# ENGINEERING PLANS FOR

# PELICAN REEF HOA DRAINAGE IMPROVEMENTS

ST. AUGUSTINE, FLORIDA

# PROJECT TEAM

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PELICAN REEF HOME OWNERS
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CONTACT: JASON FOREST

LAND OWNER

PELICAN REEF HOME OWNERS
ASSOCIATION

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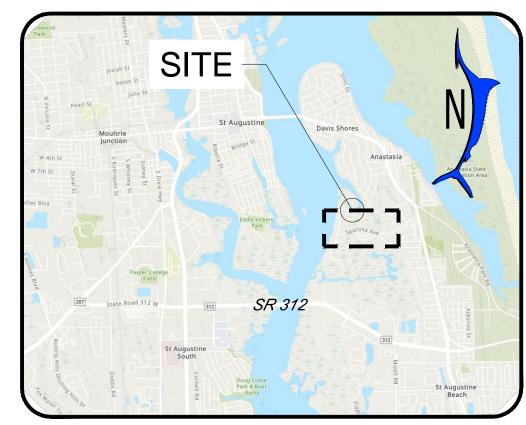
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# **UTILITY PROVIDERS**

# WATER AND SEWER

CITY OF ST AUGUSTINE PUBLIC WORKS DEPT. 75 KING STREET, 4TH FLOOR ST AUGUSTINE, FL 32084 PHONE: 904.209.4273 CONTACT: JONATHAN FOSTER, E.I.



**LOCATION MAP** 

SCALE: N.T.S.

# PREPARED FOR

OWNER NAME: **PELICAN REEF HOA**ADDRESS: 3942 A1A SOUTH
PHONE: (904) 501-04443
CONTACT: JASON FORREST

# PREPARED BY



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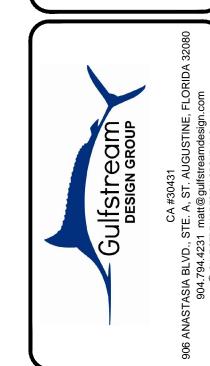
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ENGINEERING PLANS FOR
PELICAN REEF HOA
DRAINAGE IMPROVEMENT





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# **GENERAL NOTES:**

- 1. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH EACH NOTE LISTED WITHIN THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT EACH SUB CONTRACTOR IS FAMILIAR AND PRESENTLY AWARE OF THESE NOTES AND CONDITIONS AS ESTABLISHED BY GULFSTREAM DESIGN GROUP, LLC THROUGHOUT THE ENTIRE PLAN SET AS LISTED ON THE COVER SHEET OF THIS PLAN SET. THE CONTRACTOR IS ENCOURAGED TO THOROUGHLY REVIEW THIS PLAN PACKAGE TO BE FULLY PREPARED TO PROVIDE ACCURATE BID PRICES AND SERVICES.
- 2. THE CONTRACTOR IS ENCOURAGED TO THOROUGHLY REVIEW THIS PLAN PACKAGE TO BE FULLY PREPARED TO PROVIDE ACCURATE BID PRICES AND WRITTEN SCOPE OF SERVICES FOR THE OWNER.
- 3. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR IS VERIFY IN WRITING WITH THE ENGINEER OF RECORD THAT THE DOCUMENTS BEING UTILIZED IN THE FIELD ARE INDEED THE MOST CURRENT AND ACCURATE VERSIONS. ADDITIONALLY, THE GEOTECHNICAL REPORT CORRESPONDING TO THIS PLAN SET IS A REQUIRED CONSTRUCTION DOCUMENT, MEANING THE ENGINEERING DESIGN PLANS AND RECOMMENDATIONS AS DESCRIBED IN THE REPORT SHALL TAKE PRECEDENCE UNLESS OTHERWISE NOTED. THE CONTRACTOR WILL PROVIDE THE ENGINEER OF RECORD IN WRITING WITH A TENTATIVE SCHEDULE OF CONSTRUCTION ACTIVITIES.
- 4. PRIOR TO THE AWARD OF THE CONTRACT, THE CONTRACTOR SHALL ACQUAINT HIMSELF WITH ALL SITE CONDITIONS BOTH ABOVE AND BELOW GROUND. THE CONTRACTOR SHOULD ADDITIONALLY ENSURE HE IS PROPERLY FAMILIARIZED WITH ALL MATERIALS REFERENCED FOR USE WITHIN THIS PLAN AND IN ACCORDANCE WITH ALL APPLICABLE STANDARDS AND CODE SECTION(S) THAT APPLY TO THIS PROJECT.
- 5. THE ENGINEER OF RECORD AND THE OWNER ASSUME NO RESPONSIBILITY IN THE SUPERVISION OR INSPECTION OF THE WORK INVOLVED IN THE EXECUTION OF THIS CONTRACT BEYOND OBSERVATION TO INSURE, TO THE OWNER'S SATISFACTION, THAT THE DRAWINGS AND SPECIFICATIONS ARE BEING PROPERLY INTERPRETED. THIS OBSERVATION AND CHECKING WILL NOT RELIEVE. THE CONTRACTOR OF ANY RESPONSIBILITY FOR THE PERFORMANCE OF HIS WORK IN ACCORDANCE WITH THE DRAWINGS AND THE SPECIFICATIONS.
- 6. THE CONTRACTOR SHALL EXERCISE CARE IN DIGGING AND OTHER WORK SO AS NOT TO DAMAGE EXISTING FEATURES, INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPES, UTILITIES, CONDUITS, SPRINKLERS, CONTROL CABLES AND HYDRANTS OF WATERING SYSTEMS, SURVEY BENCHMARKS/PROPERTY MONUMENTS, ETC. SHOULD ANY OVERHEAD OR UNDERGROUND OBSTRUCTION BE ENCOUNTERED WHICH INTERFERES WITH CONSTRUCTION, THE ENGINEER OF RECORD SHALL BE CONSULTED AND WILL HAVE THE OPPORTUNITY TO ADJUST THE LOCATION OF CONFLICT ITEMS TO CLEAR SUCH OBSTRUCTIONS.
- 7. CONTRACTOR SHALL CONTACT THE APPLICABLE FRANCHISE UTILITY COMPANY (IE: AT&T, TECO GAS, FP&L, ETC. AS APPLICABLE) AND COORDINATE ANY CONSTRUCTION IN ADVANCE OF COMMENCING CONSTRUCTION.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIR OF ANY DAMAGE CAUSED BY HIS WORK AT NO COST TO THE OWNER. ADDITIONALLY, THE CONTRACTOR SHOULD ENSURE THAT EXISTING STRUCTURES TO REMAIN ARE RESTORED TO THEIR ORIGINAL CONDITION, INCLUDING: PAVEMENTS, CONCRETES, LANDSCAPING, DRAINAGE, AND UTILITIES. THE CONTRACTOR SHALL TAKE PHOTOGRAPHS AND OR VIDEO FOOTAGE OF THE SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION TO ENSURE PROPER DOCUMENTATION OF PRE CONSTRUCTIONS CONDITIONS OF THE SITE AND TO AID IN ANY POSSIBLE CONFLICTS DURING CONSTRUCTION. THIS INFORMATION SHOULD BE PROVIDED TO THE ENGINEER OF RECORD AND OWNER.
- 9. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF ST. AUGUSTINE LAND DEVELOPMENT CODE OR THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), WHICHEVER IS MORE RESTRICTIVE.
- 10. ALL WORK WITHIN THE CITY OF ST. AUGUSTINE RIGHT OF WAY MUST CONFORM TO MOST CURRENT LAND DEVELOPMENT CODE & STANDARDS AND SPECIFICATIONS.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITIES TO REMAIN AND COORDINATING THE RELOCATION (IF REQUIRED) OF EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF DAMAGES TO EXISTING UTILITIES. IF UTILITIES OR OTHER IMPROVEMENTS NOT SHOWN ON THE DRAWINGS ARE FOUND DURING EXCAVATIONS, CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER OF RECORD IN WRITING AND THE OWNER'S REPRESENTATIVE FOR INSTRUCTIONS AS TO FURTHER ACTION. FAILURE TO DO SO WILL MAKE CONTRACTOR LIABLE FOR ANY AND ALL DAMAGE ARISING FROM HIS OPERATIONS SUBSEQUENT TO DISCOVERY OF SUCH UTILITIES NOT SHOWN ON DRAWINGS.
- 12. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER OF RECORD, ANY EXTRA WORK REQUESTED BY ANY REGULATORY AGENCY THAT IS NOT SHOWN ON THE PLANS. THIS EXTRA WORK MUST BE APPROVED BY THE ENGINEER OF RECORD IN WRITING AND THE OWNER BEFORE THE CONTRACTOR PROCEEDS WITH THE EXTRA WORK. ADDITIONALLY, THE CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, AND NOTIFY THE ENGINEER OF RECORD IN WRITING REGARDING ANY POTENTIAL CONFLICTS. THIS IS RECOMMENDED TO BE COMPLETED IN THE FORM OF FIELD STAKEOUT WHICH MAY INCLUDE: LOCATIONS OF BUILDINGS/BUILDING ELEMENTS (TO BE VERFIED THROUGH ENGINEER OF RECORD AND APPROVED ARCHITECTURAL PLANS), EDGE OF PAVEMENT, UTILITY STUB OUT LOCATIONS, ETC.
- 13. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL PERFORM SITE CLEAN-UP OPERATION FOR REMOVAL AND DISPOSAL OF ALL TRASH, DEBRIS, PIPE, EXCESS MATERIAL AND EQUIPMENT OFFSITE.
- 14. THE CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY, INCLUDING BENCHMARKS, TO OWNER AS REQUIRED BY THECITY OF ST. AUGUSTINE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND ENGINEER. THE AS-BUILT SURVEY SHALL BE CERTIFIED BY A PROFESSIONAL LAND SURVEYOR. ENGINEER TO PROVIDE ENGINEER'S CERTIFICATION TO OWNER WITH AS-BUILT PLANS.
- 15. IN THE EVENT THAT UNEXPECTED ARCHEOLOGICAL RESOURCES ARE ENCOUNTERED DURING GROUND DISTURBING ACTIVITIES, ALL WORK SHALL HALT AND THE ENGINEER OF RECORD'S OFFICE SHALL BE CONTACTED IMMEDIATELY IN WRITING.
- 16. ALL MATERIALS AND LABOR ASSOCIATED ITEMS ARE TO BE WARRANTED BY THE CONTRACTOR FOR A TIME PERIOD OF ONE (1) CALENDAR YEAR UPON THE ACCEPTANCE OF THE PROJECT BY THE OWNER AND ALL APPLICABLE GOVERNMENT AGENCIES.
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, INSURANCES, LICENSES PERTAINING TO THE WORK ILLUSTRATED IN THIS PLAN SET.
- 18. ANY POTENTIAL DISCREPANCIES WITHIN THIS PLAN SET THAT THE CONTRACTOR FINDS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY IN WRITING.
- 19. ALL DISTURBED AREA WITHIN THE CITY OF ST. AUGUSTINE 'S RIGHT-OF-WAY WILL BE RESTORED TO ORIGINAL OR BETTER CONDITION BY GRADING AND SODDING THE AREA DISTURBED (BERMUDA IN RURAL, CENTIPEDE IN UTILITY STRIPS).
- 20. THE ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY IN REGARDS TO CONSTRUCTION METHODS AND PROCEDURES EXERCISED BY THE CONTRACTOR. IT IS ASSUMED BY THE ENGINEER OF RECORD THAT THE CONTRACTOR SHALL OPERATE WITHIN THE BOUNDARIES OF ALL APPLICABLE SAFETY STANDARDS (REGARDING TRENCHING AND EXCAVATION OPERATIONS) WITH THE BEST INTEREST OF ALL EMPLOYEES TAKEN INTO CONSIDERATION. CONTRACTORS MUST CARRY THE REQUIRED STATUTORY LIABILITY AND WORKERS COMPENSATION INSURANCE. THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR UPHOLDING ANY OF THESE ITEMS. THE OWNER IS THE ONLY ENTITY WHICH MAY CHOOSE TO TAKE ACTION REGARDING THESE ITEMS. GULFSTREAM DESIGN GROUP DOES NOT HAVE THE AUTHORITY TO RELIEVE THE CONTRACTOR OF HIS DUTIES DUE TO VIOLATIONS OF THESE POLICIES.

