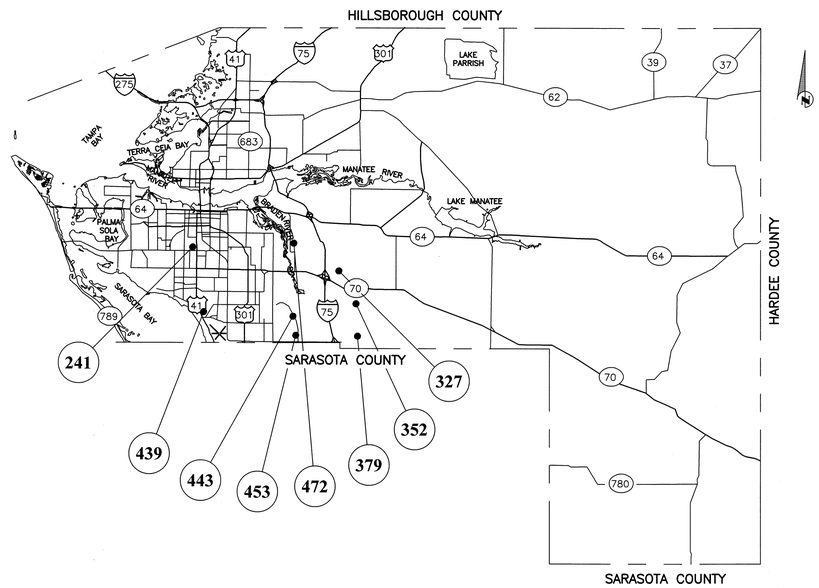
MANATEE COUNTY, FLORIDA
LIFT STATION UPGRADES, 2010
EMERGENCY GENERATORS-GROUP 2

SEPTEMBER 2010

L.S.NAME/NO.	RTU #	ADDRESS	PROJECT NUMBER	GENERATOR TYPE	FIRE DISTRICT
#36-A	241	1602 38TH AVE. W.	402-5124880	DIESEL	CEDAR HAMMOCK
ROSEDALE 1	327	5320 87TH ST. E.	402-5124280	DIESEL	EAST MANATEE
RIVER CLUB 4	352	6925 RIVER CLUB BLVD.	404-6075780	DIESEL	EAST MANATEE
LWR TOWN CENTER 1	379	8070 NATURES WAY	402-5127180	DIESEL	EAST MANATEE
#2-A	439	350 MAGELLAN DR.	402-5125380	DIESEL	CEDAR HAMMOCK
PALM AIRE 3	443	7583 WHITFIELD AVE.	402-5104282	DIESEL	SOUTHERN MANATEE
THE GARDENS @ PALM AIRE	453	5790 GARDENS DR.	402-5104281	NATURAL GAS	SOUTHERN MANATEE
BASHAW ELEMENTARY SCHOOL	472	3603 57TH ST. E.	404-6043580	DIESEL	EAST MANATEE



NO.	INDEX OF SHEETS
1.	COVER SHEET
2.	GENERAL NOTES & LEGEND
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11.	EROSION CONTROL

Per MCG LDC, 103.2.4.1: Utility Installations (except substations) are exempt from the regulations of the code.

Per FL Statutes, 403.087.5: Construction Permits not required if installation is in response to NPDES requirements.

Rule 62-604.600(2)(f) FL Adminstrative Code: Modifications to lift stations associated with ancillary and electrical equipment and structures are exempt from FDEP Construction Permits.

FL State Statues, FL 62-762, Above ground diesel fuel storage tanks exempt if under 550 gallons.

PROJECT DESCRIPTION

INSTALL SEVEN (7) DIESEL AND ONE (1) NATURAL GAS EMERGENCY GENERATOR SETS AT SELECTED LIFT STATION IN ORDER TO MAINTAIN CONTINUOUS OPERATION IN THE EVENT THAT THE PRIMARY POWER SOURCE IS NOT AVAILABLE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING, AT HIS OWN EXPENSE, WHAT IS NECESSARY TO OBTAIN ALL PERMITS REQUIRED FOR THE WORK. THE CONTRACTOR IS NOT RESPONSIBLE FOR INSTALLING NATURAL GAS SERVICE LINES AND SETTING UP GAS SERVICE METERS. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING A GAS LINE FROM THE INSTALLED NATURAL GAS EMERGENCY GENERATORS AND CONNECT TO THE EXISTING GAS METERS/BALL VALVES INSTALLED BY TECO. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING RECORD DRAWINGS TO THE COUNTY.

Know what's **below.**
Call before you dig.

MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES

1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES, 2010
EMERGENCY GENERATORS-GROUP 2
COVER SHEET

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	–
SURVEY #	–
SEC./TWN./RGE	–
SCALE	–

	BY	DATE
SURVEYED	–	–
DESIGNED	–	–
DRAWN	JSS	–
CHECKED	–	–

JOHN S. SHOUN, P.E.
FL. REG. No. 60923
Signature Date

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GENERAL

1. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: SAL BORDONARO AND CAN BE REACHED AT (941) 708–7450; EXT. 7341

2. SITE VISITS ARE MANDATORY FOR ALL BIDDERS. THESE SITE VISITS CAN BE ARRANGED THROUGH THE PROJECT MANAGER .

3. ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH **THE LATEST EDITION OF MANATEE COUNTY UTILITY STANDARDS & SPECIFICATIONS, TRANSPORTATION STANDARDS** AND/OR FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" UNLESS OTHERWISE INDICATED ON THE PLANS.

4. VERTICAL CONTROL FOR THIS PROJECT WAS ESTABLISHED BY A MINIMUM OF TWO REFERENCE BENCHMARKS DESCRIBED ON THE "THE NATIONAL GEODETIC VERTICAL DATUM OF 1929", (NGVD '29).

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER.

6. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATION THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.

7. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH CONSTRUCTION.

8. AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA AT 1–800–432–4770 OR THE NATIONAL 811 ONE CALL NUMBER WHEN APPLICABLE FOR UTILITY LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITIES FOR THE POSSIBLE RELOCATION OR THE TEMPORARY MOVEMENT OF ANY EXISTING UTILITIES WITHIN THE RIGHTS–OF–WAY.

9. NO WORK, EXCEPT FOR EMERGENCY TYPE, SHALL BE PERFORMED AFTER 7:00 PM AND BEFORE 7:00 AM. FOR ADDITIONAL PROJECT RESTRAINTS, REFER TO SECTION 01310 OF THE SPECIFICATIONS.

SAFETY

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90–96, LAWS OF FLORIDA EFFECTIVE OCTOBER 1, 1990 AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650, SUBPART P, AS AMENDED. THE CONTRACTOR SHALL INCLUDE IN THE TOTAL BID PRICE ALL COSTS FOR COMPLIANCE WITH THESE REGULATIONS.

11. THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONFORM TO ALL OSHA REQUIREMENTS.

12. THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND UTILITIES, POWER LINES, ETC.

13. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.

ENVIRONMENTAL

14. WHEN A BENTONITE SPILL OR FRACK–OUT OCCURS OR THERE IS A LOSS OF RETURN INDICATING EXCESSIVE SEEPAGE OR LOSS OF DRILLING FLUID, DRILLING MUST BE STOPPED UNTIL THE LOCATION OF THE SPILL IS IDENTIFIED. UNDER NO CIRCUMSTANCES WILL DRILLING CONTINUE WHEN A SPILL IS APPARENT.

15. ONCE LOCATED, THE BENTONITE SPILL MUST BE ISOLATED AND SEEPAGE INTO ANY NEARBY WATER BODIES WILL BE BLOCKED DEPENDING ON THE DEGREE OF THE SPILL, THE ISOLATED BENTONITE MUST BE REMOVED MANUALLY OR MECHANICALLY AND DISPOSED OF BY APPROPRIATE MEANS OR REUSED.

16. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY STORM WATER, EROSION, AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE FDEP "FLORIDA STORM WATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT TO SURFACE DRAINS AND TO DITCHES DURING CONSTRUCTION.

17. STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON–SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES IS REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY STOCKPILED MATERIAL REMAIN AFTER THIRTY (30) CALENDAR DAYS.

18. STORM WATER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION. THIS WILL BE MAINTAINED TO PREVENT DEGRADATION OF THE WATERS OF THE COUNTY AND STATE.

19. SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INSTALLED, CONSTRUCTED, OR IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, EARTH FILTERS, DAMS OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE (1) WEEK OF INSTALLATION.

20. ALL SWALES, DITCHES, AND CHANNELS LEADING FROM THE SITE SHALL BE PROTECTED FROM SILTATION AND EROSION DURING CONSTRUCTION AND BE SODDED WITHIN THREE (3) DAYS OF EXCAVATION.

21. SOIL DISPLACED BY CONSTRUCTION WILL BE REMOVED. EROSION CONTROL SHALL BE IMPLEMENTED IN AREAS WHICH ARE CONSIDERED ENVIRONMENTALLY SENSITIVE. EROSION CONTROL SYSTEMS SHALL BE REQUIRED FOR ALL WORK WITHIN JURISDICTIONAL AREAS. THESE SYSTEMS MAY INCLUDE STAKED HAY BALES, SILT SCREENS, FILTER FABRIC, AND TURBIDITY SCREENS.

22. ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND SHALL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.

23. THE CONTRACTOR SHALL NOT ENTER UPON OR IN ANY WAY ALTER WETLAND AREAS THAT MAY BE ON OR NEAR THE CONSTRUCTION SITE. ALL WORK IN THE VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL REGULATIONS AND/OR PERMITS FOR THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES RESULTING FROM HIS VIOLATION OF ANY REGULATIONS OR PERMIT CONDITIONS.

24. FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS.

RIGHT–OF–WAY

25. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT–OF–WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS.

26. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND RESTORE PROPERTY CORNER MONUMENTS, PINS, AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.

27. THE CONTRACTOR, PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHTS–OF–WAY USE PERMIT AND A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION. ALL MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES". A TRAFFIC CONTROL PLAN SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE–CONSTRUCTION MEETING.

28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED STORM WATER STRUCTURES, PIPING, ENTRANCE PIPE AND HEADWALLS WHETHER SHOWN ON THE PLANS OR NOT. THE HEADWALLS SHALL BE REPLACED IN ACCORDANCE WITH F.D.O.T. STANDARDS.

29. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD THE RIGHT–OF–WAY LINES, BASE LINES, BENCH MARKS (ELEV.), CENTER LINES, AND STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT.

30. THE CONTRACTOR SHALL COORDINATE THE CUTTING OF DRIVEWAYS WITH THE PROPERTY OWNER PRIOR TO CUT. ALL DRIVEWAYS WILL BE IN PASSABLE CONDITION AT THE END OF THE WORK DAY AND FULLY RESTORED PER SECTION 02575.

31. A RIGHT OF ENTRY AGREEMENT SHALL BE OBTAINED BY THE PROJECT MANAGER FROM THE PROPERTY OWNER BEFORE ANY DRIVEWAY CONSTRUCTION WORK IS DONE OUTSIDE OF THE RIGHT–OF–WAY OR EASEMENT.

UTILITIES

32. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC. WHICH ARE WITHIN THE PROJECT AREA AND WHICH HAVE NOT BEEN LOCATED OR IDENTIFIED, MAY NOT BE IN THE EXACT LOCATION SHOWN OR RELOCATED SINCE THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES STRUCTURES AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE PLANS) THAT MAY EFFECT HIS WORK. ALL EXISTING UTILITIES TO BE EXTENDED, CROSSED OR CONNECTION POINTS SHALL BE EXPOSED PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND ELEVATION. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION.

33. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORM DRAINS, UTILITIES, DRIVEWAYS, SIDEWALKS, SIGNS, MAIL BOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE–CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.

34. THE CONTRACTOR SHALL USE APPROPRIATE TECHNIQUES, AS APPROVED, RECOMMENDED OR OFFERED BY FLORIDA POWER AND LIGHT TO PREVENT UNDERMINING OF POWER POLES DURING CONSTRUCTION. IF HOLDING OF POWER POLES IS RECOMMENDED OR REQUIRED BY THE UTILITY, THE CONTRACTOR SHALL COORDINATE THIS ACTIVITY WITH THE UTILITY AND BEAR ALL RELATED COSTS.

35. ANY TEMPORARY SHUTDOWNS FOR MODIFICATIONS OF EXISTING UTILITY SYSTEMS THAT MUST REMAIN IN SERVICE DURING CONSTRUCTIONS SHALL BE KEPT TO A MINIMUM AND SHALL BE COORDINATED WITH AND APPROVED BY THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. IT IS NOTED THAT TEMPORARY SHUTDOWNS MAY BE RESTRICTED TO CERTAIN HOURS AT ANY TIME OF THE DAY OR NIGHT AND WILL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER.

36. FOR WORK BEING DONE ON EXISTING SANITARY SEWER LINES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE FLOW OF ALL SEWAGE DURING CONSTRUCTION, WHICH MAY REQUIRE BY–PASS PUMPING AND/OR PUMPER TRUCKS. THE CONTRACTOR SHALL SUBMIT A DETAILED BY–PASS PUMPING PLAN PER SECTION 02720.

RESTORATION

37. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN OTHERWISE.

38. ALL DISTURBED GRASSED AREAS SHALL BE SODDED OR SEEDED UNLESS OTHERWISE INDICATED. THE TYPE OF SOD USED TO REPLACE OWNER MAINTAINED AREAS IN RIGHT–OF–WAY SHALL BE COORDINATED WITH THE PROPERTY OWNER.

