



## CITY COUNCIL AGENDA REPORT

**Meeting Date:** February 20, 2025

**From:** Adrienne Etherton, Sustainability Manager

**Subject:** Pool Electrification Contract Construction Amendment

This project is categorically exempt from further environmental review under the California Environmental Quality Act. §15301, CEQA Guidelines (Class 1- Existing Facilities).

### **Community Goal/Result**

Ecological Sustainability; Fiscally Prudent

### **Purpose**

Receive council approval of the Construction Amendment under the Existing Design-Build Contract with Willdan Energy Solutions (WES) for the Community Pool Electrification Project.

### **Recommendation**

Authorize the City Manager to sign the design-build contract amendment in the amount of \$1,649,584.

### **Background**

In July 2022, the City Council utilized CA Government Code 4217 to approve a Design-Build Contract with Willdan Energy Solutions (WES) for the Community Pool Heating System Electrification Project. That contract anticipated a Construction Amendment after completion of the design process.

The project will install three electric air-source heat pumps as the primary heating system for the pool, replacing the existing gas-fired pool heater currently in use. A small gas-fired condensing “pony” boiler will be installed to provide supplemental heating to the heat pump systems when outdoor temperatures fall. The project includes a new 800-amp PG&E service and associated site changes to accommodate the electrical equipment.

Electrifying the pool’s primary heating source will eliminate a projected 34,274 therms of natural gas per year, or 86% of the City’s annual municipal natural gas usage across all facilities. Using current energy costs, it is expected to reduce operational utility costs \$15,034 per year.

Construction is expected to start this May and take approximately 18 months; the timeline is largely dependent on long lead times for new switchgear and PG&E’s construction.

### **Discussion**

The design phase of the project has been completed under the initial contract with Willdan for the authorized cost of \$66,875 to Willdan and \$45,409 fees from PG&E. With the Willdan and PG&E designs now finalized, staff is recommending approval of the construction (“build”) portion of this design-build contract.

## Fiscal Impact

Construction Phase Costs	
Electrical Upgrades	\$731,360
Civil work (Excavation, Grading, Paving)	\$134,726
Mech. Equipment (Heat Pumps, Boiler, Heat Exchanger, Pumps, etc.)	\$311,076
Installation	\$259,808
Misc Materials	\$55,876
<b>Subtotal</b>	<b>\$1,492,845</b>
Other	
Contingency	\$104,182
Tax on Materials	\$52,557
<b>Subtotal</b>	<b>\$156,739</b>
<b>Total Construction Phase Costs (Amendment Amount)</b>	<b>\$1,649,584</b>
<b>Design Phase Cost (WES + PG&amp;E)</b>	<b>\$112,194</b>
<b>Total (All Phases)</b>	<b>\$1,761,778</b>

Funding Sources	Amount
PCE incentive	\$548,348
PCE loan (7-year term, 1% interest rate, to be paid out of general fund – anticipated quarterly payments of \$22,214)	\$600,000
PG&E incentive (CPUC-approved)	\$230,000
County Measure K Funds directed by Supervisor Canepa	\$200,000
City Capital Improvement Plan Funds approved in July 2022	\$183,394
<b>Total</b>	<b>\$1,761,778</b>

## Environmental Review

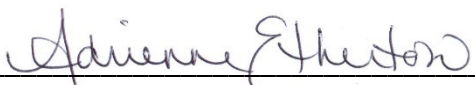
This project is categorically exempt from further review under the California Environmental Quality Act in that the project is to alter an existing facility without expanding existing uses (CEQA Guidelines, §15301 “Class 1 – Existing Facilities”).

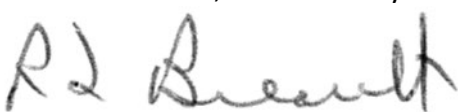
## Measure of Success

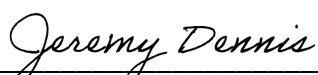
Heat pump water heaters installed to provide primary heating for the community pool with a significant reduction of GHG emissions.

## Attachments

1. Design-Build Contract Amendment with Willdan Energy Solutions
2. Design-Build Contract with Willdan Energy Solutions approved July 2022

  
Adrienne Etherton, Sustainability Manager

  
Randy Breault, Public Works Director

  
Jeremy Dennis, City Manager

**EXHIBIT 1. DESIGN-BUILD AMENDMENT**

This Amendment is incorporated into the accompanying Design-Build Contract dated the 25<sup>th</sup> day of July in the 2022 year (the "Agreement") for the following

**PROJECT:** Brisbane Community Pool Heating System Electrification, 2 Solano St., Brisbane, CA 94005

**THE CUSTOMER:** City of Brisbane, 50 Park Place, Brisbane, CA 94005

**THE DESIGN-BUILDER:** Willdan Energy Solutions, Inc.

The Customer and Design-Builder hereby amend the Agreement as follows.

**TABLE OF ARTICLES**

1. CONTRACT SUM
2. CONTRACT TIME
3. CONSTRUCTION SCHEDULE
4. INFORMATION UPON WHICH AMENDMENT IS BASED

**1. CONTRACT SUM**

- a) Stipulated Sum:

- (1) The Stipulated Sum shall be \$1,649,584, subject to authorized adjustments as provided in the Design-Build Documents

**2. CHANGES IN THE CONTRACT SUM:**

- a) Any overage in the cost of the Scope of Work in SCHEDULE A (SCOPE OF WORK) shall be the responsibility of WES.
- b) Changes to the contract sum are warranted for, but are not limited to: Hazardous materials, additions or modifications to the Scope of Work, and Unforeseen Site Conditions. All additional costs associated with these items shall be the responsibility of Customer.

**3. CONTRACT TIME**

- a) The contract duration will be 616 calendar days.
- b) Weather disruptions, availability of necessary equipment beyond the time allotted for material procurement, remediation of hazardous materials and other delays beyond the control of WES shall not count toward the construction timeframe.

**4. INFORMATION UPON WHICH AMENDMENT IS BASED**

- a) City of Brisbane Utility Specifications
- b) Scope of Work
  - (1) See Attachment 1.A – Scope of Work
- c) Drawings
  - (1) See Attachment 1.B – Drawings. Full-size plan set available at Public Works counter during normal business hours.
- d) Construction Schedule
  - (1) See Attachment 1.C – Construction Schedule

This Amendment to the Agreement entered into as of the day and the year first written above.

Willdan Energy Solutions (WES)

Signed \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

California Contractors License No. 1065713

Willdan Energy Solutions  
2401 E. Katella Ave, #300  
Anaheim, CA 92806

City of Brisbane (Customer)

Signed \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

City of Brisbane  
50 Park Place  
Brisbane, CA 94005

#### ATTACHMENTS

Attachment 1.A – Scope of Work

Attachment 1.B – Drawings

Attachment 1.C – Construction Schedule

Attachment 1.D – Comment Log

## ATTACHMENT 1.A – SCOPE OF WORK

## **City of Brisbane Pool Heating Electrification Project**

The intent of this project is to electrify the primary heating source for the Brisbane Community Pool, located at 2 Solano St. The swimming pool heating system currently includes a gas-fired, Raypak boiler Model P-1826 with local controls, a 15-hp pool recirculation pump, pool filtration system, and chemical storage and feed pump systems (chlorine and acid).

This scope includes the replacement of the existing gas-fired pool heating system with an air-source heat pump system to be used as the primary heating system, with a gas fired condensing boiler for supplemental heat for peak heating demands.

### **Scope of Work**

Willdan will provide a complete and functioning improvement, regardless of whether minor details aren't mentioned in the scope. Willdan will comply with the entirety of PCC §2600-2603, including the PCC 2602 requirement for retention. Willdan and its subcontractors will use a skilled and trained workforce to perform all work on the project that falls within an apprenticeship occupation in the building and construction trades (PCC § 22164(c)(1)).

#### **Design Scope**

- Provide seismic/anchorage calculations and details for permit set.
- Provide engineering for final permit ready design drawings.
- Obtain required permits.

#### **Demolition Work**

- Boiler
  - Demolition and safe off from the existing Raypak gas-fired boiler (Model P-1826) and associated piping, valves, fittings, flue, plumbing, and electrical connections. Piping will be removed up to the main 8" manifold and solar heat exchanger and capped (see drawings).
  - Haul away the existing swimming pool boiler.
- Heat Pump Concrete Pad
  - Demolish and remove approximately 720 sf of pavement to a depth of 4".
  - Provide demolition and removal of debris and obstructions as required to construct new improvements.

#### **New Installation Work**

- Heat Pumps
  - Install (3) new air-source heat pump water heaters adjacent to the pool mechanical room.
  - Manufacturer: Aquacal
  - Model: GBB 500
  - R410A Refrigerant
  - SMART control display
  - Titanium Heat Exchanger
  - Provide Crane and rigging to hoist three (3) new AquaCal Heat Pumps on concrete pad.

- Electrical subcontractor to install new electrical connections to the new equipment.
- Perform startup and functional testing of new equipment with factory assistance.
- Install all associated supply and return pool water piping with associated valves and appurtenances and connect to the existing swimming pool loop (see mechanical drawings).
- Boiler
  - Furnish and install one (1) new Lochinvar condensing Boiler.
  - Furnish and install one (1) new Ecocirc pump.
  - Furnish and install one (1) new Bell & Gossett Heat Exchanger
  - Furnish and install one (1) new Acid Neutralizer kit.
  - Furnish and install one (1) new CPVC flue through the existing flue penetration in the roof.
  - Furnish and install all associated boiler piping and appurtenances and connect to the existing swimming pool loop (see mechanical drawings).
  - Electrical subcontractor to install new electrical connections to the new equipment.
  - Perform startup and functional testing of new equipment with factory assistance.
- Piping
  - Boiler piping installed per best practice standards.
  - Heat Pump piping installed per best practice standards.
  - Piping > 2.5" shall be Copper with pro press or soldered connections.
  - Piping < 2.5" shall be CPVC.
  - Condensate drains (Copper Type M) installed per ACCO standards.
  - Piping to be insulated per industry standards, California Title 24, and local code requirements.
  - Exterior Fiberglass Insulation with aluminum jacketing.
  - Interior Fiberglass Insulation
- Electrical
  - Furnish & Install (1) 4" underground raceway from PG&E utility pole to new PG&E utility transformer pad. Cost is predicated on PG&E allowing the power to be connected to a new PG&E pole adjacent to the closest existing power pole, per PG&E design.
  - Furnish & Install grounding, as specified in the PG&E Green Book, for new PG&E utility transformer pad.
  - Furnish & Install (2) 4" schedule 40 PVC conduits w/ (4) #600MCM & (1) #1/0 ground per conduit, from new 800A main meter service to new 800A, N3R distribution board.
  - Furnish & Install (1) Siemens SB3, 120/208V, 1200A bus, 3ph, 4-wire, NEMA 3R, PG&E utility meter main, 65KAIC with 800A main circuit breaker.
  - Furnish & Install (1) Siemens 120/208V, 800A, 3ph, 4-wire, Nema 3R, 65KAIC w/800A main circuit breaker. Also includes
    - (1) 100A, 3-pole breaker
    - (2) 20A, Single Pole breaker
    - (3) 150A, 3-pole breakers.
  - Furnish & Install (3) 1 ½" EMT conduits with (3) #1/0 AWG & (1) #6G for each HPWH-1, HPWH-2, HPWH-3.
  - Furnish & Install (1) 1 ¼" EMT conduit w/ (3) #2 AWG & (1) #6G for PWP-1

- Furnish & Install (1) ¾" EMT conduits with (3) #12 AWG for boiler B-1.
- Rework underground conduit for existing lighting poles where the new pad is going to be poured. Metro Electric assumes that there is only one underground feed tying the poles together. No as-builts were available for review.
- Provide (2) Equivalent LED wall packs to replace the existing building lights. Submittals to be provided on approval of the project.
- Excavation, asphalt, concrete pads and bollards are included as necessary.
- All work to be performed during normal business hours (Mon.-Fri 7:00am-3:30pm), unless otherwise noted.

• Civil

- Asphalt Demolition & Trenching: Sawcut roughly 30 LF of hardscape to an assumed depth of 6" for new transformer. Excavate to a depth of 24" below finished grade and 18" wide. Excavate small 20'x20' area for new concrete pad in front to a depth of 6" below finished grade. Provide demolition and removal of debris and obstructions as required to construct new improvements. Off-haul and dispose of all asphalt debris generated from this work. Native material to be hauled off to the City corp yard for disposal. Includes trench plates for Solano Road and driveway.
- Backfill, Base rock, & Paving: Backfill trench with Class II AB material to a depth of 10" below finished grade conduit is placed by others. Furnish, place and compact 4" of Class II recycled base rock under 6" of hot-mix asphalt pavement in two lifts over designated area of new pavement.
- Trenching & Backfill in Landscaping: Excavate roughly 190LF of utility trench 18" wide with an average depth of 24" and stock excess material on site. Includes trench plywood cover in Lipman field, as well as caution tape and barricades to mark work area. Once conduit is placed by others backfill with native material that was stockpiled onsite and restore to prior condition. Existing grass to be re-used in Lipman field.
- Concrete Demolition: Saw-cut and remove (1) designated area of concrete along with other minor obstructions, including trees, plants, and existing light pole as required to construct new transformer pad roughly 400SF. Off-haul and dispose of all debris generated from this work.
- Concrete Pads: Form edges for (1) concrete pad and set reinforcing steel at 18" on center each way. Pad to be 20'x20'. Pour and finish (1) 6" thick concrete pads with a standard finish. Excludes any base rock under existing concrete, assumed to be sufficient. Includes repair of concrete driveway approach.
- Fencing & Canopy Removal: Provide demolition and removal of roughly 75LF of 14' tall old chain link fence in existing concrete. Off-haul and dispose of all debris generated from this work. Furnish and install new black vinyl chain link fencing in new designated location. Relocate (1) 4' chain link gate. Cut and remove existing canopy structure where new concrete pad will be located, relocate canopy structure to baby pool location specified by the City. Any structural engineering work required by canopy relocation to be addressed via change order. Includes an additional 60 LF of black vinyl chain link fence 6' around new transformer.
- Traffic control plan includes safety cones safety and a traffic flagger as necessary for the trench through Solano Street. Will obtain no-cost Encroachment Permit.



- All site work will be coordinated with City, School, and relevant sports organizations regarding schedules and impacts to sports field and property access.

### **Warranty**

We pass along the equipment manufacturer's standard warranty on equipment covered in this scope and warranty all associated labor for a period of one year from the date of start-up for beneficial use.

### **Exclusions**

- PG&E Connection Fees.
- Permit or Inspection fees and any costs associated with delays caused due to lack of proper permits.
- PG&E required work beyond standards indicated in PG&E Greenbook.
- Any utility fees or delays created by the utility
- Fire Hydrant Relocations.
- Work outside of normal business hours: Monday – Friday, 8:00am – 5:00pm.
- Holiday work.
- Abatement of asbestos and other hazardous materials.
- Environmental testing or permitting.
- Painting and patching beyond demolition and repair work.
- Civil engineering, surveying, soils testing, permit or inspection fees. Subgrade import or export. Repairs to underground utility lines. New utility boxes, manholes or valve covers. Sleeves or backfill of utility trenches. Off-site work. Any base rock under any pavement that is not specified above.
- Automated controls beyond localized control described in the scope of work and permit set of drawings.
- Roofing work.
- Parking lot restriping, grading, curb and gutter work, site work not affected directly by the listed scope of work.
- Landscaping and irrigation modifications that are not associated with this scope.
- Rock excavation, dewatering or unforeseen concealed subterranean conditions when placing foundations or boring/trenching.
- Modifications to existing conditions not directly included in this scope of work.
- Insulation on existing piping.
- Existing system modifications due to code upgrades not associated with the scope of this project.
- Site screen work and/or modifications.
- Water testing and chemical treatment.
- Additional storage fees beyond one month.
- Concealed conditions requiring upgrades/repairs/modifications/replacement.
- Relocation of existing gas and water meters
- Installation of lap pool recirculation pump with VFD
- Excludes leveling of ADA stalls if they are found to be non-compliant.
- Excludes any additional work not clearly stated above.
- Excludes slab scanning or utility locating.

## Clarifications

- Customer to provide temporary shutoff of utilities if necessary for the performance of the work, with such shutoffs coordinated between the parties to provide minimal disruption to the facility while maintaining the Construction Schedule.
- Work is to be performed during standard business hours: Monday – Friday, 8:00am – 5:00pm.
- Allowable work areas must be extensive enough for the construction crew to work continuously for a full workday. Work stoppages could result in additional costs.
- Access for the City's staff, vendors, and contractors will be coordinated throughout the duration of the construction project.
- Shutdowns and tie-in work will be performed during normal working hours.
- Irrigation system is to be shut off 24 hours prior to the start date and at least 48 hours after the completion of this work. Manual watering is recommended during this resurfacing work. No perimeter watering and/or runoff should be allowed on the court surface. This is the responsibility of owner and/or owner representative.
- Construction schedule estimates are based on PG&E's approval and installation process and maybe subject to changes outside of Willdan's control.
- The design is based on the current code cycle for 2025 (see drawings). Any delay in the project may result in a change order to implement new code requirements.
- The project areas shall be used only for purposes that are necessary to perform the required work. The Contractor shall not occupy the streets or areas, or allow others to occupy the streets or areas, for purposes which are not necessary to perform the required work. The area for Contractor use shall be provided by the Engineer during the preconstruction meeting. No parking of employee vehicles, equipment or storage of materials on Solano Street without approval from the City.
- Crane pick logistics to be coordinated with the customer and may require adjacent areas to be cordoned off.
- All exterior CPVC piping will be Insulated and covered with an aluminum jacket. New Interior piping will be wrapped with fiberglass Insulation. Existing piping will remain uninsulated.
- This proposal assumes existing piping is installed per code, in good working condition and sized to handle new loads.
- Willdan assumes the city of Brisbane will assist having the Pool Chemical company onsite to ensure all water testing and chemical treatment is completed. Any significant delay may cause warranty concerns.
- Submittals of proposed new equipment will be provided for review and approval prior to release.
- Scope includes detailing and coordination between trades, as required.
- Scope includes completion of Title-24 paperwork during commissioning.
- Scope includes start-up reports.
- Scope includes performing cleanup and punch list.
- Scope includes performing Inspection of completed work.
- Scope includes providing equipment labels.
- Training will be provided on all new equipment for City O&M staff.
- O&M manuals will be provided on all new equipment.