- 21. THE USE OF THE WORD "CERTIFY" WITHIN THIS ENGINEERING PLAN SET, IMPLIES AN EXPRESSION OF "PROFESSIONAL OPINION" REGARDING THE SUBJECT TOPIC. THIS HOWEVER, DOES NOT CONSTITUTE A GUARANTEE OR WARRANTY (EXPRESSED OR IMPLIED)
- 22. BURNING OF ANY MATERIAL OR DEBRIS ONSITE IS PROHIBITED.
- 23. ALL ADJACENT PROPERTY OWNERS AND BUSINESSES ARE TO BE PROVIDED ACCESS TO THEIR SITE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.
- 24. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTORS FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS. IF THE CONTRACTOR AND/OR OWNER FAIL BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD THE ENGINEER OF RECORD HARMLESS FOR ALL INJURIES AND DAMAGES THAT THE ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS.

# CLEARING/DEMOLITION AND EROSION CONTROL NOTES:

- 1. AREAS ADJACENT TO THE PROJECT AREA ARE TO BE PROTECTED AND LEFT UNDISTURBED UNLESS NOTED OTHERWISE ON THE CONSTRUCTION DOCUMENTS.
- 2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL PROTECTIVE VEGETATION BARRICADES AND EROSION CONTROL STRUCTURES AND MEASURES IN PLACE PRIOR TO THE COMMENCEMENT OF ANY EARTHWORK, INCLUDING PRELIMINARY GRUBBING. THESE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, TEMPORARY CONSTRUCTION FENCES, FILTER FABRIC, SILT FENCES AND FLOATING TURBIDITY BARRIERS. FURTHER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL EROSION CONTROL DEVICES THROUGHOUT THE DURATION OF THE ENTIRE PROJECT. MAINTENANCE SHALL INCLUDE PERIODIC INSPECTION AND REMOVAL OF DEBRIS ABUTTING EROSION CONTROL DEVICES.
- 3. PRIOR TO THE INSTALLATION OF ANY FILL MATERIALS ON SUBJECT SITE, SILT FENCES SHALL BE INSTALLED (1) ALONG SUBJECT SITE BOUNDARY AND PROPERTY LINES, (2) AT THE EDGE OF CONSERVATION EASEMENTS AND WETLANDS, (3) ADJACENT TO NATURAL LANDSCAPE BUFFERS, (4) AROUND THE PERIMETER OF EXISTING STORM WATER TREATMENT FACILITIES AND (5) AT ANY ADDITIONAL AREAS THAT THE CITY OF ST. AUGUSTINE DEEMS NECESSARY TO BE PROTECTED FROM POTENTIAL EROSION IMPACTS DURING CONSTRUCTION. THESE CONDITIONS SHALL APPLY IN ALL INSTANCES WHERE FILL MATERIAL IS BEING INSTALLED WITHIN 25 FEET OF ANY OF THE AFOREMENTIONED LOCATIONS. WHILE THESE ITEMS REPRESENT THE MINIMUM REQUIREMENTS, THE FDEP AND SJRWMD RESERVE THE RIGHT TO IMPOSE ADDITIONAL PROTECTIVE MEASURES, AS DETERMINED DURING ACTUAL SITE VISITS CONDUCTED THROUGHOUT PROJECT CONSTRUCTION.
- 5. PRIOR TO AND DURING LAND CLEARING ACTIVITIES ALL PRESERVED TREES (AS PER THE CITY OF ST. AUGUSTINE APPROVED PLANS) WILL BE CLEARLY MARKED. THIS INCLUDES "TREE PROTECTION BARRICADES" WHICH SHALL REMAIN IN PLACE UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES. "TREE PROTECTION BARRICADES" SHALL BE INSTALLED AT THE DRIP LINE OF THE SUBJECT TREE. ANY PROPOSED ACTIVITIES WITHIN THIS DRIP LINE MUST BE APPROVED BY THE APPLICABLE GOVERNMENT AGENCY
- 6. ONLY SUPPORTIVE LANDSCAPING ELEMENTS MAY BE ATTACHED TO PRESERVED OR PLANTED TREES, NO SIGNAGE, PERMITS, AND OR STAKES MAY BE ATTACHED TO A TREE ON THE SUBJECT PROPERTY.
- 7. ANY TREE THAT IS DAMAGED DURING THE TIME OF CONSTRUCTION SHALL BE CONSIDERED "REMOVED" AND SHALL BE REPLACED BY THE CONTRACTOR WITH NO COST TO THE OWNER.
- 8. THE REMOVAL OF ALL VEGETATION AND TOPSOIL ON THE FUTURE ROADWAY, PARKING AND BUILDING LOT AREAS IS REQUIRED TO BE COMPLETED PRIOR TO THE PLACEMENT OF FILL ON THESE AREAS. THE TOPSOIL MAY BE TEMPORARILY STOCKPILED AND USED AS TOPSOIL OVER PROPOSED GREEN AREAS SUCH AS PLANT BEDS, SODDED AREAS AND WHERE TREES ARE TO BE INSTALLED OR RELOCATED.
- 9. ALL FILL MATERIALS LOCATED BENEATH STRUCTURES AND PAVEMENT SHALL CONSIST OF CLEAN GRANULAR SAND FREE FROM ORGANICS AND SIMILAR MATERIAL THAT COULD DECOMPOSE.
- 10. FILL MATERIAL IS TO BE PLACED IN ONE FOOT LIFTS AND COMPACTED TO THE APPROPRIATE DENSITY UNDER SUPERVISION OF LICENSED GEOTECHNICAL ENGINEER.
- 11. IF ANY UNSUITABLE MATERIAL IS DISCOVERED, IT SHALL BE REQUIRED TO BE REMOVED AND REPLACED WITH A SUITABLE MATERIAL THAT IS PROPERLY BACKFILLED, COMPACTED AND TESTED USING AASHTO T-180 MODIFIED PROTECTOR METHOD AND AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER OF RECORD.
- 12. ALL EXISTING CATCH BASINS ADJACENT TO THE SITE SHALL BE COVERED WITH FILTER FABRIC TO PREVENT SEDIMENTS FROM ENTERING THE SYSTEM. THE FILTER FABRIC SHALL BE INSPECTED AND MAINTAINED DAILY THROUGHOUT THE DURATION OF CONSTRUCTION.
- 13. THE CONTRACTOR IS REQUIRED TO USE THE RECOMMENDATIONS FROM THE GEOTECHNICAL ENGINEER ON THE PROJECT FOR FINAL FILL COMPACTION AND DENSITY SPECIFICATIONS THROUGHOUT THE PROJECT.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING AN EROSION CONTROL AND DEWATERING PLAN 14 DAYS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE. THE PROPOSED PLANS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CRITERIA SET FORTH IN THE FDOT STANDARD SPECIFICATIONS FOR ROADS, FDEP LAND DEVELOPMENT MANUAL, AND SJRWMD APPLICANTS HANDBOOK.
- 15. EROSION CONTROL AND SEDIMENTATION CONTROL DEVICES SHALL BE IN PLACE PRIOR TO BEGINNING CONSTRUCTION. THEY SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION AND AS STRUCTURES AND ELEMENTS ARE ADDED TO THE PROJECT SITE. STAKEOUT MUST BE PERFORMED UNDER SUPERVISION OF A LICENSED SURVEYOR IN THE STATE OF FLORIDA.
- 16. SILT FENCE TO BE INSTALLED ALONG THE CLEARING LIMITS. GRAPHICAL REPRESENTATION OF CLEARING LIMITS AND SILT FENCE IS EXAGGERATED FOR PICTORIAL PURPOSES ONLY.
- 17. SILT FENCE TO BE PLACED AROUND THE PERIMETER OF THE ENTIRE SITE TO BE CLEARED.
- 18. WHERE MUCK OR OTHER ORGANIC MATERIAL IS REMOVED, IT SHALL BE REPLACED BY GOOD QUALITY BACKFILL MATERIAL OBTAINED FROM THE GRADING OPERATIONS OR OTHER SOURCE APPROVED IN WRITING BY THE ENGINEER OF RECORD (GULFSTREAM) AND THE GEOTECHNICAL ENGINEER OF RECORD (YOVIASH). THE ORGANIC MATERIAL SHALL BE THEN USED AS TOP DRESSING WHEN MIXED WITH CLEAN BACKFILL SOIL AND APPROVED BY THE OWNER AND ENGINEER.
- 19. CONTRACTOR SHALL SOD ALL DISTURBED AREAS UNLESS OTHERWISE NOTED.
- 20. CONTRACTOR MUST REFER TO STORM WATER POLLUTION PREVENTION PLAN ON SHEET 3.3 AND ABIDE BY ALL CONDITIONS.
- 21. WITHIN 48 HOURS PRIOR TO CLEARING, THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE NPDES NOTICE OF COMMENCEMENT AND NOTICE OF TERMINATION APPLICATIONS TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. CONTRACTOR SHALL PROVIDE A COPY OF THESE DOCUMENTS TO THE OWNER AND THE ENGINEER OF RECORD AS WELL AS A COPY OF THE NOTICE LETTER PROVIDED BY THE FDEP. PLEASE CONTACT NPDES STORMWATER NOTICES CENTER, MS#2510, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, 2600 BLAIR STONE ROAD, TALLAHASSEE, FL 32399-2400 FOR FURTHER INFORMATION.

