



PUBLIC WORKS UTILITY OPERATIONS

DATE: October 18, 2016
FROM: Michelle Klose, Director of Utility Operations *MK*
ITEM: South Bismarck Watershed Recommendations

REQUEST

Consider recommendations from Utility Operations Director to complete planning work on alternatives and initiate design work on the northern most project along South 12th Street.

Please place this item on the October 25, 2016 City Commission meeting.

BACKGROUND INFORMATION

Public Works hosted a public informational meeting on August 25, 2016, concerning the South Bismarck Watershed stormwater evaluation. The majority of public discussion focused on the South 12th Street flooding issues as well as questions concerning the south Bismarck drainage ditch.

I recommend additional planning work to include development of a cost estimate for the lining of the south Bismarck drainage ditch and the analysis of the Kiwanis Park alternative. The draft stormwater report should be finalized to include this information. Following completion of the report, I will provide recommendations on the alternatives of the South Bismarck Bypass, Kiwanis Park Alternative, and ditch lining.

I further recommend completion of design work on the northern most project along South 12th Street. This work addresses the stormwater issues along Expressway and northern part of South 12th Street.

RECOMMENDED CITY COMMISSION ACTION

Review and approval of recommendations from Director of Utility Operations.

STAFF CONTACT INFORMATION

I will be present at the City Commission meeting to respond to questions the Board may have regarding this matter. **Contact:** Michelle Klose, 355-1700, mklose@bismarcknd.gov



PUBLIC WORKS UTILITY OPERATIONS

DATE: October 18, 2016

FROM: Michelle Klose, Director of Utility Operations *MK*

ITEM: South Bismarck Watershed Contract Amendment #2, Attachment #1 with Apex Engineering Group

REQUEST

Review and approval of an engineering Contract Amendment #2, Attachment #1 to complete planning work on alternatives.

Please place this item on the October 25, 2016 City Commission meeting.

BACKGROUND INFORMATION

Public Works hosted a public informational meeting on August 25, 2016, concerning the South Bismarck Watershed stormwater evaluation. The majority of public discussion focused on the South 12th flooding issues as well as questions concerning the south Bismarck drainage ditch.

The proposed contract amendment attachment #1 will address questions relating to the lining of the south Bismarck drainage ditch and the analysis of the Kiwanis Park alternative. The draft stormwater report will be finalized with inclusion of this information.

Funding for this work would come from the Utility Fund.

RECOMMENDED CITY COMMISSION ACTION

Review and approve attached Contract Amendment #2, Attachment #1 with Apex Engineering Group.

STAFF CONTACT INFORMATION

I will be present at the City Commission meeting to respond to questions the Board may have regarding this matter. **Contact:** Michelle Klose, 355-1700, mklose@bismarcknd.gov

This is **EXHIBIT K**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated October 28, 2014.

AMENDMENT TO OWNER-ENGINEER AGREEMENT
Amendment No. 2

1. *Background Data:*

- a. Effective Date of Owner-Engineer Agreement: October 28, 2014
- b. Owner: City of Bismarck
- c. Engineer: Apex Engineering Group, Inc.
- d. Project: South Bismarck Watershed – Stormwater Improvements

Description of Modifications:

- a. Engineer shall perform or furnish the following Additional Services:
 - 1) Study and Report Phase – Apex will provide the stormwater modeling for a 5th Street/Bowen Avenue improvement project that redirects upstream runoff west to Kiwanis Park. The Kiwanis Park Bypass utilizes an existing Sweet Avenue outfall and an expanded pond within Kiwanis Park. The alternative development includes sizing of a storm sewer system and expanded pond, base and proposed modeling, route development, preliminary opinion of costs and documenting the benefits to the South Bismarck Watershed. The feasibility and benefits of concrete lining the South Bismarck Stormwater Channel will be developed and documented in the Preliminary Engineering Report. One additional meeting with City staff has been included and one Public Information Meeting. See Attachment 1.
 - 2) Design Phase for South 12th Street Storm Sewer Improvements - North Segment: See Attachment 2.
- b. The Scope of Services currently authorized to be performed by Engineer in accordance with the Agreement and previous amendments, if any, is modified as follows: NA
- c. The responsibilities of Owner are modified as follows: NA
- d. For the Additional Services or the modifications to services set forth above, Owner shall pay Engineer the following additional or modified compensation: See Attachment.
- e. The schedule for rendering services is modified as follows:

