Coastal Development Permit Application for

Morro Bay New Water Reclamation Facility Project

Submitted to:
California Coastal Commission
Central Coast District Office
725 Front Street, Suite 300
Santa Cruz, CA 95060-4508

Submitted by:
City of Morro Bay
Public Works Department
595 Harbor Street
Morro Bay, CA 93442

February 14, 2019

Morro Bay New Water Reclamation Facility

Project Description

Project Location

The City of Morro Bay (City) is a small seaside town with strong historical roots in the fishing industry located along the central coast of California in San Luis Obispo County (County). The City was incorporated in 1964 and is a thriving destination for visitors, offering natural beauty, outdoor recreation, a working waterfront, a creative community, and a welcoming atmosphere. The City is located at the crossroads of Highway 1 and Highway 41, approximately 12 miles north of the city of San Luis Obispo, and approximately six (6) miles south of the unincorporated community of Cayucos (Figure 1). The City covers roughly five (5) square miles, and consists of varied topography ranging from steep mountain terrain to coastal beaches. The service area for the City is shown in Figure 2.

Portions of the proposed project are located within the City limits, while the remainder is within an unincorporated area of the County. The proposed Water Reclamation Facility (WRF) site is located in an unincorporated portion of the County adjacent to the City, while the remaining proposed infrastructure is located in the City itself. The WRF would be constructed on an approximately 10- to 15-acre area within a 396-acre parcel that is located along Highway 1, north of the northern terminus of South Bay Boulevard (Figure 3). The City is currently in the process of purchasing a portion of a 27.6-acre portion of the larger property, and will applying to the Local Agency Formation Commission (LAFCo) to annex the WRF site. The remainder of the 396-acre parcel will be part of the City's LAFCo application for potential inclusion in the City's Sphere of Influence (Figure 3). The Sphere of Influence request was stipulated in the terms of a Memorandum of Understanding (MOU) between the City and Tri-W Enterprises, Inc. (Tri-W) in October 2016. Tri-W is the current owner of the property in question.

The collection system modifications include two lift stations: one adjacent to the existing WWTP and one located at the corner of Highway 1 and Main Street on a City-owned parcel. In addition to the two lift stations, multiple pipelines running along an alignment between the existing WWTP and WRF site are also included (Figure 4). The alignment shown in Figure 5 includes: two forcemain pipelines to convey raw wastewater from the existing WWTP to the WRF site, a waste discharge pipeline to convey brine or peak wet weather flows to the ocean outfall, and a treated water forcemain pipeline to convey purified water to one of two groundwater injection locations.

The existing Morro Bay-Cayucos Wastewater Treatment Plant (WWTP), which is jointly owned and operated by the City and the Cayucos Sanitary District (CSD), was built in 1954, and is located at 160 Atascadero Road in the City. The existing WWTP will be decommissioned once the City's new facility and a similar facility being built by the CSD are online.

Project Background

The U.S. Environmental Protection Agency (USEPA) or the State Water Resources Control Board (SWRCB) regulates municipal wastewater discharges into the Pacific Ocean through National Pollutant Discharge Elimination System (NPDES) Permits in accordance with Section 402 of the federal Clean Water Act. USEPA or the California Regional Water Quality Control Boards issue (or reissue) NPDES permits to

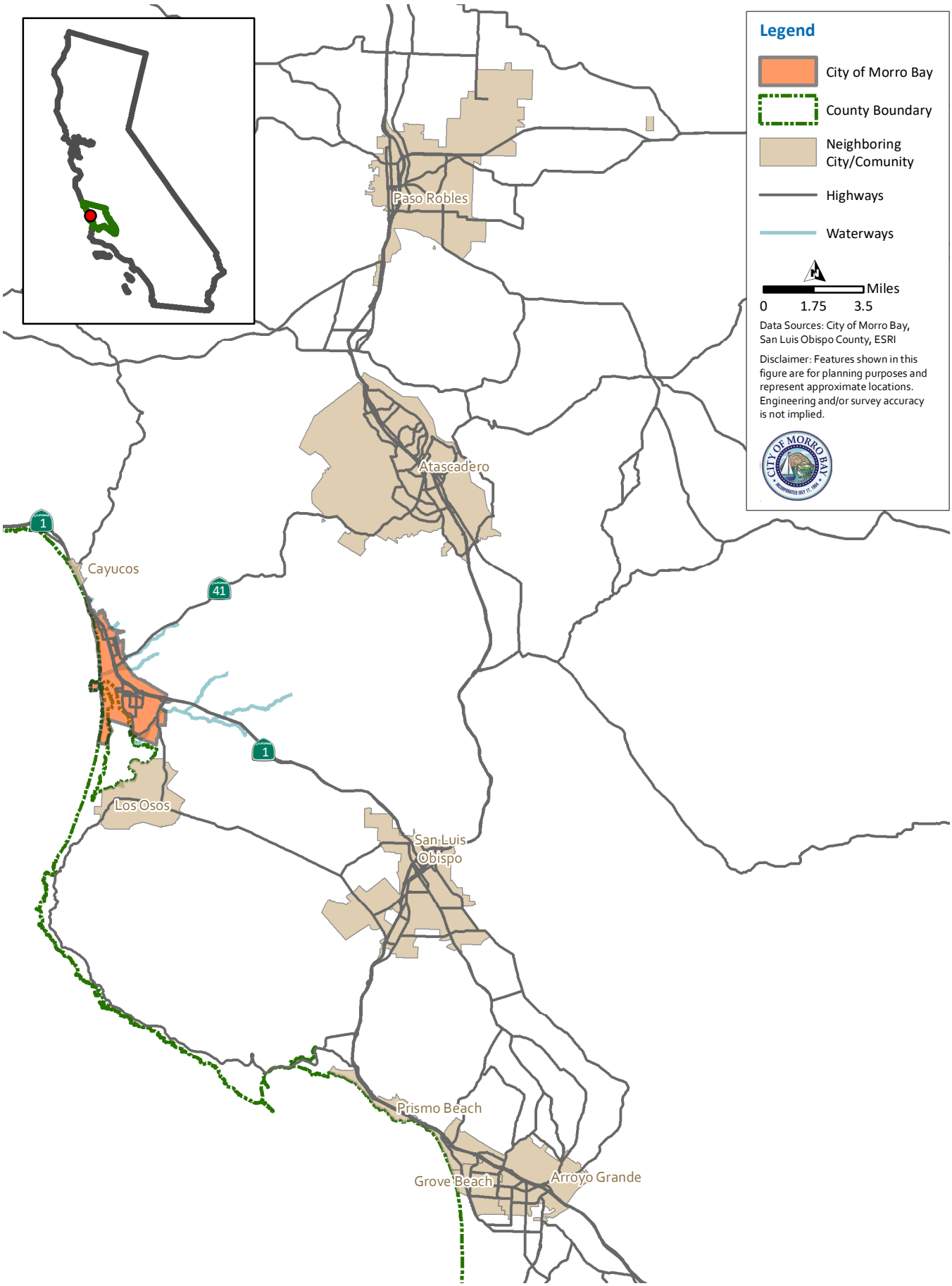


Figure 1.1 Regional Location Map

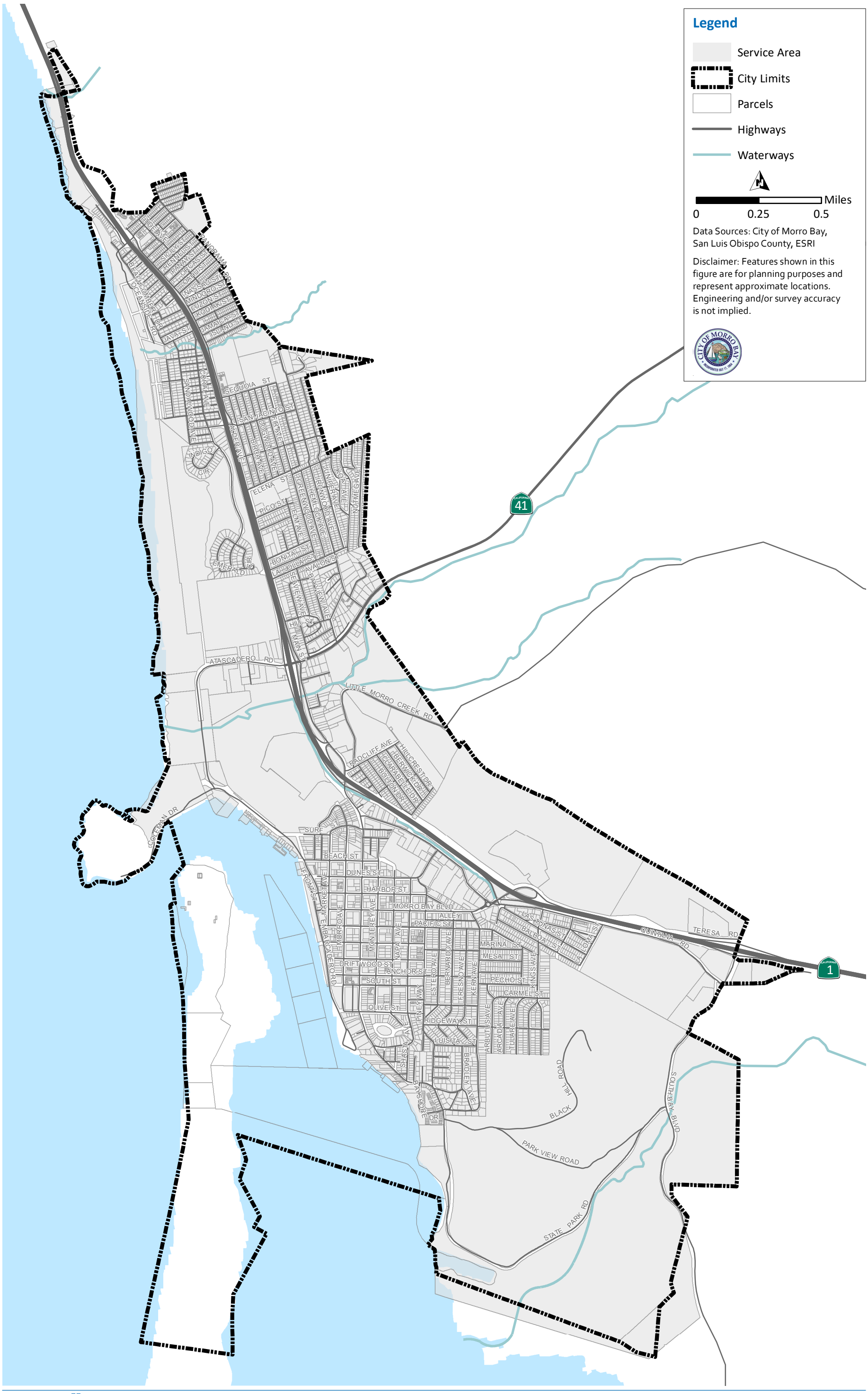
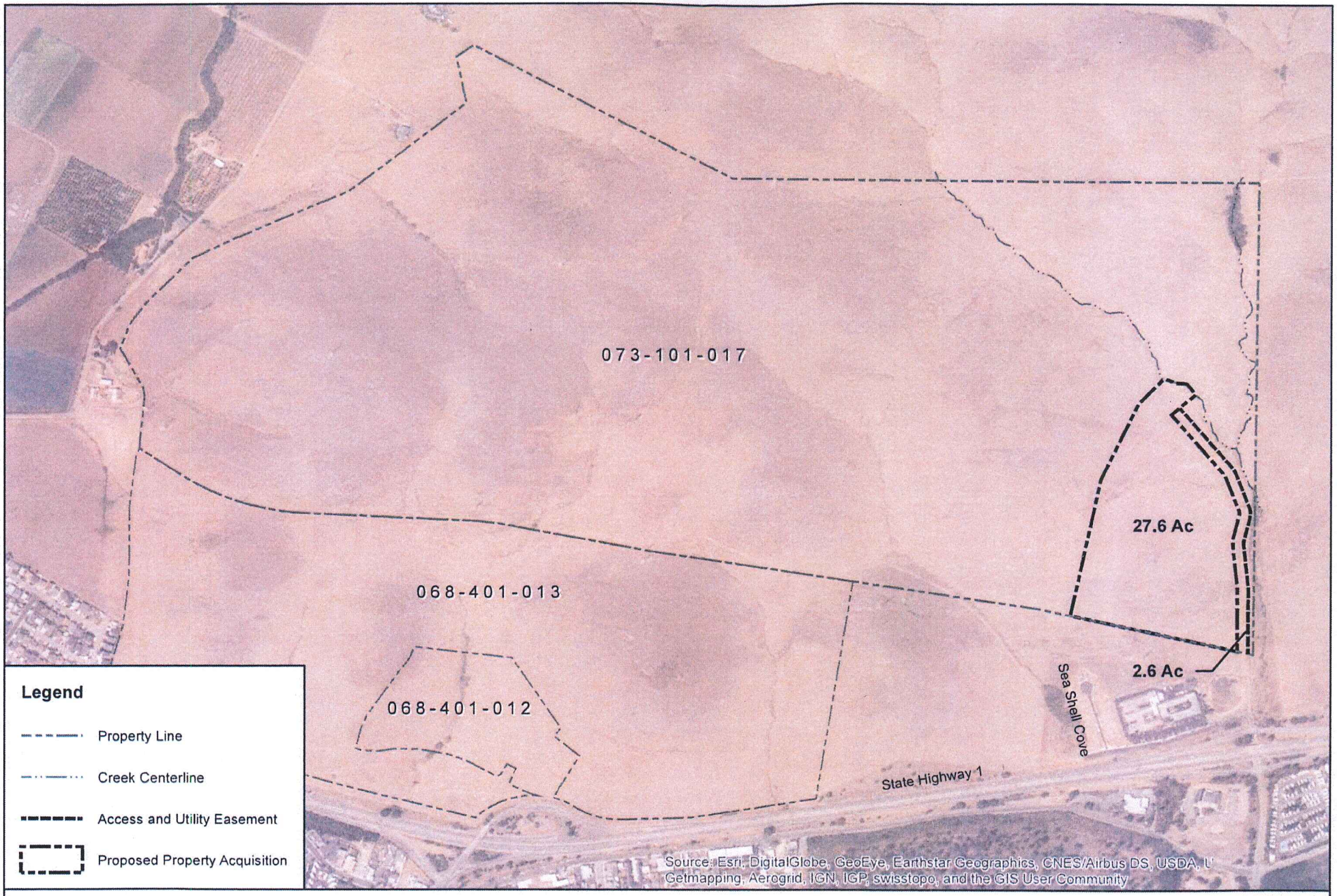