- 22. ALL EXISTING CURB AND GUTTER AND SIDEWALK SHOWN TO BE REMOVED, WILL BE REMOVED AND REPLACED JOINT TO JOINT.
- 23. THE OVERALL PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED, CONTRACTORS BID SHOULD INCLUDE THE ANTICIPATED COST OF THIS ITEM.

## SITE LAYOUT NOTES:

- 1. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- 2. CONTRACTOR TO LAYOUT EACH AREA OF WORK TO CHECK DIMENSIONING PRIOR TO CONSTRUCTION AND COORDINATE WITH OTHER DISCIPLINES. SHOULD ANY DISCREPANCIES EXIST, CONTRACTOR TO NOTIFY IN WRITING, THE OWNER'S REPRESENTATIVE AND THE ENGINEER OF RECORD IMMEDIATELY.
- 3. CONTRACTOR TO COORDINATE ANY OFF-SITE IMPROVEMENTS WITH THE CITY OF ST. AUGUSTINE 7 DAYS PRIOR TO CONSTRUCTION.
- 4. WHERE RETAINING WALLS (WHETHER OR NOT THEY MEET THE JURISDICTIONAL DEFINITION) ARE IDENTIFIED ON PLANS, ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTINGS/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS AND/OR EXISTING EASEMENTS BEFORE BEGINNING CONSTRUCTION.

# ADA GUIDANCE TO CONTRACTOR:

- 1. CONTRACTORS MUST EXERCISE CARE AND PRECISION WHEN CONSTRUCTING ADA (HANDICAP) ACCESSIBLE COMPONENTS OF THE PRESCRIBED WORK AS PERTAINING TO THIS PLAN SET. THESE COMPONENTS MUST COMPLY WITH THE CURRENT ADA STANDARDS AT THE TIME OF PLAN APPROVAL. THESE ITEMS WHICH MUST COMPLY INCLUDE BUT ARE NOT LIMITED TO:
- 1.1. PARKING SPACES AND AISLES 1.1.1. SLOPE SHALL NOT EXCEED 1:50 (2%) IN ANY DIRECTION

# 2. CURB RAMPS

1.2.1. SLOPE SHALL NOT EXCEED 1:12 (8.3%) FOR A MAXIMUM OF SIX (6) FEET

# . LANDINGS -

1.3.1. MUST BE AT EACH END OF RAMPS, PROVIDE POSITIVE DRAINAGE, AND MUST NOT EXCEED 1:50 (2%) IN ANY DIRECTION.

# 1.4. PATH OF TRAVEL ALONG ACCESSIBLE ROUTE -

1.4.1. MUST PROVIDE A 36-INCH OR GREATER UNOBSTRUCTED WIDTH OF A VEHICLE. THIS SLOPE MUST BE NO GREATER THAN 5% IN THE DIRECTION OF TRAVEL (LONGITUDINAL), AND MUST NOT EXCEED 2% IN CROSS SLOPE. WHERE PATH OF TRAVEL WILL BE GREATER THAN 5%, ADA RAMP MUST ADHERE TO A MAXIMUM SLOPE OF 8.3%, FOR A MAXIMUM RISE OF 2.5 FEET, MUST BE PROVIDED. THE RAMP MUST ALSO INCLUDE ADA HANDRAILS AND LEVEL LANDINGS ON EACH END THAT ARE CROSS SLOPED NO MORE THAN 2% IN ANY DIRECTION.

# .5. DOORWAYS -

- 1.5.1. MUST HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED AWAY FROM THE DOOR NO MORE THAN 2% TO ENSURE POSITIVE DRAINAGE. THIS LANDING AREA MUST BE NO LESS THAN 5 FEET LONG, UNLESS OTHERWISE PERMITTED BY ADA STANDARDS FOR ALTERNATIVE DOORWAY OPENING DESIGN.
- 9. WHEN THE PROPOSED CONSTRUCTION INVOLVES REMEDIATION OF CONSTRUCTION ACTIVITIES REGARDING ADA COMPONENTS FROM EXISTING DOORWAYS OR SURFACES, CONTRACTOR MUST VERIFY ELEVATIONS SHOWN ON PLAN. REFER TO THE MOST RECENT VERSION OF THE ADA CODE TO CONFIRM DESIGN REQUIREMENTS. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF RECORD OF ANY CONFLICTS AND OR DISCREPANCIES IN THE FIELD THAT DIFFER FROM WHAT IS ILLUSTRATED ON THE PLAN SET, IN WRITING, BEFORE THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. ALL CONSTRUCTION IMPROVEMENTS MUST MEET ALL REQUIREMENTS SET FORTH BY THE MOST RECENT VERSION OF ADA REQUIREMENTS.
- 10. CONTRACTOR MUST VERIFY SLOPES PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES. IF THERE ARE ANY NON-CONFORMANCES THAT EXIST, THE CONTRACTOR MUST NOTIFY THE ENGINEER OF RECORD IN WRITING IMMEDIATELY.
- 11. IT IS ENCOURAGED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION WITH THE LOCAL BUILDING CODES AND FIELD INSPECTOR AFTER STAGING AND BEFORE COMMENCEMENT OF CONSTRUCTION.

