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CAMP SORENSEN

NASSAU COUNTY PERMIT SET

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Know what's below.
Call 811 before you dig.

Prepared For

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Jurisdictional Review
Nassau County Florida
Site Plan Review
Hilliard Water and Sewer
Water and Sewer Utilities
St. Johns River Water Management District
Storm Water Drainage
Florida Power & Light
Electrical

NOTE: All quantities are provided for permitting and bidding use.

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JEREMY W. CALLOWAY LICENSE No. 70838 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Jeremy W Calloway:
Date: 2021.06.01 15:55:01 -04'00'

This item has been digitally signed and sealed by Jeremy W. Calloway, P.E. on the date adjacent to the seal.

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REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS STATE OF FLORIDA LA5000 5/28/2021
DocuSigned by: E2F0E3D4A6A405...
JEREMY R. MARQUIS
LIC. # LA6667110 SEAL

DRAWN BY: GC/EP/AC/DF

This item has been electronically signed and sealed by **Jeremy Marquis, RLA** on the Date and/or Time Stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

CAMP SORENSEN
607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046
COVER SHEET

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

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PRIME PROJECT #: 21.2.0
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DRAWING NO.: G0.1

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GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE JOB SITE TO INSURE THAT ALL NEW WORK WILL FIT IN THE MANNER INTENDED ON THE PLANS. SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE LOCAL GOVERNING BODY OF SUCH DIFFERENCES IMMEDIATELY AND PRIOR TO PROCEEDING WITH THE WORK.
2. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS AS SET FORTH BY THE WATER MANAGEMENT DISTRICT AND FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
3. THE CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION SITE IN A SECURE MANNER. ALL OPEN TRENCHES AND EXCAVATED AREAS SHALL BE PROTECTED FROM ACCESS BY THE GENERAL PUBLIC.
4. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHOULD NOTIFY THE ENGINEER.
5. THE CONTRACTOR SHALL INSTALL ALL SEDIMENT AND EROSION CONTROLS PRIOR TO ANY EARTH DISTURBING ACTIVITIES. ALL COMPONENTS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL VEGETATION IS ESTABLISHED, THE ENTIRE PROJECT AREA IS STABILIZED, AND THE OWNER HAS ACCEPTED OPERATION AND MAINTENANCE.
6. ALL DISTURBED AREAS NOT SODDED SHALL BE SEEDED WITH A MIXTURE OF LONG-TERM VEGETATION AND QUICK GROWING SHORT-TERM VEGETATION FOR THE FOLLOWING CONDITIONS. FOR THE MONTHS FROM SEPTEMBER THROUGH MARCH, THE MIX SHALL CONSIST OF 70 POUNDS PER ACRE OF LONG-TERM SEED AND 20 POUNDS PER ACRE OF WINTER RYE. FOR THE MONTHS OF APRIL THOUGH AUGUST, THE MIX SHALL CONSIST OF 70 PER ACRE OF LONG-TERM SEED AND 20 POUNDS PER ACRE OF MILLET.
7. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. CONTRACTOR SHALL PROTECT ALL UTILITIES WITHIN THE PROJECT AREAS.
8. ALL UTILITY CONSTRUCTION SHALL MEET THE WATER AND WASTEWATER UTILITY STANDARDS OF THE UTILITY SERVICE PROVIDER IN THE PROJECT AREA.
9. THE CONTRACTOR SHALL WASTE ALL EXCESS EARTH ON SITE AS DIRECTED BY THE ENGINEER.
10. ALL SITE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL GOVERNING BODY'S LAND DEVELOPMENT REGULATIONS.
11. CONTRACTOR SHALL REVIEW AND BECOME FAMILIAR WITH ALL REQUIRED UTILITY CONNECTIONS PRIOR TO BIDDING. CONTRACTOR SHALL PROVIDE ALL WORK AND MATERIALS REQUIRED TO COMPLETE CONNECTION TO THE EXISTING UTILITIES. THIS INCLUDES BUT IS NOT LIMITED TO MANHOLE CORING, WET TAPS, PAVEMENT REPAIRS AND DIRECTIONAL BORING.
12. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER CONTRACTORS WITHIN PROJECT AREA.
13. CONTRACTOR SHALL PROVIDE ACTUAL INVERT ELEVATIONS ON ALL DRAINAGE STRUCTURES, INCLUDING CULVERTS, PRIOR TO PLACING ANY BASE MATERIAL. DEVIATIONS FROM THE PLANS SHALL BE APPROVED BY THE ENGINEER BEFORE CONTINUING WORK.
14. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (CURRENT EDITION) AND THE F.D.O.T. DESIGN STANDARDS (CURRENT EDITION), AWWA SPECIFICATIONS, AND THE LOCAL GOVERNING BODY'S DEVELOPMENT STANDARDS UNLESS OTHERWISE NOTED.
15. IF UNSUITABLE MATERIAL IS ENCOUNTERED DURING GRADING, CONTRACTOR SHALL REMOVE UNSUITABLE MATERIAL TO A DEPTH OF 24" BELOW FINISHED GRADE WITHIN THE CONSTRUCTION LIMITS AND REPLACE WITH CLEAN COARSE SAND HAVING NO MORE THAN 5% PASSING THE No. 200 SIEVE KVS= 23.4 FT/DAY.
16. THE CONTRACTOR SHALL NOTIFY THE LOCAL GOVERNING BODY AT LEAST 48 HOURS IN ADVANCE PRIOR TO BEGINNING OF CONSTRUCTION.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION COMMENCEMENT NOTICE AND NOTIFYING THE ENGINEER OF THE CONSTRUCTION SCHEDULE.
18. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCING AND NO TRESPASSING SIGNS FOR THE DURATION OF CONSTRUCTION.
19. THE CONTRACTOR IS CAUTIONED TO VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE PROJECT PRIOR TO BIDDING.
20. THESE DRAWINGS REPRESENT KNOWN STRUCTURES AND UTILITIES LOCATED IN THE PROJECT AREA. THE CONTRACTOR IS CAUTIONED THAT OTHER STRUCTURES AND UTILITIES, ABOVE OR BELOW GROUND, MAY BE ENCOUNTERED DURING THE COURSE OF THE PROJECT. THE CONTRACTOR SHOULD NOTIFY THE ENGINEER IMMEDIATELY UPON ENCOUNTERING ANY UNEXPECTED STRUCTURE, UTILITY LINE, OR OTHER UNUSUAL CONDITION.
21. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES AND TO TAKE WHATEVER STEPS NECESSARY TO PROVIDE FOR THEIR PROTECTION.
22. ADEQUATE PROVISIONS SHALL BE MADE FOR FLOW OF SEWERS, DRAINS, AND WATER COURSES ENCOUNTERED DURING CONSTRUCTION.
23. THE CONTRACTOR SHALL PLACE AND MAINTAIN ADEQUATE BARRICADES, CONSTRUCTION SIGNS, FLASHING LIGHTS, TORCHES, RED LANTERNS AND GUARDS DURING CONSTRUCTION WORK UNTIL IT IS SAFE FOR BOTH PEDESTRIAN AND VEHICULAR TRAFFIC.
24. ALL DEMOLISHED ASPHALT, CONCRETE, PIPE, STRUCTURES AND OTHER DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF IN A LEGAL MANNER.
25. MAINTAIN 12" VERTICAL SEPARATION BETWEEN ALL POTABLE WATER MAINS AND SANITARY SEWER GRAVITY AND FORCE MAINS.
26. WHERE WATER MAINS CROSS THE SANITARY SEWER, THE SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR A DISTANCE OF 10 FEET BOTH SIDES OF THE WATER MAIN, UNLESS A MINIMUM OF 12" VERTICAL SEPARATION IS MAINTAINED WITH THE WATER ABOVE TO SEWER MAIN.
27. ALL NEW SEWER MAINS SHALL HAVE A MINIMUM COVER OF 36".
28. ALL EXISTING DRIVES, ROADS, CULVERTS, ETC. THAT ARE DAMAGED DURING CONSTRUCTION ARE TO BE RESTORED TO THEIR ORIGINAL CONDITION.
29. ALL DISTURBED AREAS ARE TO BE CLEANED, GRADED AND ROLLED TO ORIGINAL CONTOURS, HYDROSEEDED TO DOT SPECIFICATIONS UNLESS SPECIFICALLY NOTED OTHERWISE. CONTRACTOR SHALL MAINTAIN DISTURBED AREAS UNTIL A SATISFACTORY STAND OF GRASS IS ESTABLISHED WITHOUT BARE SECTIONS OR ERODED AREAS.
30. CONTRACTOR SHALL PROVIDE SIGNED AND SEALED AS-BUILTS BY A LICENSED PLS TO THE EOR FOR REVIEW AND APPROVAL.

EROSION CONTROL NOTES

1. THIS EROSION AND SEDIMENTATION CONTROL PLAN COMPLIES WITH THE REQUIREMENTS OF THE "FLORIDA DEVELOPMENT MANUAL" AND THE "FLORIDA EROSION AND SEDIMENT CONTROL INSPECTOR'S MANUAL".
2. THE CONTRACTOR SHALL ADHERE TO THE LOCAL GOVERNING BODY, F.D.E.P, AND OTHER GOVERNING AUTHORITIES FOR EROSION AND SEDIMENT CONTROL REGULATIONS. IF THE CONTRACTOR NEEDS TO CHANGE THIS PLAN TO MORE EFFECTIVELY CONTROL EROSION AND SEDIMENTATION, THE CONTRACTOR SHALL USE BMP's FROM THE "FLORIDA EROSION AND SEDIMENT CONTROL INSPECTOR'S MANUAL".
3. THE CONTRACTOR SHALL ADJUST AND REVISE THIS PLAN TO MEET ACTUAL FIELD CONDITIONS. ANY REVISIONS SHALL BE APPROVED BY THE REVIEWING AGENCIES.
4. SEDIMENT AND EROSION CONTROL FACILITIES, STORM DRAINAGE FACILITIES AND DETENTION BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
5. EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL AND REPLACED AS NECESSARY.
6. SEDIMENT AND EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL CONSTRUCTION IS COMPLETE AND UNTIL A PERMANENT GROUND COVER HAS BEEN ESTABLISHED.
7. ALL OPEN DRAINAGE SWALES SHALL BE GRASSED AND RIPRAP SHALL BE PLACED AS REQUIRED TO CONTROL EROSION.
8. SILT FENCES SHALL BE LOCATED ON SITE TO PREVENT SEDIMENT AND EROSION FROM LEAVING PROJECT LIMITS.
9. CONTRACTOR SHALL PLACE A DOUBLE ROW OF SILT FENCE IN AREAS WHERE RUNOFF FROM DISTURBED AREAS MAY ENTER WETLANDS.
10. DURING CONSTRUCTION AND AFTER CONSTRUCTION IS COMPLETE, ALL STRUCTURES SHALL BE CLEANED OF ALLDEBRIS AND EXCESS SEDIMENT.
11. ALL GRADED AREAS SHALL BE STABILIZED IMMEDIATELY WITH A TEMPORARY FAST-GROWING COVER AND/OR MULCH.
12. A PAD OF RUBBLE RIP RAP SHALL BE PLACED AT THE BOTTOM OF ALL COLLECTION FLUMES AND COLLECTION PIPE OUTLETS. GRANITE OR LIMESTONE RIPRAP IS REQUIRED, NO BROKEN CONCRETE WILL BE ACCEPTED.
13. ALL SIDE SLOPES STEEPER THAN 3:1 SHALL BE ADEQUATELY PROTECTED FROM EROSION THROUGH THE USE OF HAY BALES OR SODDING.
14. ALL STABILIZATION PRACTICES SHALL BE INITIATED AS SOON AS PRACTICABLE IN AREAS OF THE JOB WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY STOPPED, BUT IN NO CASE SHALL THE DISTURBED AREA BE LEFT UNPROTECTED FOR MORE THAN SEVEN DAYS.
15. ALL WASTE GENERATED ON THE PROJECT SHALL BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY CONTRACTOR.
16. LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPS.
17. EXCESS DIRT SHALL BE REMOVED DAILY.
18. THIS PROJECT SHALL COMPLY WITH ALL WATER QUALITY STANDARDS.
19. QUALIFIED PERSONNEL SHALL INSPECT THE AREA USED FOR STORAGE OF STOCKPILES, THE SILT FENCE AND STRAW BALES, THE LOCATION WHERE VEHICLES ENTER OR EXIT THE SITE, AND THE DISTURBED AREAS THAT HAVE NOT BEEN FINALLY STABILIZED, AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM OF 0.5 INCHES OR GREATER.
20. SITES THAT HAVE BEEN FINALLY STABILIZED WITH SOD OR GRASSING SHALL BE INSPECTED AT LEAST ONCE EVERY WEEK.

RIGHT-OF-WAY CONSTRUCTION NOTES

ALL WORK IN THE COUNTY RIGHT OF WAY SHALL CONFORM TO THE FOLLOWING:

1. CONTRACTOR SHALL NOTIFY THE COUNTY PUBLIC WORKS DEPT. 24 HOURS IN ADVANCE OF STARTING PROPOSED WORK.
2. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH APPLICABLE FDOT STANDARD INDEXES.
3. ALL DISTURBED AREAS IN THE COUNTY RIGHT OF WAY NOT RESTORED AS PAVEMENT SHALL BE SODDED.
4. RPM'S SHALL BE INSTALLED IN ACCORDANCE WITH FDOT STANDARD INDEX 17352.
5. ALL PERMANENT STRIPING IN COUNTY R.O.W. SHALL BE THERMOPLASTIC.

WATER AND SEWER NOTES

1. ALL UTILITY CONSTRUCTION SHALL MEET THE UTILITY PROVIDER AND LOCAL GOVERNING BODY'S WATER AND WASTEWATER UTILITY STANDARDS.
2. THE CONTRACTOR SHALL MAINTAIN EXISTING WATER MAINS IN SERVICE DURING CONSTRUCTION. IN THE EVENT INTERRUPTIONS TO SERVICE ARE REQUIRED DURING CONSTRUCTION, SUCH INSTANCES SHALL BE MINIMIZED.
3. ALL NEW OR RELOCATED WATER MAINS THAT SERVE FIRE HYDRANTS AND ALL FIRE HYDRANT LEADS SHALL BE NO SMALLER THAN SIX INCHES IN DIAMETER. AUXILIARY VALVES SHALL BE PROVIDED ON ALL HYDRANT LEADS.
4. SUFFICIENT VALVES SHALL BE PROVIDED IN NEW AND RELOCATED WATER MAINS SO THAT INCONVENIENCE AND SANITARY HAZARDS WILL BE MINIMIZED DURING REPAIRS. (VALVES SHALL BE PLACED IN NO MORE THAN 500-FOOT INTERVALS IN COMMERCIAL DISTRICTS AND AT NO MORE THAN ONE-BLOCK OR 800-FOOT INTERVALS IN OTHER DISTRICTS.)
5. IF THERE ARE ANY NEW OR RELOCATED WATER MAINS THAT CROSS UNDER ANY SURFACE WATER, A MINIMUM COVER OF TWO FEET SHALL BE PROVIDED OVER THE WATER MAIN PIPE AT EACH SURFACE WATER CROSSING, AND IF THE SURFACE WATER IS GREATER THAN 15 FEET IN WIDTH, THE FOLLOWING FEATURES SHALL BE PROVIDED: (A) FLEXIBLE WATER TIGHT JOINTS FOR THE WATER MAIN PIPE AT THE CROSSING, (B) EASILY ACCESSIBLE VALVES LOCATED IN A MANHOLE, AND (C) PERMANENT TAPS ON EACH SIDE OF THE VALVE WITHIN THE MANHOLE TO ALLOW FOR SAMPLING AND INSERTION OF A SMALL METER TO DETERMINE LEAKAGE.
6. PROPER BACKFLOW-PREVENTION ASSEMBLIES/DEVICES SHALL BE PROVIDED IN ACCORDANCE WITH RULE 62-555.360, F.A.C., AND THE AWWA'S MANUAL M/4, RECOMMENDED PRACTICE FOR BACKFLOW PREVENTION AND CROSS-CONNECTION CONTROL.
7. THIS PROJECT SHALL NOT INCLUDE ANY INTERCONNECTION BETWEEN PREVIOUSLY SEPARATE PUBLIC WATER SYSTEMS THAT HAVE SEPARATE WATER SUPPLY SOURCES. (A SPECIFIC CONSTRUCTION PERMIT IS REQUIRED FOR SUCH AN INTERCONNECTION.)
8. ALL NEW RELOCATED WATER LATERALS THAT CROSS ANY SANITARY SEWERS, STORM SEWERS, FORCE MAINS, OR RECLAIMED WATER LINES SHALL CROSS ABOVE SUCH PIPELINES.
9. CONTRACTOR SHALL PROVIDE AN AS-BUILT SURVEY MEETING THE REQUIREMENTS OF CHAPTER 61G17 F.A.C. FOR THE POTABLE WATER MAIN EXTENSION AND THE SANITARY SEWER MAIN EXTENSIONS. INCLUDE HORIZONTAL AND VERTICAL DIMENSIONAL DATA SO THAT IMPROVEMENTS ARE LOCATED AND DELINEATED RELATIVE TO THE BOUNDARY. PROVIDE SUFFICIENT DETAILED DATA TO DETERMINE WHETHER THE IMPROVEMENTS WERE CONSTRUCTED IN ACCORDANCE WITH THE PLANS. SUBMIT THE SURVEY TO THE ENGINEER IN DIGITAL AUTOCAD FORMAT.
10. COPPER TRACER WIRE SHALL BE PLACED ON ALL POTABLE WATER LINES AND WATER LATERALS. TRACER WIRE SHALL BE CONTINUOUS WITH NO INTERRUPTIONS.
11. LOCATOR BALLS SHALL BE PROVIDED AT END OF ALL WATER AND SANITARY SEWER LATERALS. THE LOCATOR BALLS SHALL BE SECURED TO THE LATERALS WITH A PLASTIC TIE STRAP.
12. WATER AND SANITARY SEWER LATERALS SHALL BE LEFT UNCOVERED UNTIL INSPECTED BY THE ENGINEER OR THE ENGINEER'S INSPECTOR.
13. CONTRACTOR SHALL PROVIDE TEMPORARY STAKES (2" BY 2" WOODEN STAKES) AT THE END OF EACH LATERAL. EACH STAKE SHALL INDICATE EITHER WATER OR SANITARY SEWER LATERAL. CONTRACTOR SHALL MAINTAIN THE STAKES UNTIL AN AS-BUILT SURVEY OF WATER AND SANITARY SEWER MAINS AND LATERALS ARE COMPLETE AND APPROVED BY THE ENGINEER.
14. MEGALUG MECHANICAL JOINT RESTRAINTS OR SERIES 1390 UNI-FLANGE BLOCK BUSTER RESTRAINT DEVICES SHALL BE USED WITH MANUFACTURER'S RECOMMENDATIONS. ALL RESTRAINED JOINTING MUST BE LEFT OPEN UNTIL VIEWED BY THE CITY INSPECTOR.
15. FOR SANITARY SEWER PERFORM HYDROSTATIC TEST. ALLOWABLE LEAKAGE IS A MAXIMUM OF 50 GAL. PER INCH OF NOMINAL PIPE SIZE PER MILE OF PIPE, DURING A 24-HOUR PERIOD. OPTION: TEST DUCTILE-IRON PIPING ACCORDING TO AWWA C600, SECTION "HYDROSTATIC TESTING". USE TEST PRESSURE OF AT LEAST 10 PSI. FOR SANITARY SEWERAGE, PERFORM AIR TEST ACCORDING TO UNI-B-6.
16. FOR SANITARY SEWERAGE ALIGNMENT: EACH SECTION OF THE COMPLETED SEWER SYSTEM SHALL BE INSPECTED FOR PROPER ALIGNMENT. INSPECTION SHALL CONSIST OF "LAMPING" FROM MANHOLE TO MANHOLE. ANY SECTION OF THE SEWER SYSTEM, WHICH DOES NOT DISPLAY TRUE, CONCENTRIC ALIGNMENT, SHALL BE INSTALLED AT NO ADDITIONAL EXPENSE TO THE OWNER.
17. CLEAN AND DISINFECT WATER DISTRIBUTION PIPING SYSTEMS AND PARTS OF EXISTING SYSTEMS THAT HAVE BEEN ALTERED, EXTENDED OR REPAIRED BEFORE USE. USE PURGING AND DISINFECTING PROCEDURE PRESCRIBED BY AUTHORITIES HAVING JURISDICTION OR USE PROCEDURE PRESCRIBED BY AUTHORITIES HAVING JURISDICTION OR USE PROCEDURE DESCRIBED IN AWWA C651.
18. PVC GRAVITY FLOW SEWER PIPE AND FITTINGS 15 INCH AND SMALLER IN DIAMETER SHALL BE SDR35 PIPE WITH BELL AND SPIGOT GASKET JOINT THAT COMPLIES WITH THE REQUIREMENTS OF ASTM D3034.
19. ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED UNDER THIS PROJECT SHALL CONFORM TO APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
20. ALL PUBLIC WATER SYSTEM COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT WILL BE INSTALLED UNDER THIS PROJECT AND THAT WILL COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF INTERNATIONAL STANDARD 61 AS ADOPTED IN RULE 62-555.335, F.A.C., OR OTHER APPLICABLE STANDARDS, REGULATIONS, OR REQUIREMENTS REFERENCED IN PARAGRAPH 62- 555.320(3)(B), F.A.C.
21. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL CONTAIN NO MORE THAN 8.0% LEAD, AND ANY SOLDER OR FLUX USED IN THIS PROJECT WILL CONTAIN NO MORE THAN 0.2% LED.
22. ALL WATER PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(B) 3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE, WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE SHALL BE PAINTED BLUE OR WILL BE COLOR-CODED OR MARKED LIKE UNDERGROUND PIPE.)
23. SUFFICIENT VALVES SHALL BE PROVIDED ON NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT SO THAT INCONVENIENCE AND SANITARY HAZARDS WILL BE MINIMIZED DURING REPAIRS.
24. ALL FIRE HYDRANTS THAT WILL BE INSTALLED UNDER THIS PROJECT AND THAT WILL HAVE UNPLUGGED, UNDERGROUND DRAINS SHALL BE LOCATED AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., OR VACUUM-TYPE SANITARY SEWER; CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., OR VACUUM-TYPE SANITARY SEWER; OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-10, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
25. NEW OR ALTERED CHAMBERS, PITS, OR MANHOLES THAT CONTAIN VALVES, BLOW-OFFS, METERS, OR OTHER SUCH WATER DISTRIBUTION SYSTEM APPURTENANCES AND THAT ARE INCLUDED IN THIS PROJECT WILL NOT BE CONNECTED DIRECTLY TO ANY SANITARY OR STORM SEWER, AND BLOW-OFFS OR AIR RELIEF VALVES INSTALLED UNDER THIS PROJECT SHALL NOT BE CONNECTED DIRECTLY TO ANY SANITARY OR STORM SEWER.
26. NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS OR IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDED PROCEDURES.
27. A CONTINUOUS AND UNIFORM BEDDING SHALL BE PROVIDED IN TRENCHES FOR UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT; BACKFILL MATERIAL WILL BE TAMPED IN LAYERS AROUND UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT AND TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE; AND UNSUITABLY SIZED STONES (AS DESCRIBED IN APPLICABLE AWWA STANDARDS OR MANUFACTURERS' RECOMMENDED INSTALLATION PROCEDURES) FOUND IN TRENCHES WILL BE REMOVED FOR A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT.
28. ALL WATER MAIN TEES, BENDS, PLUGS, AND HYDRANTS INSTALLED UNDER THIS PROJECT SHALL BE PROVIDED WITH RESTRAINED JOINTS TO PREVENT MOVEMENT.
29. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL BE CONSTRUCTED OF ASBESTOS-CEMENT OR POLYVINYL CHLORIDE PIPE SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C603 OR C605, RESPECTIVELY, AS INCORPORATED INTO RULE 62-555.330, F.A.C., AND ALL OTHER NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C600 AS INCORPORATED INTO RULE 62-555.330.
30. NEW OR ALTERED WATER MAINS, INCLUDING FIRE HYDRANT LEADS AND INCLUDING SERVICE LINES THAT WILL BE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER, SHALL BE DISINFECTED AND BACTERIOLOGICALLY EVALUATED IN ACCORDANCE WITH RULE 62-555.340, F.A.C.
31. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL BE INSTALLED IN AREAS WHERE THERE ARE KNOWN AGGRESSIVE SOIL CONDITIONS SHALL BE PROTECTED THROUGH USE OF CORROSION-RESISTANT WATER MAIN MATERIALS, THROUGH ENCASEMENT OF THE WATER MAINS IN POLYETHYLENE, OR THROUGH PROVISION OF CATHODIC PROTECTION.
32. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
33. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT SHALL HAVE A HORIZONTAL DISTANCE OF AT LEAST SIX AND TEN FEET IS PREFERRED BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER, EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
34. THE HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS MAY BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST TWELVE INCHES ABOVE THE TOP OF THE SEWER.
35. A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
36. NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE THE OTHER PIPELINE. NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE THE OTHER PIPELINE.
37. AT THE UTILITY CROSSINGS DESCRIBED ABOVE, SEPARATION DISTANCE SHALL NOT APPLY WHERE A WATER SERVICE PIPE CROSSES A SEWER PIPE, PROVIDED THE WATER SERVICE PIPE IS SLEEVED TO AT LEAST FIVE FEET HORIZONTALLY FROM THE SEWER PIPE CENTERLINE ON BOTH SIDES OF SUCH CROSSINGS PIPE MATERIAL LISTED IN FLORIDA BUILDING CODE SECTION 603.2.
38. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ABOVE SURFACE WATER SHALL BE ADEQUATELY SUPPORTED AND ANCHORED, PROTECTED FROM DAMAGE AND FREEZING, AND ACCESSIBLE FOR REPAIR OR REPLACEMENT.
39. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS UNDER SURFACE WATER COURSES GREATER THAN 15 FEET IN WIDTH SHALL HAVE FLEXIBLE OR RESTRAINED, WATERTIGHT PIPE JOINTS AND WILL INCLUDE VALVES AT BOTH ENDS OF THE WATER CROSSING SO THE UNDERWATER MAIN CAN BE ISOLATED FOR TESTING AND REPAIR; THE AFOREMENTIONED ISOLATION VALVES WILL BE EASILY ACCESSIBLE AND WILL NOT BE SUBJECT TO FLOODING; THE ISOLATION VALVE CLOSEST TO THE WATER SUPPLY SOURCE WILL BE IN A MANHOLE; AND PERMANENT TAPS WILL BE PROVIDED ON EACH SIDE OF THE ISOLATION VALVE WITHIN THE MANHOLE TO ALLOW FOR INSERTION OF A SMALL METER TO DETERMINE LEAKAGE FROM THE UNDERWATER MAIN AND TO ALLOW FOR SAMPLING OF WATER FROM THE UNDERWATER MAIN.
40. AIR RELIEF VALVES SHALL BE INSTALLED AT HIGH POINTS IN THE FORCE MAIN AT ANY LOCATIONS HAVING 3' OR GREATER ELEVATION CHANGE WITHIN 100 LF OF LINE.

NASSAU COUNTY DEVELOPMENT REVIEW GENERAL NOTES

1. ENGINEERING PLANS APPROVAL DOES NOT CONSTITUTE PERMISSION TO VIOLATE ANY ADOPTED FEDERAL, STATE, OR LOCAL LAW, CODE, OR ORDINANCE.
2. ALL WORK WITHIN THE PUBLIC STREETS AND RIGHT-OF-WAYS SHALL CONFORM TO NASSAU COUNTY LAND DEVELOPMENT CODES (LDC), FDOT STANDARD INDICES, FLORIDA GREENBOOK, NASSAU COUNTY ROADWAY AND DRAINAGE STANDARDS, AND NASSAU COUNTY STANDARD DETAILS AS NECESSARY. FOR ANY DISCREPANCY BETWEEN STANDARDS, THE MOST STRINGENT SHALL PREVAIL.
3. PER NASSAU COUNTY ROADWAY AND DRAINAGE STANDARDS, ORDINANCE 99-17 SECTION 6.2.4, SITE SHALL BE CONSTRUCTED PER APPROVED CONSTRUCTION DRAWINGS. ANY SUBSTANTIAL DEVIATION SHALL BE CONCURRENTLY REVIEWED BY ENGINEER OF RECORD AND NASSAU COUNTY DEVELOPMENT REVIEW COMMITTEE PRIOR TO FIELD CHANGES.
4. A PRE-CONSTRUCTION MEETING WITH NASSAU COUNTY ENGINEERING SERVICES CONSTRUCTION INSPECTOR IS REQUIRED. ATTENDEES SHALL BE NASSAU COUNTY, ENGINEER OF RECORD, CONTRACTOR, TESTING FIRM, PAVING FIRM, AND UTILITY COMPANIES PER NASSAU COUNTY ORDINANCE 99-17 SECTION 7.2.3. NASSAU COUNTY MAY CANCEL PRE-CONSTRUCTION MEETING IF ATTENDEE LIST IS INADEQUATE. NASSAU COUNTY ENGINEERING SERVICES CAN BE REACHED AT 904-530-6225.
5. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE ALL WORK WITH THE APPROPRIATE NASSAU COUNTY CONSTRUCTION INSPECTOR ASSIGNED TO THE PROJECT PER NASSAU COUNTY ORDINANCE 99-17 SECTION 7.2.
6. ALL WORK SHALL BE PERFORMED IN A SAFE MANNER. ALL SAFETY RULES AND GUIDELINES OF O.S.H.A. SHALL BE FOLLOWED. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ANY INJURIES TO HIS EMPLOYEES AND ANY DAMAGE TO PRIVATE PROPERTY OR PERSONS DURING THE COURSE OF THIS PROJECT.
7. PER NASSAU COUNTY ROADWAY AND DRAINAGE STANDARDS, ORDINANCE 99-17 SECTION 11.8.1, ANY DISTURBED AREAS WITHIN NASSAU COUNTY RIGHT-OF-W

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MAP SHOWING BOUNDARY SURVEY OF

PARCEL 1:

A PORTION OF THE FRED MCMURREN GRANT, SECTION 40, TOWNSHIP 3 NORTH, RANGE 23 EAST, NASSAU COUNTY, FLORIDA. SAID PORTION BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF REFERENCE, COMMENCE AT A CONCRETE MONUMENT LOCATED AT THE NORTHEAST CORNER OF SECTION FORTY (40) AFOREMENTIONED AND RUN SOUTH FIVE (05) DEGREES, FIFTY (50) MINUTES, TWENTY (20) SECONDS WEST ALONG THE EASTERLY LINE OF SAID SECTION, A DISTANCE OF ONE THOUSAND FOUR HUNDRED FIFTY-FOUR AND SIXTY-TWO HUNDREDTHS (1454.62) FEET TO AN IRON PIPE FOR THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, CONTINUE SOUTH FIVE (05) DEGREES, FIFTY (50) MINUTES, TWENTY (20) SECONDS WEST ALONG SAID EASTERLY LINE, A DISTANCE OF SIX HUNDRED NINETY-THREE AND SIXTY-EIGHT HUNDREDTHS (693.68) FEET TO AN IRON PIPE; RUN THENCE NORTH EIGHTY (80) DEGREES, THIRTY-SEVEN (37) MINUTES, THIRTY (30) SECONDS WEST, A DISTANCE OF FIVE THOUSAND SIXTY AND SIXTY HUNDREDTHS (5060.60) FEET TO AN IRON PIPE; CONTINUE NORTH EIGHTY (80) DEGREES, THIRTY-SEVEN (37) MINUTES, THIRTY (30) SECONDS WEST, A DISTANCE OF ONE HUNDRED SIXTY-FIVE (165.0) FEET, MORE ORE LESS, TO THE WATERS OF THE ST. MARYS RIVER; RUN THENCE IN A NORTHERLY DIRECTION ALONG SAID WATERS, A DISTANCE OF EIGHT HUNDRED (800.0) FEET, MORE OR LESS, TO A POINT WHERE SAID WATERS IS INTERSECTED BY A LINE THAT BEARS NORTH EIGHTY (80) DEGREES, THREE (03) MINUTES WEST FROM THE POINT OF BEGINNING; RUN THENCE SOUTH EIGHTY (80) DEGREES, THREE (03) MINUTES EAST, A DISTANCE OF TWO HUNDRED TWENTY (220.0) FEET, MORE OR LESS, TO AN IRON PIPE; CONTINUE SOUTH EIGHTY (80) DEGREES, THREE (03) MINUTES EAST, A DISTANCE OF FIVE THOUSAND TWO HUNDRED FIFTY-TWO AND TWENTY-FIVE HUNDREDTHS (5252.25) FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT ANY PART LYING WITHIN CR 121.

LESS AND EXCEPT THE LANDS CONTAINED IN THAT CORPORATE WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 1835, PAGE 716, PUBLIC RECORDS OF NASSAU COUNTY, FLORIDA.

AND

PARCEL 2:

A PORTION OF THE FRED MCMURREN GRANT, SECTION FORTY (40), TOWNSHIP THREE (3) NORTH, RANGE TWENTY-THREE (23) EAST, NASSAU COUNTY, FLORIDA. SAID PORTION BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

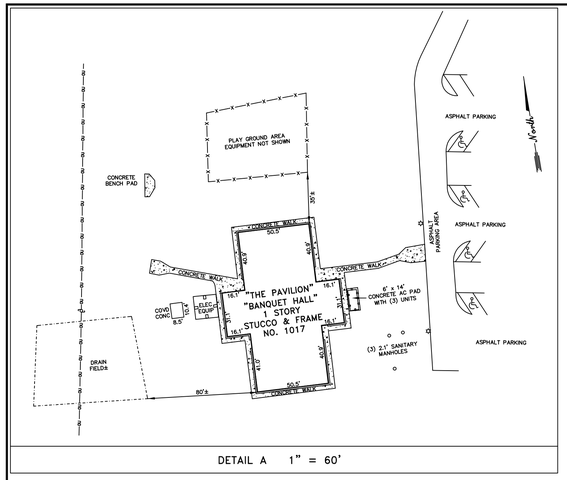
FOR A POINT OF REFERENCE, COMMENCE AT A CONCRETE MONUMENT LOCATED AT THE NORTHEAST CORNER OF SECTION FORTY (40), AFOREMENTIONED AND RUN SOUTH FIVE (05) DEGREES, FIFTY (50) MINUTES, TWENTY (20) SECONDS WEST ALONG THE EASTERLY LINE OF SAID SECTION, A DISTANCE OF TWO THOUSAND ONE HUNDRED FORTY-EIGHT AND THIRTY HUNDREDTHS (2148.30) FEET TO AN IRON PIPE; THENCE RUN NORTH EIGHTY (80) DEGREES, THIRTY-SEVEN (37) MINUTES, THIRTY (30) SECONDS WEST, A DISTANCE OF TWO THOUSAND FIVE HUNDRED NINETY TWO AND SEVENTY HUNDREDS (2592.70) FEET TO AN IRON PIPE SET FOR THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, RUN SOUTH NINE (09) DEGREES, TWENTY-TWO (22) MINUTES, THIRTY (30) SECONDS WEST, A DISTANCE OF SEVEN HUNDRED SEVENTEEN AND SEVENTY-FIVE HUNDREDTHS (717.75) FEET TO AN IRON PIPE; RUN THENCE NORTH EIGHTY-ONE (81) DEGREES, TWELVE (12) MINUTES WEST, A DISTANCE OF TWO THOUSAND ONE HUNDRED NINETY-ONE AND TWENTY HUNDREDTHS (2191.20) FEET TO AN IRON PIPE; CONTINUE NORTH EIGHTY-ONE (81) DEGREES, TWELVE (12) MINUTES WEST, A DISTANCE OF ONE HUNDRED THIRTY-FOUR (134.0) FEET, MORE OR LESS, TO THE WATERS OF THE ST. MARYS RIVER; RUN THENCE IN A NORTHERLY DIRECTION ALONG SAID WATERS, A DISTANCE OF EIGHT HUNDRED (800.0) FEET, MORE OR LESS, TO A POINT WHERE SAID WATERS ARE INTERSECTED BY A LINE THAT BEARS NORTH EIGHTY (80) DEGREES, THIRTY-SEVEN (37) MINUTES, THIRTY (30) SECONDS WEST FROM THE POINT OF BEGINNING; RUN THENCE SOUTH EIGHTY (80) DEGREES, THIRTY-SEVEN (37) MINUTES, THIRTY (30) SECONDS EAST, A DISTANCE OF ONE HUNDRED SIXTY-FIVE (165.0) FEET, MORE OR LESS, TO AN IRON PIPE; CONTINUE SOUTH EIGHTY (80) DEGREES, THIRTY-SEVEN (37) MINUTES, THIRTY (30) SECONDS EAST, A DISTANCE OF TWO THOUSAND FOUR HUNDRED SIXTY-SEVEN AND NINETY HUNDREDTHS (2467.90) FEET TO THE POINT OF BEGINNING.

