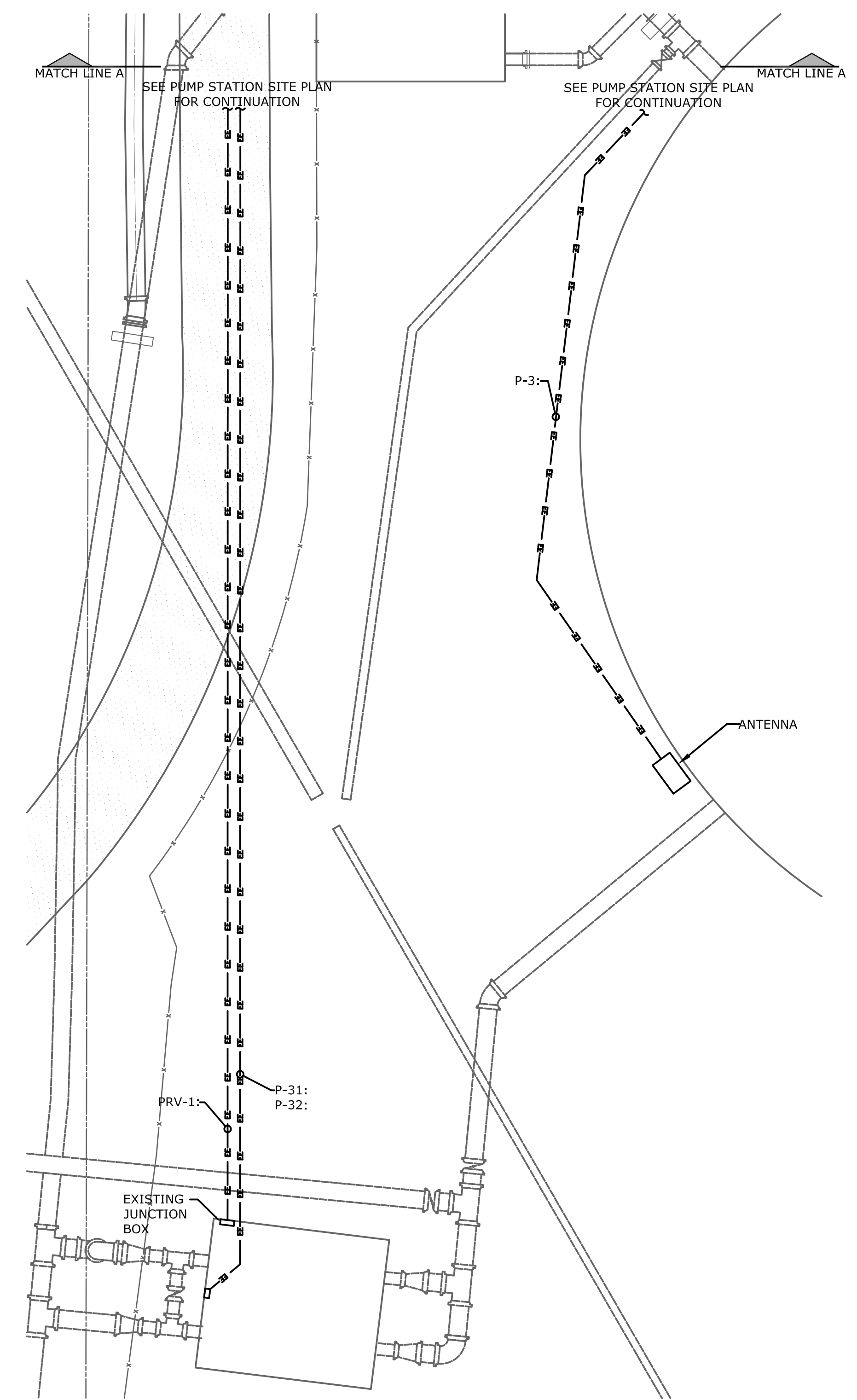
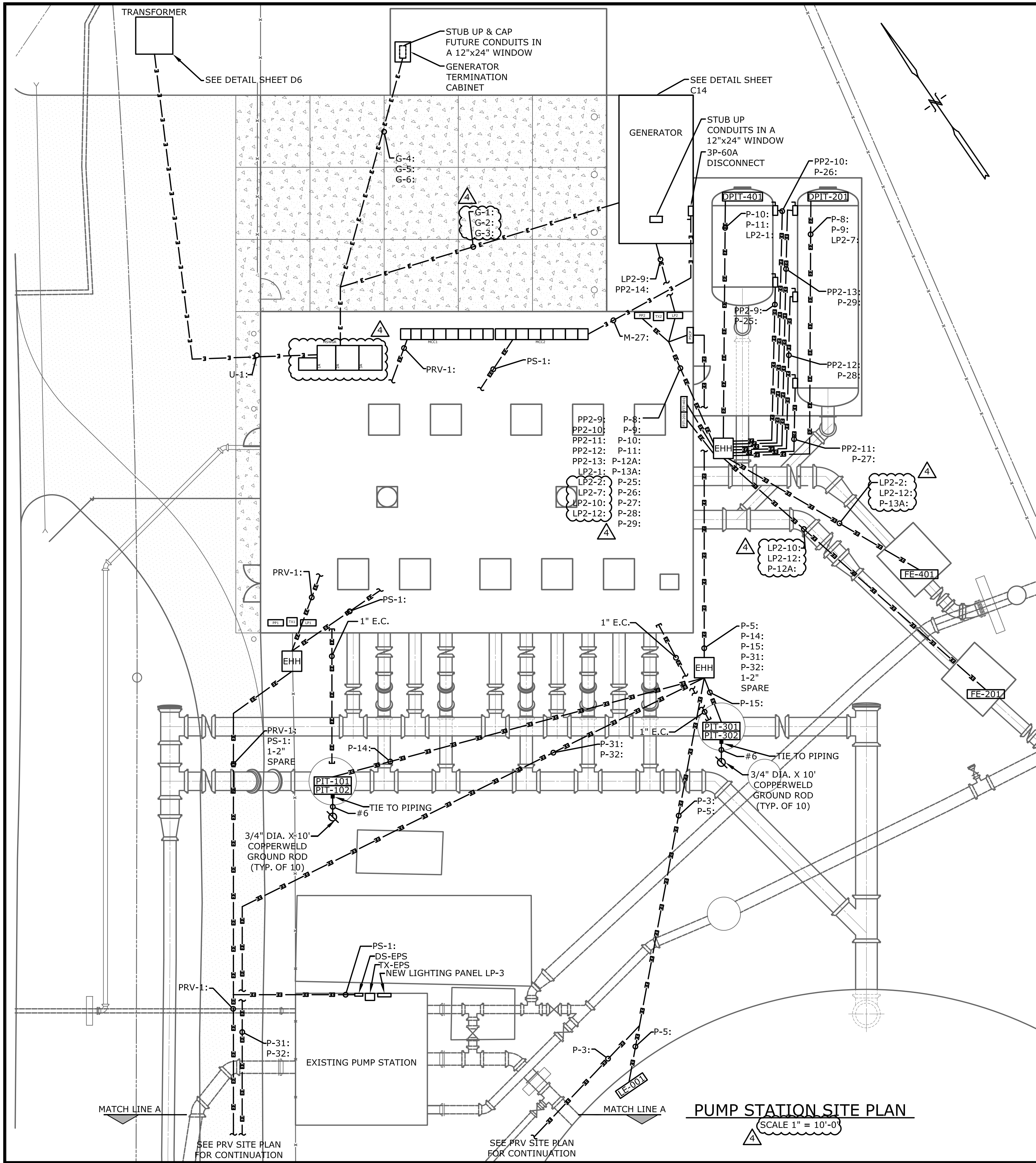
STURGILL ENGINEERING PA
 ONE SOUTH MAIN ST.
 LEXINGTON, NC 27292
 (336) 238-1249 PH.
 (336) 236-6393 FAX

