

## **APPENDIX E – CONSULTANT SERVICES MANAGEMENT PLAN MINIMUM REQUIREMENTS**

# Winnipeg Sewage Treatment Program Integrated Management System



## Consultant Services Management Plan Minimum Requirements

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## **1. INTRODUCTION**

### **1.1 Application and Purpose**

Upon assignment award the Consultant shall prepare a comprehensive Consultant Services Management Plan (CSMP) detailing the processes that will be applied during the provision of the assigned Services.

The initial Consultant Services Management Plan shall be supplied for approval within one (1) month of assignment award unless specified otherwise in the RFP documents.

As refined planning for some Services may require preceding Services to be underway or completed, a phased submission for those plan components may be acceptable, however, the initial Consultant Services Management Plan submission is expected to cover the complete assignment awarded to a level of detail acceptable by the City that allows a reasonable vision of the assignment delivery.

The Consultant shall update the CSMP to further levels of detail at least two (2) weeks prior to the start of a new Service to ensure that the CSMP is always detailed enough to allow for the minimum controls required in this document.

This Plan should build on the Project Understanding and Methodology and Project Schedule the Consultant provided during the proposal stage.

A Sample CSMP (Document Number [PG-PM-TO-08](#)) for a fictitious project is available for the Consultant as an aid in determining what to include in the specific project CSMP. The Sample CSMP is not template to follow and the details of the specific project CSMP must be determined by the Consultant in conjunction with the City's Project Manager.

### **1.2 Objectives**

The Consultant Services Management Plan objective is to provide a detailed plan to identify and track the processes used by the Consultant during the provision of the assigned Services in order to ensure the delivery of Consultant Services as per City requirements. It will be used by the Consultant and the City as a management and control tool.

The present document is not intended to detail exhaustively all project management techniques and aspects, but rather it lists the minimum requirements that the Consultant has to incorporate in the CSMP

### **1.3 Consultant Services Management Plan (CSMP) Scope**

The Consultant Services Management Plan shall encompass the assignment as detailed in the RFP / Bid Opportunity, including, as applicable the following Services:

- (a) Advisory Services
- (b) Project Definition Design
- (c) Preliminary Design
- (d) Detailed Design
- (e) Contract Administration Services (required and optional)
- (f) Commissioning Services

(g) Additional Services

## **2. PROCESS MANAGEMENT**

The Consultant Services Management Plan shall identify and detail the following processes for the complete assignment as well as for each of the assigned Services:

- (a) Initiating
- (b) Planning
- (c) Executing
- (d) Controlling and Monitoring
- (e) Closing

### **2.1 Planning Processes**

The plan must be specific to the project being worked on and it must include the project controls required by the City.

Planning forms the basis for the Consultants development of the CSMP which will identify the Work Breakdown Structure (WBS) of the assignment deliverables and detail manpower requirements, manpower costs and provide the critical path schedule for the development and issuance of the deliverables.

The CSMP shall, as a minimum, identify for the Services of Section 1.3 the following:

- (a) A WBS that identifies major elements relative to how the assignment will be managed and in terms of tangible and verifiable results (including milestones, critical triggers, deliverables, % completion of design, posting to Materials Management site, etc.)
- (b) The number of the work packages required and description of each;
- (c) List of Drawings/documents planned for each discipline and work package
- (d) Resource requirements, responsibilities, effort, duration, manpower costs and associated disbursements by work package;
- (e) Information required to support the scope of work for each work package
- (f) Schedule requirements for Services relative to each work package;
- (g) Progress meetings
- (h) Presentation/review meeting/ workshops, identifying anticipated City personnel and/or resources required
- (i) Required information inputs, third party inputs
- (j) Reviewers/Verifiers; including constructability aspects
- (k) Reviews and approval
- (l) The type and format of documentation for each work package;
- (m) The timing and sequence in which procurement documentation is to be produced;
- (n) Quality Management elements
- (o) A Risk Management Plan
- (p) Communication management elements

The Consultant shall prepare a detailed schedule for the Services, identifying the critical path using critical path method (CPM) and utilizing MS Project or compatible software. The CPM schedule may be used as the presentation tool for many of the above. Once approved by the Project Manager the schedule shall be frozen as a baseline for the Services' duration. The schedule shall be updated weekly and submitted to the Project Manager monthly in MS Project native format. Review of the schedule with the Consultant will occur during the designated Consultant Services monthly status review meetings. Should slippage to the baseline occur, the Consultant shall provide the Project Manager with a mitigation strategy to bring the schedule back to baseline.

