PORTSMOUTH NAVAL SHIPYARD
KITTERY, ME

REPLACE SUBSTATION SLD

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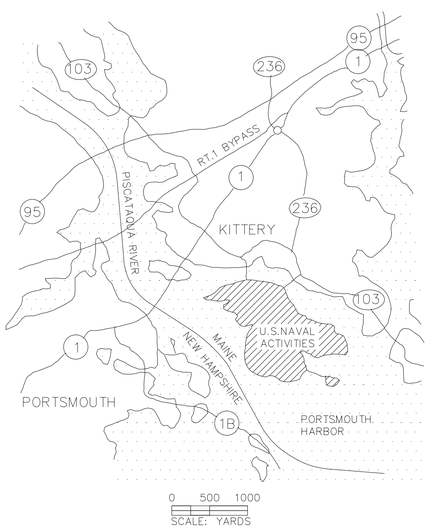
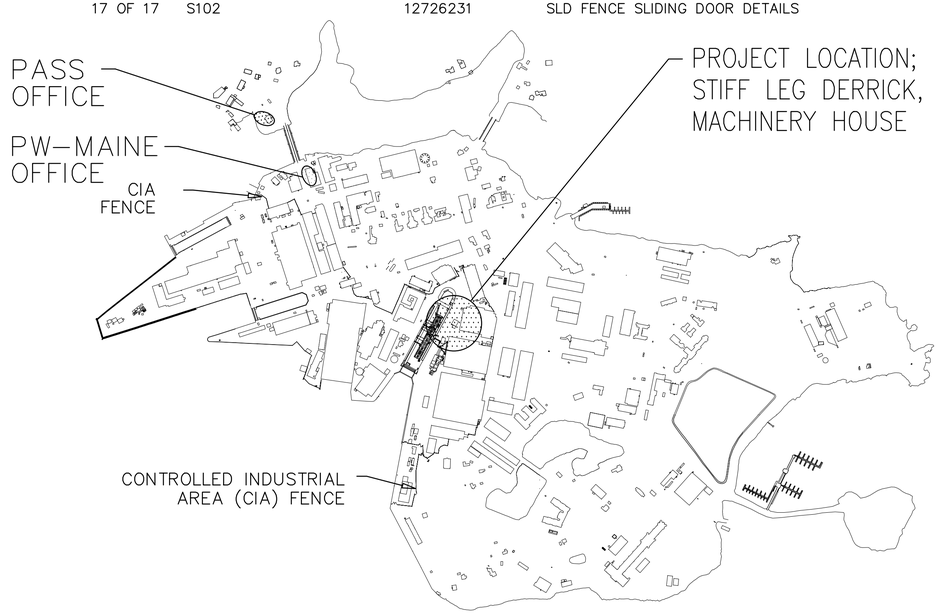
AREA MAP

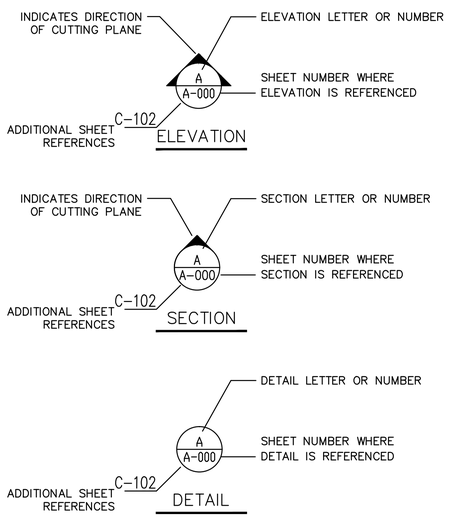


VICINITY MAP



SITE PLAN
NOT TO SCALE

ELEVATION, SECTION OR DETAIL SYMBOLS



SYM	DESCRIPTION	DATE	APPR
0	BID DOC SUBMISSION	04/04/2016	TOC

NAVFAC

SEAL

PWD-MAINE
IN HOUSE DESIGN

APPROVED

FOR COMMANDER NAVFAC
ACTIVITY

SATISFACTORY TO DATE

DES ZK | DRW EAC | CHK
PM/DM TIM O'CONNELL
BRANCH MANAGER STEPHEN MEAD
FEAD/PM&E AMIN BAHROUR
FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT – MAINE
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD – PORTSMOUTH, NH
PORTSMOUTH NAVAL SHIPYARD KITTERY, MAINE
REPLACE SUBSTATION SLD
TITLE SHEET

EPROJECT NO.: 1380703
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
#######
SHEET 1 OF 16
G001 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

FILE NAME: C:\Users\emily.cor\appdata\local\temp\AcPublish_21472\1380703SLD.dwg LAYOUT NAME: G001 PLOTTED: Thursday, June 16, 2016 – 9:35am USER: emily.cor

GENERAL NOTES

1. PLANS HAVE BEEN COMPILED FROM EXISTING RECORD PLANS, ON-SITE FIELD SURVEY AND OBSERVATION.
2. EXISTING CONDITION CONTOURS SHOWN DEVELOPED BY AERIAL MAPPING PERFORMED BY AERIAL SURVEY & PHOTO, NORRIDGEWOCK, MAINE, JULY 27, 2001. SEE "TOPOGRAPHIC PLAN OF THE PORTSMOUTH NAVAL SHIPYARD KITTERY, MAINE FOR TETRA TECH NUS" DATED 11-22-02.
3. VERTICAL DATUM: NAVD 88.
4. HORIZONTAL DATUM: MAINE STATE COORDINATES. WEST ZONE NAD 83.
5. PORTSMOUTH NAVAL SHIPYARD GROUND CONTROL ESTABLISHED BY CIVIL CONSULTANTS, SOUTH BERWICK MAINE FEBRUARY 2002.
6. PROVIDE DRAWINGS FOR CONSTRUCTION LAYOUT OF THE PROPOSED IMPROVEMENTS. ALL FINISHED GRADES WILL PROVIDE POSITIVE DRAINAGE FOR ALL RECONSTRUCTED AREAS.
7. UNLESS OTHERWISE NOTED, ALL EXISTING FEATURES DESIGNATED ON THE PLANS TO REMAIN INCLUDING, BUT NOT LIMITED TO, TREES, SIGNS, SIGN POSTS, CURBS, SIDEWALKS AND BACK OF SIDEWALK FEATURES WILL BE VERIFIED, LOCATED, AND PROTECTED DURING ALL PHASES OF CONSTRUCTION.
8. SURVEY CONTROL BOUNDS AND STREET LINE MONUMENTATION SHALL NOT BE DISTURBED DURING THE COURSE OF WORK AND SHALL BE PROTECTED. SHOULD ANY BOUND BE DISTURBED, THE CONTRACTOR WILL BE REQUIRED TO HIRE, AT HIS OWN EXPENSE, A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MAINE TO REPLACE AND / OR RESET THE BOUND TO ITS ORIGINAL POSITION.
9. SALVAGED ITEMS ARE TO BECOME THE PROPERTY OF THE GOVERNMENT.
10. FEATURES MAY BE SHOWN WITHIN THE LIMIT OF WORK THAT ARE NOT EXPLICITLY CALLED OUT FOR REMOVAL OR DEMOLITION. DEMOLISH ALL FEATURES WITHIN THE LIMIT OF WORK REQUIRED TO COMPLETE THE WORK OF THE PROJECT.
11. PREVENT ANY DISTURBANCE OR DAMAGE TO ADJACENT PROPERTIES.
12. YELLOW PLASTIC:
    CONTRACTORS SHALL NOT USE YELLOW OR ORANGE-YELLOW COLORED MATERIALS FOR THE FOLLOWING PURPOSES: PROTECTIVE CLOTHING, HOODS, SHEETING, TARPS, POLYETHYLENE BOTTLES OR OTHER CONTAINERS, TAPES, BAGS, BANDING, IDENTIFICATION MARKS ON TOOLS, BOUNDARY MARKERS, RIBBONS, VENT DUCTS, ETC. CONTRACTOR GENERATED YELLOW COLORED WASTE SHALL BE DISPOSED OF BY THE CONTRACTOR OFF-YARD. SHIPYARD REFUSE CONTAINERS SHALL NOT BE USED FOR THE DISPOSAL OF YELLOW COLORED WASTE MATERIALS. YELLOW COLORED ITEMS SUCH AS DESCRIBED ABOVE ARE OF SPECIAL SIGNIFICANCE WITHIN THE SHIPYARD AND ARE SUBJECT TO STRICT CONTROLS. YELLOW COLORED CONTRACT GENERATED DEBRIS SHALL BE BAGGED IN NON-TRANSLUCENT CONTAINERS, AND PROMPTLY REMOVED FROM PORTSMOUTH NAVAL SHIPYARD.
13. CONTRACTOR SHALL REPORT ALL SPILLS AND LEAKS OF OIL OR OTHER HAZARDOUS SUBSTANCES. (IE OIL, ANTIFREEZE, CHEMICALS, ETC.) OCCURRING DURING THE PERFORMANCE OF THIS CONTRACT IMMEDIATELY UPON DISCOVERY, REGARDLESS OF THE QUANTITY. CALL THE FIRE DEPARTMENT AT EXTENSION 2333 TO REPORT THE SPILL. THE GOVERNMENT RESERVES THE RIGHT TO CLEAN UP, PACKAGE AND DISPOSE OF CONTRACTOR SPILLS OCCURRING ON THE SHIPYARD, AND BILL SUCH COSTS TO THE CONTRACTOR.
14. UNFORESEEN HAZARDOUS MATERIAL
    THE DESIGN HAS IDENTIFIED MATERIALS SUCH AS PCB, LEAD PAINT, AND FRIABLE AND NON-FRIABLE ASBESTOS. IF ADDITIONAL MATERIAL, NOT INDICATED, THAT MAY BE HAZARDOUS TO HUMAN HEALTH UPON DISTURBANCE DURING CONSTRUCTION OPERATIONS IS ENCOUNTERED, STOP THAT PORTION OF WORK AND NOTIFY THE CONTRACTING OFFICER IMMEDIATELY.

ENVIRONMENTAL NOTES:

1. IN THE EVENT OF AN INADVERTENT DISCOVERY OF POTENTIAL ARCHAEOLOGICAL RESOURCES ALL WORK MUST CEASE AND THE CRM MUST BE NOTIFIED. WORK MAY NOT RESUME UNTIL DIRECTED BY CONTRACTING OFFICER.
2. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AS NEEDED.
3. IF GENERATED, EXCESS SOIL MUST BE TRANSFERRED TO B357 PRIOR TO DISPOSAL AT AN APPROVED LANDFILL FACILITY.
4. NO ASBESTOS OR LEAD CONCERNS KNOWN, ANTICIPATED, OR OBSERVED (FROM OUTSIDE THE ISOLATION FENCING) ASSOCIATED WITH THE REMOVAL OF THE SUBSTATION. IF SUSPECT MATERIAL IS OBSERVED INSIDE ANY OF THE COMPONENTS DURING DISMANTLING, CONTACT GOVERNMENT CONTRACTING OFFICER TO EVALUATE.

UTILITY NOTES:

1. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY INFORMATION AND TIE IN LOCATIONS NEEDED TO COMPLETE THE DESIGN OF NEW UTILITY SYSTEMS AND SITE IMPROVEMENTS. VERIFICATION METHODS SHALL INCLUDE BUT NOT BE LIMITED TO TESTS PITS AND CCTV TO VERIFY LOCATION, ELEVATION, SIZE, MATERIAL, AND ANY OTHER INFORMATION REQUIRED TO COMPLETE THE DESIGN.
2. UTILITIES NOT SHOWN ON THESE PLANS MAY EXIST. THE LOCATION, ELEVATION, SIZE AND MATERIAL OF ALL UTILITIES WILL BE VERIFIED BEFORE PROCEEDING WITH CONSTRUCTION. ALL UTILITY LINES AND ASSOCIATE STRUCTURES, NOT AFFECTED BY THIS PROJECT WILL BE PROTECTED THROUGHOUT ALL PHASES OF WORK.
3. THE LOCATION OF UNDERGROUND UTILITIES WITHIN THE LIMITS OF THE EXCAVATION OR GROUND PENETRATING WORK WILL BE LOCATED PRIOR TO COMMENCING ANY EXCAVATION OR GROUND PENETRATING WORK. "DIG SAFE" (1-888-344-7233) WILL BE NOTIFIED WITHIN 14 CALENDAR DAYS, BUT NO MORE THEN 30 DAYS, PRIOR TO THE COMMENCEMENT OF THE EXCAVATION OR GROUND PENETRATING ACTIVITY. THE STATE OF MAINE "DIG SAFE" LAW (TITLE 23, MRSA 3360-A) WILL BE FULLY COMPILED WITH.
4. THE EXCAVATOR SHALL PREPARE A "PWD ME DIG SAFE UTILITY LOCATE REQUEST FORM" AT LEAST 14 CALENDAR DAYS PRIOR TO THE COMMENCEMENT OF THE EXCAVATION OR GROUND PENETRATING ACTIVITY AND SUBMIT THE FORM TO THE CONTRACTING OFFICER (PLEASE SEE QC MANAGER FOR FORM).
5. THE GOVERNMENT WILL LOCATE AND MARK THE UNDERGROUND UTILITIES WITHIN 14 CALENDAR DAYS OF RECEIVING THE DIG SAFE NOTIFICATION.
6. EXCAVATION OR GROUND PENETRATION ACTIVITIES CAN NOT COMMENCE UNTIL THE UTILITIES HAVE BEEN MARKED IN THE FIELD AND THE PWD ME DIG SAFE UTILITY LOCATE REQUEST FORM HAS BEEN RETURNED INDICATING THE PWD ME DIG SAFE REVIEW PROCESS HAS BEEN COMPLETED AND EXCAVATION HAS BEEN APPROVED BY THE CONTRACTING OFFICER.
7. IF THE EXCAVATION OR GROUND PENETRATING ACTIVITIES DO NOT COMMENCE WITHIN 27 DAYS OF DIG SAFE NOTIFICATION OR THE EXCAVATION WORK IS EXPANDED OUTSIDE THE LOCATION ORIGINALLY SPECIFIED IN THE NOTIFICATION, THE EXCAVATOR SHALL RE-NOTIFY DIG SAFE, THE CONTRACTING OFFICER AND THE PWD ME DIG SAFE COORDINATOR.
8. THE CONTRACTOR SHALL MAINTAIN THE UTILITY MARKINGS THROUGHOUT THE CONTRACT PERIOD. IF ADDITIONAL MARKINGS ARE REQUIRED, THE EXCAVATOR SHALL RE-NOTIFY DIG SAFE, THE CONTRACTING OFFICER, AND THE PWD ME DIG SAFE COORDINATOR AT 207-438-1082.
9. ALL SEWER AND DRAIN FRAMES AND GRATES OR COVERS WILL BE ADJUSTED TO MATCH PROPOSED FINISHED GRADE. EXISTING FRAMES AND GRATES OR COVERS WILL BE REMOVED AND NEW FRAMES AND GRATES OR COVERS WILL BE PROVIDED IF EXISTING ITEMS ARE DAMAGED DURING THE COURSE OF WORK.
10. ALL ELECTRIC POWER MANHOLE FRAMES AND COVERS WILL BE ADJUSTED TO MATCH FINISH GRADE. REMOVE EXISTING FRAMES AND COVERS AND PROVIDE NEW FRAMES AND COVERS WHEN DAMAGED DURING THE COURSE OF WORK.
11. SHORING SYSTEMS: MECHANICAL MEANS OF EXCAVATION SHALL NOT BE USED WHEN EXCAVATING WITHIN 61mm (2 INCHES) OF ANY MARKED UNDERGROUND UTILITY UNTIL THE UNDERGROUND UTILITY HAS BEEN EXPOSED. MECHANICAL MEANS MAY BE USED, AS NECESSARY, FOR INITIAL PENETRATION AND REMOVAL OF PAVEMENT, ROCK, OR OTHER MATERIALS REQUIRING USE OF MECHANICAL MEANS OF EXCAVATION. ONCE THE UNDERGROUND UTILITIES HAVE BEEN EXPOSED, FURTHER EXCAVATION SHALL BE PERFORMED EMPLOYING REASONABLE PRECAUTIONS TO AVOID DAMAGE TO THE UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO ANY SUBSTANTIAL WEAKENING OF STRUCTURAL OR LATERAL SUPPORT OF THE UTILITY OR PENETRATION OR DESTRUCTION OF THE UTILITY OR THEIR PROTECTIVE COATINGS.
12. ADJUST ALL GATE VALVE BOXES AND CURB STOP BOXES TO FINISH GRADE. REMOVE EXISTING GATE VALVE BOXES AND CURB STOP BOXES AND PROVIDE NEW GATE VALVE BOXES AND CURB STOP BOXES WHEN DAMAGED DURING THE COURSE OF WORK.
13. THE COST FOR THE ADJUSTMENT OR RELOCATION OF PRIVATE UTILITY PIPES, STRUCTURES AND CASTINGS, INCLUDING BUT NOT LIMITED TO GAS, CABLE TV, AND TELEPHONE, SHALL BE PAID BY THE CONTRACTOR. COMPLETION OF SUCH WORK MAY OR MAY NOT BE COMPLETED BY THE PRIVATE UTILITY OWNER. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE PRIVATE UTILITY COMPANIES. CONTACT: NORTHERN UTILITIES, AT&T/BROADBAND, VERIZON AND ANY OTHER PRIVATE UTILITY OWNERS.
14. PREVENT DEBRIS FROM ENTERING INLETS AND BASINS. PROVIDE AND MAINTAIN INLET PROTECTION FOR THE DURATION OF THE WORK. INSPECT INLETS WEEKLY AND AFTER EACH STORM EVENT, AND REMOVE ACCUMULATED DEBRIS. CLEAN ALL STRUCTURES AT THE COMPLETION OF THE WORK.
15. WHERE ITEMS SUCH AS UTILITY STRUCTURES AND EARTHWORK MATERIALS ARE INDICATED BY TYPE, SEE THE MEDOT STANDARD SPECIFICATIONS, HIGHWAY AND BRIDGES, REVISION OF DECEMBER 2002 AND SUPPLEMENTARY STANDARD CONSTRUCTION DETAILS FOR CONSTRUCTION, FEBRUARY 1, 2001.

