



Construction Management Plan

PIN 3756.59, BIN 3210360, D036180

Replacement of Cemetery Road Bridge over Trumansburg Creek

Town of Ulysses, Tompkins County, New York

Project Participants and Responsibilities:

- **New York State Department of Transportation (NYSDOT):** Responsible for overall oversight of the project. A project partner and partial funding source for the project on behalf of the FHWA (BridgeNY).
- **Town of Ulysses (Sponsor):** The lead sponsoring agency for the project, owner of the highway, and benefactor of the project. Responsible for overall owner project management and administration, including paying the Contractor and Consultant, approving major modifications to the contract, and accepting the completed work.
- **Tompkins County:** Bridge owner and party responsible for current and future maintenance of the bridge.
- **Barton and Loguidice, D.P.C. (Consultant):** The engineering consultant responsible for overall project coordination, providing technical engineering expertise, and addressing technical issues during construction. Responsible for providing daily inspection and monitoring of construction activities; documenting construction observations for submittal to the Sponsor and NYSDOT; conducting periodic progress meetings; and preparing monthly estimates for payment to the contractor for work accomplished.
- **Contractor:** The Contractor hired to perform the construction work. The contractor is selected through the sealed bid process.

Staffing:

The project will be staffed by one full-time Engineer-In-Charge / Office Engineer (EIC). If and when the construction operations require additional oversight, additional support will be provided by the Consultant project manager and/or office staff depending on the needs of the project. The Consultant project manager will monitor both the construction operations and field office paperwork to ensure full coverage of the project.

The Engineer-In-Charge / Office Engineer (EIC) will be a NICET Level IV equivalent Inspector employed by the Consultant. The EIC will have construction inspection experience on similar NYSDOT administered construction projects. The EIC will maintain project records, review and take appropriate action on test results, review and take appropriate action on all contractor submittals, and coordinate with the Consultant project manager. Inspection duties include monitoring daily construction activities on the project, preparing inspection reports in accordance with the MURK, and reviewing and taking appropriate action on contractor field work. Appropriate action related to tests and contractor submittals will include coordination with



the Consultant project manager. The EIC will be under the direct supervision of the Consultant project manager. A resume is attached for the EIC.

The Consultant project manager is Benjamin Werner, P.E. The Consultant project manager will be responsible for supervision of the field personnel and overall technical and administrative project management.

Applicable Documents and Procedures:

The following documents (in addition to the Contract Documents) will be used as reference for the procedures used on this project:

- Federal-Aid Policy Guide
- NYSDOT Manual of Uniform Record Keeping (MURK)
- NYSDOT Standard Specifications (date as listed on the cover of the Contract Project Proposal)
- NYSDOT Manual for Locally Administered Projects

Payment Procedure and Type of Estimating System:

Contractor payments will occur once a month at a time agreed upon by the Sponsor, the Consultant, and the Contractor. The estimate, after being reviewed and agreed to by the Contractor, will be sent to the Sponsor for payment.

Appia construction management software will be used by the Consultant to track and store data for preparing monthly estimates.

Monthly estimates will be prepared using the Appia software.

Construction Materials:

NYSDOT specifications and procedures will be used as guides for the inspection and monitoring of the construction, materials used, and procedures followed. The Contractor shall be required to use State-approved materials, suppliers, laboratories, et cetera for the items of work. In the event that State-approved sources are not available, the Contractor shall supply the details of the proposed alternative, and the Consultant will review for conformance and suitability.

The Consultant/Sponsor is to provide and pay for all NYSDOT required materials certification testing. Eligible amounts will be reimbursed. Testing will be completed by an independent testing laboratory in accordance with Sections 00160.11 and 01640.02 of the Contract Specifications. Results of the test are to be provided directly to EIC. The Consultant will review the test results to ensure compliance with the Contract Specifications.

The exception to the above noted testing procedure will be for the Plant sampling/testing of Hot Mix Asphalt and Portland Cement Concrete items. The NYSDOT Region 3 Materials staff will perform the Plant sampling and testing for the Hot Mix Asphalt and Structural Concrete items.

The process for stockpiling, testing, and approving materials is as follows:

Aggregate Approval for Stockpiled Items: All stockpiles for Item No.'s 304.XX and 605.XX will be sampled, tested and accepted as outlined in NYSDOT GCP-17. Testing and acceptance of stockpiles will be performed by B&L personnel or



by an independent testing laboratory procured by the Sponsor.

