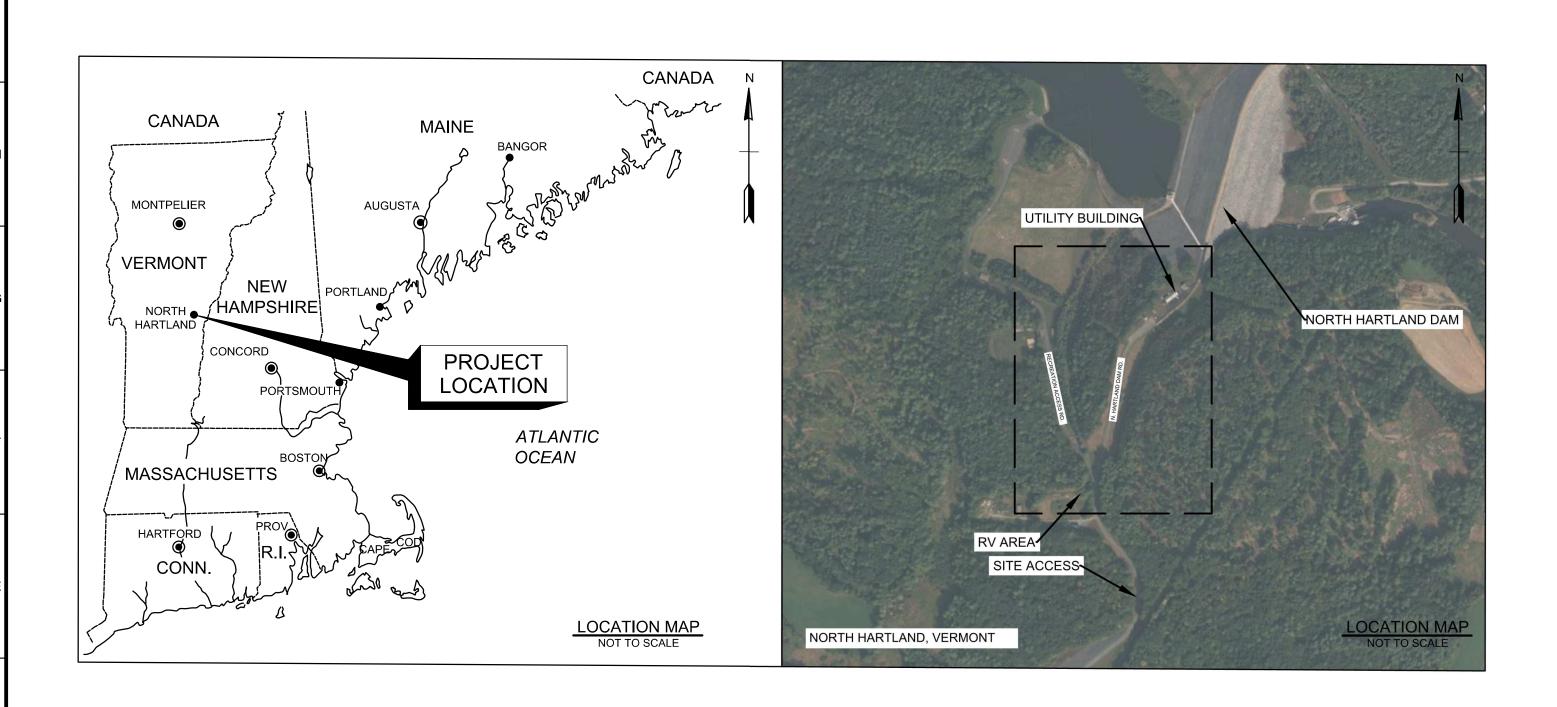


US Army Corps of Engineers® New England District

ELECTRICAL UPGRADES TO RECREATION AREA NORTH HARTLAND LAKE HARTLAND, VERMONT

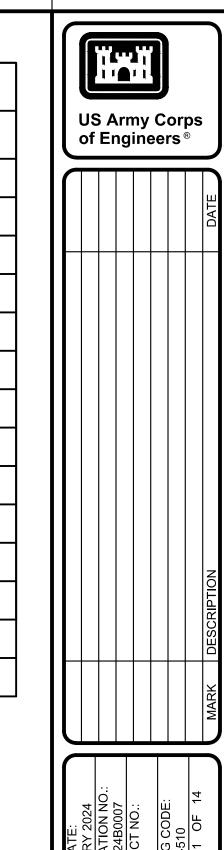


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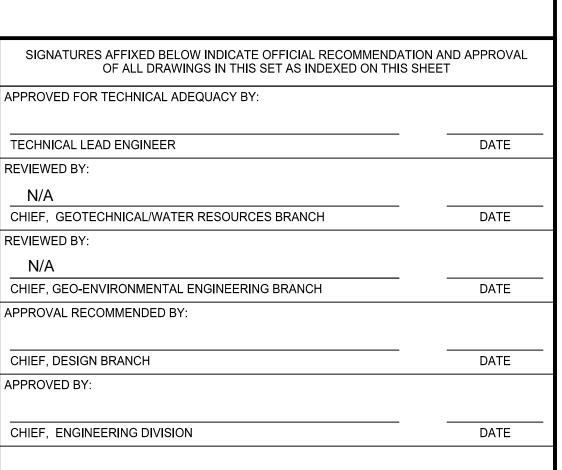
CONTRACT NO.:

ISSUE DATE: FEBRUARY 2024

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3	C-101	CON-NH-510_C-101.DWG	SITE PLAN							
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14	E-702	CON-NH-510_E-702.DWG	EXISTING CONDITIONS PHOTOGRAPHS II							



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scope of their employment as required by ER 1110-1-8152.

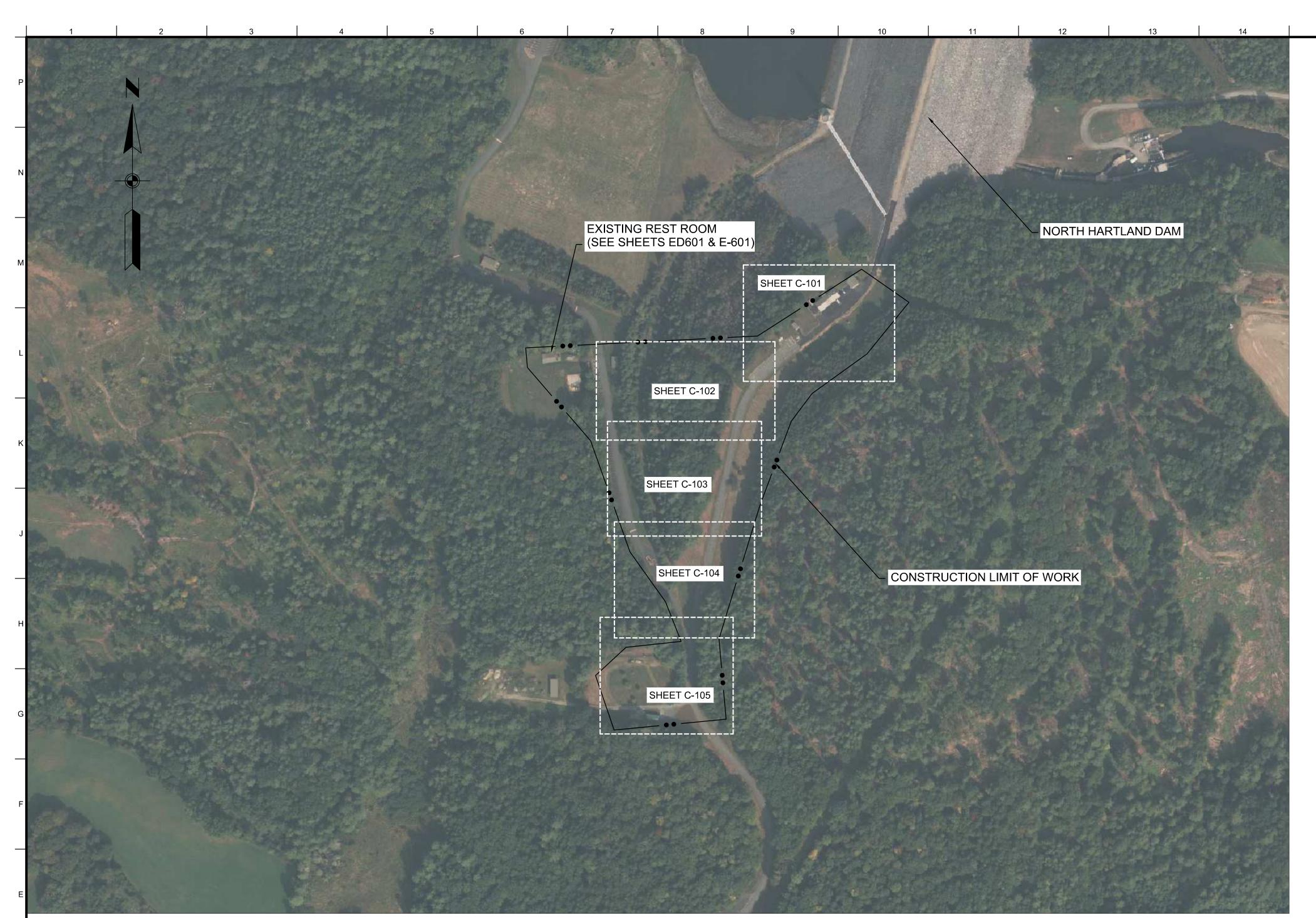
CHIEF, ENGINEERING DIVISION

DATE

G-001

This project was designed by the U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear on these project documents, within the

SHEET ID





GENERAL NOTES:

- 1. ALL WORK AND MATERIALS PROVIDED SHALL CONFORM WITH THE LINES, GRADES, ELEVATIONS, DIMENSIONS, MATERIAL REQUIREMENTS, AND TESTING REQUIREMENTS THAT ARE SPECIFIED IN THE CONTRACT DRAWINGS AND SPECIFICATIONS.
- 2. THE GOVERNMENT WILL NOT BE RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF CONSTRUCTION THAT ARE NOT SPECIFIED IN THE CONTRACT DOCUMENTS.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT AND FIELD ENGINEERING REQUIRED FOR COMPLETION OF THIS PROJECT. THE GOVERNMENT WILL NOT PROVIDE SURVEY SERVICES.
- 4. THE CONTRACTOR SHALL VERIFY THAT ACTUAL SITE CONDITIONS ARE CONSISTENT WITH THE EXISTING CONDITIONS DEPICTED ON THE CONTRACT DRAWINGS. DISCREPANCIES, OMISSIONS, AND ERRORS SHALL BE REPORTED TO THE CONTRACTING OFFICER'S REPRESENTATIVE (COR) PRIOR TO THE START OF CONSTRUCTION. IF DISCOVERED AFTER START OF CONSTRUCTION, CONTRACTOR SHALL ALERT THE COR AS SOON AS CONDITIONS ARE KNOWN.
- 5. THE CONTRACTOR SHALL PROTECT ALL AREAS IN AND AROUND THE WORK AREAS. THIS INCLUDES THE PAVEMENT, STRUCTURES, VEGETATION, UTILITIES AND ANY OTHER SITE FEATURES AT THE PROJECT LOCATION. DAMAGES TO THE EXISTING PAVEMENT, OR CONCRETE, SHALL INCLUDE, BUT ARE NOT LIMITED TO, CHIPPING CRACKING, INDENTATIONS AND SCUFFING. THE CONTRACTOR SHALL ALSO MINIMIZE DISTURBANCE TO LIMIT REMOVAL OF TREES AND OTHER EXISTING VEGETATION. AREAS NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED AND PROTECTED WHETHER SHOWN OR NOT SPECIFICALLY SHOWN ON THE CONTRACT DRAWINGS. CONTRACTOR CAUSED DAMAGES DURING CONSTRUCTION SHALL BE REPAIRED AND RESTORED TO ORIGINAL CONDITIONS OR BETTER AT THE CONTRACTOR'S EXPENSE. REFER TO SPECIFICATION SECTION 01 11 00, SUBPART DAMAGED PROPERTY FOR MORE DETAILS.
- 6. DISPOSAL OF ALL DEMOLISHED MATERIALS INCLUDING EXISTING MISCELLANEOUS CONSTRUCTION DEBRIS AND FILL IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE DISPOSED OF OFFSITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL MUNICIPAL REQUIREMENTS AT NO ADDITIONAL COST TO THE GOVERNMENT. REFER TO SPECIFICATION SECTION 01 74 19.
- 7. AT COMPLETION OF WORK ALL DISTURBED AREAS SHALL BE SMOOTH AND FREE OF DEPRESSIONS WITH SUFFICIENT SLOPE TO ENSURE POSITIVE DRAINAGE AND NO PONDING.
- 8. THE CONTRACTOR SHALL CALL DIG SAFE AT 811 OR 1-888-DIG-SAFE NOT LESS THAN 72 HOURS PRIOR TO THE START OF ANY EXCAVATION FOR VERIFICATION OF UNDERGROUND UTILITY LOCATIONS. SINCE DIG SAFE MAY NOT IDENTIFY ALL BELOW GRADE UTILITIES ON GOVERNMENT PROPERTY, THE CONTRACTOR SHALL ENGAGE THE SERVICES OF PRIVATE UTILITY LOCATING COMPANIES FOR ADDITIONAL ASSISTANCE WITH LOCATING UNDERGROUND UTILITIES.

	CIVIL F	PLAN LEGEND
SYN EXISTING	MBOL PROPOSED	DESCRIPTION
7////////	TROFOGED	BUILDING FOOTPRINT
		BITUMINOUS CONCRETE PAVEMENT AREAS
	7/////	STAGING AND STORAGE AREAS
		PROPERTY LINE
		ELECTRIC BOX
	E	ELECTRIC HANDHOLE
\bowtie		WATER HYDRANT
Q		UTILITY POLE
S		SANITARY MANHOLE
——— SAN———		SANITARY SEWER PIPING
W		WATER LINE
— — — EF— — — EF—	EFEF-	ELECTRIC FEEDER UNDERGROUND
—ESES		ELECTRIC SECONDARY UNDERGROUND
——Е——		ELECTRIC PRIMARY OVERHEAD
COMM		COMMUNICATION LINE
J		JUNCTION BOX
E		ELECTRIC MANHOLE
		TREELINE
		ROCK
+ 100.0		SPOT ELEVATIONS
2 + 5		DECIDUOUS TREE
*		CONIFEROUS TREE
		SIGN
		MAJOR CONTOURS
		MINOR CONTOURS
		POST
0		WELL
		CONSTRUCTION LIMITS OF WORK
	DA -	DIRECT BURIED DUCTBANK IDENTIFIER

	CONTROL TABLE (NAD83)										
1	400598.382	1676194.316	566.96	MAG NAIL							
2	400512.743	1676466.728	573.54	MAG NAIL							
3	400729.468	1676453.626	573.32	MAG NAIL							
4	401192.805	1676553.135	573.39	MAG NAIL							
5	401664.396	1676690.461	572.24	MAG NAIL							
6	401656.802	1676893.955	576.10	MAG NAIL							
7	401250.093	1676186.495	547.33	MAG NAIL							
201	401856.834	1677037.05	573.40	MAG NAIL							
202	401750.381	1676885.911	574.42	MAG NAIL							

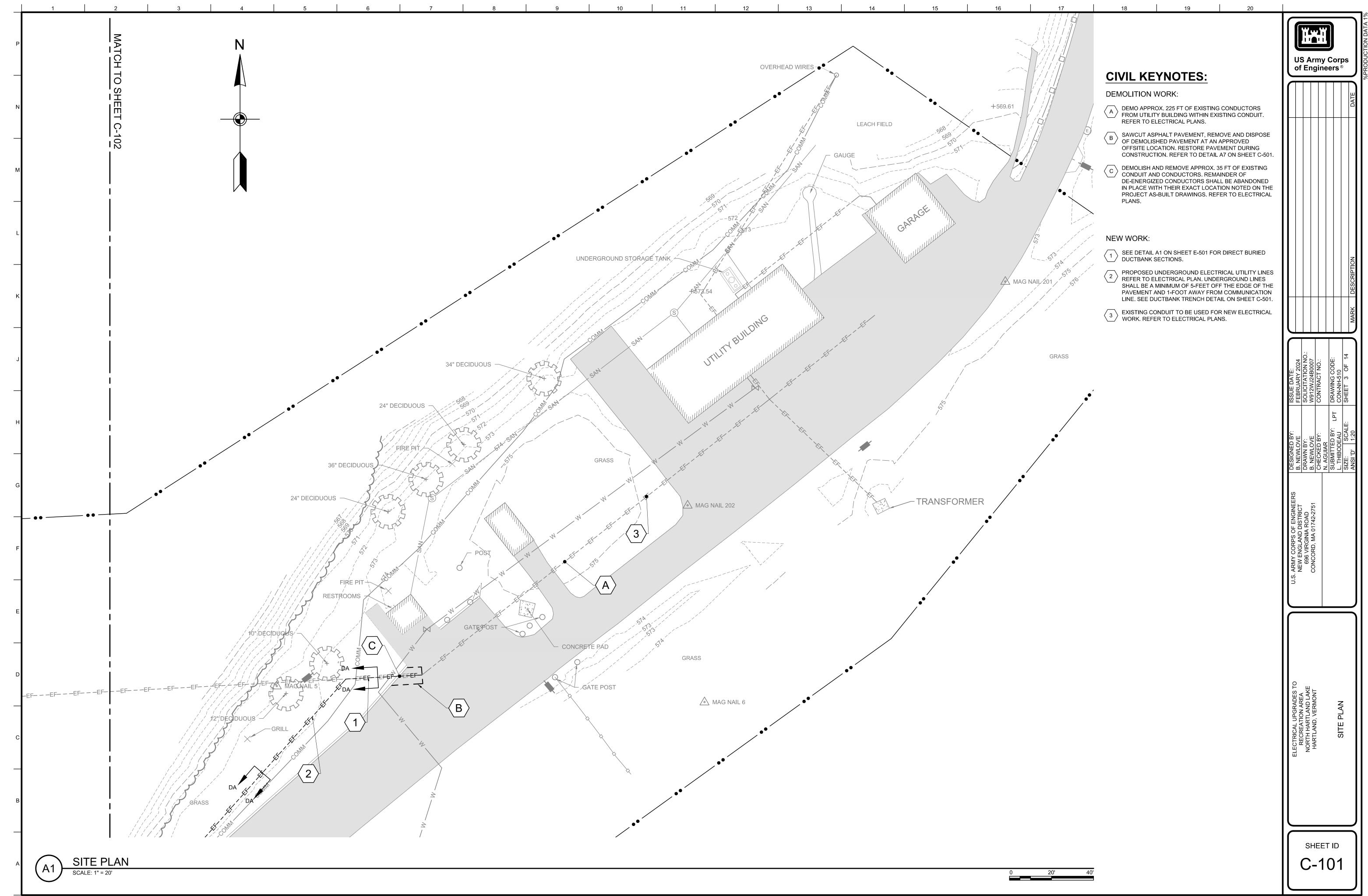
SURVEY NOTES:

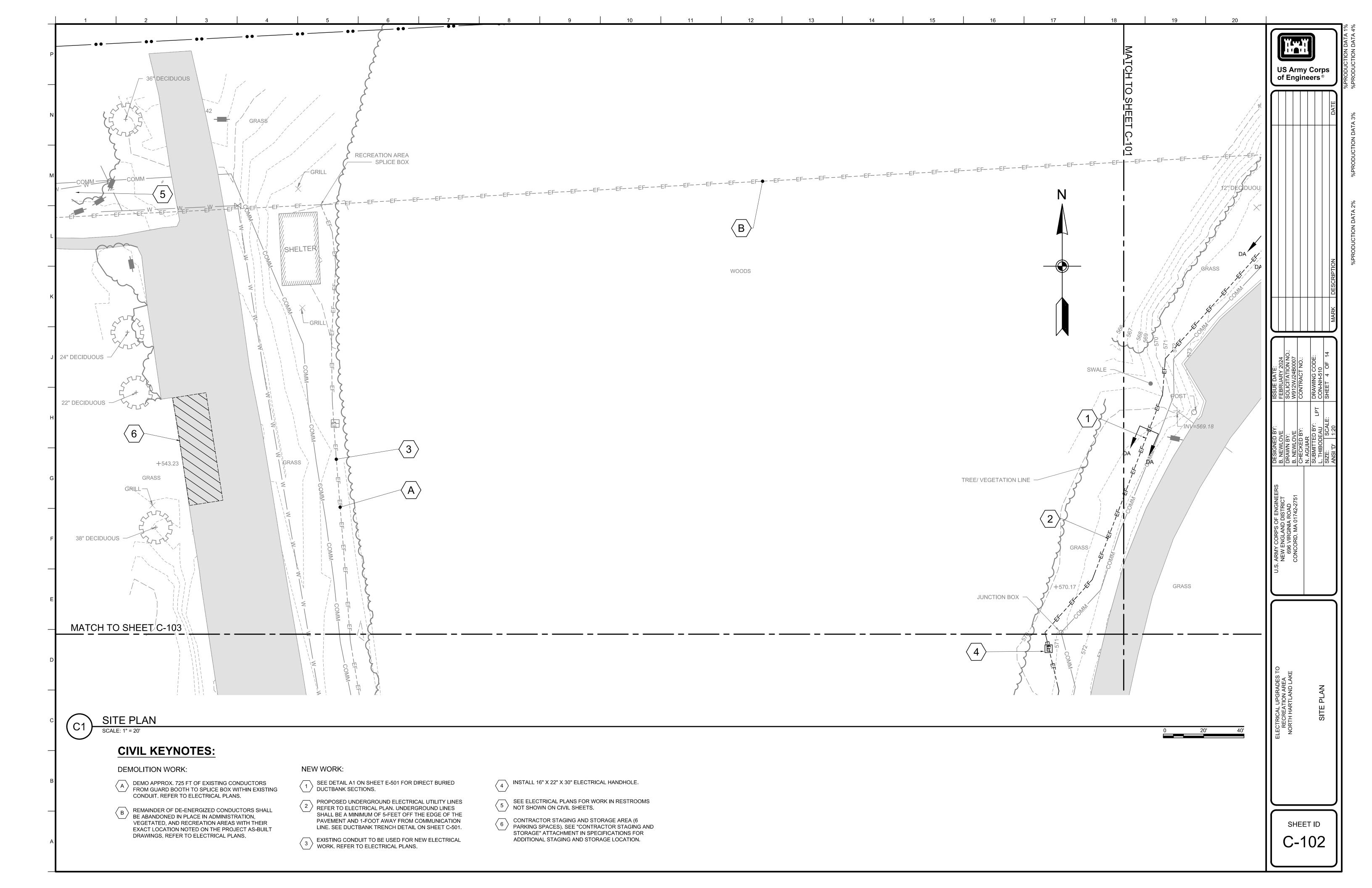
- THIS PLAN WAS PREPARED FROM AN ON-THE-GROUND SURVEY USING TOTAL STATION / RTK GPS TECHNOLOGY AND METHODS, CONDUCTED BY THE ARMY CORPS OF ENGINEERS, NEW ENGLAND DISTRICT, SURVEY SECTION IN MARCH OF 2023.
- 2. THE HORIZONTAL DATUM IS VERMONT STATE PLANE COORDINATES NAD83(2011), US SURVEY FEET. THE VERTICAL DATUM IS NAVD88 (FT), ESTABLISHED BY GPS METHODS.
- 3. THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS DEPICTED APPROXIMATELY.

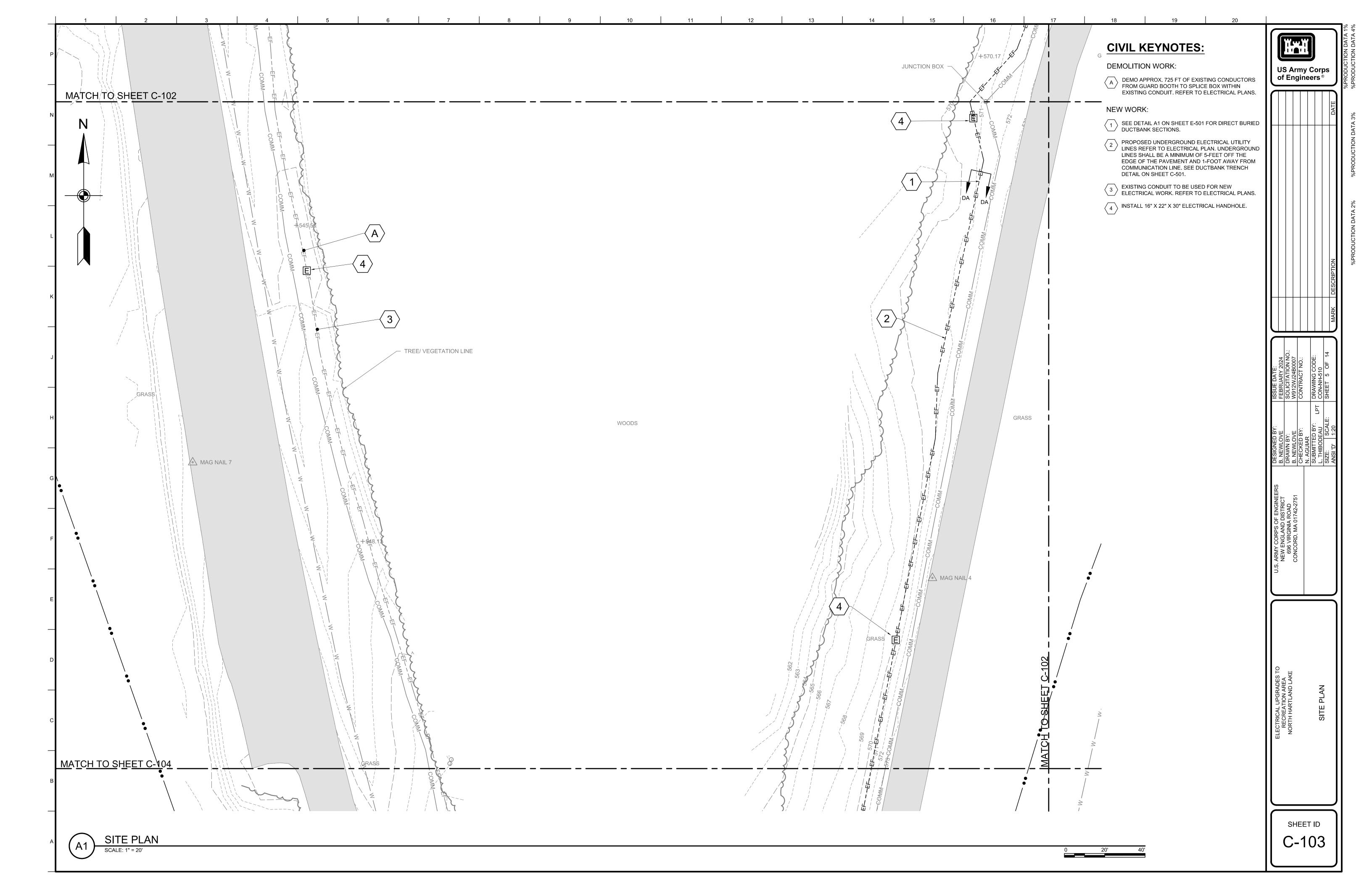
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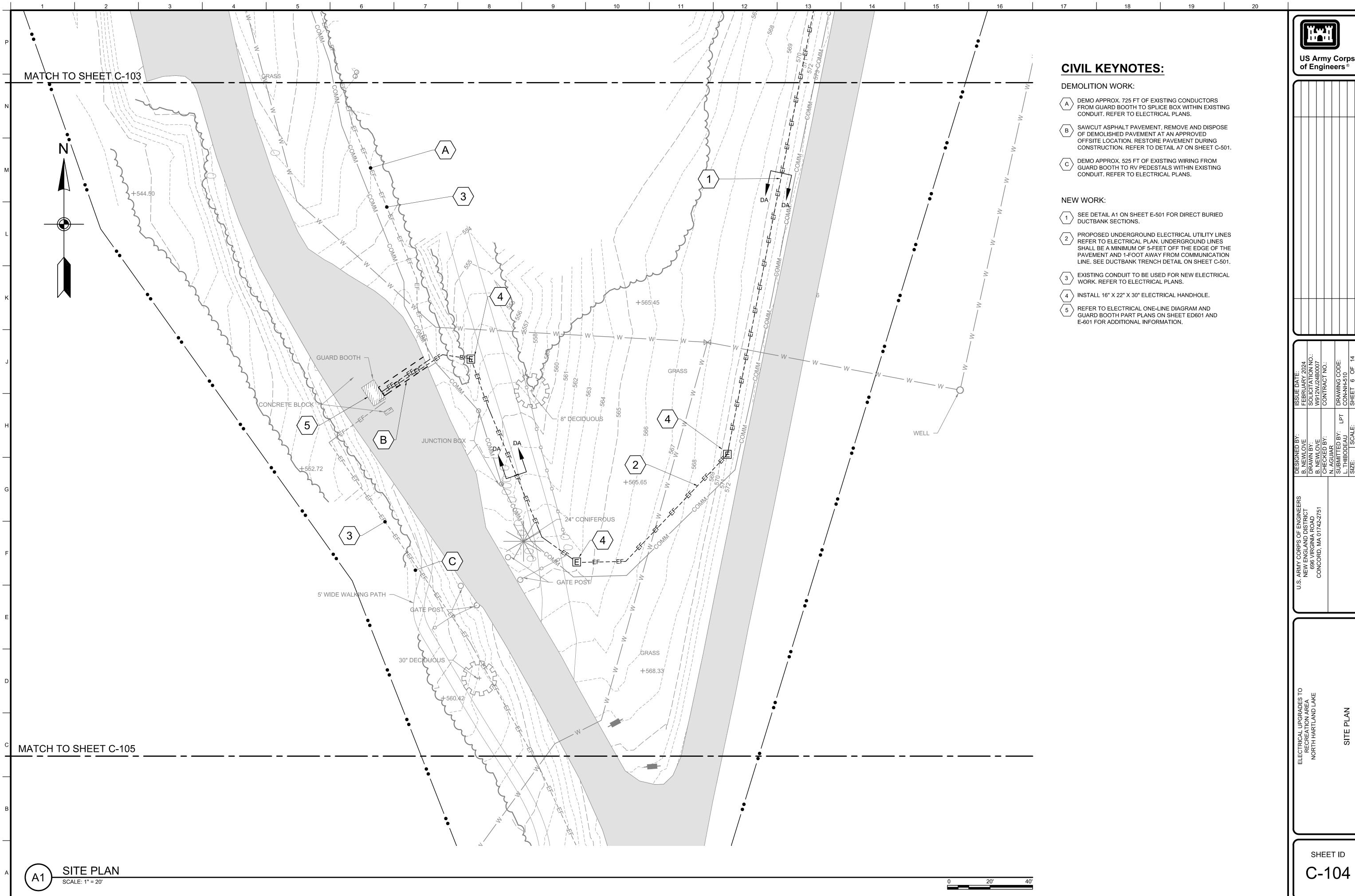
NORTH HARTLAND LAKE
GENERAL PLANS AND NOTES

