TASK ORDER NO. 2

CITY OF CAMAS

AND

CAROLLO ENGINEERS, INC.

This Task Order is issued by the OWNER and accepted by ENGINEER pursuant to the mutual promises, covenants and conditions contained in the Agreement between the above named parties dated the _____ day of _____, 2019, in connection with:

City of Camas
General Sewer Plan

PURPOSE

The purpose of this Task Order is to conduct the first phase of develop with its Wastewater Treatment Engineering Report (Engineering Report). The objective of the report is to determine short and long term improvements for the City's Wastewater Treatment Facility (WWTF) to optimize existing operations and meet future system growth. Phase 1 gathers the necessary information for evaluating the WWTF, evaluates unit process capacities to identify deficiencies, and identifies short and long term improvement alternatives. A conceptual budget for selected alternatives will be provided to assist with City financial planning. Phase 2 (not included in this task order) will produce an Engineering Report for the WWTF that meets WAC 173-240-060 and shall be submitted upon completion to Ecology for comment and approval.

ENGINEER'S SERVICES

PHASE 1 - WASTEWATER TREATMENT ENGINEERING REPORT

Engineering services to be performed in accordance with the Scope of Services in Exhibit A.

TIME OF PERFORMANCE

Services to begin in upon acceptance of this Task Order and be completed by December 31, 2020 in accordance with the Scope of Services in Exhibit A.

PAYMENT

Services to be performed on a time and expense basis, invoiced monthly in accordance with the Agreement for Professional Services and Exhibits A, B, and C, with a total not-to-exceed amount of *two hundred forty nine thousand four hundred sixty eight dollars* ($249,468).

EFFECTIVE DATE

This Task Order No. 2 is effective as of the _____ day of _____, 2019.

IN WITNESS WHEREOF, duly authorized representatives of the OWNER and of the ENGINEER have executed this Task Order No. 2 evidencing its issuance by OWNER and acceptance by ENGINEER.

CITY OF CAMAS	CAROLLO ENGINEERS, INC.
	Accepted this _____ day of _____, 2019
By: _____	By: _____
Name:	Lara R. Kammereck
Title:	Vice President
By: _____	By: _____
Name:	Brian R. Matson
Title:	Senior Vice President

EXHIBIT A
SCOPE OF SERVICES

CITY OF CAMAS
WASTEWATER TREATMENT ENGINEERING REPORT
Phase 1

SCOPE OF SERVICES

The following Scope of Services has been developed to assist the City of Camas (City) with its Wastewater Treatment Engineering Report (Engineering Report). The objective of this project is to determine short and long term improvements to the City's Wastewater Treatment Facility (WWTF) to optimize existing operations and meet future system growth. The Engineering Report is divided into two Phases. This scope includes the Phase 1 effort and outlines the effort for Phase 2 (as stated and highlighted in grey). Phase 1 gathers the necessary information for evaluating the WWTF, evaluates unit process capacities to identify deficiencies, and identifies short and long term improvement alternatives. A conceptual budget for selected alternatives will be provided to assist with City financial planning. Phase 2 will further develop alternatives and generate a detailed Capital Improvement Plan. Phase 2 also includes an Engineering Report for the WWTF that meets WAC 173-240-060 and shall be submitted upon completion to Ecology for comment and approval.

The following tasks under this Scope of Services have been prepared based on Carollo Engineer's (Consultant) current understanding of the proposed project, previous experience by the Consultant team members, and discussions with City staff.

PROJECT BACKGROUND

The City operates and maintains a wastewater collection system, serving the City and its Urban Growth Boundary. Wastewater is collected and treated by the City. The Wastewater Treatment Facility (Facility) is an activated sludge wastewater treatment plant that discharges to the Columbia River. Its treatment process includes: influent screens, primary clarifiers, MLE biological treatment system with selector zones, tertiary filters, and UV disinfection.

