

EXHIBIT A

EXHIBIT B

EXHIBIT C

Office of the Engineering Department

June 15, 2023
(Revised November 6, 2023)
(Revised May 1, 2024)

NEORSD/City of Brecksville
Riverview Road Flood Reduction Project
City of Brecksville Easement Acquisition
Scope of Service

Intent: To facilitate the NEORSD Riverview Road Flood Reduction Project, NEORSD has determined it is in the best interest of the project that easement acquisition be handled by the City of Brecksville.

The Brecksville Team will include: Emily Braman of Charles P. Braman & Co. Inc. (Braman), Inc. for preparation and determination of all property appraisals, City Law Director Dave Matty of Matty, Henrikson & Greve LLC. (Matty), for all legal services, City Engineer Gerald Wise of Donald G. Bohning & Assoc. Inc. (DGB), for preparation of all easement documents. Exhibits, plats, and legal descriptions will be provided by the North east Ohio regional Sewer District (NEORSD). Mayor Kingston, Law Director Matty, and City Engineer Wise on behalf of the City will facilitate resident meetings and negotiate easements.

Preparation of Easement Acquisition Documents

- DGB – Prepare all first draft easement documents
 - Coordinate with NEORSD & EMH&T to obtain will provide the easement exhibits and legal descriptions depicting the easement limits.
 - Prepare individual parcel easement verbiage for each parcel
- Matty – Review individual easement documents
- DGB & City – Schedule preliminary resident meeting to discuss upcoming project, general timeframe, and request for easements.
- Braman – Prepare easement appraisals
- DGB – Finalize easement documents based on appraisals and have final documents prepared for submission to property owners.

Estimated Fees

▪ Charles P. Braman & Co., Inc. -	\$ 12,250.00
▪ Donald G. Bohning & Assoc. Inc. -	\$ 14,500.00
▪ Matty, Henrikson & Greve LLC. -	<u>\$ 6,500.00</u>

Total = \$33,250.00



Office of the Engineering Department

Preliminary Estimation of Easement Cost

Address	PPN	Owner	Acres	SF	Cost/SF	Estimated Easement Cost
8192 Riverview Road	602-08-001	Lesinski	0.01	435.6	\$ 5.00	\$ 2,178.00
8196 Riverview Road	602-08-010	Banks	0.07	3049.2	\$ 5.00	\$ 15,246.00
8204 Riverview Road	602-08-007	Borosh	0.08	3484.8	\$ 5.00	\$ 17,424.00
8214 Riverview Road	602-08-008	Jackson	0.06	2613.6	\$ 5.00	\$ 13,068.00
8224 Riverview Road	602-08-009	Swisher	0.07	3049.2	\$ 5.00	\$ 15,246.00
8230 Riverview Road	602-08-035	Perttu	0.14	6098.4	\$ 5.00	\$ 30,492.00
8261 Wiese Road	602-23-007	Kennedy	0.03	1306.8	\$ 5.00	\$ 6,534.00
11120 Greenhaven Pkwy	602-08-012	Kazel	0.01	435.6	\$ 5.00	\$ 2,178.00

Total = \$102,366.00

Easement Presentation and Negotiation with Property Owners – Voluntary Acceptance

- DGB – Individual meetings & phone calls with property owners to discuss easement acquisition.
- DGB, Matty, & City - Negotiate easements based on voluntary acceptance.
- Matty – Prepare acquisition, purchase agreements, and legislation for all negotiated easements.
- City – Record all easement that are granted.

Estimated Fees

- Matty, Henrikson & Greve LLC. - \$ 7,500.00
- Donald G. Bohning & Assoc. Inc. - \$ 7,500.00

Total = \$15,000.00

Involuntary Easement Acquisition – If Needed (Estimate based on 2 property's)

- Matty – Initiate official City proceedings and Councilmanic actions.
- Matty – Initiate official Court proceedings
- DGB – Information and meetings as requested by Law Director.

Estimated Fees

- Matty, Henrikson & Greve LLC. - \$ 25,000.00
- Donald G. Bohning & Assoc. Inc. - \$ 2,500.00

Total = \$27,500.00

Office of the Engineering Department

Reimbursable Expenses

Recording Fees, Court Cost, Delivery Fees incurred will be invoiced as direct reimbursable cost.

Estimated Fees

- Estimated Fees - \$ 1,500.00

Total = \$1,500.00

Fees based on assumed hourly services and subject to change. Physical property acquisitions and cost are based on preliminary estimate as depicted the above chart and areas supplied by the NEORS design team. Upon authorization, the City will have property appraisals completed to determine initial offerings.

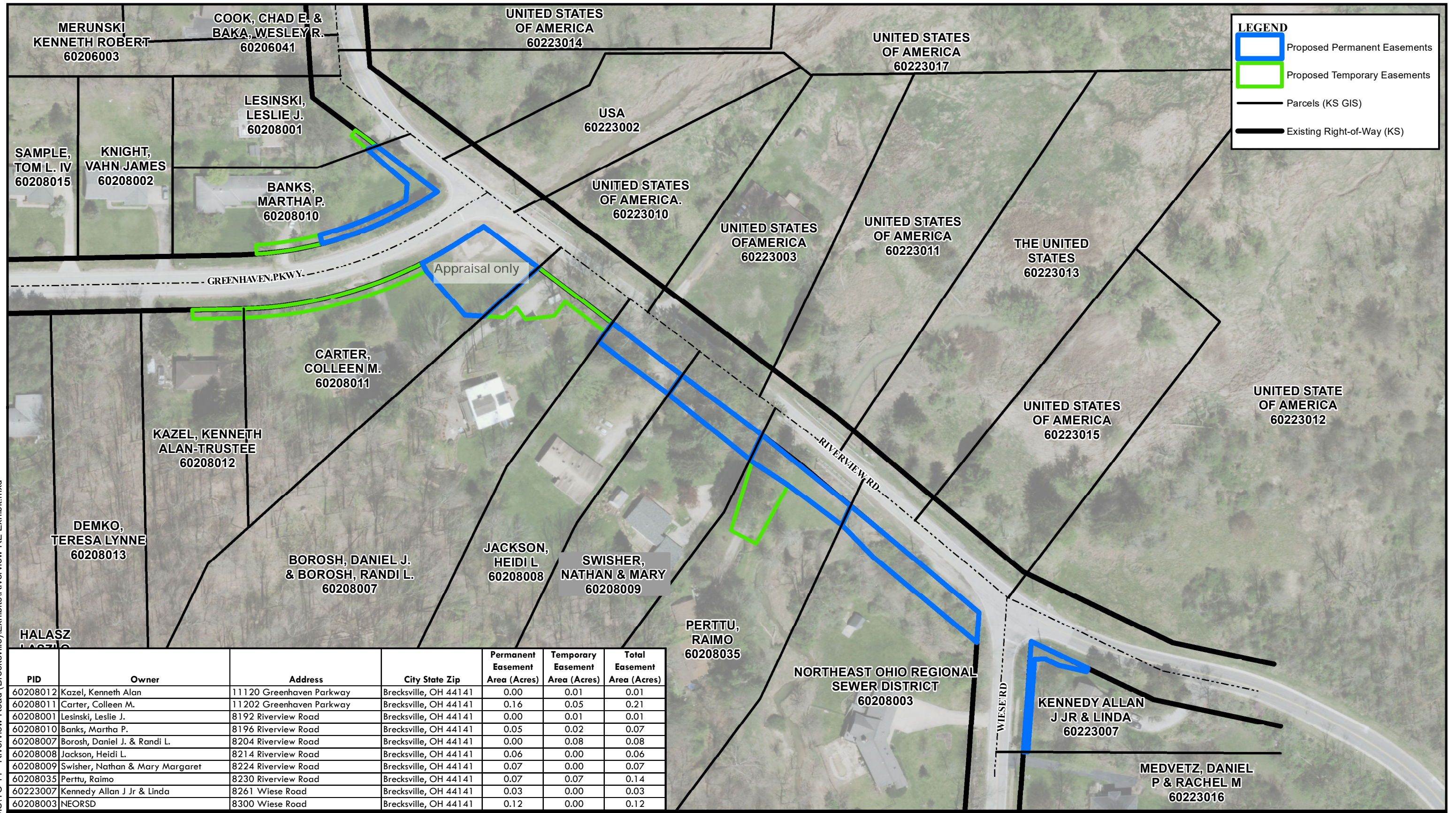
Services rendered invoiced monthly on a percentage complete basis. Fee proposals for modifications, changes and/or revisions to the Project Scope will be supplied upon request.