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL COORDINATE MATERIAL STORAGE AND LAYDOWN AREAS WITH CONTRACTING OFFICER.
2. ALL CONSTRUCTION MATERIALS SHALL BE TRANSPORTED TO AND FROM THE SITE IN COVERED VEHICLES. THE CONTRACTOR SHALL VACUUM ASSISTED STREET SWEEPER AVAILABLE AT THE SITE ON A DAILY BASIS TO KEEP TRAFFIC AREAS CLEAN.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH PORTSMOUTH SHIPYARD OPERATIONS DURING THE PROCESS OF THE WORK.
4. THE CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION SEQUENCING PLAN FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOR MAINTAINING SECURITY AT ALL TIMES DURING CONSTRUCTION.
6. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE O.S.H.A. REGULATIONS AND SAFETY REQUIREMENTS.
7. ALL CONSTRUCTION SIGNS SHALL BE DESIGNED TO WITHSTAND 50MPH WINDS VELOCITY WINDS AND ARE PREPARED BY A PROFESSIONAL SIGN COMPANY WITH A MINIMUM OF THREE (3) YEARS EXPERIENCE.
8. WORKING HOURS SHALL COMPLY WITH PNSY.
9. WHERE CONTRACTOR REMOVES EXISTING SITE FEATURES THAT ARE TO REMAIN, TO FACILITATE INSTALLATION OF NEW WORK FOR THIS PROJECT, CONTRACTOR SHALL REPLACE THE EXISTING SITE FEATURES AT CONTRACTORS EXPENSE.
10. THE CONSTRUCTION LIMIT LINE SHOWN ON DRAWING IS AN APPROXIMATION OF THE CONSTRUCTION LIMITS. THE CONTRACTOR IN COORDINATION WITH THE OWNER. OWNER MAY MODIFY THIS LINE TO ACCOMMODATE THE EFFICIENCY OF CONSTRUCTION PROJECT.
11. ALL CONSTRUCTION DETAILS AND SPECIFICATION ARE PROVIDED TO MEET NAVFAC MID ATLANTIC PUBLIC WORKS DEPARTMENT MAINE FOR PORTSMOUTH NAVAL SHIPYARD.

EROSION CONTROL NOTES:

1. ALL SITE WORK CONDUCTED ON OR AFTER JANUARY 1, 2013 IN THE STATE OF MAINE SHORELAND ZONE, INCLUDING ANY FILLING, EXCAVATION, LANDSCAPING, AND/OR OTHER EARTHWORK IN EXCESS OF ONE CUBIC YARD OF DISTURBANCE, SHALL COMPLY WITH STATE OF MAINE REQUIREMENTS FOR CERTIFICATION IN EROSION AND SEDIMENTATION CONTROL PRACTICES. A CERTIFIED INDIVIDUAL SHALL BE RESPONSIBLE FOR MANAGEMENT OF EROSION CONTROL PRACTICES AT THE SITE EACH DAY EARTH MOVING ACTIVITIES OCCUR. A CERTIFIED INDIVIDUAL IS REQUIRED TO VISIT THE SITE EVERY DAY TO ENSURE PROPER EROSION AND SEDIMENT CONTROL PRACTICES ARE FOLLOWED. AS AN ALTERNATIVE, THE CONTRACTOR MAY CHOOSE TO CONTRACT WITH A CERTIFIED INDIVIDUAL TO SUPERVISE THE CONTRACTORS WORK IN SHORELAND AREAS. UNDER THE STATE OF MAINE'S SHORELAND ZONING STATUES, THE PORTSMOUTH NAVAL SHIPYARD IS LOCATED ENTIRELY WITHIN THE STATE'S SHORELAND ZONE.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DESIGNED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES, LATEST EDITION.
3. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR REGRADING. ALL DISTURBED AREAS ON THE SITE, NOT COVERED BY BUILDINGS OR PAVEMENT, SHALL BE STABILIZED WITH LOAM, SEED AND MULCH, OR OTHER METHODS AS REQUIRED BY THE SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN.
4. CONSTRUCTION SHALL NOT BEGIN UNTIL ALL OF THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, AS SPECIFIED ON THE PLANS, HAVE BEEN INSTALLED.

AS BUILT NOTES:

1. PLANS HAVE BEEN COMPILED FROM EXISTING RECORD PLANS CONTRACTOR SHALL REVISE 2 SETS OF PAPER DRAWINGS BY RED-LINE PROCESS TO SHOW THE AS-BUILT CONDITIONS DURING THE PROSECUTION OF THE PROJECT. THE CONTRACTOR SHALL KEEP THE AS-BUILT DRAWINGS CURRENT ON A WEEKLY BASIS AND AT LEAST ONE SET AVAILABLE ON THE JOB SITE AT ALL TIMES. THE PLANS SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN SECTION 01 78 00.00 22 CLOSEOUT SUBMITTALS.

AS BUILT NOTES CONT.:

2. CHANGES FROM THE CONTRACT PLANS WHICH ARE MADE IN THE WORK OR ADDITIONAL INFORMATION WHICH MIGHT BE UNCOVERED IN THE COURSE OF CONSTRUCTION MUST BE ACCURATELY AND NEATLY RECORDED AS THEY OCCUR BY MEANS OF DETAILS AND NOTES. THE CONTRACTOR SHALL PREPARE AND PROVIDE TO THE CONTRACTING OFFICER WORKING RECORD (AS-BUILT) DRAWINGS AFTER THE COMPLETION OF EACH DEFINABLE FEATURE OF WORK AS LISTED IN THE CONTRACTOR QUALITY CONTROL PLAN (FOUNDATIONS, UNDERGROUND UTILITIES, STRUCTURAL STEEL, ETC., AS APPROPRIATE FOR THE PROJECT). IF THE CONTRACTOR FAILS TO MAINTAIN THE WORKING AND FINAL RECORD DRAWINGS AS SPECIFIED HEREIN, THE CONTRACTING OFFICER WILL DEDUCT FROM THE MONTHLY PROGRESS PAYMENT AN AMOUNT REPRESENTING THE ESTIMATED COST OF MAINTAINING THE RECORD DRAWINGS. THIS MONTHLY DEDUCTION WILL CONTINUE UNTIL AN AGREEMENT CAN BE REACHED BETWEEN THE CONTRACTING OFFICER AND THE CONTRACTOR REGARDING THE ACCURACY AND COMPLETENESS OF UPDATED DRAWINGS. THE CONTRACTOR SHALL SHOW ON THE WORKING AND FINAL RECORD DRAWINGS, BUT NOT LIMITED TO, THE FOLLOWING INFORMATION:

   A. THE ACTUAL LOCATION (ELEVATION AND HORIZONTAL COORDINATES), MATERIALS AND SIZES OF ALL SUB-SURFACE UTILITY LINES. IN ORDER THAT THE LOCATION OF THESE LINES AND APPURTENANCES MAY BE DETERMINED IN THE EVENT THE SURFACE OPENINGS OR INDICATORS BECOME COVERED OVER OR OBSCURED, SHOW BY OFFSET DIMENSIONS TO TWO PERMANENTLY FIXED SURFACE FEATURES THE END OF EACH RUN INCLUDING EACH CHANGE IN DIRECTION ON THE RECORD DRAWINGS OR HORIZONTAL COORDINATES BASED ON THE SHIPYARD DATUM. LOCATE VALVES, FITTINGS, SPLICE BOXES AND SIMILAR APPURTENANCES BY DIMENSIONING ALONG THE UTILITY RUN FROM A REFERENCE POINT. ALSO, RECORD THE DEPTH BELOW THE SURFACE OF EACH RUN OF PIPE, FITTINGS, VALVES, ETC.

   B. 'THE LOCATION AND DIMENSIONS OF ANY CHANGES WITHIN THE BUILDING STRUCTURE.

   C. CORRECT GRADE, ELEVATIONS, CROSS SECTION, OR ALIGNMENT OF ROADS, EARTHWORK, STRUCTURES OR EXISTING AND NEW UTILITIES IF ANY CHANGES WERE MADE FROM CONTRACT PLANS.

   D. CHANGES IN DETAILS OF DESIGN OR ADDITIONAL INFORMATION OBTAINED FROM WORKING DRAWINGS SPECIFIED TO BE PREPARED AND/OR FURNISHED BY THE CONTRACTOR; INCLUDING BUT NOT LIMITED TO FABRICATION, ERECTION, INSTALLATION PLANS AND PLACING DETAILS, PIPE SIZES, INSULATION MATERIAL, DIMENSIONS OF EQUIPMENT FOUNDATIONS, ETC.

   E. THE TOPOGRAPHY, INVERT ELEVATIONS AND GRADES OF DRAINAGE INSTALLED OR AFFECTED AS PART OF THE PROJECT CONSTRUCTION.

   F. CHANGES OR MODIFICATIONS WHICH RESULT FROM THE FINAL INSPECTION.

   G. WHERE CONTRACT DRAWINGS OR SPECIFICATIONS PRESENT OPTIONS, SHOW ONLY THE OPTION SELECTED FOR CONSTRUCTION ON THE FINAL AS-BUILT PRINTS.

   H. SYSTEMS DESIGNED OR ENHANCED BY THE CONTRACTOR, SUCH AS HVAC CONTROLS, FIRE ALARM, FIRE SPRINKLER, AND IRRIGATION SYSTEMS.

   I. MODIFICATIONS (INCLUDE WITHIN MODIFICATION PRICING THE COST TO CHANGE WORKING AND FINAL RECORD DRAWINGS TO REFLECT MODIFICATIONS) AND COMPLIANCE WITH THE PROCEDURES SPECIFIED IN SECTION 01 78 00.00 22 CLOSEOUT SUBMITTALS.

   J. WHERE UTILITY LOCATIONS DIFFER FROM THOSE IDENTIFIED ON THE PLANS.

TRAFFIC NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC FLOW DURING THE CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC FLOW DURING THE PROGRESS OF THE WORK. A DETAILED TRAFFIC CONTROL PLAN SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. THE TRAFFIC CONTROL PLAN SHALL CONSIDER ALL AFFECTED PORTSMOUTH SHIPYARD OPERATIONS. THE CONTRACTOR SHALL UPDATE THE TRAFFIC CONTROL PLAN AS REQUIRED DURING THE PROJECT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING TRAFFIC CONTROL SIGNAGE AND INFORMATIONAL SIGNS DURING THE PROCESS OF WORK.
4. TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR.
5. THE CONTRACTOR SHALL PROVIDE POST MOUNTED AND WALL MOUNTED TRAFFIC CONTROL AND INFORMATION SIGNS IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AS PUBLISHED BY THE DEPARTMENT OF COMMERCE.

SYM	DESCRIPTION	DATE	APPR
0	BID DOC SUBMISSION	04/04/2016	TOC

NAVFAC

SEAL

PWD-MAINE
IN HOUSE DESIGN

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES ZK DRW EAC CHK
PM/DM TIM O'CONNELL
BRANCH MANAGER STEPHEN MEAD
FEAD/PM&E AMIN BAHROUR
FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT - MAINE
PORTSMOUTH NAVAL SHIPYARD

NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH, NH
KITTERY, MAINE

REPLACE SUBSTATION SLD

GENERAL NOTES SHEET

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
#######

SHEET 2 OF 17

G002 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

FILE NAME: C:\Users\emily.carr\appdata\local\temp\AcPublish_21472\1380703SLD.dwg LAYOUT NAME: G002 PLOTTED: Thursday, June 16, 2016 - 9:35am USER: emily.car

ELECTRICAL ABBREVIATIONS

A, AMP	AMPERE
AB	ABANDON
AC	ALTERNATING CURRENT
AIC	AMPERE INTERRUPTING CAPACITY
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS
ACI	AMERICAN CONCRETE INSTITUTE
AF	AMP FRAME
ASTM	AMERICAN SOCIETY TESTING MATERIALS
AT	AMP TRIP
AWG	AMERICAN WIRE GAUGE
BIL	BASIC IMPULSE LEVEL
BLDG	BUILDING
C	CONDUIT
CAT	CATALOG
CPT	CONTROL POWER TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DIA	DIAMETER
DISC	DISCONNECT
EA	EACH
ELEV	ELEVATION
ELECT	ELECTRIC
EPR	ETHYLENE PROPYLENE RUBBER
EQ	EQUAL
GAL	GALVANIZED
GALS	GALLONS
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
H	HEIGHT
HV	HIGH VOLTAGE
HZ	HERTZ
IMP	IMPEDANCE
KV	KILOVOLT(S)
KVA	KILOVOLT AMPERE(S)
L	LENGTH
LBS	POUNDS
LV	LOW VOLTAGE
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MH	MANHOLE
MIN	MINIMUM
OC	ON CENTER
P	POLE
PLCS	PLACES
PMS	PAD MOUNTED SWITCH
PNL	PANEL
PROJ	PROJECT
PVC	POLYVINYL CHLORIDE
PSI	POUNDS PER SQUARE INCH
REG	REGULATOR
REQ	REQUIRED
RGS	RIGID GALVANIZED STEEL
SAN	SANITARY
SC	SECTIONALIZING CABINET
SCH	SCHEDULE
SPECS	SPECIFICATIONS
SS	STAINLESS STEEL
ST	STORM
STD	STANDARD
SUB	SUBSTATION
SW	SWITCH
SWGR	SWITCHGEAR
T&B	TOP AND BOTTOM
TR	TRANSPORTABLE RECTIFIER
TSS	TRANSPORTABLE SUBSTATION
TYP	TYPICAL
V	VOLT(S)
WWF	WELDED WIRE FABRIC
W	WIRE, WIDTH, WATER
WP	WEATHER PROOF
W/	WITH
XFMR	TRANSFORMER

