

H Span Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
Milestone Purpose	Provides basis to charter project team and begin developing the PMP Review Scoping documents	PM validates the project scope, schedule, and budget Management endorses the project's work plan	Refine the scope, schedule, budget Evaluate Alternatives	Documents design criteria and major design decisions. Documents the project purpose, type, strategy, phase durations, budget, and recommended ad date. Type, Size and Location	Complete NEPA/SEPA environmental process Complete the permit applications for agency approvals	Design of major project elements completed, review for constructability, conformance with standards	100 % PS&E review. Items missing from design should be minor and should be documented to reviewers.	All permits necessary for the project are received.	Comments from 90% review are incorporated. No other major changes to 90% PS&E review documents. At the end of this review, Contract Plans are Ad Ready.	Submittal of all final deliverables to Olympia for ad and award	Archive project electronic and hard copy files Document project in Z-PM standards file historical data base. Close out project through Project Controls Group.
Decisions Frozen and Milestones Completed (Overview)	Legislative budget Legislative ad dates	PMP complete Milestone dates set Schedule baselined Environmental Process defined Assumptions defined Risks defined File system and Logs are set up	Preferred alternative identified Predesign Study document complete OFM endorsed Pre-design Study	Design criteria completed Alternative Analysis completed Design concept fixed Design type, size and location fixed Approval to begin ROW acquisition process Design Approval Package stamped and signed Draft construction schedule and phasing complete	The environmental review documentation is considered complete on the date that all necessary NEPA/SEPA is complete Permits submitted to the agencies (excluding building and CZM permits)	All key project elements and features that drive the project outcome and costs are defined. Geometric Review comments resolved and documented. Design details to be completed identified	✓ The deliverables are substantially complete ✓ Review and acceptance of design detail of key elements and features ✓ Permits Obtained. All environmental permits are approved, verified, and accepted for inclusion into the plans ✓ General Plans Review comments resolved & documented.	Permits are included in the contract documents	PS&E deliverables are complete. All review comments adjudicated. Plans and specifications stamped and sealed at end. ROW Certification Final Project Approval	Owner accepts design Approval to advertise ROW is clear	Consultants/WSDOT staff forward all required project records and files to the Project Manager Project Manager sends design file to library / construction group Electronic design file archived
Preliminary Engineering											
Design/PS&E Elements											
Project Management	0106 <u>Draft Project Mgmt Plan</u> • Deliverable Expectation Matrix • Critical Path Schedule • Milestone Schedule • Budget Sheet 01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance 0169 <u>Project Summary</u> • Scope Validation • Estimate Validation • Verify Project Definition • Verify Environmental Review Summary • Verify Design Decisions Summary • Project Kick Off Meeting	0101 <u>General Project Management</u> • Electronic and hard copy file System Set Up • Bid Book and Change Management Book Set Up 0106 <u>Endorsed PMP</u> • Signed Team Agreements • Baseline schedule • Budget • Cash Flow Sheet • Risk assessment • Communication Plan • Change management plan • QA/QC plan 0121 <u>Change Management</u> • Project Change Log • Contingency Estimate 0166 <u>Cost and Risk Estimating</u> • Project Management Risks Identified • Risk Modeling Spreadsheet	0111 <u>Communication Plan</u> • Draft Public Involvement Plan 0123 <u>Pre-Design Study</u> • PDS Draft Narrative • Alternatives Analysis • Cost Benefit Analysis • PDS Revised per Mgmt Review • PDS Final Narrative • PDS Revised per Executive 0172 <u>Design Documentation Package (DDP)</u> Appr. Submittal Incl: • Stamped cover sheet • Project Description • Concept Drawings • Site Plans and Elevations • Cost Estimate • Risk Spreadsheet • Project Analysis • Design Criteria worksheets or equivalent: www.wsdot.wa.gov/design/projectdev 0181 <u>PS&E Review</u> • QAQC Cover Sheets for the Project		0101 <u>General Project Management</u> • 60% Cover Sheet responses to 30% review comments 01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance • Monthly Stated Schedules and Project Control Spreadsheets 0111 <u>Communication Summary</u> • Record of Contact • Outreach Decisions • Outreach List • Public Meeting Minutes • Public Hearings Record	0101 <u>General Project Management</u> • Peer Reviews Complete and documented • 90% Coversheet responses to 60% review comments 01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance • Monthly Stated Schedules and Project Control Spreadsheet 0185 <u>Pre-Ad Review and Preparation</u> • Request WMBE & Training Goals		0101 <u>General Project Management</u> • 100% Coversheet responses to 90% review comments 01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance • Monthly Stated Schedules and Project Control Spreadsheet 0172 <u>DDP</u> Project Development Approval Submittal Project Development Submittal Includes: • Stamped Cover Sheet • Design Approval Submittal • Environmental Permits • Design Variance Inventory • Cost Estimate • Cost Estimate Summary (for Nicole, with Budget Comparison Worksheet) • Contract	01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance • Monthly Stated Schedules and Project Control Spreadsheet 0185 <u>Pre-Ad Review and Preparation</u> • Memo to OEO • Memo to Contract Ad & Award • Ad Package to HQ 0198 <u>Construction Preparation</u> • Construction Phase File Setup • Construction Funding • Design Record Close Out • Funding Adjust-to-Award 0199 <u>Addenda Preparation</u> • Contract Addendum • Respond to Bidder RFIs	0101 <u>Project Management</u> • Lessons Learned • Design Records to Library • Design E-Files Archived • Consultant Evaluations • Team Evaluations • Copy records to Z-PM standards historical data base • DDP finalized and in Design File • Scope description • Budget Workbook, schedule archived on Z-PM Stds 0198 <u>Construction Preparation</u> • Design Record Close Out	

H Span Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
Project Management	0166 <u>Cost and Risk Estimating</u> • Risk Analysis: Self Modeling Spreadsheet (also see "Project Management" above) • Project Kick Off Meeting	0166 <u>Cost and Risk Estimating</u> • Scoping Level Cost Validation • Determine if project needs Value Engineering or Cost Risk Assessment/Cost Estimating Validation Process • Basis of Estimate (see Cost Estimating Manual) • Bid Book with Initial Estimate		0166 <u>Cost and Risk Estimating - 60%</u> • Ebase Setup • Permit Cost Estimate • Risk Cost, 60% level • Cost Est, 60% level • Operations Cost Est. (CN) • Outreach Cost Est. (PE & CN) • Env. Monitoring Est. • Traffic Control Est. • Discipline Cost Estimates		0166 <u>Cost and Risk Estimating 90%</u> • Pay groups and pay items determined • Summary of Quantities Draft • Lump sum cost detail	0166 <u>Cost and Risk Estimating Final</u> • Cost Estimate Final • Cost estimate below the line items (building permit, operations cost, risk cost, environmental and archaeological monitoring) • Summary of Quantities Final		0166 <u>Cost and Risk Estimating Final</u> • Construction Estimate Final Revisions		
Environmental	0132 <u>Endangered Species Act Compliance</u> • Environmental Permit List • Project Kick Off Meeting 0138 <u>Environmental Permits</u> • Validate ERS (Environmental Review Summary) • Project Kick Off Meeting	0106 <u>Project Management Plan</u> • Team Agreement Validated • Environmental project schedule development • Environmental permit list • Estimate of design hours • Signed Env. Internal Agreement (scope, sched., budget) 0132 <u>Endangered Species Act Compliance</u> • ESA Risks Identified 0138 <u>Environmental Permits</u> • Environ. Permit Risks Identified • Soil Boring Notice of Intent	0123 <u>Pre-Design Study</u> • Environmental Section of Pre-Design Study 0138 <u>Environmental Permits</u> • Boring Permit	0138 <u>Environmental Permits</u> • Discipline studies, reports, and predecessor information completed • Noise Variance Application • JARPA Preparation • Eelgrass Survey	0132 <u>Endangered Species Act Compliance</u> • Biological Assessment or No Effect Letter • Drawings for Permits • Noise Test for Monitoring Zone • Permit Drawings for ESA (CAD) • SEPA Checklist and Determination	0138 <u>Environmental Permits</u> • Follow Up with Permit Agencies	0138 <u>Environmental Permits</u> • All environmental special provisions approved and included in the PS&E plan set • Environmental Commitment Meetings Set Up • Water Quality Certification		0138 <u>Environmental Permits</u> • Environmental Commitment File Entered	0138 <u>Environmental Permits</u> • Environmental Commitment Meetings	0138 <u>Environmental Permits</u> • Deliver Env. Files to PM for archiving
Tribal Outreach				0109 <u>Tribal</u> • Initial Letters to Tribes • Tribal Interim Notifications			0109 <u>Tribal</u> • Tribal MOUs			0138 <u>Environmental Permits</u> • Environmental Commitment Meetings	
Geotechnical	0143 <u>Geotechnical</u> • Project Site Data to RME - Geotech Work • Onsite field investigation scheduled (schedule and initiate no sooner than 1 year prior to construction) • Topographic survey requested	0143 <u>Geotechnical</u> • Soil Boring Notice of Intent • Field and Core Investigation completed • Borings coordinated with aerial obstructions	0143 <u>Geotechnical</u> • Location of Borings	0143 <u>Geotechnical</u> • Soils and Geotechnical Report Received					0143 <u>Geotechnical</u> • Boring logs submitted	0143 <u>Geotechnical</u> • Geotechnical Report compiled for contractor review • Geotechnical Report & cross-sections posted on website	

