Hooksett Sewer Commission
February 5, 2018
Minutes

The Meeting was called to order at 12:00pm. Present were Chairman Sidney Baines, Commissioner Frank Kotowski, Commissioner Roger Bergeron, Superintendent Bruce Kudrick, Don Winterton and Kim Langlois.

Approve and Sign minutes for January 22, 2018
Commissioner Bergeron made motion to accept the January 22, 2018 minutes as read. Commissioner Kotowski seconded. Motion was carried unanimously.

Approve and Sign Manifest

Read Correspondence

Financial Report: There was no financial report given at the meeting

Scheduled Appointments: David Scarpetti RE: Autumn Frost Easement
The Hooksett Economic Development Advisory Committee RE: 3A Sewer Connection

Autumn Run Easement: Dave just wanted to go over the plans he has for undeveloped land in the Autumn Run area in Hooksett. He has already presented his plans to the town and they will sign off on his plans as long as he has gotten all of his permits signed off with the Sewer Commission. The commissioners are on board with what Dave has planned and where he is going to run the sewer all the commission needs is a copy of the easement and deeds for the properties so that we can attach them to the permits that we have on file.

The Hooksett Economic Development Advisory Committee: In attendance were Paul and Dave Scarpetti, Jeff Larabee, Alden Beauchemin, Nick Golon from TF Moran and Kathy Lawrence. The committee came to discuss the progress (if any) that was made in the connecting of 3A to the sewer. The commissioners had just received the third and final engineering estimate this morning (all estimates are attached). The commission needs time to look over all the estimates before coming to a decision on whom to go with. It was brought to the commissioners attention that the town has money from a warrant article that may be able to be used to assist in the cost of the engineering for the sewer for 3A. Don Winteron is going to look into it for the commissioners. Dave presented a Memorandum of Understanding regarding the sewer line

extension to Route 3A to the commissioners (a copy is attached). This serves as a commitment to Jeff Larabee that the Sewer Commission will work with him on trying to get sewer to 3A. Commissioner Frank Kotowski made motion to sign the memorandum, Commissioner Roger Bergeron seconded. The motion was carried unanimously.
It was mentioned that one of the issues that seems to be arising in reading the engineering estimates is that the depth of which the sewer line has to be dug, 30 feet is what is being estimated so that the water pressure will be correct, this causes the price of putting sewer in to escalate. The commission again stated the importance of them getting help to fund this project the Sewer Commission can pay for the engineering estimates to be done however the cost of this is cutting into the funds that they have to use on connecting 3A to the sewer.

All in attendance at the commissioners meeting were planning to attend the TRC meeting at the town hall at 1:30pm on February 5, 2018.

Superintendent's Report: Bruce quickly talked about the proposals that had come in for the Engineering Estimates for 3A. He is going to schedule an appointment for Underwood Engineering to come in and present their estimate during the next commissioners meeting on February 12, 2018. After that presentation the commissioners will chose which estimate they are going with.

The sewer line is in service at the bridge, the invert in the manhole is being monitored by Bruce.

The remaining money that the sewer commission is in possession of for the work at the bridge is being requested back by the town. Bruce wants to hang on to the money until a final decision has been made with the bridge. Commissioner Bergeron believes that we should hang onto some of the money until litigation with the bridge is done. Commissioner Kotowski also would like to hang on to a portion of the money. Chairman Sidney Baines suggested that we pay the whole thing back, minus any funds needed for previous completed work and with written assurance that if the sewer gets disturbed in the future that we would not be held liable and would be paid for future inspections and work that may need to be done at the bridge. Don suggested writing something up and presenting it to the town council at their next meeting. Commissioner Kotowski made motion to return the full funds in possession of the Sewer Commission with a signed letter from the town stating the above mentioned information. Commissioner Bergeron seconded. The motion was carried unanimously.

Old Business: None

New Business: Next meeting is February 12, 2018

Non Public session: Commission did not go into non public session

Public Input: None

Adjournment: Commissioner Kotowski made motion to adjourn at 1:14pm, Commissioner Bergeron seconded. The motion was carried unanimously.

Respectfully Submitted,

Frank R. Kotowski

Frank Kotowski

Clerk

MEMORANDUM OF UNDERSTANDING
REGARDING SEWER LINE EXTENSION TO ROUTE 3A

Given the substantial development potential being proposed at Exit 11, this memorandum of understanding is to confirm the (HSC) Hooksett Sewer Commission's commitment to bring sewer to the West side of the Merrimack River in the vicinity of Exit 11 and Route 3A, and to expend up to Two Million Dollars ($2,000,000) for the engineering and construction towards that end, which we believe will be enough to accomplish this objective.

Specifically, the following are the initial tasks to be completed by the HSC:

1) Preliminary engineering will be conducted to establish the best location of pump station #1 with a pressure sewer line under the river to the existing sewer treatment facility in the vicinity of Tri-Town Arena/Cross Road in order to accommodate a gravity sewer line from both Exits 11 and Exit 10.

2) Finalize engineering for pump station #1 with a pressure sewer line under the river to the existing sewer treatment facility, and finalize engineering within the town/state right of ways to accommodate the proposed Exit 11 developments.

3) Finalize construction of pump station #1 with a pressure sewer line under the river to the existing sewer treatment facility as necessary. In addition, the sewer line will be extended toward and along Route 3A as far as monies allocated allows.

4) Provide guidance to town representatives and others to finalize additional engineering and construction to accommodate the remainder of Exit 11 and Exit 10, as may be required.

TOWN OF HOOKSETT SEWER COMMISSION

Dated:_____

By: _____

Name: _____
(Type or Print)

Title: _____

civil &
environmental
engineering

UNDERWOOD
engineers

N2721

February 2, 2018

Mr. Bruce Kudrick, Superintendent
Hooksett Sewer Commission
1 Egawes Drive
Hooksett, NH 03016

Re: **Price Proposal**
Rte 3A Gravity Sewer Interceptor and Forcemain Feasibility Study
Hooksett Sewer Commission, Hooksett, NH

Dear Mr. Kudrick:

Attached as requested is a proposed Scope of Services and fee with hours to complete a Feasibility Study and Cost Opinion for new gravity sewer along Rte 3A from Dunkin Donuts near Rte 93 Exit 10 to the Hackett Hill Road intersection near Rte 93 Exit 11. This includes a new pumping station in the vicinity of Tri-Town Ice Arena and a directionally drilled crossing of the Merrimack River to connect the new sewer to the existing gravity sewer on the east side of the river.