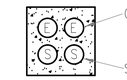
ELECTRICAL LEGEND

- EXISTING UNDERGROUND
- OH, E — WORK REQUIRED
- W — OVERHEAD ELECTRIC
- ELECTRIC LINE
- WATER LINE
- FENCE LINE
- REMOVALS

ELECTRICAL SYMBOLS

'	FEET
"	INCHES
@	NUMBER
&	AND
+ / −	PLUS OR MINUS
W /	WITH
℄	CENTER LINE
6W	SIX WAY
45°	DEGREES
△	DELTA
Y	WYE
Ø	PHASE, DIAMETER
Ⓡ	GROUND ROD
	AUTOMATIC LOAD BREAK SWITCH
	DISCONNECT SWITCH
	FUSE CUT-OUT
	POWER FUSE
	POTENTIAL TRANSFORMER
	CURRENT TRANSFORMER
	STATION CLASS LIGHTNING ARRESTER
	GROUND
	TRANSFORMER
CS	CIRCUIT SWITCHER
	DRAWOUT CIRCUIT BREAKER W/ CURRENT LIMITING FUSE
	TEST SWITCH
	CONNECTION POINT
	SPLICE
	TERMINATION
	VALVE
R	NEUTRAL GROUND RESISTOR
	YARD LIGHT
	ELBOW INSERT
	PUSH BUTTON
	CONTACT (OPEN)
	CONTACT (CLOSED)
OR	BRANCH CIRCUIT OR FEEDER WIRING IN CONDUIT. TO TICK MARKS INDICATE 2 #12 CONDUCTORS AND 1 #12 GND IN ½" UON. TICK MARKS, WHEN SHOWN INDICATE NUMBER OF #12 CONDUCTORS IF OTHER THAN THREE; (7) INDICATES GROUND, CONDUIT LARGER THAN ½" & WIRE LARGER THAN #12 SHALL BE AS INDICATED
	HOMERUNS TO PANEL. PANEL & CIRCUIT DESIGNATIONS AS INDICATED

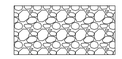
AS 1	AMPMETER SWITCH
VS 1	VOLTMETER TRANSFER SWITCH
CS 1	CONTROL SWITCH
PBM 1	PARALLEL BALANCING MODULE
V 1	VOLTMETER
W 1	WATTMETER
A 3	AMMETER
PF 1	POWER FACTOR METER
AM 3	AMMETER
VAR 1	VAR
51 1	TIME OVER CURRENT RELAY
27 1	OVER VOLTAGE RELAY
63	PRESSURE RELAY
51N 1	TIME OVER CURRENT RELAY (GROUND)
67N 1	DIRECTIONAL OVER CURRENT RELAY (GROUND)
KWH DM	KILOWATT HOUR / DEMAND METER
63X	SUDDEN PRESSURE RELAY
MPR	MICRO PROCESSOR RELAY
T	THERMOSTAT
87	DIFFERENTIAL RELAY
86	LOCK OUT RELAY
R1	RELAY
CS / C	CONTROL SWITCH CLOSE
CS / T	CONTROL SWITCH TRIP
PS INV	PURE SINE WAVE INVERTER
	GROUNDING ROD
	CIRCUIT BREAKER
	208 /120V ELECTRICAL PANEL
	TRANSFORMER



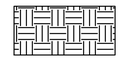
CONDUIT DESIGNATION

ELECTRICAL MANHOLE WITH DESIGNATION

EQUIPMENT



CRUSHED STONE



EARTH

CONCRETE

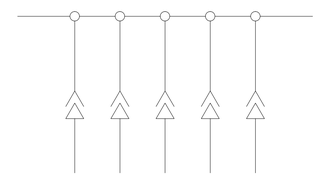
BUILDING

EXISTING PAVED GRADE

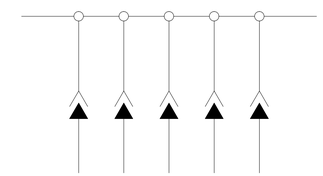
STRUCTURAL ABBREVIATIONS

	ABOVE FINISHED FLOOR
BF	BOTTOM OF FOOTING
BFF	BELOW FINISHED FLOOR
CONT	CONTINUOUS
DWG	DRAWING
EF	EACH FACE
EW	EACH WAY
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT TO SCALE
OC	ON CENTER
SECT.	SECTION
SIM	SIMILAR
SS	STAINLESS STEEL
TCW	TOP OF CONCRETE WALL
TF	TOP OF FOOTING
TP	TOP OF PIER
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
WWF	WELDED WIRE FABRIC

EXISTING 600A, 15KV JUNCTION BAR



NEW 600A 15KV JUNCTION BAR



GENERAL DEMOLITION NOTES

1. DISCONNECT AND REMOVE ELECTRICAL CONNECTION TO EQUIPMENT AND/OR DEVICES SHOWN DASHED. REMOVE ASSOCIATED BRANCH CIRCUITS BACK TO UPSTREAM JUNCTION BOX OR PANEL TO REMAIN.
2. REMOVE ELECTRICAL DEVICES SHOWN DASHED. PROVIDE BLANK COVER PLATE OVER ABANDONED OUTLET AND JUNCTION BOXES.
3. ALL EXISTING CONDUITS AND WIRING THAT WILL BE REUSED SHALL BE REMOVED WHERE THEY WILL BE EXPOSED AT COMPLETION OF NEW WORK. EXISTING CONDUIT CONCEALED IN WALLS TO REMAIN SHALL BE ABANDONED. EXISTING CONDUIT IN OR BELOW FLOOR SLAB SHALL BE CUT OFF ONE INCH BELOW ROUGH FLOOR AND GROUTED FLUSH. ALL WIRING, IN CONDUITS TO BE ABANDONED, SHALL BE DISCONNECTED FROM POWER SOURCE AND REMOVED.
4. DEMOLITION DRAWINGS ARE BASED ON EXISTING PLANS AND FIELD INVESTIGATION PRIOR TO DEMOLITION. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS TO AVOID CONFLICTS. DURING CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL AFFECTED CIRCUITING AND SHALL NOTIFY THE GOVERNMENT PRIOR TO TURNING OFF CIRCUITS.
5. EXISTING CIRCUITING TO REMAIN SHALL BE REROUTED OR RECONNECTED, AS REQUIRED, WHERE AFFECTED BY NEW WORK IN ORDER TO MAINTAIN CONTINUITY OF THE CIRCUIT.
6. CONTRACTOR SHALL EXERCISE CARE IN REMOVAL OF DEMOLITION ITEMS, CONTRACTOR SHALL REPAIR, AT HIS COST, ANY DAMAGE CAUSED TO EXISTING CONSTRUCTION AND/OR EQUIPMENT TO REMAIN.
7. CONTRACTOR SHALL REMOVE ALL ELECTRICAL APPURTENANCES (DISCONNECTS, STARTERS, WIRING, CONDUIT, ETC.) ASSOCIATED WITH EQUIPMENT TO BE REMOVED BY OTHERS.
8. ALL MATERIALS REMOVED UNDER DEMOLITION, NOT TO BE RELOCATED OR DESIGNATED TO BE TURNED OVER TO THE GOVERNMENT, SHALL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED, AND SHALL BE REMOVED COMPLETELY FROM THE SITE.
9. EQUIPMENT AND/OR DEVICES LOCATED ON BUILDING WALLS, FLOORS, OR CEILINGS THAT ARE NOT PART OF DEMOLITION AND ARE NOT SHOWN ON DRAWINGS SHALL REMAIN UNALTERED

SYM	DESCRIPTION	DATE	APPR
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NAVFAC

SEAL

PWD-MAINE IN HOUSE DESIGN

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ACTIVITY

SATISFACTORY TO DATE

DES ZK DRW EAC CHK

PM/DM TIM O'CONNELL

BRANCH MANAGER STEPHEN MEAD

LEAD/PM&E AMIN BAHROUR

FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT - MAINE
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH, NH
PORTSMOUTH NAVAL SHIPYARD KITTERY, MAINE

REPLACE SUBSTATION SLD

ABBREVIATED, SYMBOL AND CONTRACTOR LAYOUT AREA

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

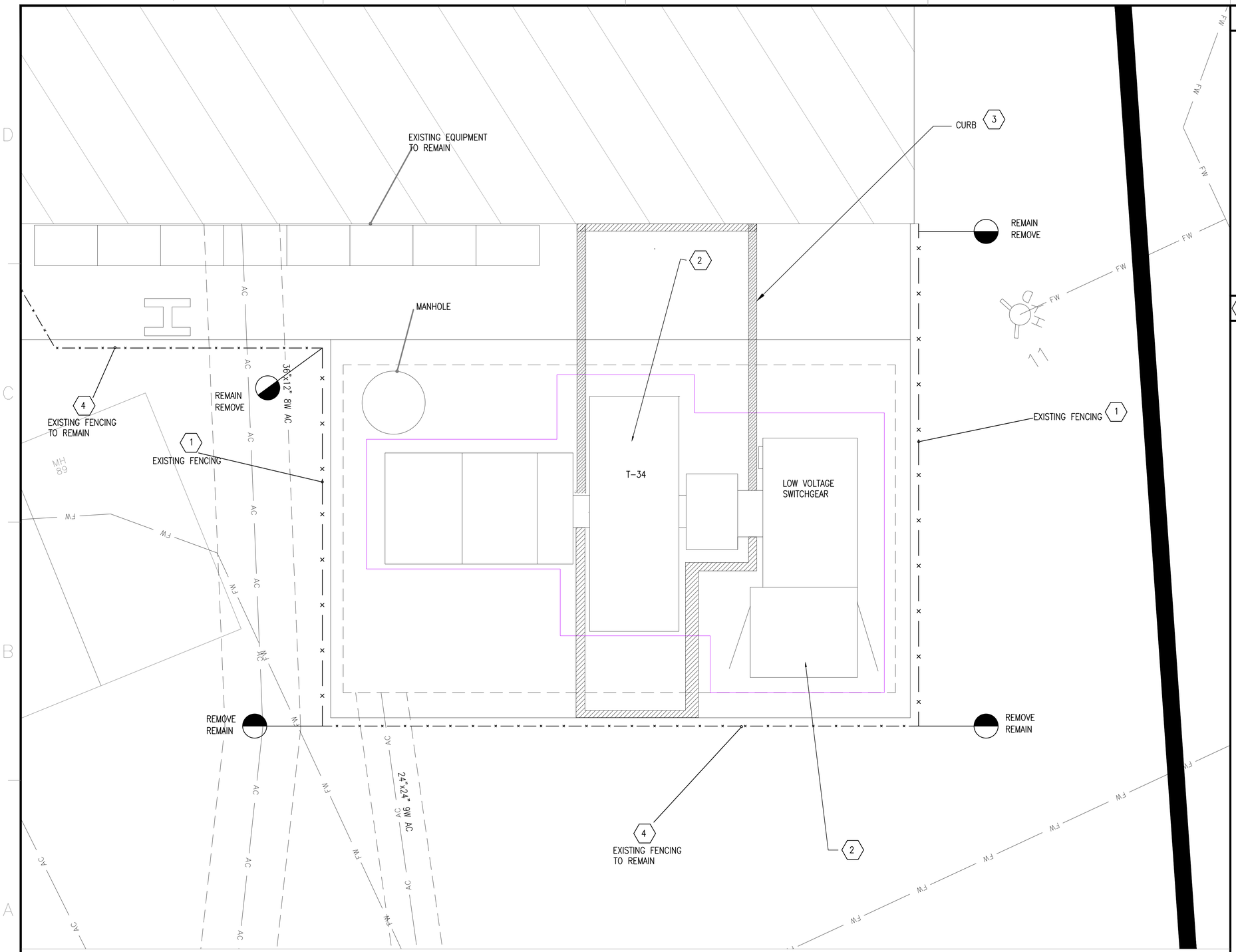
NAVFAC DRAWING NO. #######

SHEET 3 OF 17

G003 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

FILE NAME: C:\Users\emily.cor\appdata\local\temp\AcPublish_21472\1380703SLD.dwg LAYOUT NAME: G003 PLOTTED: Thursday, June 16, 2016 - 9:35am USER: emily.cor



EXISTING CONDITIONS AND REMOVALS PLAN

1" = 2'-0"

PLAN NORTH

GENERAL SHEET NOTES

1. DISCONNECT ALL ELECTRICAL EQUIPMENT INDICATED.
2. VERIFY ALL CABLES ARE PROPERLY LABELED FOR RE-ASSEMBLY.
3. CONTRACTOR SHALL COORDINATE WITH GOVERNMENT (B357) DELIVERY OF USED OIL DRUMS.
4. CONTRACTOR SHALL DRAIN OIL FROM TRANSFORMER TO THE DELIVERED DRUMS.
5. GOVERNMENT (B357) SHALL TAKE THE DRUMS FOR DISPOSAL OIL FROM THE TRANSFORMER.

DEMOLITION KEYNOTES

1. REMOVE INDICATED EQUIPMENT AND FENCING.
2. REMOVE TRANSFORMER T-34, AND LOW VOLTAGE SWITCHGEAR.
3. REMOVE EXISTING CURBING AS INDICATED.
4. EXISTING FENCE TO REMAIN EXCEPT AS INDICATED.
5. RECORD SECONDARY OPERATING VOLTAGE VALUE SHALL BE REVERIFIED DURING COMMISSIONING

GRAPHIC SCALE

1/2" = 1' 2 1 0 2 4 6 scale feet

CHECK GRAPHIC SCALE BEFORE USING

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FEAD/PWME AMIN BAHROUR

FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
PUBLIC WORKS DEPARTMENT ~ MAINE
NAVAL SHIPYARD ~ PORTSMOUTH, NH
PORTSMOUTH NAVAL SHIPYARD KITTERY, MAINE

REPLACE SUBSTATION SLD

SLD EQUIPMENT DEMOLITION PLAN

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. #######

SHEET 4 OF 17

D101 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

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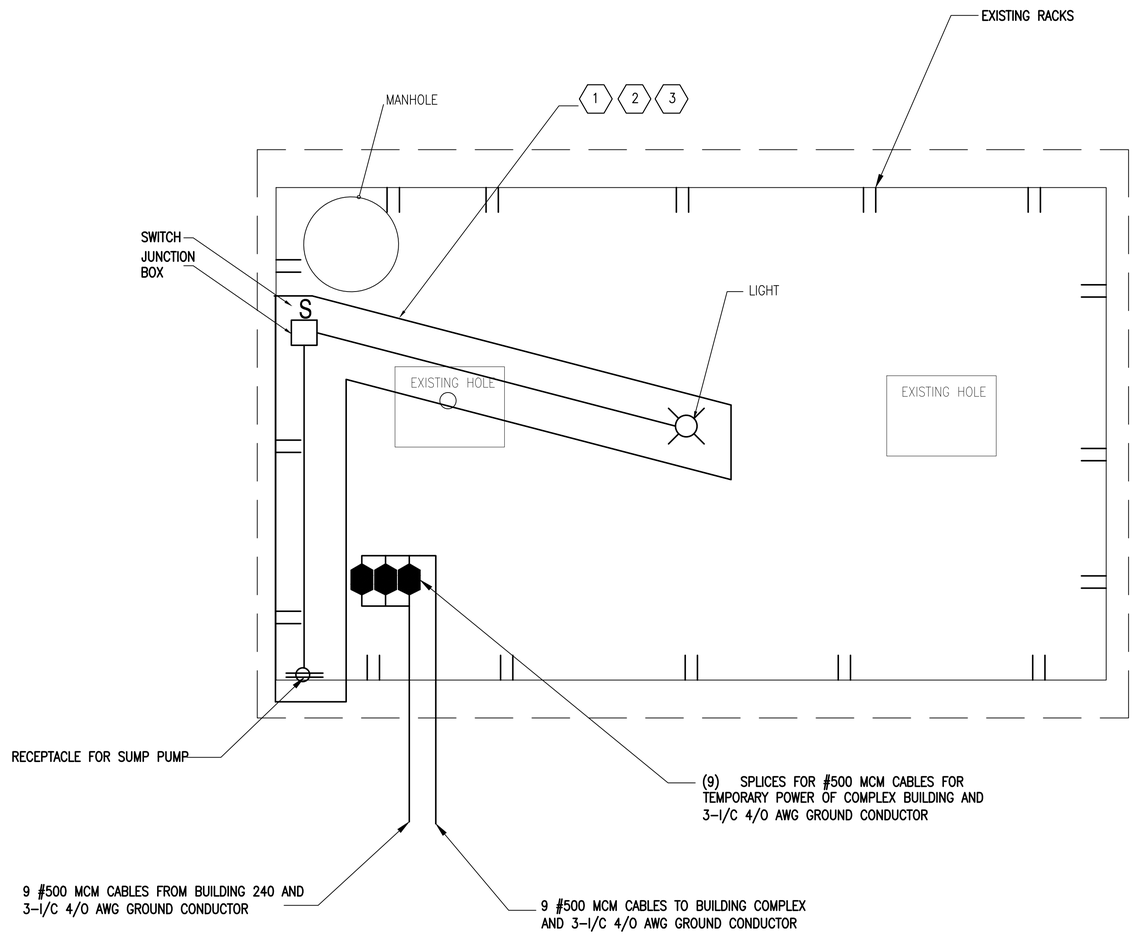

