



**US Army Corps
of Engineers®**
New England District
696 Virginia Road
Concord, MA 01742-2751

PUBLIC NOTICE

Comment Period Begins: June 4, 2019
Comment Period Ends: July 3, 2019
File Number: NAE-2016-00505
In Reply Refer To: Alex Kostra
Phone: (978) 318-8651
E-mail: alexander.a.kostr@usace.army.mil

The District Engineer has received a permit application to conduct work in waters of the United States from Clear River Energy, LLC, One South Wacker Drive, Suite 1800, Chicago, Illinois 60606; and The Narragansett Electric Company d/b/a/ National Grid (TNEC), 40 Sylvan Road, Waltham, MA 02451. This work is proposed in various waters and wetlands in which the mainstay of the project is located south of Wallum Lake Road (State Route 100) in Burrillville, Rhode Island, at approximate coordinates Latitude 41.965543° Longitude - 71.753296°. The proposed project is described as follows:

Clear River Energy, LLC, a project company of Invenergy Thermal Development, LLC (Invenergy), and The Narragansett Electric Company d/b/a National Grid (TNEC), have jointly submitted a permit application to the U.S. Army Corps of Engineers, New England District (Corps), pursuant to Section 404 of the Clean Water Act. The proposed project would consist of two major components, the Clear River Energy Center and the Burrillville Interconnection Project. More specifically, the application proposes to construct an electric generating facility known as the Clear River Energy Center (CREC); construct a dedicated 345 kilovolt ("kV") transmission line interconnection known as the Burrillville Interconnection Project (BIP); and upgrade an existing substation known as the Sherman Road Switching Station. The project would begin at the CREC site at approximately N 41.965543°, E -71.753296° and extend generally northeast to the Sherman Road Switching Station at approximately N 42.010236°, E -71.3673625°. Once constructed, the BIP would connect the CREC to the existing New England electrical grid system.

Clear River Energy, LLC would construct, own, and operate the CREC, located adjacent to the existing Algonquin Compressor Station that is currently owned and operated by Algonquin Gas Transmission, LLC d/b/a Enbridge (See HDR Drawing Sheets 01C300 and 01C303). The CREC is a proposed combined-cycle electric generating facility that would be located on a 67-acre site, south of Wallum Lake Road (State Route 100) in Burrillville, Rhode Island. The 67-acre CREC site is a subset of a 730-acre site that is owned and operated by Algonquin Gas Transmission, LLC. During construction, the CREC would be accessed via a temporary access road that would be constructed off of Wallum Lake Road (See HDR Drawing Sheets 01C300, 01C301 and 01C302). Once operational, permanent access to the CREC would be via an improved Algonquin Lane which is also located off of Wallum Lake Road (See HDR Drawing Sheets 01C600 and 01C601).

The CREC electric generating facility would consist of two advanced class General Electric model 7HA.02 gas turbines. Each combustion turbine would be constructed to operate in a combined-cycle configuration; each equipped with a heat recovery steam generator (HRSG), an electric generator, a steam turbine, and an air cooled condenser. The combustion turbine, steam turbine, and generator of each unit would be connected via a single common shaft. The combustion turbine would fire natural gas as a primary fuel and each HRSG would be equipped with natural gas fired duct burners. However when natural gas is unavailable, the combustion turbine

would have the ability to fire ultra-low sulfur diesel (ULSD) fuel as a backup fuel for limited periods. The natural gas supply for the CREC would be provided by an approximately 800 linear-foot pipeline lateral, including a natural gas metering station, by connecting to the interstate gas pipeline system. The connection to the interstate gas pipeline system would be located within the adjacent Algonquin Compressor Station property; and the lateral would consist of a new 16-inch diameter natural gas pipeline. ULSD would be delivered to the CREC by truck and then stored in a single 2,000,000-gallon on-site storage tank with secondary containment. The CREC would have a nominal power output at base load of approximately 1,080 megawatts (MW) while firing natural gas (with supplementary HRSG duct firing) and 970 MW while firing ULSD.

To minimize the amount of water use and wastewater generation, the CREC facility has been configured to utilize air-cooled condensers. Compared to a more conventional wet cooling tower, the dry cooling configuration is claimed to reduce consumptive water use by more than 90%. Requisite water would be supplied from the Town of Johnston, Rhode Island under a long-term water supply agreement and delivered to the CREC by truck. The trucks would travel to and from the CREC via public roadways.

The BIP would construct a new 6.8-mile 345 kV overhead transmission line, designated as the "3052 Line," primarily within the existing TNEC right-of-way (ROW), from the CREC to the existing Sherman Road Switching Station. The BIP would also include modifications to the existing 345 kV 341 and 347 transmission lines. The new transmission line structures would be constructed of weathering steel and the new Sherman Road Switching Station termination structures would be constructed of galvanized steel. The typical structure height would be approximately 88 feet tall, similar to the existing structure heights within the TNEC ROW. Furthermore, the new transmission line would include three phases of bundled 1,590 kcmil (one thousand circular mils) 54/19 "Falcon" aluminium conductor steel reinforced ("ACSR") with two overhead shield wires.

The BIP ROW refers to the use of the existing TNEC ROW by CREC for the installation of a new line that would be for the exclusive use by CREC. The TNEC ROW refers to the existing overhead transmission line ROW which is operated by TNEC. The CREC ROW is the new ROW across the Algonquin property (private property). The CREC ROW is the 0.8-mile new transmission ROW that would be constructed from the TNEC ROW to the CREC facility. The TNEC ROW would be accessed primarily via existing ROW access routes and public roadways. New access route spurs would be constructed to access new proposed transmission line structures. Accordingly, the BIP ROW encompasses the entire transmission interconnection, including the TNEC and CREC ROWs, and consists of the following three segments and upgrades:

- Segment 1 – Establish a new CREC ROW from the CREC facility to the TNEC ROW (0.8-mile in length) across a portion of the 730-acre site that is owned and operated by Algonquin Gas Transmission, LLC, including a width of tree clearing of approximately 150 feet;
- Segment 2 – Within the existing TNEC ROW from the junction of CREC ROW to a point located 0.19 mile west of the Clear River (1.6 miles in length), including a width of tree clearing of approximately 55 feet on the north side of the existing ROW;
- Segment 3 – TNEC ROW from 0.19 mile west of the Clear River to the Sherman Road Switching Station (4.4 miles in length), including a width of tree clearing of approximately 85 feet on the south side of the existing ROW; and
- Upgrade the existing Sherman Road Switching Station, including the realignment of an approximate 260-foot span of the existing 345 kV 328 Line at the station.

PROJECT PURPOSE AND NEED:

The basic project purpose is to supply and deliver energy to market. The overall project purpose is to supply and deliver energy to market to meet long-term electric supply demands within the Rhode Island and New England region. The CREC would address the need for new electric capacity that has been and will be created by retirements of existing generators, including oil and coal fired generators, and the additional potential retirements of other generators in the New England market. The CREC would improve the overall flexibility of the electric generation fleet, due to its fast start and high ramp rate capabilities, and would help support and compliment the addition of more renewable generation into the region. The BIP would be necessary to interconnect the CREC to the New England electric system so that the electrical energy produced at the CREC can be delivered to the end user market.

AQUATIC RESOURCE IMPACTS:

Proposed wetland impacts associated with the CREC are largely due to the access road construction required to provide temporary construction access to the generating facility. Impacts to watercourses would involve the installation of a permanent stream ford at Dry Arm Brook to establish the new BIP 0.8-mile transmission line ROW to the CREC facility. Other indirect impacts may be attributed to conversion of land type in areas that are contiguous with wetlands.

Proposed wetland impacts associated with the BIP can be attributed to construction-related temporary impacts and siting and operational-related permanent impacts. Watercourses would be spanned by the overhead conductors and wires. Temporary construction mats would be used to bridge across watercourses where alternative access is not available. Examples of potential temporary construction-related impacts include the placement of temporary swamp mats for access and work pads as swamp mats. Examples of permanent impacts include fill for new structures and access route improvements. Secondary impacts also extend to tree clearing and conversion of forested wetlands to scrub-shrub wetlands.

A summary of the anticipated impacts to waters of the U.S. including wetlands is provided in Table 1 below.

Table 1: Summary of Impacts to Waters of the U.S. (including wetlands)			
Project Component	Impact Type		
	Permanent	Temporary	Secondary (Conversion of PFO to PSS)
CREC Facility	0.03 ac	0.6 ac ¹	0 ac
	1,172 sf	26,240 sf ¹	0 sf
Burrillville Interconnection Project	0.21 ac	8.37 ac	6.17 ac
	9,295 sf	364,568 sf	268,790 sf
Subtotals	0.24 ac	8.97 ac	6.17 ac
	10,467 sf	390,808 sf	268,790 sf
Grand Total	15.38 ac 670,065 sf		

¹Note that impacts to wetlands within the construction staging area are considered permanent by the Corps and temporary by RIDEM.

AVOIDNCE, MINIMIZATION, MITIGATION:

CENAE-R
FILE NO. NAE-2016-00505

The project has been designed to avoid and minimize impacts to aquatic resources while bolstering the existing electrical infrastructure in the Rhode Island and New England region. To compensate for unavoidable impacts to aquatic resources, the applicant is currently proposing mitigation which includes land acquisition and preservation of 1) an approximate 148-acre parcel of land known as the Sweet Hill Farm located off of Route 107 in Burrillville, RI, and 2) two parcels (Alles) totalling approximately 150-acres of land located west of Round Top Road in Burrillville, RI (See Figures 1 and 9 in the Compensatory Mitigation Plan, dated March 29, 2019). The current mitigation plan reiterates the Applicants' commitment to restoration and stabilization of temporarily disturbed wetlands, construction staging areas and transmission line rights-of-way. The plan includes a description of project impacts, objectives, mitigation site selection procedures, site protection information, and monitoring standards in addition to all required graphics and information.

The Corps of Engineers, New England District Compensatory Mitigation Guidance (Guidance) provides guidance and recommendations to mitigate unavoidable impacts to aquatic resources. Accordingly, Table 2 (below) provides a summary of the anticipated direct and secondary project impacts to areas which are subject to Corps jurisdiction, pursuant to Section 404 of the Clean Water Act.

Table 2. Anticipated Project Impacts and Anticipated Mitigation Recommendations

	Project Impact (sq ft)	Compensatory Mitigation Multipliers			Mitigation Type (sq ft)		
		Restoration Ratio	Preservation Ratio	% of Standard Amount	Restoration	Preservation	
Direct Permanent Impacts							
PEM	383	2	20	-	766	7,660	
PSS	266	2	20	-	532	5,320	
PFO	36,707	3	20	-	110,122	734,144	
Temporary/Secondary Impacts							
Temporary fill in PFO (will revert to PFO)	150,595	0.45	3	15	67,768	451,785	
Temporary fill in PEM (will revert to PEM)	10,507	0.1	1	5	20,347	203,467	
Temporary fill in PSS (will revert to PSS)	203,467	0.2	2	10	40,693.40	406,934	
Permanent conversion of PFO to PEM	-	0.9	6	30	-	-	
Permanent conversion of PFO to PSS	294,101	0.45	3	15	132,345	882,303	
Permanent conversion of PSS to PEM	4	0.3	3	15	1	12	
Removal of PFO for new corridor	-				-	-	
Edge effect - high level impact zone - PEM	6,726	0.5	5	25	3,363	33,630	
Edge effect - high level impact zone - PSS	35,169	0.5	5	25	17,585	175,845	
Edge effect - high level impact zone - PFO	104,902	0.75	5	25	78,676	524,508	
Edge effect - remainder of impact zone - PEM	8,369	0.2	2	10	1,674	16,738	
Edge effect - remainder of impact zone - PSS	54,480	0.2	2	10	10,896	108,960	
Edge effect - remainder of impact zone - PFO	378,430	0.3	2	10	113,529	756,861	
					Total PEM	26,150	261,495
					Total PSS	69,707	697,071
					Total PFO	502,440	3,349,601
					Grand Total	598,297	4,308,167
					Grand Total (ac)	13.7	99

Note that impacts to wetlands within the construction staging area are considered permanent by the Corps and temporary by Rhode Island Department of Environmental Management (RIDEM).

