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 | | |
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SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

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| Consultant: | Project Name: | Consultant Project Manager: |
|------------------------|---------------------------|-------------------------------|
| XYZ Consultants, Inc. | EEWPCC Pump Replacement | Todd Fzzzzz |
| 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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HYPERLINKED DOCUMENTS

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, I&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.

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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 CD-PM-TO-06 and track the progress of RFIs using the City's RFI Log CD-PM-TO-06 and track the progress of RFIs using the City's RFI Log CD-PM-TO-10 RFI Log

- As-built drawings
 - o Pump area
 - Discharge piping for hydraulic calculations
 - Electrical
 - o 1&C
 - 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

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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

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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 CD-CP-TO-05 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.

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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

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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.

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(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:

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

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Table 2.1 Work Breakdown Structure (WBS)

| Primary WBS No. | Contract Ref*** | Description | Location | Responsible Professional* | Reviewer/ Verifier** |
|--------------------|--------------------|--|-------------|------------------------------|--|
| 1 | TBD | Project Management (includes Interdiscipline Coordination; approval of documents for release; Scope Changes) | Winnipeg | Todd F., P.Eng | R.T. Jacobs, P.Eng., Principal In- Charge |
| 2 | TBD | 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.)

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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 | Report | Word & pdf | Draft within 30 |
| | Services | | | days then once |
| | Management | | | approved 2 |
| | Plan | | | weeks prior to |
| | | | | next phase |
| Monthly project | Organize, chair, | Distribute | Word & pdf | For each phase |
| status review | record meeting | agendas & | | |
| meetings | minutes | minutes | | |
| Monthly Project Status Reports | Status of work | Report | Word & pdf | For each phase |
| Initial & semi- | Projected | Report with | Word & pdf | March & |
| annual cash flow | expenditures on | projection by | | October for |
| forecasts | project | month | | semi-annual |
| | | | | forecasts |
| Weekly Meetings | Organize, chair, record meeting minutes | Meeting Minutes | Word & pdf | For each phase |
| Workshop - Risk | Organize, chair, | Meeting Minutes | Word & pdf and | Update risk |
| | record meeting | | Risk Register | register in each |
| | minutes | | | phase |
| Workshop – | Organize, chair, | Meeting Minutes | Word & pdf | Chair 1 in Project |
| CHAIR | record meeting | | | Definition Phase. |
| | minutes | | | CHAIR 2 & 3 |
| | | | | after 95% |
| | | | | submittal |
| Workshop - | Organize, chair, | Meeting Minutes | Word & pdf | HAZOP after 95% |
| HAZOP | record meeting | | | submittal |
| Maria di aliana | minutes | VE Daniel | M4 1 0 10 | 5 1 \ / 5 A - 1 |
| Workshop – | Organize | VE Report | Word & pdf | Formal VE Not |
| Value | | | | Applicable to this |
| Engineering | | | | project (include in review |
| | | | | sessions) |
| Invoices | Monthly Invoices | Invoice | Word & pdf | Will come |
| | onciny invoices | | a pai | directly from |
| | | | | Finance |
| L | <u>l</u> | l . | 1 | |

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



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Table 2.3 PROJECT DEFINITION PHASE - DELIVERABLES

| 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 | | | |

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| 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 | | | |

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Table 2.4 PRELIMINARY DESIGN (30%) PHASE – DELIVERABLES (To be updated 2 weeks prior to phase start date)

| Deliverable | Description | Туре | Format | Comments |
|------------------|-------------------|------------------|-----------------|------------------|
| Preliminary | | | | |
| Design report at | | | | |
| 60% complete | | | | |
| HAZOP | | | | |
| workshop & | | | | |
| technical memo | | | | |
| CHAIR Workshop | | | | |
| & Technical | | | | |
| memo | | | | |
| Risk & | | | | |
| Opportunity | | | | |
| Workshop | | | | |
| Comment Log | Word document | Transmitted with | Word & pdf | |
| | 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 | | | |

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

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Table 2.6 DETAILED DESIGN (95%) PHASE – DELIVERABLES

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

| Deliverable | Description | Туре | Format | Comments |
|-----------------|-------------------|------------------|-----------------|------------------|
| | 2 3331. [2 333 | . , , , , | | |
| Comment Log | Word document | Transmitted with | Word & pdf | |
| | to be support all | revised | | |
| | revised | documents | | |
| | 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, | Due two weeks |
| | | | Microsoft | prior to |
| | | | project, pdf as | authorization to |
| | | | necessary | proceed into |
| | | | | next phase |
| 100% Submittal | | | | |
| with Comment | | | | |
| Log Completed | | | | |
| Phase | Submittal of | TBD | pdf and native | |

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| Documentation | phase | formats | |
|---------------|----------------|---------|--|
| | documentation | | |
| | required for | | |
| | phase closeout | | |
| | | | |
| | | | |



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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 | | | |

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Please note that this is not from a real project!

Table 2.8 CONSTRUCTION PHASE – DELIVERABLES

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

| Deliverable | Description | Type | Format | Comments |
|------------------|-------------|------|----------|----------|
| Deliverable | Description | Туре | Torritat | Comments |
| Daily Bonarta | | | | |
| 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 | | | | |
| 7.5 builts | | | | l |

SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

| | | | Microsoft project, pdf as necessary | prior to authorization to proceed into next phase |
|-----------------|--|-----|-------------------------------------|---|
| Documentation p | Submittal of phase documentation required for phase closeout | TBD | pdf and native formats | · |



SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

Please note that this is not from a real project!

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 | | | |
| | | | _ | |

SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

Please note that this is not from a real project!

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

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

| Drawing | Document | Title | 10% | 30 | 60 | 95% | 100% | Bid |
|------------|------------|----------------------|-----------|----|-----|------|--------|--------------|
| No. | No. | 110.0 | (Project | % | % | 00/1 | (w/o | Opportunity* |
| (To Follow | (To Follow | | Definitio | | | | P.Eng | * |
| City | City | | n Report) | | | | stamps | |
| Numbering | Numbering | | | | | | () | |
| System) | System)* | | | | | | | |
| , | | MENTS: | | | | | | |
| | | CSMP | Υ | - | - | - | - | - |
| | | CSMP - | N | Υ | Υ | Υ | N | Y |
| | | Updates | | | | | | |
| | | Monthly | Υ | Υ | Υ | Υ | Υ | Υ |
| | | Progress | | | | | | |
| | | Report | | | | | | |
| | | Invoices | Υ | Υ | Y | Υ | Υ | Υ |
| | | Monthly | Υ | Υ | Υ | Υ | Υ | Υ |
| | | Financial | | | | | | |
| | | Reports | | | | | | |
| | | СРМ | Υ | Υ | Υ | Υ | Υ | Υ |
| | | Schedules | | | | | | |
| | | Insurance | Υ | Υ | Υ | Υ | Υ | Υ |
| | | Certificates | | | | | | |
| | | Meeting | Υ | Υ | Υ | Y | Υ | Y |
| | | Agendas | | | | | | |
| | | Meeting | Υ | Υ | Υ | Y | Υ | Y |
| | | Minutes | | | | | | |
| | | Design | Υ | Υ | N** | N** | N*** | N*** |
| | | Criteria | | | * | * | | |
| | | Design | | Υ | Y | Υ | N*** | N*** |
| | | Calculations | | | | | | |
| | | Equipment | Υ | N | N** | N** | N*** | N*** |
| | | Selection | | | * | * | | |
| | | Business Case | | | | | | |
| | | Cost Estimate | | Υ | Υ | Υ | N*** | Υ |
| | | CHAIR | Υ | N | N | Y/Y | N | N |
| | | Documentatio | | | | | | |

SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

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| | 2, and 3) HAZOP | | | Υ | | | |
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| | Engineering | | | ' | | | |
| | Documentatio | | | | | | |
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| | RFIs | As | | | | | |
| | 11113 | Required | | | | | |
| | Change Order | As | | | | | |
| | Requests | Required | | | | | |
| | Geotechnical | Y | | | | | |
| | Report | | | | | | |
| | Survey | Y | | | | | |
| | Risk & | Y | Υ | Υ | Υ | Υ | N |
| | Opportunity | | | | | | |
| | Assessment | | | | | | |
| | Project | Y | | | | | |
| | Definition | | | | | | |
| | Report | | | | | | |
| | (Draft/Revisio | | | | | | |
| | ns & Final) | | | | | | |
| | Preliminary | | Y | | | | |
| | Design Report | | | | | | |
| | (Draft/Revisio | | | | | | |
| | ns & Final) | | | | | | |
| Design I | Orawings: | | | | | | |
| | Title Page & | | Υ | Y | Υ | | Υ |
| | Index | | | | | | |
| | Civil / Site | | | | | | |
| | Architectural | | | | | | |
| | Piping, | | Υ | Y | Υ | | Υ |
| | Equipment & | | | | | | |
| | Structural | | | | | | |
| | Demolition | | | | _ | | |
| | Electrical and | | Υ | Υ | Y | | Y |
| | I&C | | | | | | |
| | Demolition | | | | | | |
| | Equip Layout | | Υ | Υ | Y | | Y |
| | New Pumps | | | | | | |
| | Plan And | | | | | | |

SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

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| | | Sections | | | | | | |
| | | New Pumps | | N | N | Υ | | Υ |
| | | Details | | | | | | |
| | | Structural | | N | N | Υ | | Υ |
| | | Electrical – | | Υ | Υ | Υ | | Υ |
| | | One line & | | | | | | |
| | | MCC#4 | | | | | | |
| | | Modifications | | | | | | |
| | | I&C P&ID | | Υ | Y | Y | | Υ |
| | | I&C Details | | N | N | Υ | | Υ |
| | SPECIFI | CATIONS: | | | | | | |
| | | | | | Υ | Y | Y | Υ |
| | | | | | Υ | Υ | Υ | Υ |
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| | | | | | Υ | Υ | Y | Υ |
| | | | | | Υ | Υ | Υ | Υ |
| | | | | | Υ | Υ | Y | Υ |
| | | | | | Υ | Υ | Y | Υ |
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| CONTRAC | T ADMINI | STRATION F | PHASE SI | ERVI | CES | | | |
| Drawing | Document | Title | | | | | | |
| No. | No. | 113.5 | | | | | | |
| (To Follow | (To Follow | | | | | | | |
| City | City | | | | | | | |
| Numbering | Numbering | | | | | | | |
| System) | System)* | | | | | | | |
| 3,510111, | | DOCUMENTS: | | | | | | |
| | COMME | Title Page & | | | | | | |
| | | Index | | | | | | |
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SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

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|------|------------------------|---|----------|---|----|---|---|
| | Civil Site | | | | | | |
| | 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 | | | | | | |
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| As-I | Builts: | | | | | | |
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SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

| OTHER | OCUMENTS: | | | | |
|--------|----------------------------|---|--|---|---|
| O THEM | 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 | | | | |
| | 233 | | | | |
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^{*}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.

SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

Please note that this is not from a real project!

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

WBS 7 Subtotal Hours
WBS 7 Subtotal Dollars
8 Additional Services

WBS 8 Subtotal Hours
WBS 8 Subtotal Dollars
9 Project Closeout
WBS 9 Subtotal Hours
WBS 9 Subtotal Dollars