The City completed 2010 its last General Sewer Plan in 2010 (Grey and Osborn's General Sewer / Wastewater Engineering Report (2010 Plan)). Since that time, the City has continued to address Inflow and infiltration (I/I), begun to develop the infrastructure needed to serve the North Shore area, and made condition related at the treatment plant. The project is divided into three efforts and the resulting documents:

- General Sewer Plan Update (Plan),
- Wastewater Treatment Engineering Report (Engineering Report), and
- Wastewater Treatment Facility Operations and Maintenance Plan Update (O&M Plan).

This scope covers the O&M Plan, which constitutes Tasks 1000 (Project Management) and 3000 (Wastewater Treatment Plant Engineering Report), outlined in the following sections.

PROJECT ASSUMPTIONS

- Carollo Engineers, Inc. and its subconsultants and work performed by them will be referred to as “Consultant” in this document.
- The City of Camas and its staff will be referred to as “City” in this document.
- State of Washington Department of Ecology and its staff will be referred to as “Ecology” in this document.
- All meetings will be held at the City offices. Some workshops will be held via web conference, as specified below.
- Draft Chapters and Technical Memoranda will be provided electronically (PDF and/or Microsoft Word, as directed by City).
- Meeting notes and related materials will be transmitted electronically in PDF format via email.
- The City will print and produce additional copies of all documents as necessary for its use.
- The City will provide available information related to the project and as requested by the Consultant in a timely manner.
- Web conferencing and teleconferencing will be used to discuss project coordination and for some presentations to the City in lieu of the meetings at the City.
- The Tasks scope and budget were generated based on Carollo completing the Plan.

TASKS

To meet the objectives of this scope of services, the Consultant shall complete the tasks as summarized in the table below and discussed in detail in the text that follows.

Task	Title
TASK 1000	PROJECT MANAGEMENT
Task 1013	Project Administration (Phase 1)
TASK 3000	WASTEWATER TREATMENT PLANT ENGINEERING REPORT
Task 3010	Information Gathering (Phase 1)
Task 3020	Unit Process Capacities (Phase 1)
Task 3030	WWTP Improvements (Phase 1 and Phase 2 Summary)
Task 3040	Engineering Report (Phase 2 Summary only)

TASK 1000 – Project Management

This task includes managing the work of the project team from notice to proceed to project closeout, planning for and carrying out regular communication with the City, and planning for and carrying out quality management activities.

Task 1010 Subtasks

Activities

1013. Project Administration.

Prepare and administer subcontracts with Consultant team members.

Manage the project team to track time and budget, work elements accomplished, work items planned for the next period, manpower, scope changes, time and budget needed to complete the project.

Prepare twelve (12) monthly project progress reports to accompany each monthly invoice; identify accomplishments for the month, planned work next month, and identify current or potential problems or changes. The reports will also include a narrative describing progress measured against budget and schedule. In the event of schedule or budget lag, the report will indicate a plan to get the project in line with the schedule and budget.

Create and maintain a working project schedule based on the schedule in the General Sewer Plan PMP.

Review project status, including scope, budget, and schedule as part of scheduled meetings.

Meetings

- None.

Deliverables

- Twelve (12) monthly progress reports
- Preliminary schedule, and no more than two (2) updates
- Meeting agendas and notes

City Input

- None.

Assumptions

- The project is anticipated to take twelve (12) months.

TASK 3000 – WASTEWATER TREATMENT FACILITY ENGINEERING REPORT

The City WWTF has historically experienced unreliable treatment capacity in the secondary treatment processes due to a combination of long SRT and low influent BOD. Short term improvements to optimize this system is the first objective of this Engineering Report. In addition the effect of longer term increases in flow and loads will be assessed along with improvement alternatives and finally a Capital Improvement Plant to outline necessary shorter (1-3 years) and longer term improvements

Task 3010 – Information Gathering

The objective of this task is to assemble and review information on the current plant process assets and performance. Results of this Task will provide a basis of evaluation for Task 3020 and 3030.

