Winnipeg Sewage Treatment Program Integrated Management System



SAMPLE Consultant Services Management Plan DOCUMENT NUMBER: PG-PM-TO-08

Rev	Prepared by	Reviewed by	Date	Approved by	Date
2014-12-08	George Vercelli	Jackie Veilleux	2014-12-08		

N:\WSTP IMS\Current Version\PG - Program General\TO - Tools and Others\PG-IB-TO-02 IMS Cover Page.doc

Please note that this is not from a real project!

Consultant:	Project Name:	Consultant Project Manager:
XYZ Consultants, Inc.	XYZ Consultants, Inc. EEWPCC Pump Replacement	
Consultant Project No.	Winnipeg Project Manager:	Date & Status:
2014-1893	H.R Ross	October xx, 2014 DRAFT
RFP No. XXX-YYYY		City File No. S-XXXX

Consultant Approvals:

Principal-In-Charge: Name:_ R.T. Jacobs Signature: _	Date:
Project Manager: Name:_ Todd Fzzzzz Signature:	Date:

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1. INTRODUCTION

XYZ Consultants is providing the final design, bidding, and construction administration services in accordance with City's Letter of Intent which includes Attachments (LOI) (i.e. Attachments include: RFP; Proposal; Results of any negotiations, etc.)(For the purposes of this Sample CSMP the Letter of Intent with Attachments is referred to as the LOI) to replace the three constant speed plunger type sludge pumps in the primary clarifier area to three variable speed rotary lobe type pumps complete with new starters and suction and discharge valves to allow remote operation. Suction and discharge piping will be revised as necessary to allow proper installation and operation of the new rotary lobe pumps. The controls will also be updated to allow the variable speed operation of the new pumps to be paced off the influent flow meter with remote adjustable settings by the operator. The City is also requesting an overhead door be installed in the building where there is a brick/block wall now which will require Architectural, structural, electrical and lighting, 1&C services and some civil site work including drainage, pavement etc.

XYZ Consultants will use existing as-built drawings as the base plans which are to be updated as necessary by XYZ Consultants. Due to the nature of the work and as per the LOI, design submittals will include:

- 10% Submittal = Project Definition
- 30% Submittal = Preliminary Design
- 60% Submittal = 60% of Bid Opportunity Documents
- 95% Submittal = Detailed Design = 95% of Bid Opportunity Documents
- 100% without P. Eng. Stamps = all City comments incorporated and ready for bid
- 100% with P.Eng. Stamps = Bid Opportunity Documents (Issue for Construction Drawings)

The supply, delivery and installation of the pumps will be put out to tender by the City of Winnipeg; however, XYZ Consultants will prepare the tender documents using the City's template for such work. XYZ Consultants will also provide assistance during the bid period as detailed the LOI. Once the construction contract is awarded to a contractor, XYZ Consultants will provide Contract Administration Services including commissioning and 1-year on-call warranty services as defined in the LOI.

2. PROCESS MANAGEMENT

As agreed to at the project kick-off meeting, this Consultant Services Management Plan is detailed for the design phase and will be updated 2 weeks prior to commencement of subsequent phases of the work.

2.1 Work Breakdown Structure

There will be multiple work packages as indicated in the attached CPM schedule; however, the Primary WBS Nos. along with the reference to the LOI, the location where the work will primarily be performed and the responsible professionals and reviewers are indicated in Table 2.1 Work Breakdown Structure (WBS).

2.2 Preliminary List of Deliverables

At this stage of the project, we have prepared a preliminary list of deliverables (i.e. documents and drawings) per phase in the Tables below. As the work becomes more defined we will provide a more detailed list of drawings

2.3 Preliminary List of Drawings and Technical Documents

Table 2.10 Preliminary List of Drawings and Technical Documents is attached hereto.

2.4 Cost Breakdown

Resources requirements, responsibilities, effort, duration, manpower costs and disbursements by work package are shown on Table 2.11 which was initially prepared for and included in the Proposal and has been subsequently subdivided by work packages and is attached hereto.

2.5 Information Required

The following is an initial list of information required; additional items may be required as the work progresses. When requesting information from the City, XYZ Consultants will use the City's "Request for Information" form <u>CD-PM-TO-06</u> and track the progress of RFIs using the City's RFI Log <u>CD-PM-TO-10</u> <u>RFI Log</u>

- As-built drawings
 - Pump area
 - Discharge piping for hydraulic calculations
 - Electrical
 - o I&C
 - o Structural
- Existing O&M Manuals
- Sludge Pump Flow Requirements (average, peak and seasonal)
- Electrical Standards
- I&C Standards
- Shut down constraints
- Work Hours for Installation LOI
- Operators' Constraints

PROJECT IMPLEMENTATION

2.1 Preliminary CPM Schedule

Schedule requirements for each work package are included in the attached Microsoft Project CPM schedules. There is a summary CPM Schedule and a more detailed CPM schedule attached hereto.

XYZ Consultant's schedule submission includes the following:

- Major Deliverable submission dates identified in the RFP and/or Proposal;
- Major activities for own forces differentiated by process area and discipline;
- Major Sub-consultant activities differentiated by process area and discipline;
- Identification of design and engineering phases, (definition, conceptual, preliminary and detailed);
- Start and Completion Dates for each phase;
- Identification of Critical Path Activities;
- Durations attached to each deliverable and supporting activities;
- Trigger Points, Milestones and key decision points;
- Activities identifying "owners review" for each design related submission; and
- Activities representing Presentations, meetings and workshops;

We believe sufficient time has been allocated for review of milestones with internal City Managers, include (Operations, Engineering, Water Services, Environmental Services and IT) as required.

The schedule is realistic and confirms that XYZ Consultants have a good understanding of its scope and the degree of effort required for each deliverable. The schedule is structured such that it demonstrates we are organized with respect to managing the sub-consultants. This can be seen through identification and integration of sub consultant deliverables within the schedule.

2.2 Progress Meetings

Progress meetings during the design phase will be held at the City offices at 1199 Pacific Ave., Winnipeg, Manitoba, R3E3S8 at 9:00am, the2nd and 4th Thursday of the month.

- XYZ Consultants will have the Project Manager at each meeting and will produce notes of each meeting within 5 business days for review by the City.
- Design engineers may be present when XYZ Consultants deem appropriate based on the status of the work and any prevailing questions or as requested by the City. Staff from

outside of Winnipeg will participate in these Progress Meetings as appropriate by phone.

The second meeting each month will be designated as the Monthly Meeting. At the Monthly meeting XYZ Consultants will present a status report including activities of the previous month, anticipated work in the coming month, outstanding issues to be resolved, review of the risk register, scope changes (if any), updated CPM Schedule, percent complete, cost to date, and the draft invoice to review with the City's PM. The Preliminary Agenda for the meetings will be as shown in Sample Meeting Agenda attached hereto with specific details added as required and be forwarded to the City PM at least 3 working days prior to the meeting date. XYZ Consultants will discuss City's attendance and City resource requirements with the City PM prior to the sessions.

During those weeks when a progress meeting is not scheduled the XYZ Consultant PM will originate a call to the City PM to provide a verbal update of the work in progress.

2.3 Third Party Inputs

Third party inputs are not required for this project.

2.4 Reviews and Approval

The reviews and approvals will be performed by the Reviewers/verifiers listed in the Work Breakdown Structure in Table in 2.1. Each drawing or calculation will be initialed by the Responsible Professional and the reviewer/verifier prior to submitting to the City. Please note that reviews will be only for establishing that the work is satisfactory for the applicable submittal. Unless specifically required by P.Eng guidelines or the City, only the Bid Opportunity documents and modifications thereto will be sealed.

2.5 Submittals

- Format and documentation for each work package: XYZ Consultants will follow the City's Project Documentation Requirement sheet <u>CD-CP-TO-05</u> attached hereto.
- **The timing and sequencing** in which procurement documentation is to be produced: Please see the attached CPM Schedule provided under **3.1.**

2.6 Communications

Official communications will be between the City PM and XYZ Consultant's PM. Each submittal will include a transmittal letter listing what is being transmitted, for what purpose it is being transmitted, and, as appropriate, the names of any reviewers of the submittal along with the subject matter reviewed by each reviewer. During the project implementation, other avenues of communications may need to be established but they will be established by agreement between the City PM and XYZ Consultant's PM.

3.7 Quality Management

Quality Management is tied to our project schedule. Table 3.2 Quality Planning Schedule provides the City with the quality planning schedule we will implement in performing QA/QC activities.

The Document Tracking Matrix (attached) will be used throughout the project to track the location of documents and utilized in Project Closing as a check that all documents have been returned to the City and newly created documents have been properly filed.

3.8 Risk Management

The Risk register included as part of the RFP issued by the City will be updated during the Project Definition phase. A Risk & opportunity Workshop will be held with the City upon submittal of the 60% documents and will build upon the risk register. The Risk Management workshop will follow project risk procedures of the City in <u>PG-RM-TO-02</u> Risk Project Statement Form.

4. CONTROL & MONITORING

4.1 Cost Monitoring

XYZ Consultants will maintain the attached Progress Estimate Cost Monitoring form (Attached hereto), indicating the overall approximate percent complete per task, which will be updated for and reviewed at each Progress Meeting. At the monthly meetings, XYZ consultants will bring their own more detailed analysis (format not defined by the City) of the overall percent complete. The percentages indicated in Table 4.1, are a check on progress and are not to be used to justify or deny progress payments and amounts and numbers on the forms are generally rounded.

The monthly invoices shall be Time & Material in accordance with the detailed requirements of the LOI. *NOTE to User: The monthly invoice must follow the agreed to payment language and supporting documentation in the LOI and may not always be Time & Material as in this example.*)

4.2 Scope Change Management

Scope Change Management: Upon realization by XYZ Consultants of a scope change XYZ's PM will notify the City PM in writing of the pending scope change using the City's "Contemplated Change Notice" form CD-PM-TO-03.

4.3 Schedule Management

XYZ Consultant's schedule has been primarily developed from the Work Breakdown Structure indicated above and identifies all of the deliverables contained within the RFP and associated XYZ Consultant's proposal. We will be reviewing the schedule with the City at each progress meeting and updating the schedule at least 2 weeks prior to the commencement of the subsequent phase. Any scope changes will

be reflected in an updated schedule; however, without a scope change the completion date will not change.

5.0 CLOSEOUT AND TURNOVER

5.1 Documentation received from the City

A matrix of all documentation received from the City of Winnipeg - Water & Waste Department will be maintained (See attached Documentation Matrix) by XYZ Consultants and include who received the documentation, who it was transmitted from, the date of transmittal, and if it need to be returned to the City upon Closeout. When the documentation is returned to the City the date it was returned, by whom and to whom it was returned to will be recorded.