Aggregate Approval for Non-Stockpiled Items: 203.XX Select Granular Fill, etc. will be sampled, tested and accepted as outlined in NYSDOT GCP-17. Sampling, testing and acceptance of non-stockpiled sources will be performed by B&L personnel or by an independent testing laboratory procured by the Sponsor.

Job Control Frequency and Testing for Earthwork Items: All earthwork material will be placed, compacted, tested and accepted according to the MURK1B Manual as summarized in Exhibit 203-A of the manual. Field sampling, testing and acceptance of earthwork items will be performed by B&L personnel or by an independent testing laboratory procured by the Sponsor.

Hot Mix Asphalt Items – Plant Production: A NYSDOT certified plant will be required for all HMA produced for the project. Under the NYSDOT Standard Specifications (Section 401) and Materials Procedure 401, the plant is responsible for Quality Control (QC) and will provide a Quality Control Technician during production of all asphalt. The Standard Specifications state that NYSDOT is responsible for Quality Assurance for HMA production. For this project, the plant is responsible for providing the QC as outlined in the Standard Specifications (Section 401) and Materials Procedure 401. NYSDOT Region 3 Materials staff will provide the QA, as outlined in the Standard Specifications (Section 401) and Materials Procedure 401.

Hot Mix Asphalt Items – Field Testing: Field testing for the project's 80 Series paving does not require additional testing or sampling for acceptance.

Portland Cement Concrete Items – Plant Inspection: A NYSDOT Certified Plant will be required for all concrete produced for the project. Plant inspection will be performed (in accordance with NYSDOT Materials Method 9.1) by NYSDOT Region 3 Materials staff.

Portland Cement Concrete Items – Field Testing and Laboratory Services: All field testing (slump, percent air, temperature and preparing and testing cylinders) for concrete placed on the project will be performed (in accordance with NYSDOT Materials Method 9.2) by B&L personnel or an independent testing laboratory procured by the Sponsor. Cementious sampling and testing will be done in accordance with Materials Method 10.2 and Materials Procedure 90-01. The owner will be responsible for ensuring all required sampling/testing is performed.

ITEM	DESCRIPTION	FREQUENCY
Concrete	Source (NYSDOT Approved)	Initial Approval
Mix Design	NYSDOT Materials	Method 9.1
Production QA Testing	NYSDOT Materials	Method 9.1
Air & Slump	NYSDOT Materials	Method 9.2
Compressive Strength	NYSDOT Materials	Method 9.2



Precast Concrete – Plant Inspection (3-sided units): All precast concrete inspection will be in accordance with MP 9.2 Precast Concrete QC/QA Procedures, 9/2009. The inspection of the precast units during fabrication at the Plant will be performed by B&L or an independent testing laboratory procured by the County and completed on a periodic basis (no full-time inspection). The Contractor will be responsible for providing sufficient notice to B&L in order to schedule this inspection.

Materials Acceptance and Submittal Review Responsibilities:

NYSDOT MURK materials acceptance procedures will be used for this project.

The Consultant will review and accept or take other appropriate action on all contractor related submittals including shop drawings.

Bridge and Highway item shop drawings, material certifications, and other submitted bridge related items will be reviewed by the Consultant.

Contract Requirements:

This project has a 6% DBE goal.

This project has 1.2% minority participation and 6.9% female participation Equal Employment Opportunity goals.

EBO will be utilized for the project. Monthly utilization, prompt payment, and Subcontractor approval will be monitored monthly by the Consultant.

Miscellaneous:

Utility Work: No utility work is proposed by the project. Utility relocations will be completed prior to the start of construction. Utility agreements have been received for the required work.

WZTC Limitations: See Work Zone Traffic Control Plans. A NYSDOT Work Permit will be required for the detour route.

Work Affecting the Waterway: Work is to comply with all NYSDEC and USACOE permit conditions.

Nighttime Construction: It is not anticipated that nighttime construction activities will be necessary. The proposed schedule assumes all activities will occur during daytime hours.

Stockpiling of Materials: Stockpiling of material on site will not be allowed in lowland areas where sediment or other waste material could impact waters of the United States or existing wetlands. The Consultant will be responsible for ensuring that the Contractor abides by this condition.



Unanticipated Field Conditions and Changes: In response to unanticipated varying field conditions or changes in construction procedures, the Consultant will conduct on-site field reconnaissance and where required, prepare Field Change sheets modifying pertinent contract plan sheets. All changes will be submitted to the Sponsor for approval.