DAVIDSON COUNTY
 NORTH CAROLINA

DAVIDSON WATER INC.
 HYATTOWN PUMP STATION IMPROVEMENTS

ELECTRICAL DEMOLITION PLAN

DATE:	MARCH 2016
HAZEN NO.:	30961-010
CONTRACT NO.:	1
DRAWING NUMBER:	E2



PUMP STATION SITE PLAN
SCALE 1" = 10'-0"

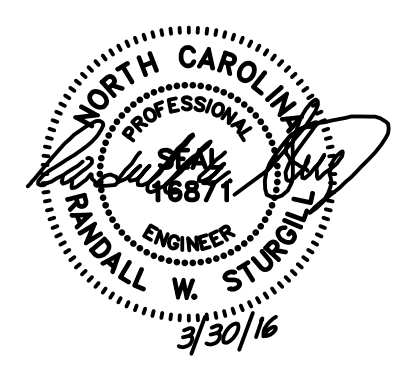
PRV SITE PLAN
SCALE 1" = 10'-0"

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 PLOT DATE: 2016/03/20 10:48:33 AM BY: LAWSON

REV	ISSUED FOR	DATE	BY
4	BID COMMENTS	3-30-16	RWS
3	CONSTRUCTION	3-8-16	RWS
2	BUILDING PERMIT REVIEW	2-26-16	RWS
1	REGULATORY REVIEW	1-20-16	RWS

PROJECT ENGINEER:	R. W. STURGILL
DESIGNED BY:	R. W. STURGILL
DRAWN BY:	R. W. LAWSON
CHECKED BY:	-
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	