39. ALL CONCRETE THRUST BLOCKS INSTALLED FOR TESTING PURPOSES AND NOT REQUIRED FOR THE OPERATION OF THE PIPELINE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR, PRIOR TO FINAL ACCEPTANCE, AT NO ADDITIONAL COST TO THE OWNER.

40. ASPHALT DRIVES THAT ARE CUT SHALL BE RESTORED PER SECTION 02513.

41. CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN, SECTION 522, AND SECTION 310 OF THE F.D.O.T. DESIGN STANDARDS.

42. WHENEVER A PERMANENT ROADWAY SURFACE IS NOT PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OF THE NEWLY INSTALLED PIPE LINE IN AREAS WHERE TRAFFIC MUST PASS, THE CONTRACTOR SHALL INSTALL A TEMPORARY SURFACE CONSISTING OF NINE INCHES OF COMPACTED LIME ROCK BASE AND A COAT OF ASPHALT EMULSION. PERMANENT ROADWAY REPAIR SHALL BE PERFORMED A MAXIMUM OF TWENTY–ONE CALENDAR DAYS AFTER THE INITIAL OPEN CUTTING.

43. RESTORATION OF CURBS, DRIVEWAYS, SIDEWALKS, AND PLACEMENT OF SOD SHALL BE COMPLETED WITHIN FORTY–FIVE CALENDAR DAYS OF INITIAL DISTURBANCE, OR TWENTY–ONE CALENDAR DAYS OF SUBSTANTIAL COMPLETION, WHICHEVER OCCURS FIRST.

CONSTRUCTION

44. THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL INSTALL NOISE ABATEMENT BAFFLES POSITIONED TO BREAK LINE–OF–SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES, AS APPROVED BY THE ENGINEER.

45. NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. ROADS SHALL BE SWEPT DAILY AS PART OF DAILY CLEAN UP.

46. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.

47. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES.

48. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA.

49. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM.

50. ALL PIPING AND FITTINGS USED ON THIS PROJECT SHALL BE AS NOTED ON THE PLANS AND IN THE CONTRACT DOCUMENT AND SHALL BE INSTALLED TO THE LINES AND GRADES SHOWN ON THE PLANS AND PROFILES.

51. ALL PIPE SHALL BE COLOR CODED TO CONFORM TO MANATEE COUNTY STANDARDS.

52. ALL PIPE AND FITTINGS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND ALL PIPE JOINTS SHALL BE RESTRAINED WHERE REQUIRED.

53. ALL FITTINGS FOR PRESSURE CLASS–RATED PIPE SHALL BE RESTRAINED DUCTILE IRON. RESTRAINED LENGTHS OF PIPE SHALL ADHERE TO THE REQUIREMENTS AS SHOWN ON THE DETAIL SHEETS.

54. WHERE IT IS NECESSARY TO DEFLECT PIPE EITHER HORIZONTALLY OR VERTICALLY, PIPE DEFLECTION SHALL NOT EXCEED 75% OF THE MANUFACTURER'S MAXIMUM ALLOWABLE RECOMMENDED DEFLECTION.

55. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MAY BE ADJUSTED IN THE FIELD AS REQUIRED. PIPE MEASUREMENTS ARE TO CENTER OF STRUCTURES OR FITTINGS.

56. ALL ROCKS OR STONES LARGER THAN SIX INCH DIAMETER SHALL BE REMOVED FROM THE BACKFILL MATERIAL. BACKFILL MATERIAL PLACED WITHIN ONE FOOT OF PIPING AND APPURTENANCES SHALL NOT CONTAIN ANY STONES LARGER THAN TWO INCH DIAMETER.

57. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.

58. ALL PENETRATION OF EXISTING STRUCTURES SHALL BE BY THE MECHANICAL ROTARY CORE BORING METHOD.

59. ALL CONCRETE PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.

60. THE CONTRACTOR, PRIOR TO ANY TEMPORARY WATER SHUT–OFFS DURING WATER MAIN TIE–IN, ETC., SHALL NOTIFY THE AFFECTED RESIDENTS BY POSTING INFORMATIONAL SIGNS IN THE NEIGHBORHOOD AT LEAST TWO DAYS (48 HRS) PRIOR TO THE WATER SHUT–OFF. REFERENCE SECTION 01580, PARAGRAPH 1.03 OF THE SPECIFICATIONS. WHEN FEASIBLE, "DOOR HANGERS" SHALL BE DELIVERED TO AFFECTED RESIDENCES AT LEAST TWO DAYS (48 HRS) PRIOR TO WATER SHUT–OFF. FOR LARGE PROJECTS WITH HUNDREDS OF HOMES AFFECTED, THE CONTRACTOR SHALL ALSO MAKE EXTENSIVE USE OF THE MEDIA AND SHALL HAVE PRIOR CONTACT WITH HOMEOWNER'S ASSOCIATIONS. WRITTEN NOTIFICATIONS SHALL ALSO BE FAXED TO THE TAMPA TRIBUNE, BRADENTON HERALD, SARASOTA HERALD TRIBUNE, WBRD RADIO, EMERGENCY COMMUNITY CENTERS, INSPECTIONS, WATER TREATMENT PLANT, WATER MANAGER, HELPLINE, CUSTOMER SERVICE, AND THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT.

61. ALL NEW PIPE LINES SHALL BE PIG CLEANED (4" AND LARGER), FLUSHED, PRESSURE TESTED, DISINFECTED AND CERTIFIED PRIOR TO TIE–INS TO EXISTING FACILITIES. THE CONTRACTOR WILL BE ALLOWED TO USE TEMPORARY PLUGS FOR PIG CLEANING AND PRESSURE TESTING.

62. ALL TEST POINT PIPING SHALL BE CUT LOOSE FROM THE CORPORATION STOP AND COMPLETELY REMOVED AND DISPOSED OF BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE. A CORPORATION STOP PLUG SHALL BE INSTALLED AND THE CORPORATION STOP SHALL REMAIN IN PLACE.

63. ALL EXISTING MAINS THAT ARE BEING REPLACED SHALL BE ABANDONED IN PLACE UPON ACCEPTANCE AND ACTIVATION OF THE NEW MAINS. ABANDONED MAINS SHALL BE CUT, FILLED WITH GROUT, AND CAPPED. REFER TO SECTION 02064 OF THE SPECIFICATIONS FOR GROUTING OF ABANDONED PIPE.

64. WATER MAINS CROSSING OVER OR UNDER SANITARY SEWERS, FORCE MAINS, AND RECLAIMED WATER LINES SHALL BE LAID PER CURRENT EDITION OF "10 STATE STANDARDS" **AND MANATEE COUNTY UTILITY STANDARDS** UNLESS NOTED OTHERWISE ON THE PLANS.

65. FIELD CONDITIONS MAY NECESSITATE MINOR ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS ORDERED BY THE ENGINEER.

66. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH SECTION 14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS AT NO COST TO THE OWNER. RECORD DRAWINGS SHALL BE SIGNED & SEALED BY A SURVEYOR CURRENTLY LICENSED BY THE STATE OF FLORIDA. **ALL RECORD DRAWING INFORMATION REQUIREMENTS IN SECTION 14 SHALL BE STRICTLY ENFORCED.** A COPY OF SECTION 14 WILL BE PROVIDED UPON REQUEST.

CONTACTS

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P.O. BOX 1310
WACHULA, FL 33873
KENDELL COKER
(863) 767–4660
kendell.coker@preco.coop

LEGEND

EXISTING

BM BENCH MARK
CM CONCRETE MONUMENT
IP IRON PIPE
IR IRON ROD
HUB HUB
N&D NAIL & DISK
+5.23 ELEVATION
1234 PARCEL ID NO.
1876 PARCEL ID NO.
77 LOT NO.
GW GUY WIRE
PP POWER POLE
LP LIGHT POLE
MB MAIL BOX
SN SIGN
REF REFLECTOR
SPRK SPRINKLER
GM GAS MARKER
BFP BACKFLOW PREVENTER
BO BLOW OFF VALVE
FH FIRE HYDRANT
WV WATER VALVE
ARV AIR RELEASE VALVE
WM WATER METER
SMH SANITARY SEWER MANHOLE
CO SANITARY SEWER CLEAN OUT
SB#1 SOIL BORING LOCATION
TEL TELEPHONE SERVICE BOX
FLOW DIRECTION
GI GRATE INLET
MITERED END SECTION

BUSH
TREE
OAK TREE
PALM TREE
PINE TREE
EDGE OF VEGETATION
CHAIN LINK FENCE
WOOD FENCE
BARBED WIRE FENCE
FM FORCE MAIN
PW POTABLE WATER
RCW RECLAIMED WATER
SS SANITARY SEWER
S STORM DRAIN
GAS GAS LINE
OHTV OVERHEAD TV
UGTV UNDERGROUND TV
OE OVERHEAD ELECTRIC
BE UNDERGROUND ELECTRIC
OH VER OVERHEAD VERIZON
UG VER UNDERGROUND VERIZON
VER VERIZON
UG UNDERGROUND UTILITY
OH OVERHEAD UTILITY
RAIL ROAD TRACKS
EDGE OF CONCRETE
EDGE OF ROAD
TOE OF SLOPE
TOP OF BANK
PROPERTY LINE
RIGHT OF WAY

ABBREVIATIONS

R/W	RIGHT OF WAY
CONC	CONCRETE
ASPH	ASPHALT
DRWY	DRIVEWAY
SWK	SIDEWALK
EP	EDGE OF PAVEMENT
BOC	BACK OF CURB

PROPOSED

MAIN
SERVICE LINE
PROPOSED EASEMENT
FIRE HYDRANT
VALVE
SANITARY SEWER MANHOLE
BLOW OFF ASSEMBLY
REDUCER
TEE
HORIZONTAL BEND
VERTICAL BEND
PLUG
MASTER METER ASSEMBLY
SERVICE LINE & METER
DOUBLE SERVICE

PROPOSED PROJECT NOTES
JOB SPECIFIC (EXAMPLE):

WATER LINE CALL–OUT
(TYPICAL)

STA. 40+60, 17' LT.
1–6" GATE VALVE
1–6" FITTING

MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES

1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES, 2010
EMERGENCY GENERATORS-GROUP 2
GENERAL NOTES & LEGEND

NO.	REVISION DESCRIPTION	BY	DATE

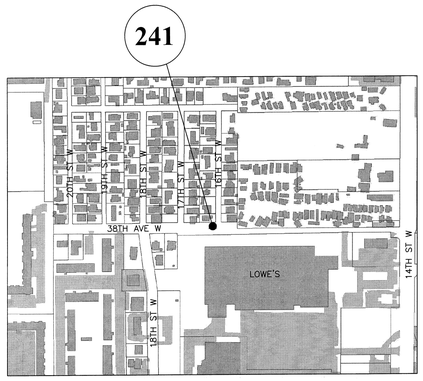
PROJECT #	–	
SURVEY #	–	
SEC./TWN./RGE	–	
SCALE	–	
	BY	DATE
SURVEYED	–	–
DESIGNED	–	–
DRAWN	JSS	–
CHECKED	–	–

JOHN S. SIOUN, P.E.
FLORIDA LICENSE No. 60623
STATE OF FLORIDA PROFESSIONAL ENGINEER
Signature Date

SHEET 2 OF 11

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Share\Util Eng Design\Proj\=SAN SWR Proj\San Swr - LS Upgrades\EGens\2010 Egens\2010 LS EGen Group 2\DWGS\Active-2010 eGen Group 2\eng\General Notes & Legend, 9/10/2010 11:09 AM Shea Sioun, 1:1, ARCH full bleed D (36.00 x 24.00 inches)

CONTRACTOR SHALL REFERENCE SECTION 14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS FOR RECORD DRAWING REQUIREMENTS.

