

## SAWS QA/QC CHECKLIST SANITARY SEWER ADJUSTMENT/RELOCATION PROJECTS

Project Name: \_\_\_\_\_  
 SAWS Sewer Job No.: \_\_\_\_\_  
 CSJ No. (if applicable): \_\_\_\_\_  
 Date: \_\_\_\_\_  
 SAWS Consultant: \_\_\_\_\_

	PROJECT INFORMATION	Comments/Notes
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Joint Bid (COSA, TxDOT)	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Reimbursable Adjustments	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Geotechnical Report	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Environmental Report	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Potholes Required	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Pothole Data Provided	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Adjustment of Mains/Services	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Replacement of Mains/Services	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Video/Pole Camera Mains	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Pre-bid Consultant/SAWS Project "walk-thru"	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Cost Estimates Provided	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Other	_____
	COORDINATION	Comments/Notes
	<b><u>Confirm / verify internal SAWS Coordination (Initial)</u></b>	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Acquire Maps/As Builts of the project area	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Production, Recycle, Treatment	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Master Planning	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Replacements & Improvements	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Inspections	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	COSA	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Other	_____
	<b><u>External Agency Coordination</u></b>	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	CPS Energy	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	AT&T	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Time Warner Cable	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Bexar Met	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	TxDOT	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Bexar County	_____
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Union Pacific Railroad	_____



	DESIGN/PLAN REVIEW, continued	Comments/Notes
	<b><u>Records Research, Existing System Plan Review, Project Evaluation, continued</u></b>	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Review aerial mapping to identify unique surface features (bridges, creeks, drainage structures, buildings, driveways, narrow right-of-ways, trees/landscaping, etc.)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Request and review maintenance history for the project area, as available	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Verify with SAWS which facilities are to be replaced and replacement sizes	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Confirm with SAWS which facilities are to be adjusted.	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	For street cuts, confirm with COSA ROW Management on existing street PCI and pavement restoration program (limits and pavement section)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Prior to design initiation, Walk / Drive the route to identify special design considerations and potential constructability issues	
	<b><u>General Requirements</u></b>	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show SAWS Work Project Limits	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Verify SAWS drafting standards from Website	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Include north arrow, scale, legend (plan legend, profile legend)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Include plan sheet notes (trench protection, utility locator, CPS gas notes, general, etc.)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Cover sheet with vicinity / location map, SAWS project name and number, consultant firm name / logo, engineers seal, submittal phase status, date	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Sheet index (graphical sheet index, as applicable)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Quantity summary (verify overall summary totals to sheet summaries)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Notes (SAWS notes, SAWS Traffic Notes, COSA Notes, TxDOT notes, etc., as applicable)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Phasing plan / traffic control plans (as applicable)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Tree preservation / mitigation plans (as applicable)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Storm Water Pollution Prevention Plan - SW3P (as applicable)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Pavement replacement / restoration plans (as applicable)	
	<b><u>Base Map/Plan Background</u></b>	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Verify and show property lines, right-of-way limit lines, lot lines, and easements with typical ROW/easement widths	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Identify type of easements (water, sanitary sewer, utility, electric, etc)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show subdivision names, NCB, block numbers, lot numbers	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	If unplatted, show Bexar Appraisal District Tract Identification	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show addresses	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show existing surface features	

