Standard Sheet Naming Convention	Content or Information Item	Accepted Conventions when Preparing Project Plans
G-XX Series	**Cover Sheet**	
	Vicinity Map, Project Area Maps and Index maps	Select scale to show the surrounding area and help to orient a reader. The Vicinity Map should show prominent local features and landmarks. There needs to be enough information that an interested person could drive to the project location.
	North Arrow	Never point down toward the bottom of the sheet. Reference the document "**Preferred Orientation for a North Arrow on a Plan Sheet**" found on the BES Internet and intranet sites for guidance.
	Drainage/Service Area	Show a facility's tributary/drainage area, however, don't show this information for a facility that serves a large area, that includes multiple pipe segments distributed over an area that involve several drainage basins or for large combined sewer basins. The tributary area boundary is different from the work area. Refer to Standards and Practices Committee (SPC) policy document on the BES intranet site.
	Project Name and Description	BES PM to provide a descriptive name that includes the project location and type. For guidance reference the PAF naming guide & PIPER naming conventions that are found on the BES intranet site: "**BES Project Naming Procedure**".
	General Notes	Prepare notes that relate to your project. Do not duplicate, repeat, or reiterate Specification requirements. When possible use the standard notes found in the Project template.
	Construction Notes	Do not write notes that restate or contradict the Specifications. Use consecutively numbered Bubble-type notes for items that will be constructed. Provide a complete list of project notes in a G series sheet. List each note on a sheet where the specific work item occurs. If available, use notes from a prepared Master list.
	Design Criteria and Assumptions	Provide key design criteria, assumptions and any departures from the Sewer and Drainage Facility Design Manual or from the accepted BES Standards. Refer to SPC Subcommittee recommendation found on the BES intranet site.
	Sheet Index	Number, index, and name all sheets consistently and consecutively. Use standard sheet labeling categories (e.g. G-XX, C-XX, CD-XX, CE-XX). Sheet description and information in title block must be consistent. Number each sheet with the total number of sheets (e.g. 2/22) found in a set.

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	Legend and Symbols	Use symbols and line types found in the **BES Standard CADD Template.** Modify the legend to match the project needs.
	Utility Line types and Labels	Use symbology (e.g. line type and labeling) found in the **BES Standard CADD Template** including utility size, type, and material type. Depict with parallel lines the outer dimension limits of those large utilities whose scaled distance - outside wall to outside wall - exceed the standard line type size.
	One Call Information	Use current text block found in the **BES Standard CADD Template**.
	Sheet Layout	Provide a Plan Sheet Layout Guide for all projects. Start sheet layout beginning from the most downstream manhole and continue in an upstream direction.
	Frame and Border	Use the frame and border found in the **BES Standard CADD Template**. Interbureau projects require different frames and borders styles. Contact CADD staff.
C-XX Series	**Plan and Profile**	
	Scale	Select a standard horizontal and vertical scale as referenced in the **BES Standard CADD Template.** Use a large scale (e.g. 1"- 20') when designing in congested utility areas (e.g. downtown). Select vertical scale to provide detail without distortion.
	North Arrow	Never down. Reference the procedure document "**Preferred Orientation for a North Arrow on a Plan Sheet**" found on the BES internet and intranet sites.
	Existing versus Proposed Utilities	Apply Standard legend format. Label according to standard pipe and material conventions. See Sewer Line types above.
	Manholes	Provide existing Hansen node numbers, rim elevation, pipe in and out geometry, size, and elevations. If known provide the manhole type (e.g. brick, cast-in-place, monolithic, etc.). Not necessary to include catchbasin/inlet pipe inverts that connect to a manhole.

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	Manhole Coordinates	Provide design point file to survey for staking project. Before delivering point file to survey, design and CADD staff must confirm the correctness of this information. BES traditionally provides construction staking for the Contractor, therefore coordinates are not normally required on the plans.
	Profile notes	Use leader notes. Reserve Bubble notes for Plan view. Show existing information above manhole. Show all proposed design information with Bold font below manhole.
	Sewer location dimension	If a sewer or manhole is new or relocated from its existing location reference the new location from property, ROW lines, or a visible landmark.
	Location landmarks	Provide enough information to orient user (e.g. lot address, cross street, etc.)
	Stationing	Always provide in both plan and profile views. When a project includes several unconnected segments identify each profile uniquely starting from station 0+00. When dealing with a large continuous project station continuously for the entire project. Start stationing from most downstream location. Provide stationing at each manhole.
	Stabilization Rock, Engineered Shoring & Contaminated Media	Show in the profile the limits where a work item is expected to be used or where it will be encountered. This only pertains when an item is required as part of the work (e.g. stabilization rock) or where the limits or location of material is known (e.g. contamination limits).
	Crossing Utilities	Show in the profile view those utilities that require coordination or whose location could affect construction. Note when the location or depth of a utility is approximate.
	Lateral Service Locations	For new laterals only, provide Lateral Table showing main line station, direction of lateral (R or L), distance to connection point (i.e. curb, ROW, etc.) and if a new lateral its depth at this location. Coordinate with CAD staff to assure table is a readable font size and is up-to-date.

