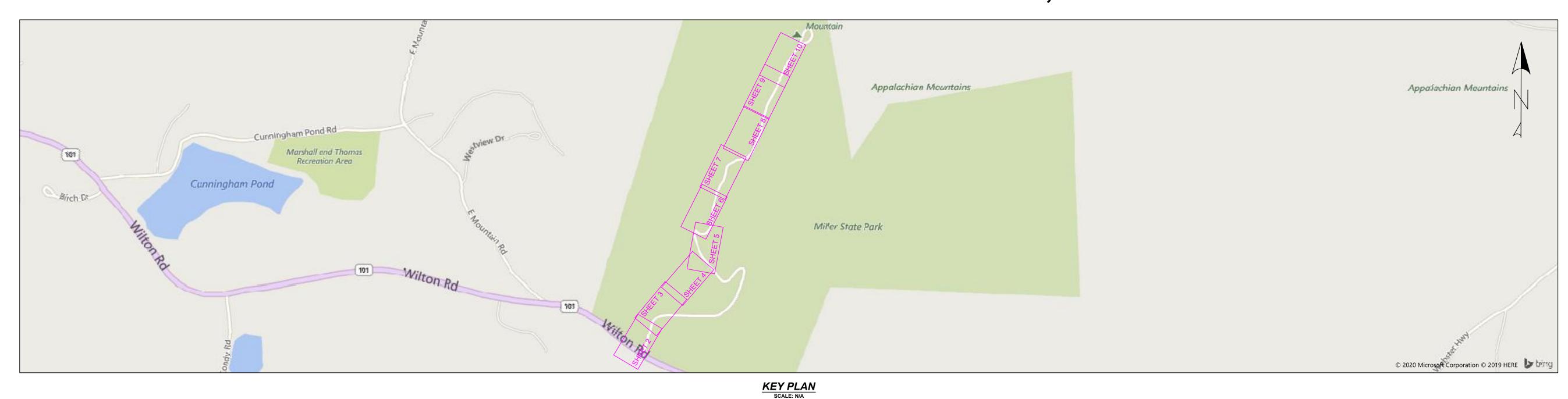
3155X9, 4KV CIRCUIT, MILLER STATE PARK – STATE OWNED LAND CROSSING PETERBOROUGH AND TEMPLE, NH



NHPUC CALCULATIONS OF SPANS & STATE LAND CROSSINGS						
SPAN	TOTAL DISTANCE (FT)	LOCATION INFORMATION	CABLE INSTALLATION INFORMATION			
Α	123	Aerial: 37/47 - 81/1	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
В	147	Aerial: 81/1 - 81/2	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
С	164	Aerial: 81/2 - 81/3	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
D	138	Aerial: 81/3 - 81/4	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
E	130	Aerial: 81/4 - 81/5	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
F	304	Aerial: 81/5 - 81/6	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
G	163	Aerial: 81/6 - 81/7	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
Н	260	Aerial: 81/7 - 81/8	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
1	156	Aerial: 81/8 - 81/9	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
J	141	Aerial: 81/9 - 81/10	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
K	135	Aerial: 81/10 - 81/11	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
L	186	Aerial: 81/11 - 81/12	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
M	113	Aerial: 81/12 - 81/13	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
N	94	Aerial: 81/13 - 81/13X	1/0 ACSR 175MIL TW 2x 4/0 AL TPX			
NA	22	Underground: 81/13 - MIT Meter	500 MCM UG			
0	163	Aerial: 81/13 - 81/14	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
P	197	Aerial: 81/14 - 81/15	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
Q	192	Aerial: 81/15 - 81/16	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
R	206	Aerial: 81/16 - 81/17	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
S	176	Aerial: 81/17 - 81/18	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
T	160	Aerial: 81/18 - 81/19	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
U	170	Aerial: 81/19 - 81/20	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
V	156	Aerial: 81/20 - 81/21	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
W	213	Aerial: 81/21 - 81/22	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
Х	205	Aerial: 81/22 - 81/23	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
Υ	244	Aerial: 81/23 - 81/24	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
Z	204	Aerial: 81/24 - 81/25	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
AA	213	Aerial: 81/25 - 81/26	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
AB	180	Aerial: 81/26 - 81/27	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
AC	204	Aerial: 81/27 - 81/28	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
AD	141	Aerial: 81/28 - 81/29	1/0 ACSR 175MIL TW w/ 052 AWA Messenger			
AE	124	Underground: 81/29 - 81/29S1	2x 1/0 AL UG			
AF	-	Intentionally Omitted	-			
AG	140	Underground: 81/29T2J1 to NHDES Meter Socket	350 MCM UG			
АН	8	Underground: 81/29T2J2 to SPC Meter #1	4/0 AL UG			
Al	11	Underground: 81/29T2J2 to SPC Meter #2	4/0 AL UG			
Total Span Length Project Area	5583					
ess Span Distance Crossed NH DOT ROW	476.9					
Total Span Length Crossed Over State Owned Lands	5106.1					

PROJECT LOCATION MAP

	37/47 - 81/1	66.9
	81/4 - 81/5	20
	81/9 - 81/10	71
	81/10 - 81/11	3
DOT ROW (Subtract	81/11 - 81/12	13
Values)	81/12 - 81/13	69
	81/13 - 81/13X	13
	81/29 - 81/29S1	116
	81/29T2J1 to NHDES	100
	81/29T2J2 to SPC #1	2
	81/29T2J2 to SPC #2	3
	Total	476.9



GENERAL NOTES

- THE PURPOSE OF THIS PLAN IS TO DEPICT THE CONSTRUCTION OF THE PROPOSED POLE LINE TO FEED

VERTICAL DATUM: NAVD88 HORIZONTAL PROJECTION: NEW HAMPSHIRE STATE PLANE

- 3. SEE FOLLOWING WORK REQUESTS FOR INSTALLATION INFORMATION:
- POLES 37/47 81/7 TO BE INSTALLED UNDER WR# 3367138 POLES 81/8 - 81/13X TO BE INSTALLED UNDER WR# 3367164
- POLES 81/14 81/23 TO BE INSTALLED UNDER WR# 3160624 POLES 81/24 - 81/29 TO BE INSTALLED UNDER WR# 3160599
- SUMMIT WORK TO BE INSTALLED UNDER WR# 3367212
- 4. TOTAL DISTANCE OF STATE OWNED LAND CROSSING EXCLUDING NH DOT ROW AREAS IS 5106.1 FT

ASSUMPTIONS / CLARIFICATIONS

- 1. CONDUCTORS SHOWN AT TEMPERATURE CONDITION OF 120 DEGREES F BASED ON STRINGING TENSIONS OF 1000 LBS & 700 LBS AT 60 DEGREES F. PROPOSED CONDUCTOR IS A 1-1/C 1/0 TW
- 2. COMMUNICATION CABLES MODELED AT 2,000LBS DESIGN TENSION AT 120 F ASSUMED 1" COMMUNICATION ATTACHMENT WITH 6M MESSENGER
- 3. ALL PROFILES ARE GENERATED USING THE MOST RECENT STATE LIDAR SURFACE FILES
- 4. EXCEPT FOR AREAS WITHIN THE NHDOT ROW THE 4kV CIRCUIT LICENSE AREA DEPICTED IS ASSUMED TO BE A LIMITED ACCESS ROW NOT SUBJECT TO VEHICLE TRAFFIC
- 5. THE ROW CENTERLINE IS ASSUMED TO BE THE CONDUCTOR PATH SHOWN IN THE PLAN BASED ON THE NEW STATE OF NEW HAMPSHIRE, DEPARTMENT OF NATURAL AND CULTURAL RESOURCES USE AND OCCUPANCY LICENSE. THIS IS BASED ON THE PROPOSED ADJUSTMENTS NOT THE EXISTING ROW
- 6. THE ASSUMED ROW IS 16' FROM WILTON RD TO POLE 81/13X AND 20' FROM POLE 81/13 TO POLE 81/29
- 7. THE PROPERTY LINES SHOWN ON THIS PLAN WERE COMPILED FROM LOCAL ASSESSOR'S PLATS AND FROM PREVIOUS PLANS AND DEEDS OF RECORD. VHB HAS NOT PERFORMED A FIELD SURVEY TO VERIFY THE PROPERTY LINES.

NESC VERTICAL CLEARANCE (FT)				
NATURE OF SURFACE UNDERNEATH WIRES,	LINE VOLTAGE			
CONDUCTORS OR CABLES	4.16 kV			
ROADS, STREETS AND OTHER AREAS SUBJECT TO TRUCK TRAFFIC	18.5			
SPACES AND WAYS SUBJECT TO PEDESTRIAN OR RESTRICTED TRAFFIC ONLY	14.5			

INDEX OF DRAWINGS

1-11 PLAN AND PROFILE SHEETS

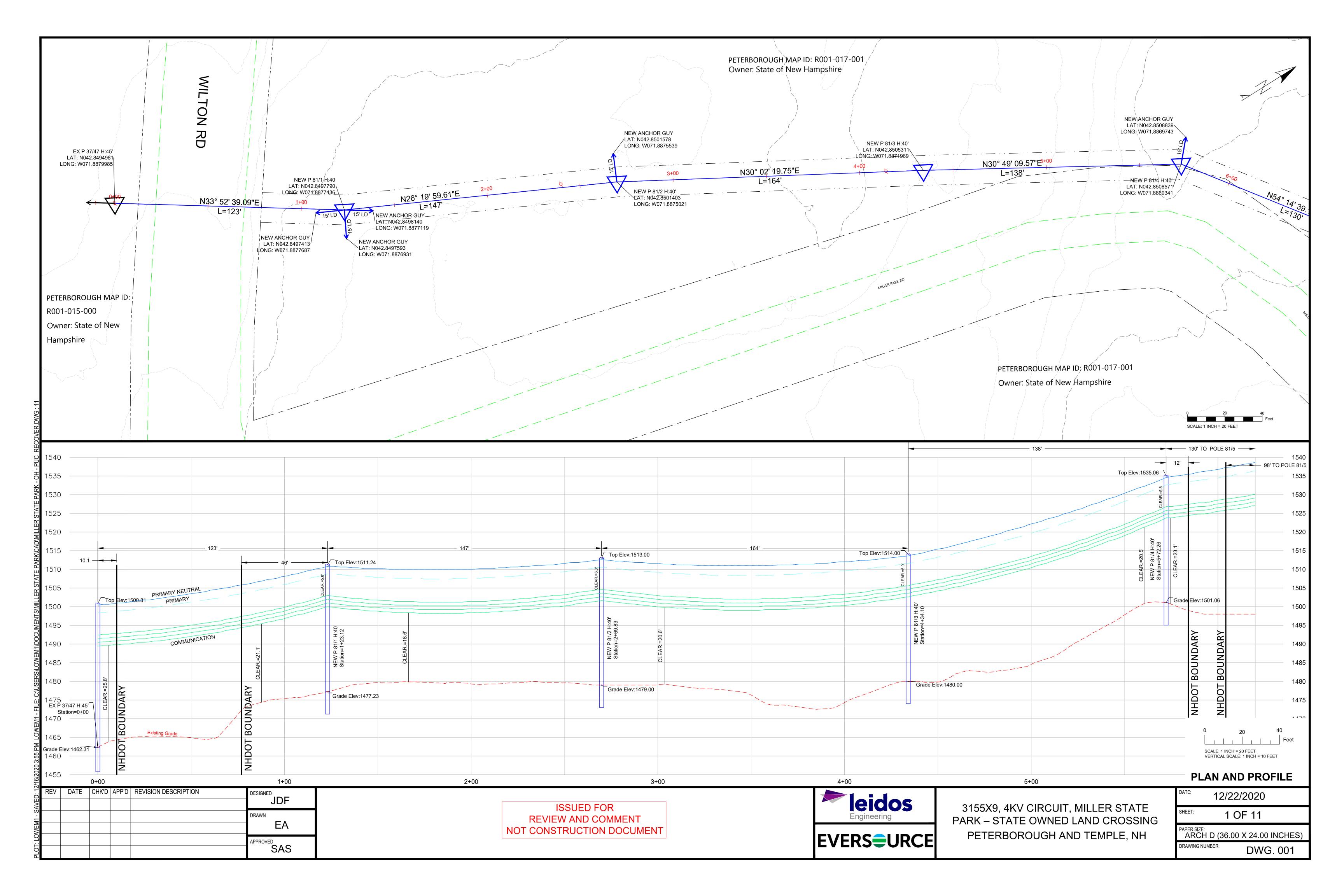
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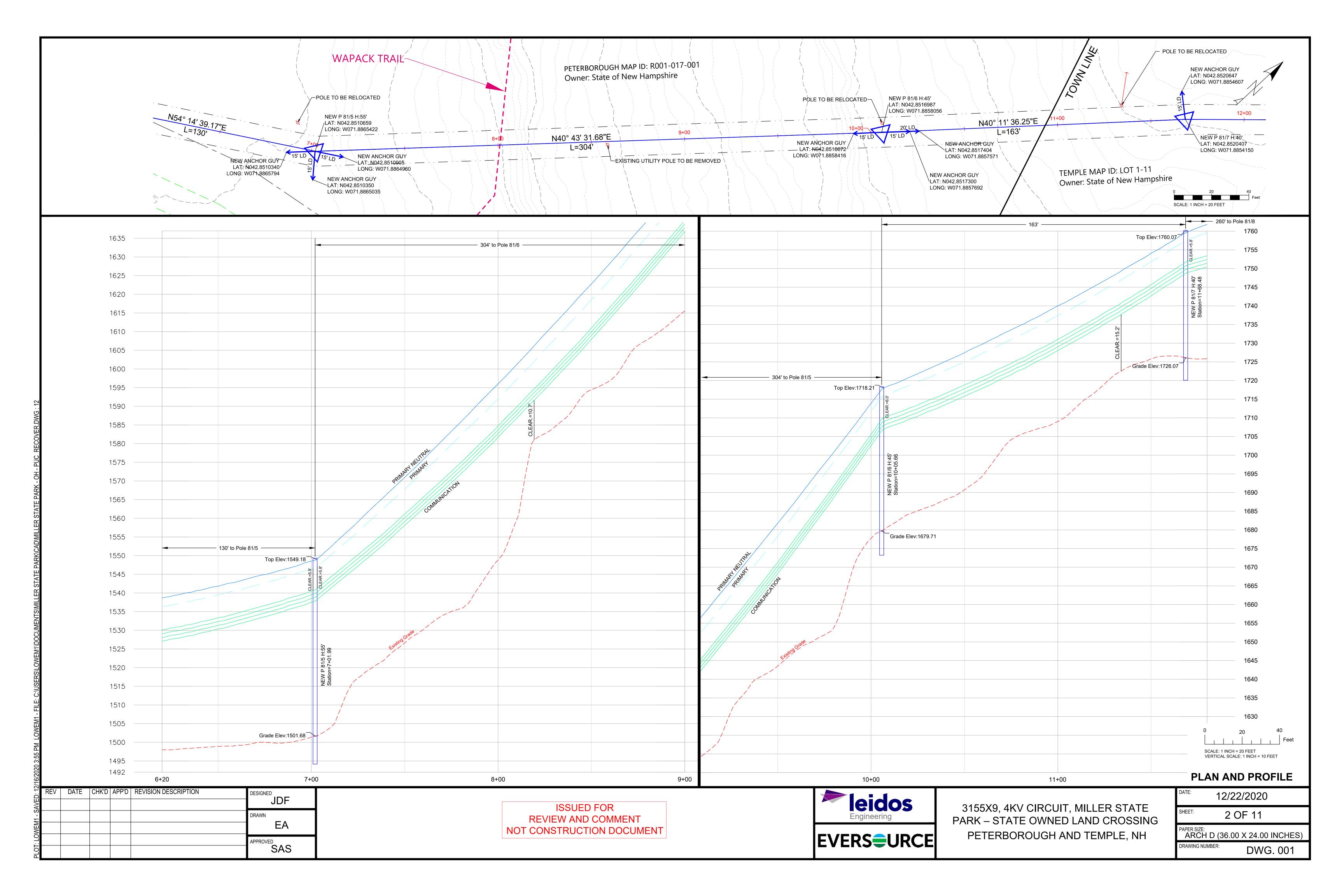
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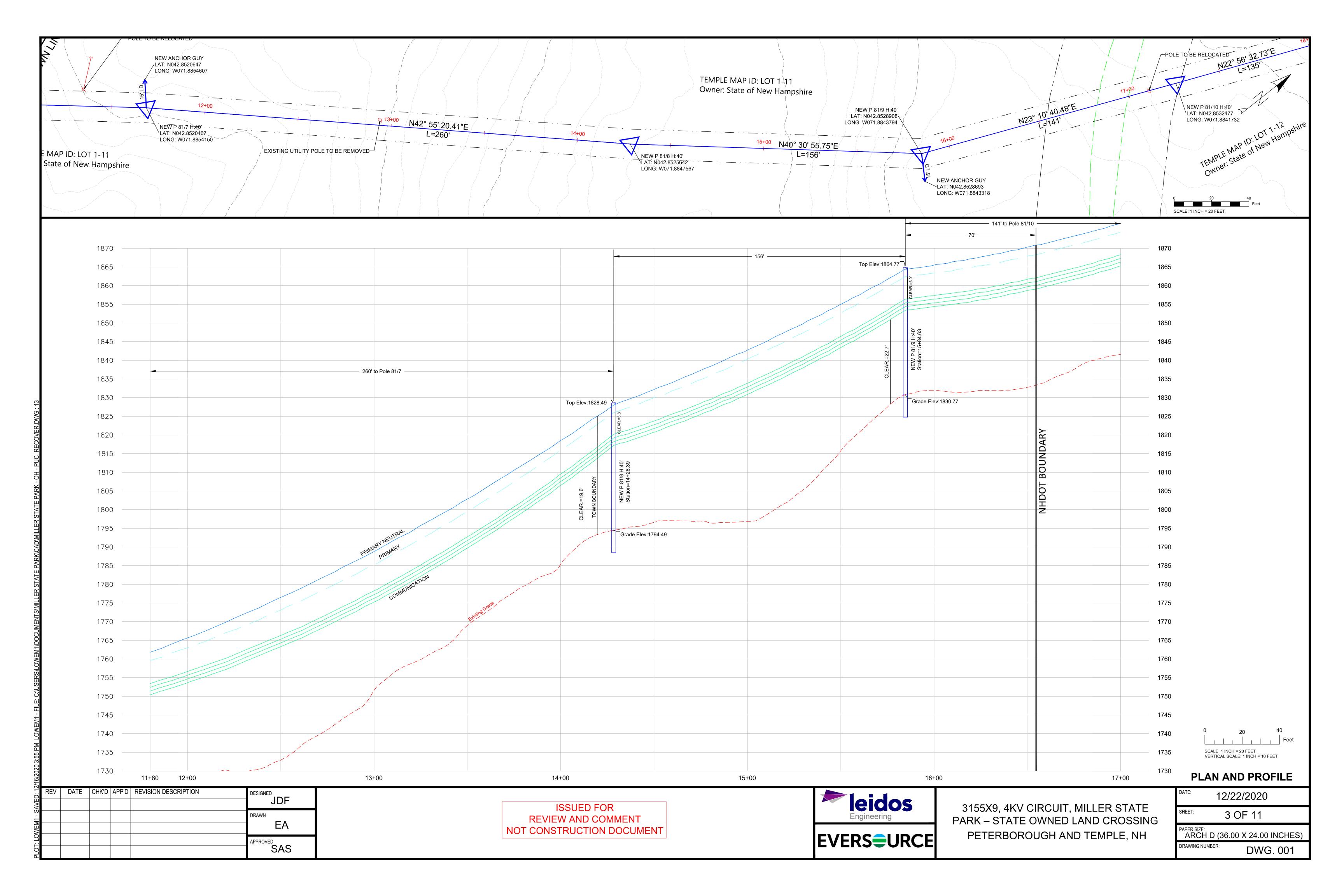