Task 3010 Subtasks

Activities

3011. Data Request. Review the following information provided by the City:

- Existing as-built documentation
- The past 3-5 years of process data including plant influent and effluent data as well as data relating to individual unit process performance
- Operational protocols for all plant facilities
- Summary of recent plant upgrades and short term planned upgrades
- Current NPDES permits and any additional ECOLOGY requirements
- Current and future approach to managing and monitoring industrial discharges to the plant
- Plant assets condition assessment
- Existing Hydraulic/Biological Models
- Existing O&M Manual
- Plant Performance and Facility Data from Georgia Pacific

3012. Georgia Pacific Plant Tour – Accompany City on 2-hour tour of existing GP intake treatment and discharge facilities. The Tour along with a review of existing facility information will form the evaluation basis to assess the value of these facilities to the City to accommodate future flows and loads.

3013. Meeting No. 1 - Information Gathering. Upon completion of the data review conduct a 2-hour plant walk-through of the WWTF and a 2-hour walk through of Georgia Pacific Facility followed by a 4-hour workshop with City Staff to achieve the following objectives:

- Confirm Engineers review of the information provided by the City and highlight any additional data needs.
- Obtain City operational input on current plant process treatment deficiencies and historical process/operational changes implemented to mitigate the deficiencies.

- Build consensus on the approach to modeling/evaluating the current and future process capacity of the facilities including redundancy criteria/modeling approach/unit process capacity criteria
- Build Consensus of regulatory basis of evaluation
- Select any reserve industrial capacity for inclusion in flow and loads analysis

Meetings

- Meeting No. 1 - Information Gathering
- Georgia Pacific Plant Tour

Deliverables

- Draft and Final Meeting Agenda
- Workshop Materials
- Draft and Final Meeting Notes

Assumptions

- Task 3010 will be documented in the Meeting Notes and Workshop Materials prior to inclusion in the Report
- Condition assessment of existing facilities is not included in the scope.
- Negotiation of future permit with Ecology is not included in the Scope.

Task 3020 – Unit Process Capacities

Evaluates plant unit process capacities under current and future flow and loads. Develops trigger plots for each unit process to identify timing of necessary improvements.

Task 3020 Subtasks

Activities

3021. Hydraulic Modeling. Review existing hydraulic model. Develop plant hydraulic model to assess current and future unit process flow limitations for all liquid stream processes.

- Model will be based on as-built information provided by City and the existing hydraulic model provided by City in electronic format of native software.
- On-site surveying or flow measurement is not included.
- Model will assume existing hydraulic model accurately represents hydraulic losses under current flow conditions.
- Head loss estimates for unit processes will be taken from manufacturer's data or existing models where applicable.
- Model will be reviewed with City during Meeting No. 18
- Computational Fluid Dynamic Modeling (CFD) of plant facilities is not included in the scope.

3022. *Secondary System Biological Model.* Develop plant wide Biowin Model for estimating unit process treatment capacity of the Secondary Treatment Train based current secondary flow and load conditions and operational configuration. Calibrate using current process data and predict secondary process performance under future flows and loads.

- Future process performance for existing unit process will be determined in Subtask 3024.
- Outputs from Biowin model be used to estimate unit process treatment capacity of solids stream treatment train.

3023. *Meeting No. 2 - Hydraulic and Biowin Modeling*. Facilitate a workshop to review the results of the hydraulic and Biowin modeling efforts with the City. Objectives of the meeting are as follows:

- Confirm assumptions and results of hydraulic modeling effort.
- Identify any consistencies with previous models.
- Confirm assumptions, calibration and results Biowin Model.

3024. *Unit Capacity Analysis*. Evaluate the existing capacity of current unit processes operated under current protocols. Capacity estimates of unit processes will be developed from historical data, industry practices, Carollo process performance data base, and Biowin and hydraulic model results where applicable. Identify short term and long term deficiencies in each unit process, including process deficiencies identified in Task 3010. Develop trigger plots for each unit process highlighting estimated time period when unit process capacity will be exceeded.

