



**ENGINEERING, OPERATIONS, AND
BIOSOLIDS MANAGEMENT
COMMITTEE MEETING
OF THE BOARD OF DIRECTORS
INLAND EMPIRE UTILITIES AGENCY*
AGENCY HEADQUARTERS, CHINO, CALIFORNIA**

**WEDNESDAY, DECEMBER 14, 2016
10:00 A.M.**

*Or immediately following the
Public, Legislative Affairs, and Water Resources
Committee Meeting*

CALL TO ORDER

PUBLIC COMMENT

Members of the public may address the Board on any item that is within the jurisdiction of the Board; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) of Section 54954.2 of the Government Code. Those persons wishing to address the Board on any matter, whether or not it appears on the agenda, are requested to complete and submit to the Board Secretary a "Request to Speak" form which is available on the table in the Board Room. Comments will be limited to five minutes per speaker. Thank you.

ADDITIONS TO THE AGENDA

In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require two-thirds vote of the legislative body, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the local agency subsequent to the agenda being posted.

1. ACTION ITEMS

A. MINUTES

The Committee will be asked to approve the Engineering, Operations, and Biosolids Management Committee meeting minutes from the November 9, 2016 meeting.

B. RP-5 FLOW EQUALIZATION & EFFLUENT MONITORING CONTRACT AWARDS

It is recommended that the Committee/Board:

1. Award a construction contract for the RP-5 Flow Equalization & Effluent Monitoring Project No. EN11031, to SCW Contracting in the amount of \$945,029;
2. Approve a contract with Lee & Ro, Inc. to provide engineering services during construction for the not-to-exceed amount of \$68,452; and
3. Authorize the General Manager to execute the construction contract and contract amendment.

C. EAST END AVENUE NRW FLOWMETER CONSULTING ENGINEERING SERVICES CONTRACT AWARD

It is recommended that the Committee/Board:

1. Award the consulting engineering services contract for the East End Avenue NRW Flowmeter Replacement, Project No. EN22002 to Civiltec Engineering Inc., for the not-to-exceed amount of \$213,554; and
2. Authorize the General Manager to execute the consultant engineering services contract.

D. CONTRACT AWARD FOR CCWRF ODOR CONTROL BLEACH AND AIR PIPING REPLACEMENT

It is recommended that the Committee/Board:

1. Award Contract No. 4600002127 to E.R. Block Plumbing, Inc. for the Carbon Canyon Water Recycling Facility (CCWRF) odor control bleach and air piping replacement for a firm-fixed price of \$119,850; and
2. Authorize the General Manager to execute the contract.

E. CONTRACT AMENDMENT TO O.C. VACUUM, INC.

It is recommended that the Committee/Board:

1. Approve Contract Amendment No. 46000001912-001 to O.C. Vacuum, Inc., which increases the contract by \$100,000; and
2. Authorize the General Manager to execute the contract amendment.

2. **INFORMATION ITEM**

A. **ANNUAL ENERGY REPORT (WRITTEN)**

B. **LAWN CONVERSION IMPROVEMENT UPDATE (POWERPOINT)**

RECEIVE AND FILE INFORMATION ITEMS

C. **ENGINEERING AND CONSTRUCTION MANAGEMENT MONTHLY UPDATE (POWERPOINT)**

3. **GENERAL MANAGER'S COMMENTS**

4. **COMMITTEE MEMBER COMMENTS**

5. **COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS**

6. **ADJOURN**

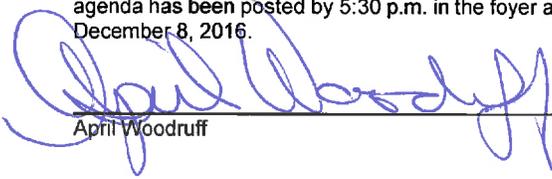
*A Municipal Water District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Board Secretary (909-993-1736), 48 hours prior to the scheduled meeting so that the Agency can make reasonable arrangements.

Proofed by: 

DECLARATION OF POSTING

I, April Woodruff, Board Secretary of the Inland Empire Utilities Agency, A Municipal Water District, hereby certify that a copy of the agenda has been posted by 5:30 p.m. in the foyer at the Agency's main office, 6075 Kimball Ave., Building A, Chino, CA on Thursday, December 8, 2016.



April Woodruff

**ACTION
ITEM
1A**



MINUTES

ENGINEERING, OPERATIONS, AND BIOSOLIDS MANAGEMENT COMMITTEE MEETING INLAND EMPIRE UTILITIES AGENCY* AGENCY HEADQUARTERS, CHINO, CA

WEDNESDAY, NOVEMBER 9, 2016
9:00 A.M.

COMMITTEE MEMBERS PRESENT

Michael Camacho, Chair
Terry Catlin

STAFF PRESENT

Steven J. Elie, Board member
Chris Berch, Executive Manager of Engineering/AGM
Christina Valencia, Chief Financial Officer/AGM
Randy Lee, Executive Manager of Operations/AGM
Adham Almasri, Senior Engineer
Jerry Burke, Deputy Manager of Engineering
Robert Delgado, Deputy Manager of Maintenance
Jason Marseilles, Senior Engineer
Matt Melendez, Deputy Manager of Operations
Warren Green, Manager of Contracts & Facility Services
Nelson Htoy, Deputy Manager of Maintenance
Jeff Noelte, Manager of Technical Services
Jesse Pompa, Senior Engineer
John Scherck, Acting Deputy Manager of Engineering
Steve Smith, Acting Groundwater Recharge Coordinator
Shaun Stone, Manager of Engineering
Al VanBreukelen, Deputy Manager of Maintenance
Teresa Velarde, Manager of Internal Audit
April Woodruff, Board Secretary/Office Manager

OTHERS PRESENT

Tom Dodson, Tom Dodson & Associates

The meeting was called to order at 9:10 a.m. There were no public comments received or additions to the agenda.

ACTION ITEMS

The Committee:

- ◆ Approved the Engineering, Operations, and Biosolids Management Committee meeting minutes of August 10, and September 14, 2016.

◆ Recommended that the Board:

1. Award a consultant contract to Carollo Engineers for the Project Management and Design Services for the RP-4 Primary Clarifier Rehabilitation Project No. EN 17043 and RP-4 Process Rehabilitation Project No. EN17110 for a not-to-exceed total amount of \$1,288,858; and
2. Authorize the General Manager to execute the consultant contract;

as a Consent Item on the November 16, 2016 Board meeting agenda.

◆ Recommended that the Board:

1. Approve the design-build contract award for the Headquarters Audiovisual Upgrades, Project No. EN16049, to New Millennium Construction Services in the amount of \$831,890; and
2. Authorize the General Manager to execute the design-build contract;

as a Consent Item on the November 16, 2016 Board meeting agenda.

◆ Recommended that the Board reject the September 7, 2016, bids for the construction of the RP-4 Improvements, Project No. EN14018;

as a Consent Item on the November 16, 2016 Board meeting agenda.

◆ Recommended that the Board:

1. Approve Contract No. 4600002229 to Aqua Ben Corporation, establishing a one-year contract for the supply of Hydrofloc 748E with options for four additional one-year extensions, for a potential total contract term of five years; and
2. Authorize the General Manager to execute the contract with the four potential contract extensions;

as a Consent Item on the November 16, 2016 Board meeting agenda.

◆ Recommended that the Board:

1. Approve Contract No. 4600002237 to Chemtrade Chemicals US LLC, establishing a two-year contract for the supply of bulk aluminum sulfate with options for three additional one-year extensions, for a potential total contract term of five years; and
2. Authorize the General Manager to execute the contract with the three potential contract extensions;

as a Consent Item on the November 16, 2016 Board meeting agenda.

◆ Recommended that the Board:

1. Ratify the emergency purchase of parts and services from Alfa Laval under Purchase Order No. 4500024955 for \$107,880 and Purchase Order No. 4500025219 for \$11,350; and
2. (*Amended*) Approve the additional costs associated with centrifuge unit 2 repair and shipping for a total project not-to-exceed amount of \$160,000;

as an Action Item on the November 16, 2016 Board meeting agenda.

Mr. Lee reported that that the issue with centrifuge 2 wasn't discovered until after this Board letter was submitted. He stated that there is an Alfa Laval technician onsite assisting staff with the repair. Mr. Lee said that the technician could not take the centrifuge apart and would need to ship it to the factory to use hydraulic press to remove the unit. Mr. Lee stated that staff is recommending that the Board ratify the emergency parts and service for \$107,880, a change order for \$11,350, and amend the recommendation to include the additional repair of centrifuge unit 2 for a total project not-to-exceed amount of \$160,000.

- ◆ Recommended that the Board ratify Contract No. 4600002233 with Jeremy Harris Construction, Inc. (previously authorized by the General Manager) for the Declez Basin Restoration of Physical Structures operation and maintenance activities for a not-to-exceed amount of \$185,808;

as a Consent Item on the November 16, 2016 Board meeting agenda.

◆ Recommended that the Board:

1. Award Single Source Contract No. 4600002240 to Misco, Inc. for the Carbon Canyon Water Recycling Facility (CCWRF) climber screens and influent gates repair for a total amount not-to-exceed \$373,000; and
2. Authorize the General Manager to execute the contract;

as a Consent Item on the November 16, 2016 Board meeting agenda.

INFORMATION ITEMS

The following information items were presented or received and filed by the Committee:

- ◆ RP-1/RP-5 Expansion Preliminary Design Report (PDR) Update
- ◆ RP-5 Battery Storage Update
- ◆ Recharge Master Plan Preliminary Design Report Update
- ◆ Engineering and Construction Management Monthly Update

GENERAL MANAGER'S COMMENTS

General Manager Joseph Grindstaff had no comments.

COMMITTEE MEMBER COMMENTS

There were no Committee Member comments.

COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS

There were no Committee Member requested future agenda items.

With no further business, Director Camacho adjourned the meeting at 10:00 a.m.

Respectfully submitted,

April Woodruff
Board Secretary/Office Manager

*A Municipal Water District

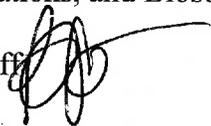
APPROVED: DECEMBER 14, 2016

**ACTION
ITEM
1B**

Date: December 21, 2016

To: The Honorable Board of Directors

Through: Engineering, Operations, and Biosolids Management Committee (12/14/16)

From: P. Joseph Grindstaff 
General Manager

Submitted by: Chris Berch 
Executive Manager of Engineering/Assistant General Manager

Shaun J. Stone 
Manager of Engineering

Subject: RP-5 Flow Equalization & Effluent Monitoring Contract Awards

RECOMMENDATION

It is recommended that the Board of Directors:

1. Award a construction contract for the RP-5 Flow Equalization & Effluent Monitoring Project No. EN11031, to SCW Contracting in the amount of \$945,029;
2. Approve a contract with Lee & Ro, Inc., to provide engineering services during construction for the not-to-exceed amount of \$68,452; and
3. Authorize the General Manager to execute the construction contract and contract amendment.

BACKGROUND

Regional Water Recycling Plant No. 5 (RP-5) has been in operation for the past twelve years. Over the course of time, demands on the use of Recycled Water (RW) have increased. Currently, operations staff has limited ability to match process flows with RW demand, which results in unnecessary RW discharges into the Chino Creek.

In order to address this deficiency, staff is proposing to control the bypass and storage of primary effluent flows greater than the RW pump station capacity of 10 million gallons per day (MGD). As such, additional automation and flow measurement points within the process are required at the primary effluent splitter box control gate and the influent gate at the chlorine contact basin.

RP-5 Flow Equalization & Effluent Monitoring Contract Awards

December 21, 2016

Page 2 of 3

As a result of the additional flow measurement points and operational changes, both the disinfection and dechlorination chemical pumps will require an upgrade to meet the new operation requirements.

On October 13, 2016, a request for bids was advertised on Planet Bids to all pre-qualified contractors for general construction under \$2 million. Five prospective contractors participated in the job walk on October 26, 2016. On November 17, 2016, the following bid was received:

Bidder's Name	Total Price
SCW Contracting	\$945,029
Engineer's Estimate	\$977,000

SCW Contracting was the lowest prequalified, responsive, and responsible bidder with a bid price of \$945,029. SCW Contracting has performed several successful projects for the Inland Empire Utilities Agency and has demonstrated good workmanship and responsiveness.

Post bid-opening, staff contacted a list of five prospective bidders to determine why they did not bid the project. Two responded stating they did not submit a bid due to an abundance of projects already in their queue, as well as, difficulties in finding responsive subcontractors to fulfill the project's bypass requirements. Although Agency staff would prefer additional contractor bids on this work prior to proceeding; the fact that the cost is less than the engineering estimate and that getting the project on-line prior to encountering summer RW demands, staff recommends awarding construction contract to SCW Contracting.

In addition to the construction contract award, staff requests that the existing contract with Lee & Ro, Inc., be amended to include engineering services during construction, increasing the contract from \$357,621 to \$426,073.

Below is the projected project budget:

Description	Estimated Cost
Design	\$480,000
Construction Services (~ 8%)	\$75,000
Engineering Services During Construction	\$68,452
Construction	\$945,029
Contingency (~10%)	\$95,000
Total Project Cost	\$1,663,481
Total Project Budget	\$3,397,200

It should be noted, that the project scope was reduced in consideration of the RP-5 Expansion Project, which will address and therefore eliminated some project components. Due to the scope reduction, the project estimated cost is less than originally budgeted.

The following is the project schedule:

Project Milestone	Date
Construction Contract Award	December 2016
Project Completion	July 2017

The RP-5 Flow Equalization & Effluent Monitoring Project No. EN11031 is consistent with the *IEUA's Business Goal of Wastewater Management* that systems will be master planned, managed and constructed to ensure that when expansion planning is triggered, designs/construction can be completed to meet regulatory/growth needs in an expeditious, environmentally responsible and cost effective manner.

PRIOR BOARD ACTION

On June 18, 2014, the Board of Directors approved a contract amendment for additional engineering services during design/bid for the Flow Equalization & Effluent Monitoring Project for the not-to-exceed amount of \$182,293.

On December 18, 2013, the Board of Directors approved a contract for the engineering services during design/bid for the Flow Equalization & Effluent Monitoring Project for the not-to-exceed amount of \$159,986.

IMPACT ON BUDGET

If approved, the construction contract award and engineering services contract for the Flow Equalization & Effluent Monitoring Project No. EN11031, in the amount of \$1,013,481, will be within the total project budget of \$3,397,200 in the Regional Wastewater Capital (RC) Fund.

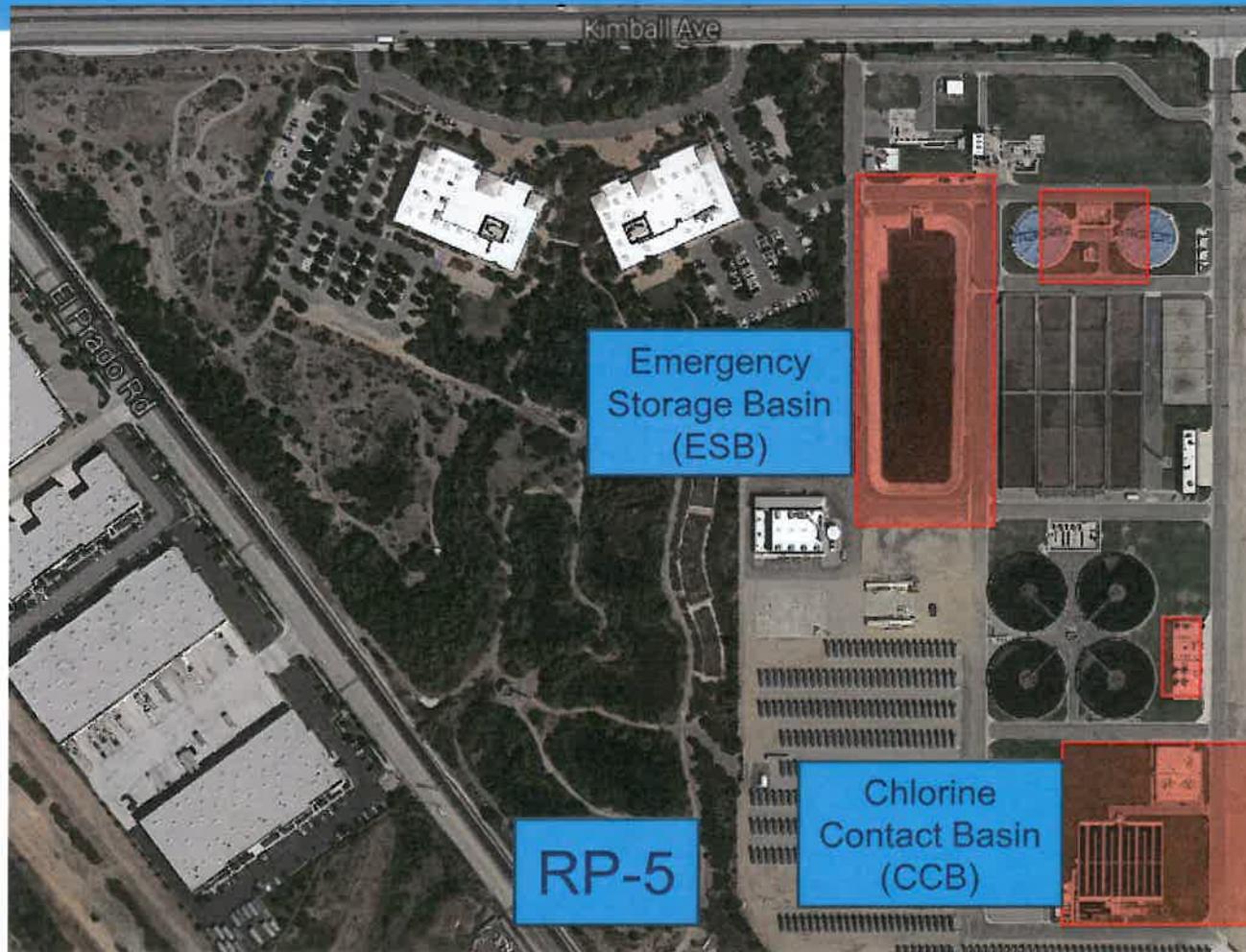
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RP-5 Flow Equalization & Effluent Monitoring Contract Awards

Project No. EN11031
December 21, 2016



Project Location



Project Background

- Operations currently unable to match process flows to RW demand
 - No means of flow measurement at ESB
 - Results in excess creek discharges
- Disinfection process to be upgraded
 - Inefficient dosing due to lack of flow measurement at CCB
 - Tertiary chemical pumps to be replaced

Project Scope

- Automate flows to ESB with level sensor and controls
 - Requires bypass of primary splitter box during construction
- Install level sensor and weir gate to regulate CCB dosing
- Replace existing chemical pumps



Emergency Storage Basin (ESB)



Chlorine Contact Basin (CCB)

Bid Summary

On October 13, 2016, bids advertised Planet Bids
On October 26, 2016, five contractors attended job walk
On November 17, 2016, the following bids were received:

Bidder's Name	Total Price
SCW Contracting	\$945,029
Engineer's Estimate	\$977,000

Project Cost and Schedule

Description	Estimated Cost
Design	\$480,000
Construction Services (~8%)	\$75,000
Engineering Services During Construction	\$68,452
Construction	\$945,029
Contingency (~10%)	\$95,000
Total Project Cost	\$1,663,481
Total Project Budget	\$3,397,200

Project Milestone	Date
Construction Contract Award	December 2016
Construction Completion	July 2017

IEUA Goal/Recommendation

Staff Recommends the Board Approves:

- Award of a construction contract or the RP-5 Flow Equalization & Effluent Monitoring Project No. EN11031, to SCW Contracting in the amount of \$945,029;
- Approve a contract with Lee & Ro, Inc., to provide engineering services during construction for the not-to-exceed amount of \$68,452; and
- Authorize the General Manager to execute the construction contract and contract amendment.

The RP-5 Flow Equalization and Effluent Monitoring project is consistent with the **IEUA's Business Goal of Wastewater Management** that systems will be master planned, managed and constructed to ensure that when expansion planning is triggered, designs/construction can be completed to meet regulatory/growth needs in an expeditious, environmentally responsible and cost effective manner.



CONTRACT NUMBER: 4600002249

FOR

**CONSTRUCTION OF THE
RP-5 FLOW EQUALIZATION AND EFFLUENT MONITORING
PROJECT, NO. EN11031**

THIS CONTRACT, made and entered into this _____ day of _____, 2016, by and between SCW Contracting Corporation, located in San Diego County, hereinafter referred to as "Contractor", and The Inland Empire Utilities Agency, a Municipal Water District, located in San Bernardino County, California, hereinafter referred to as "Agency".

WITNESSETH:

That for and in consideration of the promises and agreements hereinafter made and exchanged, the Agency and the Contractor agree as follows:

1. Contractor agrees to perform and complete in a workmanlike manner, all work required under the bidding schedule of Agency's specifications entitled **SPECIFICATIONS FOR RP-5 FLOW EQUALIZATION & EFFLUENT MONITORING PROJECT NO EN11031**, in accordance with the specifications and drawings, and to furnish at their own expense, all labor, materials, equipment, tools, and services necessary, except such materials, equipment, and services as may be stipulated in said specifications to be furnished by said Agency, and to do everything required by this Contract and the said specifications and drawings.
2. For furnishing all said labor, materials, equipment, tools, and services, furnishing and removing all plant, temporary structures, tools and equipment, and doing everything required by this Contract and said specifications and drawings; also for all loss and damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen difficulties which may arise during the prosecution of the work until its acceptance by said Agency, and for all risks of every description connected with the work; also for all expenses resulting from the suspension or discontinuance of work, except as

in the said specifications are expressly stipulated to be borne by said Agency; and for completing the work in accordance with the requirements of said specifications and drawings, said Agency will pay and said Contractor shall receive, in full compensation therefore, the price(s) set forth in this Contract.

3. That the Agency will pay the Contractor progress payments and the final payment, in accordance with the provisions of the contract documents, with warrants drawn on the appropriate fund or funds as required, at the prices bid in the Bidding and Contract Requirements, Section C - Bid Forms and accepted by the Agency, and set forth in this below.

Total Bid Price: Nine Hundred Forty Five Thousand Twenty Nine Dollars and Zero Cents (\$945,029.00).

If this is not a lump sum bid and the contract price is dependent upon the quantities constructed, the Agency will pay and said Contractor shall receive, in full compensation for the work the prices named in the Bidding and Contract Requirements, Section C - Bid Forms.

4. The Agency hereby employs the Contractor to perform the work according to the terms of this Contract for the above-mentioned price(s), and agrees to pay the same at the time, in the manner, and upon the conditions stipulated in the said specifications; and the said parties for themselves, their heirs, executors, administrators, successors, and assigns, do hereby agree to the full performance of the covenants herein contained.
5. The Notice Inviting Bids, Instructions to Bidders, Bid Forms, Information Required of Bidder, Performance Bond, Payment Bond, Contractors License Declaration, Specifications, Drawings, all General Conditions and all Special Conditions, and all addenda issued by the Agency with respect to the foregoing prior to the opening of bids, are hereby incorporated in and made part of this Contract, as if fully set forth.
6. The Contractor agrees to commence work under this Contract on or before the date to be specified in a written "Notice To Proceed" and to complete said work to the satisfaction of the Agency **One Hundred and Eighty (180)** calendar days after award of the Contract. All work shall be completed before final payment is made.
7. Time is of the essence on this Contract.
8. Contractor agrees that in case the work is not completed before or upon the expiration of the contract time, damage will be sustained by the Agency, and that it is and will be impracticable to determine the actual damage which the Agency will sustain in the event and by reason of such delay, and it is therefore agreed that the Contractor shall pay to the Agency the amount of Two Thousand

(\$ 2,000) dollars for each day of delay, which shall be the period between the expiration of the contract time and the date of final acceptance by the Agency, as liquidated damages and not as a penalty. It is further agreed that the amount stipulated for liquidated damages per day of delay is a reasonable estimate of the damages that would be sustained by the Agency, and the Contractor agrees to pay such liquidated damages as herein provided. In case the liquidated damages are not paid, the Contractor agrees that the Agency may deduct the amount thereof from any money due or that may become due to the Contractor by progress payments or otherwise under the Contract, or if said amount is not sufficient, recover the total amount.

In addition to the liquidated damages, which may be imposed if the Contractor fails to complete the work within the time agreed upon, the Agency may also deduct from any sums due or to become due the Contractor, liquidated damages in accordance with the Bidding and Contract Requirements, Section B - Instruction to Bidders, Part 5.0 "Liquidated Damages", for any violation of the General Conditions, Section D - Contractor's Responsibilities, Part 8, "Law and Regulations"; Bidding and Contract Requirements Contract Section D - Contract and Relevant Documents, Part 1.0, Paragraphs 9 through 11; General Conditions, Section D - Contractor's Responsibilities, Part 4.0, "Labor, Materials and Equipment"; General Conditions Section D - Contractor's Responsibilities, Part 12.0, "Safety and Protection" or General Conditions Section H - Legal Responsibilities, Part 8.0, "Disturbance of the Peace".

9. That the Contractor will pay, and will require subcontractors to pay, employees on the work a salary or wage at least equal to the prevailing salary or wage established for such work as set forth in the wage determinations and wage standards applicable to this work, contained in or referenced in the contract documents.
10. That, in accordance with Section 1775 of the California Labor Code, Contractor shall forfeit to the Agency, as a penalty, not more than Fifty (\$50.00) Dollars for each day, or portion thereof, for each worker paid, either by the Contractor or any subcontractor, less than the prevailing rates as determined by the Director of the California Department of Industrial Relations for the work.
11. That, except as provided in Section 1815 of the California Labor Code, in the performance of the work not more than eight (8) hours shall constitute a day's work, and not more than forty (40) hours shall constitute a week's work; that the Contractor shall not require more than eight (8) hours of labor in a day nor more than forty hours of labor in a week from any person employed by the Contractor or any subcontractor; that the Contractor shall conform to Division 2, Part 7, Chapter 1, Article 3 (Section 1810, et seq.) of the California Labor Code; and that the Contractor shall forfeit to the Agency, as a penalty, the sum of Twenty-Five (\$25.00) Dollars for each worker employed in the execution of the work by

Contractor or any subcontractor for each day during which any worker is required or permitted to labor more than eight (8) hours in violation of said Article 3.

12. That the Contractor shall carry insurance coverage at least as broad as:
 - a) Commercial General Liability (CGL): Insurance Services Office Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **\$2,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
 - b) Automobile Liability: Insurance Services Office Form Number CA 0001 covering Code 1 (any auto), with limits no less than **\$1,000,000** per accident for bodily injury and property damage.
 - c) Workers' Compensation insurance as required by the State of California, with Statutory Limits, and Employers' Liability insurance with a limit of no less than **\$1,000,000** per accident for bodily injury or disease.
 - d) Builder's Risk (Course of Construction) insurance utilizing an "All Risk" (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions.
13. That the Contractor shall have furnished, prior to execution of the Contract, two bonds approved by the Agency, one in the amount of one hundred (100) percent of the contract price, to guarantee the faithful performance of the work, and one in the amount of one hundred (100) percent of the contract price to guarantee payment of all claims for labor and materials furnished.
14. The Contractor hereby agrees to protect, defend, indemnify and hold the Agency and its employees, agents, officers, directors, servants and volunteers free and harmless from any and all liability, claims, judgments, costs and demands, including demands arising from injuries or death of persons (including employees of the Agency and the Contractor) and damage to property, arising directly or indirectly out of the obligation herein undertaken or out of the operations conducted by the Contractor, its employees agents, representatives or subcontractors under or in connection with this Contract.

The Contractor further agrees to investigate, handle, respond to, provide defense for and defend any such claims, demands or suit at the sole expense of the Contractor.

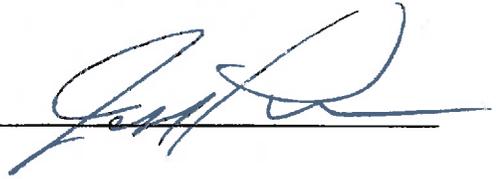
[Signature Page To Follow]

IN WITNESS WHEREOF, The Contractor and the General Manager of Inland Empire Utilities Agency*, thereunto duly authorized, have caused the names of said parties to be affixed hereto, each in duplicate, the day and year first above written.

INLAND EMPIRE UTILITIES AGENCY:
(*A Municipal Water District)

SCW CONTRACTING
CORPORATION:

By _____
General Manager

By  _____

Date: _____

Date: 11/30/2016

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ATTACHMENTS

[Specifications, Contractor's Bid]

SECTION C - BID FORMS

1.0 THIS BID IS SUBMITTED

A. For construction of the work, identified as follows:

RP-5 Flow Equalization & Effluent Monitoring Project No. 11031

B. To the Agency (Owner), identified as:

Inland Empire Utilities Agency *
6075 Kimball Avenue
Chino, California 91708

* A Municipal Water District

C. For post bid results, the bidder can review PlanetBids at

<https://www.planetbids.com/portal/portal.cfm?CompanyID=27411>.

2.0 CONDITIONS

A. Bidder Proposes and Agrees

The undersigned bidder proposes and agrees, if this bid is found to provide the lowest overall cost to the Agency, and meets all Agency requirements, to execute a written contract following the format included in the bidding documents and designated in Section D, "Contract"; to secure and deliver to the Agency, the bonds, certificates of insurance and any other items required in the project specifications; to perform and furnish the work as specified and indicated in the bidding documents for the contract price indicated in this bid, within the contract time indicated in said form of the Contract, and in accordance with the other terms and conditions of the bidding documents.

B. Bidder Accepts Terms and Conditions

1. The bidder accepts the terms and conditions of the Bidding and Contract Requirements, Section A - Notice Inviting Bids, and Section B - Instructions to Bidders, including without limitations those dealing with the disposition of the bid security.
2. This bid will remain subject to acceptance for ninety (90) calendar days, after the day of opening the bids.

BID SCHEDULE
 Schedule of Prices for the Construction of the:
 RP-5 Flow Equalization and Effluent Monitoring Project
 Inland Empire Utilities Agency

Item No.	Description	Estimated Quantity	Unit	Unit Price	Amount
1.	Mobilization	---	LS	---	\$ <u>46,140</u>
2.	Emergency Storage Basin (ESB) Splitter Box Ultrasonic Level Sensor and Modulating Actuator	---	LS	---	\$ <u>196,063</u>
3.	Flow Monitoring (Ultrasonic Level Sensor) and FRP Weir at Chlorine Contact Basin (CCB) Inlet Structure	---	LS	---	\$ <u>61,707</u>
4.	Sodium Hypochlorite and Sodium Bisulfite Metering Pump System Rehabilitation	---	LS	---	\$ <u>500,063</u>
5.	Temporary Bypassing of Primary Clarifier Effluent around ESB Splitter Box	---	LS	---	\$ <u>112,587</u>
6.	Demobilization	---	LS	---	\$ <u>24,269</u>
7.	Act of God	---	LS	---	\$ <u>1,200</u>

TOTAL OF ALL ITEMS OF THE BID SCHEDULE:

\$ 945,029⁰⁰
 (Price in figures)

nine Hundred forty five thousand , Twenty nine dollars
 (Price in words)

3. Upon receipt, the bidder will sign and return to the Agency the agreement, which follows the form of the Contract, Bidding and Contract Requirements, Section D – Contract and Relevant Documents Part 1.0.
4. The bidder will, within the time stipulated in the Bidding and Contract Requirements Section B - Instructions to Bidders, Part 19.0, "Execution of Contract", after receipt of the notice of award and the executed Contract deliver to the Agency the Performance Bond, the Payment Bond, and the Certificates of Insurance, and any other items required in the project specifications.

3.0 PRICES INCLUDE

A. Taxes and Fees

Applicable sales taxes; State, Federal, and special taxes; patent rights and royalties; and other applicable taxes and fees are included in the price of this bid.

B. All prices have been filled in and are proposed as firm fixed unit price amounts throughout this bid term validity.

4.0 BIDDING SCHEDULE

Schedule of prices to furnish and install "RP-5 FLOW EQUALIZATION & EFFLUENT MONITORING PROJECT No.11031" including all material, equipment and labor complete in accordance with the specifications and accompanying drawings.

Prices bid shall include all labor, equipment, apparatus, materials, facilities transportation, insurance, taxes, permits, shop drawings, overhead, profit, mobilization costs, incidentals, and any other costs necessary to furnish, deliver, install or perform work under the subject bid item in conformance with the plans, specifications, and permits complete. Payment of bid items shall be as specified in Section 01270 Measurement and Payment. The Bidding Schedule Table is located on the following page, and must be completed, in full.

The Bidder declares that the cost for labor, materials, equipment and incidentals necessary for sheeting, shoring, bracing and other excavation supports required by the Labor Code of the State of California, the Construction Safety Orders of the Division of Industrial Safety of the State of California, and the California Occupational Safety and Health Act of 1973, is included in the total lump sum bid and that such cost is indicated in the Bid Schedule.

Only lump sum bids will be accepted.

Total Bid Price \$ 945,029⁰⁰ dollars
(in numeric figures)

nine Hundred forty five Thousand twenty nine dollars
(written in words)

5.0 BID ALTERNATES

- A. The undersigned bidder offers to make, at the bid alternate prices following, the changes in the work covered in the lump sum bid that are specified in the bid alternates priced below.
- B. It is understood that:
1. All bid alternate prices must be filled in, or stated as no bid submitted.
 2. The acceptance or rejection of any or all of these bid alternates is at the option of the Agency.
 3. Acceptance or rejection of bid alternates will not necessarily be made on the basis of price alone.
 4. The acceptance or rejection of one or more bid alternates will not affect the lump sum bid, nor other conditions of this bid, nor the price of other accepted bid alternates.
 5. The addition or deduction shown herein for each bid alternate is the net addition or net deduction that is to be applied to the lump sum bid of the undersigned if the bid alternate is accepted by the Agency.
 6. The contract price shall be the net amount determined by applying the bid alternate prices of all accepted bid alternates to the lump sum bid.

6.0 ADD OR DEDUCT UNIT PRICE

- A. The undersigned bidder will accept as, adjustment to the lump sum bid for quantities of work different than indicated in the bidding documents, the amount resulting from applying to the differences (actual versus estimate) the below-listed unit prices.

For adding insurance coverage in the amount of fifty (50) percent of the lump sum bid against the risk of tidal wave and earthquake of any magnitude, deemed an act of God as provided in Section 7105 of the Public Contract Code, add the lump sum price of

\$ 1,200⁰⁰
(in numeric figures)
Twelve Hundred Dollars dollars
(written in words)

B. The Agency assumes that all additive or deductive unit prices have been filled in and that the prices are reasonable. However, it is understood that the additive or deductive prices are subject to the Agency's approval prior to award of the Contract.

ITEM	DESCRIPTION	UNIT PRICE	UNIT PRICE (written)
ADDITIVE ITEMS			
1.	N/A		dollars (written)
2.			dollars (written)
DEDUCTIVE ITEMS			
1.	N/A		dollars (written)
2.			dollars (written)

C. Costs Included in the Preceding Lump Sum Bid

The undersigned bidder declares that the cost for labor, materials, equipment, and incidentals necessary for sheeting, shoring, bracing and other excavation supports required by the Labor Code of the State of California, the Construction Safety Orders of the Division of Industrial Safety of the State of California, and the California Occupational Safety and Health Act of 1973, is included in the lump sum price of this bid and that such cost is as follows:

\$ 1,200 (numbers)

one thousand two hundred dollars (words)

7.0 LIST OF EQUIPMENT MANUFACTURERS

A. The undersigned bidder is naming in this Section, the manufacturer or supplier that will furnish the respective item of equipment for the work identified in the Bidding and Contract Requirements, Section C - Bid Forms, Part 8.0, and "List of Equipment". Bidder shall list one name for each item of equipment identified in the Bidding and Contract Requirements, Section C - Bid Forms, Part 8.0, "List of Equipment".

B. The bidder agrees that in the event any listed manufacturer or supplier is not

specifically named in the specifications, the bidder shall, prior to award, submit complete information, satisfactory to the Agency, demonstrating that such manufacturer's or supplier's equipment meets the requirements of the bidding documents.

If, in the opinion of the Agency, the listed manufacturer's or supplier's equipment does not meet the requirements of the bidding documents, the bidder's bid will be rejected unless, prior to award, the bidder, in writing agrees to furnish and install equipment that does meet the requirements of the bidding documents, without change in the prices of the bid.

- C. Where manufacturers' or suppliers' names are listed next to specific items of equipment, this shall be interpreted to mean that such manufacturers may not be substituted, in accordance with the stipulations in the Bidding and Contract Requirements, Section B - Instructions to Bidders, Part 4.0, "Product Substitution".

8.0 LIST OF EQUIPMENT

Section No.	Equipment Description	Manufacturer
	N/A	

9.0 SHOP DRAWING SUBMITTALS WITH THE BID (Optional Section)

All bids shall be submitted with shop drawings for the items listed below in accordance with the contract documents:

SECTION NO.	ITEM
	N/A

--	--

The Agency shall provide compensation for preparation of shop drawings only to the lowest responsible bidder whose bid complies with all the requirements prescribed in the contract documents.

10.0 LIST OF SUBCONTRACTORS

- A. The undersigned bidder lists under the Bidding and Contract Requirements, Section C - Bid Forms, Part 10.0, "List of Subcontractors", the name and location of the place of business of each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work in an amount in excess of one-half of one percent (0.5%) of the total bid, and the portion of the work which will be done by each subcontractor.
- B. The undersigned bidder understands that circumvention by the bidder of the requirement to list subcontractors by the device of listing one subcontractor who will in turn sublet portions constituting the majority of the work is a violation of the Subletting and Subcontracting Fair Practices Act (Division 2, Part 1, Chapter 4, of the California Public Contract Code) and shall subject the bidder to the penalties set forth in said Act (Sections 4110 and 4111 of said Code).

