IFB# 17-052B
Electrical Gear and Equipment Addition
ADDENDUM No. 1
June 2, 2017

Clarifications

1. Attached to this Addendum you will find the revised drawings related to this project.

2. Deadline to submit questions will be extended to **June 7, 2017 at 2:00 PM EST** (via email to ehaubner@psta.net)

All other Bid terms and conditions originally issued remain unchanged.

REMINDER: Make sure you mark "Addendum No. 1" on Attachment "1" Acknowledgement of Addendum and remember to sign and return Acknowledgement Addendum form with your submittal package. Failure to do so may result in the disqualification of your Bid.

The IFB is revised to the extent specifically amended by this Addendum #1. Otherwise, all provisions of the IFB remain in effect.

Eric L. Haubner
Purchasing Agent II
Pinellas Suncoast Transit Authority
ehaubner@psta.net

PINELLAS SUNCOAST TRANSIT AUTHORITY

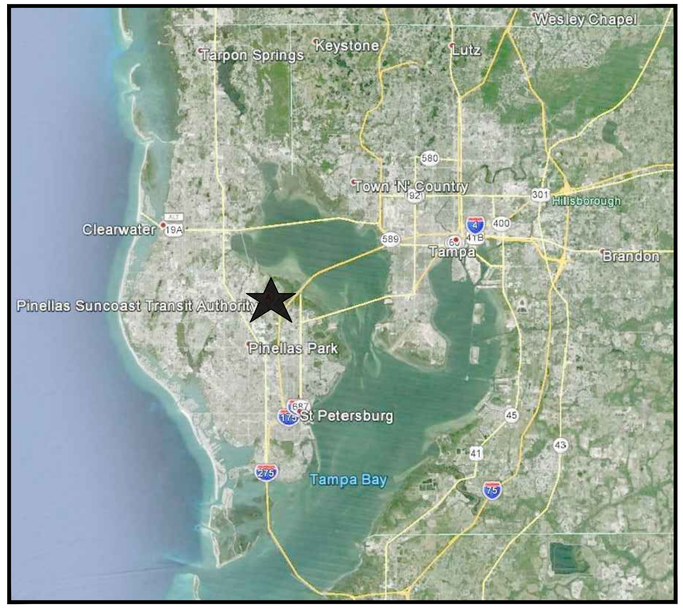
ELECTRICAL GEAR AND EQUIPMENT ADDITION

3201 SCHERER DRIVE

ST. PETERSBURG, FLORIDA 33716

04/18/2017

NO	DRAWING	DWG #	DRAWING TITLE
			DRAWING LIST **PINELLAS SUNCOAST TRANSIT AUTHORITY** **3201 SCHERER DRIVE, ST. PETERSBURG, FL 33716** **BRIDGE CRANE AND GEAR ADDITION** **HE# 16- 409**
			MECHANICAL
1	16409-E-0.1	E-0.1	ELECTRICAL SITE PLAN
2	16409-E-1.1	E-1.1	ELECTRICAL MAINT. BUILDING FIRST FLOOR - SECTION A
3	16409-E-1.2	E-1.2	ELECTRICAL MAINT. BUILDING FIRST FLOOR - SECTION B
4	16409-E-1.3	E-1.3	ELECTRICAL MAINT. BUILDING FIRST FLOOR - SECTION C
5	16409-E-1.4	E-1.4	ELECTRICAL FUEL AND REVENUE BUILDINGS
6	16409-E-2.1	E-2.1	ELECTRICAL RISER DIAGRAM
7	16409-E-2.2	E-2.2	ELECTRICAL PANEL SCHEDULES



SCOPE OF WORK

PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, PROGRAMMING, TESTING AND COMMISSIONING REQUIRED FOR AN EXTENSION OF THE EXISTING MAINTENANCE BUILDING ELECTRICAL POWER DISTRIBUTION SYSTEM. PROVIDE DISCONNECT SWITCHES, BREAKERS, GROUNDING, BRANCH CIRCUITS, CONDUIT, WIRING AND ALL OTHER ITEMS REQUIRED FOR A COMPLETE EXTENSION OF THE POWER DISTRIBUTION SYSTEM TO SUPPORT THE FOLLOWING NEW EQUIPMENT TO BE INSTALLED BY OTHERS:

- (10) RECEPTACLES FOR PORTABLE COLUMN LIFTS
- (1) FREESTANDING BRIDGE CRANE
- (1) ROLLER BRAKE DYNO MACHINE (ADD ALTERNATE #1)
- (1) PARALLELOGRAM LIFT MACHINE (ADD ALTERNATE #2)
- (1) WHEEL ALIGNMENT MACHINE (ADD ALTERNATE #3)
- (1) 30 AMP THREE PHASE 208V RECEPTACLE (ADD ALTERNATE #4)
- (1) 50 AMP THREE PHASE RECEPTACLE AND 35 AMP BREAKER (ADD ALTERNATE #5) 1

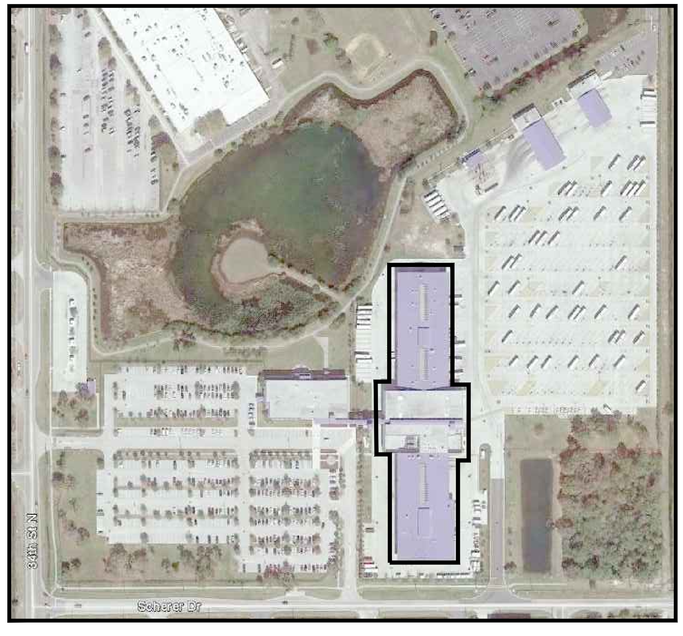
ALL EQUIPMENT WILL BE POWERED FROM AN EXTENSION OF THE EXISTING ELECTRICAL SERVICE IN THE MAINTENANCE BUILDING.

WORKMANSHIP FOR ALL ELECTRICAL SYSTEMS SHALL BE NEAT AND PROFESSIONAL AND SHALL COMPLY WITH CURRENT NECA/NEIS INSTALLATION STANDARDS.

AMPLE SPACE ON SITE IS AVAILABLE FOR MATERIAL STAGING AND LAY DOWN AREAS. THE STAGING/LAY DOWN AREAS SHALL BE COORDINATED WITH THE OWNER AND PROPERLY SEPARATED AND SECURED WITH FENCING. THE OWNER WILL NOT PROVIDE SECURE STORAGE FOR ANY MATERIAL OR EQUIPMENT.

FAMILIARITY OF WORK

IT IS EXPECTED THAT THE SUCCESSFUL CONTRACTOR WILL HAVE PERFORMED A DETAILED REVIEW OF THE PROJECT AND PROJECT REQUIREMENTS, INCLUDING SITE REVIEW SUCH THAT SEQUENCING, STAGING, ACCESS, AND POTENTIAL AREAS WITH DIFFICULT EXISTING FIELD CONDITIONS ARE ACCOUNTED FOR IN THE BID. CONTRACTOR'S UNFAMILIARITY WITH EXISTING SITE CONDITIONS WILL NOT BE CONSIDERED A MEANS FOR COMPENSATION ADJUSTMENTS.