ISSUED FOR CONSTRUCTION

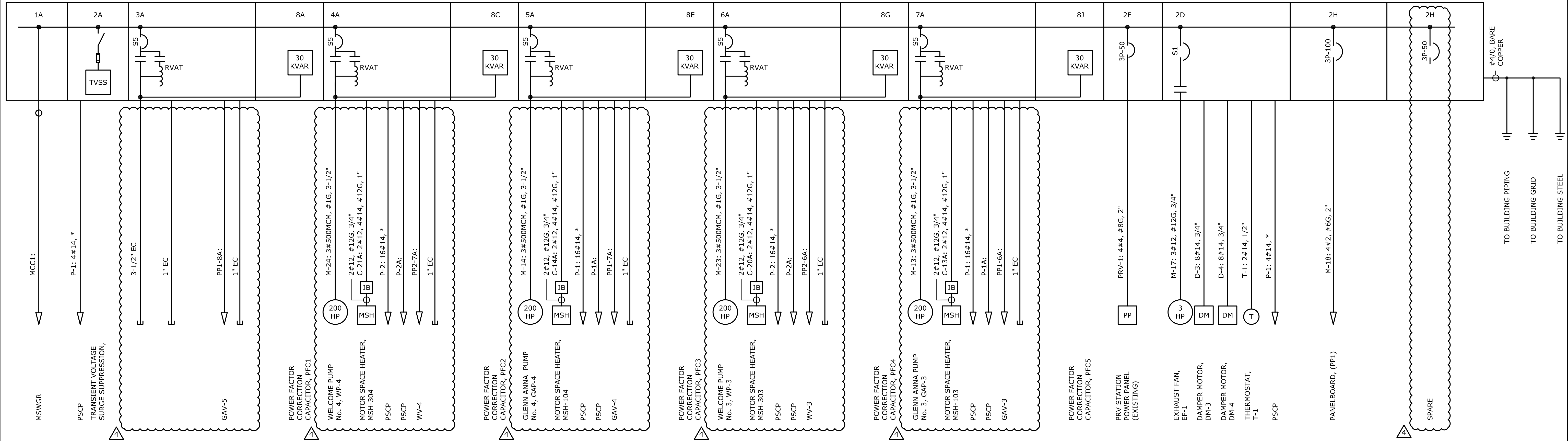


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 ONE SOUTH MAIN ST.
 LEXINGTON, NC 27292
 (336) 238-1249 PH.
 (336) 236-6393 FAX

DAVIDSON COUNTY
 NORTH CAROLINA

DAVIDSON WATER INC.
 HYATTOWN PUMP STATION IMPROVEMENTS

PUMP STATION SITE PLAN		DATE:	MARCH 2016
		HAZEN NO.:	30961-010
DRAWING NUMBER: E10		CONTRACT NO.:	1



MCC1 ONE-LINE DIAGRAM
NOT TO SCALE

1A	2A	3A	4A	5A	6A	7A	8A
B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	8C
D	2D	D	D	D	D	D	D
E	E	E	E	E	E	E	8E
F	2F	F	F	F	F	F	F
G	G	G	G	G	G	G	8G
H	2H	H	H	H	H	H	H
J	J	J	J	J	J	J	8J
K	2K	K	K	K	K	K	K
L	L	L	L	L	L	L	8L
M	2M	M	M	M	M	M	M

MCC1 FRONT ELEVATION
NOT TO SCALE

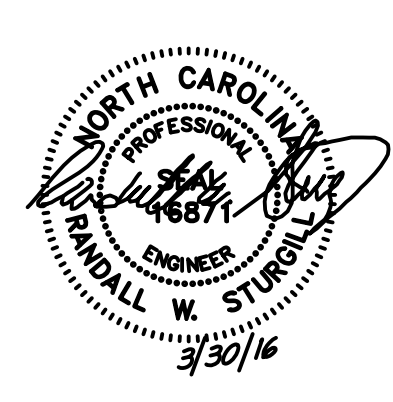
- NOTES:
1. CONTRACTOR RESPONSIBLE FOR ROUTING ALL CONDUITS.
 2. CONTRACTOR SHALL VERIFY EQUIPMENT STUB-UP PRIOR TO INSTALLATION.
 3. "*" DENOTES CONDUCTORS COMBINED IN SINGLE CONDUIT.
 4. MCC1 FURNISHED UNDER SEPARATE CONTRACT & INSTALLED UNDER THIS CONTRACT.