# ENGINEERING PLANS FOR PELICAN REEF HOA DRAINAGE IMPROVEMENT GENERAL NOTES





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# PAVING, GRADING, AND DRAINAGE NOTES:

- 1. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN CENTERLINE OF DRAINAGE STRUCTURES AND TO END OF MITERED END SECTIONS.
- 2. ALL HP, HDPE OR RCP PIPE JOINTS TO BE WRAPPED WITH 4" WIDE "TYPE R" STRIPS OR EQUAL. PIPE ABBREVIATIONS ARE DEFINED AS FOLLOWS:

PVC = POLYVINYL CHLORIDE PIPE RCP = REINFORCED CONCRETE PIPE HDPE = HIGH DENSITY POLYETHYLENE

HP = HIGH PERFORMANCE

- 3. ALL PIPING SHALL MEET MINIMUM SLOPE REQUIREMENTS FOR THEIR SPECIFIC TYPE. AT A MINIMUM THE FOLLOWING SHOULD BE MET THROUGHOUT THE
- a. RCP SHALL BE A MINIMUM OF 0.30% b. PVC SHALL BE A MINIMUM OF 0.80%
- c. HDPE SHALL BE A MINIMUM OF 0.80%
- 4. DRAINAGE PIPING NOT LOCATED IN PAVED AREAS CAN BE PVC SDR-26 OR HDPE N-12 EQUIVALENT. STRUCTURES TO BE ADJUSTED ACCORDINGLY DEPENDING ON PIPE MATERIAL CHOSEN. THE CONTRACTOR MUST SUBMIT A REQUEST IN WRITING AND OBTAIN APPROVAL FROM THE OWNER AND THE ENGINEER OF RECORD BEFORE ANY SUBSTITUTIONS ARE ALLOWED.
- 5. UNLESS OTHERWISE STATED, ALL STORM SEWER PIPE MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SILT TIGHT JOINTS. WHEN HIGH-DESNSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT MUST CONFORM TO AASHTO M249 AND TYPE-S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILT TIGHT JOINT(S). PVC PIPE FOR ROOF DRAIN CONNECTION(S) MUST BE SDR 26 OR SCHEDULE 80 UNLESS INDICATED OTHERWISE. PVC PIPE AND FITTINGS MUST CONFORM TO ASTM D 3034, SDR 35, WITH PUSH ON OR RUBBER GASKETS. NO MATERIAL SUBSTITUTES WILL BE ALLOWED.
- 6. INSTALLATION OF PIPE SHOULD OCCUR ON A MINIMUM OF 8" STABILIZED MATERIAL FREE OF JAGGED MATERIAL. BACKFILL MATERIAL SHALL BE WELL GRADED AND MEET COVER VALUES AS SHOWN ON THE APPLICABLE PLAN SHEETS. STORM SEWER PIPES SHOULD BE PROTECTED BY A MINIMUM OF 18" OF FILL DURING CONSTRUCTION. DRAINAGE FROM OFFSITE ENTERING THE SITE VIA DITCH OR AN OPEN CUT PIPE MUST BE ACCOMMODATED FOR AND NOT HINDERED DURING CONSTRUCTION ACTIVITIES. CONTRACTOR TO UTILIZE ALL NECESSARY EQUIPMENT TO ENSURE POSITIVE DRAINAGE.
- 7. ALL NON-PAVED DISTURBED AREAS TO BE SODDED AND STABILIZED WITHIN 7 DAYS OF THE DISTURBANCE UNLESS OTHERWISE NOTED.
- 8. ALL PAVEMENT RETURN RADII SHALL BE MEASURED FROM THE INTERFACE OF THE CONCRETE CURB AND PAVEMENT SURFACE UNLESS OTHERWISE NOTED.
- 9. DITCH BOTTOM AND CONTROL STRUCTURE INLET GRATES SHALL BE SEATED PROPERLY.
- 10. FIVE FEET OF SOD IS REQUIRED AROUND ALL DITCH BOTTOM INLETS, MANHOLES, HEADWALLS, ETC.
- 11. THE STORM DRAINAGE SYSTEM SHALL BE FREE OF DIRT, SAND AND DEBRIS PRIOR TO FINAL ACCEPTANCE.
- 12. MITERED END SECTIONS SHALL CONFORM TO FDOT INDEX #430-022. MITERED END SECTIONS IN PONDS SHALL CONFORM TO FDOT INDEX #430-021. DITCH BOTTOM INLETS SHALL CONFORM TO FDOT INDEX #425-052. STORM MANHOLES SHALL CONFORM TO FDOT INDEX #425-001.
- 13. THE CONTRACTOR IS TO COORDINATE THE CONFLICT POINTS AT UTILITY INTERFACES AROUND THE SITE. CLEARANCES SHOULD BE MET IN ACCORDANCE WITH FDEP RULES AND PER THE CITY OF ST. AUGUSTINE STANDARDS NOTED IN THIS PLAN SET.
- 15. STORM STRUCTURES WITH PIPES THAT EXCEED THE SIZING FOR TYPE C INLETS TO BE CONSTRUCTED WITH ALTERNATE BOTTOMS WITH MINIMUM DIAMETER TO ACCOMMODATE PIPE SIZES AND/OR PIPE ANGLES PER FOOT INDEX NO. 425-010 AND 425-001 - TYPE J BOTTOM.
- 16. NYLOPLAST OR EQUAL SHALL BE USED WHERE NOTED AND SHALL ACCOMMODATE THE PIPE SIZING AND ANGLES NOTED. SHOULD THEY NOT BE ABLE TO BE ACCOMMODATED, THEN A TYPE 'C' INLET SHALL BE SUBSTITUTED AT NO ADDITIONAL CHARGE TO THE OWNER.
- 17. PAVEMENT SHALL BE PLACED IN TWO EQUAL LIFTS. THE SECOND LIFT SHOULD BE PLACED AFTER THE FINAL CERTIFICATE OF OCCUPANCY UNLESS THE OWNER IS THE ENGINEER OF RECORD REQUESTS OTHERWISE IN WRITING
- 18. ALL DISTURBED AREA THAT WILL BE EXPOSED FOR MORE THAN 7 DAYS REQUIRE EROSION CONTROL, TO ADDRESS RAIN DRIVEN AND WIND BLOWN SEDIMENT.
- 19. GULFSTREAM WILL REVIEW OR TAKE APPROPRIATE ACTION AS PERTAINING TO CONTRACTOR SUBMITTALS INCLUDING BUT NOT LIMITED TO: SHOP DRAWINGS, RFI, PRODUCT SAMPLES, FIELD DATA, ETC. GULFSTREAM WILL NOT BE REQUIRED TO PERFORM A COMPLETE REVIEW ON A SUBMITTAL WHICH IS CONSIDERED TO BE "INCOMPLETE" BY THE ENGINEER OF RECORD. SUCH SUBMITTAL WILL BE REJECTED IN WRITING AND RETURNED TO THE CONTRACTOR.
- 20. THE CONTRACTOR IS TO SUBMIT A PROPOSED JOINTING PATTERN TO THE OWNER AND GEOTECHNICAL ENGINEER OF RECORD FOR APPROVAL PRIOR TO PLACEMENT OF ANY CONCRETE PAVEMENT.
- 21. THE CONTRACTOR SHALL PROVIDE AN EXPANSION JOINT AT ABUTMENT OF CONCRETE AND ANY STRUCTURE.
- 22. THE CONTRACTOR IS THE RESPONSIBLE PARTY FOR MAINTAINING THE STORM DRAINAGE SYSTEMS UNTIL FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER.
- 23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE REQUIRED TESTING WITH THE GEOTECHNICAL ENGINEER. TESTING IS REQUIRED IN ACCORDANCE WITH THE TESTING SCHEDULE FOUND ON THIS SHEET UPON COMPLETION OF THE WORK, THE GEOTECHNICAL ENGINEER OF RECORD SHALL SUBMIT CERTIFICATES TO THE CIVIL ENGINEER OF RECORD AND THE OWNER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.
- 24. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTORS FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS. IF THE CONTRACTOR AND/OR OWNER FAIL BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD THE ENGINEER OF RECORD HARMLESS FOR ALL INJURIES AND DAMAGES THAT THE ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS.

# STRIPING AND SIGNAGE NOTES:

- 1. ALL SIGNAGE AND STRIPING SHALL BE IN ACCORDANCE WITH FDOT ROADWAY AND TRAFFIC DESIGN STANDARD, LATEST EDITION.
- 2. ALL GROUND MOUNTED STOP, YIELD, WRONG WAY, DO NOT ENTER SIGN FACES SHALL BE FABRICATED ENTIRELY WITH TYPE "B" REFLECTIVE SHEETING.
- 3. ALL PAVEMENT MARKINGS ARE TO BE PAINTED WITH THERMOPLASTIC PAINT IN ACCORDANCE WITH FDOT STANDARDS UNLESS OTHERWISE NOTED ON THE PLANS.
- 4. FOR SIGN DETAILS REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PUBLISHED BY U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, LATEST EDITION.
- 5. ALL PAVEMENT MARGINS TO BE IN ACCORDANCE WITH FDOT INDEX NO. 711-001. THE CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING TEMPORARY PAVEMENT MARKINGS UNTIL THE FINAL SURFACE COURSE HAS CURED (MINIMUM THIRTY (30) DAYS AFTER FINAL SURFACE COURSE PAVEMENT).
- 6. ALL TRAFFIC CONTROL SIGNS MUST BE IN ACCORDANCE WITH MUTCD STANDARDS AND SPECIFICATIONS (LATEST EDITION VALID AT TIME OF PLAN APPROVAL) AND SHALL BE FABRICATED USING 3M BRAND "SCOTOLITE" SHEETING (HIGH INTENSITY GRADE) ON MINIMUM .080 GA ALUMINUM BLANKS. ALL 36" X 48" SIGNS SHALL BE .100 GA MINIMUM AND SHALL BE INSTALLED USING 3" X 12' ROUND ALUMINUM POSTS. ALL STOP SIGNS SHALL BE 36" OCTAGONAL INSTALLED ON 12', 3 LB/FT "U" CHANNEL POSTS ON 3"X12' ROUND ALUMINUM POSTS. "U" CHANNEL POSTS MAY BE USED FOR ALL SIGNS SMALLER THAN 36" X 48". ALL WARNING SIGNS SHALL BE 30"X 30". ALL SPEED LIMIT SIGNS SHALL BE 24" X 30".
- 7. SIGN PLACEMENT SHOWN IN PLANS IS APPROXIMATE. FINAL LOCATION SHALL BE AS DIRECTED BY ENGINEER, INSPECTOR(S) AND OWNER.
- 8. REMOVAL OF EXISTING STRIPING SHALL BE ACCOMPLISHED USING THE "HYDRO-BLAST" METHOD. IF THIS PROCESS DAMAGES/SCARS PAVEMENT, THEN THE

PAVEMENT SHALL BE MILLED AND RESURFACED PER LATEST EDITION FDOT STANDARDS AND SPECIFICATIONS.