- Trigger plots based on flow and loads to be developed for both hydraulic and treatment where applicable.
- Short term deficiencies unless capacity related are not included in trigger plots
- Mixing zone analysis of the existing outfall is not included in the Scope.
- Hydraulic capacity of the existing outfall is included in the scope

3025. *Meeting No. 3 – Unit Capacity Analysis*. Facilitate a meeting to review and confirm the unit process capacity analysis and trigger plots. Objectives included the following

- Confirm results of unit process capacity analysis and trigger plots
- Highlight short term deficiencies that are not capacity related

3026. *Future Plant Needs for Alternative Analysis*. Based on the outcome of Meeting No. 3, identify the future plant needs to be evaluated in the Alternatives Analysis. The intent of this task is to work in collaboration in a Webinar with the City to define the specific plant processes/facilities to be evaluated in Task 3030. No new analyses are anticipated during this task.

3027. *Technical Memorandum 1 – Unit Process Analysis*. Prepare Draft Modeling and Unit Process TM to document the unit process analysis for the City's review. TM to include City review comments will be addressed in a comment response log for the City's final approval. Comments will be incorporated into a Final TM.

Meetings

- Meeting No. 2 - Hydraulic and Biowin Modeling Review.
- Meeting No. 3 – Unit Capacity Analysis.

Deliverables

- Draft and Final TM No. 1 – Unit Process Analysis
- Draft and Final Meeting No. 2 and No. 3 Agenda and Meeting Notes
- Meeting Materials

Assumptions

- Each Meeting will be 3 hours in length and held at the City of Camas.
- All City Stakeholder shall be in attendance for Meeting No. 19

Task 3030 – WWTF CIP Development

Develop alternatives to meet the short and long term process deficiencies identified in Task 3020. Evaluate alternatives and select preferred alternatives. Develop conceptual design for preferred alternatives. Outline implementation plan for 20-Year CIP.

Task 3030 Subtasks

Activities

3031. *Alternatives Evaluation Criteria*: Develop alternatives evaluation criteria with City for future evaluation of alternatives. Outline prospective criteria to be weighted during Meeting No. 20. Discuss prospective criteria with City on telecom prior to Meeting No. 20.

3032. *Short Term Alternatives Identification:* From the results of TM 2 select short term areas of improvement to be addressed in subsequent sections. Identify a maximum of 2 (two) alternatives to mitigate each area of deficiency. It is assumed these improvements in total will have a project cost less than $500,000. More expansive short term efforts will be included in Activity 3032. Each alternative or set of alternatives will be developed to a level of detail described below:

- Conceptual design of lay-outs and components
- Description of preliminary control philosophy
- Process Flow Diagram
- Description of any additional testing or evaluation required at plant facilities to further develop
- Conceptual design cost estimate (Level 4) for budgeting purposes

3033. *Long Term Alternatives Identification:* From the results of TM 2 select long term areas of improvement to be addressed in subsequent sections. Identify a maximum of 4 (four) alternatives to mitigate each area of improvement based on industry practice or Carollo internal experience. Incorporate results of 3033 into workshop materials for Meeting

No. 20. Each alternative or set of alternatives will be developed to a level of detail described below:

- General sizing of components based on required capacity
- Picture board lay-out of facilities on site plan indicating alternatives footprint. A maximum of 4 four site plans will be developed
- Planning level process flow diagram for a maximum of 4 (four) plant wide alternatives
- Planning level relative magnitude costs based on treatment cost curves for budgeting purposes
- Project timing based on future flow and load projections.