<u>Name</u>	<u>Location of Business</u>	<u>Type of Work</u>	<u>License No.</u>
Davis Electric	Yucipia CA	Electric ITC	761461
National coatings & Linings	Murrieta	Painting & Coating	886430

11.0 EXPERIENCE DATA

The undersigned bidder shall submit, under the Bidding and Contract Requirements, Section C - Bid Forms, Part 12.0, "Description of Previous Projects by the Bidder", a brief description of all work previously executed in the past seven (7) years by the bidder and the locations of all projects; giving the year in which done, the manner of execution, name, address, and telephone number of the owner, overall cost when constructed, and such other information so as to evidence the bidder's ability to perform the work.

12.0 DESCRIPTION OF PREVIOUS PROJECTS BY THE BIDDER

See Attached

13.0 WORKERS' COMPENSATION INSURANCE

In conformance with the current requirements of Section 1861 of the Labor Code of the State of California, the undersigned bidder confirms the following as its certification:

"I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work."

14.0 BIDDER IDENTIFICATION

The undersigned has the legal authority to bind the bidder to the Contract for the execution of the work.

A. Legal name of Bidder SCW Contracting Corporation

B. Type of firm

sole proprietor partnership corporation

Other _____

If corporation, incorporated in the State of: California

C. Bidder's Business Address:

2525 N. Old HWY 395 Fallbrook, Ca 92028

D. Bidder's Business Telephone: 760-728-1308 Ext 115

E. Business License number issued by the city where the bidder's principal place of business is located. *SCW IS IN AN UNINCORPORATED AREA OF SAN DIEGO COUNTY*

Number _____ Issuing City _____

Expiration Date _____

15.0 PERSONS AND PARTIES INTERESTED IN THIS BID

A. The names and residences of persons and parties interested in this bid, as principals, are listed under the Bidding and Contract Requirements, Section C - Bid Forms, Part 15.B, "List of Principals".

1. The first and last names are given in full.
2. In case of a corporation, the names and addresses of the President, Secretary, Treasurer, and Manager are given.
3. In case of a partnership or joint venture, the names and addresses of all the individual members are given.

B. List of Principals

Jeffrey Scrape- President, Treasurer 2525 N. Old Hwy 395 Fallbrook, Ca 92028

Suzanne Scrape- Secretary 2525 N. Old Hwy 395 Fallbrook, Ca 92028

Andrew Scrape- Vice President 2525 N. Old Hwy 395 Fallbrook, Ca 92028

16.0 DECLARATION

A. I/WE declare under penalty of perjury under the laws of the State of California, that the statements in these Bid Forms are true and correct.

B. Date, NOV 16, 2016 at Fallbrook, California.

C. By (signature) _____

D. Printed Name and Position Jeffrey Scrape President

E. Stamp Seal

17.0 ADDENDA

The undersigned acknowledges receipt of Addenda Nos.:

1,2,3,_____

18.0 BIDDER'S STATEMENT

Bid to: Inland Empire Utilities Agency, A Municipal Water District

The undersigned bidder hereby proposes to furnish, deliver and erect all equipment under the bidding schedule of the Agency's specifications entitled "RP-5 Flow Equalization & Effluent Monitoring Project No. 11031" in accordance with the intent of said specifications and all addenda issued by said Agency prior to opening of the bids.

Said bidder agrees that, if this bid is determined to provide the lowest overall cost to the Agency, and meets all Agency requirements, that upon receipt of the Contract, from said Agency, bidder will properly execute and return said Contract, of which the Notice Inviting Bids, Instructions to Bidders, Bid, Information Required of Bidder, Specifications, Drawings, and all addenda issued by said Agency prior to the opening of bids, are a part; and within ten (10) calendar days after receipt of the notice of award and the executed Contract, bidder will secure the required insurance and bonds and furnish the required certificates; and that upon failure to execute said Contract, and/or furnish the required insurance, bonds and certificates within said time, then the bid guarantee furnished by said bidder shall be forfeited to said Agency as liquidated damages for such failure; provided, that if said bidder shall execute the Contract, secure the required insurance and bonds, and furnish the required insurance certificates within said time, his bid guarantee, if furnished, shall be returned to him within five (5) calendar days thereafter, and the bid bond, if furnished, shall become void.

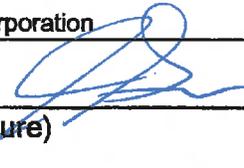
The bidder acknowledges and understands that a waiting period from time of bid opening until award may be ninety (90) calendar days during which bidder may not withdraw his bid. The bidder further acknowledges that he has adjusted his bid price to include all possible items which may influence the bid during the waiting period. Requests for bid price change due to such a delay shall not be agreed to by the Agency.

If the bidder is awarded a Contract in conjunction with this bid, the Surety who will provide the Performance Bond will be Liberty Mutual Surety whose address is
790 The City Dr South Suite 200
Orange CA 92868
City State Zip

Said bidder further agrees to complete all work required under the Contract within the time stipulated in the specifications, and to accept, as full payment therefore, the prices(s) named in the above-mentioned bidding schedule.

Date: 11-16-2016

SCW Contracting Corporation (Bidder)

By:  _____

(Signature)

President

(Title)

19.0 NONCOLLUSION AFFIDAVIT

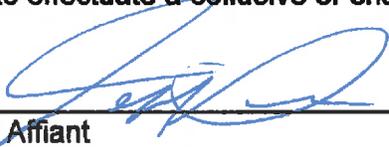
STATE OF CALIFORNIA
COUNTY OF San Diego)ss.

Jeffrey Scrape, affiant, the
(Individual completing affidavit)

President, of
(Position with firm of the individual completing affidavit)

SCW Contracting Corporation, the
(Name of the Firm)

party making the foregoing bid, having first been duly sworn, deposes and says that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or that of any other bidder, or to secure any advantage against the public body awarding the Contract of anyone interested in the proposed Contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.



Signature of Affiant

Subscribed and sworn to before me

this _____ day of _____, 20____

Signature of Notary Public in and for

the County of San Diego,

State of California.

20.0 BIDDER'S BOND (Ten (10) Percent of the Total Bid)

Bond Number _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS,

That SCW CONTRACTING CORPORATION , as Principal

and LIBERTY MUTUAL INSURANCE COMPANY , as Surety

are held and firmly bound unto the Inland Empire Utilities Agency, a Municipal Water District hereinafter designated as the "Agency", in the sum of ^{TEN PERCENT OF} _{GREATER AMOUNT BID} dollars, (not less than ten (10) percent of the total amount of the bid) for the payment of which sum will and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal has submitted a bid to said Agency to perform all work required under the bidding schedule(s) titled:

RP-5 FLOW EQUALIZATION & EFFLUENT MONITORING PROJECT NO. 11031

NOW, THEREFORE, if said Principal is awarded the Contract by said Agency and within the time and in the manner required under the Instructions to Bidders (Part 1, Section II) bound with said specifications, enters into a written agreement and fully executes the Contract bound with said specifications and furnishes the required bonds and verification of insurance, then this obligation shall be null and void, otherwise it shall remain in full force and effect. In the event a suit is brought upon this bond by said Agency and judgment is recovered, said Surety shall pay all costs incurred by said Agency in such suit, including a reasonable attorney's fee to be fixed by the Court.

SIGNED AND SEALED, this 14TH day of NOVEMBER , 2016

SCW CONTRACTING CORPORATION

Principal (print name)

By: _____



Signature

JEFFREY SCRAPE, PRESIDENT

(Corporate Seal)

Continued on page 2

Bond Number _____

SECOND PAGE OF BID BOND

Bidding Schedule(s) titled:

RP-5 Flow Equalization & Effluent Monitoring Project No.11031.

LIBERTY MUTUAL INSURANCE COMPANY

SURETY

MARK D. IATAROLA

Surety agent (print name)

By: *Mark D. Iatarola*
Signature

(Surety Seal)

MARK D. IATAROLA, ATTORNEY-IN-FACT

Surety address

LIBERTY MUTUAL INSURANCE COMPANY

ATTN: SURETY CLAIMS DEPARTMENT

1001 4TH AVENUE, SUITE 1700

SEATTLE, WA 98154

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of SAN DIEGO)

On 11/14/2016 before me, MICHELLE M. BASUIL, NOTARY PUBLIC
Date Here Insert Name and Title of the Officer
personally appeared MARK D. IATAROLA
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
WITNESS my hand and official seal.



Signature *Michelle M. Basuil*
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____ Document Date: _____
Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)
Signer's Name: MARK D. IATAROLA
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 7437024

American Fire and Casualty Company
The Ohio Casualty Insurance Company

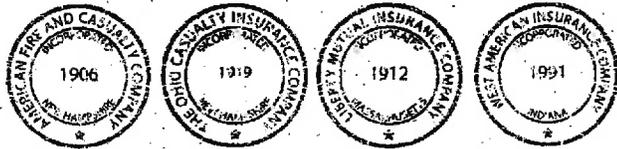
Liberty Mutual Insurance Company
West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Helen Maloney; Jisselle Marie Sanchez; John G. Maloney; Mark D. Iatarola; Michelle M. Basuil

all of the city of Escondido, state of CA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 1st day of August, 2016



American Fire and Casualty Company
The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 1st day of August, 2016, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Insurance Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Plymouth Twp., Montgomery County
My Commission Expires March 28, 2017
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS - Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts - SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Gregory W. Davenport, the undersigned, Assistant Secretary, of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 14TH day of NOVEMBER, 2016



By: Gregory W. Davenport
Gregory W. Davenport, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

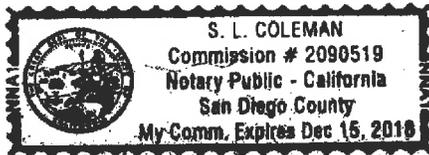
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of San Diego)
On November 16, 2016 before me, S.L. Coleman, Notary Public
Date Here Insert Name and Title of the Officer
personally appeared Jeffrey Scrape
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature [Handwritten Signature]
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Bid Bond Document Date: Nov. 14, 2016
Number of Pages: 2 Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Jeffrey Scrape
 Corporate Officer — Title(s): President
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: SCW Contracting Corporation

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

21.0 CONTRACTOR'S LICENSE DECLARATION

(Business and Professions Code Section 7028-15)

The undersigned declares that he/she is Jeffrey Scrape- President
(party preparing foregoing bid)

of SCW Contracting Corporation
(name of bidding firm)

A. Bidders California Contractor's License Number:

1. Bidder's Contractor's License Number is as follows:

630435 Classification: A, C60, C51

2. The expiration date of bidder's Contractor's License

is: October 31, 20 17.

3. Bidder acknowledges that Section 7028.15 (e) of the Business and Professions Code provides as follows:

"A licensed contractor shall not submit a bid to a public agency unless his or her contractor's license number appears clearly on the bid, the license expiration date is stated, and the bid contains a statement that the representations therein are made under penalty of perjury. Any bid not containing this information, or a bid containing information which is subsequently proven false, shall be considered non-responsive and shall be rejected by the public agency."

22.0 BUSINESS OWNERSHIP INFORMATION

Business Ownership Information

Are you a WMDVBE* certified business? Yes No
*(Women, Minority, Disabled, Veteran Business Enterprise)

Certification must be received from California Public Utilities Commission clearing House. Call Toll Free: 800-359-7998 or 415-928-6892 for additional information. Please check those that apply:

- | | |
|--|--|
| <input type="checkbox"/> Women-Owned Business | <input type="checkbox"/> African-American-Owned Business |
| <input type="checkbox"/> Disabled-Owned Business | <input type="checkbox"/> Veteran-Owned Business |
| <input type="checkbox"/> Native-American-Owned Business | <input type="checkbox"/> Hispanic-Owned Business |
| <input type="checkbox"/> Caucasian-American-Owned Business | <input type="checkbox"/> Underrepresented Asian-Owned Business |



ADDENDUM NUMBER ONE (1)
To
Invitation For Bid No. IFB-MB-17-007
RP-5 Flow Equalization and Effluent Monitoring
Project No. EN11031
October 25, 2016

This Addendum Number One (1) shall be considered as part of the Contract Documents and is issued to change, amplify, delete from or otherwise explain these documents. This addendum shall have precedence over the original documents and shall govern.

I. Question:

Section 01270-6 Measurement of Payment Bid Schedule Item's 3 & 5 are the same. Please clarify if this is correct.

Answer:

Items 3 and 5 should not be the same and have been corrected. The revised bid schedule is included as Attachment 1 to this Addendum No. 1.

II. Question:

Is this Bid Schedule required with the bid documents?

Answer:

Yes, the completed bid schedule is a required bid document.

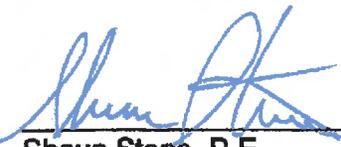
III. Attachments:

- 1. *Revised Bid Schedule*



Jesse Pompa, P.E.
Senior Engineer
Project Manager

10/25/16
Date



Shaun Stone, P.E.
Manager of Engineering

10/25/16
Date



Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

To confirm receipt of this addendum, please sign and date below. **The original signed document shall be included with your submitted bid package.**

Signature

Date

11-16-2016



ADDENDUM NUMBER TWO (2)
To
Invitation For Bid No. IFB-MB-17-007
RP-5 Flow Equalization and Effluent Monitoring
Project No. EN11031
November 1, 2016

This Addendum Number Two (2) shall be considered as part of the Contract Documents and is issued to change, amplify, delete from or otherwise explain these documents. This addendum shall have precedence over the original documents and shall govern.

I. Question:

During the job walk, it was mentioned that stop logs are to be provided by the Contractor to direct and/or isolate flow in the Aeration Basin influent channel to the appropriate Aeration basin. Please provide more description, the location, and any as-built drawings or information relating to the stop log channels.

Answer:

The splitter box modifications require complete isolation of the splitter box and piping, which are to be accomplished by installation plugs within the two 36-inch primary clarifier effluent pipes and the 54-inch aeration basin influent pipe. Temporary piping and pumps (one pump plus backup) will be setup to redirect flow from one primary clarifier effluent box to the aeration basin influent structure.

For safety purposes, an additional pump will be provided by the contractor to allow for pumping to the Equalization Basin while the Splitter Box is bypassed. In total, three pumps will be required – one to bypass flow to the aeration basin, one to bypass flow to the equalization basin, and a backup pump.

The Contractor is to dewater the splitter box influent and effluent lines for a condition assessment, which will be performed by a third party as part of this work. Please see Attachment A for relevant drawings and additional information.

II. Question:

During the job walk it was mentioned that a pipeline condition assessment would be performed during the bypassing of the Emergency Storage Basin. It was also mentioned that the Contractor would be responsible for dewatering the Aeration influent channel and pipelines to allow access for IEUA to perform this



assessment. Please provide the parameters / outline of this work as this will affect the duration of the bypassing operations.

Answer:

The contractor will be responsible for dewatering the splitter box and all influent and effluent piping up to the temporary plugs. After the equipment has been dewatered, the contractor will perform minor cleaning of the lines with a hose to prepare for a third party to conduct a condition assessment. The third party will perform a camera inspection of the influent and effluent lines. The condition assessment is expected to take approximately 4 hours.

III. Question:

Epoxy anchors are called out in several details, and will add additional time to the installation. These installations are performed while under bypass or a limited shutdown. Please approve the use of a wedge type anchor in lieu of the epoxy anchors (i.e. Hilti, Simpson, Powers, or Redhead). Reference Details: Detail 1/M-02 Transmitter Stilling Well and Section A/M-03 Chlorine Contact Basin FRP WeirDetail 1/M-03 Ultrasonic Level Sensor Bracket Mount

Answer:

Heavy-duty expansion wedge type anchor bolts are acceptable replacements for epoxy anchors that will be installed in areas under bypass or in the Chlorine Contact Basin where equipment will be installed during periods of low flow. The wedge type anchor bolts must be 316 SST.

IV. Question:

Please provide the trending data showing historical minimum, average, and peak flow rates for the following: Primary Clarifier No. 1 Effluent, Primary Clarifier No. 2 Effluent, and Chlorine Contact Basin Inlet

Answer:

Since only one clarifier will be operational during the splitter box bypass, the clarifier effluent flow will be equivalent to the plant influent. Historical data shows the contractor should size pumps for an average flow of 8.2 million gallons per day (MGD) and a peak flow of 15 MGD.

During low flow periods, when work is to be performed at the Chlorine Contact Basin (CCB), average plant influent flow is approximately 3 MGD. However, plant operations can divert flow to ensure no influent flow into the Chlorine Contact Basin during the period of work.

V. Question:



Please provide the following as-built drawings. Emergency Storage Basin Splitter Box, Primary Clarifier No. 1 & No. 2, Aeration Basin Influent Channel (Northside of aeration basins), Chlorine Contact Basin Inlet Structure

Answer:

Please see Attachment A for as-built drawings.

VI. Question:

Sheet E-09 appears to show new stub outs in the duct bank to be installed. Is this accurate?

Answer:

The four conduits shown on Sheet E-09 are existing stub outs near the primary clarifier effluent. There are no new stub outs to be installed in the duct bank as part of this project.

VII. Question: Will signed drawings be issued?

Answer:

Please see Attachment B for the signed drawing set.

VIII. Question: What type of material is to be used for piping in the chemical pump replacement?

Answer:

All piping material installed as part of the chemical pump replacement, unless otherwise noted in the drawings, is to be CPVC.

IX. Question: Can Contractors see Condition Assessment performed on concrete?

Answer:

Please see Attachment C for the Condition Assessment. Please note that this Condition Assessment evaluated several areas of concern, but this project only addresses the tertiary chemical facility.

X. Question: The installation of the weir plate and level sensor will be performed without a bypass by scheduling the work during low flow. When is the period of low flow?

Answer:

The facility's low flow period is from 12:00 A.M. to 4:00 A.M. Work will need to be scheduled between these times to facilitate installation without a bypass.



Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

XI. Question: Will the bid period be extended as a result of this addendum?

Answer: Yes, the bid opening date will be extended to Thursday, November 17th at 2:00PM.

XII. Attachments:

1. *Bypass Information and As-Built Drawings*
2. *Signed Drawings*
3. *Tertiary Chemical Facility Condition Assessment*



 Jesse Pompa, P.E.
 Senior Engineer
 Project Manager



 Date

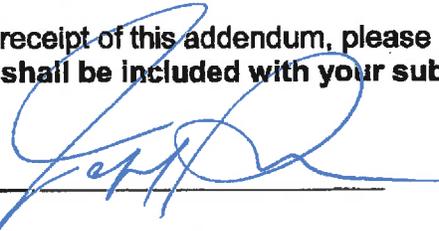


 Shaun Stone, P.E.
 Manager of Engineering



 Date

To confirm receipt of this addendum, please sign and date below. The original signed document shall be included with your submitted bid package.



 Signature



 Date



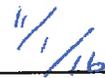
ADDENDUM NUMBER THREE (3)
To
Invitation For Bid No. IFB-MB-17-007
RP-5 Flow Equalization and Effluent Monitoring
Project No. EN11031
November 1, 2016

This Addendum Number Three (3) shall be considered as part of the Contract Documents and is issued to change, amplify, delete from or otherwise explain these documents. This addendum shall have precedence over the original documents and shall govern.

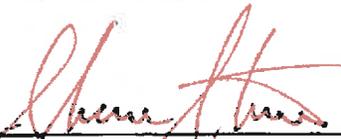
- I. Specification Revision: Section A, 1.0, Receipt of Bids (changes in bold):**
Sealed bids will be received at Inland Empire Utilities Agency, Headquarters Building 'A', located at 6075 Kimball Avenue Building "A", Chino, California, 91708, until 2:00 p.m. on **November 17, 2016**, for the Flow Equalization & Effluent Monitoring Project No. 11031.
The bids will be publicly read immediately following receipt of bids at the office of the Agency listed above.



Jesse Pompa, P.E.
Senior Engineer
Project Manager



Date

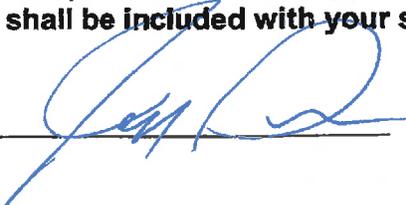


Shaun Stone, P.E.
Manager of Engineering



Date

To confirm receipt of this addendum, please sign and date below. **The original signed document shall be included with your submitted bid package.**



Signature



Date



ADDENDUM NUMBER FOUR (4)
To
Invitation For Bid No. IFB-MB-17-007
RP-5 Flow Equalization and Effluent Monitoring
Project No. EN11031
November 14, 2016

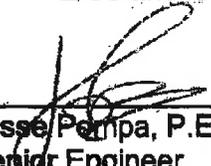
This Addendum Number Four (4) shall be considered as part of the Contract Documents and is issued to change, amplify, delete from or otherwise explain these documents. This addendum shall have precedence over the original documents and shall govern.

I. Question:

There was no mention of a new starter on the job walk, and I do not see anything in the specifications. Although, on drawing E-07 it appears that there is to be a new NEMA size 3 starter and 100A circuit breaker installed as a spare. Can you please clarify?

Answer:

A new NEMA size 4 starter and 100A circuit breaker are not required. The drawing E-06 and E-07 are revised and attached.



Jesse Permpa, P.E.
Senior Engineer
Project Manager

11/14/16
Date



Shaun Stone, P.E.
Manager of Engineering

11/14/16
Date

To confirm receipt of this addendum, please sign and date below. The original signed document shall be included with your submitted bid package.



Signature

11/17/16
Date



CONTRACT AMENDMENT NUMBER: 4600001588-003
FOR
RP-5 FLOW EQUALIZATION
AND
EFFLUENT MONITORING PROJECT

AMENDMENT THREE is made and entered into this ____ day of _____, _____ by and between the Inland Empire Utilities Agency, a Municipal Water District, organized and existing in the County of San Bernardino under and by virtue of the laws of the State of California (hereinafter referred to interchangeably as "Agency" and "IEUA"), and Lee & Ro, Inc. of City of Industry, California (hereinafter referred to as "Consultant"), for provision of consulting engineering services required for the design, bid period and construction administration assistance of the RP-5 Flow Equalization and Effluent Monitoring Project No. EN11031.00 (referred to as "the Work ") and shall revise the Contract as amended:

REVISE SECTION FOUR, SCOPE OF WORK, TO ADD:

Consultant shall furnish additional consulting services outlined in Consultant's proposal dated November 22, 2016, attached hereto, referenced herein, and made a part hereof as Exhibit A.

REVISE SECTION SIX, COMPENSATION, TO ADD PARAGRAPH FOUR AS READS:

Additional compensation in the amount of **\$68,452.00** is hereby authorized in accordance with Project Manager's Purchase Requisition 10038575 and as outlined in Exhibit A, attached hereto and made a part hereof. In compensation for the additional Work represented by this contract amendment, Agency shall pay Consultant a **NOT-TO-EXCEED** maximum total of **\$426,073.00** for all services provided.

ALL OTHER PROVISIONS OF THIS CONTRACT REMAIN UNCHANGED.

WITNESSETH, that the parties hereto have mutually covenanted and agreed as per the above amendment items, and in doing so have caused this document to become incorporated into the Contract documents.

INLAND EMPIRE UTILITIES AGENCY:
(A Municipal Water District)

LEE & RO, INC.:

P. Joseph Grindstaff
General Manager

(Date)

Dhiru Patel
Vice President/So. California Regional Mgr.

11/23/16
(Date)

Exhibit A



1199 South Fullerton Road, City of Industry, CA 91748

Tel. (626) 912-3391

Fax. (626) 912-2015

www.LEE-RO.com

November 22, 2016

Mr. Jesse Pompa, P.E.
Inland Empire Utilities Agency (IEUA)
6075 Kimball Ave., Building B
Chino, CA 91708

Subject: Proposal for Amendment No. 3 for Engineering Services during Construction
RP-5 Flow Equalization and Effluent Monitoring Project (EN11031.00)

Project No. 1138

Dear Mr. Pompa:

In response to your request, LEE & RO is pleased to submit this letter proposal for engineering services during the construction.

The scope of work tasks for the engineering services during construction is summarized below and is in accordance with original request for proposals (RFP-RW-13-068).

1. Attend Pre-Construction Meeting
2. Prepare One Conformed Set of Bid Plans and Technical Specifications
3. Attend Weekly Construction Meetings
4. Review Contractor's RFIs
5. Review Contractor's Shop Drawing Submittals
6. Attend Construction Workshops
7. Assist Agency with RFD/CO
8. Prepare O&M Manual
9. Conduct Workshop for Start-up and Onsite Support
10. Prepare As-Built Record Drawings
11. Provide Training Session to Agency Staff

LEE & RO proposes a not to exceed fee of \$68,452 as shown in Exhibit 1, attached.

We thank you for opportunity to work on this project. Please call if you have any comments or questions.

Very truly yours,

LEE & RO, Inc.

Jay Jung, P.E.
Project Manager

CC: Rick Liskow, L&R

Enclosure: Exhibit 1 – Fee Proposal

November 22, 2016

Engineering Services during Construction for the
RP-6 Flow Equalization and Effluent Monitoring (EN11031.00)

Exhibit 1 - Fee Proposal

Task ID	Task Description	Hours per Labor Category										Total Hours	Labor Cost	Other Direct Costs (ODCs)	TOTAL FEES		
		E7	E6	E5	E3	T4	T3	A2	LABOR CLASSIFICATION AND BILLING RATE (\$/hr)								
		\$206	\$185	\$167	\$135	\$120	\$105	\$90									
Engineering Services and Support During Construction																	
1	Attend Pre-construction Conference		3	3											\$1,056	\$50	\$1,106
2	Prepare Conform Set of Bid Plans		2	4	6	5	6								\$3,828	\$250	\$4,078
3	Attend Weekly Construction Meetings (assume 24 meetings for 180 days)		30	20	12										\$10,510	\$400	\$10,910
4	Review Contractor's RFIs (assume 20 RFIs @ 2 hrs each plus clerical)		4	20	20										\$7,320		\$7,320
5	Review Contractor's Shop Drawing Submittals (assume 17 submittals @ 3 hrs and 7 resubmittals @ 1.5 hrs plus clerical)		6	24	30										\$9,888	\$50	\$9,938
6	Attend Construction Workshops		12	16	12										\$6,872	\$50	\$6,922
7	Assist Agency with RFD/CO	1	6	16	12	8									\$6,748	\$50	\$6,798
8	Prepare O&M Manual	2	8	24	18										\$10,130	\$100	\$10,230
9	Start-up/Commissioning Workshops and Onsite Supports		16	18											\$6,236	\$50	\$6,286
10	Prepare As-Built Record Drawings		2	4											\$3,018	\$100	\$3,118
11	Provide One 8-hr Training Session			8											\$1,696	\$50	\$1,746
	TOTAL HOURS AND FEES	3	89	157	110	19	32	39							\$67,302	\$1,150	\$68,452

**ACTION
ITEM
1C**

Date: December 21, 2016

To: The Honorable Board of Directors

Through: Engineering, Operations, and Biosolids Management Committee (12/14/16)

From: P. Joseph Grindstaff
General Manager 

Submitted by: Chris Berch 
Executive Manager of Engineering/Assistant General Manager

Shaun J. Stone 
Manager of Engineering

Subject: East End Avenue NRW Flowmeter Consulting Engineering Services Contract Award

RECOMMENDATION

It is recommended that the Board of Directors:

1. Award the consulting engineering services contract for the East End Avenue NRW Flowmeter Replacement, Project No. EN22002 to Civiltec Engineering Inc., for the not-to-exceed amount of \$213,554; and
2. Authorize the General Manager to execute the consulting engineering services contract.

BACKGROUND

In 1967, the Los Angeles County Sanitation District (District) and Inland Empire Utilities Agency (IEUA) entered into various contracts under which the District would accept a portion of the industrial wastewater flow from IEUA's Non-Reclaimable Wastewater Line (NRW). Since the execution of the contracts, the District's methods for calculation of capacity charges, treatment and conveyance fees have changed significantly, as have treatment standards.

Additionally, the East End (EE) Flowmeter and the 24-hr composite samples show higher flows than the summation of industries connected to the NRW. Consequently, the higher flow readings are resulting in IEUA paying more to the District, as these fees are calculated based on flow rate. Per the contract, IEUA is required to pay fees based on that of the sampling and flow metering system as

opposed to the summation of industries. The updated contracts account for the District's new calculation methods, as well as, replacement of the existing East End (EE) Flowmeter within ten years of the execution of the contract.

The project will design and construct a new flowmeter, sampling station, underground vault, diversion structure, and establish communication between the NRW Flowmeter and IEUA's Supervisory Control and Data Acquisition (SCADA) system. The installation of the new flowmeter shall conform to the District's and IEUA requirements.

On September 13, 2016, IEUA staff advertised on Planet Bids the Request for Proposals for consulting engineering services. On October 11, 2016, IEUA received proposals from Arcadis and Civiltec Engineering Inc. The proposals were reviewed by a selection committee of IEUA staff from Engineering and Construction Management, Technical Services, and Operations. Based on the project team qualifications and experience, understanding of the project scope, and ability to meet the project schedule, the committee unanimously concurred that Civiltec Engineering Inc., was the most qualified firm to do the work.

Below are the projected costs for the project:

Description	Estimated Cost
Project Development	\$17,000
Consultant Engineer	\$213,554
Design Services (~ 3%)	\$50,000
Construction Services (~ 15%)	\$150,000
Construction (estimated)	\$1,000,000
Contingency (~ 15%)	\$260,000
Total Project Cost	\$1,690,554
Total Project Budget	\$300,000

Budget of this project will be evaluated as the project progresses through the design phase. The current budget was established to create a project and initiate design efforts. The total project budget will be defined and requested through the Ten-Year Capital Improvement Plan (TYCIP) process.

The overall project schedule is as follows:

Project Milestone	Date
Consultant Contract Award	December 2016
Design Completion	December 2018
Construction Contract Award	March 2019
Construction Completion	October 2019

Additional design time is anticipated on this project due to the required reviews and approvals required by the District.

The East End Avenue NRW Flowmeter Replacement Project is part of *IEUA's Collection System Business Goal* to maintain capacity within collection system, meet essential service demands, and to safeguard public health and the environment.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

If approved, the award of the consulting engineering contract for the East End Avenue NRW Flowmeter Replacement, Project No. EN22002, for the not-to-exceed amount of \$213,554 is within the total project budget of \$300,000 in the Non-Reclaimable Wastewater Capital (NC) Fund. The total project budget will be requested through the TYCIP process.

PJG:CB:SS:nm

East End Ave. NRW Flowmeter Replacement Consultant Contract Award

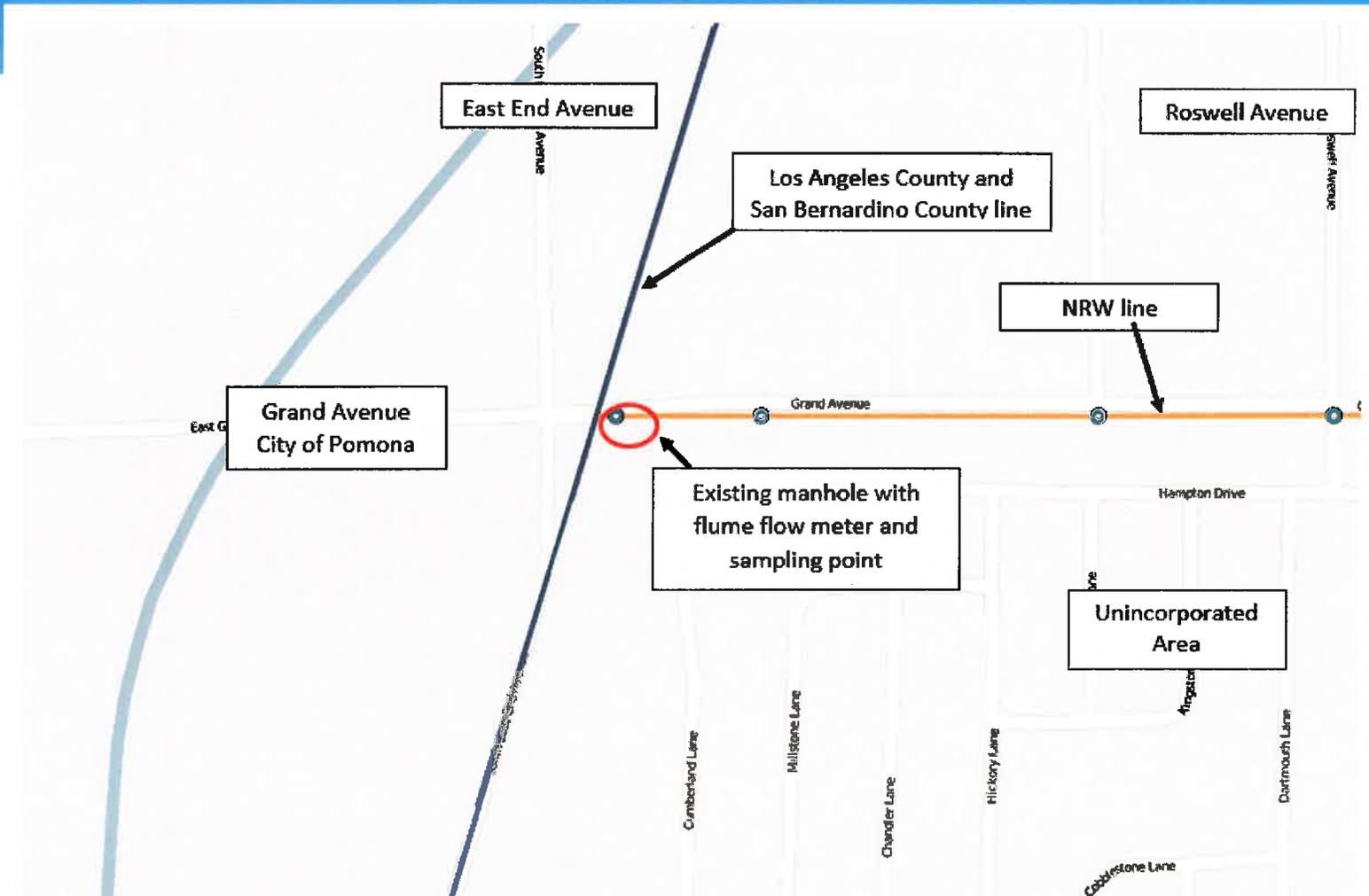
Project No. EN22002
December 21, 2016



Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Nasrin Maleki, P.E.
Project Manager

Project Location



Project Background

- Existing flowmeter installed in 1967
- Fee payment based on NRW flow and quality
- Existing flowmeter reads higher than summation of connected industries
- Located in high traffic volume street
- New agreement requires a more accurate flowmeter by 2024



Flow meter and sampling manholes



Existing Sampling System

Project Scope

- Construct a diversion structure and vault
- Install magnetic flow meter
- Install new auto sampler at grade level
- All improvements located out of traffic lanes
- Upgrade related electrical/communication equipment
- Must be approved by LA County Sanitation District



42 inch NRW line with flume flowmeter



Existing Electrical Panel

Consultant Selection

- Two proposals received on October 11, 2016
 - Civiltec Engineering Inc.
 - ARCADIS
- Evaluation and selection committee
 - Construction Management
 - Engineering
 - Planning & Environmental Resources
- Committee unanimously selected the consultant based on:
 - Project Team Qualifications
 - Ability to Provide Innovative, Creative, Cost Reducing Alternatives
 - Related Experience
 - History, Reputation

Project Cost and Schedule

Description	Estimated Cost
Project Development	\$17,000
Consultant Engineer	\$213,554
Design Services (~ 3%)	\$50,000
Construction Services (~ 15%)	\$150,000
Construction (estimated)	\$1,000,000
Contingency (~ 15%)	\$260,000
Total Project Cost	\$1,690,554
Total Project Budget	\$300,000

Project Milestone	Date
Consultant Contract Award	December 2016
Design Completion	December 2018
Construction Contract Award	March 2019
Project Completion	October 2019



IEUA Goal/Recommendation

Staff recommends that the Board of Directors award the consultant Engineering Services contract to Civiltec Engineering Inc., for the not-to-exceed amount of \$213,554 and authorize the General Manager to execute the design contract for the East End Avenue NRW Flowmeter Replacement.

The East End Avenue NRW Flowmeter Replacement, Project No. EN22002, is part of **IEUA's Collection System Business Goal** to maintain capacity within collection system, meet essential service demands, and to safeguard public health and the environment.



CONTRACT NUMBER: 4600002248
FOR
CONSULTING ENGINEERING SERVICES
FOR THE
EAST END AVENUE NRW FLOWMETER UPGRADES
PROJECT NO. EN22002

THIS CONTRACT (the "Contract"), is made and entered into this ____ day of _____, 2016, by and between the Inland Empire Utilities Agency, a Municipal Water District, organized and existing in the County of San Bernardino under and by virtue of the laws of the State of California (hereinafter referred to interchangeably as "IEUA" and "Agency") and Civiltec Engineering, Inc. with offices located in Monrovia, California (hereinafter referred to as "Consultant"), to provide professional engineering services in support of Project EN22002.

NOW, THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties agree as follows:

1. **PROJECT MANAGER ASSIGNMENT:** All technical direction related to this Contract shall come from the designated Project Manager. Details of the Agency's assignment are listed below.

