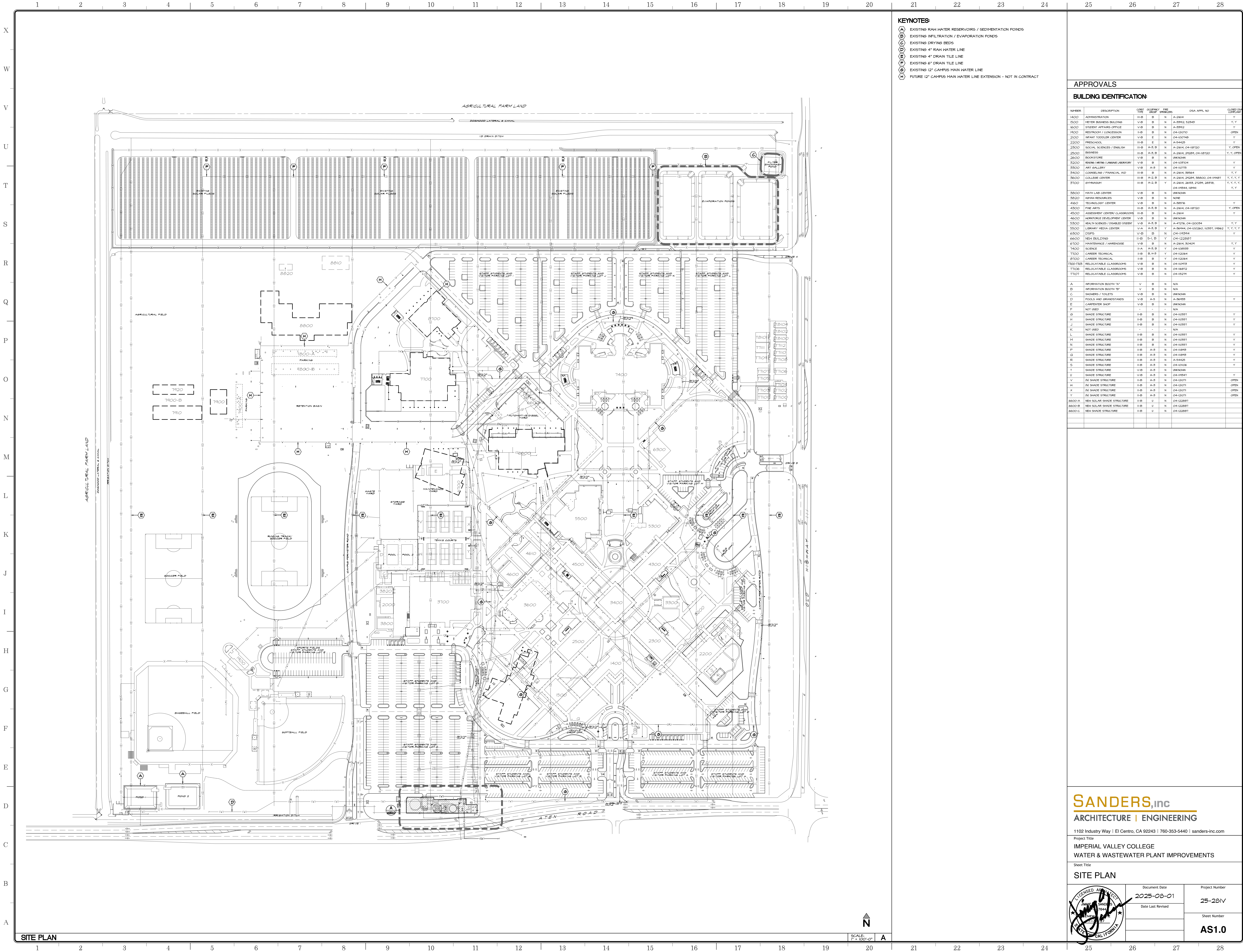


	7644 NEW 7-2-27 STATE OF CALIFORNIA	Sheet Number T



- KEYNOTES:**
- (A) EXISTING RAW WATER RESERVOIRS / SEDIMENTATION PONDS
 - (B) EXISTING INFILTRATION / EVAPORATION PONDS
 - (C) EXISTING DRYING BEDS
 - (D) EXISTING 4" RAW WATER LINE
 - (E) EXISTING 4" DRAIN TILE LINE
 - (F) EXISTING 6" DRAIN TILE LINE
 - (G) EXISTING 12" CAMPUS MAIN WATER LINE
 - (H) FUTURE 12" CAMPUS MAIN WATER LINE EXTENSION - NOT IN CONTRACT

APPROVALS

BUILDING IDENTIFICATION:

NUMBER	DESCRIPTION	COST TYPE	OCCUPANCY	FIRE RISK	DSA APPL. NO.	CLOSED DSA CORUM
1400	ADMINISTRATION	III-B	B	N	A-2614	Y
1500	HYPER BUSINESS BUILDING	V-B	B	N	A-2612, 52543	Y, Y
1600	STUDENT AFFAIRS OFFICE	V-B	B	N	A-2612	Y
1700	RESTROOM / CONCESSION	II-B	B	N	04-10710	OPEN
2100	INFANT TODDLER CENTER	V-B	E	N	04-10746	Y
2200	PRE-SCHOOL	III-B	E	N	A-2642	Y
2300	SOCIAL SCIENCES / ENGLISH	III-B	A-3, B	N	A-2614, 04-10720	Y, OPEN
2500	BUSINESS	III-B	A-3, B	N	A-2614, 21281, 04-10720	Y, Y, OPEN
2600	BOOKSTORE	V-B	B	N	UNKNOWN	Y
2700	READING / WRITING / LANGUAGE LAB	V-B	B	N	04-10704	Y
3300	ART GALLERY	V-B	A-3	N	04-10775	Y
3400	COUNSELING / FINANCIAL AID	III-B	B	N	A-2614, 35564	Y, Y
3600	COLLEGE CENTER	III-B	A-2, B	Y	A-2614, 21281, 35563, 04-11461	Y, Y, Y, Y
3700	GYMNASIUM	III-B	A-2, B	Y	A-2614, 26154, 21281, 26315, 04-10744, 10841	Y, Y, Y, Y, Y
3800	HATH LAB CENTER	V-B	B	N	UNKNOWN	Y
3900	HUMAN RESOURCES	V-B	B	N	NONE	
4100	TECHNOLOGY CENTER	V-B	B	N	A-30515	
4500	FINE ARTS	III-B	A-3, B	N	A-2614, 04-10720	Y, OPEN
4600	ASSESSMENT CENTER / CLASSROOMS	III-B	B	N	A-2614	Y
4600	WORKFORCE DEVELOPMENT CENTER	V-B	B	N	UNKNOWN	
5300	HEALTH SCIENCES / DENTAL STUDENT	V-B	A-3, B	N	A-41216, 04-100054	Y, Y
5500	LIBRARY MEDIA CENTER	V-A	A-3, B	Y	A-30444, 04-100265, 10591, 10842	Y, Y, Y, Y
6300	DEPS	V-B	B	N	04-114344	Y
6600	NEW BUILDINGS	II-B	5-I, B	Y	04-122651	
6700	MAINTENANCE / WAREHOUSE	V-B	B	N	A-2614, 30401	Y, Y
7400	SCIENCE	E-A	A-3, B	Y	04-10553	Y
7500	CAREER TECHNICAL	II-B	B, H, B	Y	04-10064	Y
8700	CAREER TECHNICAL	II-B	B	Y	04-10064	Y
T100-T125	RELOCATABLE CLASSROOMS	V-B	B	N	04-10413	Y
T106	RELOCATABLE CLASSROOMS	V-B	B	N	04-10612	Y
T107	RELOCATABLE CLASSROOMS	V-B	B	N	04-10271	Y

A	INFORMATION BOOTH "A"	V	B	N	N/A	
B	INFORMATION BOOTH "B"	V	B	N	N/A	
C	DRINKING / TOILETS	V-B	B	N	UNKNOWN	
D	POOLS AND GRANDSTANDS	V-B	A-3	N	A-36153	Y
E	CARPENTER SHOP	V-B	B	N	UNKNOWN	
F	NOT USED	-	-	-	N/A	
G	SHADE STRUCTURE	II-B	B	N	04-10591	Y
H	SHADE STRUCTURE	II-B	B	N	04-10591	Y
J	SHADE STRUCTURE	II-B	B	N	04-10591	Y
K	NOT USED	-	-	-	N/A	
L	SHADE STRUCTURE	II-B	B	N	04-10591	Y
M	SHADE STRUCTURE	II-B	B	N	04-10591	Y
N	SHADE STRUCTURE	II-B	B	N	04-10591	Y
P	SHADE STRUCTURE	II-B	A-3	N	04-10413	Y
Q	SHADE STRUCTURE	II-B	A-3	N	04-10413	Y
R	SHADE STRUCTURE	II-B	A-3	N	A-34425	Y
S	SHADE STRUCTURE	II-B	A-3	N	04-10106	Y
T	SHADE STRUCTURE	V-B	A-3	N	UNKNOWN	
U	SHADE STRUCTURE	V-B	A-3	N	04-11041	Y
V	NO SHADE STRUCTURE	II-B	A-3	N	04-10711	OPEN
W	NO SHADE STRUCTURE	II-B	A-3	N	04-10711	OPEN
X	NO SHADE STRUCTURE	II-B	A-3	N	04-10711	OPEN
Y	NO SHADE STRUCTURE	II-B	A-3	N	04-10711	OPEN
6600-A	NEW SOLAR SHADE STRUCTURE	II-B	U	N	04-122651	
6600-B	NEW SOLAR SHADE STRUCTURE	II-B	U	N	04-122651	
6600-C	NEW SOLAR SHADE STRUCTURE	II-B	U	N	04-122651	

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Project Title
**IMPERIAL VALLEY COLLEGE
WATER & WASTEWATER PLANT IMPROVEMENTS**

Sheet Title
SITE PLAN

Document Date
2025-08-01

Date Last Revised

Project Number
25-28IV

Sheet Number
AS1.0

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Project Title
**IMPERIAL VALLEY COLLEGE
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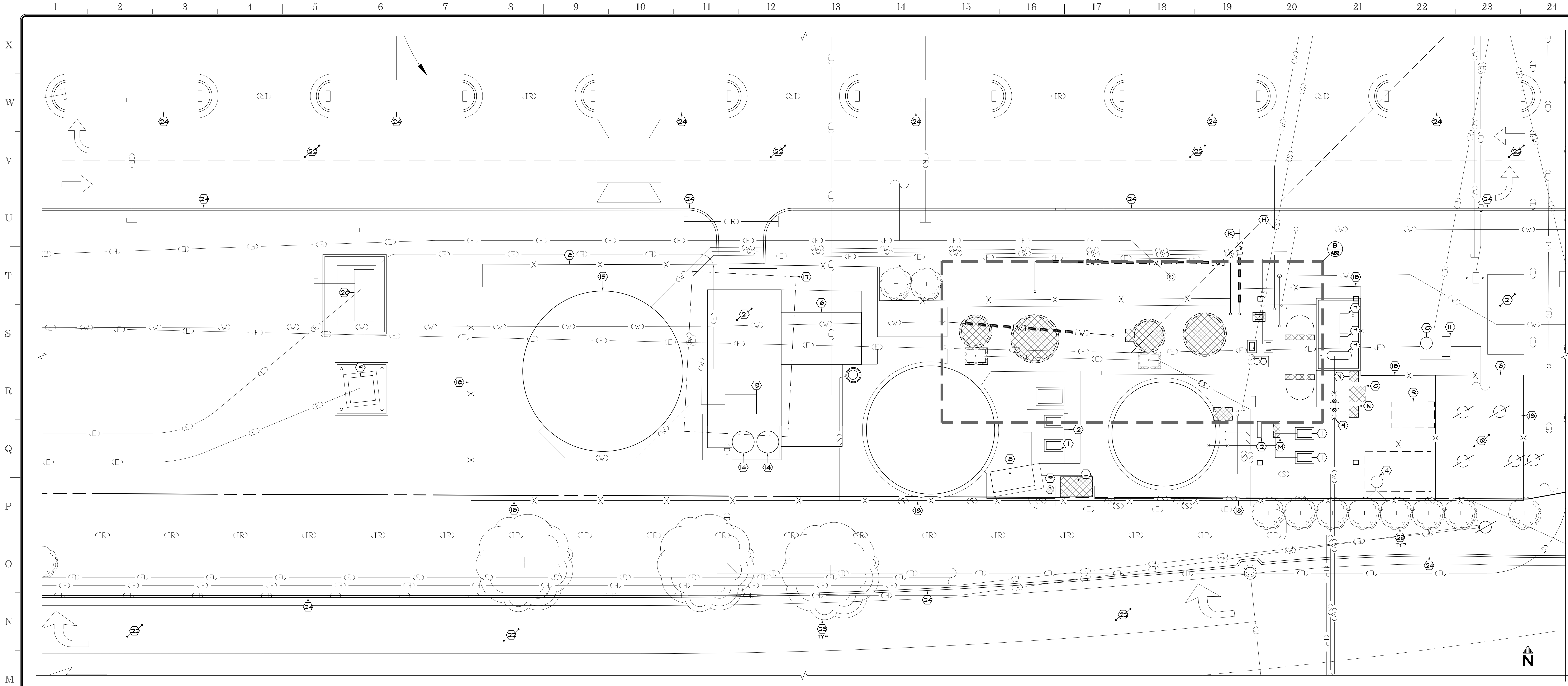
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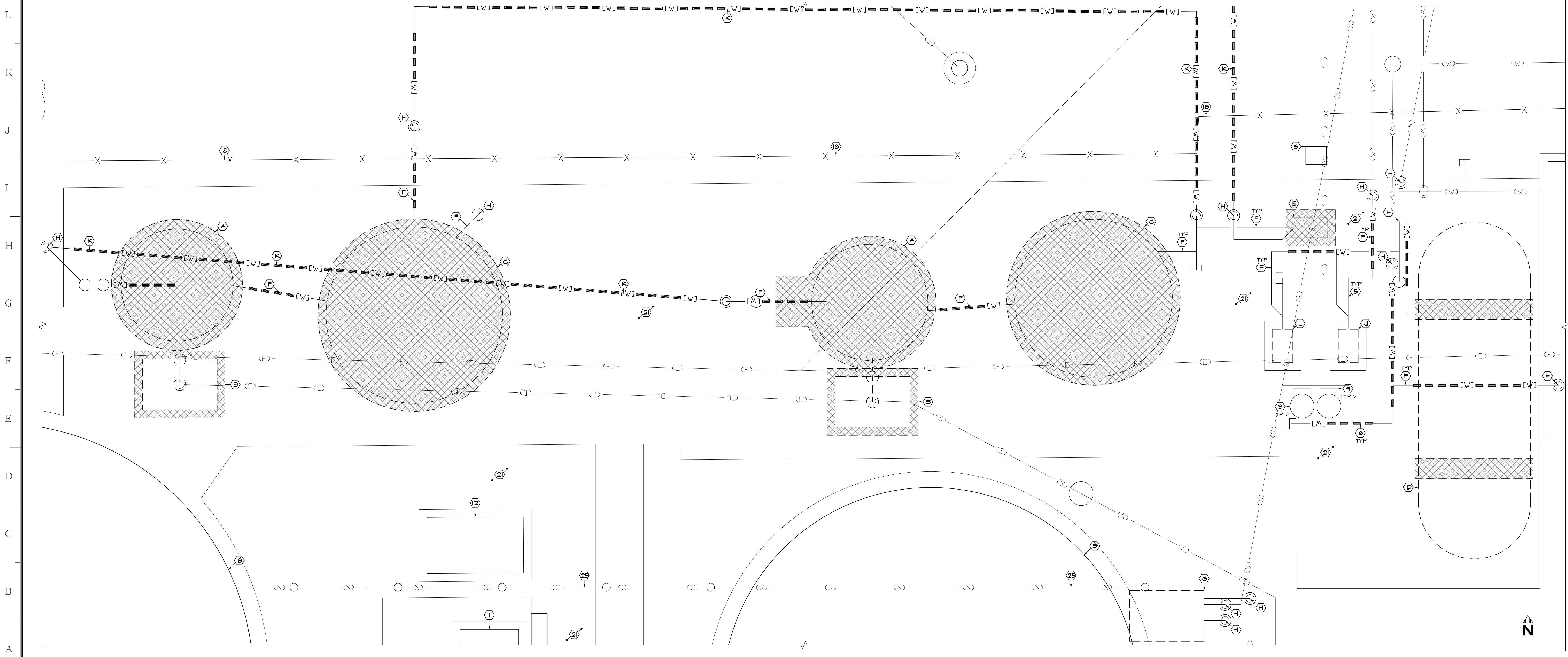
Sheet Number
AS1.0