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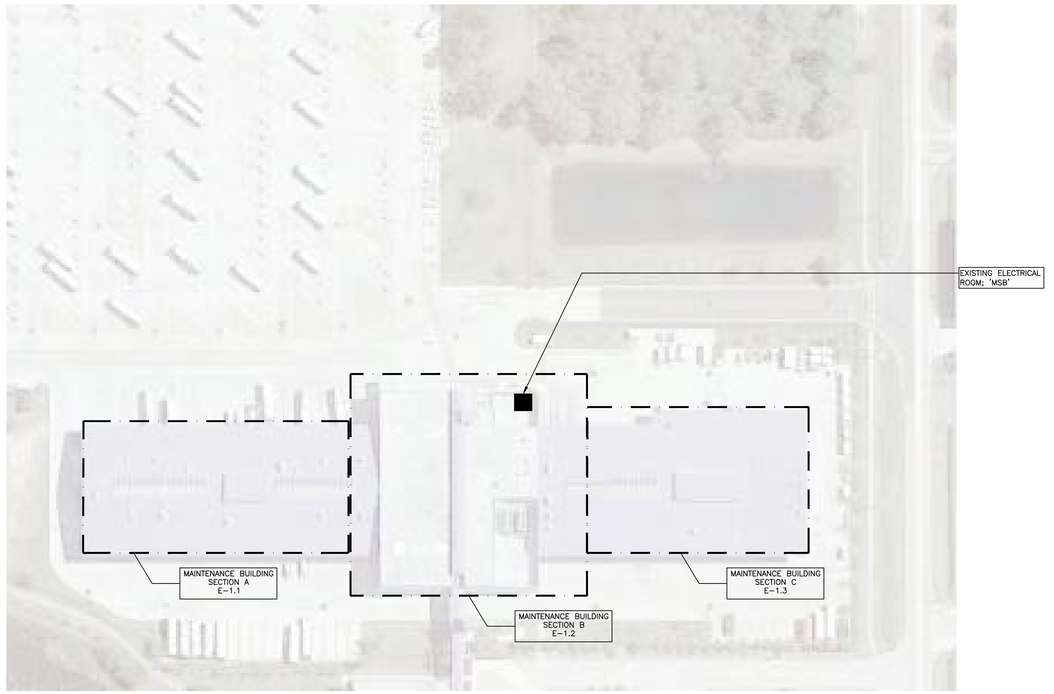
1	06/01/2017	ADDENDUM #1

LEGEND	
GFCI	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE – INSTALL WITH GROUND PIN. SURFACE MOUNTED. HEIGHT @ 30" AFF UNLESS DESIGNATED OTHERWISE.
	SPECIAL RECEPTACLE – SEE PANEL SCHEDULE. HEIGHT @ 30" UNLESS DESIGNATED OTHERWISE.
	HEAVY DUTY FUSED DISCONNECT SWITCH WP=WEATHERPROOF NEMA 3R
CNG	COMPRESSED NATURAL GAS
RGS	RIGID GALVANIZED STEEL CONDUIT
EMT	ELECTRICAL METALLIC TUBING CONDUIT
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
CU	COPPER
EGC	EQUIPMENT GROUNDING CONDUCTOR
AFF	ABOVE FINISHED FLOOR



GENERAL NOTES

1. WORK SHALL MEET OR EXCEED REGULATORY REQUIREMENTS, INCLUDING LATEST EDITION OF THE NFPA 101 (LIFE SAFETY CODE), THE NATIONAL ELECTRICAL CODE 2011, FLORIDA BUILDING CODE 5TH EDITION (2014) AND LOCAL REQUIREMENTS & BUILDING CODES.
2. EQUIPMENT, FIXTURES, SWITCHES, STARTERS, CONTACTORS, CONTROLS, DEVICES, CONNECTIONS, BOXES, MOUNTING SUPPORTS, HARDWARE, WIRE, CONDUIT & ACCESSORIES SHALL BE PER PLANS AND SPECIFICATIONS FOR COMPLETE AND OPERATING ELECTRICAL SYSTEMS.
3. CIRCUIT NUMBERS INDICATED ON THE DRAWINGS ARE FOR REFERENCE USE. CONTRACTOR TO BALANCE THE LOADS IN ALL PANELS IN WHICH WORK IS PERFORMED. MAINTAIN COMPLETE AS-BUILT DRAWINGS. PROVIDE ELECTRONIC AS-BUILT DRAWINGS AT COMPLETION OF PROJECT. ELECTRONIC SET OF DRAWINGS WILL BE PROVIDED OFR USE TO UPDATE THROUGHOUT PROJECT.
4. PROVIDE ENGRAVED NAMEPLATES FOR ALL ELECTRICAL EQUIPMENT.
5. PROVIDE REQUIRED CONDUIT & CABLE PENETRATIONS THROUGH PARTITIONS, WALLS, FLOORS, SLABS & ROOFS, WITH APPROVED FIRE SEALANT COMPOUND.
6. CONDUCTORS SHALL BE COPPER, 600 VOLT WITH MINIMUM SIZE OF #12 AWG THWN / THHN, UNLESS OTHERWISE SPECIFIED. WIRE SIZES OF #10 AND LARGER SHALL BE STRANDED.
7. EQUIPMENT SHALL BE RATED FOR MAXIMUM AVAILABLE VOLTAGE AND GROUND FAULT CURRENT. ALL EQUIPMENT SHALL HAVE U. L. LISTING.
8. CONTRACTOR SHALL COORDINATE ELECTRICAL REQUIREMENTS AND MAKE FINAL CONNECTIONS OF EQUIPMENT FURNISHED BY OTHER TRADES.
9. CONTRACTOR SHALL MAINTAIN A COMPLETE TEMPORARY POWER SYSTEM DURING CONSTRUCTION. COORDINATE ALL POWER OUTAGES & CHANGEOVERS WITH THE OWNER.
10. CONTRACTOR SHALL GUARANTEE MATERIALS AND WORKMANSHIP FOR ONE YEAR.
11. CONTRACTOR SHALL OBTAIN AND PAY FOR PERMITS AND INSPECTIONS.
12. EXPOSED EXTERIOR CONDUIT SHALL BE RIGID GALVANIZED STEEL. ALL EXPOSED INTERIOR CONDUIT SHALL BE RIGID GALVANIZED STEEL. CONDUIT INSTALLED BELOW SLAB OR UNDERGROUND MAY BE SCHEDULE 40 PVC OR RIGID GALVANIZED STEEL PAINTED WITH HEAVY COAT OF BITUMASTIC PAINT (3/4" MINIMUM). CONDUIT SHALL BE CONCEALED WHERE POSSIBLE. CONCEALED CONDUIT IN WALLS AND CEILINGS SHALL BE EMT. EMT FITTINGS SHALL BE DIE CAST SET SCREW TYPE AT DRY INTERIOR LOCATIONS. EMT FITTINGS AT DAMP, OR WET LOCATIONS SHALL BE DIE CAST COMPRESSION RAIN-TIGHT TYPE. ALL WIRING SHALL BE IN CONDUIT.
13. PROVIDE GREEN GROUND WIRE IN EACH RACEWAY, SIZE WIRE IN ACCORDANCE WITH TABLE 250.122 OF THE NEC.
14. PANELBOARDS SHALL BE CIRCUIT BREAKER TYPE AS MANUFACTURED BY SIEMENS, OR AS NOTED. PANELBOARDS SHALL HAVE A HINGED LOCKING DOOR. PANELS RATED 600 AMPS AND LARGER SHALL HAVE HINGES ON THE COVER SO THAT THE COVER IS SUPPORTED AND MAY SWING TO THE SIDE WHEN THE COVER BOLTS ARE REMOVED.
15. PROVIDE A TYPEWRITTEN CIRCUIT DIRECTORY WITH PROTECTIVE COVERING. WIRES IN PANEL SHALL BE TAGGED WITH CIRCUIT NUMBER. CIRCUIT BREAKERS FOR MECHANICAL EQUIPMENT SHALL BE HACR TYPE.
16. CIRCUIT BREAKERS, TRANSFORMERS, DISCONNECT SWITCHES, MOTOR STARTERS AND OTHER ELECTRICAL APPARATUS INSTALLED FOR THE OPERATION OF ANY EQUIPMENT SHALL BE PROPERLY IDENTIFIED WITH ENGRAVED LAMINATED PLASTIC NAMEPLATES ATTACHED TO EQUIPMENT BY STAINLESS STEEL SCREWS.
17. WIREWAYS, PULLBOXES, OUTLETS AND JUNCTION BOXES SHALL BE PROPERLY SIZED PER THE NATIONAL ELECTRICAL CODE. ALL PULLBOXES AND OUTLET BOXES SHALL BE PLAINLY COLOR CODED AND HAVE WIRING TAGGED TO INDICATE PANEL AND CIRCUIT NUMBERS.
18. DISCONNECT SWITCHES SHALL BE SIEMENS SAFETY SWITCHES. SWITCHES SHALL BE HEAVY DUTY AND RATED FOR THE PROPER VOLTAGE. SWITCHES SHALL BE RATED AS INDICATED ON THE DRAWINGS FOR SIZE, NUMBER OF POLES AND TYPE ENCLOSURE.
19. FUSES SHALL BE BUSSMAN CURRENT LIMITING TYPE.
20. WHERE RECEPTACLES ARE INSTALLED CLOSER THAN 72" FROM EDGE OF SINK OR LAV, RECEPTACLE SHALL BE OF THE GROUND FAULT CIRCUIT INT. TYPE, OR SERVED BY A GFCI BREAKER.
21. EXTERIOR RECEPTACLES SHALL BE WP GFCI TYPE WITH WP WHILE IN USE COVER. PROVIDE RECEPTACLE AT ELECTRICAL EQUIPMENT.
22. BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED FOR NO MORE THAN 3% VOLTAGE DROP AT THE FARTHEST POINT. 20 AMPERE BRANCH CIRCUITS SHALL HAVE MINIMUM SIZE #10 COPPER HOMERUN WIRING FOR CIRCUITS OVER 57' LONG & #8 COPPER HOMERUN WIRING FOR CIRCUITS OVER 150' LONG.
23. DISPOSE OF LAMPS, BALLASTS, & OTHER HAZARDOUS MATERIALS IN ACCORDANCE WITH FEDERAL, STATE, LOCAL, & EPA REGULATIONS.
24. PROVIDE FLEXIBLE CONDUIT & WIRING CONNECTION TO MOTORS & VIBRATING EQUIPMENT.
25. OUTDOOR EQUIPMENT, CONDUIT & CONNECTIONS SHALL BE WEATHERPROOF.
26. PROVIDE A DEDICATED NEUTRAL FOR ALL CIRCUITS.
27. WHERE GFCI RECEPTACLES ARE SHOWN, A SEPARATE GFCI DEVICE SHALL BE PROVIDED, THEY SHALL NOT BE SLAVED.
28. PRIOR TO COMPLETION OF THE PROJECT, PROVIDE WRITTEN CERTIFICATION FOR EACH LIFE SAFETY AND LOW VOLTAGE ELECTRICAL SYSTEM.