ATTACHMENT 1.B – DRAWINGS

# BRISBANE POOL ELECTRIFICATION

MECHANICAL SYMBOL LEGEND								
SYMBOL		DESCRIPTION	SYMBOL		DESCRIPTION	SYMBOL		DESCRIPTION
(N)		NEW P/LA EXTERIOR (L) RECTANGULAR SUPPLY AIR DUCT RISER		SUPPLY AIR GRILLE			FAST CONNECTOR	
(N)		NEW P/LA EXTERIOR (L) RECTANGULAR OUTDOOR AIR DUCT RISER		RETURN AIR GRILLE			TWO-PLUMBER MECHANICAL CONNECTION	
(N)		NEW P/LA EXTERIOR (L) RECTANGULAR RETURN AIR DUCT RISER		ROUND GRILLE			TERMAL PROCESSIBLE COUPLING - COUPLING MAY BE SEPARATED ANY TIME AS THERE ARE TURNS IN A STRAIGHT LINE BETWEEN THE TURNS AND/OR BEFORE AND AFTER THE TURNS	
(N)		NEW P/LA EXTERIOR (L) RECTANGULAR EXHAUST AIR DUCT RISER		ROUND REGISTER			LINE CAP	
(N)		NEW P/LA EXTERIOR (L) ROUND AIR DUCT RISER		LINEAR DIFFUSER			BLOW FURNACE	
		NEW SINGLE LINE & DOUBLE LINE RECTANGULAR OR ROUND DUCT		SLEEVE WALL SLEEVE			CONDENSING REDUCER	
		EXISTING SINGLE LINE & DOUBLE LINE RECTANGULAR OR ROUND DUCT		BALL COCKER			ECCENTRIC REDUCER	
		EXTRACTION GRILLE LINE DUCT WITHOUT TURN (EXHAUSTED "Y" OPTION)		OPTICAL SIGNAL - WITH EXTRACTOR & WITHOUT EXTRACTOR			GREEN	
		EXTRACTION DOUBLE LINE DUCT WITHOUT TURN (EXHAUSTED "Y" OPTION)		FLAMMABLE DUCT			BENDER VALVE	
		EXTRACTION DOUBLE LINE DUCT TO BE DEMOLISHED		SECTION MARKER - SECTIONAL CUT			FLOW ARROW	
		EXTRACTION DUCT TO BE DEMOLISHED (WITH OPTIONS)		SECTION MARKER - SECTIONAL CUT			PRESSURE GAUGE WITH SHUT-OFF VALVE	
		RECT WITH LABEL (DIMENSIONS SHOWN) AND C/L OF INTERSECTION, OR X/L NUMBER OF PEGGATION AND SHOWN ON PLANS	CS-12" 500 4W	GRILLE TYPE - CONSIDERED ASKED AND VALVE LINE USED FOR THE WHITE AND TAPED WATER	BALL VALVE		TEMPERATURE SENSOR & THERMOWELL	
		SINGLE & DOUBLE LINE DUCT WITH TRANSITIONAL FITTING	ES	EQUIPMENT LABEL TAG			TRANSMITTER	
		DOUBLE LINE SQUARE TO ROUND TRANSITIONAL FITTING		REFRIGERANT CLOUD			PILOT VALVE	
		90° RADIUS ELBOW - BY INSULATED BULK WITH TURNED LINES		REFRIGERANT DELTA			FLOW SWITCH	
		ROUND DUCT TURNED VERTICAL		ELECTRICAL EQUIPMENT CONNECTION - INDICATED BY ELECTRICAL CONTRACTOR			TRIPLE DUTY VALVE	
		SINGLE LINE MANUAL VACUUM SYMBOL		GAS STOP-OFF BY PLUMBING CONTRACTOR			BALL-PY VALVE	
		MOTORIZED DAMPER (ELECTRICAL)		COLD WATER STOP-OFF BY PLUMBING CONTRACTOR			SAFETY BOX VALVE	
		MOTORIZED DAMPER (PNEUMATIC)		COMPRESSED AIR WITH TRAP TO APPROVED RECEPTOR BY PLUMBING CONTRACTOR			COLLAR REDUCER	
		FIRE DAMPER (SINGLE LINE AND DOUBLE LINE)		FLOW VALVE WITH TRAP TO APPROVED RECEPTOR BY PLUMBING CONTRACTOR			STRAP TRAP	
		PRESSURE DAMPER (SINGLE LINE AND DOUBLE LINE)		GASEOUS OR DUCT ACCESS PANEL BY GENERAL CONTRACTOR			ANGLE VALVE	
		SMOKE DETECTOR (DUCT TYPE)		POINT OF CONNECTION			SOFT GLOBE	
		STATIC PRESSURE SENSOR		THERMOCOUPLE WITH ZONE NUMBER			PILOT DRAIN	
		SMOKE DETECTOR (AREA TYPE)		RADIANT SENSOR			ISOLATED VALVE	
		CO2 SENSOR		REGULATOR			TWO-WAY SHUTOFF BALL	
		H2O SENSOR		BALL SWITCH			PRESSURE GAUGE - STRAINER	
		CO SENSOR					AIR-SEE BALL	
		OCCUPANCY SENSOR					DIFFERENTIAL PRESSURE BRIDGE ASSEMBLY BY ASH	

[illegible]

# APPLICABLE CODES

**CALIFORNIA MECHANICAL PROVISIONS:**

ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL CODES, LAWS AND REGULATIONS. ALL WORK AND INTERFERES SHALL BE IN FULL COMPLIANCE WITH, BUT NOT LIMITED TO:

- CALIFORNIA CODE OF REGULATIONS (COR)
- 2022 CALIFORNIA BUILDING CODE - COR TITLE 24 PART 2
- 2022 CALIFORNIA ELECTRICAL CODE - COR TITLE 24 PART 3
- 2022 CALIFORNIA MECHANICAL CODE - COR TITLE 24 PART 4
- 2022 CALIFORNIA PLUMBING CODE - COR TITLE 24 PART 5
- 2022 CALIFORNIA ENERGY CODE (CEC) - COR TITLE 24 PART 6
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE - COR TITLE 24 PART 11

ALL WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING ADDITIONAL GUIDELINES WHEN REQUIRED BY CODE:

- SHEET METAL AND AIR CONDITIONING CONTRACTORS ASSOCIATION (SMACNA)
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)
- AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR-CONDITIONING ENGINEERS (ASHRAE)
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)
- AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)
- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
- OSHA SAFETY AND HEALTH ACT (OSHA)
- LOCAL UTILITY GUIDELINES AND REGULATIONS
- LOCAL AIR QUALITY MANAGEMENT DISTRICTS

# SCOPE OF WORK

1. DEMO EXISTING LAP POOL HEATING BOILER.
2. INSTALL (3) AIR-SOURCE HEAT PUMPS AND (1) CONDENSING BOILER FOR POOL LAP HEATING.
3. REMOVE & REPLACE EXISTING LAP POOL PUMP.
4. START UP, TESTING, & BALANCE OF NEW EQUIPMENT.

<h1>DRAWING INDEX</h1>						
DRAWING INDEX KEY						
<input type="checkbox"/> NOT INCLUDED WITH ISSUE <input checked="" type="radio"/> NEW OR REVISED <input type="radio"/> NO CHANGES			DATE			
			CNCL DED	02-07-2024		
			ISSUE FOR PERMIT	10-09-2025		
SHEET NO.	SHEET TITLE		DRAWING REUSE			
REVISION						
Mechanical						
MJ-00	COVER SHEET - DRAWING INDEX & SYMBOL LEGEND	*	*			
MJ-01	CONSTRUCTION REQUIREMENTS & RS SCHEDULES	*	*			
MJ-01	POOL EQUIPMENT ROOM MECHANICAL & DEMO PLAN, & MECHANICAL WARDI PLAN	*	*			
MJ-01	PSPMG DIAGRAM	*	*			
ELECTRICAL						
E-0.0	COVER SHEET	*	*			
E-0.1	TITLE 24	*	*			
E-1.0	POWER PLAN	*	*			
E-2.0	SINGLE LINE & PANEL SCHEDULES	*	*			
E-3.0	DETAILS	*	*			
Civil						
G-1	CONCEPTUAL RELOCATION PLAN	*	*			

**acco engineered systems**  
15 LOMBARD ST  
SAN FRANCISCO, CALIFORNIA 94111  
(415) 399-1549

*THE PLANS AND SPECIFICATIONS HEREIN ARE OWNED BY AND FOR THE SOLE USE OF ACCO ENGINEERED SYSTEMS, INC. ("ACCO") THE "DESIGN BUILDER". AND MAY NOT BE REPRODUCED OR USED BY OTHERS FOR ANY PURPOSE UNLESS AUTHORIZED BY ACCO IN WRITING. ACCO CANNOT ACCEPT ANY LIABILITY, WARRANTY, OR OBLIGATION IN THE EVENT OF UNAUTHORIZED USE.*

DRAFT SUBJECT TO REVIEW  
AND APPROVAL BY CITY  
ENGINEER AND BUILDING  
STAFF

-	02-05-2025	ISSUE FOR PERMIT	Ry
-	02-07-2024	60% DD	Ry
No.	Date	Description	By

Revisions

Project

## BRISBANE POOL ELECTRIFICATION

2 SOLANO ST.  
BRISBANE, CA 94005

Title

**COVER SHEET,  
DRAWING INDEX, &  
SYMBOL LEGEND**

R. YOUNG	S. CHAUMPLUKE
Designed By	Checked By
R. YOUNG	B. DELLAMONICA
Drawn By	Project Manager
70930684	NONE
Job Number	Circle

MO.00

AIR SOURCE HEAT PUMP WATER HEATER																						
TAG	LOCATION	MANUFACTURER & MODEL No.	CIRCUITS PER MODULE (QTY)	REF. TYPE	CAP. (MBH)	DUTY	HEATING										MCA	MFA/ MOCF	SCOR (KA)	VOLTAGE	EMERGENCY POWER	VFD (Y/N)
							MIN. GPM	WWT (°F)	LWT (°F)	HEATING COP	ΔPw (ft w.c.)	ΔPw (ft w.c.)	ΔPw (ft w.c.)	ΔPw (ft w.c.)	ΔPw (ft w.c.)	ΔPw (ft w.c.)						
HPWH-1	MECH YARD	AQUAJAL GBS 500	2	R410A	313	33.3%	196.5	120	80	84	4.1	4.6	50F	134.6	150	-	208V-3ø	NO	NO	50	NO	1,540
HPWH-2	MECH YARD	AQUAJAL GBS 500	2	R410A	313	33.3%	196.5	120	79	83	4.1	4.6	50F	134.6	150	-	208V-3ø	NO	NO	50	NO	1,540
HPWH-3	MECH YARD	AQUAJAL GBS 500	2	R410A	313	33.3%	196.5	120	78	82	4.1	4.6	50F	134.6	150	-	208V-3ø	NO	NO	50	NO	1,540

BOILER																				
TAG	LOCATION	MANUFACTURER & MODEL No.	SERVING	HEATING CAPACITY					DUTY %	GPM	MIN FLOW	EWT (°F)	LWT (°F)	ΔPw (ft w.c.)	CAT VENT	VOLTAGE	EMERGENCY POWER	OPERATING WEIGHT (lbs)	PRESSURE RATING (psi)	REMARKS
				INPUT MBH	OUTPUT MBH	EFF.	GAS PRESS. (ft w.c.)	TURNDOWN RATIO												
(2) B-1	POOL EQ RM	RAYPACK 1828	LAP POOL	1828	1487	82%	-	-	100%	-	-	-	-	-	-	-	-	-	-	DEMO EXISTING BOILER
B-1	POOL EQ RM	LOCHINVAR FTXL500	HX-1	500	475	95%	5 - 14	10:1	100%	25	15	100	140	3	-	120V-1ø	NO	560	150	CONDENSING BOILER, CONDENSATE NATURALIZATION KIT AND CONDENSATE TRAP, DIRECT VENT KIT, POWER BY ELECTROGAS

HEAT EXCHANGER (PLATE & FRAME)																
TAG	LOCATION	MANUFACTURER & MODEL No.	SERVING	HOT				COLD				PRESSURE RATING (PSI)	OPERATING WEIGHT (lbs)		REMARKS	
				GPM	EWT (°F)	LWT (°F)	ΔPw (ft w.c.)	GPM	EWT (°F)	LWT (°F)	ΔPw (ft w.c.)					
HX-1	POOL EQ RM	B&G	LAP POOL	25	140	100	11	25	80	120	11	150	340		POOL HEAT EXCHANGER, TITANIUM PLATES, TITANIUM CONNECTION ON COLD SIDE	

PUMP																				
TAG	LOCATION	MANUFACTURER & MODEL No.	SERVING	GPM	HEAD (ft)	RPM	BHP	HP	MOTOR ENCL.	PUMP EFF %	PUMP DUTY %	VOLTAGE	EMERGENCY POWER	VIB. ISO	WEIGHT (lb)			VFD (Y/N)	PRESSURE RATING (PSI)	REMARKS
															PUMP	VIB. ISO	TOTAL			
(2) P-1	POOL EQ RM	PACO	LAP POOL	495	68	1800	-	15	TEFC	-	100%	208V-3ø	NO	NO	-	-	-	YES	-	DEMCO EXISTING PUMP
HWP-1	POOL EQ RM	-	B-1	25	20	3600	-	1/6	ODP	-	100%	120V-1ø	NO	NO	-	-	-	NO	-	SOLER CIRCULATOR PUMP, POWER BY ELECTRICIAN
PWP-1	POOL EQ RM	PACO	LAP POOL	495	85	1800	13.4	20	TEFC	-	100%	208V-3ø	NO	NO	440	-	-	YES	-	CLOSE COUPLED CENTRIFUGAL PUMP, NSF60 RATED, POOL WATER RATED SEALS, COATED IMPELLER, VFD RATED, POWER BY ELECTRICIAN


EXPANSION TANK (BLADDER)												
TAG	LOCATION	MANUFACTURER & Model No.	SERVING	SYSTEM VOLUME (gpi)	OPERATING PRESSURE		SYSTEM TEMP RANGE		TANK CAPACITY (gpi)	OPERATING WEIGHT (lb)	REMARKS	
					RELIEF VALVE	PRE-CHARGE	MIN (°F)	MAX (°F)				
ET-1	POOL EQ RM	WEBBELL NLA5E	HEATING HOT WATER	20	50	12	55	130	10	125	BASE MOUNTED EXPANSION TANK	

VARIABLE FREQUENCY DRIVE											
TAG	LOCATION	MANUFACTURER & MODEL No.	SERVING	ENCLOSURE	HP	VOLTAGE	EMERGENCY POWER	WEIGHT (lbs)	BYPASS	REMARKS	
-	POOL EQ RM	-	POOL PUMP	NEMA 1	15	208V-3ø	NO	-	-	DEMO EXISTING VFD	
VFD PWP-1	POOL EQ RM	-	PWP-1	NEMA 1	20	208V-3ø	NO	-	-	PROVIDED BY ACCO AND MOUNTED BY ELECTRICIAN	

AIR SEPARATOR											REMARKS
TAG	LOCATION	MANUFACTURER & MODEL No.	SERVING	GPM	PRESSURE DROP (ft w.c.)	INLET / OUTLET	PRESSURE RATING (PSI)	WEIGHT (lbs)			
AS-1	POOL EQ. RM.	-	HEATING HOT WATER	25	0.4	2"	150	20	AIR SEPARATOR W/ AUTO AIR VENT		

PIPE INSULATION REQUIREMENTS (2019 & 2022) (PER TABLE 120.3-A PIPE INSULATION THICKNESS)								
SYSTEM	FLUID TEMPERATURE RANGE (°F)	CONDUCTIVITY RANGE (IN BTU/INCH PER HOUR PER SQUARE FOOT PER °F)	INSULATION MEAN TEMP. (°F)	NOMINAL PIPE DIAMETER (INCHES)				
				<1	1 TO <1.5	1.5 TO <4	4 TO <8	8 AND LARGER
				INSULATION THICKNESS REQUIRED (IN INCHES)				
				SPACE HEATING AND SERVICE WATER HEATING SYSTEMS (STEAM, STEAM CONDENSATE, SPACE HEATING, SERVICE HOT WATER)				
HEATING HOT WATER	105-140	0.22-0.28	100	1.0	1.5	1.52 0"	1.52 0"	1.52 0"

GENERAL NOTES	
1. EXCEPT AS MODIFIED BY A WRITTEN CONTRACT SIGNED BY THE DESIGN-BUILDER, THE DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS, INCLUDING THOSE IN ELECTRONIC FORM PREPARED BY OR FOR AND/OR FURNISHED BY THE DESIGN-BUILDER ARE "INSTRUMENTS OF SERVICE". THE INSTRUMENTS OF SERVICE ARE NOT FOR SALE OR RENT OR FOR THE CONSTRUCTION OF THE PROJECT. THE INSTRUMENTS OF SERVICE ARE NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF THE DESIGN-BUILDER. THE INSTRUMENTS OF SERVICE ARE NOT TO BE REPRODUCED OR COPIED FOR ANY PURPOSE EXCEPT FOR GENERAL REFERENCE. DESIGN-BUILDER DISCLAIMS ALL LIABILITY FOR ANY ADAPTATION, MODIFICATION, OR INTERPRETATION OF THE INSTRUMENTS OF SERVICE, OR FOR ANY OTHER UNAUTHORIZED USE OF THESE INSTRUMENTS OF SERVICE.	
2. THESE DOCUMENTS WERE PREPARED FOR CONSTRUCTION BY DESIGN-BUILDER ONLY. DESIGN-BUILDER DEVELOPED THESE DOCUMENTS WITH ENGINEERING SOLUTIONS AND CONSTRUCTION MEANS AND METHODS UNIQUE TO DESIGN-BUILDER FOR THE CONSTRUCTION OF THE SUBJECT PROJECT AND ARE NOT APPROPRIATE FOR OTHERS TO BID OR BUILD FROM. IN ADDITION, THESE DRAWINGS WERE DEVELOPED FROM INFORMATION MADE KNOWN TO DESIGN-BUILDER AS OF THE DATE OF THE DOCUMENT AND SHOULD NOT INCLUDE LATER CHANGES.	
3. REMOVABLE CEILING PANEL OR PANELS AT FACE OF ALL FIRE AND FIRE-RISKING DAMPERS BY GENERAL CONTRACTOR (GFC) MIN. UNLESS OTHERWISE NOTED.	
4. INCOMBUSTIBLE PLENUM ABOVE CEILING FOR RETROROCULATING AIR BY GENERAL CONTRACTOR. CONCEALED BUILDING SPRINKLER LINES AS RETURN AIR PLUMBING SHALL BE IN COMPLIANCE WITH 2022 IMC 903.2.	
5. ACCESS DOORS AND/OR ACCESS PANELS THROUGH FIRE RATED WALLS, SHAFTS, CEILINGS, ETC. MUST EQUAL THE RATED FIRE RATING.	
6. ALL AIR SHAMPS SHALL BE MADE AIR TIGHT BY GENERAL CONTRACTOR.	
7. ALL UNDERCUT DOORS AND DOOR OVERLAYS ARE BY GENERAL CONTRACTOR.	
8. ALL APPLIANCES DESIGNED TO BE FIXED IN POSITION SHALL BE SECURELY FASTENED IN PLACE.	
9. ALL SPACE CONDITIONING EQUIPMENT SHALL BE LABELED AS TO WHICH AREA IT SERVES.	
10. INSULATION ON ROOF CORNER REFRIGERANT PIPING SHALL FOLLOW THE INTERFERE AREA THAT CEILING STRUCTURES AND WALL STRUCTURES MEET THE REQUIREMENTS OF PIPING PROTECTION REQUIRED BY 2022 IMC 1109.7.	



15 LOMBARD ST  
SAN FRANCISCO, CALIFORNIA 94111  
(415) 399-1549

THE PLANS AND SPECIFICATIONS HEREIN ARE OWNED BY AND FOR THE SOLE USE OF ACCO ENGINEERED SYSTEMS, INC. ("ACCO") THE "DESIGN-BUILDER". AND MAY NOT BE REPRODUCED OR USED BY OTHERS FOR ANY PURPOSE UNLESS AUTHORIZED BY ACCO IN WRITING. ACCO CANNOT ACCEPT ANY LIABILITY, WARRANTY, OR OBLIGATION IN THE EVENT OF UNAUTHORIZED USE.