Figure 1.2 Service Area



CITY OF MORRO BAY WATER RECLAMATION FACILITY PROJECT

Exhibit A-2

1 in = 800 feet

0 400 800

Figure 4: WRF Offsite Pipelines
West Alignment

Figure 5: WRF Conveyance Facilities
West Alignment

wastewater dischargers every five years. The existing Morro Bay-Cayucos Wastewater Treatment Plant (WWTP) serves the City and the community of Cayucos, and is owned and operated jointly by the City and the Cayucos Sanitary District (CSD). Prior to the current 2017 NPDES Permit No. CA0047881 and Waste Discharge Requirements (WDR) Order No. R3-2017-0050, the WWTP discharged to the Pacific Ocean under NPDES Permit No. CA0047881 and WDR Order No. R3-2008-0065, which was a Clean Water Act Section 301(h) modified NPDES permit that waived full secondary treatment requirements for biochemical oxygen demand (BOD) and total suspended solids (TSS). The existing WWTP has operated under that modified permit since its last upgrade in 1984.

On July 7, 2003, the City submitted an application for renewal of NPDES permit to USEPA and Central Coast Regional Water Quality Control Board (RWQCB), which expired in March 2014. The final renewed discharge permit was adopted by the RWQCB on December 7, 2017. The 301(h) modifications were no longer included in the 2017 renewal. On June 27, 2018, the City received a time schedule order (TSO) from the RWQCB for compliance with full secondary treatment requirements. The TSO requires full compliance with the final effluent requirements by February 28, 2023.

Based on an agreement with the RWQCB, the City and CSD had previously pursued bringing the existing facility to full secondary treatment in place of continued requests for a 301(h) modified discharge permit. The agreement allowed the City and CSD to pursue secondary treatment on a schedule that was mutually agreed upon by both agencies and the RWQCB. In February 2015, the RWQCB stated the new facility was expected to be fully operational by 2021 in order to meet its goals.

The existing WWTP is located in the Coastal Zone. Consequently, when an effort was made to upgrade the existing WWTP at its existing location, a Coastal Development Permit (CDP) was required from the California Coastal Commission (CCC). In January 2013, the CCC denied the City and CSD's project application for the CDP to demolish the existing WWTP and construct a new treatment facility on the same site. The basis for that denial included the CCC's assessment the new facilities would be inconsistent with the City's Local Coastal Plan (LCP) zoning provisions, failed to avoid coastal hazards, failed to include a sizeable reclaimed water component, and that the project location was within an LCP-designated sensitive view area.

Following this denial, the City began planning and pursuing alternative locations for a new upgraded WWTP. From 2013 to the beginning of 2014, the community defined goals to guide the planning and design process for the new WRF. Public outreach was conducted through stakeholder meetings, stakeholder interviews, and public workshops which gathered input related to cost, environmental concerns, engineering and design issues, site-related issues, and logistics and process issues. Through that public outreach program, criteria were determined for the siting process, and various studies were conducted to examine the suitability of each site. Some of the criteria included, but were not limited to, compliance with NPDES Permit requirements, distance to the City sewer collection system, avoidance of coastal hazards, minimal visual impacts, and sustainable use of public resources.

Five comparative siting studies were performed between 2013 and 2017. Building on the results of a 2011 Rough Screening Evaluation, 17 study sites were first examined for the potential location of the WRF. By December 2013, it was narrowed down to seven study sites: Chevron, Morro Valley, Chorro Valley, California Men's Colony (CMC) Wastewater Treatment Plant site, Power Plant – southern portion, Panorama, and Giannini. The City Council narrowed the sites down to focus on the Morro Valley, Chorro Valley, and Giannini Property in May 2014. Within those three general areas, there were four specific

locations: Rancho Colina and Righetti (both in the Morro Valley), Tri-W (now called the "South Bay Boulevard" site in Chorro Valley), and Giannini. It should be noted there was also a feasibility analysis performed for a regional facility at the CMC site that could serve the needs of the City and partner agencies. However, this alternative was concluded not to be feasible.

In April 2015, the CSD decided to pursue an independent path from the City to build its own new wastewater facility, and unilaterally adopted a resolution to that effect on April 30, 2015. From that point forward, the City's efforts have been focused on finding a suitable site to build a WRF to serve only its customers, exclusive of CSD customers. Thus, current plans are for the City and CSD to build separate treatment facilities and, once both treatment facilities are operational, decommission the jointly-owned WWTP.

In April 2016, the City Council directed further investigation of these and other potential sites to address a variety of neighborhood compatibility and cost concerns. After the 2016 comparative study was completed, the Tri-W site, which became known as the South Bay Boulevard site, was found to be the final site preference, and preliminary planning efforts began at that location based on City Council direction at that time.

The City realized that relocation of the WWTP presented an opportunity to design and construct a project that would not only meet the minimum wastewater discharge requirements, but also provide recycled water for the community. Recycled water, in addition to other project objectives, are reflected in the goals for the WRF project adopted by the City Council in 2016:

- Produce tertiary, disinfected water in accordance with Title 22 requirements for unrestricted urban irrigation in a cost-effective manner for all ratepayers.
- Design to be able to produce reclaimed wastewater for potential users, which could include public and private landscape areas, agriculture, or groundwater recharge. A master water reclamation plan should include a construction schedule and a plan for bringing on recycled water customers in a cost-effective manner.
- Allow for onsite composting.
- Design for energy recovery.
- Design to treat contaminants of emerging concern in the future.
- Design to allow for other possible municipal functions (i.e., City Corporation Yard on site, as well as other uses such as a public park and education center).
- Ensure compatibility with neighboring land uses.
- Have a new WRF operational within five years.

In order to assess potential recycled water opportunities, the City completed the Draft Master Water Reclamation Plan (MKN, 2017). The Draft Master Water Reclamation Plan evaluated several different recycled water options including agricultural irrigation and exchange, urban reuse, indirect potable reuse (IPR), streamflow augmentation, and creation of a seawater intrusion barrier. As a result of the evaluation, the study identified IPR as the recommended recycled water alternative. While the cost for agricultural exchange and IPR are similar, IPR presents the greatest water supply benefit for the City.

Project Description and Key Components

The proposed project would include new wastewater treatment facilities at the WRF site that would allow the City to meet the SWRCB requirements and timeline for upgrading to at least full secondary treatment, and would exceed this minimal requirement through development of an Advanced Water Treatment Facility (AWTF). The project also includes various conveyance facilities (pipelines and two pump stations) for bringing wastewater to the WRF. During operation, advanced treated recycled water produced at the WRF would be used for IPR via groundwater injection, which would be conveyed via additional pipelines from the WRF site to the wellfield. Brine produced by the treatment process will be discharged through the existing ocean outfall. These components are described more fully below. Implementation of the proposed project would allow for the decommissioning of the existing WWTP, once CSD's new and independent wastewater facility is completed and operational.

Water Reclamation Facility

The WRF would provide a minimum of tertiary treatment to dry weather wastewater flows generated within the City's service area, and the majority of this flow would be further treated for IPR standards for a groundwater replenishment reuse project (GRRP) using subsurface application. The WRF will be sized to treat a maximum average annual daily flow rate of 0.97 million gallons per day (MGD) and a peak wet weather flow of 8.14 MGD. The facility design includes preliminary (influent screening and grit removal) and biological and tertiary treatment via a membrane bioreactor (MBR). Advanced treatment includes reverse osmosis (RO) and ultraviolet (UV) disinfection with an advanced oxidation process (AOP). Residuals from the biological and tertiary processes will be mechanically dewatered and disposed of off-site.

The City is proceeding with a design-build (DB) procurement process for the WRF. One reason for the City's decision to pursue DB is to allow for innovation by the DB teams proposing on the project. The City experiences high peak flows during wet weather events due to inflow and infiltration (I/I) throughout the collection system. While *OneWater Morro Bay*, the City's comprehensive infrastructure planning study completed in 2018, has identified improvements to the City's collection system to reduce I/I, the new WRF must be designed to treat current peak wet weather flows. The original concept proposed in the DB Request for Proposals (RFP) included the construction of a large concrete basin to equalize raw wastewater flows. The selected team, a joint venture between Filanc and Black & Veatch, proposed the use of an auxiliary treatment system for wet weather flows (Stormwater Adaptive Filtration Equipment [SAFE System]). This approach will allow the City to meet the treatment requirements in WDR Order No. R3-2017-0050, eliminates raw wastewater equalization, and significantly reduces the cost of the WRF project. During wet weather, instantaneous flows in excess of 1.88 MGD will be diverted through a 10-micron filter and combined with the treated effluent from the MBR. This combination of the MBR and SAFE System will comply with numerical effluent limitations and criteria that are fully protective of the receiving water body. The SAFE System also has the added benefit of stabilizing the operation of the MBR and ensuring effectiveness of the biological treatment process.

A process flow diagram for the WRF is provided in Figure 6. A site plan for the WRF is included in Figure 7.