SITE SURVEY AND DEMOLITION PLAN

SCALE: 1"=15'-0"

A



ENLARGED SITE SURVEY AND DEMOLITION UTILITY PLAN

SCALE: 1"=2'-6"

B

APPROVALS

KEYNOTES:

- EXISTING SEWER PLANT BLOWER TO REMAIN - PROTECT
- EXISTING ELECTRICAL DISTRIBUTION PANEL TO REMAIN - PROTECT
- EXISTING DOMESTIC WATER EXPANSION TANK TO REMAIN - PROTECT
- EXISTING EFFLUENT WATER PUMP TO REMAIN - PROTECT
- EXISTING 50K GALLON PACKAGE SEWER PLANT TANK TO REMAIN - PROTECT
- EXISTING 100K GALLON PACKAGE SEWER PLANT TANK TO REMAIN - PROTECT
- EXISTING FIRE PUMP, PUMP CONTROL PANEL AND DIESEL GENERATOR TO REMAIN - PROTECT
- EXISTING STORAGE CONTAINER TO REMAIN - PROTECT
- EXISTING BACKFLOW PREVENTER SERVING MUSEUM TO REMAIN - PROTECT
- EXISTING MANHOLE - PROTECT
- EXISTING SECTOR BOX TO REMAIN - PROTECT
- EXISTING BACK-UP GENERATOR TO REMAIN - PROTECT
- EXISTING PACKAGE WATER TREATMENT PLANT TO REMAIN - PROTECT
- EXISTING FILTERED WATER STORAGE TANK TO REMAIN - PROTECT
- EXISTING 220K GALLON TREATED WATER STORAGE TANK TO REMAIN - PROTECT
- EXISTING WATER TREATMENT BUILDINGS TO REMAIN - PROTECT
- EXISTING METAL SHADE STRUCTURE TO REMAIN - PROTECT
- EXISTING CHAIN-LINK FENCE TO REMAIN - PROTECT
- EXISTING 10 TRANSFORMER TO REMAIN - PROTECT
- EXISTING SWITCHBOARD TO REMAIN - PROTECT
- EXISTING SITE CONCRETE TO REMAIN - PROTECT
- EXISTING AC PAVING TO REMAIN - PROTECT
- EXISTING TREE / SHRUB TO REMAIN - PROTECT
- EXISTING CURB / GUTTER TO REMAIN - PROTECT
- EXISTING OVERHEAD SEWER PIPING AND SUPPORTS TO REMAIN - PROTECT

DEMOLITION KEYNOTES:

- REMOVE EXISTING ABANDONED GRAVITY FILTER TANK. REMOVE CONCRETE PAD INCLUDING ALL ASSOCIATED EXPOSED PIPING. CAP AND SEAL FLUSH TO GRADE.
- REMOVE EXISTING WASH WATER SUMP. REMOVE CONCRETE WALLS. DRAIN TO REMAIN.
- REMOVE EXISTING ABANDONED DOMESTIC WATER GRAVITY STORAGE TANK. REMOVE CONCRETE PAD INCLUDING ALL ASSOCIATED EXPOSED PIPING. CAP AND SEAL FLUSH TO GRADE.
- REMOVE EXISTING ABANDONED HYDRO-PNEUMATIC TANK. REMOVE CONCRETE FOOTING INCLUDING ALL ASSOCIATED EXPOSED PIPING. CAP AND SEAL FLUSH TO GRADE.
- REMOVE EXISTING DOMESTIC WATER PUMP INCLUDING CONCRETE PAD.
- REMOVE EXISTING EXPOSED DOMESTIC WATER PIPING INCLUDING ALL ASSOCIATED APPURTENANCES (I.E. VALVES, FITTINGS, SWITCHES). CAP AND SEAL PIPING AT FLUSH GRADE.
- REMOVE EXISTING 50K GALLON SEWER PACKAGED PLANT DIVERSION BOX. REMOVE PIPING RISERS, CAP AND SEAL. FLUSH TO GRADE FOR FUTURE POC.
- POINT OF DISCONNECT. CAP LINE FOR FUTURE POINT OF CONNECTION
- REMOVE EXISTING DOMESTIC WATER PUMP VPD
- REMOVE EXISTING UNDERGROUND PIPING
- REMOVE EXISTING DISINFECTANT UV LIGHT SYSTEM. ENCLOSURE TO REMAIN.
- REMOVE EXISTING ELECTRICAL MOTOR CONTROL CENTER
- REMOVE EXISTING ELECTRICAL SWITCHBOARD
- REMOVE EXISTING ELECTRICAL TRANSFORMER
- REMOVE EXISTING CHLORINE FILTER TANK
- REMOVE EXISTING ELECTRICAL SUB-STATION TO REMAIN AT PROJECT COMPLETION
- REMOVE EXISTING ELECTRICAL MAIN DISTRIBUTION PANEL TO REMAIN AT PROJECT COMPLETION

LEGEND:

- CONCRETE / ASPHALT TO BE REMOVED
- BENCH MARK: TOP OF NORTHEAST CORNER OF TRANSFORMER PAD LOCATED NORTH OF THE MAINTENANCE BUILDING
- EXISTING ELEVATION (SITE CONCRETE AND)
- FIRE HYDRANT
- IRRIGATION HYDRANT
- POWER POLE
- NATURAL SOIL
- TOP OF CURB
- FLOW LINE
- SEWER LINE
- WATER LINE
- FIREWATER LINE
- GAS LINE
- ELECTRICAL LINE
- COMMUNICATIONS LINE
- IRRIGATION LINE
- STORM DRAIN LINE
- TILE DRAIN LINE

NOTES:

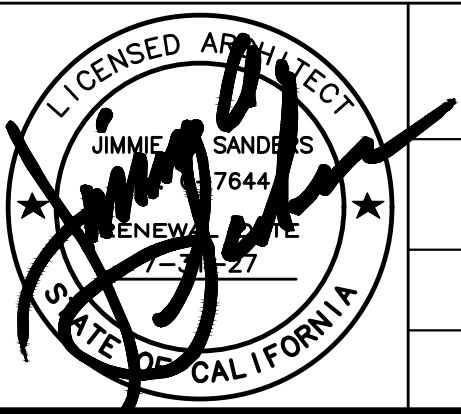
- DEMOLITION KEYNOTES ARE NOT INTENDED TO SHOW ALL DEMOLITION REQUIRED FOR PROPOSED IMPROVEMENTS. CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING IMPROVEMENTS/CONDITIONS REQUIRED TO COMPLETE WORK FOR PROPOSED IMPROVEMENTS.
- CONTRACTOR SHALL ENCOUNTER EXISTING IRRIGATION LINES DURING DEMOLITION. CONTRACTOR SHALL CAP LINE AWAY FROM PROPOSED IMPROVEMENTS, AND NOTIFY ARCHITECT/SCHOOL DISTRICT.
- CONTRACT SHALL REMOVE UTILITY PIPING AS INDICATED ON PLANS. ALL UNDERGROUND PIPING SHALL REMAIN IN PLACE. DISCONNECT AND CAP PIPING TO BE CONNECTED FOR FUTURE POINT OF CONNECTION.

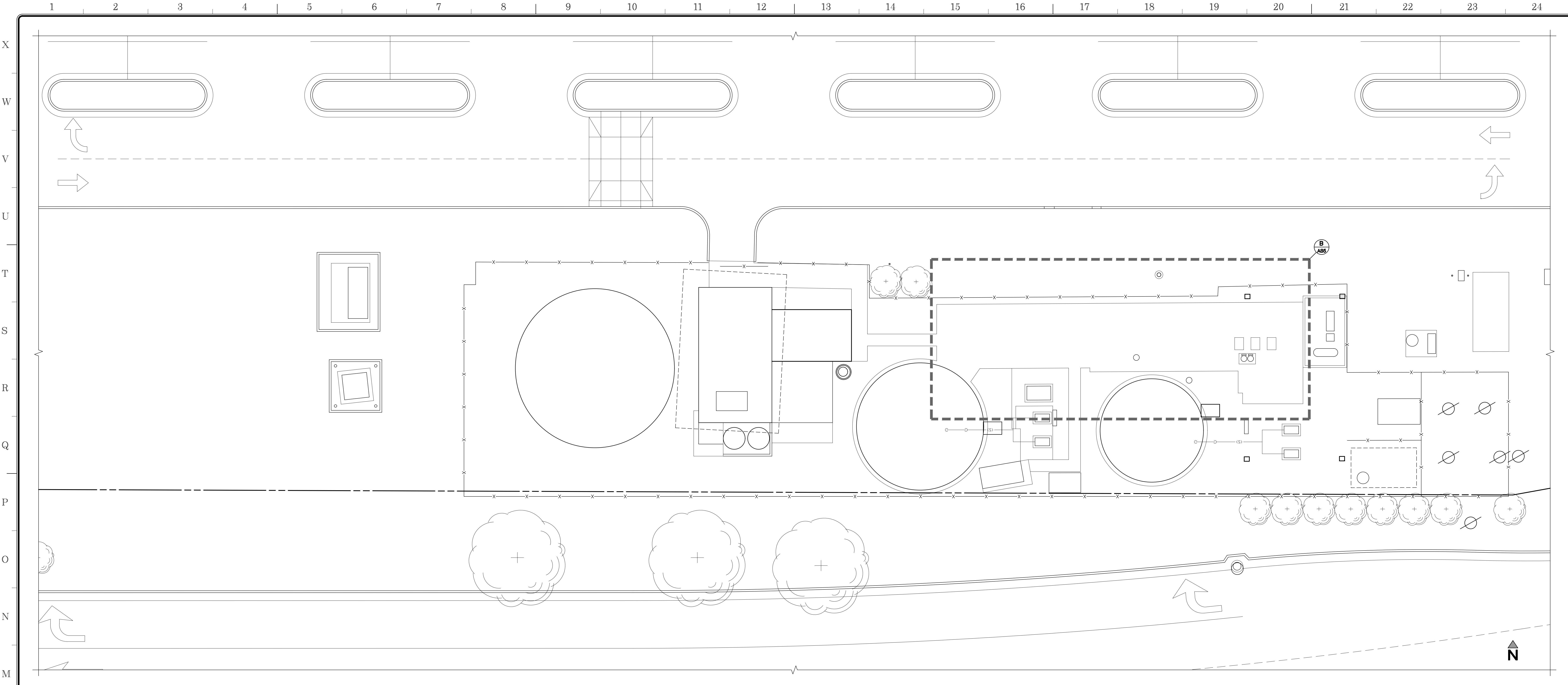
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Project Title
IMPERIAL VALLEY COLLEGE
WATER & WASTEWATER PLANT IMPROVEMENTS

Sheet Title
SITE SURVEY AND DEMOLITION PLAN
DEMOLITION UTILITY PLAN

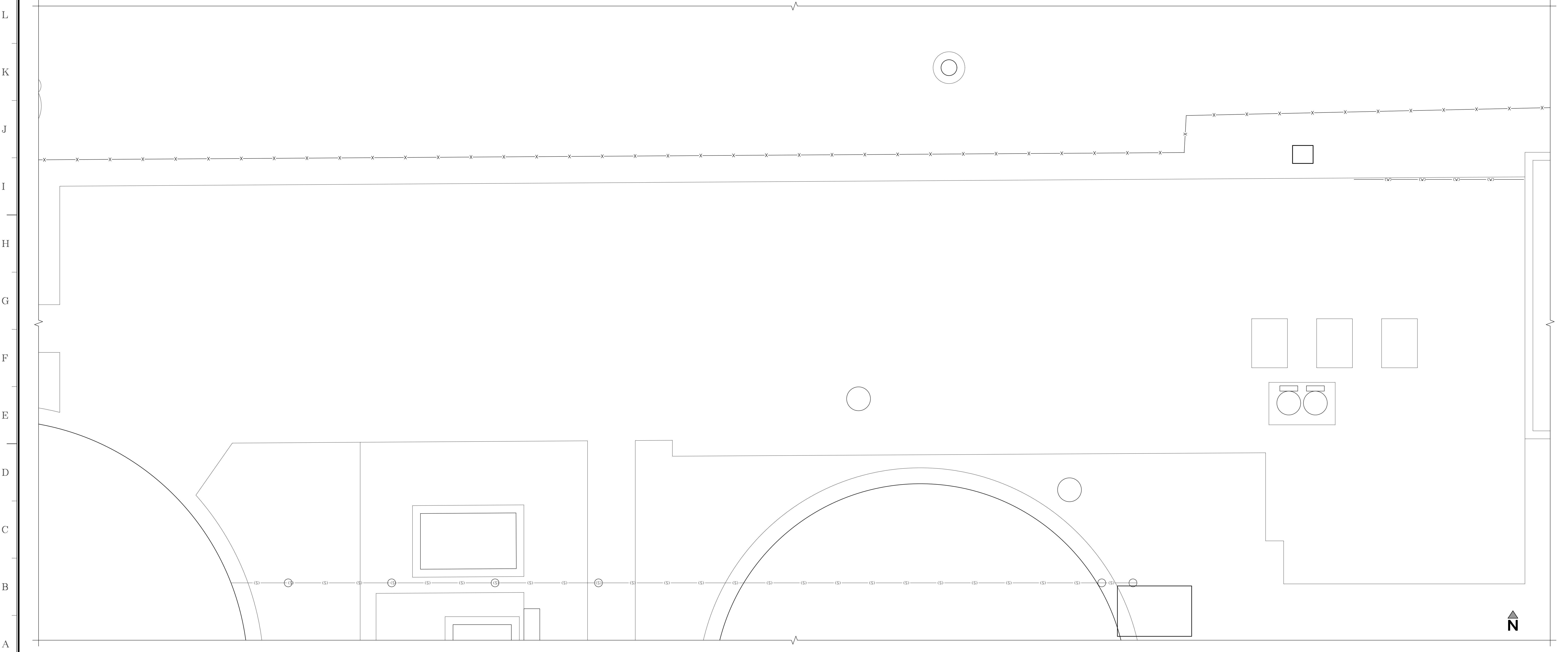
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	Date Last Revised	Sheet Number AS3



