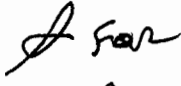

MEMORANDUM

To: Mayor Westover and Members of the Assembly
Jim Dinley, Municipal Administrator

Through: Michael Harmon, P.E., Public Works Director 

From: Stephen L. Weatherman P.E. Municipal Engineer 

cc: Jay Sweeney, Finance Director
Mark Buggins, Environmental Superintendent

Date: July 6, 2011

Subject: Sewer System Master Plan
Approval to Award Design Contract

Background:

Similar to the Water System Master Plan this plan will be used as a guideline for upgrading or reconstructing existing systems and/or installing new systems. The plan will entail a comprehensive assessment of the existing conditions and needs of the system. The plan will include preliminary site and engineering designs for new infrastructure as well as budgetary cost estimates for all improvements. The Master Plan will be used as a factual basis for securing local, state and federal funding for these improvements.

A Request for Qualifications (RFQ) for development of the Master Plan was published in accordance with City and Borough procurement policy. A copy of the RFQ is attached. Four Statement of Qualifications were received, one from DOWL HKM one from PDC Inc. one from URS inc. and one from Bristol Environmental & Engineering Services Corporation. The Engineering and Waste Water Department staff agrees unanimously that DOWL HKM is most qualified to do this work.

DOWL HKM has provided a fee proposal for a not to exceed time and materials cost of \$110,000.00 for the development of the Master Plan. A copy of that proposal is attached.

Analysis

The Master Plan will identify needed capital projects and budgetary cost. The plan will also develop a financing plan and rate structure.

Fiscal Note

The project currently has \$ 125,000.00 Wastewater Funds available.

Recommendation:

Approve award of a design contract for the Sewer Master Plan to DOWL HKM with a not to exceed amount of \$110,000.00.



DOWL HKM

July 6, 2011
W.O. 60854

Stephan Weatherman, P.E.
Municipal Engineer
City and Borough of Sitka
100 Lincoln Street
Sitka, Alaska 99835

Subject: ***Revised*** Scope of Services and Fee Proposal
Sitka Sewer Master Plan

Dear Mr. Weatherman:

DOWL HKM is pleased to present this revised proposed scope of work for developing a Municipal Sewer System Master Plan for the City and Borough of Sitka (CBS) Public Sewer System. The following scope of services was developed based on review of the project request for proposal, a site visit, and discussions with Sitka Public Works staff. We understand the Master Plan will be used as a guideline for establishing user rates, and as a factual basis for securing local, state, and federal funding for proposed capital improvement projects.

SCOPE OF SERVICES

Task 1 - Inventory Existing Sanitary Sewer System

DOWL HKM will travel to Sitka and conduct a kickoff meeting with CBS staff to confirm objectives and schedule. Only one site visit is planned for the duration of the project. We understand that the DOWL HKM scope of work will be minimal for this task.

We will summarize the findings of previously completed CCTV inspections and use the results during the condition assessment. Where CCTV data sheets notes are unclear, we will review the video and clarify notes. We assume CCTV video review will be minimal.

We understand CBS has addressed most inflow into the collection system as identified by smoke testing results. We will review smoke testing results for areas not previously addressed and identify known problem areas.

CBS will provide the following information to assist with the system inventory.

- Collection system record drawings, including those for new major and minor subdivisions, line extensions, etc.
- Results from previous lift station drawdowns.
- Daily records of lift station runtimes for each pump in each lift station in an excel spreadsheet for the last 2 years.
- Lift station wet well data (diameter, depth, etc), force main size and length, and pump data (discharge curves) and pump horsepower for each station.

- Treatment plant record drawings including geotechnical information, plant hydraulic profile, existing process SCADA system, marine outfall, sludge and screenings residuals collection and disposal equipment.
- Treatment plant influent loadings provided by CBS for influent flows, influent wastewater quality (solids, organics, nutrients).
- Treatment plant performance data.
- Treatment plant regulatory information.
- Collection system pretreatment program reporting data.
- CCTV video in digital format.

DOWL HKM will make an FTP site available for CBS use in transmitting data.

CBS Operation and Maintenance (O&M) will be available to discuss issues encountered with the project area sewer mains and what pipe conditions they have observed during past repair work.

Task 1 Deliverables

- No deliverables. Data gathered to be used in future tasks.

Task 2 – Base Mapping (GIS Map)

CBS will provide a GIS map to DOWL HKM with the following information complete:

- Shape files for pipe, manholes, lift stations, etc.
- Pipe attributes including diameter, material, and year of construction.
- Manhole attributes including rim elevations and inverts. We understand that CBS will use a combination of collected field data and record drawings to provide this information.
- Delineation of drainage basins based on 1984 TNH drawings.