DRAFT SUBJECT TO REVIEW AND APPROVAL BY CITY ENGINEER AND BUILDING STAFF

- 02-05-2025	ISSUE FOR PERMIT	RY
- 02-07-2024	60% DD Description	RY
No. Date		By
Revisions		

Project

**BRISBANE POOL ELECTRIFICATION**

2 SOLANO ST.  
BRISBANE, CA 94005

Title

**CONSTRUCTION REQUIREMENTS & EQ SCHEDULES**

R. YOUNG	S. CHAUMPLUKE
Designed By	Checked By
R. YOUNG	B. DELLAMONICA
Drawn By	Project Manager
70300684	NONE
Job Number	Scale

**M0.01**

DRAFT SUBJECT TO REVIEW AND APPROVAL BY CITY ENGINEER AND BUILDING STAFF

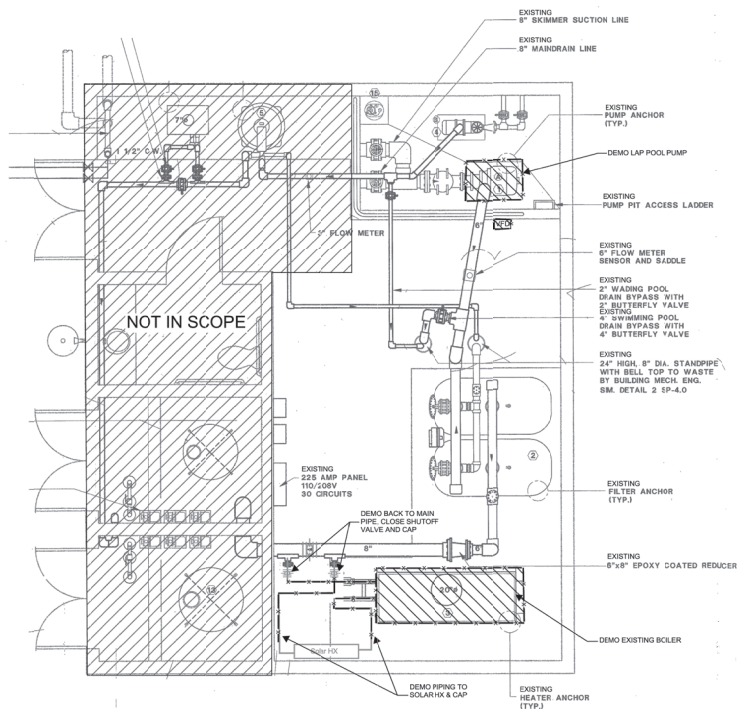
02-05-2023	ISSUE FOR PERMIT	RY
02-07-2024	60% DD	RY
No.	Date	By
Revisions	Description	

Project  
**BRISBANE POOL ELECTRIFICATION**  
  
2 SOLANO ST.  
BRISBANE, CA 94005

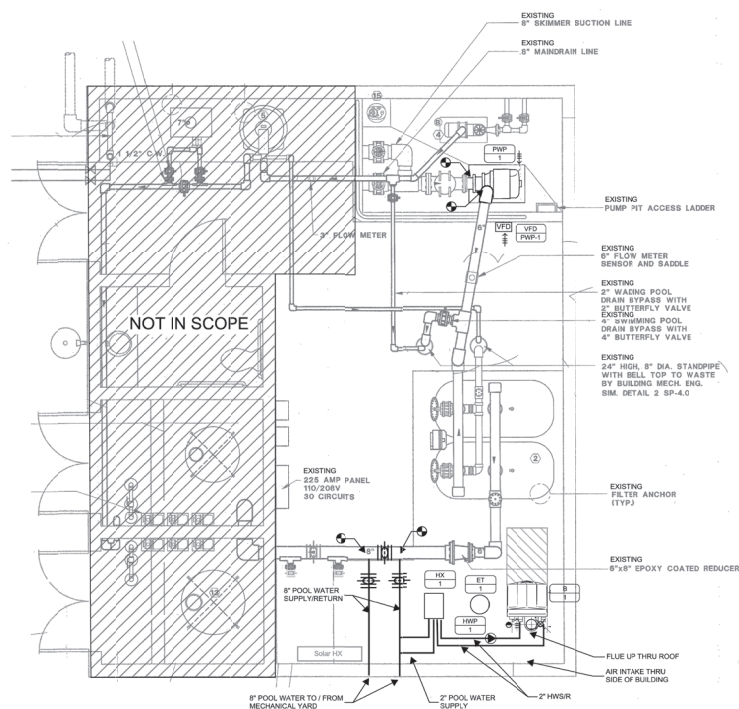
Title  
**POOL EQUIPMENT ROOM MECHANICAL & DEMO PLAN & MECH YARD PLAN**

R. YOUNG	S. CHAUMPLUKE
Designed By	Checked By
R. YOUNG	B. DELLAMONICA
Drawn By	Project Manager
70930684	AS NOTED
Job Number	Scale

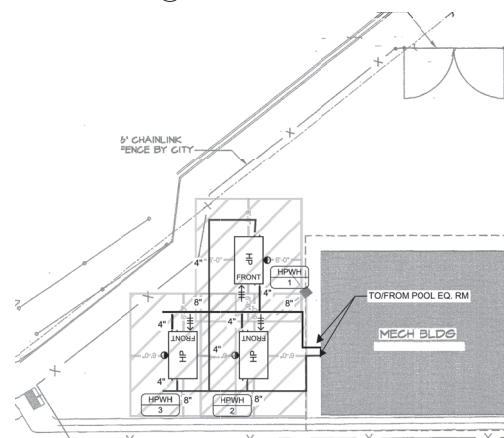
**M1.01**



**POOL EQUIPMENT ROOM  
MECHANICAL DEMO PLAN**  
SCALE: 3/8\"/>



**POOL EQUIPMENT ROOM  
MECHANICAL PLAN**  
SCALE: 3/8\"/>



**MECHANICAL YARD PLAN**  
SCALE: 1/8\"/>



ABBREVIATIONS

A	AMPERES
AL	ALUMINUM
ARMS	ARC REDUCING MAINTENANCE SWITCH
C	CONDUIT
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
DF	DRAINING FOUNTAIN
DW	DISH WASHER
(E)	EXISTING TO REMAIN
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EP	EXPLOSION PROOF
EPO	EMERGENCY POWER OFF
EMT	ELECTRICAL METALLIC TUBING
ENH	ELECTRIC WATER HEATER
F	FUSED
(F)	FUTURE
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPERES
FSD	FIRE SMOKE DAMPER
G	GROUND
GB	GROUND BUS
GD	GARAGE DISPOSAL
GFO	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
JB	JUNCTION BOX
LCP	LIGHTING CONTROL PANEL
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, AND GROUND FAULT
MBGB	MAIN BUILDING GROUND BUS
MCS	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MLO	MAIN LUGS ONLY
MW	MISCORNAVE
(N)	NEW
NC	NORMALLY CLOSED
NF	NON-FUSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
PNL	PANEL
REFR	REFRIGERATOR
(R)	EXISTING TO BE REMOVED
(RL)	RELOCATED
(RR)	REMOVE AND RELOCATE
SP	SPARK PROOF
TA	TRANSFORMER
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLTS-AMPS
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
WAP	WIRELESS ACCESS POINT
WH	WATER HEATER
WP	WEATHERPROOF
1Ø	1 PHASE
3Ø	3 PHASE
1P	1 POLE
2P	2 POLE
3P	3 POLE
3W	3 WIRE
4W	4 WIRE

SYMBOLS LIST

	PANEL NAME "P" - 277VAC/V "L" - 120/208V OR 120/240V
	PANEL BUS RATING
	EQUIPMENT CALL OUT TAG. REFER TO APPROPRIATE TRADE'S DRAWINGS/SUBMITTALS FOR EXACT POWER REQUIREMENTS AND INSTALLATION DETAILS.
	PANELBOARD, SURFACE MOUNTED.
	MOLDED CASE CIRCUIT BREAKER. LSIG LONG TIME, SHORT TIME, INSTANTANEOUS, AND GROUND FAULT ARMS ARC REDUCING MAINTENANCE SWITCH
	ELECTRIC MOTOR. FIELD VERIFY EXACT POWER REQUIREMENTS PRIOR TO MAKING ELECTRICAL CONNECTION.
	SINGLE POINT CONNECTION CONTROL PANEL FOR PACKAGE UNIT.
	VARIABLE FREQUENCY DRIVE WITH INTEGRAL DISCONNECT.
	SAFETY DISCONNECT SWITCH, 3 POLE UON, MOUNTED ADJACENT TO MOTOREQUIPMENT SERVED. SIZED AS NOTED ON PLANS. CONFIRM SIZING WITH EQUIPMENT CUTSHEET PRIOR TO INSTALLATION.
	COMBINATION MAGNETIC STARTER / SAFETY DISCONNECT SWITCH, 3 POLE UON, MOUNTED ADJACENT TO MOTOREQUIPMENT SERVED. SIZED AS NOTED ON PLANS. CONFIRM SIZING WITH EQUIPMENT CUTSHEET PRIOR TO INSTALLATION.
	MANUAL MOTOR STARTER/DISCONNECT SWITCH WITH THERMAL OVERLOAD PROTECTION, MOUNTED ADJACENT TO MOTOR.
	DUCT SMOKE DETECTOR.
	FIRE SMOKE DAMPER.
	SURGE PROTECTION DEVICE.
	TRANSIENT VOLTAGE SURGE SUPPRESSOR.
	EMON-DMON TYPE METER.
	WALL MOUNTED DUPLEX RECEPTACLE, MOUNTED +18" UON.
	WALL MOUNTED QUADPLEX RECEPTACLE, MOUNTED +18" UON.
	DEDICATED WALL MOUNTED DUPLEX RECEPTACLE, MOUNTED +18" UON.
	GROUND FAULT CIRCUIT INTERRUPTER TYPE DUPLEX RECEPTACLE, MOUNTED +18" UON.
	SPLIT-WIRED DUPLEX RECEPTACLE, MOUNTED +18" UON.
	SPECIALTY TYPE RECEPTACLE AS NOTED ON PLANS.
	WALL/SURFACE MOUNTED JUNCTION BOX.
	WALL MOUNTED TELEDATA OUTLET, MOUNTED +18" UON.
	WALL MOUNTED TELEDATA & POWER FURNITURE FEED WITH CIRCUITS AS NOTED ON PLANS.
	TELEDATA FLOOR BOX WITH CIRCUITS AS NOTED ON PLANS.
	FLOOR MOUNTED TELEDATA & POWER FURNITURE FEED WITH CIRCUITS AS NOTED ON PLANS.

CODE CYCLES

2022 CALIFORNIA ELECTRIC CODE  
2022 CALIFORNIA ENERGY CODE

SCOPE OF WORK

-NEW 800A SERVICE EQUIPMENT AND METER.  
-NEW POWER FOR MECHANICAL EQUIPMENT.

ELECTRICAL CONSTRUCTION NOTES:

- ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING UNLESS OTHERWISE NOTED:
1. PROVIDE ALL ITEMS NECESSARY TO COMPLETE ELECTRICAL SYSTEMS. THE ELECTRICAL DRAWINGS ARE DIAGNOSTIC IN NATURE AND DO NOT NECESSARILY SHOW EVERY CONDUIT, BOX, CONDUCTOR OR SIMILAR ITEMS FOR A COMPLETE ELECTRICAL INSTALLATION.
  2. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BIDDING AND DETERMINE CONDITIONS WHICH MAY AFFECT THE BID. CLARIFY ANY ISSUES WITH DRAWINGS OR JOB SITE CONDITION WITH OWNER.
  3. WHEREVER THE WORD "PROVIDE" IS USED, IT MEANS "THE CONTRACTOR SHALL FURNISH AND INSTALL COMPLETE AND READY FOR USE."
  4. IDENTIFICATION OF UNGROUNDED CONDUCTORS SHALL BE PER 2022 CEC ARTICLE 210.5(c).
  5. ALL WIRE SHALL BE THINWALL COPPER, STRANDED UNLESS OTHERWISE NOTED.
  - 5.1. ALL 20A BRANCH CIRCUITS SHALL BE #12 COPPER UNLESS OTHERWISE NOTED.
  6. ALL DEVICES/EQUIPMENT INSTALLED OUTDOORS SHALL BE OF WEATHERPROOF CONSTRUCTION. ADDITIONALLY, ALL EQUIPMENT AND DEVICES SHALL BE AS LISTED FOR THEIR INTENDED USE.
  7. ALL EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH 2022 CEC ARTICLE 250.
  8. ALL WALL MOUNTED POWER & TELEDATA OUTLETS TO BE MOUNTED AT +18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. CONFIRM MOUNTING HEIGHT WITH OWNER PRIOR TO ROUGH-IN.
  9. ALL CIRCUITS SHARING A NEUTRAL SHALL BE PROVIDED WITH A "HANDLE-TIE" PER 2022 CEC ARTICLES 210.4, 240.15B(1), 300.15B(1).
  10. ALL DEVICES SHALL BE GROUNDING GRADE. ALL SINGLE AND GANGED PLATES SHALL BE THERMOPLASTIC AND SHALL MATCH THE DEVICE IN COLOR. COORDINATE DEVICE COLOR WITH THE EXISTING PRIOR TO INSTALLATION. GANG DEVICES AT GROUP LOCATIONS UNDER A SINGLE COVER PLATE.
  11. THE ELECTRICAL PLANS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL OF THE SPECIFIC OF ELECTRICAL CONSTRUCTION. ALL DIMENSIONS TO BE VERIFIED IN FIELD.
  12. ALL CONNECTIONS TO MECHANICAL EQUIPMENT SHALL BE MADE WITH A MINIMUM OF 2" OF WEATHERPROOF FLEXIBLE CONDUIT TO PREVENT SOUND AND VIBRATION TRANSMISSION TO THE STRUCTURE.
  13. VERIFY ALL NEWLY INSTALLED ELECTRICAL EQUIPMENT IS RATED (SERIES OR FULLY) FOR THE MAXIMUM AVAILABLE FAULT CURRENT AT THAT SPECIFIC LOCATION.
  14. FOR ALL CORING, GPR / X-RAY CONCRETE TO ACCURATELY AVOID REBAR, POST-TENSION CABLES, CONDUITS, STRUCTURAL ELEMENTS, ETC.
  15. NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE INDOOR/OUTDOOR ELECTRICAL EQUIPMENT (110.26C(1), 110.26F, 120.9).
  16. PROVIDE AND MAINTAIN REQUIRED WORK SPACE, ADEQUATE ILLUMINATION, ACCESS TO WORK SPACE AND HEAD ROOM ABOUT ELECTRICAL EQUIPMENT (110.26).
  17. FOR ELECTRICAL EQUIPMENT RATED 800 AMPERES OR MORE AND OVER 6 FEET WIDE, THE DOOR(S) WITHIN 3FT OF THE NEAREST EDGE 3" WORK SPACE SHALL OPEN IN THE DIRECTION OF EGRESS AND BE PROVIDED WITH LISTED PANIC HARDWARE (110.26C(2)).
  18. ALL RECEPTACLES INSTALLED WITHIN 6FT OF A WATER SOURCE SHALL BE GFI RATED.

DRAWING INDEX

DRAWING NUMBER	DRAWING TITLE	DATE	BY	CHKD	APP'D
E-0.0	COVER SHEET				
E-0.1	TITLE 24				
E-1.0	POWER PLAN				
E-2.0	SINGLE LINE & PANEL SCHEDULES				
E-3.0	DETAILS				

ISSUE KEY:  
● ISSUED AS PART OF THIS SET

ISSUE	Description
2007/03/04	40% CD SET
2010/03/05	ISSUE FOR PERMIT



BRISBANE PUBLIC POOL  
2 SOLANO DRIVE  
BRISBANE, CA 94005

COVER SHEET

E-0.0



<b>STATE OF CALIFORNIA</b>		<b>CALIFORNIA ENERGY COMMISSION</b>	
<b>Electrical Power Distribution</b>			
<b>CERTIFICATE OF COMPLIANCE</b> This document is used to demonstrate compliance with mandatory requirements in 230.5, for electrical systems in newly constructed nonresidential and hotel/motel occupancies and 260.8 and 262.9 for electrical systems in newly constructed manufacturing occupancies. Additions or alterations to existing service systems in nonresidential and hotel/motel occupancies may also use this document to demonstrate compliance per 240.0(4) for additions, for manually-added or automatic compliance will be documented per 240.0(5) or 240.2 (3)(d)(v).		<b>NRC-CECA</b>	
Project Name: <u>Baldwin Public Pool</u>		Report Date: <u>07/11/21</u>	
Project Address: <u></u>		Date Prepared: <u>2024-07-01 15:05:00</u>	
<b>A. GENERAL INFORMATION</b>			
01 Project Location (city)		02 Climate Zone	3
03 Occupancy Type Within Group:		All Other Occupancies	
<b>B. PROJECT SCOPE</b>			
This report includes electrical systems that are within the scope of the permit application.			
01 Electrical System Description	02 Scope of Work <sup>a</sup>	03 Rating <sup>b</sup> (VA)	04 Utility Provided Metering System Utility Provided Metering System to 135VAC / 150 Amp <sup>c</sup>
			05 Demand Response Controls Demand Response Controls
			06
			07 Provides power to floating utility/commons having areas only in manual emergency
Refer to ELS for service locations	New electrical service equipment, and meter	435	
			Where required, demand response controls must be specified which are capable of monitoring and automatically responding at least one standard based measuring point(s) which enables demand response after receiving demand response signal. Sections 120.9.3.1, 120.9.3.1(d), and 120.9.3.1(e), and mechanical, interior lighting, and sign lighting Certificate of Compliance documents will indicate when demand response controls are required.
If customer has area in a floatable area, additional requirements per 120.9.3.1(c) are required.			
Applicable if the utility company is providing a marketing system that allows instantaneous load demand and sets up a utility defined period.			
CA Building Energy Efficiency Standards - 2022 NYSolarsoft Compliance		Documentation Software: Energy Code Axiom	
Report Generated: 2022-05-05		Compliance ID: 17612-022A-0001	
Baldwin Version: 2024-07-01		Report Generated: 2024-07-01 15:05:00	

STATE OF CALIFORNIA <b>Electrical Power Distribution</b> <b>CERTIFICATE OF COMPLIANCE</b>				CALIFORNIA ENERGY COMMISSION <b>NRCC-ELC-C</b> Page 1 of 5	
Project Name:   Sanborn Public Pool				[Report Page:	
				Date Prepared:                   2024-02-07 15:03-05:00	

**C. COMPLIANCE RESULTS**  
 Results in this table are automatically calculated from data input and calculations in Tables F through J. Note: If any "n" on the table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

E1	AND	E2	AND	E3	AND	E4	AND	E5	AND	E6
Service Electrical Monitoring 150 kVA/ 1500 kVA/ 1500 kVA/ (See Table F)	AND	Separation for Monitoring 1,000 kVA/ 1500 kVA/ 1500 kVA/ (See Table G)	AND	Voltage Drop 1,000 kVA/ 1500 kVA/ (See Table H)	AND	Controlled Reclosures 1,000 kVA/ 1500 kVA/ (See Table I)	AND	Electric Ready 150.0 (See Table J)	AND	Compliance Results
	AND	Yes	AND	Yes	AND	Yes	AND		AND	COMPLIES with Exceptional Conditions

**D. EXCEPTIONAL CONDITIONS**  
 This table is auto-filled with available conditions because of collections made or data entered in tables throughout the form.  
 Notes: B indicates the project is exempt from 150 kVA Service Electrical Monitoring requirements because the utility company has provided the project a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

**E. ADDITIONAL REMARKS**  
 This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Generated Date/Time:                   2024-02-07 15:03-05:00  
 Report Version: 2022-03-02  
 Software Version: 06-2023-01-01

Documentation Software: Energy Code Ace  
 Compliance ID: 191212-0224-0001  
 Report Generated: 2024-02-07 15:03-05:00

<b>State of CALIFORNIA</b> <b>Electrical Power Distribution</b> <b>CERTIFICATE OF COMPLIANCE</b>		<b>CALIFORNIA ENERGY COMMISSION</b> <b>NCEC-CL-4</b> <b>(Page 2 of 6)</b>	
Project Name: <u>Tricities Power Pool</u>		Date Prepared: <u>2024-02-27T18:51:05-08:00</u>	

**G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING**

This table includes entries only or complete replacement electrical power distribution systems to demonstrate compliance with 130.50(f)(1) 140.63(f). Any load types that are not included in the entries do not need to be shown. For non-compliance calculations, supplemental systems that provide power to feeding units do not need to be used in these separation requirements unless they therefore load across these supplemental systems do so need to be shown.