HARDSCAPE

SCALE: 1" = 10'-0"

A



ENLARGEMENT

SCALE: 1" = 10'-0"

B

APPROVALS

KEYNOTES:

- 1 EXISTING CONCRETE WALK - PROTECT
- 2 6" THICK CONCRETE WALK

LEGEND:

- 10.00 BENCH MARK: TOP OF NORTHEAST CORNER OF TRANSFORMER PAD LOCATED NORTH OF THE MAINTENANCE BUILDING
- 13.4 EXISTING ELEVATION FROM AERIAL SURVEY
- 36.80 EXISTING ELEVATION (SITE CONCRETE UNO.)
- 22.00 PROPOSED ELEVATION (SITE CONCRETE UNO.)
- 22.00 DIRECTION OF SLOPE W/ SLOPE NOTED
- 6.00 RADIUS - NOTED IN DECIMAL FEET
- 6.00 GRADE BREAK
- 6.00 STORM DRAIN
- 6.00 FIRE HYDRANT
- 6.00 IRRIGATION HYDRANT
- 6.00 UTILITY CLEAN OUT
- 6.00 POWER POLE
- 6.00 LIGHT STANDARDS - SEE ELECTRICAL DRAWINGS
- 6.00 MANHOLE
- 6.00 STORM DRAIN CATCH BASIN
- 6.00 EXISTING CHAIN LINK FENCE
- NS NATURAL SOIL
- TC TOP OF CURB
- FL FLOW LINE
- TB TOP OF BENCH
- TP TOP OF PLANTER
- PB POLE BASE
- D DRAIN

NOTES:

- ALL DIMENSIONS ARE TO FACE OF CURB AND FACE OF STRUCTURE (UNO.).
- CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY DRAINAGE OF SITE. CONTRACTOR SHALL NOTIFY ARCHITECT PRIOR TO CONSTRUCTION. ANY SITE CONCRETE WHICH WILL NOT PROPERLY DRAIN.
- ALL CONTROL JOINTS TO BE SAW CUT.
- ALL NATIVE SOIL REMOVED FOR CONSTRUCTION HARDSCAPE SHALL REMAIN ON SITE. CONTRACTOR SHALL USE NATIVE SOIL FOR FINISH GRADING.
- MAXIMUM CROSS SLOPE AT ALL ACCESSIBLE PATHS OF TRAVEL IS 2%.
- PROVIDE 1'-0" MIN. TOP SOIL AT ALL PLANTING AREAS.
- PROVIDE TOP SOIL SLOPED AWAY FROM SITE CONCRETE AT 4:1 MAX. SLOPE, TYP. FOR ENTIRE PROJECT.

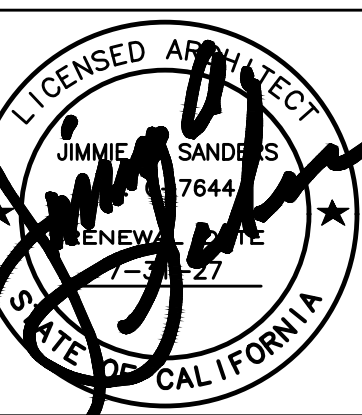
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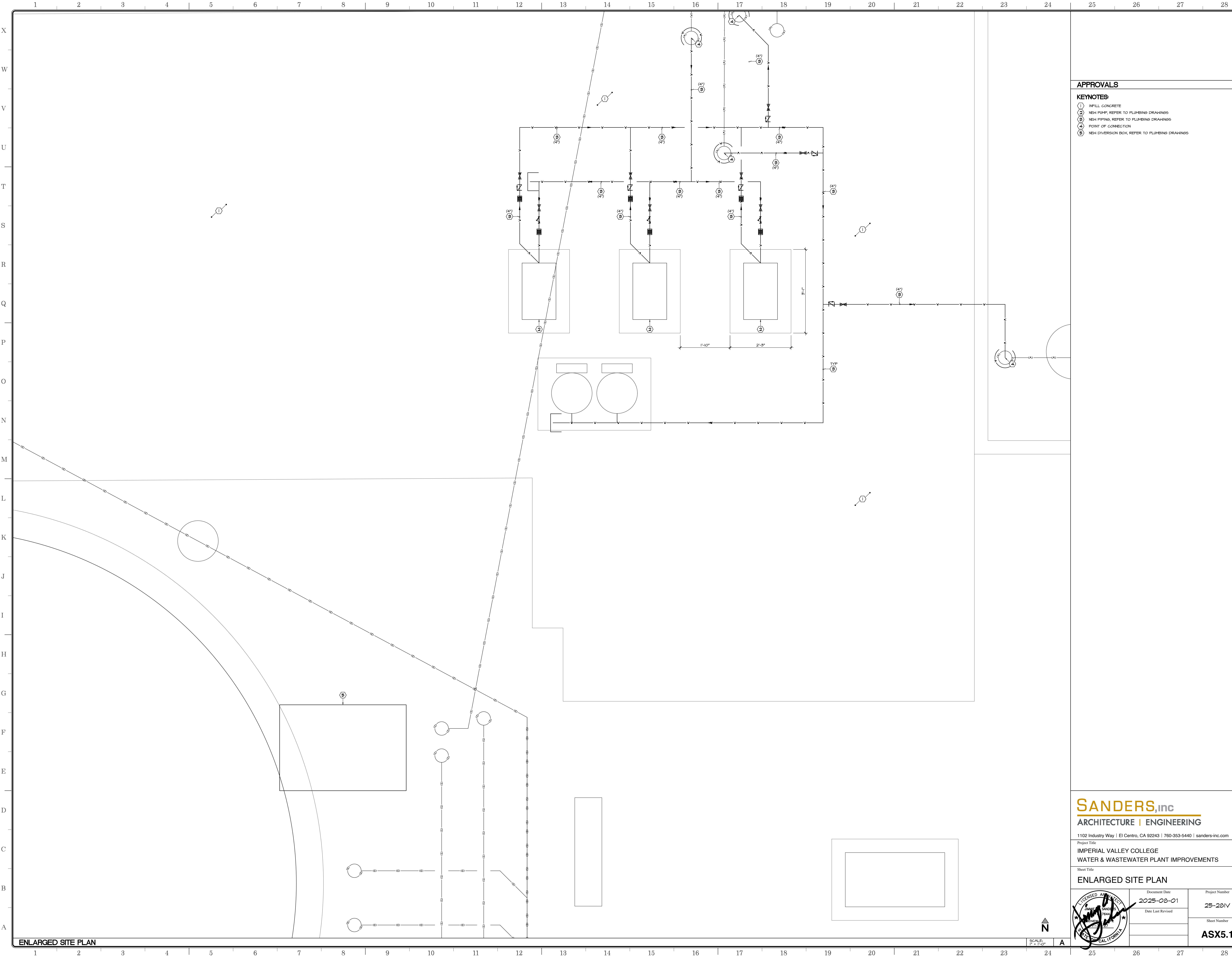
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Project Title
**IMPERIAL VALLEY COLLEGE
WATER & WASTEWATER PLANT IMPROVEMENTS**

Sheet Title

HARDSCAPE

	Document Date 2025-08-01	Project Number 25-28IV
	Date Last Revised	Sheet Number AS5



APPROVALS

KEYNOTES:

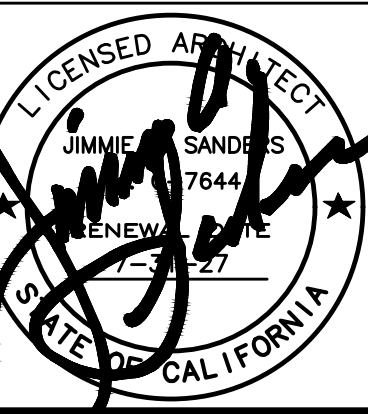
- 1 INFILL CONCRETE
- 2 NEW PUMP, REFER TO PLUMBING DRAWINGS
- 3 NEW PIPING, REFER TO PLUMBING DRAWINGS
- 4 POINT OF CONNECTION
- 5 NEW DIVERSION BOX, REFER TO PLUMBING DRAWINGS

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Project Title:
**IMPERIAL VALLEY COLLEGE
WATER & WASTEWATER PLANT IMPROVEMENTS**

Sheet Title:
ENLARGED SITE PLAN



Document Date:
2025-08-01
Date Last Revised:

Project Number:
25-28IV

Sheet Number:
ASX5.1

ENLARGED SITE PLAN

SCALE:
1" = 1'-0"

A


 — FIXTURE EQUIPMENT
 — FIXTURE EQUIPMENT NUMBER
 — PLUMBING FIXTURE/EQUIP SYMBOL


 — REFERENCE BUBBLE
 — DETAIL NUMBER
 — DRAWING SHEET NUMBER (LOCATION OF DETAIL)

3. THESE DRAWINGS ARE A GENERAL GRAPHIC PRESENTATION OF THE WORK. PLUMBING AS SHOWN IS, EXISTING, FABRICATE AND INSTALL BASED ON ACTUAL FIELD MEASUREMENTS. COORDINATE WITH OTHER TRADES TO PREVENT AN UP-TO-DATE SET OF AS-BUILT DRAWINGS AT THE JOB SITE DURING CONSTRUCTION.
2. CALIFORNIA MECHANICAL CODE 2022 [CMC 2022], CALIFORNIA PLUMBING CODE 2022 [CPC 2022] AND 2022 TITLE 24 ENERGY STANDARDS ARE THE CURRENT CODES/STANDARDS THAT ARE APPLICABLE TO THIS PROJECT.
3. REVIEW DRAWINGS AND SPECIFICATIONS INCLUDING ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL.
4. PROVIDE ACCESS AND CLEARANCE FOR MAINTENANCE OF PLUMBING EQUIPMENT AND COMPONENTS AS RECOMMENDED BY EQUIPMENT MANUFACTURER AND APPLICABLE CODES.
5. HANDLE, STORE AND INSTALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS.
6. INSTALL VALVE WITH UNIONS OR FLANGES AT EACH PIECE OF EQUIPMENT ARRANGED TO ALLOW SERVICE, MAINTENANCE AND EQUIPMENT REMOVAL WITHOUT SYSTEM SHUT-DOWN.
7. BRACE AND SUPPORT PIPES, AND CONDUNIT, IN ACCORDANCE TO SMACNA GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL AND PLUMBING PIPING SYSTEM.
8. INSULATE PLUMBING IN ACCORDANCE WITH GOVERNING CODES.
9. COMMISSION AND START-UP THE PLUMBING SYSTEM TO INSURE A COMPLETE AND OPERATIONAL PLUMBING SYSTEM IN ACCORDANCE WITH ASHRAE AND NIBEL.
10. VERIFY EXACT LOCATION OF PLUMBING FIXTURES, AND FLOOR/DECK/ROOF/OVERFLOW DRAINS WITH THE ARCHITECT.
11. MINIMUM SLOPE FOR SANITARY SEWER PIPING SHALL BE 1/4" PER 12 INCH UNLESS OTHERWISE NOTED.
12. TERMINATE VENTS THRU ROOF A MINIMUM OF 8 INCHES ABOVE AND TEN FEET HORIZONTAL AVOID THROUGH AIR INTAKES.
13. VERIFY EQUIPMENT LOCATIONS, PIPE PENETRATIONS AND EQUIPMENT PAD LOCATIONS WITH STRUCTURAL ENGINEER PRIOR TO START OF WORK.
14. PROVIDE AN APPROVED BACKWATER VALVE IN DRAINAGE PIPING SERVING FIXTURES WITH FLOOR LEVEL 8" MIN ELEVATION BELOW THE BOX OF THE UPRIGHTMAN MANHOLE. SEVERALS ABOVE SUCH ELEVATION SHALL NOT DISCHARGE THROUGH THE BACKWATER VALVE.
15. FLOOR DRAINS OR SIMILAR TRAPS DIRECTLY CONNECTED TO THE DRAINAGE SYSTEM AND SUBJECT TO INFREQUENT USE SHALL BE PROVIDED WITH AN APPROVED AUTOMATIC MEANS OF MAINTAINING THEIR WATER SEALS.
16. INSTALLATION OF SOLC OR DOWNS IN FLOOD HANDLING ESTABLISHMENTS WILL COMPLY WITH SECTIONS 701.0-UP AND 901.2.3-UP.
17. BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH SECTIONS 701.0 AND 903.0 OF THE C.P.C.

P001	PLUMBING NOTES
P002	PLUMBING SCHEDULES
P100	PLUMBING OVERALL FLOOR PLAN
P201	PLUMBING FLOOR PLANS
P202	PLUMBING CONDENSATE DRAIN PLANS
P401	PLUMBING DETAILS
P501	PLUMBING SPECIFICATIONS

<u>SANITARY WASTE LINES:</u>	
(BELOW GRADE)	SCHEDULE 40 PVC
(ABOVE GRADE)	HUB-LESS CAST IRON PIPE & FITTINGS
<u>VENT PIPING:</u>	
	HUB-LESS CAST IRON PIPE & FITTINGS
<u>DRAIN PIPING:</u>	
	HUB-LESS CAST IRON PIPE & FITTINGS
<u>DOMESTIC WATER PIPING:</u>	
(ABOVE GRADE)	TYPE "L" HARD COPPER PIPE AND FITTINGS
(BELOW GRADE)	TYPE "K" HARD COPPER PIPE AND FITTINGS OR SCHEDULE 40 CPVC
<u>GAS PIPING:</u>	
ABOVE GRADE	BLACK STEEL

PER 2002 CFC SECTION 609.1.1 & 609.1.2

1. DOMESTIC HOT WATER PIPING SHALL BE INSULATED.

ALL DOMESTIC [i.e. POTABLE] HOT WATER PIPING WILL HAVE A MINIMUM INSULATION FOR THE FOLLOWING PIPE SIZES: 1/2" PIPE [1" INSULATION]; 3/4" PIPE [1" INSULATION]; 1" 1/2" PIPES [1 1/2" INSULATION]; 2" PIPES [2" INSULATION]; CFC 609.1.1 & 609.1.2(I).

3. RECIRCULATING HOT WATER PIPING SHALL BE INSULATED AS FOLLOWS:

1. 1" PIPE SIZE OR LESS - 1" THICK INSULATION.
2. LARGER PIPE SIZE REQUIRE 1 1/2" INSULATION.

A MINIMUM CFC R-4 INSULATION ON PIPING LESS THAN OR EQUAL TO 2" R-4 INSULATION ON PIPING GREATER THAN 2" PER THE 2002 CALIFORNIA BUILDING ENERGY CODE.

4. HOT & COLD WATER PIPING WITHIN 8 FT OF WATER HEATER - ES TABLE 120.3-A.

DRAINAGE PIPING SHALL SLOPE AT 2% OR 1/4" PER FOOT, WHERE 2% SLOPE IS UNATTAINABLE DUE TO ARCHITECTURAL, STRUCTURAL, OR MECHANICAL CONFLICTS, 1% SLOPE OR 1/8" PER FOOT SHALL BE ACCEPTABLE FOR DRAINAGE PIPING AND 4" AND LARGER IN DIAMETER. SUBJECT TO FIELD INSPECTOR APPROVAL.