Figure 6: Process Flow Diagram

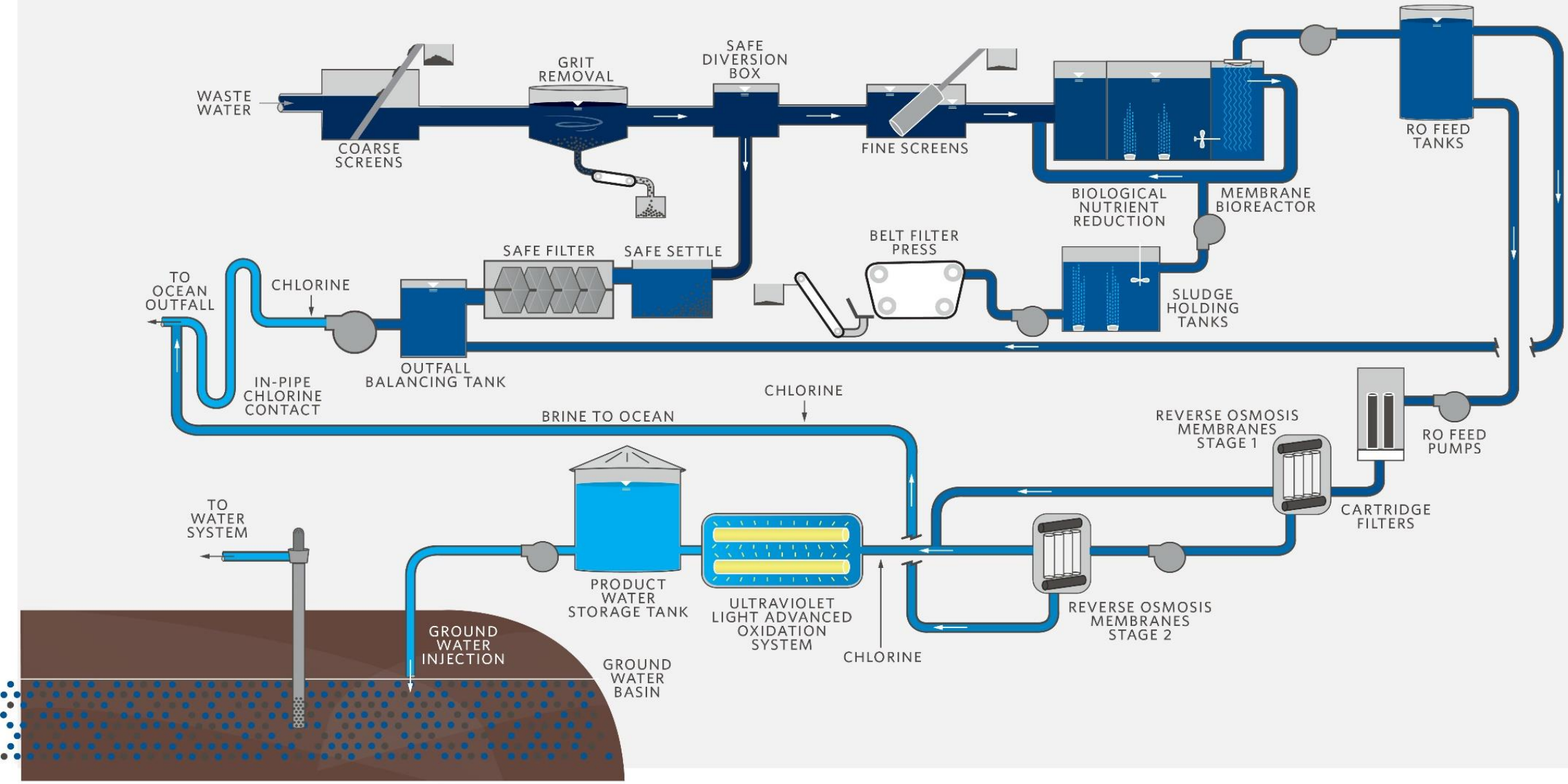
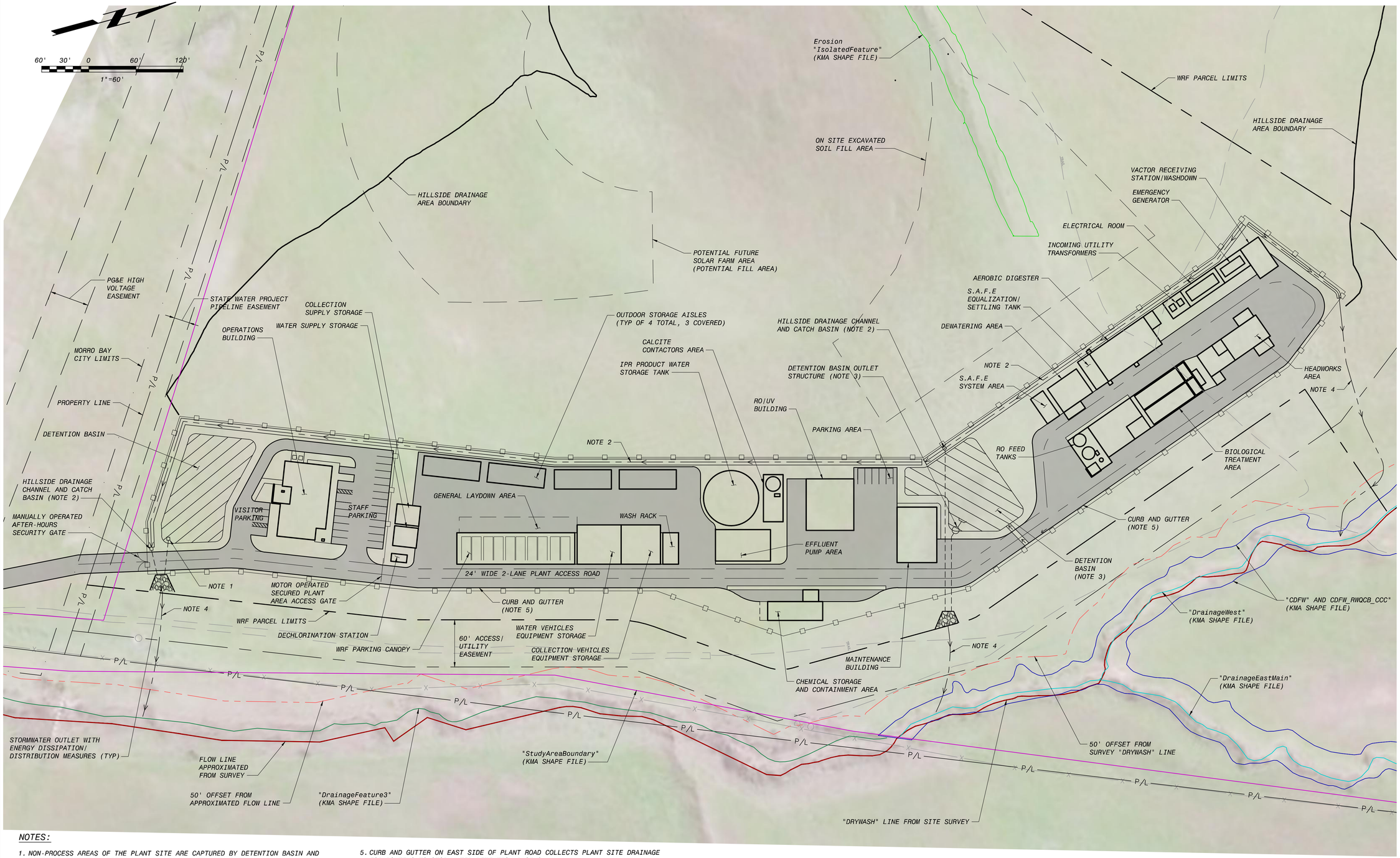


Figure 7: WRF Site Plan



NOTES:

1. NON-PROCESS AREAS OF THE PLANT SITE ARE CAPTURED BY DETENTION BASIN AND RELEASED DIRECT TO SREAM CHANNEL VIA OUTLET STRUCTURE.
2. HILLSIDE DRAINAGE IS CAPTURED IN SWALE AND ROUTED VIA CULVERT TO STREAM CHANNEL.
3. SITE PROCESS AREA STORM DETENTION BASIN OUTLET CONTROL AND PUMPING. PLANT PROCESS AREA DRAINAGE IS CAPTURED IN BASIN WHICH HAS FACILITIES TO PUMP FIRST FLUSH DRAINAGE AS STANDARD OPERATING PROCEDURE TO HEAD OF WASTEWATER TREATMENT PLANT FOR TREATMENT.
4. DRAINAGE ROUTED TO STREAM CHANNEL OVERLAND VIA EARTHEN SWALE. PLANTINGS AND/OR RIP RAP WILL BE FURNISHED AS NEEDED TO PREVENT EROSION
5. CURB AND GUTTER ON EAST SIDE OF PLANT ROAD COLLECTS PLANT SITE DRAINAGE FOR ROUTING TO STORMWATER DETENTION BASINS.

PRELIMINARY - NOT FOR CONSTRUCTION

NO.	BY	CHK	APP	REVISIONS AND RECORD OF USE	DATE

JOINT VENTURE
FILANC
BLACK & VEATCH

CITY OF MORRO BAY
MORRO BAY WRF

CIVIL
SITE FACILITIES
ARRANGEMENT PLAN

DESIGNED: EVB
DETAILED: SMM
CHECKED:
APPROVED:
DATE: FEB 2019

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Conveyance Facilities

The offsite conveyance pipelines are comprised of two new forcemains to convey raw wastewater from the existing collection system and proposed lift stations to the WRF site, a recycled water pipeline to convey treated water from the WRF to injection wells, and a waste discharge pipeline to convey brine or treated wet weather flows to the ocean outfall. Brine and treated wet weather flows will be compliant with the California Ocean Plan discharge requirements. The recommended pipeline route is approximately 3.6 miles and travels east along Atascadero Road and south in California Department of Transportation (Caltrans) right-of-way (ROW) around Lila Keiser Park before following an existing parkway/bike path across Morro Creek. It continues southeast along the Main Street right-of-way until it joins and follows Quintana Road. Continuing in a southeast direction on Quintana Road, the pipelines pass through street crossings of Kennedy Way, Morro Bay Boulevard then Kings Avenue, Bella Vista Drive, and La Loma Avenue to South Bay Boulevard. The proposed alignment then runs north on South Bay Boulevard, crosses under Highway 1 at the interchange overpass and continues north towards the proposed WRF site.

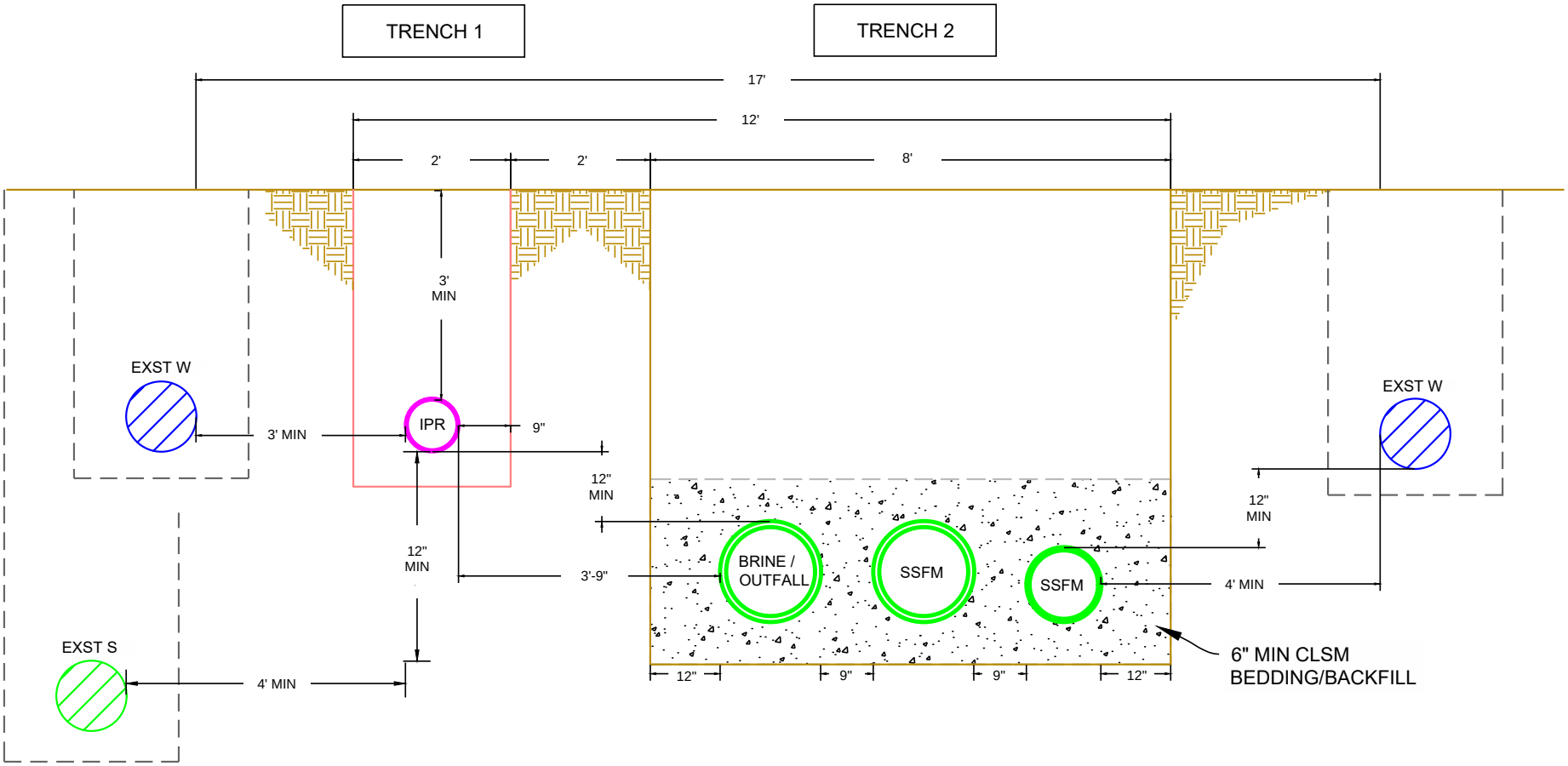
The 12-inch and 16-inch wastewater forcemain pipelines and 16-inch brine waste pipeline will be contained in a common trench. Due to requirements for separation by the Division of Drinking Water (DDW), the 8-inch potable reuse forcemain pipeline will be contained in a separate, adjacent trench. The trench section is shown in Figure 8.

