

GOVERNMENT OF BERMUDA <u>Ministry of Public Works</u> **Department of Works & Engineering**

Central Area Distribution Pump Station Fort Hill Road Devonshire

Addendum *Three*

DATE: 14th July 2017 METHOD OF DELIVERY:

PROJECT NAME & NO.: File No.: 41/188/1/75 POSTED ON www.gov.bm/procurement-notices

This Addendum forms part of the RFP documents and will be subject to all of the conditions set out in the contract conditions. This Addendum Three contains (seven) pages.

Addendum Three

1. Revised Drawings

Attached are the following revised drawings:

- E4 Proposed Site Plan
- E5 Pumping Station Electrical Floor Plans
- E7 Proposed Single Line Diagram
- **E9 Electrical Specifications**
- E10 Electrical Specifications

2. Clarification for ATS

The ATS is to be a Kohler Model-KCS-ATMC-0299S 3pole, 4wire, solid neutral, 200A rated for 480v, 60Hz complete with NEMA type 3R enclosure

3. Generator Connection

The connection to the generator shall be installed to act as temporary connection allowing connection and disconnection without tools. The connection point is to be a recessed junction box on the exterior of the existing control building to enable the generator to be positioned as shown.

4. Cable ATS to PL-3

The connection is to be made with a single set of cables of 4x 1/0AWG + #6 GND

5. Panel PNL-3

The panel is to be surface mounted and complete with a mains breaker.

6. Weight of Pump Unit

The weight of the pump unit is 3137 lbs. The pump unit is available for inspection by the contractor at the Tyne's Bay Incinerator stores please contact Mr Keith Claridge 704-1965 to arrange viewing.



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7. Commissioning of Pump Unit

The unit is to be commissioned by Grundfos representatives who will be brought to Bermuda. All connections will be completed by the contractor but no live switching will be carried out ahead of the commissioning. The commissioning date is to be set by the contractor and given to the owner no less than six weeks in advance. Any costs incurred for subsequent delays to this date will be met by the contractor.

8. FRP Grate

The grate will be subject to foot traffic only and is to be laid loose in place and is not required to be joined. The contractor will determine all necessary support structure in addition to edge support shown. All additional support to be galvanized steel.

9. Suspended Cable

The suspended cable across the site is owned by ONE Communications please contact them directly concerning this cable

10. Surplus Excavated Material

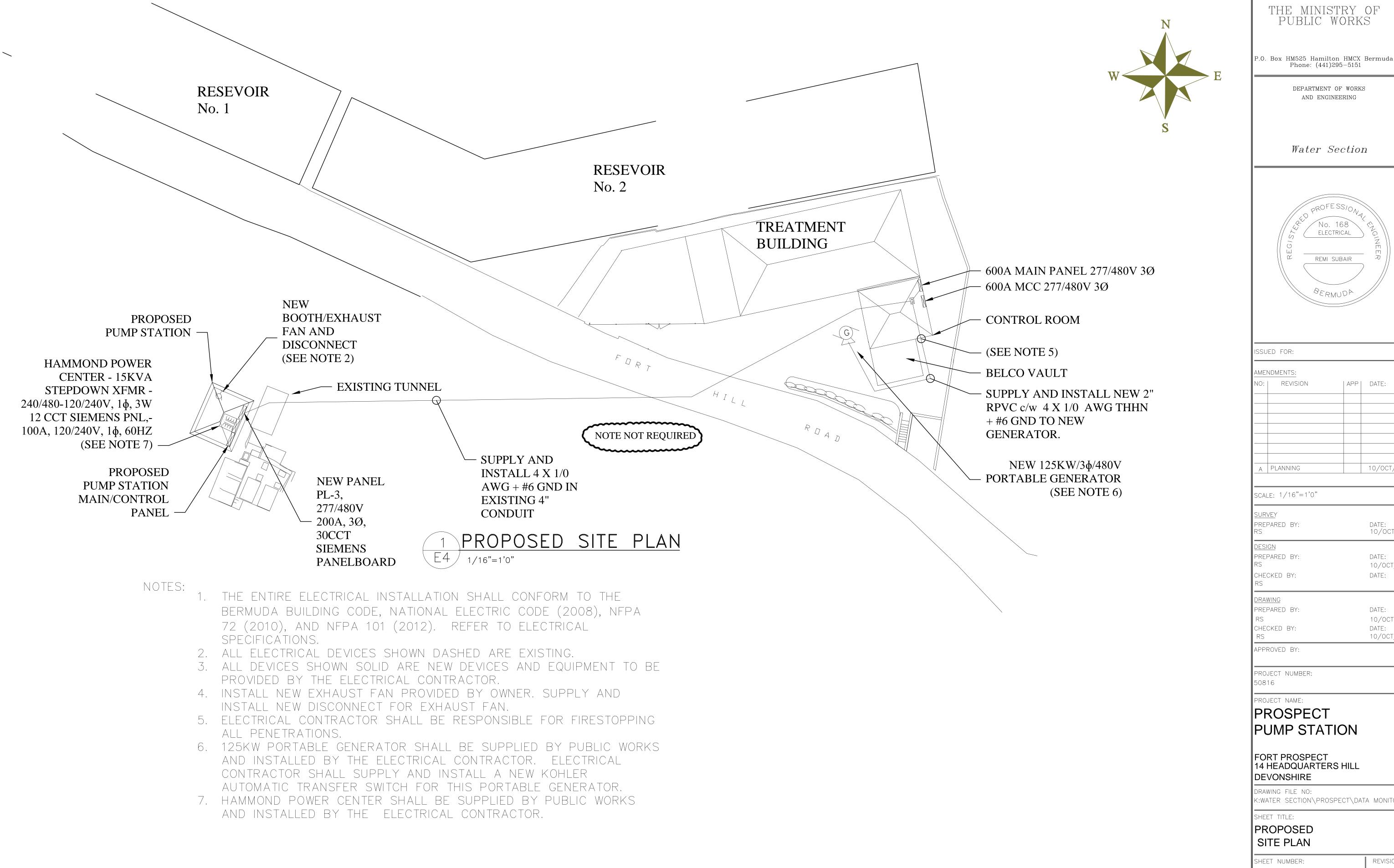
All surplus materials to be removed from site in accordance with Specification Section 02220 clause 3.9.