THE DRAWINGS CONTAINED WITHIN THESE CONSTRUCTION DOCUMENTS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CLEARANCES PRIOR TO THE COMMENCEMENT OF WORK AND SHALL INCLUDE ALL COSTS, EQUIPMENT, MATERIALS, ETC. REQUIRED FOR A COMPLETE, FUNCTIONAL, AND CODE-COMPLIANT INSTALLATION.

2. CONTRACTOR SHALL PREPARE AND SUBMIT DETAILED 1/4"=1'-0" SCALE DRAWINGS THAT HAVE BEEN PROPERLY COORDINATED WITH ALL EXISTING CONDITIONS, UTILITIES, AND CLEARANCES PRIOR TO THE COMMENCEMENT OF WORK. DRAWINGS SHALL INCLUDE LOCATION AND SIZES OF ACCESS PANELS, HARD CEILINGLS FOR EQUIPMENT AND DAMPER ACCESS.

3. THE CONTRACTOR SHALL COORDINATE ALL INSTALLATIONS WITH ALL OTHER TRADES.

4. CONTRACTOR SHALL COORDINATE ALL EQUIPMENT LOCATIONS WITH ARCHITECTURAL, MECHANICAL, STRUCTURAL, PLUMBING AND ALL APPROPRIATE DISCIPLINES.

5. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM AND/OR ENGINEER PRIOR TO THE START OF CONSTRUCTION.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND REPAIR OF EXISTING SURFACES, AREAS, AND PROPERTY THAT MAY BE DAMAGED AS A RESULT OF ANY ELECTRICAL DEMOLITION AND/OR NEW WORK.

7. VERIFY EXISTING CONDITIONS PRIOR TO BID AND INCLUDE ALL COSTS AS REQUIRED FOR A COMPLETE AND FUNCTIONAL INSTALLATION.

8. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, APPROVALS, LICENSES, ETC. AS NEEDED FOR THE COMPLETE MECHANICAL INSTALLATION. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ALL FEES AND DATA NEEDED FOR THE ABOVE ITEMS.

9. ALL WORK SHALL BE IN ACCORDANCE WITH CITY CODES, CALIFORNIA MECHANICAL CODE, STATE OF CALIFORNIA ENERGY CODE, AND ALL OTHER APPLICABLE CODES.

10. ALL DRAWINGS ARE CONSIDERED TO BE PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW & COORDINATION OF ALL DRAWINGS PRIOR TO ANY CONSTRUCTION, INCLUDING ARCHITECTURAL, STRUCTURAL, AIR CONDITIONING, PLUMBING & ELECTRICAL. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF ENGINEER PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION MAY BE ISSUED.

11. DO NOT SCALE DRAWINGS - ALL DIMENSIONS & JOB SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO BID SUBMITAL. START OF CONSTRUCTION AND/OR FABRICATION OF MATERIALS, IF DISCREPANCIES ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION.

12. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

PIPE SIZE (IN.)	GPM (MAX)	VELOCITY FT/SEC	FIXTURE UNITS	
			FLUSH TANK	FLUSH VALVE
1/2	3	3.7	3	-
3/4	7	5	8	-
1	15	6	21	-
1 1/4	25	7	42	8
1 1/2	45	8	86	28
2	70	8	225	108
2 1/2	110	8	431	295
3	180	8	809	775
4	295	8	1765	1765
6	560	8	4480	4480

PIPE SIZE (IN.)	GPM (MAX)	VELOCITY FT/SEC	FIXTURE UNITS	
			FLUSH TANK	FLUSH VALVE
1/2	3	4	3	-
3/4	9	5	12	-
1	13	5	18	-
1 1/4	20	5	30	-
1 1/2	28	5	49	11
2	49	5	123	46
2 1/2	70	5	225	108
3	105	5	405	-
4	185	5	850	-
6	470	5	3360	-

SYSTEM	MATERIALS	HORIZONTAL	VERTICAL
STORM DRAIN	SCHEDULE 40 PVC	ALL SIZES 4'	BASE AND EACH FLOOR; PROVIDE MID-STORY GUIDES; PROVIDE FOR EXPANSION EVERY 30 FEET
	CAST IRON HUBLESS	EVERY OTHER JOINT, UNLESS OVER 4 FEET THEN SUPPORT EACH JOINT	BASE AND EACH FLOOR, NOT TO EXCEED 15 FEET
DOMESTIC WATER	COPPER	1" - 1/2" AND SMALLER, 6 FEET 2" AND LARGER, 10 FEET	EACH FLOOR, DO NOT EXCEED 10 FEET
	CPVC	1" AND SMALLER, 3 FEET 1 1/4" - LARGER, 4 FEET	BASE AND EACH FLOOR; PROVIDE MID-STORY GUIDES
VENT	SCHEDULE 40 PVC	ALL SIZES 4'	BASE AND EACH FLOOR; PROVIDE MID-STORY GUIDES; PROVIDE FOR EXPANSION EVERY 30 FEET
	CAST IRON HUBLESS	EVERY OTHER JOINT, UNLESS OVER 4 FEET THEN SUPPORT EACH JOINT	BASE AND EACH FLOOR, NOT TO EXCEED 15 FEET
GAS	BLACK SCHEDULE 40	1/2" - 6 FEET 3/4" & 1" - 8 FEET 1 1/4" - LARGER, 10 FEET	1/2" - 6 FEET 3/4" & 1" - 8 FEET 1 1/4" - EVERY FLOOR LEVEL
	SCHEDULE 40 PVC	ALL SIZES 4'	PROVIDE MID-STORY GUIDES; PROVIDE FOR EXPANSION EVERY 30 FEET
WASTE	SCHEDULE 40 PVC	ALL SIZES 4'	PROVIDE MID-STORY GUIDES; PROVIDE FOR EXPANSION EVERY 30 FEET
	CAST IRON HUBLESS	EVERY OTHER JOINT, UNLESS OVER 4 FEET THEN SUPPORT EACH JOINT	BASE AND EACH FLOOR, NOT TO EXCEED 15 FEET

SPACING BASED ON TABLE 313.3.2002 CFC.



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Sheet Title

PLUMBING NOTES

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DOMESTIC WATER DISTRIBUTION PUMP SCHEDULE												
TAG	MANUFACTURER & MODEL NO.	LOCATION	SERVICE		FLOWRATE (GPM)	ΔP (FT. HD.)	MINIMUM EFF. %	NPSH MAX (FT)	VOL.T./PH./HZ.	HP	TOTAL WEIGHT (LBS)	REMARKS
 SWP-1	GRUNDOSF HYDRO MPC-E 3CRE 453-2	WATER DISTRIBUTION PLANT	DOMESTIC WATER DISTRIBUTION		225	180	74	50	450V/3/60	20	-	PUMP IS PART OF SKID. (3 PUMPS TOTAL). 1 PUMP REDUNDANT. PROVIDE WITH INTEGRAL FACTORY VFD AND CONTROLLER. PUMP SKID WITH SINGLE POINT POWER CONNECTION.
 SWP-2	GRUNDOSF HYDRO MPC-E 3CRE 453-2	WATER DISTRIBUTION PLANT	DOMESTIC WATER DISTRIBUTION		225	180	74	50	450V/3/60	20	-	PUMP IS PART OF SKID. (3 PUMPS TOTAL). 1 PUMP REDUNDANT. PROVIDE WITH INTEGRAL FACTORY VFD AND CONTROLLER. PUMP SKID WITH SINGLE POINT POWER CONNECTION.
 SWP-3	GRUNDOSF HYDRO MPC-E 3CRE 453-2	WATER DISTRIBUTION PLANT	DOMESTIC WATER DISTRIBUTION		225	180	74	50	450V/3/60	20	-	PUMP IS PART OF SKID. (3 PUMPS TOTAL). 1 PUMP REDUNDANT. PROVIDE WITH INTEGRAL FACTORY VFD AND CONTROLLER. PUMP SKID WITH SINGLE POINT POWER CONNECTION.

FIRE WATER PUMP SCHEDULE												
TAG	MANUFACTURER & MODEL NO.	LOCATION	SERVICE		FLOWRATE (GPM)	ΔP (PSI)	MINIMUM EFF. %	NPSH MAX (FT)	VOLT./PH./HZ.	HP	TOTAL WEIGHT (LBS)	REMARKS
 2	PEERLESS PUMP 6AEF168	WATER DISTRIBUTION PLANT	FIRE WATER DISTRIBUTION		1500	100	-	-	460V/3/60	125	-	PROVIDE WITH INTEGRAL FACTORY VFD, DRIVER, CONTROLLER. PROVIDE WITH SOFT START. PROVIDE OUTDOOR RATED ENCLOSURE FOR ALL CONTROLS AND ELECTRICAL COMPONENTS.
PROVIDE WITH INTEGRAL FACTORY VFD, DRIVER, CONTROLLER. PROVIDE WITH SOFT START. PROVIDE OUTDOOR RATED ENCLOSURE FOR ALL CONTROLS AND ELECTRICAL COMPONENTS. PROVIDE WITH AIR RELEASE VALVE, CASING RELIEF VALVE FLOW METER AND PRESSURE GAUGE. PROVIDE WITH EQUIPMENT PAD.												

UV LIGHT WASTE WATER TREATMENT SCHEDULE					
TAG	MANUFACTURER & MODEL NO.	SERVICE	WATTS	VOLT./PH./HZ.	REMARKS
UV-1	-	SEWER TREATMENT	-	-	-
	-				

EXPANSION TANK SCHEDULE									
TAG	MANUFACTURER & MODEL NO.	SERVICE	VOLUME (GALLONS)	MAX. ACCEPTANCE FACTOR	CONNECTION SIZE (IN.)	TYPE	SERVICE	TOTAL WEIGHT (LBS)	REMARKS
ET-1	AMTROL ST-210V	DOMESTIC WATER	86	0.54	1-1/4"	BLADDER TANK	-	520	1.
ET-2	AMTROL ST-210V	DOMESTIC WATER	86	0.54	1-1/4"	BLADDER TANK	-	520	1.

1. PROVIDE HIGH CAPACITY AIR VENT AND STRAINER.

APPROVALS



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IMPERIAL VALLEY COLLEGE
WATER & SEWER PLANT UPGRADES

Sheet Title

PLUMBING SCHEDULES AND CALCS

Document Date
2024-10-08

Project Number
22-63IV

Sheet Number

P002



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Project Title:
IMPERIAL VALLEY COLLEGE
WATER & SEWER PLANT UPGRADES

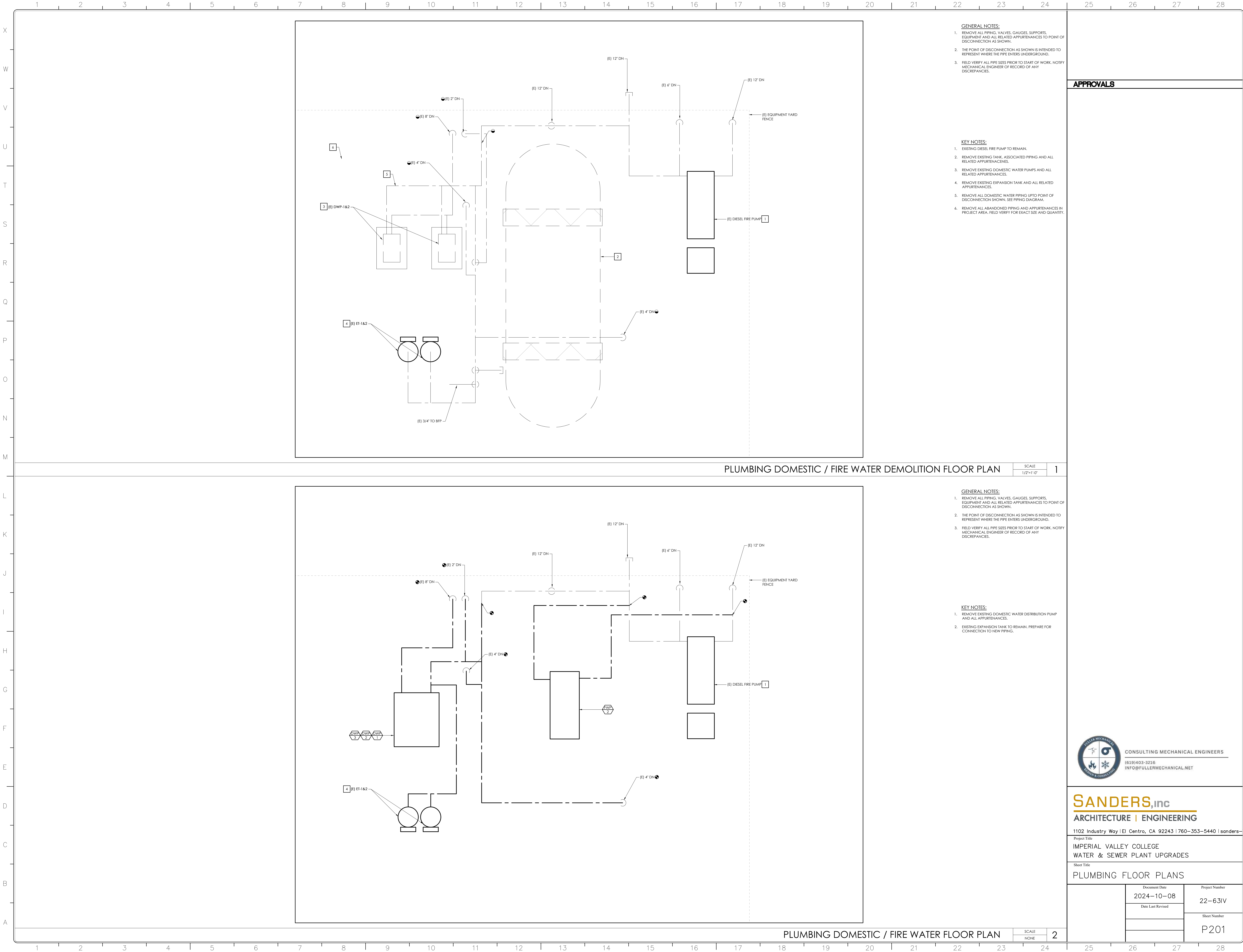
Sheet Title:
PLUMBING SITE PLAN

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	P100

PLUMBING SITE PLAN

SCALE
1/128"=1'-0"

1



- GENERAL NOTES:**
1. REMOVE ALL PIPING, VALVES, GAUGES, SUPPORTS, EQUIPMENT AND ALL RELATED APPURTENANCES TO POINT OF DISCONNECTION AS SHOWN.
 2. THE POINT OF DISCONNECTION AS SHOWN IS INTENDED TO REPRESENT WHERE THE PIPE ENTERS UNDERGROUND.
 3. FIELD VERIFY ALL PIPE SIZES PRIOR TO START OF WORK. NOTIFY MECHANICAL ENGINEER OF RECORD OF ANY DISCREPANCIES.