In order to minimize new infrastructure that must be located near the existing WWTP site in a coastal hazard area subject to flooding and sea level rise, the City will use two pump stations to convey raw wastewater to the new WRF site. One reason for the City's relocation of the WRF is a directive by the CCC to remove critical infrastructure from coastal hazard and sensitive view areas. While the City cannot remove all of the WRF infrastructure from the coastal hazard area, use of a secondary pump station reduces the footprint of the pump station that must be located near the existing WWTP (referred to as PS-A) and significantly minimizes the amount of raw wastewater that must pass through this pump station. The PS-A site is within the 100-year floodplain per the current Flood Insurance Rate Map per the Federal Emergency Management Agency (FEMA). To protect critical equipment, structures and equipment at PS-A will be set at a minimum of two feet above the 100-year flood elevation. Mitigation measures to protect the fill used to raise the site from washout and erosion under flood conditions will also be implemented. There is a potential for tsunami inundation or flooding of the lift station sites according to the ASCE Tsunami Hazard Tool. However, neither pump station falls within the tsunami design zone. To further protect the pump stations, an emergency generator will be provided that will power the entire pump station in the event of a power outage.

The new pump station PS-A will be located on City-owned land near the existing WWTP and will have a design capacity of 5.81 MGD. A rendering of PS-A is shown in Figure 9. The new pump station PS-B will be located near the corner of Main Street and Highway 1 and will have a design capacity of 7.98 MGD. A rendering of PS-B is shown in Figure 10. The PS-B site is located on City-owned property that has previously been developed.

Recycled Water Offsite Facilities

One of the ultimate goals of the proposed project is to enhance the City's water supply portfolio. The proposed end use for recycled water produced at the WRF is indirect potable reuse (IPR), which would involve groundwater replenishment in the Morro Valley using subsurface application via injection wells.



WRF Offsite Pipelines
Typical Dual Trench Section

Figure 9

PS-A Preliminary Rendering

❖ Autodesk Viewer: https://autode.sk/2QVbxPv

Existing Site

Figure 10

PS-B Preliminary Rendering

Existing Site

❖ Autodesk Viewer: https://autode.sk/2FeVE5n

The City has previously completed the Lower Morro Valley Basin Screening-Level Groundwater Modeling for Injection Feasibility (GSI, 2017), which presented a preliminary evaluation of injection and extraction strategies. The findings from the study indicate that the City could inject approximately 800 AFY of purified water, which would offset approximately 80 percent of the City's potable water demand.

A recycled water distribution system will be built to convey water to one of two injection well areas (as identified in Figure 5). These components will include a finished water storage tank and pump station (located at the WRF site), injection wells, and monitoring wells.

The wells would be located within proposed wellfield areas either at the Narrows, which is the area east of the City near Highway 41 where Morro Creek and Little Morro Creek converge (IPR-East), or an area west of Highway 1 near the bike path (IPR-West) (see Figure 5). Wells would be located on vacant lands owned by the City or within ROW, and sited to avoid environmentally sensitive habitat and riparian/wetlands areas. The injection well casing would be below ground with some above ground surface piping to connect the wells to the distribution systems. The injection wells would have some valves, a flow meter, and a small control panel with an antenna housed in a small shed or a weatherproof electrical enclosure. The injection well sites would be enclosed with fencing and have relatively small footprints of approximately 200 square feet. Each injection well may have up to two associated monitoring wells, one upgradient and one downgradient of the injection well. If the injection wells are located in close proximity, then it is possible fewer monitoring wells will be required. The monitoring wells will consist of an underground well casing and a lockable well cap. No permanent electrical or mechanical equipment would be associated. Regular access would be required to perform the required groundwater monitoring.

A blend of the injected water and groundwater would be extracted from existing City wells to be treated at the City's Brackish Water Reverse Osmosis (BWRO) treatment facility at the existing desalination plant adjacent to the existing WWTP (160 Atascadero Road) then distributed for potable use. That end use will require use of the City's existing storage, distribution, pumping, turnouts, and delivery facilities.

It is anticipated that the City will only use one injection location (either IPR-East or IPR-West). The City is currently performing additional hydrogeological work with the goal of identifying the preferred injection location.

New WRF Project
California Coastal Commission
Coastal Development Permit Application
Supporting Technical Information

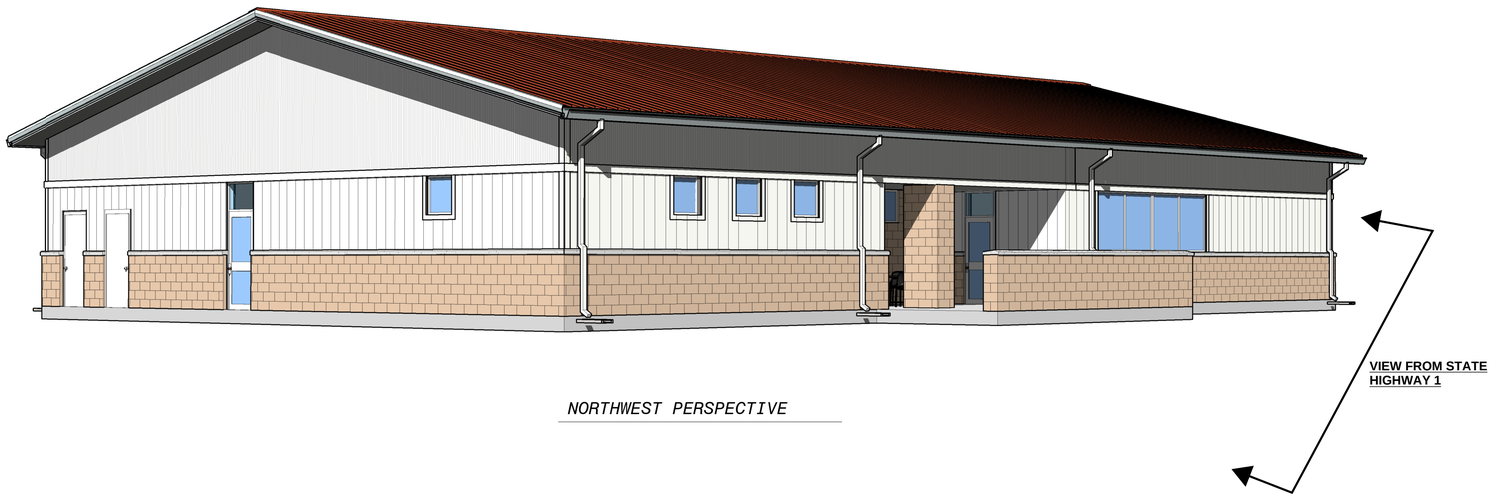
CCC CDP Application Form – Supporting Technical Information				
Item	**WRF Onsite Improvements**		**Conveyance Facilities**	
	Source; Responsibility	**Completed?**	**Source; Responsibility**	**Completed?**
General				
Description of outfall-related activities that provide justification for Consolidated Permit	As a result of the WRF project, flows to the outfall on an average basis will be impacted and reduce since the WRF will discharge only brine on a regular basis. A study will need to be completed to assess the impacts of changes in flows on the outfall and operational modifications may be needed (i.e., closing diffusers, etc.). The City also needs to perform regular maintenance activities on the outfall.	Yes	NA	NA
Summary of pipeline and lift station construction and operational characteristics	See attached Project Description	Yes	See attached Project Description	
Summary of WRF construction and operational characteristics	See attached Project Description	Yes	NA	NA
Estimated Total Project Cost	General Program Management = $10.2 million WRF = $77.1 million	Yes	Conveyance = $26.3 million RW Offsite = $12.1 million	Yes

CCC CDP Application Form – Supporting Technical Information				
Item	**WRF Onsite Improvements**		**Conveyance Facilities**	
	Source; Responsibility	**Completed?**	**Source; Responsibility**	**Completed?**
Site Layout and Plan				
Maximum building height (above existing grade, above finished grade, and above the centerline of the nearest public roadway from which the project is visible)	Building Heights Table	Yes	Pump Station A (PS-A) is currently planned to be 16 feet above existing grade, 14 feet above finished grade, 17 feet above the centerline of Atascadero Road. Exhibit CF-1 shows the location of PS-A, a picture of the site, and a rendering of the proposed facility. Pump Station B (PS-B) is currently planned to be 15 feet above existing grade, 14 feet above finished grade, 14 feet above the centerline of Main Street. Exhibit CF-2 shows the location of PS-A, a picture of the site, and a rendering of the proposed facility. Link to Exhibits CF-1 and CF-2	Yes
Total number of floors	WRF Building Renderings	Yes	PS-A will be one floor and PS-B will be one floor (as shown in Exhibits CF-1 and CF-2)	Yes
Gross floor area (excluding parking)	105,000 square feet	Yes	PS-A: 2,100 square feet PS-B: 2,600 square feet	Yes
Gross floor area (including covered parking and accessory buildings)	115,000 square feet	Yes	PS-A: 5,600 square feet PS-B: 8,600 square feet	Yes
Total Lot Area	27.6 acres (total City-owned property to be purchased/annexed)	Yes	PS-A: 1.88 acres PS-B: 0.23 acres	Yes