The Sweet Hill Farm and Alles mitigation sites were selected following a comprehensive review of potential preservation parcels within the project watershed and the Town of Burrillville. An inventory of potential mitigation sites in Burrillville was generated based primarily on a list of properties of interest to RIDEM for open space protection. The list was later refined to exclude parcels already acquired or otherwise no longer suitable and to add other parcels of potential conservation interest based on a combination of desktop analysis and field reviews. This analysis considered proximity to existing conservation lands, Natural Heritage areas,

wildlife corridors, and unfragmented forest among other relevant environmental and habitat variables. The Sweet Hill Farm and Alles mitigation sites were selected from a list of over 30 parcels based on positive responses to these variables, the size of the parcel relative to the project's anticipated mitigation requirement, the results of field assessments, and the willingness of the existing landowners to sell the property.

Throughout the planning and design process for the CREC and BIP, where practicable wetland impacts have been minimized by siting the CREC outside of wetland areas, aligning the new transmission line primarily along the existing TNEC ROW, utilizing existing access roads, and avoiding the placement and construction of structures and access roads in wetlands and watercourses to the maximum extent practicable. However, given the scale and landscape setting of the project, certain wetland and watercourse resource impacts associated with the development of the CREC and BIP cannot be avoided. In order to offset aquatic resource impacts, appropriate compensatory mitigation (in collaborative consultation with local, state, and federal agencies) will be provided, as a component of the final project. Because certain structures will be located in wetlands unavoidably, the CREC and BIP will result in permanent loss of wetlands.

Restoration efforts, including removal of construction debris, final grading, stabilization of disturbed soil, and installation of permanent sediment control devices (water bar/diversion channel/rock ford), will be completed following construction. All disturbed areas around structures and other graded locations will be seeded with an appropriate conservation seed mixture and/or mulched to stabilize the soils in accordance with applicable regulations. Temporary sediment control devices will be removed following the stabilization of disturbed areas. Existing walls and fences will be restored. Where authorized by property owners, permanent gates and access road blocks will be installed at key locations to restrict access onto the ROWs by unauthorized persons or vehicles. Regulated environmental resource areas that are temporarily disturbed by construction will be restored to pre-construction conditions in accordance with any applicable permit conditions.

The proposed project will impact non-tidal waters and wetlands. There will be no direct effects to tidal waters and wetlands or navigable waters. The work is shown on the enclosed plans entitled "Clear River Energy Center, Volume 1, prepared by HDR," on 26 sheets, and dated "March 2019," and "Burrillville Interconnection Project, prepared by POWER Engineers, Inc.," on 65 sheets, and dated February 15, 2019."

AUTHORITY

Permits are required pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899
- Section 404 of the Clean Water Act
- Section 103 of the Marine Protection, Research and Sanctuaries Act.

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

CENAE-R

FILE NO. NAE-2016-00505

The U.S. Army Corps of Engineers, New England District (Corps), is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. The Corps will consider all comments received to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972, as amended.

ESSENTIAL FISH HABITAT

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). Essential Fish Habitat describes waters and substrate necessary for fish for spawning, breeding, feeding or growth to maturity.

The District Engineer has made a preliminary determination that there is no EFH present within the project area. Further consultation with the National Marine Fisheries Service regarding presence of EFH and any applicable EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

NATIONAL HISTORIC PRESERVATION ACT

Based on his initial review, the District Engineer has determined that the proposed work may impact properties listed in, or eligible for listing in, the National Register of Historic Places (NRHP). Additional review and consultation to fulfill requirements under Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, will be ongoing as part of the permit review process. It is noted the State Historic Preservation Officer (SHPO) and Tribal Historic Preservation Officers (THPOs), including the Narragansett Indian Tribe and Wampanoag Tribe of Gay Head (Aquinnah), have been notified of the undertaking. In accordance with Section 106 of the NHPA and its implementing regulations, consultation with SHPO and THPOs, and appropriate Certified Local Governments (CLGs) and/or interested parties, will continue to identify potentially NRHP-eligible properties, cultural resources and Traditional Cultural Properties (TCPs). Therefore in summary, consultations, investigations, determinations of NRHP-eligibility and effects, and development of appropriate site avoidance and protection measures to prevent adverse effects to known NRHP-eligible properties, cultural resources and TCPs will continue.

ENDANGERED SPECIES CONSULTATION

Clear River Energy, LLC and The Narragansett Electric Company d/b/a/ National Grid (TNEC) have consulted with the U.S. Fish and Wildlife Service (USFWS), the Rhode Island Department of Environmental Management (RIDEM) – Division of Fish and Wildlife, and the Rhode Island Natural History Survey (RINHS) to identify any federal or state-listed species that may potentially occur within the CREC and BIP action areas. In doing this, they have completed the web-based Information for Planning and Conservation (IPaC) Form. IPaC results indicated the only federally threatened or endangered species that may be within the CREC action area is the Northern long-eared bat (NLEB), *Myotis septentrionalis*.

An acoustic survey for the NLEB was performed at the CREC site and the 0.8-mile CREC ROW. An updated USFWS online data form was submitted for the BIP. Additionally, TNEC consulted with the Rhode Island Department of Fish and Wildlife to obtain local data and recommended conservation measures for the TNEC ROW. Computer-generated results indicated there were no known NLEB hibernacula or roost trees along the TNEC ROW and conservation measure recommendations were provided. To avoid potential impacts to the NLEB, the Applicant proposes to adhere to recommended time of year restrictions for tree clearing from June 1 - July 31.

The Corps has reviewed the application for the potential to impact Federally-listed threatened or endangered species and their designated critical habitat pursuant to Section 7 of the Endangered Species Act, as amended. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect a listed species or their critical habitat. We are coordinating with the National Marine Fisheries Service and/or U.S. Fish and Wildlife Service on listed species under their jurisdiction and the ESA consultation will be concluded prior to the final decision.

OTHER GOVERNMENT AUTHORIZATIONS

The following authorizations have been applied for, or have been, or will be obtained:

- Permit, license or assent from State.
- Permit from local wetland agency or conservation commission.
- Water Quality Certification in accordance with Section 401 of the Clean Water Act.

The Rhode Island Energy Facility Siting Board (RI EFSB) public hearings for the CREC facility closed on April 3, 2019; and post Hearing Briefs were filed on May 17, 2019, with a decision expected in June of 2019. The RI EFSB hearings for the BIP are anticipated to commence in the summer of 2019. A supplemental Freshwater Wetlands Application was filed with RIDEM on March 29, 2019, including the realignment of the CREC access road. Lastly, RIDEM issued a Draft Major Source Air Permit to Invenergy for the CREC on May 9, 2019; the public comment period for this draft permit will continue until July 15, 2019.

COMMENTS

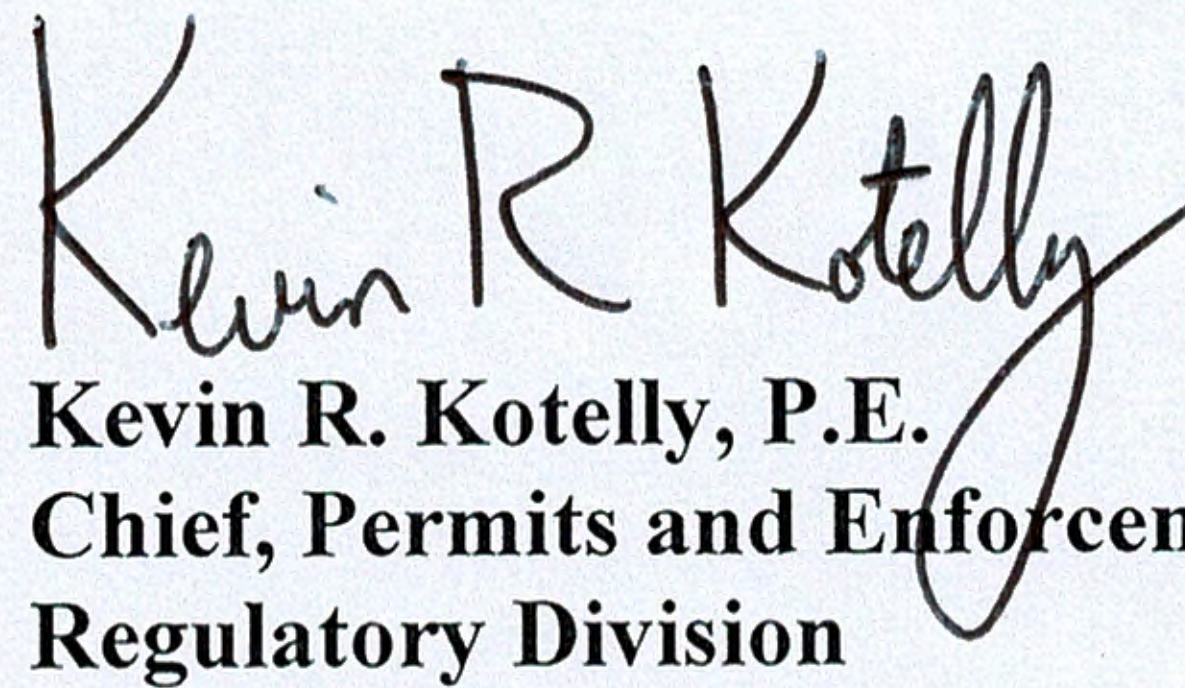
In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. Comments should be submitted in writing by the above date. If you have any questions, please contact Alex Kostra at (978) 318-8651, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

