

PUMP STATION No. 0000
FACILITY OFFICIAL ADDRESS, FLORIDA 33100-0000

DRY WELL/ WET WELL SEWAGE PUMP STATION
2012 WASD DESIGN STANDARD

SITE PLAN, LEGEND AND NOTES

SITE PLAN GENERAL REQUIREMENTS:

- 1). SHOW PROPERTY AND/OR EASEMENT LINES, FENCING AND THE TYPES OF FENCE.
- 2). SHOW RIGHT OF WAYS, BASELINES, ROADWAY CENTER LINES.
- 3). SHOW LEGAL DESCRIPTION AND FOLIO NUMBER.
- 4). SHOW ADJACENT PROPERTIES: BLOCK & LOT NUMBER
- 5). SHOW GENERATOR BUILDING AND FUEL TANK
- 6). SHOW WET WELL AND VALVE VAULT LOCATIONS: PROVIDE REFERENCE DISTANCE AND/OR SET BACKS.
- 7). SHOW FP&L SERVICE AND EXISTING UTILITIES, IF ANY.
- 8). SHOW EXISTING AND PROPOSED GRAVITY SEWERS: TERMINAL M.H., INVERTS, PIPE SIZE AND MATERIAL.
- 9). SHOW EXISTING AND PROPOSED FORCED MAIN: ISOLATION VALVE, T.O.P. ELEVATION, SIZE AND MATERIAL.
- 10). SHOW ELECTRICAL PANEL, S.C.A.D.A. ANTENNA AND ELECTRICAL JUNCTION BOX.
- 11). SHOW SERVICE ACCESS (DRIVEWAY).
- 12). SHOW SIDEWALKS, IF ANY.
- 13). PROVIDE EXISTING AND PROPOSED GRADE AND STRUCTURE ELEVATION DETAILS.
- 14). SHOW NORTH ARROW.
- 15). SHOW GROUND ELEVATIONS.
- 16). DRAW SITE PLAN TO SCALE, (SUGGESTED SITE PLAN SCALE: 1"= 6'
- 17). SHOW WATER METER, HOSE BIBB AND BACKFLOW PREVENTER

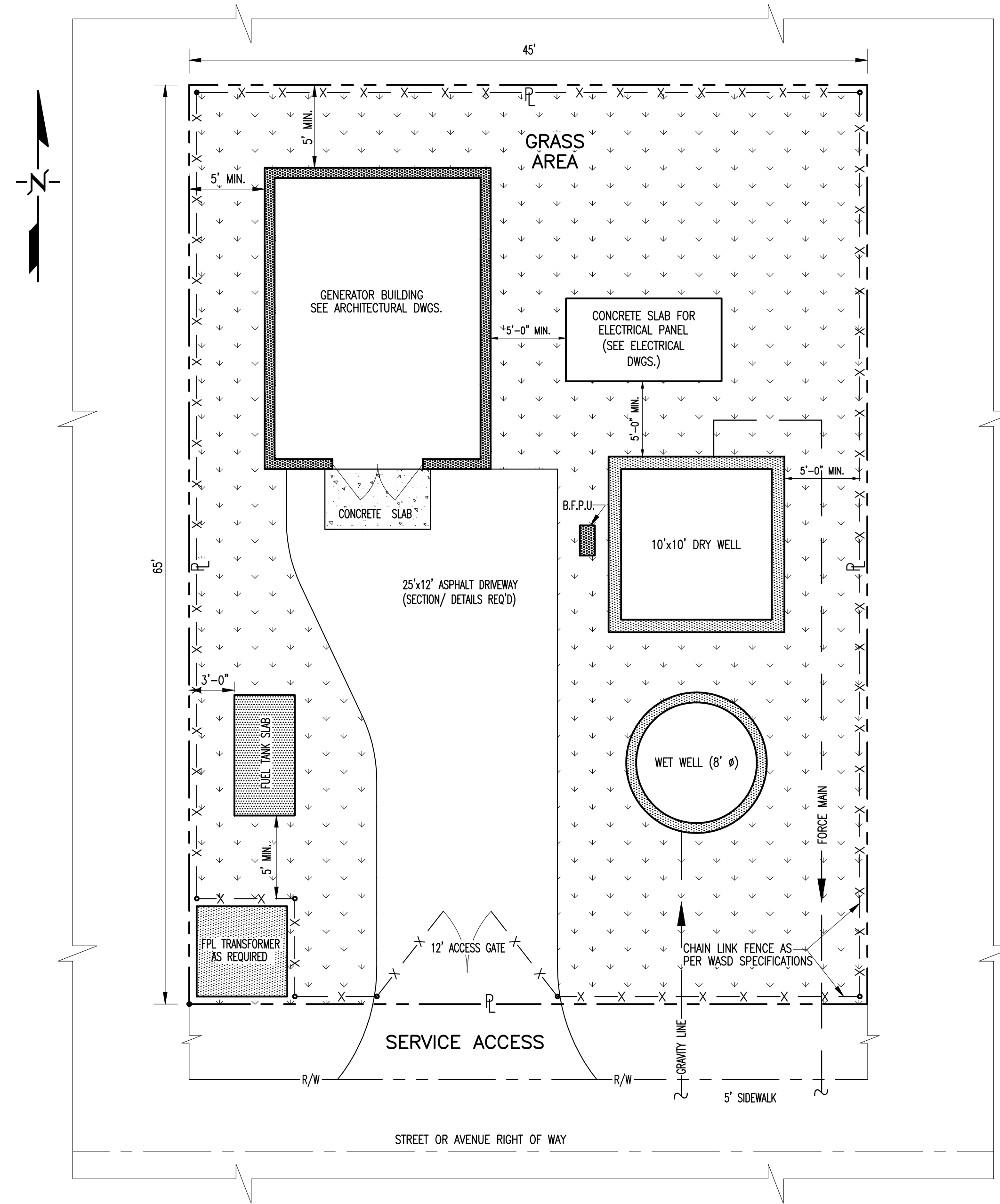
NOTES:

- 1). PUMP STATION MINIMUM SPACE REQUIREMENT OF 65'x45' IS BASED ON A WET WELL OF 12' MAXIMUM INSIDE DIAMETER AND A VALVE VAULT OF 8'x8' INSIDE DIMENSIONS. SHOULD WET WELL AND VALVE VAULT DIMENSIONS EXCEED THOSE SHOWN ON THIS PLAN, THE ENGINEER SHOULD CALCULATE THE SPACE NEEDED IN KEEPING WITH SET BACKS SHOWN.
- 2). MIRROR IMAGE OF THE SITE PLAN SHOWN IS ACCEPTABLE.

EXISTING SITE PLAN
SCALE: 1"=6'-0"

NEW DEVELOPMENT: BOUNDARY SURVEY AND EXISTING GRADE
FACILITY IMPROVEMENT: EXISTING SITE AND DEMOLITION DETAILS

PROPOSED SITE PLAN
SCALE: 1"=6'-0"



DERM REQUIREMENTS ON WATER AND SEWER INSTALLATIONS

1. A HORIZONTAL DISTANCE OF AT LEAST 6 FEET, AND PREFERABLY 10 FEET SHALL BE MAINTAINED BETWEEN GRAVITY OR PRESSURE SEWER PIPES AND WATER PIPES. THE MINIMUM HORIZONTAL SEPARATION CAN BE REDUCED TO 3 FEET FOR VACUUM TYPE SEWERS OR FOR GRAVITY SEWERS WHERE THE BOTTOM OF THE SEWER PIPE IS AT LEAST 6 INCHES BELOW THE BOTTOM OF THE WATER PIPE. WHEN THE ABOVE SPECIFIED HORIZONTAL DISTANCE CRITERIA CANNOT BE MET DUE TO AN EXISTING UNDERGROUND FACILITY CONFLICT, SMALLER SEPARATION ARE ALLOWED IF:
 - A). THE SEWER PIPES ARE DESIGNED AND CONSTRUCTED EQUAL TO THE WATER PIPE AND PRESSURE TESTED AT 150 PSI.
 - B). THE SEWER IS ENCASED IN A WATERTIGHT CARRIER PIPE OR CONCRETE.
 - C). THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER PIPE.
2. A VERTICAL DISTANCE OF AT LEAST 12 INCHES (OUTSIDE TO OUTSIDE) SHALL BE MAINTAINED BETWEEN ANY WATER AND SEWER MAINS WITH SEWER PIPES PREFERABLY CROSSING UNDER WATER MAINS. THE MINIMUM VERTICAL SEPARATION CAN BE REDUCED TO 6 INCHES FOR VACUUM TYPE SEWERS OR FOR GRAVITY SEWERS WHERE THE SEWER PIPE IS BELOW THE WATER MAIN. THE CROSSING SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST 6 FEET FROM ALL JOINTS IN GRAVITY AND PRESSURE SEWER PIPES. THE DISTANCE CAN BE REDUCED TO 3 FEET FOR VACUUM TYPE SEWER. WHEN THE ABOVE SPECIFIED VERTICAL DISTANCE CRITERIA CANNOT BE MET DUE TO AN EXISTING UNDERGROUND FACILITY CONFLICT, SMALLER SEPARATION ARE ALLOWED IF:
 - A). THE SEWER PIPES ARE DESIGNED AND CONSTRUCTED EQUAL TO THE WATER PIPE AND PRESSURE TESTED AT 150 PSI.