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Traffic and Operations	0117 <u>Project Data</u> • Project survey requirements finalized, including areas that may be Project Limits • Potential utility relocations identified • Utilities within the project limits notified • Washington Utilities Transportation Commission (WUTC) permit application for railroad crossings submitted	0117 <u>Project Data</u> • Aerial Photographs Background Data • Final Basemap • Established Geodetic Survey Control - Document in Design File • Utility As-Builts requested		0117 <u>Project Data</u> • Record of Survey completed and filed • Utility Plan with as-built information completed and transmitted to Utilities • Preliminary Utility conflicts identified • Project Overview Meeting held with Utility Owners 0150 <u>Operations Plan</u> • Operations Project Review - Document Decisions • Terminal Traffic Analysis Report		0117 <u>Project Data</u> • Field review of proposed features completed • Utility conflicts confirmed and relocation letters sent to utilities • Utility relocation meeting held 0150 <u>Traffic Analysis</u> • Assumptions and conclusions in Traffic Analysis Report verified for consistency with design • Traffic control plans showing Construction Sequence and staging • Traffic Control Final Estimate	0117 <u>Project Data</u> • DNR Permits to Destroy Monuments • Utility Relocation Plan information and specifications Incorporated in PS&E • Letters of Understanding issued to utilities requiring relocation • Construction Maintenance Agreement completed 0150 <u>PS&E</u> • Staging and Channelization Plans • Traffic Control Plans • Traffic Control Provisions				
Civil	0169 <u>Project Summary</u> • Review Project Summary Docs • Civil Design Criteria • Project Analysis • Project Kick Off Meeting	0106 <u>Project Management Plan</u> • Validate Civil Project Scope, Schedule, Budget • Incorporate Civil Scope, Schedule, Budget into MDEM • Plans list with estimate of design hours • Signed Civil Internal Agreement (scope, sched., budget) 0172 <u>Civil Design</u> • Civil Risks Identified • 5% Civil Plan, Elevation, Phasing Plan • Construction Water Quality Monitoring Plan submitted • Hydraulic and Water Quality issues identified • Stormwater Treatment Deficiencies Identified • Storm Water Management and Report Requirements and type documented • Stormwater Management	0123 <u>Pre-Design Study</u> • Civil Section of Pre-Design Study 0172 <u>Civil Design</u> • Civil Site Plans and Elevations • Preliminary Civil Item Estimate	0172 <u>Design Approval</u> • Civil Design Criteria • Civil Concept Drawings • Civil Site Plans and Elevations • DDP 01F1 <u>Civil Design</u> • Paving Plans • Stormwater Plans • TESC Plans & BMPs • Utilities Plans • Civil Plans 60% • Civil Specifications 30% • Civil Estimate 60% • Documented Minimum Requirements from Highway Runoff Manual <u>Special Provisions</u> • PSE Word Set Up • Initial Run List		01F1 <u>Civil Design</u> • Environmental Site Plans • Civil Plans 90% • Civil Details 60% • Civil Specifications 60% • Civil Estimate 90% • Civil Abbreviations & Symbols, General Notes 90% <u>Special Provisions</u> • Diver Provisions • Environmental Provisions Draft • GSPs • Penalties and Incentives Draft • Proprietary Item (Sole Source) Provisions • RGSPs Coordination with Disciplines • Staging Provisions Draft	01F1 <u>Civil Design</u> • Environmental Site Plans 100% • Civil Plans 100% • Civil Details 90% • Civil Specifications 90% • Civil Estimate 100% <u>Special Provisions - 100%</u> • Environmental Provisions Final • GSPs check for updates • Penalties and Incentives Final • Proprietary Item (Sole Source) Provisions updates • RGSPs Coordination with Disciplines • Staging Provisions Final • Summary of Geotechnical Conditions Appendix	01F1 <u>Special Provisions - 100%</u> • Environmental Appendix	01F1 <u>Civil Design</u> • Final Environmental Site Plans • Final Civil Plans • Final Civil Details • Final Civil Specifications • Final Civil Estimate <u>Special Provisions</u> • Last Changes to Provisions • Incorporating 90% Review Comments	01F1 <u>Civil Design</u> • Response to Bidder RFIs • Addendum Preparation	01F1 <u>Civil Design</u> • Deliver Design Calcs to PM for archiving • Complete QA/QC

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	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
Architectural	0169 <u>Project Summary</u> • Review Project Summary Docs • Project Kickoff Meeting	0106 <u>Project Management Plan</u> • Validate Arch. Project Scope, Schedule, Budget • Incorporate Arch. Scope, Schedule, Budget into MDEM 0172 <u>Architectural Design</u> • Architectural Risks Identified • 5% Architectural Plan, Elevation, Phasing Plan	0123 <u>Pre-Design Study</u> • Architectural Section of Pre-Design Study 0172 <u>Architectural Design</u> • Architectural Site Plans and Elevations • Preliminary Architectural Item Estimate	0172 <u>Design Approval</u> • Architectural Design Criteria: View Corridor & Bldg Height • Project Analysis • Architectural Concept Drawings 01F2 <u>Architectural Design</u> • Building Permit Pre-Submittal Meeting with Pt. Townsend • Utilities Plans • Architectural Specifications 30% • Architectural Estimate 30% • Architectural Plan, Elevation, Phasing Plan: 15% • Fire Marshall Approval	01F2 • Architectural Permit input	01F2 <u>Architectural Design</u> • Architectural Phasing Plan 60% • Architectural Building Plans 90% • Architectural Security Plans 90% • Architectural Sections 60% • Architectural Details 60% • Architectural Specifications 60% • Architectural Estimate 90% • Architectural Abbreviations & Symbols, General Notes 90% • Architectural Demolition Plans	01F2 <u>Architectural Design</u> • Building Permit Submittal • Architectural Phasing Plan 90% • Architectural Plans 100% • Architectural Sections 90% • Architectural Details 90% • Architectural Specifications 90% • Architectural Estimate 100%	01F2 <u>Architectural Design</u> • Building Permit Received	01F2 <u>Architectural Design</u> • All plans, specs, and estimate 100%	01F2 <u>Architectural Design</u> • Response to Bidder RFIs • Addendum Preparation	01F2 <u>Architectural Design</u> • Deliver Design Calcs to PM for archiving • Complete QA/QC
Structural	0169 <u>Project Summary</u> • Review Project Summary Docs • Scope for TS&L Determined • Structural Input on Environmental Documentation and Permits • Project Kick Off Meeting	0106 <u>Project Management Plan</u> • Validate Struct. Project Scope, Schedule, Budget • Incorporate Struct. Scope, Schedule, Budget into MDEM • Plans list with estimate of design hours • Signed Structural Internal Agreement (scope, sched., budget) 0172 <u>Structural Design</u> • Structural Risks Identified • 5% Structural Plan, Elevation, Phasing Plan	0123 <u>Pre-Design Study</u> • Structural Section of Pre-Design Study 0172 <u>Structural Design</u> • Structural Site Plans and Elevations • Preliminary Structural Item Estimate • Establish Structural Methodology • Reload and Familiarize Model • Determine Foundation Type • Determine Bridge Seat/Foundation Connection Type	0172 <u>Design Approval</u> • Structural Design Criteria • Structural TS&L • Project Analysis • Structural Concept Drawings 01F3 <u>Structural Design</u> • Building Permit Pre-Submittal Mtg with Port Townsend • Struct. Phasing Plan 30% • Structural Plans 90% • Structural Specs 60% • Structural Construction Est. 60% • Structural Type, Size & Location • 60% Construction Sequence & Schedule • Ferry Service Impact 60% • Determine Foundation Size 90% • Structural Permitting Submittal Review (includes constructability review for viable construction method, sequence, and schedule)		01F3 <u>Structural Design</u> • Struct. Phasing Plan 90% • Structural Plans 90% • Structural Sections 60% • Structural Details 60% • Structural Spec 90% • Structural Construction Est. 90% • 90% Construction Sequence & Schedule • Ferry Service Impact 90% • Determine Foundation Size 100% • Structural Abbreviations & Symbols, General Notes 90% • Structural Demolition Plans • Bridge Seat, Headframe, Railings and Ladders, Trestle, Transfer Span, Materials Schedules • Possible: Dolphins, Wingwalls • Final Analysis 90% • Final Design 90%	01F3 <u>Structural Design</u> • Building Permit Submittal • Struct. Phasing Plan 100% • Structural Plans 100% • Structural Sections 90% • Structural Details 90% • Structural Specs 100% • Structural Construction Est. 100% • 100% Construction Sequence & Schedule • Ferry Service Impact 100% • Bridge Seat, Headframe, Railings and Ladders, Trestle, Transfer Span, Materials Schedules • Wingwalls • Final Analysis 100% • Final Design 100%		01F3 <u>Structural Design</u> • All plans, specs, and estimate 100%	01F3 <u>Structural Design</u> • Response to Bidder RFIs • Addendum Preparation	01F3 <u>Structural Design</u> • Deliver Design Calcs to PM for archiving • Deliver Geotech report to Library • Complete QA/QC