| | | | | | KEY PERSONNEL | | | Design & Sup | port Staff | | | | | | | | | | | | | | | | | | |
|---------|---|---------------------------------|----------------|--|--------------------|--------------------------------|---------------------------------------|-----------------------|--------------------------|-----------------|-------------------------------------|------------------|--------------------------|----------------------------|--------------------------|------------------|---------------------------|-----------------------|-----------------------------------|------------------------------------|--|-----------------|---------------------|-----------------------------------|--------------------|------------------------------------|-----------------------------------|
| | | | | | | PRIME CONSU | JLTANT | | | | | SUB-CONSULTANT A | Α | SUI | 3-CONSULTANT B | | | PRIME CONSU | ILTANT | | SUB-CONSULTANT A | | SUB-CONSULTA | ANT B | | TOTAL PROJ | ECT |
| | | Resource (Discipline & name) | rincipal (Bob) | Pocess (Ralph) | RC(Paul) | PA/QC esident | Ocess Eng | truct Eng rchitect | Spectors dmin Support | nancial Support | rincipal (Don) lect Eng (Elaine) | M/QC | dmin Support | rincipal om Specialist | spectors dmin Support | inancial Support | Other Sub-Totals Consu | | Allowable Disbursables TOTAL COST | Sub-sub- Sub-Totals Consultants | Allowable Sub Type Disbursables TOTAL COST | | ib-sub- | Allowable Disbursables TOTAL COST | Sub Tabela | Other Sub- Consultants Sub Type | Allowable Disbursables TOTAL COST |
| 1A/DC | Description | Hrly Rate 5 | \$110 \$100 | \$95 | \$95 \$85 \$ | \$85 \$110 \$8 | 0 575 58 | SO \$75 | \$75 \$65 \$ | 40 650 | \$100 \$80 | \$100 \$65 | 5 525 550 | 611E CO | \$ \$70 \$45 | ČCC. | Sub-Totals Collsu | uitaits Sub Type | Disbuisables TOTAL COST | Sub-rotals Consultants | Sub Type Disbursables TOTAL COST | Sub-Totals Co | onsultants Sub-Type | DISDUISABLES TOTAL COST | Sub-1 otals | Consultants Sub Type | Disbuisables TOTAL COST |
| | 1 Project Management | nriy Rate ; | \$110 \$100 | 292 | 292 262 3 | 565 5110 56 | 0 3/3 38 | 90 3/5 : | \$/5 \$05 \$ | 350 | \$100 \$80 | \$100 \$63 | 5 535 550 | \$115 \$65 | \$70 \$45 | 200 | | | | | | | | | | | |
| | | Hours | 8 20 | | | | | | | 40 200 | | | 40 200 | | 20 | 200 | 268 | \$1 | | 248 \$2 | | 228 | 62 | | 744 | *** | \$0 |
| | 2 Project Management | riours | | | | | + | | | | 00 | | 200 | 0 | 200 | 200 | 1080 | 51 | \$3,500 | 280 \$2 | \$300 | 208 | 23 | \$250 | 1,568 | | \$4,050 |
| | WBS 1 Subtotal Hours | | 80 800 | | 0 0 | 0 0 | 0 0 | 0 0 | | 100 | 90 0 | 0 0 | 240 200 | 0 4 | 0 220 | 200 | 1348 | 21 | 33,300 | 528 | 5300 | 420 | 73 | 3230 | 2,296 | | 34,030 |
| | WBS 1 Subtotal Pollars | \$0 | .680 \$82.00 | | 50 50 | 50 50 5 | 0 0 | in sn | SO SO S9.6 | | \$8.800 \$0 | \$0 \$0 | \$8,400 \$10,000 | so s | SO \$9,900 | \$11,000 | \$111.280 | \$2 | \$3,500 \$114,782 | 2 \$27.200 \$4 | \$300 \$27.50 | 420 | \$6 | \$250 \$21.156 | \$159.380 | | \$4,050 \$163,442 |
| | 2 Project Definition | 7. | ,000 302,001 | 50 | 30 30 | 30 30 ¢ | JU JU J | JO JO | JO | \$10,000 | \$0,000 \$0 | 70 70 | 3 30,400 310,000 | , JO , | , 50 53,300 | \$11,000 | 9111,200 | 72 | \$3,500 \$114,701 | 0 | \$300 \$27,30 | 920,500 | Ç0 | 3230 321,130 | Ç133,300 0 | \$0 | \$0 \$0 |
| 2 | 1 Initiation | | 12 2 | 40 | 40 24 | 24 | | | | | 12 | | | 12 | | | 164 | | | 12 | | 12 | | | 12 | \$0 | \$0 \$12 |
| | 2 Planning | | 8 6 | 20 | 16 8 | 8 | | | | | 8 | | | 8 | | | 164 120 | | | 8 | | 8 | | | 8 | \$0 | \$0 \$8 |
| | 3 Execution | | | | | | | | | | | | | | | | 0 | | | 0 | | 0 | | | 0 | \$0 | \$0 \$0 |
| 2.3.1 | Investigations | | - | 12 | | 4 | | | | | | 4 | | | | | 24 | \$3,000 Survey | \$500 | 4 \$5,000 | Soil Borings \$1,000 | 6004 | | | 6004 | \$8,000 | \$1,500 \$15,504 |
| | Business Case | | 4 2 | 48 | 8 4 | 4 8 | 4 4 | 4 2 | 2 | 4 | 4 4 | 8 | 4 | 4 | 4 | | 120 | \$2,000 Cost Estimato | or | 20 \$2,000 | Cost Est | 2020 | \$2,000 Cost Est | | 4020 | \$6,000 Cost Est | \$0 \$10,020 |
| 2.3.3 | Prepare & Submit PD Report | | 40 240 | 240 | 80 40 | 40 40 1 | .6 400 8 | 80 40 | 40 | 40 | 40 160 | 40 | 40 | 40 | 3 40 | | 1,336 | | | 280 | | 280 | | | 280 | \$0 | \$0 \$280 |
| | Workshops | | | | | | | | | | | | | | | | 0 | | | 0 | | 0 | | | 0 | \$0 | \$0 \$0 |
| | Risk & Opportunity | | 12 20 | 8 | 8 | 8 | 8 | | | 10 | 12 | | 10 | 12 | 10 | | 74 | | | 22 | | 22 | | | 22 | \$0 | \$0 \$22 |
| 2.3.4.2 | CHAIR 1 | | 4 1 | 8 | 8 | 4 | 4 | | | 6 | 4 | | 6 | 4 | 6 | | 42 | | | 10 | | 10 | | | 10 | \$0 | \$0 \$10 |
| | Revise & Re-submit PD Report | | 24 81 | 48 | 2 8 | 8 16 | 8 100 1 | 2 12 | 20 | 40 | 24 24 | 16 | 40 | 24 | 40 | | 378 | | | 104 | | 104 | | | 104 | \$0 | \$0 \$104 |
| | Obtain City approval of PD | | 16 24 | 1 | | | | | | 4 | 16 | | 4 | 16 | 4 | | 44 | | | 20 | | 20 | | | 20 | \$0 | \$0 \$20 |
| 2.3.7/8 | 9 Prepare, Review, Revise Class 5 Cost Est | | 12 3: | | | | | | | | 12 | | | 12 | | | | \$3,000 Cost Estimato | or | 12 \$3,000 | Cost Est | 3012 | \$3,000 Cost Est | | | \$9,000 Cost Est | \$0 \$15,012 |
| | 4 Controlling & Monitoring | | 16 8 | | | | | | | 16 | 16 | | 16 | 16 | 16 | | 112 | | | 32 | | 32 | | | 32 | \$0 | \$0 \$32 |
| 2 | 5 Closing WBS 2 Subtotal Hours | | 12 8 |) | | | | | | 40 | 12 | | 40 | 12 | 40 | | 132 2.590 | | | 52 | | 52 11576 | | | 16576 | \$0 | \$0 \$52 |
| | WBS 2 Subtotal Hours WBS 2 Subtotal Dollars | 447 | 160 680 | 424 | | 96 68 4 160 \$7,480 \$3,20 | | 6 54 | 62 0 1 | | | | 0 160 0 0 \$5.600 \$0 | 160 1: \$18,400 \$1,020 | 0 160 0 \$0 \$7.200 | 0 | | \$8.000 | \$500 \$236,330 | 576 | \$53.44 | | \$5,000 | \$31.620 | 16576 \$297,890 | | \$320.890 |
| | | \$17 | ,600 \$68,000 | \$40,280 \$15 | 57,140 \$8, | 160 \$7,480 \$3,20 | 0 \$37,800 \$7,68 | \$4,050 \$4,0 | 650 \$0 \$6,4 | 100 \$0 | \$16,000 \$15,040 | \$6,800 \$0 | \$5,600 \$0 | \$18,400 \$1,02 | \$0 \$7,200 | \$0 | \$227,830 | \$8,000 | \$500 \$236,330 | \$43,440 \$10,000 | \$53,44 | 0 \$26,620 | \$5,000 | \$31,620 | \$297,890 | \$23,000 | \$320,890 |
| | 3 Preliminary Design Phase 1 Initiation | | 0 2 | | | | | | | | | | | | | | 22 | | | 12 | | - | | | | 50 | \$0 \$0 |
| | 2 Planning | | 0 21 | | | | | | | 4 | 0 | | 4 | 0 | 4 | | 32 | | | 12 | | - | | | | 50 | \$0 \$0 \$0 \$0 |
| - | 3 Execution | | 8 21 | | | | | | | - | | | * | 8 | | | 0 | | | 0 | | | | | | \$0 | \$0 \$0 |
| | Prepare & Submit Draft Prelim Design Report | | 24 120 | 200 | 100 60 | 80 40 2 | 0 280 10 | 00 120 | 120 | 40 | 24 200 | 40 | 40 | 24 21 | 40 | | 1.304 | | | 304 | | | | | | \$0 | \$0 \$0 |
| 3.3.2 | Workshops | | 20 40 | | 100 00 | 80 40 2 | .0 280 10 | 120 | 120 | 8 | 20 | 40 | 8 | 20 | 8 | | 108 | | | 28 | | | | | | \$0 | \$0 50 |
| | Value Engineering | | 8 2 | 40 | 8 8 | 8 8 | 8 | | 8 | 8 | 8 | 8 | 8 | 8 8 | 8 8 | | 128 | | | 24 | | | | | | \$0 | \$0 \$0 |
| | Prepare & Submit Class 3 Cost Est | | 4 2 | | | | | | | | 4 | | | 4 | | | 28 | \$3,000 Cost Est | | 4 \$3.000 | Cost Est | | \$3.000 Cost Est | | | \$9,000 Cost Est | \$0 \$9,000 |
| | City Review Period | | 4 2 | | | | | | | | 4 | | | 4 | | | 28 | | | 4 | | | | | | \$0 | \$0 \$0 |
| 3.3.5 | Revise & Resubmit Prelim Design | | 16 8 | 120 | 24 24 | 20 24 | 8 | | 8 | 40 | 16 | 24 | 40 | 16 | 3 40 | | 364 | | | 80 | | | | | | \$0 | \$0 \$0 |
| | Revise & Resubmit Class 3 Cost Est | | 4 1 | 24 | | | | | | 2 | 4 | | 2 | 4 | 2 | | 38 | \$500 Cost Est | | 6 \$500 | Cost Est | | \$500 Cost Est | | | \$1,500 Cost Est | \$0 \$1,500 |
| 3.3.7 | Obtain City Approval of Prelim Design | | 8 2 | | | | | | | 2 | 8 | | 2 | 8 | 2 | | 34 | | | 10 | | | | | | \$0 | \$0 \$0 |
| 3 | 4 Controlling & Monitoring | | 8 3 | ! | | | | | | 4 | 8 | | 4 | 8 | 4 | | 44 | | | 12 | | | | | | \$0 | \$0 \$0 |
| 3 | 5 Closing | | 8 4 | | 8 8 | 8 8 | 4 | | | 20 | 8 | 8 | 20 | 8 4 | 1 20 | | 120 | | | 36 | | | | | | \$0 | \$0 \$0 |
| | WBS 3 Subtotal Hours | | 120 456 | 432 | 140 100 1 | 116 80 4 860 \$8.800 \$3.20 | 0 280 10 | 00 120 | 144 0 1 | | 120 200 | 80 0 | 132 0 | 120 4 | | 0 | 2,260 \$197.580 | | | 532 \$40.620 | | 0 0 \$23.140 | | | 0 | | |
| _ | WBS 3 Subtotal Dollars 4 Detailed Design | \$13 | ,200 \$45,601 | \$41,040 \$13 | ,300 \$8,500 \$9,8 | 58,800 \$3,20 | 521,000 \$8,00 | io \$9,000 \$10,0 | 800 \$0 \$5,2 | .ou \$0 | \$12,000 \$16,000 | \$8,000 \$C | \$4,620 \$0 | \$13,800 \$3,400 | \$0 \$5,940 | \$0 | \$197,58U | | \$197,580 | 540,620 | \$40,62 | \$23,140 | | \$23,140 | \$261,340 | 60 | \$261,340 |
| - | 4 Detailed Design | | _ | | | | | | | | | | | | | | U | | | 0 | | | | | | 50 | 50 50 |
| | 1 1 | 1 | | | | | + | 1 | | | | | | | | | 0 | | | 0 | | | | | | şu \$n | \$0 \$0 \$0 \$0 |
| | WBS 4 Subtotal Hours | | 0 4 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 4 | 0 0 | 0 | 0 | | | 0 | | 0 | | | ^ | JU | 30 30 |
| | WBS 4 Subtotal Hours WBS 4 Subtotal Dollars | | SO SI | \$0 | \$0 \$0 | 50 50 9 | 0 50 5 | 0 S0 | \$0 \$0 | \$0 \$0 | S0 S0 | \$0 \$0 | 0 50 50 | \$0 S | 50 50 | \$0 | \$0 | | | \$0 | , , , , , , , , , , , , , , , , , , , | 0 \$0 | | so. | sn. | | Śn |
| - | 5 Bidding Services | | | 7- | | | , , , , , , , , , , , , , , , , , , , | - | - | , , , , , | 7 | 7.0 | 7 | 7- | 7.0 | 50 | 0 | | | 0 | | ,,, | | ý. | 70 | \$0 | \$0 \$0 |
| | | 1 | | | | | 1 1 | 1 1 | | | | | | | | | 0 | | | 0 | | | | | | \$0 | \$0 \$0 |
| | | | | 1 1 | | | | | | | | | | | | | 0 | | | 0 | | | | | | \$0 | \$0 \$0 |
| | WBS 5 Subtotal Hours | | 0 | | | | | | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |
| | WBS 5 Subtotal Dollars | | \$0 | | | | | | | | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$0 \$1 | \$0 \$0 | \$0 | \$0 | | \$0 | \$0 | \$ | 0 \$0 | | \$0 | \$0 | | \$0 |
| | 6 Contract Admin Services | | | | | | | | | | | | | | | | 0 | | | 0 | | | | | | \$0 | \$0 \$0 |
| | | | | | | | | | 2000 | | | | | | | | 2,000 | | | 0 | | | | | | \$0 | \$0 \$0 |
| | | | | | | | | | | | | | | | | | 0 | | | 0 | | | | | | \$0 | \$0 \$0 |
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| | | | | | | | + | | | | | | | | | | 0 | | | 0 | | | | | | \$0 | \$0 \$0 |
| - | WRC C Culturate I University | | 0 | | 0 0 | 0 0 | 0 | 0 0 | 0 2000 | 0 0 | | | | | | | 2.000 | | | 0 | | | | | | \$0 | \$0 \$0 |
| - | WBS 6 Subtotal Hours WBS 6 Subtotal Dollars | | CO | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 2000 \$0 \$130,000 | 0 0 | 0 0 | 60 60 | 2 60 60 | 0 | 60 40 | 60 | 2,000 \$130.000 | | \$130,000 | 0 0 | | 0 60 | | ** | \$130,000 | | \$130,000 |
| - | 7 Commissioning Services | | ου \$I | \$0 | ŞU ŞU | 50 50 5 | U 5U 5 | 50 | ou 5130,000 | ŞU ŞU | 5U \$U | ⇒U ŞL | J 50 \$0 | 3U \$I | 50 50 | \$0 | \$130,000 | | \$130,000 | J 30 | , | \$0 | | \$0 | \$130,000 | ¢o. | \$130,000 |
| | / Commissioning Services | 1 | | | | | + | 1 | | | | | | | | | 0 | | | 0 | | | | | | şu \$n | 50 50 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

