

Section 1

Development Description

Section 1. Development Description

1.1 State Standards

Pursuant to the State's Site Law, the Applicant is providing a development description including:

- Project narrative;
- Topographic map (Exhibit 1-1);
- Construction plan (Exhibit 1-2); and
- Drawings (Exhibit 1-3).

1.2 Project Narrative

Twin Energy LLC (the “Applicant” or “Twin”), managed by Palmer Management Corporation, proposes to construct Twin Energy (the “Project”), a three-turbine wind energy facility in the Town of Rumford on South Twin Mountain, with associated infrastructure in both Rumford and the adjacent Town of Roxbury. The wind turbines are proposed in the Town of Rumford which is an “expedited permitting area” as defined in the Wind Energy Act (“WEA”), 35-A M.R.S. § 3451(3) and has an existing Wind Energy Facility Ordinance. The Project is designed to comply with state zoning and design requirements.

The Applicant proposes installing three GE-6.1-158 (or similar) wind energy generators. These machines were selected due to their nameplate capacity (6.1 Megawatts or “MW”), allowing the Applicant to maximize the output of the site while minimizing the Project’s footprint. The installed capacity of the Project is expected to be 18.3 MW. The Project is designed to maximize the clean, renewable power produced while minimizing impacts to the surrounding ecology.

The turbine model will be on a 117-meter tower with a rotor diameter of 158 meters; each turbine’s total tip height will be 196 meters. The wind turbines will be lit per Federal Aviation Administration regulations. (See Section 32: Best Practical Mitigation.) The Project wind turbines will be on South Twin Mountain (elevation 1900 ft to 2156 ft), 0.85 miles south of the operational RoxWind Project, and within the area designated as expedited for permitting under the Maine Wind Energy Act (“WEA”). This location is immediately south of the border between Rumford and Roxbury, Maine. The three turbines are all located in Rumford on 618-acre property, known as Tax Map 401, Lot 6. The associated facilities are on that property and extend onto adjoining parcels as depicted on the site plan (Exhibit 1-3).

The Project is designed to utilize an existing road on private property that originates from Horseshoe Valley Road in Roxbury and heads east toward the peak of North Twin

Mountain.¹ The road was constructed for the RoxWind project, commissioned in 2021. The existing road is approximately 4,300 feet and is entirely within the Town of Roxbury. The Applicant has an easement to use the existing road.

At the top of North Twin, approximately 10,760 feet of new road will be constructed along private property to connect North and South Twin and provide access to the three Twin turbines. This new road is approximately 24 feet wide and will drop in elevation as it descends the peak of North Twin and then will maintain a stable elevation until it ascends in Rumford at South Twin. This new road is designed to minimize wetland impacts and new land clearing while meeting necessary design specifications for delivery of the equipment. In addition, the Project has worked in consultation with the MDIFW to minimize impacts to listed species, and, where such impacts occur, provide improvements to the existing site conditions.

In Rumford, the Project will require approximately 3,266 feet of crane roads and pads to connect and build each turbine. The crane road will be approximately 39.5 feet wide, and the crane pads are approximately 120 feet long x 70 feet wide. The wind turbine foundations will be just outside of these crane pads.

As the majority of the property under the Project is forested, in most locations the new access road, ridge line road, and crane pads are screened by existing vegetation and will not be highly visible from outside the immediate area. For additional details on the visual impact associated with the Project, see Section 30.

The Project is in the Independent System Operator (“ISO-NE”) queue and is being studied. The outcome of the studies may affect the final interconnection point and will dictate the equipment required by Central Maine Power (“CMP”) and ISO-NE to interconnect and operate the facility. A feasibility study was completed in 2022 and the Applicant is working with CMP to finalize those designs.

The Applicant proposes to install the following:

- Collection Lines: Among the turbines and within the crane roads and pad areas, the Applicant proposes to install underground communication and electrical

¹ The Applicant conducted environmental surveys and consulted with the Department of Inland Fisheries and Wildlife (“MDIFW”) to determine site access. It was determined through that process that utilizing the existing road would minimize the overall impact of the Project. See Section 7 for details on the environmental surveys and consultations for the Project.

infrastructure. Beyond the crane roads and crane pads, the lines will ascend a riser pole and run overhead, along the new access road, and then toward the point of interconnection (adjacent to existing cleared areas and collector systems). At the point of interconnection, the Project collector lines are expected to tie into CMP's existing Section 137 line.

- **Substation and Switchyard:** There is no Project-owned substation or switchyard. Project-owned infrastructure will end at the point of change in ownership on property controlled by the Project.
- **Met Tower:** To comply with ISO-NE requirements, the Applicant proposes to erect a 10-meter tall met tower on South Twin to collect "live" meteorological data.

The Applicant proposes a communication building along Roxbury Notch Road near the point of interconnection. The communications building will be approximately 14 feet by 19 feet and house communications, control, and sensitive electronic equipment. This land is not actively used for timber harvesting and currently is used to host electrical and communications infrastructure, both for CMP and the existing RoxWind project. The addition of the Project's infrastructure should not noticeably alter the current use of this property.

The Project is primarily proposed on land that has been historically used for timber harvesting and will continue to be used for timber harvesting during the Project's operations. Easements for the Project are granted across properties that host electrical infrastructure. Only a small portion of the parcels' acreage will be removed from timber harvesting during the life of the Project. New infrastructure designed for the Project includes improving access historically used by equipment on site and stabilizing stream crossings impacted by harvesting activities. At the end of the Project's useful life, and after it has been decommissioned, the land used for the Project will be revegetated as dictated through the decommissioning process.

A draft schedule of the construction sequence is described in Table 1.1 on the following page. (This schedule is subject to change.)

Table 1.1

| Activity | 2024 | | | | | 2025 | | | | | | | | | | |
|-----------------------------|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov |
| Clearing & Grubbing | | | | | | | | | | | | | | | | |
| Blasting | | | | | | | | | | | | | | | | |
| Earthwork | | | | | | | | | | | | | | | | |
| Foundations | | | | | | | | | | | | | | | | |
| Turbine Delivery | | | | | | | | | | | | | | | | |
| Turbine Erection | | | | | | | | | | | | | | | | |
| Collector Line Construction | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | |
| COD | | | | | | | | | | | | | | | | |

A more detailed construction plan is included in Exhibit 1-2.

1.3 Topographic Map

A topographic map is included as Exhibit 1-1. The Project is in the Rumford Quadrangle.

1.4 Construction Plan

A detailed construction plan is included as Exhibit 1-2.

1.5 Drawings

Construction drawings are included as Exhibit 1-3.



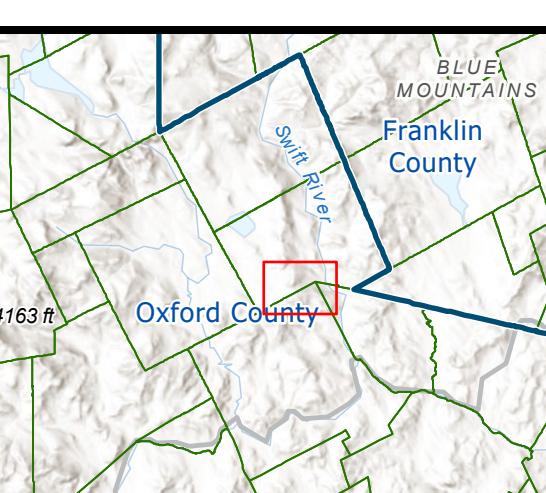
Twin Energy LLC
SLODA Permit Application

Exhibit 1-1
Topographic Map

Legend

- Project Boundary
- Turbine Locations
- Turbine Blade Overhang
- Project Roads
- Tree Clearing
- SCADA Building or Storage Locations
- 10m Met Tower
- Pole Locations
- Underground Electrical
- Overhead Collector Line
- Existing Wind Turbines
- Point of Interconnection
- Property Lines
- Maine Town Boundary

**TWIN ENERGY PROJECT
OXFORD COUNTY, ME
OVERVIEW MAP**



DATE: 11/1/2023

DRAWN BY: SJS

CHECKED BY: LDM

SCALE

400 200 0 400 800 1,200

FIGURE 1

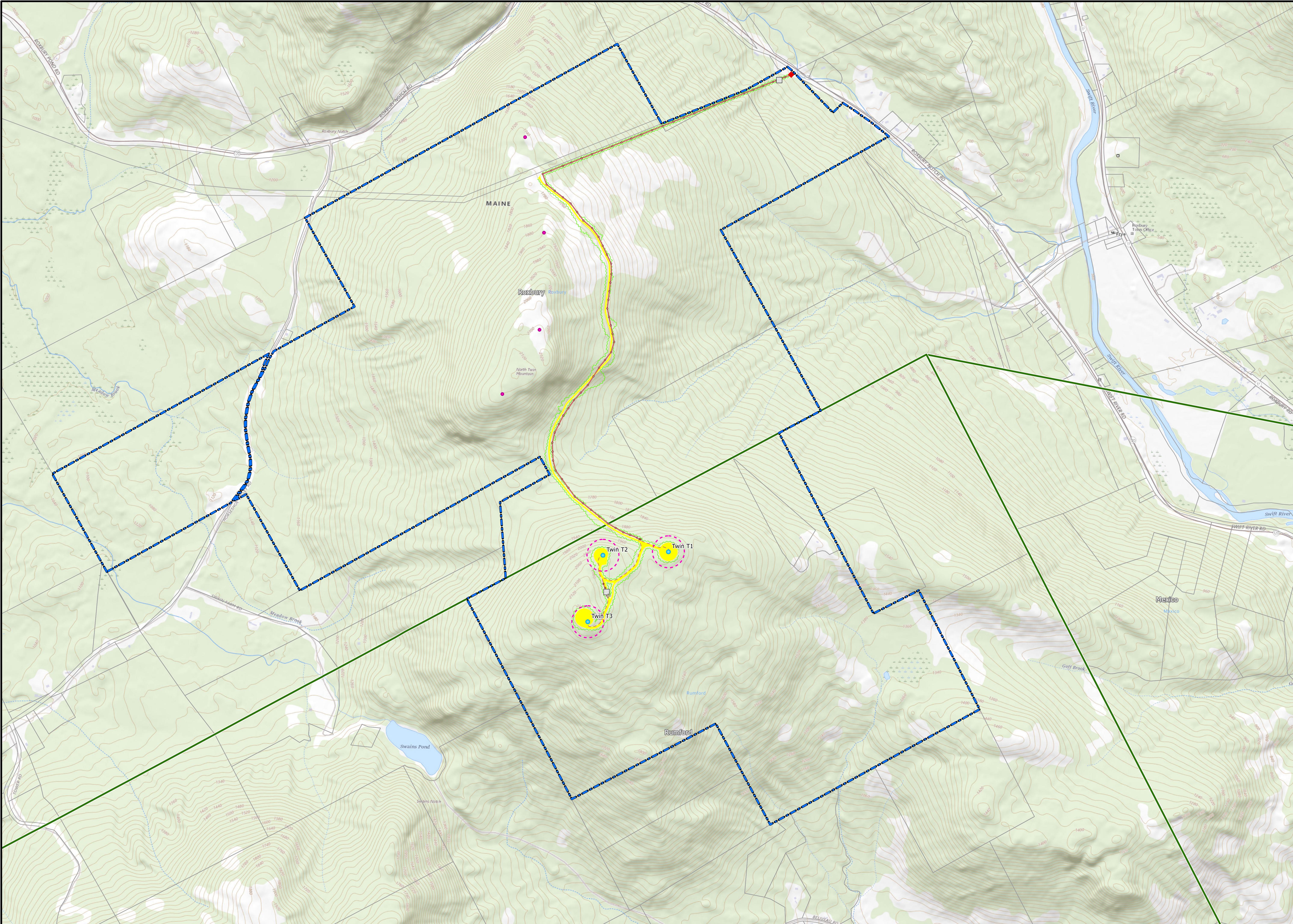


Exhibit 1-2 Construction Plan

The Applicant will construct the Project in a manner that minimizes environmental impacts and complies with all regulatory and agency requirements. On an ongoing and as needed basis, the Applicant will employ several environmental consultants to provide their expertise on specific environmental concerns, such as wetland impacts, soil disturbances, and bat habitat. The Applicant have incorporated the consultants' recommendations into the Project design and construction plan.

Below is a sample of some of the recommendations that the Applicant will follow, to the extent feasible, to minimize the Project's environmental impacts:

- Collector line clearing will occur during the winter under frozen conditions to reduce soil disturbance.
- Several best management practices for erosion and sediment control will be utilized, such as stopping work during periods of rain and regularly checking erosion control barriers.

The Applicant is submitting their SLODA permits in November 2023. Assuming the permitting process goes according to plan, the Applicant expects to begin construction in August 2024 and finish in November 2025. As mentioned above, much of the clearing and staging activities will occur in the winter construction period, which lasts from November 1st, 2024, to April 15th, 2025, in order to reduce soil disturbance. To account for any winter weather in this period, the site contractor will perform a visual inspection of all erosion measures and make any necessary repairs after any rainfall or snowstorm. The following paragraphs provide an overview of the construction process; however, this schedule is subject to change due to weather and environmental conditions.

The Project will be accessed from an existing road that originates at 54 Horseshoe Valley Road and will use that access road as well as any existing logging roads to approach South Twin Mountain. The site will first need to be cleared before any construction can begin. To preserve soil stability during this process, erosion control measures will be implemented, and low-growing vegetation will be left untouched. Once the site has been sufficiently cleared, grubbing and earthwork will be completed to prepare for the construction of crane pads and access roads. Minor grading changes may be necessary to construct crane pads and access roads, but this process will occur in a manner that minimizes the area of exposed soil at any one time. Once the necessary roads and pads are built, foundations will be laid with concrete.

As the foundations are being laid, the electrical system will also be put into place. Underground collection systems along turbine strings will be constructed during earthwork activities in those

areas, and underground collection lines along existing access roads, as well as the overhead collection system, will be constructed at another time convenient with the Project schedule.

When turbines are delivered to the site, they will be delivered directly to the turbine pads. Turbine components will be erected by several crews who will each focus on a specific component (such as low-level, mid-level, and upper-level components). Turbine erection is expected to proceed linearly, but this may be subject to change depending on the final construction schedule. As this process is occurring, internal electrical work will also be underway.

After all of the construction is complete, an extensive clean-up and stabilization process will occur. Work areas will be cleared of all materials and equipment, excavations and access road ruts will be filled, and all construction rubbish will be disposed of. In addition, any disturbed soil will be respread with stockpiled topsoil, and laydown areas will be allowed to revegetate.



Twin Energy LLC
SLODA Permit Application

Exhibit 1-3
Drawings

Exhibit 1-4

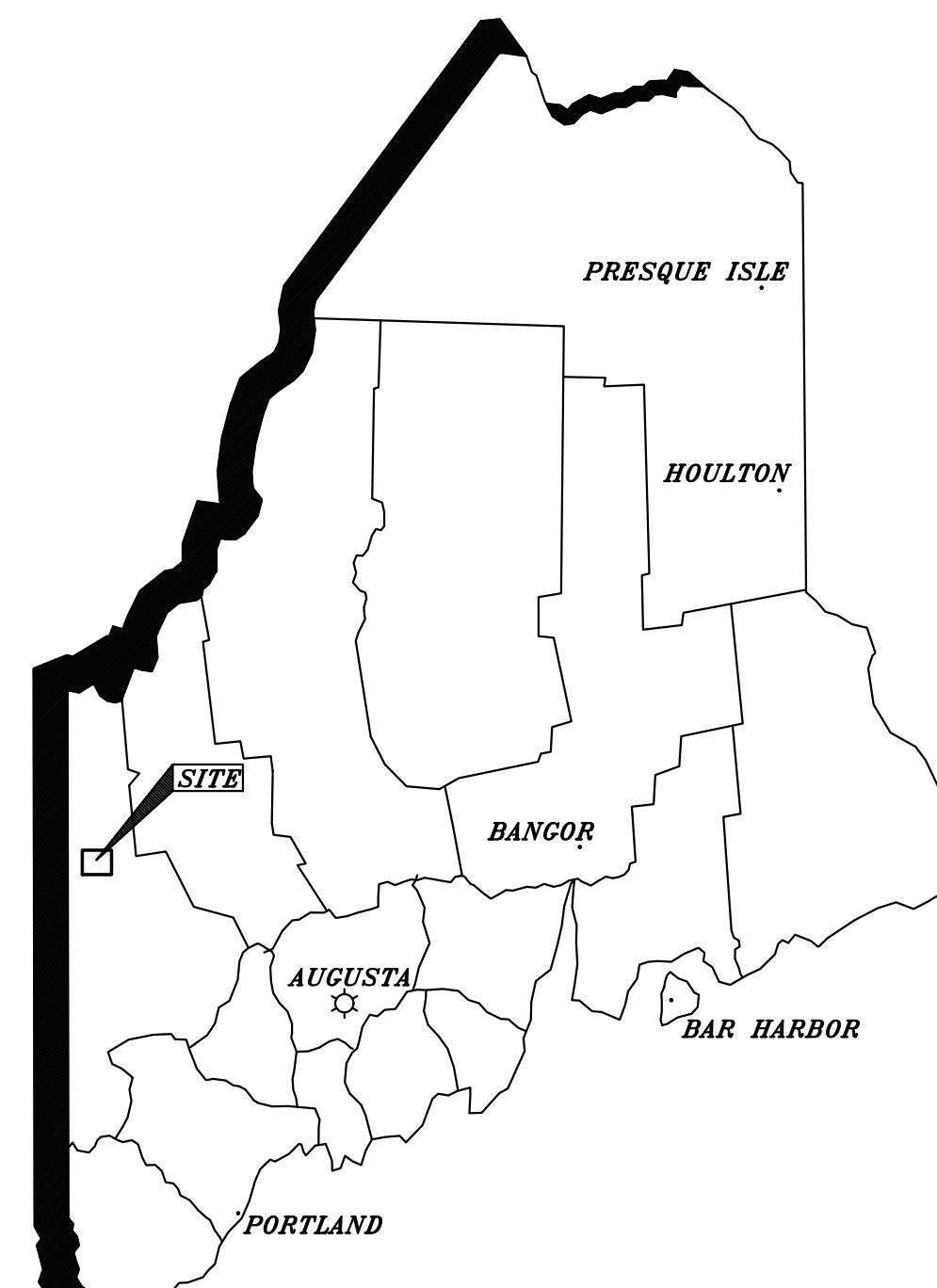
MAINE DEP PERMIT SET
TWIN ENERGY LLC

RUMFORD, MAINE

PREPARED FOR TWIN ENERGY LLC.

381.20.01

NOVEMBER 3, 2023

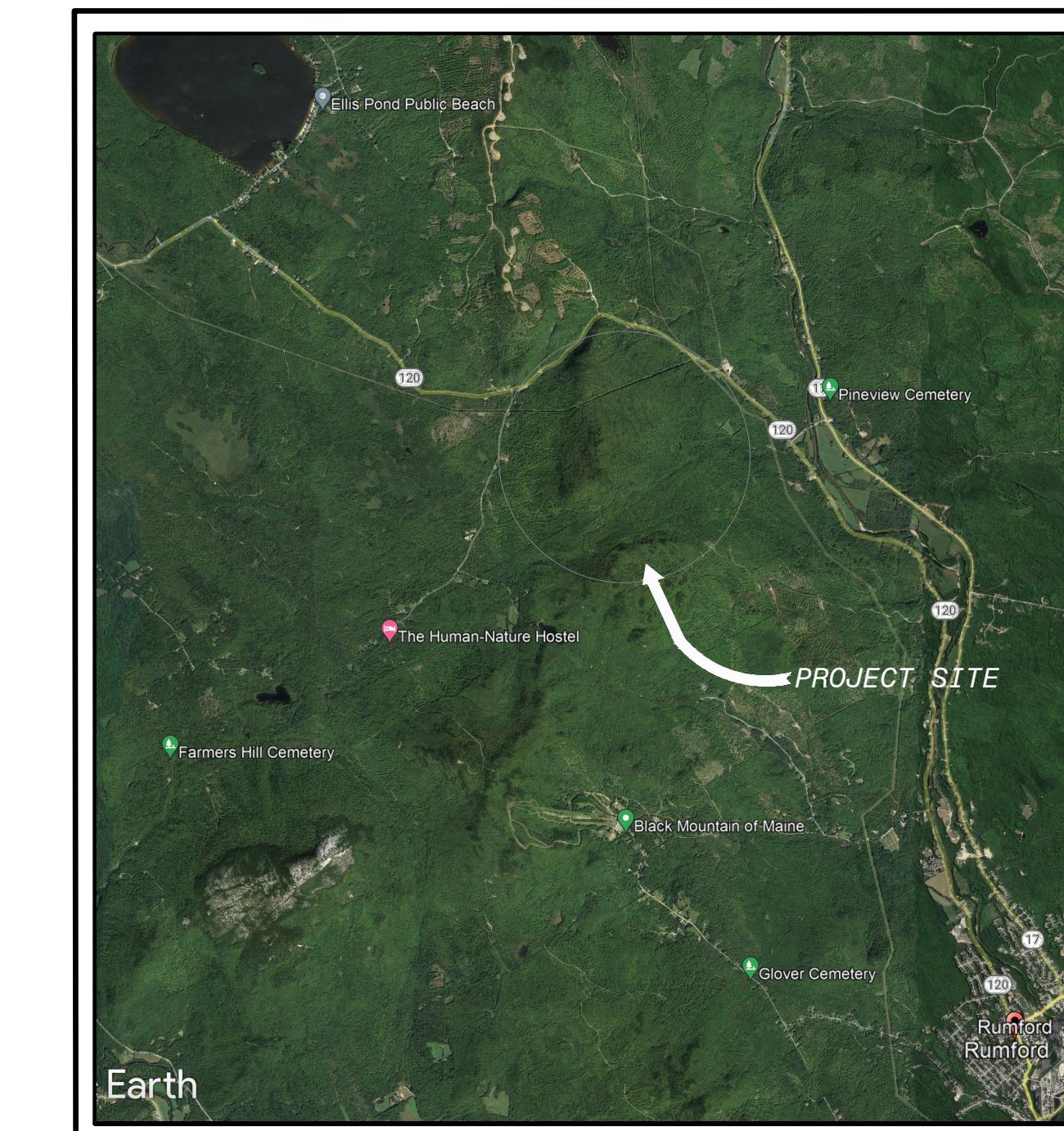


LOCUS MAP

SHEET INDEX

SHEET NO. DESCRIPTION

| COVER | |
|---------|--|
| 1 | SITE INDEX |
| 2 - 6 | DETAILS |
| 7 - 11 | SITE GRADING PLAN |
| 12 | OVERHEAD TRANSMISSION LINE AND SCADA BUILDING PLAN |
| 13 | EROSION AND SEDIMENTATION CONTROL PLAN |
| 14 | EROSION AND SEDIMENTATION CONTROL PLAN AND NOTES |
| 15 - 16 | PRE-DEVELOPMENT DRAINAGE PLAN |
| 17 - 18 | POST-DEVELOPMENT DRAINAGE PLAN |

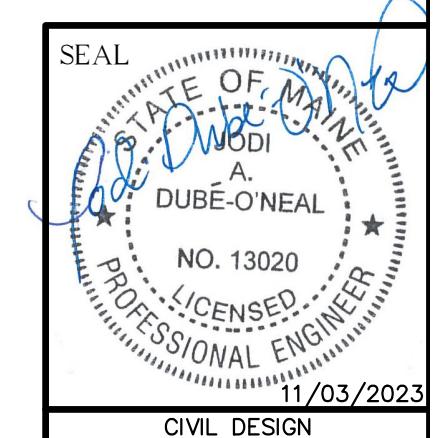


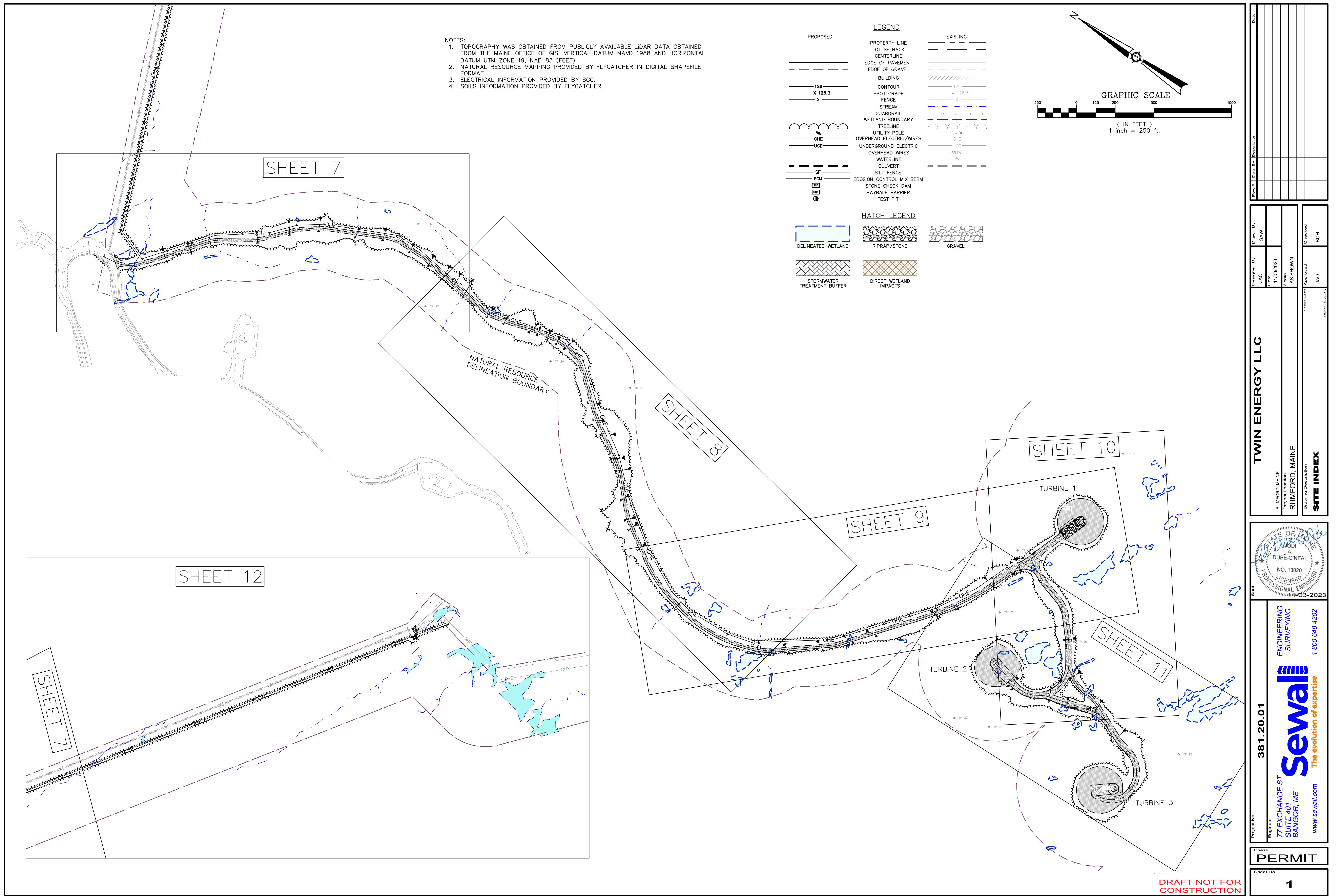
VICINITY MAP

DESIGN TEAM:

Sewall

1 800 648 4202 www.sewall.com





GENERAL NOTES & CONSTRUCTION SPECIFICATIONS

- EVERY WEEK AND AFTER PRECIPITATION PRODUCING THE EQUIVALENT OF ONE-HALF INCH OF RAINFALL, THE CONTRACTOR SHALL INSPECT AND MAINTAIN ALL EROSION CONTROL MEASURES. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, REMOVAL OF SEDIMENT FROM SILT FENCES IF SOIL ACCUMULATES TO A DEPTH OF ONE-HALF THE FABRIC HEIGHT AND REMOVAL OF EXCESS ACCUMULATED SEDIMENT FROM DETENTION BASINS (IF APPLICABLE).
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE LATEST VERSION OF THE "MAINE EROSION & SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS" BY MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MEASURES, INCLUDING MATERIALS, CONSTRUCTION, MAINTENANCE AND REMOVAL.
- SEE DETAILS FOR SLOPE STABILIZATION OPTIONS.
- CONTRACTOR SHALL ADJUST CULVERT INVERT ELEVATIONS AND DITCHLINE AS NECESSARY TO PROVIDE APPROPRIATE COVER AND POSITIVE DRAINAGE.