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Electrical	0169 <u>Project Summary</u> • Review Project Summary Docs • Project Kick Off Meeting	0106 <u>Project Management Plan</u> • Validate Elect. Project Scope, Schedule, Budget • Incorporate Elect. Scope, Schedule, Budget into MDEM • Plans list with estimate of design hours • Signed Electrical Internal Agreement (scope, sched., budget) 0172 <u>Electrical Design</u> • Electrical Risks Identified • 5% Electrical Plan, Elevation, Phasing Plan	0123 <u>Pre-Design Study</u> • Electrical Section of Pre-Design Study 0172 <u>Electrical Design</u> • Electrical Site Plans and Elevations • Preliminary Electrical Item Estimate	0172 <u>Design Approval</u> • Electrical Concept Dwgs • Electrical Site Plans & Elev • Prelim. Electrical Item Est. • Electrical Design Criteria • Project Analysis 01F5 <u>Electrical Design</u> • Electrical Plans 60% • Utilities Plans • Electrical Specs 30% • Electrical Estimate 60% • Lighting Plan 60% • One-Line & One-Line Demolition 60% • Temp Power Plan 60% • 30% Transfer Span PLC Cabinet Layout, HPU Input Electrical Plan, PLC Network Block Diagram, Motor Control Panel, PLC Schematic, Range Lights and Fog Lights, Attendant's Control Station & Bridge Control Station		01F5 <u>Electrical Design</u> • Electrical Plans 90% • Electrical Sections 60% • Electrical Details 60% • Electrical Specs 60% • Electrical Estimate 90% • Electrical Abbreviations & Symbols, General Notes 90% • Electrical Demolition Plans • Lighting Plan 90% • One-Line & One-Line Demolition 90% • Temporary Power Plan 90% • 90% Transfer Span Electrical Plan & Schedules, PLC Terminal Wiring, Electrical Details, Conduit Block Diagram	01F5 <u>Electrical Design</u> • Electrical Plans 100% • Electrical Sections 90% • Electrical Details 90% • Electrical Specs 90% • Electrical Estimate 100% • Lighting Plan 90% • One-Line & One-Line Demolition Final • Temp Power Plan Final • Final Transfer Span Electrical Plan & Schedules, PLC Terminal Wiring, Electrical Details, Conduit Block Diagram		01F5 <u>Electrical Design</u> All plans, specs, and estimate 100%	01F5 <u>Electrical Design</u> • Response to Bidder RFIs • Addendum Preparation	01F5 Electrical Design • Deliver Design Calcs to PM for archiving • Complete QA/QC
Reviewers (Mech, Electrical, Structural, Maintenance, Construction, etc.)				0180 <u>Constructability Review</u> • Participate in 30% Constructability Review Session • Provide 30% Constructability Comments • Review and Comment on Draft Construction Schedule 0181 <u>PS&E Review</u> • 30% Design Peer Review		0180 <u>Constructability Review</u> • 60% Constructability Review • 60% Constructability Comments • Draft Construction Schedule Review 0181 <u>PS&E Review</u> • 60% Design Peer Review	0180 <u>Constructability Review</u> • 90% Constructability Review • 90% Constructability Comments • Draft Construction Schedule Review 0181 <u>PS&E Review</u> • 90% PS&E Building Permit Application Package review • 90% Design Review • State Materials Justification and Approval by ASDE • Discipline QAQC Memos		0181 <u>PS&E Review</u> • File Review Comments and Designer Replies in Project File • Final PS&E Contract Packaged for Management Review • Contract Package QAQC Cover Sheet for Ad and Award		
Construction				01AC <u>Construction Scheduling</u> • Draft Construction Schedule		01AC <u>Construction Scheduling</u> • Draft Construction Schedule • Construction Phasing Alternatives	01AC <u>Construction Scheduling</u> • Final Construction Schedule				0199 <u>Construction Admin</u> • Construction Funding • Design Record Close Out • Funding Adjust-to-Award • Contract Addendum • Respond to Bidder RFIs

Dolphin Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
Milestone Purpose	Provides basis to charter project team and begin developing the PMP Review Scoping documents	PM validates the project scope, schedule, and budget Management endorses the project's work plan	Refine the scope, schedule, budget Evaluate Alternatives	Documents design criteria and major design decisions. Documents the project purpose, type, strategy, phase durations, budget, and recommended ad date.	Complete NEPA/SEPA environmental process Complete the permit applications for agency approvals	Design of major project elements completed, review for constructability, conformance with standards	100 % PS&E review. Items missing from design should be minor and should be documented to reviewers.	All permits necessary for the project are received.	Comments from 90% review are incorporated. No other major changes to 90% PS&E review documents. At the end of this review, Contract Plans are Ad Ready.	Submittal of all final deliverables to Olympia for ad and award	Archive project electronic and hard copy files Document project in Z-PM standards file historical data base. Close out project through Project Controls Group.
Decisions Frozen and Milestones Completed (Overview)	Legislative budget Legislative ad dates	PMP complete Milestone dates set Schedule baselined Environmental Process defined Assumptions defined Risks defined File system and Logs are set up	Preferred alternative identified Predesign Study document complete OFM endorsed Pre-design Study	Design criteria completed Alternative Analysis completed Design concept fixed Design type, size and location fixed Approval to begin ROW acquisition process Design Approval Package stamped and signed Draft construction schedule and phasing complete	The environmental review documentation is considered complete on the date that all necessary NEPA/SEPA is complete Permits submitted to the agencies (excluding building and CZM permits)	All key project elements and features that drive the project outcome and costs are defined. Geometric Review comments resolved and documented. Design details to be completed identified	✓ The deliverables are substantially complete ✓ Review and acceptance of design detail of key elements and features ✓ Permits Obtained. All environmental permits are approved, verified, and accepted for inclusion into the plans ✓ General Plans Review comments resolved & documented.	Permits are included in the contract documents	PS&E deliverables are complete. All review comments adjudicated. Plans and specifications stamped and sealed at end. ROW Certification Final Project Approval	Owner accepts design Approval to advertise ROW is clear	Consultants/WSDOT staff forward all required project records and files to the Project Manager Project Manager sends design file to library / construction group Electronic design file archived
Preliminary Engineering											
Design/PS&E Elements											
Project Management	0106 <u>Draft Project Mgmt Plan</u> • Deliverable Expectation Matrix • Critical Path Schedule • Milestone Schedule • Budget Sheet 01A0 <u>Scheduling and Reporting</u> Confidence Reports Quarterly Performance 0169 <u>Project Summary</u> • Scope Validation • Estimate Validation • Verify Project Definition • Verify Environmental Review Summary • Verify Design Decisions Summary	0101 <u>General Project Management</u> • Electronic and hard copy file System Set Up • Bid Book and Change Management Book Set Up 0106 <u>Endorsed PMP</u> • Signed Team Agreements • Baseline schedule • Budget • Cash Flow Sheet • Risk assessment • Communication Plan • Change management plan • QA/QC plan 0121 <u>Change Management</u> • Project Change Log • Contingency Estimate 0166 <u>Cost and Risk Estimating</u> • Risk Modeling Spreadsheet	0123 <u>Pre-Design Study</u> • PDS Draft Narrative • Alternatives Analysis • Cost Benefit Analysis • PDS Revised per Mgmt Review • PDS Final Narrative • PDS Revised per Executive 0111 <u>Communication Plan</u> • Draft Public Involvement Plan 0172 <u>Design Documentation Package (DDP)</u> • Design Approval Submittal (Concept Drawings, Site Plans, Elevations, Project Analysis, Cost Estimate)	0111 <u>Communication Plan</u> • Key Messages • Outreach Schedule • Project Description (Simple) • Impact to the Public • Draft Operations Plan • Draft Traffic Control Plan • Stakeholder List 0181 <u>PS&E Review</u> • QAQC Cover Sheets for the Project		0111 <u>Communication Summary</u> • Record of Contact • Outreach Decisions • Outreach List • Public Meeting Minutes • Public Hearings Record 0172 <u>Design Documentation Package (DDP)</u> Design Approval Submittal Design Approval Submittal Includes: • Stamped cover sheet • Project Description • Concept Drawings • Site Plans and Elevations • Cost Estimate • Risk Cost & Confidence • Project Analysis • Design Criteria worksheets or equivalent: www.wsdot.wa.gov/design/projectdev • Design Variances Inventory	01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance • Monthly Stated Schedules and Project Control Spreadsheet 0172 <u>DDP</u> Project Development Approval Submittal Project Development Submittal Includes: • Stamped Cover Sheet • Design Approval Submittal • Environmental Permits • Design Variance Inventory • Cost Estimate • Cost Estimate Summary (for Nicole, with Budget Comparison Worksheet) • Contract		01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance • Monthly Stated Schedules and Project Control Spreadsheet 0172 <u>DDP</u> Project Development Approval Submittal Project Development Submittal Includes: • Stamped Cover Sheet • Design Approval Submittal • Environmental Permits • Design Variance Inventory • Cost Estimate • Cost Estimate Summary (for Nicole, with Budget Comparison Worksheet) • Contract	0101 <u>Project Management</u> • Lessons Learned • Design File Transferred to CN • Design Records to Library • Design Files Archived • Consultant Evaluations • Team Evaluations • Copy records to Z-PM standards historical data base • DDP finalized and in Design File	