Project Manager: Ms. Nasrin Maleki, P.E., Sr. Engineer
Address: 6075 Kimball Avenue, Building B
Chino, California 91708
Telephone: (909) 993-1696
Email: nmaleki@ieua.org
Facsimile: (909) 993-1982

2. **CONSULTANT ASSIGNMENT:** Special inquiries related to this Contract and the effects of this Contract shall be referred to the following:

Consultant: Mr. Bed Dawadi, P.E., Project Manager
Address: 118 Lime Avenue
Monrovia, CA 91016
Telephone: (626) 357-0588
Email: bdawadi@civiltec.com
Facsimile: (626) 303-7957

3. **ORDER OF PRECEDENCE:** The documents referenced below represent the Contract Documents. Where any conflicts exist between the General Terms and Conditions, or addenda attached, then the governing order of precedence shall be as follows:
 - A. Amendments to Contract 4600002248.
 - B. Contract Number 4600002248, General Terms and Conditions.
 - C. Consultant's negotiated Scope of Work (**Exhibit A**).
 - D. Consultant's Proposal dated October 11, 2016.
 - E. Agency's Request for Proposals ("RFP") RFP-RW-16-026 and germane addenda.

4. **SCOPE OF WORK AND SERVICES:** Consultant services and responsibilities shall include, and be in accordance with tasks identified in IEUA's Request for Proposals ("RFP") RFP-RW-16-026 and Consultant's negotiated Scope of Work (hereinafter "the Work"), which are attached hereto, incorporated herein and made a part hereof by this reference as **Exhibit A**. All referenced services and responsibilities shall be in accordance with the schedule outlined in RFP Addendum One.

5. **TERM:** The term of this Contract shall extend from the date of the Notice to Proceed and terminate upon one year of completed construction, unless agreed to by both parties, reduced to writing, and amended to this Contract.

6. **COMPENSATION:** Consultant's invoice must be submitted according to milestones achieved by Consultant and accepted by the Agency's Project Manager, and shall include a breakdown by items completed, referencing State Prevailing Wages, all associated labor categories provided, labor hours supplied and associated hourly rates, dates worked, the current monthly amount due, and the cumulative amount invoiced to-date against this Contract. Invoicing shall be submitted electronically to apgroup@ieua.org, using the Agency's standard Excel®-based invoicing template (**Exhibit B**). A template will be furnished in Microsoft® Excel® 2013. Invoicing shall not be submitted in advance of, or shall not be dated earlier than, the actual date of submittal.

Agency may at any time make changes to the Work including additions, reductions, and changes to any or all of the Work, as directed in writing by the Agency. Such changes shall be made by an Amendment to the Contract. The NOT-TO-EXCEED Amount and Work Schedule of the RFP shall be equitably adjusted, if required, to account for such changes and shall be set forth in the Amendment.

In compensation for the Work represented by this Contract, Agency shall pay Consultant a **NOT-TO-EXCEED maximum total of \$213,554.00** for all services provided in accordance with Consultant's Fee Proposal, attached hereto, made a part hereof, and referenced herein as **Exhibit C**. Payment shall be made according to milestones achieved by Consultant and accepted by the Agency's Project Manager.

For any Work performed which is determined to be public works having costs in excess of \$1,000.00, Certified Payroll Reporting must be transmitted to the Department of Industrial

Relations (DIR) as per <http://www.dir.ca.gov/Public-Works/Prevailing-Wage.html> with copies to IEUA's Accounting Department.

7. CONTROL OF THE WORK: Consultant shall perform the Work in compliance with the Work Schedule of the RFP and as published by RFP Addendum Number One, attached hereto, referenced herein as **Exhibit D**, and made a part hereof. If performance of the Work falls behind schedule, the Consultant shall accelerate the performance of the Work to comply with the Work Schedule as directed by the Project Manager. If the nature of the Work is such that Consultant is unable to accelerate the Work, Consultant shall promptly notify the Project Manager of the delay, the causes of the delay, and submit a proposed revised Work Schedule.
8. FITNESS FOR DUTY:
 - A. Fitness: Consultant and its Subcontractor personnel on the Jobsite:
 1. Shall report for work in a manner fit to do their job;
 2. Shall not be under the influence of or in possession of any alcoholic beverages or of any controlled substance (except a controlled substance as prescribed by a physician so long as the performance or safety of the Work is not affected thereby); and
 3. Shall not have been convicted of any serious criminal offense which, by its nature, may have a discernible adverse impact on the business or reputation of Agency.
 4. Confined Space Work:

Precautions and Programs:

 - a. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work or the activities of subcontractors, suppliers, and others at the work site.
 - b. The Contractors and subcontractors shall comply with the provisions of the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under Section 107 of the "Contract Work Hours and Safety Standards Act," as set forth in Title 29 C.F.R. If the Agency is notified of an alleged violation of the Occupational Safety and Health Standards referred to in this Section and it is established that there is a violation, the Contractor shall be subject to liquidated damages as provided in the Contract.
 - c. The Contractor and all subcontractors shall comply with the provisions of the Occupational Safety and Health Standards, promulgated by the United States Secretary of Labor under the "Occupational Safety and Health Act of 1970," as set forth in Title 29, C.F.R. Where an individual State act on occupational safety and health standards has been approved by federal authority, then the provisions of said state act shall control.

d. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary supervision, control, and direction to prevent damage, injury, or loss to:

- 1) All employees on the work or work site and other persons and organizations who may be affected thereby;
- 2) All the work and materials and equipment to be incorporated therein, whether in storage or on or off the work site; and
- 3) All other property at the site.

e. Contract work requiring confined space entry must follow Cal-OSHA Regulation 8 CCR, Sections 5157 - 5158. This regulation requires the following to be submitted to IEUA for approval prior to the start of the project:

- 1) *Proof of training on confined space procedures, as defined in Cal-OSHA Regulation 8 CCR, Section 5157.* This regulation also requires the following to be submitted to IEUA for approval prior to the entry of a confined space:
- 2) *A written plan that includes identification of confined spaces within the construction site, alternate procedures where appropriate, contractor provisions, specific procedures for permit-required and non-permit required spaces, and a rescue plan.*

f. The Contractor must also submit a copy of their Safety Program or IIPP prior to the start of the project for approval by the IEUA Safety Department.

B. Compliance: Consultant shall advise all Consultant and subcontractor personnel and associated third parties of the requirements of this Contract ("Fitness for Duty Requirements") before they enter on the Jobsite and shall immediately remove from the Jobsite any employee determined to be in violation of these requirements. Consultant shall impose these requirements on its Subcontractors. Agency may cancel the Contract if Consultant violates these Fitness for Duty Requirements.

C. **Effective January 1, 2015:** The call for bids and contract documents must include the following information in accordance with SB854:

1. No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
2. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5.
3. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations (DIR). As such, a PWC-100 shall be generated

for any Work performed which is determined to be public works having costs in excess of \$1,000.00.

9. **INSURANCE**: During the term of this Contract, the Consultant shall maintain at Consultant's sole expense, the following insurance.

A. **Minimum Scope of Insurance**: Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL)**: Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability**: ISO Form Number CA 00 01 covering any auto (Code 1), or if Consultant has no owned autos, covering hired, (Code 8) and non-owned autos (Code 9), with limit no less than \$1,000,000 per accident for bodily injury and property damage.
3. **Workers' Compensation and Employers Liability**: Workers' compensation limits as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.
4. **Professional Liability (Errors and Omissions)**: Insurance appropriate to the Consultant's profession, with limit no less than \$1,000,000 per occurrence or claim, \$2,000,000 aggregate.

B. **Deductibles and Self-Insured Retention**: Any deductibles or self-insured retention must be declared to and approved by the Agency. At the option of the Agency, either: the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the Agency, its officers, officials, employees and volunteers; or the Consultant shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.

C. **Other Insurance Provisions**: The policies are to contain, or be endorsed to contain, the following provisions:

1. **General Liability and Automobile Liability Coverage**
 - a. **Additional Insured Status**: The Agency, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of

the Consultant including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance (at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG 20 37 forms if later revisions used).

- b. Primary Coverage: The Consultant's insurance coverage shall be primary insurance coverage at least as broad as ISO CG 20 01 04 13 as respects the Agency, its officer, officials, employees and volunteers. Any insurance or self-insurance maintained by the Agency, its officers, officials, employees, volunteers, property owners or engineers under contract with the Agency shall be excess of the Consultant's insurance and shall not contribute with it.
 - c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Agency, its officers, officials, employees or volunteers.
 - d. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
 - e. The Consultant may satisfy the limit requirements in a single policy or multiple policies. Any such additional policies written as excess insurance shall not provide any less coverage than that provided by the first or primary policy.
2. Workers' Compensation and Employers Liability Coverage

The insurer hereby grants to Agency a waiver of any right to subrogation which any insurer of said Consultant may acquire against the Agency by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Agency has received a waiver of subrogation endorsement from the insurer.

3. All Coverages

Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Agency.

- D. Acceptability of Insurers: All insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-:VII, and who are admitted insurers in the State of California.

- E. Verification of Coverage: Consultant shall furnish the Agency with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the Agency before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them. The Agency reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.
- F. Submittal of Certificates: Consultant shall submit all required certificates and endorsements to the following:

Inland Empire Utilities Agency, a Municipal Water District
Attn: Ms. Angela Witte, Risk Specialist
P.O. Box 9020
Chino Hills, California 91709

10. LEGAL RELATIONS AND RESPONSIBILITIES

- A. Professional Responsibility: The Consultant shall be responsible, to the level of competency presently maintained by other practicing professionals performing the same or similar type of work.
- B. Status of Consultant: The Consultant is retained as an independent Consultant only, for the sole purpose of rendering the services described herein, and is not an employee of the Agency.
- C. Observing Laws and Ordinances: The Consultant shall keep itself fully informed of all existing and future state and federal laws and all county and city ordinances and regulations which in any manner affect the conduct of any services or tasks performed under this Contract, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. The Consultant shall at all times observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees, and shall protect and indemnify, as required herein, the Agency, its officers, employees and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by the Consultant or its employees.
- D. Subcontract Services: Any subcontracts for the performance of any services under this Contract shall be subject to the written approval of the Project Manager.
- E. Hours of Labor: The Consultant shall comply with all applicable provisions of California Labor Code Sections 1810 to 1817 relating to working hours. The Consultant shall, as a penalty to the Agency, forfeit \$25.00 for each worker employed in the execution of the Contract by the Consultant or by any subcontractor for each calendar day during which such

worker is required or permitted to work more than eight (8) hours in any one (1) calendar day and forty (40) hours in any one (1) calendar week in violation of the provisions of the Labor Code.

- F. Travel and Subsistence Pay: The Consultant shall make payment to each worker for travel and subsistence payments which are needed to execute the work and/or service, as such travel and subsistence payments are defined in the applicable collective bargaining agreements with the worker.
- G. Liens: Consultant shall pay all sums of money that become due from any labor, services, materials or equipment furnished to Consultant on account of said services to be rendered or said materials to be furnished under this Contract and that may be secured by any lien against the Agency. Consultant shall fully discharge each such lien at the time performance of the obligation secured matures and becomes due.
- H. Conflict of Interest: No official of the Agency who is authorized in such capacity and on behalf of the Agency to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving this Contract, or any subcontract relating to services or tasks to be performed pursuant to this Contract, shall become directly or indirectly personally interested in this Contract.
- I. Equal Opportunity and Unlawful Discrimination: During the performance of this Contract, the Consultant shall not unlawfully discriminate against any employee or employment applicant because of race, color, religion, sex, age, marital status, ancestry, physical or mental disability, sexual orientation, veteran status or national origin. The Agency is committed to creating and maintaining an environment free from harassment and discrimination. To accomplish these goals the Agency has established procedures regarding the implementation and enforcement of the Agency's Harassment Prohibition and Equal Employment Opportunity commitments. Please refer to Agency Policies A-29 (Equal Employment Opportunity) and A-30 Harassment Prohibition for detailed information or contact the Agency's Human Resources Administrator. A copy of either of these Policies can be obtained by contacting the Project Manager for your respective Contract. Please advise any of your staff that believes they might have been harassed or discriminated against while on Agency property, to report said possible incident to either the Project Manager, or the Agency's Human Resources Administrator. Please be assured that any possible infraction shall be thoroughly investigated by the Agency.
- J. Non-Conforming Work and Warranty: Consultant represents and warrants that the Work and Documentation shall be adequate to serve the purposes described in the Contract. For a period of not less than one (1) year after acceptance of the completed Work, Consultant shall, at no additional cost to Agency, correct any and all errors in and shortcomings of the Work or Documentation, regardless of whether any such errors or shortcoming is brought to the attention of Consultant by Agency, or any other person or entity. Consultant shall within three (3) calendar days, correct any error or shortcoming that renders the Work or

Documentation dysfunctional or unusable and shall correct other errors within thirty (30) calendar days after Consultant's receipt of notice of the error. Upon request of Agency, Consultant shall correct any such error deemed important by Agency in its sole discretion to Agency's continued use of the Work or Documentation within seven (7) calendar days after Consultant's receipt of notice of the error. If the Project Manager rejects all or any part of the Work or Documentation as unacceptable and agreement to correct such Work or Documentation cannot be reached without modification to the Contract, Consultant shall notify the Project Manager, in writing, detailing the dispute and reason for the Consultant's position. Any dispute that cannot be resolved between the Project Manager and Consultant shall be resolved in accordance with the provisions of this Contract.

K. Disputes:

1. All disputes arising out of or in relation to this Contract shall be determined in accordance with this section. The Consultant shall pursue the work to completion in accordance with the instruction of the Agency's Project Manager notwithstanding the existence of dispute. By entering into this Contract, both parties are obligated, and hereby agree, to submit all disputes arising under or relating to the Contract, which remain unresolved after the exhaustion of the procedures provided herein, to independent arbitration. Except as otherwise provided herein, arbitration shall be conducted under California Code of Civil Procedure Sections 1280, et. seq, or their successor.
2. Any and all disputes during the pendency of the work shall be subject to resolution by the Agency Project Manager and the Consultant shall comply, pursuant to the Agency Project Manager instructions. If the Consultant is not satisfied with any such resolution by the Agency Project Manager, they may file a written protest with the Agency Project Manager within seven (7) calendar days after receiving written notice of the Agency's decision. Failure by Consultant to file a written protest within seven (7) calendar days shall constitute waiver of protest, and acceptance of the Agency Project Manager's resolution. The Agency's Project Manager shall submit the Consultant's written protests to the General Manager, together with a copy of the Agency Project Manager's written decision, for his or her consideration within seven (7) calendar days after receipt of said protest(s). The General Manager shall make his or her determination with respect to each protest filed with the Agency Project Manager within ten (10) calendar days after receipt of said protest(s). If Consultant is not satisfied with any such resolution by the General Manager, they may file a written request for arbitration with the Project Manager within seven (7) calendar days after receiving written notice of the General Manager's decision.
3. In the event of arbitration, the parties hereto agree that there shall be a single neutral Arbitrator who shall be selected in the following manner:

- a. The Demand for Arbitration shall include a list of five names of persons acceptable to the Consultant to be appointed as Arbitrator. The Agency shall determine if any of the names submitted by Consultant are acceptable and, if so, such person shall be designated as Arbitrator.
 - b. In the event that none of the names submitted by Consultant are acceptable to Agency, or if for any reason the Arbitrator selected in Step (a) is unable to serve, the Agency shall submit to Consultant a list of five names of persons acceptable to Agency for appointment as Arbitrator. The Consultant shall, in turn, have seven (7) calendar days in which to determine if one such person is acceptable.
 - c. If after Steps (a) and (b), the parties are unable to mutually agree upon a neutral Arbitrator, the matter of selection of an Arbitrator shall be submitted to the San Bernardino County Superior Court pursuant to Code of Civil Procedure Section 1281.6, or its successor. The costs of arbitration, including but not limited to reasonable attorneys' fees, shall be recoverable by the party prevailing in the arbitration. If this arbitration is appealed to a court pursuant to the procedure under California Code of Civil Procedure Section 1294, et seq., or their successor, the costs of arbitration shall also include court costs associated with such appeals, including but not limited to reasonable attorneys' fees which shall be recoverable by the prevailing party.
4. Joinder in Mediation/Arbitration: The Agency may join the Consultant in mediation or arbitration commenced by a contractor on the Project pursuant to Public Contracts Code Sections 20104 et seq. Such joinder shall be initiated by written notice from the Agency's representative to the Consultant.
11. **INDEMNIFICATION:** Consultant shall indemnify the Agency, its directors, employees and assigns, and shall hold them harmless from all liabilities, demands, actions, claims, losses and expenses, including reasonable attorneys' fees, which arise out of or are related to the negligence, recklessness or willful misconduct of the Consultant, its directors, employees, agents and assigns, in the performance of work under this contract. Notwithstanding the foregoing, to the extent that this Contract includes design professional services under Civil Code Section 2782.8, as may be amended from time to time, such duties of Consultant to defend and to indemnify Agency shall only be to the full extent permitted by Civil Code Section 2782.8.

Consultant shall have no duty to defend Agency, but Consultant shall pay as damages to Agency all reasonable attorney's fees and costs incurred by Agency to the extent incurred by Agency arising out of Consultant's actual or alleged negligent acts, errors, or omissions. Further, Consultant shall assume sole responsibility for the investigation, analysis, and defense of any and all issues alleged against Agency or Consultant to the extent alleged, based on, or arising out of Consultant's scope of work, or Consultant's actual or alleged negligent acts, errors, or omissions.

12. OWNERSHIP OF MATERIALS AND DOCUMENTS/CONFIDENTIALITY: The Agency retains ownership of any and all partial or complete reports, drawings, plans, notes, computations, lists, and/or other materials, documents, information, or data prepared by the Consultant and/or the Consultant's subcontractor(s) pertaining to this Contract. Said materials and documents are confidential and shall be available to the Agency from the moment of their preparation, and the Consultant shall deliver same to the Agency whenever requested to do so by the Project Manager and/or Agency. The Consultant agrees that same shall not be made available to any individual or organization, private or public, without the prior written consent of the Agency.
13. TITLE AND RISK OF LOSS:
- A. Documentation: Title to the Documentation shall pass to Agency when prepared; however, a copy may be retained by Consultant for its records and internal use. Consultant shall retain such Documentation in a controlled access file, and shall not reveal, display or disclose the contents of the Documentation to others without the prior written authorization of Agency or for the performance of Work related to the project.
- B. Material: Title to all Material, field or research equipment, and laboratory models, procured or fabricated under the Contract shall pass to Agency when procured or fabricated, and such title shall be free and clear of any and all encumbrances. Consultant shall have risk of loss of any Material or Agency-owned equipment of which it has custody.
- C. Disposition: Consultant shall dispose of items to which Agency has title as directed in writing by the Agreement Administrator and/or Agency.
14. PROPRIETARY RIGHTS:
- A. Rights and Ownership: Agency's rights to inventions, discoveries, trade secrets, patents, copyrights, and other intellectual property, including the Information and Documentation, and revisions thereto (hereinafter collectively referred to as "Proprietary Rights"), used or developed by Consultant in the performance of the Work, shall be governed by the following provisions:
- Proprietary Rights conceived, developed, or reduced to practice by Consultant in the performance of the Work shall be the property of Agency, and Consultant shall cooperate with all appropriate requests to assign and transfer same to Agency.
- If Proprietary Rights conceived, developed, or reduced to practice by Consultant prior to the performance of the Work are used in and become integral with the Work or Documentation, or are necessary for Agency to have complete enjoyment of the Work or Documentation, Consultant shall grant to Agency a non-exclusive, irrevocable, royalty-free license, as may be required by Agency for the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation.

If the Work or Documentation includes the Proprietary Rights of others, Consultant shall procure, at no additional cost to Agency, all necessary licenses regarding such Proprietary Rights so as to allow Agency the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation. All such licenses shall be in writing and shall be irrevocable and royalty-free to Agency.

B. No Additional Compensation: Nothing Set forth in this Contract shall be deemed to require payment by Agency to Consultant of any compensation specifically for the assignments and assurances required hereby, other than the payment of expenses as may be actually incurred by Consultant in complying with this Contract.

15. INFRINGEMENT: Consultant represents and warrants that the Work and Documentation shall be free of any claim of trade secret, trade mark, trade name, copyright, or patent infringement or other violations of any Proprietary Rights of any person.

Consultant shall defend, indemnify and hold harmless, Agency, its officers, directors, agents, employees, successors, assigns, servants, and volunteers free and harmless from any and all liability, damages, losses, claims, demands, actions, causes of action, and costs including reasonable attorney's fees and expenses arising out of any claim that use of the Work or Documentation infringes upon any trade secret, trade mark, trade name, copyright, patent, or other Proprietary Rights.

Consultant shall, at its expense and at Agency's option, refund any amount paid by Agency under the Contract, or exert its best efforts to procure for Agency the right to use the Work and Documentation, to replace or modify the Work and Documentation as approved by Agency so as to obviate any such claim of infringement, or to put up a satisfactory bond to permit Agency's continued use of the Work and Documentation.

16. NOTICES: Any notice may be served upon either party by delivering it in person, or by depositing it in a United States Mail deposit box with the postage thereon fully prepaid, and addressed to the party at the address set forth below:

Agency: Warren T. Green
Manager of Contracts
Inland Empire Utilities Agency, a Municipal Water District
P.O. Box 9020
Chino Hills, California 91709

Consultant: W. David Byrum
President
Civiltec Engineering, Inc.
118 W. Lime Avenue
Monrovia, CA 91016

Any notice given hereunder shall be deemed effective in the case of personal delivery, upon receipt thereof, or, in the case of mailing, at the moment of deposit in the course of transmission with the United States Postal Service.

17. SUCCESSORS AND ASSIGNS: All of the terms, conditions and provisions of this Contract shall inure to the benefit of and be binding upon the Agency, the Consultant, and their respective successors and assigns. Notwithstanding the foregoing, no assignment of the duties or benefits of the Consultant under this Contract may be assigned, transferred or otherwise disposed of without the prior written consent of the Agency; and any such purported or attempted assignment, transfer or disposal without the prior written consent of the Agency shall be null, void and of no legal effect whatsoever.
18. PUBLIC RECORDS POLICY: Information made available to the Agency may be subject to the California Public Records Act (Government Code Section 6250 et seq.) The Agency's use and disclosure of its records are governed by this Act. The Agency shall use its best efforts to notify Consultant of any requests for disclosure of any documents pertaining to Consultant.

In the event of litigation concerning disclosure of information Consultant considers exempt from disclosure; (e.g., Trade Secret, Confidential, or Proprietary) Agency shall act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If Agency is required to defend an action arising out of a Public Records Act request for any of the information Consultant has marked "Confidential," "Proprietary," or "Trade Secret," Consultant shall defend and indemnify Agency from all liability, damages, costs, and expenses, including attorneys' fees, in any action or proceeding arising under the Public Records Act.

19. RIGHT TO AUDIT: The Agency reserves the right to review and/or audit all Consultant's records related to the Work. The option to review and/or audit may be exercised during the term of the Contract, upon termination, upon completion of the Contract, or at any time thereafter up to twelve (12) months after final payment has been made to Consultant. The Consultant shall make all records and related documentation available within three (3) working days after said records are requested by the Agency.
20. INTEGRATION: The Contract Documents represent the entire Contract of the Agency and the Consultant as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered by the Contract Documents. This Contract may not be modified, altered or amended except by written mutual agreement by the Agency and the Consultant.
21. GOVERNING LAW: This Contract is to be governed by and constructed in accordance with the laws of the State of California.
22. TERMINATION FOR CONVENIENCE: The Agency reserves and has the right to immediately suspend, cancel or terminate this Contract at any time upon written notice to the Consultant. In the

event of such termination, the Agency shall pay Consultant for all authorized and Consultant-invoiced services up to the date of such termination.

- 23. **FORCE MAJEURE:** Neither party shall hold the other responsible for the effects of acts occurring beyond their control; e.g., war, riots, strikes, natural disasters, etcetera.
- 24. **NOTICE TO PROCEED:** No services shall be performed or furnished under this Contract unless and until this document has been properly signed by all responsible parties and a Notice to Proceed order has been issued to the Consultant.

IN WITNESS WHEREOF, the parties hereto have caused the Contract to be entered as of the day and year written above.

**INLAND EMPIRE UTILITIES AGENCY:
(A Municipal Water District)**

CIVILTEC ENGINEERING, INC.:

P. Joseph Grindstaff
General Manager

(Date)



W. David Byrum
President

11/29/16

(Date)

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Exhibit A



Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

September 13, 2016

**REQUEST FOR PROPOSALS
RFP-RW-16-026
FOR
CONSULTING ENGINEERING SERVICES FOR THE
East End Avenue NRW Flowmeter Upgrades**

Project No. EN22002

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Request For Proposals RFP-RW-16-026

For

CONSULTING ENGINEERING SERVICES FOR

East End Avenue NRW Flowmeter Upgrades

Project No. EN22002

SERVICES FOR DESIGN & BID ASSISTANCE

September 13, 2016

1. REQUEST FOR PROPOSALS

Proposals are being accepted by Inland Empire Utilities Agency (IEUA) (hereinafter referred to as “Agency”), a Municipal Water District, for Consulting Engineering Services (hereinafter referred to as “Consultant”) required for the design and bid assistance of the East End Avenue NRW Flowmeter Upgrades project.

2. PROCESSING OF PROPOSALS

An optional pre-proposal briefing will be held on *September 27, 2016 at 10 AM* with prospective Consultants at the Agency’s Headquarters, located on 6075 Kimball Ave, Building B, Chino, California, 91708. An optional site tour will be conducted after the pre-proposal briefing. Hard hats will not be provided by the Agency and they will be required during the tour.

Any relevant questions concerning the Request For Proposals (RFP) or the Scope of Work other than those asked at the pre-proposal meeting shall be directed in writing to the Agency’s Project Manager:

Nasrin Maleki
Inland Empire Utilities Agency
P.O. Box 9020
Chino Hills, California 91708
(909) 993- 1696
Email: nmaleki@ieua.org

All questions must be received prior to *October 4, 2016, by 2:00 PM*. Answers to these questions will be sent to all prospective Consultants. No answers will be given on an individual basis.

To receive consideration, eight (8) copies of the proposal, one complete electronic copy of the proposal (provided on CD/DVD/USB), and one separately sealed fee proposal envelope must be received at the Agency's Headquarters located on 6075 Kimball Ave, Building A, Chino, California, 91708 by *October 11, 2016 at 2:00 PM* and addressed to the attention of *Nasrin Maleki*. The package of the eight proposals and one electronic copy shall be clearly marked "**East End Avenue NRW Flowmeter Upgrades – DO NOT OPEN**" and the fee proposal envelope marked "**FEE PROPOSAL –East End Avenue NRW Flowmeter Upgrades - DO NOT OPEN**". All proposals will be held in confidence prior to the opening date of all proposals.

The Agency reserves the right, after opening the proposals, to reject any or all proposals, or, to accept proposal(s) that in its sole judgment, are in the best interest of the Agency.

Prospective Consultants assume the risk of any delay in mail or handling of mail by the Agency's employees. Applicants are therefore responsible for ensuring that proposals are received on time at the specified location by the specified time whether they are sent by mail or delivered in person. Oral, telegraphic, or telephonic proposals or modifications will not be considered. More than one proposal from an individual, firm, partnership, corporation or association under the same or different names shall not be considered.

3. AGENCY DESCRIPTION

Inland Empire Utilities Agency is a regional sewage treatment and water agency that provides sewage treatment, solids waste handling, and recycled water to the west end of San Bernardino county. Its 242 square mile service area includes the cities of Upland, Montclair, Ontario, Fontana, Chino and Chino Hills; Cucamonga Valley Water District which services the City of Rancho Cucamonga and the unincorporated areas of San Bernardino County, including the Chino Agricultural Preserve. The Agency, a special assessment district, is governed by a five seat publicly elected Board of Directors. Each director is assigned to one of the five divisions which are: Division 1-Upland/Montclair; Division 2- Ontario/ Agricultural Preserve; Division 3- Chino/ Chino Hills; Division 4- Fontana; Division 5- Rancho Cucamonga. The Regional Technical and Policy Committees provide information on technical and policy issues, and there are representatives from each of the contracting agencies on these committees.

Five regional water reclamation plants are used to treat sewage from the Agency's service area. They are: Regional Water Recycling Plant No. 1 (RP-1), located in the City of Ontario; Regional Water Recycling Plant No. 2 (RP-2), located in the City of

Chino; Regional Water Recycling Plant No. 4 (RP-4), located in the City of Rancho Cucamonga; and Carbon Canyon Water Recycling Facility (CCWRF), located in the City of Chino and Regional Water Recycling Plant No. 5 (RP-5), located in the City of Chino.

The Agency has two main service areas: Northern Service Area and Southern Service Area. The northern part of Riverside Drive in Ontario is referred to as the Northern Service Area and the southern part of Riverside Drive is the Southern Service area. The Northern Service area is approximately 162 square miles and it has two active treatment plants, RP-1 and RP-4, and one decommissioned treatment plant, RP-3. The Southern Service area has CCWRF, RP-5, RP-2, and the Agency's L.E.E.D. certified Administration Headquarters. In conjunction to these facilities, the Agency maintains and operates a desalter facility, Chino I Desalter, in the City of Chino and biosolids composting facility, Inland Empire Composting Facility, in the City of Rancho Cucamonga on behalf of the Chino Basin Desalter Authority and Inland Empire Regional Composting Authority, respectively. The Agency is also the Metropolitan Water District of Southern California representative for the contracting agencies.

4. PROJECT BACKGROUND

In 1967, the Los Angeles County Sanitation District (District) and Inland Empire Utilities Agency (Agency/IEUA) entered into various contracts under which the District would accept a portion of the industrial wastewater flow from IEUA's Non-Reclaimable Wastewater Line (NRW). The District requested that the Agency replace the existing 42" Palmer-Bowlus flowmeter at East End (EE) Avenue with a modern flowmeter that reflects current technology by June 2024. Please refer to Appendix 3 to review the District and IEUA contract agreement and Appendix 4 for the NRW as-builts.

To view Appendix 3 and 4, please refer to the link below:

<https://us3.hostedftp.com/Cyta0d6obuZvF41zVAbTk8WCl>

*Please note that all links provided in this document will expire after 100 days. If you wish to keep the documents, please download for your records.

The existing EE Flowmeter is located east of the East End Avenue and Grand Avenue intersection in the unincorporated area of San Bernardino County. Please refer to Attachment A for further details on the existing flowmeter location. The EE Flowmeter has two related 24" manholes in which one is used for the still well and the second one, where the flowmeter is located, is used for sampling purposes. The location of the EE Flowmeter presents safety concerns to IEUA. Both of the manholes are located within public right-of-way within the east bound lane of Grand Avenue which is a high traffic volume street and a major safety concern to the Agency.

This project was created to address the contractual requirements as well as the Agency's safety concerns with the existing NRW EE Flowmeter.

The Agency seeks the services of an engineering consultant to design, and provide bid assistance for the East End Avenue NRW Flowmeter Upgrades project.

A. Environmental Review

IEUA will be responsible for the preparation and processing of an environmental review documents.

For construction sites of one acre or larger, Consultant will prepare a project specific Storm Water Pollution Prevention Plan (SWPPP), IEUA will file the Notice of Intent (NOI), and file the Notice of Termination (NOT) at the completion of the project. The contractor will be responsible for implementing the SWPPP, which includes but is not limited to, furnishing all materials and labor necessary to install and maintain the Best Management Practices (BMP's) required to comply with the statewide Construction General Permit, provide all required reports and monitoring for the duration of the project.

5. PROJECT DESCRIPTION

The project will design and construct a new flowmeter replacing the existing flume flowmeter located in the 42 inch NRW North System Central Trunk line. The design and construction of the new flowmeter shall conform to the District's and Agency's contract requirements as well as the District's flow monitoring requirements per Appendix 1. The proposed flow monitoring and sampling system shall be an above grade enclosure, as permitting allows. The above grade enclosure shall be easily accessible and refrigerated for sampling purposes. The existing flowmeter will be left in place. During the design alternative analysis, if it is concluded that the proposed flowmeter shall be constructed parallel to the existing flowmeter, then the consultant shall design a diversion structure with a gate system for tie-in and bypass of the existing flowmeter. The existing 42 inch Palmer-Bowlus flowmeter within the 42 inch NRW line was constructed by the District and its removal requires permission from the District.

The Engineering Consultant shall investigate/survey the surrounding area as well as the city and county permit requirements (San Bernardino County and Los Angeles County) in order to determine the optimal location to install the new flowmeter and sampling enclosure. The proposed flowmeter shall be installed between Roswell Avenue and East End Avenue in the unincorporated area of San Bernardino County in order to remain within close proximity to the Los Angeles County boarder and to account for any future industries that may be added to the NRW line. Pot holing and

a utility search are required by the Consultant in order to have optimal placement of the proposed above grade enclosure. Additionally, to address the Agency's safety concerns, the new flowmeter and sampling enclosure shall be located out of heavy vehicle traffic, yet remain within public right-of-way within San Bernardino County.

The Engineering Consultant shall evaluate all options for a permanent flowmeter and reliable sampling system. The Agency prefers the use of a magmeter for flow monitoring, however the Consultant shall evaluate and present all options within their Alternative Analysis. All mechanical and electrical equipment shall abide by the Agency's Engineering Design Guideline. If there are any deviations in the design from the Engineering Design Guideline, the Consultant must present validation for the change. The change is subject to the Agency's approval. Please refer to Attachment O for the Engineering Design Guideline. The existing flow in the NRW line ranges from a peak of 6 MGD to 1 MGD. However, in a better economy this flow will experience peaks of up to 12 MGD therefore the design shall be for a maximum flow of 12 MGD. Diverting the NRW flow or storing the flow in the customer's storage tank is not an alternative for this project.

The existing East End flowmeter has 100 Amp 120/208/3p electric power and an SCE meter. In a recently completed project, the Agency upgraded the Montclair Flow Splitter Box/Metering System and installed a PLC, SCE meter and Fiber Optic line on the Northwest corner of Roswell Avenue and Grand Avenue in the unincorporated area of San Bernardino County. These lines can be used as a viable source of electricity and communications to the Agency's SCADA System for the subject project. Please see Appendix 2 for the project drawings of the Montclair Flow Splitter Box/Metering Upgrades, Project No. EN13018. All existing electrical cabinets and related equipment shall be updated according to the Engineering Design Guideline. The existing flow monitoring system consists of a data logger and data card. The data logger's collected data is converted to an Excel spreadsheet after which it is analyzed by the Agency. Per District's requirements, data has to be recorded once every minute. Recently, the Agency developed standard programming methods for use with the Agency's water, wastewater, and industrial facilities. Due to the location of the project, the Agency's preferred SCADA program cannot be implemented at the site. The Engineering Consultant shall investigate the use of a DSL phone line for equipment communication purposes. If a DSL phone line is not available for the subject project's location, the use of an Ethernet enabled flowmeter (in which is an Encompassed Partner with Allen Bradley) shall be investigated. The Engineering Consultant will be required to use the following automation hardware with no equals:

1. One – Alan Bradley 1769-L24E Compact Logix controller (5370 controller) and 1769-IA16 120VAD input card.
2. One - 5069-IB16 Allen Bradley CompactLogix Digital Input Card. For Sampler Status.

3. If magmeter is selected by the design team: One - Endress Hauser Ethernet Enabled Mag Meter is the preferred flowmeter for this project.
4. Phoenix Contact Redundant power supplies.
5. APC UPS for backup power.

To view Appendix 1 and Appendix 2, please refer to the following link:

<https://us3.hostedftp.com/Cyta0d6obuZvF41zVAbTk8WCl>

To view Attachment O, please refer to the following link:

<https://us3.hostedftp.com/Cyta0d6obuZvF41zVAbTk8WCl>

6. SCOPE OF WORK

1. Install an accurate new flowmeter and auto sampler compatible with the Agency's SCADA System for the NRW North System Central Trunk located at the Grand Avenue and East End Avenue intersection.
2. The installation of the new flowmeter shall conform to the District's and Agency's contract requirements as well as the District's flow monitoring requirements per Appendix 1. This project is subject to written approval from the District.
3. The new flowmeter and sampling enclosure shall be located out of heavy vehicle traffic, yet remain within public right-of-way within San Bernardino County.
4. Flowmeter shall be designed for 1 to 12 MGD flow.
5. Flow data has to be recorded once every minute and communicated with the Agency's SCADA system.
6. The proposed flowmeter shall be installed between Roswell Avenue and East End Avenue in the unincorporated area of San Bernardino County in order to remain within close proximity to the Los Angeles County boarder.

To view Appendix 1, please refer to the following link:

<https://us3.hostedftp.com/Cyta0d6obuZvF41zVAbTk8WCl>

All required equipment sizes and remaining panel hardware shall be designated accordingly by the Engineering Consultant.

Equipment and Instrument Tag Numbers – The Consultant shall utilize equipment and instrument tag numbering formats provided by the Agency as illustrated in Attachment K. The standard tag numbering system shall be implemented throughout the design phase and will be reviewed by the Agency for compliance.

The Consultant shall provide the engineering services discussed and specified under this section and other sections such as Project Background, Project Description, and other requirements specified throughout the document including, but not limited to, the following:

A. KICKOFF MEETING

Prior to the design of the project, the Consultant shall review all necessary documents and shall attend an informal meeting to receive the Agency's input. Throughout the design phase of the project, the consultant shall be responsible for providing meeting agenda's, preparing meeting handouts, and taking notes to prepare final meeting minutes.

B. ENVIRONMENTAL REVIEW

As stated in the Project Background, IEUA will be responsible for the preparation and processing of the required environmental review documents.

C. PRELIMINARY DESIGN

The Preliminary Design Report (PDR) shall provide all the necessary information required for the Agency to make the most appropriate decision. The Consultant is required to provide a full Business Case Evaluation of all alternative design options in as part of the Consultant's design recommendations.