DOWL HKM will review the GIS base map provided by CBS. We will provide recommendations to make the GIS database more user friendly and easy to interpret and navigate. We will create links to database folders associated with each drainage basin where relevant attributes will be stored and accessible for review and update by CBS.

DOWL HKM will provide an example GIS project for CBS review for one drainage basin demonstrating our recommended database organization, and interface presentation. We will proceed with the remaining drainage basin organization upon approval from CBS.

Task 2 Deliverables

- GIS map and database with pertinent attributes delivered electronically.
- GIS map as 11 x 17 PDFs with title block, legend, and uniform scale. This work will be incorporated into the Master Plan.

Task 3 - Sewer Modeling

We will use SewerCAD to model the CBS collection system. The model will include only the main interceptors (typically mains with diameters 12-inch and larger) and known problem areas identified by CBS.

The GIS base map will be imported into SewerCAD. Gravity and force mains will be identified. Flow information will be added using assumed unit loadings based on each parcel or building. Infiltration/Inflow will be assigned to the model, based on information gathered from previous studies, and pump station and plant flow records. Pipe slopes will be calculated using CBS GPS information and/or record drawings. We will request CBS authorize additional survey where elevation data is deficient.

The model will then be validated, its accuracy quantified by information collected from the wastewater treatment plant, and applicable CBS's lift stations. We assume CBS will provide lift station on/off cycle times and assumed flow.

Task 3 Deliverables

- SewerCAD Model.

Task 4 - Regulatory Compliance Analysis

We will review the sewer system's compliance with existing wastewater treatment and disposal regulations applicable to the CBS, and review the impact of pending and/or anticipated regulatory issues on the treatment facility. Regulatory issues may include:

1. Status of 301(h) waiver from secondary treatment.
2. Reduced concentrations of effluent nutrients.
3. Biological treatment of wet weather flows.
4. Reduced concentrations of effluent chlorinated disinfection byproducts.
5. Pretreatment program requirements for industrial or unusual discharges to the collection system.

Task 4 Deliverables

- Regulatory Compliance Memorandum, complete with findings and recommendations. This work will be incorporated into the Master Plan.

Task 5 - Condition Assessment

We will perform a condition assessment that will include evaluation of:

- Gravity and force sewer mains.
- Lift stations with focus on pumps.

Task 5.1 - Evaluation of Existing Sewer Main Collection System

We will perform an assessment of the existing condition and needs of the sewer main collection system for collection lines with known problem areas identified by CBS and identified during CCTV review. The assessment will include review of existing CCTV data, discussions with CBS operators, and review of other data obtained in Tasks 1 and 3 (record drawings, break history, smoke test results, and modeling results). We will prioritize replacement/upgrades based upon age, functionality, separation requirements, future growth potential (future flows) for the drainage area, and input from CBS.

CBS will provide a marked-up base map showing areas identified for potential future development, including assumed zoning and acreage. We will use the model to evaluate the ability of the existing system to accommodate future loading from these areas.

We will perform a cursory review of available record drawings in areas identified as known or suspect problem areas for State of Alaska Department of Environmental Conservation (DEC) separation distance deficiencies between water and storm or sanitary sewer mains.

Task 5.2 - Evaluation of Existing Sewer Lift Stations

We will visit each lift station to perform a visual assessment. We will perform an analysis and evaluation of the existing sewer main lift stations, with a focus on review of pump capacity and identifying lift stations heavily influenced by rainfall. We will prioritize replacement/upgrades based upon age, functionality, future growth potential (future flows) for drainage areas, and recommendations from CBS on the SCADA and electrical improvements. We will incorporate any future projects and associated costs in the list of capital projects developed in Task 5.1.

We will provide a demo project for one area, e.g., one lift station drainage basin, to evaluate methods used and deliverables prior to complete system evaluation. We will then submit to CBS for review and comment before completing the work for the remaining lift stations.

Task 5.3 - Wastewater Treatment Plant (WWTP) Evaluation

The condition assessment for the WWTP will be minimal and consist primarily of discussions with plant operators during the site visit and other CBS input received during the project.

Task 5 Deliverables

- Develop a Condition Assessment memorandum, including discussion on the existing conditions, identification of portions of the system that are reaching the end of their useful life, and other known problem areas. This work will be incorporated into the Master Plan.