 - B). THE SEWER IS ENCASED IN A WATERTIGHT CARRIER PIPE OR CONCRETE.
3. IN HIGHLY CONGESTED AREAS, WHERE EITHER WATER OR SEWER FACILITIES ARE EXISTING AND THE SEPARATION REQUIREMENTS CANNOT BE MET, SPECIAL CONSIDERATION MAY BE GIVEN SUBJECT TO SUBMITTAL OF DOCUMENTATION SHOWING THAT THE PROPOSED ALTERNATIVE WILL RESULT IN AN EQUIVALENT LEVEL OF RELIABILITY AND PUBLIC HEALTH PROTECTION.
4. THE MAXIMUM ALLOWABLE EXFILTRATION RATE OF GRAVITY SANITARY SEWERS CONSTRUCTED IN A PUBLIC WELLFIELD PROTECTION AREA SHALL BE FIFTY (50) GALLONS PER INCH PIPE DIAMETER PER MILE PER DAY FOR RESIDENTIAL LAND USE AND TWENTY (20) GALLONS PER INCH PIPE DIAMETER PER MILE PER DAY FOR NON-RESIDENTIAL LAND USE.
5. FORCE MAIN SEWERS CONSTRUCTED IN A PUBLIC WELLFIELD PROTECTION AREA SHALL BE EITHER DUCTILE IRON OR REINFORCED CONCRETE PRESSURE SEWER PIPES. FOR DUCTILE IRON PIPE EXFILTRATION RATE SHALL NOT BE GREATER THAN THE ALLOWABLE LEAKAGE RATE SPECIFIED IN AMERICAN WATER WORKS ASSOCIATION STANDARD (AWWA) C600-82 AT A TEST PRESSURE OF 100 POUNDS PER SQUARE INCH. FOR REINFORCED CONCRETE PRESSURE SANITARY SEWER EXFILTRATION RATE SHALL NOT BE GREATER THAN ONE-HALF (1/2) THE ALLOWABLE LEAKAGE RATE SPECIFIED IN AWWA C600-82 AT A TEST PRESSURE OF 100 POUNDS PER SQUARE INCH.
6. THE CONTRACTOR SHALL VERIFY NATURE, DEPTH AND CHARACTER OF EXISTING UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
7. ALL OTHER PUBLIC OR PRIVATE UTILITY FACILITIES SHALL BE CONSTRUCTED AT LEAST 5 FEET FROM ANY WATER AND SEWER MAIN AS MEASURED FROM THE OUTSIDE BELL OF THE WATER OF THE UTILITY PIPE.
8. WHEN THE 5 FEET SEPARATION BETWEEN PROPOSED AND EXISTING LINE IS NOT POSSIBLE, THE CONTRACTOR SHALL HAND DIG OR EXPOSE THE WATER AND SEWER PIPES BEFORE PROCEEDING WITH POWER EQUIPMENT EXCAVATION.
9. IN NO CASE SHALL A CONTRACTOR INSTALL UTILITY PIPES, CONDUITS, CABLES, ETC. IN THE SAME TRENCH PARALLEL AND ABOVE EXISTING WATER OR SEWER PIPE EXCEPT WHERE THEY CROSS. ANY DEVIATION FROM NOTES 6, 7 AND 8 SHALL BE APPROVED IN WRITING BY THE RESPONSIBLE WATER AND SEWER UTILITY.
10. A NON-RESETTABLE ELAPSED TIME METER SHALL BE INSTALLED AT EACH PUMP TO RECORD THE TOTAL NUMBER OF OPERATING HOURS OF THE STATION.