Load Type per Table 130.5.0 <sup>1</sup>	Minimum Required Separation of Load per Table 130.5.0	Compliance Method <sup>2</sup>	Location of Requirements in Construction Documents	Field Inspector
				Pass      Fail
<b>Refer to 4.0 for service equipment locations</b>				
Domestic and service water systems	All loads in aggregate	Method 1: Switchboards, motor control centers, or panelboard loads disaggregated for each load type	13.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

<sup>1</sup> NOTES: If "Other" is selected under Compliance Method above, please include how compliance has been achieved in the space provided below.

<sup>2</sup> FOOTNOTES:   
 Method 1: Motor control center loads, or all 100% of the combined load may be of any type.   
 Method 2: Switchboards, motor control centers, panelboard loads disaggregated for each load type.   
 Method 3: Switchboards, motor control centers, panelboard loads disaggregated for each load type.   
 Method 4: Switchboards, motor control centers, panelboard loads disaggregated for each load type.   
 Method 5: Complete feedings system entries and panelboard loads disaggregated for each load type.   
 Method 6: Complete feedings system entries and panelboard loads disaggregated for each load type.   
 See Chapter 4.0 for the Non-compliance Calculation Manual to ensure detail in Compliance Methods.

**H. VOLTAGE DROP**

This table includes entries only or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with 130.51(f)(1) 140.63. For alterations, only the altered circuits must demonstrate compliance per 130.51(f)(1)(2) 140.63(b)(4)(c).

Electrical Service/Description	Combined Voltage Drop on Installed Feeder/Branch Circuit Conductance Calculations <sup>1</sup>	Location of Voltage Drop Calculations <sup>2</sup>	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector
				Pass      Fail
Refer to 4.0 for service equipment locations	All voltage drop less than 3%	Permitted by CA EEC Code Enforcement to 130.51(f)(1)	In construction documents	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Documentation Software: Energy Code Ace

<div style="display: flex; justify-content: space-between;"> <span>State of California</span> <span><b>Electrical Power Distribution</b></span> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> <b>CERTIFICATE OF COMPLIANCE</b>                      Project Name: <span style="border-bottom: 1px solid black; display: inline-block; width: 150px;"></span> </div> <div style="text-align: right;"> <b>SAN DIEGO ENERGY COMMISSION</b>  <b>MSDC-CL-24-01</b>                      (Page 4 of 5)                      Date Prepared: <span style="border-bottom: 1px solid black; display: inline-block; width: 150px;"></span> </div> </div>							
<b>M. VOLTAGE DROP</b> Section 910.0 of the 2024 CEC Code *** is selected (UNLESS Compliance Method notes, please indicate where the word(s) appear in the space provided below). FOOTNOTES: Voltage drop calculations may be attached to the permit application unless the construction documents are stamped by the Authority Having Jurisdiction. Select "attach" if applicable. If contractors will be the responsibility of the permitting contractor, select "Contractor Responsible".							
<b>5. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES</b> Section 910.0 of the 2024 CEC Code *** is selected (UNLESS Compliance Method notes, please indicate where the word(s) appear in the space provided below). Both controlled and uncontrolled receptacles must be provided in office areas, lobbies, conference rooms, kitchen areas in office spaces, entry rooms and hotel/night guest rooms.							
Description Receptor Name	Location/Type of Controlled Receptacle(s)	Shut-Off Controls	Demand Response Controls	Permanent Durable Marking Will be Used	Construction of Requirements in Construction Documents	Pass	Field Inspector
Manual Shutting	Manual Shutting	Manual Shutting	Manual Shutting	Manual Shutting	Manual Shutting	Manual Shutting	Manual Shutting
<b>FOOTNOTES:</b> *** is selected under Section 910.0 Control above, please indicate how compliance has been achieved after space provided below. <b>FOOTNOTES:</b> Receptacles installed to discontinue and/or meter disconnection in kitchens, include a minimum of 60 above the floor specifically for electric, network equipment, fax machines, A/V and data equipment either that personnel connect in open rooms, circuits rated more than 20 amps, or connected to a UPS that are intended to be in continuous use and are installed at a different level than other receptacles or circuits are exempted from the requirements).							
<b>6. IDENTIFICATION AND MARKING OF THE INSTALLATION OF INSTALLATION</b> Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table 4. Additional Remarks. These documents must be provided to the Building Inspector during construction and can be found online.							
Date/Time: _____							
Signature: _____							
<b>6. DELARATION OF REQUIRED CERTIFICATION OF ACCEPTANCE</b> There are no claims provided for this project.							

<b>State of California</b>		<b>NACC-LE-CB</b>	
<b>Certificate of Power Distribution</b>		<b>California Energy Commission</b>	
<b>Project Name:</b> Endless Public Pool	<b>Report Page:</b> 10	<b>(Page 1 of 5)</b>	
<b>Project Address:</b> 2 SOLANO DRIVE, BRISBANE CA 94005	<b>Date Prepared:</b>	<b>2024-02-27T18:51:03-08:00</b>	

<b>DOCUMENTATION AUTHOR'S DECLARATION STATEMENT</b>	
I hereby declare that this Certificate of Compliance documentation is accurate and complete.	
	
<b>Documentation Author Name:</b>	<b>Signature Date:</b>
<b>Company:</b>	
<b>Address:</b> 3440 VINCENY RD, STE C	<b>CEC Accredited Certification Body ID Number:</b>
<b>City/State:</b> PLEASANT HILL, CA 94523	<b>Phone:</b> 925-787-8981
<b>RESPONSIBLE PERSON'S DECLARATION STATEMENT</b>	
I certify by following under penalty of perjury under the laws of the State of California:	
<ul style="list-style-type: none"> <li>1. I am registered under Division 4 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (projected) drawing.</li> <li>2. The energy conservation specifications, calculations, components, and manufactured systems for the building design or system design identified on this Certificate of Compliance adhere to the requirements of the applicable California Building Energy Efficiency Standards (CBEES).</li> <li>3. The building design features or system design features described on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, schedules, and drawings.</li> <li>4. I understand that my signature on this Certificate of Compliance shall be made available with the building permit(s) used for the building, and made available to the enforcement agency for all applicable jurisdictions. I understand that my completed signed copy of this Certificate of Compliance is required to be included with the documentation for the building permit as accessories.</li> </ul>	
	
<b>Responsible Person Name:</b>	<b>Responsible Designation:</b>
<b>Company:</b>	<b>Date Signed:</b>
<b>Address:</b> 3440 VINCENY RD, STE C	<b>Phone:</b> 925-787-8981
<b>City/State:</b> PLEASANT HILL, CA 94523	

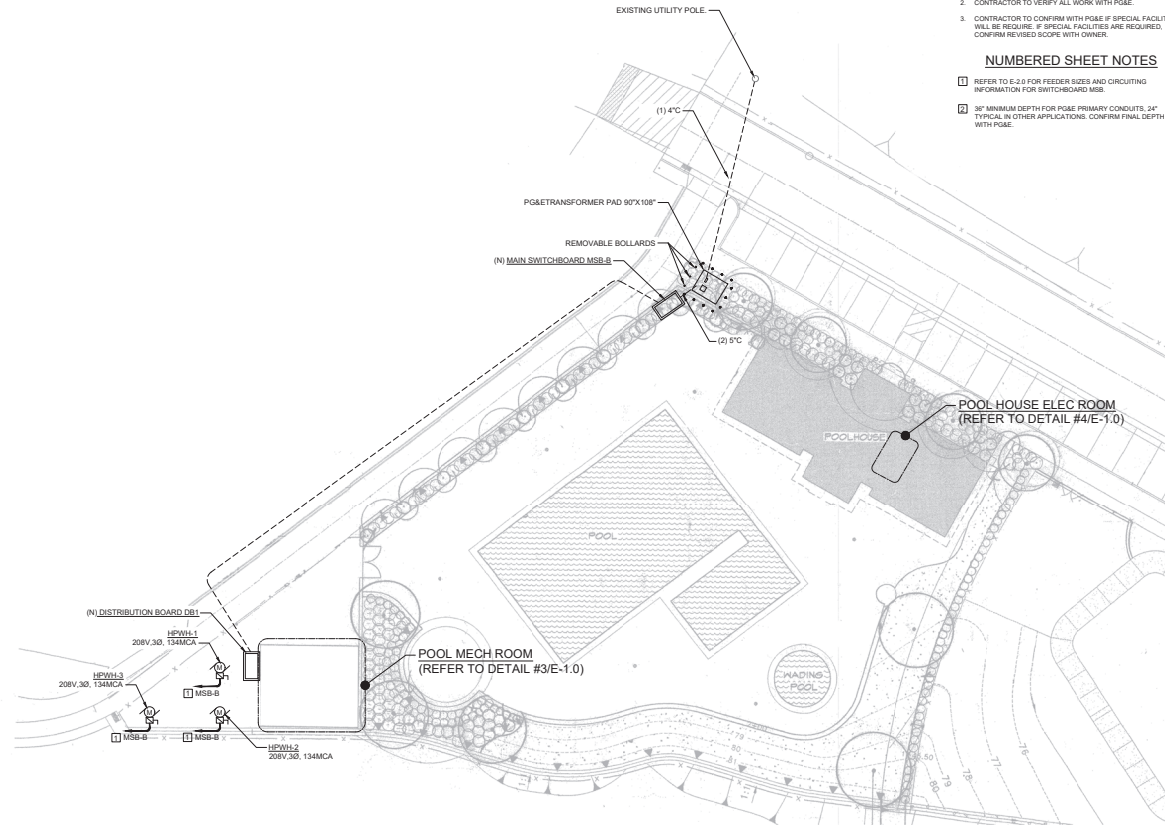
  

Ca Building Energy Efficiency Standards - 2022 Nonresidential Compliance	<b>Generated On/Date/Time:</b> Report Version: 2022.0905 Software Version: 10/2022/01 Declaration Software: Energy Code Ave
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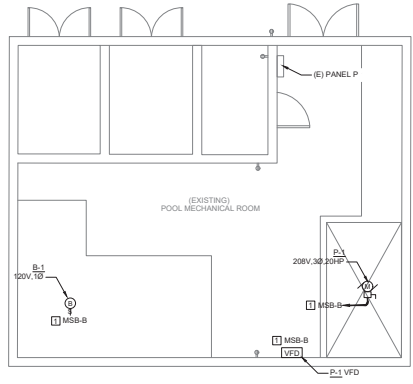
VOLTAGE DROP CALCULATIONS					
LOAD (KVA)	CIRCUIT BREAKER (AMPS)	WIRE SIZE (AWG)	MAXIMUM BRANCH CIRCUIT LENGTH (FT)		
			120V	208V	277V
< 1.92 (16A)	20	#12 CU	55'-0"	95'-0"	125'-0"
		#10 CU	85'-0"	150'-0"	200'-0"
		#8 CU	135'-0"	240'-0"	320'-0"
< 1.44 (12A)	20	#12 CU	220'-0"	360'-0"	500'-0"
		#10 CU	72'-0"	125'-0"	165'-0"
		#8 CU	115'-0"	200'-0"	265'-0"
< 1.08 (8A)	20	#8 CU	185'-0"	320'-0"	420'-0"
		#6 CU	290'-0"	510'-0"	675'-0"
		#12 CU	95'-0"	165'-0"	225'-0"
< 0.88 (8A)	20	#10 CU	155'-0"	265'-0"	355'-0"
		#8 CU	245'-0"	425'-0"	570'-0"
		#12 CU	145'-0"	250'-0"	335'-0"
< 0.72 (6A)	20	#10 CU	230'-0"	400'-0"	535'-0"
		#8 CU	370'-0"	640'-0"	855'-0"



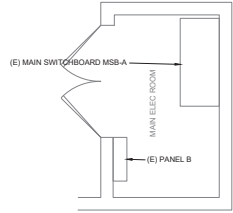
2 SITE PLAN  
SCALE: 1/32" = 1'-0"



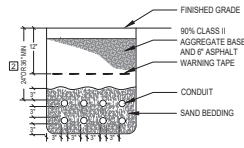
1 SITE POWER PLAN  
SCALE: 1/8" = 1'-0"



3 ENLARGED POOL MECHANICAL ROOM  
SCALE: 1/8" = 1'-0"



4 ENLARGED POOL HOUSE ELECTRICAL ROOM  
SCALE: 1/8" = 1'-0"



5 CONDUIT IN TRENCH DETAIL (ASPHALT)  
SCALE: NTS

# GENERAL SHEET NOTES

- ITEMS SHOWN IN GRAY ARE EXISTING TO REMAIN U.O.N.
- CONTRACTOR TO VERIFY ALL WORK WITH PG&E.
- CONTRACTOR TO CONFIRM WITH PG&E IF SPECIAL FACILITIES WILL BE REQUIRED. IF SPECIAL FACILITIES ARE REQUIRED, CONFIRM REVISED SCOPE WITH OWNER.

## NUMBERED SHEET NOTES

- REFER TO E-2.0 FOR FEEDER SIZES AND CIRCUITING INFORMATION FOR SWITCHBOARD MSB.
- 36" MINIMUM DEPTH FOR PG&E PRIMARY CONDUITS, 24" TYPICAL IN OTHER APPLICATIONS. CONFIRM FINAL DEPTH WITH PG&E.

ISSUE	Description
Date	
03/07/2024	40% CD SET
03/05/2025	ISSUE FOR PERMIT



3440 VINCENT ROAD, SUITE C  
PLEASANT HILL, CA 94523



ELECTRICAL  
COMMUNICATIONS  
WIRELESS

BRISBANE PUBLIC POOL  
2 SOLANO DRIVE  
BRISBANE, CA 94005

POWER PLAN

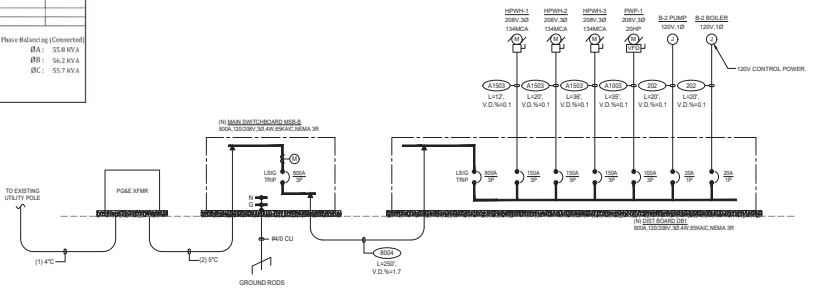
E-1.0

</

COPPER FEEDER SCHEDULE

FEEDER TAG	DESCRIPTION	CONDUIT	CONDUCTORS	
			PHASE/NEUTRAL	GROUND
(N)	80A 30.4V	3/4" IT	3 SETS OF 4 #10 CML	1 #10 PER SET
(N)	15A 30.4V	1/4" IT	3#10	1 #6
(N)	15A 30.4V	1/4" IT	3#10	1 #6
(N)	5A 30.4V	1/8" IT	2#10	1 #6

GENERAL SCHEDULE NOTES:  
1. CONDUCTORS ARE BASED ON COPPER CONDUCTORS WITH THINWALL INSULATION.  
2. ALL FEEDS ARE BASED ON 60°C OR BASED CONDUCTOR TEMPERATURE. PLEASE CONTACT ENGINEER FOR Sizing.  
3. FEEDERS WITH MULTIPLE SETS OF CONDUCTORS AND CONDUITS ARE TO BE PROVIDED WITH THE INDICATED SIZE GROUND CONDUCTOR IN EACH CONDUIT.