## 2.2 Executing Processes

The Consultant shall have detailed in the planning stage how each of the executing processes will be undertaken, taking into account the following City requirements.

### 2.2.1 Risk Management

Risk Management Plan issued by the Consultant shall be consistent with the Risk Management Process identified by the City, including distinct activities for risk identification and analysis, evaluation, response planning, and control through monitoring and review processes using the risk register as a key management tool.

Criteria for using the risk register are delineated in Use of the Project Risk Register (see Appendix 2).

### 2.2.2 Quality Management

The Winnipeg Sewage Treatment Program requires for the delivery of Services a quality management approach. Quality Management includes the processes required to ensure that the Services will satisfy the needs for which they are undertaken. It includes all activities that determine the quality policy, objectives and responsibilities. The Consultant shall submit a plan specific to the project detailing how the following quality components will be achieved:

- (b) Quality Planning
- (c) Quality Assurance
- (d) Quality Control

### 2.2.3 Cost Management

Cost Management for Services includes the processes required to ensure the assignment is completed within the value of award and includes the following aspects:

- (e) Resource Planning
- (f) Resource Costing
- (g) Cost Monitoring

The Plan shall also detail (when applicable) how to achieve and control the cost for the overall project and propose methodology with regard to procurement delivery strategy.

### 2.2.4 Records Management

To assist in facilitating Records Management the City is developing a Document

Management System (DMS) utilizing the performance capabilities of Share Point in a Microsoft 365 environment. The Consultant shall propose a system for managing documentation that includes the following bullets. Once the City DMS is operational, the Consultant will be required to transfer prior assignment project records into the City DMS and utilize the City DMS for the remainder of the project.

- (h) Issue of documents for review, action or record;
- (i) Reports, Technical Memorandum and other like submissions
- (j) Receipt of Reviewer's comments;
- (k) Issue of "Bid Opportunity" documents;
- (l) Issue of Contract Administration documentation;
- (m) Transmittal of documents to third parties,
- (n) Transmittal of letters and memos;
- (o) Change Management documents, and tracking of their status/history;
- (p) Contractor Submittals for review and response
- (q) Design review and approval process
- (r) Release of documents for use
- (s) Meeting Minutes
- (t) Inspection and QC records
- (u) Verifications and Certifications
- (v) Issuance of Project Turnover Records

The use of the DMS is to be considered in developing the Plan and its detailed document management processes. In particular, for contractors and suppliers' documentation, submittals such as Shop Drawings, Temporary Works drawings, Manufacturers Data sheets, Material test reports, Factory Inspection Tests shall be submitted via DMS c/w a copy of the transmittal sent to the Administrator of the specific Contract. The Consultant's review of such submittals shall be for acceptability and conformance to all applicable design documents and the Consultant shall respond at Contract Administrator level within the defined time frame of 10 business days unless otherwise specified. All submittals shall be accompanied by a transmittal identifying the sender, recipient, date of transmission, expected date of return as well as the content description.

### 2.3 Controlling and Monitoring Processes

Processes must be measured regularly to identify variances from plan. The CSMP shall include high level details of the following processes:

- (a) Scope Change Management
- (b) Design Review and Approval
- (c) Release of Documents for Use
- (d) Design Control
- (e) Performance Reporting
- (f) Cost Control
- (g) Consultant Invoicing.

The CSMP shall be updated to capture changing conditions as the Project

evolves. Some City standard forms and formats, which the Consultant shall use for the above processes, are referenced in the Appendices.

### 2.3.1 Scope Change Management

A Change Control System defines the procedures by which the assignment's scope may be changed. It includes the documents, tracking system and approval processes necessary to authorize change to the assignment.

The Consultant's scope change management process shall take into account all the requirements of contract documents including the requirements of the General Conditions and in the Contract Administration Manual, which is found in the Appendix 2

### 2.3.2 Design Review and Approval

All design deliverable documents require review and approval. The Design Review and Approval Process shall be defined in the Consultant's quality management plan and shall address the following:

- (h) Engineering Practice Reviews
- (i) Inter-discipline coordination (IDC)
- (j) Design Verification / Peer review
- (k) Operability and Maintainability review
- (l) Constructability and cost reviews
- (m) Design Certification
- (n) City of Winnipeg reviews

All documents must undergo the Consultant's planned internal review processes before issuance to the City (note: approval of any document by the City does not limit the liability of the Consultant). The transmittal of documents by the Consultant shall include a transmittal letter listing what is being transmitted, for what purpose it is being transmitted, and the names of all reviewers of the submittal along with the subject matter reviewed by each reviewer. All calculations (including those using computerized software) shall include the initials of the person performing the calculations and the reviewer.