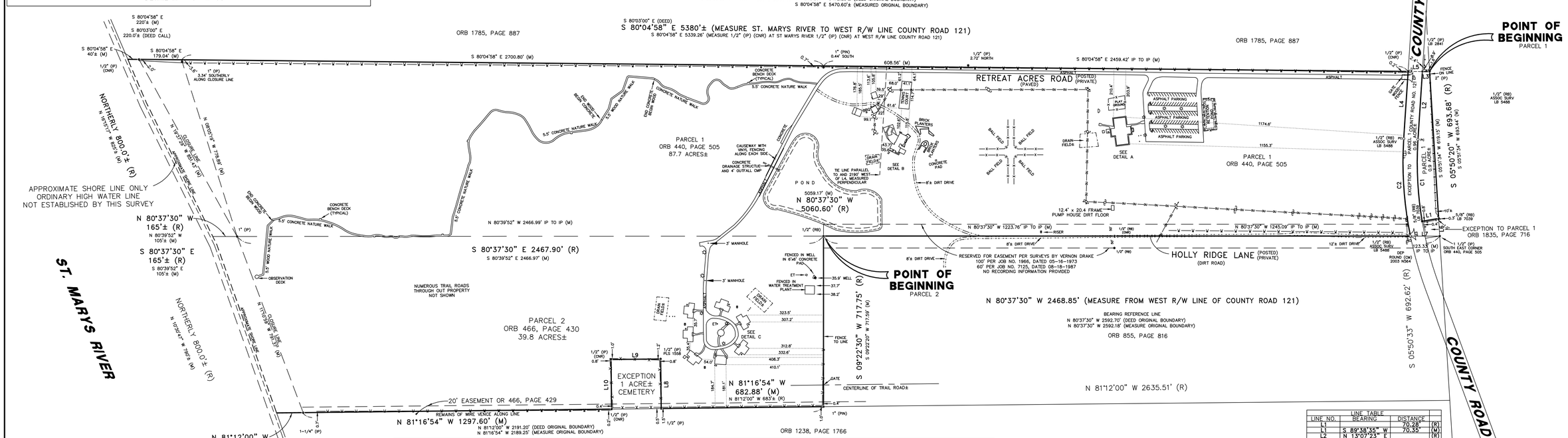
EXCEPTING THEREFROM A ONE (1.0) ACRE TRACT FOR CEMETERY THAT LIES NORTHERLY OF AND ADJACENT TO THE SOUTHERLY LINE OF THE ABOVE DESCRIBED LANDS, THE EASTERLY LINE OF SAID CEMETERY LYING APPROXIMATELY 683.0 FEET WEST OF THE EASTERLY LINE OF THE PROPERTY.

CERTIFIED TO:

FLORIDA SHERIFFS YOUTH RANCHES, INC.,
FIDELITY NATIONAL TITLE INSURANCE COMPANY,
SMITH, HULSEY & BUSEY, P.A.

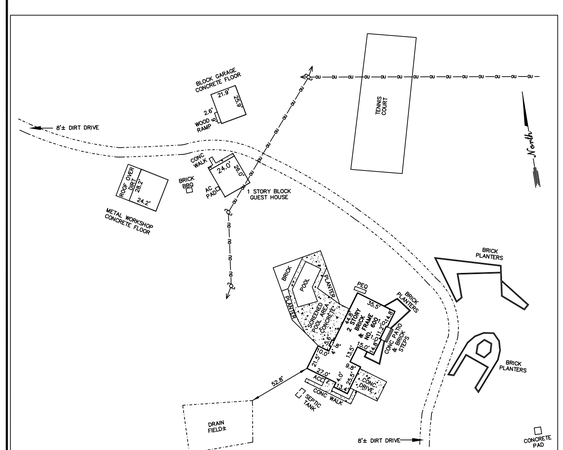


DETAIL A 1" = 60'

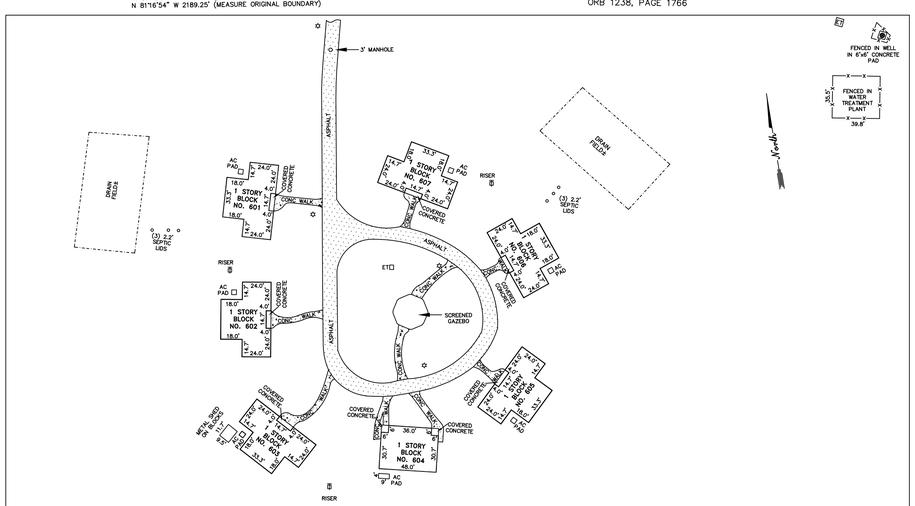


LINE TABLE			
LINE NO.	BEARING	DISTANCE	
L1		70.28'	(R)
L1	S 89°38'35" W	70.35'	(M)
L2	N 13°07'23" E		(R)
L2	N 13°05'50" E	286.37'	(M)
L3	S 80°03'00" E		(R)
L3	S 81°02'04" E	30.29'	(M)
L4	S 13°07'23" W		(R)
L4	S 13°05'50" W	282.99'	(M)
L5	S 80°03'00" E	60.00'	(R)
L5	S 80°07'22" E	60.09'	(M)
L6		74.23'	(R)
L6	S 05°50'52" W	74.29'	(M)
L7	N 80°37'30" W		(R)
L7	N 80°37'30" W	123.33'	(M)
L8		208.71'	(R)
L8	N 08°40'56" E	208.71'	(M)
L9		208.71'	(R)
L9	N 81°18'59" W	208.65'	(M)
L10		208.71'	(R)
L10	S 08°42'55" W	208.59'	(M)

CURVE TABLE					
CURVE NO.	RADIUS	LENGTH	CHORD BEARING	CHORD	
C1	1489.60'				(R)
C1	1489.60'	345.12'	N 06°27'36" E	344.34'	(M)
C2	1549.60'				(R)
C2	1549.60'	412.22'	S 05°28'35" W	411.01'	(M)



DETAIL B 1" = 60'



DETAIL C 1" = 60'

PRELIMINARY

FLOOD ZONE "X" = AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN / FLOOD ZONE "X (SHADED)" = AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

GENERAL NOTES:

1. BEARINGS ARE BASED ON PLAT BOOK X, PAGE X
2. STRUCTURE NO. X SHOWN HEREON LIES WITHIN FLOOD ZONE X AS BEST DETERMINED FROM F.E.M.A. FLOOD MAPS PANEL NO. 120 DATED 12-17-2010
3. THIS IS A SURFACE SURVEY ONLY. THE EXTENT OF UNDERGROUND FOOTINGS, PIPES AND UTILITIES, IF ANY, NOT DETERMINED.
4. JURISDICTIONAL AND/OR ENVIRONMENTALLY SENSITIVE AREAS IF ANY, NOT LOCATED BY THIS SURVEY.
5. THIS SURVEY BASED ON LEGAL DESCRIPTIONS FURNISHED. THE PUBLIC RECORDS WERE NOT SEARCHED BY THIS SURVEYOR FOR EASEMENTS, TITLE, COVENANTS, BURL'S RESTRICTIONS, CLOSURES, TAKINGS OR ORDINANCES, ETC.
6. THE HEAVY LINE SHOWN HEREON, MAY NOT INDICATE ACTUAL OWNERSHIP
7. UNLESS OTHERWISE STATED ALL IRON PIPES FOUND HAVE NO IDENTIFICATION.

LEGEND AND ABBREVIATIONS

AC	= AIR CONDITIONER		
BL	= BUILDING RESTRICTION LINE	PSM	= PROFESSIONAL SURVEYOR & MAPPER
BT	= BUILDING TIE	R	= RADIUS
BTW	= BETWEEN	(R)	= RECORD
C&R	= COMPARE FROM RECORD	RLS	= REGISTERED LAND SURVEYOR
C&R	= COVENANTS & RESTRICTIONS	R/W	= RIGHT OF WAY
CH	= CHORD	(TYP)	= TYPICAL
(CHORD)	= CAN NOT READ		
CONC	= CONCRETE	O	= SET IRON PIPE (IP) OR REBAR (RB) "ASSOC SURV" OR LB. 5488
COVD	= COVERED		
ELEC	= ELECTRIC BOX		
ET	= ELECTRIC TRANSFORMER & PAD		FOUND IRON PIPE (IP) OR PIN
FPL	= JACKSONVILLE ELECTRIC AUTHORITY		FOUND 1/2" IRON PIPE (IP) CROSS CUT OR DRILL HOLE
L	= LENGTH OF ARC		NAIL & DISC
LB	= LICENSED BUSINESS		CHAIN LINK FENCE
LS	= LICENSED SURVEYOR		METAL FENCE
(M)	= MEASURED		WIRE FENCE
N&D	= NAIL & DISC		WOOD FENCE
OR@	= OFFICIAL RECORDS BOOK		VINYL FENCE
ORV	= OFFICIAL RECORDS VOLUME		OVERHEAD UTILITY
PC	= POINT OF CURVE		FIRE HYDRANT
PCC	= POINT OF COMPOUND CURVE		SIGN
PCP	= POOL EQUIPMENT PAD		WATER METER
PI	= POINT OF INTERSECTION		UTILITY POLE
PRC	= POINT OF REVERSE CURVE		DIAMETER
PRM	= PERMANENT REFERENCE MONUMENT		GUY ANCHOR
PT	= POINT OF TANGENCY		CENTRAL ANGLE
PLS	= PROFESSIONAL LAND SURVEYOR		

ASSOCIATED SURVEYORS INC.
LAND & ENGINEERING SURVEYS
3846 BLANDING BOULEVARD
JACKSONVILLE, FLORIDA 32210
904-771-6468
CERTIFICATE OF AUTHORIZATION NO. LB 0005488

I HEREBY CERTIFY THIS SURVEY WAS DONE UNDER MY DIRECT SUPERVISION AND MEETS THE MINIMUM TECHNICAL STANDARDS FOR LAND SURVEYING PURSUANT TO CHAPTER 5J-17.050 THROUGH 17.052, FLORIDA ADMINISTRATIVE CODE, CHAPTER 472, F.S.

BY:
CHARLES B. HATCHER FLORIDA CERTIFICATE NO. 3771
CHARLES L. STARLING FLORIDA CERTIFICATE NO. 4579
RAYMOND J. SCHAEFER FLORIDA CERTIFICATE NO. 6132

JOB NO. 75725 DATE 12-27-2019
SCALE: 1" = 200' DRAFTER CLS

SEE FIELD BOOK NO. 45 FOR ADDITIONAL FIELD NOTES

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

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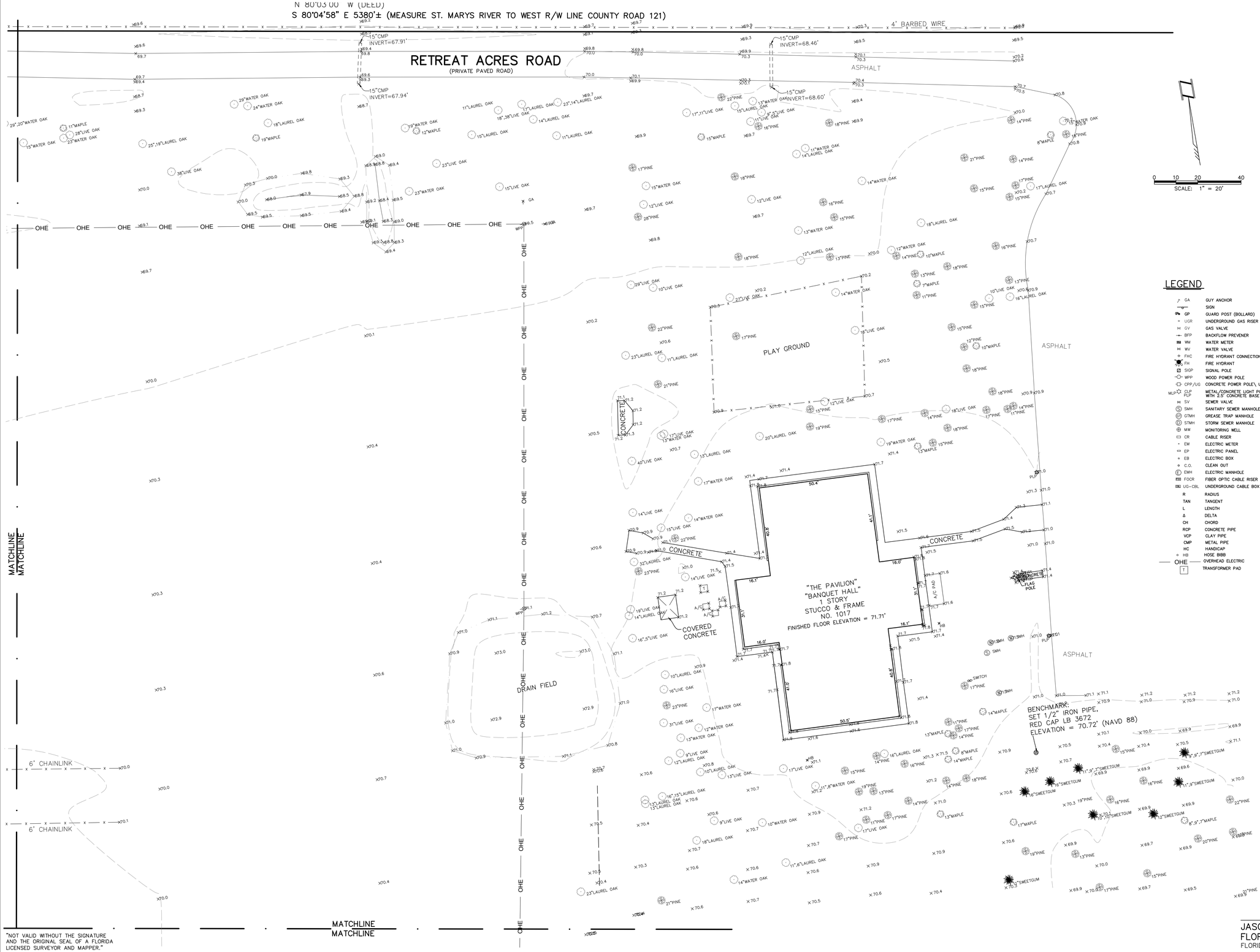
MAP SHOWING SURVEY OF

A PORTION OF THE FRED MCMURREN GRANT, SECTION 40, TOWNSHIP 3 NORTH, RANGE 23 EAST, NASSAU COUNTY, FLORIDA



LEGEND

GA	GUY ANCHOR
	SIGN
GP	GUARD POST (BOLLARD)
UGR	UNDERGROUND GAS RISER
GV	GAS VALVE
BFP	BACKFLOW PREVENER
WM	WATER METER
WV	WATER VALVE
FHC	FIRE HYDRANT CONNECTION
FH	FIRE HYDRANT
SIGP	SIGNAL POLE
WPP	WOOD POWER POLE
CPP/UG	CONCRETE POWER POLE\ UNDERGROUND
MLP CLP FLP	METAL/CONCRETE LIGHT POLE WITH 2.5' CONCRETE BASE
SV	SEWER VALVE
SMH	SANITARY SEWER MANHOLE
GTMH	GREASE TRAP MANHOLE
STMH	STORM SEWER MANHOLE
MW	MONITORING WELL
CR	CABLE RISER
EM	ELECTRIC METER
EP	ELECTRIC PANEL
EB	ELECTRIC BOX
C.O.	CLEAN OUT
EMH	ELECTRIC MANHOLE
FOCR	FIBER OPTIC CABLE RISER
UG-CBL	UNDERGROUND CABLE BOX
R	RADIUS
TAN	TANGENT
L	LENGTH
Δ	DELTA
CH	CHORD
RCP	CONCRETE PIPE
VCP	CLAY PIPE
CMP	METAL PIPE
HC	HANDICAP
HB	HOSE BIBB
OHE	OVERHEAD ELECTRIC
T	TRANSFORMER PAD

TREE LEGEND

- 12"HICKORY
- 10"HOLLY
- 8"MAPLE
- 11"WATER OAK
- 10"TURKEY OAK
- 15"LIVE OAK
- 10"LAUREL OAK
- 12"PINE
- 10"SWEETGUM
- 12"PECAN
- 7"CHERRY

NOTES:
1. THIS IS A TOPOGRAPHIC SURVEY. ALL BOUNDARY INFORMATION SHOWN HEREON IS FROM A PREVIOUS BOUNDARY SURVEY BY ASSOCIATED SURVEYORS FILE No. 75725, DATED
2. BENCHMARKS SHOWN HEREON ARE BASED ON A LEVEL LOOP RAN FROM FLORIDA DEP ROUND CONCRETE MONUMENT WITH BRASS DISK STAMPED "N 596 2003" ELEVATION = 69.48' (NAVD 1988)

THE PROPERTY SHOWN HEREON LIES IN FLOOD ZONE "X" (AREA OF MINIMAL FLOOD HAZARD) AND FLOOD ZONE "A" AS WELL AS CAN BE DETERMINED FROM THE FLOOD INSURANCE RATE MAP NUMBER 12089C0120F REVSED DECEMBER 17, 2010 FOR NASSAU COUNTY, FLORIDA.

THIS SURVEY WAS MADE FOR THE BENEFIT OF FLORIDA SHERIFFS YOUTH RANCHES, INC.

"NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER."

JASON D. BOATWRIGHT, P.S.M.
FLORIDA. LICENSED SURVEYOR AND MAPPER No. LS 7292
FLORIDA LICENSED SURVEYING AND MAPPING BUSINESS No. LB 3672

CHECKED BY:	FILE: 2021-0054	DRAWN BY: KLW	BOATWRIGHT LAND SURVEYORS, inc. 1500 ROBERTS DRIVE JACKSONVILLE BEACH, FLORIDA	DATE: FEBRUARY 11, 2021	SHEET 1 OF 6	(904)241-8550

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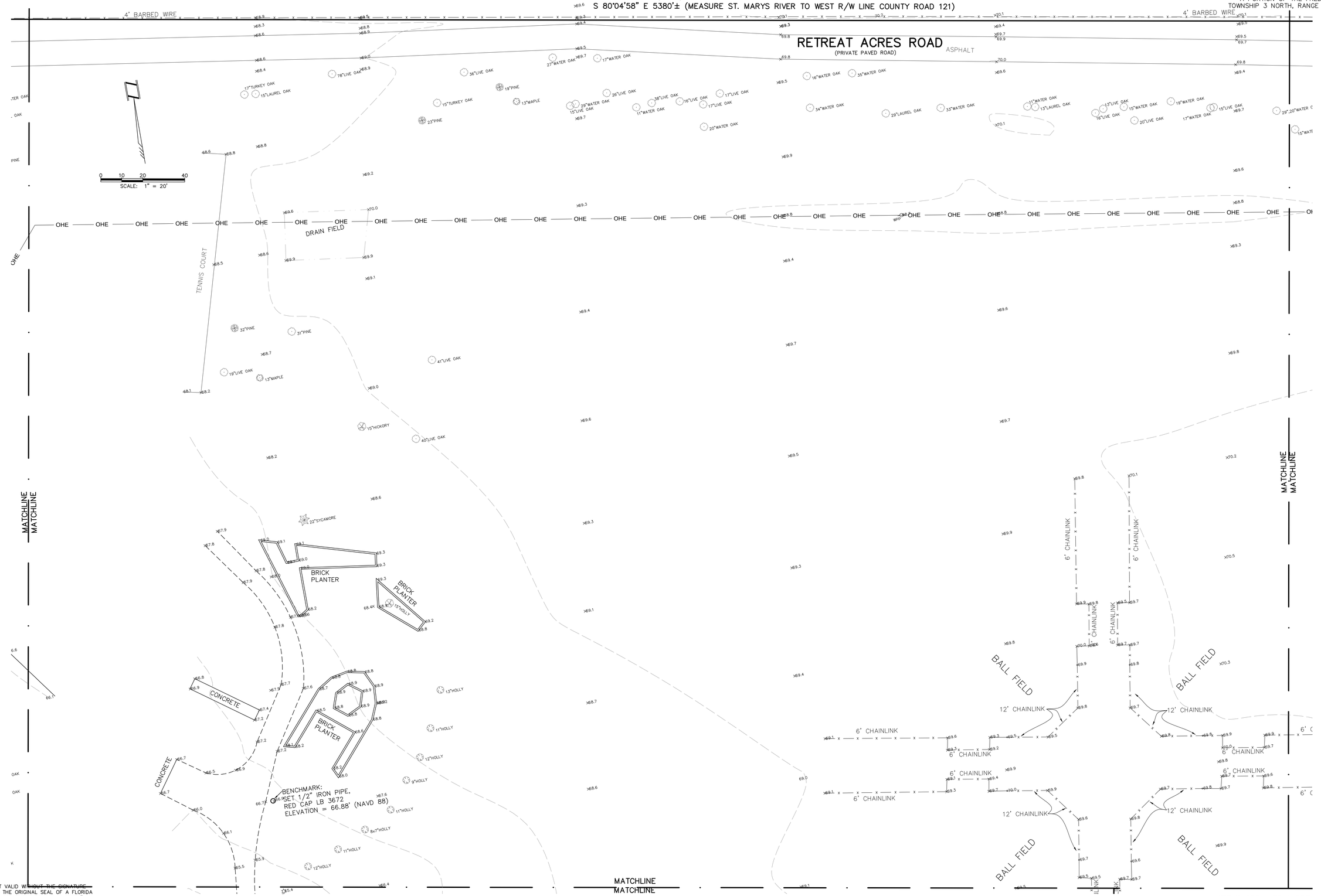
MAP SHOWING SURVEY OF

A PORTION OF THE FRED MCMURREN GRANT, SECTION 40,
TOWNSHIP 3 NORTH, RANGE 23 EAST, NASSAU COUNTY, FLORIDA

S 80°03'00" E 220.0'± PLUS S 80°03'00" E 5252.25' = 5472.25'± (DEED ORIGINAL BOUNDARY)
N 80°03'00" W (DEED)
S 80°04'58" E 5380'± (MEASURE ST. MARYS RIVER TO WEST R/W LINE COUNTY ROAD 121)



"NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER."

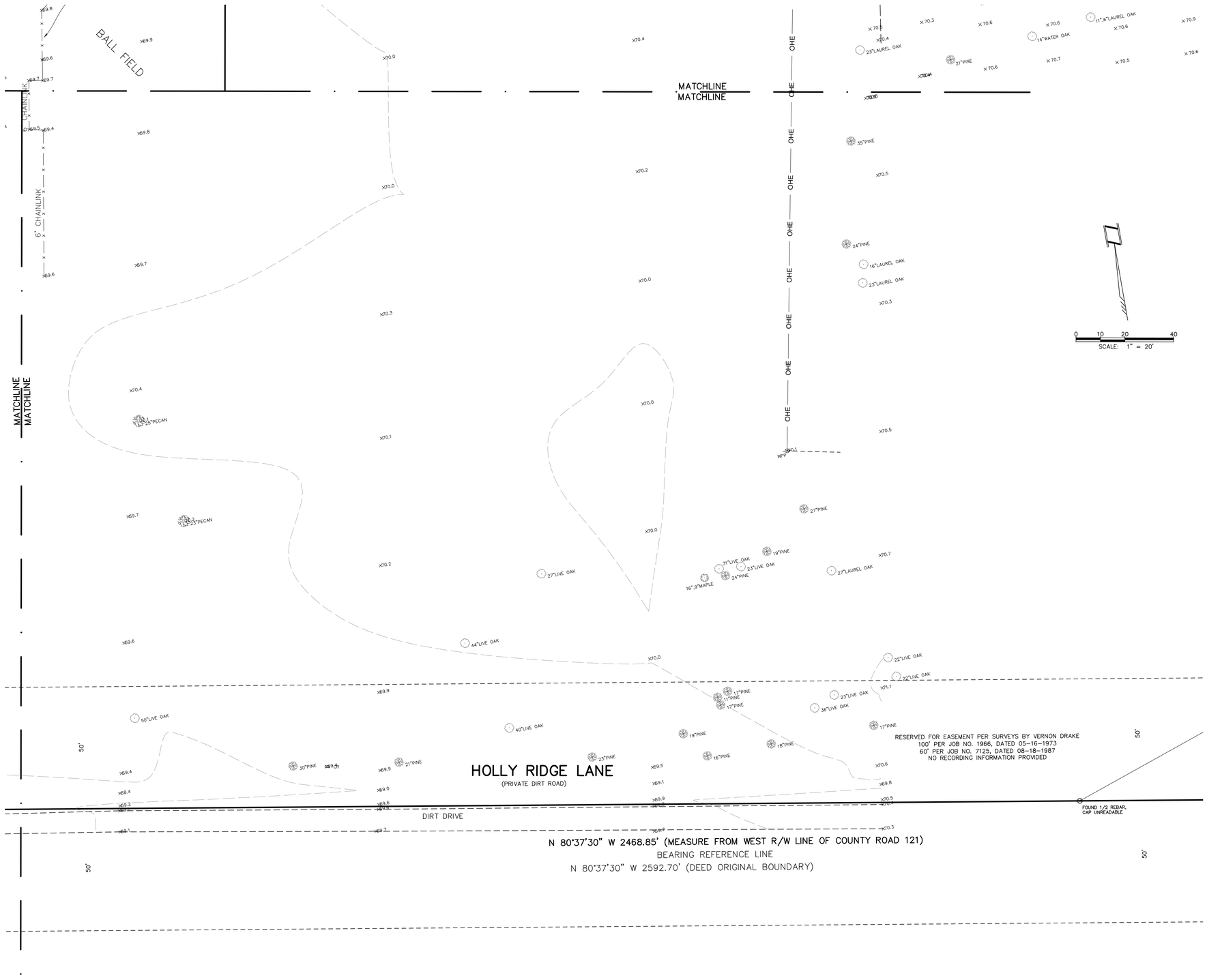
SEE SHEET 1 OF 6 FOR NOTES, LEGEND AND SIGNATURE.

CHECKED BY:	FILE: 2021-0054	DRAWN BY: KLW	BOATWRIGHT LAND SURVEYORS, inc. 1500 ROBERTS DRIVE JACKSONVILLE BEACH, FLORIDA	DATE: FEBRUARY 11, 2021	SHEET 2 OF 6	(904)241-8550

DocuSign Envelope ID: 43F78197-92DC-4D89-A579-D0CB7A6AF9D2

MAP SHOWING SURVEY OF

A PORTION OF THE FRED MCMURREN GRANT, SECTION 40,
TOWNSHIP 3 NORTH, RANGE 23 EAST, NASSAU COUNTY, FLORIDA



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AND THE ORIGINAL SEAL OF A FLORIDA
LICENSED SURVEYOR AND MAPPER."

SEE SHEET 1 OF 6 FOR NOTES, LEGEND AND SIGNATURE.

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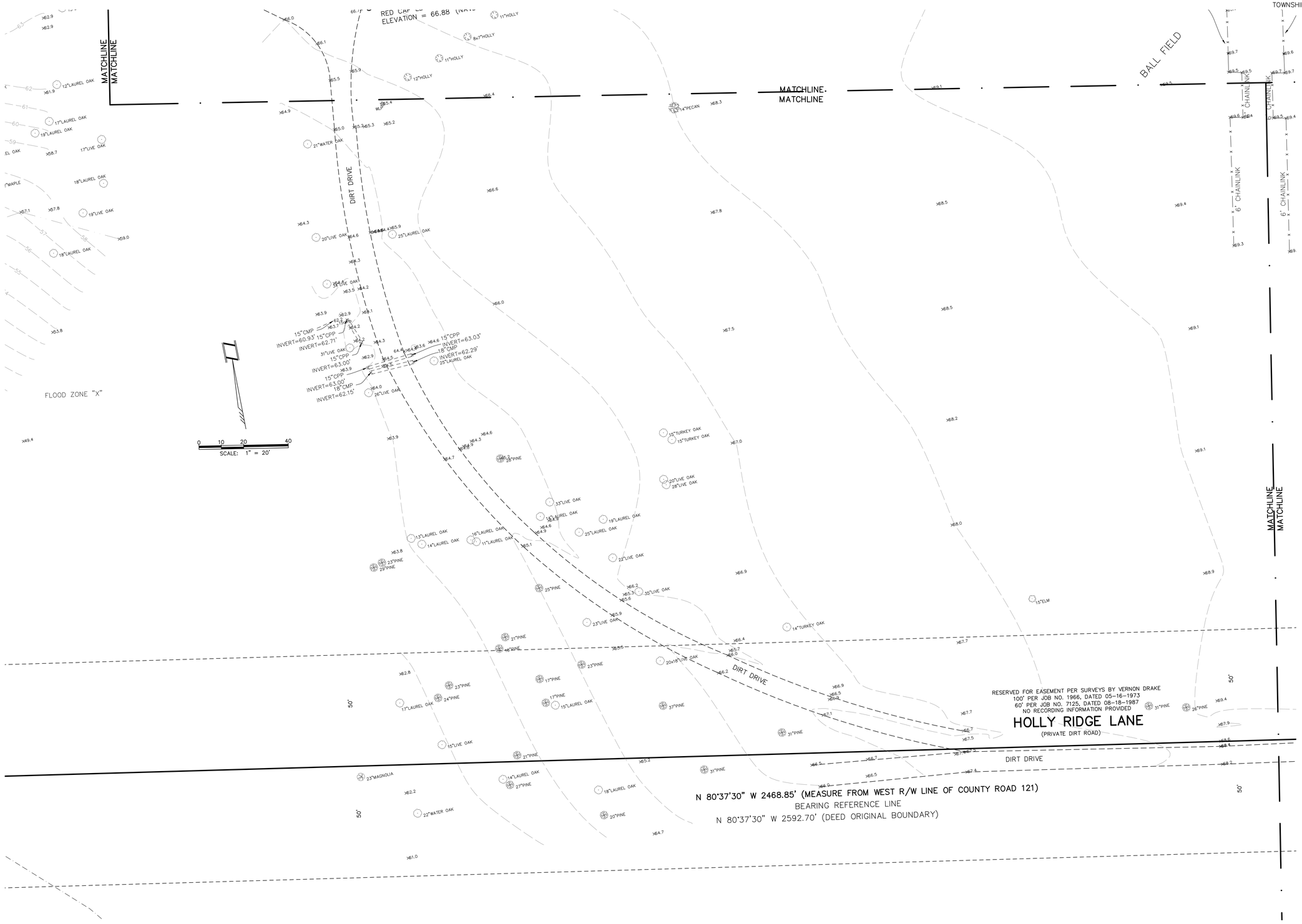

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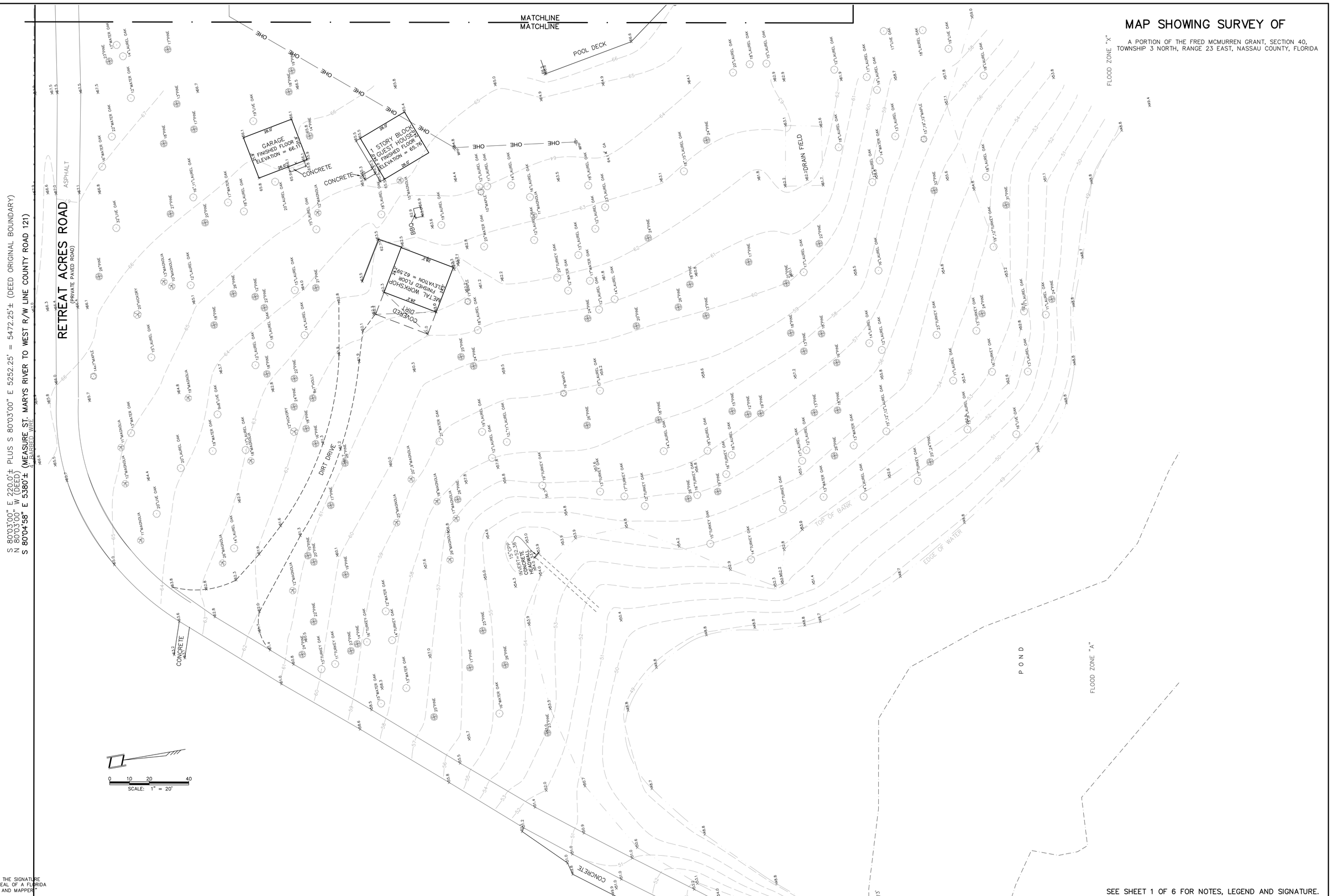
MAP SHOWING SURVEY OF

A PORTION OF THE FRED MCMURREN GRANT, SECTION 40, TOWNSHIP 3 NORTH, RANGE 23 EAST, NASSAU COUNTY, FLORIDA



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MAP SHOWING SURVEY OF

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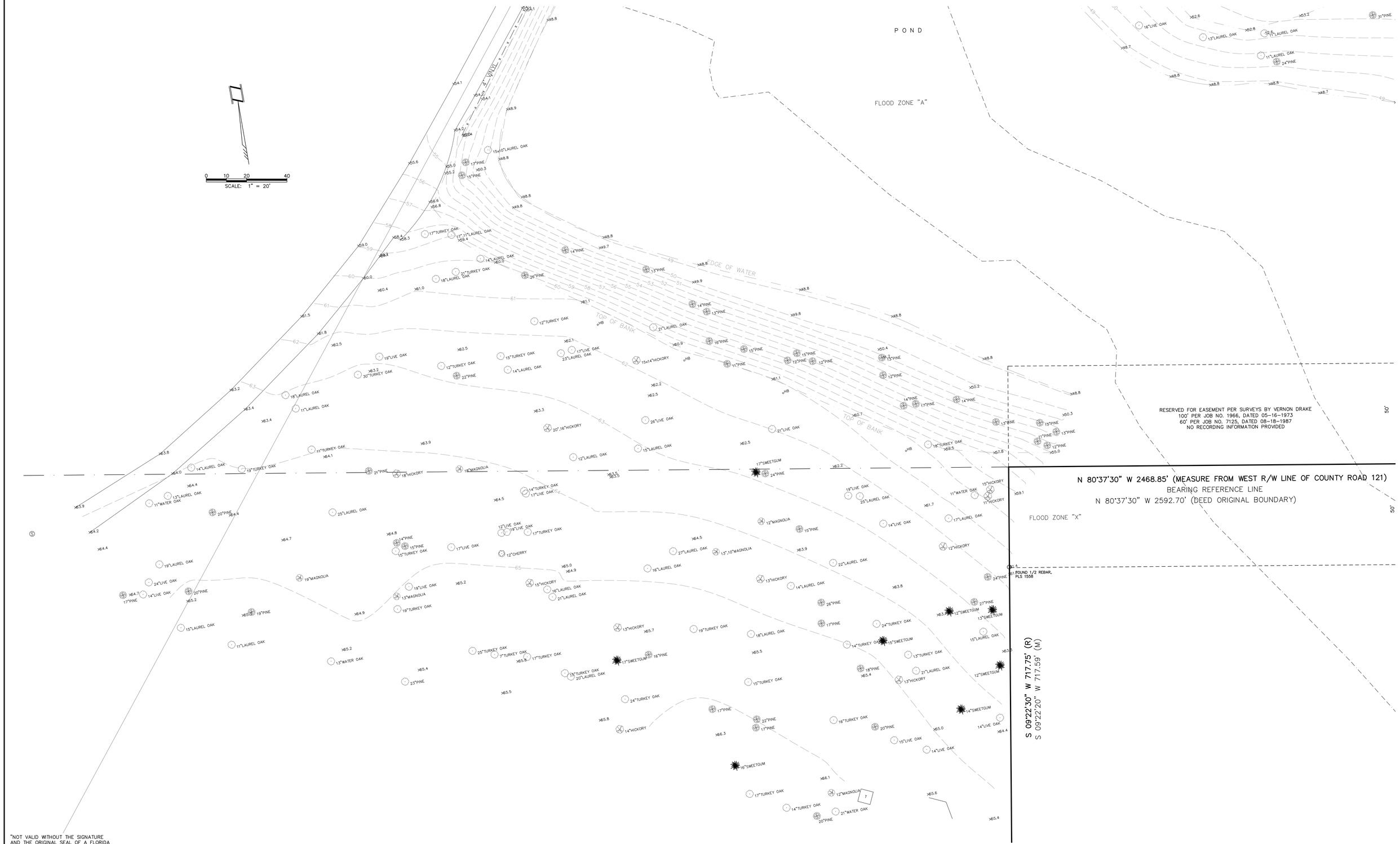