CENAE-R
FILE NO. NAE-2016-00505

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

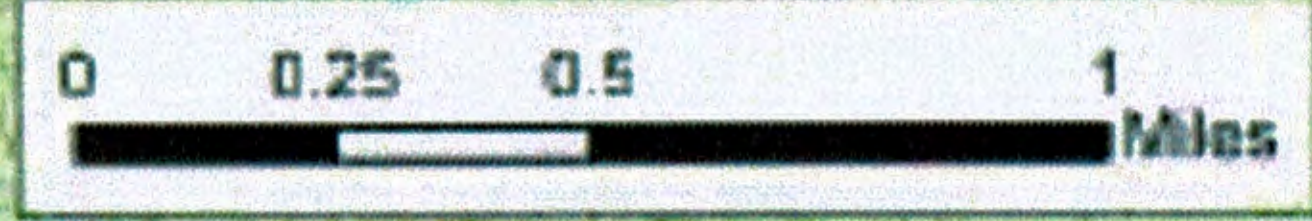
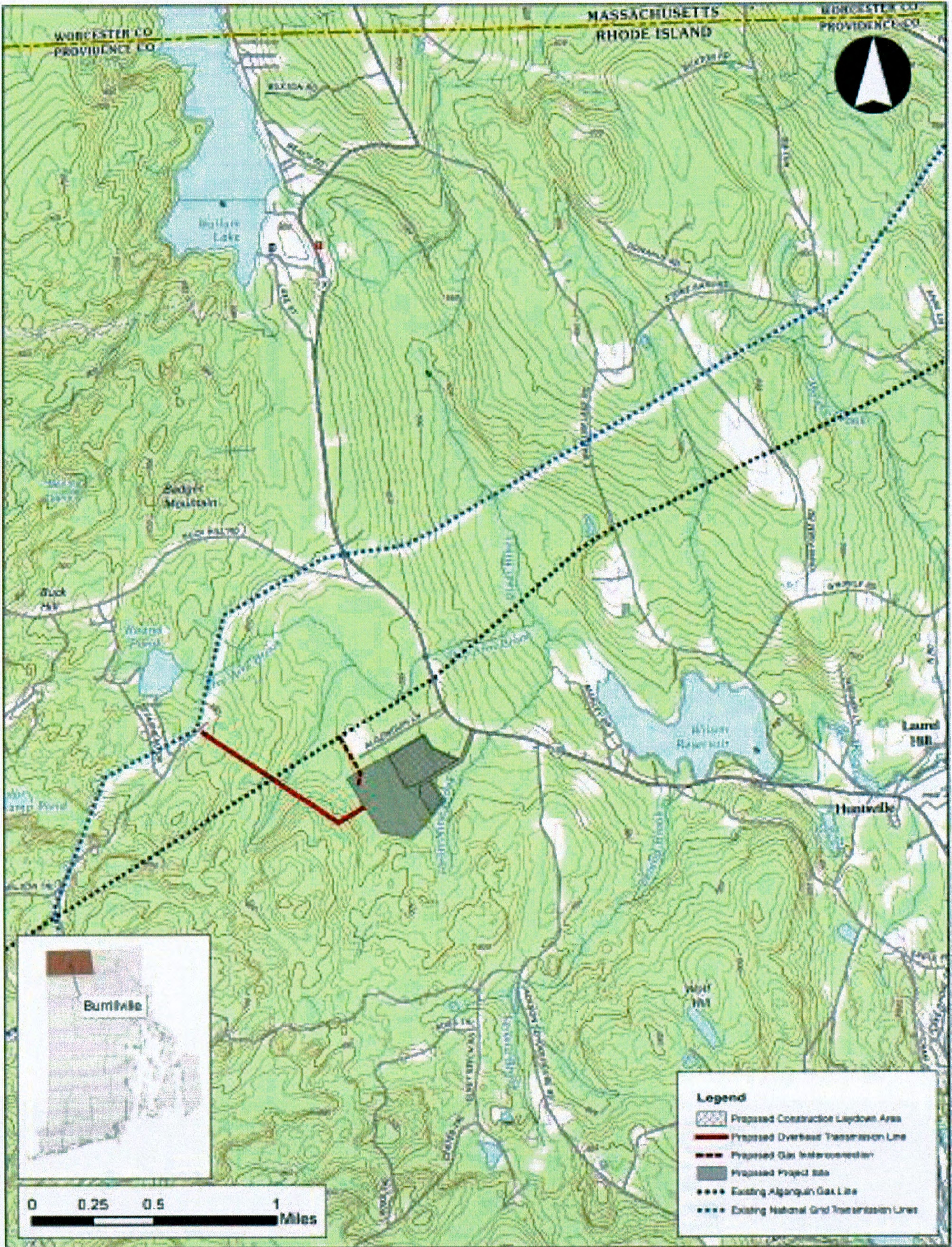
The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.








Kevin R. Kotelly, P.E.
Chief, Permits and Enforcement Branch
Regulatory Division

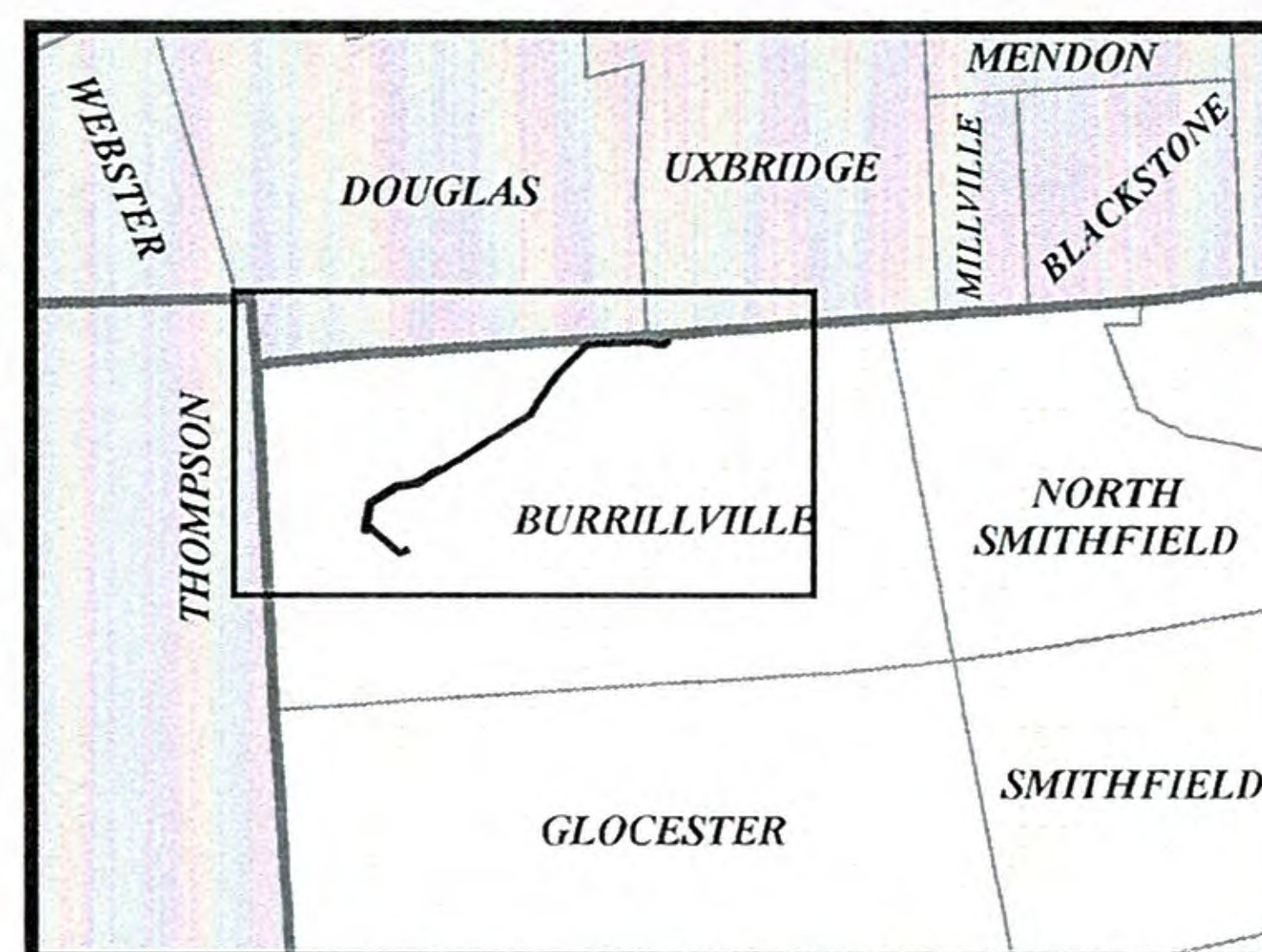
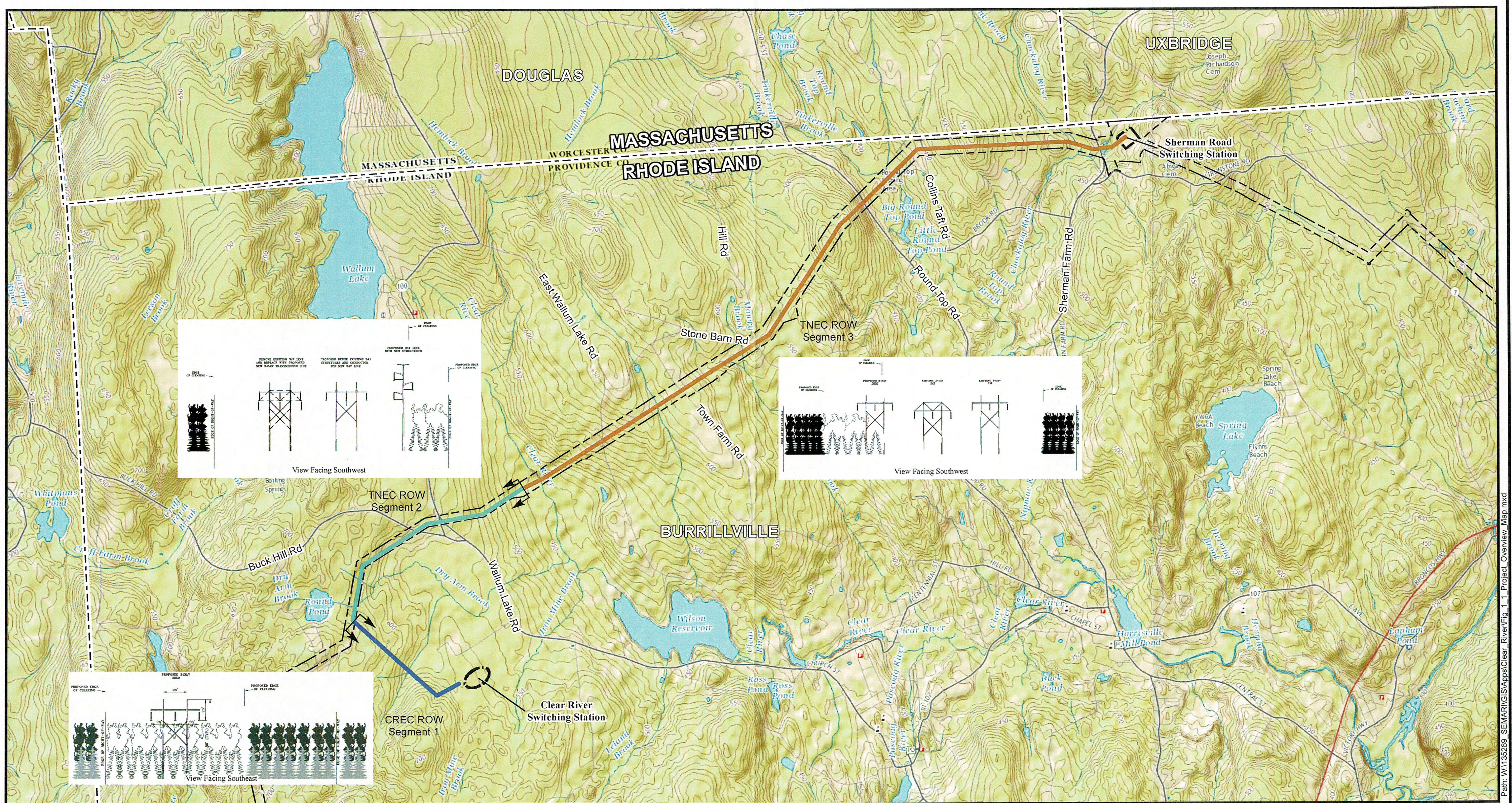
If you would prefer not to continue receiving Public Notices by email, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here () and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: _____
ADDRESS: _____
PHONE: _____



