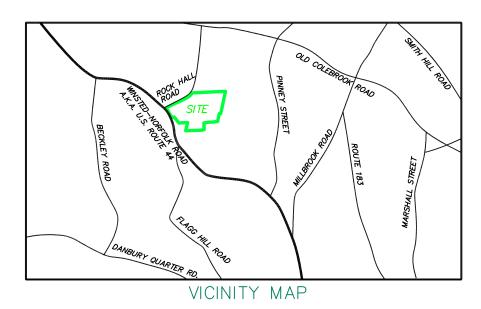
WIND COLEBROOK NORTH

ROCK HALL ROAD COLEBROOK, CONNECTICUT



APPLICANT

BNE ENERGY, INC. 29 SOUTH MAIN STREET TOWN CENTER SUITE 200 WEST HARTFORD, CT

ENGINEER

CIVIL 1 43 SHERMAN HILL ROAD, SUITE D-101 WOODBURY, CT

ENVIRONMENTAL CONSULTANT

VHB
54 TUTTLE PLACE
MIDDLETOWN, CT

SURVEYOR

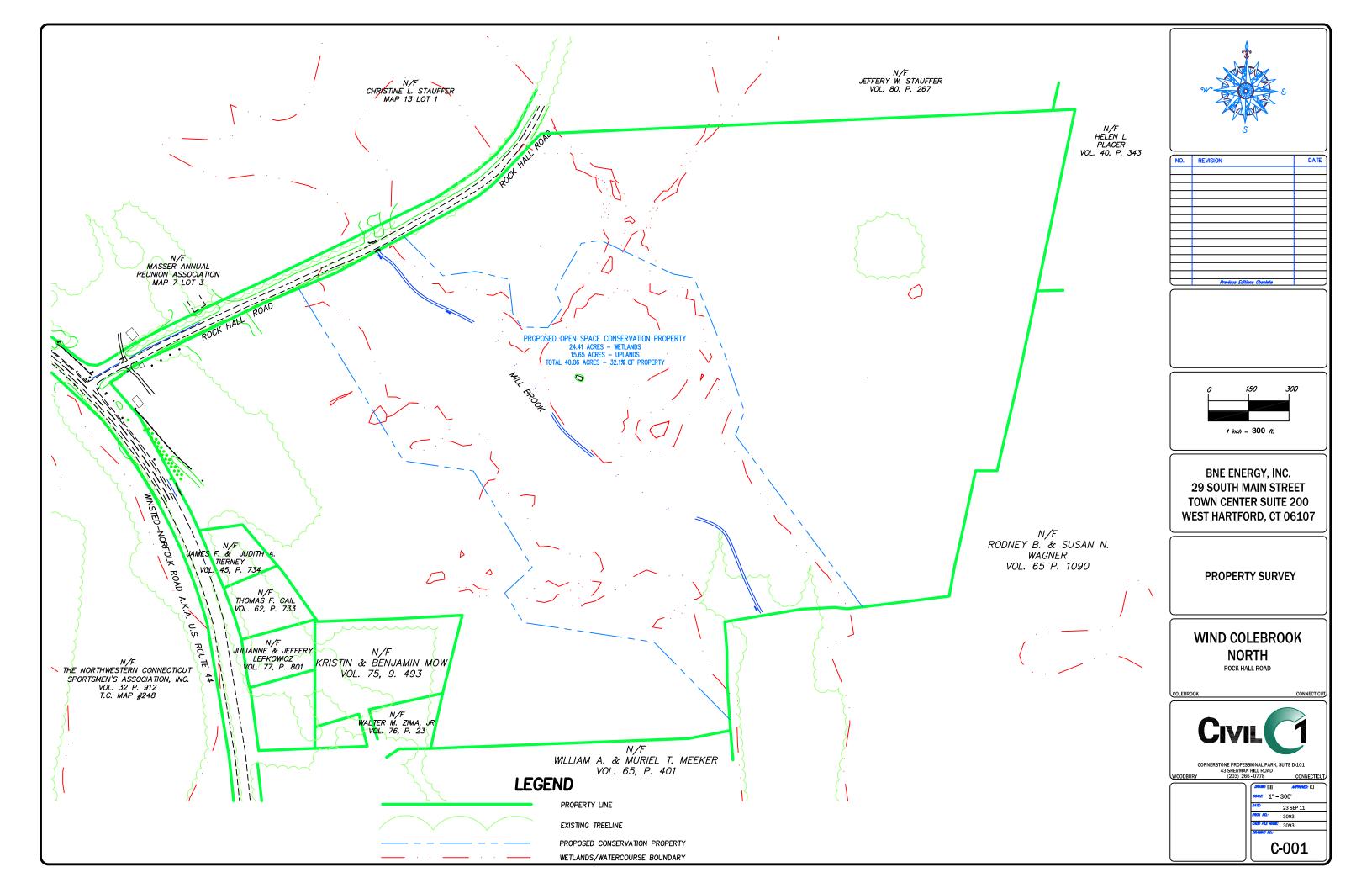
RIORDAN LAND SURVEYING 701 MIDDLEROAD TURNPIKE WOODBURY, CT CONNECTICUT SITING COUNCIL SUBMISSION

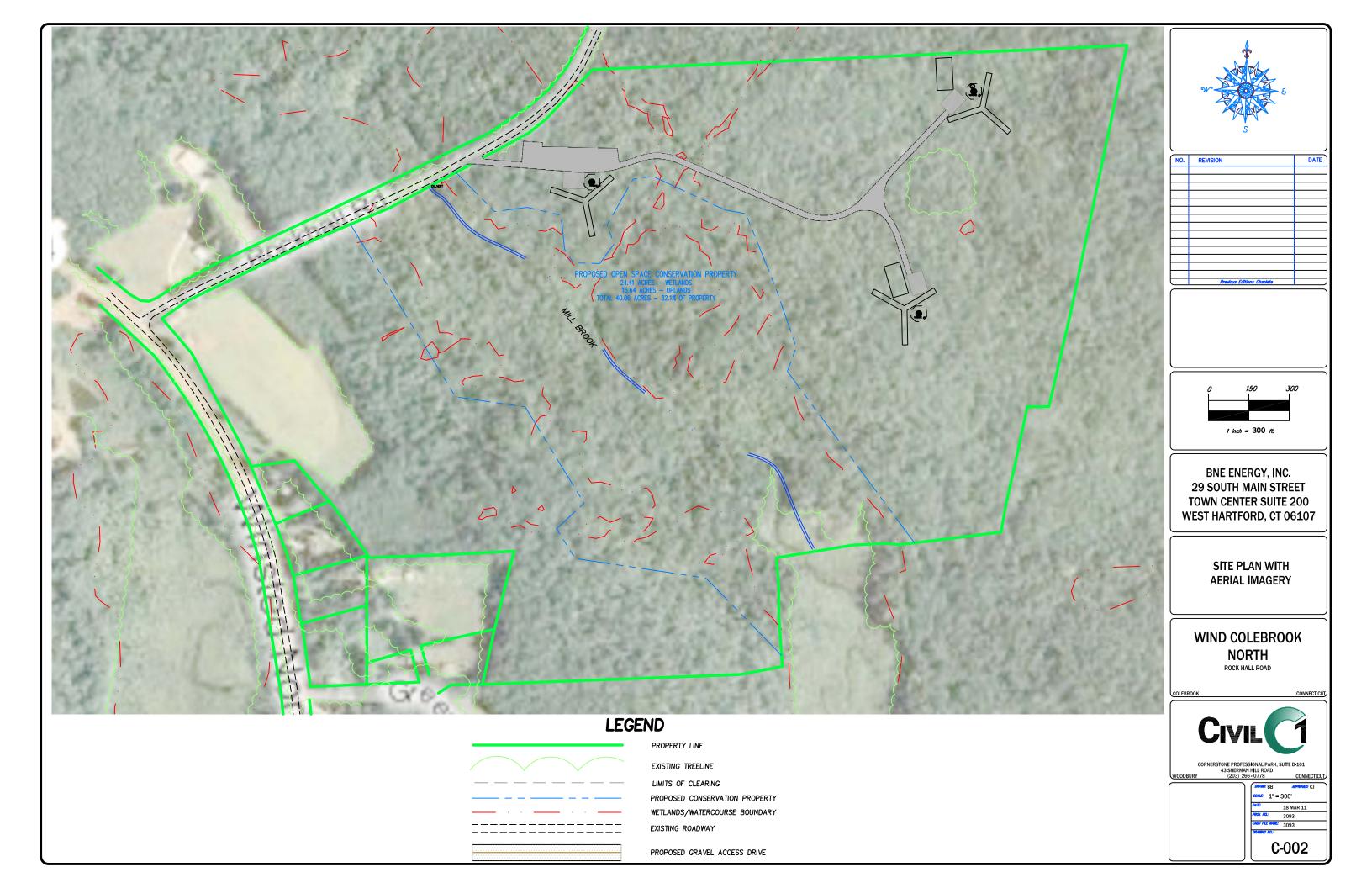


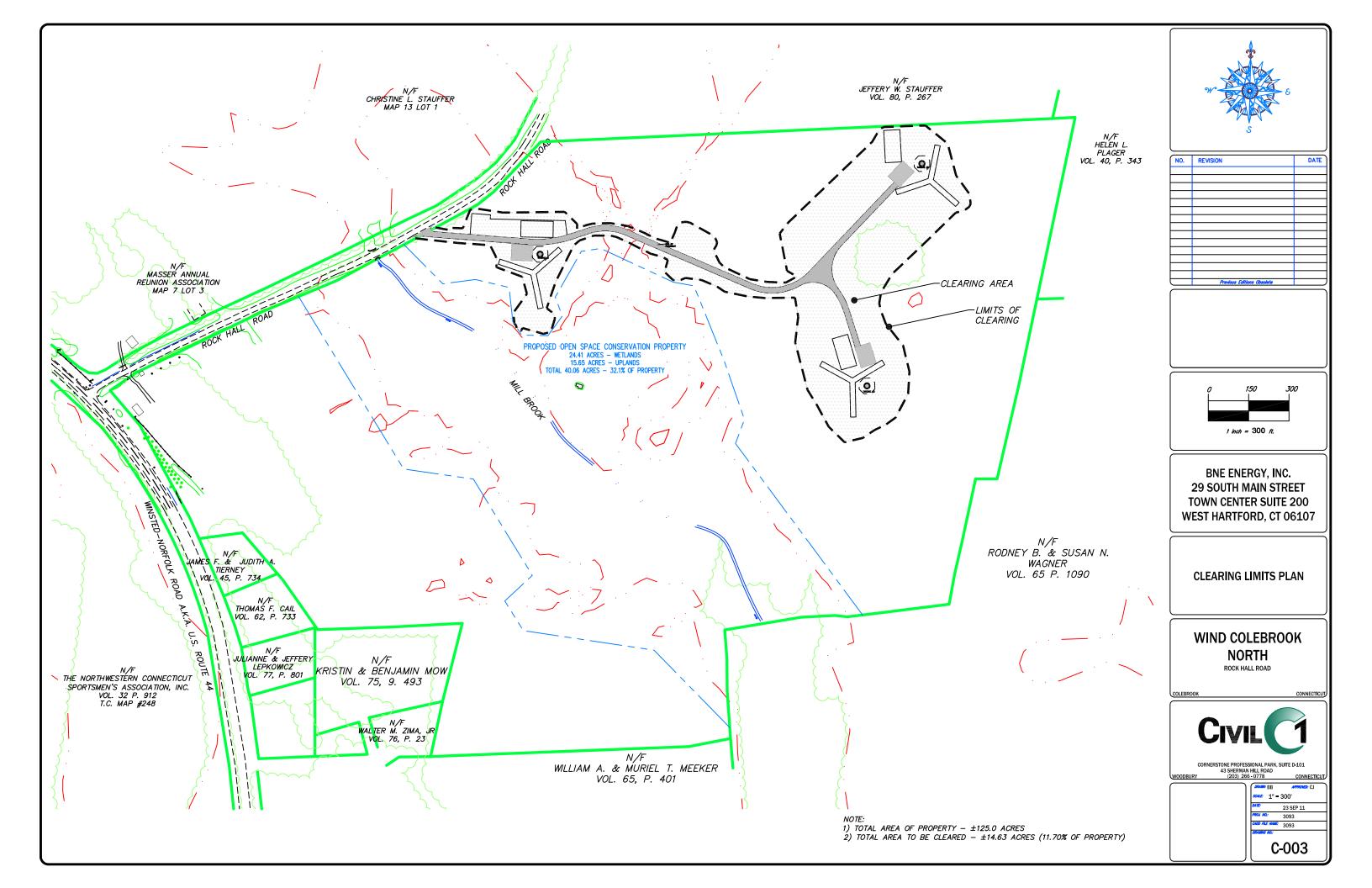
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266 - 0778 CONNECTIC

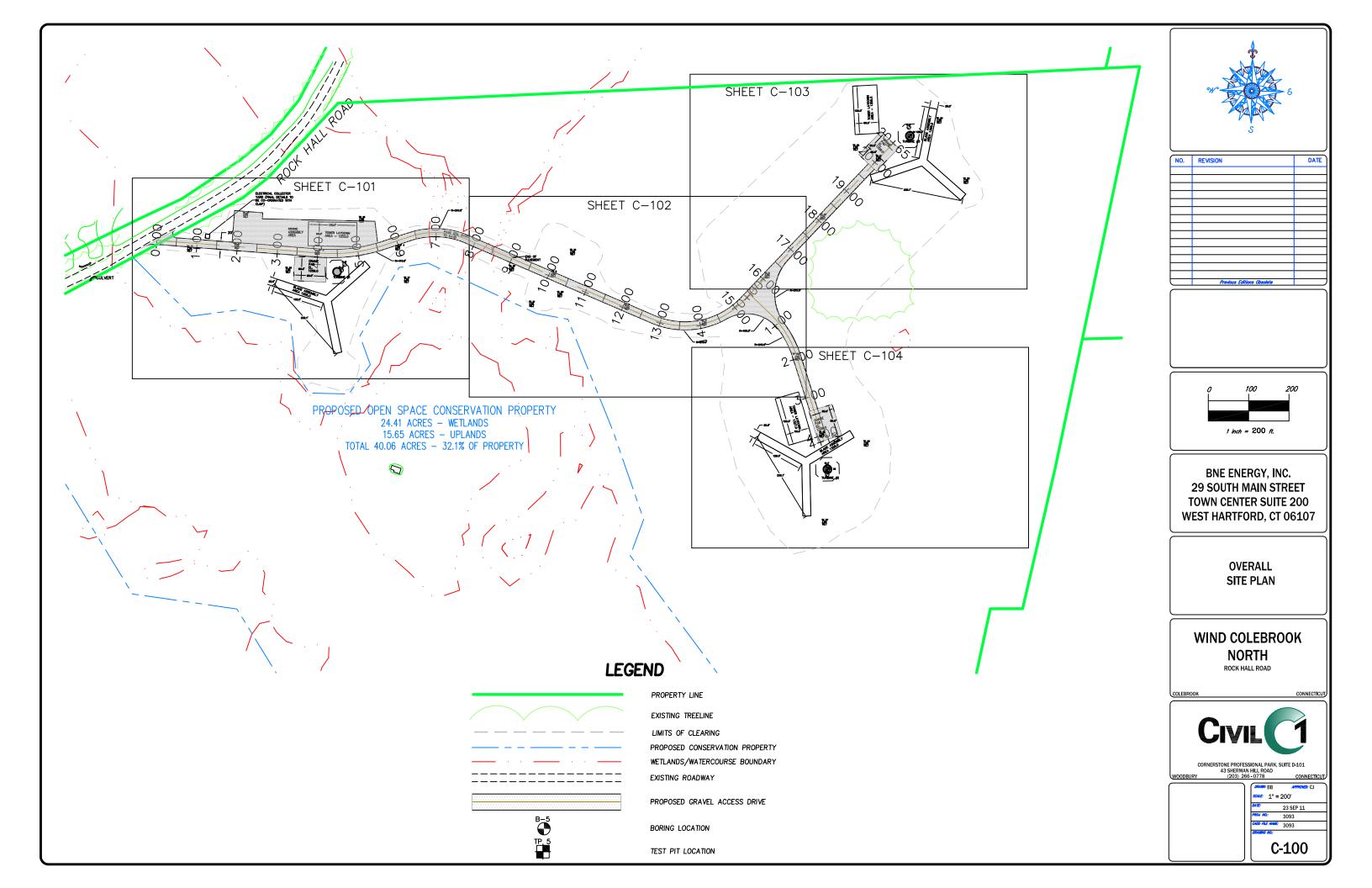
SEPTEMBER 23, 2011

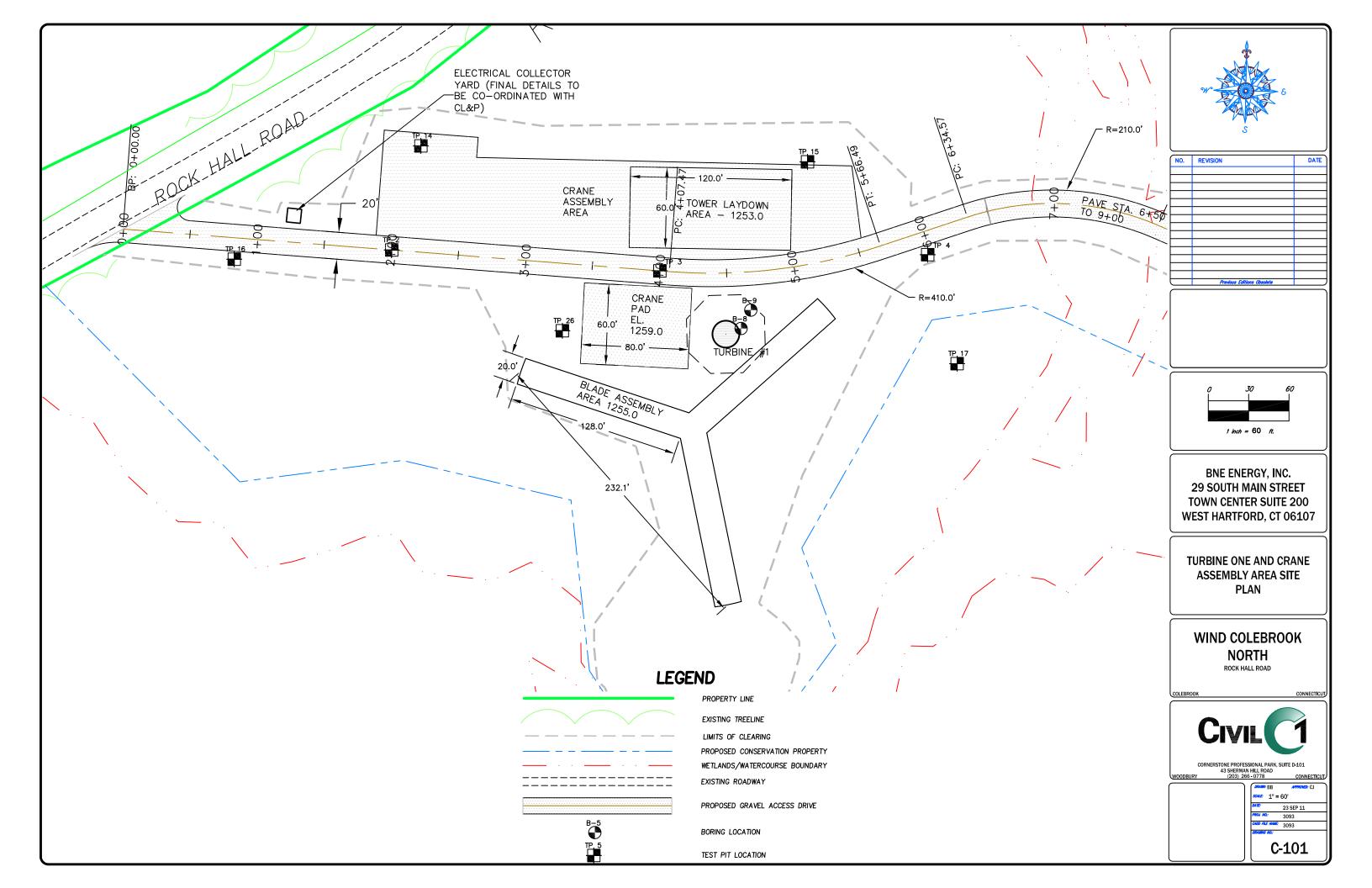
SHEET NUMBER **DESCRIPTION** C-001 PROPERTY SURVEY SITE PLAN WITH AERIAL IMAGERY C-002 C-003 CLEARING LIMITS PLAN C-100 OVERALL SITE PLAN C-101 TURBINE ONE AND CRANE ASSEMBLY AREA SITE PLAN C-102 MAIN ACCESS DRIVE STA. 8+00 TO 17+00 SITE PLAN C-103 TURBINE THREE ASSEMBLY AREA SITE PLAN C-104 TURBINE TWO ASSEMBLY AREA SITE PLAN C-200 EROSION CONTROL PLAN C-201 EROSION CONTROL PLAN TURBINE ONE EROSION CONTROL PLAN STA 8+0 TO 17+0 C-202 C-203 EROSION CONTROL PLAN TURBINE THREE C-204 EROSION CONTROL PLAN TURBINE TWO C-300 OVERALL GRADING PLAN C-301 GRADING PLAN TURBINE ONE C - 302GRADING PLAN MAIN ACCESS DRIVE STA. 8+00 TO 17+00 C-303 GRADING PLAN TURBINE THREE C-304 GRADING PLAN TURBINE TWO MAIN ACCESS DRIVE PLAN AND PROFILE STA. 0+00 TO 8+00 C-402 MAIN ACCESS DRIVE PLAN AND PROFILE STA. 8+00 TO 14+00 C-403 MAIN ACCESS DRIVE PLAN AND PROFILE STA. 14+00 TO 20+65 C-404 TURBINE TWO ACCESS DRIVE PLAN AND PROFILE STA. 0+00 TO 4+15 C-405 STORM DRAINAGE PROFILES STORM DRAINAGE PROFILES C-406 C-500 OVERALL POST CONSTRUCTION GRADING PLAN C-501 POST CONSTRUCTION GRADING PLAN TURBINE ONE C-502 POST CONSTRUCTION GRADING PLAN MAIN ACCESS DRIVE STA. 8+00 TO 17+00 C-503 POST CONSTRUCTION GRADING PLAN TURBINE THREE C-504 POST CONSTRUCTION GRADING PLAN TURBINE TWO C-601 EROSION CONTROL NARRATIVE AND CONSTRUCTION SEQUENCE C-602 RESTORATION AND MONITORING NARRATIVE C-603 DETAILS C-604 DETAILS C-605 **DETAILS** F-101 ELECTRICAL - SITE PLAN E-201 ELECTRICAL - RISER DIAGRAM ELECTRICAL - ON-LINE DIAGRAM