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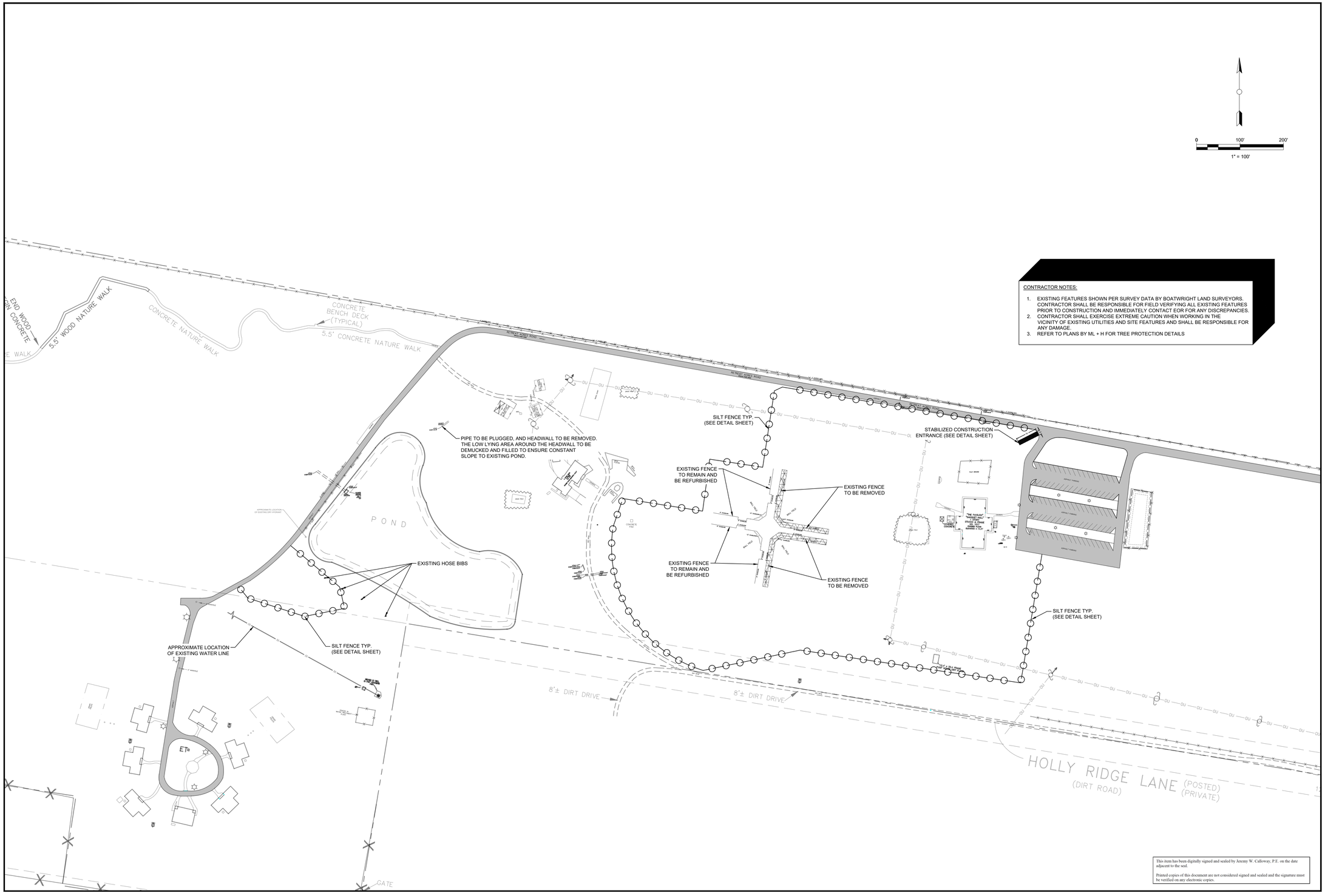

CONTRACTOR NOTES:

1. EXISTING FEATURES SHOWN PER SURVEY DATA BY BOATWRIGHT LAND SURVEYORS. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING FEATURES PRIOR TO CONSTRUCTION AND IMMEDIATELY CONTACT EOR FOR ANY DISCREPANCIES.
2. CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF EXISTING UTILITIES AND SITE FEATURES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE.
3. REFER TO PLANS BY ML + H FOR TREE PROTECTION DETAILS

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St. Augustine, FL 32084
Ph 904.825.6747 www.halback.com
LC0000391

JEREMY CALLOWAY, PE
CA# 34646 PE# 70838 SEAL

DRAWN BY: JWC

JEREMY W. CALLOWAY
LICENSE
No. 70838
STATE OF FLORIDA
PROFESSIONAL ENGINEER

CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLIARD, FLORIDA 32046

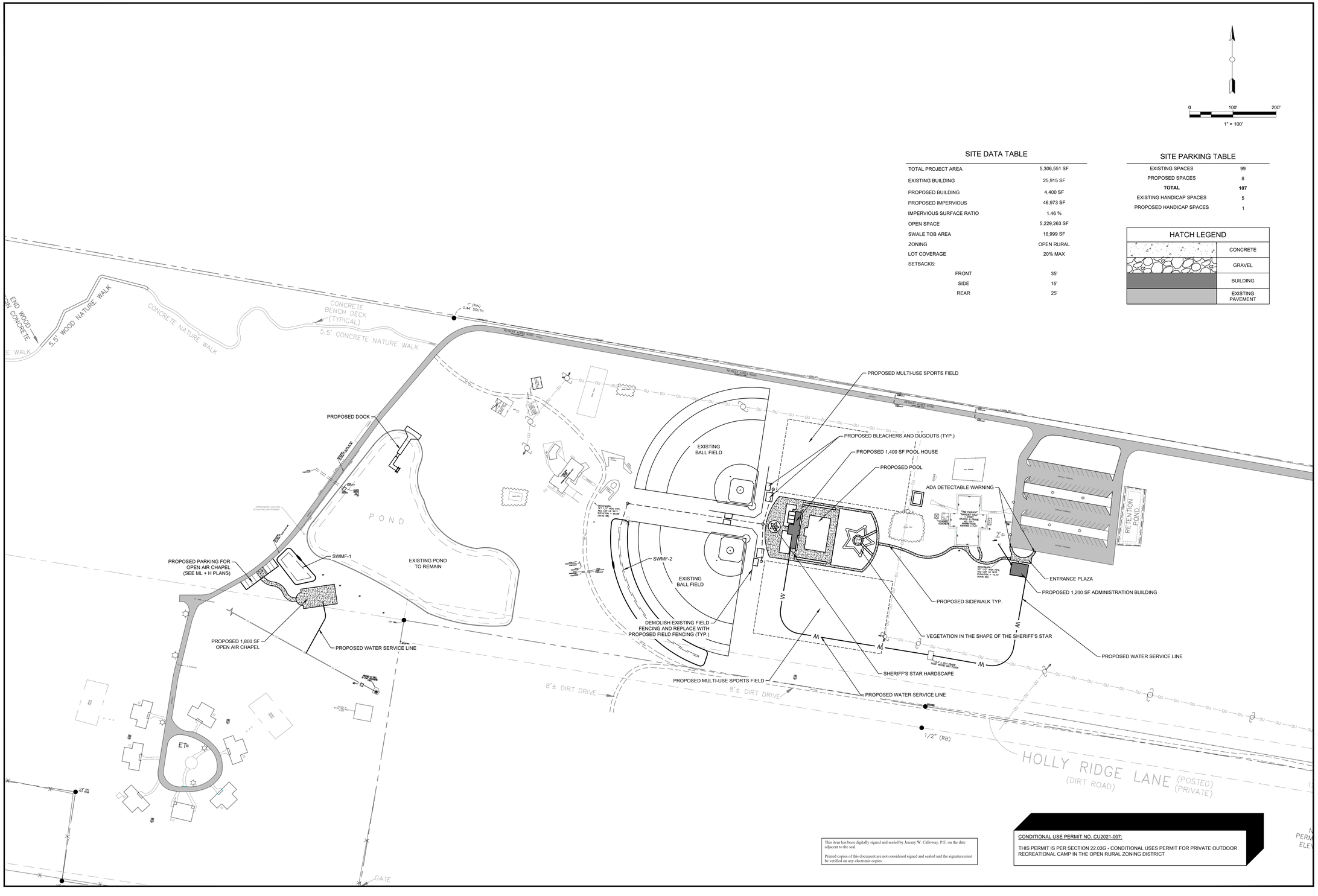
DEMOLITION AND EROSION CONTROL PLAN

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ARCH D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0
MAV PROJECT #: 2101

DRAWING NO.: C4.00

DocuSign Envelope ID: 43F78197-92DC-4D89-A579-D0CB7A6AF9D2



SITE DATA TABLE

TOTAL PROJECT AREA	5,306,551 SF
EXISTING BUILDING	25,915 SF
PROPOSED BUILDING	4,400 SF
PROPOSED IMPERVIOUS	46,973 SF
IMPERVIOUS SURFACE RATIO	1.46 %
OPEN SPACE	5,229,263 SF
SWALE TOB AREA	16,999 SF
ZONING	OPEN RURAL
LOT COVERAGE	20% MAX
SETBACKS:	
FRONT	35'
SIDE	15'
REAR	25'

SITE PARKING TABLE

EXISTING SPACES	99
PROPOSED SPACES	8
TOTAL	**107**
EXISTING HANDICAP SPACES	5
PROPOSED HANDICAP SPACES	1

HATCH LEGEND

	CONCRETE
	GRAVEL
	BUILDING
	EXISTING PAVEMENT

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CONDITIONAL USE PERMIT NO. CU2021-007:

THIS PERMIT IS PER SECTION 22.03G - CONDITIONAL USES PERMIT FOR PRIVATE OUTDOOR RECREATIONAL CAMP IN THE OPEN RURAL ZONING DISTRICT

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JEREMY W. CALLOWAY LICENSE No. 70838 STATE OF FLORIDA PROFESSIONAL ENGINEER

CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLIARD, FLORIDA 32046

OVERALL IMPROVEMENTS PLAN

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ARCH D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0
MAV PROJECT #: 2101

DRAWING NO.: C5.00

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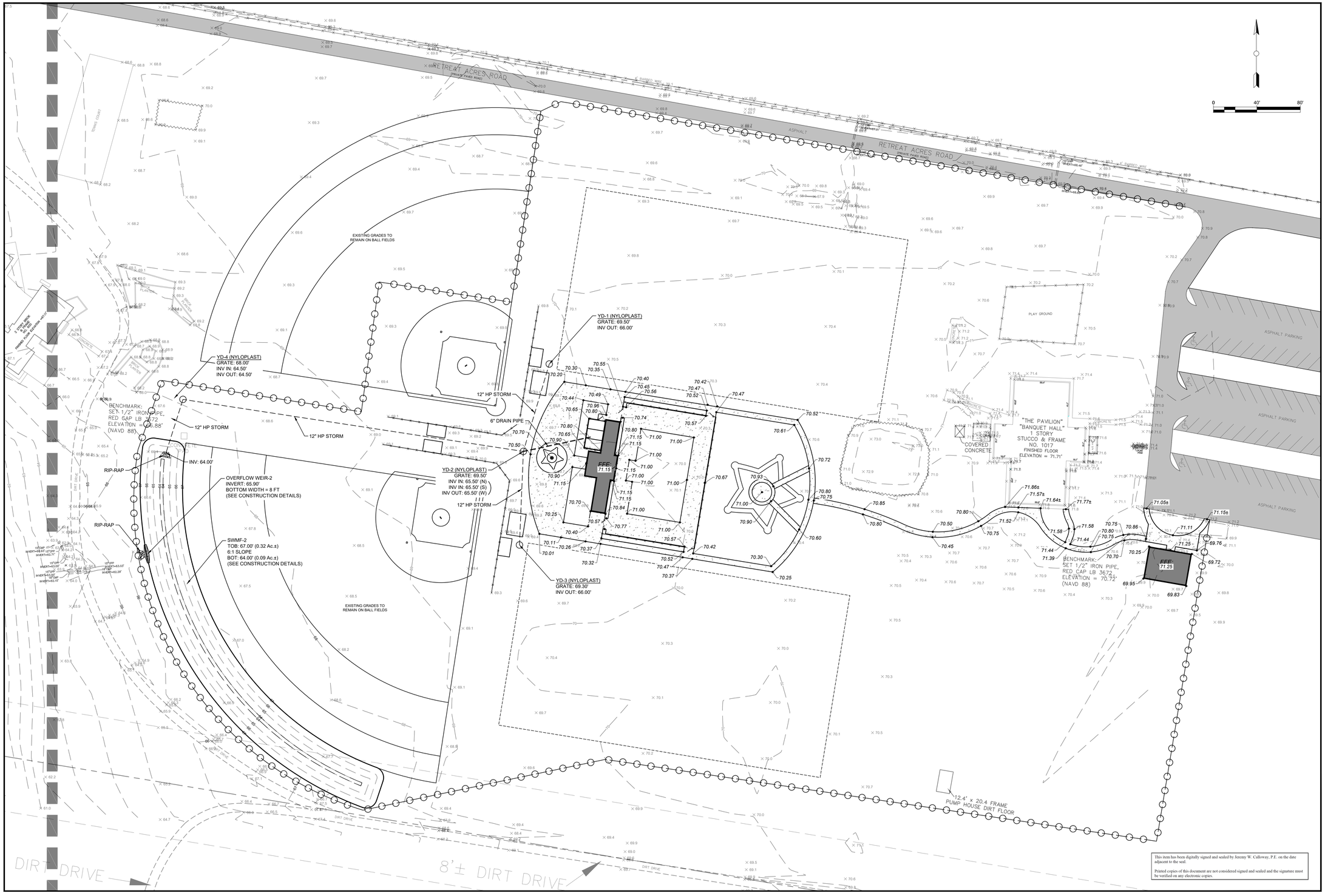

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No. 70838
STATE OF FLORIDA
PROFESSIONAL ENGINEER

CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLIARD, FLORIDA 32046

GRADING AND DRAINAGE PLAN

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ARCH D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0
MAV PROJECT #: 2101

DRAWING NO.: C6.00

DocuSign Envelope ID: 43F78197-92DC-4D89-A579-D0CB7A6AF9D2

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LICENSE
No. 70838
STATE OF FLORIDA
PROFESSIONAL ENGINEER

CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLIARD, FLORIDA 32046

GRADING AND DRAINAGE PLAN

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE:	ARCH D
PRIME PROJECT #:	21.2.0
ML+H PROJECT #:	21.2.0
MAV PROJECT #:	2101

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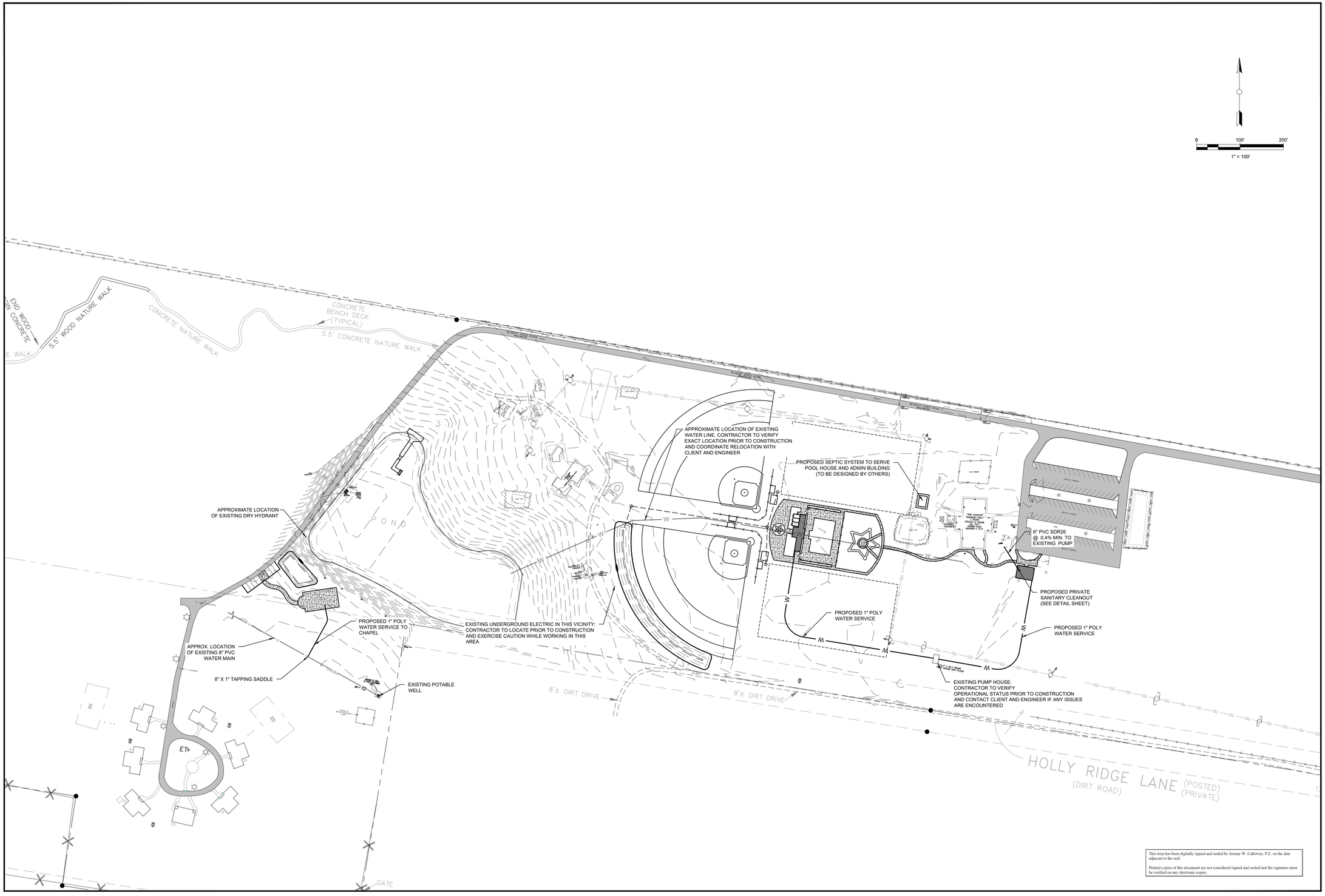

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLIARD, FLORIDA 32046

UTILITY PLAN

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ARCH D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0
MAV PROJECT #: 2101

DRAWING NO.: C7.00

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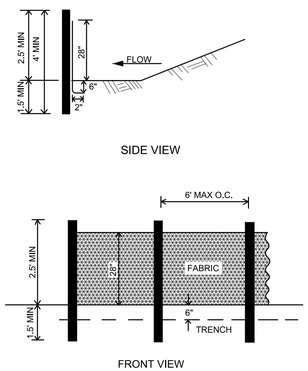
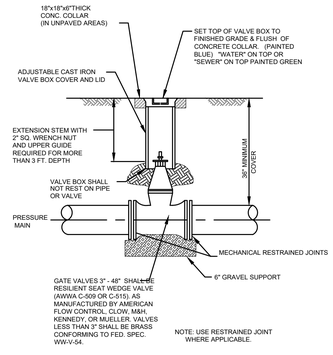


NOTE:
USE 36" FDOT APPROVED FABRIC
USE WOOD OR STEEL POSTS

SILT FENCE DETAIL
N.T.S.



VALVE BOX AND COVER
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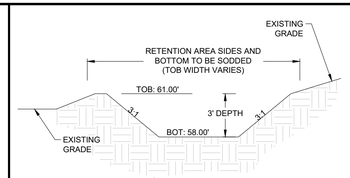
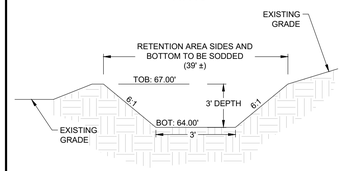
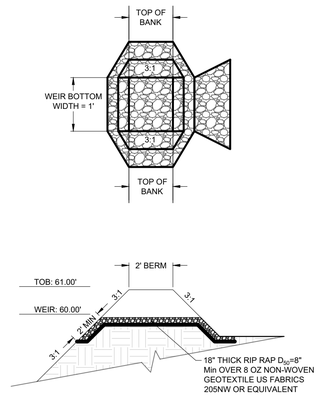


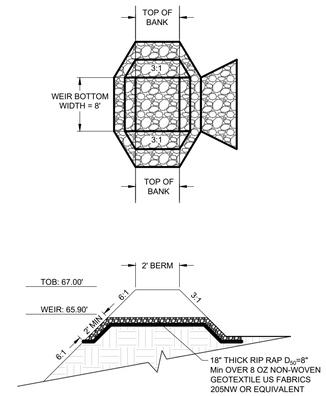
SWMF-1 DRY RETENTION
CROSS SECTION
N.T.S



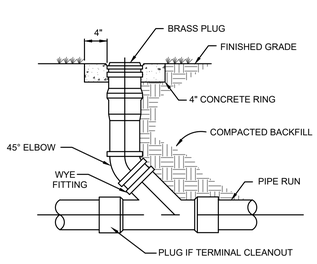
SWMF-2 DRY RETENTION
CROSS SECTION
N.T.S.



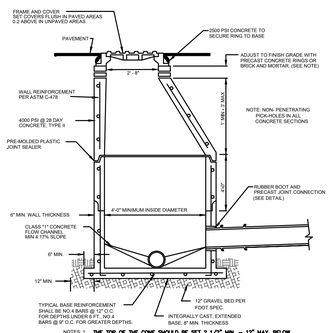
EARTHEN OVERFLOW WEIR-1
N.T.S.



EARTHEN OVERFLOW WEIR-2
N.T.S.

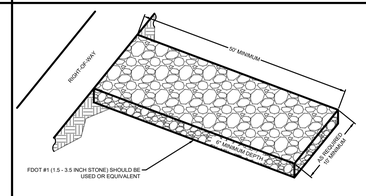


SANITARY SEWER CLEANOUT
N.T.S.

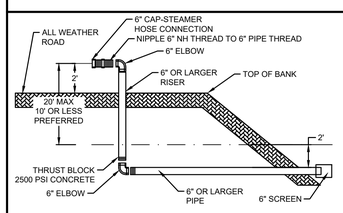


NOTES:
1. THE TOP OF THE CONE SHOULD BE SET 2 1/2" MIN. – 12" MAX. BELOW THE BOTTOM OF THE MANHOLE COVER FRAME TO ACCOMMODATE FUTURE GRADE CHANGES (USE BRICK AND MORTAR OR PRECAST CONCRETE RINGS).
2. MANHOLES WHICH RECEIVE DISCHARGE FROM A FORCE MAIN AND ANY MANHOLES LOCATED WITHIN 200' OF A LIFT STATION OR ANY MANHOLES WHICH ARE SUBJECT TO FLOODING OR STANDING WATER, CONCRETE MATERIAL SHALL BE USED AS LINER FOR THOSE MANHOLES THAT MEET THE CONDITIONS STATED ABOVE. THE LINER SHALL BE EITHER FIBERGLASS OR PVC OR AS APPROVED BY THE CITY ENGINEER.
3. NO "DOGHOUSE" TYPE MANHOLES ARE ALLOWED.

SANITARY MANHOLE
N.T.S.

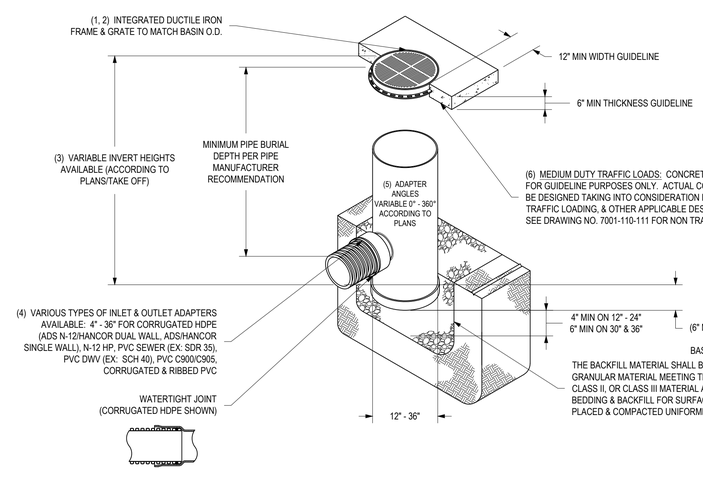


STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.



DRY HYDRANT DETAIL
N.T.S.

NYLOPLAST DRAIN BASIN WITH PEDESTRIAN GRATE



1 - 12" - 30" PEDESTRIAN GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 36").
5 - ADAPTERS CAN BE MOUNTED 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12" - 24" PEDESTRIAN GRATES SHALL MEET H-10 LOAD RATING. 30" PEDESTRIAN GRATE SHALL MEET H-20 LOAD RATING (SEE DRAWING NO. 7001-110-144 FOR H-20 TRAFFIC LOAD GUIDELINES).

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DRAWN BY EBC	MATERIAL PVC	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 4-20-07			
REVISED BY NMH	PROJECT NO./NAME	TITLE DRAIN BASIN WITH PEDESTRIAN GRATE QUICK SPEC INSTALLATION DETAIL	
DATE 06-12-18			
DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO. 7001-110-283	REV E

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JEREMY W. CALLOWAY LICENSE No. 70838 STATE OF FLORIDA PROFESSIONAL ENGINEER

CAMP SORENSEN
607 RETREAT ACRES ROAD, HILLIARD, FLORIDA 32046
CONSTRUCTION DETAILS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
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MAV PROJECT #: 2101

DRAWING NO.: C8.00

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STORM WATER POLLUTION PREVENTION PLAN

GENERAL NOTES

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE CLEARING AND EROSION CONTROL PLAN. IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS.

SEQUENCE OF MAJOR ACTIVITIES

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
2. INSTALL SILT FENCES, SYNTHETIC BALES AND OTHER EROSION/SEDIMENTATION CONTROLS AS REQUIRED.
3. CLEAR AND GRUB FOR DIVERSION SWALES/DIKES AND SEDIMENT BASIN IF REQUIRED.
4. CONSTRUCT SEDIMENTATION BASIN IF REQUIRED.
5. CONTINUE CLEARING AND GRUBBING.
6. STOCK PILE TOP SOIL IF REQUIRED.
7. PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED.
8. STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS PRACTICABLE.
9. INSTALL STORM SEWER, WATER, SEWER AND IRRIGATION.
10. COMPLETE GRADING AND INSTALL PERMANENT SEEDING/SOD AND PLANTING.
11. REMOVE ACCUMULATED SEDIMENT FROM BASIN.
12. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY DIVERSION SWALES/DIKES AND RESEED/SOD AS REQUIRED.

TIMING OF CONTROLS / MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES AND SYNTHETIC BALES, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE CLEARING AND EROSION CONTROL PLAN.

CONTROLS

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE PLANS. IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED, MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE PLANS AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED, TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED BY THE PLANS AND AS REQUIRED TO MEET THE EROSION AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.

STABILIZED CONSTRUCTION ENTRANCE:

1. CONTRACTOR SHALL INSTALL AND MAINTAIN FOR THE DURATION OF THE CONSTRUCTION A STONE STABILIZED PAD LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS TO THE CONSTRUCTION SITE. AGGREGATE SHALL BE FDOT SIZE NO. 1 COARSE AGGREGATE.

EROSION AND SEDIMENT CONTROLS STABILIZATION PRACTICES:

1. SYNTHETIC BALE BARRIER: SYNTHETIC BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   - A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   - B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
   - C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.
   - D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF SYNTHETIC BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.
   - E. REFER TO THE DETAILS FOR CONSTRUCTING THE SYNTHETIC BALE BARRIER. ALSO, REFER TO THE DETAILS FOR PROPER LOCATION, MATERIAL AND USAGE.
2. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   - F. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   - G. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
   - H. REFER TO THE DETAILS FOR PROPER CONSTRUCTION OF THE FILTER FABRIC BARRIER.
3. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.
4. LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT-FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL LIP IS STABILIZED. THE WATER SHOULD NOT BE ALLOWED TO RECONCENTRATE AFTER RELEASE. LEVEL SPREADER SHALL BE CONSTRUCTED IN ACCORDANCE TO THE DETAILS.
5. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.
6. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 10 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREAS WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.
7. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT-LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
8. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 7 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING.
9. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH 8 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.
10. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDRO MULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. TEMPORARY GRASSING SHALL BE THE SAME MIX AND AMOUNT REQUIRED FOR PERMANENT GRASSING IN THE CONTRACT SPECIFICATIONS.
11. TEMPORARY REGRASSING: IF AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.
12. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.
13. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.
14. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED. THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED OR SODDED.

CONTROLS (CONTINUED)

STRUCTURAL PRACTICES:

1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY AND IT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS.
2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP SHALL BE INSTALLED IN A DRAINAGE WAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA. THE FOLLOWING SEDIMENT TRAPS MAY BE CONSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION DIKE:
   - A. BLOCK AND GRAVEL SEDIMENT FILTER - THIS PROTECTION IS APPLICABLE WHERE HEAVY FLOWS AND/OR WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE. REFER TO THE DETAILS FOR CONSTRUCTION OF A CURB INLET SEDIMENT FILTER, AND FOR CONSTRUCTION OF A DROP INLET SEDIMENT FILTER.
   - B. GRAVEL SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED SEDIMENT TRAP.
   - C. DROP INLET SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (S < 5%) AND WHERE SHEET OR OVERLAND FLOWS (Q < 0.5 CFS) ARE TYPICAL. THIS METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS SUCH AS IN STREET OR HIGHWAY MEDIANS. REFER TO THE DETAILS FOR CONSTRUCTION OF SYNTHETIC BALE AND FABRIC SEDIMENT FILTER.
3. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE THE FLOW COULD CAUSE EROSION AND SEDIMENT PROBLEM TO THE RECEIVING WATER BODY. SILT FENCES AND SYNTHETIC BALES ARE TO BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE DISCHARGING STRUCTURE AS SHOWN ON THE OUTLET PROTECTION DETAIL.
4. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME. THE PROPOSED STORM WATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASINS. THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE. THE 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN. ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

OTHER CONTROLS

WASTE DISPOSAL:

WASTE MATERIALS:

ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT. THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE:

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT. THE INDIVIDUAL WHO MANAGES DAY-TO-DAY OPERATIONS WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE:

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DEPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

OFFSITE VEHICLE TRACKING:

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

MAINTENANCE / INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTIONS AND MAINTENANCE PRACTICES:

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

- NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.
- ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.
- ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
- BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
- SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
- THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB, WHICHEVER COMES FIRST.
- DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
- TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.
- THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.
- THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
- PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

NON-STORM WATER DISCHARGES:

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

- WATER FROM WATER LINE FLUSHING.
- PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).
- UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE. ALL SUCH DISCHARGES SHALL MEET STATE WATER QUALITY STANDARDS AND ALL NECESSARY PERMITS SHALL BE OBTAINED.

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES:

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GENERAL:

- AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
- ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER..
- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

HAZARDOUS PRODUCTS:

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:

- PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
- IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

PRODUCT SPECIFIC PRACTICES:

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS:

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS:

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS:

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS:

CONCRETE TRUCKS SHALL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONLY AT DISCHARGE POINT PROVIDED. NO OFFSITE DISCHARGE WILL BE PERMITTED.

SPILL CONTROL PRACTICES:

IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS INCLUDE BUT ARE NOT LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ABSORBENT (I.E. KITTY LITTER OR EQUAL), SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

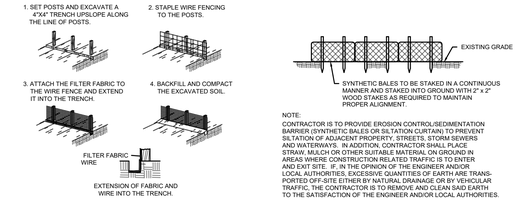
ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.



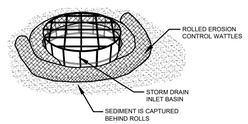
NOTE:
CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (SYNTHETIC BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION, CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR LOCAL AUTHORITIES.

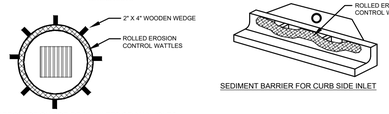
SILT FENCE CONSTRUCTION

N.T.S.

SEDIMENT BARRIER

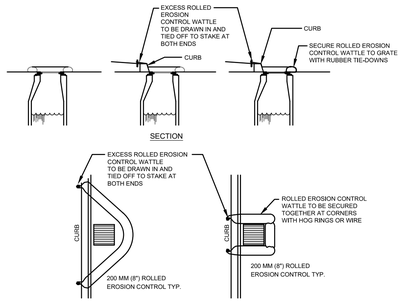
N.T.S.





INLET PROTECTION FOR DROP INLETS OR MANHOLES

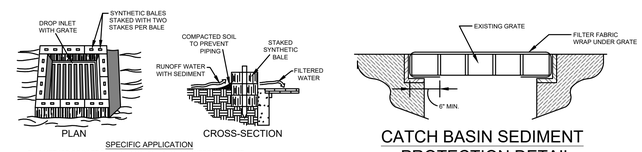
SEDIMENT BARRIER FOR CURB SIDE INLET



NOTES
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. SECURE ROLLED EROSION CONTROL PRODUCT TO GROUND AT EACH END.
3. ROLLS SHOULD BE INSPECTED AFTER EVERY SIGNIFICANT STORM EVENT TO CLEAR AND DISPOSE OF SEDIMENT AND DEBRIS.
4. USE 12" DIAMETER, 20' LONG WATTLE ROLLS FOR STANDARD CIRCULAR DRAINAGE STRUCTURES. PLACE THE ROLL AROUND THE STRUCTURE AND JOIN THE ENDS TOGETHER WITH HOG RINGS OR WIRE. USE 2"x2"x24" WOODEN WEDGES TO HOLD DOWN WATTLE ROLLS.

ROLLED EROSION AND SEDIMENTATION CONTROL PRODUCTS

N.T.S.



SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT) WHERE SHEET OR OVERLAND FLOWS ARE TYPICAL.

SYNTHETIC BALE DROP INLET SEDIMENT FILTER

N.T.S.

CATCH BASIN SEDIMENT PROTECTION DETAIL

N.T.S.

This item has been digitally signed and sealed by Jeremy W. Calloway, P.E. on the date adjacent to the seal.

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JEREMY CALLOWAY, PE
CA# 34646 PE# 70838 SEAL
DRAWN BY: JWC

JEREMY W. CALLOWAY LICENSE No. 70838 STATE OF FLORIDA PROFESSIONAL ENGINEER

CAMP SORENSEN
607 RETREAT ACRES ROAD, HILLIARD, FLORIDA 32046
SWPP PLAN

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ARCH D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0
MAV PROJECT #: 2101

C9.00

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Applicable Local, State, and Federal Guidelines

Nassau County Landscape Requirements Applicable to the Site

Section 37.05 Landscaping

A. Applicability.
2.Developments constructed under previously effective landscaping requirements are not required to comply with this section. However, the requirements of this section shall also apply to the redevelopment, reconfiguration, expansion or change of use of a previously developed site, unless such change falls below the following threshold:a.The existing developed impervious area is seven thousand five hundred (7,500) square feet or less, and the proposed expansion of impervious surface is seven hundred fifty (750) square feet or less.b.The existing developed impervious area is greater than seven thousand five hundred (7,500) square feet, and the proposed expansion of impervious surface is less than two thousand (2,000) square feet, and also less than ten (10) percent of the existing impervious area on the parcel or lot.

B.Plant material. All installed trees, shrubs and groundcovers shall conform to the standards for Florida Grade #1 or better according to the current edition of "Grades and Standards for Nursery plants" published by the Florida Department of Agriculture and Consumer Services, Division of Plant Industry. Synthetic or artificial trees, shrubs, groundcovers or vines are not acceptable substitutes.
1.The minimum number of trees required by this section shall be either qualifying existing trees preserved on-site or more than one species listed in Tables 37-1 or 37-2. Trees planted in addition to these minimum requirements of this section may be any species of canopy tree or palm except for the prohibited species listed herein. In order to prevent a monoculture, new landscaping should not include more than fifty (50) percent of any one genus or twenty-five (25) percent of any one species. All trees shall be planted in a minimum dimension of ten (10) feet. This minimum planting area must be free of all pavement and vehicle overhang in order to prevent possible tree damage. All trees shall have a minimum trunk diameter, measured six (6) inches above ground level, in accordance with Table 37-3.
2.Shrubs shall have a minimum height of eighteen (18) inches when planted. When planted as a hedge, the maximum spacing is 30 inches on center. All shrubs used for visual screening shall be of a plant species that is capable of reaching a height of four (4) feet within twenty-four (24) months under normal growing conditions.
3.Groundcovers shall be planted in such manner as to present a finished appearance and complete coverage within one (1) year after planting.