G-101

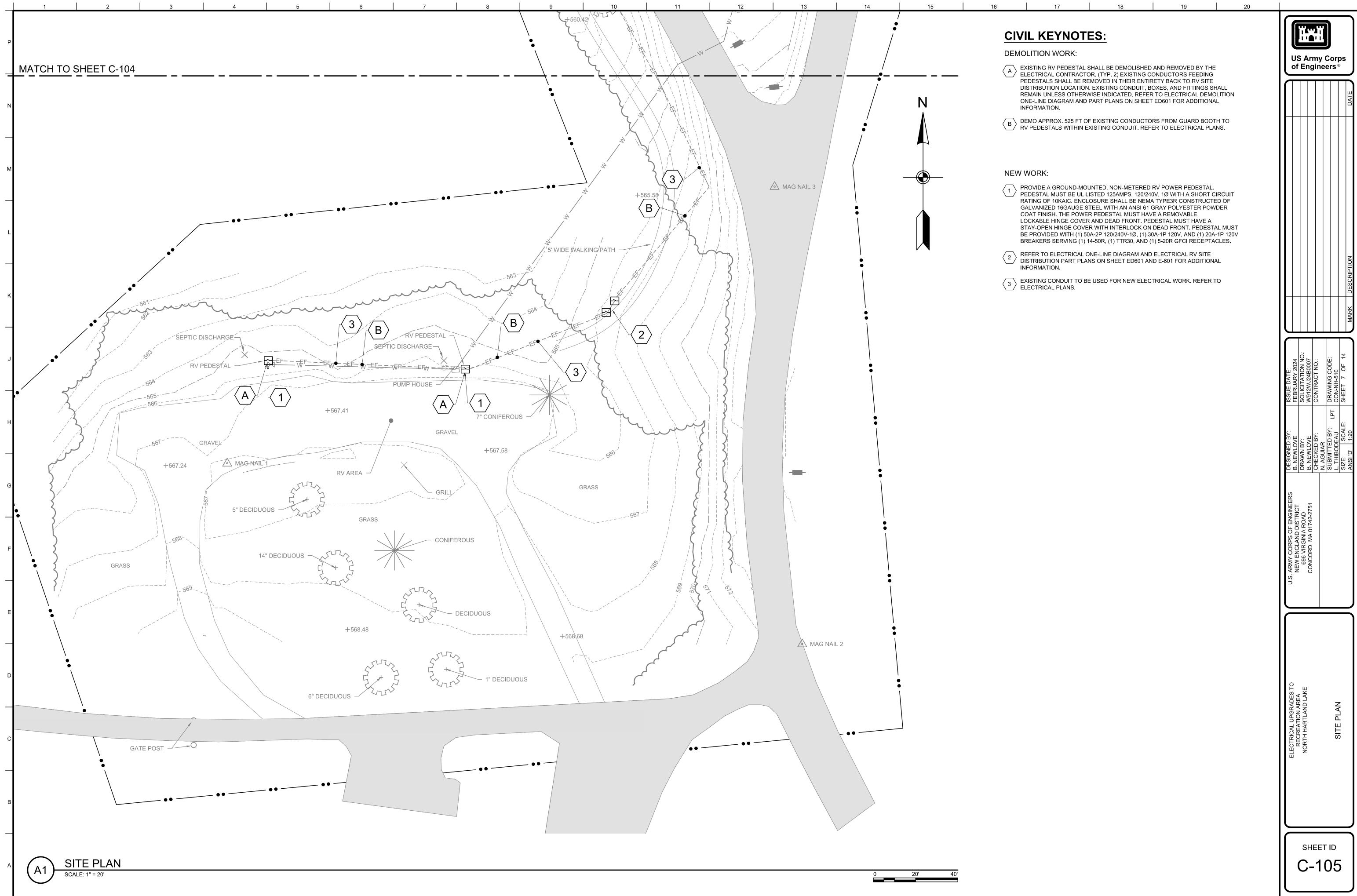








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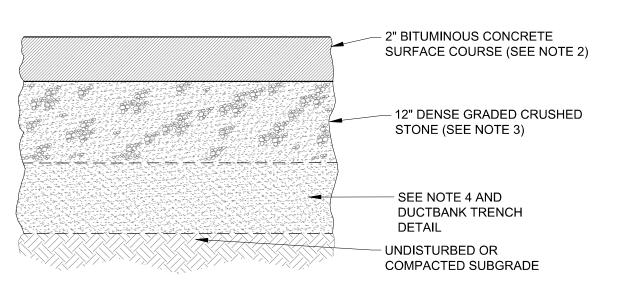
NOTES

- 1. BACKFILL MATERIAL AND COMPACTION REQUIREMENTS SHALL MEET THE REQUIREMENTS OF SECTION 31 23 00 (EXCAVATION AND FILL).
- 2. TRENCHES SHALL BE COMPLETELY DEWATERED PRIOR TO PLACEMENT OF PIPE BEDDING MATERIAL AND KEPT DEWATERED DURING INSTALLATION OF PIPE AND BACKFILL.
- 3. PLACE 6 INCHES OF TOPSOIL AND SEED AT ALL DISTURBED AREAS. ALONG WIDTH OF TRENCH MOUND TOPSOIL TO A HEIGHT OF 4 INCHES ABOVE FINISHED GRADE TO ALLOW FOR SETTLEMENT. SEE SPECIFICATION SECTION 32 92 19 TOPSOIL AND SEEDING.
- 4. WHERE STABLE SLOPES CANNOT BE MAINTAINED TO MEET THE REQUIREMENTS OF EM 385-1-1, BRACING AND SHEETING OR OTHER TRENCH PROTECTION SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH EM 385-1-1. ALL SUCH TRENCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 5. REUSE SATISFACTORY EXCAVATED MATERIAL AS BACKFILL. IF NONE IS SUITABLE THEN BACKFILL DUCTBANK WITH SELECT FILL. BACKFILL IN 6" LIFTS.
- 6. CONDUIT BEDDING MATERIAL SHALL BE SAND FILL. WHEN PLACING SAND POUR SLOWLY AND DISTRIBUTE IT CAREFULLY SO AS NOT TO DISLODGE THE SPACERS.
- 7. PLASTIC WARNING TAPE SHALL BE "EXTRA STRETCH,"6" WIDE. COLOR CODE SHALL BE SLOWLY: RED-ELECTIC, ORANGE-COMMUNICATIONS. IMPRINTED TEXT SHALL IDENTIFY DUCTBANK SERVICE. UTILIZE NON-DETECTABLE TAPE FOR ELECTRIC DUCTS AND METALLIZED DETECTABLE TAPE FOR COMMUNICATIONS.



DUCTBANK TRENCH DETAIL

SCALE: N.T.



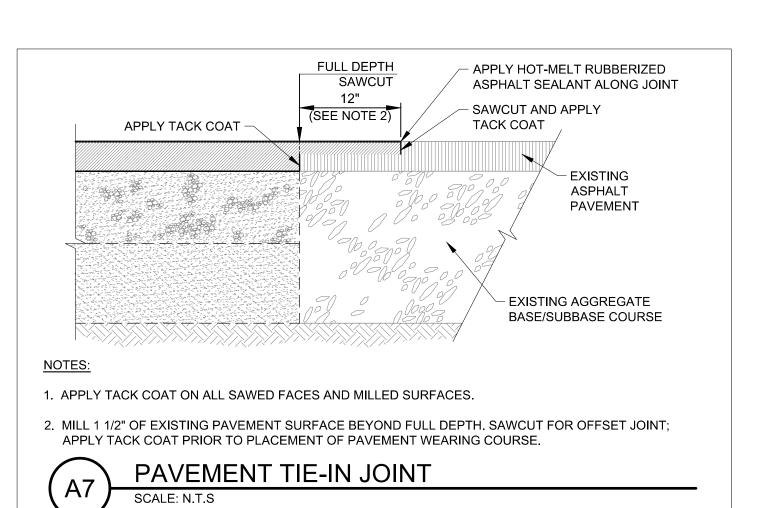
NOTES

- 1. MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CONTRACT DRAWINGS AND SPECIFICATIONS.
- 2. BITUMINOUS CONCRETE SURFACE COURSE; SEE SPECIFICATION SECTION 32 12 16, BITUMINOUS CONCRETE PAVEMENT.
- 3. AGGREGATE BASE AND SUBBASE COURSES: SEE SPECIFICATION SECTION 31 23 00, EXCAVATION AND FILL.
- 4. CONDUIT BEDDING MATERIAL SHALL BE SAND BACKFILL. WHEN PLACING SAND POUR SLOWLY AND DISTRIBUTE IT CAREFULLY SO AS NOT TO DISLODGE THE SPACERS. SEE DETAIL H1 ON THIS SHEET.



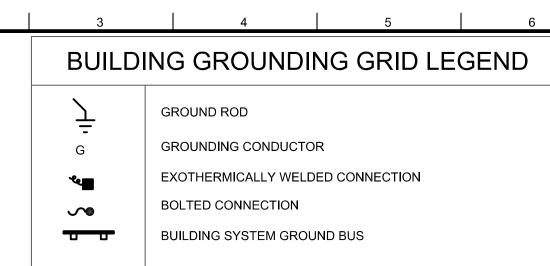
UTILITY TRENCH PATCH

CALE: N.T.S



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SHEET ID



EXISTING EQUIPMENT LEGEND

SYMBOLS OUT OF FUNCTION DENOTES EXISTING

"XM" ADJACENT TO EQUIPMENT DENOTES EXISTING EQUIPMENT TO REMAIN.

"XN" ADJACENT TO EQUIPMENT DENOTES EXISTING EQUIPMENT TO BE REMOVED AND REPLACED WITH NEW.

"XR" ADJACENT TO EQUIPMENT DENOTES EXISTING TO BE RELOCATED AS SHOWN. CUT BACK AND/OR EXTEND EXISTING BRANCH CIRCUIT WIRING AND CONDUIT AS REQUIRED SO AS TO PROVIDE A COMPLETE OPERATIONAL INSTALLATION.

"XD" ADJACENT TO EQUIPMENT DENOTES EXISTING TO BE REMOVED. CUT BACK AND MAKE SAFE ALL ASSOCIATED BRANCH CIRCUIT WIRING CONDUIT BACK TO POWER SOURCE AND LABEL BREAKER IN PANELBOARD AS SPARE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CIRCUITRY TO DEVICES UNAFFECTED BY DEMOLITION.