File: D:\VADEN & SAWYER\PROJECTS\DAVIDSON WATER INC.\ELECTRICAL\DWSELE1.dwg, Saved By: LAWSON, Date: 2016/03/28 11:22 AM, Plot Date: 2016/03/28 10:48:35 AM, BY: LAWSON

4	BID COMMENTS	3-30-16	RWS
3	CONSTRUCTION	3-8-16	RWS
2	BUILDING PERMIT REVIEW	2-26-16	RWS
1	REGULATORY REVIEW	1-20-16	RWS
REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	R. W. STURGILL
DESIGNED BY:	R. W. STURGILL
DRAWN BY:	R. W. LAWSON
CHECKED BY:	-
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	

ISSUED FOR CONSTRUCTION



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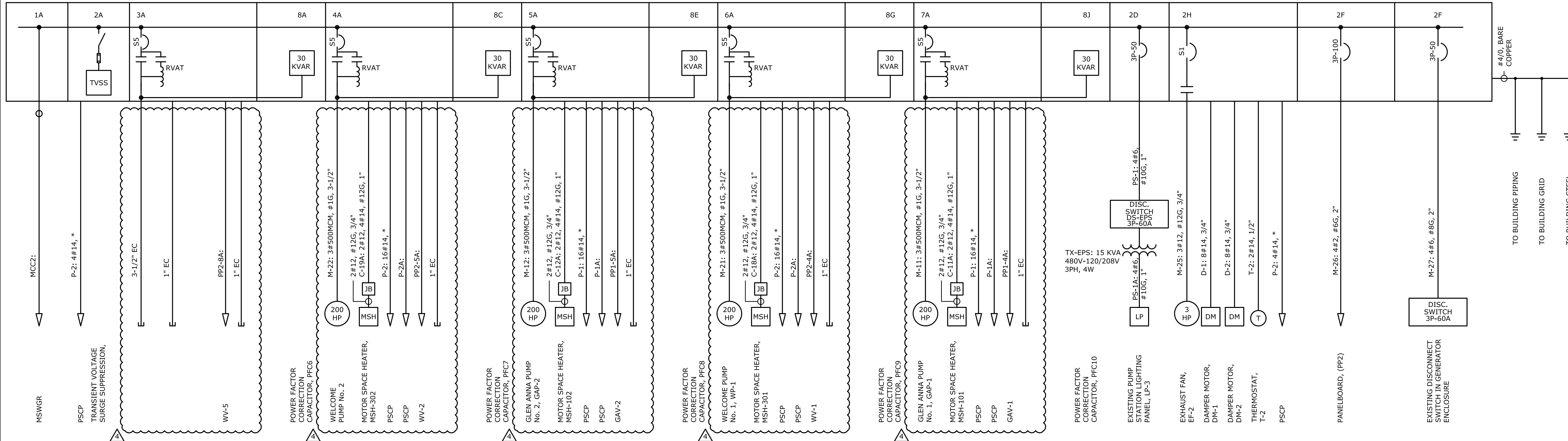
DAVIDSON COUNTY
NORTH CAROLINA

DAVIDSON WATER INC.
HYATTOWN PUMP STATION IMPROVEMENTS

MCC1
ONE-LINE
DIAGRAM

DATE:	MARCH 2016
HAZEN NO.:	30961-010
CONTRACT NO.:	1
DRAWING NUMBER:	E21

480/277VAC, 3PH, 4W, 2000A, 65KAIC



MCC2 ONE-LINE DIAGRAM
NOT TO SCALE

1A	2A	3A	4A	5A	6A	7A	8A
B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	8C
D	2D	D	D	D	D	D	D
E	E	E	E	E	E	E	8E
F	2F	F	F	F	F	F	F
G	G	G	G	G	G	G	8G
H	2H	H	H	H	H	H	H
J	J	J	J	J	J	J	8J
K	2K	K	K	K	K	K	K
L	L	L	L	L	L	L	8L
M	M	M	M	M	M	M	M

MCC2 FRONT ELEVATION
NOT TO SCALE

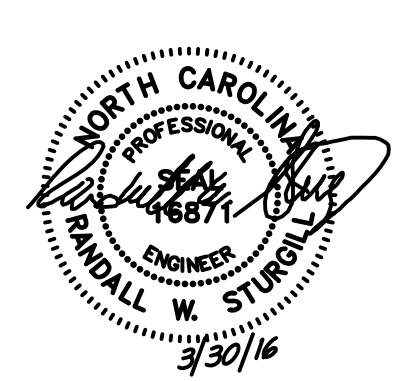
- NOTES:
1. CONTRACTOR RESPONSIBLE FOR ROUTING ALL CONDUITS.
 2. CONTRACTOR SHALL VERIFY EQUIPMENT STUB-UP PRIOR TO INSTALLATION.
 3. "*" DENOTES CONDUCTORS COMBINED IN SINGLE CONDUIT.
 4. MCC2 FURNISHED UNDER SEPARATE CONTRACT & INSTALLED UNDER THIS CONTRACT.

