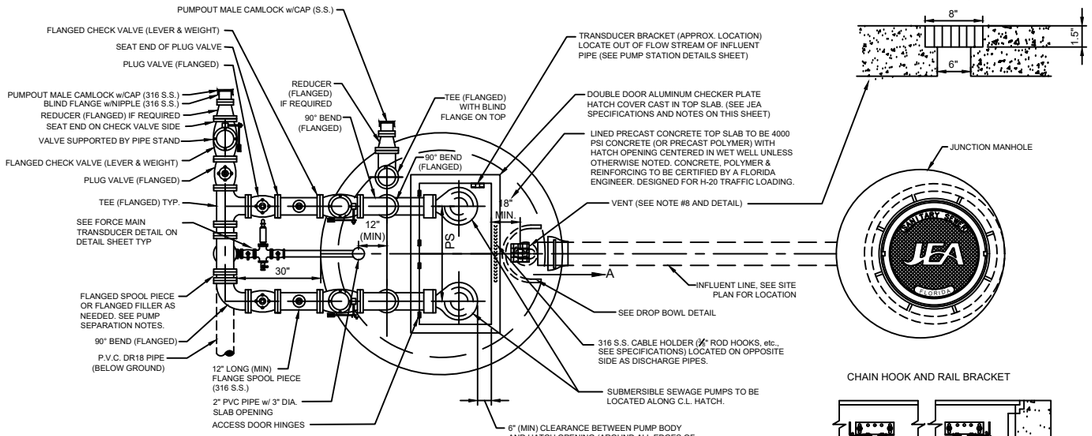
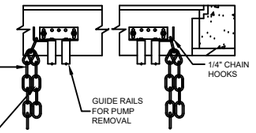


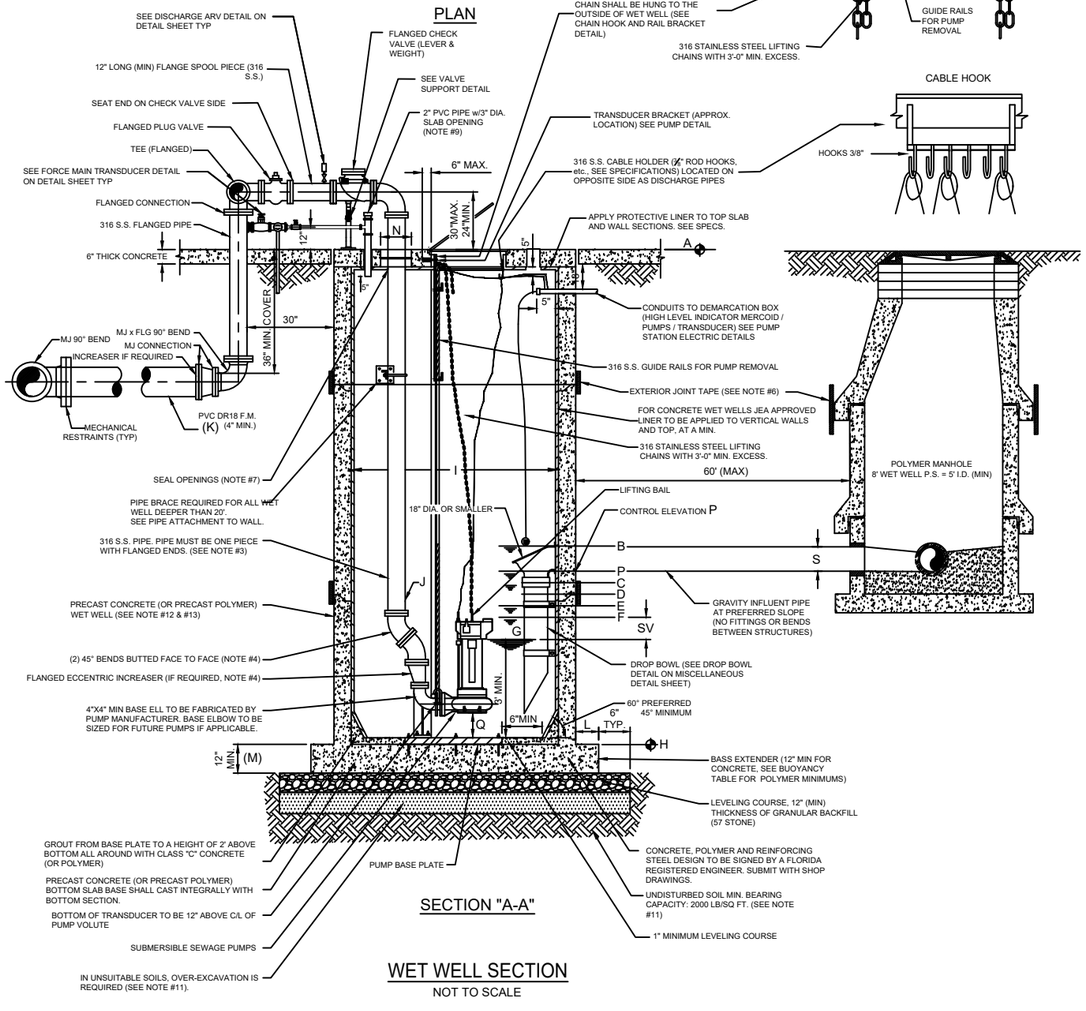
VENT DETAIL (NOTE # 8)

CHAIN HOOK AND RAIL BRACKET



CABLE HOOK

PLAN



SECTION "A-A"

WET WELL SECTION

NOT TO SCALE

PUMP STATION INFORMATION

SCHEDULE OF ELEVATIONS

PUMP STATION STREET ADDRESS	TOP ELEV (NOTE 9)	MERCOID LEVEL	ALARM ELEVATION	LEFT BLANK	LAG PUMP ON ELEVATION	LEAD PUMP ON ELEVATION	PUMP OFF ELEVATION (NOTE #1)	BOTTOM ELEVATION (NOTE #5)	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	
	R + 1.0	P + 0.5'	P - 0.5'	---	P - 1.0'	P - 1.5'	F - SV	G - 3'	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

ALL PUMPS					
PUMP MANUFACTURER (NOTE #1)	---	---	---	---	---
MODEL	---	---	---	---	---
IMPELLER	---	---	---	---	---
PUMP DISCHARGE	---	---	---	---	---
MOTOR (RPM)	---	---	---	---	---
HORSEPOWER (HP)	---	---	---	---	---
PHASE/VOLT/AMPS (NOTE #4)	---	---	---	---	---
AIC (NOTE #5)	---	---	---	---	---
DESIGN POINT (GPM) @ TDH (FT)	---	---	---	---	---
RUNOUT POINT (GPM) @ TDH (FT)	---	---	---	---	---
EMERGENCY MAIN	---	---	---	---	---
NORMAL SERICE MAIN	---	---	---	---	---
CB #1 TO PUMP NO. 1	---	---	---	---	---
CB #2 TO PUMP NO.2	---	---	---	---	---
CONTROL PANEL MCB	---	---	---	---	---
STARTER (SIZE & TYPE)	---	---	---	---	---
ELECTRIC SERICE (SIZE & TYPE)	---	---	---	---	---

PUMP STATION INFORMATION NOTES:

1. SEE JEA STANDARDS VOLUME 3 (WATER AND WASTEWATER APPROVED MATERIALS MANUAL) FOR APPROVED MANUFACTURES
2. "SV" = STORAGE VOLUME PER DESIGN ENGINEER AND SHALL BE DESIGNED FOR 12 MINUTE CYCLE TIME, MINIMUM STORAGE DEPTH SHALL BE 24".
3. IF PUMP MANUFACTURER REQUIRES A GREATER SEPARATION, THAT SEPARATION SHALL BE USED WITH THE ADDITION OF FLANGED FILLERS OR SPOOL PIECES. THE DIFFERENT SEPARATION MUST BE APPROVED BY JEA PRIOR TO CONSTRUCTION AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO JEA.
4. ALL PUMP MOTORS SHALL BE 3 PHASE.
5. AMPERE INTERRUPTING CAPACITY (AIC): CONTACT THE ELECTRICAL UTILITY COMPANY FOR THIS DATA IF AVAILABLE.
6. A MANUAL TRANSFER SWITCH SHALL BE PROVIDED.
7. A PHASE MONITOR SHALL BE INSTALLED ON THE INCOMING POWER SOURCE FOR ALL PUMP STATIONS NOT PROVIDED POWER BY JEA. REFER TO ELECTRIC SINGLE LINE DETAIL DIAGRAM FOR DETAILS.

POLYMER CONCRETE FLOATATION COLLARS

WET WELL I.D.	DEPTH 0-10FT		DEPTH 11-15FT		DEPTH 16-20FT		DEPTH 21-30FT	
	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)
8'-0"	3	35600	3	37600	2	46000	—	5200
10'-0"	5	57580	5	75000	5	78700	3	91100
12'-0"	8	82900	8	113200	8	134500	7	139000

DISCHARGE PIPE DATA (WITHIN WET WELL)

PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION	MIN PUMPOUT SIZE	HATCH SIZE (MIN.)
(J)	(N)	(PS)	(PO)	
4"	10"	26"	4"	42"x48"
6"	12"	32"	6"	42"x60"
FREE STANDING PUMP OUT FOR PIPE SIZES GREATER THAN 6"				
8"	15"	36"	8"	---
10"	17"	44"	10"	---
12"	20"	48"	12"	---
14" & LARGER	-	-	14" & LARGER	---

MCC PANEL

THE COMBINED MOTOR CONTROL AND RTV PANEL SHALL BE AS NOTED BELOW. CONTRACTOR SHALL SUBMIT APPLICABLE SHOP DRAWING PACKAGE,SEE JEA.COM FOR DETAILS.

- ☐ FIXED SPEED PANEL: 240/120 VOLT, 3 PHASE, OPEN DELTA, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ FIXED SPEED PANEL:: 480 VOLT, 3 PHASE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 1P-3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, REDUCED VOLTAGE MOTOR STARTING, 10 STARTS PER HOUR

CONCRETE WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-9"	0'-10"
10'-0"	1'-0"	1'-0"
12'-0"	1'-0"	1'-0"

POLYMER WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-6"	0'-10"
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7"	1'-0"

MANUAL TRANSFER SWITCH

☐ JEA APPROVED	200 AMP
☐ JEA APPROVED	400 AMP

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
2. PENETRATION SOIL BORING INFORMATION, TAKEN AT WET WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOIL BORING SHALL BE A MINIMUM OF 15' DEEPER THAN WET WELL BOTTOM OR UNTIL SUITABLE SOIL IS LOCATED UP TO A MAXIMUM OF 25' BELOW WET WELL BOTTOM.
3. ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL. BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
4. ALL DUCTILE IRON FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED.
5. ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A "NEVER SEIZE" TYPE COATING.
6. ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS AND MANHOLES SHALL BE SEALED WITH A 18" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
7. THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/EUCOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSECT SCREEN SECURED TO TOP.
8. PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 ¼" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 ¼" WIDE x ¼" MATERIAL. .
9. PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AD OPEN END BOTTOM. SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE THE TOP OF WET WELL.
10. SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
11. IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
12. PRECAST CONCRETE WET WELL SHALL MEET A.S.T.M. C-478 STANDARD, ENTIRE INSIDE SURFACE OF WET WELL & TOP SLAB SHALL BE LINED WITH APPROVED LINER. LINER INSTALLER MUST BE CERTIFIED BY LINER MANUFACTURER. SUBMIT CERTIFICATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
13. PRECAST POLYMER CONCRETE WET WELL SHALL MEET JEA POLYMER PRECAST STANDARD. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
14. SEE REFERENCE FACILITIES STANDARDS FOR GENERATOR, ATS, BACKFLOW, BOLLARDS AND PAVEMENT SPECIFICATIONS. (HTTPS://WWW.JEA.COM/ENGINEERING_AND_CONSTRUCTION/JEA_FACILITIES_STANDARDS/)
15. SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.
16. PUMPS SHALL BE NUMBERED SEQUENTIALLY, LEFT TO RIGHT, WHEN STANDING IN FRONT OF THE WET WELL HATCH, FACING THE DISCHARGE PIPING. THE PUMPS SHALL BE INSTALLED SEQUENTIALLY WITH THE LOWEST SERIAL NUMBER BEING PUMP NUMBER ONE.

DESIGN NOTES:

1. ENGINEER SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.
2. WET WELL SIZE: PUMP STATION 8'-0" I.D. MIN., 27' DEEP MAX.
3. MINIMUM FORCE MAIN FLOW RATE: 4" DIAMETER @ 80 GPM ALL GREATER SIZES SHALL BE DESIGNED FOR FLOW VELOCITY BETWEEN 2FPS AND 5FPS
4. MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP., 3 PHASE, 4 WIRE
5. MINIMUM CONCRETE PAD SIZE: 45'x45'
6. MINIMUM JUNCTION MANHOLE SIZE: 5'-0" I.D. LOCATE ON SAME SIDE OF DRIVEWAY AS PUMP-OUT CONNECTION.
7. IT IS THE ENGINEER'S RESPONSIBILITY TO DESIGN THE SITE TO MEET FUNCTIONALITY AND SITE SPECIFIC CONDITIONS. HOWEVER, THE ENGINEER SHALL MAKE EVERY EFFORT TO CONFORM TO THE STANDARD DRAWING SHOWN HERE.
8. HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433): TO DETERMINE IF A POLE OR TOWER IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF -86DB RSSI. IF THE HEIGHT OF THE MINIMUM -86DB RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
9. THE PUMP STATION TOP ELEVATION SHALL BE SET AT A MINIMUM OF 1' ABOVE THE "R" ELEVATION. THE "R" ELEVATION SHALL BE EQUAL TO THE DESIGN HIGH WATER LEVEL OR THE 100 YEAR FLOOD ELEVATION, WHICHEVER IS HIGHER.
10. THE TOP ELEVATION OF JUNCTION MAN HOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).

CONSTRUCTION NOTES:

1. SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
2. CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
3. DEMARCATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
4. SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS (SEE GROUNDING DETAIL SHEET).
5. CONTRACTOR MUST KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
6. TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
7. WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

SITE SPECIFIC

NO.	BY	DATE	REVISIONS
4			
3			
2			
1			

DESIGNED:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

DESIGN ENGINEER

FLORIDA REGISTRATION NO.

JEA Building Community sm

JEA STANDARD
CLASS ONE PUMP STATION
FOR PEAK FLOWS BETWEEN 0 TO 440 GPM
PLAN AND SECTION

PROJ. NO.
DATE:
SCALE:

NO. SHEETS
SHEET NO.
DRAWING NO.

Wed Feb 19, 2025 – 07:45

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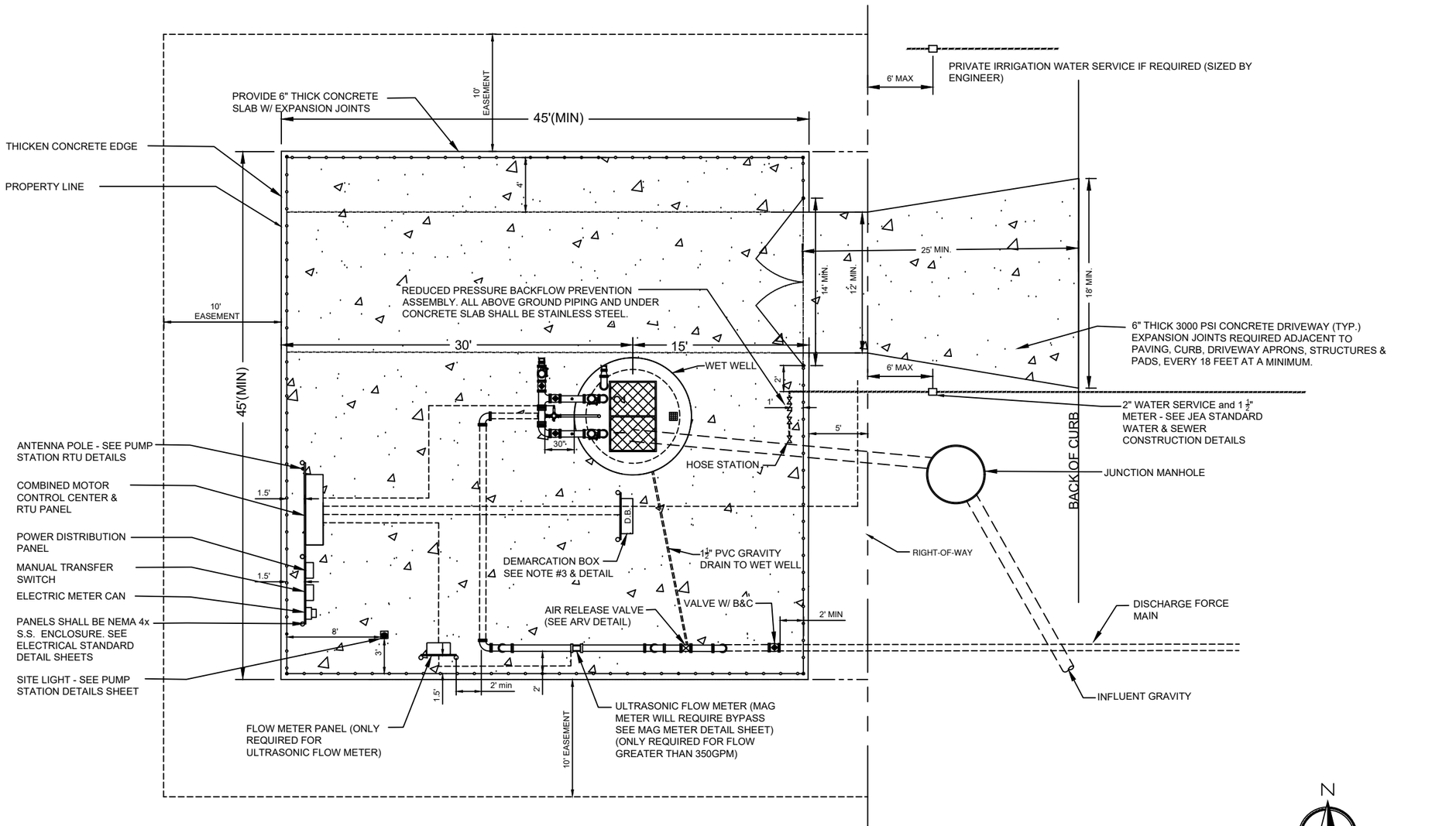
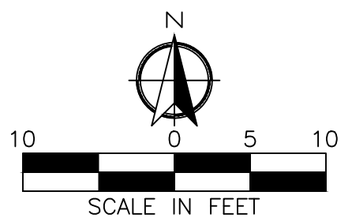
Xrefs Attached=





SITE SPECIFIC

NO.	BY	DATE	REVISIONS
4.			
3.			
2.			
1.			

DESIGN ENGINEER

FLORIDA REGISTRATION NO.