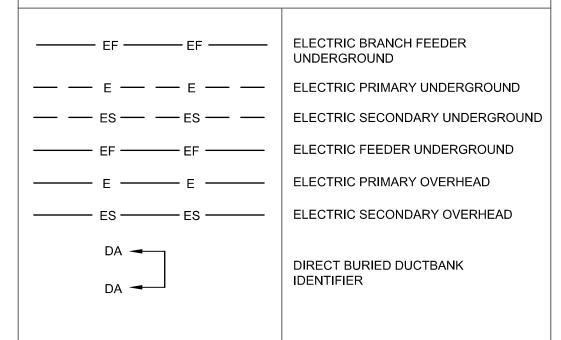
"XL" ADJACENT TO EQUIPMENT DENOTES RELOCATED EXISTING AT NEW LOCATION

"XS" ADJACENT TO EQUIPMENT DENOTES EXISTING TO BE REMOVED, STORED, CLEANED AND REINSTALLED IN EXISTING LOCATION.

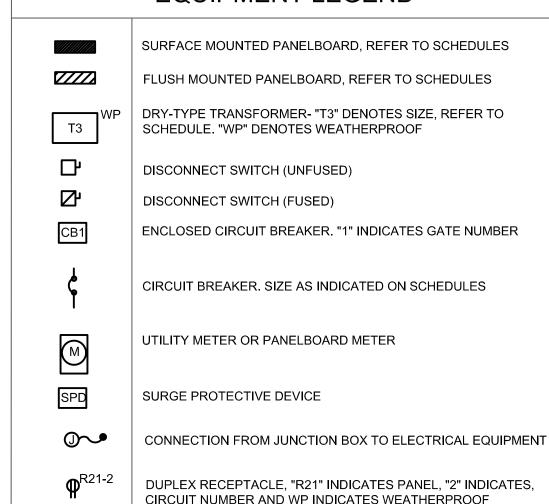
GENERAL LEGEND

PHOTO LOCATION AND DIRECTION, "E-xxx" INDICATES PHOTO SHEET NUMBER.

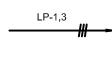
CIRCUITRY, RACEWAYS AND FEEDERS LEGEND



EQUIPMENT LEGEND



RACEWAYS AND WIRING



HOMERUN TO PANELBOARD. "LP" INDICATES PANEL, "1,3" INDICATES CIRCUIT INDICATE NUMBER OF #12AWG CONDUCTORS IN MINIMUM 3/4"C. NO SLASH MARKS INDICATE 2#12 & 1#12G-3/4"C UNLESS OTHERWISE INDICATED.

1. GREEN GROUND CONDUCTOR NOT INDICATED BUT SHALL BE INCLUDED IN EACH RACEWAY, SIZE SHALL BE #12AWG UNLESS INDICATED OTHERWISE.

2. HOMERUNS TO PANELBOARDS SHALL HAVE A MAXIMUM OF THREE (3) PHASE CONDUCTORS (ONE PER PHASE) PLUS NEUTRAL AND GROUND CONDUCTORS IN EACH CONDUIT.

GENERAL ABBREVIATIONS

А	AMPERES	kVA,KVA	KILOVOLT AMPERES
	AMERICANS WITH DISABILITIES ACT	kW,KW	KILOWATTS
AFF	ABOVE FINISH FLOOR	LGT	LIGHTING
AFG	ABOVE FINISH GRADE	LFMC	LIQUIDTIGHT FLEXIBLE METAL
AHJ	AUTHORITY HAVING JURISDICTION		CONDUIT
AHU	AIR HANDLING UNIT		
AIC	AMPERE INTERRUPTING CAPACITY	MCB	MAIN CIRCUIT BREAKER
AL	ALUMINUM	MCC	MOTOR CONTROL CENTER
ANSI	AMERICAN NATIONAL STANDARDS	MCP	MOTOR CIRCUIT PROTECTOR
	INSTITUTE	MISC	MISCELLANEOUS
ARCH	ARCHITECT	MLO	MAIN LUGS ONLY
ATS	AUTOMATIC TRANSFER SWITCH	NC	NORMALLY CLOSED
ATC	AUTOMATIC TEMPERATURE CONTROL	NEC	NATIONAL ELECTRIC CODE (NFPA 70)
AWG	AMERICAN WIRE GAUGE	NEMA	NATIONAL ELECTRICAL
BLDG	BUILDING		MANUFACTURES ASSOCIATION
С	CONDUIT	NFPA	NATIONAL FIRE PROTECTION
CAT	CATALOG		ASSOCIATION
СВ	CIRCUIT BREAKER	NIC	NOT IN CONTRACT
СКТ	CIRCUIT	NO	NORMALLY OPEN OR NUMBER
CL	CENTERLINE	NTS	NOT TO SCALE
CLF	CURRENT LIMITING FUSE	Р	POLE
COL	COLUMN	PB	PUSHBUTTON, PULL BOX
CPT	CONTROL POWER TRANSFORMER	PNL	PANEL
СТ	CURRENT TRANSFORMER	POS	PROVIDED UNDER OTHER SECTIONS
CU	COPPER	PT	POTENTIAL TRANSFORMER
CUH	CABINET UNIT HEATER	PVC	POLYVINYL CHLORIDE
-	O, ISHAET GIATTIE, KTEIK	PWR	POWER
dB,DB	DECIBEL	QTY	QUANTITY
DWG	DRAWING	REQ'D	REQUIRED
EC	ELECTRICAL CONTRACTOR	RMC	RIGID METAL CONDUIT
EF	EXHAUST FAN	RMS	ROOT MEAN SQUARED
EM	EMERGENCY	RNMC	RIGID NON-METALLIC CONDUIT
EMT	ELECTRICAL METALLIC TUBING	RTU	ROOF TOP UNIT
	ELECTRICAL MILITALLIC TOBING	S	SPARE
EDO	EMEROENCY POWER OFF	SCR	SHORT CIRCUIT INTERRUPTING RATI
EPO	EMERGENCY POWER OFF		
ETD	EXISTING TO BE DEMOLISHED	SW	SWITCH
ETR	EXISTING TO REMAIN	TEL	TELEPHONE THE PROPERTY OF THE
ETRL F	EXISTING TO REMOVED AND RELOCATE FUSE	TMCB	THERMAL MAGNETIC CIRCUIT BREAKER
FLA	FULL LOAD AMPERES	UG	UNDERGROUND OR UNDERGRADE
		UL	UNDERWRITERS LABORATORIES
FMC	FLEXIBLE METAL CONDUIT		
FT	CROUND FAULT INTERPLIETED	UON	UNLESS OTHERWISE NOTED
GFI	GROUND FAULT INTERRUPTER	UH	UNIT HEATER
GND,G	GROUND OR GROUNDING	UPS	UNINTERRUPTIBLE POWER SUPPLY
GRMC	GALVANIZED RIGID METALLIC CONDUIT	V	VOLT
HOA	HAND, OFF, AUTOMATIC SWITCH	W	WIRE
HPF	HIGH POWER FACTOR	WH	WATER HEATER
IG	ISOLATED GROUND	WP	WEATHERPROOF
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS	XFMR	TRANSFORMER
	LLEO INONIO LINGINEERO	\triangle	DELTA
		Y	WYE
INT	INTERLOCK	Ø	PHASE
KCMIL	THOUSAND CIRCULAR MILS		

BRANCH CIRCUIT WIRING NOTES

- 1. ALTHOUGH ALL BRANCH CIRCUIT WIRING AND CONDUIT IS NOT SHOWN, IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE BRANCH CIRCUIT WIRING SYSTEM BE INSTALLED.
- 2. WIRING AND CONDUIT SHALL BE REQUIRED BETWEEN ALL OUTLETS INDICATED WITH CIRCUIT NUMBERS AND PANELBOARD DESIGNATIONS.
- 3. WIRING IS SHOWN ON SHEETS ONLY FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS.
- 4. ALL SWITCH CONTROLS SHALL BE PROVIDED WITH WIRING AND CONDUIT AS
- 5. A GREEN GROUNDING CONDUCTOR SHALL BE ROUTED WITH ALL BRANCH CIRCUITS. VERIFY CONDUIT SIZE TO ENSURE IT CAN ACCOMMODATE ALL PHASES, NEUTRAL, AND GROUND CONDUCTOR.

