

Stormwater Narrative

COTS – North Avenue

October 27, 2014

Project Description

Please find the enclosed site plan and stormwater details for the COTS – North Avenue project. The applicant is proposing to construct an addition to their current building at 95 North Avenue. The south parking lot of the project is also being reconfigured and reduced in size.

Existing Conditions

The site includes two existing buildings and associated impervious to be removed. The area around the building is very flat. The grades are gently sloping away from the buildings to the south. All the soils are Adams & Windsor sands with a hydrologic soil group A classification. Soil test pits have been dug and permeability testing has been performed. The soil was found to have a deep sandy profile. High seasonal water table was not observed in test holes. A falling head permeability test was performed in the locations of the proposed infiltration stormwater treatment systems. The slowest infiltration rate was found to be 20 in/hr.

Existing Stormwater System

There is currently no formal stormwater collection system on the site. Stormwater currently sheds off site by overland flow to the south. The roof water is collected and discharges to the City's combined storm sewer.

Proposed Stormwater Treatment

The project will rely on infiltration for treatment of a portion of the parking lot and approximately half of the roof (see watershed plan). The proposed site is divided into two watersheds. Watersheds will be directed by overland flow or directly to catch basins and piped to underground infiltration chambers. The runoff from the paved areas of the site will be pre-treated by through isolation chambers.

The infiltration system has capacity to collect runoff from Watershed Pave #1 and Watershed Roof #1 impervious and infiltrate the 1 year, 24 hour rainstorm.

The chamber details are shown on sheet CD-3, and calculations are attached. We are very excited to be working on this great project and to be able to provide such an improvement to the existing stormwater system.

The applicant is also currently proposing pervious concrete between the two driveways off Haswell Street and pervious pavers on the patio (southwest corner of building).

Erosion Prevention & Sediment Control Narrative

COTS – North Avenue

October 28, 2014

Project Description

Please find the enclosed Erosion Prevention and Sediment Control Site Plan and associated details for the COTS – North Avenue project. The applicant is proposing to construct an addition to their current building at 95 North Avenue. The south parking lot of the project is also being reconfigured and reduced in size.

Existing Conditions

The site is an existing building at 95 North Avenue and a single house on 7 Haswell Street. Limits of the existing south parking lot are shown on sheet EX-1.

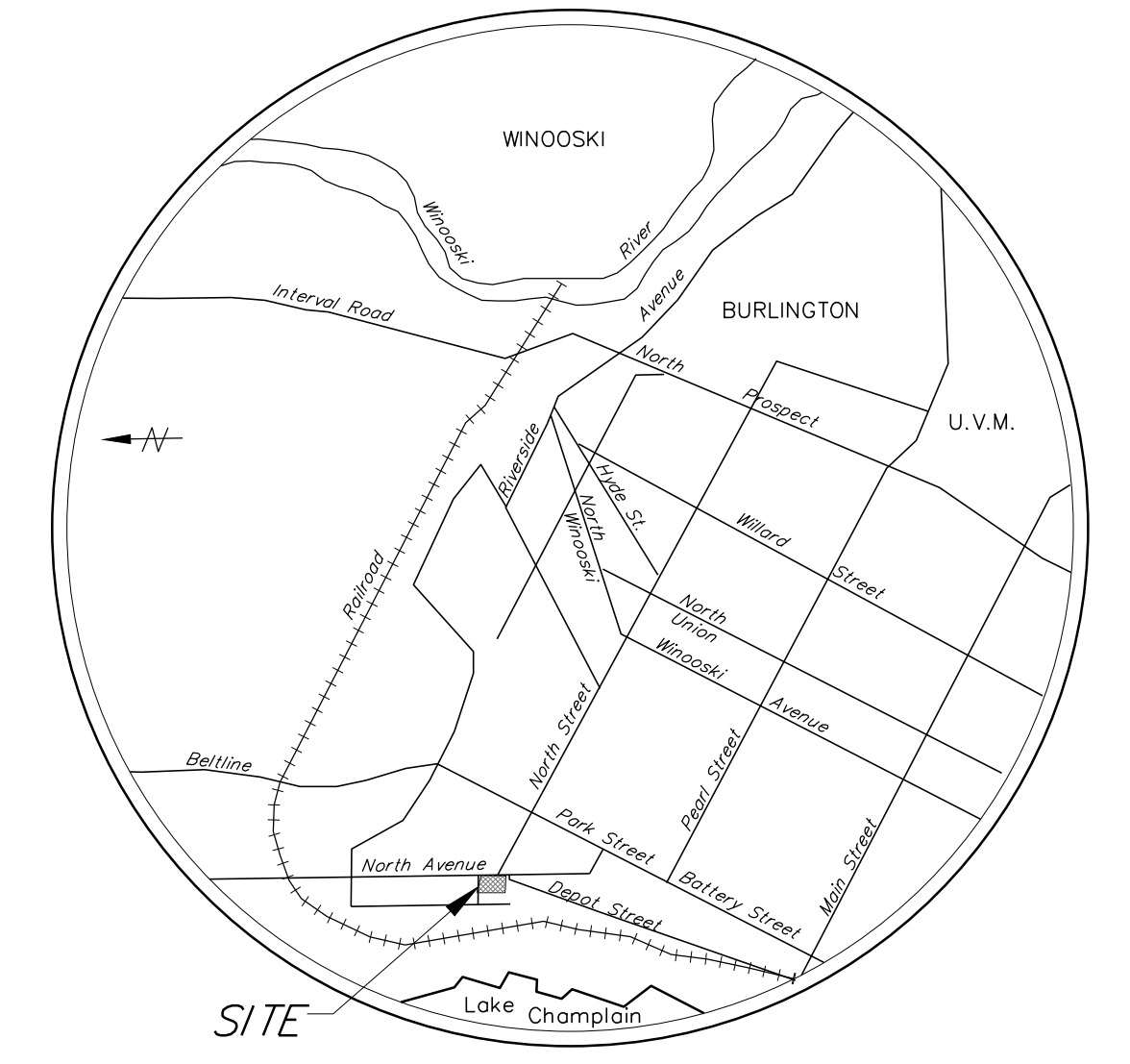
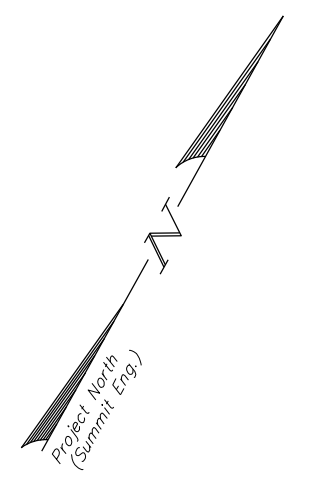
Erosion Prevention and Sediment Control Strategies