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4	BID COMMENTS	3-30-16	RWS
3	CONSTRUCTION	3-8-16	RWS
2	BUILDING PERMIT REVIEW	2-26-16	RWS
1	REGULATORY REVIEW	1-20-16	RWS
REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER: R. W. STURGILL
 DESIGNED BY: R. W. STURGILL
 DRAWN BY: R. W. LAWSON
 CHECKED BY: -
 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

ISSUED FOR CONSTRUCTION



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 C-1210
 ONE SOUTH MAIN ST.
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DAVIDSON COUNTY
 NORTH CAROLINA
 DAVIDSON WATER INC.
 HYATTOWN PUMP STATION IMPROVEMENTS

MCC2
 ONE-LINE
 DIAGRAM

DATE:	MARCH 2016
HAZEN NO.:	30961-010
CONTRACT NO.:	1
DRAWING NUMBER:	E22

PANEL:LP1 VOLTAGE: 208Y/120 VOLT, 3PH, 4W, 60 Hz
 LOCATION: PUMP ROOM MAINS 125 AMP 125 MLO
 FED FROM: SWITCHBOARD "PP1" AMP MAIN BREAKER

MOUNTING: UNITIZED FLUSH SURFACE MINIMUM AIC RATING: 42 KA

NOTES	COND SIZE	WIRE SIZE	AMP TRIP	POLES	BRANCH CIRCUIT			NO.	VOLT-AMPS	DESIGNATION	POLES	AMP TRIP	WIRE SIZE	COND SIZE	NOTES	
					DESIGNATION	VOLT-AMPS	NO.									
	1/2	10	20	1				1080	1	1080		1	20	12	1/2	
	1/2	10	20	1				2275	3	2275		4	25	12	1/2	
	-	-	20	1				0	5			1	20	-	-	
	-	-	20	1				0	7			1	20	-	-	
	-	-	20	1				0	9			1	20	-	-	
	-	-	20	1				0	11			1	20	-	-	
	-	-	20	1				0	13			1	20	-	-	
	-	-	20	1				0	15			1	20	-	-	
	-	-	20	1				0	17			1	20	-	-	
	-	-	20	1				0	19			1	20	-	-	
	-	-	20	1				0	21			1	20	-	-	
	-	-	20	1				0	23			1	20	-	-	
	-	-	20	1				0	25			1	20	-	-	
	-	-	20	1				0	27			1	20	-	-	
	-	-	20	1				0	29			1	20	-	-	
TOTALS PER PHASE								1080		2275						
TOTALS AMPS PER PHASE								9		19						

TOTALS PER PHASE: 1080, 2275, 0
 TOTALS AMPS PER PHASE: 9, 19, 0
 TOTAL CONNECTED LOAD (VA): 3,355
 AT 120 VOLTS

PANEL:LP2 VOLTAGE: 208Y/120 VOLT, 3PH, 4W, 60 Hz
 LOCATION: PUMP ROOM MAINS 125 AMP 125 MLO
 FED FROM: SWITCHBOARD "PP2" AMP MAIN BREAKER

MOUNTING: UNITIZED FLUSH SURFACE MINIMUM AIC RATING: 42 KA

NOTES	COND SIZE	WIRE SIZE	AMP TRIP	POLES	BRANCH CIRCUIT			NO.	VOLT-AMPS	DESIGNATION	POLES	AMP TRIP	WIRE SIZE	COND SIZE	NOTES	
					DESIGNATION	VOLT-AMPS	NO.									
	1/2	10	20	1				360	1	360		2	180	12	1/2	
	1/2	10	20	1				2285	4	1925		1	20	12	1/2	
	1/2	10	20	1				720	5	1080		6	360	12	1/2	
	1/2	10	20	1				180	7	180		8	0	-	-	
	1/2	12	20	1				500	9	680		10	180	12	1/2	
	-	-	20	1				0	11			12	360	12	1/2	
	-	-	20	1				0	13			14	0	-	-	
	-	-	20	1				0	15			16	0	-	-	
	-	-	20	1				0	17			18	0	-	-	
	-	-	20	1				0	19			20	0	-	-	
	-	-	20	1				0	21			22	0	-	-	
	-	-	20	1				0	23			24	0	-	-	
	-	-	20	1				0	25			26	0	-	-	
	-	-	20	1				0	27			28	0	-	-	
	-	-	20	1				0	29			30	0	-	-	
TOTALS PER PHASE								540		2965						
TOTALS AMPS PER PHASE								5		25						