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DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
Environmental	0132 <u>Endangered Species Act Compliance</u> • Environmental Permit List 0138 <u>Environmental Permits</u> • Validate ERS (Environmental Review Summary) • Soil Boring Notice of Intent	0101 <u>General Project Management</u> • Team Agreement Validated	0138 <u>Environmental Permits</u> • Environmental Section of Pre-Design Study • Boring Permit	0138 <u>Environmental Permits</u> • Discipline studies, reports, and predecessor information completed • Noise Variance Application • JARPA Preparation • Eelgrass Survey	0132 <u>Endangered Species Act Compliance</u> • Biological Assessment or No Effect Letter • Drawings for Permits • Noise Test for Monitoring Zone • Permit Drawings for ESA (CAD) • SEPA Checklist and Determination		0138 <u>Environmental Permits</u> • All environmental special provisions approved and included in the PS&E plan set • Environmental Commitment Meetings Set Up • Water Quality Certification	0138 <u>Environmental Permits</u> • Validated ERS (NEPA CE) • HPA (Hydraulic Project Approval) • Section 402 NPDES Permit • Shoreline Permit • Section 106 Corps and Tribal Response • SEPA Response to Comments • Noise Variance • USFW Biological Opinion • Section 106 Agreement on Area of Potential Effect and • Action Area for ESA work • CZM Certification • NOAA Biological Opinion or • Concurrence Letter	0138 <u>Environmental Permits</u> • Environmental Commitment File Entered	0138 <u>Environmental Permits</u> • Environmental Commitment Meetings	
Tribal Outreach				0109 <u>Tribal</u> • Initial Letters to Tribes • Tribal Interim Notifications			0109 <u>Tribal</u> • Tribal MOUs			0138 <u>Environmental Permits</u> Environmental Commitment Meetings	
Geotechnical	0143 <u>Geotechnical</u> • Project Site Data to RME - Geotech Work • Onsite field investigation scheduled (schedule and initiate no sooner than 1 year prior to construction) • Topographic survey requested	0143 <u>Geotechnical</u> • Soil Boring Notice of Intent • Field and Core Investigation completed • Borings coordinated with aerial obstructions	0143 <u>Geotechnical</u> • Location of Borings	0143 <u>Geotechnical</u> • Soils and Geotechnical Report Received					0143 <u>Geotechnical</u> • Boring logs submitted	0143 <u>Geotechnical</u> • Geotechnical Report compiled for contractor review • Geotechnical Report & cross-sections posted on website	
Cost Estimate and Risk Management	0166 <u>Cost and Risk Estimating</u> • Risk Analysis: Self Modeling Spreadsheet (also see "Project Management" above)	0166 <u>Cost and Risk Estimating</u> • Scoping Level Cost Validation • Determine if project needs Value Engineering or Cost Risk Assessment/Cost Estimating Validation Process • Basis of Estimate (see Cost Estimating Manual) • Bid Book with Initial Estimate		0166 <u>Cost and Risk Estimating - 60%</u> • Ebase Setup • Permit Cost Estimate • Risk Cost, 60% level • Cost Est, 60% level • Operations Cost Est. (CN) • Outreach Cost Est. (PE & CN) • Env. Monitoring Est. • Traffic Control Est. • Discipline Cost Estimates		0166 <u>Cost and Risk Estimating 90%</u> • Pay groups and pay items determined • Summary of Quantities Draft • Lump sum cost detail	0166 <u>Cost and Risk Estimating Final</u> • Cost Estimate Final • Cost estimate below the line items (building permit, operations cost, risk cost, environmental and archaeological monitoring) • Summary of Quantities Final		0166 <u>Cost and Risk Estimating Final</u> • Construction Estimate Final Revisions		
Specifications				01F1 <u>Special Provisions - 30%</u> PSE Word Set Up Initial Run List		01F1 <u>Special Provisions - 60%</u> • Diver Provisions • Environmental Provisions Draft • GSPs • Penalties and Incentives Draft • Proprietary Item (Sole Source) Provisions • RGSPs Coordination with Disciplines • Staging Provisions Draft	01F1 <u>Special Provisions - 90%</u> • Environmental Provisions Final • GSPs check for updates • Penalties and Incentives Final • Proprietary Item (Sole Source) Provisions updates • RGSPs Coordination with Disciplines • Staging Provisions Final		01F1 <u>Special Provisions - Final</u> • Summary of Geotechnical Conditions Appendix • Environmental Appendix • Last Changes to Provisions		

Dolphin Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
Project Data, Survey and Basemap	0117 <u>Project Data</u> • Project survey requirements finalized, including areas that may be Project Limits • Potential utility relocations identified • Utilities within the project limits notified • Washington Utilities Transportation Commission (WUTC) permit application for railroad crossings submitted	0117 <u>Project Data</u> • Aerial Photographs Background Data • Final Basemap • Established Geodetic Survey Control - Document in Design File • Utility As-Builts requested		0117 <u>Project Data</u> • Record of Survey completed and filed • Utility Plan with as-built information completed and transmitted to Utilities • Preliminary Utility conflicts identified • Project Overview Meeting held with Utility Owners		0117 <u>Project Data</u> • Field review of proposed features completed • Utility conflicts confirmed and relocation letters sent to utilities • Utility relocation meeting held	0117 <u>Project Data</u> • DNR Permits to Destroy Monuments • Utility Relocation Plan information and specifications Incorporated in PS&E • Letters of Understanding issued to utilities requiring relocation • Construction Maintenance Agreement completed				
Traffic and Operations				0150 <u>Operations Plan</u> • Operations Project Review - Document Decisions • Terminal Traffic Analysis Report		0150 <u>Traffic Analysis</u> • Assumptions and conclusions in Traffic Analysis Report verified for consistency with design • Traffic control plans showing Construction Sequence and staging • Traffic Control Final Estimate	0150 <u>PS&E</u> • Staging and Channelization Plans • Traffic Control Plans • Traffic Control Provisions				
Design/PS&E Elements By Support Group											
01F1 Civil	0169 <u>Project Summary</u> • Civil Design Criteria • Project Analysis • Plans list with estimate of design hours	01F1 <u>Civil Design</u> • Construction Water Quality Monitoring Plan submitted • Civil Estimate 30% • Hydraulic and Water Quality issues identified • Stormwater Treatment Deficiencies Identified • Storm water Management and Report Requirements and type documented • Stormwater Management Strategy endorsed (HQ)		0172 <u>Design Approval</u> • Civil Design Criteria • Civil Concept Drawings • Civil Site Plans and Elevations • Preliminary Civil Item Estimate • DDP 01F1 <u>Civil Design</u> • Civil Plans 60% • Civil Specifications 30% • Civil Estimate 60%		01F1 <u>Civil Design</u> • Environmental Site Plans • Civil Plans 90% • Civil Details 60% • Civil Specifications 60% • Civil Estimate 90% • Civil Abbreviations & Symbols, General Notes 90% 0181 <u>PS&E Review</u> • Civil Design Peer Review	01F1 <u>Civil Design</u> • Environmental Site Plans 100% • Civil Plans 100% • Civil Details 90% • Civil Specifications 90% • Civil Estimate 100% 0181 <u>PS&E Review</u> • Civil QAQC		01F1 <u>Civil Design</u> • Final Environmental Site Plans • Final Civil Plans • Final Civil Details • Final Civil Specifications • Final Civil Estimate	01F1 <u>Civil Design</u> • Response to Bidder RFIs • Addendum Preparation	

Dolphin Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
01F3 Structural	0169 <u>Project Summary</u> • Plans list with estimate of design hours 01F3 <u>Structural Design</u> • Scope for TS&L Determined • Structural Input on Environmental Documentation and Permits	01F3 <u>Structural Design</u> • Structural Estimate 30% • 15% Structural Plan, Elevation, Phasing Plan	01F3 <u>Structural Design</u> • Structural Site Plans and Elevations • Preliminary Structural Item Estimate	0172 <u>Design Approval</u> • Structural Design Criteria • Structural TS&L • Project Analysis • Structural Concept Drawings 01F3 <u>Structural Design</u> • Structural Phasing Plan 30% • Structural Plans 60% • Structural Specifications 30% • Structural Estimate 60% • Structural Type, Size & Location • Structural Permitting Submittal Review (includes constructability review for viable construction method, sequence, and schedule)		01F3 <u>Structural Design</u> • Structural Phasing Plan 60% • Structural Plans 90% • Structural Sections 60% • Structural Details 60% • Structural Specifications 60% • Structural Estimate 90% • Structural Abbreviations & Symbols, General Notes 90% • Structural Demolition Plans • Bridge Seat, Headframe, Railings and Ladders, Trestle, Transfer Span, Materials Schedules • Possible: Dolphins, Wingwalls 0181 <u>PS&E Review</u> • Structural Design Peer Review	01F3 <u>Structural Design</u> • Structural Phasing Plan 90% • Structural Plans 100% • Structural Sections 90% • Structural Details 90% • Structural Specifications 90% • Structural Estimate 100% • Bridge Seat, Headframe, Railings and Ladders, Trestle, Transfer Span, Materials Schedules • Possible: Dolphins, Wingwalls 0181 <u>PS&E Review</u> • Structural QAQC		01F3 <u>Structural Design</u> • All plans, specs, and estimate 100%	01F3 <u>Structural Design</u> • Response to Bidder RFIs • Addendum Preparation	
01F5 Electrical PE.PD.30.05	0169 <u>Project Summary</u> • Plans list with estimate of design hours	01F5 <u>Electrical Design</u> • Electrical Plans 60% • Utilities Plans • Electrical Specifications 30% • Electrical Estimate 60% • 30% Hydraulic System	0172 <u>Design Documentation Package</u> • Electrical Concept Drawings • Electrical Site Plans and Elevations • Preliminary Electrical Item Estimate 01F5 <u>Electrical Design</u> • Electrical Site Plans and Elevations • Preliminary Electrical Item Estimate	0172 <u>Design Approval</u> • Electrical Concept Drawings • Electrical Site Plans and Elevations • Preliminary Electrical Item Estimate • Electrical Design Criteria • Project Analysis 01F5 <u>Electrical Design</u> • Electrical Plans 60% • Utilities Plans • Electrical Specifications 30% • Electrical Estimate 60% • Lighting Plan 60% • One-Line & One-Line Demolition 60% • Temporary Power Plan 60% • 30% Transfer Span PLC Cabinet Layout, HPU Input Electrical Plan, PLC Network Block Diagram, Motor Control Panel, PLC Schematic, Range Lights and Fog Lights		01F5 <u>Electrical Design</u> • Electrical Plans 90% • Electrical Sections 60% • Electrical Details 60% • Electrical Specifications 60% • Electrical Estimate 90% • Electrical Abbreviations & Symbols, General Notes 90% • Electrical Demolition Plans • Lighting Plan 90% • One-Line & One-Line Demolition 90% • Temporary Power Plan 90% • 90% Transfer Span Electrical Plan & Schedules, PLC Terminal Wiring, Electrical Details, Conduit Block Diagram 0181 <u>PS&E Review</u> • Electrical Design Peer Review	01F5 <u>Electrical Design</u> • Electrical Plans 100% • Electrical Sections 90% • Electrical Details 90% • Electrical Specifications 90% • Electrical Estimate 100% • Lighting Plan 90% • One-Line & One-Line Demolition Final • Temporary Power Plan Final • Final Transfer Span Electrical Plan & Schedules, PLC Terminal Wiring, Electrical Details, Conduit Block Diagram 0181 <u>PS&E Review</u> • Electrical QAQC		01F5 <u>Electrical Design</u> All plans, specs, and estimate 100%	01F5 <u>Electrical Design</u> • Response to Bidder RFIs • Addendum Preparation	

