AGENDA

IRVINE RANCH WATER DISTRICT ENGINEERING AND OPERATIONS COMMITTEE TUESDAY, AUGUST 17, 2021

This meeting will be held in person, but due to COVID-19, this meeting will also be conducted as a teleconference pursuant to the provisions of the Governor's Executive Orders N-25-20 and N-29-20, which suspend certain requirements of the Ralph M. Brown Act.

This meeting will be held in person at the District's headquarters located at 15600 Sand Canyon Avenue, Irvine, California, but participation by members of the Committee may be from remote locations. Members of the public may attend in person or remotely.

Virtual attendees can attend the meeting via Webex and may submit comments via the "Chat" function. To virtually attend the meeting, please join online via Webex using the link and information below:

Via Web: <u>https://irwd.webex.com/irwd/j.php?MTID=m5814487175466132ebd471d17ced4716</u> Meeting Number: 146 441 0356 Password: SNe7AqEXa68

PLEASE NOTE: Webex observers of the meeting will be placed into the Webex lobby when the Committee enters closed session. Participants who remain in the "lobby" will automatically be returned to the open session of the Committee once the closed session has concluded. Observers joining the meeting while the Committee is in closed session will receive a notice that the meeting has been locked. They will be able to observe the meeting once the closed session has concluded.

CALL TO ORDER 1:30 p.m.

<u>ATTENDANCE</u>	Committee Chair:	John Withers	
	Committee Member:	Karen McLaughlin	
ALSO PRESENT	Paul Cook	Kevin Burton	Wendy Chambers
	Jose Zepeda	Paul Weghorst	Cheryl Clary
	Rich Mori	Eric Akiyoshi	Richard Mykitta
	Kelly Lew	Jim Colston	Ken Pfister
	Lars Oldewage	Malcolm Cortez	Scott Toland
	Jacob Moeder	Bruce Newell	Mitch Robinson
	Belisario Rios		
	<u> </u>		

PUBLIC COMMENT NOTICE

If you wish to address the Committee on any item, please submit a request to speak via the "chat" feature available when joining the meeting virtually. Remarks are limited to three minutes per speaker on each subject. You may also submit a public comment in advance of the meeting by emailing comments@irwd.com before 9:00 a.m. on Tuesday, August 17, 2021.

All votes shall be taken by a roll call vote if one or more Committee members participates remotely.

COMMUNICATIONS

- 1. Notes: Burton
- 2. Public Comments
- 3. Determine the need to discuss and/or take action on item(s) introduced that came to the attention of the District subsequent to the agenda being posted.

INFORMATION

4. <u>UPCOMING PROJECTS STATUS REPORT – CORTEZ / AKIYOSHI / LEW /</u> <u>MORI / BURTON</u>

Recommendation: Receive and file.

ACTION

5. <u>WAREHOUSE BUILDINGS AT MICHELSON OPERATIONS CENTER</u> <u>CONSULTANT SELECTION – BURK / CORTEZ / BURTON</u>

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with Stantec in the amount of \$475,632 for design services for the Warehouse Buildings at Michelson Operations Center, Projects 11854 and 11855.

6. <u>CONSTRUCTION INSPECTION SERVICES AGREEMENTS- JACKSON /</u> <u>LEW / BURTON</u>

Recommendation: That the Board authorize the General Manager to execute a Professional Services Agreement with NV5 in the amount of \$664,080 and execute a Professional Services Agreement with Ardurra in the amount of \$717,444 for construction inspection services, both for a two-year term.

OTHER BUSINESS

- 7. Directors' Comments
- 8. Adjourn

Engineering and Operations Committee August 17, 2021 Page 3

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the above-named Committee in connection with a matter subject to discussion or consideration at an open meeting of the Committee are available for public inspection in the District's office, 15600 Sand Canyon Avenue, Irvine, California ("District Office"). If such writings are distributed to members of the Committee less than 72 hours prior to the meeting, they will be available from the District Secretary of the District Office at the same time as they are distributed to Committee Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available electronically via the Webex meeting noted. Upon request, the District will provide for written agenda materials in appropriate alternative formats, and reasonable disability-related modification or accommodation to enable individuals with disabilities to participate in and provide comments at public meetings. Please submit a request, including your name, phone number and/or email address, and a description of the modification, accommodation, or alternative format requested at least two days before the meeting. Requests should be emailed to comments@irwd.com. Requests made by mail must be received at least two days before the meeting. Requests will be granted whenever possible and resolved in favor of accessibility.

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August 17, 2021 Prepared by: M. Cortez / E. Akiyoshi / K. Lew / R. Mori Submitted by: K. Burton Approved by: Paul A. Cook

ENGINEERING AND OPERATIONS COMMITTEE

UPCOMING PROJECTS STATUS REPORT

SUMMARY:

A status report of Irvine Ranch Water District's Upcoming Projects is presented to the Committee for information.

BACKGROUND:

The information, which is provided as Exhibit "A", is a status report submitted quarterly to the Committee for review.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

Receive and file.

LIST OF EXHIBITS:

Exhibit "A" – Upcoming Projects Status Report

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EXHIBIT "A" IRWD UPCOMING PROJECTS STATUS REPORT

Droject Name	Start	Start	Construction	Construction
Project Name	Planning	Design	Award	Final Acceptance
Gillette/Morse DW Pipeline Relocation			Summer 2021	Winter 2022
2020 Vault Lids Replacement				Summer 2021
IBC Sidewalk Relocations			Fall 2021	
Operations Center Purchasing Warehouse		Summer 2021		
MWRP Tertiary Filter Rehabilitation			Spring 2022	
MWRP MBR Fall Protection			Fall 2021	Winter 2022
MWRP Primary Tanks Replacement Covers				Summer 2021
MWRP Compressed Natural Gas and Diesel/Gasoline Fueling Station			Fall 2021	Spring 2022
HATS Diversion Structure Relining				Fall 2022
Generator Fuel Storage Upgrades		Summer 2021	Winter 2022	
Crystal Cove RW PRV			Fall 2021	Spring 2022
San Joaquin Reservoir Filtration Facility			Fall 2021	Fall 2022
Rattlesnake Outlet Pipe Flow Meter Replacement			Fall 2021	Winter 2022
Rattlesnake Outlet Actuators Replacement			Summer 2021	Fall 2022
Silverado Bridge 174 DW Improvements		Summer 2021	Winter 2022	Spring 2022
Silverado Bridge 175 DW Improvements			Fall 2021	
Santiago Canyon Pump Station Improvements			Fall 2021	Spring 2023
Sewer Siphon Improvements Phase 1				Summer 2021
Turtle Rock RMS			Spring 2022	
MWRP Paving near Buildings 90, 100, 110				Fall 2021
Woodbridge RW Replacement			Fall 2021	
Lake Forest Woods Sewer Improvements		Fall 2021		
Wells 51 Rehabilitation				Fall 2021
Wells 1, 11, and 13 Rehabilitation				Summer 2021
DATS Miscellaneous Repairs				Fall 2021
Well OPA-1 PFAS Treatment			Fall 2021	Summer 2022
15 MG Zone 1 Reservoir Coating Replacement and Improvements				Spring 2022
Well ET-1 PFAS Treatment			Winter 2022	
Zone A to Rattlesnake Reservoir BPS				Spring 2023
Lake Forest Zone B-C BPS			Fall 2021	Fall 2022
SAC Pipeline Relocation in Santiago Creek at Irvine Regional Park			Summer 2021	Spring 2022
PDF Sodium Hypochlorite Storage and Feed System				Spring 2022
Santiago Creek Dam Outlet Tower and Spillway Improvements			Spring 2023	
Santiago Canyon Fleming Zone 8 Tank and Zone 8-9 BPS			Winter 2022	
LAWRP Modernization		Winter 2022		
LAWRP Construction Bypass Sewers		Winter 2022		
MWRP Biosolids and Energy Recovery Facilities				Summer 2021
Syphon Reservoir Access Road and Intersection Improvements			Fall 2022	Summer 2023