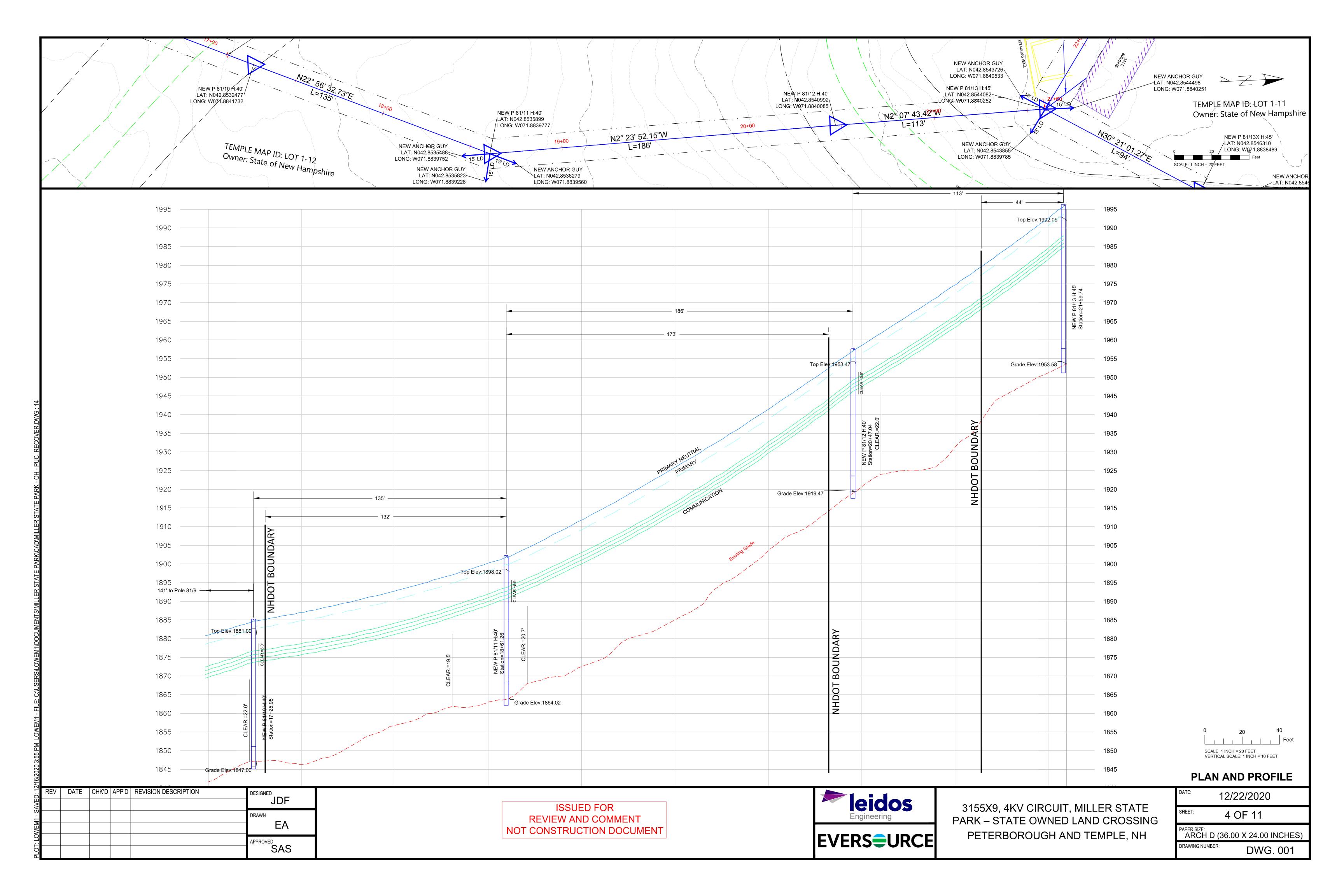
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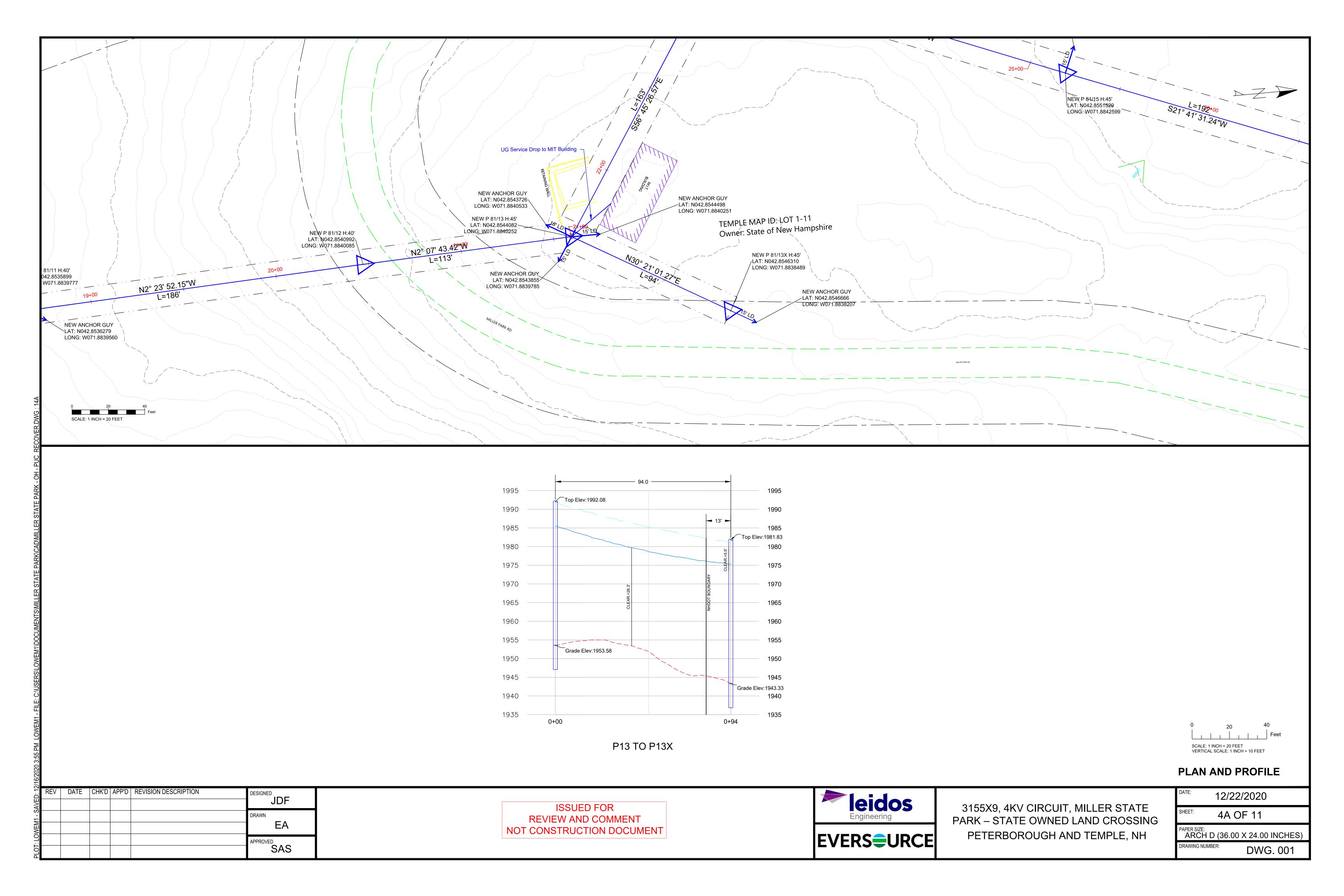
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PAPER SIZE: ARCH D	(36.00 X 24.00 INCHES)
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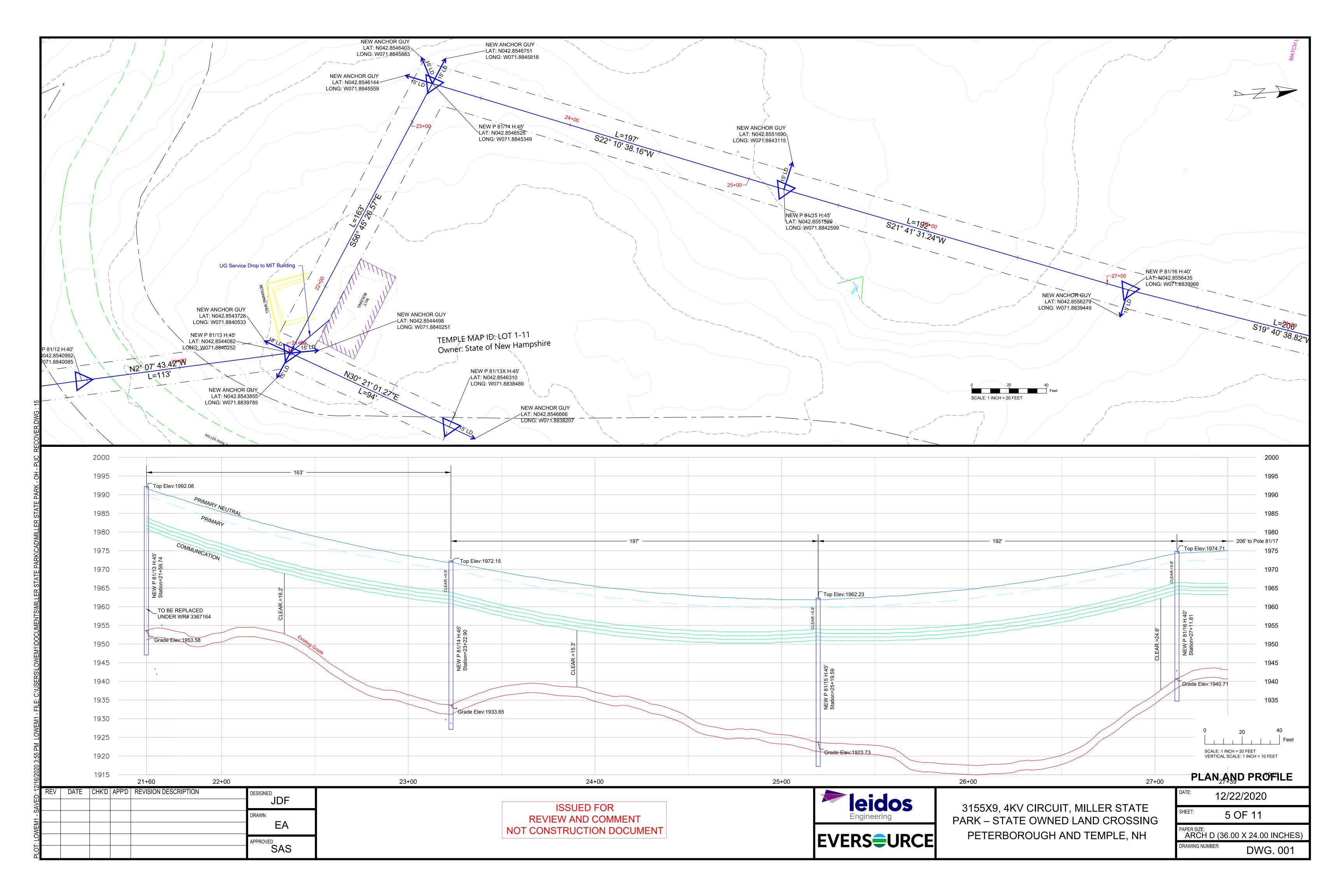


