

Exhibit A
Scope of Services
Oxygenation Train No. 1 Rehabilitation
ESSD Project No. XXX
City of Hollywood
Department of Public Utilities

Background

The City of Hollywood (City) owns and operates the South Regional Wastewater Treatment Plant (SRWWTP). The SRWWTP is permitted to treat an average annual daily flow of 55.5 million gallons per day (mgd) and currently disposes of treated effluent via three routes – two injection wells (IW-1 and IW-2) rated for 37.4 mgd, a reuse water distribution system rated for 4 mgd, and an ocean outfall rated for 46.3 mgd.

The oxygenation trains at the SRWWTP are aged and are in need of rehabilitation. Brown and Caldwell (Consultant) will perform design services for the rehabilitation of Oxygenation Train 1, which will include structural rehabilitation, and mechanical, instrumentation, and electrical equipment replacement as identified in the Assumptions and Limitations portion of this Scope of Services.

Project Description

The work to be performed includes tasks associated with engineering services, permitting, and bidding assistance.

Scope of Services

The Scope of Services to be provided by Consultant includes the following tasks:

Task 1 – Project Administration and Kickoff Activities

Subtask 1.1 – Project Administration and Coordination

Consultant’s project manager will be the City’s point of contact during the execution of the work. The City will appoint a project manager to be Consultant’s point of contact during the execution of the work and will provide direction to Consultant. The City’s project manager will coordinate involvement of City operations, maintenance, administrative, and engineering staff as needed. Consultant’s project manager will manage the work of Consultant’s internal staff to provide City staff with efficient and responsive service throughout the course of work on this Project.

Consultant will provide a monthly progress report to the City and perform administrative activities throughout the duration of the project.

Subtask 1.2 – Kickoff Meeting and Site Visit

Consultant will attend and conduct a kickoff meeting for the project. During the meeting, the Consultant will present the agenda and conduct the meeting.

Consultant will prepare minutes for distribution to the meeting attendees.

Consultant will perform a site visit for an external review of existing conditions at Oxygenation Train 1 to review the existing conditions following the kickoff meeting.

Task 2 – Assessment/Analysis

There will be no formal internal or external analysis of the condition of the concrete or coatings of Oxygenation Train 1. Rather a TM will be prepared which will describe recent the existing condition of similar projects and will describe recommended bidding and contracting methods for this project given the lack of internal investigations.

Task 2.1 – Internal Tank Condition Assumptions and Bidding Strategy Draft Technical Memorandum

Consultant will develop and submit a TM which will describe a) the tank condition of recent similar projects and b) will describe recommended bidding and contracting methods for this project given the lack of internal investigations.

The TM will identify areas of concrete erosion/deterioration and coating condition which have been found common for recent similar projects. These representative discussions will include annotated plan sheet drawings with supporting and cross-referenced photos. Typical repair details will be associated with the different condition photos/issues noted in the past projects review. The TM will be produced by an engineer experienced in this type of project and a NACE International certified Level 3 Coatings Inspector familiar with performing inspections during existing conditions and final conditions. The TM will document from previous studies, anticipated measurements of cracks, lengths and widths, spalls, honeycomb, and loss of cement paste around the aggregate.

The TM will provide details regarding the recommended efforts to be performed by the Contractor and CM regarding both the initial confirmatory studies by the Contractor to compare final quantities versus that within the base bid.

The TM will also discuss and recommend the bidding and contracting approach regarding the assumed base bid quantities and will provide details regarding the development, use and management of dedicated contractor allowance accounts.

Task 2.2 – Tank Condition Assumptions and Bidding Strategy Draft TM Review Meeting

A review meeting will be held following the report submittal to review Owner comments of the Technical Memorandum.

Consultant will attend and conduct the review meeting, prepare presentation materials, and present the report elements of the report submittal.

Consultant will prepare meeting minutes following the review meeting.

Task 2.3 – Internal Tank Condition Assumptions and Bidding Strategy Final Technical Memorandum

The Consultant will receive comments from the City and will assemble those comments into a review log, will distribute the comments and responses, and will manage the updating of the log and approval of the responses through resolution. Once comment resolution is made, the Consultant will proceed to finalize and submit the Tank Condition Assumption and Bidding Strategy TM.