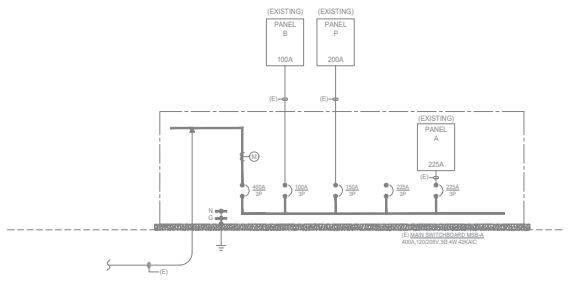
1 SINGLE LINE DIAGRAM - NEW SERVICE (POOL MECHANICAL HOUSE)  
SCALE: NTS

(E) SWITCHBOARD MSB-A

Main: 400A MCB		New or Existing: EXISTING		Location: DB PLANS	
Bus Rating: 400A		Volts (L-L): 230/208			
ARC Rating: 100kAIC		Phase: 3			
Enclosure: PRESTANDARD, NEMA 3R		Wires: 1			

Ckt Number	LOAD SERVED	Load Type	Load (KVA)	OCPD		Phase	OCPD		Load (KVA)	Load Type	LOAD SERVED	Ckt Number
				Amper	Poles		Amper	Poles				
(E)		M	16.08	150	3	A		7.45	M			(E)
(E)	1	PANEL B	M	16.08		B	225	3	7.45	M	PANEL A	4
(E)		M	16.08			C		7.45	M			(E)
(E)	2	PANEL P	M	16.08	150	3	A	200	3			5
(E)		M	16.08			B						(E)
(E)		M	16.08			C						(E)

LOAD TYPE (LETTER)										Phase Balancing (Connected)	
LOAD TYPE (DESCRIPTION)	Continuous	Intermittent	Non-Continuous	Motor	Recept	Total	RA	RB	RC		
TOTAL CONNECTED LOAD	0.0	0.0	0.0	0.0	0.0	55.6	20.3	0.0	75.9	KVA	
DEMAND MULTIPLIER	1.25	1.00	0.65	1.25	1.00	1.00	1.00	1.00			
TOTAL DESIGN LOAD	0.0	0.0	0.0	0.0	0.0	55.6	20.3	0.0	75.9	KVA	211



2 SINGLE LINE DIAGRAM - EXISTING SERVICE (POOL HOUSE)  
SCALE: NTS

ISSUE

Date	Description
00/07/2024	40% CD SET
02/05/2025	ISSUE FOR PERMIT



BRISBANE PUBLIC POOL  
2 SOLANO DRIVE  
BRISBANE, CA 94005

UG-1: Services  
GreenBook  
EDM

Main Service Area Rating (amps) 2	Conduit Size and Number	Cables Required to Serve Maximum Load Adjustment			
		Per Phase	Neutral	Per Phase	Neutral
100	1-3/4"	1-1/0	#2	NA	NA
150	1-3/4"	1-1/0	#2	NA	NA
200	1-3/4"	1-7/8"	1-1/0	NA	NA
250	1-3/4"	2-7/8"	2-1/0	NA	NA
300	2-1/4"	2-7/8"	2-1/0	NA	NA
350	2-3/4"	3-1/0	2-0	NA	NA
400	2-3/4"	3-1/0	2-0	NA	NA
450	2-3/4"	4-1/0	3-0	NA	NA
500	2-3/4"	3-1/0	2-0	NA	NA
550	3-1/4"	4-1/0	3-0	NA	NA
600	3-1/4"	4-1/0	3-0	NA	NA
650	3-1/4"	4-1/0	3-0	NA	NA
700	3-1/4"	4-1/0	3-0	NA	NA
750	3-1/4"	4-1/0	3-0	NA	NA
800	3-1/4"	4-1/0	3-0	NA	NA
850	3-1/4"	4-1/0	3-0	NA	NA
900	3-1/4"	4-1/0	3-0	NA	NA
950	3-1/4"	4-1/0	3-0	NA	NA
1,000	3-1/4"	4-1/0	3-0	NA	NA
1,050	3-1/4"	4-1/0	3-0	NA	NA
1,100	3-1/4"	4-1/0	3-0	NA	NA
1,150	3-1/4"	4-1/0	3-0	NA	NA
1,200	3-1/4"	4-1/0	3-0	NA	NA
1,250	3-1/4"	4-1/0	3-0	NA	NA
1,300	3-1/4"	4-1/0	3-0	NA	NA
1,350	3-1/4"	4-1/0	3-0	NA	NA
1,400	3-1/4"	4-1/0	3-0	NA	NA
1,450	3-1/4"	4-1/0	3-0	NA	NA
1,500	3-1/4"	4-1/0	3-0	NA	NA
1,550	3-1/4"	4-1/0	3-0	NA	NA
1,600	3-1/4"	4-1/0	3-0	NA	NA
1,650	3-1/4"	4-1/0	3-0	NA	NA
1,700	3-1/4"	4-1/0	3-0	NA	NA
1,750	3-1/4"	4-1/0	3-0	NA	NA
1,800	3-1/4"	4-1/0	3-0	NA	NA
1,850	3-1/4"	4-1/0	3-0	NA	NA
1,900	3-1/4"	4-1/0	3-0	NA	NA
1,950	3-1/4"	4-1/0	3-0	NA	NA
2,000	3-1/4"	4-1/0	3-0	NA	NA
2,050	3-1/4"	4-1/0	3-0	NA	NA
2,100	3-1/4"	4-1/0	3-0	NA	NA
2,150	3-1/4"	4-1/0	3-0	NA	NA
2,200	3-1/4"	4-1/0	3-0	NA	NA
2,250	3-1/4"	4-1/0	3-0	NA	NA
2,300	3-1/4"	4-1/0	3-0	NA	NA
2,350	3-1/4"	4-1/0	3-0	NA	NA
2,400	3-1/4"	4-1/0	3-0	NA	NA
2,450	3-1/4"	4-1/0	3-0	NA	NA
2,500	3-1/4"	4-1/0	3-0	NA	NA
2,550	3-1/4"	4-1/0	3-0	NA	NA
2,600	3-1/4"	4-1/0	3-0	NA	NA
2,650	3-1/4"	4-1/0	3-0	NA	NA
2,700	3-1/4"	4-1/0	3-0	NA	NA
2,750	3-1/4"	4-1/0	3-0	NA	NA
2,800	3-1/4"	4-1/0	3-0	NA	NA
2,850	3-1/4"	4-1/0	3-0	NA	NA
2,900	3-1/4"	4-1/0	3-0	NA	NA
2,950	3-1/4"	4-1/0	3-0	NA	NA
3,000	3-1/4"	4-1/0	3-0	NA	NA
3,050	3-1/4"	4-1/0	3-0	NA	NA
3,100	3-1/4"	4-1/0	3-0	NA	NA
3,150	3-1/4"	4-1/0	3-0	NA	NA
3,200	3-1/4"	4-1/0	3-0	NA	NA
3,250	3-1/4"	4-1/0	3-0		

- Table 6 Minimum Bend Radius for New Construction

<sup>1</sup> Only available in 90° bonds.

## Notes

- Rev. #26: 03-25-22

UG-1: General  
Greenbook



Rev. #22: 03-25-2



Transformer			Pad Dimensions (inches)											Code
Style	kVA Size	Approximate Maximum Weight	A	B	C	D	E	F	G	H	K	L	W	

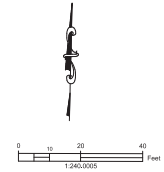
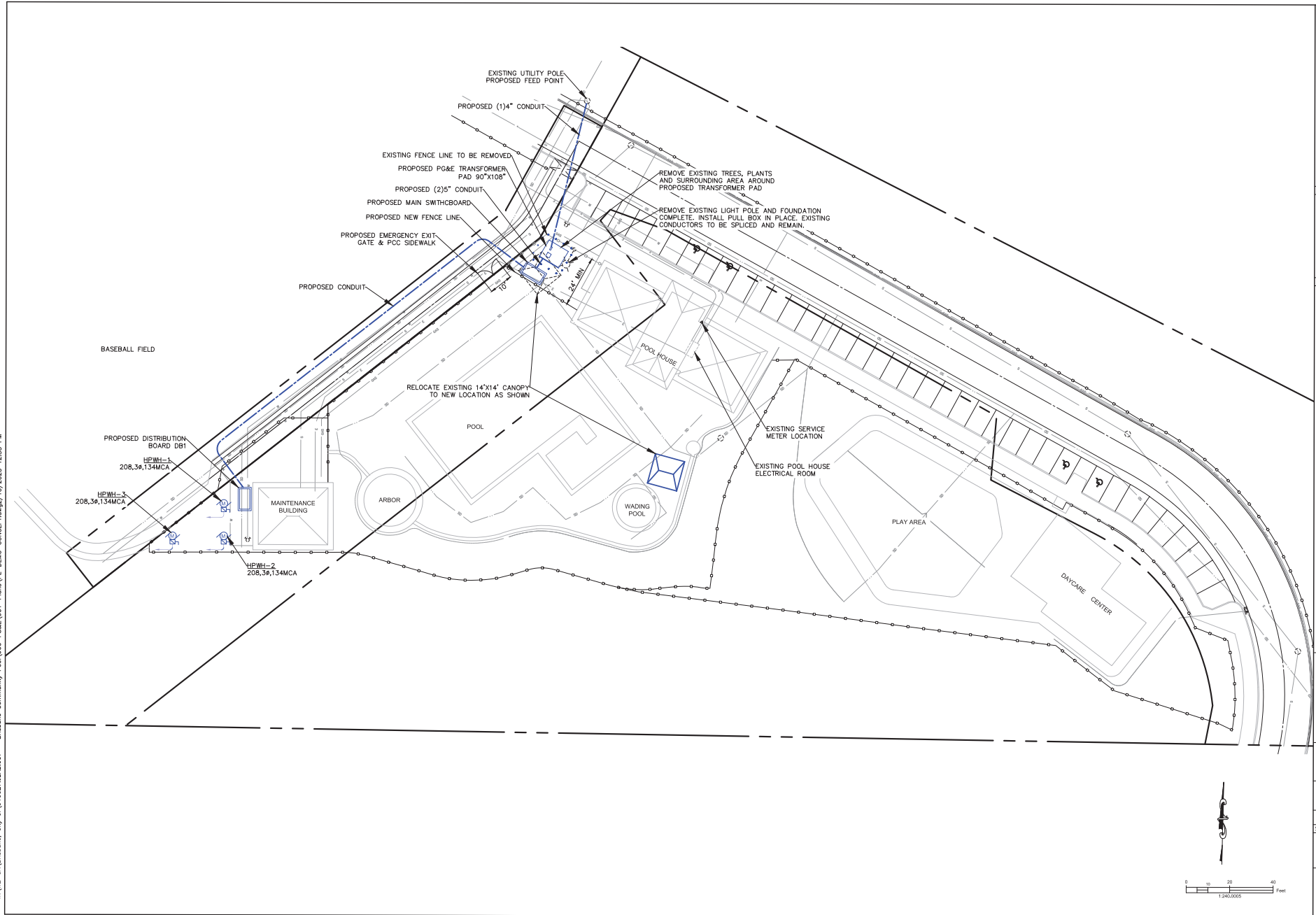
<sup>2</sup> ( ) = Indicates a kVA size that is no longer purchased

Revision 13 has the following changes:

1. Add Note 10 on Page 1.

045292 Page 8 of 8

Rev. #13: 12-01-19



**WILLDAN**  
13191 CROSSROADS PKWY NORTH, SUITE 405

### PROFESSIONAL SEALS

PROJECT TITLE
---------------

**BRISBANE COMMUNITY POOL**  
**2 SOLANO STREET**

[illegible]

# CONCEPTUAL RELOCATION PLAN

G-1

ATTACHMENT 1.C – CONSTRUCTION SCHEDULE



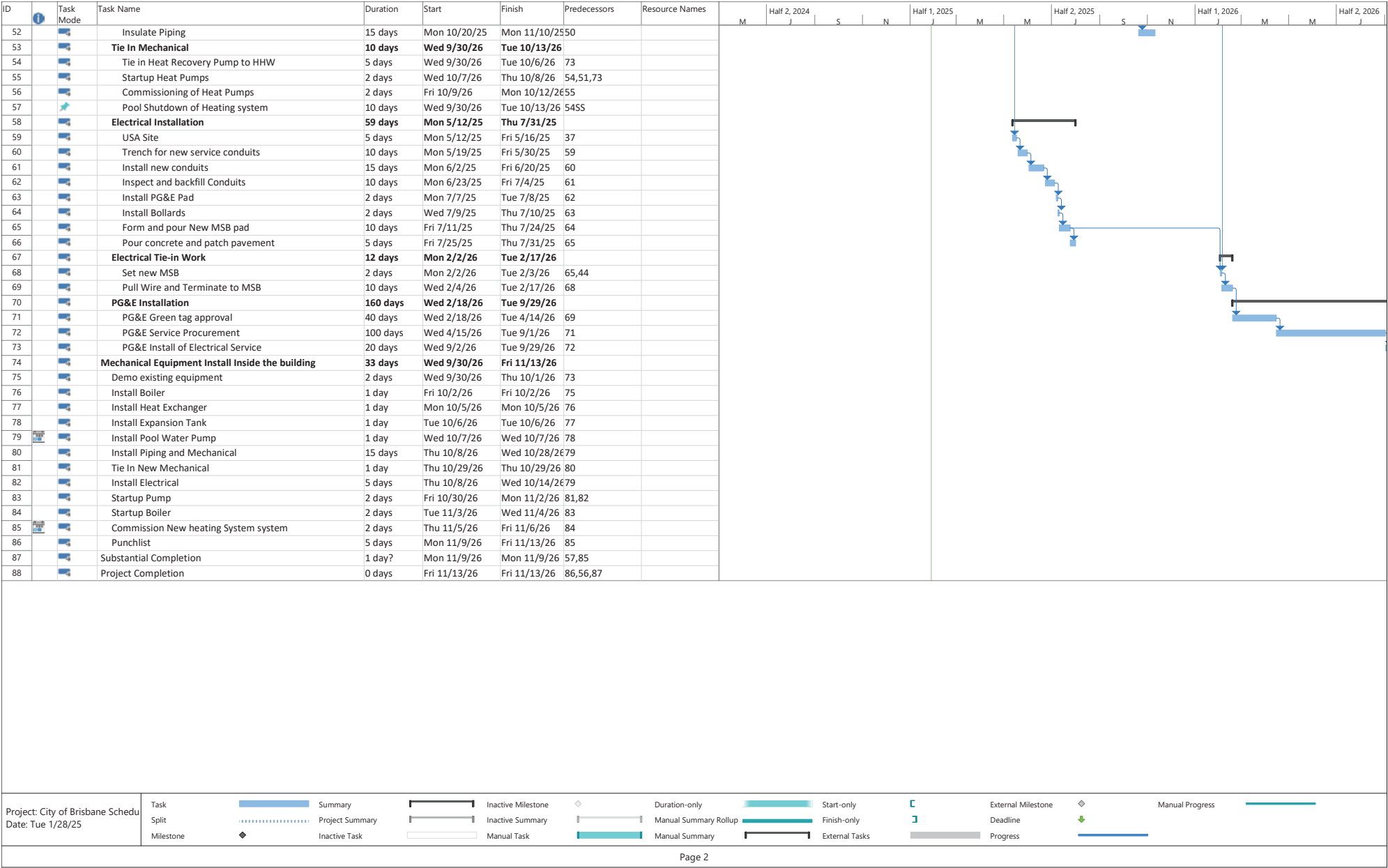
ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1	[Icon]	Notice to Proceed Design	1 day	Mon 4/1/24	Mon 4/1/24		
2	[Icon]	Notice to Proceed Construction	1 day	Fri 3/7/25	Fri 3/7/25		
3	[Icon]	Permits, Submittals and Procurement	294 days	Tue 4/2/24	Fri 5/16/25		
4	[Icon]	Permit Application	259 days	Tue 4/2/24	Fri 3/28/25		
5	[Icon]	Design Mechanical & Electrical	20 days	Tue 4/2/24	Mon 4/29/24	1	
6	[Icon]	Review Mechanical & Electrical	20 days	Tue 4/30/24	Mon 5/27/24	5	
7	[Icon]	Submit Permit Application with City of Brisbane	15 days	Tue 5/28/24	Mon 6/17/24	6	
8	[Icon]	Review Permit Application	30 days	Tue 6/18/24	Mon 7/29/24	7	
9	[Icon]	Resubmit Permit Application with City of Brisbane	80 days	Tue 7/30/24	Mon 11/18/24	8	
10	[Icon]	2nd Review of Permit Application	10 days	Mon 3/10/25	Fri 3/21/25	9,2	
11	[Icon]	Permit Issued	5 days	Mon 3/24/25	Fri 3/28/25	10	
12	[Icon]	PG&E New Service Submittal	142 days	Fri 6/7/24	Mon 12/23/24		
13	[Icon]	Submittal of PG&E new connection	26 days	Fri 6/7/24	Fri 7/12/24	1	
14	[Icon]	Review of PG&E New Connection	80 days	Mon 7/15/24	Fri 11/1/24	13	
15	[Icon]	Resubmit PG&E New Connection	10 days	Mon 11/4/24	Fri 11/15/24	14	
16	[Icon]	2nd PG&E New Connection	25 days	Mon 11/18/24	Fri 12/20/24	15	
17	[Icon]	PG&E Site Visit	1 day	Mon 12/23/24	Mon 12/23/24	16	
18	[Icon]	Submittals	50 days	Mon 3/10/25	Fri 5/16/25		
19	[Icon]	Subcontract Negotiation	10 days	Mon 3/10/25	Fri 3/21/25	2	
20	[Icon]	Submit Heat Pump	10 days	Mon 3/24/25	Fri 4/4/25	19	
21	[Icon]	Review Heat Pump	10 days	Mon 4/7/25	Fri 4/18/25	20	
22	[Icon]	Resubmit Heat Pump	10 days	Mon 4/21/25	Fri 5/2/25	21	
23	[Icon]	2nd Review of Heat Pump	10 days	Mon 5/5/25	Fri 5/16/25	22	
24	[Icon]	Submit Boiler	10 days	Mon 3/24/25	Fri 4/4/25	19	
25	[Icon]	Review boiler	10 days	Mon 4/7/25	Fri 4/18/25	24	
26	[Icon]	Resubmit Boiler	10 days	Mon 4/21/25	Fri 5/2/25	25	
27	[Icon]	2nd Review of Boiler	10 days	Mon 5/5/25	Fri 5/16/25	26	
28	[Icon]	Submit Pumps	10 days	Mon 3/24/25	Fri 4/4/25	19	
29	[Icon]	Review Pumps	10 days	Mon 4/7/25	Fri 4/18/25	28	
30	[Icon]	Resubmit Pumps	10 days	Mon 4/21/25	Fri 5/2/25	29	
31	[Icon]	2nd Review Pumps	10 days	Mon 5/5/25	Fri 5/16/25	30	
32	[Icon]	Submit Heat Exchanger	10 days	Mon 3/24/25	Fri 4/4/25	19	
33	[Icon]	Review Heat Exchanger	10 days	Mon 4/7/25	Fri 4/18/25	32	
34	[Icon]	Resubmit Heat Exchanger	10 days	Mon 4/21/25	Fri 5/2/25	33	
35	[Icon]	2nd Review of Heat Exchanger	10 days	Mon 5/5/25	Fri 5/16/25	34	
36	[Icon]	Submit MSB	10 days	Mon 3/31/25	Fri 4/11/25	11	
37	[Icon]	Review MSB	20 days	Mon 4/14/25	Fri 5/9/25	36	
38	[Icon]	Equipment Procurement	190 days	Mon 5/12/25	Fri 1/30/26		
39	[Icon]	Procurement of Heat Pumps	60 days	Mon 5/19/25	Mon 9/8/25	23	
40	[Icon]	Deliver Heat Pumps	10 days	Mon 9/8/25	Mon 9/22/25	39	
41	[Icon]	Procurement Pumps	60 days	Mon 5/19/25	Fri 8/8/25	31	
42	[Icon]	Deliver Pumps	10 days	Mon 8/11/25	Fri 8/22/25	41	
43	[Icon]	Procure MSB	180 days	Mon 5/12/25	Fri 1/16/26	37	
44	[Icon]	Deliver MSB	10 days	Mon 1/19/26	Fri 1/30/26	43	
45	[Icon]	Exterior Installation	372 days	Mon 5/12/25	Tue 10/13/26		
46	[Icon]	Heat Pump Installation	55.5 days	Mon 8/25/25	Mon 11/10/25		
47	[Icon]	Demolish and clear pad area	2 days	Mon 8/25/25	Tue 8/26/25	42	
48	[Icon]	Form and pour pads for Heat Pumps	10 days	Wed 8/27/25	Tue 9/9/25	47	
49	[Icon]	Install Heat Pump	10 days	Mon 9/22/25	Mon 10/6/25	40	
50	[Icon]	Install Mechanical Piping	10 days	Mon 10/6/25	Mon 10/20/25	49	
51	[Icon]	Install Electrical Power	10 days	Mon 10/6/25	Mon 10/20/25	49	