DESIGNED:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA
Building Community sm

JEA STANDARD
CLASS ONE PUMP STATION
FOR PEAK FLOWS BETWEEN 0 TO 440 GPM
PLAN AND SECTION

PROJ. NO.
DATE:
SCALE: 1"=10'

NO. SHEETS
SHEET NO.
DRAWING NO.

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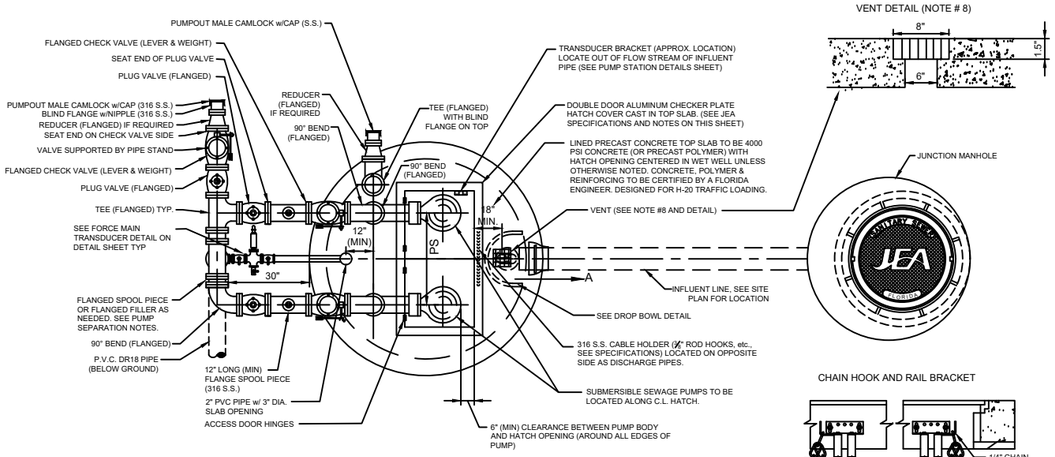
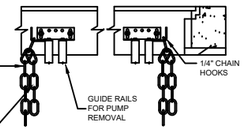
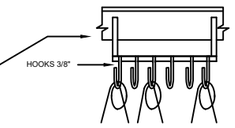


VENT DETAIL (NOTE # 8)

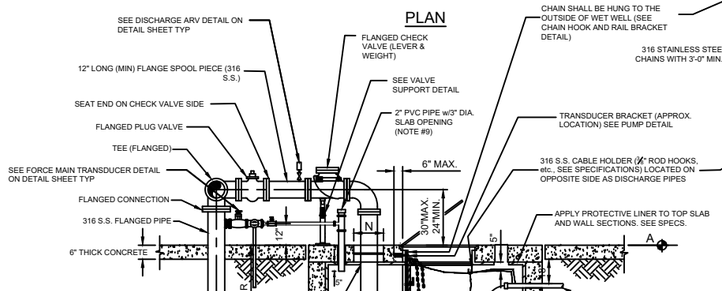
CHAIN HOOK AND RAIL BRACKET



CABLE HOOK



PLAN



SECTION "A-A"

WET WELL SECTION

NOT TO SCALE

PUMP STATION INFORMATION
SCHEDULE OF ELEVATIONS

PUMP STATION STREET ADDRESS	TOP ELEV (NOTE 9)	MERCOID LEVEL	ALARM ELEVATION	LEFT BLANK	LAG PUMP ON ELEVATION	LEAD PUMP ON ELEVATION	PUMP OFF ELEVATION (NOTE #1)	BOTTOM ELEVATION (NOTE #5)	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	
	R + 1.0	P + 0.5'	P - 0.5'	---	P - 1.0'	P - 1.5'	F - SV	G - 3'	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

ALL PUMPS					
PUMP MANUFACTURER (NOTE #1)	---	---	---	---	---
MODEL	---	---	---	---	---
IMPELLER	---	---	---	---	---
PUMP DISCHARGE	---	---	---	---	---
MOTOR (RPM)	---	---	---	---	---
HORSEPOWER (HP)	---	---	---	---	---
PHASE/VOLT/AMPS (NOTE #4)	---	---	---	---	---
AIC (NOTE #5)	---	---	---	---	---
DESIGN POINT (GPM) @ TDH (FT)	---	---	---	---	---
RUNOUT POINT (GPM) @ TDH (FT)	---	---	---	---	---
EMERGENCY MAIN	---	---	---	---	---
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CB #1 TO PUMP NO. 1	---	---	---	---	---
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CONTROL PANEL MCB	---	---	---	---	---
STARTER (SIZE & TYPE)	---	---	---	---	---
ELECTRIC SERICE (SIZE & TYPE)	---	---	---	---	---

PUMP STATION INFORMATION NOTES:

1. SEE JEA STANDARDS VOLUME 3 (WATER AND WASTEWATER APPROVED MATERIALS MANUAL) FOR APPROVED MANUFACTURES
2. "SV" = STORAGE VOLUME PER DESIGN ENGINEER AND SHALL BE DESIGNED FOR 12 MINUTE CYCLE TIME, MINIMUM STORAGE DEPTH SHALL BE 24".
3. IF PUMP MANUFACTURER REQUIRES A GREATER SEPARATION, THAT SEPARATION SHALL BE USED WITH THE ADDITION OF FLANGED FILLERS OR SPOOL PIECES. THE DIFFERENT SEPARATION MUST BE APPROVED BY JEA PRIOR TO CONSTRUCTION AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO JEA.
4. ALL PUMP MOTORS SHALL BE 3 PHASE.
5. AMPERE INTERRUPTING CAPACITY (AIC): CONTACT THE ELECTRICAL UTILITY COMPANY FOR THIS DATA IF AVAILABLE.
6. A MANUAL TRANSFER SWITCH SHALL BE PROVIDED.
7. A PHASE MONITOR SHALL BE INSTALLED ON THE INCOMING POWER SOURCE FOR ALL PUMP STATIONS NOT PROVIDED POWER BY JEA. REFER TO ELECTRIC SINGLE LINE DETAIL DIAGRAM FOR DETAILS.

POLYMER CONCRETE FLOATATION COLLARS

WET WELL I.D.	DEPTH 0-10FT MIN BASE EXTENDER (IN)	DEPTH 0-10FT MIN WEIGHT OF TOTAL STRUCTURE (LBS)	DEPTH 11-15FT MIN BASE EXTENDER (IN)	DEPTH 11-15FT MIN WEIGHT OF TOTAL STRUCTURE (LBS)	DEPTH 16-20FT MIN BASE EXTENDER (IN)	DEPTH 16-20FT MIN WEIGHT OF TOTAL STRUCTURE (LBS)	DEPTH 21-30FT MIN BASE EXTENDER (IN)	DEPTH 21-30FT MIN WEIGHT OF TOTAL STRUCTURE (LBS)
8'-0"	3	35600	3	37600	2	46000	—	5200
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12'-0"	8	82900	8	113200	8	134500	7	139000

DISCHARGE PIPE DATA (WITHIN WET WELL)

PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION	MIN PUMPOUT SIZE	HATCH SIZE (MIN.)
(J)	(N)	(PS)	(PO)	
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6"	12"	32"	6"	42"x60"
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8"	15"	36"	8"	---
10"	17"	44"	10"	---
12"	20"	48"	12"	---
14" & LARGER	-	-	14" & LARGER	---

MCC PANEL

THE COMBINED MOTOR CONTROL AND RTV PANEL SHALL BE AS NOTED BELOW. CONTRACTOR SHALL SUBMIT APPLICABLE SHOP DRAWING PACKAGE.SEE JEA.COM FOR DETAILS.

- ☐ FIXED SPEED PANEL: 240/120 VOLT, 3 PHASE, OPEN DELTA, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ FIXED SPEED PANEL:: 480 VOLT, 3 PHASE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 1P-3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, REDUCED VOLTAGE MOTOR STARTING, 10 STARTS PER HOUR

CONCRETE WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-9"	0'-10"
10'-0"	1'-0"	1'-0"
12'-0"	1'-0"	1'-0"

POLYMER WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-6"	0'-10"
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7"	1'-0"

MANUAL TRANSFER SWITCH

☐ JEA APPROVED	200 AMP
☐ JEA APPROVED	400 AMP

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
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3. ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL. BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
4. ALL DUCTILE IRON FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED.
5. ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A "NEVER SEIZE" TYPE COATING.
6. ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS AND MANHOLES SHALL BE SEALED WITH A 18" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
7. THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/EUCOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSECT SCREEN SECURED TO TOP.
8. PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 ¼" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 ½" WIDE x ¼" MATERIAL. .
9. PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AD OPEN END BOTTOM, SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE THE TOP OF WET WELL.
10. SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
11. IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
12. PRECAST CONCRETE WET WELL SHALL MEET A.S.T.M. C-478 STANDARD, ENTIRE INSIDE SURFACE OF WET WELL & TOP SLAB SHALL BE LINED WITH APPROVED LINER. LINER INSTALLER MUST BE CERTIFIED BY LINER MANUFACTURER. SUBMIT CERTIFICATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
13. PRECAST POLYMER CONCRETE WET WELL SHALL MEET JEA POLYMER PRECAST STANDARD. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
14. SEE REFERENCE FACILITIES STANDARDS FOR GENERATOR, ATS, BACKFLOW, BOLLARDS AND PAVEMENT SPECIFICATIONS. (HTTPS://WWW.JEA.COM/ENGINEERING_AND_CONSTRUCTION/JEA_FACILITIES_STANDARDS/)
15. SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.
16. PUMPS SHALL BE NUMBERED SEQUENTIALLY, LEFT TO RIGHT, WHEN STANDING IN FRONT OF THE WET WELL HATCH, FACING THE DISCHARGE PIPING. THE PUMPS SHALL BE INSTALLED SEQUENTIALLY WITH THE LOWEST SERIAL NUMBER BEING PUMP NUMBER ONE.

DESIGN NOTES:

1. ENGINEER SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.
2. WET WELL SIZE: PUMP STATION 8'-0" I.D. MIN., 27' DEEP MAX.
3. MINIMUM FORCE MAIN FLOW RATE: 4" DIAMETER @ 80 GPM ALL GREATER SIZES SHALL BE DESIGNED FOR FLOW VELOCITY BETWEEN 2FPS AND 5FPS
4. MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP , 3 PHASE, 4 WIRE
5. MINIMUM CONCRETE PAD SIZE: 45'x45'
6. MINIMUM JUNCTION MANHOLE SIZE: 5'-0" I.D. LOCATE ON SAME SIDE OF DRIVEWAY AS PUMP-OUT CONNECTION.
7. IT IS THE ENGINEER'S RESPONSIBILITY TO DESIGN THE SITE TO MEET FUNCTIONALITY AND SITE SPECIFIC CONDITIONS. HOWEVER, THE ENGINEER SHALL MAKE EVERY EFFORT TO CONFORM TO THE STANDARD DRAWING SHOWN HERE.
8. HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433): TO DETERMINE IF A POLE OR TOWER IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF -86DB RSSI. IF THE HEIGHT OF THE MINIMUM -86DB RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
9. THE PUMP STATION TOP ELEVATION SHALL BE SET AT A MINIMUM OF 1' ABOVE THE "R" ELEVATION. THE "R" ELEVATION SHALL BE EQUAL TO THE DESIGN HIGH WATER LEVEL OR THE 100 YEAR FLOOD ELEVATION, WHICHEVER IS HIGHER.
10. THE TOP ELEVATION OF JUNCTION MAN HOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).

CONSTRUCTION NOTES:

1. SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
2. CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
3. DEMARCATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
4. SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS (SEE GROUNDING DETAIL SHEET).
5. CONTRACTOR MUST KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
6. TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
7. WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

SITE SPECIFIC

NO.	BY	DATE	REVISIONS
4.			
3.			
2.			
1.			

DESIGN ENGINEER: FLORIDA REGISTRATION NO.

DESIGNER: DRAWN BY: DATE: CHECKED BY: DATE:

JEA Building Community sm

JEA STANDARD CLASS ONE PUMP STATION WITH GENERATOR FOR PEAK FLOWS BETWEEN 0 TO 440 GPM PLAN AND SECTION

PROJ. NO. DATE: SCALE:

NO. SHEETS SHEET NO. DRAWING NO.

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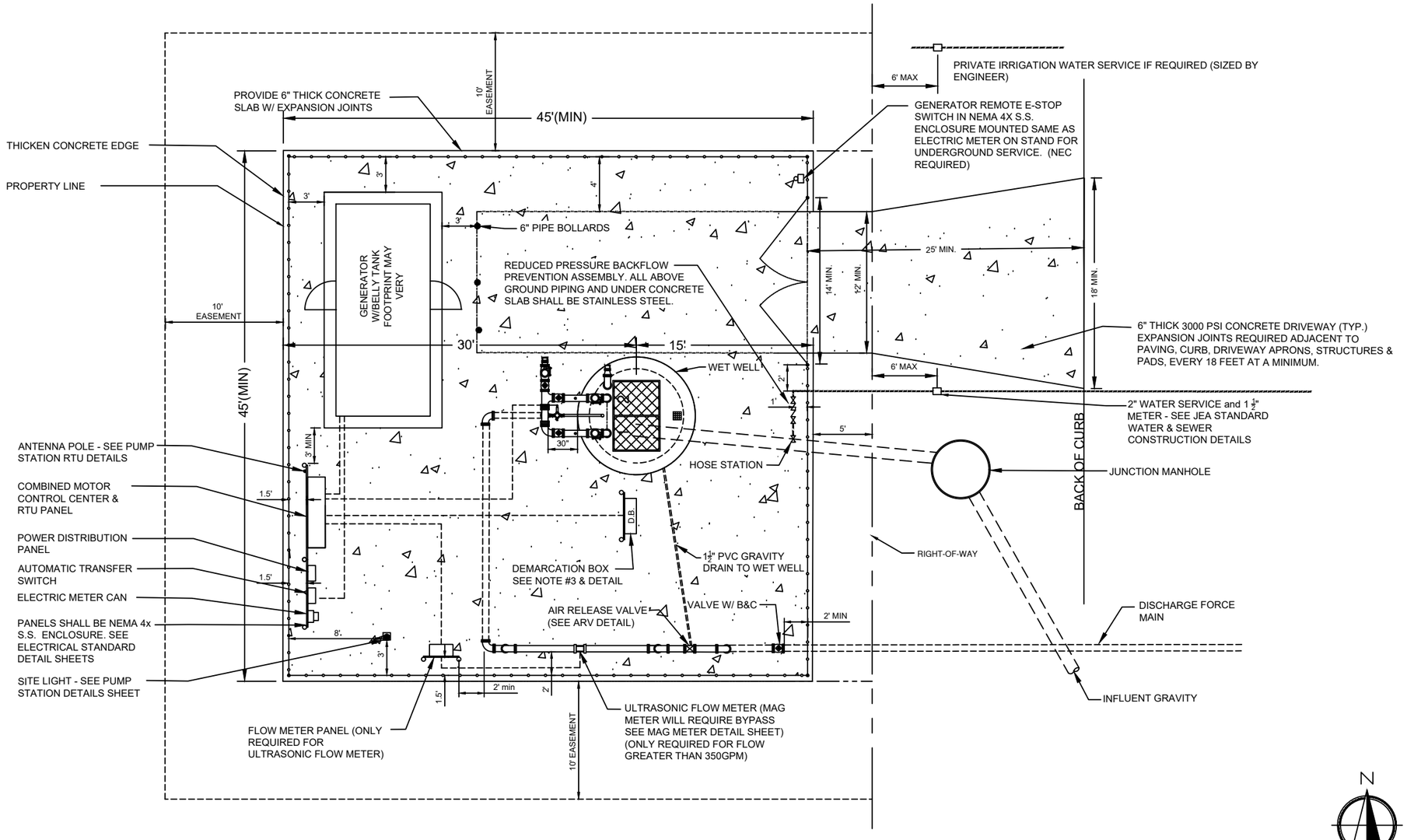
Xrefs Attached=



SITE SPECIFIC

NO.	BY	DATE	REVISIONS
4.			
3.			
2.			
1.			

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

DESIGN ENGINEER:
FLORIDA REGISTRATION NO.

JEA Building Community sm

JEA STANDARD CLASS ONE PUMP STATION WITH GENERATOR
FOR PEAK FLOWS BETWEEN 0 TO 440 GPM
PLAN AND SECTION

PROJ. NO.
DATE:
SCALE: 1" = 10'

NO. SHEETS
SHEET NO.
DRAWING NO.