C.Minimum tree planting requirements by use.
3.Non-residential developments. In addition to the buffer and perimeter landscaping adjacent to a right-of-way requirements found in this section, each commercial and/or industrial development must provide a minimum of ten (10) percent of the lot or parcel as pervious green space planted with one or more species of tree listed in Tables 37-1 or 37-2 for every five hundred (500) square feet of such green space.

D.Perimeter landscaping adjacent to rights-of-way and streets: Except for individual one- and two-family dwellings, all developments located along a public or private right-of-way or street shall be required to provide the following perimeter landscaping. Perimeter landscaping adjacent to rights-of-way/streets and required screening of vehicle use areas as considered in this section and those uncomplimentary use buffers defined in section 37.06
2.Other arterial and collector roadways. All other arterial and collector roadways, as identified by the comprehensive plan, shall provide a strip of pervious land adjacent and parallel to the right-of-way line having an average width of fifteen (15) feet and a minimum width of seven and one-half (7½) feet along the entire street frontage except for permitted driveways. This perimeter landscaping strip shall contain a minimum of three (3) canopy trees per one hundred (100) linear feet of property frontage and three (3) understory trees per one hundred (100) linear feet of property frontage. The canopy trees shall consist of more than one species listed in Tables 37-1 or 37-2 and meeting the material standards of this section.

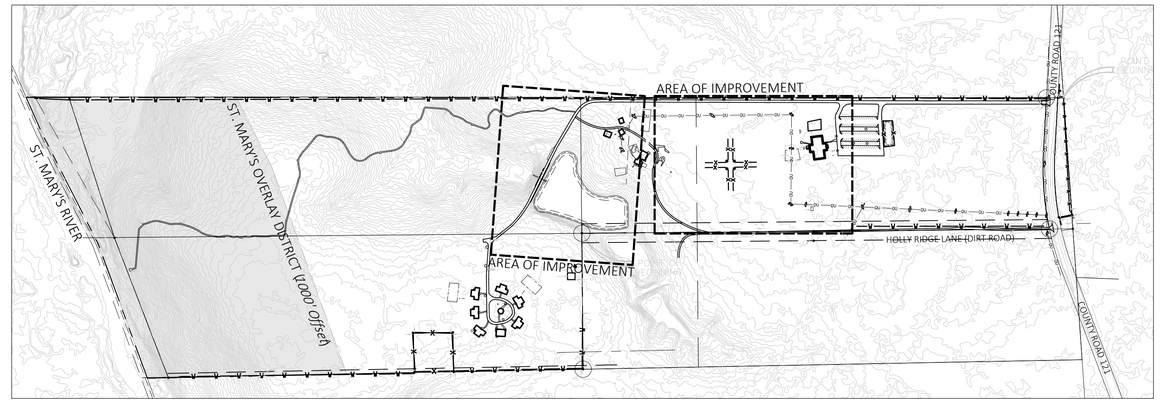
E.Intersection sight distance clearance:1.At the intersection of two (2) streets, all landscaping within that area defined by the Florida Department of Transportation sight triangle, as outlined in the FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System shall be installed and maintained below three (3) feet in height or above eight (8) feet in height.2.When a driveway intersects a right-of-way, clear unobstructed cross visibility shall be provided within the site triangle formed by such intersection. The sight triangle shall be measured from the point of intersection, fifteen (15) feet along the access way and then fifteen (15) feet along the right-of-way, with the third side being a line connecting the two (2) points. Cross visibility within the sight triangle shall be unobstructed between the height of three (3) feet and eight (8) feet measured from the ground line.

F.Interior landscaping regulations:1.Except for one- and two-family dwellings, all off-street parking areas shall contain interior landscaping islands at a ratio of one (1) island for each ten (10) parking spaces. Rows of parking spaces abutting a sidewalk adjacent to a building are exempt from required landscape islands except for terminal islands at the end of each row. Such landscaped areas are creditable to the minimum landscape requirements for multi-family, mobile home park, travel trailer park and non-residential developments.2.Each separate interior landscaped island shall contain a minimum of one hundred sixty-six (166) square feet and shall be at least ten (10) feet wide as measured from back of curb. A minimum of one (1) canopy tree shall be planted in each interior landscaping island with the remaining area adequately planted with shrubs, ground cover, or other approved landscaping materials.3.All interior landscaping shall be protected from vehicle encroachment by curbing or wheel stops.4.Interior landscaping shall be located in a manner, which will divide or interrupt the broad expanse of paving. Landscaped areas shall subdivide rows of parking spaces into a maximum of ten (10) consecutive spaces. Each group of ten (10) shall have terminal islands at each end. This maximum may be adjusted to provide for the preservation of existing canopy trees.

G.Landscaping site plan regulations:1.For all projects subject to this section of the Code, landscaping site plans shall be submitted with the preliminary binding site plan (PBSP), when a PBSP is not required, it shall be submitted with the site engineering plans. The landscaping site plan shall contain the following information in graphic and tabular form:a.Impervious lands (for the purpose of this Code, impervious lands include, but may not be limited to, total area of all structures, all pavement areas, stormwater retention facilities measured at the normal high-water level, and wetlands).b.Pervious strips adjacent to rights-of-way (reference section 37.05.D).c.Uncomplimentary land use buffers (reference section 37.06 LDC).d.Interior landscaping areas (reference section 37.05.F LDC).e.A planting schedule demonstrating consistency with this Code shall be included for all landscape plans.

H.Xeriscape.
1.All plantings shall be grouped in zones according to water requirements and shall be irrigated in zones separating high water use areas from drought tolerant zones. The zones are as follows:a.High water use zone: A zone containing plants which are associated with moist soils and require supplemental water in addition to natural rainfall to survive. This zone includes most turf grasses.b.Moderate water use zone: A zone containing plants which survive on natural rainfall with supplemental water during seasonal dry periods.c.Low water use zone: A zone containing plants which survive on natural rainfall without supplemental water.2.Fifty (50) percent of the plants used in all vehicular use area landscape designs should be drought tolerant and located in groupings according to zones designated by the water requirements.3.Turf grass areas should be consolidated and limited to those areas on the site that receive pedestrian traffic, provide for recreational uses, provide soil erosion control such as berms, slopes and swales, where turf grass is used as a design unifier or other similar practical use.4.All planting areas shall be mulched with approximately three (3) inches of organic mulch, such as pine bark or shredded hardwood chips.

NASSAU COUNTY GENERAL LAND USE : OPEN RURAL (OR)
Overlay District : ST. MARY'S



General Land Use Designation :OPEN RURAL (OR)

The parcel is designated Agricultural on the Future Land Use Map with a zoning designation of Open Rural (OR). The OR zoning district allows "private outdoor recreational uses such as parks and playgrounds, sport fields and courts, swimming pools, camps, camping areas and private indoor recreational and entertainment facilities such as bowling alleys, gymnasiums. spas, exercise facilities, swimming pools, meeting rooms, theaters, and game rooms and similar uses" as a Conditional Use.

Section 36.04 Conditional Uses
The conditional uses of the underlying zoning designation shall apply, as set forth in article 28, section 28.14.

Section 28.09. - Travel trailer parks and campgrounds.
(A)Development guidelines:(1)Location and access: A travel trailer park or campground shall be so located that no entrance nor exit from a park shall discharge traffic into any residential district. A travel trailer park or campground fronting on a public street shall have a minimum of one hundred-fifty (150) feet of frontage.(2)Permitted use: Spaces in the travel trailer park and campground shall be used exclusively for temporary portable housing. Permanent occupancy for dwelling purposes is prohibited. Spaces shall be rented by the day or week only.(3)Accessory uses: Management headquarters, recreational facilities, toilets, showers, coin-operated laundry facilities, and other uses and structures customarily incidental to the operation of a travel trailer park or campground are permitted as accessory uses.(4)Yard requirements: Twenty-five (25) feet front, rear and side yards shall be provided for travel trailer parks or campgrounds.(5)Relation of spaces to exterior streets: No space intended for occupancy shall be so located that any part intended for occupancy for sleeping purposes shall be within fifty (50) feet of the right-of-way line of any arterial street or within twenty-five (25) feet of the right-of-way line of any other street.(6)Design of access to park: All traffic into or out of the park shall be through entrances and exits designed for the safe and convenient movement of traffic.(7)Off-street parking, loading and maneuvering space: Each travel trailer park or campground shall provide adequate off-street parking, loading and maneuvering space. In connection with the use of any travel trailer park or campground, no parking, loading, or maneuvering incidental to parking, or loading shall be permitted on any public street, sidewalk or public right-of-way.(B)Site plan: A site plan is required for all travel trailer park and campground developments in Nassau County. All site plans shall be submitted and processed in accordance with Class III requirements of section 5.07 of this ordinance.
(Ord. No. 2010-08, § 7, 7-26-10)

Section 28.12 Agricultural Zoning
All lands which become classified as open rural for ad valorem tax purposes by the Nassau County Tax Assessor, shall be considered to be in the Open Rural (OR) District during the time such classification is maintained regardless of the zoning district shown on the Zoning Atlas for such lands. All uses, restrictions and regulations provided in the OR District shall apply to such lands during the time such classification is maintained.

St. Mary's Overlay District
NOTE: NO IMPROVEMENTS INCLUDED WITHIN THIS ZONE.

Article 36 St. Mary's Overlay District

Section 36.02. - Permitted uses and structures.
The permitted uses and structures of the underlying zoning shall apply, as set forth in article 28, section 28.15.
(Ord. No. 2003-34, § 1, 6-23-03)

Section 36.03. - Permitted accessory uses and structures.
The permitted accessory uses and structures of the underlying zoning shall apply, as set forth in article 28, section 28.15.
(Ord. No. 2003-34, § 1, 6-23-03)

Section 36.04. - Conditional uses.
The conditional uses of the underlying zoning designation shall apply, as set forth in article 28, section 28.14.
(Ord. No. 2003-34, § 1, 6-23-03)

Section 36.05. - Minimum lot requirements.
A.Minimum lot width:1.One hundred (100) feet for lots directly adjacent to the riverbank.2.Lots not directly adjacent to the riverbank shall be the same as the underlying zoning district; see Ordinance 97-19, as set forth herein.B.Minimum lot area:1.Lots directly located on the riverbank—One (1) acre.2.Lots not located directly on the riverbank shall be the same as the underlying zoning district; see Ordinance 97-19, as set forth herein.
(Ord. No. 2003-34, § 1, 6-23-03)

Section 36.06. - Minimum yard requirements.
A.Front yard: The front yard requirements of the underlying zoning district shall apply, as set forth herein.B.Side yard: The side yard requirements of the underlying zoning district shall apply, as set forth herein.C.Rear yard: The rear yard requirements of the underlying zoning district shall apply, as set forth herein.
(Ord. No. 2003-34, § 1, 6-23-03)

Section 36.07. - Building restrictions.
The building restrictions of the underlying zoning district shall apply, as set forth herein.
(Ord. No. 2003-34, § 1, 6-23-03)

Section 36.08. - Special requirements.
On-site sewage and disposal systems are prohibited within one hundred (100) feet of the riverbank, measured from the mean high-water line of the tidally influenced portions or from the normal annual flood line of the St. Marys River (whichever is more restrictive). "Tidally influenced" shall mean subject to the ebb and flow of the tides and has its boundary a mean high-water line as defined in section 177.27(15), Florida Statutes.
(Ord. No. 2003-34, § 1, 6-23-03)

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REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS LA 6667110 STATE OF FLORIDA
DocuSigned by: E2FB3A9A405
5/28/2021
JEREMY MARQUIS
LIC. # LA6667110 SEAL

DRAWN BY: GC/EP/JM/DES

This item has been electronically signed and sealed by **Jeremy Marquis, RLA** on the Date and/or Time Stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

CAMP SORENSEN
607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046
GENERAL NOTES

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: G0.2

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Nassau County Landscape Requirements Applicable to the Site (cont.) & Tables

I.Firewise. Landscape within the wildlife/urban interface are subject to wildfire hazard and should incorporate Firewise landscaping techniques. Such techniques include:1.Creating a defensible space zone around buildings. Such zones shall provide space for fire suppression equipment in the event of an emergency and progressively limit plantings near structures to carefully spaced fire resistant species.2.Placing low growing species and groundcovers beneath canopy trees and rooflines to avoid creating a continuous fuel source from ground to tree or roof.3.Utilizing driveways, lawn areas and walkways to provide firebreaks between large areas of dense vegetation.4.Selective thinning of fire prone plant species in existing vegetation areas to reduce fuel loads. A list of fire prone species is available from the Division of Forestry.

J.Prohibited trees. Any species identified on the most recent Florida Exotic Pest Plant Council Invasive Plant list (Category I or II) is expressly forbidden from being planted or used as required or supplemental landscaping material. Invasive non-native vegetation in general is a public nuisance that degrades landscaped and natural areas.

Section 37.06. - Buffers between certain uses.
2.Minimum landscape buffer types required on abutting property boundaries between uses are shown in Table 37-5 below. If the Future Land Use Map and existing use of the property are inconsistent, the buffer requirement will be based upon whichever use results in a more intensive buffer.

3.Minimum buffer width and planting specifications for required buffer types are indicated in the following table.

4.Buffer landscaping and screening:a.Medium and fast growing canopy trees shall be chosen from Table 37-1 having a dense, evergreen crown to provide maximum visual separation between abutting properties.b.Shrubs shall be spaced to provide a natural appearance and inhibit free movement of pedestrian traffic except at a mutually agreed upon pedestrian connection. Where screening is proposed consisting of a fence or wall, shrubs are not required.c.Where screening is required, it shall consist of one or more of the following materials:(1)A five (5) foot masonry wall stuccoed on the side facing the abutting property.(2)A solid six (6) foot fence constructed of resistant materials such as vinyl, cypress or pressure treated wood.(3)Existing dense vegetation.(4)A berm three (3) feet in height located entirely within the buffer and having the requisite number of shrubs planted along the crown.
(Ord. No. 2008-01, § 3, 1-31-08; Ord. No. 2020-09, § 2(Exh. C), 2-10-20)

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Table 37-1. Nassau County Native Canopy Trees

Name	Common Name	Mature Height (ft.)	Rate of Growth	Salt Tolerance	Drought Tolerance
Acer rubrum	Red Maple	35—50	Fast	Low	Med
Betula nigra	River Birch	45—65	Fast	Low	Low
Bumelia spp	Buckthorn	20—40	Med	M/L	M/High
Carpinus caroliniana	American hornbeam	25—35	Slow	Low	Low
Carya glabra	Pignut hickory	80—120	Fast	Low	High
Cercis canadensis	Redbud	20—30	Med	Low	High
Cornus florida	Flowering dogwood	20—30	Med	Low	High
Diospyros virginiana	Persimmon	30—60	Med	Low	Med
Fagus grandifolia	American Beech	50—100	Slow	Med	Med
Ilex attenuata	East Palatka Holly	30—45	Med	Med	High
Ilex cassine	Dahoon Holly	25—40	Med	Med	Med
Ilex opaca	American Holly	30—45	Slow	Med	Med
Juniperus silicicola	Southern Red Cedar	25—30	Med	High	High
Juniperus virginiana	Eastern Red Cedar	10—40	Slow	Med	Med
Liquidambar styraciflua	Sweetgum	60—100	Fast	Med	High
Liriodendron tulipfera	Tulip Tree/Yellow Poplar	80—100	Fast	Low	Low
Magnolia grandiflora	Southern Magnolia	60—100	Med	High	High
Magnolia virginiana	Magnolia/Sweetbay	40—60	Med	Low	Low
Nyssa slyvatica	Black Tupelo	50—80	Med	Low	Low
Ostrya virginiana	Eastern Hophorn beam	20—40	Med	Low	High
Quercus alba	White Oak	50—80	Med	High	Med
Quercus austrina	Bluff Oak	25—40	Med	Low	Low
Quercus chapmanii	Chapman Oak	30—45	Slow	Med	High
Quercus laurifolia	Laurel Oak	60—100	Fast	Low	High
Quercus shumardii	Shumard Oak	40—60	Slow	Low	Med
Quercus myrtifolia	Myrtle Oak	10—25	Slow	Med	High
Quercus virginiana	Live Oak	50—60	Med	High	High
Taxodium distichum	Bald Cypress	60—100	Med	Med	High
Tilia floridana	Florida Basswood	30—60	Fast	Low	Low
Ulmus alata	Winged elm	20—40	Med	Low	High
Ulmus americana	American Elm	80—100	Fast	Low	Med

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Table 37-4 Understory Trees

Cornus florida	Flowering Dogwood
Chionanthus virginicus	White Fringetree
Magnolia x saulangeana	Saucer Magnolia
Prunus angustifolia	Chickasaw Plum
Ilex cassine	Dahoon Holly
Ilex attenuata	East Palatka Holly
Lagerstroemia spp.	Crape Myrtle
Juniperus chinensis	Chinese Juniper
Callistemon spp.	Bottlebrush
Gordonia lasianthus	Loblolly Bay

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Table 37-2. Supplemental Tree List for Landscaping

Name	Common Name	Mature Height (ft.)
Ulmus parvifolia	Chinese elm	40—50
Carya illinoensis	Pecan	70—100
Quercus michauxii	Swamp chestnut oak	60—70
Ilex attenuata	East Palatka holly	30—45
Ilex attenuata	Savannah holly	30—45
Ilex cornuta	Chinese holly	20—30
Taxodium ascendens	Pond cypress	60—100
Quercus nuttalii	Nuttall oak	50—80
Plantanus occidentalis	Sycamore	70—150

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Table 37-5. Minimum Buffers by Type

Proposed Use of Subject Property		One or two-family dwelling(s)	Multi-family dwelling(s)	Institutional (churches, schools, etc.)	Neighborhood Commercial	All other Commercial	Industrial
Timber-leased	None	None	None	None	None	None	None
One or two-family dwelling(s)	None	None	L	L	L	M	M
Multi-family dwelling(s)	None	M	None	M	M	M	M
Institutional (churches, schools, public buildings, etc.)	L	L	L	None	L	M	M
Neighborhood commercial, office park	L	L	L	L	None	L	L
All other Commercial	L	H	M	H	M	None	None
Industrial	M	H	H	H	M	L	None

Key to buffer types: See Table 37-6

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Table 37-6. Minimum Buffer Specifications

Buffer Type From Table 37-5	Minimum Width	Plant Material per 100 l.f.		Screening
		Canopy Trees	Shrubs	
L=Low Density	10 feet	3	67	No
M=Medium Density	15 feet	4	67	Yes
H=High Density	25 feet	5	90	Yes

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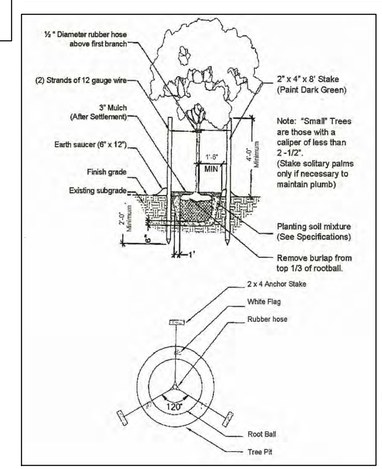
Table 37-3. Minimum Tree Caliper at the Time of Planting

Existing tree replacement	3 inches
All other plantings except below	3 inches
Individual single-family lots/homes	2 inches



NOTE: ALL TREES PLANTED SHALL BE STAKED OR GUYED FOR A PERIOD OF AT LEAST SIX (6) MONTHS IN ACCORDANCE WITH THE FOLLOWING PLANTING DETAIL.

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DocuSigned by: 5/28/2021
JEREMY R. MARQUIS
LIC. # LA6667110 SEAL

DRAWN BY: GC/EP/JM/DES

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CAMP SORENSEN
607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046
GENERAL NOTES

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1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: G0.3

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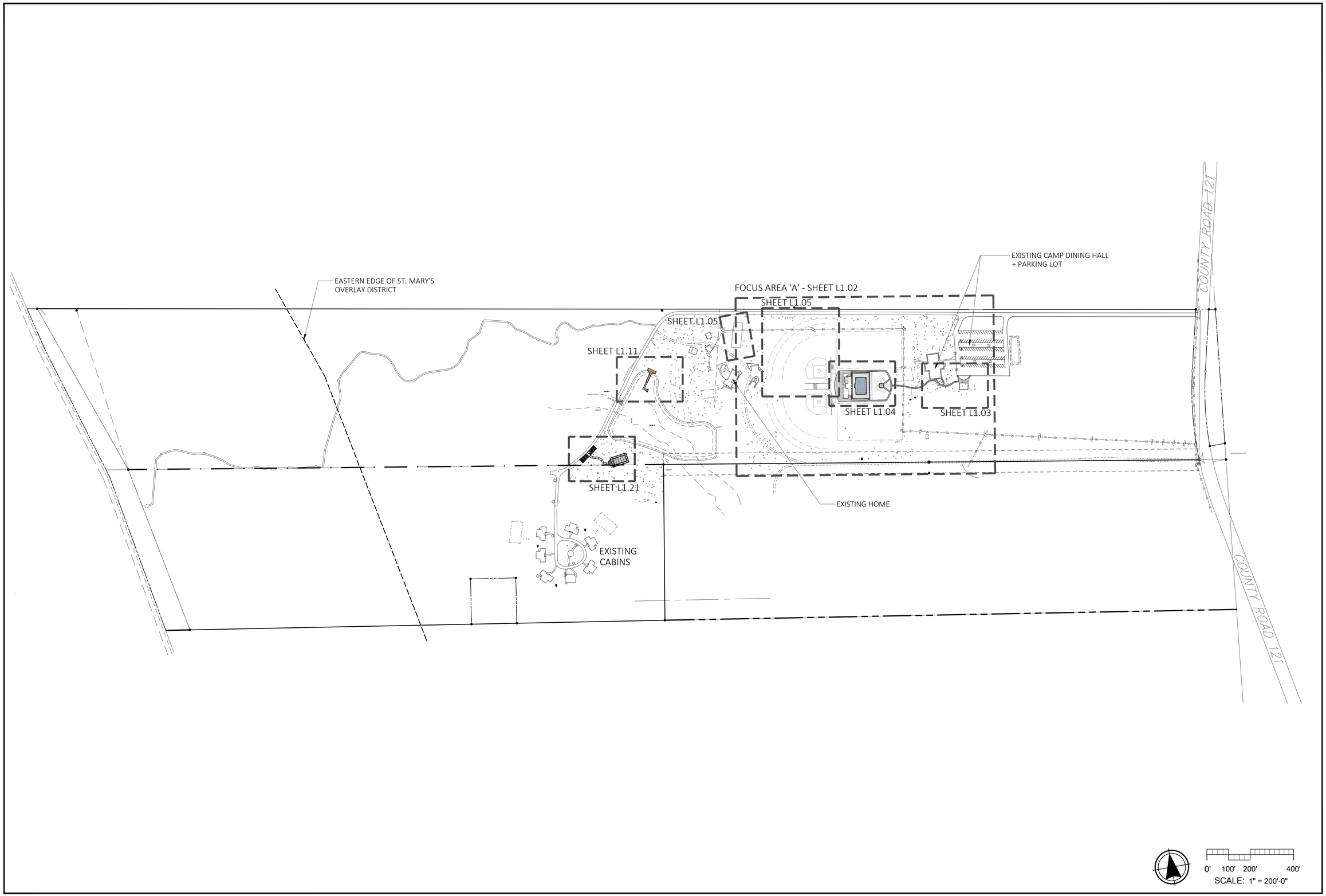

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REGISTERED LANDSCAPE ARCHITECT
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STATE OF FLORIDA
E2F4A6A405...
5/28/2021

JEREMY MARQUIS
LIC. # LA6667110 SEAL

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

SITE HARDSCAPE

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

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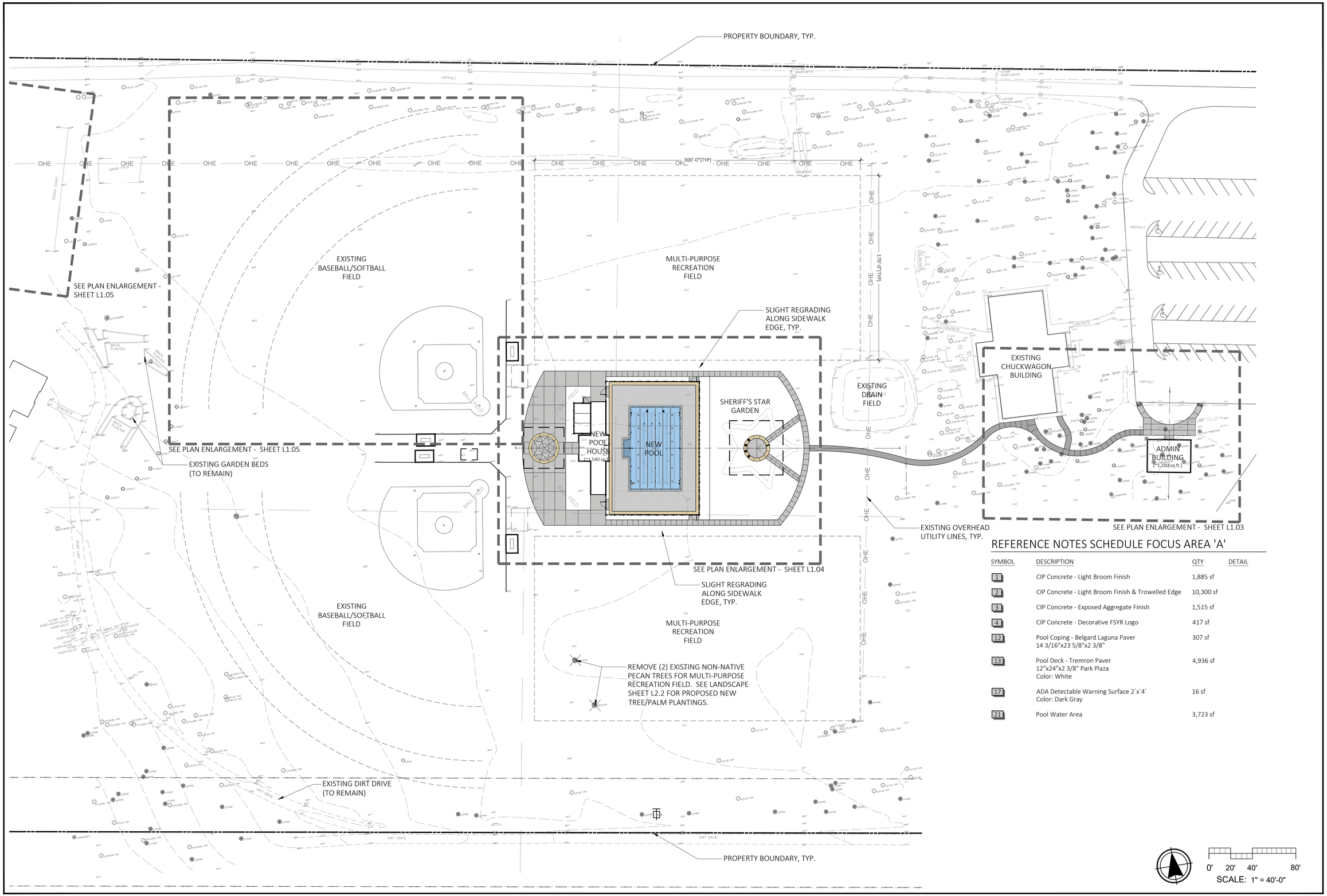

REFERENCE NOTES SCHEDULE FOCUS AREA 'A'

SYMBOL	DESCRIPTION	QTY	DETAIL
1	CIP Concrete - Light Broom Finish	1,885 sf	
2	CIP Concrete - Light Broom Finish & Trowelled Edge	10,300 sf	
3	CIP Concrete - Exposed Aggregate Finish	1,515 sf	
4	CIP Concrete - Decorative FSYR Logo	417 sf	
12	Pool Coping - Belgard Laguna Paver 14 3/16"x23 5/8"x2 3/8"	307 sf	
13	Pool Deck - Tremron Paver 12"x24"x2 3/8" Park Plaza Color: White	4,936 sf	
17	ADA Detectable Warning Surface 2`x`4` Color: Dark Gray	16 sf	
21	Pool Water Area	3,723 sf	

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Docusigned by:
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5/28/2021
JEREMY R. MARQUIS
LIC. # LA6667110 SEAL

DRAWN BY: GC/EN/TM/JS

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CAMP SORENSEN

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HARDSCAPE - FOCUS AREA 'A'

SYM	DESCRIPTION	DATE
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ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.02

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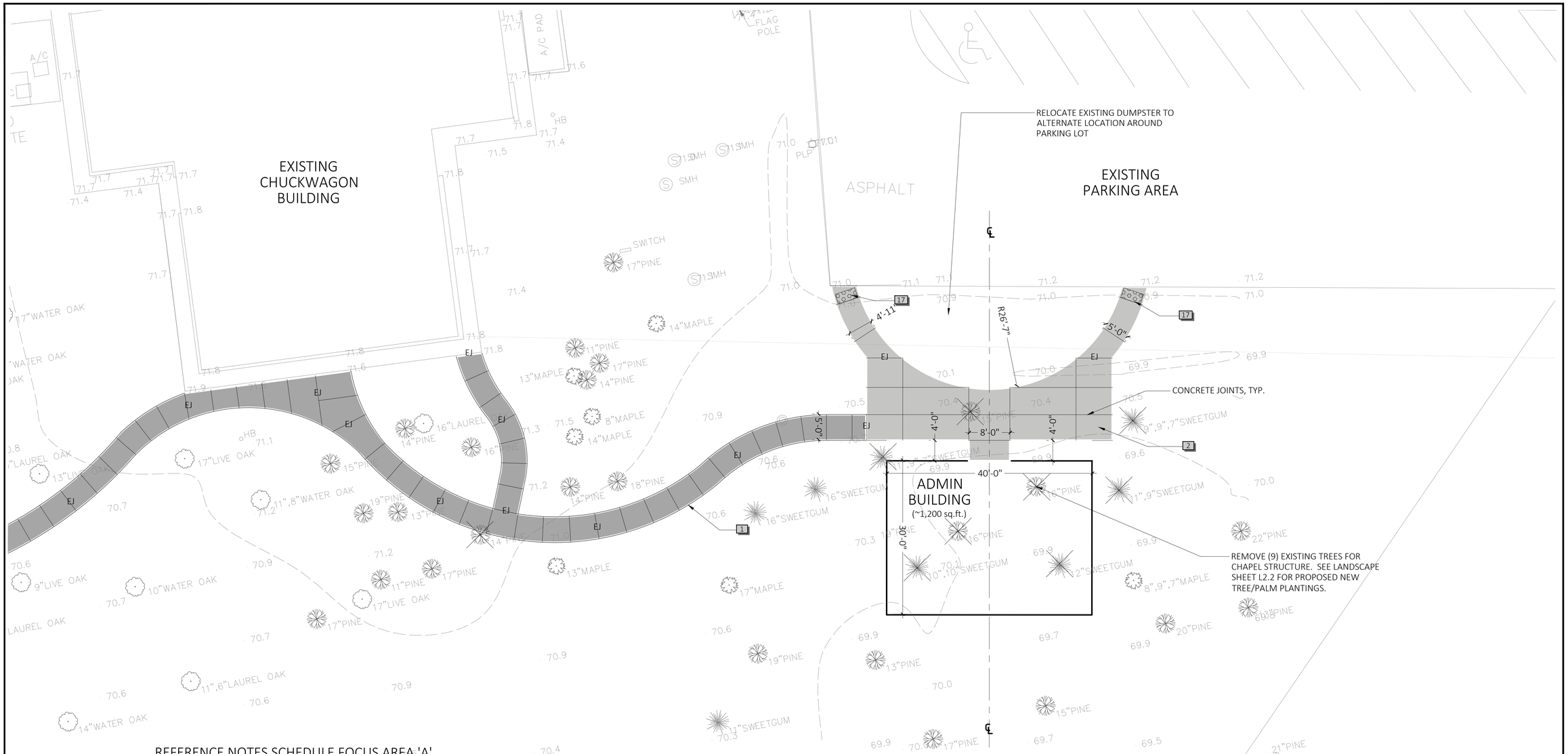

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13	Pool Deck - Tremron Paver 12"x24"x2 3/8" Park Plaza Color: White	4,936 sf	
17	ADA Detectable Warning Surface 2`x`4` Color: Dark Gray	16 sf	
21	Pool Water Area	3,723 sf	

0' 5' 10' 20'
SCALE: 1" = 10'-0"

ML+H
Marquis Latimer + Halback, Inc.
34 Cordova Street, Suite A
St. Augustine, FL 32084

Ph 904.825.6747 www.halback.com
FL LA6667110

REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS STATE OF FLORIDA
DocuSigned by: 5/28/2021
JEREMY R. MARQUIS
LIC. # LA6667110
SEAL

DRAWN BY: GC/EN/TM/JS

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

HARDSCAPE - FOCUS AREA 'A' - ADMIN BUILDING

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.03

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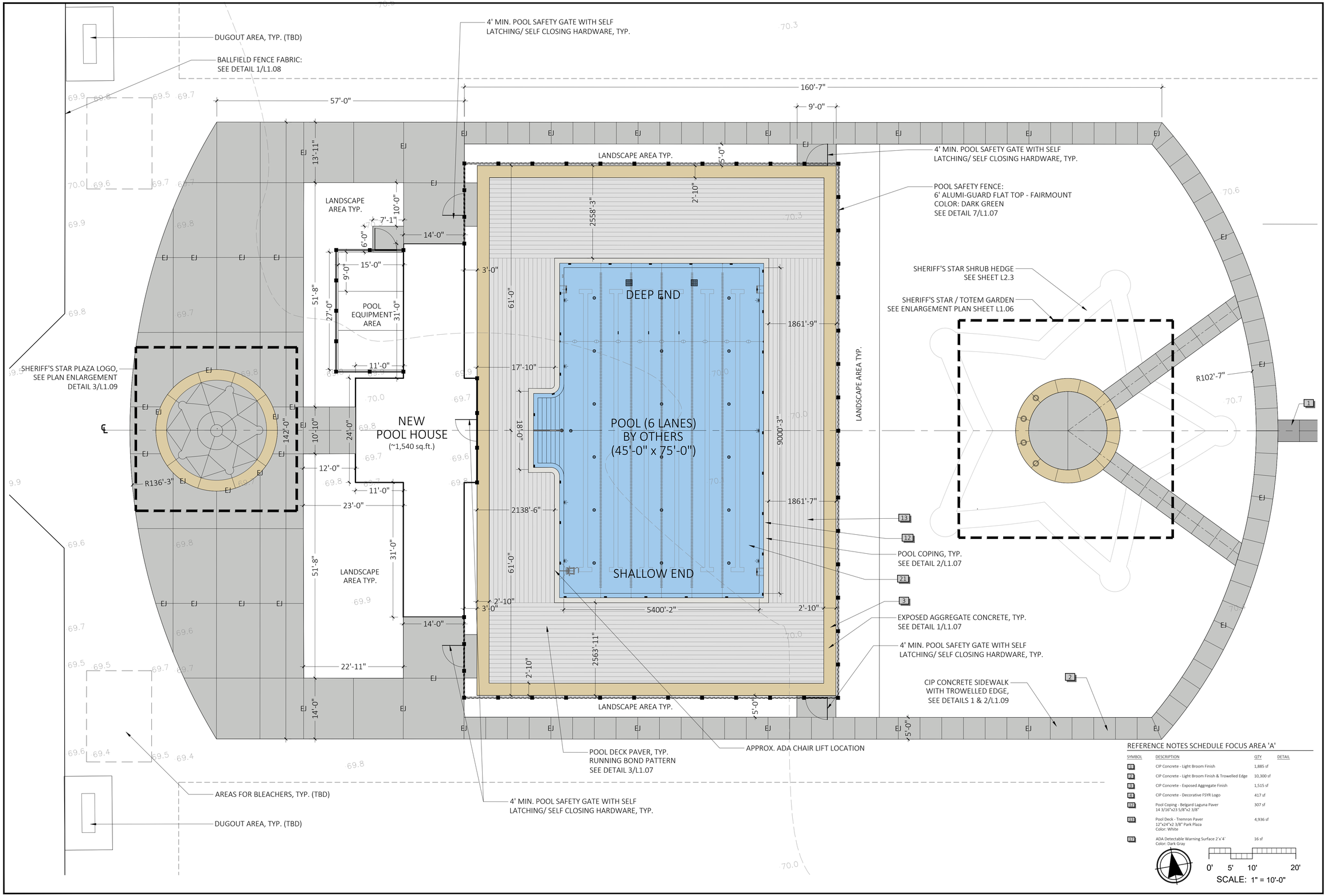

REFERENCE NOTES SCHEDULE FOCUS AREA 'A'

SYMBOL	DESCRIPTION	QTY	DETAIL
1	CIP Concrete - Light Broom Finish	1,885 sf	
2	CIP Concrete - Light Broom Finish & Trowelled Edge	10,300 sf	
3	CIP Concrete - Exposed Aggregate Finish	1,515 sf	
4	CIP Concrete - Decorative FSYR Logo	417 sf	
12	Pool Coping - Belgard Laguna Paver 14 3/16"x23 5/8"x2 3/8"	307 sf	
13	Pool Deck - Tremron Paver 12"x24"x2 3/8" Park Plaza Color: White	4,936 sf	
17	ADA Detectable Warning Surface 2'x'4' Color: Dark Gray	16 sf	