Development of Alternatives	October 1, 2016
Final Preliminary Engineering Report	December 1, 2016

Preliminary Design – South 12th Street – North Segment February 15, 2017
Final Design – South 12th Street – North Segment April 25, 2017

f. Other portions of the Agreement (including previous amendments, if any) are modified as follows: NA

5. Agreement Summary (Reference only)

a. Original Agreement amount:	\$ <u>184,440.00</u>
b. Net change for prior amendments:	\$ <u>72,992.00</u>
c. This amendment (Modeling/Planning):	\$ <u>49,703.00</u>
d. This amendment (South 12 th St. Design):	\$ <u>338,407.00</u>
e. Adjusted Agreement amount:	\$ <u>645,542.00</u>

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is October 25, 2016.

OWNER:

ENGINEER:

By: Michael C. Seminary

By: Scott E. Olson

Title: Mayor

Title: Vice President/Principal

Date
Signed: _____

Date Signed: _____

Attachment 2 - Scope of Services

South Bismarck Watershed – South 12th Street Storm Sewer Improvement-North Segment

City of Bismarck, North Dakota
 October 17, 2016

Phase No.	Description
3	Preliminary & Final Design, and Bidding Services

Project Background

The South Bismarck Watershed Preliminary Engineering Report identified three separate storm sewer improvement projects along the South 12th Street corridor. This project involves preliminary and final design of the north segment project along 6th Avenue from the South Bismarck Ditch to 12th Street and along South 12th Street from 6th Avenue to Bismarck Expressway, coordination with property owners, easement acquisition services, and bidding services. In addition a storm sewer improvement will be made on South 12th Street from 6th Avenue one-half block south and then east on Park Avenue to New Jersey Street. A storm sewer line at 12th Street and Virginia Avenue will be installed east to the low lying area on the north side of Colonial Estates.

Construction administration services are not included in this scope, however this contract may be amended if the City so chooses to include such services.

Phase 3 – Preliminary and Final Design and Permitting

Activities:

Phase 3 – Task 1, Project Management

Progress reporting, management of engineers and technicians through all phases of the project, including contract administration and coordination of quality assurance and quality control.

3.1.1 Project Administration

The Apex project manager will be responsible for monitoring project milestones and ensuring that adequate progress is made by Apex and its subconsultants. Internal Apex staff meetings will be held as needed to coordinate with the project staff and to discuss the work plan.

3.1.2 Quality Assurance/Quality Control

QA/QC reviews will be conducted at identified project milestones in accordance with the Quality Control/Quality Assurance plan that was included in the proposal prepared by Apex for this project. This includes review time of subconsultant work.

3.1.3 Progress Meetings

A maximum of four progress meetings with the City of Bismarck have been included in the scope.

Phase 3 – Task 2, Preliminary Design

3.2.1 Coordination w/ Land Owners

Apex will coordinate with the Mobile Home Park owner/managers throughout the design process to secure easements and coordinate traffic control. Two Mobile Home Parks will be affected by the project. A maximum of six meetings have been included in the scope.

3.2.2 Right-of-Way and Easement Research

Apex will perform title research and utility easement; 6th Avenue is a private road with a utility easement. Research will be required and 6th Avenue improvements may require additional permanent easements and/or construction easements. Also a permanent utility easement will be required for the new storm sewer to the low point on the eastern boundary of Dakota Screen Arts adjacent to Colonial Estates. This storm sewer will run on the north or the south side of Dakota Screen Arts; the exact location is undetermined at this time.

3.2.3 Hydraulic Calculations and Preliminary Conduit Sizing

The South Bismarck Watershed base InfoSWMM modeling will be updated to reflect final proposed conduit sizes and inverts.