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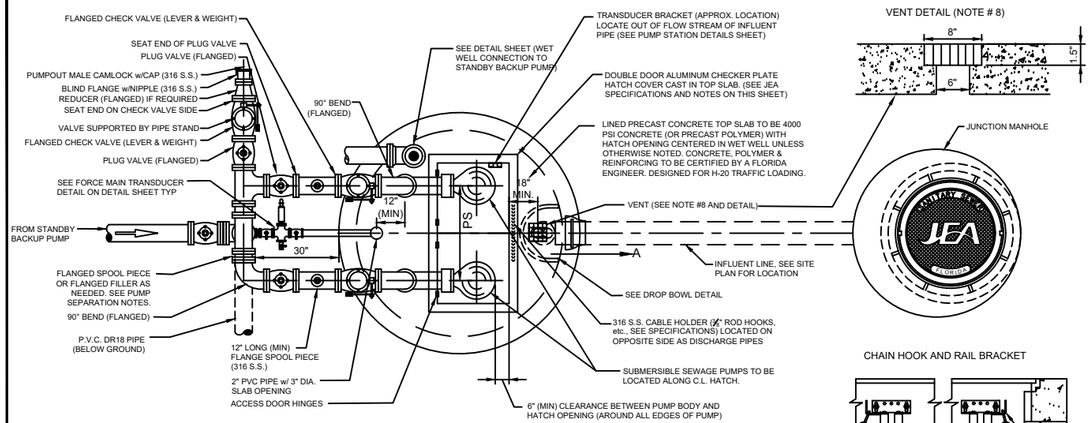
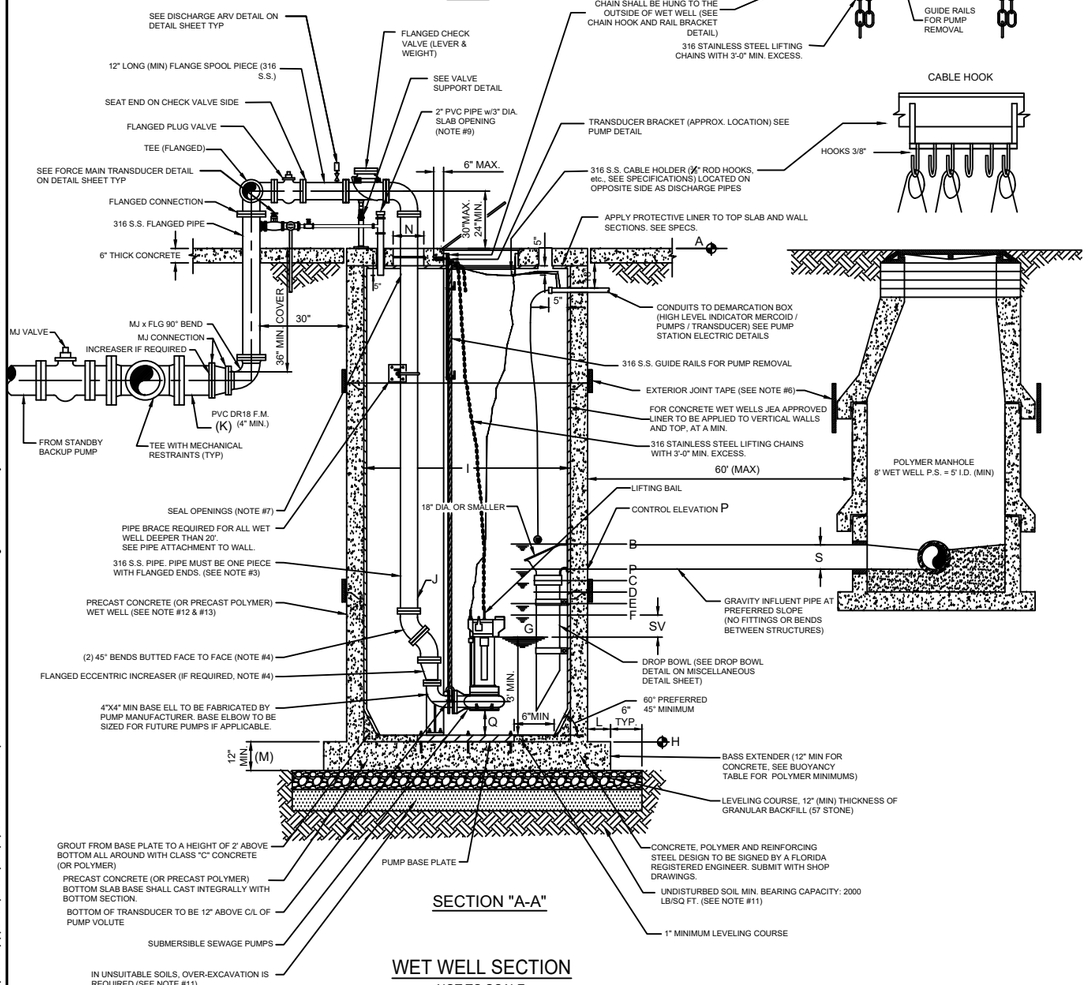


PLAN



SECTION "A-A"

WET WELL SECTION

NOT TO SCALE

PUMP STATION INFORMATION
SCHEDULE OF ELEVATIONS

PUMP STATION STREET ADDRESS	TOP ELEV (NOTE 9)	MERCOID LEVEL	ALARM ELEVATION	LEFT BLANK	LAG PUMP ON ELEVATION	LEAD PUMP ON ELEVATION	PUMP OFF ELEVATION (NOTE #1)	BOTTOM ELEVATION (NOTE #5)	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	
	R + 1.0	P + 0.5'	P - 0.5'	---	P - 1.0'	P - 1.5'	F - SV	G - 3'	---	---	---	---	---	---	---	---	---	---	---
									---	---	---	---	---	---	---	---	---	---	---

ALL PUMPS					
PUMP MANUFACTURER (NOTE #1)	---	---	---	---	---
MODEL	---	---	---	---	---
IMPELLER	---	---	---	---	---
PUMP DISCHARGE	---	---	---	---	---
MOTOR (RPM)	---	---	---	---	---
HORSEPOWER (HP)	---	---	---	---	---
PHASE/VOLT/AMPS (NOTE #4)	---	---	---	---	---
AIC (NOTE #5)	---	---	---	---	---
DESIGN POINT (GPM) @ TDH (FT)	---	---	---	---	---
RUNOUT POINT (GPM) @ TDH (FT)	---	---	---	---	---
EMERGENCY MAIN	---	---	---	---	---
NORMAL SERICE MAIN	---	---	---	---	---
CB #1 TO PUMP NO. 1	---	---	---	---	---
CB #2 TO PUMP NO.2	---	---	---	---	---
CONTROL PANEL MCB	---	---	---	---	---
STARTER (SIZE & TYPE)	---	---	---	---	---
ELECTRIC SERICE (SIZE & TYPE)	---	---	---	---	---

PUMP STATION INFORMATION NOTES:

1. SEE JEA STANDARDS VOLUME 3 (WATER AND WASTEWATER APPROVED MATERIALS MANUAL) FOR APPROVED MANUFACTURES
2. "SV" = STORAGE VOLUME PER DESIGN ENGINEER AND SHALL BE DESIGNED FOR 12 MINUTE CYCLE TIME, MINIMUM STORAGE DEPTH SHALL BE 24".
3. IF PUMP MANUFACTURER REQUIRES A GREATER SEPARATION, THAT SEPARATION SHALL BE USED WITH THE ADDITION OF FLANGED FILLERS OR SPOOL PIECES. THE DIFFERENT SEPARATION MUST BE APPROVED BY JEA PRIOR TO CONSTRUCTION AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO JEA.
4. ALL PUMP MOTORS SHALL BE 3 PHASE.
5. AMPERE INTERRUPTING CAPACITY (AIC): CONTACT THE ELECTRICAL UTILITY COMPANY FOR THIS DATA IF AVAILABLE.
6. A MANUAL TRANSFER SWITCH SHALL BE PROVIDED.
7. A PHASE MONITOR SHALL BE INSTALLED ON THE INCOMING POWER SOURCE FOR ALL PUMP STATIONS NOT PROVIDED POWER BY JEA. REFER TO ELECTRIC SINGLE LINE DETAIL DIAGRAM FOR DETAILS.

POLYMER CONCRETE FLOATATION COLLARS

	DEPTH 0-10FT		DEPTH 11-15FT		DEPTH 16-20FT		DEPTH 21-30FT	
WET WELL I.D.	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)
8'-0"	3	35600	3	37600	2	46000	—	5200
10'-0"	5	57580	5	75000	5	78700	3	91100
12'-0"	8	82900	8	113200	8	134500	7	139000

DISCHARGE PIPE DATA (WITHIN WET WELL)

PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION	MIN PUMPOUT SIZE	HATCH SIZE (MIN.)
(J)	(N)	(PS)	(PO)	
4"	10"	26"	4"	42"x48"
6"	12"	32"	6"	42"x60"
FREE STANDING PUMP OUT FOR PIPE SIZES GREATER THAN 6"				
8"	15"	36"	8"	---
10"	17"	44"	10"	---
12"	20"	48"	12"	---
14" & LARGER	-	-	14" & LARGER	---

MCC PANEL

THE COMBINED MOTOR CONTROL AND RTV PANEL SHALL BE AS NOTED BELOW. CONTRACTOR SHALL SUBMIT APPLICABLE SHOP DRAWING PACKAGE,SEE JEA.COM FOR DETAILS.

- ☐ FIXED SPEED PANEL: 240/120 VOLT, 3 PHASE, OPEN DELTA, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ FIXED SPEED PANEL:: 480 VOLT, 3 PHASE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 1P-3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, REDUCED VOLTAGE MOTOR STARTING, 10 STARTS PER HOUR

MANUAL TRANSFER SWITCH

☐ JEA APPROVED	200 AMP
☐ JEA APPROVED	400 AMP

CONCRETE WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-9"	0'-10"
10'-0"	1'-0"	1'-0"
12'-0"	1'-0"	1'-0"

POLYMER WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-6"	0'-10"
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7"	1'-0"

STANDBY BACKUP PUMP

MANUFACTURER	HOLLAND	THOMPSON	XYLEM/GODWIN
MODEL			
ENGINE H.P.			
NPSHR			
FLOW GPM @TDH			
RPM			
DISCHARGE PIPE SIZE			
SUCTION PIPE SIZE			

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
2. PENETRATION SOIL BORING INFORMATION, TAKEN AT WET WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOIL BORING SHALL BE A MINIMUM OF 15' DEEPER THAN WET WELL BOTTOM OR UNTIL SUITABLE SOIL IS LOCATED UP TO A MAXIMUM OF 25' BELOW WET WELL BOTTOM.
3. ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL. BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
4. ALL DUCTILE IRON FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED.
5. ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A "NEVER SEIZE" TYPE COATING.
6. ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS AND MANHOLES SHALL BE SEALED WITH A 18" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
7. THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/EUCOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSECT SCREEN SECURED TO TOP.
8. PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 ¼" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 ¾" WIDE x ⅜" MATERIAL. .
9. PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AD OPEN END BOTTOM. SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE THE TOP OF WET WELL.
10. SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
11. IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
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DESIGN NOTES:

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3. MINIMUM FORCE MAIN FLOW RATE: 4" DIAMETER @ 80 GPM ALL GREATER SIZES SHALL BE DESIGNED FOR FLOW VELOCITY BETWEEN 2FPS AND 5FPS
4. MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP., 3 PHASE, 4 WIRE
5. MINIMUM CONCRETE PAD SIZE: 45'x45'
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8. HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433): TO DETERMINE IF A POLE OR TOWER IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF -86DB RSSI. IF THE HEIGHT OF THE MINIMUM -86DB RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
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10. THE TOP ELEVATION OF JUNCTION MAN HOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).

CONSTRUCTION NOTES:

1. SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
2. CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
3. DEMARCATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
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6. TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
7. WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

SITE SPECIFIC

NO.	BY	DATE	REVISIONS
4.			
3.			
2.			
1.			

DESIGN ENGINEER

FLORIDA REGISTRATION NO.

DESIGNED:
DRAWN BY:
CHECKED BY:
DATE:

JEA Building Community

JEA STANDARD CLASS ONE PUMP STATION WITH STANDBY BACKUP PUMP FOR PEAK FLOWS BETWEEN 0 TO 440 GPM PLAN AND SECTION

PROJ. NO.
DATE:
SCALE:

NO. SHEETS
SHEET NO.
DRAWING NO.

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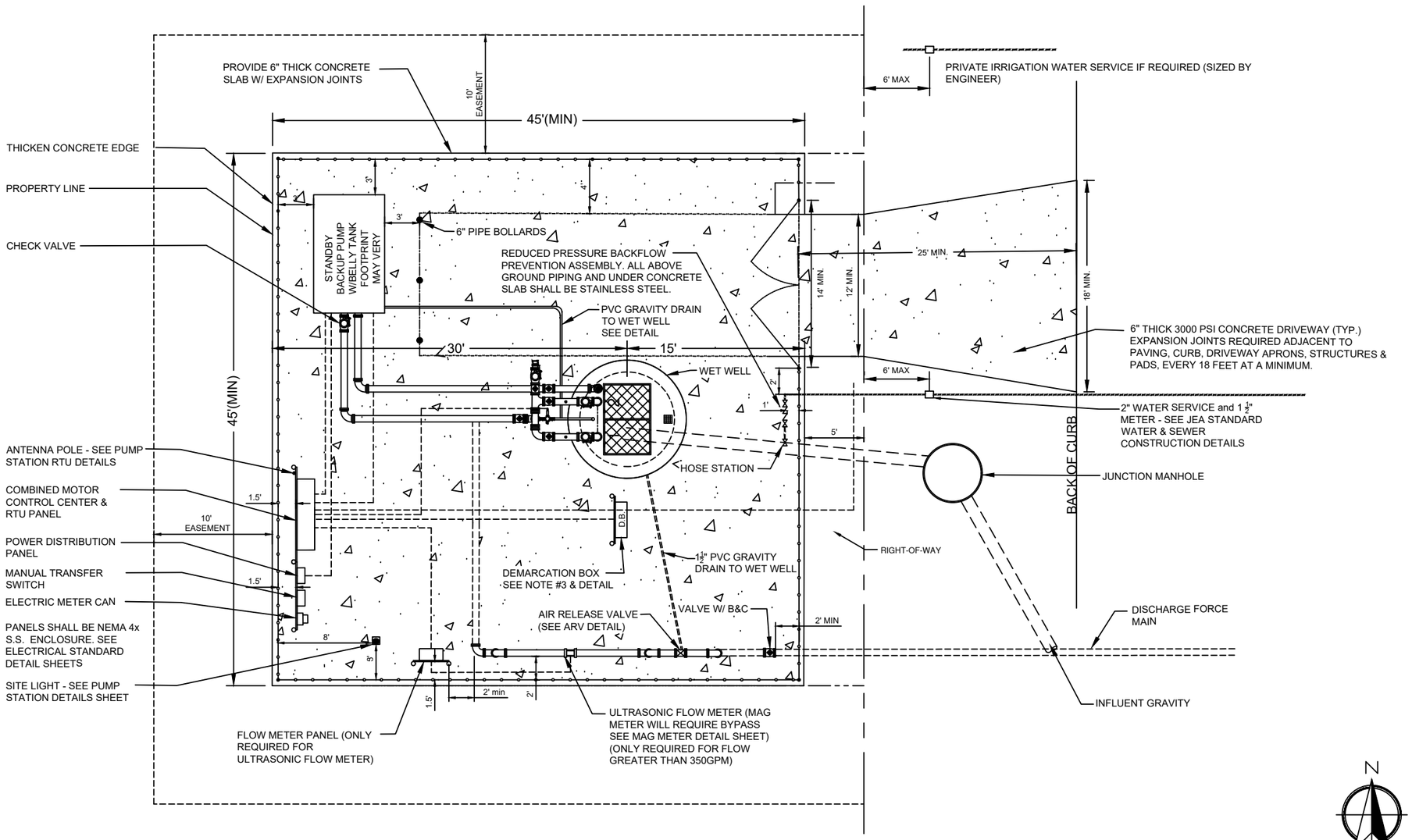

SITE SPECIFIC

NO.	BY	DATE	REVISIONS
4.			
3.			
2.			
1.			

DESIGN ENGINEER

FLORIDA REGISTRATION NO.

DESIGNED:
DRAWN BY:
CHECKED BY:
DATE:

JEA Building Community sm

JEA STANDARD CLASS ONE PUMP STATION
WITH STANDBY BACKUP PUMP
FOR PEAK FLOWS BETWEEN 0 TO 440 GPM
PLAN AND SECTION

PROJ. NO.
DATE:
SCALE: 1" = 10'

NO. SHEETS
SHEET NO.
DRAWING NO.

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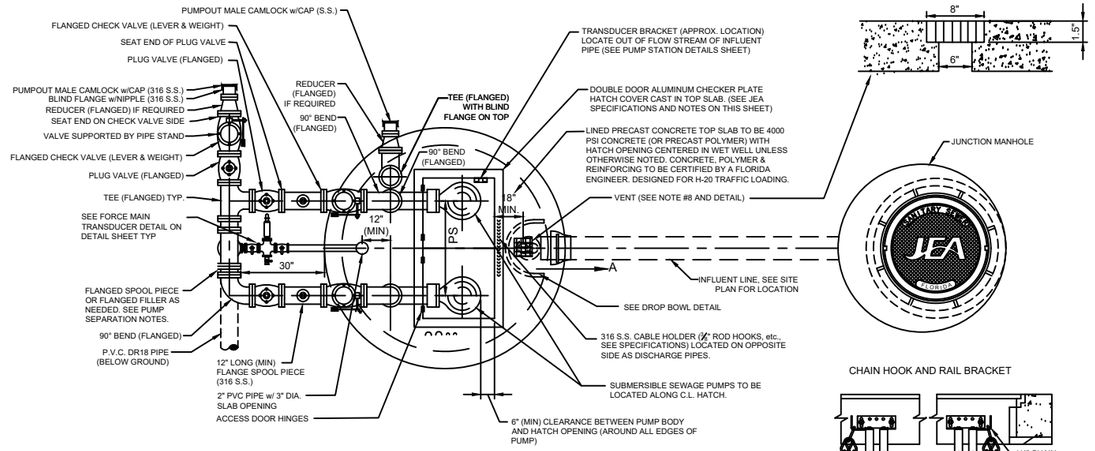

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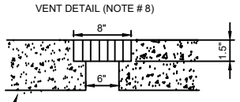
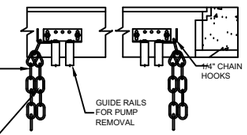
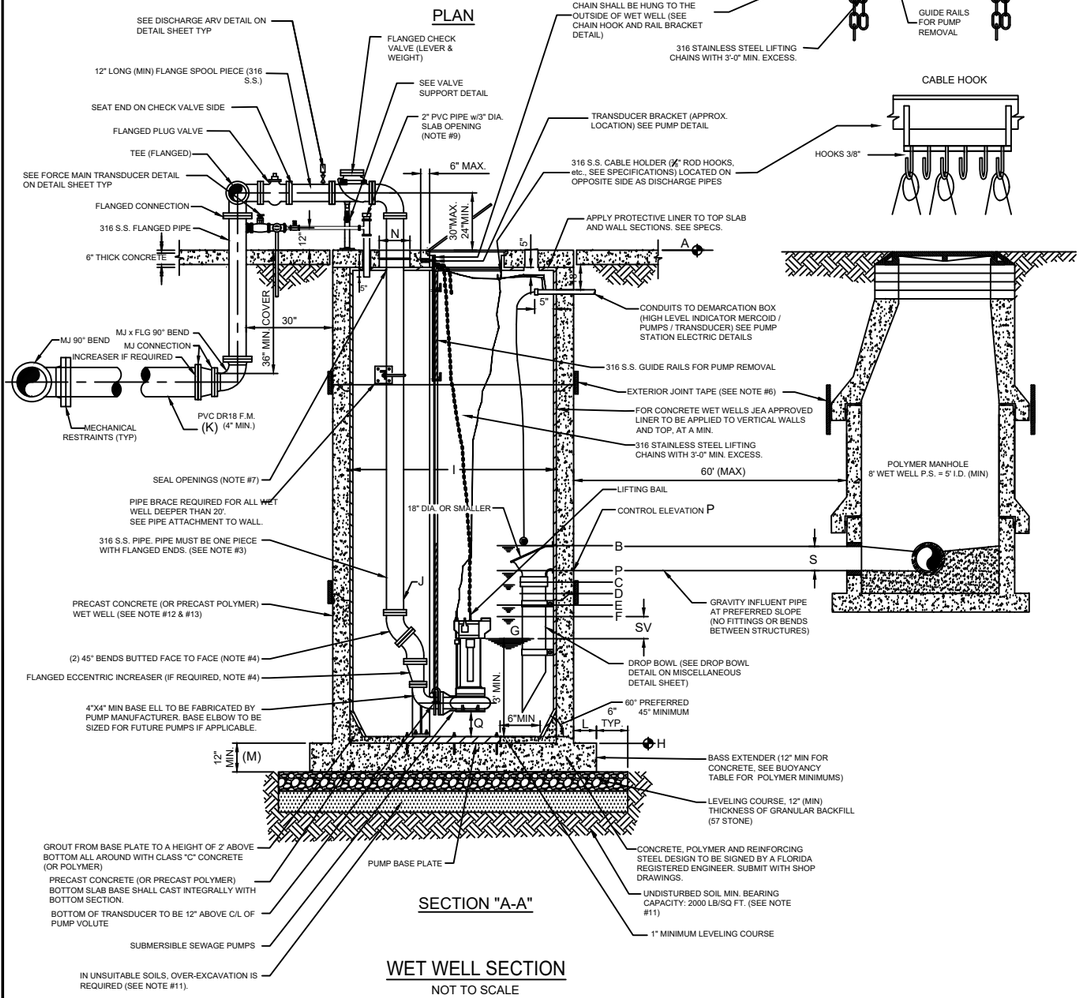