The Consultant shall submit the following Technical Memorandum (TM), in accordance with the schedule presented in Attachment B. This TM can be later used as a chapter in the Preliminary Design Report. The TM shall provide all the necessary information required for the agency to make the most appropriate decision. The Consultant is required to provide a full Business Case Evaluation of all alternative design options in as part of the Consultant's design recommendations.

The following is the required TM:

Technical Memorandum No. 1 - *EE Flowmeter and sampling location, type of the flowmeter and the proposed upgrade to establish communication between the EE Flowmeter and the Agency's SCADA system*

The preliminary design (10% design) shall include the following:

- i. Kickoff Meeting – Prior to beginning the concept design, the Consultant shall attend an informal meeting to receive the Agency's comments.

- ii. Permits – Due to the existing flowmeter being located in an unincorporated area of San Bernardino County, permitting shall be evaluated according to the existing flowmeter location as well as the proposed grade level enclosure location. Additionally, per District requirements, the Consultant shall submit plans to the District for their feedback. The possible required permit cities and counties are San Bernardino County, Los Angeles County, City of Pomona, City of Ontario, and Southern California Edison. It is the Consultant’s responsibility to verify all required permitting for the subject project. Schedule for permit applications shall be included in the design time. A minimum of six months shall be included at the Pre-Design, 50% Design, and 100% Design phase to account for the LA County District’s review and approval process.

The Agency will pay all permit fees. The Agency will negotiate with the permit agencies to obtain the most cost effective and viable solution for meeting the permit requirements. Consultant shall review the permits and the Agency shall be informed in writing of any unreasonable permit requirement (s), which will increase the project cost.

- iii. Alternative Analysis – The Consultant shall develop three alternatives of the project alignments. The consultant shall include hydraulic analysis of the alternative alignments for the present and ultimate conditions. The alternative analysis shall address the capital costs, operating costs, right-of-way availability, ability to serve currently identified potential users and the ability to meet future demands. Based on this analysis, the Consultant shall make a recommendation.
- iv. Preliminary Design – Description of the recommended project shall be provided and this shall include final selection of pipeline sizes, preliminary horizontal and vertical alignments, and recommendation on corrosion protection. The recommendation on corrosion protection design shall be made by an engineer who is regularly engaged in similar projects.
- v. Geotechnical Evaluation – Provide a preliminary geotechnical evaluation to determine the suitability of the alternative alignments for the proposed project. The preliminary geotechnical evaluation shall include an evaluation of corrosion potential.
- vi. Utility Research – Provide adequate preliminary utility research to assure that the alignment analysis includes the consideration of significant utility conflicts. Please note that due to inadequate existing utility detailing by engineers in the past, the Agency experienced

excessive change orders and delays on pipeline projects. It is the Consultant's responsibility to provide thorough utility research, place all underground utilities on the contract drawings, and review the entire project with the all the plans to ensure that no existing utilities have been omitted. The Consultant will reimburse the Agency for any additional costs that may result from inadequate existing utility research or detailing.

It is Consultant's responsibility to comply with the following Federal, State and Local Laws as detailed below and implement it with their sub contactors as needed:

FEDERAL, STATE, AND LOCAL LAWS: The Bidder and all sub-Bidders shall comply with all applicable federal, state, and local laws, rules, and regulations including any permitting requirements and their related costs:

- No contractor or subcontractor may be listed on a bid proposal for a public works project (Submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

- No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

- vii. Survey – Provide survey research and comments on the project's horizontal and vertical design survey control prepared by a licensed California Surveyor.
- viii. Right-of-Way – Provide preliminary plans for any required right-of-way acquisition including approximate area of each of the required parcels.
- ix. Control System Design – All PLC design and DCS control integration design shall be provided and specified by the Consultant. The Consultant shall evaluate the use of the DLS phone line or fiber optic communication as described in the Project Scope of Work.

- x. Construction Cost Estimate – Provide an estimate of the construction cost for the recommended project.
- xi. Upon completion of the preliminary design, the Consultant shall submit a preliminary design review package with written comments on each of the items listed below:
 - Alternative Analysis – Include a description of each alternative, estimated construction cost, comparison of alternatives and recommendation for the most desirable project.
 - Project Description – Provide a description of the recommended project. The description shall include pipe types and sizes; flow control, metering, sampling, design flow rates; operating pressures; catalog cut sheets on selected equipment types and preliminary horizontal and vertical alignments.
 - Design Criteria – Provide the design criteria recommended for the design of the project.
 - Catalog Cuts – Provide catalog cuts for the selected valves auto sampler and flowmeter.
 - Calculations – Provide a set of calculations used in the alternative analysis and the preliminary sizing of the selected alternative.
 - Pipe Type Selection – The selection of the pipe type shall be based on the recommendation from alternative analysis which takes into consideration: capital cost, operating and maintenance costs, track record and suitability of the pipe type for the project.
 - Construction Cost Estimate – Provide an estimate of the construction cost for the recommended project.
 - Schedule – Review and confirm the project schedule in Attachment B.
 - Right-of-Way – Provide preliminary plats with approximate areas for any proposed right-of-way acquisition.
 - Comments on the Agency’s standards - Comments shall include but not be limited to suggestions for changes in the

Agency's standard bedding and trench backfill specification and standard drawings.

- Permits - Summary on permit acquisition including a list of required permits, names of contact persons, telephone numbers, permit fees, probable requirements, expected processing times, schedules for application and receipt and a plan for keeping the permit process on schedule.

The Consultant shall meet with the staff of the Agency to receive comments on the preliminary design. The Consultant's preliminary design shall include comments from the Agency and the Regional Committees. The preliminary design shall be resubmitted in a bound packet.

D. 30% DESIGN (N/A)

E. 50% DESIGN

The 50% design review package shall include the following:

- i. Prepared plans and specifications to a 50% completed level – The Consultant shall prepare full size double plan and profile drawing sheets at the horizontal scale of no smaller than 1"=40', include all utility information from Agency, utility company records and field information. The Consultant shall plot all easements, property lines, and street pavement limits on the drawings. The location, horizontal and vertical, of all facilities to be constructed shall be called out by dimensions. This includes small underground pipeline and electrical conduits within process plants.

The Consultant shall ensure his/her design approach includes a listing of pertinent regulatory requirements to safely execute and operate the design. The Consultant shall reference at a minimum Cal OSHA, ADA, California Building Code, NFPA, etc. to ensure safety and access requirements for the maintenance of all equipment are fully met during the design phase of the project.

The Consultant shall ensure his/her design approach follows the Agency's required conditions as listed within the enclosed design check off list (Attachment L).

- ii. Utility Research - Please note that, due to inadequate existing utility detailing by engineers in the past, the Agency experienced excessive change orders and delays on pipeline projects. It is the Consultant's responsibility to provide thorough utility research, place all underground utilities on the contract drawings and to review the entire project with the all the plans to ensure that no existing utilities have

been omitted. The Consultant will reimburse the Agency for any additional costs that may result from inadequate existing utility research or detailing.

- i. Design Survey – Design survey shall include but not be limited to the location of surface topography, a benchmark circuit that will establish a benchmark or temporary benchmark at approximately 1,000 foot intervals and tie the survey control to the street centerlines. Manhole locations and invert elevations shall be determined on both sides of the proposed pipe line for all underground crossing and adjacent gravity lines such as sanitary sewers and storm drains. Elevations and locations shall be obtained for all potholes. Pothole survey shall be 100% complete as part of the 50% design. All surface features shall be located, and elevations of the ground surface shall be provided.
- ii. Potholing – The Consultant shall provide excavation, survey, and ground penetrating radar (GPR) to accurately locate all existing utilities as errors in locating these, can affect the construction of the project. At a minimum, the Consultant shall pothole all crossing utilities for which utility records indicate that the exterior wall will be within three feet of the exterior wall of the proposed facility, and all parallel utilities which could also be within the trench excavation, taking into account the probable trench side slope. The Consultant is not required to pothole location of utilities which can be accurately determined without excavation. Such includes sanitary sewers and storm drains where adjacent manholes can be surveyed or minor service connections, which can be more cost effectively relocated at the time of construction. The Consultant shall obtain prior approval of the proposed pothole locations from the Agency’s Project Manager, and schedule the potholing with the Project Manager, so the Agency will have the opportunity to review these locations. The Consultant shall include in the design fee up to 25 or more potholes at selected locations. Fewer than 25 potholes will be a reduction in the scope of work with the appropriate reduction in the Consultant’s fee. Each prospective consultant shall include an add/deduct fee amount in the proposal for this item.
- iii. 3D Modeling Design Services - The design and planning of the project shall require 3D CAD models from the Consultant. This is an additional tool for IEUA stakeholders to review and comment on the virtual build before installation and construction of any new equipment, process, or structure. Building information modeling or “BIM”; an architecture, engineering, and construction industry 3D modeling standard; shall be utilized by the Consultant to develop an

accurate virtual model of the proposed improvement, equipment layout, or a new construction of a building or facility. The goal of the model is to assist the project teams in visualizing the proposed design in a simulated environment to identify potential design, construction, and operational/maintenance issues. At a minimum the 3D modeling design services shall include of the following requirements:

- Create 3D models and/or parametric 2D drawings - Plans, Elevations, Mechanical, Structural, HVAC, Electrical layouts etc.
- Models shall be properly rendered and/or animated to simulate the actual environment
- The 3D Designer shall have over five years of experience
- All submittals shall be developed under AutoCAD 3D and/or Sketchup

For additional information on IEUA's 3D AUTO CAD requirements, please refer to Attachment E.

The Consultant is responsible for holding a 50% design workshop where the 3D models, electrical, instrumentation, and the proposed control system are presented to the facility operations staff and design team.

iv. Draft Process Control Narrative

- v. It is the Consultant's responsibility to review the Agency's Design Guidelines and incorporate it into their design where applicable. If any deviation is desired, it is the Consultant's responsibility to inform the Agency's Project Manager with a formal written request stating/justifying their exceptions.

To access the Agency's Engineering Design Guideline, please refer to Attachment O in the link below:

<https://us3.hostedftp.com/Cyta0d6obuZvF41zVAbTk8WCl>

vi. Required Design Conditions

Energy Efficient Lighting and Process– All new or added interior and exterior lighting shall be designed with a high priority placed on energy conservation and reduction of glare and light trespass. At a minimum, the design shall comply with the lighting standards promulgated by the State of California Energy Commission. All new or added equipment process shall be evaluated for utilizing potential rebates and incentives as provided by Southern California Edison's "Saving by Design Program".

Landscape Design – All landscape design shall be based on native and drought tolerant plants and on water saving irrigation systems, such as drip irrigation. The Agency has developed a standard planting list which will be considered in the development of the project planting list. In case of this project consultant may have to replace the existing landscape with the similar or recommendations provided by the permitting agency.

- vii. Sketches of the non-standard structures such as valve vaults
- viii. Identify equipment to be designed into the project.
- ix. The Consultant shall submit a 50% design review package, with the following contents:
 - Drawings, civil plans will be 85% complete based on selected alternative in approved PDR.
 - Plan and profile sheet, electrical, instrumentation – 50% complete.
 - NRW pipeline detail sheet - 50% complete.
 - Structural plans and elevations – 50% complete.
 - Utility Research – include a list of utilities identified, contact persons, telephone numbers and any unusual requirements and specific reference to any utility which will significantly affect the proposed design .
 - Design Survey - Provide the design survey for the Agency's records.
 - Catalog sheets for equipment to be used in the project.
 - Property descriptions and plats for any required right-of-way purchase.
 - List of all cities, agencies and/or individuals involved with each permit, including contacts, addresses, telephone numbers, requirements, and a schedule for obtaining each permit.
 - Technical Specifications – 50% complete.
 - Pothole results.
 - Calculations - Include all calculations (hydraulic, structural, alignment, control, etc.) on pipes, flow control equipment and metering, jacked casing, etc.
 - A discussion of any expected difficulty in the design or construction of the project.
 - Control System Design.

F. 85% DESIGN

The Consultant shall submit a review package upon 85% completion of design and this shall include the following:

- i. Complete draft set of plans and specifications - The plans and specifications shall be completed, Civil plans will be 100% complete. The plans and specifications shall reflect all past Agency, and they shall include the contractual language and design required to implement the controlling agency permit requirements known at the time. There shall be no missing specification sections or missing plan details. The plans and specifications shall include inputs from the Agency, permit agency and environmental review. The specification does not have to include the permitting Agency's final permits, however, the plans and specifications shall both be designed to include the permit requirements and sample permits are required.
- ii. 3D Modeling Design Services - The design and planning of the project shall require 3D CAD models from the Consultant. This is an additional tool for IEUA stakeholders to review and comment on the virtual build before installation and construction of any new equipment, process, or structure. Building information modeling or "BIM"; an architecture, engineering, and construction industry 3D modeling standard; shall be utilized by the Consultant to develop an accurate virtual model of the proposed improvement, equipment layout, or a new construction of a building or facility. The goal of the model is to assist the project teams in visualizing the proposed design in a simulated environment to identify potential design, construction, and operational/maintenance issues. At a minimum the 3D modeling design services shall include of the following requirements:
 - Create 3D models and/or parametric 2D drawings - Plans, Elevations, Mechanical, Structural, HVAC, Electrical layouts etc.
 - Models shall be properly rendered and/or animated to simulate the actual environment
 - The 3D Designer shall have over five years of experience
 - All submittals shall be developed under AutoCAD 3D and/or Sketchup

For additional information on IEUA's 3D AUTO CAD requirements, please refer to Attachment E.

The 85% 3D presentation is only required if there were substantial changes from the 50% design.

- iii. Standard Specification comments - The Consultant shall review the Agency's Standard Specification boilerplate and shall provide written comments on its adequacy for this project. Any changes the Consultant desire to make to these standard specifications shall be specifically noted.
- iv. Design Geotechnical Report – The Consultant shall provide a report which addresses the geotechnical aspects of the project prepared by a qualified, experienced, and practicing geotechnical engineer. The report shall be based on sufficient field borings to adequately design the project but no less than one field boring for each 1,000 feet of pipeline to a depth of three feet below the bottom of the excavation. Borings shall be provided at each end of any jacked casing. The report shall provide the engineering recommendations required to adequately design and construct the project including identification of soil types, soil in place density, field moisture, relative compaction, soil classification, corrosion potential, recommendations on construction shoring design and slope stability, backfill shrinkage, optimum moisture/density determinations and comments on the proposed design including pipe bedding and trench backfill. The baseline geotechnical report shall include a review of seismic fault zones identified the project area. This information shall also be incorporated into the design.
- v. Control System Subcontractor Pre-qualification Package-

Note: Request for pre-qualification applications and applicant evaluation will be performed by the Agency.
- vi. Traffic Control plans are not required, but the Consultant shall ensure that proper traffic control is possible in relation to their proposed design.
- vii. Submit an 85% design review package with the following:
 - Design Drawings – 85% complete, civil drawings 100% complete
 - Specifications – 85% complete
 - Standard specification comments
 - Final Consultant estimate of probable construction cost for the project
 - Final calculation package – complete
 - Geotechnical report

The Consultant shall submit design calculations as part of the 85% design submittal. This calculation shall include all alignment, hydraulic, structural, and any other calculations as may be required.

G. 100% DESIGN

The Consultant shall submit a review package upon 100% completion of design and this shall include the following:

- i. Design Drawings and Specifications
- ii. 3D Modeling Design Services - The design and planning of the project shall require 3D CAD models from the Consultant. This is an additional tool for IEUA stakeholders to review and comment on the virtual build before installation and construction of any new equipment, process, or structure. Building information modeling or “BIM”; an architecture, engineering, and construction industry 3D modeling standard; shall be utilized by the Consultant to develop an accurate virtual model of the proposed improvement, equipment layout, or a new construction of a building or facility. The goal of the model is to assist the project teams in visualizing the proposed design in a simulated environment to identify potential design, construction, and operational/maintenance issues. At a minimum the 3D modeling design services shall include the following requirements:
 - Create 3D models and/or parametric 2D drawings - Plans, Elevations, Mechanical, Structural, HVAC, Electrical layouts etc.
 - Models shall be properly rendered and/or animated to simulate the actual environment
 - Developers shall have over five years of experience
 - All submittals shall be developed under AutoCAD 3D and/or Sketchup

For additional information on IEUA’s 3D AUTO CAD requirements, please refer to Attachment E.

- iii. The final design shall be a complete set of checked plans and specifications. The plans and specifications shall be fully checked and be ready to be advertised for construction bids. They shall reflect all past IEUA and Regional Committee input and they shall include the contractual language and designs required to implement the controlling agency permit requirements during construction.
- iv. Final Engineer’s Estimate - The Consultant shall update the construction cost estimate and provide an opinion of cost.
- v. Final Calculation package

- vi. Required Permits -As a part of the final design phase, the Consultant shall obtain all permits required to construct the project and their implementing conditions shall be placed in the plans and specifications. If it is required or desirable to have the permit obtained by the contractor, the Consultant shall obtain review comments on contract documents from the permitting agencies, if applicable, and the draft permit conditions shall be reported in the project specifications. All required permits shall be addressed in the specifications.
- vii. Asset List - The Consultant, at 100% completion of design, shall provide the Agency a tabulated list of all assets and associated cost for the project. The list shall show the name of the assets, together with samples or general data as may be required for incorporation in the project. Please refer to the attached sample asset list in Attachment M.
- viii. Shop Drawing Submittal List - The Consultant, at 100% completion of design, shall provide the Agency a tabulated list of all submittals required from the contractor. The list shall include the Division, Section, Paragraph, Description, and Submittal name.
- ix. Arc-Flash – NA

The Consultant shall attend a progress review meeting with the Agency staff to review the final design. Upon resolution of Agency comments, the Consultant shall provide the Agency with three draft copies of the final plans and specifications for final review.

Upon acceptance of the plans and specifications, the Consultant shall submit to the Agency:

- (1) One set of master specifications on both 8 1/2"x11" paper unbound and in digital form,
- (2) The original tracings of the plans, both on mylar film and in digital form,
- (3) Final plans, specifications and bid documents for bidding purposes,
- (4) Final Calculation Package,
- (5) A complete set of project calculations bound for permanent storage,
- (6) Final Engineer's Estimate,

(7) Control System Subcontractor Pre-qualification Package

Note: Request for pre-qualification applications and applicant evaluation will be performed by the Agency.

The Consultant shall provide an update to the construction cost estimate.

H. PROCESS CONTROL NARRATIVES \ PROGRAMMING SCOPE

The Consultant is responsible for providing a process control narrative within their scope of work for all PLC systems and DCS System Integration. A detailed Control Narrative should include the following: definitions of all control loops with important details like range, description, alarms, graphic depiction, interlocks, and automated logic.

The Consultant shall submit the process control narratives (the I/O requirements/specifications that are typically found in the P&ID drawings) and P&ID for review by the Agency, attend a meeting with the Agency staff, address staff comments and submit a final version to be included in the construction bid documents. A definition and template of what a Process Control Narrative should contain was developed for the SCADA migration project. Attachment P provides an example.

To view Attachment P, please refer to the following link:

<https://us3.hostedftp.com/Cyta0d6obuZvF41zVAbTk8WCl>

A separate scope of work for control programming must be developed which clearly identifies the work to be done by the control programmer. This scope of work must identify the current programs in use at the Agency (e.g. HMI, DCS, etc.), what changes are needed to the current programs, and the addition of any features, functions or new programming not currently existing.

The Construction DCS system integrator contract shall be pre-negotiated and assigned to the general contractor's construction contract.

I. BID PAHSE ADMINISTRATION

- i. Bid Interpretation - Respond to questions from Bidders and provide bid evaluation as required by IEUA. Interpret Contract Documents and prepare addenda as needed to modify or clarify the Contract Documents.
- ii. Pre-bid meeting - Attend one pre-bid meeting for the construction contract.

- iii. Conformed Plans and Specifications – Prepare conformed set of bid plans incorporating any changes made during the bid phase.

J. CONSTRUCTION ADMINISTRATION ASSISTANCE (NA)

After completion of design at bid phase Agency will request the consultant to provide a proposal for the Engineering services During the Construction.

During the construction, the Consultant shall perform the following:

- i. Attend Pre-construction conference
- ii. Attend, in person, weekly Construction Progress Meetings at the construction site and walk the job site to review progress and quality of the project - Call-in attendance by the Consultant's Project Engineer is not permitted for the Construction Progress Meetings. The Consultant's Project Engineer will be required to spend additional time on meeting days walking the job site weekly with the Agency's Construction Manager to discuss important areas and items, and to inspect issues arising from Requests for Information (RFI's) from the Contractor in preparation for responding to the RFI. Personnel of particular discipline expertise should attend as schedule of work indicates or as requested by the Construction Manager.

During the weekly Construction Progress Meetings, the Consultant is required to verify weekly construction schedules versus progress made in the field, and report on findings. Consultant is required to use the Agency's Capital Improvement Program Office (CIPO) software for all documentation.

- iii. Review Shop Drawings - Review shop drawings, catalog data and other materials that the contractor is required to submit in accordance with the Agency's Standard Conditions.
- iv. Provide Text and Drawings for Change Orders - Prepare text and drawings for change order documents as necessary. Engineer shall provide assistance during construction with cost estimates for RFDs and change orders in order to validate the quotes received from the contractor.
- v. Respond to Job-Site Questions from Construction Manager
 - a. (Job-Site Questions) Provide written answers to RFI(s) (Request for Information) including sketches and/or drawing revisions as appropriate. Use of the Agency's Capital Improvement Program Office (CIPO) software is required for all documentation.

- b. Discuss items by phone with Construction Manager to answer simple items or develop need and course of action on complex items.
 - c. Provide written discussion of items and questions as requested by Construction Manager.
- vi. Development of The Electronic Standard Operation Procedures Manual – Prepare Operations and Maintenance Manuals as per the provided O&M Template (Attachment N).

To view Attachment N, please refer to the link below:

<https://us3.hostedftp.com/Cyta0d6obuZvF41zVAbTk8WCI>

IEUA is transitioning to an E-Library enterprise network that includes conversion of its treatment facility Operations and Maintenance (O&M) Manuals to a standardized electronic format and level of content. This effort has also included establishment of standardized formats and content for Standard Operating Procedures (SOP) and Unit Process Control Procedures (UPCP). The O&M Manual specific to the new equipment/process/facility shall include a detailed overview of the new system and shall include the following from the contractor: equipment operation and maintenance manuals, and warranties and guarantees for material and equipment installed on the project. The contractor submittals shall be verified against the requirements of the contract documents to ascertain contractor compliance. Tables shall be prepared showing the recommended maintenance schedule for structures and all equipment, as well as full descriptions of the proper overall systems operation, individual component operations and maintenance of all systems and facilities. The material shall be compiled into separate hardcopy manual(s) utilizing the format as provided by the attached O&M Standard Operating Proceed. Consultant shall submit two (2) copies of stated hardcopy manuals.

In addition, all O&M documents shall also be submitted in an electronic format. The format of O&M documents from the equipment manufacturers shall be in portable document format (.pdf) and shall meet the Agency's standards for clarity and file size, i.e. document must be fully readable and not be exceedingly large. Where possible, these PDF documents shall be produced from the source file (such as from a Microsoft Word, Excel, or AutoCAD document) with a PDF file for each piece of required equipment. These files shall be organized and submitted to the Agency in a format that duplicates the organizational format of the hardcopy manual(s) with like types of equipment placed together on a CD for submittal according to Agency standards.

vii. By 70% workshop, Consultant will submit Agency's Equipment Data Template (or Asset List) that includes all equipment installed to date. Data will be reviewed and turned over to the Maintenance Planning Department. Prior to Start-up and Commissioning, the final completed Equipment Data Template will be submitted. For information regarding Data Template, (Asset list) refer to Attachment N.

viii. Startup Protocol and Assistance with Integration of Existing Facility

Consultant is responsible for providing a written recommendation, including step by step instructions, to start up the constructed scope of work in the most effective manner that maximizes integration of the existing facility as a whole. Recommendation must specify impacts to other systems within the facility due to start up and continued operation of the constructed scope of work.

Consultant shall be present to witness and certify the proper start-up of the system.

ix. Workshop for Start-up with Contractor

Consultant will be responsible for conducting a workshop detailing start-up requirements and procedures with the Contractor.

K. POST CONSTRUCTION ASSISTANCE (N/A)

The Consultant shall "as-built" the contract plans and this shall include original tracings and digital versions which shall be sent electronically. Manual markups are not acceptable.

The Consultant shall incorporate into the final as built the general contractors monthly submission of the as built drawing(s) reflecting the permanently installed material and equipment. The as built drawings shall incorporate the following at a minimum, but is not limited to the following information and conditions:

- All verified utilities and stationing, as applicable on both plan and profile.
- Metering boxes, blow-offs, etc. must depict accurate coordinate locations
- Profiles must include horizontal and vertical scales, pipe material and linear feet as installed
- Field variations made per RFI and Change orders – incorporating the actual conditions, not just referencing such contract documents
- Consultant's best assumptions using information provided by the Agency
- Proper Northing arrows

- Legible annotations and line types
- Update the sheets with all updated pothole information
- Topographical survey data
- IEUA As Built Stamps with appropriate deltas
- Description indicating revision updates
- Engineer Seal and signature
- Project Manager Approval signature and date

As Built submittals not meeting the Agency’s requirement shall be rejected and will have to be resubmitted until all conditions are met. At a minimum, the Consultant should expect one round of comments from the Agency.

As-built drawings shall be submitted to IEUA both as revisions to the bid set original tracings and on CD in accordance with Attachment “E”.

L. TRAINING (N/A)

The Consultant shall provide two 1-day training sessions of ten IEUA staff on overall operation of the system or process, but not specific to equipment. Contractor will provide equipment specified training for the production of training videos, Consultants will be videotaped narrating processes implemented within the scope of this work. These processes include (List them here).

7. DELINEATION OF RESPONSIBILITIES

A. RESPONSIBILITIES OF THE CONSULTANT

The Agency intends to employ a Consultant who will provide the services necessary to complete the described scope of work. If the responsibility for any services required to complete the project are not specifically delineated herein, the Consultant is responsible for such activity.

- i. Survey: The Consultant shall complete any required field surveys. IEUA will not provide field surveys. It is consultant’s responsibility to comply with the flowing Federal, State and Local Laws as detailed below and implement it with their sub contactors as needed:

FEDERAL, STATE, AND LOCAL LAWS: The Bidder and all sub-Bidders shall comply with all applicable federal, state, and local laws, rules, and regulations including any permitting requirements and their related costs:

- No contractor or subcontractor may be listed on a bid proposal for a public works project (Submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section

1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

- No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations

- i. Soil Borings: The Consultant shall complete all soil testing for the completion of the design, if additional information is required. Historical soil reports will be available for review, and should be consulted.
- ii. The Consultant shall keep the Agency informed at all times, on regular basis, the status of the current phase of the project and inform the Agency of decisions regarding the project as they are made. The Consultant may be called upon to attend meetings during any phase of the work as required by the Agency to give technical advice or to inform various groups on the status or nature of the project.
- iii. Insurance: The Consultant shall provide insurance while executing the work required under any contract which may result from submittal of his/her proposal. The insurance shall be provided by a firm acceptable to the Agency and the firm shall insure the Consultant and any one directly or indirectly employed by the Consultant. The firm shall also provide additional insurance for the Agency, and its officers, agents, and employees under the policy or policies outlined in specific endorsement. Specific insurance requirements shall be as specified in the negotiated contract. A sample contract is attached to this Request for Proposal as Attachment C.
- iv. Invoices: The Consultant shall submit invoices in accordance with the Agency's invoice format
- v. Project Construction Cost: The cost of constructed the facility designed by shall be within the construction budget. An accurate construction cost estimate will be prepared or updated at each step in the design process. If the Engineer identifies difficulty in meeting the construction budget, at any time during the project, the Engineer shall immediately discuss the difficulty with the Agency and an adjustment will be made to bring the project into compliance.
- vi. Extra Work: If at any time during the project, the Engineer receives instructions outside the scope of work, he shall immediately notify

the Agency and confirm the verbal statement in writing. No compensation will be made to the Consultant without a fully executed amendment prior initiating the extra work. If the nature of the instruction is such that an investigation is required to determine whether the work is outside the Engineer's contracted scope, the Engineer must notify the Agency within seven (7) calendar days of receiving the instruction. If the Agency does not receive the request for extra compensation within the seven days, no extra compensation will be paid for the work even if it is determined to be outside the Engineer's contracted scope.

- vii. **Calculations:** The Consultant shall provide a bound, tabbed and indexed copy of all design calculations including civil, chemical, structural, electrical, HVAC, mechanical, process, and hydraulic calculations, equipment and piping layouts. All calculations shall be submitted in both hard copies and electronic Microsoft Excel spreadsheet format. The spreadsheet shall not contain any macros or proprietary code and shall be fully accessible. Calculations shall include all assumptions, formulas, equations, and definitions. The Agency expects all calculations to be completed in Excel or some other electronic format that is compatible with Microsoft Office applications.
- viii. **Graphics:** The Consultant shall submit graphics that are legible (in both line weight and font size), clear, and concise. The Agency will have the final approval on use of colors, content, layout and style of all graphics.
- ix. **3D Modeling Design Services:** The design and planning of the project shall require 3D CAD models from the Consultant. This is an additional tool for IEUA stakeholders to review and comment on the virtual build before installation and construction of any new equipment, process, or structure. Building information modeling or "BIM"; an architecture, engineering, and construction industry 3D modeling standard; shall be utilized by the Consultant to develop an accurate virtual model of the proposed improvement, equipment layout, or a new construction of a building or facility. The goal of the model is to assist the project teams in visualizing the proposed design in a simulated environment to identify potential design, construction, and operational/maintenance issues. At a minimum the 3D modeling design services shall include of the following requirements:
 - Create 3D models and/or parametric 2D drawings - Plans, Elevations, Mechanical, Structural, HVAC, Electrical layouts etc.
 - Models shall be properly rendered and/or animated to simulate the actual environment

- 3D Designers shall have over five years of experience
- All submittals shall be developed under AutoCAD 3D and/or Sketchup

For additional information on IEUA's 3D AUTO CAD requirements, please refer to Attachment E.

- x. Landscape – The Consultant shall prepare plant and irrigation concepts, which are consistent with IEUA's native landscape and water conservation policies.

B. RESPONSIBILITIES OF IEUA

The Agency shall provide to the Consultant all documents, studies, plans and specifications which are in the Agency's possession and will be useful in the study, design or construction of the Work described in the Scope of Work. However, the Consultant shall review the Agency's records, select the desired reference items and provide the required reproduction.

The Agency shall provide a CD with a copy of the Agency's standard title block and CAD specifications. Additionally, the Agency will provide the Consultant with its adopted front-end boilerplate specifications.

Agency staff shall be available to discuss and provide examples of accepted procedures within IEUA for the review and processing of shop drawings.

C. TERMINATION OF CONTRACT

The Agency reserves the right to terminate any contract which may result from this proposal at any time with thirty (30) days written notice. In such cases, the Consultant shall be paid for work done through the termination date and all work done to that date shall become the property of the Agency.

8. CONTRACT DOCUMENT PREPARATION

A. PRELIMINARY AND INTERIM DRAWINGS

Preliminary/Interim drawings shall be prepared using the Agency's standard format and shall be suitable for reduction to 11"x17" size.

B. CONTRACT DOCUMENTS

IEUA will be provided final full-size drawings on 4 mil, double matte, drafting or plotting, 22" x 34" Mylar.

C. BOUND SPECIFICATIONS AND CONTRACT DOCUMENTS

Final plans shall be provided in both 22"x34" full-size form and 11"x17" half-size form. Final specifications shall be 8-1/2"x11" in size and include the Agency's standard. General Conditions, bid documents and Notice to Bidders. The Agency will provide the boilerplate on compact disk (CD) to the Consultant.

D. FINAL DESIGN DOCUMENTS

Final documents shall be submitted and saved on a computer disk in a form compatible with the Agency's computer file storage and updating procedures. IEUA requires all consultants to submit all final designs on CD format in AutoCAD 2011. Refer to Attachment E for IEUA's detailed AutoCAD specifications.

Specifications and bid documents shall be processed using Microsoft Office, latest version. Specifications and bid documents will be 8 1/2"x11" in size and bound.

9. SUBMITTALS

A. Preliminary Design: Technical Memoranda and Preliminary Design Report

During the design, the Consultant shall keep the Agency informed of the basic design decisions as they are made and shall seek the Agency's input. The Consultant shall document all design decisions in technical memorandum.

The number of set copies required for each submittal during the preliminary and final design phase are as presented in Table 1.

Review submittals will be made as follows: PDR and TM, 50%, 85% and 100% design. These submittals are to be reviewed by Agency staff and must be delivered at a minimum 14 days prior to the progress review meeting.

Table 1
Submittal Copies

Submittal	No. of Copies	Project Activity
Draft PDR	15	Preliminary Design
Specifications and Half Sized Plans	15	50% Complete
Specifications and Half Sized Plans	15	85% Complete
Specifications and Half Sized Plans	15	100% Complete

Draft Calculations	3	50%, 85% and 100%
Final Calculations	1	Final Design (Wet-Signed)
Final Specifications	1	Final design (Wet-Signed)
Final Full Size Plans (Mylar)	1	Final design (Wet-signed)
Final Half Size Plans	1	Final design (Copied)
CDs of final set	2	Final design (PDF Format)
AutoCAD file	1	Final design
AutoCAD files	1	As-Builts Set

10. PROJECT SCHEDULE

It is the goals of the Agency to complete construction by January 2020, in accordance with the funding requirements. IEUA intends to maintain the established project schedule. Each proposing Consultant shall review the time allotted to complete the work. The Consultant shall develop these sub-schedules in a way to meet the desired construction date. The overall project schedule is included in Attachment B.

Adherence to the project schedules is of primary importance. The successful Consultant shall be required to meet (or exceed) all schedule milestones.

11. PAYMENT TO CONSULTANT

The Agency proposes to pay the consultant for services rendered based on the progress of the following milestones:

<u>Deliverable</u>	<u>Milestone</u>
Preliminary Design	Acceptable delivery of the finalized pre-design report with all related items
50% Design	Acceptable delivery of the 50% design and completion of the 50% design review meeting.
85% Design	Acceptable delivery of the 85% design and completion of the 85% design review meeting.
100% Design	Signature of the construction bid set masters by the Agency.
Services During Bid Period	Award of the construction contract by the Agency Board of Directors

The earned fee shall be based on the above completed milestones as invoiced by the Consultant and verified and approved by the Agency's Project Manager. The Consultant shall be responsible for the submission of invoices in accordance with the Agency's invoice format.

12. PROPOSAL FORMAT

The body of the proposal shall include the following items. Items referenced as an attachment shall be included in the appendices of the proposal. The proposal should include the following information as a minimum:

- A detailed proposed scope of work for the work effort based upon the information contained in the "Scope of Work" section of this Request for Proposal.
- Descriptions of the specific experience and capabilities relative to the previously outlined scope of work of the designated Project Manager, project engineer, and support staff. Include a schedule showing the percentage of time each will contribute to the project. Key personnel assigned to the project shall not be reassigned without prior written approval from the Agency. A resume of the proposed cost estimator shall be provided with reference for the last ten cost estimates completed and the associated bid amount.
- A description of the project team's past record of performance on similar projects, with references. This will include a discussion of such factors as control of costs, innovations, quality of work and ability to meet schedules.
- Information about projects, which the interested firm has completed within the past five years. This information shall include, for each project, a brief description of the project, facility size, name, address, telephone number and recommendations from the facility owner.
- A description of the proposed method of proceeding with the project, including the method of keeping the Agency informed on the progress of the project.
- A description of any joint venture and/or proposed subcontract arrangements which would be utilized during the project.
- An organizational chart of your proposed team.
- Proposed time schedule for completion of each phase of the work. A minimum of 14 working days shall be included for the Agency staff review period. The schedule provided in Attachment B the maximum desirable. Commitment, by a consultant, to a shorter schedule will be considered to be a positive item in the selection process.

- An estimated final plan sheet count by process area and discipline. Summary shall include a listing of all anticipated sheets required for the completion of this project.
- Work Effort: The Consultant shall provide, in the body of the proposal, fully itemized schedule of estimated effort for each task for the entire project, expressed in work hours, for each employee classification required to complete each phase of the work. For the design phase, it should be organized by sheet and process area.
- Fee Schedule: The Consultant shall provide, in a separate sealed envelope, a fully itemized proposed fee to perform all scope items listed above broken down by phase and task.

The Consultant should consider presenting to the AGENCY “Optional” tasks which go above and beyond those items listed in the proposal scope of work that improve and/or enhance the project. These Optional tasks should have a separate line item with their associated fees.

If a sub-consultant is to be used, work hours for each sub-consultant shall be listed separately for each phase. The fees to be paid to sub-consultants shall be shown separately for each phase and for each sub-consultant.

A lump sum fee schedule is not acceptable. After all other parameters have been evaluated, the fee envelope of the most qualified consultant will be opened and the lump sum fee schedule will be negotiated.

- Exceptions to this Request for Proposals: Any changes from the provisions of this Request for Proposals and Sample of Standard Contract, which are desired by the Consultant, shall be specifically noted in the attached Exception Form (Attachment *F*).
- Documentation that personal or organization conflicts of interest prohibited by law do not exist. (The Consultant is subject to State and Federal conflict of interest)
- Firms shall complete and return with their proposal the Workers’ Compensation Certificate form provided (Attachment *G*).
- The Consultant shall include résumés for the project team. The résumés shall provide specific information about the team member’s experience with similar type projects.
- The Consultant shall complete and return with their proposal the Business Ownership Information form provided (Attachment *J*)

13. SELECTION OF CONSULTANT

A. QUALIFICATIONS

The Consultant may be a single firm or a joint venture and must show evidence of technical capability and experience in civil engineering including: wastewater treatment plant planning and design. Also, construction administration experience will be considered. The experience presented should be for a period covering the last five years. The Consultant shall also be familiar with the regulatory constraints, which will govern this project. The consulting firm cannot submit a proposal as both a prime and a sub-consultant on a joint venture.