Please note that this is not from a real project!

Table 3.2 – Quality Planning Schedule

| Submission | Closing Date for Submittal | Internal QA/QC Session | Submittal Date to City | Receipt of City Comments | City to City Ci | | | | | | |
|---------------------------------|----------------------------|--|--|--|--|--------------------------------------|--|--|--|--|--|
| | for QA/QC Session* | Date | | | | | | | | | |
| | | | | | | | | | | | |
| 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 | | | | | |
| _ | | | | | | | | | | | |
| Notes: * Date | es to be establis | shed upon a | oproval of ba | se 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 for SMALL (<\$10 Million) CAPITAL PROJECT

Please note that this is not from a real project!

Sample Minimum Meeting Agenda Topics & Meeting Minutes

PROGRESS MEETING NO. XX

SAMPLE - MINIMUM AGENDA TOPICS & MEETING MINUTES

| PROJECT NAME: | |
|-----------------------|------------------|
| BID OPPORTUNIT | Y NO.: |
| Meeting Date: | October 31, 2014 |
| In Attendance: | |
| WWD Staff: | |
| Consultant: | |
| Recorded by: | |

| AGENDA ITEM | TOPIC | 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

SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

Please note that this is not from a real project!

Document Tracking Matrix





Water and Waste Department • Service des eaux et des déchets

| | Project No | ; Bid Opportunity No | |
|-------------------------------|------------|--------------------------|--|
| DD 0 15 0 7 11 4 4 4 5 | | | |
| 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 |
|-------------|--------------|---------------|---|--|-------------------|-------------------|-------------------------|-----------------------------------|----------|
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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 (PI | 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 | nate to Complete) | | | | | | | | | | | | | |
| | 1 Project Management | | | | | | | | | | | | | 8000 |
| | 2 Project Definition | | | | | | | | | | | | | 0 |
| | 3 Preliminary Design | | | | | | | | | | | | | 0 |
| | 4 Detail Design to 60% | | | | | | | | | | | | | 200000 |
| | Monthly Total | | | | | | | | | | | | | |
| | ETC (Estimate to Com | plete) | | | | | | | | | | | | 208000 |
| | EAC (Estimate at Com | pletion) | | | | | | | | | | | | \$394,800 |

Winnipeg Sewage Treatment Program Consultant Services Management Plan –

SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

Please note that this is not from a real project!

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.

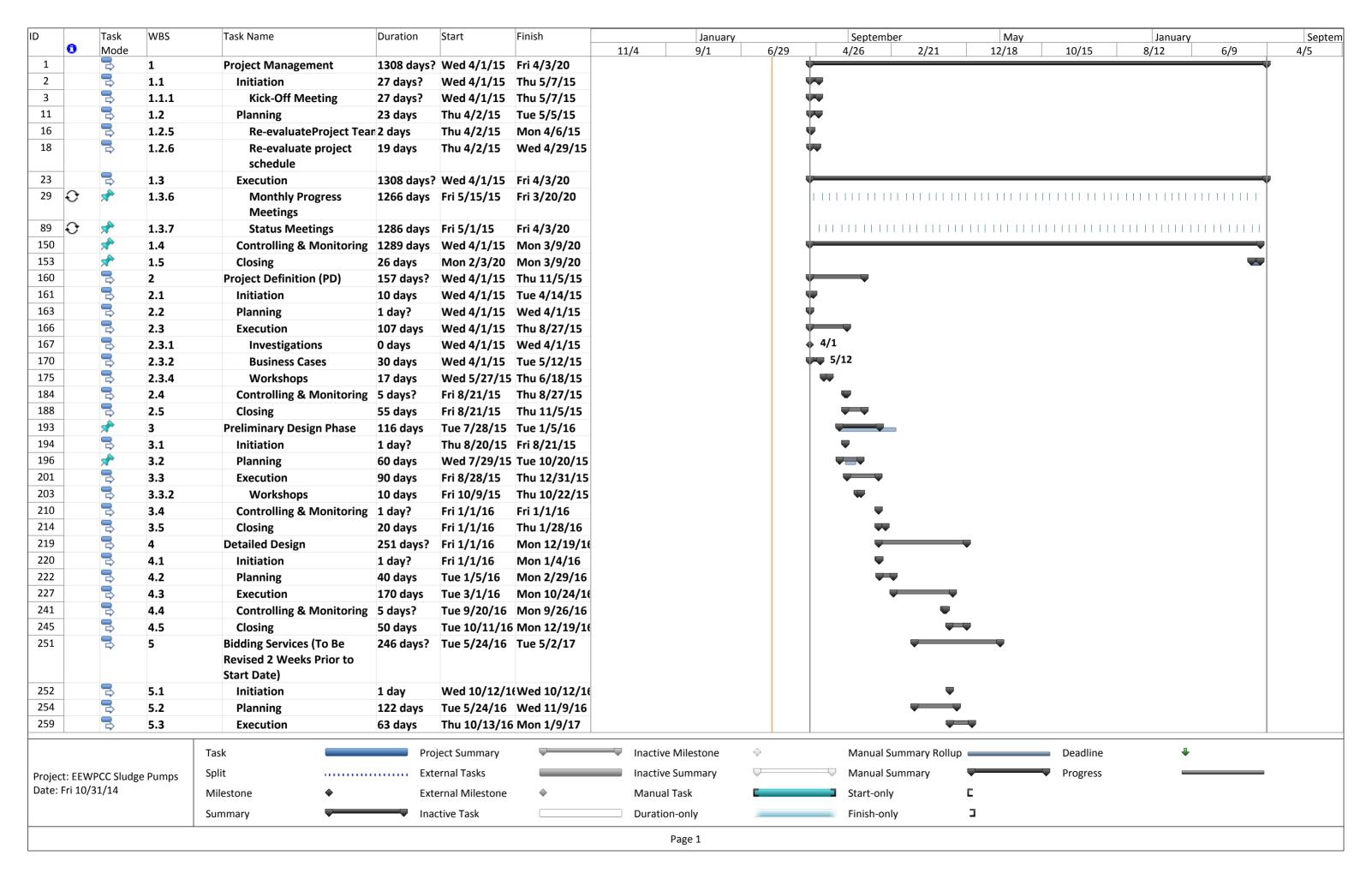
Winnipeg Sewage Treatment Program Consultant Services Management Plan –

SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

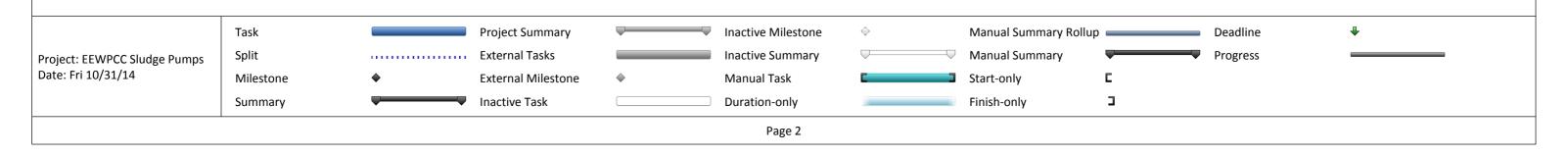
Please note that this is not from a real project!