Underwood proposes to assign two senior staff to this project, David Mercier and Margaret Blank, to accomplish the work efficiently in 67 hours at a cost of $8,800.00.

We look forward to the potential opportunity to work with the HSC further. Thank you and please call with any questions.

Very truly yours,

UNDERWOOD ENGINEERS, INC.

W. Steven Clifton

W. Steven Clifton, P.E.
Vice President

Encl.

cc: David Mercier – UE

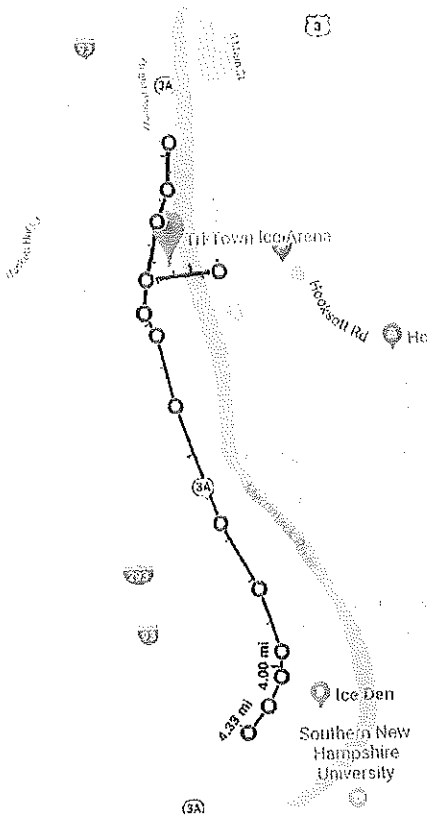
ph 603.436.6192
fx 603.431.4733
25 Vaughan Mall
Portsmouth, NH 03801
underwoodengineers.com

N2721

Hooksett Sewer Commission
Hooksett, New Hampshire
Route 3A Gravity Sewer Interceptor and Forcemain Feasibility Study
Scope of Services

Background

The Town of Hooksett, NH has been considering sewering the Route 3A corridor from its intersection with Route 93 at Exit 10 to its intersection with Route 93 at Exit 11. Specifically, this study would encompass the area from Dunkin Donuts near Exit 10 at the south end to the Hackett Hill intersection near Exit 11 at the north end. This stretch of Route 3A is approximately 15,600 linear feet. No sewer currently exists along Route 3A through this section. Municipal water supplied by the Hooksett Village Water Precinct does exist for a portion of the route.



Previous studies have looked at the potential to provide sewer to this section of Route 3A via a directionally drilled forcemain under the Merrimack River located at the northern end of Meadowcrest Road. An existing gravity sewer interceptor exists on the east side of the Merrimack River that the new forcemain (~3,700 linear feet) could tie into just above the existing wastewater treatment facility. The new pumping station would collect gravity sewer flow from Route 3A from both the north and the south.

The purpose of this study would be to look more closely at the hydraulics of the sewer concept utilizing NH GRANIT 2-foot contour data (vs 10-foot contour data) to determine if gravity sewer will work from both north and south of the Tri-Town Ice Arena area, and to determine how deep a new pumping station located in the vicinity of Tri-Town Ice Arena would need to be. Once a viable concept is identified, the study would provide conceptual cost opinions for construction of the facilities as well as engineering design and construction phase services.

Scope of Services

Underwood Engineers proposes to provide the following services under this scope:

- Review available record drawings of the existing water mains along Route 3A and the existing sewer interceptor on the east side of the Merrimack River.
- Research and download available aerial mapping, tax maps, topography, depth to groundwater and ledge data for the study area.

- Utilizing ARC Map software, create conceptual level plans and profiles of the subject area.
- Conduct a site visit with a directional drilling contractor to review the proposed river crossing location and determine feasibility and best locations to locate drilling rig equipment.
- Contact the owners of the B&M Railroad to initiate discussions and clarify requirements for a directionally drilled pipeline under the railroad's property.
- Utilizing the profile data, create a conceptual sewer design to determine necessary alignment and depths of sewer to maximize the use of gravity sewer and minimize the need for additional pumping stations. A cross-section of the river crossing and proposed location of the main pumping station will be provided.
- Create a list of potential easements needed to install the proposed sewer.
- Identify potential permits that will be required to construct the proposed sewer.
- Develop a conceptual cost opinion for the entire project from Dunkin Donuts to Hackett Hill Road. The cost shall be broken up into several components to include the pumping station and forcemain under the river separate from the gravity sewer coming from the south and north. Engineering fees shall also be listed as separate line items.
- Prepare a technical memorandum summarizing the study findings.
- Meet with HSC to present the study findings and revise the technical memorandum based on comments received.

Work Not Included

- Surveying
- Subsurface investigation
- Design, bidding, and construction phase engineering services
- Permitting assistance
- Funding assistance

Schedule

• Engineer Selection by HSC	February 19, 2018
• Execute Contract	March 5, 2018
• Commence Engineering	March 12, 2018
• Deliver Draft Technical Memo	May 11, 2018
• Meet with HSC	May 14, 2018
• Submit Final Technical Memo	May 25, 2018

SUMMARY OF LEVEL OF EFFORT - HOURS
Underwood Engineers, Inc.

Professional Engineering Services

Route 3A Gravity Sewer and Interceptor and Forcemain Feasibility Study
Hooksett, NH - Hooksett Sewer Commission
N2721
MEB/DJM

26-Jan-18

The following summary of hours is based on our scope of work dated 2-Feb-18

Task	Labor Category									Hours Total	SUBS AND/OR ALLOWANCES
	PRINC	Sr. PMGR	PMGR	Sr. PENG	PENG	TECH	Sr. RPR	RPR	CLE		
Task 1 - Report		14		43		6			4	67	No
Task 2 - Survey											
Task 3 - Subsurface											
Task 4 - Cadastral											
Task 5 - Construction Administration											
Task 6 - Resident Engineering											
Task 7 - Start Up											
Task 8 - O&M Manual											
Task 9 - Record Drawings											
Task 10 - Other											
TOTAL		14		43		6			4	67	

Notes:
1
2

SUMMARY OF FEES
Underwood Engineers, Inc.