B. CRITERIA FOR SELECTION

Selection among the proposals received shall be based upon (but not necessarily in the order given) the following:

- The firm's organization, history, reputation, location and capability to perform all aspects of the work.
- The firm's ability to provide innovative, creative, cost reducing alternatives to meet the Agency's needs.
- Qualifications and experience of the personnel and project team to be assigned to the project including appropriate professional registrations.
- Ability to commence work immediately after execution of the contract and complete the required work within the desired time and allotted budget.
- Thoroughness of the Consultant's scope of the proposed work and realistic plan for completion of the project.
- Proposed staffing work effort.
- Exceptions to the request for proposals taken by the consultant.
- Ability to meet or exceed the Department of Water Resources funding deadlines.

C. INTERVIEWS

Interviews may be scheduled with some or all of the Consultants who submit a proposal. Each Consultant shall be ranked based on the interview and an evaluation of the before mentioned criteria. Following the ranking of the proposals received by Agency, the fee envelope for the top ranked Consultant

will be opened. The top ranked Consultant and AGENCY will then negotiate the terms of the Contract. The Agency's Board of Directors shall approve the final selection.

D. NOTIFICATION OF UNSUCCESSFUL CONSULTANTS

Unsuccessful potential Consultants shall be notified as soon as possible by the Agency following determination at whatever point in the selection process such determination is made. It is estimated that the selection process will take, in its entirety, about sixty days.

E. NEGOTIATION OF CONTRACT

After selection of a Consultant, the Agency and the Consultant shall negotiate the contract under which the work shall be performed. All items submitted in the Consultant's Proposal shall be subject to negotiation.

F. CONFLICT OF INTEREST INFORMATION

Information on possible conflicts of interest shall be provided in the Proposal. Such information shall be taken into account in making a decision on the selection of the Consultant to perform the work.

G. PUBLIC RECORDS POLICY

Responses to this Request for Proposal (RFP) and the documents constituting any Contract entered into thereafter becomes the exclusive property of the Agency and shall be subject to the California Public Records Act (Government Code Section 6250 et seq.). The Agency's use and disclosure of its records are governed by this Act.

Those elements in each Proposal which Offeror considers to be trade secrets, as that term is defined in Civil Code Section 3426.1(d), or otherwise exempt by law from disclosure, should be prominently marked as "TRADE SECRET", "CONFIDENTIAL", or "PROPRIETARY", by Offeror. The Agency will use its best efforts to inform Offeror of any request for disclosures of any such document. Agency, shall not in any way, be liable or responsible for the disclosure of any such records including, without limitation, those so marked if disclosure is deemed to be required by law or by an order of the Court.

In the event of litigation concerning disclosure of information the Offeror considers exempt from disclosure, the Agency will act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If the Agency is required to defend an action arising out of a Public Records Act requests, for any of the contents of a Offeror's proposal marked "Trade Secret", "Confidential", or "Proprietary", Offeror shall defend and

indemnify Agency from all liability, damages, costs, and expenses, including attorneys' fees, in any action or proceeding arising under the Public Records Act.

To insure confidentiality, Offerors are instructed to enclose all "Trade Secret", "Confidential", or "Proprietary", data in separate, labeled, sealed envelopes, which are then included with the Bid/Proposal documents. Because the Bid/Proposal documents are available for review by any person following the Bid/Proposal opening, and during the review period, and after an award of a contract resulting from an Invitation to Bid/Request for Proposal, Agency shall not in any way be held responsible for disclosure of any "Trade Secret", "Confidential", or "Proprietary" documents that are not contained in labeled envelopes.

14. AVAILABLE REFERENCE MATERIAL

The drawings related to this project and any other existing documentation will be made available for review to the Consultants and may be reviewed by appointment with Nasrin Maleki in the Agency's Headquarters Building B located at 6075 Kimball Avenue, Chino, California, 91708.

15. BID PACKAGES

The Consultant shall keep the construction costs within a reasonable bid bond amount and the bid package shall be a complete document for bidding and awarding construction contract separately. The Consultant shall submit two sets of bid package.

16. ATTACHMENTS

The following attachments are included in the RFP:

Attachment “A” – Vicinity Map
Attachment “B” – Project Schedule
Attachment “C” – Sample Of Standard Contract
Attachment “D” – Consulting Services Invoice
Attachment “E” – Autocad Specifications
Attachment “F” – Exception Form
Attachment “G” – Workers’ Compensation Insurance Certificate
Attachment “H” – Consultant Identification
Attachment “I” – Non-Collusion Affidavit
Attachment “J” – Business Ownership Information
Attachment “K” – Tag Numbering System
Attachment “L” – Project Design Checklist
Attachment “M” – Sample Of Asset Management Upload Template
Attachment “N” – Operations And Maintenance Manual
Attachment “O” – Engineering Design Guidelines
Attachment “P” – Process Control Narrative

17. APPENDICES

Appendix “1” – District’s Flow Monitoring Requirements
Appendix “2” - Montclair Flow Splitter Box/Metering Upgrade Project Plans
Appendix “3” – District & IEUA Contract
Appendix “4” – NRW As-Builts

ATTACHMENT A
VICINITY MAP

Figure 1
General Project Location

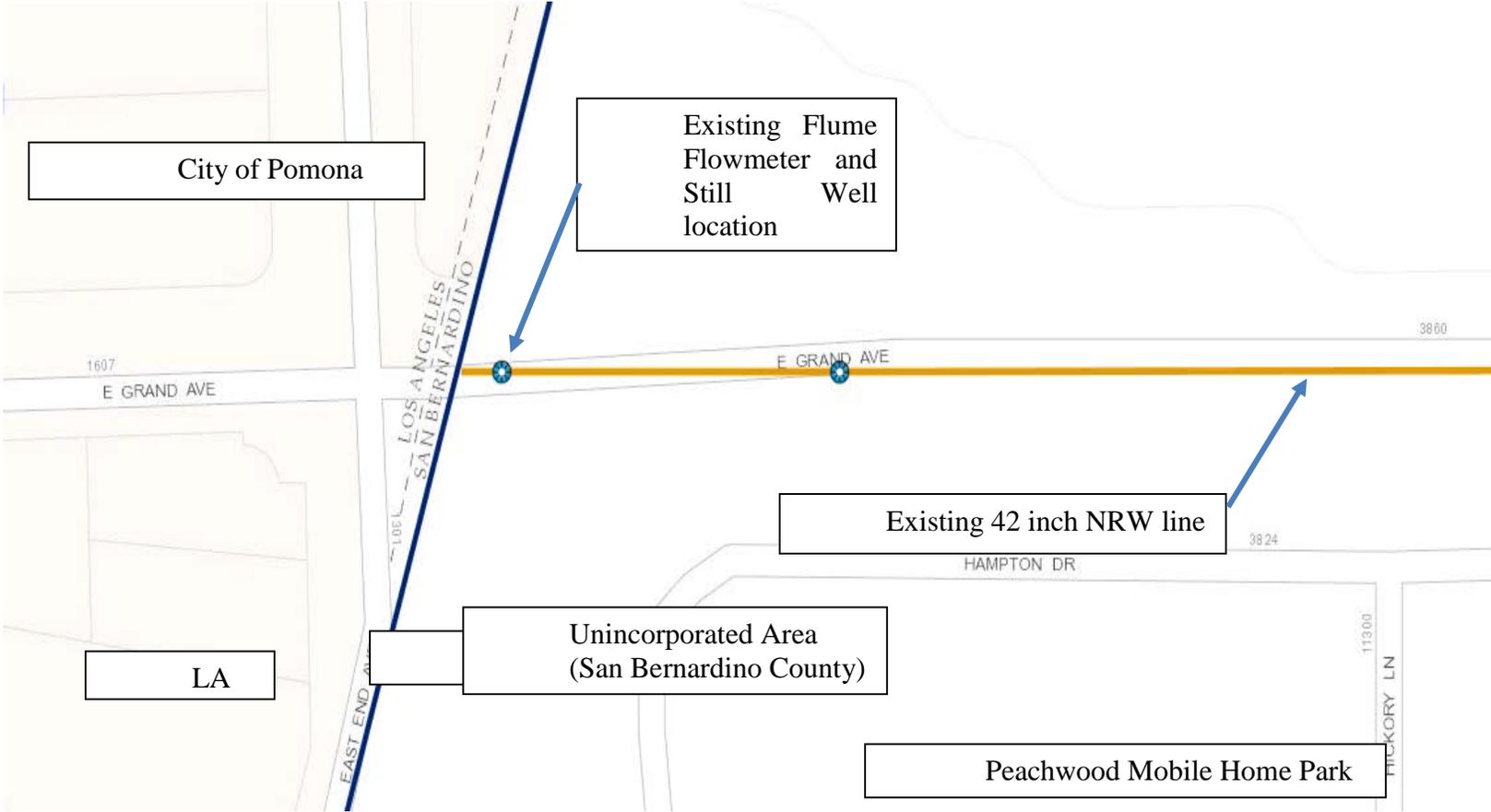


Figure 2
Project Location Detail

ATTACHMENT B
PROJECT SCHEDULE

ATTACHMENT C
SAMPLE OF STANDARD CONTRACT



**SAMPLE CONTRACT NUMBER 460000XXX
FOR
ENGINEERING CONSULTING SERVICES**

This CONTRACT (the Contract), is made and entered into this ____ day of _____, 2014, by and between the Inland Empire Utilities Agency, a Municipal Water District, organized and existing in the County of San Bernardino under and by virtue of the laws of the State of California (hereinafter referred to as Agency), and _____, with offices in _____, California (hereinafter referred to as Consultant), for provision of engineering consulting services.

NOW, THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties agree as follows:

A. **PROJECT MANAGER ASSIGNMENT:** All technical direction related to this Contract shall come from the designated Project Manager. Details of the Agency's assignment are as follows:

Project Manager: XXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Location: 6075 Kimball Avenue, Building B
Chino, California 91708
Telephone: (909) 993-XXXX
Facsimile: (909) 993-XXXX
E-mail: XXXXXXXX@jeua.org

B. **CONSULTANT ASSIGNMENT:** Special inquiries related to this Contract and the effects of this Contract shall be referred to the following:

Consultant: XXXXXXXXXXXXX
Address: XXXXXXXXXXXXX
XXXXXXXXXXXXXX
Telephone: XXXXXXXXXXXXX
Facsimile: XXXXXXXXXXXXX
E-mail: XXXXXXXXXXXXX

C. **ORDER OF PRECEDENCE:** The documents referenced below represent the Contract Documents. Where any conflicts exist between the general terms and conditions, addenda, attachment(s), or other contractual documents, the governing order of precedence shall be as follows:

1. Amendment(s) to Contract Number 460000XXX
2. Contract Number 460000XXX General Terms and Conditions.
3. Request for Proposals No. RFP-RW-14-0xx and all germane Addenda.

D. **SCOPE OF WORK AND SERVICES:**

(See Section 3 – Technical provisions of this Request for Proposal document).

- E. **TERM:** The term of this Contract shall extend from the date of its execution through xxxxxxxx, unless agreed to by both parties, reduced to writing, and amended to this Contract.
- F. **PAYMENT, COMPENSATION, and INVOICING:** The Agency shall pay Consultant's properly executed invoices, subsequent to approval by the Project Manager, within thirty (30) calendar days following receipt of the invoice. Payment will be withheld for any service which does not meet the requirements of this Contract or has proven unacceptable until such service is revised, resubmitted, and accepted by the Project Manager.

As compensation for work performed under this Contract, Agency shall pay Consultant, on a **Fixed Price Level-of-Effort basis** at the rates specified within Appendix A, Schedule of Rates, to this Contract, up to the **NOT-TO-EXCEED total contract price established at \$XXXXXXXXXX**.

Consultant's invoice must be submitted monthly, and shall include a breakdown by items completed, all associated labor categories provided, labor hours supplied and associated hourly rates, dates worked, the types and quantities of testing completed, the current monthly amount due, and the cumulative amount invoiced to date against this Contract. Invoice shall not be submitted in advance and shall not be dated earlier than the actual date of submittal..

Consultant shall provide with their invoice certified payroll verifying that Consultant has paid prevailing wage in accordance with the Department of Industrial Relations requirements.

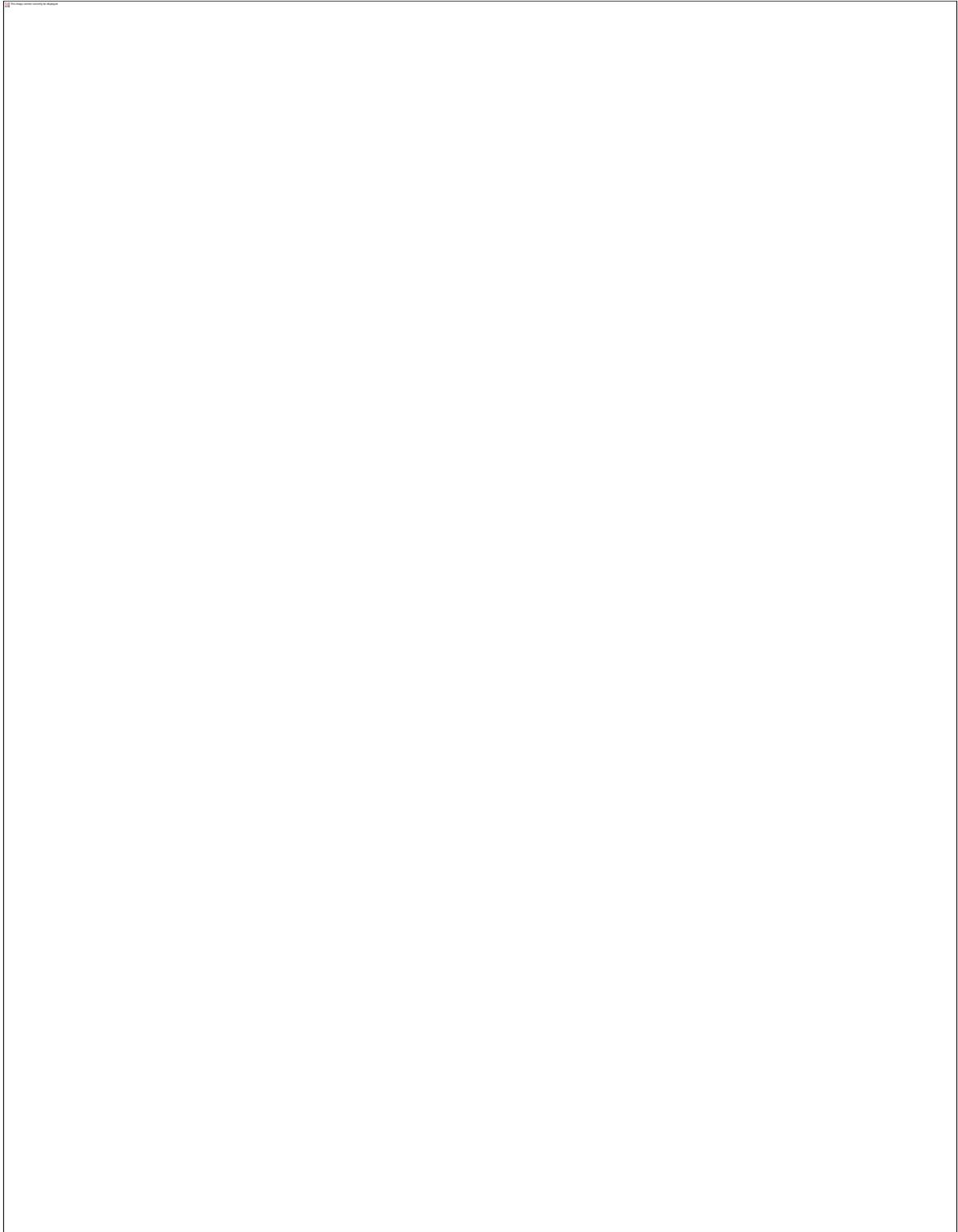
A separate invoice must be submitted for each project, and must reference the **Contract Number 46000XXXX, Purchase Order Number 4500XXXX, Project Number, Project Name**, request for inspection/testing, certified payroll, and daily reports for the project being billed. All invoices shall be submitted electronically with all required back-up to apgroup@ieua.org.

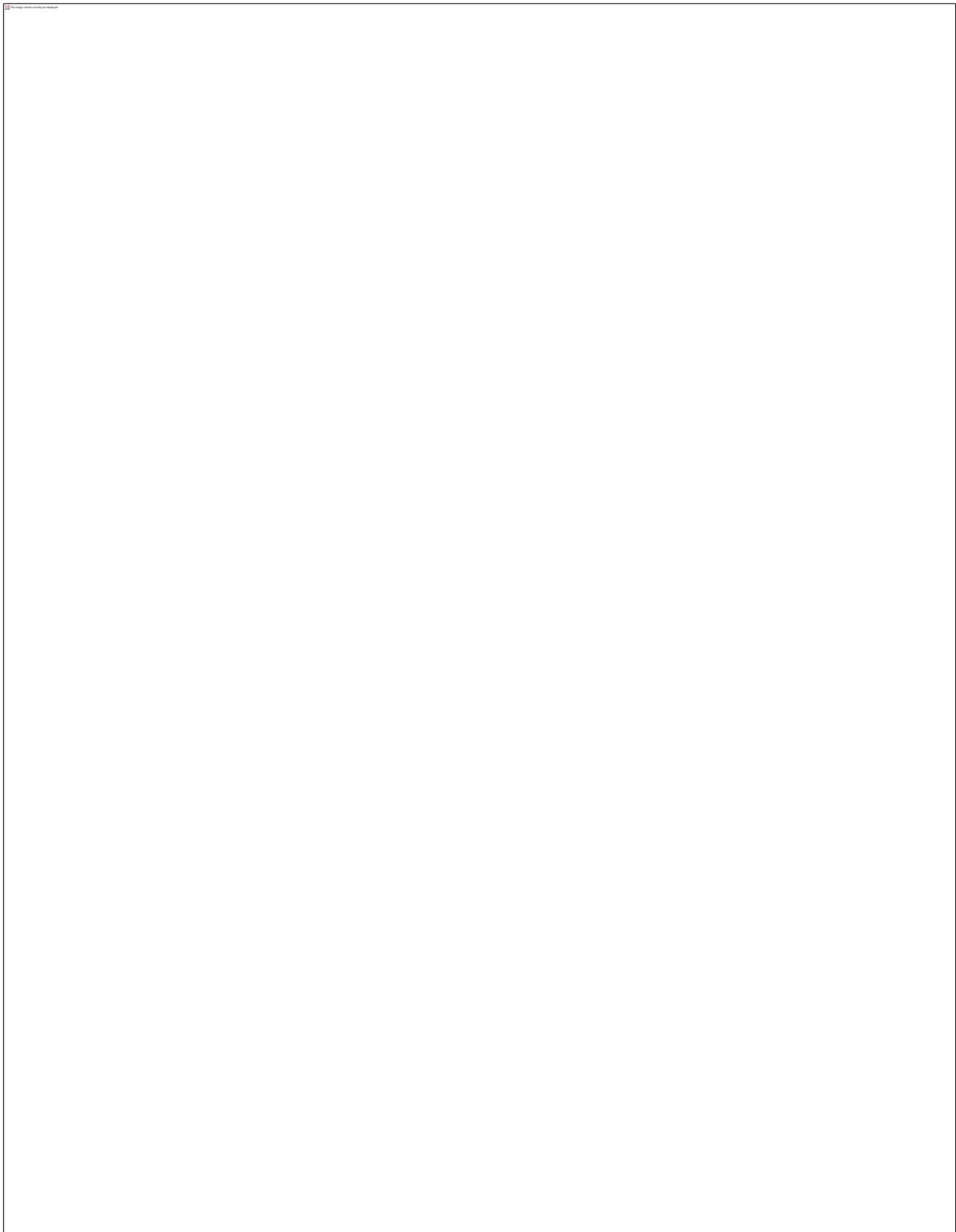
- G. **CONTROL OF WORK:** Consultant shall perform the Work in compliance with the Work Schedule established for each respective Request for Inspection/Testing Memorandum. If performance of the Work falls behind schedule, the Consultant shall accelerate the performance of the Work to comply with the Work Schedule as directed by the Project Manager. If the nature of the Work is such that Consultant is unable to accelerate the Work, Consultant shall promptly notify the Project Manager of the delay, the causes of the delay, and submit a proposed revised Work Schedule.

H. **FITNESS FOR DUTY:**

1. **Fitness:** Consultant and its Subcontract personnel on the Jobsite:
 - a. shall report for work in a manner fit to do their job;
 - b. shall not be under the influence of or in possession of any alcoholic beverages or of any controlled substance (except a controlled substance as prescribed by a physician so long as the performance or safety of the Work is not affected thereby); and
 - c. shall not have been convicted of any serious criminal offense which, by its nature, may have a discernible adverse impact on the business or reputation of the Agency.
2. **Compliance:** Consultant shall advise all Consultant and subcontractor personnel and associated third parties of the requirements of the Contract ("Fitness for Duty Requirements") before they enter on the Jobsite and shall immediately remove from the Jobsite any employee determined to be in violation of these requirements. Consultant shall impose these requirements on its subcontractors. Agency may cancel the Contract if Consultant violates these Fitness for Duty Requirements.

- I. **REQUIRED INSURANCE:** During the period of time from issuance of a contract to final acceptance of the work the Consultant shall maintain at the Consultant's sole expense, the following insurance.





worker.

7. Liens: The Consultant shall pay all sums of money that become due from any labor, services, materials or equipment furnished to Consultant on account of said Work to be furnished as a result of the Request for Proposal, and that may be secured by any lien against the Agency.
8. Indemnification: The Consultant shall indemnify Agency, its directors, employees, agents, and assigns, and shall defend and hold them harmless from all liability, demands, actions, claims, losses and expenses, including reasonable attorney's fees, which arise out of or are related to the negligence, recklessness or willful misconduct of Consultant, its directors, employees, agents and assigns, in the performance of work under this Contract. Notwithstanding the foregoing, to the extent that this Contract includes design professional services under Civil Code Section 2782.8, as may be amended from time to time, such duties of Consultant to defend and to indemnify Agency shall only be to the full extent permitted by Civil Code Section 2782.8.

Consultant shall have no duty to defend Agency, but Consultant shall pay as damages to Agency all reasonable attorney's fees and costs incurred by Agency to the extent incurred by Agency arising out of Consultant's actual or alleged negligent acts, errors, or omissions. Further, Consultant shall assume sole responsibility for the investigation, analysis, and defense of any and all issues alleged against Agency or Consultant to the extent alleged, based on, or arising out of Consultant's scope of work, or Consultant's actual or alleged negligent acts, errors, or omissions.
9. Conflict of Interest: No official of the Agency who is authorized in such capacity and on behalf of the Agency to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving this Contract, or any subcontract relating to work or tasks to be performed pursuant to this Contract, shall become directly or indirectly personally interested in this Contract.
10. Equal Opportunity: During the performance of this Contract, the Consultant and any subcontractor shall not unlawfully discriminate against any employee or applicant for employment because of race, color, religion, sex, age, marital status, national origin, or physical handicap.
11. Non-Conforming Work and Warranty: Consultant represents and warrants that the Work and documentation shall be adequate to serve the purposes described in the Contract. For a period of not less than one (1) year after acceptance of the completed Work, Consultant shall, at no additional cost to Agency, correct any and all errors in and shortcomings of the work or Documentation, regardless of whether any such errors or shortcoming is brought to the attention of Consultant by Agency, or any other person or entity. Consultant shall within three (3) calendar days, correct any error or shortcoming that renders the Work or Documentation dysfunctional or unusable and shall correct other errors within thirty (30) calendar days after Consultant's receipt of notice of the error. Upon request of Agency, Consultant shall correct any such error deemed important by Agency in its sole discretion to Agency's continued use of the Work or Documentation within seven (7) calendar days after Consultant's receipt of notice of the error. If the Project Manager rejects all or any part of the Work or Documentation as unacceptable and agreement to correct such Work or Documentation cannot be reached without modification to the Contract, Consultant shall notify the Project Manager, in writing, detailing the dispute and reason for the Consultant's position. Any dispute that cannot be resolved between the Project Manager and Consultant shall be resolved in accordance with the provisions of this Contract.
12. Disputes:
 - a. All disputes arising out of or in relation to this Agreement shall be determined in accordance with this section. The Consultant shall pursue the work to completion in accordance with the instruction of the Agency's Project Manager notwithstanding the existence of dispute. By entering into this Agreement, both parties are obligated, and hereby agree, to submit all disputes arising under or relating to the Agreement which remain unresolved after the exhaustion of the procedures provided herein, to independent arbitration. Except as otherwise provided herein, arbitration shall be conducted under California Code of Civil Procedure

Sections 1280, et. seq., or their successor.

- b. Any and all disputes during the pendency of the work shall be subject to resolution by the Agency Project Manager and the Consultant shall comply, pursuant to the Agency Project Manager instructions. If the Consultant is not satisfied with any such resolution by the Agency Project Manager, they may file a written protest with the Agency Project Manager within seven (7) calendar days after receiving written notice of the Agency's decision. Failure by Consultant to file a written protest within seven (7) calendar days shall constitute waiver of protest, and acceptance of the Agency Project Manager's resolution. The Agency's Project Manager shall submit the Consultant's written protests to the Chief Executive Officer/General Manager (CEO/GM), together with a copy of the Agency Project Manager's written decision, for his or her consideration within seven (7) calendar days after receipt of said protest(s). The CEO/GM shall make his or her determination with respect to each protest filed with the Agency Project Manager within ten (10) calendar days after receipt of said protest(s). If Consultant is not satisfied with any such resolution by the CEO/GM, they may file a written request for arbitration with the Project Manager within seven (7) calendar days after receiving written notice of the CEO/GM's decision.
- c. In the event of arbitration, the parties hereto agree that there shall be a single neutral Arbitrator who shall be selected in the following manner:
- (1). The Demand for Arbitration shall include a list of five names of persons acceptable to the Consultant to be appointed as Arbitrator. The Agency shall determine if any of the names submitted by Consultant are acceptable and, if so, such person will be designated as Arbitrator.
 - (2). In the event that none of the names submitted by Consultant are acceptable to the Agency, or if for any reason the Arbitrator selected in Step (a) is unable to serve, the Agency shall submit to Consultant a list of five names of persons acceptable to the Agency for appointment as Arbitrator. The Consultant shall, in turn, have seven (7) calendar days in which to determine if one such person is acceptable.
 - (3). If after Steps (a) and (b), the parties are unable to mutually agree upon a neutral Arbitrator, the matter of selection of an Arbitrator shall be submitted to the San Bernardino County Superior Court pursuant to Code of Civil Procedure Section 1281.6, or its successor. The costs of arbitration, including but not limited to reasonable attorneys' fees, shall be recoverable by the party prevailing in the arbitration. If this arbitration is appealed to a court pursuant to the procedure under California Code of Civil Procedure Section 1294, et. seq., or their successor, the costs of arbitration shall also include court costs associated with such appeals, including but not limited to reasonable attorneys' fees which shall be recoverable by the prevailing party.
- d. Joinder in Mediation/Arbitration: The Agency may join the Consultant in mediation or arbitration commenced by a Consultant on the Project pursuant to Public Contracts Code Sections 20104 et seq. Such joinder shall be initiated by written notice from the Agency's representative to the Consultant.
13. Prevailing Wage Requirements:
[] Work performed against this Contract has been deemed a Prevailing Wage Project and is therefore subject to the requirements Section 1770 (and following) of the California Labor Code. Consultant shall not pay less than general prevailing wage rates, as determined by the Director of the State of California Department of Industrial Relations, for the locality in which the work is to be performed under this contract.
The Consultant, and any [] subcontractor performing part of said work, shall strictly adhere to all provisions of the Labor Code, including, but not limited to, minimum wages, work days, non-discrimination, apprentices, maintenance, availability, and submittal of accurate payroll records, and any other matters required under all Federal, State, and local laws related to labor.

K. **OWNERSHIP OF MATERIALS AND DOCUMENTS/CONFIDENTIALITY:** The Agency retains ownership of any and all partial or complete reports, drawings, plans, notes, computations, lists, and/or other materials, documents, information, or data prepared by the Consultant and/or the Consultant's subcontractor(s) pertaining to this Contract. Said materials and documents are confidential and shall be available to the Agency from the moment of their preparation, and the Consultant shall deliver same to the Agency whenever requested to do so by the Project Manager and/or Agency. The Consultant agrees that same shall not be made available to any individual or organization, private or public, without the prior written consent of the Agency.

L. **PUBLIC RECORDS POLICY:** Information made available to the Agency may be subject to the California Public Records Act (Government Code Section 6250 et seq.) The Agency's use and disclosure of its records are governed by this Act. The Agency shall use its best efforts to notify Consultant of any requests for disclosure of any documents pertaining to Consultant.

In the event of litigation concerning disclosure of information Consultant considers exempt from disclosure; e.g., Trade Secret, Confidential, or Proprietary, Agency shall act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If Agency is required to defend an action arising out of a Public Records Act request for any of the information Consultant has marked "Confidential," "Proprietary," or "Trade Secret," Consultant shall defend and indemnify Agency from all liability, damages, costs, and expenses, including attorneys' fees, in any action or proceeding arising under the Public Records Act.

M. **TITLE AND RISK OF LOSS:**

1. **Documentation:** Title to the Documentation shall pass to Agency when prepared; however, a copy may be retained by Consultant for its records and internal use. Consultant shall retain such Documentation in a controlled access file, and shall not reveal, display or disclose the contents of the Documentation to others without the prior written authorization of Agency or for the performance of Work related to the PROJECT.
2. **Material:** Title to all Material, field or research equipment, and laboratory models, procured or fabricated under the Contract shall pass to Agency when procured or fabricated, and such title shall be free and clear of any and all encumbrances. Consultant shall have risk of loss of any Material or Agency-owned equipment of which it has custody.
3. **Disposition:** Consultant shall dispose of items to which Agency has title as directed in writing by the Agreement Administrator and/or Agency.

N. **PROPRIETARY RIGHTS:**

1. **Rights and Ownership:** Agency's rights to inventions, discoveries, trade secrets, patents, copyrights, and other intellectual property, including the Information and Documentation, and revisions thereto (hereinafter collectively referred to as "Proprietary Rights"), used or developed by Consultant in the performance of the Work, shall be governed by the following provisions:
 - a. Proprietary Rights conceived, developed, or reduced to practice by Consultant in the performance of the Work shall be the property of Agency, and Consultant shall cooperate with all appropriate requests to assign and transfer same to Agency.
 - b. If Proprietary Rights conceived, developed, or reduced to practice by Consultant prior to the performance of the Work are used in and become integral with the Work or Documentation, or are necessary for Agency to have complete enjoyment of the Work or Documentation, Consultant shall grant to Agency a non-exclusive, irrevocable, royalty-free license, as may be required by Agency for the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation.
 - c. If the Work or Documentation includes the Proprietary Rights of others, Consultant shall procure, at no additional cost to Agency, all necessary licenses regarding such Proprietary

Rights so as to allow Agency the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation. All such licenses shall be in writing and shall be irrevocable and royalty-free to Agency.

- O. **INFRINGEMENT:** Consultant represents and warrants that the Work and Documentation shall be free of any claim of trade secret, trade mark, trade name, copyright, or patent infringement or other violations of any Proprietary Rights of any person.

Consultant shall defend, indemnify and hold harmless, Agency, its officers, directors, agents, employees, successors, assigns, servants, and volunteers free and harmless from any and all liability, damages, losses, claims, demands, actions, causes of action, and costs including reasonable attorney's fees and expenses arising out of any claim that use of the Work or Documentation infringes upon any trade secret, trade mark, trade name, copyright, patent, or other Proprietary Rights.

Consultant shall, at its expense and at Agency's option, refund any amount paid by Agency under the Contract, or exert its best efforts to procure for Agency the right to use the Work and Documentation, to replace or modify the Work and Documentation as approved by Agency so as to obviate any such claim of infringement, or to put up a satisfactory bond to permit Agency's continued use of the Work and Documentation.

- P. **NOTICES:** Any notice may be served upon either party by delivering it in person, or by depositing it in a United States Mail deposit box with the postage thereon fully prepaid, and addressed to the party at the address set forth below:

Agency: Warren Green
Manager of Contracts and Facilities Services
Inland Empire Utilities Agency
P.O. Box 9020
Chino Hills, California 91709-0902

Consultant: XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX

Any notice given hereunder shall be deemed effective in the case of personal delivery, upon receipt thereof, or, in the case of mailing, at the moment of deposit in the course of transmission with the United States Postal Service.

- Q. **SUCCESSORS AND ASSIGNS:** All of the terms, conditions and provisions of this Contract shall inure to the benefit of and be binding upon the Agency, the Consultant, and their respective successors and assigns. Notwithstanding the foregoing, no assignment of the duties or benefits of the Consultant under this Contract may be assigned, transferred or otherwise disposed of without the prior written consent of the Agency; and any such purported or attempted assignment, transfer, or disposal without the prior written consent of the Agency shall be null, void, and of no legal effect whatsoever.

- R. **RIGHT TO AUDIT:** The Agency reserves the right to review and/or audit all Consultant's records related to the Work. The option to review and/or audit may be exercised during the term of the Contract, upon termination, upon completion of the Contract, or at any time thereafter up to twelve (12) months after final payment has been made to Consultant. The Consultant shall make all records and related documentation available within three (3) working days after said records are requested by the Agency

- S. **INTEGRATION:** The Contract Documents represent the entire Contract of the Agency and the Consultant as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered by the contract Documents. This Contract may not be modified, altered or amended except by written mutual agreement by the Agency and the Consultant.
- T. **GOVERNING LAW:** This Contract is to be governed by and constructed in accordance with the laws of the State of California.
- U. **TERMINATION FOR CONVENIENCE:** The Agency reserves and has the right to immediately suspend, cancel or terminate this Contract at any time upon written notice to the Consultant. In the event of such termination, the Agency shall pay Consultant for all authorized and Consultant-invoiced work up to the date of such termination.
- V. **FORCE MAJEURE:** Neither party shall hold the other responsible for the effects of acts occurring beyond their control; e.g., war, riots, strikes, acts of nature, etc.
- W. **NOTICE TO PROCEED:** No Services shall be performed or furnished under this contract unless and until this document has been properly signed by all responsible parties and a Notice to Proceed order has been issued to the Consultant.

AS WITNESS HEREOF, the parties hereto have caused this Contract to be entered as of the day and year written above.

INLAND EMPIRE UTILITIES AGENCY: XXXXXXXXXXXXXXXXXXXXXXXXXXXX :

P. Joseph Grindstaff (Date) XXXXXXXXXX _____ (Date)
General Manager XXXXXXXXXX

ATTACHMENT D

SAMPLE CONSULTANT SERVICE INVOICE



**INLAND EMPIRE UTILITIES AGENCY
CONSULTING SERVICES INVOICE**

Consultant:	Pay Estimate No.:	Contract Date:	Invoice Date:
Address:	Contract No.:	IEUA Project Manager:	This Period: From: To:
Contract Name:			Invoice No. / Consult Ref No.:

ORIGINAL CONTRACT:

PO No.	SAP Line Item No.	WBS Element No.	Item Description	Original Contract Value		Total This Period From: To:		Total to Date From: To:		Progress to Date		Remaining Contract Value
				Amount (\$)	% Complete	Amount (\$)	% Complete	Amount (\$)	% Complete	Amount (\$)	% Complete	
				\$0.00	0%	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00
				\$0.00	0%	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00
				\$0.00	0%	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00
Subtotal Original Contract:				\$0.00		\$0.00		\$0.00				\$0.00

CONTRACT AMENDMENTS:

PO No.	SAP Line Item No.	WBS Element No.	Amendment Description	Amended Contract Value		Total This Period From: To:		Total to Date From: To:		Progress to Date		Remaining Contract Value
				Amount (\$)	% Complete	Amount (\$)	% Complete	Amount (\$)	% Complete	Amount (\$)	% Complete	
						\$0.00		\$0.00	0%	0%		\$0.00
						\$0.00		\$0.00	0%	0%		\$0.00
						\$0.00		\$0.00	0%	0%		\$0.00
						\$0.00		\$0.00	0%	0%		\$0.00
Subtotal Contract Amendments:				\$0.00		\$0.00		\$0.00				\$0.00
Total Contract with Amendments:				\$0.00		\$0.00		\$0.00				\$0.00

PAYMENT SUMMARY FOR THIS PERIOD:

	From:	
	To:	
Amount Earned Original Contract	\$0.00	
Amount Earned Amendments	\$0.00	
Back Charges	\$0.00	
Amount Due This Period	\$0.00	

PRIOR PAYMENT SUMMARY:

	From:	
	To:	
Amount Earned Original Contract	\$0.00	
Amount Earned Amendments	\$0.00	
Back Charges	\$0.00	
Prior Payments	\$0.00	

TOTAL PAYMENT SUMMARY:

	Total Contract
Total Original Contract	\$0.00
Total Contract Amendments	\$0.00
Total Adjusted Contract	\$0.00
Total Payments to Date	\$0.00
Back Charges	\$0.00
Payment this period	\$0.00
Balance of Contract	\$0.00

CONTRACT SCHEDULE SUMMARY:

Contract Start Date:
Contract Duration:
Contract Completion Date: 1/0/1900
Authorized Time Extension: 0
Revised Completion Date: 1/0/1900

PROJECT COMPLETION SUMMARY:

Contract Time Expired: #DIV/0!
Contract Work Complete: #DIV/0!