- 9. ALL DIRECTIONAL ARROWS SHALL BE PLACED AS ONE CONTINUOUS APPLICATION.
- 10. ALIGNMENT OF PROPOSED PAVEMENT MARKINGS SHALL MATCH EXISTING PAVEMENT MARKINGS AT PAVEMENT MARKING LIMITS OF CONSTRUCTION.
- 11. ALL EXISTING CURB AND GUTTER AND SIDEWALK SHOWN TO BE REMOVED, WILL BE REMOVED AND REPLACED JOINT TO JOINT.
- 12. ALL BROKEN/CRACKED DRIVEWAYS MUST BE FULLY REMOVED AND REPLACED.

# **OVERALL UTILITY NOTES:**

- 1. PROJECT LIES WITHIN CITY OF ST. AUGUSTINE UTILITY DEPARTMENT SERVICE AREA.
- 2. THE PROJECT LIES WITHIN TICO GAS SERVICE AREA.
- 3. WORK DIRECTLY IMPACTING HERITAGE GAS MAINS SHALL BE COORDINATED AS REQUIRED AND CONFORM TO HERITAGE GAS STANDARD SPECIFICATIONS AND DETAILS (LATEST EDITION).
- 4. ALL WATER, SEWER AND REUSE WORK TO CONFORM TO THE CITY OF ST. AUGUSTINE WATER AND SEWER STANDARDS, SPECIFICATIONS AND DETAILS (LATEST EDITION). PLEASE NOTE THAT WORK DIRECTLY IMPACTING CITY OF ST. AUGUSTINE UTILITIES SHALL BE COORDINATED AS REQUIRED AND CONFORM TO THE CITY OF ST. AUGUSTINE DESIGN SPECIFICATIONS AND DETAILS (LATEST EDITION).
- 5. COORDINATE UTILITY SIZE AND SERVICE LOCATION WITH ARCHITECT AND MEP PLANS.
- 6. ALL CONNECTIONS TO SERVICE LINES TO BE ON SITE SIDE OF BACKFLOW OR CLEANOUT DEPENDING ON LINE TYPE.
- 7. CLEAN-OUTS SHALL BE INSTALLED SO THAT THEY ARE ACCESSIBLE FOR MAINTENANCE.
- 8. CLEAN-OUTS LOCATED IN WALKWAY SHALL BE INSTALLED WITH ADA COMPLIANT FLUSH MOUNT COVER. CLEAN-OUTS IN PAVED AREAS SHALL BE CONSTRUCTED WITH TRAFFIC RATED BOX AND COVER.
- 9. ALL ABANDONED UTILITIES FOUND WITHIN THE CITY OF ST. AUGUSTINE RIGHT OF WAY AND NOT SHOWN ON THESE PLAN SHEETS ARE TO BE REMOVED AND PROPERLY DISPOSED OF AT THE EXPENSE OF THE CONTRACTOR PER CITY OF ST. AUGUSTINE AND FDEP STANDARDS.
- 10. ALL PRIMARY AND SECONDARY ELECTRICAL LOCATIONS ARE NOT SHOWN HEREON. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATION AND COST WITH LAND OWNER AND ELECTRICAL COMPANY. ADDITIONALLY, THE CONTRACTOR SHOULD VERIFY THE THE LOCATION AND COST OF ANY IRRIGATION
- 11. CONTRACTOR SHALL PROVIDE TRANSFORMER PAD TO ALLOW FOR INSTILLATION FROM POWER COMPANY.
- 12. REFERENCE ARCHITECTURAL AND MEP PLANS FOR ALL UTILITY SERVICE CONNECTION POINTS.

## OVERALL TESTING NOTES:

- 1. THE CONTRACTOR SHALL UTILIZE THE SERVICES OF A THIRD PARTY TESTING LABORATORY TO CONDUCT ALL REQUIRED TESTS ON SUBGRADE, BASE, AND SURFACE COURSE MATERIALS. TEST RESULTS MAY BE SUBMITTED PRIOR TO ANY REQUEST FOR PAYMENT RELATING TO THE SITE CONSTRUCTION SCOPE AGREED UPON BY ALL APPLICABLE PARTIES.
- 2. SCHEDULE OF ROAD CONSTRUCTION TESTING SHALL BE AS FOLLOWS:
- 2.1.1. BEARING VALUE TESTS SHALL BE TAKEN AT INTERVALS OF NO MORE THAN 200 LINEAR FEET
- 2.2.1. DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NO MORE THAN 500 LINEAR FEET.
- 3. ALL TESTING SHALL BE TAKEN IN A STAGGERED PATTERN WITHIN THE EDGE OF PAVEMENT BOUNDARY.
- 4. IF ANY SAMPLES SHOULD BE EXAMINED AS "UNSATISFACTORY" PER THE STANDARDS OF THE GEOTECHNICAL ENGINEER OF RECORD, THE AREA OF CONCERN SHALL BE REWORKED AT THE CONTRACTORS EXPENSE. THIS IS UNTIL THE LEVEL OF "SATISFACTION" IS MET.
- 5. ALL PASSING TESTS SHALL BE PAID FOR BY THE OWNER, AND ALL FAILING TESTS SHALL BE PAID FOR BY THE CONTRACTOR

TEST ITEM:	TEST(S) TO BE PERFORMED:	TESTING METHOD(S):	REQUIREMENT:	TESTING INTERVAL:
EMBANKMENT	MAXIMUM DENSITY/OPTIMUM MOISTURE FIELD DENSITY	<ul> <li>AASHTO T180</li> <li>ASTM D1557</li> <li>AASHTO T191,T204,T238</li> <li>ASTM D1556, D2937, D2922</li> </ul>	95% OF MAXIMUM DENSITY	ONE PER 2,000 SF HORIZONTALLY (ALTERNATING LIFTS 6 INCHES)
UTILITY TRENCH BACKFILL (LOCATED BENEATH DRIVE AISLES/BUILDINGS)	MAXIMUM DENSITY/OPTIMUM MOISTURE FIELD DENSITY	<ul> <li>AASHTO T180</li> <li>ASTM D1557</li> <li>AASHTO T191,T204,T238</li> <li>ASTM D1556, D2937, D2922</li> </ul>	95% OF MAXIMUM DENSITY	EVERY 150 LF OF PIPE FROM CONNECTOR.
BACKFILL OF STRUCTURES	MAXIMUM DENSITY/OPTIMUM MOISTURE FIELD DENSITY	<ul> <li>AASHTO T180</li> <li>ASTM D1557</li> <li>AASHTO T191,T204,T238</li> <li>ASTM D1556, D2937, D2922</li> </ul>	95% OF MAXIMUM DENSITY	PER SOIL TYPE: EVERY 6" VERTICALLY FROM 6" BELOW THE STRUCTURE.
SUBGRADE	BEARING VALUES	LBR - FDOT	SEE TYPICAL PAVEMENT SECTION	ONE PER SOURCE     ONE PER 500 HORIZONTAL LF
	MAXIMUM DENSITY/OPTIMUM MOISTURE FIELD DENSITY AND THICKNESS	<ul> <li>AASHTO T180</li> <li>ASTM D1557</li> <li>AASHTO T191,T238</li> <li>ASTM D1556, D2922</li> </ul>	SEE TYPICAL PAVEMENT SECTION	ONE PER 2,000 SF HORIZONTALLY     ONE PER SOURCE
BASE	BEARING VALUES	LBR - FDOT	SEE TYPICAL PAVEMENT SECTION	ONE PER SOURCE     ONE PER 500 HORIZONTAL LF
	MAXIMUM DENSITY/OPTIMUM MOISTURE FIELD DENSITY AND THICKNESS	<ul> <li>AASHTO T180</li> <li>ASTM D1557</li> <li>AASHTO T191,T238</li> <li>ASTM D1556, D2922</li> </ul>	SEE TYPICAL PAVEMENT SECTION	ONE PER 2,000 SF HORIZONTALLY     ONE PER SOURCE
	GRADATION	• AASHTO T27, T96	SEE TYPICAL PAVEMENT SECTION	ONE PER SOURCE     ONE PER 2,000 SF     HORIZONTALLY
	ATTERBERG LIMIT	<ul><li>AASHTO T90,</li><li>ASTM C136, D423, D424</li></ul>	SEE TYPICAL PAVEMENT SECTION	ONE PER SOURCE
ASPHALTIC CONCRETE	MATERIALS QUALITY BITUMEN CONTENT, GRADATION FIELD DENSITY.	<ul><li>AASHTO T164</li><li>ASTM D2172</li></ul>	PER GEOTECHNICAL SPECIFICATIONS	ONE PER DAY, PER INSTILLATION
	FIELD DENSITY	• ASTM 02950-81	PER SPECIFICATIONS 98% OF LAB DENSITY	ONE PER DAY     ONE EVERY 2,000 LF     HORIZONTALLY
	LOS ANGELES ABRASION THICKNESS	<ul><li>AASHTO T98-77</li><li>ASTM C131-81</li></ul>	PER SPECIFICATIONS	ONE PER SOURCE     ONE PER 2,000 LF     HORIZONTALLY

