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Public Works

City Transit
263-8152

MEMORANDUM

Equipment Maintenance
Roadway Maintenance
Collection & Drainage
Building & Grounds
Engineering

To: Brian Stineman, Public Works Director
FROM: Jim Edgmond, City Engineer
DATE: November 01, 2017
RE: Grandview Ave. from Green Street to Dick Drake Way Project
Award of Final Design Contract

INTRODUCTION:

Grandview Avenue from Green Street to Dick Drake Way has been designated for construction by the City in fiscal year 2019-2020. Federal and State Funds are anticipated to be used for this project and it is anticipated that this project will be let for construction through the Iowa DOT STP letting process. Prior to this design work the project corridor has been through the National Environmental Policy Act (NEPA) review and received a categorical exclusion (CAT EX). The next step is to award the final design contract.

BACKGROUND:

The City selected Bolton-Menk for the Grandview final design to keep consistent with the Mississippi Drive Project and keep the same team for the negotiation of issues with the Canadian Pacific RR that was successful with negotiations on Mississippi Drive Corridor Project. Over the last four months the city has negotiated scope and fee with the consultant and the attached professional services agreement is the result of this effort.

Based upon the preliminary design and the CAT EX the estimate cost of this project construction is \$10,000,000.00. The consultant's fee for this work is shown in the agreement at \$1,058,951.00. Part of the consultant's fee is to review all relevant additional sources of revenue that can be pursued for this project. It is the intent of this contract to match the project scope with the funding available for the project.

Award of Final Design for Grandview Avenue:

The total cost of this professional services agreement is \$1,058,951.00. The agreement has been reviewed by Public Works staff and is recommended to the City Council for approval. Items are excluded in this agreement and will be additional costs to the city should we decide the extra work is needed. Those items are:

- Soil drilling and sampling and analysis.
- Street Lighting Design

**"I remember Muscatine for its sunsets. I have never seen any
on either side of the ocean that equaled them" — Mark Twain**

- Property acquisition and associated surveying

RECOMMENDATION/RATIONALE:

Staff recommends city council approve this professional services agreement with Bolton Menk in the amount of \$1,058,951.00.

BACKUP INFORMATION:

1. Agreement is on file with the City Administrators office.

AGREEMENT FOR PROFESSIONAL SERVICES GRANDVIEW AVENUE CORRIDOR RECONSTRUCTION

CITY OF MUSCATINE, IOWA

This Agreement, made this ____ day of November, 2017, by and between the City of Muscatine, hereinafter referred to as CLIENT, and Bolton & Menk, Inc., 309 E. 5th Street – Suite 202, Des Moines, IA 50309, hereinafter referred to as CONSULTANT.

WITNESS, whereas the CLIENT intends to employ professional services required in conjunction with the Grandview Avenue Reconstruction Project, and

WHEREAS, the CONSULTANT agrees to furnish the various professional services required by the CLIENT.

NOW, THEREFORE, in consideration of the mutual covenants and promises between the parties hereto, it is agreed:

SECTION I - CONSULTANT'S SERVICES

- A. The CONSULTANT agrees to perform the various Basic Services and Construction Phase Services as requested in connection with the specific project as described in Section I.A and Section I.B. of Exhibit I.
- B. Upon mutual agreement of the parties hereto, Additional Services may be authorized as described in Section I.C. of Exhibit I.
- C. The CONSULTANT shall serve as the CLIENT'S professional engineering representative as described herein.

SECTION II - THE CLIENT'S RESPONSIBILITIES

- A. The CLIENT shall promptly compensate the CONSULTANT in accordance with Section III of this Agreement.
- B. The CLIENT shall place any and all previously acquired information in its custody at the disposal of the CONSULTANT for its use. Such information shall include but shall not be limited to boundary surveys, topographic surveys, preliminary sketch plan layouts, building plans, soil surveys, abstracts, deed descriptions, tile maps and layouts, aerial photos, utility agreements, environmental reviews, zoning limitation. The CONSULTANT may rely upon the accuracy and sufficiency of all such information in performing services unless otherwise instructed, in writing, by CLIENT.
- C. The CLIENT will assist in providing access to and make all provisions for entry upon both public and private portions of the project and pertinent adjoining properties.
- D. The CLIENT will give prompt notice to the CONSULTANT whenever the CLIENT observes or otherwise becomes aware of any defect in the proposed project.
- E. The CLIENT shall designate a liaison person to act as the CLIENT'S representative with respect to services to be rendered under this Agreement. Said representative shall have the authority to transmit

instructions, receive instructions, receive information, interpret and define the CLIENT'S policies with respect to the project and CONSULTANT'S services.

- F. The CLIENT shall provide such legal, accounting, independent cost estimating and insurance counseling services as may be required for completion of contract documents and other CONSULTANT services not included in this Agreement.
- G. The CLIENT will hire, when requested by the CONSULTANT, an independent testing company to perform laboratory and material testing services, and soil investigations that can be justified for the proper design of the project. The CONSULTANT shall assist the CLIENT in selecting a testing company. Payment for testing services shall be made directly to the testing company by the CLIENT and is not part of this Agreement.
- H. The CLIENT shall give prompt and thorough consideration of all reports, sketches, estimates, drawings, specifications, proposals and other documents submitted to the CLIENT by the CONSULTANT, and shall inform the CONSULTANT of all decisions within a reasonable time so as not to delay the work.
- I. The CLIENT shall be responsible for issuing all legal notices, holding all required special meetings, receiving and acting upon protests, and fulfilling all requirements necessary in legal development of the projects as well as paying all costs incidental thereto.

SECTION III - COMPENSATION FOR SERVICES

A. SCHEDULE OF FEES

- 1. The following schedule of fees is based upon competent and responsible engineering and surveying services, and are the minimum rates, below which adequate professional standards cannot be maintained. It is, therefore, to the advantage of both the CONSULTANT and CLIENT that fees be commensurate with the service rendered.

Sr. Project Manager-Principal Engineer/Surveyor	\$120-150/Hour
Sr. Project Manager - Associate Engineer/Surveyor	\$100-150/Hour
Project Manager (incl. Landscape Architect)	\$100-145/Hour
Project/Design Engineer/Planner/Landscape Architect	\$60-135/Hour
Licensed Surveyor	\$70-135/Hour
Project Surveyor	\$60-100/Hour
Specialist (Nat. Resources, GIS, Traffic, Other).....	\$70-120/Hour
Senior Technician (incl. Survey ¹)	\$70-145/Hour
Technician (incl. Survey ¹)	\$50-90/Hour
Administrative Support & Clerical	\$35-80/Hour
GPS/Robotic Survey Equipment	No Charge
AutoCAD/Computer Time	No Charge
Office Supplies.....	No Charge
Photo Copying/Reproduction	No Charge
Field Supplies/Survey Stakes & Equipment.....	No Charge
Mileage.....	No Charge

¹ No separate charges will be made for GPS or robotic total stations. The cost of this equipment is included in the rates for Survey Technician.