SPECIFIC MAINTENANCE INSTRUCTIONS:

- STRAW/HAY BALE BARRIERS, SILT FENCE, FILTER BARRIERS – MAKE ANY REQUIRED REPAIRS IMMEDIATELY. REPLACE W/ TEMPORARY CHECK DAM IF THERE IS UNDERCUTTING AT CENTER OR EDGES, OR IF LARGE VOLUMES OF WATER ARE IMPOUNDED. REPLACE DECOMPOSED OR INEFFECTIVE FABRIC IMMEDIATELY. REMOVE SEDIMENT DEPOSITS AFTER EACH STORM. DEPOSITS REMAINING IN PLACE AFTER SILT FENCE OR FILTER FABRIC IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM W/ EXISTING GRADE, PREPARED AND STABILIZED.
- CULVERTS – CULVERTS SHOULD BE CHECKED MONTHLY FOR ACCUMULATION OF DEBRIS. IF NEEDED THEY SHOULD BE CLEANED.
- A STORMWATER MAINTENANCE LOG SHOULD BE MAINTAINED TO DOCUMENT COMPLIANCE WITH THE SUGGESTED SCHEDULE.

SEEDING NOTES:

TEMPORARY SEEDING NOTES

- ANY DISTURBED AREAS TO BE LEFT IN ROUGH GRADED FORM FOR MORE THAN 30 DAYS (7 DAYS FOR SENSITIVE AND CRITICAL AREAS) BUT LESS THAN ONE GROWING SEASON SHALL BE LIMED, FERTILIZED, TEMPORARILY SEEDED AND MULCHED OR OTHERWISE STABILIZED.
- EXPOSED OR BARE SOIL IN SENSITIVE AND CRITICAL AREAS ARE TO BE MULCHED AT THE COMPLETION OF WORK, EACH DAY, IF SIGNIFICANT RAINFALL IS PREDICTED.
- APPLICATION RATES AND MATERIALS USED SHALL BE THE SAME AS FOR PERMANENT SEEDING EXCEPT SEED MIXTURE SHALL BE ANNUAL RYEGRASS.

PERMANENT SEEDING NOTES

- DURING PERIODS FROM APRIL 15 TO SEPTEMBER 15, AREAS DISTURBED SHALL BE PERMANENTLY SEEDED WITH CONSERVATION SEED MIX (A MIXTURE OF CREEPING RED FESCUE, REDTOP, TALL FESCUE, CLOVER AND ANNUAL RYE), AT A RATE OF 1.0 LB/1,000 SF.
- PERMANENT SEEDING AND MULCHING PLAN – THE FOLLOWING GENERAL PRACTICES WILL BE USED TO RE-ESTABLISH FINAL VEGETATION.
 - IN AREAS NOT STABILIZED WITH ECM, LOAM OR RECLAIMED TOPSOIL, WILL BE SPREAD OVER DISTURBED AREAS AND GRADED TO A UNIFORM DEPTH AND A NATURAL APPEARANCE.
 - FINAL SEEDING SHALL BE COMPLETED IMMEDIATELY (WITHIN 7 DAYS) FOLLOWING ANY NECESSARY GRADED. ALL FINAL FERTILIZING AND SEEDING SHALL ADHERE TO THESE SPECIFICATIONS.
 - AREAS NOT STABILIZED WITH ECM SHALL BE MULCHED IMMEDIATELY AFTER SEEDING, IMMEDIATELY UPON FIRST SIGNS OF ANY EVIDENCE OF SIGNIFICANT EROSION OCCURRING. THE CONTRACTOR SHALL REPAIR AND MULCH ALL SUCH AREAS UNTIL THE AREA IS STABILIZED. MULCHING SHALL CONSIST OF HAY MULCH, HYDRO-MULCH, OR ANY SUITABLE SUBSTITUTE. MULCHING SHALL BE MONITORED ACCORDING TO THE MONITORING SCHEDULE. SHOULD MULCHING PROVE TO BE INEFFECTIVE, NETTING OR MATTING SHALL BE USED IN ITS PLACE.
 - STRAW MULCH OR HAY SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE (90 POUNDS OR 2 BALES/1,000 SQUARE FEET) UNLESS OTHERWISE SPECIFIED.
 - HYDRO-MULCH SHALL CONSIST OF A MIXTURE OF TACKIFIER, WOOD FIBER OR PAPER FIBER AND WATER SPRAYED OVER A SEEDED AREA. HYDRO-MULCH SHALL NOT BE USED DURING THE FALL, WINTER, OR MUD SEASON.
 - DORMANT SEEDING, BETWEEN FIRST FROST AND SNOWFALL, WILL BE APPLIED AT TWICE THE STANDARD RATE AND HEAVILY MULCHED.

CONSTRUCTION SEQUENCE & PHASING NOTES

CLEARING OF VEGETATION AND STOCKPILING OF TOPSOIL

- INSTALL EROSION CONTROL MEASURES PRIOR TO SOIL DISTURBANCE.
- FLAG & MARK CLEARING LIMITS OF ACCESS ROADS, CRANE PATHS, & COLLECTION LINES, WITH THE OTHER CONSTRUCTION AREAS TO FOLLOW.
- STUMPS TO BE REMOVED FROM LOCATIONS WHERE STRUCTURES (I.E., ROADS, TURBINES, SUBSTATION, OEM BUILDING, STORMWATER MANAGEMENT SYSTEMS, ETC.) ARE TO BE INSTALLED/CONSTRUCTED. STUMPS TO BE BURIED IN PLACE OR GROUND ON-SITE AND USED AS AN EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURE BY THE CONTRACTOR.
- CLEARING AND TEMPORARY EARTHWORK WILL BE PERMITTED BEYOND CLEARING/EARTHWORK LIMITS SHOWN ON THE DESIGN TO PROVIDE APPROPRIATE COMPONENT DELIVERY CLEARANCES. CONTRACTOR SHALL MINIMIZE DISTURBANCE OUTSIDE FLAGGED CLEARING LIMITS TO SMALLEST EXTENT PRACTICABLE AND SHALL AVOID PROTECTED NATURAL RESOURCES, UNLESS OTHERWISE NOTED.
- LOW GROWING VEGETATION TO REMAIN, WHERE FEASIBLE, TO PROVIDE SOIL STABILITY.
- EXISTING TOPSOIL IN AREAS OF DEVELOPMENT TO BE STOCKPILED ON-SITE FOR USE IN FINAL STABILIZATION OF TURBINE CLEARINGS, LAY DOWN AREAS, ETC.
- MULTIPLE LAYERS OF SEDIMENTATION PROTECTION SHALL BE INSTALLED AROUND TOPSOIL STOCKPILES TO PROTECT DOWN STREAM RESOURCES.

CONSTRUCTION OF ACCESS ROADS, CRANE PATHS, & LAY DOWN/STAGING AREAS

- MINOR GRADING CHANGES INCLUDING VERTICAL AND HORIZONTAL ADJUSTMENTS MAY BE NECESSARY, DEPENDING ON FIELD CONDITIONS. CONTRACTOR SHALL NOT MAKE USE THAT TOPOGRAPHIC FOOTPRINT OR INTENT OF STORMWATER DRAINAGE DESIGN. IN ADDITION, THESE MODIFICATIONS SHALL IN NO WAY HINDER DELIVERY OF COMPONENTS OR CONSTRUCTIBILITY OF PROJECT IN GENERAL. CONTRACTOR SHALL RECORD ALL MODIFICATIONS FOR INCLUSION IN PROJECT AS-BUILT DRAWINGS.
- MINOR ADJUSTMENTS TO ROADWAY GRADES AND CULVERT ELEVATIONS MAY BE MADE TO ENSURE PROPER COVER OVER CULVERTS AND TO PROVIDE PROPER DRAINAGE. CLEARING AND MINOR EARTHWORK OUTSIDE DEPICTED CLEARING/GRADING LIMITS MAY BE REQUIRED BUT WILL NOT IMPACT PROTECTED RESOURCES.
- CONSTRUCTION OF ACCESS ROADS, CRANE PATHS, & LAY DOWN/STAGING AREAS WILL OCCUR IN A MANNER TO MINIMIZE AREAS OF EXPOSED SOIL AT ANY ONE TIME (INCLUSIVE OF ANY OTHER EXPOSED SOIL AREAS WITHIN THE DESIGNATED LIMITS OF DISTURBANCE).
- ACCESS SHALL BE MAINTAINED TO EXISTING ROADS BISECTED BY PROPOSED PROJECT ROADS, PER LANDOWNER REQUIREMENTS. CLEARING AND EARTHWORK NECESSARY TO MAINTAIN ACCESS WILL BE PERMITTED BEYOND DEPICTED CLEARING AND EARTHWORK LIMITS SHOWN ON THIS DESIGN BUT WILL AVOID PROTECTED NATURAL RESOURCES.

CONSTRUCTION OF RIDGELINE COLLECTOR

- EARTHWORK (SUCH AS BENCHING) MAY BE REQUIRED FOR CONSTRUCTION OF COLLECTOR LINE FOR THE PURPOSE OF STABILIZING CONSTRUCTION EQUIPMENT AND GAINING ACCESS TO COLLECTOR STRUCTURES. APPROPRIATE EARTHWORK BMP'S WILL BE UTILIZED DURING THESE ACTIVITIES AND AREAS WILL BE ALLOWED TO REVEGETATE UPON COMPLETION OF CONSTRUCTION.
- CLEARING BEYOND DEPICTED CLEARING LIMITS MAY BE REQUIRED FOR INSTALLATION OF GUY ANCHORS AND REMOVAL OF DANGER TREES.

CONSTRUCTION OF PERMANENT STORMWATER MANAGEMENT SYSTEMS

- GRADING TO BE CONDUCTED IN ACCORDANCE WITH PERMITTED PERMANENT STORMWATER MANAGEMENT DESIGN.
- ONCE FINAL GRADES ARE ACHIEVED, EXPOSED SOIL SURROUNDING THE STORMWATER MANAGEMENT STRUCTURES TO BE PERMANENTLY STABILIZED.
- FINAL LOCATIONS OF STORMWATER STRUCTURES SHALL BE FIELD DETERMINED BASED UPON EXISTING TOPOGRAPHY BUT SHALL GENERALLY MEET THE INTENT OF THE STORMWATER DESIGN PLANS. CLEARING WILL BE PERMITTED BEYOND CLEARING LIMITS SHOWN ON THIS DESIGN TO ALLOW CONSTRUCTION OF STORMWATER MANAGEMENT SYSTEMS (SUCH AS LEVEL SPREADERS, DITCH TURNOUTS, ETC.). WHILE CONSTRUCTING STORMWATER MANAGEMENT SYSTEMS, CONTRACTOR SHALL MINIMIZE DISTURBANCE OUTSIDE FLAGGED CLEARING LIMITS TO SMALLEST EXTENT PRACTICABLE AND SHALL AVOID PROTECTED NATURAL RESOURCES.

CONSTRUCTION OF CRANE PADS

- AFTER THE SUBGRADE IS ESTABLISHED, CRANE PAD TO BE CONSTRUCTED WITH APPROPRIATE AGGREGATE MATERIAL SPREAD & COMPAKTED OVER A GEOTEXTILE LINER AS NECESSARY. MINOR GRADE ADJUSTMENTS MAY BE NEEDED DEPENDENT ON FIELD CONDITIONS.
- CRANE PADS MAY BE ORIENTATED WITHIN TURBINE PADS AS DETERMINED BY FIELD CONDITIONS AND CONTRACTOR MEANS & METHODS.
- CRANE PADS TO REMAIN IN PLACE FOR FUTURE MAINTENANCE & OPERATION.
- EXPOSED SOIL SURROUNDING CRANE PADS & TURBINE FOUNDATIONS TO BE STABILIZED. (SEE DETAIL)

CLEAN-UP & FINAL STABILIZATION

- UPON COMPLETION OF CONSTRUCTION ACTIVITIES, ALL WORK AREAS TO BE CLEARED OF CONSTRUCTION DEBRIS & OTHER MATERIALS.
- SPECIFIC CLEAN-UP REQUIREMENTS TO INVOLVE: REMOVAL OF ALL TEMPORARY WORK TRAILERS; REMOVAL OF MATERIAL & EQUIPMENT; DISPOSAL OF ALL RUBBISH RESULTING FROM CLEARING, CONSTRUCTION, & INSTALLATION; ROUGH GRADING & STABILIZATION OF EMBANKMENTS MADE FOR CONSTRUCTION PURPOSES; FILLING OF ANY EXCAVATIONS; & REPAIRING RUTS IN ACCESS ROADS.
- FINAL STABILIZATION OF ALL AREAS OF DISTURBED SOIL, WHERE FINAL GRADE HAS BEEN ACHIEVED, WILL INVOLVE RESPRADING OF STOCKPILED TOPSOIL MATERIAL & SEEDING, MULCHING WITH WOODWASTE MULCH, OR APPLICATION OF OTHER APPROVED STABILIZATION METHODS. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE PROJECTS PERMITS AND PLANS.
- LAYDOWN AREAS SHALL BE ALLOWED TO REVEGETATE WITHIN ONE YEAR. CONTRACTOR SHALL REGRADE AS NECESSARY TO AVOID CONCENTRATED FLOWS.

TURBINE FOUNDATIONS

- ELEVATIONS OF TURBINE FOUNDATIONS ARE BASED ON LIDAR DATA. FINAL ELEVATIONS OF FOUNDATIONS MAY BE ADJUSTED IN FIELD TO ACCOMMODATE ACTUAL TERRAIN CONDITIONS AND TO REDUCE IMPACTS. ALL ADJUSTMENTS SHALL BE APPROVED BY OWNER PRIOR TO IMPLEMENTATION.
- FOUNDATION DRAIN MAY BE REQUIRED AT FOUNDATIONS AS SPECIFIED BY FOUNDATION CONSTRUCTION PLANS.

WINTER CONSTRUCTION NOTES

- THE WINTER CONSTRUCTION PERIOD SHALL BE FROM NOVEMBER 1 THROUGH APRIL 15.
- WHERE FEASIBLE, A MINIMUM 25-FT BUFFER SHALL BE MAINTAINED BETWEEN SILT FENCE OR OTHER PERIMETER CONTROLS AND ROADS TO ALLOW FOR SNOW CLEARING AND MAINTENANCE.
- DRAINAGE STRUCTURES SHALL BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
- ACCEPTABLE OVER-WINTER STABILIZATION SHALL CONSIST OF VEGETATION (MIN. 75% MATURE) MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, RIPRAP OR GRAVEL ROAD BASE.
- EROSION PREVENTION AND SEDIMENT CONTROL MEASURES THAT REQUIRE EARTH DISTURBANCE (E.G., CONSTRUCTION FENCE AND SILT FENCE) SHALL BE INSTALLED PRIOR TO THE GROUND FREEZING. DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERM'S.
- FROM NOVEMBER 1 TO APRIL 15, MULCH SHALL BE INSTALLED AT DOUBLE THE NORMAL RATE. NETTING OR OTHER MEANS APPROVED BY THE ENGINEER SHALL BE USED TO MINIMIZE WIND EROSION OF MULCHING.
- PRIOR TO STABILIZATION, ICE AND SNOW SHALL BE REMOVED TO LESS THAN 1-IN.
- EXCAVATED FROZEN SOILS SHALL BE STOCKPILED IN LEVEL AREAS AND SHALL NOT BE USED UNTIL THAWED. SEE STOCKPILING NOTES.
- EXCAVATION OF SOILS IN SHALLOW GROUNDWATER AREAS SHALL BE MINIMIZED IF AT ALL POSSIBLE DURING WINTER, AND LIMITED TO ONLY THOSE AREAS THAT CAN BE STABILIZED DURING THE SAME DAY.
- TO ENSURE COVER OF DISTURBED SOIL IN ADVANCE OF A MELT EVENT, AREAS OF DISTURBED SOIL MUST BE STABILIZED AT THE END OF EACH WORK DAY, WITH THE FOLLOWING EXCEPTIONS:
 - IF NO PRECIPITATION OR MELTING EVENT IS FORECAST WITHIN 24 HOURS AND WORK WILL RESUME IN THE SAME DISTURBED AREA WITHIN 24 HOURS, DAILY STABILIZATION IS NOT NECESSARY.
 - DISRUPTED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS BUILDING FOUNDATIONS AND OPEN UTILITY TRENCHES.
- ENGINEER MAY MAKE NECESSARY ADJUSTMENTS TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN AND ASSOCIATED EROSION PREVENTION AND SEDIMENT CONTROL MEASURES (E.G., CONSTRUCTION FENCE AND SILT FENCE) TO ACCOMMODATE ANTICIPATED SNOW STORAGE AREAS.
- AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCE, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL COVER. DURING WINTER CONSTRUCTION A DOUBLE ROW OF SEDIMENT BARRIERS SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. NATURAL RESOURCE CROSSINGS SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE.
- STOCKPILES OF SOIL SHALL BE MULCHED FOR OVER-WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A 4-INCH LAYER OF EROSION CONTROL MIX.
- MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL, IN THE SPRING, INSPECT AND REPAIR ANY DAMAGES OR BARE SPOTS.
- WINTER CONSTRUCTION SHALL BE IN ACCORDANCE WITH REGULATORY PERMIT. PERMIT REQUIREMENTS SHALL SUPERCEDE ANY DISCREPANCY IN ABOVE LISTED NOTES.

DEWATERING

- CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY DEWATERING EXCAVATIONS DURING CONSTRUCTION.
- CONTRACTOR SHALL DISPOSE OF PUMPED WATER IN APPROPRIATE MANNER TO AVOID CONCENTRATED FLOWS FROM SITE. THE USE OF SETTLEMENT BASINS OR SEDIMENT CONTROL DEVICES SUCH AS "DIRTBAGS" AND TEMPORARY SEDIMENT BASINS SHALL BE EMPLOYED TO SEPARATE SEDIMENTS FROM DEWATERING ACTIVITIES AS NECESSARY. PUMPED WATER WILL BE DIRECTED AWAY FROM RESOURCES TO NATURAL BUFFER AREAS OR OTHER ACCEPTABLE STABILIZED AREAS. METHODS OF DEWATERING AND THE SEDIMENT CONTROL DEVICES SHALL BE APPROVED BY THE ENGINEER AT EACH LOCATION.
- DURING TEMPORARY DEWATERING ACTIVITIES CONTRACTOR SHALL OUTLET FLOWS TO SEDIMENT CONTROL DEVICES. THESE DEVICES SHALL BE LOCATED ON UNDISTURBED SOILS THAT ARE CAPABLE OF ALLOWING SURFACE INFILTRATION OR IN NEAREST AVAILABLE ROADSIDE DITCH. PERMANENT OUTLETS LOCATED WITHIN DITCH LINES SHALL BE STABILIZED WITH RIPRAP. PERMANENT OUTLETS LOCATED IN WOODED AREAS SHALL BE STABILIZED WITH RIPRAP FOLLOWED BY A LEVEL SPREADER TO ELIMINATE CONCENTRATED FLOWS. ALL OUTLET PIPES SHALL HAVE STAINLESS STEEL RODENT SCREENS.
- PERMANENT DEWATERING REQUIRED FOR FOUNDATION DRAINAGE SHALL OUTLET AS GRADES ALLOW. PERMANENT OUTLETS SHALL BE LOCATED ON UNDISTURBED SOILS THAT ARE CAPABLE OF ALLOWING SURFACE INFILTRATION OR IN NEAREST AVAILABLE ROADSIDE DITCH. PERMANENT OUTLETS LOCATED WITHIN DITCH LINES SHALL BE STABILIZED WITH RIPRAP. PERMANENT OUTLETS LOCATED IN WOODED AREAS SHALL BE STABILIZED WITH RIPRAP FOLLOWED BY A LEVEL SPREADER TO ELIMINATE CONCENTRATED FLOWS. ALL OUTLET PIPES SHALL HAVE STAINLESS STEEL RODENT SCREENS.
- IN LOCATIONS WHERE OUTLET REQUIRES THE PLACEMENT OUTSIDE THE DEPICTED CLEARING LIMITS CONTRACTOR SHALL MINIMIZE CLEARING AND DISTURBANCE TO SMALLEST EXTENT PRACTICABLE AND SHALL AVOID PROTECTED NATURAL RESOURCES.

