

A. Project Information

30% Design Package Deliverables

The **Project Engineer** works with the Project Team to ensures that the deliverable meets the expectations documented in this checklist, documenting all exceptions.

The **Project Manager** ensures that the Project Engineer has completed this checklist and saves it in the project files.

Project Name		Project Number	
Project Manager			,
Project Engineer			
Summary of	Civil Design		
Quality Control	Mechanical Design		
	Structural Design		
	Electrical Design		
B. Exceptions			
	from the standard Design Bac	skago bolow	
Describe exceptions from the standard Design Package below.			



C. 30% Deliverables Checklist* Deliverable Comments		
Deliverable	Comments	
☐ 30% Design Package Deliverable Checklist (this document) and all deliverables saved in the P:\drive project folder		
☐ Technical QC Review Form		
☐ Design Drawings (see Section D for drawings checklist)		
☐ Basis of Design Report		
☐ Class 3 Capital Cost Estimates. Follow Cost Estimating Guidelines.		
O&M Cost Estimates developed by the O&M Representative		
☐ Basis of Estimate		
Documentation of <u>Value Engineering Study</u> and responses, if applicable		
☐ Draft Geotechnical Interpretive Report (GIR) (for smaller projects, provide at 60% design)		
Environmental Assessment (if required) that evaluates worker health and safety and identifies suspect, contaminated and hazardous materials of concern for the Project.		
List of property acquisitions or known easements (temporary or permanent) required for project.		
Commissioning Activities for 30% Design Complete		
Preliminary equipment list that allows basic verification of equipment number, equipment size, equipment power requirements and basic controls and operating strategies.		

^{*}Items shown in **bold** are tracked as part of performance monitoring for the CIP Design Section. SPU Project Engineers must report to their supervisors on the status of these items at each major design milestone.



D. Design Drawings Checklist

Discipline	Description	
General Drawing	☐ A Drawing Index that reflects the drawings anticipated for	
Comments:	the project.	
	 □ Title blocks and drawing layouts that allow verification of City standards. □ General symbols, legends and abbreviations that allow verification of City standards. 	
	 Design Data and Criteria (Process Schematic) established and depicted in an acceptable format. 	
Civil/Site Work		
Drawings	☐ Base Map and Vicinity Map that accurately depict the existing site features and boundaries	
Comments:	Include: Topographical data Existing utilities and structures (above and below ground) Coordinate system Zoning Geotechnical boring locations	
	Revised Site, Utility and Piping Plans ☐ Site Plans that accurately depict new structure footprints, locations and orientation onsite. Include: ○ Preliminary finished floor elevations, ○ Site access ○ Parking areas ○ fencing and gates	
	Site Grading Site Plan also to include preliminary site grading coordinated with the geotechnical requirements. Show on the site plan all above ground utilities. Existing utilities in screened or lighter line type and proposed utilities in dark line.	
	Pipeline Alignment and Site Utilities ☐ Profiles of pipelines that locate major utilities and piping corridors (horizontal and vertical).	
Architectural	Buildings-Plan, Elevations and Sections	
Drawings	☐ <u>Architectural plans, Sections and Elevations</u>	
Comments:	Establish the preliminary room sizes, exterior architectural theme, materials of construction, roof type, etc. Plans	



Discipline	Description	
	adequate for preliminary verification of space requirements, ingress and egress, materials of construction, as well as general building and fire code requirements.	
Landscape Drawings	☐ Include a basic concept of the type of landscaping that is	
Comments:	planned for the project.	
Structural Drawings	Below Grade Structures-Plan and Section	
Comments:	☐ Structural plans that establish foundation type and depict the preliminary foundation layout.	
	☐ Foundation plans adequate to confirm approach in compliance with geotechnical requirements.	
	☐ General arrangement floor plans and section drawings coordinated with the architectural plans.	
Mechanical Drawings	Major Equipment and Piping Layout	
Comments:	 Mechanical Plans and Sections that depict location of major equipment and major piping alignments to verify clearances and general configurations. 	
	Plans should indicate: o Proposed equipment maintenance features o Overhead crane and monorails o Hatches and pads o Areas requiring noise abatement	
	HVAC Plans and Sections HVAC Plans that depict location of major equipment and major piping alignments.	
	 Plumbing Plans and Sections ☐ Plumbing Plans that depict location of major equipment and major piping alignments. ☐ Recommendations that define the level of design for fire protection systems to be included in the final drawings. Define whether the approach will be to show details on the drawings or provide a performance specification. 	



Discipline	Description
Electrical Drawings	One-Line Diagrams
Comments:	☐ Preliminary electrical <u>one-line diagrams</u>
	Major Equipment Layout/Electrical Room Plans
	☐ Preliminary layout of electrical rooms in adequate detail to determine size requirements and clearances.
	☐ Identify available corridors for routing of electrical raceways and cable tray.
	\square Identify area classifications per National Electrical Code.
Security Drawings	Identify security and communication items and locations.
Comments:	
Instrumentation and	Process and Instrumentation Diagrams
Control Drawings	☐ Preliminary Process and Instrumentation Diagrams (P&IDs)
Comments:	that depict the mechanical equipment, piping, instrumentation and control equipment interlocking.