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REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS STATE OF FLORIDA
DocuSigned by: E2F6F9D4A6A405...
5/28/2021
JEREMY R. MARQUIS
LIC. # LA6667110
SEAL

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CAMP SORENSEN
607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046
HARDSCAPE - FOCUS AREA 'A' - POOL AREA

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.04

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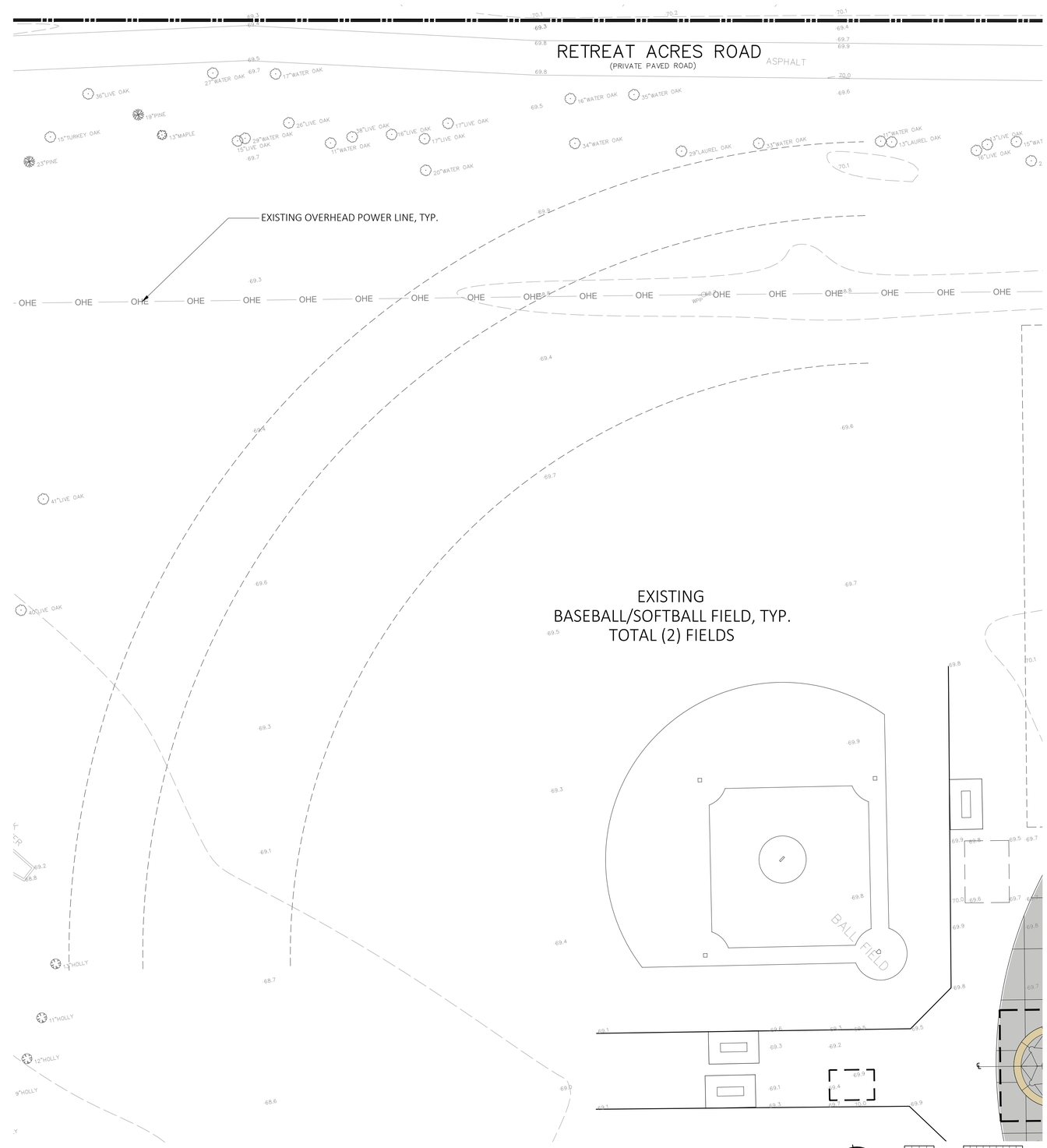
2 SPORT COURT - ENLARGEMENT

0' 5' 10' 20'
SCALE: 1" = 10'-0"



1 BALL FIELD - ENLARGEMENT

0' 10' 20' 40'
SCALE: 1" = 20'-0"

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REGISTERED LANDSCAPE ARCHITECT
JEREMY R. MARQUIS
STATE OF FLORIDA
LA6667110
5/28/2021

JEREMY R. MARQUIS
LIC. # LA6667110 SEAL

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

HARDSCAPE - FOCUS AREA 'A' - REC FIELDS + COURTS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.05

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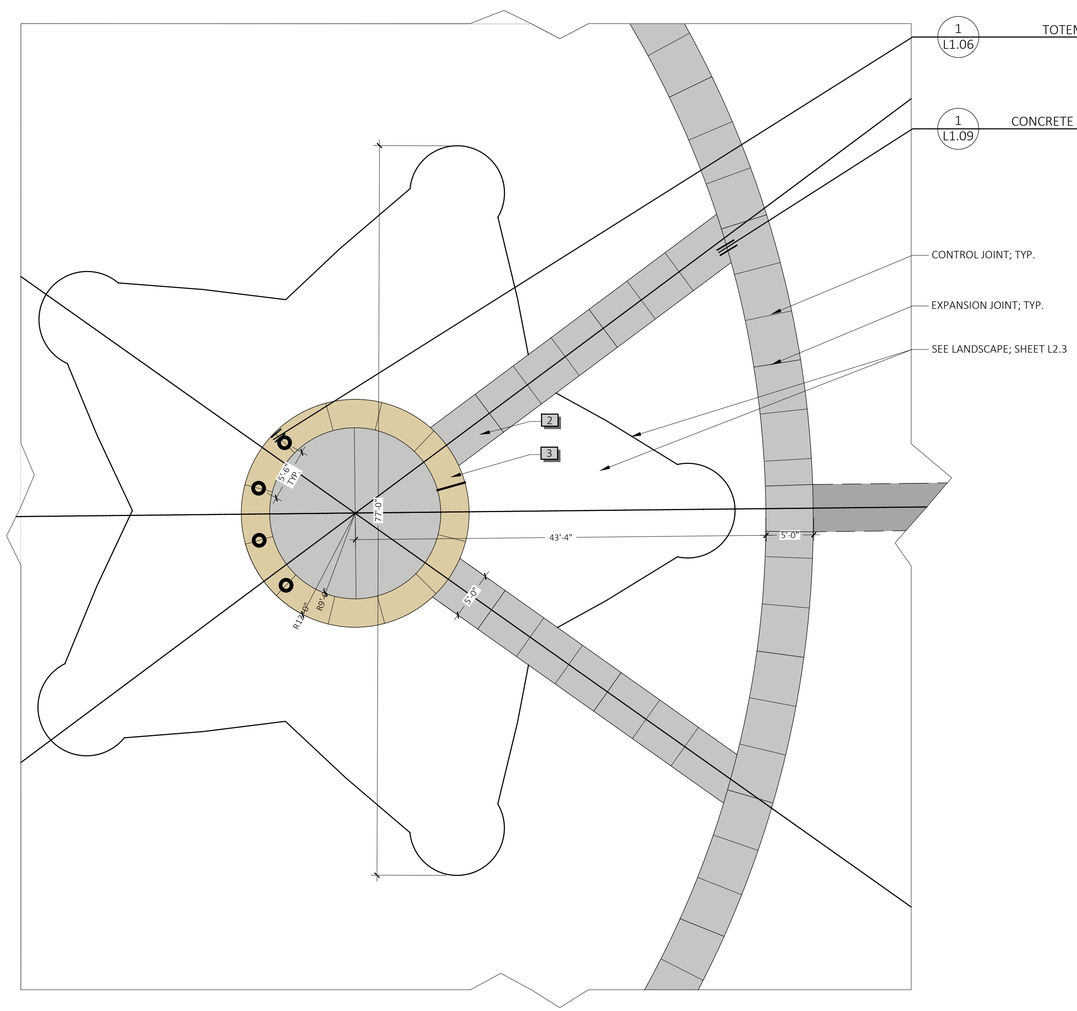
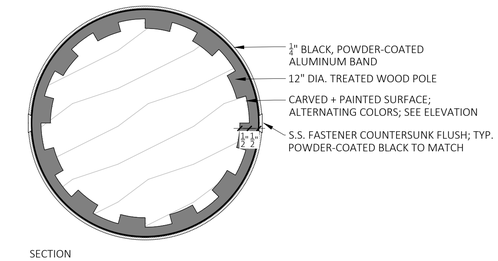


3 STAR GARDEN

1/8" = 1'-0"

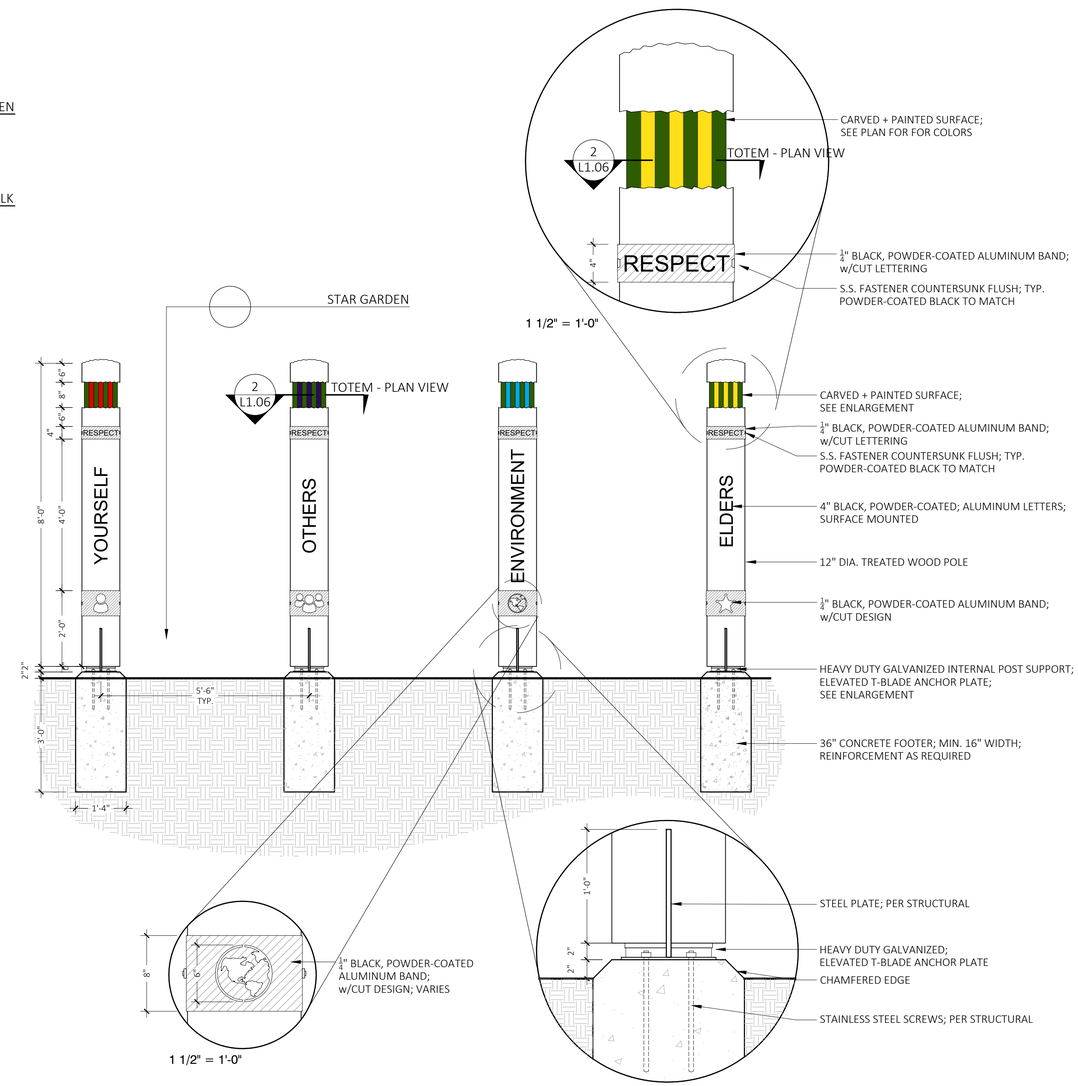
P-CO-CAM-11



2 TOTEM - PLAN VIEW

3" = 1'-0"

P-CO-CAM-02



1 TOTEM GARDEN

1/2" = 1'-0"

P-CO-CAM-01

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REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS STATE OF FLORIDA
DocuSigned by: E2C9F3D4A6A405...
5/28/2021
JEREMY R. MARQUIS
LIC. # LA6667110
SEAL

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

DETAILS 'A' - SHERIFF'S STAR GARDEN + PILLARS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.06

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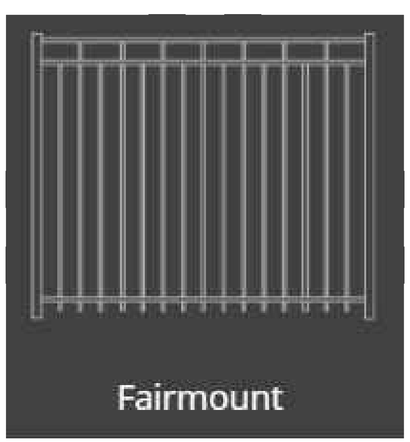
8 POOL SAFETY FENCE GATE LATCH: SAFE TECH SL-50 TRI

NOT TO SCALE - BASIS OF DESIGN



POWDER COATED ALUMINUM, COLOR: DARK GREEN. SEE PLAN ON SHEET L1.04 FOR LAYOUT AND GATE LOCATIONS. INSTALLATION AND ENGINEERING PER MANUFACTURER

7 POOL SAFETY FENCE: 6' ALUMI-GUARD FLAT TOP - FAIRMOUNT

NOT TO SCALE - BASIS OF DESIGN

GRATE COLOR: TO MATCH POOL DECK PAVERS

6 POOL DECK CHANNEL DRAIN: NDS 3" PRO SERIES

NOT TO SCALE - BASIS OF DESIGN

5 WATERLINE TILE: NOBLE TILE SUPPLY - SOLID (COBALT)

NOT TO SCALE - BASIS OF DESIGN

4 POOL FINISH: KRYSTALKRETE (COLOR: KRYSTAL BLUE)

NOT TO SCALE - BASIS OF DESIGN

PARK PLAZA 12X24 PAVERS

PRODUCT CODE: PV21443

THICKNESS: 2-⅜" (60MM)

DIMENSIONS: 12" X 24"

SF PER CUBE:

CUBE WEIGHT: 3120 LBS

FINISH: STANDARD

SURFACE TEXTURE: FLAT TOP

WHITE
White Solid

3 POOL DECK PAVER: TREMRON PARK PLAZA 12"x24"

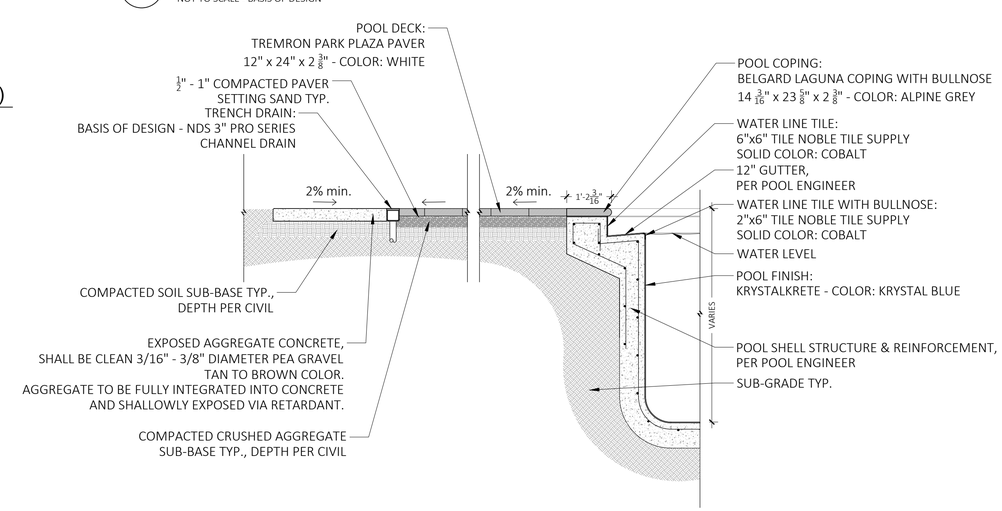
NOT TO SCALE - BASIS OF DESIGN

60mm Coping
14 3/16 x 23 5/8 x 2 3/8

Alpine Grey

2 POOL COPING: BELGARD LAGUNA COPING

NOT TO SCALE - BASIS OF DESIGN



1 POOL DECK & COPING MATERIALS & FINISHES SECTION

1/2" = 1'-0"

P-CO-CAM-03

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FL LA6667110

REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS LA 6667110 STATE OF FLORIDA

DocuSigned by: E2F1A43D4A6A485...
5/28/2021
JEREMY MARQUIS
LIC. # LA6667110

SEAL

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

DETAILS 'A' - POOL AREA

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.07

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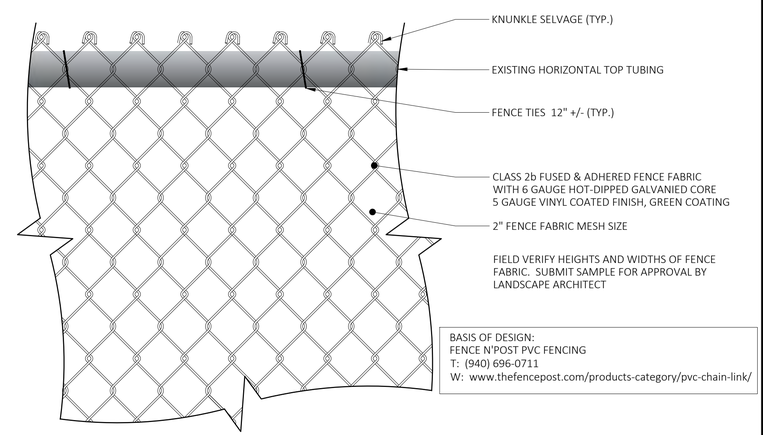

FIELD VERIFY HEIGHTS AND WIDTHS OF FENCE FABRIC. SUBMIT SAMPLE FOR APPROVAL BY LANDSCAPE ARCHITECT

BASIS OF DESIGN:
FENCE N'POST PVC FENCING
T: (940) 696-0711
W: www.thefencepost.com/products-category/pvc-chain-link/

1 FENCE FABRIC
3" = 1'-0"

P-CO-CAM-07

ML+H
Marquis Latimer + Halback, Inc.
34 Cordova Street, Suite A
St. Augustine, FL 32084

Ph 904.825.6747 www.halback.com
FL LA6667110

REGISTERED LANDSCAPE ARCHITECT
JEREMY R. MARQUIS
STATE OF FLORIDA
LICENSE NO. LA6667110
Docusigned by:
5/28/2021
JEREMY MARQUIS
LIC. # LA6667110
SEAL

DRAWN BY: GC/EP/AG/JM

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

DETAILS 'A' - REC FIELDS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.08

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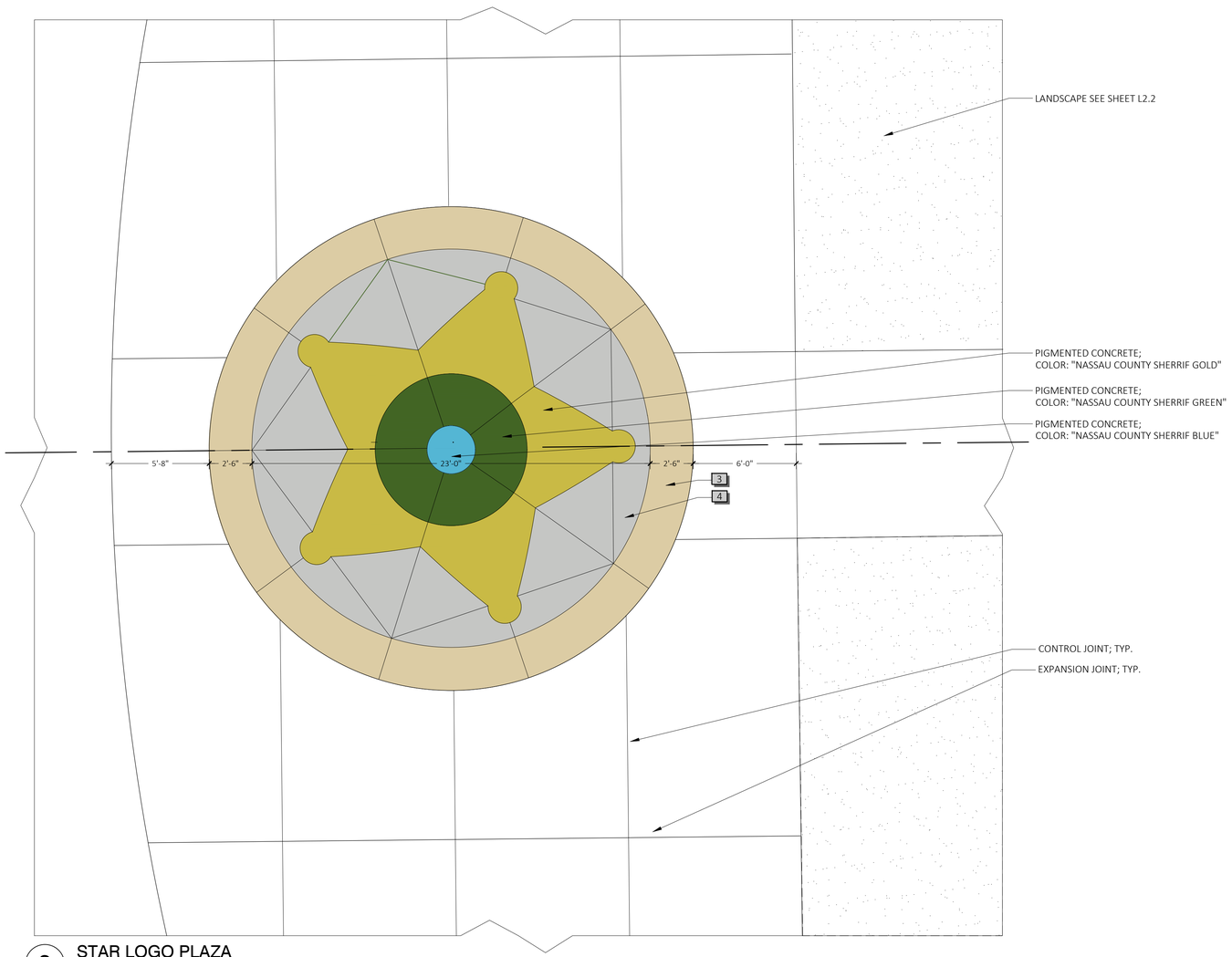
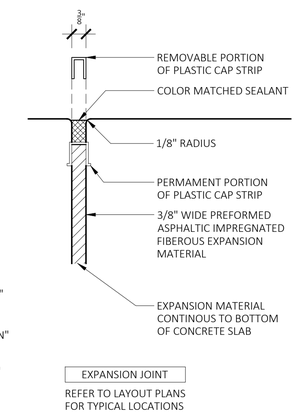


3 STAR LOGO PLAZA

1/4" = 1'-0"

P-CO-CAM-21

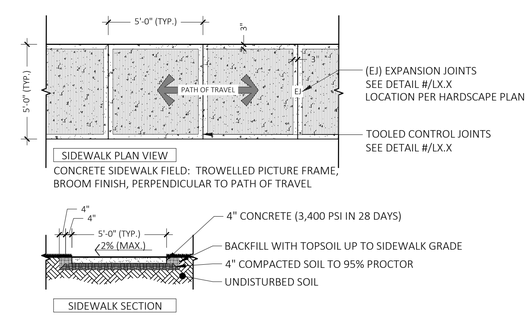


NOTE:
SEE DRAWING FOR LOCATION OF CONCRETE JOINTS. EXPANSION JOINTS ARE TO BE PLACED AT JUNCTURE WITH ALL VERTICAL SURFACES AND CHANGES IN MATERIAL, UNLESS OTHERWISE INDICATED EXPANSION JOINT MAXIMUM SPACING SHALL NOT EXCEED 3 TIMES THE WIDTH OF ANY SEGMENT OF CONCRETE. MAXIMUM AREA OF CONCRETE WITHOUT AN EXPANSION JOINT SHALL NOT EXCEED 120 SF. FT. CONTROL JOINTS TO BE SPACED A DISTANCE EQUIVALENT TO THE WIDTH OF SIDEWALK - IF NOT SHOWN ON PLAN.

2 CONCRETE SIDEWALK JOINTS

6" = 1'-0"

P-CO-CAM-08



1 CONCRETE SIDEWALK

1/4" = 1'-0"

P-CO-CAM-06

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FL LA6667110

REGISTERED LANDSCAPE ARCHITECT
JEREMY R. MARQUIS
DocuSigned by:
LA 6667
STATE OF FLORIDA
5/28/2021
JEREMY MARQUIS
LIC. # LA6667110
SEAL

DRAWN BY: GC/EP/AG/HH

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

DETAILS 'A' - PAVING PLANS + SECTIONS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.09

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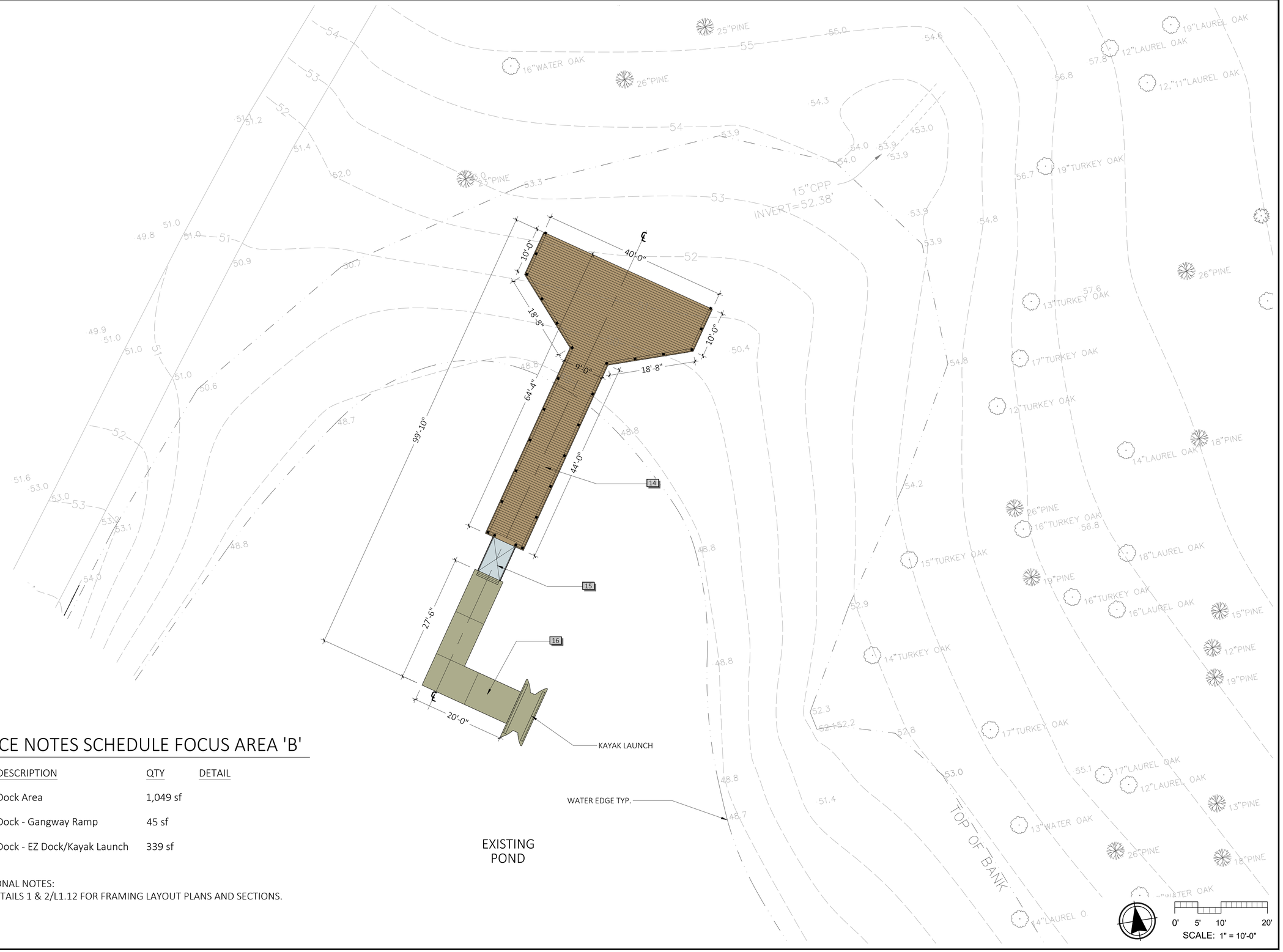

REFERENCE NOTES SCHEDULE FOCUS AREA 'B'

SYMBOL	DESCRIPTION	QTY	DETAIL
14	Dock Area	1,049 sf	
15	Dock - Gangway Ramp	45 sf	
16	Dock - EZ Dock/Kayak Launch	339 sf	

ADDITIONAL NOTES:
- SEE DETAILS 1 & 2/L1.12 FOR FRAMING LAYOUT PLANS AND SECTIONS.

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REGISTERED LANDSCAPE ARCHITECT
JEREMY R. MARQUIS
STATE OF FLORIDA
LC26000048405
5/28/2021
DocuSigned by:
JEREMY R. MARQUIS
LIC. # LA6667110 SEAL
DRAWN BY: GC/ERT INITIALS

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

HARDSCAPE - FOCUS AREA 'B' - KAYAK LAUNCH

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.11

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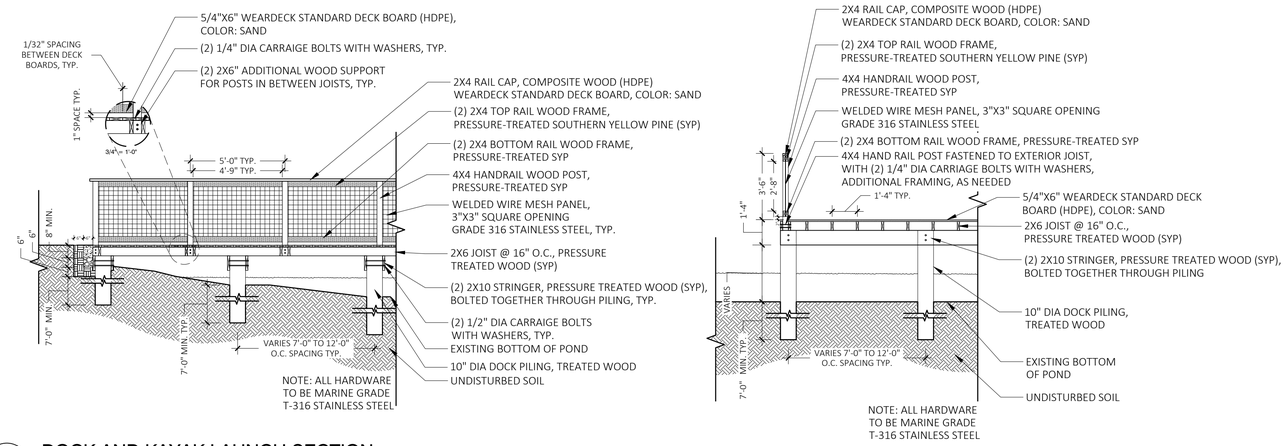
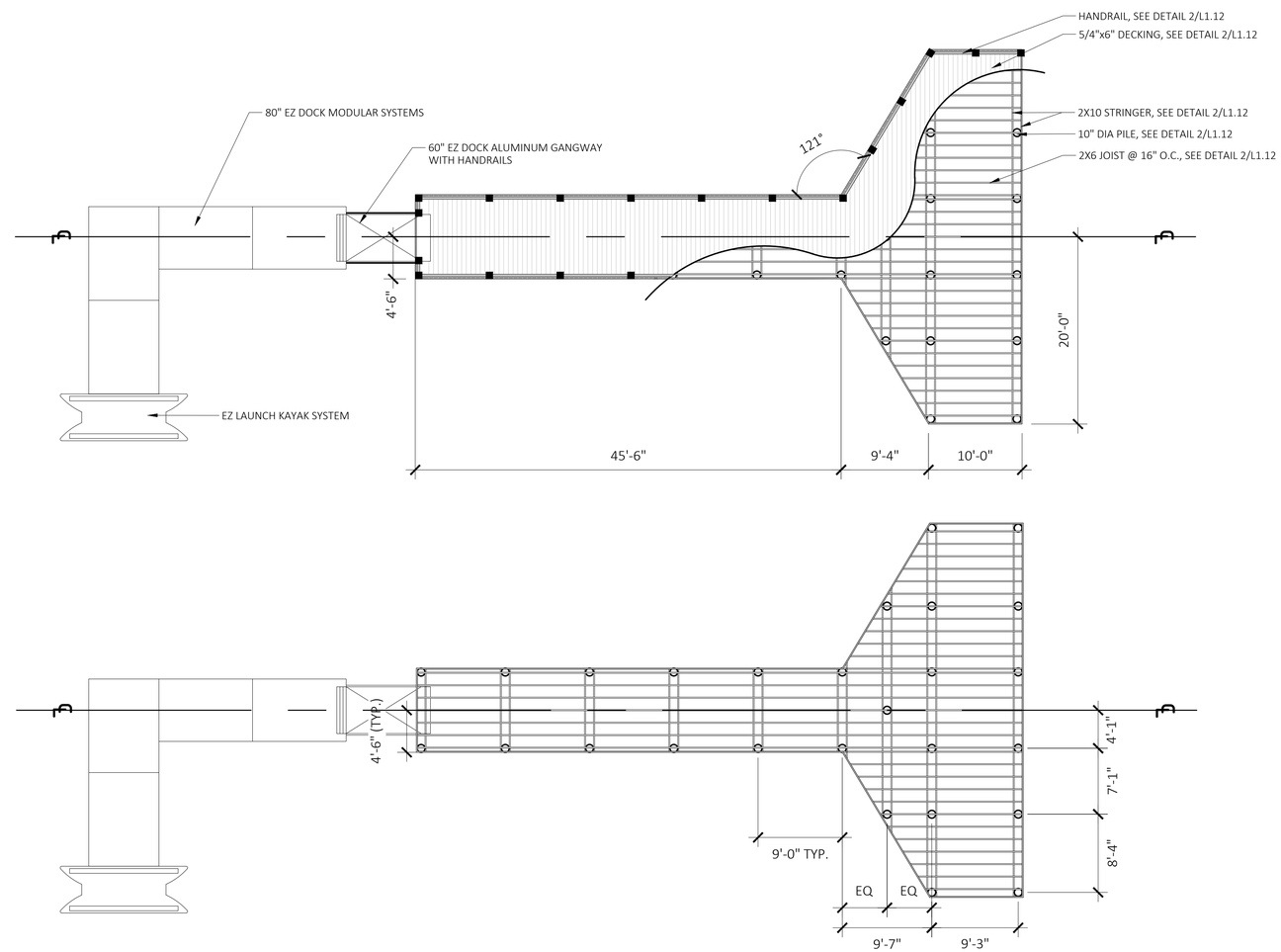


2 DOCK AND KAYAK LAUNCH SECTION

1/4" = 1'-0"

P-CO-CAM-05



1 DOCK AND KAYAK LAUNCH FRAMING LAYOUT

1/8" = 1'-0"

P-CO-CAM-04

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Ph 904.825.6747 www.halback.com
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REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS STATE OF FLORIDA
Docusigned by: E3F44BD4A6A485...
5/28/2021
JEREMY MARQUIS
LIC. # LA6667110
SEAL

DRAWN BY: GC/EP/AG/JM

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607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

DETAILS 'B' - KAYAK LAUNCH

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

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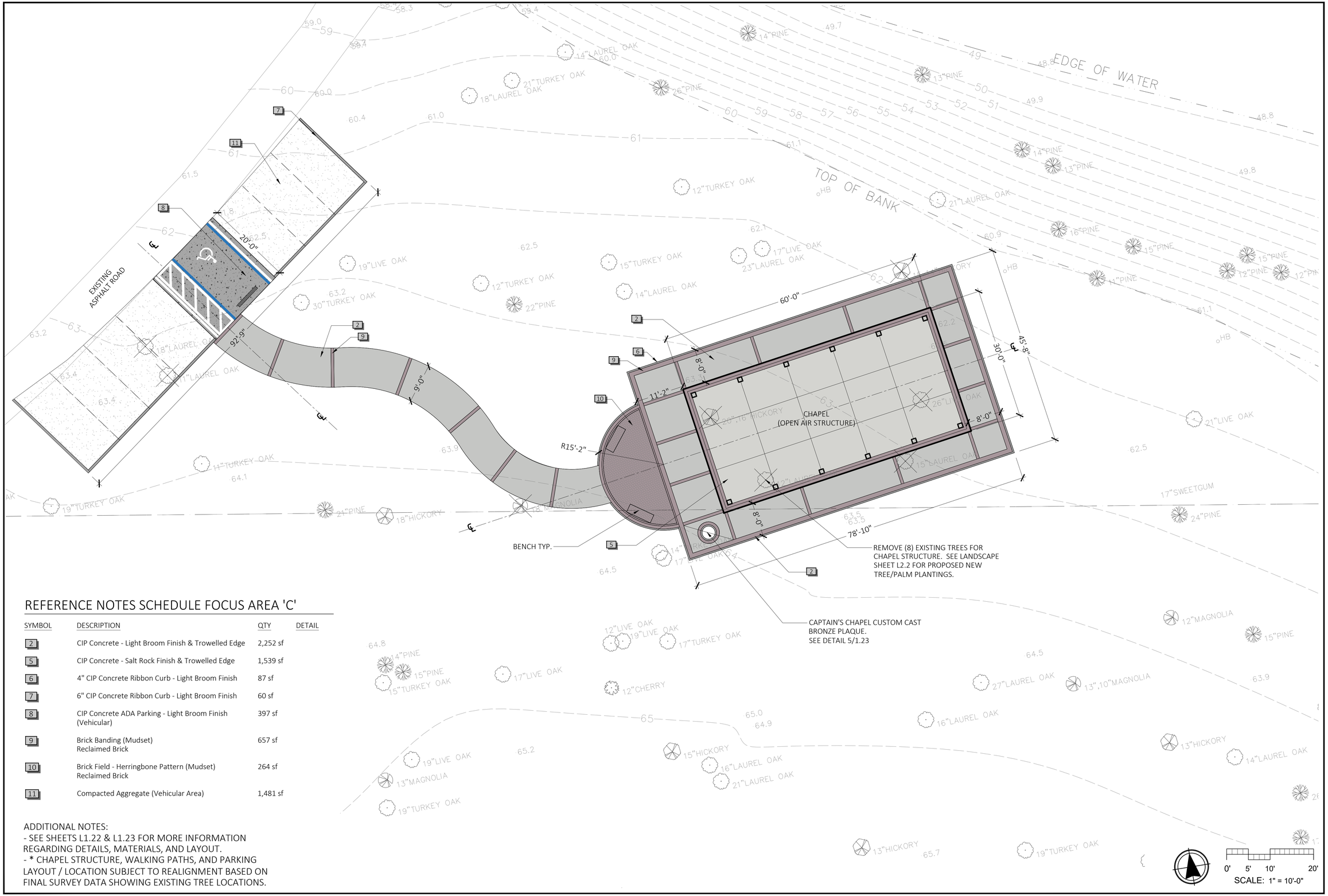

REFERENCE NOTES SCHEDULE FOCUS AREA 'C'

SYMBOL	DESCRIPTION	QTY	DETAIL
2	CIP Concrete - Light Broom Finish & Trowelled Edge	2,252 sf	
5	CIP Concrete - Salt Rock Finish & Trowelled Edge	1,539 sf	
6	4" CIP Concrete Ribbon Curb - Light Broom Finish	87 sf	
7	6" CIP Concrete Ribbon Curb - Light Broom Finish	60 sf	
8	CIP Concrete ADA Parking - Light Broom Finish (Vehicular)	397 sf	
9	Brick Banding (Mudset) Reclaimed Brick	657 sf	
10	Brick Field - Herringbone Pattern (Mudset) Reclaimed Brick	264 sf	
11	Compacted Aggregate (Vehicular Area)	1,481 sf	

ADDITIONAL NOTES:
- SEE SHEETS L1.22 & L1.23 FOR MORE INFORMATION REGARDING DETAILS, MATERIALS, AND LAYOUT.
- * CHAPEL STRUCTURE, WALKING PATHS, AND PARKING LAYOUT / LOCATION SUBJECT TO REALIGNMENT BASED ON FINAL SURVEY DATA SHOWING EXISTING TREE LOCATIONS.