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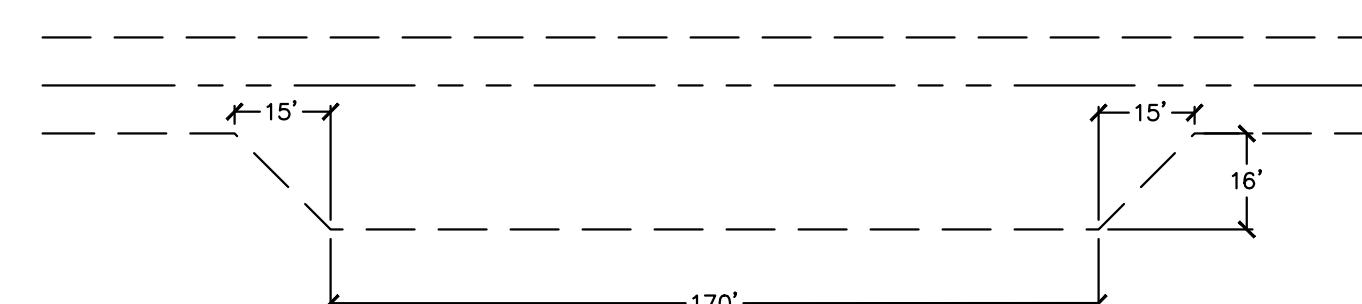
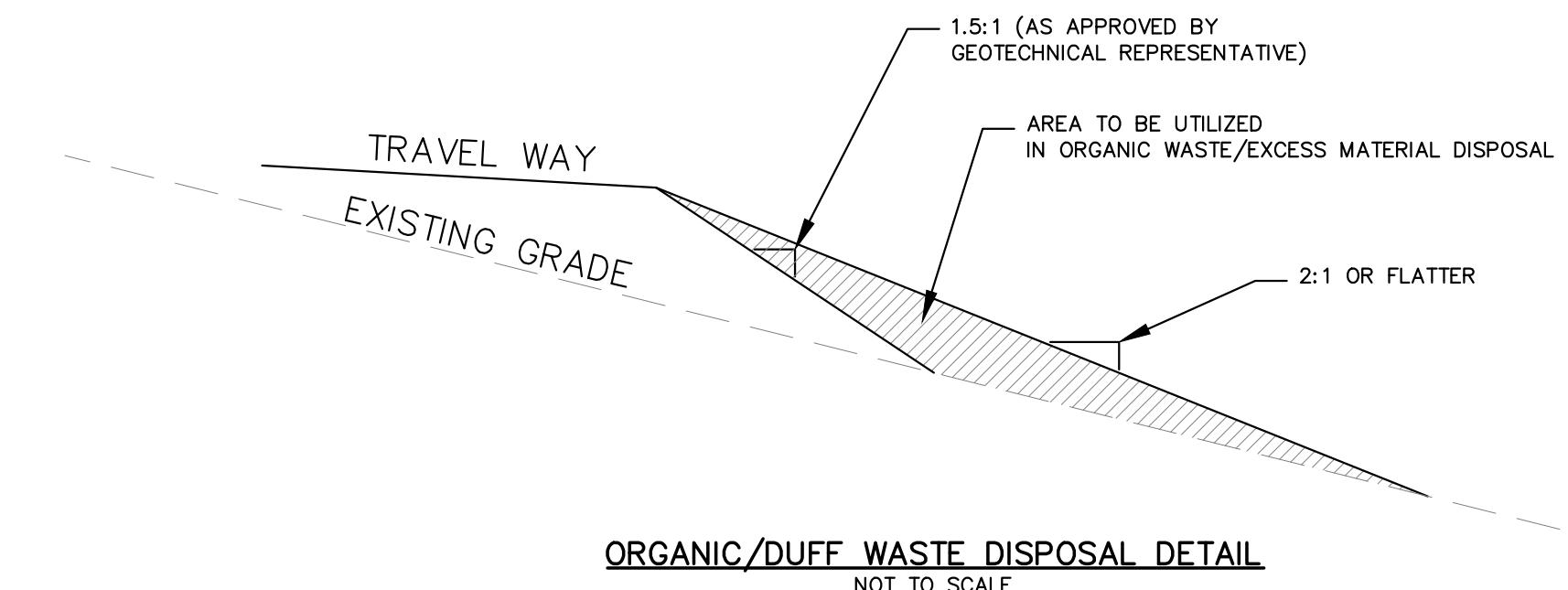
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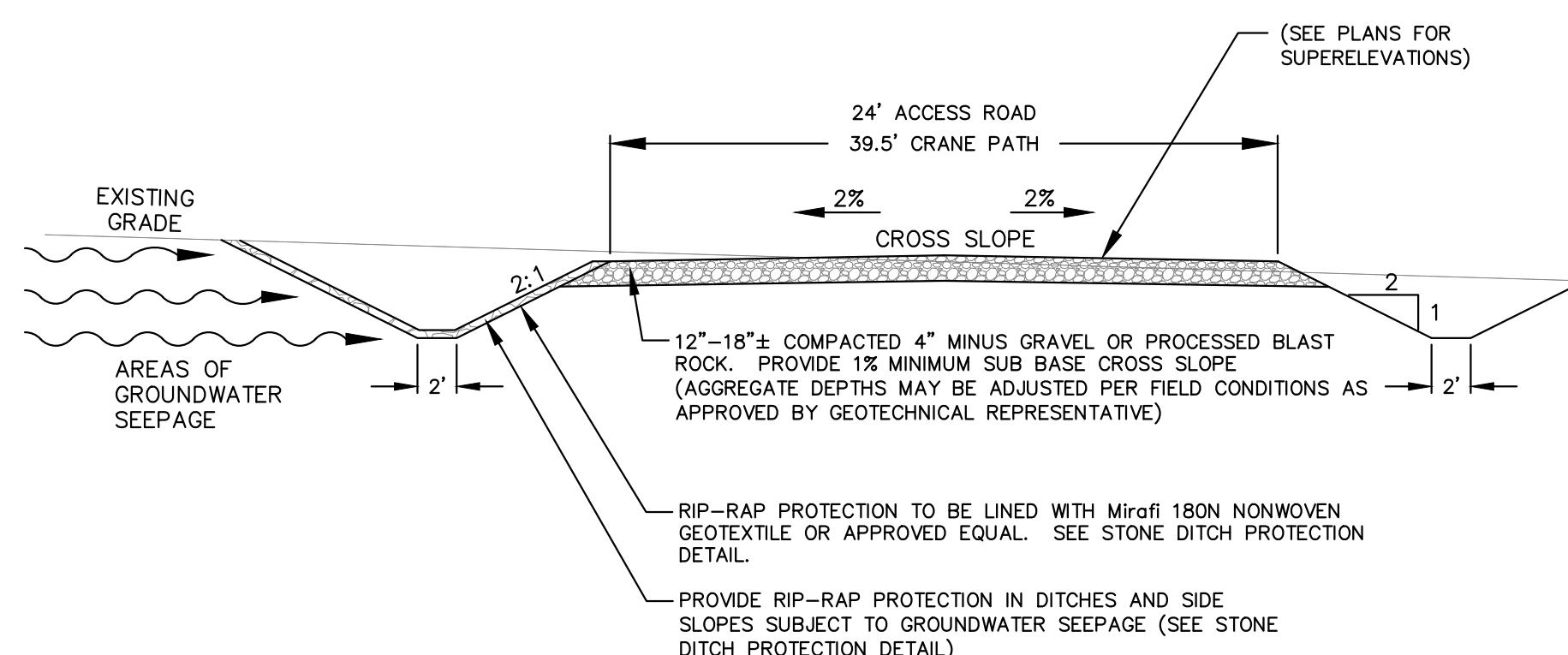
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NOTE:
DISPOSAL AREA LOCATIONS TO BE APPROVED BY ENGINEER.

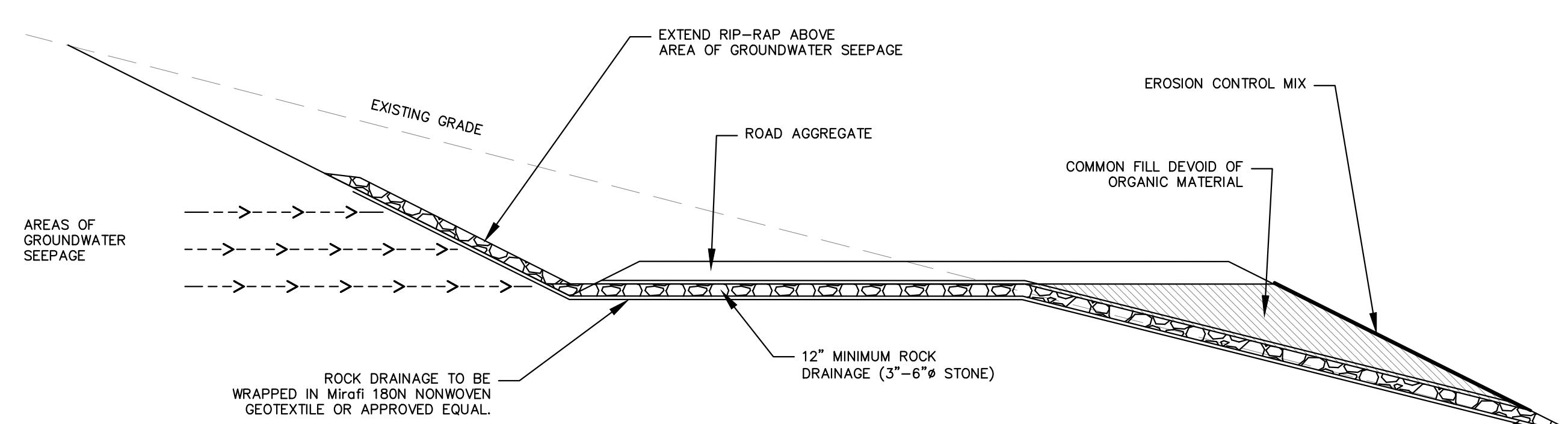


NOTES:
1. TURNOUT LOCATIONS ALONG EXISTING ROADS SHALL BE DETERMINED DURING CONSTRUCTION AND SHALL AVOID IMPACTS TO PROTECTED NATURAL RESOURCES.
2. ALL ROAD TURNOUTS WILL BE ALLOWED TO REVEGETATE ONCE CONSTRUCTION IS COMPLETE.

TYPICAL ROAD TURNOUT DETAIL
NOT TO SCALE

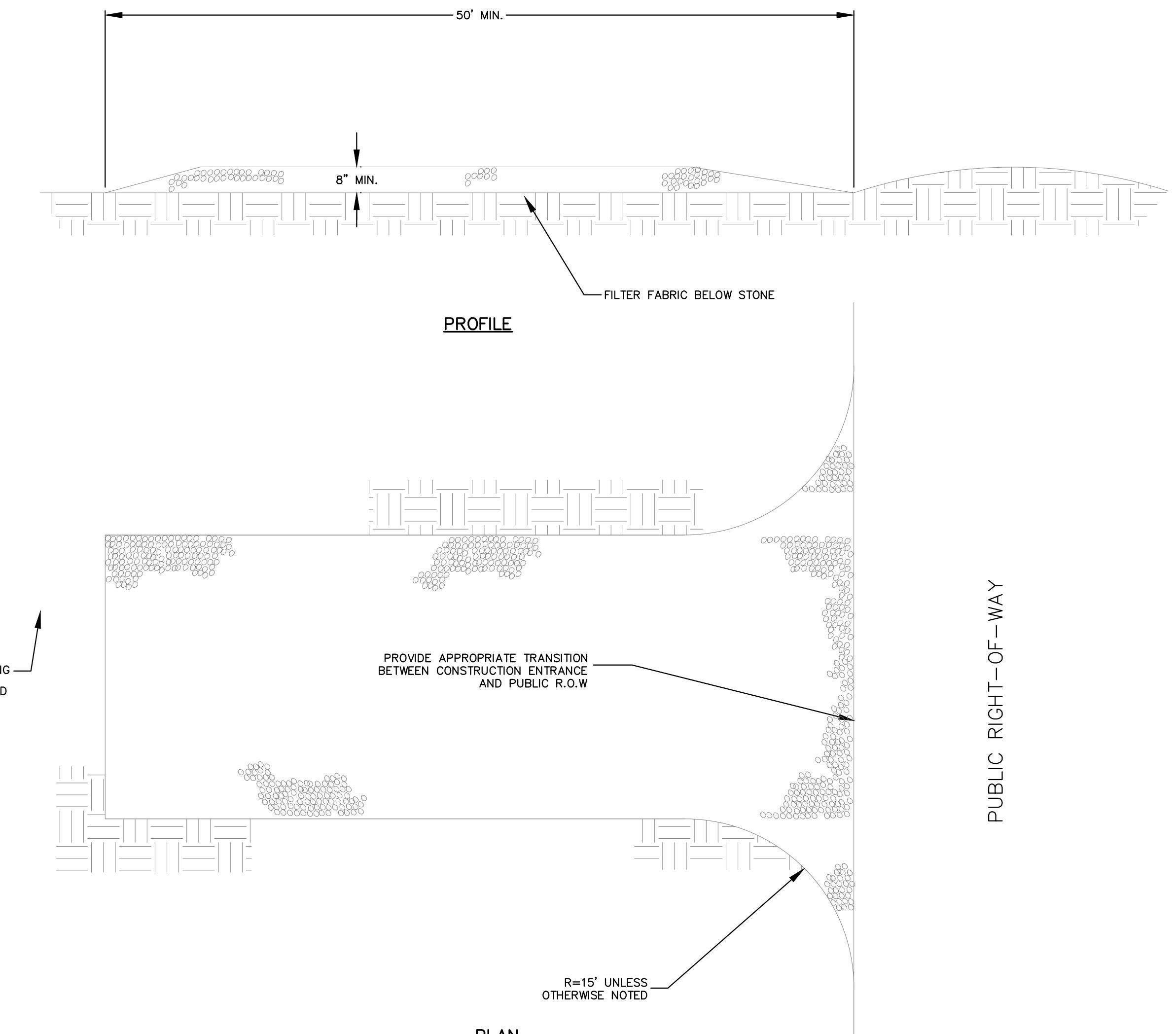


TYPICAL ROAD DETAIL IN CUT SECTION
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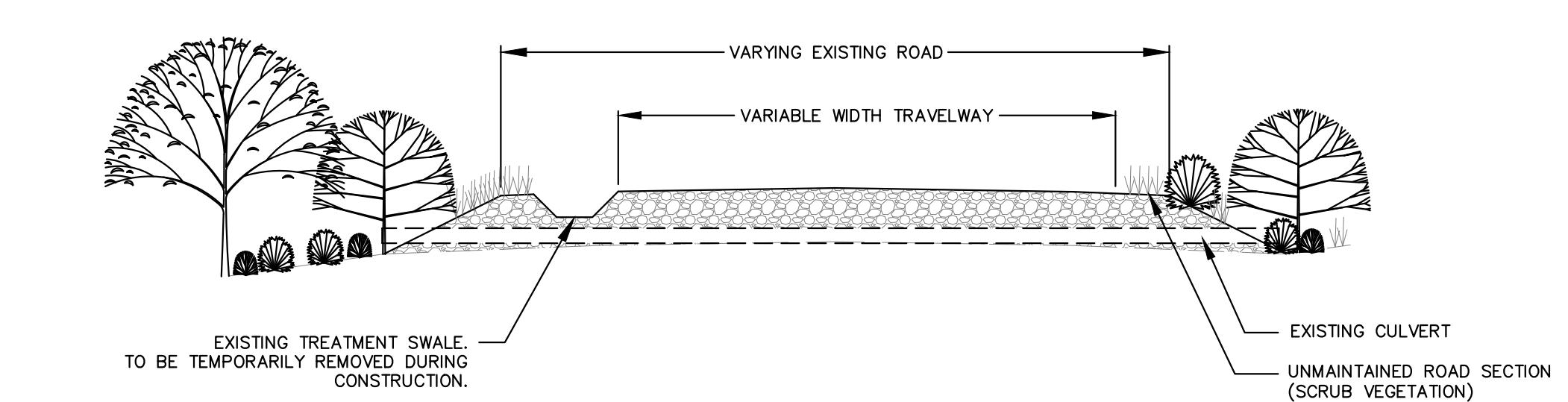


NOTE:
1. ROCK SANDWICHES SHALL BE CONSTRUCTED WITH RELIEF CULVERTS INSTALLED PERIODICALLY. INVERT OF RELIEF CULVERT SHALL BE A MINIMUM OF 6" ABOVE THE ROCK DRAINAGE LAYER. ADJUST INLET INVERT AND ROCK SANDWICH ELEVATION AS REQUIRED TO MAINTAIN APPROPRIATE COVER OVER CULVERT.
2. ROCK SANDWICH TYPICALLY UTILIZED IN ROADWAYS TRaversing AREAS WITH SHALLOW GROUNDWATER.
3. CONTRACTOR SHALL RESTORE ROCK SANDWICH IF DISTURBED BY UNDERGROUND ELECTRICAL INSTALLATION.

TYPICAL ROCK SANDWICH DETAIL
NOT TO SCALE



STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



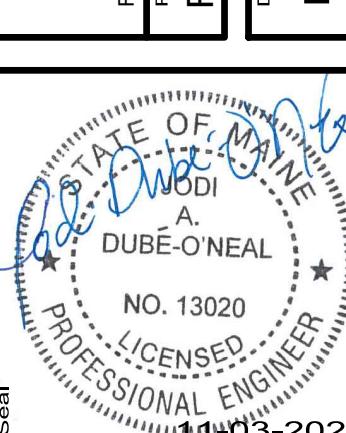
NOTES:
1. CONTRACTOR SHALL REMOVE EXISTING VEGETATION WITHIN ROAD FOOTPRINT (INCLUDING DRAINAGE DITCHES AND STORMWATER TREATMENT SWALES).
2. CONTRACTOR SHALL NOT IMPACT PROTECTED NATURAL RESOURCES UNLESS OTHERWISE PERMITTED.
3. BARK MULCH BERMS OR SILT FENCE OR INLET PROTECTION SHALL BE USED DOWNSTREAM OF ANY MAINTENANCE WORK ALONG ACCESS ROADS AS NEEDED; SEE TYPICAL DETAIL.
4. ONCE CONSTRUCTION IS COMPLETE, THE TEMPORARY CONSTRUCTION MEASURES NEED TO BE RESTORED TO EXISTING CONDITIONS (INCLUDING DRAINAGE DITCHES, ROAD WIDTHS, AND STORMWATER TREATMENT SWALES).
* ADDITIONAL CLEARING FOR COMPONENT TRANSPORT MAY BE NECESSARY IN ISOLATED LOCATIONS. THIS CLEARING WILL NOT IMPACT PROTECTED RESOURCES UNLESS OTHERWISE DEPICTED.

EXISTING ROAD RECONSTRUCTION
NOT TO SCALE

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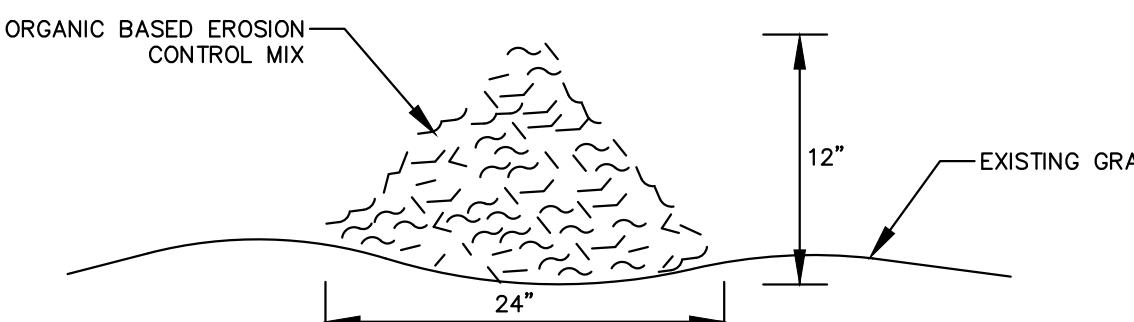
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EROSION CONTROL MIX
 EROSION CONTROL MIX (ECM) SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX SHOULD BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH SUCH AS FLY ASH OR YARD SCRAPING. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX. THE ORGANIC PORTION SHOULD MEET THE FOLLOWING STANDARDS:
 • PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING A 6" SCREEN AND 70% TO 85% PASSING A 0.75" SCREEN.
 • THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
 • SOLUBLE SALTS CONTENT SHALL BE <4.0 mmhos/cm.
 • THE pH SHOULD BE BETWEEN 5.0 AND 8.0.



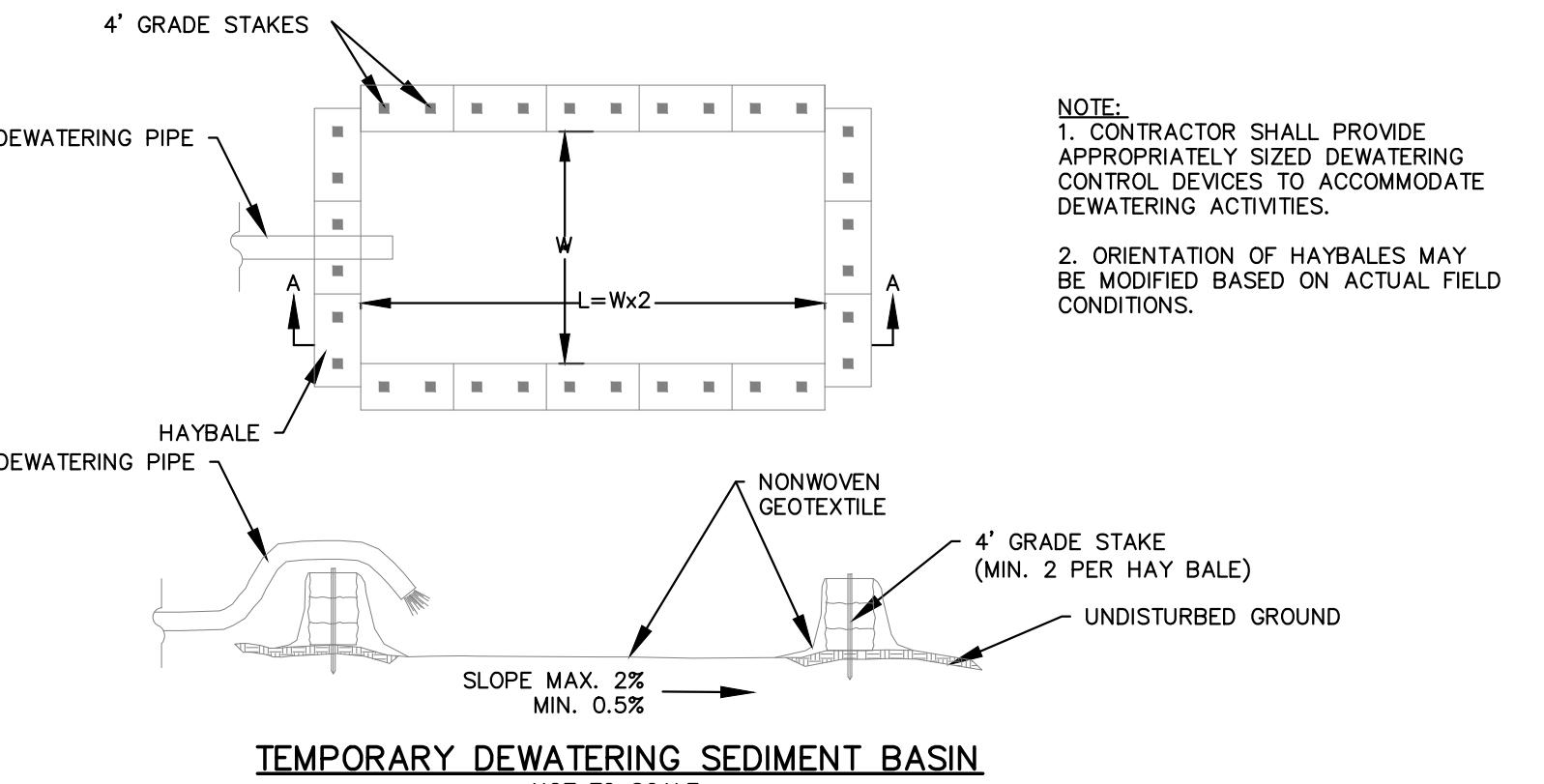
COMPOSITION

EROSION CONTROL MIX SHALL BE MANUFACTURED ON OR OFF THE PROJECT SITE SUCH THAT ITS COMPOSITION IS IN ACCORDANCE WITH THE EROSION CONTROL BMP MANUAL, LATEST VERSION. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

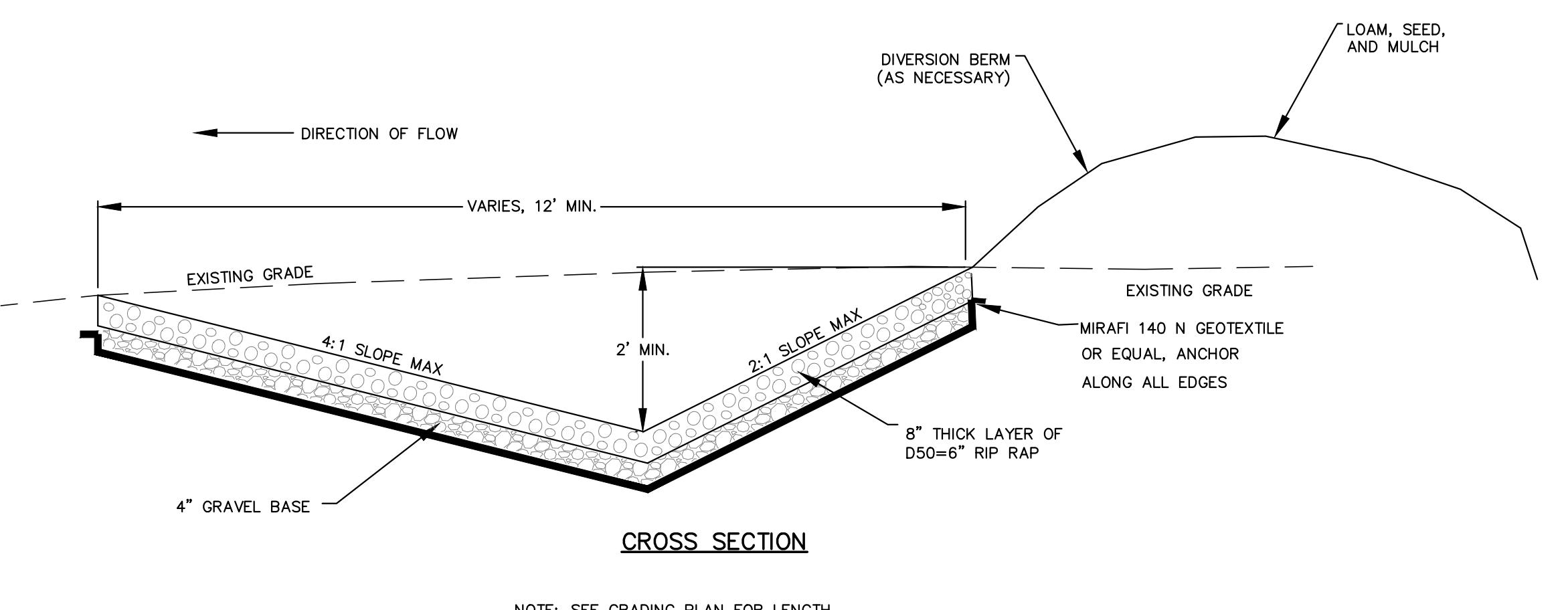
INSTALLATION:

1. THE BARRIER MUST BE PLACED ACROSS THE SLOPE, ALONG THE CONTOUR.
2. EXISTING GROUND SHALL BE PREPARED SUCH THAT THE BARRIER MAY LIE NEARLY FLAT ALONG THE GROUND TO AVOID THE CREATION OF VOIDS AND BRIDGES IN ORDER TO MINIMIZE THE POTENTIAL OF WATER TO INTRUDING THE BARRIER.
3. THE BARRIER SHALL BE A MINIMUM OF 5' HIGH (AS MEASURED ON THE UPHILL SIDE) AND 2 FEET WIDE FOR SLOPES LESS THAN 5% IN GRADE AND SHALL BE WIDER TO ACCOMMODATE THE ADDITIONAL RUNOFF.
4. EROSION CONTROL MIX MAY BE INSTALLED WHERE SILT FENCE IS ILLUSTRATED ON THE DESIGN PLANS. AREAS EXCEPT IN, BUT NOT LIMITED TO, THE FOLLOWING AREAS: WETLAND AND AREA LOCATED NEAR DITCH FLOW, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS AND CLOSED STORM SYSTEMS AND AT THE BOTTOM OF STEEP SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM.