SLD VAULT DEMOLITION PLAN

1" = 2'-0"

PLAN NORTH

DEMOLITION KEYNOTES

1. REMOVE EXISTING LIGHTING CONDUITS AND CONDUCTORS
2. REMOVAL OF ALL CONDUITS SHALL INCLUDE ALL CONDUCTORS
3. DEMOLISH INCANDESCENT LIGHT FIXTURES AND LIGHTING SWITCH

TEMPORARY POWER NOTES:

1. FOR TEMPORARY POWER OF THE COMPLEX BUILDING ELECTRICAL CONTRACTOR SHALL SPLICE IN VAULT CABLES FROM BUILDING 240 AND FEEDERS GOING TO COMPLEX BUILDING.
2. CONTRACTOR SHALL COORDINATE WORK WITH CUSTOMER TO MINIMIZE OUTAGE TIME TO THE COMPLEX BUILDING.
3. CONTRACTOR SHALL ARRANGE FOR TESTING AT THE COMPLEX BUILDING AFTER TEMPORARY SPLICE TO VERIFY PROPER PHASE ROTATION
4. CONTRACTOR SHALL PROVIDE TEMPORARY POWER TO MACHINE HOUSE DERIVED FROM BUILDING 96. QUANITY 1 480V 3 PHASE 20AMP CIRCUIT
5. CONTRACTOR SHALL PUMP DOWN/DEWATER THE VAULT DURING THE OUTAGE.

GRAPHIC SCALE

1/2" = 1'

2 1 0 2 4 6

scale feet

CHECK GRAPHIC SCALE BEFORE USING

SYM	DESCRIPTION	DATE	APPR
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BRANCH MANAGER STEPHEN MEAD

FEAD/PMAE AMIN BAHROUR

FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT – MAINE
PORTSMOUTH NAVAL SHIPYARD

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD ~ PORTSMOUTH, NH
KITTERY, MAINE

REPLACE SUBSTATION SLD

SLD VAULT DEMOLITION PLAN

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
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SHEET 5 OF 17

D102 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

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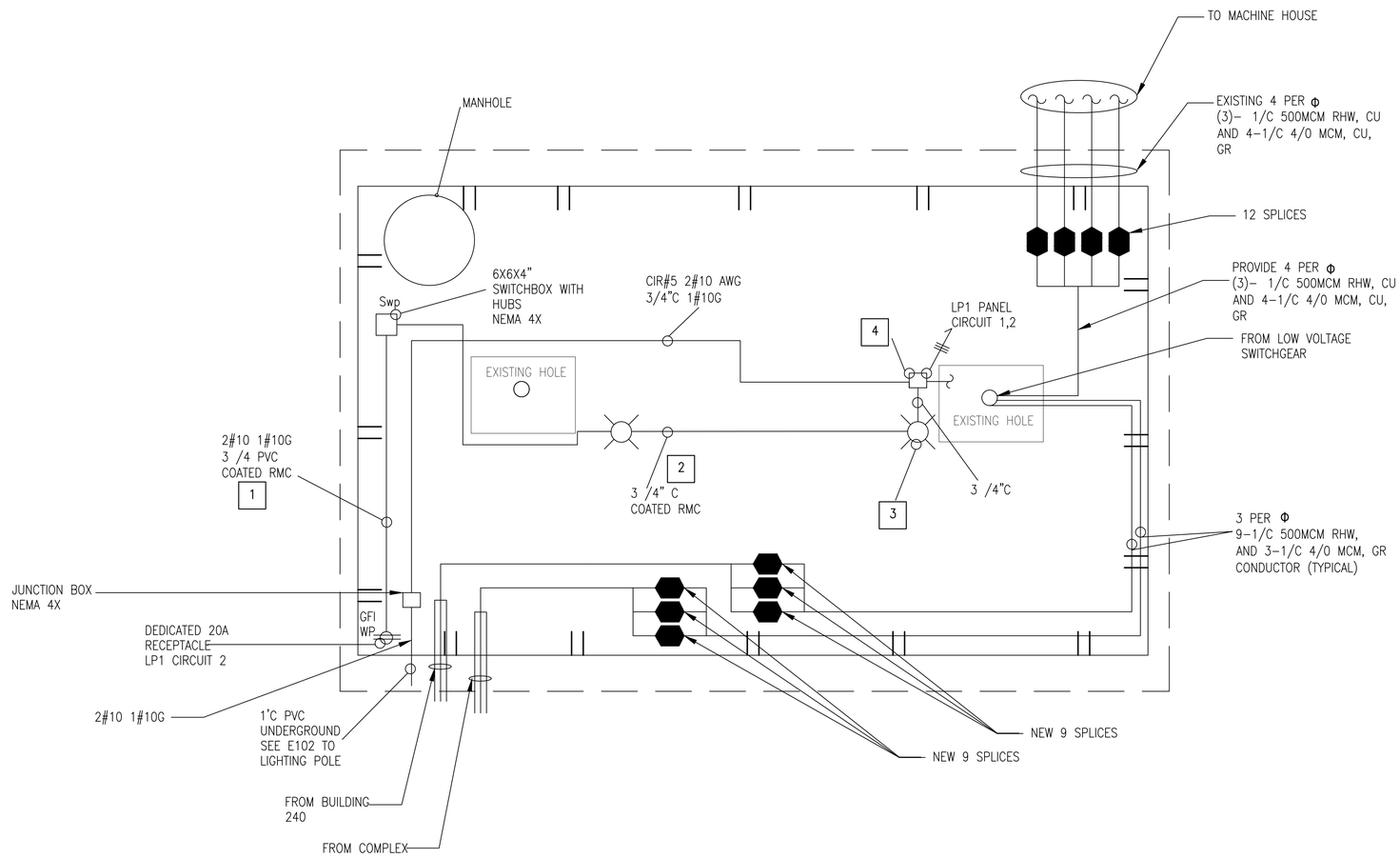

SLD VAULT ELECTRICAL PLAN

1" = 2' – 0"

PLAN NORTH

GENERAL SHEET NOTES

1. ALL CONDUCTORS FOR LIGHTING AND RECEPTACLE SHALL BE #12 THHN UNLESS INDICATED OTHERWISE
2. RECEPTACLE SWITCHES BOXES SHALL BE PVC COATED WITH THREADED HUBS, RECEPTACLES SHALL HAVE IN USE COVERS.
3. CONDUIT SHALL BE PVC COATED RMC, TO INCLUDE FITTINGS, CONDUIT BODIES, CLIPS, BACKERS, HUBS, SCREW AND WASHERS SHALL BE STAINLESS STEEL.
4. SEQUENCE ORDER FOR SPLICING CABLES TO MINIMIZE OUTAGE DURATION.

NEW WORK KEYNOTES

1. 2 #10, 1 #10G
2. 3 #10, 1 #10G
3. LIGHT– VAPOR TIGHT MARINE INCANDESCENT FIXTURE (TYP 2 PLCS)
4. JUNCTION BOX 6" X 6" X 4" CEILING MOUNTED NEMA 4X
5. PROVIDE HEAT SHRINK CABLES SPLICES AS NECESSARY AS SHOWED
6. PROVIDE #4/0 GROUND CONDUCTOR FOR EACH OF THE CONDUIT.

GRAPHIC SCALE

1/2" = 1' 2 1 0 2 4 6
scale feet
CHECK GRAPHIC SCALE BEFORE USING

STM	DESCRIPTION	DATE	APPR
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NAVFAC

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IN HOUSE DESIGN

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SATISFACTORY TO DATE

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FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT – MAINE
PORTSMOUTH NAVAL SHIPYARD
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL SHIPYARD – PORTSMOUTH, NH
KITTERY, MAINE

REPLACE SUBSTATION SLD

SLD VAULT ELECTRICAL PLAN

EPROJECT NO.: 1380703
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
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SHEET 6 OF 17
E101 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

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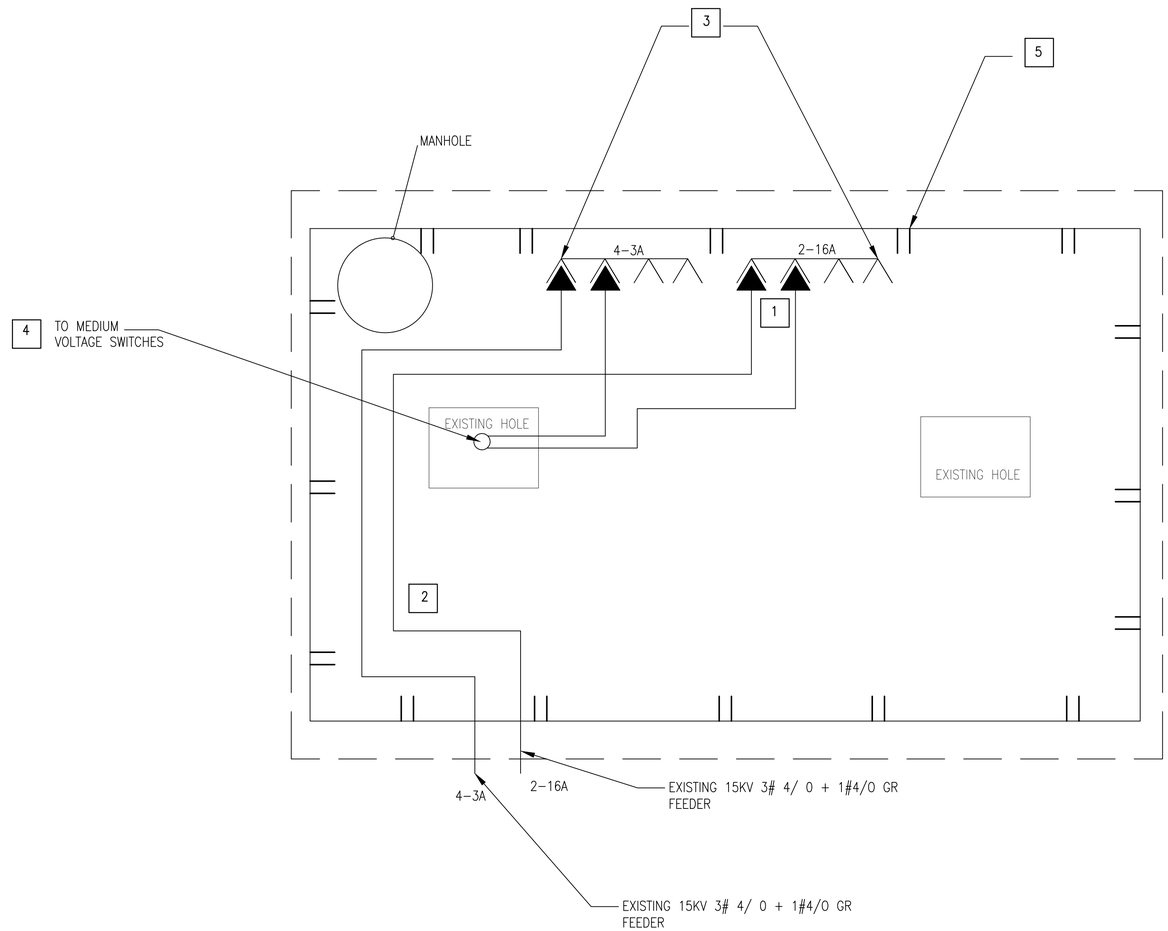

SLD VAULT ELECTRICAL PLAN

1" = 2' - 0"

PLAN NORTH

GENERAL SHEET NOTES

NEW WORK KEYNOTES

1. PROVIDE 600AMP, 15KV BT-TAP DEAD BREAK CONNECTION, QUANTITY 12.
2. PROVIDE 15KV, MV-105 COPPER CONDUCTOR, PVC JACKET, EPR INSULATION, 4/0 AWG COPPER TAPE SHIELD, 133% INSULATION.
3. PROVIDE QUANTITY 6 (TYPICAL) 600AMP, 15KV, DEAD BREAK JUNCTION 4 POINT EPDM INSULATED RUBBER BODY.
4. PROVIDE 15KV HIGH VOLTAGE TERMINATION, QUANTITY 6, HEAT SHRINK, OUTDOOR RATED 4/0 CONDUCTOR WITH SHIELD GROUNDING.
5. PROVIDE QUANTITY 8 (TYPICAL) HEAVY DUTY NON METALLIC CABLE RACKS, 14 INCH ARM LENGTH.