Task 6 - Capital Improvement Project Identification

Based on findings presented in the Condition Assessment Memorandum, we will work in close coordination with CBS staff to develop a list of future capital projects. Capital projects may include replacing existing infrastructure as well as developing new infrastructure.

We will provide planning level cost estimates and schematic depictions for near term (next six years) projects. Planning level costs for sewer line replacement/extension will be established based on CBS historical bid tabs. The near term projects shall consist of the following:

1. Elimination of landfill leachate contributions to raw sewage influent flows to the wastewater treatment plant.
2. Expansion of CBS's current sludge disposal area.
3. Upgrade of the wastewater treatment plant's effluent disinfection process.
4. Sewer lift station improvements/additions (pumps, controls, electrical, mechanical, etc.).
5. Continued reduction in infiltration and inflow.
6. Replacing/upgrading portions of the sewer main collection system (mains and manholes).

Planning level cost estimates will include contingencies and overhead factors approved by CBS. A long-term (next twenty years), lower priority list of projects will also be developed including order of magnitude costs. No schematic design will be included with the long-term list projects.

We will provide an order of magnitude cost estimate using the configuration previously completed by Carson Dorn for process infrastructure to implement secondary treatment of municipal wastewater at CBS.

Task 6 Deliverables

Capital Improvement memorandum including:

- Short-term Capital Improvement project list including planning level cost estimate, schematic depictions, and brief project descriptions.
- Long-term Capital Improvement project list including order of magnitude cost estimate.

Task 7 - Sewer Rate Study

Based on information gathered in Tasks 1 to 6 we will evaluate CBS's sewer utility operation and maintenance costs, future capital project costs based on the work in the previous tasks, customer service policy, and current rates. In reviewing the current operation and maintenance budget, we will make recommendations for cost savings. We will also provide recommendations on existing and future staffing levels. We will perform a rate study and make recommendations for current and future rates. CBS will make the most recent evaluation available to the Consultant.

The final rate study shall meet industry wide standards and be provided in a format that is generally accepted in the industry. DEC is Sitka's primary source of funding for grants and loans. An approved and adequate rate structure is a component of DEC's evaluation. The rate study must be acceptable to DEC. The following sub-tasks will lead to the completion of Task 7.

Task 7.1 Data Collection/Validation

We will prepare an initial data request identifying specific data to be collected from CBS for the rate study portion of the project. Data will include such items as financial statements, operating budgets, debt service schedules, fixed assets listing, customer data, and rate and fee ordinances.

Task 7.2 Fiscal Policy Evaluation

We will develop a policy framework for determining appropriate levels of sewer utility reserves and other fiscal policies. This task shall begin with a review of any existing sewer utility fiscal policies and revise or build upon those policies as necessary to achieve results consistent with industry practice and objectives of the CBS. In addition, policies will be developed consistent, to the extent practical, with those recommended as part of the water rate study completed for the Water Master Plan Project. Policies to be evaluated will likely include:

- Operating and capital reserve targets.
- System reinvestment funding from rates.
- Debt service coverage.
- Debt management.

Task 7.3 Operating Forecast

We will forecast ongoing O&M and administrative costs, debt service, and other financial obligations of the sewer utility over a 6-year (short-term) and 20-year (long-term) study period. Establish economic factors for customer growth and cost escalation. Incorporate additional O&M expense, if any resulting from the CIP or other known changes in operational requirements. This task will include the evaluation of potential rate impacts of increased staffing levels as may be recommended as part of the Sewer Master Plan.

Task 7.4 Capital Financing Analysis

Based on the CIP (including annual replacement needs) we will identify potential funding sources and develop an appropriate financing strategy for the sewer utility for the 6-year and 20-year study period. We will forecast capital funding needs, borrowing requirements, and associated cash flows and fund balances over the study period. We will consider such funding options as bonded debt, state grants and loans, and cash funding from rates. We will work with CBS staff to evaluate alternative schedules for implementing the CIP as necessary to help smooth rate increases. The proposed budget allows for a maximum of three (3) scenarios.

Task 7.5 Revenue Needs Assessment

The revenue needs assessment ultimately identifies the total rate revenue to be collected from utility customers, serving as the platform for generating rates that recover total utility costs. We will incorporate results of Tasks 7.1 through 7.4 and develop a 6-year operating cash flow for the sewer utility. We will compare forecasted cash requirements against forecasted revenue under existing rate levels to determine annual rate adjustments needed to satisfy all cash obligations. Test the sufficiency of utility resources to yield positive cash flow, achieve recommended fiscal policies, and comply with debt covenants, if any. It is anticipated that one scenario will be developed depicting the base level of needs (prior to the incorporating the future CIP), with additional scenarios incorporating the financing alternatives developed under Task 7.4. The proposed budget allows for a maximum of four (4) scenarios.