EROSION CONTROL MIX BERM
 NOT TO SCALE



TEMPORARY DEWATERING SEDIMENT BASIN
 NOT TO SCALE



LEVEL SPREADER NOTES

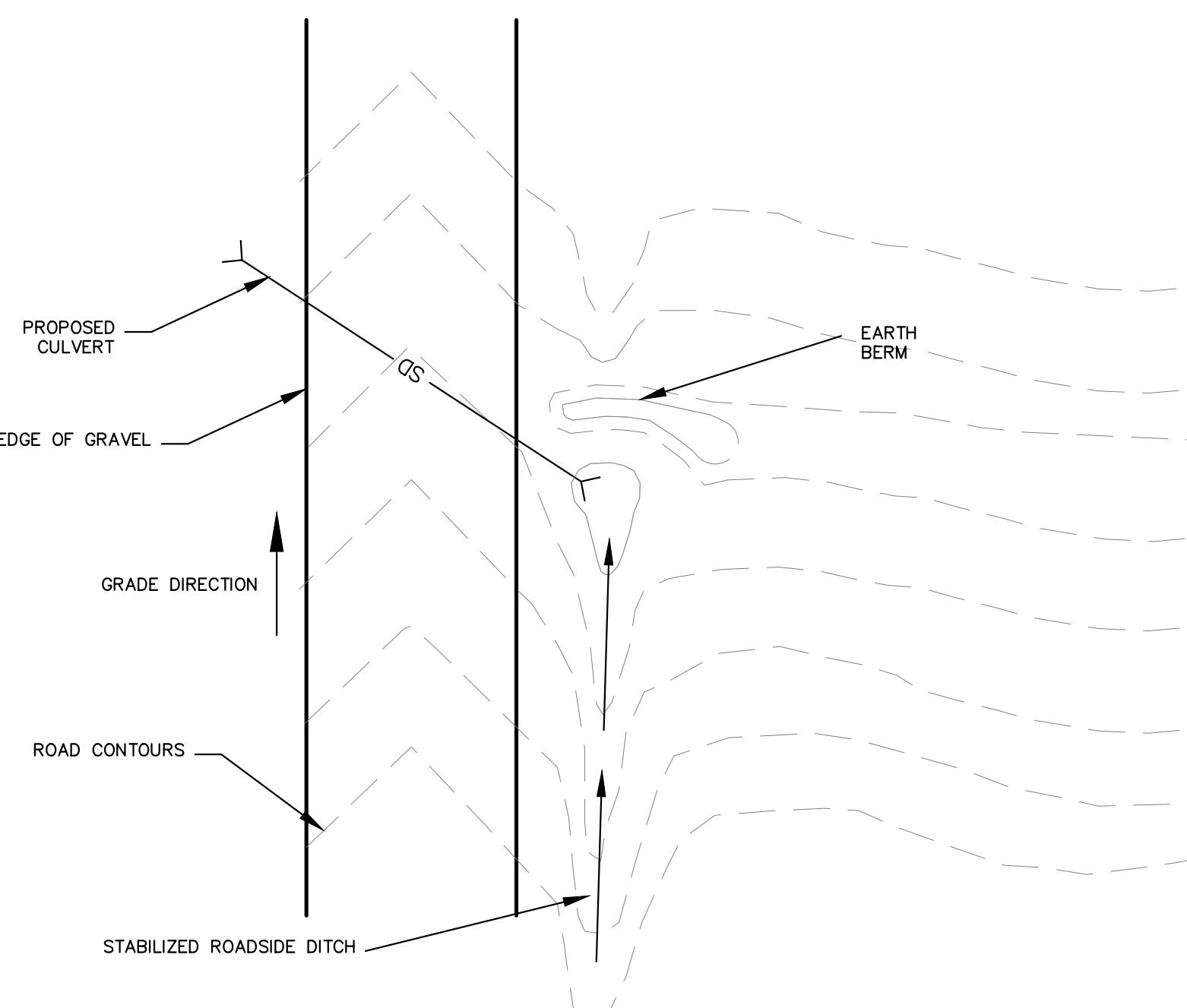
1. ALL LEVEL SPREADERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION.
2. ALL LEVEL SPREADERS SHALL BE CONSTRUCTED IN A CUT SECTION, I.E. THERE SHALL BE NO EARTH FILL ALONG DOWNSTREAM EDGE.
3. ALL LEVEL SPREADERS SHALL BE ALIGNED PARALLEL TO THE EXISTING CONTOURS.
4. THE ENTRANCE DITCH TO THE LEVEL SPREADER SHALL HAVE A MAXIMUM GRADE OF 1.0% FOR AT LEAST 50 FEET IMMEDIATELY PRIOR TO ENTERING THE SPREADER.
5. THE LEVEL SPREADER SHALL HAVE A LONGITUDINAL GRADE OF 0.0%.
6. LEVEL SPREADERS SHOWN ON THE PLANS ARE SYMBOLIC. LOCATION AND ORIENTATION OF LEVEL SPREADERS SHALL BE FIELD DETERMINED BASED ON ACTUAL SITE CONDITIONS.

TYPICAL LEVEL SPREADER

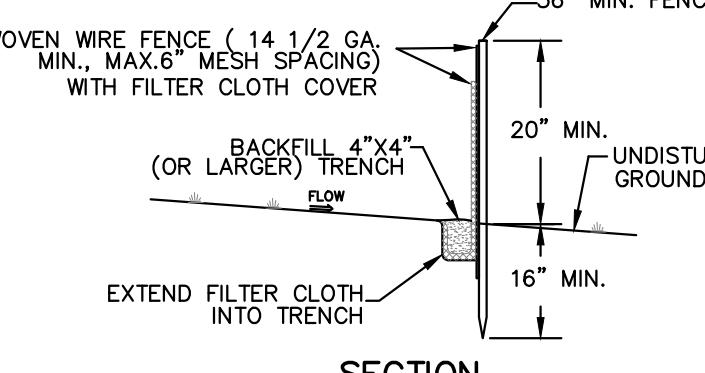
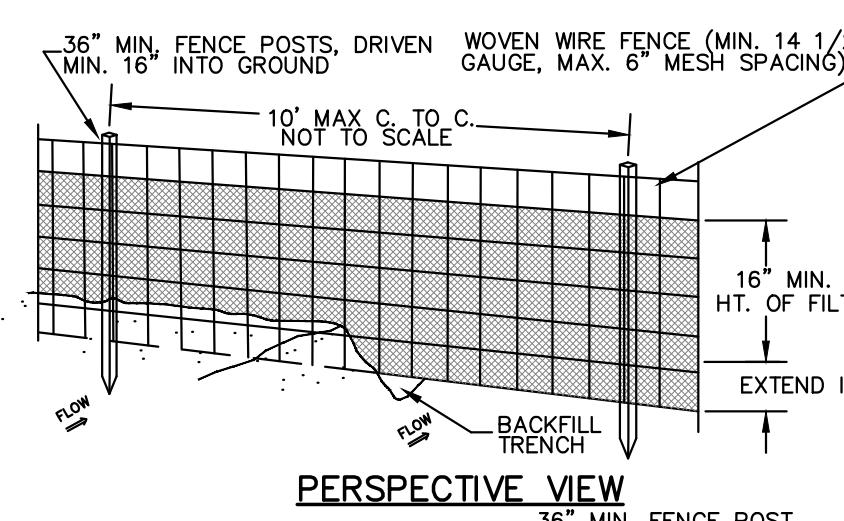
NOT TO SCALE

NOTES

1. CONTRACTOR SHALL CONSTRUCT BERM AT EACH CULVERT INLET TO DIRECT DITCH FLOW INTO CULVERT.
2. CONTRACTOR SHALL LOWER INVERT ELEVATION AS APPROPRIATE TO MAINTAIN COVER BETWEEN CROSS CULVERTS, ROADWAY, AND DITCH ON OPPOSITE SIDE OF ROAD.
3. VERIFY COVER REQUIREMENTS WITH PIPE MANUFACTURER.



BERMED CULVERT INLET DETAIL
 NOT TO SCALE

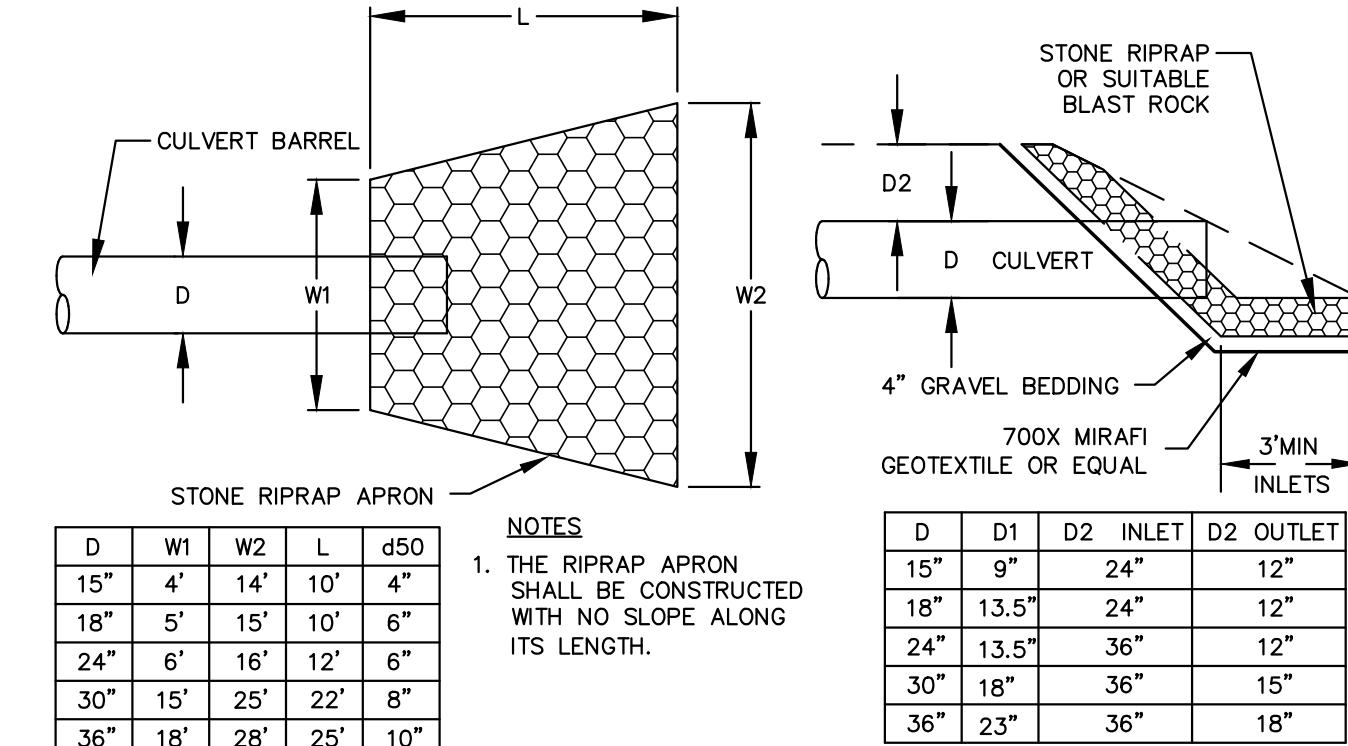


CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

NOTE:
 THE CONTRACTOR HAS THE OPTION TO NOT USE WOVEN WIRE MESH IF STAKE SPACERS ARE REDUCED TO 6" O.C.

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP OF MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BEGES" DEVELOP ON THE SILT FENCE.
5. SILT FENCE POSITION ON THE FLOOR IS SYMBOLIC: ALL SILT FENCE SHALL BE INSTALLED ALONG THE CONTOUR WITH EXACT LOCATION/ORIENTATION TO BE FIELD DETERMINED BASE ON ACTUAL SITE CONDITIONS.
6. NO MORE THAN 1/4 ACRE OF DRAINAGE AREA FOR EACH 100 FEET OF FENCING.
7. POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD.
8. FENCE: WOVEN WIRE, 14 GA, 6" MAX. MESH OPENING.
9. FILTER CLOTH: FILTER X, MARAFI 100X, STABI-LINKA T140N OR APPROVED EQUAL.
10. PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

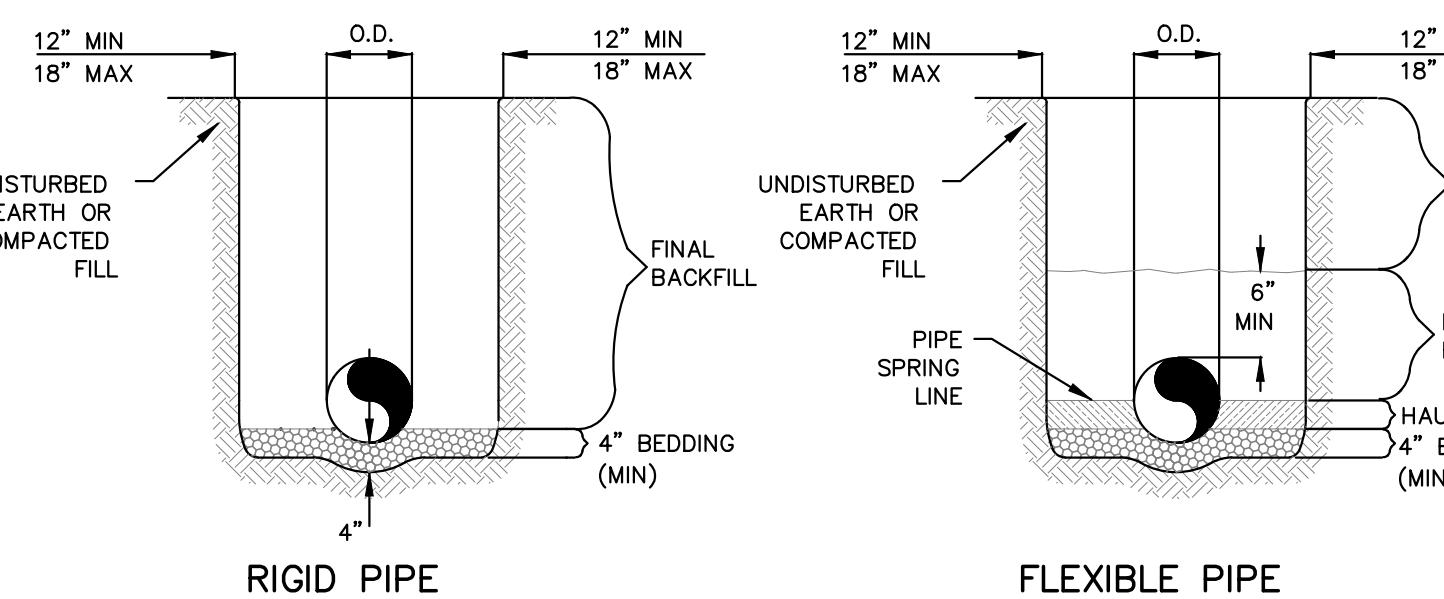
SILT FENCE DETAIL
 NOT TO SCALE



NOTE: APRONS SHALL BE CONSTRUCTED ON ALL CULVERT INLETS/OUTLETS UNLESS APPROVED BY ENGINEER.

CULVERT OUTLET DETAIL
 PLAN VIEW
 NOT TO SCALE

CULVERT INLET/OUTLET DETAIL
 SECTION VIEW
 NOT TO SCALE



RIGID PIPE

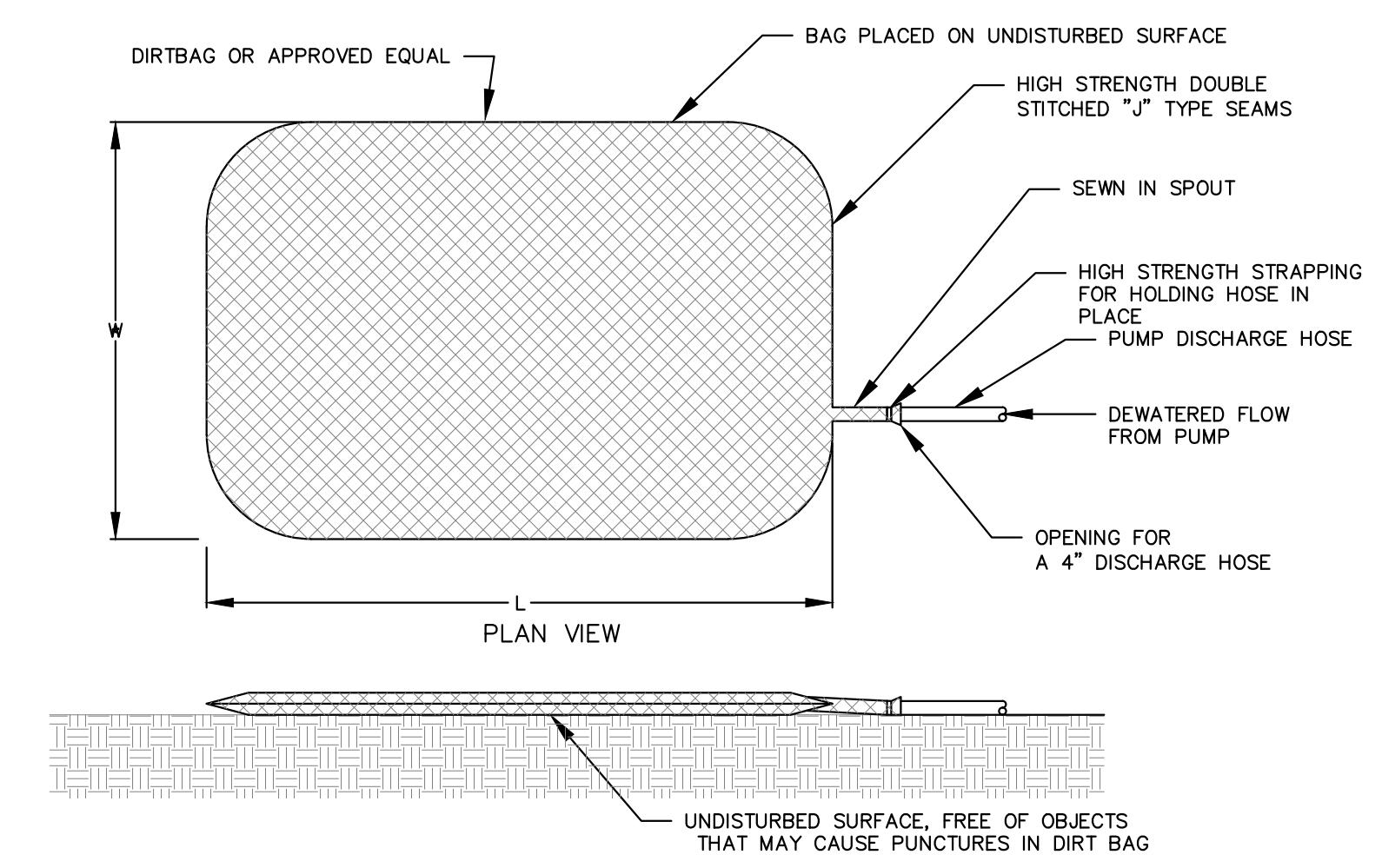
FLEXIBLE PIPE

GENERAL NOTES

*AASHTO SOIL CLASSIFICATIONS USED

1. BEDDING SHALL BE CLASS I-A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 85% STANDARD PROCTOR. (SEE SPECIFICATIONS FOR GRADATION).
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
4. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3. FINAL COVER OVER PIPE SHALL BE MIN. 24".
5. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-LATEST EDITION.
6. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
7. GROUNDWATER EXPOSED DURING EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
8. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES (SEE SPECIFICATIONS).
9. ACTUAL MATERIALS USED AND DEPTH OF COVER OVER PIPE SHALL BE FIELD DETERMINED BASED ON ACTUAL SITE CONDITIONS AND PROJECT REQUIREMENTS.

STORM DRAIN TRENCH AND BEDDING
 NOT TO SCALE



NOTES:

1. CONTRACTOR SHALL PROVIDE APPROPRIATE SIZED DEWATERING CONTROL DEVICES TO ACCOMMODATE DEWATERING ACTIVITIES BASED ON MANUFACTURES RECOMMENDATIONS AND ANTICIPATED FLOW RATES.
2. SEDIMENT CONTROL DEVICES SHALL BE REPLACED WHEN FULL. SEDIMENT CAN BE DISPOSED OF IN NON STRUCTURAL FILL AREAS OUTSIDE OF RESOURCE PROTECTION ZONES.