CHAIN HOOK AND RAIL BRACKET



CABLE HOOK

PLAN



SECTION "A-A"

WET WELL SECTION

NOT TO SCALE

PUMP STATION INFORMATION
SCHEDULE OF ELEVATIONS

PUMP STATION STREET ADDRESS	TOP ELEV (NOTE 9)	MERCOID LEVEL	ALARM ELEVATION	LEFT BLANK	LAG PUMP ON ELEVATION	LEAD PUMP ON ELEVATION	PUMP OFF ELEVATION	BOTTOM ELEVATION	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	
	R + 1.0	P + 0.5'	P - 0.5'	---	P - 1.0'	P - 1.5'	F - SV	G - 3'	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

ALL PUMPS					
PUMP MANUFACTURER (NOTE #1)	---	---	---	---	---
MODEL	---	---	---	---	---
IMPELLER	---	---	---	---	---
PUMP DISCHARGE	---	---	---	---	---
MOTOR (RPM)	---	---	---	---	---
HORSEPOWER (HP)	---	---	---	---	---
PHASE/VOLT/AMPS (NOTE #4)	---	---	---	---	---
AIC (NOTE #5)	---	---	---	---	---
DESIGN POINT (GPM) @ TDH (FT)	---	---	---	---	---
RUNOUT POINT (GPM) @ TDH (FT)	---	---	---	---	---
EMERGENCY MAIN	---	---	---	---	---
NORMAL SERICE MAIN	---	---	---	---	---
CB #1 TO PUMP NO. 1	---	---	---	---	---
CB #2 TO PUMP NO.2	---	---	---	---	---
CONTROL PANEL MCB	---	---	---	---	---
STARTER (SIZE & TYPE)	---	---	---	---	---
ELECTRIC SERICE (SIZE & TYPE)	---	---	---	---	---

PUMP STATION INFORMATION NOTES:

1. SEE JEA STANDARDS VOLUME 3 (WATER AND WASTEWATER APPROVED MATERIALS MANUAL) FOR APPROVED MANUFACTURES
2. "SV" = STORAGE VOLUME PER DESIGN ENGINEER AND SHALL BE DESIGNED FOR 12 MINUTE CYCLE TIME, MINIMUM STORAGE DEPTH SHALL BE 24".
3. IF PUMP MANUFACTURER REQUIRES A GREATER SEPARATION, THAT SEPARATION SHALL BE USED WITH THE ADDITION OF FLANGED FILLERS OR SPOOL PIECES. THE DIFFERENT SEPARATION MUST BE APPROVED BY JEA PRIOR TO CONSTRUCTION AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO JEA.
4. ALL PUMP MOTORS SHALL BE 3 PHASE.
5. AMPERE INTERRUPTING CAPACITY (AIC): CONTACT THE ELECTRICAL UTILITY COMPANY FOR THIS DATA IF AVAILABLE.
6. A MANUAL TRANSFER SWITCH SHALL BE PROVIDED.
7. A PHASE MONITOR SHALL BE INSTALLED ON THE INCOMING POWER SOURCE FOR ALL PUMP STATIONS NOT PROVIDED POWER BY JEA. REFER TO ELECTRIC SINGLE LINE DETAIL DIAGRAM FOR DETAILS.

POLYMER CONCRETE FLOATATION COLLARS

	DEPTH 0-10FT		DEPTH 11-15FT		DEPTH 16-20FT		DEPTH 21-30FT	
WET WELL I.D.	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)
8'-0"	3	35600	3	37600	2	46000	—	5200
10'-0"	5	57580	5	75000	5	78700	3	91100
12'-0"	8	82900	8	113200	8	134500	7	139000

DISCHARGE PIPE DATA (WITHIN WET WELL)

PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION	MIN PUMPOUT SIZE	HATCH SIZE (MIN.)
(J)	(N)	(PS)	(PO)	
4"	10"	26"	4"	42"x48"
6"	12"	32"	6"	42"x60"
FREE STANDING PUMP OUT FOR PIPE SIZES GREATER THAN 6"				
8"	15"	36"	8"	---
10"	17"	44"	10"	---
12"	20"	48"	12"	---
14" & LARGER	-	-	14" & LARGER	---

MCC PANEL

THE COMBINED MOTOR CONTROL AND RTV PANEL SHALL BE AS NOTED BELOW. CONTRACTOR SHALL SUBMIT APPLICABLE SHOP DRAWING PACKAGE,SEE JEA.COM FOR DETAILS.

- ☐ FIXED SPEED PANEL: 240/120 VOLT, 3 PHASE, OPEN DELTA, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ FIXED SPEED PANEL:: 480 VOLT, 3 PHASE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 1P-3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, REDUCED VOLTAGE MOTOR STARTING, 10 STARTS PER HOUR

MANUAL TRANSFER SWITCH

☐ JEA APPROVED	200 AMP
☐ JEA APPROVED	400 AMP

CONCRETE WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-9"	0'-10"
10'-0"	1'-0"	1'-0"
12'-0"	1'-0"	1'-0"

POLYMER WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-6"	0'-10"
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7"	1'-0"

GENERATOR

MANUFACTURER	AKSA	CATERPILLAR	CUMMINS	GENERAC
MODEL				
KW				

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
2. PENETRATION SOIL BORING INFORMATION, TAKEN AT WET WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOIL BORING SHALL BE A MINIMUM OF 15' DEEPER THAN WET WELL BOTTOM OR UNTIL SUITABLE SOIL IS LOCATED UP TO A MAXIMUM OF 25' BELOW WET WELL BOTTOM.
3. ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL. BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
4. DUCTILE IRON ALL FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED .
5. ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A "NEVER SEIZE" TYPE COATING.
6. ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS AND MANHOLES SHALL BE SEALED WITH A 18" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
7. THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/EUCOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSECT SCREEN SECURED TO TOP.
8. PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 ¾" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 ¾" WIDE x ¾" MATERIAL. .
9. PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AND OPEN END BOTTOM). SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE TOP OF WET WELL.
10. SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
11. IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
12. PRECAST CONCRETE WET WELL SHALL MEET A.S.T.M. C-478 STANDARD, ENTIRE INSIDE SURFACE OF WET WELL & TOP SLAB SHALL BE LINED WITH APPROVED LINER. LINER INSTALLER MUST BE CERTIFIED BY LINER MANUFACTURER. SUBMIT CERTIFICATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
13. PRECAST POLYMER CONCRETE WET WELL SHALL MEET JEA POLYMER PRECAST STANDARD. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
14. IF ODOR CONTROL WILL NOT BE INSTALLED UPON COMPLETION THEN CONDUITS AND PIPING SHALL BE STUBBED OUT FOR EACH. SEE STUB OUT DETAIL SHEET
15. FLOW METER SHALL BE ULTRASONIC OR MAG METER. ULTRASONIC FLOW METER REQUIRES A FLOW METER PANEL. MAG METER REQUIRES BY PASS PIPING. SEE ULTRASONIC/MAG METER DETAIL ON MISCELLANEOUS DETAILS SHEET.
16. SEE REFERENCE FACILITIES STANDARDS FOR GENERATOR, ATS, BACKFLOW, BOLLARDS AND PAVEMENT SPECIFICATIONS. (HTTPS://WWW.JEA.COM/ENGINEERING_AND_CONSTRUCTION/JEA_FACILITIES_STANDARDS/)
17. SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.
18. PUMPS SHALL BE NUMBERED SEQUENTIALLY, LEFT TO RIGHT, WHEN STANDING IN FRONT OF THE WET WELL HATCH, FACING THE DISCHARGE PIPING. THE PUMPS SHALL BE INSTALLED SEQUENTIALLY WITH THE LOWEST SERIAL NUMBER BEING PUMP NUMBER ONE.

DESIGN NOTES:

1. ENGINEER SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.
2. WET WELL SIZE: PUMP STATION 8'-0" I.D. MIN., 27' DEEP MAX.
3. MINIMUM FLOW RATE: 500 GPM EACH PUMP
4. MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP., 3 PHASE, 4 WIRE
5. MINIMUM CONCRETE PAD SIZE: 50'x55'
6. MINIMUM JUNCTION MANHOLE SIZE: 5'-0" I.D. LOCATE ON SAME SIDE OF DRIVEWAY AS PUMP-OUT CONNECTION.
7. IT IS THE ENGINEER'S RESPONSIBILITY TO DESIGN THE SITE TO MEET FUNCTIONALITY AND SITE SPECIFIC CONDITIONS. HOWEVER, THE ENGINEER SHALL MAKE EVERY EFFORT TO CONFORM TO THE STANDARD DRAWING SHOWN HERE.
8. HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433): TO DETERMINE IF A POLE OR TOWER IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF -86DB RSSI. IF THE HEIGHT OF THE MINIMUM -86DB RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
9. THE PUMP STATION TOP ELEVATION SHALL BE SET AT A MINIMUM OF 1' ABOVE THE "R" ELEVATION. THE "R" ELEVATION SHALL BE EQUAL TO THE DESIGN HIGH WATER LEVEL OR THE 100 YEAR FLOOD ELEVATION, WHICHEVER IS HIGHER.
10. THE TOP ELEVATION OF JUNCTION MAN HOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).
11. FLOW METER: ULTRASONIC FLOW METER OR MAG METER CONFIGURATION SHALL BE DESIGNED BY ENGINEER.

CONSTRUCTION NOTES:

1. SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
2. CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
3. DEMARCATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
4. SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS (SEE GROUNDING DETAIL SHEET).
5. CONTRACTOR MUST KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
6. TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
7. WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

SITE SPECIFIC

NO.	BY	DATE	REVISIONS
1.			
2.			
3.			
4.			

DESIGN ENGINEER

FLORIDA REGISTRATION NO.

DESIGNED BY:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community sm

JEA STANDARD CLASS TWO PUMP STATION WITH GENERATOR FOR PEAK FLOWS BETWEEN 441 AND 1000 GPM PLAN AND SECTION

NO. SHEETS	PROJ. NO.	
SHEET NO.	DATE:	SCALE: 1" = 10'
DRAWING NO.		

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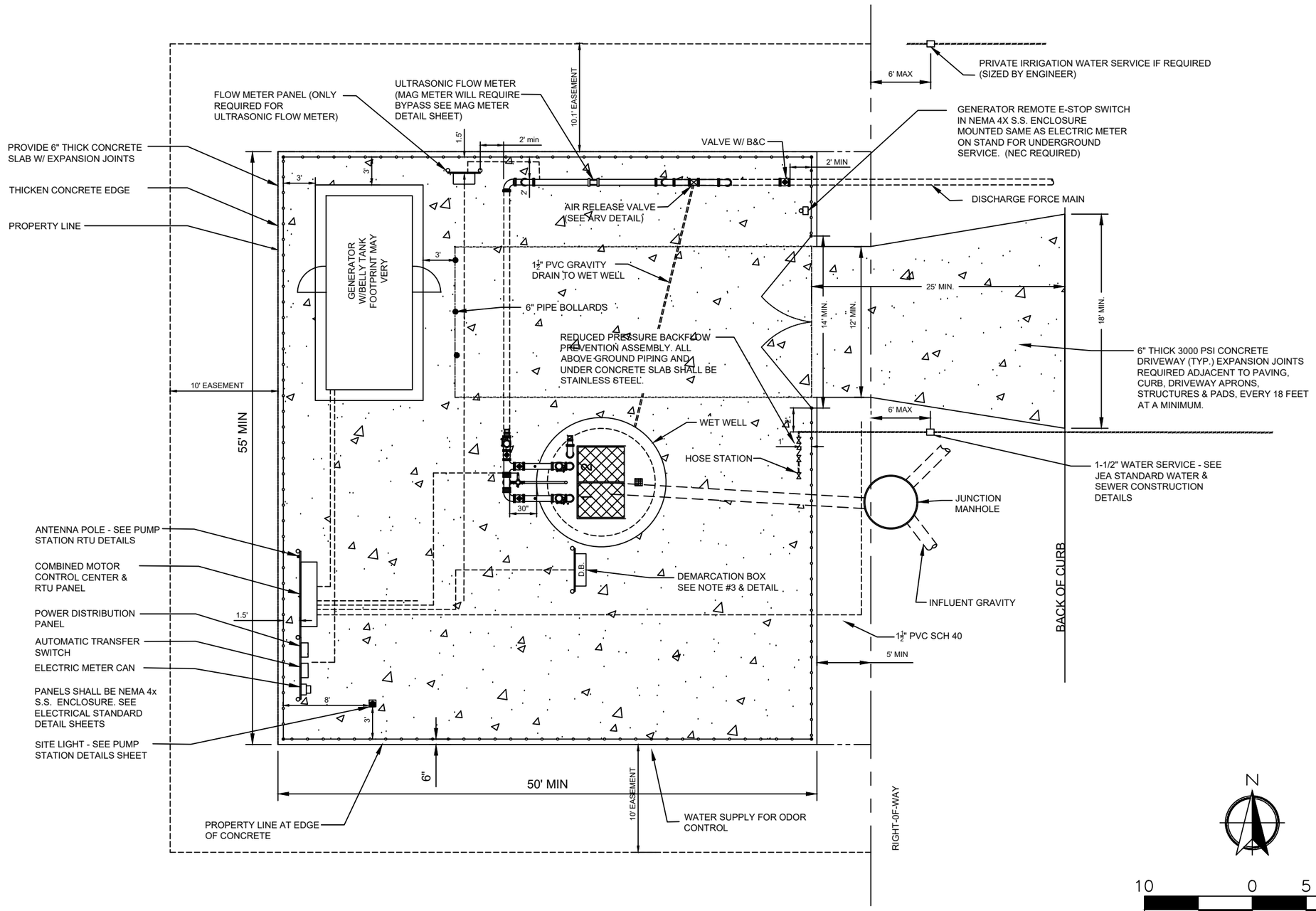
Xrefs Attached=



SITE SPECIFIC

NO.	BY	DATE	REVISIONS
1.			
2.			
3.			
4.			

DESIGN ENGINEER

FLORIDA REGISTRATION NO.

DESIGNED:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community sm

JEA STANDARD CLASS TWO PUMP STATION
WITH GENERATOR
FOR PEAK FLOWS BETWEEN 441 AND 1000 GPM
PLAN AND SECTION

PROJ. NO.
DATE:
SCALE: 1" = 10'

NO. SHEETS
SHEET NO.
DRAWING NO.:

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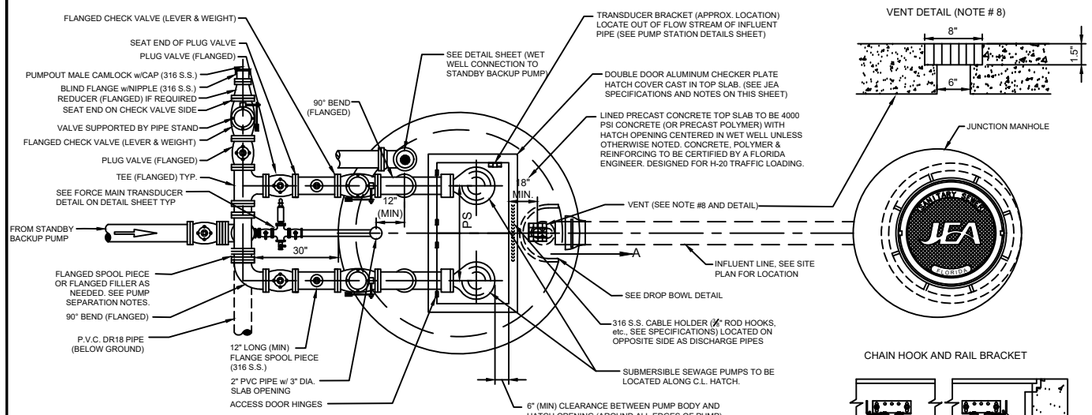
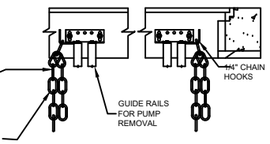
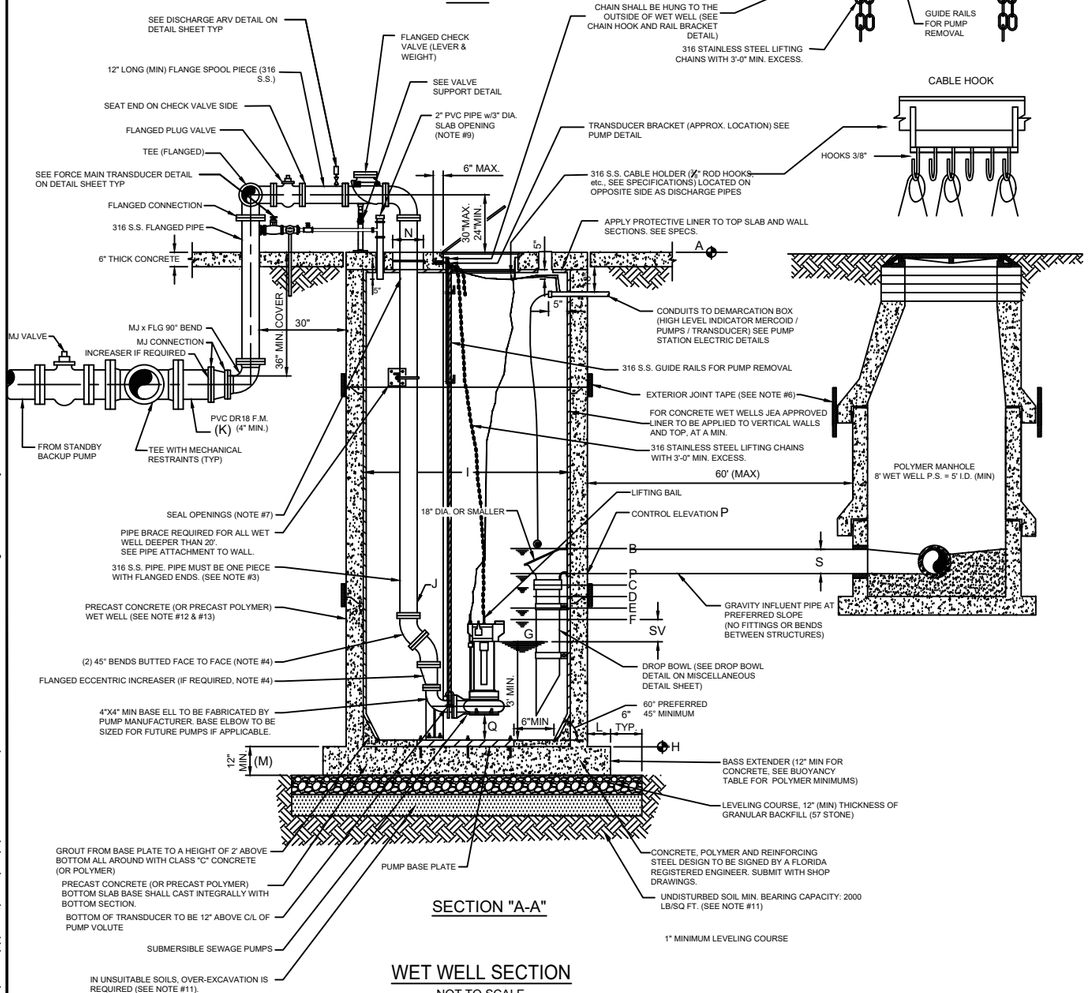