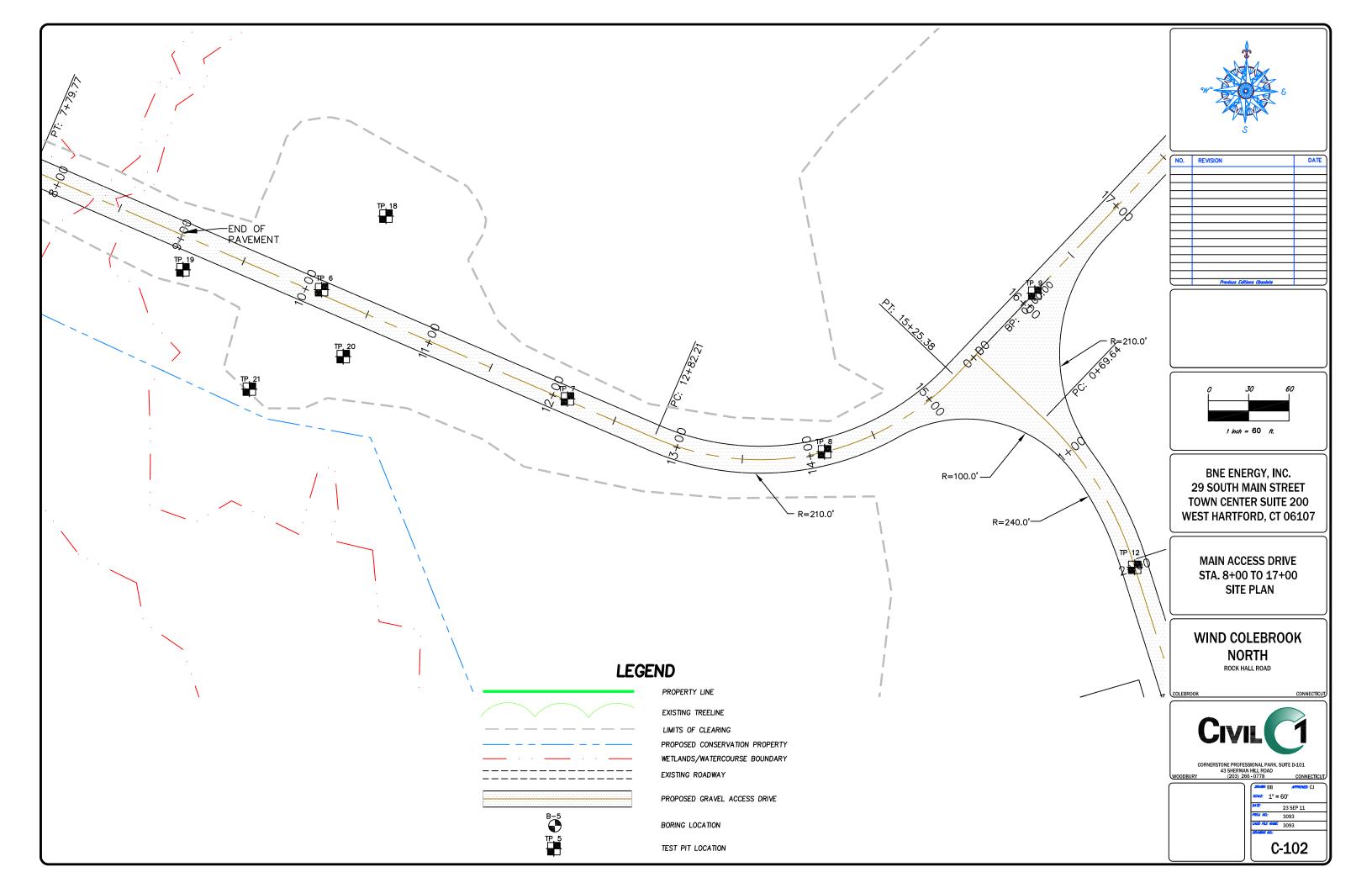


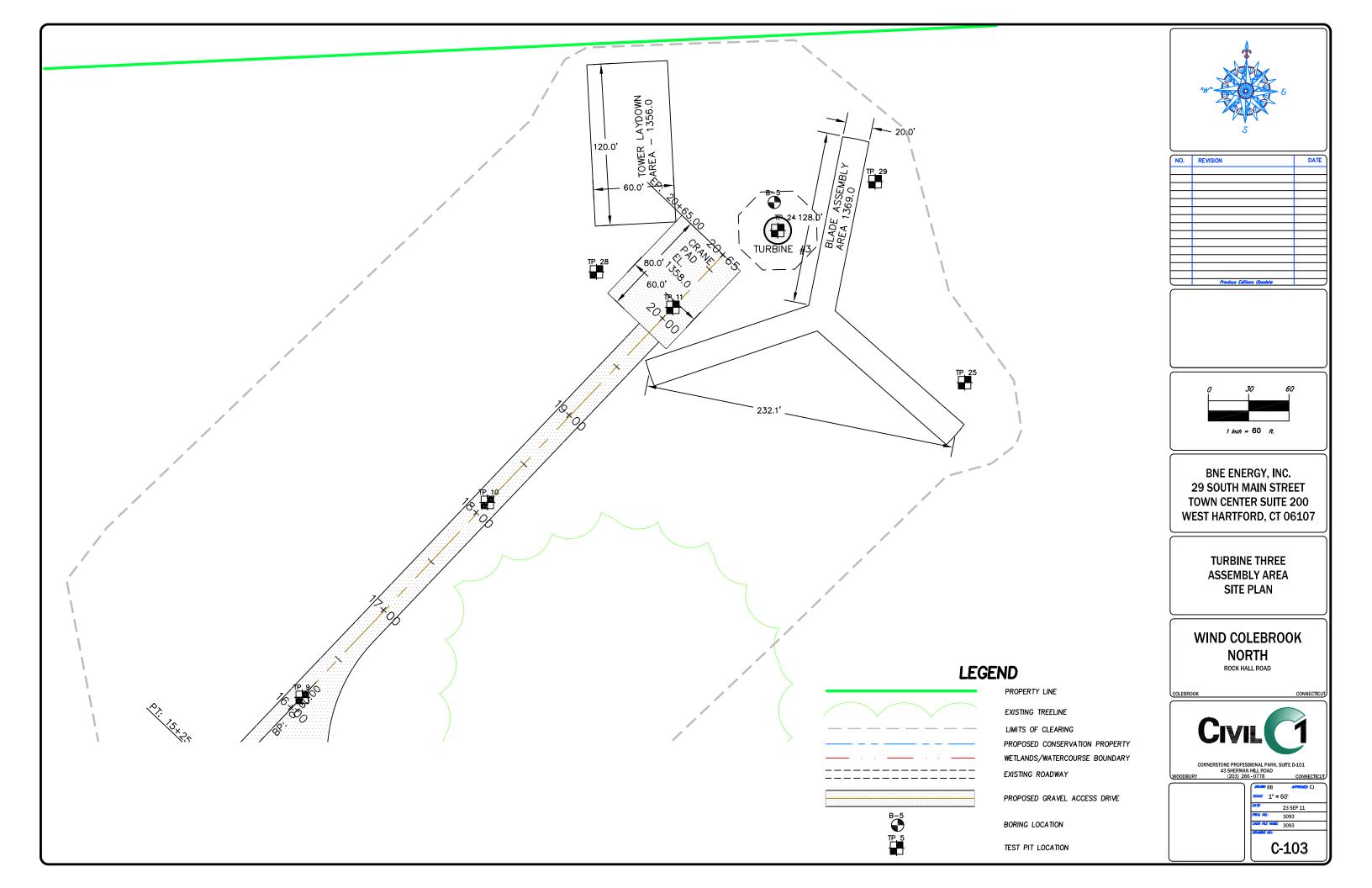


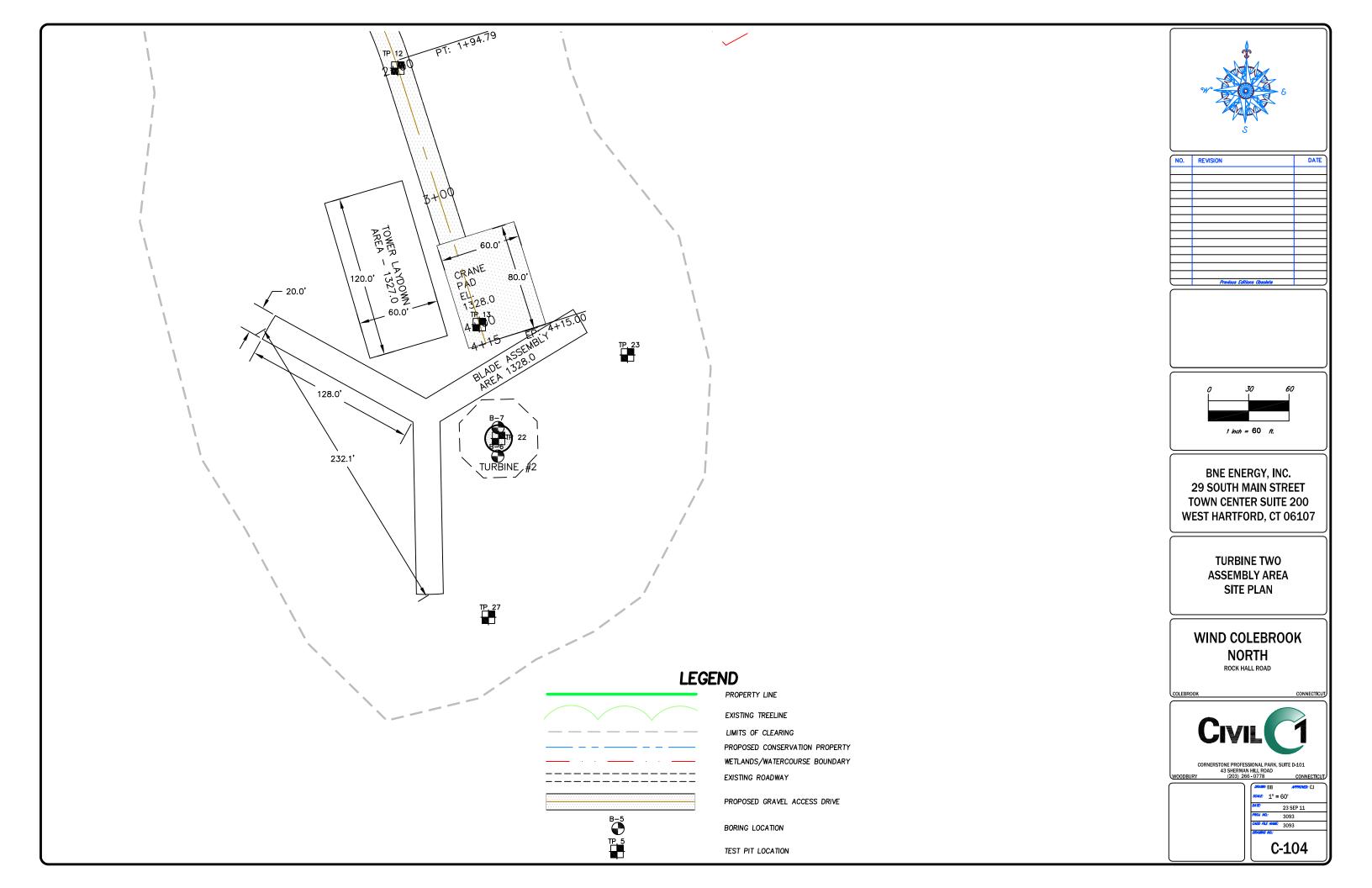


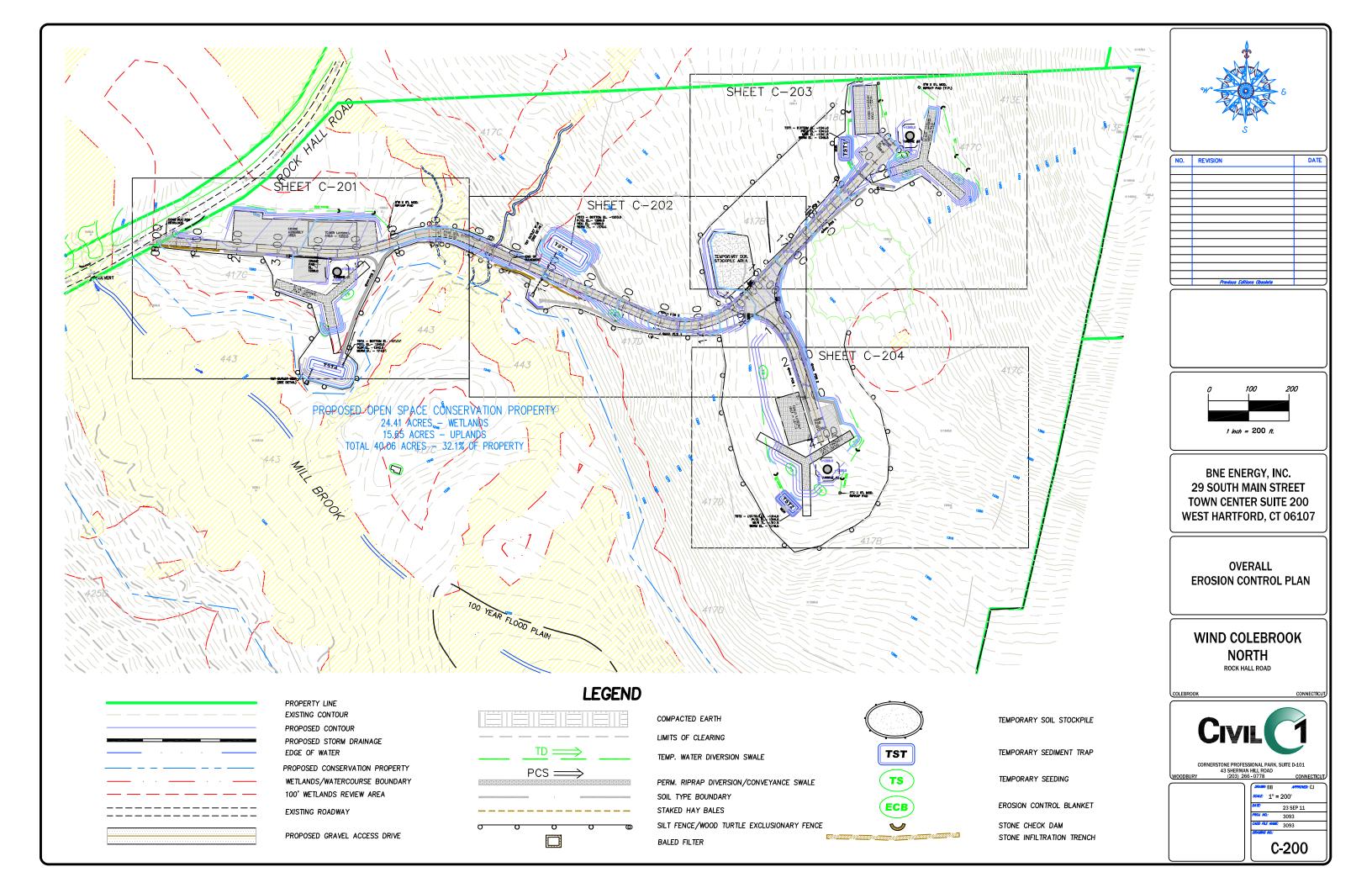


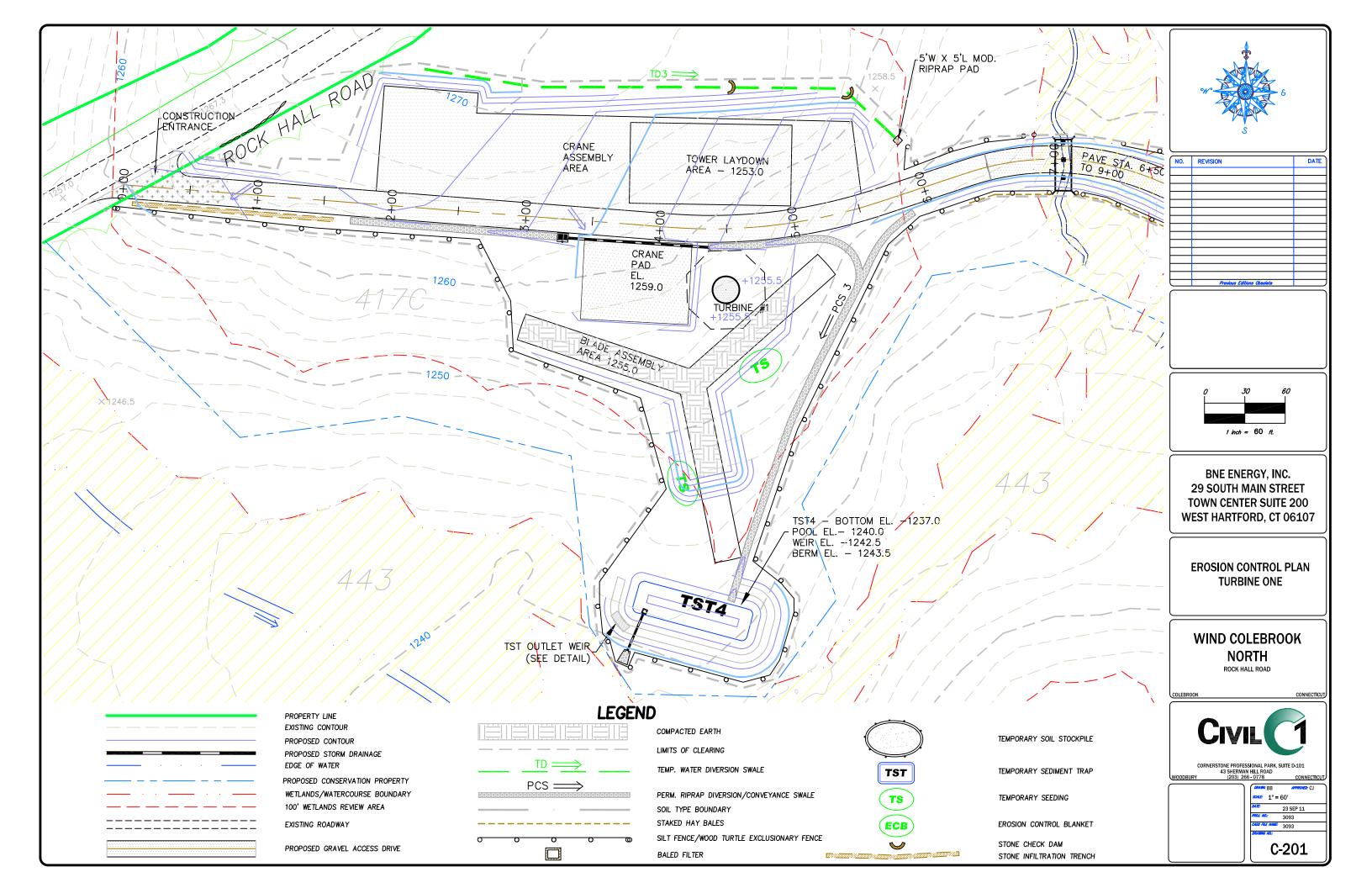


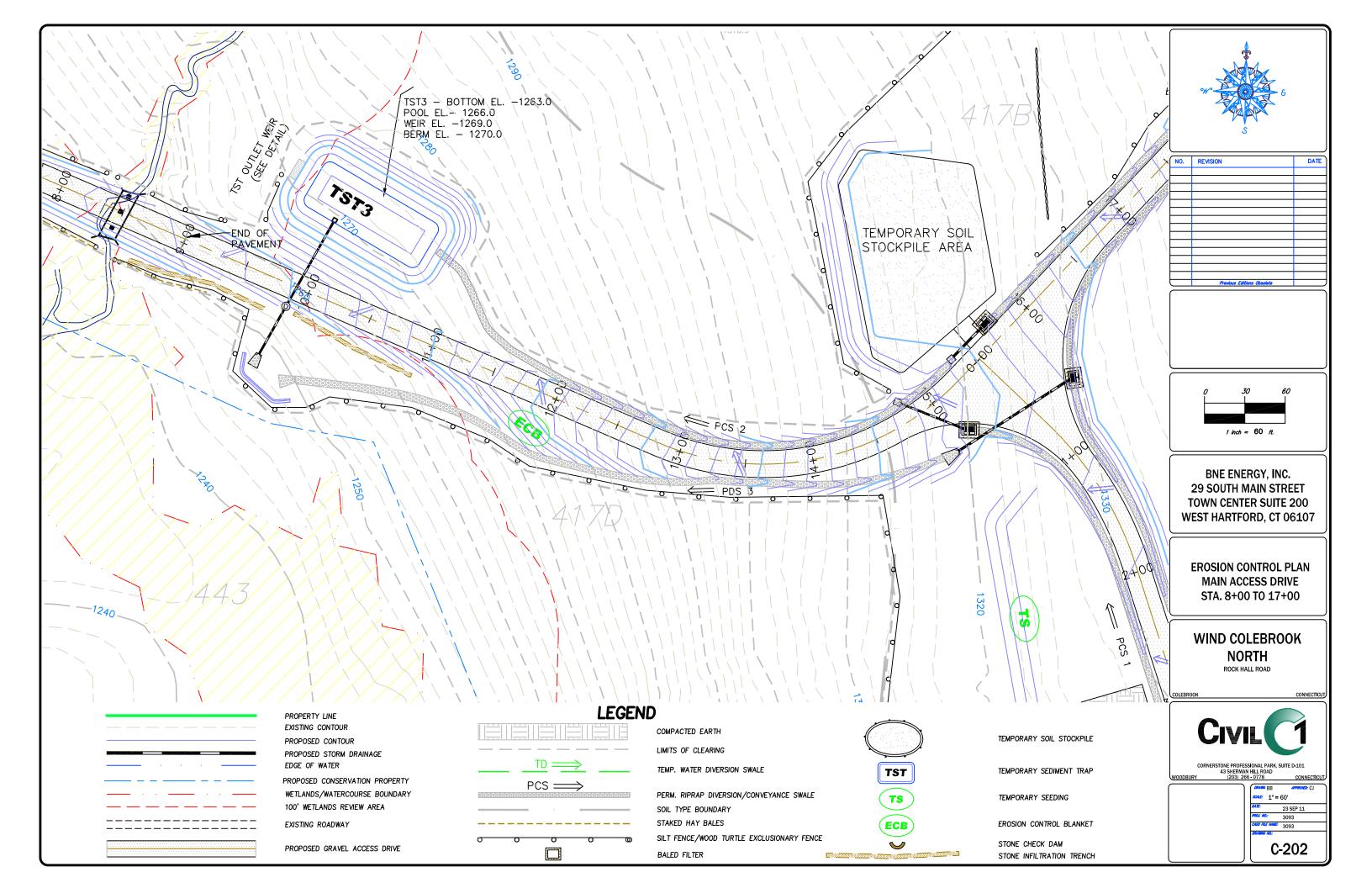


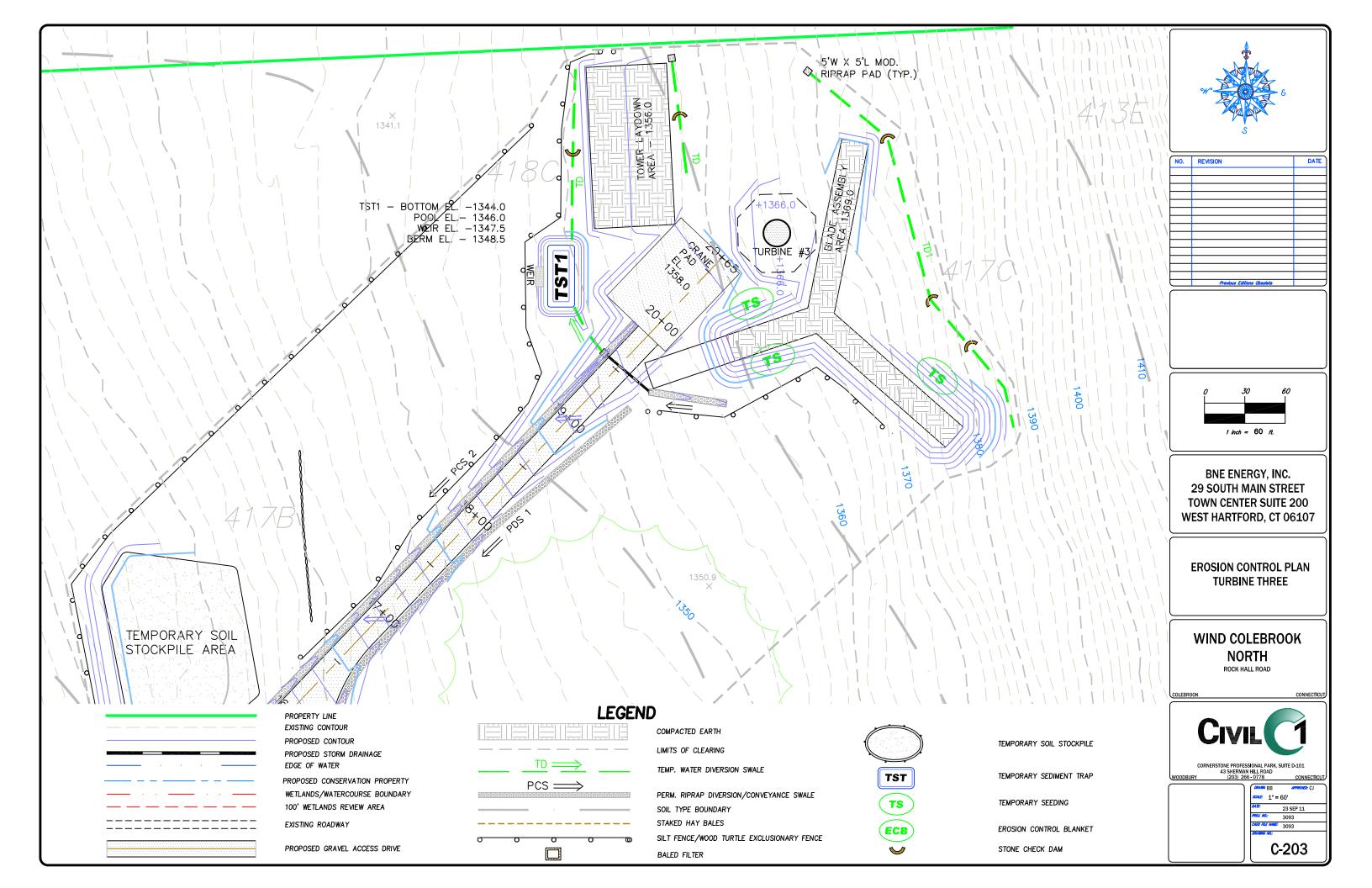


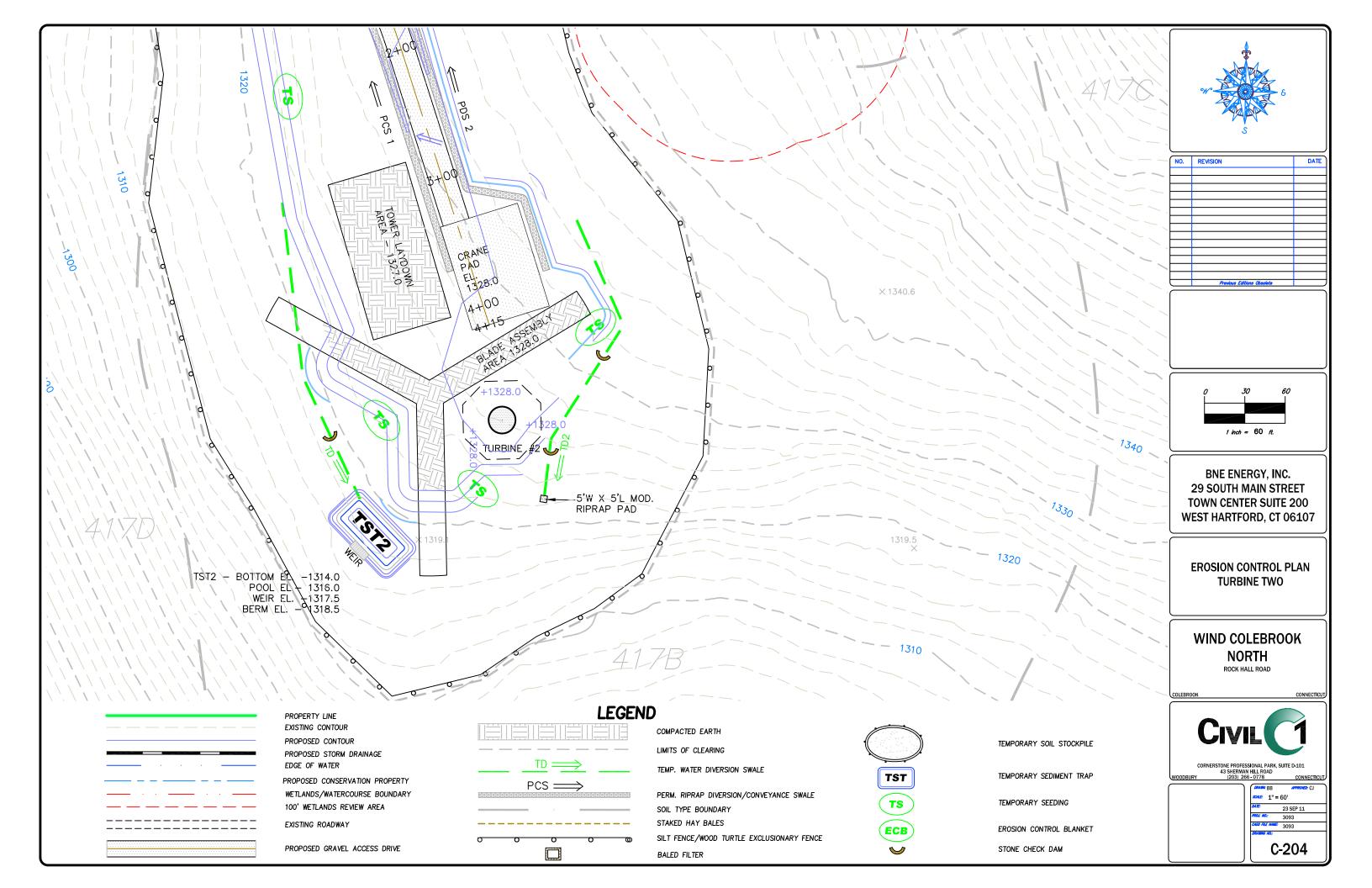


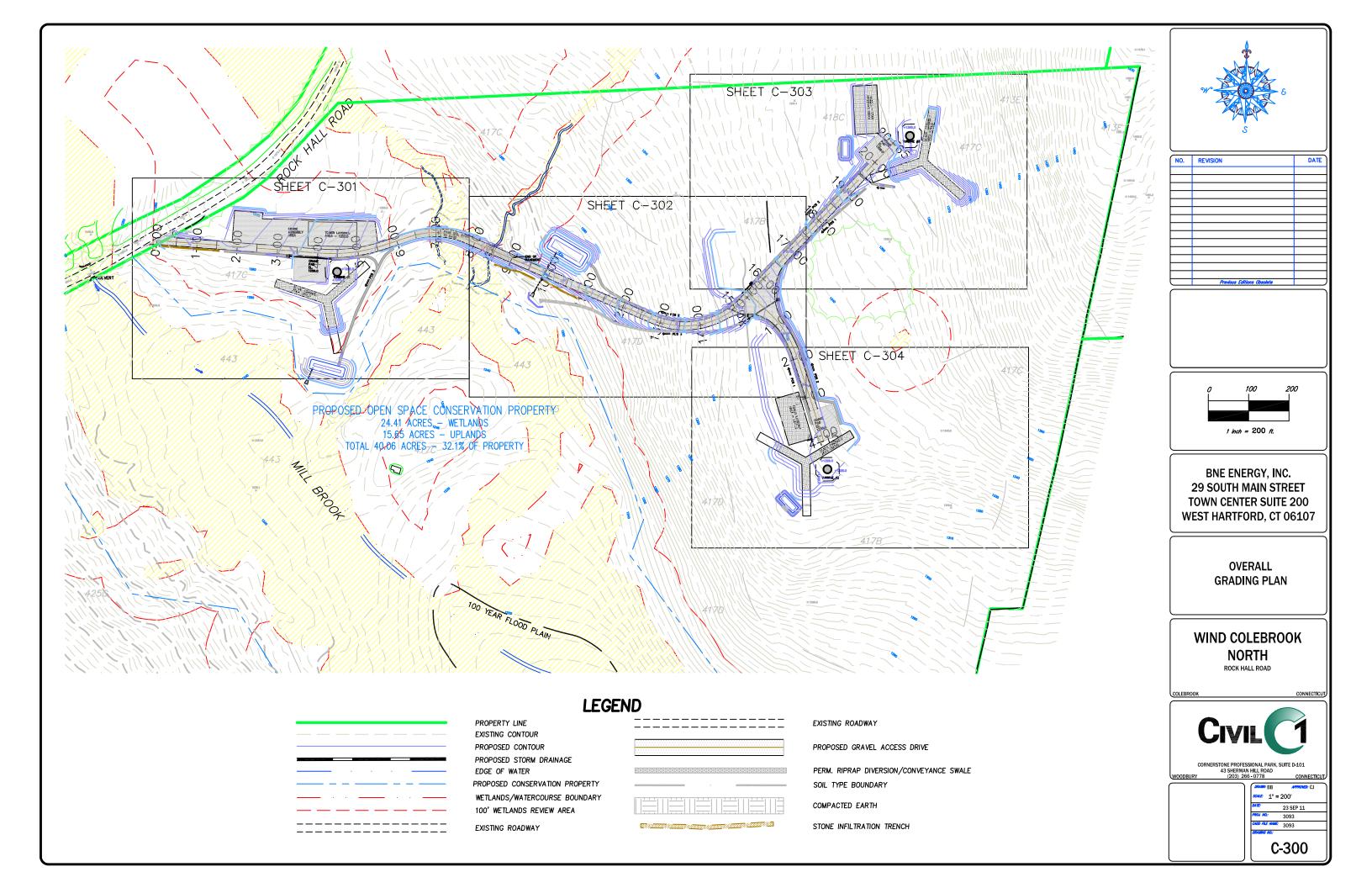


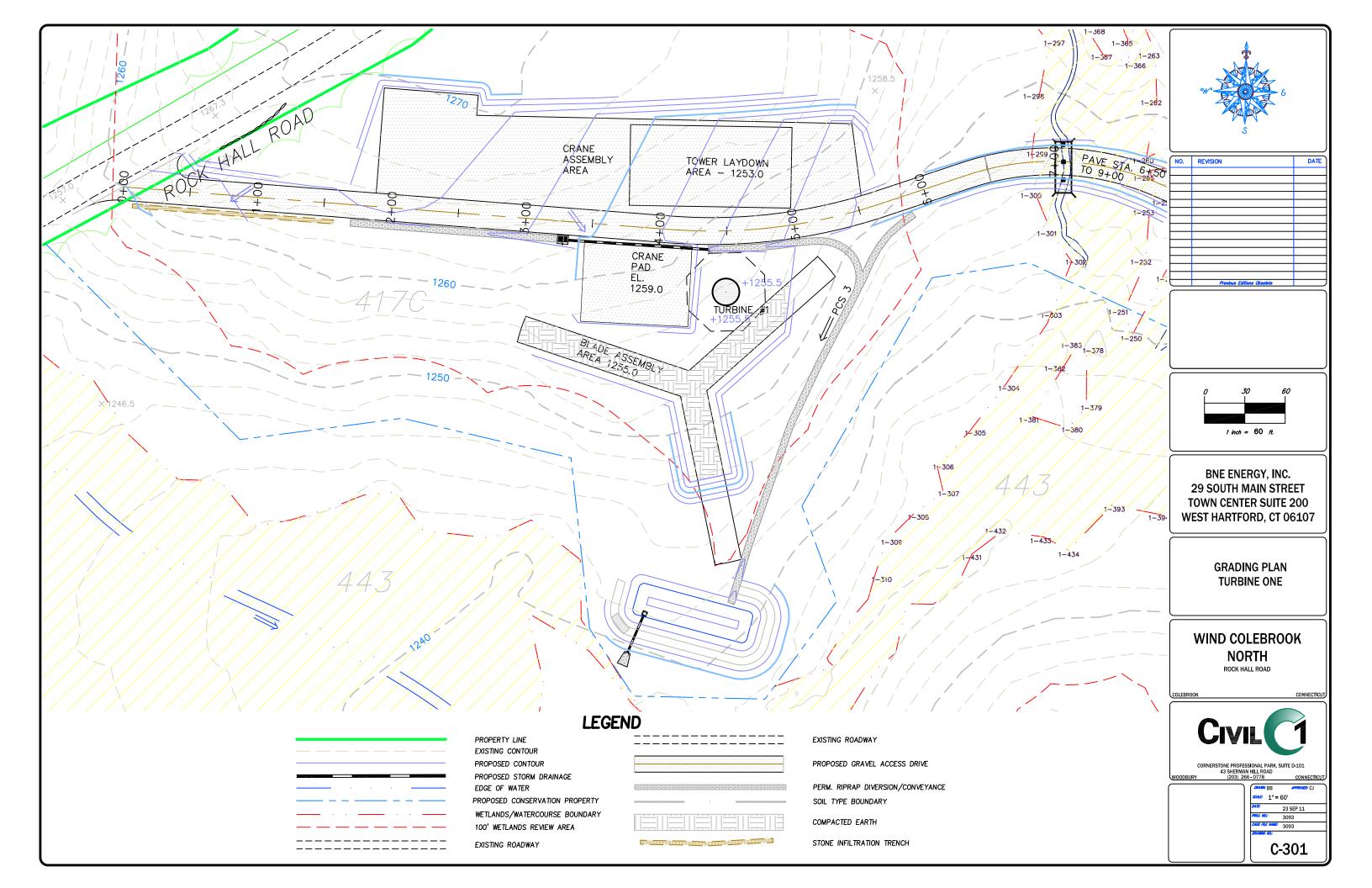


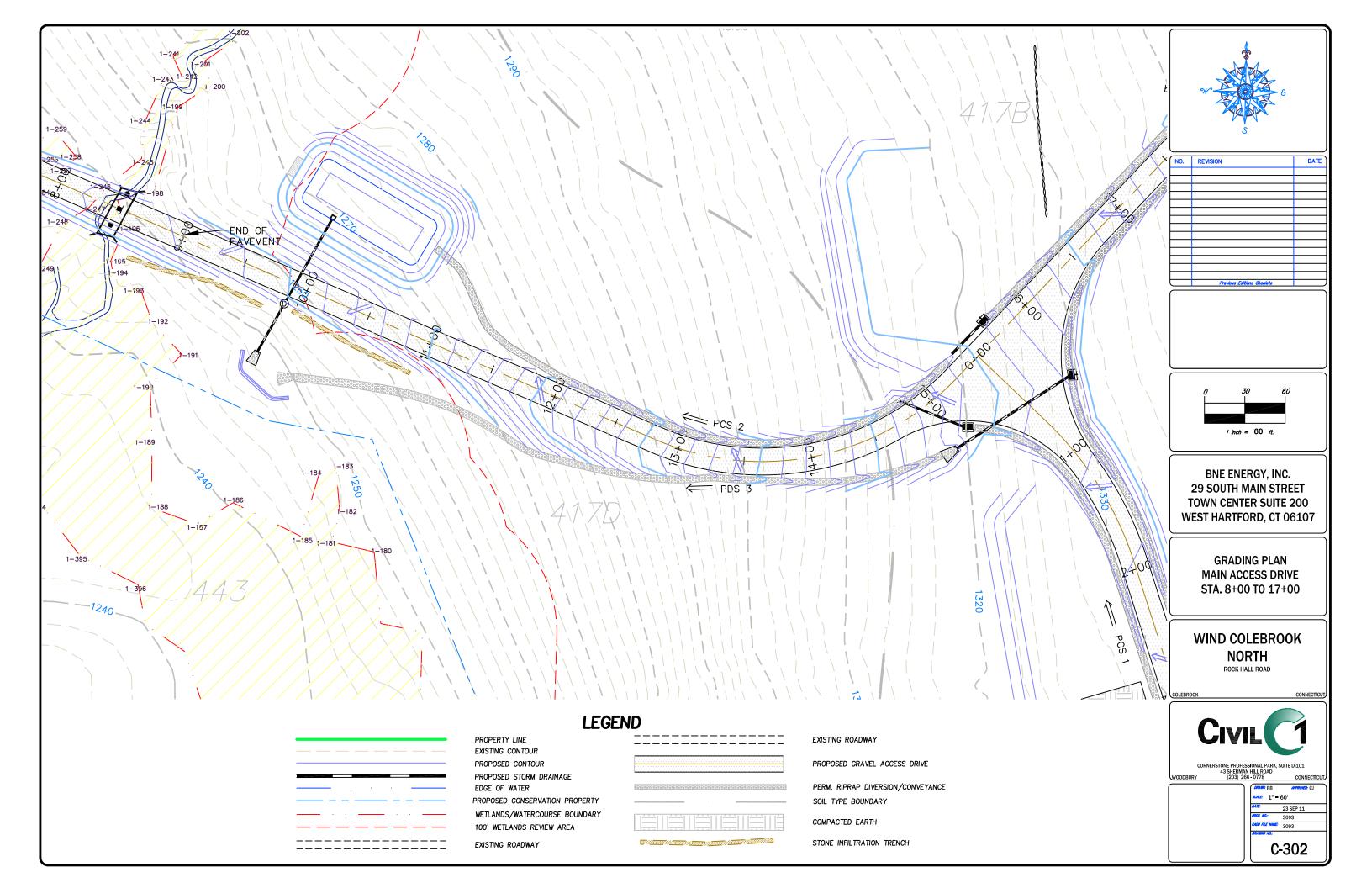


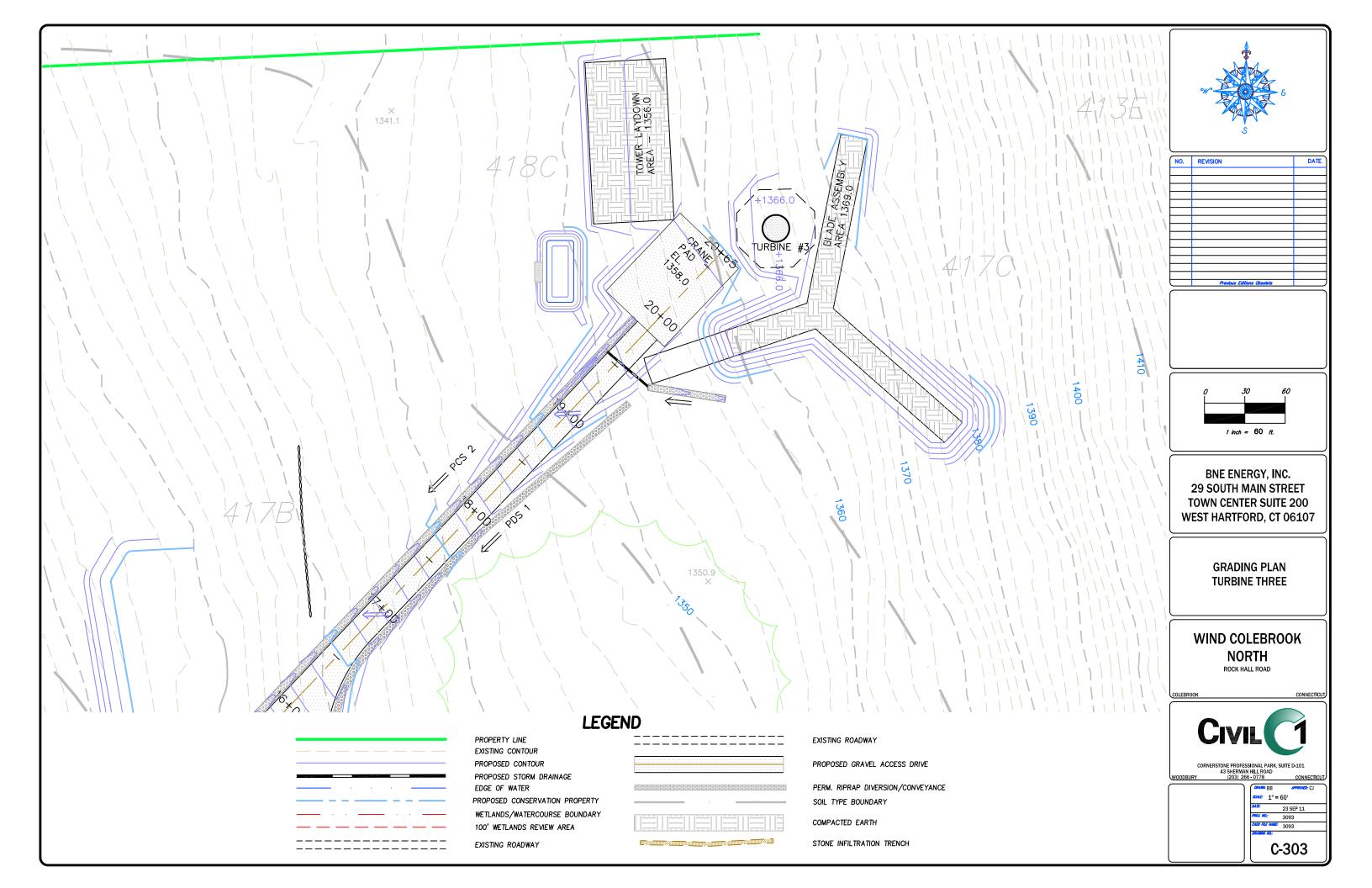


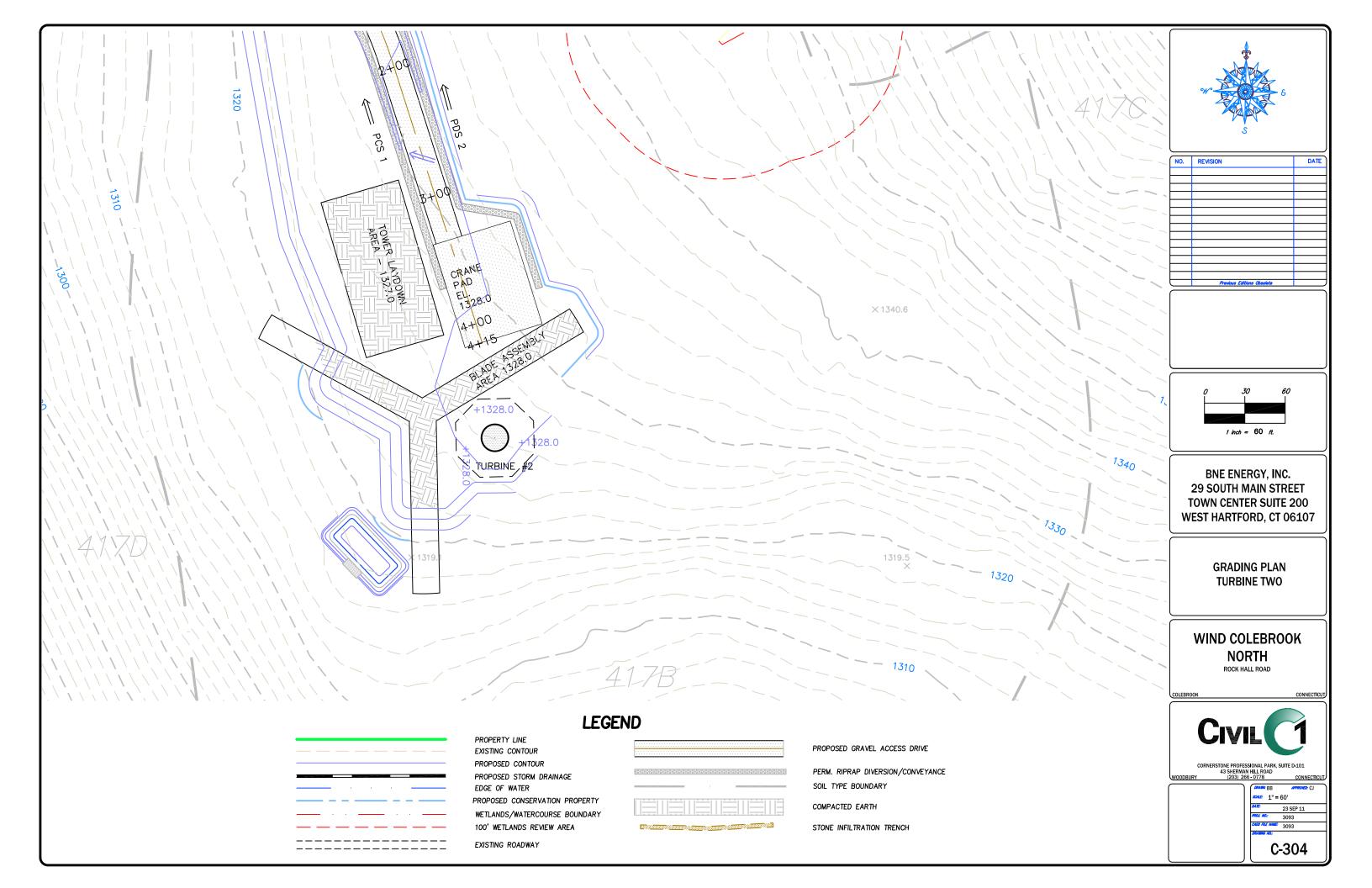


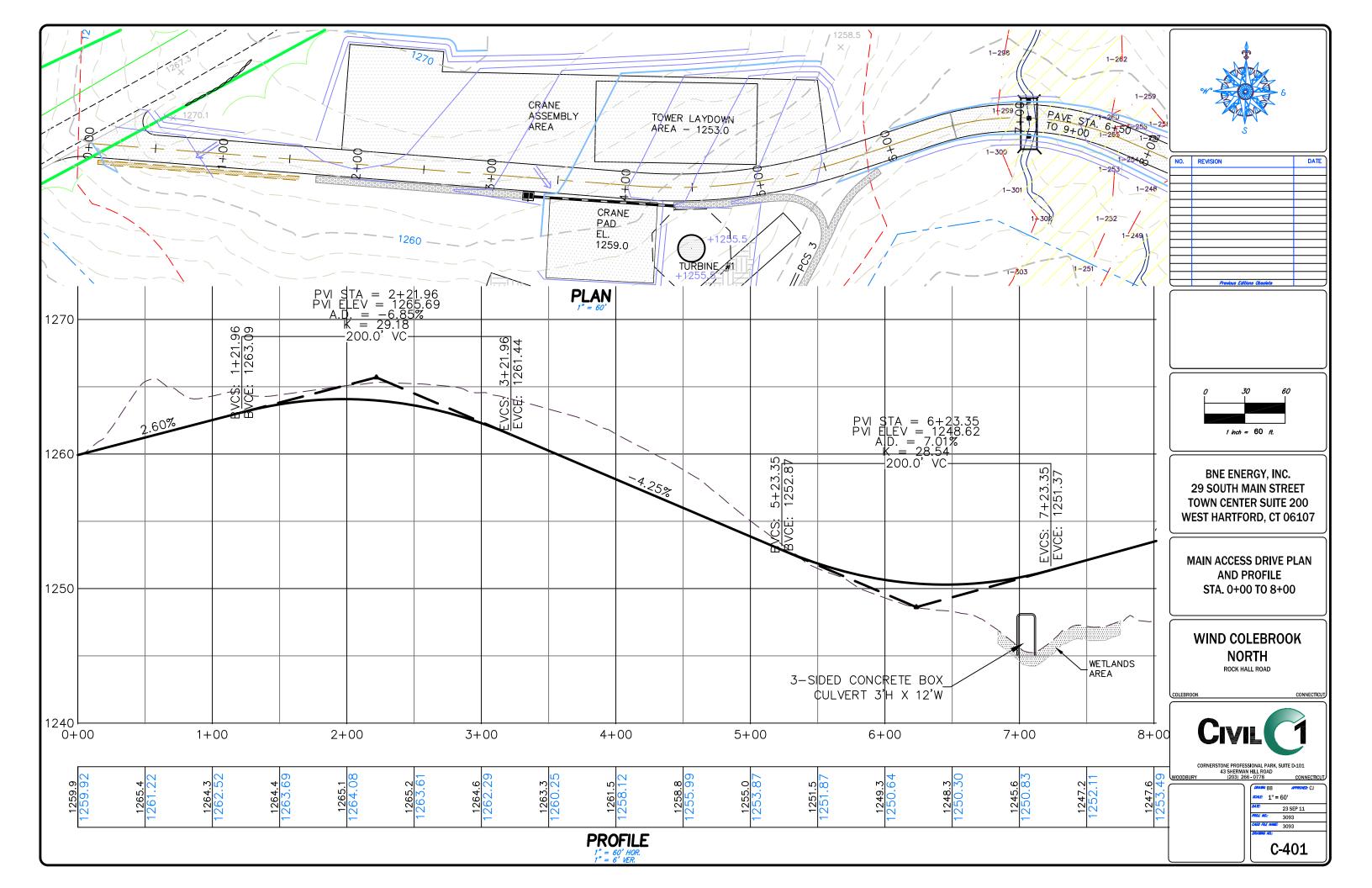


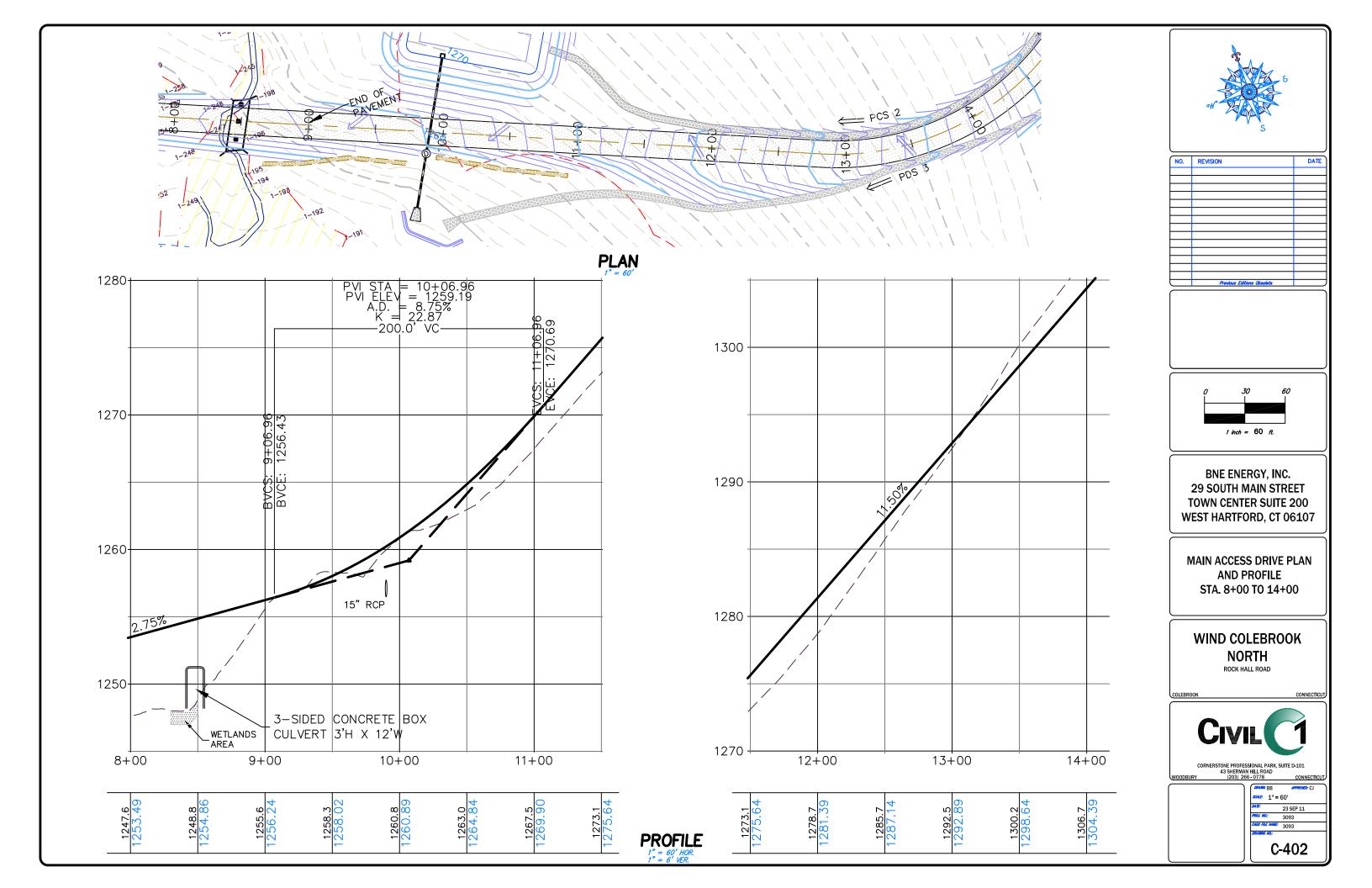


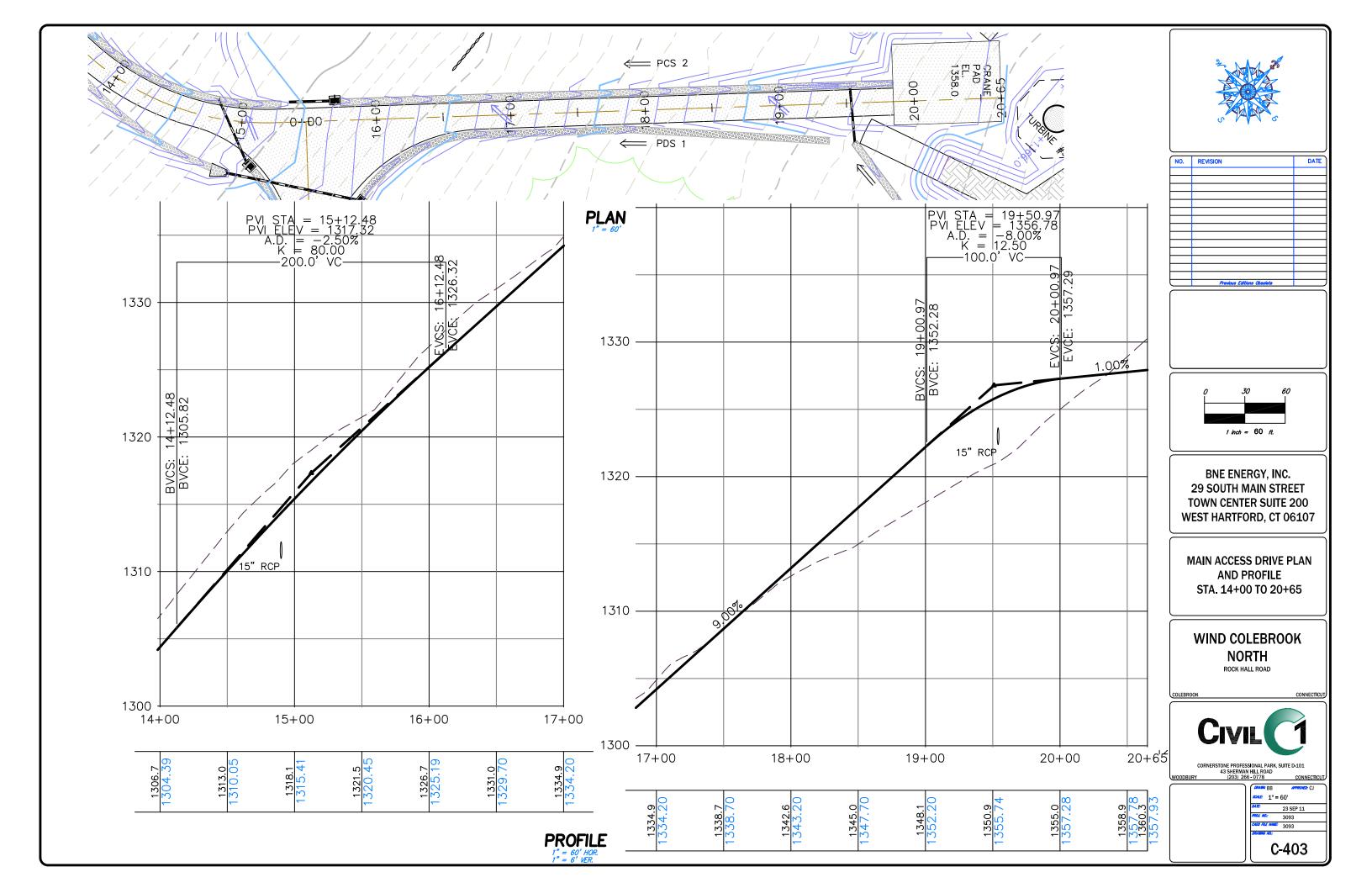


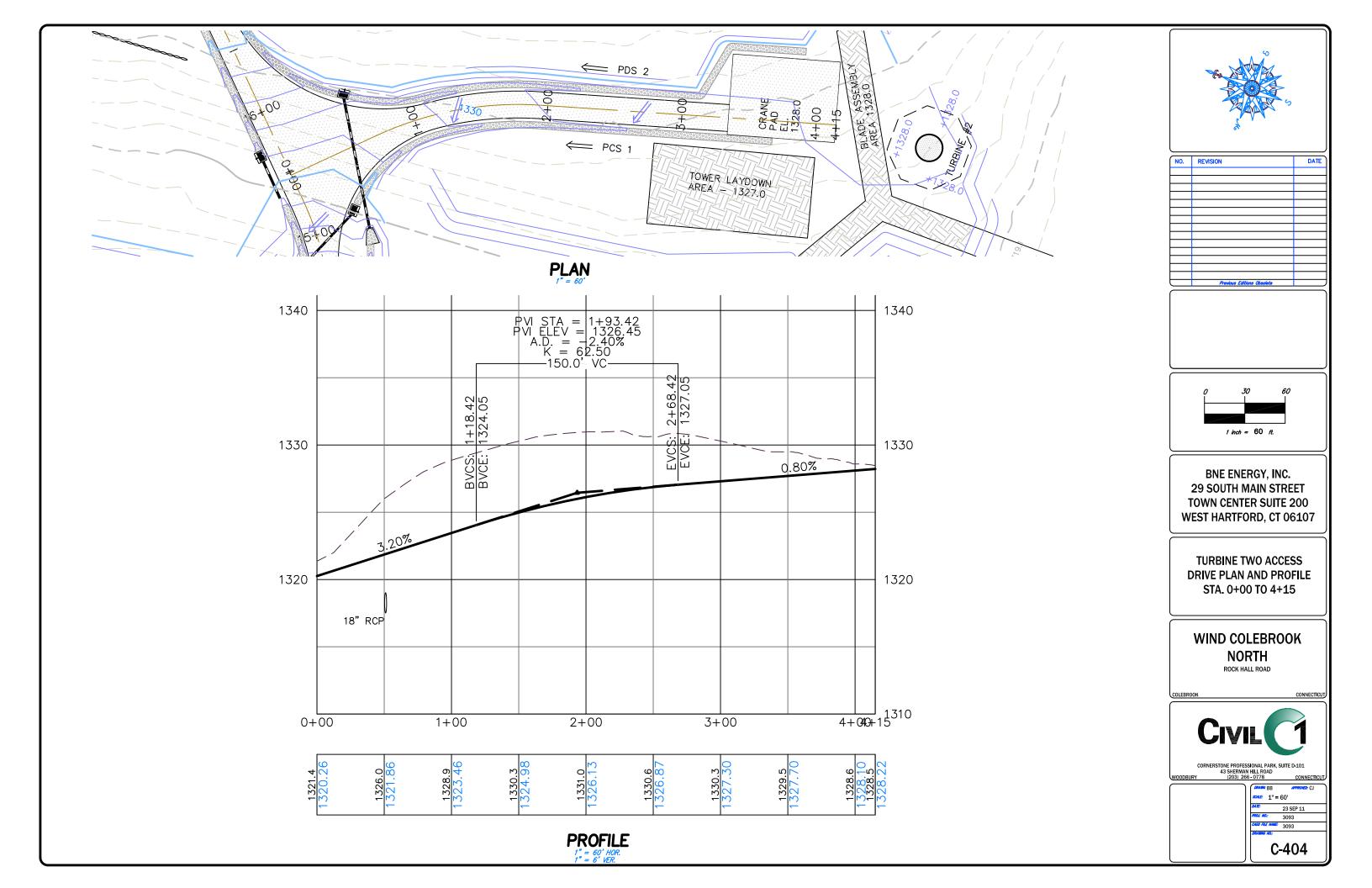


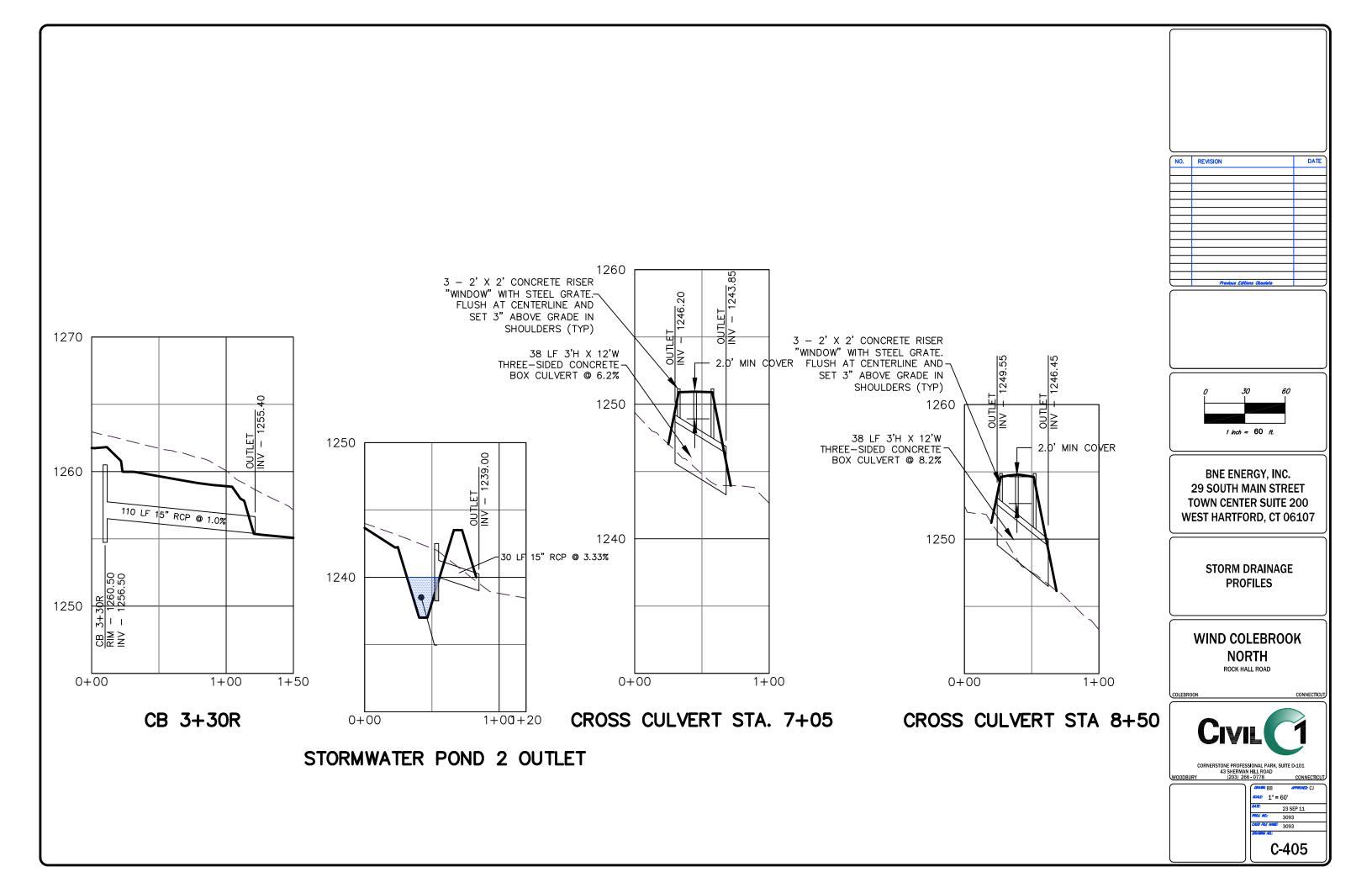


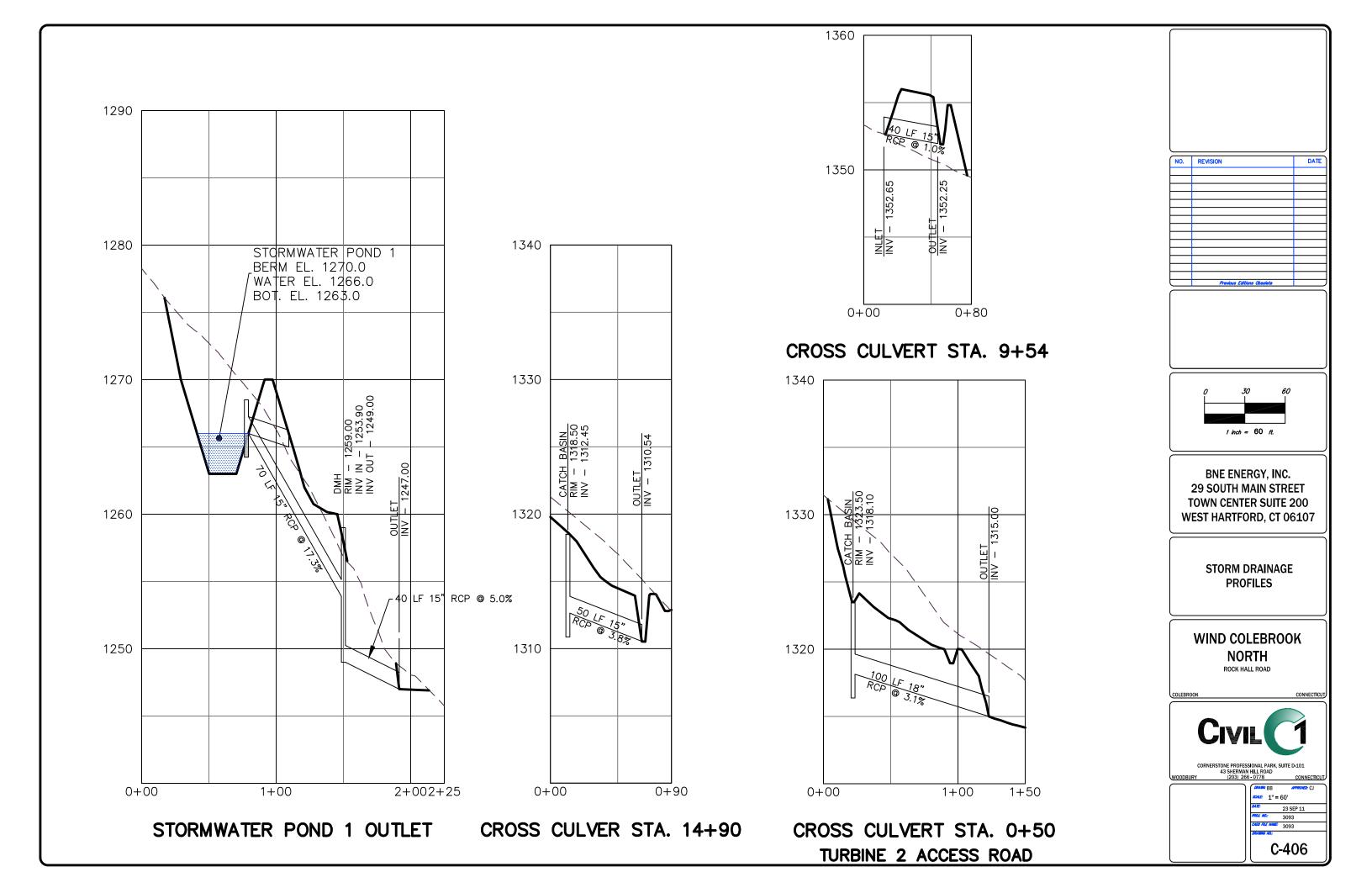


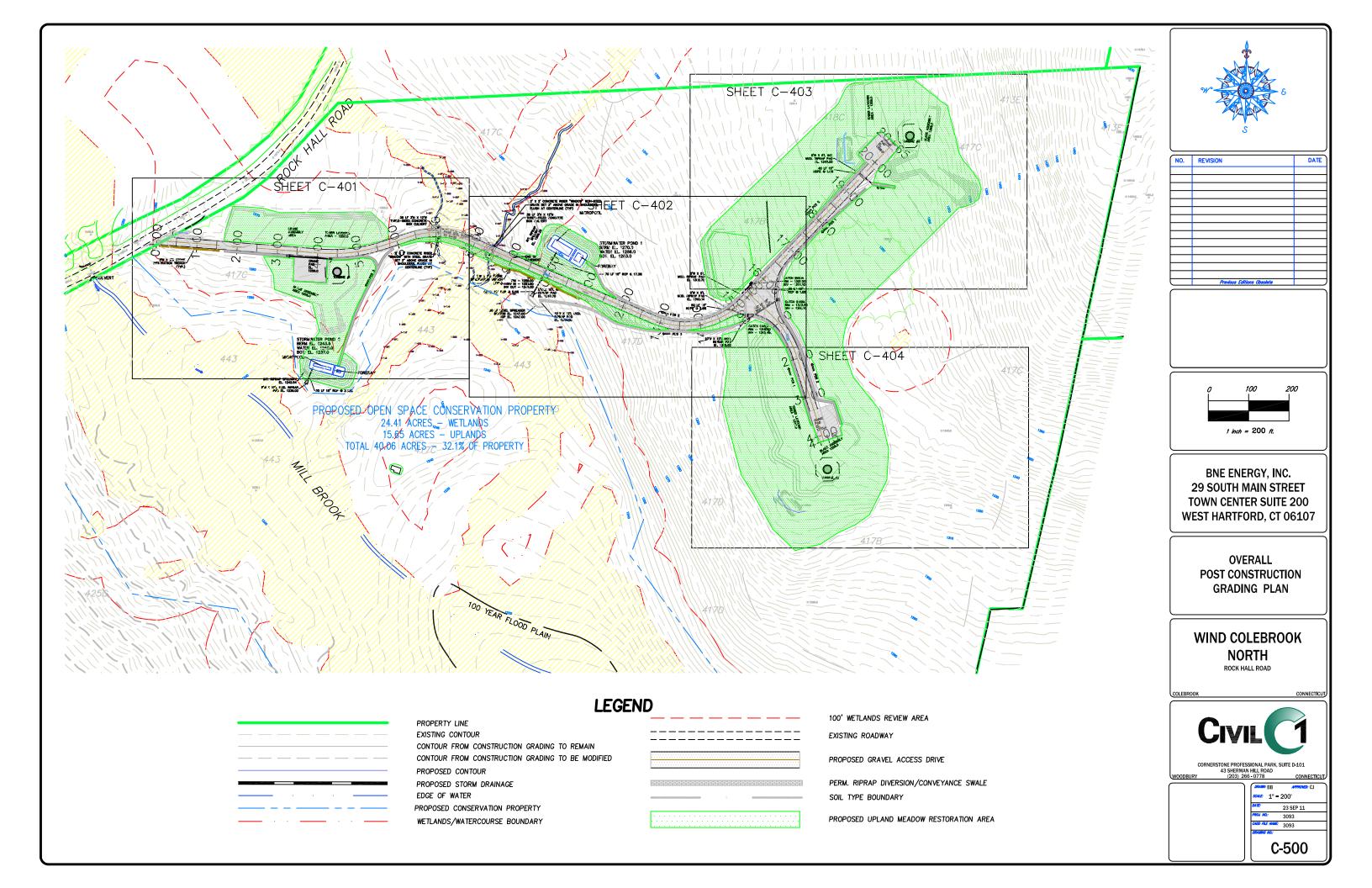


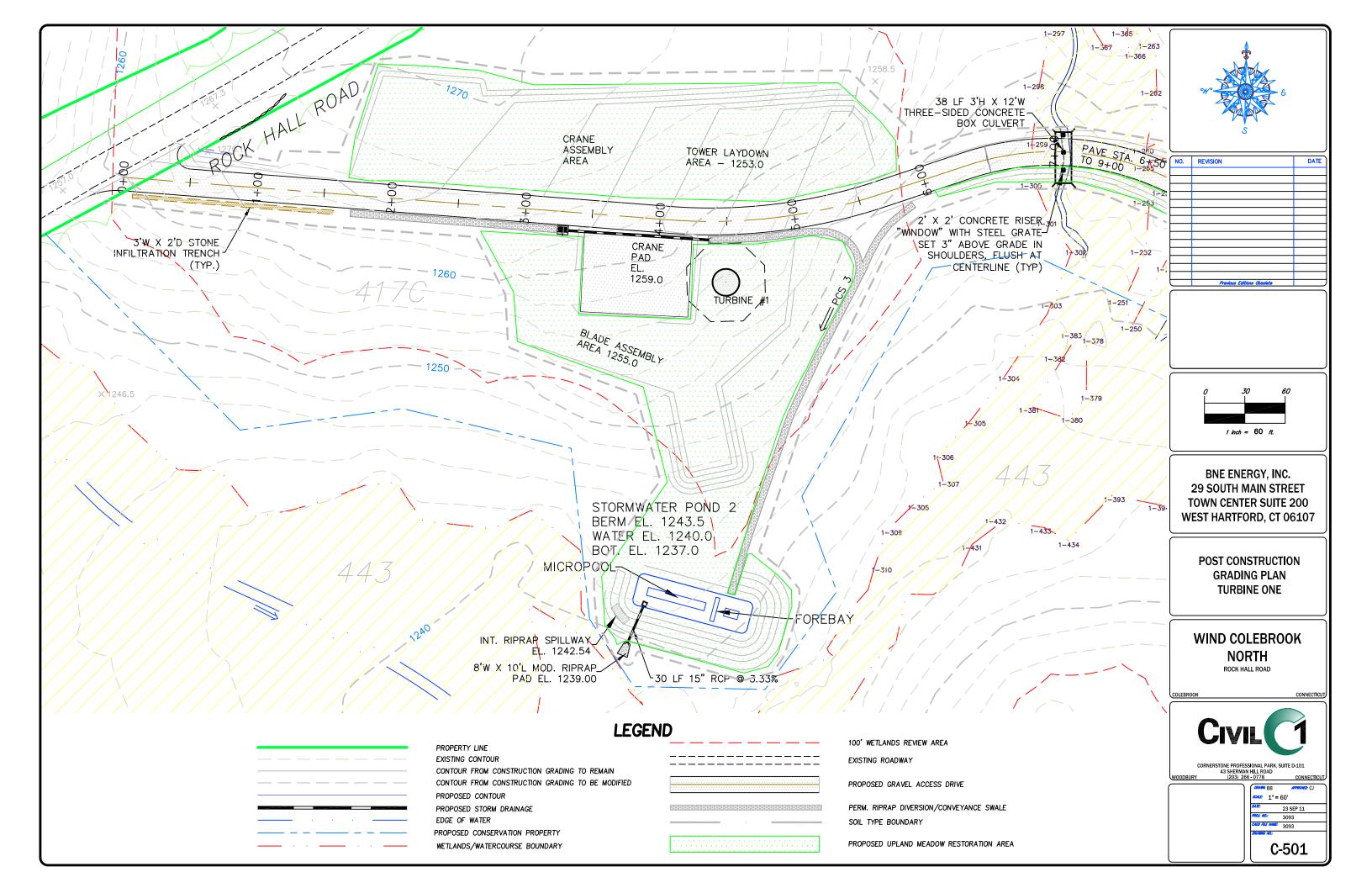


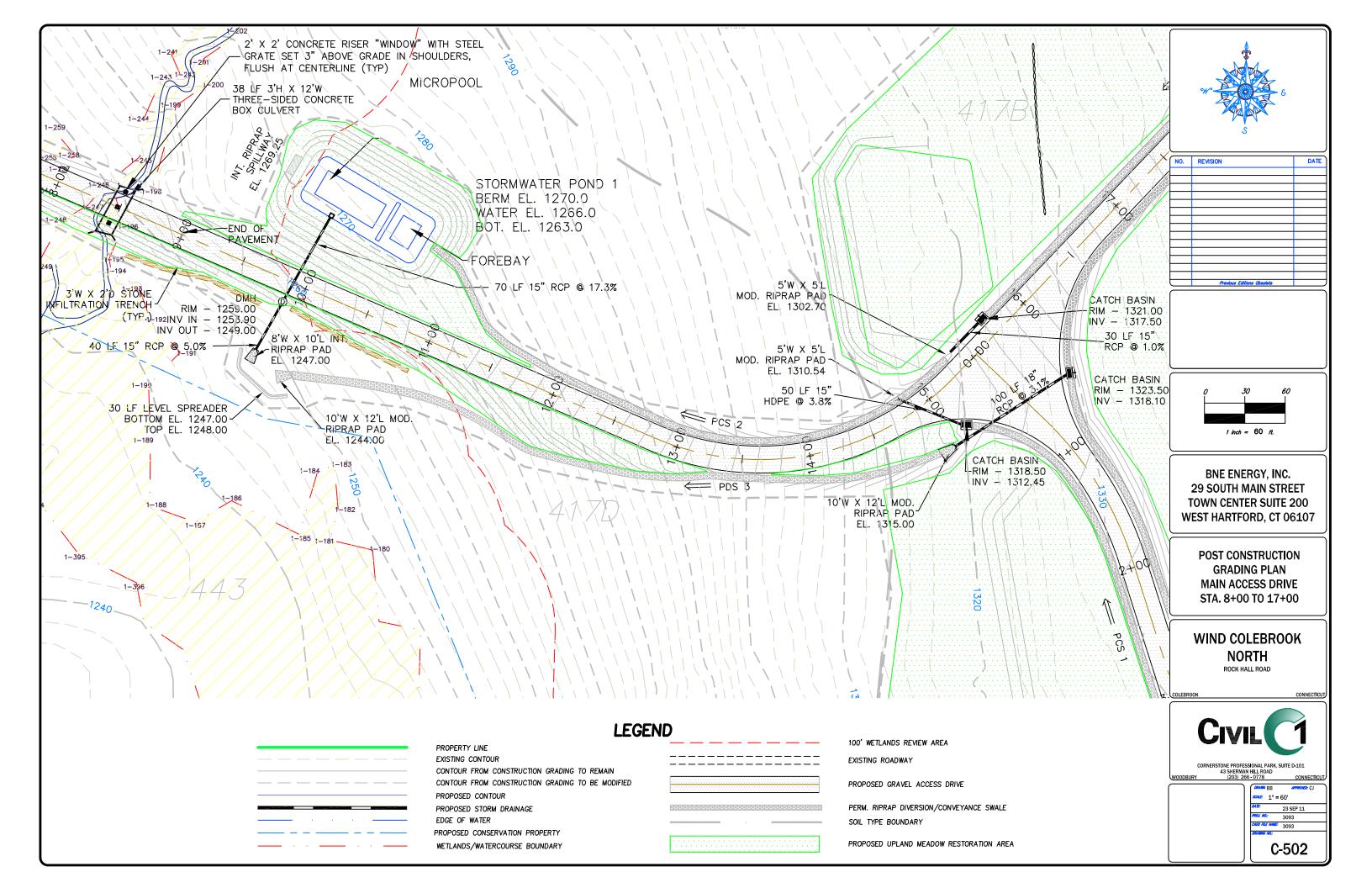


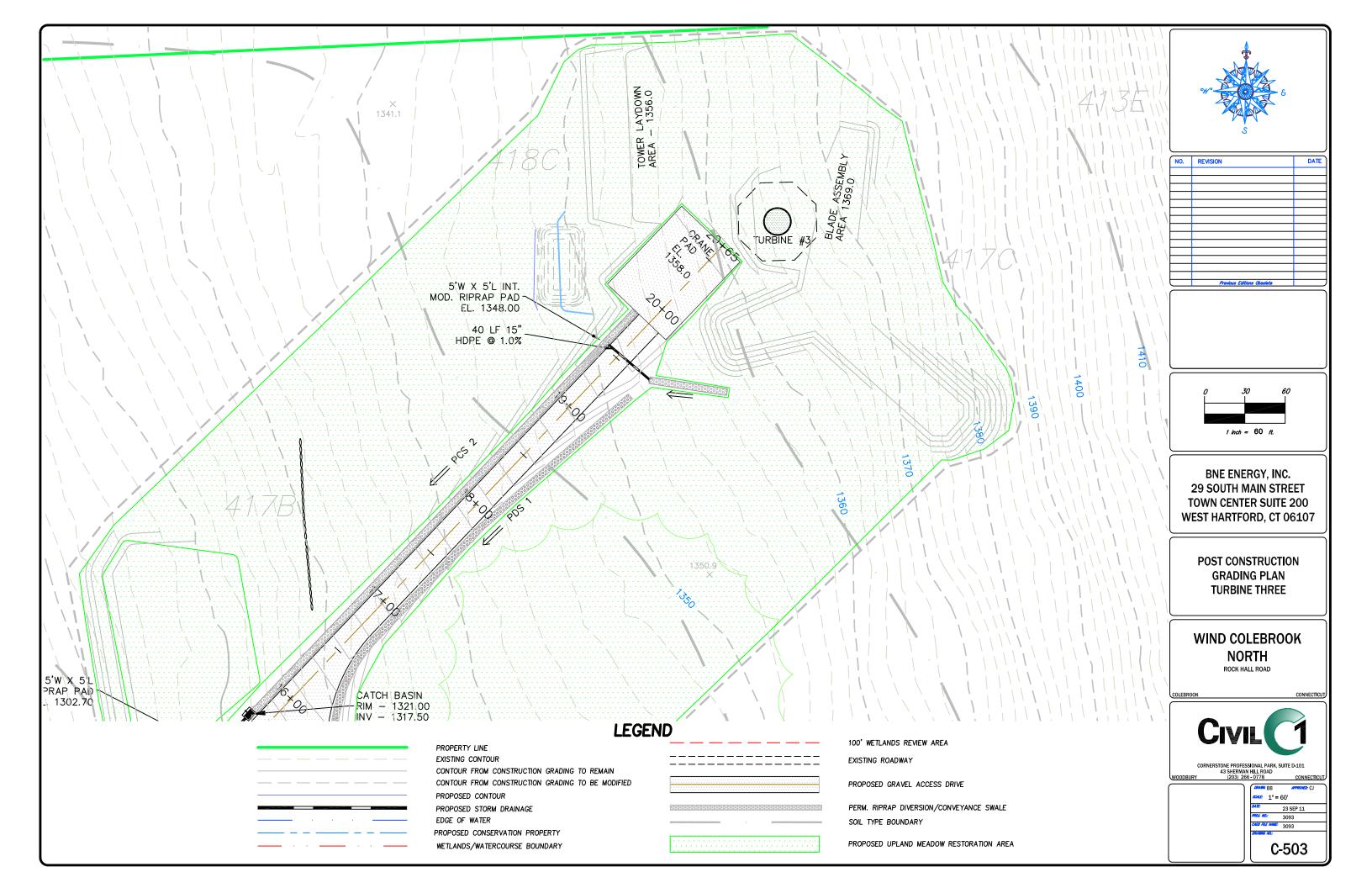


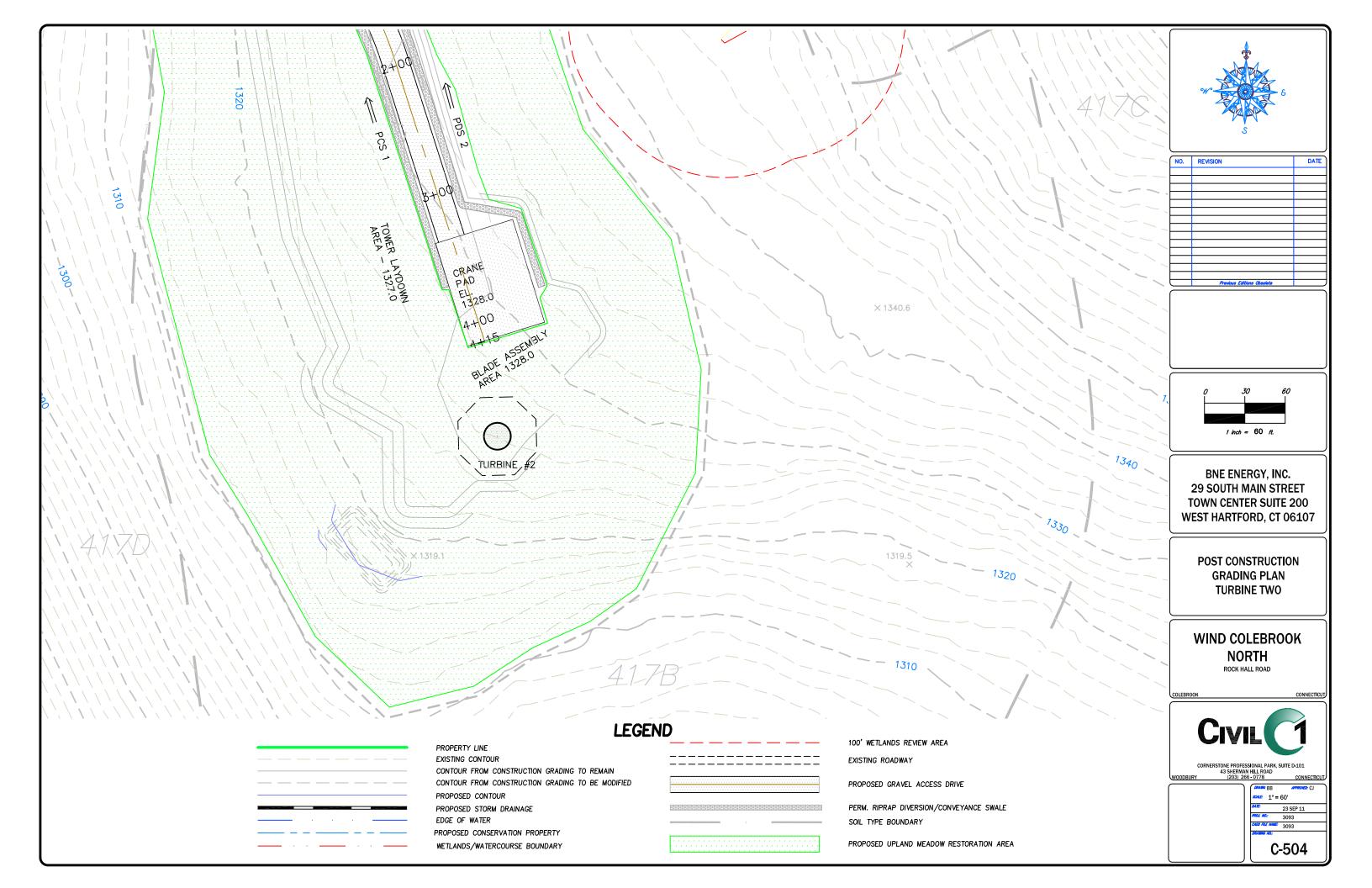












CONSTRUCTION SEQUENCE

STEPS TO BE TAKEN TO PREVENT THE SILTING OF THE WETLANDS DURING CONSTRUCTION OF THE ACCESS DRIVE AND LAYDOWN AREAS FOR THE 'WIND COLEBROOK NORTH' PROJECT, ROCK HALL ROAD, COLEBROOK, CT.

THE SEQUENCE OF CONSTRUCTION WILL BE AS FOLLOWS:

Field stakeout the limits of all construction activities

Clear all vegetation within the construction area. Do not remove stumps at this time. All trees/shrubs less than 6" in diameter shall be chipped. Cordurov bridges or portable skidder bridge shall be used to cross watercourses to access eastern portion of

The construction entrance, silt fence, haybales and/or other perimeter siltation devices shall be placed as shown on the erosion and sediment control plans prior to removal of any stumps. The silt fence along southern edge of disturbance shall be installed contiguously to the area east of turbine 2 to prevent reptile and amphibian access into construction area.

The wood turtle protection program shall be implemented as noted on Sheet C-602.

Remove stumps from the area of the proposed temporary sediment trap #4, crane assembly area, turbine 1 location and access drive to Station 9+00. Stumps may be ground in place or removed from the site. Stumps are not to be buried.

Construct the temporary sediment trap #4 as shown.

Strip topsoil material and stockpile prior to rough grading of roadway. Stockpile material at locations shown on the plans. Ensure adequate erosion control measures are in place around any stockpile areas

Rough grade access drive to station 6+95, install the first three-sided box culvert in accordance with sequence below

Rough grade access drive to station 8+25, install the second three-sided box culvert in accordance with sequence below