Time Extensions: The Consultant will document delays, events, and actions that affect the Contractor's adherence to the schedule. The Consultant is responsible for reviewing the schedule with the Contractor during the progress meetings. If the schedule needs adjustment, the Consultant will require a new schedule from the Contractor and submit this to the Sponsor and NYSDOT.

Change Orders: Change orders (NYSDOT Order on Contract) will be prepared by the Consultant using Order on Contract forms contained within the Appia software. The EIC will recommend approval to the Sponsor who will have final approval of all Change Orders. After sponsor review and before final approval, a copy of all Change Orders will be sent to the NYSDOT Regional Local Projects Liaison (RLPL). RLPL approval will be requested for any change order that:

1. adds significant new items,
2. changes the character of the work materially, in kind or nature, from that included in the original proposed construction,
3. changes the quantity of any major item of work, fixed quantity item, or composite item (as defined in the contract) above 125% or below 75% of the original contract quantity,
4. proposes changes outside the contract limits,
5. proposes changes outside the contract scope,
6. proposes changes that exceed the contingent amount established by the State/Local Agreement.

Disputed Work: If the Contractor is of the opinion that any work ordered is extra work, the Contractor must notify the Consultant and the Sponsor in writing. During the process of disputed work, the Contractor shall provide force account reports of all labor, equipment, and material used.

Payroll and EEO Requirements: The Contractor shall submit (through EBO) forms and materials as required so that the Consultant can monitor EEO/DBE compliance.

As-built Plans: The Consultant will prepare as-built plans at the completion of the project.



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Recommended By:

[Signature] 7/7/21
Barton & Loguidice, D.P.C. Date

Approved By:

Town of Ulysses Date

Concurrence By:

[Signature] 7/7/2021
NYSDOT Region 3 RLPL Date

Summary

Mr. O'Malley is a full-time engineer with Barton & Loguidice responsible for project design and development with seasonal responsibilities that include Construction Inspection. He attended SUNY Buffalo and obtained his B.S. in Civil Engineering, and currently has his E.I.T. on track to become a Licensed Professional Engineer. Mr. O'Malley has been employed with B&L for 5 years and the following is a sample of projects showing his breathe of experience and qualifications in the bridge field:

Most Current Project Experience

Hillside Road over Wiscoy Creek, Wyoming County, NY

Mr. O'Malley was the design engineer for this federally funded Bridge NY project for the replacement of Hillside Road Bridge over Wiscoy Creek. His responsibilities included structure type determination, geometric bridge layout, and 3-sided structure sizing; cast-in-place concrete substructure and pile design; development of contract plans and specifications; preparation of the detailed itemized cost estimate; facilitated the bidding process; and reviewed contractor submittals. Mr. O'Malley also served as the full-time Resident Engineer on site throughout construction. In his construction inspection role, he completed daily work reports and contractor pay estimates in APPIA; reviewed and prepared the necessary LAFAP paperwork; held progress meetings; and ensured that work was completed per the contract documents. He coordinated with environmental agencies throughout construction to ensure that the stream, erosion and sediment control site requirements were met.

Walker's Mills Road over The Kline Kill, Columbia County, NY

Mr. O'Malley served as Resident Engineer for this federally funded Bridge NY project located in Columbia County, NY. The project rehabilitated the 116 year old, 44-foot span historic truss structure supported on stone abutments. The original truss was removed, sand blasted, re-painted, re-set and the substructure stones were also re-set. The project also included replacement of the timber deck. He completed daily work reports in APPIA and the necessary LAFAP paperwork, as well as ensured that work was completed per the contract documents.

Replacement of Upper Lake Road over Mill Creek, Seneca County, NY

Mr. O'Malley covered as the Resident Engineer for the replacement of the 60'-5" composite concrete deck on this single-span multi-steel girder superstructure. He performed quality control checks on reinforcement placement and covers. He also monitored field quality control tests on Class HP concrete including slump, temperature, and air to ensure that concrete delivered and placed met the contract specs.

Other Relevant Project Experience

Replacement of New York Central Road Bridge over Owasco Outlet, Cayuga County, NY

Mr. O'Malley provided precast concrete plant quality control for the casting of 7 concrete beams including reinforcement placement and cover checks and observance of concrete slump, temperature, and air tests. He also compiled a precast beam inspection report which included field inspection reports, pour data, prestressing data, manufacturer certifications, technician certifications, equipment calibration, and inspection photos.

Design Engineer, Barton & Loguidice, D.P.C.