DIRT BAG DETAIL
 NOT TO SCALE

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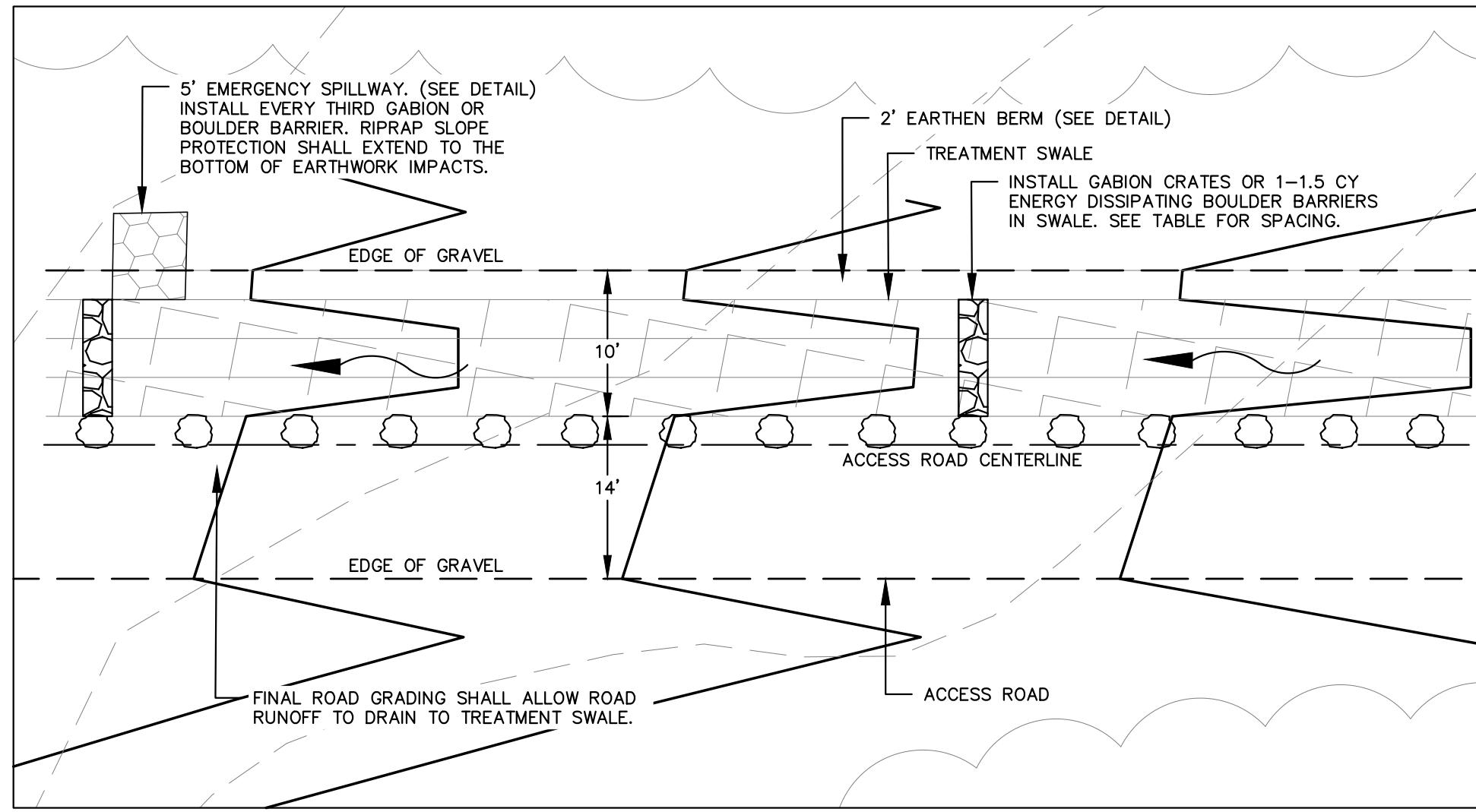
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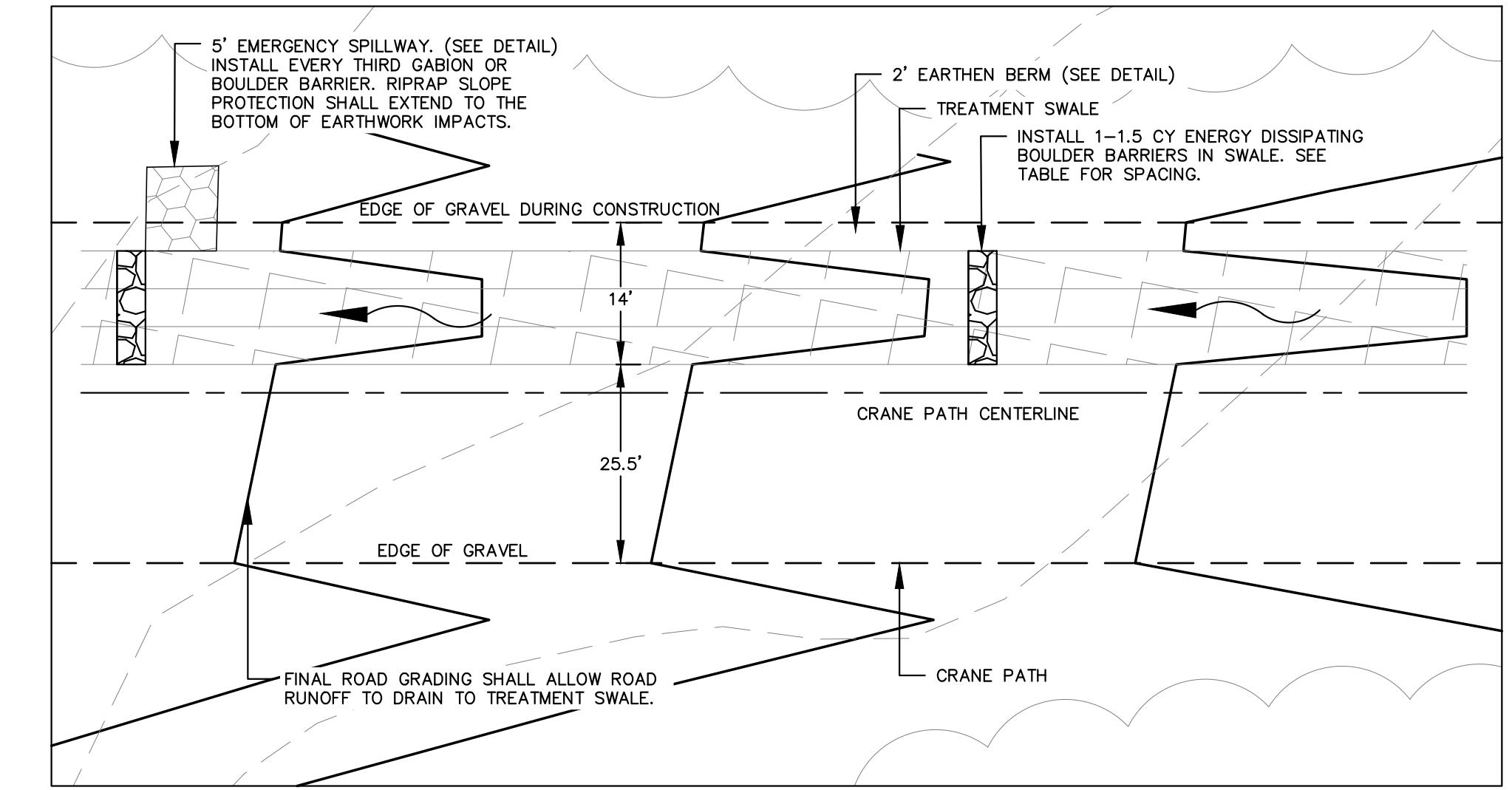
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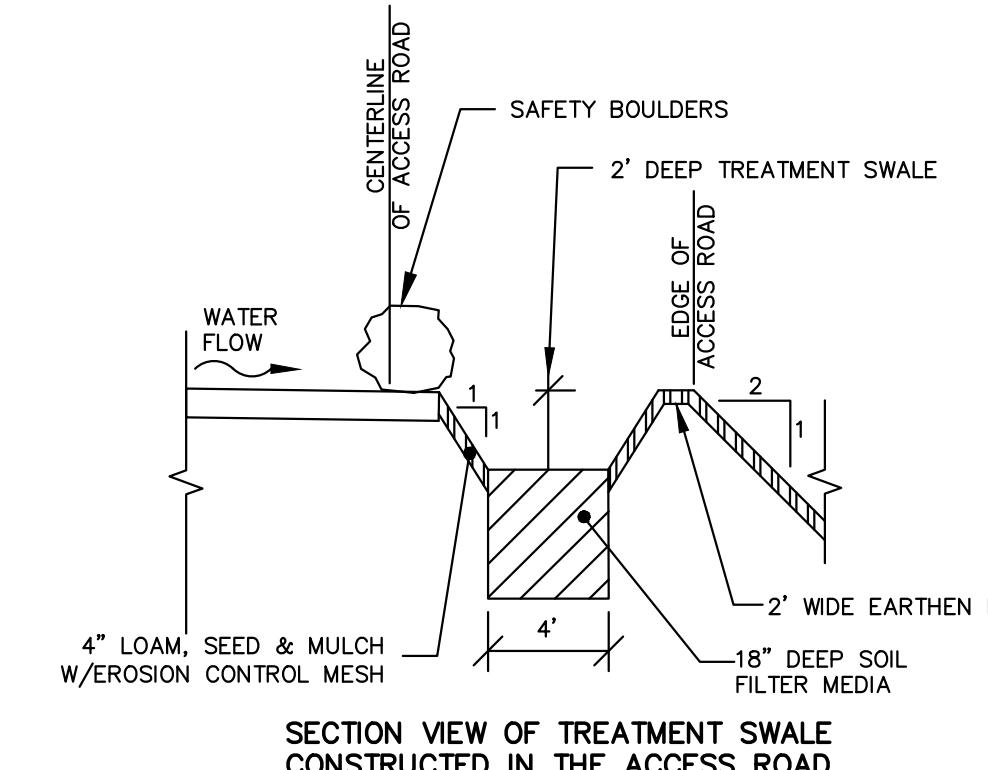
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PLAN VIEW OF TREATMENT SWALE CONSTRUCTED WITHIN THE ACCESS ROAD



PLAN VIEW OF TREATMENT SWALE CONSTRUCTED WITHIN THE CRANE PATH

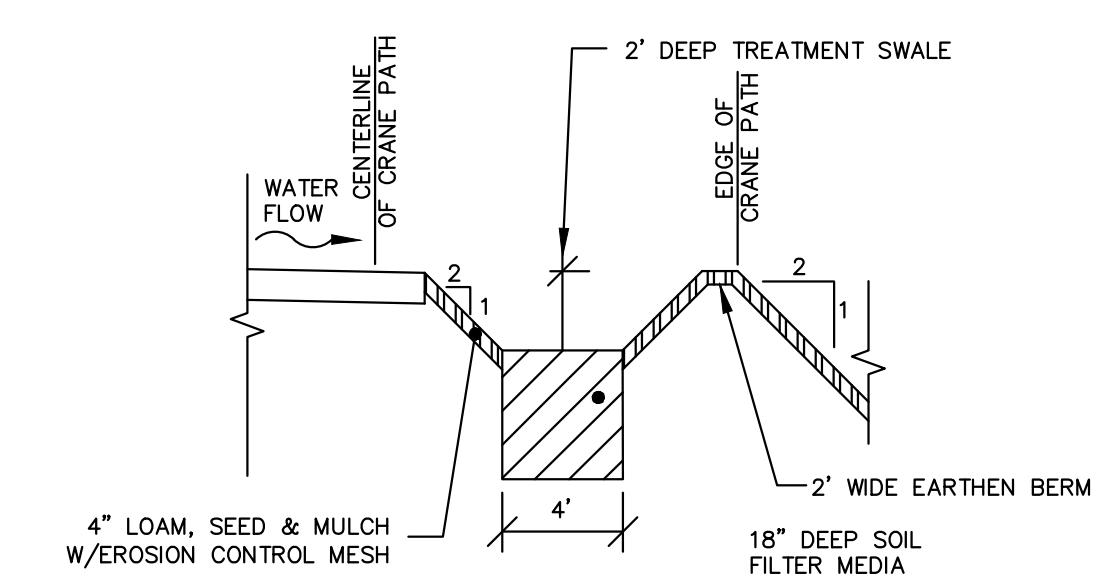


NOTE:
1:1 SWALE SIDESLOPES SHALL BE STABILIZED AS APPROVED BY
GEOTECHNICAL REPRESENTATIVE BASED UPON FIELD CONDITIONS.

ACCESS ROAD WIDTH 24 FEET

| GABION OR BOULDER BARRIER SPACING FOR TREATMENT SWALES | | | | |
|--|-------|-------|--------|-------|
| SLOPE % | 0-3.9 | 4-7.9 | 8-11.9 | 12-16 |
| FREQUENCY (FT) | 135 | 65 | 40 | 30 |

FILTER MEDIA:
 50% SAND (MDOT 703.01)
 20% SANDY LOAM TO FINE SANDY
 LOAM (TABLE 7.1.2 BMP CHAPTER 7.1)
 30% MATURE COMPOSTED WOODY
 FIBERS AND FINE SHREDDED BARK,
 SUPERHUMUS OR EQUIVALENT



SECTION VIEW OF TREATMENT SWALE
CONSTRUCTED IN THE CRANE PATH

NOTE:
TREATMENT SWALES LOCATED WITHIN CRANE PATHS SHALL BE
CONSTRUCTED AFTER CRANE PATHS HAVE BEEN FULLY UTILIZED
DURING CONSTRUCTION.

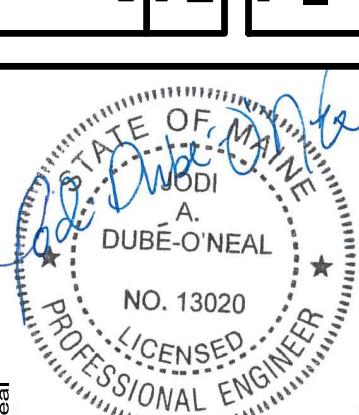
CRANE PATH WIDTH 39.5 FEET

TREATMENT SWALE DETAIL
SECTION VIEW

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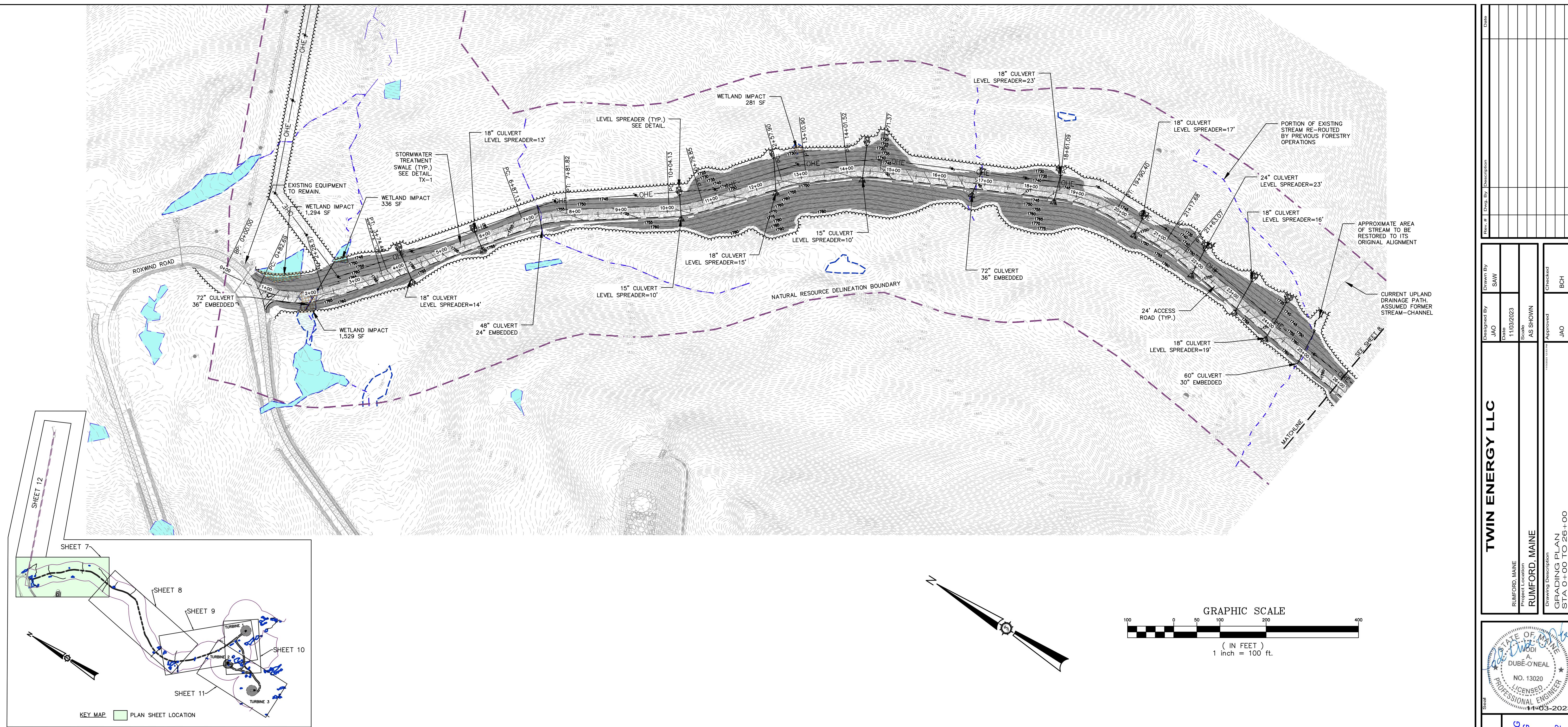


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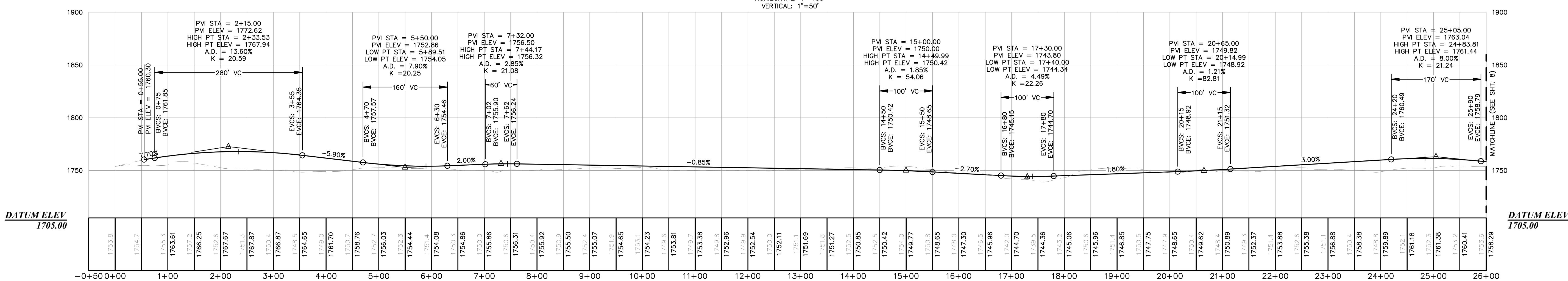
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VERTICAL: 1"=50'