Legend

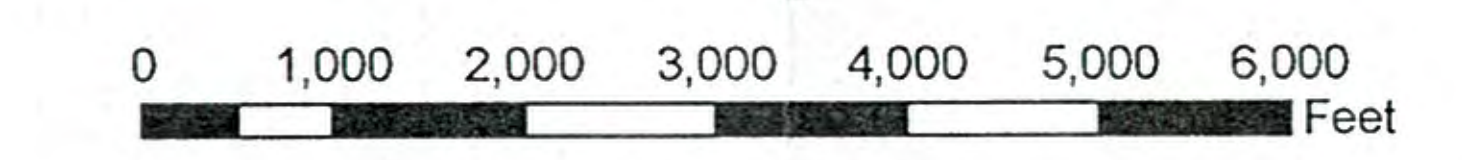
-  Proposed Construction Laydown Area
-  Proposed Overhead Transmission Line
-  Proposed Gas Interconnection
-  Proposed Project Site
-  Existing Algonquin Gas Line
-  Existing National Grid Transmission Lines



- Legend**
- 3052 - New ROW Route
 - 3052 - Replace Existing Line
 - 3052 - New Route in Existing ROW
 - Existing or Proposed Power Facility
 - Existing Right-of-Way Edge
 - Town Boundary

Burrillville Interconnection Project

Figure 1-1:
Project Overview Map

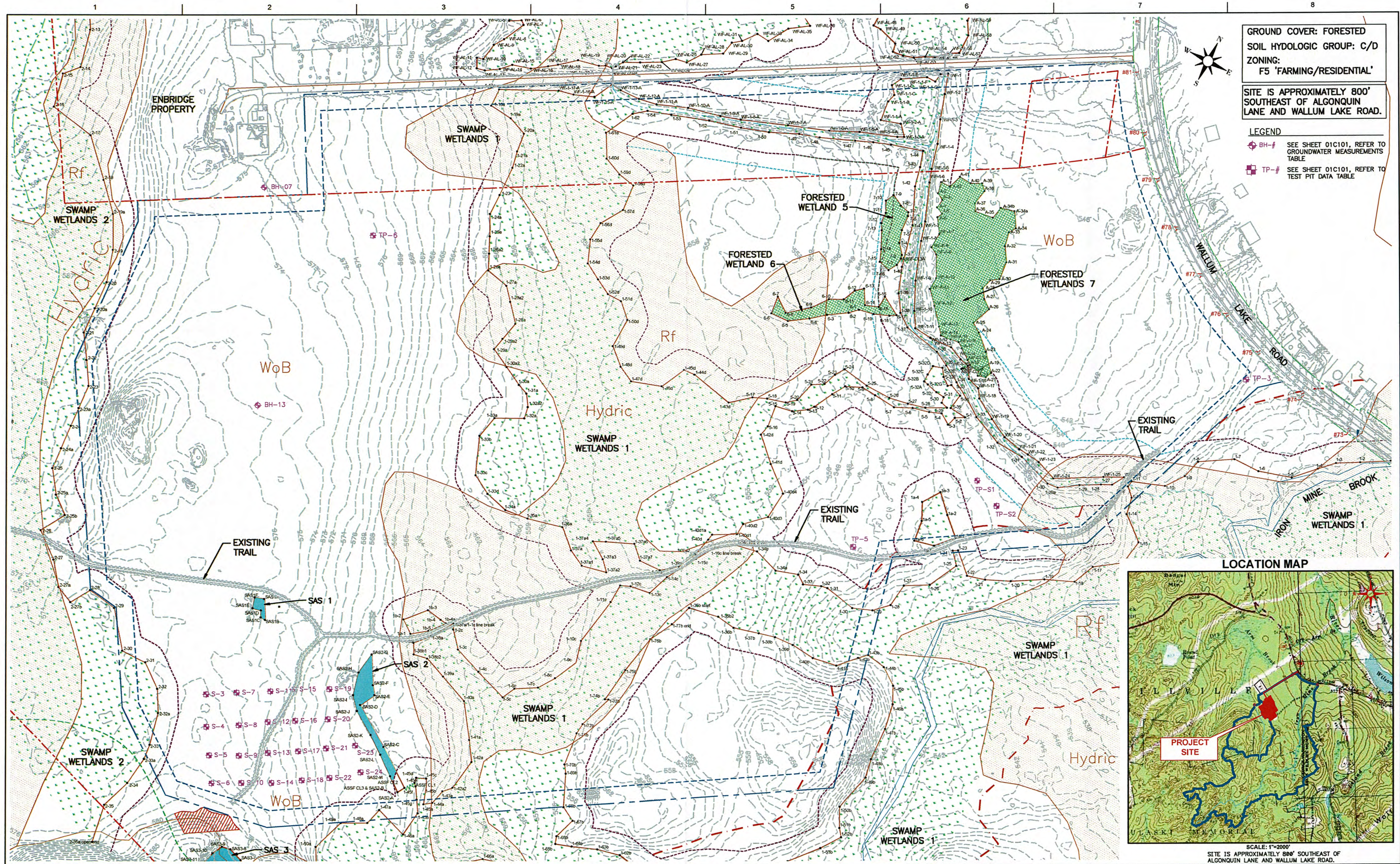


Date: 1/10/2017 1" = 3,000' Author: TDH

The State of Rhode Island
Providence County:
Town of Burrillville
NAD 1983 UTM Zone 18N USFT
Foot US
Transverse Mercator
North American 1983



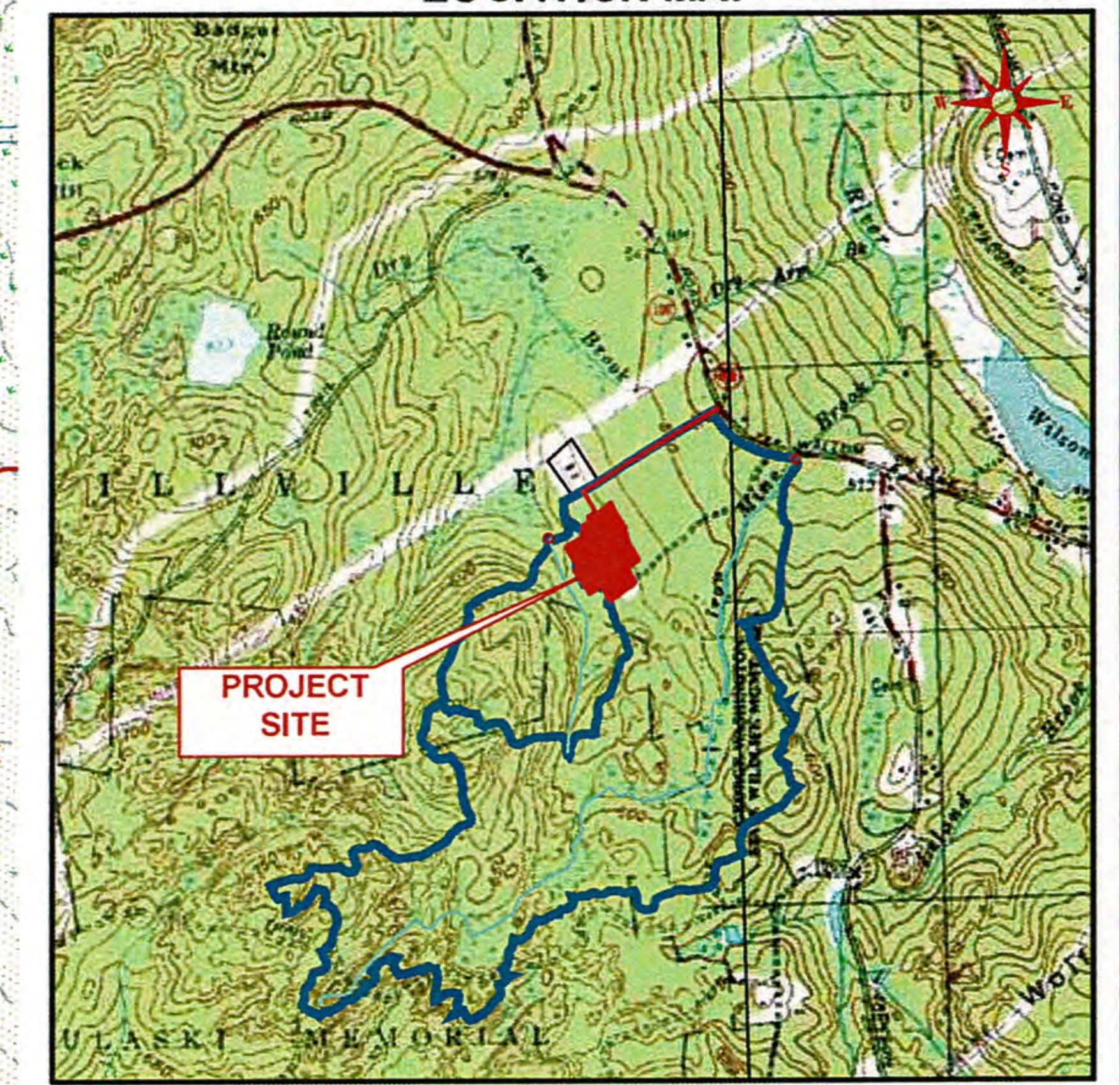
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GROUND COVER: FORESTED
 SOIL HYDROLOGIC GROUP: C/D
 ZONING: F5 'FARMING/RESIDENTIAL'
 SITE IS APPROXIMATELY 800' SOUTHEAST OF ALGONQUIN LANE AND WALLUM LAKE ROAD.

LEGEND
 BH-# SEE SHEET 01C101, REFER TO GROUNDWATER MEASUREMENTS TABLE
 TP-# SEE SHEET 01C101, REFER TO TEST PIT DATA TABLE

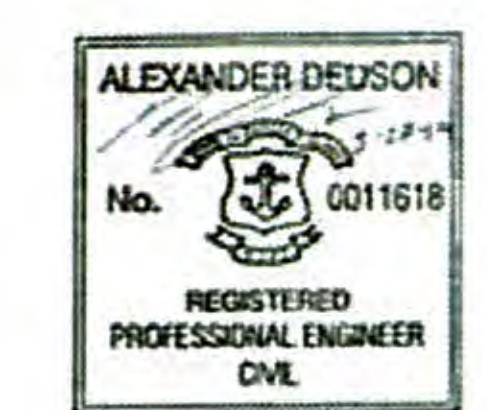
LOCATION MAP



SCALE: 1"=2000'
 SITE IS APPROXIMATELY 800' SOUTHEAST OF ALGONQUIN LANE AND WALLUM LAKE ROAD.