5.2 Documentation Generated During the Project

Submission Requirements: All submittals will be in accordance with the requirements of Paragraph 3.2 Consultant Services Management Plan Minimum Requirements as herein stated:

Submittals will be in accordance with the following requirements:

(a) Form CD-CP-TO-05 Project Documentation Requirement sheet (Appendix 3) specifies for each category, the quantity and format of document copies to be submitted to the City by the Consultant.

(b) Drawing submission status codes shall be as defined in the DMS

(c) Official submission status will be the electronic file submission through the City DMS. Hard copy submissions without a corresponding electronic DMS submission will not be recognized as an official submission.

(d) The hard copy sets shall be delivered as directed by the City Project Manager.

(e) Prior to any submission the Consultant shall confirm with the City Project Manager the required format(s) and quantities of the submission.

(f) The Consultant shall contact the Project Manager for direction on requirements for any submittals not identified.

(g) All sets of documents should be collated and fastened or bound as appropriate in view of the size and use of the documents.

(h) Unless otherwise specified, the standard format for electronic submission of documents and drawings to be uploaded in the DMS is in native format and an unrestricted searchable electronic Adobe .pdf file.

(i) Other native file(s), in addition to those noted in Form CD-CP-TO-05 Project Documentation Requirement sheet, shall be provided by the Consultant if requested by the Project Manager.

LIST OF ATTACHMENTS:

The following attachments are those which are not a standard from of the City of Winnipeg.

- Table 2.1 Work Breakdown Structure (WBS)
- Table 2.2 Project Management Phase Deliverables
- Table 2.3 Project Definition Phase Deliverables
- Table 2.4 Preliminary Design (30%) Phase Deliverables
- Table 2.5 Detailed Design (60%) Phase Deliverables
- Table 2.6 Detailed Design (95%) Phase Deliverables
- Table 2.7 Bid Phase Deliverables
- Table 2.8 Construction Phase Deliverables
- Table 2.9 Closeout Phase Deliverables
- Table 2. 10 Preliminary List of Drawings and Technical Documents
- Table 2.11 Cost Breakdown by Work Package. (From Proposal and as modified during LOI negotiation)
- Sample Minimum Meeting Agenda Topics & Meeting Minutes
- Document Tracking Matrix
- Cost Monitoring Form
- CPM Schedule Summary
- CPM Schedule Detailed

Hyperlinked Documents:

- <u>CD-PM-TO-06</u> Request For Information
- CD-PM-TO-10 RFI Log
- <u>CD-CP-TO-05</u> Project Documentation Requirement Sheet
- <u>PG-RM-TO-02</u> Risk Project Statement Form
- <u>CD-PM-TO-03</u> Contemplated Change notice

ATTACHMENTS

Table 2.1 Work Breakdown Structure (WBS)

Primary WBS	Contract	Description	Location	Responsible	Reviewer/
No.	Ref***	•		Professional*	Verifier**
1	TBD	Project Management (includes Interdiscipline Coordination; approval of documents for release; Scope	Winnipeg	Todd F., P.Eng	R.T. Jacobs, P.Eng., Principal In- Charge
2	TBD	Changes) Project Definition (10%+-)	Winnipeg	Todd F., P.Eng	Harry P., P.Eng
3	TBD	Preliminary Design (30%)	Fort Conner	Todd F., P.Eng	Harry P., P.Eng
4	TBD	Detailed Design (60 & 95%)	Fort Conner	Todd F., P.Eng	Harry P., P.Eng
5	TBD	Bidding Services (100%)	Winnipeg	Todd F., P.Eng	Harry P., P.Eng
6	TBD	Contract Administration Services	Winnipeg	Paul Q., P. Eng	Todd F., P.Eng
7	TBD	Commissioning Services	Winnipeg	Steve R., P.Eng	Todd F., P.Eng
8	TBD	Additional Services	TBD	Todd F., P.Eng	R.T. Jacobs, P.Eng., Principal In- Charge
9	TBD	Project Closeout	Winnipeg	Todd F., P.Eng	R.T. Jacobs, P.Eng., Principal In- Charge

Notes: * Responsible Professional for each disciplines' work will be the P.Eng stamping the documents (In this case the Key Personnel listed in RFP); however their work will have the oversight by the senior staff listed above; ** Reviewers/Verifiers are specialists in their field performing quality checks of the documents. ***City's Contract or Letter of Intent which includes Attachments (LOI) (i.e. Attachments include: RFP; Proposal; Results of any negotiations, etc.)

Table 2.2 PROJECT MANAGEMENT PHASE – DELIVERABLES

Deliverables	Description	Туре	Format	Comments
Draft Invoice	For approval		pdf	Within 30 days
Draft Financial Report	For approval		pdf	Within 30 days
Invoices	Monthly		pdf	For each phase
Financial	Monthly		pdf	For each phase
CSMP	Consultant Services Management Plan	Report	Word & pdf	Draft within 30 days then once approved 2 weeks prior to next phase
Monthly project status review meetings	Organize, chair, record meeting minutes	Distribute agendas & minutes	Word & pdf	For each phase
Monthly Project Status Reports	Status of work	Report	Word & pdf	For each phase
Initial & semi- annual cash flow forecasts	Projected expenditures on project	Report with projection by month	Word & pdf	March & October for semi-annual forecasts
Weekly Meetings	Organize, chair, record meeting minutes	Meeting Minutes	Word & pdf	For each phase
Workshop - Risk	Organize, chair, record meeting minutes	Meeting Minutes	Word & pdf and Risk Register	Update risk register in each phase
Workshop – CHAIR	Organize, chair, record meeting minutes	Meeting Minutes	Word & pdf	Chair 1 in Project Definition Phase. CHAIR 2 & 3 after 95% submittal
Workshop - HAZOP	Organize, chair, record meeting minutes	Meeting Minutes	Word & pdf	HAZOP after 95% submittal
Workshop – Value Engineering	Organize	VE Report	Word & pdf	Formal VE Not Applicable to this project (include in review sessions)
Invoices	Monthly Invoices	Invoice	Word & pdf	Will come directly from Finance

Please note that this is not from a real project!

				Department to City
Cash Flow Forecasts	Quarterly	Spreadsheet	Excel & pdf	Due in March & September each year

Deliverable	Description	Туре	Format	Comments
Verification of	Listing of City	Technical Memo	Word & pdf	For verification
City	Requirements			
Requirements				
Notifications	Requests for	RFI Form	Uses City RFI	Uses City RFI
	Information		Format	Format
Meeting Minutes			pdf and native	See PM
			formats	Responsibilities
				above
Workshops			pdf and native	See PM
			formats	Responsibilities
				above
Technical			pdf and native	Each section of
Memorandums			formats	the PD Report a
(including				Technical
Business Cases)				Memorandum.
				An Executive
				Summary with
				the Technical
				Memorandums
				attached will
				comprise the PD
				Report
Draft PD	Draft Project	Report	pdf and native	Bound submittal
Documents (60%	Definition		formats	
complete)	documents			
Risk &	Risk register	Matrix	Excel Matrix and	
Opportunity	prior to		notes from	
Workshop	workshop		Workshop in	
			Word & pdf	
Final PD	Project	Report	pdf and native	Bound submittal
Documents	Definition		formats	
(100% complete)	documents			
Drawings	Drawings to	Appended to	.pdf	5 drawings may
	support PD	Report		be appended to
	Documents			the PD Report
Comment Log	Word document	Transmitted with	Word & pdf	
	to be support all	revised		
	revised	documents		
	submittals by			
	Consultant			

Table 2.3 PROJECT DEFINITION PHASE - DELIVERABLES

Update of CSMP	As necessary		Word, excel, Microsoft project, pdf as necessary	Due two weeks prior to authorization to proceed into next phase
Presentation of	Power Point		Power Point	
PD Report to City				
Phase	Submittal of	TBD	pdf and native	
Documentation	phase		formats	
	documentation			
	required for			
	phase closeout			

(To be updated 2 weeks prior to phase start date) Deliverable Description Type Format Comments Preliminary Design report at 60% complete HAZOP workshop & technical memo **CHAIR Workshop** & Technical memo Risk & Opportunity Workshop Word document Transmitted with Word & pdf **Comment Log** to be support all revised revised documents submittals by Consultant Preliminary Design Report (100%) Cost Estimate Update of CSMP As necessary Word, excel, Due two weeks Microsoft prior to project, pdf as authorization to necessary proceed into next phase Phase Submittal of TBD pdf and native Documentation phase formats documentation required for phase closeout

Table 2.4 PRELIMINARY DESIGN (30%) PHASE – DELIVERABLES

Table 2.5 DETAILED DESIGN (60%) PHASE – DELIVERABLES (To be updated 2 weeks prior to phase start date)

	(10 be updated 2 w		start date)	
Deliverable	Description	Туре	Format	Comments
			~	
Comment Log	Word document	Transmitted with	Word & pdf	
	to be support all	revised		
	revised	documents		
	submittals by			
	Consultant			
Value				
Engineering				
Update of CSMP	As necessary		Word, excel,	Due two weeks
			Microsoft	prior to
			project, pdf as	authorization to
			necessary	proceed into
				next phase

Table 2.6 DETAILED DESIGN (95%) PHASE – DELIVERABLES

(To be updated 2 weeks prior to phase start date)					
Deliverable	Description	Туре	Format	Comments	
Comment Log	Word document to be support all revised	Transmitted with revised documents	Word & pdf		
	submittals by Consultant				
Risk Register & Workshop Minutes					
HAZOP Workshop &					
Technical Memo Chair Workshops & Technical					
Memos					
Opex Adjustment Model					
Asset Data Schedule					
De- Commissioned Assets Schedule					
Capital Replacement Plan					
Spares					
Cost Estimate					
95% Submittal					
Update of CSMP	As necessary		Word, excel, Microsoft	Due two weeks prior to	
			project, pdf as necessary	authorization to proceed into next phase	
100% Submittal with Comment Log Completed					
Phase	Submittal of	TBD	pdf and native		

Documentation	phase documentation required for phase closeout	formats	

Table 2.7 BID PHASE – DELIVERABLES

(To be updated 2 weeks prior to phase start date)

	(
Deliverable	Description	Туре	Format	Comments
Bid Opportunity				
Documents				
Minutes of Site				
Meeting with				
Bidders				
Response to				
Questions				
Addends				
Bid Evaluation				
Conformed				
Documents				
Update of CSMP	As necessary		Word, excel,	Due two weeks
			Microsoft	prior to
			project, pdf as	authorization to
			necessary	proceed into
				next phase
Phase	Submittal of	TBD	pdf and native	
Documentation	phase		formats	
	documentation			
	required for			
	phase closeout			