Task 7.6 Rate Forecast

The majority of CBS's sewer customer base is un-metered and assessed monthly user charges according to a fixed rate schedule of equivalent residential units. As such, a detailed cost of service analysis that considers usage/contribution patterns by the various customer classes will not be conducted as part of this study. Rather, the rate adjustments indicated from Task 7.5 will be applied uniformly to the current schedule of sewer rates. Phase-in strategies may be developed, if necessary, to mitigate potentially large rate increases.

Task 7.7 Comparable Rate Survey

Survey sewer rates for up to 10 comparable Alaska communities and tabulate a graphical comparison of monthly residential sewer bills to existing and proposed rates for CBS.

Task 7.8 Meetings/Presentations

Prepare materials and attend the following meetings and presentations:

- Up to three (3) meetings with CBS staff (via teleconference) to review study assumptions and preliminary rate study findings and recommendations.
- One (1) on-site meeting near the end of the study to present study findings and recommendations to CBS management and/or the Assembly.

Task 7 Deliverables

- Rate Study Technical Memorandum summarizing all study assumptions, methodologies, analytical results, and consultant's recommendations. A technical appendix will be provided containing the output of the sewer financial/rate model.
- Electronic version of sewer financial/rate model for future in-house use in updating the rates over time. The model will be developed using the spreadsheet application Microsoft Excel.

Task 8 - Master Plan

Under this task we will address comments made on previous submittals and incorporate all previous tasks into a 90% submittal titled "City and Borough of Sitka Municipal Sewer System Master Plan" for final CBS review and comment. Based on comments received from CBS we will revise and submit the final Master Plan.

We understand that CBS will use the plan as a guideline for upgrading or reconstructing existing systems or installing new systems. The plan is to be a comprehensive assessment of the existing conditions and/or needs of the system. The plan will be included in preliminary planning and engineering designs for new infrastructure as well as cost estimates completed in Task 6.

The plan shall be organized in a manner that is professional and user friendly. The plan shall include written narrative, graphs, tables, and drawings as necessary. The plan will be utilized by an array of individuals and groups such as the DEC, the local Assembly, state legislators, congressional delegation, and technical personnel.

Task 8 Deliverables

- 90% Draft Master Plan. Submit 6 copies for review.
- The Final Master Plan shall be submitted with 35 bound, color copies. CBS shall receive an electronic copy of all documents. All schematic design files shall be provided in AutoCAD 2000 and text files in MS Word. A PDF file of the final Master Plan shall be provided to CBS.

ADDITIONAL SERVICES

The following are services that may be required depending on the condition and extent of existing information. We will not proceed with the following tasks unless authorized by CBS.

Task AS-1: Topographic Survey

DOWL HKM will collect survey data to supplement the CBS GPS data collection. We will survey any missing information needed to document the existing system and provide information for the area modeled. Field survey may include new systems, manholes, inverts, pump stations, etc. We will prioritize where additional survey may be needed using the sewer model.

The survey crew will mobilize out of our Juneau office and establish GPS control throughout the Sitka and Japonski Island area utilizing an OPUS solution for primary horizontal control. The project will be based off this OPUS solution and all coordinate values will be provided in NAD 83, Alaska Zone 1 state plane coordinates. For vertical control, we will tie the GPS control into published NOAA bench marks, referenced to mean lower low water situated in downtown Sitka.

Based on the established control, we will utilize real time kinematic (RTK) GPS rovers to locate and tie the manhole lids, providing an x, y, z coordinate for each. As we locate the manhole lids we will measure to the inverts of the sewer mains. Where RTK GPS is not practical due to tree canopy, we will establish temporary control near the manhole and use conventional survey methods for location.

Stephan Weatherman, P.E.
Municipal Engineer
City and Borough of Sitka
July 6, 2011
Page 9

All locations and invert elevations will be downloaded for use in the model and inserted into the base map.

Task AS-2: Additional Sewer Modeling

DOWL HKM will refine and calibrate the sewer model based on a level of calibration defined by CBS.

SCHEDULE

We will provide a completed Master Plan by December 1, 2011. This schedule assumes receipt of the sewer GIS database from CBS no later than August 15.