- KEY NOTES:**
1. EXISTING DIESEL FIRE PUMP TO REMAIN.
 2. REMOVE EXISTING TANK, ASSOCIATED PIPING AND ALL RELATED APPURTENANCES.
 3. REMOVE EXISTING DOMESTIC WATER PUMPS AND ALL RELATED APPURTENANCES.
 4. REMOVE EXISTING EXPANSION TANK AND ALL RELATED APPURTENANCES.
 5. REMOVE ALL DOMESTIC WATER PIPING UP TO POINT OF DISCONNECTION SHOWN. SEE PIPING DIAGRAM.
 6. REMOVE ALL ABANDONED PIPING AND APPURTENANCES IN PROJECT AREA. FIELD VERIFY FOR EXACT SIZE AND QUANTITY.

APPROVALS

- GENERAL NOTES:**
1. REMOVE ALL PIPING, VALVES, GAUGES, SUPPORTS, EQUIPMENT AND ALL RELATED APPURTENANCES TO POINT OF DISCONNECTION AS SHOWN.
 2. THE POINT OF DISCONNECTION AS SHOWN IS INTENDED TO REPRESENT WHERE THE PIPE ENTERS UNDERGROUND.
 3. FIELD VERIFY ALL PIPE SIZES PRIOR TO START OF WORK. NOTIFY MECHANICAL ENGINEER OF RECORD OF ANY DISCREPANCIES.

- KEY NOTES:**
1. REMOVE EXISTING DOMESTIC WATER DISTRIBUTION PUMP AND ALL APPURTENANCES.
 2. EXISTING EXPANSION TANK TO REMAIN. PREPARE FOR CONNECTION TO NEW PIPING.

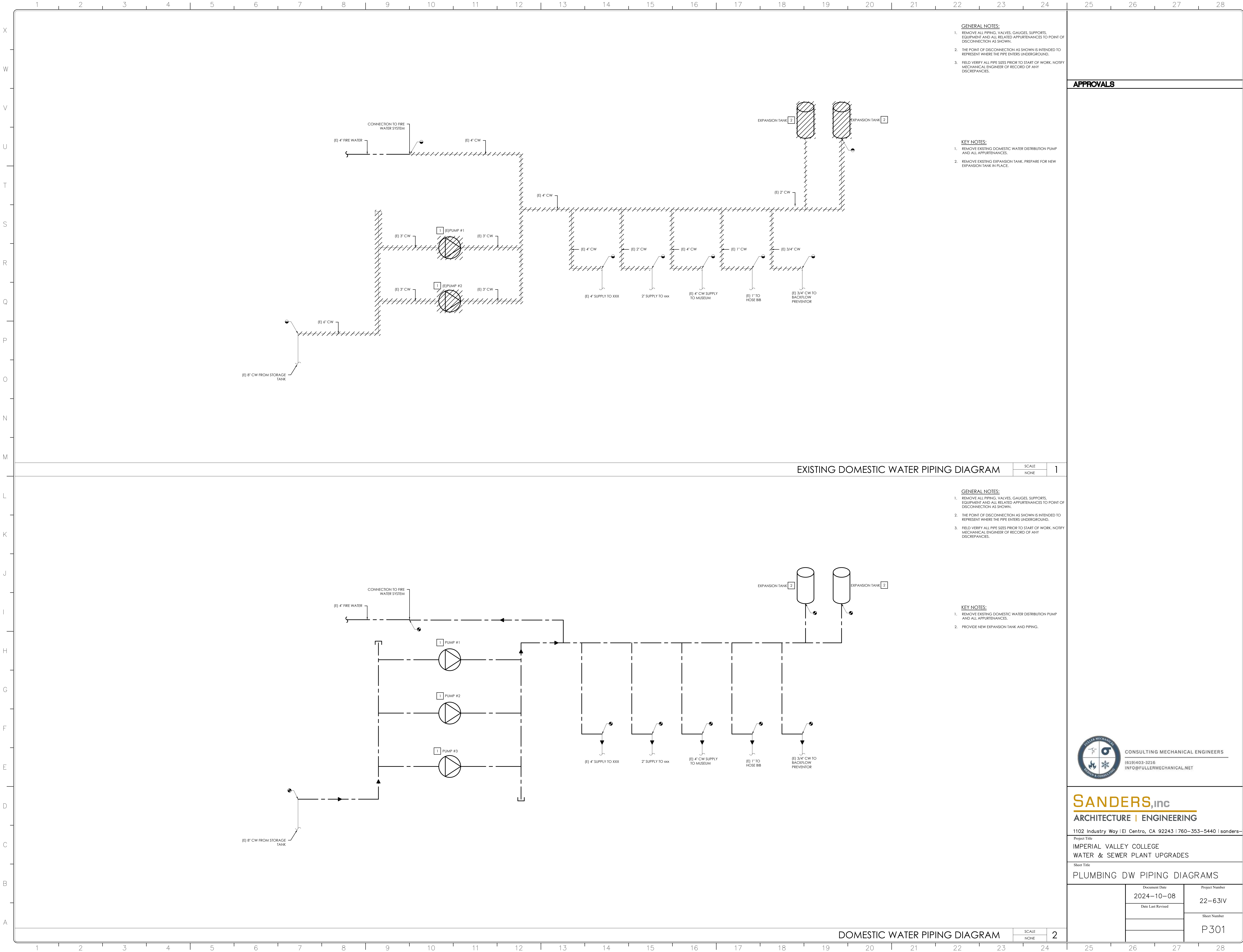


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Project Title:
IMPERIAL VALLEY COLLEGE
WATER & SEWER PLANT UPGRADES

Sheet Title:
PLUMBING FLOOR PLANS

	Document Date 2024-10-08	Project Number 22-63IV
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Project Title:
IMPERIAL VALLEY COLLEGE
WATER & SEWER PLANT UPGRADES

Sheet Title:
PLUMBING DW PIPING DIAGRAMS

	Document Date 2024-10-08	Project Number 22-631V
	Date Last Revised	Sheet Number P301

IMPERIAL VALLEY COLLEGE TTHM TREATMENT SYSTEM 60% SUBMITTAL

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SEPTEMBER 2025



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VICINITY MAP
NOT TO SCALE

SHEET INDEX

SHEET	DRAWING	DESCRIPTION
GENERAL		
1.	G0.0	COVER SHEET, VICINITY MAP, AND SHEET INDEX
2.	G1.0	GENERAL CONSTRUCTION NOTES
3.	G2.0	ABBREVIATIONS, SYMBOLS, NOTES
4.	G3.0	EXISTING PROCESS FLOW DIAGRAM
5.	G4.0	GAC SYSTEM PROCESS FLOW DIAGRAM
CIVIL		
6.	C1.0	EXISTING OVERALL SITE PLAN
7.	C2.0	EXISTING ENLARGED SITE PLAN
8.	C3.0	OVERALL GAC SYSTEM SITE PLAN
9.	C4.0	ENLARGED GAC SYSTEM SITE PLAN

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CONSTRUCTION NOTES

1. ALL CONSTRUCTION IN THE PUBLIC RIGHTS-OF-WAY OR IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO THE LATEST COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS ENGINEERING DESIGN GUIDELINES MANUAL.

2. WHENEVER EXCAVATION IS TO BE DONE, CALL 811 TWO WORKING DAYS BEFORE EXCAVATION IS TO BEGIN. THE CENTER WILL SEE THAT THE LOCATION OF THE UNDERGROUND UTILITY LINES IS IDENTIFIED FOR THE PROJECT. CALL "COLLECT" IF NECESSARY.

3. ENCROACHMENT PERMITS ARE REQUIRED FOR ALL WORK IN PUBLIC RIGHT-OF-WAY AND EASEMENTS GRANTED FOR PUBLIC PURPOSES. COPIES OF ALL PERMITS SHALL BE RETAINED ON SITE AND SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES. FAILURE TO PRODUCE THE REQUIRED PERMITS WILL RESULT IN IMMEDIATE WORK STOPPAGE UNTIL THE PROPER PERMIT DOCUMENTATION IS OBTAINED.

4. ALL EXCAVATION AND GRADING WHICH IS NOT IN THE PUBLIC RIGHTS-OF-WAY OR NOT IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO CHAPTER 33, EXCAVATION AND GRADING, OF THE LATEST EDITION OF THE UNIFORM BUILDING CODE PREPARED BY THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS. A PERMIT FOR THIS GRADING MUST BE SECURED.

5. THE CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED FOR THE WORK, UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL REVIEW PERMIT REQUIREMENTS AND INCLUDE COSTS IN THE BID TO COMPLY WITH ALL PERMIT REQUIREMENTS, INCLUDING COORDINATION OF ALL RELOCATION AND REMOVALS BY OTHERS.

6. THE CONTRACTOR IS ADVISED THAT AN EXCAVATION AND DIRT MOVING PERMIT MAY BE REQUIRED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THIS PERMIT, IF NECESSARY, AND COMPLY WITH ITS REQUIREMENTS.

7. THE CONTRACTOR SHALL COORDINATE WORK SCHEDULES WITH THE OWNER'S REPRESENTATIVE SO AS TO PREVENT ANY CONFLICTING WORK CONDITIONS.

8. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS, BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT AND ARE APPROXIMATE. NEW(ER) UTILITIES MAY EXIST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING AND NEW(ER) UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK AND AVOIDING DAMAGE TO SAME.

9. THE CONTRACTOR SHALL CONTACT THE UTILITY PRIOR TO PROCEEDING WITH WORK WHICH INVOLVES OR AFFECTS EXISTING FEATURES OR AFFECTS EXISTING UTILITIES.

10. ALL UTILITIES SHALL BE PROTECTED FROM DAMAGE AS A RESULT OF THE WORK AND CONTRACTOR CREW ACTIVITIES. THE CONTRACTOR SHALL RELOCATE, REPAIR OR REPLACE ANY UTILITIES TO THE SATISFACTION OF THE UTILITIES AND THE OWNER. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING FROM THE PERFORMANCE OF THE WORK. REPAIR AND REPLACEMENT OF DAMAGED FACILITIES SHALL BE PERFORMED IN A TIMELY MANNER AT NO ADDITIONAL COST TO THE OWNER.

11. PROVIDE THRUST RESTRAINT FOR EXISTING PIPING WHENEVER THE WORK REQUIRES. CONTRACTOR TO REPLACE OR RESTORE THE EXISTING RESTRAINT SYSTEM TO LIKE NEW CONDITION. RESTRAINT SYSTEMS FOR EXISTING DUCTILE IRON PIPE SHALL BE MECHANICAL JOINT RESTRAINT ONLY. NO THRUST BLOCKS ARE PERMITTED FOR EXISTING DUCTILE IRON PIPES. RESTRAINT JOINTS FOR EXISTING DUCTILE IRON PIPE SHALL BE IN ACCORDANCE WITH THE APPLICABLE IMPERIAL COUNTY STANDARDS. DUCTILE IRON PIPING SYSTEMS TO BE RESTRAINED THE COMPLETE LENGTH OF THE PIPELINE SYSTEM.

12. (*) INDICATES DIMENSIONS, DISTANCES, COORDINATES OR ELEVATIONS TO BE SURVEYED AND FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INITIATING ANY OF THE WORK.

13. EXISTING BURIED PIPING, ELECTRICAL DUCT BANKS AND OTHER BURIED UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS AND MAY VARY FROM THAT WHICH HAS BEEN SHOWN WITHIN THIS SET OF DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION, ORIENTATION, AND SIZE OF SUCH UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND EXPOSING BURIED PIPE, ELECTRICAL DUCT BANK AND OTHER UTILITIES THAT MAY EFFECT WORK AREAS PRIOR TO COMMENCING WORK. THIS IS NOT CONSIDERED POTHOLING, POTHOLING SHALL BE DIRECTED BY THE OWNER.

14. IN THE EVENT THAT HISTORIC OR PREHISTORIC SURFACE OR SUBSURFACE CULTURAL FEATURES OR DEPOSITS ARE ENCOUNTERED DURING PROJECT ACTIVITIES, THESE ACTIVITIES MUST BE DISCONTINUED IN THE IMMEDIATE AREA WHERE THE CULTURAL RESOURCES ARE DISCOVERED, AND AN ARCHAEOLOGIST CONSULTED TO EVALUATE THE NATURE AND SIGNIFICANCE OF THE MATERIALS.

15. CONTRACTOR SHALL KEEP ALL CONSTRUCTION EQUIPMENT AT LEAST 50' FROM EXISTING OVERHEAD POWER LINES. IF THIS IS NOT FEASIBLE, CONTACT THE UTILITY OWNER TO INSTALL A TEMPORARY PROTECTIVE COVERING ON THE POWER LINES.

16. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY FITTINGS AND ADAPTERS REQUIRED TO CONNECT DIFFERENT TYPES OF PIPE LINE MATERIAL.

17. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE OWNER OF ANY DISCREPANCIES.

18. UNLESS DETAILED, SPECIFIED OR INDICATED OTHERWISE, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND GENERAL NOTES. TYPICAL DETAILS ARE MEANT TO APPLY EVEN THOUGH NOT REFERENCED AT SPECIFIC LOCATIONS OR IN SPECIFIC DRAWINGS.

19. GOVERNING BUILDING CODES
ALL CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING CODES AND AMENDMENTS PER THEIR ADOPTING ORDINANCES:
2018 INTERNATIONAL BUILDING CODE (IBC)
2018 INTERNATIONAL MECHANICAL CODE (IMC)
2018 INTERNATIONAL FIRE CODE (IFC)
2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2018 INTERNATIONAL PLUMBING CODE (IPC)
2017 NATIONAL ELECTRIC CODE (NEC)

20. ALL MATERIALS WHICH MAY COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NATIONAL SANITATION FOUNDATION STANDARD 60 AND 61.

21. ALL OFFSITE CONSTRUCTION ACTIVITIES SHALL BE CONTAINED WITHIN THE PUBLIC RIGHT OF WAY OR IN EASEMENTS GRANTED FOR THE WORK. ONSITE CONSTRUCTION ACTIVITIES SHALL BE WITHIN DELINEATED WORK AREA BOUNDARIES.

22. THE SEPARATION OF WATER AND SEWER MAINS SHALL CONFORM TO THE APPLICABLE IMPERIAL COUNTY AND CALIFORNIA STANDARDS.

23. MINIMUM VERTICAL CLEARANCE BETWEEN THE PIPELINE AND EXISTING UTILITIES SHALL BE 24 INCHES.

24. WATER VALVES — THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS ACCESS DURING CONSTRUCTION TO THE VALVE OPERATION NUT FOR ALL WATER VALVES WITHIN PROJECT BOUNDARIES.
25. WHERE NEW WORK AND EXISTING FEATURES ARE DEPICTED ON THE SAME SHEETS, EXISTING FEATURES ARE SHOWN WITH LIGHTER, SCREENED, LINES.

26. REPAIR AND REPLACEMENT WORK ON EXISTING UTILITIES, INCLUDING OVERHEAD POWER LINES AND POLES, SHALL BE PERFORMED BY THE CONTRACTOR, WITH PERMISSION GRANTED BY THE UTILITY OWNER. ALL COSTS ASSOCIATED WITH REPAIR AND/OR EXISTING UTILITIES DUE TO CONTRACTOR'S WORK SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

27. ALL GROUND WATER PUMPED FROM EXCAVATION AREAS SHALL BE DISCHARGED PER PERMIT INTO APPROVED EROSION CONTROL FACILITIES AND DRAINAGE COURSES.