GENERAL NOTES:

- 1). CONTRACTOR SHALL MAINTAIN FUNCTION OF SEWAGE PUMPING DURING CONSTRUCTION BY UTILIZING BY-PASS PUMPING SYSTEM, FITTINGS AND VALVES AS REQUIRED. CONTRACTOR SHALL SUBMIT A PLAN OUTLINING SEWAGE "BY PASS" PROCEDURE TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK. (THIS NOTE APPLIES TO REFURBISHED PUMP STATIONS ONLY).
- 2). CONTRACTOR SHALL PERFORM ALL WORK WITHIN LEGAL PROPERTY AND EASEMENT, AND SHALL NOT DISTURB ADJACENT PROPERTY.
- 3). CONTRACTOR SHALL INCLUDE NECESSARY CUTTING, PATCHING AND RESTORATION OF ALL EXISTING SURFACES TO MATCH SURROUNDING AREAS.

MECHANICAL NOTES:

1. INCLUDE ALL NECESSARY CUTTING, PATCHING AND RESTORATION OF ALL EXISTING SURFACES TO MATCH SURROUNDING AREAS.
2. FIELD VERIFY ALL ELEVATIONS PRIOR TO COMMENCING THE WORK.
3. PIPE SUPPORTS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
4. PROVIDE DIELECTRIC FITTINGS BETWEEN TWO DIFFERENT MATERIALS AS REQUIRED.
5. ALL ELEVATIONS (UNDERGROUND PIPING) SHOWN ARE T.O.P. (TOP OF PIPE) ELEVATIONS UNLESS OTHERWISE INDICATED.
6. CONTRACTOR SHALL VERIFY EXISTING PIPING TO REMAIN BEFORE ORDERING PROPOSED PIPING/FITTINGS CONNECTING TO IT.
7. CARE SHOULD BE TAKEN TO AVOID DISTURBING EXISTING ELECTRICAL SERVICE IN THE AREA UNDER CONSTRUCTION.
8. CONTRACTOR SHALL PERFORM ALL WORK WITHIN M.D.-W.A.S.D. PROPERTY AND EASEMENT, AND SHALL NOT DISTURB ADJACENT PRIVATE PROPERTY.
9. MECHANICAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND COORDINATE NEW WORK TO BE DONE WITH OTHER TRADES PRIOR TO COMMENCING IT. THE MECHANICAL WORK SHALL BE SCHEDULED SO THAT IT WILL OCCUR IN THE PROPER SEQUENCE AND WITHOUT DELAYING THE COMPLETION OF THE WORK.
10. CONTRACTOR TO COAT ALL UNDERGROUND FLANGED FITTING IN DIRECT CONTACT W/SOIL WITH TWO COATS OF BITUMASTIC OR APPROVAL EQUAL.
11. CONTRACTOR SHALL MAINTAIN SEWAGE FLOW AT ALL TIMES UTILIZING BY-PASS PUMPING, FITTINGS AND VALVES AS REQUIRED. CONTRACTOR SHALL SUBMIT A PLAN OUTLINING SEWAGE "BY PASS" PROCEDURE TO ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.
12. SHEET PILING MAY BE REQUIRED FOR EXCAVATION. IF SO CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY A STATE OF FLORIDA LICENSED PROFESSIONAL ENGINEER.

LEGEND:

---	---	PROPERTY LINE
---	R/W	RIGHT OF WAY
---	---	ROAD CENTER LINE
---	EOP	EDGE OF PAVEMENT
X-X-X-X-X	---	CHAIN LINK FENCE
---	---	EXISTING UNDERGROUND UTILITIES
---	T	EXISTING UNDERGROUND TELEPHONE LINE
---	E	EXISTING UNDERGROUND ELECTRICAL LINE
●	---	EXISTING GUARD POST
⊕	---	EXISTING FIRE HYDRANT
⊙	---	SEWER VALVE
⊙	---	EXISTING WATER VALVE
⊙	---	EXISTING MANHOLE
▨	---	EXISTING STRUCTURES TO BE REMOVED OR ABANDONED
+	---	GRASS AREA
▭	---	PROPOSED STRUCTURE

DRAWING HISTORY

RELEASED FOR	DATE	BY
REVIEW 30%		
REVIEW 70%		
REVIEW 100%		
PERMIT		

REVISIONS

No.	DESCRIPTION	DATE	BY

APPROVALS

CHIEF ENGINEER: _____

SECTION HEAD: _____

PROJECT MGR.: _____

DESIGNED: X.X.X. CHECKED: X.X.X.

DRAWN: X.X.X. FINAL CHECK: X.X.X.

XXXXXXXX XXXXX
XXXXXXXXXXXX Engineer
State of Florida - License No. 00000
Date: _____

ER No. : S000000 PCTS No. : 00000

FILE NAME: 0000000.DWG

DATE: AUG. 28, 2012 SCALE: AS NOTED

SHEET **C-2**

DWG. No. **S-00000-A**