Scheduling Maintenance Process

Start

Request periodic schedule update

Verify schedule meets all established requirements, logic errors, unauthorized changes, inaccurate durations, etc. are determined

Updates are required every month through PDS or CPMS on scheduled "Update Dates"

Request is only necessary if schedules are being maintained by GEC or outside contractor; otherwise, schedules are provided by scheduler for project.

Conduct schedule analysis

Are there schedule issues?

Yes

Incorporate schedule update

Update PM activities with actual dates, physical progress, remaining durations and activity changes

Request periodic schedule update

Schedule Schedule Update Information

Return information to scheduling professional

End

Complete periodic schedule update

Issues the update and approved schedule as part of systems, monthly, quarterly reporting - if Change Management was needed issue Rebaselined Schedule and Narrative

Schedule Issues Report for approval

Are there schedule issues?

Yes

Risk Assessment of Schedule Issues

Resolve schedule issues (with Service Providers if necessary) & resubmit

Issue Periodic Schedule Update Report

Approve Schedule update?

Yes

Project Engineering/Management

Complete periodic schedule update

Return information to scheduling professional

Service Provider

Complete periodic schedule update

Update PM activities with actual dates, physical progress, remaining durations and activity changes

Return information to scheduling professional

Resolve issues (with Service Providers if necessary) & resubmit

Note:
This process applies to the updating of the Project Master Schedule, which incorporates the contractual schedules from the Service Provider

A draft of the final scheduling report is submitted to the PEM for review and approval

Printed Report

Decision Function

Manual input

Start or End of a Program Flow

Subroutine or a Module

Start of a Routine

Callout Notes

Callout for Making Notes

System Input

Deliverables

Transfer of Control

Change Management Needed?

Yes

Note:
This process applies to the updating of the Project Master Schedule, which incorporates the contractual schedules from the Service Provider

End

Schedule Issues Report

Resolve Issues & return to service providers (if necessary) for resubmission

PMG

Statewide Program Management Group
Construction receives monthly submittal from Contractor in approved electronic format.

**Scheduling**

1. **Receive & Review Contractor's Monthly Schedule Submittal**
2. **Does it Meet Contractor's Monthly Schedule With Approved Submittal**
   - Yes: **Document Non-Compliance With Contractual Requirements**
   - No: **Does Resubmittal Meet Requirements?**

**Legend**

- **Printed Report**
- **Decision Function**
- **Manual Input**
- **Subroutine or a Module**
- **Start or End of a Program Flow**
- **Start of a Routine**
- **System Input**
- **Deliverables**
- **Transfer of Control**
- **System Output**

**Construction**

1. **Contractor's Monthly Schedule Submittal**
2. **Construction requests a resubmittal from the Contractor and informs them their payment cannot be processed until it is received and approved.**
3. **Contractor resubmits in either P3 or Suretrack format electronically with corrections made.**
4. **QC dates in Master Schedule to ensure they match Contractor's Schedule**

**Confirm Summary Matches Contractor's Schedule**

**Does Summary Match Contractor's Schedule?**

**Contractor's Resubmittal of Monthly Schedule**

**Replace Existing Contractor's Schedule With Approved Submittal**

**Connect Milestones & Rollups to Contractor's Schedule**

**End**
Sample Text
Predefined
Process Process Decision Report Start/End Note
Legend
![Diagram of Cost Control / Earned Value Process]

**Cost Control / Earned Value Process**

1. **Start**
   - Provides required documents as they become available

2. **Cost Documents**
   - For construction, estimate data would come from EBASE system

3. **Review all project costs for compliance**
   - Any changes to budget must be processed

4. **Inputs new budget items and budget changes**

5. **Imports all physical progress and schedule information**

6. **Cost to Date Report**
   - Draft report shows actual cost to date only
   - Cost data is spread between the schedule dates for each Control Account based on the set distribution curve providing an estimated spend/cost curve.

7. **Determine forecasting method & produce cost to complete data**
   - Forecasts can be based on current trend, remaining to be spent, remaining to be earned or a revised estimate.
   - Budgets, commitments, claims and pending claims are included in the analysis.

8. **Cost At Complete Report**
   - Draft report incorporates Cost to Date and Cost to Complete data

9. **Perform Aging on all cost data**
   - Cost reports
   - Review Cost Report
   - Includes earned value analysis, actual vs. planned, variance, cash flow, budget status, funding status and other reports as specified by the PM
   - Issue Approved Cost Report
   - End

10. **Approve Costs?**
    - Yes: Change Management Process
    - No: Additional Funds Needed?

11. **Change Management Process**
    - Yes: Approve Costs?
    - No: Additional Funds Needed?