28. CONTRACTOR SHALL PREPARE AND FURNISH TO THE OWNER A SET OF AS-BUILT DRAWINGS AT THE COMPLETION OF THE PROJECT. AS-BUILT DRAWINGS SHALL SHOW THE CORRECT AND ACTUAL, INSTALLED LOCATION OF THE PIPELINE AND APPURTENANCES. SEE SPECIFICATIONS FOR REQUIREMENTS.

29. ALL CROSSED UTILITIES SHALL BE SUPPORTED WITH ONE SACK SLURRY CONCRETE OR AS DIRECTED BY THE OWNER.

30. SIGNS REQUIRE SEPARATE APPROVALS AND PERMITS.

31. CONCRETE ENCASEMENT SHALL BE PROVIDED IN THE LENGTHS SHOWN, AND LOCATED TO PROVIDE THE ENCASEMENT WITH EQUAL LENGTHS EXTENDING BEYOND THE UTILITY(IES) BEING CROSSED PER THE APPLICABLE IMPERIAL COUNTY STANDARDS.

32. LIMITS OF CONSTRUCTION LINE (LOC) SHALL BE CONTAINED WITHIN THE CONSTRUCTION FENCING AS APPROVED BY OWNER.

33. FINISHED GRADE SHALL MATCH THE EXISTING GRADE AS SHOWN AND SPECIFIED.

34. THE CONTRACTOR SHALL ATTEMPT TO MINIMIZE CONDUIT BENDS WHEN ENTERING A PULL BOX.

35. ANY DEVIATION FROM THE APPROVED PLANS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO THAT CHANGE BEING INCORPORATED INTO THE PROJECT.

36. ANY SPECIAL INSPECTION REQUIRED SHALL BE IN ADDITION TO ANY ROUTINE INSPECTION BY THE OWNER.

37. FOR ALL BURIED VALVES, NEW, RELOCATED OR ADJUSTED, CONTRACTOR SHALL CONSTRUCT BLOCKING AND SHALL PROVIDE A VALVE BOX WITH A DEBRIS CAP IN ACCORDANCE WITH THE APPLICABLE IMPERIAL COUNTY STANDARDS.

38. ALL POTABLE WATERLINES AND FITTINGS SHALL HAVE A NSF-PW SEAL. ALL MATERIALS AND PRODUCTS USED IN THE POTABLE WATER SYSTEM SHALL CONFORM TO NSF STANDARDS 60 AND 61 IN ACCORDANCE WITH THE APPLICABLE IMPERIAL COUNTY STANDARDS AND CODES. ALL MATERIALS SHALL BE LEAD-FREE AS DEFINED IN THE APPLICABLE IMPERIAL COUNTY STANDARDS AND CODES.

39. TRENCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE IMPERIAL COUNTY STANDARDS. FOR WATER AND SEWER LINES WHICH ARE TWELVE (12) INCHES AND UNDER, TRENCH SHALL BE CONSTRUCTED TO PROVIDE SUPPORT UNDER FULL LENGTH OF THE BARREL WITH HAND EXCAVATED HOLES FOR COUPLINGS AND/OR BELLS.

40. WATER MAIN AND SANITARY SEWER MAIN SEPARATION AND/OR EXTRA PROTECTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE IMPERIAL COUNTY STANDARDS. AN ALTERNATIVE TO CONSTRUCTING SANITARY SEWER MAIN WITH MECHANICAL JOINT OR RESTRAINED JOINT DUCTILE IRON PIPE MAY CONSIST OF CONCRETE ENCASEMENT PER THE APPLICABLE IMPERIAL COUNTY STANDARDS.

41. APPROVED "AS-BUILT" PLANS PRODUCED AND CERTIFIED FOR CORRECTNESS BY A REGISTERED PROFESSIONAL CIVIL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA WILL BE REQUIRED PRIOR TO FINAL APPROVAL OF WATER AND SEWER CONSTRUCTION. THE "AS-BUILT" PLANS SHALL INCLUDE THE LOCATIONS OF ALL VERTICAL AND HORIZONTAL PIPE BENDS, VALVES, MANHOLES, SEWER TAPS, ETC., BY STATION/OFFSET AND NORTHING AND EASTING STATE PLANE COORDINATES.

42. BACKFLOW PREVENTION ASSEMBLIES SHALL HAVE A CERTIFICATE OF APPROVAL ISSUED BY USC-FCCOHR, OR OTHER APPROVED THIRD-PARTY CERTIFYING ENTITY UNRELATED TO THE PRODUCT MANUFACTURER OR VENDOR, IN ACCORDANCE WITH THE APPLICABLE IMPERIAL COUNTY STANDARDS AND CODES. ALL ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE IMPERIAL COUNTY STANDARDS. NO ASSEMBLY SHALL BE PLACED IN SERVICE UNLESS IT HAS BEEN TESTED AND IS FUNCTIONING AS DESIGNED. A CERTIFIED TEST MUST BE SUBMITTED TO THE OWNER (BACKFLOW PREVENTION) FOR APPROVAL. OPERATIONAL APPROVAL OF WATER FACILITIES WILL NOT BE GRANTED PRIOR TO BACKFLOW PREVENTION APPROVAL.

43. ALL CONSTRUCTION MATERIALS USED FOR ANY FACILITIES CONNECTED TO OR PART OF THE PUBLIC WATER SYSTEM SHALL BE LEAD-FREE AS DEFINED IN THE APPLICABLE IMPERIAL COUNTY STANDARDS AND CODES.

44. ALL WORK AND TESTING SHALL BE IN ACCORDANCE WITH THE APPLICABLE IMPERIAL COUNTY STANDARDS UNLESS OTHERWISE STATED ON PLANS.

45. ALL WATER LINES SHALL BE DISINFECTED PER AWWA C651-05.

46. ALL WATER LINES SHALL BE PRESSURE AND LEAKAGE TESTED PER THE APPLICABLE IMPERIAL COUNTY STANDARDS.

47. ALL WATER LINE PIPE, FITTINGS, VALVES, FIRE HYDRANTS SHALL CONFORM TO THE LATEST AWWA AND ASTM STANDARDS.

48. ALL GRAVITY LINES SHALL BE PRESSURE AND LEAKAGE TESTED PER ASTM F1417.

49. ALL FORCEMAINS SHALL BE PRESSURE AND LEAKAGE TESTED PER THE APPLICABLE IMPERIAL COUNTY STANDARDS AND CODES.

50. PVC PIPE INSTALLATION MUST CONFORM WITH ASTM STANDARD SPECIFICATION D2321.

51. DEFLECTION TESTS SHALL CONFORM TO THE APPLICABLE IMPERIAL COUNTY STANDARDS.

52. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE AND LOCATION OF ANY UTILITIES THAT MAY IMPACT THE WORK.

NOTES:
(*) INDICATES DIMENSIONS, DISTANCES, COORDINATES OR ELEVATIONS TO BE SURVEYED AND FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INITIATING ANY OF THE WORK.
(**) INDICATES DIMENSION, ELEVATION OR COORDINATES WILL VARY DEPENDENT UPON MEASUREMENTS OF MANUFACTURER SUPPLIED EQUIPMENT.



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NO.		BY	DATE	REVISIONS	REMARKS

DES

RO

DWN

DC

CKD

TAV

IMPERIAL VALLEY COLLEGE
IMPERIAL COUNTY, CA

TTHM TREATMENT SYSTEM
60% SUBMITTAL

GENERAL
IMPERIAL VALLEY COLLEGE TTHM TREATMENT
SYSTEM
GENERAL CONSTRUCTION NOTES
SCALE: NTS

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DATE:SEPTEMBER 2025

G1.0

SHEET 2 OF 9

CAD FILE:G1.0.DWG

FILE: Z:\25IVC-TTHM TREATMENT\GENERAL\G1.0.DWG G1.0 (10-01-25) DCONWAY

IMPERIAL VALLEY COLLEGE TTHM TREATMENT SYSTEM

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ABBREVIATIONS

AC

ASPHALT CONCRETE

ACI

AMERICAN CONCRETE INSTITUTE

APN

ASSESSOR'S PARCEL NUMBER

AR

AIR RELEASE VALVE

ARFC

AS REQUIRED FOR CONSTRUCTION

ASME

AMERICAN SOCIETY OF MECHANICAL ENGINEERS

ASPH

ASPHALT

ASS

ASSEMBLY

⊙

AT

AVR

AIR/VACUUM RELIEF VALVE

AVAIL

AVAILABLE

AWWA

AMERICAN WATER WORKS ASSOCIATION

BOC

BACK OF CURB

BC

BEGIN HORIZONTAL CURVE

BO

BLOW OFF

BOL

BEGINNING OF LINE

BLDG

BUILDING

B.S.L.

BUILDING SET BACK LINE

B.V.C.

BEGIN VERTICAL CURVE

C

CENTER

C/C

CENTER TO CENTER

CA

CEMENT ASBESTOS

CATV

CABLE TELEVISION

CBC

CONCRETE BOX CULVERT

C.C.S.

CONCRETE CYLINDER PIPE

CFS

CUBIC FEET PER SECOND

CIP

CAST IRON PIPE

CLR

CENTERLINE

CLR

CLEAR

CM

CORRUGATED METAL

CMC

CEMENT MORTAR COATED

CML

CEMENT MORTAR LINED

CML&C

CEMENT MORTAR LINED & COATED

CMP

CORRUGATED METAL PIPE

CO

CLEAN OUT

CONC

CONCRETE

CONST

CONSTRUCTION

CPLG

COUPLING

D

DRAIN

DG

DECOMPOSED GRANITE

DTL

DETAIL

DI

DRAIN INLET

DIA

DIAMETER

DIP

DUCTILE IRON PIPE

D/L

DAYLIGHT

DWG

DRAWING

EA

EACH

EC

END HORIZONTAL CURVE

E.F.

EACH FACE

EHH

ELECTRIC HANDHOLE

EL

ELEVATION

ELEC

ELECTRIC

E'LY

EASTERLY

EM

ELECTRIC METER

EOP

EDGE OF PAVEMENT

EP

ELECTRIC PANEL

EPED

ELECTRIC PEDESTAL

EV

ELECTRIC VAULT

E.V.C.

END VERTICAL CURVE

EOL

END OF LINE

E.W.

EACH WAY

EXIST

EXISTING

FAD

FOUL AIR DUCT

FND

FOUND

F.F.

FINISHED FLOOR

FE

FINISHED EFFLUENT

FH

FIRE HYDRANT

FL

FLOW LINE

FLG

FLANGE

FM

FORCE MAIN

FP

FLAG POLE

GA

GUAGE

GAL

GALLON

GALV

GALVANIZED

GP

GUY POLE

GPT

GUARD POST

GSV

GAS VALVE

GW

GUY WIRE

HDWL

HEADWALL

HH

HAND HOLE

HORIZ

HORIZONTAL

HPG

HIGH PRESSURE GASLINE

ID

INSIDE DIAMETER

IE

INVERT ELEVATION

INV

INVERT

IRRI

IRRIGATION

L

CURVE LENGTH

LF

LINEAR FEET

LOC

LIMITS OF CONSTRUCTION

LS

LUMP SUM

LT

LEFT

M.A.G.

MARICOPA ASSOCIATION OF GOVERNMENTS

MAX

MAXIMUM

MB

MAILBOX

MH

MANHOLE

MIN

MINIMUM

M.O.

MARKOUT

MRKD

MARKED

MTR

METER

MW

MANWAY

N.A.O.S.

NATURAL AREA OPEN SPACE

N.C.

NORMALLY CLOSED

N.O.

NORMALLY OPEN

NEMA

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

N.T.S.

NOT TO SCALE

NO.

NUMBER

NPW

NON-POTABLE WATER

OFF

OFFSET

O.C.

ON CENTER

OD

OUTSIDE DIAMETER

PCCP

PRESTRESSED CONCRETE CYLINDER PIPE

PD

PEDESTAL

P.I.

HORIZONTAL POINT OF INFLECTION

PLCS

PLACES

PMH

PROPOSED MANHOLE

PRA

PRESSURE REGULATING ASSEMBLY

PRES

PRESSURE

PV

PLUG VALVE

PVC

POLYVINYL CHLORIDE PIPE

PW

POTABLE WATER

R

RADIUS OR RESTRAINED JOINT

RCCP

REINFORCED CONCRETE CYLINDER PIPE

RCP

REINFORCED CONCRETE PIPE

REG.

REGIONAL

REQ'D

REQUIRED

RR

RAILROAD

R/W

RIGHT-OF-WAY

ROW

RIGHT-OF-WAY

RT

RIGHT

SE

SECONDARY EFFLUENT

SEC

SECTION

SCO

SEWER CLEAN OUT

SD

STORM DRAIN

SDMH

STORM DRAIN MANHOLE

SDR

STANDARD DIMENSION RATIO

SIM

SIMILAR

SMH

SEWER MANHOLE

SHT

SHEET

SPEC(S)

SPECIFICATION(S)

SQ

SQUARE

SY

SQUARE YARDS

SS

SANITARY SEWER

SSFM

SANITARY SEWER FORCEMAIN

STA

STATION

STD

STANDARD

STL

STEEL

STLT

STREET LIGHT

T

TANGENT

t

STEEL THICKNESS

T/B

TOP AND BOTTOM

TC

TOP OF CURB

TELE

TELEPHONE

THH

TELEPHONE HANDHOLE

THK

THICK

TG

TOP OF GRATE

TOW

TOE OF SLOPE

T.O.P.

TOP OF PIPE

TPED

TELEPHONE PEDESTAL

TPOLE

TELEPHONE POLE

TRANS

TRANSFORMER

TYP

TYPICAL

UG

UNDERGROUND

UGE

UNDERGROUND ELECTRICAL

UTELE

UNDERGROUND TELEPHONE

VAC

VACUUM

VERT

VERTICAL

VLV

VALVE

V.P.I.

