



## NAPA SANITATION DISTRICT

HDR ENGINEERING, INC. - TASK ORDER No. 30  
PRIMARY CLARIFIER AND DAF CLARIFIER  
REHABILITATION PROJECT  
(CIP 16702)

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Date: \_\_\_\_\_

Issued under Professional Services Agreement dated August 9, 2017.

**To:** HDR Engineering, Inc.

**Project Description:**

Primary Clarifier and DAF Clarifier Rehabilitation - Design Services.

**Description of Scope of Services to be performed by Consultant under this Task Order:**

See Attachment 'A' – Scope of Services

**Description of Services to be Provided by District:** See Attachment 'A' –Scope of Services

**Deliverables:** See Attachment 'A' –Scope of Services

**Consultant Project Manager:** Rob Natoli, PE

**Consultant Quality Control Manager:** Graham Bell, PE

**Schedule to Perform Services:** See Attachment 'B' – Project Schedule

**Time & Materials Not-to-Exceed Cost Limit:** \$173,351

See Attachment 'C' – Budget Summary

<b>APPROVALS:</b>
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**HDR ENGINEERING, INC.**

By: \_\_\_\_\_  
Authorized Representative

\_\_\_\_\_  
Date

**NAPA SANITATION DISTRICT**

By: \_\_\_\_\_  
Purchasing Agent

\_\_\_\_\_  
Date

NSD Account No.: CIP 16702

# **Attachment 'A' – Scope of Services**

## **Napa Sanitation District**

### ***Task Order No. 30 - Primary Clarifier and Dissolved Air Flotation (DAF) Clarifier Rehabilitation Design and Bidding Services (CIP 16712)***

The following scope of work involves final design and bidding services for recommended Primary Clarifier and DAF Clarifier Rehabilitation Project (Project) improvements at the Soscol Water Recycling Facility, as outlined in the Condition Assessment Report. This Project includes the following items:

Primary Clarifier No. 1 and No. 2:

- Concrete rehabilitation and coatings
- Clarifier mechanism and ferrous metal rehabilitation/replacement, and associated coatings below clarifier dome covers
- Aluminum component rehabilitation and replacement
- Clarifier dome cover seal fabric replacement

DAF Clarifier:

- Concrete coatings
- Clarifier mechanism and ferrous metal existing coating removal, material rehabilitation, and coatings

The following assumptions are included in the scope of work:

- No structural design is included in the scope of work.
- No electrical or instrumentation and control (I&C) work is included in the scope of work. Mechanism motors will not be replaced.

## **TASK 1 - PROJECT MANAGEMENT, QUALITY ASSURANCE/QUALITY CONTROL (QA/QC), AND MEETINGS**

### **Subtask 1.1 - Project Management and Coordination**

This subtask includes the management activities required to complete the project on time and within budget, and addresses the District's concerns. A project management plan will be developed to serve as a communication tool for District and Consultant staff. Consultant will prepare invoices, progress reports, and decision log updates on a monthly basis. The monthly progress reports will summarize budget and schedule status in measurable terms. Other

activities include coordination and scheduling of staff and coordinating the quality assurance effort.

*Deliverables:* Monthly progress reports, invoices, project management plan, and decision log.

### **Subtask 1.2 - QA/QC Program**

Consultant will institute and maintain a QA/QC program for the work performed on this project. To provide objectivity, senior technical staff, not involved in the project, will perform internal QA/QC upon completion of key deliverables before they are submitted to the District.

*Deliverables:* To be incorporated into the deliverables.

### **Subtask 1.3 – Design Review Meetings**

Consultant will meet with District staff to discuss comments on the 50% and 90% design submittals. Design review comments will be encouraged and welcomed from the District's management, engineering, and operations personnel. Meetings will be held at the District's Soscol Water Reclamation Facility and will be attended by HDR's project manager and project engineer.

*Deliverables:* Meeting agenda and minutes.

## **TASK 2 - FINAL DESIGN PHASE**

Consultant will provide final design services (preparation of bidding documents, including plans and specifications) for the project.

Drawings will be prepared in AutoCAD 2018. Design plans will be developed utilizing industry standard scales, in English (not metric) engineering units. Table A-1 shows a preliminary listing of drawings anticipated for the project.

