	Scoping (Design Direction Complete)	Field Inspection Review (FIR) (30% Design Complete)	60% Design Complete ²	Final Office Review (FOR) (90% Design Complete)	Final Advertisement Plans, Specs & Estimate (PS&E) (100% Design Complete)
Milestone Purpose	 Documents the project purpose, type, strategy, phase durations, budget, and recommended ad date. Documents the key project criteria and assumptions. Provides basis to charter project team and develop the PDP 	 To conclude all preliminary design unresolved issues Establish specific criteria and direction for final design 	 Ensure all design elements have been incorporated Confirm direction for final design 	Review of full PS&E package	 Final PS&E package advertised Archive files of all design deliverables
Decisions Frozen and Milestones Completed	DSR Conducted PDP developed & endorsed 2-Team members & resource needs 3- Scope & MDM 4-Authorized budget 5-Schedule (Initial w/major milestones) 7-Consultant needs identified 8-Communications Plan Design direction set for all disciplines	 Design concept fixed & features defined Footprint at 90% certainty Type, size and location of key elements and features determined Funding sources and amounts finalized FIR Conducted 	 All key project elements and features that drive the project outcome and costs are defined. All specialty unit plan sets incorporated. Type, size and location of key elements and features fixed. NEPA Determination (Form 128) Signed Part B Start of ROW acquisition process 	 Prior comments resolved and documented All deliverables are substantially complete FOR Conducted 	 All prior comments resolved and documented All deliverables are 100% complete. All clearances received Advertisement Plans and specifications stamped and sealed (Post Award)

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Responsible Party/ Specialty	Summary of the Scope of Work and Assumptions by discipline	Scoping (Design Direction Complete)	Field Inspection Review (FIR) (30% Design Complete)	60% Design Complete ²	Final Office Review (FOR) (90% Design Complete)	Final Advertisement Plans, Specs & Estimate (PS&E) (100% Design Complete)
Project Manager		 Develop PDP & PDP Endorsement 1-Risk Register 2-Roles & Responsibilities Matrices 3-Projects Description, Scope & MDM 4-Cost Estimate-Scoping (PCPT & Risk Reserve), Identified Funding 5-Schedule (Initial w/major milestones) 6-Change Log 7-Consultant Contract Matrix 8-Communications Plan (Public Info, meeting frequency, etc.) Coms Matrix 9-QC/QA Matrix, Comment Resolution Log 10-Transition to Construction Plan, Best Practices Log Define Project Limits & Location Map Determine- IGA needs (LA design/construction funding/maintenance) ADA Req., bike and ped needs. Candidacy for Innovative Project Delivery/Initiate PDSM Conduct Design Scoping Review/Minutes Request/Coordinate w/Specialties- Survey (Form 1217) ROW Scope Permission to Enter (Form 730) Subsurface Utility Engineering Environmental Scoping Request Operations Evaluation Construction Access Permits Drainage/PWQ/Floodplain items Structure Selection Soil Investigation, Pavement Design, & Foundation/Geotech Investigation Public Info Tier Initial Budget Request (RUDE&M) Consultant Contracts/Task Orders for Design (SOW & ICE) 	Update PDP Items 1-Risk Register 3-MDM 4-Cost Estimate- FIR (PCPT & Risk Reserve), Drawdown 5-Updated Schedule 6-AID & Change Log 8-Coms Log 9-FIR Comment Resolution Log FIR Plans and Specs Conduct FIR Meeting/Minutes Determine candidacy/Initiate Value Engineering Study Executed IGAs Design funding Budget Request (RUDE&M)	Update PDP Items 1-Risk Register 4-Cost Estimate- Initial EEMA (Trns*port), Drawdown 5-Updated Schedule 6-AID & Change Log 8-Coms Log 9-Comment Resolution Log Plans & Specs @ 60% Value Engineering Study Results IGA's to LA's construction funding /post-construction maintenance (i.e. WQ, landscaping)	Update PDP Items 1-Risk Register 4-Cost Estimate- FOR, Drawdown 5-Updated Schedule, Construction Schedule (Form 859) 6-AID & Change Log 8-Coms Log 9-FOR Comment Resolution Log FOR Plans and Specs (Complete set, all disciplines w/tabs & SAQ) Conduct FOR Meeting/Minutes Draft FIPI's (Form 1381's) Executed IGA's construction funding/post construction maintenance Request Construction Budget (minimum of 90 days before Advertisement)	 Finalize PDP Items 1-Risk Register 4-Final Engineer's Estimate Drawdown 5-Schedule, Construction Schedule (Form 859) 6-AID & Change Log 8-Coms Log 9-Comment Resolution Log Approved FIPI's (Form 1381's) Final consolidated PS&E PS&E Approval (Form 1180) Package - Final PS&E - Project Financial Statement (Form 65) Final signed Design Data (Form 463) Signed Final Project Control Data (Form 859) Completed & signed NEPA Det. (Form 128) ROW Clearance Utility Clearance Bid Proposal & Schedule