Sincerely,



Gerald M. Wise, P.E.
City of Brecksville Engineer

EXHIBIT D

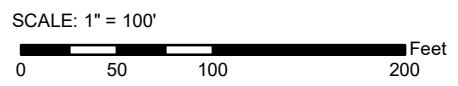


LEGEND

- Proposed Permanent Easements
- Proposed Temporary Easements
- Parcels (KS GIS)
- Existing Right-of-Way (KS)

Path: J:\20210275\GIS\TO 11 - Riverview Road (Brecksville)\Exhibits\Riverview RE Exhibit.mxd

EMH&T
 Engineers • Surveyors • Planners • Scientists
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 emht.com



CITY OF BRECKSVILLE, CUYAHOGA COUNTY, OHIO
PROJECT 1635: CSPA04 - Flood Reduction at Riverview Road in Brecksville
DRAFT Proposed Real Estate Exhibit
April 2024

Source:

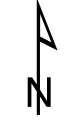


EXHIBIT E

**Regional Stormwater Management Program Project
PAYMENT REQUEST ACCURACY VERIFICATION AND PROGRESS REPORT**

Project Information

Project Partner: _____

Project Title: _____

Payment Request Amount: _____

Authorized Signature

Pursuant to the terms of the Agreement between the Project Partner and the Northeast Ohio Regional Sewer District (the "District") for the above-referenced Project, I am the duly authorized representative of the Project Partner with respect to said Agreement and related consultant invoices/contractor pay/draw applications.

I hereby verify that the consultant invoice/contractor pay/draw application attached hereto from consultant/contractor is accurate, that the consultant's/contractor's materials and/or services reflected in the consultant invoice/contractor pay/draw application was furnished and performed in accordance with the conditions of the contract for the work and is to the satisfaction of the Project Partner, that the consultant invoice/contractor pay/draw application is not in dispute by the consultant/contractor or the Project Partner, that I recommend payment of same, and that information contained therein is true and correct to the best of my knowledge.

I also confirm that the Project Partner shall pay the consultant/contractor such District-approved amount distributed to the Project Partner as expeditiously as possible following receipt of funds from the District and within the time period prescribed in the Project Partner's contract with the contractor/consultant to avoid any late fees or other penalties for late payment.

Further, I confirm that all information included in the Progress Report is verified and accurate.

Name (print or type): _____

Title: _____

Telephone Number: _____

Email Address: _____

Signature: _____

Date: _____

Progress Report

Provide a summary of the accomplishments with respect to objectives, degree of completion based on the Project application, and any problems encountered. Progress Reports must be submitted with all payment requests.

- 1) Summarize progress and/or accomplishments during this reporting period as related to your project implementation schedule. (500 word maximum)

2) Difficulties and delays encountered during this reporting period. (500 word maximum)

EXHIBIT F

**STORMWATER GES3- 1497H: TASK ORDER #11
RIVERVIEW ROAD AND GREENHAVEN PARKWAY IN BRECKSVILLE
FINAL ENGINEERING
PROJECT NO. 1635
CITY OF BRECKSVILLE, OHIO

NOVEMBER 2022**

The Scope of Services set forth herein defines the work to be performed by the CONSULTANT in completing the Task/Project. Both the DISTRICT and CONSULTANT have attempted to clearly define the work to be performed and address the needs of the Project.

SERVICES TO BE PERFORMED

- Task 1. Pre-design (not included in this scope of services)
- Task 2. Design (included in this scope of services)
- Task 3. Bid and Award (not included in this scope of services)
- Task 4. Construction Administration Support (not included in this scope of services)
- Task 5. Closeout (not included in this scope of services)
- Task 6. Allowances (none)

The Scope of Services for the Project shall consist of the tasks outlined above. Pre-Design services were completed under a prior authorization.

The CONSULTANT has communicated with the DISTRICT's personnel to refine the Project needs and deliver this Scope of Services. The CONSULTANT shall carefully consider the input by the DISTRICT's staff; however, based on the CONSULTANT's own experience and ability, CONSULTANT shall be solely responsible for providing complete, quality deliverables in accordance with the requirements of the Scope of Services.

The work to be provided under this scope of services will be in completed and delivered to the DISTRICT in accordance with our General Engineering Services (GES) 1497H agreement, including, but not necessarily limited to, the items listed below.

- Use of the DISTRICT's Sharefile site to transfer deliverables and workflow related documents.
- Deliverables shall be submitted in both PDF and native file format.
- Deliverables shall conform to DISTRICT policy regarding the use of non-proprietary software.

Project Intent

Sedimentation and flooding at Riverview Road in the City of Brecksville has been a DISTRICT and local concern for many years. Erosion in the upper watershed generates a sediment volume under rainfall events that is greater than the downstream channel system can transport without depositing excess material near Riverview Road. The sedimentation has led to poor performance of the culverts under Riverview Road at the Greenhaven Parkway and Wiese Road storm system outfalls, causing localized flooding and requiring a repetitive maintenance effort for DISTRICT staff, and temporary road closures that impede adjacent property owners and other users of Riverview Road.

The overall intent of this project is to elevate Riverview Road from a point north of Greenhaven Parkway to a point south of Wiese Road as shown in the Concept Plan prepared during the Pre-Design phase to reduce the frequency of floodwaters overtopping the roadway. The two existing box culverts crossing Riverview Road near Greenhaven Parkway and Wiese Road will be replaced as part of this project. A copy of the Concept Plan is attached to this proposal for reference.

Project Goals and Considerations

- Reduce surface flooding risk at Riverview Road
- Increase the capacity of the Riverview Road culverts.
- Minimize long term operation and maintenance requirements for the proposed improvements.

Observations, Potential Obstacles, and Opportunities

- **Property Interests on Private Properties:** Recommended improvements directly along Riverview Road will require easements on private properties, including property owned by the National Park Service.
- **Stakeholders:** There are numerous stakeholders who will be directly impacted by the recommended improvements. Property owners within the study area are a key stakeholder, along with the City of Brecksville, Cuyahoga County, and the National Park Service (NPS).
- **Maintenance of Traffic:** CONSULTANT will coordinate with DISTRICT, City, and County staff regarding Maintenance of Traffic requirements for the project. CONSULTANT assumes access will be required for all occupied properties along Riverview Road, but the roadway will be closed to through traffic between Greenhaven Parkway and Wiese Road during construction.

Project Schedule

The CONSULTANT shall utilize the following schedule milestones in the preparation of the Project baseline schedule, unless other dates are approved by the DISTRICT:

- **Task 2 – Final Design and Permitting.** This task includes several milestones, which are identified below along with the anticipated duration.

1. Task 2A – Draft (60%) Design Plans: CONSULTANT will provide the 60% design submittal to the DISTRICT for review within 5 months from Notice to Proceed. CONSULTANT assumes DISTRICT and stakeholders will provide review comments within 1 month after receipt of the submittal.
2. Task 2B – Draft (90%) Design Plans: CONSULTANT will provide the 90% design submittal to the DISTRICT for review within 3 months from receipt of 60% review comments. CONSULTANT assumes DISTRICT and stakeholders will provide review comments within 1 month after receipt of the submittal.
3. Task 2C – Final (100%) Design Plans: CONSULTANT will provide the 100% design submittal to the DISTRICT for review within 2 months from receipt of 90% review comments. CONSULTANT assumes DISTRICT and stakeholders will provide review comments within 1 month after receipt of the submittal.
4. Task 2D - District Plan Approval/Signature: We will perform any necessary final plan revisions to address DISTRICT comments and resubmit the final plans to the DISTRICT for approval/plan signature.

CONSULTANT shall adhere to the DISTRICT's approved baseline schedule; changes to the baseline schedule during the Task/Project require DISTRICT review and approval. CONSULTANT shall follow the DISTRICT's Schedule Guidance Document in the preparation of the baseline schedule and for regular schedule progress updates; however, some deviations from the guidance document may be allowed if approved by the DISTRICT's Project Manager.

Project Management

Project management is a critical activity to be integrated with the execution of all Tasks. CONSULTANT shall utilize procedures related to cost estimating, scheduling, project documentation, and others as necessary to enhance budget, scope, and time management for the Project.

In order to ensure that this Project is successfully completed in a timely manner and to the satisfaction of the DISTRICT, project management items include, but are not limited to, the following:

1. CONSULTANT will hold a kick-off meeting with the DISTRICT at the outset of the project. A separate kick-off meeting may be held with representatives of the City of Brecksville and other stakeholders.
2. CONSULTANT and the DISTRICT PM will hold weekly telephone discussions as required throughout the duration of the design phase of the project. Four (4) formal progress meetings with DISTRICT staff are anticipated during the design phase of the project.
3. CONSULTANT shall conduct up to two (2) stakeholder involvement meetings, at the direction of the DISTRICT

TASK 2: DESIGN OF ROADWAY RECONSTRUCTION; PERMITTING SUPPORT

The CONSULTANT shall develop engineering plans with specifications specific to the project

improvements that will be included in the DISTRICT'S required bid documents. These construction documents will be suitable for supporting a competitive bidding process. The plans will indicate the layout, plans, sections, and details of the PROJECT. The engineering plans will be prepared using AutoCAD. An Engineer's Opinion of Probable Construction Costs (EOPCC) shall be prepared for each design submittal. A Class 2 American Association of Cost Engineers (AACE) EOPCC will be submitted with the final design.