Bidders are requested to acknowledge receipt of this Addendum(Three) by emailing

tjchristopher@gov.bm

Sincerely, Project Manager

END OF ADDENDUM three



THE MINISTRY OF PUBLIC WORKS

AND ENGINEERING



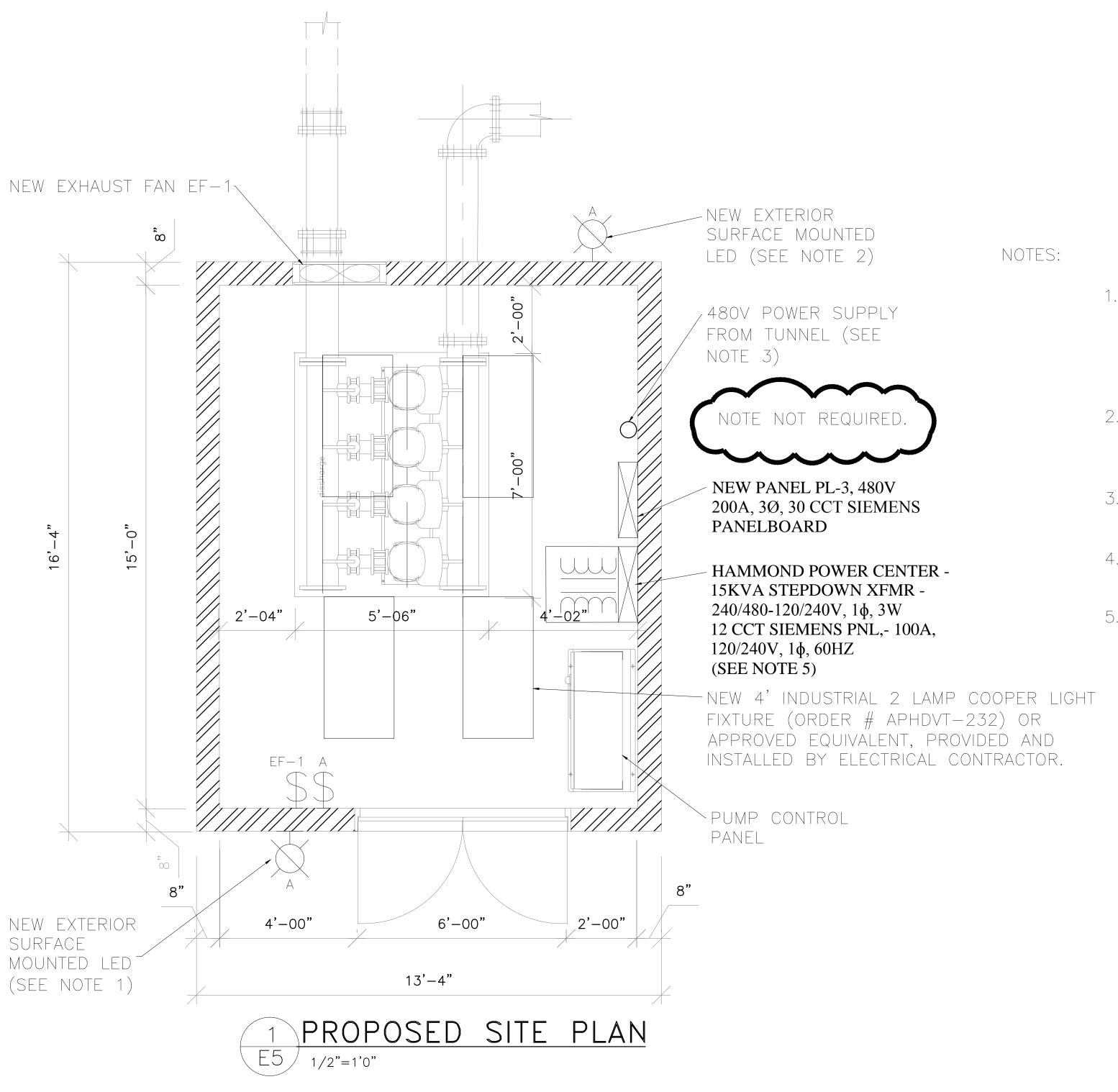
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PUMP STATION