BID SET

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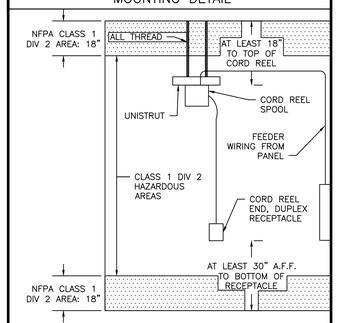
TITLE	ELECTRICAL SITE PLAN
SCALE	1/64"=1'
FILE	16409-Elec.dwg
JOB	16-409
DRAWN	J.D.E.
CHECK	J.J.H.
SHEET	E-0.1
DATE	04/18/17 BID SET

MOUNTING DETAIL

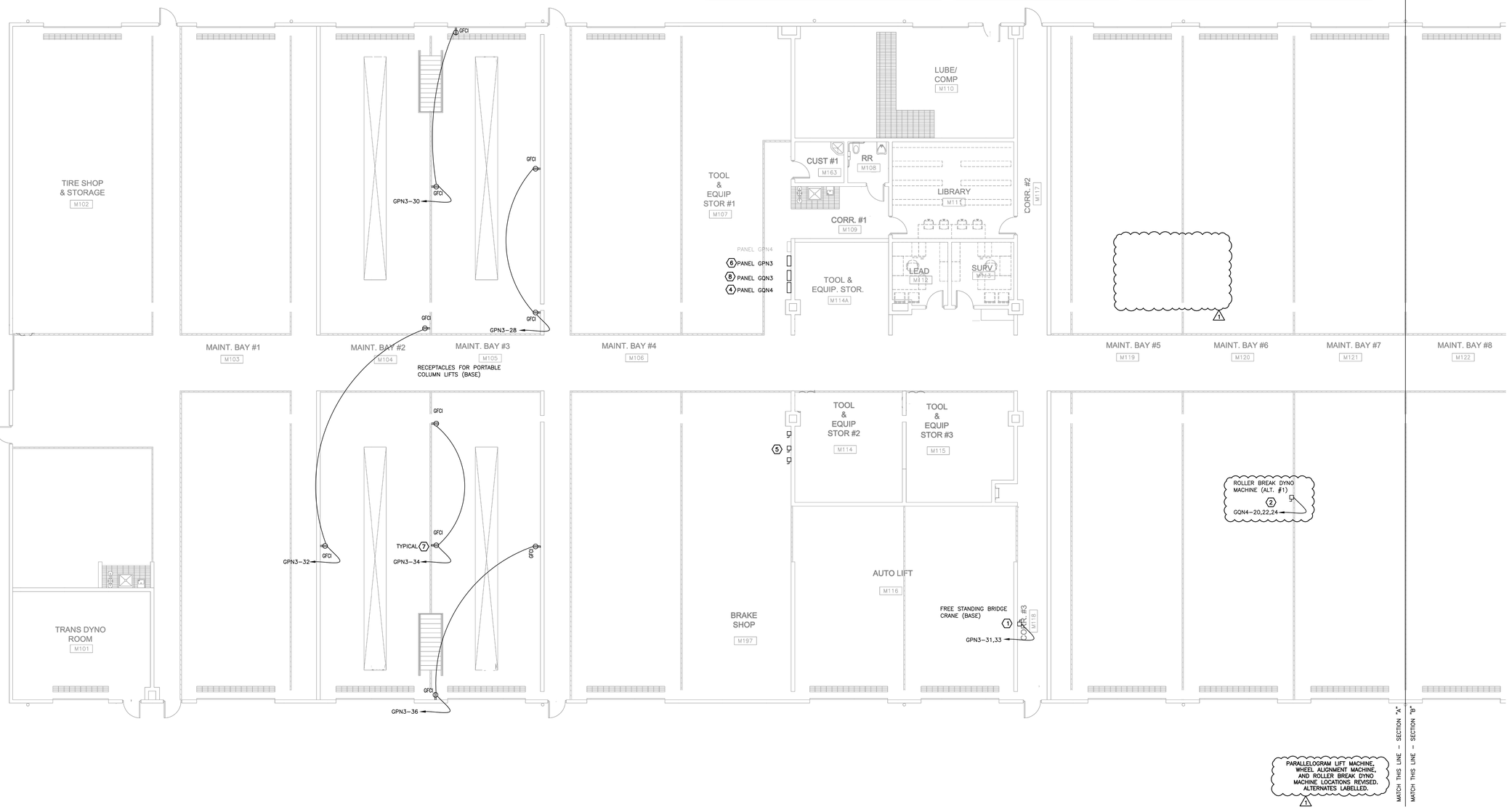


GENERAL NOTES

1. ALL INTERIOR EXPOSED CONDUIT SHALL BE RGS. NO CONDUIT SHALL PASS THROUGH NFPA CLASSIFIED AREAS.
2. ALL CONDUIT SHALL BE ROUTED PARALLEL AND PERPENDICULAR TO BUILDING LINES.
3. SURVEY EXISTING STRUCTURE, UTILITIES AND EQUIPMENT PRIOR TO ROUGH-IN. NOTIFY OWNER AND ENGINEER OF ANY CONFLICTS PRIOR TO ROUGH IN.
4. PAINT ALL EXPOSED CONDUIT AND HANGERS TO MATCH SURROUNDING SURFACES. OBTAIN PAINT COLOR CODES/INFORMATION FROM THE OWNER.
5. WORKMANSHIP FOR ALL ELECTRICAL SYSTEMS SHALL BE NEAT AND PROFESSIONAL AND SHALL COMPLY WITH CURRENT NECA/NEIS INSTALLATION STANDARDS.
6. THE SPACE WITHIN 18" OF THE ROOF OF THE MAINTENANCE BAYS IS A HAZARDOUS RATED AREA DUE TO THE POSSIBLE PRESENCE OF CNG. ALL CONDUIT AND WIRING LOCATED WITHIN THIS SPACE SHALL BE CLASS 1 DIV 2 RATED AND CONDUIT SHALL BE SIZED FOR NO MORE THAN 25% FILL.
7. ALL RECEPTACLES AND ELECTRICAL DEVICES IN AND AROUND THE MAINTENANCE BAYS SHALL BE INSTALLED A MINIMUM OF 30" AFF IN MAINTENANCE BAYS AND SHOPS. THE AREA FROM THE FLOOR TO 18" ABOVE THE FLOOR IS A CLASS 1 DIV 2 HAZARDOUS AREA.

DRAWING NOTES

1. PROVIDE NEMA 3R 30 AMP HEAVY DUTY THREE PHASE FUSED DISCONNECT FOR BRIDGE CRANE AT LOCATION SHOWN. AT BRIDGE CRANE, PROVIDE JUNCTION BOX AND PROVIDE FEEDERS FROM JUNCTION BOX TO EACH MOTOR. PROVIDE FEEDER WIRING, ONE SET OF (3) #8 THWN CU AND (1) #10 THWN CU EGC IN 1" CONDUIT. VERIFY ELECTRICAL REQUIREMENTS OF BRIDGE CRANE PRIOR TO ORDERING ELECTRIC GEAR. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS.
2. PROVIDE 50A-3P DISCONNECT FOR ROLLER BRAKE DYNO (DYNAMOMETER). FIELD VERIFY LOCATION PRIOR TO ROUGH IN. PROVIDE FEEDER WIRING, ONE SET OF (4) #8 THWN CU AND (1) #10 THWN CU EGC IN 1" CONDUIT. PROVIDE REQUIRED FRAME AND ALL OTHER MATERIALS REQUIRED TO HANG IT TO MATCH OTHER DEVICES THROUGHOUT THE BAYS.
3. (UNUSED)
4. EXISTING 225 AMP 480/277V PANEL 'GQN4.' SEE SCHEDULES.
5. EXISTING DISCONNECTS AND FEEDER CIRCUITS: GPN3-31,33,35; GPN3-37,39,41; AND GQN3-25,27,29. DEMOLISH AND DISPOSE OF DISCONNECTS, AND REMOVE FEEDER CIRCUITS ALL THE WAY BACK TO SOURCE. VERIFY WITH OWNER WHETHER TO REMOVE BREAKERS FROM PANELS AND HAND OVER TO OWNER FOR REUSE OR TO RELABEL CIRCUITS ON PANEL SCHEDULE AS "SPARE" FOR EACH.
6. EXISTING 225 AMP 208/120V PANEL 'GPN3.' SEE SCHEDULES.
7. PROVIDE HUBBELL HBL45123R CORD REEL OR EQUAL FOR PORTABLE COLUMN LIFTS. MOUNT CORD REEL BENEATH CLASSIFICATION ZONE USING ALL THREAD AND UNISTRUT ASSEMBLY. SEE MOUNTING DETAIL, THIS SHEET. PROVIDE FEEDER WIRING, ONE SET OF (3) #12 THWN CU AND (1) #12 THWN CU EGC IN 1" CONDUIT. PROVIDE SHOP DRAWINGS FOR OWNER ENGINEER REVIEW.
8. EXISTING 225 AMP 480/277V PANEL 'GQN4.' SEE SCHEDULES.