Professional Engineering Services

Route 3A Gravity Sewer and Interceptor and Forcemain Feasibility Study
Hooksett, NH - Hooksett Sewer Commission
N2721
2/1/2018

26-Jan-18

Task / Subtask	Breakdown					Extended Total
	Labor	Hours	Expen/Subs	Subs	Expenses	
Task 1 - Report	*$8,634*	*67*	*$166*		*$166*	*$8,800*
Task 2 - Survey		-				
Task 3 - Subsurface		-				
Task 4 - Cadastral		-				
Task 5 - Construction Administration		-				
Task 6 - Resident Engineering		-				
Task 7 - Start Up		-				
Task 8 - O&M Manual		-				
Task 9 - Record Drawings		-				
Task 10 - Other		-				
TOTAL	$8,634	67	$166		$166	$8,800

Note:
1

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

February 5, 2018

Hooksett Sewer Commission
1 Egawes Way
Hooksett, NH 03106

RE: Proposal for Sewer Feasibility
Exit 11 - NH3A, Hooksett, NH

Dear Commissioner's:

TFMoran, Inc. (TFM) is pleased to provide this proposal to evaluate the feasibility to connect the vicinity of exit 11 in Hooksett, NH to the existing municipal sewer system located on the east side of the Merrimack River. Our scope of work is as follows:

Scope of Work:

Sewer Feasibility Study

TFM will provide a written evaluation of the feasibility to connect the vicinity of exit 11 in Hooksett, NH to the existing 15" interceptor sewer line on the east side of the Merrimack River feeding the Hooksett Wastewater Treatment Facility on Egawes Drive. Final connection location will be predicated on the results of the feasibility study, but our understanding is the general connection point should be on the opposite side of the Merrimack River from the Tri-Town Ice Arena, identified as lot 17-13-1 and 311 West River Road.

The feasibility study will include the following;

- Schematic Design of gravity sewer for NH3A from Dunkin Donuts at 90 West River Road to a proposed sewer pump station at the Tri-Town Ice Arena at 311 West River Road. Design to include evaluation of sewer main depths to confirm constructability. Should the above described study area be impractical, an alternate limit of gravity sewer will be provided.
- Schematic Design of gravity sewer for NH3A from lot 10-78 at 420 West River Road to a proposed sewer pump station at the Tri-Town Ice Arena at 311 West River Road. Design to include evaluation of sewer main depths to confirm constructability. Should the above described study area be impractical, an alternate to pump sewer from lot 10-78 to a proposed sewer manhole in the vicinity of the existing Palazzi Corp. driveway on NH3A will be provided.
- Anticipated construction costs for sewer main construction based on schematic design.
- Schematic Design of sewer force main crossing of Merrimack River. For the purposes of the study we will coordinate with a directional drilling company to better define the engineering scope necessary to develop a suitable crossing plan.
- Anticipated construction costs for sewer force main crossing of Merrimack River based on schematic design.
- Schematic pump station specifications.
- Anticipated pump station construction costs.
- Evaluation and summary of requirements to obtain access across existing rail road facilities in the project area.

TFMoran, Inc.
48 Constitution Drive, Bedford, NH 03110
T(603) 472-4488 F(603) 472-9747 www.tfmoran.com

MSC a division of TFMoran, Inc.
170 Commerce Way - Suite 102, Portsmouth, NH 03801
T(603) 431-2222 F(603) 431-0910 www.mscengineers.com

- Preliminary proposal for Engineering and Surveying to prepare final design documents.
- Two (2) meetings with the Hooksett Sewer Commission and/or Sewer Super-Intendent to review the results of the study.

Notes:

TFM will use field survey previously conducted by our office to evaluate sewer feasibility from the Tri-Town Ice Arena to 420 West River Road as well as for 90 West Rive Road. For areas outside of our previous survey work we will supplement the study with available plans of record and online resources.

TFM will use existing available geotechnical boring data for evaluation and pricing of gravity sewer construction and sewer force main construction.

Assumptions/Exclusions:

This proposal is only for work outlined above. The following items have not been included in this proposal but can be performed by our office at the Client's request. TFM will provide a proposal for the Client's authorization prior to beginning such additional work if requested:

- We assume no new field survey or boundary research is required.
- New borings of any type are excluded as we assume borings conducted for prior work in the project vicinity will be used as representative samples.
- We have not included Geotechnical Studies, Hazardous Waste Studies, Fiscal Impact Studies, Noise Studies, Air Quality Studies, Wildlife Studies, Archeological Studies or other technical studies and reports not included above.

Compensation:

TFM will complete this Scope of Services for the Lump Sum of TWENTY-EIGHT THOUSAND NINE HUNDRED AND NINETY DOLLARS ($28,990).

TFM will bill on a monthly basis and the bill will reflect work completed to date. We appreciate this opportunity to provide you with a proposal for this project and are available to meet with you at any time to discuss this project, the scope of work or budget.

We look forward to working with you on a successful project!

Sincerely,
TFMoran Inc.

Nicholas Golon, P.E.
Senior Project Manager

SEWER FEASIBILITY: EXIT 11 - NH3A, HOOKSETT, NH
TFMORAN Design Task Costs
5-Feb-18

Task	PIC $165.00	SSE $138.00	PS $130.00	SPM $117.00	STE $105.00	SCE $95.00	CE $88.00	SCD $85.00	CD $70.00	ET $75.00	CS $45.00	Other	TOTAL HOURS	TOTAL COST
TASK 1 - SEWER FEASIBILITY STUDY														
TASK 1.A Schematic Gravity Sewer Design	4		2	18		8	40				1		73	$ 7,351.00
TASK 1.B Schematic Sewer Force Main Design	4	1	2	18		8	40				1		74	$ 7,489.00
TASK 1.C Pump Station Specification	1	1	24	18		8	2				1		55	$ 6,510.00
TASK 1.D Construction Estimate	4		2	15		1	27				1		50	$ 5,191.00
TASK 1.E Meetings				6									6	$ 702.00
TASK 1.F Engineering & Survey Proposal	2		2	8			2				1		15	$ 1,747.00
PROJECT DESIGN TOTAL COST	15	2	32	83	0	25	111	0	0	0	5	0	273	$28,990

LEGEND	
PIC	Chief Engineer
SSE	Chief Strctural Engineer
PS	Project Supervisor
SPM	Senior Project Manager
STE	Senior Traffic Engineer
SCE	Senior Civil Engineer
CE	Civil Engineer
SCD	Senior CADD Designer
CD	CADD Designer
ET	Engineering Technician
CS	Clerical Support