FEE ESTIMATE

We propose to furnish the described basic services for a total time and materials (T&M) fee of \$110,000, and Additional Services for a T&M fee of \$27,518. This total fee consists of the following components, which is covered in detail on the attached estimates:

Task Description (Basic Services)

Task 1: Inventory Existing Sanitary Sewer System.....	\$11,744
Task 2: Base Mapping (GIS Map).....	\$ 6,845
Task 3: Sewer Modeling	\$11,415
Task 4: Regulatory Compliance Analysis.....	\$ 3,740
Task 5: Condition Assessment.....	\$26,610
Task 6: Capital Improvement Project Identification.....	\$16,790
Task 7: Sewer Rate Study	\$21,788
Task 8: Master Plan	\$11,068
Basic Services Total	\$110,000

Task Description (Additional Services)

Task AS-1: Topographic Survey	\$17,578
Task AS-2: Additional Sewer Modeling.....	\$ 9,940
Additional Services Total.....	\$27,518

One monthly statement will be provided showing total fees invoiced for each of these tasks. Payment will be expected within 30 days.

Services performed by DOWL HKM under this agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this agreement, or in any report, opinion, document, or otherwise.

Stephan Weatherman, P.E.
Municipal Engineer
City and Borough of Sitka
July 6, 2011
Page 10

We trust this provided adequate information for evaluating our proposal. We look forward to working with you on this project and will be happy to answer any additional questions you may have.

Sincerely,
DOWL HKM



Steve K. Noble, P.E., PTOE
Vice President

Sincerely,
DOWL HKM



Aaron R. Christie, P.E.
Contract Manager/Project Manager

Attachments: As stated

60854.Revised.Weatherman.CN.ARC.SKN.070611.mas

This proposal/agreement is accepted, and DOWL HKM is authorized to proceed with the work.

Signature

Date

DOWL HKM
ESTIMATE FOR PROFESSIONAL SERVICES

PROJECT:	Municipal Sewer System Master Plan	WO#:	D60854
		DATE:	7/6/2011
		Prepared by:	ARC
CLIENT:	City and Borough of Sitka		

Tasks	Basic Services	Total Fees
Task 1	Inventory Existing Sanitary Sewer System	\$11,744
Task 2	Base Mapping (GIS Map)	\$6,845
Task 3	Sewer Modeling	\$11,415
Task 4	Regulatory Compliance Analysis	\$3,740
Task 5	Condition Assessment	\$26,610
Task 6	Capital Improvement Project Identification	\$16,790
Task 7	Sewer Rate Study	\$21,788
Task 8	Master Plan	\$11,068
	Total for Basic Services	\$110,000
Tasks	Additional Services	
Task AS-1	Topographic Survey	\$17,578.00
Task AS-2	Additional Sewer Modeling	\$9,940.00
	Total for Additional Services	\$27,518

**DOWL HKM
ESTIMATE FOR PROFESSIONAL SERVICES**

PROJECT:	Municipal Sewer System Master Plan							WO#	1124.60854.00
								DATE:	6-Jul-11
CLIENT:	City and Borough of Sitka							PREPARED BY:	ARC/CAN

	Labor Category	Project Manager A. Christie	Project Engineer C. Nelson	Graphics T. Wallace	Admin M. Swafford			Subs/Expenses	TOTALS
	Hourly Rate	\$125.00	\$95.00	\$80.00	\$95.00			10% Markup	
Task	Task Description								
Task 1	Inventory Existing Sanitary Sewer System								
	Project Management	8	4						
	Site Visit Coordination/Planning	4	4						
	Meet with CBS Personnel (Site Visit)	12	12						
	Collect Existing Data	2	4					\$4,514.40	
	Reimbursable Expenses								
	ANC-SIT RT (2x)							\$1,400.00	
	Airport Parking, Per Diem, Misc. Expenses							\$300.00	
	<i>Subtotal - Hours</i>	26	24	0					50
	<i>Subtotal - Costs</i>	\$3,250.00	\$2,280.00	\$0.00				\$6,214.40	\$11,744.40

	Labor Category	Project Manager A. Christie	Project Engineer C. Nelson	Graphics T. Wallace	GIS Specialist C. Harrington	GIS Technician C. Felker		Subs/Expenses	TOTALS
	Hourly Rate	\$125.00	\$95.00	\$80.00	\$110.00	\$70.00		10% Markup	
Task	Task Description								
Task 2	Base Mapping (GIS Map)								
	Project Management	6	4						
	New CBS GPS field data into GIS				8				
	Database Organization (Data provided by CBS)	2	1		12	12			
	QA/QC	2	8		12				
	<i>Subtotal - Hours</i>	10	13	0	32	12			67
	<i>Subtotal - Costs</i>	\$1,250.00	\$1,235.00	\$0.00	\$3,520.00	\$840.00		0	\$6,845.00