Dolphin Project

DELIVERABLE EXPECTATION MATRIX

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Reviews and QAQC				0181 <u>PS&E Review</u> • 30% Constructability Review • 30% Constructability Comments 0180 <u>Constructability Review</u> • 30% Constructability Review • 30% Constructability Comments • Draft Construction Schedule Review		0181 <u>PS&E Review</u> • 60% Constructability Review • 60% Constructability Comments • Discipline Peer Reviews 0180 <u>Constructability Review</u> • 60% Constructability Review • 60% Constructability Comments • Draft Construction Schedule Review	0181 <u>PS&E Review</u> • 90% PS&E Bu Permit Application Pack • State Materials Justification and Approval by ASDE • 90% Constructability Review • 90% Constructability Comments • Discipline QAQC Memos 0180 <u>Constructability Review</u> • 90% Constructability Review • 90% Constructability Comments • Draft Construction Schedule Review		0181 <u>PS&E Review</u> • File Review Comments and Designer Replies in Project File • Final PS&E Contract Packaged for Management Review • Contract Package QAQC Cover Sheet for Ad and Award		
PE Close Out											
Construction Preparation				01AC <u>Construction Scheduling</u> • Draft Construction Schedule		01AC <u>Construction Scheduling</u> • Draft Construction Schedule • Construction Phasing Alternatives	01AC <u>Construction Scheduling</u> • Final Construction Schedule			0189 <u>Advertisement</u> • Memo to OEO • Memo to Contract Ad & Award • Ad Package to HQ	0199 <u>Construction Admin</u> • Construction Funding Approval Work Order • Design Record Close Out • Funding Adjust-to-Award • Contract Addendum • Respond to Bidder RFIs 0101 <u>Project Management</u> • Lessons Learned • Design Records to Library

Wingwall Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
Milestone Purpose	Provides basis to charter project team and begin developing the PMP Review Scoping documents	PM validates the project scope, schedule, and budget Management endorses the project's work plan	Refine the scope, schedule, budget Evaluate Alternatives	Documents design criteria and major design decisions. Documents the project purpose, type, strategy, phase durations, budget, and recommended ad date.	Complete NEPA/SEPA environmental process Complete the permit applications for agency approvals	Design of major project elements completed, review for constructability, conformance with standards	100 % PS&E review. Items missing from design should be minor and should be documented to reviewers.	All permits necessary for the project are received.	Comments from 90% review are incorporated. No other major changes to 90% PS&E review documents. At the end of this review, Contract Plans are Ad Ready.	Submittal of all final deliverables to Olympia for ad and award	Archive project electronic and hard copy files Document project in Z-PM standards file historical data base. Close out project through Project Controls Group.
Decisions Frozen and Milestones Completed (Overview)	Legislative budget Legislative ad dates	PMP complete Milestone dates set Schedule baselined Environmental Process defined Assumptions defined Risks defined File system and Logs are set up	Preferred alternative identified Predesign Study document complete OFM endorsed Pre-design Study	Design criteria completed Alternative Analysis completed Design concept fixed Design type, size and location fixed Approval to begin ROW acquisition process Design Approval Package stamped and signed Draft construction schedule and phasing complete	The environmental review documentation is considered complete on the date that all necessary NEPA/SEPA is complete Permits submitted to the agencies (excluding building and CZM permits)	All key project elements and features that drive the project outcome and costs are defined. Geometric Review comments resolved and documented. Design details to be completed identified	✓ The deliverables are substantially complete ✓ Review and acceptance of design detail of key elements and features ✓ Permits Obtained. All environmental permits are approved, verified, and accepted for inclusion into the plans ✓ General Plans Review comments resolved & documented.	Permits are included in the contract documents	PS&E deliverables are complete. All review comments adjudicated. Plans and specifications stamped and sealed at end. ROW Certification Final Project Approval	Owner accepts design Approval to advertise ROW is clear	Consultants/WSDOT staff forward all required project records and files to the Project Manager Project Manager sends design file to library / construction group Electronic design file archived
Preliminary Engineering											
Design/PS&E Elements											
Project Management	0106 <u>Draft Project Mgmt Plan</u> • Deliverable Expectation Matrix • Critical Path Schedule • Milestone Schedule • Budget Sheet 01A0 <u>Scheduling and Reporting</u> Confidence Reports Quarterly Performance 0169 <u>Project Summary</u> • Scope Validation • Estimate Validation • Verify Project Definition • Verify Environmental Review Summary • Verify Design Decisions Summary	0101 <u>General Project Management</u> • Electronic and hard copy file System Set Up • Bid Book and Change Management Book Set Up 0106 <u>Endorsed PMP</u> • Signed Team Agreements • Baseline schedule • Budget • Cash Flow Sheet • Risk assessment • Communication Plan • Change management plan • QA/QC plan 0121 <u>Change Management</u> • Project Change Log • Contingency Estimate 0166 <u>Cost and Risk Estimating</u> • Risk Modeling Spreadsheet	0123 <u>Pre-Design Study</u> • PDS Draft Narrative • Alternatives Analysis • Cost Benefit Analysis • PDS Revised per Mgmt Review • PDS Final Narrative • PDS Revised per Executive 0111 <u>Communication Plan</u> • Draft Public Involvement Plan 0172 <u>Design Documentation Package (DDP)</u> • Design Approval Submittal (Concept Drawings, Site Plans, Elevations, Project Analysis, Cost Estimate)	0111 <u>Communication Plan</u> • Key Messages • Outreach Schedule • Project Description (Simple) • Impact to the Public • Draft Operations Plan • Draft Traffic Control Plan • Stakeholder List 0181 <u>PS&E Review</u> • QAQC Cover Sheets for the Project		0111 <u>Communication Summary</u> • Record of Contact • Outreach Decisions • Outreach List • Public Meeting Minutes • Public Hearings Record 0172 <u>Design Documentation Package (DDP)</u> Design Approval Submittal Design Approval Submittal Includes: • Stamped cover sheet • Project Description • Concept Drawings • Site Plans and Elevations • Cost Estimate • Risk Cost & Confidence • Project Analysis • Design Criteria worksheets or equivalent: www.wsdot.wa.gov/design/projectdev • Design Variances Inventory	01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance • Monthly Stated Schedules and Project Control Spreadsheet 0172 <u>DDP</u> Project Development Approval Submittal Project Development Submittal Includes: • Stamped Cover Sheet • Design Approval Submittal • Environmental Permits • Design Variance Inventory • Cost Estimate • Cost Estimate Summary (for Nicole, with Budget Comparison Worksheet) • Contract		01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance • Monthly Stated Schedules and Project Control Spreadsheet	01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance • Monthly Stated Schedules and Project Control Spreadsheet	0101 <u>Project Management</u> • Lessons Learned • Design File Transferred to CN • Design Records to Library • Design Files Archived • Consultant Evaluations • Team Evaluations • Copy records to Z-PM standards historical data base • DDP finalized and in Design File