14 HEADQUARTERS HILL

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REVISION



- 1. THE ENTIRE ELECTRICAL INSTALLATION SHALL CONFORM TO THE BERMUDA BUILDING CODE, NATIONAL ELECTRIC CODE (2008), NFPA 72 (2010), AND NFPA 101 (2012). REFER TO ELECTRICAL SPECIFICATIONS.
- 2. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW LITHONIA LED WALL PACK (ORDER # OLW-23) OR APPROVED EQUIVALENT.
- 3. NEW 2" CONDUIT CHANNELED FROM TUNNEL SHALL BE SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- 4. NEW 2" CONDUIT CHANNELED BACK TO TUNNEL SHALL BE SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- 5. HAMMOND POWER CENTER SHALL BE SUPPLIED BY PUBLIC WORKS AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

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DEPARTMENT of WORKS & ENGINEERING

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FORT PROSPECT CENTRAL AREA PUMP STATION

Fort Hill Road

Devonshire

SHEET TITLE:

PUMPING STATION ELECTRICAL FLOOR PLANS

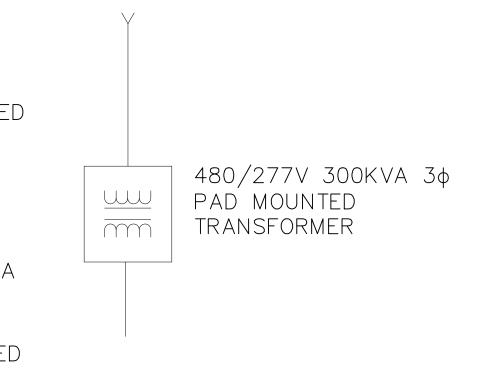
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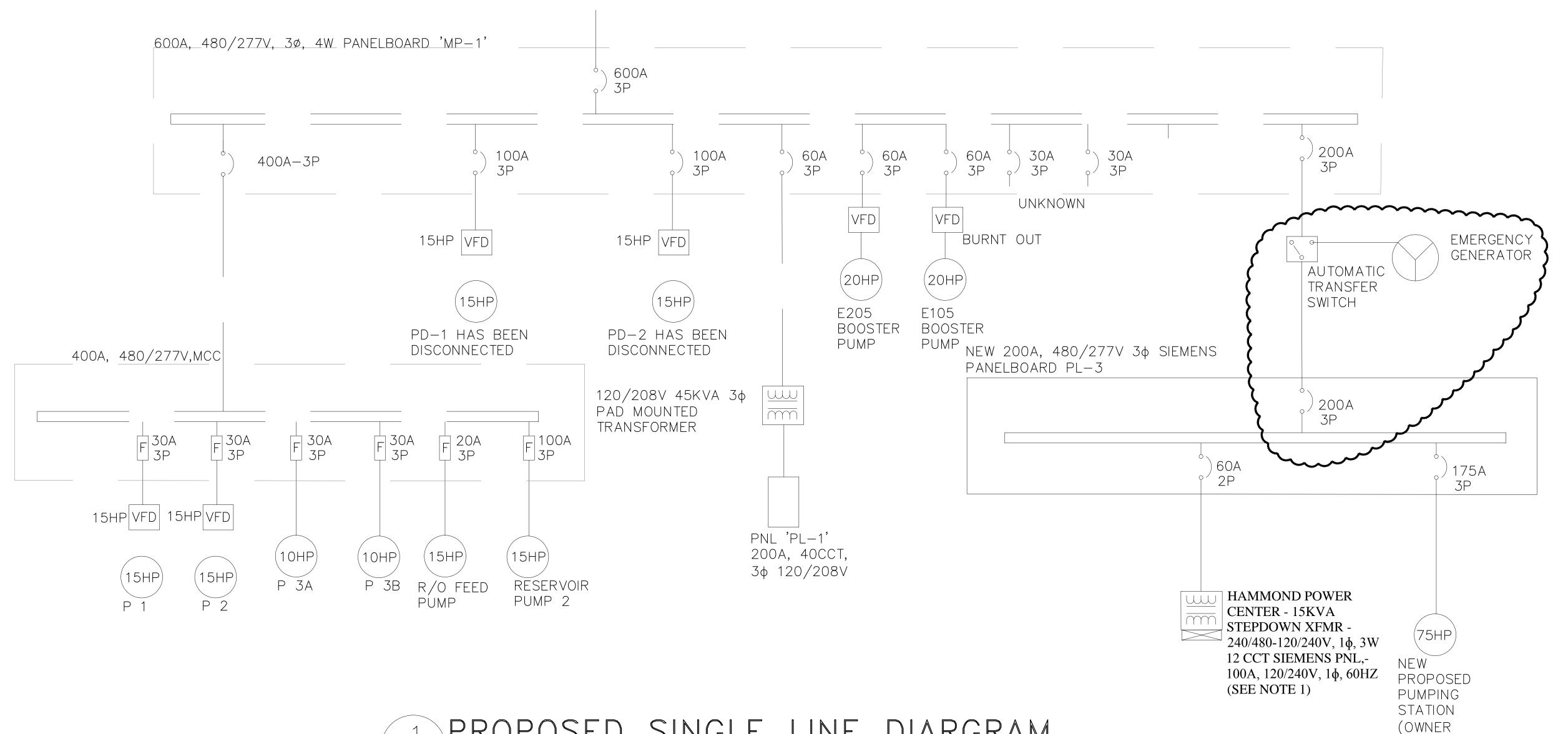
REVISION

INCOMING BELCO PRIMARY SUPPLY

NOTE;