Remove stumps from the remainder of the area of construction. Stumps may be ground in place or removed from the site. Stumps are not to be buried.

Construct temporary sediment traps 1-3 and the temporary and permanent water diversions to keep clean water away from construction areas and direct sediment laiden water toward temporary sediment traps

Rough grade remainder of access drives and laydown areas for turbine construction. The cuts and fills will be made and material processed on site as necessary. All finished slopes loamed, seeded and mulched.

Additional haybales shall be placed across unpaved roads at the end of each work day to prevent sedimentation and soil erosion as required

Construct riprap swales and water quality trenches as shown on plans. The swales and water quality trenches need to be protected from sedimentation during construction. If sedimentation occurs they will need to be cleaned or reconstructed as necessary after vegetation has been established

Temporary diversion ditches with haybales may need to be installed to control lateral runoff along both sides of the proposed road prior to importing processed gravel.

Place gravel on drive, compact in 3-8" lifts per detail.

Provide temporary seeding measures on all exposed soils which were damaged due to construction activities and are not to be permanently restored or are outside of construction traffic zones for a period in excess of 30 days.

Seed all disturbed areas

Clean all silt from drainage structures. Remove temporary outlet measures from the outlet structures for Stormwater Ponds 1 and 2 after site is stabilized with vegetation

After turbine construction is complete grade site back to the approximate original grades in accordance with the post-construction grading plans and plant the upland meadow restoration areas as shown.

The starting time for construction is unknown, however the time limit for the construction of the drive should be limited to 180

EARTHWORK QUANTITY ESTIMATE

TOTAL CUT - 16,250 C.Y. TOTAL FILL - 12,300 C.Y.

COMMON CLEAN FILL REQUIRED (TOPSOIL AND SUBSOIL FROM ON-SITE) - 7,150 C.Y.

RIP RAP TO BE PROCESSED FROM ON-SITE MATERIAL - 1,200 C.Y.

PROCESS GRAVEL, ASPHALT AND STONE TO BE IMPORTED - 3.950 C.Y.

OVERALL SITE DISTURBANCE ASSOCIATED WITH THE PROPOSED IMPROVEMENTS - 14.63 ACRES

RESPONSIBILITY FOR EROSION CONTROL PLAN

THE PARTY RESPONSIBLE FOR THE IMPLEMENTATION AND OVERSIGHT OF THE EROSION CONTROL PLAN SHALL BE: BNE ENERGY, INC. **TOWN CENTER, SUITE 200** 29 SOUTH MAIN STREET WEST HARTFORD, CT 06107

WETLAND REGULATED ACTIVITY

Wetlands Impacts: Crossing at Station 7+00 - 3,850 sf Crossing at Station 8+80 - 1,110 sf

Total Activity in Wetlands - 4,960 sf

EROSION CONTROL NARRATIVE

RESPONSIBILITY FOR THE PLAN