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FL LA6667110

REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS STATE OF FLORIDA
DocuSigned by: E2F0F9DA8AA40B...
5/28/2021
JEREMY R. MARQUIS
LIC. # LA6667110
SEAL

DRAWN BY: GC/EP/AC/DF

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607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

HARDSCAPE - FOCUS AREA 'B' - CHAPEL IN THE WOODS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.21

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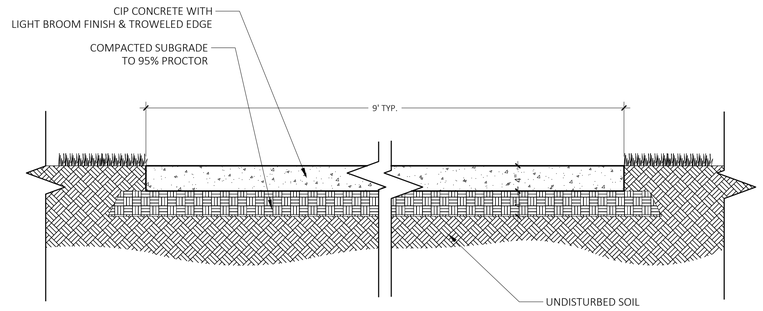
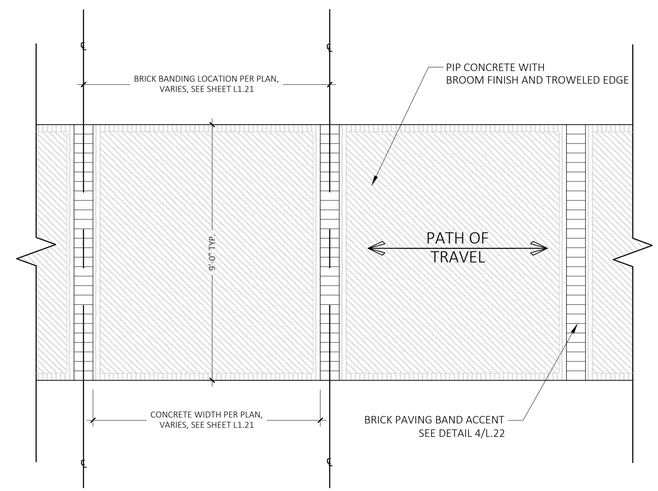


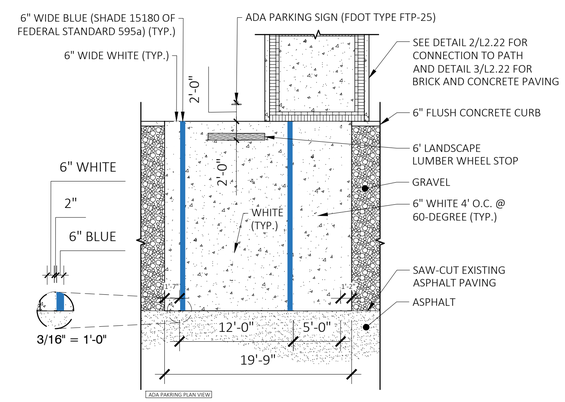
4 CAPTAIN'S CHAPEL ENTRY PATH - SECTION

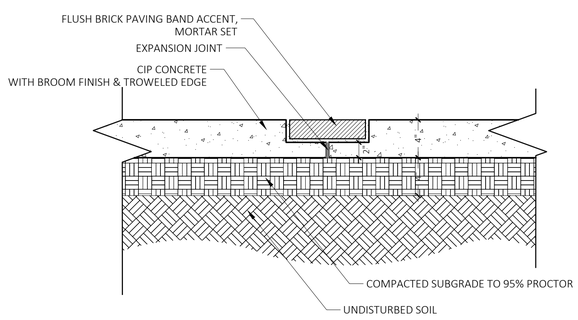
1" = 1'-0" P-CO-CAM-32



3 CAPTAIN'S CHAPEL ENTRY PATH - PLAN VIEW

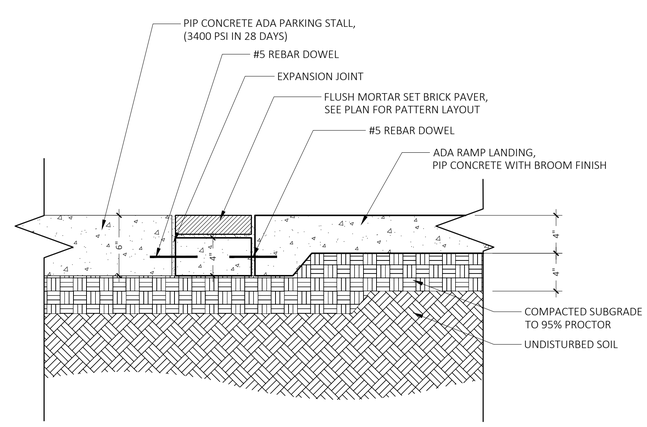
3/8" = 1'-0" P-CO-CAM-31





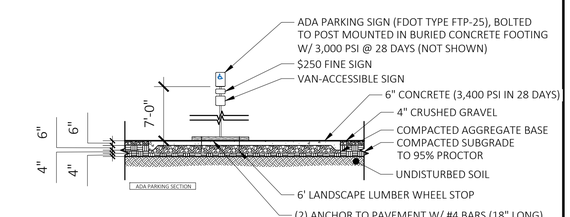
5 BRICK PAVING BAND ACCENT - TYPICAL SECTION

1 1/2" = 1'-0" P-CO-CAM-33



2 CAPTAIN'S CHAPEL ENTRY PATH - CONNECTION TO ADA STALL

1 1/2" = 1'-0" P-CO-CAM-30



1 ADA PARKING SPACE

1/8" = 1'-0" P-CO-CAM-09

ML+H
Marquis Latimer + Halback, Inc.
34 Cordova Street, Suite A
St. Augustine, FL 32084
Ph 904.825.6747 www.halback.com
FL LA6667110

REGISTERED LANDSCAPE ARCHITECT
JEREMY R. MARQUIS
LA 6667110
DocuSigned by:
STATE OF FLORIDA
5/28/2021
JEREMY MARQUIS
LIC. # LA6667110 SEAL

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

DETAILS 'C' - CHAPEL PAVING PLANS AND SECTIONS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.22

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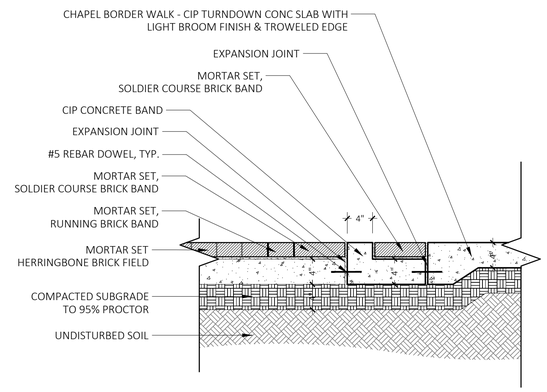
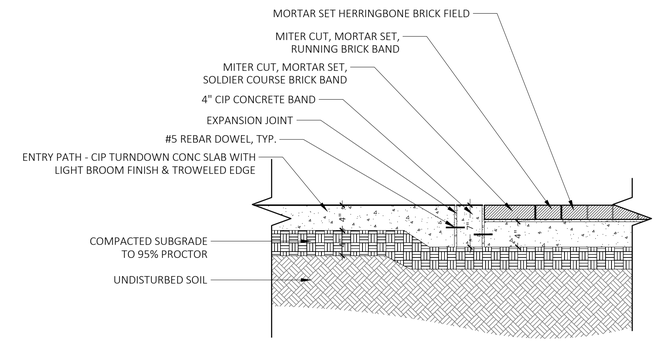


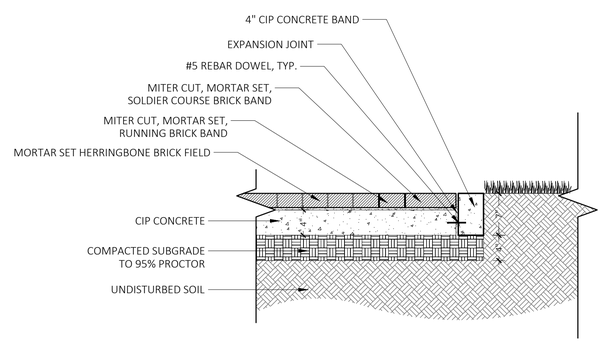
4 CAPTAIN'S CHAPEL - ENTRY PLAZA CONNECTION TO BORDER WALK

1" = 1'-0" P-CO-CAM-37



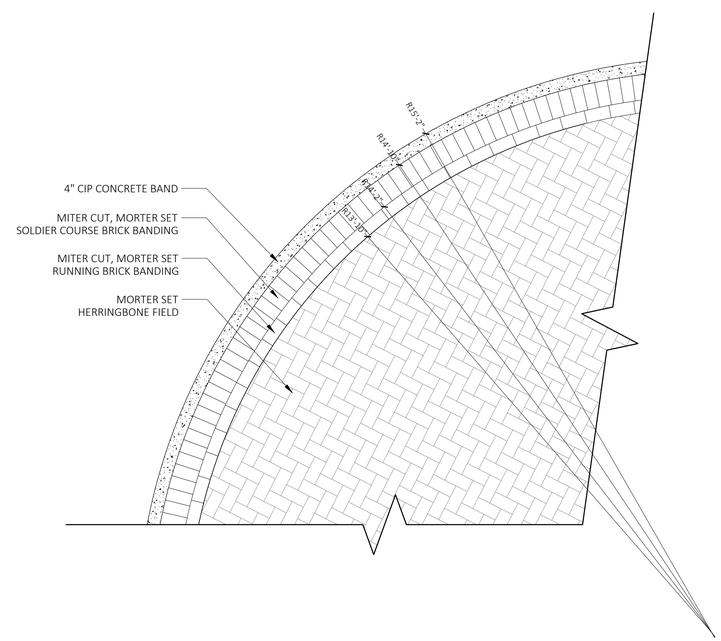
2 CAPTAIN'S CHAPEL ENTRY PLAZA - CONNECTION TO ENTRY PATH

1" = 1'-0" P-CO-CAM-35



3 CAPTAIN'S CHAPEL ENTRY PLAZA - CONNECTION TO ADJ. LANDSCAPE

1" = 1'-0" P-CO-CAM-36



1 CAPTAIN'S CHAPEL ENTRY PLAZA - PLAN VIEW

1/2" = 1'-0" P-CO-CAM-34

ML+H
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St. Augustine, FL 32084

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FL LA6667110

JEREMY R. MARQUIS
LIC. # LA6667110
SEAL

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

DETAILS 'C' - CHAPEL PAVING PLANS AND SECTIONS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.23

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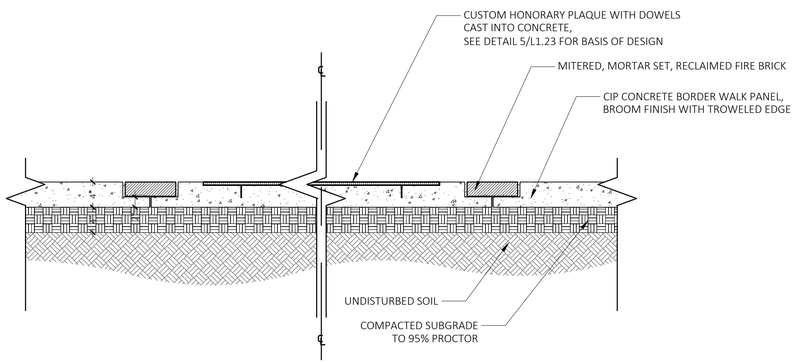
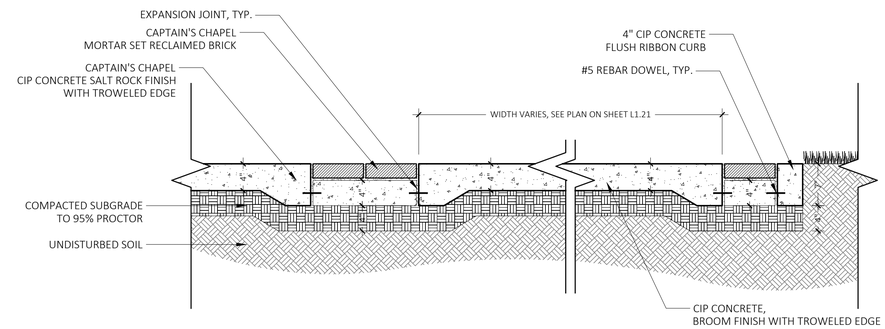


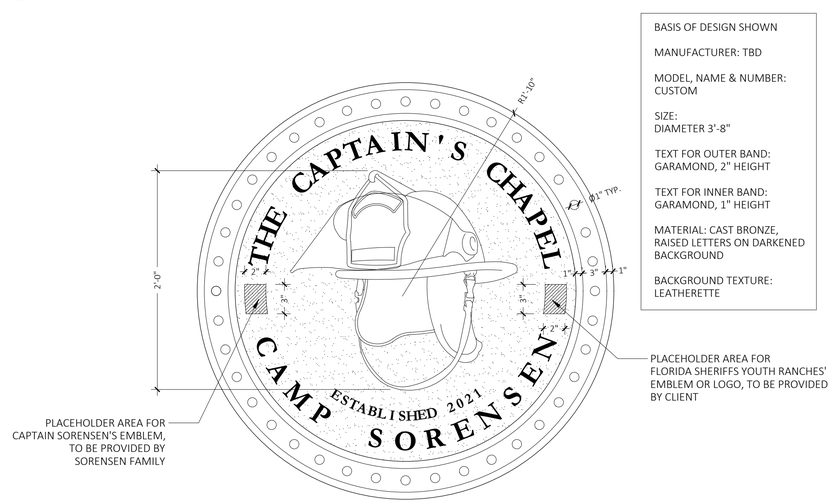
4 CAPTAIN'S CHAPEL BORDER WALK - HONORARY PLAQUE SECTION

1" = 1'-0" P-CO-CAM-41



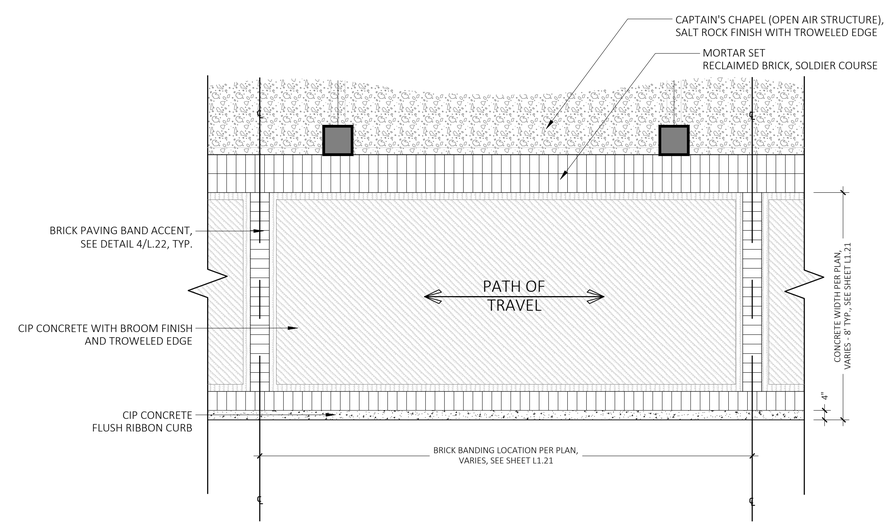
2 CAPTAIN'S CHAPEL BORDER WALK - SECTION WITH CHAPEL CONNECTION

1" = 1'-0" P-CO-CAM-39



3 CAPTAIN'S CHAPEL BORDER WALK - HONORARY PLAQUE

1 1/2" = 1'-0" P-CO-CAM-40



1 CAPTAIN'S CHAPEL BORDER WALK - PLAN VIEW

3/8" = 1'-0" P-CO-CAM-38

ML+H
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St. Augustine, FL 32084

Ph 904.825.6747 www.halback.com
FL LA6667110

REGISTERED LANDSCAPE ARCHITECT
JEREMY R. MARQUIS
STATE OF FLORIDA
LIC. # LA6667110
5/28/2021
DocuSigned by:
E2B4F3D4A6A405...
SEAL

DRAWN BY: GC/EP/AG/JM

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

DETAILS 'C' - CHAPEL PAVING PLANS AND SECTIONS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L1.24

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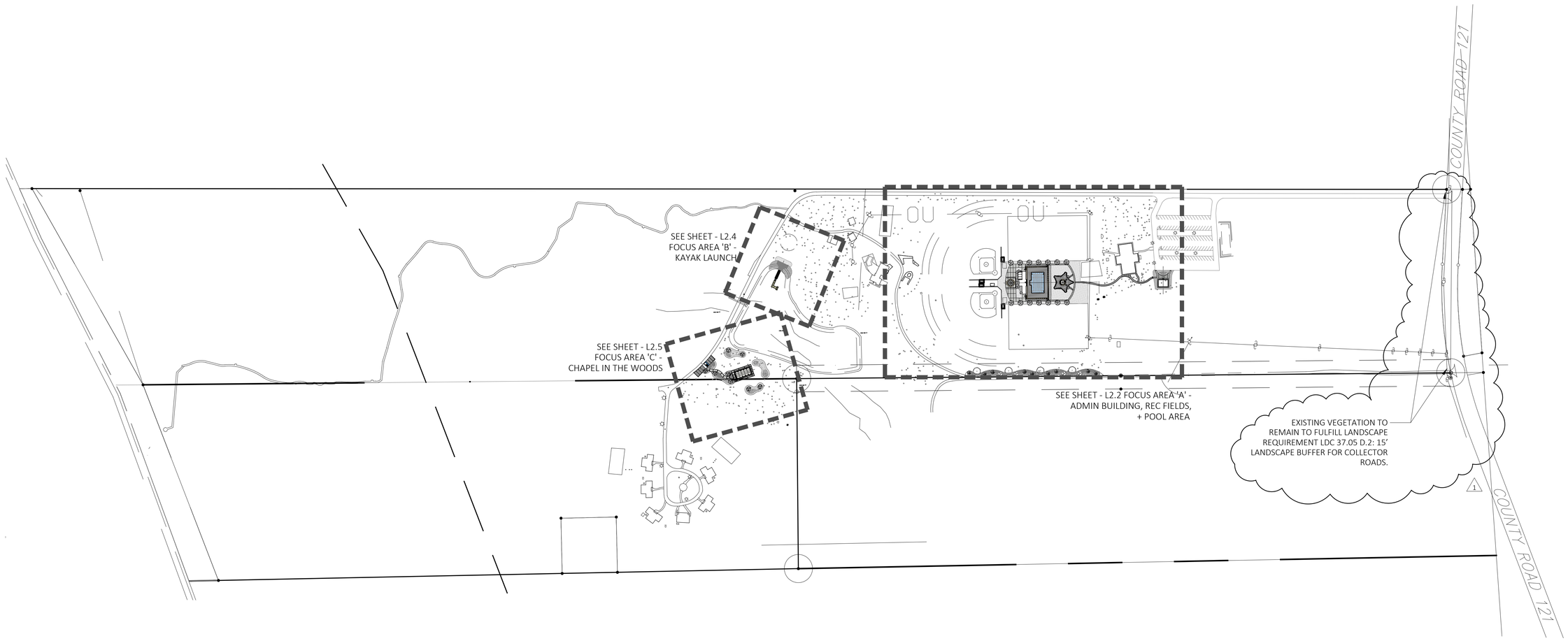

ML+H
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St. Augustine, FL 32084

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FL LA6667110

REGISTERED LANDSCAPE ARCHITECT
JEREMY R. MARQUIS
LA 6667110
DocuSigned by:
E2C8A5EGAA405...
OF
5/28/2021
JEREMY MARQUIS
LIC. # LA6667110
SEAL

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607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

SITE LANDSCAPE

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L2.1

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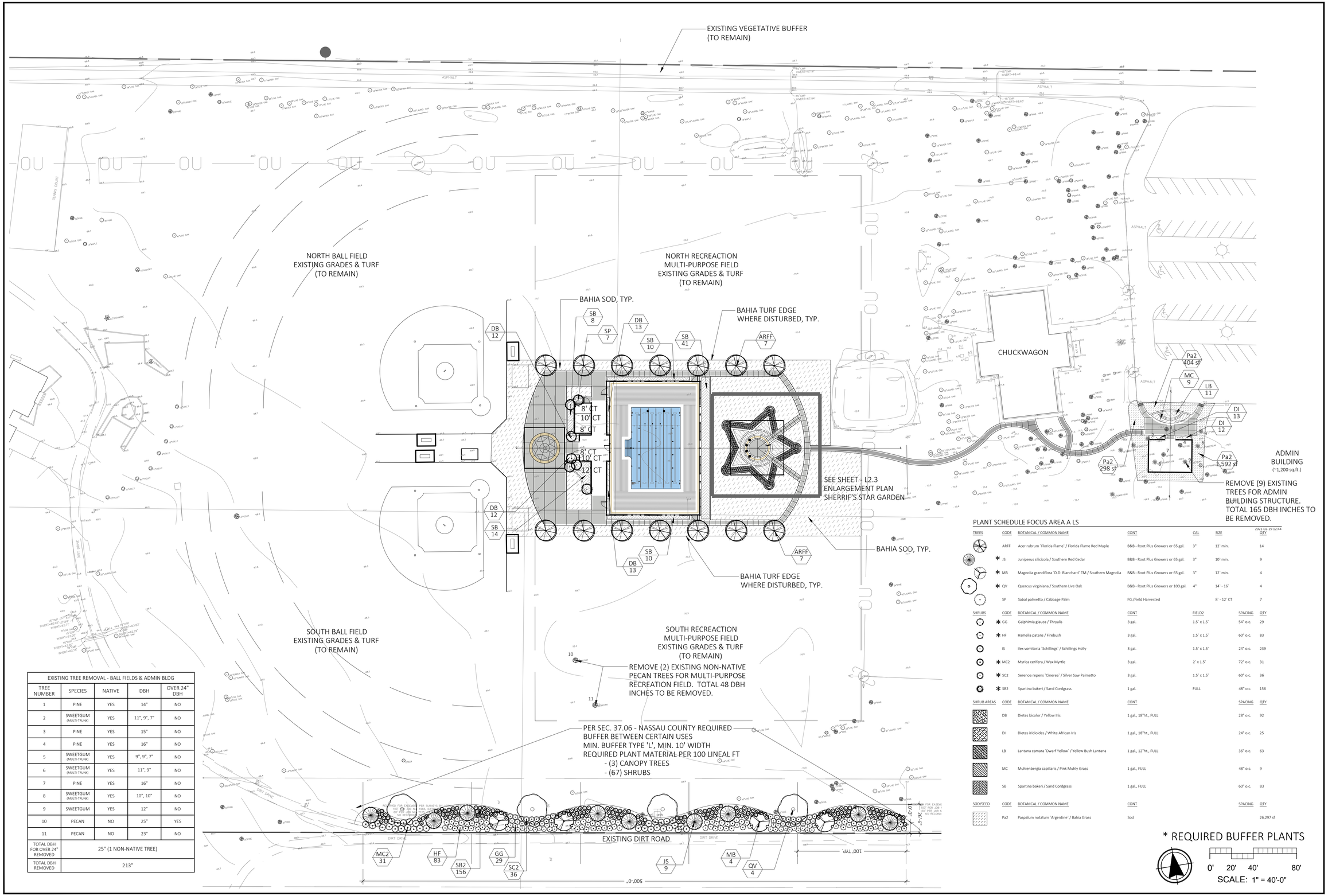

EXISTING TREE REMOVAL - BALL FIELDS & ADMIN BLDG				
TREE NUMBER	SPECIES	NATIVE	DBH	OVER 24" DBH
1	PINE	YES	14"	NO
2	SWEETGUM (MULTI-TRUNK)	YES	11", 9", 7"	NO
3	PINE	YES	15"	NO
4	PINE	YES	16"	NO
5	SWEETGUM (MULTI-TRUNK)	YES	9", 9", 7"	NO
6	SWEETGUM (MULTI-TRUNK)	YES	11", 9"	NO
7	PINE	YES	16"	NO
8	SWEETGUM (MULTI-TRUNK)	YES	10", 10"	NO
9	SWEETGUM	YES	12"	NO
10	PECAN	NO	25"	YES
11	PECAN	NO	23"	NO
TOTAL DBH FOR OVER 24" REMOVED	25" (1 NON-NATIVE TREE)			
TOTAL DBH REMOVED	213"			

PLANT SCHEDULE FOCUS AREA A LS

2021-02-19 12:44

TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	ARFF	Acer rubrum `Florida Flame` / Florida Flame Red Maple	B&B - Root Plus Growers or 65 gal.	3"	12` min.	14
*	JS	Juniperus silicicola / Southern Red Cedar	B&B - Root Plus Growers or 65 gal.	3"	10` min.	9
*	MB	Magnolia grandiflora `D.D. Blanchard` TM / Southern Magnolia	B&B - Root Plus Growers or 65 gal.	3"	12` min.	4
*	QV	Quercus virginiana / Southern Live Oak	B&B - Root Plus Growers or 100 gal.	4"	14` - 16`	4
	SP	Sabal palmetto / Cabbage Palm	FG./Field Harvested		8` - 12` CT	7

SHRUBS	CODE	BOTANICAL / COMMON NAME	CONT	FIELD2	SPACING	QTY
*	GG	Galphimia glauca / Thryalis	3 gal.	1.5` x 1.5`	54" o.c.	29
*	HF	Hamelia patens / Firebush	3 gal.	1.5` x 1.5`	60" o.c.	83
	IS	Ilex vomitoria `Schillings` / Schillings Holly	3 gal.	1.5` x 1.5`	24" o.c.	239
*	MC2	Myrica cerifera / Wax Myrtle	3 gal.	2` x 1.5`	72" o.c.	31
*	SC2	Serenoa repens `Cinerea` / Silver Saw Palmetto	3 gal.	1.5` x 1.5`	60" o.c.	36
*	SB2	Spartina bakeri / Sand Cordgrass	1 gal.	FULL	48" o.c.	156

SHRUB AREAS	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
	DB	Dietes bicolor / `Yellow Iris	1 gal., 18"ht., FULL	28" o.c.	92
	DI	Dietes iridioides / White African Iris	1 gal., 18"ht., FULL	24" o.c.	25
	LB	Lantana camara `Dwarf Yellow` / Yellow Bush Lantana	1 gal., 12"ht., FULL	36" o.c.	63
	MC	Muhlenbergia capillaris / Pink Muhly Grass	1 gal., FULL	48" o.c.	9
	SB	Spartina bakeri / Sand Cordgrass	1 gal., FULL	60" o.c.	83

SOD/SEED	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
	Pa2	Paspalum notatum `Argentine` / Bahia Grass	Sod		26,297 sf

* REQUIRED BUFFER PLANTS

0' 20' 40' 80'

SCALE: 1" = 40'-0"

ML+H
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34 Cordova Street, Suite A
St. Augustine, FL 32084

Ph 904.825.6747 www.halback.com
FL LA6667110

REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS STATE OF FLORIDA LA6667110

Digitally signed by Jeremy Marquis
DN: cn=Jeremy Marquis, c=US, o=ML+H, ou=LA6667110, email=jeremy@halback.com, 1.2.840.113549.1.9.1=#1613706D6A6A6A6D
5/28/2021

JEREMY R. MARQUIS
LIC. # LA6667110

SEAL

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

LANDSCAPE - FOCUS AREA 'A' - ADMIN BLDG, REC FIELDS + POOL AREA

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L2.2

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PERMALOC
CLEANLINE XL
ALUMINUM LANDSCAPE EDGING

PERMALOC CORPORATION, 13505 BARRY STREET HOLLAND, MI, 49424
(800) 356-9660 PHONE: (616) 399-9600 fax: (616) 399-9770 WWW.PERMALOC.COM

ARCHITECT NOTE: CHECK OFF APPLICABLE SIZE & FINISH DESIRED

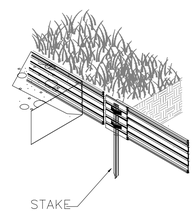
SIZE:

☐ 3/16. 8" (4.8MM X 203MM)0.116" (2.95MM) THICK WALL w/ 0.3" (7.62MM) EXPOSED TOP LIP ☐ MF

All dimensions are nominal and may have some variance

PRE-MANUFACTURED CORNERS AVAILABLE UPON REQUEST

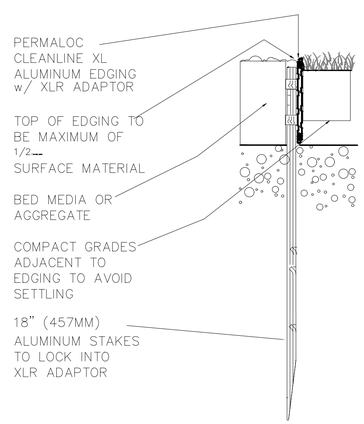
FINISH LEGEND:
(MF) MILL FINISH-NATURAL ALUMINUM



ISOMETRIC VIEW
NTS

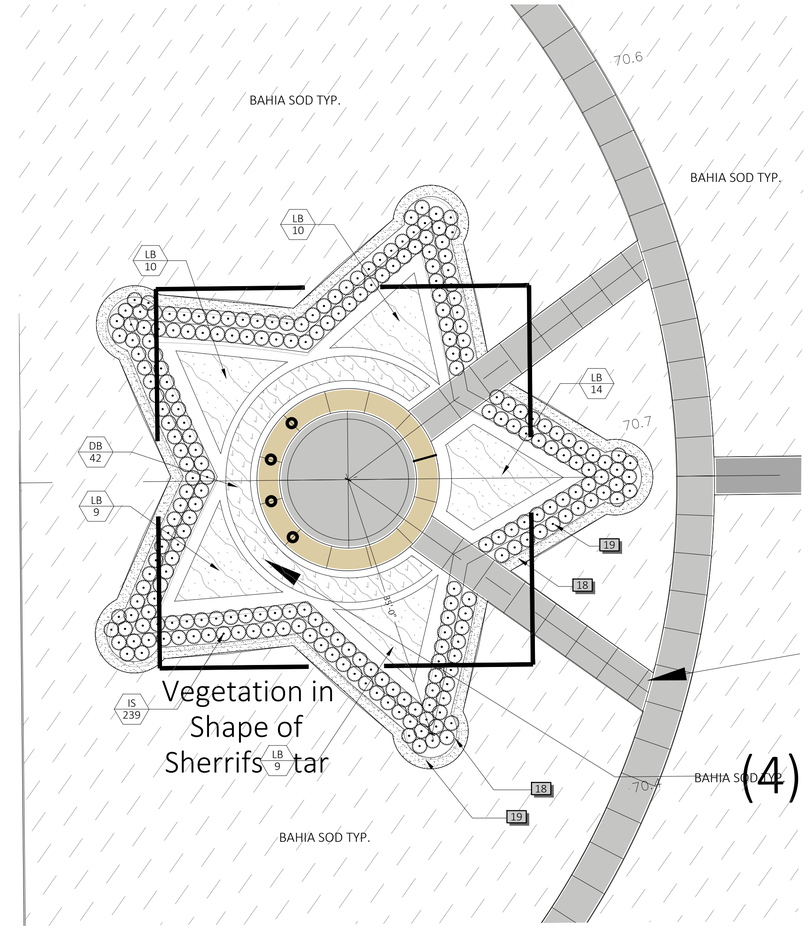
NOTES:

1. INSTALL PER MANUFACTURER'S "INSTALLATION GUIDELINES"
2. 8'-0" (2.44 M) SECTIONS TO INCLUDE (3) 18" (457 MM) ALUMINUM STAKES AND (3) XLR ADAPTORS
3. 16'-0" (4.88 M) SECTIONS TO INCLUDE (5) 18" (457 MM) ALUMINUM STAKES AND (3) XLR ADAPTORS
4. CORNERS - CUT BASE EDGING UP HALFWAY AND FORM A CONTINUOUS CORNER.
5. PERMALOC CLEANLINE XL AS MANUFACTURED BY PERMALOC CORPORATION, HOLLAND MI. (800) 356-9660, (616) 399-9600
6. CONTRACTOR'S NOTE: FOR PRODUCT AND PURCHASING INFORMATION VISIT: WWW.PERMALOC.COM



1 PERMALOC CLEANLINE ALUMINUM EDGING
NOT TO SCALE

P-CO-CAM-29



ADDITIONAL NOTES:
- REFERENCE PLANT SCHEDULE FOR FOCUS AREA 'A' ON SHEET L2.2.
- REFERENCE SHERRIFF'S STAR GARDEN HARDSCAPE DETAILS ON SHEET L1.06.