CPM Schedule – Summary





| D | Task | WBS | Task Name | Duration | Start | Finish | | January | | Septer | mber | May | | January | | Septer |
|-----|------|-----|--|----------|------------|----------------|------|---------|------|--------|------|----------|-------|---------|-----|--------|
| 0 | Mode | | | | | | 11/4 | 9/1 | 6/29 | 4/26 | 2/21 | 12/18 | 10/15 | 8/12 | 6/9 | 4/5 |
| 270 | 3 | 5.4 | Controlling & Monitoring | 30 days? | Tue 12/20/ | 16 Mon 1/30/17 | | | | | | - | | | | |
| 275 | = | 5.5 | Closing | 96 days | Tue 12/20/ | 16 Tue 5/2/17 | | | | | | - | | | | |
| 282 | | 6 | Contract Administration Services (To be defined 2 weeks prior to Start Date) | 630 days | Tue 3/14/1 | 7 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) | - | Wed 4/1/1 | 5 Wed 4/1/15 | | | | • | | | | | | |
| 300 | Pà | 9 | | 120 days | Tue 9/24/1 | 9 Mon 3/9/20 | | | | | | | | | | |



Winnipeg Sewage Treatment Program Consultant Services Management Plan –

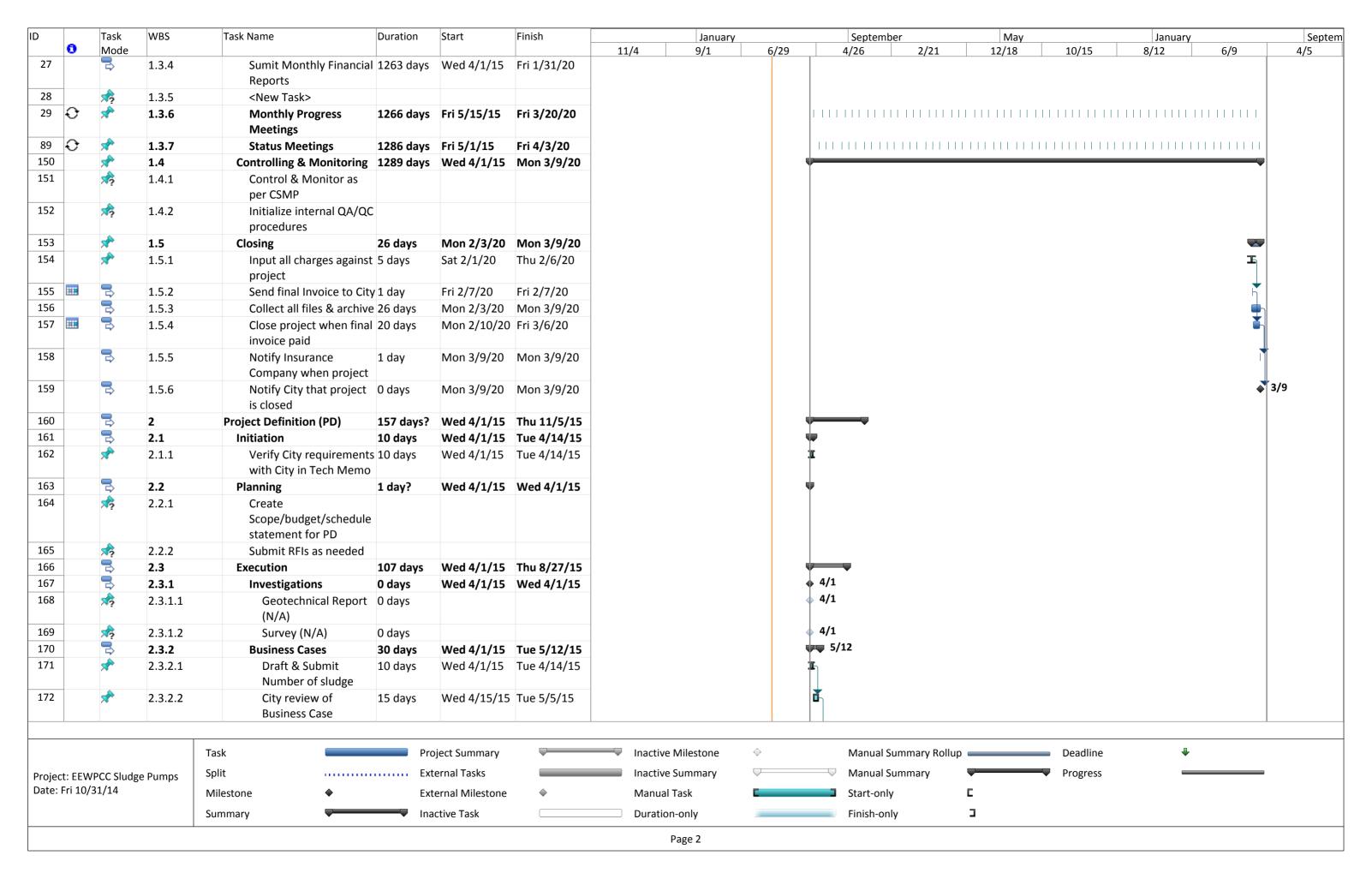
SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

Please note that this is not from a real project!

CPM Schedule – Detailed



| | Task | WBS | Task Name | Duration | Start | Finish | | | January | | | Septemb | er | | May | | Jar | nuary | | Sept |
|-------------|----------------|-----------|---|--------------|-----------------|-------------|------|-----------|---------|----------|-------------|------------|-----------|----------|------|----------------------------|------|-------|-----|------|
| 0 | Mode | | | | | | 11/4 | | 9/1 | 6/29 | | 4/26 | 2/21 | | 2/18 | 10/15 | 8/12 | | 6/9 | 4/5 |
| 1 | 3 | 1 | Project Management | - | Wed 4/1/15 | | | | | | * | | | | | | | | | 7 |
| 2 | 3 | 1.1 | Initiation | 27 days? | Wed 4/1/15 | | | | | | 4 | | | | | | | | | |
| 3 | 3 | 1.1.1 | Kick-Off Meeting | 27 days? | Wed 4/1/15 | | | | | | ** | | | | | | | | | |
| 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 | | | | | 1 | | | | | | | | | |
| 6 | * | 1.1.1.3 | Attend Kick-off Meet | ir 1 day | Wed 4/1/15 | Wed 4/1/15 | | | | | 15 | | | | | | | | | |
| 7 | A [*] | 1.1.1.4 | Prepare & Distribute Meeting Minutes | 1 day? | Thu 4/2/15 | Thu 4/2/15 | | | | | 1 | | | | | | | | | |
| 8 | * | 1.1.1.5 | City Review Period | 15 days | Fri 4/3/15 | Thu 4/23/15 | | | | | | | | | | | | | | |
| 9 | ₹ | 1.1.1.6 | Finalize minutes based on comments | 10 days | Fri 4/24/15 | Thu 5/7/15 | | | | | | | | | | | | | | |
| 10 | 3 | 1.1.1.7 | Hold Internal Kick-Off Meeting | f 1 day | Wed 4/1/15 | Wed 4/1/15 | | | | | | | | | | | | | | |
| 11 | = | 1.2 | Planning | 23 days | Thu 4/2/15 | Tue 5/5/15 | | | | | | | | | | | | | | |
| 12 | A ^P | 1.2.1 | Prepare & Submit Draft Invoice for City Approva | | | Tue 4/14/15 | | | | | :# | | | | | | | | | |
| 13 | A. | 1.2.2 | City Review Period | 15 days | Wed 4/15/15 | Tue 5/5/15 | | | | | | | | | | | | | | |
| 14 | x⁴* | 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 | = | 1.2.5 | Re-evaluateProject Tea | n 2 days | Thu 4/2/15 | Mon 4/6/15 | | | | | ₩ | | | | | | | | | |
| 17 | ×2 | 1.2.5.1 | Notify City of any changes from | 2 days | | | | | | | - | | | | | | | | | |
| 18 | 3 | 1.2.6 | Re-evaluate project schedule | 19 days | Thu 4/2/15 | Wed 4/29/15 | | | | | | | | | | | | | | |
| 19 | A. | 1.2.6.1 | Notify City of any changes from | 2 days | Thu 4/2/15 | Mon 4/6/15 | | | | | 1 | | | | | | | | | |
| 20 | * | 1.2.6.2 | City Review Period | 15 days | | Mon 4/27/15 | | | | | Ĭ. | | | | | | | | | |
| 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 | 3 | 1.2.7 | Finalize internal project plan | 3 days | Thu 4/30/15 | Mon 5/4/15 | | | | | 7 | | | | | | | | | |
| 23 | 3 | 1.3 | Execution | 1308 days? | Wed 4/1/15 | | | | | | \psi | | | | | | | | | 7 |
| 24 | * | 1.3.1 | Prepare & Submit CSMF | 30 days | Tue 4/7/15 | | | | | | | | | | | | | | | |
| 25 | A [*] | 1.3.2 | Finalize CSMP based on City comments | 15 days | Wed 5/20/15 | Tue 6/9/15 | | | | | | | | | | | | | | |
| 26 | 3 | 1.3.3 | Submit Monthly Invoice | es 1263 days | Wed 4/1/15 | Fri 1/31/20 | | | | | | | | | | | | | | |
| | | | Task | Pro | eject Summary | — | Inac | ctive Mil | estone | ♦ | | Manual S | ummary Ro | lup ==== | | Deadline | | • | | |
| niect: EE1 | WPCC Sludg | Pumns | Split | Ext | ernal Tasks | | Inac | ctive Sun | nmary | | | Manual S | ummary | — | | Progress | | | | = |
| ate: Fri 10 | _ | c i unips | Milestone • | | ernal Milestone | * | | nual Tasl | - | | | Start-only | • | г | | 3 | | | | |
| | | | Summary | | ctive Task | • | | ation-on | | | | Finish-on | | 3 | | | | | | |
| | | | | | | | | Page | e 1 | | | | | | | | | | | |