	Labor Category	Project Manager A. Christie	Project Engineer C. Nelson	Modeling Specialist J. Rosenlund				Subs/Expenses	TOTALS
	Hourly Rate	\$125.00	\$95.00	\$125.00				10% Markup	
Task	Task Description								
Task 3	Sewer Modeling								
	Project Management	4	1						
	Create Skelotized Model Using GIS Map (12-inch and larger mains)	2	12	4					
	Input Assumed Flow Information	4	16	8					
	Adjust Pipe Slopes	2	12	2					
	Model Validation	4	16	4					
	QA/QC	2		12					
	<i>Subtotal - Hours</i>	18	57	30					105
	<i>Subtotal - Costs</i>	\$2,250.00	\$5,415.00	\$3,750.00					\$11,415.00

DOWL HKM
ESTIMATE FOR PROFESSIONAL SERVICES

PROJECT:	Municipal Sewer System Master Plan						W/O#	1124.60854.00
							DATE:	6-Jul-11
CLIENT:	City and Borough of Sitka						PREPARED BY:	ARC/CAN

	Labor Category	Project Manager A. Christie	Project Engineer C. Nelson	Senior Project Engineer R. Armstrong				Subs/Expenses	TOTALS
	Hourly Rate	\$125.00	\$95.00	\$150.00				10% Markup	
Task	Task Description								
Task 4	Regulatory Compliance Analysis								
	Project Management	2	1						
	Analysis and memorandum							\$2,970.00	
	QA/QC	1		2					
	Subtotal - Hours	3	1	2					6
	Subtotal - Costs	\$375.00	\$95.00	\$300.00				\$2,970.00	\$3,740.00

	Labor Category	Project Manager A. Christie	Project Engineer C. Nelson		Senior Project Engineer D. Alsaker	Graphics T. Wallace	Admin M. Swafford	Subs/Expenses	TOTALS
	Hourly Rate	\$125.00	\$95.00		\$150.00	\$80.00	\$95.00	10% Markup	
Task	Task Description								
Task 5	Condition Assessment								
	Task 5.1 Evaluation of Sewer Main Collection								
	Project Management	4	1						
	Review Record Drawings for Separation Distance Deficiencies	1	2					\$880.00	
	Review of Data Collected in Task 1	2	4						
	Identify Future Service Areas	2	4						
	Prioritize Replacement/Upgrades	2	6					\$3,256.00	
	Sewer Main Condition Assessment Memorandum	2	18			6	4		
	QA/QC	2			4				
	Task 5.2 Evaluation of Existing Lift Stations								
	Lift Station Condition Assessment							\$10,595.20	
	Lift Station Condition Assessment Memorandum							\$5,308.60	
	Task 5.3 Wastewater Treatment Plant Evaluation								
	WWTP Condition Assessment								
	WWTP Condition Assessment Memorandum								
	Subtotal - Hours	15	35	0	4	6	4		64
	Subtotal - Costs	\$1,875.00	\$3,325.00	\$0.00	\$600.00	\$480.00	\$380.00	\$19,949.80	\$26,609.80

DOWL HKM
ESTIMATE FOR PROFESSIONAL SERVICES

PROJECT:	Municipal Sewer System Master Plan						WO#	1124.60854.00
							DATE:	6-Jul-11
CLIENT:	City and Borough of Sitka						PREPARED BY:	ARC/CAN

	Labor Category	Project Manager	Project Engineer	Senior Planner	Planner	AutoCAD Technician	GIS Specialist	Subs/Expenses	TOTALS
	Hourly Rate	A. Christie \$125.00	C. Nelson \$95.00	M. Tuttle \$180.00	T. Hickok \$125.00		C. Harrington \$110.00	10% Markup	
Task	Task Description								
Task 6	Capital Improvement Project Identification								
	Project Management	4							
	Meeting with Sitka (Teleconference)	2	2						
	Project Identification and List Development	4	6					\$3,180.00	
	Project Description Development	4	10						
	Secondary Treatment Location Review and Estimation							\$1,100.00	
	Schematic Depictions	4	10			16			
	Planning Level Cost Estimation	2	10					\$4,950.00	
	Subtotal - Hours	20	38	0	0	16	0		74
	Subtotal - Costs	\$2,500.00	\$3,610.00	\$0.00	\$0.00	\$1,440.00	\$0.00	\$9,240.00	\$16,790.00