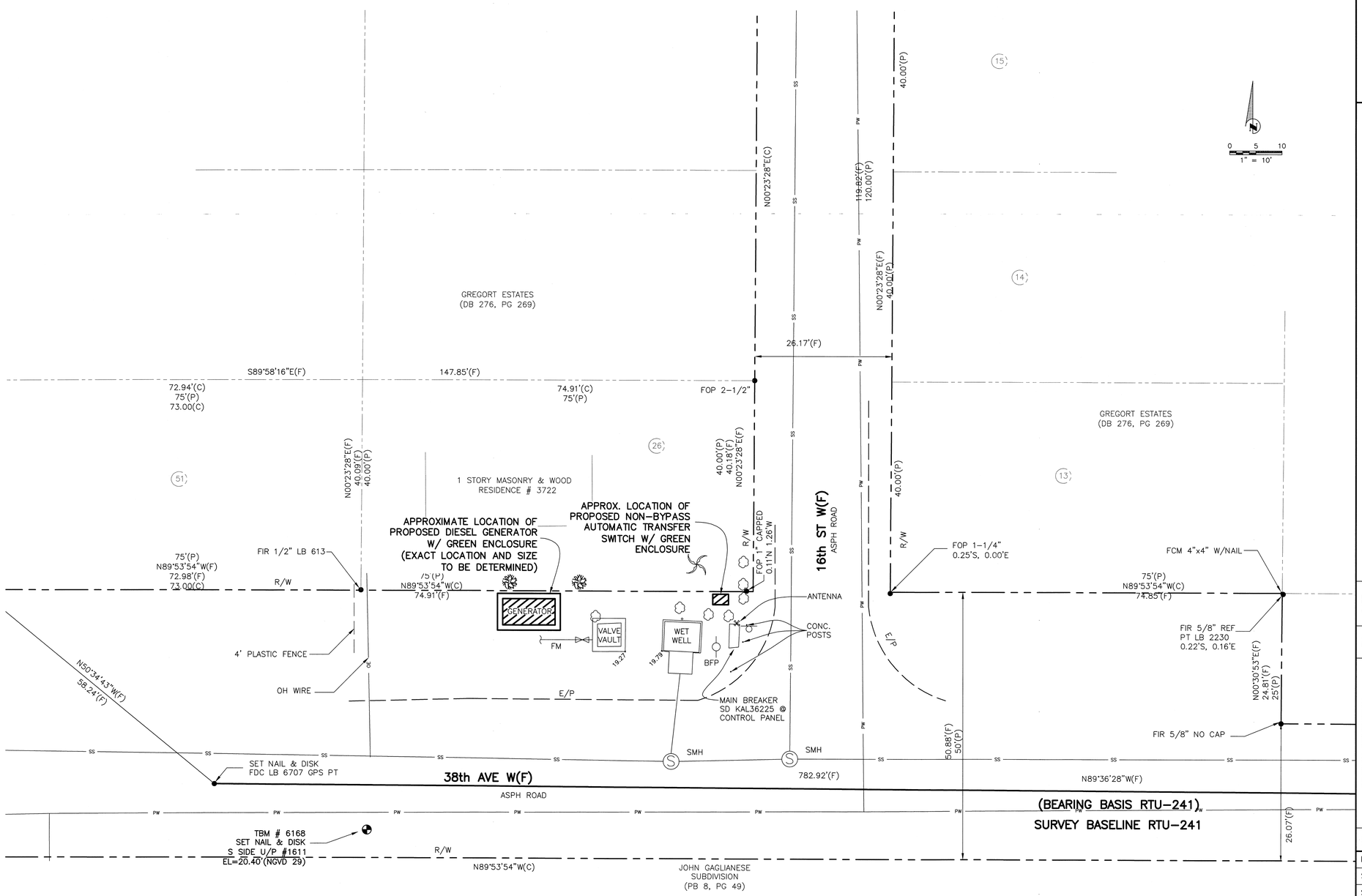


LS 36-A, RTU #241
1602 38TH AVE W

VICINITY MAP

N.T.S.

1. THIS IS NOT A BOUNDARY SURVEY.
2. A SEPARATE SURVEYOR'S REPORT TITLED "SPECIFIC PURPOSE SURVEY – MANATEE COUNTY, FLORIDA – LIFT STATION UPGRADES – 2010 EMERGENCY GENERATORS – IFAS # W0900218 – FDC JOB NUMBER 0577-0006 – LAST DATE OF FIELD WORK: 6-24-2009" HAS BEEN UTILIZED AS A TEXT OPTION FOR THIS SURVEY MAP.
3. USERS OF THIS SURVEY MAP ARE DIRECTED TO ACKNOWLEDGE THE CONTENT OF THE SURVEYOR'S REPORT.
4. THE SURVEY MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER.
5. ANY ELECTICAL WIRING THAT IS INSTALLED BETWEEN THE LIFT STATION'S WET WELL AND THE VALVE VAULT SHALL BE INSTALLED IN A CARRIER PIPE THAT IS STRAPPED TO THE WET WELL OR VALVE VAULT.
6. THE CAPACITY OF THE DIESEL FUEL TANK SHALL BE SIZED TO THE MINIMAL FOOTPRINT & HEIGHT TO RUN THE GENERATOR CONTINUOUSLY FOR 96 HOURS AT 75% LOAD AS INDICATED IN THE SPECIFICATIONS. HOWEVER, THE DIESEL FUEL TANK SHALL NOT EXCEED 540 GALLONS.
7. THE OVERALL FUEL SYSTEM IS TO COMPLY WITH ALL APPLICABLE NFPA REGULATIONS AS WELL AS THOSE REQUIRED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION. THIS INCLUDES NFPA COMPLIANT LABELS FOR THE FUEL SHUT-OFF LOCATION AND APPLICATIONS OF DIESEL HAZMAT SYMBOL STICKERS.
8. INSTALL A 10# ABC FIRE EXTINGUISHER IN A WATERPROOF ENCLOSURE MOUNTED TO THE MAIN CONTROL CABINET SUPPORT POSTS AND INSTALL A KNOX LOCK ON THE ENCLOSURE FENCE GATE LOCKING CHAIN, IF APPLICABLE.



LEGEND:

IR	IRON ROD	IR ●	IRON ROD FOUND (NO #)	PW	POTABLE WATER MAIN
R/W	RIGHT OF WAY LINE	SMH Ⓢ	SANITARY SEWER MANHOLE	EOP	EDGE OF PAVEMENT
ID	IDENTIFICATION	BFP	BACK FLOW PREVENTER	20.XX	EXISTING SPOT ELEVATION
(F)	FIELD DATA	GV	RECLAIMED GATE VALVE	—OH—	OVERHEAD POWER LINES
EL	ELEVATION	TEL □	VERIZON FIOS BOX	—UG—	UNDERGROUND VERIZON LINE
NGVD	NATIONAL GEODETIC VERTICAL DATUM	WS ●	WATER SERVICE		
ANT	ANTENNA	ANT ●	ANTENNA		
WS	WATER SERVICE	AB ●	ALARM BOX		
BFP	BACK FLOW PREVENTER	EM ●	ELECTRIC METER		
EM	ELECTRIC METER	RE WM ▭	RECLAIMED WATER METER		
AB	ALARM BOX	WPP	WOOD POWER POLE		
GV	GATE VALVE	WV	WATER VALVE		
SMH	SANITARY SEWER MANHOLE	SN	SIGN		
BM	BENCH MARK	BM	BENCH MARK		
WM	WATER METER				
WPP	WOOD POWER POLE				
WV	WATER VALVE				
OH	OVERHEAD				
UG	UNDERGROUND				
FM	FORCE MAIN				
RW	REUSE MAIN				

MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES, 2010
EMERGENCY GENERATORS-GROUP 2
LS 36-A, RTU 241, 1602 38TH AVE W

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	402-5124780	
SURVEY #	FDC: #0577-0006	
SEC./TWN./RGE	02/35S/17E	
SCALE	1"=10'	
	BY	DATE
SURVEYED	FDC	4/29/09
DESIGNED	–	–
DRAWN	JSS	–
CHECKED	–	–

JOHN S. SHOUN, P.E.
FLORIDA REG. No. 60923
JOHN S. SHOUN LICENSE No. 60923 STATE OF FLORIDA PROFESSIONAL ENGINEER
Date

SHEET 3 OF 11

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LS ROSEDALE 1, RTU #327,
5320 87th ST. E.

VICINITY MAP

N.T.S.

NOTES:

1. THIS IS NOT A BOUNDARY SURVEY.
2. A SEPARATE SURVEYOR'S REPORT TITLED "SPECIFIC PURPOSE SURVEY – MANATEE COUNTY, FLORIDA – LIFT STATION UPGRADES – 2010 EMERGENCY GENERATORS – IFAS # W0900218 – FDC JOB NUMBER 0577–0006 – LAST DATE OF FIELD WORK: 6–24–2009" HAS BEEN UTILIZED AS A TEXT OPTION FOR THIS SURVEY MAP.
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8. INSTALL A 10# ABC FIRE EXTINGUISHER IN A WATERPROOF ENCLOSURE MOUNTED TO THE MAIN CONTROL CABINET SUPPORT POSTS AND INSTALL A KNOX LOCK ON THE ENCLOSURE FENCE GATE LOCKING CHAIN, IF APPLICABLE.

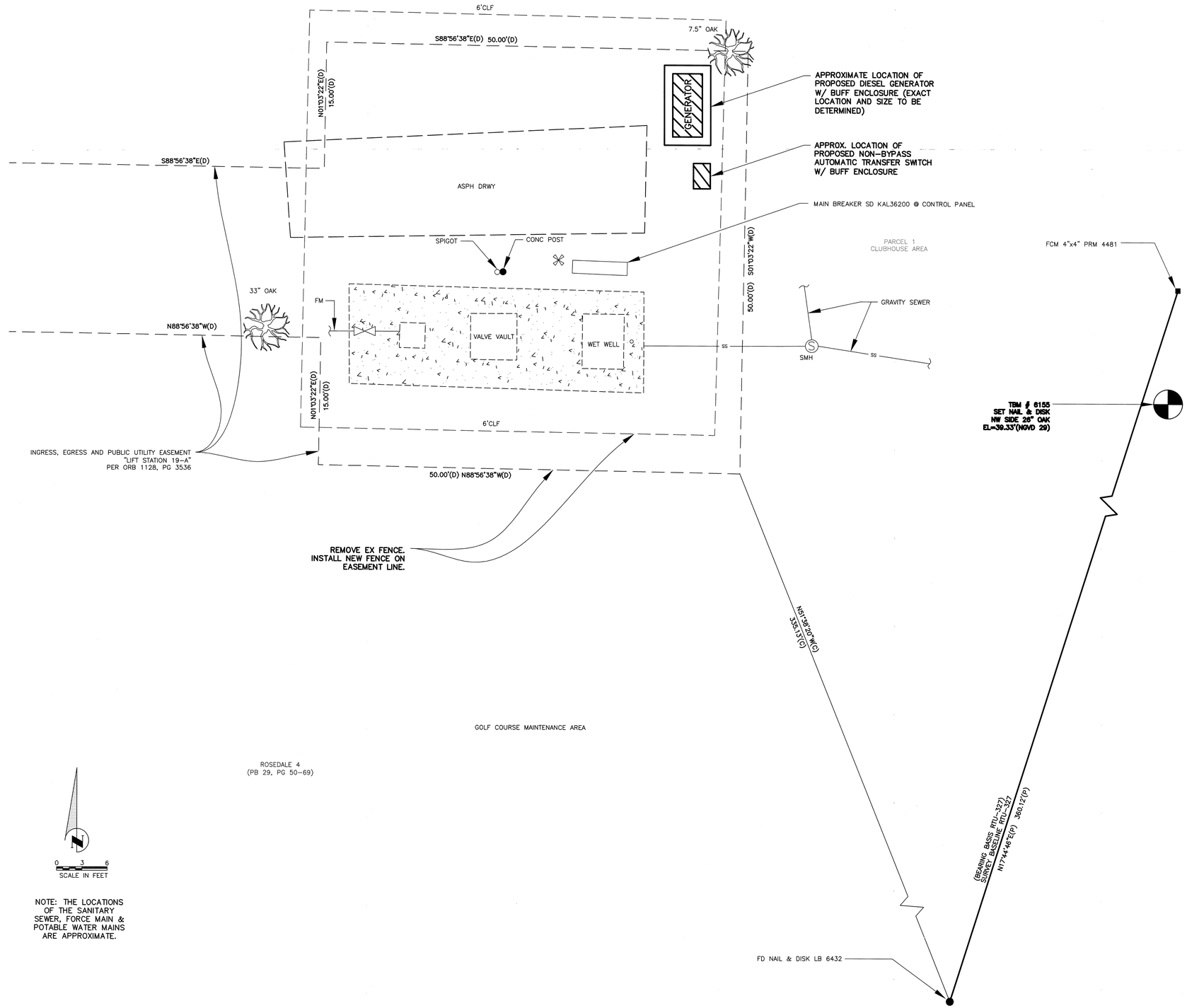
LEGEND:

IR	IRON ROD
CM	CONCRETE MONUMENT
R/W	RIGHT OF WAY LINE
ID	IDENTIFICATION
LB	LICENSED BUSINESS
O.R.B.	OFFICIAL RECORD BOOK
P.B.	PLAT BOOK
PG.	PAGE
(F)	FIELD DATA
(P)	PLAT DATA
(D)	DEED DATA
EL	ELEVATION
NGVD	NATIONAL GEODETIC VERTICAL DATUM
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
T	TANGENT LENGTH
CTP	CABLE TELEVISION PEDESTAL
TEL	TELEPHONE
SHM	SANITARY SEWER MANHOLE
WM	WATER METER
UB	UTILITY BOX
BFP	BACK FLOW PREVENTER
WPP	WOOD POWER POLE
ANT	ANTENNA
AB	ALARM BOX
EM	ELECTRIC METER
GV	GATE VALVE
BM	BENCH MARK
OH	OVER HEAD LINES
FM	FORCE MAIN
RW	REUSE MAIN
PW	POTABLE WATER MAIN
EOP	EDGE OF PAVEMENT

IR ●	IRON ROD FOUND AS NOTED
CM ■	4"x4" CONCRETE MONUMENT FOUND
SMH Ⓢ	SANITARY SEWER MANHOLE
BFP	BACK FLOW PREVENTER
GV	FORCE MAIN GATE VALVE
WPP	WOOD POWER POLE
WM	WATER METER
UB ●	UTILITY BOX
ANT ●	ANTENNA
AB ●	ALARM BOX
EM ●	ELECTRIC METER
CTP	CABLE TV PEDESTAL
TEL □	VERIZON PULL BOX
TEL	VERIZON PEDESTAL
	MITER END SECTION
OH	OVER HEAD LINES
BM	BENCH MARK
19.50	EXISTING SPOT ELEVATION

ASPH PARKING LOT

CONTRACTOR SHALL REFERENCE SECTION 14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS FOR RECORD DRAWING REQUIREMENTS.



NOTE: THE LOCATIONS OF THE SANITARY SEWER, FORCE MAIN & POTABLE WATER MAINS ARE APPROXIMATE.

MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES

1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES, 2010
EMERGENCY GENERATORS-GROUP 2
LS ROSEDALE 1, RTU #327, 5320 87th ST. E.