Draject Name	Start	Start	Construction	Construction
Project Name	Planning	Design	Award	Final Acceptance
Syphon Reservoir Improvements			Winter 2024	Summer 2026
PA 12, Innovation Park DW and RW (RA w/ICDC)				Fall 2021
PA 12, Innovation Park DW (RA w/ICDC)				Fall 2021
PA 12, Innovation Park Regional RW (RA w/ICDC)				Fall 2022
PA 1, Jeffrey Road Extension RW (RA w/CDC)			Winter 2022	
Tustin Legacy, Flight Drive RW (RA w/Tustin)				Summer 2021
Tustin Legacy, Neighborhood South Phase 1, S (RA with/Tustin)				Summer 2022
PA 51, Marine Way DW, RW (RA w/Heritage Fields)				Summer 2021
PA 51, South C St and LY St, S, RW (RA w/Heritage Fields)				Summer 2021
PA 51, Alton Pkwy from Technology to Muirlands, DW S, RW (RA w/Heritage Fields)				Summer 2021
PA 51, Marine Way from Barranca Pkwy to Alton Pkwy, DW S, RW (RA w/Heritage Fields)				Summer 2021
PA 51, Alton Interceptor Sewer (RA w/Heritage Fields)				Summer 2021
PA 51, Marine Way from Alton to Barranca Sewer (RA w/Heritage Fields)				Summer 2021
PA 51, Sociable from Z St to B St, RW (RA w/Heritage Fields)				Summer 2021
PA 51, GP1 St DW, S, RW (RA w/Heritage Fields)				Summer 2021
PA 51, GP2 St, DW, S, RW (RA w/Heritage Fields)				Summer 2021
PA 51, Magnet from Ridge Valley to Bosque RW (RA w/Heritage Fields)				Summer 2021
PA 51, Cadence South DW, S, RW (RA w/Heritage Fields)				Summer 2021
PA 51, District 5 A St DW, RW (RA w/Heritage Fields)				Summer 2021
PA 51, Chinon from Cadence South to Cadence (RA w/Heritage Fields)				Summer 2021
PA 51, District 5, F and N St DW, RW				Fall 2021
PA 51, District 5, E St RW (RA w/Heritage Fields)				Fall 2021
PA 51, District 5, Astor DW, RW (RA w/Heritage Fields)				Fall 2021
PA 51, District 5, Merit DW, RW (RA w/Heritage Fields)				Fall 2021
PA 51, District 5, BB St RW (RA w/Heritage Fields)				Fall 2021
PA 51, District 5, P St and Cadence DW, RW (RA w/Heritage Fields)				Fall 2021
PA 51, Marine Way from Alton Pkwy to Bake Pkwy DW, RW (RA w/Heritage Fields)			Fall 2021	
PA 51, Marine Way at Bake Parkway DW (RA w/Heritage Fields)			Fall 2021	
The Meadows, SS (RA w/Toll Brothers)				Fall 2022
Capital Improvement Program (CIP) Asset Management Phase 1 (Facilities)	In-Process			
Capital Improvement Program (CIP) Asset Management Phase 2 (Linear)	Winter 2022			
Potable Hydraulic Model Updates	In-Process			
Five Year Groundwater Capital Project Plan and Update	In-Process			
IRIS Replacement Planning Model Treatment Plant Cost Update	In-Process			
GIS Road Map	Fall 2021		Category	Months
			Winter	Jan. Feb. & Mar.
			Spring	Apr. May & June
			Summer	Jul. Aug. & Sep.
			Fall	Oct. Nov. & Dec.

IRWD UPCOMING PROJECTS STATUS REPORT

August 17, 2021 Prepared by: R. Burk / M. Cortez Submitted by: K. Burton Approved by: Paul A. Cook

ENGINEERING AND OPERATIONS COMMITTEE

WAREHOUSE BUILDINGS AT MICHELSON OPERATIONS CENTER CONSULTANT SELECTION

SUMMARY:

IRWD's Warehouse Buildings at Michelson Operations Center project will construct a 4,500-square-foot building and a 1,200-square-foot canopy structure within the existing material storage yard adjacent to the existing Operations Center Warehouse. Staff recommends the Board authorize the General Manager to execute a Professional Services Agreement with Stantec in the amount of \$475,632 for design services for the Warehouse Buildings at Michelson Operations Center project.

BACKGROUND:

Last year, IRWD's consultant Whitman Requardt & Associates completed a study that evaluated the District's warehousing needs and recommended options for increasing storage at the Michelson Operations Center. The study was reviewed with the Engineering and Operations Committee, and a preferred alternative was selected based on the District's current and future storage needs, site geotechnical considerations, and best value. The selected alternative includes a pre-engineered metal and concrete masonry block storage building of approximately 4,500 square feet sited adjacent to the existing Operations Center Warehouse, and a canopy structure of approximately 1,200 square feet to provide shade over storage racks in the existing fenced material storage yard. A site map of the existing Purchasing material storage yard is provided as Exhibit "A".

Consultant Selection:

Staff issued a request for proposal for the design to five consultants: AECOM, DCDB Consultants, MWA Architects, Stantec, and Tetra Tech. DCDB Consultants, Stantec, and Tetra Tech were responsive and submitted proposals that reflected a good understanding of the scope of work. Stantec's proposal reflected the most thorough understanding of the project. Stantec also proposed to conduct workshops during the preliminary design to ascertain the District's needs and requirements for material storage, materials handling, and determine the area of storage needed if different from the proposed 4,500 square feet. These workshops would also assist with selecting a storage racking system from alternatives, determining the configuration of storage, confirming the canopy's square footage and the materials requiring canopy shade, and determining the design criteria for warehouse layouts, equipment requirements, and site layout. Stantec proposed to develop a comparative analysis of pre-engineered and traditional constructed building which will include a bridge crane analysis, noting that a pre-engineered metal building with an independent crane could be cost competitive to a traditional building with a crane. Stantec's plan set sheet count was complete, and included civil, architectural, structural, Engineering and Operations Committee: Warehouse Buildings at Michelson Operations Center Consultant Selection August 17, 2021 Page 2

mechanical, plumbing, and electrical work. Stantec's team is highly qualified and experienced, based on a recent warehouse design for the Orange County Sanitation District.

Staff recommends the selection of Stantec for design services for the Warehouse Buildings at Michelson Operations Center project. The consultant evaluation matrix is provided as Exhibit "B" and Stantec's proposal is provided as Exhibits "C".

FISCAL IMPACTS:

Projects 11854 and 11855 are included in the FY 2021-22 Capital Budget. The current budgets are sufficient for the design work.

ENVIRONMENTAL COMPLIANCE:

This project is subject to the California Environmental Quality Act (CEQA). In conformance with the California Code of Regulations Title 14, Chapter 3, Section 15004, the appropriate environmental document will be prepared when meaningful information becomes available.

RECOMMENDATION:

That the Board authorize the General Manager to execute a Professional Services Agreement with Stantec in the amount of \$475,632 for design services for the Warehouse Buildings at Michelson Operations Center, Projects 11854 and 11855.

LIST OF EXHIBITS:

- Exhibit "A" Location Map Exhibit "B" – Consultant Selection Evaluation Matrix
- Exhibit "C" Stantec Proposal

EXHIBIT "A" Possible Warehouse and Canopy Location



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EXHIBIT "B"

WAREHOUSE BUILDING AT MICHELSON OPERATIONS CENTER

CONSULTANT SELECTION MATRIX

	Weights	DCDB Consultants	Stantec	TetraTech
	0.00/			
*Project Approach	60%	3	1	2
*Scope of Work	60%	3	1	2
Weighted Score (Technical Approach)		3.00	1.00	2 00
		3.00	1.00	2.00
EXPERIENCE	40%			
*Project Manager	10%	3	1	2
*Team	45%	3	1	2
				_
Weighted Score (Experience)		3.00	1.00	2.00
COMBINED WEIGHTED SCORE		3.00	1.00	2.00
Project Team				
Project Manager		David Chacon	Joe Long	Neha Gajjar
Architect		Bill Graeber	Pat McKelvey, Jessica	GPA (subconsultant)
QC/QA		David Chacon	Cooper Jim Cathcart. Tama	Tom Epperson
			Snow	
Geotechnical		NMG (Sub)	NMG (Sub)	Leighton (Sub)
Civil		Strand Engineering	Cole Warrick, Rich	Matt Vera
Mechanical		(Sub) Bill Strand	Robison Gladvs Young, Maung	Viral Shah
Mechanica		(Sub) Tim Imhoff	Winn	
Electrical		Engineering Resources	Rob Clogg, Ranchit	Nicole Han, Mazen
		(Sub) Cam Newtran	Taneja	Kassar
Structural		ZJS Engineering (Sub) Janos Boros	Peterson Structural Engineers (Sub) Galit	Eric Yuen
Cost Estimating		MWC Commercial	Stantec	Tetra Tech
Fire Sprinkler				Jensen Hughes (Sub)
Workhours				
Task 1 Project Management		122*	202*	92
Task 2 Preliminary Design		124*	621*	316
Task 3 Final Design		660*	1250*	1,304
TOTAL HOURS		906	2,073	1,712
Plan Set Sheet Count		**Not provided		
General		**	3	6
Demo/Civil/Site/Utility		**	9	6
Architectural (Warehouse, Canopy)		**	23	5
Mechanical/Plumbing		**	36	12
Structural		**	24	10
Total Sheets Hours/Sheet		**	107	51
FEE			10	
Task 1 - Project Management		\$20,512	\$49,589	\$32,500
Task 2 - Preliminary Design		\$63,912	\$169,177	\$162,000
Task 3 - Final Design		\$160,901 \$245,225	\$256,866	\$285,500 \$480,000
		₽ ∠4 5,325	\$475,032	\$400,000
Average Cost/Workhour Average Cost/Sheet		\$271	\$229 \$2,401	\$280 \$5,598
Professional Liability Insurance		YES	YES	YES
General Liability Insurance		YES	YES	YES
FORCED RANKINGS:				
1 - Best		3	1	2
2 - Second Best				
3 - Third Best	1			I I

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EXHIBIT "C"

Proposal for Professional Services

Irvine Ranch Water District

Engineering Services for the District Warehouse Building at Michelson Operations Center

July 29, 2021



A. Scope of Work/Methodology

PROJECT UNDERSTANDING

The Irvine Ranch Water District (IRWD) has recently completed a warehousing needs study identifying additional storage requirements at the Michelson Water Reclamation Plant and Operations Center. The initial Warehouse Study, dated January 27, 2020, evaluated differing alternatives based on current and long-term storage requirements. Through the evaluation process it was identified that an additional 4,300 to 4,500 square feet of warehouse floor space is required along with 3,000 square feet of canopy to cover open air material storage in order to meet the overall needs of the District. The initial report focused on storage requirements but did not address overall project programming that includes, overall site development, material handling requirements, traffic circulation, site arrangement, and existing activities associated with both the operations center and the continued process operations associated directly with the wastewater treatment facilities.