Charges are based on hours spent at hourly rates in effect for the individuals performing the work. The hourly rates for principals, associates and members of the staff vary according to skill and experience.

These rates include an overhead factor that accounts for federal and state taxes and required benefits, as well as insurance, office expenses and profit. In addition, the overhead factor includes vehicle and personal expenses, stakes and supplies as noted above. Unusual expenses, such as large quantities of prints, outside professional assistance and other items of this general nature, will be billed out separately. Overtime shall not result in additional costs to the CLIENT, but shall be billed at normal hourly rates.

2. Total cost for the Basic Services, as itemized under Section I.A. of EXHIBIT I shall not exceed \$1,058,951.00.
3. The payment to the CONSULTANT will be made by the CLIENT upon billing at intervals not more often than monthly.

SECTION IV - GENERAL

A. STANDARD OF CARE

Professional services provided under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the Consultant's profession currently practicing under similar conditions. No warranty, express or implied, is made.

B. CHANGE IN PROJECT SCOPE

In the event the CLIENT changes or is required to change the scope of the project from that described in Section I and/or the applicable addendum, and such changes require Additional Services by the CONSULTANT, the CONSULTANT shall be entitled to additional compensation at the applicable hourly rates. Changes requested by the CLIENT will be communicated to the CONSULTANT in writing. The CONSULTANT shall give written notice to the CLIENT of any Additional Services, prior to furnishing such additional services. The CLIENT may request an estimate of additional cost from the CONSULTANT, and upon receipt of the request, the CONSULTANT shall furnish such, prior to authorization of the changed scope of work.

C. LIMITATION OF LIABILITY

CONSULTANT shall indemnify, defend, and hold harmless CLIENT and its officials, agents and employees from any loss, claim, liability, and expense (including reasonable attorneys' fees and expenses of litigation) arising from, or based in the whole, or in any part, on any negligence act or omission by CONSULTANT'S employees, agents, or subconsultants. In no event shall CLIENT be liable to CONSULTANT for consequential, incidental, indirect, special, or punitive damages.

CLIENT shall indemnify, defend, and hold harmless CONSULTANT and its employees from any loss, claim, liability, and expense (including reasonable attorneys' fees and expenses of litigation) arising from, or based in the whole, or in any part, on any negligence act or omission by CLIENT'S employees, agents, or consultants. In no event shall CONSULTANT be liable to CLIENT for consequential, incidental, indirect, special, or punitive damages.

Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the CLIENT or the CONSULTANT. The CONSULTANT'S services under this Agreement are being performed solely for the CLIENT'S benefit, and no other entity shall have any claim against the CONSULTANT because of this Agreement or the performance or nonperformance of services hereunder. The CLIENT agrees to include a provision in all contracts with contractors and other entities involved in this project to carry out the intent of the paragraph.

D. INSURANCE

The CONSULTANT agrees to maintain, at the CONSULTANT'S expense, statutory worker's compensation coverage.

The CONSULTANT also agrees to maintain, at CONSULTANT'S expense, general liability insurance coverage insuring CONSULTANT against claims for bodily injury, death or property damage arising out of CONSULTANT'S general business activities (including automobile use). The liability insurance policy shall provide coverage for each occurrence in the minimum amount of \$1,000,000.

During the period of design and construction of the project, the CONSULTANT also agrees to maintain, at CONSULTANT'S expense, Professional Liability Insurance coverage insuring CONSULTANT against damages for legal liability arising from an error, omission or negligent act in the performance of professional services required by this agreement, providing that such coverage is reasonably available at commercially affordable premiums. For purposes of this agreement, "reasonably available" and "commercially affordable" shall mean that more than half of the design professionals practicing in this state in CONSULTANT'S discipline are able to obtain coverage. The professional liability insurance policy shall provide coverage for each occurrence in the amount of \$1,000,000 and annual aggregate of \$1,000,000 on a claims-made basis.

Upon request of CLIENT, CONSULTANT shall provide CLIENT with certificates of insurance, showing evidence of required coverages.

E. OPINIONS OR ESTIMATES OF CONSTRUCTION COST

Where provided by the CONSULTANT as part of Exhibit I or otherwise, opinions or estimates of construction cost will generally be based upon public construction cost information. Since the CONSULTANT has no control over the cost of labor, materials, competitive bidding process, weather conditions and other factors affecting the cost of construction, all cost estimates are opinions for general information of the CLIENT and the CONSULTANT does not warrant or guarantee the accuracy of construction cost opinions or estimates. The CLIENT acknowledges that costs for project financing should be based upon contracted construction costs with appropriate contingencies.

F. CONSTRUCTION SERVICES

It is agreed that the CONSULTANT and its representatives shall not be responsible for the means, methods, techniques, schedules or procedures of construction selected by the contractor or the safety precautions or programs incident to the work of the contractor.

G. USE OF ELECTRONIC/DIGITAL DATA

Because of the potential instability of electronic/digital data and susceptibility to unauthorized changes, copies of documents that may be relied upon by CLIENT are limited to the printed copies (also known as hard copies) that are signed or sealed by CONSULTANT. Except for electronic/digital data which is specifically identified as a project deliverable by this AGREEMENT or except as otherwise explicitly provided in this AGREEMENT, all electronic/digital data developed by the CONSULTANT as part of the PROJECT is acknowledged to be an internal working document for the CONSULTANT'S purposes solely and any such information provided to the CLIENT shall be on an "AS IS" basis strictly for the convenience of the CLIENT without any warranties of any kind. As such, the CLIENT is advised and acknowledges that use of such information may require substantial modification and independent verification by the CLIENT (or its designees). Provision of electronic/digital data, whether required by this Agreement or provided as a convenience to the Client, does not include any license of software or other systems necessary to read, use or reproduce the information. It is the responsibility of the CLIENT to verify compatibility with its system and long-term stability of media. CLIENT shall indemnify and hold harmless CONSULTANT and its Subconsultants from all claims, damages, losses, and expenses, including attorneys' fees arising out of or resulting from third party use or any adaptation or distribution of electronic/digital data provided under this AGREEMENT, unless such third party use and adaptation or distribution is explicitly authorized by this AGREEMENT.