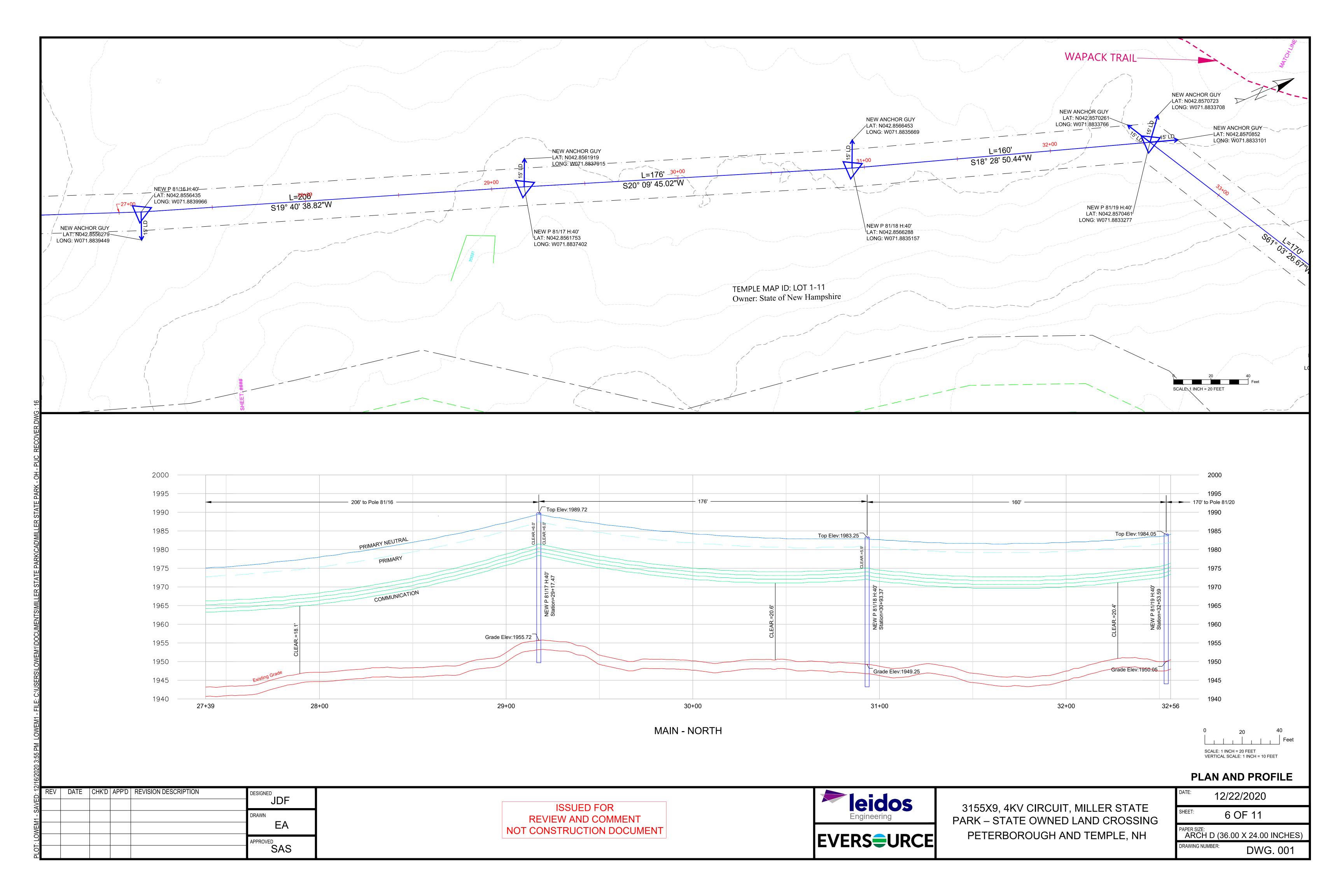


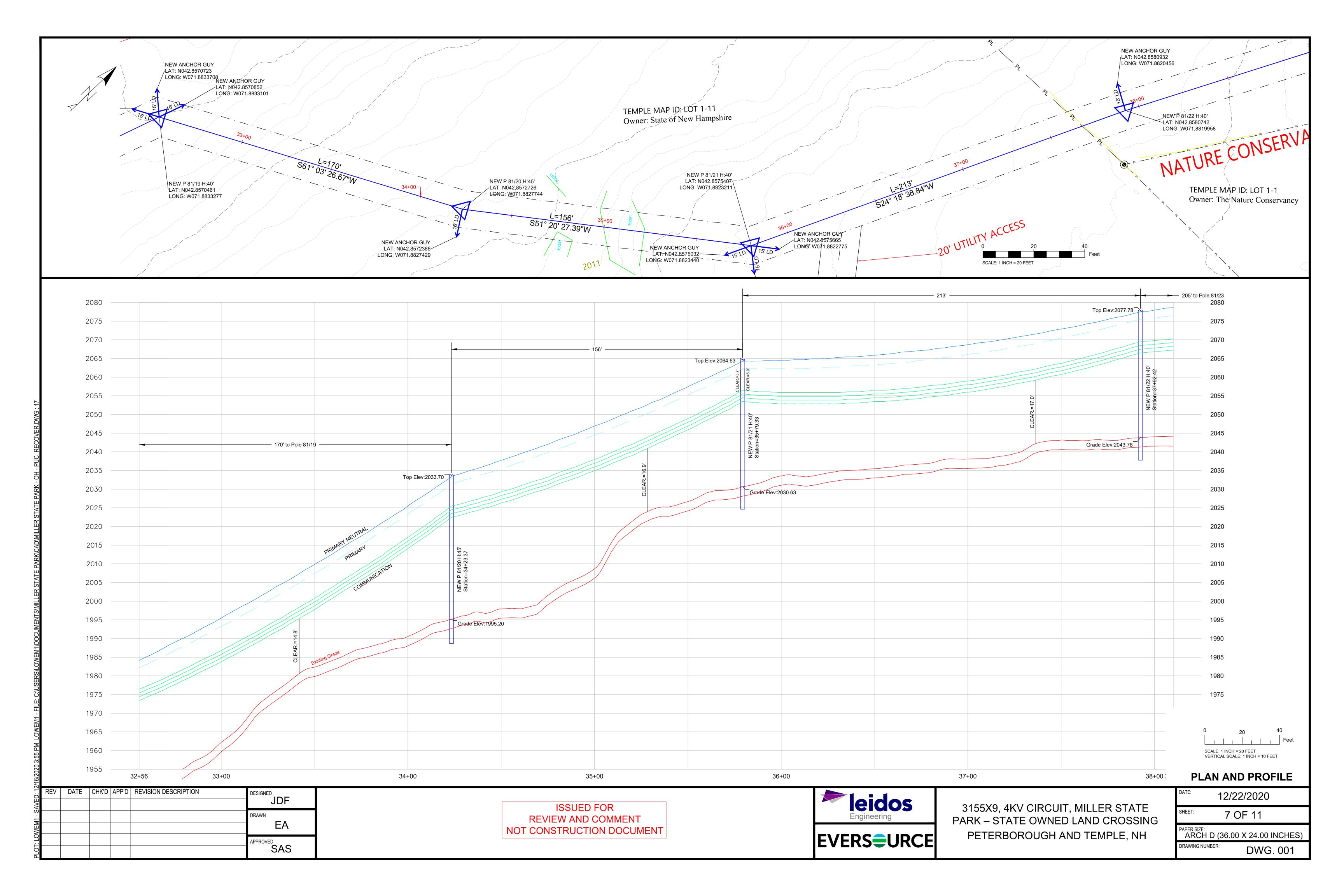


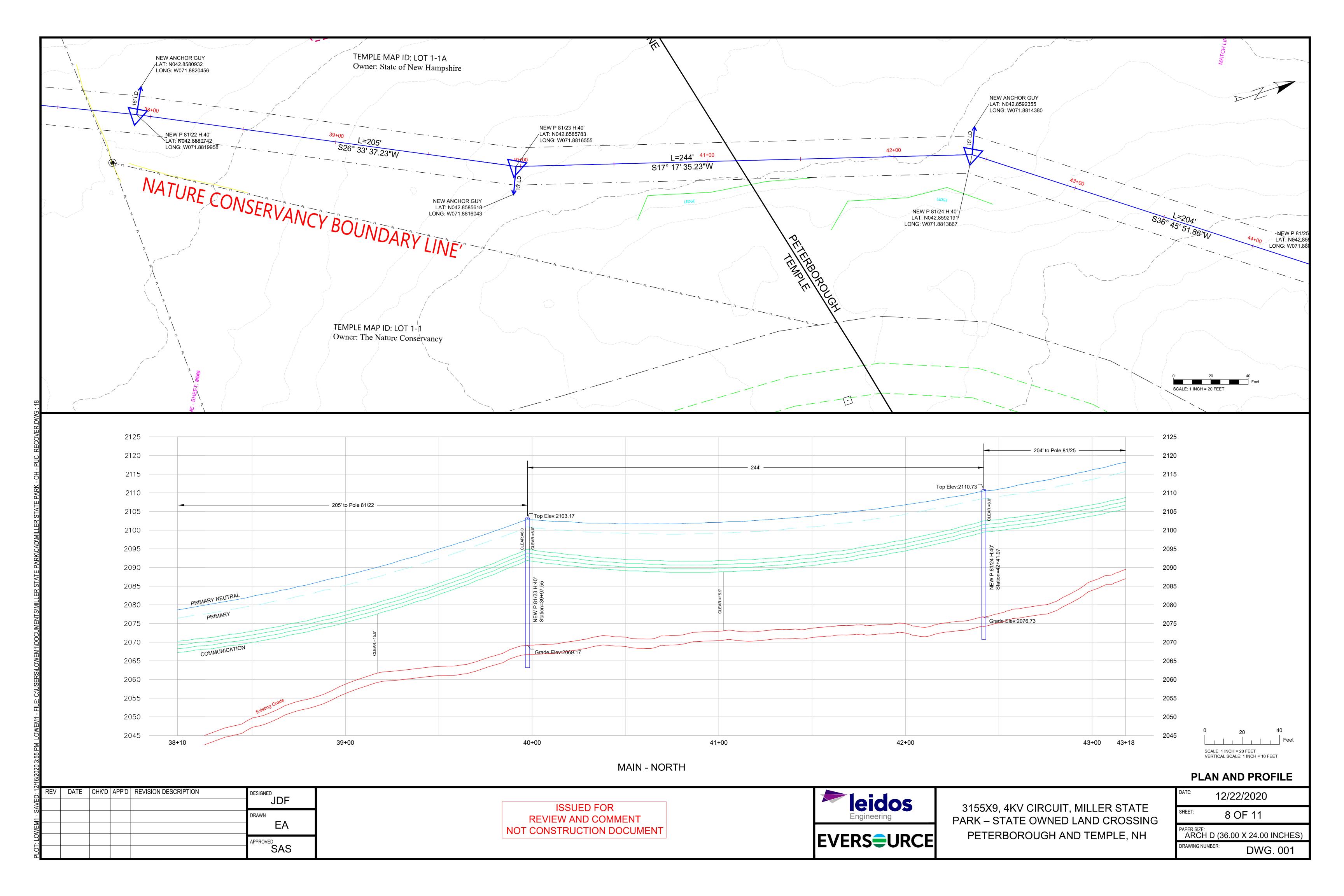


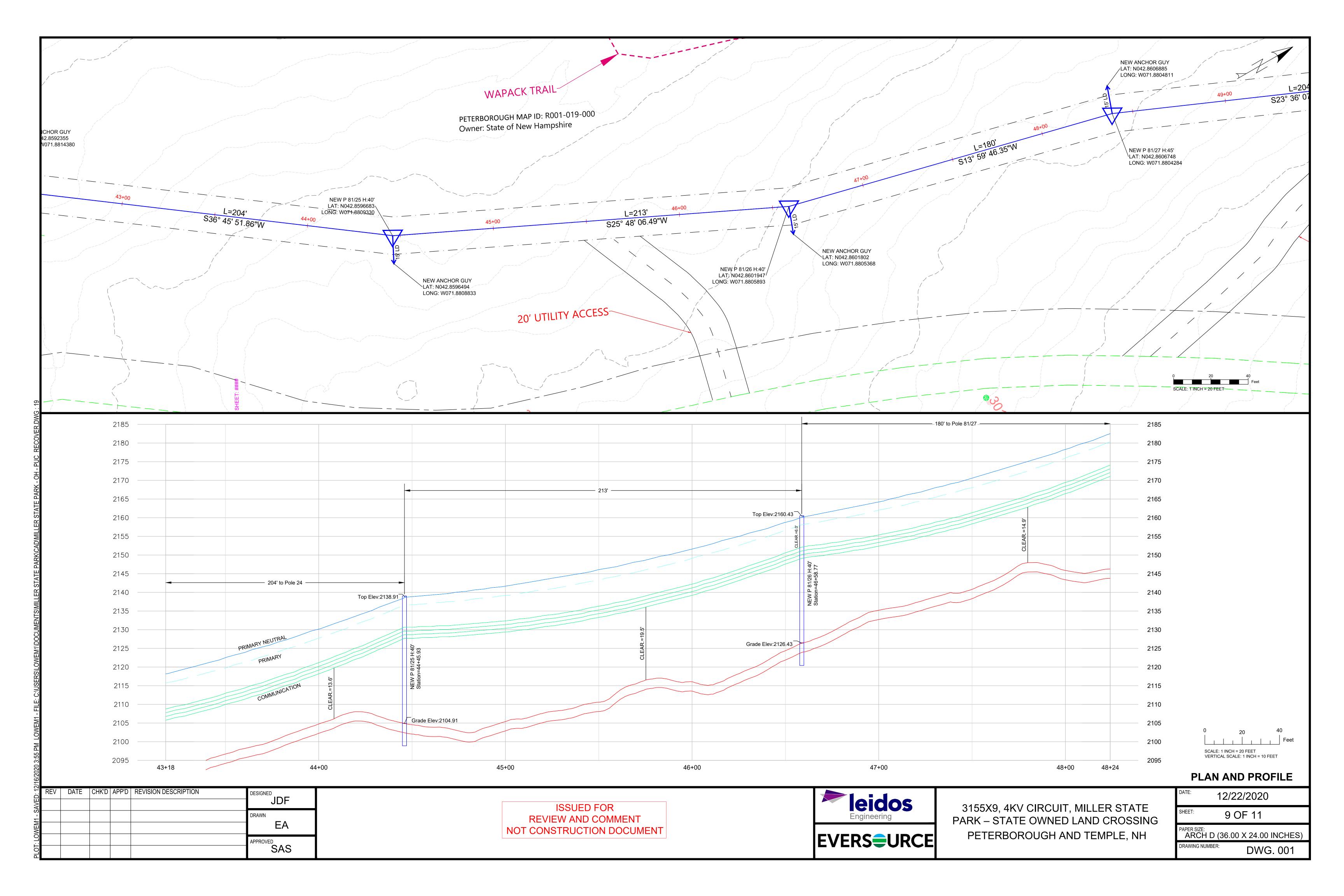


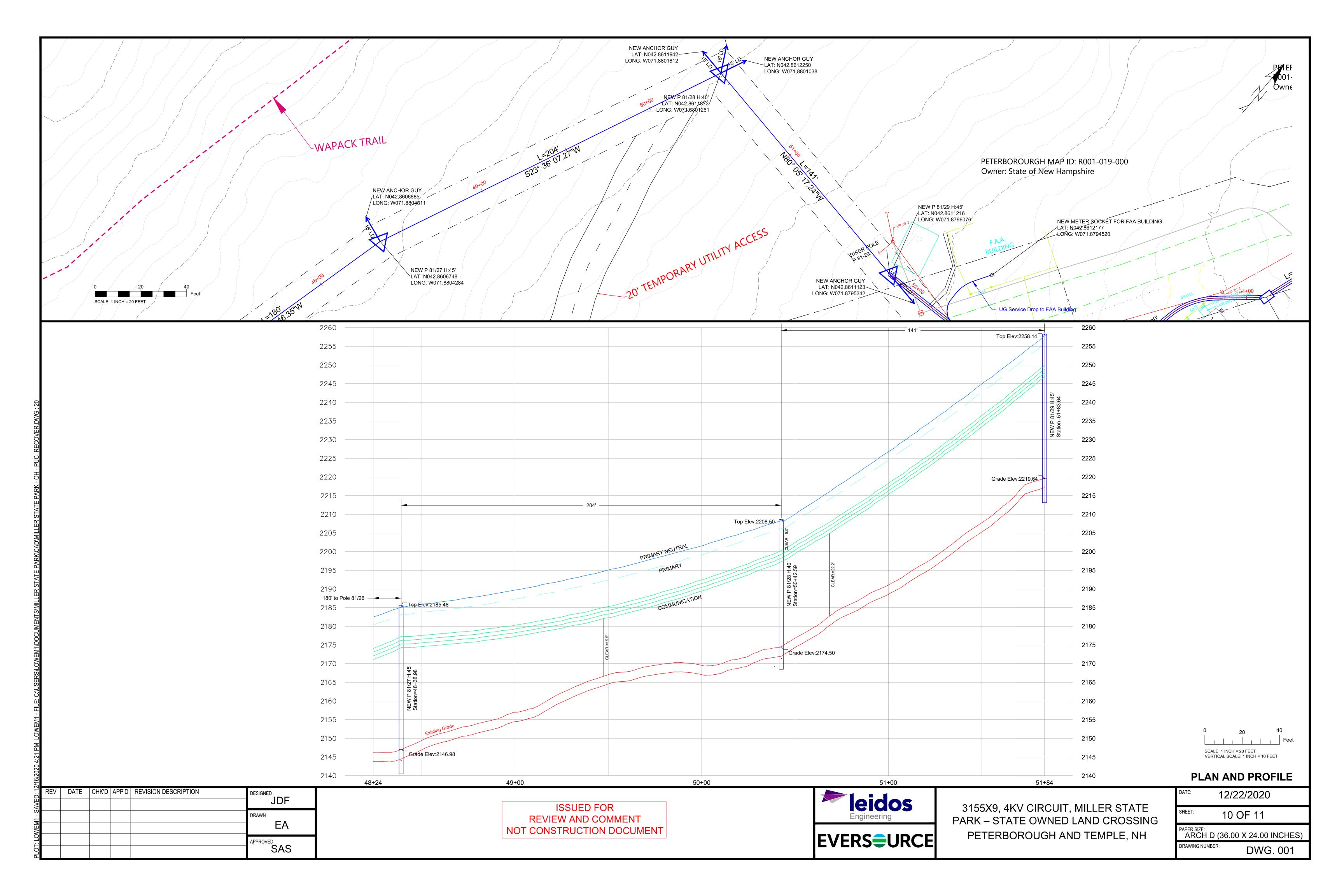


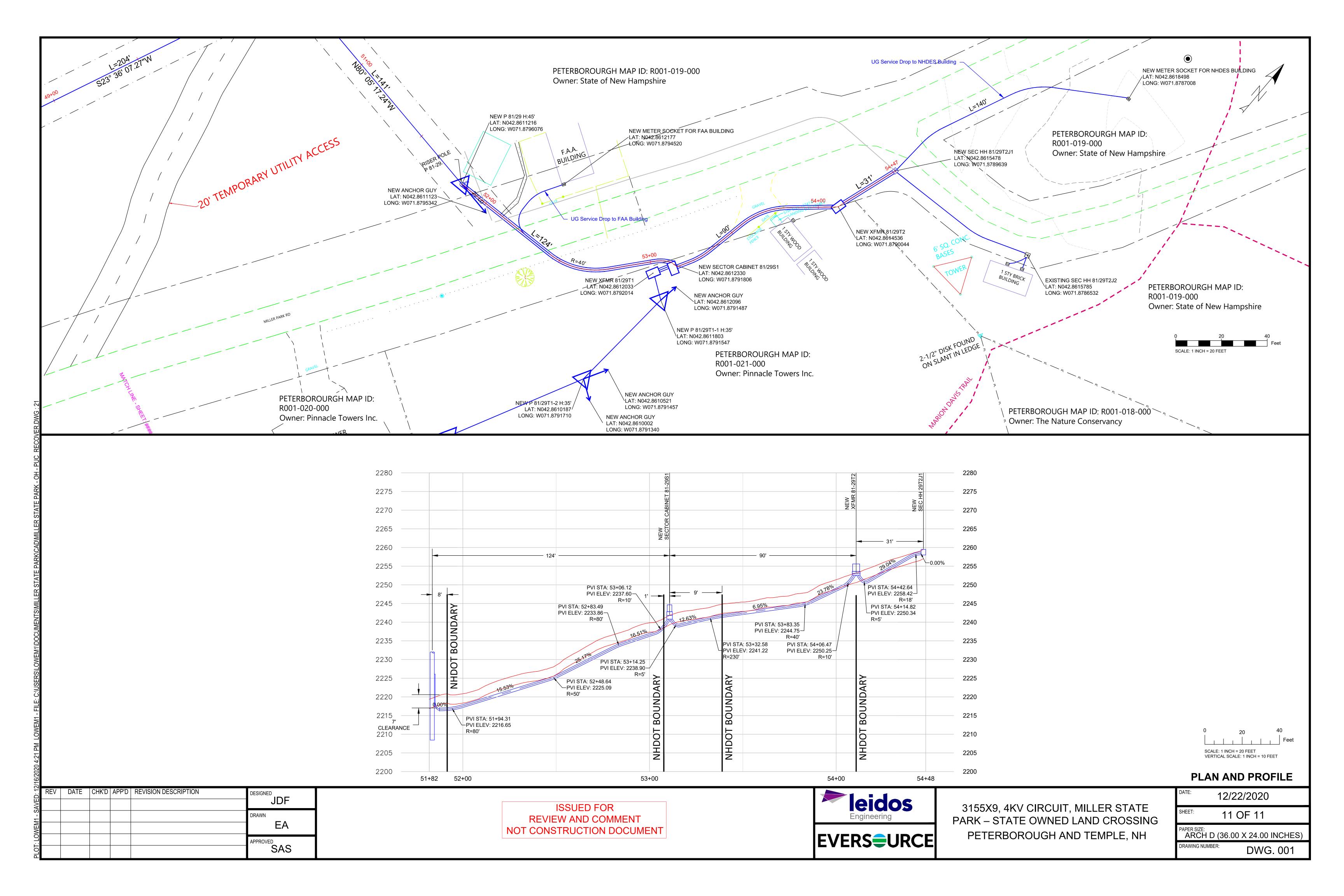












SITE NAME: MILLER STATE PARK -PACK MONADNOCK MTN - TEMPLE

MILLER PARK ROAD PETERBOROUGH, NH 03458 HILLSBOROUGH COUNTY COUNTY

CROWN BU NUMBER: 870731 & 871153

SHEET INDEX				
DESCRIPTION	REV.			
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EXISTING CONDITIONS	0			
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CROWN COMPOUND UTILITY PLANS	2			
EROSION CONTROL DETAILS AND NOTES	2			
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	DESCRIPTION TITLE SHEET GENERAL NOTES ABUTTERS PLAN EXISTING CONDITIONS EXISTING CONDITIONS PARTIAL UTILITY PLAN PARTIAL UTILITY PLAN CROWN COMPOUND UTILITY PLANS EROSION CONTROL DETAILS AND NOTES SITE DETAILS DUCT BANK DETAILS SERVICE CONNECTION POLE DETAILS			

ROJECT **DRIVING DIRECTIONS**

VICINITY MAP

NOT TO SCALE

(FROM: 500 WEST CUMMINGS PARK, SUITE 3600 WOBURN, MA 01801)

HEAD EAST TOWARD WASHINGTON ST., TURN LEFT TO STAY ON W CUMMINGS PARK TURN LEFT TOWARD W CUMMINGS PARK, TURN RIGHT ONTO W CUMMINGS PARK

TURN LEFT ONTO WASHINGTON ST., USE THE LEFT 2 LANES TO TURN LEFT ONTO MISHAWUM RD

USE THE LEFT 2 LANES TO TURN LEFT TO MERGE ONTO I-95 S/MA-128 S TOWARD WALTHAM/PROVIDENCE RHODE ISLAND, TAKE US-3 N TO SOMERSET PKWY IN NASHUA. TAKE EXIT 8 FROM EVERETT TURNPIKE

MERGE ONTO I-95 S/MA-128 S.; USE THE RIGHT 2 LANES TO TAKE EXIT 32A-32B FOR US-3 N TOWARD LOWELL, CONTINUE ONTO US-3 N., CONTINUE ONTO EVERETT TURNPIKE

USE THE RIGHT 2 LANES TO TAKE EXIT 8 TOWARD SOMERSET PKWY

FOLLOW NH-101A W AND NH-101 W TO MILLER PARK RD IN PETERBOROUGH

CONTINUE ONTO SOMERSET PKWY., USE THE RIGHT 2 LANES TO TURN RIGHT ONTO NH-101A W/AMHERST CONTINUE TO FOLLOW NH-101A W, USE THE LEFT 2 LANES TO TURN LEFT TO MERGE ONTO NH-101 W TOWARD PETERBOROUGH/KEENE,

TURN LEFT TO STAY ON NH-101 W., TURN RIGHT ONTO MILLER PARK RD

SITE NOTES

- THIS IS AN UNMANNED AND RESTRICTED ACCESS EQUIPMENT AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
- THIS FACILITY WILL CONSUME NO UNRECOVERABLE ENERGY.
- NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION. NO WASTE WATER WILL BE GENERATED AT THIS LOCATION.
- NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.
- CROWN CASTLE MAINTENANCE CREW (TYPICALLY ONE PERSON) WILL MAKE AN AVERAGE OF

ONE TRIP PER MONTH AT ONE HOUR PER VISIT.

ZONING / SITE ACQ.

OPERATIONS

APPROVALS PROJECT MANAGER DATE CONSTRUCTION DATE RF ENGINEERING DATE

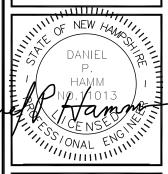
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DATE

DATE







CHECKED BY:

APPROVED BY:

SUBMITTALS 2 08/21/20 CONSTRUCTION REVISED 1 08/11/20 ISSUED FOR CONSTRUCTION 0 07/20/20 ISSUED FOR SUBMITTAL

870731 & 871153 MILLER STATE PARK - PACK MONADNOCK MTN - TEMPLE SITE ADDRESS:
MILLER PARK ROAD
PETERBOROUGH, NH 03458

TITLE SHEET

T-1

PROJEC	T INFORMATION
PROPERTY OWNER:	PINNACLE TOWERS, INC. PMB 353 4017 WASHINGTON ROAD CANOSBURG, PA 15317