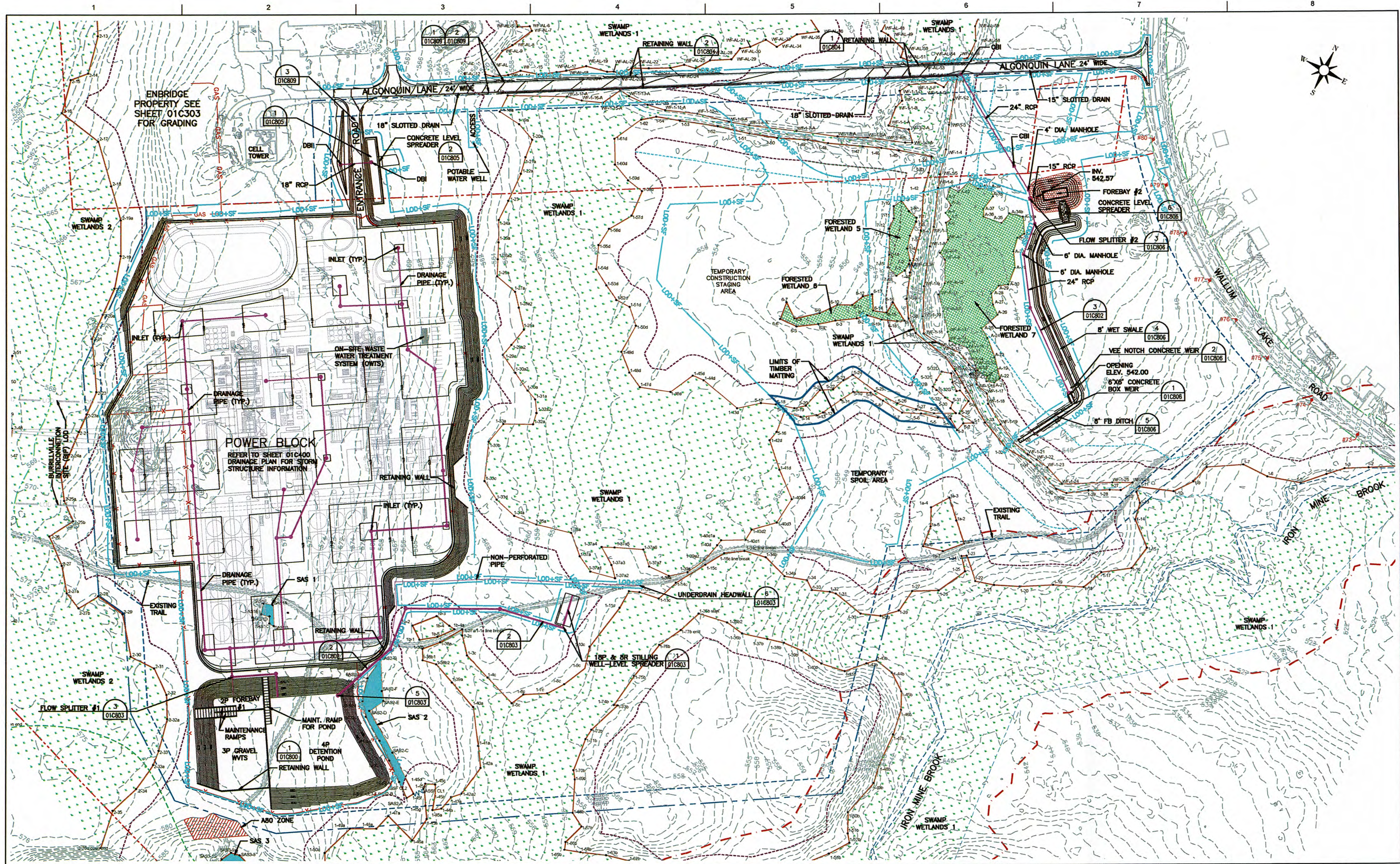
ISSUE	DATE	DESCRIPTION	PROJECT NUMBER
8	2/13/2019	REVISED WETLANDS AND ACCESS ROAD	10021318
7	1/11/2019	RESUBMIT	
6	2/23/2018	REV. TECH REVIEW 1/29/2018	



CLEAR RIVER ENERGY LLC
 CLEAR RIVER ENERGY CENTER
 WALLUM LAKE ROAD LOT NO.
 135-002, 137-001, 137-002, 137-003, 137-021,
 153-001, 153-002
 TOWN OF BURRILLVILLE,
 PROVIDENCE COUNTY, RHODE ISLAND

EXISTING CONDITIONS

FILENAME | 01C100.dwg | SHEET | 01C100
 SCALE | 1" = 100' | 3 OF 26



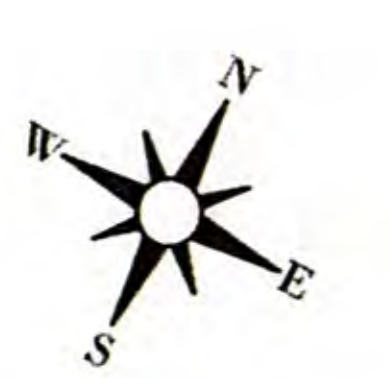
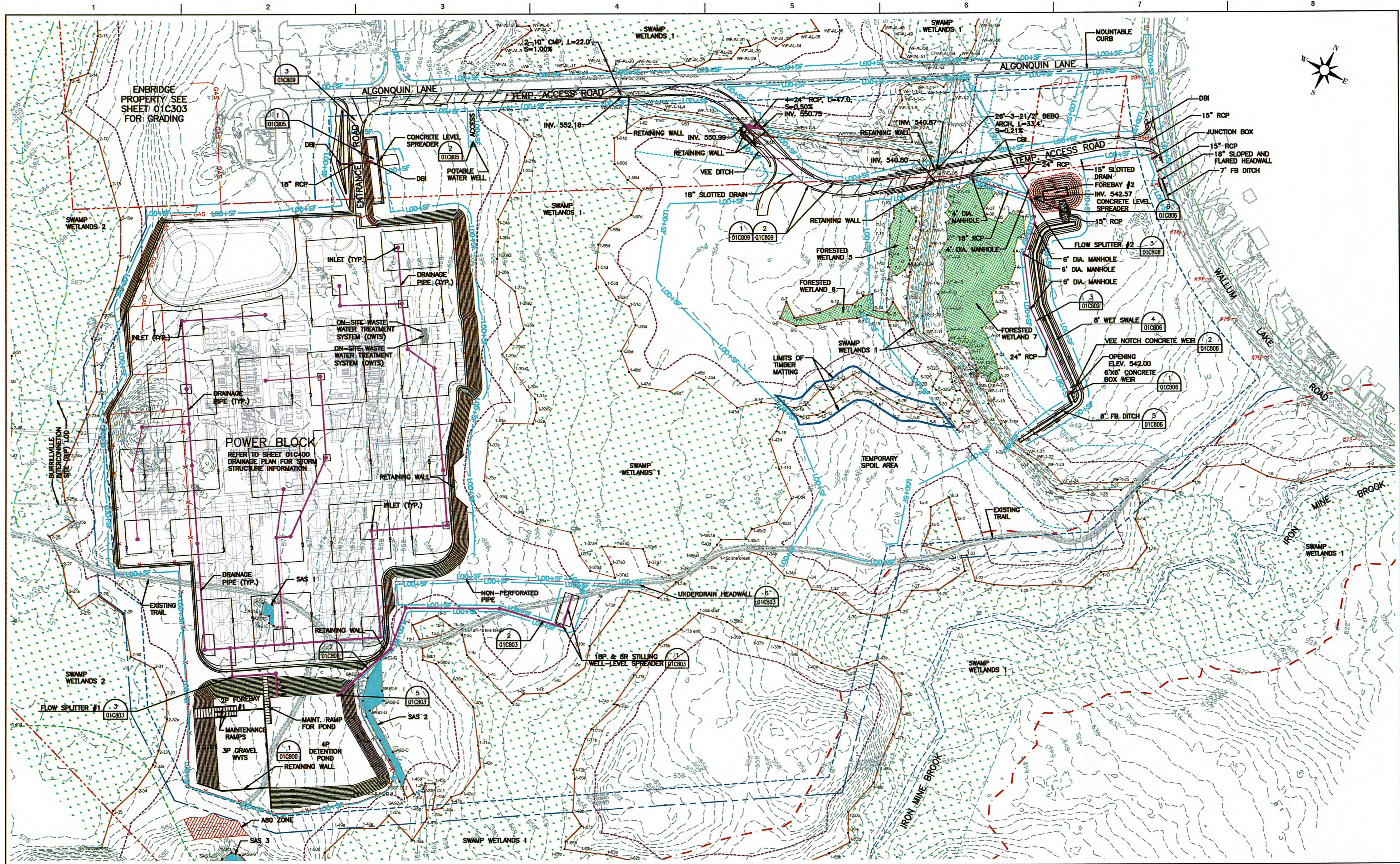
PROJECT MANAGER C. JACOBS		
8	2/13/2019	REVISED WETLANDS AND ACCESS ROAD
7	1/11/2019	RESUBMIT
6	2/23/2018	REV. TECH REVIEW 1/29/2018
ISSUE	DATE	DESCRIPTION
PROJECT NUMBER 10021318		



CLEAR RIVER ENERGY LLC
 CLEAR RIVER ENERGY CENTER
 WALLUM LAKE ROAD LOT NO.
 135-002, 137-001, 137-002, 137-003, 137-021,
 153-001, 153-002
 TOWN OF BURRILLVILLE,
 PROVIDENCE COUNTY, RHODE ISLAND