H. REUSE OF DOCUMENTS

Drawings and Specifications and all other documents (including electronic and digital versions of any documents) prepared or furnished by CONSULTANT pursuant to this AGREEMENT are instruments of service in respect to the Project and CONSULTANT shall retain an ownership interest therein. Upon payment of all fees owed to the CONSULTANT, the CLIENT shall acquire an ownership interest in all identified deliverables, including Plans and Specifications, for any reasonable use relative to the Project and the general operations of the CLIENT. CLIENT may make and disseminate copies for information and reference in connection with the use and maintenance of the Project by the CLIENT. However, such documents are not intended or represented to be suitable for reuse by CLIENT or others on extensions of the Project or on any other project and any reuse other than that specifically intended by this AGREEMENT will be at CLIENT'S sole risk and without liability or legal exposure to CONSULTANT.

I. CONFIDENTIALITY

CONSULTANT agrees to keep confidential and not to disclose to any person or entity, other than CONSULTANT'S employees and subconsultants any information obtained from CLIENT not previously in the public domain or not otherwise previously known to or generated by CONSULTANT. These provisions shall not apply to information in whatever form that comes into the public domain through no fault of CONSULTANT; or is furnished to CONSULTANT by a third party who is under no obligation to keep such information confidential; or is information for which the CONSULTANT is required to provide by law or authority with proper jurisdiction; or is information upon which the CONSULTANT must rely for defense of any claim or legal action.

J. PERIOD OF AGREEMENT

This Agreement will remain in effect for the longer of a period of two years or such other explicitly identified completion period, after which time the Agreement may be extended upon mutual agreement of both parties.

K. PAYMENTS

If payment on any of the CONSULTANT'S invoices is not received within thirty days after date of the invoice, a service charge of two-third of one percent (0.67%) per month will be charged on any unpaid balance.

L. TERMINATION

This Agreement may be terminated by either party for any reason or for convenience by either party upon seven (7) days written notice.

In the event of termination, the CLIENT shall be obligated to the CONSULTANT for payment of amounts due and owing including payment for services performed or furnished to the date and time of termination, computed in accordance with Section III of this Agreement. Consultant shall provide data completed up until date of termination.

M. CONTINGENT FEE

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift or any other consideration, contingent upon or resulting from award or making of this Agreement.

N. NON-DISCRIMINATION

The provisions of any applicable law or ordinance relating to civil rights and discrimination shall be considered part of this Agreement as if fully set forth herein.

The CONSULTANT is an Equal Opportunity Employer and it is the policy of the CONSULTANT that all employees, persons seeking employment, subcontractors, subconsultants and vendors are treated without regard to their race, religion, sex, color, national origin, disability, age, sexual orientation, marital status, public assistance status or any other characteristic protected by federal, state or local law.

O. CONTROLLING LAW

This Agreement is to be governed by the law of the State of Minnesota.

P. DISPUTE RESOLUTION

CLIENT and CONSULTANT agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice of dispute prior to proceeding to formal dispute resolution or exercising their rights under law. Any claims or disputes unresolved after good faith negotiations shall first be submitted to mediation by Minnesota General Rules of Practice 114 prior to exercising their rights of law.

Q. SURVIVAL

All obligations, representations and provisions made in or given in Section IV of this Agreement will survive the completion of all services of the CONSULTANT under this Agreement or the termination of this Agreement for any reason.

R. SEVERABILITY

Any provision or part of the Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon CLIENT and CONSULTANT, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

The remainder of this page is intentionally left blank.

SECTION V - SIGNATURES

THIS INSTRUMENT embodies the whole agreement of the parties, there being no promises, terms, conditions or obligation referring to the subject matter other than contained herein.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in their behalf.

CLIENT: City of Muscatine, Iowa

CONSULTANT: Bolton & Menk, Inc.

By: _____

Printed Name

Signature: _____

Title: _____

Date: _____

By: Bradley C. DeWolf, P.E.

Printed Name

Signature: _____

Title: President

Date: _____

And: _____

Printed Name

Signature: _____

Title: _____

Date: _____

EXHIBIT I

PROJECT RELATED SERVICES BY CONSULTANT

MISSISSIPPI DRIVE CORRIDOR RECONSTRUCTION CITY OF MUSCATINE, IOWA

DESCRIPTION OF PROPOSED PROJECT

The scope of services is based on the following project limits and assumed construction program:

The corridor improvements are the Grandview Avenue Corridor between the Hwy 61 Bypass/Dick Drake Way and the transition of Green Street with Grandview Avenue (Approximately 2.18 miles in total length)

- Complete reconstruction of the existing street and sidewalk surface. It is anticipated that the final streetscape plan may include changing the current lane configuration, possible roundabout at S Houser/Sampson St. intersection, adding sidewalks in certain areas, median and boulevard landscaping where permitted, decorative hardscape treatments, decorative sidewalk treatments at critical intersections.
- Incorporate Complete Streets objectives, where applicable, in accordance with the City of Muscatine's Complete Street Policy and within the confines of the approved Environmental Assessment for the project corridor.
- Provide opportunities for incorporating Stormwater Management BMPs within the existing limits of the NEPA preliminary design throughout the project and specifically at Brier's Ditch
- Complete reconstruction of the underground storm sewer and minor reconstruction of sanitary sewer and watermain
- Reconstruction of traffic signals at Warren Street intersection depending on results of the traffic study and the proposed roadway widths
- Provide streetscaping elements including: sidewalk/shared use paths, street trees and/or plantings, decorative street lighting, special intersection treatments, site furnishings, and wayfinding signage/monumentation including entry monument/signage at HWY 61 intersection
- Communicate/coordinate with the Canadian Pacific Railway (RAILWAY) regarding proposed improvements at railroad spur crossing and the crossing at Oregon St.
- Promote sustainable design practices for the proposed corridor design
- Coordinate with Muscatine Power and Water for private utilities reconstruction/relocation as part of the project for communications and electrical
- Coordinate with Alliant energy for private reconstruction/relocation as part of the project for gas services.

I.A. BASIC SERVICES

For purposes of this specific project, Basic Services to be provided by the CONSULTANT are as follows:

Task 1 – Project Initiation and Project Management

- A. The CONSULTANT will facilitate a project kick-off meeting with CLIENT Staff to accomplish the following:
 - Introduce CONSULTANT and CLIENT representatives and establish communication protocols
 - Review and confirm the scope of the project
 - Review available information relative to the project
 - Review and discuss specific infrastructure issues and the CLIENT'S current design standards as they relate to the proposed improvements on this project
 - Review and verify project schedules
 - Conduct a field review of project area by CONSULTANT and CLIENT representatives
- B. Up to ten (10) In-person meetings will be held with the CONSULTANT and the CLIENT after the initial kickoff meeting. These meetings will discuss findings, issues, schedule, and needs to keep the project progressing.
- C. The CONSULTANT will provide project and contract administration services throughout the duration of the project.
- D. The CONSULTANT will facilitate project communication throughout the duration of the project.