GRAPHIC SCALE

1/2" = 1' 2 1 0 2 4 6 scale feet

CHECK GRAPHIC SCALE BEFORE USING

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FEAD/PMAE AMIN BAHROUR

FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT - MAINE
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD ~ PORTSMOUTH, NH
PORTSMOUTH NAVAL SHIPYARD KITTERY, MAINE

REPLACE SUBSTATION SLD

SLD MEDIUM VOLTAGE VAULT ELECTRICAL PLAN

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. #######

SHEET 7 OF 17

E102 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

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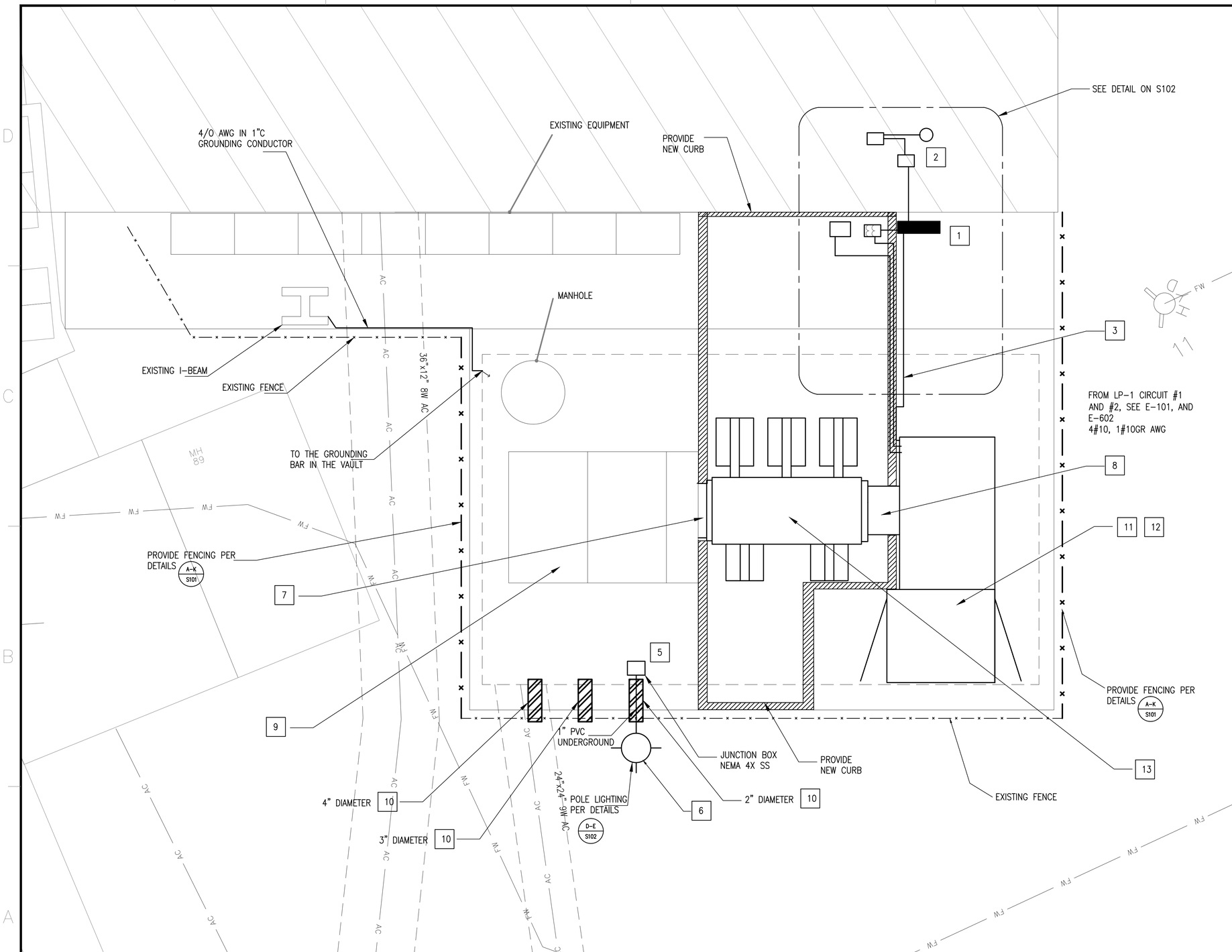

SLD NEW EQUIPMENT LAYOUT

1" = 2' - 0"

PLAN NORTH

NEW WORK KEYNOTES

1. LP-1 NEW ELECTRICAL PANEL 208 / 120V, 12 CIRCUIT BREAKER 50A 3 POLE MAIN CIRCUIT BREAKER NEMA 4X SS ENCLOSURE
2. PROVIDE DECO LIGHTING WALL PACK DASS-LED AS INDICATED
   - 2.1. PROVIDE PHOTOCELL AS INDICATED, LOCATE PHOTOCELL 10' ABOVE FINISHED GRADE, TWIST OFF
   - 2.2. FEED YARD LIGHTING FROM PANEL BOARD LP-1 WITH (2) #10 (1) #10G
   - 2.3. INSTALL DECO-LIGHTING FIXTURE 10' ABOVE FINISHED GRADE.
3. TO VAULT LIGHTING AND RECEPTACLES LP1-1, 2
4. TO SUBSTATION ELECTRICAL HEATERS CIRCUIT LP1-4, 6
5. PROVIDE THREE J-BOXES 6"X6"X4" AT THE VAULT CEILING MOUNTED
6. PROVIDE D-SERIES AREA (LED) SIDE 2 LUMINAIRE BETWEEN EXISTING BOLLARDS.
7. PROVIDE HIGH VOLTAGE WEATHER PROOF ENCLOSURE.
8. PROVIDE LOW VOLTAGE WEATHER PROOF ENCLOSURE.
9. CONTRACTOR MAY DISCONNECT SWITCH ENCLOSURE AS NECESSARY FOR NEW TRANSFORMER ALIGNMENT.
10. PROVIDE (3) CORINGS AS INDICATED.
11. PROVIDE LIFTING DEVICE FOR BREAKER REMOVAL, AND PROVIDE SAFE WORK SPACE CLEARANCE IN ACCORDANCE WITH NFPA 70 NEC.
12. PROVIDE SWITCHGEAR 3200AMP 480/277 VOLT, WALK IN
13. PROVIDE TRANSFORMER 1500KVA

GRAPHIC SCALE

1/2" = 1' 2 1 0 2 4 6 scale feet

CHECK GRAPHIC SCALE BEFORE USING

SYM	DESCRIPTION	DATE	APPR
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NAVFAC

SEAL

PWD-MAINE
IN HOUSE DESIGN

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES ZK DRW EAC CHK

PM/DM TIM O'CONNELL

BRANCH MANAGER STEPHEN MEAD

FEAD/PM&E AMIN BAHROUR

FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT - MAINE
PORTSMOUTH NAVAL SHIPYARD

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD ~ PORTSMOUTH, NH
KITTERY, MAINE

REPLACE SUBSTATION SLD

SLD NEW EQUIPMENT LAYOUT

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
#######

SHEET 8 OF 17

E103 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

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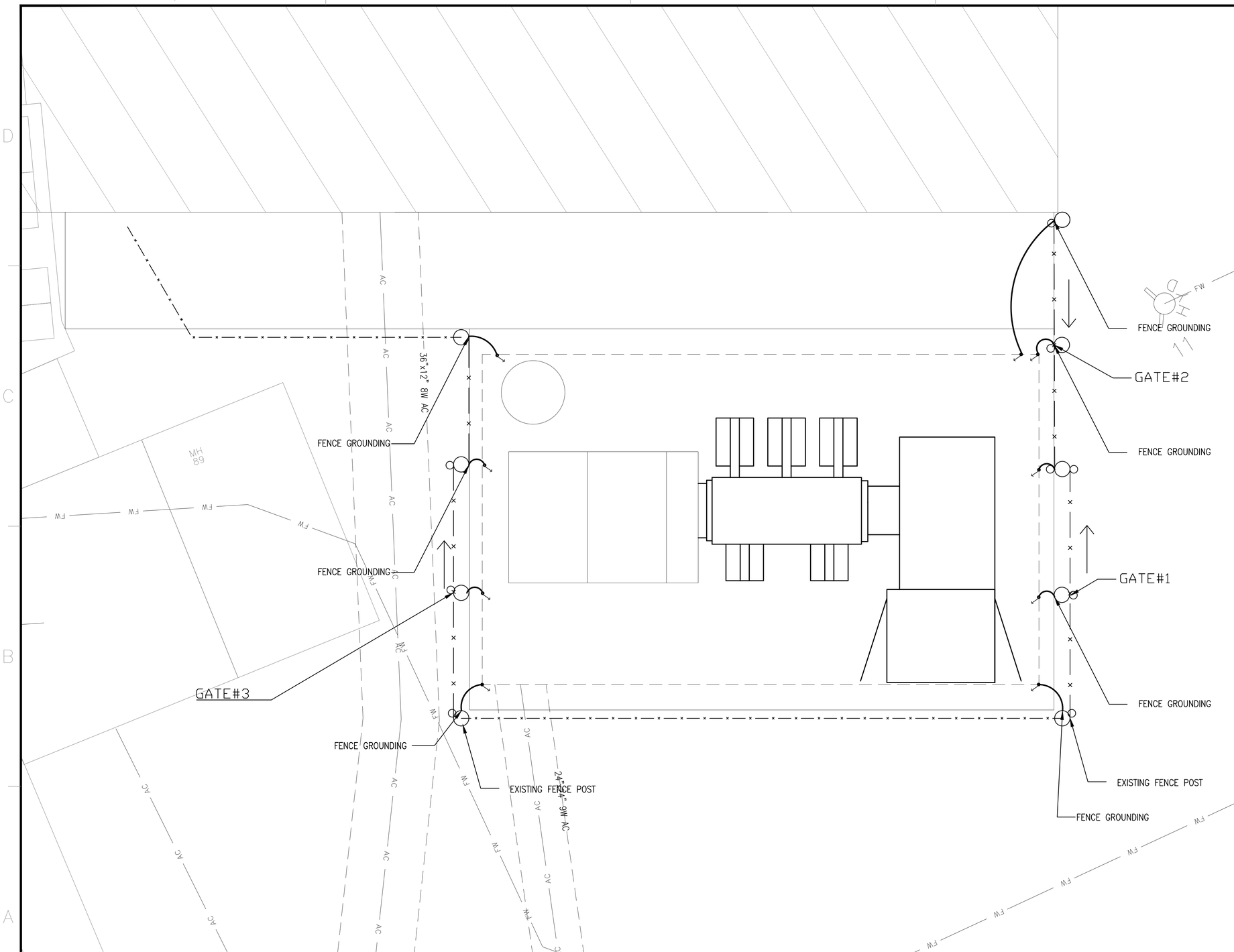

SLD NEW EQUIPMENT LAYOUT

1" = 2' - 0"

NEW WORK KEYNOTES

1. FENCE GROUNDING CONNECT TO THE EXISTING VAULT GROUNDING SYSTEM #4 /0 (TYPICAL) DETAILS H & P S101

GRAPHIC SCALE

1/2" = 1' 2 1 0 2 4 6 scale feet

CHECK GRAPHIC SCALE BEFORE USING

SYM	DESCRIPTION	DATE	APPR
0	BID DOC SUBMISSION	04/04/2016	TOC

NAVFAC

SEAL

PWD-MAINE
IN HOUSE DESIGN

APPROVED

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ACTIVITY

SATISFACTORY TO DATE

DES ZK DRW EAC CHK

PM/DM TIM O'CONNELL

BRANCH MANAGER STEPHEN MEAD

FEAD/PM&E AMIN BAHROUR

FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT – MAINE
NAVAL SHIPYARD – PORTSMOUTH, NH
KITTERY, MAINE

REPLACE SUBSTATION SLD

SLD NEW FENCEING LAYOUT

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
#######

SHEET 9 OF 17

E104 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

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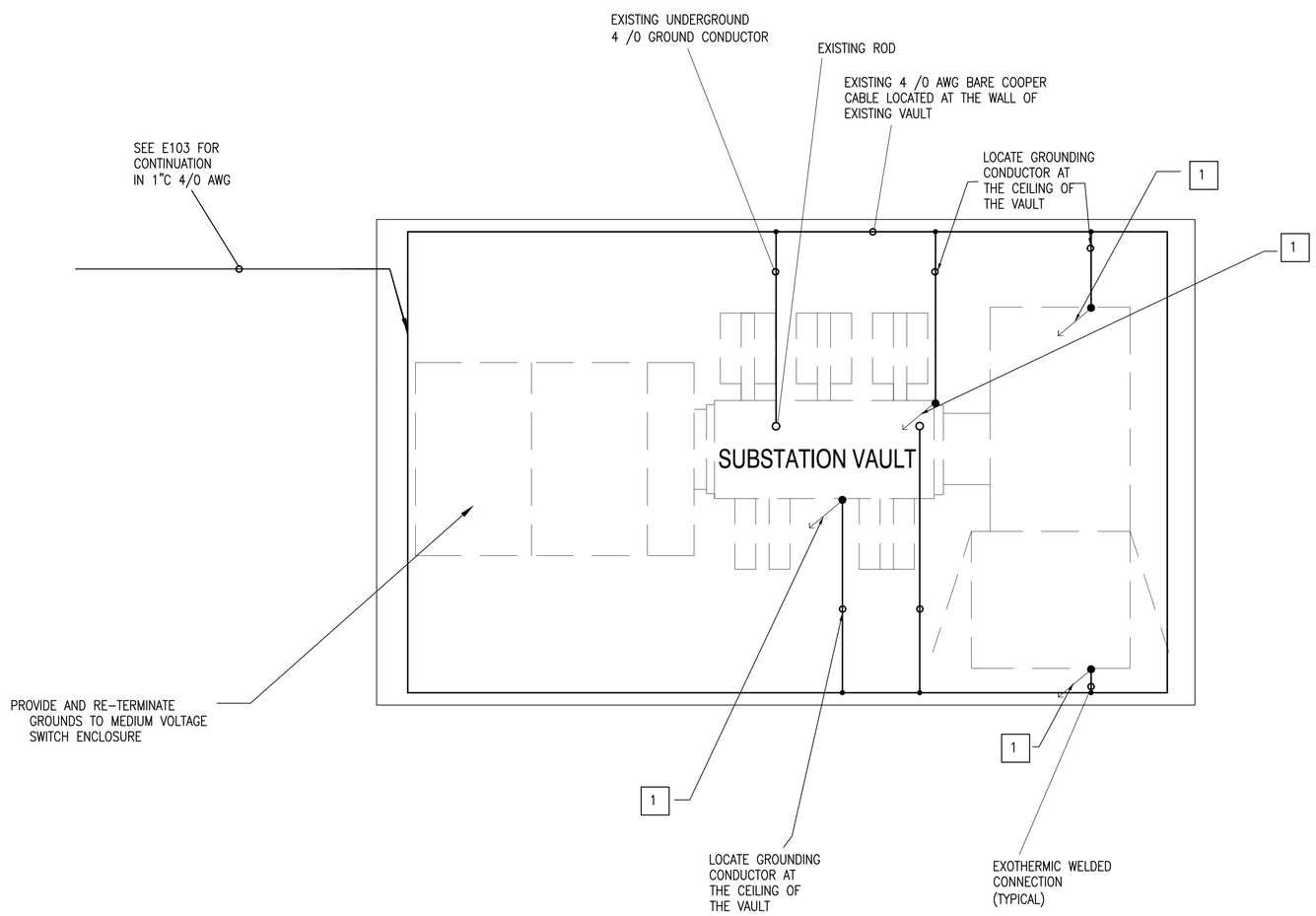


SLD NEW GROUNDING LAYOUT

1" = 2' - 0"

PLAN NORTH

GENERAL SHEET NOTES

1. MINOR DIMENSION CHANGES, IF REQUIRED TO ACCOMMODATE MANUFACTURE'S STANDARDS DETAILS SHALL BE ACCOMPLISHED AT NO ADDITIONAL COST TO THE GOVERNMENT. SUCH CHANGES SHALL BE SUBMITTED TO AND APPROVED BY THE CONTROLLING OFFICER PRIOR THE CONSTRUCTION.
2. ALL EXISTING FIELD DIMENSIONS ELEVATION AND CONDITION AFFECTION WORK UNDER THIS CONTRACTOR SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING PREPARATION OF SHOP DRAWINGS OR COMMENCING ANY WORK.
3. PROVIDE 4 /0 AWG CU EQUIPMENT GROUNDS AT EACH EQUIPMENT LOCATION, PROVIDE 15 FOOT LONG WHIPS AT TRANSPORTABLE PADS.
4. TIE IN GROUNDS FOR ALL EQUIPMENT AND STRUCTURES THAT ARE TO REMAIN

NEW WORK KEYNOTES

1. PROVIDE 4 /0 AWG EQUIPMENT GROUNDS. GROUND WIRE SHALL BE EXOTHERMALLY WELDED TO EXISTING GROUND BAR (TYPICAL)
2. FROM SUBSTATION EQUIPMENT LEVEL TO UNDER CONCRETE SLAB LEVEL
3. ELECTRICAL CONTRACTOR SHALL PROVIDE GROUNDING IMPEDANCE TEST FOR SUBSTATION SLD. PROVIDE GROUND IMPEDANCE MEASUREMENT BETWEEN GROUND SYSTEM OF SUBSTATION SLD AND SUBSTATION LC-7 (SUBSTATION WITH KNOWN GROUND) AND VERIFY SUBSTATION SLD HAS GROUNDING IMPEDANCE EQUAL OR LESS THAT 5 OHMS. SUBMIT RESULTS TO GOVERNMENT FOR APPROVAL.