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

NEW HAMPSHIRE FEE SCHEDULE

Applicable: January 01 – March 31, 2018

DEPARTMENT	CLASSIFICATION	RATE
E – Engineering	Expert Witness	$265 / Hour
	Chief Engineer	$165 / Hour
	Chief Structural Engineer	$138 / Hour
	Project Supervisor	$130 / Hour
	Senior Project Manager	$117 / Hour
	Senior Structural Engineer	$117 / Hour
	Senior Traffic Engineer	$105 / Hour
	Project Manager	$106 / Hour
	Traffic Engineer	$95 / Hour
	Senior Engineer	$95 / Hour
	Certified Professional in Erosion/Sediment Control	$90 / Hour
	Engineer	$88 / Hour
	Engineering Technician	$75 / Hour
	Construction Inspector	$82 / Hour
S – Surveying	Expert Witness	$265 / Hour
	Chief Surveyor	$108 / Hour
	Project Manager	$106 / Hour
	Surveyor	$82 / Hour
	Survey Technician	$80/ Hour
	Field Operations Manager	$88 / Hour
	Robotic Field Crew	$103 / Hour
	Chief of Party	$75 / Hour
	Instrument Operator	$70 / Hour
	Field Technician	$62 / Hour
W – Environmental	Subsurface Designer	$95 / Hour
	Wetland Scientist	$95 / Hour
D – CADD / GIS	Senior CADD Designer	$85 / Hour
	CADD Technician	$70 / Hour
P – Landscape Architecture	Landscape Architect	$105 / Hour
	Land Planner / Designer	$85 / Hour
A – Administration / Support	Support	$46 / Hour
	Project Coordinator	$65 / Hour

TFMoran Inc.

SCHEDULE OF REIMBURSABLE EXPENSES*

PRINTS	In-House:	
	Xerox Plan Copier	$0.45 / Square Foot
	Mylar (Plotter)	$1.65 / Square Foot
	Bond (Plotter)	$0.65 / Square Foot
	Color Plot - Bond	$8.00 / Square Foot
	Color Plot - High Gloss Photo	$10.00 / Square Foot
	Color Print - 8.5 X 11	$1.25 / Page
	Black and White – 8.5 X 11	$.10 / Page
	Color Print - 11 X 17	$2.50 / Page
	Black and White – 11 X 17	$.20 / Page
	Framing	$50.00 / Print
RENDERINGS	Conceptual Color Presentation	$300.00
	Detailed Colored Plan Presentation	$500.00
	Perspective Rendering	$750.00
REPROGRAPHICS SERVICES	Outside Service	Cost + 15%
POSTAGE and HANDLING		Cost + 15%
COURIER SERVICES		Cost + 15%
APPLICATION / SUBMISSION FEES		Cost + 15%
CONSULTANTS / SUBCONTRACTORS		Cost + 15%
BACKHOE and OPERATOR		Cost + 15%
TRAVEL / MILEAGE		$0.68/ Mile
TRAFFIC COUNTERS		Hourly, Daily, Weekly, Monthly + 15%
FIELD MONUMENTATION	Granite Bounds	$50.00 Per Bound
	Iron Pins	$5.00 Per Pin
	Wood Stakes	$2.00 Per Stake
REGISTRY FEES		Cost + 15%

* Reimbursable expenses include, but are not limited to the above.

Revised: 01/04/18

CONTRACTUAL AGREEMENT FOR PROFESSIONAL SURVEYING, ENGINEERING AND LAND PLANNING SERVICES

This is an AGREEMENT between TFMoran Inc., ("CONSULTANT") and **Hooksett Sewer Commission** ("CLIENT")

The effective date of this AGREEMENT is date of execution.

The CLIENT authorizes the CONSULTANT to provide professional surveying, engineering and land planning services for the PROJECT, which is described herein below; and in consideration of these services and or the satisfactory performance by the CONSULTANT of the services provided and for the payments to be made, therefore, by the CLIENT, the CONSULTANT and the CLIENT do hereby agree as follows:

ARTICLE I - PROJECT DESCRIPTION Please refer to letter of proposal dated: **February 5, 2018**

ARTICLE II - SCOPE OF SERVICES Please refer to letter of proposal dated: **February 5, 2018**

ARTICLE III - COMPENSATION Please refer to letter of proposal dated: **February 5, 2018**

A. General - The CONSULTANT shall charge and the CLIENT shall pay for all services rendered by the CONSULTANT in connection with the PROJECT in strict accordance with the conditions set forth in this ARTICLE of AGREEMENT.

B. Standard Billing Rates – Unless otherwise specified, The CONSULTANT shall charge for all services rendered on the PROJECT on the basis of the attached Fee Schedule (or revisions thereto), which Fee Schedule is subject to change by CONSULTANT on a quarterly calendar basis without further notice to CLIENT.

C. Reimbursable Expenses – The CONSULTANT shall be reimbursed for all expenses incurred in connection with the PROJECT in accordance with the attached Schedule of Reimbursable Expenses. Items not shown on the Schedule shall be charged on the basis of actual cost plus 15%.

D. Lump Sum Fees – When the proposal calls for the CONSULTANT'S services to be compensated on the basis of a lump sum, the CONSULTANT shall charge the CLIENT based on the percentage of work completed, at the time of billing, in connection with the PROJECT plus Reimbursable Expenses.

ARTICLE IV - TIME AND METHOD OF PAYMENT

The CONSULTANT will invoice the CLIENT on a monthly (minimum) basis for payment of the work completed under this AGREEMENT.

The CLIENT shall promptly review and process the invoices and shall make payment to the CONSULTANT on a timely basis. All invoices shall be due and payable within thirty (30) days from the date thereof. Invoices shall be deemed uncontestable if CLIENT has failed to notify CONSULTANT of any objections within such thirty (30) day period. CLIENT shall pay when due any portion of the invoice not in dispute.

If the CLIENT does not make payment to the CONSULTANT within thirty (30) days from the date of CONSULTANT's invoice, the amount due the CONSULTANT shall incur an interest charge of 1 1/2% per month, computed from the thirtieth (30th) day. If payment is not received in accordance with the above, the CONSULTANT may suspend services under this AGREEMENT, after giving the CLIENT notice, until full payment for all amounts due to the CONSULTANT are paid by the CLIENT. Additionally, should the CLIENT default on payments, the undersigned CLIENT agrees to pay CONSULTANT'S costs of collection including but not limited to all attorney's fees and court costs. The CLIENT also agrees that jurisdiction, should the CONSULTANT have to file suit, be the County and State of the CONSULTANT's main office.

ARTICLE V - PERIOD OF SERVICE

The CONSULTANT shall begin work under this AGREEMENT in a timely manner after receipt of a fully executed copy of this AGREEMENT and will perform the agreed upon professional services in a good and workmanlike manner. Payment must be received in full prior to the release of any documents or instruments of service to you or regulatory agencies. The CONSULTANT, at a future date, may record a notice of lien as provided by law (RSA 447:2) against the property listed above, if invoices are not paid within 60 days.