Task 2 – Review Previously Prepared Plans and Reports

- A. The CONSULTANT will complete an in depth review of the previously completed Greening America's Communities planning study and the Preliminary Design Documents prepared for the Grandview Avenue corridor environmental assessment, among other available information pertinent to the corridor design. The review will validate the plan's strengths, identify discrepancies and technical issues, and develop a road map that, along with stakeholder/public input and consensus building, will form the basis for preliminary design documentation.
- B. The CONSULTANT will prepare a report of the review with recommendations on the strengths and weaknesses of the design concepts, technical challenges in implementing the design concepts, and long term maintenance issues associated with the plan and estimated costs associated with implementation.

Task 3 – Public Involvement and Stakeholder Input

- A. Stakeholder and Public Informational Meetings and Communications
 - 1. The CONSULTANT will organize and conduct stakeholder interviews to directly solicit input. It is anticipated that there will be up to three (3) stakeholder information meetings. One of the three (3) meetings shall be at the 60% final design stage as a final check prior to implementing design. It is assumed that multiple stakeholders may attend the same meeting. The CLIENT will assist the CONSULTANT in creating a list of stakeholders. Potential stakeholders may include but are not limited to the following:

- a. Business/Property Owners
 - b. Community Development Leaders
 - c. Muscatine Power and Water
2. The CONSULTANT will organize and conduct up to two (2) public informational meetings and one City Council workshop session during the project development of the streetscape as follows:
- a. Public Meeting 1 – The first public informational meeting will be conducted early in the project development process in order to introduce the community to the general nature of the project and to gather information and ideas from the community. At the meeting the CONSULTANT will introduce preliminary concepts, inventory and analysis of the corridor and preliminary issues and opportunities that may influence the preliminary/final design.
 - b. Public Meeting 2 – This meeting will take place near the completion of preliminary design to inform the community on the general design direction for the project and collect input influencing final design. The CONSULTANT will allow the community an opportunity to react to the various design options and verify the design direction.
 - c. City Council Workshop Session – Near 60% final design, the CONSULTANT will lead a Council workshop session to inform City Council on the direction of the project and confirm the progress to date aligns with the City's expectation for the project.
3. The CONSULTANT will provide project information to property and business owners throughout the development, design, and bidding phases via informational newsletters (mail and email) and project website/social media updates. This will then be developed into a project construction website as a resource for construction updates.
4. Specific property/business owners may require a more personal approach. The CONSULTANT will conduct up to five (5) "kitchen table" style meetings with those individuals. This is intended to provide a personal approach to addressing specific needs/concerns of those individuals directly impacted by the project.
5. In addition to the "kitchen table" meetings outlined above, the CONSULTANT will meet individually with each business or property owner along the corridor at their place of business to review the proposed streetscape and improvement plans and to discuss potential impacts to their property. The individual property meetings shall take place over two assigned days. If individuals are not able to meet during that two (2) day period, contact information and project informational resources shall be left at their property for them to contact the CONSULTANT via phone or email at their convenience.
- B. Civil/Emergency Services Coordination Meeting: The CONSULTANT will organize and conduct a coordination meeting with representatives from the police department, sheriff's department, highway patrol, fire department, ambulance service, refuse/recycling providers, postal service and other service providers that may be impacted by the proposed improvements or construction activities. The purpose of this meeting is to identify and discuss any issues that need to be addressed in the project design or construction staging such that provisions are made to

maintain adequate services during and after construction.

- C. Pre-Construction Informational Meeting: The CONSULTANT will organize and conduct a public informational meeting after the contract is awarded and before construction commences.

Task 4 – Data Collection

- A. The CONSULTANT will collect topographic survey of the entire project as described below:
 - 1. East of the intersection of Grandview and Dick Drake Way along Grandview to Intersection of Grandview and Mill Street including 100' along each side street along the route.
 - a. Horizontal and vertical location of existing surface improvements
 - b. Horizontal and vertical location of CLIENT utilities – sanitary sewer, watermain and storm sewer
 - c. Locate the front of adjacent buildings and collect detailed horizontal and vertical measurements on building entrances and awnings/overhangs within the corridor. This will include locations of underground basement vaults.
 - d. Locate private utilities (natural gas, telephone, CATV, electric, etc) based on field marking or other information from utility owners
 - 2. The CONSULTANT will compile a photo and video record of the project areas.
 - 3. It is assumed that the CLIENT will provide snow clearing and removal if necessary for the topographic survey data collection.
- B. The CONSULTANT will identify any necessary easements and/or acquisitions along the project during the design process.
- C. The CONSULTANT will assist CLIENT with definition of a scope of work for the CCTV video investigation of existing storm and sanitary sewers within the project limits. Upon concurrence by the CLIENT on the CCTV video investigation scope of work, the CONSULTANT will assist the CLIENT in soliciting proposals from at least two qualified CCTV video companies. The CONSULTANT will assist the CLIENT in the selection of the CCTV video company to complete the work. It is assumed that the CLIENT will contract with the CCTV video company directly.
- D. The CONSULTANT will prepare a base plan showing the existing surface and subsurface conditions based on the information collected. The base plan will be prepared in a format compatible with the CADD which is proposed to be used for the various project elements.

Task 5 – Traffic Study

- A. Communication and Meetings
This will include communication with the City of Muscatine, as well as other potentially affected interests and jurisdictions, including IADOT, and the corridor businesses. We will attend up to two of the currently proposed meetings to understand existing issues and proposed improvements and to present results.

Deliverables: Meeting notes

B. Traffic Data Collection

Vehicle turning movement counts and pedestrian counts at select intersections will be collected for use in evaluation. This data collection will be limited to the higher volume intersections that are directly impacted along and adjacent to the corridor and select intersections that will impact the evaluation results.:

- Grandview Avenue at US Hwy 61/Dick Drake Way
- Grandview Avenue at Houser Street/Sampson Street
- Grandview Avenue at Warren Street/Oregon Street
- Grandview Avenue at Musser Street
- Grandview Avenue at Bond Street
- Grandview Avenue at Franklin Street

Deliverables: Traffic Counts

C. Existing Capacity and Service Analysis

The traffic volumes collected will be input into a traffic model of the corridor with the existing lanes and traffic control. This evaluation will be completed with the program Synchro/SimTraffic using Highway Capacity Manual procedures. This tool will be able to present two-dimensional traffic simulations. Measures of Effectiveness (MOEs) to be evaluated are average travel speeds, queues, travel times, delay and level of service. This will provide a baseline of existing operations.