Table 2.8 CONSTRUCTION PHASE – DELIVERABLES

(To be upd	ated 2 weeks	prior to	phase	start date)
10 50 404			priase	start date

	· · ·	eeks prior to phase	-	
Deliverable	Description	Туре	Format	Comments
Daily Reports				
Responses to				
Contractor RFIs				
Reviews of				
Contractor				
Requests for				
Modifications/				
Substitutions				
Accepted Third				
Party testing				
Reports				
Updated Opex				
Adjustment				
Model				
Updated Asset				
Data Schedule				
Certification of				
Contractor's				
Monthly				
Payment				
Applications				
Evaluation of				
Contractor				
Change Requests				
Approved				
Contractor				
Submittals				
Approved				
Construction				
Change Orders				
Commissioning				
Plan				
Warranties				
Training				
Documentation				
O&M Manuals				
As-builts				

Update of CSMP	As necessary		Word, excel, Microsoft project, pdf as necessary	Due two weeks prior to authorization to proceed into next phase
Phase Documentation	Submittal of phase documentation required for	TBD	pdf and native formats	
	phase closeout			

Table 2.9 CLOSEOUT PHASE – DELIVERABLES

(To be updated 2 weeks prior to phase start date)

	(
Deliverable	Description	Туре	Format	Comments
Revised As-Builts				
Revised O&M				
Manuals				
Revised Standard				
Operating				
Procedures				
Certification of				
Acceptance				
Phase	Submittal of	TBD	pdf and native	
Documentation	phase		formats	
	documentation			
	required for			
	phase closeout			

TABLE 2.10 - Preliminary List of Drawings & Documents (subject to change as the work proceeds)

Drawing	Document	Title	10%	30	60	95%	100%	Bid
No.	No.	nue	(Project	30 %	%	93/0	(w/o	Opportunity*
(To Follow	(To Follow		Definitio	/0	/0			
-							P.Eng	-
City	City		n Report)				stamps	
Numbering	Numbering							
System)	System)*	ПАГЛІТС.						
	DUCU	IMENTS:	V					
		CSMP	Y	-	-	-		-
		CSMP -	N	Y	Y	Y	N	Y
		Updates						
		Monthly	Y	Y	Y	Y	Y	Y
		Progress						
		Report						
		Invoices	Y	Y	Y	Y	Y	Y
		Monthly	Y	Y	Y	Y	Y	Y
		Financial						
		Reports						
		СРМ	Y	Y	Y	Y	Y	Y
		Schedules						
		Insurance	Y	Y	Y	Y	Y	Y
		Certificates						
		Meeting	Y	Y	Y	Y	Y	Y
		Agendas						
		Meeting	Y	Y	Y	Y	Y	Y
		Minutes						
		Design	Y	Y	N**	N**	N***	N***
		Criteria			*	*		
		Design		Y	Y	Y	N***	N***
		Calculations						
		Equipment	Y	Ν	N**	N**	N***	N***
		Selection			*	*		
		Business Case						
		Cost Estimate		Y	Y	Y	N***	Y
		CHAIR	Y	N	N	Y/Y	N	N
		Documentatio				.,.		
		Socumentatio			1			I

(Document and Drawing Nos. to follow City Numbering System)

		n /Cossians 1		1		[
		n (Sessions 1,						
		2, and 3) HAZOP			Y			
					T			
		Documentatio						
		n						
		Value			Y			
		Engineering						
		Documentatio						
		n						
		RFIs	As					
			Required					
		Change Order	As					
		Requests	Required					
		Geotechnical	Y					
		Report						
		Survey	Y					
		Risk &	Ý	Y	Y	Y	Y	N
		Opportunity						
		Assessment						
		Project	Y					
		Definition						
		Report						
		(Draft/Revisio						
		ns & Final)						
		Preliminary		Y				
		Design Report						
		(Draft/Revisio						
		ns & Final)						
	Design	Drawings:						
	Designi	Title Page &		Y	Y	Y		Y
		Index		'		'		
		Civil / Site						
		Architectural						
		Piping,		Y	Y	Y		Y
		Equipment &		•		•		•
		Structural						
		Demolition						
		Electrical and		Y	Y	Y		Y
		l&C			T T			r
		Demolition						
		Equip Layout		Y	Y	Y		Y
				"	T	T		ſ
		New Pumps						
		Plan And						

Please note that this is not from a real project!

		Sections						
		New Pumps		N	N	Y		Y
		Details				-		-
		Structural		Ν	Ν	Y		Y
		Electrical –		Y	Y	Y		Y
		One line &						
		MCC#4						
		Modifications						
		I&C P&ID		Y	Y	Y		Y
		I&C Details		Ν	N	Y		Y
	SPECIFI	CATIONS:						
					Y	Y	Y	Y
					Y	Y	Y	Y
					Y	Y	Y	Y
					Y	Y	Y	Y
					Y	Y	Ŷ	Y
					Y	Y	Y	Y
					Y	Y	Ý	Y
					Y	Y	Y	Y
					Y	Y	Y	Y
					Y	Y	Y	Y
					Y	Y	Y	Y
		ORTUNITY						
	DOCU	MENTS:						
						Y	Y	Y
CONTRAC	CT ADMINI	STRATION F	PHASE S	ERVI	CES			
Drawing	Document	Title						
No.	No.							
(To Follow	(To Follow							
City	City							
Numbering	Numbering							
System)	System)*							
	CONTRACT	DOCUMENTS:						
		Title Page &						
		Index						

Please note that this is not from a real project!

			r			
	Civil Site		ļ			
	Architectural					
	Piping,					
	Equipment &					
	Structural					
	Demolition					
	Electrical and					
	I&C					
	Demolition					
	Equip Layout					
	New Pumps					
	Plan And					
	Sections					
	New Pumps					
	Details					
	Structural					
	Electrical –					
	One line &					
	MCC#4					
	Modifications					
	I&C P&ID					
	I&C Details					
 Δς_Ι	Builts:					
A3-1	Juillo.					
•			•	•	•	•

Please note that this is not from a real project!

OTHER DO	CUMENTS:			
	Contractor			
	Progress			
	Payments			
	RFIs			
	Change Order			
	Requests			
	Construction			
	Schedule			
	Asset Data			
	Sheets			
	O&M			
	Manuals			
	SOPs			
	Training			
	Documents			
	Certificate of			
	Substantial			
	Performance			
	Certificate of			
	Final			
	Performance			
	Warranty			
	Documents			

*Documents are to be submitted in accordance with the LOI and agreed to submittal schedule. ****Bid Opportunity documents to be sealed by the Responsible Professional indicated in Table 2.1** (a)