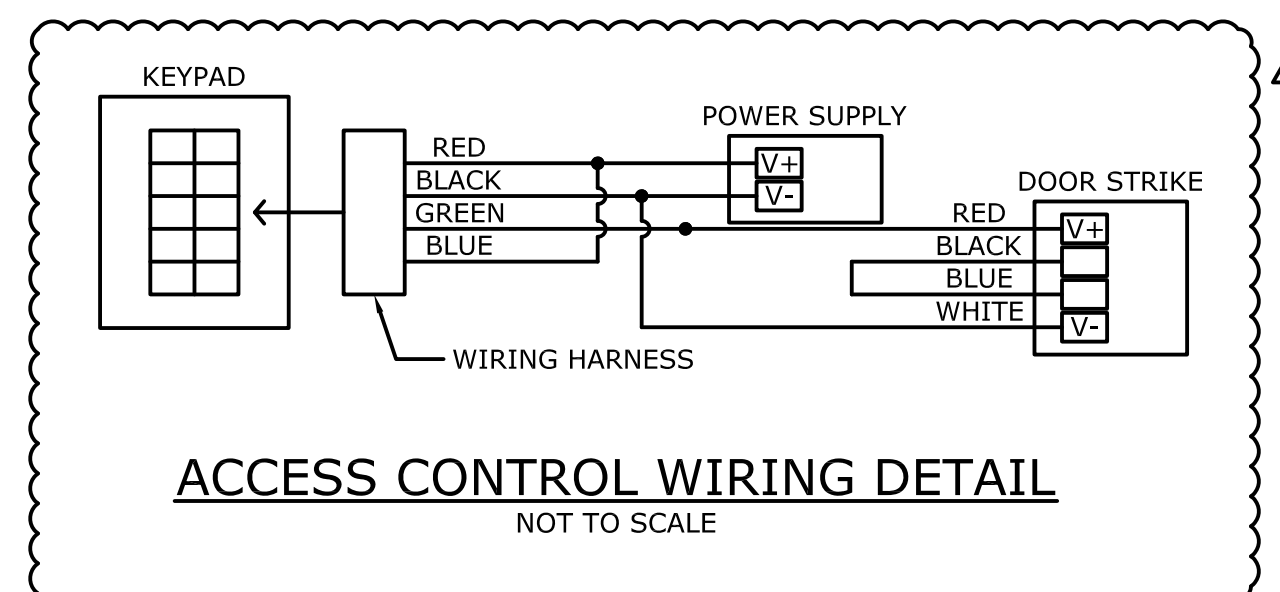
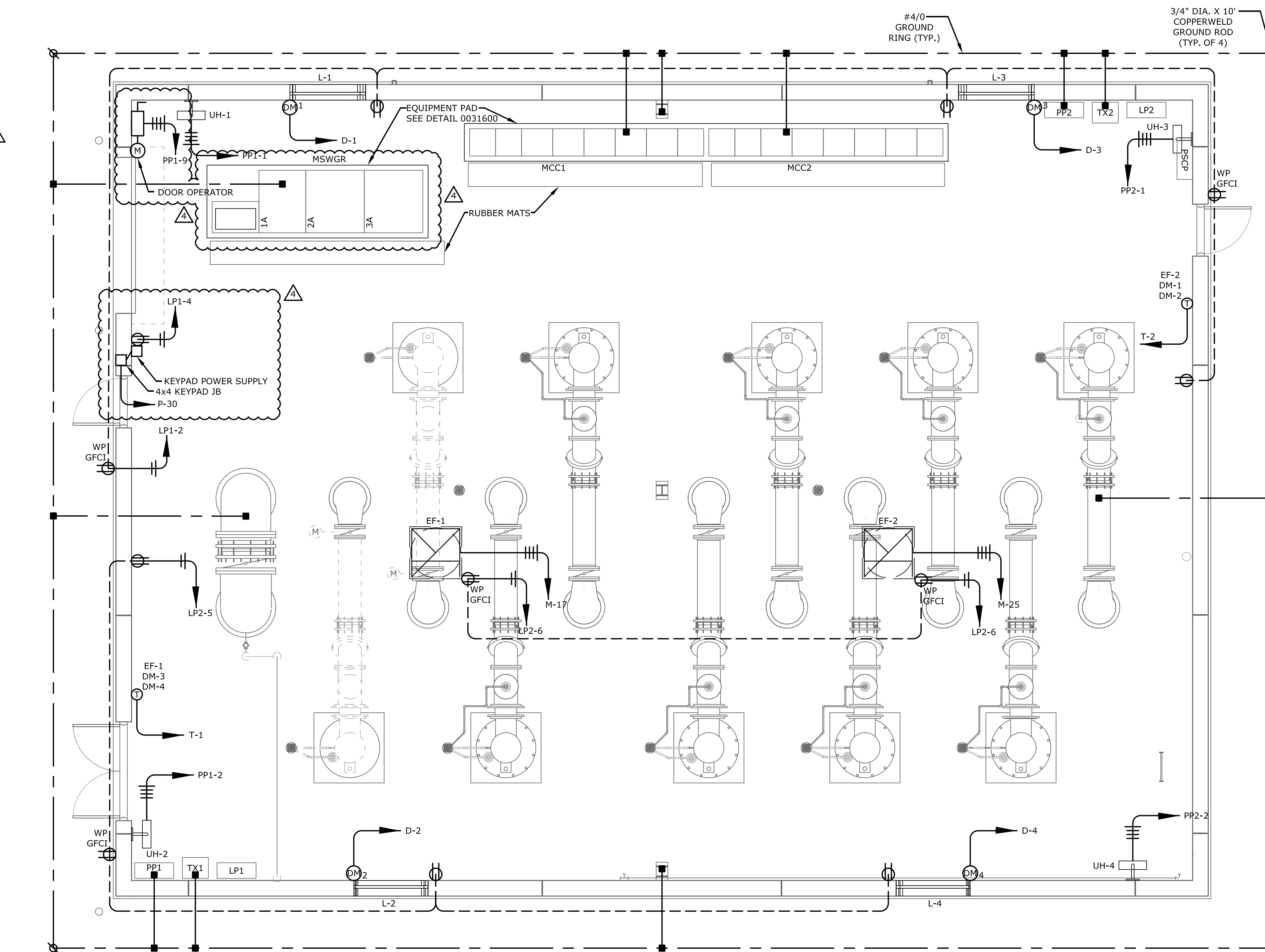
TOTALS PER PHASE: 540, 2965, 1440
 TOTALS AMPS PER PHASE: 5, 25, 12
 TOTAL CONNECTED LOAD (VA): 4,945
 AT 120 VOLTS