Whenever sedimentation is caused by stripping vegetation and/or grading, it shall be the responsibility of the person, corporation or other entity having responsibility to remove sedimentation from all lower properties, drainage systems and watercourses and to repair any damage at their expense as quickly as possible.

All control measures will be maintained in effective condition throughout the construction period. Surface inlets shall be kept open and free of sediment and debris. The system shall be checked after every major storm and sediment shall be disposed of at an approved location consistent with the plan

It shall be the responsibility of any person, corporation or other entity engaging in any act on or near any stream, watercourse or swale or upon the flood plain or right-of-way thereof to maintain as nearly as possible in its present state that same stream, watercourse, swale, flood plain or right-of-way for the duration of the activity and to return it to its original or equal condition after such activity

No person, corporation or other entity shall block, impede the flow of, alter, construct any structure or deposit any material or thing or commit any act which affects normal or flood flow in any communal stream or watercourse without having obtained prior approval from the Town.

SEEDING AND PLANTING REQUIREMENTS

Seedbed Preparation

Fine grade and rake surface to remove stones larger than 2" in diameter. Install needed erosion control devices such as surface water diversions. Grade stabilization structures, sediment basins or drainage channels to maintain grassed areas. Apply limestone at a rate of 2 tons/Ac. or 90 lbs/1000 SF unless otherwise required according to soil test results. Apply fertilizers with 10-10-10 at a rate of 300 lbs./Ac. or 77.5 lbs/1000 SF. At least 50% of the nitrogen shall be from organic sources. Work lime and fertilizer into soil uniformity to a depth of 4" with a whisk, springtooth harrow or other suitable equipment following the contour lines.

Seed Application
Apply grass mixtures at rates specified by hand, cyclone seeder or hydroseeder.
Increase seed mixture by 10% if hydroseeder is used. Lightly drag or roll the
seeded surface to cover seed. Seeding for selected fine grasses should be done
between April 1 and June 1 or between August 15 and October 15. If seeding cannot be done during these times, repeat mulching procedure below until seeding can take place or seed with a quick germinating seed mixture to stabilize slopes. A quick germinating seed mixture (Domestic Rye) can be applied between June 15 through August 15 as approved by the Architect or Engineer

Immediately following seeding, mulch the seeded surface with straw, hay or wood fiber at a rate of 1.5 to 2 tons/Ac. except as otherwise specified elsewhere.