Consultant Approval:

Title: _____ Signature: _____ Date: _____

Inland Empire Utilities Agency Approvals:

Project Engineer: _____ Date: _____ Assistant Gen. Mgr: _____ Date: _____
Supervising Engineer: _____ Date: _____ General Manager: _____ Date: _____
Department Manager: _____ Date: _____

ATTACHMENT E
AUTOCAD SPECIFICATIONS

AUTOCAD SPECIFICATIONS

The following are the Computer Aided Design and Drafting (CADD) Specifications for Inland Empire Utilities Agency (IEUA). These specifications supply the basic information your firm will need to prepare construction documents for this project, should you be awarded the project. If you are working on a portion of a project with IEUA, more precise specifications will be provided that will allow your firm to match the drawing format that has been chosen for the project.

The Engineering Department of IEUA currently utilizes AutoCAD Civil 3D 2014. All construction documents (as well as CDROM copies) submitted to IEUA shall be in AutoCAD Release 2004 or later, "DWG" format.

Consultant shall avoid using background images (raster images), such as JPEG, TIFF, PDF, PNG, etc. in drawings. If images are required, they shall be inserted into the drawings as embedded objects by using Insert OLE. Electronic AutoCAD files shall match exactly to the printed submittal package delivered to IEUA. There shall be no difference in contents between hard copies and electronic files.

When developing 3D models for design, the Building Information Modeling (BIM) shall be performed using AutoCAD Civil 3D and Sketchup Pro to provide for photorealistic visualization through project development and analytical insight into the construction process. A 3D model shall consist of appropriate rendering, height, width, depth and design limitations such as setbacks, footprint, and orientation in order to identify design conflicts, design errors, sequencing constraints, and fabrication details. Required detail layouts and configuration of the various building systems such that it complies with design, construction and operating criteria. Models are to be presented utilizing the exact coordinate system as specified by the Agency's standards and contain geo-referenced attributes. The consultant shall submit models in DWG and SKP. All 3D models shall remain the property of IEUA.

Model files are always drawn Full Scale, that is one inch equals one inch and one foot equals one foot. Civil plans are to use "decimal" units and architectural plans are to use "architectural" units. Model plans are always drawn so that the information contained in the file is in its proper coordinate system in the Design Plane. This position is defined by X and Y coordinate values and must be NAD83, California State Plane, Zone 5 with units in feet for District Facilities in San Bernardino and Los Angeles Counties, and NAD83, California State Plane, Zone 6 with units in feet for District Facilities in Orange and Riverside Counties. The District's standard datum is the NAVD88, (North American Vertical Datum 88). For the plan view only, each facility should have its own layer (i.e., pipeline, manhole, valves, CTS, etc., and should all be on separate layers). Paper-space should be used for the plot sheets.

At all locations where there are angle changes, there should be northing and easting identifiers. Pipeline curves should show clear curve data which includes the BC, EC and curve geometry. For work within the plants, the X and Y coordinate values should be based on the plant grid as found in the Facility Atlas plant grid layer. Schematic drawings such as Process & Instrumentation Diagrams shall be developed using a grid. The grid is a pattern of dots that extends over the drawing area. A default grid spacing of .125 or 1/8th of inch is preferred.

IEUA's pen parameters shall be used as much as possible. General IEUA use is limited to seven pens of various thickness or equivalent to a 000 to a 4 (pen numbers are based on Koh-I-Noor's standard technical drafting pens). Any thicker line weights shall be created with polylines. These general parameters may be modified with prior approval from IEUA's Project Manager.

The final contract documents (Cover Sheet Only) shall be produced on 22" x 34", 4 mil double matte mylar. Contract Documents plotted via wet ink pen, laser, electrostatic or ink-jet type plotters are acceptable. Documents via pen plotters shall be done in permanent opaque ink, Koh-I-Noor 3084F or 3094F (or approved equal), black in color. Colors may be used to allow subdued imaging (gray-scaling), also in permanent opaque ink. Plots developed by thermal or pencil plotters are not acceptable. Drawings with applied decals or "stick-ons" are not acceptable.

For assistance or more detailed specifications and information contact the IEUA Project Manager.

ATTACHMENT F
EXCEPTION FORM

EXCEPTION FORM

Should your firm take exception to **ANY** of the terms and conditions or other contents provided in the Request for Proposal, submit the following form with your proposal. If no exception(s) are taken, enter "NONE" for the first item. Make additional copies of this form if necessary.

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

Page Number: _____ Section Title: _____

Paragraph Number: _____ Exception Taken: _____

ATTACHMENT G
WORKERS' COMPENSATION CERTIFICATE

WORKERS' COMPENSATION CERTIFICATE

The Consultant shall execute this form to acknowledge and comply with the requirements of California Labor Code, Sections 1860 and 1861:

I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and on behalf of my Consultant, I will comply with such provisions before commencing the performance of the work of any contract entered into.

Signature

Company Name

Printed Name

Business License Number

Title

Date

ATTACHMENT H
CONSULTANT IDENTIFICATION

CONSULTANT IDENTIFICATION

Legal name of Consultant: _____

2. Street Address: _____

3. Mailing Address: _____

4. Business Telephone: _____

5. Facsimile Telephone: _____

6. Email Address: _____

7. Type of Business:

Sole Proprietor Partnership Corporation

Other: _____

If corporation, indicate State where incorporated: _____

8. Business License number issued by the City where the Consultant's principal place of business is located.

Number: _____ Issuing City: _____

9. Federal Tax Identification Number: _____

10. Consultant's Project Manager: _____

ATTACHMENT I
NON-COLLUSION AFFIDAVIT

NON-COLLUSION AFFIDAVIT

State of California)
) ss.
County of _____)

_____, being first duly sworn, deposes and says

that he or she is _____, of _____ ("Bidder") the party making the foregoing proposal that the proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the proposal is genuine and not collusive or sham; that the Bidder has not directly or indirectly solicited any other Bidder to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham proposal, or that anyone shall refrain from bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal fee or the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the proposal fee, or of that of any other Bidder, or to secure any advantage against the public body awarding the Contract of anyone interested in the proposed Contract; that all statements contained in the proposal are true; and, further, that the Bidder has not, directly or indirectly, submitted his or her proposal fee or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, proposal depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

Signature

Company Name

Printed Name

Consultant License Number

Title

Date

ATTACHMENT J
BUSINESS OWNERSHIP INFORMATION

BUSINESS OWNERSHIP INFORMATION

Business

Ownership

Information

Are you a WMDVBE* certified business? Yes No

*(Women, Minority, Disabled, Veteran Business Enterprise)

Certification must be received from California Public Utilities Commission clearing House. Call Toll Free: 800-359-7998 or 415-928-6892 for additional information. Please check those that apply:

- | | |
|--|--|
| <input type="checkbox"/> Women-Owned Business | <input type="checkbox"/> African-American-Owned Business |
| <input type="checkbox"/> Disabled-Owned Business | <input type="checkbox"/> Veteran-Owned Business |
| <input type="checkbox"/> Native-American-Owned Business | <input type="checkbox"/> Hispanic-Owned Business |
| <input type="checkbox"/> Caucasian-American-Owned Business | <input type="checkbox"/> Underrepresented Asian-Owned Business |

All firms need to be registered with the Agency. Please logon to www.ieua.org and under the heading of Procurements, click on the registration tab. This will allow your firm to access solicitations for the commodities or services that apply. Additionally, other agencies have access to the vendor information in the Bid Net system which will increase your access for available solicitations.

ATTACHMENT K
TAG NUMBERING SYSTEM

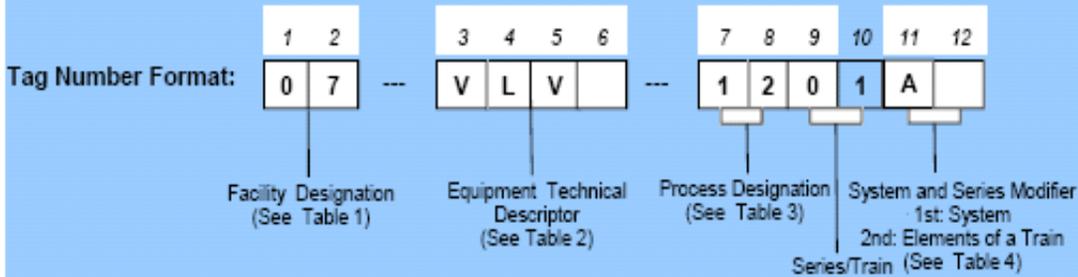
TAG NUMBERING SYSTEM

All equipment and instrumentation used in this project will be required to be marked with the Agency's approved Tag Numbering System shown below, beginning in the design phase and utilized throughout P&ID and engineering drawings.

i. Equipment Tagging Guidelines

LAST UPDATED | **May 25, 2015**

IEUA Equipment General Tag Guidelines



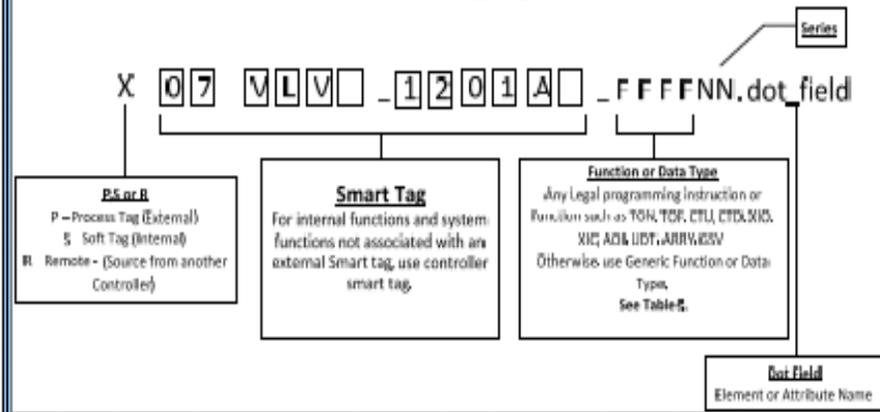
Instructions:

- >> 1st & 2nd Digits = The Facility Housing the Equipment (see Table 1)
- >> 3rd through 6th Digits = Mechanical, Electrical Equipment/Instrument Abbreviation (see Table 2)
- >> 7th & 8th Digits = Process Within the Plant (see Table 3)
- >> 9th through 10th = Train/Series
- >> 11th through 12th = 11th - System (see Table 4), 12th - Individual Piece of Equipment within a Train/Series

Examples:

<u>SmartTag</u>	<u>Facility</u>	<u>Equipment</u>	<u>Train/</u>		<u>Equipment within</u>	
			<u>Process</u>	<u>Series</u>	<u>System</u>	<u>Train/Series</u>
07-PMP-0201FA	CCWRF	Ferric Pump 1	Preliminary	01	Ferric Injection	A
07-PMP-0202FA	CCWRF	Ferric Pump 2	Preliminary	02	Ferric Injection	A
07-FIT-0401CA	CCWRF	Basin 1 Air Flow Indicating Meter 1	Secondary	01	Aeration	A
07-FIT-0402CA	CCWRF	Basin 2 Air Flow Indicating Meter 1	Secondary	02	Aeration	A
07-AIT-0401CA	CCWRF	Basin 1 DO Probe 1	Secondary	01	Aeration	A
07-AIT-0401CB	CCWRF	Basin 1	Secondary	01	Aeration	B

PCS / SCADA Tagging Guideline



Examples:

P07PMP-0201FA_STRT01 Start command to Ferric Pump

<u>SmartTag</u>	<u>Facility</u>	<u>Equipment</u>	<u>Proc or Soft</u>	<u>Element or Function</u>
P07PMP_0201FA_STRT01	CCWRF	Ferric Pump 1	Process	Start Command
P07PMP_0202FA_LEAK01	CCWRF	Ferric Pump 2	Process	Leak Detection
S07FIT_0401CA_AOI01	CCWRF	Basin 1 Air Flow	Software	Analog Input AIO
S07DCP_1101A_GSV.DateTime	CCWRF	DCP 1	Software	Controller Time and Date
S07COMP_0901CA_TMR01	CCWRF	Plant Air System	Software	Low Pressure Alarm Timer
S07MTR_1001EA_CTU01.ACC	CCWRF	PO Pump #1	Software	Start Counter

Table 2 - Equipment Technical Descriptor

Description of Technical Object	Technical Descriptor
Actuator	ACT
Air Conditioner	AC
Air Release Valve	ARV
Air Release/Vacuum Relief Valve	AVRV
Air Separator	ASPR
Backflow Preventer	BFP
Blender	BLDR
Blowoff	BO
Boiler	BLR
Burner	BNR
Cannon	CANN
Cathodic Protection Station	CPS
Chute	CHUT
Centrifuge	CNFG
Chiller	CHLR
Compressor	COMP
Conductivity	COND
Crane	CRAN
Conveyor	CVR
Drive	DRV
Engine	ENG
Eye Wash	EYEW
Fan	FAN
Feeder	FDR
Gate	GATE
Generator	GEN
Grinder	GNDR
Harmonic Filter	HFLT
Heat Exchanger	HXGR
Antenna	IANT
Application Server	IAPP
Broadband Hardware	IBB
RSLinx, Matrikon Server	IDAS
Distributed Control processor	IDCP
Historian Server	IHIS
HMI Server	IHMI
Infrastructure Server	IINF
Local Control Panel	ILCP

Table 2 - Equipment Technical Descriptor

Description of Technical Object	Technical Descriptor
Media Converter	IMED
Operator Interface terminal	IOIT
PCS Server	IPCS
PLC	IPLC
DCP	DCP
RIO	RIO
Printer	IPRT
RACO Alarm Hardware	IRAC
Remote I/O	IRIO
Network Router	IRTR
Scanner	ISCN
Network Security Hardware	ISEC
Network Switch	ISWT
Microwave Hardware	IWAV
WIFI Hardware	IWFI
Workstation	IWRW
Leveler	LVL
Lube Oil System	LUBS
Motor	MTR
Mixer	MXR
Pipe	PIPE
Pump	PMP
Pressure Relief Valve	PRV
Sampler	SMP
Sensor	SNSR
Shower	SHWR
Strainer	STNR
Switchgear	SWGR
Tank	TNK
Tower	TWR
Uninterruptible Power Supply	UPS
Valve	VLV
Variable Frequency Drive	VFD
Water Filter	WFLT

Table 3: Process Designation

Process Description	Process Designation
Power Distribution System	01
Preliminary	02
Primary	03
Secondary	04
Solid Handling	05
	06
	07
Renewable Energy System	08
Plant/Facility	09
Tertiary	10
PCS/SCADA System	11
Recycled Water Pump Station	12
Dump Station	13
Recycled Water Utility System	14
Dechlorination System	15
Main Control System	16
Lift Stations	17
	18
	19
HQ - Building A	20
HQ - Building B	21
Central Plant	22
Building	23
	24
	25
	26
	27
	28
	29
800 RW Distribution System	30
930 RW Distribution System	31
1050 RW Distribution System	32
1158 RW Distribution System	33
1299 RW Distribution System	34
1630RW Distribution System	35
1630 East Pump Station	36
930/800 PRV Station	37
1630 West Pump Station	38
RW Remote Metering System	39
RW Control System	40
1158 Reservoir	41
1299 East Reservoir	42
1630 East Reservoir	43
1630 West Reservoir	44
930 Reservoir	45
	46
	47
	48
	49
CB-11	50
CB-13	51
CB-14	52
CB-15	53
CB-18	54
CB-20	55
OC-59	56
College Height Basin	57
Upland Basin	58
Montclair Basin	59
Brooks Basin	60
7th & 8th Street Basin	61
Ely Basin	62
Turner 1 & 2 Basin	63
Turner 3 & 4 Basin	64
Lower Day Basin	65
Etwarda Debris Basin	66
Victoria Basin	67
San Sevaine Basin	68
Banana Basin	69
Hickory Basin	70
RP3 Basin	71
Declez Basin	72

Table 3: Process Designation

Process Description	Process Designation
Grove Basin	73
Jurupa Basin	74
Etiwanda Conservation Basin	75
	76
	77
	78
Regional Sewers	79
NRWS Sewers	80
Collection Laterals	81
Collections NRW Industry	82
Philadelphia Pump Station	83
San Bernardino Pump Station	84
Jurupa Pump Station	85
Montclair Pump Station	86
Diversion Structures	87
Compost Receiving/Mixing Area	88
Compost Bag House	89
Compost Processing Area	90
Compost Curing Area	92
Compost Conveyor System	93
Compost Screening System	94
Compost Loading Area	95
Compost Storage Area	96
Compost Ventilation System	97
Compost Bio Filtration System	98
Compost Control System	99

Table 4: System Designation

System Description	System Designation
PRELIMINARY TREATMENT	
Influent Metering	A
Influent Pumping	B
Influent Flow Diversion Structure	C
Screening	D
Grit Removal	E
Ferric Injection	F
Polymer Injection	G
Odor Control	H
Auxiliary	I
PRIMARY TREATMENT	
Influent Metering	A
Clarifier Drive	B
Sludge	C
Scum	D
Influent Flow Diversion Structure	E
Effluent Flow Diversion Structure	F
Emergency Storage Basin / Equalization Basin	G
Odor Control	H
Auxiliary	I
SECONDARY TREATMENT	
Influent Metering	A
Influent Pumping	B
Aeration Basin	C
Blower and Aeration System	D
Clarifier Drive	E
Secondary Clarifier Influent Flow Diversion Structure	F
Secondary Clarifier Effluent Flow Diversion Structure	G
Secondary Clarifier Scum System	H
RAS	I
WAS	J
MLR	K
Polymer Injection	L
Auxiliary	M
TERTIARY TREATMENT AND CHEMICAL FEED SYSTEMS	
Influent Metering	A
Coagulation	B
Flocculation	C

Table 4: System Designation

System Description	System Designation
Alum Injection	D
Polymer Injection	E
Filtration	D
Filter Backwash System	F
Filter Effluent Structure	G
Chlorination	H
Chlorine Contact Basin	I
Utility Water	J
Flow Diversion/Storage	K
De-Chlorination	L
De-Chlorination Basin	M
Effluent Metering	N
Auxiliary	O
SOLID HANDLING	
Gravity Thickening	A
GT Bleach Injection	B
Dissolved Air Flotation Thickening	C
DAFT Polymer Injection	D
Sludge Transfer	E
Polymer Injection	F
Digestion	G
Ferric Injection	H
Digester Gas	I
Digester Gas Conditioning	J
Digester Heating	K
Dewatering	L
Dewatering Polymer Injection	M
Scale Control Chemical Injection	N
Filtrate/Centrates	O
Odor Control	P
Flare	Q
Auxiliary	R
MISCELLANEOUS SYSTEMS	
Standby Generator	A
Plant Air System	C

Table 4: System Designation

System Description	System Designation
CONTROL SYSTEMS	
DCP Primary	A
DCP Secondary	B
Local PLC	C
DeviceNet Gateway	D
Ethernet Gateway	E
	F
	G
	H
Input Module	I
	J
	K
LonWorks Gateway	L
Modbus Gateway TCP/Serial	M
Network Device / Switch	N
Output Module	O
Power Monitor	P
Auxiliary	X

Table 5: Functions and Data

Logic Function	Description	Generic Function	Description	Data Type	Description
AOI	Add-On Instruction	OPLM	Open Limit	BOOL	Boolean
ABL	ASCII Test For Buffer Line	CLLM	Closed Limit	INT	Integer
ABS	Absolute Value	OPCM	Open Command	SINT	Single Integer
ACB	ASCII Chars in Buffer	CLCM	Close Command	DINT	Double Integer
ACL	ASCII Clear Buffer	FAIL	Failed Indication	REAL	Real Number
ACS	Arc Cosine	HAL	High Alarm	STRG	String
ADD	Add	HHAL	High High Alarm	BIN	Binary
AFI	Always False Instruction	LAL	Low Alarm	HEX	Hexadecimal
AHL	ASCII Handshake Lines	LLAL	Low Low Alarm	BCD	Binary Coded Decimal
ALM	Alarm	STAT	Status	AOI	Add-On Instruction
ALMA	Analog Alarm	HAND	Hand	UDT	User Defined Data Type
ALMD	Digital Alarm	AUTO	Auto	ARRY	Array
AND	Bitwise AND	ENBL	Enable	MDT	Module Data Type
ARD	ASCII Read	REM	Remote	MSG	Message
ARL	ASCII Read Line	LOC	Local		
ASN	Arc Sine	OFF	Off		
ATN	Arc Tangent	ON	On		
AVE	File Average	FWD	Forward		
AWA	ASCII Write Append	REV	Reverse		
AWT	ASCII Write	STBY	Standby		
BAND	Boolean AND	STRT	Start		
BNOT	Boolean NOT	STOP	Stop		
BOR	Boolean OR	JOG	Jog		
BPT	Breakpoints	OUT	Out		
BRK	Break	IN	In		
BSL	Bit Shift Left	EXTD	Extend		
BSR	Bit Shift Right	RTCT	Retract		
BTD	Bit Field Distribute	LEAK	Leak Detection		
BTDT	Bit Field Distribute with Target				
BTR	Message				
BTW	Message				
BXOR	Boolean Exclusive OR				
CC	Coordinated Control				
CLR	Clear				
CMP	Compare				
CONC	AT String Concatenate				
COP	Copy File				
COS	Cosine				
CPS	Synchronous Copy File				
CPT	Compute				

Table 5: Functions and Data

Logic Function	Description	Generic Function	Description	Data Type	Description
CTD	Count Down				
CTU	Count Up				
CTUD	Count Up/Down				
D2SD	Discrete 2-State Device				
D3SD	Discrete 3-State Device				
DDT	Diagnostic Detect				
DEDT	Deadtime				
DEG	Degrees				
DELS	String Delete				
DERV	Derivative				
DFF	D Flip-Flop				
DIV	Divide				
DTOS	DINT to String				
DTR	Data Transitional				
EOT	End of Transition				
EQU	Equal to				
ESEL	Enhanced Select				
EVNT	Trigger Event Task				
FAL	File Arithmetic and Logic				
FBC	File Bit Comparison				
FFL	FIFO Load				
FFU	FIFO Unload				
FGEN	Function Generator				
FIND	Find String				
FLL	File Fill				
FOR	For				
FRD	Convert to Integer				
FSC	File Search and Compare				
GEQ	Greater than or Equal to				
GRT	Greater Than				
GSV	Get System Value				
HLL	High/Low Limit				
HPF	High Pass Filter				
ICON	Input Wire Connector				
IMC	Internal Model Control				
INST	Insert String				
INT	G Integrator				
IOT	Immediate Output				
IREF	Input Reference				
JKFF	JK Flip-Flop				
JMP	Jump to Label				

Table 5: Functions and Data

Logic Function	Description	Generic Function	Description	Data Type	Description
JSR	Jump to Subroutine				
JXR	Jump to External Routine				
LBL	Label				
LDL2	Second-Order Lead Lag				
LDLG	Lead-Lag				
LEQ	Less Than or Equal to				
LES	Less Than				
LFL	LIFO Load				
LFU	LIFO Unload				
LIM	Limit				
LN	Natural Log				
LOG	Log Base 10				
LOWR	Lower Case				
LPF	Low Pass Filter				
MAAT	Motion Apply Axis Tuning				
MAFR	Motion Axis Fault Reset				
MAG	Motion Axis Gear				
MAHD	Motion Apply Hookup Diagnostics				
MAH	Motion Axis Home				
MAJ	Motion Axis Jog				
MAM	Motion Axis Move				
MAOC	Motion Arm Output Cam				
MAPC	Motion Axis Position Cam				
MAR	Motion Arm Registration				
MASD	Motion Axis Shutdown				
MAS	Motion Axis Stop				
MASR	Motion Axis Shutdown Reset				
MATC	Motion Axis Time Cam				
MAVE	Moving Average				
MAW	Motion Arm Watch				
MAXC	Maximum Capture				
MCCD	Motion Coordinated Change Dynamics				
MCCM	Motion Coordinated Circular Move				
MCCP	Motion Calculate Cam Profile				
MCD	Motion Change Dynamics				
MCLM	Motion Coordinated Linear Move				

Table 5: Functions and Data

Logic Function	Description	Generic Function	Description	Data Type	Description
MCR	Master Control Reset				
MCSD	Motion Coordinated Shutdown				
MCS	Motion Coordinated Stop				
MCSR	Motion Coordinated Shutdown Reset				
MCT	Motion Coordinated Transform				
MCTP	Motion Calculate Transform Position				
MDAC	Motion Master Driven Axis Control				
MDCC	Motion Master Driven Coordinated Control				
MDF	Motion Direct Drive Off				
MDOC	Motion Disarm Output Cam				
MDO	Motion Direct Drive On				
MDR	Motion Disarm Registration				
MDW	Motion Disarm Watch				
MEQ	Mask Equal to				
MGSD	Motion Group Shutdown				
MGS	Motion Group Stop				
MGSP	Motion Group Strobe Position				
MGSR	Motion Group Shutdown Reset				
MID	Middle String				
MINC	Minimum Capture				
MMC	Modular Multivariable Control				
MOD	Modulo				
MOV	Move				
MRAT	Motion Run Axis Tuning				
MRHD	Motion Run Hookup Diagnostics				
MRP	Motion Redefine Position				
MSF	Motion Servo Off				
MSG	Message				
MSO	Motion Servo On				
MSTD	Moving Standard Deviation				
MUL	Multiply				

Table 5: Functions and Data

Logic Function	Description	Generic Function	Description	Data Type	Description
MUX	Multiplexer				
MVM	Masked Move				
MVMT	Masked Move with Target				
NEG	Negate				
NEQ	Not Equal to				
NOP	No Operation				
NOT	Bitwise NOT				
NTCH	Notch Filter				
OCON	Output Wire Connector				
ONS	One Shot				
OR	Bitwise OR				
OREF	Output Reference				
OSFI	One Shot Falling with Input				
OSF	One Shot Falling				
OSRI	One Shot Rising with Input				
OSR	One Shot Rising				
OTE	Output Energize				
OTL	Output Latch				
OTU	Output Unlatch				
PATT	Attach to Equipment Phase				
PCLF	Equipment Phase Clear Failure				
PCMD	Equipment Phase Command				
PDET	Detach from Equipment Phase				
PFL	Equipment Phase Failure				
PIDE	Enhanced PID				
PID	Proportional Integral Derivative				
PI P	roportional + Integral				
PMUL	Pulse Multiplier				
POSP	Position Proportional				
POVR	Equipment Phase Override Command				
PPD	Equipment Phase Paused				
PRN	P Equipment Phase New Parameters				
PSC	Phase State Complete				
PXRQ	Equipment Phase External Request				

Table 5: Functions and Data

Logic Function	Description	Generic Function	Description	Data Type	Description
RAD	Radians				
RES	Reset				
RET	Return				
RLIM	Rate Limiter				
RMPS	Ramp/Soak				
RTO	Retentive Timer On				
RTOR	Retentive Timer On with Reset				
RTOS	REAL to String				
SBR	Subroutine				
SCL	Scale				
SCRV	S-Curve				
SEL	Select				
SETD	Set Dominant				
SFP	SFC Pause				
SFR	SFC Reset				
SIN	Sine				
PRN	P Equipment Phase New Parameters				
PSC	Phase State Complete				
PXRQ	Equipment Phase External Request				
RAD	Radians				
RES	Reset				
RET	Return				
RLIM	Rate Limiter				
RMPS	Ramp/Soak				
RTO	Retentive Timer On				
RTOR	Retentive Timer On with Reset				
RTOS	REAL to String				
SBR	Subroutine				
SCL	Scale				
SCRV	S-Curve				
SEL	Select				
SETD	Set Dominant				
SFP	SFC Pause				
SFR	SFC Reset				
SIN	Sine				

Table 5: Functions and Data

Logic Function	Description	Generic Function	Description	Data Type	Description
SIZ	E Size In Elements				
SNEG	Selected Negate				
SOC	Second-Order Controller				
SQI	Sequencer Input				
SQL	Sequencer Load				
SQO	Sequencer Output				
SQR	Square Root				
SQRT	Square Root				
SRT	File Sort				
SRTP	Split Range Time Proportional				
SSUM	Selected Summer				
SSV	Set System Value				
STD	File Standard Deviation				
STOD	String To DINT				
STOR	String To REAL				
SUB	Subtract				
SWPB	Swap Byte				
TAN	Tangent				
TND	Temporary End				
TOD	Convert to BCD				
TOFR	Timer Off Delay with Reset				
TOF	Timer Off Delay				
TONR	Timer On Delay with Reset				
TON	Timer On Delay				
TOT	Totalizer				
TPT	Tracepoints				
TRN	Truncate				
TRUN	C Truncate				
UID	User Interrupt Disable				
UIE	User Interrupt Enable				
UPDN	Up/Down Accumulator				
UPPE	R Upper Case				
XIC	Examine If Closed				
XIO	Examine If Open				
XOR	Bitwise Exclusive OR				
XPY	X to the Power of Y				

ATTACHMENT L
PROJECT DESIGN CHECKLIST

PROJECT TITLE: _____

PROJECT NO: _____

BUDGET: _____

- 1) Cost Estimate of the Construction Project within Fiscal Year/Total Project Budget
- 2) Funding requirements included in the Front End Specifications (SRF/Grants, etc.)
- 3) Consistency with funding commitments with partnering agencies
- 4) Ultimate build-out capacity / layout considerations
- 5) Design Calculations
- 6) CEQA / CEQA Plus / NEPA
- 7) Permits (See Attachment A)
- 8) Easements (plans detailing the easements with APN & ROW, easements recorded)
- 9) SCE Design Incentives process was initiated at PDR stage for the project
- 10) Control Narrative and Strategies (Operational Philosophy)
- 11) Startup Procedures
- 12) Work restriction within current plant / shutdown limitations / service interruption
- 13) Asset Inventory (New Equipment and Items to be removed)
- 14) Submittals Checklist
- 15) Potable/Recycled Water Cross Connection Considerations
- 16) Ventilation / Air-conditioning for electrical/control rooms & cabinets
- 17) QA/QC Review Date: _____ by _____
- 18) 3D Rendition for structures
- 19) Conditions from sample checklist in Section 8 – Project Design of Project Management SOP
- 20) Conditions from Sample Plan Checklists of Exhibit 12 of Project Management SOP
- 21) Site visits to verify field conditions
- 22) Geotechnical Baseline Reports with sufficient details for construction bid (percentage of cobbles, etc.)
- 23) Pothole and Ground Penetrating Radar of unknown utilities
- 24) Retention Percentage acceptable at 5% or needs increase up to 10% (requires Board approval)
- 25) Limits of construction area is delineated on the plans
- 26) HVAC Improvements consistent with Agency requirements
- 27) Confined space requirements shown on drawings after consultation w/ Safety Officer
- 28) Electrical arc-flash requirements shown on drawings after consultation w/ Safety Officer
- 29) Reference to Green Book if it's not specifically called out
- 30) Area Classification for Electrical Installations and areas where the contractor will be working

PERMITS FOR THE PROJECT

Agencies	Status
Regional Water Quality Control Board - NPDES	
SWPPP - WDID	
RWQCB – 401 Certification	
Department of Public Health	
California Department of Fish and Wildlife Services	
U.S. Army Corp of Engineers (404 Permit, Etc.)	
U.S. Fish and Wildlife	
Encroachment / Construction / Utility / Traffic / Demolition / Hazardous Waste	
1. City of Chino	
2. City of Chino Hills	
3. City of Ontario	
4. City of Rancho Cucamonga	
5. Cucamonga Valley Water District	
6. City of Fontana	
7. City of Upland	
8. City of Montclair	
9. Monte Vista Water District	
10. San Bernardino County Flood Control District	
11. Other -	
State of California Department of Industrial Relation - Safety	
Caltrans	
State Water Resources Control Board	
Occupational Safety and Health Administration (OSHA) Gaseous Permit	
South Coast Air Quality Management District (SCAQMD)	
Fire Department	
Other -	

ATTACHMENT M
SAMPLE ASSET LIST

Exhibit B



**INLAND EMPIRE UTILITIES AGENCY
CONSULTING SERVICES INVOICE**

Company: ABC Company	Pay Est. No.:	Contract Date:	Invoice Date: #####
Address:	Contract No.: 46-xxxx	IEUA Project Manager: Jamal Zughbi	This Period: From: 9/1/2015 To: 9/30/2015
Phone No.:			
Proj. Name & No: RP-1 Improvements Project, EN15xxx			Invoice No. /Consult Ref XXXXXX

ORIGINAL CONTRACT:

PO No.	SAP Line Item No.	WBS Element No.	Item Description	Original Contr. Value	Total This Period		Total to Date		Progress to Date	Remaining Contract Value
				Amount (\$)	% Complete	Amount (\$)	% Complete	Amount (\$)	% Complete	Amount (\$)
45-xxxxx	1	EN15xxx.00.F.DN50	50% Design Services	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00
	2	EN15xxx.00.F.DN85	85% Design Services	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00
	3	EN15xxx.00.F.DFLP	Final Design	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00
	4	EN15xxx.00.G.CNSW.00.	Constr Support Services		#DIV/0!	\$0.00	#DIV/0!	\$0.00	#DIV/0!	\$0.00
Subtotal Original Contract				\$0.00		\$0.00		\$0.00		\$0.00

CONTRACT AMENDMENTS:

PO No.	SAP Line Item No.	WBS Element No.	Amendment Description	Amended Contract Value	Total This Period		Total to Date		Progress to Date	Remaining Contract Value
				Amount (\$)	% Complete	Amount (\$)	% Complete	Amount (\$)	% Complete	Amount (\$)
						\$0.00		\$0.00	0%	0%
						\$0.00		\$0.00	0%	0%
						\$0.00		\$0.00	0%	0%
Subtotal Contr. Amendm				\$0.00		\$0.00		\$0.00		\$0.00
Total Cont. with Amendr				\$0.00		\$0.00		\$0.00		\$0.00

PAYMENT SUMMARY FOR THIS PERIOD:

	From: 9/1/2015	
	To: 9/30/2015	
Amount Earned Original Contract	\$0.00	
Amount Earned Amendments	\$0.00	
Back Charges	\$0.00	
Amount Due This Period	\$0.00	

PRIOR PAYMENT SUMMARY:

	From:	
	To:	
Amount Earned Orig Contract	\$0.00	
Amount Earned Amendments	\$0.00	
Back Charges	\$0.00	
Prior Payments	\$0.00	

TOTAL PAYMENT SUMMARY:

	Total Contract	
Total Original Contract	\$0.00	
Total Contract Amendments	\$0.00	
Total Payments to Date	\$0.00	
Back Charges	\$0.00	
Payment this period	\$0.00	
Balance of Contract	\$0.00	

CONTRACT SCHEDULE SUMMARY:

Contract Start Date:	10/9/2014
Contract Duration:	365
Contract Completion Date:	10/9/2015
Authorized Time Extension:	0
Revised Completion Date:	10/9/2015

PROJECT COMPLETION SUMMARY:

Contract Time Expired:	102%
Contract Work Complete:	#DIV/0!

Consultant Approval:

Title: _____ Signature: _____ Date: _____

Inland Empire Utilities Agency Approvals:

Proj. Engineer: _____ Date: _____ Exec Mgr. / Assistant GM: _____ Date: _____
 Deputy Manager: _____ Date: _____ General Manager: _____ Date: _____
 Dept. Manager: _____ Date: _____

Exhibit C



Civil, Water, Wastewater, Drainage and Transportation Engineering
Construction Management • Surveying
California • Arizona

October 11, 2016

Inland Empire Utilities Agency
6075 Kimball Ave, Building A,
Chino, California 91708

Attention: Nasrin Maleki, Senior Engineer

Subject: Proposal for Consulting Engineering Services for the
East End Avenue NRW Flowmeter Upgrades, RFP-RW-16-026

Dear Ms. Maleki:

Civiltec engineering, inc. (Civiltec) proposes to provide the scope of services per our proposal dated October 11, 2016 for the above mentioned project on a time and materials, not to exceed the following total budgets without prior authorization from Inland Empire Utilities Agency. The basic budget considers the services to be completed in the phases listed below.

Phase A, B and C – Preliminary Design.....	\$66,834.00
Phase E – Engineering Design Services	\$63,320.00
Phase F – 85% Design	\$40,000.00
Phase G – 100% and Final Design	\$29,620.00
Phase H – Process Control Narrative.....	\$2,590.00
<u>Phase I – Bid Phase Administration</u>	<u>\$11,190.00</u>
Total Budget.....	\$213,554.00

Detail break down of these phases is included in the attached project budget analysis work sheet. A copy of our 2016 Rate Schedule is also included as an attachment. This rate schedule will be kept in place for the duration of the project. *Civiltec* has not included any permit or plan check fees in the budget.

Please contact me with any questions you may have. We are available to discuss this proposal at your convenience. This cost proposal is valid for a period of 90 days.