3.2.4 Field Survey and Utility Location

This task includes the field work necessary to conduct a ground and boundary survey and CAD drafting.

3.2.5 Soil Borings Location Coordination

Soil borings are proposed along the storm sewer route. Apex will coordinate the locations with a geotechnical subconsultant and survey the final bore locations.

3.2.6 Plan and Profile

Apex will prepare 30% level plan and profile sheets showing storm sewer and street horizontal and vertical geometric layouts. Preliminary detail sheets will also be included.

3.2.7 Traffic Control

Traffic control plans will be developed for the following major roadways/intersections:

- University Drive will be handled with staged construction with a temporary shift of traffic (two stages).
- 6th Avenue would be closed with local traffic only.
- 12th Street: maintain two lanes of traffic (reduced lane widths).
- Expressway/12th intersection: Apex will design a detour (Bismarck Expressway detour would be Airport Road to University Drive back to Expressway) or a temporary traffic signal if traffic can be maintained in the intersection.

3.2.8 30% Submittal and Review Meeting w/ City

Apex will submit 30% plans and hold a review meeting with City Staff.

Phase 3 – Task 3, Final Design and Construction Documents

3.3.1 Cover and Detail Sheets

Apex will prepare the title sheet for the plans and the applicable upfront sheets. These sheets include all the drafting and assembly required for the table of contents, scope of work, plan notes, estimate of quantities, removals, survey control, signing and marking.

3.3.2 Plan and Profile

Apex will prepare 90% plan and profile sheets showing storm sewer and street horizontal and vertical geometric layouts.

3.3.3 Traffic Control

Apex will prepare 90% level traffic control layouts based on the 30% review submittal comments and coordination with the City of Bismarck and NDDOT.

3.3.4 Pavement Removal and Replacement

Apex will prepare sheets of typical sections for existing pavement sections and proposed pavement sections. Final pavement sections will be coordinated with the City of Bismarck, NDDOT and Mobile Home Park owners/managers.

3.3.5 Preliminary Opinion Probable Construction Costs

Apex will prepare the primary opinion of construction costs based on the 90% plans.

3.3.6 90% Submittal, Review and Incorporate City Comments

Apex will schedule a 90% review meeting with the City of Bismarck. Apex will prepare and distribute meeting notes with responses as required.

3.3.7 Permits/NDDOT Coordination

Apex will coordinate, prepare and submit all documentation required to secure necessary permits from the NDDOT Bismarck District for construction within the NDDOT right-of-way (University Drive and Bismarck Expressway). A USACOE 404 permit is not anticipated to be required for the outfall into the South Bismarck Ditch.

3.3.8 Right-of-Way Exhibits/Easement Documents

Apex will prepare up to three temporary construction easements and Certificate of Survey and one permanent utility easement. Apex will coordinate meetings with land owners and final document delivery to the City of Bismarck and coordinate with ND Guaranty and Title to obtain title insurance and sale of property.

3.3.9 Final Opinion of Probable Construction Costs

Apex will prepare the final opinion of construction costs based on the final plans.

3.3.10 Specifications

Apex will prepare the specifications for the project. It is anticipated that the City of Bismarck Construction Specifications, April 2014 will be used for the upfront and contract documents. Special Provisions that are not included in the City of Bismarck Standard Specifications will be included. This task includes making corrections in the specifications following the 90% review and preparing the final construction specifications.

3.3.11 Final Plans

This task includes making corrections in the plans following the 90% review and preparing the final plans.

Phase 3 – Task 4, Bidding Services

Apex will assist the City of Bismarck with questions received during the bid process. Apex will draft all addenda as a result of changes to the Contract Documents. The following bidding services will be provided.

- 3.4.1 Advertise for Bidding
- 3.4.2 Bidding Questions
- 3.4.3 Bid Opening
- 3.4.4 Bid Tab and Award Recommendation

City of Bismarck Responsibilities:

- ✓ Execute contract between Bismarck and Apex.
- ✓ Provide requested information including site plans and street grading plans in a timely manner.
- ✓ Facilitate and negotiate property/easement acquisition.
- ✓ Plans and specification preparation and distribution.