	DESIGN/PLAN REVIEW, continued	Comments/Notes
<b><u>Base Map/Plan Background, continued</u></b>		
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show existing utilities with appropriate symbols, pipe type, size, and material if known	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show existing contours, if applicable	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show existing bore locations and casing limits	
<b><u>Sanitary Sewer Plan</u></b>		
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show existing conditions background information	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show proposed street / roadway improvements	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show proposed manholes/structures, pipe sizes, material types, main lengths, slopes, and flow arrows	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show location of all service laterals with size	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Ensure Services to each lot including vacant lots (Coordinate with SAWS)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Provide and show a one-way cleanout at the edge of ROW/easement for each service	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Ensure all services will not conflict with parallel or crossing storm drains or other utilities	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Provide dimension information to layout sanitary sewer system (coordinates, and/or dimensions from curb and/or ROW, and/or dims from street centerline, etc.)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Identify tie-ins to existing mains and call out	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Identify water line / sanitary sewer line separation - insure design meets TCEQ rules or incorporate special construction requirements, as applicable	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Provide top of pipe elevations at utility crossings	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Confirm existing sanitary sewer mains will have adequate cover when constructing proposed street/roadway improvements	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Provide plan and profiles for all boring installations	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Verify and show adequate space for bore pit and receiving pit excavations (distance from pavement, pit size, utility interference, depth, sloping/shoring, etc.)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Identify and call out locations and extents of flowable fill	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Tabulate and show a quantity summary on each sheet	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Make changes, as appropriate, to address SAWS review comments at the conclusion of each design phase	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	At the conclusion of each design phase, prepare and submit a response to SAWS addressing each SAWS review comment	
<b><u>Sanitary Sewer Profile</u></b>		
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show manhole/structure designations, station, rim elevations, inverts, etc.	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Identify special manholes such as drop manholes (>30" drop)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show pipe sizes, material types, length, and slope	

	DESIGN/PLAN REVIEW, continued	Comments/Notes
<b><u>Sanitary Sewer Profile, continued</u></b>		
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show Profile of existing and/or proposed ground	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Show pipe profile elevations	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Check utility crossings and show in profile (ie drainage, water, telephone cable/duct, gas, etc.)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Check depth of cover (>3', concrete cap/encasement)	
<b><u>Sanitary Sewer Details</u></b>		
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Verify that SAWS typical details apply to project or develop new details as necessary (Call out / list applicable SAWS standard details)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Develop special grade and/ or alignment change details (as applicable)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Develop details associated with water main - sewer main crossings (as applicable)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Develop cross sections at critical locations along the project to show separations between utilities / structures	
<b><u>Potential Constructability/Maintainability Issues</u></b>		
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Adequate area/space for staging, material storage, equipment storage, haul route (as applicable) (No staging areas within 100 Yr Flood Plain)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Adequate ROW width for construction equipment, maneuverability, and installation operation	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Adequate distance from ROW's, fences, structures (3 feet minimum clearance for small mains)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Adequate distance from other utilities (typically 3 feet minimum clearance)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Confirm with SAWS permanent and temporary easement widths for future maintenance operations and replacement construction	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Adequate clearance / cover from proposed improvements (excavation limits, pavement depths, driveways, sidewalks, retaining walls, landscaping, islands, etc.) (> 30 inches to street subgrade, proposed driveway, or parkway elevation)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Verify that there are no conflicts associated with service laterals or include special design instructions to accommodate specific field situations	
<b><u>Contract Documents</u></b>		
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Hard copy of Plans and Specifications (correct size and number of sets)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Specification Book	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Invitation to Bidders	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	SAWS front end documents	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Bid Proposal (prepared by consultant)	
<input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	Special Conditions	

	DESIGN/PLAN REVIEW, continued	Comments/Notes
	<p><b><u>Contract Documents, continued</u></b></p> <p><input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No Special Provisions</p> <p><input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No Supplemental conditions for COSA and Bexar County Joint Bid Projects</p> <p><input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No List of governing specifications</p> <p><input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No Special specifications</p> <p><input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No Electronic version of Plans and Specifications</p> <p><input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No PDF format on CD or DVD (correct number of discs)</p> <p><b><u>Cost Estimating</u></b></p> <p><input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No Review most current SAWS unit price list for like pay items</p> <p><input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No Obtain from SAWS, bid tabulations of recent similar projects and utilize unit price in estimate pricing</p> <p><input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No Contact and discuss market conditions with Contractors to confirm unit pricing accuracy</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
Project Manager		Date
QA/QC Reviewer		Date