ARTICLE VI - ADDITIONAL WORK

If, during the term of the AGREEMENT, the scope or character of the work changes substantially, or if the period of service is increased substantially due to circumstances beyond the control of the CONSULTANT, additional compensation shall be paid to the CONSULTANT in accordance with the CONSULTANT's current billing rates.

The CONSULTANT will take reasonable precautions to minimize damage to the land from its operations, but the CONSULTANT has not included in its fee the cost for restoration of damage that may result from its operations. If the CONSULTANT is required to restore the land to its former condition, this will be accomplished and the cost will be added to the CONSULTANT's fee.

ARTICLE VII - CLIENT RESPONSIBILITIES

A. The individual executing this AGREEMENT, if acting on behalf of a partnership, corporation, or funding agency, represents that s/he has the authority to do so.

B. Project Requirements - The CLIENT shall provide to the CONSULTANT all relevant criteria and requirements for the PROJECT, including objectives, constraints, performance requirements, future expansions, schedule expectations, and budgetary limitations.

C. Existing Information - The CLIENT shall provide the CONSULTANT with all information available to the CLIENT pertinent to the CONSULTANT's work under this AGREEMENT. The CLIENT shall assist the CONSULTANT as necessary to obtain pertinent information from federal, state or local offices or from other engineers or others who have previously worked for the CLIENT on matters affecting this PROJECT.

D. Access for Field Work – If it becomes necessary for the CONSULTANT's personnel and/or subcontractors to enter areas of the CLIENT's property, the CLIENT shall arrange for and provide the CONSULTANT with access to such areas on a timely basis. The CLIENT shall arrange for or assist the CONSULTANT in obtaining access to public and private property as required by the CONSULTANT.

E. Review Documents - The CLIENT shall examine all documents prepared for the PROJECT by the CONSULTANT; and at the CLIENT's option, obtain advice from legal counsel, insurance counsel, and other appropriate advisors, and advise the CONSULTANT of any opinion or recommendation resulting from said advice.

F. The CLIENT shall give prompt notice to the CONSULTANT whenever the CLIENT becomes aware of anything that would affect the scope or timing of the CONSULTANT's services.

G The CLIENT shall bear all costs related to compliance with this ARTICLE of AGREEMENT.

ARTICLE VIII - DISPOSITION OF PROJECT DOCUMENTS

Upon completion of the PROJECT and contingent upon payment in full according to the terms herein, the CONSULTANT shall make available to the CLIENT at his request, one full set of reproducible copies of drawings, plans, maps, copies of reports and other documents which have been prepared as a result of this AGREEMENT. This material shall become the property of the CLIENT and the maintenance of the material shall be the responsibility of the CLIENT. All original drawings, diagrams, specifications, calculations, reports, processes, computer processes and software, operational and design data, and all other documents, and copies thereof, produced as a result of this contract shall remain the property of the CONSULTANT and may be used by the CONSULTANT without consent of the CLIENT.

All such materials are instruments of service in respect to the PROJECT, and they may not be reused without the prior written consent of the CONSULTANT by the CLIENT or others on extensions of the PROJECT or on any other project. Any reuse without such written consent will be at the sole risk of the CLIENT without liability or legal exposure to the CONSULTANT, and the CLIENT shall indemnify, defend and hold harmless the CONSULTANT from all claims, losses, suits, actions, costs or damages, including but not limited to attorney's fees and expenses, resulting from such reuse of the material.

ARTICLE IX - SUCCESSORS AND ASSIGNS; NO THIRD PARTY BENEFICIATIONS

All rights hereunder shall inure to the benefit of the parties hereto, their personal or legal representatives, heirs, successors and assigns. The parties hereto are independent contractors, and no agency, partnership, joint venture or employee-employer relationship is intended or created by this Agreement. This Agreement is solely between CONSULTANT, and CLIENT, and is not intended to be enforceable by any third party or to create any express or implied rights for any third party.
Neither the CLIENT nor the CONSULTANT shall assign, sublet or transfer his/her/its interest in this AGREEMENT without the written consent of the other party hereto.

Nothing in this paragraph shall prevent the CONSULTANT from employing such independent consultants, associates, and subcontractors as it may deem appropriate to assist in the performance of the services of this AGREEMENT.

ARTICLE X - LIMITATION OF LIABILITY, CAUSES OF ACTIONS, FORCE MAJEURE, GOVERNING LAW; WAIVER OF JURY TRIAL

Neither party shall be liable for any special, indirect, incidental, exemplary, punitive or consequential damages, including, but not limited to, lost income, lost revenue, lost profits, or lost business opportunity, whether based in contract, tort or any other theory, even if a party has been advised of the possibility of such damages. Moreover, in no event shall CONSULTANT'S cumulative liability

hereunder, from all causes of any kind, exceed the lesser of: (i) actual, direct damages to the extent caused by the negligent acts or omissions of the CONSULTANT, or (ii) the total amount actually received by CONSULTANT from CLIENT pursuant to this Agreement. Moreover, in the event that CONSULTANT is not engaged to provide professional services with respect to any bidding or construction phases of the PROJECT, CONSULTANT shall not be liable for and the CLIENT shall indemnify, hold harmless and defend CONSULTANT from all claims, damages, losses and expenses, including attorney's fees, arising from or out of or resulting from actions or inaction carried out by CLIENT or others.

With respect to any matters which are or intended to be submitted to any governmental agencies for action, the CLIENT understands and agrees that the CONSULTANT is unable to predict or estimate the number of meetings or the time frames associated with any such governmental agency proceedings. The CONSULTANT is also unable to predict or determine the actions such governmental agencies may take, if any. CONSULTANT shall not be liable for damages, loses and/or delays resulting from the actions or inactions of governmental agencies and the CONSULTANT shall only act as an advisor in all governmental relations.

Causes of action between parties to this Agreement pertaining to acts or failures to act shall be deemed to have accrued and the applicable statutes of limitations shall commence to run not later than the earlier of the date of substantial completion or the date of performance of CONSULTANT'S last services.

Neither party is liable for its failure or delay in performing its obligations under this Agreement due to strikes, wars, revolutions, acts of terrorism, fires, floods, explosions, earthquakes, parts or labor shortages, government regulations, or other causes beyond its reasonable control. You agree to pay the CONSULTANT for work performed in accord with the terms of this AGREEMENT, without regard to the success of the project.

The laws of the State of New Hampshire will govern this Agreement and all legal proceedings shall be submitted to the state or federal courts located in New Hampshire for trial by a judge without a jury. Each party waives any right to a jury trial in any such action.