VENT DETAIL (NOTE # 8)

CHAIN HOOK AND RAIL BRACKET



PLAN



SECTION "A-A"

WET WELL SECTION

NOT TO SCALE

CABLE HOOK

PUMP STATION INFORMATION
SCHEDULE OF ELEVATIONS

PUMP STATION STREET ADDRESS	TOP ELEV (NOTE 9)	MERCOID LEVEL	ALARM ELEVATION	LEFT BLANK	LAG PUMP ON ELEVATION	LEAD PUMP ON ELEVATION	PUMP OFF ELEVATION	BOTTOM ELEVATION	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	
	R + 1.0	P + 0.5'	P - 0.5'	---	P - 1.0'	P - 1.5'	F - SV	G - 3'	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

ALL PUMPS					
PUMP MANUFACTURER (NOTE #1)	---	---	---	---	---
MODEL	---	---	---	---	---
IMPELLER	---	---	---	---	---
PUMP DISCHARGE	---	---	---	---	---
MOTOR (RPM)	---	---	---	---	---
HORSEPOWER (HP)	---	---	---	---	---
PHASE/VOLT/AMPS (NOTE #4)	---	---	---	---	---
AIC (NOTE #5)	---	---	---	---	---
DESIGN POINT (GPM) @ TDH (FT)	---	---	---	---	---
RUNOUT POINT (GPM) @ TDH (FT)	---	---	---	---	---
EMERGENCY MAIN	---	---	---	---	---
NORMAL SERICE MAIN	---	---	---	---	---
CB #1 TO PUMP NO. 1	---	---	---	---	---
CB #2 TO PUMP NO.2	---	---	---	---	---
CONTROL PANEL MCB	---	---	---	---	---
STARTER (SIZE & TYPE)	---	---	---	---	---
ELECTRIC SERICE (SIZE & TYPE)	---	---	---	---	---

PUMP STATION INFORMATION NOTES:

1. SEE JEA STANDARDS VOLUME 3 (WATER AND WASTEWATER APPROVED MATERIALS MANUAL) FOR APPROVED MANUFACTURES
2. "SV" = STORAGE VOLUME PER DESIGN ENGINEER AND SHALL BE DESIGNED FOR 12 MINUTE CYCLE TIME, MINIMUM STORAGE DEPTH SHALL BE 24".
3. IF PUMP MANUFACTURER REQUIRES A GREATER SEPARATION, THAT SEPARATION SHALL BE USED WITH THE ADDITION OF FLANGED FILLERS OR SPOOL PIECES. THE DIFFERENT SEPARATION MUST BE APPROVED BY JEA PRIOR TO CONSTRUCTION AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO JEA.
4. ALL PUMP MOTORS SHALL BE 3 PHASE.
5. AMPERE INTERRUPTING CAPACITY (AIC): CONTACT THE ELECTRICAL UTILITY COMPANY FOR THIS DATA IF AVAILABLE.
6. A MANUAL TRANSFER SWITCH SHALL BE PROVIDED.
7. A PHASE MONITOR SHALL BE INSTALLED ON THE INCOMING POWER SOURCE FOR ALL PUMP STATIONS NOT PROVIDED POWER BY JEA. REFER TO ELECTRIC SINGLE LINE DETAIL DIAGRAM FOR DETAILS.

POLYMER CONCRETE FLOATATION COLLARS

	DEPTH 0-10FT		DEPTH 11-15FT		DEPTH 16-20FT		DEPTH 21-30FT	
WET WELL I.D.	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)
8'-0"	3	35600	3	37600	2	46000	—	5200
10'-0"	5	57580	5	75000	5	78700	3	91100
12'-0"	8	82900	8	113200	8	134500	7	139000

DISCHARGE PIPE DATA (WITHIN WET WELL)

PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION	MIN PUMPOUT SIZE	HATCH SIZE (MIN.)
(J)	(N)	(PS)	(PO)	
4"	10"	26"	4"	42"x48"
6"	12"	32"	6"	42"x60"
FREE STANDING PUMP OUT FOR PIPE SIZES GREATER THAN 6"				
8"	15"	36"	8"	---
10"	17"	44"	10"	---
12"	20"	48"	12"	---
14" & LARGER	-	-	14" & LARGER	---

MANUAL TRANSFER SWITCH

☐ JEA APPROVED	200 AMP
☐ JEA APPROVED	400 AMP

CONCRETE WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-9"	0'-10"
10'-0"	1'-0"	1'-0"
12'-0"	1'-0"	1'-0"

POLYMER WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-6"	0'-10"
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7"	1'-0"

MCC PANEL

THE COMBINED MOTOR CONTROL AND RTV PANEL SHALL BE AS NOTED BELOW. CONTRACTOR SHALL SUBMIT APPLICABLE SHOP DRAWING PACKAGE,SEE JEA.COM FOR DETAILS.

- ☐ FIXED SPEED PANEL: 240/120 VOLT, 3 PHASE, OPEN DELTA, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ FIXED SPEED PANEL:: 480 VOLT, 3 PHASE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 1P-3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, REDUCED VOLTAGE MOTOR STARTING, 10 STARTS PER HOUR

STANDBY BACKUP PUMP

MANUFACTURER	HOLLAND	THOMPSON	XYLEM/GODWIN
MODEL			
ENGINE H.P.			
NPSHR			
FLOW GPM @TDH			
RPM			
DISCHARGE PIPE SIZE			
SUCTION PIPE SIZE			

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
2. PENETRATION SOIL BORING INFORMATION, TAKEN AT WET WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOIL BORING SHALL BE A MINIMUM OF 15' DEEPER THAN WET WELL BOTTOM OR UNTIL SUITABLE SOIL IS LOCATED UP TO A MAXIMUM OF 25' BELOW WET WELL BOTTOM.
3. ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL. BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
4. DUCTILE IRON ALL FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED .
5. ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A "NEVER SEIZE" TYPE COATING.
6. ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS AND MANHOLES SHALL BE SEALED WITH A 18" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
7. THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/EUCOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSECT SCREEN SECURED TO TOP.
8. PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 ¼" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 ¼" WIDE x ⅜" MATERIAL. .
9. PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AND OPEN END BOTTOM). SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE TOP OF WET WELL.
10. SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
11. IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
12. PRECAST CONCRETE WET WELL SHALL MEET A.S.T.M. C-478 STANDARD, ENTIRE INSIDE SURFACE OF WET WELL & TOP SLAB SHALL BE LINED WITH APPROVED LINER. LINER INSTALLER MUST BE CERTIFIED BY LINER MANUFACTURER. SUBMIT CERTIFICATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
13. PRECAST POLYMER CONCRETE WET WELL SHALL MEET JEA POLYMER PRECAST STANDARD. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
14. IF ODOR CONTROL WILL NOT BE INSTALLED UPON COMPLETION THEN CONDUITS AND PIPING SHALL BE STUBBED OUT FOR EACH. SEE STUB OUT DETAIL SHEET
15. FLOW METER SHALL BE ULTRASONIC OR MAG METER. ULTRASONIC FLOW METER REQUIRES A FLOW METER PANEL. MAG METER REQUIRES BY PASS PIPING. SEE ULTRASONIC/MAG METER DETAIL ON MISCELLANEOUS DETAILS SHEET.
16. SEE REFERENCE FACILITIES STANDARDS FOR GENERATOR, ATS, BACKFLOW, BOLLARDS AND PAVEMENT SPECIFICATIONS. (HTTPS://WWW.JEA.COM/ENGINEERING_AND_CONSTRUCTION/JEA_FACILITIES_STANDARDS/)
17. SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.
18. PUMPS SHALL BE NUMBERED SEQUENTIALLY, LEFT TO RIGHT, WHEN STANDING IN FRONT OF THE WET WELL HATCH, FACING THE DISCHARGE PIPING. THE PUMPS SHALL BE INSTALLED SEQUENTIALLY WITH THE LOWEST SERIAL NUMBER BEING PUMP NUMBER ONE.

DESIGN NOTES:

1. ENGINEER SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.
2. WET WELL SIZE: PUMP STATION 8'-0" I.D. MIN., 27' DEEP MAX.
3. MINIMUM FLOW RATE: 500 GPM EACH PUMP
4. MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP., 3 PHASE, 4 WIRE
5. MINIMUM CONCRETE PAD SIZE: 50'x55'
6. MINIMUM JUNCTION MANHOLE SIZE: 5'-0" I.D. LOCATE ON SAME SIDE OF DRIVEWAY AS PUMP-OUT CONNECTION.
7. IT IS THE ENGINEER'S RESPONSIBILITY TO DESIGN THE SITE TO MEET FUNCTIONALITY AND SITE SPECIFIC CONDITIONS. HOWEVER, THE ENGINEER SHALL MAKE EVERY EFFORT TO CONFORM TO THE STANDARD DRAWING SHOWN HERE.
8. HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433): TO DETERMINE IF A POLE OR TOWER IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF -86DB RSSI. IF THE HEIGHT OF THE MINIMUM -86DB RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
9. THE PUMP STATION TOP ELEVATION SHALL BE SET AT A MINIMUM OF 1' ABOVE THE "R" ELEVATION. THE "R" ELEVATION SHALL BE EQUAL TO THE DESIGN HIGH WATER LEVEL OR THE 100 YEAR FLOOD ELEVATION, WHICHEVER IS HIGHER.
10. THE TOP ELEVATION OF JUNCTION MAN HOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).
11. FLOW METER: ULTRASONIC FLOW METER OR MAG METER CONFIGURATION SHALL BE DESIGNED BY ENGINEER.

CONSTRUCTION NOTES:

1. SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
2. CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
3. DEMARCATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
4. SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS (SEE GROUNDING DETAIL SHEET).
5. CONTRACTOR MUST KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
6. TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
7. WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

SITE SPECIFIC

NO.	DATE	BY	REVISIONS
4			
3			
2			
1			

DESIGN ENGINEER: FLORIDA REGISTRATION NO.

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community sm

JEA STANDARD CLASS TWO PUMP STATION
WITH STANDBY BACKUP PUMP
FOR PEAK FLOWS BETWEEN 441 TO 1000 GPM
PLAN AND SECTION BY EXCEPTION ONLY

NO. SHEETS
SHEET NO.
DRAWING NO.

PROJ. NO.
DATE:
SCALE: 1" = 10'

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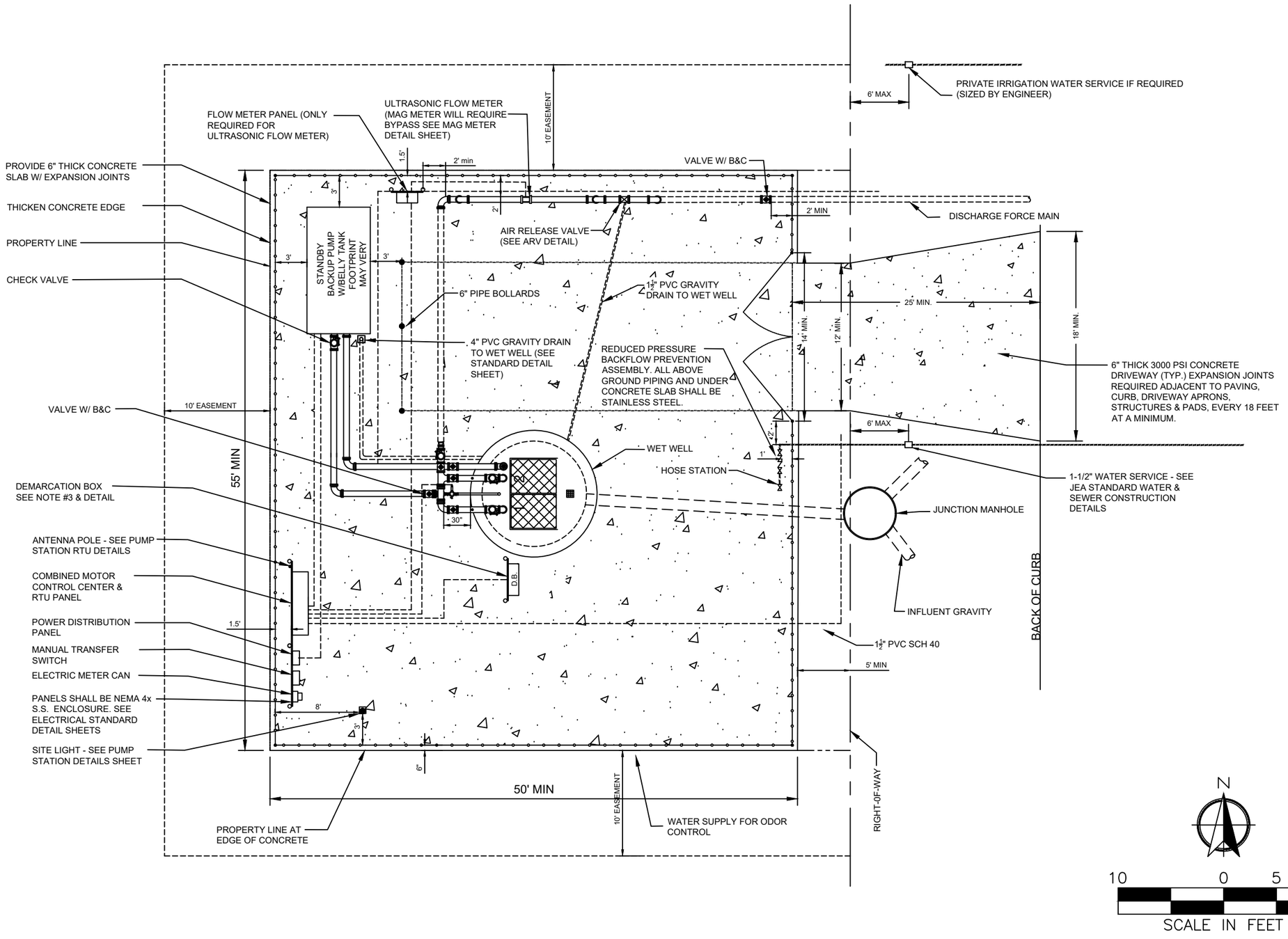

SITE SPECIFIC

NO.	BY	DATE	REVISIONS
4.			
3.			
2.			
1.			

DESIGN ENGINEER:
FLORIDA REGISTRATION NO.

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community sm

JEA STANDARD CLASS TWO PUMP STATION
WITH STANDBY BACKUP PUMP
FOR PEAK FLOWS BETWEEN 441 TO 1000 GPM
PLAN AND SECTION BY EXCEPTION ONLY

PROJ. NO.		
DATE:	SCALE:	1" = 10'
NO. SHEETS	SHEET NO.	DRAWING NO.

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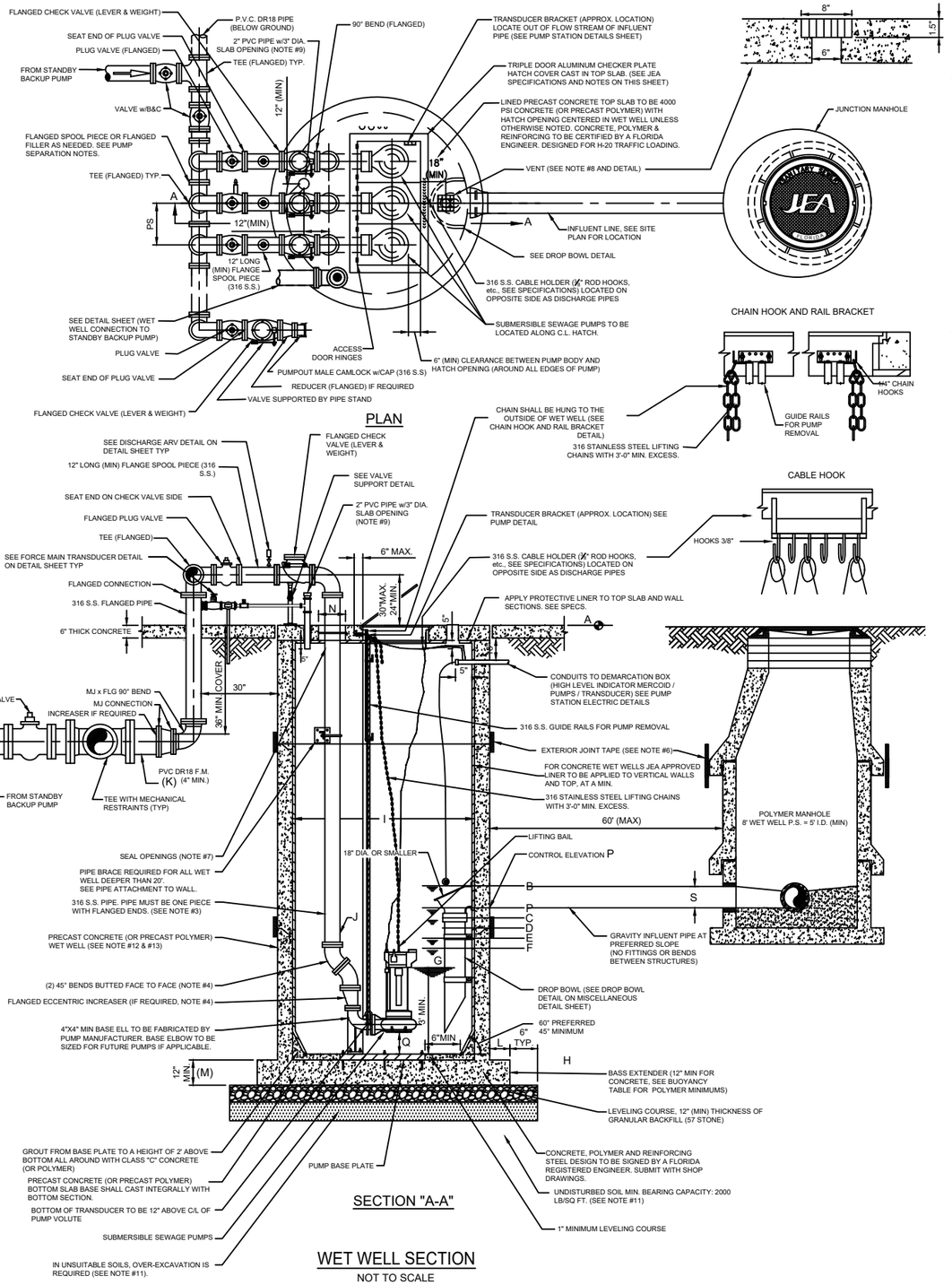