<b>Table A-1. Estimated Sheet List for Design</b>		
<b>No.</b>	<b>Sheet No.</b>	<b>Drawing Description</b>
<b>General</b>		
1	G1	Cover Sheet, Location and Vicinity Maps, Sheet List and Survey Notes
2	G2	General Abbreviations
3	G3	Symbols and Legend
4	G4	Key Plan, Contractor Access and Staging Plan, General Notes
<b>Demolition</b>		
5	D1	Primary Clarifier No. 1 Plan
6	D2	Primary Clarifier No. 2 Plan
7	D3	DAF Clarifier Plan

Table A-1. Estimated Sheet List for Design		
No.	Sheet No.	Drawing Description
8	D4	Demolition Photos and Details 1
9	D5	Demolition Photos and Details 2
<b>Corrosion</b>		
10	Z1	Primary Clarifier No. 1 Plan
11	Z2	Primary Clarifier No. 2 Plan
12	Z3	DAF Clarifier Plan
13	Z4	Primary Clarifier Sections
14	Z5	DAF Clarifier Sections
15	Z6	Rehabilitation and Coating Details 1
16	Z7	Rehabilitation and Coating Details 2

The specifications will be prepared in Construction Specification Institute (CSI) format using Microsoft Word. The District will provide Consultant with District standard front-end documents (Division 0 & 1). Only minor edits and modifications will be performed by Consultant on the District-provided documents. Consultant will prepare technical specifications (Division 2 through 16).

Drawings, specifications, and engineer's estimate of probable construction cost will be submitted to the District for review and approval at the 50 and 90 percent design stages.

At the 50% design level, the following will be provided:

- Plans and sections of the facilities.
- Coating specifications for concrete and ferrous metal coatings, along with a specifications table of contents.
- An engineer's opinion of probable construction cost.

Design details and construction sequencing details will not be included in the 50% design submittal.

At the 90% design level, updated 50% drawings that include design details and the entire set of specifications will be submitted. A first draft of the construction sequencing and constraints will also be provided with the 90% submittal.

The issue for bids design level, will include a complete set of drawings and technical specifications for the project. An updated engineer's estimate of probable construction cost will also be provided.

***Deliverables:*** PDF copy of half-size (11" x 17") drawings, technical specifications, and engineer's opinion of construction cost for review by District personnel at the 50% and 90% design stages. One stamped and signed PDF set of half-size and full-size (22" x 34") 100% drawings, technical specifications, and engineer's opinion of construction cost. One CD containing electronic files (PDF, AutoCAD, and Word) of the final design documents.

## **TASK 4 - BIDDING PHASE**

The following services will be provided by Consultant during the bidding phase of this project.

### **Subtask 4.1 - Perform Job Walk and Attend Pre-bid Conference**

Consultant will perform a job walk and attend the pre-bid conference to answer contractor questions.

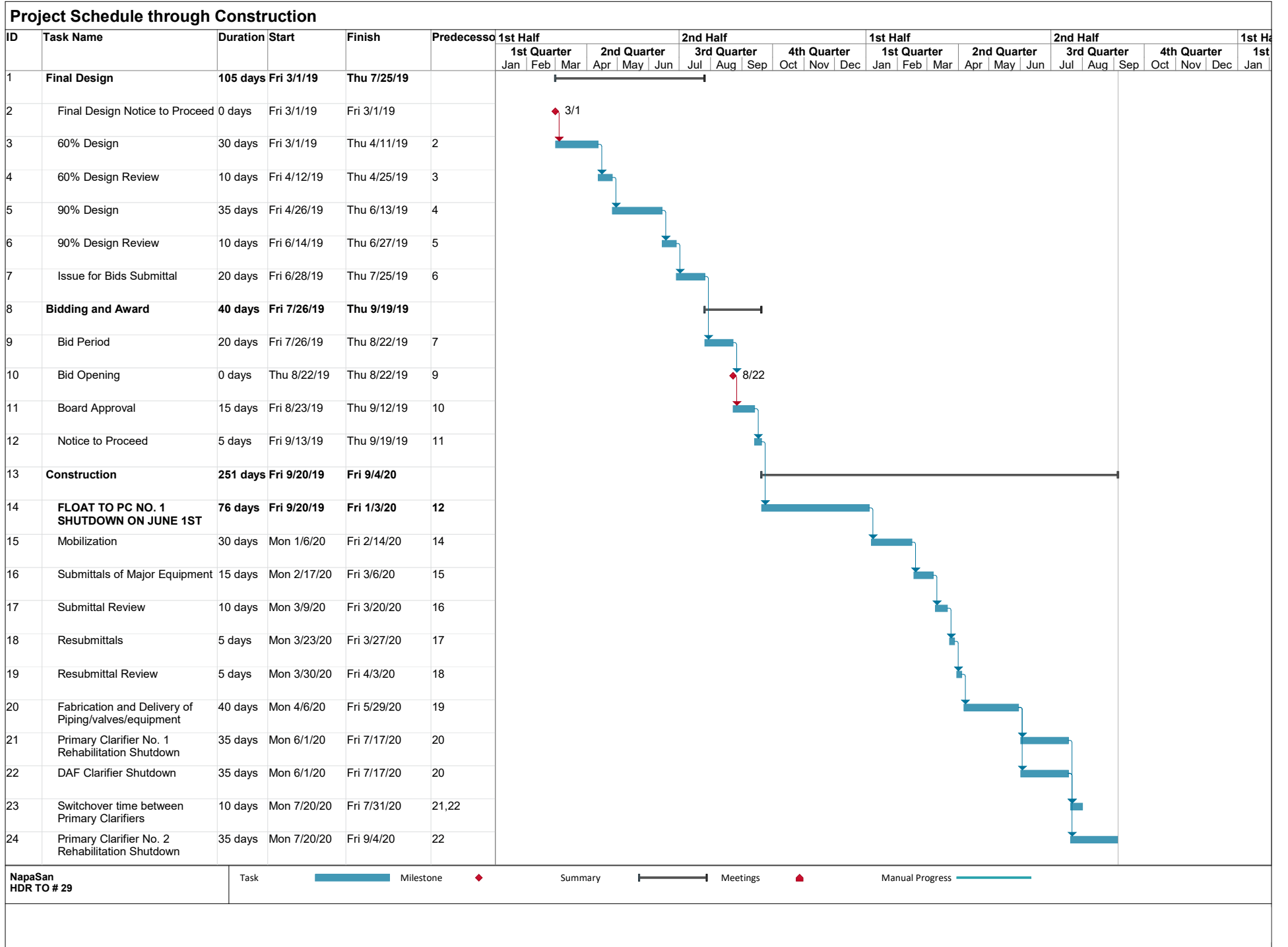
***Deliverables:*** Pre-bid meeting notes.