Mulches should be free of weeds and coarse matter. Spread mulch by hand or mulch blower. Punch mulch into soil surface with track machine or disk harrow set straight up. Mulch material should be "tucked" approximately 2- 3" into the soil surface. Chemical mulch binders or netting, in combination with the straw, hay or wood fibers, will be used where difficult slopes do not allow harrowing by machines.

Grass Seed Mixtures	5		
Temporary Covers		Permanent Covers	
Perennial ryegrass Annual ryegrass	20 lbs/Ac. 20 lbs/Ac.	Creeping Red Fescue Canada Bluegrass	40 lbs/Ac. 20 lbs/Ac.

GENERAL PRINCIPLES

The following general principles shall be maintained as effective means of minimizing erosion and sedimentation during the development process

Stripping away of vegetation, regrading or other development shall be done in such a way as to minimize erosion.

Grading and development plans shall preserve important natural features, keep cut and fill operations to a minimum, and insure conformity with topography so as to create the least erosion potential and adequately handle the volume and velocity of surface water runoff

Whenever feasible, natural vegetation shall be retained, protected and supplemented wherever indicated on the site development plan

The undisturbed area and the duration of exposure shall be kept to a practical minimum. Disturbed soils shall be stabilized as quickly as possible

Temporary vegetation and/or mulching shall be used to protect exposed critical areas during development when expected to be exposed in excess of 30 days.

The permanent (final) vegetation and mechanical erosion control measures shall be installed as soon as practical during construction. Sediment in the runoff water shall be trapped until the disturbed areas is

stabilized by the use of debris basins, sediment basins, silt traps or similar

Concentration of surface runoff shall be only permitted by piping and/or through drainage swales or natural watercourses.

Excavation and Fills

Slopes created by cuts or fills shall not be steeper than 1.5:1 and shall be restabilized by temporary or permanent measures, as required during the development process and shown on the site plans

Adequate provisions shall be made to prevent surface water from damaging the cut face of excavations or the sloping surfaces of fills

Cut and fills shall not endanger adjoining property

All fills shall be compacted to provide stability of material and to prevent undesirable settlement. The fill shall be spread in a series of layers each not exceeding twelve (12) inches in thickness and shall be compacted by a sheep roller or other approved method after each layer is spread.

Fills shall not encroach on natural watercourses, constructed channels or regulated flood plain areas, unless permitted by license or permit from authority having jurisdiction in accordance with approved site plans.