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Roadway Design		 Project limits identified Assemble existing facility information Plan & Profile, As-Constructed Plans Traffic Data- OTIS, TMC's, Traffic Studies Design & Posted Speed Crash History (Traffic) Assets (pavement, major/minor structures, signals, etc.) Maintenance Concerns & Planned Projects Known Environmental Issues Multi-Modal Facilities ADA Facilities Affected alignments identified, and new versus existing alignment determined Preliminary Design Data (Form 463) Design criteria/parameters/direction approved 	 FIR level Roadway Plans (Mainline and major horizontal & vertical alignments, Typical sections, Superelevation, 3D top surface roadway model w/90% confidence in limits of cut & fill/project footprint) Safety Mitigation Features Update Design Data (Form 463), Draft Design Decision Summary/ Letter Preliminary Design Exception Variance Request (Form 464, Form 464-BP for Bike-Ped) 	 Roadway plans at 60% (All horizontal & vertical alignments, typical sections, superelevations, and limits of cut & fill/footprint finalized. Specs @ 60% Safety Mitigation Features finalized 	 FOR level Roadway Plans (All alignment geometry, profiles, typical sections, ADA, Bike Ped, interchange, site preparation/ grading, road approach plans, tabulations etc.) Draft Final Design Data (Form 463), Design Decision Summary/Letter Signed Final Design Exception Variance Request (Form 464, Form 464-BP) 	Final Roadway plans Signed Final Design Data (Form 463), Design Decision Summary/Letter
Right of Way/ Survey		 Preliminary Survey Scope (Form 1217) to include specialty unit needs. Initiate Survey. Preliminary Right of Way Scope (w/PM). Permission to Enter (Form 730) for project investigations (Survey, Geotech, etc.). RR Right of Entry 	 Topographic survey (First priority post Scoping Form 1217. Needed to initiate preliminary design) Preliminary Ownership Map Draft Right of Way plans & Legal Descriptions. Right of Way Phase Funding Estimate 	 Right of Way Plan Review (ROWPR) Relocation Plan/Negotiations ROW appraisal reviews and offers Initiate ROW acquisition and relocation 	 Right of Way acquisition and relocations Final Right of Way plans & Legal Descriptions (includes all revisions during acquisition.) 	ROW Clearance- (All acquisitions and relocations complete)

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Responsible Party/ Specialty	Summary of the Scope of Work and Assumptions by discipline	Scoping (Design Direction Complete)	Field Inspection Review (FIR) (30% Design Complete)	60% Design Complete ²	Final Office Review (FOR) (90% Design Complete)	Final Advertisement Plans, Specs & Estimate (PS&E) (100% Design Complete)
Utilities		 Determine utilities within project limits from UNCC Determine Railroad and/or Irrigation companies within project limits Subsurface Utility Engineering (SUE) Scope (w/PM), Quality Level B (Type, size and horizontal location of virtually all project relevant utilities. Typically, 0.5%-1% of design & construction budget.) 	 Provide existing utility mapping & initiate further detail utility investigations Initial Identification of Utility Conflicts/Relocation Needs & Cost Responsibilities Initiate Irrigation Company Agreements Initiate needed RR Agreements & PUC Permits Utility Phase Funding Estimate 	Initial Utility Plans & Specs Initiate Utility LOU's, Agreements	 FOR Utility Plans/Specs Final Irrigation Company Agreements Final RR Agreements & PUC Permits Final Utility LOU's, Agreements & Associated Permits 	Final Utility Plans/Specs Utility/RR Clearance
Environmental		Environmental Scope (w/PM) Determine/Initiate Environmental documentation & permit requirements (Form 128)	 Verify Environmental documentation & permit requirements (Form 128) Provide Available Studies, Reports, Assessments Provide Preliminary SWMP, Site Map Input & Coordinate Incorporating Resource Clearance/Permit Conditions into Plans/Specs 	 NEPA Determination/Project Cert. (Form 128) Signed Part B Continue Providing Available Studies, Reports, Assessments Continue Providing SWMP, Site Map Input & Coordinate Incorporating Resource Clearance/Permit Conditions into Plans/Specs 	 Continue Providing Available Studies, Reports, Assessments. All Permit Requests Submitted. FOR SWMP, Site Map & All Available Resource Clearance/Permit Conditions Incorporated into Plans/Specs 	 Final Environmental Commitment List All Studies, Reports, Assessments Complete & Permits Received Final SWMP, Site Map & All Resource Clearance/Permit Conditions Incorporated into Plans/Specs. Final Environmental Commitment List Clearance- NEPA Determination/Project Cert (Form 128) Signed Part E