ELECTRICAL RENOVATION – MAINTENANCE BUILDING FIRST FLOOR SECTION A

SCALE: 1/8"=1'-0"

A B C

BID SET

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ADDENDUM 1
06/01/2017

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PSTA
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PSTA

ELECTRICAL GEAR AND EQUIPMENT ADDITION
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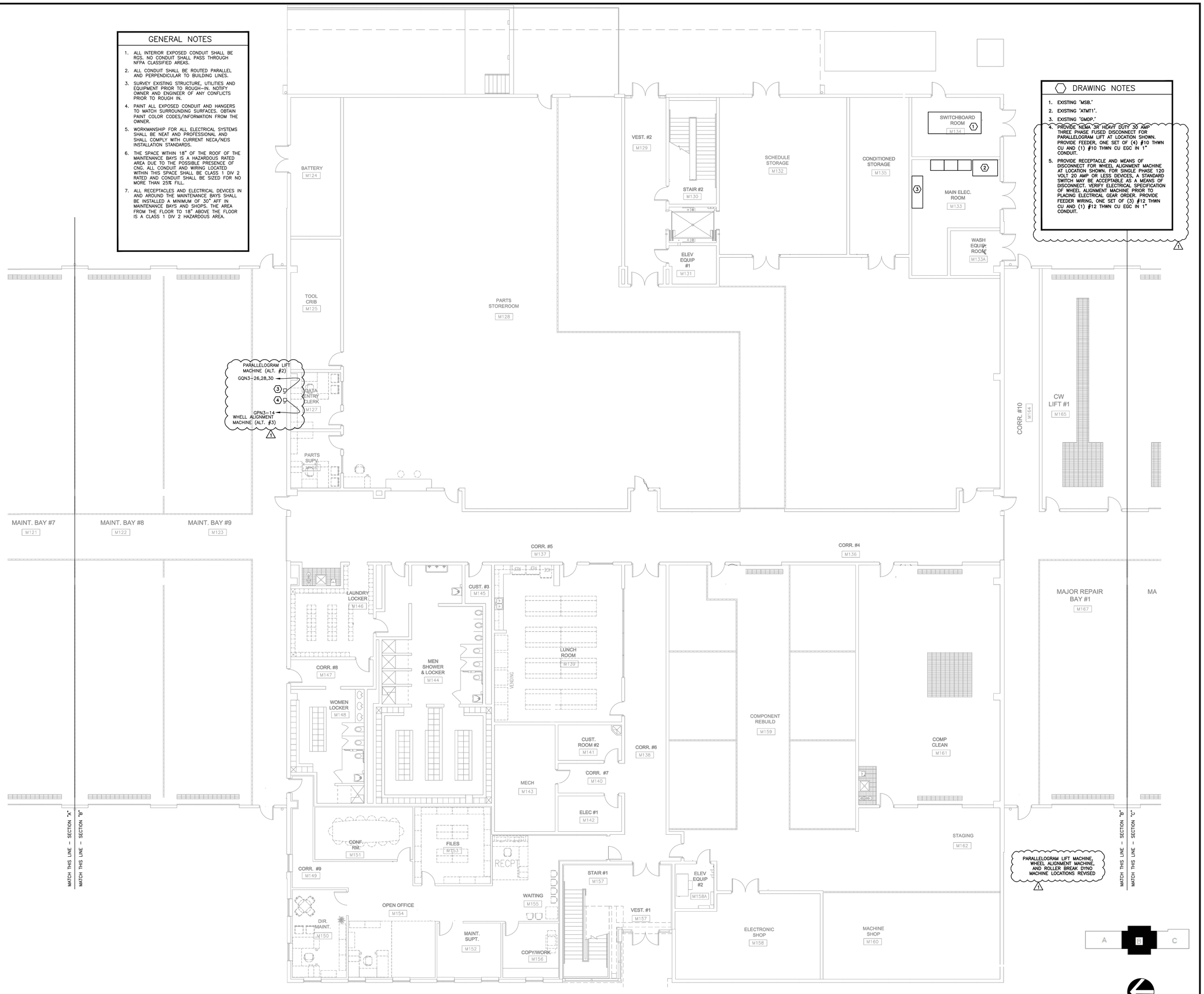
TITLE	ELECTRICAL MAINT. BUILDING FIRST FLOOR SECTION A
SCALE	1/8" = 1'-0"
FILE	16409-Elec.dwg
JOB	16-409
DRAWN	J.D.E.
CHECK	J.J.H.
SHEET	E-1.1
DATE	04/18/17 BID SET

GENERAL NOTES

1. ALL INTERIOR EXPOSED CONDUIT SHALL BE RGS. NO CONDUIT SHALL PASS THROUGH NFPA CLASSIFIED AREAS.
2. ALL CONDUIT SHALL BE ROUTED PARALLEL AND PERPENDICULAR TO BUILDING LINES.
3. SURVEY EXISTING STRUCTURE, UTILITIES AND EQUIPMENT PRIOR TO ROUGH-IN. NOTIFY OWNER AND ENGINEER OF ANY CONFLICTS PRIOR TO ROUGH IN.
4. PAINT ALL EXPOSED CONDUIT AND HANGERS TO MATCH SURROUNDING SURFACES. OBTAIN PAINT COLOR CODES/INFORMATION FROM THE OWNER.
5. WORKMANSHIP FOR ALL ELECTRICAL SYSTEMS SHALL BE NEAT AND PROFESSIONAL AND SHALL COMPLY WITH CURRENT NECA/NEIS INSTALLATION STANDARDS.
6. THE SPACE WITHIN 18" OF THE ROOF OF THE MAINTENANCE BAYS IS A HAZARDOUS RATED AREA DUE TO THE POSSIBLE PRESENCE OF CNG. ALL CONDUIT AND WIRING LOCATED WITHIN THIS SPACE SHALL BE CLASS 1 DIV 2 RATED AND CONDUIT SHALL BE SIZED FOR NO MORE THAN 25% FILL.
7. ALL RECEPTACLES AND ELECTRICAL DEVICES IN AND AROUND THE MAINTENANCE BAYS SHALL BE INSTALLED A MINIMUM OF 30" AFF IN MAINTENANCE BAYS AND SHOPS. THE AREA FROM THE FLOOR TO 18" ABOVE THE FLOOR IS A CLASS 1 DIV 2 HAZARDOUS AREA.

DRAWING NOTES

1. EXISTING 'MSB.'
2. EXISTING 'ATMT1'.
3. EXISTING 'GMDP.'
4. PROVIDE NEMA 3R HEAVY DUTY 30 AMP THREE PHASE FUSED DISCONNECT FOR PARALLELOGRAM LIFT AT LOCATION SHOWN. PROVIDE FEEDER, ONE SET OF (4) #10 THWN CU AND (1) #10 THWN CU EGC IN 1" CONDUIT.
5. PROVIDE RECEPTACLE AND MEANS OF DISCONNECT FOR WHEEL ALIGNMENT MACHINE AT LOCATION SHOWN. FOR SINGLE PHASE 120 VOLT 20 AMP OR LESS DEVICES, A STANDARD SWITCH MAY BE ACCEPTABLE AS A MEANS OF DISCONNECT. VERIFY ELECTRICAL SPECIFICATION OF WHEEL ALIGNMENT MACHINE PRIOR TO PLACING ELECTRICAL GEAR ORDER. PROVIDE FEEDER WIRING, ONE SET OF (3) #12 THWN CU AND (1) #12 THWN CU EGC IN 1" CONDUIT.