Fills placed adjacent to natural watercourses, constructed channels or flood plains shall have suitable protection against erosion during periods of flooding.

Grading shall not be done in such a way as to divert water onto the property of another landowner without their expréss written consent

During grading operations, necessary measures for dust control shall be

Sedimentation and erosion control shall be implemented in accordance with the Guidelines for Soil Erosion and Sediment Control (2002) - State of Connecticut

The following general specifications will also be adhered to:

Land disturbance will be kept to a minimum. Restabilization will be scheduled

Haybale filters will be installed at all culvert outlets and along the toe of all critical cut and fill slopes

Culvert discharge areas will be protected with riprap channels. Energy dissipaters will be provided as necessary.

Catch basins will be protected with haybale filters throughout the construction period and until all disturbed areas are thoroughly stabilized.

All erosion and sediment control measures will be constructed in accordance with the standards and specifications of the Guidelines for Soil Erosion and Sediment Control (2002) - State of Connecticut DEP Bulletin 34.

Erosion and sediment control measures will be installed prior to construction

All control measures will be maintained in effective condition throughout the

Additional control measures will be installed during construction if necessary

All erosion control measures shall be inspected weekly and within 24 hours of a rainfall event of 0.5 inches or greater

CONSTRUCTION SEQUENCE FOR THREE—SIDED BOX CULVERT INSTALLATION

- 1. The limits of clearing shall be located in the field by a licensed surveyor and trees and brush shall be removed within these limits.
- 2. Silt fence shall be installed at the location shown on the site plan. All erosion control measures will be constructed in accordance with the standards and specifications of the Connecticut DEP Soil Erosion and Sediment Control Manual - 2002.
- 3. All erosion and sediment control measures will be maintained during the construction
- 4. Sediment received from the control structures will be disposed of in a manner which is consistent with the plan
- 5. Location of footings for box culvert shall be staked in the field with offsets by a licensed
- 6. The wood turtle protection program as noted on Sheet C-602 shall be implemented.
- 7. Excavate trench for footings. Ground water in the footing excavation shall be controlled by pumping. All water pumped out of the excavation shall be discharged to the dewatering sump during construction or to temporary sediment trap #4. A temporary timber bridge will be used to allow construction equipment to cross stream without disturbing the streambed during construction.