The Stantec team will capitalize on the previous efforts and, through the Preliminary Design Report (PDR) phase, advance a fully integrated development program that addresses not only the warehousing and material storage components of the project, but also will include overall site circulation, building arrangement, material loading/handling requirements, utility constraints, vehicle routing and parking requirements. Our efforts will start through a series of operations/field personnel interviews in order to better understand of how redevelopment and the warehouse expansion will enhance their working environment, improve productivity, and eliminate existing constraints that make the daily tasks

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Appendix A. Resumes

 Risting Warehouse

 Existing Warehouse

Figure 1 - Existing Warehouse Location

An integral part of developing the project program for the warehousing operations is to fully understand the type, quantity, and accessibility requirements for both the existing warehouse and the proposed warehouse. Although, the proposed warehouse general square footages have been identified, further investigations are required to better understand material housing requirements, potential fire-department implications based on specific stored materials, inventory controls and fulfillment of field requests for materials.

challenging.

The existing warehousing operations and material handling is currently located in the central core of the overall Michelson Water Reclamation Plant and

Operations Center as noted in Figure 1. As such, the ingress/egress of material deliveries is located in a congested portion of the site adjacent to service vehicle parking, through traffic circulation and directly adjacent to the

Operations Center Administrative Offices. Traffic circulation and material

handling are potentially in conflict during

heavy material loading and unloading is

an equipment delivery. In addition, all

accomplished by "flat-loading" using

either a truck mounted davit crane or

fork-lift and in some cases both. Stantec's scope of work will include evaluating traffic circulation and material handling throughout the Operations

Center.

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Project Programming Development/Project Constraints

The Stantec team has reviewed supporting documentation provided by IRWD including (1) Warehouse Study–Irvine Ranch Water District (dated January 27, 2020, prepared by Whitman, Requardt & Associates (WRA)), (2) Historic *[Geotechnical]* Exploration Map and Thickness of Peat/Organic Clay Deposit (dated November 17, 2020, prepared by NMG Geotechnical, Inc), (3) Preliminary Geotechnical Exploration Related to Operations Center Expansions, Improvements, and CNG Fueling Facility Michelson Operations Center and Water Recycling Plant (dated October 23, 2020, Prepare by NMG Geotechnical, Inc) and (4) Geotechnical Exploration and Design Recommendations for Parking Lot Improvements, Irvine Ranch Water District Michelson Plant, Irvine California (dated December 2, 2019, prepared by NMG Geotechnical, Inc).

Based on the initial information provided as part of the Request for Proposal and the supporting documentation, Stantec has a good understanding of IRWD project goals. In order to further develop the programmatic needs of the project, the Stantec team has identified several project elements that need further investigation.

Element No. 1 - Final Definition of Warehousing and Operational Needs -

The refinement of specific warehousing and operational needs is imperative to achieving the overall goals of the warehouse expansion project. To achieve the goals, the Stantec team will work collaboratively with IRWD staff to establish design criteria, identify material storage and handling requirements, evaluate existing and future material storage configurations, and finally establish the final required warehouse footprint square footages. The Stantec team will accomplish the final warehousing design requirements/design criteria by (1) inventorying the existing warehousing system and material handling operations, (2) interview the Purchasing/Warehousing staff and (3) ultimately develop a recommended criterion for the design of the proposed facilities. The identification warehousing and operational needs will be focused as follows:

- 1. Inventory and categorize existing warehoused materials as (a) short-term storage/high turn-over materials, (b) heavy weight materials requiring special handling, (c) operations critical replacement parts, and (d) long-term storage emergency parts/materials.
- 2. Evaluate workflow of materials from the point of delivery to the point of distribution.
- 3. Evaluate interior warehousing safety and circulation requirements in order to establish minimum space requirements, high bay verse low bay storage space needs, and identify existing constraints hampering warehousing operations.
- 4. Evaluate exterior under canopy storage safety and circulation requirements in order to establish minimum space requirements, material storage systems, existing constraints, and access requirements.

Element No. 2 - Site Plan Development, Delivery Requirements and Circulation Elements -

Upon identifying the required interior warehouse and exterior canopy storage requirements, the Stantec team will investigate building and storage arrangements that incorporate traffic circulation. As discussed above, the existing warehousing building(s) / and material loading/unloading areas are located in the central core of the Michelson Operations area and potentially conflict with daily staging of equipment, materials, and dispatching field maintenance personnel.

The Stantec team, will review the existing traffic circulation operations establishing the baseline of operations (staging/movement of equipment and person) on a daily basis. Based on our initial understanding, all material deliveries are unloaded at the existing east warehouse door and checked into the inventory system. During delivery operations, the main circulation corridor as shown in Figure 1 is obstructed potentially trapping traffic. Upon the initial review of the existing traffic circulation plans at the Stantec will prepare site arrangement concepts that incorporate the following:

- 1. Incorporate warehousing / personnel needs and goals.
- 2. Delivery truck loading and unloading operations, material handling and placement.
- 3. Vehicle movement, parking requirements and staging area requirements.
- 4. Warehouse building, exterior canopy storage and containerized storage site arrangements.

The Stantec team will develop alternative project layouts and circulation elements similar to what is shown in Figure 2. The proposed facility layout will identify several elements that include traffic circulation, the location of the proposed warehouse and canopy covered exterior storage, the relocation of existing containerized storage units, material handling workflow along with proposed vehicle storage and parking requirements. The proposed facility layouts will be presented to IRWD Purchasing and Warehouse personnel to garner feedback, suggestions for improvements and the development of the preferred project layout solution.

Proposal: Engineering Design Services for the Woodbridge Recycled Water Pipeline Replacement



Figure 2 - Conceptual Layout and Project Site Constraints

Stantec Consulting Services Inc.

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July 29, 2021



Proposal: Engineering Design Services for the Woodbridge Recycled Water Pipeline Replacement

Element 3 – Geotechnical Considerations

The Michelson Water Reclamation Plant and Operations Center is underlaid by significant layers of highly compressive organic clays and peat. Based on existing geotechnical investigations throughout the project area indicates that the organic clays and peat layers are up to 20 feet deep throughout the existing warehouse building and warehouse staging yard. Figure 3, a portion of the Peat/Organic Clay Isopach Map, prepared by NMG Geotechnical and presented in the "Summary of Existing Data Compiled for Historic Explorations Map. Prior to fully developing the new building and canopy structure, the Stantec team will further evaluate potential settlement issues at the project site. The additional evaluation will be conducted by our subconsultant NMG Geotechnical and our structural team in consultation with our Project Architects. Based on the outcome of the supplemental geotechnical evaluation, the development of the building type will be established. Considerations required for finalizing the building systems will include (1) the development of parameters for the foundation design, which has been assumed to be a pile foundation with spanning grade beams, (2) the building structure rigidity requirements, materials of construction and the suitability of using a prefabricated/preengineered building.



Figure 3 - Organic Clays and Peat Thickness (ft)

In addition, ancillary facilities such as the exterior material storage canopy foundations, heavy loading traffic areas and supplemental foundations will also need to be finalized.

Element 4 - Warehouse Building and Ancillary Facilities

<u>Proposed Warehouse Building</u> – The Stantec team understands that the goal of IRWD is to develop a new warehouse building that both meets the needs of the District and provides a solution that is economically sound. As previously discussed, the specific required building square-footage, configuration of the material handling and storage facilities will be established through the inventory, interview and design workshop activities. The next step is to develop the final building structure, and the architectural elements of the proposed warehouse and storage facilities.

The objective is to design for a warehouse building with an area of approximately 4,500 square feet internally. Although IRWD has indicated that they desire a preengineered metal build as the preferred method of construction. The Stantec team also recognizes that there are several constraints regarding dimensions, operational use and fire protection that need to be considered prior to a final commitment of a particular building system. Stantec will review both traditional construction and prefabricated building systems taking into consideration costs, applicability, and implementation as well as the existing soil conditions and seismic risks and provide recommendations to IRWD.

The proposed warehouse space will consist of an open, clear-span, high-bay volume. The building height will be tall enough to efficiently accommodate mechanical hoisting and storage racking systems, as required. The aisles between racking will be wide enough to allow forklifts and material handling equipment to be operated safely inside the warehouse structure. IRWD has included a provision to include a bridge crane for heavy material lifting needs and transportation to loading areas within the warehouse.

The proposed bridge crane will need to be further evaluated for use with a preengineered building and a traditional building system to identify the potential effect of loading, building heights, access requirements, foundation

Stantec Consulting Services Inc.



Figure 4 - Example Building Finishes



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requirements and seismic considerations. Traditionally, bridge crane systems are included as part of development the overall external loading of a building structure. But with a pre-engineered / prefabricated building, a complete independent structural system that only support the crane system itself may be required. As such, the cost of having two independent structural systems associated with a prefabricated building may be very cost competitive with a traditional building system such as masonry structures.

Architectural finishes and treatments will be incorporated into the final building design. A pre-engineered / prefabricated building, a masonry wainscot with a panelized building wall covering similar to the bio-solids facilities may prove attractive that would include insulated wall and roof panels to reduce the overall heat load of the building. Should IRWD decide on a traditionally constructed masonry building is preferred, Stantec will match the existing architectural finishes near the building. Stantec will provide a comparative analysis of both pre-engineered and traditional constructed building based on schedule, costs, and applicability that will provide IRWD with the decision-making tools in order to finalize the building selection.

<u>Exterior Canopy Material Storage</u> – It is anticipated that the existing exterior storage racks may be reused as part of the warehouse expansion project and will only require to be housed under a canopy structure. The Stantec team as part of the material handling and storage inventory will review the use of the exterior racks and provide recommendations whether to use the existing racking system or replace the racking system with an integrated overhead canopy. The proposed canopy will be lighted for ease of use during the early morning and evening times.