- 1) HAMMOND POWER ENTER SHALL BE SUPPLIED BY PUBLIC WORKS AND INSTALLED BY ELECTRICAL CONTRACTOR.
- 2) SUPPLY AND INSTALL NEW 225A, 480/277V 3φ SIEMENS PANELBOARD AND CIRCUIT BREAKERS AS SHOWN. CIRCUIT BREAKERS SHALL BE ABB, SCHNEIDER ELECTRIC OR APPROVED EQUIVALENT.
- 3) THE ENTIRE ELECTRICAL INSTALLATION SHALL CONFORM TO THE BERMUDA BUILDING CODE, NATIONAL ELECTRIC CODE (2008), NFPA 72 (2010), AND NFPA 101 (2012). REFER TO ELECTRICAL SPECIFICATIONS.
- 4) ALL ÈLECTRICAL DEVICES SHOWN DASHED ARE EXISTING.
- 5) ALL DEVICES SHOWN SOLID ARE NEW DEVICES AND EQUIPMENT TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR.





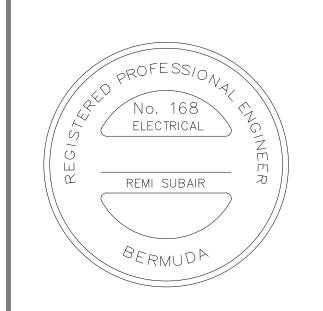
1 PROPOSED SINGLE LINE DIARGRAM E7 N.T.S.

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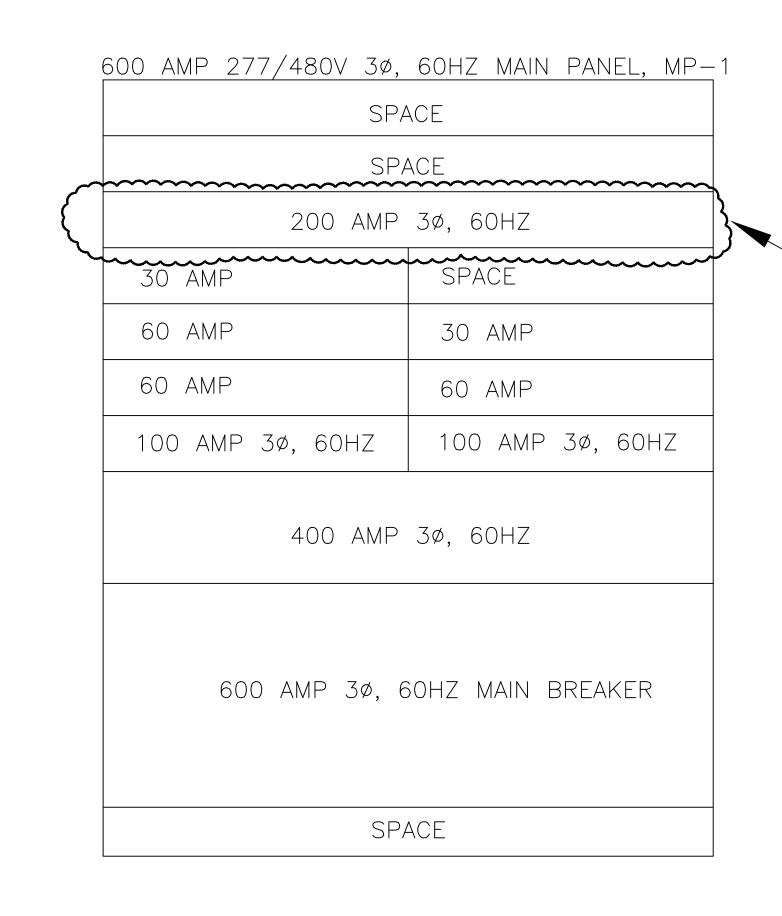
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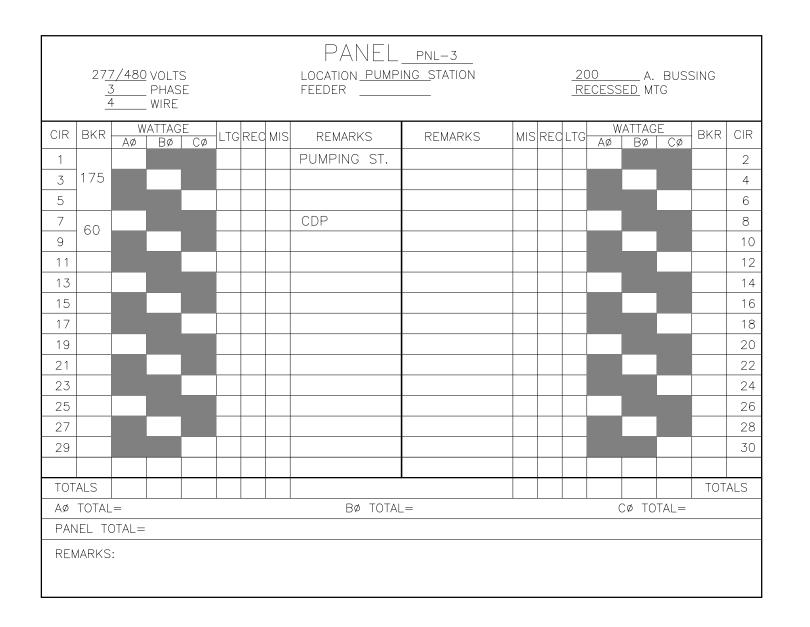