Deliverables: Synchro/SimTraffic Existing Corridor Model, Measures of Effectiveness Evaluation

D. Safety Analysis

A safety analysis of the corridor will be completed with the current configuration and the potential conversion configuration. This safety analysis includes a 3-year crash history and evaluation of crash patterns to assist in the lane needs and safety improvement recommendations.

Deliverables: Crash Evaluation

E. Options Capacity and Service Analysis

The corridor will be revised with the proposed lane configurations. This includes development of peak hour volumes redistributed to the revised network as needed. The corridor will be evaluated against the baseline with the same MOE's and acceptable service level limits. The traffic model will be used to understand the impacts to traffic and determine the optimal lane configuration of the corridor and each intersection within the study limits to maintain acceptable service levels. The proposed lane layout and traffic control from the analysis will be coordinated with the concept and preliminary design tasks. Effort will also be completed to look at alternative intersection types and treatments, including signals, roundabouts, and restricted movements.

Deliverables: Redistributed Traffic Volumes, Synchro/SimTraffic Proposed Configuration Corridor Model, Measures of Effectiveness Evaluation

F. Warrants Evaluation

A traffic control warrant analysis will be completed for the following intersections:

- Grandview Avenue at Houser Street/Sampson Street
- Grandview Avenue at Warren Street/Oregon Street

This will be used to determine if the possible traffic control options are warranted based on traffic volumes and/or crash rates. This analysis will require development of 24-hour intersection approach traffic counts based off of collected existing and forecasted data. This data will be coordinated with the data collection efforts of Task B.

Deliverables: Warrant Analysis

G. Summary Report

Provide a summary of the evaluation process and conclusions. This will include both a draft electronic report for review by the City and a final electronic and two hardcopy reports to be incorporated with the preliminary engineering report.

Deliverables: Study Report

Task 6 – Geotechnical Investigation and Analysis Coordination

- A. The SUBCONSULTANT will assist CONSULTANT and CLIENT with definition of a scope of work for the geotechnical exploration program including field investigations and laboratory testing. The geotechnical services for this task shall consist of one activity:
1. Recommend soil boring location and depths with testing requirements to be performed on borings.

Upon concurrence by the CLIENT on the recommended geotechnical exploration program, the SUBCONSULTANT will assist the CONSULTANT and CLIENT in soliciting proposals from at least two (2) qualified geotechnical firms. The SUBCONSULTANT will assist the CONSULTANT and CLIENT in the selection of geotechnical companies to complete the work. It is assumed that the CLIENT will contract with a geotechnical company directly.

- B. Coordination of Geotechnical Subconsultant for Drilling: The SUBCONSULTANT will provide Geotechnical Consultant with coordinates for the locations of borings before the drilling work and SUBCONSULTANT will coordinate with the Geotechnical Subconsultant during drilling regarding adjustments to the boring locations and sampling procedures so that the completed work provides sufficient geotechnical data for use by SUBCONSULTANT.
- C. Assignment and Coordination of Laboratory Testing: The SUBCONSULTANT will review the preliminary results of the drilling and sampling program as it proceeds and will modify the program to gather additional data, as necessary. SUBCONSULTANT will assign, coordinate and perform quality control check of the laboratory testing program and assign additional testing as needed.
- D. Review Boring Logs and Laboratory Testing Data. The SUBCONSULTANT will review the typed boring logs and laboratory test data. Assume approximately 50 borings ranging in depth from 10 to 15 feet.
- E. Development of Soil Design Parameters. The SUBCONSULTANT will develop soil design parameters for use in numerical analyses.
- F. Geotechnical Analyses for Roadway. The SUBCONSULTANT will perform geotechnical analyses for evaluation of the following considerations:
- Evaluation of subgrade stabilization alternatives as needed.

- Vehicular pavement section design using SUDAS guidance (assumes no pervious pavement design).
 - Determination of infiltration rate for design of stormwater infiltration features based on guidance from the Iowa Storm Water Management Manual.
- G. Preparation of Geotechnical Report. The SUBCONSULTANT will prepare a draft geotechnical report summarizing results of field exploration and laboratory testing programs, boring logs, lab test data, subgrade evaluations, pavement section design and soil infiltration rates. This task will include effort to incorporate geotechnical analysis and recommendations into roadway, drainage, water main and sanitary sewer design elements.

Deliverables:

Draft Geotechnical Report: submitted electronically in PDF format

Final Geotechnical Report: submitted electronically in PDF format

Task 7 – Railroad Coordination

- A. The CONSULTANT will facilitate coordination efforts with the Canadian Pacific Railway (CP). Efforts will include coordinating the Grandview reconstruction project design with the existing crossing north of Day Street and Oregon Street. The CONSULTANT assumes up to one (1) combined project site visit and in-person meeting, one (1) separate in-person meetings, and up to two (2) separate conference calls with the CP will be needed to coordinate the proposed improvements for the project. In-person meetings are assumed to be conducted in Muscatine, IA.

Task 8 – Utility Coordination

- A. During the field data collection phase, the CONSULTANT will complete an Iowa One Call to identify the utilities within the project corridor. The SUBCONSULTANT will attend up to two (2) in-person utility coordination meetings with affected utilities to review the proposed construction and identify conflicts and required relocation. Utility coordination will be discussed again at the preconstruction meeting. Additionally, the SUBCONSULTANT will prepare for and conduct up to three (3) conference calls with affected utilities. It is understood that existing utility locations will be taken from as constructed information or as marked in the field and that there will be no excavation for location as part of this scope of services.
- B. The SUBCONSULTANT will prepare public utility tabulations, existing conditions mapping, and project public utility removal plans for inclusion in the construction documents. Locations of identified existing public utilities will be tabulated and anticipated impacts between each of the utilities and the proposed improvements will be summarized. An Existing Utility Tabulation will be prepared and included in the construction plan set.

Task 9 – Watermain Design

- A. Watermain Coordination: The SUBCONSULTANT will coordinate with Muscatine Power & Water (MPW) for water main design at four (4) intersections and up to five hundred (500) feet of additional water main design at location with grade conflicts between the proposed road cross section and existing water main elevation.. The SUBCONSULTANT will organize one (1) in-

person meeting with MPW for design meetings and up to two (2) conference calls with MPW.