ELECTRICAL RENOVATION – MAINTENANCE BUILDING FIRST FLOOR SECTION B
SCALE: 1/8"=1'-0"

BID SET

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TITLE	ELECTRICAL MAINT. BUILDING FIRST FLOOR SECTION B
SCALE	1/8" = 1'-0"
FILE	16409-Elec.dwg
JOB	16-409
DRAWN	J.D.E.
CHECK	J.J.H.
SHEET	E-1.2
DATE	04/18/17 BID SET

GENERAL NOTES

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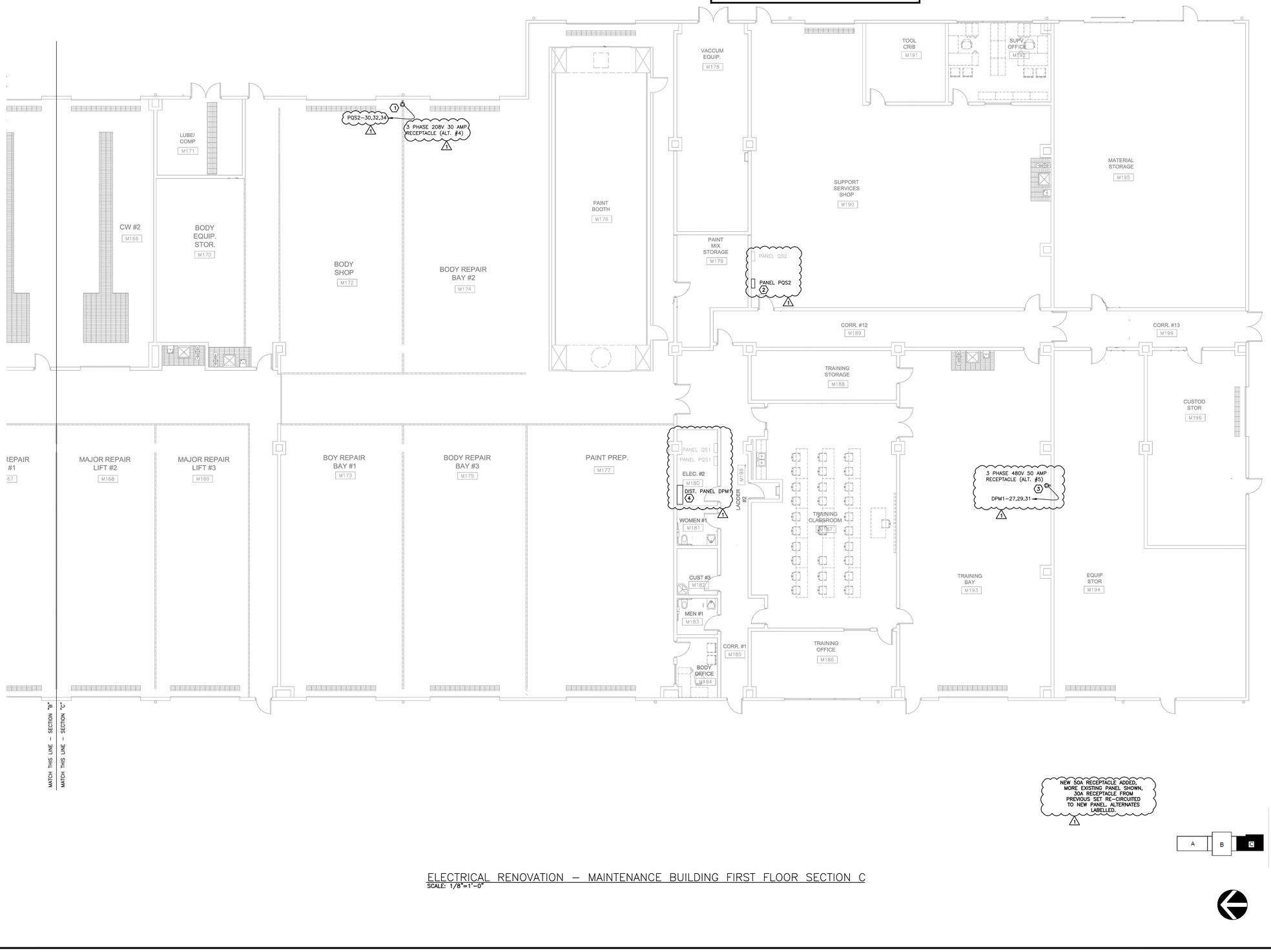
7. ALL RECEPTACLES AND ELECTRICAL DEVICES IN AND AROUND THE MAINTENANCE BAYS SHALL BE INSTALLED A MINIMUM OF 30" AFF IN MAINTENANCE BAYS AND SHOPS. THE AREA FROM THE FLOOR TO 18" ABOVE THE FLOOR IS A CLASS 1 DIV 2 HAZARDOUS AREA.

DRAWING NOTES

1. PROVIDE NEW NEMA 15-30 30 AMP THREE PHASE POWER OUTLET. FIELD VERIFY LOCATION OF OUTLET PRIOR TO PLACING ELECTRICAL GEAR ORDER. MOUNT AT LEAST 30" ABOVE FINISHED FLOOR ON WALL. PROVIDE ALL NECESSARY WIRE, CONDUIT, AND MOUNTING EQUIPMENT FOR A COMPLETE AND OPERATIONAL OUTLET.
2. EXISTING PANEL "PQS2." PROVIDE 100% RATED 30 AMP 3 POLE BREAKER FOR NEW NEMA 15-30 RECEPTACLE. PROVIDE FEEDER WIRING, ONE SET OF (4) #10 THWN CU AND (1) #10 THWN CU EGC IN 1" CONDUIT.
3. PROVIDE NEW 50A THREE PHASE RECEPTACLE. FIELD VERIFY LOCATION PRIOR TO PLACING ELECTRICAL GEAR ORDER. PROVIDE ALL NECESSARY WIRE AND CONDUIT FOR A COMPLETE AND OPERATIONAL RECEPTACLE.
4. EXISTING DISTRIBUTION PANEL "DPM1." PROVIDE 35 AMP 3 POLE BREAKER FOR NEW 50 AMP RECEPTACLE. PROVIDE FEEDER WIRING, ONE SET OF (4) #10 THWN CU AND (1) #10 THWN CU EGC IN 1" CONDUIT.



ELECTRICAL RENOVATION – MAINTENANCE BUILDING FIRST FLOOR SECTION C
SCALE: 1/8"=1'-0"

BID SET

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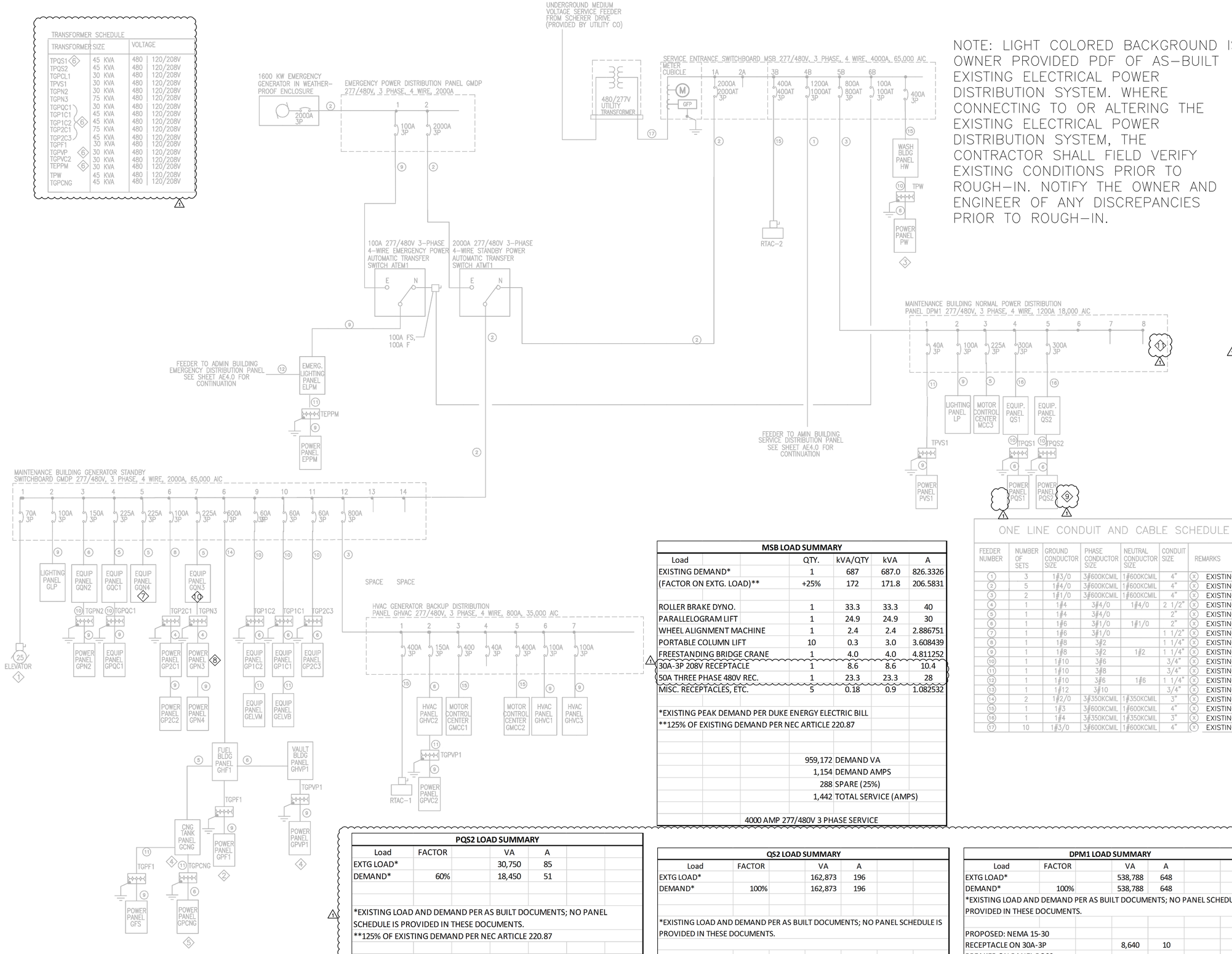
TITLE	ELECTRICAL MAINT. BUILDING FIRST FLOOR SECTION C
SCALE	1/8" = 1'-0"
FILE	16409-Elec.dwg
JOB	16-409
DRAWN	J.D.E.
CHECK	J.J.H.
SHEET	E-1.3
DATE	04/18/17 BID SET