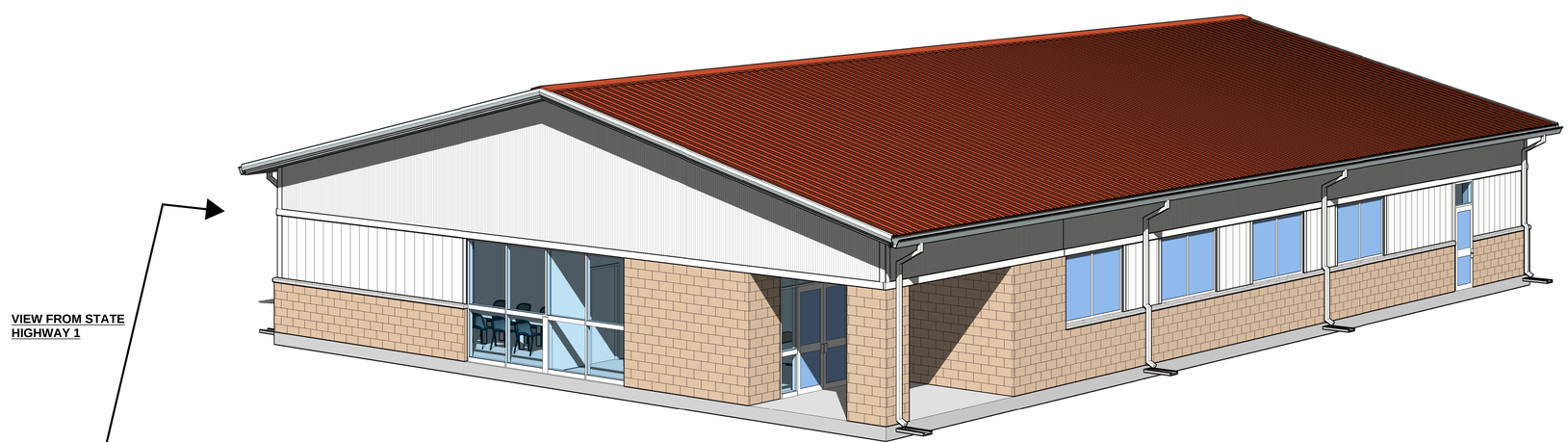
Morro Bay WRF
Building Heights

Nearest Public Road: Terresa Rd **Elevation:** 50.00

			Elevations (ft)			Heights (ft)		
Building/Facility	**Facility Type**	**Proximity to nearest public road (ft)**	**Finish Floor**	**Existing Grade**	**Finished Grade**	**Above Finish Floor**	**Above existing grade**	**Above Nearest Road (ft)**
Operations Building	Building	500	86.50	101.00	86.00	22	8	59
Water Supply Storage	Prefabricated Enclosure	680	93.00	105.00	92.50	15	3	58
Collection Supply Storage	Prefabricated Enclosure	680	93.00	105.00	92.50	15	3	58
Outdoor Storage Aisle 1	Open air storage w/ Canopy	700	95.00	120.00	94.50	15	-10	60
Outdoor Storage Aisle 2	Open air storage w/ Canopy	750	97.00	120.00	96.50	15	-8	62
Outdoor Storage Aisle 3	Open air storage w/ Canopy	800	99.00	120.00	98.50	15	-6	64
Water Vehicles Equipment Storage	Open air storage w/ Canopy	825	100.00	110.00	99.50	15	5	65
Outdoor Storage Aisle 4	Open air storage w/o Canopy	850	101.00	120.00	100.50	5	-14	56
Collection Vehicles Equipment Storage	Open air storage w/ Canopy	850	100.00	110.00	99.50	15	5	65
RO/UV Building	Building	1150	105.65	115.00	105.00	26	17	82
Chemical Area	Facility w/ canopy	1200	104.00	90.00	103.50	20	34	74
Maintenance Building	Building	1250	107.50	105.00	107.00	25	28	83
Dewatering Area	Facility w/ canopy	1500	120.50	112.00	120.00	20	29	91
Treatment Area	Facility w/o canopy	1600	132.25	115.00	125.00	20	37	102
Electrical Room	Prefabricated Enclosure	1700	132.50	140.00	131.00	15	8	98
Headworks Area	Facility w/0 canopy	1750	132.00	130.00	130.00	12	14	94



NORTHWEST PERSPECTIVE



SOUTHEAST PERSPECTIVE

PROPOSAL - NOT FOR CONSTRUCTION

DATE	REVISIONS AND RECORD OF USE	NO.	BY	CHK	APP

CITY OF MORRO BAY

JOINT VENTURE

FILANC BLACK & VEATCH

CITY OF MORRO BAY
FILANC BLACK & VEATCH DB PROPOSAL
MORRO BAY WRF

OPERATIONS BUILDING
3D VIEWS

DESIGNED: Designer
DETAILED: Author
CHECKED: Checker
APPROVED: Approver
DATE:

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PROJECT NO.
81203

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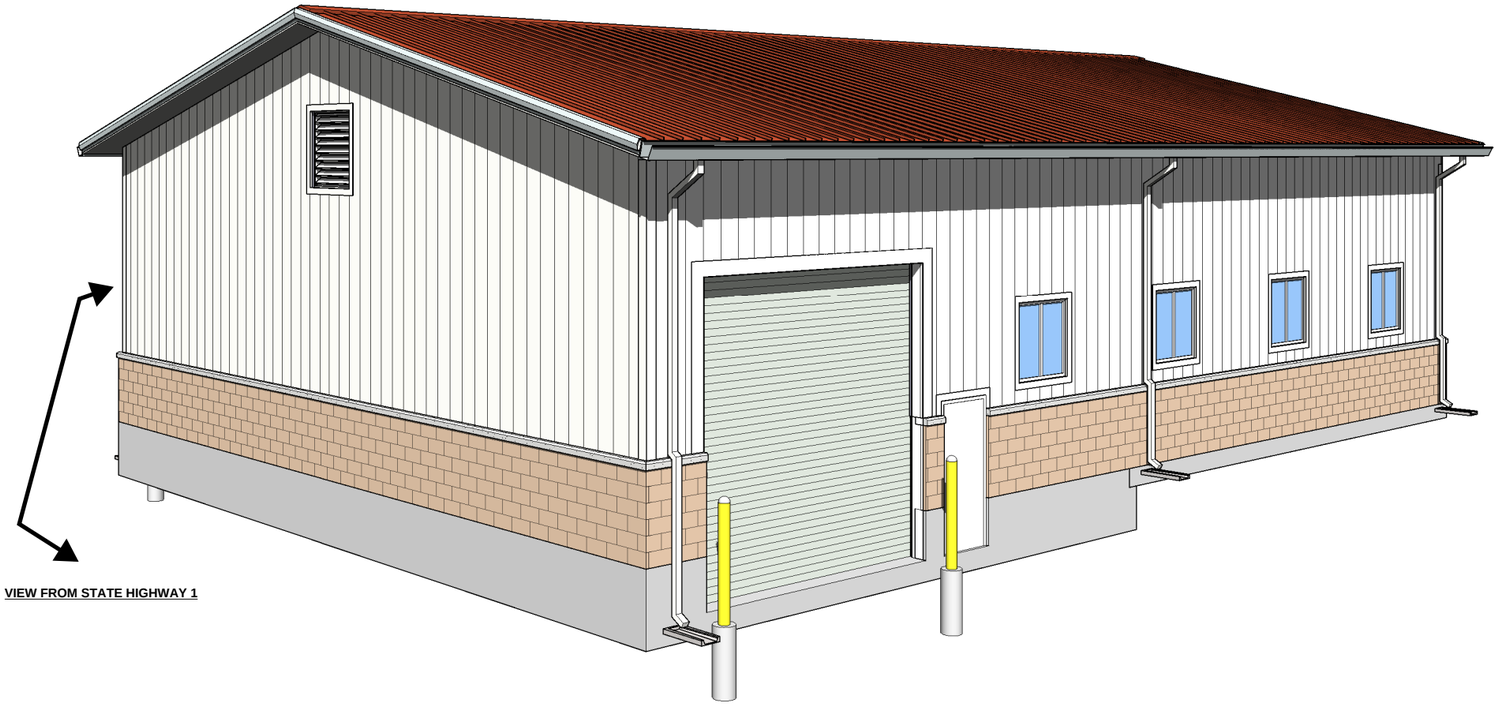
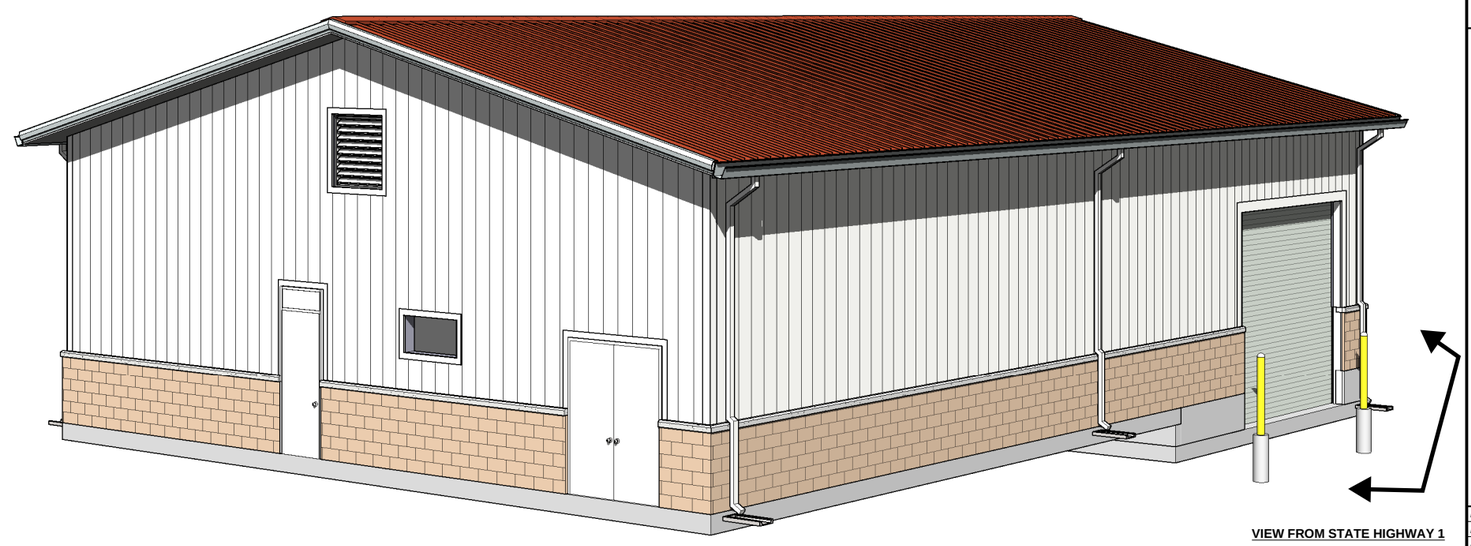


NORTHEAST PERSPECTIVE

NO SCALE



SOUTHWEST PERSPECTIVE

NO SCALE

PROPOSAL - NOT FOR CONSTRUCTION

NO.	BY	CHK	APP
A			

DATE	REVISIONS AND RECORD OF USE
05/08/2018	ISSUED FOR PROPOSAL

CITY OF MORRO BAY

JOINT VENTURE

FILANC

CITY OF MORRO BAY
FILANC BLACK & VEATCH DB PROPOSAL
MORRO BAY WRF

MAINTENANCE BUILDING
3D VIEWS

DESIGNED: Designer
DETAILED: Author
CHECKED: Checker
APPROVED: Approver
DATE:

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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