APPLICANT:	CROWN CASTLE 12 GILL STREET SUITE 5800 WOBURN, MA 01801
SITE ADDRESS:	MILLER PARK ROAD PETERBOROUGH, NH 03458
COUNTY	HILLSBOROUGH COUNTY
LATITUDE:	N 42.860725 N42° 51' 38.61"
LONGITUDE:	W 71.879431 W71° 52' 45.95"
ZONING CLASSIFICATION:	RURAL (R)
ZONING JURISDICTION:	TOWN OF PETERBOROUGH, NH
PARCEL ID NUMBER:	R1-20 & R1-21

GROUNDING NOTES

- 1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
- 2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81 STANDARDS) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR
- 4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR, STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- 5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS AND #2 AWG STRANDED COPPER FOR OUTDOOR BTS
- 6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW
- APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- 8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
- 9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- 10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES. FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE
- 11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- 12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL

CONTRACTOR - CROWN CASTLE INTERNATIONAL SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION) OWNER - CROWN CASTLE INTERNATIONAL

- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF
- 3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
- 10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- 11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED
- 12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- 13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN

CONCRETE INSTITUTE (ACI) 301.

- 14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
- 15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GÁLVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
- 16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF CROWN CASTLE INTERNATIONAL SITES."
- 17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING
- 18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- 19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
- 20. APPLICABLE BUILDING CODES:

SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE

BUILDING CODE: IBC 2015 WITH NEW HAMPSHIRE AMENDMENTS ELECTRICAL CODE: NEC 2017

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H, STRUCTURAL STANDARDS FOR STEEL

EQUIPMENT AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC

CROWN
CROWN CASTLE 12 GILL STREET, SUITE 5800 WOBURN, MA 01801



OF NEW HAVE DANIEL HAMM 1/1013 THAM MENSENSE ONAL ENGLISH

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APPROVED BY:

DPH

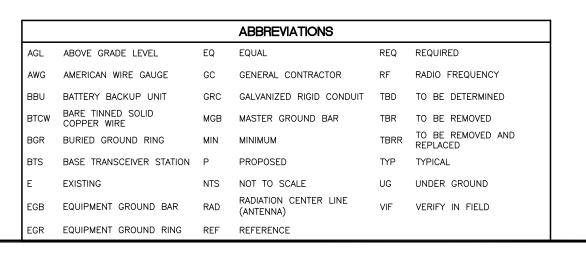
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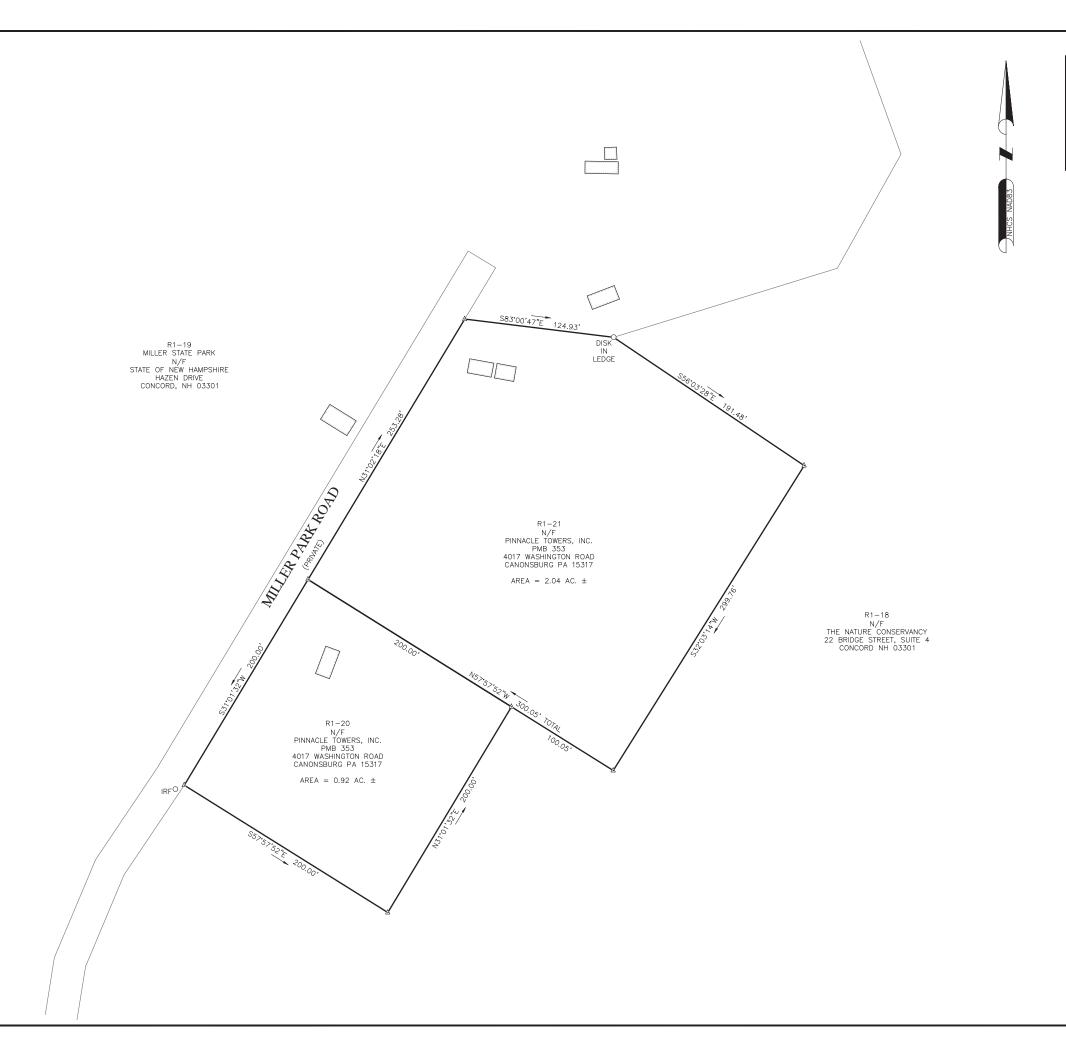
	SUBMITTALS					
REV.	DATE	DESCRIPTION	BY			
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2	08/21/20	CONSTRUCTION REVISED	BB			
1	08/11/20	ISSUED FOR CONSTRUCTION	SG			
0	07/20/20	ISSUED FOR SUBMITTAL	SB			