*** All Work Pkgs. to be resubmitted when changes occur.

Table 3.1 Cost Breakdown by Work Package

TABLE 3.1 - COST BREAKDOWN BY WORK PACKAGE SAMPLE FOR SMALL CAPITAL PROJECT

DRAFT 26-Nov-14

					KEY PERS	ONNEL	BB1/		Design & Support Staff Support Staff Sub-CONSULTANT A SUB-CONSULT																						_					
	Resource iscipline & name)	al (Bob)	(View)	(Halen)		'al (Sal)					~ /£	Support.	il Support	l (Don) 8 (Elaine)	SUB-CONSUL	LTANT A	I Support	_ /	SUB-CON		ol Support		PRIME CONSULTA	<u>т</u>		SUB-CO	NSULTANT A			SUB-CO	NSULTANT B			т 	TOTAL PROJECT	<u>r</u>
Description H	Q.	Lincipa S110	\$100	Electrica	18 C 19 8	24 nct nt	20 5 S110	Process 085	75 \$80	Struct E	uchitec	Value Sec. 24	Einancia 20 Einancia	Elect End	0 \$100	Admin 505	Linancia	Lincipa	linspecto	570 \$4	Einancia	Other Sul Sub-Totals Consultar		wable pursables TOTAL CO	ST Sub-Totals	Sub-sub- Consultants Sub Ty	Allowable pe Disbursables	TOTAL COST		b-sub- nsultants Sub Ty	Allowable Disbursable	s TOTAL COST		ther Sub- onsultants Su		Vlowable Disbursables TOTAL CO
1 Project Management	iny nuce	<i>J</i> 110	\$100	255	<i>, 255</i>	<i>403 40</i> .	5 9110	<i>400 97</i>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	212	212		40 \$50	\$100 \$C	Q 2100	200	<i>433</i>	,,,,,,	çuş	<i>\$</i> 70 <i>\$</i> 4	,5 , 555															
1.1 LOI Financial & Admin H	lours	8	20				_					4	40 200	8			40 200	8			200	268	\$1	42.500	24	8 \$2	\$3		228	\$3			744	\$6		\$0
1.2 Project Management WBS 1 Subtotal Hours		80 88	800	0	0	0 0	0 0	0	0 0	0	0	20 0 24	40 200	80 88	0 0	0	200 240 200 400 \$10,000	0	0	0 22	200	1080 1348	\$1	\$3,500	28	8			208 420	\$3	\$		1,568 2,296	50		\$4,050
WBS 1 Subtotal Hours WBS 1 Subtotal Dollars		\$9,680	82,000	\$0	\$0	\$0 \$6	0 \$0	\$0 \$	\$0 \$0	\$0	\$0	\$0 \$9,60	40 200 00 \$10,000	88 \$8,800 \$	0 \$0	\$0 \$8,	,400 \$10,000	\$0	\$0	\$0 \$9,90	\$11,000	1348 \$111,280	\$2	\$3,500 \$11	4,782 \$27,20	0 \$4	\$3	00 \$27,504	\$20,900	\$6	\$:	250 \$21,15	6 \$159,380	\$12		\$4,050 \$163
2 Project Definition .1 Initiation		12	24	40	40	24 2			_				_	12				12			_	0				0			0				0	\$0		\$0
2 Planning		8	60	20	16	8 1	8							8				8				184			1	8			8				8	\$0		\$0
2 Planning 3 Execution Investigations																						0				0			0				0	\$0		\$0 \$1,500 \$15
Investigations		4	8	12 48		4	4	4	4 4	2	2		4	4	4		4	4			4	24 \$3 120 \$2	,000 Survey ,000 Cost Estimator	\$500	2	4 \$5,000 Soil Bo 0 \$2,000 Cost Es	rings \$1,0	00	6004 2020	\$2,000 Cost Es			6004 4020	\$8,000 \$6,000 C	Cort Ert	\$1,500 \$15 \$0 \$10
Business Case Prepare & Submit PD Report		4	24 240	240	80	40 40	0 40	16 40	00 80	40	40	4	40	40 16	0 40		40	40	8	4	10	1,336	ooo cost Estimator		28	0 52,000 COSt LS	м		280	32,000 COST L			280	\$0,000 C	.031 L31	\$0
Workshops Risk & Opportunity																						0				0			0				0	\$0		\$0
Risk & Opportunity CHAIR 1		12	20	8	8	1	8	8				1	10	12			10	12		1	.0	74			2	2			22				22	\$0 \$0		\$0 \$0
Revise & Re-submit PD Report		24	80	48	2	8 8	8 16	8 10	00 12	12	20	4	40	24 2	4 16		40	24	4	4	10	378			10	4			104				10	\$0		\$0
Revise & Re-submit PD Report Obtain City approval of PD		16	24										4	16			4	16			4	44			2	0			20				20	\$0		\$0
Prepare, Review, Revise Class 5 Cost Est		12 16	32				+ $+$		-	+		1	16	12			16	12		1	6	44 \$3	,000 Cost Estimator		1	2 \$3,000 Cost Es	st		3012 32	\$3,000 Cost Es	t		6012	\$9,000 C	Cost Est	\$0 \$1
4 Controlling & Monitoring 5 Closing		10	80				+		-			4	40	12			40	10		4	10	112			5	2			52				52	\$0		\$0
WBS 2 Subtotal Hours		160	680	424	162	84 96	6 68	40 50 \$3,200 \$37,80	04 96	54	62	0 16	60 0	160 18	8 68		160 0	160	12	0 16		2,590			57				11576				16576			
WBS 2 Subtotal Dollars	_	\$17,600	\$68,000 \$	0,280 \$15,	.390 \$7,:	140 \$8,160	0 \$7,480	\$3,200 \$37,80	00 \$7,680	\$4,050	\$4,650	\$0 \$6,40	00 \$0	\$16,000 \$15,04	0 \$6,800	\$0 \$5,	,600 \$0	\$18,400	\$1,020	\$0 \$7,20	10 \$0	\$227,830 \$8	,000	\$500 \$23	6,330 \$43,44	0 \$10,000		\$53,440	\$26,620	\$5,000		\$31,62	\$297,890	\$23,000		\$320
3 Preliminary Design Phase 1 Initiation		8	20				+		-				4	8			4	8			4	32			1	2								\$0 \$0		\$0
2 Planning		8	20										4	8			4	8			4	32			1	2								\$0		\$0
3 Execution Propage & Submit Draft Prolim Design Report		24	120	200	100	60 80	0 40	20 26	80 100	120	120	4	40	24 20	0 40		40	24	20	4	10	1 204			20	0								\$0		\$0 \$0
Prepare & Submit Draft Prelim Design Report Workshops			120 40		100	60 80	0 40	20 20	80 100	120	120	4	8	24 20	40		8	24	20	4	8	1,304 108			30	8								\$0		\$0
Workshops Value Engineering		20 8	24	40 40	8	8 1	8 8	8			8		8	8	8		8	8	8		8	128			2	4								\$0		\$0
Prepare & Submit Class 3 Cost Est		4	24										_	4				4			_	28 \$3	,000 Cost Est			4 \$3,000 Cost Es	st			\$3,000 Cost Es	t			\$9,000 C	Cost Est	\$0 \$5
City Review Period Revise & Resubmit Prelim Design		4		120	24	24 20	0 24	8			8	4	40	16	24		40	4	8	4	10	364			8	0		-						\$0		\$0
Revise & Resubmit Class 3 Cost Est		16 4	8	24									2	4			2	4			2	38 \$	500 Cost Est			6 \$500 Cost Es	st			\$500 Cost Es	t			\$1,500 C	Cost Est	\$0 \$:
Obtain City Approval of Prelim Design		8	24										2	8			2	8			2	34			1	0								\$0		\$0
4 Controlling & Monitoring 5 Closing		8	40	8	8	8 8	8 8	4			8	2	20	8	8		20	8	4	2	:0	120			3	6								\$0		\$0
WBS 3 Subtotal Hours WBS 3 Subtotal Dollars		120	456	432	140	100 110	6 80	40 28 \$3,200 \$21,00	80 100	120	144	0 13	32 0	120 20 \$12.000 \$16.00	0 80 0 \$8,000	0 \$0 \$4,	132 0	120 \$13,800	40	0 13	2 0	2,260			53	2			0			\$23.14	0			
WBS 3 Subtotal Dollars 4 Detailed Design		\$13,200	45,600 \$	1,040 \$13,	.300 \$8,5	500 \$9,860	0 \$8,800	\$3,200 \$21,00	00 \$8,000	\$9,000	\$10,800	\$0 \$5,28	80 \$0	\$12,000 \$16,00	0 \$8,000	\$0 \$4 <i>,</i>	,620 \$0	\$13,800	\$3,400	\$0 \$5,94	10 \$0	\$197,580		\$19	\$40,62	0		\$40,620	\$23,140			\$23,14	\$261,340	¢0		\$26
																						0				0								\$0		\$0
																						0				0								\$0		\$0
WBS 4 Subtotal Hours WBS 4 Subtotal Dollars		0 \$0	50	0 \$0	0 \$0	0 0 \$0 \$0	0 0	0 \$0	0 0 \$0 \$0	0 \$0	0 \$0	0 \$0 \$	0 0 \$0 \$0	0 \$0 \$	0 0	0 \$0	0 0 \$0 \$0	0 \$0	0 \$0	0 \$0 \$	0 0	50			9	0		\$C	0 50				50 50			
5 Bidding Services			+-	+-	+-	** *	- +-	,,,		+-	* -	+- +	7. T.			+-	**	+-	+-	+- +		0				0								\$0		\$0
													_								_	0				0							_	\$0		\$0
WBS 5 Subtotal Hours		0												0				0			_	0				0		_					-	\$0		\$0
WBS 5 Subtotal Dollars		\$0												\$0 \$	0 \$0	\$0	\$0 \$0	\$0	\$0	\$0 \$	60 \$0	\$0			\$0 \$	0		\$0	\$0			9	\$0 \$0			
5 Contract Admin Services															_							0				0								\$0		\$0
											2	2000									-	2,000				0		-						\$0 \$0		\$0 \$0
																						0				0								\$0		\$0
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+ +					_	-	+ +		+				+									0				0							+ +	\$0 \$0		\$0 \$0
WBS 6 Subtotal Hours		0	0	0	0	0 0	0 0	0	0 0	0		2000	0 0	0				0				2,000				0								÷.		
WBS 6 Subtotal Dollars		\$0	\$0	\$0	\$0	\$0 \$6	0 \$0	\$0 \$	\$0 \$0	\$0	\$0 \$130	,000 \$	\$0 \$0	\$0 \$	0 \$0	\$0	\$0 \$0	\$0	\$0	\$0 \$	60 \$0	\$130,000		\$13	10,000 \$	0		\$0	\$0			4	\$130,000	\$0		\$130
Commissioning Services																						0				0		_						\$0		\$0
																						0				0								\$0		\$0
<u> </u>							+ $+$			+												0				0							+ +	\$0		\$0
<u> </u>							+		-													0				0								\$0 \$0		\$0
WBS 7 Subtotal Hours		0												0				0				0				0										
WBS 7 Subtotal Dollars		\$0					+		+					\$0 \$	0 \$0	\$0	\$0 \$0	\$0	\$0	\$0 \$	60 \$0	\$0			\$0 \$	0		\$0	\$0			ŝ	\$0 \$0	\$0		\$0
Additional Services							+		-													0				0								\$0		\$0 \$0
																						0				0								\$0		\$0
WPS 9 Subtotal Harris		0					+ $+$			\vdash				0								0				0							+ +	\$0		\$0
WBS 8 Subtotal Hours WBS 8 Subtotal Dollars		\$0			-		+ +		-	+				\$0 \$	0 \$0	\$0	\$0 \$0	\$0	\$0	\$0 \$	0 \$0	\$0			\$0 S	0		ŚC	\$0				\$0 \$0	ŞU		
Project Closeout																						0				0								\$0		\$0
WRC 0 Substalling		0					+			+											_	0	T			0								\$0		\$0
WBS 9 Subtotal Hours WBS 9 Subtotal Dollars		50					+		-					50 5	0 \$0	\$0	\$0 \$0	\$0	\$0	\$0 \$	0 50	0			\$0 \$	0		\$0	50 S0				so so			
																	20				Ç	-						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					20			
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	1																					1		1												1
Total Hours Total Dollars		368	1956	856	302	184 21	2 148	80 78 \$6,400 \$58,80	84 196	174	206 3	2000 53	32 200	368 38 \$36.800 \$36.80	8 148	0	532 200	280	52	0 51	2 200 0 \$11,000	8198 \$666,690 \$8	1		0 163	6	0		11996 \$2,178,944				18872 6 \$4,214,018		1	

Table 3.2 – Quality Planning Schedule

Submission	Closing Date for Submittal for QA/QC Session*	Internal QA/QC Session Date	Submittal Date to City	Receipt of City Comments	Respond to City Comments	Sign Off by City
10%	March 15th	+ 3 days (March 18 th)	+ 1 week (March 25 th)	+ 3 weeks (April 15 th)	+ 2 weeks (April 29 th)	+ 2 Weeks (May 20 th)
30%	TBD	+ 3 days	+ 1 week	+ 3 weeks	+ 2 weeks	+ 2 Weeks
60%	TBD	+ 3 days	+ 1 week	+ 3 weeks	+ 2 weeks	+ 2 Weeks
95%	TBD	+ 3 days	+ 1 week	+ 3 weeks	+ 2 weeks	+ 2 Weeks
Bid Opportunity Documents	TBD	+ 3 days	+ 1 week	+ 3 weeks	+ 2 weeks	+ 2 Weeks
	e to be establis					

Notes: * Dates to be established upon approval of base schedule

The QA/QC sessions are held in XYZ Consultants' Offices and are to be attended by the Reviewer/Verifier identified in Table 2.1 WBS structure table.

