

Major Revisions in January 2019 Edition of the HRSD
Design and Construction Standards

Section	Title	Revision Summary
		<p>General Comment - HRSD has shifted some of the responsibilities, including risk assessment and claims, previously under the Community Relations Liaison between Public Information Specialist in the Communications Department and the Real Estate Manager position within the Engineering Department. A careful review of all sections including Master Specifications that previously referenced responsibilities of and coordination with the Community Relations Liaison is warranted.</p>
Table of Contents		<p>The 2019 version of these Standards includes significant organizational changes with respect to renumbering and placement of sections as compared to previous publications. Please take an opportunity to review and become familiar with the Table of Contents to help you map out the new order of sections.</p>
1	Introduction	<p>Two significant edits have been incorporated into this section. The first is the creation of Item "E.1 General" that contains information on 3-D CADD design for vertical projects and classifications of project estimates as stages in the life of a project. The second significant revision is removal of the description and procedures from Section 1 related to HRSD's Architectural Review Committee. A new Section 2 has been created specific for the Architectural Review Committee.</p>
1	Introduction	<p>An updated requirement to Paragraph E.1. is as follows:</p> <ul style="list-style-type: none"> a. Vertical construction projects (pump stations, pressure reducing stations, treatment plants, wet weather storage tanks, and administrative buildings) are to be designed in a 3-D CADD format as approved by HRSD Project Manager that can be viewed and reviewed by HRSD staff with non-licensed viewer software packages and are compatible with BIM use. HRSD may request additionally that these 3-D models support both virtual reality (VR) and augmented reality (AR) for design reviews. The FIRM shall continue to incorporate changes proposed by the Contractor during submittal reviews and Change Proposals to confirm that alternate equipment, materials, and changes from the FIRM's developed Bid Documents will not cause further conflicts. The final 3-D design files are also to be delivered to HRSD in their native software format.
2	Architectural and Landscaping Design and Review Process	<p>This is a new section that details how and when to engage HRSD's Architectural Review Committee (ARC) for both CIP and Operating Budget projects/programs. The following attachments are appended to this new section.</p> <ol style="list-style-type: none"> 1. Attachment A - Pump Station Architectural Guidelines. 2. Attachment B - Aesthetics Consideration Log

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		<p>3. Attachment C - Address Sign Specification</p> <p>4. Attachment D - Safety Sign Specification for Buildings</p> <p>5. Attachment E - Landscaping Planting Plan Sample</p>
5	Capital Project Cost, Schedule and Risk Reporting	<p>An updated requirement to this section is as follows:</p> <p>The document will be in format as approved by the HRSD Project Manager and will accompany the monthly payment request unless otherwise approved by the HRSD Project Manager.</p>
7	PER, Design, and Construction Submittal Requirements	<p>The following requirement has been added to this section as B.10:</p> <p>Building Information Model (BIM) Execution Plans are required for vertical projects such as treatment plants, pump stations, or facilities that are designed in 3D CADD using BIM software. BIM Execution Plans shall be developed by the project team in the PER phase in order to define the processes and procedures to deliver BIM submittals at different stages of the project and ultimately deliver an as-built model that meets HRSD's requirements at the end of the project. HRSD is in the process of developing BIM guidelines; therefore, the BIM Execution Plan will be reviewed to ensure the BIM deliverables meet the needs of the project.</p>
9	Flood Elevation Requirements	This section has been revised significantly from the 2018 version and warrants a careful review.
10	Public Participation Program	This section and accompanying attachments has been revised significantly from the 2018 version and warrants a careful review.
11	Preconstruction Assessments and Damage Mitigation Procedures	<p>The following new requirement has been incorporated into "A. Introduction":</p> <p>The FIRM must obtain approval from the responsible Chief of Design and Construction as well as HRSD's Real Estate Manager for any variances from the requirements in this section of the standards.</p>
19	Condition Assessment Protocol for Repaired or Abandoned Pipelines	<p>The following revisions have been incorporated as Items "A." and "B.":</p> <p>A. <u>Introduction</u> - One of the elements of the HRSD's Management, Operation, and Maintenance (MOM) per Environmental Protection Agency (EPA) involves collection of condition</p>

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		<p>assessment information on HRSD’s active and planned to be abandoned force mains and gravity sewer mains. HRSD has developed procedures for collecting limited information on pipelines taken out of service either temporarily for repair / rehabilitation or for abandonment. This Section will detail the desired condition assessment program on repaired or abandoned pipelines of the types in HRSD’s system as part of the construction bid documents.</p> <p>B. <u>Condition Assessment Plan during PER phase.</u> The FIRM will coordinate with HRSD’s Asset Management Division of the Engineering Department during the PER phase of a project to develop a Condition Assessment Plan for the existing HRSD infrastructure to be impacted by the rehabilitation, replacement, or new infrastructure project(s) This Condition Assessment Plan will be incorporated into the final PER.</p>
21	HRSD Safety Program	<p>The following new requirements have been incorporated into this section under “B. Safety Programs”:</p> <p>14. Weapons Policy – Weapons, if brought onto HRSD property, must be kept locked in personal vehicle. No weapons are permitted in HRSD buildings or vehicles.</p> <p>15. Use of HRSD Equipment – Contractor must provide all equipment necessary to perform work on HRSD property. Use of HRSD equipment is prohibited. This includes:</p> <ul style="list-style-type: none"> a. Ladders b. Forklifts c. Telehandlers d. Aerial Lifts e. Rolling Gantry Cranes f. Slings
29	Treatment Plants	This section has been revised significantly from the 2018 version and warrants a careful review.
31	Information Technology Infrastructure Hardware	This is a new section to the 2019 publication.
34	Standard Details	This section has been revised significantly from the 2018 version and warrants a careful review. HRSD’s Standard Details have been categorized

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		<p>and organized into the following series:</p> <p>Series 100: Miscellaneous Series 200: Collection Systems and Appurtenances Series 300: Interceptors and Appurtenances Series 400: Pump Stations and PRS Series 500: Cathodic Protection for Pipes Series 600: Cathodic Protection for Buildings</p>
38	Master Specification Sections Overview	<p>The following new Master Specifications are incorporated into this publication:</p> <p>03700 Concrete Rebuild 03800 Embedded Galvanic Anodes for Concrete Rebuild 07160 Reactive Waterproofing 07900 Joint Sealants and Expansion Joint Systems 09900 Protective Coatings 13110 Cathodic Protection</p>