The CSMP's schedule shall detail the applicable review and approval elements. Unless noted otherwise, Design submissions shall be made to the Project Manager at:

- (a) 30% design completion or Preliminary Design;
- (b) 60% design completion; and
- (c) 95% design completion.

Documents to be presented or reviewed in a meeting or workshop shall be issued a minimum of ten working days prior to the presentation. Comments and/or decisions made reached and recorded at the applicable meeting shall be incorporated into the documents and shall be re-issued for approval.

For any document, the City requires a minimum of fifteen (15) working days for review or approval.

### 2.3.3 Release of Documents for Use

There are a number of milestone stages where the Consultant's documents are



required to be released for use. As documents move through the creation, checking, review, comment, verification, certification and approval processes for each stage, the Consultant shall provide for tracking and monitoring the document movement through these processes. These processes shall be defined in the Consultant's quality management plan and shall anticipate the use of the City DMS (Microsoft SharePoint Online). The process of releasing documents for use shall be managed through the DMS. City approval is required prior to releasing any documents for use.

#### 2.3.4 Design Control

The Consultant is required to use the P&ID(s) as the primary and sole interface document(s) to generate and automatically update equipment/instruments and piping line lists.

The Consultant must provide a strategy and the tools for the control of the documentation, including the change management control requirements, for process and instrumentation/electrical equipment during the complete design and construction cycle, from the beginning of design phase to start of operation and maintenance.

#### 2.3.5 Performance Reporting

Performance reporting involves collecting and disseminating performance information in order to provide stakeholders with information about how the resources are being used to achieve assignment objectives. This process includes status reporting which identifies where the assignment is at, progress reporting which describes what has been accomplished and forecast reporting which predicts when the assignment is expected to complete. Work progress and costs have to be measured in parallel.

For the assigned Services, the Consultant shall submit monthly performance reports to the Project Manager so that it may be reviewed at monthly status review meetings. Should deviation to the baseline occur the Consultant shall provide the Project Manager with a mitigation strategy to bring the performance in line with baseline plan.

This obligation will be expanded to include contractor performance if the consultant services assignment includes contract administration services, as detailed in the City Contract Administration Manual. (See reference in Appendix 2)

#### 2.3.6 Cost Control

Cost control includes monitoring cost performance to detect variances from plan and ensuring changes are recorded accurately.

When the assignment scope includes Contract Administration, cost control includes the measurement of the performance of Contract Administration where applicable.

The Consultant shall continually control cost and shall use Earned Value Analysis (EVA) reporting and Estimate at Completion (EAC) forecasting measured against baseline cost. Consultant Services are further detailed in the following section.

#### 2.3.7 Consultant Services Invoicing

Consultant Services monthly progress invoicing documents shall be presented in order to allow close control of the works performed and those forecasted.

The minimum information to be presented on the monthly summary of fees is based on the detailed task structure of the proposal. The proposal must be filled with horizontal indication of assignments referred to as phases and their respective sub assignments, and with vertical information related to Previous values at month N-1, current values achieved during the month N, Total value at the end of month N, base line value and percentage of Total value over baseline.

For the purpose of control and validation of work performed, the Consultant shall develop a further level of details with indication of the components of work within each sub assignment as identified in WBS. A matrix format with indication of personnel, discipline, rates and time assigned and provision for time spent up to and within the current month and forecast total time and costs for each work component will be developed by the Consultant. This development is to be submitted to the City Project Manager for approval with the issue of the CSMP.

Once all monthly detailed sheets are approved by the City Project Manager, the monthly summary of fees will be validated and will support the invoices to be issued by the Consultant in accordance with the Invoice Template that the City will transmit at award.

In order to reduce the time for review, the documents shall be prepared and submitted in both paper and electronic versions in native format.

Invoicing for Services which exceeds individual fee amounts at task level will not be approved or payable without the prior written approval of the Project Manager or unless indicated otherwise in the RFP.

#### 2.4 Services Closeout and Turnover Packages

Closeout processes consist of verifying and documenting the results of the services for their entire assignment to formalize their acceptance. This includes the collection and turnover of all records generated and described in detail in the CSMP.