Wingwall Project

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DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
01F3 Structural	<p>0169 <u>Project Summary</u></p> <ul style="list-style-type: none"> Plans list with estimate of design hours <p>01F3 <u>Structural Design</u></p> <ul style="list-style-type: none"> Scope for TS&L Determined Structural Input on Environmental Documentation and Permits 	<p>01F3 <u>Structural Design</u></p> <ul style="list-style-type: none"> Structural Estimate 30% 15% Structural Plan, Elevation, Phasing Plan 	<p>01F3 <u>Structural Design</u></p> <ul style="list-style-type: none"> Structural Site Plans and Elevations Preliminary Structural Item Estimate 	<p>0172 <u>Design Approval</u></p> <ul style="list-style-type: none"> Structural Design Criteria Structural TS&L Project Analysis Structural Concept Drawings <p>01F3 <u>Structural Design</u></p> <ul style="list-style-type: none"> Structural Phasing Plan 30% Structural Plans 60% Structural Specifications 30% Structural Estimate 60% Structural Type, Size & Location Structural Permitting Submittal Review (includes constructability review for viable construction method, sequence, and schedule) 		<p>01F3 <u>Structural Design</u></p> <ul style="list-style-type: none"> Structural Phasing Plan 60% Structural Plans 90% Structural Sections 60% Structural Details 60% Structural Specifications 60% Structural Estimate 90% Structural Abbreviations & Symbols, General Notes 90% Structural Demolition Plans Bridge Seat, Headframe, Railings and Ladders, Trestle, Transfer Span, Materials Schedules Possible: Dolphins, Wingwalls <p>0181 <u>PS&E Review</u></p> <ul style="list-style-type: none"> Structural Design Peer Review 	<p>01F3 <u>Structural Design</u></p> <ul style="list-style-type: none"> Structural Phasing Plan 90% Structural Plans 100% Structural Sections 90% Structural Details 90% Structural Specifications 90% Structural Estimate 100% Materials Schedules <p>0181 <u>PS&E Review</u></p> <ul style="list-style-type: none"> Structural QAQC 		<p>01F3 <u>Structural Design</u></p> <ul style="list-style-type: none"> All plans, specs, and estimate 100% 	<p>01F3 <u>Structural Design</u></p> <ul style="list-style-type: none"> Response to Bidder RFIs Addendum Preparation 	
01F5 Electrical PE.PD.30.05	<p>0169 <u>Project Summary</u></p> <ul style="list-style-type: none"> Plans list with estimate of design hours 	<p>01F5 <u>Electrical Design</u></p> <ul style="list-style-type: none"> Electrical Concept Plans 15% Utilities Basemap Update 	<p>0172 <u>Design Documentation Package</u></p> <ul style="list-style-type: none"> Electrical Concept Drawings Electrical Site Plans and Elevations Preliminary Electrical Item Estimate <p>01F5 <u>Electrical Design</u></p> <ul style="list-style-type: none"> Electrical Site Plans and Elevations Preliminary Electrical Item Estimate 	<p>0172 <u>Design Approval</u></p> <ul style="list-style-type: none"> Electrical Concept Drawings Electrical Site Plans and Elevations Preliminary Electrical Item Estimate Electrical Design Criteria Project Analysis <p>01F5 <u>Electrical Design</u></p> <ul style="list-style-type: none"> Electrical Plans 60% Utilities Plans Electrical Specifications 30% Electrical Estimate 60% Lighting Plan 60% One-Line & One-Line Demolition 60% Temporary Power Plan 60% 30% Range Lights and Fog Lights 		<p>01F5 <u>Electrical Design</u></p> <ul style="list-style-type: none"> Electrical Plans 90% Electrical Sections 60% Electrical Details 60% Electrical Specifications 60% Electrical Estimate 90% Electrical Abbreviations & Symbols, General Notes 90% Electrical Demolition Plans Lighting Plan 90% One-Line & One-Line Demolition 90% Temporary Power Plan 90% 90% Electrical Plans <p>0181 <u>PS&E Review</u></p> <ul style="list-style-type: none"> Electrical Design Peer Review 	<p>01F5 <u>Electrical Design</u></p> <ul style="list-style-type: none"> Electrical Plans 100% Electrical Sections 90% Electrical Details 90% Electrical Specifications 90% Electrical Estimate 100% Lighting Plan 90% One-Line & One-Line Demolition Final Temporary Power Plan Final Final Electrical Plan & Schedules, Electrical Details, Conduit Block Diagram <p>0181 <u>PS&E Review</u></p> <ul style="list-style-type: none"> Electrical QAQC 		<p>01F5 <u>Electrical Design</u></p> <ul style="list-style-type: none"> All plans, specs, and estimate 100% 	<p>01F5 <u>Electrical Design</u></p> <ul style="list-style-type: none"> Response to Bidder RFIs Addendum Preparation 	

Wingwall Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
Reviews and QAQC				0181 <u>PS&E Review</u> • 30% Constructability Review • 30% Constructability Comments 0180 <u>Constructability Review</u> • 30% Constructability Review • 30% Constructability Comments • Draft Construction Schedule Review		0181 <u>PS&E Review</u> • 60% Constructability Review • 60% Constructability Comments • Discipline Peer Reviews 0180 <u>Constructability Review</u> • 60% Constructability Review • 60% Constructability Comments • Draft Construction Schedule Review	0181 <u>PS&E Review</u> • 90% PS&E Building Permit Application Package • State Materials Justification and Approval by ASDE • 90% Constructability Review • 90% Constructability Comments • Discipline QAQC Memos 0180 <u>Constructability Review</u> • 90% Constructability Review • 90% Constructability Comments • Draft Construction Schedule Review		0181 <u>PS&E Review</u> • File Review Comments and Designer Replies in Project File • Final PS&E Contract Packaged for Management Review • Contract Package QAQC Cover Sheet for Ad and Award		
PE Close Out											
Construction Preparation				01AC <u>Construction Scheduling</u> • Draft Construction Schedule		01AC <u>Construction Scheduling</u> • Draft Construction Schedule • Construction Phasing Alternatives	01AC <u>Construction Scheduling</u> • Final Construction Schedule			0189 <u>Advertisement</u> • Memo to OEO • Memo to Contract Ad & Award • Ad Package to HQ	0199 <u>Construction Admin</u> • Construction Funding Approval Work Order • Design Record Close Out • Funding Adjust-to-Award • Contract Addendum • Respond to Bidder RFIs 0101 <u>Project Management</u> • Lessons Learned • Design Records to Library

Tollbooth, Term Bldg Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
Milestone Purpose	Provides basis to charter project team and begin developing the PMP Review Scoping documents	PM validates the project scope, schedule, and budget Management endorses the project's work plan	Refine the scope, schedule, budget Evaluate Alternatives	Documents design criteria and major design decisions. Documents the project purpose, type, strategy, phase durations, budget, and recommended ad date.	Complete NEPA/SEPA environmental process Complete the permit applications for agency approvals	Design of major project elements completed, review for constructability, conformance with standards	100 % PS&E review. Items missing from design should be minor and should be documented to reviewers.	All permits necessary for the project are received.	Comments from 90% review are incorporated. No other major changes to 90% PS&E review documents. At the end of this review, Contract Plans are Ad Ready.	Submittal of all final deliverables to Olympia for ad and award	Archive project electronic and hard copy files Document project in Z-PM standards file historical data base. Close out project through Project Controls Group.
Decisions Frozen and Milestones Completed (Overview)	Legislative budget Legislative ad dates	PMP complete Milestone dates set Schedule baselined Environmental Process defined Assumptions defined Risks defined File system and Logs are set up	Preferred alternative identified Predesign Study document complete OFM endorsed Pre-design Study	Design criteria completed Alternative Analysis completed Design concept fixed Design type, size and location fixed Approval to begin ROW acquisition process Design Approval Package stamped and signed Draft construction schedule and phasing complete	The environmental review documentation is considered complete on the date that all necessary NEPA/SEPA is complete Permits submitted to the agencies (excluding building and CZM permits)	All key project elements and features that drive the project outcome and costs are defined. Geometric Review comments resolved and documented. Design details to be completed identified	✓ The deliverables are substantially complete ✓ Review and acceptance of design detail of key elements and features ✓ Permits Obtained. All environmental permits are approved, verified, and accepted for inclusion into the plans ✓ General Plans Review comments resolved & documented.	Permits are included in the contract documents	PS&E deliverables are complete. All review comments adjudicated. Plans and specifications stamped and sealed at end. ROW Certification Final Project Approval	Owner accepts design Approval to advertise ROW is clear	Consultants/WSDOT staff forward all required project records and files to the Project Manager Project Manager sends design file to library / construction group Electronic design file archived
Preliminary Engineering											
Design/PS&E Elements											
Project Management	0106 <u>Draft Project Mgmt Plan</u> • Deliverable Expectation Matrix • Critical Path Schedule • Milestone Schedule • Budget Sheet 01A0 <u>Scheduling and Reporting</u> Confidence Reports Quarterly Performance 0169 <u>Project Summary</u> • Scope Validation • Estimate Validation • Verify Project Definition • Verify Environmental Review Summary • Verify Design Decisions Summary	0101 <u>General Project Management</u> • Electronic and hard copy file System Set Up • Bid Book and Change Management Book Set Up 0106 <u>Endorsed PMP</u> • Signed Team Agreements • Baseline schedule • Budget • Cash Flow Sheet • Risk assessment • Communication Plan • Change management plan • QA/QC plan 0121 <u>Change Management</u> • Project Change Log • Contingency Estimate 0166 <u>Cost and Risk Estimating</u> • Risk Modeling Spreadsheet	0123 <u>Pre-Design Study</u> • PDS Draft Narrative • Alternatives Analysis • Cost Benefit Analysis • PDS Revised per Mgmt Review • PDS Final Narrative • PDS Revised per Executive 0111 <u>Communication Plan</u> • Draft Public Involvement Plan 0172 <u>Design Documentation Package (DDP)</u> • Design Approval Submittal (Concept Drawings, Site Plans, Elevations, Project Analysis, Cost Estimate)	0111 <u>Communication Plan</u> • Key Messages • Outreach Schedule • Project Description (Simple) • Impact to the Public • Draft Operations Plan • Draft Traffic Control Plan • Stakeholder List 0181 <u>PS&E Review</u> • QAQC Cover Sheets for the Project		0111 <u>Communication Summary</u> • Record of Contact • Outreach Decisions • Outreach List • Public Meeting Minutes • Public Hearings Record 0172 <u>Design Documentation Package (DDP)</u> Design Approval Submittal Design Approval Submittal Includes: • Stamped cover sheet • Project Description • Concept Drawings • Site Plans and Elevations • Cost Estimate • Risk Cost & Confidence • Project Analysis • Design Criteria worksheets or equivalent: www.wsdot.wa.gov/design/projectdev • Design Variances Inventory	01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance • Monthly Stated Schedules and Project Control Spreadsheet 0172 <u>DDP</u> Project Development Approval Submittal Project Development Submittal Includes: • Stamped Cover Sheet • Design Approval Submittal • Environmental Permits • Design Variance Inventory • Cost Estimate • Cost Estimate Summary (for Nicole, with Budget Comparison Worksheet) • Contract		01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance • Monthly Stated Schedules and Project Control Spreadsheet 0172 <u>DDP</u> Project Development Approval Submittal Project Development Submittal Includes: • Stamped Cover Sheet • Design Approval Submittal • Environmental Permits • Design Variance Inventory • Cost Estimate • Cost Estimate Summary (for Nicole, with Budget Comparison Worksheet) • Contract	01A0 <u>Scheduling and Reporting</u> • Confidence Reports • Quarterly Performance • Monthly Stated Schedules and Project Control Spreadsheet 0172 <u>DDP</u> Project Development Approval Submittal Project Development Submittal Includes: • Stamped Cover Sheet • Design Approval Submittal • Environmental Permits • Design Variance Inventory • Cost Estimate • Cost Estimate Summary (for Nicole, with Budget Comparison Worksheet) • Contract	0101 <u>Project Management</u> • Lessons Learned • Design File Transferred to CN • Design Records to Library • Design Files Archived • Consultant Evaluations • Team Evaluations • Copy records to Z-PM standards historical data base • DDP finalized and in Design File