Task 3 – Preparation of Design Deliverables

Once the condition assumptions and bidding strategies have been finalized, the Consultant will prepare design deliverables, conduct quality control, and participate in meetings as follows.

Task 3.1 – 60% Design

Task 3.1.1 - 60% Design Submittal

The Design Consultant will prepare and submit the 60% Design Submittal. The design submittal is anticipated to include the following at the approximate completion levels indicated:

- General – Cover, index, site plan, location, access, staging and laydown, construction sequencing diagram(s). (90%)
- Structural – General notes and legends, typical details, oxygenation train plans, sections, and repair details. (60%)
- Process-Mechanical – General notes and legends, typical details, oxygenation train plans, sections, and details. (80%)
- Electrical – General notes and legends, typical details, one-line diagrams, riser diagrams, oxygenation train plans, MCC sections. (40%)
- Instrumentation - General notes and legends, typical details, process and instrumentation diagrams. (90%)
- Specifications. (50%)
- Project construction schedule
- Class 2 Opinion of Probable Construction Cost

The Consultant will receive comments from the City and will assemble those comments into a review log, will distribute the comments and responses, and will manage the updating of the log and approval of the responses through resolution.

Task 3.1.2 - 60% Design Review Meeting

A review meeting will be held following the design submittal to review the results of the assessment and the report.

The Consultant will attend and conduct the review meeting, prepare presentation materials, and present the design elements of the design submittal.

Consultant will prepare meeting minutes following the review meeting.

Task 3.2 – 90% Design

Task 3.2.1 - 90% Design Submittal

The Design Consultant will prepare and submit the 90% Design Submittal. The design submittal is anticipated to include the following at the approximate completion levels indicated:

- General – Cover, index, site plan, location, access, staging and laydown, construction sequencing diagram(s). (95%)
- Structural – General notes and legends, typical details, oxygenation train plans, sections, and repair details. (90%)
- Process-Mechanical – General notes and legends, typical details, oxygenation train plans, sections, and details. (95%)
- Electrical – General notes and legends, typical details, one-line diagrams, riser diagrams, oxygenation train plans, MCC sections. (90%)
- Instrumentation - General notes and legends, typical details, process and instrumentation diagrams. (95%)
- Specifications. (90%)
- Project construction schedule
- Class 1 Opinion of Probable Construction Cost

The Consultant will receive comments from the City and will assemble those comments into a review log, will distribute the comments and responses, and will manage the updating of the log and approval of the responses through resolution.

Task 3.2.2 - 90% Design Review Meeting

A review meeting will be held following the design submittal to review the results of the assessment and the report.

The Consultant will attend and conduct the review meeting, prepare presentation materials, and present the design elements of the design submittal.

Consultant will prepare meeting minutes following the review meeting.

Task 3.3 – 100% For Permitting Submittal

Following the 90% City review process and incorporation of changes, the Design Consultant will prepare and submit the 100% For Bidding Submittal. See Task 4 for specific permitting related efforts.

Task 3.4 – 100% For Bidding Submittal

Following the permitting effort, the Design Consultant will prepare and submit the 100% For Bidding Submittal. The design submittal is anticipated to include the following at the approximate completion levels indicated:

- Drawings. (100%)
- Specifications. (100%)
- Updated Project construction schedule
- Updated Class 1 Opinion of Probable Construction Cost to reflect time lapse from 90% Design Submittal to the 100% For Bidding Submittal

Task 4 – Permitting and Bidding

Task 4.1 - Preparation of Permit Applications

Consultant will submit permit documents to the City of Hollywood Building Department for permit reviews of the proposed improvements. The City will be responsible for payment of all permit application fees. Anticipated permitting review/development activities include:

1. Building Department Review - City of Hollywood

Task 4.1.1 – City of Hollywood Building Department Review

Consultant will seek a code compliance review of the Project design from the City of Hollywood Building Department. Consultant will prepare the permit application form(s) and coordinate with Building Department officials to calculate the applicable permit fee for the Project. This subtask assumes one pre-application meeting will be held with the Building Department with structural and electrical design disciplines present at the meeting.