GRAPHIC SCALE

1/2" = 1' 2 1 0 2 4 6
scale feet
CHECK GRAPHIC SCALE BEFORE USING

SYM	DESCRIPTION	DATE	APPR
0	BID DOC SUBMISSION	04/04/2016	TDC

NAVFAC

SEAL

PWD-MAINE
IN HOUSE DESIGN

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES ZK DRW EAC CHK
PM/DM TIM O'CONNELL
BRANCH MANAGER STEPHEN MEAD
FEAD/PM&E AMIN BAHROUR
FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
PUBLIC WORKS DEPARTMENT ~ MAINE
NAVAL SHIPYARD ~ PORTSMOUTH, NH
KITTERY, MAINE
PORTSMOUTH NAVAL SHIPYARD
REPLACE SUBSTATION SLD
SLD NEW GROUNDING LAYOUT

EPROJECT NO.: 1380703
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. #######
SHEET 10 OF 17
E105 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

FILE NAME: C:\Users\emily.car\appdata\local\temp\AcPublish_21472\1380703SLD.dwg LAYOUT NAME: E105 PLOTTED: Thursday, June 16, 2016 - 9:35am USER: emily.car

GENERAL SHEET NOTES

1. MAXIMUM HEIGHT OF INSTRUMENTATION AND CONTROL DEVICES SHALL BE 6.5FT OR LESS ABOVE THE BOTTOM OF THE STRUCTURAL STEEL BASE–FRAME

2. EQUIPMENT ELEVATIONS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO SHOW THE GENERAL LAYOUT AND OVERALL DIMENSIONS. THE CONTRACTOR PROVIDE ALL ENGINEERING, DESIGN, MANUFACTURE, ASSEMBLY, AND TESTING TO MEET THE REQUIREMENTS OF THIS CONTRACT

3. ENCLOSURE DATA
   3.1. WALK IN DEAD FRONT SWITCHBOARD PER UL891, SERVICE ENTRANCE 3200A, 480Y, 3 PHASE 3 WIRE, 65KA IC, NEMA 3R 151"W X 114"D X 125"H; 6000LBS.
   3.2. HANDLING: ROLLERS & LIFTING ASSEMBLIES.
4. EQUIPMENT SHALL BE LABELED AND LISTED FOR THEIR USE

5. EQUIPMENT SHALL BE TESTED ON SITE I.A.W. IN ACCORDANCE WITH NETA ATS

SYM	DESCRIPTION	DATE	APPR
0	BID DOC SUBMISSION	04/04/2016	TOC

NAVFAC

SEAL

PWD-MAINE
IN HOUSE DESIGN

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES ZK | DRW EAC | CHK

PM/DM TIM O'CONNELL

BRANCH MANAGER STEPHEN MEAD

FEAD/PWME AMIN BAHROUR

FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT – MAINE
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD ~ PORTSMOUTH, NH
PORTSMOUTH NAVAL SHIPYARD KITTERY, MAINE

REPLACE SUBSTATION SLD

LOW VOLTAGE SWITCHGEAR ELEVATION NEW

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

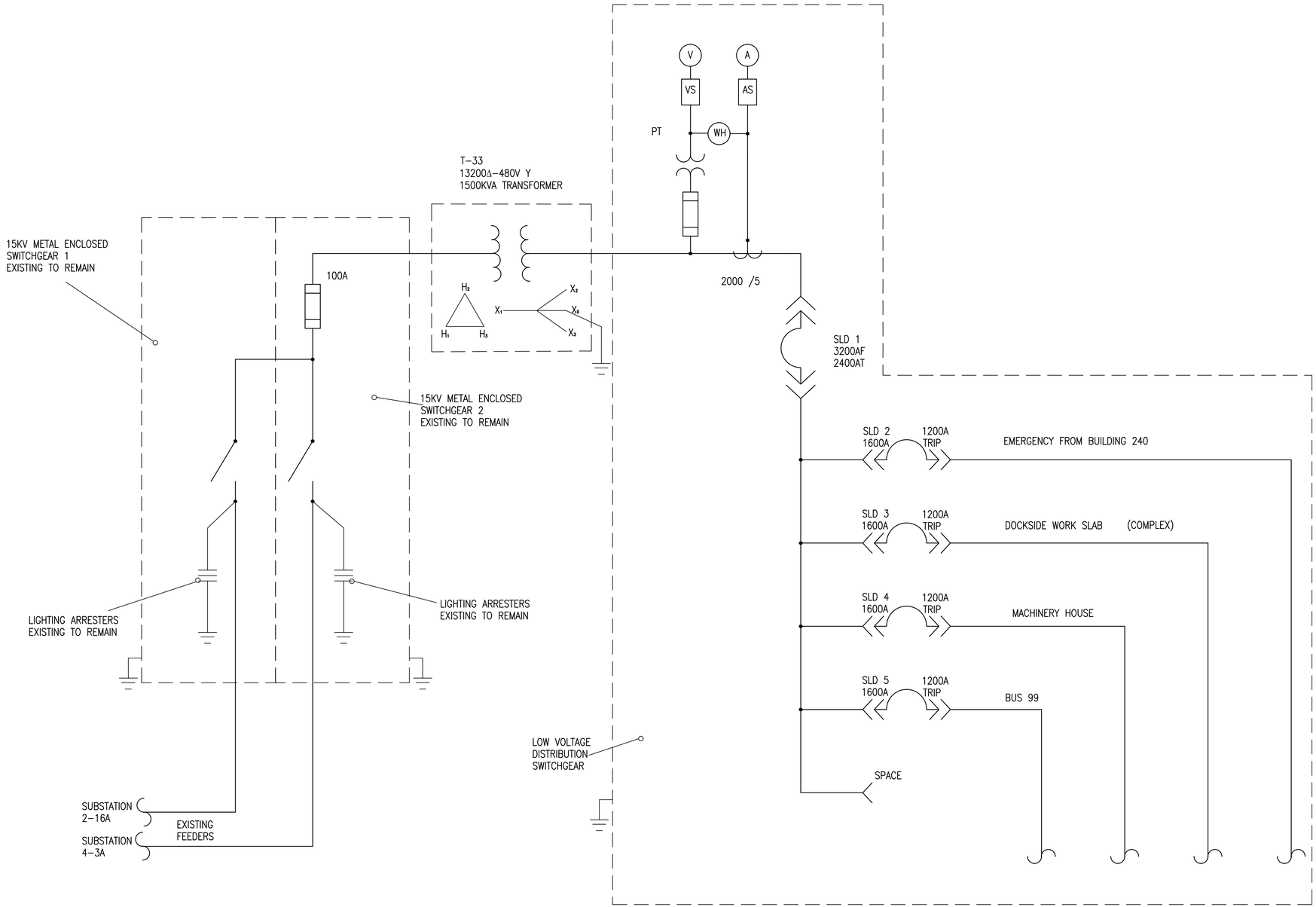
NAVFAC DRAWING NO.
#######

SHEET 11 OF 17

E106 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

FILE NAME: C:\Users\emily.car\appdata\local\temp\AcPublish_21472\1380703SLD.dwg LAYOUT NAME: E106 PLOTTED: Thursday, June 16, 2016 – 9:35am USER: emily.car



GENERAL SHEET NOTES

1. ALL WORK UNLESS NOTED EXIST AND SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
2. GROUNDING CONDUCTORS SHALL BE BONDED TO EXISTING SYSTEM IN THE VAULT.

LEGEND

SYMBOL	DESCRIPTION
	CONTROL POWER POTENTIAL XFMR
AS — A	AMMETER WITH SELECTOR SWICTH
VS — V	VOLTMETER WITH SELECTOR SWITCH
	CURRENT XFMR
WH	WATTMETER

STM	DESCRIPTION	DATE	APPR
0	BID DOC SUBMISSION	04/04/2016	TOC

NAVFAC

SEAL

PWD-MAINE
IN HOUSE DESIGN

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES ZK DRW EAC CHK

PM/DM TIM O'CONNELL

BRANCH MANAGER STEPHEN MEAD

FEAD/PMAE AMIN BAHROUR

FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT - MAINE

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH, NH
PORTSMOUTH NAVAL SHIPYARD KITTERY, MAINE

REPLACE SUBSTATION SLD

SLD EXISTING ONE-LINE RISER DIAGRAM

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

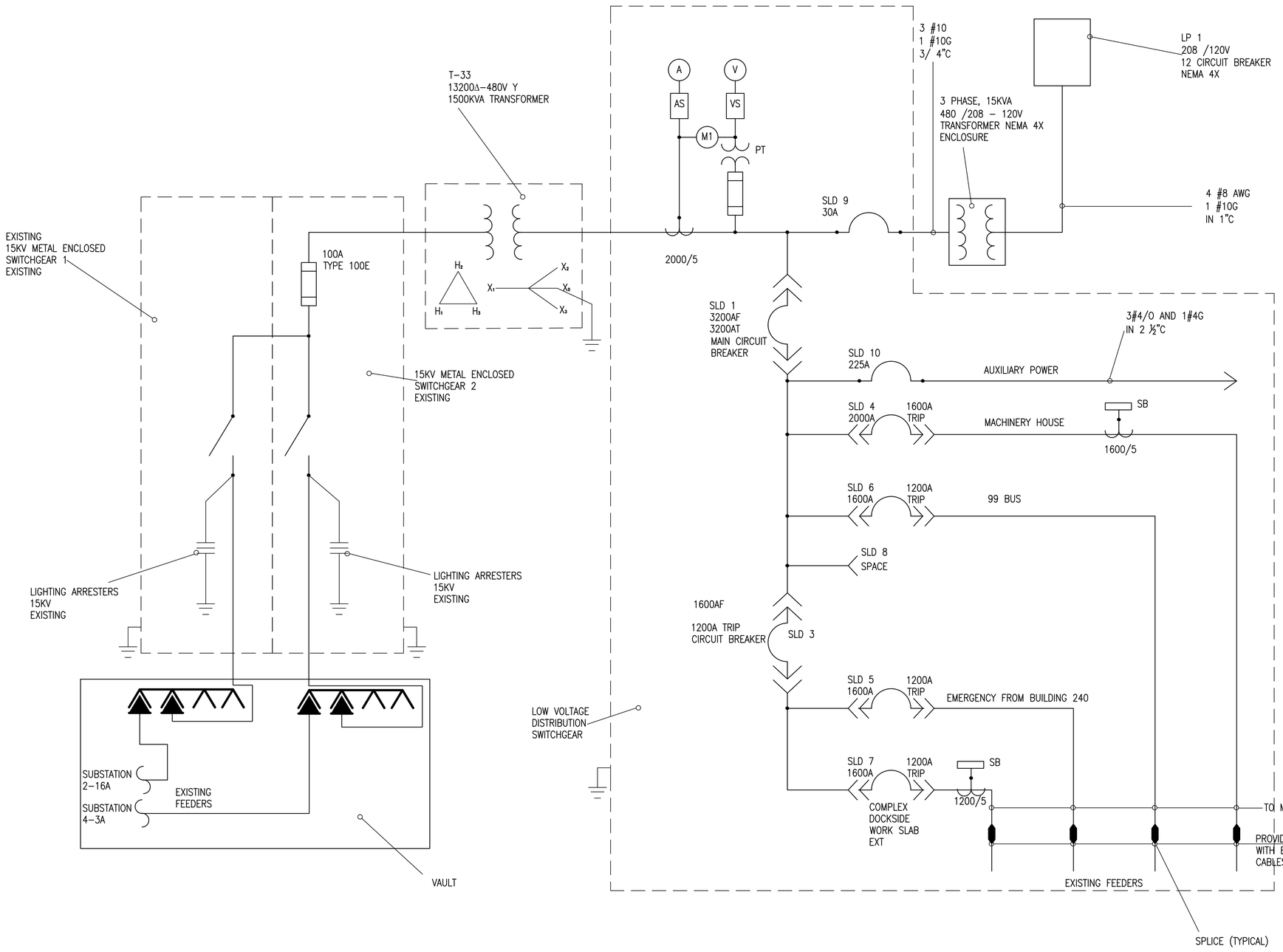
NAVFAC DRAWING NO.
#######

SHEET 12 OF 17

E601 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

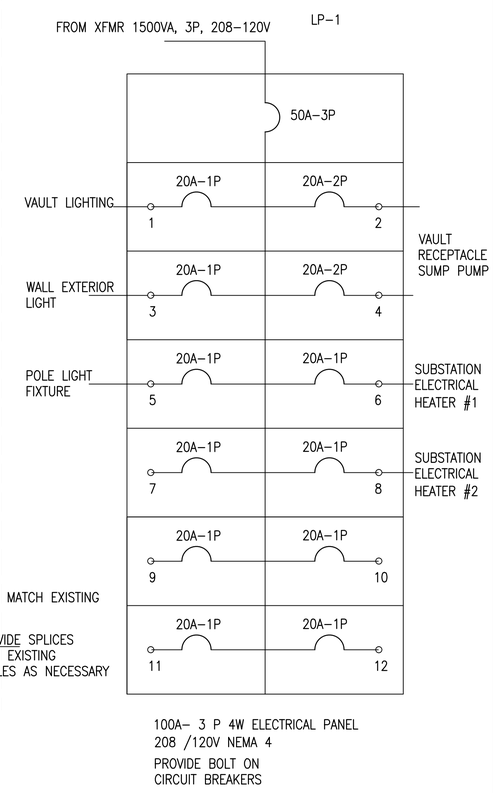
FILE NAME: C:\Users\emily.cor\appdata\local\temp\AcPublish_21472\1380703SLD.dwg LAYOUT NAME: E601 PLOTTED: Thursday, June 16, 2016 - 9:35am USER: emily.cor



GENERAL SHEET NOTES

1. ALL WORK UNLESS NOTED AS EXISTING IS NEW AND SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
2. GROUNDING CONDUCTORS SHALL BE BONDED TO AN EXISTING IN THE VAULT COOPER BAR.

LEGEND	
SYMBOL	DESCRIPTION
	CONTROL POWER POTENTIAL XFMR
AS — A	AMMETER WITH SELECTOR SWICTH
VS — V	VOLTMETER WITH SELECTOR SWITCH
	3PH CURRENT XFMR
M1	METER TYPE: NEXUS 1272
SB	3PH CT SHORTING BLOCK



STM	DESCRIPTION	DATE	APPR
0	BID DOC SUBMISSION	04/04/2016	TDC

NAVFAC

SEAL

PWD-MAINE
IN HOUSE DESIGN

APPROVED

FOR COMMANDER NAVFAC
ACTIVITY

SATISFACTORY TO DATE

DES ZK | DRW EAC | CHK

PM/DM TIM O'CONNELL

BRANCH MANAGER STEPHEN MEAD

FEAD/PMME AMIN BAHROUR

FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT - MAINE
PORTSMOUTH NAVAL SHIPYARD