Project: City of Brisbane Schedu  
Date: Tue 1/28/25

Task [Blue Bar] Summary [Grey Bar] Inactive Milestone [Diamond Icon]  
Split [Dotted Line] Project Summary [Grey Bar] Inactive Summary [Diamond Icon]  
Milestone [Diamond Icon] Inactive Task [Grey Bar] Manual Task [White Bar]

Duration-only [Green Bar] Start-only [Light Green Bar] External Milestone [C-Bracket Icon]  
Manual Summary Rollup [Green Bar] Finish-only [Dark Green Bar] Deadline [C-Bracket Icon]  
Manual Summary [Green Bar] External Tasks [Black Bar] Progress [Grey Bar]

Page 1





ATTACHMENT 1.D – COMMENT LOG

Document	Page No.	Reference / Location	Commenter	Comment/Question	Response
Exhibit 1 - Design Build Amendment	1 of 24	Exhibit 1. - comment on Item 3, Contract Time	Karen Kinser	Text currently reads: "Weather disruptions, availability of necessary equipment, remediation of hazardous materials, and other delays beyond the control of WES shall not count toward the construction timeframe."  This one is interesting because they don't need 616 calendar days to construct. so they already have a certain time built in for materials. Maybe it could say beyond the time allotted in the schedule for material procurement. And we should have their schedule as part of the contract.	Changed text to "Weather disruptions, availability of necessary equipment beyond the time allotted for material procurement, remediation of hazardous materials and other delays beyond the control of WES shall not count toward the construction timeframe."  Included Schedule as attachment to D/B Amendment.
Exhibit 1 - Design Build Amendment	1 of 24	Exhibit 1. - comment on Item 4, Information Upon Which Amendment is Based	Adrienne Etherton	Checking with City Attorney if we need to include drawings in Council packet, suggesting language change to "Scope of Work and Drawings furnished by WES and to be approved by City Engineer, whose approval shall not be unreasonably withheld". Also, reference city Utility Spec Template here? And schedule per Karen's comment above.	Added City of Brisbane Utility Specifications and Schedule to 4. Information Upon Which Amendment is Based.
Attachment 1.A - Scope of Work	4 of 24	Third paragraph	Adrienne Etherton	Cut sentence "In addition, at the City's request, this scope also includes upgrading the electrical infrastructure at the project site to accommodate future EV charging station installations."	Deleted.
Attachment 1.A - Scope of Work	4 of 24	Intro Scope of Work paragraph	Adrienne Etherton	Incorporate commitment that Willdan and subcontractors will comply with STW (PCC § 22164(c)(1)) requirements and entirety of PCC §2600-2603.	Language added
Attachment 1.A - Scope of Work	4 of 24	Design Scope	Karen Kinser	Some minor details are left out of this scope here and there. Suggest adding a catch-all statement that Willdan will provide a complete and functioning improvement, regardless of whether minor details aren't mentioned in the scope	Added sentence: "Willdan will provide a complete and functioning improvement, regardless of whether minor details aren't mentioned in the scope."
Attachment 1.A - Scope of Work	5 of 24	Design Scope - New Installation Work, Electrical	Adrienne Etherton	Currently reads "Cost is predicated on PG&E allowing the power to be connected to the closest power pole to the new utility transformer." Rephrase to indicate new PG&E pole adjacent to closest existing power pole per PG&E design	Added sentence: "Cost is predicated on PG&E allowing the power to be connected to a new PG&E pole adjacent to the closest existing power pole, per PG&E design."
Attachment 1.A - Scope of Work	6 of 24	Design Scope - New Installation Work, Civil, Asphalt Demolition & Trenching:	Adrienne Etherton	Text currently reads "Includes trench plates Solano road but not the entire utility trench." Trench in driveway needs to be plated as well. Also in Lipman field--field is used outside of organized sports as well. It needs to be secured. Can't think of another way, unless you backfill each day and cover/protect the bit you'll start from the next day	Modified language to reflect Dryco's commitment to include trench plating in driveway and plywood cover in Lipman field, as well as caution tape and barricades to mark work area.
Attachment 1.A - Scope of Work	6 of 24	Design Scope - New Installation Work, Civil, Trenching & Backfill in Landscaping	Adrienne Etherton	Text currently reads "Excludes any repairs to existing grass or landscape." We explicitly said to include this.	ACCO indicated they are planning on re-filling the trench with the soil/grass initially removed. Removed sentence.
Attachment 1.A - Scope of Work	6 of 24	Design Scope - New Installation Work, Civil, Concrete Pads	Karen Kinser	Greg generally says 6 sack concrete, and what is the rebar size?	Noted, details will be provided with drawing plan set provided to Building Department for permit. Will comply with PG&E Greenbook Standards.
Attachment 1.A - Scope of Work	6 of 24	Design Scope - New Installation Work, Civil, Fencing and Canopy Removal	Adrienne Etherton	Text currently reads "Cut and remove existing canopy structure where new concrete pad will be located." Rather than remove, change to "relocate at on-site location to be confirmed by City staff"	Canopy to be relocated above baby pool. Basic relocation is included in scope and pricing, with caveat that any work requiring a Structural Engineer will need a change order.
Attachment 1.A - Scope of Work	7 of 24	Design Scope - Exclusions	Adrienne Etherton	Text currently reads "PG&E required rework after PG&E inspections." How about they can exclude something if PG&E asks for something not in their standards, the PG&E Greenbook?	Changed to "PG&E required work beyond standards indicated in PG&E Greenbook"

Document	Page No.	Reference / Location	Commenter	Comment/Question	Response
Attachment 1.A - Scope of Work	7 of 24	Design Scope - Exclusions	Karen Kinser	Text currently reads "Work outside of normal business hours: Monday – Friday, 7:00am – 3:30pm." Thought we decided 8 am to 5 pm for work near residences	Changed to from 8am - 5pm.
Attachment 1.A - Scope of Work	7 of 24	Design Scope - Exclusions	Adrienne Etherton	Highlighted following bullets, not clear why: - Installation of relocated canopy. - Landscaping and irrigation modifications that are not associated with this scope. - Tree removal or replanting of any removed trees. - Installation of lap pool recirculation pump with VFD.	Removed canopy relocation exclusion. Removed tree removal exclusion. Revised Demolition/Civil section to clearly indicate inclusion of removal of trees and plants as necessary, as well as lightpole.
Attachment 1.A - Scope of Work	8 of 24	Design Scope - Exclusions	Karen Kinser	Text currently reads: " Excludes traffic control as no plan was provided." They'll need traffic control for trench in street	ACCO confirmed that Dryco's pricing includes traffic control (cone safety and traffic flagger) as necessary for the trench in the street, will obtain no-cost Encroachment Permit. Modified language to Civil scope to reflect. Removed exclusion.
Attachment 1.A - Scope of Work	8 of 24	Design Scope - Clarifications	Adrienne Etherton	Text currently reads: "Work is to be performed during standard business hours: Monday – Friday, 8:00am – 4:00pm.". Inconsistent with hours listed above.	Noted, will change to from 8am - 5pm.
Attachment 1.A - Scope of Work	8 of 24	Design Scope - Clarifications	Karen Kinser	Text currently reads: "The design is based on the current code cycle for 2024 (see drawings). Any delay in the project may result in a change order to implement new code requirements." Once they have a permit in hand, they wouldn't be subjected to new codes	Confirmed
Attachment 1.A - Scope of Work	8 of 24	Design Scope - Clarifications	Karen Kinser	Text currently reads "The customer will arrange for the contractors to have required and unescorted site access to and from the work areas to prevent multiple mobilizations."  Where do we expect Willdan and subcontracter employees to park vehicles? And are we concerned? Maybe a question for Greg. Do they need a laydown area for equipment and materials? We might want a general statement about this or I guess it's probably covered in the boiler plate specs. Sample below from Caltrans standards  "The project areas shall be used only for purposes that are necessary to perform the required work. The Contractor shall not occupy the streets or areas, or allow others to occupy the streets or areas, for purposes which are not necessary to perform the required work. The area for Contractor use shall be provided by the Engineer during the preconstruction meeting. Potential lay down areas include the vacant parking lot on Old County Road or in the yard south of the fire station on Bayshore Blvd.. Should the Contractor cause damage to the site, all corrective measures shall be done promptly at no cost to the City.  Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders.	Incorporated Caltrans language + No parking of employee vehicles, equipment or storage of materials on Solano Street without approval from the City.

Document	Page No.	Reference / Location	Commenter	Comment/Question	Response
Attachment 1.A - Scope of Work	8 of 24	Design Scope - Clarifications	Adrienne Etherton	Text currently reads "Willdan assumes the city of Brisbane will assist having the Pool Chemical company onsite to ensure all water testing and chemical treatment is completed. Any significant delay may cause warranty concerns." Confirm just pool water going through HX not secondary chemical. If pool water, this is fine.	Just pool water, no secondary chemical.
Attachment 1.A - Scope of Work	8 of 24	Design Scope - Clarifications	Karen Kinser	Text currently reads "This scope includes one month of storage should job be delayed by customer beyond one month additional storage fees may be applicable." Could mention for this that we have a locked, fenced laydown yard available. Downside for them is that it would require an additional move of the equipment and it's not indoors (not sure if the indoors part matters or not).	Removed clarification.
Attachment 1.A - Scope of Work	8 of 24	Design Scope - Clarifications	Adrienne Etherton	Text currently reads "Submittals of proposed new equipment will be provided for review and approval prior to release." Prior to ordering. What does release mean?	"Release" means release the order to the vendor to manufacture the requested equipment.
Attachment 1.A - Scope of Work	8 of 24	Design Scope - Clarifications	Adrienne Etherton	Text currently reads "- Detailing and coordination between trades, as required. - Completion of Title-24 paperwork during commissioning. - Start-up reports. - Perform cleanup and punch list. - Perform Inspection of completed work. - Provide equipment labels."  I assume this means these things are included, but it's not written clearly/explicitly	Yes these are included in our scope. Language clarified in SOW.
Attachment 1.B Drawings	9 of 24	Cover Page	Adrienne Etherton	Cover sheet that includes all drawings included? (This is misleading since it only has M drawings, not E). Also, why do we not have any Civil drawings or site plans showing the relocation of the fencing, etc?	Cover sheet revised and civil drawing (G-1 Conceptual Relocation Plan) added.
Attachment 1.B Drawings	11 of 24	Abbreviation List	Adrienne Etherton	HP and HPWH are not on the Abbreviations list	Added to abbreviations list.
Attachment 1.B Drawings	12 of 24	Tag DP-1	Adrienne Etherton	is this the pump that we had to replace a year or something ago? didn't we size it so it could accommodate the greater head needs and therefore doesn't need to be demo-ed and replaced by PWP-1? If so, how does that impact cost?	Checked with ACCO. Yes, this has been replaced, changes are already reflected in price.
Attachment 1.B Drawings	12 of 24	Title Block	Adrienne Etherton	thought these were supposed to be construction drawings? (also note typo in "Construciton")	Labeled plans "Draft subject to review and approval by City Engineer and building staff".
Attachment 1.B Drawings	13 of 24	M1.01	Adrienne Etherton	drawing C is rotated 90 degrees from drawings A & B, please align consistently	Will be corrected on 100% construction drawing set.
Attachment 1.B Drawings	13 of 24	Pool Equipment Room Mechanical Demo Plan	Adrienne Etherton	Demo Solar HX if there is contingency money left at the end	ACCO confirmed they can accommodate this request.
Attachment 1.B Drawings	14 of 24	Lap Pool Piping Diagram	Adrienne Etherton	CPVC PWS & CPVC PWR are not on Abbreviations list. Please clarify what that is and why we are using it.	Added to abbreviations list.
Attachment 1.B Drawings	17 of 24	Site Power Plan	Adrienne Etherton	how will the conduit go through the concrete retaining wall?	ACCO indicates there is no need to go through the retaining wall. All work will be below grade. If any conduits or pipes were to go through concrete walls a Link Seal would be used.
Attachment 1.B Drawings	17 of 24	Site Power Plan	Adrienne Etherton	this has been confirmed with PG&E / Greenbook? I know they said 16'x20' but that was total clearance.	Design is in accordance with page E-3.0 PGE Pad details per Greenbook.
Attachment 1.B Drawings	17 of 24	Conduit in Trench Detail	Adrienne Etherton	replace with 90% Class II Aggregate Base, recycled is acceptable, and 6" topsoil. Karen Kinser added "if this stays in the grass area"	Changed backfill to "90% Class II Aggregate Base and 6" asphalt". Changed title to "Conduit in Trench Detail (Asphalt)". Second detail will be added for trenching through grass on 100% construction drawing set.

Document	Page No.	Reference / Location	Commenter	Comment/Question	Response
Attachment 1.C Comment Log	21 of 24	Row 2	Adrienne Etherton	so is there no longer any allowance? There was one in the email sent with this amendment of \$126,979. I expect we do need to account for the cost of canopy reinstallation, as well as the removal/replacement of trees and other landscaping work, including irrigation (if any) and repairs to the grass/landscaping for the trench in the Lipman field (at least).	Allowance removed. Cost of canopy reinstallation, removal of trees and plants as necessary, and backfilling trench in Lipman field with native material that was stockpiled onsite and restored to prior condition are included in price and scope of work.

**DESIGN-BUILD CONTRACT**

This Design-Build Contract (the "Contract") is made and entered into as of this <sup>25<sup>th</sup></sup> day of July, 2022, between the Design-Builder: Willdan Energy Solutions ("WES"), and the City of Brisbane, California ("Customer"), for the purpose of installing certain improvements on the Customer's property and buildings (the "Premises") described in SCHEDULE A (SCOPE OF WORK).

**RECITALS**

WHEREAS, Customer desires to retain WES to purchase and install certain equipment of the type or class described in SCHEDULE A (SCOPE OF WORK), attached hereto and made part hereof; and

WHEREAS, WES is willing to perform Design and Preconstruction Phase Services as described in SCHEDULE A.2 (DESIGN AND PRECONSTRUCTION SERVICES) but at the conclusion of the Design and Preconstruction Phase, WES, at its sole option, may elect not to proceed with services described in SCHEDULE A.3 (CONSTRUCTION PHASE).

WHEREAS, Customer is authorized under the Constitution and the laws of the State of California to enter into this Contract for the purposes set forth herein.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, and intending to be legally bound hereby, Customer and WES hereto covenant and agree as follows:

**SECTION 1 DESIGN-BUILD DOCUMENTS**

- Section 1.1 The Design-Build Documents consist of this Agreement between Customer and WES and its attached Schedules and Exhibits (hereinafter, the "Contract"); other documents listed in this Agreement; and Modifications issued after execution of this Agreement. A Modification is (1) a written amendment to the Contract signed by both parties, including the Design-Build Amendment, (2) a Change Order, (3) a Change Directive, or (4) a written order for a minor change in the Work issued by the Customer.
- Section 1.2 The Design-Build Documents form the Contract. The Contract represents the entire and integrated agreement between the parties and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Design-Build Documents shall not be construed to create a contractual relationship of any kind between any persons or entities other than the Customer and WES.
- Section 1.3 Attachments, Schedules, Exhibits and Appendices: WES has prepared and Customer has approved and accepted the Schedules as set forth below, copies of which are attached hereto and made parts of this Contract by reference.

**Schedules**

SCHEDULE A. SCOPE OF WORK

SCHEDULE B. COMPENSATION TO WES

SCHEDULE C. ADDITIONAL RESPONSIBILITIES

**Exhibits**

EXHIBIT 1. DESIGN-BUILD AMENDMENT

EXHIBIT 2. CERTIFICATE OF ACCEPTANCE – PROJECT COMPLETION

EXHIBIT 3. SUPPLEMENTAL AND OTHER CONDITIONS OF THE DESIGN AND PRE-CONSTRUCTION PHASE SERVICES

**SECTION 2 THE WORK OF THE DESIGN-BUILD CONTRACT**

- Section 2.1 The term "Work" means the design, construction and related services required to fulfill WES's obligations under the Design-Build Documents, whether completed or partially completed, and includes all labor, materials, equipment and services provided or to be provided by WES.
- Section 2.2 WES shall fully execute the Work described in the Design-Build Documents, except to the extent specifically indicated in the Design-Build Documents to be the responsibility of others.
- Section 2.3 WES shall perform all Work through Contractors or through the WES's own forces.
- Section 2.4 WES shall perform the Work in compliance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities in affect at the time of Contract or Amendment execution as applicable. If WES

performs Work contrary to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, WES shall assume responsibility for such Work and shall bear the costs attributable to correction.

### SECTION 3 PHASES OF THE WORK

- Section 3.1 Work shall be performed in two phases: The Design and Pre-Construction Phase and the Construction Phase as outlined in SCHEDULE A (SCOPE OF WORK). WES will commence work for the Design Pre-Construction Phase upon execution of this Design-Build Agreement. The Construction Phase will commence at the conclusion of the Design and Pre-Construction Phase upon the execution of EXHIBIT 1 (DESIGN-BUILD AMENDMENT).
- Section 3.2 The Scope of Work and Fee for each phase is defined in SCHEDULE A (SCOPE OF WORK) and SCHEDULE B (COMPENSATION TO WES) respectively.

### SECTION 4 COMMENCEMENT DATE AND TERMS

- Section 4.1 Commencement Date: The effective date of this agreement is the date of agreement's last signature.
- Section 4.2 Construction and Installation Period: The Construction and Installation Period will be a term set forth in the Design-Build Amendment.
- Section 4.3 Weather disruptions, availability of necessary equipment, remediation of hazardous materials, and other delays beyond the control of WES shall not count toward the Construction and Installation Period.

### SECTION 5 CONTRACT SUM

- Section 5.1 The Contract Sum is the amount to be paid to WES for the performance of the Work. This amount includes a Stipulated Sum for the Design and Pre-Construction Phase services and a Stipulated Sum for the Construction Phase as identified in SCHEDULE B (COMPENSATION TO WES).

### SECTION 6 PAYMENTS TO WES

- Section 6.1 WES Compensation and Fees: WES's fees and compensation are set forth in SCHEDULE B (COMPENSATION TO WES).
- Section 6.2 Billing Information Procedure: Payments due to WES shall be calculated each month and paid in accordance with SCHEDULE B (COMPENSATION TO WES).
- Section 6.3 Payment: Customer shall pay WES within 30 days of receipt of WES's application for payment.
- Section 6.4 Effective Date of Payment Obligation: See SCHEDULE B (COMPENSATION TO WES).

### SECTION 7 FISCAL FUNDING

- Section 7.1 Non-appropriation of Funds: In the event no Customer or other funds or insufficient Customer or other funds are appropriated and budgeted, and funds are otherwise unavailable by any means whatsoever in any fiscal period for which payments are due WES under this Contract, then the Customer will, not less than 30 days prior to the end of such applicable fiscal period, in writing, notify WES of such occurrence and this Contract shall terminate on the last day of the fiscal period for which appropriations were made without penalty or expense to the Customer of any kind whatsoever, except as to the portions of payments herein agreed upon for which Customer and/or other funds shall have been appropriated and budgeted or are otherwise available.

### SECTION 8 CONSTRUCTION SCHEDULE AND EQUIPMENT INSTALLATION; APPROVAL

- Section 8.1 Construction Schedule: Construction and equipment installation shall proceed in accordance with the construction period in SECTION 4 (COMMENCEMENT DATE AND TERMS). A detailed schedule of construction will be submitted to Customer following Commencement of the Design-Build Amendment. This schedule will be updated regularly to reflect ongoing progress on the Project.
- Section 8.2 Systems Startup: WES shall provide startup of the installed equipment in accordance with any procedures specified in SCHEDULE C and prior to acceptance of the project by Customer. WES shall provide notice to the Customer of any scheduled test(s) and the Customer and/or its designees shall have the right to be present at any or all such tests conducted by WES and/or manufacturers of the equipment.