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	MOTOR CONTROL SCHEDULE																						
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MOTOR NUMBER	DESCRIPTION	HORSEPOWER	FULL LOAD AMPS	KILOWATTS	VOLTAGE	PHASE	FED FROM	OVERCURRENT PROTECTION	FEEDER	REQUIRED	TYPE	TYPE	SIZE	VFD	FWD/REV/STOP	START/STOP	\sim 1	REM START/STOP	CNIRL AFMR	- 1	NORMALLI OFEN	I	
BP-1	BOOSTER PUMP				460	3	MP-1	60A-3P		•				•									
BP-2	BOOSTER PUMP				460	3	MP-1	60A-3P		•				•									
PS-1	NEW PUMPING STATION				460			175A-3F	3#1 AWG	•													
CP-1	CLEANING PUMP	10		3	460	3	мсс		3#12-3/4"C	•													
CP-2	CLEANING PUMP	10		3	460	3	мсс		3#12-3/4"C	•													
EF-1	R/O FEED PUMP	15			460	1	мсс		2#12-3/4"C	•													
EF-2	RESERVOIR #2 PUMP				460	1	мсс		2#12-3/4"C	•													
P-1	P1	15			460	1	мсс		2#12-3/4°C	•				•									
P-2	P2	15			460	1	мсс		2#12-3/4"C	•				•									



NEW EATON SERIES C CIRCUIT BREAKER OR APPROVED EQUIVALENT



								PANEL	CDP							
	12	1	0 VO PHAS WIRE					LOCATION_PUMP FEEDER XX						A. BUS <u>ED</u> MTG	SING	
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POWER	LIGHTING
	SURFACE MOUNTED 2X4 FLUORESCENT (TWO T8 LAMPS)
QUAD RECEPTACLE	EMERGENCY DC BATTERY PACK WITH REMOTE HEADS
MOTOR WITH DISCONNECT SWITCH	EXTERIOR LED
TRANSFORMER	\$ SINGLE POLE SWITCH
PANEL / MCC	\$ TWO POLE SWITCH
JUNCTION BOX	
VFD VARIABLE SPEED DRIVE	
F FUSE	
D FUSED DISCONNECT SWITCH	

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FORT PROSPECT CENTRAL AREA PUMP STATION 14 FORT HILL ROAD

DEVONSHIRE

DRAWING FILE NO:

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ELECTRICAL SPECIFICATIONS

SHEET NUMBER:

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1



ELECTRICAL SPECIFICATIONS

1.DEFINITIONS

.1"Provide" or "supply and Install" mean "provide and install, inclusive of all labour, materials, installation, testing, and connections, for the item referenced.

2.GENERAL

.1 This specification and any addenda hereto form part of the contract documents and shall be read in conjunction with them. Work shall include the furnishing of all labour and materials, unless specified otherwise, to complete and put into operating condition all electrical systems as indicated on the drawings and specified

.2It is the intent of the work to provide complete, neatly finished, and operational systems and any labour. material, permits, licenses, approvals and inspections required for completion of the work, whether specifically mentioned in the drawings or specifications or not, shall be included

in the tendered price. .3Responsibility as to which trade provides required articles or materials rests solely with the general contract trade. Extras will not be considered based on arounds of difference of interpretation of specifications as to which trade involved shall provide certain specialties

.4The drawings and specifications for the complete works, including all of those related to other trades shall be examined before submitting tenders. All electrical and communications requirements indicated shall be included in the scope of the work.

3.DRAWINGS AND SPECIFICATIONS

.1Drawings and specifications are complementary to each other and what is called for by one shall be binding as if called for by both.

.2Should any discrepancy appear between drawings and specifications that leaves the Electrical Contractor in doubt as to true intent and meaning, obtain ruling from the Engineer before submitting tender, or allow for the most expensive alternative.

4.EXAMINATION OF OTHER DRAWINGS

.1Examine carefully structural, architectural and mechanical drawings, and the work of other trades and satisfy himself that the work under this contract can be satisfactorily carried out without changes to the building as shown on the plans. Should any difficulty arise showing conflict with, or requiring additional work beyond the work of these drawings, oring this matter to the attention of the Engineer before submitting tender

5.UNIFORMITY OF EQUIPMENT

.1Unless otherwise specified, uniformity of manufacturer shall be maintained for any particular item throughout.

6.CODES AND STANDARDS

.1 The entire installation, inclusive of material and labour, shall comply with the requirements of the latest edition of applicable Building Codes and Authorities laving Jurisdiction, the National Electrical Code (NEC), NFPA, regulations Occupational Health and Safety Act 1982", and Bermuda Fire Service.

7.PERMITS AND INSPECTIONS

.10btain and pay fees for permits and inspections required for each stage of work, and upon completion of the entire

.2Furnish to the Engineer a Certificate of Final Inspection and Approval from the Authority's Inspection Department

8.STANDARDS OF MATERIAL AND WORKMANSHIP

.1 All materials shall be new and of the quality specified, and shall be UL listed or listed by equivalent agency recognized by the Authority Having

.2 All work shall be executed in a neat and workmanlike manner by qualified tradesmen. The Electrical Contractor shall keep a competent foreman and necessary assistants on the site during

the progress of the work. .3All material and installation shall match existing building standard unless noted

otherwise on the drawings. 9.ALTERNATE MANUFACTURERS

.1 All requests for alternates shall be submitted to the Engineer not less than 5 days prior to the close of Tender.