Sample Minimum Meeting Agenda Topics

& Meeting Minutes



PROGRESS MEETING NO. XX

SAMPLE - MINIMUM AGENDA TOPICS & MEETING MINUTES

PROJECT NAME: BID OPPORTUNITY NO.:

Meeting Date: October 31, 2014

In Attendance:

WWD Staff:

Consultant:

Recorded by:

AGENDA ITEM	ΤΟΡΙϹ	DISCUSSION	ACTION REQUIRED BY:	ACTION REQUIRED WHEN
1	Safety			
2	Previous Period Activities			
3	Anticipated Work Next Period			
4	Outstanding Issues to be resolved			
5	New Issues to be Discussed			
6	Review of Risk Register			
7	Status of Scope Changes			
8	CPM Review			
9	Schedule Mitigation Steps			
10	Percent Complete			
11	Cost to Date			
12	Draft Invoice Review (At Monthly Meetings)			
13	Round Table			
14	Wrap-Up			
15	Next Meeting Date/Time /Location			

ATTACHMENTS:



PROGRESS MEETING NO. XX

END OF MEETING AGENDA / MINUTES

Document Tracking Matrix



PROJECT NAME: _____

DOCUMENT TRACKING MATRIX

DOCUMENT TRACKING MATRIX

Line No.	Document No.	Document Name	City Original To-Be- Returned (Y/N)	Document Submittal / Received Date	Action Needed*	Action Taken**	Date Action Taken	Date Approved or Returned to City	Comments

Notes:

*Action Needed = "I" For Information; "RC" For Review & Comment; "RA" For Review and Approval

**Action Taken = "RF" Returned to City for File; "R/C" Returned with Comments; "R/A" Returned with Approval

TABLE 4.1 Cost Control Management (Project Definiton & Preliminary Design Phases)

SAMPLE

		Labour												
WBS	Tasks	Budget	April	May	June	July	August	Sept	Oct	Nov	Dec	Jan	Feb	Cumulative
BCWS (P	anned Value)													
	1 Project Management	\$10,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000		\$10,000
	2 Project Definition	\$20,000	\$2,000	\$4,000	\$4,000	\$6,000	\$4,000							\$20,000
	3 Preliminary Design	\$120,000				\$6,000	\$24,000	\$60,000	\$30,000					\$120,000
	4 Detail Design to 60%	\$240,000							\$70,000	\$50,000	\$80,000	\$40,000		\$240,000
	Monthly Total		\$3,000	\$5,000	\$5,000	\$13,000	\$29,000	\$61,000	\$101,000	\$51,000	\$81,000	\$41,000		
	Cumulative BCWS	\$390,000	\$3,000	\$8,000	\$13,000	\$26,000	\$55,000	\$116,000	\$217,000	\$268,000	\$349,000	\$390,000		\$390,000
ACWP (A	ctual Cost of Work Com	pleted)												
	1 Project Management		\$800	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000			\$8,800
	2 Project Definition		\$1,000	\$4,000	\$5,000	\$5,000	\$4,000	\$1,000						\$20,000
	3 Preliminary Design					\$5,000	\$50,000	\$40,000	\$15,000	\$10,000				\$120,000
	4 Detail Design to 60%									\$8,000	\$30,000			\$38,000
	Monthly Total		\$1,800	\$5,000	\$6,000	\$11,000	\$55,000	\$42,000	\$16,000	\$19,000	\$31,000	\$0		\$186,800
	Cumulative ACWP		\$1,800	\$6,800	\$12,800	\$23,800	\$78,800	\$120,800	\$136,800	\$155,800	\$186,800	\$186,800		
BCWP (E	arned Value)													
	1 Project Management		5.00%	10.00%	15.00%	20.00%	25.00%	30.00%	35.00%	40.00%	45.00%			
	2 Project Definition		10.00%	20.00%	50.00%	80.00%	100.00%	100.00%	100.00%	100.00%	100.00%			
	3 Preliminary Design							25.00%	60.00%	100.00%	100.00%			
	4 Detail Design to 60%									10.00%	20.00%			
	Monthly Total													
	Cumulative BCWP		\$2,500	\$5,000	\$11,500	\$18,000	\$22,500	\$53,000	\$95,500	\$168,000	\$192,500	\$0		
ETC (Esti	mate to Complete)													
	1 Project Management													8000
	2 Project Definition													C
	3 Preliminary Design													(
	4 Detail Design to 60%													200000
	Monthly Total													
	ETC (Estimate to Com	plete)												208000
	EAC (Estimate at Com	pletion)												\$394,800

Notes to Project Managers: (The example Table 4.1 follows the project for this sample CSMP; however, the principles are based on the City's Asset Management Project Management Manual, Final Draft, and Version 2.0, dated April 22, 2014)

The above example in Table 4.1 is for the Consultant's Project Definition and Preliminary Design phases of the project sample project. The sample is constructed according to the WBS rolled up to the first level. For a particular project, the City may want the consultant to have further breakdown of lower levels of the WBS for the project but it should be consistent with their internal accounting systems so as not to impart undue effort to create separate manual accounting. In all cases the consultant should have further breakdown of the Earned Value percent complete for each WBS. There could also be a line for Allowable Disbursements.

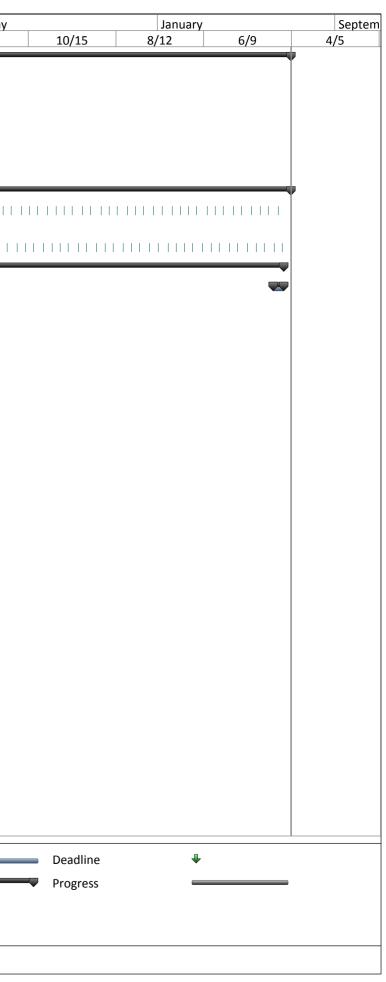
The above example is completed as follows:

- **Planned Value**: The budget cost of the work scheduled (BCWS) is entered as planned for each task. This must include the work package level detail in the time increments to be monitored and controlled.
- Actual Cost of the Work Completed (ACWC): Actual costs are based on the most current information available, which in many cases may be consultant or contract billings.
- Earned Value (EV): An earned value estimate is entered for each item for each time increment based on a bonafided estimate of the work completed. The example is structured in terms of percent completed. Backup documentation is required to support the percent complete (see attached sample)
- Estimate to Complete (ETC): The estimate to complete is a bonafided estimate of the amount of work remaining to be needed to complete each work package for each time increment. The value is reported in terms of cost estimates to complete, but the basis for estimating would normally be in terms of working time. Where the Estimate to Complete indicates the Estimate at Completion is overrunning the contract amount and the Scope of Work has not changed, the Consultant should provide a mitigation plan to bring the project back in line with the amount without modifying the Scope of Services. (This is often done by the Consultant's salaried staff working overtime on a project and/or the Consultant not billing for some work of its non-salaried staff; therefore, the City does not incur additional costs.)
- Estimate at Completion (EAC): The estimate at completion is calculated from the addition of the accumulated ACWC and ETC.