ARTICLE XI - TERMINATION

Either party may terminate this AGREEMENT in whole or in part, in writing, if the other party substantially fails to fulfill its obligations under this AGREEMENT through no fault of the terminating party. However, no such termination may be effected unless the other party is given 1) not less then ten (10) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate and 2) an opportunity for consultation with the terminating party before termination.

Upon termination, the CLIENT shall pay the CONSULTANT for all work completed prior to the effective date of the termination. If compensation within the AGREEMENT is based on a lump sum, the amount due the CONSULTANT at termination shall be computed as the percent complete of the work times the lump sum. If compensation is based on billing rates or actual costs, the amount due at termination shall be computed based on hours charged to the PROJECT at termination times the appropriate ratios.

ARTICLE XII – MARKETING

The undersigned gives the CONSULTANT permission to display a sign or banner on the property while they are working at the above-mentioned location. The sign shall be removed by a CONSULTANT representative no later than two weeks from the completion date of the project.

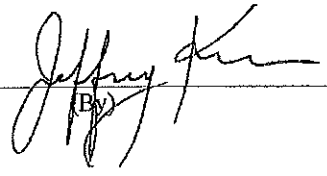
The undersigned gives the CONSULTANT permission to take photographs if the project location to be used for marketing purposes, which includes, but is not limited to the CONSULTANT's website, Facebook page, and advertising brochures.

In WITNESS WHEREOF, the CLIENT and the CONSULTANT have made and executed this AGREEMENT.

CLIENT: **Hooksett Sewer Commission**

(By) (Title) (Date)

CONSULTANT: **TFMoran Inc.**



(By)

VP
(Title)

2/5/2018
(Date)

Stantec

February 2, 2018
File: 1951xxx

Bruce Kudrick, Superintendent
Hooksett Sewer Commission
1 Egawes Drive
Hooksett, NH 03106

Dear Mr. Kudrick,

Reference: Hooksett, NH
Exit 10 & 11 Pump Station, Horizontal Directional Drill and Gravity Sewer
Proposed Scope and Fee

In accordance with your request we are providing the attached a scope and fee to develop a design phase engineering fee and a preliminary opinion of probable project cost for the proposed Exit 10 & 11 Pump Station and Merrimack River Force Main Crossing Project.

We have based our Scope and Fee on our discussions during our recent meeting on January 24, 2018. In order to fully understand your proposed project we have also visited the Hampton River Street Pump Station, we have spoken with the local Pan Am Railways engineer regarding the requirements of the railroad relating to crossing under their facilities with sewer force mains, we have spoken with a horizontal directional drill company regarding potential approaches for the project and we have developed a gravity sewer main profile for Rte. 3A from Exit 10 and Hackett Hill Road to the proposed pump station location providing preliminary sewer depth information.

A summary of the scope of work for this phase of the project will include:

Design Phase Engineering Fee Estimate will consider:

- Estimation of projected sewer flow from the Exit 10 and 11 exit areas
- Pump station design cost
- Horizontal directional drilling design for twin force mains under the Merrimack River
- Geotech/survey field data acquisition
- Sewer Force main design and connection to the existing interceptor
- Gravity sewer design from Route 3A(North) to the proposed pump station and from Hackett Hill Road(South) to the proposed pump station
- Coordination with Pan Am Railways, NHDOT, and NHDES
- Prepare and submit required NHDOT, NHDES and Army Corps Permit Applications

Reference: **Hooksett, NH**
Exit 10 & 11 Pump Station, Directional Drill and Gravity Sewer
Proposed Scope, Capabilities and Fee

Preliminary Opinion of Probable Project Cost Estimate will consider:

- Gravity sewer costs
- Pump station costs
- Horizontal Directional Drill Costs
- Pan AM crossing costs
- Force Main Costs
- Costs of Misc. Permit Impacts

This is an interesting project to Stantec. We feel we have very pertinent experience including the design of many pump stations, trenchless pipe installations, municipal gravity sewers, environmental permitting including a project right along the Merrimack River in Hooksett, and recent experience dealing with Pan Am Railroad.

Our municipal sewer pump station experience includes designing and performing construction phase services on over 50 pump stations (new construction/upgrades), as large as 90 mgd, in New England. Below are several, recent pump stations we have designed in New Hampshire:

- Pease WWTF, Main Street Pump Station, 4 mgd, Portsmouth, NH
- NHDAS, Army National Guard Pump Station, 0.1mgd, Pembroke, NH
- Derry Pump station, 6.1 mgd, Derry, NH
- Croft Beach Pump station, 0.17 mgd, Newbury, NH
- Alewife Sewer Pump Station Upgrade, 90 mgd, MWRA

Please also see the attached list of pump stations Stantec has design throughout the northeast.

The engineering of trenchless technologies has advanced tremendously in the past 10 years. Advanced knowledge, experience and technical expertise in trenchless technologies significantly reduces our clients risk on projects. Stantec was recently ranked the #3 trenchless technology design firm in the United States so we have the expertise to work with the Hooksett Sewer Commission to reduce the risk on this project and guide the project through a successful completion. Our trenchless technology experience includes over 1,500 projects, in the past 10 years, around the world. Locally we have designed and performed the construction phase services on the following trenchless projects in New Hampshire and Maine:

- Unitil Corporation – 650' long HDD, 12" dia. steel sleeve for an 8" dia. natural gas main under Route 95 and the Piscataqua River, Falmouth, ME
- Tilton/Northfield Water District – 600' long HDD, 10" dia. water main under the Winnipesauke River, Tilton, NH

Reference: **Hooksett, NH**
Exit 10 & 11 Pump Station, Directional Drill and Gravity Sewer
Proposed Scope, Capabilities and Fee

- Milton Water Department – 1,400' long HDD, 8" water main installation under Milton Pond, Milton, NH
- Portsmouth Public Works - 180' long jack and bore, 48" steel sleeve with a 36" dia. drainage outfall under Pan Am Railways tracks, Brewster Street, Portsmouth
- Town of Franconia - 1,000' total length of HDD - including 4", 6", and 8" HDPE fusion welded water mains under the Gale River, as part of the recent upgrades to town wide water distribution system, Franconia, NH
- NHDOT – 220' of 48" dia. CMP pipe ramming with 72" steel sleeve, and a 180' long 54" RCP jacked pipe under Route 393, Concord, NH

Please also see the attached list of additional trenchless technology projects Stantec has design throughout the United States.