PROJECT NO.
81203

96-A-001

SHEET 14 OF 93

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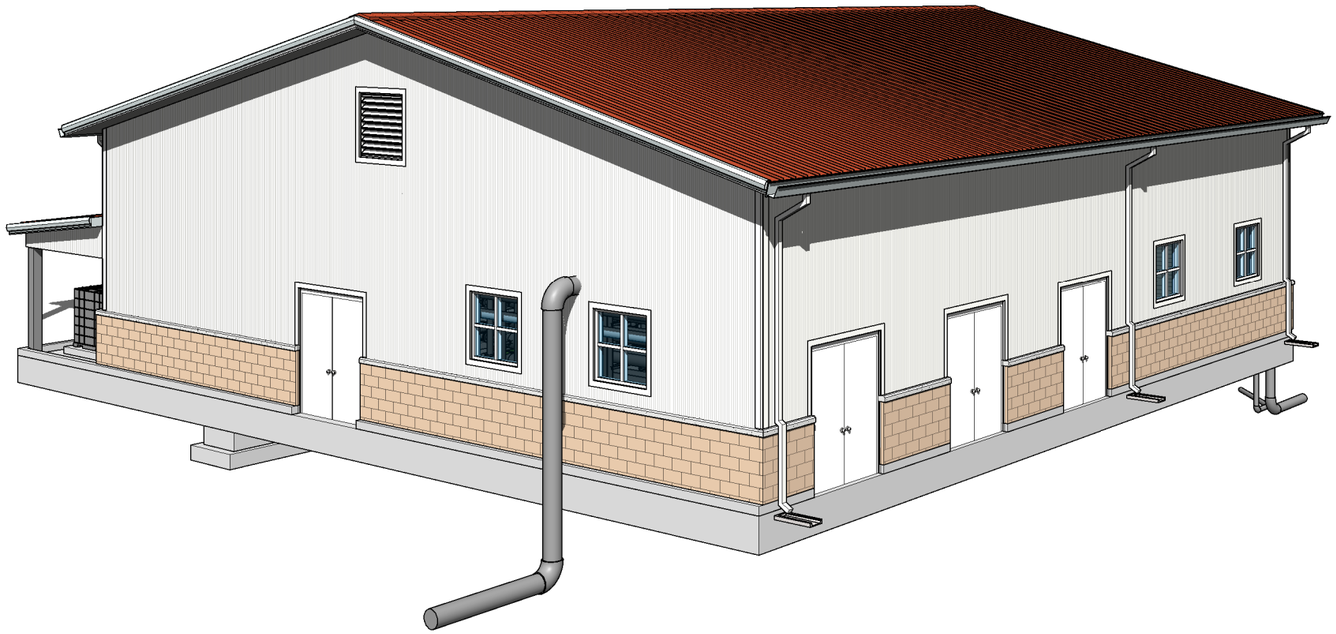
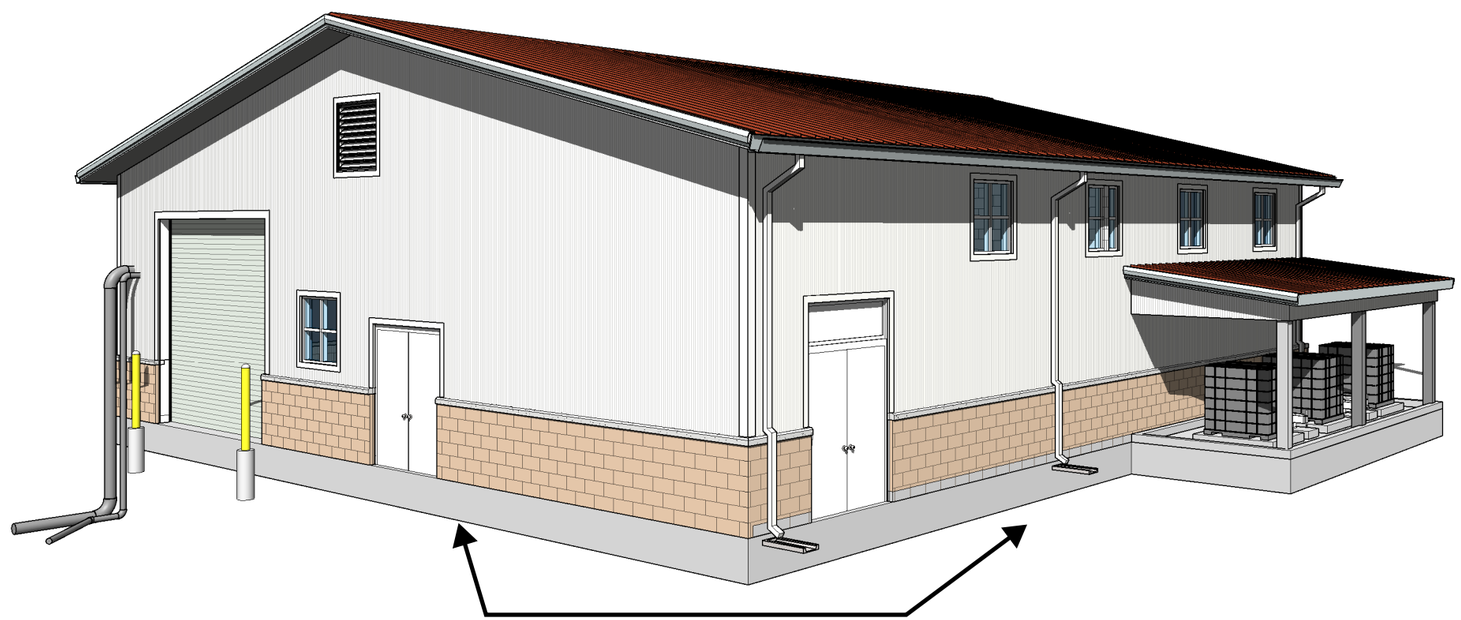
D7000



NORTHWEST PERSPECTIVE

NO SCALE



SOUTHEAST PERSPECTIVE

NO SCALE

PROPOSAL - NOT FOR CONSTRUCTION

NO.	BY	CHK	APP
A			

DATE	
05/08/2018	ISSUED FOR PROPOSAL
	REVISIONS AND RECORD OF USE

CITY OF MORRO BAY

JOINT VENTURE

FILANC

CITY OF MORRO BAY
FILANC BLACK & VEATCH DB PROPOSAL
MORRO BAY WRF

RO/UV BUILDING
3D VIEWS

DESIGNED: Designer
DETAILED: Author
CHECKED: Checker
APPROVED: Approver
DATE:

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

PROJECT NO.
81203

51-A-001

16 SHEET OF 93

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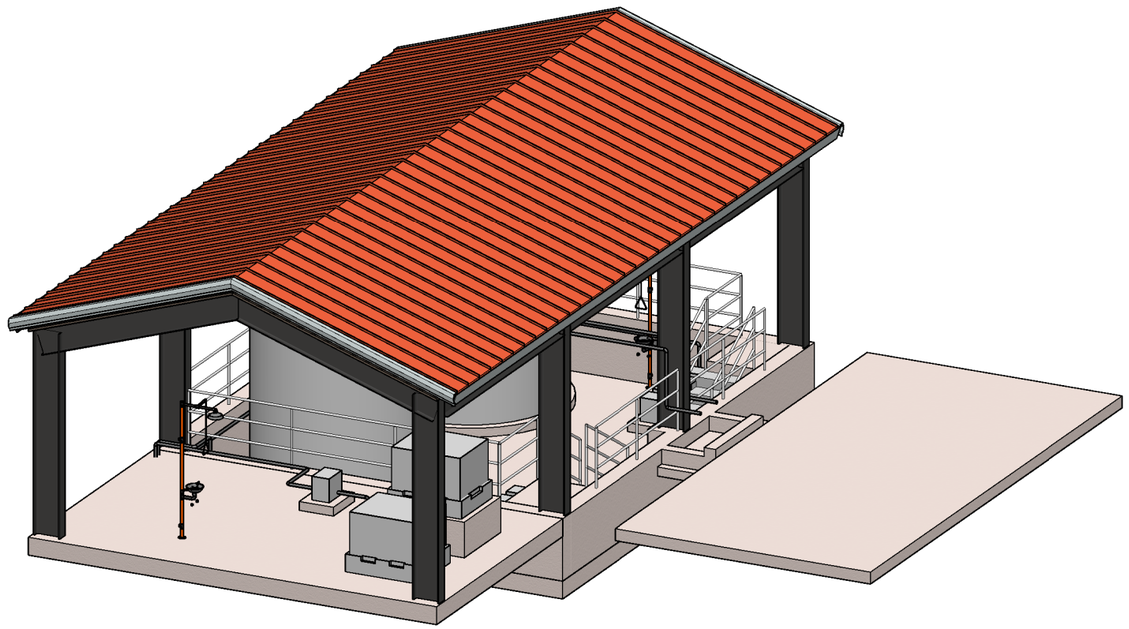
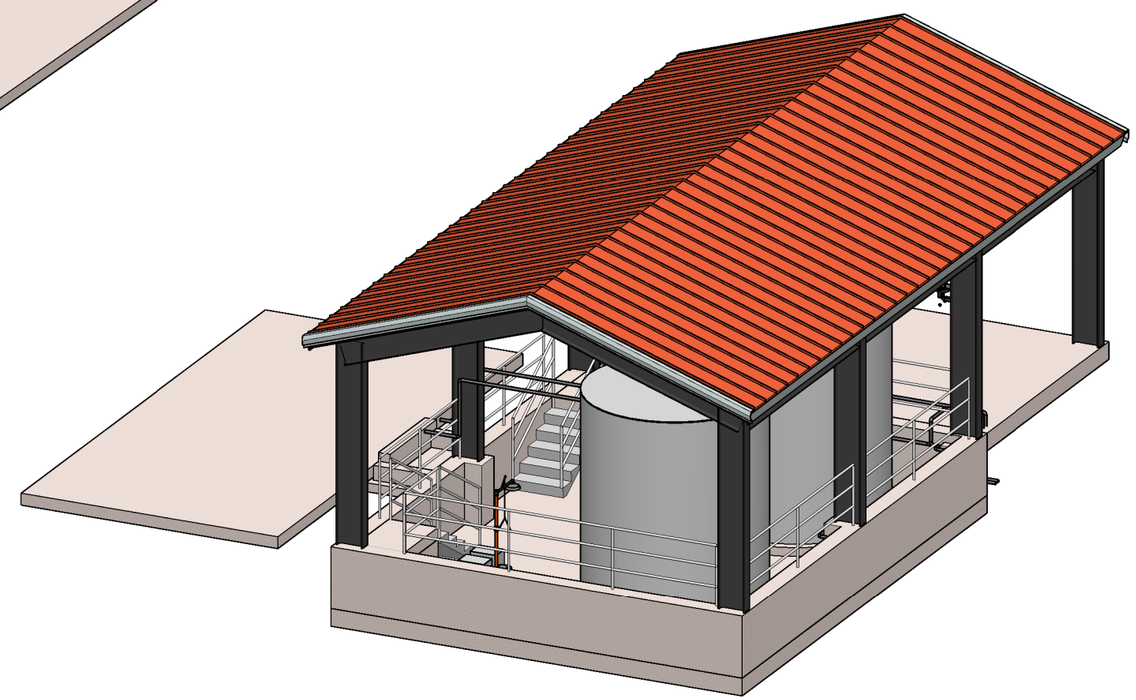


VIEW FROM STATE HIGHWAY 1



PROPOSAL - NOT FOR CONSTRUCTION

NO.	BY	CHK	APP
A			

DATE	
05/08/2018	ISSUED FOR PROPOSAL
	REVISIONS AND RECORD OF USE

CITY OF MORRO BAY

JOINT VENTURE

FILANC

CITY OF MORRO BAY
FILANC BLACK & VEATCH DB PROPOSAL
MORRO BAY WRF

CHEMICAL FACILITY
3D VIEWS

DESIGNED: Designer
DETAILED: Author
CHECKED: Checker
APPROVED: Approver
DATE:

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

PROJECT NO.
81203

90-M-001

39 SHEET OF 93

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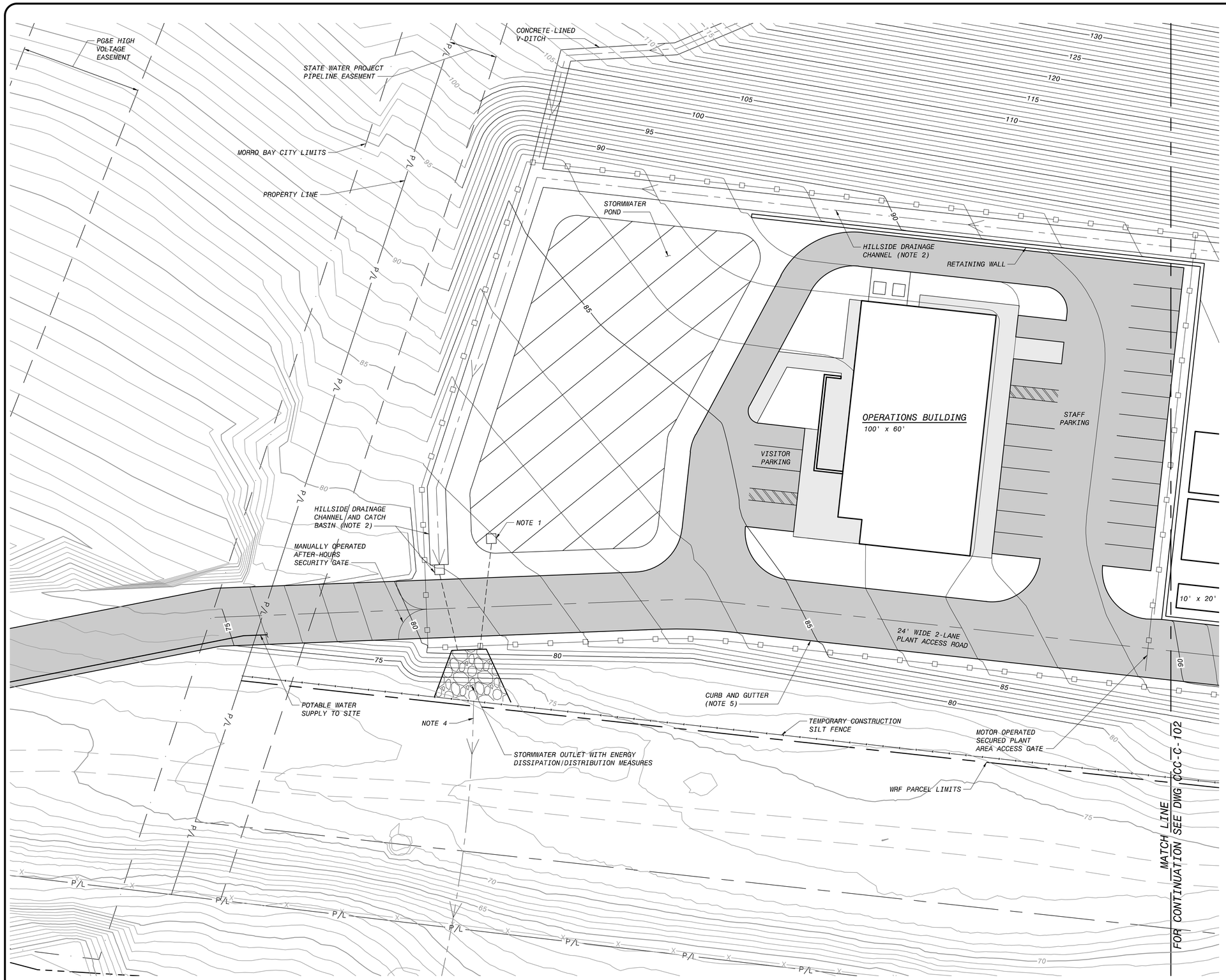
D7000

CCC CDP Application Form – Supporting Technical Information				
Item	**WRF Onsite Improvements**		**Conveyance Facilities**	
	Source; Responsibility	**Completed?**	**Source; Responsibility**	**Completed?**
Total area of buildings, paved areas, landscaped areas, and unimproved areas	Approximately 7 acres (to be finalized upon completion of the site design)	Yes	PS-A: 5,600 square feet PS-B: 8,600 square feet	Yes
Grading: total amount of cut and fill – break this out by project component (WRF, pipelines, lift station). Also include amount of import or export of fill anticipated.	• Onsite Cut – approx. 107 kcy • Plant area fill (using onsite material) – approx. 46 kcy • Hill side fill – 71 kcy (61 kcy onsite material + 10 kcy material from conveyance pipeline project) • Net balance, no mass import or export. Import of specialized bedding and aggregate base materials only.	Yes	PS-A: 1,300 cubic yards of fill PS-B: 440 cubic yards of cut Pipelines will require 12,000 cubic yards of export of native soil and import of 10,000 cubic yards of controlled low strength material as backfill.	Yes
Grading, drainage, and erosion control plans	See Site Plans	Yes	Grading and drainage plans will be developed for the pump station sites during the detailed design phase of the design-build project and will be provided upon completion. The pipeline project will restore disturbed areas to match existing conditions so grading and drainage will not change after construction. Erosion control plans will be developed and submitted to the City for approval prior to any site disturbance.	Yes
List of all relevant geologic, geotechnical or other similar	Planning-Level Geotechnical Report; see attached	Yes	List will be provided upon completion of the geotechnical report	No; work in progress



NOTES:

1. NON-PROCESS AREAS OF THE PLANT SITE ARE CAPTURED BY STORMWATER POND AND RELEASED DIRECT TO STREAM CHANNEL VIA OUTLET STRUCTURE.
2. HILLSIDE DRAINAGE IS CAPTURED IN SWALE AND ROUTED VIA CULVERT TO STREAM CHANNEL.
3. SITE PROCESS AREA STORMWATER POND OUTLET CONTROL AND PUMPING. PLANT PROCESS AREA DRAINAGE IS CAPTURED IN POND WHICH HAS FACILITIES TO PUMP FIRST FLUSH DRAINAGE AS STANDARD OPERATING PROCEDURE TO HEAD OF WASTEWATER TREATMENT PLANT FOR TREATMENT.
4. DRAINAGE ROUTED TO STREAM CHANNEL OVERLAND VIA EARTHEN SWALE. PLANTINGS AND/OR RIP RAP WILL BE FURNISHED AS NEEDED TO PREVENT EROSION.
5. CURB AND GUTTER ON EAST SIDE OF PLANT ROAD COLLECTS PLANT SITE DRAINAGE FOR ROUTING TO STORMWATER POND.
6. BUILDING DIMENSIONS PROVIDED ARE APPROXIMATE BASED ON CURRENT LEVEL OF DESIGN.

20' 10' 0 20' 40'
1"=20'

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REVISIONS AND RECORD OF USE	NO.	BY	CHK	APP

JOINT VENTURE
FILANC
BLACK & VEATCH

CITY OF MORRO BAY
MORRO BAY WRF

CIVIL
SITE FACILITIES
SOUTH OPERATIONS AREA

DESIGNED: EVB
DETAILED: SMM
CHECKED:
APPROVED:
DATE: FEB 2019

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

PROJECT NO.
400530

CCC-C-101
SHEET
OF

F09000A
D400530
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NOTES:

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20' 10' 0 20' 40'
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PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REVISIONS AND RECORD OF USE	NO. BY	CHK APP

JOINT VENTURE

BLACK & VEATCH

FILANC

CITY OF MORRO BAY
MORRO BAY WRF

CIVIL
SITE FACILITIES
NORTH OPERATIONS AREA

DESIGNED: EVB
DETAILED: SMM
CHECKED:
APPROVED:
DATE: FEB 2019

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

PROJECT NO.
400530

CCC-C-102
SHEET
OF

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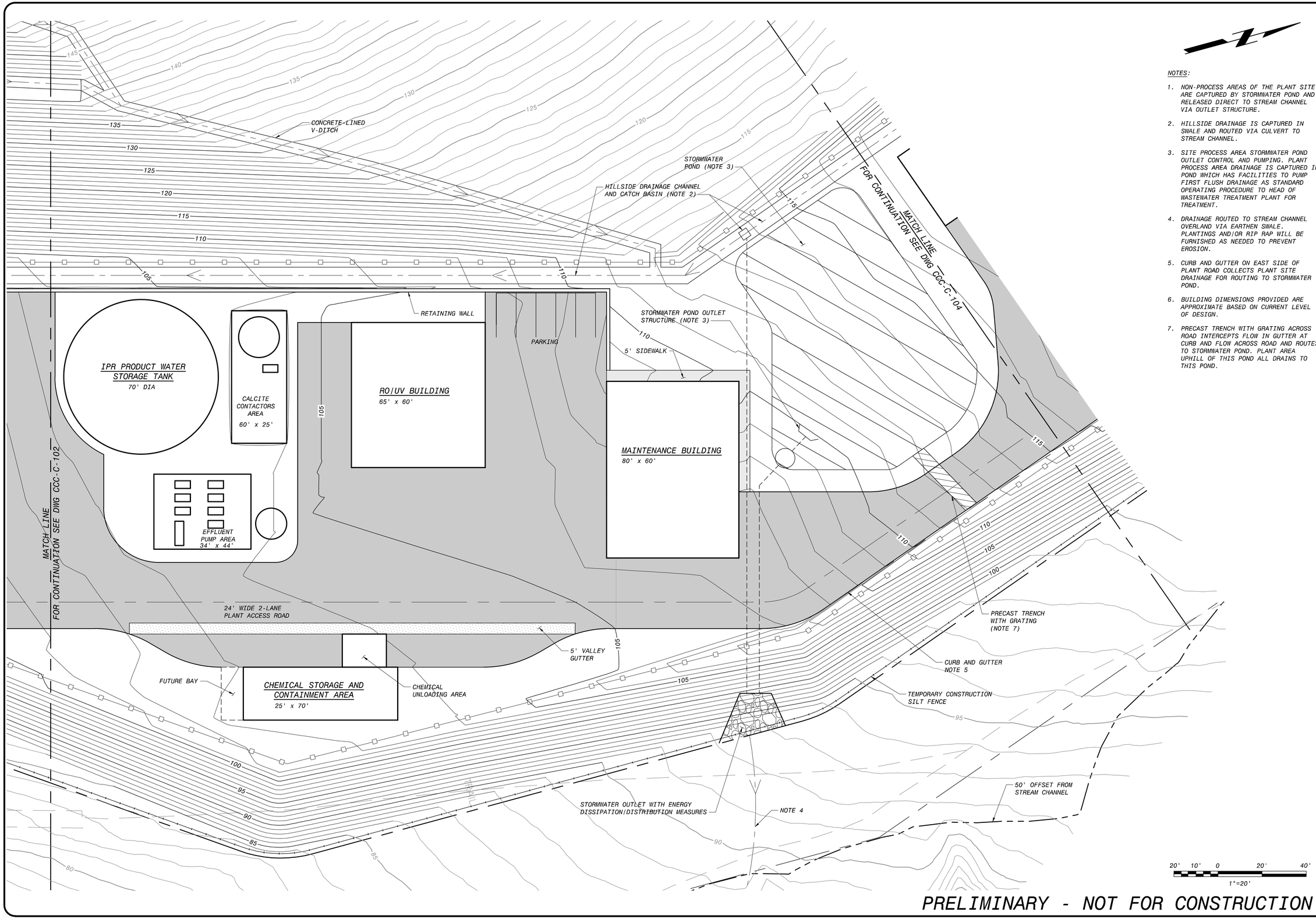

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7. PRECAST TRENCH WITH GRATING ACROSS ROAD INTERCEPTS FLOW IN GUTTER AT CURB AND FLOW ACROSS ROAD AND ROUTES TO STORMWATER POND. PLANT AREA UPHILL OF THIS POND ALL DRAINS TO THIS POND.

DATE	REVISIONS AND RECORD OF USE	NO.	BY	CHK	APP

JOINT VENTURE

FILANC® BLACK & VEATCH

CITY OF MORRO BAY
MORRO BAY WRF

CIVIL
SITE FACILITIES
SOUTH PROCESS AREA

DESIGNED: EVB
DETAILED: SMM
CHECKED:
APPROVED:
DATE: FEB 2019

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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