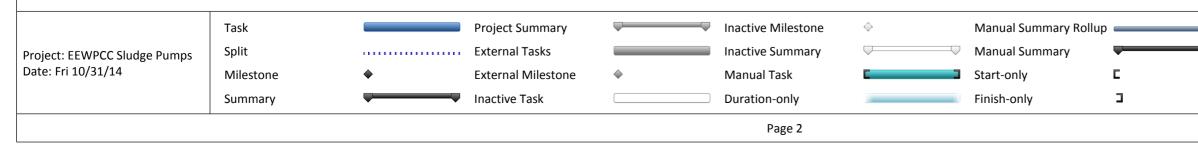
• CPM Schedule – Summary

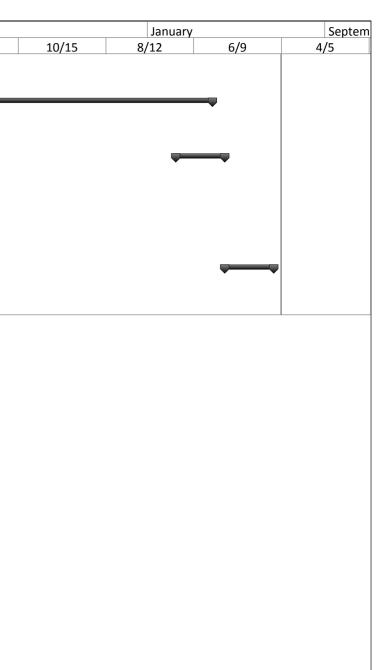
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D	•	Task	WBS	Task Name	Duration	Start	Finish		January			September	2/24	May
1	0	Mode 	1	Project Management	1308 days?	Wed 4/1/15	Fri 4/3/20	11/4	9/1	6/29		4/26	2/21	12/18
2		Ę	1.1	Initiation	27 days?	Wed 4/1/15					Į.			
3			1.1.1	Kick-Off Meeting	27 days?	Wed 4/1/15	Thu 5/7/15							
11			1.2	Planning	23 days	Thu 4/2/15	Tue 5/5/15							
16		Ę	1.2.5	Re-evaluateProject Tea	-	Thu 4/2/15	Mon 4/6/15							
18		- Ē	1.2.6	Re-evaluate project	19 days	Thu 4/2/15	Wed 4/29/15							
		~		schedule	20 00.90									
23		3	1.3	Execution	1308 days?	Wed 4/1/15	Fri 4/3/20							
29	Ð	*	1.3.6	Monthly Progress	1266 days	Fri 5/15/15	Fri 3/20/20				111			
89	0	*	1.3.7	Meetings Status Meetings	1296 days	Fri 5/1/15	Fri 4/3/20							
150	\sim	 	1.3.7	Controlling & Monitoring	-									
153		*	1.4		1289 days	Wed 4/1/15	Mon 3/9/20							
160			2	Closing Project Definition (PD)	26 days 157 days?	Mon 2/3/20 Wed 4/1/15	Mon 3/9/20 Thu 11/5/15							
161			2.1	Initiation	10 days		Tue 4/14/15					•		
163			2.1	Planning	1 day?		Wed 4/1/15							
166		-	2.2	Execution	107 days		Thu 8/27/15				Ĭ.			
167			2.3	Investigations	0 days	Wed 4/1/15					4/1	•		
170		- Ž	2.3.2	Business Cases	30 days		Tue 5/12/15				5			
175			2.3.4	Workshops	17 days		Thu 6/18/15							
184		- Ř	2.4	Controlling & Monitoring	-	Fri 8/21/15	Thu 8/27/15					-		
188			2.5	Closing	55 days	Fri 8/21/15	Thu 11/5/15							
193		*	3	Preliminary Design Phase	116 days	Tue 7/28/15					.			
194		3	3.1	Initiation	1 day?	Thu 8/20/15						•		
196		*	3.2	Planning	60 days		Tue 10/20/15							
201		3	3.3	Execution	90 days	Fri 8/28/15	Thu 12/31/15							
203		Ę	3.3.2	Workshops	10 days	Fri 10/9/15	Thu 10/22/15							
210		3	3.4	Controlling & Monitoring	-	Fri 1/1/16	Fri 1/1/16					-		
214		3	3.5	Closing	20 days	Fri 1/1/16	Thu 1/28/16							
219		3	4	Detailed Design	251 days?		Mon 12/19/1($\mathbf{\nabla}$
220		3	4.1	Initiation	1 day?	Fri 1/1/16	Mon 1/4/16					•		
222		3	4.2	Planning	40 days	Tue 1/5/16	Mon 2/29/16							
227	_	3	4.3	Execution	170 days	Tue 3/1/16	Mon 10/24/16					-		
241		-	4.4	Controlling & Monitoring			Mon 9/26/16							
245			4.5	Closing	50 days	Tue 10/11/16	6 Mon 12/19/16							$\mathbf{\nabla}$
251		₽	5	Bidding Services (To Be Revised 2 Weeks Prior to Start Date)	246 days?	Tue 5/24/16	Tue 5/2/17							
252		3	5.1	Start Date) Initiation	1 day	Wed 10/12/1	(Wed 10/12/1(
254		Ę	5.2	Planning	122 days		Wed 11/9/16							
259	_	3	5.3	Execution	63 days	Thu 10/13/16							-	-
				Task	Pro	ject Summary			Milestone	\$		Manual Sum	mary Rollun	
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D		Task	WBS	Task Name	Duration	Start	Finish		January		Septemb	er	May	
	0	Mode						11/4	9/1	6/29	4/26	2/21	12/18	
270		3	5.4	Controlling & Monitoring	30 days?	Tue 12/20/16	6 Mon 1/30/17							
275		3	5.5	Closing	96 days	Tue 12/20/16	5 Tue 5/2/17						—	
282		₽	6	Contract Administration Services (To be defined 2 weeks prior to Start Date)	630 days	Tue 3/14/17	Mon 8/12/19						~	
288		₽	7	Commissioning Services (To be defined 2 weks prio to start date)	120 days	Tue 4/9/19	Mon 9/23/19							
294		₽	8	Additional Services (To be defined when preparing scope of additional services)	1 day?	Wed 4/1/15	Wed 4/1/15			Ψ				
300		₽	9	Project Closeout (To be defined 2 weeks prior to start date)	120 days	Tue 9/24/19	Mon 3/9/20							





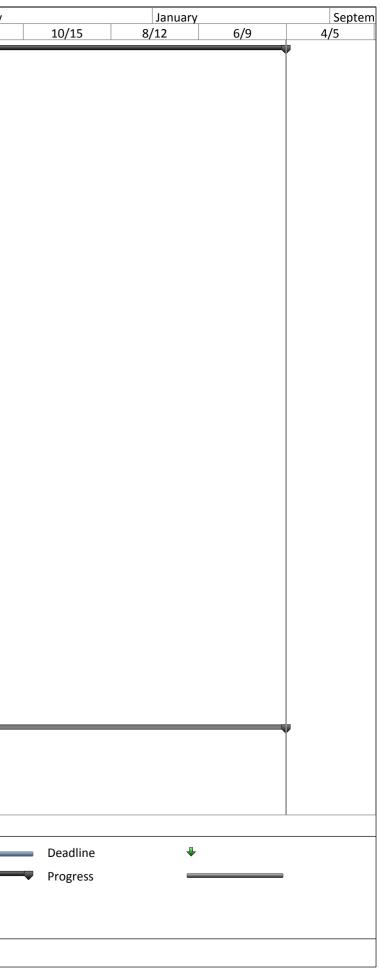
Deadline
Progress

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• CPM Schedule – Detailed

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C	0	Task Mode	WBS	Task Name	Duration	Start	Finish	11/4	January 9/1	6/29		September 4/26 2/2	1 1
1	Ŭ		1	Project Management	1308 days	? Wed 4/1/15	Fri 4/3/20	11/4	5/1	0/25	ψ	4/20 2/2	
2		3	1.1	Initiation	27 days?	Wed 4/1/15					-		
3		₽	1.1.1	Kick-Off Meeting	27 days?	Wed 4/1/15	Thu 5/7/15				•••		
4		*	1.1.1.1	Receipt of Notice to Proceed	0 days	Wed 4/1/15	Wed 4/1/15				4/1		
5		*	1.1.1.2	Develop Internal Project Number	3 days	Wed 4/1/15	Fri 4/3/15				Ŧ		
6		*	1.1.1.3	Attend Kick-off Meeti	1 day	Wed 4/1/15	Wed 4/1/15						
7		*	1.1.1.4	Prepare & Distribute Meeting Minutes	1 day?	Thu 4/2/15	Thu 4/2/15						
8		*	1.1.1.5	City Review Period	15 days	Fri 4/3/15	Thu 4/23/15				ħ		
9		*	1.1.1.6	based on comments	10 days	Fri 4/24/15	Thu 5/7/15						
10		₽	1.1.1.7	Hold Internal Kick-Off Meeting		Wed 4/1/15	Wed 4/1/15						
11		₽	1.2	Planning	23 days	Thu 4/2/15	Tue 5/5/15						
12		*	1.2.1	Prepare & Submit Draft Invoice for City Approva	-		Tue 4/14/15						
13		*	1.2.2		15 days	Wed 4/15/15					þ		
14		*	1.2.3	Prepare & Submit Draft Financial Report for City Approval		Wed 4/8/15	Tue 4/14/15						
15		*	1.2.4	City Review Period	15 days	Wed 4/15/15	Tue 5/5/15						
16		3	1.2.5	Re-evaluateProject Tear	2 days	Thu 4/2/15	Mon 4/6/15				M		
17		*?	1.2.5.1	Notify City of any changes from	2 days								
18		₽	1.2.6	Re-evaluate project schedule	19 days	Thu 4/2/15	Wed 4/29/15						
19		*	1.2.6.1	Notify City of any changes from	2 days	Thu 4/2/15	Mon 4/6/15						
20		*	1.2.6.2	-	15 days	Tue 4/7/15	Mon 4/27/15				I		
21		*	1.2.6.3	Finalize schedule based on City comments and use as	2 days	Tue 4/28/15	Wed 4/29/15						
22		₽	1.2.7	Finalize internal project plan	3 days	Thu 4/30/15	Mon 5/4/15				1		
23		-	1.3	Execution	-	? Wed 4/1/15					ψ		
24		*	1.3.1	Prepare & Submit CSMP	-	Tue 4/7/15	Tue 5/19/15						
25		*	1.3.2	Finalize CSMP based on City comments		Wed 5/20/15					Ĩ		
26		₽	1.3.3	Submit Monthly Invoices	1263 days	Wed 4/1/15	Fri 1/31/20						
				Task	Pro	oject Summary	_	- Inacti	ve Milestone	\$		Manual Summary I	Rollup 🚃
Drojact		PCC Sludg	o Dumos	Split		ternal Tasks			ve Summary			Manual Summary	
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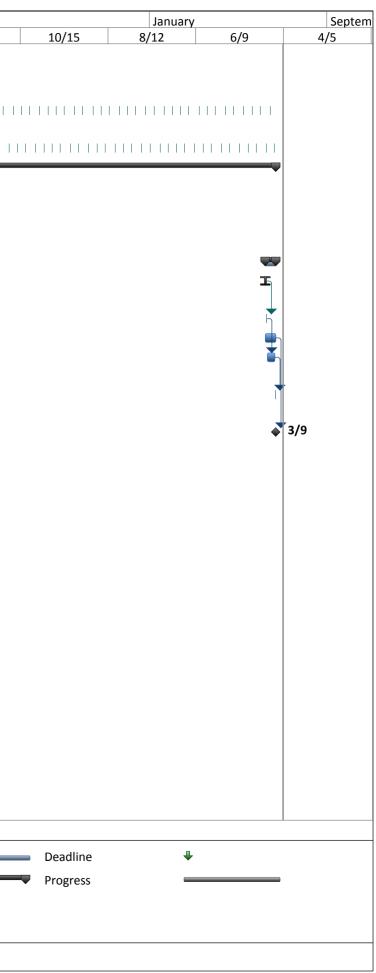


D		Task	WBS	Task Name	Duration	Start	Finish		January		Septemb		May
	0	Mode						11/4	9/1	6/29	4/26	2/21	12/18
27		₽	1.3.4	Sumit Monthly Financial Reports	1263 days	Wed 4/1/15	Fri 1/31/20						
28		*	1.3.5	<new task=""></new>									
29	0	*	1.3.6	Monthly Progress Meetings	1266 days	Fri 5/15/15	Fri 3/20/20						
89	0	*	1.3.7	Status Meetings	1286 days	Fri 5/1/15	Fri 4/3/20				1 111 111 1111		
150	_	*	1.4	Controlling & Monitoring	1289 days	Wed 4/1/15							
151		\$	1.4.1	Control & Monitor as per CSMP									
152		\$	1.4.2	Initialize internal QA/QC procedures									
153		*	1.5	Closing	26 days	Mon 2/3/20	Mon 3/9/20						
154		*	1.5.1	Input all charges against project	5 days	Sat 2/1/20	Thu 2/6/20						
155		₽	1.5.2	Send final Invoice to City	1 day	Fri 2/7/20	Fri 2/7/20						
156		3	1.5.3	Collect all files & archive	26 days	Mon 2/3/20	Mon 3/9/20						
157		₽	1.5.4	Close project when final invoice paid	20 days	Mon 2/10/20	Fri 3/6/20						
158		₽	1.5.5	Notify Insurance Company when project	1 day	Mon 3/9/20	Mon 3/9/20						
159		₽	1.5.6	Notify City that project is closed	0 days	Mon 3/9/20	Mon 3/9/20						
160		₽	2	Project Definition (PD)	157 days?	Wed 4/1/15	Thu 11/5/15				ф		
161		₽	2.1	Initiation	10 days	Wed 4/1/15	Tue 4/14/15				-		
162		*	2.1.1	Verify City requirements with City in Tech Memo	10 days	Wed 4/1/15	Tue 4/14/15				:or		
163		₽	2.2	Planning	1 day?	Wed 4/1/15	Wed 4/1/15				Ψ		
164		\$?	2.2.1	Create Scope/budget/schedule statement for PD									
165		\$	2.2.2	Submit RFIs as needed									
166			2.3	Execution	107 days	Wed 4/1/15	Thu 8/27/15				Ý V		
167		-	2.3.1	Investigations	0 days	Wed 4/1/15	Wed 4/1/15				♦ 4/1		
168		\$	2.3.1.1	Geotechnical Report (N/A)	0 days						4/1		
169		*	2.3.1.2	Survey (N/A)	0 days						↓ 4/1		
170		₽	2.3.2	Business Cases	30 days		Tue 5/12/15				5/12		
171		*	2.3.2.1	Number of sludge	10 days	Wed 4/1/15	Tue 4/14/15						
172		*	2.3.2.2	City review of Business Case	15 days	Wed 4/15/15	Tue 5/5/15						