	Labor Category	Project Manager	Project Engineer				Subs/Expenses	TOTALS
	Hourly Rate	A. Christie \$125.00	C. Nelson \$95.00				10% Markup	
Task	Task Description							
Task 7	Sewer Rate Study							
	Project Management	4	2					
	Sewer Rate Study							\$21,098.00
	Subtotal - Hours	4	2					
	Subtotal - Costs	\$500.00	\$190.00				\$21,098.00	\$21,788.00

	Labor Category	Project Manager	Project Engineer	Senior Project Engineer	Graphics	Admin	AutoCAD Technician	Subs/Expenses	TOTALS
	Hourly Rate	A. Christie \$125.00	C. Nelson \$95.00	D. Alsaker \$150.00	T. Wallace \$80.00	M. Swafford \$95.00		10% Markup	
Task	Task Description								
Task 8	Master Plan								
	Project Management	4	2						
	90% Draft Master Plan	4	16		6	8	6	\$1,529.00	
	Final Master Plan	2	8		4	6	2	\$869.00	
	QA/QC	8		4					
	Reimbursable Expenses								
	Reproduction, Misc. Expenses							\$500.00	
	Subtotal - Hours	18	26	4	10	14	8		
	Subtotal - Costs	\$2,250.00	\$2,470.00	\$600.00	\$800.00	\$1,330.00	\$720.00	\$2,898.00	\$11,068.00

DOWL HKM
ESTIMATE FOR PROFESSIONAL SERVICES

PROJECT:	Municipal Sewer System Master Plan						WO#	1124.60854.00
							DATE:	6-Jul-11
CLIENT:	City and Borough of Sitka						PREPARED BY:	ARC/CAN

	Labor Category	Project Manager	Survey Manager	2 man survey crew	PLS III	Party Chief	Survey Tech.	Subs/Expenses	TOTALS
		A. Christie	B. Pence		D. Brechan				
	Hourly Rate	\$125.00	\$150.00	\$180.00	\$130.00	\$90.00	\$85.00	10% Markup	
Task	Task Description								
Task AS-1	Topographic Survey								
	Control Survey		6	12					
	Manhole locations		6	40					
	Data Download and coordinate conversion		2		12	12			
	Basemap		2				16		
	Reimbursable Expenses								
	Airfare (Survey Mng. & Party Chief JNU - SIT rt)							\$704	
	AMHS Ferry (Survey Veh. & Tech. JNU - SIT rt)							\$184	
	Per Diem (5 days @ \$60 per)							\$330	
	Lodging (5 nts @ \$120 per.)							\$600	
	TOTAL HOURS	0	16	52	12	12	16		
	TOTAL COST	\$0.00	\$2,400.00	\$9,360.00	\$1,560.00	\$1,080.00	\$1,360.00	\$1,818	\$17,578.00

	Labor Category	Project Manager	Project Engineer	Modeling Specialist				Subs/Expenses	TOTALS
		A. Christie	C. Nelson	J. Rosenlund					
	Hourly Rate	\$125.00	\$95.00	\$125.00				10% Markup	
Task	Task Description								
Task AS-2	Additional Sewer Modeling								
	Project Management	8	4						
	Input Additional Pipe Segments Into Model (Less than 12-inch)		24	4					
	Model Calibration	8	24	4					
	QA/QC	4		16					
	Subtotal - Hours	16	52	24					92
	Subtotal - Costs	\$2,000.00	\$4,940.00	\$3,000.00					\$9,940.00

REQUEST FOR QUALIFICATIONS (RFQ)
by
THE CITY AND BOROUGH OF SITKA, ALASKA
for
MUNICIPAL SEWER SYSTEM MASTER PLAN

A. Overview

The City and Borough of Sitka (CBS) wishes to hire a qualified consultant to develop a Municipal Sewer System Master Plan for the Sitka Public Sewer System. This plan will be used as a guideline for upgrading or reconstructing existing systems and/or installing new systems. The plan will entail a comprehensive assessment of the existing conditions and needs of the system. The plan will include preliminary siting and engineering designs for new infrastructure as well as budgetary cost estimates for all improvements. The Master Plan will be used as a factual basis for securing local, state and federal funding for these improvements.

B. Background

The City and Borough of Sitka's sanitary sewer system is a combination gravity and force main system. The sewer system collects and treats the sanitary wastewater from nearly 98% of the population of the City (approximately 3000 residential and commercial customers). This does not include Sawmill Cove Industrial Park (SCIP) which has a separate collection and treatment system that will soon be on-line with the City's system with the completion of the new Sawmill Cove Lift Station. This Sawmill Cove project included approximately 7000 feet of new force main and one (1) mile of low pressure collection main. All wastewater in the CBS system is transported across the Sitka Channel to the wastewater treatment facility owned and operated by CBS.