Tollbooth, Term Bldg Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
Environmental	0132 <u>Endangered Species Act Compliance</u> • Environmental Permit List 0138 <u>Environmental Permits</u> • Validate ERS (Environmental Review Summary) • Soil Boring Notice of Intent	0101 <u>General Project Management</u> • Team Agreement Validated	0138 <u>Environmental Permits</u> • Environmental Section of Pre-Design Study • Boring Permit	0138 <u>Environmental Permits</u> • Discipline studies, reports, and predecessor information completed • Noise Variance Application • JARPA Preparation • Eelgrass Survey	0132 <u>Endangered Species Act Compliance</u> • Biological Assessment or No Effect Letter • Drawings for Permits • Noise Test for Monitoring Zone • Permit Drawings for ESA (CAD) • SEPA Checklist and Determination		0138 <u>Environmental Permits</u> • All environmental special provisions approved and included in the PS&E plan set • Environmental Commitment Meetings Set Up • Water Quality Certification	0138 <u>Environmental Permits</u> • Validated ERS (NEPA CE) • HPA (Hydraulic Project Approval) • Section 402 NPDES Permit • Shoreline Permit • Section 106 Corps and Tribal Response • SEPA Response to Comments • Noise Variance • USFW Biological Opinion • Section 106 Agreement on Area of Potential Effect and • Action Area for ESA work • CZM Certification • NOAA Biological Opinion or • Concurrence Letter	0138 <u>Environmental Permits</u> • Environmental Commitment File Entered	0138 <u>Environmental Permits</u> • Environmental Commitment Meetings	
Tribal Outreach				0109 <u>Tribal</u> • Initial Letters to Tribes • Tribal Interim Notifications			0109 <u>Tribal</u> • Tribal MOUs			0138 <u>Environmental Permits</u> Environmental Commitment Meetings	
Geotechnical	0143 <u>Geotechnical</u> • Onsite field investigation scheduled (schedule and initiate no sooner than 1 year prior to construction) • Topographic survey requested	0143 <u>Geotechnical</u> • Soil Boring Notice of Intent • Field and Core Investigation completed • Borings coordinated with aerial obstructions	0143 <u>Geotechnical</u> • Project Site Data to Region Materials Engineer (RME) - Geotech Work • Archaeological Investigation	0143 <u>Geotechnical</u> • Soils and Geotechnical Report • Archaeological Report			0143 <u>Geotechnical</u> • Materials Source Report completed and submitted to State Material's Lab (for Paving)		0143 <u>Geotechnical</u> • Boring Logs Received	0143 <u>Geotechnical</u> • Geotechnical Report compiled for contractor review • Geotechnical Report & cross-sections posted on website	
Cost Estimate and Risk Management	0166 <u>Cost and Risk Estimating</u> • Risk Analysis: Self Modeling Spreadsheet (also see "Project Management" above)	0166 <u>Cost and Risk Estimating</u> • Scoping Level Cost Validation • Determine if project needs Value Engineering or Cost Risk Assessment/Cost Estimating Validation Process • Basis of Estimate (see Cost Estimating Manual) • Bid Book with Initial Estimate		0166 <u>Cost and Risk Estimating - 60%</u> • Ebase Setup • Permit Cost Estimate • Risk Cost, 60% level • Cost Est, 60% level • Operations Cost Est. (CN) • Outreach Cost Est. (PE & CN) • Env. Monitoring Est. • Traffic Control Est. • Discipline Cost Estimates		0166 <u>Cost and Risk Estimating 90%</u> • Pay groups and pay items determined • Summary of Quantities Draft • Lump sum cost detail	0166 <u>Cost and Risk Estimating Final</u> • Cost Estimate Final • Cost estimate below the line items (building permit, operations cost, risk cost, environmental and archaeological monitoring) • Summary of Quantities Final		0166 <u>Cost and Risk Estimating Final</u> • Construction Estimate Final Revisions		
Specifications				01F1 <u>Special Provisions - 30%</u> PSE Word Set Up Initial Run List		01F1 <u>Special Provisions - 60%</u> • Diver Provisions • Environmental Provisions Draft • GSPs • Penalties and Incentives Draft • Proprietary Item (Sole Source) Provisions • RGSPs Coordination with Disciplines • Staging Provisions Draft	01F1 <u>Special Provisions - 90%</u> • Environmental Provisions Final • GSPs check for updates • Penalties and Incentives Final • Proprietary Item (Sole Source) Provisions updates • RGSPs Coordination with Disciplines • Staging Provisions Final		01F1 <u>Special Provisions - Final</u> • Summary of Geotechnical Conditions Appendix • Environmental Appendix • Last Changes to Provisions		

Tollbooth, Term Bldg Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
Project Data, Survey and Basemap	0117 <u>Project Data</u> • Project survey requirements finalized, including areas that may be Project Limits • Potential utility relocations identified • Utilities within the project limits notified • Washington Utilities Transportation Commission (WUTC) permit application for railroad crossings submitted	0117 <u>Project Data</u> • Aerial Photographs Background Data • Final Basemap • Established Geodetic Survey Control - Document in Design File • Utility As-Builts requested		0117 <u>Project Data</u> • Record of Survey completed and filed • Utility Plan with as-built information completed and transmitted to Utilities • Preliminary Utility conflicts identified • Project Overview Meeting held with Utility Owners		0117 <u>Project Data</u> • Field review of proposed features completed • Utility conflicts confirmed and relocation letters sent to utilities • Utility relocation meeting held	0117 <u>Project Data</u> • DNR Permits to Destroy Monuments • Utility Relocation Plan information and specifications Incorporated in PS&E • Letters of Understanding issued to utilities requiring relocation • Construction Maintenance Agreement completed				
Traffic and Operations				0150 <u>Operations Plan</u> • Operations Project Review - Document Decisions • Terminal Traffic Analysis Report		0150 <u>Traffic Analysis</u> • Assumptions and conclusions in Traffic Analysis Report verified for consistency with design • Traffic control plans showing Construction Sequence and staging • Traffic Control Final Estimate	0150 <u>PS&E</u> • Staging and Channelization Plans • Traffic Control Plans • Traffic Control Provisions				
Design/PS&E Elements By Support Group											
01F1 Civil	0169 <u>Project Summary</u> • Civil Design Criteria • Project Analysis • Plans list with estimate of design hours	01F1 <u>Civil Design</u> • Construction Water Quality Monitoring Plan submitted • Civil Estimate 30% • Hydraulic and Water Quality issues identified • Stormwater Treatment Deficiencies Identified • Storm water Management and Report Requirements and type documented • Stormwater Management Strategy endorsed (HQ)		0172 <u>Design Approval</u> • Civil Design Criteria • Civil Concept Drawings • Civil Site Plans and Elevations • Preliminary Civil Item Estimate • DDP 01F1 <u>Civil Design</u> • Paving Plans • Stormwater Plans • TESC Plans & BMPs • Utilities Plans • Civil Plans 60% • Civil Specifications 30% • Civil Estimate 60% • Documented Minimum Requirements from Highway Runoff Manual		01F1 <u>Civil Design</u> • Environmental Site Plans • Civil Plans 90% • Civil Details 60% • Civil Specifications 60% • Civil Estimate 90% • Civil Abbreviations & Symbols, General Notes 90% 0181 <u>PS&E Review</u> • Civil Design Peer Review	01F1 <u>Civil Design</u> • Environmental Site Plans 100% • Civil Plans 100% • Civil Details 90% • Civil Specifications 90% • Civil Estimate 100% 0181 <u>PS&E Review</u> • Civil QAQC		01F1 <u>Civil Design</u> • Final Environmental Site Plans • Final Civil Plans • Final Civil Details • Final Civil Specifications • Final Civil Estimate	01F1 <u>Civil Design</u> • Response to Bidder RFIs • Addendum Preparation	