SITE NUMBER 870731 & 871153 MILLER STATE PARK - PACK MONADNOCK MTN - TEMPLE SITE ADDRESS: MILLER PARK ROAD PETERBOROUGH, NH 03458

SHEET TITLE

GENERAL NOTES





LEGEND

PROPERTY LINE - SUBJECT PARCEL

ABUTTERS PROPERTY LINE

- IRON ROD FOUND
- □ CONC. BOUND FOUND
- STONE PILE FOUND
- △ CALCULATED POINT TOWER CONTROL POINT

SITE SPECIFIC NOTES:

1. FIELD SURVEY DATE: 6-29-2020 & 6-30-2020

2. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF

NORTH AMERICAN VERTICAL DATUM 3. VERTICAL DATUM: OF 1988 (NAVD88)

4. OWNER:

PINNACLE TOWERS, INC. PMB 353 4017 WASHINGTON ROAD CANONSBURG PA 15317

MILLER STATE PARK & 5. SITE NAME:

6. SITE ADDRESS MILLER PARK ROAD PETERBOROUGH, NH 03458

7. APPLICANT:

CROWN CASTLE 500 WEST CUMMINGS PARK SUITE 3600 WOBURN, MA 01801

TOWN OF PETERBOROUGH HILLSBOROUGH COUNTY

9. TAX ID: R1-20 & R1-21

10. DEED REFERENCE: BOOK 5997 PAGE 1101 BOOK 6125 PAGE 1762

11. PLAN REFERENCE: PLAN 1976

8. JURISDICTION:

12. THE HORIZONTAL DATUM AND VERTICAL DATUM WERE DERIVED FROM AN RTK GPS SURVEY.

13. ALL UNDERGROUND UTILITY INFORMATION PRESENTED HEREON WAS DETERMINED FROM SURFACE EVIDENCE ONLY. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO COMMENCEMENT OF ALL SITE WORK. CALL DIGSAFE 1–800–322–4844 A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.

14. ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY MAPS, THE LOCUS PROPERTY IS LOCATED IN AREAS DESIGNATED AS ZONE X (UNSHADED, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN).
COMMUNITY PANEL NO. 33011C 0410 D
EFFECTIVE DATE: 09-25-2009

15. FIELD SURVEY BY EDM TOTAL STATION & RTK GPS.

16. THIS IS NOT A BOUNDARY SURVEY.

17. ALL PROPERTY LINES SHOWN ARE FROM FIELD EVIDENCE, DEEDS & PLANS OF RECORD AND GIS DATA AND ARE APPROXIMATE ONLY.

18. NO WETLAND DELINEATIONS WERE OBSERVED.

500 WEST CUMMINGS PARK, SUITE 3600 WOBURN, MA 01801



IS REECHWOOD DRIVE

NORTHEAST SURVEY CONSULTANTS





CHECKED BY:

APPROVED BY:

DFS

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REV.	DATE	DESCRIPTION	BY				
0	7/12/20	ISSUED FOR REVIEW	JDG				

MILLER STATE PARK & PCKMDNKMTN

SITE ADDRESS: MILLER PARK ROAD PETERBOROUGH, NH 03458

SHEET TITLE

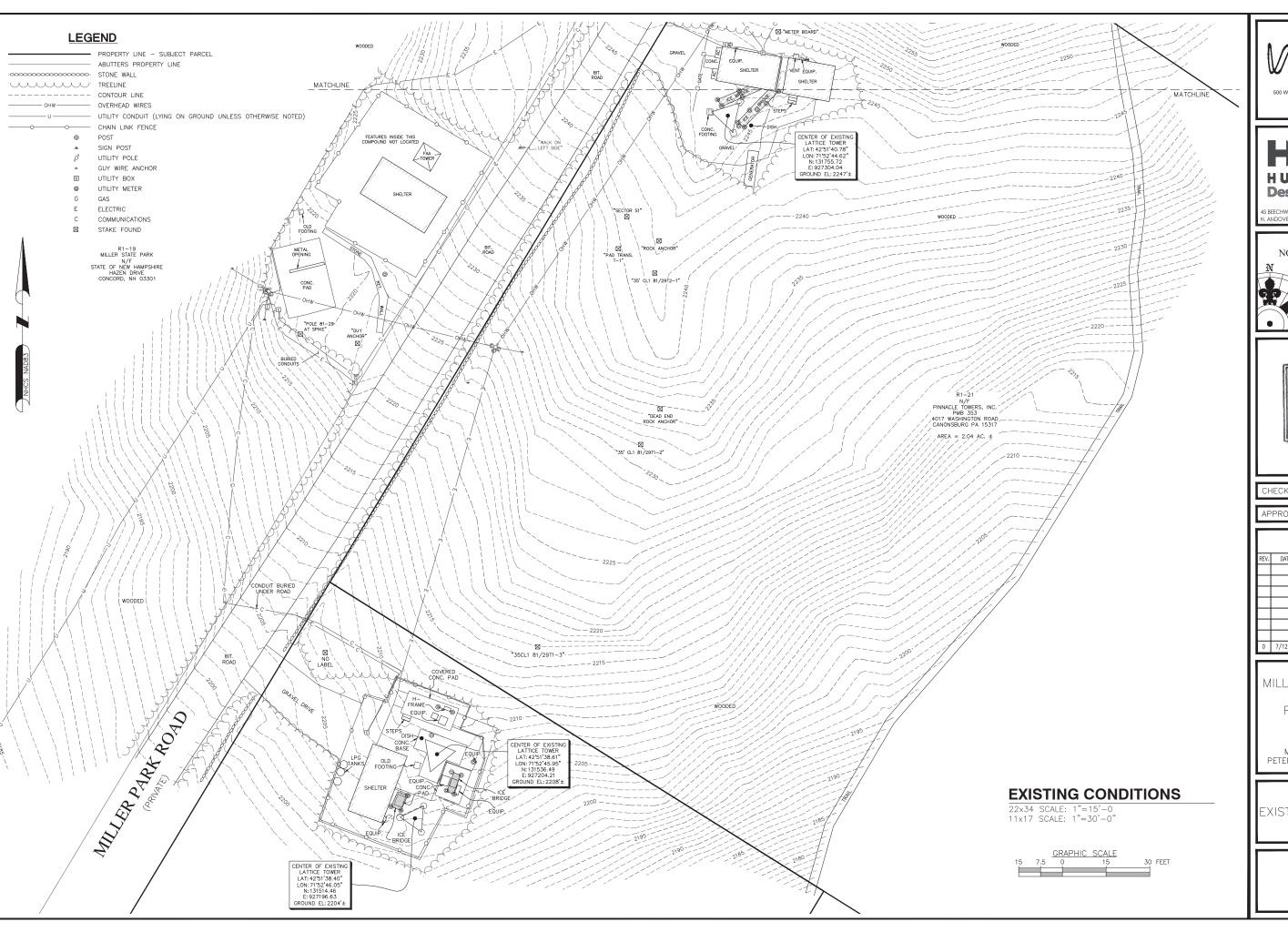
ABUTTERS PLAN

SHEET NUMBER

ABUTTERS PLAN

22x34 SCALE: 1"=40'-0 11x17 SCALE: 1"=80'-0"

80 FFFT



M CROWN CASTLE

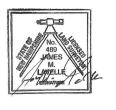
0 WEST CUMMINGS PARK, SUITE 36



BEECHWOOD DRIVE



116 Pleasant St. Ste. 302 P.O. Box 109 Easthampton, MA 01027 (413) 203–5144 northeastsurvey.com



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SITE NAME:
MILLER STATE PARK
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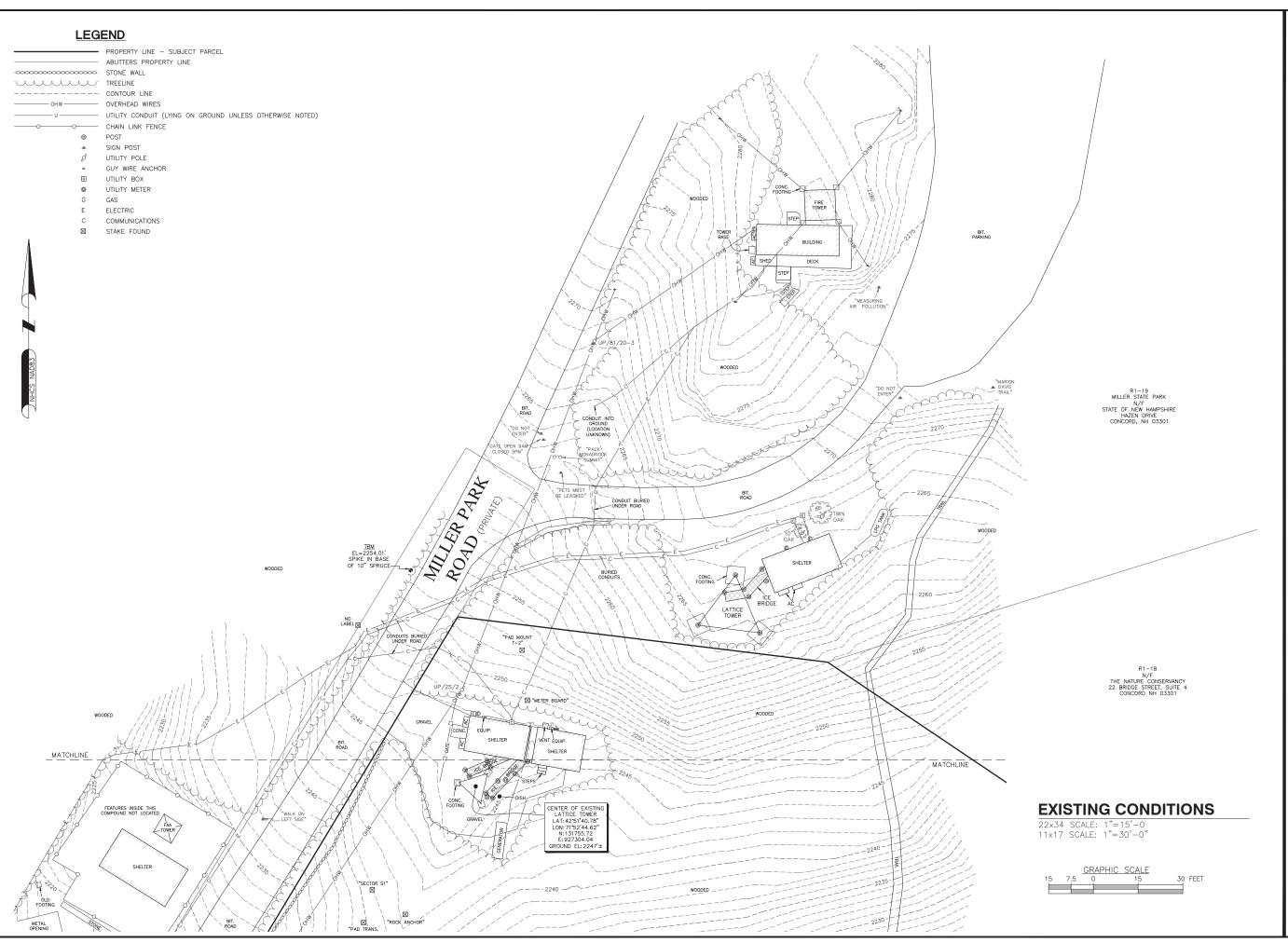
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MILLER PARK ROAD
PETERBOROUGH, NH 03458

SHEET TITL

EXISTING CONDITIONS

SHEET NUMB

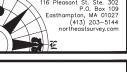
C-2







NORTHEAST SURVEY CONSULTANTS





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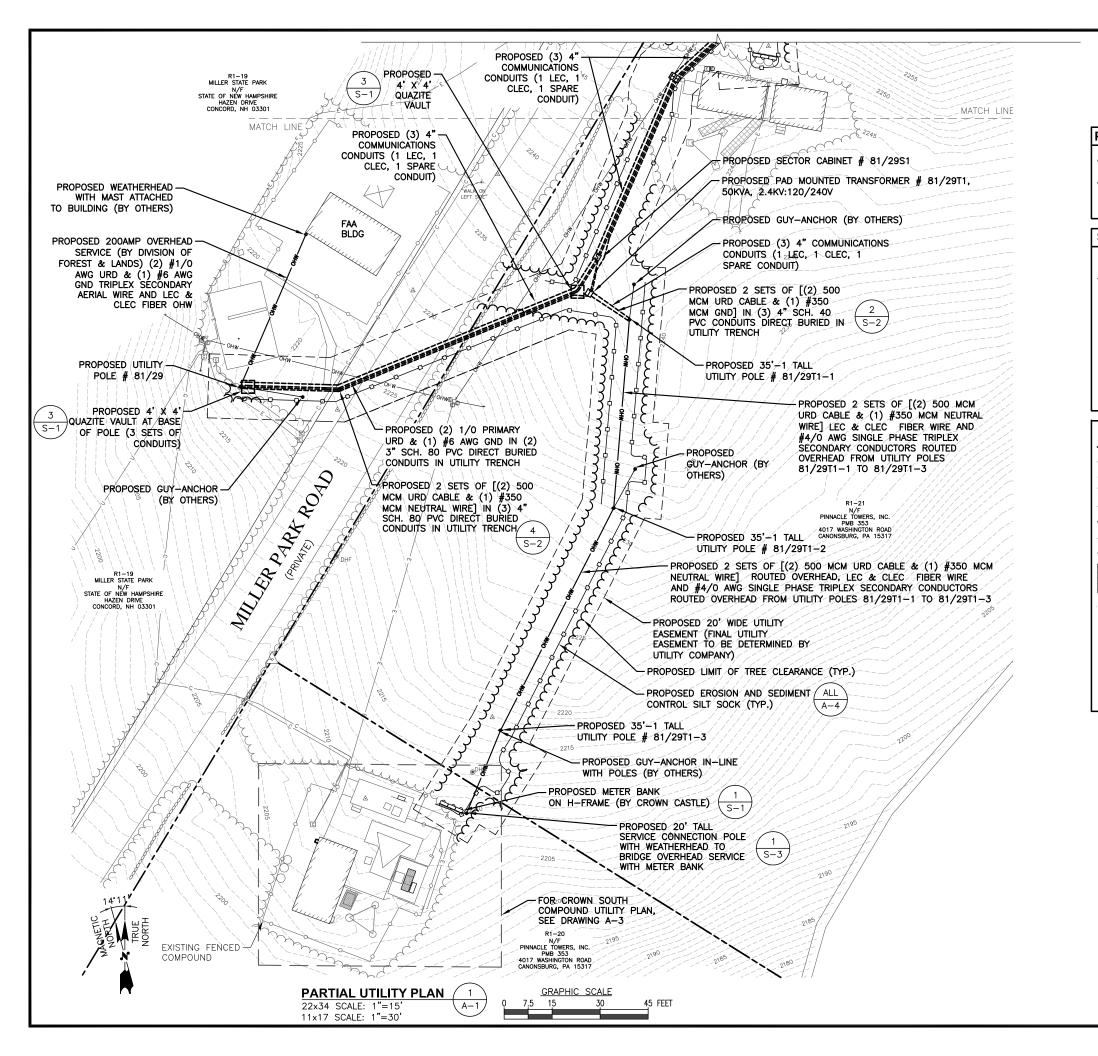
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SUBMITTALS 0 7/12/20 ISSUED FOR REVIEW

MILLER STATE PARK 28 PCKMDNKMTN

SITE ADDRESS: MILLER PARK ROAD PETERBOROUGH, NH 03458

EXISTING CONDITIONS



PLAN REFERENCE

- GIS MAP BY THE TOWN OF PETERBOROUGH, NH, VIEWED ON 07/09/2020.
- DRAWINGS ENTITLED, "ABUTTERS PLAN" AND "EXISTING CONDITIONS" BY NORTHEAST SURVEY CONSULTANTS DATED 07/10/20,

SITE SPECIFIC NOTES:

PROPERTY LINE INFORMATION IS COMPILED FROM ASSESSORS PLAN AND RECORD DOCUMENTS AND IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD BOUNDARY SURVEY, AND IS SUBJECT TO CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE. A FULL BOUNDARY SURVEY WAS NOT PERFORMED.