 Project: EEWPCC Sludge Pumps
 Split
 External Tasks
 Inactive Summary
 Manual Summary
 Manual Summary

 Date: Fri 10/31/14
 Milestone
 External Milestone
 Manual Task
 Start-only
 Inactive Task

 Summary
 Inactive Task
 Duration-only
 Finish-only
 Inactive Task



173	Task	WBS	Task Name	Duration	Start	Finish		January		September		May	
1774 1775 1776 1777 1778 1777 1778 1779 1780 1791 1800 1811 182 1831 1842 1832 1843 185 1860 1871 1884 1890 1901 1911 1922 1931 194	Mode	2222				Тир Б /40 /45	11/4	9/1	6/29	4/26	2/21	12/18	10/15
175 176 177 178 177 178 179 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194	*	2.3.2.3	Revise Business Case based on City's Comments	5 days	Wed 5/6/15	Tue 5/12/15				E.			
176 177 177 178 179 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194	₽	2.3.3	Prepare & Submit Draft PD Report	40 days	Wed 4/1/15	Tue 5/26/15							
1777 1778 1779 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194	3	2.3.4	Workshops	17 days	Wed 5/27/15	Thu 6/18/15				•			
178 179 180 181 182 183 184 183 184 185 186 187 188 189 190 191 192 193 194	*	2.3.4.1	Risk & Oppportunity Assessment	1 day	Wed 5/27/15	Wed 5/27/15				I			
179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194	*	2.3.4.2	Perform CHAIR 1 Workshop	1 day	Thu 5/28/15	Thu 5/28/15				Ĩ			
180 181 182 182 183 184 185 186 187 188 189 190 191 192 193 194	*	2.3.4.3	City Review of 60%, Risk and CHAIR	15 days	Fri 5/29/15	Thu 6/18/15							
181 182 183 183 184 185 186 187 188 189 190 191 192 193 194	₽	2.3.5	Revise PD & re-submit based on City	30 days	Fri 6/19/15	Thu 7/30/15							
182 183 184 185 186 187 188 189 190 191 192 193 194	₽	2.3.6	Obtain City approval of PD (with comments if applicable)	15 days	Fri 7/31/15	Thu 8/20/15							
183 184 185 186 187 188 189 190 191 192 193 194	*	2.3.7	Prepare & review with City Class 5 cost est	15 days	Wed 5/27/15	Tue 6/16/15				۲. In the second secon			
184 185 186 187 188 189 190 191 192 193 194	*	2.3.8	City Review of Class 5 es	15 days	Wed 6/17/15	Tue 7/7/15				ă			
185 186 187 188 189 190 191 192 193 194	*	2.3.9	Revise Class 5 cost est based on comemnts and re-submit		Fri 8/21/15	Thu 8/27/15				Ť			
186 187 188 189 190 191 192 193 194	3	2.4	Controlling & Monitoring	5 days?	Fri 8/21/15	Thu 8/27/15				_			
187 188 189 190 191 192 193 194	\$	2.4.1	Weekly calls to City PM										
188 189 190 191 192 193 194	\$	2.4.2	Status meetings as per CSMP										
189 190 191 192 193 194	₽	2.4.3	Presentation of Approved PD to City	5 days	Fri 8/21/15	Thu 8/27/15				Ĩ			
190 191 192 193 194	3	2.5	Closing	55 days	Fri 8/21/15	Thu 11/5/15							
191 192 193 194	₽	2.5.1	Close out all charges to PD Phase	30 days	Fri 8/21/15	Thu 10/1/15				Ť			
192 193 194	₽	2.5.2	Initiate final PD phase invoice	5 days	Fri 10/2/15	Thu 10/8/15				F			
193 194	₽	2.5.3	Submit all phase documentation to City	15 days	Fri 8/21/15	Thu 9/10/15				Ť			
194	₽	2.5.4	Followup to assure retainage & retainage has been paid	20 days	Fri 10/9/15	Thu 11/5/15				ľ			
	*	3	Preliminary Design Phase	116 days	Tue 7/28/15	Tue 1/5/16							
	₽	3.1	Initiation	1 day?	Thu 8/20/15	Fri 8/21/15				-			
			Task	P	roject Summary		Inactive N	Ailestone	\$	Manual Sur	nmary Rollup		Deadline
			Split		xternal Tasks		Inactive S			Manual Sur			 Progress
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			Summary	In	nactive Task		Duration-	only		Finish-only		ב	
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D	Task	WBS	Task Name	Duration	Start	Finish			January		Septer		May	
0	Mode						11/	4 9	9/1	6/29	4/26	2/21	12/18	10/15
195	* ?	3.1.1	Receipt of written authorization from City to Proceed											
196	*	3.2	Planning	60 days	Wed 7/29/15	Tue 10/20/15								
197	₽	3.2.1	Verify design constraints with City at Phase kick-off meeting and	s 5 days	Fri 8/21/15	Thu 8/27/15								
198	*	3.2.2	City Review Period	15 days	Fri 8/28/15	Thu 9/17/15					۲.			
199	₽	3.2.3	Revise minutes as needed and	5 days	Fri 9/18/15	Thu 9/24/15								
200	*	3.2.4	Update CSMI	5 days	Fri 9/25/15	Thu 10/1/15					Ĩ			
201		3.3	Execution	90 days		Thu 12/31/15						1		
202		3.3.1	Prepare & Submit Prelim Design Draft to	30 days	Fri 8/28/15	Thu 10/8/15								
203		3.3.2	Workshops	10 days		Thu 10/22/15					<u>.</u>			
204		3.3.2.1	Value Engineering	10 days		Thu 10/22/15					Ŭ.			
205	-	3.3.3	Prepare & Submit Class 5 Cost Est to City	10 days	Fri 10/9/15	Thu 10/22/15								
206	*	3.3.4	City Review Period	15 days	Fri 10/23/15	Thu 11/12/15								
207	₽	3.3.5	Revise and resubmit PD to City	15 days	Fri 11/13/15	Thu 12/3/15								
208	*	3.3.6	Revise and resubmit Class 5 Cost Est to City	5 days	Fri 12/4/15	Thu 12/10/15					I			
209	P.	3.3.7	Obtain City approval of Preliminary design (with conditions, if any)		Fri 12/11/15	Thu 12/31/15					Į.			
210		3.4	Controlling & Monitoring	1 day?	Fri 1/1/16	Fri 1/1/16					Ţ			
211	*?	3.4.1	Weekly calls to City PM											
212	\$	3.4.2	Status meetings as per CSMP											
213	₽	3.4.3	Presentation of Approved Prelim Design	1 day	Fri 1/1/16	Fri 1/1/16					ŀ			
214		3.5	Closing	20 days	Fri 1/1/16	Thu 1/28/16						-		
215		3.5.1	Close out all charges to Prelim Design Phase	20 days	Fri 1/1/16	Thu 1/28/16					ĺ			
216	₽	3.6	Initiate final Prelim Design phase invoice	10 days	Fri 1/29/16	Thu 2/11/16								
217	₽	3.7	Submit all phase documentation to City	15 days	Fri 1/29/16	Thu 2/18/16								
218	₽	3.8	Followup to assure retainage & retainage has	20 days	Fri 2/12/16	Thu 3/10/16						Ď		
219	-	4	Detailed Design	251 day	s? Fri 1/1/16	Mon 12/19/16						·	—	
			Task		Project Summary			Inactive Milest	tone	\diamond	Manua	I Summary Rollu	p	Deadli
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Project: EE Date: Fri 10	WPCC Sludg)/31/14	se rumps	Milestone •		External Milestone			Manual Task		P	Start-o		F	10010
	,,-'		Summary		Inactive Task	▼		Duration-only			Finish-c	-	2	
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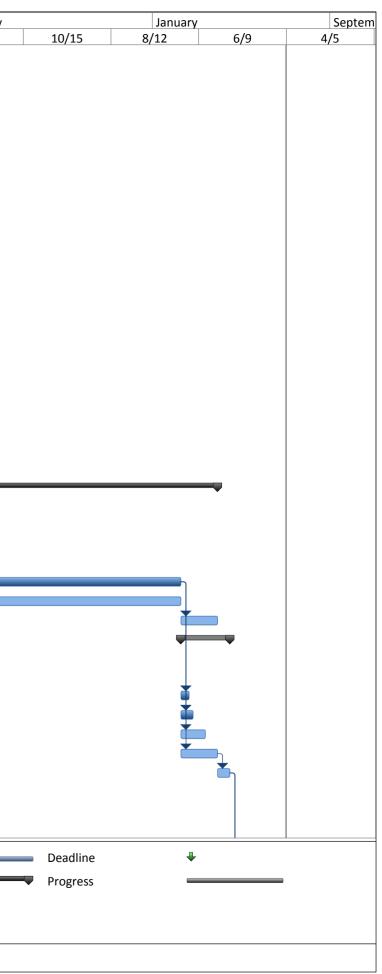
D	0	Task Mode	WBS	Task Name	Duration	n Start	Finish	11/4	January 9/1	6/29	September N 4/26 2/21 12/
220	-		4.1	Initiation	1 day?	Fri 1/1/16	Mon 1/4/16	11/2	- <i>3</i> /1	0/23	4/20 2/21 12/
221		\$	4.1.1	Receipt of written authorization to							
222		₽	4.2	Planning	40 days	Tue 1/5/16	Mon 2/29/16				
223		*	4.2.1	Verify design constraints with City at Phase kick-off meeting and	5 days	Tue 1/5/16	Mon 1/11/16				E
224		*	4.2.2	City Review Period	15 days	Tue 1/12/16	Mon 2/1/16				
225		*	4.2.3	Revise minutes as needed and	5 days	Tue 2/2/16	Mon 2/8/16				
226		*	4.2.4		15 days		Mon 2/29/16				l i i i i i i i i i i i i i i i i i i i
227		3	4.3	Execution	170 day	/s Tue 3/1/16	Mon 10/24/16				
228		*	4.3.1	Prepare & Submit 60% Submittal	60 days		Mon 5/23/16				
229		*	4.3.2		15 days		Mon 6/13/16				
230		2	4.3.3	Perform HAZOP Workshop & followup	5 days	Tue 5/24/16	Mon 5/30/16				
231		*	4.3.4		15 days		Mon 6/20/16				l d
232		*	4.3.5	Revise 60% submittal based on HAZOP and City comments (if	10 days	Tue 6/21/16	Mon 7/4/16				Ĩ
233		*	4.3.6	Prepare and Submit 95% Submittal	40 days	Tue 7/5/16	Mon 8/29/16				
234		-	4.3.7		15 days		Mon 9/19/16				
235		₽	4.3.8	Workshops & followup	10 days		Mon 10/3/16				
236		*	4.3.9	City Review of CHAIR 2 and 3			Mon 10/24/16				
237		₽	4.3.10	Class 3 Cost Estimate	15 days		Mon 9/19/16				
238		<u> </u>	4.3.11	•	15 days		Mon 10/10/16				l 🔮
239		3	4.3.12	needed	15 days		Mon 10/10/16				
240		₽	4.3.13	ready documents	15 days		Mon 10/10/16				
241		₽	4.4	Controlling & Monitoring	5 days?	Tue 9/20/16	Mon 9/26/16				
242		*	4.4.1	Weekly calls to City PM							
243		*?	4.4.2	Status meetings as per CSMP							
244		₽	4.4.3	Approved Design to City	5 days		Mon 9/26/16				
245		₽	4.5	Closing	50 days	Tue 10/11/16	6 Mon 12/19/16				
				Task 🛛 🔤		Project Summary		-	nactive Milestone	\diamond	Manual Summary Rollup
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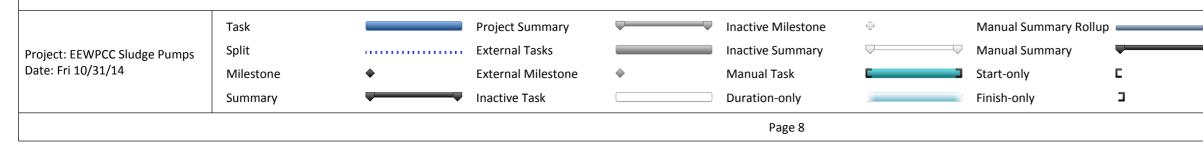
		Task Mode	WBS	Task Name	Duration				January		September	May
	0							11/4	9/1	6/29	4/26 2/21	12/18
246		₽	4.5.1	Obtain appoval of detailed design from	1 day	Tue 10/11/16	Tue 10/11/16				H	
247		₽	4.5.2	Close out all charges to Final Design Phase	30 days	Tue 10/11/16	Mon 11/21/16					
248		₽	4.5.3	Initiate final Final Desigr phase invoice	n 15 days	Tue 11/22/16	Mon 12/12/16					
249		₽	4.5.4	Submit all phase documentation to City	20 days	Tue 10/11/16	Mon 11/7/16					
250		₽	4.5.5	Follow up to assure all invoices and retainage if any is paid		Tue 12/13/16	Mon 12/19/16					ř
251		₽	5	Bidding Services (To Be Revised 2 Weeks Prior to Start Date)	246 days	? Tue 5/24/16	Tue 5/2/17					
252		3	5.1	Initiation	1 day	Wed 10/12/10	Wed 10/12/16				4	
253		₽	5.1.1	Written receipt of authorization to proceed from City	1 day	Wed 10/12/16	Wed 10/12/16					
254		3	5.2	Planning	122 days	5 Tue 5/24/16	Wed 11/9/16					
255		*	5.2.1	Hold Phase kick-off meeting and distribute minutes	5 days	Thu 10/13/16	Wed 10/19/16					
256		*	5.2.2	Verify City Constraints	5 days	Thu 10/13/16	Wed 10/19/16				Ĩ	
257		*	5.2.3	Review procedures with City and Team for document control and communications during bid phase	5 days	Tue 5/24/16	Mon 5/30/16				I	
258		*	5.2.4	City Review Period	15 days	Thu 10/20/16	Wed 11/9/16				Ť	
259		3	5.3	Execution	63 days	Thu 10/13/16	Mon 1/9/17					-
260		₹	5.3.1	Final checking of Bid Opportunity Documents	10 days	Thu 10/13/16	Wed 10/26/16					_
261		₹	5.3.2	Mark as Bid Opportunity Documents and Stamp	/ 3 days	Thu 10/27/16	Mon 10/31/16					
262		₽	5.3.3	Post Bid opportunity	5 days	Tue 11/1/16					- I	
263		3	5.3.4	Hold Site meeting	10 days		Mon 11/21/16					
264			5.3.5	Respond to Questions	20 days	Tue 11/8/16						
265		4	5.3.6	Bid period	30 days		Mon 12/19/16					
266		2	5.3.7	Issue Addendums	25 days		Mon 12/12/16					12/10
267		2	5.3.8	Open Bids	0 days		Mon 12/19/16					12/19
268		₽	5.3.9	Evaluate bids	10 days	Tue 12/20/16	Mon 1/2/17					₽-
				Task		Project Summary		Inacti	ve Milestone	\diamond	Manual Summary Rollup	
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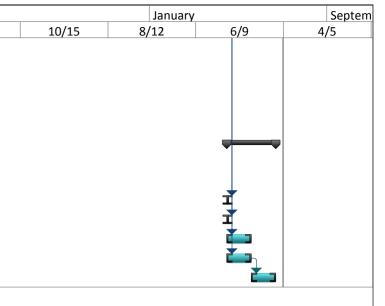
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	Deadline	*		
	Progress			
	• 1061633			