- B. **Watermain Design.** The SUBCONSULTANT will complete the detailed design for watermain improvements. It is assumed that all the watermain to be replaced will be sized as directed by Muscatine Power & Water and that no water modeling or sizing is included in the scope of this contract. This task includes preparation of the following plans:
1. Removal plans and tabulations
 2. Plan and profile sheets (1"=20' scale full-size) for watermain improvements
 3. Construction and special structure details
 4. Special Provisions, as necessary
- C. **Watermain Permitting.** The SUBCONSULTANT will complete and submit the Iowa DNR permit for the Watermain.

Deliverables:

30%, 60%, 90%, and Final Plans and Special Provisions, submitted electronically in PDF format.
Iowa DNR permit application for watermain submitted electronically in PDF format.

Task 10 – Preliminary Design Document (30% Design)

- A. The CONSULTANT will prepare preliminary design document for the following infrastructure items:
1. Streetscaping – Incorporate selective streetscaping elements from the Mississippi Drive and EPA Green infrastructure projects for Grandview Avenue from the HWY 61 bypass to the Green Street transition where applicable.
 2. Sidewalk and ADA Improvements
 3. Street and Surface Improvements – Roadway geometric design criteria, curb and sidewalk grades, Americans with Disabilities Act (ADA) compliance and way-finding recommendations.
 4. Storm Sewer – Project area drainage and storm sewer analysis will be conducted to identify recommended storm sewer capacity upgrades and replacements of existing storm drainage infrastructure. Storm sewers are assumed to be separated from sanitary sewers throughout the project area. Alternative recommendations including stormwater BMPs will be utilized where practical.
 5. Sanitary Sewer - Identify, analyze, and review current needs for sanitary sewer. Present recommendations for reuse, rehabilitation and replacement options for mainline sewer and service lines based on a summary of findings from the CCTV video review (see additional services). Identify which sanitary sewer will be reused, rehabilitated, or replaced. The CONSULTANT will locate and inspect sanitary sewer manholes designated for rehabilitation and document findings. A surface anomaly review will be performed to look for areas of distress along the sewer alignment. Review information supplied by the City for the sanitary sewer: age of piping, size and material of piping, break history of piping, history of surcharging of sewers, and other known deficiencies
 6. Watermain – The SUBCONSULTANT will provide a description of the concept watermain replacement plans. It is assumed that all the watermain to be replaced will be sized as directed by Muscatine Power & Water and that no water modeling or sizing is included in the scope of this contract.
 7. Other Utilities – Identification of other utility conflicts, such as power, gas and telecom infrastructure, which will require coordination with third parties and private entities.
 8. Permitting – Identify required local, state and Federal permits, approvals and

- environmental clearances for the proposed improvements.
9. Street Lighting – Determine new street lighting options based on MPW lighting standards for Grandview Avenue
 10. Traffic Signals – It is assumed that existing signals will be replaced to meet the needs of the ADA accessibility guidelines and emulate the preferred roadway configuration and streetscape design. Recommendations will be presented on new traffic signal systems.
 11. Traffic Analysis – Evaluate alternatives for the street layout and streetscaping that will accommodate all users, including vehicles, bicycles, pedestrians, and transit and bus stops. This shall include provisions for complete streets and traffic calming.
 12. Right-of-Way – Identify additional easement and right-of-way needs throughout the corridor.
- B. The preliminary design document will include the following:
1. Project introduction and background
 2. Description of existing conditions within project area
 3. Deficiencies and needs within the various infrastructure elements
 4. Alternative design considerations for addressing the existing deficiencies by infrastructure element
 5. Design criteria for applicable infrastructure elements
 6. Description of up to two (2)) conceptual design alternatives, including:
 - a. Brief narrative description
 - b. Schematic plan view drawings of recommended street, utility and streetscaping improvements utilizing an existing aerial photography background
 - c. Pavement recommendations and schematic typical sections with dimensions
 - d. Easements and right-of-way required
 - e. Construction staging and traffic control considerations
 - f. Other special design and construction considerations
 7. Summary and detailed breakdown of preliminary cost estimate for each alternative conceptual design
 8. Construction Staging and Traffic Control: The SUBCONSULTANT will develop a preliminary construction staging plan that manages effective movement of vehicular, bicycle, and pedestrian traffic while maintaining efficient construction progress throughout construction.
 9. Project funding alternatives and considerations
 10. Proposed construction schedule
 11. Conclusions and recommendations identifying a preferred conceptual design
- C. The CONSULTANT will meet with the CLIENT to review a draft copy of the preliminary design document. If required, changes will be made to the report based on the one round of CLIENT'S review comments. This effort will include comment resolution documentation to be submitted to the CLIENT. Copies of the final draft of the report will be submitted to the CLIENT.
- D. The CONSULTANT will present the preliminary design document to the City Council.

Task 11 – Final Design and Plans and Specification Preparation

The CONSULTANT will perform final design and prepare construction plans and specifications for the approved design concept for the Grandview Avenue corridor in the existing public right-of-way, between the HWY 61 bypass and Green Street transition. The final design will utilize the compatible CADD software suite of design programs. Unless as otherwise specified, the plan set formatting will follow current Iowa DOT standards.