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	402–5124280
SURVEY #	0577–0006
SEC./TWN./RGE	13/35S/18E
SCALE	1"=6'

	BY	DATE
SURVEYED	FDC	06/24/09
DESIGNED	–	–
DRAWN	BLR	09/09
CHECKED	–	–

JOHN S. SHOUN, P.E.
FLORIDA REG. No. 60923
JOHN S. SHOUN LICENSE No. 60923 STATE OF FLORIDA PROFESSIONAL ENGINEER

SHEET 4 OF 11

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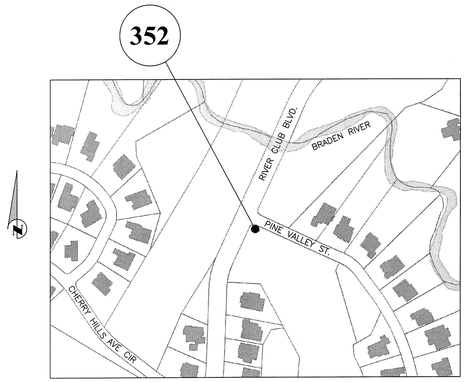

LS RIVER CLUB 4, RTU #352
6925 RIVER CLUB BLVD.

VICINITY MAP

N.T.S.

NOTES:

1. THIS IS NOT A BOUNDARY SURVEY.
2. A SEPARATE SURVEYOR'S REPORT TITLED "SPECIFIC PURPOSE SURVEY – MANATEE COUNTY, FLORIDA – LIFT STATION UPGRADES – 2009 EMERGENCY GENERATORS – WORK ASSIGNMENT # W0900069 – FDC JOB NUMBER 0577–0004 – LAST DATE OF FIELD WORK: 3–10–2009" HAS BEEN UTILIZED AS A TEXT OPTION FOR THIS SURVEY MAP.
3. USERS OF THIS SURVEY MAP ARE DIRECTED TO ACKNOWLEDGE THE CONTENT OF THE SURVEYOR'S REPORT.
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8. INSTALL A 10# ABC FIRE EXTINGUISHER IN A WATERPROOF ENCLOSURE MOUNTED TO THE MAIN CONTROL CABINET SUPPORT POSTS AND INSTALL A KNOX LOCK ON THE ENCLOSURE FENCE GATE LOCKING CHAIN, IF APPLICABLE.

CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD	BEARING	DELTA
C1(P)	25.00'	39.27'	35.36'	S69°31'02"W	90°00'00"

LEGEND:

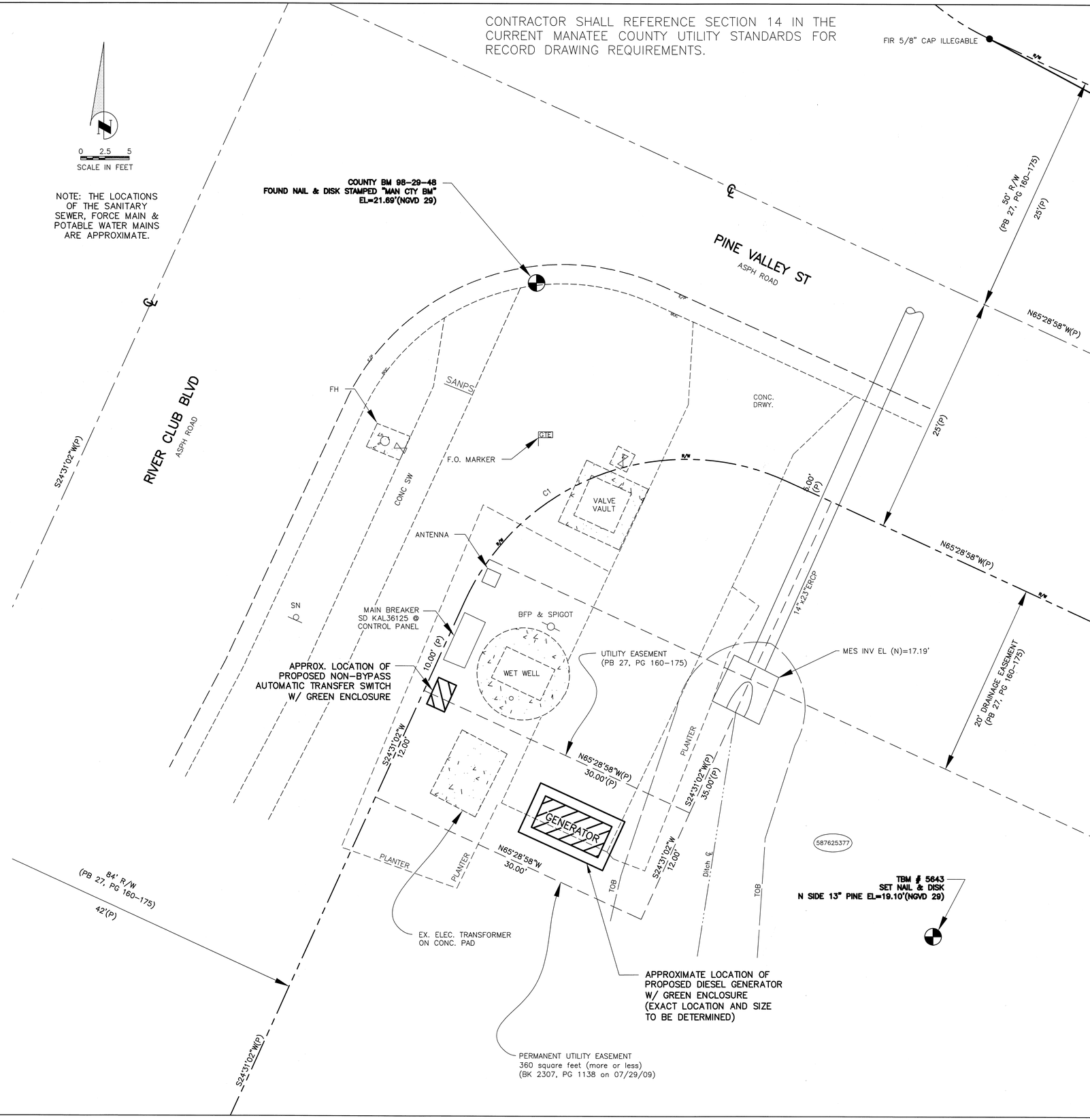
ASPH = Asphalt
(C) = Calculated Data
CI = Curb Inlet
CMP = Corrugated Metal Pipe
CONC = Concrete
COR = Corner
DIP = Ductile Iron Pipe
DRWY = Driveway
E = East
EL = Elevation
ELEC = Electric
ERCP = Elliptical Reinforced Concrete Pipe
(F) = Field Data
FCM = Found Concrete Monument
FIR = Found Iron Rod and Cap
FD = Found
FIP = Found Iron Pipe
FT = Feet
INV = Invert
IR = Iron Rod
LB = Corporate Certification Number
LS = Licensed Surveyor
LT = Left
MH = Manhole
N = North
N&D = Nail & Disk
NGVD = National Geodetic Vertical Datum
ORB = Official Record Book
PB = Plat Book
PC = Point of Curvature
PG = Page(s)
PI = Point of Intersection
PLS = Professional Land Surveyor
PLTR = Planter
PSM = Professional Surveyor and Mapper
PT = Point of Tangency \ Point
PVC = Polyvinyl Chloride Pipe
RCP = Reinforced Concrete Pipe
REF = Reference
RLS = Registered Land Surveyor
RT = Right
R/W = Right of Way
S = South
SMH = Sanitary Manhole
SND = Set Nail and Disk
STA = Station
SW = Sidewalk
TBM = Temporary Benchmark
VCP = Vitrified Clay Pipe
VVH = Verified Vertical and Horizontal
W = West
W/ = With
xx° = Degrees
xx' = Minutes (Bearings)
xx" = Seconds (Bearing)
xx' = Feet (Distances)

IR ● IRON ROD FOUND AS NOTED
CM ■ 4"x4" CONCRETE MONUMENT FOUND AS NOTED
SS SANITARY SEWER MANHOLE
BFP BACK FLOW PREVENTER
GV FORCE MAIN GATE VALVE
WPP WOOD POWER POLE
WM WATER METER
UB ● UTILITY BOX
ANT ● ANTENNA
AB ● ALARM BOX
EM ● ELECTRIC METER
CTP CABLE TV PEDESTAL
TEL VERIZON PULL BOX
TEL VERIZON PEDESTAL
MITER END SECTION
OH OVER HEAD LINES
BM BENCH MARK
EXISTING SPOT ELEVATION

0 2.5 5
SCALE IN FEET

NOTE: THE LOCATIONS OF THE SANITARY SEWER, FORCE MAIN & POTABLE WATER MAINS ARE APPROXIMATE.

CONTRACTOR SHALL REFERENCE SECTION 14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS FOR RECORD DRAWING REQUIREMENTS.



MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES

1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES, 2010
EMERGENCY GENERATORS-GROUP 2
LS RIVER CLUB 4, RTU #352
6925 RIVER CLUB BLVD.

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	404–6075780
SURVEY #	0577–0004
SEC./TWN./RGE	30/35/19
SCALE	1"=5'

	BY	DATE
SURVEYED	FD	03/10/09
DESIGNED	–	–
DRAWN	CAB/BLR	06/2010
CHECKED	–	–

JOHN S. SHOUN, P.E.
FLORIDA LICENSE NO. 50023
JOHN S. SHOUN LICENSE NO. 50023 STATE OF FLORIDA PROFESSIONAL ENGINEER
Sign

SHEET 5 OF 11

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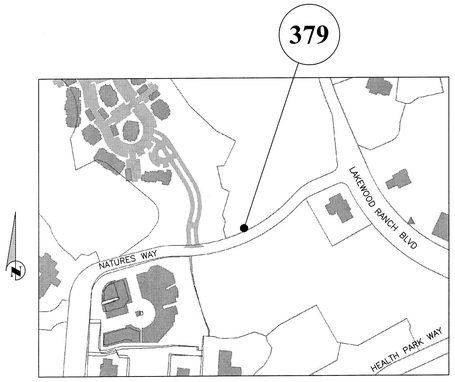

LS LAKEWOOD TOWN CENTER 1, RTU #379
8070 NATURES WAY

VICINITY MAP

N.T.S.

SPECIFIC PURPOSE SURVEY

TO SHOW THE LOCATION OF A MANTEE COUNTY LIFT STATION, LAKEWOOD RANCH TOWN CENTER 1 LOCATED ON THE NORTH SIDE OF NATURES WAY (A PUBLIC VARIABLE WIDTH RIGHT-OF-WAY) AS SHOWN ON LAKEWOOD RANCH TOWN CENTER PHASE 1, ROADWAYS PLAT (P.B. 33, PG. 19), MANATEE COUNTY, FLORIDA.

NOTES:

1. BEARINGS ARE BASED ON THE CHORD OF CURVE (C5) CL42 AS SHOWN ON SHEET 8 OF 8 OF PLAT BOOK 33, PAGE 19 MANATEE COUNTY, FLORIDA, BEING NORTH 66°34' 49" EAST.
2. THIS SURVEY HAS BEEN PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OR TITLE SEARCH AND THERE MAY BE ADDITIONAL EASEMENTS THAT MAY BE OF PUBLIC RECORD.
3. THIS PROPERTY LIES IN FLOOD ZONE X AS PER FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP; COMMUNITY PANEL NO.120153-0365-C, DATED JULY 15. 1992, INDAX DATE 6/30/99.
4. THE PURPOSE OF THIS SURVEY IS FOR ENGINEERING DESIGN.
5. THE LOCATION OF UTILITIES, FOUNDATIONS OR STRUCTURES, IF ANY, BENEATH THE SURFACE HAS NOT BEEN DETERMINED.
6. THE ABOVE GROUND VISIBLE EVIDENCE OF THE LIFT STATION APPEARS TO BE WITHIN THE PLATTED EASEMENT
7. OWNERSHIP OF FENCES IF ANY HAS NOT BEEN DETERMINED.
8. ELEVATIONS ARE BASED ON 1929 DATUM (NGVD), A SQUARE CUT IN CURB, BM #2 PER LAKEWOOD RANCH TOWN CENTER, SUBPHASE K a/k/a NATURES WAY 2, A COMMERCIAL SUBDIVISION AS RECORDED IN PLAT BOOK 45, PAGE 185, MANATEE COUNTY, FLORIDA BENCHMARK ELEVATION 23.52 FEET.
9. HORIZONTAL DATUM IS RELATIVE TO NORTH AMERICAN DATUM (NAD) OF 1983 (1990 ADJUSTMENT), FLORIDA STATE PLANE, WEST ZONE, AND WAS DERIVED FROM REDUNDANT REAL-TIME KINEMATIC GPS OBSERVATIONS UTILIZING NGS CONTROL POINTS J 254 (NGS PID AG 1981) AND I75 84 A08 (NGS PID AG8373) AND ADHERES TO THE ACCURACY REQUIREMENTS OF FLORIDA'S MINIMUM TECHNICAL STANDARDS (61G17-6.003, F.A.C).
10. THE EXPECTED USE OF THE LAND, AS CLASSIFIED IN THE FLORIDA MINIMUM TECHNICAL STANDARDS (61G17-6-F.A.C.), FOR THIS SURVEY IS COMMERCIAL/HIGH RISK. THE ACCURACY OF THE CONTROL SURVEY DATA BY REDUNDANT MEASUREMENTS AND/OR CLOSED TRAVERSE MEETS OR EXCEEDS 1 FOOT IN 10,000 FEET.
11. THIS MAP IS INTENDED TO BE DISPLAYED AT THE SCALE NOTED HEREON OR SMALLER.
12. THE EXPECTED ACCURACY OF THE VERTICAL CONTROL DATA FOR THIS SURVEY, BY A LEVEL LOOP AND/OR CLOSURE TO A SECOND BENCHMARK, MEETS OR EXCEEDS PLUS OR MINUS 0.05 FEET TIMES THE SQUARE ROOT OF THE DISTANCE IN MILES.
13. THE CAPACITY OF THE DIESEL FUEL TANK SHALL BE SIZED TO THE MINIMAL FOOTPRINT AND HEIGHT TO RUN THE GENERATOR CONTINUOUSLY FOR 96 HOURS AT 75% LOAD AS INDICATED IN THE SPECIFICATIONS. HOWEVER, THE DIESEL FUEL TANK SHALL NOT EXCEED 540 GALLONS.
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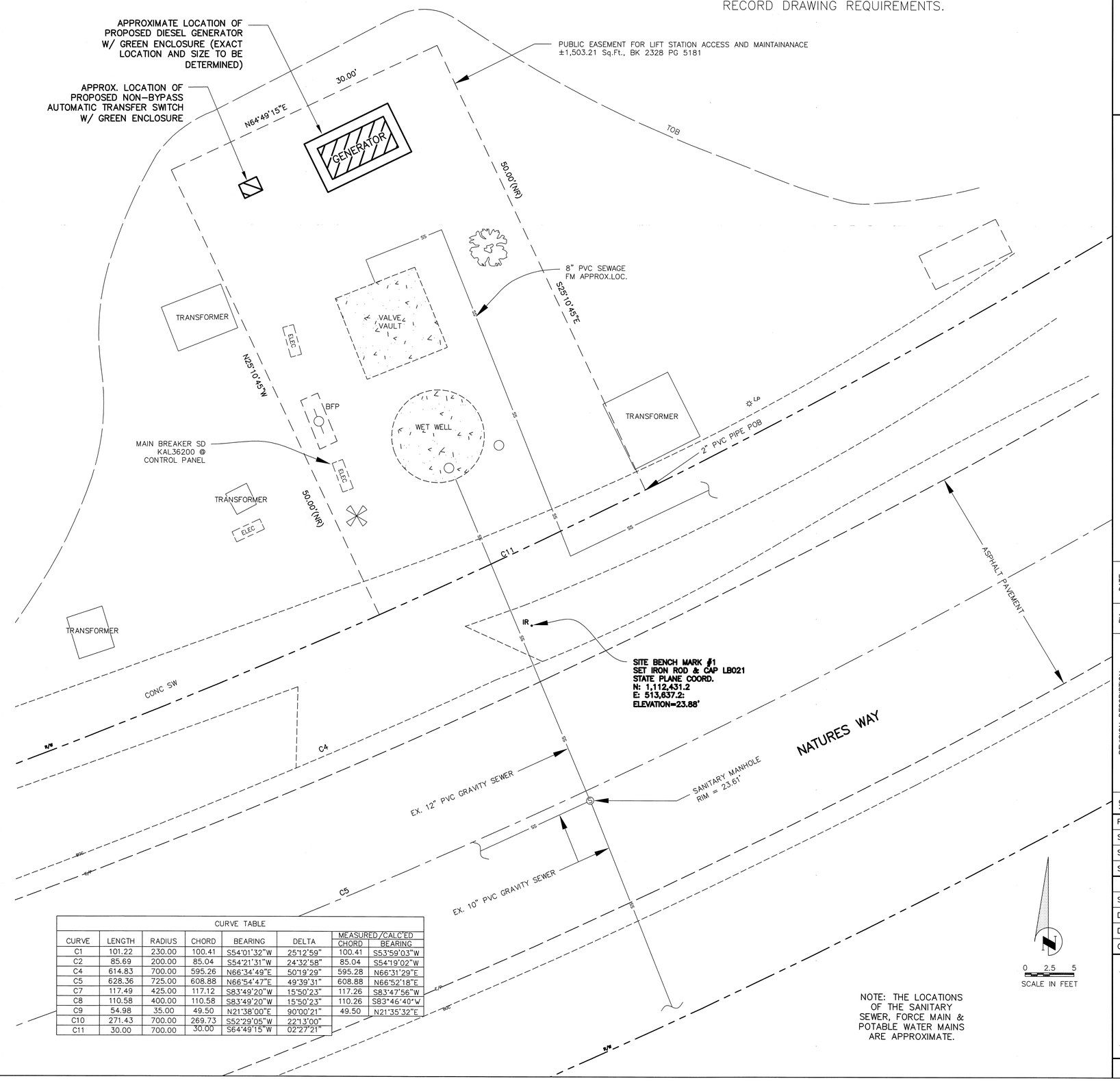
ABBREVIATIONS

℄	– CENTER LINE	P.R.C.	– POINT OF REVERSED CURVATURE
C1	– CURVE NUMBER	P.C.C.	– POINT OF COMPOUND CURVATURE
P.S.M.	– PROFESSIONAL SURVEYOR & MAPPER	P.C.	– POINT OF CURVATURE
SEC.	– SECTION	P.T.	– POINT OF TANGENCY
TWP.	– TOWNSHIP	V.C.P	– VITRIFIED CLAY PIPE
RGE.	– RANGE	C.M.P.	– CORRUGATED METAL PIPE
R/W	– RIGHT-OF-WAY	P.B.	– PLAT BOOK
(D)	– DEED DATA	PG.N.	– PAGE
(P)	– PLAT DATA	BLK.	– BLOCK
(M)	– MEASURED DATA	PVM'T	– PAVEMENT
CONC.	– CONCRETE	R.R.	– RAILROAD
RES.	– RESIDENCE	R/W	– RIGHT-OF-WAY
ADD.T.	– ADDRESS	SUB.	– SUBDIVISION
C.B.	– CONCRETE BLOCK	FND.	– FOUND
BLDG.	– BUILDING	MON.	– MONUMENT
O.R.A.	– OFFICIAL RECORDS	COR.	– CORNER
EL.	– ELEVATION	R.C.P.	– REINFORCED CONC. PIPE
USC&GS	– UNITED STATES COAST & GEODETIC SURVEY	P.V.C.	– POLYVINYL CHLORIDE PIPE
NGVD	– NATIONAL GEODETIC VERTICAL DATUM	P.O.B.	– POINT OF BEGINNING
SAN.	– SANITARY	P.O.C.	– POINT OF COMMENCEMENT
INV.	– INVERT	P.O.M.	– PERMANENT REFERENCE MONUMENT
Δ	– DELTA	P.C.P.	– PERMANENT CONTROL POINT
L	– LENGTH	TBM	– TEMPORARY BENCH MARK
R	– RADIUS	IRF	– IRON ROD FOUND
CH	– CHORD	IPF	– IRON PIPE FOUND
(R)	– RADIAL	CMF	– CONCRETE MONUMENT FOUND
		NDS	– NAIL & DISK SET

CONTRACTOR SHALL REFERENCE SECTION 14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS FOR RECORD DRAWING REQUIREMENTS.



CURVE TABLE							
						MEASURED/CALC'ED	
CURVE	LENGTH	RADIUS	CHORD	BEARING	DELTA	CHORD	BEARING
C1	101.22	230.00	100.41	S54°01'32"W	25°12'59"	100.41	S53°59'03"W
C2	85.69	200.00	85.04	S54°21'31"W	24°32'58"	85.04	S54°19'02"W
C4	614.83	700.00	595.26	N66°34'49"E	50°19'29"	595.28	N66°31'29"E
C5	628.36	725.00	608.88	N66°54'47"E	49°39'31"	608.88	N66°52'18"E
C7	117.49	425.00	117.12	S83°49'20"W	15°50'23"	117.26	S83°47'56"W
C8	110.58	400.00	110.58	S83°49'20"W	15°50'23"	110.26	S83°46'40"W
C9	54.98	35.00	49.50	N21°38'00"E	90°00'21"	49.50	N21°35'32"E
C10	271.43	700.00	269.73	S52°29'05"W	22°13'00"		
C11	30.00	700.00	30.00	S64°49'15"W	02°27'21"		

NOTE: THE LOCATIONS OF THE SANITARY SEWER, FORCE MAIN & POTABLE WATER MAINS ARE APPROXIMATE.

MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES, 2010
EMERGENCY GENERATORS-GROUP 2
LS LWR TOWN CENTER 1, RTU #379
8070 NATURES WAY

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	402-5127180
SURVEY #	0123008594
SEC./TWN./RGE	31/35/19
SCALE	1"=5'

	BY	DATE
SURVEYED	GFY	06/24/09
DESIGNED	–	–
DRAWN	BLR	02/18/10
CHECKED	–	–

JOHN S. SHOUN, P.E.
FLORIDA REG. No. 60923
Signature Date

SHEET 6 OF 11

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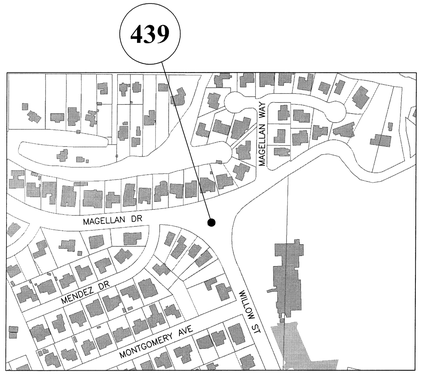
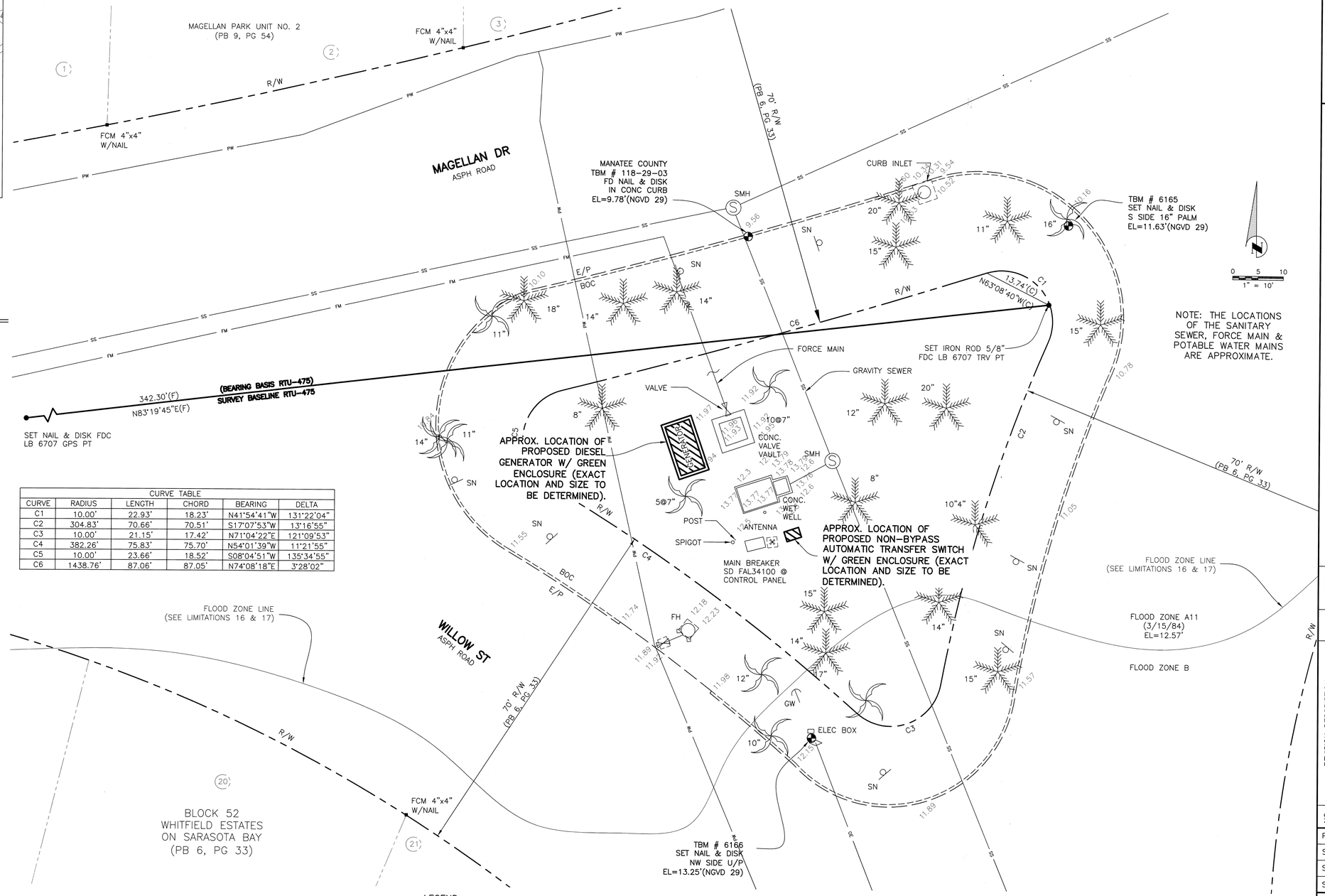


LS 2-A, RTU #439
350 MAGELLAN DR

VICINITY MAP

N.T.S.

CONTRACTOR SHALL REFERENCE SECTION 14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS FOR RECORD DRAWING REQUIREMENTS.