Assumptions

- The proposed Riverview Road profile and replacement culverts will be consistent with the Concept Plan prepared by CONSULTANT in the Pre-Design phase.
- Riverview Road will be closed to through traffic between Greenhaven Parkway and Wiese Road during construction. Access will be provided to all occupied properties.
- CONSULTANT shall reference the current ODOT Construction and Materials Specifications for the proposed roadway improvements.
- Post-construction best management practices required for OhioEPA NPDES compliance, if necessary, will be addressed by roadside vegetated filter strips or vegetated biofilter designed according to the ODOT Location & Design Manual.
- This scope includes design services for the following modification or relocation of utilities:
 - Replacement of the existing water main within the project limits.
 - Adjustment of sanitary sewer manhole castings within the project limits.

Modification or relocation of other utilities, including but not limited to, sanitary sewer piping, gas main, and overhead electric and communication lines, is not included in this scope. Modification of these utilities within the right-of-way is assumed to be the responsibility of the utility owner.

All Task 2 deliverables shall be submitted in the following quantities unless otherwise noted.

One indexed PDF electronic copy of the 60% design, 90% design, and final engineering plans, and other construction and permit related documents.

Original electronic files in native form of the permit related documents

Coordination with Other Entities: CONSULTANT is responsible for taking into consideration past, present, and future work of other public and private entities potentially affecting the PROJECT. To meet this requirement, CONSULTANT will coordinate with the entities listed below, beginning with the draft design phase.

- City of Brecksville
- Cuyahoga County Department of Public Works
- Cuyahoga Valley National Park (CVNP)
- Public and Private Utility Owners

All coordination by the CONSULTANT with the City of Brecksville, Cuyahoga County Department of Public Works, and CVNP will be through DISTRICT personnel. CONSULTANT will not directly contact the City, Cuyahoga County Department of Public Works, and CVNP without prior direction from the DISTRICT.

Task 2A: Draft (60%) Design Plans

The Draft Design plan task will include the preparation of the information summarized below.

1. Additional topographic and boundary survey of the project site will be conducted under this phase of the project by KS Associates (KS), which will rely on coordination with the Ohio Underground Protection Service (OUPS) and site record plans to identify the location of utilities. KS previously performed topographic surveying of the Riverview Road right-of-way during the Pre-Design phase. Additional topographic surveying will be performed to cover the entire project extents identified in the Concept Plan, including proposed work areas outside the right-of-way on residential parcels on the west side of Riverview Road. Additional topographic surveying will be performed to collect current (following completion of dredging performed by DISTRICT) contours for the ditch near Greenhaven Parkway from the downstream side of Riverview Road to a point approximately 500 feet into the Fawn Pond site. This scope assumes the ditch can be accessed on foot. Extents of the supplemental field surveying are shown on the attached exhibit.

Performance of Subsurface Utility Engineering (SUE) services is not currently proposed under this scope of services.

Please note that this effort will not include research of existing easements on the property, other than requesting easement information from utility owners. CONSULTANT has assumed easement research and determinations has been performed by the DISTRICT for the previously acquired property and will be performed by the DISTRICT for adjoining properties as part of any title research performed for the acquisition of drainage/maintenance easements.

2. The topographic, boundary, and utility base map for the project site will be updated, using the results of the field survey effort and supplemented by available GIS data for areas immediately surrounding the project work limits. Prior basemapping for Picha Lake will also be updated based on as-built topographic contours provided by the DISTRICT following completion of Project 1640. CONSULTANT will not perform additional field surveying in support of this effort.
3. We will perform engineering field reconnaissance to update documentation of existing field conditions along the project work limits.
4. We will perform a supplemental geotechnical investigation required to support the final design of the proposed roadway and culvert construction. The effort includes a subsurface investigation, laboratory testing, and evaluation of in situ soils. Rock coring will not be performed by the CONSULTANT. It is assumed that the proposed drilling sites will be located along or adjacent to the existing roadway and no other special permission will be required. Soil and groundwater at the drill sites are assumed to be free of contamination, thus no special care, health and safety plan, and handling is needed during field operations and laboratory work.

Specific soil borings and geotechnical design recommendations will be provided for the following features:

- Roadway pavement section design, including an updated CBR value.
- Roadway subgrade preparation, including updated recommendations on soil stabilization and/or undercutting, if warranted.
- Structure foundation design, including recommendations for potential subgrade stabilization and/or deep foundations should spread footings be deemed not practical at the site. Anticipated that 2 borings will be performed at each culvert group (4 total) location along Riverview Road.

Refer to the enclosed proposal from CTL Engineering for additional information on the subsurface exploration tasks for the project.

5. We will perform the design analysis described below.
 - a. We will design plans to reconstruct the roadway along its current alignment at the desired flood protection elevation as shown in the Pre-Design Concept Plan.
 - a. Existing roadway lane dimensions will be maintained. Design guidance from the City of Brecksville, Cuyahoga County, and ODOT Location & Design Manual will be referenced, as applicable.
 - b. The following subtasks will be completed in the design and documentation of the roadway improvement plans:
 - i. Roadway plan title sheet.
 - ii. Typical roadway and pavement sections. Pavement composition design and recommendations will be provided in accordance with the design procedures outlined within the Ohio Department of Transportation Pavement Design Manual. A CBR value will be calculated and provided by the Geotechnical Engineer, for use in the pavement design.
 - iii. Survey control and centerline data sheet.
 - iv. Plan specifications, notes, and details. A plan legend will also be included.
 - v. Development of construction erosion and sediment control plans.
 - vi. Development of project bid quantities.
 - vii. Preparation of plan and profile sheets. Proposed roadway, guardrail, right of way impacts, etc. will be illustrated on the plans. A roadway centerline profile will also be provided. 1"=20' scale plans sheets are assumed.
 - viii. Cross sections will be provided at 50-foot intervals, detailing roadway and shoulder elevations, grades, slopes, etc. The cross sections will indicate and include existing and proposed utilities within cross sections.
 - ix. Layout and profile design of roadside ditches. Hydraulic calculations will also be prepared to validate the sizing of the ditch cross section. A

- drainage tributary area map will be developed to support the calculations.
- x. Design and profiling of any localized storm sewerage for the drainage of the roadway. Hydraulic calculations will also be prepared for the sizing of the storm sewer. The design of the box culverts is identified below, and is not included within this sub-task.
 - xi. Intersection and driveway detailed grading.
 - xii. Development of plans for the maintenance of vehicular through or around the work zone. It is assumed that through traffic on Riverview Road will be detoured between Greenhaven Parkway and Wiese Road.
 - xiii. Design and detailing of pavement markings and traffic signage.
- c. The following tasks will be completed in the design and documentation of the culvert replacement plans:
- i. Proposed combined 20'x7' Box Culvert and 12'x4' Overflow Box Culvert
 1. Precast concrete four sided box sections will be utilized under Riverview Road as the primary section to replace the existing structure.
 2. As precast structures cannot accommodate the high skew construction needed to avoid the existing 24" Sanitary Sewer on the east side of Riverview Road, the plans will detail a custom high skew cast-in-place concrete box section on the north side of the road. We will load rate the cast-in-place portion of the culvert while the precast section's load rating will be the responsibility of the culvert manufacturer.
 3. We will design and detail a custom combined concrete headwall at the east end of the culvert.
 4. On the west side of the road we will design and detail a custom junction chamber than combines the two box culverts with the existing 48" diameter pipe and 58"x91" pipe from Greenhaven Parkway. We will also detail the junction chamber to receive overland flood routing from Greenhaven Parkway.
 5. The culvert and its component designs will adhere to AASHTO LRFD standards. Use of standard guardrail (ODOT MGS) over the culverts is assumed.
 - ii. Proposed 20'x11' Four Sided Box Culvert
 1. Precast concrete four sided box sections will be utilized under Riverview Road as the primary section to replace the existing structure.
 2. As precast structures cannot accommodate the high skew construction needed to avoid the existing 24" Sanitary Sewer on the east side of Riverview Road, the plans will detail a custom high skew cast-in-place concrete box section on the east side of the road. We will load rate the cast-in-place portion of the

- culvert while the precast section's load rating will be the responsibility of the culvert manufacturer.
3. We will design and detail custom concrete headwalls on both sides of Riverview Road.
 4. The culvert and its component designs will adhere to AASHTO LRFD standards. Use of standard guardrail (ODOT MGS) over the culverts is assumed.
- b. We will update the Pre-Design hydraulic calculations for the proposed box culverts using the FHWA HY-8 computer program. Calculations will be performed following allowable headwater requirements determined in the Pre-Design phase with DISTRICT staff. A parallel set of headwater calculations will be prepared following Cuyahoga County requirements.
 - c. We will revise the final PCSWMM model prepared during the Pre-Design phase to address review comments provided from the SWMMDM team dated November 14, 2022, and include the final culvert sizes, proposed storm sewer, and roadway profile as reflected in the 2-dimensional mesh. PCSWMM model updates will follow the District's current stormwater modeling standards (currently Hydrologic and Hydraulic Modeling for Stormwater Systems – Standards and Protocols v1.02), unless approved by the DISTRICT. No other modifications to the PCSWMM model prepared during the Pre-Design phase are included in this scope of work.
6. We will prepare a draft Summary Design Memorandum detailing the design analysis associated with the improvements. The memorandum will be prepared and presented as part of the 60% Design Plan submittal.
 7. The draft (60%) design plans will be developed using the DISTRICT's sheet format and numbering system. The plan sheet set-up will include the items listed below.
 - a. Title Sheet, including Sheet Index.
 - b. General notes with specifications.
 - c. Survey benchmark locations and descriptions.
 - d. Existing topography, planimetric features, utilities, property boundaries and rights-of-way with notes explaining the disposition of existing utilities with respect to the proposed improvements.
 - e. Utility easements will be shown as depicted on information provided to us by the utility owners or the DISTRICT (obtained through any title research performed as part of the process to acquire land and future channel easements).
 - f. Existing conditions and demolition plans.
 - g. Proposed roadway typical sections, plan and profile sheets, and cross sections at 50-foot intervals and all other necessary locations.
 - h. Limits and extent of regulatory features, including features identified by the ecological survey performed by others, as well as the surveyed OHWM's, and stream setbacks mandated by local, state or federal regulations.
 - i. Water main replacement plans.
 - j. Sanitary sewer manhole casting adjustment plans.
 - k. Storm sewer plans.