VERTICAL POINT OF INTERSECTION

W

WATERLINE

W/

WITH

WGV

WATER GATE VALVE

W'LY

WESTERLY

WM

WATER METER

WMH

WATER MANHOLE

WS

WATER SERVICE

WSP

WELDED STEEL PIPE

WV

WATER VAULT

XMH

EXISTING MANHOLE

YD

YARD

YH

YARD HYDRANT

Δ

DELTA ANGLE

∅

DIAMETER

#

NUMBER

LEGEND

SYMBOL

ITEM

EXISTING BUILDING/STRUCTURE

NEW BUILDING/STRUCTURE

EXISTING FENCE

NEW FENCE

EXISTING GROUND CONTOUR

FINISH GRADE CONTOUR

EXISTING CURVEBACK, CURB, AND GUTTER

EXISTING SIDEWALK

EXISTING ROADWAY

EXISTING DITCH

EXISTING FIRE HYDRANT

NEW FIRE HYDRANT

EXISTING SEWER MANHOLE

NEW SEWER MANHOLE

PARCEL NUMBER

HORIZONTAL AND VERTICAL CONTROL POINT

SPOT ELEVATION

EXISTING IRRIGATION VALVE BOX

EXISTING UTILITY METER

EXISTING BUSH OR TREE

EXISTING CACTUS

EXISTING PALM TREE

EXISTING VALVE

EXISTING CATCH BASIN

EXISTING POST/SIGN

EXISTING WELL

EXISTING REDUCER

EXISTING CAP

EXISTING POWER POLE

EXISTING AIR RELEASE VALVE

EXISTING TRAFFIC LIGHT

EXISTING CLEAN OUT

CLEAN OUT

DRAINAGE DIRECTION

DEMOLISH AND REMOVE

CONCRETE ENCASEMENT

GROUND PROFILE, EXISTING

CENTERLINE

NEW LINE IN PROFILE

EASEMENT LINE

PROPERTY LINE/RIGHT-OF-WAY

EXISTING ELECTRICAL

EXISTING PROPERTY LINE

EXISTING IRRIGATION CONTROL VALVE

DIRT ROAD

FLANGED FITTINGS

SYMBOL

ITEM

CROSS

CROSS UP

TEE

TEE UP

TEE DOWN

REDUCING TEE

LATERAL

90° ELBOW

90° ELBOW LONG

45° ELBOW

45° ELBOW DOWN

22.5° ELBOW

REDUCER

LATERAL DOWN

LATERAL UP

22.5° ELBOW

45° ELBOW

45° ELBOW DOWN

45° ELBOW UP

REDUCING ELBOW

90° ELBOW LONG

MECHANICAL JOINT FITTINGS

CROSS

TEE

REDUCING TEE

LATERAL

90° ELBOW LONG

45° ELBOW

22.5° ELBOW

REDUCER

SINGLE LINE FITTINGS

TEE

TEE UP

TEE DOWN

LATERAL

90° ELBOW

45° ELBOW

90° ELBOW DOWN

90° ELBOW UP

UNION

CONCENTRIC REDUCER

ECCENTRIC REDUCER

CAP PLUG

GATE VALVE

SHEET CATEGORY

G - GENERAL

C - CIVIL

M - MECHANICAL

E - ELECTRICAL

SECTION KEY

SECTION NUMBER
(CONSECUTIVELY
NUMBERED ON
SHEET OR SECTION
ON WHICH DETAIL IS
LOCATED)

X1.1

X1.1

SHEET ON WHICH
SECTION IS FIRST CUT

SHEET ON WHICH
SECTION IS LOCATED

DETAIL KEY

DETAIL NUMBER
(CONSECUTIVELY NUMBERED ON SHEET
OR SECTION ON WHICH DETAIL IS
LOCATED)

A

LEGEND

W

WATERLINE

FLOW DIRECTION

BLIND FLANGE

FLANGED CONNECTION

CONTROL VALVE

CAM LOCK (MALE)

DRAIN

FLOW METER

PRESSURE GAUGE

BALL VALVE

BUTTERFLY VALVE

GATE VALVE

CHECK VALVE

PLUG VALVE

CALIBRATION COLUMN

REDUCER

SOLENOID VALVE

PUMP

BFP

BACK FLOW PREVENTER

VACUUM/ AIR RELEASE

BD

BURST DISK

SAMPLE PORT

PRESSURE REGULATING VALVE

BD

BURST DISK

REVISIONS

NO.	BY	DATE	REMARKS

DES RO

DWN DC

CKD TAV

IMPERIAL VALLEY COLLEGE
IMPERIAL COUNTY, CA

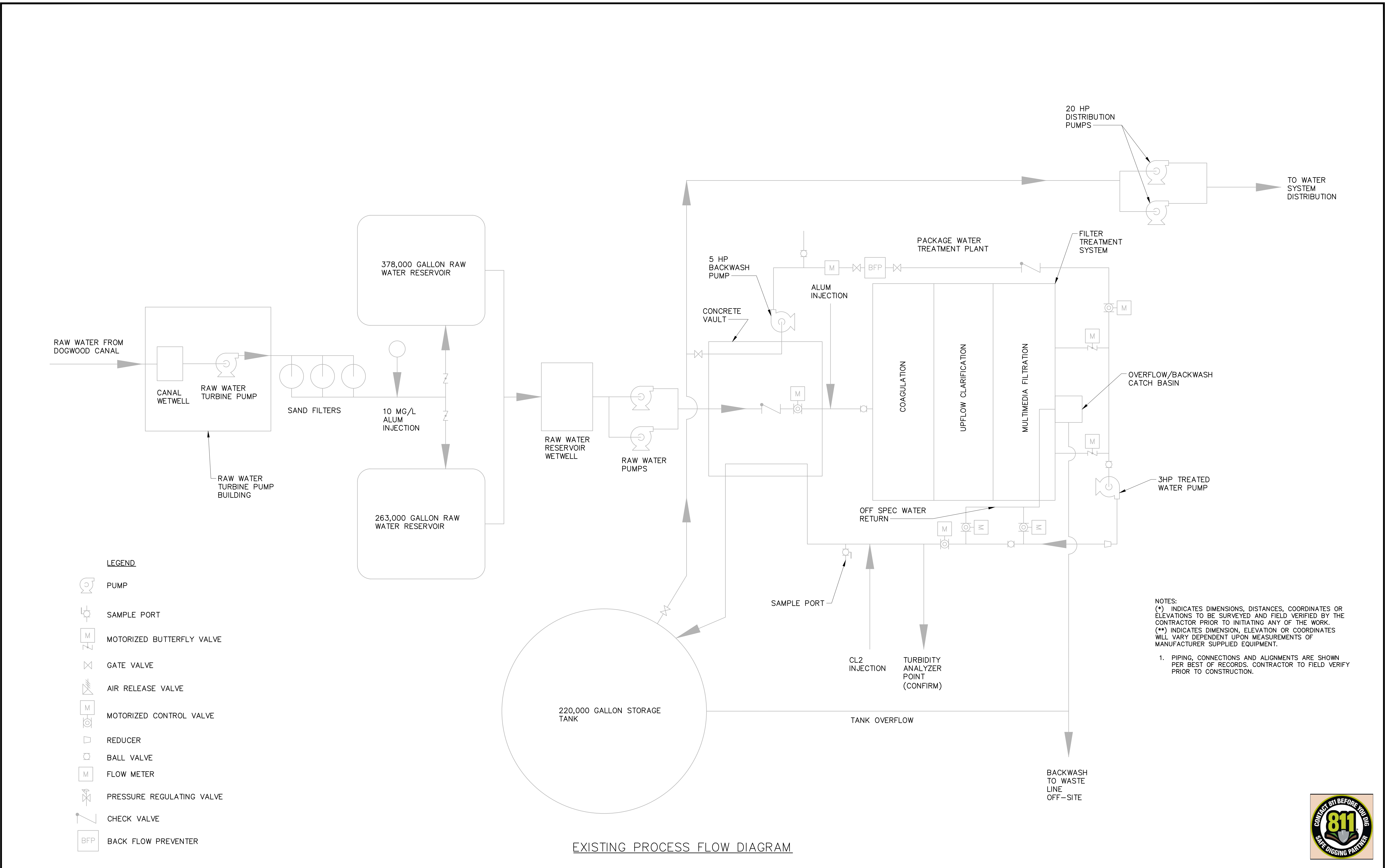
TTHM TREATMENT SYSTEM
60% SUBMITTAL

GENERAL
IMPERIAL VALLEY COLLEGE TTHM TREATMENT
SYSTEM
ABBREVIATIONS, SYMBOLS, NOTES
SCALE: NTS

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G2.0
SHEET 3 OF 9
CAD FILE:G2.0.DWG

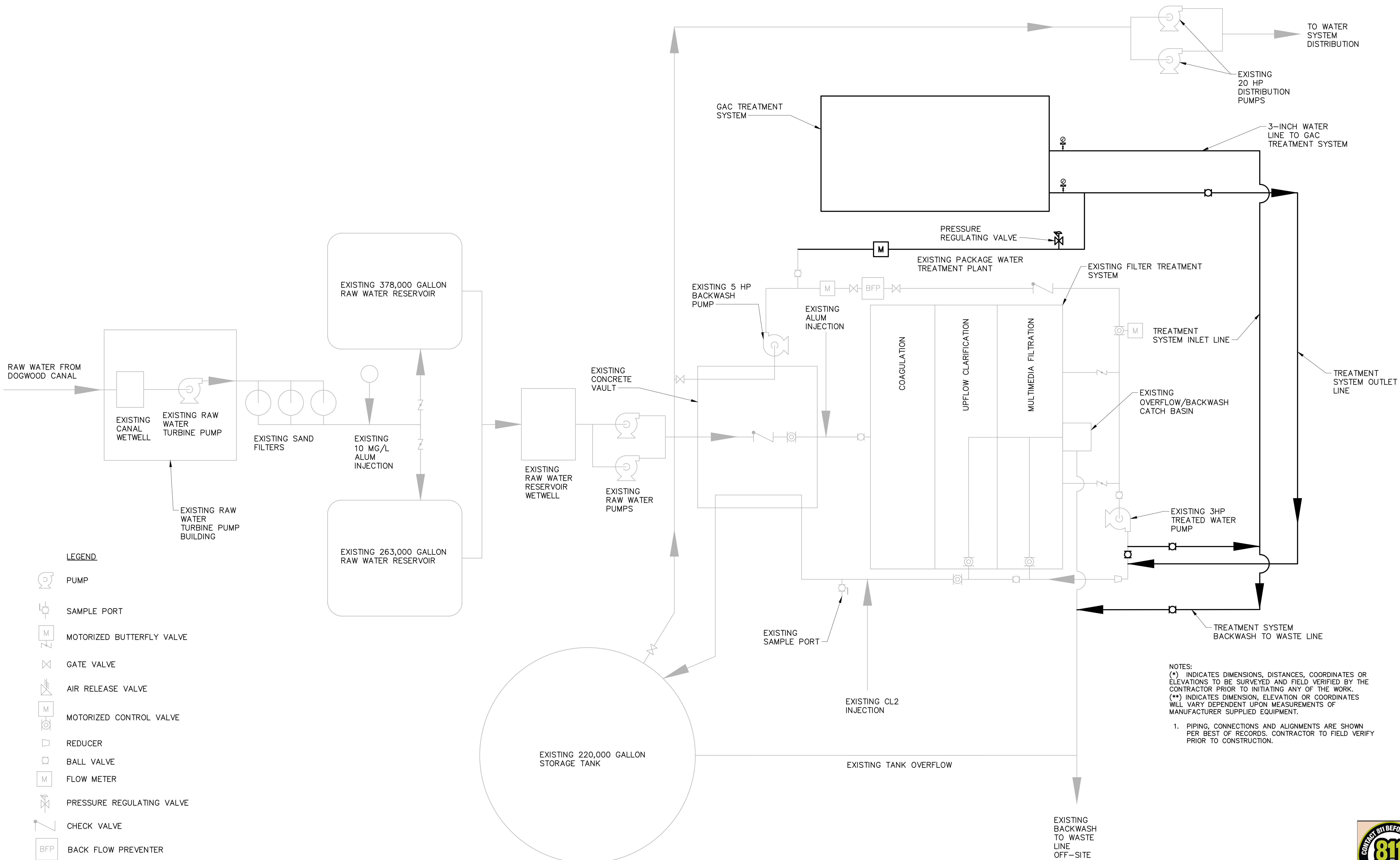
FILE: Z:\251VC-TTHM TREATMENT\GENERAL\G2.0.DWG G2.0 (10-01-25) DCONWAY

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GAC SYSTEM PROCESS FLOW DIAGRAM

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IMPERIAL VALLEY COLLEGE
IMPERIAL COUNTY, CA

TTHM TREATMENT SYSTEM
60% SUBMITTAL

GENERAL

IMPERIAL VALLEY COLLEGE TTHM TREATMENT
SYSTEM GAC SYSTEM PROCESS FLOW
DIAGRAM

SCALE: NONE

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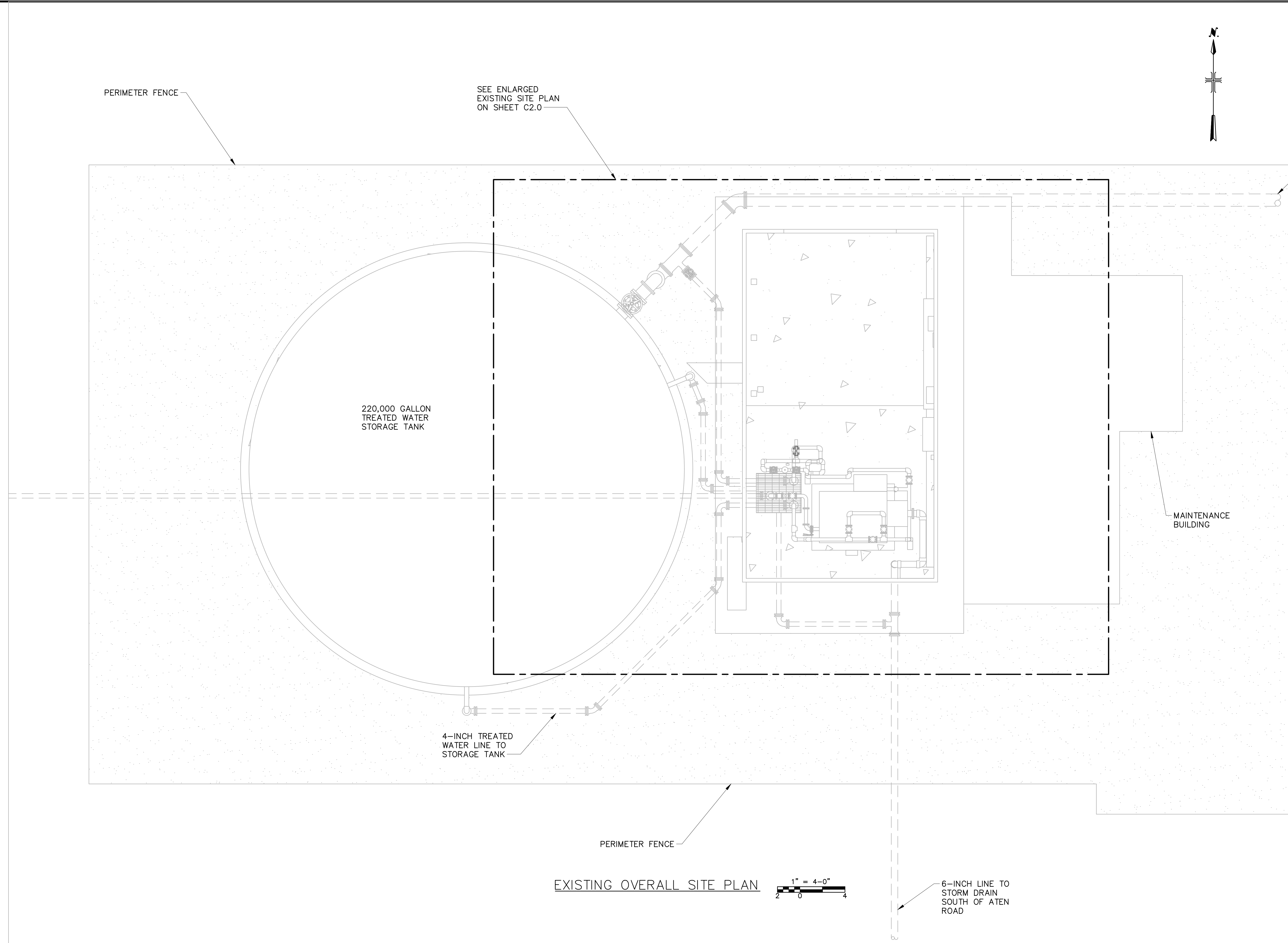
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SHEET 5 OF 9