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH, NH
KITTERY, MAINE

REPLACE SUBSTATION SLD

RECONFIGURED ONE LINE RISER DIAGRAM

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

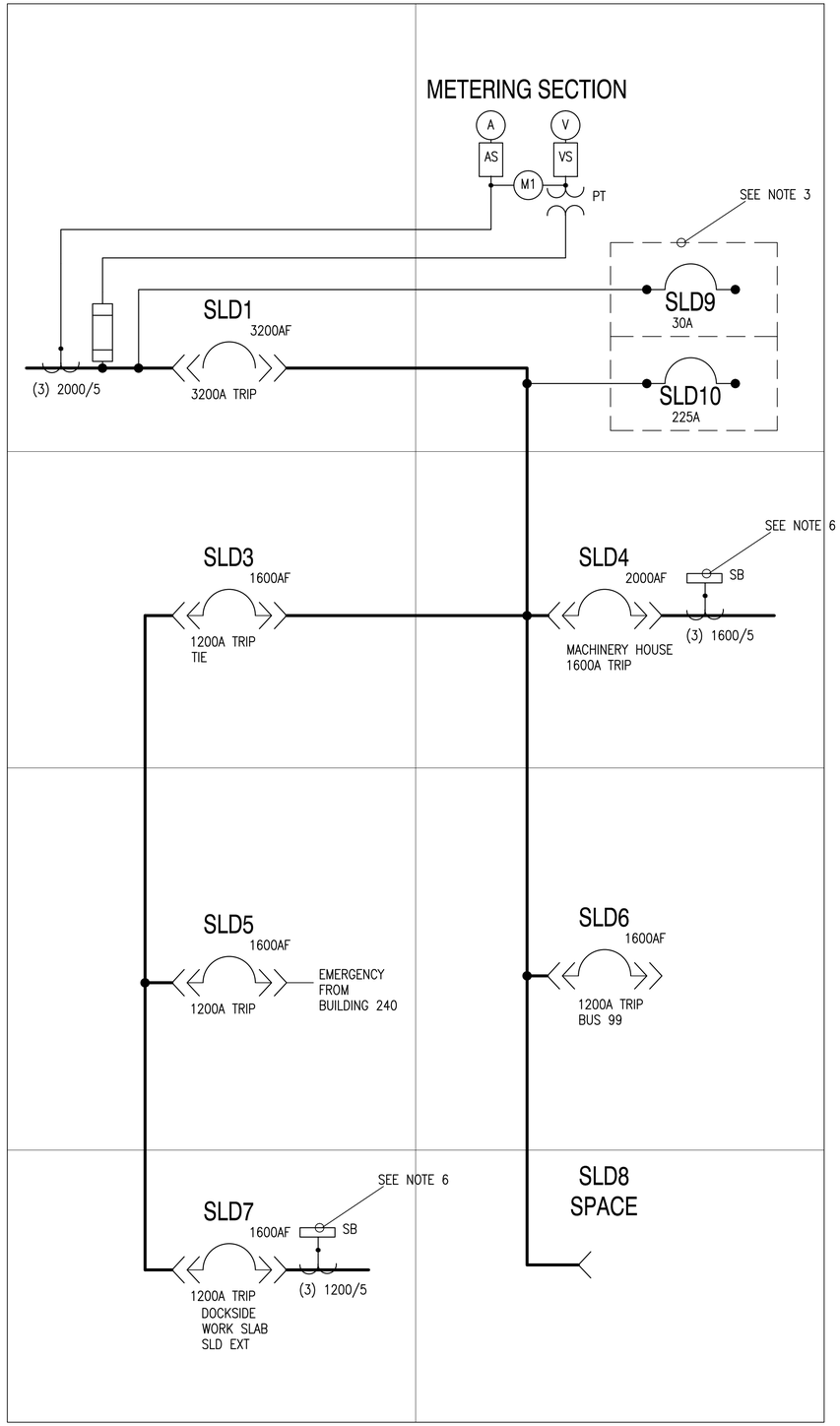
NAVFAC DRAWING NO.
#######

SHEET 13 OF 17

E602 | FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

FILE NAME: C:\Users\emily.car\appdata\local\temp\AcPublish_21472\1380703SLD.dwg LAYOUT NAME: E602 PLOTTED: Thursday, June 16, 2016 - 9:35am USER: emily.car



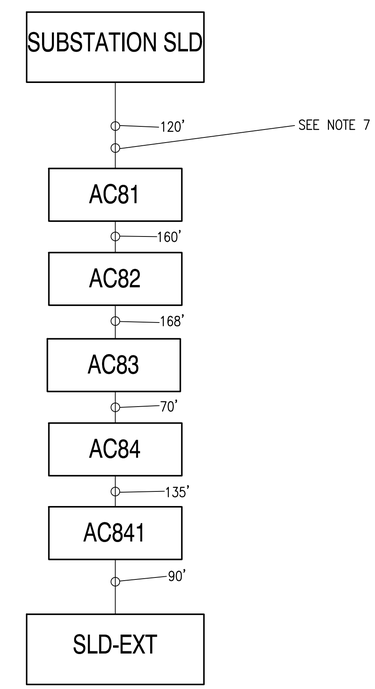
3200A, 480V, 3 PHASE SWITCHGEAR

ITEM	DESCRIPTION	QTY
SLD1	3200A-3 PHASE POWER CIRCUIT BREAKER 480V SENSOR RATING PLUG:3200A	1
SLD3	1600A- 3 PHASE POWER CIRCUIT BREAKER 480V SENSOR RATING PLUG 1200A	1
SLD4	2000A- 3 PHASE POWER CIRCUIT BREAKER 480V SENSOR RATING PLUG 1600A	1
SLD5	1600A- 3 PHASE POWER CIRCUIT BREAKER 480V SENSOR RATING PLUG 1200A	1
SLD6	1600A- 3 PHASE POWER CIRCUIT BREAKER 480V SENSOR RATING PLUG 1200A	1
SLD7	1600A-3 PHASE POWER CIRCUIT BREAKER 480V SENSOR RATING PLUG 1200A	1
SLD9	30A-3PHASE CIRCUIT BREAKER 480V 65KA INTERRUPTIVE CAPACITY RATING	1
SLD10	225A-3 PHASE CIRCUIT BREAKER 480V, 65KA INTERRUPTIVE CAPACITY RATING	1
CT	(3)CURRENT TRANSFORMER AS INDICATED RATIO	3
PT	POTENTIAL TRANSFORMER 480:120V RATIO 150VA	3
A / AS	AMMETER WITH SELECTOR SWITCH	1
V / VS	VOLTMETER WITH SELECTOR SWITCH	1
M1	METER TYPE: NEXUS 1272	1

GENERAL SHEET NOTES

1. MAXIMUM HEIGHT OF INSTRUMENTATION AND CONTROL DEVICES SHALL BE 6.5FT OR LESS ABOVE THE BOTTOM OF THE STRUCTURAL STELL BACE-FRAME
2. EQUIPMENT ELEVATIONS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO SHOW THE GENERAL LAYOUT AND OVERALL DIMENSIONS. THE CONTRACTOR PROVIDE ALL ENGINEERING, DESIGN, MANUFACTURE, ASSEMBLY, AND TESTING TO MEET THE REQUIREMENTS OF THIS CONTRACT.
3. INSTALL CIRCUIT BREAKER SLD9 AND SLD10 AT THE BACK WALL OF METERING SECTION
4. POWER SYSTEM DATA
   4.1. 480V, 3 PHASE, 3 WIRE, 60 HZ/ 3 PHASE WYE SOLIDLY GROUNDED SYSTEM SHORT CIRCUIT CURRENT RATING 65KA RMS BUSSWAY THROUGH THE LEFT WALL
5. BUS SYSTEM DATA
   5.1. 3200A SILVER PLATED COPPER MAIN BUS
6. PROVIDED CT SHORTING BLOCKS (SB) LOCATED IN METERING SECTION FOR FUTURE USE.
7. PROVIDE 9-1/C 500MCM RMW, JACKETED CONDUCTORS AND 3-1/C 4/O AWG RMC, JACKETED GROUND CONDUCTORS TYPICAL

ONE-LINE DIAGRAM CONNECTION SLD
SUBSTATION TO 480V, 3 PHASE DISTRIBUTION PANEL SLD-EXT



SLD EXT COMPLEX 480V, DISTRIBUTION PANEL

SYM	DESCRIPTION	DATE	APPR
0	BID DOC SUBMISSION	04/04/2016	TOC

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DES ZK | DRW EAC | CHK

PM/DM TIM O'CONNELL

BRANCH MANAGER STEPHEN MEAD

FEAD/PMAE AMIN BAHROUR

FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT - MAINE
PORTSMOUTH NAVAL SHIPYARD

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD - PORTSMOUTH, NH
KITTERY, MAINE

REPLACE SUBSTATION SLD

LOW VOLTAGE DISTRIBUTION SWITCHGEAR ELECTRICAL DIAGRAM

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

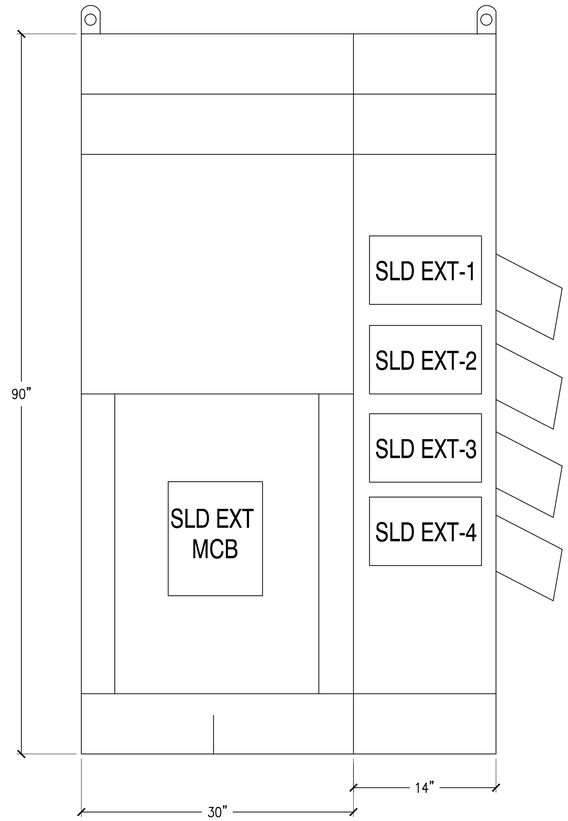
NAVFAC DRAWING NO.
#######

SHEET 14 OF 17

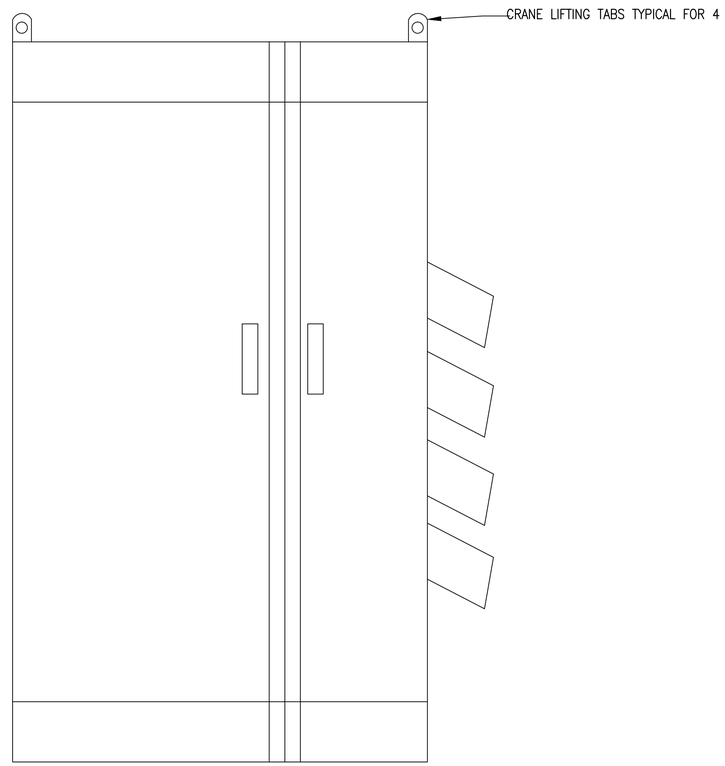
E603 | FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

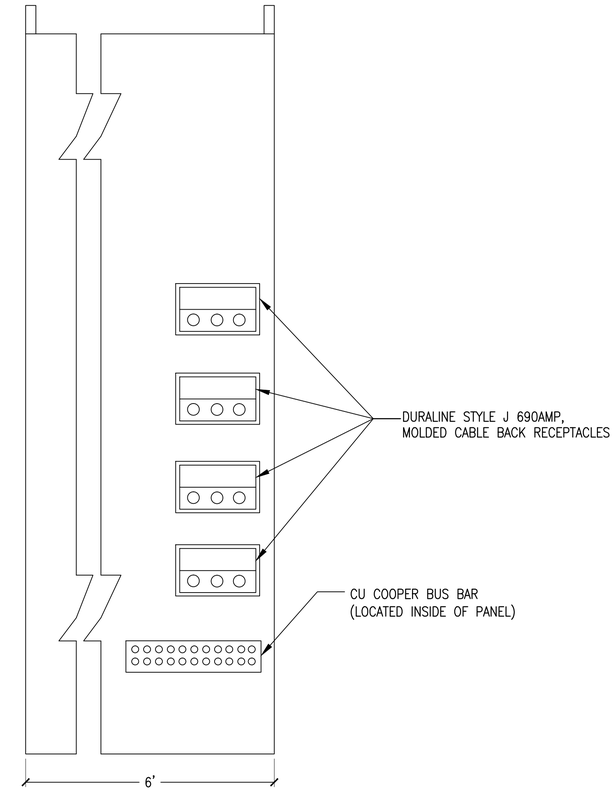
FILE NAME: C:\Users\emily.car\appdata\local\temp\AcPublish_21472\1380703SLD.dwg LAYOUT NAME: E603 PLOTTED: Thursday, June 16, 2016 - 9:35am USER: emily.car



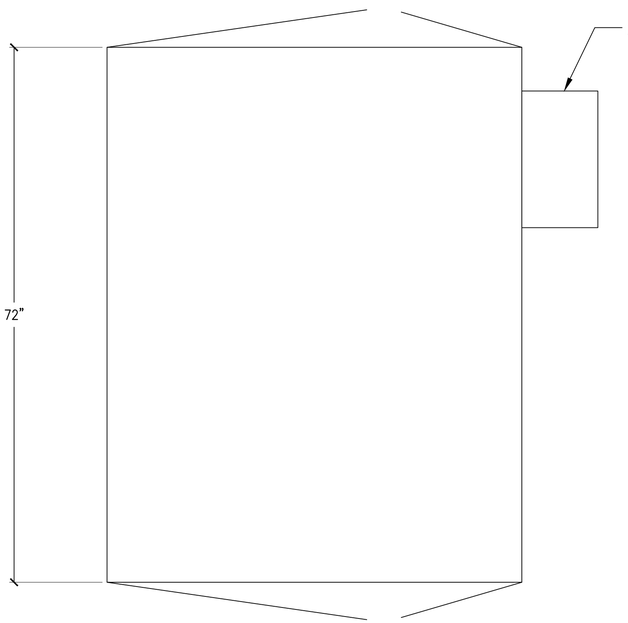
FRONT VIEW WITHOUT ENCLUSURE



FRONT VIEW WITH ENCLOSURE

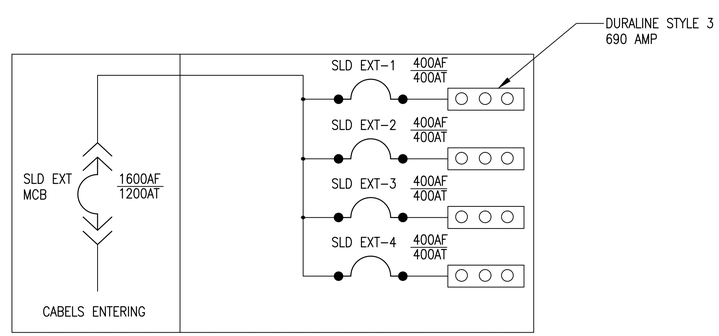


SHORE POWER CONNECTOR END ELEVATION



1200AMPS DISTRIBUTION PANEL PLAN

SECTION NUMBER	CIRCUIT NUMBER	GMD HEIGHT	DEVICE RATING	TRIP AMPS	#P	FEEDS	CIRCUIT BREAKER TYPE
1	SLD EXT MCB	---	INCOMING CONNECTION 1200	1200	3P		PE 361600 LSG OR SIMILAR
2	SLD EXT-1	7.5	400	400	3P		LE 364004 LSG OR SIMILAR
3	SLD EXT-2	7.5	400	400	3P		--II--
4	SLD EXT-3	7.5	400	400	3P		--II--
5	SLD EXT-4	7.5	400	400	3P	SPARE	--II--



ONE-LINE DIAGRAM SLD-EXT DISTRIBUTION PANEL

GENERAL SHEET NOTES

1. SWITCHGEAR GENERAL NOTES
   1.1. PRODUCT DESCRIPTION AND RATING

   1.2. POWER SYSTEM DATA
   1.2.1. 480 V, 3PH, 60HZ,/3PHASE WIRE, SYSTEM SHORT CIRCUIT RATING– 50 KA RMS SOLIDLY GROUNDING, INCOMING SECTION 1 BUSWAY THROW THE BUTTON.