Following receipt of comments from the Building Department, up to two additional discipline-specific meetings will be held to clarify the reviewers' comments and to discuss design changes needed to resolve them. Consultant will incorporate the appropriate design revisions into the design documents and resubmit to the Building Department until all design-related comments have been cleared.

Task 4.2 - Bidding Services

The following scope of services outlines the tasks to be completed by the Consultant during the bidding phase. City will be responsible for advertising the construction project, distributing the bidding documents, and awarding the contract.

Attend Pre-Bid Conference.

Consultant will attend a Pre-Bid Conference to discuss the project with all prospective bidders and respond to technical questions. Questions regarding the project will be recorded at the meeting and addressed in writing following the meeting. Consultant will prepare agenda and minutes of pre-bid conference.

Bidders Questions and Addenda.

Consultant will answer questions from bidders, provide clarifications, and prepare responses to be included in addenda. Consultant will prepare and submit the addenda to the City in a timely manner that allows reception of addenda by all bidders no later than a minimum of seven (7) days prior to bid opening date. City will be responsible for the distribution of the addenda to the bidders.

Bid Evaluation and Recommendation of Award.

Consultant will prepare a bid evaluation after receipt of the bids. This bid evaluation will include a tabulation of bids plus a review of the bid package from the three (3) lowest responsive bidders. The review of the three (3) lowest responsive bids will include an inspection of the bid package for completeness, errors and omissions, evaluation of the listed experience on similar project, evaluation of other submitted data, and review of the references of the lowest bidder. Following the bid evaluation, Consultant will prepare and submit a recommendation of Contract Award to the City.

Task 4.3 – Conformed Contract Manual

Consultant will prepare and submit the Conformed Contract Manual. The Conformed Contract Manual will update the For Bidding submittal to reflect the changes made as part of the addenda issued during the bidding period.

Task 5 – Supplemental Services Contingency

A supplemental services-contingency task to be used to mitigate unforeseen issues that might arise during the project. Consultant will provide a written scope for the work to be performed and before proceeding on the work under a supplemental services task, the Consultant must first receive written approval from the City.

ASSUMPTIONS AND LIMITATIONS

1. Schedule: Project is estimated to reach 100% for Permitting review within 26 weeks of NTP. Full schedule assumptions are provided below.

Schedule Assumptions	
Task	Weeks from NTP
Draft Condition Assumptions and Bidding Strategy TM (4 weeks)	4
Assumptions and Bidding TM Review Meeting (2 weeks)	6
Final Condition Assumptions and Bidding Strategy TM (2 weeks)	8
60% Design Submittal (6 weeks)	14
60% Design Review Meeting (2 weeks)	16
90% Design Submittal (4 weeks)	20
90% Design Review Meeting (2 weeks)	22
100% For Permitting (4 weeks)	26
Permitting Phase (12 weeks)	38
100% For Bidding (4 weeks)	42
City Prepares Bid and Issues Bid (0 weeks)	42
Bidding Services (6 weeks)	48
Conformed Contract Manual (2 weeks)	50

2. Tank Investigation: There will be no on-site tank investigations prior to development of the bidding and contract documents. A TM will be developed during these design efforts which will analyze the condition of the tanks in previous similar projects and will identify recommended repair strategies and bidding approaches.
3. Reviews: City will review deliverables within a 2-week period.
4. Consultant will use its own version of the 50 Division specification format as defined by the Construction Specifications Institute (CSI) Master Format, with the exception of Division 0, and Division 1, for which a base will be provided to the Consultant by the City and will be tailored for the project by the Consultant.
5. Record Drawings and Existing Information
 - a. Record drawings (As Built) information for all existing facilities related to this work are assumed to be generally accurate, available, and readable in hard-copy and pdf form and shall be supplied to the Consultant.
 - b. Consultant will be entitled to reasonably rely upon the accuracy of the information provided by the City for performance of this work.

6. No surveying, subsurface and underground engineering, or geotechnical engineering services will be required.
7. No civil, yard piping, landscape architecture, building architectural, building mechanical, fire suppression, or fire alarm components are required.
8. Summary of equipment to be replaced.