**PROPOSED GRADING
 PLAN**

FILENAME | 01C300.dwg | SHEET
 SCALE | 1" = 100' | **01C300**
 7 OF 26



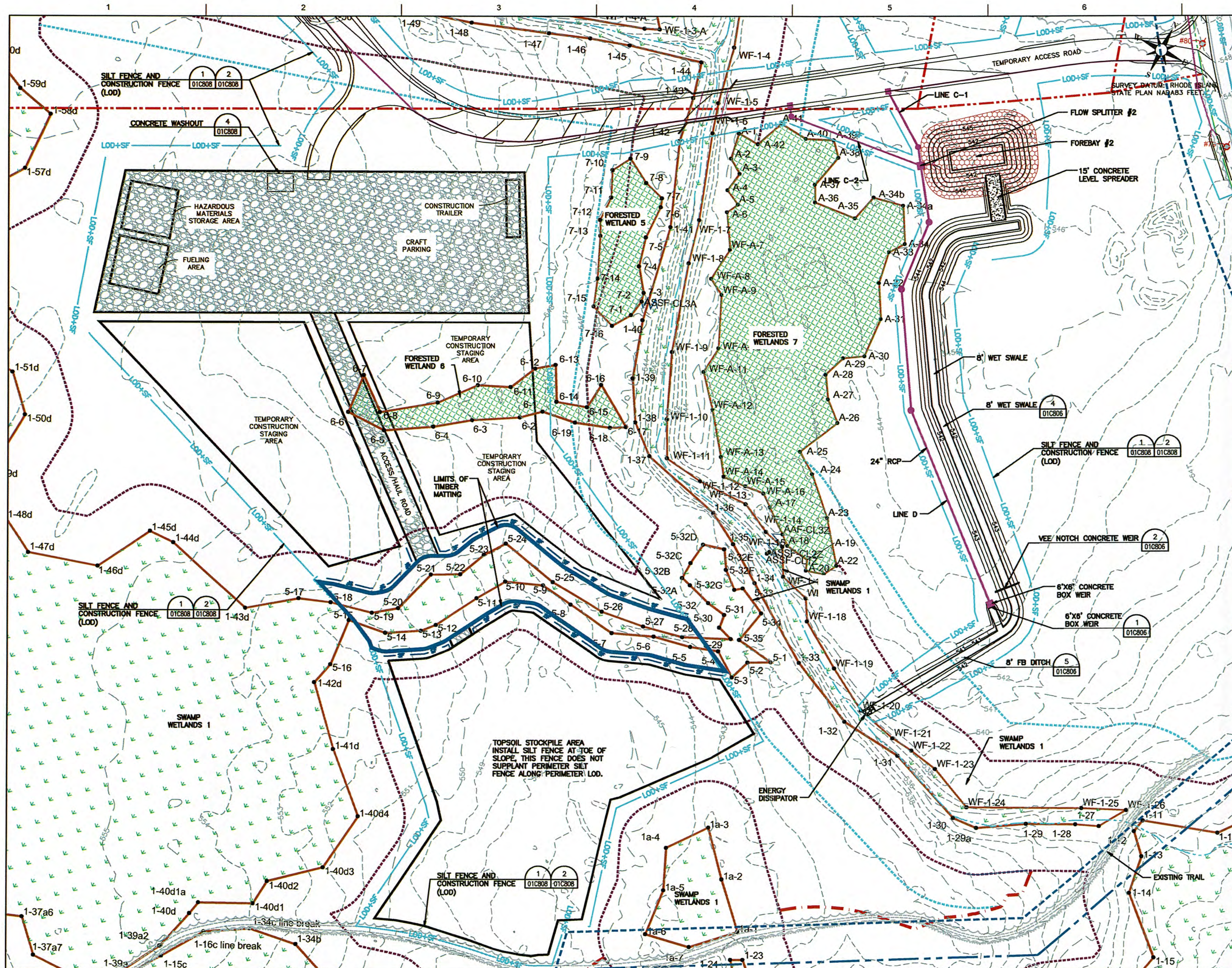
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8	2/13/2019	REVISED WETLANDS AND ACCESS ROAD	10021318
7	1/11/2019	RESUBMIT	
6	2/23/2018	REV. TECH REVIEW 1/29/2018	



CLEAR RIVER ENERGY LLC
 CLEAR RIVER ENERGY CENTER
 WALLUM LAKE ROAD LOT NO.
 135-002, 137-001, 137-002, 137-003, 137-021,
 153-001, 153-002
 TOWN OF BURRILLVILLE,
 PROVIDENCE COUNTY, RHODE ISLAND

**PROPOSED GRADING PLAN
 ACCESS ROAD**

FILENAME | 01C301.dwg | SHEET
 SCALE | 1" = 100' | 01C301
 8 OF 26



SEQUENCE OF CONSTRUCTION

- PHASE I**
1. INSTALL TEMPORARY STONE CONSTRUCTION EXT.
 2. INSTALL ORANGE CONSTRUCTION SAFETY FENCING ALONG THE LIMITS OF DISTURBANCE TO DEFINE CONSTRUCTION ZONE AND PROTECT ADJACENT VEGETATION/WETLANDS.
 3. INSTALL THE SILT FENCES AND CONCRETE WASHOUT PIT.
- "HALT"**
PERFORM INSPECTION OF BMPs. GENERAL CONTRACTOR SHALL SCHEDULE AND CONDUCT STORM WATER PRE-CONSTRUCTION MEETING WITH ENGINEER AND ALL GROUND DISTURBING CONTRACTORS BEFORE PROCEEDING WITH CONSTRUCTION.
4. INSTALL TEMPORARY ACCESS ROAD AND TEMPORARY CULVERTS.
 5. PREPARE TEMPORARY PARKING, STORAGE & SOIL STOCKPILE AREAS.
 6. CONSTRUCT TEMPORARY SEDIMENT/RETENTION BASIN "A", DIVERSION DITCHES, OUTLET STRUCTURES, OUTLET PROTECTIONS AND SEED BASIN AND INSTALL BIODEGRADABLE EROSION CONTROL BLANKETS ON ALL BASIN SIDESLOPES IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- PHASE II**
1. CONSTRUCT FOREBAY AND WATER QUALITY SWALE.
 2. INSTALL HEADER CURB, STORM DRAINAGE TO FOREBAY AND PAVE TEMPORARY ACCESS ROAD.
 3. CLEAR AND GRUB THE SITE.
 4. STRIP TOPSOIL AND STORE IN SOIL STOCKPILE LOCATION SHOWN ON PLANS. INSTALL TEMPORARY SEEDING AND MULCHING STABILIZATION ON SOIL STOCKPILE AT END OF TOPSOIL STRIPPING ACTIVITIES.
 5. CONSTRUCT SEDIMENT/RETENTION BASIN "B", OUTLET STRUCTURE, OUTLET DRAINAGE AND OUTLET PROTECTION. SEED BASIN AND INSTALL BIODEGRADABLE EROSION CONTROL BLANKETS ON ALL BASIN SIDESLOPES IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. CONSTRUCT DIVERSION DITCH/CONTAINMENT BERM. STORM RUNOFF WILL BE DIVERTED TO BASIN B AS THE SITE GRADING PROGRESSES TO FACILITATE THE EVENTUAL REMOVAL OF BASIN "A".
 6. BEGIN GRADING THE SITE. TEMPORARY SEDIMENT BASIN "A" SIZE WILL BE REDUCED AS GRADING DIVERTS RUNOFF TO BASIN B THROUGH THE NEW DIVERSION DITCH. MOVE DITCH TO THE EAST AS NEEDED TO FACILITATE MASS GRADING. ONCE RUNOFF FROM AREAS THAT WERE ENTERING SEDIMENT BASIN A HAVE BEEN DIVERTED TO BASIN B, BASIN A CAN BE REMOVED TO FACILITATE FINAL MASS GRADING OF THE SITE.
- PHASE III**
1. INSTALL STORM DRAINAGE SYSTEM. INSTALL INLET PROTECTIONS AROUND ALL STORM SEWER STRUCTURES AS THEY ARE INSTALLED.
 2. INSTALL UTILITIES AND BEGIN BUILDING PAD CONSTRUCTION.
 3. PERFORM FINISH GRADING.
 4. INSTALL PERMANENT SEEDING ON ALL PERIMETER AREAS. INSTALL BIODEGRADABLE EROSION CONTROL BLANKETS ON ALL SLOPES 3:1 OR STEEPER IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 5. INSTALL GRAVEL STABILIZATION TO ALL AREAS THAT DO NOT RECEIVE FINAL SEEDING ONCE FINISHED GRADING IS COMPLETED IN PREPARATION FOR PAVING.
 6. BEGIN CONVERSION OF SEDIMENT BASIN "B" TO WATER QUALITY/RETENTION BASIN.
- PHASE IV**
1. PAVE SITE.
 2. INSTALL INLET PROTECTION DEVICES ON STORM INLETS IN PAVED AREAS. USE INLET FILTERS FOR ALL INLETS.
 3. COMPLETE CONVERSION OF BASIN "B" INTO FINAL WATER QUALITY/RETENTION BASIN.
 4. REMOVE TEMPORARY ACCESS ROAD, INSTALL IMPROVEMENTS AND STORM DRAINAGE ON ALGONQUIN LANE.
 5. RESTORE CONSTRUCTION STAGING AREA TO ORIGINAL CONDITIONS, COMPLETE FINISH GRADING ALONG ALGONQUIN ROAD AND INSTALL PERMANENT SEEDING, SODDING AND PLANTINGS.
 6. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED AND APPROVED BY CONSTRUCTION MANAGER AND GOVERNING AGENCIES).
 7. REMOVE REMAINING TOPSOIL, IF ANY, FROM THE SITE AS DIRECTED..

PERIMETER SILT FENCE INSTALLATION NOTES:

1. INSTALL TEMPORARY SILT FENCES ALONG AND INSIDE OF LIMITS OF DISTURBANCE FENCING.
2. PERIMETER SILT FENCING IS NOT ACTUALLY SHOWN ON DRAWINGS DUE TO PROXIMITY TO LOD FENCING FOR CLARITY. TYPICALLY FENCING SHOULD BE INSTALLED 3 FEET INSIDE LOD FENCING FOR MAINTENANCE ACCESS. HOWEVER, THERE ARE AREAS WHERE THE SILT FENCE WILL HAVE TO BE DIRECTLY ADJACENT TO LOD FENCING FOR CONSTRUCTION PURPOSES. LOCATION OF SILT FENCE WILL BE AT CONTRACTORS DISCRETION.
3. ADDITIONAL SILT FENCE INSTALLATIONS (OTHER THAN PERIMETER) WILL BE NOTED ON PLANS.



ISSUE	DATE	DESCRIPTION	PROJECT NUMBER
8	2/13/2019	REVISED WETLANDS AND ACCESS ROAD	10021318
7	1/11/2019	RESUBMIT	
6	2/23/2018	REV. TECH REVIEW 1/29/2018	



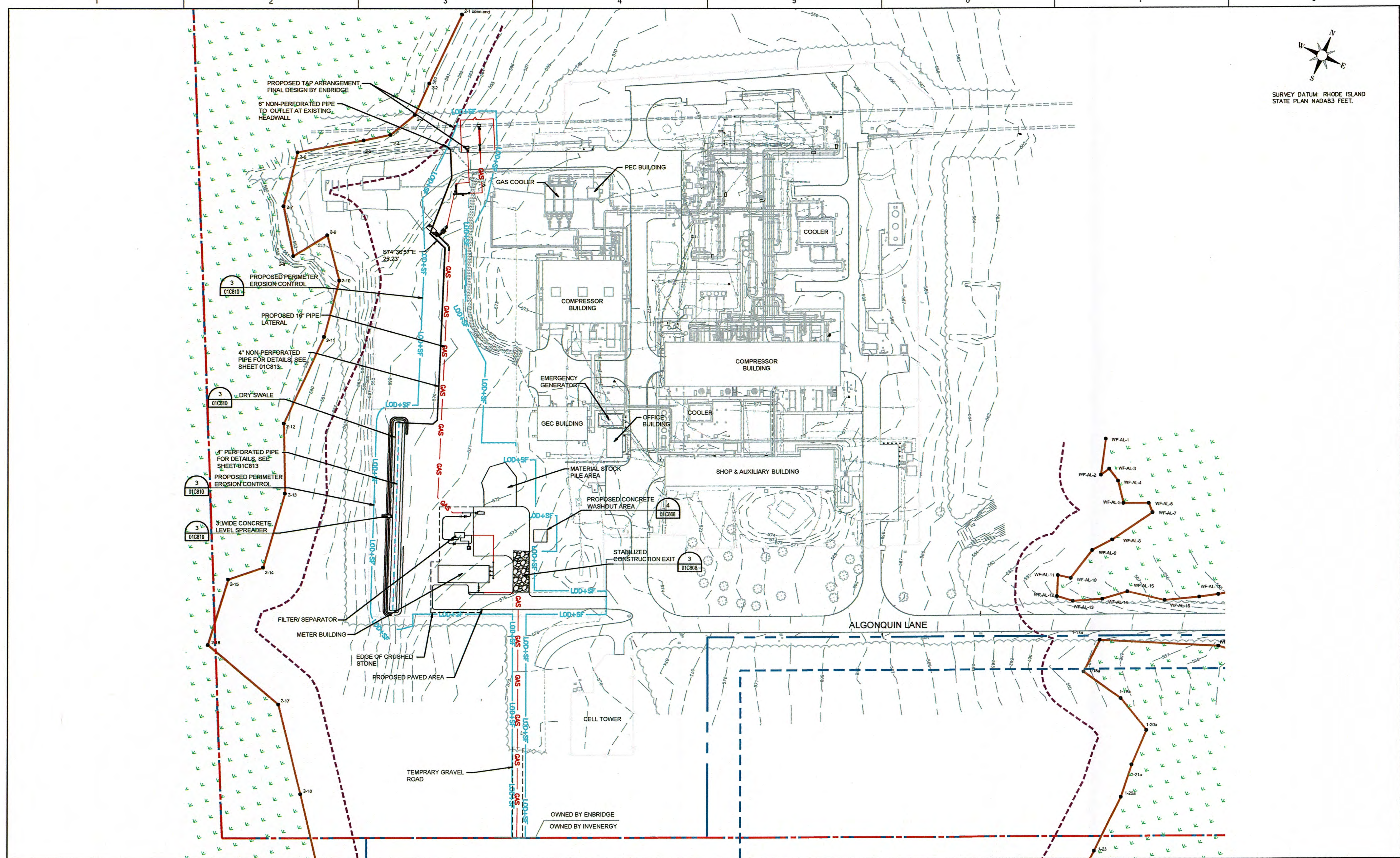
CLEAR RIVER ENERGY LLC
 CLEAR RIVER ENERGY CENTER
 WALLUM LAKE ROAD LOT NO.
 135-002, 137-001, 137-002, 137-003, 137-021,
 153-001, 153-002
 TOWN OF BURRILLVILLE,
 PROVIDENCE COUNTY, RHODE ISLAND