PUMP STATION INFORMATION
SCHEDULE OF ELEVATIONS

PUMP STATION STREET ADDRESS	TOP ELEV (NOTE 9)	MERCOID LEVEL	ALARM ELEVATION	2ND LAG ON ELEVATION	1st LAG PUMP ON ELEVATION	LEAD PUMP ON ELEVATION	PUMP OFF ELEVATION	BOTTOM ELEVATION (NOTE 1)	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	
	R + 1.0	P + 0.5'	P - 0.5'	---	P - 1.5'	P - 2.0'	F - SV	G - 3'	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

ALL PUMPS						
PUMP MANUFACTURER (NOTE #1)	---	---	---	---	---	---
MODEL	---	---	---	---	---	---
IMPELLER	---	---	---	---	---	---
PUMP DISCHARGE	---	---	---	---	---	---
MOTOR (RPM)	---	---	---	---	---	---
HORSEPOWER (HP)	---	---	---	---	---	---
PHASE/VOLT/AMPS (NOTE #4)	---	---	---	---	---	---
AIC (NOTE #5)	---	---	---	---	---	---
DESIGN POINT (GPM) @ TDH (FT)	---	---	---	---	---	---
RUNOUT POINT (GPM) @ TDH (FT)	---	---	---	---	---	---
EMERGENCY MAIN	---	---	---	---	---	---
NORMAL SERICE MAIN	---	---	---	---	---	---
CB #1 TO PUMP NO. 1	---	---	---	---	---	---
CB #2 TO PUMP NO.2	---	---	---	---	---	---
CONTROL PANEL MCB	---	---	---	---	---	---
STARTER (SIZE & TYPE)	---	---	---	---	---	---
ELECTRIC SERICE (SIZE & TYPE)	---	---	---	---	---	---

PUMP STATION INFORMATION NOTES:

1. SEE JEA STANDARDS VOLUME 3 (WATER AND WASTEWATER APPROVED MATERIALS MANUAL) FOR APPROVED MANUFACTURES
2. "SV" = STORAGE VOLUME PER DESIGN ENGINEER AND SHALL BE DESIGNED FOR 12 MINUTE CYCLE TIME, MINIMUM STORAGE DEPTH SHALL BE 24".
3. IF PUMP MANUFACTURER REQUIRES A GREATER SEPARATION, THAT SEPARATION SHALL BE USED WITH THE ADDITION OF FLANGED FILLERS OR SPOOL PIECES. THE DIFFERENT SEPARATION MUST BE APPROVED BY JEA PRIOR TO CONSTRUCTION AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO JEA.
4. ALL PUMP MOTORS SHALL BE 3 PHASE.
5. AMPERE INTERRUPTING CAPACITY (AIC): CONTACT THE ELECTRICAL UTILITY COMPANY FOR THIS DATA IF AVAILABLE.
6. A MANUAL TRANSFER SWITCH SHALL BE PROVIDED.
7. A PHASE MONITOR SHALL BE INSTALLED ON THE INCOMING POWER SOURCE FOR ALL PUMP STATIONS NOT PROVIDED POWER BY JEA. REFER TO ELECTRIC SINGLE LINE DETAIL DIAGRAM FOR DETAILS.

POLYMER CONCRETE FLOATATION COLLARS

WET WELL I.D.	DEPTH 0-10FT		DEPTH 11-15FT		DEPTH 16-20FT		DEPTH 21-30FT	
	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)
8'-0"	3	35600	3	37600	2	46000	—	5200
10'-0"	5	57580	5	75000	5	78700	3	91100
12'-0"	8	82900	8	113200	8	134500	7	139000

DISCHARGE PIPE DATA (WITHIN WET WELL)

PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION	MIN PUMPOUT SIZE	HATCH SIZE (MIN.)
(J)	(N)	(PS)	(PO)	
4"	10"	26"	4"	---
6"	12"	32"	6"	---
FREE STANDING PUMP OUT FOR PIPE SIZES GREATER THAN 6"				
8"	15"	36"	8"	---
10"	17"	44"	10"	---
12"	20"	48"	12"	---
14" & LARGER	-	-	14" & LARGER	---

CONCRETE WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
10'-0"	1'-0"	1'-0"
12'-0"	1'-0"	1'-0"

POLYMER WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7"	1'-0"

MCC PANEL

THE COMBINED MOTOR CONTROL AND RTV PANEL SHALL BE AS NOTED BELOW. CONTRACTOR SHALL SUBMIT APPLICABLE SHOP DRAWING PACKAGE.SEE JEA.COM FOR DETAILS.

- ☐ FIXED SPEED PANEL: 240/120 VOLT, 3 PHASE, OPEN DELTA, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ FIXED SPEED PANEL:: 480 VOLT, 3 PHASE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 1P-3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, REDUCED VOLTAGE MOTOR STARTING, 10 STARTS PER HOUR

STANDBY BACKUP PUMP

MANUFACTURER	HOLLAND	THOMPSON	XYLEM/GODWIN
MODEL			
ENGINE H.P.			
NPSHR			
FLOW GPM @TDH			
RPM			
DISCHARGE PIPE SIZE			
SUCTION PIPE SIZE			

MANUAL TRANSFER SWITCH

☐ JEA APPROVED	200 AMP
☐ JEA APPROVED	400 AMP

GENERATOR

MANUFACTURER	AKSA	CATERPILLAR	CUMMINS	GENERAC
MODEL				
KW				

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
2. PENETRATION SOIL BORING INFORMATION, TAKEN AT WET WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOIL BORING SHALL BE A MINIMUM OF 15' DEEPER THAN WET WELL BOTTOM OR UNTIL SUITABLE SOIL IS LOCATED UP TO A MAXIMUM OF 25' BELOW WET WELL BOTTOM.
3. ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL. BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
4. DUCTILE IRON FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED.
5. ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A "NEVER SEIZE" TYPE COATING.
6. ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS SHALL AND MANHOLES BE SEALED WITH A 18" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
7. THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/EUCOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSECT SCREEN SECURED TO TOP.
8. PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 ½" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 ½" WIDE x ¼" MATERIAL.
9. PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AND OPEN END BOTTOM). SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE TOP OF WET WELL.
10. SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
11. IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
12. PRECAST CONCRETE WET WELL SHALL MEET A.S.T.M. C-478 STANDARD, ENTIRE INSIDE SURFACE OF WET WELL & TOP SLAB SHALL BE LINED WITH APPROVED LINER. LINER INSTALLER MUST BE CERTIFIED BY LINER MANUFACTURER. SUBMIT CERTIFICATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
13. PRECAST POLYMER CONCRETE WET WELL SHALL MEET JEA POLYMER PRECAST STANDARD. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
14. IF ODOR CONTROL WILL NOT BE INSTALLED UPON COMPLETION THEN CONDUITS AND PIPING SHALL BE STUBBED OUT FOR EACH. SEE STUB OUT DETAIL SHEET
15. IF SOLID MANAGEMENT SYSTEM WILL NOT BE INSTALLED UPON COMPLETION THEN VACUUM PIPING FROM ODDER CONTROL SHALL BE STUB OUT AND A VACUUM PIPE SHALL BE INSTALL TO THE THE WET FROM THE ODDER CONTROL.
16. FLOW METER SHALL BE ULTRASONIC OR MAG METER. ULTRASONIC FLOW METER REQUIRES A FLOW METER PANEL. MAG METER REQUIRES BY PASS PIPING. SEE ULTRASONIC/MAG METER DETAIL ON MISCELLANEOUS DETAILS SHEET.
17. SEE REFERENCE FACILITIES STANDARDS FOR GENERATOR, ATS, BACKFLOW, BOLLARDS AND PAVEMENT SPECIFICATIONS. (HTTPS://WWW.JEA.COM/ENGINEERING_AND_CONSTRUCTION/JEA_FACILITIES_STANDARDS/)
18. SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.
19. PUMPS SHALL BE NUMBERED SEQUENTIALLY, LEFT TO RIGHT, WHEN STANDING IN FRONT OF THE WET WELL HATCH, FACING THE DISCHARGE PIPING. THE PUMPS SHALL BE INSTALLED SEQUENTIALLY WITH THE LOWEST SERIAL NUMBER BEING PUMP NUMBER ONE.

DESIGN NOTES:

1. ENGINEER SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.
2. TRIPLEX PUMP STATION SHALL BE USED FOR PUMP FLOW GREATER THAN 1000 G.P.M.
3. BUILDING REQUIRED FOR CLASS 3 IF PUMPS ARE 76-200HP OR FLA >= 400 A OR > 3 PUMPS.
4. WET WELL SIZE:
   8" AND SMALLER PUMP DISCHARGE 10'-0" I.D. MIN., 27' DEEP MAX.
   10" AND LARGER PUMP DISCHARGE 12'-0" I.D. MIN., 27' DEEP MAX.
5. MINIMUM FLOW RATE: 500 GPM EACH PUMP
6. MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP., 3 PHASE, 4 WIRE
7. MINIMUM CONCRETE PAD SIZE: 95'x90'
8. MINIMUM JUNCTION MANHOLE SIZE: 5'-0" I.D. LOCATE ON SAME SIDE OF DRIVEWAY AS PUMP-OUT CONNECTION.
9. IT IS THE ENGINEER'S RESPONSIBILITY TO DESIGN THE SITE TO MEET FUNCTIONALITY AND SITE SPECIFIC CONDITIONS. HOWEVER, THE ENGINEER SHALL MAKE EVERY EFFORT TO CONFORM TO THE STANDARD DRAWING SHOWN HERE.
10. ENGINEER SHALL DESIGN STANDBY BACKUP PUMP SUCTION PIPING TO MEET STATION PEAK FLOW.
11. HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433): TO DETERMINE IF A POLE OR TOWER IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF -86DB RSSI. IF THE HEIGHT OF THE MINIMUM -86DB RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
12. THE PUMP STATION TOP ELEVATION SHALL BE SET AT A MINIMUM OF 1' ABOVE THE "R" ELEVATION. THE "R" ELEVATION SHALL BE EQUAL TO THE DESIGN HIGH WATER LEVEL OR THE 100 YEAR FLOOD ELEVATION, WHICHEVER IS HIGHER.
13. THE TOP ELEVATION OF JUNCTION MAN HOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).
14. FLOW METER: ULTRASONIC FLOW METER OR MAG METER CONFIGURATION SHALL BE DESIGNED BY ENGINEER.
15. STANDBY BACKUP PUMP SHALL OPERATE IN LEAD LAG CONFIGURATION.
16. SECOND STANDBY BACKUP PUMP IS NOT REQUIRED BUT MAY BE NECESSARY TO ACHIEVE REQUIRED HYDRAULIC CONDITIONS.

CONSTRUCTION NOTES:

1. SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
2. CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
3. DEMARCATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
4. SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS (SEE JEA.COM).
5. CONTRACTOR SHALL KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
6. TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
7. WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

SITE SPECIFIC

NO.	BY	DATE	REVISIONS
1.			
2.			
3.			
4.			

DESIGN ENGINEER

FLORIDA REGISTRATION NO.

DESIGNED BY:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Communitysm

JEA STANDARD
CLASS THREE PUMP STATION
FOR PEAK FLOWS BETWEEN 1001-2000 GPM
PLAN AND SECTION

PROJ. NO.
DATE:
SCALE: 1" = 10'

NO. SHEETS
SHEET NO.
DRAWING NO.

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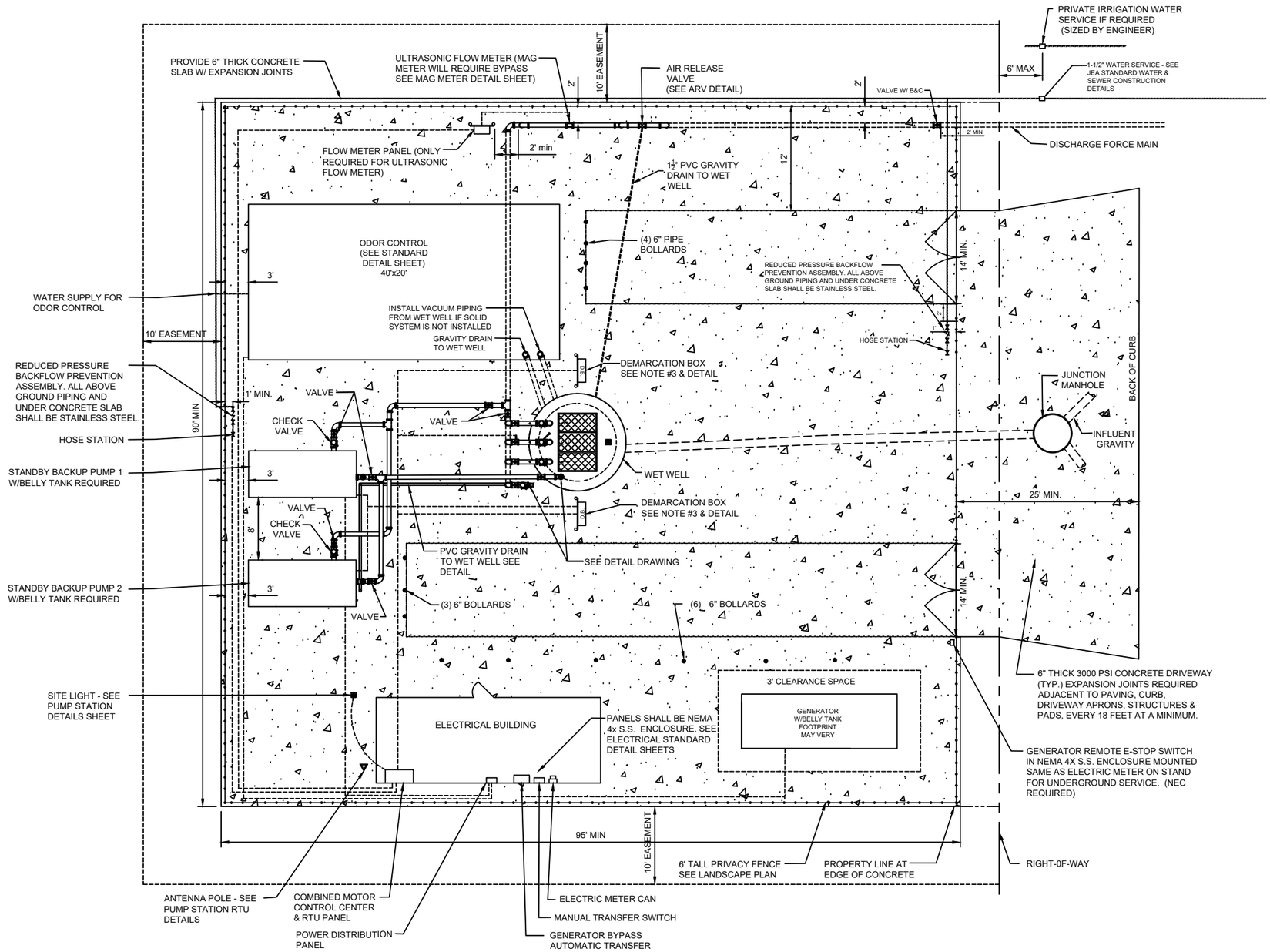

SITE SPECIFIC

NO.	BY	DATE	REVISIONS
4.			
3.			
2.			
1.			

DESIGN ENGINEER

FLORIDA REGISTRATION NO.

DESIGNED:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community sm

JEA STANDARD
CLASS THREE PUMP STATION
FOR PEAK FLOWS BETWEEN 1001-2000 GPM
PLAN AND SECTION

PROJ. NO.
DATE:
SCALE: 1" = 10'

NO. SHEETS
SHEET NO.
DRAWING NO.