- A. Streetscape Elements: The CONSULTANT will prepare comprehensive streetscape plans and specifications incorporating streetscaping elements from the preliminary design task. Detailed construction plans and details shall be developed for the following:
1. Decorative pavement/hardscape details and specifications for sidewalks, roadway, and intersections that may include pavers and/or imprinted and/or colored pavements
 2. Landscaping plans and details including planter locations, plant type and size
 3. Streetscape amenities plan and details including: benches and litter receptacles, planter pots, bicycle racks, and way-finding signage, as deemed appropriate based on the overall streetscape design
 4. Special details as needed to include: landscaping planter design, wayfinding signage, public art opportunities, hardscape improvements and entry signage/monumentation.
- B. Street and Surface Improvements: The CONSULTANT will generate the detailed design for the street and surface improvements. The CONSULTANT will provide the pavement determination for the mainline and side road pavements. This task includes the preparation of the following construction plans:
1. Removal plans and tabulations
 2. Roadway typical sections and details
 3. Roadway plan and profile sheets (1"=20' scale full-size) calling-out plan dimensions, street improvements, centerline/curb profiles, spot elevations and grades on sidewalks
 4. Survey control and alignment geometry sheets
 5. Intersection geometrics and staking sheets (1"=20' scale full-size) at all side road locations and driveway connections. Includes return profiles and jointing details.
 6. ADA-compliant curb ramp detail sheets (1"=10' scale full-size) at all pedestrian crossings of street and railroad, showing spot elevations and grades
 7. Special construction details, access road modifications, building entrance details, and, as necessary, abandonment of existing coal chutes and utility vaults under the sidewalk if applicable
 8. Roadway cross section sheets (1"=5' vertical scale full-size) drawn and sheeted at 50 ft. spacing and at all driveways and side roads. No utilities will be shown on cross sections, but instead will be shown on respective utility plans. Construction staging lines will be shown on cross sections, but separate construction staged cross sections will not be provided.
 9. Earthwork tabulations sheets
- C. Sanitary Sewer and Watermain Coordination: The SUBCONSULTANT will complete the detailed design for sanitary sewer at up to four (4) intersections and up to five hundred (500) feet of additional sanitary sewer design at location with grade conflicts between the proposed road cross section and existing sanitary sewer elevation.. Consideration will be given to separation distances with water main. It is anticipated that services will be removed and replaced as necessary to the right of way line. This task includes preparation of the following plans:
1. Removal plans and tabulations
 2. Plan and profile sheets (1"=20' scale full-size) for sanitary sewer improvements based upon the findings presented in the Preliminary Design Document.
 3. Construction and special structure details
- D. Storm Water/Drainage/Erosion Control: The SUBCONSULTANT will complete the final designs of storm water and sewer improvements and pavement subdrains that are included in the approved preliminary design document. The SUBCONSULTANT will also design temporary

and permanent erosion control measures and prepare Storm Water Pollution Prevention Plan (SWPPP) Guidance Documents for the project. This task includes preparation of the following plans:

1. Removal plans and tabulations
2. Plan and profile sheets (1"=20' scale full-size) for storm sewer improvements and permanent erosion control measures.
3. Construction details for storm sewer elements, low-impact design elements and storm water management features (coordinate with streetscape elements as required)
4. Storm Water Pollution Prevention Plan (SWPPP) Guidance Documents. The Contractor will be responsible for generating SWPPP narrative, plan sheets, and details and submitting for approval.

E. **Signing and Striping:** The CONSULTANT will complete the detailed design for the signing and striping. The signing and striping plan will follow the requirements in the 2009 Manual on Uniform Traffic Control Devices. This task includes preparation of the following plans:

1. Signage and Pavement Marking Plans (1"=20' scale full-size)

F. The CONSULTANT will complete the detailed design indicating the locations of proposed lighting. The CONSULTANT will provide Muscatine Power and Water cutsheets and final layout of the proposed lighting for inclusion in the project. This task includes preparation of the following plans:

1. Lighting Locations (to be indicated on streetscape improvement plans, 1"=20' scale full-size)

G. **Traffic Signals:** For the purposes of this Agreement, it is assumed that the existing traffic signals in the corridor will be replaced. The CONSULTANT will perform the following tasks:

1. Provide new signal plans and/or revisions for the following intersections as needed based on the traffic analysis and preliminary design:

- Warren St/Oregon St.

Signal plans will be in State plan format, coordinate correct, and will contain necessary design information including (but not limited to) the following: quantity tabulation, signature block, abbreviations, symbols, details (standard & special), intersection layout(s) and wiring diagram(s), source of power, advance warning flashers, mast arm signing and pavement markings, interconnect, utility plans sheets and "For Information Only" signal plans.

2. Provide signal interconnect plans between the signals as needed
3. Coordinate design of any new sources of power required with the appropriate power companies. This includes acquiring an estimate from the power company for any work needed.

H. **Construction Staging and Traffic Control:** The SUBCONSULTANT will develop a suggested construction staging plan that manages effective movement of vehicular, bicycle, and pedestrian traffic while maintaining efficient construction progress throughout construction. The intent will be to work with the property owners during this phase to minimize closure of their business entrances, with individual coordination meetings included under Task 3.A. Staging plans will address traffic control needs for each stage of construction and include typical Iowa DOT quantities and bid items for temporary traffic control items. This task includes preparation of the

following plans:

1. Construction Staging and Traffic Control Notes
2. Construction Staging and Traffic Control Plans (1"=20' scale full-size) to include temporary traffic control signing, striping, devices, and way-finding needs.
3. Traffic Control Typical Sections
4. Construction Staging Details for construction of drainage and other utility elements
5. Bid Proposal Details – that may include Identification of Sites, Working Days, Liquidated Damages and as determined necessary by SUBCONSULTANT
6. Estimate of working days for the project

I. **General Plan Production:** The CONSULTANT will assemble the plan sheets described in previous tasks. This task includes preparation of other general sheets such as:

1. Title Sheet
2. Location and Project Key Maps
3. Quantity Tabulations Sheets
4. Statement of Estimated Quantities
5. Estimate and Reference information
6. Miscellaneous Tabulations and Details

J. **Project Manual:** The CONSULTANT will prepare a project manual for the project in accordance with Iowa DOT standards.

K. **Final Engineer's Estimate:** The CONSULTANT will prepare an engineer's estimate with breakdowns provided for the various construction elements and funding sources (if required).

L. **CLIENT Review:** Plans will be reviewed with the CLIENT at the 30% (with 80% of staging done), 60% (with 95% of staging done), and 95% complete stages. The project manual will be reviewed with the CLIENT at the 95% complete stage. A statement of estimated quantities and estimated construction cost will be prepared by the CONSULTANT at 60% and 95% complete stages. If required, changes will be made to the contract documents based on the CLIENT's review and comments. It is assumed that easement and right-of-way design will commence at the 60% complete stage of plan set production. The final contract documents will be presented to the CLIENT for approval.

Task 12 – Permitting

The CONSULTANT will act as the city's authorized agent on coordinating and obtaining required permits, approvals and environmental clearances on behalf of the city for the Grandview Ave. Reconstruction activities. The following permitting activities have been identified:

A. **National Flood Insurance Program (NFIP) Flood Plain Development Permit.** The CONSULTANT will coordinate with the City of Muscatine's Flood Plain Manager for compliance with the city's floodplain management ordinance. Any required coordination with the Iowa Department of Natural Resources (IDNR) flood plain staff will also be completed.

B. **Section 401.** The CONSULTANT will coordinate the Section 401 Water Quality certification application with the IDNR. The includes signoff by the designer that the work has been complete.

C. Section 408. The CONSULTANT will coordinate the Section 408 Alteration to Completed Structures approval with the US Army Corps of Engineers.

E. Application for NPDES Permit and Supporting Materials with construction contractor as co-permittee.
Railroad permitting

Task 13 – Bidding Phase

A. The CONSULTANT will assist the CLIENT in any questions that arise during the bidding period. It is assumed that bidding will be handled through the Iowa DOT.