- l. Proposed culvert plans.
 - m. Erosion and sediment control plan sheet, including notes and details.
 - n. Site restoration plan and details.
 - o. Site access and staging plans.
 - p. Standard drawings, typical sections and associated specifications.
 - q. Miscellaneous detail plans.
 - r. The boundaries of permanent drainage/maintenance easements to be procured by the DISTRICT.
 - s. The boundaries of temporary construction easements to be procured by the DISTRICT.
 - t. Maintenance of traffic – a draft detour plan will be provided assuming closure of Riverview Road to through traffic between Greenhaven Parkway and Wiese Road.
8. An Engineer’s Opinion of Probable Construction Cost. Prepare a Class 4 Construction Cost Estimate as part of the draft design process.
9. Specifications. Prepare the items described below.
- a. List of bid items.
 - b. Table of Contents of technical specifications. List shall indicate deviations from the DISTRICT’s standard specifications.
10. QC Report: The CONSULTANT shall provide documentation of CONSULTANT’s internal review.
11. Easement materials:
- a. Easement exhibit showing proposed areas of temporary and permanent stormwater easements.
 - b. Legal descriptions and plat drawings for all temporary and permanent stormwater easements upon approval of the proposed areas by the DISTRICT. We have assumed up to 15 total temporary or permanent easement descriptions. We will provide the DISTRICT with original descriptions and drawings for each easement, stamped by a State of Ohio Registered Professional Surveyor.
12. Required federal, state, and local permits.
- a. USACE – Prepare an application for a Nationwide Permit (NWP) representing the roadway and culvert improvement project. The CONSULTANT will prepare the items listed below in support of the NWP application. We have assumed the ecological survey performed by others will be used to support the waterway permitting process.
 - The 60% design plans will be the basis for any supporting exhibits for the permit application. The design documents will depict Ordinary High Water Mark (OHWM) and other environmental indicators relevant to the permitting process. The design document will specifically note construction-phase Best Management Practices in support of obtaining a waiver from the Ohio DNR in-water work exclusion dates.

- Prepare the Pre-construction Notification (PCN) and a comprehensive cover letter providing a project description and summary statement, and following the DISTRICT'S standard format.
 - The NWP application will include a waiver request to exceed certain terms and conditions of the NWP, if that becomes necessary for the project. Requests to waive or revise the in-water work exclusion dates required by Ohio DNR in association with the NWP will also be included, using a format provided by the DISTRICT.
 - The draft application documents will be submitted to the DISTRICT. The DISTRICT will then finalize the application for submission to the permitting agency. We will support the DISTRICT in responding to comments from the U.S. Army Corps of Engineers on the NWP application.
- b. Ohio EPA - If a Director's Authorization from the Ohio EPA is deemed necessary, we understand the DISTRICT will prepare that application and the CONSULTANT will provide supporting documentation, such as related to demonstration of project alternatives to support the preferred design approach and to document the project is self-mitigating.
- c. Floodplain Permitting – FEMA has mapped the project site in a Zone X, area located outside the 100-year floodplain. Floodplain permitting through the City of Brecksville is not required.

The draft design plans will be provided to the DISTRICT for review and comment. CONSULTANT expects to engage in a telephone/video conversation with the DISTRICT PM to discuss plan contents, specifications and permitting documents, and the DISTRICT's review comments. CONSULTANT will also share the draft plans with utility owners to make them aware of the project improvements and obtain their feedback.

Task 2B: Draft 90% Design

The 90% design task will take into consideration comments made during the draft plan submittal and review. The CONSULTANT'S 90% plan submittal to the DISTRICT shall include the following:

1. A complete set of engineering plans, addressing the DISTRICT's comments and providing more design clarity where needed. A Detour Plan will be added in this submittal for Maintenance of Traffic purposes.
2. Load rating of the custom box beam end sections. Rating will be completed using spreadsheet calculations and will be in accords with ODOT Bridge Design Manual requirements.
3. The Bid Booklet (Volumes 1, 2 and 3), including 90% versions of the technical specifications.
4. Assist the DISTRICT in responding to any comments from the regulatory agencies on the waterway permit applications.

5. Revised Summary Design Memorandum, including an estimated construction schedule.
6. An updated engineer's opinion of probable construction cost. Prepare a Class 3 AACE Construction Cost Estimate as part of the final design process.
7. If more than one (1) acre is planned to be disturbed by the project, prepare a final SWPPP using the DISTRICT's standard template outline. The CONSULTANT shall prepare the SWPPP and supporting documents as may be required to obtain a NOI permit from the Ohio EPA and local stormwater permitting regulations. The DISTRICT will complete the NOI application for submission to the Ohio EPA. The CONSULTANT shall provide all SWPPP documentation pursuant to the standards as provided in the latest Ohio DNR "Rainwater and Land Development Manual".
8. MBE/WBE/SBE participation analysis.

The 90% design plans will be provided to the DISTRICT for review and comment. The CONSULTANT will submit one set of the 90% design Plans to the City of Brecksville and Cuyahoga County for their review along with the associated technical documentation. We expect to participate in a design review meeting with the DISTRICT PM to discuss plan contents, specifications and permitting documents, and the DISTRICT's review comments. We will also share the 90% design plans with utility owners to obtain their feedback.

Task 2C: Final Design Plans

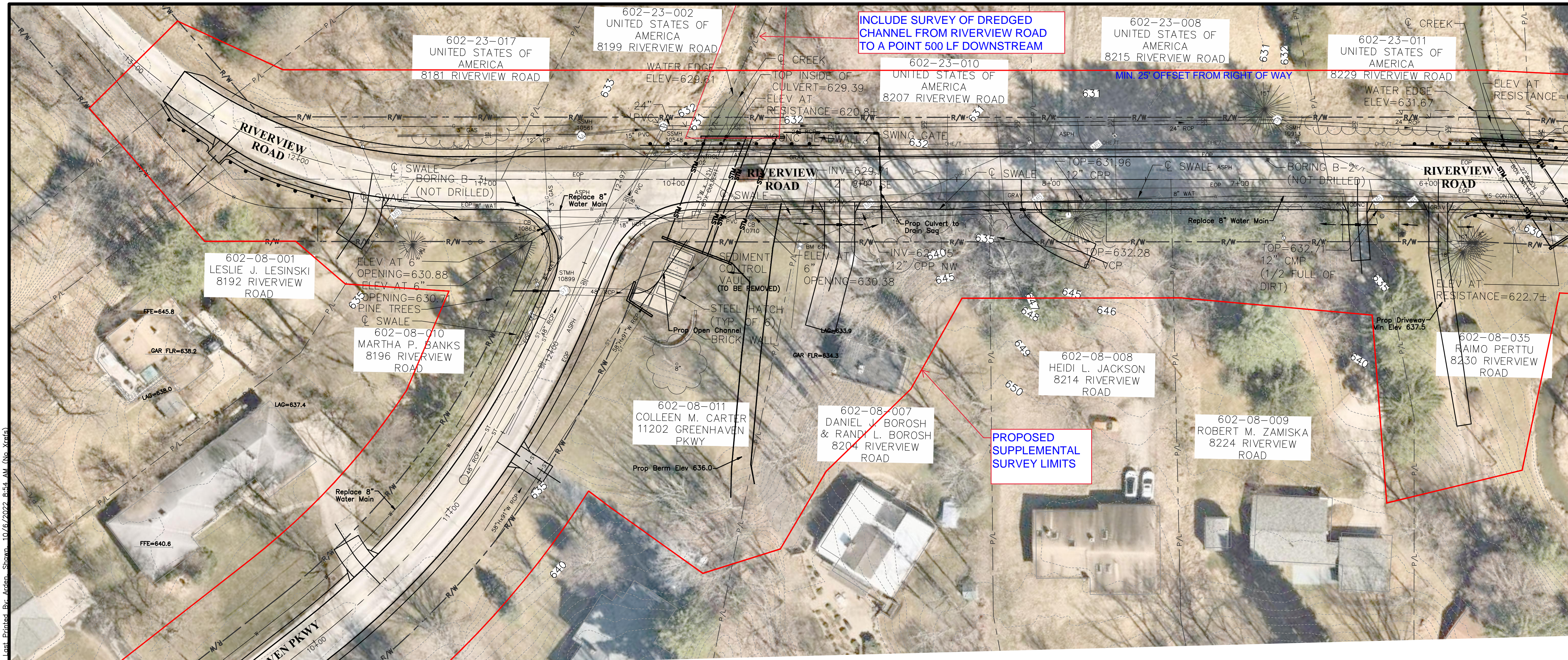
The final design plans will take into consideration comments made during the draft plan submittal and review. The CONSULTANT'S final plan submittal to the DISTRICT shall include the following:

1. A complete set of final draft engineering plans, addressing the DISTRICT's comments and providing more design clarity where needed.
2. Bid Booklet (Volumes 1, 2 and 3), including final versions of the technical specifications and the Excel version of the Bid Form.
3. Final construction schedule.
4. Final Technical Memorandum.
5. A final engineer's opinion of probable construction cost. Prepare a Class 2 Construction Cost Estimate as part of the final design process.
6. Final SWPPP.
7. At the direction of the DISTRICT, we will submit one set of the Final Design Plans to the City of Brecksville and Cuyahoga County for their review and comment.
8. MBE/WBE/SBE participation analysis.

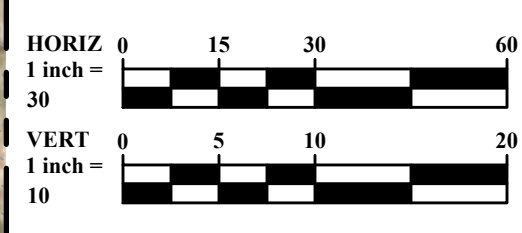
The design documents listed above be provided to the DISTRICT for review in electronic format.

Task 2D: District Plan Approval/Signature and City Plan/Permit Approval

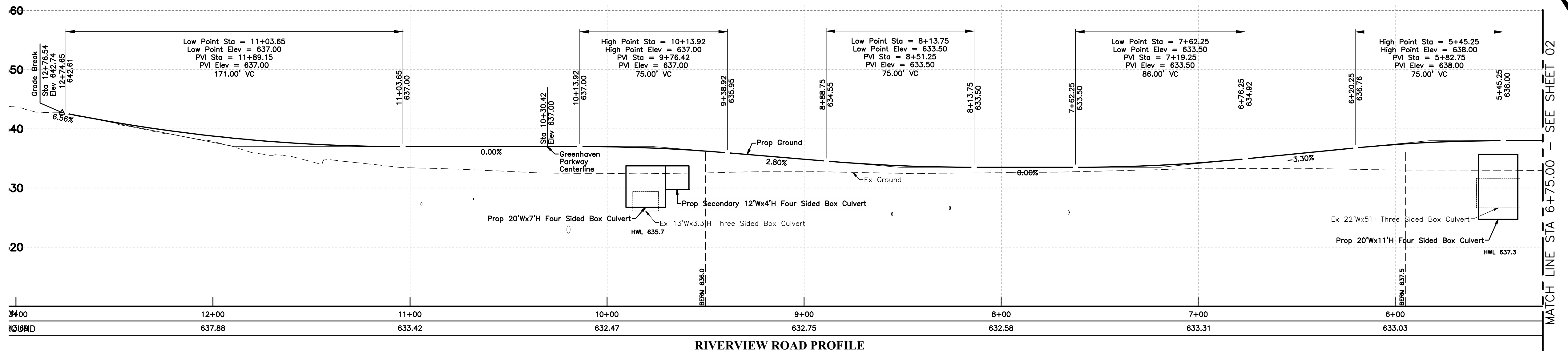
If required, the final plans will be revised to address DISTRICT review comments and resubmitted for approval/plan signature. Once the DISTRICT signs the engineering plans, the CONSULTANT will submit the final design plans, approved permits, and signed easements to the City of Brecksville for their final approval/signature.



MATCH LINE STA 6+75.00 - SEE SHEET 02



PRELIMINARY
 NOT TO BE USED FOR CONSTRUCTION
 PLAN SET DATE August 2022



REVISIONS		
MARK	DATE	DESCRIPTION

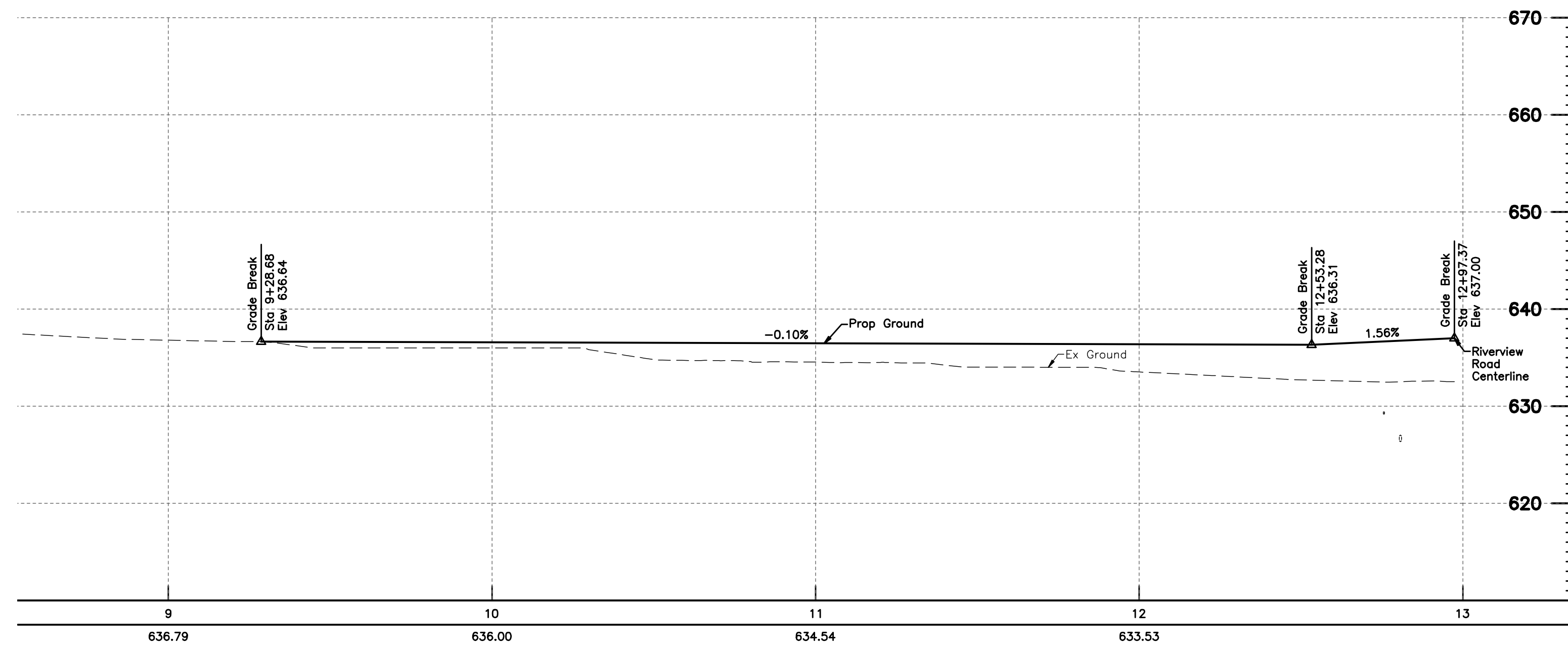
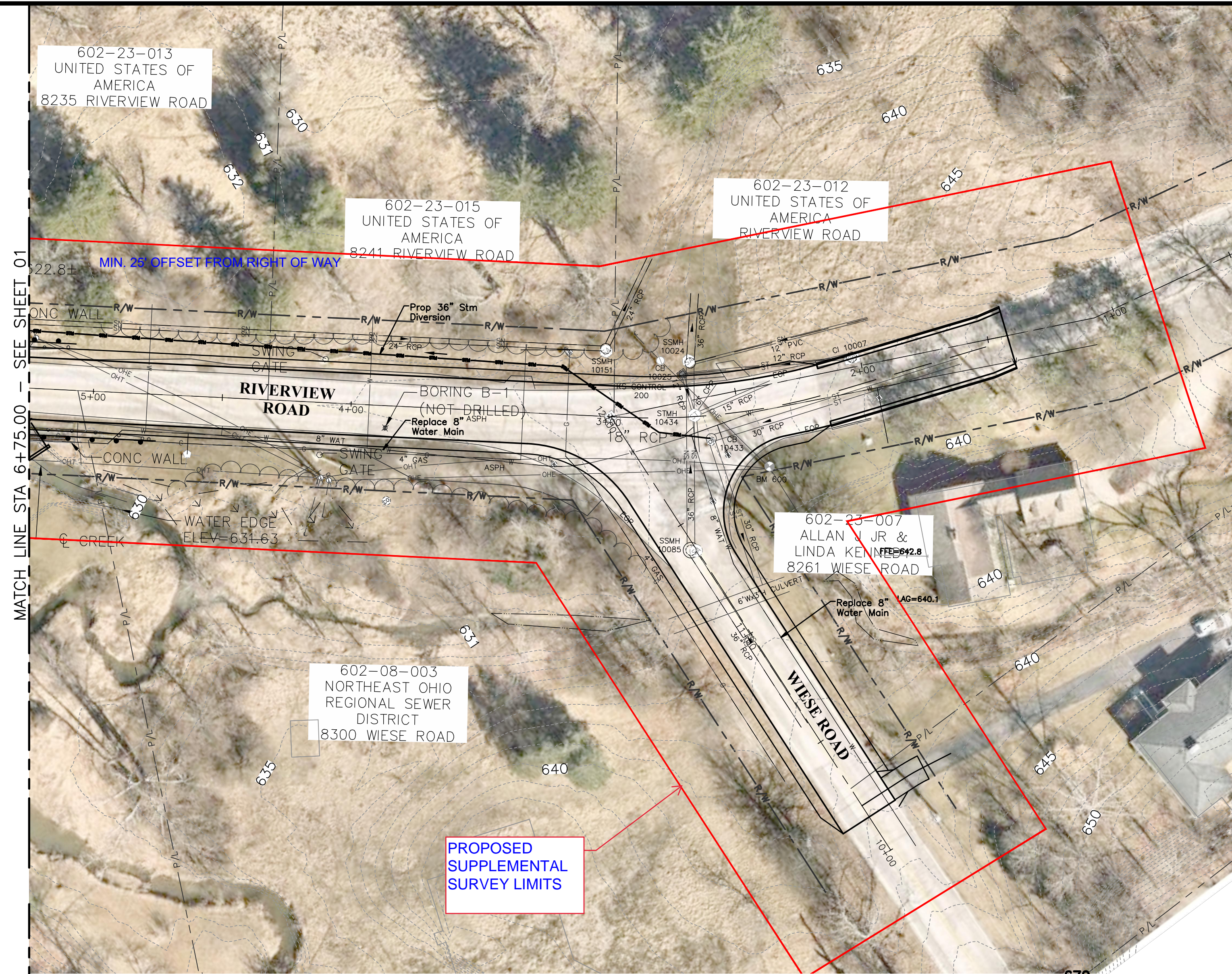
EMHT
 Evans, Mechwart, Hamilton & Tilton, Inc.
 Engineers • Surveyors • Planners • Scientists
 5500 New Albany Road, Columbus, OH 43054
 Phone: 614.775.4500 Toll Free: 888.775.3648
 emht.com