| | Task | WBS | Task Name | Duration | Start | Finish | | | January | | | Septer | nber | | May | | Janu | ary | Sept |
|----------|----------------|-----------|---|----------|----------------------------------|-------------|------|------------------------|---------|-----------|---|----------|-------------|-------|-------|----------|------|-----|------|
| € | | | | | | | 11/4 | | 9/1 | 6/29 | | 4/26 | 2/21 | | 12/18 | 10/15 | 8/12 | 6/9 | 4/5 |
| 73 | * | 2.3.2.3 | Revise Business Case based on City's Comments | 5 days | Wed 5/6/15 | Tue 5/12/15 | | | | | Ī | | | | | | | | |
| .74 | = | 2.3.3 | Prepare & Submit Draft PD Report | 40 days | Wed 4/1/15 | Tue 5/26/15 | | | | | | | | | | | | | |
| .75 | 3 | 2.3.4 | Workshops | 17 days | Wed 5/27/15 | Thu 6/18/15 | | | | | | | | | | | | | |
| 176 | * | 2.3.4.1 | Risk & Oppportunity Assessment | 1 day | Wed 5/27/15 | Wed 5/27/15 | | | | | I | | | | | | | | |
| .77 | ₹ [*] | 2.3.4.2 | Perform CHAIR 1 Workshop | 1 day | Thu 5/28/15 | Thu 5/28/15 | | | | | | | | | | | | | |
| 178 | * | 2.3.4.3 | City Review of 60%, Risk and CHAIR | 15 days | Fri 5/29/15 | Thu 6/18/15 | | | | | | | | | | | | | |
| 179 | ₽ | 2.3.5 | Revise PD & re-submit based on City | , | | Thu 7/30/15 | | | | | | | | | | | | | |
| 80 | ₽ | 2.3.6 | Obtain City approval of PD (with comments if applicable) | 15 days | Fri 7/31/15 | Thu 8/20/15 | | | | | | | | | | | | | |
| .81 | ₹ | 2.3.7 | Prepare & review with City Class 5 cost est | 15 days | Wed 5/27/15 | Tue 6/16/15 | | | | | | | | | | | | | |
| L82 | ₹ | 2.3.8 | City Review of Class 5 es | 15 days | Wed 6/17/15 | Tue 7/7/15 | | | | | | 6 | | | | | | | |
| 183 | * | 2.3.9 | Revise Class 5 cost est based on comemnts and re-submit | • | Fri 8/21/15 | Thu 8/27/15 | | | | | | Ĭ | | | | | | | |
| L84 | 3 | 2.4 | Controlling & Monitoring | 5 days? | Fri 8/21/15 | Thu 8/27/15 | | | | | | | | | | | | | |
| L85 | *2 | 2.4.1 | Weekly calls to City PM | | | | | | | | | | | | | | | | |
| 186 | *2 | 2.4.2 | Status meetings as per CSMP | | | | | | | | | | | | | | | | |
| 187 | 3 | 2.4.3 | Presentation of Approved PD to City | 5 days | | Thu 8/27/15 | | | | | | 0 | | | | | | | |
| 188 | 3 | 2.5 | Closing | 55 days | | Thu 11/5/15 | | | | | | | | | | | | | |
| L89 | 3 | 2.5.1 | Close out all charges to PD Phase | 30 days | | Thu 10/1/15 | | | | | | | | | | | | | |
| .90 | 3 | 2.5.2 | invoice | 5 days | | Thu 10/8/15 | | | | | | | | | | | | | |
| 191 | 3 | 2.5.3 | documentation to City | 15 days | | Thu 9/10/15 | | | | | | | | | | | | | |
| 192 | 3 | 2.5.4 | Followup to assure retainage & retainage has been paid | 20 days | | Thu 11/5/15 | | | | | | | | | | | | | |
| 193 | <u>**</u> | 3 | | 116 days | | | | | | | | | | | | | | | |
| 194 | 3 | 3.1 | Initiation | 1 day? | Thu 8/20/15 | Fri 8/21/15 | | | | | | T | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | Task | | roject Summary | | | ctive Mile | | \$ | | | l Summary R | ollup | | | | • | |
| - | EEWPCC Sludg | ,c i amps | Split | | kternal Tasks | | | ctive Sum | - | | | | l Summary | | | Progress | | | |
| ate: Fri | i 10/31/14 | | Milestone ♦ Summary | | kternal Milestone active Task | ♦ | | nual Task ation-onl | | | | Start-o | • | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | Page | : 3 | | | | | | | | | | |