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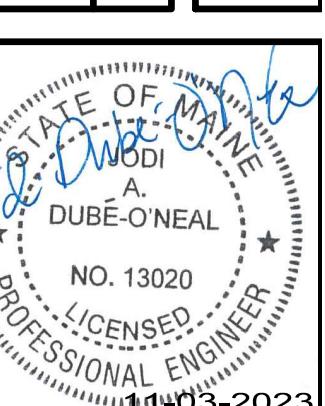
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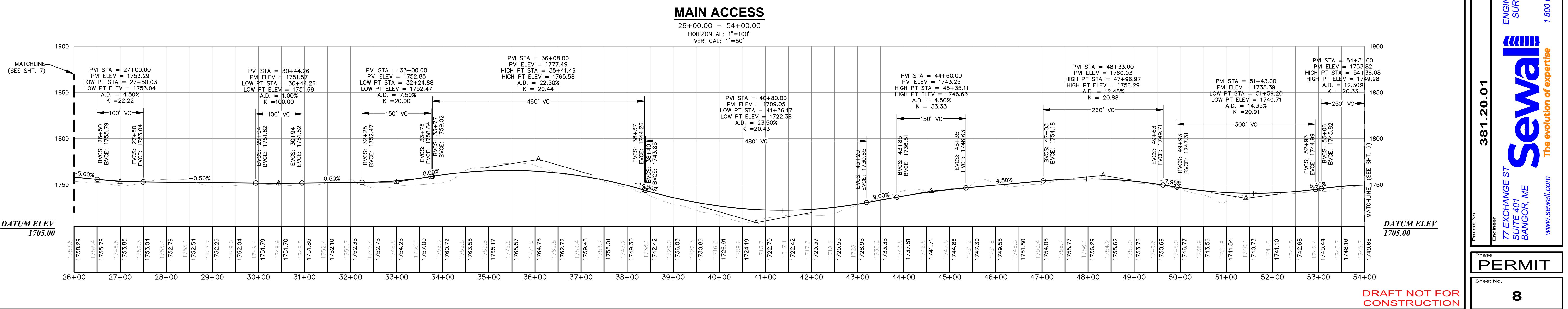
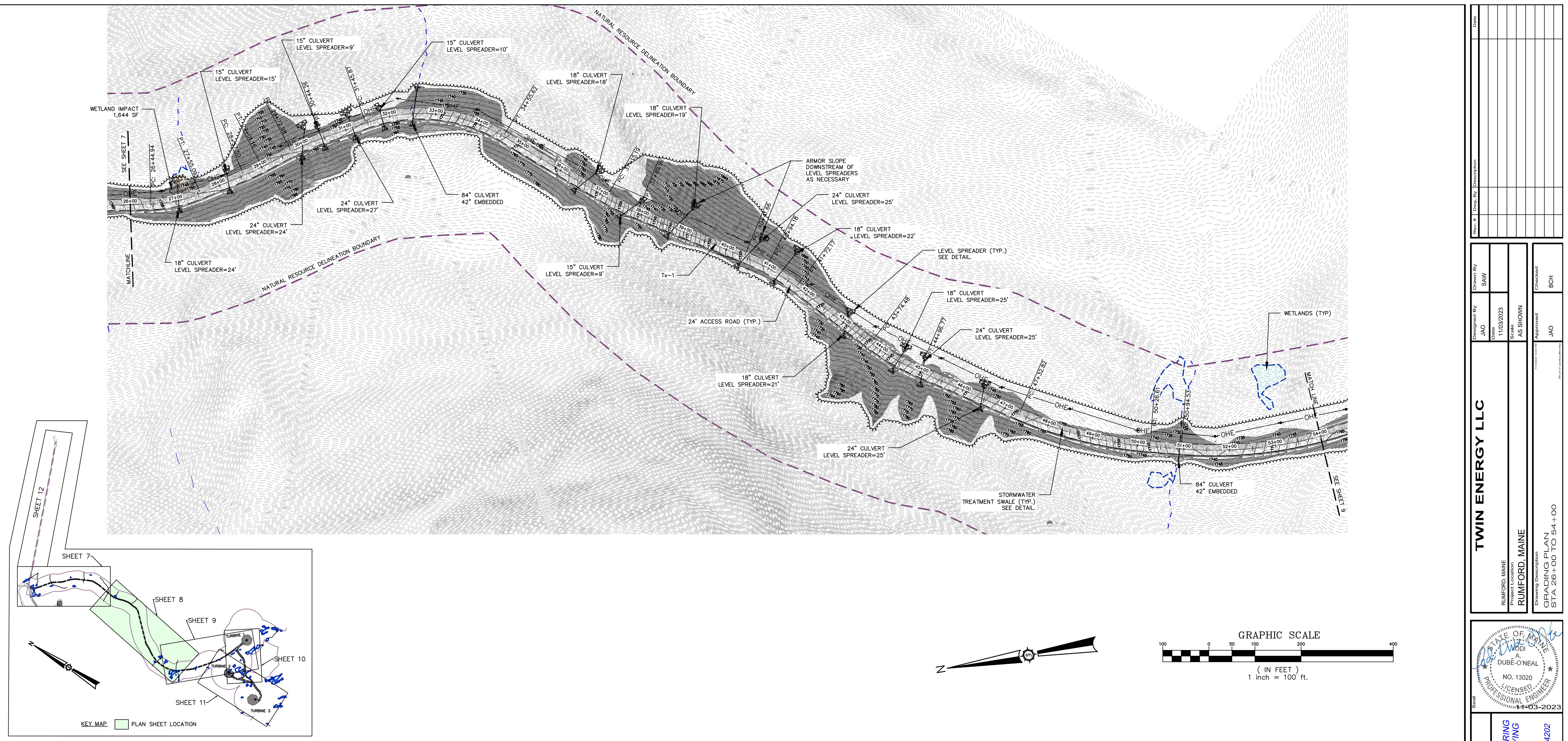
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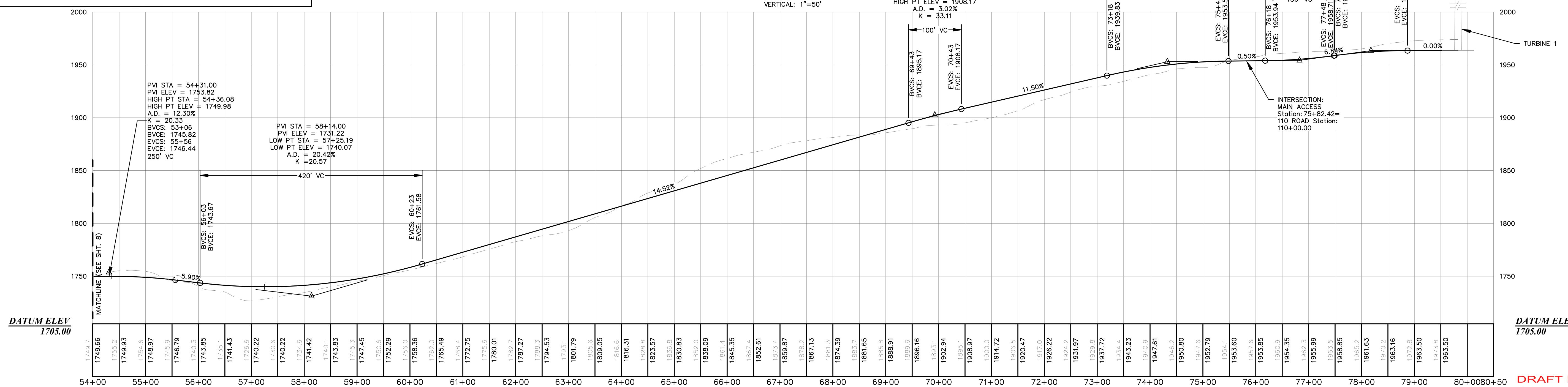
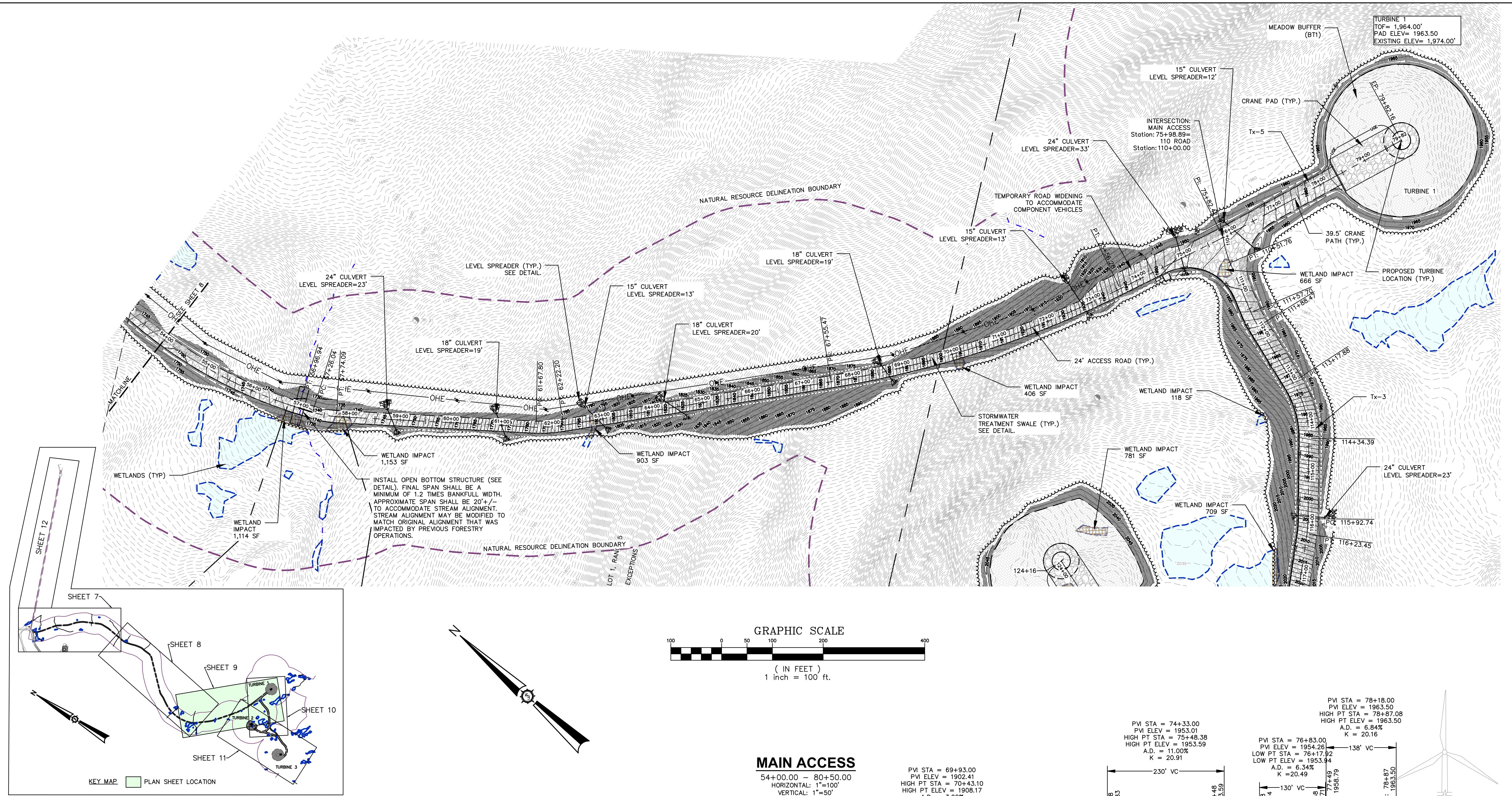
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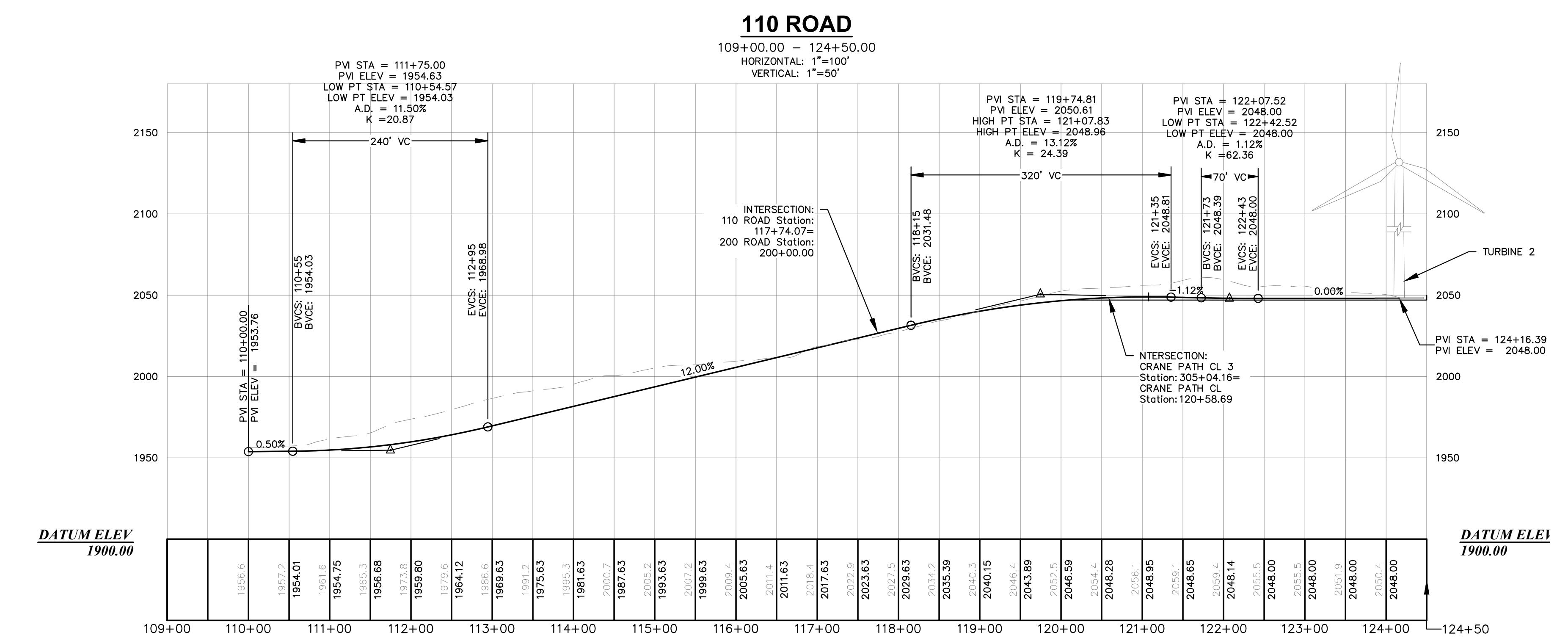
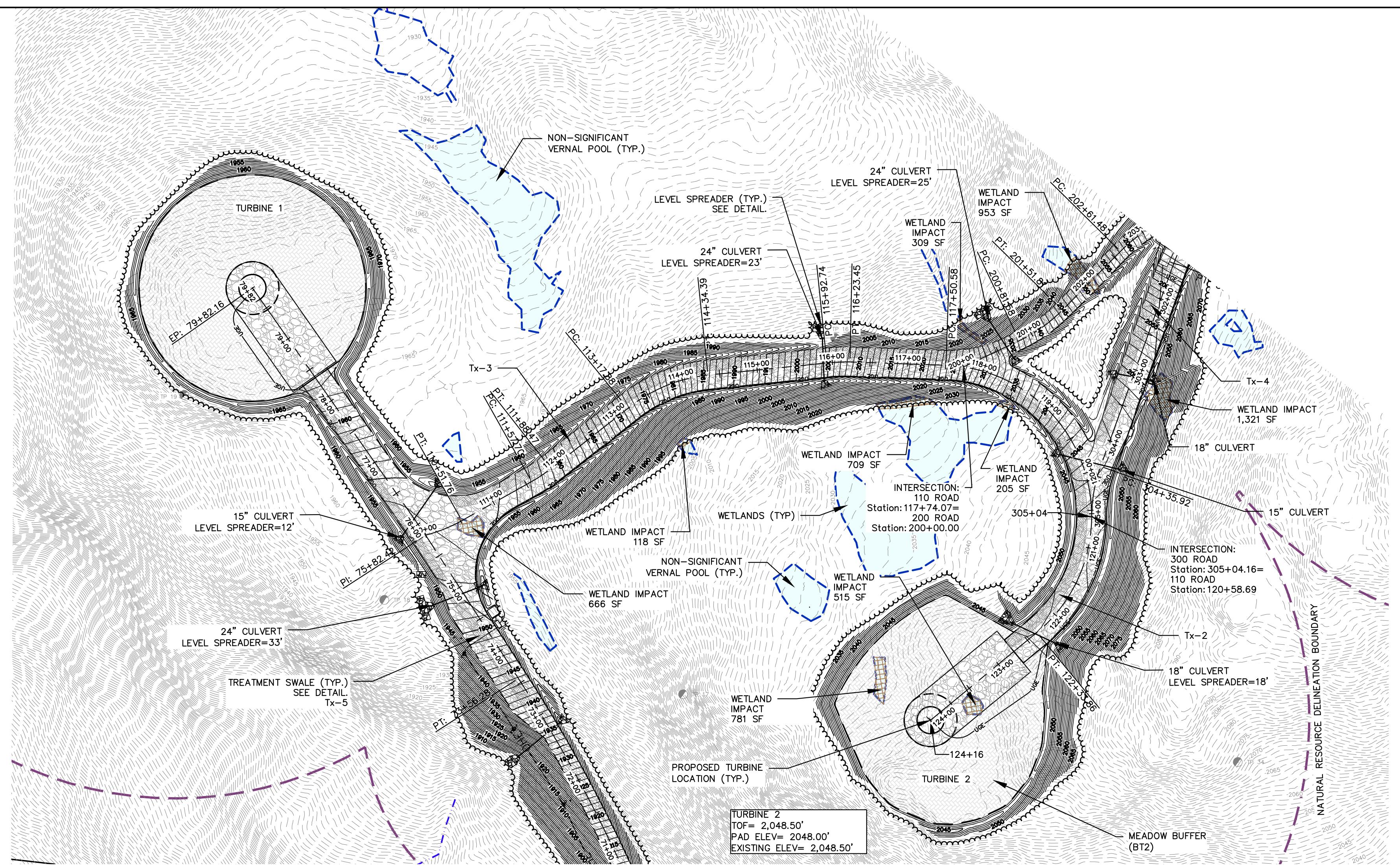
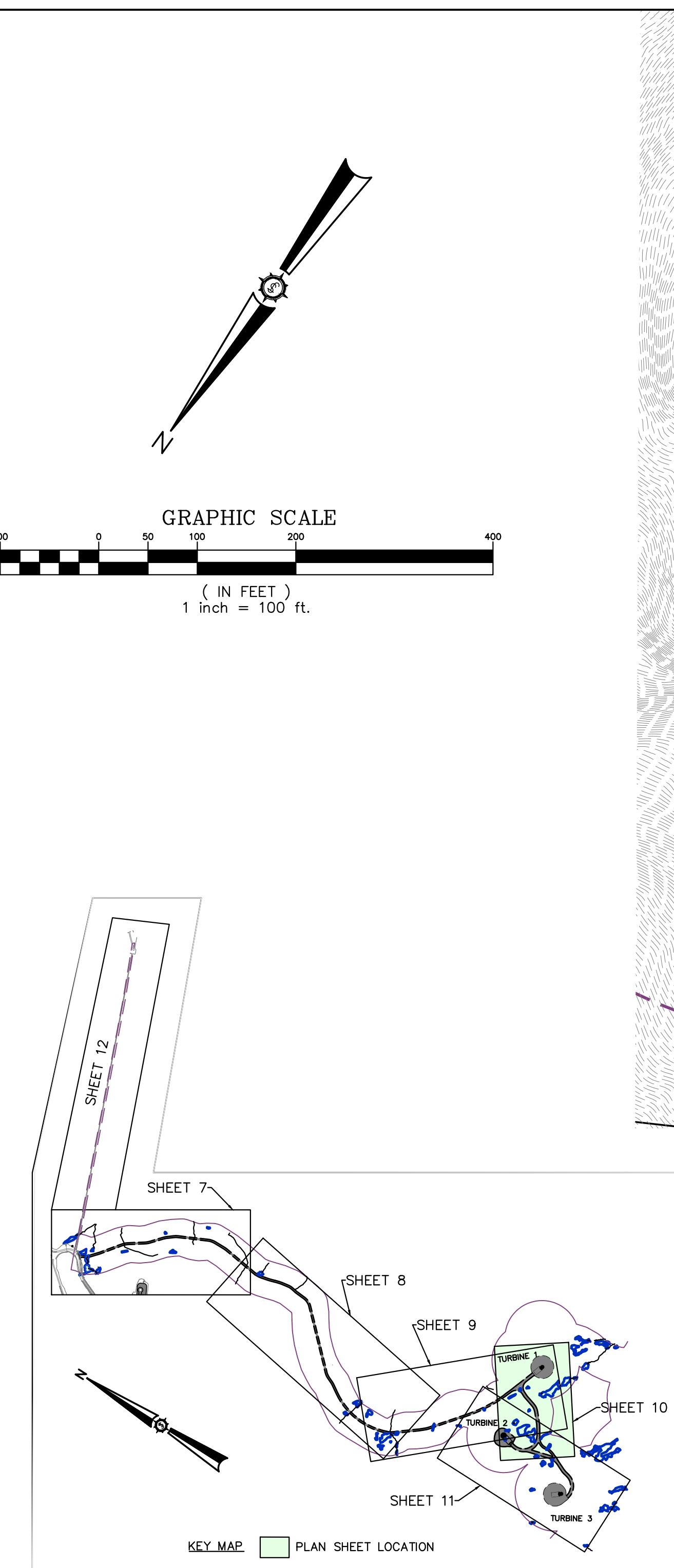
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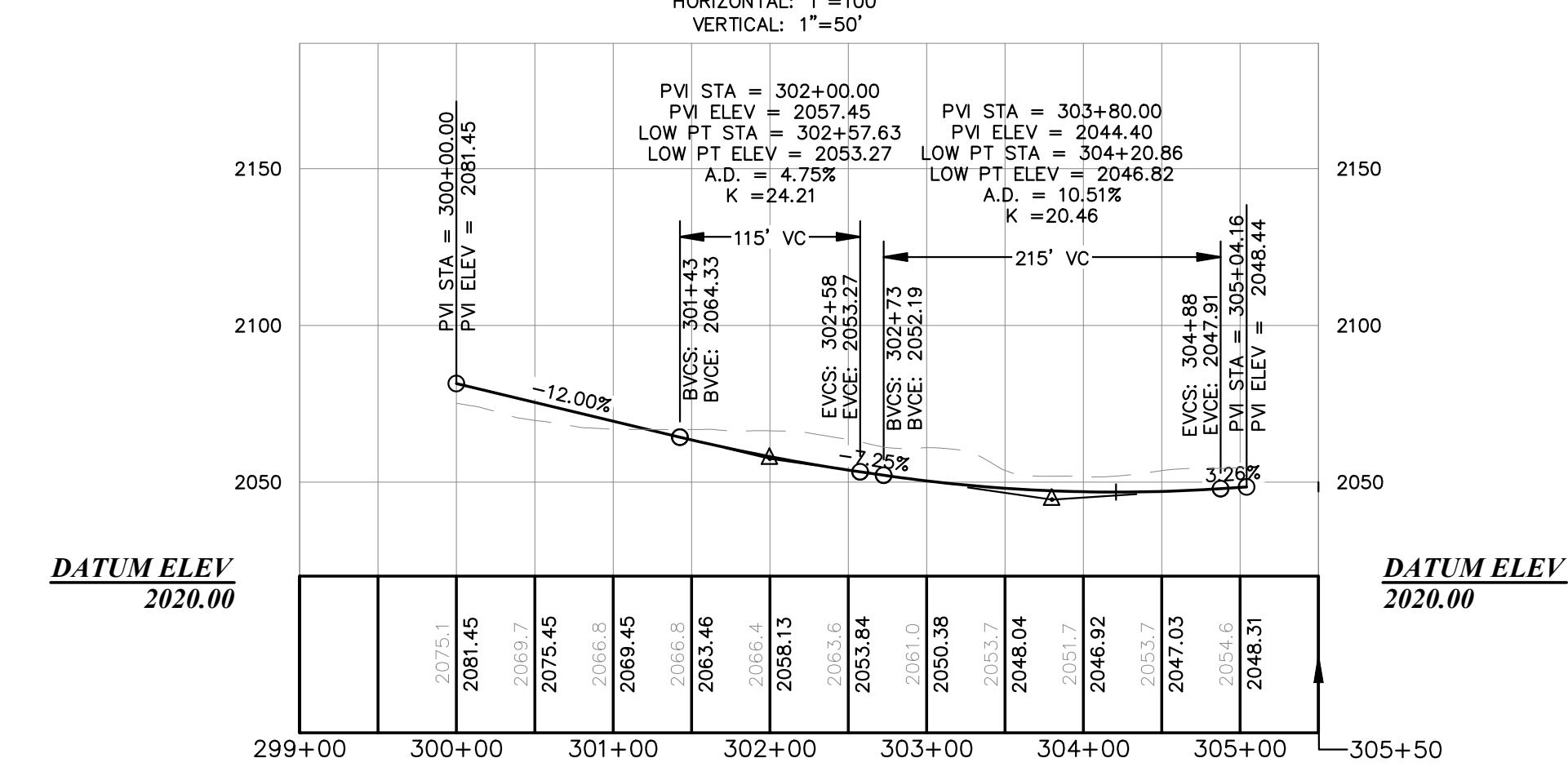
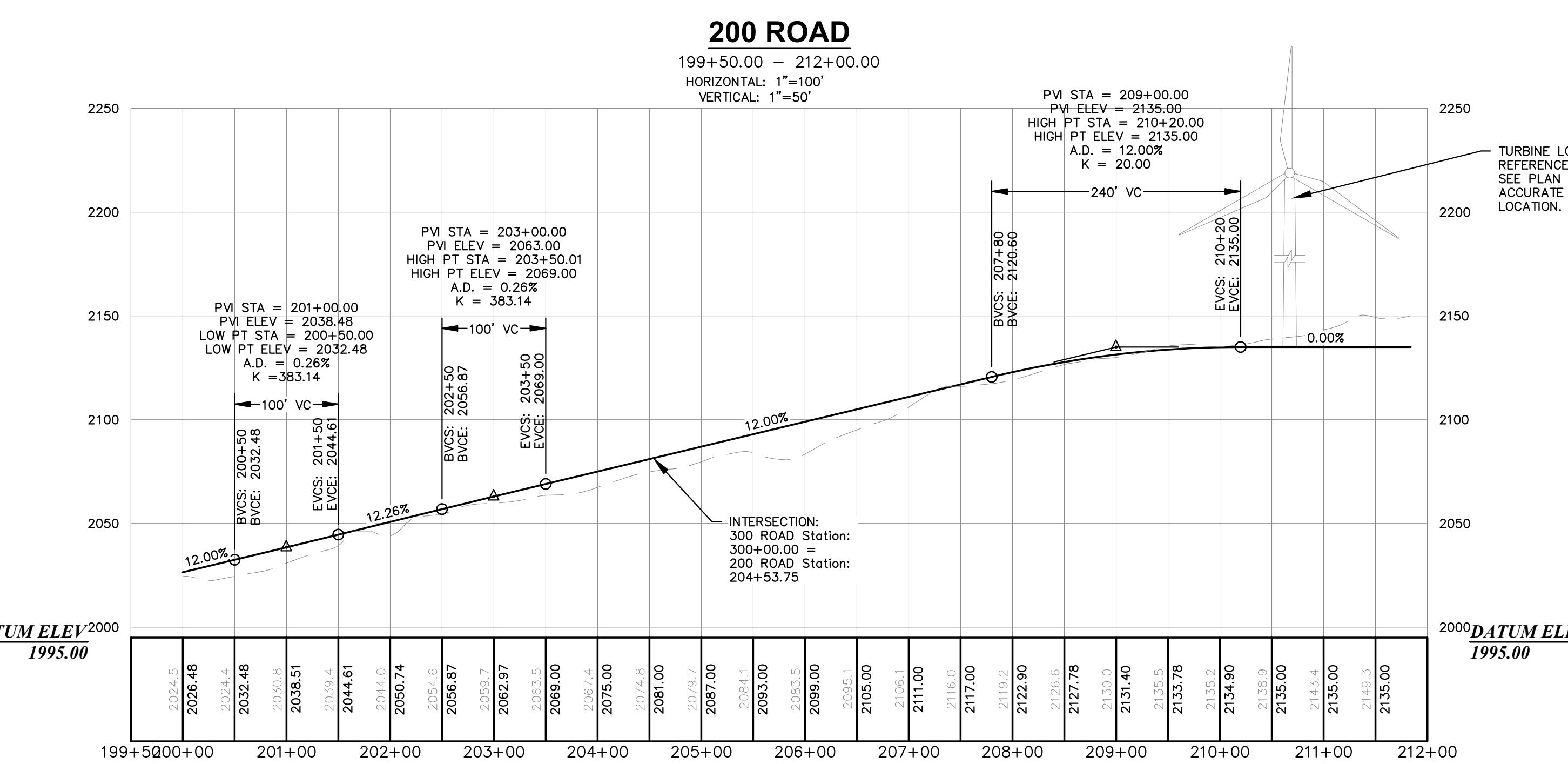
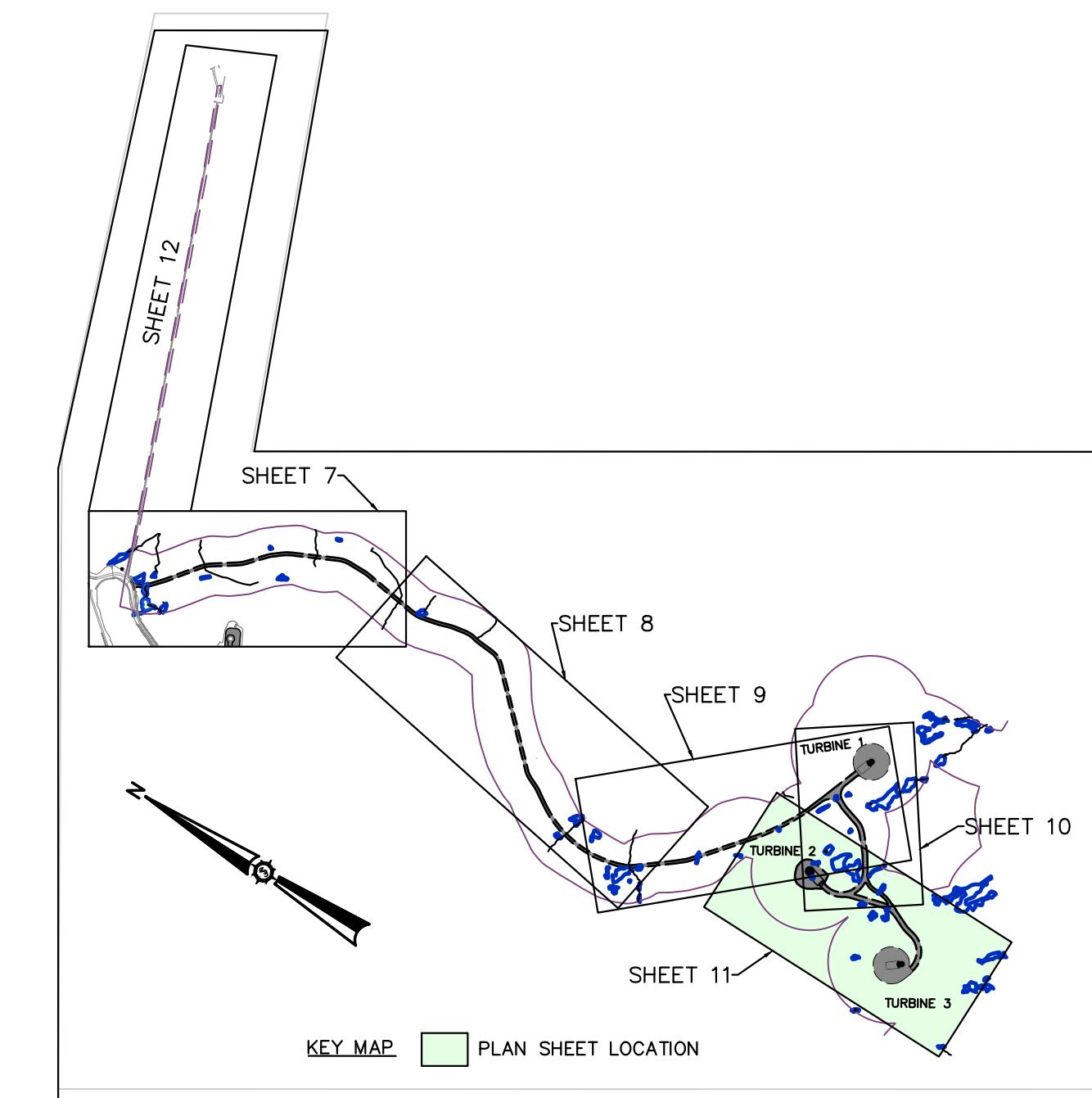
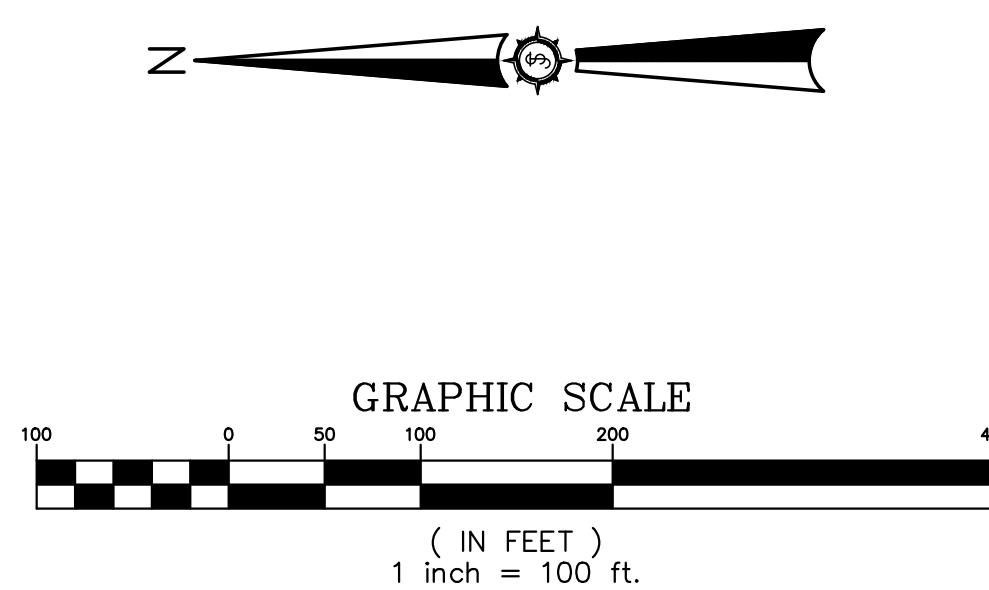
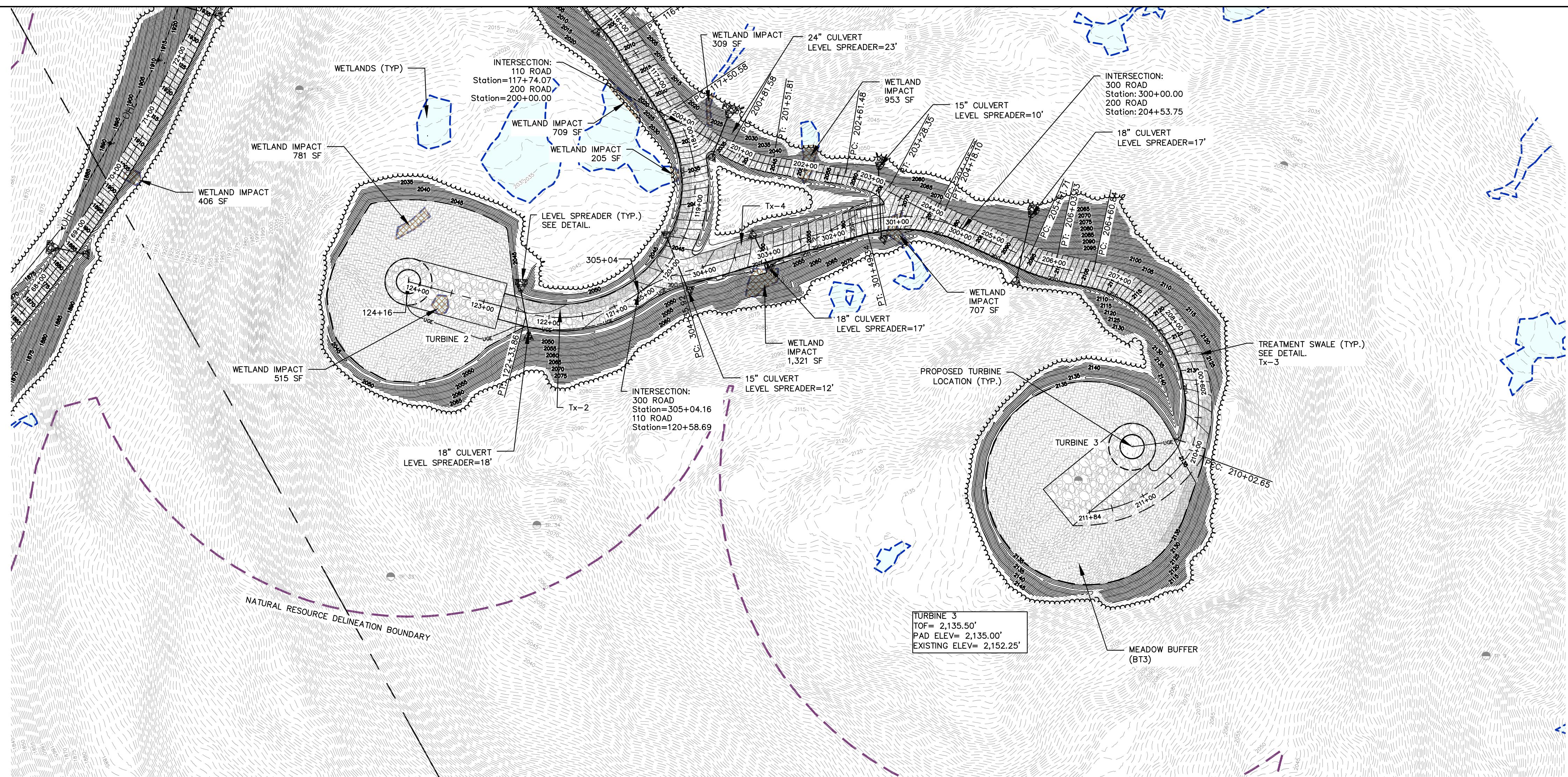
381.20.01