Lighting – Lighting will be designed to meet the stringent California Title 24 energy requirements as well as best practices for sustainability and occupant comfort. Natural light will be used where possible, in balance with electric lamp lighting. LED sources will be prioritized. Our goal will be to select luminaires with an efficacy of 100+ lumens per watt while maintaining a low Unified Glare Rating (URG). All light sources will be long life, energy efficient with color rendering appropriate to the environment: interior, exterior/security, and the type of task being performed. Lighting design can consider multiple levels of control, including task-lighting, motion-sensors, timed-lighting, dimmer, etc. Lighting layouts and luminaire criteria will respond to Best Practices for sustainable design.

<u>Mechanical/Electrical/Plumbing</u> – Based on initial conversations with IRWD staff, the proposed warehouse facility will not require the warehouse area to be air-conditioned but will require the area to be heated during the winter months. It is recommended to provide, at a minimum, an exhaust air handling system to remove heated air build-up from the warehousing areas during the summer months. The heat removal can be accomplished by using fans or collection air ducts and expelling the air at the roof level.

During the winter months (or as necessary), gas-power radiant heat fixtures will be mounted in areas occupied by personnel such as storage area aisle-ways and office areas. Reznor constructs radiant heat units suitable for warehousing purposes. This will reduce to the heat and energy load of the building.

<u>Communications Systems</u> – The proposed warehouse and storage yard will be equipped with a communication system and integrated into the existing systems. Our team understands that there may be a new warehouse clerks' desk. As such, the Clerks' Desk Area will be fully integrated and design to provide a workstation for checking inventories, order status and other required monitoring systems.

<u>Fire Protection</u> – Stantec will consult with the Orange County Fire Authority to ascertain the fire protection requirements based on the occupancy hazards associated with the stored materials. At a minimum it is expected that a fire sprinkler system will be required to be included in the project.

SCOPE OF WORK

Scope of Services

The following scope of work is based on the formation presented in the RFP, review of the supplemental information provided by IRWD, and the project team's project area field review. All work will be completed in accordance with the requirements identified in IRWD's Design Process Manual.

The scope of work will consist of the following tasks listed below. Should changes in the scope of work be warranted, they will be submitted to IRWD for approval. No changes to the scope of work will be executed prior to your written approval.

Task 1 – Project Management

Stantec will conduct project management activities to verify adherence to scope, schedule, and budget; promote efficient communication between Stantec, IRWD, and others as required; and implement an effective quality assurance/quality control (QA/QC) program.

TASK 1A – PREPARATION OF PROJECT STATUS REPORTS – Stantec's project manager will prepare weekly and monthly status reports. Each weekly status report will be submitted on Monday and include a brief (one to two paragraphs) e-mail summarizing the activities completed the previous week, the activities planned for the upcoming week, and if any critical decisions need to be made. Each monthly status report will be

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submitted along with the billing invoice for that month and provide more detail, summarizing the work completed and reviewing work status relative to budget and schedule. The schedule will be updated monthly for inclusion in the monthly status report.

<u>Approach to Weekly Status Report Preparation</u> – Stantec will provide your project manager a weekly status report. Generally, status reports will be delivered on Friday end of working day. The status report will be in the form of a short email, identifying accomplished tasks from the prior week and anticipated tasks to be accomplished during the upcoming week.

<u>Approach to Monthly Status Report Preparation</u> – Stantec will prepare a monthly status report providing detailed review of all tasks where work is being conducted. We will maintain a Microsoft Project Schedule that will be updated monthly and provided for your review. We will also maintain a decision log, documenting all decisions and resolutions associated with the development and implementation of the project. The decision log will be incorporated into the monthly status report for your review. We will prepare a monthly budget update based on efforts expended for all project tasks. The budget update will identify fees expended and remaining budget balances.

Stantec will prepare monthly invoicing. All invoicing will be forwarded to both your project manager and your accounts payable for review and approval.

Deliverables for Project Reporting and Invoicing:

- 1. Weekly project status report via email summary to your project manager
- 2. Monthly status report
- 3. Monthly invoicing

TASK 1B – MEETINGS – Stantec will prepare and submit meeting agendas for your review and concurrence at least five working days prior to the meeting. We will prepare draft and final minutes for all meetings and workshops and submit them to IRWD within one week of the meeting.

<u>Approach to Meeting and Workshops:</u> Stantec will schedule and lead meetings and workshops with IRWD staff to discuss technical issues associated with the development and implementation of the proposed warehouse expansion project. We will prepare meeting minutes, action items, and decision logs within five working days subsequent to the meeting date. These efforts are intended to address technical issues, keep the



Figure 5- Stantec QA/QC Process

project team informed to the project's progress, and verify decisions are made in a timely manner. All meetings are planned to be located at the Michelson Water Reclamation / Operations Center Offices. Planned meeting topics are outlined below.

Meeting / Workshop	Description	Meetings / Duration
Design Kickoff Meeting	Project kick off meeting to present an overview of the project approach and develop initial information requests of materials to be provided by IRWD, present early work tasks, and the review overall project schedule.	One meeting/Two-hour duration
Warehouse Material and Workflow	Workshop to review with IRWD staff existing material	Stantec Field Review Team/Two-hour duration
mventory workshop	used to develop warehouse layouts, equipment requirements and site layout.	One meeting/Two-hour meeting
Warehouse Design Development Workshop	Workshop Design Workshop Site Development	One meeting/Two-hour meeting
Draft Technical Memorandum Submittal Meeting–Basis of Design	Present 30% Design and Basis of Design Criteria	One meeting/Two-hour meeting
Final Technical Memorandum Submittal Meeting–Basis of Design	Present Final Basis of Design Criteria	One meeting/Two-hour meeting
Project Presentation to IRWD's Engineering and Operations Committee	Present Project Concepts to E&O Committee	One meeting/Two-hour meeting
Presentation 60% Design Level Review	Present 60% Design Update and obtain comments from IRWD	One meeting/Two-hour meeting

Presentation 100% Design Level	Final Design and Approval.	One meeting/Two-hour meeting
Review & Final Comments		

TASK 1C - QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) -

We have a proven procedure for establishing and maintaining the quality of our professional work products. The QA/ QC procedure is founded on selecting an experienced team using proven procedures consistently, following strict standards for engineering, checking to ensure compliance, and adapting rapidly to unusual events.

Our QA/QC program promotes early review and consistent reviews by Independent Technical Review Team, led by our QA/QC Lead. Jim Cathcart will lead our QA/QC efforts throughout the project duration. Jim has provided both engineering and review services to IRWD and understands the District protocols regarding project implementation, preparation of plans and development of the Project Manual. Our QA/QC management includes using senior staff members to review all aspects of the work including subconsultant work products for inter-disciplinary coordination and conflicts. They also work with the design team to resolve review and conflict issues to be incorporated into the contract documents. Our project manager Joe Long will have the final approval as to work product readiness prior to submission.

Task 2 – Preliminary Design Memorandum

TASK 2A – UTILITY SEARCH – Stantec will request from IRWD all existing record drawings regarding construction activities within the project area. All available existing utilities will be mapped and validate in-situ locations by potholing services. For the purposes of budgeting, Stantec has included up to a maximum of five (5) pothole investigations within the existing Purchasing/Warehouse Storage Yard. P2S our subconsultant will provide potholing excavation services for the project.

Any utility relocations will be coordinated with IRWD staff, and identify potential utility shutdowns, if required. In the event, a critical utility is required to be relocated, Stantec will coordinate with IRWD staff to facilitate the efforts for engineering design.

TASK 2B – SURVEY – Stantec will perform a field topographic survey to document existing site topography and planimetrics within the area of proposed improvements. The survey limits will include the location for the new building and adjacent parking lots and driveways. Substantial, visible improvements will be located within the project limits, including buildings, walks,



Figure 6 - Survey Boundary

curbs, drives, striping, gutters, walls, trees, and fences. Visible indications of surface utilities will also be located, as will lid/rim elevations for drainage structures present.

Our survey team will layout approximate locations for each of the potholes prior to excavation during an initial field visit. Provide a second, followup field visit to obtain the final horizontal positions of each pothole based on the locations derived by the utility consultant. Resulting locations will be forwarded to the project engineer or client designee accordingly.

TASK 2C – GEOTECHNCIAL – Stantec will provide a supplemental geotechnical investigation through our subconsultant, NMG Geotechnical (NMG). NMG has already performed all field subsurface exploration, laboratory testing and engineering analysis at the subject site. It is anticipated that additional specific laboratory testing on samples retained from the prior investigation. Geotechnical analyses for will be required for design of foundations and/or ground improvements. Site specific seismic response analyses, including earthquake time histories, will also be required due to the site being categorized as Site Class F, the worst classification from a ground shaking/ground motion perspective.

Supplemental Geotechnical Services will include the following:

- Compilation of existing subsurface data from the referenced report that is specific to the area of the proposed improvements.
- Laboratory testing of retained samples currently housed in our laboratory for pavement design consisting of R-Value tests (two samples).
- Engineering and geologic analysis which will include preparation of a geologic cross-section across the new warehouse and canopy structures, analysis of new and prior laboratory test results, and pavement design.

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- Site-specific seismic response analysis, including modeling of three different earthquake events in the soil column at the site, to develop a horizontal acceleration response spectrum based on the design basis earthquake. As this is highly specialized and technical seismologic analyses, NMG will subcontract with an outside consultant for this service.
- Optional Deep Foundation or Ground Improvement Analyses: If the structural loads are high enough that resulting settlements will be unacceptable with conventional shallow foundations, pile foundation or ground improvement design analyses may be necessary.
- Preparation of a report documenting our evaluation, presenting the additional laboratory test results, and including specific recommendations for design and construction of the new facilities. NMG will also perform a review of the prepared civil and foundation plans to verify conformance with NMG recommendations.