Northeast Ohio Regional Sewer District

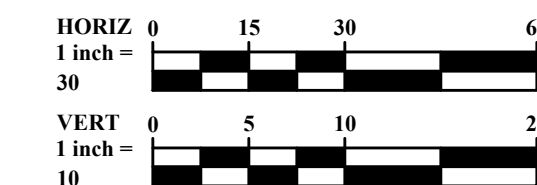
EXHIBIT 5-3: RIVERVIEW ROAD

BRECKSVILLE, CUYAHOGA COUNTY, OHIO
 CONCEPT PLAN
 FOR
PROJECT 1635: FLOOD REDUCTION AT RIVERVIEW ROAD IN BRECKSVILLE

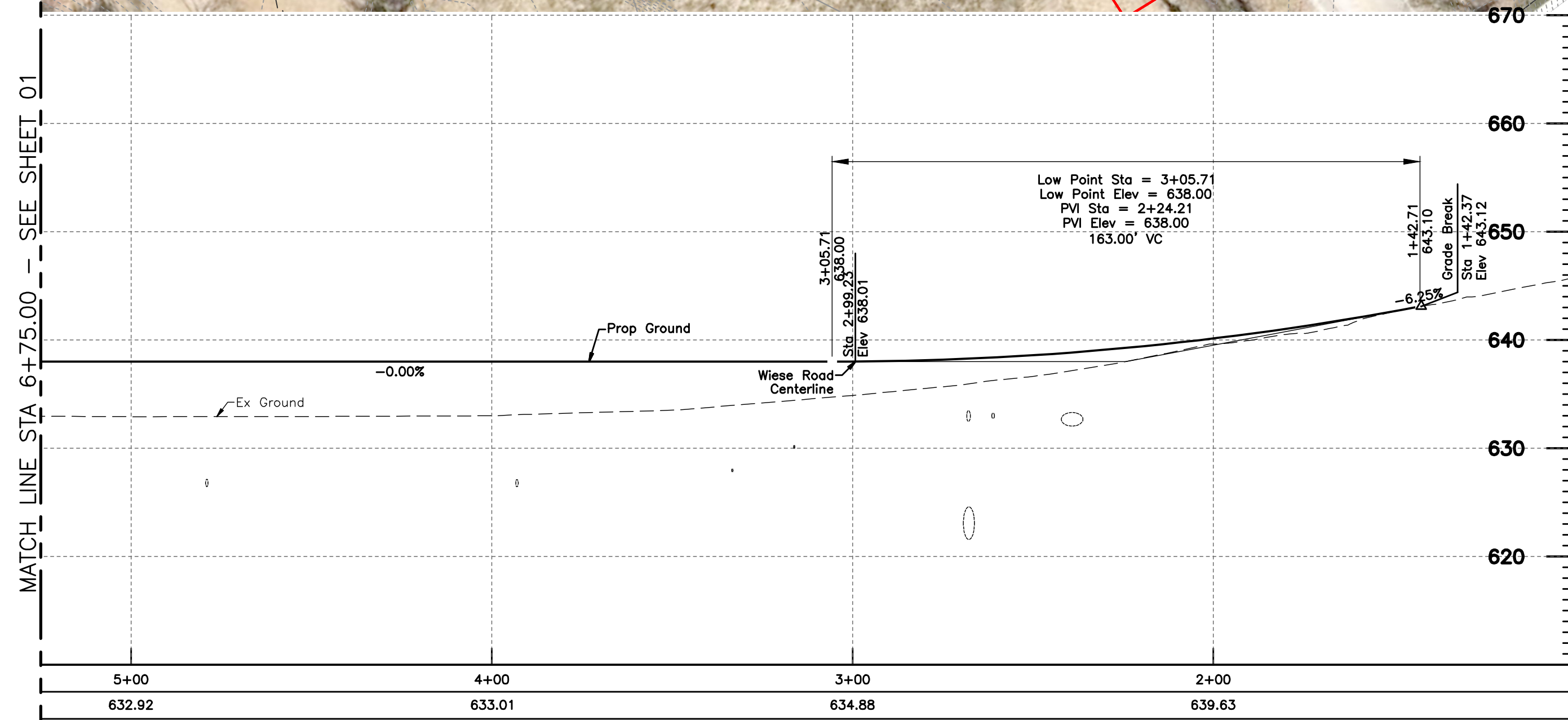
DATE	May 2022	JOB NO.	2021-0275
SCALE	Horiz: 1" = 30' Vert: 1" = 10'	SHEET	01/02