.2The contractor shall assume full responsibility for ensuring that alternate products meet all space, weight, connection, power, wiring, and

performance requirements. 10. SHOP DRAWINGS

.1 The Electrical Contractor shall submit to the Engineer, for review, shop drawings of major electrical equipment. Such equipment shall include, but not be limited to switchgear, panelboards, distribution and protection equipment transformers, emergency lighting, exit signs, luminaires, ballasts,lamps, and controls, fire alarm system, data/comm. equipment, and devices.

.2 All drawings shall be submitted in either (hardcopy in triplicate and two copies will be returned to the Electrical Contractor). Submit additional hardcopies for approval as may be required for general contractor, owner, and

aintenance manuals. .3The Engineer's review of shop drawings is for general design only and will not relieve the Electrical Contractor or suppliers from responsibility for errors, proper fitting, construction of work, and furnishing of materials. Review will not be construed as approving departures from contract document requirements i such departures are not specifically noted. The Electrical Contractor is responsible for verifying all dimensions.

11. GUARANTEE

.1The Electrical Contractor shall furnish a written guarantee, signed by authorized personnel, stating:

.1 That all work executed under this contract will be free from defects of material and workmanship for a period of 1 year from date of final acceptance.

.2The above parties further agree to, at their own expense, repair and replace all such defective work, and other work damaged thereby, which fails or becomes defective during the term of the guarantee warranty provided that such failure is not due to improper

.3The period of the guarantee specified will in no way supplant any other guarantee of a longer period but be binding on work not otherwise covered.

12. OPERATION AND MAINTENANCE MANUALS

.1Provide 3 sets of operation and maintenance manuals in 3 ring binders and one digital pdf copy. Include the following information

- Names, phone numbers, emails, and addresses of suppliers. - Technical data, operating manuals, product data, parts lists - Shop drawings reviewed and stamped

- Certificate of Acceptance from Authority's Inspection Department. — Verification Certificate and testing report for fire alarm system. -Load balance and meggering reports.

warranties 13. AS-BUILT DRAWINGS

.1The Engineer will furnish to the Electrical Contractor one set of drawings to be used for record purposes. The Electrical Contractor shall accurately record on these prints all revisions to the original plans that are made on site

- Written Guarantee and manufacturers'

.2The Electrical Contractor shall produce at his own expense a set of AutoCAD 2010 (or later) drawings, including all changes to the original tender drawings covered by addenda, change orders, field changes, and job conditions, and turn these over to the Engineer in electronic (pdf and dwg format) and hard copy form. Completed record drawings shall be clearly marked "As-Built Drawings".

14. VALUATION OF CHANGES

.1Provide complete breakdown of material, labour, overhead, profit, etc. when submitting quotations for change or variation notices.

.2 The hourly rate shall be inclusive of all charges for supervision, variable labour factors, hand tools, payroll burdens, height factors, warranties, storage, rentals, additional bonding, parking. clean-up, as-built drawings, hoisting, freight, and delivery, but exclusive of

.3The labour hours shall be based on the latest issue of the National Electrical Contractors Association (NECA).

15. COMPLETION OF CONTRACT

.1 All equipment must be cleaned and tested before acceptance by Engineer Notify the Engineer when ready for final completion inspection.

.20ne set of As-built drawings and O&M Manuals shall be turned over to the Engineer for review prior to substantial

3Substantial completion shall not be granted until all systems are deemed completed to the satisfaction of the

16. EXAMINATION OF THE SITE

.1Prior to submitting tender, the Electrical Contractor shall carefully examine the site and ascertain all conditions which may affect his trade. No extras will be allowed for work resulting from conditions that should have been noticed and accounted for during a

thorough examination of the site. 17. SETTING OUT OF THE WORK

.1 The Electrical Contractor is responsible for correcting all work completed contrary to the intent of drawings and specifications and shall bear all costs involved in making the corrections. Where intent of drawings and specifications is not clear, obtain clarification from the Engineer before proceeding with work.

.2The Electrical Contractor shall give work his personal supervision, lay out his own work, do all necessary leveling and measuring or employ a competent Engineer to do so. Figures, full size and detail drawings to take precedence over scale measurements.

.3The Electrical Contractor shall be responsible for any damage caused to the Owner or any other trade by improper location or carrying out of his

.4The Electrical Contractor, in the setting out of his work, shall make reference to architectural, structural, and mechanical drawings. Consult with all relevant trades in setting out locations for conduit runs, lighting fixtures, panel assemblies, and all other electrical equipment, so that conflicts are avoided and symmetrical spacing is maintained. .5 Allow for work after hours as required

to meet project schedule and coordinate with Owner if applicable. 18. INTERRUPTIONS

19. FIRE STOPPING

.1 Arrange execution of work to maintain present building operations and to minimize the effect of this work on

existing operations. .2 Contractor to coordinate with Owner to avoid interruptions of services during normal building occupied hours. Contractor shall schedule all disruptions and include for premium to perform work associated during unoccupied hours.

.1Fire stop all penetrations through fire separations after installation to comply separation ratings. Fire stopping

with codes and to provide equal fire systems to be UL listed for the application. Submit shop drawings for

20. CUTTING AND PATCHING

.1The general trade will be responsible for all cutting and patching required for electrical installation. Structural members must not be cut without consent of the

.2Where work done by the Electrical Contractor damages the work of other trades, the Electrical Contractor shall repair and make good such damage to the satisfaction of each trade concerned and the Engineer.