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Responsible Party/ Specialty	Summary of the Scope of Work and Assumptions by discipline	Scoping (Design Direction Complete)	Field Inspection Review (FIR) (30% Design Complete)	60% Design Complete ²	Final Office Review (FOR) (90% Design Complete)	Final Advertisement Plans, Specs & Estimate (PS&E) (100% Design Complete)
Operations/ Traffic (Region Traffic Units with HQ support)		Operations Evaluation Scope (w/PM) Final Level 1 Operations Evaluation Initiate Level 2 Operations Evaluation (as needed)	 Draft Operations Level 2 Evaluation (As needed) Temporary traffic control strategies and phasing alternatives 	Semi-final Level 2 Operations Evaluation (as needed)	 Final Level 2 Operations Evaluation (as needed) Lane Closure Policy Variance Request Letters Speed Limit Reduction Requests (Form 568) FOR level Phasing/TCP/Detour plans and Specs 	Approved Lane Closure Policy Variance Request Letter Approved Speed Limit Reduction Requests (568) Final phasing/TCP/detour plans
ITS			ITS design concept layout Decision on design requirements and equipment	Initial ITS Plans and Specs	FOR level ITS Plans and Specs	Final ITS Plans and Specs
Traffic Signals			 Signal warrants Signal concept layout Decision on design requirements and equipment 	Initial Signal Plans and Specs	FOR level Signal Plans and Specs	Final Signal Plans and Specs
Traffic Signing & Striping			Large ground and overhead sign concept layout	Initial Signing & Striping Plans and Specs	FOR level Signing and Striping Plans and Specs	Final Signing and Striping Plans and Specs
Traffic Access		Determine impacts for Project Access Permits (w/PM + ROW)		Draft Project Access Permits	Final Project Access Permits	
Traffic Lighting			Lighting warrants Lighting concept layout Decision on design requirements and equipment, etc.	Initial Lighting Plans and Specs	FOR level Lighting Plans and Specs	Final Lighting Plans and Specs

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Hydraulics		 Scope for Drainage/PWQ Design (w/PM+Enviro) Determine floodplain documentation and permit needs (w/Enviro) Determine Drainage/Hydraulic deficiencies/needs (w/Maint) 	 Draft Hydraulic w/PWQ Report (PWQ w/Enviro) Draft Floodplain Report (w/Enviro for permitting) FIR Drainage/PWQ/Floodplain Plans/Specs 	 Draft-Final Draft Hydraulic w/PWQ Report (PWQ w/Enviro) Draft-Final Floodplain Report (w/Enviro for permitting) Drainage/PWQ/Floodplain Plans/Specs @ 60% 	 Final Hydraulic w/PWQ Report (PWQ w/Enviro) Final Floodplain Report (w/Enviro for permitting) FOR Drainage/PWQ/Floodplain Plans/Specs 	 FOR Drainage/PWQ/Floodplain Plans/Specs (including as-built requirements in Specs) Completed Floodplain permitting w/Enviro (CLOMR approved by FEMA. LOMR post construction.)
Structures		 Scope for Structures type, size, and location (w/PM) Existing Structure Condition Investigation 	Final Structure Selection Report FIR level Structural Plans and Specs	Structural Plans and Specs @ 60%	FOR level Structural Plans and Specs	Final Structural Plans and Specs
Materials		Scope Soils Investigation & Pavement Design (w/PM)	Give Initial Pavement Design draft recommendation	 Provide Final Pavement Design Report Provide 60% Design Level Materials Specifications 	Provide FOR level Materials Specifications	Provide Final Materials Specifications
Geotechnical		Scope Foundation/Geotech Investigation (w/PM + Structures)	Draft Foundation/Geotech Investigation Report	Provide Final Geotechnical Report with Geology plan sheet		
Engineering Estimates & Market Analysis (EEMA)				Initial Review Cost Estimate- 60%	Review Cost Estimate- FOR	Develop Final Engineer's Estimate
Region Communications Manager		Determine Public Info Tier, PDP Communication Plan Input (w/PM)	FIR level Public Information Services Spec		FOR level Public Information Services Spec	Final Public Information Services Spec

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Standards & Specs			FIR Project Special Provisions review		FOR Project Special Provisions review	Final Project Special Provisions review and approval
Landscape Architect				Initial Landscaping Plans	FOR level Landscaping Plans	Final Landscaping Plans
Civil Rights Manager		UDBE goals for Pre-Construction Consultant Contracts			UDBE & OJT Goals for Specs	
Project Engineer			FIR Plan Constructability, Temporary traffic control strategies and phasing alternatives review		 FOR Plan Constructability, phasing/TCP/detour plans review Draft Project Control Data (Form 859) 	Signed Final Project Control Data (Form 859) Initiate Construction Project Delivery Plan (CPDP)

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