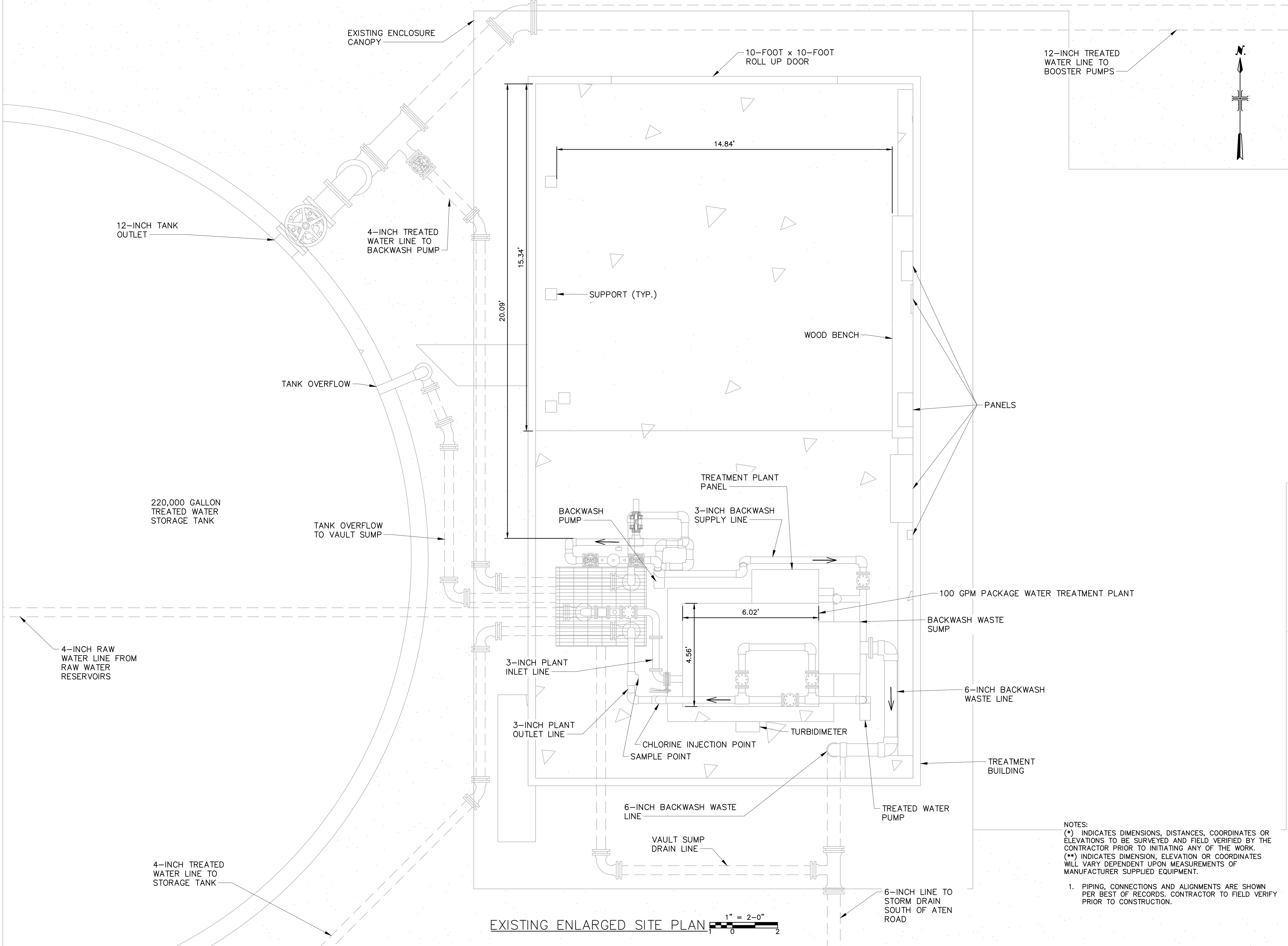
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IMPERIAL VALLEY COLLEGE TTHM TREATMENT SYSTEM



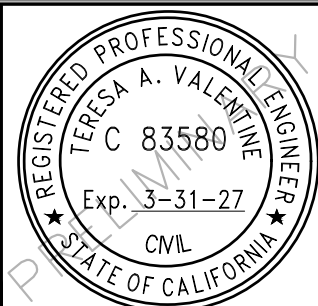
VALENTINE Environmental Engineers, LLC 15845 South 46th Street, Suite 144 Phoenix, Arizona 85048 Phone: (480) 283-8991 Fax: (480) 283-0082		REVISIONS		DES RO DWN DC CKD TAV		IMPERIAL VALLEY COLLEGE IMPERIAL COUNTY, CA TTHM TREATMENT SYSTEM 60% SUBMITTAL	CIVIL IMPERIAL VALLEY COLLEGE TTHM TREATMENT SYSTEM EXISTING OVERALL SITE PLAN SCALE: 1"=4'	COPYRIGHT © 2025 DATE: <u>SEPTEMBER 2025</u> C1.0 SHEET 6 OF 9 CAD FILE: <u>C1.0.DWG</u>		
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NOTES:
(*) INDICATES DIMENSIONS, DISTANCES, COORDINATES OR ELEVATIONS TO BE SURVEYED AND FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INITIATING ANY OF THE WORK.
(**) INDICATES DIMENSION, ELEVATION OR COORDINATES WILL VARY DEPENDENT UPON MEASUREMENTS OF MANUFACTURER SUPPLIED EQUIPMENT.

1. PIPING, CONNECTIONS AND ALIGNMENTS ARE SHOWN PER BEST OF RECORDS. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION.

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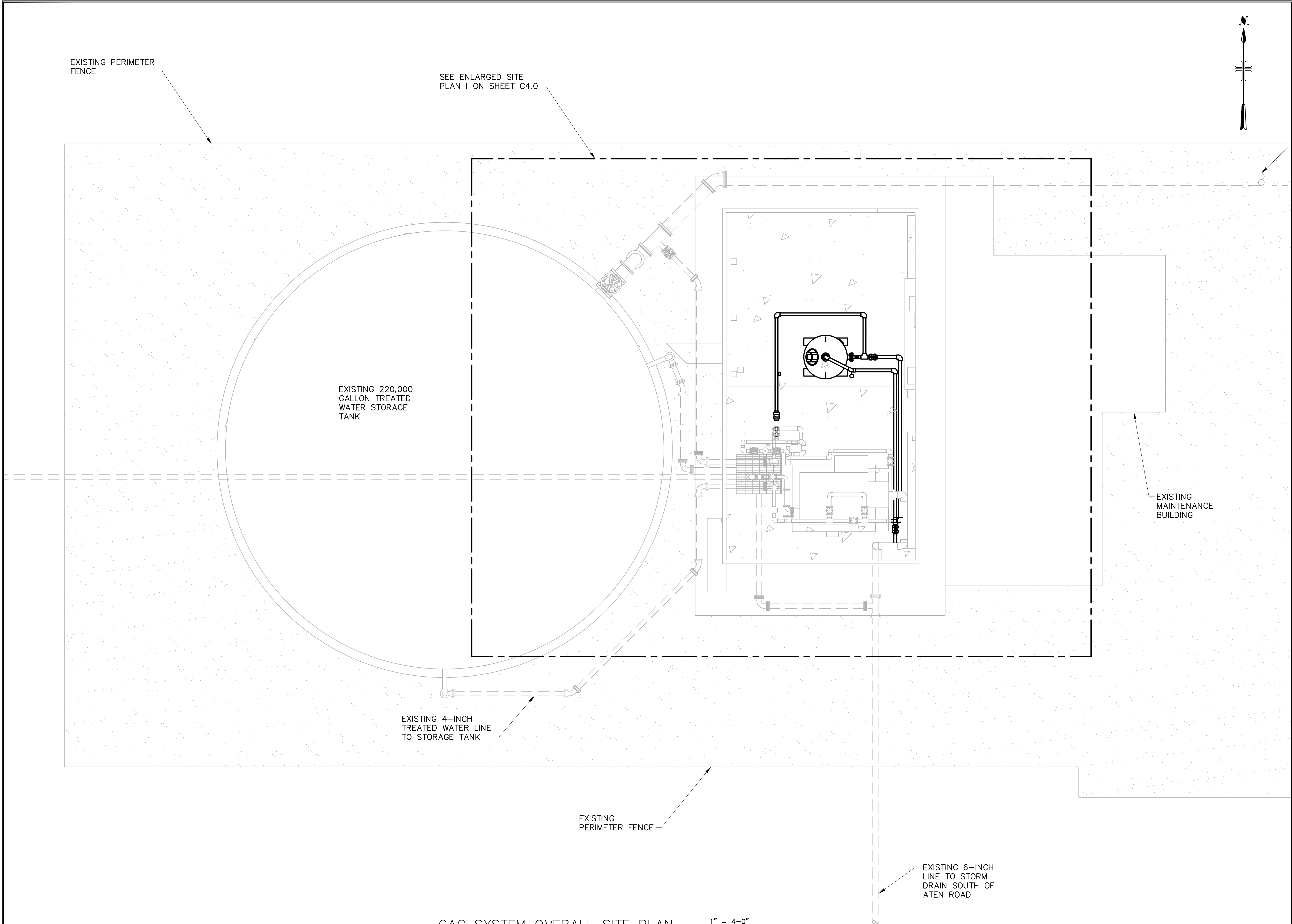
IMPERIAL VALLEY COLLEGE
IMPERIAL COUNTY, CA
TTHM TREATMENT SYSTEM
60% SUBMITTAL

CIVIL
IMPERIAL VALLEY COLLEGE TTHM TREATMENT
SYSTEM
EXISTING ENLARGED SITE PLAN
SCALE: 1"=2'

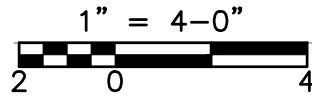
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IMPERIAL VALLEY COLLEGE TTHM TREATMENT SYSTEM



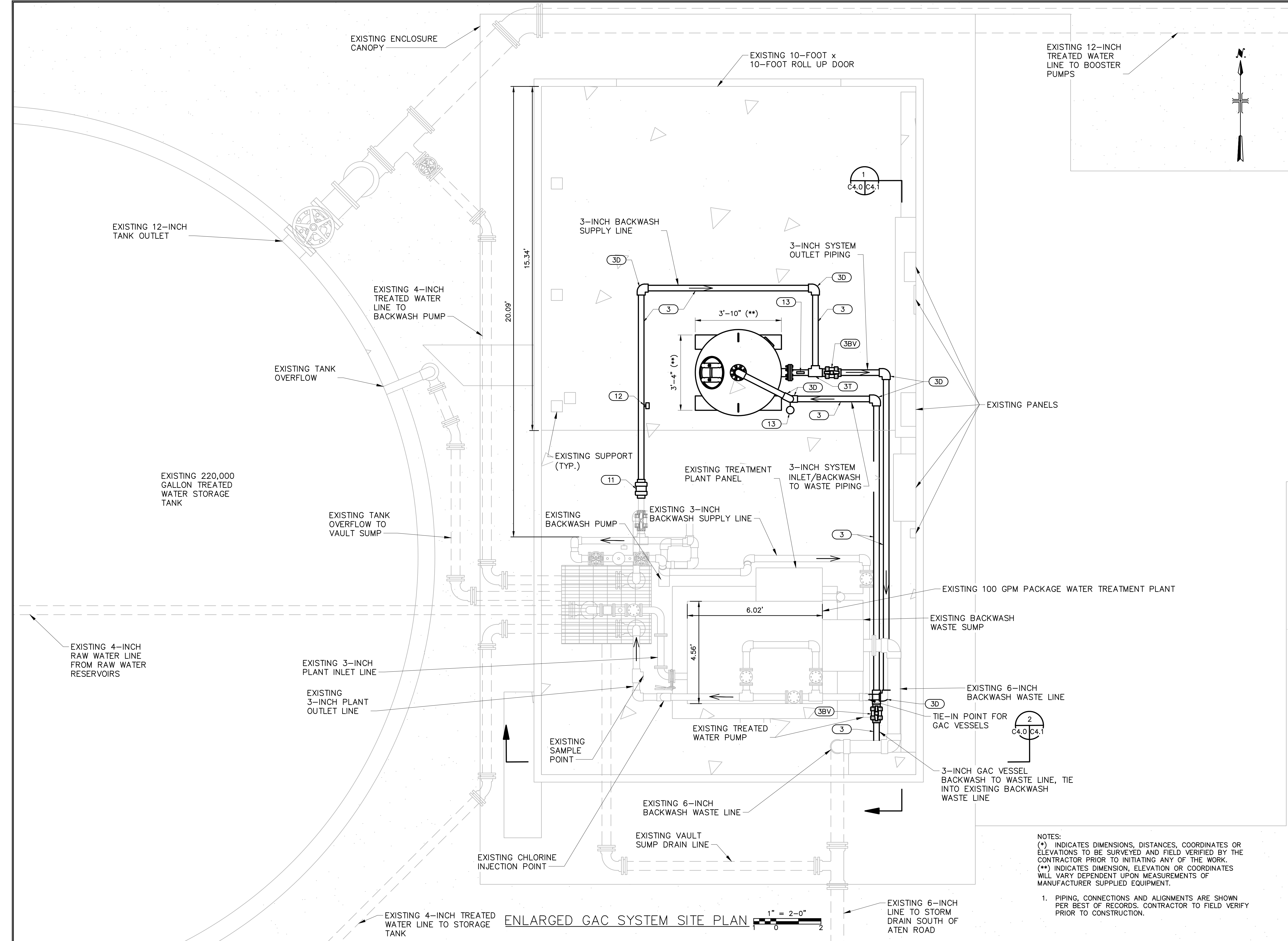
GAC SYSTEM OVERALL SITE PLAN



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										CKD	TAV

CONSTRUCTION NOTES

- 1 PROVIDE GAC TREATMENT SYSTEM SKID
- 3 PROVIDE 3-INCH PIPING
- 3BV PROVIDE 3-INCH BALL VALVE
- 3D PROVIDE 3-INCH 90° BEND (THREADED)
- 3T PROVIDE 3-INCH X 3-INCH X 3-INCH TEE
- 11 PROVIDE PRESSURE REGULATING VALVE
- 12 PROVIDE FLOW METER
- 13 PROVIDE PRESSURE GAUGE



IMPERIAL VALLEY COLLEGE TTHM TREATMENT SYSTEM

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IMPERIAL VALLEY COLLEGE
IMPERIAL COUNTY, CA
TTHM TREATMENT SYSTEM
60% SUBMITTAL

CIVIL
IMPERIAL VALLEY COLLEGE TTHM TREATMENT
SYSTEM
ENLARGED GAC SYSTEM SITE PLAN
SCALE: 1"=2'

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