Mr. O'Malley works in B&L's Rochester office as a design engineer during the majority of the year. His responsibilities include advancing projects from Preliminary Design to Final Design and into Construction requiring him to assemble design reports, cost estimates, permit applications, and utility coordination as well as complete the final structural design and assemble contract documents. A small sampling of his projects includes:

Freese Road over Fall Creek – a historic truss replacement in the Town of Dryden

Main Street over West Branch Cayuga Outlet – a culvert slip-line in the Town of Newfield

Warners Road over the NYS Thruway – a multi-span bridge replacement for the Thruway Authority

Boiceville Rail Trail Bridge over Esopus Creek – a pedestrian and bicycle bridge in Ulster County

Madison Street over WNY&P Railroad – bridge replacement over WNY&P RR for Allegany County

MATERIALS TESTING & ACCEPTANCE PROCEDURES

Only NYSDOT approved granular materials and stone filling will be used on this project. Sampling, testing, and approvals for all granular materials and stone filling items will be done by the NYSDOT Regional Geotechnical Unit. The consultant inspector will be responsible for onsite compaction and gradation testing. The frequency of testing shall be based on Exhibit 203-A of the NYSDOT Construction Inspection Manual (CIM). The onsite testing must be done according to the appropriate NYSDOT testing manuals: GTM-20 - Test Method for the Grain-Size Analysis of Granular Soil Materials, GTM-9 - Test Method for Earthwork Compaction Control by Sand Cone or Volumeter Apparatus, GTM-10 - Test Method for Earthwork Compaction Control by Nuclear Gauge.

The NYSDOT test methods are different from similar ASTM tests that testing laboratories typically use. It is important to follow these NYSDOT approved test methods rather than the ASTM tests since the NYSDOT's quality assurance program is based on following the DOT test methods.

Geotechnical Control Procedure GCP-17 - Procedure for the Control of Granular Materials provides details on the building and sampling procedure for stockpiles as well as the procedure for obtaining Source Approvals for non-stockpiled granular materials. GCP-14 - Procedure for Control of Stone Filling and Rip-Rap Items provides the same details for stone filling items.

Contact Kathy Baker, Regional Geotechnical Engineer @ 315-469-3236 to make arrangements for stockpile sampling and source approvals. The Regional Geotechnical Unit keeps an updated list of sources that are currently approved for non-stockpiled granular materials.

All of the above manuals are available online at the following link:

<https://www.dot.ny.gov/divisions/engineering/technical-services/geotechnical-engineering-bureau/manuals>

The consultant EIC/Inspector should familiarize himself with these manuals.

Construction Management Plan
Local Sponsored Projects
Offsite materials Sampling and Testing
By Region 3 Materials staff

NYS DOT
REGION 3 Materials
4601 Nixon Park Dr. Suite 110
Syracuse NY, 13215

Anup Ghosh, Region Materials Engineer
Bill Wilbur, Regional Plants manager
Paul St. Amour, Lab Manager
Phone 315 469-3285, Fax 315 469-1614

Call in 72 hours prior to first plant order for Cement Concrete or Asphalt Concrete – verify plant locations supplying material and the current approved status.

After first notification of plant order subsequent orders should come in by 3 PM day before by Fax or e mail - **R03-Materials@dot.ny.gov**

Plant inspectors will fax plant testing reports to project field offices at days end or early the following day. Small quantities of hot mix (typically less than 150 tons) or Cement Concrete pours non structural (sign footings, DI alterations) can be plant certified, no State QA inspector present. Still notify Regional Materials of this production at times an inspector may be placed for these small orders.

For Structural Concrete

Provide location of placement, concrete class needed, time of delivery to the project site Inform region 3 lab if test cylinders will be fabricated and broken by region 3. All structural placements should include one or more 28 day cylinder breaks to be placed in approve curing box (region 3 has curing tank capacity if needed, cylinders should be minimum 24 hour old before moving). All early break cylinders shall be cured in the field with the placement they represent. **It is vital that all pairs of cylinders are accompanied by a fully filled out Br 300 Cylinder Report Form that identifies the plant where the mix originated and all sources of materials contained in the mix as well as field test data (slump, air, temperature) from the day of the placement.** This vital information will be on plant inspectors report from the day of mix production. BR 300 forms are available through regional materials office if needed.

For HMA Paving

Determine Superpave Series from pay items and inform region 3 materials lab if test strip cores will be taken and brought into to regional lab for testing. Superpave 60 series requires 4 test strip cores and loose mix from the plant to determine PTD (density gage present for all paving of 60 series), 70 series requires no cores but density gage must be present, 80 series (no density gage) roller passes according to specification. 50 series superpave is for limited access highways only, if you have these items it could be an error in specifying.