ASTM-D2922-FIELD DENSITY-(NUCLEAR)

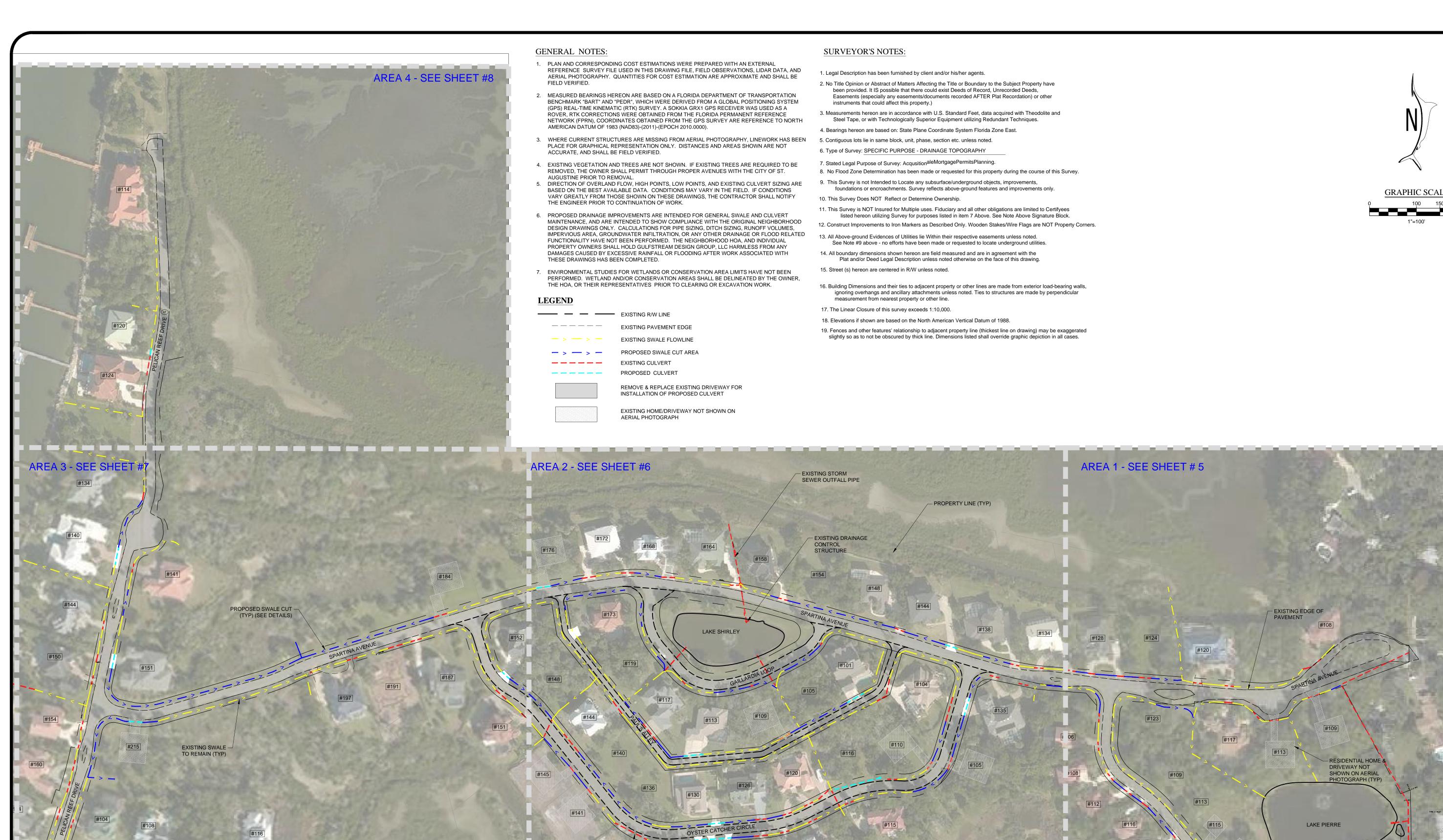
FDOT LBR-LIME ROCK BEARING RATION

- ASTM-D424-ATTERBERG LIMITS-(PLASTI XXX ) AASHTO-T180-FIELD DENSITY-(STANDARD PROCTOR) AASHTO-T164-ASPHALT BINDER-(HOT MIX ASPHALT)
- AASHTO-T96-77-DEGRADATION-(LOS ANGELES MACHINE) AASHTO-T191-FIELD DENSITY-(SAND CONE)
- 1. CONTRACTOR WILL ADHERE TO THE SPECIFIC RECOMMENDATION OF THE GEOTCHENICAL ENGINEER OF RECORD.





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- 1. PLAN AND CORRESPONDING COST ESTIMATIONS WERE PREPARED WITH AN EXTERNAL REFERENCE SURVEY FILE USED IN THIS DRAWING FILE, FIELD OBSERVATIONS, LIDAR DATA, AND AERIAL PHOTOGRAPHY. QUANTITIES FOR COST ESTIMATION ARE APPROXIMATE AND SHALL BE
- 2. MEASURED BEARINGS HEREON ARE BASED ON A FLORIDA DEPARTMENT OF TRANSPORTATION BENCHMARK "BART" AND "PEDR", WHICH WERE DERIVED FROM A GLOBAL POSITIONING SYSTEM (GPS) REAL-TIME KINEMATIC (RTK) SURVEY. A SOKKIA GRX1 GPS RECEIVER WAS USED AS A ROVER, RTK CORRECTIONS WERE OBTAINED FROM THE FLORIDA PERMANENT REFERENCE NETWORK (FPRN), COORDINATES OBTAINED FROM THE GPS SURVEY ARE REFERENCE TO NORTH AMERICAN DATUM OF 1983 (NAD83)-(2011)-(EPOCH 2010.0000).
- 3. WHERE CURRENT STRUCTURES ARE MISSING FROM AERIAL PHOTOGRAPHY, LINEWORK HAS BEEN PLACE FOR GRAPHICAL REPRESENTATION ONLY. DISTANCES AND AREAS SHOWN ARE NOT ACCURATE, AND SHALL BE FIELD VERIFIED.
- 4. EXISTING VEGETATION AND TREES ARE NOT SHOWN. IF EXISTING TREES ARE REQUIRED TO BE REMOVED, THE OWNER SHALL PERMIT THROUGH PROPER AVENUES WITH THE CITY OF ST.
- 5. DIRECTION OF OVERLAND FLOW, HIGH POINTS, LOW POINTS, AND EXISTING CULVERT SIZING ARE BASED ON THE BEST AVAILABLE DATA. CONDITIONS MAY VARY IN THE FIELD. IF CONDITIONS VARY GREATLY FROM THOSE SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONTINUATION OF WORK.
- PROPOSED DRAINAGE IMPROVEMENTS ARE INTENDED FOR GENERAL SWALE AND CULVERT MAINTENANCE, AND ARE INTENDED TO SHOW COMPLIANCE WITH THE ORIGINAL NEIGHBORHOOD DESIGN DRAWINGS ONLY. CALCULATIONS FOR PIPE SIZING, DITCH SIZING, RUNOFF VOLUMES, IMPERVIOUS AREA, GROUNDWATER INFILTRATION, OR ANY OTHER DRAINAGE OR FLOOD RELATED FUNCTIONALITY HAVE NOT BEEN PERFORMED. THE NEIGHBORHOOD HOA, AND INDIVIDUAL PROPERTY OWNERS SHALL HOLD GULFSTREAM DESIGN GROUP, LLC HARMLESS FROM ANY DAMAGES CAUSED BY EXCESSIVE RAINFALL OR FLOODING AFTER WORK ASSOCIATED WITH THESE DRAWINGS HAS BEEN COMPLETED.
- ENVIRONMENTAL STUDIES FOR WETLANDS OR CONSERVATION AREA LIMITS HAVE NOT BEEN PERFORMED. WETLAND AND/OR CONSERVATION AREAS SHALL BE DELINEATED BY THE OWNER, THE HOA, OR THEIR REPRESENTATIVES PRIOR TO CLEARING OR EXCAVATION WORK.