REFERENCE NOTES SCHEDULE SHERIFF STAR GARDEN

2021-02-19 14:00

SYMBOL	DESCRIPTION	QTY	DETAIL
18	8" Permaloc Cleanline Aluminum Edging	254 lf	
19	3/8" - 1/2" River Rock Aggregate	378 sf	

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St. Augustine, FL 32084

Ph 904.825.6747 www.halback.com
FL LA6667110

REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS LA 6667110 STATE OF FLORIDA
Docu Signed by: 5/28/2021
JEREMY MARQUIS
LIC. # LA6667110 SEAL

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CAMP SORENSEN
607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046
LANDSCAPE - ENLARGEMENT PLAN - SHERRIFF'S STAR GARDEN

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L2.3

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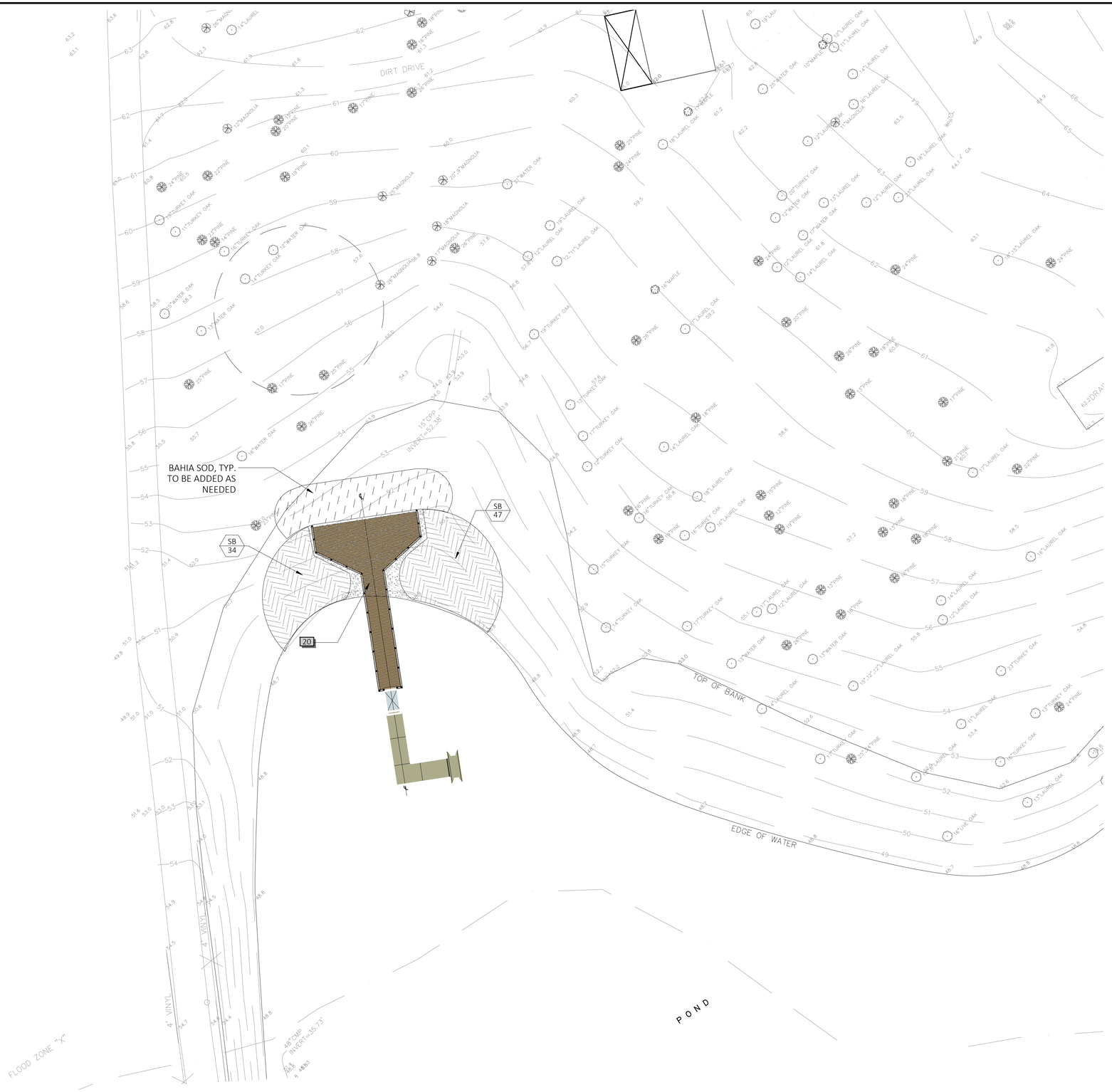

PLANT SCHEDULE FOCUS AREA B LS

2021-02-19 14:20

SHRUB AREAS	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
	SB	Spartina bakeri / Sand Cordgrass	1 gal., FULL	60" o.c.	81

SOD/SEED	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
	Pa2	Paspalum notatum `Argentine` / Bahia Grass	Sod		973 sf

REFERENCE NOTES SCHEDULE DOCK / KAYAK LAUNCH AREA

2021-02-19 14:19

SYMBOL	DESCRIPTION	QTY	DETAIL
20	8"-12" - Limestone Rip/Rap	918 sf	

ADDITIONAL NOTES:
- REFERENCE FOCUS AREA 'B' KAYAK LAUNCH HARDSCAPE PLAN & DETAILS ON SHEETS L1.11 & L1.12.

ML+H
Marquis Latimer + Halback, Inc.
34 Cordova Street, Suite A
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FL LA6667110

REGISTERED LANDSCAPE ARCHITECT
JEREMY R. MARQUIS
STATE OF FLORIDA
LA 6667110
DocuSigned by:
5/28/2021
JEREMY MARQUIS
LIC. # LA6667110
SEAL

DRAWN BY: GC/ERT/JLS
INITIALS

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

LANDSCAPE - FOCUS AREA 'B' KAYAK LAUNCH

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L2.4

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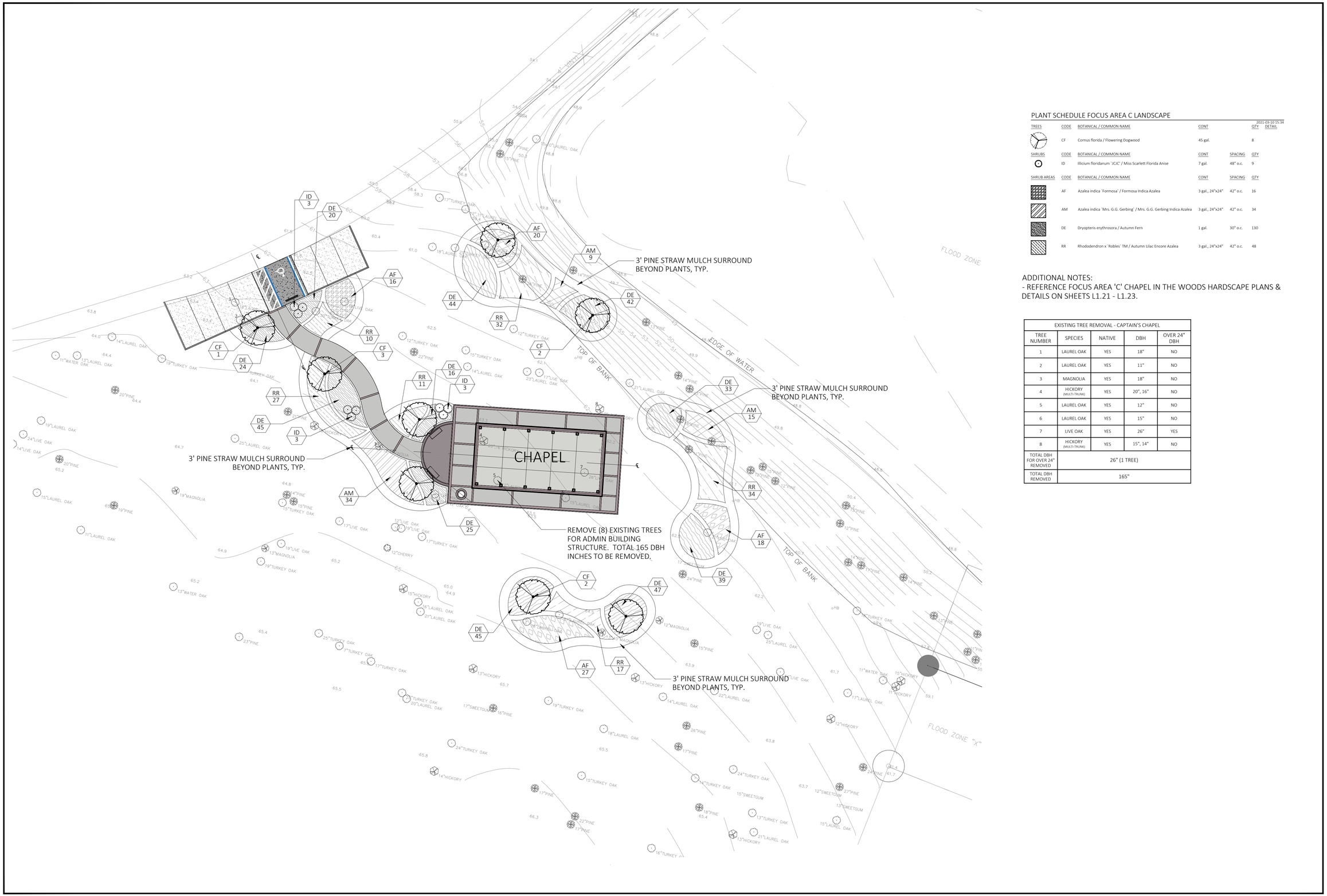

PLANT SCHEDULE FOCUS AREA C LANDSCAPE

2021-03-10 15:34

TREES	CODE	BOTANICAL / COMMON NAME	CONT	QTY	DETAIL
	CF	Cornus florida / Flowering Dogwood	45 gal.	8	

SHRUBS	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
	ID	Illicium floridanum `JCJC` / Miss Scarlett Florida Anise	7 gal.	48" o.c.	9

SHRUB AREAS	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
	AF	Azalea indica `Formosa` / Formosa Indica Azalea	3 gal., 24"x24"	42" o.c.	16
	AM	Azalea indica `Mrs. G.G. Gerbing` / Mrs. G.G. Gerbing Indica Azalea	3 gal., 24"x24"	42" o.c.	34
	DE	Dryopteris erythrosora / Autumn Fern	1 gal.	30" o.c.	130
	RR	Rhododendron x `Robles` TM / Autumn Lilac Encore Azalea	3 gal., 24"x24"	42" o.c.	48

ADDITIONAL NOTES:
- REFERENCE FOCUS AREA 'C' CHAPEL IN THE WOODS HARDSCAPE PLANS & DETAILS ON SHEETS L1.21 - L1.23.

EXISTING TREE REMOVAL - CAPTAIN'S CHAPEL				
TREE NUMBER	SPECIES	NATIVE	DBH	OVER 24" DBH
1	LAUREL OAK	YES	18"	NO
2	LAUREL OAK	YES	11"	NO
3	MAGNOLIA	YES	18"	NO
4	HICKORY (MULTI-TRUNK)	YES	20", 16"	NO
5	LAUREL OAK	YES	12"	NO
6	LAUREL OAK	YES	15"	NO
7	LIVE OAK	YES	26"	YES
8	HICKORY (MULTI-TRUNK)	YES	15", 14"	NO
TOTAL DBH FOR OVER 24" REMOVED	26" (1 TREE)			
TOTAL DBH REMOVED	165"			

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REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS STATE OF FLORIDA LA6667

Docusigned by:
5/28/2021

JEREMY R. MARQUIS
LIC. # LA6667110 SEAL

DRAWN BY: GC/ER/JM/JLS

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607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

LANDSCAPE - FOCUS AREA 'C' - CHAPEL IN THE WOODS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L2.5

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GENERAL NOTES

1. CONTRACTOR SHALL PROVIDE LANDSCAPE BED PREPARATION, INCLUDING REMOVAL AND DISPOSAL OF EXISTING LANDSCAPE AND TREES (TREES TO REMAIN ARE NOTED ON PLAN). CONTRACTOR SHALL PULL ANY APPLICABLE PERMITS, SUCH AS TREE REMOVAL PERMIT.
2. SPRAY DOWN BASE OF BUILDING TO REMOVE SOIL FROM CONSTRUCTION ACTIVITIES.
3. PLANT MATERIAL SHALL CONFORM TO THE STANDARDS FOR GRADE #1 OR BETTER AS GIVEN IN THE LATEST "GRADES AND STANDARDS FOR NURSERY PLANTS, PARTS I AND II," FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES . PLANT SIZE IS TO TAKE PRECEDENCE OVER CONTAINER SIZE.
4. ALL TREES AND SHRUBS ARE TO BE POSITIONED VERTICALLY REGARDLESS OF THE SLOPE OF THE GROUND IN WHICH THEY ARE PLANTED. BERMS ARE TO BE CONSTRUCTED AT RIGHT ANGLES TO THE TREE OR SHRUB OR IN A MANNER IN WHICH THEY WILL MOST EFFECTIVELY SERVE THE PURPOSE OF RETAINING WATER AT THE BASE OF THE PLANT.
5. WEEDS ARE TO BE ADEQUATELY AND PROPERLY TREATED AND REMOVED PRIOR TO LANDSCAPE INSTALLATION. ALL SOIL AMENDMENTS SHOULD BE CERTIFIED AS WEED-FREE FROM THE SUPPLIER.
6. LANDSCAPE MATERIAL IS TO BE MAINTAINED BY THE LANDSCAPE CONTRACTOR (INCLUDING MOWING, PRUNING, AND WEEDING) UNTIL PLANTING IS APPROVED BY THE LANDSCAPE ARCHITECT. THE LANDSCAPE CONTRACTOR MUST PROVIDE: (A.) A WARRANTY ON ALL TREES AND PALMS FOR A PERIOD OF (12) TWELVE MONTHS. (B.) A WARRANTY ON ALL SHRUBS AND GROUNDCOVERS FOR A PERIOD OF (12) TWELVE MONTHS. (C.) GUIDELINES FOR PROPER MAINTENANCE.
7. TREES SHALL NOT BE PLANTED CLOSER THAN 7.5' FROM THE CENTERLINE OF UNDERGROUND UTILITIES; ADJUST IN THE FIELD IF NEEDED.
8. BALLED AND BURLAPPED STRAPPING WIRE, AND ANY SYNTHETIC MATERIAL, SHALL BE REMOVED PRIOR TO FINAL INSPECTION. WIRE BASKETS SHOULD BE PULLED AWAY FROM THE TRUNK.
9. CONTRACTOR SHALL SCARIFY SOIL TO A DEPTH OF 12" IN AREAS WITH COMPACTED SOIL. CONTRACTOR SHALL EXCAVATE AND DISPOSE OF ALL STONE, DEBRIS AND BASE MATERIAL FROM PREVIOUS PARKING AREAS. BACK FILL WITH TOP SOIL WITH HIGH ORGANIC CONTENT AND CERTIFIED WEED FREE.

COORDINATION WITH PROJECT WORK

1. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER WORK THAT MAY IMPACT THE COMPLETION OF THE WORK.
2. PRIOR TO THE START OF WORK, PREPARE A DETAILED SCHEDULE OF THE WORK FOR COORDINATION WITH OTHER TRADES.
3. COORDINATE THE RELOCATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF OTHER UTILITY LINES THAT ARE IN CONFLICT WITH TREE LOCATIONS. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND LINES. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS ENCOUNTERED.

LAYOUT AND PLANTING SEQUENCE

1. RELATIVE POSITIONS OF ALL PLANTS AND TREES ARE SUBJECT TO APPROVAL OF THE LANDSCAPE ARCHITECT.
2. NOTIFY THE LANDSCAPE ARCHITECT, ONE (1) WEEK PRIOR TO LAYOUT. LAYOUT ALL INDIVIDUAL TREE AND SHRUB LOCATIONS. PLACE PLANTS ABOVE SURFACE AT PLANTING LOCATION OR PLACE A LABELED STAKE AT PLANTING LOCATION. LAYOUT BED LINES WITH PAINT FOR THE LANDSCAPE ARCHITECT'S APPROVAL. SECURE THE LANDSCAPE ARCHITECT'S ACCEPTANCE BEFORE DIGGING AND START OF PLANTING WORK.

PLANTING GUIDELINES: TREES, SHRUBS & GROUNDCOVER

1. ASSURE THAT SOIL MOISTURE IS WITHIN THE REQUIRED LEVELS PRIOR TO PLANTING. IRRIGATION, IF REQUIRED, SHALL NOT BE APPLIED LESS THAN 12 HOURS PRIOR TO PLANTING TO AVOID PLANTING IN MUDDY SOILS.
2. ASSURE THAT SOIL GRADES IN THE BEDS ARE SMOOTH AND AS SHOWN ON THE PLANS.
3. PLANTS SHALL BE PLANTED IN EVEN, TRIANGULARLY SPACED ROWS, AT THE INTERVALS CALLED OUT FOR ON THE DRAWINGS, UNLESS OTHERWISE NOTED.
4. DIG PLANTING HOLES TWO TIMES (2x) THE WIDTH OF THE ROOT BALL AND BACK FILL WITH PLANTING MIX. SEE "SOIL MIX" GUIDELINES.
5. PRESS SOIL TO BRING THE ROOT SYSTEM IN CONTACT WITH THE SOIL.
6. SPREAD ANY EXCESS SOIL AROUND IN THE SPACES BETWEEN PLANTS.
7. APPLY MULCH TO THE BED BEING SURE NOT TO COVER THE TOPS OF THE PLANTS WITH OR THE TOPS OF THE ROOT BALL WITH MULCH.
8. WATER EACH PLANTING AREA AS SOON AS THE PLANTING IS COMPLETED. APPLY ADDITIONAL WATER TO KEEP THE SOIL MOISTURE AT THE REQUIRED LEVELS. DO NOT OVER WATER.

PALM PLANTING

1. PALM TREES SHALL BE PLACED AT GRADE MAKING SURE NOT TO PLANT THE TREE ANY DEEPER IN THE GROUND THAN THE PALM TREES ORIGINALLY STOOD.
2. THE TREES SHALL BE PLACED WITH THEIR VERTICAL AXIS IN A PLUMB POSITION.
3. ALL BACKFILL SHALL BE NATIVE SOIL EXCEPT IN CASES WHERE PLANTING IN ROCK. WATER-SETTLE THE BACK FILL.
4. DO NOT COVER ROOT BALL WITH MULCH OR TOPSOIL.
5. PROVIDE A WATERING BERM AT EACH PALM. BERMS SHALL EXTEND A MINIMUM OF 18 INCHES OUT FROM THE TRUNK ALL AROUND AND SHALL BE A MINIMUM OF (6) INCHES HIGH.
6. REMOVE TWINE WHICH TIES FRONDS TOGETHER AFTER PLACING PALM IN PLANTING HOLE AND SECURING IT IN THE UPRIGHT POSITION.

PRUNING OF TREES AND SHRUBS

1. IF PRUNING OF EXISTING TREES OR PLANT MATERIAL IS REQUIRED THE CONTRACTOR SHALL ADHERE TO ANSI Z133.1 STANDARDS FOR TREE CARE AND INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) BEST MANAGEMENT PRACTICES.

MULCHING OF PLANTS

1. SCHEDULE THE PLANTING TO OCCUR PRIOR TO APPLICATION OF THE MULCH. IF THE BED IS ALREADY MULCHED, PULL THE MULCH FROM AROUND THE HOLE AND PLANT INTO THE SOIL. DO NOT PLANT THE ROOT SYSTEM IN THE MULCH. PULL MULCH BACK SO IT IS NOT ON THE ROOT BALL SURFACE.
2. APPLY A MINIMUM OF 2-3 INCHES DEPTH OF PINE STRAW MULCH BEFORE SETTLEMENT, COVERING THE ENTIRE PLANTING BED AREA. INSTALL NO MORE THAN 1 INCH OF MULCH OVER THE TOP OF THE ROOT BALLS OF ALL PLANTS. TAPER TO 2 INCHES WHEN ABUTTING PAVEMENT.
3. FOR TREES PLANTED IN LAWN AREAS THE MULCH SHALL EXTEND TO A 5 FOOT RADIUS AROUND THE TREE OR TO THE EXTENT INDICATED ON THE PLANS AND SPACED AT LEAST SIX INCHES AWAY FROM THE TREE TRUNK. MULCH TREES IN TURF AREAS PRIOR TO HYDROSEEDING.
4. LIFT ALL LEAVES, LOW HANGING STEMS AND OTHER GREEN PORTIONS OF SMALL PLANTS OUT OF THE MULCH IF COVERED.

SOIL MIX

1. CONTRACTOR SHALL OBTAIN SOIL TESTING (EARLY AND PRIOR TO PROCURING MATERIALS) FOR THE PROJECT AREA TO DETERMINE AGONOMIC SUITABILITY. WILL NEED TO ACQUIRE SOIL SAMPLE NEAR POOL AREA IN FOCUS AREA 'A' AND ONE SAMPLE AT CHAPEL SITE IN FOCUS AREA 'C'. RESULTS SHALL BE REVIEWED WITH THE OWNER AND LANDSCAPE ARCHITECT PRIOR TO PLANTING. AT A MINIMUM, SOIL TESTS SHOULD CONSIDER THE FOLLOWING
2. PH / BUFFER PH
3. SALINITY
4. ORGANIC CONTENT / SAND CONTENT / SILT AND CLAY CONTENT (PERCENTAGE)
5. PHOSPHOROUS / POTASSIUM / CALCIUM / MAGNESIUM
6. AASHTO CLASSIFICATION
7. PERCOLATION RATE
8. CONTRACTOR IS TO PROPOSE A SOIL MIX DESIGN BASED UPON RESULTS OF TESTING. THESE RECOMMENDATIONS SHOULD ALSO TAKE INTO ACCOUNT THE TEST RESULTS FROM SAMPLES AND TESTING DATA SHALL BE SUBMITTED AT THE SAME TIME. PROVIDE A SUBMITTAL OF A TWO GALLON SAMPLE WITH TESTING DATA THAT INCLUDES RECOMMENDATIONS FOR CHEMICAL ADDITIVES FOR THE TYPES OF PLANTS TO BE GROWN. . CONTRACTOR SHALL INCLUDE THE COST OF SOIL TESTING IN THE BASE BID AS WELL AS A APPLICATION OF SLOW RELEASE BALANCED FERTILIZER. CONTRACTOR WILL PROVIDE A PROPOSAL FOR ANY ADDITIONAL AMENDMENTS..
9. AT THE TIME OF FINAL GRADING, ADD FERTILIZER OR ACIDIFIER IF REQUIRED TO THE PLANTING SOIL AT RATES RECOMMENDED BY THE TESTING RESULTS FOR THE PLANTS TO BE GROWN.
10. UNLESS DETERMINED OTHERWISE FROM TESTING, SOIL MIX SHALL BE 2/3 EXISTING SOIL AND 1/3 ORGANIC ADDITIVES SUCH AS BLACK KOW.

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REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS LA 6667110 STATE OF FLORIDA
DocuSigned by: 5/28/2021
JEREMY MARQUIS
LIC. # LA6667110 SEAL

DRAWN BY: GC/EN/TM/JS

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607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046
LANDSCAPE - NOTES

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

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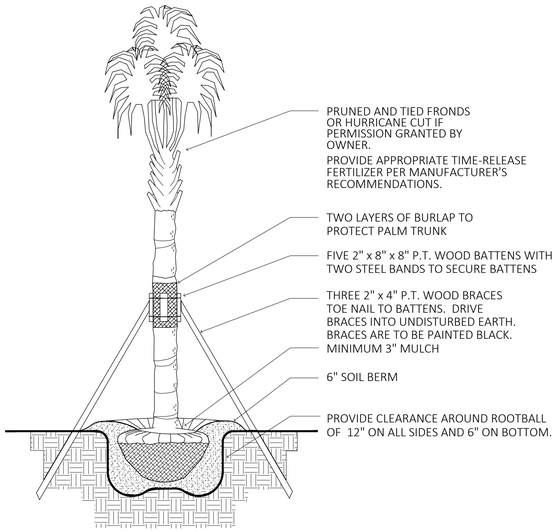

5 PALM PLANTING DETAIL

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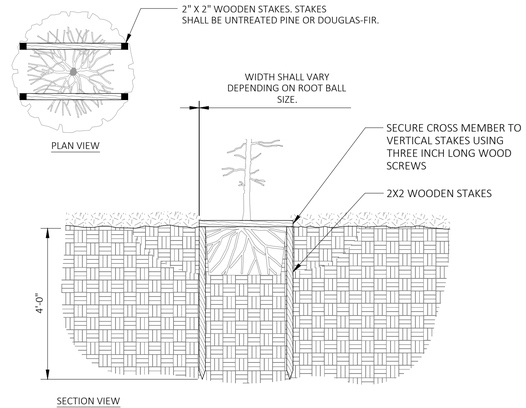

4 TREE STAKING - STAPLE (TREES <12' OA.)

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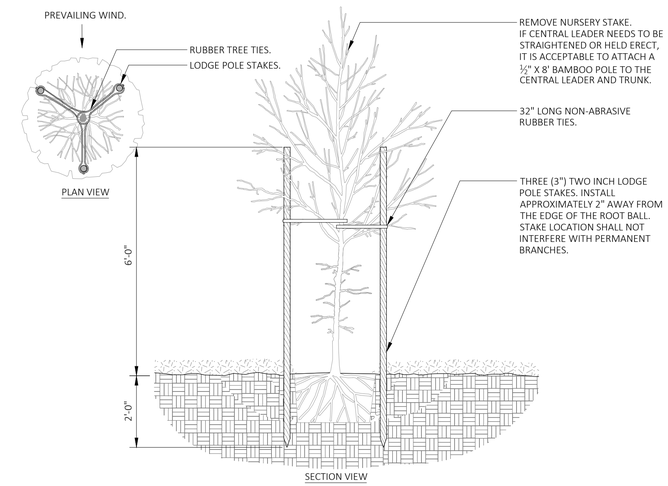

2 TREE STAKING - LODGE POLES (3) (TREES >12' OA.)

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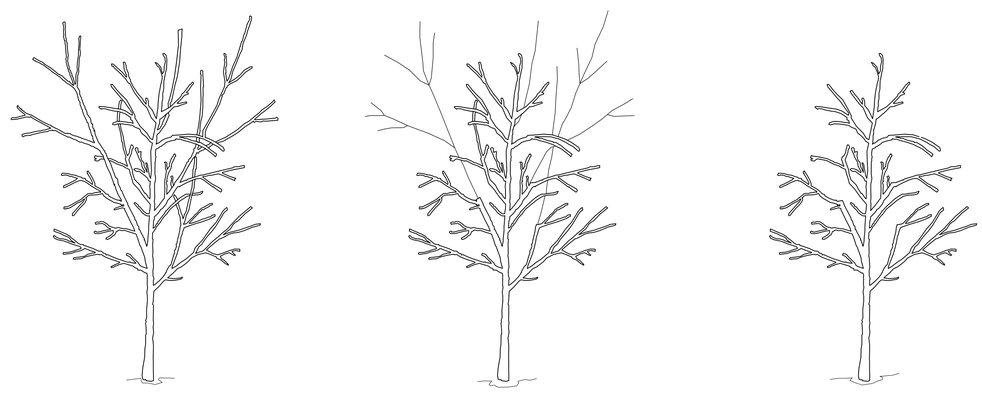

BEFORE PLANTING, TREE HAS THREE CODOMINANT STEMS. THE TWO THAT COMPETE WITH THE ONE IN THE CENTER SHOULD BE PRUNED TO SUPRESS THEIR GROWTH.

TWO COMPETING STEMS WERE REDUCED SUBSTANTIALLY, IN THIS CASE REMVOING ABOUT 70% OF THEIR FOILAGE USING REDUCTION CUTS.

AFTER PRUNING, TREE HAS ONLY ONE DOMINANT STEM.

NOTES:
1- ALL TREES SHOWN ARE REJECTABLE UNLESS THEY UNDERGO RECOMMENDED TREATMENT.
2- TREE SHALL MEET CROWN OBSERVATION DETAIL FOLLOWING CORRECTION.

3 CROWN CORRECTION DETAIL

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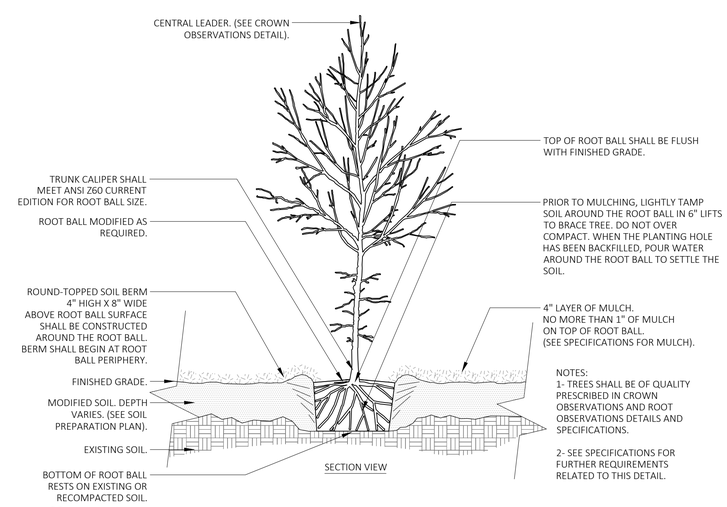

NOTES:
1- TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.

2- SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

1 TREE W/ BERM (EXISTING SOIL MODIFIED)

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5/28/2021
JEREMY MARQUIS
LIC. # LA6667110
SEAL

DRAWN BY: GC/EN/TM/JLS

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CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

LANDSCAPE DETAILS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L2.7

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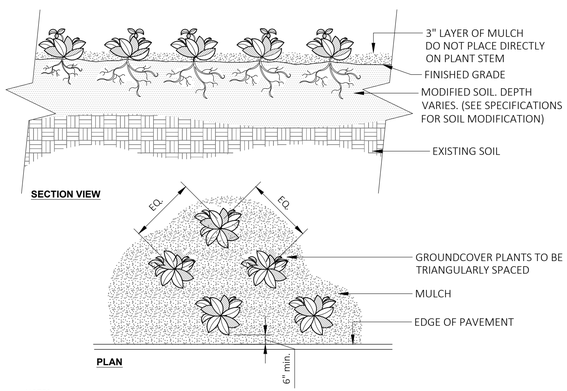

NOTES:
1- SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION.
2- SMALL ROOTS (½" OR LESS) THAT GROW AROUND, UP, OR DOWN THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPERHY CAN BE REMOVED AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER DETAIL).
3- SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PRIOR TO MULCHING.

6 GROUNDCOVER

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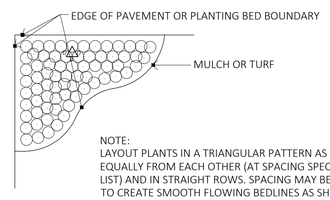

NOTE:
LAYOUT PLANTS IN A TRIANGULAR PATTERN AS SHOWN, SPACED EQUALLY FROM EACH OTHER (AT SPACING SPECIFIED IN THE PLANT LIST) AND IN STRAIGHT ROWS. SPACING MAY BE ADJUSTED SLIGHTLY TO CREATE SMOOTH FLOWING BEDLINES AS SHOWN ON LANDSCAPE PLANS. PROVIDE 6" - 12" UNIFORM CLEARANCE (MULCH STRIP) BETWEEN PLANT FOLIAGE AND EDGE OF BEDLINE (TYP.).

4 SHRUB SPACING DETAIL

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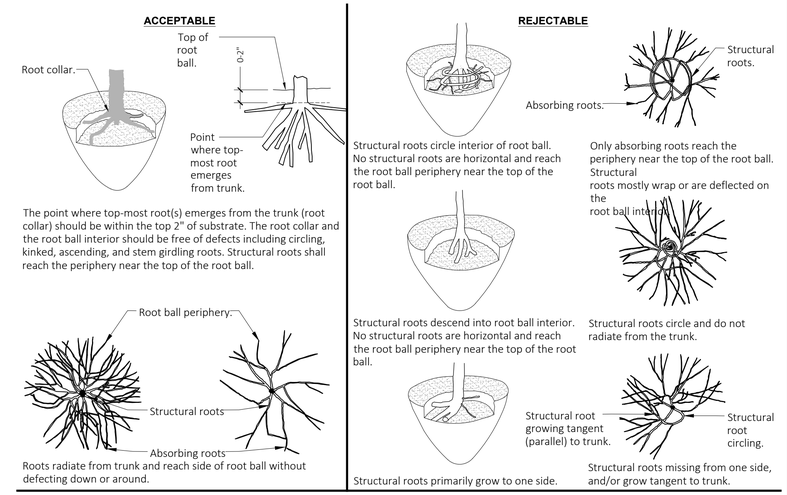

Notes:
1- Observations of roots shall occur prior to acceptance. Roots and soil may be removed during the observation process; substrate/soil shall be replaced after the observations have been completed.
2- See specifications for observation process and requirements.

2 ROOT OBSERVATIONS DETAIL - BALLED AND BURLAPPED

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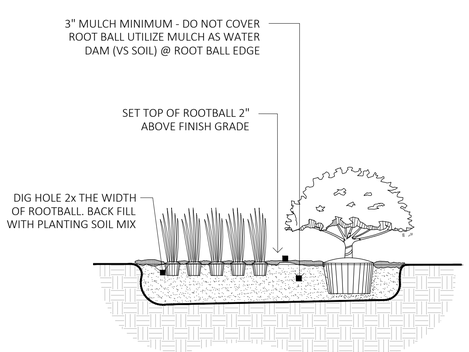

5 SHRUB AND GROUNDCOVER PLANTING

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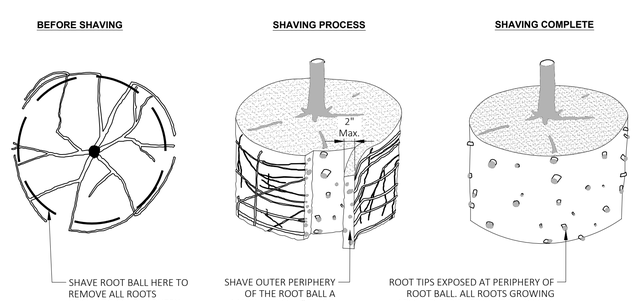

NOTES:
1- SHAVING TO BE CONDUCTED USING A SHARP BLADE OR HAND SAW ELIMINATING NO MORE THAN NEEDED TO REMOVE ALL ROOTS ON THE PERIPHERY OF ROOT BALL.

2- SHAVING CAN BE PERFORMED JUST PRIOR TO PLANTING OR AFTER PLACING IN THE HOLE.

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3 ROOT BALL SHAVING CONTAINER DETAIL

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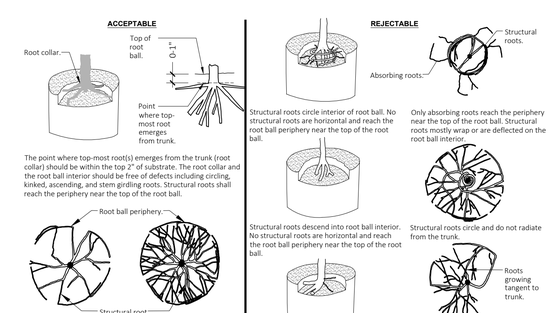

Notes:
1- Observations of roots shall occur prior to acceptance. Roots and substrate may be removed during the observation process; substrate/soil shall be replaced after observation has been completed.
2- Small roots (½" or less) that grow around, up, or down the root ball periphery are considered a normal condition in container production and are acceptable however they should be eliminated at the time of planting. Roots on the periperhy can be removed at the time of planting. (See root ball shaving container detail).