I.B HOURLY RATE SERVICES

The following services shall be provided at the CONSULTANT's standard hourly rate and a fee estimate shall be developed and mutually agreed upon prior to commencement of work:

A. Funding Assistance

Throughout the project, our team will consider future funding opportunities to leverage project resources. This task allows our team to provide assistance or leadership to the city in identifying and pursuing funding opportunities as requested. The CONSULTANT will develop a funding matrix of potential grant sources and maintain a funding plan that will aid in the development of commitments and identification of the possibilities to close the funding gaps.

B. Construction Closeout and Record Drawings:

1. The CONSULTANT will conduct an inspection of the project in the company of the CLIENT and the Contractor for conformance with contract documents.
2. The CONSULTANT will prepare record drawings reflecting constructed conditions from information observed by the CONSULTANT or supplied by others and furnish one reproducible copy and one electronic copy of the plans to the CLIENT within 90 days of the end of the construction.

D. REMONUMENTATION. Replacing lost or obliterated government survey corners or property corners along the project route.

I.C. ADDITIONAL SERVICES – NOT IN CONTRACT BUT CAN BE PROVIDED

Engineering services performed other than those authorized under Section I.A and I.B shall be considered not part of the Basic Services or Construction Phase Services and may be authorized by the CLIENT as Additional Services. Additional Services consist of those services that are not generally considered to be Basic Services or Construction Phase Services or are not definable prior to the commencement of the project or vary depending on the technique, procedures or schedule of the project contractor. Additional services may consist of the following:

A. Construction Observation: The CONSULTANT will provide one full-time and one part-time on-site

representative during the construction of the project. Services consist of the following:

1. Attend preconstruction conference
2. Attend weekly construction progress meetings and prepare minutes
3. Schedule and coordinate construction staking
4. In coordination with the geotechnical and materials testing company, schedule and coordinate materials testing and maintain reports and documentation of testing performed and associated results
5. Assist the project engineer with the preparation, review and approval of partial pay requests
6. Meet with affected property owners, as required, to answer specific questions or to address construction or design related concerns. Resident project representative will be the primary contact person for property owners for addressing construction related concerns and issues.
7. Serve as engineer's liaison with contractor, working principally through contractor's superintendent and assist in understanding the intent of the Contract Documents
8. Assist project engineer in serving as CLIENT's liaison with contractor
9. Assist in obtaining additional details or information from the CLIENT, when required for proper execution of the work
10. Review of Work, Rejection of Defective Work, Inspections and Tests
11. Report to project engineer when clarifications and interpretations of the Contract Documents are needed and transmit to contractor clarifications and interpretations as issued by project engineer
12. Modifications: Consider and evaluate contractor's suggestions for modifications in Drawings or Specifications and report with RPR's recommendations to project engineer. Transmit to contractor decisions as issued by project engineer.
13. Maintain Construction Records, including construction correspondence; construction diary; record and documentation of quantities; record of measurements, ties, sketches or other documentation of buried construction items and underground utilities; photographic and video record during construction; materials testing reports and documentation
14. Records library – the resident project representative will work with the project engineer to establish and maintain a library of the records
15. On-site construction representative services do not constitute acceptance or approval of the Contractor's work nor do they relieve any part of the contractor's responsibility under the construction documents.
16. Coordination with RAILWAY.

B. Construction Administration:

1. The CONSULTANT will develop a scope of work for construction materials testing and documentation for the project and solicit proposals from at least two qualified geotechnical firms for the materials testing services. Assist the CLIENT in the selection of geotechnical engineering company to complete the work. It is assumed that the client will contract with geotechnical engineering firm directly.
2. The CONSULTANT will prepare required contract documents, with the assistance of the CLIENT'S attorney and staff, after award of contract.
3. The CONSULTANT will convene and preside over the preconstruction conference to be attended by the CLIENT, contractors and any affected utility companies.
4. The CONSULTANT will provide supervision and support to resident project representatives.

5. The CONSULTANT will convene and preside over weekly construction scheduling meetings and business owners meetings during the construction.
6. The CONSULTANT will prepare change orders and written directives.
7. The CONSULTANT will review, for conformance with design concept only, any shop drawings required to be furnished by the Contractor.
8. The CONSULTANT will review any material lists, suppliers lists or other submittals required to be furnished by the Contractor.
9. The CONSULTANT will make visits to the site at intervals appropriate for the various stages of construction, observe the progress and quality of the executed work of the contractors, and determine, in general, if such work is proceeding in accordance with the contract documents.
10. The CONSULTANT will meet with affected property owners and business owners as required to answer specific questions or to address construction or design related concerns.
11. The CONSULTANT will obtain additional information or clarifications from the CLIENT when required for the proper execution of the work.
12. The CONSULTANT and its representatives will not be responsible for the means, methods, techniques, sequences or procedures of construction selected by the contractor or the safety precautions or programs incident to the work of the contractor.
13. The CONSULTANT will review and make a recommendation on the Contractor's request for partial payments. Such review will be based upon the CONSULTANT'S on-site observations and such written documentation as may be available to the CONSULTANT at the time of review. Such review will not include verification of unit price contract quantities by physical measurement of individual work items.

C. **STRUCTURAL ENGINEERING DESIGN.** Any structural engineering design associated with cast-in-place retaining walls, temporary shoring, and the abandonment of existing vaults under existing sidewalks and/or adjacent to building foundations.

D. **ADDITIONAL PROPERTY OR RIGHT OF WAY ACQUISITION SERVICES.** Includes additional property or right of way acquisition services beyond those included in the Basic Services, including: Preparation of easement agreements, preparation of right-of-way plats, assistance with eminent domain proceedings, court preparation and testimony.

E. **GEOTECHNICAL AND MATERIAL TESTING SERVICES.** Geotechnical services and material testing services, including borings, other subsurface investigations, and material testing for quality control.

F. **ENVIRONMENTAL SERVICES.** Environmental services associated with asbestos investigations and mitigation, hazardous materials leaks and contaminated soils.

- G. Project Funding and Assessments
- H. All other services not specifically identified in Section I.A. or I.B.
- I. RAILWAY SIGNAL PRELIMINARY ENGINEERING AND FINAL ENGINEERING. Engineering of signals may require separate agreement with RAILWAY.
- J. RAILROAD CROSSING PLANS AND DETAILS within the CP right-of-way. Design of vehicular and pedestrian railroad grade crossings including quiet zone crossing requirements.
- K. Internal inspection of the existing sanitary sewers using CCTV technology.