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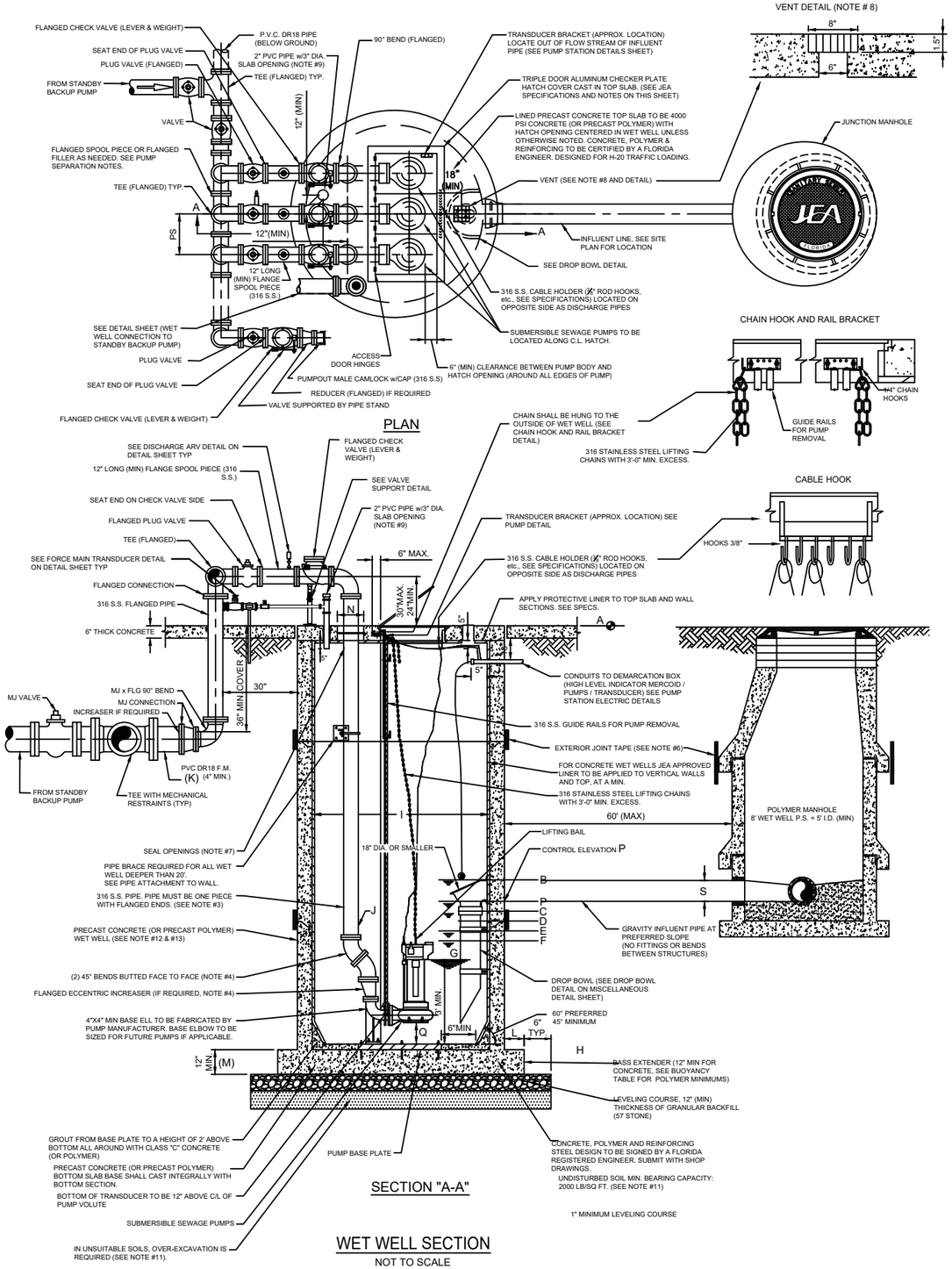

PUMP STATION INFORMATION
SCHEDULE OF ELEVATIONS

PUMP STATION STREET ADDRESS	TOP ELEV (NOTE 9)	MERCOID LEVEL	ALARM ELEVATION	2ND LAG ON ELEVATION	1st LAG PUMP ON ELEVATION	LEAD PUMP ON ELEVATION	PUMP OFF ELEVATION	BOTTOM ELEVATION (NOTE 1)	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	
	R + 1.0	P + 0.5'	P - 0.5'	---	P - 1.5'	P - 2.0'	F - SV	G - 3'	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

ALL PUMPS					
PUMP MANUFACTURER (NOTE #1)	---	---	---	---	---
MODEL	---	---	---	---	---
IMPELLER	---	---	---	---	---
PUMP DISCHARGE	---	---	---	---	---
MOTOR (RPM)	---	---	---	---	---
HORSEPOWER (HP)	---	---	---	---	---
PHASE/VOLT/AMPS (NOTE #4)	---	---	---	---	---
AIC (NOTE #5)	---	---	---	---	---
DESIGN POINT (GPM) @ TDH (FT)	---	---	---	---	---
RUNOUT POINT (GPM) @ TDH (FT)	---	---	---	---	---
EMERGENCY MAIN	---	---	---	---	---
NORMAL SERICE MAIN	---	---	---	---	---
CB #1 TO PUMP NO. 1	---	---	---	---	---
CB #2 TO PUMP NO.2	---	---	---	---	---
CONTROL PANEL MCB	---	---	---	---	---
STARTER (SIZE & TYPE)	---	---	---	---	---
ELECTRIC SERICE (SIZE & TYPE)	---	---	---	---	---

PUMP STATION INFORMATION NOTES:

1. SEE JEA STANDARDS VOLUME 3 (WATER AND WASTEWATER APPROVED MATERIALS MANUAL) FOR APPROVED MANUFACTURES
2. "SV" = STORAGE VOLUME PER DESIGN ENGINEER AND SHALL BE DESIGNED FOR 12 MINUTE CYCLE TIME, MINIMUM STORAGE DEPTH SHALL BE 24".
3. IF PUMP MANUFACTURER REQUIRES A GREATER SEPARATION, THAT SEPARATION SHALL BE USED WITH THE ADDITION OF FLANGED FILLERS OR SPOOL PIECES. THE DIFFERENT SEPARATION MUST BE APPROVED BY JEA PRIOR TO CONSTRUCTION AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO JEA.
4. ALL PUMP MOTORS SHALL BE 3 PHASE.
5. AMPERE INTERRUPTING CAPACITY (AIC): CONTACT THE ELECTRICAL UTILITY COMPANY FOR THIS DATA IF AVAILABLE.
6. A MANUAL TRANSFER SWITCH SHALL BE PROVIDED.
7. A PHASE MONITOR SHALL BE INSTALLED ON THE INCOMING POWER SOURCE FOR ALL PUMP STATIONS NOT PROVIDED POWER BY JEA. REFER TO ELECTRIC SINGLE LINE DETAIL DIAGRAM FOR DETAILS.

POLYMER CONCRETE FLOATATION COLLARS

WET WELL I.D.	DEPTH 0-10FT: MIN BASE EXTENDER (IN)	DEPTH 0-10FT: MIN WEIGHT OF TOTAL STRUCTURE (LBS)	DEPTH 11-15FT: MIN BASE EXTENDER (IN)	DEPTH 11-15FT: MIN WEIGHT OF TOTAL STRUCTURE (LBS)	DEPTH 16-20FT: MIN BASE EXTENDER (IN)	DEPTH 16-20FT: MIN WEIGHT OF TOTAL STRUCTURE (LBS)	DEPTH 21-30FT: MIN BASE EXTENDER (IN)	DEPTH 21-30FT: MIN WEIGHT OF TOTAL STRUCTURE (LBS)
8'-0"	3	35600	3	37600	2	46000	—	5200
10'-0"	5	57580	5	75000	5	78700	3	91100
12'-0"	8	82900	8	113200	8	134500	7	139000

DISCHARGE PIPE DATA (WITHIN WET WELL)

PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION	MIN PUMPOUT SIZE	HATCH SIZE (MIN.)
(J)	(N)	(PS)	(PO)	
4"	10"	26"	4"	---
6"	12"	32"	6"	---
FREE STANDING PUMP OUT FOR PIPE SIZES GREATER THAN 6"				
8"	15"	36"	8"	---
10"	17"	44"	10"	---
12"	20"	48"	12"	---
14" & LARGER	-	-	14" & LARGER	---

CONCRETE WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
10'-0"	1'-0"	1'-0"
12'-0"	1'-0"	1'-0"

POLYMER WET WELL DIMENSIONS

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7"	1'-0"

MCC PANEL

THE COMBINED MOTOR CONTROL AND RTV PANEL SHALL BE AS NOTED BELOW. CONTRACTOR SHALL SUBMIT APPLICABLE SHOP DRAWING PACKAGE,SEE JEA.COM FOR DETAILS.

- ☐ FIXED SPEED PANEL: 240/120 VOLT, 3 PHASE, OPEN DELTA, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ FIXED SPEED PANEL:: 480 VOLT, 3 PHASE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 1P-3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
- ☐ 3P VFD PANEL:: 480/277 VOLT, 3 PHASE, WYE, REDUCED VOLTAGE MOTOR STARTING, 10 STARTS PER HOUR

MANUAL TRANSFER SWITCH

☐ JEA APPROVED	200 AMP
☐ JEA APPROVED	400 AMP

STANDBY BACKUP PUMP

MANUFACTURER	HOLLAND	THOMPSON	XYLEM/GODWIN
MODEL			
ENGINE H.P.			
NPSHR			
FLOW GPM @TDH			
RPM			
DISCHARGE PIPE SIZE			
SUCTION PIPE SIZE			

GENERATOR

MANUFACTURER	AKSA	CATERPILLAR	CUMMINS	GENERAC
MODEL				
KW				

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
2. PENETRATION SOIL BORING INFORMATION, TAKEN AT WET WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOIL BORING SHALL BE A MINIMUM OF 15' DEEPER THAN WET WELL BOTTOM OR UNTIL SUITABLE SOIL IS LOCATED UP TO A MAXIMUM OF 25' BELOW WET WELL BOTTOM.
3. ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL. BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
4. DUCTILE IRON FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED.
5. ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A "NEVER SEIZE" TYPE COATING.
6. ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS SHALL AND MANHOLES BE SEALED WITH A 18" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
7. THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/EUCOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSECT SCREEN SECURED TO TOP.
8. PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 ¼" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 ¼" WIDE x ¼" MATERIAL.
9. PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AND OPEN END BOTTOM). SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE TOP OF WET WELL.
10. SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
11. IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
12. PRECAST CONCRETE WET WELL SHALL MEET A.S.T.M. C-478 STANDARD, ENTIRE INSIDE SURFACE OF WET WELL & TOP SLAB SHALL BE LINED WITH APPROVED LINER. LINER INSTALLER MUST BE CERTIFIED BY LINER MANUFACTURER. SUBMIT CERTIFICATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
13. PRECAST POLYMER CONCRETE WET WELL SHALL MEET JEA POLYMER PRECAST STANDARD. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
14. IF ODOR CONTROL WILL NOT BE INSTALLED UPON COMPLETION THEN CONDUITS AND PIPING SHALL BE STUBBED OUT FOR EACH. SEE STUB OUT DETAIL SHEET
15. IF SOLID MANAGEMENT SYSTEM WILL NOT BE INSTALLED UPON COMPLETION THEN VACUUM PIPING FROM ODDER CONTROL SHALL BE STUB OUT AND A VACUUM PIPE SHALL BE INSTALL TO THE THE WET FROM THE ODDER CONTROL.
16. FLOW METER SHALL BE ULTRASONIC OR MAG METER. ULTRASONIC FLOW METER REQUIRES A FLOW METER PANEL. MAG METER REQUIRES BY PASS PIPING. SEE ULTRASONIC/MAG METER DETAIL ON MISCELLANEOUS DETAILS SHEET.
17. SEE REFERENCE FACILITIES STANDARDS FOR GENERATOR, ATS, BACKFLOW, BOLLARDS AND PAVEMENT SPECIFICATIONS. (HTTPS://WWW.JEA.COM/ENGINEERING_AND_CONSTRUCTION/JEA_FACILITIES_STANDARDS/)
18. SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.
19. PUMPS SHALL BE NUMBERED SEQUENTIALLY, LEFT TO RIGHT, WHEN STANDING IN FRONT OF THE WET WELL HATCH, FACING THE DISCHARGE PIPING. THE PUMPS SHALL BE INSTALLED SEQUENTIALLY WITH THE LOWEST SERIAL NUMBER BEING PUMP NUMBER ONE.

DESIGN NOTES:

1. ENGINEER SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.
2. TRIPLEX PUMP STATION SHALL BE USED FOR PUMP FLOW GREATER THAN 1000 G.P.M.
3. BUILDING REQUIRED FOR CLASS 3 IF PUMPS ARE 76-200HP OR FLA >= 400 A OR > 3 PUMPS.
4. WET WELL SIZE: 8" AND SMALLER PUMP DISCHARGE 10'-0" I.D. MIN., 27' DEEP MAX. 10" AND LARGER PUMP DISCHARGE 12'-0" I.D. MIN., 27' DEEP MAX.
5. MINIMUM FLOW RATE: 500 GPM EACH PUMP
6. MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP., 3 PHASE, 4 WIRE
7. MINIMUM CONCRETE PAD SIZE: 95'x90'
8. MINIMUM JUNCTION MANHOLE SIZE: 5'-0" I.D. LOCATE ON SAME SIDE OF DRIVEWAY AS PUMP-OUT CONNECTION.
9. IT IS THE ENGINEER'S RESPONSIBILITY TO DESIGN THE SITE TO MEET FUNCTIONALITY AND SITE SPECIFIC CONDITIONS. HOWEVER, THE ENGINEER SHALL MAKE EVERY EFFORT TO CONFORM TO THE STANDARD DRAWING SHOWN HERE.
10. ENGINEER SHALL DESIGN STANDBY BACKUP PUMP SUCTION PIPING TO MEET STATION PEAK FLOW.
11. HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433): TO DETERMINE IF A POLE OR TOWER IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF -86DB RSSI. IF THE HEIGHT OF THE MINIMUM -86DB RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
12. THE PUMP STATION TOP ELEVATION SHALL BE SET AT A MINIMUM OF 1' ABOVE THE "R" ELEVATION. THE "R" ELEVATION SHALL BE EQUAL TO THE DESIGN HIGH WATER LEVEL OR THE 100 YEAR FLOOD ELEVATION, WHICHEVER IS HIGHER.
13. THE TOP ELEVATION OF JUNCTION MAN HOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).
14. FLOW METER: ULTRASONIC FLOW METER OR MAG METER CONFIGURATION SHALL BE DESIGNED BY ENGINEER.
15. STANDBY BACKUP PUMP SHALL OPERATE IN LEAD LAG CONFIGURATION.

CONSTRUCTION NOTES:

1. SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
2. CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
3. DEMARCATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
4. SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS (SEE JEA.COM).
5. CONTRACTOR SHALL KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
6. TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
7. WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

SITE SPECIFIC

NO.	BY	DATE	REVISIONS
4.			
3.			
2.			
1.			

DESIGN ENGINEER

FLORIDA REGISTRATION NO.

SCS/ICE ID:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA STANDARD
CLASS FOUR PUMP STATION
FOR PEAK FLOWS GREATER THAN 2000 GPM
PLAN AND SECTION

PROJ. NO.
DATE:
SCALE: 1" = 10'

NO. SHEETS
SHEET NO.
DRAWING NO.

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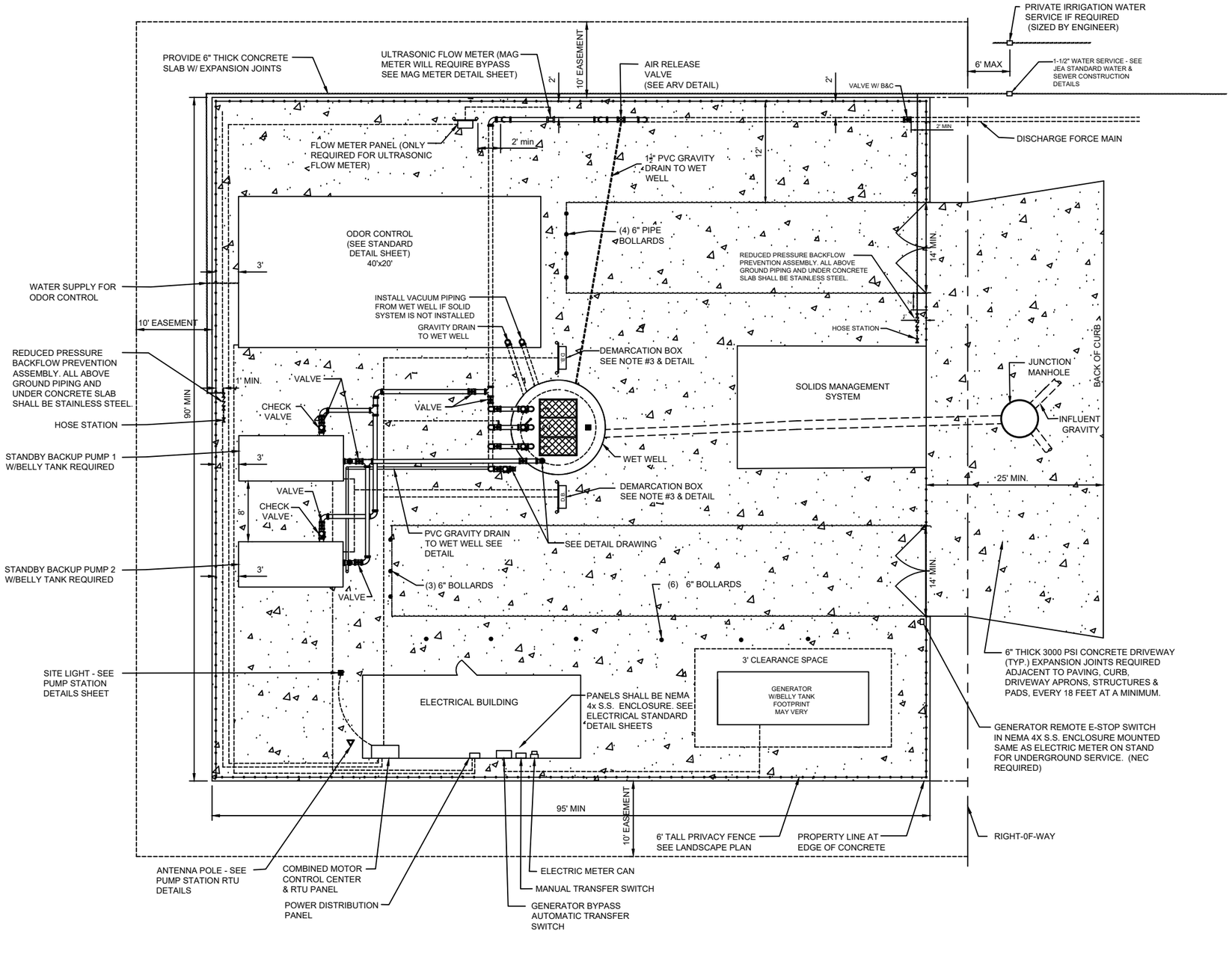
Xrefs Attached=



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10 0 5 10

SCALE IN FEET

SITE SPECIFIC

NO.	BY	DATE	REVISIONS
4.			
3.			
2.			
1.			

DESIGN ENGINEER

FLORIDA REGISTRATION NO.

DESIGNED BY:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community sm

JEA STANDARD
CLASS FOUR PUMP STATION
FOR PEAK FLOWS GREATER THAN 2000 GPM
PLAN AND SECTION

PROJ. NO.
DATE:
SCALE: 1" = 10'

NO. SHEETS
SHEET NO.
DRAWING NO.

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Xrefs Attached=

LANDSCAPE NOTES:

1. APPROVED CLUSTER NON-SHADE TREES, (PER CITY OF JACKSONVILLE CODE 656.12.11) TO BE PROVIDED AT JEA PUMPING STATIONS. TREES TO BE PLANTED 12' O.C. MULTI-TRUNK VARIETIES TO BE MIN. 8' HEIGHT AND 3 TRUNK MINIMUM TOTALING 2" CALIPER. SINGLE TRUNK TREES TO BE MIN. 10' HEIGHT AND 2" CALIPER AT TIME OF PLANTING.

COMMON NAME	BOTANICAL NAME
YAPOUN HOLLY	ilex vomitoria
JAPANESE PRIVET	ligustrum japonicum
DAHOON HOLLY	ilex cassine
NELLY STEVENS HOLLY	ilex 'nellie r. stevens'
CRAPE MYRTLE	lagerstroemia indica
DOG WOOD	cornus florida
REDBUD	cercis canadensis\

2. ALL SHRUBS SHALL BE EVERGREEN A ROW OF EVERGREEN SHRUBS SHALL BE A MINIMUM 3' TALL AT TIME OF PLANTING, PLANTED AT 3' ON CENTER.

3. APPROVED SHRUBS INCLUDE ANY OF THE FOLLOWING:

COMMON NAME	BOTANICAL NAME
SWEET VIBURNUM	viburnum odoratissium
DWARF WALTERS VUBURNUM	viburnum obuvatum
SAW PALMETTO	serenoa repens
JAPANESE PRIVETT	ligustrum janonicum
HETZII OR PHTIZERANA	junipurcus chinensis
DWARF BUFORD HOLLY	ilex cornuta 'Buford'
STAR ANISE	illicium spp.