LEGEND

PROPERTY LINE - SUBJECT PARCEL

ABUTTERS PROPERTY LINE EXISTING CONTOUR LINE

TREE LINE

EXISTING BARBED WIRE FENCE REMAINS

OVERHEAD WIRE (TRANSMISSION LINE)

EXISTING CHAIN LINK FENCE

PROPOSED CONSTRUCTION SILT SOCK

EXISTING BUILDING

-

-0

HH

EXISTING STONEWALL

EXISTING UTILITY POLE

PROPOSED UTILITY POLE

PROPOSED GUY ANCHOR

PROPOSED SECTOR CABINET

PROPOSED PAD MOUNTED TRANSFORMER

PROPOSED HANDHOLE





OF NEW HAVE HAMM **1/**1013

CHECKED BY:

APPROVED BY:

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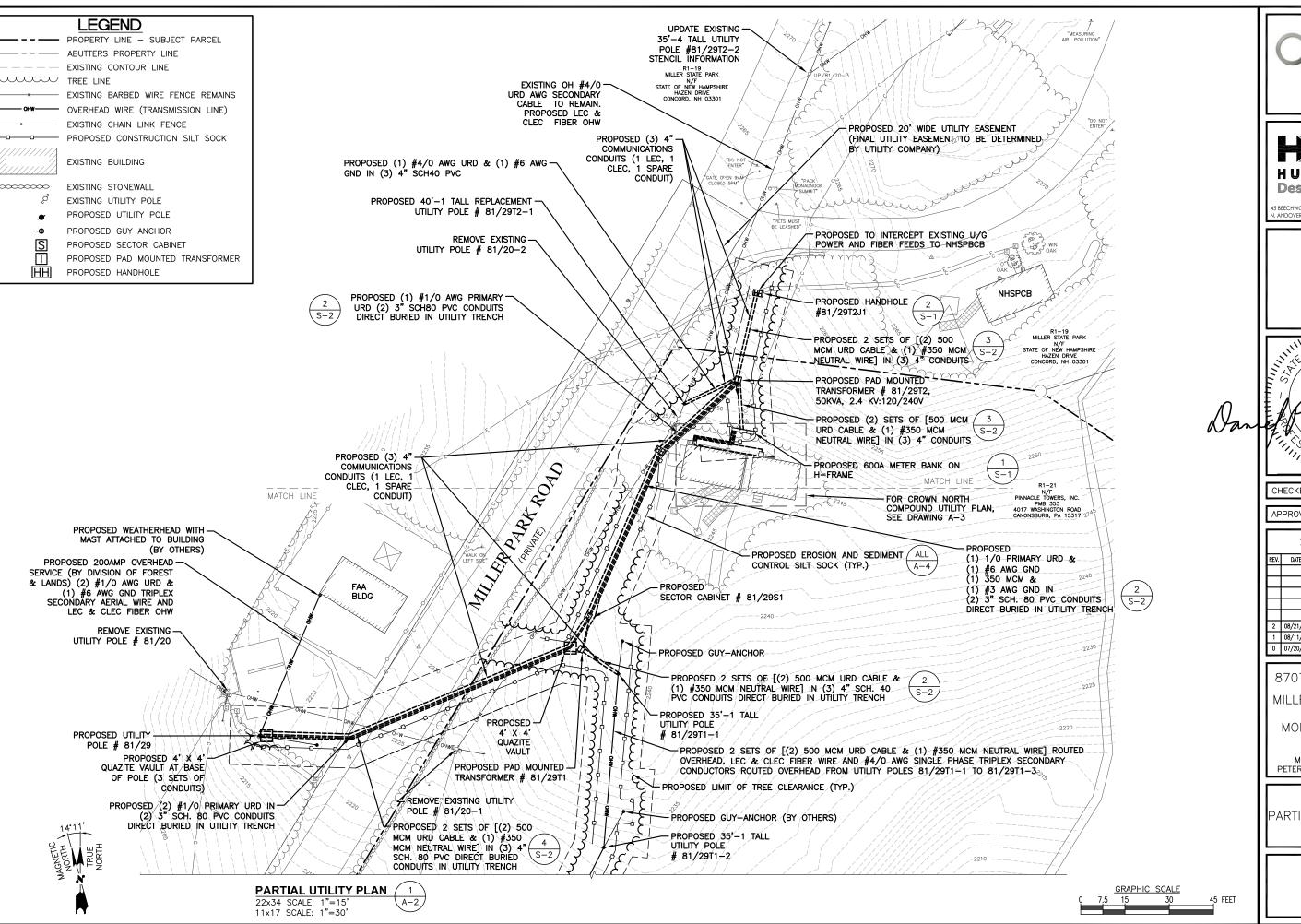
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1	08/11/20	ISSUED FOR CONSTRUCTION	SG			
0	07/20/20	ISSUED FOR SUBMITTAL	SB			

870731 & 871153 MILLER STATE PARK - PACK MONADNOCK MTN TEMPLE SITE ADDRESS:
MILLER PARK ROAD
PETERBOROUGH, NH 03458

SHEET TITLE

PARTIAL UTILITY PLAN







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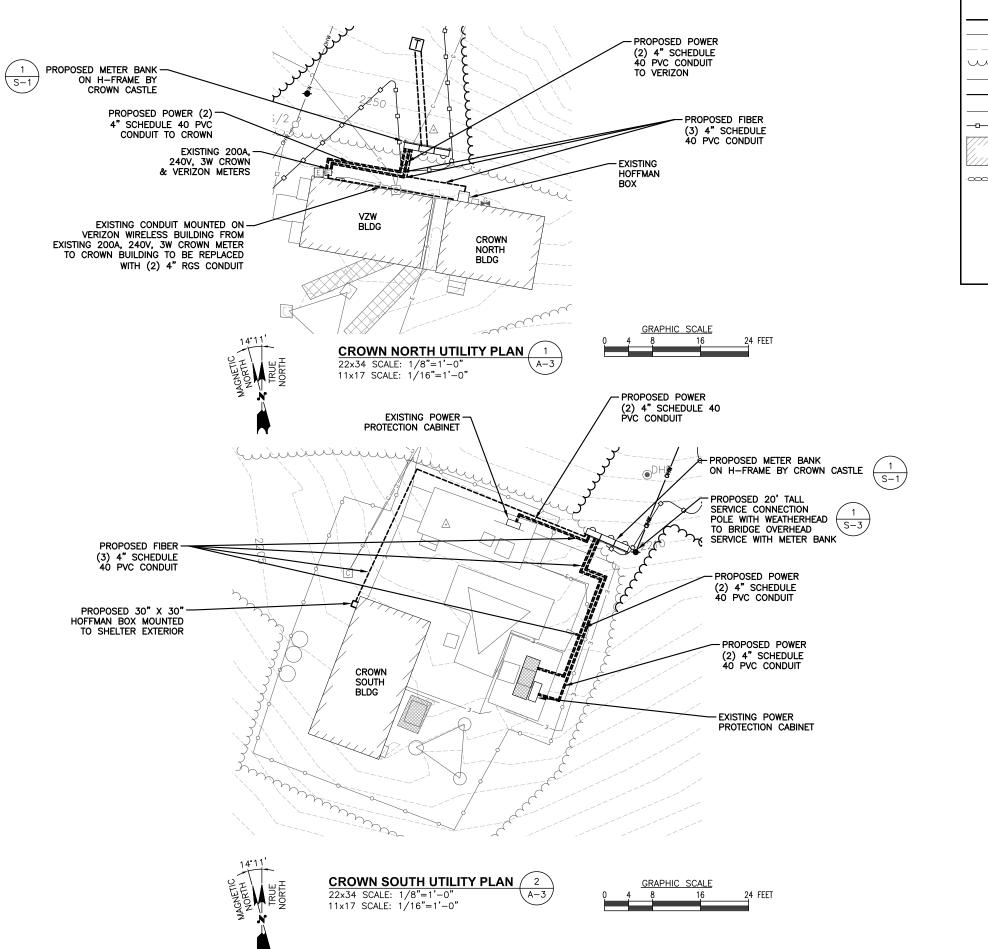
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	0	07/20/20	ISSUED FOR SUBMITTAL	SB		
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SITE NUMBER 870731 & 871153 MILLER STATE PARK - PACK MONADNOCK MTN TEMPLE SITE ADDRESS: MILLER PARK ROAD PETERBOROUGH, NH 03458

SHEET TITLE

PARTIAL UTILITY PLAN

SHEET NUMBER



LEGEND

PROPERTY LINE - SUBJECT PARCEL

— — — ABUTTERS PROPERTY LINE
— — — EXISTING CONTOUR LINE

TREE LINE

- EXISTING BARBED WIRE FENCE REMAINS

OVERHEAD WIRE (TRANSMISSION LINE)

EXISTING CHAIN LINK FENCE

PROPOSED CONSTRUCTION SILT SOCK

EXISTING BUILDING

EXISTING STONEWALL

EXISTING UTILITY POLE PROPOSED UTILITY POLE

PROPOSED GUY ANCHOR

PROPOSED SECTOR CABINET
PROPOSED PAD MOUNTED TRANSFORMER

PROPOSED HANDHOLE

PROPOSED HANDHOLE

CROWN CASTLE

12 GILL STREET, SUITE 5800



VER, MA 01845 FAX: (978) 336-558

DANIEL P.
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OF NEW HAMOS
P.
HAMM
NO. 11013

CHECKED BY:

APPROVED BY:

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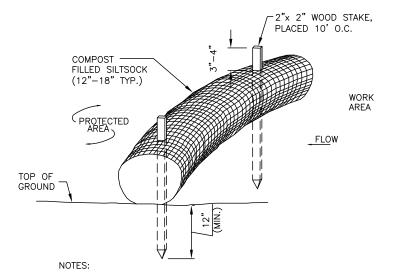
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SITE NUMBER:
870731 & 871153
SITE NAME:
MILLER STATE PARK
— PACK
MONADNOCK MTN
— TEMPLE
SITE ADDRESS:
MILLER PARK ROAD
PETERBOROUGH, NH 03458

CROWN COMPOUND UTILITY PLANS

SHEET NUMB

A-3



- 1. SILTSOCK SHALL BE FILTREXX SILTSOXX, OR APPROVED EQUAL.
- 2. COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED
- 3. SILTSOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
- 4. SEE SPECIFICATIONS FOR SOCK SIZE, AND COMPOST FILL, REQUIREMENTS.



GENERAL CONSTRUCTION SEQUENCE:

THIS IS A GENERAL CONSTRUCTION SEQUENCE OUTLINE SOME ITEMS OF WHICH MAY NOT APPLY TO PARTICULAR SITES.

- 1) CLEAR AND GRUB AREAS OF PROPOSED CONSTRUCTION.
- INSTALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES AS REQUIRED.
- 3) REMOVE AND STOCKPILE TOPSOIL. STOCKPILE SHALL BE SEEDED TO PREVENT EROSION.
- 4) CONSTRUCT CLOSED DRAINAGE SYSTEM. PROTECT CULVERT INLETS AND CATCH BASINS WITH SEDIMENTATION BARRIERS.
- 5) CONSTRUCT ROADWAYS AND PERFORM SITE GRADING, PLACING HAY BALES AND SILTATION FENCES AS REQUIRED TO CONTROL SOIL EROSION.
- 6) INSTALL UNDERGROUND UTILITIES.
- 7) BEGIN TEMPORARY AND PERMANENT SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED OR MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION. NO AREA SHALL BE LEFT UNSTABILIZED FOR A TIME PERIOD OF MORE THAN 30 DAYS.
- 8) DAILY, OR AS REQUIRED, CONSTRUCT, INSPECT, AND IF NECESSARY, RECONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES AND SEDIMENT TRAPS INCLUDING MULCHING AND SEEDING.
- 9) BEGIN EXCAVATION FOR AND CONSTRUCTION OF TOWERS AND PLATFORMS
- 10) FINISH PAVING ALL ROADWAYS, DRIVES, AND PARKING AREAS.
- 11) COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- 12) NO STORM WATER FLOW SHALL BE DIVERTED TO ANY WETLANDS UNTIL A HEALTHY STAND OF GRASS HAS BEEN ESTABLISHED IN REGRADED AREAS.
- 13) AFTER GRASS HAS BEEN FULLY GERMINATED IN ALL SEEDED AREAS, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

EROSION CONTROL MEASURES:

- 1) DISTURBED AREAS SHALL BE KEPT TO THE MINIMUM AREA NECESSARY TO CONSTRUCT THE ROADWAYS AND ASSOCIATED DRAINAGE FACILITIES.
- 2) HAY BALE BARRIERS AND SEDIMENT TRAPS SHALL BE INSTALLED AS REQUIRED. BARRIERS AND TRAPS ARE TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE A HEALTHY STAND OF GRASS.
- 3) BALED HAY AND MULCH SHALL BE MOWINGS OF ACCEPTABLE HERBACEOUS GROWTH, FREE FROM NOXIOUS WEEDS OR WOODY STEMS, AND SHALL BE DRY. NO SALT HAY SHALL BE USED.
- FILL MATERIAL SHALL BE FREE FROM STUMPS, WOOD, ROOTS, ETC.
- 5) STOCKPILED MATERIALS SHALL BE PLACED IN AREAS SHOWN ON THE PLANS. STOCKPILES SHALL BE PROTECTED BY SILTATION FENCE AND SEEDED TO PREVENT EROSION. THESE MEASURES SHALL REMAIN UNTIL ALL MATERIAL HAS BEEN PLACED OR DISPOSED OFF SITE.
- 6) ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED. A MINIMUM OF 4 INCHES OF LOAM SHALL BE INSTALLED WITH NOT LESS THAN ONE POUND OF SEED PER 50 SQUARE YARDS OF AREA.
- 7) APPLICATION OF GRASS SEED, FERTILIZERS AND MULCH SHALL BE ACCOMPLISHED BY BROADCAST SEEDING OR HYDROSEEDING AT THE RATES OUTLINED BELOW:

LIMESTONE:75-100 LBS./1,000 SQUARE FEET.
FERTILIZER:RATE RECOMMENDED BY MANUFACTURER.

MULCH: HAY MULCH APPROXIMATELY 3 TONS/ACRE UNLESS EROSION CONTROL MATTING IS USED.