TASK 2D – SITE LAYOUT – Stantec will prepare three alternative warehouse site arrangements and further development the needs assessment in order to establish required warehouse square footage, required exterior canopy covered material storage, configuration of material staging areas and the arrangement of temporary containerized storage facilities.

Stantec will conduct a site development workshop with IRWD warehouse and purchasing staff to ascertain the actual needs of the project in order to meet the overall goals of the warehouse expansion project. The workshop will focus on canvasing the needs of the Purchasing Department pertaining to material storage space requirements, material handling workflow (material loading, unloading and delivery) to better understand the interior circulation and access needs. Upon establishing minimum storage and circulation requirements, Stantec will further develop an overall footprint of the proposed warehouse, external storage, material staging/delivery along with three alternative site arrangements that consider the following elements:

- 1. Impacts to existing operations during construction.
- 2. Minimizes impacts to traffic circulation within the overall plant.
- 3. Optimizes site layout for material staging, internal circulation and optimizes the proposed warehouse footprint and external storage.
- 4. Evaluate the use of prefabricated / pre-engineered building for the proposed warehouse building.
- 5. Develop alternative for modifications to the existing storm systems inclusive stormwater treatment, if required.

The Stantec project team will integrate information obtained from the initial Site Arrangement and Development Workshop to further the overall design development. Stantec will prepare three alternative site layouts for presentation purposes to IRWD staff and building project consensus.

TASK 2E – BUILDING INTERIOR LAYOUT – Stantec will develop three alternative warehouse floorplans for review by IRWD staff prior to identifying the preferred alternative based on the information gathered as part of Task 2D site development workshop. The floorplan alternatives shall incorporate required office space, material handling requirements, rack storage configurations and potential mechanical hoisting alternatives. The proposed warehouse and exterior canopy storage will consider the following elements:

- 1. Ease and safety of placing materials into the proposed storage system.
- 2. Interior space circulation accommodating the use of forklifts, pallet-jacks and overhead crane systems.
- 3. Evaluate material workflow from the point of delivery to the point of distribution.
- 4. Evaluate minimum height requirements.
- 5. Evaluate lighting, ventilation, and heating requirements for the proposed warehouse building.
- 6. Evaluate fire suppression needs based on Orange County Fire Authority requirements.

Stantec will prepare three alternative floorplans and equipment arrangement exhibits for review by IRWD staff. Stantec will prepare site renderings of the proposed warehouse building and overall site plan for review by IRWD.

Stantec will conduct a preliminary design workshop with IRWD staff/Engineering & Operations staff to review the proposed site and warehouse concepts. The workshop will present initial concepts and work towards finalizing the preferred concept. The preliminary design workshop is anticipated to be a full-day meeting with Stantec and IRWD staff members.

Upon consensus of the preferred alternative, Stantec will finalize the project area site plan, warehouse floorplans and exterior canopy storage to serve as the basis of design for the ultimate implementation of the project.

Proposal: Engineering Design Services for the District Warehouse Building at Michelson Operations Center

Task 2D and 2E Deliverables:

- Stantec will prepare alternative site plan layouts and deliver to IRWD in a PDF format for review purposes.
- Stantec will prepare alternative warehouse floor plans, elevations and building sections and deliver to IRWD in a PDF format for review purposes.
- Stantec will prepare site renderings of the proposed alternatives in a PDF format for review purposes.

TASK 2F – BUILDING CONNECTIVITY – Stantec will review the existing WiFi system and inventory the existing Operations Building computer room/facilities to evaluate the requirements to provide internet services to the proposed warehouse building. Stantec will prepare alternative to extend to connectivity to the proposed area that include extended WiFi and/or fiber cable from the existing operations building to the proposed warehouse building.

Task 2F Deliverables:

• Stantec will prepare alternative descriptions and recommendations regarding connectivity.

TASK 2G – PERMITTING – The Stantec team will review required permits to include the Orange County Fire Authority and potentially the City of Irvine. It is anticipated that an occupancy permit will be required from the Orange County Fire Authority including the development of a fire suppression system dependent upon the types of materials being stored within the proposed warehouse. Generally speaking, no permit from the City of Irvine will be required due to the exemption status of IRWD. But should IRWD want to have the City review of the structural elements of the proposed facilities, the Stantec team will initiate the review process. Stantec will meet with both the City of Irvine and the Orange County Fire Authority during the preliminary design phase to ascertain what specific permits and/or reviews are required based on the ultimate occupancy of the proposed facilities.

Task 2G Deliverables:

• Identification of required permits, fees, and review requirements for the Orange County Fire Authority and the City of Irvine. It should be noted that Orange County Fire Authority will not review preliminary plans during the development process. Stantec will submit the construction documents for review at the 90% submittal phase of the project.

TASK 2H – CEQA/ENVIRONMENTAL – Stantec will provide as part of the project development exhibit showing the site plan, building elevations, building floorplans in support of CEQA documentation.

Task 2H Deliverables:

• Exhibits as described above in a PDF format for use in the preparation of the required CEQA document(s).

TASK 2I – PROJECT SCHEDULE – Stantec will identify long lead items and prepare a project schedule that includes design, bidding phase, construction phases, review and approval of contractor shop drawings. The project schedule and long lead item listing will be included as part of the Preliminary Design Memorandum.

TASK 2J – OPINION OF PROBABLE COST – Stantec will prepare a Class 4 engineer's estimate for the draft Preliminary Design Memorandum and a Class 3 engineer's estimate for the final Preliminary Design Memorandum.

TASK 2K – PRELIMINARY DESIGN MEMORANDUM – Stantec will prepare a draft and final Preliminary Design Memorandum addressing the above-described elements for review and approval by IRWD prior to commencing on the Final Design Tasks. The Preliminary Design Memorandum will serve as the basis of design for the overall project inclusive of a preliminary table of contents of special provisions for reference.

Task 2K Deliverables:

- Draft Preliminary Design Memorandum, 5 bound copies and one PDF copy for review purposes.
- Final Preliminary Design Memorandum, 5 bound copies and one PDF copy for review purposes.

Task 3 – Final Design

Following IRWD's approval of the final PDR, Stantec will commence the Final Design Phase of the project to prepare Contract Documents ready for construction based on the following tasks:

TASK 3A – PROJECT MANUAL – Stantec will prepare the Project Manual in standard IRWD format and, using IRWD templates, complete the front-end documents and bidding and contract sections of the project manual. IRWD's general standard technical specifications will be used and supplemental sections will be prepared as needed for the construction of a complete project. The Project Manual will develop the order of work to be implemented for construction workflow identifying early relocation of existing exterior storage and relocation of utilities as required. Stantec will provide an original set of bidding documents in 8 ½ x 11-inch format and an electronic searchable PDF copy of the Project Manual will be submitted to IRWD.

Task 3A Deliverables:

- Draft Project Manual Table of Contents to be submitted as part of the Preliminary Design Memorandum.
- 60% Design Submittal Draft Special Provisions, Technical Specifications, Draft Bid Sheets and Draft Contract Documents.
- 100% Draft Design Submittal Project Manual compete including front end documents, along with the measurement and payment schedules.
- Final Submittal Project Manual revised per 100% Draft Submittal Comments provided by IRWD staff, ready for reproduction.

TASK 3B/C – CONSTRUCTION PLANS – Stantec will prepare detailed construction drawings in the latest version of AutoCAD and using NCS V4.0 layering standards, on 22-inch x 34-inch sheets using IRWD's standard title block. Stantec will prepare all required drawings including demolition plans, site plan, relocation plans, architectural plans, structural plans, HVAC/mechanical plans/plumbing plans, electrical plans, communications plans and project details. Drawings will include index map, sheet legend, project site location, general notes, construction notes, and phasing. Construction notes will be used (callouts on the plans are not allowed) on all construction drawings. Existing utilities will be identified on the plan view by as-built plan set number identifying materials. All new facilities will be design based on the IRWD's pressure zone requirements. Construction plans will be prepared using the NAVD 88 and NAD 83 survey standards. Stantec will comply with construction drawings requirements outlined in the RFP.

Stantec will prepare the final warehouse, canopy and site improvement plans based on the approved preferred solution presented in the Preliminary Design Memorandum. Stantec understands that the intent is to design the proposed warehouse facility based on a pre-engineered / prefabricated building and as such will provide the required structural calculations to develop a performance specification for bidding purposes. In the event that a pre-engineered / prefabricated building is not suitable for the intent of this project. Stantec will prepare the required construction documents for a traditionally constructed building for implementation as part of this project. Stantec provides the following draft sheet set:

Sheet Count	Sheet Number	Sheet Title
1	G-001	Title Sheet
2	G-002	Index Sheet and General Notes
3	G-003	Construction Notes
4	D-001	Site Demolition Plan
5	D-002	Demolition Details
6	C-001	Temporary Storage Relocations Plan
7	C-002	Civil Site Plan
8	C-003	Civil Grading and Drainage Plan
9	C-004	Utility Plan
10	C-005	Civil Details
11	C-006	Civil Details
12	C-007	Civil Details
13	A-001	Architectural Abbreviations and General Notes
14	A-011	Architectural Site Plan
15	A-101	Warehouse – Ground Floor Plan
16	A-102	Canopy – Ground Floor Plan