Equipment/Instruments/Items to be Replaced
Aerators, Local Control Disconnects (4)
Purge Blowers (1)
Lube Oil Pumping System (1)
LEL Sampling Panel (1)
Pressure Probe and Local Panel (1)
Oxygen Purity Sampling Panel (1)
Pressure Relief Valves (2)
Motorized Vent Valves (1)
Defoaming Spray Application (1)
High Level Alarm and Local Panel (1)

9. Electrical Scope: Starters in MCC cabinet MCC-2J for the equipment scheduled to be replaced will not be replaced. All equipment to be replaced is assumed to be replaced in kind and in a way such that the existing starters and cables for both power and signals will from the replaced equipment will be reused. If it is found that starters or cabling is due to be replaced, then additional design fees will be provided under allowance account efforts. Note that the full MCC cabinet will also not be replaced as the cabinet is shared between Trains 1 and 2. Current understanding is that it is preferred to replace/modernize the full MCC cabinet MCC-2J with a new MCC when Train 2 is upgraded, and this will be a separate project.
10. No lighting improvements at the O2 Train are envisioned. No lightning protection improvements at the O2 Train are envisioned.
11. Instrumentation and Control Scope: Local panels and instruments will be replaced, and new wiring will be run from the new panels to the existing I&C cabinet in the control room. As this I&C cabinet is shared between Trains 1 and 2, current understanding is that it is preferred to replace/modernize the I&C cabinet when Train 2 is upgraded.

SCHEDULE

Project is estimated to reach 100% for Permitting review within 26 weeks of NTP.

Exhibit B
Compensation
Oxygenation Train No. 1 Rehabilitation
ESSD Project No. 9626
City of Hollywood
Department of Public Utilities

Total compensation to Consultant for the Scope of Services described in Exhibit A will be the lump sum amount of \$497,212, with \$17,500 allocated for specialty subconsultant efforts and other direct costs, and \$15,000 set aside as Supplemental Services Contingency.

A breakdown of Consultant's estimated fee to perform the work described in Exhibit A is presented in Exhibits B-1 through B-4 on the following pages.

EXHIBIT B-1

Summary of Engineering Fees

City of Hollywood - Oxygenation Train 1 Rehab Design

Description	Amount
Direct Labor Costs	\$ 479,712
Subcontracts and Other Direct Costs	\$ 17,500
Total Fee	\$ 497,212