— — — EXISTING R/W LINE EXISTING PAVEMENT EDGE EXISTING SWALE FLOWLINE PROPOSED SWALE CUT AREA

**EXISTING DRIVEWAY -**

**EXISTING CULVERT** PROPOSED CULVERT

> REMOVE & REPLACE EXISTING DRIVEWAY FOR INSTALLATION OF PROPOSED CULVERT

EXISTING HOME/DRIVEWAY NOT SHOWN ON AERIAL PHOTOGRAPH

LAKE SHIRLEY

# SURVEYOR'S NOTES:

- 1. Legal Description has been furnished by client and/or his/her agents.
- 2. No Title Opinion or Abstract of Matters Affecting the Title or Boundary to the Subject Property have been provided. It IS possible that there could exist Deeds of Record, Unrecorded Deeds, Easements (especially any easements/documents recorded AFTER Plat Recordation) or other instruments that could affect this property.)
- 3. Measurements hereon are in accordance with U.S. Standard Feet, data acquired with Theodolite and Steel Tape, or with Technologically Superior Equipment utilizing Redundant Techniques.
- 4. Bearings hereon are based on: State Plane Coordinate System Florida Zone East.
- 5. Contiguous lots lie in same block, unit, phase, section etc. unless noted.
- 6. Type of Survey: SPECIFIC PURPOSE DRAINAGE TOPOGRAPHY
- 7. Stated Legal Purpose of Survey: AcqusitionaleMortgagePermitsPlanning. 8. No Flood Zone Determination has been made or requested for this property during the course of this Survey.
- 9. This Survey is not Intended to Locate any subsurface/underground objects, improvements, foundations or encroachments. Survey reflects above-ground features and improvements only.
- 10. This Survey Does NOT Reflect or Determine Ownership.
- 11. This Survey is NOT Insured for Multiple uses. Fiduciary and all other obligations are limited to Certifyees listed hereon utilizing Survey for purposes listed in item 7 Above. See Note Above Signature Block.
- 12. Construct Improvements to Iron Markers as Described Only. Wooden Stakes/Wire Flags are NOT Property Corners.
- 13. All Above-ground Evidences of Utilities lie Within their respective easements unless noted. See Note #9 above - no efforts have been made or requested to locate underground utilities.
- 14. All boundary dimensions shown hereon are field measured and are in agreement with the Plat and/or Deed Legal Description unless noted otherwise on the face of this drawing. 15. Street (s) hereon are centered in R/W unless noted.
- 16. Building Dimensions and their ties to adjacent property or other lines are made from exterior load-bearing walls,
- measurement from nearest property or other line. 17. The Linear Closure of this survey exceeds 1:10,000.

- EXISTING STORM SEWER OUTFALL PIPE

- EXISTING DRAINAGE

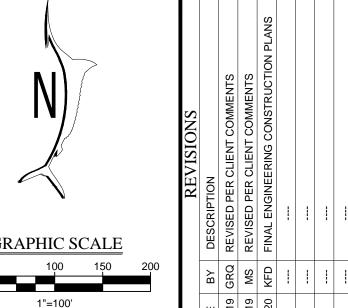
STRUCTURE

PROPOSED DRIVEWAY CULVERT INSTALLATION

- 18. Elevations if shown are based on the North American Vertical Datum of 1988.
- 19. Fences and other features' relationship to adjacent property line (thickest line on drawing) may be exaggerated slightly so as to not be obscured by thick line. Dimensions listed shall override graphic depiction in all cases.

PROPERTY LINE (TYP)

ignoring overhangs and ancillary attachments unless noted. Ties to structures are made by perpendicular







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AREA 1 - SEE SHEET # 5 - EXISTING EDGE OF PAVEMENT

> RESIDENTIAL HOME SHOWN ON AERIAL PHOTOGRAPH (TYP)

LAKE PIERRE



# **LEGEND**

EXISTING R/W LINE

— — — — EXISTING PAVEMENT EDGE

-> --> -- EXISTING SWALE FLOWLINE
 -> --> -- PROPOSED SWALE CUT AREA

EXISTING CULVERT
PROPOSED CULVERT

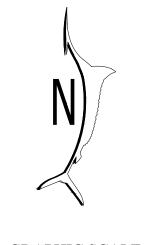
REMOVE & REPLACE EXISTING DRIVEWAY FOR INSTALLATION OF PROPOSED CULVERT

EXISTING HOME/DRIVEWAY NOT SHOWN ON AERIAL PHOTOGRAPH

APPROXIMATE LOCATION OF ROADWAY HIGH POINT

APPROXIMATE LOCATION OF ROADWAY LOW POINT

APPARENT/PLANNED RUNOFF OUTFALL POINT



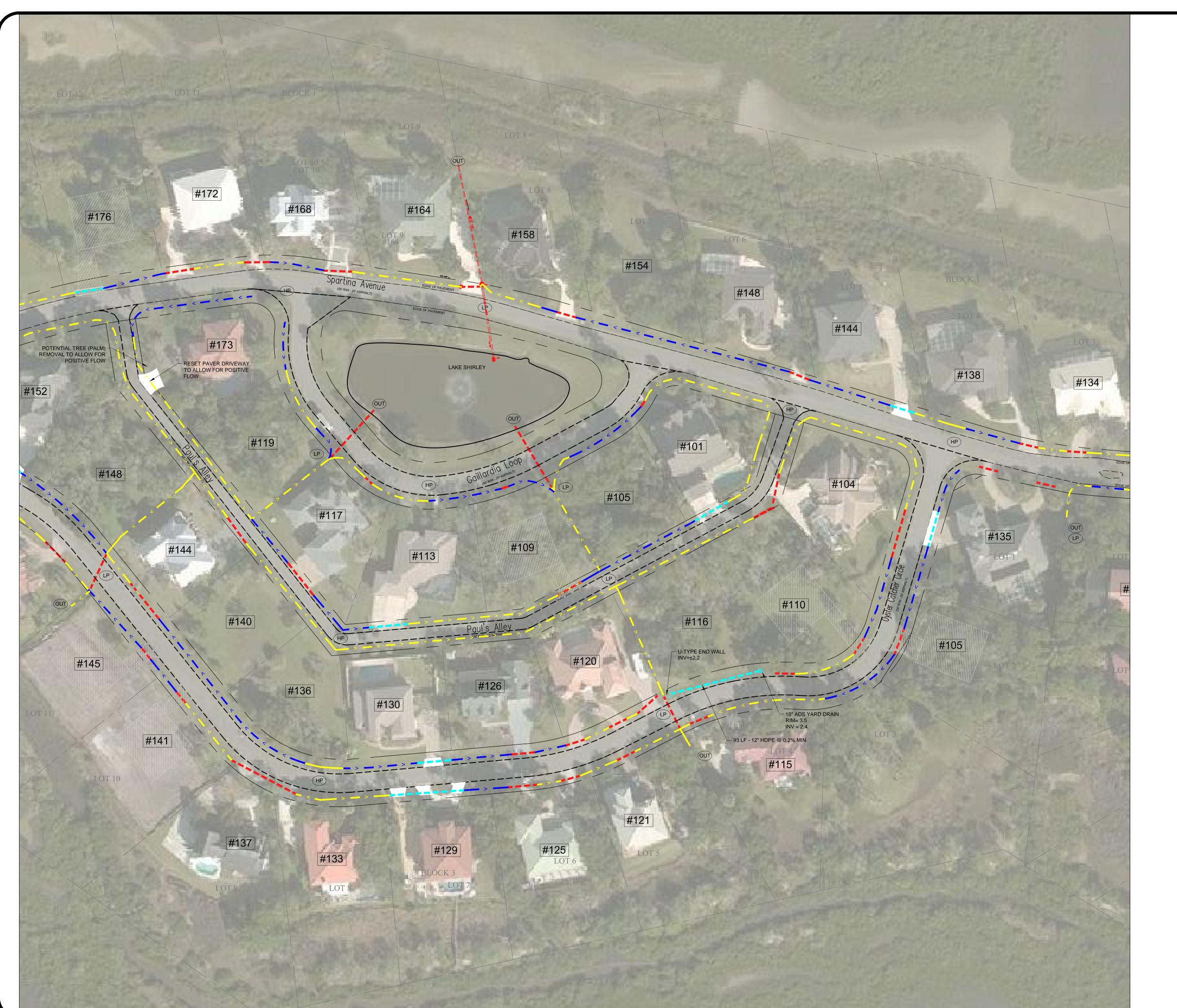
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1"=50'							

	PELICAN REEF HOA RAINAGE IMPROVEME	SLICAN REEF HONAGE IMPROVEN		REEF PROV		HOA HOA EME	
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# **LEGEND**

EXISTING PAVEMENT EDGE EXISTING SWALE FLOWLINE PROPOSED SWALE CUT AREA

EXISTING CULVERT

EXISTING R/W LINE

PROPOSED CULVERT REMOVE & REPLACE EXISTING DRIVEWAY FOR INSTALLATION OF PROPOSED CULVERT

EXISTING HOME/DRIVEWAY NOT SHOWN ON AERIAL PHOTOGRAPH

LP

OUT

APPROXIMATE LOCATION OF ROADWAY HIGH POINT APPROXIMATE LOCATION OF ROADWAY LOW POINT

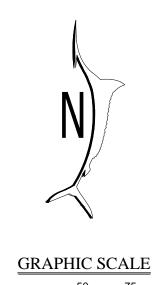
APPARENT/PLANNED RUNOFF OUTFALL POINT





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— — — EXISTING R/W LINE

EXISTING PAVEMENT EDGE EXISTING SWALE FLOWLINE

PROPOSED SWALE CUT AREA EXISTING CULVERT

PROPOSED CULVERT REMOVE & REPLACE EXISTING DRIVEWAY FOR INSTALLATION OF PROPOSED CULVERT

EXISTING HOME/DRIVEWAY NOT SHOWN ON AERIAL PHOTOGRAPH



APPROXIMATE LOCATION OF ROADWAY HIGH POINT



APPROXIMATE LOCATION OF ROADWAY LOW POINT



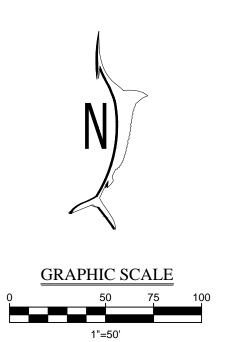
APPARENT/PLANNED RUNOFF OUTFALL POINT





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# **LEGEND**

EXISTING PAVEMENT EDGE EXISTING SWALE FLOWLINE PROPOSED SWALE CUT AREA EXISTING CULVERT PROPOSED CULVERT REMOVE & REPLACE EXISTING DRIVEWAY FOR INSTALLATION OF PROPOSED CULVERT EXISTING HOME/DRIVEWAY NOT SHOWN ON AERIAL PHOTOGRAPH APPROXIMATE LOCATION OF ROADWAY HIGH POINT APPROXIMATE LOCATION OF ROADWAY LOW POINT