TRANSFORMER SCHEDULE			
TRANSFORMER	SIZE	VOLTAGE	
TPQS1 (6)	45 KVA	480	120/208V
TPQS2	45 KVA	480	120/208V
TPCL1	30 KVA	480	120/208V
TPVS1	30 KVA	480	120/208V
TGPN2	30 KVA	480	120/208V
TGPN3	75 KVA	480	120/208V
TGPQC1	30 KVA	480	120/208V
TGP1C1 (6)	45 KVA	480	120/208V
TGP1C2 (6)	45 KVA	480	120/208V
TGP2C1	75 KVA	480	120/208V
TGP2C3	45 KVA	480	120/208V
TGPF1	30 KVA	480	120/208V
TGPVP (6)	30 KVA	480	120/208V
TGPVC2 (6)	30 KVA	480	120/208V
TEPPM (6)	30 KVA	480	120/208V
TPW	45 KVA	480	120/208V
TGPCNG	45 KVA	480	120/208V



NOTE: LIGHT COLORED BACKGROUND IS OWNER PROVIDED PDF OF AS–BUILT EXISTING ELECTRICAL POWER DISTRIBUTION SYSTEM. WHERE CONNECTING TO OR ALTERING THE EXISTING ELECTRICAL POWER DISTRIBUTION SYSTEM, THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO ROUGH–IN. NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES PRIOR TO ROUGH–IN.

MSB LOAD SUMMARY

Load	QTY.	kVA/QTY	kVA	A
EXISTING DEMAND*	1	687	687.0	826.3326
(FACTOR ON EXTG. LOAD)**	+25%	172	171.8	206.5831
ROLLER BRAKE DYNO.	1	33.3	33.3	40
PARALLELOGRAM LIFT	1	24.9	24.9	30
WHEEL ALIGNMENT MACHINE	1	2.4	2.4	2.886751
PORTABLE COLUMN LIFT	10	0.3	3.0	3.608439
FREESTANDING BRIDGE CRANE	1	4.0	4.0	4.811252
30A–3P 208V RECEPTACLE	1	8.6	8.6	10.4
50A THREE PHASE 480V REC.	1	23.3	23.3	28
MISC. RECEPTACLES, ETC.	5	0.18	0.9	1.082532

*EXISTING PEAK DEMAND PER DUKE ENERGY ELECTRIC BILL
**125% OF EXISTING DEMAND PER NEC ARTICLE 220.87

959,172 DEMAND VA
1,154 DEMAND AMPS
288 SPARE (25%)
1,442 TOTAL SERVICE (AMPS)

4000 AMP 277/480V 3 PHASE SERVICE

PQS2 LOAD SUMMARY

Load	FACTOR	VA	A
EXTG LOAD*		30,750	85
DEMAND*	60%	18,450	51
*EXISTING LOAD AND DEMAND PER AS BUILT DOCUMENTS; NO PANEL SCHEDULE IS PROVIDED IN THESE DOCUMENTS.			
**125% OF EXISTING DEMAND PER NEC ARTICLE 220.87			
PROPOSED:			
NEMA 15-30 RECEPTACLE ON 100% RATED 30A-3P BREAKER		8,640	24
		27,090	DEMAND VA
		75	DEMAND AMPS
		19	SPARE (25%)
		94	TOTAL SERVICE (AMPS)

150 AMP 120/208V 3 PHASE SERVICE

QS2 LOAD SUMMARY

Load	FACTOR	VA	A
EXTG LOAD*		162,873	196
DEMAND*	100%	162,873	196
*EXISTING LOAD AND DEMAND PER AS BUILT DOCUMENTS; NO PANEL SCHEDULE IS PROVIDED IN THESE DOCUMENTS.			
PROPOSED:			
NEMA 15-30 RECEPTACLE ON 30A-3P BREAKER ON PANEL PQS2		8,640	10
		171,513	DEMAND VA
		206	DEMAND AMPS
		52	SPARE (25%)
		258	TOTAL SERVICE (AMPS)

400 AMP 277/480V 3 PHASE SERVICE FED BY 300A BREAKER

DPM1 LOAD SUMMARY

Load	FACTOR	VA	A
EXTG LOAD*		538,788	648
DEMAND*	100%	538,788	648
*EXISTING LOAD AND DEMAND PER AS BUILT DOCUMENTS; NO PANEL SCHEDULE IS PROVIDED IN THESE DOCUMENTS.			
PROPOSED: NEMA 15-30 RECEPTACLE ON 30A-3P BREAKER ON PANEL PQS2		8,640	10
PROPOSED: 50A-3P RECEPTACLE ON 35A-3P BREAKER		23,279	28
		570,707	DEMAND VA
		686	DEMAND AMPS
		103	SPARE (15%)
		789	TOTAL SERVICE (AMPS)

1200 AMP 277/480V 3 PHASE SERVICE FED BY 800A BREAKER

KEY NOTES (THIS SHEET ONLY)

1. EXISTING
2. EXISTING
3. EXISTING
4. EXISTING
5. EXISTING
6. EXISTING
7. EXISTING 225 AMP 480/277V PANEL 'GQN4.' SEE PANEL SCHEDULE. PROVIDE BREAKERS AS INDICATED.
8. EXISTING 225 AMP 208/120V PANEL 'GPN3.' SEE PANEL SCHEDULE. PROVIDE BREAKERS FOR NEW CIRCUITS.
9. EXISTING 150A 208/120V NORMAL POWER PANEL PQS2. PROVIDE (1) 30A–3P BREAKER FOR 30 AMP THREE PHASE RECEPTACLE IN BODY REPAIR BAY 2.
10. EXISTING 225 AMP 480/277V PANEL 'GQN3.' SEE PANEL SCHEDULE. PROVIDE BREAKERS FOR NEW CIRCUITS.
11. EXISTING 800 AMP 480/277V DISTRIBUTION PANEL 'DPM1.' PROVIDE (1) 35A–3P BREAKER FOR 50 AMP THREE PHASE RECEPTACLE IN TRAINING BAY.

ONE LINE CONDUIT AND CABLE SCHEDULE

FEEDER NUMBER	NUMBER OF SETS	GROUND CONDUCTOR SIZE	PHASE CONDUCTOR SIZE	NEUTRAL CONDUCTOR SIZE	CONDUIT SIZE	REMARKS
(1)	3	1#3/0	3#600KCMIL	1#600KCMIL	4"	(X) EXISTING
(2)	5	1#4/0	3#600KCMIL	1#600KCMIL	4"	(X) EXISTING
(3)	2	1#1/0	3#600KCMIL	1#600KCMIL	4"	(X) EXISTING
(4)	1	1#4	3#4/0	1#4/0	2 1/2"	(X) EXISTING
(5)	1	1#4	3#4/0		2"	(X) EXISTING
(6)	1	1#6	3#1/0	1#1/0	2"	(X) EXISTING
(7)	1	1#6	3#1/0		1 1/2"	(X) EXISTING
(8)	1	1#8	3#2		1 1/4"	(X) EXISTING
(9)	1	1#8	3#2	1#2	1 1/4"	(X) EXISTING
(10)	1	1#10	3#6		3/4"	(X) EXISTING
(11)	1	1#10	3#8		3/4"	(X) EXISTING
(12)	1	1#10	3#6	1#6	1 1/4"	(X) EXISTING
(13)	1	1#12	3#10		3/4"	(X) EXISTING
(14)	2	1#2/0	3#350KCMIL	1#350KCMIL	3"	(X) EXISTING
(15)	1	1#3	3#600KCMIL	1#600KCMIL	4"	(X) EXISTING
(16)	1	1#4	3#350KCMIL	1#350KCMIL	3"	(X) EXISTING
(17)	10	1#3/0	3#600KCMIL	1#600KCMIL	4"	(X) EXISTING

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ADDENDUM 1 06/01/2017

PINELLAS SUNCOAST TRANSIT AUTHORITY
PSTA
ELECTRICAL GEAR AND EQUIPMENT ADDITION
3201 SCHERER DRIVE, ST. PETERSBURG, FL 33716