Sincerely,

C. Shem Hawes, PE
Principal, Senior Engineer

DESIGN SERVICES FOR EAST END AVENUE NRW FLOWMETER UPGRADES
Engineering Services Manhour and Cost Estimate
Date: October 11, 2016

	HOURS BY PE	HOURS BY PM	HOURS BY PrE	HOURS BY SE	HOURS BY DD	HOURS BY D	HOURS BY PT	Potholing BTL	Electrical DeltaSe	3D Modeling E2Di	Surveying WSS	Subconsultant Leighton	Miscellaneous Expenses	BUDGET	Hours
RATE	\$ 215.00	\$ 180.00	\$ 165.00	\$ 145.00	\$ 110.00	\$ 95.00	\$ 105.00	\$ 1,200.00	\$ 180.00	\$ 165.00	\$ 230.00	Geotechnical			Hours
Engineering Services															
PHASE A - Meetings	4	16	12						8				\$ 750.00	\$ 7,910.00	40
PHASE B - Environmental Review		2	2	8									\$ 1,850.00		12
PHASE C - Preliminary Design and Hydraulic Analysis	25	24	36	54	8	20	60	0	18	0	20	\$ 16,389.00	\$ 300.00	\$ 57,074.00	265
C.i Kick-off Meeting	3	3											\$ 300.00		6
C.ii Permits	4	2	2				40					\$ 2,555.00			48
C.iii Alternative Analysis		4	4	8											16
C.iv Preliminary Design	6	4	6	12					9						37
C.v Geotechnical Evaluation	2	2	2	4								\$ 13,834.00			10
C.vi Utility Research				12		20	20								52
C. vii Survey	2	1	2	8							20				33
C.viii Right-of-Way		2		2											4
C. ix Control System Design	2	2	2	2					9						17
C.x Construction Cost Estimate	2	2	2	2											8
C. xi Prepare Preliminary Design Review Package	4	2	16	4	8										34
PHASE E - 50% Design	22	31	34	42	72	50	8	10	30	60	0	0	\$ 500.00	\$ 63,320.00	359
E.i Plans and Specifications	12	15	16	20	40	40			15						158
E. ii Utility Research		1		2			8								11
E.iii Potholing		2	5	4	12			10							33
E. iv 3D BIM Modeling Design Service	2		4		10					60					76
E.v Draft Process Control Narrative		4							15						19
E.vi Review Agency Design Standards	1	2	3	4											10
E.vii Prepare 50% Design Review Submittal	4	4	6	12	10	10									46
E.viii 50% Design Workshop Meeting	3	3											\$ 500.00		6
PHASE F 85% DESIGN	20	24	18	24	72	52	40	0	37	4	0	0	550	\$ 40,000.00	291
F.i Plans and Specifications	7	7	10	8	32	32	4		25						125
F.ii 3D Model Updates		2		2						4					8
F.iii Geotechnical Report		2		2											4
F.iv Prepare 85% Design Review Submittal	6	4	4	12	20	20	4		12						82
F.v 85% Design Review Workshop Meeting	3	3											\$ 350.00		6
F.v 85% -Traffic Control Plan	4	6	4		20		32						\$ 200.00		66
PHASE G 100% and Final Design Drawings	16	20	26	22	30	20	18	0	42	0	0		\$ 450.00	\$ 29,620.00	194
G.i Final Construction Plan	7	7	10	6	20	20	8		22						100
G.ii Final Specifications	7	7	6	8			8		20				\$ 450.00		56
G.iii Final Engineering Cost Estimate and Schedule		2	2	4											8
G.iv 100% and Final Design Package Submittal	2	4	8	4	10		2								30
PHASE H - Process Control Narrative/Programming Scope	2	4							8					\$ 2,590.00	14
PHASE I - Bid Phase Administration	10	10	4	4	0	20	0	0	20				\$ 500.00	\$ 11,190.00	68
Bid Interpretation	4	4		4					6						18
Pre-bid Meeting	4	4							2				\$ 500.00		10
Conformed Plans and Specification	2	2	4			20			12						40
TOTAL HOURS	99	131	132	154	182	162	126	10	163	64	20	\$ 16,389.00	\$ 3,050.00	1243	1243
TOTAL BUDGET	\$ 21,285.00	\$ 23,580.00	\$ 21,780.00	\$ 22,330.00	\$ 20,020.00	\$ 15,390.00	\$ 13,230.00	\$ 12,000.00	\$ 29,340.00	\$ 10,560.00	\$ 4,600.00	\$ 16,389.00	\$ 3,050.00	\$ 213,554.00	

PM = Project Manager PrE = Project Engineer
PE = Principal Engineer DD = Designer Drafter
D = CAD Technician PT = Planning Technician
AA = Admin Assistant SE = Staff Engineer



Civil, Water, Wastewater, Drainage and Transportation Engineering
Construction Management • Surveying
California • Arizona

RATE SCHEDULE

EFFECTIVE UNTIL DECEMBER 31, 2016

Principal Engineer.....	\$215.00
Principal Engineer - Expert Witness Testimony.....	\$340.00
Senior Engineer.....	\$200.00
Project Manager.....	\$180.00
Project Engineer.....	\$165.00
Senior Designer.....	\$160.00
Staff Engineer.....	\$145.00
Associate Planner.....	\$130.00
Designer.....	\$125.00
Designer/Drafter.....	\$110.00
Planning Technician.....	\$105.00
Resident Engineer/Observer.....	\$105.00
CAD Technician.....	\$95.00
Senior Administrative Assistant.....	\$80.00
Administrative Assistant/Clerical.....	\$75.00
Two Man Survey Party.....	\$230.00
Survey Manager.....	\$155.00
Staff Land Surveyor.....	\$125.00
Survey Technician.....	\$105.00
Subcontracted Services.....	Cost plus 15%
Mileage.....	\$0.575/mile

NOTE: All rates are effective until December 31, 2016. Any increases in rates after that date will be limited to 5% maximum.

W:\ADMINISTRATION\Rates\SCHEDULE.16.doc

Exhibit D

East End Avenue NRW Flowmeter Upgrades

UPDATED: 10/4/7/16 (RFP)

NRW EE Flowmeter Upgrade

Project No. EN22002

	Start	End	Days
Consulting Contract Award		Dec. 21, 2016	
Design Kickoff		21-Dec-16	
Pre-Design	21-Dec-16	21-Mar-17	90
IEUA two weeks review	21-Mar-17	4-Apr-17	14
La County Review	21-Mar-17	17-Sep-17	180
50% Design	17-Sep-17	26-Nov-17	70
In-house Review	26-Nov-17	10-Dec-17	14
LA County Review	26-Nov-17	25-May-18	180
85% design	25-May-18	9-Jul-18	45
In-house review	9-Jul-18	23-Jul-18	14
100% Design	23-Jul-18	6-Sep-18	45
In-house Review	6-Sep-18	20-Sep-18	14
LA County Review	6-Sep-18	5-Mar-19	180
Final Design package	5-Mar-19	11-Mar-19	6
Bid & Award	11-Mar-19	7-Jun-19	88
Construction Contract Award		7-Jun-19	
Construction	7-Jun-19	4-Dec-19	180

**ACTION
ITEM
1D**



Date: December 21, 2016
To: The Honorable Board of Directors
Through: Engineering, Operations, and Biosolids Management Committee (12/14/16)
From: P. Joseph Grindstad 
General Manager
Submitted by: Randy Lee *PL*
Executive Manager of Operations/Assistant General Manager
Nelson Htoy *PL for NH*
Deputy Manager of Maintenance
Subject: Contract Award for CCWRF Odor Control Bleach and Air Piping Replacement

RECOMMENDATION

It is recommended that the Board of Directors:

1. Award Contract No. 4600002127 to E.R. Block Plumbing, Inc. for the Carbon Canyon Water Recycling Facility (CCWRF) odor control bleach and air piping replacement for a firm fixed price of \$119,850; and
2. Authorize the General Manager to execute the contract.

BACKGROUND

In order to adhere to established Agency goal of being good neighbors, significant odors are eliminated with the preliminary and primary treatment processes at a water recycle plant. Odor control systems are typically used to exhaust and treat the foul air to reduce the odors within the plant and surrounding area, and to reduce corrosion of equipment that is accelerated by odorous compounds. South Coast Air Quality Management District (SCAQMD) also established ambient air limit on odor causing compounds at the fence line. The odor control systems at CCWRF are chemical scrubbers that mix atomized bleach with the foul air as it enters a large fiberglass vessel. Odorous compounds are oxidized within the vessel before the air passes through a mist eliminating pad and then discharged to the atmosphere. The three CCWRF odor control systems (one for the headworks, and one for each of the two primary clarifiers) are near the end of their useful life, and will be replaced as part of the CCWRF Asset Management and Improvements Project in about three years.

Contract Award for CCWRF Odor Control Bleach and Air Piping Replacement

December 21, 2016

Page 2 of 2

An evaluation of the systems determined that the foul air blowers, compressed air blowers, ducting, and vessels can perform reliably for three additional years, but the bleach piping and compressed air piping (air for atomizing bleach) need to be replaced to provide reliable performance for the next few years. A design package to replace the bleach and air piping was developed and a competitive solicitation was conducted for construction bids. Thirty-eight prospective bidders were solicited via the Planet Bids system. The lowest responsive bid was received from E.R. Block Plumbing, Inc. and reflected a firm fixed price of \$119,850. The table below summarizes all eight responsive bids that were received:

Company	Price
E.R. Block Plumbing	\$119,850.00
Hemet Manufacturing	\$123,640.00
Humphrey Construction	\$128,000.00
SFM Constructors	\$154,652.40
Coonstruction	\$157,000.00
Ferreira Construction	\$173,900.00
Innovative Engineering	\$196,243.00
Kana Engineering	\$243,123.00

The scope of the service is to provide labor and materials to install approximately 630 linear feet of bleach piping (1.5" CPVC) and air piping (3" stainless steel) from the odor control blower station to the chemical scrubbers at the headworks and primary clarifiers.

Staff recommends that this contract be awarded to E.R. Block Plumbing, Inc. for the firm fixed price of \$119,850.

Completing the CCWRF odor control bleach and air piping replacement is in line with the IEUA Business Goal and Objectives of Wastewater Management to maintain capacity within systems and facilities to meet essential service demands and Environmental Stewardship objective of being a good neighbor in controlling odors at all Agency facilities.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

If approved, the CCWRF odor control bleach and air piping replacement will be funded from Regional Wastewater Operations and Maintenance (RO) fund, Professional Fees & Services budget for Fiscal Year 2016/17.



Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

CCWRF Odor Control Bleach and Air Piping Replacement

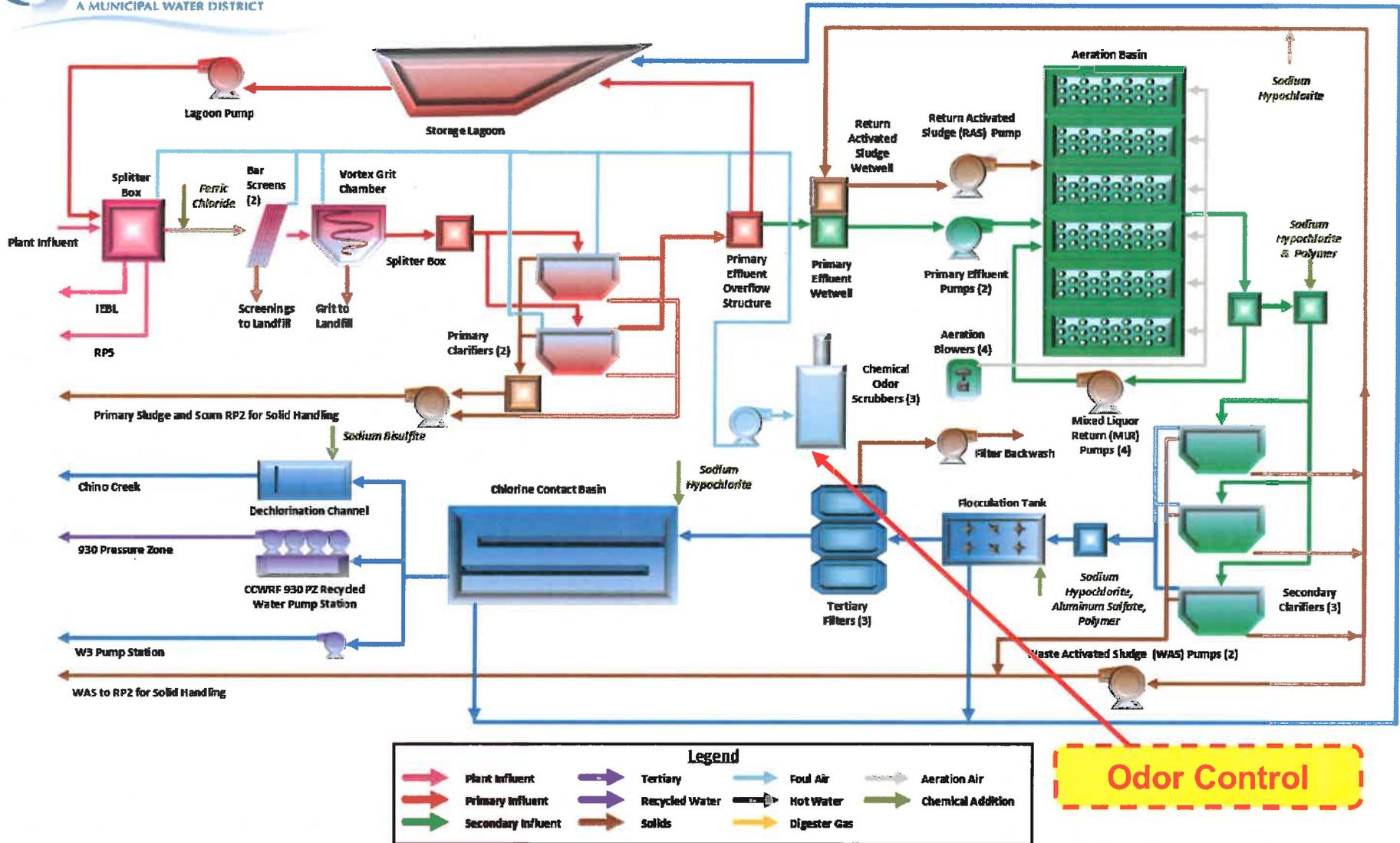
December 2016

Randy Lee
Executive Manager of Operations/AGM
Nelson Htoy
Deputy Manager of Maintenance

CCWRF Plant Schematic



Carbon Canyon Water Recycling Facility



Bleach and Air Piping at Odor Control Vessels



Various Leaks in Bleach and Air Piping



Bleach Line Leak

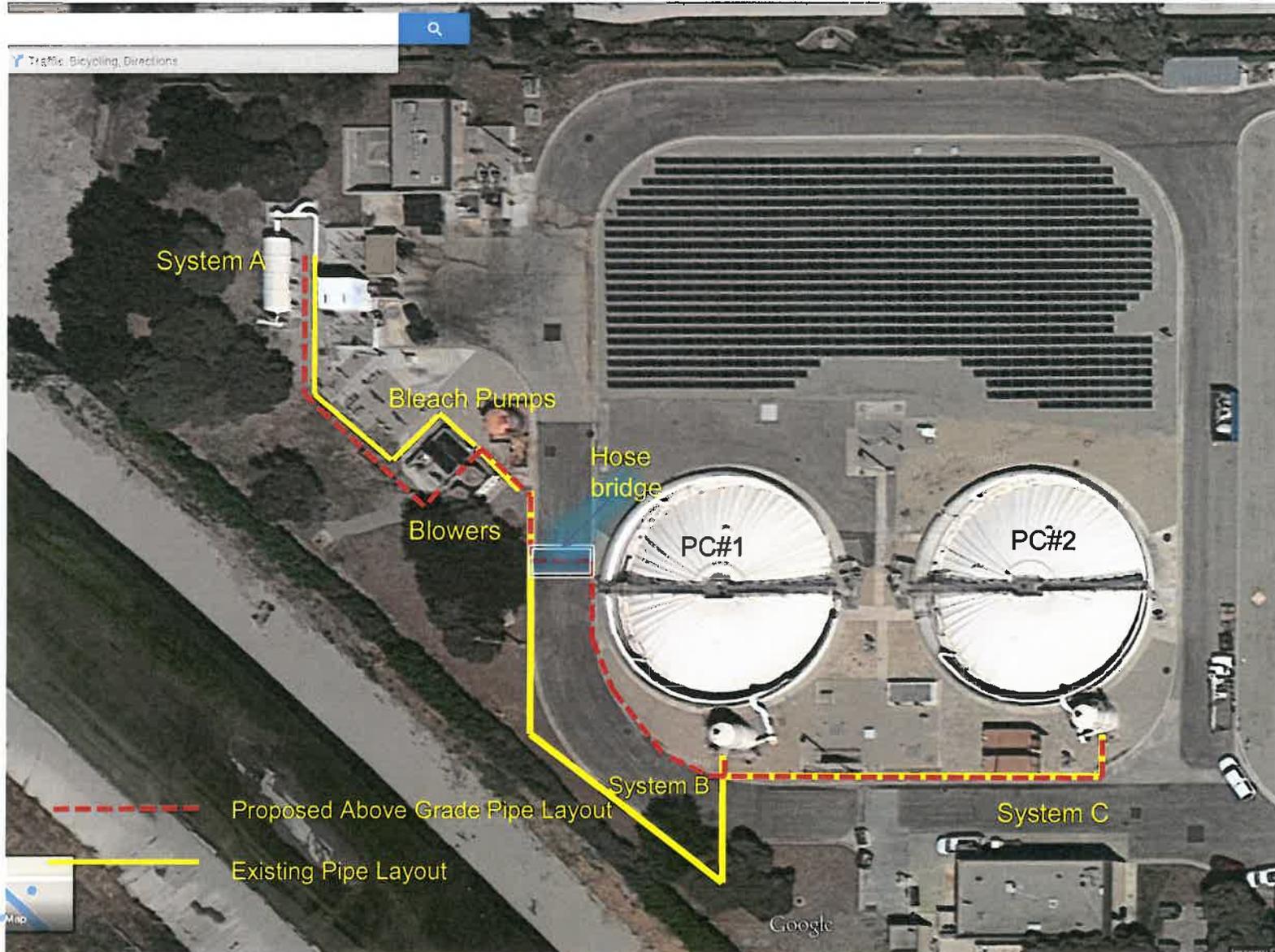


Air Line Leak



Air Line Leak –
Saddle Clamp Repair

Piping Layout



Recommendation

- **Staff recommends Board approval of a contract with E.R. Block Plumbing, Inc. to construct CCWRF odor control bleach and air piping for a firm fixed price of \$119,850.**

Supports the Agency's business goal of Wastewater Management to maintain capacity within systems and facilities to meet essential service demands and Environmental Stewardship objective of being a good neighbor in controlling odors at all Agency facilities.



Inland Empire Utilities Agency

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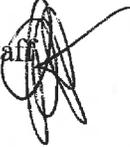
Questions?

**ACTION
ITEM
1E**

Date: December 21, 2016

To: The Honorable Board of Directors

Through: Engineering, Operations, and Biosolids Management Committee
(12/14/16)

From: P. Joseph Grindstaff
General Manager 

Submitted by: Randy Lee *RL*
Executive Manager of Operations

Al VanBreukelen *RL for AV*
Deputy Manager of Maintenance

Subject: Contract Amendment to O.C. Vacuum, Inc.

RECOMMENDATION

It is recommended that the Board of Directors:

1. Approve Contract Amendment No. 46000001912-001 to O.C. Vacuum, Inc., which increases the contract by \$100,000; and
2. Authorize the General Manager to execute the contract amendment.

BACKGROUND

As required by the State mandate Sewer System Management Plan, the Inland Empire Utilities Agency must conduct periodic inspection and cleaning of the sewer system. The Agency is in the process of digitizing and documenting the entire collection system to improve the management of the sewer system. In this effort, the Collections Department has focused its attention on documenting over 1,437 manholes, 99.7 miles of regional and 83.2 miles of non-reclaimable waste sewer system. The goal is to have this effort completed within the next two years. As a result, any in-plant vacuuming and cleaning work that used to be performed by the Collections Department now is proposed to be done by an outside contractor. The Collections Department has a priority to complete the close circuit television (CCTV) underground piping inspection and increase the frequency of inspection, cleaning, and condition monitoring. Therefore, in June 2015, a service contract was requested to provide pumper truck services to assist the Collections Department on an as needed basis. IEUA Contract Number 4600001912 was issued to O.C.

Vacuum, Inc. for an initial amount of \$30,000. Due to the unforeseeable increase in demand for Collections work, these funds were exhausted in the first three months of the contract. Some examples of the work O.C. Vacuum, Inc. provided include:

1. Transported the waste removed from the Regional Water Recycling Facility No. 4 (RP-4) aeration basin by the Agency Vactor truck to Regional Water Recycling Facility No. 2 (RP-2) drying beds, allowing the Agency Vactor truck to remain on site and continue removing waste.
2. Handled the increased services required by Inland Empire Regional Composting Facility (IERCF) and augmented some of their routine plan tasks; e.g. exploratory digging of 10" drain line, vacuum jetting service throughout, etc.
3. Performed routine maintenance work at treatment facilities, such as cleaning out scum wells and wet wells as needed.

With the exception of supporting IERCF (as they now have their own contract with O.C. Vacuum, Inc.), it is anticipated the need for O.C. Vacuum's service will continue throughout the remaining fiscal year due to on-going demands for Agency staff to remain focused on underground pipeline inspections.

The emphasis on the pipeline inspections is consistent with Agency goals to meet service demands and to protect public health and the environment.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

If approved, the anticipated expenditures will be funded from the Fiscal Year 2016/17 Regional Wastewater Operations and Maintenance (RO), Professional Fees & Services budget.



**AMENDMENT NUMBER 460001912-001
TO
MASTER CONTRACT NUMBER 460001912
FOR PROVISION OF
AS-NEEDED VACUUM TRUCK SERVICES**

THIS AMENDMENT, Number 460001912-001, to Contract Number 460001912 between the Inland Empire Utilities Agency and O.C. Vacuum, Inc. of Long Beach, California, for as-needed provision of vacuum truck services, revises the Contract as follows:

Within the last paragraph of Article 6, **PAYMENT, INVOICING AND COMPENSATION**, replace the existing call-out of this Contract's "total price not to exceed \$30,000.00" with the superseding call-out of "total price not to exceed \$130,000.00." (This action represents a \$100,000.00 incremental increase to the not-to-exceed price limit of this Contract.)

ALL OTHER PROVISIONS OF CONTRACT NUMBER 460001912 REMAIN UNCHANGED.

As evidenced by the signatures below, the Parties hereto mutually agree and covenant as to the above-stated amendment item(s) and in doing so designate this Amendment to become an integral part of the Contract Documents.

**INLAND EMPIRE UTILITIES AGENCY,
A Municipal Water District:**

O.C. VACUUM, Inc. :

P. Joseph Grindstaff
General Manager

(Date)



Oscar Carrasco
Vice President

11/04/16
(Date)

INFORMATION

ITEM

2A

Date: December 21, 2016

To: The Honorable Board of Directors

Through: Engineering, Operations, and Biosolids Management Committee (12/14/16)

From: P. Joseph Grindstaff
General Manager

Chris Berch
Executive Manager of Engineering/Assistant General Manager

Submitted by: Sylvie Lee
Manager of Planning & Environmental Resources

Subject: Annual Energy Report

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

Inland Empire Utilities Agency (IEUA) developed the Energy Management Plan (EMP) in 2015. The primary objectives of the EMP are to benchmark the Agency's current energy performance, greenhouse gas emissions baseline, and forecast future energy demands. The EMP also evaluated measures that will optimize facility energy use, and effectively manage renewable resources. Each year, staff compiles energy use data from each source to track the performance and savings of the self-generating facilities and the progress toward the IEUA's Business Goals addressed in the EMP.

Electricity usage at IEUA's water recycling facilities dropped approximately 20% in the last five years, in part due to the 10% reduction in influent flow from water conservation, and in part due to the implementation of maintenance and energy efficiency projects. Further energy savings, approximately 9% of the total usage, are expected to be realized in the next few years with the implementation of lighting retrofit, pump efficiency and operational improvements. The EMP's short and long term projects and opportunities are periodically reevaluated to take into account new capital projects, the effect of new technologies, regulations, funding, incentives and the energy market.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

None.

Attachments: Fuel Cell, Wind Turbine, Solar and Internal Combustion Engine Fact Sheets



Fuel Cell

Facility: Regional Water Recycling Plant No. 1 (RP-1)

Manufacturer: Fuel Cell Energy

Rating Output: 2,800 kW

Estimated Annual Output: 19,260 MWh/yr

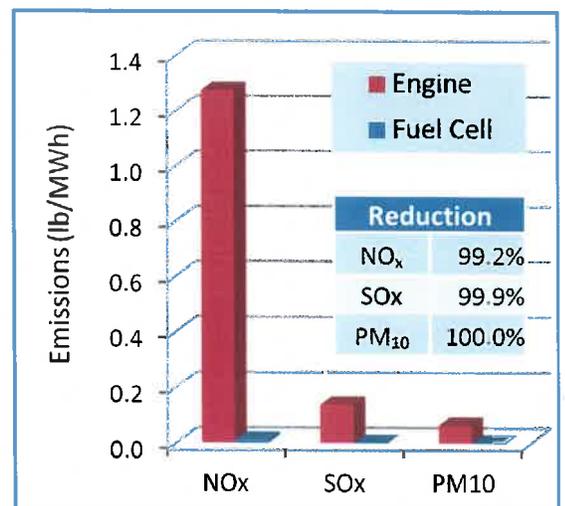
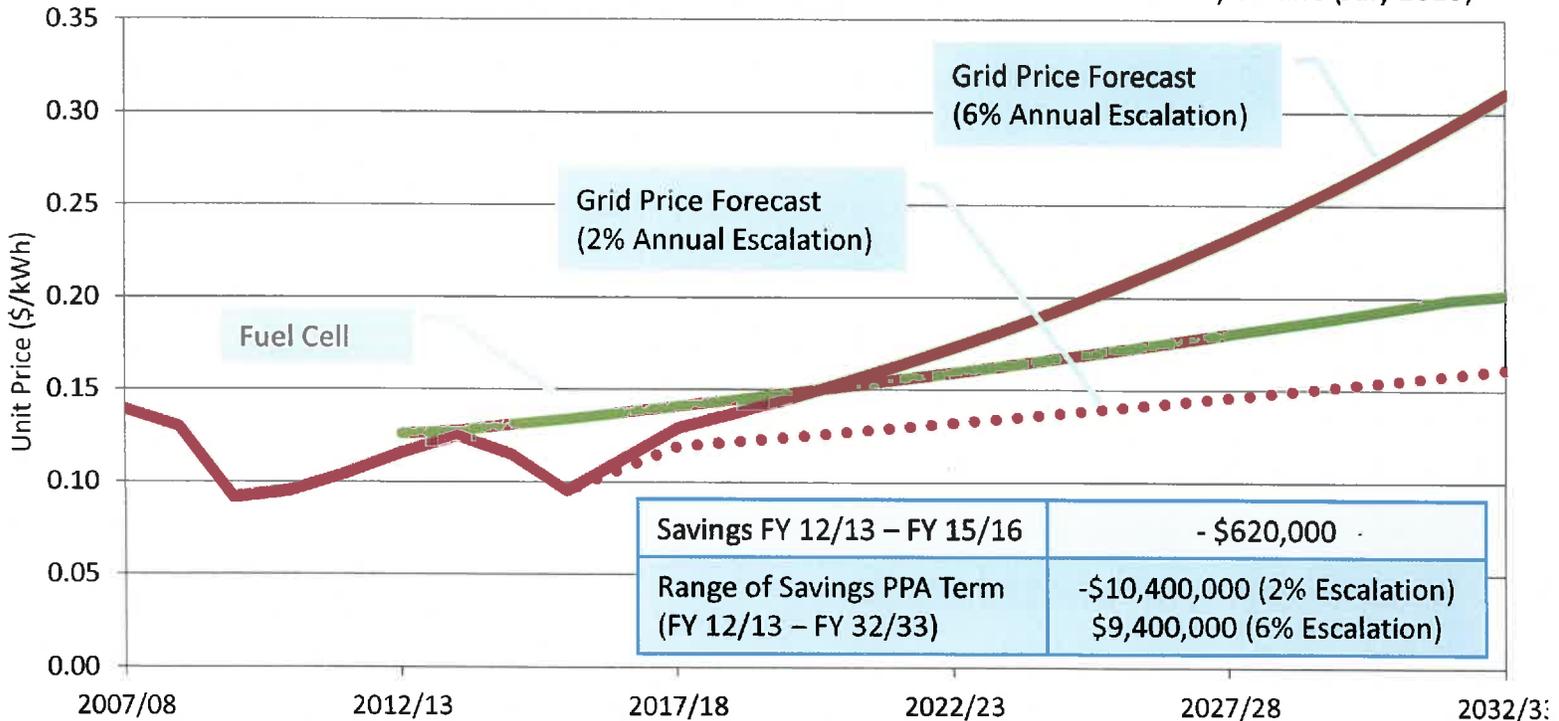
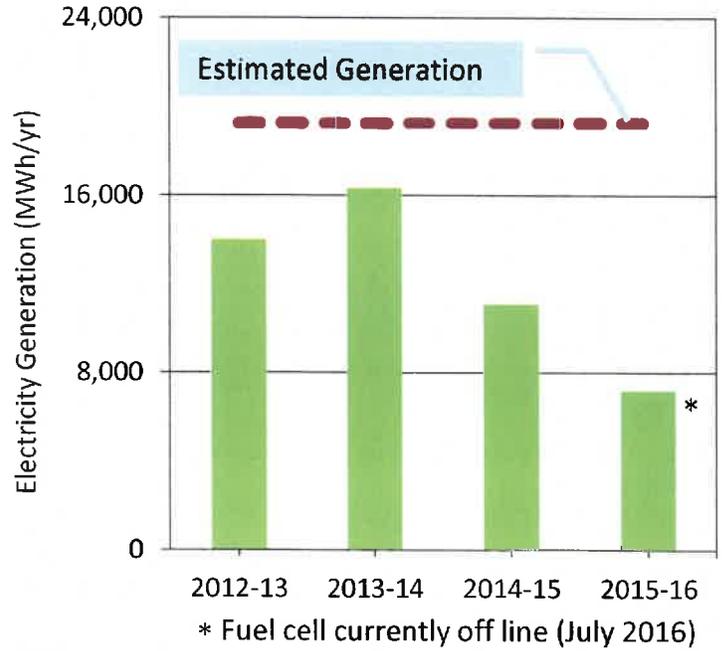
Heat Recovery: 4.1 MMBtu/hr

Commercial Operation Date: 1/2013

Power Purchase Agreement: Anaergia

PPA Rate: \$0.1262/kWh (2013) - \$0.2017/kWh (2033)

Fuel Requirements: 612,000 – 830,000 cft/day biogas





Internal Combustion Engines

Facility: Regional Water Recycling Plant No. 5 (RP-5)

Permitted Capacity: 90 wet tons/day (manure)
615 wet tons/day (food waste)

Manufacturer: Caterpillar

Rating Output: 2 engines 1,500 kW each

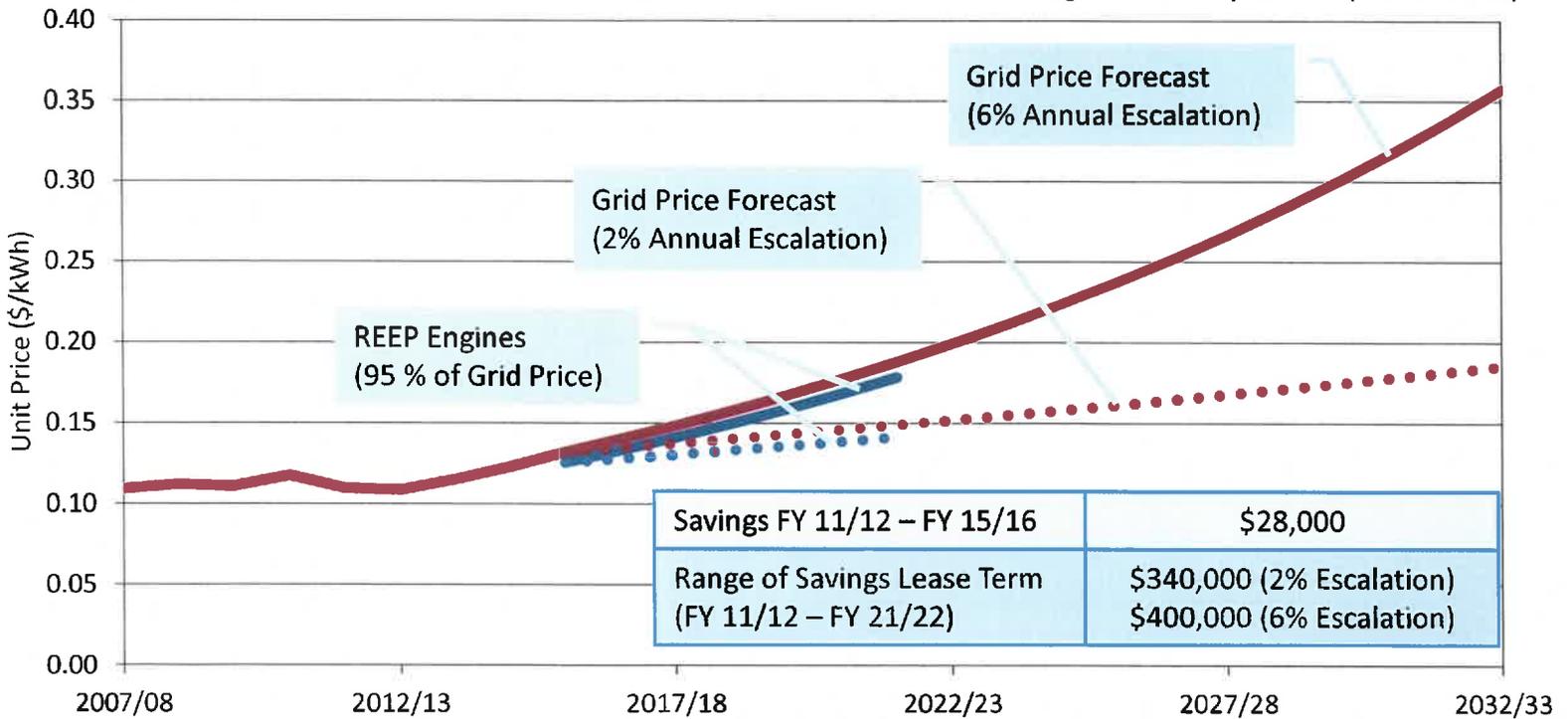
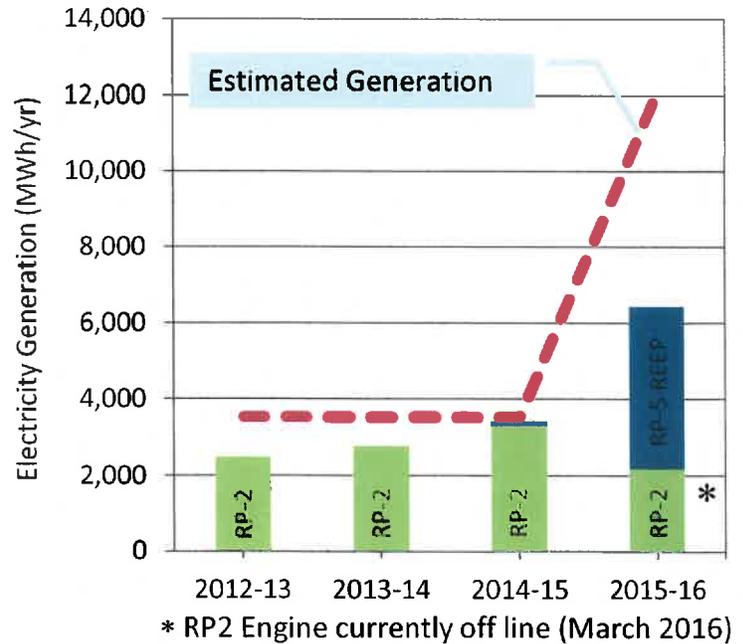
Estimated Annual Output: 19,500 MWh/yr

Grid Interconnection Date: 1/2015

Lease Agreement: Inland BioEnergy (11 years)

Electricity Rate: 89% - 95% of Grid Price

Monthly Lease: \$50,000



Environmental Benefits RP-5 REEP

Food Waste Processed = 205,941 wet tons

Renewable Energy = 4,380 MWh

Equivalent to:

- Carbon sequestered by 505 acres of forest in one year.
- Removing 113 passenger vehicles from the road for one year.