Apex Responsibilities and Deliverables:

- ✓ Review and execute contract with Bismarck in a timely manner.
- ✓ Communicate with Bismarck on project updates and schedule.
- ✓ Manage Project Staff to complete project tasks, meet contractual deadlines and stay within budget.
- ✓ Provide right-of-way exhibits/easement documents to the City.
- ✓ Provide 30% (preliminary) and 90% design plans.
- ✓ Provide originals and one copy plus electronic Final Plans and Specifications.

Project Schedule

<u>Task/Activity</u>	<u>Date</u>
Executed Contract	October 25, 2016
30% Preliminary Plans	February 15, 2017
Final Plans	April 25, 2017



PUBLIC WORKS – UTILITY OPERATIONS

DATE: October 18, 2016

FROM: Michelle Klose, Director of Utility Operations *MK*

ITEM: South Bismarck Watershed Contract Amendment #2, Attachment #2 with Apex Engineering Group

REQUEST

Review and approve engineering contract Amendment #2, Attachment #2 to complete design work on the northern most project along South 12th Street.

Please place this item on the October 25, 2016 City Commission meeting.

BACKGROUND INFORMATION

This contract amendment will complete the design work on the northern most project along South 12th Street. The South Bismarck Watershed Preliminary Engineering Report identified three separate storm sewer improvement projects along the South 12th Street corridor. This project involves preliminary and final design of the north segment project along 6th Avenue from the South Bismarck Ditch to 12th Street and along South 12th Street from 6th Avenue to Bismarck Expressway, coordination with property owners, easement acquisition services, and bidding services. In addition, a storm sewer improvement will be made on South 12th Street from 6th Avenue one-half block south and then east on Park Avenue to New Jersey Street. A storm sewer line at 12th Street and Virginia Avenue will be installed east to the low lying area on the north side of Colonial Estates.

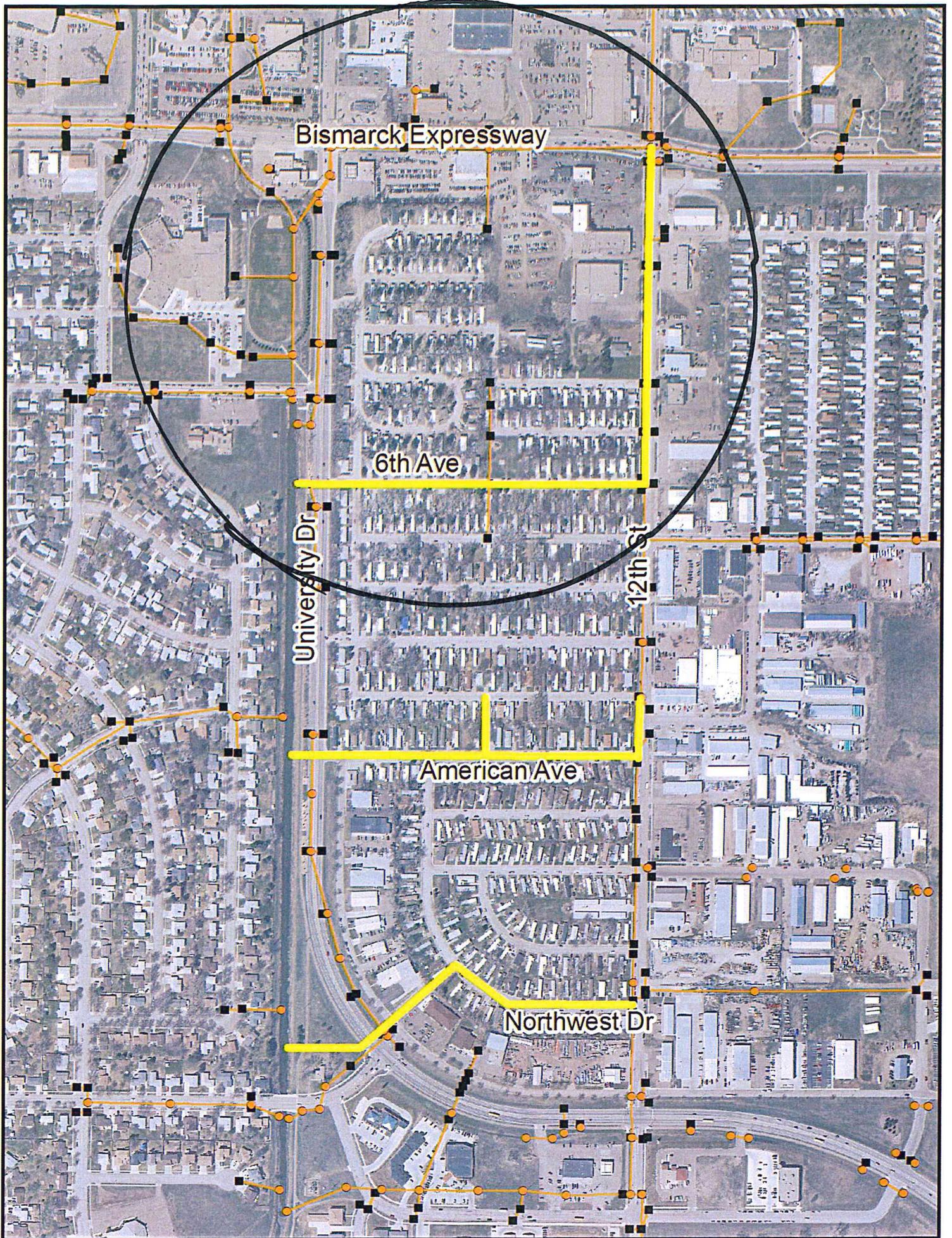
The design work for this project would normally be included with the construction cost and assessed to property owners in the area.