PANEL:LP3 VOLTAGE: 208Y/120 VOLT, 3PH, 4W, 60 Hz
 LOCATION: EXISTING PUMP STATION MAINS 125 AMP 125 MLO
 FED FROM: TX-EPS AMP MAIN BREAKER

MOUNTING: UNITIZED FLUSH SURFACE MINIMUM AIC RATING: 42 KA

NOTES	COND SIZE	WIRE SIZE	AMP TRIP	POLES	BRANCH CIRCUIT			NO.	VOLT-AMPS	DESIGNATION	POLES	AMP TRIP	WIRE SIZE	COND SIZE	NOTES	
					DESIGNATION	VOLT-AMPS	NO.									
	3/4	12	20	1				1200	1	600		2	600	12	3/4	
	3/4	12	20	1				1680	3	1080		4	1080	12	3/4	
	1	10	30	2				1250	5	1250		6	0	-	-	
	-	-	10	2				1250	7	1250		8	0	-	-	
	-	-	20	2				0	9			10	0	-	-	
	-	-	20	1				0	11			12	0	-	-	
	-	-	20	1				0	13			14	0	-	-	
	-	-	20	1				0	15			16	0	-	-	
	-	-	20	1				0	17			18	0	-	-	
TOTALS PER PHASE								2450		1680						
TOTALS AMPS PER PHASE								20		14						

TOTALS PER PHASE: 2450, 1680, 1250
 TOTALS AMPS PER PHASE: 20, 14, 10
 TOTAL CONNECTED LOAD (VA): 5,380
 AT 120 VOLTS



- NOTES:
- SEE SHEET E1 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 - ACCESS CONTROL KEYPAD SHALL BE LINEAR 2121LW OR EQUIVALENT.
 - KEYPAD POWER SUPPLY SHALL BE LINEAR PIP24VDCRU OR EQUIVALENT.
 - ELECTRIC DOOR STRIKE SHALL BE SDC SECURITY 25-4U OR EQUIVALENT.

PUMP STATION HVAC AND RECEPTACLE POWER PLAN
 SCALE 1/4" = 1'-0"

File: D:\VIZIER & SAWYER\PROJECTS\PS IMPROVEMENTS\ELECTRICAL\DWG\E28.dwg
 PLOT DATE: 2016/03/20 10:46:54 AM BY: RAWSON

PROJECT ENGINEER:	R. W. STURGILL
DESIGNED BY:	R. W. STURGILL
DRAWN BY:	R. W. LAWSON
CHECKED BY:	-
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