Emissions Reductions (tons)

CO2e = 533



Solar Portfolio

Facilities: Carbon Canyon Water Recycling Facility,
Regional Water Recycling Plant No. 1, No.4, No.5

Manufacturer: SunPower, Evergreen

Rating Output: 3,500 kW

Estimated Annual Output: 7,000 MWh/yr

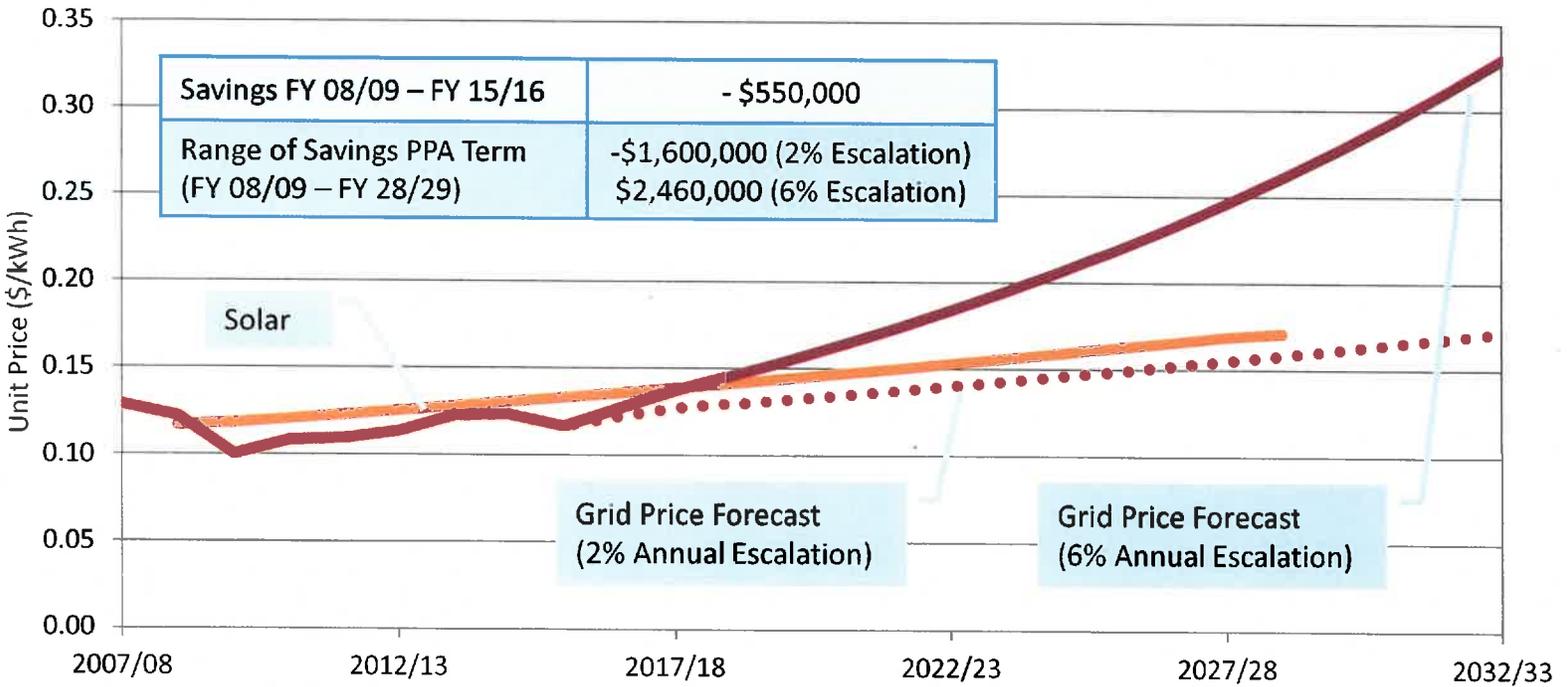
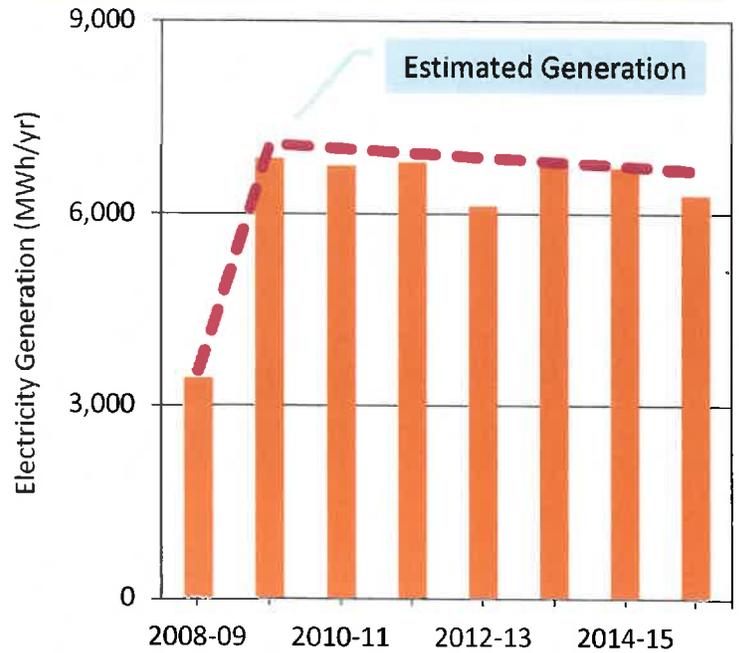
Commercial Operation Date: 12/2008

Power Purchase Agreement: SunPower

PPA Rate: \$0.1173/kWh (2008) - \$0.1709/kWh (2028)

Number of Panels: 18,210

Type of Panels: Ground/Roof Mounted



Environmental Benefits Since 2008

Renewable Energy = 49,805 MWh

Equivalent to:

- Carbon sequestered by 14,399 acres of forest in one year.
- Removing 3,213 passenger vehicles from the road for one year.

Emissions Reductions (tons)

VOC = 0.54	CO = 3.81
NOx = 1.88	PM10 = 0.45
SOx = 0.25	CO2e = 15,211



Wind Turbine

Facility: Regional Water Recycling Plant No. 4 (RP-4)

Manufacturer: Mitsubishi

Rating Output: 1,000 kW

Estimated Annual Output: 1,500 MWh/yr

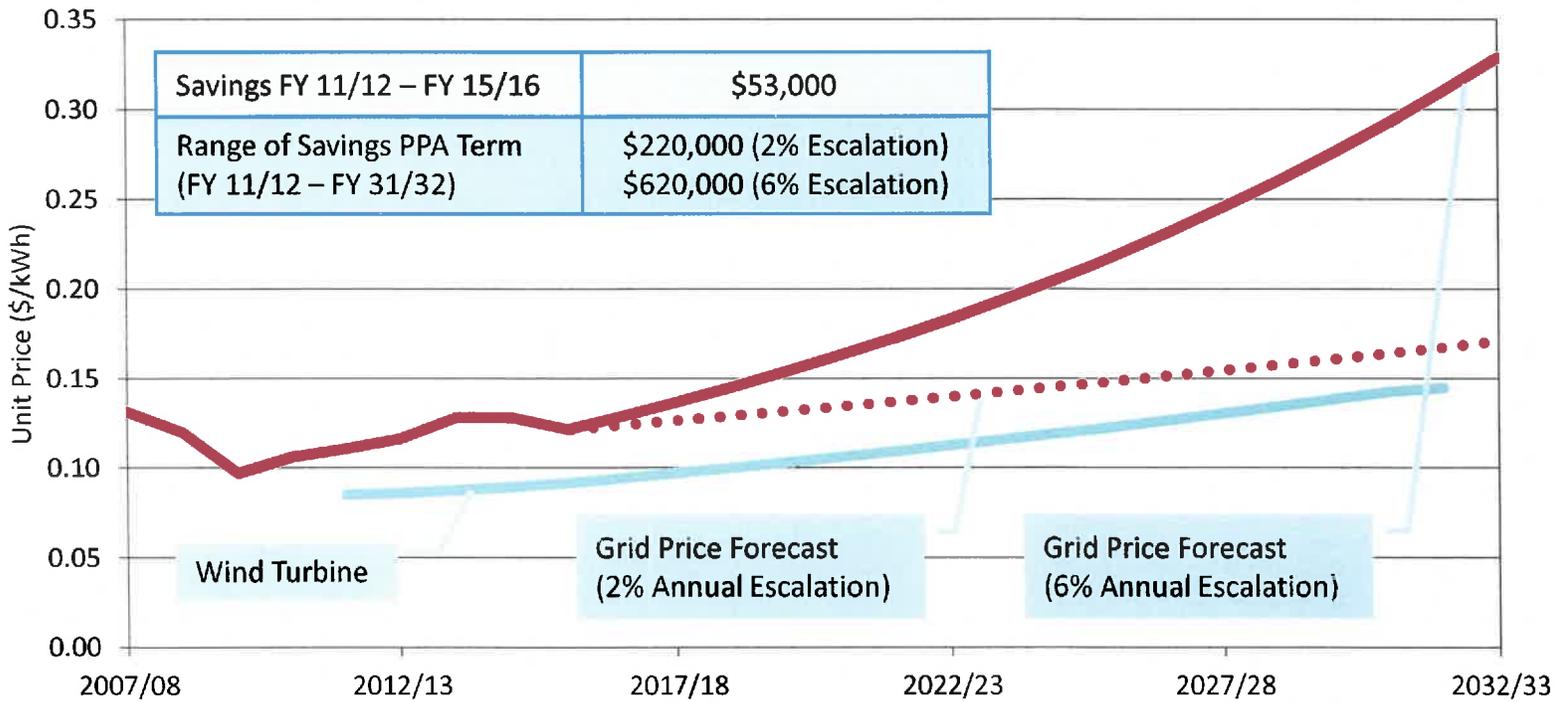
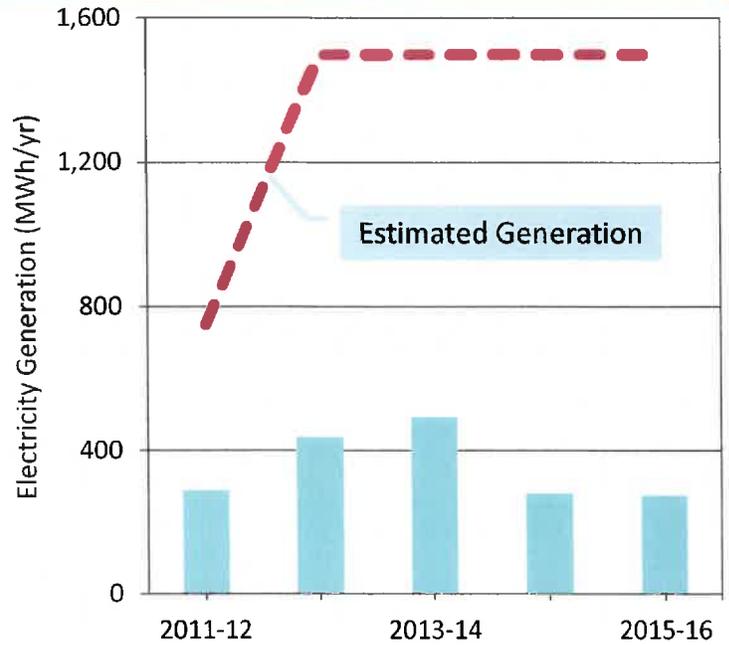
Commercial Operation Date: 12/2011

Power Purchase Agreement: Foundation Wind Power

PPA Rate: \$0.085/kWh (2011) - \$0.145/kWh (2031)

Wind Speed: 7 mph (100 kW) – 27 mph (1,000 kW)

Tower Height: 180 ft



Environmental Benefits Since 2011

Renewable Energy = 1,772 MWh

Equivalent to:

- Carbon sequestered by 512 acres of forest in one year.
- Removing 114 passenger vehicles from the road for one year.

Emissions Reductions (tons)

VOC = 0.02	CO = 0.14
NOx = 0.07	PM10 = 0.02
SOx = 0.01	CO2e = 541

Annual Energy Report



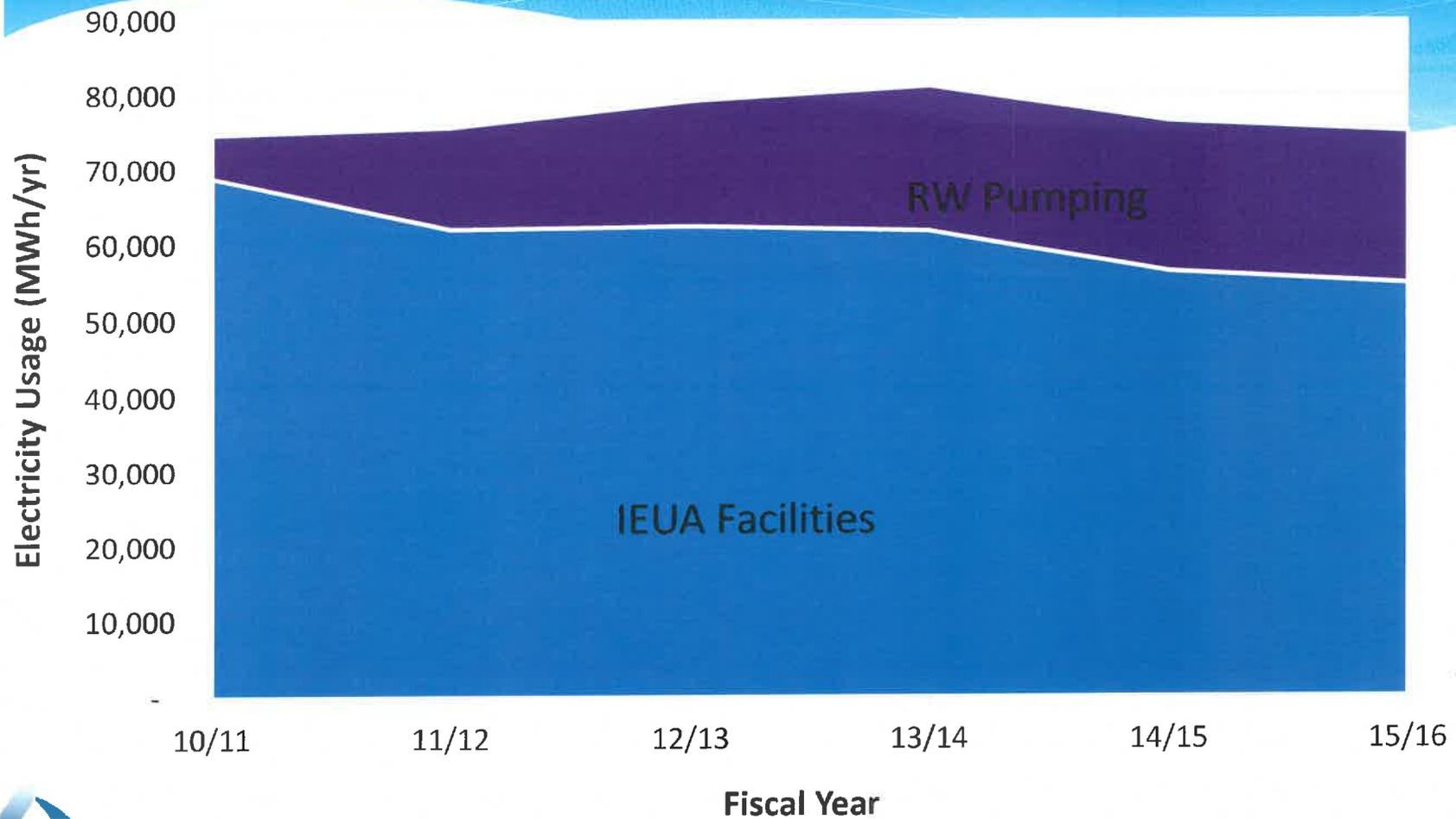
Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

Pietro Cambiaso

IEUA Board of Directors Meeting
December 2016

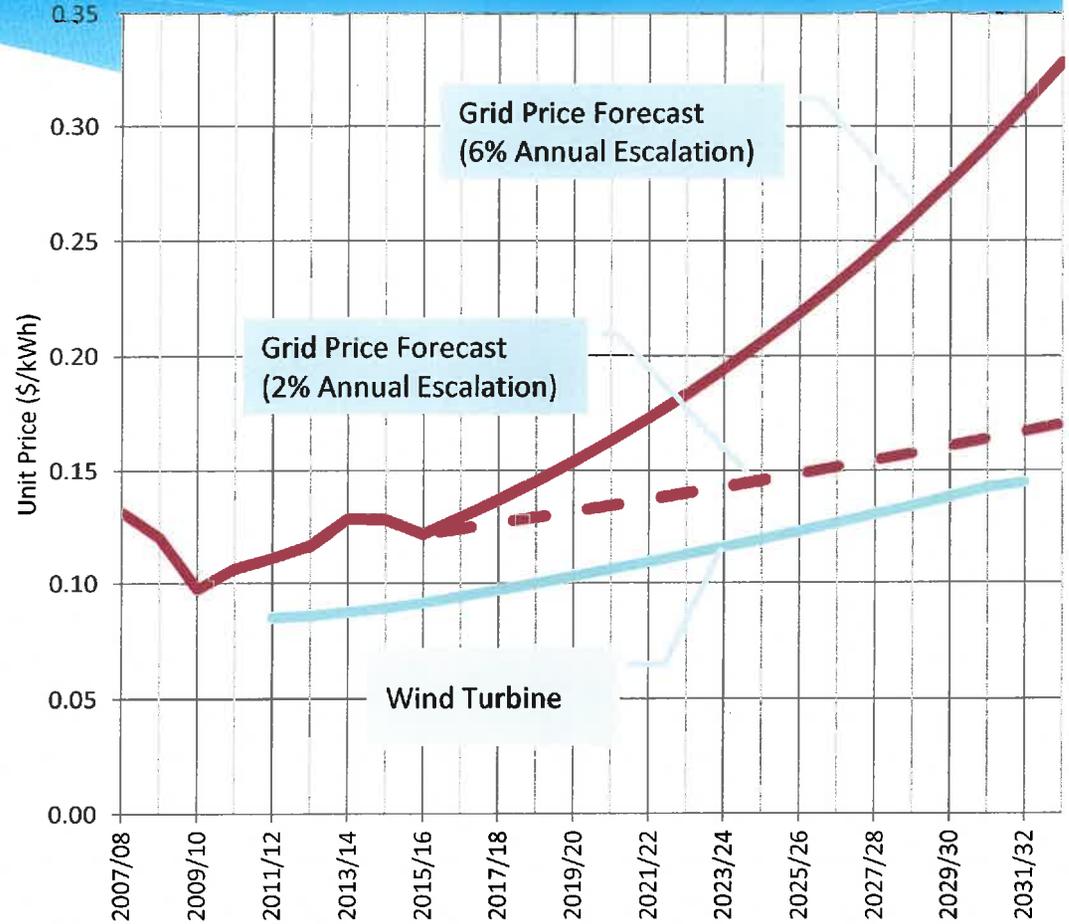
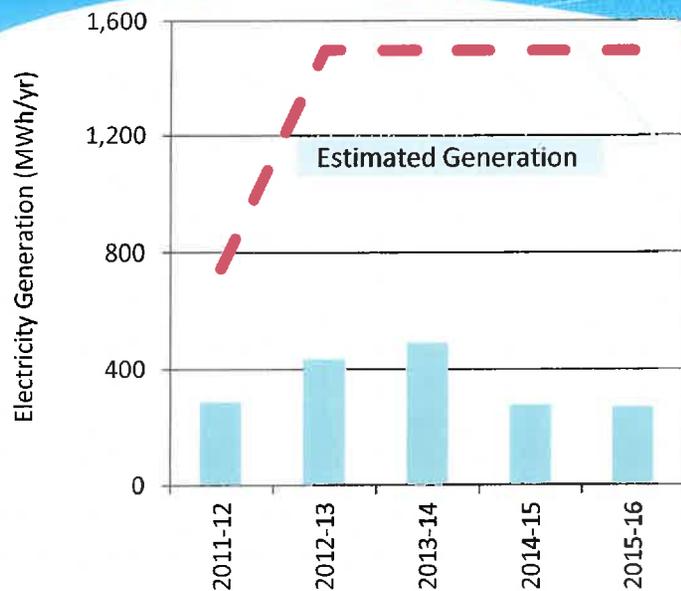
Electricity Usage



Electricity Usage

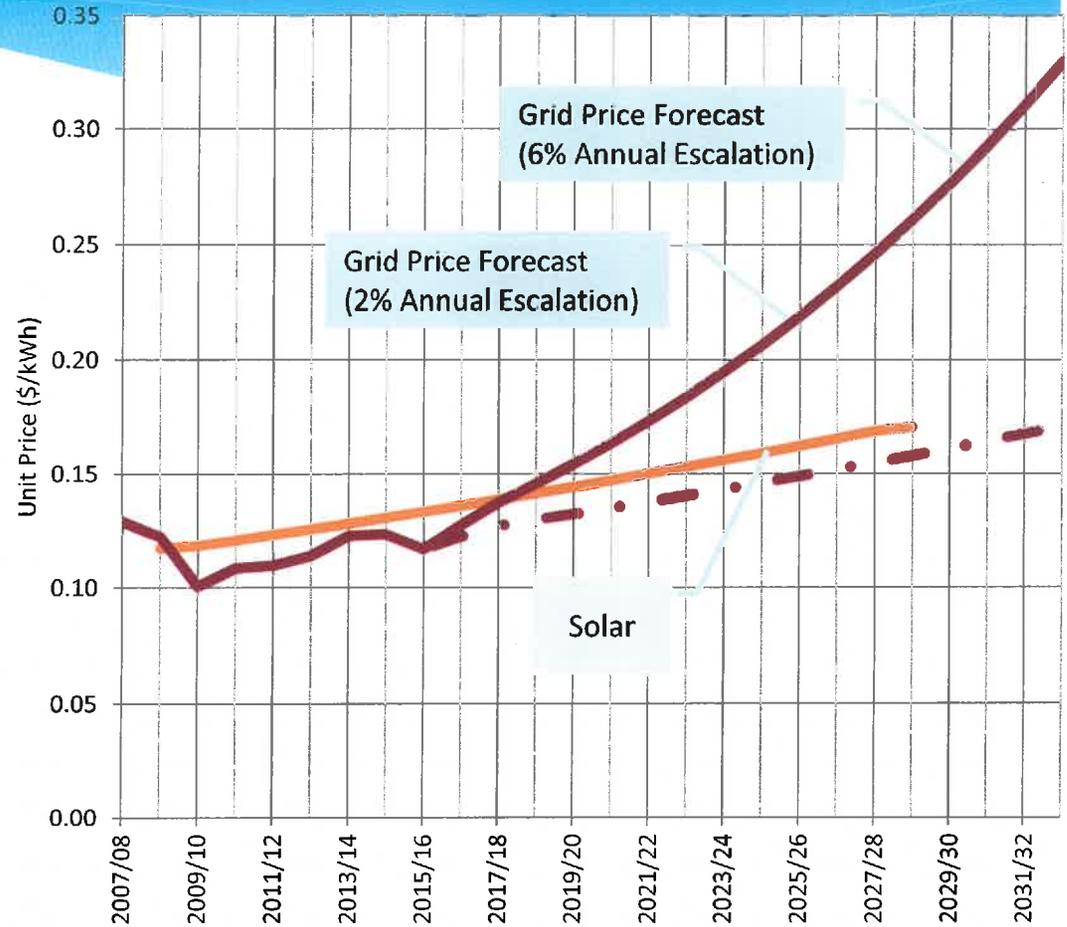


RP-4 Wind Turbine



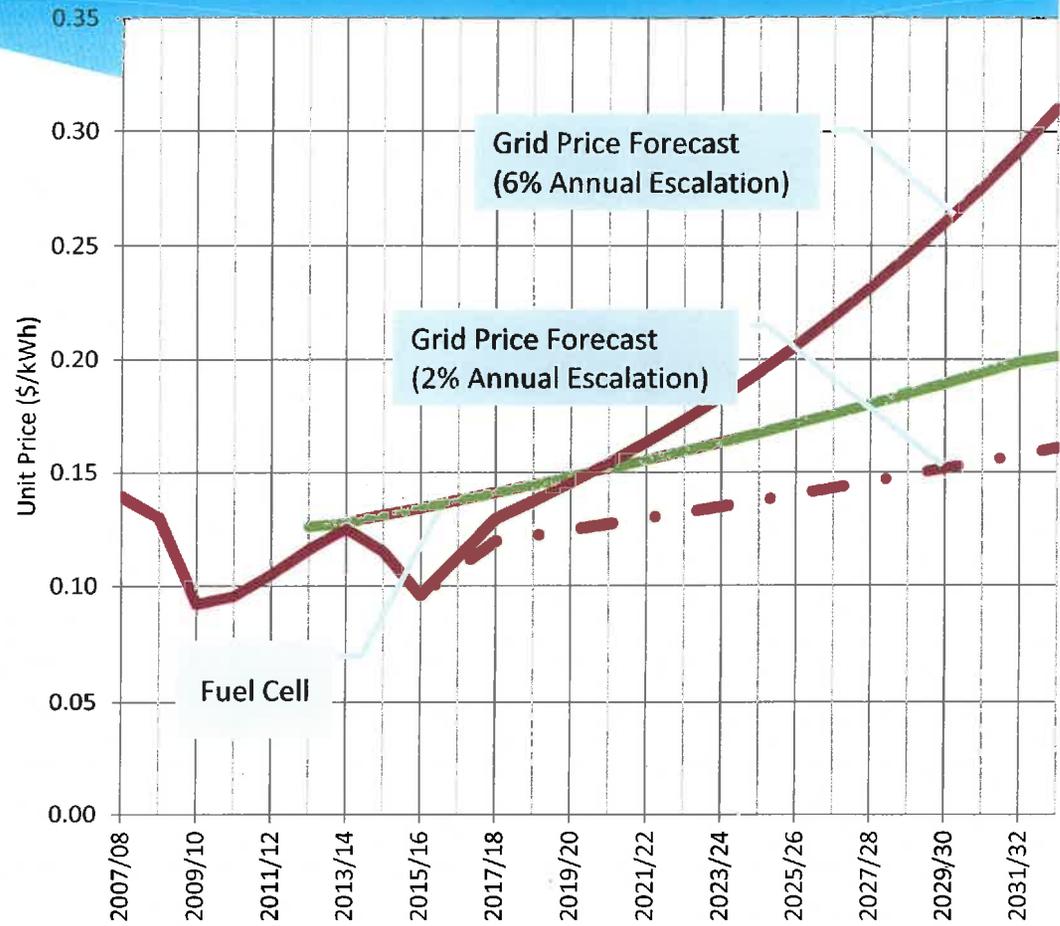
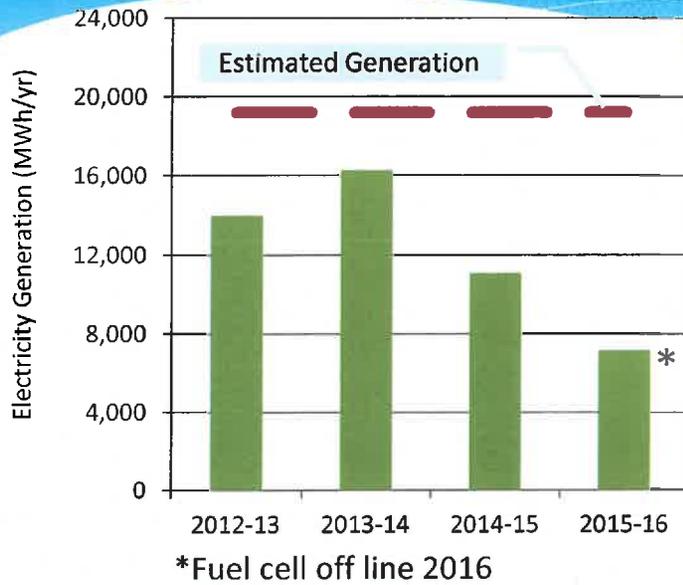
Savings FY 11/12 – FY 15/16	\$53,000
Range of Savings PPA Term (FY 11/12 – FY 31/32)	\$220,000 (2% Esc) \$620,000 (6% Esc)

IEUA Solar



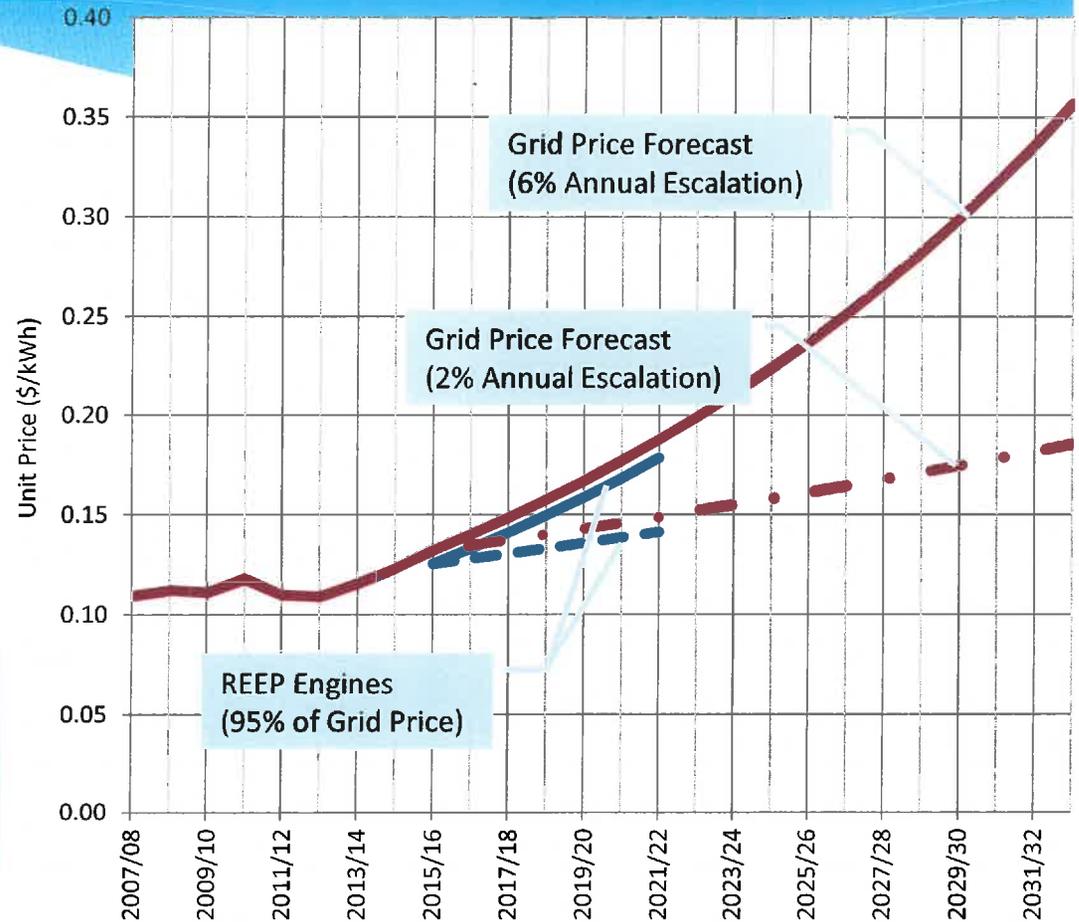
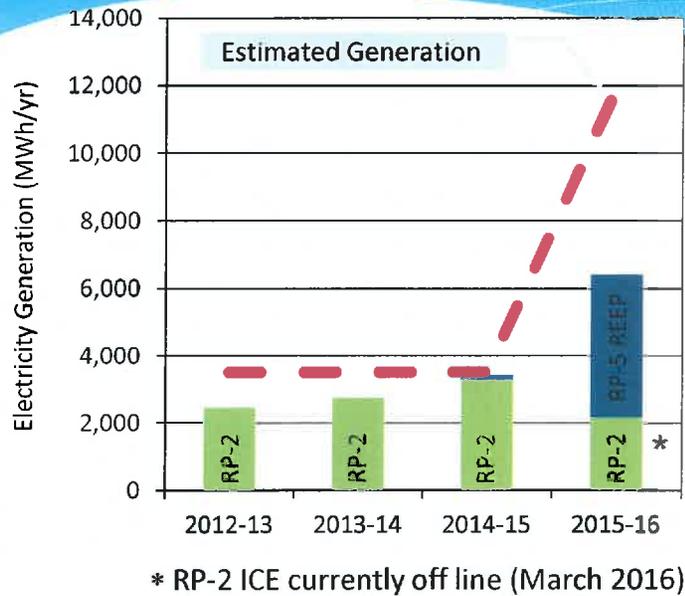
Savings FY 08/09 – FY 15/16	-\$550,000
Range of Savings PPA Term (FY 08/09 – FY 28/29)	-\$1,600,000 (2% Esc) \$2,460,000 (6% Esc)

RP-1 Fuel Cell



Savings FY 12/13 – FY 15/16	-\$620,000
Range of Savings PPA Term (FY 12/13 – FY 32/33)	-\$10,400,000 (2% Esc) \$9,400,000 (6% Esc)

Internal Combustion Engines



Savings FY 11/12 – FY 15/16	\$28,000
Range of Savings Lease Term (FY 11/12 – FY 21/22)	\$340,000 (2% Esc) \$400,000 (6% Esc)

Projects

■ Status

- * RP-2 engine off-line (03/2016)
- * Fuel cell off-line (07/2016)
- * Energy storage (2016/17)
- * Lighting retrofit (2016/17)
- * Pump efficiency (2016/17)
- * GHG Emissions Reporting
- * Oxygen transfer efficiency

■ Opportunities

- * IERCF rooftop solar
- * HQ carport solar
- * Energy demand management (UCR)
- * RP-2 microturbine
- * Beneficial use of biogas (PDR)
- * Organics initiative (PDR)
- * Energy contract negotiation

Next Steps: Energy Workshop (04/2017)

INFORMATION

ITEM

2B

Contracts and Facilities Services Lawn Conversion Improvements December 2016



Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

Lucia Diaz
Facilities Program Supervisor

Improvement Overview

Facility	Sq. Footage of Turf Removed	Total Project Costs	Rebate Received	RW Reduction	AF Reduction
RP - 1	251,483	\$314,844	\$314,844	98%	27.6
RP - 5	221,337	\$361,549	\$261,999	85%	23.2
CCWFR	117,712	\$137,779	\$137,779	90%	13.78
IERCF	47,636	\$51,321	\$50,000	90%	5.15
Total	638,168	\$865,493	\$764,622		69.73

RP-1 Lawn Conversion Project



RP-5 Lawn Conversion Project



CCWRF Lawn Conversion Project



IERCF Lawn Conversion Project



INFORMATION

ITEM

2C

Engineering and Construction Management Project Updates

December 21, 2016



Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

John Scherck
Acting Deputy Manager of Engineering

EN18006 – RP-1 Flare Improvements

- Engineering Consultant: TBD
- Current Contract (Design): TBD
- Total Project Budget: \$4 M
- Project Completion: March 2019
- Scope of Work:
 - Replacement of existing candlestick flare with high efficiency flare(s)
 - Evaluate existing iron sponges and provide upgrade
 - Assess existing digester gas piping condition for relocation
- Current Activities:
 - Advertised RFP for solicitation on November 1, 2016
 - Preproposal briefing/site walk on November 15, 2016
 - Consultant proposal due November 29, 2016



RP-1 Candlestick Flare



RP-1 Flare Gas Piping

RW15003 – RMPU Projects

- Engineering Consultant: Stantec Consulting
- Current Contract (Design): \$778 K
- Total Project Budget: \$7.5 M (IEUA only)
- Project Completion: December 2017
- Scope of Work:
 - Pre-design of the approved recharge basin improvements
 - Provide additional stormwater and recycled water yield for groundwater recharge
- Current Activities:
 - Complete the preliminary design phase
 - Stormwater unit cost of \$380 per AF

Project ID	Project	Yield	Recycled Water	Storm Water Recharge Unit Cost to CWRM Parties	Capital Cost to CWRM Parties	Total Annual Cost to CWRM Parties
Recommended M23 Projects¹						
23a	2013 Proposed RP3 Improvements ² 2013 RMPU Proposed Wineville 2013 RMPU Proposed Jurupa 2013 Wineville PS to Jurupa, Expanded Jurupa PS to RP3 Basin	2,921	2,905	\$ 406	\$ 721,000 \$ 3,574,000 \$ 1,413,000 \$ 10,019,000	\$ 51,531 \$ 292,686 \$ 118,653 \$ 721,553
Total M23		2,921	2,905	\$ 406	\$ 15,727,000	\$ 1,184,823
Recommended M22 Projects³						
11	Victoria Basin ⁴	75	120	\$ 111	\$ 86,000	\$ 8,358
7	San Sevaine Basins ⁵	668	4,100	\$ 384	\$ 3,230,000	\$ 257,189
12	Lower Day Basin (2010 RMPU)	993	0	\$ 285	\$ 3,779,000	\$ 282,579
Total M22		1,737	4,220	\$ 316	\$ 7,095,000	\$ 548,125
Recommended M21 Projects						
2	Montclair Basins	233	0	\$ 540	\$ 1,802,000	\$ 125,844
Total M21		233	0	\$ 540	\$ 1,802,000	\$ 125,844
Total Recommended Projects		4,891	7,125	\$ 380	\$ 24,624,000	\$ 1,858,792

Approved List of RMPU Projects



Lower Day Basin

EN17042 – RP-1 Digester 6&7 Roof Repairs

- Engineering Consultant: TBD
- Current Contract (Design): TBD
- Total Project Budget: \$3.8 M
- Project Completion: January 2019
- Scope of Work:
 - Repair roof as needed
 - Clean Digesters 6 & 7 for inspection
 - Investigate, evaluate, and quantify any gas leaks
 - Evaluate existing gas mixing system performance
 - Replace/coat heavily corroded mechanical piping
- Current Activities:
 - Preparing RFP for engineering services
 - Preparing RFP for digester cleaning



Gas Mixing System on Roof



Digester Roof Foam Spray Damage

EN16071 – San Bernardino Avenue Gravity Sewer

- Contractor: Ferreira Construction
- Current Contract (Construction): \$992 K
- Total Project Budget: \$1.5 M
- Project Completion: February 2017
- Scope of Work:
 - Install 1,300 lf of 18" gravity sewer pipe
- Current Activities:
 - Potholing along San Bernardino Avenue
 - 10-week nightly full road closure under review with the County of San Bernardino Public Works Department
 - Shop drawings and submittals review and approval



Potholing in San Bernardino Avenue



Backfill after Potholing

EN14019 – RP-1 Headworks Primary and Secondary Upgrades

- Engineering Consultant: RMC Water and Environment
- Current Contract (Design): \$751 K
- Total Project Budget: \$10.4 M
- Project Completion: April 2018
- Scope of Work:
 - Rehabilitate the grit removal systems
 - Replace gates and scum pumps
 - Design a bypass for System C flow meter
- Current Activities:
 - Complete the 85% design by December 21, 2016



Concrete Degradation at RP-1 Headworks



Primary Gallery Scum Pump

EN15012 – RP-1 Primary Effluent Conveyance Improvements

- Engineering Consultant: TBD
- Current Contract (Design): TBD
- Total Project Budget: \$1.8 M
- Project Completion: March 2019
- Scope of Work:
 - Rehabilitation of the RP-1 east primary effluent system
 - RP-1 Primary Clarifier Conveyance corrosion protection
 - Trickling filter/Plant 2 wet well decommissioning pre-design
 - Analysis for localized improvement of foul air system
- Current Activities:
 - Consulting Contract Award



Exposed rebar in grating in support beam



Valve Stem Support Bracket Corrosion