SEED MIX (SLOPES LESS THAN 4:1) LBS./ACRE

CREEPING RED FESCUE	20
TALL FESCUE	20
REDTOP	2
	42
SLOPE MIX (SLOPES GREATER THAN 4:1)	LBS./ACRE
CREEPING RED FESCUE	20
TALL FESCUE	20
BIRDSFOOT TREEFOIL	8
	48

TREATMENT SWALE PLANTING SPECIFICATIONS

TALL FESCUE 20 LBS/ACRE OR 0.45 LBS/10,000 SF CREEPING RED FESCUE 20 LBS/ACRE OR 0.45 LBS/10,000 SF BIRDSFOOT TREFOIL 8 LBS/ACRE OR 0.20 LBS/10,000 SF

LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT TIME OF SEEDING AND INCORPORATED INTO THE SOIL. THE FOLLOWING RATES ARE RECOMMENDED:

AGRICULTURAL LIMESTONE 2 TONS/ACRE OR 1.00 LBS/1,000 SF NITROGEN (N) 50 LBS/ACRE OR 1.1 LBS/10,000 SF PHOSPHATE (P205) 100 LBS/ACRE OR 2.2 LBS/10,000 SF POTASH (K20) 100 LBS/ACRE OR 2.2 LBS/10,000 SF (THIS IS EQUIVALENT TO 500 LBS/ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS/ACRE OF 5-10-10).

- 8) AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED.
- 9) PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- 10) ALL CATCH BASIN INLETS WILL BE PROTECTED WITH LOW POINT SEDIMENTATION BARRIER.
- 11) ALL STORM DRAINAGE OUTLETS WILL BE STABILIZE AND CLEANED AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
- 12) ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA.
- 13) NO DISCHARGE SHALL BE DIRECTED TOWARDS ANY PROPOSED DITCHES, SWALES, OR PONDS UNTIL THEY HAVE BEEN PROPERLY STABILIZED.





DANIEL P.
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NO. 1/1013

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OF NEW HAMPONIA

P.
HAMM
NO. 1/1013

CHECKED BY: BB

APPROVED BY: DPH

SITE NUMBER:

870731 & 871153

SITE NAME:

MILLER STATE PARK

— PACK

MONADNOCK MTN

— TEMPLE

SITE ADDRESS:

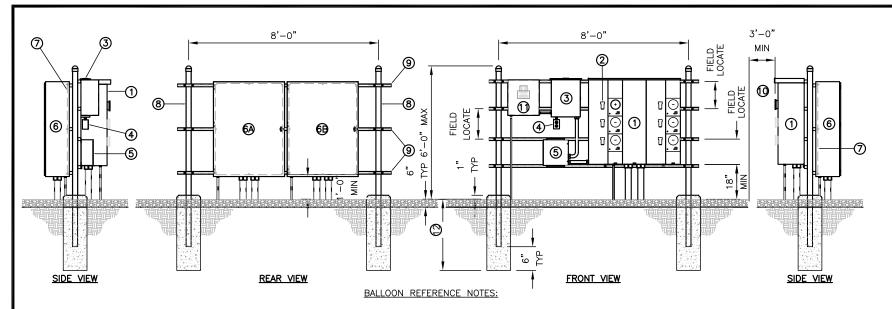
MILLER PARK ROAD

PETERBOROUGH, NH 03458

EROSION CONTROL AND NOTES

SHEET NUMBER

A-4



① 600A (SEE NOTE 2), 120/240V, 1 PHASE, 3 WIRE, 6 POSITION METERING

(200A MAX CIRCUIT BREAKER) (SQUARE D METER PAK MPR86200, OR EQUAL) (200A MAX CIRCUIT BREAKER) (SQUARE D METER PAK MPR86200, OR EQUAL 125A TENANT SERVICE DISCONNECT (SQUARE D CATALOG #QOM2125MVH, OR EQUAL)

 $Q_{3.}$ 125A 120/240V 1 PHASE, 3 WIRE, 12 POSITION LOAD CENTER (SQUARE D QO LOAD CENTER #QO112L125GRB, OR APPROVED EQUAL)

120/240V 1-GANG COMMERCIAL GRADE OUTDOOR ELECTRICAL BOX W/ 20A COMMERCIAL GRADE DUPLEX RECEPTACLE

120/240V, 1 PHASE, 3 WIRE TRANSIENT VOLTAGE SURGE SUPPRESSER (SQUARE D CATALOG # TVS1EBA16A, OR APPROVED EQUAL)

SINGLE DOOR TELCO ENCLOSURE (HOFFMAN CATALOG #CSD483612, OR

APPROVED EQUAL)

A. LABELED LEC (LOCAL EXCHANGE CARRIER)

B. LABELED CLEC (COMPETITIVE LOCAL EXCHANGE CARRIER)

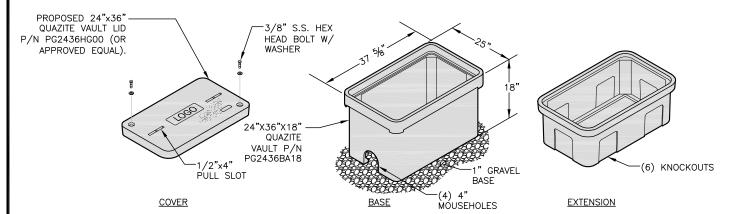
MINIMUM 1-1/4" X 6" PT BOARDS

3" NOMINAL GALVANIZED STEEL PIPE WITH PIPE CAP

HORIZONTAL SUPPORT MEMBER (UNISTRUT P1000, OR APPROVED EQUAL)

- HORIZONTAL SUPPORT MEMBER (UNISTRUT P1000, OR APPROVED EQUAL 10. CONTRACTOR TO MAINTAIN 3'-0" MINIMUM CLEARANCE FROM METERING CENTER TO NEAREST OBSTRUCTION
- 11. TOWER LIGHTING CONTROLLER (TWR LIGHTING, INC MODEL LK1E1DBL, OR O APPROVED EQUAL) (IF REQUIRED)
- 12. 3'-0" OR 6" BELOW FROST DEPTH, WHICHEVER IS GREATER





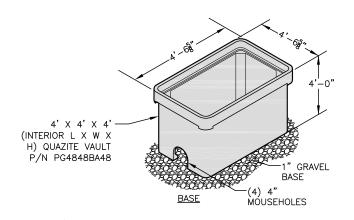
- NOTES:

 1. THIS INFORMATION MAY NOT CONTAIN ALL DETAILS REQUIRED FOR CONSTRUCTION. APPROPRIATE MODIFICATION MAY BE REQUIRED TO ENSURE SUITABILITY OF THESE DRAWINGS FOR THE SPECIFIC APPLICATION. SEE SPECIFICATION PROVIDED BY ELECTRICAL DESIGNER FOR FURTHER DETAIL AND INSTALLATION.
- PROVIDE STANDARD HANDHOLE. COVER COLOR SHALL BE AS SPECIFIED
- PROVIDE 25mm (1") X 10mm (3/8") BELL PULL SLOT FOR EACH
- COVER, RING AND BOX SHALL BE MADE OF SAME MATERIAL
- PROVIDE IMPRINTED LOGO TO MATCH.

FOR TELCO & POWER (IF NEEDED)



- NORTH AND SOUTH CROWN COMPOUNDS EACH HAVE (3) PROPOSED METERS (ONE CROWN, ONE VERIZON, ONE SPARE METER) ON A PROPOSED (6) GANG METER BANK.
- 2. IF AN 800A METER BANK IS DESIRED, THEN 3 SETS OF [(2) 500MCM & 350MCM NEUTRAL] IS REQUIRED (INSTEAD OF 2 SETS) WITH ONE OF THOSE 3 SETS BEING UTILIZED IN THE SPARE CONDUIT PER NEC CONDUIT FILL LIMITS.

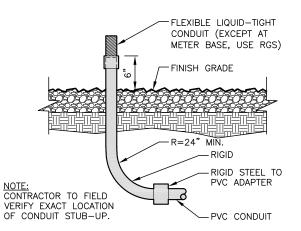


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- PROVIDE STANDARD VAULT. COVER COLOR SHALL BE AS SPECIFIED BY
- PROVIDE 25mm (1") X 10mm (3/8") BELL PULL SLOT FOR EACH VAULT. COVER, RING AND BOX SHALL BE MADE OF SAME MATERIAL.
- PROVIDE IMPRINTED LOGO TO MATCH.

FOR TELCO & POWER (IF NEEDED)





CONDUIT STUB-UP SCALE: N.T.S







CHECKED BY:

APPROVED BY:

SUBMITTALS DESCRIPTION 2 08/21/20 CONSTRUCTION REVISED 1 08/11/20 ISSUED FOR CONSTRUCTION SG

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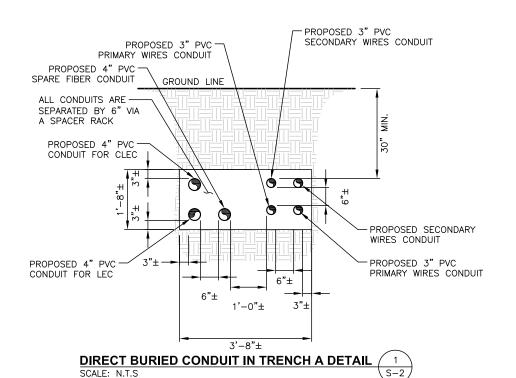
870731 & 871153 MILLER STATE PARK - PACK MONADNOCK MTN - TEMPLE SITE ADDRESS: MILLER PARK ROAD PETERBOROUGH, NH 03458

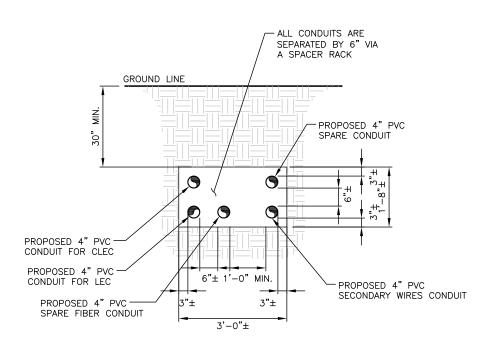
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SHEET TITLE

SITE DETAILS

SHEET NUMBER





DIRECT BURIED CONDUIT IN TRENCH C DETAIL

SCALE: N.T.S

S-

ALL CONDUITS ARE
SEPARATED BY 6" VIA
A SPACER RACK
PROPOSED 4" PVC
CONDUIT FOR CLEC

GROUND LINE

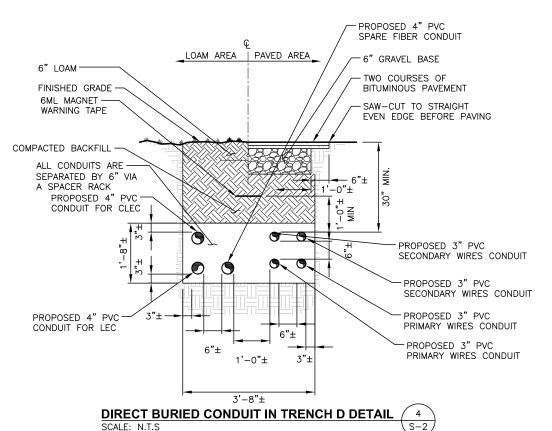
PROPOSED 4" PVC
CONDUIT FOR CLEC

PROPOSED 3" PVC PRIMARY
WIRES CONDUIT (TYP.)

DIRECT BURIED CONDUIT IN TRENCH B DETAIL

SCALE: N.T.S

S-2



NOTES:

- ALL EVERSOURCE PRIMARY AND SECONDARY CONDUITS ARE 3" DIA. WITH 6" HORIZONTAL AND VERTICAL SEPARATION BETWEEN CONDUITS SEPARATED BY A SPACER RACK
- 12" MIN. SEPARATION BETWEEN SPARE CONDUIT CONTAINING FIBER LINES AND PRIMARY/SECONDARY POWER CONDUITS. (3) 4" MIN CONDUITS REQUIRED PER CROWN SECONDARY SECTIONS IN DUCT BANK C. 6" MIN. SEPARATION REQUIRED BETWEEN SECONDARY POWER CONDUITS SEPARATED BY A SPACER RACK.
- ALL TELECOMMUNICATION FIBER CONDUITS
 ARE 4" C AND ARE SEPERATED 6" MIN. BY
 A SPACER RACK.
- FOR CONDUIT SCHEDULE, SEE A-1 AND A-2 PLANS



CROWN CASTLE 12 GILL STREET, SUITE 5800 WOBURN, MA 01801



BEECHWOOD DRIVE T ANDOVER MA 01845 F

DANIEL P.
HAMM
N.P. 11013
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CHECKED BY:

APPROVED BY:

/ED BY: DPH

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SITE NUMBER:
870731 & 871153

SITE NAME:
MILLER STATE PARK

— PACK

MONADNOCK MTN

— TEMPLE

SITE ADDRESS:
MILLER PARK ROAD
PETERBOROUGH, NH 03458

SHEET TITLE

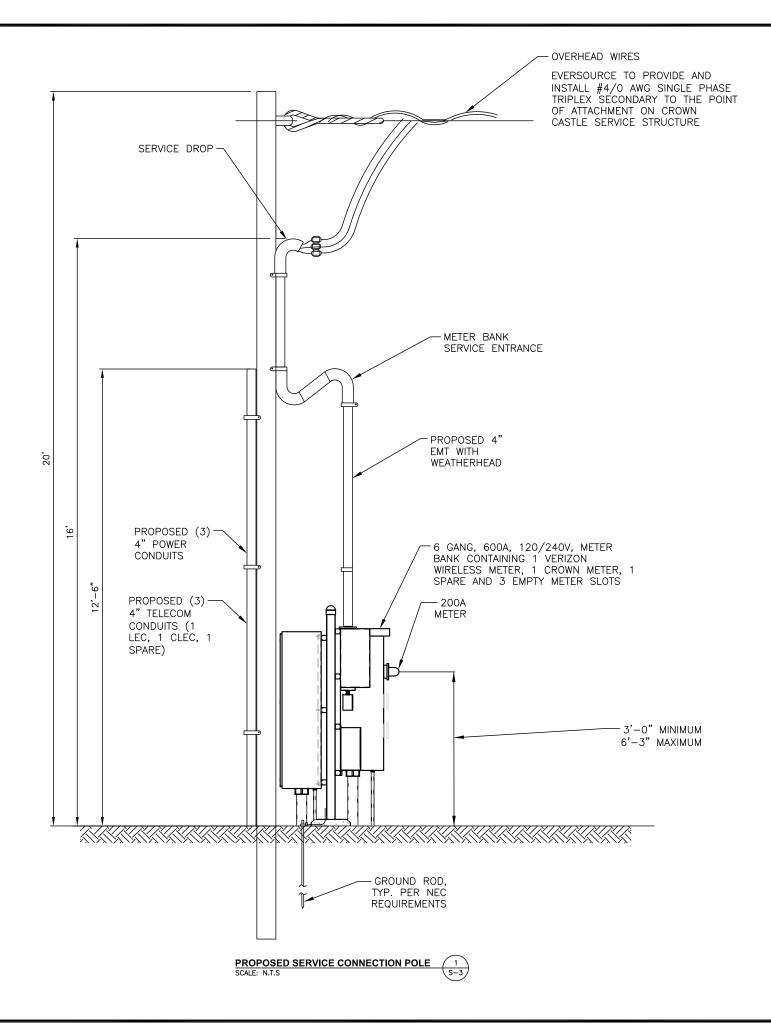
DUCT BANK DETAILS

SHEET NUMBER

S-2

SERVICE POLE AND POINT OF ATTACHMENT TO BE PROVIDED AND INSTALLED BY CROWN CASTLE

CONDUIT RISER IS CUSTOMER OWNED. CUSTOMER TO SUPPLY AND INSTALL NEC RATED CONDUCTORS FROM THE METER PAK TERMINATION LUGS TO THE WEATHERHEAD LOCATION. CUSTOMER TO LEAVE SUFFICIENT CONDUCTOR TAILS AT THE WEATHERHEAD TO ALLOW THE REQUIRED DRIP LOOP AND TERMINATION TO THE EVERSOURCE PROVIDED SERVICE TRIPLEX. DO NOT INSTALL CONDUCTORS TO THE WEATHERHEAD GREATER THAN 500 MCM.