www.eweb.it

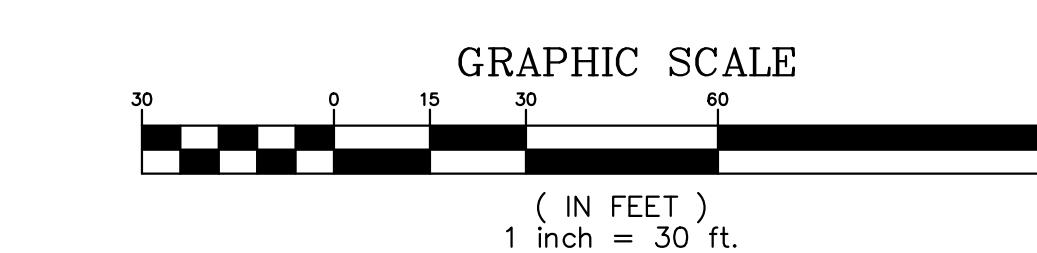
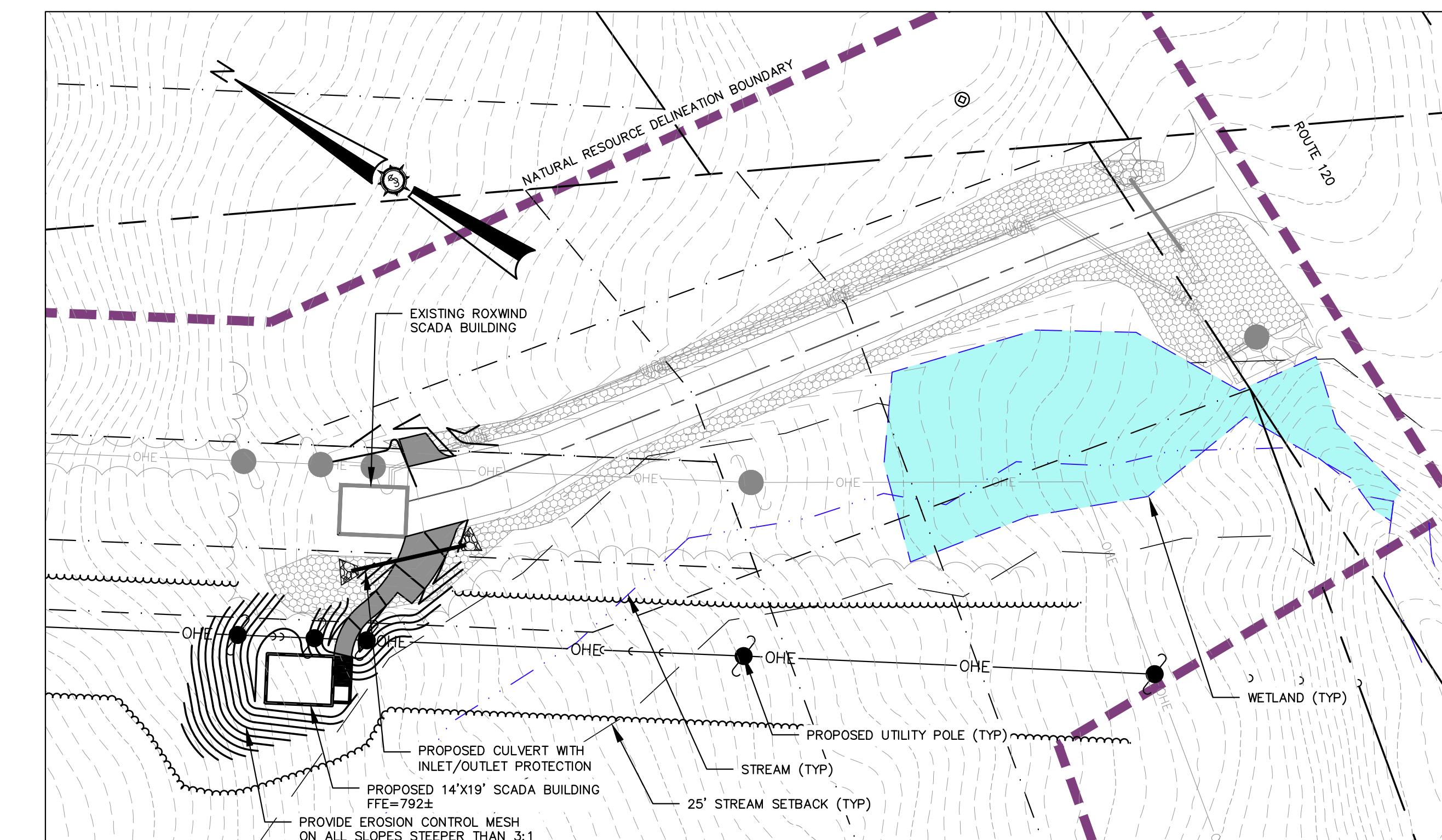
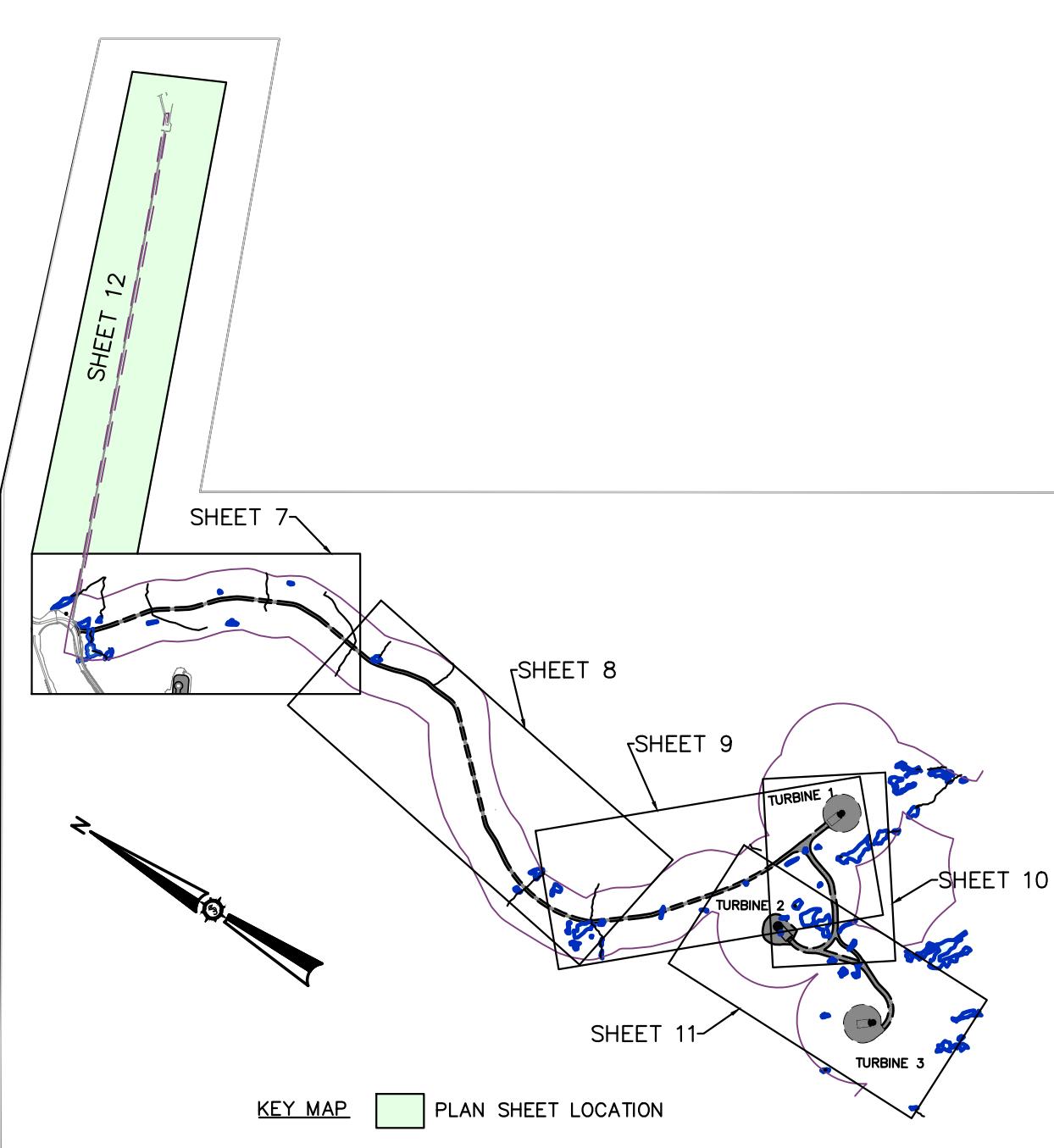
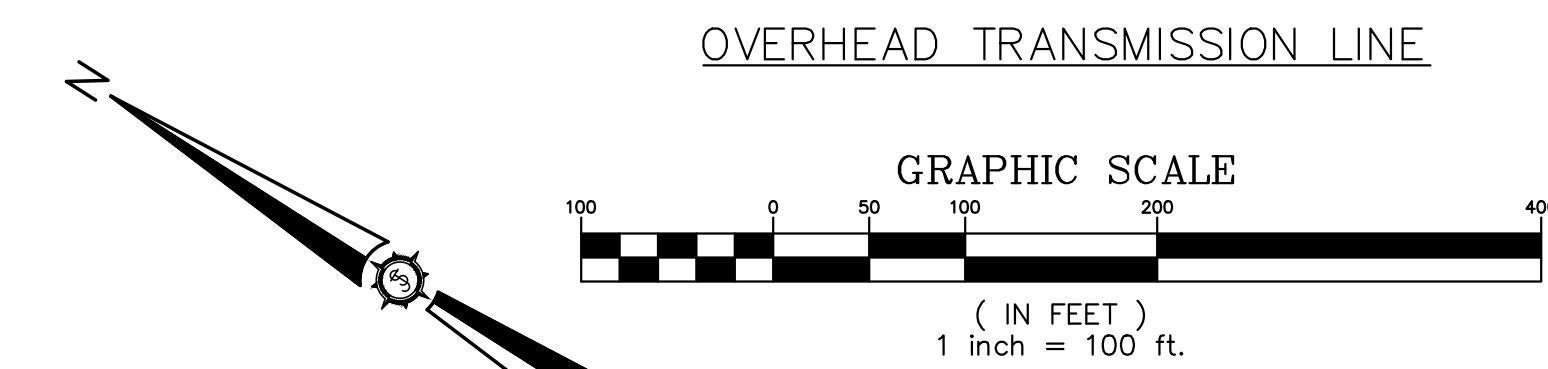
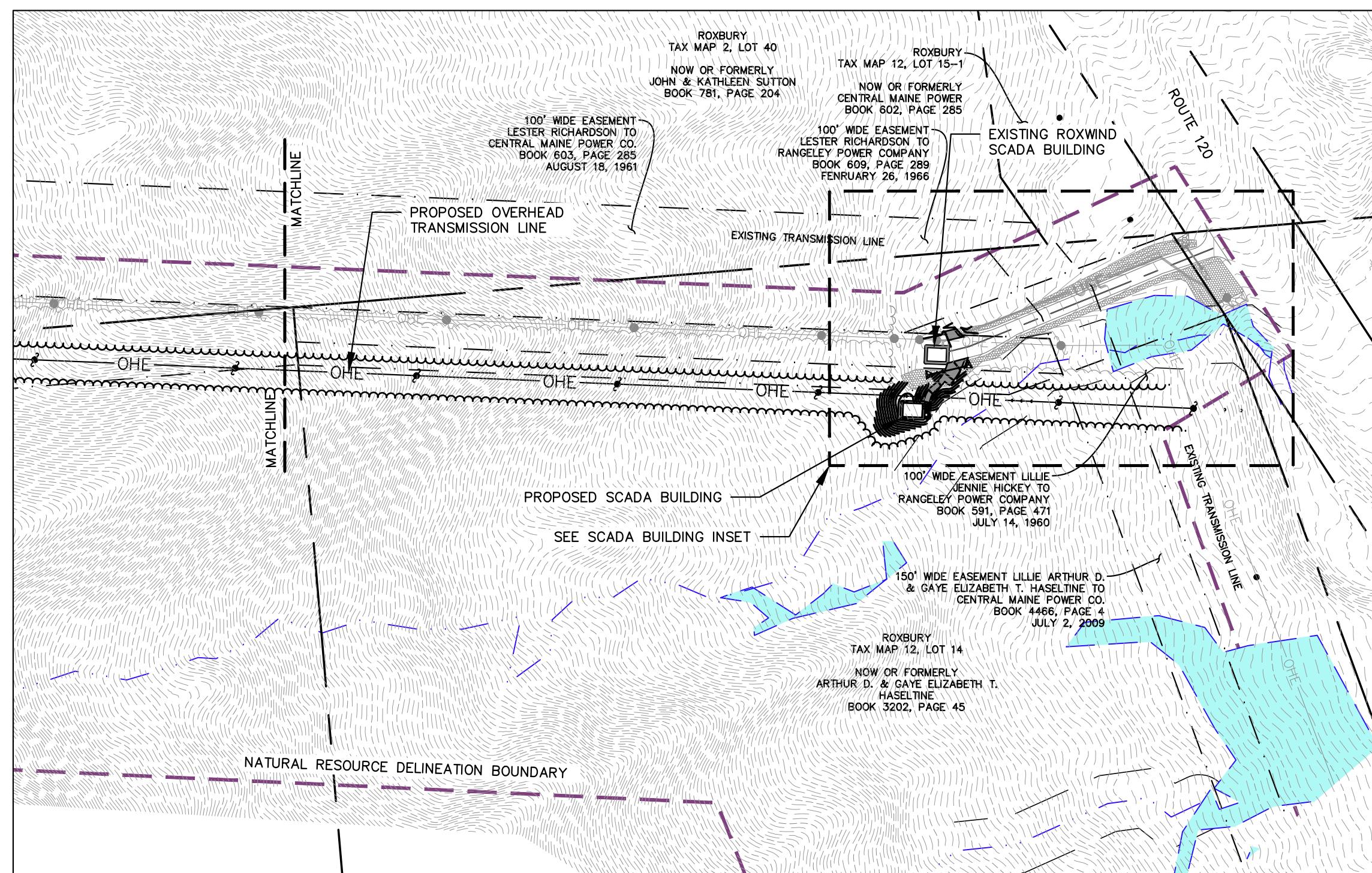
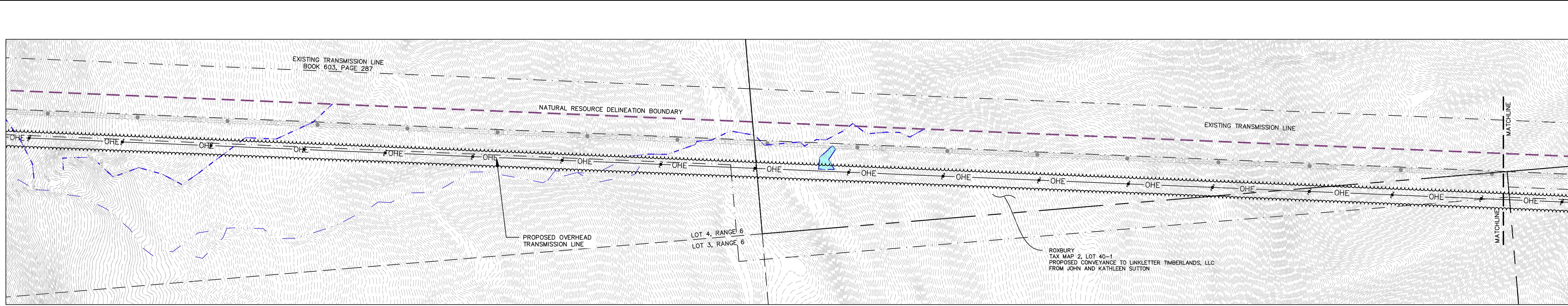
1 800 648 4202

| | |
|---------------------------------------|--------------------|
| TWIN ENERGY LLC | |
| RUMFORD, MAINE | |
| Project Location | |
| RUMFORD, MAINE | |
| Drawing Description | |
| GRADING PLAN | |
| STA 54+00 TO 80+50 | |
| Drawn By JAO Date 11/03/2023 | Designed By SAW |
| Scale AS SHOWN | Approved JAO |
| Checked BCH | |
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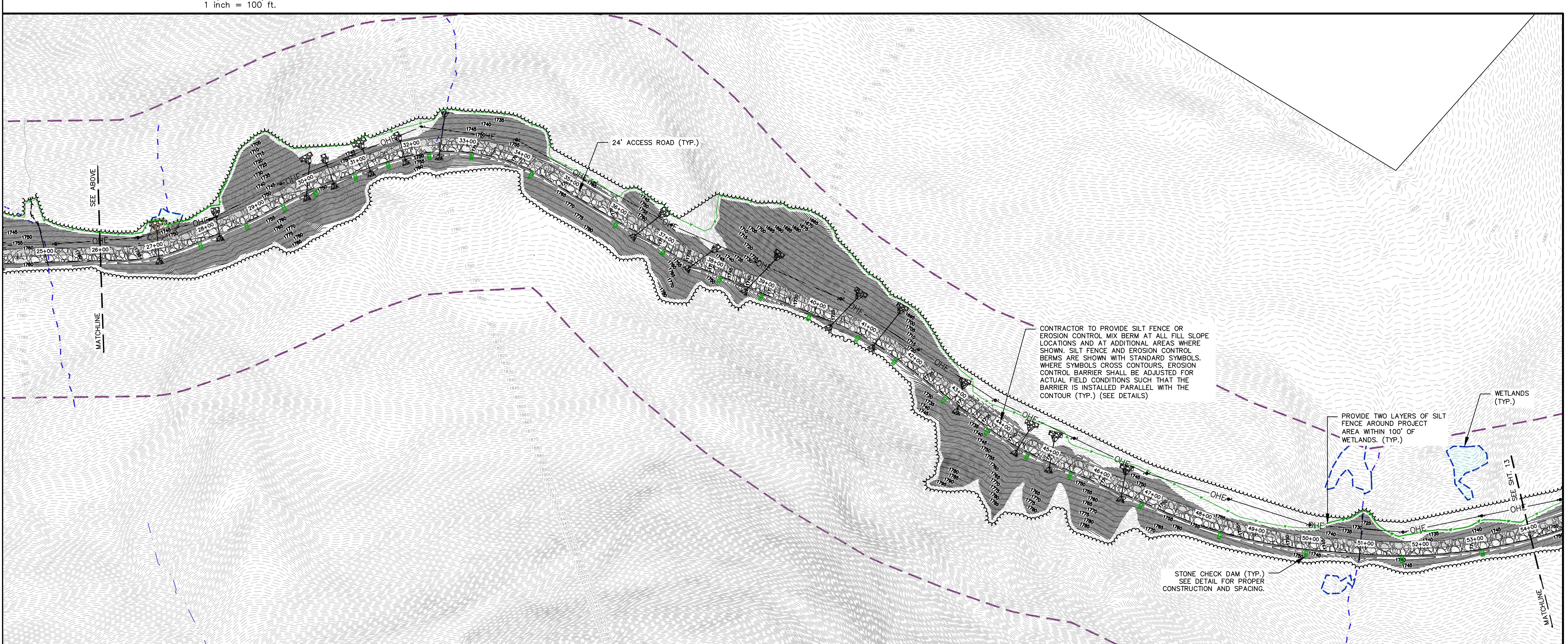
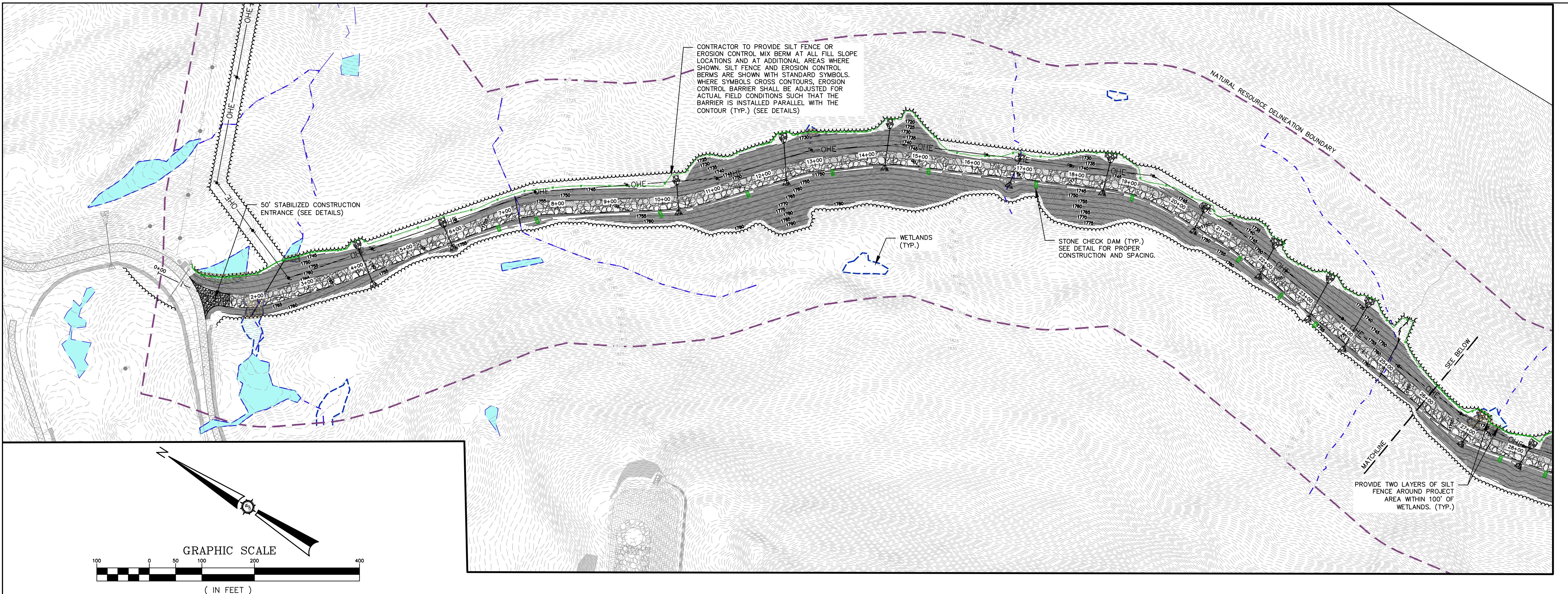