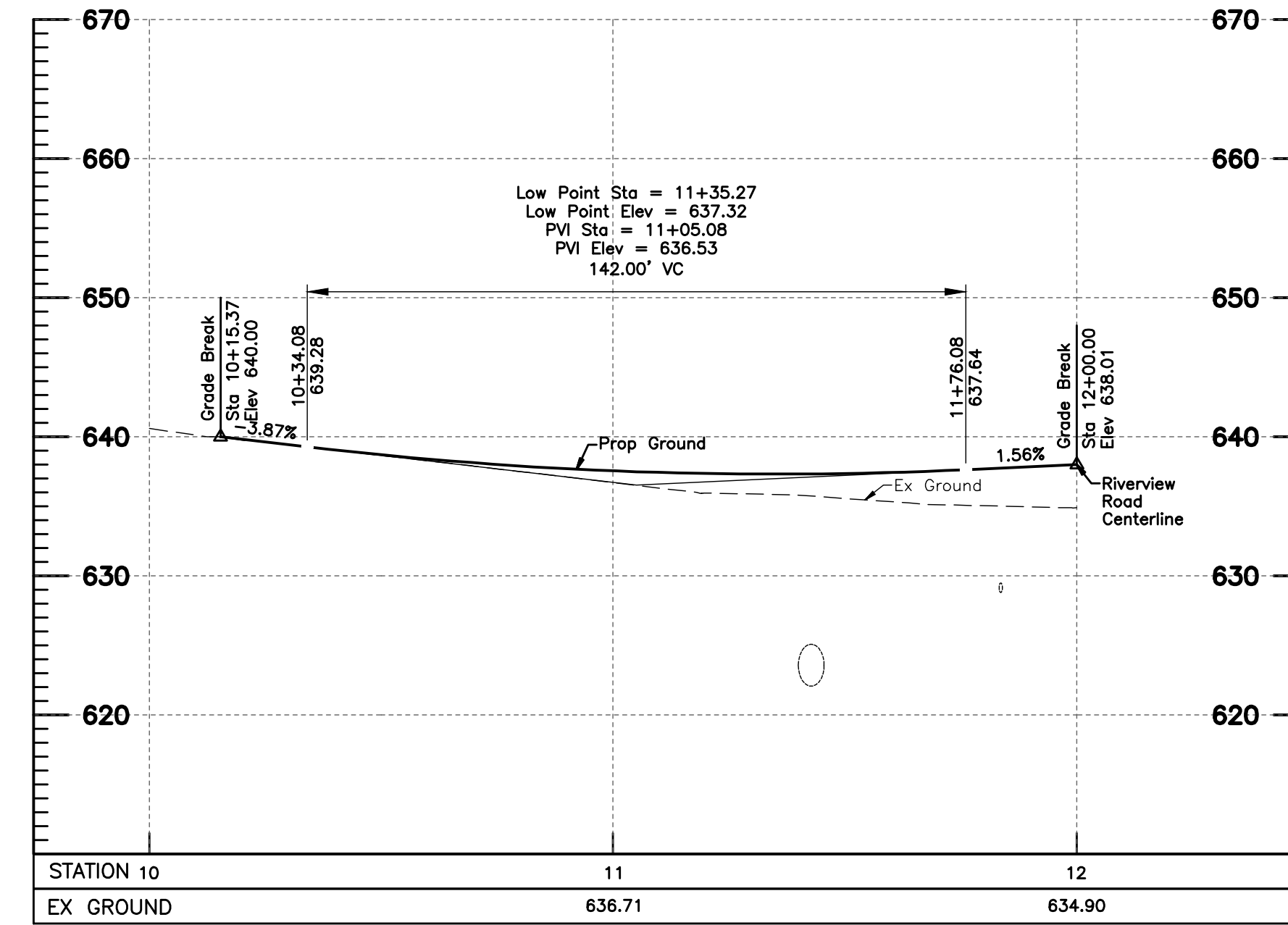
GREENHAVEN PARKWAY PROFILE



PRELIMINARY
 NOT TO BE USED FOR CONSTRUCTION
 PLAN SET DATE
 August 2022



RIVERVIEW ROAD PROFILE



WISE ROAD PROFILE

REVISIONS		
MARK	DATE	DESCRIPTION



EXHIBIT 5-3: RIVERVIEW ROAD

BRECKSVILLE, CUYAHOGA COUNTY, OHIO
 CONCEPT PLAN
 FOR
**PROJECT 1635: FLOOD REDUCTION
 AT RIVERVIEW ROAD IN
 BRECKSVILLE**

DATE May 2022	JOB NO. 2021-0275
SCALE Horiz: 1" = 30' Vert: 1" = 10'	SHEET 02/02

November 7, 2022

EMH&T Engineers, Surveyors, Planners, Scientists
5500 New Albany Road
Columbus, Ohio 43054

Attention: Mr. Shawn Arden, PE, CFM
Municipal Services Manager, Principal
Water Resources Engineering

Reference: Proposal for Additional Geotechnical Engineering - Updated
NEORS D GES3-1497H – Task Order No. 2
Riverview Road Updates-Culverts
Brecksville, Cuyahoga County, Ohio
NEORS D Project No. 1635

CTL Proposal No. 21050013CLE-PA

Mr. Arden:

In response to your request, CTL Engineering (CTL) is pleased to submit this proposal for Geotechnical engineering services for the above referenced project. Task order number 2 additional services consists of the followings:

- Update roadway pavement section design and CBR
- Update recommendations for roadway subgrade stabilization
- Foundation design recommendations for the proposed culvert groups.
- Provide findings in updated Geotechnical Data Report and Geotechnical Design Memo.

Scope of Work:

CTL plans to advance four (4) soil borings at depths ranging from 30 to 60 feet deep at the proposed culverts. The test borings may be performed using a truck-mounted drill rig. Test borings will be utilized to collect soil samples for visual classification and laboratory testing, identify groundwater levels at the boring locations. Drilling and soil sampling will be performed in accordance with applicable ASTM procedures. Soil samples will be obtained at 2.5-foot intervals in the upper 20 feet and at 5-foot interval thereafter. Soil samples obtained from drilling operation will be visually classified in the field by the drillers then in our laboratories by laboratory personnel under the direct supervision of a geotechnical engineer.

Rock coring is not included in our scope of work. The borings will be used to identify the condition of the existing subsurface soils for the support of the proposed culvert and associated structures.

Anticipated laboratory testing of Split Spoon and Shelby Tube samples will include visual classification and moisture content of all samples, gradation and Atterberg limits of selected samples, direct shear, consolidation, and unconfined compression.

Soil data obtained from field and laboratory testing will be analyzed to determine the existing soil conditions and to develop subsurface models needed for evaluating settlement and bearing capacity for the support of proposed culverts.

Procedure:

CTL services will include the following items:

- A. Mark the soil boring locations (surface elevations by others).
- B. Contact Ohio Utility Protection Services (OUPS) to locate underground utilities. Borings, which are in the area of utilities will be offset and noted on the site plan.
- C. Drill the test borings in the proposed area.
- D. Field and laboratory testing in accordance with ASTM specifications.
- E. Engineering evaluation and reporting to include:
 - A. Geotechnical Data Report (GDR):
 1. General description of site.
 2. Boring logs and soil profile to include:
 - a. Surface elevation at each test boring location.
 - b. Thickness of topsoil fills and subsoil strata.
 - c. Groundwater encountered during drilling, and at completion.
 - d. Standard penetration and moisture content as a function of depth.
 3. Existing subsurface conditions.
 - B. Preliminary Geotechnical Design Memo to include:
 1. Subgrade evaluation and recommendation for pavement design section.
 2. Recommendation for culvert support

COST ESTIMATE

CTL will invoice its services at the following rates:

Field Testing – Soil Borings*

Work Item	Estimated Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	LS	\$1,075.00	\$1,075.00
SPT Sampling (0 to 30 ft.)	120	feet	\$20.00	\$2,400.00
SPT Sampling (30 to 60 ft.)	120	feet	\$22.00	\$2,640.00
Shelby Tubes	2	each	\$120.00	\$240.00
Grout Bore Holes	240	feet	\$7.00	\$1,680.00
Patching	4	each	\$30.00	\$120.00
Traffic Control	4	Day	\$880.00	\$3,520.00
Total Estimated Field Testing				\$11,675.00

* *Subject to minimum daily rate of \$2,000.00*

Laboratory Testing

Work Item	Estimated Quantity	Unit	Unit Cost	Total Cost
Water Content Test and Visual Description	64	each	\$25	\$1,600.00
Size Analysis - Sieve and 4-hour Hydrometer	8	each	\$80	\$640.00
Atterberg Limit Test	8	each	\$80	\$640.00
Soil Unconfined Compression Test	2	each	\$100	\$200.00
Consolidation Test	1	each	\$630	\$630.00
Total Estimated Laboratory Testing				\$3,710.00

Engineering Services

Work Item	Unit	Estimated Quantity	Unit Cost	Total Cost
Manager, P.E.	hr.	8	\$175.89	\$1407.12
Project Engineer, P.E.	hr.	16	\$148.26	\$2,372.16
Staff Engineer	hr.	32	\$87.42	\$2,797.44
CADD Technician	hr.	4	\$66.66	\$266.64
Field Supervisor	hr.	2	\$60.60	\$121.12
Geologist	hr.	8	\$68.18	\$545.44
Administrative	hr.	4	\$51.51	\$206.04
Mileage	mile	120	\$0.52	\$62.40
Total Estimated Engineering				\$7,778.36

Estimated Total Fee: \$23,163.36



Owner Responsibilities:

The owner shall provide all legal right for access. The above fee assumes the field drilling and testing will be performed during typical daylight hours (8 a.m. to 5 p.m.). If additional drilling, sampling, testing, engineering analysis or evaluation beyond that discussed in this proposal is required, we will contact you for authorization prior to performing the additional work. Additional work will be invoiced at the proposed rates.

CONTINGENCIES

This proposal does not include the costs incurred due to any unforeseen conditions. Whenever the actual amount of work will exceed the estimated quantity, the client will be notified and authorization will be obtained, prior to CTL performing additional work. In addition, this information is proprietary and confidential and CTL assumes no responsibility or liability for the reliance hereon or use hereof by anyone other than our Client and their Representatives.

We appreciate the opportunity to submit this proposal and look forward to working with you. If you have any questions or need further information, please contact us.

Sincerely,
CTL ENGINEERING, INC.