PSTA
ELECTRICAL GEAR AND EQUIPMENT ADDITION
3201 SCHERER DRIVE, ST. PETERSBURG FLORIDA 33716

TITLE ELECTRICAL RISER DIAGRAM
SCALE N.T.S.
FILE 16409-Elec.dwg
JOB 16-409
DRAWN J.D.E.
CHECK J.J.H.
SHEET E-2.1
DATE 04/18/17 BID SET

BID SET

PANEL 'GQN4'

PANEL	GQN4	06/01/17	HERTZ	60		AUTO CALCULATIONS	
HI VOLTAGE		480	SYM RMS AMPS	22,000		LOAD (VA)	172,785
LOW VOLTAGE		277	BREAKER TYPE	MCB		DIVERSITY(VA)	0
PHASE		3	MAIN LUG AMPS	225A MCB		25% C LOAD	0
#WIRES		4	FED TOP/BOTTOM	TOP		TOTAL VA	172,785
NEUTRAL		Y	MOUNTING	SURFACE		TOTAL KVA	173
GROUND BUS Y/N		Y	NEMA TYPE	NEMA 1		CONN AMPS	208
GND WIRE Y/N		Y	MANUFACTURER	SQUARE D		FACTOR AMPS	0
WIRE THHN/THW		THWN	PANEL TYPE	NQOD		TOTAL AMPS	208
FROM		GMDP				DESIGN AMPS	225
NO.OF POLES		42					
MIN. AMPS		225					
% FACTOR		0					
BUSSING		COPPER					
ISOLATED GND		Y					

CIR #	BREAKER	CIRCUIT DESCRIPTION	Feeder Selection	L1	L2	L3
1	25A-3P	EXTG. VEHICLE LIFT BAY 1 EAST	---	3,880	-----	-----
3	---	LOADS FROM AS-BUILTS	---	-----	3,880	-----
5	---	---	---	-----	-----	3,880
7	25A-3P	EXTG. VEHICLE LIFT BAY 1 WEST	---	3,880	-----	-----
9	---	LOADS FROM AS-BUILTS	---	-----	3,880	-----
11	---	---	---	-----	-----	3,880
13	25A-3P	EXTG. VEHICLE LIFT BAY 4 EAST	---	3,880	-----	-----
15	---	LOADS FROM AS-BUILTS	---	-----	3,880	-----
17	---	---	---	-----	-----	3,880
19	25A-3P	EXTG. VEHICLE LIFT BAY 4 WEST	---	3,880	-----	-----
21	---	LOADS FROM AS-BUILTS	---	-----	3,880	-----
23	---	---	---	-----	-----	3,880
25	20A-1P	SPACE	---	0	-----	-----
27	20A-1P	SPACE	---	-----	0	-----
29	20A-1P	SPACE	---	-----	-----	0
31	20A-1P	SPACE	---	0	-----	-----
33	20A-1P	SPACE	---	-----	0	-----
35	20A-1P	SPACE	---	-----	-----	0
37	20A-1P	SPACE	---	0	-----	-----
39	20A-1P	SPACE	---	-----	0	-----
41	20A-1P	SPACE	---	-----	-----	0
	125A-3P	EXISTING DYNAMOMETER	---	27000	27000	27000
CIR #	BREAKER	CIRCUIT DESCRIPTION		L1	L2	L3
2	15A-3P	EXTG. TIRE MOUNTER	---	1,330	-----	-----
4	---	LOADS FROM AS-BUILTS	---	-----	1,330	-----
6	---	---	---	-----	-----	1,330
8	15A-3P	EXTG. TIRE MOUNTER TIRE SHOP	---	1,330	-----	-----
10	---	LOADS FROM AS-BUILTS	---	-----	1,330	-----
12	---	---	---	-----	-----	1,330
14	15A-3P	EXTG. TIRE MOUNTER TIRE SHOP	---	1,330	-----	-----
16	---	LOADS FROM AS-BUILTS	---	-----	1,330	-----
18	---	---	---	-----	-----	1,330
20	**50A-3P**	**ROLLER BREAK DYNO**	1 set of #8	11,085	-----	-----
22	---	---	---	-----	11,085	-----
24	---	---	---	-----	-----	11,085
26	20A-1P	SPACE	---	0	-----	-----
28	20A-1P	SPACE	---	-----	0	-----
30	20A-1P	SPACE	---	-----	-----	0
32	20A-1P	SPACE	---	0	-----	-----
34	20A-1P	SPACE	---	-----	0	-----
36	20A-1P	SPACE	---	-----	-----	0
38	20A-1P	SPACE	---	0	-----	-----
40	20A-1P	SPACE	---	-----	0	-----
42	20A-1P	SPACE	---	-----	-----	0

*F.S.B.C. LOAD ESTIMATED BY 1/3HP LATERAL MOTION MOTOR AND 5HP LIFTING MOTOR. CONFIRM PRIOR TO ORDERING GEA

LOAD CALCULATIONS FOR PANEL

CONNECTED LOAD L1		57,595	VA
CONNECTED LOAD L2		57,595	VA
CONNECTED LOAD L3		57,595	VA
SUB TOTAL VA		172,785	VA
RECEPTACLE LOAD	0	VA	
LESS 1ST 10,000 VA	- 10,000	VA	
REMAINING VA	0	VA	
50% OF THE REMAINING VA	0	VA	
LESS DIVERSITY (PER ARTICLE 220-44 N.E.C.)		0	VA
CONTINUOUS LOAD	0	VA	
	X .25		
PLUS 25% OF THE CONTINUOUS LOAD		0	VA
APPLIANCE RECEPTACLE LOAD	0	VA	
FOR 1 APPLIANCE, TAKE 100% OF THE LOAD	- 0		
		0	
RANGE RECEPTACLE LOAD	0	VA	
FOR 1 RANGE, TAKE 100% OF THE LOAD	- 0		
		0	VA
HVAC LOAD: HEATING>COOLING	0		
REMOVE COOLING LOAD	- 0		
		0	VA
SUB TOTAL		172,785	VA
FACTOR 0%		0	VA
TOTAL VA		172,785	VA
AMPS 172,785 VA / 1.73 / VOLTAGE --->	480	208	AMPS

PANEL 'GQN3'

PANEL	GQN3	06/01/17	HERTZ	60		AUTO CALCULATIONS	
HI VOLTAGE		480	SYM RMS AMPS	22,000		LOAD (VA)	174,558
LOW VOLTAGE		277	BREAKER TYPE	MCB		DIVERSITY(VA)	0
PHASE		3	MAIN LUG AMPS	225A MCB		25% C LOAD	0
#WIRES		4	FED TOP/BOTTOM	TOP		TOTAL VA	174,558
NEUTRAL		Y	MOUNTING	SURFACE		TOTAL KVA	175
GROUND BUS Y/N		Y	NEMA TYPE	NEMA 1		CONN AMPS	210
GND WIRE Y/N		Y	MANUFACTURER	SQUARE D		FACTOR AMPS	0
WIRE THHN/THW		THWN	PANEL TYPE	NQOD		TOTAL AMPS	210
FROM		GMDP				DESIGN AMPS	225
NO.OF POLES		42					
MIN. AMPS		225					
% FACTOR		0					
BUSSING		COPPER					
ISOLATED GND		Y					

CIR #	BREAKER	CIRCUIT DESCRIPTION	Feeder Selection	L1	L2	L3
1	20A-3P	BLAST CABINET BREAK SHOP	---	2,700	-----	-----
3	---	EXTG	---	-----	2,700	-----
5	---	---	---	-----	-----	2,700
7	15A-3P	VEHICLE LIFT AUTO REPAIR BAY	---	900	-----	-----
9	---	EXTG	---	-----	900	-----
11	---	---	---	-----	-----	900
13	15A-3P	VEHICLE LIFT AUTO REPAIR BAY	---	1,000	-----	-----
15	---	EXTG	---	-----	1,000	-----
17	---	---	---	-----	-----	1,000
19	100A-3P	PANEL GPN3 VIA XFMR TPN3	---	22,270	-----	-----
21	---	EXTG	---	-----	21,010	-----
23	---	---	---	-----	-----	18,580
25	35A-3P	DUST VAC (ABANDONED)	---	0	-----	-----
27	---	---	---	-----	0	-----
29	---	---	---	-----	-----	0
31	20A-1P	SPACE	---	0	-----	-----
33	20A-1P	SPACE	---	-----	0	-----
35	20A-1P	SPACE	---	-----	-----	0
37	20A-1P	SPACE	---	0	-----	-----
39	20A-1P	SPACE	---	-----	0	-----
41	20A-1P	SPACE	---	-----	-----	0
CIR #	BREAKER	CIRCUIT DESCRIPTION		L1	L2	L3
2	110A-3P	AIR COMPRESSOR LUBE & OIL	---	24,376	-----	-----
4	---	EXTG	---	-----	24,376	-----
6	---	(LOAD SHOWN IS MAX ALLOWABLE FOR BREAKER)	---	-----	-----	24,376
8	20A-3P	AIR DRYER LUBE & OIL	---	580	-----	-----
10	---	EXTG	---	-----	580	-----
12	---	---	---	-----	-----	580
14	15A-3P	PORTABLE LIFT POWER BAY 4	---	1,000	-----	-----
16	---	EXTG	---	-----	1,000	-----
18	---	---	---	-----	-----	1,000
20	30A-3P	TRASH COMPACTOR	---	1,200	-----	-----
22	---	EXTG	---	-----	1,200	-----
24	---	---	---	-----	-----	1,200
26	**30A-3P**	**PARALLELOGRAM LIFT**	1 set of #10	5,810	-----	-----
28	---	---	---	-----	5,810	-----
30	---	---	---	-----	-----	5,810
32	20A-1P	SPACE	---	0	-----	-----
34	20A-1P	SPACE	---	-----	0	-----
36	20A-1P	SPACE	---	-----	-----	0
38	20A-1P	SPACE	---	0	-----	-----
40	20A-1P	SPACE	---	-----	0	-----
42	20A-1P	SPACE	---	-----	-----	0