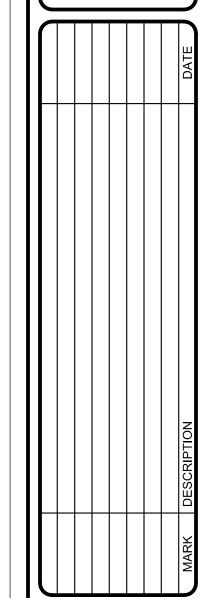
GENERAL NOTES

- INTERRUPTIONS TO EXISTING ELECTRIC SERVICES AND SYSTEMS SHALL BE AS SHORT AS POSSIBLE AS DEFINED BY THE CONTRACTING OFFICER (CO) AND AT A SCHEDULE APPROVED BY THE CO. THE CONTRACTOR SHALL PROVIDE 72-HOURS NOTICE PRIOR TO ANY SERVICE INTERRUPTIONS.
- 2. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO HAVE THE PROPOSED ELECTRICAL MATERIAL IN PLACE PRIOR TO DE-ENERGIZING POWER TO ANY USACE EQUIPMENT IN ORDER TO MINIMIZE ELECTRICAL CUT-OVER SHUT DOWN. THE CONTRACTOR SHALL COORDINATE SHUT DOWN REQUIREMENTS WITH THE CO TO BETTER UNDERSTAND CONSTRUCTION EXPECTATIONS.
- 3. ALL WIRING SHALL BE RUN CONCEALED UNLESS SPECIFIED OTHERWISE.
- 4. ALL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, RECTILINEAR TO BUILDING STRUCTURE.
- 5. ALL COMPONENTS SHOWN ON THE RISER DIAGRAMS, BUT NOT ON THE PLAN OR VICE VERSA, SHALL BE INCLUDED AS IF SHOWN ON BOTH.
- 6. CONDUIT HOMERUNS SHOWN ON THE DRAWING WITH MORE THAN 3 CURRENT CARRYING CONDUCTORS ARE SHOWN DIAGRAMMATICALLY. THIS CONTRACTOR SHALL NOT INSTALL MORE THAN 3 CURRENT CARRYING CONDUCTORS IN A RACEWAY UNLESS INSTALLATION COMPLIES WITH ARTICLE 310 OF THE NFPA 70, NOTES TO AMPACITY TABLES REGARDING CONDUCTOR ADJUSTMENT FACTORS. ELEMENTS OF THE ELECTRICAL WORK SHALL BE INSTALLED SUCH THAT AT COMPLETION THE ELEMENT SHALL BE "FULLY AND REASONABLY ACCESSIBLE".
- ELEMENTS OF THE ELECTRICAL WORK INCLUDE, BUT ARE NOT LIMITED TO PANELS, SWITCHBOARDS, MOTOR CONTROLS, TRANSFORMER, DISCONNECTS, JUNCTION BOXES, AND ALL MAINTENANCE ACCESS POINTS INCLUDING CABLE PULL SPACE. "FULLY AND REASONABLE ACCESSIBLE" SHALL BE DEFINED AS; CAPABLE OF BEING ACCESSED FOR SERVICE, REPAIR OR REPLACEMENT BY AN AVERAGE SIZED INDIVIDUAL, ON A LADDER IF NECESSARY, AND CAPABLE OF BEING SERVICED OR REMOVED WITHOUT REMOVING, MODIFYING OR DISTORTING OTHER COMPONENTS OF THE WORK OF OTHER TRADES. CONFLICTS WITH MEETING THIS REQUIREMENT SHALL BE BROUGHT TO THE ATTENTION OF THE COR IN A TIMELY MANNER.
- 8. EACH BRANCH CIRCUIT SHALL INCLUDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT, UNLESS NOTED OTHERWISE.
- 9. THE ELECTRICAL CONTRACTOR SHALL VERIFY EXISTING CONDITIONS TO INSURE THAT THE SCOPE WILL FIT WITHIN THE EXISTING STRUCTURE IN THE MANNER INTENDED AND SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE COR PRIOR TO ANY ROUGH-INS, FABRICATION, OR PERFORMING ANY WORK IN THE AREA INVOLVING DIFFERENCES. NOTIFICATION SHALL BE IN THE FORM OF A DRAWING OR SKETCH INDICATING FIELD MEASUREMENTS AND NOTES RELATED TO THE AREA.
- 10. PROVIDE ITEMS REFERRED TO IN SINGULAR NUMBER IN CONTRACT DOCUMENTS IN QUANTITIES NECESSARY TO COMPLETE WORK.
- 11. REFER TO NFPA 70E AND THE CONTRACT DOCUMENTS FOR REQUIRED ARC FLASH LABELING REQUIREMENTS.
- 12. PERFORM WORK AND PROVIDE MATERIALS AND EQUIPMENT AS SHOWN IN THE CONTRACT DOCUMENTS. COORDINATE ELECTRICAL WORK WITH ALL TRADES AND SPECIFICATION SECTIONS.
- 13. GIVE NOTICES, FILE PLANS, OBTAIN PERMITS AND LICENSES, PAY FEES AND BACK CHARGES, AND OBTAIN NECESSARY APPROVALS FROM AUTHORITY HAVING JURISDICTION (AHJ) PRIOR TO INSTALLATION OF EQUIPMENT.
- 14. PERFORM WORK AS SHOWN IN THE CONTRACT DOCUMENTS, AS REQUIRED BY CODES, REGULATIONS, STANDARDS, AND LAWS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS.
- 15. MATERIAL AND EQUIPMENT SHALL BE UL, NEMA, ANSI, IEEE, ADA & ABA LISTED FOR INTENDED SERVICE. MATERIAL AND INSTALLATION SHALL MEET REQUIREMENTS OF
- NATIONAL AND STATE ELECTRICAL CODES. 16. MAINTAIN RECORD DRAWINGS ON SITE. RECORD SET MUST BE COMPLETE, CURRENT

AND AVAILABLE FOR INSPECTION AS REQUESTED BY THE COR.

- 17. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS. PROVIDE INFORMATION AND COMPONENTS SHOWN ON RISER DIAGRAMS BUT NOT SHOWN ON PLANS, AND VICE VERSA, AS IF EXPRESSLY REQUIRED ON BOTH.
- 18. ADDRESS QUESTIONS REGARDING DRAWINGS TO COR IN WRITING BEFORE AWARD OF CONTRACT. OTHERWISE, COR INTERPRETATION OF MEANING AND INTENT OF DRAWINGS SHALL BE FINAL.
- 19. DEVIATION FROM CONTRACT DOCUMENTS, OR PROPOSED SUBSTITUTION OF MATERIALS OR EQUIPMENT FOR THOSE SPECIFIED, SHALL BE REQUESTED IN SEPARATE LETTER, WHETHER DEVIATIONS ARE DUE TO FIELD CONDITIONS, STANDARD SHOP PRACTICE, OR OTHER CAUSE.
- 20. BRANCH CIRCUIT WIRING MAY NOT BE SHOWN GRAPHICALLY ON DRAWINGS AND MAY BE INDICATED BY CIRCUIT NUMBERS BESIDE FIXTURES, DEVICES AND EQUIPMENT. PROVIDE COMPLETE WIRING SYSTEM WHETHER OR NOT INDICATED GRAPHICALLY. PHASE BALANCE ALL PANELBOARDS IN THE FIELD.
- 21. ALL FIREPROOFING FOR ELECTRICAL PENETRATIONS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
- 22. SYSTEMS FEEDERS AND BRANCH CIRCUITS WHICH PASS THROUGH ALTERED AREAS AND SERVE OTHER AREAS SHALL BE MAINTAINED AS REQUIRED AND AS DIRECTED BY
- 23. FURNISH AND INSTALL NAMEPLATES ON ALL ELECTRICAL EQUIPMENT (SCREW ON TYPE) AND TYPEWRITTEN SCHEDULES OF CIRCUITS IN ALL DISTRIBUTION PANELBOARDS, PANELBOARDS, TRANSFER SWITCHES, TRANSFORMERS, AND DISCONNECT SWITCHES.
- 24. ALL GROUNDING SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 70.
- 25. USE ALL REASONABLE MEANS TO DIVERT CONSTRUCTION WASTE AND DEMOLITION DEBRIS/WASTE FROM LANDFILLS AND INCINERATORS AND TO FACILITATE THE RECYCLING OR REUSE OF EXCESS CONSTRUCTION MATERIALS.

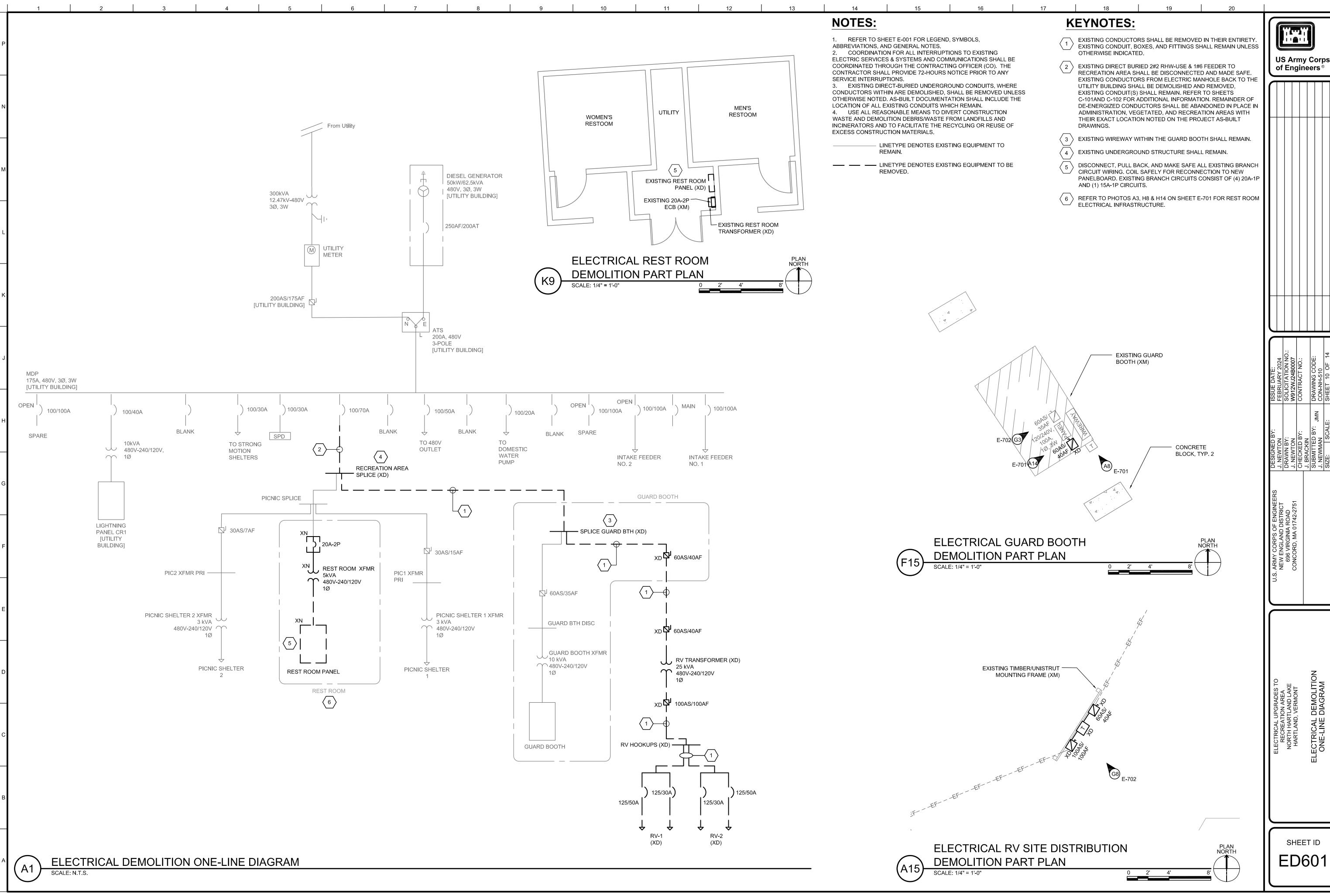
US Army Corps of Engineers®



DESI J. NE J. BR SUBN SIZE:

GEND, SYMBOLS, & GENERAL NOTE ECTRICAL LEC BREVIATIONS &

SHEET ID E-001



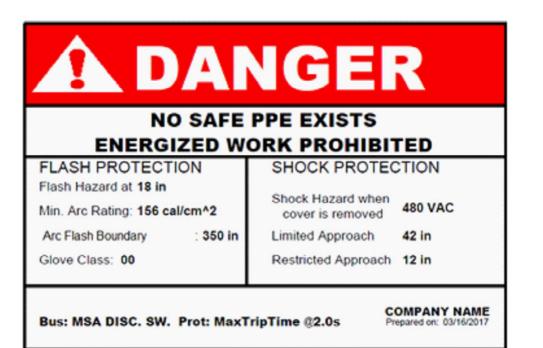
US Army Corps

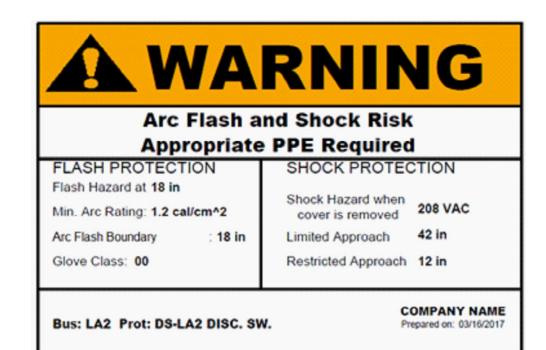
of Engineers®

SHEET ID

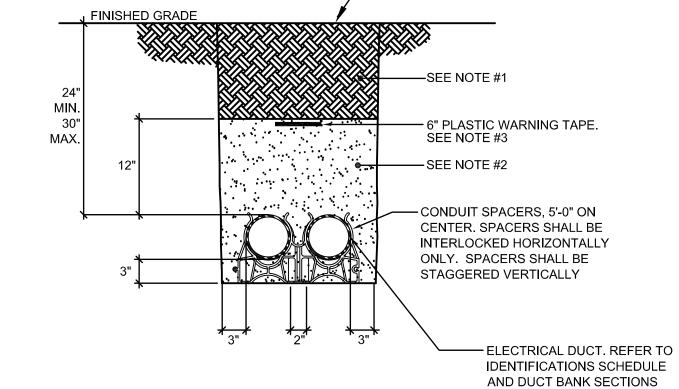
ARC FLASH LABEL NOTES:

- 1. ARC FLASH WARNING LABELS SHALL BE PROVIDED FOR ALL EXISTING AND NEW TRANSFORMERS, DISCONNECT SWITCHES, SWITCHBOARDS, AND PANELBOARDS AT THE SITE. REFER TO SPECIFICATION SECTION 26 28 01 COORDINATED POWER SYSTEM PROTECTION FOR FURTHER REQUIREMENTS.
- 2. LABELS SHALL BE 4 INCH X 6 INCH THERMAL TRANSFER TYPE OF HIGH ADHESION POLYESTER FOR EACH WORK LOCATION ANALYZED AND SHALL BE MACHINE PRINTED WITH NO FIELD MARKING. THESE LABELS ARE SHOWN AS EXAMPLE ONLY AND DO NOT REFLECT THE ACTUAL DATA FOR THIS PROJECT.
- 3. THE LABEL SHALL HAVE AN ORANGE HEADER WITH THE WORDING, "WARNING:SHOCK & ARC FLASH HAZARD" IF THE CAL/CM2 IS LESS THAN 40 OR RED HEADER WITH THE WORDING "DANGER-DO NOT WORK ON LIVE " IF CAL/CM2 IS GREATER THAN 40.

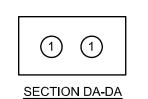




FOR SIZE AND QUANTITY



- SEE NOTE 4



CONDUIT IDENTIFICATION SCHEDULE							
1	2-1/2" SCHEDULE 40 PVC - ACTIVE						

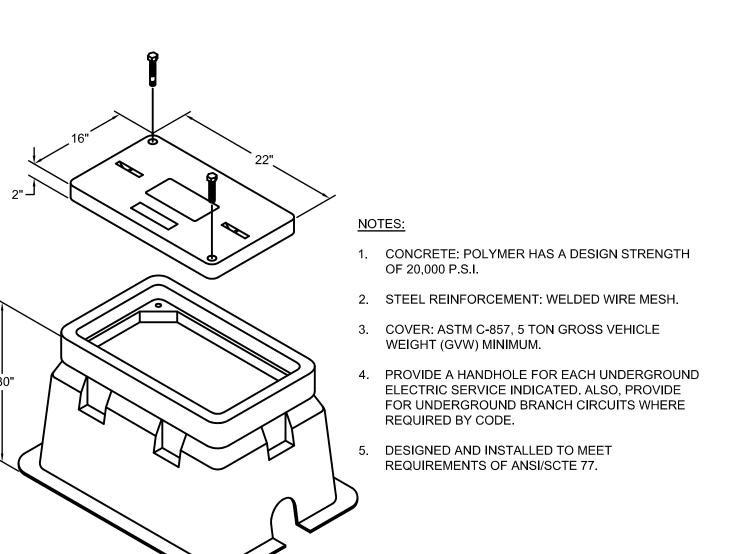
NOTES:

- 1. REFER TO DETAIL "TYPICAL DIRECT BURIED DUCTBANK CONSTRUCTION" DETAIL" FOR ADDITIONAL INFORMATION.
- 2. REFER TO SHEETS E-601 FOR CONDUCTOR REQUIREMENTS.

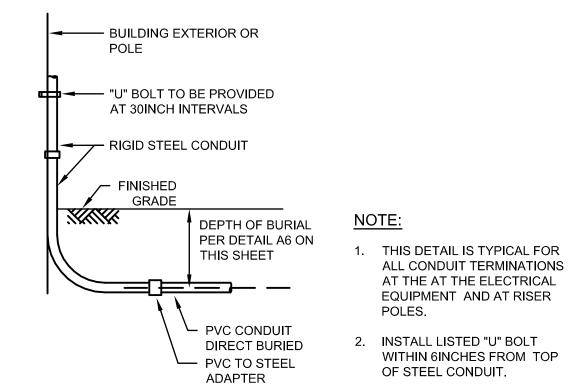
DIRECT BURIED DUCTBANK CONSTRUCTION (TYP)

NOTES:

- 1. BACKFILL MATERIAL AND COMPACTION REQUIREMENTS SHALL MEET THE REQUIREMENTS OF UFGS SECTION 31 23 00 (EXCAVATION AND FILL).
- 2. SAND BACKFILL. WHEN PLACING SAND POUR SLOWLY AND DISTRIBUTE IT CAREFULLY SO AS NOT TO DISLODGE THE SPACERS.
- 3. PLASTIC WARNING TAPE SHALL BE "EXTRA STRETCH," 6" WIDE. COLOR CODE SHALL BE AS FOLLOWS: RED-ELECTRIC, ORANGE-COMMUNICATIONS. IMPRINTED TEXT SHALL IDENTIFY DUCTBANK SERVICE. UTILIZE NON-DETECTABLE TAPE FOR ELECTRIC DUCTS AND METALLIZED DETECTABLE TAPE FOR
- 4. PROVIDE 6 INCHES OF TOPSOIL TO GRADE AND SEED ABOVE THE BACKFILL. REFER TO DETAIL H1 ON SHEET C-501 FOR ADDITIONAL INFORMATION.



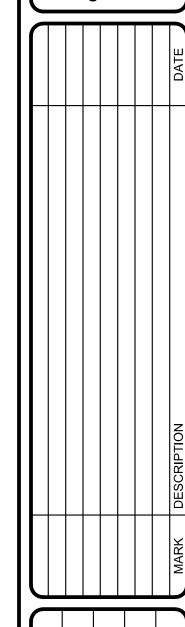
POLYMER CONCRETE HANDHOLE DETAIL



CONVERSION FROM PVC TO STEEL CONDUIT

FED FROM: PICNIC SPLICE	١	NEU ⁻	TRAL B	US: 100	%		TUB: SINGLE					
VOLTAGE: 120/240V, 1Ø, 3WIRE						UND BI	JS: EQL	JIPMEN	Γ	MOUNTING: SURFACE		
AMPERE RATING: 100A						RATING	: 10,000			LOCATION: TOOL SHED		
MAINS: 30A MCB				E	BUS	SING: C	ENCLOSURE: NEMA 3R					
DESCRIPTION	LOAD	BREA		CKT.	ø	CKT.	BREA		LOAD	DESCRIPTION		
	kVA	POLE	TRIP	NO.		NO.	POLE	TRIP	kVA	DESCRIP HON		
LIGHTS (EXISTING LOAD)	0.7	1	20	1	Α	2	1	15	0.7	NATURE CTRLIGHTS (EXISTING LOAD)		
RECEPTACLE (EXISTING LOAD)	0.4	1	20	3	В	4	1	20	0.4	NATURE CTROUTLETS (EXISTING LOAD)		
SHELTER OUTLET (EXISTING LOAD)	0.2	1	20	5	Α	6	1	30	•	SPARE		
SPARE	-	1	20	7	В	8	1	15	-	SPARE		
SPARE	-	1	20	9	Α	10	1	20	-	SPARE		
SPARE	-	1	20	11	В	12	1	20	-	SPARE		
PREPARED SPACE	-	1	-	13	Α	14	1	-	-	PREPARED SPACE		
PREPARED SPACE	-	1	-	15	В	16	1	-	-	PREPARED SPACE		
PREPARED SPACE	-	1	-	17	Α	18	1	-	-	PREPARED SPACE		
	1.3		LC	AD SU	B-TC	TALS:	kVA		1.1			