Sheet Count	Sheet Number	Sheet Title
17	A-111	Warehouse – Ground Floor Reflected Ceiling Plan (RCP)
18	A-112	Canopy – Ground Floor RCP
19	A-121	Warehouse – Roof Plan
20	A-122	Canopy – Roof Plan
21	A-201	Building Elevations
22	A-202	Building Elevations
23	A-301	Building Sections
24	A-302	Building Sections
25	A-303	Miscellaneous Details
26	A-311	Wall Sections
27	A-312	Wall Sections
28	A-501	Exterior Assemblies & Finishes
29	A-502	Envelope Details
30	A-503	Envelope Details
31	A-504	Envelope Details
32	A-511	Loading Dock Stairs & Railing Details
33	A-601	Door Schedule & Finish Schedule
34	A-602	Door & Louver Details
35	A-611	Partition Types
36	S-001	General Structural Notes and Quality Assurance Plan and Notes
37	S-002	Quality Assurance Plan and Notes
38	S-003	Structural Foundation Plan (Warehouse)
39	S-004	Structural Roof Plan (Warehouse)
40	S-005	Structural Sections (Warehouse)
41	S-006	Structural Foundation Plan (Canopy Structure)
42	S-007	Structural Roof Plan (Canopy Structure)
43	S-008	Structural Sections (Canopy Structure)
44	S-009	Concrete / CMU Details
45	S-010	Structural Details
46	S-011	Structural Details
47	S-012	Structural Details
48	Q-001	Industrial Equipment General Notes
49	Q-101	Warehouse – Ground Floor Equipment Plan
50	Q-102	Canopy – Ground Floor Equipment Plan
51	Q-201	Warehouse – Process Piping Plan
52	Q-202	Canopy – Process Piping Plan
53	Q-301	Building Sections

Sheet Count	Sheet Number	Sheet Title
54	Q-302	Building Sections
55	Q-801	Warehouse – Safety Signage & Striping Plan
56	Q-901	Equipment Isometrics
57	M-001	Mechanical Legend & General Notes
58	M-002	Mechanical Equipment Schedules & Symbols
59	M-101	Warehouse – Ground Floor Plan
60	M-111	Warehouse – Mechanical RCP
61	M-121	Warehouse – Roof Plan
62	M-501	Mechanical Details
63	M-502	Mechanical Details
64	M-701	Controls
65	P-001	Plumbing Legend & General Notes
66	P-002	Plumbing Schedules & Symbols
67	P-101	Warehouse – Ground Floor Plan
68	P-111	Warehouse – Plumbing RCP
69	P-121	Warehouse – Roof Plan
70	P-501	Plumbing Details
71	P-502	Plumbing Details
72	P-701	Risers
73	FP-001	Fire Protection General Notes
74	FP-002	Fire Protection Schedules & Symbols
75	FP-101	Warehouse – Ground Floor Plan
76	FP-102	Canopy – Ground Floor Plan
77	FP-111	Warehouse – Fire Protection RCP
78	FP-112	Canopy – Fire Protection RCP
79	FP-121	Warehouse – Roof Plan
80	FP-122	Canopy – Roof Plan
81	FP-501	Fire Protection Details
82	FP-502	Fire Protection Details
83	FP-701	Risers
84	E-001	Electrical Abbreviations & General Notes
85	E-002	Energy Compliance Forms (Lighting & Power)
86	E-010	Site Demolition Plan
87	E-011	Electrical Site Plan
88	E-101	Warehouse – Ground Floor Electrical Plan
89	E-102	Canopy – Ground Floor Electrical Plan
90	E-111	Warehouse – Electrical RCP

Sheet Count	Sheet Number	Sheet Title
91	E-112	Canopy – Electrical RCP
92	E-121	Warehouse – Electrical Roof Plan
93	E-122	Canopy – Electrical Roof Plan
94	E-301	Single Line Diagram
95	E-302	Load Calculations
96	A-303	Panel Schedules
97	E-501	Electrical Details
98	E-502	Electrical Details
99	TY-001	Security Symbols & Abbreviations
100	TY-001	Security Site Plan
101	TY-001	Waterhouse – Security Ground Floor Plan
102	TY-001	Canopy – Security Ground Floor Plan
103	TY-001	Warehouse – Security Roof Plan
104	TY-001	Canopy – Security Roof Plan
105	TY-001	Security Single Line Diagram
106	TY-001	Security Details
107	TY-001	Security Door Details

TASK 3D – PROJECT SCHEDULE – Stantec will maintain and update the project design schedule, to be prepared in Microsoft Project, and submitted with project status reports on a monthly basis or more frequently should there be a critical change in project schedule. The schedule will identify the critical path items, coordination items, permits, submittal milestones, and IRWD review times. Stantec will also prepare a detailed construction schedule of activities and factors impacting the schedule, such as permitting, and coordination activities will be included.

TASK 3E – LIQUIDATED DAMAGES CALCULATIONS – Stantec shall prepare liquidated damages valuation for the project in the event the project contract duration is exceeded by the Contractor during the course of construction. IRWD's standard liquidated damage calculation form will be provided by the District for use by Stantec.

TASK 3F – OPINION OF PROBABLE CONSTRUCTION COST – Stantec will prepare IRWD with detailed and itemized engineer's estimates of probable construction costs for each of the proposed facilities. Engineer's estimates will be provided for each design submittal as follows:

- Preliminary Design Memorandum Prepare a Class 5 estimates providing an initial budgetary estimate with a minimum of a 20% plus 10% minus contingency based on the general preliminary design.
- 60% Design Submittal Prepare a Class 3 estimates based on the draft bid items with a 20% plus 10% minus contingency based on the 60% design progress submittal.
- 100% Draft Design Submittal Prepare a Class 2 estimates based on 100% Draft Design with a 15% plus 10% minus contingency based on the 100% draft progress submittal.
- Final Submittal Prepare a Class 1 estimate based on the bid items and the final submittal construction documents 10% plus 10% minus contingency based on the final submittal.

TASK 3G - DESIGN DELIVERABLES -

<u>60% Draft</u>: Stantec shall provide a searchable PDF file of the entire plan set. Show site, utility, grading plans; floor plans, sections and details; plumbing and fire sprinkler system; structural plans; mechanical hoisting system plan; HVAC system; lighting. Provide a single searchable PDF file of the 60-percent Project Manual. The project manual should include all sections including any project specifications sections or modifications to the IRWD General Technical Specifications Sections and relevant technical specifications.

<u>100% Draft</u>: Stantec shall provide a searchable PDF file of the entire plan set. Plan set should show all design elements, be QA/QC'd by the Engineer, and free of editorial/cross reference errors and include all revisions per IRWD and City comments. The plan set will be returned to the Engineer for revision prior to comment if design items are missing or editorial errors are found. Provide a single searchable PDF file of the 100-percent Project Manual; all sections shall be included.

<u>Final Design Deliverable</u>: Stantec shall provide one full size, final set of plans in a single PDF with the Engineer's electronic stamp and signature, including IRWD's signatures on the design sheets. Provide a single searchable PDF file of the Project Manual including the Engineer's electronic stamp and signature on the signature page. This submittal will be backchecked for inclusion of all previous comments prior to adding the Executive Director's electronic signature on the cover sheets of the plans and Project Manual. Once the submittal is reviewed and signed by IRWD the Engineer shall provide AutoCAD files for the entire plan set. Provide Microsoft Word files used in the preparation of the Project Manual.

TASK 3I – ADDENDA PREPARATION & PRE-BID MEETING – During the bidding period, Stantec shall assist with providing information and clarification of bid documents to prospective bidders. This shall include the preparation of one addendum for bidding, including revisions to the design plans and specifications and assistance with addressing bidder questions. At a minimum, addenda preparation activities shall include:

- 1. Plan Revisions: Stantec shall budget sixteen (16) hours of appropriate staff time for plan revisions to the construction drawings.
- 2. Specification Revisions: Stantec shall budget sixteen (16) hours of appropriate staff time for revisions or additions to the project specifications.
- 3. Bidder Questions: Stantec shall budget sixteen (16) hours of appropriate staff time to address and respond to bidder questions.
- 4. Pre-Bid Meeting: Stantec attend one two-hour pre-bid meeting inclusive of a site visit with the potential bidding contractors.

B. Project Team

Project Organization and Key Personnel

Stantec has the depth of in-house resources to quickly mobilize a technically competent team to deliver high-quality construction documents on time and on budget. Stantec's team includes industry-leading experts in the preparation of construction documents for pipeline replacement projects as well as bid and construction support services. In addition, our Project Manager, Joseph Long and Principal-in-Charge, Tama Snow have worked together for over a decade completing multiple projects for the District for both Engineering and Operations.

Team Organization and Leadership

Stantec has assembled a multi-disciplinary engineering and design team focused on providing you with a creative top-quality design that will minimize impacts to the residents of Woodbridge. Our team will be led by Joseph Long, PE, Project Manager, who brings decades of civil engineering experience as well as extensive project management expertise on projects throughout Southern California.

ORGANIZATION CHART



Brief bios for each of our key personnel are provided below and detailed resumes for all staff are included in Appendix A.

Stantec Consulting Services Inc.