NOTES:

1. THIS IS NOT A BOUNDARY SURVEY.
2. A SEPARATE SURVEYOR'S REPORT TITLED "SPECIFIC PURPOSE SURVEY – MANATEE COUNTY, FLORIDA – LIFT STATION UPGRADES – 2010 EMERGENCY GENERATORS – IFAS # W0900218 – FDC JOB NUMBER 0577-0006 – LAST DATE OF FIELD WORK: 6-24-2009 HAS BEEN UTILIZED AS A TEXT OPTION FOR THIS SURVEY MAP.
3. USERS OF THIS SURVEY MAP ARE DIRECTED TO ACKNOWLEDGE THE CONTENT OF THE SURVEYOR'S REPORT.
4. THE SURVEY MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER.
5. ANY ELECTICAL WIRING THAT IS INSTALLED BETWEEN THE LIFT STATION'S WET WELL AND THE VALVE VAULT SHALL BE INSTALLED IN A CARRIER PIPE THAT IS STRAPPED TO THE WET WELL OR VALVE VAULT.
6. THE CAPACITY OF THE DIESEL FUEL TANK SHALL BE SIZED TO THE MINIMAL FOOTPRINT & HEIGHT TO RUN THE GENERATOR CONTINUOUSLY FOR 96 HOURS AT 75% LOAD AS INDICATED IN THE SPECIFICATIONS. HOWEVER, THE DIESEL FUEL TANK SHALL NOT EXCEED 540 GALLONS.
7. THE OVERALL FUEL SYSTEM IS TO COMPLY WITH ALL APPLICABLE NFPA REGULATIONS AS WELL AS THOSE REQUIRED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION. THIS INCLUDES NFPA COMPLIANT LABELS FOR THE FUEL SHUT-OFF LOCATION AND APPLICATIONS OF DIESEL HAZMAT SYMBOL STICKERS.
8. INSTALL A 10# ABC FIRE EXTINGUISHER IN A WATERPROOF ENCLOSURE MOUNTED TO THE MAIN CONTROL CABINET SUPPORT POSTS AND INSTALL A KNOX LOCK ON THE ENCLOSURE FENCE GATE LOCKING CHAIN, IF APPLICABLE.
9. L.S. 2-A IS LOCATED IN A FLOOD ZONE WITH A BASE FLOOD ELEVATION OF 12.5 NGVD. THE RIM OF THE FUEL TANK AND BASE OF GENERATOR SHALL BE AT A MIN. ELEVATION OF 13.6 NGVD. A FLOOD REVIEW & ELEVATION CERTIFICATE WILL BE REQUIRED FOR THIS LIFT STATION SITE.

CURVE TABLE

CURVE	RADIUS	LENGTH	CHORD	BEARING	DELTA
C1	10.00'	22.93'	18.23'	N41°54'41"W	131°22'04"
C2	304.83'	70.66'	70.51'	S17°07'53"W	13°16'55"
C3	10.00'	21.15'	17.42'	N71°04'22"E	121°09'53"
C4	382.26'	75.83'	75.70'	N54°01'39"W	11°21'55"
C5	10.00'	23.66'	18.52'	S08°04'51"W	135°34'55"
C6	1438.76'	87.06'	87.05'	N74°08'18"E	3°28'02"

LEGEND:

IR	IRON ROD	IR	IRON ROD FOUND (NO #)	PW	POTABLE WATER MAIN	20.33	EXISTING SPOT ELEVATION
R/W	RIGHT OF WAY LINE	SMH	SANITARY SEWER MANHOLE	EOP	EDGE OF PAVEMENT	—OH—	OVERHEAD POWER LINES
ID	IDENTIFICATION	BFP	BACK FLOW PREVENTER			—UG—	UNDERGROUND VERIZON LINE
(F)	FIELD DATA	GV	RECLAIMED GATE VALVE				
EL	ELEVATION	TEL	VERIZON FIOS BOX				
NGVD	NATIONAL GEODETIC VERTICAL DATUM	WS	WATER SERVICE				
ANT	ANTENNA	ANT	ANTENNA				
WS	WATER SERVICE	AB	ALARM BOX				
BFP	BACK FLOW PREVENTER	EM	ELECTRIC METER				
EM	ELECTRIC METER	RE WM	RECLAIMED WATER METER				
AB	ALARM BOX	WPP	WOOD POWER POLE				
GV	GATE VALVE	WV	WATER VALVE				
SMH	SANITARY SEWER MANHOLE	SN	SIGN				
BM	BENCH MARK	BM	BENCH MARK				
WM	WATER METER						
WPP	WOOD POWER POLE						
WV	WATER VALVE						
OH	OVERHEAD						
UG	UNDERGROUND						
FM	FORCE MAIN						
RW	REUSE MAIN						

MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES, 2010
EMERGENCY GENERATORS-GROUP 2
LS 2-A, RTU 439, 350 MAGELLAN DR

NO.	REVISION DESCRIPTION	BY	DATE

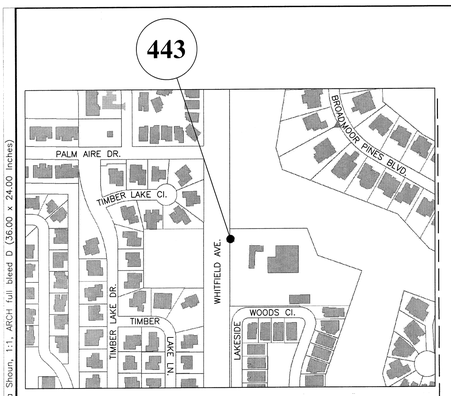
PROJECT #	402-5125380
SURVEY #	FDC: #0577-0006
SEC./TWN./RGE	26/35S/17E
SCALE	1"=10'

	BY	DATE
SURVEYED	FDC	6/24/10
DESIGNED	–	–
DRAWN	JSS	–
CHECKED	–	–

JOHN S. SHOUN, P.E.
FLORIDA P.E. # 60923

JOHN S. SHOUN LICENSE No. 60923 STATE OF FLORIDA PROFESSIONAL ENGINEER

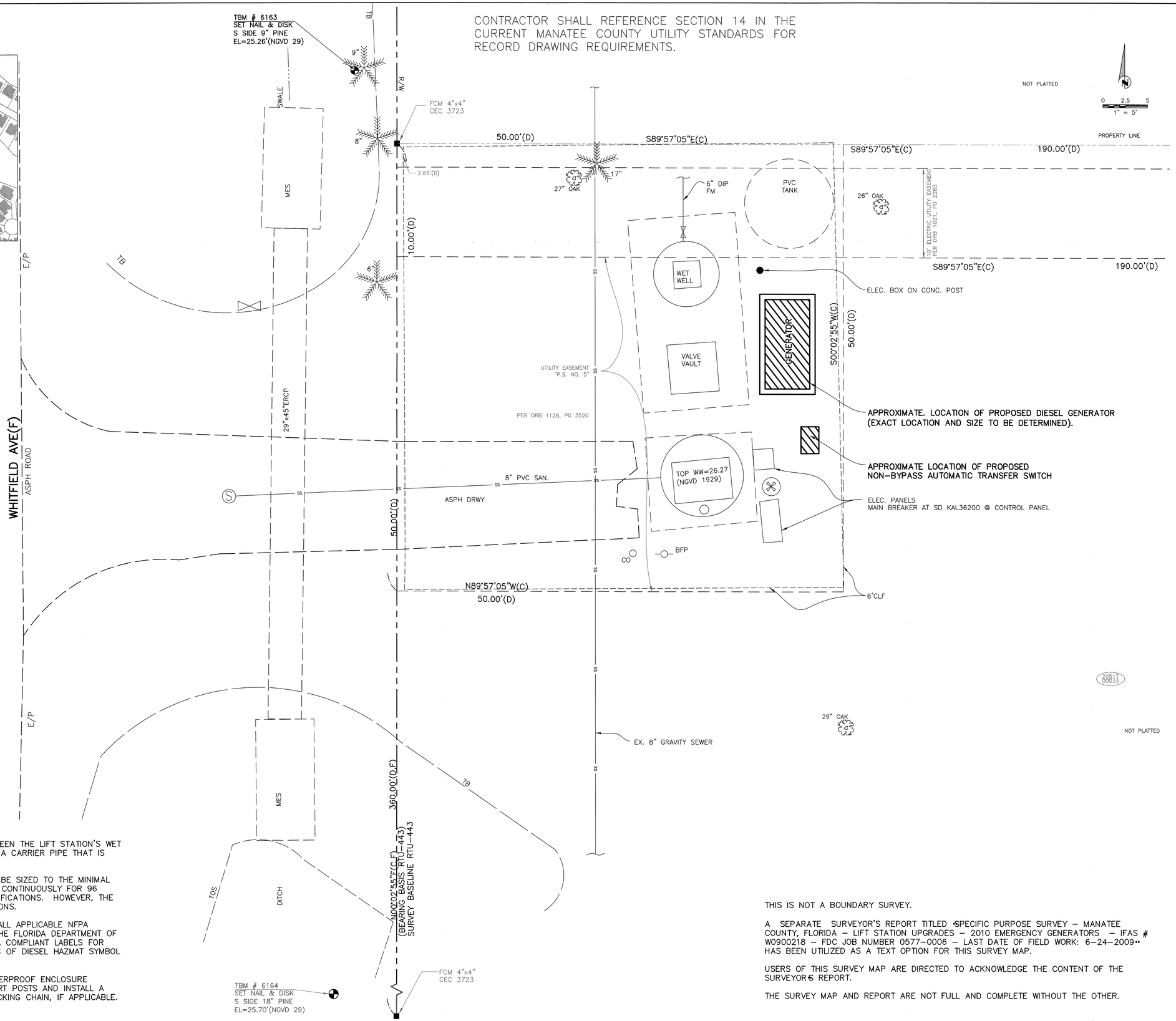
COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Share\UBI Eng Design\Proj\-SAN SWR Proj\San Swr - LS Upgrades\Egens\2010 Egens\2010 LS Edan Group 2\DWGS\Active-2010 eGen Group 2.dwg,LS 2-A (439), 9/10/2010 2:32 PM Shep Shoun, 1:1, D-Arch (24"x36")



PALM AIRE 3, RTU #443,
7583 WHITFIELD AVE., BRADENTON

VICINITY MAP

N.T.S.



ABBREVIATIONS LEGEND

ASPH	= Asphalt
(C)	= Calculated Data
CI	= Curb Inlet
CMP	= Corrugated Metal Pipe
CONC	= Concrete
COR	= Corner
DIP	= Ductile Iron Pipe
DRWY	= Driveway
E	= East
EL	= Elevation
ELEC	= Electric
ERCP	= Elliptical Reinforced Concrete Pipe
(F)	= Field Data
FCM	= Found Concrete Monument
FIR	= Found Iron Rod and Cap
FD	= Found
FIP	= Found Iron Pipe
FT	= Feet
INV	= Invert
IR	= Iron Rod
LB	= Corporate Certification Number
LS	= Licensed Surveyor
LT	= Left
MH	= Manhole
N	= North
N&D	= Nail & Disk
NGVD	= National Geodetic Vertical Datum
ORB	= Official Record Book
PB	= Plat Book
PC	= Point of Curvature
PG	= Page(s)
PI	= Point of Intersection
PLS	= Professional Land Surveyor
PLTR	= Planter
PSM	= Professional Surveyor and Mapper
PT	= Point of Tangency \ Point
PVC	= Polyvinyl Chloride Pipe
RCP	= Reinforced Concrete Pipe
REF	= Reference
RLS	= Registered Land Surveyor
RT	= Right
R/W	= Right of Way
S	= South
SMH	= Sanitary Manhole
SND	= Set Nail and Disk
STA	= Station
SW	= Sidewalk
TBM	= Temporary Benchmark
VCP	= Vitrified Clay Pipe
VVH	= Verified Vertical and Horizontal
W	= West
W/	= With
xx°	= Degrees
xx'	= Minutes (Bearings)
xx"	= Seconds (Bearing)
xx'	= Feet (Distances)

NOTES:

1. ANY ELECTRICAL WIRING THAT IS INSTALLED BETWEEN THE LIFT STATION'S WET WELL AND VALVE VAULT SHALL BE INSTALLED IN A CARRIER PIPE THAT IS STRAPPED TO THE WET WELL OR VALVE VAULT.
2. THE CAPACITY OF THE DIESEL FUEL TANK SHALL BE SIZED TO THE MINIMAL FOOTPRINT AND HEIGHT TO RUN THE GENERATOR CONTINUOUSLY FOR 96 HOURS AT 75% LOAD AS INDICATED IN THE SPECIFICATIONS. HOWEVER, THE DIESEL FUEL TANK SHALL NOT EXCEED 540 GALLONS.
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4. INSTALL A 10# ABC FIRE EXTINGUISHER IN A WATERPROOF ENCLOSURE MOUNTED TO THE MAIN CONTROL CABINET SUPPORT POSTS AND INSTALL A KNOX LOCK ON THE ENCLOSURE FENCE GATE LOCKING CHAIN, IF APPLICABLE.

THIS IS NOT A BOUNDARY SURVEY.

A SEPARATE SURVEYOR'S REPORT TITLED "SPECIFIC PURPOSE SURVEY – MANATEE COUNTY, FLORIDA – LIFT STATION UPGRADES – 2010 EMERGENCY GENERATORS – IFAS # W0900218 – FDC JOB NUMBER 0577-0006 – LAST DATE OF FIELD WORK: 6-24-2009" HAS BEEN UTILIZED AS A TEXT OPTION FOR THIS SURVEY MAP.

USERS OF THIS SURVEY MAP ARE DIRECTED TO ACKNOWLEDGE THE CONTENT OF THE SURVEYOR'S REPORT.