NOTES:

- DISTANCE FROM THE CENTERLINE OF THE PERISCOPE SERVICE MAST TO THE POLE FACE MUST NOT EXCEED 24 INCHES.
- METER BANK MUST NOT OBSTRUCT THE CLIMBING SPACE OF THE SERVICE POLE.
- 3. THE WORKING SPACE IN FRONT OF THE METER MUST NOT BE OBSTRUCTED.
- 4. ANCHOR STRUCTURE USING (4) STEEL STAKES HAVING STRENGTH EQUIVALENT TO A 1 RIGID STEEL PIPE DRIVEN MINIMUM 24" INTO THE GROUND AND ATTACHED FRAMEWORK OF THE STRUCTURE USING 1 MINIMUM BOLTS OR LAG SCREWS.
- 5. TO BRACE PERISCOPE MAST, (2)
 GALVANIZED STEEL BRACES, SECURELY
 BOLTED OR LAGGED TO THE STRUCTURE'S
 FRAMEWORK WITH APPROXIMATELY 90'
 SPREAD MUST BE INSTALLED. USE MINIMUM
 SIZE OF \$\frac{1}{4}\text{"} GALVANIZED RIGID STEEL PIPE
 OR 1-1/4" X 1-1/4" X \$\frac{1}{4}\text{"} GALVANIZED
 STEEL ANGLE.



12 GILL STREET, SUITE 5800 WORLINN MA 01801



BEECHWOOD DRIVE

FAX: (978) 336-5586

DANIEL
P.
HAMM
NO. 11013
CENSENG

CHECKED BY:

APPROVED BY:

D BY: DPH

870731 & 871153

SITE NAME:

MILLER STATE PARK

- PACK

MONADNOCK MTN

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SITE ADDRESS:

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PETERBOROUGH, NH 03458

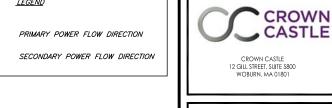
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SERVICE CONNECTION POLE DETAIL

SHEET NUMBE

S-3







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CHECKED BY:

APPROVED BY:

SUBMITTALS DESCRIPTION 2 08/21/20 CONSTRUCTION REVISED 1 08/11/20 ISSUED FOR CONSTRUCTION SG

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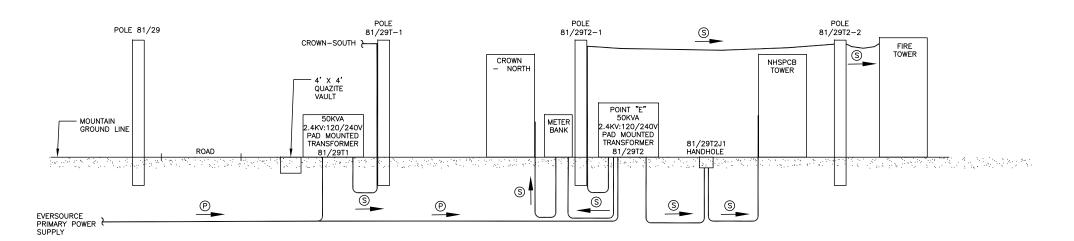
870731 & 871153 SITE NAME: MILLER STATE PARK - PACK MONADNOCK MTN - TEMPLE SITE ADDRESS:
MILLER PARK ROAD
PETERBOROUGH, NH 03458

ELECTICAL ONE LINE DIAGRAM

> SHEET NUMBER E-1

POLE 81/29T1-3 POLE 81/29T1-1 POLE 81/29T1-2 POLE 81/29 CROWN - SOUTH FAA BLDG 20' TALL SERVICE CONNECTION POLE <u>\$</u> <u>S</u> - 4' X 4' QUAZITE VAULT 50KVA PAD MOUNTED TRANSFORMER METER BANK SECTOR CABINET S - MOUNTAIN GROUND LINE 81/29T1 (S) \odot <u>S</u> EVERSOURCE PRIMARY POWER SUPPLY — 24" MINIMUM BEND RADIUS, TYP. FOR ALL BENDS

PROPOSED DESIGN ONE-LINE PROFILE VIEW 1



PROPOSED DESIGN ONE-LINE PROFILE VIEW 2

STATE OF NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

DE 20-115

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE d/b/a EVERSOURCE ENERGY

Petition for License to Construct and Maintain Electric Lines Over and Across Lands Owned by the State of New Hampshire in Peterborough and Temple in Miller State Park

Order Nisi Granting License

ORDERNO.26,465

March 31, 2021

This order grants Eversource a license to modify, reconstruct, maintain, and operate an existing electric distribution line that crosses over land owned by the State of New Hampshire in Miller State Park in Peterborough and Temple. This order is being issued on a *nisi* basis to ensure that interested persons receive notice and have an opportunity to comment or request a hearing before the order becomes effective.

I. PROCEDURAL HISTORY

On July 22, 2020, Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource, or the Company) filed a petition pursuant to RSA 371:17 for a license to modify, reconstruct, operate, and maintain an existing overhead and surface mounted 4 kilovolt (kV) electric distribution line, designated as the Eversource 3155x9 circuit (3155x9 Circuit), over and across six parcels of state-owned land in Peterborough and Temple, New Hampshire. In support of its petition, the Company submitted an overview map and plan and profile drawings. On October 6, 2020, the Company filed a supplemental petition with attachments; on January 5,

2021, the Company filed a replacement petition; and on February 25, 2021, the Company filed a second replacement petition.

On March 24, 2021, Commission Staff (Staff) recommended that the petition be granted. The petition and subsequent docket filings, other than any information for which confidential treatment is requested of or granted by the Commission, are posted on the Commission's website at https://www.puc.nh.gov/Regulatory/Docketbk/2020/20-115.html.

II. SUMMARY OF REQUEST

Eversource previously constructed and currently operates and maintains an existing overhead and surface-mounted 4 kV electric distribution line, the 3155x9 Circuit, over and across six parcels of state-owned land encompassing Miller State Park in Peterborough and Temple, New Hampshire. The Company is commencing a project to rebuild the infrastructure on the existing 3155x9 Circuit to update the line to meet current code requirements and to continue to meet current and projected future electricity demand. The Company plans to replace 30 existing pole structures on state land along the 3155x9 Circuit and to remove the conductor located within a section of existing surface-mounted conduit on the upper portion of Pack Monadnock Mountain. The petition seeks a license for the pole and conduit work that is proposed to be conducted within the state land parcels that include Miller State Park.

A. History

The existing crossings over six parcels of land owned by the State of New Hampshire in Peterborough and Temple along the 3155x9 Circuit were previously installed by Greenville Electric Lighting Company and not licensed for reasons unknown to Eversource. The existing overhead portions of the 3155x9 Circuit are believed to have been constructed circa 1927, and the portions located on the ground in conduit pre-date 1972. According to Eversource, the existing pole structures have been subject to environmental damage and require replacement for

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the circuit to continue to function safely, reliably, and in compliance with the National Electrical Safety Code (NESC) standards. Eversource seeks a license at this time for the modification of crossings that are located within Miller State Park.

B. Crossing Locations and Construction

The locations of the structures are depicted in the petition, creating crossing spans over and across six parcels of state-owned land, as shown in Exhibits 0 through 11. The total length of spans between the 30 new structures will be 5,565.5 feet with 5,106.1 feet crossing state land.

Three of the 30 new poles to be installed on state land are located within the NH Department of Transportation (DOT) right-of-way (poles 81/10, 81/12, and 81/13X) and therefore do not require a license under the current petition. Twenty-seven of the new poles will be installed on state land within Miller State Park and therefore subject to a license; 4 of those new poles will be steel structures; the remaining 23 poles will be wood.

Of the currently existing 19 wood poles on state land, 10 will be replaced in kind with new wooden poles. Four of the existing poles (81/5, 81/6, 81/7 and 81/8) will be replaced with weathered steel structures. Five of the existing poles will be eliminated. On the upper portion of the mountain where the conductor is located within surface mounted conduit, an additional 16 new wood poles will be installed to replace the ground-mounted conduit as part of the circuit modification project. The existing neutral wire and conductor will be removed and replaced on each of the structures included in this petition.

In addition to the reconstruction of the entire 3155x9 Circuit as described in the preceding paragraph, the petition seeks to license existing underground conduit, which will be unchanged by the reconstruction project. Exhibit 11 depicts the location of two existing underground conduits that run from Handhole 81/29 T2J2 to two separate meters located on the

side of the State Police Communications Building, depicted as "1 Sty. Brick Building" on that exhibit. The two underground conduits are located within the DOT right-of-way except for the final 2 and 3 feet, respectively, before they connect to the meters. Those 5 feet of existing underground conduit are included in the summary schedule of state land crossings at Exhibit 0 and in the total calculation under Note 4 on that exhibit.

The Company also seeks to license the replacement of an existing overhead secondary service cable span running from pole 81/29 T2-2 to the DES Building, with an underground secondary service running to the DES Building, the final 40 feet of which is located outside the DOT right-of-way on state-owned land, as depicted on Exhibit 11.

The Company also seeks a license for an underground conductor that will extend from pole 81/13 to the MIT building, crossing 22 feet of state land in existing conduit, as depicted on Exhibit 5.

The Company also seeks to license an existing conductor with the specifications noted on the Exhibit 0 cable schedule that extends from pole 81/13 to pole 81/13X, crossing 81 feet of state land, as depicted on Exhibit 4A.

The proposed line modifications on the 3155x9 Circuit are designed and will be constructed in compliance with the 2012 National Electrical Safety Code, as required by New Hampshire Code of Administrative Rules, Puc 306.01.

C. Regulatory Requirements

Eversource stated that a DES statutory permit by notification (SPN) is required for temporary impacts to non-tidal wetlands and has been obtained for temporary impacts in proximity to Structures 81/3 and 81/5. The SPN was approved by DES on April 27, 2020 (see NHDES File #2020-00867).

Eversource stated that it has obtained the necessary licenses and permits from DOT to construct and maintain the required underground installation of the 3155x9 Circuit on the upper portion of Pack Monadnock Mountain in Miller State Park.

Exhibit 0 provides an overview of the 3155x9 Circuit crossings over the state land parcels within a new utility corridor area that was authorized by the New Hampshire Division of Natural and Cultural Resources (DNCR) pursuant to a Use and Occupancy License approved by the Governor and Executive Council on August 26, 2020. The new utility corridor will be 16 feet wide from the boundary of Miller State Park at the northern boundary of the Route 101 right-of-way to the MIT building (depicted on Exhibits 4 and 5), and 20 feet wide from the MIT building to the summit termination point. The exhibits also depict construction access routes that will be authorized by DNCR through the Division of Parks and Recreation and the Division of Forests and Lands, pursuant to a Special Use Permit, which Eversource will obtain prior to commencement of the 3155x9 Circuit project.

D. Property Rights

Eversource represented that no abutters to the state-owned land crossings will be affected by the petition, as the closest abutters outside Miller State Park are considerably distant from the new license area, which falls within the park, with the exception of Pinnacle Towers Inc., which owns a parcel of land at the summit and whose infrastructure located on that parcel will be served by the upgraded circuit. The Nature Conservancy also owns property in close proximity to the utility corridor. According to the petition, a representative from The Nature Conservancy participated in the initial design of the project.

E. Service to the Public and Effect on Public Rights

According to Eversource, the existing crossings were constructed and have been operated and maintained to meet the reasonable requirements of service to the public, and the proposed

modifications will ensure that the 3155x9 Circuit will continue to meet that public need. Eversource stated that the modifications will not substantially affect the public's use and enjoyment of the state-owned land in Peterborough and Temple.

Due to the number of active community users of Miller State Park, Eversource held several public information sessions in conjunction with representatives of DNCR, DOT, the Commission's Safety Division, Consolidated Communications, and FirstLight Fiber.

III. SUMMARY OF STAFF REVIEW

Staff reviewed the petition and supporting documentation, applicable statutes, rules, NESC requirements, and land ownership, and assessed the public need, safety, and potential impact of the requested license. Staff determined that the proposed construction meets the requirements of the NESC and applicable state statutes and rules. Based on its review, Staff concluded that the license requested in this docket may be exercised without substantially affecting public rights in the identified state land in Peterborough and Temple. Accordingly, Staff recommended approval of the petition.

IV. COMMISSION ANALYSIS

"Whenever it is necessary, in order to meet the reasonable requirements of service to the public, that any public utility should construct a pipeline, cable, or conduit, or a line of poles or towers and wires and fixtures thereon, over, under or across any of the public waters of this state, or over, under or across any of the land owned by this state, it shall petition the commission for a license to construct and maintain the same." RSA 371:17 (Supp. 2020). The Commission is authorized to grant such a license if it "may be exercised without substantially affecting the public rights in said waters or lands." RSA 371:20.

Based on the petition and Staff's recommendation, we find that the proposed crossings are necessary to meet the reasonable requirements of reliable service to the public, as required

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by RSA 371:17. We further find that the requested license may be exercised without substantially affecting public rights in the state-owned land in Peterborough and Temple, as required for approval under RSA 371:20. We therefore approve the petition subject to the conditions set forth in the ordering clauses below. We issue our decision on a *nisi* basis to provide interested persons the opportunity to submit comments or request a hearing.

This approval applies only to the lines and structures specified in this docket. Should Eversource seek further modifications, it must make the appropriate filing. Eversource is responsible for obtaining any and all federal, state, or local permits required by authorities having jurisdiction for the construction and installation of the proposed crossings.

We require notice to be provided to the Towns of Peterborough and Temple, DES, DOT, DNCR, and, pursuant to RSA 371:19, the Office of the Attorney General.

Based upon the foregoing, it is hereby

ORDERED *NISI*, that, subject to the effective date below, Eversource is authorized, pursuant to RSA 371:17, *et seq.*, to construct, modify, install, operate, and maintain electric lines over and across public land owned by the State of New Hampshire in Peterborough and Temple, as described in its petition and depicted in its filings, and as specified in Staff's recommendation; and it is

FURTHER ORDERED, that approval is limited to the lines and supporting structures under consideration in this docket, and is conditioned on the requirement that Eversource construct, operate, maintain, and, if necessary, alter the lines and supporting structures consistent with the provisions of the National Electrical Safety Code, in accordance with N.H. Admin. R., Puc 306.01, *et seq.*, as may apply, and as amended from time-to-time, and all other applicable safety standards in existence at that time; and it is

FURTHER ORDERED, that Eversource shall submit any future proposed alterations to the crossing license granted herein at least 60 days prior to undertaking any such alterations; and it is

FURTHER ORDERED, that Eversource shall provide a copy of this order to: (i) the Town Clerks of Peterborough and Temple, New Hampshire; (ii) the New Hampshire Department of Environmental Services; (iii) the New Hampshire Department of Transportation; (iv) the New Hampshire Department of Natural and Cultural Resources; and (v) the New Hampshire Attorney General, as required by RSA 371:19, by overnight delivery for receipt no later than April 5, 2021, to be documented by affidavit filed with the Commission on or before April 13, 2021; and it is

FURTHER ORDERED, that Eversource shall cause a copy of this order *nisi* to be published on its website within one business day of this order, such publication to be documented by affidavit filed with the Commission on or before April 13, 2021; and it is

FURTHER ORDERED, that the Executive Director of the Commission shall cause a copy of this order *nisi* to be published on the Commission's website within one business day; and it is

FURTHER ORDERED, that persons interested in responding to this order be notified that they may submit their comments or file a written request for a hearing that states the reason and basis for a hearing no later than April 12, 2021, for the Commission's consideration; and it is

FURTHER ORDERED, that any party interested in responding to such comments or request for hearing shall do so no later than April 14, 2021; and it is

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FURTHER ORDERED, that this order shall be effective April 15, 2021, unless Eversource fails to satisfy the notice and publication obligations set forth above or the Commission provides otherwise in a supplemental order issued prior to the effective date.

By order of the Public Utilities Commission of New Hampshire this thirty-first day of March, 2021.

Dianne Martin

Chairwoman

Kathryn M. Bailey

Commissioner

Attested by:

Debra A. Howland Executive Director

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Service List-Docket Related

Docket#: 20-115

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