- 8. If necessary the watercourse may be temporarily piped through the construction area using sandbags at uphill end to keep construction area dry. Installation of the bridge and footings shall occur between July 1 and September 30.
- 9. Install precast footings for bridge and wing walls. Sandbags shall be placed alongside the excavation to protect the work. Once footings are set place intermediate riprap along footings to prevent scour per detail.
- 10. Place concrete bridge & wing walls on footings & anchor sections together.
- 11. Install headwalls and backfill footings using coarse sand & gravel.
- 12. Backfill around box culvert in 12" lifts using coarse sand & gravel. Fill shall be compacted to a minimum of 92% modified optimum density ASTM 1555 method "C" until the required elevation is obtained. (Spec. to be confirmed by geotechnical engineer prior to construction).
- 13. Place 6" of topsoil on all disturbed areas. Seed & mulch immediately. Erosions control netting shall be used to stabilize slopes as needed.

Note: Erosion control measures are to be maintained & monitored continuously until vegetative cover has been established

REVISION DATE

> BNE ENERGY, INC. 29 SOUTH MAIN STREET **TOWN CENTER SUITE 200** WEST HARTFORD, CT 06107

EROSION CONTROL NARRATIVE & CONSTRUCTION SEQUENCE

WIND COLEBROOK NORTH ROCK HALL ROAD

CORNERSTONE PROFESSIONAL PARK, SUITE D-101 43 SHERMAN HILL ROAD (203) 266 - 0778 CONNECTICUT **WOODBURY**

AS NOTED 23 SEP 11 3093 CADO FILE NAME: 3093 C-601

UPLAND RESTORATION AND THIRD PARTY MONITORING NARRATIVE

UPLAND RESTORATION PLAN CONSTRUCTION SEQUENCE AND PLANTING SCHEDULE

Disturbed upland areas will be restored following construction with New England Conservation/Wildlife Mix, a native herbaceous seed mixture that will form a permanent, maintenance free cover of grasses, forbs, wildflowers and legumes. This seed mixture will provide erosion control and wildlife habitat value. Areas that will not be subject to annual mowing will revert to forest through the natural process of succession.

- 1. Prior to all work, erosion control barriers will be installed as detailed on the Erosion Control Plan.
- 2. Where adequate topsoil (±6 inches) does not exist, disturbed areas shall be backfilled to a minimum depth of 6 inches with clean topsoil. Once final topsoil is in place, these areas will be planted with New England Conservation/Wildlife Mix after the completion of final grading. The seed mix will be applied at a rate of 1 lb/1,750 square feet. Soil conditioning activities, including raking. will be combined with the seed application process.
- 3. Where 2:1 slopes are utilized for final grading, or in areas specified on the plan sheets, biodegradable erosion control matting will be installed over the seed mixture to promote establishment of vegetation and aid in stabilization. The contractor will use "SC2" erosion control matting, available at New England Wetland Plants Inc. (413) 548-8000 or an approved equivalent.
- 4. The contractor will be responsible for the careful installation, maintenance (including watering) and establishment of native plant material in these areas.
- 5. The erosion control barriers shall be disassembled following successful stabilization of these areas. Sediment collected by these devices will be removed and disposed of in a manner that prevents erosion and transport to a wetland or watercourse.
- 6. Monitoring of revegetated areas will be conducted as follows by a qualified third party inspector. These areas will be monitored the first three growing seasons following establishment. Monitoring reports will be submitted to the Connecticut Siting Council no later than December 15 of each year. The reports will provide details on the three success standards described below. In the event that remediation measures are required, recommendations will be provided. The first year of monitoring will be the first year that the site has been through a full growing season after completion of construction and planting. For monitoring purposes, a growing season starts no later than May 31.
- 7. Revegetated areas will be assessed using three success standards. Each standard is described below. Success Standard 1: At least 75% of the surface area of these areas should be reestablished with indigenous species within three growing seasons. Success Standard 2: Vegetation should be checked to ensure that no invasive species colonize in these areas. Success Standard 3: Slopes within and adjacent to the revegetated areas are stabilized.
- 8. In the event that remediation measures are recommended, BNE Energy, Inc. will initiate these measures with the assistance of the qualified third party inspector.
- 9. If necessary to control invasive species, herbicide applications will be conducted by a state-licensed individual. If applications are required in proximity to site wetlands, the herbicide RODEO® [glyphosate (53.8% active ingredient)] shall be utilized as it is the only herbicide approved by CTDEP for application in aquatic environments.
- 10. Fertilizers will not be used to promote growth within these areas. The proposed seed mixture contains a variety of native herbaceous species adept at colonizing recently disturbed areas.

Planting Schedule 1: Upland Restoration Areas

Disturbed areas will be planted with New England Conservation/Wildlife Mix (or equivalent) at 1750 sq.ft./lb. or as recommended by manufacturer. This mix includes the following species: big bluestem (Andropogon gerardii), fringed brome grass (Bromus ciliates), creeping red fescue (Festuca rubra), Canada wild rye (Elymus Canadensis), Virginia wild rye (Elymus virginicus), switchgrass (Panicum virgatum), deer tongue grass (Panicum clandestinum), little bluestem (Schizachyrium scoparium), Indian grass (Sorghastrum nutans), common milkweed (Asclepias syriaca), New England aster (Aster novae-angliae), partridge pea (Chamaecrista fasciculate), showy tick-trefoil (Desmodium Canadense), grass leaved goldenrod (Euthamia graminifolia), gray goldenrod (Solidago nemoralis)

STREAMBANK RESTORATION PLAN CONSTRUCTION SEQUENCE AND PLANNING SCHEDULE

To ensure that the proposed culverts are installed in accordance with the natural stream crossing standards, a qualified wetland scientist will provide inspections both during and following the construction of these crossings. Box culverts will be backfilled with natural substrate material matching upstream and downstream streambed substrate and provide for unimpeded passage of fish and other aquatic organisms. The qualified wetland scientist will also inspect the plantings of native wetland shrubs (live stakes) in wetland areas and/or stream banks temporarily impacted by construction activities (Streambank Restoration Area).

- 1. Prior to all work, erosion control barriers are to be installed as detailed on the Erosion Control Plan.
- 2. A qualified wetland scientist responsible for the Streambank Restoration Area shall be notified a minimum of seven (7) business days prior to any phase of the project including excavation and grading, soil transfer and planting, to monitor and oversee implementation of the plan.

- 3. The Streambank Restoration Area shall then be backfilled to a minimum depth of 8 inches with clean topsoil where necessary. Once final topsoil is in place, it shall be graded to achieve a relatively smooth surface.
- 4. Streambank Restoration Area plantings shall take place once the above listed tasks have been completed. This area will be planted with native shrubs and herbaceous vegetation as noted in the planting schedule and under sown with New England Conservation/Wildlife or Wetmix grass seed mix after the grading is completed. The seed mix will be applied to the Enhancement Area at a rate of 1 lb/1,750 or 1lb/2,500 square feet respectively. Soil conditioning activities, including raking, will be combined with the seed application process.
- 5. All plant materials installed shall meet or exceed the specifications of the "American Standards for Nursery Stock" by the American Association of Nurserymen. All plant materials shall be guaranteed for one year following date of final acceptance.
- ${\it 6. All plantings to be spaced randomly at the direction of the wetland scientist to simulate natural growth patterns.}$
- 7. The Contractor shall be responsible for the careful installation, maintenance (including watering), and establishment of native plant material in the Restoration Area. All plants shall be guaranteed by the contractor to remain alive and healthy for a full twenty four (24) month period.
- Rocks and boulders, uncovered during earthwork, may be distributed throughout the Streambank Restoration Area. These rocks and boulders shall be placed in such a way as to provide crevices and cavities suitable for use by wildlife.
- 9. Fallen logs, branches, stumps and other natural debris will be relocated to the Restoration Area to provide beneficial habitat features for wildlife. This will include downed and uncovered material that is acquired on site by the wetland scientist and will be distributed to cover 2% of the area's substrate surface. The natural debris should be of varying sizes and in varying degrees of decomposition.
- 10. The erosion control barriers shall be disassembled following successful stabilization of this area. Sediment collected by these devices will be removed and disposed of in a manner that prevents erosion and transport to a waterway or wetland.
- 11. Long-term monitoring of the Streambank Restoration Area will be conducted as follows. The Restoration Area will be monitored the first three growing seasons following its construction. Monitoring reports will be submitted to the permitting agency no later than December 15 of each year. The reports will provide details on the three success standards described below. The first year of monitoring will be the first year that the site has been through a full growing season after completion of construction and planting. For monitoring purposes, a growing season starts no later than May 31. However, if there are problems that need to be addressed and if the measures to correct them require prior approval from the agencies, the permittee will contact the agencies as soon as the need for corrective action is discovered.
- 12. The Streambank Restoration Area will be assessed using three success standards. Each standard is described below. Success Standard 1: At least 75% of the surface area of the mitigation area should be reestablished with indigenous species within two growing seasons. Success Standard 2: Vegetation should be checked to ensure that no invasive species colonize in the Restoration Area. Success Standard 3: Slopes within and adjacent to the Restoration Area are stabilized

Planting Schedule 2: Streambank Restoration Area
Quantity Botanical Name Common Name Size
Shrubs
TBD Salix discolor Pussy Willow Live Stakes @12" OC"

The streambank restoration area will be undersown with New England Conservation/Wildlife Mix seed mixture at a rate of 1lb/1750 square feet as supplied by New England Wetland Plants, Inc. (413-548-8000) or appropriate substitute. Where wetland hydrology is present, New England New England Wetmix seed mixture will be used at a rate of 1lb/2,500 square feet

THIRD PARTY EROSION AND SEDIMENTATION CONTROL AND ENVIRONMENTAL INSPECTIONS

- 1. A qualified third party erosion and sedimentation control (E&S) inspector shall inspect the installation of erosion and sedimentation controls prior to the start of construction activities. A pre-construction meeting shall be held with the third party inspector and general contractor prior to the start of construction.
- The qualified third party inspector will monitor E&S controls throughout the construction period to ensure that controls are properly maintained and any recommendations to remediate failing controls or removal of accumulated sediment are implemented by the contractor in a timely fashion.
- 3. The qualified third party inspector shall monitor E&S controls on a weekly basis or within 24 hours of a rainfall event of 0.5 inches or greater.
- 4. E&S control monitoring reports will be prepared by the third party inspector on a bi-weekly basis and submitted to the Connecticut Siting Council.
- The on-site erosion and sediment controls shall be monitored by a qualified third party environmental inspector to ensure establishment of appropriate environmental safeguards protective of amphibian and reptile species.

WOOD TURTLE PROTECTION PROGRAM

The following is a methodological plan that will avoid unintentional mortality (take) of the wood turtle, a State-listed Special Concern species, as a result of construction activities for the site improvements proposed.

It is of the utmost importance that the contractor complies with the requirement for the installation of protective measures and the education of employees and subcontractors performing work on the project site if work will occur during the wood turtle's terrestrially active period (April 1 to November 1). A third party environmental monitor for this project should be hired to ensure that these measures are implemented properly. The contractor shall contact the environmental monitor for a pre-construction meeting.

The proposed wood turtle protection program consists of several components: isolation of the project perimeter; periodic inspection and maintenance of isolation structures; education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; and, reporting.

1. Isolation Measures

- a. Installation of conventional silt fencing, which will also serve as an isolation of the work zone from surrounding areas and required for erosion control compliance, shall be performed by the Contractor prior to any earthwork. A third party environmental monitor will inspect the work zone area prior to and following barrier installation to ensure the area is free of wood turtles.
- b. The fencing will consist of conventional erosion control woven fabric, installed approximately six inches below surface grade using a Ditch-Witch or similar machine and staked at seven to ten-foot intervals using four-foot oak stakes or approved equivalent. In addition to required daily inspection by the Contractor, the fencing will be inspected for tears or breeches in the fabric following installation and at approximately one- week intervals or after storm events of 0.5 inch or greater by the third party environmental monitor. Inspections will be conducted by the third party environmental monitor throughout the course of the construction project.
- c. Bi-Weekly inspection reports (brief narrative and applicable photos) will be submitted to the Connecticut Siting Council for compliance verification. Any observations of wood turtle will be reported to the Connecticut Department of Environmental Protection Wildlife
- d. The extent of the barrier fencing will be as shown on the site plans.
- e. No equipment, vehicles or construction materials shall be stored outside of barrier fencing.

2. Contractor Education

- a. Prior to work on site, the Contractor shall attend an educational session at the pre-construction meeting with the third party environmental monitor. This orientation and educational session will consist of an introductory session with photos stressing the non-aggressive nature of wood turtles, the absence of need to destroy animals that might be encountered, the importance of adult survivorship to the population, and the need to follow Protective Measures as described in Section 3.
- b. Also stressed in the education session will be means to discriminate between the species of concern and other native species to avoid unnecessary, "false alarms".
- c. The Contractor will be provided with cell phone and email contacts for the third party environmental monitor to immediately report any encounters with Wood Turtle. Illustrated poster materials will be posted on the job site to maintain worker awareness as the season progresses.

3. Protective Measures

- a. Prior to the start of construction each day, the Contractor shall search the entire work area for wood turtles.
- b. If a turtle is found, it should be carefully grasped in both hands, one on each side of the shell, between the turtle's forelimbs and the hind limbs, and placed just outside of the isolation barrier in the approximate direction it was heading.
- c. Special care shall be taken by the Contractor during early morning and evening hours so that possible basking or foraging turtles are not harmed by construction activities.

4. Reporting

- a. Following completion of the construction project, the third party environmental monitor will provide a summary report to CTDEP documenting the monitoring and maintenance of the barrier fence.
- b. Any observations of wood turtle will be reported to CTDEP by the third party environmental monitor with photo-documentation (if possible) and with specific information on the size, sex, location and disposition of the animal and any other data that DEP may require to be collected

The Wood Turtle protection program detailed above will adequately protect this Special Concern species in the unlikely event that this species is encountered on the subject property during construction activities. With adherence to these protective measures, BNE's proposed development at this property will not have an adverse affect on the wood turtle.

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RESTORATION AND MONITORING NARRATIVE

WIND COLEBROOK
NORTH
ROCK HALL ROAD

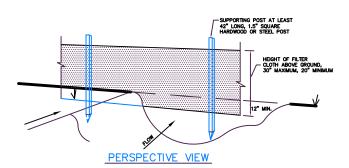


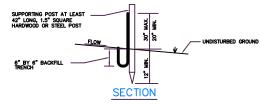
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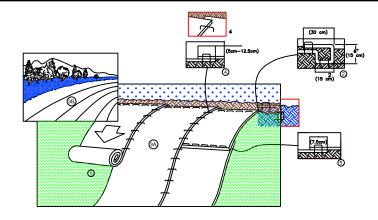




CONSTRUCTION NOTES FOR SILT FENCE

4. BACKFILL THE TRENCH WITH TAMPED SOIL OR AGGREGATE OVER THE GEOTEXTILE.

SILT FENCE/WOOD TURTLE EXCLUSIONARY FENCING DETAIL



- 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLIDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.

 NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.

 2. BEGIN AT THE TOP OF THE SLOPE BY MANORING THE BLANKET IN A "G (15em) DEED X ("15em) THE TRENCH.

 WITH APPROXIMATELY 12" (30em) OF BLANKET EXTENDED BEYOND THE UP-SLOPE FORTION OF THE TRENCH. ANCHOR THE

 BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30em) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30em)

 PORTION OF BLANKET BACK OWER SEED AND COMPACTED SOIL AND FOLD REMAINING 12" (30em)

 PORTION OF BLANKET BACK OWER SEED AND COMPACTED SOIL SECURE BLANKET OWER COMPACTED SOIL WITH A ROW OF

 STAPLES/STAKES SPACED APPROXIMATELY 12" (30em) APART ACROSS THE WIDTH OF THE BLANKET.
- STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WORD OF THE BLANKET.

 ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE BY LACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN QUIDE. WHEN USING OPTIONAL DOT STIEM", STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN QUIDE. WHEN USING OPTIONAL DOT STAPLE PATTERN STAPLES/STAKES AND ADDRESS OF PAPALLE BLANKETS MUST BE STAPLED WITH APPROVINCENTLY 2"."—5" (SOFT—12.5-m) VORTAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORD SEAM STICK! ON THE THE DEGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORD SEAM STICK!" ON THE PROPOSITION STAPLED BLANKET.
- CONSIGNITIES BLANKETS SPUICED DOWN THE SLOPE MUST BE PLACED EDD OVER END (SHINGE TALE) WITH AN APPR 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE. BLANKET WITH AN APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE. BLANKET WITH AN APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE.

NOTE: "
HIL LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL BLANKETS

S150: Material:

Straw fiber matrix sewn between two photo-degradable nets

Straw: 5 lbs/sq. yd.

Net: Temporary lightweight degradable (Both sides)

SC250 (North American Green): Material:

Straw & coconut fiber matrix sewn between three polypropylene nets. Net: Permanent Turf Reinforcement, for maximum slopes up to 1.1:1.

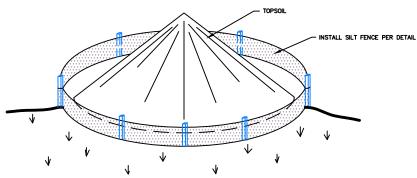
OVERLAPS AND SEAMS
PROJECTED WATER LINE
CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTIE.

**HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE
CHANNEL SURFACE.

CONTINUENT OF THE CHANNEL STAPLE OF STAPLE OR STAKE LENGTHS IN EXCESS OF 6" (15 CM) MAY BE NECESSARY TO PROPERLY
ANCHOR THE BLANKETS.

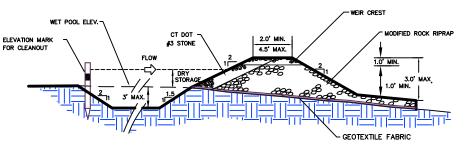
EROSION CONTROL BLANKET



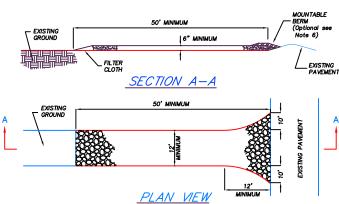
STOCKPILE MANAGEMENT PER 2002 CT GUIDELINES FOR E & S CONTROL:

- 1. LOCATE STOCKPILE SO THAT NATURAL DRAINAGE IS NOT OBSTRUCTED.
 2. DIVERT RUNOFF WATER AWAY FROM OR AROUND THE STOCKPILE.
 3. INSTALL A GEOTEXTILE SLIT FENCE OR HAY BALE BARRIER AROUND THE STOCKPILE AREA APPROXIMATELY 10 FEET FROM PROPOSED TOE OF THE SLOPE.
 4. THE SIDE SLOPES OF STOCKPILED MATERIAL SHOULD BE NO STEEPER THAN 2:1.
 5. STOCKPILES THAT ARE NOT TO BE USED WITHIN 30 DAYS NEED TO BE SEEDED AND MULCHED IMMEDIATELY AFTER FORMATION OF THE STOCKPILE.
 6. AFTER STOCKPILE HAS BEEN REMOVED, THE SITE SHOULD BE GRADED AND PERMANENTLY STABILIZED.

TEMPORARY TOPSOIL STOCKPILE



TEMPORARY SEDIMENT TRAP OUTLET



- STONE SIZE USE 1" 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

- STONE SIZE USE 1" 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

 LENGTH AS REQUIRED, BUT NOT LESS THAN 50 FEET.

 THICKNESS NOT LESS THAN SIX (6) INCHES.

 WIDTH 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL MOTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.

 FILTER CLOTH TO BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

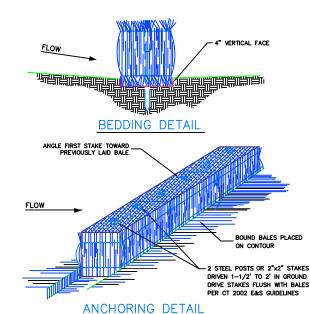
 SURFACE WATER ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERN WITH 5:1 SLOPES WILL BE PERMITTED.

 MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF FLOWING OF SEDIMENT ONTO PUBLIC RICHTS—OF—WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DRIPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS—OF—WAY MUST BE REMOVED IMMEDIATELY.