PROJECT NO.
400530

CCC-C-103
SHEET
OF

PRELIMINARY - NOT FOR CONSTRUCTION

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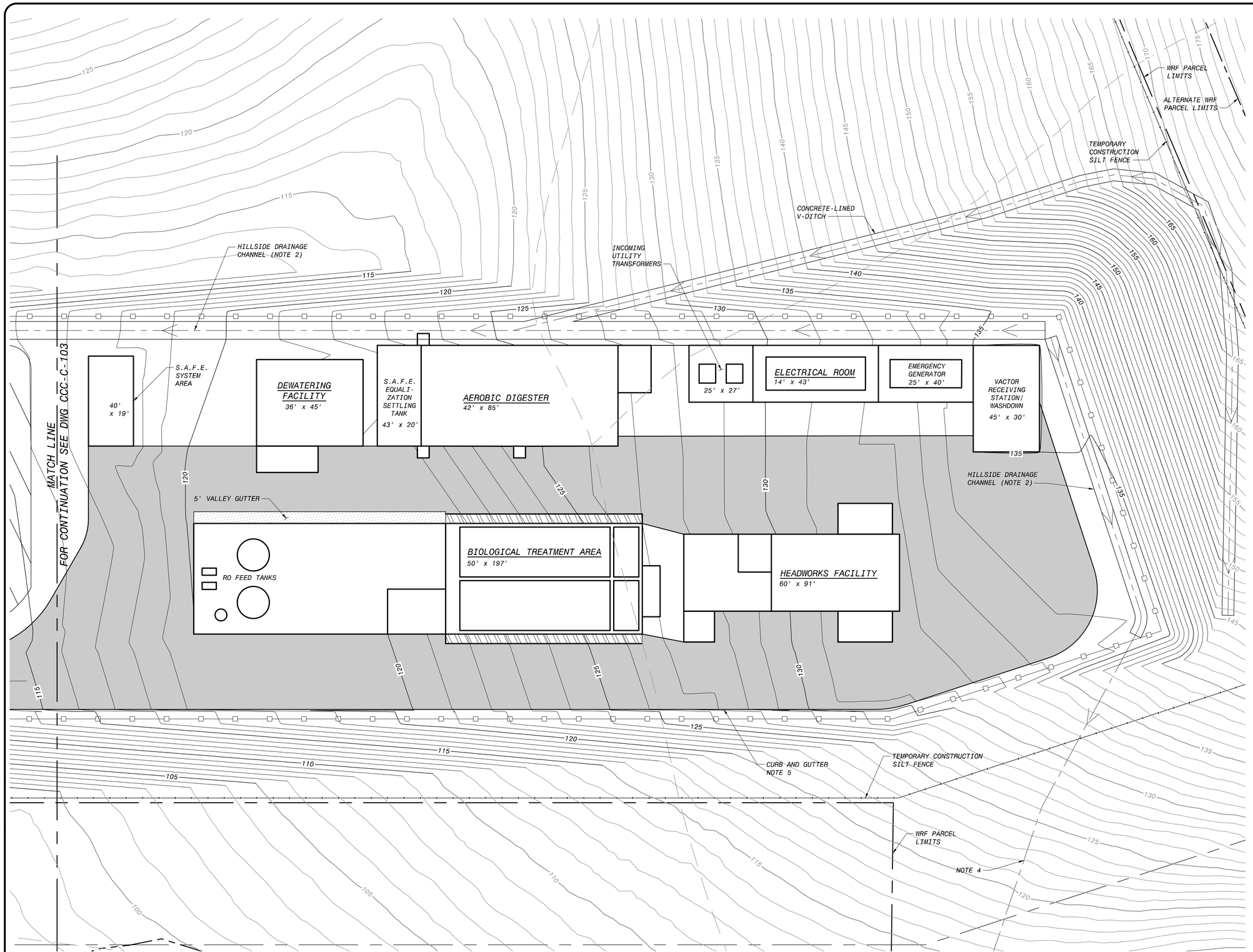

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DATE	REVISIONS AND RECORD OF USE	NO.	BY	CHK	APP

JOINT VENTURE

FILANC

BLACK & VEATCH

CITY OF MORRO BAY

MORRO BAY WRF

CIVIL
SITE FACILITIES
NORTH PROCESS AREA

DESIGNED: EVB
DETAILED: SMM
CHECKED:
APPROVED:
DATE: FEB 2019

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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

PROJECT NO.
400530

CCC-C-104
SHEET
OF

PRELIMINARY - NOT FOR CONSTRUCTION

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CCC CDP Application Form – Supporting Technical Information				
Item	**WRF Onsite Improvements**		**Conveyance Facilities**	
	Source; Responsibility	**Completed?**	**Source; Responsibility**	**Completed?**
reports associated with all affected properties.				
Parking: how many total spaces? Note whether "tandem" parking is being proposed, and how much.	4 visitor parking spots and 22 staff parking spots at the Operations Building; No "tandem" parking provided	Yes	Parking will be provided within the fenced area for City maintenance staff only (i.e., no public parking)	Yes
List all utilities that will be extended to the site: water? Gas? Sewer? Electric? Phone? Will electric or phone extensions be above ground?	Water, electric (underground beyond PG&E supply pole), phone (underground from service point of connection, unknown if that point is above or below ground), fiber data line (part of conveyance project), no sewer (plant has internal sewer system that does not extend beyond site), natural gas (below ground)	Yes	Water, sewer, electric, and communications will be extended to the pump station sites. Electric and communications services will be underground.	Yes
Vegetation removal: How many existing trees (if any) will be removed? What kind? Other vegetation to be removed? What kind? How much area of vegetation removal?	No trees are currently on the site, so no trees will need to be removed. Existing vegetation is grassland, so grass will be removed. Total area of vegetation removal is approximately 10 acres.	Yes	Source: CDR Approximately 25 ornamental (non-native) trees will potentially be removed, and approximately 2 native trees may be removed. Area will be calculated.	Partially; work in progress
Confirm there are no existing structures on any project areas affected. If there are, will they be demolished, removed or relocated?	There are no existing structures on the site where the WRF will be constructed.	Yes	Parks Maintenance Shed (to be demolished for PSA)	Yes

CCC CDP Application Form – Supporting Technical Information				
Item	**WRF Onsite Improvements**		**Conveyance Facilities**	
	Source; Responsibility	**Completed?**	**Source; Responsibility**	**Completed?**
Has there ever been a previous application for development on this site ever submitted to the Coastal Commission? Application number(s)?	NA	NA	NA	NA
Other Required Attachments				
Proof of legal interest in the property (document reflecting intent to purchase is okay in the short term, but issuance of permit may be contingent on proof of sale)	MOU; see attached	Yes	Title for the PS-A and PS-B property	No; to be provided
Assessor Parcel Maps (with page numbers, including all properties within 100 feet of the properties within the project)	See Figure 3; Parcel maps to be provided	No; to be provided	Pump Station Parcel Maps	Yes
Copy of all required local approvals and planning documents that authorize the project (if any), as noted in Local Agency Review Form (Appendix B)	EIR Resolution; see attached	Yes	NA	NA
Stamped envelopes addressed to all property owners within 100 feet of any portion of the project, along with a list	City to create the mailing labels	No	City to create the mailing labels	No

CCC CDP Application Form – Supporting Technical Information				
Item	**WRF Onsite Improvements**		**Conveyance Facilities**	
	Source; Responsibility	**Completed?**	**Source; Responsibility**	**Completed?**
containing the names, addresses and APNs of these property owners. Envelopes must be plain, business-sized (9.5" x 4.125"), with first class postage on each. Metered postage is not acceptable.				
Stamped addressed envelopes for all other interested parties to the project.	City to create the mailing labels (see EIR list)	No	City to create the mailing labels (see EIR list)	N
Vicinity or location map	See Figure 1	Yes	See Figure 1	Yes
Two sets of plans drawn to scale, including: • Site plans • Floor plans • Building elevations • Grading, drainage and erosion control plans • Landscape plans Plans should also indicate any trees to be removed. Reduced size (8.5x11) versions of site plans must also be submitted.	See instruction page for number of plans to submit			
Copy of Final EIR and any related CEQA documentation.	EIR Resolution; also see attached Final EIR		NA	NA
Verification of all other required	In progress	No; in progress	In progress	No; in progress

CCC CDP Application Form – Supporting Technical Information				
Item	**WRF Onsite Improvements**		**Conveyance Facilities**	
	Source; Responsibility	**Completed?**	**Source; Responsibility**	**Completed?**
regulatory permits, including those from: • California Dept of Fish and Wildlife • US Army Corps of Engineers • RWQCB Section 401 Certification				
Signature of applicant (page 9)	See attached application form	Yes	See attached application form	Yes
Complete Appendix A – Campaign Contributions Declaration	See attached application form	Yes	See attached application form	Yes
Other Useful Information (not specifically required by CCC, but consistent with County CDP checklist)				
Site Plan should include:				
Exterior Boundaries and dimensions	See Site Plans	Yes		
North Arrow and Scale	See Site Plans	Yes		
Slope Contour Map	See Site Plans	Yes		
General Location of Topo Features	See Site Plans	Yes		
Location and Dimensions of Proposed Structures	See Site Plans	Yes		
Location, width and pavement type of roadways	See Site Plans	Yes		
Curb/gutter/sidewalk	See Site Plans	Yes		
Water supply and sewage	See Site Plans (a water supply line	Yes		

CCC CDP Application Form – Supporting Technical Information				
Item	**WRF Onsite Improvements**		**Conveyance Facilities**	
	Source; Responsibility	**Completed?**	**Source; Responsibility**	**Completed?**
disposal features	coming into site has been added to the enlarged plan)			
Easements, driveways and paved areas	See Site Plans	Yes		
Areas to be preserved as open space	NA	NA	NA	NA
Location and dimension of structures within 100 feet (offsite) of site boundaries	There are no existing buildings within 100 feet of the site boundary	Yes	NA	NA
Vicinity map	Conveyance Alignment	Yes		
Coastal access route (since it's in coastal zone)	NA	NA	NA	NA
Preliminary Floor Plans and Architectural Elevations (height, architecture, colors, materials)	WRF Building Renderings	Yes		
Legal Lot Verification	Describe the process for legal lot creation	No	APN map showing the lots for the PSA and PSB (deeds may exist)	No
Abandoned oil and gas wells	NA	NA	NA	NA
Technical Reports and Data:				
Fire safety plan	Not developed yet	No	NA	NA
Archaeological report	EIR Appendices	Yes		
Botanical report	EIR Appendices	Yes		
Biological report	EIR Appendices	Yes		
Noise study	EIR Appendices	Yes		
Traffic study	EIR Appendices	Yes		
Geological report	Planning-Level Geotechnical Report	Yes	Currently being developed by WWE	In progress
Visual analysis	EIR	Yes		

CCC CDP Application Form – Supporting Technical Information				
Item	**WRF Onsite Improvements**		**Conveyance Facilities**	
	Source; Responsibility	**Completed?**	**Source; Responsibility**	**Completed?**
Location, size and design of all signs	Not available at this time	N	NA	NA
Location and design of solid waste disposal	NA	NA	NA	NA
Cross-sectional drawings				
Supplemental Development Statement • Phasing schedule • Statistical data	NA	NA	NA	NA
Water Will Serve Letter	NA	NA	NA	NA
Sewer Will Serve Letter	NA	NA	NA	NA
County public road requirements	NA	NA	NA	NA
Road Plan and Profile/Culvert Plan/Streetscape Plan	See Site Plans	Y	NA	NA
Cost Accounting Agreement				
Other Information:				
Confirm City Agent Name	Confirmed as Rob Livick			
Property Owner Signature (Legal Declaration)	Tri W (Contact Information)		City (Contact Information)	
Confirm dangerous conditions (property owner)	NA	NA	NA	NA
Confirm property owner agent	Confirmed as Marshall Ochylski			
Expected water demand associated with project	NA	NA	NA	NA
Existing onsite water wells or facilities (if any)	NA	NA	NA	NA

CCC CDP Application Form – Supporting Technical Information				
Item	**WRF Onsite Improvements**		**Conveyance Facilities**	
	Source; Responsibility	**Completed?**	**Source; Responsibility**	**Completed?**
Sustained yield test on proposed or existing wells	NA	NA	NA	NA
Does water meet Health Agency quality requirements?	NA	NA	NA	NA
Have the following been completed: • Well drillers letter • Will serve letter • Water quality analysis • Pump test (hours/GPM) • Surrounding well logs • Hydrologic study	NA	NA	NA	NA
Any other documentation to verify water availability	NA	NA	NA	NA
Sewage Disposal Information:				
Distance to nearest existing sewer line	NA	NA	NA	NA
Amount of proposed flow				
Solid Waste Information:				
Name of solid waste disposal company	Carollo to confirm with J. Mueller		Carollo to confirm with J. Mueller	
Location of waste disposal relative to buildings	NA	NA	NA	NA
Will design include recycling and composting bins?	NA	NA	NA	NA
Industrial Project Information:				

CCC CDP Application Form – Supporting Technical Information				
Item	**WRF Onsite Improvements**		**Conveyance Facilities**	
	Source; Responsibility	**Completed?**	**Source; Responsibility**	**Completed?**
Confirm # of employees; how many in each shift?	Carollo to confirm with J. Mueller			
Type of industrial waste materials generated	NA	NA	NA	NA
Will hazardous products be used or stored? What?	Carollo to confirm with J. Mueller			
Special Project Information:				
Will development occur in phases? Explain.	NA	NA	NA	NA
Are there plans for future additions or expansion?	NA	NA	NA	NA