12. **Additional Funds Needed?**
    - Yes: Change Management Process
    - No: Issue Approved Cost Report

13. **Review Cost Report**
    - Yes: Issue Approved Cost Report
    - No: Issue Approved Cost Report

14. **Draft report incorporates Cost to Date and Cost to Complete data**

15. **Perform Aging on all cost data**

16. **Cost to Date Report**
   - Draft report shows actual cost to date only

17. **Cost At Complete Report**
   - Draft report incorporates Cost to Date and Cost to Complete data

18. **Review Cost Report**
   - Includes earned value analysis, actual vs. planned, variance, cash flow, budget status, funding status and other reports as specified by the PM
   - Issue Approved Cost Report
   - End

**Legend**
- Process
- Decision
- Report
- Start/End
- Note

**Additional Information**
- PMG: Project Management Group
- Statewide Program Management Group
- Examples of documents: field notes, invoices and time sheets
- Any changes to budget must be processed
- Cost documents are properly coded. Examples of cost codes are WBS and Funding Source
- Includes change orders and potential changes, trends and contingency risks
- Imports from scheduling system
- Actuals are imported from the accounting system (TRAINS/FIRS) and period estimated outstanding expenditures (see "Invoicing Tracking")
Assumption: a contract (external, GEC, internal WSDOT) is already in place

Service Provider

Start

Accumulate Hours/Costs

Check invoice against approved scope and control accounts

Approve Entire Invoice?

Yes

Add Period information into Database

No

Determine to Pay Partial Invoice & Send Back to Service Provider

No

Verify "Cost to Date" of each account

Check invoice against approved scope and control accounts

Verify "Cost to Date" of each account

Yes

Invoicing Complete?

Replace estimated outstanding expenditures with actual invoiced costs in "Cost To Date"

No

Add Period Costs

If using the same monthly estimated outstanding expenditures, verify within 5%

Establish Period Costs

Establish Period Progress

Both Estimated Outstanding Expenditures and Actual invoiced cost

Paid to Date + Invoiced from TRAINS and PIRS Data Marts

Combined Estimated Outstanding Expenditures and Invoiced (previous cycles) Cost for each account

Report "Invoiced To Date" by Control Account

Report "Cost To Date" by Control Account

Earned Value Process for determining progress and forecasting performance

Regional Project Engineer/Manager

PMG

Statewide Program Management Group

Consultant/GEC/WSDOT

Assumption: a contract (external, GEC, internal WSDOT) is already in place
WSDOT Estimate Creation, Review & Approval

---

**Estimating**

1. **Start**
   - Project Engineers/Managers (PM) request an estimate. Documents are provided to perform the estimate. PM provides an expected date of estimate delivery in accordance with the design contract.

2. **Request Cost Estimate**
   - Estimating receives request and documents, and notifies Controls manager of pending estimate and timeframe.

3. **Review Contract Plans/Specifications**
   - Estimating develops the estimate according to the standard estimating procedures, depending on the stage of design.

4. **Provide additional info as needed**
   - Estimating produces a detailed estimate using WSDOT quantities and WSDOT pricing.

5. **Prepare Quantity Estimate**
   - Estimating revises the estimate per PM comments.

6. **Develop Draft Cost Estimate**
   - Estimating files a copy of the estimate and comments and inputs the total into the database indicating that it is to be reported as the Working Estimate to Complete (WETC).

7. **Make estimate revisions as needed**
   - Estimating files a copy of the estimate and comments and indicates that it is to remain an internal working estimate in the database. The database will continue to report the previously approved estimate as the official estimate.

8. **Identify new WSDOT estimate as official in estimating database**
   - Estimating files a copy of the estimate and comments and indicates that it is to be reported as the Working Estimate to Complete (WETC).

9. **Review estimate**
   - PM’s determines acceptability of officially reporting estimate, signs estimate form & returns to Estimating.

10. **Sign Estimate Form & Return to Controls**
    - PM’s determines acceptability of officially reporting estimate, signs estimate form & returns to Estimating.

11. **End**
    - PM’s determines acceptability of officially reporting estimate, signs estimate form & returns to Estimating.

---

**Legend**

- **Process**
- **Decision**
- **Report**
- **Start/End**
- **Note**

---

PMG

Statewide Program Management Group

Estimates developed using WSDOT estimating database, consistent bid items and adjusted unit prices.

Request Cost Estimate

DRAFT

Page 6 of 13
Contract Development - Internal

Start

Determine if Consultant is Needed

No

Consultant? Yes

Define Tasks

Contract Development - External

No

Approve?

Yes

End

Yes

Define Work Breakdown Structure

Establish Contract Deliverables

WBS is based on tasks for the scope of services

Assign Task Duration

Assign Resources

Submit document containing proposed resources, schedule and cost

Contract Management Process

PMG
Statewide Program Management Group

Regional Project Engineer/Manager

Service Provider

Legend

Start/End

Note

Process

Decision

Report

Predefined Process
**Contract Development – External (Non-Construction)**

**PMG**

**Statewide Program Management Group**

---

**Legend**

- Process
- Decision
- Report
- Start/End
- Note

---

**Start**

External Consultant All or Part?