COST ESTIMATE

CITY OF HOLLYWOOD
City of Hollywood - Oxygenation Train 1 Rehab Design

Billing Labor Rate	General, Administrative, and Permitting							Process-Mechanical				Structural			Electrical			Instrumentation			Estimating		Labor Hours	Labor Cost			
	Client Director	Project Director	Technical Advisor/QC	Project Manager / Design Manager	BIM Lead	Project Analyst	Coord.	QC	Lead	Engineer	Designer	QC	Lead	Designer	QC	Lead	Engineer	QC	Lead	Designer	QC	Lead					
	Vice President \$359.07	Managing Engineer \$309.57	Chief Engineer \$335.04	Engineer III \$191.83	Senior Designer \$165.19	Project Analyst III \$139.76	Project Admin \$91.53	Principal Engineer \$257.56	Engineer III \$191.83	Engineer I \$139.76	Senior Drafter \$139.76	Supervising Engineer \$277.06	Senior Engineer \$220.80	Senior Designer \$165.19	Supervising Engineer \$277.06	Senior Engineer \$220.80	Engineer I \$139.76	Supervising Engineer \$277.06	Senior Engineer \$220.80	Senior Designer \$165.19	Supervising Estimator \$214.59	Supervising Estimator \$214.59					
Earle	Burbano	Eleazer	Rojas	Riberon	Gonzales	Garrison	Bloom	Gaylord	Cogliando	Wolford	Dixon	Shah	Riberon	Nana	Namat	Rivas-Plata	Nana	Serrano	Sabic	Agster	Goodburn						
TASKS																											
TASK NO. 1 - Project Administration and Kickoff Activities																											
1.1	16	4		160		80																			\$ 48,857.00		
1.2			4	8					12																	\$ 4,551.92	
Hour Subtotal	16	4	4	168	0	80	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Labor Cost Subtotal	\$5,745	\$1,238	\$1,340	\$32,227	\$0	\$11,181	\$0	\$0	\$1,677	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	284	\$0	\$ 53,408.92	
TASK NO. 2 - Tank Condition Assumptions and Bidding Strategy TM																											
2.1			8	8		8			64				8													\$ 15,658.24	
2.5			4	4					8				8													\$ 4,991.96	
2.6			2	2		8			16				2													\$ 4,463.74	
Hour Subtotal	0	0	14	14	0	0	16	0	88	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0		
Labor Cost Subtotal	\$0	\$0	\$4,691	\$2,686	\$0	\$0	\$1,464	\$0	\$12,299	\$0	\$0	\$3,974	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	150	\$0	\$ 25,113.94	
TASK NO. 3 - Design																											
3.2.1			12	40	48	32	16	32	180	80	8	72	72	12	48	60	2	80	60	6	60					\$ 127,128.00	
3.2.2			2	8																						\$ -	
3.3.1			6	16	16	32	16	12	80	40	8	40	40	12	40	40	2	40	40	4	32					\$ 74,591.04	
3.3.2			2	12																						\$ -	
3.4.1			2	12	12	12		12	32	24		16	24	2	12	12				4	4					\$ 24,050.68	
3.5.1			2	12	12	12		4	16	12		4	6		8	8				4	8					\$ 10,923.90	
Hour Subtotal	0	0	26	100	88	0	32	60	308	156	16	132	0	142	26	108	120	0	4	128	0	108	12	100	1754	\$0	
Labor Cost Subtotal	\$0	\$0	\$8,711	\$19,183	\$14,537	\$0	\$8,055	\$8,242	\$11,510	\$43,030	\$21,790	\$4,433	\$29,146	\$0	\$23,457	\$7,204	\$23,846	\$16,771	\$0	\$1,193	\$28,231	\$0	\$17,841	\$2,575	\$21,459	\$ 311,213.10	
TASK NO. 4 - Permitting and Bidding																											
4.1.1			12	16	40			8	42	8		12	8		12	8										\$ 29,958.80	
4.2			12	32	8			4	24	8		16	8		16	8				16	8					\$ 31,079.72	
4.3			12	12	16			4	8	12		4	6		6	8				2	4					\$ 8,992.20	
Hour Subtotal	0	0	24	60	64	0	0	16	74	28	0	32	0	22	0	34	24	0	0	18	0	12	0	0	408	\$0	
Labor Cost Subtotal	\$0	\$0	\$8,041	\$11,510	\$10,572	\$0	\$0	\$0	\$3,069	\$10,342	\$3,913	\$0	\$7,122	\$0	\$3,583	\$0	\$7,462	\$3,354	\$0	\$0	\$3,974	\$0	\$2,032	\$0	\$0	\$0	\$ 74,975.72
TASK NO. 5 - Supplemental Services Contingency																											
Supplemental Services Allowance																								\$ 15,000.00			
TOTALS																											
Total Labor Hours	16	4	68	342	152	80	104	32	76	482	184	16	182	0	164	26	142	144	0	4	146	0	120	12	100	2596	\$0
Total Labor Cost without Allowances	\$5,745	\$1,238	\$22,783	\$65,606	\$25,109	\$11,181	\$9,519	\$8,242	\$14,579	\$67,348	\$25,704	\$4,433	\$40,242	\$0	\$27,040	\$7,204	\$31,309	\$20,125	\$0	\$1,193	\$32,206	\$0	\$19,872	\$2,575	\$21,459	\$464,712	
Total Labor Cost with Allowances																										\$479,712	
Subcontracts and ODCs																										\$17,500	
TOTAL																									Total	\$497,212	

**EXHIBIT B-3
OTHER DIRECT COSTS SUMMARY**

City of Hollywood - Oxygenation Train 1 Rehab Design

	UNIT	NO. OF UNITS	UNIT COST	TOTAL COST
1.0	COPYING AND PRINTING			
	COPIES 8.5x11	PAGES	0	\$ 0.10
	COPIES 11x17	PAGES	0	\$ 0.20
	COPIES 22x34	PAGES	0	\$ 1.80
3.0	MAILING - FED EXPRESS	UNIT	0	\$ 20
4.0	TRAVEL	LS		\$5,000
SUBTOTAL OTHER DIRECT COSTS				\$5,000
4.0	SUBCONTRACTS			
	CORROSION PROBE	LS		\$12,500
		LS		
		LS		
		LS		
SUBCONTRACTS SUBTOTAL				\$12,500
TOTAL ODCS				\$17,500