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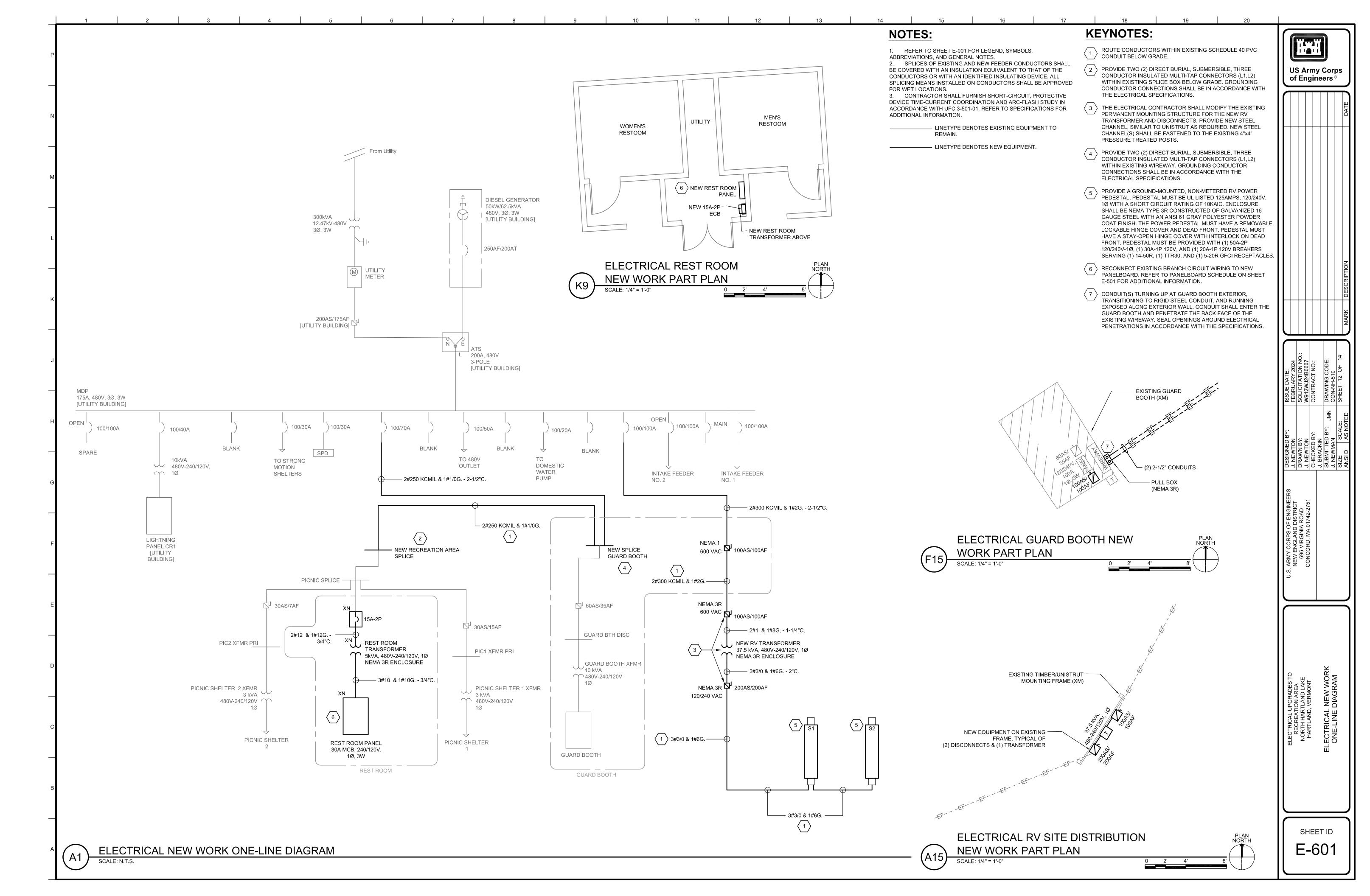


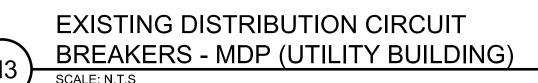
SHEET ID

E-501

DIRECT BURIED DUCTBANK SECTIONS

COMMUNICATION DUCTS.







EXISTING PANELBOARD (REST ROOM)



EXISTING TRANSFORMER PRIMARY
DISCONNECT (REST ROOM)
SCALE: N.T.S

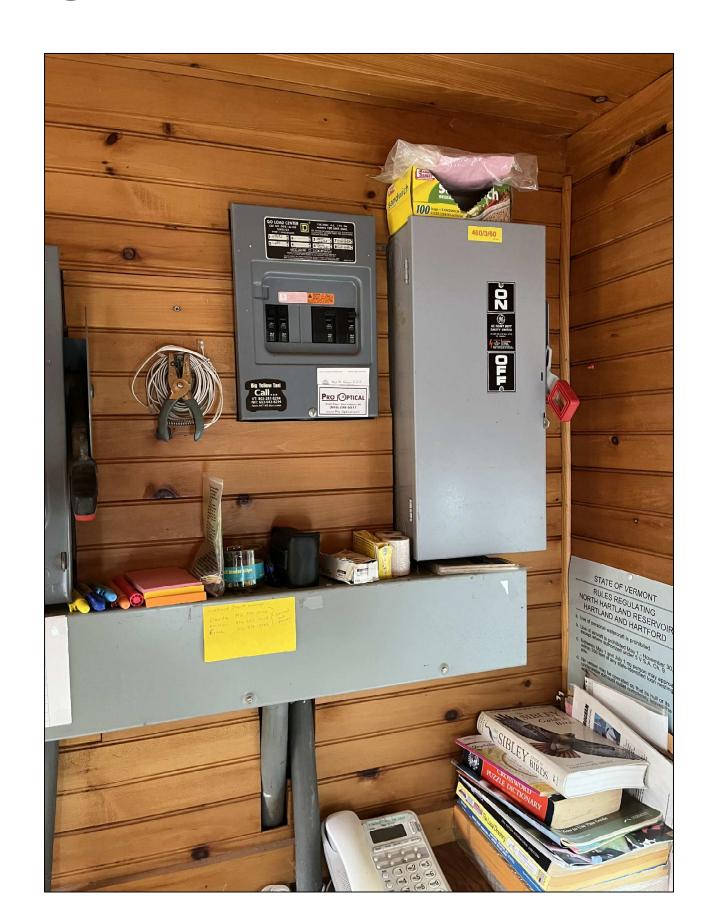


EXISTING 10kVA TRANSFORMER

(GUARD BOOTH)



EXISTING 5KVA TRANSFORMER
(REST ROOM)



EXISTING WIREWAY, PANELBOARD & RV SITE DISCONNECT (GUARD BOOTH)

SCALE: N.T.S

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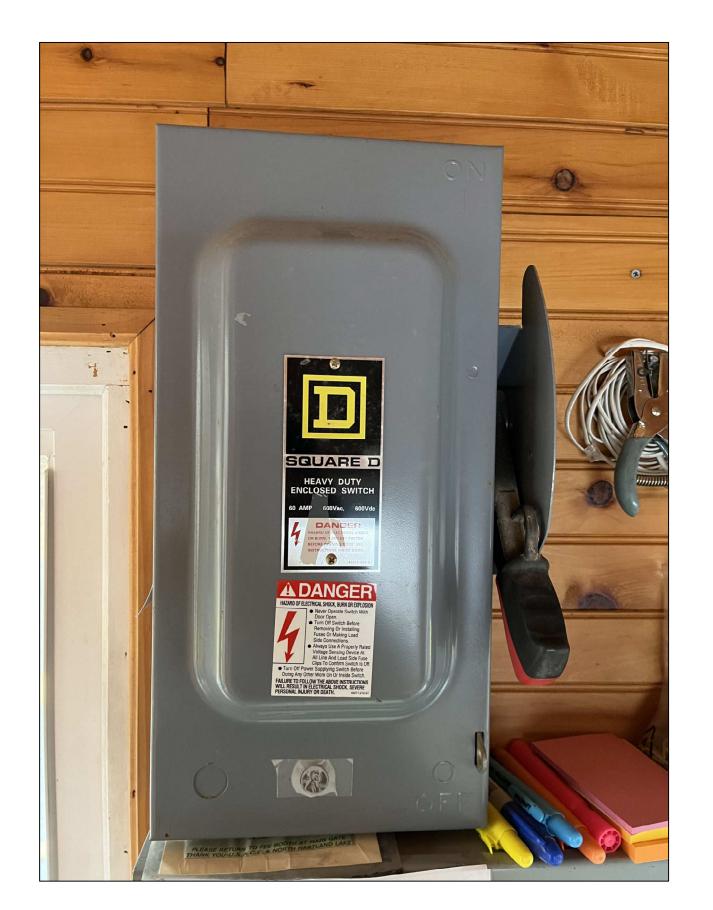
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	DESIGNED BY:	J. NEWTON	DRAWN BY:	J. NEWTON	יאם מהאטרויס	CHECKED BY:	J BRACKIN	o. Dividini	SUBMITTED BY:	1		SIZE: SCALE:	ANSI D N.T.S.
	CORPS OF ENGINEERS			.51									

HARTLAND, VERMON

EXISTING CONDITIC

PHOTOGRAPHS

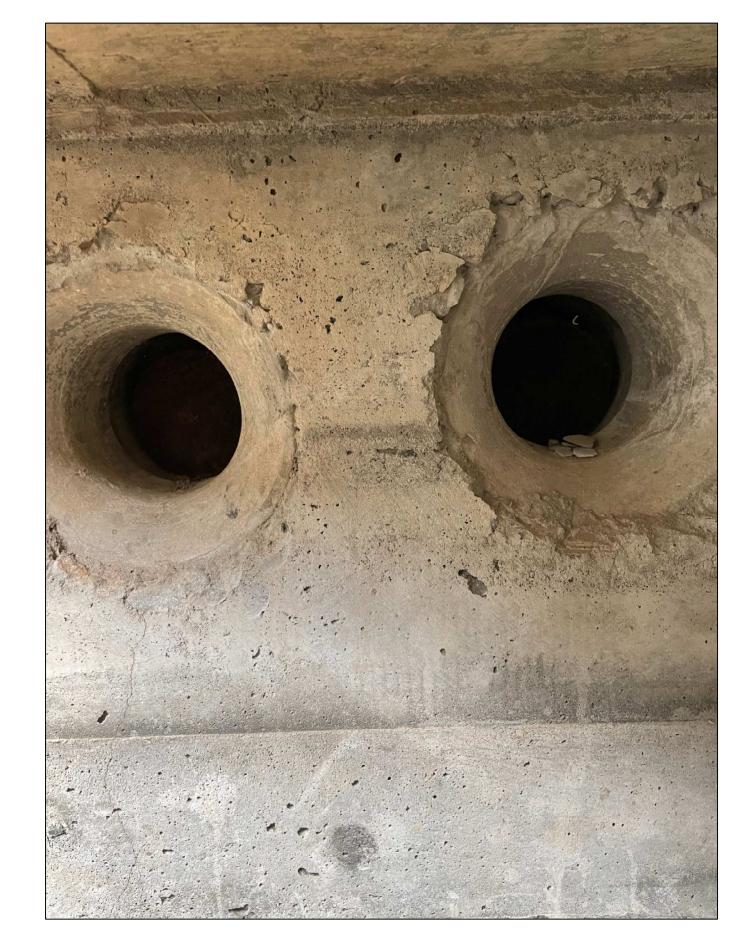
SHEET ID **E-701**



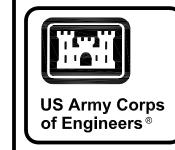
EXISTING TRANSFORMER PRIMARY
DISCONNECT (GUARD BOOTH)
SCALE: N.T.S



EXISTING RV SITE PRIMARY DISCONNECT,
TRANSFORMER AND SECONDARY DISCONNECT
SCALE: N.T.S



EXISTING SPARE CONDUITS IN MANHOLE
ADJACENT TO UTILITY BUILDING
SCALE: N.T.S



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	DESIGNED BY:	J. NEWTON	DRAWN BY:	J. NEWTON	CHECKED BY:	J. BRACKIN	SUBMITTED BY:	J. NEWMAN
	U.S. ARMY CORPS OF FNGINFERS	NEW ENGLAND DISTRICT	696 VIRGINIA ROAD	CONCORD, MA 01742-2751				

NORTH HARTLAND LAKE
HARTLAND, VERMONT
EXISTING CONDITION

E-702