4. ALL LANDSCAPING SHALL BE CONSISTENT WITH FLORIDA FRIENDLY LANDSCAPE STANDARDS. TREES AND SHRUBS SHALL BE SELECTED FROM THE FLORIDA WATERWISE PLANT LIST AND BE APPROPRIATE TO THE LOCAL SOIL AND LIGHT CONDITIONS.

NOTE: JEA NEIGHBORHOOD PUMP STATION WITHIN DUVAL COUNTY

(A.) LANDSCAPE PERFORMANCE STANDARDS (SEC. 656.1223)
THE VISUAL IMPACTS OF THE BELOW GROUND PUMP STATION SITES SHALL BE MITIGATED THROUGH THE USE OF A LANDSCAPING BUFFER OUTSIDE THE SECURITY FENCE. THE BUFFER SHALL BE A MINIMUM OF 5' AT THE STREET FRONTAGE AND A MINIMUM OF 10' ON ALL OTHER SIDES AND SUBJECT TO AND CONSISTING OF THE FOLLOWING:

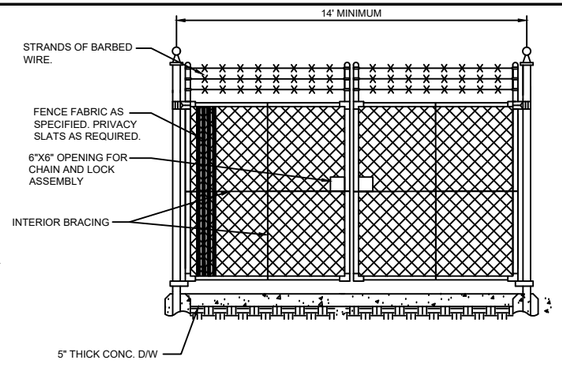
(1) A ROW OF SHADE TREES, BEGINNING AT THE HALFWAY POINT ALONG EACH SIDE FENCE AND ACROSS THE BACK, WITH NO TREES ALLOWED IN THE FRONT OF THE PUMP STATION, PLANTED A MINIMUM OF 25' ON CENTER. AT THE TIME OF PLANTING, THE TREES SHALL BE MINIMUM OF 10' TALL WITH A 2" CALIPER, AND

(2) A ROW OF EVERGREEN SHRUBS SUCH AS VIBURNUM, LIGUSTRUM, HOLLY OR JUNIPER, OR ANY OTHER EVERGREEN SHRUB PERMITTED BY SECTION 656.1223, A MINIMUM OF 3' TALL AT TIME OF PLANTING. PLANTED AT 3' ON CENTER; AND

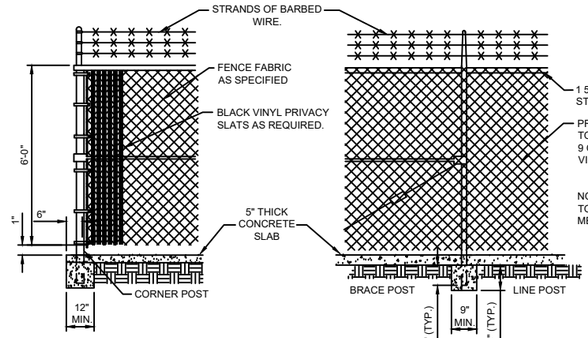
(3) A 6' TALL PRIVACY FENCE WITH BLACK VINYL PRIVACY SLATS AND A MINIMUM 14' WIDE PRIVACY GATE.

(4) THE REQUIRED LANDSCAPING SHALL BE PROPERLY MAINTAINED THROUGH AN IRRIGATION SYSTEM WITH RAIN SENSOR.

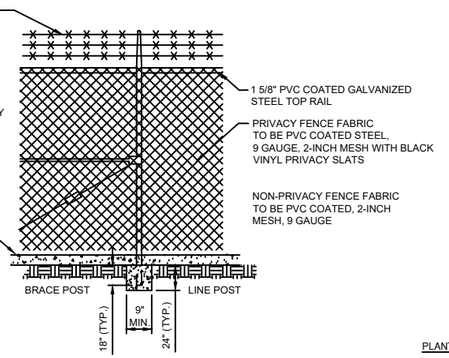
(B) DEVIATIONS FROM THE STANDARDS IN SUBSECTION (A) MUST BE REVIEWED AND APPROVED BY JEA AND BY THE CITY OF JACKSONVILLE LANDSCAPE ARCHITECT.



DOUBLE GATE DETAIL



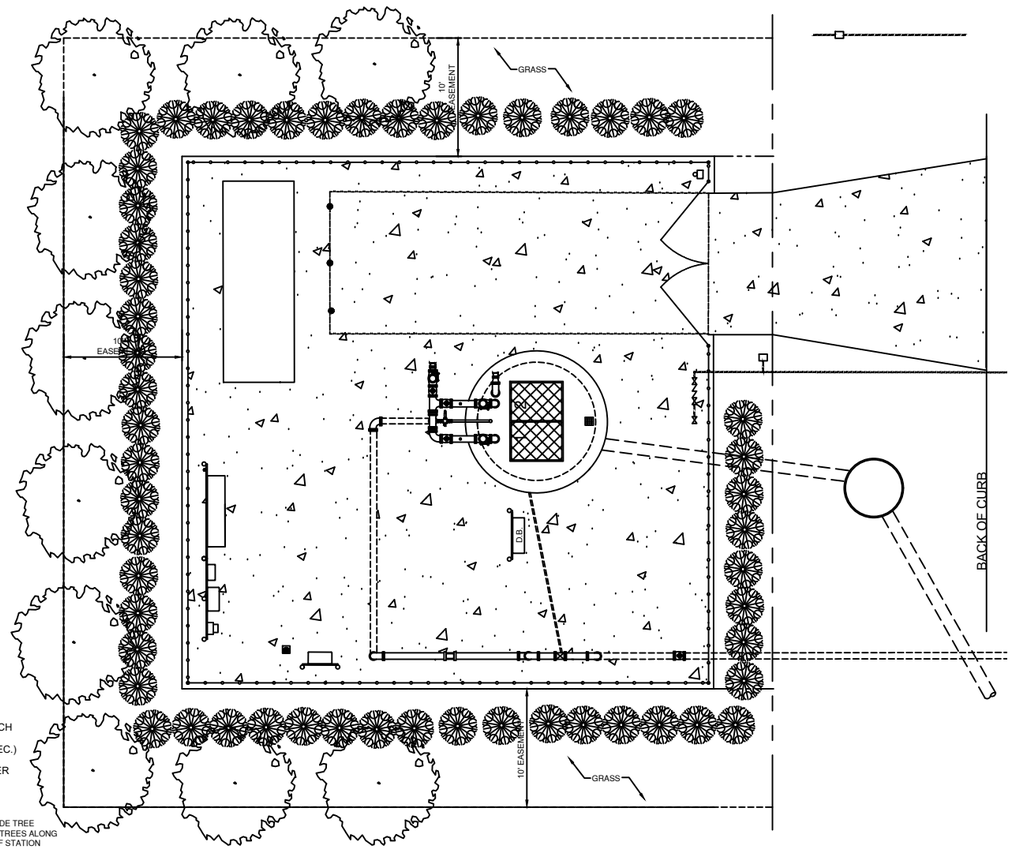
CORNER POST DETAIL

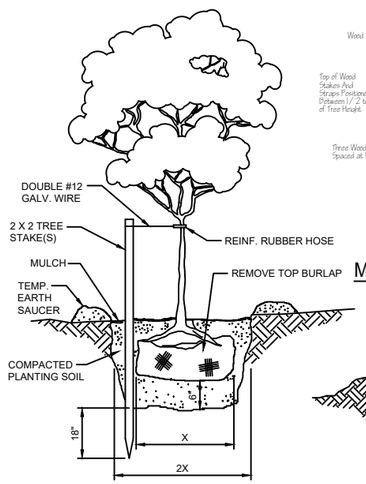


LINE POST DETAIL

FENCE DETAILS

NOT TO SCALE



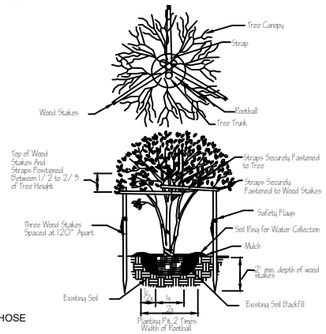


NOTES:

1 STAKE FOR TREES 2" CAL. & LESS
2 STAKES FOR TREES 2 1/2" - 4" CAL.
3 STAKES FOR TREES GREATER THAN 4" CAL.

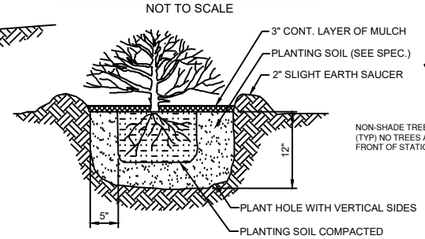
TREE PLANTING DETAIL

NOT TO SCALE



MULTI-TRUNK TREE PLANTING

NOT TO SCALE



NON-SHADE TREE (TYP) NO TREES ALONG FRONT OF STATION

NOTE: REMOVE CONTAINER BEFORE PLANTING.

CONTAINER GROWN SHRUB DETAIL

NOT TO SCALE

DESIGN NOTES:

1. LANDSCAPE ARCHITECT SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.

STANDARD PUMP STATION SITE

FENCE NOTES

1. FENCE TO BE INSTALLED AS INDICATED ON SITE PLAN.
2. GATE POST TO BE 4" O.D. PVC COATED GALVANIZED STEEL PIPE. CORNER POST TO BE 3" O.D. PVC COATED GALVANIZED STEEL PIPE. LINE POST TO BE 2 1/2" O.D. PVC COATED GALVANIZED STEEL PIPE.
3. ALL FENCE SHALL BE GROUNDED IN ACCORDANCE WITH JEA GROUNDING STANDARDS.
4. BONDING WIRE BETWEEN GATE POST IS NOT REQUIRED WHERE EXISTING ROAD PAVING OR RAILROAD TRACKS WOULD MAKE INSTALLATION IMPRACTICAL.
5. ALL FENCING SHALL BE IN ACCORDANCE WITH JEA SPECIFICATION NO. 492.
6. EMBEDDED CONCRETE PORTION OF FENCE POST SHALL HAVE MASTIC SEAL OR EQUAL COATING TO A MINIMUM OF 6" ABOVE FINISH GRADE.
7. AN INTERIOR DOUBLE 14' WIDE SLIDING/ROLLING GATE IS AN ACCEPTABLE OPTION.
8. FENCE FABRIC SHALL BE KNUCKLED ON TOP AND TWIST ON BOTTOM.
9. ALL FENCING, RAILS, POSTS, BRACKETS, BOLTS ETC. WILL BE PVC COATED
10. CONTACT SECURITYSERVICE@JEA.COM FOR THE LATEST SECURITY FENCE UPDATES.

PLANTING NOTES:

1. JEA IS NOT REQUIRED TO PLANT ANY LANDSCAPING OUTSIDE OF THE PROPERTY LINE. THIS DRAWING REPRESENTS THE MINIMUM AMOUNT OF LANDSCAPING REQUIRED IF LANDSCAPING IS PROVIDED WITHIN THE 10' EASEMENT. HOWEVER, ADDITIONAL PLANTINGS WILL BE ALLOWED IN THE 10' EASEMENT WITH APPROVAL FROM JEA, OR JEA'S REPRESENTATIVE.
2. JEA IS NOT RESPONSIBLE FOR THE MAINTENANCE OF LANDSCAPE MATERIAL OUTSIDE OF THE PROPERTY LINE. IF LANDSCAPING IS REQUIRED BY OTHER GOVERNMENT AGENCIES, THE REQUIRED LANDSCAPING SHALL BE INSTALLED IN THE 10' EASEMENT BY THE DEVELOPER AND MAINTAINED BY THE UNDERLYING LAND OWNER.
3. IT IS NOT THE RESPONSIBILITY OF JEA TO PROVIDE IRRIGATION WITHIN THE 10' EASEMENT. HOWEVER, JEA WILL ALLOW IRRIGATION WITHIN THE EASEMENT WITH THE UNDERSTANDING THAT SUCH IRRIGATION IS MAINTAINED BY THE CONTRACTOR RESPONSIBLE, OR OTHER RESPONSIBLE PARTY, SUCH AS A HOMEOWNERS ASSOCIATION (H.O.A.). IF AN RESPONSIBLE PARTY, OR H.O.A. IS NOT INVOLVED IN THE PUMP STATION SITE, ONLY THEN WILL JEA BE RESPONSIBLE FOR PROVIDING AN IRRIGATION SYSTEM. WHEN IRRIGATION IS REQUIRED BY OTHER GOVERNMENT AGENCIES, THE RESPONSIBLE PARTY WILL PROVIDE AN IRRIGATION SYSTEM WITH A RAIN SENSOR IN ACCORDANCE WITH SPECIFICATIONS SECTION 433. THE TREES SHALL BE IRRIGATED WITH BUBBLERS, THE SHRUBS WITH A MICRO IRRIGATION SYSTEM AND SOD WITH SPRAY HEADS.

   FOR STATION WITHIN DUVAL COUNTY, THE TREES, SHRUBS AND SOD SHALL ALL BE IRRIGATED ON SEPARATED ZONES. SPRAYS, ROTORS OR MICRO IRRIGATION ARE NOT PERMITTED ON SAME ZONE. SEE COJ CODE 656.1212.
4. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT SITE CONDITIONS AND ALL QUANTITIES INDICATED ON THESE PLANS, BEFORE PRICING WORK.
5. ALL PLANT MATERIAL SHALL BE FLORIDA GRADE NO. 1 OR BETTER NURSERY GROWN IN ACCORDANCE TO FLORIDA GRADES AND STANDARDS HANDBOOK.
6. PLANTS SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE, INSECTS, EGGS OR LARVAE AND SHALL HAVE HEALTHY, WELL DEVELOPED ROOT SYSTEMS. THEY SHALL BE FREE FROM PHYSICAL DAMAGE OR ADVERSE CONDITIONS THAT WOULD PREVENT THRIVING GROWTH.
7. ALL PLANTS MUST BE CONTAINER GROWN OR AS INDICATED IN THE PLANT LIST.
8. ALL PLANTS SHALL CONFORM TO THE VARIETIES INDICATED IN THE PLANT LIST.
9. SUBSTITUTION OF PLANT MATERIALS WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY JEA, AGENCY LANDSCAPE ARCHITECT OR THE ENGINEER.
10. PLANT MATERIAL LOCATIONS AND BED OUTLINES SHALL BE STAKED OR FLAGGED ON SITE BY THE CONTRACTOR AND SHALL BE ADJUSTED IF REQUIRED TO FIT ACTUAL AS-BUILT CONDITIONS ON SITE AND APPROVED BY JEA OR JEA'S REPRESENTATIVE.
11. ALL PROPOSED TREE PLANTING LOCATIONS SHALL BE STAKED OR FLAGGED BEFORE INSTALLATION BY THE LANDSCAPE CONTRACTOR AND APPROVED BY JEA OR JEA'S REPRESENTATIVE.
12. ALL CONTAINER GROWN ROOTBALLS SHALL BE CAREFULLY SCOURED BEFORE SETTING IN PLANT PITS.
13. ALL BACKFILL AROUND PLANT MATERIAL SHALL BE WORKED FIRMLY, TAMPED AND WATERED IN UNDER AND AROUND THE ROOT BALL TO FILL ALL VOIDS.
14. LANDSCAPE CONTRACTOR SHALL BEAR FINAL RESPONSIBILITY FOR PROPER SURFACE DRAINAGE OF PLANTED AREAS. ANY DISCREPANCY IN THE DRAWINGS, OBSTRUCTION ON THE SITE, OR PRIOR TO WORK DONE BY ANY OTHER PARTY, WHICH THE CONTRACTOR FEELS PRECLUDES ESTABLISHING PROPER DRAINAGE SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER FOR CORRECTION OR RELIEF OF SAID RESPONSIBILITY.
15. PLANTING BEDS SHALL BE CUT OR EDGED TO FORM A UNIFORM CLEAN LINE BETWEEN BEDS AND LAWN AREAS.
16. AFTER ALL PLANT MATERIAL IN A PLANT BED AREA HAS BEEN INSTALLED AND APPROVED, THE AREAS BETWEEN PLANTS SHALL BE RAKED TO AN EVEN GRADE TO CONFORM TO PRE MULCHING FINISH GRADES. ALL PLANTING BEDS AND PLANT SAUCERS SHALL THEN BE UNIFORMLY COVERED WITH A MINIMUM THREE INCH LAYER OF #2 GRADE OR BETTER CYPRESS MULCH, PINE STRAW OR OTHER JEA ACCEPTABLE MATERIAL.
17. PLANT MATERIAL BACKFILL MIXTURE SHALL BE THOROUGHLY MIXED IN THE FOLLOWING PREPARATIONS:

50% EXISTING CLEAN TOPSOIL	1/3 TOPSOIL
50% SOIL MIX	1/3 PEAT
	1/3 COW MANURE

18. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL FINE GRADING PREPARATION FOR PLANTING.
19. ROUGH GRADES WILL BE ESTABLISHED BY THE OWNERS GENERAL CONTRACTOR AT APPROXIMATELY 3 INCHES BELOW CURBS, SIDEWALKS, HARDSCAPE AMENITIES, MOWING STRIPS AND ABUTMENTS.
20. THE JEA OR JEA'S REPRESENTATIVE SHALL HAVE THE RIGHT TO REJECT ANY AND ALL WORK WHICH IN HIS OPINION DOES NOT MEET WITH THE REQUIREMENTS OF THE SPECIFICATIONS AT ANY STAGE OF THE PROJECT OPERATION.
21. IN GENERAL, THE WORK SHALL PROCEED AS RAPIDLY AS THE SITE BECOMES AVAILABLE. KEEP ALL AREAS OF WORK CLEAN, NEAT, AND ORDERLY AT ALL TIMES.
22. THERE WILL BE SPECIAL CARE TO ALL EXISTING TREES TO BE RETAINED ON SITE TO AVOID CONSTRUCTION DAMAGE.
23. A BACKFLOW PREVENTION SHALL BE INSTALLED AS REQUIRED.
24. AFTER THE LANDSCAPE PLAN IS APPROVED BY THE GOVERNMENTAL AGENCY ANY SUBSEQUENT CHANGES MUST BE RESUBMITTED FOR REVIEW AND APPROVAL.

SITE SPECIFIC

NO.	BY	DATE	REVISIONS
4.			
3.			
2.			
1.			

DESIGN ENGINEER | FLORIDA REGISTRATION NO.

DESIGNED:
DRAWN BY:
DATE:
CHECKED BY:
DATE:

JEA Building Community sm

JEA STANDARD PUMP STATION LANDSCAPE PLAN

PROJ. NO.
DATE:
SCALE:

NO. SHEETS
SHEET NO.
DRAWING NO.

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Xrefs Attached=