21. CLEAN UP .1Keep the site free during construction of debris, boxes, packing, and other

this trade. .2 All waste material shall be disposed of in a safe and environmentally responsible manner and in accordance with Government Regulations. .3Upon completion of work, the electrical

materials associated with the work of

installation shall be left in a clean and

finished condition to the satisfaction of

the Engineer. 22. IDENTIFICATION

.1Identify all major pieces of equipment, including but not limited to panelboards electrical cabinets, and breakers in CDP type panelboards with engraved lamacoid labels, white lettering on black

.2Provide typewritten directories in all new and existing panels. Confirm existing identification and correct where necessary.

.3Fire alarm breaker to be painted red and clearly identified.

.4Label all receptacles with panelboard and circuit number (ie. A19, for Panel A, Circuit 19) using P-Touch type labels. Black on white background. For all receptacles other than standard 20A duplex receptacles, labels shall include amp rating, phase and voltage .5Label all disconnect switches with mechanical equipment identification number and circuit number.

.1 All portions of electrical work shall be tested for satisfactory operation. .2Before energizing any portion of the electrical system, the Electrical Contractor shall perform megger tests on all feeders and branch circuits. Any problems discovered by such testing shall be corrected by the Electrical Contractor and the circuits in question retested. The results of all final testing shall be provided to the Engineer in

.3Upon project completion, and immediately prior to final inspection and takeover, the Electrical Contractor shall check the load balance on all feeders and at distribution centres, load centres, and panels. These checks shall be carried out by turning on all loads and checking load current balance. If load unbalance exceeds 15 %, the circuits shall be reconfigured as necessary to balance the loads.

24. PAINTING AND FINISHES

.1 All electrical fittings, supports, hanger rods, channel frames, conduit racks, outlet boxes, brackets, and clamps are to have a galvanized finish or a paint finish over corrosion-resistant primer. .2 All panels shall be factory—finished with spray—on air dry enamel. All enamel shall be applied over corrosion-resistant primer. Matte or flat type finish paint will not be accepted. All panels or similar factory-finished units that are scratched or marked during installation shall be touched up with matching spray-on air dry lacquer and, if

required to provide a satisfactory job, shall be completely refinished. .3All panelboards, pullboxes, and other electrical cabinets and boxes shall be

finished in grey enamel. 25. CONDUIT AND FITTINGS

.1 All conduit shall be EMT thinwall type. PVC conduit or rigid metal conduit shall be used in exterior locations only. ENT is not acceptable. .2Unless otherwise noted, conduit shall be

concealed in all finished areas. In service areas, conduit shall be run on surface unless indicated otherwise. .3Surface mounted conduit shall be installed parallel to structural lines, and, where bends occur in parallel runs, they shall be concentric

.4Raceways shall be installed free from dents and bruises and shall have their ends capped, plugged, or sealed as necessary to prevent entrance of dirt or

.5Fittings and couplings shall be steel

.6In all areas subject to moisture, watertight fittings must be used. .7 All raceways, except where otherwise indicated, shall be sized in accordance with the NEC.

.8Flexible metal conduit or TECK90 cable is be utilized for connections to motors, transformers, and motor controllers. 26. UNDERGROUND CONDUIT SYSTEMS AND

depth required by code.

TRENCHING .1 All underground conduit systems shall be of approved RPVC Schedule 40 conduit, complete with installed bonding conductor, and installed at or below the

.2Provide pull boxes and manholes as indicated on the drawings and at at every 200' length of conduit. Provide bell ends where conduits enter pullboxes

.3Provide 6" clean sand bedding above and 3" below conduits and continuous

marking tape 12" below grade. Provide suitable backfill and compaction .4Include in tender for excavation and

trenching. 27. WIRE AND CABLE

.1 All wire and cable shall be installed in conduit.

.2Lighting and receptacle drops from ceiling mounted distribution box may be AC90. AC90 runs in ceiling space shall not exceed 10' in length.

.3All building wiring shall be copper, minimum conductor size #12AWG and insulation type THHN or THWN rated for 90 degC, except where noted otherwise. Solid conductor #12 and #10, stranded conductors #8 and larger.

.4All conductors shall be colour coded throughout the installation as follows: - Equipment grounding conductor -

- Neutral conductor - white -120/208V phase wires - red, black, and blue -120/240V phase wires - red and

.5All cables installed underground shall be wet location rated. .6Size all conductors for maximum 2%

voltage drop. 28. OUTLET BOXES

.1Outlet boxes shall be electro-galvanized steel, sized as required by code. .2Confirm outlet locations and mounting heights with the project coordinator on site prior to installation

29. LOCATION OF OUTLETS

.1The Engineer reserves the right to change the location of outlets to within 10' of points indicated on plans without extra charge, provided the Electrical Contractor is advised before installation

30. PULLBOXES AND JUNCTION BOXES .1 Supply and install pullboxes and junction boxes as required to suit job conditions and shall conform to National Electrical Code requirements.

.2A minimum of one pull box shall be installed for every 100' of conduit.

.3No more than two 90 deg bends shall be allowed between pulling locations. .4Pullboxes and junction boxes shall be finished in grey enamel over corrosion-resistant primer with screw-on

or hinaed cover. 31. SWITCHES AND RECEPTACLES

.1 All switches and receptacles shall be specification commercial grade in white unless otherwise noted. .2Duplex receptacles, NEMA type 5—20R, 125V, U ground.