Tollbooth, Term Bldg Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
01F2 Architectural	0169 <u>Project Summary</u> • Plans list with estimate of design hours	01F2 <u>Architectural Design</u> • Architectural Estimate 30% • 15% Architectural Plan, Elevation, Phasing Plan • Fire Marshall Approval	01F2 <u>Architectural Design</u> • Architectural Site Plans and Elevations • Preliminary Architectural Item Estimate	0172 <u>Design Approval</u> • Architectural Design Criteria: View Corridor & Bldg Height • Project Analysis • Architectural Concept Drawings 01F2 <u>Architectural Design</u> • Building Permit Pre-Submittal Meeting with Pt. Townsend • Architectural Phasing Plan 30% • Architectural Plans 60% • Utilities Plans • Architectural Specifications 30% • Architectural Estimate 60%		01F2 <u>Architectural Design</u> • Architectural Phasing Plan 60% • Architectural Building Plans 90% • Architectural Security Plans 90% • Architectural Sections 60% • Architectural Details 60% • Architectural Specifications 60% • Architectural Estimate 90% • Architectural Abbreviations & Symbols, General Notes 90% • Architectural Demolition Plans 0181 <u>PS&E Review</u> • Architectural Design Peer Review	01F2 <u>Architectural Design</u> • Building Permit Submittal • Architectural Phasing Plan 90% • Architectural Plans 100% • Architectural Sections 90% • Architectural Details 90% • Architectural Specifications 90% • Architectural Estimate 100% 0181 <u>PS&E Review</u> • Architectural QAQC	01F2 <u>Architectural Design</u> • Building Permit Received	01F2 <u>Architectural Design</u> • All plans, specs, and estimate 100%	01F2 <u>Architectural Design</u> • Response to Bidder RFIs • Addendum Preparation	
01F3 Structural	0169 <u>Project Summary</u> • Plans list with estimate of design hours 01F3 <u>Structural Design</u> • Scope for TS&L Determined • Structural Input on Environmental Documentation and Permits	01F3 <u>Structural Design</u> • Structural Estimate 30% • 15% Structural Plan, Elevation, Phasing Plan	01F3 <u>Structural Design</u> • Structural Site Plans and Elevations • Preliminary Structural Item Estimate	0172 <u>Design Approval</u> • Structural Design Criteria • Structural TS&L • Project Analysis • Structural Concept Drawings 01F3 <u>Structural Design</u> • Building Permit Pre-Submittal Meeting with Dept of Development • Structural Phasing Plan 30% • Structural Plans 60% • Structural Specifications 30% • Structural Estimate 60% • Structural Type, Size & Location • Structural Permitting Submittal Review (includes constructability review for viable construction method, sequence, and schedule)		01F3 <u>Structural Design</u> • Structural Phasing Plan 60% • Structural Plans 90% • Structural Sections 60% • Structural Details 60% • Structural Specifications 60% • Structural Estimate 90% • Structural Abbreviations & Symbols, General Notes 90% • Structural Demolition Plans • Bridge Seat, Headframe, Railings and Ladders, Trestle, Transfer Span, Materials Schedules • Possible: Dolphins, Wingwalls 0181 <u>PS&E Review</u> • Structural Design Peer Review	01F3 <u>Structural Design</u> • Building Permit Submittal • Structural Phasing Plan 90% • Structural Plans 100% • Structural Sections 90% • Structural Details 90% • Structural Specifications 90% • Structural Estimate 100% 0181 <u>PS&E Review</u> • Structural QAQC		01F3 <u>Structural Design</u> • All plans, specs, and estimate 100%	01F3 <u>Structural Design</u> • Response to Bidder RFIs • Addendum Preparation	

Tollbooth, Term Bldg Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
01F4 Mechanical	0169 <u>Project Summary</u> • Plans list with estimate of design hours	01F4 <u>Mechanical Design</u> • Mechanical Estimate 30% • 15% Mechanical Plan, Elevation, Phasing Plan	01F4 <u>Mechanical Design</u> • Mechanical Site Plans and Elevations • Preliminary Mechanical Item Estimate	0172 <u>Design Approval</u> • Mechanical Concept Drawings • Mechanical Site Plans and Elevations • Preliminary Mechanical Item Estimate • Mechanical Design Criteria • Project Analysis 01F4 <u>Mechanical Design</u> • Mechanical Phasing Plan 30% • Mechanical Plans 60% • Utilities Plans • Mechanical Specifications 30% • Mechanical Estimate 60% • 30% Utilities Plans		01F4 <u>Mechanical Design</u> • Mechanical Phasing Plan 60% • Mechanical Plans 90% • Mechanical Sections 60% • Mechanical Details 60% • Mechanical Specifications 60% • Mechanical Estimate 90% • Mechanical Abbreviations & Symbols, General Notes 90% • Mechanical Demolition Plans 100% • 60% Water & Sewer Line Sections and Details 0181 <u>PS&E Review</u> • Mechanical Design Peer Review	01F4 <u>Mechanical Design</u> • Mechanical Phasing Plan 90% • Mechanical Plans 100% • Mechanical Sections 90% • Mechanical Details 90% • Mechanical Specifications 90% • Mechanical Estimate 100% • 90% Water & Sewer Line Sections and Details 0181 <u>PS&E Review</u> • Mechanical QAQC		01F4 <u>Mechanical Design</u> All plans, specs, and estimate 100%	01F4 <u>Mechanical Design</u> • Response to Bidder RFIs • Addendum Preparation	
01F5 Electrical PE.PD.30.05	0169 <u>Project Summary</u> • Plans list with estimate of design hours	01F5 <u>Electrical Design</u> • Electrical Plans 60% • Utilities Plans • Electrical Specifications 30% • Electrical Estimate 60% • 30% Hydraulic System	0172 <u>Design Documentation Package</u> • Electrical Concept Drawings • Electrical Site Plans and Elevations • Preliminary Electrical Item Estimate • Electrical Design Criteria • Project Analysis 01F5 <u>Electrical Design</u> • Electrical Site Plans and Elevations • Preliminary Electrical Item Estimate	0172 <u>Design Approval</u> • Electrical Concept Drawings • Electrical Site Plans and Elevations • Preliminary Electrical Item Estimate • Electrical Design Criteria • Project Analysis 01F5 <u>Electrical Design</u> • Electrical Plans 60% • Utilities Plans • Electrical Specifications 30% • Electrical Estimate 60% • Lighting Plan 60% • One-Line & One-Line Demolition 60% • Temporary Power Plan 60%		01F5 <u>Electrical Design</u> • Electrical Plans 90% • Electrical Sections 60% • Electrical Details 60% • Electrical Specifications 60% • Electrical Estimate 90% • Electrical Abbreviations & Symbols, General Notes 90% • Electrical Demolition Plans • Lighting Plan 90% • One-Line & One-Line Demolition 90% • Temporary Power Plan 90% • 90% Transfer Span Electrical Plan & Schedules, PLC Terminal Wiring, Electrical Details, Conduit Block Diagram 0181 <u>PS&E Review</u> • Electrical Design Peer Review	01F5 <u>Electrical Design</u> • Electrical Plans 100% • Electrical Sections 90% • Electrical Details 90% • Electrical Specifications 90% • Electrical Estimate 100% • Lighting Plan 90% • One-Line & One-Line Demolition Final • Temporary Power Plan Final • Final Transfer Span Electrical Plan & Schedules, Electrical Details, Conduit Block Diagram 0181 <u>PS&E Review</u> • Electrical QAQC		01F5 <u>Electrical Design</u> All plans, specs, and estimate 100%	01F5 <u>Electrical Design</u> • Response to Bidder RFIs • Addendum Preparation	

Tollbooth, Term Bldg Project

DELIVERABLE EXPECTATION MATRIX

	Begin Preliminary Engineering PE.PM.02.01	Project Planning and Endorsement (PMP) PE.PM.03.15	Pre-Design Study (5%) PE.PS.07	Geometric Review (30%) PE.PD.75.30 Design Approval PE.PD.42.10	Environmental Review Documentation Complete PE.EV.18	General Plans Review (60%) PE.PD.75.60	Preliminary Contract Review (90%) PE.PD.75.90	Environmental Permits Received PE.EV.29	Project Development Approval (100%) PE.PD.42.60	Contract Ad and Award PE.PD.90.35	PE Phase End (Close Out and Archiving) PE.PD.90.65
Reviews and QAQC				0181 <u>PS&E Review</u> • 30% Constructability Review • 30% Constructability Comments 0180 <u>Constructability Review</u> • 30% Constructability Review • 30% Constructability Comments • Draft Construction Schedule Review		0181 <u>PS&E Review</u> • 60% Constructability Review • 60% Constructability Comments • Discipline Peer Reviews 0180 <u>Constructability Review</u> • 60% Constructability Review • 60% Constructability Comments • Draft Construction Schedule Review	0181 <u>PS&E Review</u> • 90% PS&E Building Permit Application Package • State Materials Justification and Approval by ASDE • 90% Constructability Review • 90% Constructability Comments • Discipline QAQC Memos 0180 <u>Constructability Review</u> • 90% Constructability Review • 90% Constructability Comments • Draft Construction Schedule Review		0181 <u>PS&E Review</u> • File Review Comments and Designer Replies in Project File • Final PS&E Contract Packaged for Management Review • Contract Package QAQC Cover Sheet for Ad and Award		
PE Close Out											
Construction Preparation				01AC <u>Construction Scheduling</u> • Draft Construction Schedule		01AC <u>Construction Scheduling</u> • Draft Construction Schedule • Construction Phasing Alternatives	01AC <u>Construction Scheduling</u> • Final Construction Schedule			0189 <u>Advertisement</u> • Memo to OEO • Memo to Contract Ad & Award • Ad Package to HQ	0199 <u>Construction Admin</u> • Construction Funding Approval Work Order • Design Record Close Out • Funding Adjust-to-Award • Contract Addendum • Respond to Bidder RFIs 0101 <u>Project Management</u> • Lessons Learned • Design Records to Library