D	_	Task	WBS	Task Name	Duration	Start	Finish		January			September		May
	9	Mode						11/4	9/1	6/29		4/26 2/	21	12/18
269		Þ	5.3.10	Issue Engineer's recommendation of bids	5 days s	Tue 1/3/17	Mon 1/9/17							
270		₽	5.4	Controlling & Monitoring	30 days	? Tue 12/20/16	Mon 1/30/17							
271		*	5.4.1	Maintain list of potentia bidders	130 days	Tue 12/20/16	Mon 1/30/17							
272		*	5.4.2	Maintain list of addendums	30 days	Tue 12/20/16	Mon 1/30/17							
273		*	5.4.3	Weekly calls to City PM										
274		\$	5.4.4	Status meetings as per CSMP										
275		₽	5.5	Closing	96 days	Tue 12/20/16	Tue 5/2/17							
276		₽	5.5.1	City Award period	60 days	Tue 12/20/16	Mon 3/13/17						l	i i
277		₽	5.5.2	Obtain copy of Letter of Award to Contractor with conditions, if any	1 day	Tue 3/14/17	Tue 3/14/17							ľ
278		₽	5.5.3	Close out all charges to phase	30 days	Wed 3/15/17	Tue 4/25/17							Ť
279		₽	5.5.4	Final Phase Invoice to Ci	t 15 days	Wed 3/15/17	Tue 4/4/17							Ŀ
280		₽	5.5.5	Submit all phase documentation to City	20 days	Wed 3/15/17	Tue 4/11/17							
281		₽	5.5.6	Follow-up to assure fina invoice and retainange has been paid	l 20 days	Wed 4/5/17	Tue 5/2/17							
282		₽	6	Contract Administration Services (To be defined 2 weeks prior to Start Date)	630 day	s Tue 3/14/17	Mon 8/12/19							
283		*	6.1	Initiation	20 days	Tue 3/14/17	Mon 4/10/17							ă
284		*	6.2	Planning	20 days	Tue 3/14/17	Mon 4/10/17							Ť
285		₽	6.3	Execution	540 days	s Tue 3/14/17	Mon 4/8/19							¥
286		₽	6.4	Controlling & Monitoring	540 days	s Tue 3/14/17	Mon 4/8/19							
287		3	6.5	Closing	90 days	Tue 4/9/19	Mon 8/12/19							
288		-	7	Commissioning Services (To be defined 2 weks prio to start date)	120 days	s Tue 4/9/19	Mon 9/23/19							
289		₽	7.1	Initiation	20 days	Tue 4/9/19	Mon 5/6/19							
290		lî lî	7.2	Planning	30 days	Tue 4/9/19	Mon 5/20/19							
291			7.3	Execution	60 days	Tue 4/9/19	Mon 7/1/19							
292		-	7.4	Controlling & Monitoring	90 days	Tue 4/9/19	Mon 8/12/19							
293		Ś	7.5	Closing	30 days		Mon 9/23/19							
294		₽	8	Additional Services (To be defined when preparing scope of additional services)	1 day?	Wed 4/1/15	Wed 4/1/15				•			
				Task		Project Summary		- Inac	tive Milestone	Ŷ		Manual Summar	y Rollup	
Project	EEWF	PCC Sludg	e Pumps	Split		External Tasks		lnac	tive Summary			Manual Summar	/	-
Project: EEWPCC Sludge Pumps Date: Fri 10/31/14			Milestone 🔶		External Milestone	•	Mar	nual Task	C]	Start-only	I	C	
Date: Fi														-
Date: Fi				Summary		Inactive Task		Dura	ation-only			Finish-only		



ID		Task	WBS	Task Name	Duration	Start	Finish	January			September			May
	0	Mode						11/4	9/1	6/29	4/26	2/21	1	12/18
295		*	8.1	Initiation										
296		*	8.2	Planning										
297		\$	8.3	Execution										
298		\$	8.4	Controlling & Monitoring										
299		\$	8.5	Closing										
300		Þ	9	Project Closeout (To be defined 2 weeks prior to start date)	120 days	Tue 9/24/19	Mon 3/9/20							
301		*	9.1	Initiation	5 days	Tue 9/24/19	Mon 9/30/19							
302		*	9.2	Planning	5 days	Tue 9/24/19	Mon 9/30/19							
303		*	9.3	Execution	60 days	Tue 9/24/19	Mon 12/16/19							
304		*	9.4	Controlling & Monitoring	60 days	Tue 9/24/19	Mon 12/16/19							
305		*	9.5	Closing	60 days	Tue 12/17/19	Mon 3/9/20							





DeadlineProgress

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