### **Subtask 4.2 - Respond to Contractor Questions and Prepare Addenda**

The District will receive contractor written and faxed questions during the bidding period, and will forward to Consultant. Addenda to the contract documents will be prepared for distribution to each plan and specification holder.

***Deliverables:*** Up to two addenda.

# ATTACHMENT 'B' - PROJECT SCHEDULE



## Attachment 'C' - Budget Summary

Napa Sanitation District

Task Order No. 30 - Primary Clarifier and DAF Clarifier Rehabilitation Design and Bidding Services (CIP 16712)

Task No.	Task Description	Principal/ QA/QC	Project Manager	Project Engineer	Corrosion Engineer	CAD/BIM Tech	Admin/ Clerical	Total HDR Labor Hours	Total HDR Labor (\$)	Total HDR Expenses (\$)	Total Cost (\$)
<b>Task 1 - Project Management, Quality Assurance/Quality Control (QA/QC), and Meetings</b>											
1.1	Project Management and Coordination		16				16	32	\$5,954	\$50	\$6,004
1.2	QA/QC Program	2	4				6	12	\$2,405	\$50	\$2,455
1.3	Design Review Meetings (up to 2)		12	12	4		4	32	\$5,936	\$450	\$6,386
	<b>Subtotal Task 1</b>	<b>2</b>	<b>32</b>	<b>12</b>	<b>4</b>	<b>0</b>	<b>26</b>	<b>76</b>	<b>\$14,294</b>	<b>\$550</b>	<b>\$14,844</b>
<b>Task 3 - Final Design Phase</b>											
3.1	50%, 90%, and Issue for Bids Drawings	16	32	160	40	350	8	606	\$106,831	\$250	\$107,081
3.2	50%, 90%, and Issue for Bids Specifications	16	16	60	32		60	184	\$30,825	\$150	\$30,975
3.3	50%, 90%, and Issue for Bids Cost Estimate	4	6	24			8	42	\$7,266	\$50	\$7,316
	<b>Subtotal Task 3</b>	<b>36</b>	<b>54</b>	<b>244</b>	<b>72</b>	<b>350</b>	<b>76</b>	<b>832</b>	<b>\$144,923</b>	<b>\$450</b>	<b>\$145,373</b>
<b>Task 4 - Bidding Phase</b>											
4.1	Perform Job Walk and Attend Prebid Conference		6					6	\$1,520	\$200	\$1,720
4.2	Respond to Contractor Questions and Prepare Addenda (up to 2)		16	16	8	12	12	64	\$11,314	\$100	\$11,414
	<b>Subtotal Task 4</b>	<b>0</b>	<b>22</b>	<b>16</b>	<b>8</b>	<b>12</b>	<b>12</b>	<b>70</b>	<b>\$12,834</b>	<b>\$300</b>	<b>\$13,134</b>
<b>COLUMN TOTALS</b>		<b>38</b>	<b>108</b>	<b>272</b>	<b>84</b>	<b>362</b>	<b>114</b>	<b>978</b>	<b>\$172,051</b>	<b>\$1,300</b>	<b>\$173,351</b>