### SECTION 9 EQUIPMENT WARRANTIES

- Section 9.1 WES covenants and agrees that all equipment installed as part of this Contract is new, in good and proper working condition and protected by appropriate written warranties covering all parts and equipment performance. WES further agrees to deliver warranty documentation to Customer for inspection and approval; to pursue rights and remedies

against manufacturer and supplier of the equipment under the warranties in the event of equipment malfunction or improper or defective function, and defects in parts, workmanship and performance, to notify the Customer whenever defects in equipment parts or performance occur which give rise to such rights and remedies and those rights and remedies are exercised by WES. The cost of any risk of damage or damage to the equipment and its performance, including damage to property and equipment of the Customer or the Premises, due to WES's failure to exercise its warranty rights shall be borne solely by WES.

- Section 9.2 All warranties shall be transferable and extend to the Customer. The warranties shall specify that only new, and not reconditioned parts, may be used and installed when repair is necessitated by malfunction.
- Section 9.3 All warranties required hereunder shall be in force for a minimum of one year from the commencement date as defined in Section 4.1 hereof.
- Section 9.4 Notwithstanding the above, nothing in this Section shall be construed to alleviate/relieve WES from complying with its obligations to perform under all terms and conditions of this Contract and as set forth in all attached Schedules.

## **SECTION 10 TRAINING BY WES**

- Section 10.1 Any training provided by WES shall be as described in SCHEDULE C hereto. The training specified in SCHEDULE C must be completed prior to acceptance of the equipment installation.

## **SECTION 11 PERMITS AND APPROVALS; COORDINATION**

- Section 11.1 Permits and Approvals: Customer shall use its best efforts to assist WES in obtaining all necessary permits and approvals for installation of the Equipment. In no event shall Customer, however, be responsible for payment of any permit fees. The equipment and the operation of the equipment by WES shall at all times conform to all federal, state and local code requirements. WES shall furnish copies of each permit or license which is required to perform the work to the Customer before WES commences the portion of the work requiring such permit or license.
- Section 11.2 Coordination During Installation: The Customer and WES shall coordinate the activities of WES's equipment installers with those of the Customer, its employees, and agents. WES shall not commit or permit any act which will interfere with the performance of business activities conducted by the Customer or its employees without prior written approval of the Customer. Customer will require a minimum of two weeks' notice before any shutdown of facilities to facilitate the tie-in of new equipment.

## **SECTION 12 PERFORMANCE BY WES**

- Section 12.1 WES shall perform all tasks/phases under the Contract, including construction, and install the Equipment in such a manner so as not to harm the structural integrity of the buildings or their operating systems. WES shall repair and restore to its original condition any area of damage caused by WES's performance under this Contract. The Customer reserves the right to review the work performed by WES and to direct WES to take certain corrective action if, in the opinion of both parties, the structural integrity of the Premises or its operating system is or will be harmed. All costs associated with such corrective action to damage caused by WES's performance of the work shall be borne by WES.
- Section 12.2 WES shall remain responsible for the professional and technical accuracy of all services performed, whether by WES or its subcontractors or others on its behalf, throughout the term of this Contract.

## **SECTION 13 OWNERSHIP**

- Section 13.1 Ownership of Certain Proprietary Property Rights: Customer shall not, by virtue of this Contract, acquire any interest in any formulas, patterns, devices, secret inventions or processes, copyrights, patents, other intellectual or proprietary rights, or similar items of property which are or may be used in connection with the Equipment. WES shall grant to the Customer a perpetual, irrevocable royalty-free license for any and all software or other intellectual property rights necessary for the Customer to continue to operate, maintain, and repair the equipment.
- Section 13.2 Ownership of Existing Equipment: Ownership of the equipment and materials presently existing at the Premises at the time of execution of this Contract shall remain the property of the Customer even if it is replaced or its operation made unnecessary by work performed by WES pursuant to this Contract. If applicable, WES shall advise the Customer in writing of all equipment and materials to be replaced at the Premises and the Customer shall within 30 days designate in writing to WES which equipment and materials should not be disposed of off-site by WES. It is understood and agreed to by both Parties that the Customer shall be responsible for and designate the location and storage for any equipment and materials that should not be disposed of off-site. WES shall be responsible for the disposal of all equipment and materials designated by the Customer as disposable off-site in accordance with all applicable laws and regulations regarding such disposal.



Section 13.3 New Equipment: All new equipment or materials supplied to the Customer shall become the property of the Customer.

#### **SECTION 14 LOCATION AND ACCESS**

Section 14.1 The physical address of the property as related to the scope of work under this contract is:

Brisbane Community Pool Facility  
2 Solano Street  
Brisbane, CA 94005

Section 14.2 Customer shall provide sufficient space on the Premises for the installation and operation of the Equipment and shall take reasonable steps to protect such Equipment from harm, theft and misuse. Customer shall provide access to the Premises for WES to perform any function related to this Contract during regular business hours, or such other reasonable hours as may be requested by WES and acceptable to the Customer. WES's access to Premises to make emergency repairs or corrections as it may determine are needed shall not be unreasonably restricted by the Customer.

#### **SECTION 15 INDEMNIFICATION**

Section 15.1 WES shall be responsible for (i) any damage to the Equipment or other property on the Premises and (ii) any personal injury where such damage or injury occurs as a result and to the extent of WES's negligence or other wrongful conduct in its performance under this Contract.

Section 15.2 WES shall save and hold harmless Customer and its officers, agents and employees or any of them from any and all claims, demands, actions or liability of any nature based upon or arising out of WES's negligence or other wrongful conduct in any services performed by WES, its agents or employees under this Contract.

#### **SECTION 16 CONDITIONS BEYOND CONTROL OF THE PARTIES**

Section 16.1 If a party ("performing party") shall be unable to reasonably perform any of its obligations under this Contract due to acts of Nature, insurrections or riots, or similar events, this Contract shall at the other party's option (i) remain in effect but said performing party's obligations shall be suspended until the said events shall have ended; or, (ii) be terminated upon ten (10) days' notice to the performing party, in which event neither party shall have any further liability to the other.

#### **SECTION 17 EVENTS OF DEFAULT**

Section 17.1 Events of Default by Customer: Each of the following events or conditions shall constitute an "Event of Default" by Customer:

- (i) any failure by Customer to pay WES any sum due for a service and maintenance period of more than 30 days after written notification by WES that Customer is delinquent in making payment and provided that WES is not in default in its performance under the terms of this Contract; or
- (ii) any other material failure by Customer to perform or comply with the terms and conditions of this Contract, including breach of any covenant contained herein, provided that such failure continues for thirty days after notice to Customer demanding that such failures to perform be cured or if such cure cannot be effected in thirty days, Customer shall be deemed to have cured default upon the commencement of a cure within thirty days and diligent subsequent completion thereof;
- (iii) any representation or warranty furnished by Customer in this Contract which was false or misleading in any material respect when made.

Section 17.2 Events of Default by WES: Each of the following events or conditions shall constitute an "Event of Default" by WES:

- (i) failure to furnish and install the Equipment and make it ready for use within the time specified by this Contract as set forth in SCHEDULE A (SCOPE OF WORK) and SECTION 4 (COMMENCEMENT DATE AND TERMS);
- (ii) any failure by WES to perform or comply with the terms and conditions of this Contract, including breach of any covenant contained herein except that such failure, if corrected or cured within 30 days after written notice by the Customer to WES demanding that such failure to perform be cured, shall be deemed cured for purposes of this Contract;
- (iii) any lien or encumbrance upon the equipment by any subcontractor, laborer or material man of WES;

- (iv) the filing of a bankruptcy petition whether by WES or its creditors against WES which proceeding shall not have been dismissed within 30 days of its filing, or an involuntary assignment for the benefit of all creditors or the liquidation of WES;

## SECTION 18 REMEDIES UPON DEFAULT

Section 18.1 Remedies upon Default: All disputes shall be submitted to the individuals listed in SECTION 29 (NOTICE) for resolution. In the event that a remedy acceptable to both Customer and WES cannot be found, either party may seek remedy as outlined in SECTION 19 (MEDIATION).

## SECTION 19 MEDIATION

Section 19.1 Any Claim arising out of or related to the Contract shall be subject to mediation as a condition precedent to arbitration or the institution of legal or equitable proceedings by either party.

Section 19.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect. Request for mediation shall be filed in writing with the other party to the Contract and with the American Arbitration Association. The request may be made concurrently with the filing of a demand for arbitration but, in such event, mediation shall proceed in advance of arbitration or legal or equitable proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order.

Section 19.3 The parties shall share the mediator's fee and any filing fees equally.

Section 19.4 The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon.

Section 19.5 Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

## SECTION 20 REPRESENTATIONS AND WARRANTIES

Section 20.1 Each party warrants and represents to the other that:

- (i) it has all requisite power, authority, licenses, permits, and franchises, corporate or otherwise, to execute and deliver this Contract and perform its obligations hereunder;
- (ii) its execution, delivery, and performance of this Contract have been duly authorized by, or are in accordance with, its organic instruments, and this Contract has been duly executed and delivered for it by the signatories so authorized, and it constitutes its legal, valid, and binding obligation;
- (iii) its execution, delivery, and performance of this Contract will not breach or violate, or constitute a default under any Contract, lease or instrument to which it is a party or by which it or its properties may be bound or affected; or
- (iv) it has not received any notice, nor to the best of its knowledge is there pending or threatened any notice, of any violation of any applicable laws, ordinances, regulations, rules, decrees, awards, permits or orders which would materially and adversely affect its ability to perform hereunder.

## SECTION 21 ADDITIONAL REPRESENTATIONS OF THE PARTIES

Section 21.1 WES hereby warrants, represents and promises that:

- (i) it shall use qualified subcontractors and delegates, licensed and bonded in this state to perform the work so subcontracted or delegated pursuant to the terms hereof;
- (ii) that it is financially solvent, able to pay its debts as they mature and possessed of sufficient working capital to complete the Work and perform its obligations under this Contract.

## SECTION 22 COMPLIANCE WITH LAW AND STANDARD PRACTICES

Section 22.1 WES shall perform its obligations hereunder in compliance with any and all applicable federal, state, and local laws, rules, and regulations, in accordance with sound engineering and safety practices, and in compliance with any and all reasonable rules of Customer relative to the Premises. WES shall be responsible for obtaining all governmental permits, consents, and authorizations as may be required to perform its obligations hereunder.

**SECTION 23     INDEPENDENT CAPACITY OF THE CONTRACTOR**

Section 23.1 The parties hereto agree that WES, and any agents and employees of WES, in the performance of this Contract, shall act in an independent capacity and not as officers, employees, or agents of the Customer.

**SECTION 24     NO WAIVER**

Section 24.1 The failure of WES or Customer to insist upon the strict performance of the terms and conditions hereof shall not constitute or be construed as a waiver or relinquishment of either party's right to thereafter enforce the same in accordance with this Contract in the event of a continuing or subsequent default on the part of WES or Customer.

**SECTION 25     SEVERABILITY**

Section 25.1 In the event that any clause or provision of this Contract or any part thereof shall be declared invalid, void, or unenforceable by any court having jurisdiction, such invalidity shall not affect the validity or enforceability of the remaining portions of this Contract unless the result would be manifestly inequitable or unconscionable.

**SECTION 26     COMPLETE CONTRACT**

Section 26.1 This Contract, when executed, together with all Schedules attached hereto or to be attached hereto, as provided for by this Contract shall constitute the entire Contract between both parties and this Contract may not be amended, modified, or terminated except by a written Contract signed by the parties hereto.

**SECTION 27     FURTHER DOCUMENTS**

Section 27.1 The parties shall execute and deliver all documents and perform all further acts that may be reasonably necessary to effectuate the provisions of this Contract.

**SECTION 28     APPLICABLE LAW**

Section 28.1 This Contract and the construction and enforceability thereof shall be interpreted under the laws of the State of California.

**SECTION 29     NOTICE**

Section 29.1 Any notice required or permitted hereunder shall be deemed sufficient if given in writing and delivered personally or sent by registered or certified mail, return receipt requested, postage prepaid, or delivered to a nationally recognized express mail service, charges prepaid, receipt obtained, to the address shown below or to such other persons or addresses as are specified by similar notice.

**TO WES:**

Willdan Energy Solutions  
Attention: Micah Chen  
2401 E. Katella Ave, #300  
Anaheim, CA 92806

**TO CUSTOMER:**

City of Brisbane  
Attention: Tom McMorrow  
50 Park Place  
Brisbane, CA 94005

**SECTION 30     HEADINGS**

Section 30.1 Headings and subtitles used throughout this Contract are for the purpose of convenience only, and no heading or subtitle shall modify or be used to interpret the text of any section.

**SECTION 31     BONDS**

Section 31.1 Any and all bonds obtained by WES for this project shall specifically exclude coverage for those portions of the Contract or the Work pertaining to design services and any other part of this Contract and the Contract Documents which do not relate specifically to construction management and supervision of Work for purchasing and installing of Equipment, or for work to be accomplished by the Customer.

**SECTION 32     INSURANCE**

Section 32.1 WES shall procure and maintain in effect insurance coverage in amounts not less than the following.

- (i) Workers' Compensation and Employer's Liability Insurance with limits of not less than \$1,000,000 per occurrence.

- (ii) Commercial General Liability Insurance for personal and bodily injury, including death, and property damage with limits not less than \$2,000,000 combined single limit each occurrence and \$4,000,000 general aggregate.
- (iii) Automobile Liability Insurance for personal and bodily injury, including death and property damage in the amount of not less than \$1,000,000 per occurrence.
- (iv) Professional Liability Insurance for damages incurred by reason of any negligent act, error or omission committed by WES in performing professional services with limits of not less than \$1,000,000 per claim and \$2,000,000 annual aggregate.
- (v) Builders All-Risk Insurance: WES, at Customer's expense, shall maintain "All Risk Insurance" for all equipment, and property obtained by or for WES which is to become a part of the work while such equipment and property is stored at the jobsite, at temporary locations, or while in transit to the project from such temporary locations. WES shall also be responsible for insuring Subcontractor's owned, rented, or borrowed equipment.


Section 32.2 WES will provide Customer with certificates of insurance evidencing coverage required above. Each certificate shall provide that the coverage shall not be canceled except with at least thirty days prior written notice to Customer, ten days' notice if cancellation is due to nonpayment of premium. Should this occur, WES shall procure and furnish to Customer prior to such effective date new certificates conforming to the above coverage requirement.

### SECTION 33 TERMINATION

Section 33.1 WES shall have the right at any time by written notice to the Customer, to terminate this Agreement with or without cause. In the event of such a termination for convenience, WES shall be entitled to full payment pursuant to the terms of SCHEDULE A.2 (DESIGN AND PRECONSTRUCTION SERVICES) for all Design and Preconstruction Services performed as of the date of termination. CUSTOMER waives any claim for costs, fees, losses directly or indirectly related to services described in SCHEDULE A.3 (CONSTRUCTION PHASE) in the event WES exercises this clause. CUSTOMER shall have the right to terminate for cause by written notice to WES.

IN WITNESS WHEREOF, and intending to be legally bound, the parties hereto subscribe their names to this Contract by their duly authorized officers on the date last below written.

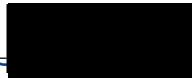
Willdan Energy Solutions (WES)

Signed  \_\_\_\_\_  
Name Anthony Sclafani \_\_\_\_\_  
Title Vice President of Engineering \_\_\_\_\_  
Date 7/25/2022 \_\_\_\_\_

California Contractors License No. 1065713

Willdan Energy Solutions  
2401 E. Katella Ave, #300  
Anaheim, CA 92806

City of Brisbane (Customer)

Signed  \_\_\_\_\_  
Name Clay Holstine \_\_\_\_\_  
Title City Manager \_\_\_\_\_  
Date 7/27/2022 \_\_\_\_\_

City of Brisbane  
50 Park Place  
Brisbane, CA 94005

## SCHEDULE A. SCOPE OF WORK

### 1. DESIGN-BUILD PROGRAM REQUIREMENTS:

#### a) General Scope and Intent:

- (1) Electrify the City of Brisbane's Community Pool ("Pool") heating system by installing heat pump heating equipment including site electrical upgrades ("new equipment") that may be required to accommodate the new equipment. The new equipment will be the primary heating source for the Pool, while the existing natural gas hot water heater will remain for supplemental heat when needed.
- (2) Provide grading, paving and excavation services that may be required to install a new electrical system to accommodate the new equipment. Coordinate with PG&E, including for example preparation of a new service application, engineering field meetings, and installation of upgraded service. Provide a new concrete pad for new heat pump heating equipment. Excavation scope includes excavation with standard soil conditions, free of rock, debris, water, or any other item which would prolong or complicate the excavation process.
- (3) Provide electrical and plumbing equipment, materials, and installation as required to install the new equipment as an operational system.
- (4) Furnish and install an operable heat pump water heating system that achieves a level of service comparable to the existing natural gas heating system. It is understood and acknowledged by both Customer and WES that usage of the existing natural gas heating system may still be required after installation of the heat pump units; particularly during cold weather extremes (defined as times when the outdoor air temperature is 52°F or lower) or if the pool temperature setpoint exceeds 80°F.
- (5) The target budget for the work is \$653,000. This includes the WES Contract Sum as well as any other costs or fees paid by Customer to entities other than WES.

#### b) Scope Exclusions:

- (1) Hazardous Materials Removal.
- (2) Any work related to the Wading Pool.
- (3) Environmental impact studies of any kind; including noise studies.
- (4) Trenching by any means other than backhoe; for example, if excavation of hard rock is required.

### 2. DESIGN AND PRE-CONSTRUCTION PHASE SERVICES:

#### a) General:

- (1) WES shall progress the design and engineering of the proposed new equipment consistent with the Design-Build Program Requirements. WES shall also provide the Customer with recommendations, consistent with the Design-Build Program Requirements, on constructability; availability of materials and labor; time requirements for procurement, installation and construction; and factors related to construction cost including, but not limited to, costs of alternative designs or materials, preliminary budgets, and possible cost reductions.

#### b) Engineering and Design: During the Design and Pre-Construction Phase Services phase, WES shall perform:

- (1) Conceptual design required to develop the scope and project solution that meets Design-Build Program Requirements as identified in SCHEDULE A.1. Conceptual design is to be reviewed and accepted by Customer, as with material submittals
- (2) Develop design that is sufficient to procure subcontractors and materials and develop the Contract Sum to be included in the Design-Build Amendment. Customer to review conceptual design before WES requests bids.