.3Switches shall be 20A, 125V, single pole, double pole, or three-way switches as indicated.

.4Cover plates shall be white high impact

.5Where duplex receptacles are exterior mounted or noted as "WP" provide weatherproof double lift spring-loaded cast aluminum cover plates, complete

with gaskets. 32. SUPPORTS

.1 All conduit, raceways, and other and adequately supported, in accordance with the National Electrical Code.

.2Where inserts are required in concrete, expansion inserts, lead shield inserts or plastic inserts shall be used in drilled holes. Shot driven pins may be used in structural concrete only with the permission of the Engineer.

33. DRY TYPE TRANSFORMERS

.1Provide 480V:120/208V dry type enclosed floor mounted step-up/step-down transformers, wattage as indicated on the drawings. .2Mount transformers on vibration isolation pads. Provide wall mounted brackets

.3Transformers shall be delta-wye configuration, 150 Deg C temperature rise. Insulation class 220 Deg C. .4Indoor mounted transformers shall be enclosed in NEMA3R ventilated, self cooled type fabricated from sheet steel with baked on gray enamel finish.

.5Outdoor mounted transformers shall be housed in NEMA4X non-ventilated enclosures. .6Use flexible conduit to make connections to transformer.

.7Perform tests in accordance with

manufacturer's recommendations. 34. GROUNDING AND BONDING .1A complete grounding and bonding system shall be supplied and installed in accordance with the National Electrical Code (Article 250) and the Electrical

Inspection Department. .2 All metal parts not carrying current, including but not limited to, secondary feeder circuits, transformers, electrical and mechanical equipment, panelboard enclosures, metal raceways, pull and junction boxes, shall be properly grounded. Metal raceways shall utilize double locknuts and other fittings where

necessary to provide ground continuity. STARTERS AND DISCONNECT SWITCHES .1Provide starters and disconnect switches for mechanical equipment as indicated in the Mechanical Equipment Schedule.

.2Provide local isolating disconnect switches as required by NEC. .3Starters shall be magnetic type with HOA switch, green and red indicating lights, and overload devices sized to

.4Disconnect switches shall be rated 240V, with poles to suit. .5Starters and disconnect switches mounted outdoors shall be housed in

suit the load.

NEMA4X enclosures.

35. PANELBOARDS AND BREAKERS

.1Provide complete panelboard. Unless otherwise indicated new panelboard shall be 277/480V, 3ø, 4W or 120/240V, 1ø, 3W solid neutral design with sequence style copper bussing and full capacity neutral with bolt-on circuit breakers. Where double neutrals are indicated on the single line diagram, provide 200% rated neutral panelboards. .2Provide all circuit breakers indicated plus a minimum of 4x20A 1P spares in each panel. Circuit breakers to be rated

.3Panels shall be flush mounted in public areas and surface mounted in service rooms, all complete with all trim, lockable doors and installation hardware

minimum 10kAlC. Unless otherwise

4Updated typewritten panel directories shall be provided for all panels.

indicated.

.5Utilize existing panelboards as indicated on the drawing. Reuse existing breakers where possible. Provide new breakers as required. Where new breakers are installed in existing panelboards, breaker manufacturer must match the panelboard manufacturer unless certified by approved testing agency.

.6Balance panel load for each phase A, B. & C. Allow for relocating circuits within panel board to balance the load. 36. LIGHTING SYSTEMS AND CONTROLS

.1Provide a complete and fully operational lighting system in conformance with code and UL listing requirements. Luminaires shall be in accordance with the luminaire types shown on the drawings and specifications in the

.2 All luminaires shall be complete with lamps, mounting brackets, ballasts, power supplies, and all necessary

.3All luminaires shall be aligned, as appropriate, with one another and with structural lines. New and relocated luminaires shall be independently supported by the building structure (not supported by dropped ceilings unless written confirmation provided that the dropped ceiling has been designed and constructed to support the additional weight of the luminaries). Aim and adjust luminaires as directed by the

.4 All luminaires shall be cleaned and lamped upon completion of work and prior to final acceptance. Utilize manufacturer's approved or recommended cleaning solutions 37. DATA/COMMUNICATIONS SYSTEM

.1Data/communications cabling and

equipment to be provided by Others.

THE MINISTRY OF PUBLIC WORKS

P.O. Box HM525 Hamilton HMCX Bermuda Phone: (441)295-5151

> DEPARTMENT OF WORKS & ENGINEERING

Water Section



ISSUED FOR: -

AMENDMENTS: | APP | DATE: NO: | REVISION

10/10/16

DATE:

DATE:

10/10/16

10/10/16

PLANNING

<u>SURVEY</u> PREPARED BY: DATE: 10/10/16 <u>DESIGN</u> PREPARED BY: DATE: 10/10/16 CHECKED BY: DATE: 10/10/16 <u>Drawing</u>

APPROVED BY:

PREPARED BY:

CHECKED BY:

PROJECT NAME:

PROJECT NUMBER:

FORT PROSPECT CENTRAL AREA PUMP STATION

14 FORT HILL ROAD

DEVONSHIRE

DRAWING FILE NO:

SHEET TITLE: ELECTRICAL

SPECIFICATIONS

SHEET NUMBER:

REVISION