When establishing the closeout processes, the Consultant must, in coordination with the Project Manager, take into account the general requirements for the overall project and all other contracts contributing to the project delivery.

Note: In regard to the Project closeout, Turnover documentation shall include as a minimum the following:

- (a) As-built Drawings
- (b) O&M manuals c/w associated warranty documentation
- (c) Area Manuals
- (d) Standard Operating Procedures
- (e) Operational Data including Asset Data schedules (Active and Decommissioned)
- (f) Commissioning turn over documentation including Training Documentation and Records

### 3. PROJECT MANAGEMENT REQUIREMENTS

#### 3.1 Communication Management

Communication management provides the critical links among people, ideas and information that are necessary for success.

The Consultant will include a communication plan, as part of the CSMP. The plan shall identify all interfaces (organizational, technical and interpersonal) and the roles and responsibilities of each stakeholder. It will identify who needs what information, when it will be needed and how it will be given.

**The Plan shall use forms and templates specific for the project the Consultant shall develop in conjunction with the City of Winnipeg for facilitating communication and will integrate the use of the City DMS.**

### 3.1.1 Consultant Services Monthly Status Review Meetings

The Consultant shall conduct monthly status review meetings and present monthly status reports. The meeting will include key management personnel from both the Consultant and City of Winnipeg. The Consultant shall record minutes.

The monthly status report shall contain as minimum:

- (b) Assignment Status
- (c) Cost performance
- (d) Schedule performance
- (e) Quality performance
- (f) Risk review

### 3.1.2 Weekly Meetings (Or at frequency identified in the RFP)

The Consultant shall conduct weekly design team meetings and record minutes. The weekly meetings will be attended by at least one City of Winnipeg representative unless otherwise agreed by the Project Manager. As a minimum, the weekly meeting will review the following:

- (g) Recap of past week progress (including man hours and cost)
- (h) Two week look ahead of planned activities (including man hours and forecast)
- (i) Review of issues
- (j) Decisions required and made

During construction and commissioning phases similar types of meetings shall be conducted and the Consultant shall be required to attend either as lead or as participant. Optimization of the project meetings may be proposed by the Project Manager.

### 3.1.3 Workshops

The Consultant shall provide outlines and methods including participants and projected costs for each workshop and shall be approved by the Project Manager prior to undertaking arrangement of the workshops.

When applicable, the following workshops shall be included and follow the City procedures:

- (k) [CD-PD-PC-01 HAZOP Procedure](#)
- (l) [CD-CP-PC-01 CHAIR Procedure](#)
- (m) [CD-CP-PC-02 Value Engineering Procedure](#)

### 3.2 Documentation Submission Requirements

The Consultant shall base submittals on 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 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.

## APPENDICES

The versions of the documents listed in the appendices are representative of the type of documentation to be used for the Project. They allow the Consultant to assess with sufficient accuracy the principles and the magnitude of any work associated with their use for the purpose of quotation.

Applicable revisions of the documents will be transmitted to the Consultant for use at award stage.

### APPENDIX 1: RELEVANT TEMPLATES FROM INTEGRATED MANAGEMENT SYSTEM

- a) Tool [CD-CP-TO-01 Standard Operating Procedure Template](#)
- b) Tool [CD-CP-TO-02 SYNERGEN Asset List](#)
- c) Tool [CD-CP-TO-03 Shop Drawings Template](#)
- d) Tool [CD-CP-TO-04 Area Manual template](#)
- e) [Tool PG-PM-TO-08 Sample Consultant Services Management Plan](#)

### APPENDIX 2: RELEVANT MANAGEMENT DOCUMENTS

- a) Reference Document [PG-RC-RF-06 DMS File Structure and Definitions](#)
- b) Procedure [PG-RM-PC-01 Use of the Project Risk Register](#)
- c) Procedure [CD-PM-PC-01 Contract Administration Manual](#)

### APPENDIX 3: AVAILABLE PROJECT SPECIFIC DOCUMENTS

- a) Tool [CD-CP-TO-05 Project Documentation Requirement sheet](#)
- b) [Form CD-PM-TO-06 Request For Information \(form\)](#)
- c) [Form CD-PM-TO-26 Cost Report](#)
- d) [Form CD-PM-TO-27 Consultant Scope Change Order](#)
- e) [Form CD-PM-TO-30 Travel Authorization Form](#)
- f) [Form CD-PM-TO-34 Consultant Progress Estimate](#)
- g) [Form CD-PM-TO-37 Action Issue Item List.xlsx](#)