3034. *Meeting No 4 – Alternatives Identification and screening*. Weight alternative evaluation criteria. Conduct a preliminary review of proposed long term alternatives to select the alternatives for further evaluation under Activity 3036. Objectives of this meeting:

- Select 2 or 3 (two or three) alternatives to address long term capacity deficiencies to develop further in Activity 3035
- Finalize alternatives evaluation criteria

3035. *Technical Memorandum 2 – Alternative Analysis.* Prepare Draft Alternative Analysis TM to document the short term and long term alternatives. The TM will provide a description of identified alternatives, recommended project timing, and conceptual costs for budget planning (calculated in the tasks above). TM to include City review comments will be addressed in a comment response log for the City's final approval. Comments will be incorporated into a Final TM.

Phase 2 Tasks

Phase 2 Scope included in Activities 3036, 3037 and 3038 will be further detailed upon inclusion in Project. Engineering Report cannot be completed prior to completion of these activities. No level of effort has been included in the Budget.

3036. ***Phase 2*** *Alternatives Development*: Further develop longer term alternatives for evaluation in subsequent Activities. Develop capital costs and non-cost criteria. Select the preferred set of improvements. Includes one meeting for preferred alternative selection

3037. ***Phase 2*** *Conceptual Design*: Develop 10% conceptual design for the preferred improvements. This design will form the basis of future preliminary and final design projects Develop life-cycle and capital costs for each preferred improvement. Includes one meeting for review of conceptual design.

3038. ***Phase 2*** *CIP*. Develop with City a CIP to package and implement the improvements developed in prior activities. Includes one meeting to confirm implementation plan.

Meetings

- Meeting No 4 – Improvement Planning.

Deliverables

- Draft and Final TM No. 2 – Alternative Analysis
- Draft and Final Meeting No. 4 Agenda and Meeting Notes
- Meeting Materials

Assumptions

- Phase 1
- Phase 2 scope and budget of Task 3036, 3037 and 3038 will be determined at a later date.
- Meeting No. 4 will be 3 hours in length and held at the City of Camas.

Phase 2 Task 3040 – Engineering Report

Phase 2 scope activities to develop an Engineering Report to meet Ecology requirements. This task cannot be completed prior to completion of Task 3036, 3037 and 3038 activities. No level of effort has been included in the Budget.

This Task will develop Engineering Report (Report) for the WWTF that meets WAC 173-240-060 and shall be submitted upon completion to Ecology for comment and approval. The CIP developed in this Report will form the basis for future improvements at the WWTF over the 20-year Planning Period. The Report will consist of the following Chapters

Chapter 1: Executive Summary: Summarize the activities and results of the Report

Chapter 2: Introduction: Outline motivation and objectives of Engineering Report, alternatives evaluation criteria and cost assumptions.

Chapter 3: Flow and Loads; Present results of flow and load analysis from the Sewer Plan

Chapter 5: Condition Assessment: Include condition assessment documentation provided by City.

Chapter 5: Regulatory Requirements; Detail the regulatory basis for the Report for both liquid and solid streams and delineate any applicable permitting requirements based on selected improvements.

Chapter 6: Capacity Analysis: Document the evaluation of unit treatment capacity based on current and future flow and loads.

Chapter 7: Liquid Stream Improvements: Detail the evaluated short and long term liquid stream alternatives, the selected improvements and associated costs.

Chapter 8: Solids Stream Improvements: Detail the evaluated short and long term solids stream alternatives, the selected improvements and associated costs.

Chapter 9: Capital Improvements Plan: Outline the scope, Capital and life-cycle costs, and implementation plant for the proposed improvements.

Task 3040 Subtasks

Activities

3039. ***Phase 2*** *Executive Summary*. The Consultant will prepare an Executive Summary to be included with the Plan and update and revise information developed on project into Engineering Report Chapters.

3040. ***Phase 2*** *City Review Draft Engineering Report*. Develop a City Review Draft Engineering Report from the General Sewer Plan, TM No. 1 and TM No.2 to meet Ecology's Engineering Report requirements. It will be developed as a City Review Draft and reviewed by City Staff.