Most of these recent projects required environmental permitting, which was also handled by Stantec and our team of local environmental specialists. In 2017, we completed the Merrimack Riverfront Trail System project for the Hooksett Conservation Commission. This project included permitting for the Wetlands Bureau and the Shoreland Program. In addition to those, we also addressed the Rare, Threatened and Endangered Species permitting with NH Fish and Game, specifically their concerns related to Bald Eagle nesting and hunting habitat along the Merrimack River.

We look forward to meeting with the Hooksett Sewer Commission on February 5th to further discuss our approach for the project.

Please call if you have any questions.

Sincerely,

STANTEC CONSULTING SERVICES INC.

J. Daniel Tatem
Project Manager
Phone: (603) 669-8672
Fax: (603) 669-7636
dan.tatem@stantec.com

Rene LaBranche
Senior Principal
rene.labranche@stantec.com

Attachments: Scope and Fee
Pump Station Projects
Trenchless Technology Projects

c. Hooksett Sewer Commissioners

Scope of Services

Detailed Engineering Design Fee Estimate

To include:

- Environmental Permitting (NHDES, Shoreland, Alteration of Terrain)
- NHDOT coordination/permitting for work in Route 3A
- Meetings with Town, Boards and Public
- Coordinate with Pan Am Railways
- Soil borings across river for horizontal directional drill design and required force main installation depth
- Cost for Barge mounted soil borings
- Consider existing roadway profile between Ice Arena and Dunkin Donuts, to establish necessary depth of pump station
- Design horizontal directional drill procedure to include two force mains through one drill hole as a cost savings measure
- Coordination and submissions for approval by Pan Am Railways
- Coordinate obtaining temporary construction easements with property owners, Pan Am, NHDOT and Town
- Evaluate existing and projected commercial and residential sewage flows from the Exit 10 and 11 areas
- Coordinate with HSC, Town, and Planning Department to evaluate potential, total build out and associated sewage flows
- Evaluate and design pumps system for current and potential sewage flows
- SCADA RTU design
- Evaluate proposed gravity sewer main depths for consideration of the proposed sewer pump station depth

Opinion of Probable Cost of the Construction

To Include:

Stantec will provide a detailed construction cost estimate, including the following items:

- Pump Station, complete with structure, site work, pumps, piping, electrical, SCADA, HVAC
- Horizontal Directional Drill cost
- Connection of force mains to pump station and existing sewer mains
- Coordination and cost from Pan Am Railways during work within R.R. ROW (bonds, flaggers, etc.)
- Installation of gravity sewer mains, from the north and sound ends of Route 3A, to the pump station
- Appropriate contingency and escalation factors will be factored into the cost estimate

Fee

Stantec proposes to generate the engineering design estimate and the construction cost estimate for a not to exceed fee of **$3,500.** In addition to the estimates, we will attend the necessary, additional meeting(s) with the Commission to discuss the design parameters, assumptions and cost estimate details.

Wastewater Pumping Stations

Stantec

CLIENT	PROJECT	Capacity (mgd)	Pump Station Evaluation	New Station	Rehabilitation/ Upgrade
Massachusetts					
Athol	Main Pump Station	5.5	√		√
Bedford	Shawsheen River pump station	1.3		√	
Boston	North Dorchester Bay CSO pump station	15		√	
Boston	Little Mystic Channel CSO pump station	15.0		√	
Braintree	Howard Street pump station	3.0	√		√
Braintree	Union Street pump station	0.4	√	√	
Bridgewater	Homenook pump station	0.4		√	
Bridgewater	Pleasant Street pump station	0.5		√	
Bridgewater	Reservoir pump station	0.3		√	
Bridgewater	High Pond Estates pump station	0.3		√	
Bridgewater	Elm Street pump station & forcemain	0.4	√	√	
Canton	Trayer Road pump station replacement	0.2	√	√	
Dedham	Rustcraft road pump station	1.0			√
Fairhaven	Taber Street pump station (2)	4.2, 9.8	√		√
Gardner	Gardner Zine pump stations & forcemain	0.3			√
Hanscom AFB	Main pump station (sanitary & stormwater)	0.4	√		√
Lowell	Rivers Edge pump station and force main	0.0			√
Maynard	Powder Mill Road pump station	2.8	√		√
Quincy	MWRA Hough's Neck pump station and forcemain	1.1			√
Quincy	MWRA Squantum pump station and forcemain	7.5			√
Quincy	MWRA Quincy pump station	26.0			√

Wastewater Pumping Stations

Stantec

CLIENT	PROJECT	Capacity (mgd)	Pump Station Evaluation	New Station	Rehabilitation/ Upgrade
Stow	Ridgewood LLC pump station & forcemain	0.0		√	
Ware	W/S Development, Lowe's	0.1		√	
Wareham	Village at 8:15 Main Street pump station & forcemain	0.0		√	
Westwood	Arcadia Road pump station	1.5			√
New Hampshire					
Portsmouth Pease	Pump station	4.0		√	
NHDAS	Army National Guard	0.1		√	
Benton	Glencliff - pump station and force main	0.2	√	√	
Derry	Effluent and booster pump station	6.1	√	√	
Derry	Influent force main replacement	15.0	√		√
Exeter	Exeter pump station	1.4		√	
Hillsborough	Wal-Mart pump station & sewer extension	1.0		√	
Londonderry	Action Blvd - pump station and force main	0.2	√		√
Milford	Pump station grinder replacement	4.0	√		√
Milford	The reserve pump sation	1.0	√	√	
Pembroke	Pump stations (3 pump stations)	0.7-1.7		√	√
Newbury	Blodgett Landing	0.22	√		
Newbury	Croft Beach pump station & forecmain	0.17	√		√
Stratford	**Effluent pump station & Forcemain**	**0.1**			√

Wastewater Pumping Stations

Stantec

College Brook pump station					
Vermont					
Colchester	Ethan Allan	0.2			√
Essex	Suzy Wilson Road	0.2			√
Hartford	Pump station upgrades (9 pump stations)	0.14-1.3	√		√
Middlebury	Main pump station upgrade	6.0	√		√
Milton	Route 7 pumpstation	0.3		√	
Montpellier	EAP: pumpstations (10 pump stations)	01-0.2	√		√
Rutland City	River Street pump station	28.0	√		√
Shelburne	Pump stations (3 pump stations)	0.1-0.3			√
Springfield	Main (No. 1) pump station	7.0	√		√
Stowe	Mountain Road sewer expansion	0.0		√	
Village of Waterbury	Main pumpstation	0.6	√		
Waterbury	Lincoln Street pump station	0.3		√	
Rhode Island					
Cranston	Pontiac Avenue pump station	25.0	√		√
Cranston	Allard Street pump station	1.0	√		√
Veolia Water	Screw pump replacement project	1.0	√		√

Stantec

1,500+

Trenchless installations

Stantec is **ranked #3** in the top 50 Trenchless Engineering Firms by 'Trenchless Technology' December 2017. Stantec has a long legacy of **trenchless technology solutions** for new and existing infrastructure rehabilitation. In fact, we have **completed over 1,500** projects within the past 10 years worldwide. The below projects represent a sampling of our projects in the Northeast highlighting river crossings, environmentally sensitive areas and minimizing disruption to the public in rural and urban settings.