We have prepared an overall erosion prevention and sediment control plan (sheet SP-3). This plan requires the Contractor to establish keyed-in silt fence or wrapped stone sediment barriers (in paved areas) at down slope limits of construction, establish stabilized construction entrance at each construction access location (if not already stabilized), provide rolled erosion fabric over newly topsoiled and seeded areas, provide protection for new stormwater catch basins, require foundation pump outs, if necessary, to be directed to silt bags, grass treatment, or other methods acceptable to the Engineer, and minimize the time of exposed soils to 14 days, with the only exceptions provided by the State permit. The staging areas will follow the same erosion control standards as the site. All the soils are Adams & Windsor sands with a hydrologic soil group A classification so we do not anticipate having to pump out building or site utility excavations.

The project will require daily review to ensure sediment does not leave the site either through stormwater or dust.

In addition to the daily review the site contractor will be required to formally inspect the installed Best Management Practices at least once a week, and after any rain event that produces a discharge. Any observed deficiencies will be addressed and immediately repaired. At a minimum, Krebs and Lansing will be on site bi-weekly, during active construction, to specifically review erosion and sediment control measures. Additionally, we expect to be on site one or two times a week during utility, road, and sidewalk construction. Erosion and sediment control will be reviewed during each site visit.

COTS – NORTH AVENUE EPSC NARRATIVE



Location Map
N.T.S.