Exhibit B-4
Oxygenation Train No. 1 Rehabilitation
Sheet List
ESSD Project No. 9626
City of Hollywood
Department of Public Utilities

Sheet Number	Title
G-0000-000	COVER
G-0000-001	DRAWING INDEX
G-0000-003	ABBREVIATIONS
G-0000-011	SYMBOLS AND LEGENDS
G-0000-014	AREA CLASSIFICATION SUMMARY
G-0000-101	CONTRACTOR STAGING AREA - SITE PLAN
G-0000-102	AERIAL OVERLAY - SITE PLAN
G-0000-601	DESIGN CRITERIA SUMMARY
G-0000-604	O2 TRAIN PHASING DRAWING
S-0000-001	GENERAL NOTES 1
S-0000-002	GENERAL NOTES 2
S-0000-003	GENERAL NOTES 3
S-0000-004	GENERAL NOTES 4
S-0000-005	GENERAL NOTES 5
S-0000-011	TYPICAL DETAILS 1
S-0000-012	TYPICAL DETAILS 2
S-0000-013	TYPICAL DETAILS 3
S-0000-014	TYPICAL DETAILS 4
S-0000-015	TYPICAL DETAILS 5
S-0621-111	OXYGENATION TRAIN 1 - LOWER PLAN
S-0621-121	OXYGENATION TRAIN 1 - UPPER PLAN
S-0621-311	OXYGENATION TRAIN 1 - SECTIONS
S-0621-511	OXYGENATION TRAIN 1 - DETAILS 1
S-0621-512	OXYGENATION TRAIN 1 - DETAILS 2
S	S SHEET
S	S SHEET
S	S SHEET
D-0000-001	GENERAL NOTES 1
D-0000-002	GENERAL NOTES 2
D-0000-011	TYPICAL DETAILS 1
D-0000-012	TYPICAL DETAILS 2
D-0000-013	TYPICAL DETAILS 3
D-0000-014	TYPICAL DETAILS 4
D-0000-015	TYPICAL DETAILS 5
D-0000-016	TYPICAL DETAILS 6
DD-0621-101	OXYGENATION TRAIN 1 DEMOLITION - PLAN 1
DD-0621-102	OXYGENATION TRAIN 1 DEMOLITION - PLAN 2

D-0621-121	OXYGENATION TRAIN 1 - UPPER PLAN
D-0621-311	OXYGENATION TRAIN 1 - SECTIONS 1
D-0621-312	OXYGENATION TRAIN 1 - SECTIONS 2
D-0621-511	OXYGENATION TRAIN 1 - PARTIAL PLANS 1
D-0621-512	OXYGENATION TRAIN 1 - PARTIAL PLANS 2
D-0621-911	OXYGENATION TRAINS 1-2 - ISOMETRIC
D	D SHEET-LUBE OIL
D	D SHEET
D	D SHEET
E-0000-001	LEGEND AND SYMBOLS 1
E-0000-002	LEGEND AND SYMBOLS 2
E-0000-003	ABBREVIATIONS AND GENERAL NOTES
E-0000-013	INSTALLATION DETAILS 1
E-0000-014	INSTALLATION DETAILS 2
E	OXYGENATION TRAINS 1 - PLAN
E	E SHEET
E	E SHEET
I-0000-001	SYMBOLS AND IDENTIFICATION SYSTEMS 1
I-0000-002	SYMBOLS AND IDENTIFICATION SYSTEMS 2
I-0000-003	SYMBOLS AND IDENTIFICATION SYSTEMS 3
I-0000-004	SYMBOLS AND IDENTIFICATION SYSTEMS 4
I-0000-011	TYPICAL DETAILS 1
I-0000-012	TYPICAL DETAILS 2
I-0000-601	NETWORK DIAGRAM 1
I-0621-001	OXYGENATION TRAIN 1 P&ID
I	I SHEET-LUBE OIL
I	I SHEET