PROPOSED CONSTRUCTION STAGING AREA

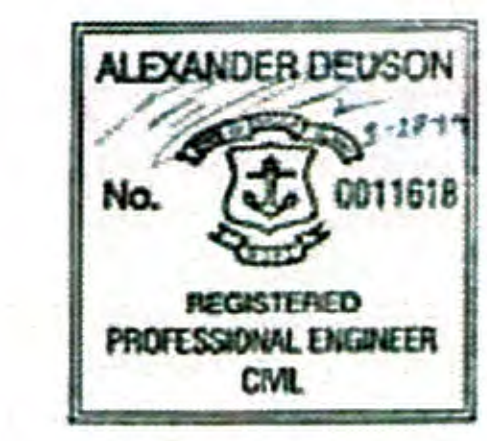
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SURVEY DATUM: RHODE ISLAND STATE PLAN NAD83 FEET.



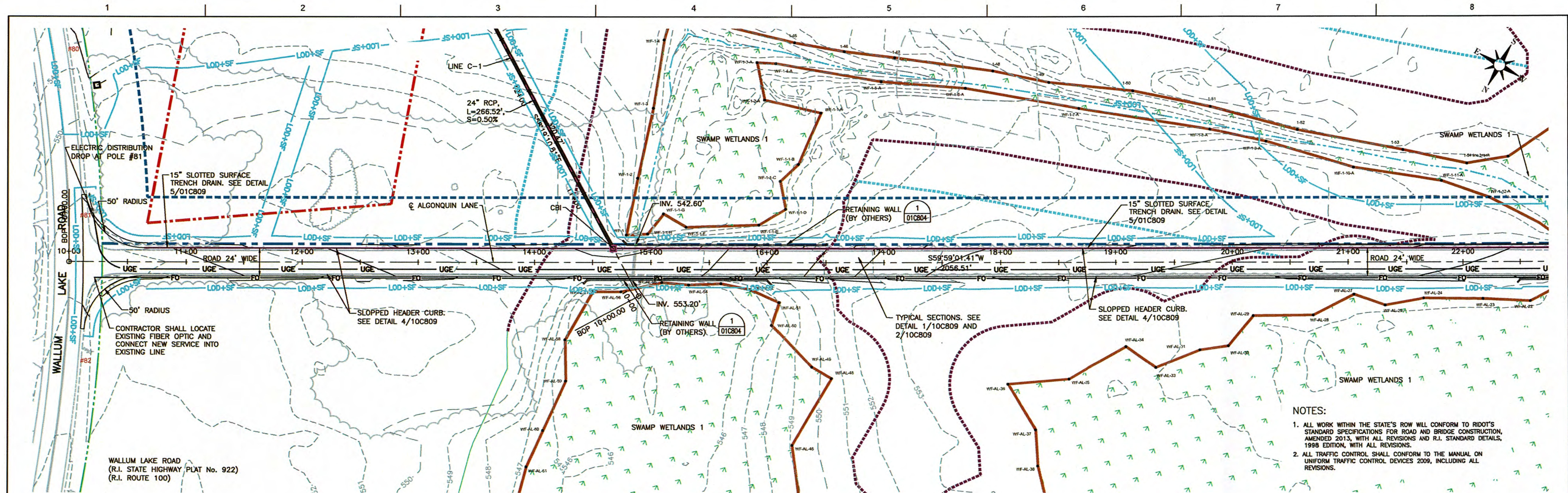
PROJECT MANAGER C. JACOBS		
8	2/13/2019	REVISED WETLANDS AND ACCESS ROAD
7	1/11/2019	RESUBMIT
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ISSUE	DATE	DESCRIPTION
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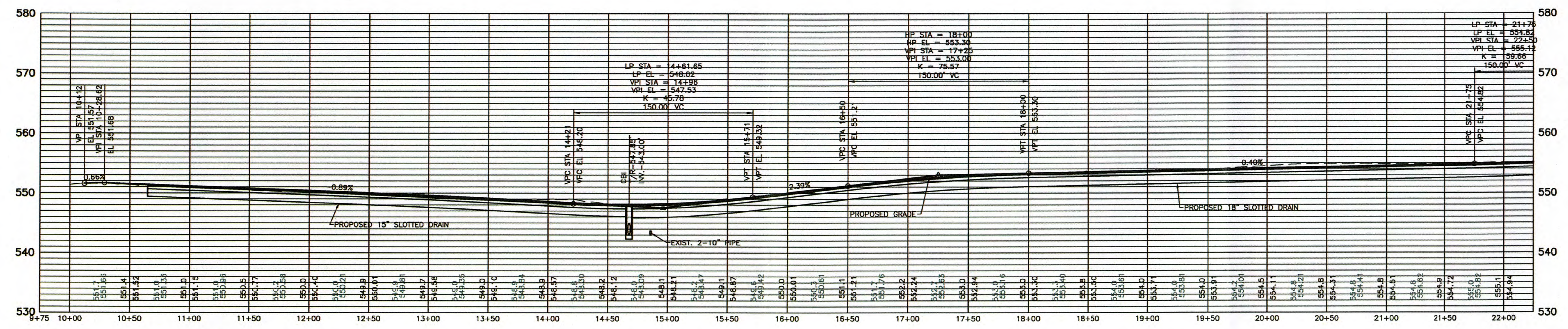
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 153-001, 153-002
 TOWN OF BURRILLVILLE,
 PROVIDENCE COUNTY, RHODE ISLAND

**PROPOSED ENBRIDGE
 GRADING PLAN**

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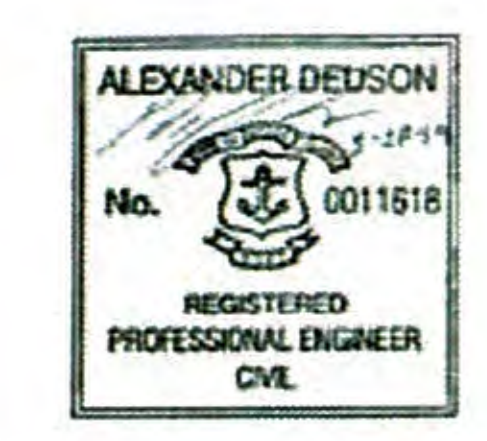


- NOTES:
1. ALL WORK WITHIN THE STATE'S ROW WILL CONFORM TO RIDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED 2013, WITH ALL REVISIONS AND R.I. STANDARD DETAILS, 1998 EDITION, WITH ALL REVISIONS.
 2. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2009, INCLUDING ALL REVISIONS.



PROJECT MANAGER C. JACOBS

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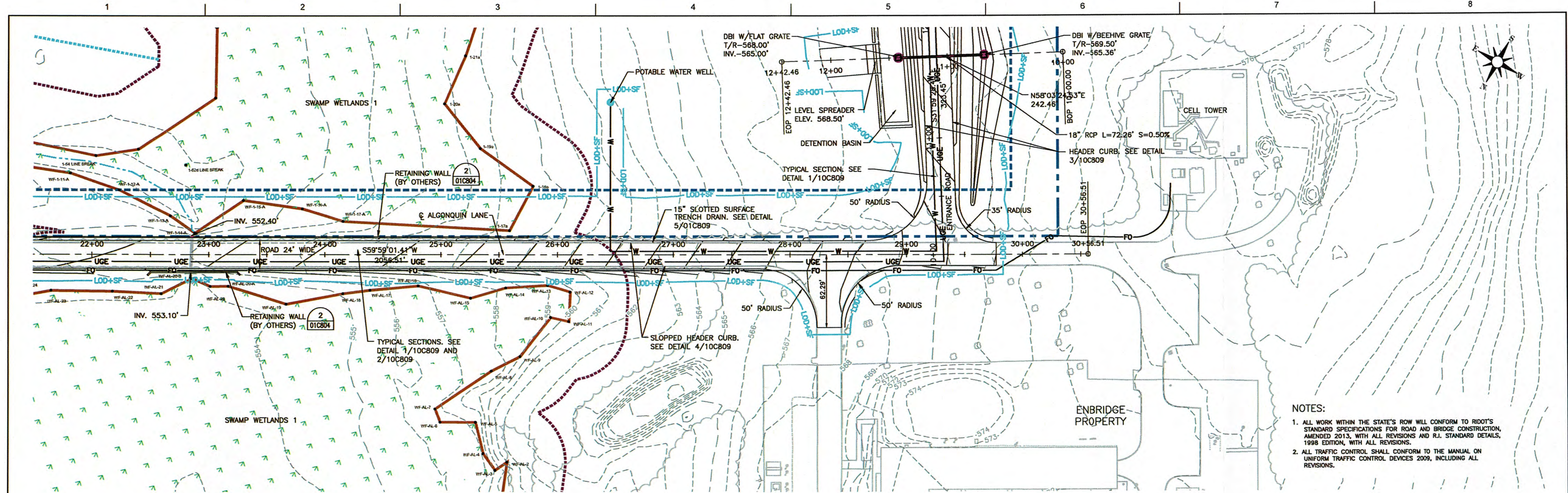