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| TWIN ENERGY LLC | |
| RUMFORD, MAINE | |
| Project Location | |
| RUMFORD, MAINE | |
| Drawing Description | |
| GRADING PLAN | |
| STA 199+50 TO 211+50 | |
| & STA 299+00 TO 305+50 | |
| Phase | PERMIT |
| Sheet No. | 11 |
| Project No. | 381.20.01 |
| Engineer |  Sewwall Engineering Surveying |
| Approved | 1 800 648 4202 |
| Checked | BCH |
| 11/3/2023 12:54 PM | 11/3/2023 12:54 PM |
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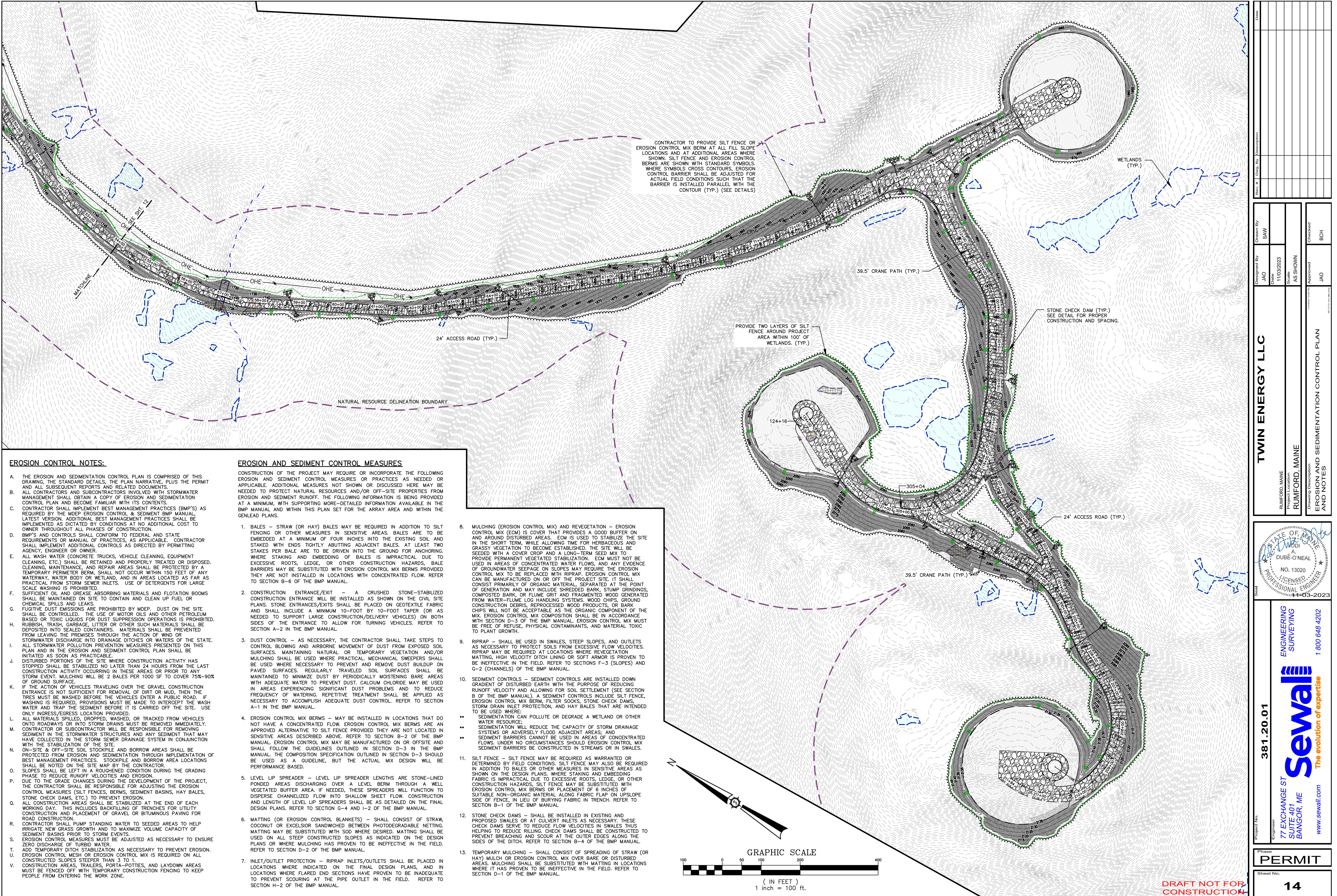
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| Form # | Drawn By | Date |
| | SAW | |
| Drawn By | Approved | Checked |
| | JAO | BCH |
| Project location | RUMFORD, MAINE | |
| Description | OVERHEAD TRANSMISSION LINE AND SCADA BUILDING PLAN | |
| Signature | | |
| Project No. | 381.20.01 | Engineering |
| Engineer | 77 EXCHANGE ST SUITE 401 BANGOR, ME | SEWALL |
| Phase | PERMIT | |
| Sheet No. | www.sewall.com | |

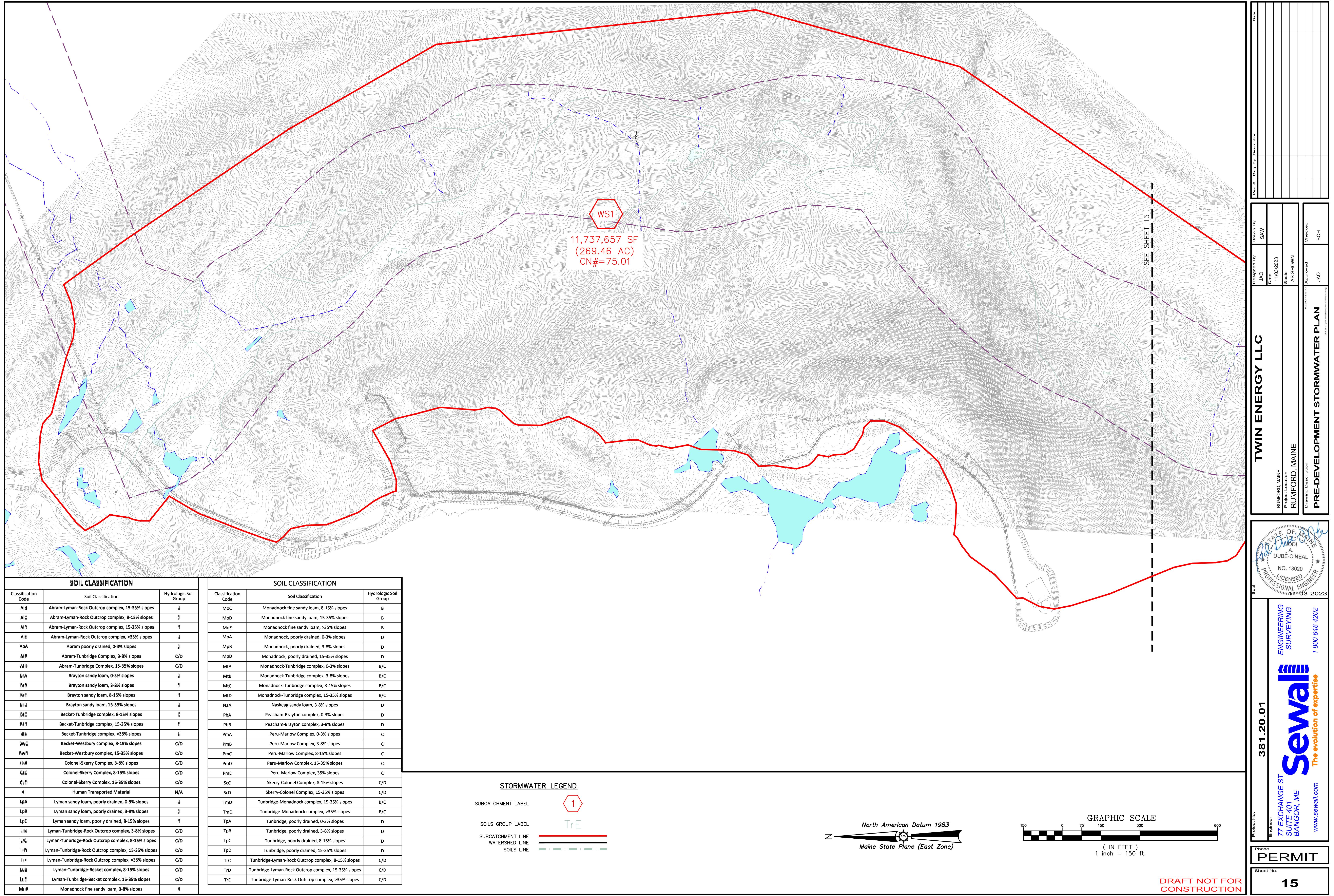


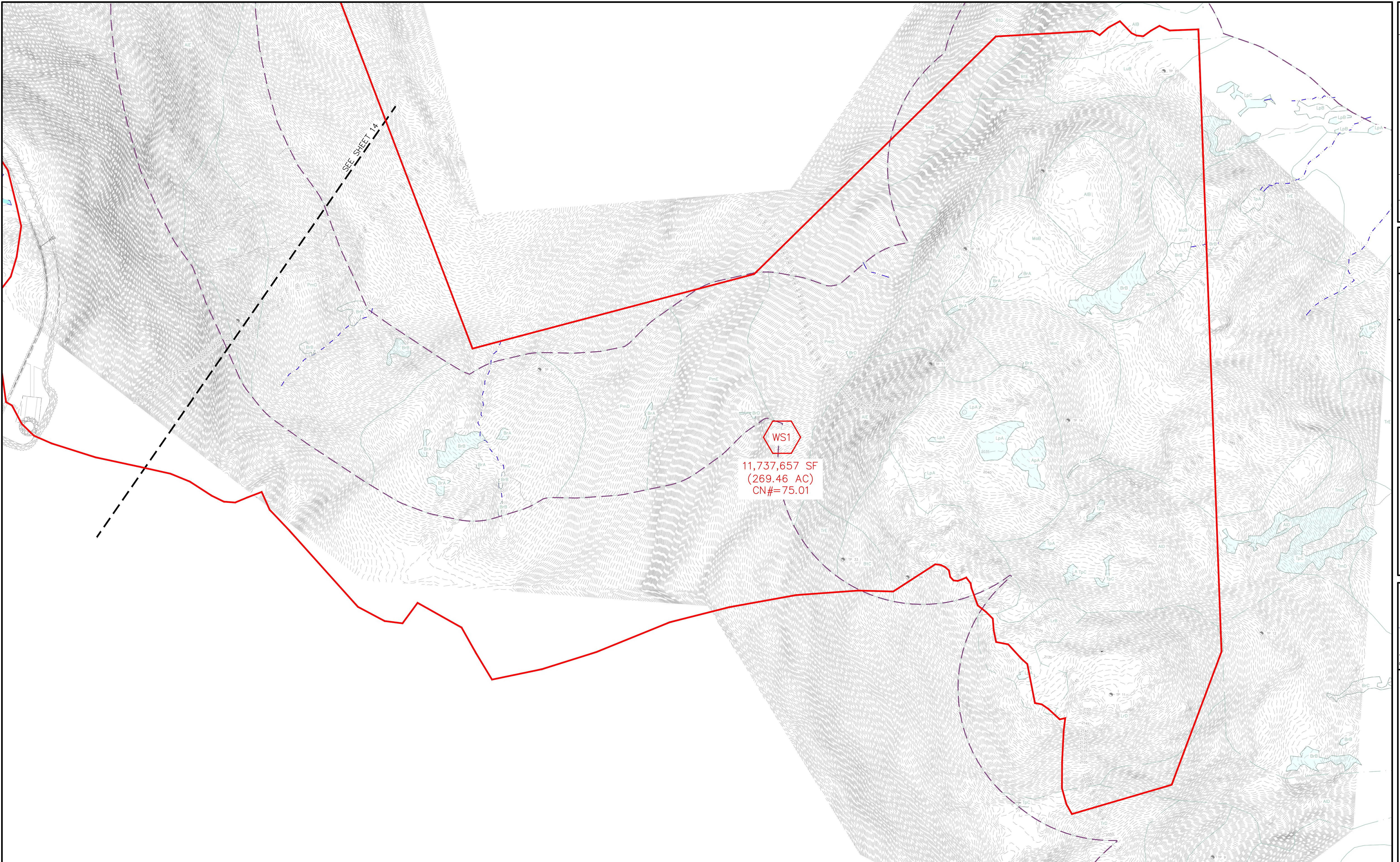
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| Project No. | 381.20.01 | Engineer | 77 EXCHANGE ST SUITE 401 BANGOR, ME | www.sewall.com | |
| Phase | PERMIT | Phase | PERMIT | | |
| Sheet No. | 13 | Date | 11/03/2023 | Scale | AS SHOWN |
| Reviewed | JAO | Drawn By | JAO | | |
| Approved | JAO | Drawn By Description | JAO | | |
| Checked | BCH | Rev. # | | | |
| TWIN ENERGY LLC | | | | | Date |
| RUMFORD, MAINE | | | | | 11/03/2023 |
| Drawing Description | | | | | Scale |
| TWIN ENERGY PROJECT: EROSION AND SEDIMENTATION CONTROL PLAN | | | | | AS SHOWN |
| | | | | | 1:10000 (100' on the ground) |

STATE OF MAINE
A. DUBÉ-O'NEAL
NO. 13020
LICENSED PROFESSIONAL ENGINEER
11/03/2023

sewall
Engineering Surveying
1 800 648 4202
The evolution of expertise





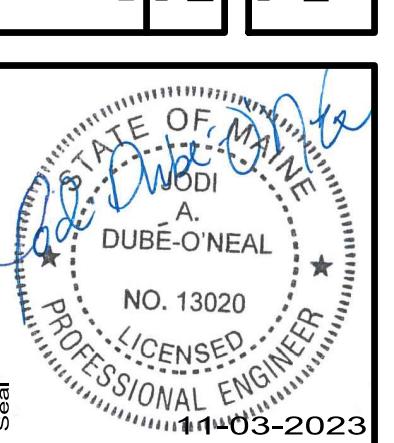


N
North American Datum 1983
Maine State Plane (East Zone)

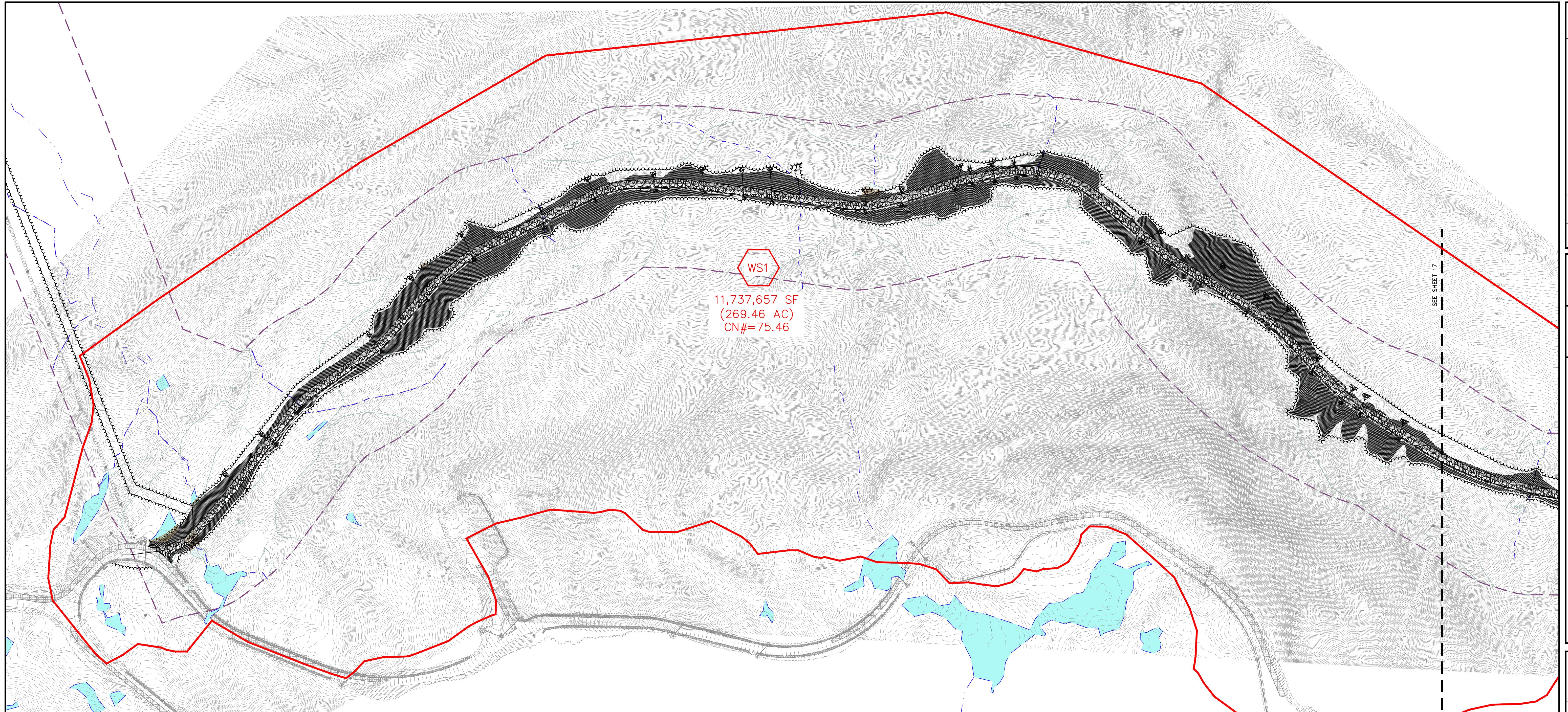
GRAPHIC SCALE
(IN FEET)
1 inch = 150 ft.

| | |
|---------------------------------|------------|
| Drawn By | Drawn By |
| Saw | Saw |
| Date | Date |
| 11/03/2023 | 11/03/2023 |
| Scale | Scale |
| AS SHOWN | AS SHOWN |
| Drawing Description | |
| PRE-DEVELOPMENT STORMWATER PLAN | |

| | |
|---------------------------------|------------|
| Designed By | Drawn By |
| JAO | Saw |
| Date | Date |
| 11/03/2023 | 11/03/2023 |
| Scale | Scale |
| AS SHOWN | AS SHOWN |
| Drawing Description | |
| PRE-DEVELOPMENT STORMWATER PLAN | |



Project No. 381.20.01
Engineer 77 EXCHANGE ST
77 EXCHANGE ST
SUITE 401
BANGOR, ME
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Phase PERMIT
Sheet No. 16



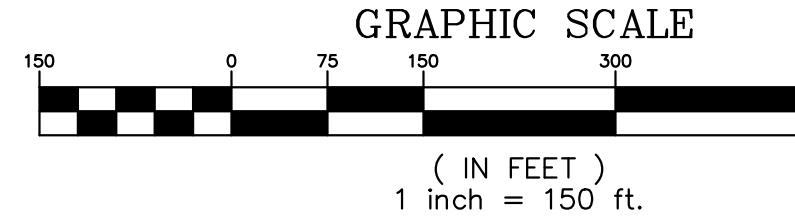
| SOIL CLASSIFICATION | | |
|---------------------|---|-----------------------|
| Classification Code | Soil Classification | Hydrologic Soil Group |
| AlB | Abram-Lyman-Rock Outcrop complex, 15-35% slopes | D |
| AlC | Abram-Lyman-Rock Outcrop complex, 8-15% slopes | D |
| AID | Abram-Lyman-Rock Outcrop complex, 15-35% slopes | D |
| AlE | Abram-Lyman-Rock Outcrop complex, >35% slopes | D |
| ApA | Abram poorly drained, 0-3% slopes | D |
| AtB | Abram-Tunbridge Complex, 3-8% slopes | C/D |
| AtD | Abram-Tunbridge Complex, 15-35% slopes | C/D |
| BrA | Brayton sandy loam, 0-3% slopes | D |
| BrB | Brayton sandy loam, 3-8% slopes | D |
| BrC | Brayton sandy loam, 8-15% slopes | D |
| BrD | Brayton sandy loam, 15-35% slopes | D |
| BtC | Becket-Tunbridge complex, 8-15% slopes | C |
| BtD | Becket-Tunbridge complex, 15-35% slopes | C |
| BtE | Becket-Tunbridge complex, >35% slopes | C |
| BwC | Becket-Westbury complex, 8-15% slopes | C/D |
| BwD | Becket-Westbury complex, 15-35% slopes | C/D |
| CsB | Colonel-Skerry Complex, 3-8% slopes | C/D |
| CsC | Colonel-Skerry Complex, 8-15% slopes | C/D |
| CsD | Colonel-Skerry Complex, 15-35% slopes | C/D |
| Ht | Human Transported Material | N/A |
| LpA | Lyman sandy loam, poorly drained, 0-3% slopes | D |
| LpB | Lyman sandy loam, poorly drained, 3-8% slopes | D |
| LpC | Lyman sandy loam, poorly drained, 8-15% slopes | D |
| LrB | Lyman-Tunbridge-Rock Outcrop complex, 3-8% slopes | C/D |
| LrC | Lyman-Tunbridge-Rock Outcrop complex, 8-15% slopes | C/D |
| LrD | Lyman-Tunbridge-Rock Outcrop complex, 15-35% slopes | C/D |
| LrE | Lyman-Tunbridge-Rock Outcrop complex, >35% slopes | C/D |
| LuB | Lyman-Tunbridge-Becket complex, 8-15% slopes | C/D |
| LuD | Lyman-Tunbridge-Becket complex, 15-35% slopes | C/D |
| MoB | Monadnock fine sandy loam, 3-8% slopes | B |

| SOIL CLASSIFICATION | | |
|---------------------|---|-----------------------|
| Classification Code | Soil Classification | Hydrologic Soil Group |
| MoC | Monadnock fine sandy loam, 8-15% slopes | B |
| MoD | Monadnock fine sandy loam, 15-35% slopes | B |
| MoE | Monadnock fine sandy loam, >35% slopes | B |
| MpA | Monadnock, poorly drained, 0-3% slopes | D |
| MpB | Monadnock, poorly drained, 3-8% slopes | D |
| MpD | Monadnock, poorly drained, 15-35% slopes | D |
| MTA | Monadnock-Tunbridge complex, 0-3% slopes | B/C |
| MTB | Monadnock-Tunbridge complex, 3-8% slopes | B/C |
| MTC | Monadnock-Tunbridge complex, 8-15% slopes | B/C |
| MTD | Monadnock-Tunbridge complex, 15-35% slopes | B/C |
| NaA | Naskeag sandy loam, 3-8% slopes | D |
| PbA | Peacham-Brayton complex, 0-3% slopes | D |
| PbB | Peacham-Brayton complex, 3-8% slopes | D |
| PmA | Peru-Marlow Complex, 0-3% slopes | C |
| PmB | Peru-Marlow Complex, 3-8% slopes | C |
| PmC | Peru-Marlow Complex, 8-15% slopes | C |
| PmD | Peru-Marlow Complex, 15-35% slopes | C |
| PmE | Peru-Marlow Complex, 35% slopes | C |
| ScC | Skerry-Colonel Complex, 8-15% slopes | C/D |
| ScD | Skerry-Colonel Complex, 15-35% slopes | C/D |
| TmD | Tunbridge-Monadnock complex, 15-35% slopes | B/C |
| TmE | Tunbridge-Monadnock complex, >35% slopes | B/C |
| TpA | Tunbridge, poorly drained, 0-3% slopes | D |
| TpB | Tunbridge, poorly drained, 3-8% slopes | D |
| TpC | Tunbridge, poorly drained, 8-15% slopes | D |
| TpD | Tunbridge, poorly drained, 15-35% slopes | D |
| TrC | Tunbridge-Lyman-Rock Outcrop complex, 8-15% slopes | C/D |
| TrD | Tunbridge-Lyman-Rock Outcrop complex, 15-35% slopes | C/D |
| TrE | Tunbridge-Lyman-Rock Outcrop complex, >35% slopes | C/D |

STORMWATER LEGEND

| | |
|--------------------|------------|
| SUBCATCHMENT LABEL | 1 |
| SOILS GROUP LABEL | TrE |
| SUBCATCHMENT LINE | Red line |
| WATERSHED LINE | Black line |
| SOILS LINE | Green line |

North American Datum 1983
Maine State Plane (East Zone)



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17

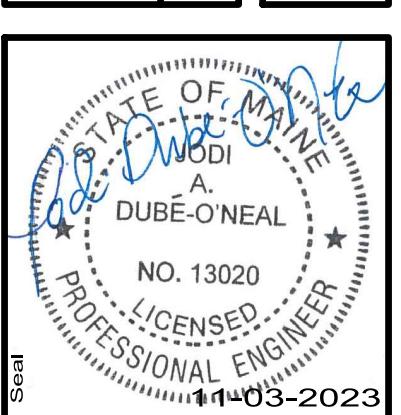
| | |
|---------------------|-------------------------------------|
| Project No. | 381.20.01 |
| Engineer | 77 EXCHANGE ST SUITE 401 BANGOR, ME |
| Permit | SEWALL |
| Phase | PERMIT |
| Sheet No. | 17 |
| Date | 11/03/2023 |
| Drawn By | JAO |
| Drawn By | SAW |
| Approved | JAO |
| Checked | BCH |
| Reviewed | |
| Drawing Description | POST-DEVELOPMENT STORMWATER PLAN |
| Permit No. | NO. 13020 |
| State | MAINE |
| Engineer | DUBÉ-O'NEAL |
| Permit Date | 11/03/2023 |
| Expiration Date | 1800 648 4202 |
| www.sewall.com | |



North American Datum 1983
Maine State Plane (East Zone)

GRAPHIC SCALE
(IN FEET)
1 inch = 150 ft.

| | | |
|---------------------|---|--|
| Project No. | 381.20.01 | |
| Engineer | 77 EXCHANGE ST SUITE 401 BANGOR, ME | |
| Phase | PERMIT | |
| Sheet No. | 18 | |
| Date | 11/03/2023 | |
| Drawn By | JAO | |
| Checked | BCH | |
| Approved | JAO | |
| Drawn & Checked By | SAW | |
| Scale | AS SHOWN | |
| Drawing Description | POST-DEVELOPMENT STORMWATER PLAN | |



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