1 ROOT OBSERVATIONS DETAIL - CONTAINER

1" = 1'-0"

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REGISTERED LANDSCAPE ARCHITECT
JEREMY R. MARQUIS
LA 6667
STATE OF FLORIDA
DocuSigned by:
E2F4B2D9A8A44D5...
5/28/2021
JEREMY MARQUIS
LIC. # LA6667
SEAL

DRAWN BY: GC/ERK
INITIALS

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CAMP SORENSEN
607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046
LANDSCAPE DETAILS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L2.8

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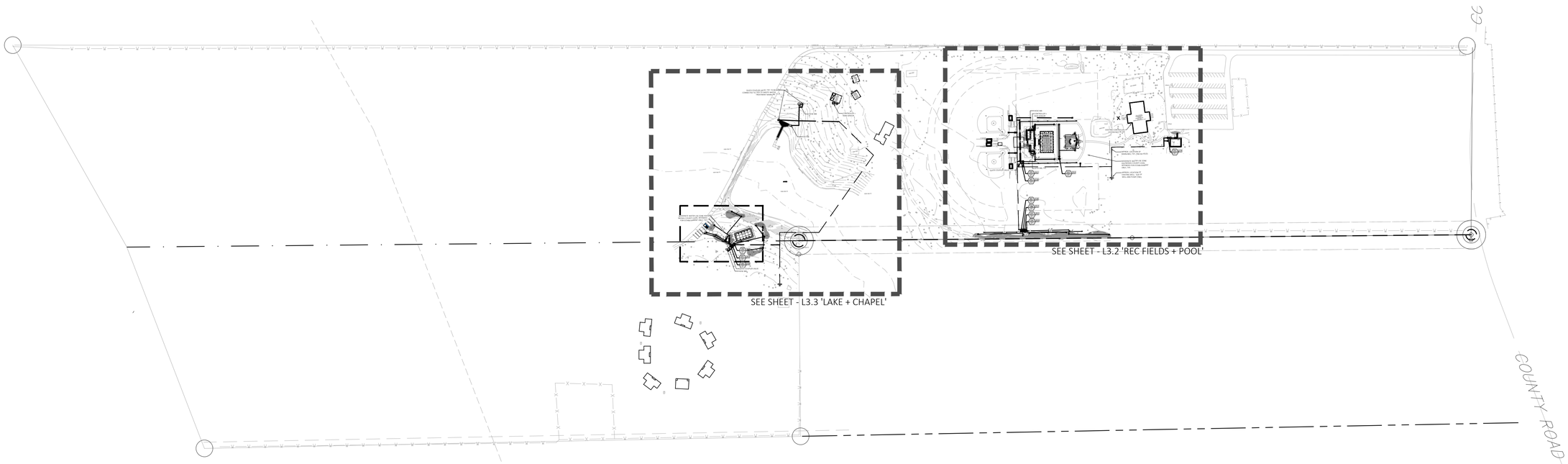

0' 100' 200' 400'
SCALE: 1" = 200'-0"

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REGISTERED LANDSCAPE ARCHITECT
JEREMY R. MARQUIS
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7-28-2021
JEREMY R. MARQUIS
LIC. # LA6667110
SEAL
DRAWN BY: GC/EP/AG

CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

IRRIGATION - OVERALL

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L3.1

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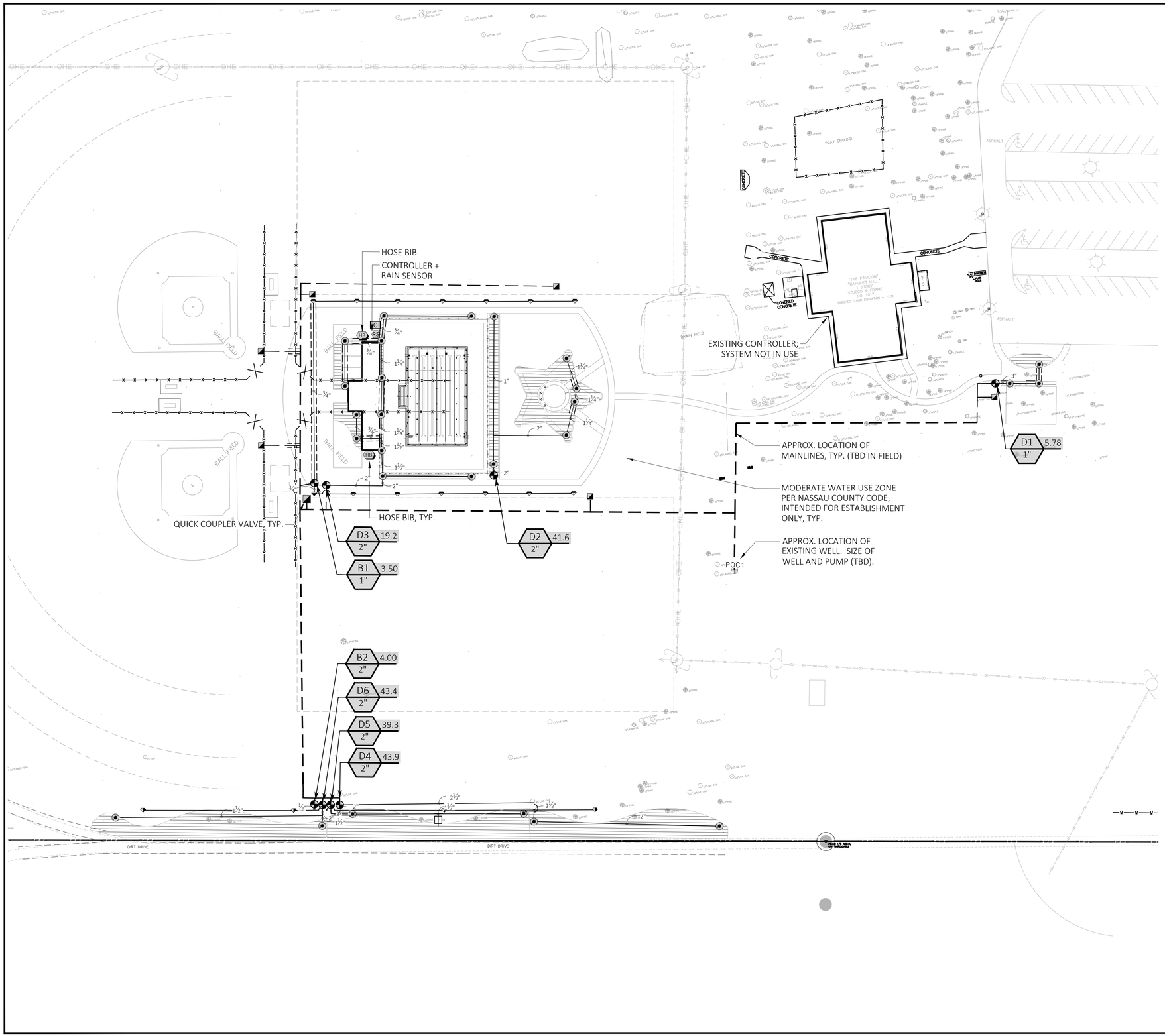

IRRIGATION SCHEDULE_ FOCUS AREA A

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
1401 1402 1404 1408	Rain Bird 1806-PRS-1400 Flood 1401 Flood Bubbler 6.0" popup with pressure regulating device.	18	40

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Pipe Transition Point above grade Pipe transition point from PVC lateral to drip tubing with riser to above grade installation.	27
	Area to Receive Dripline Rain Bird XFD-09-12 XFD On-Surface Pressure Compensating Landscape Dripline. 0.9 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	13,334 l.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PESBR 1", 1-1/2", and 2" Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, and Purple Flow Control Handle.	8
	Rain Bird 44-NP 1" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Non-Potable Purple Rubber Cover, and 2-Piece Body.	7
C	Rain Bird ESP8LXME-LXMM with (01) ESPLXMSM4 12 Station Capable Commercial Controller. Mounted on a Powder-Coated Metal Cabinet. Without flow sensing.	1
RS	Rain Bird RSD-BEx Rain Sensor, with metal latching bracket, extension wire.	1
HB	Hose Bib	2
	Irrigation Lateral Line: PVC Schedule 40-NP	2,315 l.f.
	Irrigation Mainline: PVC Schedule 80-NP	1,502 l.f.
	Pipe Sleeve: PVC Schedule 40	293.5 l.f.

Valve Callout
- Valve Number
- Valve Flow
- Valve Size

ML+H
Marquis Latimer + Halback, Inc.
34 Cordova Street, Suite A
St. Augustine, FL 32084
Ph 904.825.6747 www.halback.com
FL LA6667110

DS

REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS LA 6667110 STATE OF FLORIDA 5/28/2021

JEREMY R. MARQUIS
LIC. # LA6667110 SEAL

DRAWN BY: GC/ERK/JRM INITIALS

CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

IRRIGATION -FOCUS AREA 'A' - ADMIN. BLDG, REC FIELDS + POOL

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L3.2

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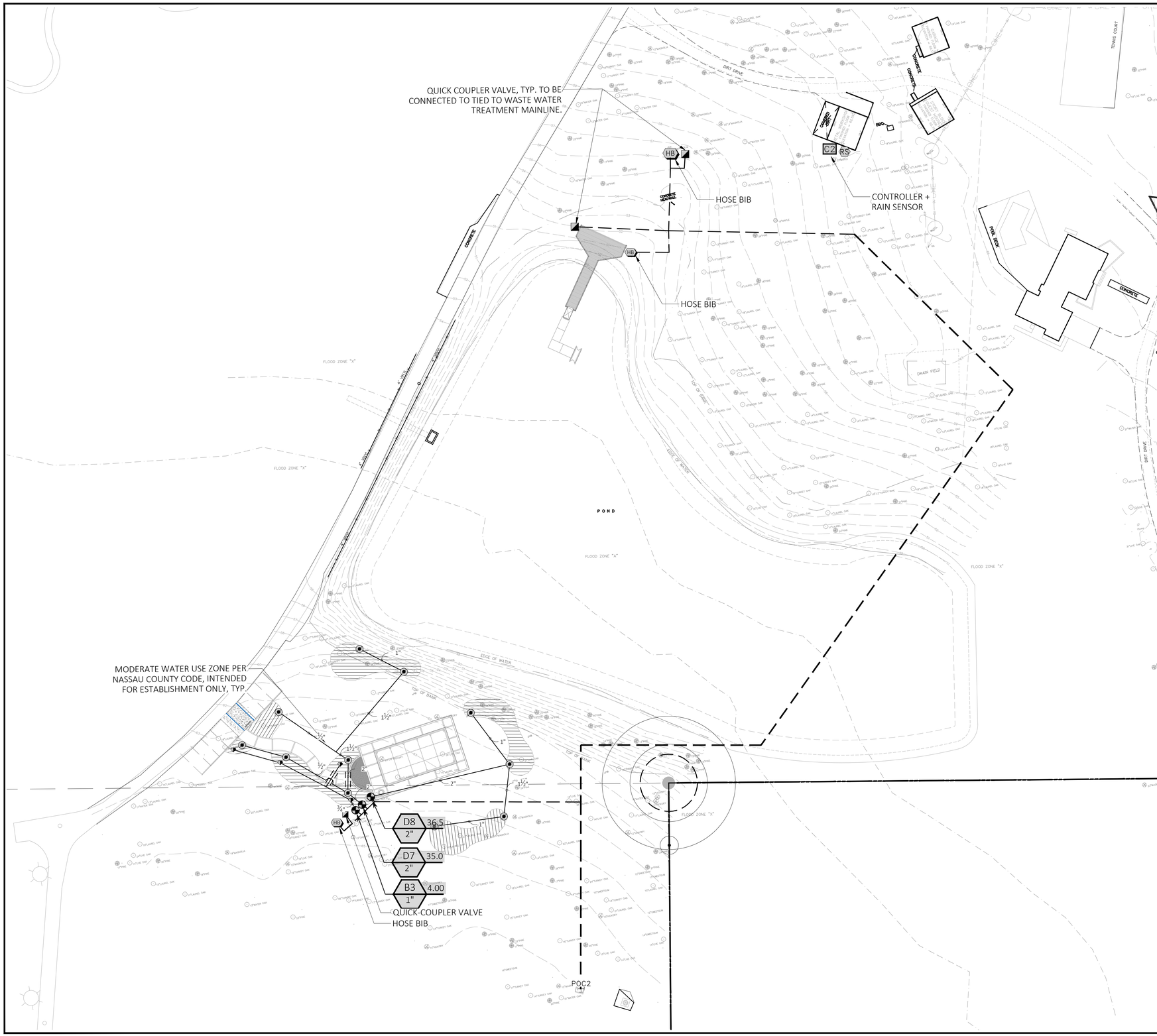

IRRIGATION SCHEDULE FOCUS AREA B+C

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
1401 1402 1404 1408	Rain Bird 1806-PRS-1400 Flood 1401 Flood Bubbler 6.0" popup with pressure regulating device.	4	40

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Pipe Transition Point above grade Pipe transition point from PVC lateral to drip tubing with riser to above grade installation.	11
	Area to Receive Dripline Rain Bird XFD-O9-12 XFD On-Surface Pressure Compensating Landscape Dripline. 0.9 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	5,831 l.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PESBR 1", 1-1/2", and 2" Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, and Purple Flow Control Handle.	3
	Rain Bird 44-LRC (2) 1" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Thermoplastic Rubber Cover, and 2-Piece Body.	1
	Rain Bird 44-NP 1" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Non-Potable Purple Rubber Cover, and 2-Piece Body.	2
C2	Rain Bird ESP8LXME-LXMM with (01) ESPLXMSM4 12 Station Capable Commercial Controller. Mounted on a Powder-Coated Metal Cabinet. Without flow sensing.	1
RS	Rain Bird RSD-BEx Rain Sensor, with metal latching bracket, extension wire.	1
HB	Hose Bib	3
	Irrigation Lateral Line: PVC Schedule 40-NP	719.4 l.f.
	Irrigation Mainline: PVC Schedule 80-NP	1,119 l.f.
	Pipe Sleeve: PVC Schedule 40	23.1 l.f.

Valve Callout
Valve Number
Valve Flow
Valve Size

ML+H
Marquis Latimer + Halback, Inc.
34 Cordova Street, Suite A
St. Augustine, FL 32084
DS
Ph 904.825.6747 www.halback.com
FL LA6667110

REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS LA 6667110 STATE OF FLORIDA
Signed by: 5/28/2021
JEREMY R. MARQUIS
LIC. # LA6667110 SEAL
DRAWN BY: GC/EP/DS INITIALS

CAMP SORENSEN
607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046
IRRIGATION -FOCUS AREA 'B+C' - KAYAK LAUNCH + CHAPEL

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L3.3

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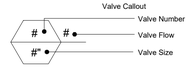
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
1401 1402 1404 1408	Rain Bird 1806-PRS-1400 Flood 1401 Flood Bubbler 6.0" popup with pressure regulating device.	22	40

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Pipe Transition Point above grade Pipe transition point from PVC lateral to drip tubing with riser to above grade installation.	38
	Area to Receive Dripline Rain Bird XFD-09-12 XFD On-Surface Pressure Compensating Landscape Dripline. 0.9 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	19,166 l.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PESBR 1", 1-1/2", and 2" Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, and Purple Flow Control Handle.	11
	Rain Bird 44-LRC (2) 1" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Thermoplastic Rubber Cover, and 2-Piece Body.	1
	Rain Bird 44-NP 1" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Non-Potable Purple Rubber Cover, and 2-Piece Body.	9
C	Rain Bird ESP8LXME-LXMM with (01) ESPLXMSM4 12 Station Capable Commercial Controller. Mounted on a Powder-Coated Metal Cabinet. Without flow sensing.	1
C2	Rain Bird ESP8LXME-LXMM with (01) ESPLXMSM4 12 Station Capable Commercial Controller. Mounted on a Powder-Coated Metal Cabinet. Without flow sensing.	1
RS	Rain Bird RSD-BEx Rain Sensor, with metal latching bracket, extension wire.	2
HB	Hose Bib	5
	Irrigation Lateral Line: PVC Schedule 40-NP	3,034 l.f.
	Irrigation Mainline: PVC Schedule 80-NP	2,968 l.f.
	Pipe Sleeve: PVC Schedule 40	316.7 l.f.

Valve Callout



IRRIGATION NOTES

1. NEW SHRUB SHALL BE PROVIDED WITH AN IRRIGATION SYSTEM THAT SUPPLIES ONE HUNDRED PERCENT (100%) COVERAGE. SPRAY AREAS ARE MORE LIMITED, BUT NEW SPRAYS TO PROVIDE 100% COVERAGE.

2. THE IRRIGATION SYSTEM SHALL MAXIMIZE WATER CONSERVATION, BE FULLY AUTOMATIC, AND SHALL CONSIST OF A DRIP SYSTEM FOR SHRUB AREAS AS NOTED.

3. REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREES. STAKE OUT MAINLINE FOR APPROVAL PRIOR TO TRENCHING BY CIVIL AND GENERAL CONTRACTOR.

4. ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18'' OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12'' OF COVER.

5. THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DAMAGE ANY EXISTING UTILITIES. COORDINATION WITH THE GENERAL CONTRACTOR AND SITE SUPERINTENDENT SHALL BE REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIRS AND COST OF ANY DAMAGE CAUSED BY HIS WORK.

6. ALL WORK SHALL BE GUARANTEED FOR TWELVE (12) MONTHS FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP.

7. ALL IRRIGATION SHOWN ON PLANS IS SCHEMATIC AND DOES NOT REFLECT ALL FITTINGS AND APPURTENANCES WHICH SHALL BE INCLUDED TO PROVIDE A FULLY FUNCTIONAL IRRIGATION SYSTEM CAPABLE OF PROVIDING 100 PERCENT COVERAGE WITH A 50 PERCENT OVERLAP.

8. TREES LOCATED IN DRIP ZONES SHALL BE IRRIGATED BY A DOUBLE RING OF DRIP LINES.

9. CONTRACTOR SHALL PROVIDE AS BUILT TO INCLUDE MAINLINE LOCATIONS, LATERAL LOCATIONS, VALVES AND ZONES.

DRIP IRRIGATION DESIGN SPECIFICATIONS

BASIS OF DESIGN: RAINBIRD XFPD SURFACE DRIPLINE - 12" SPACING
MAXIMUM LATERAL LENGTH OF TUBING: 360 FT

ML+H
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FL LA6667110

REGISTERED LANDSCAPE ARCHITECT
JEREMY R. MARQUIS
LA 6667110
STATE OF FLORIDA
Signed by:
04F3D4A6A6C0...
5/28/2021
JEREMY MARQUIS
LIC. # LA6667110 SEAL
DRAWN BY: GC/ER/KT/JMS

CAMP SORENSEN
607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046
IRRIGATION - NOTES + OVERALL SCHEDULE

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L3.4

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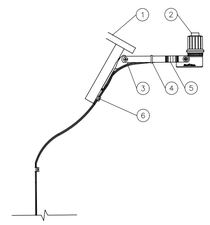

1. SIDE OF BUILDING
2. RAIN SENSOR: RAIN BIRD RSD-BEx
3. WIRE TO IRRIGATION CONTROLLER
4. PLASTIC TIE DOWN STRAP
5. MOUNTING BRACKET
6. SECURE WIRE WITH CABLE TIE BRACKET (1 OF 2)

5 RAINBIRD DETAIL - RAIN SENSOR PLACEMENT TYPICAL

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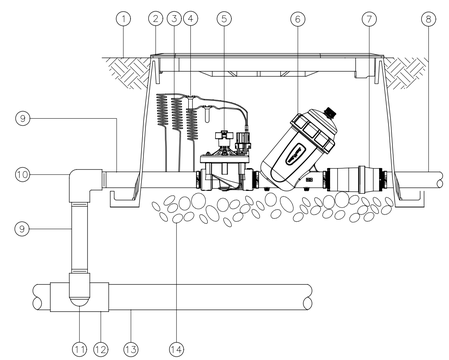

1. FINISH GRADE/TOP OF MULCH
2. JUMBO VALVE BOX WITH COVER: RAIN BIRD VB-JUMBO
3. 30-INCH LINEAR LENGTH OF WIRE, COILED
4. WATERPROOF CONNECTION: RAIN BIRD DB SERIES
5. 1 1/2" PEB VALVE (INCLUDED IN XCZ-150-LCS KIT)
6. 1 1/2" FILTER - RAIN BIRD LARGE CAPACITY SCREEN FILTER (INCLUDED IN XCZ-150-LCS KIT)
7. 1 1/2" HIGH FLOW PRESSURE REGULATOR (INCLUDED IN XCZ-150-LCS KIT)
8. LATERAL PIPE
9. PVC SCH 80 NIPPLE 1 1/2"
10. PVC SCH 40 ELBOW
11. PVC SCH 80 NIPPLE (2" LENGTH, HIDDEN) AND PVC 40 ELBOW
12. PVC SCH 40 TEE OR ELBOW
13. MAINLINE PIPE
14. 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL

2 RAINBIRD XCZ-150-LCS 1.5" CONTROL ZONE KIT IN JUMBO VALVE BOX

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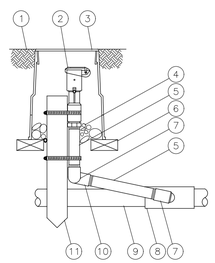

1. FINISH GRADE/TOP OF MULCH
2. QUICK-COUPLING VALVE: RAIN BIRD MODEL 44NP
3. VALVE BOX WITH COVER: RAIN BIRD VB-6RND
4. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
5. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
6. BRICK (1 OF 2)
7. PVC SCH 40 STREET ELL
8. PVC SCH 40 TEE OR ELL
9. PVC MAINLINE PIPE
10. PVC SCH 40 ELL
11. 2" x 2" REDWOOD STAKE WITH STAINLESS STEEL GEAR CLAMPS OR EQUIVALENT SUPPORT SYSTEM

NOTE:

FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

4 RAINBIRD 44-NP BRASS QUICK-COUPLING VALVE

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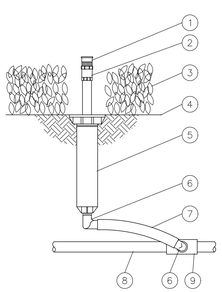

1. PRESSURE COMPENSATING FULL-CIRCLE BUBBLER: RAIN BIRD 1400
2. PLASTIC ADAPTER: RAIN BIRD MODEL PA-80
3. PLANT MATERIAL
4. FINISH GRADE/TOP OF MULCH
5. POP-UP SPRAY SPRINKLER: RAIN BIRD 1804-SAM-PRS-NP-1400 FLOOD
6. 1/2-INCH MALE NPT x .490-INCH BARB ELBOW: RAIN BIRD MODEL SBE-050
7. SWING PIPE, 12-INCH LENGTH: RAIN BIRD MODEL SP-100
8. PVC LATERAL PIPE
9. PVC SCH 40 TEE OR ELL

6 RAINBIRD 1400 FLOOD BUBBLER ON 1804 POP-UP

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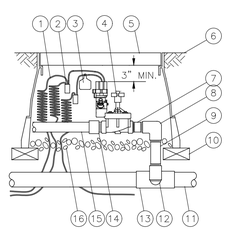

1. 30-INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION RAIN BIRD SPLICE-1 (1 OF 2)
3. ID TAG: RAIN BIRD VID SERIES
4. REMOTE CONTROL VALVE: RAIN BIRD PESB-PRS-D WITH NP-HAN
5. VALVE BOX WITH COVER: RAIN BIRD VB-STD
6. FINISH GRADE/TOP OF MULCH
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. BRICK (1 OF 4)
11. PVC MAINLINE PIPE
12. SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

3 RAINBIRD PESB ELECTRIC REMOTE-CONTROL VALVE

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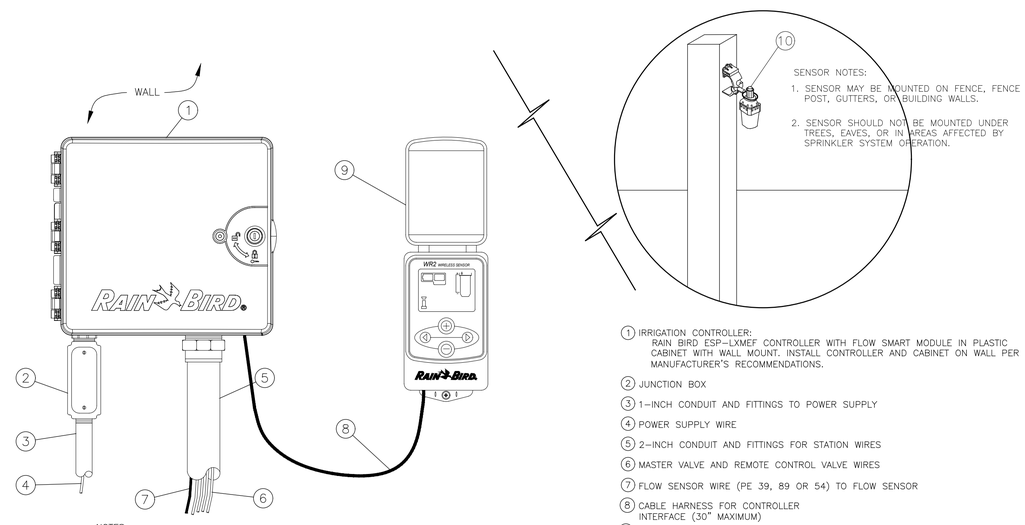

SENSOR NOTES:

1. SENSOR MAY BE MOUNTED ON FENCE, FENCE POST, GUTTERS, OR BUILDING WALLS.
2. SENSOR SHOULD NOT BE MOUNTED UNDER TREES, EAVES, OR IN AREAS AFFECTED BY SPRINKLER SYSTEM OPERATION.

NOTES:

1. ESP-LXMEF CONTROLLER IS AVAILABLE IN 8- OR 12-STATION BASE MODELS. ADDITIONAL MODULES IN 8- AND 12-STATION VERSIONS MAY BE ADDED TO BRING THE CONTROLLER UP TO 48 STATIONS MAXIMUM.
2. FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 STATIONS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSITION LARGER VALVE AND COMMON WIRES FROM FIELD TO 18 AWG MULTI CONDUCTOR WIRE TO BE USED IN CONTROLLER.
3. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
4. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.

1. IRRIGATION CONTROLLER: RAIN BIRD ESP-LXMEF CONTROLLER WITH FLOW SMART MODULE IN PLASTIC CABINET WITH WALL MOUNT. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
2. JUNCTION BOX
3. 1-INCH CONDUIT AND FITTINGS TO POWER SUPPLY
4. POWER SUPPLY WIRE
5. 2-INCH CONDUIT AND FITTINGS FOR STATION WIRES
6. MASTER VALVE AND REMOTE CONTROL VALVE WIRES
7. FLOW SENSOR WIRE (PE 39, 89 OR 54) TO FLOW SENSOR
8. CABLE HARNESS FOR CONTROLLER INTERFACE (30" MAXIMUM)
9. RAIN BIRD WR2 WIRELESS SENSOR CONTROLLER INTERFACE
   1. FOR BEST PERFORMANCE, THE CONTROLLER INTERFACE SHOULD BE INSTALLED AT LEAST FIVE FEET ABOVE THE GROUND.
   2. IT IS RECOMMENDED THAT THE CONTROLLER INTERFACE BE INSTALLED AWAY FROM SOURCES OF ELECTRICAL INTERFERENCE (SUCH AS TRANSFORMERS, GENERATORS, PUMPS, FANS, ELECTRICAL METER BOXES) AND METAL OBJECTS TO MAXIMIZE COMMUNICATION RANGE.
10. RAIN BIRD WR2 SENSOR

1 ESP-LXMEF CONTROLLER

NOT TO SCALE 00-19

ML+H
Marquis Latimer + Halback, Inc.
34 Cordova Street, Suite A
St. Augustine, FL 32084
DS
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FL LA6667110

REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS LA 6667110 STATE OF FLORIDA 5/28/2021

JEREMY R. MARQUIS
LIC. # LA6667110 SEAL

DRAWN BY: GC/ER/KT/JMS

CAMP SORENSEN

607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046

IRRIGATION - DETAILS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L3.5

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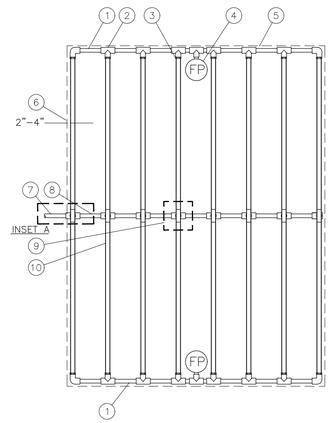
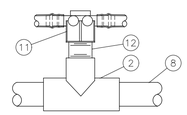


1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. BARB X MALE FITTING: RAIN BIRD XFF–MA FITTING (TYPICAL)
4. FLUSH POINT (TYPICAL) SEE RAIN BIRD DETAIL "XFD FLUSH POINT"
5. PERIMETER OF AREA
6. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"–4" FROM PERIMETER OF AREA
7. PVC SUPPLY PIPE FROM RAIN BIRD CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
8. PVC SUPPLY MANIFOLD
9. CONNECTION FROM SUPPLY MANIFOLD TO DRIPLINE (TYPICAL)– SEE INSET A
10. ON–SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE (TYPICAL) POTABLE: XFD DRIPLINE NON–POTABLE: XFDP DRIPLINE
11. BARB X FEMALE FITTING: RAIN BIRD XFD–TFA–075 FITTING
12. ¾" PVC NIPPLE, LENGTH AS NECESSARY



INSET A

NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS ON RAIN BIRD WEB SITE (WWW.RAINBIRD.COM) FOR SUGGESTED SPACING.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE.
3. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

XFD Dripline Maximum Lateral Lengths (Feet)

Inlet Pressure psi	12" Spacing		18" Spacing		24" Spacing	
	Nominal Flow (gph)		Nominal Flow (gph)		Nominal Flow (gph)	
	0.6	0.9	0.6	0.9	0.6	0.9
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	586	414
40	395	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	514

5 RAINBIRD XFD ON-SURFACE DRIPLINE CENTER FEED LAYOUT, TYPICAL

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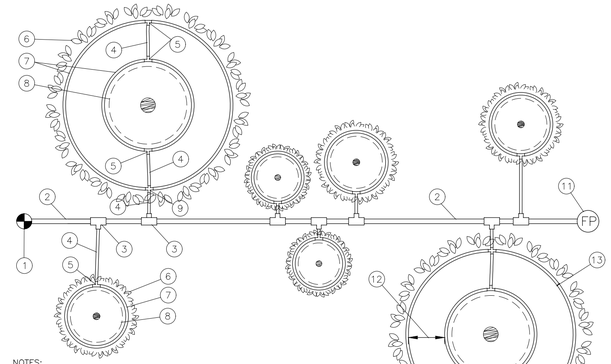
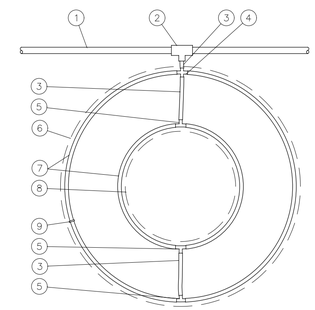


1. RAIN BIRD CONTROL ZONE KIT (SIZED TO ACCOMIDATE LATERAL FLOW DEMAND)
2. PVC DRIP MANIFOLD PIPE
3. PVC SCH 40 TEE OR EL (TYPICAL)
4. RAIN BIRD XF SERIES BLANK TUBING (TYPICAL)
5. BARB X BARB INSERT TEE: RAIN BIRD XFF–TEE (TYPICAL)
6. PROJECTED CANOPY LINE OF TREE OR SHRUB (TYPICAL)
7. ON–SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFD SERIES NON–POTABLE: XFDP SERIES PLACE AS SHOWN (LENGTH AS REQUIRED, TYPICAL)
8. ROOT BALL (TYPICAL)
9. BARB X BARB INSERT CROSS: RAIN BIRD XFD–CROSS (TYPICAL)
10. DRIPLINE FLUSH POINT (SEE RAIN BIRD DETAIL: "XFD DRIPLINE FLUSH POINT WITH BALL VALVE")
11. SPACING PER SPECIFICATION
12. TIE DOWN STAKE: RAIN BIRD TDS–050 WITH BEND (QUANTITY AS REQUIRED, SEE NOTES 2–3 BELOW)

NOTES:
1. INSTALL MULTIPLE RINGS AS REQUIRED TO PROVIDE IRRIGATION COVERAGE FROM ROOT BALL TO PROJECTED TREE CANOPY. REFER TO RAIN BIRD DESIGN GUIDELINES AND SPECIFICATIONS FOR RECOMMENDED SPACING BETWEEN RINGS.
2. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
3. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE–DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

3 RAINBIRD XFD ON-SURFACE DRIPLINE AROUND MULTIPLE TREES, TYPICAL

1/4" = 1'-0" P-CO-CAM-27

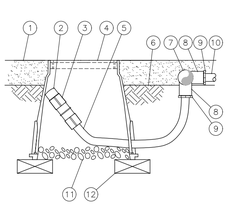


1. PVC DRIP MANIFOLD PIPE
2. PVC SCH 40 TEE OR EL
3. RAIN BIRD XF SERIES BLANK TUBING
4. BARB CROSS INSERT FITTING: RAIN BIRD XFD–CROSS
5. BARB TEE INSERT FITTING: RAIN BIRD XFF–TEE
6. PROJECTED CANOPY LINE OF TREE
7. ON–SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFD DRIPLINE NON–POTABLE: XFDP DRIPLINE PLACE AS SHOWN (LENGTH AS REQUIRED)
8. ROOT BALL
9. TIE DOWN STAKE: RAIN BIRD TDS–050 WITH BEND (QUANTITY AS REQUIRED, SEE NOTES 2–3 BELOW)

NOTES:
1. DISTANCE BETWEEN LATERAL RINGS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, AND TREE CANOPY. SEE INSTALLATION SPECIFICATIONS ON RAIN BIRD WEB SITE (WWW.RAINBIRD.COM) FOR SUGGESTED SPACING.
2. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
3. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE–DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

2 RAINBIRD XFD ON-SURFACE DRIPLINE AROUND TREE, TYPICAL

NOT TO SCALE P-CO-CAM-24

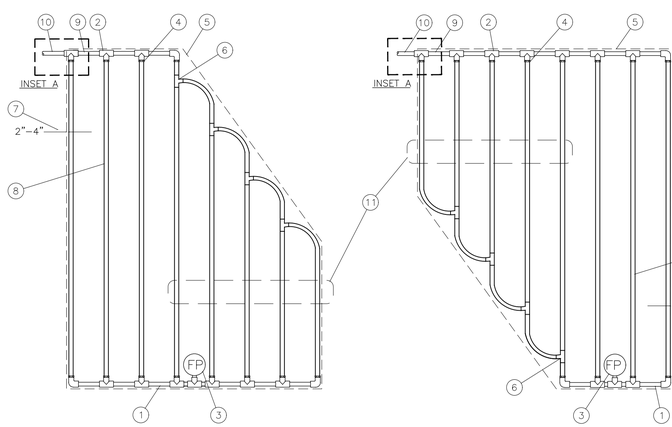


1. MULCH
2. FLUSH CAP FOR EASY FIT COMPRESSION FITTINGS: POTABLE: RAIN BIRD MDCFCAP
3. EASY FIT COUPLING: RAIN BIRD MDCFCOUP
4. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB
5. ½" POLYETHYLENE TUBING: RAIN BIRD XF BLANK TUBING
6. FINISH GRADE
7. PVC EXHAUST HEADER
8. PVC SCH 40 TEE OR EL
9. BARB X MALE FITTING: RAIN BIRD XFF–MA FITTING (TYPICAL)
10. ON–SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFCV DRIPLINE
11. 3–INCH MINIMUM DEPTH OF ¾" WASHED GRAVEL
12. BRICK (1 OF 2)

NOTE:
1. ALLOW A MINIMUM OF 6–INCHES OF DRIPLINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

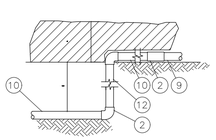
6 XFCV ON-SURFACE DRIPLINE FLUSH POINT W/EASY FIT COMPRESSION FITTINGS

NOT TO SCALE P-CO-CAM-23



1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. FLUSH POINT (TYPICAL) SEE RAIN BIRD DETAIL "XFD FLUSH POINT
4. BARB X MALE FITTING: RAIN BIRD XFF–MA FITTING (TYPICAL)
5. PERIMETER OF AREA
6. BARB X BARB INSERT TEE OR CROSS: RAIN BIRD XFF–TEE OR RAIN BIRD XFD–CROSS (TYPICAL)
7. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"–4" FROM PERIMETER OF AREA
8. ON–SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE (TYPICAL) POTABLE: XFD DRIPLINE NON–POTABLE: XFDP DRIPLINE
9. PVC SUPPLY MANIFOLD
10. PVC SUPPLY PIPE FROM RAIN BIRD CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
11. TOTAL LENGTH OF SELECTED DRIPLINE SHOULD NOT EXCEED LENGTH SHOWN IN TABLE
12. PVC SCH 40 RISER PIPE

NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS ON RAIN BIRD WEB SITE (WWW.RAINBIRD.COM) FOR SUGGESTED SPACING.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE.
3. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.



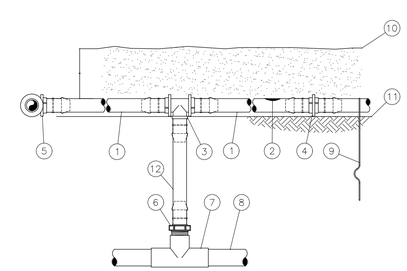
INSET A

XFD Dripline Maximum Lateral Lengths (Feet)

Inlet Pressure psi	12" Spacing		18" Spacing		24" Spacing	
	Nominal Flow (gph)		Nominal Flow (gph)		Nominal Flow (gph)	
	0.6	0.9	0.6	0.9	0.6	0.9
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	586	414
40	395	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	514

4 RAINBIRD XFD SURFACE DRIPLINE - IRREGULAR SHAPED LAYOUT

NOT TO SCALE P-CO-CAM-26



1. ON–SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFD DRIPLINE NON–POTABLE: XFDP DRIPLINE
2. INLINE DRIP EMITTER OUTLET, SEE PLANS FOR DRIPLINE OUTLET SPACING.
3. BARB TEE 17x17x17mm RAIN BIRD XFF–TEE
4. BARB COUPLING 17x17mm RAIN BIRD XFF–COUP
5. BARB ELBOW 17x17mm RAIN BIRD XFF–ELBOW
6. BARB MALE ADAPTER 17mm X 1/2" MPT RAIN BIRD XFF–MA–050 17mm X 3/4" MPT RAIN BIRD XFF–MA–075
7. PVC TEE SxSxT
8. PVC LATERAL SUPPLY HEADER
9. TIE DOWN STAKE: RAIN BIRD TDS–050 WITH BEND (TYPICAL)
10. MULCH
11. FINISH GRADE
12. RAIN BIRD XF SERIES BLANK TUBING LENGTH AS REQUIRED

NOTES:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE–DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.
3. SAVE YOUR HANDS. USE THE RAIN BIRD FITTINS–TOOL XF INSERTION TOOL FOR FITTING ASSEMBLY.

1 RAINBIRD XFD ON-SURFACE DRIPLINE RISER ASSEMBLY

NOT TO SCALE 0000-05

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REGISTERED LANDSCAPE ARCHITECT JEREMY R. MARQUIS LA6667110 STATE OF FLORIDA
DocuSigned by: 5/28/2021
JEREMY R. MARQUIS
LIC. # LA6667110 SEAL
DRAWN BY: GC/ERK/TAJ

CAMP SORENSEN
607 RETREAT ACRES ROAD, HILLARD, FLORIDA 32046
IRRIGATION - DETAILS

SYM	DESCRIPTION	DATE
1	PERMIT SUBMITTAL v2	04/12/21
	PERMIT SUBMITTAL	03/12/21
	60% DWG SET	02/19/21
	30% DWG SET	01/29/21

SIZE: ANSI D
PRIME PROJECT #: 21.2.0
ML+H PROJECT #: 21.2.0

DRAWING NO.: L3.6