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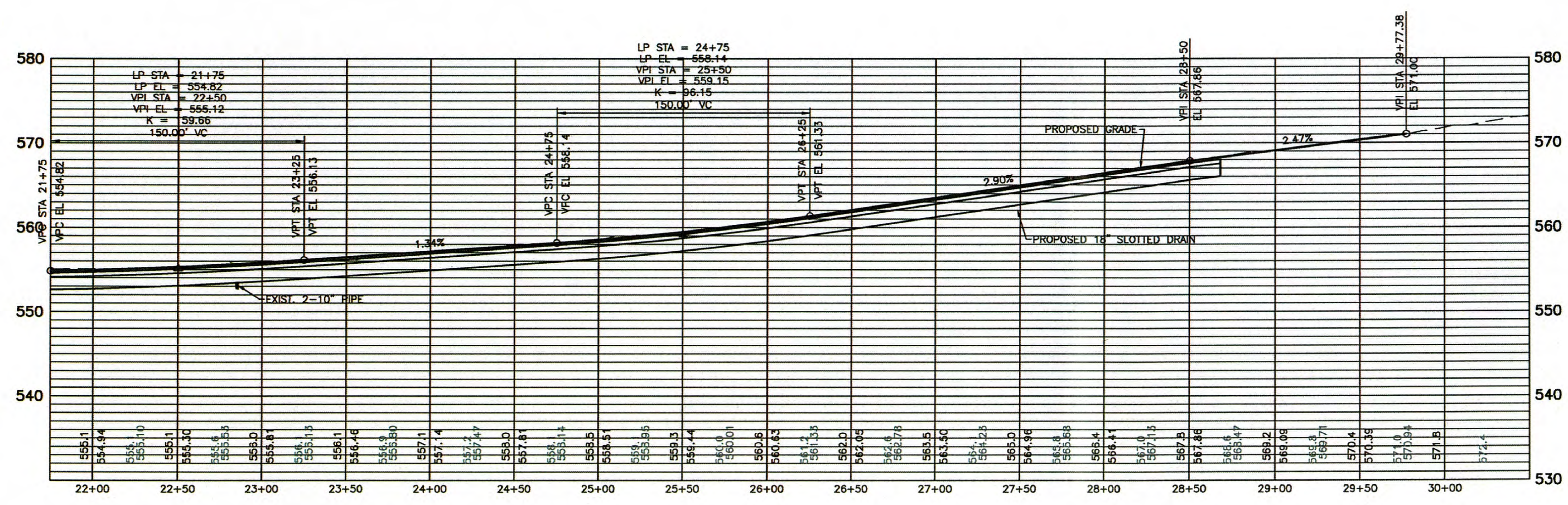
ALGONQUIN LANE
 PLAN & PROFILE

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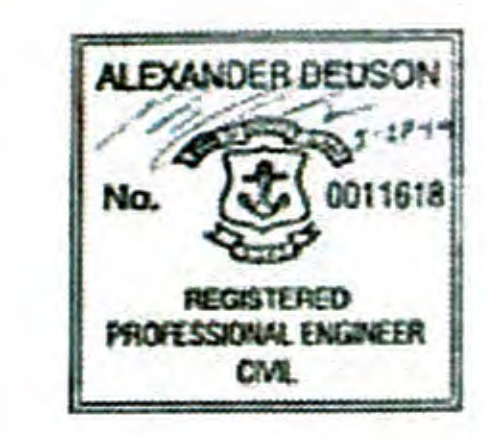
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5			

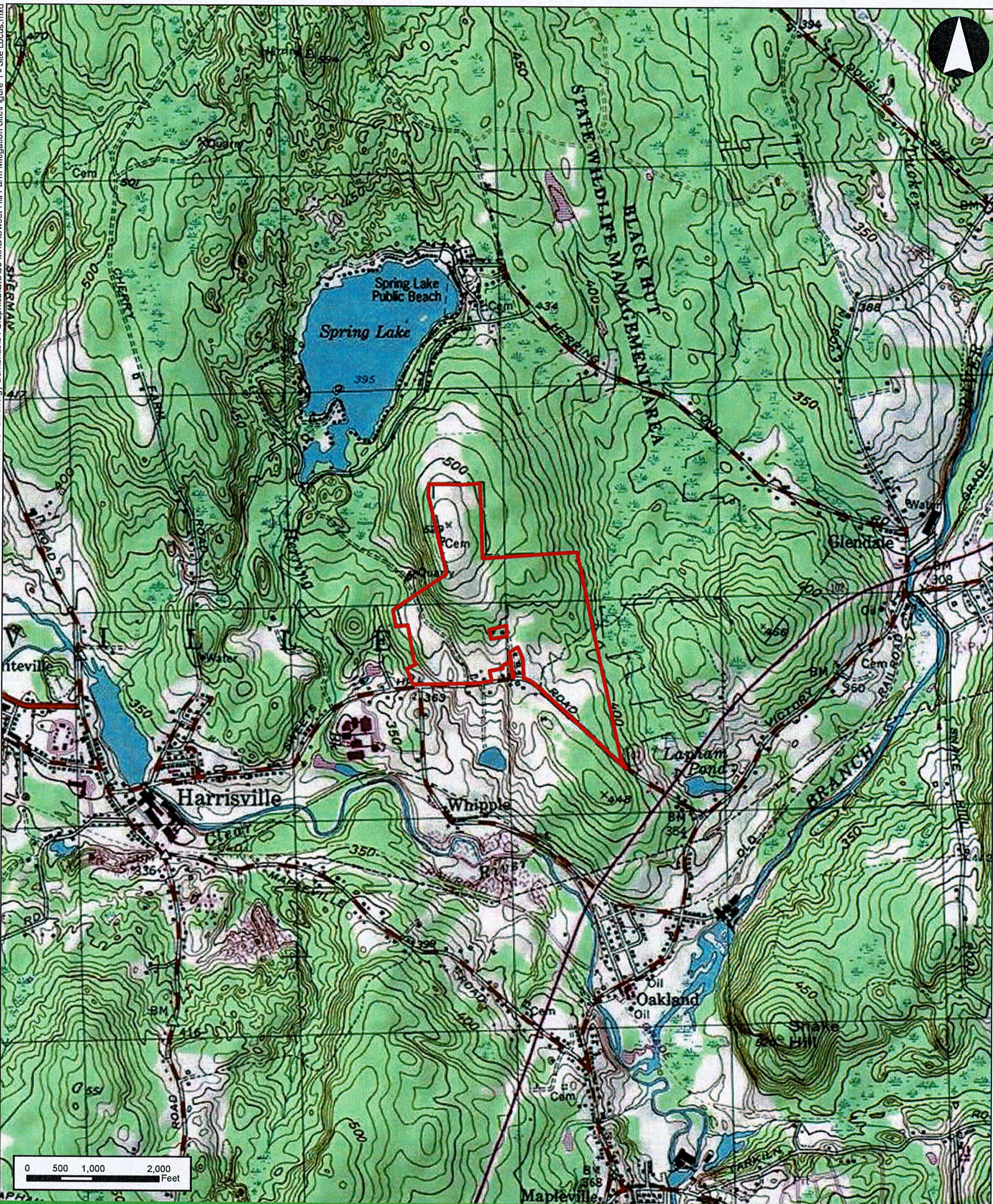


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ALGONQUIN LANE
 PLAN & PROFILE

FILENAME | 01C601.dwg | SHEET | 01C601
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Drawing Date: 2019/03/22
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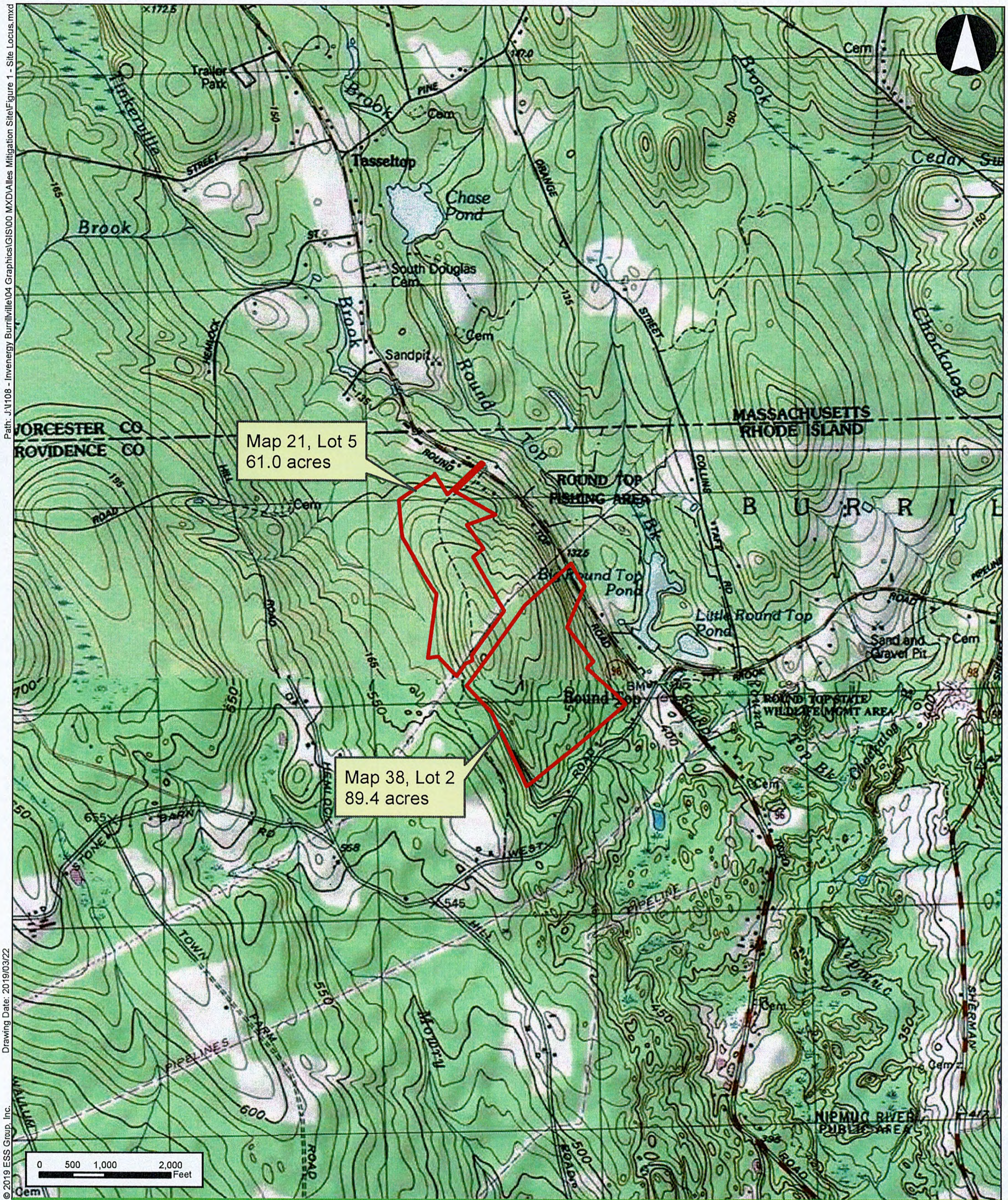
Sweet Hill Farm Property
Burrillville, RI

1 inch = 2,000 feet

Source: 1) Town of Burrillville, Parcel Data

Site Locus

Figure 1



Path: J:\1108 - Invenery Burrillville\04 Graphics\GIS\00 MXD\Alles Mitigation Site\Figure 1 - Site Locus.mxd
 Drawing Date: 2019/03/22
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Alles Property
Burrillville, RI

1 inch = 2,000 feet

Source: 1) Town of Burrillville, Parcel Data

Site Locus

Figure 9