Matthew Kairouz, P.E.
Project Manager

FEE PROPOSAL

Project: STORMWATER GES3 1497H: TASK ORDER #11, RIVERVIEW ROAD RAISING
 Location: Brecksville, Ohio
 Date: 11/28/2022
 Firm: EMH&T + Team

Task	Sub-Task	Total Hours	Position: Rate:	Project Manager	Sr Engineer	Engineer II	Engineer I	Engineering Aide	Technician	Sr Env Scientist	Clerical	Labor Costs	Loaded Costs - With Overhead Cost + Profit	Subconsultants	Direct Costs	Total
Task 2A: Draft Design (60%) Design		1121		53	124	156	174	408	186	14	6	\$ 45,279.00	\$ 142,628.85	\$ 74,394.24	\$ 450.00	\$ 217,473.09
KS	Supplemental Field Surveying (including utility coordination) and Basemap Preparation	16		4			4	8				\$ 692.00	\$ 2,179.80	\$ 13,734.41	\$ -	\$ 15,914.21
	Engineering Field Reconnaissance	8			8							\$ 496.00	\$ 1,562.40	\$ -	\$ 150.00	\$ 1,712.40
CTL	Geotechnical Field Investigation and Reports	4		4								\$ 793.80	\$ 23,163.36	\$ -	\$ -	\$ 23,957.16
	Plan Set General Sheets	53		1	4		8	40				\$ 2,031.00	\$ 6,397.65	\$ -	\$ -	\$ 6,397.65
	Roadway Typical Plan and Pavement Sections	30		2	8	8		12				\$ 1,410.00	\$ 4,441.50	\$ -	\$ -	\$ 4,441.50
	Roadway Plan and Profile Sheets	120		4	12	24		40	40			\$ 4,580.00	\$ 14,427.00	\$ -	\$ -	\$ 14,427.00
	Roadway Cross Sections	94		2	8	24		60				\$ 3,826.00	\$ 12,051.90	\$ -	\$ -	\$ 12,051.90
	Erosion and Sediment Control Plans, Notes, Details	18			2	4			12			\$ 632.00	\$ 1,990.80	\$ -	\$ -	\$ 1,990.80
	Roadside Drainage Plans and Details	27		1	4	16			6			\$ 1,209.00	\$ 3,808.35	\$ -	\$ -	\$ 3,808.35
	Post-Construction BMP Calculations	30		2	4			24				\$ 1,214.00	\$ 3,824.10	\$ -	\$ -	\$ 3,824.10
	Local Storm Sewer Design	25		1	2	6		16				\$ 1,023.00	\$ 3,222.45	\$ -	\$ -	\$ 3,222.45
	Culvert and Headwall Structural Design, Plans and Details	460			8	62	110	160	120			\$ 16,588.00	\$ 52,252.20	\$ -	\$ -	\$ 52,252.20
	Culvert Hydraulic Calculation Update (HY-8 and PCSWMM)	26		2	4		20					\$ 1,174.00	\$ 3,698.10	\$ -	\$ -	\$ 3,698.10
	Address PCSWMM SWMMMDM Comments Received 11/14/22	26		2	24							\$ 1,614.00	\$ 5,084.10	\$ -	\$ -	\$ 5,084.10
CVE	Watermain Plans, Profile, and Details	0										\$ -	\$ -	\$ 15,027.47	\$ -	\$ 15,027.47
	Restoration Plans and Details	35		1	2		8	24				\$ 1,347.00	\$ 4,243.05	\$ -	\$ -	\$ 4,243.05
	Draft Detour Plan	12		1	3				8			\$ 465.00	\$ 1,464.75	\$ -	\$ -	\$ 1,464.75
	Summary Design Memorandum	32		4	8		20					\$ 1,548.00	\$ 4,876.20	\$ -	\$ -	\$ 4,876.20
	Technical Specifications TOC & Bid Items	6			2		4					\$ 284.00	\$ 894.60	\$ -	\$ -	\$ 894.60
	QC Report	4		4								\$ 252.00	\$ 793.80	\$ -	\$ -	\$ 793.80
	Engineers Opinion of Probable Construction Costs (Class 4)	24		2	2	12		8				\$ 1,082.00	\$ 3,408.30	\$ -	\$ -	\$ 3,408.30
	Stakeholder Coordination	16		8	8							\$ 1,000.00	\$ 3,150.00	\$ -	\$ -	\$ 3,150.00
	Submit and Review Draft Design Plan with NEORS	14		4	4			4				\$ 692.00	\$ 2,179.80	\$ -	\$ 100.00	\$ 2,279.80
	Submit and Review Draft Design Plan to Utilities	8		1	2			3				\$ 344.00	\$ 1,083.60	\$ -	\$ 100.00	\$ 1,183.60
	Submit and Review Draft Design Plan to City, County, and National Park Service	8		1	2			3				\$ 344.00	\$ 1,083.60	\$ -	\$ 100.00	\$ 1,183.60
	Section 404 Nationwide Permit Application - PCN, cover letter, In-water work waiver	12			2					10		\$ 594.00	\$ 1,871.10	\$ -	\$ -	\$ 1,871.10
	Responding to Agency Comments on NWP Application	5			1					4		\$ 250.00	\$ 787.50	\$ -	\$ -	\$ 787.50
KS	Prepare Legal Descriptions for Easements	8		2				6				\$ 336.00	\$ 1,058.40	\$ 22,469.00	\$ -	\$ 23,527.40
Task 2B: Final Draft (90%) Design		524		29	110	122	46	151	60	0	6	\$ 23,160.00	\$ 72,954.00	\$ 11,476.37	\$ -	\$ 84,430.37
	Prepare Final Draft Plans addressing District comments - EMH&T Water Resources	44		8	8			28				\$ 1,980.00	\$ 6,237.00	\$ -	\$ -	\$ 6,237.00
	Prepare Final Draft Plans addressing District comments - EMH&T Roadway	220			40	60		60	60			\$ 8,960.00	\$ 28,224.00	\$ -	\$ -	\$ 28,224.00
	Prepare Final Draft Plans addressing District comments - EMH&T Structural	128		2	18	32	44	32				\$ 5,594.00	\$ 17,621.10	\$ -	\$ -	\$ 17,621.10
CVE	Prepare Final Draft Plans addressing District comments - CVE Water Main	0										\$ -	\$ -	\$ 11,476.37	\$ -	\$ 11,476.37
	Stakeholder Coordination	12		4	8							\$ 748.00	\$ 2,356.20	\$ -	\$ -	\$ 2,356.20
	Prepare Technical Specifications	24			12	12						\$ 1,296.00	\$ 4,082.40	\$ -	\$ -	\$ 4,082.40
	Prepare Draft Bid Book (Volumes 1, 2 and 3)	26		2	16			4			4	\$ 1,362.00	\$ 4,290.30	\$ -	\$ -	\$ 4,290.30
	Engineers Opinion of Probable Construction Costs (Class 3)	18		2	2	10		4				\$ 850.00	\$ 2,677.50	\$ -	\$ -	\$ 2,677.50
	Summary Design Memorandum, including est. construction schedule	16		8				8				\$ 784.00	\$ 2,469.60	\$ -	\$ -	\$ 2,469.60
	Prepare Draft SWPPP	12				4		8				\$ 464.00	\$ 1,461.60	\$ -	\$ -	\$ 1,461.60
	Submit Final Draft Plans to the District and City/Design Review Meeting	8		1	2			3			2	\$ 344.00	\$ 1,083.60	\$ -	\$ -	\$ 1,083.60
	Respond to NEORS and City Review Comments	16		2	4	4	2	4				\$ 778.00	\$ 2,450.70	\$ -	\$ -	\$ 2,450.70
Task 2C: Final Design Plans		237		24	55	40	18	78	20	0	2	\$ 10,804.00	\$ 34,032.60	\$ 4,073.00	\$ -	\$ 38,105.60
	Finalize Design Plans - EMH&T Water Resources	36		8	8			20				\$ 1,700.00	\$ 5,355.00	\$ -	\$ -	\$ 5,355.00
	Finalize Design Plans - EMH&T Roadway	76			16	20		20	20			\$ 3,152.00	\$ 9,928.80	\$ -	\$ -	\$ 9,928.80
	Finalize Design Plans - EMH&T Structural	60		2	8	16	18	16				\$ 2,638.00	\$ 8,309.70	\$ -	\$ -	\$ 8,309.70
CVE	Finalize Design Plans - CVE Water Main	0										\$ -	\$ -	\$ 4,073.00	\$ -	\$ 4,073.00
	Finalize Bid Book (Volumes 1, 2 and 3)	24		2	16			4			2	\$ 1,310.00	\$ 4,126.50	\$ -	\$ -	\$ 4,126.50
	Finalize Summary Design Memorandum	8		2				6				\$ 336.00	\$ 1,058.40	\$ -	\$ -	\$ 1,058.40
	Engineers Opinion of Probable Construction Costs (Class 2)	6		1	1	2		2				\$ 287.00	\$ 904.05	\$ -	\$ -	\$ 904.05
	Submit and Review Final Design Plans with NEORS	6		6								\$ 378.00	\$ 1,190.70	\$ -	\$ -	\$ 1,190.70
	Finalize SWPPP	7		1		2		4				\$ 295.00	\$ 929.25	\$ -	\$ -	\$ 929.25
	Finalize Revisions Prior to DOW Signature	14		2	6	0		6				\$ 708.00	\$ 2,230.20	\$ -	\$ -	\$ 2,230.20
Totals		1882		106	289	318	238	637	266	14	14	\$ 79,243.00	\$ 249,615.45	\$ 89,943.61	\$ 450.00	\$ 340,009.06