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MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES

1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES, 2010

EMERGENCY GENERATORS-GROUP 2

PALM AIRE 3, RTU 443, 7583 WHITFIELD AVE.

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	402-5104282
SURVEY #	FDC: #0577-0006
SEC./TWN./RGE	34/35S/18E
SCALE	1"=5'

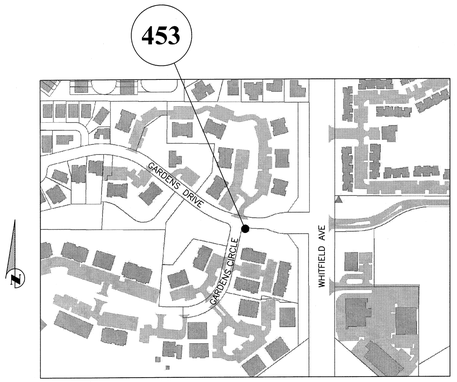
	BY	DATE
SURVEYED	FDC	4/29/09
DESIGNED	–	–
DRAWN	JSS	–
CHECKED	–	–

JOHN S. BROWN, P.E.
FLORIDA REG. NO. 60923
LICENSE No. 60923 STATE OF FLORIDA PROFESSIONAL ENGINEER
Signature Date

SHEET 8 OF 11

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Shore\Util Eng Design\Proj\~SAN SWR Proj\San Swr - LS Upgrades\EGens\2010 Egens\2010 LS EGen Group 2\DWGS\Active-2010 eGen Group 2.dwg\Palm Aire 3 (443), 9/10/2010 11:09 AM Sheet Shown, 1:1, ARCH full bleed D (36.00 x 24.00 inches)

CONTRACTOR SHALL REFERENCE SECTION 14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS FOR RECORD DRAWING REQUIREMENTS.



THE GARDENS @ PALMAIRE (RTU #453)
5790 GARDENS DR.

VICINITY MAP

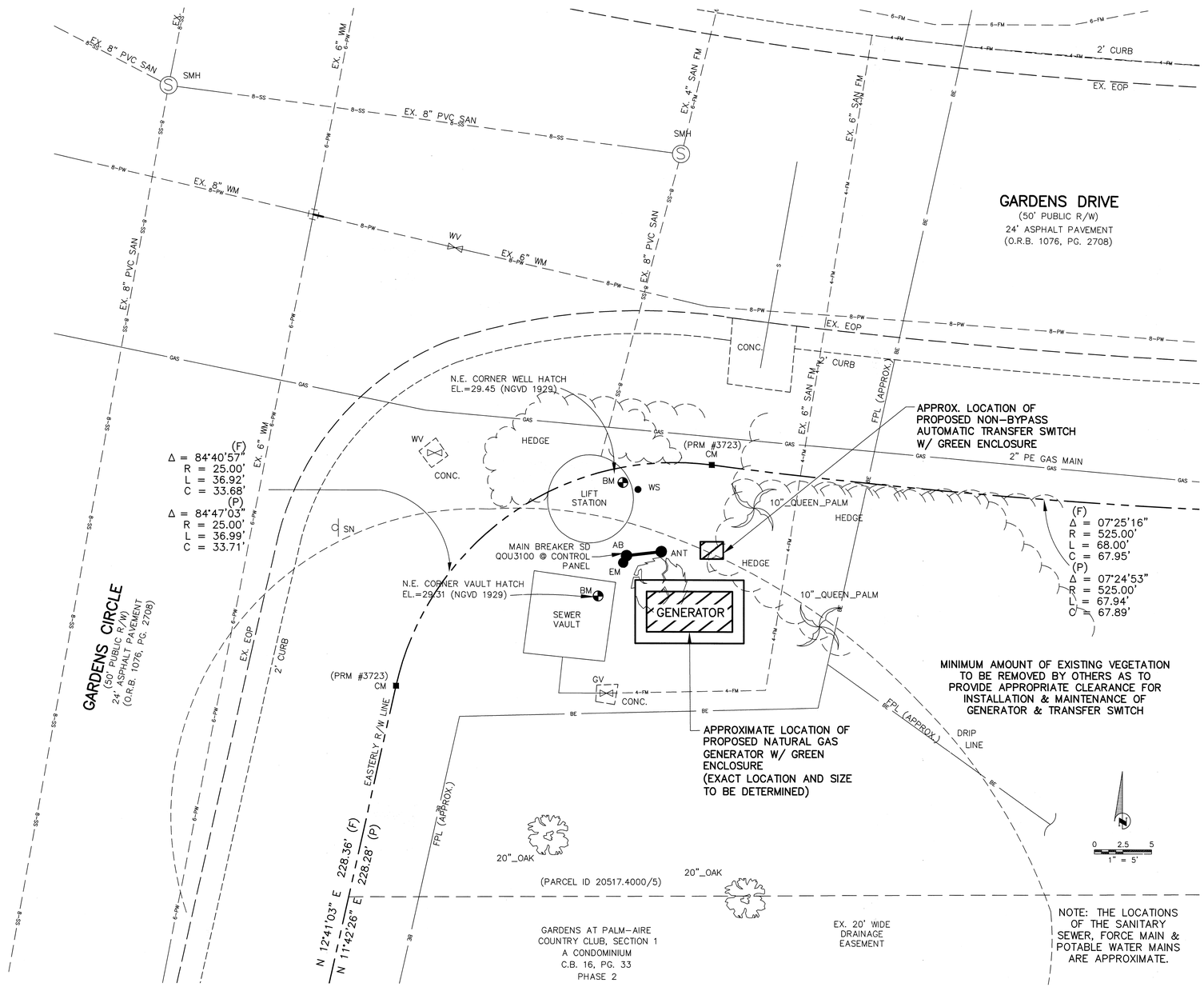
N.T.S.

NOTES:

1. BEARINGS ARE BASED ON THE EASTERLY RIGHT OF WAY OF GARDENS CIRCLE, HAVING A BEARING OF N 12°41'03" E, AND ARE BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM (WEST ZONE) NAD 83/90 DERIVED FROM MANATEE COUNTY GIS M 085 & M 088.
2. THE PROPERTY LIES WITHIN FLOOD ZONE "X" AS SHOWN ON MANATEE COUNTY FLOOD INSURANCE RATE MAP PANEL No. 120153 0365 C, REVISED, JULY 15, 1992.
3. ELEVATIONS ARE BASED ON N.G.V.D. 1929 DATUM, MANATEE COUNTY BENCH MARK No. "MANCO_BM-97-29-13", ELEVATION OF 25.62 AS PUBLISHED.
4. PROPERTY IS PART OF THE COMMON ELEMENTS FOR GARDENS AT PALM AIRE CONDOMINIUM, SECTION 1, PHASE 2, ACCORDING TO THE DECLARATION OF CONDOMINIUM RECORDED IN O.R. BOOK 1079, PAGE 577. THE DECLARATION GRANTS PERPETUAL NON-EXCLUSIVE EASEMENT TO ALL PUBLIC AND PRIVATE UTILITY COMPANIES FOR UTILITY SERVICES OVER THE COMMON ELEMENTS. SEE PARAGRAPH (c), PAGE 21.
5. NATURAL GAS SERVICE TO BE INSTALLED IN A CARRIER PIPE AND STRAPPED TO THE VALVE VAULT OR WET WELL, IF PASSING OVER FORCE MAIN OR DISCHARGE PIPING.
6. CONTRACTOR SHALL INSTALL NATURAL GAS SERVICE FROM PROPOSED GENERATOR TO NATURAL GAS METER/BALL VALVE PROVIDED BY TECO. CONTRACTOR SHALL REMOVE PLUG AT NATURAL GAS METER/BALL VALVE AND CONNECT TO NATURAL GAS SERVICE PROVIDED BY TECO.
7. ANY ELECTRICAL WIRING THAT IS INSTALLED BETWEEN THE LIFT STATION'S WET WELL AND VALVE VAULT SHALL BE INSTALLED IN A CARRIER PIPE THAT IS STRAPPED TO THE WET WELL OR VALVE VAULT.
8. THE OVERALL FUEL SYSTEM IS TO COMPLY WITH ALL APPLICABLE NFPA REGULATIONS AS WELL AS THOSE REQUIRED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION. THIS INCLUDES NFPA COMPLIANT LABELS FOR THE FUEL SHUT-OFF LOCATION AND APPLICATIONS OF DIESEL HAZMAT SYMBOL STICKERS.
9. INSTALL A 10# ABC FIRE EXTINGUISHER IN A WATERPROOF ENCLOSURE MOUNTED TO THE MAIN CONTROL CABINET SUPPORT POSTS AND INSTALL A KNOX LOCK ON THE ENCLOSURE FENCE GATE LOCKING CHAIN, IF APPLICABLE.

LEGEND:

CM	CONCRETE MONUMENT
R/W	RIGHT OF WAY LINE
ID	IDENTIFICATION
O.R.B.	OFFICIAL RECORD BOOK
C.B.	CONDOMINIUM BOOK
PG.	PAGE
(F)	FIELD DATA
(P)	PLAT DATA
CONC.	CONCRETE
PRM	PERMANENT REFERENCE MONUMENT
NGVD	NATIONAL GEODETIC VERTICAL DATUM
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
C	CHORD LENGTH
EL.	ELEVATION
WS	WATER SERVICE
ANT	ANTENNA
AB	ALARM BOX
GV	GATE VALVE
EM	ELECTRIC METER
BM	BENCH MARK
WV	WATER VALVE
SN	SIGN
SHM	SANITARY SEWER MANHOLE
FM	FORCE MAIN
RW	REUSE MAIN
PW	POTABLE WATER MAIN
EOP	EDGE OF PAVEMENT
SMH	SANITARY SEWER MANHOLE
SN	SIGN
WV	WATER LINE VALVE
GV	FORCE MAIN GATE VALVE
ANT	ANTENNA
AB	ALARM BOX
WS	WATER SERVICE
EM	ELECTRIC METER
BM	BENCH MARK
29.30	EXISTING SPOT ELEVATION
CM	CONCRETE MONUMENT FOUND AS NOTED



MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES

1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES, 2010
EMERGENCY GENERATORS-GROUP 2
THE GARDENS @ PALMAIRE, RTU #453, 5790 GARDENS DR.

NO.	REVISION DESCRIPTION	BY	DATE

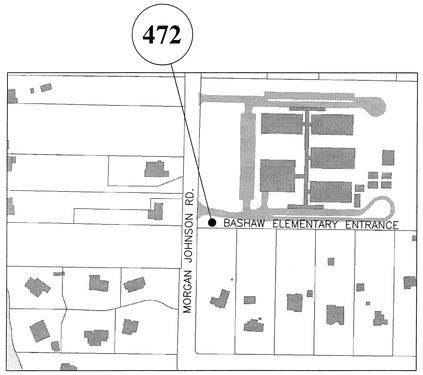
PROJECT #	402-5104281
SURVEY #	–
SEC./TWN./RGE	34/35S/18E
SCALE	1"=5'

	BY	DATE
SURVEYED	ZNS	4/30/09
DESIGNED	–	–
DRAWN	JSS	–
CHECKED	–	–

JOHN S. SHOUN, P.E.
FL. LICENSE No. 60923
JOHN S. SHOUN LICENSE No. 60923 STATE OF FLORIDA PROFESSIONAL ENGINEER
Date

SHEET 9 OF 11

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\FWD_Engineering_Share\Util Eng Design\Proj\-SAN SWR Proj\Sin Swr - LS Upgrades\EGens\2010 Egens\2010 LS EGen Group 2\DWGS\Active-2010 eGen Group 2.dwg,Gardens@PalmAire 3 (453), 9/10/2010 11:09 AM Shea Shoun, 1:1, ARCH full bleed D (36.00 x 24.00 inches)



BASHAW ELEMENTARY LS, RTU #472, 3603 57TH ST. E.

VICINITY MAP

N.T.S.

THIS IS NOT A BOUNDARY SURVEY.

A SEPARATE SURVEYOR'S REPORT TITLED "SPECIFIC PURPOSE SURVEY – MANATEE COUNTY, FLORIDA – LIFT STATION UPGRADES – 2009 EMERGENCY GENERATORS – WORK ASSIGNMENT # W0900069 – FDC JOB NUMBER 0577–0004 – LAST DATE OF FIELD WORK: 3–10–2009"HAS BEEN UTILIZED AS A TEXT OPTION FOR THIS SURVEY MAP.

USERS OF THIS SURVEY MAP ARE DIRECTED TO ACKNOWLEDGE THE CONTENT OF THE SURVEYOR'S REPORT.