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	Building Service Elevation	Provide, in the Profile view, the service elevation (e.g. first floor, basement, or other location) reference for the sewer design. This is critically important if an existing sewer is being relocated, upsized-in-place (pipe-burst) or involves a new sewer or sewer extension to serve a non-conforming sewer. Apply symbology found in the **BES Standard CADD Template**. Note if this reference elevation is a measured distance or is approximate. Add street address to identify the residence that corresponds to this information.
	Adjacent Sheet Reference or "Way finder" Notes	Include these notes whenever the work cannot be fully shown on one plan sheet. These notes are placed at the ends of a profile block or along the edges of a plan block; they direct a reader to locate an adjacent sheet to find the continuation of a project. They are referred to as "way finders", that is, the note provides a reader a "way to find" an adjacent sheet in a Plan set.
	Environmental Zones both P- and C- types	Show all environmental (E) zone and 'exclusion zone" boundaries located adjacent to a project that could affect the execution of work.
	Catchbasin/ Inlet Invert Elevations at manholes	It is not necessary to provide the invert elevations on the plans. Locating these facilities is best done in the field by construction and contractor personnel. BES has standards to follow when designing catchbasin/inlet pipe and the standard BES manhole details provide guidance for locating inlet pipes that connect to manholes. When replacing an existing catchbasin/inlet we do not provide a rim elevation only when we install a new CB/inlet is this information needed.
	Trees	Show all trees within work area that must be protected or removed and whose location could influence design. Trees may require pruning or trimming before work can begin.
	Easements	Show all easement locations and dimension whether permanent, temporary or the area related for a permit of entry. Distinguish between permanent and temporary easement types.

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	Sewer Pipe Size & Type (Existing and Proposed)	Continue including this information in the Profile view below the pipe profile. Include the material ASTM standard reference and Class or DR. In the case of CIPP include the design liner thickness. If designer wants modulus of elasticity measured then provide space for it on the plans. For a slipline installation include the annular space dimension required to install the pipe. When open cut method is used include the pipe bedding type. Also include a descriptive note to clarify the status of the existing pipe (e.g. Remove and Replace, Burst, Abandon In-place), clarify the abandonment method (e.g. sand-filled, CLSM, only the ends were plugged) and if available provide the original pipe material type.
	Match lines	Do not use except in unique circumstances.
CD-XX Series	**Details**	
	Non-standard Details	Add and create needed details to convey design intent.
	Trench or green Street Cross-sections	In most cases, cross sections are not required, however, when an existing utility is adjacent to or in conflict with the placement of a BES facility a cross-section may be needed to convey the relative positions between the existing and proposed facilities.
	Manhole geometry	Typically, designers only provide manhole details for those unique situations such as an offset manhole configuration. Standard manhole details that do not have unique characteristics reference the Standard BES manhole details.
CE-XX Series	**Erosion Control**	
	Erosion Control	All projects will have an Erosion Control series. Use as many sheets as necessary to provide detail.
	Details	Include as many details necessary to convey erosion control plan intent and information.

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Other Plan Types - To Address Project Specific Issues		
	Traffic Management Plan	Generally our projects do not include a traffic control plan. Including one depends on whether the project affects a major transportation facility or requires management of significant traffic volumes. Work with consultants/flexible service providers to develop and prepare this plan. Simple flagging or project signage exhibits are sometimes included in a Bid Book. These do not warrant a separate plan sheet.
	Flow Diversion Plan	Some projects that involve large amounts of diverted flow particularly in areas served with combined sewers may require the preparation of a flow diversion plan to show where, when and if there are limits on how much flow can be diverted at any time.
	DEQ 1200C Permit, COE 404 Permit, Land Use review	Prepare plans needed to apply for and receive a state, federal or local permit to construct a project. Contact consultant/ flexible service providers to develop and prepare these plans.
	Other unique project plan types	Not typical but plans that could be in this group include: Demolition plan, landscape/revegetation plan, irrigation, trail plan etc.
Miscellaneous		
	Original Sewer Design Project Number	Only include for Reconstruction projects.