D. Schedule

				Project	t Schedule
	Task Name	Duration	Start	Finish	Predecessors
1	Notice to Proceed	0 days	Tue 8/24/21	Tue 8/24/21	
2	Project Kick-off Meeting	1 day	Tue 8/31/21	Tue 8/31/21	1FS+5 days
3	PROJECT MANAGEMENT	240 days	Tue 8/24/21	Mon 7/25/22	
4	Preparation of Project Status Reports	12 mons	Tue 8/24/21	Mon 7/25/22	
.5	Meetings and Workshops	12 mons	Tue 8/24/21	Mon 7/25/22	
6	PRELIMINARY DESIGN MEMORANDUM	229 days	Wed 9/1/21	Mon 7/18/22	
7	Existing Utility Search	10 days	Wed 9/1/21	Tue 9/14/21	2
8	Survey and Mapping Services	4 wks	Wed 9/1/21	Tue 9/28/21	2,7FF
9	Geotechnical Investigation	30 days	Wed 9/8/21	Tue 10/19/21	2FS+5 davs
10	Site Lavout	41 days	Wed 9/1/21	Wed 10/27/21	
11	Workshop 1 - Material Workflow Inventory	1 day	Wed 9/1/21	Wed 9/1/21	2
12	Develop Preliminary Site Layout Alternatives and	4 wks	Wed 9/29/21	Tue 10/26/21	11.8
13	Workshop 2 - Design Presentation	1 day	Wed 10/27/21	Wed 10/27/21	12.14FF
14	Building Floornian and Layout Development	20 days	Wed 9/29/21	Tue 10/26/21	1255.8
15	Building Connectivity	10 days	Wed 10/13/21	Tue 10/26/21	14FF
16	Permit Requirements	5 days	Wed 10/20/21	Tue 10/26/21	14FF.15FF
17	CEOA/Environmental Support	10 days	Wed 10/27/21	Tue 11/9/21	14
18	Project Schedule	5 days	Wed 10/27/21	Tue 11/2/21	16
19	Oninion of Probable Construction Costs	5 days	Wed 10/27/21	Tue 11/2/21	16
20	Preliminary Design Memorandum	10 days	Wed 11/3/21	Tue 11/16/21	19
21	PDM Submittal to IRWD for Review	0 days	Tue 11/16/21	Tue 11/16/21	20
22	IRWD Review Period	15 days	Wed 11/17/21	Tue 12/7/21	21
23	Review Meeting with IRWD	1 day	Wed 12/8/21	Wed 12/8/21	77
24	Revised and Resubmit Final PDM	15 days	Thu 12/9/21	Wed 12/29/21	23
25	Final Review Workshop	1 day	Thu 1/6/22	Thu 1/6/22	24FS+5 days
26	FINAL DESIGN	107 days	Fri 1/7/22	Mon 6/6/22	2413-3 4013
27	Project Manuals	20 days	Tue 5/10/22	Mon 6/6/22	25.35FF
28	Construction Plans	107 days	Fri 1/7/22	Mon 6/6/22	
29	60% Design Submittal Construction Documents	40 days	Fri 1/7/22	Thu 3/3/22	25
30	IRWD 60% Review Period	15 days	Fri 3/4/22	Thu 3/24/22	29
31	IRWD 50% Design Review Meeting	1 day	Fri 3/25/22	Fri 3/25/22	30
32	100% Design Submittal Construction Documents	40 days	Mon 3/28/22	Fri 5/20/22	31
33	IRWD 100% Review Period	5 days	Mon 5/23/22	Fri 5/27/22	32
34	IRWD 100% Design Review Meeting	1 day	Mon 5/30/22	Mon 5/30/22	33
35	Final Submittal Construction Documents	5 days	Tue 5/31/22	Mon 6/6/22	34
36	Project Schedule	5 days	Tue 5/31/22	Mon 6/6/22	3566
37	Liquid Damage Calulations	1 days	Mon 6/6/22	Mon 6/6/22	3500
38	Opinion of Probable Construction Costs	1 day	Mon 6/6/22	Mon 6/6/22	2555
20	Pidding Phase	1 day	Tue 6/7/22	Man 7/18/22	1166
39	Addeede Dependenting and One Did Marshar (2 Addeede 1	30 days	Tue 6/7/22	Man 7/10/22	20
40	Addenda Preparation and Pre-Bid Meeting (3 Addenda, 1	30 days	Tue 6/7/22	wion //18/22	30

Stantec Consulting Services Inc.

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Base Fees (Including Subconsultants)

Irvine Ranch Water District MICHELSON OPERATIONS WAREHOUSE EXPANSION July 29, 2021

			Stantec Labor																								
Task No.	sk No. Task Description	Project Manager	Principal Architect	Architecture Project Lead	Design Architect	Industrial Architect	Architectural Designer	Industrial Designer	Lead Mechanical Engineer	Mechanical Designer	Fire and Plumbing Engineer	Senior Electrical Engineer	Electrical Engineer	Civil Eng. Lead	Project Engineer	Civil Designer	Surveyor	Two-Man Survey Crew	Cost Estimating	Admin / Permit Coord. / Repro	TOTAL STANTEC TO LABOR LABO HOURS	TOTAL LABOR FEE	Potholing Services	NMG Geotechnical	Peterson Structural Engineers	Direct Costs / Materials	TOTAL
TASK 1:	PROJECT MANAGEMENT	φ20J	φ200	φ19J	\$1 3 5	φ195	φ135	φ133	\$195	φ10 <u>3</u>	\$105	φ 2 40	φΖΖΟ	\$195	φ175	\$150	φ2.34	φ200	φ200	\$140							
1A	Preparation of Project Status Reports (45 weekly, 15 monthly)	32		16																65	113	\$20,700				\$500	\$21,200
1B	Meetings and Workshops	16	16	16					4	1		2	4								59	\$13,765			\$14,124	\$500	\$28,389
1C	QA/QC (Hours Assigned Through Other Tasks)																										
	SUBTOTAL TASK 1	48	16	32					4	1		2	4							65	172	\$34,465			\$14,124	\$1,000	\$49,589
24	PRELIMINARY DESIGN MEMORANDUM	2													4	8				4	18	\$2 990				\$500	\$3.490
2/1 2B	Survey and Manning Services	2													24	8	7	28		4	73	\$15,068	\$6.082			φοσσ	\$22.050
20	Control Investigation	2													27	0	,	20		4		\$1,000	φ0,002	\$30.080			\$21,000
20		2																		4	0	\$1,090		\$30,000			φ31,170
20			2			4	16	4													26	090.32					¢6.090
20.01	Develop Preliminary Site Layout Alternatives and	2	2	0	20	4	10	4						0	24	0					30	\$0,060					\$0,000
2D.02	Renderings	2	2	10	20	10	20	12						8	24	0					128	\$22,460					\$22,460
20.03		2	2	0	20		00	40				4	10								12	\$2,000			¢04 407		\$2,000
2E		Z	2	32	20	8	80	40				4	10								204	\$33,500			\$21,187		\$54,087
2F	Building Connectivity											16	16								32	\$7,440					\$7,440
2G	CEQA/Environmental Support (exhibits produced			4								4		4							12	\$2,520					\$2,520
2H	through other efforts)						8														8	\$1,080					\$1,080
21	Project Schedule	4																			4	\$1,060					\$1,060
2J	Opinion of Probable Construction Costs																		8		8	\$1,600					\$1,600
2K	Preliminary Design Memorandum			8					8	16	12	8	8	4	4						68	\$12,940					\$12,940
		40		70			494	50		40	40		40	40	50		-		-	40		* 111 000	*****	* 20.000	A04 407	\$500	\$400 4 7 7
TASK 3:	SUBTUTAL TASK 2	18	8	76	40	28	124	56	8	16	12	32	40	16	56	24	/	28	8	12	609	\$111,328	\$6,082	\$30,080	\$21,187	\$500	\$169,177
А	Project Manuals (2)	16			40				16		16	16		24							128	\$26,320					\$26,320
B/C	Construction Plans																										
B/C.01	60% Design Submittal Construction Documents		2	72	20	8	114	40	4	24	24	2	32	40	40	40					462	\$77,980		\$7,520	\$17,656		\$103,156
B/C.02	100% Design Submittal Construction Documents		2	72			115	40	4	24	24	2	32	24	32	40					411	\$68,135			\$10,593		\$78,728
B/C.03	Final Submittal Construction Documents		2	16								2	16	16	8	8					68	\$13,430			\$7,062		\$20,492
D	Project Schedule			4											16						20	\$3,580					\$3,580
E	Liquid Damage Calulations														8						8	\$1,400					\$1,400
F	Opinion of Probable Construcito Costs																		64		64	\$12,800					\$12,800
G	Preparation of Design Submittal Packages and Delivery		2	4																	6	\$1,290					\$1,290
I	Addenda Preparation and Pre-Bid Meeting (3 Addenda, 1 Meeting)	4		4			16	4				4	16								48	\$9,100					\$9,100
	· · · · · · · · · · · · · · · · · · ·																										
	SUBTOTAL TASK 3	20	8	172	60	8	245	84	24	48	64	26	96	104	104	88	-	00	64	77	1,215	\$214,035	¢0.000	\$7,520	\$35,311	64.500	\$256,866
	IUTAL (TASKS 1 THRU 3)	86	32	280	100	36	369	140	36	65	/6	60	140	120	160	112	1	28	72	17	1,996	\$359,828	\$6,082	\$37,600	\$70,622	\$1,500	\$475,632

August 17, 2021 Prepared by: B. Jackson / K. Lew Submitted by: K. Burton Approved by: Paul A. Cook

ENGINEERING AND OPERATIONS COMMITTEE

CONSTRUCTION INSPECTION SERVICES AGREEMENTS

SUMMARY:

IRWD's current construction inspection workload for capital, development, and operational improvement projects continues to exceed a level that can be supported by the District's inspection staff. Staff recommends the Board authorize the General Manager to execute a Professional Services Agreement with NV5 in the amount of \$664,080 and execute a Professional Services Agreement with Ardurra in the amount of \$717,444 for construction inspection services, both for a two-year term.