 WASHING WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS—OF—WAY WHIS TOWE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

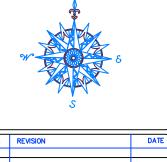
 PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE



- 1. BALES SHALL BE EITHER STRAW OR HAY.
- 2. BALES SHALL BE PLACED AT THE TOE OF SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- 3. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
- 4. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
- 5. INSPECTION SHALL BE FREQUENT, AND REPAIR AND/OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED TO MAINTAIN EFFECTIVENESS OF INSTALLATION.
- 6. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

BALED EROSION FENCE



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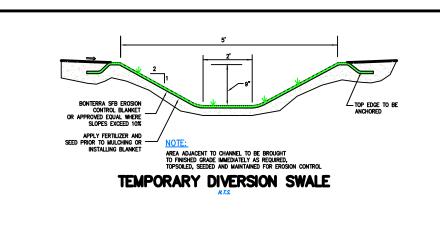
DETAILS

WIND COLEBROOK NORTH ROCK HALL ROAD

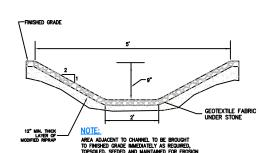


AS NOTED 23 SEP 11 3093 3093

C-603



APPLY FERTILIZER AND SEED PRIOR TO MULCHING



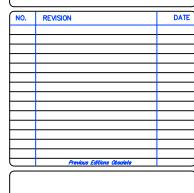
RIPRAP DIVERSION/CONVEYANCE SWALE

TWO (2) 2"x2" STAKES, OR EQUIVALEN PER BALE DRIVEN ONE (1) FOOT INTO GROUND. DRIVE STAKES FLUSH WITH BALES. -2"x2" STAKES GROUND LEVEL-BOTTOM OF BALES **SECTION** NOTES:

PERSPECTIVE VIEW

ALL BALES ARE TO BE TIGHTLY BUTTED TOGETHER.
 BALES SHALL BE EITHER STRAW OR HAY.
 PROVIDE FREQUENT INSPECTION AND MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AND REPLACE CLOGGED BALES TO RESTORE EFFECTIVENESS OF INSTALLATION.

BALED FILTER



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29 SOUTH MAIN STREET

TOWN CENTER SUITE 200

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DETAILS

WIND COLEBROOK **NORTH**

ROCK HALL ROAD



AS NOTED 23 SEP 11 OND FILE NAME: 3093 C-604

8"x 8"x 16" CINDER BLOCK GROUTED IN PLACE PLAN VIEW 3 13/16" -CLASS "A" CONCRETE, PRECAST CONCRETE UNITS OR CEMENT CONCRETE MASONRY. WHERE BLOCK OF PRECAST CONCRETE UNITS ARE USED, CORBELING WILL BE FERMITTED. MAX. CORBEL TO BE 3". NO PROJECTION SHALL EXTEND INSIDE OF LIMITS NOTED. 7 13/16" 2' SUMP - POURED CONCRETE OR PRECAST BASE.

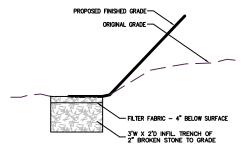
OVER 10' DEEP SHALL BE INCREASED TO 12" THICKNESS.

2. SUMPS MAY BE REQUIRED AT LOCATIONS SPECIFIED BY THE TOWN ENGINEER.

3. BACKFILL BASINS WITH GRAVEL. LEAVE WEEP JOINTS AT LEVELS ABOVE TOP OF PIPE.

STANDARD TYPE "CL" CATCH BASIN

SECTION A-A

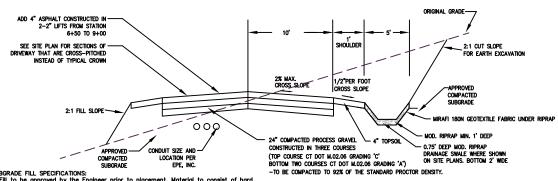


LEVEL SPREADER DETAIL

AREA ADJACENT TO SWALE TO BE BROUGHT TO FINISHED GRADE IMMEDIATELY AS REQUIRED, TOOSILED, SEEDED AND MAINTAINED FOR EROSION CONTROL.

TRENCH IS TO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION.
SHOULD SEDIMENTATION OCCUR REMOVE FILTER FABRIC AND CLEAN OR REPLACE TOP 4" OF STONE.

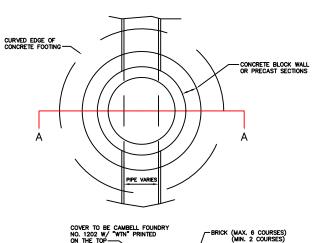
WATER QUALITY TRENCH

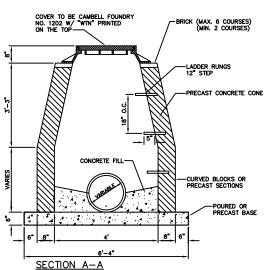


SUBGRADE FILL SPECIFICATIONS:

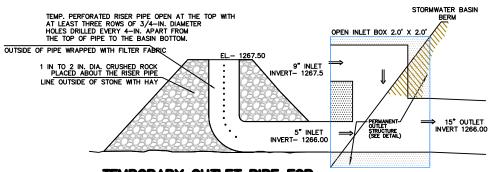
1. Fill to be approved by the Engineer prior to placement. Material to consist of hard and durable particles or fragments and shall be free of frazen material, sod, brush, roots, stumps, organic matter and other objectionable materials.

ACCESS DRIVE CROSS SECTION

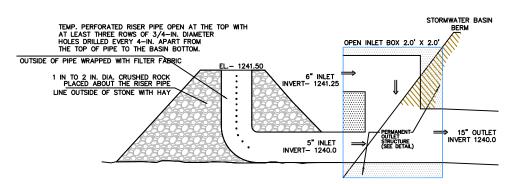




DRAINAGE MANHOLE

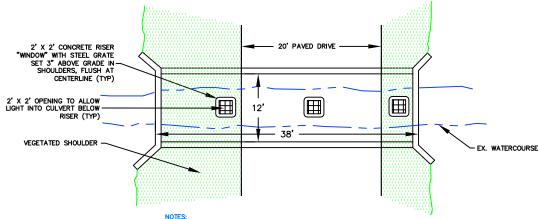


TEMPORARY OUTLET PIPE FOR SEDIMENT CONTAINMENT STORMWATER POND 1



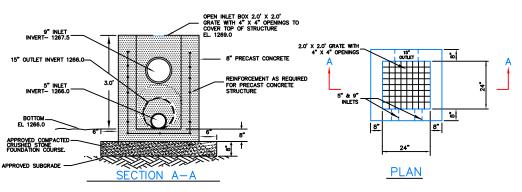
TEMPORARY OUTLET PIPE FOR SEDIMENT CONTAINMENT STORMWATER POND 2

N. T.S.

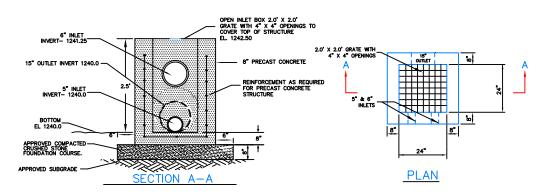


- STRUCTURE TO BE MANUFACTURED BY CONTECH CONSPAN BRIDGE SYSTEMS OR APPROVED EQUAL. STRUCTURE TO BE DESIGNED TO HAVE MINIMUM OF 1' OF COVER AND MAXIMUM OF 9.0' OF COVER. STRUCTURE IS TO BE DESIGNED TO HANDLE HS 20 LIVE LOADS AS WELL AS CRAWLER CRANE LOADS. SHOP DRAWINGS TO BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- 5. DRIVEWAY TO BE PAVED FROM STATION 6+50 TO 9+00 TO ACCOMMODATE FENESTRATION CULVERT.

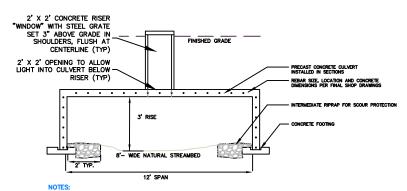
PRECAST CONCRETE CULVERT



STORMWATER POND 1 OUTLET CONTROL STRUCTURE



STORMWATER POND 2 OUTLET CONTROL STRUCTURE



NOTES:

1. STRUCTURE TO BE MANUFACTURED BY CONTECH CONSPAN BRIDGE SYSTEMS OR APPROVED EQUAL.

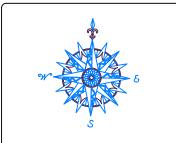
2. STRUCTURE TO BE DESIGNED TO HAVE MINIMUM OF 1' OF COVER AND MAXIMUM OF 9.0' OF COVER.

3. STRUCTURE IS TO BE DESIGNED TO HANDLE HIS ZO LIVE LOADS AS WELL AS CRAMLER CRAME LOADS.

4. SHOP DRAWINGS TO BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

5. DRIVEWAY TO BE PAVED FROM STATION 6+50 TO 9+00 TO ACCOMMODATE FENESTRATION CULVERT.

PRECAST CONCRETE CULVERT



NO. REVISION DATE

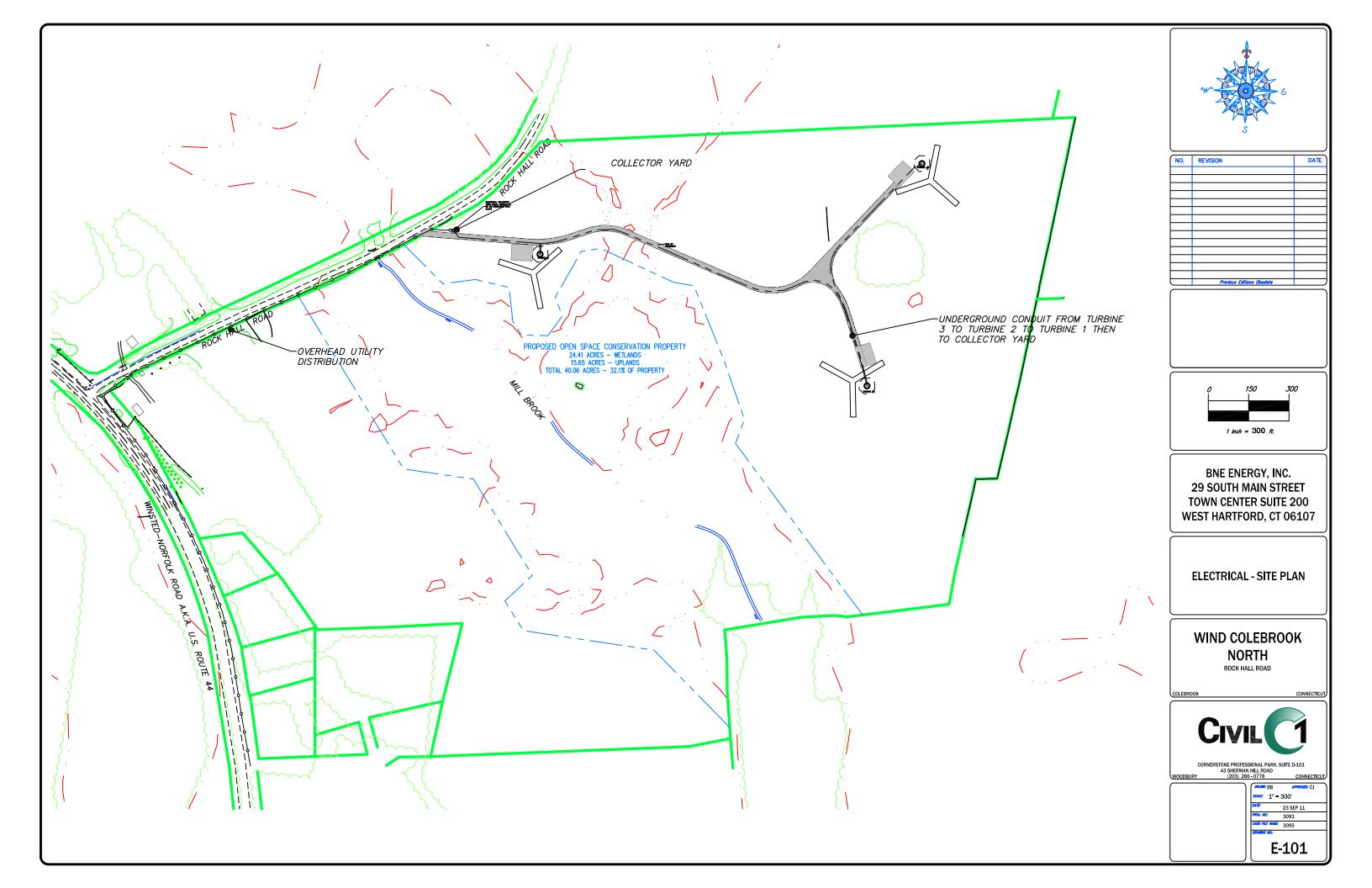
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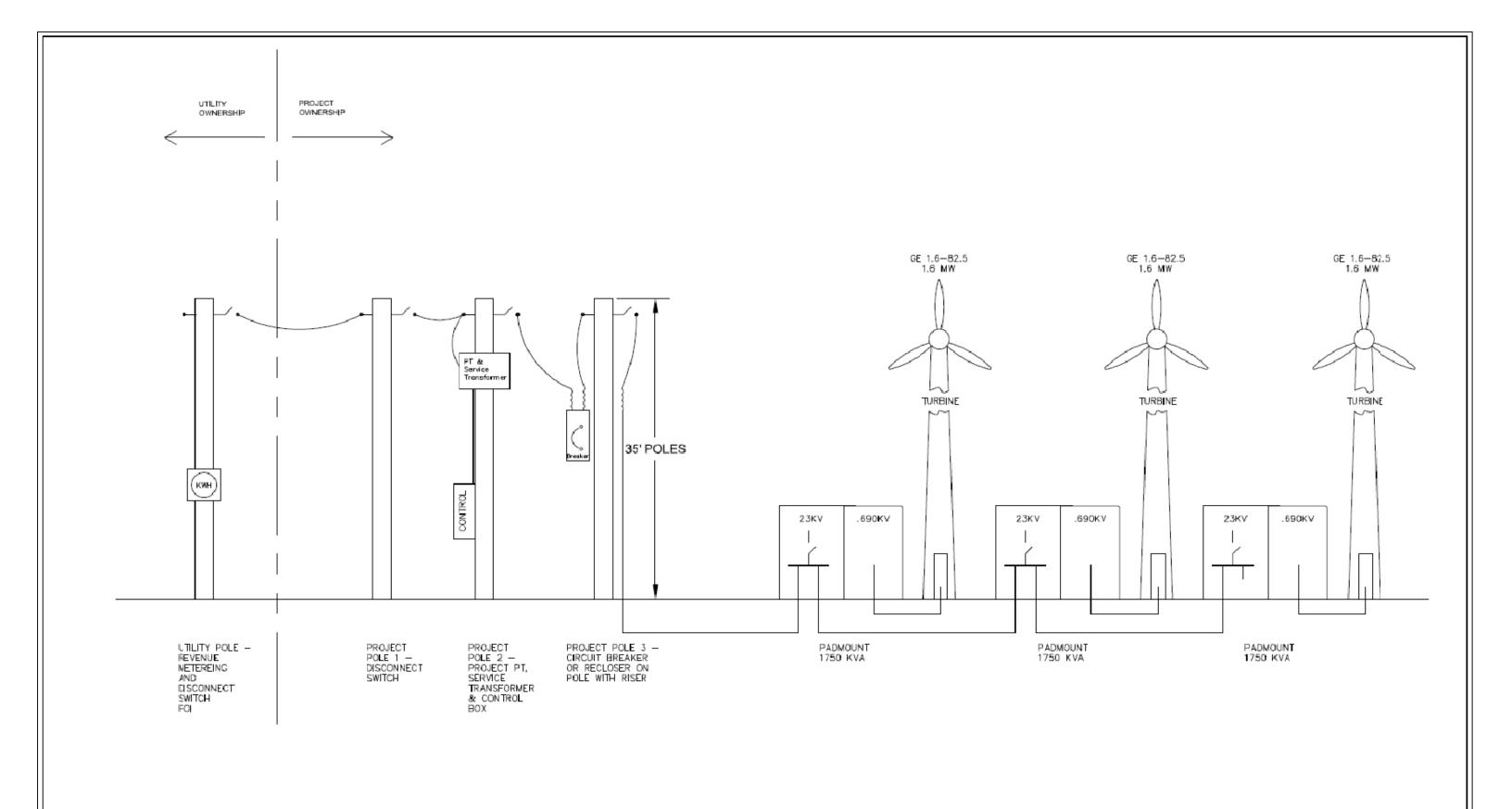
DETAILS

WIND COLEBROOK NORTH ROCK HALL ROAD



AS NOTED 23 SEP 11 00 FILE NAME 3093 C-605







Austin, TX 78733 Office: (5142) 382-6700 ext 301 Fax: (866) 379-3635

Email: hballouz@epeconsulting.com



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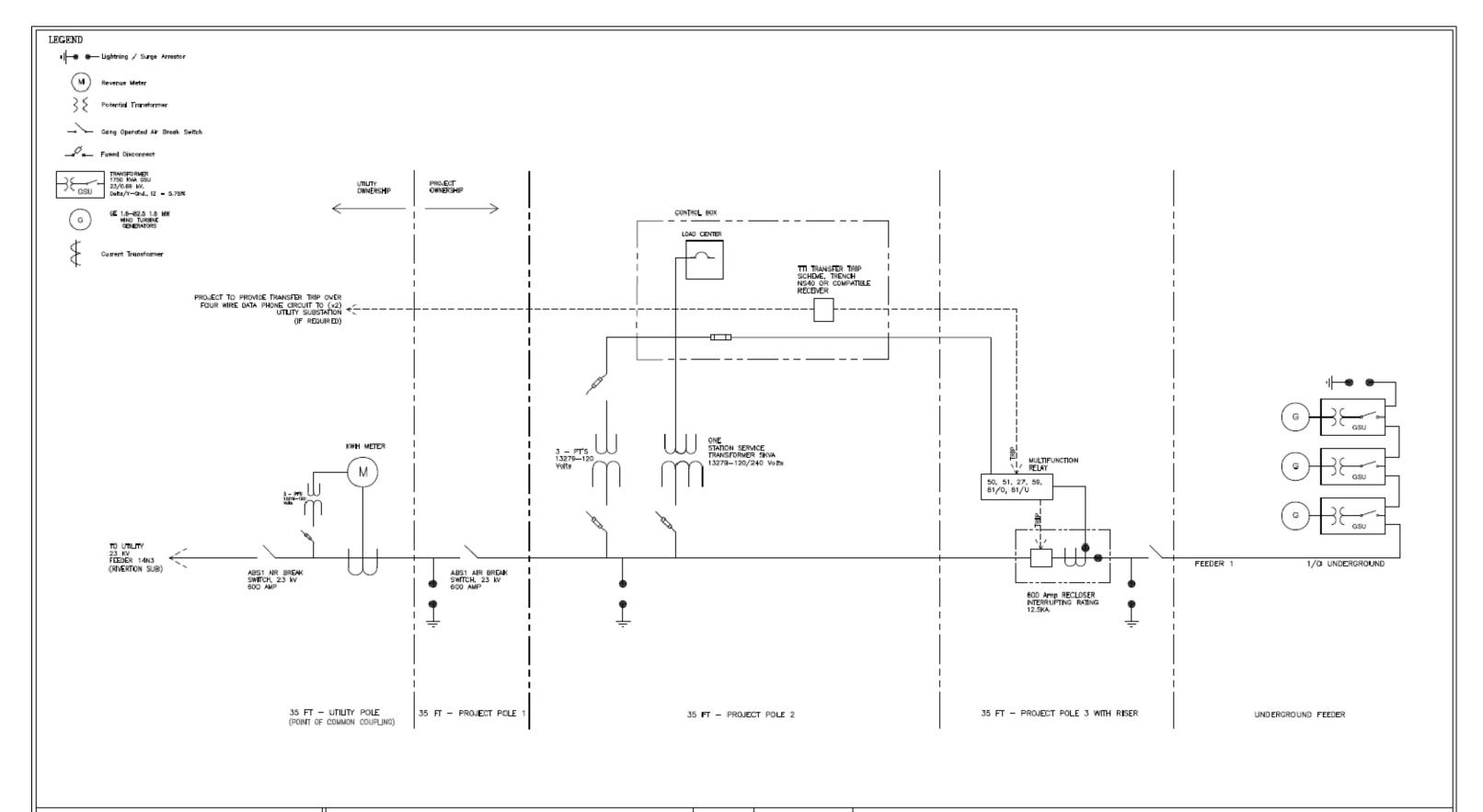
WINDCOLEBROOK NORTH RISER DIAGRAM BNE Energy

E-201

ELECTRIC POWER ENGINEERS, INC.

AUSTIN, TEXAS

FILENAME: ColeBrook North Wind - Riser Diagram_2011-09-23.dwg DWN BY: E.P.E., DATE: 2011-09-23 SCALE: NONE



Registration # 3386
9433 Bee Cave Rd, STE 3-210
Austin, TX 78733
Office: (5142) 382-6700 ext 301
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Email: contact@epeconsulting.com



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		FILE

WINDCOLEBROOK NORTH

ONE-LINE DIAGRAM
BNE Energy

E-202

FE ELECTRIC POWER ENGINEERS, INC.

AUSTIN, TEXAS

FILENAME: ColeBrook North Wind-1 line_2011_09_23.dwg

DWN BY: E.P.E. DATE: 2011-09-23 SCALE: NONE