   1.3. ENCLOSURE DATA
   1.3.1. NEMA–4X (NON WALKIN IN) SWITCHBOARD ENCLOSURE EXTERIOR PRINT COLOR: AUST 49.
   1.3.2. FRONT AND REAR ACCESSIBILTY REQUIRED

   1.4. EQUIPMENT ELEVATIONS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO SHOW THE GENERAL LAYOUT AND OVERALL DIMENSIONS. THE CONTRACTOR PROVIDE ALL ENGINEERING DESIGN, MANUFACTURE, ASSEMBLY, AND TESTING TO MEET THE REQUIREMENTS OF THIS CONTRACTOR.

   1.5. ELECTRICAL CONTRACTOR SHALL PROVIDE ELECTRICAL HEATERS FOR SECTION 1 AND 2 DISTRIBUTION SWITCHBOARD.

   1.6. HOUSING/ RECEPTACLES: 30" ANGLE 3 GANG FEMALE RECEPTACLES BLOCK HOUSING WITH FEMALE "J" SERIES SHROUNDED POSITIVE LATCHING BLOCKS MOLDED TO CABLE STYLE. BLACK A PHASE, BLUE B PHASE, RED C PHASE.

STM	DESCRIPTION	DATE	APPR
0	BID DOC SUBMISSION	04/04/2016	TDC

NAVFAC

SEAL

PWD-MAINE
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APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES ZK DRW EAC CHK
PM/DM TIM O'CONNELL
BRANCH MANAGER STEPHEN MEAD
FEAD/PM&E AMIN BAHROUR
FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT – MAINE
PORTSMOUTH NAVAL SHIPYARD

NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL SHIPYARD – PORTSMOUTH, NH
KITTERY, MAINE

REPLACE SUBSTATION SLD

SLD LOW VOLTAGE DISTRIBUTION SWITCHBOARD SLD–EXT ONE–LINE

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

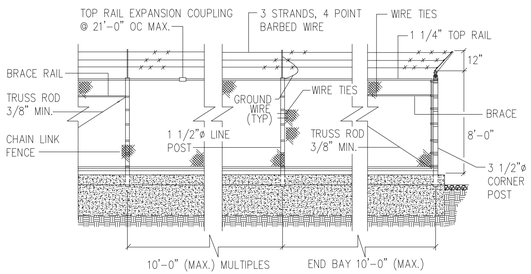
NAVFAC DRAWING NO.
#######

SHEET 15 OF 17

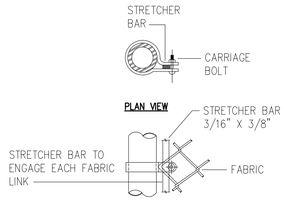
E604 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

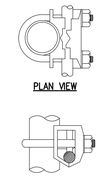
FILE NAME: C:\Users\emily.car\appdata\local\temp\AcPublish_21472\1380703SLD.dwg LAYOUT NAME: E604 PLOTTED: Thursday, June 16, 2016 - 9:35am USER: emily.car



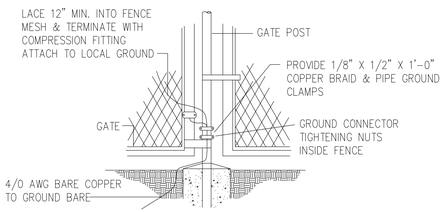
CHAIN LINK FENCE DETAIL (A / E103)
NOT TO SCALE



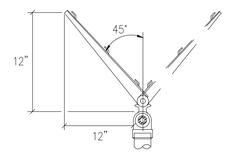
END OR GATE POST DETAIL (B / E103)
NOT TO SCALE



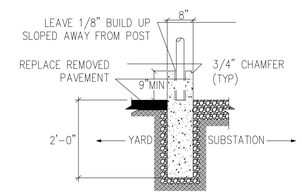
TYPICAL GROUND WIRE ATTACHMENT DETAIL (C / E103)
NOT TO SCALE



GROUNDING DETAIL (D / E103)
NOT TO SCALE

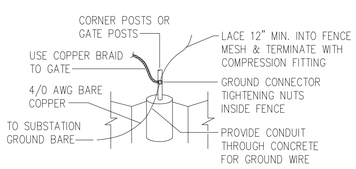


TOP RAIL BARB WIRE ARM DETAIL (E / E103)
NOT TO SCALE

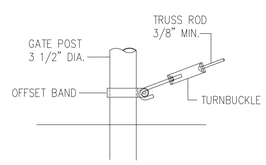


NOTE: DIMENSIONS INDICATED ARE INTENDED TO USE AS A REFERENCE. ALL CURBING TO MATCH REMAINING EXISTING CURBING.

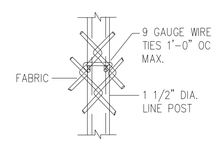
FOR CURBING DETAIL
CORE DRILLED POSTS (TYP) (F / E103)
NOT TO SCALE



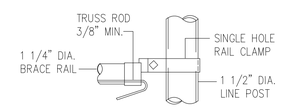
GROUNDING DETAIL (G / E103)
NOT TO SCALE



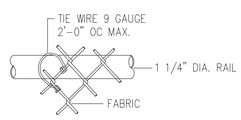
TRUSS ROD & BAND DETAIL (H / E103)
NOT TO SCALE



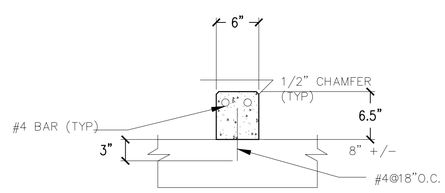
LINE POST ATTACHMENT DETAIL (I / E103)
NOT TO SCALE



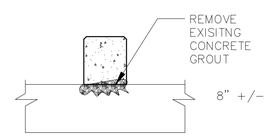
CLAMP FOR BRACE RAIL
ROUND POST DETAIL (J / E103)
NOT TO SCALE



WIRE TIES FOR TOP
OR BRACE RAIL DETAIL (K / E103)
NOT TO SCALE



CURBING DETAIL (L / E102)
SCALE: 1/4"=1'-0"



DEMO EXISTING CURB
DETAIL (M / E101)
NOT TO SCALE

GENERAL SHEET NOTES

1.

SYM	DESCRIPTION	DATE	APPR
0	BID DOC SUBMISSION	04/04/2016	TOC

NAVFAC

SEAL

PWD-MAINE
IN HOUSE DESIGN

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES EAC | DRW DRW | CHK SLM
PM/DM EMILY CAR
BRANCH MANAGER STEPHEN L MEAD
FEAD/PM&E AMIN BAHROUR PM&E
FIRE PROTECTION X

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PUBLIC WORKS DEPARTMENT – MAINE
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL SHIPYARD – PORTSMOUTH, NH
PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE
REPLACE SUBSTATION SLD
SLD FENCE AND SITE DETAIL

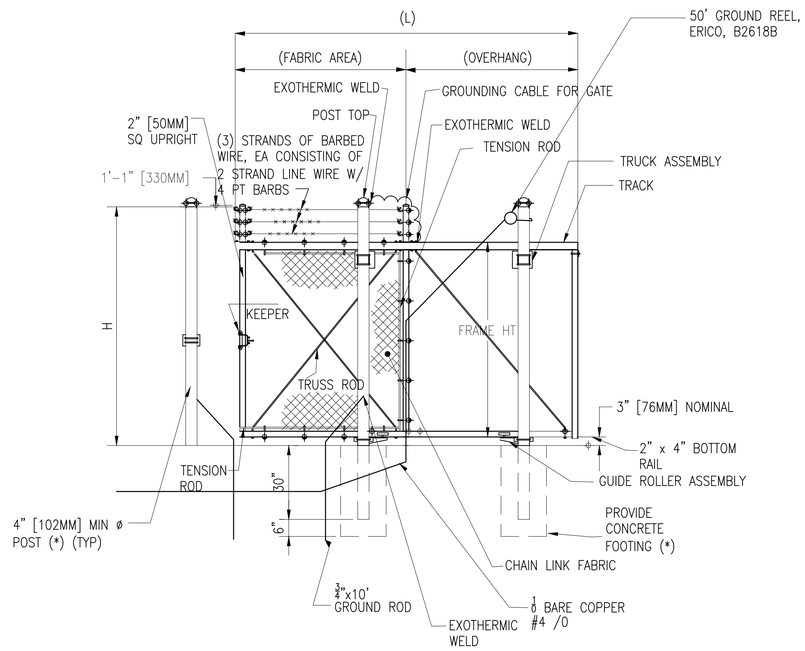
EPROJECT NO.: 1380703
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. #######
SHEET 16 OF 17
S101 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

FILE NAME: C:\Users\emily.car\appdata\local\temp\AcPublish_21472\1380703SLD.dwg LAYOUT NAME: S101 PLOTTED: Thursday, June 16, 2016 - 9:35am USER: emily.car

SAMPLING OF SIZES:

OPENING	NOMINAL HEIGHT (H)	LENGTH (L)	GATE POSTS (G)	BAYS / OVERHANG
4'-6"	8'-0"	9'	4'-6"	1 (FABRIC) / 1 (W/O)



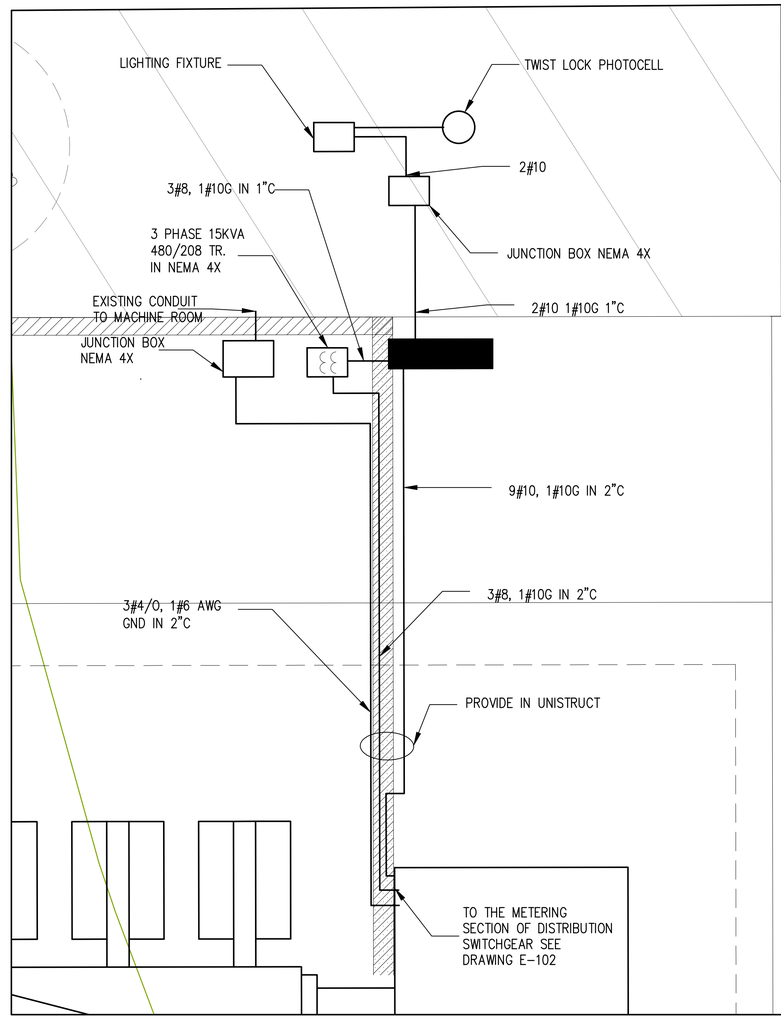
(*) POST SIZE AND ASSOCIATED FOOTING DIAMETER TO BE DETERMINED BY MANUFACTURER, BASED ON LEAF WEIGHT & DIMENSION. MINIMUM FOOTING DIAMETERS (TO BE FILLED W/4000 PSI CONC):

TYPICAL SINGLE CANTILEVERED SLIDING GATE ELEVATION- (1) BAY SHOWN

NOT TO SCALE

WITH ROUND POSTS & WITH BARBED WIRE

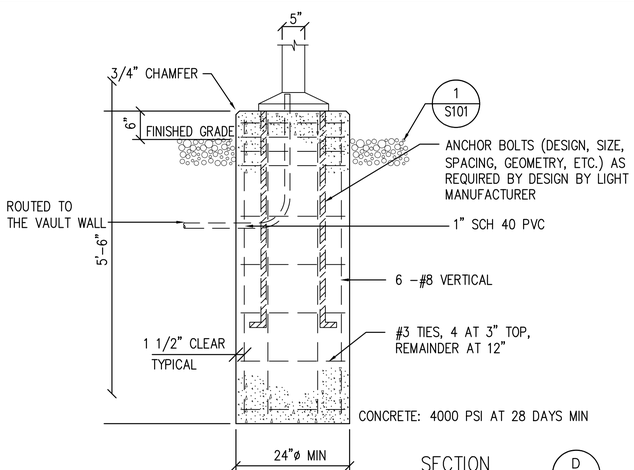
A1 E102 S102



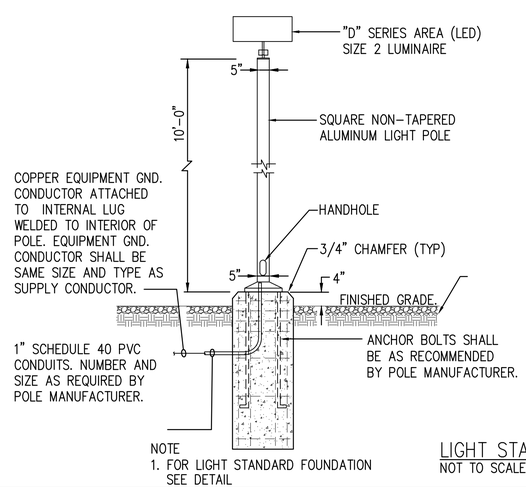
ELECTRICAL NOTES

1. PROVIDE YARD LIGHTING AS SHOWN AND PER DETAILS

DETAIL FROM E103



SECTION D S101
SCALE: 3/4"=1'-0"



NOTE
1. FOR LIGHT STANDARD FOUNDATION SEE DETAIL

LIGHT STANDARD DETAIL E S101
NOT TO SCALE

CANTILEVER GATE NOTES

1. CONSIDERATION: PER PAGE 29 OF UFC 4-22-03. THE GUIDANCE SUGGESTS USING BIPARTING GATES (2 CANTILEVERS MEETING IN CENTER OF THE OPENING WHEN FULLY EXTENDED) ADDITIONAL SPACE IS REQ'D ON BOTH SIDES, SO NOT IDEAL FOR ALL LOCATIONS. IT DOES ALLOW FOR THE RESTRICTION OF TRAFFIC IN EITHER DIRECTION.

GRAPHIC SCALES

1/2" = 1'-0" 1' 0 1' 2' 3' 4' 5'

1-1/2" = 1'-0" 0 3" 6" 9" 1' 2'

STM	DESCRIPTION	DATE	APPR
0	BID DOC SUBMISSION	04/04/2016	TDC

NAVFAC

SEAL

PWD-MAINE IN HOUSE DESIGN

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ACTIVITY

SATISFACTORY TO DATE

DES ZK DRW EAC CHK

PM/DM TIM O'CONNELL

BRANCH MANAGER STEPHEN MEAD

FEAD/PM&E AMIN BAHROUR

FIRE PROTECTION X

DEPARTMENT OF THE NAVY
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PORTSMOUTH NAVAL SHIPYARD KITTERY, MAINE

REPLACE SUBSTATION SLD

FENCE SLIDING DOOR DETAIL

EPROJECT NO.: 1380703

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. #######

SHEET 17 OF 17

S102 FAC-YR-NUM

DRAWFORM REVISION: 10 OCTOBER 2014

FILE NAME: C:\Users\emily.cor\appdata\local\temp\AcPublish_21472\1380703SLD.dwg LAYOUT NAME: S102 PLOTTED: Thursday, June 16, 2016 - 9:35am USER: emily.cor