OUT

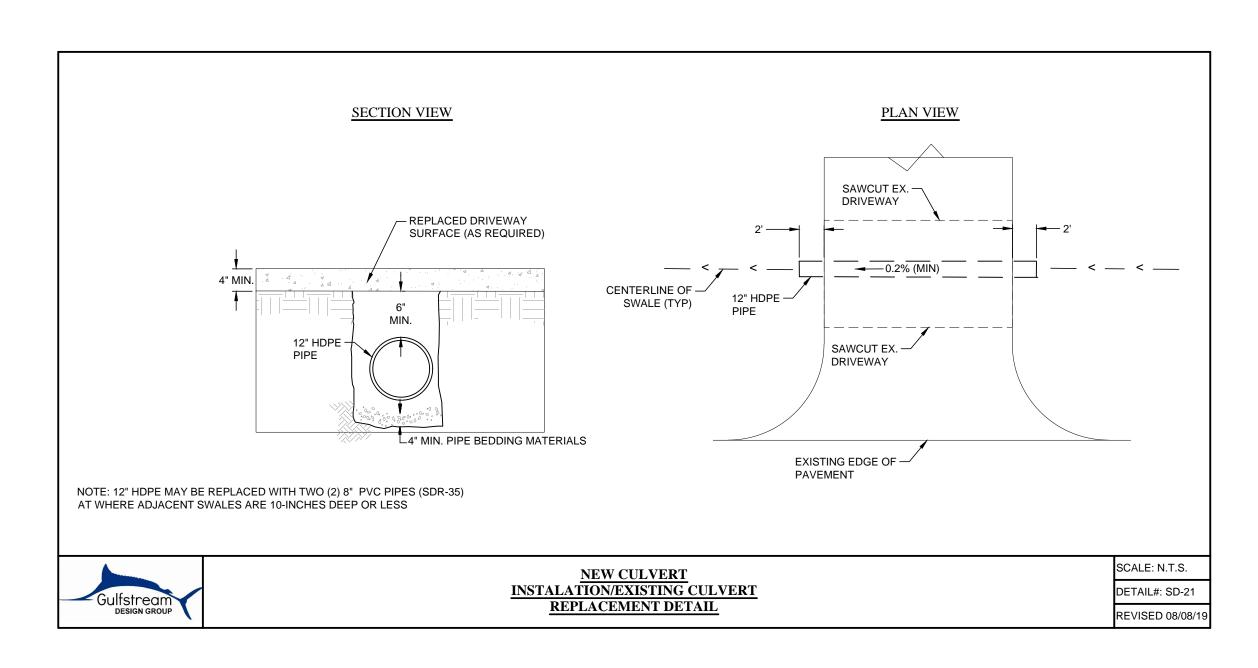
—— — EXISTING R/W LINE

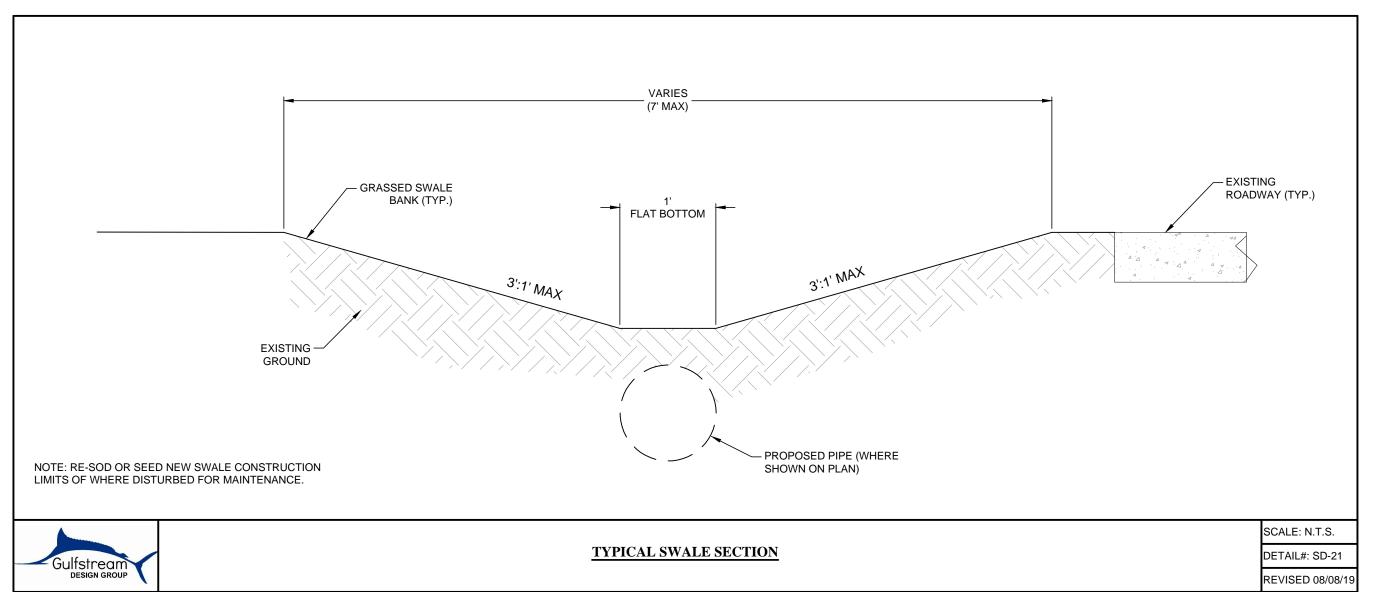
APPARENT/PLANNED RUNOFF OUTFALL POINT

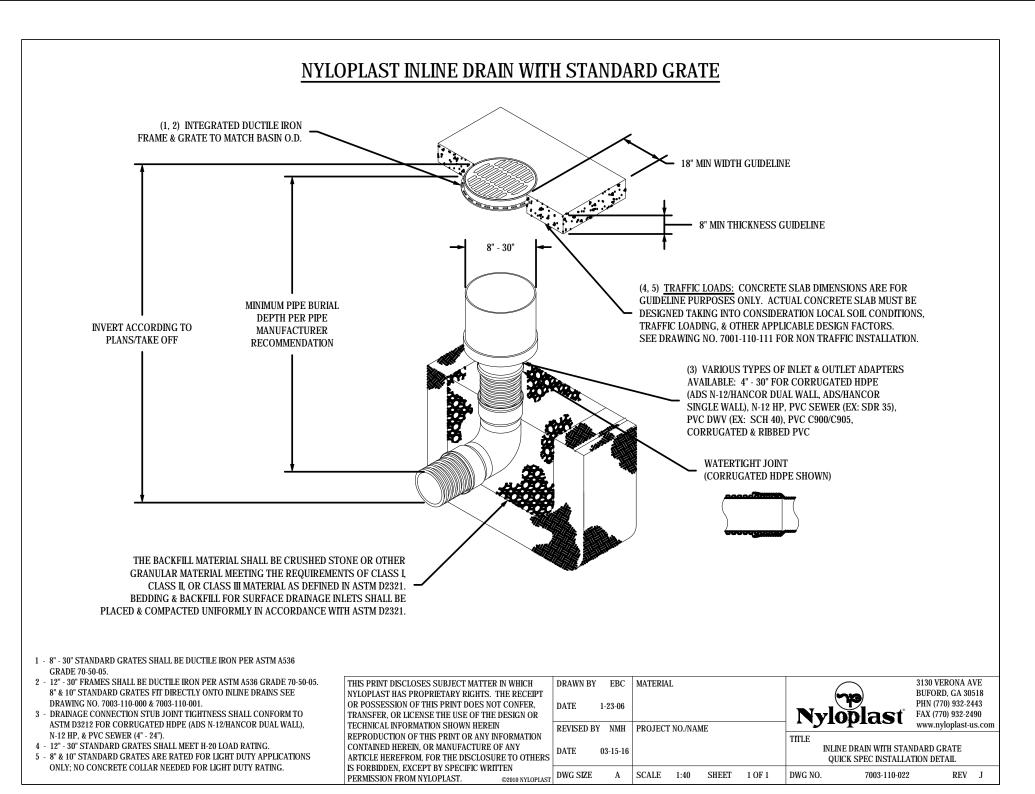
BY GRQ MS KFD



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# PELICAN REEF HOA DRAINAGE IMPROVEMENTS



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