Legend

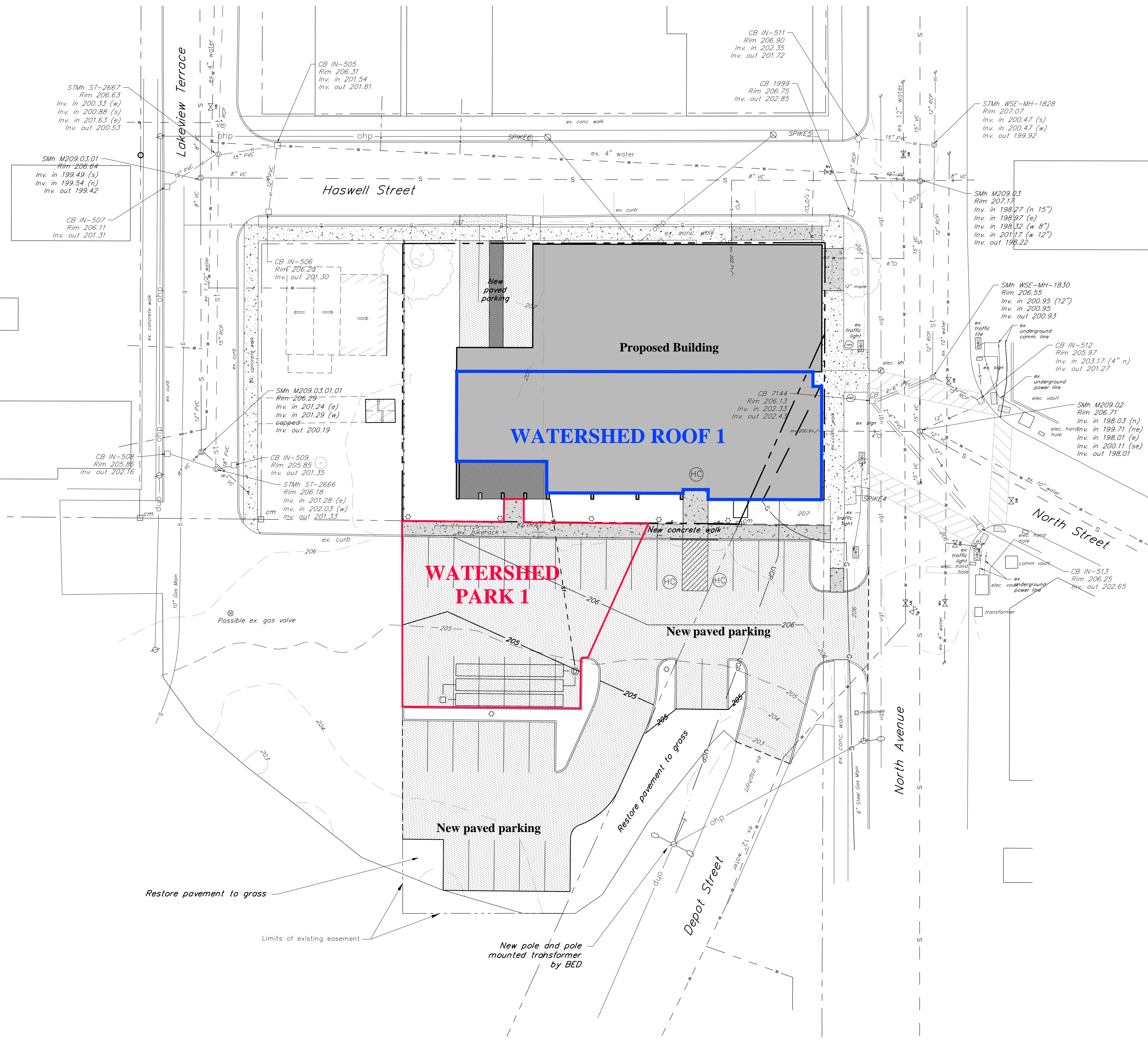
- Pre-construction Excavation
- New Deciduous Tree
- New Evergreen Tree
- 314.7 x Finish Grade Spot Grade Elevation
- Finish Grade Direction of Flow
- Existing Grade 5-foot Contour Interval
- Finish Grade 5-foot Contour Interval
- Existing Grade 1-foot Contour Interval
- Finish Grade 1-foot Contour Interval
- New Gas Line/Valve
- New Sewer Line/Manhole
- New Sewer Forcemain
- New Storm Line/Manhole/Basin
- New Underdrain
- New Roof Drain
- New Water Line/Hydrant/Valve/Shutoff
- New PBX Line
- New Underground Power
- New Clearing Limits
- New Chain Link Fence
- New Stockade Fence
- Construction Fence
- Barrier Fence
- Silt Fence

Notes:

1. This plan is not a boundary survey.
2. Base drawing information shown taken from digital file by Summit Engineering Inc., in August 2014. Project coordinates and elevations are assumed.
3. The underground utilities and boundary shown on this plan are based on digital plan provided by Summit Engineering. Underground utilities are approximate and not warranted to be exact or complete. Dig Safe shall be contacted prior to any excavation.



Bar Scale 1" = 20'



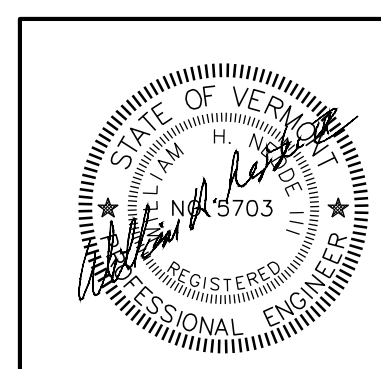
Restore pavement to grass

Limits of existing easement

New pole and pole mounted transformer by BED

Restore pavement to grass

Date revised	Description	Checked	Date
Design	WHN		
Drawn	TJB/SLM		
Checked			
Scale	1" = 20'		
Date	October 27, 2014		
Project	14201 North Ave. and Haswell Street		Burlington, Vermont
KREBS & LANSING Consulting Engineers, Inc. 164 Main Street, Colchester, Vermont 05446			P-1



PERMIT REVIEW ONLY