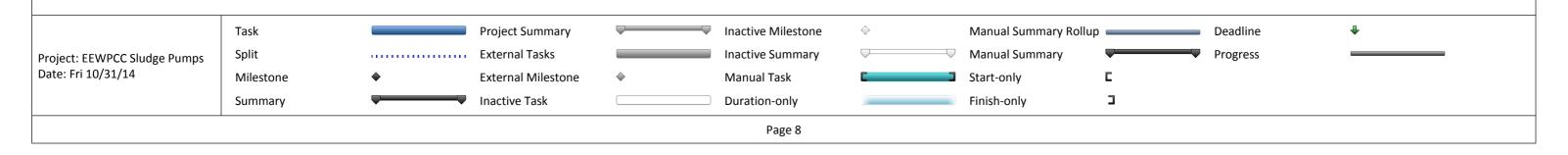
| D | Task | WBS | Task Name | Duration | Start | Finish | | January | | Septen | nber | May | | January | | Septe |
|---------------|-----------------|----------|--|-----------|------------------|----------------|------------|------------|----------|----------|---------------|----------|----------|---------|-----|-------|
| 0 | Mode | | | | | | 11/4 | 9/1 | 6/29 | 4/26 | 2/21 | 12/18 | 10/15 | 8/12 | 6/9 | 4/5 |
| 195 | 7 ? | 3.1.1 | Receipt of written authorization from City to Proceed | | | | | | | | | | | | | |
| 196 | * | 3.2 | Planning | 60 days | Wed 7/29/1 | 5 Tue 10/20/15 | | | | - | | | | | | |
| 197 | - | 3.2.1 | Verify design constraint with City at Phase kick-off meeting and | s 5 days | | Thu 8/27/15 | | | | | | | | | | |
| 198 | A CONTRACTOR | 3.2.2 | City Review Period | 15 days | Fri 8/28/15 | Thu 9/17/15 | | | | | | | | | | |
| 199 | 3 | 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 | | | | | | | | | | |
| 201 | 3 | 3.3 | Execution | 90 days | Fri 8/28/15 | Thu 12/31/15 | | | | - | | | | | | |
| 202 | 3 | 3.3.1 | Prepare & Submit Prelim Design Draft to | 30 days | Fri 8/28/15 | Thu 10/8/15 | | | | | | | | | | |
| 203 | 3 | 3.3.2 | Workshops | 10 days | Fri 10/9/15 | Thu 10/22/15 | | | | • | | | | | | |
| 204 | 3 | 3.3.2.1 | Value Engineering | 10 days | Fri 10/9/15 | Thu 10/22/15 | | | | | | | | | | |
| 205 | = | 3.3.3 | Prepare & Submit Class 5 Cost Est to City | 10 days | Fri 10/9/15 | Thu 10/22/15 | | | | | | | | | | |
| 206 | A. | 3.3.4 | City Review Period | 15 days | Fri 10/23/15 | Thu 11/12/15 | | | | | | | | | | |
| 207 | 3 | 3.3.5 | Revise and resubmit PD to City | 15 days | Fri 11/13/15 | Thu 12/3/15 | | | | | | | | | | |
| 208 | 7 th | 3.3.6 | Revise and resubmit Class 5 Cost Est to City | 5 days | Fri 12/4/15 | Thu 12/10/15 | | | | | | | | | | |
| 209 | ₽ | 3.3.7 | Obtain City approval of Preliminary design (with conditions, if any) | | Fri 12/11/15 | Thu 12/31/15 | | | | * | | | | | | |
| 210 | = | 3.4 | Controlling & Monitoring | 1 day? | Fri 1/1/16 | Fri 1/1/16 | | | | - | | | | | | |
| 211 | * | 3.4.1 | Weekly calls to City PM | | | | | | | | | | | | | |
| 212 | **? | 3.4.2 | Status meetings as per CSMP | | | | | | | | | | | | | |
| 213 | 3 | 3.4.3 | Presentation of Approved Prelim Design | 1 day | Fri 1/1/16 | Fri 1/1/16 | | | | F | | | | | | |
| 214 | = | 3.5 | Closing | 20 days | Fri 1/1/16 | Thu 1/28/16 | | | | - | | | | | | |
| 215 | 3 | 3.5.1 | Close out all charges to Prelim Design Phase | 20 days | Fri 1/1/16 | Thu 1/28/16 | | | | | | | | | | |
| 216 | 3 | 3.6 | Initiate final Prelim Design phase invoice | 10 days | Fri 1/29/16 | Thu 2/11/16 | | | | | | | | | | |
| 217 | 3 | 3.7 | Submit all phase documentation to City | 15 days | | Thu 2/18/16 | | | | | | | | | | |
| 218 | 3 | 3.8 | Followup to assure retainage & retainage has | 20 days | | Thu 3/10/16 | | | | | Ď | | | | | |
| 219 | 3 | 4 | Detailed Design | 251 days? | Fri 1/1/16 | Mon 12/19/16 | | | | • | | - | | | | |
| | | | Task | Pr | oject Summary | - | Inactive N | /lilestone | ♦ | Manual | Summary Rollu |) = | Deadline | • | | |
| Project: EEW | /PCC Slude | ge Pumps | Split | Ex | ternal Tasks | | Inactive S | ummary | | Manual | Summary | V | Progress | _ | | |
| Date: Fri 10/ | | 55. amps | Milestone • | Ex | ternal Milestone | ♦ | Manual T | - | | Start-or | - | С | | | | |
| | | | Summary | | active Task | | Duration- | | | Finish-o | • | 3 | | | | |
| | | | | | | | | age 4 | | | | | | | | |

| D _ | Task | WBS | Task Name | Duration | Start | Finish | | January | | September | | May | | January | | Septe |
|--------------|----------------|----------|--|----------|-------------------|-----------------|---------|-------------|-----------|-------------|---------------|-------|----------------------------|---------|-----|-------|
| 0 | Mode | | | | | | 11/4 | 9/1 | 6/29 | 4/26 | 2/21 | 12/18 | 10/15 | 8/12 | 6/9 | 4/5 |
| 20 | 3 | 4.1 | Initiation | 1 day? | Fri 1/1/16 | Mon 1/4/16 | | | | ₹ | | | | | | |
| 221 | 7 ? | 4.1.1 | Receipt of written authorization to | | | | | | | | | | | | | |
| 222 | 3 | 4.2 | Planning | 40 days | Tue 1/5/16 | Mon 2/29/16 | | | | - | | | | | | |
| 223 | * | 4.2.1 | Verify design constraint with City at Phase kick-off meeting and | s 5 days | Tue 1/5/16 | Mon 1/11/16 | | | | | | | | | | |
| 224 | A. | 4.2.2 | City Review Period | 15 days | Tue 1/12/16 | Mon 2/1/16 | | | | Ō | | | | | | |
| 225 | * | 4.2.3 | Revise minutes as needed and | 5 days | Tue 2/2/16 | Mon 2/8/16 | | | | | | | | | | |
| 226 | * | 4.2.4 | Update CSMP | 15 days | Tue 2/9/16 | Mon 2/29/16 | | | | Ĭ | | | | | | |
| 227 | 3 | 4.3 | Execution | 170 days | Tue 3/1/16 | Mon 10/24/16 | | | | - | _ | | | | | |
| 228 | ₹ [*] | 4.3.1 | Prepare & Submit 60% Submittal | 60 days | Tue 3/1/16 | Mon 5/23/16 | | | | | | | | | | |
| 229 | A. | 4.3.2 | City Review Period | 15 days | Tue 5/24/16 | Mon 6/13/16 | | | | | | | | | | |
| 230 | 3 | 4.3.3 | Perform HAZOP Workshop & followup | 5 days | Tue 5/24/16 | Mon 5/30/16 | | | | | | | | | | |
| 231 | * | 4.3.4 | City Review Period | 15 days | Tue 5/31/16 | Mon 6/20/16 | | | | | ď | | | | | |
| 232 | * | 4.3.5 | Revise 60% submittal based on HAZOP and City comments (if | 10 days | Tue 6/21/16 | Mon 7/4/16 | | | | | | | | | | |
| 233 | * | 4.3.6 | Prepare and Submit 95% Submittal | 40 days | Tue 7/5/16 | Mon 8/29/16 | | | | | | | | | | |
| 234 | 3 | 4.3.7 | Final Review by City | 15 days | Tue 8/30/16 | Mon 9/19/16 | | | | | * | | | | | |
| 235 | 3 | 4.3.8 | CHAIR 2 and 3 Workshops & followup | 10 days | Tue 9/20/16 | Mon 10/3/16 | | | | | | | | | | |
| 236 | * | 4.3.9 | City Review of CHAIR 2 and 3 | 15 days | Tue 10/4/16 | Mon 10/24/16 | | | | | | | | | | |
| 237 | 3 | 4.3.10 | Prepare and Submit Class 3 Cost Estimate | 15 days | Tue 8/30/16 | Mon 9/19/16 | | | | | | | | | | |
| 238 | * | 4.3.11 | City Review Period | 15 days | | Mon 10/10/16 | | | | | 1 | | | | | |
| 239 | 3 | 4.3.12 | Revise Class 3 Est if needed | 15 days | Tue 9/20/16 | Mon 10/10/16 | | | | | | | | | | |
| 240 | 3 | 4.3.13 | Bring 95% to 100% Bid ready documents | • | Tue 9/20/16 | Mon 10/10/16 | | | | | | | | | | |
| 241 | 3 | 4.4 | Controlling & Monitoring | - | Tue 9/20/16 | Mon 9/26/16 | | | | | \ | | | | | |
| 242 | 7 ? | 4.4.1 | Weekly calls to City PM | | | | | | | | | | | | | |
| 243 | * ? | 4.4.2 | Status meetings as per CSMP | | | | | | | | | | | | | |
| 244 | 3 | 4.4.3 | Presentation of Approved Design to City | | | Mon 9/26/16 | | | | | | | | | | |
| 245 | 3 | 4.5 | Closing | 50 days | Tue 10/11/1 | 6 Mon 12/19/16 | | | | | | | | | | |
| | | | Task | | roject Summary | | | e Milestone | \$ | | mary Rollup = | | Deadline | • | | |
| roject: EEW | - | ge Pumps | Split | | xternal Tasks | | | e Summary | V | Manual Sum | imary | | Progress | | | |
| ate: Fri 10/ | 31/14 | | Milestone | E | xternal Milestone | ♦ | Manua | l Task | | Start-only | | | | | | |
| | | | Summary | lr | nactive Task | | Duratio | on-only | | Finish-only | | l | | | | |
| | | | | | | | | Page 5 | | | | | | | | |