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ABBREVIATIONS LEGEND

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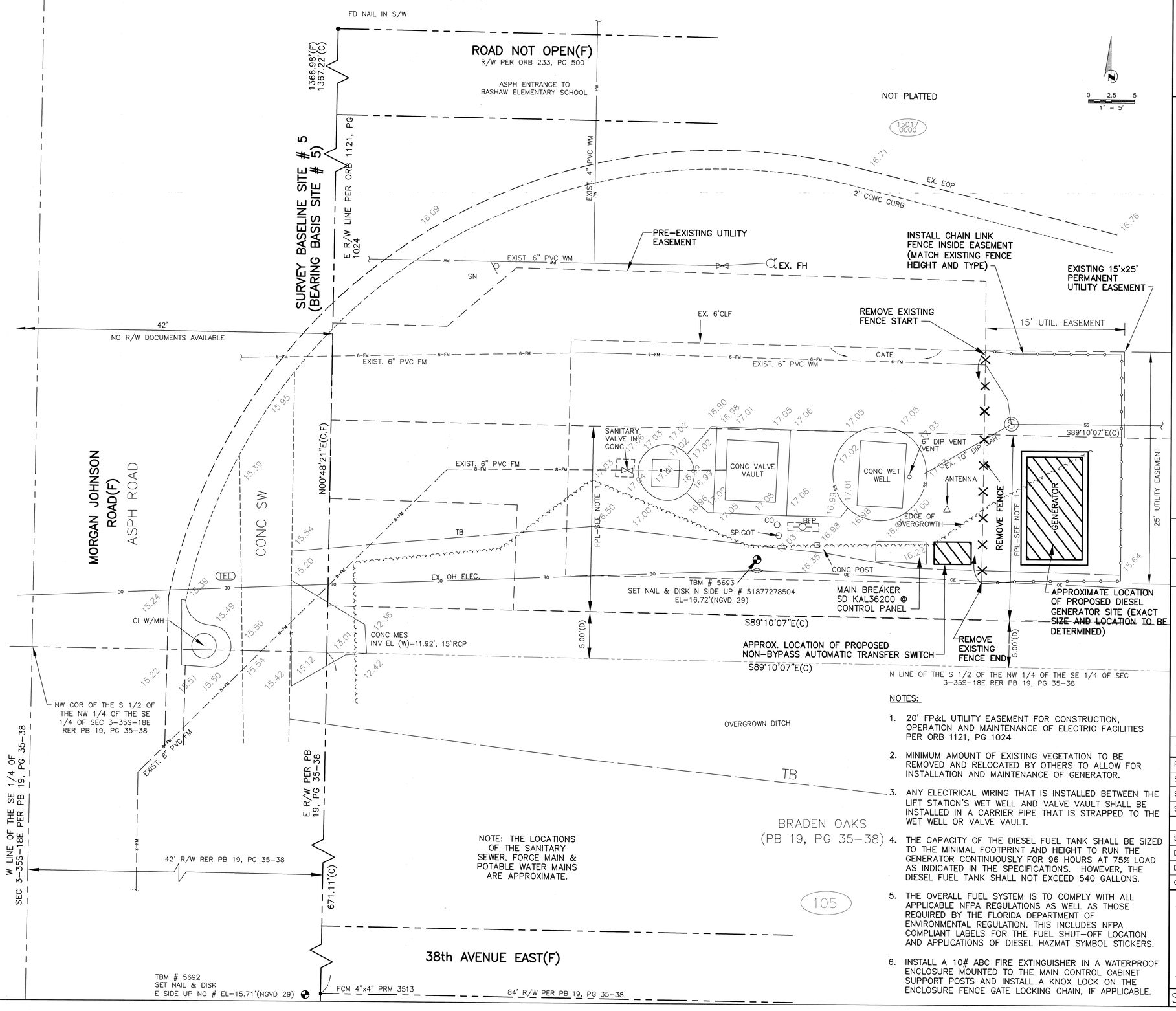
CMP	= Corrugated Metal Pipe
CONC	= Concrete
COR	= Corner
DIP	= Ductile Iron Pipe
DRWY	= Driveway
E	= East
EL	= Elevation
ELEC	= Electric
ERCP	= Elliptical Reinforced Concrete Pipe
(F)	= Field Data
FCM	= Found Concrete Monument
FIR	= Found Iron Rod and Cap
FD	= Found
FIP	= Found Iron Pipe
FT	= Feet
INV	= Invert
IR	= Iron Rod
LB	= Corporate Certification Number
LS	= Licensed Surveyor
LT	= Left
MH	= Manhole
N	= North
N&D	= Nail & Disk
NGVD	= National Geodetic Vertical Datum
ORB	= Official Record Book
PB	= Plat Book
PC	= Point of Curvature
PG	= Page(s)
PI	= Point of Intersection
PLS	= Professional Land Surveyor
PLTR	= Planter
PSM	= Professional Surveyor and Mapper
PT	= Point of Tangency \ Point
PVC	= Polyvinyl Chloride Pipe
RCP	= Reinforced Concrete Pipe
REF	= Reference
RLS	= Registered Land Surveyor
RT	= Right
R/W	= Right of Way
S	= South
SMH	= Sanitary Manhole
SND	= Set Nail and Disk
STA	= Station
SW	= Sidewalk
TBM	= Temporary Benchmark
VCP	= Vitrified Clay Pipe
VVH	= Verified Vertical and Horizontal
W	= West
W/	= With
xx°	= Degrees
xx'	= Minutes (Bearings)
xx"	= Seconds (Bearing)
xx'	= Feet (Distances)

CONTRACTOR SHALL REFERENCE SECTION 14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS FOR RECORD DRAWING REQUIREMENTS.



NOTES:

1. 20' FP&L UTILITY EASEMENT FOR CONSTRUCTION, OPERATION AND MAINTENANCE OF ELECTRIC FACILITIES PER ORB 1121, PG 1024
2. MINIMUM AMOUNT OF EXISTING VEGETATION TO BE REMOVED AND RELOCATED BY OTHERS TO ALLOW FOR INSTALLATION AND MAINTENANCE OF GENERATOR.
3. ANY ELECTRICAL WIRING THAT IS INSTALLED BETWEEN THE LIFT STATION'S WET WELL AND VALVE VAULT SHALL BE INSTALLED IN A CARRIER PIPE THAT IS STRAPPED TO THE WET WELL OR VALVE VAULT.
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MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES, 2010
EMERGENCY GENERATORS-GROUP 2
BASHAW ELEMENTARY SCHOOL, RTU #472, 3603 57TH ST. E.

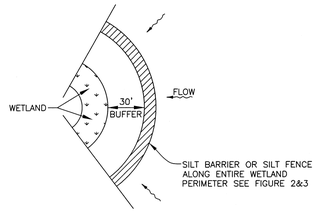
NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	402–6043580	
SURVEY #	0577–0004 FDC	
SEC./TWN./RGE	03/35E/18E	
SCALE	1"=5'	
	BY	DATE
SURVEYED	FDC	3/10/09
DESIGNED	CAB/JSS	–
DRAWN	JSS	–
CHECKED	–	–

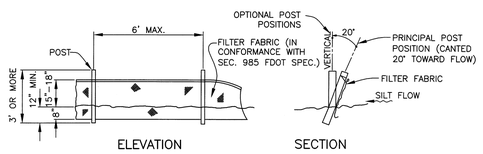
JOHN S. SHOUN, P.E.
FLORIDA LICENSE No. 66923
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Signature Date

SHEET 10 OF 11

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Shore\Util Eng Design\Proj\~SAN SWR Proj\San Svr – LS Upgrades\EGens\2010 Egens\2010 LS EGen Group 2\DWGS\Active–2010 eGen Group 2.dwg,Bashaw El Sc (472), 9/10/2010 11:09 AM Shea Shoun, 1:1, ARCH full bleed D (36.00 x 24.00 inches)

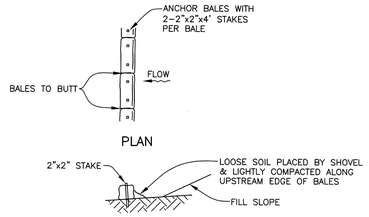


WETLAND BUFFER
FIGURE 1

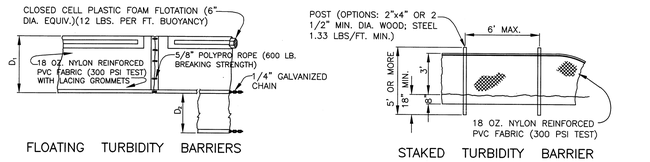


NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

TYPICAL SILT FENCE
FIGURE 2

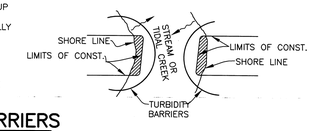


TYPICAL BALE SILT BARRIER
FIGURE 3

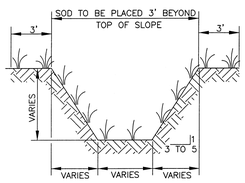


D_1 =5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS). D_2 =5' STD. (ADDITIONAL PANEL FOR DEPTHS > 5'). CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO(2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

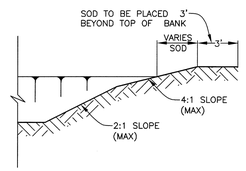
NOTICE: COMPONENTS OF TYPES **I** AND **II** MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES **I** AND **II** SHALL BE AS APPROVED BY THE ENGINEER.



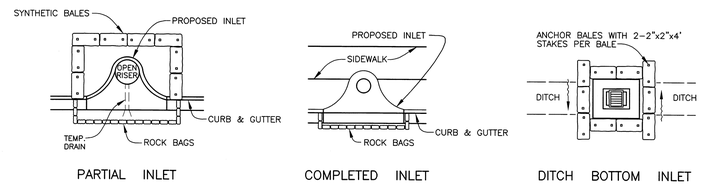
TURBIDITY BARRIERS
FIGURE 4



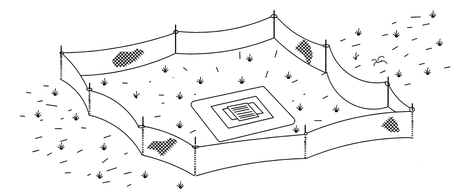
TYPICAL SWALE SECTION
FIGURE 5



TYPICAL RETENTION/DETENTION POND SECTION
FIGURE 6

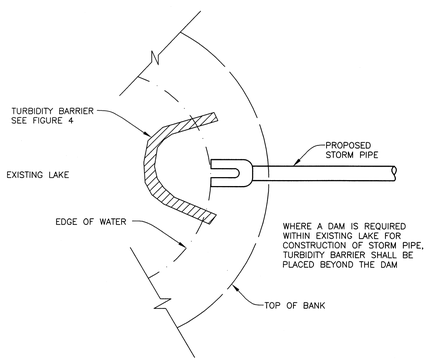


SYNTHETIC BALE PROTECTION AROUND INLETS OR SIMILAR STRUCTURES
FIGURE 7

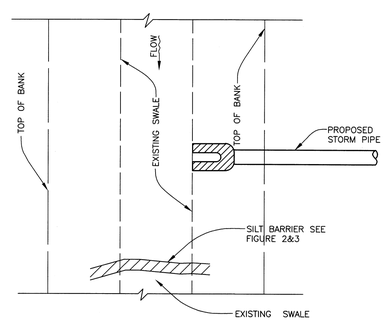


TYPE **III** SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

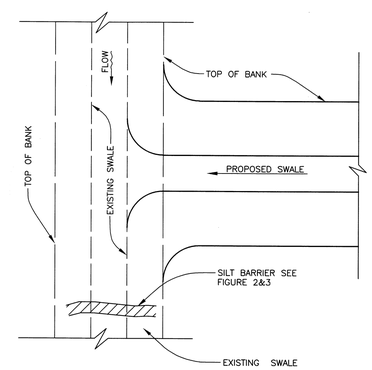
STAKED SILT BARRIER OR SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS
FIGURE 8



TURBIDITY BARRIER AT CONNECTION OF STORM PIPE TO EXISTING LAKE
FIGURE 9

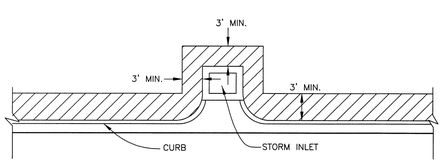


SILT BARRIER AT CONNECTION OF STORM PIPE TO EXISTING SWALE
FIGURE 10



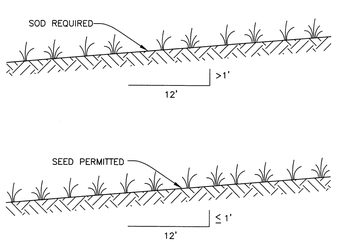
SILT BARRIER AT CONNECTION OF SWALE TO EXISTING SWALE
FIGURE 11

UNDERGROUND PIPE CROSSING
FIGURE 12

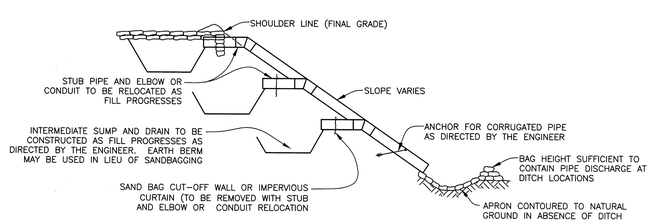


SOD ALONG CURB AND AROUND INLET
FIGURE 14

NOTE:
REFERENCE THE FDOT DESIGN STANDARDS LATEST EDITION FOR ALL TEMPORARY EROSION CONTROL MEASURES.

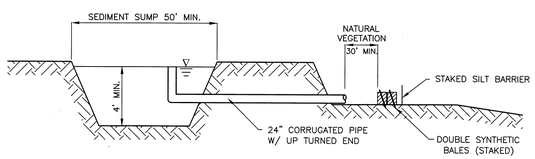


GRASS SLOPES
FIGURE 13



SECTION AA

TEMPORARY SLOPE DRAIN
FIGURE 15



SEDIMENT SUMP SECTION
FIGURE 16

MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES, 2010
EMERGENCY GENERATORS-GROUP 2
EROSION CONTROL

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	–
SURVEY #	–
SEC./TWN./RGE	–
SCALE	–

	BY	DATE
SURVEYED	–	–
DESIGNED	–	–
DRAWN	JSS	–
CHECKED	–	–

JOHN S. SHOUN, P.E.
LICENSE No. 60923
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Signature Date

SHEET 11 OF 11

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