The average flow to the wastewater treatment facility is 1.4 million gallons per day (MGD) which is decreased from 1.8 MGD in the 1980's. This reduction is due to removal of extraneous flows (inflow and infiltration, I & I) entering the system through leaks and improper connections. The maximum federally permitted average flow is 1.8 MGD on a monthly basis. The sanitary sewer system is operating near target capacity so growth may continue to include more customers at the same rate as the reduction in I & I flows.

Due to the geology and topography, the wastewater collection system is particularly complex for the community's size. The collection system includes forty one major (41) lift stations with fourteen (14) connected to SCADA remote monitoring and control system. The collection system extends nearly six (6) miles from the central business district to the north to just past the Alaska Marine Lines Barge Facility, five and a half (5.5) miles southeast to SCIP and two (2) miles west to the USCG Air Station. In total there is approximately forty (40) miles of collection system mains of various sizes and materials.

C. General Project Requirements

The work will include, but is not limited to the following:

- Inventory existing systems
- Map existing sewer network

- Regulatory compliance analysis (existing, pending and anticipated future regulations)
- Potential site for wastewater treatment plant expansion (secondary treatment) and costs associated with regulatory compliance
- Sewer main collection system evaluation (prioritize replacement/upgrades and cost estimates)
- Sewer lift station evaluation (pumps, controls, electrical, ect.)
- Sewer rate study based on above tasks
- Master Plan (incorporate all tasks into a final or series of documents)

It is the responsibility of the firms submitting qualifications to determine the actual efforts required to complete the Master Plan. The consultant shall work closely with CBS staff to develop a list of future capital projects. Capital projects will include replacing existing infrastructure as well as developing new infrastructure. Potential future needs for the wastewater system include; treatment plant effluent disinfection, secondary treatment, additional sludge treatment, additional lift stations, continued reduction in I & I, and replacement of aging mains, manholes, pumps, controls and other electrical and mechanical equipment in the existing system.

A schedule shall be negotiated with the successful firm.

D. Requirements for Statement of Qualifications

Consultants submitting Statements of Qualifications must include the following requested information arranged in this order:

1. A letter of interest signed by an authorized representative of the Firm.
2. Narrative Statement of Qualifications for Firm. Provide address of firm where the actual work will be done.
3. List of projects (if any) previously completed for CBS with date completed.
4. A description of the Firm's successful experience with similar projects. Emphasize on Master Planning projects involving both Wastewater Treatment Facilities and collection systems.
5. Submit an organizational chart showing a designated project manager and staff.
6. Submit a personnel roster (spread sheet) showing name of each team member, indicating expertise of each team member, availability of each team member, education, years of experience, certifications and registrations of each team member.
7. Statement of firm's ability to meet task deadlines and possible schedule acceleration (availability of additional personnel and assets).
8. Statement of Firm's experience working in Southeast Alaska.
9. Responses are limited to no more than 25 pages size 8.5"x11", double sided and the font can be no smaller than 12 point. Page count includes front and back cover pages if used.
10. Responses are to be comb bound in a clear plastic report cover front and rear (clear plastic not included in page count).

Responses to this request for qualifications will be evaluated and ranked based on the following criteria (100 points total):

1. Firm's overall qualifications and experience (10 points)
2. Firm's past experience with CBS (5 points)
3. Firm's experience completing Master Planning utility infrastructure projects (35 points)
4. Team key personnel experience: education, years of experience, experience with Water/Wastewater Master Planning, certifications, registrations (30 points)
5. Ability to meet task deadlines (15 points)
6. Firm's experience working in Southeast Alaska (5 points).

E. Submissions and Inquiries

Sitka encourages disadvantaged, minority, and women-owned consultant firms to respond.

Submit six (6) copies of your Statement of Qualifications to:

City and Borough of Sitka, Municipal Clerk
100 Lincoln Street,
Sitka, Alaska 99835

Proposals will be received until **2:00 p.m. local time Tuesday, April 5, 2011.**

Any questions regarding this project should be directed to Stephen Weatherman, P.E., Municipal Engineer, at stephen@cityofsitka.com, (907) 747-4042.

Dates of Publication:

Sitka Daily Sentinel:	3/9, 3/11 & 3/14
Juneau:	3/9, 3/11 & 3/18
Anchorage Daily News:	3/11 & 3/18
Seattle Daily:	3/11 & 3/18