*F.S.B.C. LOAD ESTIMATED BY 1/3HP LATERAL MOTION MOTOR AND 5HP LIFTING MOTOR. CONFIRM PRIOR TO ORDERING GEA

LOAD CALCULATIONS FOR PANEL

CONNECTED LOAD L1		59,836	VA
CONNECTED LOAD L2		58,576	VA
CONNECTED LOAD L3		56,146	VA
SUB TOTAL VA		174,558	VA
RECEPTACLE LOAD	0	VA	
LESS 1ST 10,000 VA	- 10,000	VA	
REMAINING VA	0	VA	
50% OF THE REMAINING VA	0	VA	
LESS DIVERSITY (PER ARTICLE 220-44 N.E.C.)		0	VA
CONTINUOUS LOAD	0	VA	
	X .25		
PLUS 25% OF THE CONTINUOUS LOAD		0	VA
APPLIANCE RECEPTACLE LOAD	0	VA	
FOR 1 APPLIANCE, TAKE 100% OF THE LOAD	- 0		
		0	
RANGE RECEPTACLE LOAD	0	VA	
FOR 1 RANGE, TAKE 100% OF THE LOAD	- 0		
		0	VA
HVAC LOAD: HEATING>COOLING	0		
REMOVE COOLING LOAD	- 0		
		0	VA
SUB TOTAL		174,558	VA
FACTOR 0%		0	VA
TOTAL VA		174,558	VA
AMPS 174,558 VA / 1.73 / VOLTAGE --->	480	210	AMPS

PANEL 'GPN3'

PANEL	GPN3	06/01/17	HERTZ	60		AUTO CALCULATIONS	
HI VOLTAGE		208	SYM RMS AMPS	22,000		LOAD (VA)	61,860
LOW VOLTAGE		120	BREAKER TYPE	MCB		DIVERSITY(VA)	(2,330)
PHASE		3	MAIN LUG AMPS	225A MCB		25% C LOAD	0
#WIRES		4	FED TOP/BOTTOM	TOP		TOTAL VA	59,530
NEUTRAL		Y	MOUNTING	SURFACE		TOTAL KVA	60
GROUND BUS Y/N		Y	NEMA TYPE	NEMA 1		CONN AMPS	165
GND WIRE Y/N		Y	MANUFACTURER	SQUARE D		FACTOR AMPS	0
WIRE THHN/THW		THWN	PANEL TYPE	NQOD		TOTAL AMPS	165
FROM		GQN3				DESIGN AMPS	225
NO.OF POLES		42					
MIN. AMPS		225					
% FACTOR		0					
BUSSING		COPPER					
ISOLATED GND		Y					

CIR #	BREAKER	CIRCUIT DESCRIPTION	Feeder Selection		L1	L2	L3
		**EXISTING CIRCUIT, LOAD PER AS BUILTS					
1	20A-1P	EQ/ RCPT. BRAKE SHOP*	---	D	900	-----	-----
3	20A-1P	EQ. RCPT. AUTO BAY*	---	D	-----	700	-----
5	20A-1P	EQ. RCPT. AUTO BAY*	---	D	-----	-----	720
7	20A-1P	RCPT. AUTO BAY*	---	D	720	-----	-----
9	20A-1P	RCPT. AUTO BAY*	---	D	-----	500	-----
11	20A-1P	VEH. EXH. HOSE REEL MTR*	---	D	-----	-----	400
13	20A-1P	RECEPTACLES*	---	D	840	-----	-----
15	20A-1P	RECEPTACLES RM. M112*	---	D	-----	800	-----
17	20A-1P	RECEPTACLES RM. M111*	---	D	-----	-----	360
19	20A-1P	RECEPTACLES RM. M113	---	D	800	-----	-----
21	20A-1P	UNKNOWN CIRCUIT**	---		-----	1,920	-----
23	20A-1P	UNKNOWN CIRCUIT**	---		-----	-----	1,920
25	---	SPACE	---		0	-----	-----
27	20A-1P	TRASH COMP. CONTROL*	---		-----	300	-----
29	20A-1P	VITA ROOT GAS MONITOR. SYS**	---		-----	-----	1,920
31	**35A-2P**	**FREE STANDING BRIDGE CRANE**	1 set of #8		2,040	-----	-----
33	---	(VERIFY ELEC. REQUIREMENTS, LOAD SHOWN IS 3 H.P.)			-----	2,040	-----
35	20A-1P	SPACE	---		-----	-----	0
37	15A-3P	SPARE	---		0	-----	-----
39	---	---	---		-----	0	-----
41	---	---	---		-----	-----	0
		**EXISTING CIRCUIT, LOAD SHOWN IS MAX ALLOWABLE					
CIR #	BREAKER	CIRCUIT DESCRIPTION			L1	L2	L3
2	15A-2P	DOOR OPERATOR BAY 4E*	---		840	-----	-----
4	---	---	---		-----	840	-----
6	15A-2P	DOOR OPERATOR BAY 4W*	---		-----	-----	840
8	---	---	---		840	-----	-----
10	15A-2P	N. LIFT*	---		-----	840	-----
12	---	AVTO. BAY 9*	---		-----	-----	840
14	**20A-1P**	**WHEEL ALIGNMENT MACHINE**	1 set of #12	D	1,920	-----	-----
16	20A-3P	UNKNOWN CIRCUIT**	---		-----	1,920	-----
18	---	---	---		-----	-----	1,920
20	---	---	---		1,920	-----	-----
22	15A-3P	SUMP PUMP	---		-----	900	-----
24	---	---	---		-----	-----	900
26	---	---	---		900	-----	-----
28	**20A-1P**	**PORTABLE COLUMN LIFTS**	1 set of #12	D	-----	1,200	-----
30	**20A-1P**	**PORTABLE COLUMN LIFTS**	1 set of #12	D	-----	-----	1,200
32	**20A-1P**	**PORTABLE COLUMN LIFTS**	1 set of #12	D	1,200	-----	-----
34	**20A-1P**	**PORTABLE COLUMN LIFTS**	1 set of #12	D	-----	1,200	-----
36	**20A-1P**	**PORTABLE COLUMN LIFTS**	1 set of #12	D	-----	-----	1,200
38	100A-3P	PANEL GPN4	---		9,350	-----	-----
40	---	---	---		-----	7,850	-----
42	---	---	---		-----	-----	6,360

LOAD CALCULATIONS FOR PANEL

CONNECTED LOAD L1		22,270	VA
CONNECTED LOAD L2		21,010	VA
CONNECTED LOAD L3		18,580	VA
SUB TOTAL VA		61,860	VA
RECEPTACLE LOAD	14,660	VA	
LESS 1ST 10,000 VA	- 10,000	VA	
REMAINING VA	4,660	VA	
50% OF THE REMAINING VA	2,330	VA	
LESS DIVERSITY (PER ARTICLE 220-44 N.E.C.)		(2,330)	VA
CONTINUOUS LOAD	0	VA	
	X .25		
PLUS 25% OF THE CONTINUOUS LOAD		0	VA
APPLIANCE RECEPTACLE LOAD	0	VA	
FOR 1 APPLIANCE, TAKE 100% OF THE LOAD	- 0		
		0	
RANGE RECEPTACLE LOAD	0	VA	
FOR 1 RANGE, TAKE 100% OF THE LOAD	- 0		
		0	VA
HVAC LOAD: HEATING>COOLING	0		
REMOVE COOLING LOAD	- 0		
		0	VA
SUB TOTAL		59,530	VA
FACTOR 0%		0	VA
TOTAL VA		59,530	VA
AMPS 59,530 VA / 1.73 / VOLTAGE --->	208	165	AMPS

BID SET

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PSTA
ELECTRICAL GEAR AND EQUIPMENT ADDITION
3201 SCHERER DRIVE, ST. PETERSBURG FLORIDA 33716

TITLE: ELECTRICAL PANEL SCHEDULES
SCALE: N.T.S.
FILE: 16409-Elec.dwg
JOB: 16-409
DRAWN: J.D.E.
CHECK: J.J.H.
SHEET: E-2.2
DATE: 04/18/17 BID SET