RECOMMENDED CITY COMMISSION ACTION

Review and approve attached Contract Amendment #2, Attachment #2 with Apex Engineering Group.

STAFF CONTACT INFORMATION

Michelle Klose, Director of Utility Operations, 355-1700, mklose@bismarcknd.gov



Bismarck Expressway

6th Ave

University Dr

12th St

American Ave

Northwest Dr

This is **EXHIBIT K**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated October 28, 2014.

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Amendment No. 2

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Description of Modifications:

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 - 2) Design Phase for South 12th Street Storm Sewer Improvements - North Segment: See Attachment 2.
- b. The Scope of Services currently authorized to be performed by Engineer in accordance with the Agreement and previous amendments, if any, is modified as follows: NA
- c. The responsibilities of Owner are modified as follows: NA
- d. For the Additional Services or the modifications to services set forth above, Owner shall pay Engineer the following additional or modified compensation: See Attachment.
- e. The schedule for rendering services is modified as follows:

Development of Alternatives	October 1, 2016
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OWNER:

ENGINEER:

By: Michael C. Seminary

By: Scott E. Olson

Title: Mayor

Title: Vice President/Principal

Date Signed: _____

Date Signed: _____

Attachment 2 - Scope of Services

South Bismarck Watershed – South 12th Street Storm Sewer Improvement-North Segment

City of Bismarck, North Dakota
 October 17, 2016

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Construction administration services are not included in this scope, however this contract may be amended if the City so chooses to include such services.

Phase 3 – Preliminary and Final Design and Permitting

Activities:

Phase 3 – Task 1, Project Management

Progress reporting, management of engineers and technicians through all phases of the project, including contract administration and coordination of quality assurance and quality control.

3.1.1 Project Administration

The Apex project manager will be responsible for monitoring project milestones and ensuring that adequate progress is made by Apex and its subconsultants. Internal Apex staff meetings will be held as needed to coordinate with the project staff and to discuss the work plan.

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QA/QC reviews will be conducted at identified project milestones in accordance with the Quality Control/Quality Assurance plan that was included in the proposal prepared by Apex for this project. This includes review time of subconsultant work.

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- 3.4.4 Bid Tab and Award Recommendation

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Apex Responsibilities and Deliverables:

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