|) | Task | WBS | Task Name | Duration | Start | Finish | | J | January | | Septe | ember | | May | | Jan | uary | | Septe |
|-------------|------------|----------|---|-----------|------------------|-------------------|------|--------------|---------------|----------|--------|------------|------------|----------|----------|---------|------|-----|-------|
| 0 | Mode | | | | | | 11/4 | | /1 | 6/29 | 4/26 | | /21 | 12/18 | 10/15 | 8/12 | | 6/9 | 4/5 |
| 46 | 7 | 4.5.1 | Obtain appoval of detailed design from | 1 day | Tue 10/11/16 | 5 Tue 10/11/16 | | | | | | | H | | | | | | |
| .47 | 3 | 4.5.2 | Close out all charges to Final Design Phase | 30 days | Tue 10/11/16 | Mon 11/21/16 | | | | | | | | | | | | | |
| 48 | 3 | 4.5.3 | Initiate final Final Desig | n 15 days | Tue 11/22/16 | 5 Mon | | | | | | | | | | | | | |
| | | | phase invoice | | | 12/12/16 | | | | | | | | | | | | | |
| 249 | 3 | 4.5.4 | Submit all phase documentation to City | 20 days | Tue 10/11/16 | 6 Mon 11/7/16 | | | | | | | | | | | | | |
| 250 | ₽ | 4.5.5 | Follow up to assure all invoices and retainage in any is paid | - | Tue 12/13/16 | 5 Mon 12/19/16 | | | | | | | | | | | | | |
| 251 | ₽ | 5 | Bidding Services (To Be Revised 2 Weeks Prior to Start Date) | 246 days? | Tue 5/24/16 | Tue 5/2/17 | | | | | | - | | | | | | | |
| 52 | 3 | 5.1 | Initiation | 1 day | Wed 10/12/1 | L(Wed 10/12/16 | | | | | | | | | | | | | |
| 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 | 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 | 6 Wed 10/19/16 | | | | | | | | | | | | | |
| 56 | * | 5.2.2 | Verify City Constraints | 5 days | Thu 10/13/16 | 6 Wed 10/19/16 | | | | | | | I | | | | | | |
| 257 | * | 5.2.3 | Review procedures with City and Team for document control and communications during bid phase | | Tue 5/24/16 | Mon 5/30/16 | | | | | | I | | | | | | | |
| 258 | 7 | 5.2.4 | City Review Period | 15 days | Thu 10/20/16 | 6 Wed 11/9/16 | | | | | | | Ô | | | | | | |
| 59 | 3 | 5.3 | Execution | 63 days | Thu 10/13/1 | 6 Mon 1/9/17 | | | | | | | | | | | | | |
| 260 | 3 | 5.3.1 | Final checking of Bid Opportunity Document | 10 days | Thu 10/13/16 | 6 Wed 10/26/16 | | | | | | | | | | | | | |
| 261 | 3 | 5.3.2 | Mark as Bid Opportunit Documents and Stamp | y 3 days | Thu 10/27/16 | Mon 10/31/16 | | | | | | | | | | | | | |
| 62 | 3 | 5.3.3 | Post Bid opportunity | 5 days | Tue 11/1/16 | Mon 11/7/16 | | | | | | | <u> </u> | | | | | | |
| 63 | 3 | 5.3.4 | Hold Site meeting | 10 days | | Mon 11/21/16 | | | | | | | | | | | | | |
| 64 | 3 | 5.3.5 | Respond to Questions | 20 days | | Mon 12/5/16 | | | | | | | 1 | | | | | | |
| 65 | 3 | 5.3.6 | Bid period | 30 days | | Mon 12/19/16 | | | | | | | • | | | | | | |
| 66 | 3 | 5.3.7 | Issue Addendums | 25 days | | Mon 12/12/16 | | | | | | | Ď | | | | | | |
| 67 | 3 | 5.3.8 | Open Bids | 0 days | | 6Mon 12/19/16 | | | | | | | | 12/19 | | | | | |
| 268 | 3 | 5.3.9 | Evaluate bids | 10 days | Tue 12/20/16 | Mon 1/2/17 | | | | | | | | | | | | | |
| | | | Task | Pro | oject Summary | — | Ina | ctive Milest | one | ♦ | Manu | ıal Summar | y Rollup 🕳 | | Deadline | | • | | |
| roject: EE | WPCC Sludg | ge Pumps | Split | Ext | ternal Tasks | | Ina | ctive Summ | nary | <u> </u> | Manu | ıal Summar | -у 🛡 | | Progress | | | | |
| ate: Fri 10 | _ | , 1 | Milestone | | ternal Milestone | ♦ | | nual Task | | | Start- | - | [_ | | | | | | |
| | | | Summary | Ina | active Task | | Dui | ration-only | | | Finish | i-only | | | | | | | |
| | | | | | | | | Page 6 | _ | | | | <u></u> | <u> </u> | | <u></u> | | | |

|) | Task | WBS | Task Name | Duration | Start | Finish | | January | | | September | | May | | Januar | ſ y | Sept |
|--------------|----------|----------|--|-------------|--------------------|-------------|------|----------------|-----------|----|-------------|------|----------|----------|--------|------------|------|
| 0 | Mode | | | | | | 11/4 | 9/1 | 6/2 | 29 | | 2/21 | 12/18 | 10/15 | 8/12 | 6/9 | 4/5 |
| 269 | 3 | 5.3.10 | Issue Engineer's recommendation of bid | 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 | al 30 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 | | | | | | ŧ | | | | | |
| 273 | *2 | 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 | | | | | | | | | | | |
| 277 | - | 5.5.2 | Obtain copy of Letter of Award to Contractor with conditions, if any | f 1 day | Tue 3/14/17 | Tue 3/14/17 | | | | | | | | | | | |
| 278 | 3 | 5.5.3 | Close out all charges to phase | 30 days | Wed 3/15/17 | Tue 4/25/17 | | | | | | | | | | | |
| 279 | 3 | 5.5.4 | Final Phase Invoice to C | it 15 days | Wed 3/15/17 | Tue 4/4/17 | | | | | | | Š | | | | |
| 280 | 3 | 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 | al 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 days | Tue 3/14/17 | Mon 8/12/19 | | | | | | | | | | — | |
| 283 | 7P | 6.1 | Initiation | 20 days | Tue 3/14/17 | Mon 4/10/17 | | | | | | | | | | | |
| 284 | * | 6.2 | Planning | 20 days | Tue 3/14/17 | Mon 4/10/17 | | | | | | | ă | | | | |
| 285 | = | 6.3 | Execution | 540 days | Tue 3/14/17 | Mon 4/8/19 | | | | | | | | | | | |
| 286 | = | 6.4 | Controlling & Monitoring | 540 days | Tue 3/14/17 | Mon 4/8/19 | | | | | | | | | | _ | |
| 287 | 3 | 6.5 | Closing | 90 days | Tue 4/9/19 | Mon 8/12/19 | | | | | | | | | 4 | | |
| 288 | ₽ | 7 | Commissioning Services (To be defined 2 weks prio to start date) | 120 days | Tue 4/9/19 | Mon 9/23/19 | | | | | | | | | | • | |
| 289 | = | 7.1 | Initiation | 20 days | Tue 4/9/19 | Mon 5/6/19 | | | | | | | | | Ť | | |
| 290 | 3 | 7.2 | Planning | 30 days | Tue 4/9/19 | Mon 5/20/19 | | | | | | | | | | | |
| 291 | 3 | 7.3 | Execution | 60 days | | Mon 7/1/19 | | | | | | | | | | | |
| 292 | 3 | 7.4 | Controlling & Monitoring | 90 days | | Mon 8/12/19 | | | | | | | | | | | |
| 293 | 3 | 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 | \$ | | Manual Summ | | | Deadline | 4 | | |
| roject: EEV | | ge Pumps | Split | I | External Tasks | | Inac | tive Summary | | | Manual Summ | ary | | Progress | 6 | | |
| ate: Fri 10, | /31/14 | | Milestone • | E | External Milestone | ♦ | Mar | nual Task | | | Start-only | | | | | | |
| | | | Summary | | Inactive Task | | Dur | ation-only | | | Finish-only | - | l | | | | |
| | | ' | | | | | | Page 7 | | | | | | | | | |

| D | Task | WBS | Task Name | Duration | Start | Finish | | January | | Septemb | oer | May | | January | | Septer |
|-----|-------------|-----|--|----------|--------------|--------------|------|---------|------|---------|------|-------|-------|---------|----------|--------|
| 0 | Mode | | | | | | 11/4 | 9/1 | 6/29 | 4/26 | 2/21 | 12/18 | 10/15 | 8/12 | 6/9 | 4/5 |
| 295 | * ? | 8.1 | Initiation | | | | | | | | | | | | | |
| 296 | **? | 8.2 | Planning | | | | | | | | | | | | | |
| 297 | ** | 8.3 | Execution | | | | | | | | | | | | | |
| 298 | ** | 8.4 | Controlling & Monitoring | | | | | | | | | | | | | |
| 299 | 1 /2 | 8.5 | Closing | | | | | | | | | | | | | |
| 300 | | 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 | | | | | | | | | 1 | |
| 302 | * | 9.2 | Planning | 5 days | Tue 9/24/19 | Mon 9/30/19 | | | | | | | | | 1 | |
| 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 | | | | | | | | | | |



Winnipeg Sewage Treatment Program Consultant Services Management Plan –

SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT

Please note that this is not from a real project!