3041. ***Phase 2*** *Meeting No. 5 – City Review Engineering Report Draft*. Facilitate a meeting to review the City's comments on the City Review Draft Plan.

3042. ***Phase 2*** *Meeting No. 6 – Council Meeting*. Upon completion of the City Review Draft, the Plan will be presented to the City at City Council. The City will lead the meeting with support by the Consultant.

3043. ***Phase 2*** *Agency Review Engineering Report Draft*. City comments on the City Review Draft will be incorporated into an Agency Review Engineering Report Draft. The City will submit Agency Review Draft to adjacent sewer providers, Clark County, and Ecology.

3044. ***Phase 2*** *Meeting No. 7 - Agency Review Engineering Report Meeting*. The Consultant will attend one (1) agency review meeting. The City will develop written responses received during Agency Review Draft Plan process. The Consultant will incorporate comments into a comment response log and into the Final Plan.

3045. ***Phase 2*** *Final Engineering Report*. The City will lead the City Engineering Report approval process. The Final Engineering Report will be submitted to the City Council for approval. The Consultant's Professional Engineer will stamp the Final Engineering Report. Deliverables will include 2 hardcopies, electronic copy in Word, a searchable PDF File with bookmarks.

Assumptions

- All City Staff comments will be received together for inclusion in the Agency Review Draft.
- No additional draft plans will be developed.

Phase 1 Meeting Summary
Meeting No. 1 - Information Gathering.
Georgia Pacific Plant Tour.
Meeting No. 2 - Hydraulic and Biowin Modeling Review.
Meeting No. 3 – Unit Capacity Analysis.
Meeting No. 4 – Improvement Planning.

Phase 1 Deliverable Summary
Meeting agenda, materials, and minutes.
Twelve (12) monthly progress reports.
Preliminary schedule, and no more than two (2) updates.
Draft and Final TM No. 1 – Unit Process Analysis.
Draft and Final TM No. 2 – Alternative Analysis.
All final electronic documents, spreadsheets, presentations, modeling and GIS data.