- **Yes**
  - Internal WSDOT Contract Development

- **No**
  - Select Consultant
    - On-Call when <$5m
    - RFP when >$5m

**Select Consultant**

- **Yes**
  - Execute Phase 1 Scoping Agreement
- **No**
  - Define Scope of Work

**Execute Phase 1 Scoping Agreement**

- **Approve?**
  - **Yes**
    - Define Type of Supplemental Agreement
      - **Approve?**
        - **Yes**
          - Sign Agreement & Issue NTP
        - **No**
          - Determine hour and cost estimates
            - Report hour and cost estimates
            - Report hour and cost estimates

- **No**
  - Determine Type of Supplemental Agreement
    - **Approve?**
      - **Yes**
        - Sign Agreement & Issue NTP
      - **No**
        - Determine hour and cost estimates
          - Report hour and cost estimates
          - Report hour and cost estimates

**Determine Type of Supplemental Agreement**

- **Approve?**
  - **Yes**
    - Negotiate Proposed Cost & Schedule Agreement
      - **Within Budget?**
        - **Yes**
          - Sign Agreement & Issue NTP
        - **No**
          - Negotiate Proposed Cost & Schedule Agreement
            - **Sign Agreement & Issue NTP**

- **No**
  - Determine hour and cost estimates
    - Report hour and cost estimates
    - Report hour and cost estimates

**Negotiate Proposed Cost & Schedule Agreement**

- **Adequate Funding Available?**
  - **Yes**
    - Sign Agreement & Issue NTP
  - **No**
    - Develop funding and resource strategy

**Define Scope of Work**

- **Yes**
  - Define Tasks
    - **Ready to Show PM?**
      - **Yes**
        - Submit document containing proposed scope, work plan and tasks
      - **No**
        - Define Tasks

- **No**
  - Develop Project Work Plan
  - Define Tasks

**Define Tasks**

- **Ready to Show PM?**
  - **Yes**
    - Submit document containing proposed scope, work plan and tasks
  - **No**
    - Define Tasks

---

**End**
**Assumption:** excludes construction contracts

**Note:** an internal WSDOT specialty group may initially serve as a service provider and move to the role similar to Regional PM/PE for a given portion of the project. This specialty group always reports back to the overall PM/PE.

---

**Contract Management (Non-Construction)**

**PMG**
Statewide Program Management Group

**Legend**

- **Start/End**
- **Decision**
- **Report**
- **Note**
- **Process**
- **Start/End**
- **Legend**

---

**Regional Project Engineer/Manager**

**Start**

**Execute Contract**

**Assign Tasks, Resources, and Schedule**

**Perform Work**

**Invoice & Progress Report (GEC/Consultant) or Confidence Report (WSDOT)**

**Cost & Earned Value Process**

**Earned Value process for determining progress and forecasting performance**

**Period Performance Report**

**Tasks complete?**

**Yes**

**No**

**End**

---

**Service Provider**

**Consultant/ GEC/ WSDOT**
**Project Change Management – Non-Construction**

**Legend**
- **Start/End**
- **Note**
- **Process**
- **Decision**
- **Report**
- **Predefined Process**
- **Process**

**Start**
- HQ
  - Identifies Need for Change
  - Estimate Value of Proposed Change
  - Negotiate agreement on cost & schedule with Service Provider
  - Recommend Proposed Change
  - Receive Proposed Change
  - Review Rejected Change Proposal

**Start**
- Regional Operations
  - Receives & Inputs Proposed Change Documents
  - Determine Merit of Proposed Change
  - Review Recommended Proposed Change
  - Reject Proposed Change
  - Review Rejected Change Proposal

**Start**
- Project Engineering/Management
  - Receives & Inputs Proposed Change Documents
  - Does Change Have Merit?
  - File Rejected Change
  - Administration System
  - Receive Proposed Change
  - Receive Rejected Change Proposal

**Start**
- Service Provider
  - Submits Proposed Change Documents
  - Revised Proposed Change based on rejection
  - Review rejection of proposed change
  - Receive Approved Change
  - End

**Start**
- PMG
  - PM negotiates value of change with service provider
  - Approve Change
  - Log Approval of Change
  - Receive Approved Change
Program Change Process occurs if biennial total change is greater than $100,000, ad date changes biennium, or ad date change is associated with a dollar change. A Change Request Form (CRF) is used to submit proposed program change.

Start

Regional Program Management

- Receives & Inputs Proposed Change Documents
- Determine sub-program/funding source of change
  - Submit Proposed Change Documents
  - Change Request Form (CRF)

HQ Program Management

- Determine Merit of Proposed Change
  - CRF into CRF Tracking System
  - Verify change does not contradict PIN/ WIN or line item agreements

Executive

- Accepts Proposed Change
  - CRF Approved
    - Yes: Approve Change
    - No: Reject Proposed Change

OFM/Legislature

- Review Agreed to Proposed CRF
  - Does Change Have Merit?
    - Yes: Review Agreed to Proposed CRF
    - No: Rejected Proposed Change
  - Rejected Proposed Change

Legend

- Predefined Process
- Process
- Decision
- Report
- Start/End
- Note

End
End users use codes to group, sort or filter data of various kinds. If a code does not exist, one can be added to achieve the data manipulation desired.

Will code be used for a report more than once or over multiple periods?

End users can now produce reports with added codes.

End users use codes to group, sort or filter data of various kinds. If a code does not exist, one can be added to achieve the data manipulation desired.

End user adds code on their system only. This code will not be usable by anyone else.

End users can now produce reports with added codes.

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