Unitil Corporation, Natural Gas Main Extension, Falmouth, Maine

Stantec designed, permitted and provided construction phase services for a 650-foot-long directional drill project for a 12" dia. steel sleeve, which carried an 8" dia. natural gas main under four lanes of US Route 95 and under the adjacent Piscataqua River, Falmouth, ME

Cambridge Wet Weather Program, Cambridge, Massachusetts

The subsurface components of the projects that were designed included: Rehabilitation and replacement of over 40,000 feet of mainline sewer and drain piping from 8" to 54" dia. (RCP, PVC, DIP). The sewer and drain crossings of a 120-year-old, 40-inch water main, serving the entire City required trenchless construction, including pipe bursting and CIPP, hundreds of vaults, manholes and catch basins.

Portsmouth Public Works Dept., Brewster St., Portsmouth, New Hampshire

In an effort to solve a long-time flooding, and life safety issue, Stantec designed, permitted and provided construction phase services for a 180-foot-long, 48" steel sleeve with a 36" dia. drainage outfall under Pan Am Railways tracks. As part of this effort, Stantec coordinated both the design and construction of the rail road crossing with Pan Am Railways, NHDES and the City.

Technology Park Downstream Sewer Study, Framingham, Massachusetts

Stantec is in the process of designing 4,600 linear feet of 30" dia. gravity sewer, 25 feet deep, to increase capacity for a new Technology Park development and to accommodate future growth in the Town. The sewer alignment is complex and involves construction along the CSX active freight railroad line, crossing the Massachusetts Turnpike, Route 9 and the Mass Pike. The project also has geotechnical and environmental considerations, including construction in ledge and crossing under two wetlands. Microtunneling of 48" steel casing is included as the sewer installation method for these crossings.

Stantec

MWRA Branch Sewer Relief Project, East Boston, Massachusetts

The project was designed to significantly reduce CSO incidences from the East Boston Branch Sewer System by construction of new relief sewers, upgrading of existing sewers, and rehabilitation of existing sewers. Due to the congestive urban setting, the majority of the project involved the use of horizontal trenchless technologies including micro-tunneling, pipe bursting and cured-in-place liners.

Tilton Northfield Water District, Tilton New Hampshire

To assist the District with a water supply expansion project, Stantec designed, permitted and provided construction phase services for a 600-foot-long, horizontal directional drill installation of a 10" dia. HDPE water main under the Winnipesauke River.

Sockanosset Sewer Replacement/Rehabilitation Project, Cranston, RI

The Sockanosset Sewer is a major trunk line ranging in size from 18" – 30" dia. mains, carrying peak flows in excess of 12.0 mgd. The project involved evaluating the need for rehabilitation or replacement, reviewing alternatives for restoring pipeline integrity, including trenchless methods CIPP, sliplining, pipe bursting, and microtunneling, and developing recommendations based on technical feasibility, cost effectiveness and long-term reliability.

Tulalip Water Pipeline Project Everett, Washington

This project included a 7.6-mile-long gravity pipeline. 48" dia. steel pipe for open trench construction and a 36" dia. steel pipe for the trenchless waterway crossings, operated at pressures of up to 230 psi. The pipeline crossed through residential, industrial, and commercial business area and included crossings under railroads, state highways, waterways, and environmentally sensitive areas.

Town of Franconia, Town-Wide Water Distribution System, Franconia, NH

Stantec designed, permitted and provided construction phase services for a town-wide water system improvement project. The design included several crossings under the Gale River. The lengths totaled approximately 1,000 feet of 4", 6", and 8" dia. HDPE fusion welded water mains under the Gale River.

Park Place North Storm Drain, Renton, Washington

The project included steep slopes, new storm drain system, consisting of 160-foot-long, 12" dia. HDPE culverts. Surveying/geotechnical/hydraulic modeling Trenchless construction. Stantec developed a design that incorporated flow, pipe weight, and thermal expansion to meet the needs of the City while factoring in the terrain and neighborhood of the new pipe route. We also recommended a trenchless construction approach that installed the pipe below ground to allow for easier construction and less disturbance of the existing steep slopes.

NHDOT Drainage Project #16287, Route 393, Concord, NH

Stantec designed, permitted, and provided construction phase services for the NHDOT 16287 project under Route 393, which included pipe ramming 220 feet of new 72" dia. casing and installing a new 48"carrier pipe with headwalls and inlet and outlet ditch construction. Also included is the trenchless pipe rehabilitation of a deteriorated 36" dia. CMP Drainage Culvert. The project also included the rehabilitation of the existing CMP drainage culvert with a close-fit cured in place liner and construction of inlet and outlet headwalls and an outlet stone apron.

NHDOT Drainage Project #16288, Route 393, Concord, NH

Stantec designed, permitted and provided construction phase services for the NHDOT 16288 project, under Route 393, which included the replacement of a severely deteriorated 54" CMP drainage culvert. The new pipe installation at an adjacent location will be done by jacking a new 54" reinforced concrete carrier pipe and constructing headwalls and inlet and outlet ditches.

Lift Station 46 and Conveyance Study

The project included the evaluation of a new lift station location and conveyance route, evaluation of the trenchless construction method, route and risk/cost assessment, property purchase negotiation easement acquisition, and permitting acquisition. The conveyance route included trenchless construction methods under State Route 18, Kent-Kangley Highway, and Big Soos Creek. Stantec also prepared and obtained permits for the entire conveyance route and lift station site.

Milton Water Department New Water Supply Project, Milton, NH

As part of the new water supply project, Stantec designed, permitted and provided construction phase services for the 1,400-foot-long horizontal directional drill to install an 8" dia. HDPE water main, under Milton Pond and the adjacent rail road.

City of Everett Sewer System, Everett, Washington

The project consisted of the design of both open cut and trenchless construction using pipe bursting technology to replace existing water and sewer mains. The project was located in one of the oldest neighborhoods in the City of Everett, with sewers in narrow alleyways and paved roads over concrete panels. Stantec helped the City replace over 5,000 linear feet of sewers and 2,000 linear feet of water mains using both open cut and pipe bursting.