#### c) Preparation of the Design-Build Amendment:

- (1) When the Drawings and Specifications are sufficiently complete, WES shall prepare a Design-Build Amendment as outlined in Exhibit 1. This Amendment shall include:

- (a) Contract Sum
  - (b) Contract Time
  - (c) Construction Schedule
  - (d) Information Upon Which Amendment is Based, including:
    - (i) Scope of Work
    - (ii) Drawings
    - (iii) Specifications
    - (iv) Supplementary and other Conditions of the Contract
    - (v) Deviations from the Design-Build Program Requirements as identified in SCHEDULE A.1.
  - d) Supplemental and other Conditions of the Design and Pre-Construction Phase Services are attached as Exhibit 3. As used in that Exhibit, "City" is "Customer" and "WES" is "Consultant". If there are conflicts between the terms and conditions of the Design-Build Contract and the terms and conditions in Exhibit 3, the terms and conditions of Exhibit 3 shall prevail.
3. CONSTRUCTION PHASE:
- a) Construction Documents:
    - (1) As the Drawings and Specifications, while developed as described in Section 2 b) (2) above, may not be finished at the time the Design-Build Amendment is prepared, WES may provide, in the amendment, for further development of the Drawings and Specifications for construction. Such further development does not include such things as changes in scope, systems, kinds, and quality of materials, finishes or equipment, all of which, if required, shall be incorporated by Change Order.
  - b) Design-Builder's Responsibility:
    - (1) WES shall supervise and direct the Work, using the WES's best skill and attention. WES shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work under the Contract, unless the Design-Build Documents give other specific instructions concerning these matters.
    - (2) WES shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.
  - c) Labor and Materials
    - (1) Unless otherwise provided in the Design-Build Documents, WES shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent, and whether or not incorporated or to be incorporated into the Work.
  - d) Project Implementation Scope of Work:
    - (1) Final, more detailed scope of work will be specified in the Design-Build Amendment.
4. TIME:
- a) WES and Customer will work together to develop construction schedules that minimize disruption to Customer operations while allowing for completion of Scope of Work in a timely fashion. All construction will be completed in accordance with SECTION 4 (COMMENCEMENT DATE AND TERMS).

## SCHEDULE B. COMPENSATION TO WES

The Customer shall compensate and make payments to WES for both Design and Preconstruction Phase services and Construction Phase Services as follows:

1. DESIGN AND PRECONSTRUCTION PHASE SERVICES. The Customer shall compensate and make payments to WES for Design and Preconstruction Phase services as follows:
  - a) Sum of **\$66,785.00**.
2. CONSTRUCTION PHASE SERVICES. For WES's performance of Construction, Customer shall pay WES the Contract Sum after the execution of the Design-Build Amendment. The Contract Sum shall be identified in the Design-Build Amendment.
3. PAYMENT PROCEDURES
  - a) Design and Pre-construction Phase Payments:
    - (1) WES shall provide a monthly Application for Payment to Customer for Design and Preconstruction Phase services completed during the previous month. The Customer shall make payment in the manner and within the time provided in Section 6.3.
  - b) Construction Phase Payments:
    - (1) Progress Payments: WES shall provide a monthly Application for Payment to Customer for work completed during the previous month. The Customer shall make payment in the manner and within the time provided in Section 6.3. Until the total cumulative amount paid from Customer to WES equals \$118,394, less any other costs or fees paid by Customer to entities other than WES, Customer will pay one hundred percent (100%) of the amount due to WES on account of progress payments for each line item. After the total cumulative amount paid from Customer to WES equals \$118,394, less any other costs or fees paid by Customer to entities other than WES, Customer may cease making progress payments and WES will receive the balance of the Contract Sum as the payee of the PG&E On-Bill Finance disbursement check.
    - (2) Schedule of Values: WES will prepare and submit a complete schedule of values in advance of the initial Application for Payment. Projects listed as line items in the Schedule of Values will be treated as individual projects for the purposes of Progress Payments and Project Completion.
    - (3) Final payment application: After completing all project closeout requirements, Customer and WES shall execute the Certificate of Acceptance – Project Completion as presented in Exhibit 2; which shall not be unreasonably withheld. WES will then submit a final Application for Payment. Final payment to WES shall come from PG&E in the form of the On-Bill Financing (OBF) check disbursement. WES shall be the sole payee of the check.

**Failure of Payment:** If the Customer does not pay WES within seven days after the date established in Section 6.3, then WES may, upon written notice to the Customer, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the WES's reasonable costs of shut-down, delay and start-up, plus interest.



## SCHEDULE C. ADDITIONAL RESPONSIBILITIES

### 1. Customer Responsibilities

#### a) PG&E On-Bill Financing Program

- (1) Customer shall promptly comply with all PG&E On-Bill Financing (OBF) program requirements including, but not limited to:
  - (a) Sign and return the Loan Agreement to PG&E.
  - (b) Sign and return the Loan Modification Agreement (if necessary) to PG&E.
  - (c) Designate WES as the payee for the OBF check disbursement.

#### b) Equipment Noise Levels

- (1) WES shall provide equipment data sheets indicating operational noise levels of proposed equipment. WES shall make commercially reasonable efforts to facilitate physical inspection of similar equipment, operating in similar conditions to the proposed project, by Customer.
- (2) Customer shall be responsible for approving the use of the proposed equipment or alternatives via submittal. By providing this approval:
  - (a) Customer confirms that the proposed equipment is acceptable for use in the proposed location.
  - (b) Customer confirms that the proposed equipment complies with Brisbane Municipal Code Chapter 8.28 – Noise Control and related sections; or
  - (c) Customer agrees that the work is exempt per Brisbane Municipal Code 8.28.050.C; or
  - (d) Customer assumes full responsibility for any and all noise related issues associated with new equipment. Under no circumstances will WES be responsible for additional engineering or construction required to document or abate any noise related issues without receiving compensation.

#### c) Data and Records

- (1) Customer hereby warrants, represents and promises that it has provided or shall provide timely to WES, all records relating to energy usage and energy-related maintenance of Premises requested by WES and the information set forth therein is, and all information in other records to be subsequently provided pursuant to this Contract will be true and accurate in all material respects.
- (2) Providing descriptions of property boundaries and existing service and utility lines. This includes any existing surveys describing underground utilities or concealed conditions at the project site.
- (3) As-built and record drawings of existing structures at the project site.
- (4) Existing environmental requirements or studies applicable to the project site.

#### d) Retained Equipment

- (1) Customer shall be responsible for, and designate the location and storage for, any equipment and materials that should not be disposed of off-site.

#### e) Differing Site Conditions

- (1) The conditions at the site are the property of the Customer regardless of whether or not they could be identified by an investigation or exploration conducted according to the professional standard of care. A “Differing Site Condition” is a subsurface, hidden, latent, or physical condition at a project site/building not revealed by the site exploration, site investigation, or other information provided to the Customer and which cannot be reasonably anticipated. Special risks occur whenever engineering is applied to identifying site/building conditions. Even a comprehensive investigation according to the professional standard of care may not detect all subsurface or site/building conditions. WES shall not be liable for site/building conditions which could not be identified by such an investigation or exploration. Accordingly, the Customer agrees to indemnify, including all costs and fees, and hold WES harmless from all claims for Differing Site Conditions.

## f) Site Preparation

- (1) Customer is responsible for removal and relocation of the shipping container currently being used as temporary storage that is currently located within the proposed project footprint.
- (2) Providing for scheduling and shutdown of affected areas.

## g) Customer Information Technology Responsibilities

- (1) Customer is responsible for providing network connection(s) for wireless connection of proposed demand-response capable controllers/controls and required internet accessibility.
- (2) Customer shall engage its IT representative familiar with the Customer's network to work with WES and its subcontractors to establish internet connectivity, at no cost to the project, to assure proper operation of the proposed demand-response capable controllers/controls

## h) Maintenance

- (1) Customer is responsible for performing all maintenance on new work as recommended in the manufacturer's written instructions. This includes maintaining water chemistry within acceptable parameters and maintaining adequate records to pursue any warranty claims if required.
- (2) Customer is responsible for maintaining groundskeeping around the new equipment to ensure proper operation.
- (3) WES is not responsible for performance of any maintenance on equipment or premises.
- (4) Pursuing repairs or replacement of new equipment covered by manufacturer warranty after the warranty period of this agreement expires (refer to SECTION 9). After this period, WES is not obligated to provide for repair or replacement of work under warranty. Customer shall seek repair or replacement from manufacturer and arrange for installation labor.

## 2. WES Responsibilities

## a) System Start-up

- (1) WES will perform start-up of new equipment in accordance with manufacturer's written instructions.

## b) Operating parameters of installed equipment

- (1) WES will provide operating parameters in the Operation and Maintenance Manuals. These manuals will be provided to Customer prior to Project Completion.
- (2) Operation and Maintenance Manuals will include as-built drawings of all new equipment. As-builts will also be included in digital format.

## c) Training Requirements

- (1) WES will provide four (4) hours of dedicated training to City maintenance staff prior to Project Completion to ensure proper understanding of installed systems. The training may be provided in-person and on-premises, or remotely via Webex, Microsoft Teams, or equivalent.

## **EXHIBIT 1. DESIGN-BUILD AMENDMENT (DRAFT, TO BE PROVIDED AT THE CONCLUSION OF THE DESIGN AND PRECONSTRUCTION PHASE)**

This Amendment is incorporated into the accompanying Design-Build Contract dated the 25<sup>th</sup> day of July, 2022, (the "Agreement") for the following:

**PROJECT:** Brisbane Community Pool Heating System Electrification, 2 Solano St., Brisbane, CA 94005

**THE CUSTOMER:** City of Brisbane, 50 Park Place, Brisbane, CA 94005

**THE DESIGN-BUILDER:** Willdan Energy Solutions, Inc.

Customer and Design-Builder hereby amend the Agreement as follows.

### **TABLE OF ARTICLES**

1. CONTRACT SUM
2. CHANGES IN THE CONTRACT SUM
3. CONTRACT TIME
4. CONSTRUCTION SCHEDULE
5. INFORMATION UPON WHICH AMENDMENT IS BASED

#### **1. CONTRACT SUM**

##### **a) Stipulated Sum:**

- (1) The Stipulated Sum for Construction Phase Services shall be (\$XXX,XXX), subject to authorized adjustments as provided in the Design-Build Documents.

#### **2. CHANGES IN THE CONTRACT SUM:**

- a) Any overage in the cost of the Scope of Work in SCHEDULE A (SCOPE OF WORK) shall be the responsibility of WES.
- b) Changes to the contract sum are warranted for, but are not limited to: Hazardous materials, additions or modifications to the Scope of Work, and Differing Site Conditions as defined in SCHEDULE C. All additional costs associated with these items shall be the responsibility of Customer.

#### **3. CONTRACT TIME**

- a) The date of Substantial Completion upon which this proposal is based is [TBD].
- b) The date of Final Completion is [TBD].
- c) Weather disruptions, documented availability of necessary equipment, remediation of hazardous materials, and other delays beyond the control of WES shall not count toward the construction timeframe in SECTION 4 (COMMENCEMENT DATE AND TERMS).

#### **4. CONSTRUCTION SCHEDULE**

- d) [TBD]

#### **5. INFORMATION UPON WHICH AMENDMENT IS BASED**

##### **a) Scope of Work**

- (1) [TBD]

##### **b) Drawings**

- (1) [TBD]
- c) Specifications
  - (1) [TBD]
- b) Supplementary and other Conditions of the Contract
  - (1) [TBD]
- c) Deviations from the Design-Build Program Requirements as identified in SCHEDULE A.3:
  - (1) [TBD]

This Amendment to the Agreement entered into as of the day and the year last written below.

Willdan Energy Solutions (WES)

City of Brisbane (Customer)

Signed \_\_\_\_\_  
Name Anthony Sclafani\_\_\_\_\_  
Title Vice President of Engineering\_\_\_\_\_  
Date \_\_\_\_\_

Signed \_\_\_\_\_  
Name \_\_\_\_\_  
Title City Manager \_\_\_\_\_  
Date \_\_\_\_\_

California Contractors License No. 1065713

Willdan Energy Solutions  
2401 E. Katella Ave, #300  
Anaheim, CA 92806

City of Brisbane  
50 Park Place  
Brisbane, CA 94005

**EXHIBIT 2. CERTIFICATE OF ACCEPTANCE – PROJECT COMPLETION**

This is to certify that a final inspection of the Project has been conducted jointly by WES and the City of Brisbane, California, and that the parties have determined that the Project has been fully completed in accordance with the Contract Documents. All guarantees and warranties that have not commenced previously shall commence as of the date last written below.

Customer accepts the Project as being fully completed and assumes responsibility for maintenance, custodial care, and utilities for the premises. WES remains responsible to correct errors and omissions discovered subsequent to the execution of this document and to respond to claims made under applicable warranties.

Willdan Energy Solutions (WES)

City of Brisbane (Customer)

Signed \_\_\_\_\_

Signed \_\_\_\_\_

Name   Anthony Sclafani\_\_\_\_\_

Name   \_\_\_\_\_

Title   Vice President of Engineering\_\_\_\_\_

Title   Public Works Director/City Engineer\_\_

Date   \_\_\_\_\_

Date   \_\_\_\_\_

California Contractors License No. 1065713

Willdan Energy Solutions  
2401 E. Katella Ave, #300  
Anaheim, CA 92806

City of Brisbane  
50 Park Place  
Brisbane, CA 94005

**EXHIBIT 3. SUPPLEMENTAL AND OTHER CONDITIONS OF THE DESIGN AND PRE-CONSTRUCTION PHASE SERVICES**



5. **Maintenance and Inspection of Records.** Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, timecards, and other records or documents relating to charges for services or expenditures charged to City solely and exclusively related to this Agreement, for a minimum of three years from the date of the City's final payment to Consultant for the Park Place Project and for a minimum of three years from the date of any payment for Other Projects. Consultant shall make the same available to City or its authorized representatives for inspection and audit, at any time during regular business hours, upon written request by City. The right of inspection shall include the right to make extracts and copies of the documents solely and exclusively related to this Agreement.

7. **Correction of Work.** Consultant shall promptly correct any defective, inaccurate or incomplete tasks, deliverables, services or other work, without additional cost to the City. The City's acceptance of Consultant's services shall not relieve Consultant from the obligation to correct subsequently discovered defective, inaccurate or incomplete services.

8. **Ownership of Documents.** All plans, studies, documents, and other written materials that Consultant prepares in the course of providing services, except working notes and internal documents, shall become the City's property upon the City's payment for the services/work associated with such materials. City shall have the right to use such materials in its sole discretion without further compensation to Consultant or to any other party. Consultant shall provide, at Consultant's sole expense, such written materials upon City's written request. Consultant shall not be responsible for any reuse of such documents by City which is unrelated to the Project and City agrees to indemnify, defend, and hold Consultant and subcontractors harmless against any claims of liability arising from such reuse or modification made to the documents by City

9. **Independent Contractor.** Consultant is, and at all times shall remain, an independent contractor, and not agent, officer or employee of City. As such an independent contractor, neither Consultant nor any of Consultant's agents or employees shall be entitled



to any salary, fringe benefits, worker's compensation, retirement contributions, sick leave, insurance or other benefit or right connected with employment by City, or any compensation other than as provided in this Agreement. Consultant shall have no power or authority to bind City to any contract or otherwise to incur any obligation or liability for, or on behalf, or in the name of City.

10. **Licenses.** Consultant represents and warrants to City that Consultant has all licenses, permits, qualifications, insurance and approvals of whatsoever nature that are legally required of Consultant to practice its profession. Consultant shall, at its sole cost and expense, keep and maintain such licenses, permits, qualifications, insurance and approvals in full force and effect at all times during the term of this Agreement. Consultant shall maintain a City of Brisbane business license.

11. **Compliance with Laws.** Consultant shall use the standard of care in its profession to comply with all applicable federal, state and local laws, codes, ordinances and regulations in connection with providing its services under this Agreement.

12. **Indemnity.** Consultant shall indemnify, defend, and hold City, its officers, officials, employees and volunteers, harmless from and against any and all direct claims, losses, damages, injuries, expenses and liabilities, including the reimbursement of attorney's fees, to the extent caused by the negligent performance or willful misconduct by Consultant of its services under this Agreement or its failure to comply with any of the its obligations contained in this Agreement, and City shall not be liable for any negligent acts or omissions or willful misconduct of Consultant. The duty to defend obligation of the Consultant shall be limited to the proportionate percentage of any claim arising directly from Services performed by the Consultant under this Agreement.

13. **Insurance.** Consultant, at its own expense, shall procure and maintain, for the duration of this Agreement, insurance policies, which satisfy the following requirements:

(a) Type of policies and coverage:

- (1) *General Liability Coverage.* Consultant shall maintain commercial general liability insurance in an amount not less than \$1,000,000 per occurrence for bodily injury, personal injury and property damage.
- (2) *Automobile Liability Coverage.* Consultant shall maintain automobile liability insurance in an amount not less than \$1,000,000 combined single limit for each occurrence, for bodily injury and property damage.
- (3) *Workers' Compensation and Employer's Liability Coverage.* Consultant shall maintain workers' compensation insurance as required by the State of California and employer's liability insurance in an amount not less than \$1,000,000 per occurrence, for any and all persons employed by Consultant in connection with the performance of services under this Agreement.
- (4) *Professional Liability Coverage.* Consultant shall maintain professional errors and omissions liability coverage in an amount not less than \$1,000,000 per claim, covering negligent acts and errors or omissions.

- b) Endorsements: Each general liability policy shall contain the following provisions:
- (1) The City, its officers, officials, employees, agents and volunteers are to be included as additional insureds as respects: liability arising out of activities performed by Consultant solely and exclusively under this Agreement; products and completed operations of Consultant solely and exclusively provided under this Agreement; premises owned, occupied or used by Consultant; or automobiles, leased, hired or borrowed by Consultant.
  - (2) For any claims related to the services being provided by Consultant solely and exclusively under this Agreement, Consultant's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by City, its officers, officials, employees, agents or volunteers shall be excess of Consultants' insurance and shall not contribute with it.
  - (3) Consultant shall provide City with thirty (30) days prior written notice by email in the event any of the insurance coverage is canceled..
- c) Acceptability of Insurers. Insurance is to be placed with insurers having a current A.M. Best rating of no less than A:VII, unless otherwise approved by City in writing.
- d) Verification of coverage. Consultant shall provide certificates of insurance including the City as additional insured as evidence of the insurance coverage required by this Agreement. Certificates of such insurance shall be filed with City before commencement of work by Consultant. At the request of City, Consultant shall provide complete, certified copies of all required insurance policies required by this Agreement.

14. **Notices.** Any notices required or permitted to be given under this Agreement shall be in writing and shall be either personally delivered or sent by certified mail, return receipt requested, addressed to the other party as follows:

To City

City of Brisbane  
50 Park Place  
Brisbane, CA 94005  
Attn.: Public Works Director

To Consultant

Willdan Energy Solutions  
Attention: Micah Chen  
2401 E. Katella Ave, #300  
Anaheim, CA 92806

- 15 . **Resolution of Disputes.** If any dispute between the parties concerning this Agreement arises, the parties shall in good faith attempt to resolve it through mediation before commencing any legal action.

16. **Termination of Agreement.** This Agreement may be terminated immediately by either party, effective upon written notice, should the other party commit any material default in the performance of its obligations hereunder. This Agreement may be terminated by either party, for any reason, upon thirty (30) day's prior written notice to the other party. In the event this Agreement is terminated by City, Consultant shall be compensated for all services performed to the date of termination.

17. **Equal Opportunity Employment.** Consultant warrants that it is an Equal Opportunity Employer and shall comply with applicable regulations governing equal opportunity employment.