BACKGROUND:

IRWD's current and upcoming inspection workload for capital, development, and operational improvement projects continues to exceed the level that can be supported by staff. The District's construction inspection group consists of eight staff inspectors. At the peak of development activity, as many as six consultant inspectors have been needed to supplement staff. Currently, eight staff inspectors and two consultant inspectors are responsible for the inspection, field coordination, documentation and record drawing preparation of over 450 projects across the District. Based on currently active and upcoming construction projects planned by the major developers including the Irvine Company, FivePoint Communities, Lennar, Toll Brothers, and the City of Tustin, staff anticipates the need for continued consultant field inspection support for a period of at least two years. Upon completion of the current high volume of construction projects, staff anticipates that these inspection services will no longer be required as the workload should return to a level that can be supported by District inspection staff.

Consultant Inspection Services:

The District has contracted with both NV5 and Ardurra for construction inspection support for over six years. Currently, each provides one full-time consultant inspector. They have worked seamlessly with the District's inspection group and have demonstrated the ability to inspect and coordinate multiple projects simultaneously.

The current agreements with NV5 and Ardurra will expire in August 2021. Due to the experience and quality work of the current consultant inspectors, staff requests new Professional Services Agreements with both firms for continued inspection services. The fully burdened hourly rates for senior inspectors, including non-IRWD office space and equipment, truck and fuel, cell phone, and laptop computer, is \$145 per hour for NV5 and \$150 per hour for Ardurra. Staff recommends executing a new Professional Services Agreement with NV5 in the amount of \$664,080 and with Ardurra in the amount of \$717,444 for two additional years of construction inspection services. NV5's and Ardurra's proposals are included as Exhibit "A" and Exhibit "B", respectively.

Engineering and Operations Committee: Construction Inspection Services Agreements August 17, 2021 Page 2

FISCAL IMPACTS:

Funding for the construction inspection services will be provided from the various developer and capital projects being constructed as part of each project's budget.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

That the Board authorize the General Manager to execute a Professional Services Agreement with NV5 in the amount of \$664,080 and execute a Professional Services Agreement with Ardurra in the amount of \$717,444 for construction inspection services, both for a two-year term.

LIST OF EXHIBITS:

Exhibit "A" – NV5's Proposal Exhibit "B" – Ardurra's Proposal

EXHIBIT "A"

NV5

August 2, 2021

Kelly Lew, PE Engineering Manager, Development and Inspection Services Irvine Ranch Water District 15600 Sand Canyon Ave Irvine, CA 92618

Subject: On-Call Inspection Services

Dear Ms. Lew,

We are pleased to submit this proposal for On-Call Inspection Services. Our office has been providing inspection services to the Irvine Ranch Water District (District) since 2015. We are proposing Matt Greer as inspector for the District.

Our proposed fully loaded hourly rate for inspector will be as follows:

- \$145/hr Regular Work Hours
- \$180/hr Overtime Hours

Services will be billed on an hourly basis. The total not-to-exceed contract cost is \$664,080 and is detailed in Attachment A.

We greatly appreciate the opportunity to continue working with the District. Should you have any questions or require additional information, please contact me at (949) 585-0477 or via email at peter.salgado@nv5.com.

Respectfully submitted, NV5

Peter Salgado, PE Director of Construction Management

PN: P27021-0005312.00

effrey M. Cooper, PE /ice President

Attachment A

IRVINE RANCH WATER DISTRICT ON-CALL INSPECTION - EXTENSION REQUEST - COST BREAKDOWN



Description	WD	Hours R		Rate	Extension	Notes		
Inspector (Fulltime)	498	3984	\$	145.00	\$ 577,680.00	Based on 2 years, full-time		
Inspector (OT)		480	\$	180.00	\$ 86,400.00	Based on District estimate		
Total Required		-	\$ 664,080.00					

EXHIBIT "B"



July 28, 2021

Kelly Lew, PE Engineering Manager, Development & Inspection Services Irvine Ranch Water District (IRWD) 15600 Sand Canyon Avenue Irvine, CA 92618

Subject: Proposal to Provide Professional Public Works Inspection Services

Dear Ms. Lew,

Ardurra Group, Inc., dba AndersonPenna Partners (Ardurra) greatly appreciates the opportunity to submit this proposal to IRWD to continue providing inspection services for professional on-call public works inspection services.

Our successful, service-focused partnership with IRWD allows us to consistently provide IRWD with the following:

- Proven public works inspectors with significant, directly relevant experience with very similar water infrastructure projects.
- A team of inspectors with extensive experience overseeing IRWD projects and permits and established relationships with IRWD staff.
- The coordination and problem-solving support of Inspection Services Manager, Omar Alameddine.

Ardurra is pleased to announce that it has substantially enhanced our water and wastewater engineering, construction management and inspection capabilities with the recent merger with IEC in a strategic partnership to enhance the firm by expanding our service offering to clients. This has been a seamless assimilation of our services and allows our team to have an unmatched depth of resources.

Ardurra proposes Eric Egurrola as the inspector to continue his current assignment with the District. His resume is enclosed for your convenience. Additional inspectors, as approved by the District can of course be added at the District's request.

Ardurra will provide the necessary public works inspection services to fulfill the above-mentioned requirements and we have calculated the additional hours needed as shown following this letter.

Ardurra's estimated fee for the renewal contract can be found below.

Irvine Ranch Water District July 28, 2021 Page 2



Ardurra's contractual contact is:

Dino P. D'Emilia, PE, F.ASCE, QSD Project and Construction Management Group Leader Ardurra Group, Inc. 1960 E. Grand Street, Suite 300, El Segundo, CA 90245 Cell: (714) 458-0703, Email: <u>ddemilia@ardurra.com</u>

Please feel free to contact me should you have any questions or require additional information. We look forward to continuing to work closely with the District on this important project.

Sincerely, Ardurra Group, Inc.

Dino P. D'Emilia, PE, F.ASCE, QSD Project and Construction Management Group Leader



Estimated Fee:

Estimated Fee Irvine Ranch Water District Public Works Inspection Services July 29, 2021 - July 28, 2023

July 1, 2021-June 30, 2023				
TITLE	No. of Personnel	Total Hours	Hourly Rate	Extended Fee
Public Works Inspector (Prevailing Wage) ^{1, 2, 3,5, 6} (2 years)	1	4,160	\$150.00	\$624,000.00
Inspections Manager (3 hours/week for 2 years)	1	312	\$190.00	\$59,280.00
Subtotal				\$683,280.00
Public Works Inspector Special Shift/Overtime Allowance -5% ^{1, 2, 3, 4, 5, 6}			\$152.00	\$34,164.00
Total Estimated Fee				\$717,444.00
Total Estimated Fee				\$717,444.00

Notes:

- 1. The above hourly rates include wages, fringe and general and administrative overhead and fee, as well as typical supplies, tools and equipment required to perform services.
- 2. Overtime will be billed at 1.5 times, and Sundays and holidays 2.0 times the standard proposed rates, upon the City's prior written approval, therefore.
- 3. Prevailing Wage Rates are subject to increases pursuant to the State of California's Department of Industrial Relations Wage Rate Determinations. Ardurra's Billing Rates will increase in proportion to the DIR increase, plus overhead and profit. The current rates are based on Determination # SC-23-63-2-2019-1D Issued 8/22/2019 8/22/2019 (including the predetermined increases on 7/1/2020 and 7/1/2021).
- 4. A Special Shift is any shift that starts after 5:00PM and before 6:00 AM.
- 5. The following minimum callout applies to Inspection staff, in accordance with Industrial Welfare Commission Order #16-2001:
 - Cancellation of 8 hours scheduled inspection after inspector's arrival on site: 4-hour minimum
 - Cancellation of 4 hours scheduled inspection after inspector's arrival on site: 2-hour minimum

6. For contracts involving public works inspection services, Ardurra requires the awarding public agency to complete DIR form PWC-100 solely for Ardurra as the prime contractor specific to the awarded contract name and amount. A half-hour per week, per inspector labor compliance charge will be billed for all Prevailing Wage inspection assignments.

Other Direct Costs: Reimbursement of identifiable non-salary costs that are directly attributable to the project such as oversized and/or color reproduction costs, site facility hard phone line and/or internet service charges, other travel expenses to remote fabrication yards / batch plants, overnight postage or couriers, etc., are billed at actual cost plus five percent (5%) to cover overhead and administration. Travel charges to a casting/fabrication yard or batch plant will include the hourly billing rate plus travel expenses as listed in the Caltrans Travel Guide (State rates). Non-commuting mileage required for travel on the project and to and from locations other than the project site are billed at the allowable IRS mileage reimbursement rate (currently \$0.56 per mile).

Fees for subconsultant services: Billed at actual cost, plus 15 percent (15%) to cover overhead and administration.

Escalation: This rate schedule is effective through June 30, 2023, except as noted above for Prevailing Wage covered classifications. Should the Contract duration be extended beyond June 30, 2023, rates, except as noted above for Prevailing Wage covered classifications will be subject to annual revisions based on current Los Angeles - Riverside-Orange County Consumer Price Index to accommodate inflationary trends, salary adjustments and the general cost of doing business, as mutually agreeable to the parties and approved via Contract amendment prior to implementing higher rates. In the event the



Irvine Ranch Water District July 28, 2021 Page 2



contract is subject to delays that are beyond Ardurra's control, a request will be made to increase the billing rates to Ardurra's current standard rates and the Client will use all reasonable effort to allow such billing rate increase.

Exclusions to Scope and Fee: The following items are specifically excluded:

- Legal advice
- Surveying
- Materials, soils and/or hazardous materials testing or monitoring
- Construction labor, materials and/or equipment
- Copies of plan and specifications or other oversized drawings
- Construction management and/or labor compliance services unless otherwise specifically called for in the scope of work, or specifically added by the Client
- Additional services not specifically called for in the proposal
- Expert witness services
- Standby services