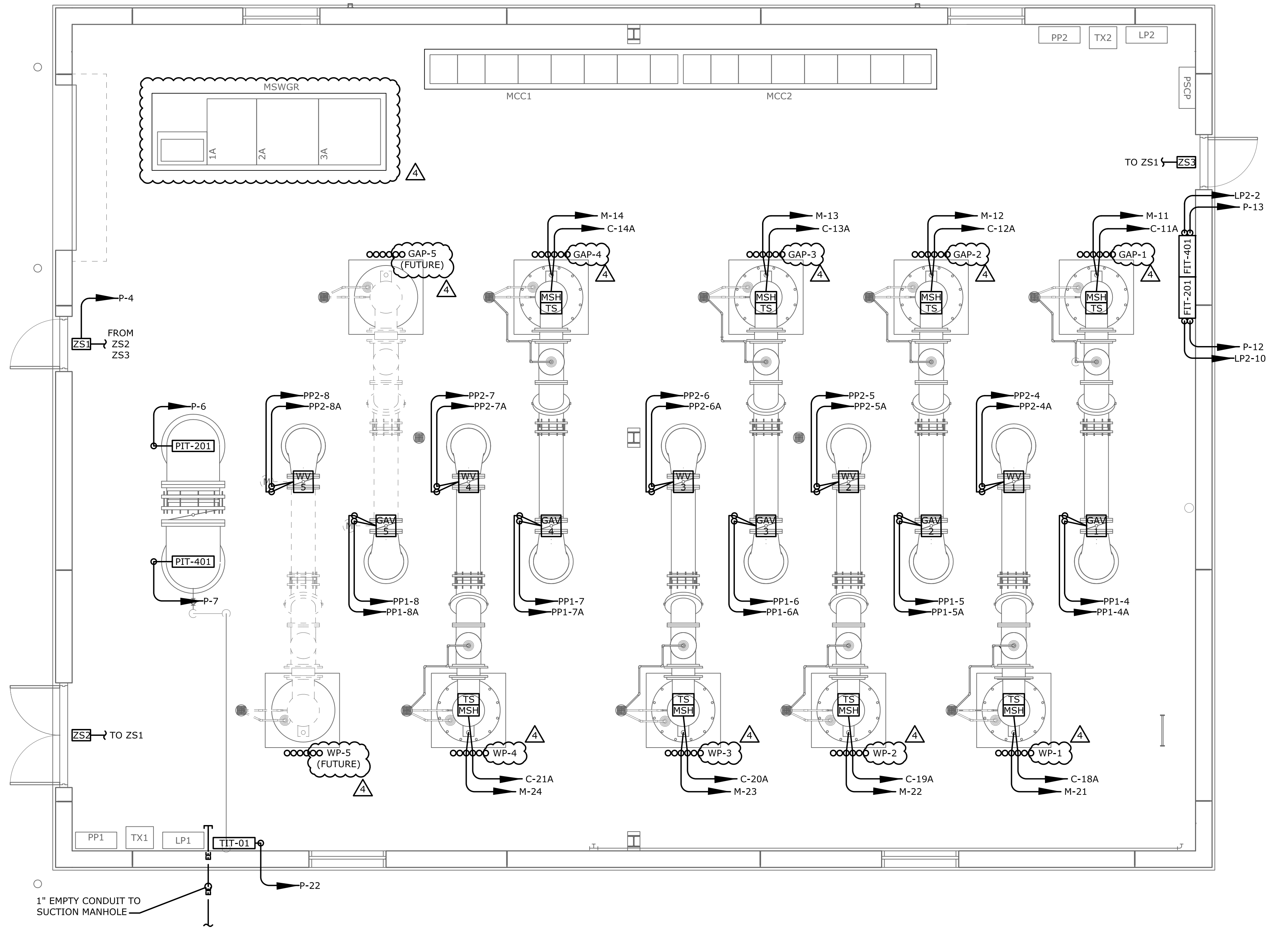
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 (336) 238-1249 PH.
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DAVIDSON COUNTY
 NORTH CAROLINA

DAVIDSON WATER INC.
 HYATTOWN PUMP STATION IMPROVEMENTS

DATE:	MARCH 2016
HAZEN NO.:	30961-010
CONTRACT NO.:	1
DRAWING NUMBER:	E28

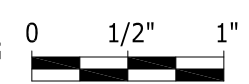


PUMP STATION CONDUIT ROUTING
SCALE 1/4" = 1'-0"

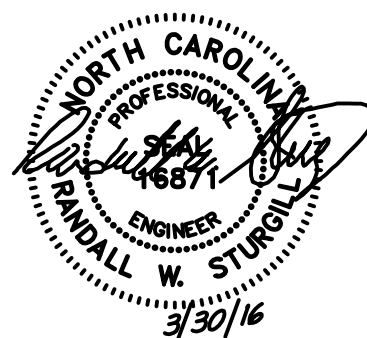
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REV	ISSUED FOR	DATE	BY
4	BID COMMENTS	3-30-16	RWS
3	CONSTRUCTION	3-8-16	RWS
2	BUILDING PERMIT REVIEW	2-26-16	RWS
1	REGULATORY REVIEW	1-20-16	RWS

PROJECT ENGINEER:	R. W. STURGILL
DESIGNED BY:	R. W. STURGILL
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DAVIDSON COUNTY
 NORTH CAROLINA

DAVIDSON WATER INC.
 HYATTOWN PUMP STATION IMPROVEMENTS

PUMP STATION
 CONDUIT ROUTING

DATE:	MARCH 2016
HAZEN NO.:	30961-010
CONTRACT NO.:	1
DRAWING NUMBER:	E29