Exhibit B

Wastewater Treatment Engineering Report - Cost Estimate

	TASK / DESCRIPTION	Quality Manager, Lara Kammereck	Treatment QA/QC	Project Manager, Dan Reisinger	Senior Professional, Alan Straub	Project Professional	Professional	Staff Professional,	Biological Modeling - Principal	EI&C Staff Professional	EI&C Principal	Structural Principal	Designer, Technician, GIS,	Clerical/WP	Total Hours	Carollo Labor Cost	SUBCONSULTANTS			OTHER DIRECT COSTS			TOTAL COST
																	Sub Base Cost	Sub Markup 10%	Total Sub Cost	Travel and Printing	PECE $11.70	Total ODC	
	Total Labor Rate	$ 226	$ 226	$ 176	$ 195	$ 176	$ 160	$ 135	$ 195	$ 165	$ 226	$ 226	$ 137	$ 95									
	Task 1010 - Project Management																						
1013	*Project Administration*	24		60	80		12							12	188	$ 34,644	$ -	$ -	$ -	$ 140	$ 140	$ 281	$ 34,925
1010	**Subtotal - Task 1010**	**24**	**0**	**60**	**80**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**188**	**$ 34,644**	**$ -**	**$ -**	**$ -**	**$ 140**	**$ 140**	**$ 281**	**$ 34,925**
	Task 3010 - Information Gathering																						
3011	*Data Request and Review*				24		12		12					12	60	$ 10,080	$ -	$ -	$ -	$ -	$ 702	$ 702	$ 10,782
3012	*GP Plant Tour*				8										8	$ 1,560	$ -	$ -	$ -	$ -	$ 94	$ 94	$ 1,654
3013	*Meeting No. 1 - Information Gathering*			4	16			32	8					2	62	$ 9,894	$ -	$ -	$ -	$ 1,000	$ 725	$ 1,725	$ 11,619
3010	**Subtotal - Task 3010**	**0**	**0**	**4**	**48**	**0**	**12**	**32**	**20**	**0**	**0**	**0**	**0**	**14**	**130**	**$ 21,534**	**$ -**	**$ -**	**$ -**	**$ 1,000**	**$ 1,521**	**$ 2,521**	**$ 24,055**
	Task 3020 - Unit Process Capacities																						
3021	*Hydraulic Modeling*		16	2	16	80		20							134	$ 23,868	$ -	$ -	$ -	$ -	$ 1,568	$ 1,568	$ 25,436
3022	*Secondary System Biological Model*		16	2	12	20		20	80						150	$ 28,128	$ -	$ -	$ -	$ -	$ 1,755	$ 1,755	$ 29,883
3023	*Meeting No. 2 - Hydraulic and Biowin Modeling*			6	8			16	6				4	4	44	$ 6,874	$ -	$ -	$ -	$ 1,000	$ 515	$ 1,515	$ 8,389
3024	*Unit Capacity Analysis*		4	2	24	80		12	40						162	$ 29,436	$ -	$ -	$ -	$ -	$ 1,895	$ 1,895	$ 31,331
3025	*Meeting No. 3 - Unit Capacity Analysis*			6	16			24	6				4	4	60	$ 9,514	$ -	$ -	$ -	$ 1,000	$ 702	$ 1,702	$ 11,216
3026	*Future Plant Needs for Alternative Analysis*			4	8			4	2				4		22	$ 3,742	$ -	$ -	$ -	$ 1,000	$ 257	$ 1,257	$ 4,999
3027	*Technical Memorandum 1 - Unit Process Analysis*		4	24	16		32						8	4	88	$ 14,844	$ -	$ -	$ -	$ -	$ 1,030	$ 1,030	$ 15,874
3020	**Subtotal - Task 3020**	**0**	**40**	**46**	**100**	**180**	**32**	**96**	**134**	**0**	**0**	**0**	**20**	**12**	**660**	**$ 116,406**	**$ -**	**$ -**	**$ -**	**$ 3,000**	**$ 7,722**	**$ 10,722**	**$ 127,128**
	Task 3030 - WTF Improvements																						
3031	*Alternative Evaluation Criteria*		2	4	12			10							28	$ 4,846	$ -	$ -	$ -	$ -	$ 328	$ 328	$ 5,174
3032	*Short Term Alternatives Identification*		4	2	32			24	12		8	8	4	4	98	$ 17,620	$ -	$ -	$ -	$ -	$ 1,147	$ 1,147	$ 18,767
3033	*Long Term Alternatives Identification*		4	2	24			30	16		8	8	16	4	112	$ 19,294	$ -	$ -	$ -	$ -	$ 1,310	$ 1,310	$ 20,604
3033	*Meeting No. 4 - Alternatives Identification*			2	8			16	8					2	36	$ 5,822	$ -	$ -	$ -	$ 1,000	$ 421	$ 1,421	$ 7,243
3034	*Technical Memorandum 2 - Alternative Analysis*		4	4	16			24					8	8	64	$ 9,824	$ -	$ -	$ -	$ 1,000	$ 749	$ 1,749	$ 11,573
3030	**Subtotal**	**0**	**14**	**14**	**92**	**0**	**0**	**104**	**36**	**0**	**16**	**16**	**28**	**18**	**338**	**$ 57,406**	**$ -**	**$ -**	**$ -**	**$ 2,000**	**$ 3,955**	**$ 5,955**	**$ 63,361**
3000	**Total - Task 3000**	**24**	**54**	**124**	**320**	**180**	**56**	**232**	**190**	**0**	**16**	**16**	**48**	**56**	**1,316**	**$ 229,990**	**$ -**	**$ -**	**$ -**	**$ 6,140**	**$ 13,338**	**$ 19,478**	**$ 249,468**

Exhibit C

City of Camas
Wastewater Treatement Facility Engineering Report Phase 1
Proposed Schedule